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Addendum I

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

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

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

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

The following example illustrates the changes :-

September 2002

```
     NEIC 01 18:45:41.7±1.7,2170S×17955W,h600km,mb4.6/6,Error
             ellipse: s-maj=75.5km s-min=25.7km az=151.0
      IDC 01 18:45:46.3±2.6,2176S×17970W,h627km±37km,mb3.5/4,
             mb1 3.7/4,mb1mx3.2/14,Error ellipse: s-maj=83.2km
             s-min=20.6km az=159.0
      ISC 01 18:45:43.1±2.7,223S±02×1796W±03,h613km±42km,n22,
             σ1s15/21,mb4.4/9,1C,South of Fiji Islands
Code  Station Name         Δ°    AZ°   Phase ID          Time      Res
                                      Op       ISC      h  m  s    ISC
HBZ   Hicks Bay          15.41 186  eP       P         18 48 53.1  -1.7
URZ   Urewera            16.21 189   P       P         18 49 01.5  -0.9
MRZ   Mangatainoka R     18.81 192  eP       P         18 49 26.7   0.0
DIW   D'Urville Isla     19.30 195  eP       P         18 49 27.3  -3.9
CAW   Cannon Point       19.34 192  eP       P         18 49 31.7  +0.1
OTW   Orongorongo Tu     19.52 192  eP       P         18 49 33.0  -0.2
MOW   Moikau             19.61 192  eP       P         18 49 35.5  +1.5
THZ   Tophouse           20.46 196  eP       P         18 49 42.0  +0.2
KHZ   Kahutara           20.93 194   P       P         18 49 46.2  +0.2
ARMA  Armidale           27.03 246  eP       P         18 50 42.4  +2.3
      4.9nm,0.5s,mb4.4
CTA   Charters Tower     31.93 267⇑iP       P         18 51 22.3  +0.4
      13nm,0.5s,mb4.8
STKA  Stephens Creek     35.75 246  eP       P         18 51 55.3  +1.8
      3.1nm,0.4s,mb4.2
ASAR  Alice Springs      42.74 259   P       P         18 52 50.1  +0.3
      9.8nm,0.5s,mb4.6,baz=92,slow=8.2,SNR=47
ASAR                                 S       S         18 58 31.3  -0.1
      1.0nm,0.8s,baz=95,slow=15,SNR=5.7
ASPA  Alice Springs      42.74 259  eP       P         18 52 50.1  +0.2
WRA   Warramunga Arr     42.96 264   P       P         18 52 51.0  -0.7
      1.8nm,0.3s,mb4.0,baz=96,slow=7.8,SNR=93
WRA                                  S       S         18 58 33.0  -1.5
      0.3nm,0.9s,baz=99,slow=14,SNR=3.0
KAKA  Kakadu             46.64 273  eP       P         18 53 18.2  -1.8
      14nm,0.4s,mb4.8
FITZ  Fitzroy Crossi     51.39 264  eP       P         18 53 54.3  -0.7
      12nm,0.3s,mb4.8
MBWA  Marble Bar         56.08 259  eP       P         18 54 27.1  -0.7
      11nm,0.6s,mb4.2
CMAR  Chiang Mai Arr     89.35 290   P       P         18 57 38.1  +1.0
      1.3nm,0.8s,mb3.8,baz=135,slow=3.1,SNR=8.1
ARCES ARCESS Array B    130.36 349  PKP      PKP       19 03 43.7  -0.5
      0.7nm,0.6s,baz=282,slow=4.2,SNR=3.5
FINES FINESS Array B    137.02 342  PKP      PKP       19 03 57.3  +0.5
      3.7nm,1.1s,baz=158,slow=3.2,SNR=3.4
MLR   Muntele Rosu      148.85 324  PKPbc    PKP       19 04 22.7  +5.2
      0.2nm,0.7s,baz=1.2,slow=23,SNR=2.3
```

Epicentral Estimates

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

Observational Data

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

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

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

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

Addendum II

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

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

*BJI **01** 00:11:34.2, 3792S×7753E, h6^{km}, mB5.1, mb4.8, Ms5.3, Msz5.0*

*ISCJB **01** 00:11:37.1±0.3, 3751S±006×783E±01, h10^{km}, mb4.7/37, MS5.0/3, Error ellipse: s-maj=11.8km s-min=8.1km az=6.6*

*IDC **01** 00:11:37.0±0.7, 3723S×7834E, h0^{km}, mb4.1/10, mb1 4.2/10, mb1mx4.1/16, mbtmp4.1/10, MS4.7/1, Ms1 4.7/1, ms1mx3.7/28, Error ellipse: s-maj=27.0km s-min=22.3km az=32.0*

*NEIC **01** 00:11:38.5±0.4, 3734S×7823E, h10^{km}, mb4.7/15, Error ellipse: s-maj=12.5km s-min=12.3km az=96.0*

ISC 01 00:11:39.1±0.3**, 3752S**±006×**784E**±01**, h10**^{km}**, n76, σ1^{s}42**/65**, mb4.7**/37**, MS5.0**/3**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COCO	West Island	30.16	38	eP	P	00 17 46.3	-3.2
MAW	Mawson	31.38	191	P	P	00 18 01.5	+1.8
NWAO	Narrogin (SRO)	31.93	94	P	P	00 18 04.3	-0.7
PSI	Prapat	44.43	30	LR	LR	00 34 09.0	
	comp=Z,1µm,21.3s,MS4.7,baz=203,slow=31						
PALK	Pallekele	44.61	3	P	P	00 19 48.9	-2.8
BOSA	Boshof	44.87	265	eP	P	00 19 51.6	-2.2
	20nm,1.3s,mb4.8						
BOSA	Boshof	44.87	265	P	P	00 19 49.4	-4.4
	6.0nm,0.9s,mb4.4,baz=131,slow=4.2,SNR=6.9						
LBTB	Lobatse	46.24	270	eP	P	00 20 00.5	-4.1
	5.6nm,1.1s,mb4.4						
LBTB	Lobatse	46.24	270	P	P	00 19 59.5	-5.1
	2.3nm,0.9s,mb4.1,baz=122,slow=13,SNR=2.7						
SUR	Sutherland	46.82	258	P	P	00 20 04.8	-4.4
	18nm,1.0s,mb5.0,baz=129,slow=5.2,SNR=4.7						
KULM	Kulim	47.38	31	P	P	00 20 09.7	-3.9
KSM	Kuching	48.78	45	eP	P	00 20 22.3	-2.1
ASAR	Alice Springs	49.12	90	P	P	00 20 25.8	-1.3
	9.1nm,1.3s,mb4.7,baz=239,slow=7.1,SNR=12						
LSZ	Lusaka	49.43	283	eP	P	00 20 25.3	-4.2
	18nm,1.4s,mb4.9						
LSZ				ePcP	PcP	00 21 51.2	-0.5
WRA	Warramunga Arr	51.39	86	P	P	00 20 42.9	-1.4
	2.8nm,0.8s,mb4.2,baz=240,slow=6.2,SNR=7.6						
WB2	Warramunga Arr	51.40	86	eP	P	00 20 48.5	+4.2
WB2				ePcP	PcP	00 21 58.9	0.0
STKA	Stephens Creek	51.45	104	P	P	00 20 45.6	+1.1
	3.2nm,0.8s,mb4.3,baz=219,slow=9.9,SNR=4.2						
SNAA	Sanae	52.14	203	P	P	00 20 48.7	-0.5
	2.0nm,1.0s,mb4.0,baz=78,slow=10,SNR=4.3						
VNDA	Vanda	52.30	164	eP	P	00 20 52.9	+2.6
	5.4nm,1.4s,mb4.3						
VNDA	Vanda	52.30	164	P	P	00 20 53.0	+2.7
	1.0nm,0.7s,mb3.8,baz=4.0,slow=1.2,SNR=3.5						
KMBO	Kilima Mbogo	52.34	304	eP	P	00 20 50.5	-0.9
	7.0nm,1.5s,mb4.4						
KMBO	Kilima Mbogo	52.34	304	P	P	00 20 50.8	-0.6
	1.4nm,0.8s,mb3.9,baz=111,slow=3.0,SNR=4.5						
QSPA	South Pole Qui	52.64	180	eP	P	00 20 50.5	-2.3
	25nm,1.2s,mb5.0						
SBA	Scott Base	53.32	165	eP	P	00 20 59.1	+1.3
	4.6nm,0.9s,mb4.4						
VNA2	Neumayer--Watz	53.70	204	e	P	00 21 01.4	+0.8
	baz=86,slow=7.9						
VNA1	Neumayer--Stat	54.03	204	e	P	00 21 04.1	+1.0
VNA3	Neumayer Olymp	54.36	203	e	P	00 21 04.8	-0.7
HYB	Hyderabad	54.64	0	eP	P	00 21 09.0	+1.0
HYB	Hyderabad	54.64	0	i P	P	00 21 09.0	+1.0
CM31	Chiang Mai Arr	58.95	23	P	P	00 21 38.8	+0.1
CHTO	Chiang Mai	59.29	23	eP	P	00 21 38.6	-2.4
ODAN	Odare	64.59	9	eP	P	00 22 17.4	+0.8
	46nm,1.1s,mb5.4						
PKI	Pulchoki	65.08	7	eP	P	00 22 21.3	+1.6
DMN	Daman	65.09	7	eP	P	00 22 20.6	+0.8
	59nm,1.2s,mb5.5						
TAPN	Taplejung	65.12	9	eP	P	00 22 20.6	+0.6
	67nm,1.0s,mb5.6						
KOLN	Koldanda	65.13	5	eP	P	00 22 21.5	+1.5
	62nm,1.5s,mb5.4						
JIRN	Jiri	65.25	8	eP	P	00 22 21.4	+0.6
	31nm,1.1s,mb5.2						
KKN	Kakani	65.28	7	eP	P	00 22 22.5	+1.5
	67nm,1.5s,mb5.5						
GKN	Gorkha	65.44	6	eP	P	00 22 22.5	+0.5
	51nm,1.2s,mb5.4						
GUN	Gumba	65.46	7	eP	P	00 22 23.0	+0.8
	224nm,1.6s						
KMI	Kunming	66.39	24	P	P	00 22 31.2	+3.0
KMI				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.8						
PMG	Port Moresby	67.53	85	eP	P	00 22 35.3	-0.6
	comp=Z,13nm,0.9s,mb5.0						
LSA	Lhasa	67.93	12	P	P	00 22 40.5	+2.6
LSA	Lhasa	67.93	12	eP	P	00 22 41.4	+3.5
	comp=Z,19nm,1.3s,mb5.0						
CD2	Chengdu	72.10	23	eP	P	00 23 07.2	+3.7
CD2				AMB	AMB		
	comp=Z,20nm,1.3s,mb4.9						
CD2				AMB	AMB		
	comp=Z,40nm,5.2s						
KBL	Kabul	72.21	352	eP	P	00 23 03.2	-0.9
NACB	Ninganchiao	73.61	41	P	P	00 23 10.0	-2.7
XAN	Xi’an	76.66	26	P	P	00 23 31.0	+1.0
XAN				AMB	AMB		
	comp=Z,16nm,1.1s,mb4.9						
LZH	Lanzhou	76.95	21	eP	P	00 23 32.5	+0.9
LZH				AP	pP	00 23 36.5	+1.6
LZH				XP	sP	00 23 38.0	+1.9
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.9						
LZH				AMB	AMB		
	comp=Z,86nm,4.2s						
LZH				LR	LR		
	comp=E,665nm,15.4s						
LZH				LR	LR		
	comp=Z,816nm,16.7s,MS5.1						
EIL	Elat	78.22	322	eP	P	00 23 39.2	+0.4
	comp=Z,391nm,1.6s						
GTA	Gaotai	79.05	17	eP	P	00 23 46.0	+2.8
GTA				AP	pP	00 23 50.6	+4.1
GTA				XP	sP	00 23 53.8	+6.1
GTA				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.4						
AML	Almayashu	79.38	356	eP	P	00 23 44.4	-0.5
	comp=Z,4.5nm,0.8s,mb4.5						
UCH	Uchtor	79.44	357	eP	P	00 23 45.2	-0.1
	comp=Z,5.2nm,1.2s,mb4.3						
AAK	Ala-Archa	79.85	357	eP	P	00 23 47.7	+0.3
	comp=Z,5.8nm,1.1s,mb4.4						
EKS2	Erkin-Say	79.91	357	eP	P	00 23 47.4	-0.4
	comp=Z,20nm,1.4s,mb4.8						
TKM2	Tokmak 2	80.10	358	eP	P	00 23 49.5	+0.8
	comp=Z,12nm,1.5s,mb4.6						
WMQ	Urumqi	81.40	7	eP	P	00 23 57.6	+1.9
WMQ				AMB	AMB		
	comp=Z,15nm,1.2s,mb4.8						
WMQ				LR	LR		
	comp=N,675nm,18.4s,MS5.2						
WMQ				LR	LR		
	comp=E,628nm,20.0s,MS5.2						
WMQ				LR	LR		
	comp=Z,637nm,20.0s,MS5.0						
RAO	Raoul Island	82.54	121	P	P	00 24 02.0	-0.4
MK31	Makanchi Array	84.00	3	eP	P	00 24 07.1	-2.1
MKAR	Makanchi Array	84.00	3	P	P	00 24 06.6	-2.6
MKAR	Makanchi Array	84.00	3	P	P	00 24 06.6	-2.6
	comp=Z,6.1nm,1.0s,mb4.7,baz=169,slow=5.5,SNR=26						
TORD	Torodi Ar. Bea	87.61	288	P	P	00 24 25.9	-2.0
	comp=Z,0.6nm,1.0s,mb3.8,baz=117,slow=4.6,SNR=3.1						
KURK	Kurchatov	87.86	0	eP	P	00 24 27.4	-0.8
	comp=Z,15nm,1.3s,mb5.1						
SONM	Songino Array	88.58	18	P	P	00 24 31.6	-0.1
	comp=Z,2.1nm,1.1s,mb4.4,baz=205,slow=4.8,SNR=8.3						
ULN	Ulaanbaatar	88.78	19	P	P	00 24 33.1	+0.5
ZALV	Zalesovo Beam	91.27	4	P	P	00 24 41.5	-2.6
	comp=Z,0.3nm,0.3s,mb4.2,baz=204,slow=3.3,SNR=3.6						
INK	Inuvik	144.49	20	PKP	PKPdf	00 31 13.2	-1.4
INK	Inuvik	144.49	20	PKP	PKPdf	00 31 13.2	-1.4
	comp=Z,14nm,1.1s,baz=312,slow=2.8,SNR=19						
DAWY	Dawson	145.20	28	ePKP	PKPdf	00 31 15.6	-0.3
YKA	Yellowknife Ar	153.75	14	PKPbc	PKPbc	00 31 38.2	+0.8
YKA				PKPab	PKPab	00 31 46.2	-4.1
YKA	Yellowknife Ar	153.75	14	PKPbc	PKPbc	00 31 38.2	+0.8
	comp=Z,3.3nm,1.0s,baz=348,slow=2.6,SNR=21						
YKA				PKPab	PKPab	00 31 46.2	-4.1
	comp=Z,0.8nm,0.9s,baz=357,slow=2.5,SNR=4.9						
HLID	Hailey	168.57	54	ePKPdf	PKPdf	00 31 46.3	+0.5
TXAR	Lajitas Array	171.67	168	PKP	PKPdf	00 31 49.1	+1.0
TXAR	Lajitas Array	171.67	168	PKP	PKPdf	00 31 49.1	+1.0
	comp=Z,1.1nm,1.1s,baz=143,slow=2.7,SNR=5.4						
ISCO	Idaho Springs	176.15	52	ePKPdf	PKPdf	00 31 51.7	+2.4
WMOK	Wichita Mounta	176.38	221	PKPdf	PKPdf	00 31 48.8	-0.7

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*BJI **01** 00:14:22.9, 3809S×7755E, h14^{km}, mB5.5, mb5.0, Ms5.3, Msz5.0*

*IDC **01** 00:14:23.6±0.6, 3770S×7808E, h0^{km}, mb4.2/16, mb1 4.3/16, mb1mx4.3/20, mbtmp4.2/16, MS5.0/25, Ms1 5.0/25, ms1mx4.9/28, Error ellipse: s-maj=21.2km s-min=15.4km az=178.0*

*ISCJB **01** 00:14:24.3±0.3, 3775S±005×7806E±008, h10^{km}, mb4.8/37, MS5.0/31, Error ellipse: s-maj=9.7km s-min=7.5km az=17.7*

*GCMT **01** 00:14:26.0±0.1, 3759S×7798E, h15^{km}±1^{km}, MW5.5/86, Moment Tensor Solution. s80,c127; s86,c161; Duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M_{rr}0.01±.04; $M_{\theta\theta}$-1.65±.04; $M_{\phi\phi}$1.64±.04; $M_{r\theta}$0.08±.06; $M_{\theta\phi}$-1.56±.04; $M_{\phi r}$0.57±.08; Best double couple: $M_0$2.33900×10^{17} NP1:ϕ_s293.00000°, δ76.00000°, λ176.00000°. NP2:ϕ_s24.00000°, δ87.00000°, λ14.00000°. Principal axes: T 2.3700, Plg12.0000°, Azm249.0000°; N -0.0640, Plg76.0000°, Azm38.0000°; P -2.3070, Plg7.0000°, Azm157.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **01** 00:14:26.1±0.3, 3765S×7807E, h10^{km}, mb4.9/15 Error ellipse: s-maj=11.3km s-min=10.3km az=10.0*

ISC 01 00:14:26.3±0.3**, 3776S**±005×**7804E**±008**, h10**^{km}**, (h17**^{km}±2.0^{km}**:pP-P), n107, σ1^{s}29**/79**, mb4.8**/37**, MS5.0**/31**, 3D, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COCO	West Island	30.51	38	P	P	00 20 38.9	-0.8
MAW	Mawson	31.09	191	P	P	00 20 47.6	+3.4
	13nm,1.0s,mb4.7						
MAW				LR	LR	00 30 24.1	
MAW	Mawson	31.09	191	P	P	00 20 43.5	-0.8
	4.3nm,0.8s,mb4.3,baz=319,slow=18,SNR=3.5						
MAW				LR	LR	00 30 24.2	
	comp=Z,2µm,19.5s,MS4.8,baz=18,slow=31						
NWAO	Narrogin (SRO)	32.17	93	LR	LR	00 31 06.5	
	comp=Z,6µm,19.2s,MS5.3,baz=247,slow=31						
CASY	Casey	34.09	157	P	P	00 21 13.4	+2.8
SYO	Syowa Base	37.58	202⇓	eP	P	00 21 43.0	+2.6
SYO	Syowa Base	37.58	202⇓	esp		00 21 49.2	
BOSA	Boshof	44.60	266	eP	P	00 22 37.9	-0.8
	112nm,2.0s,mb5.3						
BOSA	Boshof	44.60	266	P	P	00 22 37.9	-0.8
	6.1nm,0.7s,mb4.5,baz=109,slow=7.2,SNR=14						
BOSA				LR	LR	00 37 13.9	
	comp=Z,2µm,19.0s,MS5.0,baz=111,slow=31						
FITZ	Fitzroy Crossi	45.84	78	eP	P	00 22 48.4	-0.3
	17nm,1.5s,mb4.8						
FITZ	Fitzroy Crossi	45.84	78	P	P	00 22 49.0	+0.4
	3.4nm,1.0s,mb4.2,baz=113,slow=7.7,SNR=3.4						
FITZ				LR	LR	00 38 45.8	
	comp=Z,3µm,21.0s,MS5.1,baz=261,slow=32						
LBTB	Lobatse	45.99	270	eP	P	00 22 51.2	+1.4
	7.7nm,1.0s,mb4.6						
LBTB	Lobatse	45.99	270	P	P	00 22 50.3	+0.5
	3.7nm,0.8s,mb4.3,baz=170,slow=10,SNR=5.3						
SUR	Sutherland	46.53	259	P	P	00 22 53.6	-0.3
	18nm,0.9s,mb5.0,baz=91,slow=7.0,SNR=7.6						
KULM	Kulim	47.72	31	eP	P	00 23 02.4	-1.0
LSZ	Lusaka	49.24	283	eP	P	00 23 13.7	-1.5
	25nm,1.4s,mb5.1						
ASAR	Alice Springs	49.37	90	P	P	00 23 14.8	-1.3
	9.7nm,1.2s,mb4.7,baz=238,slow=6.6,SNR=10						
STKA	Stephens Creek	51.63	104	eP	P	00 23 31.5	-1.5
	6.6nm,1.0s,mb4.5						
STKA	Stephens Creek	51.63	104	P	P	00 23 31.3	-1.7
	3.8nm,0.7s,mb4.4,baz=277,slow=5.7,SNR=8.3						
STKA				LR	LR	00 41 04.6	
	comp=Z,2µm,20.1s,MS5.2,baz=235,slow=31						
WRA	Warramunga Arr	51.65	86	P	P	00 23 31.5	-1.9
	2.6nm,0.6s,mb4.4,baz=238,slow=7.5,SNR=9.6						
WRA				LR	LR	00 42 52.9	
	comp=Z,3µm,18.7s,MS5.3,baz=245,slow=33						
WB2	Warramunga Arr	51.66	86	eP	P	00 23 31.8	-1.6
WB2	Warramunga Arr	51.66	86	eP	P	00 23 32.4	-1.0
WB2				ePcP	PcP	00 24 48.6	+1.6
SNAA	Sanae	51.81	203	P	P	00 23 33.3	-0.6
	2.6nm,0.9s,mb4.2,baz=115,slow=2.2,SNR=3.7						
VNDA	Vanda	52.14	164	eP	P	00 23 37.5	+1.3
	2.7nm,0.8s,mb4.2						
VNDA				LR	LR	00 43 58.9	
VNDA	Vanda	52.14	164	P	P	00 23 35.5	-0.7
	1.1nm,0.6s,mb3.9,baz=264,slow=10,SNR=2.6						
VNDA				LR	LR	00 43 58.9	
	comp=Z,4µm,18.5s,MS5.4,baz=252,slow=34						
KMBO	Kilima Mbogo	52.28	304	eP	P	00 23 39.3	+1.3
KMBO	Kilima Mbogo	52.28	304	P	P	00 23 36.8	-1.2
	0.8nm,0.7s,baz=246,slow=23,SNR=3.1						
QSPA	South Pole Qui	52.40	180	eP	P	00 23 37.8	-0.3
	32nm,1.1s,mb5.2						
VNA2	Neumayer--Watz	53.37	204	e	P	00 23 44.5	-0.9
	baz=71,slow=5.3						
VNA2				e	pP	00 23 47.5	-1.0
VNA2				e		00 23 52.8	
VNA1	Neumayer--Stat	53.70	204	e	P	00 23 50.4	+2.6
VNA3	Neumayer Olymp	54.04	204	e	P	00 23 50.5	+0.3
VNA3				e	pP	00 23 53.1	-0.3
HYB	Hyderabad	54.88	1	eP	P	00 23 58.0	+1.0
HYB				eS	S	00 31 40.0	+1.6
HYB				eLR	LR	00 43 20.0	
HYB	Hyderabad	54.88	1	i P	P	00 23 58.0	+1.0
HYB				eS	S	00 31 40.0	+1.6
HYB				LR	LR	00 43 20.0	
	7.1nm,20.0s						
CTA	Charters Tower	61.01	94	LR	LR	00 48 44.1	
	comp=Z,4µm,20.0s,MS5.5,baz=308,slow=34						
CTAO	Charters Tower	61.01	94	P	P	00 24 40.7	+0.6
QIZ	Qiongzhong	63.92	34	P	P	00 25 02.6	+3.2
QIZ				S	S	00 33 39.7	+4.5
QIZ				XS	sS	00 33 45.0	+4.4
QIZ				SS	SS	00 37 46.5	+2.3
QIZ				AMB	AMB		
	comp=Z,153nm,4.6s						
QIZ				LR	LR		
	comp=N,460nm,30.0s,MS4.8						
QIZ				LR	LR		
	comp=E,873nm,26.1s,MS4.8						
QIZ				LR	LR		
	comp=Z,1µm,20.5s						
ODAN	Odare	64.88	9	eP	P	00 25 04.8	-0.7
	comp=Z,184nm,1.7s,mb5.8						
PKI	Pulchoki	65.36	7	eP	P	00 25 09.5	+0.9
DMN	Daman	65.36	7	eP	P	00 25 09.5	+0.8
	comp=Z,39nm,0.9s,mb5.4						
KOLN	Koldanda	65.40	5	eP	P	00 25 10.0	+1.1
	comp=Z,172nm,1.6s,mb5.8						
TAPN	Taplejung	65.40	9	eP	P	00 25 07.9	-1.0
	comp=Z,70nm,0.9s,mb5.7						
JIRN	Jiri	65.53	8	eP	P	00 25 09.9	+0.2
KKN	Kakani	65.56	7	eP	P	00 25 09.8	-0.1
GKN	Gorkha	65.71	6	eP	P	00 25 11.4	+0.5
	comp=Z,134nm,1.6s,mb5.7						
GUN	Gumba	65.74	8	eP	P	00 25 10.0	-1.1
	comp=Z,363nm,1.6s						
KMI	Kunming	66.72	24	P	P	00 25 21.3	+3.8
KMI				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.8						
RPZ	Rata Peaks	67.06	128	LR	LR	00 48 33.4	
	comp=Z,629nm,19.1s,MS4.8,baz=69,slow=31						
PMG	Port Moresby	67.81	85	eP	P	00 25 25.6	+0.9
PMG	Port Moresby	67.81	85	LR	LR	00 52 35.7	
	comp=Z,2µm,19.9s,MS5.4,baz=251,slow=34						
LSA	Lhasa	68.22	12	eP	P	00 25 27.5	+0.6
	comp=Z,61nm,1.6s,mb5.4						
GYA	Guiyang	69.31	27⇓	iP	P	00 25 37.8	+4.1
GYA				AP	pP	00 25 41.5	+4.5
GYA				XP	sP	00 25 44.8	+6.6
GYA				PCP	PcP	00 26 00.8	+3.6
GYA				PP	PP	00 28 12.6	+5.4
GYA				S	S	00 34 43.0	+2.8
GYA				PS		00 35 10.0	
GYA				SCS	ScS	00 35 34.7	-0.1
GYA				SS	SS	00 39 11.3	+3.6
GYA				AMB	AMB		
	comp=Z,20nm,1.1s,mb5.0						
GYA				AMB	AMB		
	comp=Z,100nm,5.7s						
GYA				LR	LR		
	comp=N,430nm,18.4s,MS4.9						
GYA				LR	LR		
	comp=E,540nm,18.9s,MS4.9						
GYA				LR	LR		
	comp=Z,420nm,19.2s,MS4.7						
KBL	Kabul	72.42	352	eP	P	00 25 50.9	-1.6
CD2	Chengdu	72.42	23	eP	P	00 25 54.5	+1.9
CD2				AP	pP	00 25 59.2	+3.4
CD2				XP	sP	00 26 02.1	+5.1
CD2				PP	PP	00 28 38.0	+4.0
CD2				S	S	00 35 17.6	+1.3
CD2				SS	SS	00 39 56.8	+1.3
CD2				AMB	AMB		
	comp=Z,30nm,1.2s,mb5.1						
CD2				AMB	AMB		
	comp=Z,290nm,4.9s						
CD2				LR	LR		
	comp=N,840nm,16.8s,MS5.2						
CD2				LR	LR		
	comp=E,1µm,21.6s,MS5.2						
CD2				LR	LR		
	comp=Z,680nm,14.4s						
DZM	Mont Dzumac	75.62	107	LR	LR	00 56 50.6	
	comp=Z,908nm,18.8s,MS5.1,baz=238,slow=34						
KSH	Kashi	76.93	358	eP	P	00 26 21.0	+2.5
KSH				eAP	pP	00 26 26.6	+4.8
KSH				eXP	sP	00 26 29.0	+6.0
KSH				ePCP	PcP	00 26 32.2	+2.7
KSH				ePP	PP	00 29 15.1	+3.0
KSH				ePPP		00 31 03.0	
KSH				eS	S	00 36 07.0	+0.8
KSH				eXS	sS	00 36 15.0	+3.3
KSH				eSKS		00 36 27.3	
KSH				eSCS	ScS	00 36 34.1	-0.9
KSH				ePS		00 36 48.1	
KSH				eSS	SS	00 41 07.1	+3.3
KSH				AMB	AMB		
	comp=Z,332nm,5.9s						
KSH				LR	LR		
	comp=N,888nm,8.2s						
KSH				LR	LR		
	comp=E,1µm,14.0s						
KSH				LR	LR		
	comp=Z,2µm,15.8s,MS5.5						
XAN	Xi’an	76.99	26	P	P	00 26 17.6	-1.4
XAN				AP	pP	00 26 28.0	+5.7
XAN				AMB	AMB		
	comp=Z,24nm,1.2s,mb5.0						
LZH	Lanzhou	77.27	21	eP	P	00 26 23.9	+3.4
LZH				AP	pP	00 26 31.4	+7.6
LZH				XP	sP	00 26 35.5	+11
LZH				AMB	AMB		
	comp=Z,51nm,1.4s,mb5.3						
LZH				AMB	AMB		
	comp=Z,203nm,4.3s						
HNR	Honiara	77.92	93	LR	LR	00 57 36.5	
	comp=Z,2µm,20.4s,MS5.4,baz=179,slow=33						
EIL	Elat	78.26	323	eP	P	00 26 25.6	-0.6
	comp=Z,796nm,1.6s						
EIL	Elat	78.26	323	LR	LR	00 56 17.9	
	comp=Z,807nm,18.4s,MS5.1,baz=326,slow=32						
NJ2	Nanjing	79.20	34	eP	P	00 26 33.4	+2.1
NJ2				AP	pP	00 26 38.1	+3.5
NJ2				XP	sP	00 26 40.4	+4.6
NJ2				S	S	00 36 30.0	-1.1
NJ2				SKS		00 36 45.0	
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,390nm,4.6s						
NJ2				LR	LR		
	comp=N,6µm,38.9s						
NJ2				LR	LR		
	comp=E,2µm,24.6s						
NJ2				LR	LR		
	comp=Z,2µm,24.6s						
GTA	Gaotai	79.36	17	eP	P	00 26 33.6	+1.6
GTA				AP	pP	00 26 40.5	+5.2
GTA				XP	sP	00 26 44.1	+7.6
GTA				PP	PP	00 29 35.1	+2.6
GTA				S	S	00 36 30.1	-2.4
GTA				SKS		00 36 40.9	
GTA				XS	sS	00 36 42.8	+4.9
GTA				AMB	AMB		
	comp=Z,9.0nm,2.0s,mb4.3						
GTA				AMB	AMB		
	comp=Z,204nm,7.2s						
GTA				LR	LR		
	comp=N,484nm,19.0s,MS4.9						
GTA				LR	LR		
	comp=E,279nm,17.9s,MS4.9						
GTA				LR	LR		
	comp=Z,622nm,22.0s,MS4.9						
ASF	Jabal al Asfar	79.45	325	LR	LR	00 58 24.1	
	comp=Z,538nm,18.1s,MS4.9,baz=329,slow=33						
KZA	Kyzart	79.50	358	P	P	00 26 32.6	0.0
	SNR=7.1						
AML	Almayashu	79.61	357	P	P	00 26 33.3	0.0
	SNR=9.4						
JOW	Kunigami	79.68	44	LR	LR	00 58 57.4	
	comp=Z,284nm,19.6s,MS4.6,baz=146,slow=34						
UCH	Uchtor	79.68	357	P	P	00 26 35.6	+2.0
	SNR=5.8						
UCH	Uchtor	79.68	357	eP	P	00 26 34.9	+1.3
	comp=Z,2µm,1.2s						
AAK	Ala-Archa	80.08	357	eP	P	00 26 34.3	-1.5
	comp=Z,27nm,1.5s,mb5.0						
KBK	Karagaybulak	80.09	358	P	P	00 26 35.8	0.0
	SNR=5.5						
EKS2	Erkin-Say	80.14	357	P	P	00 26 35.9	-0.3
	SNR=7.9						
EKS2	Erkin-Say	80.14	357	eP	P	00 26 35.6	-0.5
	comp=Z,6.7nm,0.8s,mb4.6						
TKM2	Tokmak 2	80.33	358	eP	P	00 26 37.6	+0.5
	comp=Z,18nm,0.6s,mb5.2						
USP	Ospenovka	80.72	357	P	P	00 26 38.6	-0.6
	SNR=9.9						
GUMO	Guam	80.74	65	LR	LR	00 55 28.2	
	comp=Z,324nm,21.1s,MS4.7,baz=113,slow=30						
WMQ	Urumqi	81.67	7	eP	P	00 26 46.5	+2.2
HHC	Hu-ho-hao-te	84.04	25	eP	P	00 27 00.2	+3.6
HHC				AP	pP	00 27 05.0	+5.0
HHC				XP	sP	00 27 07.3	+6.2
HHC				PP	PP	00 30 17.1	+6.0
HHC				SKS		00 37 20.1	
HHC				S	S	00 37 23.9	+3.2
HHC				XS	sS	00 37 31.7	+5.5
HHC				PS		00 38 19.5	
HHC				SS	SS	00 42 56.0	+5.9
HHC				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.8						
HHC				AMB	AMB		
	comp=Z,255nm,3.8s						
HHC				LR	LR		
	comp=N,592nm,18.6s,MS5.1						
HHC				LR	LR		
	comp=E,453nm,20.0s,MS5.1						
HHC				LR	LR		
	comp=Z,607nm,18.6s,MS5.0						
MK31	Makanchi Array	84.26	3	eP	P	00 26 55.5	-2.1
MKAR	Makanchi Array	84.26	3	P	P	00 26 55.1	-2.5
	comp=Z,3.4nm,0.8s,mb4.5,baz=189,slow=5.4,SNR=12						
MKAR				LR	LR	01 01 48.1	
	comp=Z,2µm,20.6s,MS5.4,baz=184,slow=34						
JNU	Nakatsue	85.98	42	LR	LR	00 58 55.4	
	comp=Z,314nm,21.8s,MS4.7,baz=12,slow=31						
TORD	Torodi Ar. Bea	87.45	289	P	P	00 27 11.9	-2.3
	comp=Z,1.0nm,0.8s,mb4.1,baz=113,slow=4.7,SNR=11						
IDI	Anoyia	87.81	319	LR	LR	01 03 15.4	
	comp=Z,282nm,21.6s,MS4.6,baz=134,slow=33						
KURK	Kurchatov	88.10	0	eP	P	00 27 16.8	+0.3
	comp=Z,35nm,1.6s,mb5.3						
CBIJ	Chichi jima	88.17	53	LR	LR	01 00 06.7	
	comp=Z,212nm,20.4s,MS4.5,baz=258,slow=31						
SONM	Songino Array	88.89	19	P	P	00 27 18.9	-1.3
	comp=Z,1.1nm,0.9s,mb4.2,baz=206,slow=4.9,SNR=7.5						
SONM				LR	LR	01 06 31.4	
	comp=Z,646nm,18.8s,MS5.1,baz=12,slow=35						
ULN	Ulaanbaatar	89.09	19	eP	P	00 27 21.7	+0.5
	comp=Z,5.6nm,1.3s,mb4.7						
JHJ	Hachijo jima 2	90.96	48	LR	LR	01 04 35.5	
	comp=Z,476nm,19.9s,MS4.9,baz=85,slow=33						
ZALV	Zalesovo Beam	91.53	4	P	P	00 27 31.7	-0.7
ZALV				LR	LR	01 06 40.8	

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZALV	Zalesovo Beam	91.53	4	P	P	00 27 31.7	-0.7
	comp=Z,1.2nm,0.7s,mb4.3,baz=179,slow=4.0,SNR=6.7						
ZALV				LR	LR	01 06 40.8	
	comp=Z,804nm,19.6s,MS5.2,baz=196,slow=34						
MJAR	Matsushiro Arr	92.52	44	LR	LR	01 05 51.0	
	comp=Z,467nm,21.1s,MS4.9,baz=220,slow=33						
ARU	Arti	95.28	349	*e*P	P	00 27 49.3	-0.3
	comp=Z,5.3nm,1.2s,mb4.8						
AKASG	Malin Array Be	97.98	331	P	P	00 28 02.0	+0.1
	comp=Z,0.1nm,0.3s,mb3.9,baz=171,slow=3.8,SNR=6.3						
AKASG				LR	LR	01 10 31.8	
	comp=Z,405nm,20.0s,MS4.9,baz=145,slow=34						
PPT	Papeete	109.07	132	*e*LR	LR	01 05 06.3	
	comp=Z,2μm,29.8s						
RKT	Rikitea	111.95	147	*e*LR	LR	01 06 30.5	
	comp=Z,981nm,24.5s						
TAOE	Nuku Hiva Isla	121.49	134	*e*LR	LR	01 10 55.0	
	comp=Z,1μm,24.9s						
INK	Inuvik	144.80	20	PKP	PKPdf	00 34 00.3	-1.9
INK	Inuvik	144.80	20	PKP	PKPdf	00 34 00.3	-1.9
	comp=Z,19nm,1.2s,baz=320,slow=3.2,SNR=12						
DAWY	Dawson	145.53	28	*e*PKPdf	PKPdf	00 34 02.0	-1.6
YKA	Yellowknife Ar	154.05	13	PKPbc	PKPbc	00 34 24.7	-0.5
YKA	Yellowknife Ar	154.05	13	PKPbc	PKPbc	00 34 24.7	-0.5
	comp=Z,3.1nm,1.0s,baz=347,slow=2.6,SNR=14						
TXAR	Lajitas Array	171.47	170	PKP	PKPdf	00 34 37.0	+1.9
TXAR	Lajitas Array	171.47	170	PKP	PKPdf	00 34 37.0	+1.9
	comp=Z,0.9nm,1.1s,baz=101,slow=1.3,SNR=4.7						
BW06	Boulder Array	172.34	47	*e*PKPdf	PKPdf	00 34 36.4	+1.3
PDAR	Pinedale Array	172.34	47	PKP	PKPdf	00 34 37.6	+2.6
PDAR	Pinedale Array	172.34	47	PKP	PKPdf	00 34 37.6	+2.6
	comp=Z,1.5nm,1.1s,baz=158,slow=0.8,SNR=5.5						
WMOK	Wichita Mounta	176.04	221	*e*PKPdf	PKPdf	00 34 37.0	+0.5
ISCO	Idaho Springs	176.50	53	*e*PKPdf	PKPdf	00 34 37.9	+1.4

IDC 01 00:39:40.8±61.0**, 1.52N×96.80E, h0^{km}, mb3.8**/3**, mb1 3.8**/3**, mb1mx3.4**/20**, mbtmp3.8**/3**, Error ellipse: s-maj=1178.0km s-min=158.2km az=176.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	46.84	346	P	P	00 48 12.4	0.0
	0.6nm,0.5s,baz=160,slow=7.8,SNR=11						
SONM	Songino Array	46.88	9	P	P	00 48 12.8	+0.1
	0.2nm,0.4s,baz=202,slow=8.9,SNR=4.1						
ZALV	Zalesovo Beam	53.18	351	P	P	00 49 00.5	0.0
	0.7nm,0.4s,baz=160,slow=6.0,SNR=6.8						

IDC 01 00:45:52.2±2.5**, 7.25S×156.30E, h0^{km}, mb4.0**/6**, mb1 4.0**/6**, mb1mx3.9**/14**, mbtmp3.9**/6**, Error ellipse: s-maj=84.7km s-min=28.5km az=120.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.75	237	P	P	00 51 14.0	-1.6
	0.6nm,0.5s,baz=64,slow=9.4,SNR=6.7						
ASAR	Alice Springs	26.99	230	P	P	00 51 37.9	+2.0
	0.3nm,0.5s,baz=59,slow=9.2,SNR=4.2						
SONM	Songino Array	70.25	327	P	P	00 57 08.3	+1.2
	0.9nm,0.7s,baz=134,slow=7.3,SNR=10						
MKAR	Makanchi Array	84.44	318	P	P	00 58 26.9	+0.1
	4.0nm,0.7s,baz=102,slow=5.9,SNR=45						
ZALV	Zalesovo Beam	85.11	326	P	P	00 58 29.0	-0.9
	2.4nm,0.5s,baz=117,slow=5.9,SNR=16						
YKA	Yellowknife Ar	95.95	28	P	P	00 59 20.6	-0.2
	0.1nm,0.5s,baz=264,slow=4.3,SNR=4.6						

*BJI **01** 01:07:28.9, 45.67N×153.61E, h6^{km}, mB4.9, mb4.4*
*ISCJB **01** 01:07:29.9±2.5, 45.64N±0.06×153.78E±0.09, h17^{km}±17^{km}, mb4.3/38, Error ellipse: s-maj=11.9km s-min=7.8km az=43.5*
*NEIC **01** 01:07:30.6±0.3, 45.62N×153.83E, h10^{km}, mb4.3/13, Error ellipse: s-maj=7.4km s-min=5.4km az=134.0*
*MOS **01** 01:07:32.2±1.1, 45.65N×153.67E, h33^{km}, mb4.5/22, Error ellipse: s-maj=10.2km s-min=7.3km az=95.3*
*IDC **01** 01:07:36.1±4.2, 45.55N×153.76E, h56^{km}±38^{km}, mb3.8/16, mb1 4.0/18, mb1mx3.9/25, mbtmp3.8/18, ML3.6/2, MS3.5/1, Ms1 3.5/1, ms1mx2.8/30, Error ellipse: s-maj=18.6km s-min=15.4km az=150.0*
ISC 01 01:07:32.3±2.5**, 45.65N**±0.06×**153.82E**±0.09**, h20^{km}**±17^{km}**, n88, σ0.93**/89**, mb4.3**/38**, 9C-1D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	4.21	266	*e*PN	Pn	01 08 34.0	-1.3
KUR				pmax	pmax		
	comp=Z,110nm,0.4s						
SKR	Severo-Kuril's	5.27	16	*e*PN	Pn	01 08 49.6	-0.2
YSS	Yuzh-Sakhalins	7.77	284	Pn	Pn	01 09 24.0	-0.2
YSS	Yuzh-Sakhalins	7.77	284	PN	Pn	01 09 24.0	-0.2
PET	Petropavlovsk	8.03	21	Pn	Pn	01 09 35.5	+7.8
PET	Petropavlovsk	8.03	21	⇑*e*PN	Pn	01 09 32.2	+4.5
ASAJ	Asahikawa	8.12	263	PN	Pn	01 09 31.0	+2.1
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,331nm,20.6s						
ASAJ	Asahikawa	8.12	263	P	Pn	01 09 30.9	+2.1
	comp=Z,0.9nm,0.3s,baz=142,slow=13,SNR=6.1						
ASAJ				LR	LR	01 11 58.6	
	comp=Z,331nm,20.6s,baz=327,slow=33						
ERM	Erimo	8.52	249	⇑*e*PN	Pn	01 09 43.7	+9.3
MA2	Magadan	14.07	354	Pn	Pn	01 10 50.9	+0.7
MA2	Magadan	14.07	354	⇑*e*P	Pn	01 10 52.3	+2.0
MJAR	Matsushiro Arr	14.85	238	P	Pn	01 11 00.8	-0.2
	comp=Z,0.3nm,0.3s,baz=126,slow=15,SNR=2.5						
MAJO	Matsushiro	14.85	238	Pn	Pn	01 11 00.0	-1.0
	comp=Z,7.8nm,0.7s						
MAJO	Matsushiro	14.85	238	P	Pn	01 11 00.0	-1.0
MAJO				pmax	pmax		
	comp=Z,8.0nm,0.7s						
KLR	Kul'dur	15.35	291	*e*P	Pn	01 11 04.0	-3.5
VLA	Vladivostok	15.87	269	⇑*e*P	Pn	01 11 17.9	+3.5
MDJ	Mudanjiang	17.11	275	Pn	Pn	01 11 34.0	+3.8
CN2	Changchun	20.20	275	*e*P	P	01 12 05.1	-0.5
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s						
YAK	Yakutsk	21.52	328	⇑*e*P	P	01 12 17.6	-2.0
YAK				pmax	pmax		
	comp=Z,18nm,0.6s,mb4.7						
BILL	Bilibino	23.36	12	*e*P	P	01 12 40.5	+1.3
	comp=Z,3.5nm,0.6s,mb4.0						
BILL	Bilibino	23.36	12	⇓*e*P	P	01 12 38.1	-1.1
BILL				pmax	pmax		
	comp=Z,19nm,2.5s,mb4.1						
TIXI	Tiksi	28.66	344	P	P	01 13 25.4	-1.8
	comp=Z,2.2nm,0.8s,mb3.9						
TIXI	Tiksi	28.66	344	⇑*e*P	P	01 13 25.7	-1.5
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.2						
ULN	Ulaanbaatar	31.74	291	*e*P	P	01 13 55.0	+0.4
	comp=Z,1.8nm,0.7s,mb4.0						
ULN	Ulaanbaatar	31.74	291	*e*P	P	01 13 55.0	+0.4
ULN				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.1						
SONM	Songino Array	32.18	291	P	P	01 13 58.2	-0.3
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	32.18	291	P	P	01 13 58.2	-0.2
	comp=Z,1.0nm,0.6s,mb3.9,baz=83,slow=7.4,SNR=5.9						
TATO	Taipei	33.15	243	*e*P	P	01 14 08.4	+1.1
	comp=Z,36nm,0.7s,mb5.4						
ZAK	Zakamensk	33.60	297	*e*P	P	01 14 09.4	-1.5
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
COLA	College	36.71	37	*e*P	P	01 14 38.5	+1.0
	comp=Z,3.0nm,0.6s,mb4.3						
COLA	College	36.71	37	*e*P	P	01 14 38.5	+1.0
COLA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
EGAK	Eagle	39.57	38	*e*P	P	01 15 01.1	-0.5
	comp=Z,8.2nm,1.0s,mb4.4						
GTA	Gaotai	39.64	281	*e*P	P	01 15 03.6	+1.1
GTA				AP	pP	01 15 08.1	-0.6
GTA				XP	sP	01 15 11.6	+0.4
GTA				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.4						
INK	Inuvik	42.33	32	P	P	01 15 25.1	+0.9
INK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
INK	Inuvik	42.33	32	P	P	01 15 25.1	+0.9
	comp=Z,3.8nm,0.9s,mb4.0,baz=305,slow=6.7,SNR=12						
ZALV	Zalesovo Beam	43.66	307	P	P	01 15 35.1	-0.1
	comp=Z,0.5nm,0.5s,mb3.5,baz=51,slow=8.4,SNR=3.8						
ZAL	Zalesovo	43.68	307	P	P	01 15 35.1	-0.2
MK31	Makanchi Array	47.89	299	*e*P	P	01 16 08.7	-0.1
MKAR	Makanchi Array	47.89	299	*i* P	P	01 16 08.5	-0.2
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	Makanchi Array	47.89	299	P	P	01 16 07.7	-1.0
	comp=Z,1.7nm,0.7s,mb4.2,baz=70,slow=7.5,SNR=19						
KURK	Kurchatov	48.39	305	*e*P	P	01 16 11.8	-0.7
	comp=Z,2.7nm,0.8s,mb4.3						
KURK	Kurchatov	48.39	305	*e*P	P	01 16 11.8	-0.7
KURK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
LSA	Lhasa	50.84	275	*e*P	P	01 16 32.4	+1.0
	comp=Z,2.0nm,0.5s,mb4.3						
LSA	Lhasa	50.84	275	*e*P	P	01 16 32.4	+1.0
LSA				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
YKA	Yellowknife Ar	51.52	36	*i* P	P	01 16 36.5	+0.4
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
YKA	Yellowknife Ar	51.52	36	P	P	01 16 36.6	+0.5
	comp=Z,1.8nm,0.8s,mb4.1,baz=296,slow=7.3,SNR=16						
RES	Resolute Bay	51.73	18	*e*P	P	01 16 37.4	-0.1
	comp=Z,49nm,0.9s,mb5.4						
RES	Resolute Bay	51.73	18	*e*P	P	01 16 37.4	-0.1
RES				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.4						
TKM2	Tokmak 2	53.93	297	*e*P	P	01 16 55.8	+1.5
	comp=Z,7.3nm,1.3s,mb4.5						
TKM2	Tokmak 2	53.93	297	*e*P	P	01 16 55.8	+1.6
TKM2				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
AAK	Ala-Archa	54.77	297	*e*P	P	01 17 00.3	-0.1
	comp=Z,14nm,1.4s,mb4.8						
AAK	Ala-Archa	54.77	297	⇑*e*P	P	01 17 00.1	-0.2
AAK				pmax	pmax		
	comp=Z,12nm,1.7s,mb4.7						
UCH	Uchtor	54.98	297	*e*P	P	01 17 03.2	+1.3
	comp=Z,1.8nm,1.0s,mb4.1						
PMG	Port Moresby	55.12	188	P	P	01 17 02.6	-0.5
EKS2	Erkin-Say	55.20	298	*e*P	P	01 17 04.4	+1.0
	comp=Z,5.4nm,0.9s,mb4.6						
AML	Almayashu	55.54	297	*e*P	P	01 17 06.4	+0.5
	comp=Z,3.1nm,1.1s,mb4.2						
ARU	Arti	56.16	318	*e*P	P	01 17 09.8	-0.3
	comp=Z,4.5nm,0.5s,mb4.8						
ARU	Arti	56.16	318	⇑*i*P	P	01 17 09.9	-0.2
ARU				*e*		01 19 14.3	
ARU				*e*S	S	01 24 50.0	-7.9
ARU				*e*SS	SS	01 28 35.0	-8.7
ARU				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
PRGR	Permogore	58.56	328	*e*P	P	01 17 26.5	-0.5
PRGR				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
AKTK	Aktyubinsk	59.83	313	P	P	01 17 37.2	+1.3
AKTO	Aktyubinsk	59.83	313	P	P	01 17 37.2	+1.3
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
AKTO	Aktyubinsk	59.83	313	P	P	01 17 37.2	+1.3
	comp=Z,0.9nm,0.5s,mb4.1,baz=72,slow=9.2,SNR=6.4						
NVAR	Mina Array Bea	62.51	62	P	P	01 17 55.1	+0.8
	comp=Z,0.9nm,0.6s,mb4.0,baz=302,slow=5.6,SNR=9.3						
JOF	Joensuu	62.54	334	*e*p	P	01 17 53.0	-1.1
	comp=Z,4.9nm,0.7s,mb4.8						
JOF	Joensuu	62.54	334	*e*P	P	01 17 53.0	-1.1
JOF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
PDAR	Pinedale Array	65.00	54	P	P	01 18 10.6	0.0
	comp=Z,1.0nm,0.9s,mb3.9,baz=221,slow=1.6,SNR=8.1						
FINES	FINESS Array B	65.25	335	P	P	01 18 11.6	-0.3
FINES	FINESS Array B	65.25	335	P	P	01 18 11.6	-0.3
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES	FINESS Array B	65.25	335	P	P	01 18 11.6	-0.3
	comp=Z,2.2nm,0.6s,mb4.3,baz=39,slow=7.8,SNR=12						
CTAO	Charters Tower	65.78	188	P	P	01 18 15.7	0.0
OBN	Obninsk	66.50	326	⇑*e*P	P	01 18 20.0	-0.1
OBN				pmax	pmax		
	comp=Z,30nm,1.7s,mb5.0						
ULM	Lac du Bonnet	67.04	41	P	P	01 18 22.6	-1.0
	comp=Z,1.9nm,0.8s,mb4.2,baz=335,slow=5.1,SNR=3.6						
WB2	Warramunga Arr	67.63	200	*e*P	P	01 18 27.6	0.0
WRA	Warramunga Arr	67.63	200	*i* P	P	01 18 27.3	-0.3
WRA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
WRA	Warramunga Arr	67.63	200	P	P	01 18 26.1	-1.5
	comp=Z,1.6nm,0.5s,mb4.3,baz=17,slow=6.9,SNR=7.1						
NB2	NORSAR Subarra	69.43	342	P	P	01 18 38.1	-0.3
	comp=Z,1.3nm,0.6s,mb4.0,baz=27,slow=6.2						
NOA	NORSAR Array B	69.43	342	P	P	01 18 38.4	0.0
NOA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NOA	NORSAR Array B	69.43	342	P	P	01 18 38.4	0.0
	comp=Z,2.6nm,0.8s,mb4.2,baz=28,slow=6.2,SNR=6.0						
ASAR	Alice Springs	71.32	199	P	P	01 18 49.7	-0.6
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ASAR	Alice Springs	71.32	199	P	P	01 18 49.6	-0.6
	comp=Z,2.3nm,0.7s,mb4.2,baz=18,slow=5.4,SNR=18						
KIV	Kislovodsk	71.92	315	*e*P	P	01 18 52.6	-1.3
KIV				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
AKASG	Malin Array Be	72.74	327	*i* P	P	01 18 58.0	-0.6
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
AKASG	Malin Array Be	72.74	327	P	P	01 18 58.1	-0.5
	comp=Z,3.9nm,0.6s,mb4.5,baz=32,slow=6.1,SNR=21						
TXAR	Lajitas Array	77.61	61	P	P	01 19 27.0	0.0
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
TXAR	Lajitas Array	77.61	61	P	P	01 19 26.9	-0.1
	comp=Z,1.5nm,0.8s,mb4.0,baz=304,slow=3.7,SNR=16						
GERES	GERESS Array B	79.66	334	P	P	01 19 38.2	+0.2
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	79.66	334	P	P	01 19 38.2	+0.2
	comp=Z,0.7nm,0.6s,mb3.8,baz=261,slow=5.3,SNR=4.1						
NWAO	Narrogin (SRO)	84.94	210	P	P	01 20 06.0	+0.4

*CSEM **01** 01:34:56.3±0.3, 34.24N×31.93E, h23^{km}±3^{km}, Mw2.9, Error ellipse: s-maj=4.6km s-min=2.2km az=110.0*
*ISCJB **01** 01:34:57.6±0.7, 34.23N±0.04×31.93E±0.07, h33^{km}, Error ellipse: s-maj=9.0km s-min=5.4km az=27.8*
*HLW **01** 01:34:58.5, 34.29N×31.91E, h33^{km}, Mb3.1*
*NIC **01** 01:34:59.5±0.4, 34.39N×31.83E, h25^{km}, ML3.0, MW2.9*
ISC 01 01:34:58.2±1.0**, 34.31N**±0.05×**31.92E**±0.08**, h30^{km}**±10^{km}**, n15, σ0.53**/19**, 1C-3D, Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPCY	Paphos	0.67	32	⇑*i*P	Pb	01 35 11.1	-0.4
AKMC	Akamas	0.79	25	P	Pb	01 35 12.8	-0.6
SZAC	Souni-Zanaja	0.91	61	P	Pn	01 35 15.0	+0.1
	31nm,0.2s						
SZAC				S	Sb	01 35 27.8	+0.5
ALFC	Alevga	1.01	33	P	Pn	01 35 16.0	-0.3
	8.8nm,0.1s						
ALFC				S	Sn	01 35 29.1	-0.4
MAMC	Mammari	1.37	51	P	Pn	01 35 22.3	+1.0
HWQ	Hawqa	3.33	89	*e*Pn	Pn	01 35 49.5	+1.2
HWQ				Sn	Sn	01 36 26.7	-0.1
HWQ	Hawqa	3.33	89	*e*Pn	Pn	01 35 49.5	+1.2
HWQ				Sn	Sn	01 36 26.7	-0.1
RCY	Rachaya	3.35	103	Sn	Sn	01 36 26.5	-0.6
RCY	Rachaya	3.35	103	Sn	Sn	01 36 26.5	-0.7
AMAG	Maghara	3.82	163	⇓P	Pn	01 35 54.6	-0.3
SUZ		4.53	170	P	Pn	01 36 04.5	-0.2
HNKL	Nakhl	4.71	158	P	Pn	01 36 07.0	-0.1
GLL	Jalalah	4.72	182	P	Pn	01 36 07.2	-0.2
HMAT	Matruh	5.18	233	⇓P	Pn	01 36 14.1	+0.4
HKAT	Jabal Katrina	6.04	162	⇓P	Pn	01 36 25.4	0.0

*CSEM **01** 01:36:56.8±0.3, 32.50N×3.37W, h35^{km}, MD3.9, Error ellipse: s-maj=6.0km s-min=3.8km az=137.0*
*ISCJB **01** 01:36:56.1±0.7, 32.71N±0.03×3.57W±0.05, h10^{km}, Error ellipse: s-maj=6.8km s-min=3.4km az=37.4*
*CRAAG **01** 01:36:57.2, 32.63N×3.36W, Mb3.8*
*MDD **01** 01:36:57.3±1.4, 32.54N×3.42W, h11^{km}±17^{km}, mb3.6/7, Error ellipse: s-maj=17.3km s-min=6.0km az=142.0, PRXIMO*
*CNRM **01** 01:36:58.1, 32.44N×3.40W, h16^{km}, MD3.9*
*INMG **01** 01:36:58.9±1.1, 32.78N×3.67W, h0^{km}, ML2.5, Error ellipse: s-maj=9.7km s-min=5.9km az=133.0*
ISC 01 01:36:56.8±0.6**, 32.62N**±0.03×**3.48W**±0.04**, h10^{km}, n49, σ1.35**/78**, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZFT	Errachidia	0.94	232	*i* P	Pg	01 37 14.5	-0.4
ZFT				*i* S	Sg	01 37 26.0	-1.1
CZD	Col de Zad	1.38	288	*i* P	Pn	01 37 23.0	+0.9
CZD				*i* S	Sb	01 37 42.0	+1.7
TZK	Tazeka	1.58	338	*i* P	Pn	01 37 25.5	+0.6
TZK				*i* S	Sn	01 37 46.0	+0.7
IFR	Ifrane	1.64	303	P	Pn	01 37 27.5	+1.7
IFR				S	Sn	01 37 49.0	+2.0
MIF	Mishlifen	1.66	299	*i* P	Pn	01 37 27.5	+1.5
MIF				*i* S	Sn	01 37 49.0	+1.6
TGT	Taghat	1.95	318	*i* P	Pn	01 37 32.0	+2.0
TGT				*i* S	Sn	01 37 57.0	+2.4
KIB	El Ksiba	2.16	270	*i* P	Pn	01 37 33.0	+0.2
TOU	Touzarine	2.35	355	*i* P	Pn	01 37 38.0	+2.6
TOU				*i* S	Sn	01 38 06.0	+1.7
TZC	Tazercounte	2.59	260	*e*P	Pn	01 37 38.0	-0.7
TZC				*i* S	Sn	01 38 08.0	-2.2
EMEL	Melilla	2.71	9	S	Sn	01 38 12.5	-0.7
	27nm,0.3s,SNR=6.4						
EMLI	Melilla	2.71	9	S	Sn	01 38 12.5	-0.7
	27nm,0.3s,SNR=6.4						
AVE	Averroes	3.37	283	P	Pn	01 37 52.5	+3.0
AVE				S	Sn	01 38 28.0	-1.6
EMIJ	Mijas	4.08	345	P	Pn	01 37 59.8	+0.6
	1.4nm,0.3s,SNR=4.0						
EMIJ				S	Sn	01 38 45.4	-1.6
	6.8nm,0.6s,SNR=7.9						
EMIJ	Mijas	4.08	345	P	Pn	01 37 58.9	-0.3
	1.4nm,0.3s,SNR=4.0						
EMIJ				S	Sn	01 38 48.8	+1.9
	6.8nm,0.6s,SNR=7.9						
EGUA	Guajares	4.20	359	P	Pn	01 38 01.5	+0.5
	0.1nm,0.2s,SNR=7.9						
EGUA				S	Sn	01 38 48.1	-2.0
	0.7nm,0.3s,SNR=7.9						
EGUA	Guajares	4.20	359	P	Pn	01 38 01.5	+0.5
	0.1nm,0.2s,SNR=7.9						
EGUA				S	Sn	01 38 47.1	-3.0
	0.7nm,0.3s,SNR=7.9						
EBER	Berja	4.29	6	P	Pn	01 38 02.8	+0.6
	1.7nm,0.3s,SNR=7.9						
EBER				S	Sn	01 38 50.7	-1.6
	28nm,0.8s,SNR=7.9						
EBER	Berja	4.29	6	P	Pn	01 38 03.4	+1.2
	1.7nm,0.3s,SNR=7.9						
EBER				S	Sn	01 38 50.7	-1.7
	28nm,0.8s,SNR=7.9						
ENIJ	Nijar	4.47	13	P	Pn	01 38 04.5	0.0
	1.4nm,0.2s,SNR=7.9						
ENIJ				S	Sn	01 38 54.7	-1.9
	0.3nm,0.1s,SNR=7.9						
ENIJ	Nijar	4.47	13	P	Pn	01 38 04.5	-0.1
	1.4nm,0.2s,SNR=7.9						
ENIJ				S	Sn	01 38 57.4	+0.8
	0.3nm,0.1s,SNR=7.9						
EQUE	Quentar	4.57	0	P	Pn	01 38 05.9	-0.1
	0.5nm,0.3s,SNR=7.9						
EQUE				S	Sn	01 38 57.2	-2.1
	1.7nm,0.5s,SNR=7.9						
EQUE	Quentar	4.57	0	P	Pn	01 38 05.9	-0.1
	0.5nm,0.3s,SNR=7.9						
EQUE				S	Sn	01 38 59.1	-0.1
	1.7nm,0.5s,SNR=7.9						
CIA	Chichaoua	4.60	258	*e*P	Pn	01 38 06.0	-0.4
CIA				*e*S	Sn	01 38 58.0	-1.9
ESPR	Espera	4.67	336	S	Sn	01 39 00.3	-1.2
	1.8nm,0.3s,SNR=4.0						
ESPR	Espera	4.67	336	S	Sn	01 39 03.0	+1.5
	1.8nm,0.3s,SNR=4.0						
ETRT	Tiaret	4.84	54	P	Pn	01 38 10.0	+0.3
EANR	'Ain N'Sour	5.04	48	P	Pn	01 38 07.0	-5.5
EQES	Quesada	5.18	4	P	Pn	01 38 15.2	+0.8
	1.3nm,0.3s,SNR=7.9						
EQES				S	Sn	01 39 11.4	-2.8
	8.3nm,0.7s,SNR=7.9						
EQES	Quesada	5.18	4	P	Pn	01 38 17.3	+2.9
	1.3nm,0.3s,SNR=7.9						
EQES				S	Sn	01 39 16.2	+2.0
	8.3nm,0.7s,SNR=7.9						
ECHF	Ech Chlef	5.32	47	P	Pn	01 38 17.0	+0.7
ECHA	Ech Chlef	5.34	47	P	Pn	01 38 17.0	+0.5
EBNR	Beni Rached	5.53	47	P	Pn	01 38 15.0	-4.1
EADA	Adamuz	5.61	351	P	Pn	01 38 20.3	+0.1
	0.3nm,0.6s,SNR=7.9						
EADA				S	Sn	01 39 22.3	-2.3
	0.8nm,1.2s,SNR=7.9						
EADA	Adamuz	5.61	351	P	Pn	01 38 24.0	+3.8
	0.3nm,0.6s,SNR=7.9						
EMIN	Mina Concepcio	5.76	334	P	Pn	01 38 22.3	0.0
	0.2nm,0.1s,SNR=9.5						
EMIN				S	Sn	01 39 26.2	-2.3
	2.8nm,0.6s						
EMIN	Mina Concepcio	5.76	334	P	Pn	01 38 21.7	-0.6
	0.2nm,0.1s,SNR=9.5						
EMIN				S	Sn	01 39 28.7	+0.2
	2.8nm,0.6s						
EGRO	El Granado	5.90	327	P	Pn	01 38 23.5	-0.7
	1.4nm,0.1s,SNR=7.6						
EGRO				S	Sn	01 39 29.5	-2.3
	4.6nm,0.5s						
EGRO	El Granado	5.90	327	P	Pn	01 38 23.5	-0.7
	1.4nm,0.1s,SNR=7.6						
PVAQ	Vaqueiros	5.90	325	*e*Pn	Pn	01 38 23.6	-0.7
PVAQ				*e*Sn	Sn	01 39 27.0	-5.0
PVAQ				A		01 39 31.0	
	4.4nm,0.2s						
PVAQ	Vaqueiros	5.90	325	*e*Pn	Pn	01 38 23.6	-0.7
PVAQ				*e*Sn	Sn	01 39 27.0	-5.0
ETOB	Tobarra	6.21	14	S	Sn	01 39 35.8	-3.9
	1.8nm,0.4s,SNR=7.9						
PFVI	Vila Bisbo	6.29	317	*e*Pn	Pn	01 38 29.5	-0.1
EMHD	Djebel Mahouad	6.41	54	P	Pn	01 38 25.0	-6.2
PBEJ	Beja	6.47	328	*e*Sn	Sn	01 39 42.5	-3.5
PBEJ				A		01 39 49.2	
	2.2nm,0.3s						
PBEJ	Beja	6.47	328	S	Sn	01 39 42.5	-3.5
	1.1nm,0.3s						
PTEO	Sao Teotonio	6.53	320	*e*Pn	Pn	01 38 32.8	-0.1
EBAD	Badajoz	6.76	336	P	Pn	01 38 35.2	-0.9
	0.8nm,0.2s,SNR=4.7						
EBAD				S	Sn	01 39 49.1	-4.0
	1.2nm,0.2s						
PESTR	Estremoz	7.07	333	*e*Pn	Pn	01 38 40.5	+0.2
PCBR	Castelo Branco	7.89	337	*e*Pn	Pn	01 38 51.1	-0.5

*IDC **01** 01:47:41.6±3.3, 8.14N×93.46E, h0^{km}, mb3.7/5, mb1 3.8/5, mb1mx3.6/20, mbtmp3.7/5, Error ellipse: s-maj=135.0km s-min=21.8km az=63.0*
*ISCJB **01** 01:47:46.3±1.6, 8.3N±0.3×93.9E±0.4, h33^{km}, mb3.9/7, Error ellipse: s-maj=72.1km s-min=12.8km az=145.6*
ISC 01 01:47:49.1±1.6**, 8.4N**±0.3×**94.0E**±0.4**, h35^{km}, n14, σ0.75**/14**, mb3.9**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ODAN	Odare	19.40	342	*e*P	Pn	01 52 12.6	-1.0
	4.3nm,0.3s						
TAPN	Taplejung	19.77	343	*e*P	Pn	01 52 17.2	-0.7
	41nm,0.4s						
JIRN	Jiri	20.54	340	*e*P	P	01 52 25.6	+1.1
PKI	Pulchoki	20.73	338	*e*P	P	01 52 27.6	+0.9
GUN	Gumba	20.87	339	*e*P	P	01 52 28.0	-0.2
DMN	Daman	20.88	337	*e*P	P	01 52 29.3	+1.0
KKN	Kakani	20.98	338	*e*P	P	01 52 29.1	-0.2
GKN	Gorkha	21.42	337	*e*P	P	01 52 33.8	-0.3
	6.8nm,0.4s,mb4.4						
KOLN	Koldanda	21.64	334	*e*P	P	01 52 36.8	+0.4
	4.6nm,0.5s,mb4.2						
MKAR	Makanchi Array	39.55	347	P	P	01 55 15.2	-1.4
	0.5nm,0.6s,mb3.4,baz=171,slow=8.1,SNR=6.8						
SONM	Songino Array	40.67	13	P	P	01 55 26.8	+1.0
	0.6nm,0.8s,mb3.2,baz=189,slow=7.5,SNR=6.6						

ZALV	**Zalesovo Beam**	**46.02**	**352**	P	**P**	**01 56 08.4**	**-0.5**
	1.8nm,0.4s,mb4.3,baz=175,slow=8.0,SNR=17						
WRA	**Warramunga Arr**	**48.65**	**126**	P	**P**	**01 56 30.1**	**+0.1**
	0.4nm,0.4s,mb3.8,baz=304,slow=8.9,SNR=3.1						
ASAR	**Alice Springs**	**50.33**	**130**	P	**P**	**01 56 42.7**	**-0.1**
	0.4nm,0.5s,mb3.7,baz=300,slow=7.7,SNR=6.3						

BJI ***01*** *02:33:41.5, 4784N×15472E, h14^{km}, mB5.0, mb4.8, Ms4.8, Msz4.4*
SKHL ***01*** *02:33:42.4±0.4, 47.17N×15552E, h71^{km}±26^{km}, Ms4.5/2*
ISCJB ***01*** *02:33:42.7±1.3, 4775N±004×15464E±005, h14^{km}±8^{km}, mb4.7/115, MS4.2/25, Error ellipse: s-maj=8.1km s-min=4.2km az=148.3*
NEIC ***01*** *02:33:43.6±0.2, 4774N×15463E, h10^{km}, mb4.7/65, Error ellipse: s-maj=6.0km s-min=3.9km az=158.0*
MOS ***01*** *02:33:45.8±1.1, 4779N×15456E, h33^{km}, mb4.9/67, MS3.9/16, Error ellipse: s-maj=9.3km s-min=4.9km az=99.6*
SZGRF ***01*** *02:33:48.0, 4759N×15337E, h33^{km}, mb4.8, Kuril Islands, Russia*
IDC ***01*** *02:33:49.6±3.7, 4775N×15456E, h60^{km}±33^{km}, mb4.1/18, mb1 4.3/20, mb1mx4.2/24, mbtmp4.1/20, ML3.9/2, MS4.0/13, Ms1 4.0/13, ms1mx3.7/32, Error ellipse: s-maj=17.0km s-min=13.9km az=142.0*
ISC 01 02:33:44.4±1.5**, 4778N**±004×**15457E**±005**, h13**^{km}±9^{km}**,** **h16**^{km}±1.4^{km}**:pP-P, n315,** σ0^{s}85/326**, mb4.7**/115**, MS4.2**/25**, 56C-22D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**3.07**	**19**	*e*PN	**Pn**	**02 34 33.0**	**+0.3**
SKR				*e*S	**Sn**	**02 35 08.0**	**-1.3**
SKR				pmax	pmax		
	comp=N,80nm,0.5s						
SKR				pmax	pmax		
	comp=E,60nm,0.5s						
SKR				pmax	pmax		
	comp=Z,170nm,0.5s						
SKR				smax			
	comp=N,390nm,0.5s						
SKR				smax			
	comp=E,310nm,0.5s						
SKR				smax			
	comp=Z,240nm,0.6s						
SKR				MLR	MLR		
	comp=N,3µm,10.0s						
SKR				MLR	MLR		
	comp=E,5µm,10.0s						
SKR				MLR	MLR		
	comp=Z,3µm,10.0s						
KUR	**Kuril'sk**	**5.29**	**244**	*e*PN	**Pn**	**02 35 03.0**	**-0.1**
KUR				*e*S	**Sn**	**02 36 10.5**	**+6.7**
KUR				pmax	pmax		
	comp=N,110nm,0.8s						
KUR				pmax	pmax		
	comp=E,110nm,0.8s						
KUR				pmax	pmax		
	comp=Z,350nm,0.8s						
KUR				smax			
	comp=N,640nm,0.9s						
KUR				smax			
	comp=E,850nm,0.9s						
KUR	**Kuril'sk**	**5.29**	**244**	*e*P	**Pn**	**02 35 03.0**	**-0.1**
KUR				AMB	AMB	02 35 09.3	
	comp=E,110nm,0.8s						
KUR				AMB	AMB	02 35 09.3	
	comp=E,350nm,0.8s						
KUR				*e*S	**Sn**	**02 36 10.5**	**+6.7**
KUR				A		02 36 31.2	
	comp=E,640nm,0.9s						
KUR				A		02 36 31.2	
	comp=E,850nm,0.9s						
PET	**Petropavlovsk**	**5.86**	**25**	*e*Pn	**Pn**	**02 35 09.7**	**-1.2**
PET				*e*Sn	**Sn**	**02 36 18.8**	**+0.9**
PET	**Petropavlovsk**	**5.86**	**25**	*e*PN	**Pn**	**02 35 09.8**	**-1.1**
PET				pmax	pmax		
	comp=Z,48nm,1.0s						
PET				MLR	MLR		
	comp=Z,700nm,17.0s						
PET				MLR	MLR		
	comp=Z,600nm,13.0s						
PET	**Petropavlovsk**	**5.86**	**25**	*e*P	**Pn**	**02 35 12.7**	**+1.8**
YUK	**Yuzh-Kuril'sk**	**7.14**	**242**	*e*PN	**Pn**	**02 35 37.8**	**+9.3**
YUK				*e*S	**Sn**	**02 37 04.6**	**+15**
YUK				smax			
	comp=N,300nm,0.6s						
YUK				smax			
	comp=E,100nm,0.5s						
YUK				smax			
	comp=N,2µm,1.0s						
YUK				smax			
	comp=E,2µm,1.0s						
YSS	**Yuzh-Sakhalins**	**8.07**	**268**	*e*Pn	**Pn**	**02 35 46.5**	**+5.2**
YSS	**Yuzh-Sakhalins**	**8.07**	**268**	*e*PN	**Pn**	**02 35 46.9**	**+5.7**
YSS				S	**Sn**	**02 37 20.0**	**+7.7**
YSS				pmax	pmax		
	comp=Z,50nm,0.8s						
YSS				pmax	pmax		
	comp=E,70nm,1.0s						
YSS				MLR	MLR		
	comp=Z,1µm,14.0s						
YSS				MLR	MLR		
	comp=E,2µm,16.0s						
YSS	**Yuzh-Sakhalins**	**8.07**	**268**	*e*P	**Pn**	**02 35 46.9**	**+5.7**
YSS				AMB	AMB	02 35 49.0	
	comp=E,70nm,0.9s						
YSS				AMB	AMB	02 35 49.0	
	comp=E,50nm,0.9s						
YSS				*e*S	**Sn**	**02 37 20.0**	**+7.7**
YSS				AMS	AMS	02 38 58.0	
	comp=E,2µm,15.0s						
YSS				AMS	AMS	02 38 58.0	
	comp=E,1µm,15.0s						
UGL	**Uglegorsk**	**8.42**	**283**	*e*PN	**Pn**	**02 35 52.0**	**+5.9**
UGL				pmax	pmax		
	comp=Z,112nm,1.0s						
UGL				MLR	MLR		
	comp=N,600nm,15.0s						
UGL				MLR	MLR		
	comp=E,600nm,15.0s						
UGL				MLR	MLR		
	comp=Z,2µm,15.0s						
ASAJ	**Asahikawa**	**9.11**	**251**	PN	**Pn**	**02 35 59.5**	**+3.9**
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,682nm,18.6s						
ASAJ	**Asahikawa**	**9.11**	**251**	P	**Pn**	**02 35 59.5**	**+3.9**
	comp=Z,1.6nm,0.3s,baz=69,slow=8.8,SNR=16						
ASAJ				LR	LR	02 39 28.1	
	comp=Z,682nm,18.6s,baz=141,slow=37						
OKH	**Okha**	**9.37**	**312**	*e*S	**Sn**	**02 37 51.9**	**+7.6**
OKH				MLR	MLR		
	comp=Z,2µm,13.0s						
OKH	**Okha**	**9.37**	**312**	*e*rx	rx	02 36 14.4	
OKH				AMS	AMS	02 41 50.2	
	comp=Z,800nm,13.0s						
OKH				AMS	AMS	02 41 50.2	
	comp=Z,1µm,13.0s						
OKH				AMS	AMS	02 41 50.2	
	comp=Z,2µm,13.0s						
ERM	**Erimo**	**9.94**	**239**	*e*Pn	**Pn**	**02 36 06.5**	**-0.4**
ERM	**Erimo**	**9.94**	**239**	⇑*e*PN	**Pn**	**02 36 11.2**	**+4.3**
MA2	**Magadan**	**12.03**	**351**	*e*Pn	**Pn**	**02 36 37.2**	**+1.8**
MA2	**Magadan**	**12.03**	**351**	*e*PN	**Pn**	**02 36 37.8**	**+2.5**
MA2				pmax	pmax		
	comp=Z,10.0nm,1.1s						
MA2				MLR	MLR		
	comp=Z,700nm,16.0s						
KLR	**Kul'dur**	**15.19**	**284**	*e*P	**Pn**	**02 37 23.8**	**+5.3**
KLR				MLR	MLR		
	comp=Z,3µm,13.0s						
SEY	**Seymchan**	**15.23**	**356**	⇓*i*P	**Pn**	**02 37 19.0**	**0.0**
MAJO	**Matsushiro**	**16.50**	**233**	*e*Pn	**Pn**	**02 37 35.2**	**-0.3**
MAT	**Matsushiro**	**16.50**	**233**	P	**Pn**	**02 37 34.1**	**-1.4**
MJAR	**Matsushiro Arr**	**16.50**	**233**	P	**Pn**	**02 37 34.7**	**-0.7**
MJAR				LR	LR	02 44 30.4	
MJAR	**Matsushiro Arr**	**16.50**	**233**	P	**Pn**	**02 37 34.7**	**-0.7**
	comp=Z,0.4nm,0.3s,baz=28,slow=11,SNR=8.0						
MJAR				LR	LR	02 44 30.4	
	comp=Z,322nm,19.4s,baz=45,slow=39						
MDJ	**Mudanjiang**	**17.56**	**269**	P	**Pn**	**02 37 47.1**	**-1.6**
MDJ				AP	pP	02 37 51.3	-2.0
MDJ				S	**Sn**	**02 41 02.4**	**-1.6**
MDJ				XS	sS	02 41 14.9	-2.5
MDJ				SCP	ScP	02 46 02.9	+0.2
MDJ				PCS	PcS	02 46 04.1	-0.1
MDJ				AMB	AMB		
	comp=Z,486nm,4.8s						
MDJ				LR	LR		
	comp=N,476nm,6.0s						
MDJ				LR	LR		
	comp=E,764nm,4.8s						
MDJ				LR	LR		
	comp=Z,553nm,5.8s						
YAK	**Yakutsk**	**20.02**	**325**	⇑*e*P	**P**	**02 38 16.4**	**-0.3**
YAK				pmax	pmax		
	comp=Z,43nm,1.3s						
CLNS	**Chul'man**	**20.14**	**308*c***	*i*P	**P**	**02 38 22.2**	**+4.2**
CLNS				*e*		02 38 32.8	
CLNS				*e*PPP		02 38 44.4	
CLNS				*e*S	S	02 42 29.8	+26
CLNS				pmax	pmax		
	comp=Z,55nm,1.0s						
CLNS				pmax	pmax		
	comp=N,23nm,1.2s						
CLNS				pmax	pmax		
	comp=E,21nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,21nm,0.9s						
CLNS				pmax	pmax		
	comp=N,15nm,1.3s						
CLNS				pmax	pmax		
	comp=E,21nm,0.9s						
CLNS				smax			
	comp=N,11nm,1.0s						
CLNS				smax			
	comp=Z,4.0nm,0.8s						
CLNS				smax			
	comp=E,13nm,1.2s						
CLNS				MLR	MLR		
	comp=Z,400nm,15.0s,MS3.9						
CLNS				MLR	MLR		
	comp=N,100nm,14.0s,MS4.0						
CLNS				MLR	MLR		
	comp=E,400nm,11.0s,MS4.0						
NRGR	**Nerungri**	**20.19**	**307**	*e*P	**P**	**02 38 23.3**	**+4.8**
NRGR				S	**S**	**02 41 58.4**	**-6.2**
NRGR				smax			
	comp=E,58nm,0.6s						
CN2	**Changchun**	**20.64**	**270**	⇑P	**P**	**02 38 23.0**	**-0.5**
CN2				*e*XP	sP	02 38 30.1	+1.4
CN2				*e*S	**S**	**02 42 06.0**	**-7.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=Z,500nm,17.0s,MS4.0						
BILL	**Bilibino**	**21.17**	**12**	*e*P	**P**	**02 38 26.5**	**-2.6**
	comp=Z,7.4nm,0.8s,mb4.1						
BILL	**Bilibino**	**21.17**	**12**	⇓*e*P	**P**	**02 38 26.8**	**-2.2**
BILL				*e*		02 38 37.6	
BILL				*e*		02 38 50.0	
BILL						02 42 37.0	
BILL				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.1						
KSRS	**Korea Array**	**22.06**	**252**	P	**P**	**02 38 39.0**	**+0.2**
	comp=Z,24nm,0.9s,mb4.6,baz=58,slow=9.9,SNR=38						
KSRS				LR	LR	02 46 36.3	
	comp=Z,168nm,18.2s,MS3.5,baz=45,slow=35						
SNY	**Shenyang**	**22.69**	**266**	⇑P	**P**	**02 38 45.3**	**-0.2**
SNY				LR	LR		
	comp=E,747nm,14.6s						
SNY				LR	LR		
	comp=Z,883nm,15.0s,MS4.3						
HIA	**Hailar**	**23.00**	**287**	⇑*e*P	**P**	**02 38 47.7**	**-1.0**
JNU	**Nakatsue**	**23.10**	**239**	LR	LR	02 49 09.6	
	comp=Z,208nm,18.5s,MS3.6,baz=44,slow=40						
TIXI	**Tiksi**	**26.77**	**342**	*e*P	**P**	**02 39 23.4**	**-0.2**
TIXI	**Tiksi**	**26.77**	**342**	*e*P	**P**	**02 39 19.6**	**-3.9**
TIXI				*e*S	**S**	**02 43 49.0**	**-10**
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.2						
TIXI				MLR	MLR		
	comp=Z,218nm,14.0s,MS3.9						
BJI	**Beijing**	**28.49**	**269**	P	**P**	**02 39 38.2**	**-1.0**
BJI				S	**S**	**02 44 30.0**	**+3.6**
BJI				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.3						
BJI				LR	LR		
	comp=N,531nm,19.6s,MS4.2						
BJI				LR	LR		
	comp=E,380nm,23.5s,MS4.2						
BJI				LR	LR		
	comp=Z,320nm,23.9s,MS3.8						
HHC	**Hu-ho-hao-te**	**31.22**	**273**	*e*P	**P**	**02 40 03.8**	**+0.4**
HHC				AP	pP	02 40 08.3	+1.1
HHC				XP	sP	02 40 10.9	+2.1
HHC				PP	PP	02 41 06.3	-7.5
HHC				PCP	PcP	02 42 59.0	+1.2
HHC				S	**S**	**02 45 10.2**	**+1.0**
HHC				SCP	ScP	02 46 39.3	-1.0
HHC				PCS	PcS	02 46 42.6	+0.7
HHC				SS	SS	02 46 52.6	-30
HHC				AMB	AMB		
	comp=Z,21nm,1.0s,mb4.9						
HHC				AMB	AMB		
	comp=Z,88nm,4.7s						
HHC				LR	LR		
	comp=N,342nm,15.2s,MS4.2						
HHC				LR	LR		
	comp=E,364nm,18.9s,MS4.2						
HHC				LR	LR		
	comp=Z,373nm,15.6s,MS4.2						
NJ2	**Nanjing**	**31.25**	**253**	*e*P	**P**	**02 40 05.1**	**+1.4**
NJ2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.5						
ULN	**Ulaanbaatar**	**31.51**	**288**	⇑*e*P	**P**	**02 40 05.4**	**-0.5**
SONM	**Songino Array**	**31.94**	**288**	P	**P**	**02 40 09.8**	**+0.1**
SONM						02 42 59.1	
SONM				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SONM				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,314nm,18.2s						
SONM	**Songino Array**	**31.94**	**288**	P	**P**	**02 40 09.8**	**+0.1**
	comp=Z,2.1nm,0.8s,mb4.0,baz=68,slow=8.0,SNR=18						
SONM				PcP	PcP	02 42 59.1	-0.5
	comp=Z,1.8nm,0.8s,baz=106,slow=2.4,SNR=9.1						
SONM				LR	LR	02 54 07.9	
	comp=Z,314nm,18.2s,MS4.0,baz=26,slow=38						
TLY	**Talaya**	**32.60**	**296**	⇓*i*P	**P**	**02 40 15.3**	**-0.1**
TLY				*e*		02 41 33.7	
TLY				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
TLY				MLR	MLR		
	comp=Z,435nm,17.0s,MS4.2						
ZAK	**Zakamensk**	**33.16**	**294**	*e*P	**P**	**02 40 19.6**	**-0.7**
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
COLA	**College**	**34.71**	**39**	*e*P	**P**	**02 40 32.9**	**-0.7**
	comp=Z,7.9nm,1.0s,mb4.6						
COLA	**College**	**34.71**	**39**	*e*P	**P**	**02 40 32.9**	**-0.7**
COLA				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
EGAK	**Eagle**	**37.57**	**39**	*e*P	**P**	**02 40 58.1**	**0.0**
	comp=Z,5.7nm,0.9s,mb4.3						
DAWY	**Dawson**	**38.41**	**40**	*e*P	**P**	**02 41 04.4**	**-0.8**
LZH	**Lanzhou**	**38.85**	**272**	*e*P	**P**	**02 41 10.0**	**+0.8**
LZH				AP	pP	02 41 13.0	-0.1
LZH				XP	sP	02 41 14.5	-0.1
LZH				PP	PP	02 42 38.5	+0.4
LZH				*e*S	**S**	**02 47 09.0**	**+2.3**
LZH				XS	sS	02 47 15.1	+2.0
LZH				SS	SS	02 49 45.0	-13
LZH				AMB	AMB		
	comp=Z,35nm,1.1s,mb5.0						
LZH				AMB	AMB		
	comp=Z,82nm,4.4s						
LZH				LR	LR		
	comp=N,1µm,13.2s						
LZH				LR	LR		
	comp=Z,2µm,15.4s,MS5.0						
GTA	**Gaotai**	**39.79**	**279**	*e*P	**P**	**02 41 17.8**	**+0.8**
GTA				AP	pP	02 41 22.0	+1.1
GTA				XP	sP	02 41 25.6	+3.1
GTA				PP	PP	02 42 54.3	+6.0
GTA				PCP	PcP	02 43 23.6	+0.6
GTA				S	**S**	**02 47 20.4**	**-0.4**
GTA				SS	SS	02 50 07.7	-8.8
GTA				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.5						
GTA				AMB	AMB		
	comp=Z,132nm,5.3s						
GTA				LR	LR		
	comp=N,299nm,16.0s,MS4.3						
GTA				LR	LR		
	comp=E,233nm,15.2s,MS4.3						
GTA				LR	LR		
	comp=Z,357nm,16.4s,MS4.3						
INK	**Inuvik**	**40.24**	**33**	*e*P	**P**	**02 41 20.5**	**+0.1**
INK	**Inuvik**	**40.24**	**33**	P	**P**	**02 41 20.7**	**+0.3**
INK				pmax	pmax		
	comp=Z,5.0nm,0.6s						
INK	**Inuvik**	**40.24**	**33**	P	**P**	**02 41 20.6**	**+0.2**
	comp=Z,5.4nm,0.6s,mb4.5,baz=292,slow=6.7,SNR=48						
CD2	**Chengdu**	**41.96**	**265**	P	**P**	**02 41 35.2**	**+0.3**
CD2				AP	pP	02 41 39.8	+0.9
CD2				XP	sP	02 41 42.5	+2.1
CD2				PP	PP	02 43 15.3	+3.4
CD2				S	**S**	**02 47 51.2**	**-1.9**
CD2				SS	SS	02 50 52.7	-7.1
CD2				AMB	AMB		
	comp=Z,70nm,0.9s,mb5.3						
CD2				AMB	AMB		
	comp=Z,140nm,7.2s						
CD2				LR	LR		
	comp=N,380nm,15.6s,MS4.8						
CD2				LR	LR		
	comp=E,980nm,15.6s,MS4.8						
CD2				LR	LR		
	comp=Z,320nm,18.0s,MS4.2						
ZALV	**Zalesovo Beam**	**42.82**	**305**	P	**P**	**02 41 40.9**	**-0.8**
	comp=Z,4.3nm,0.8s,mb4.2,baz=65,slow=7.4,SNR=18						
ZALV				PcP	PcP	02 43 32.4	-0.2
	comp=Z,3.4nm,0.9s,baz=90,slow=3.0,SNR=7.1						
ZALV				LR	LR	03 00 41.1	
	comp=Z,129nm,19.0s,MS3.8,baz=161,slow=38						
ZAL	**Zalesovo**	**42.84**	**305**	P	**P**	**02 41 40.9**	**-0.9**
ZAL						02 43 32.4	
GYA	**Guiyang**	**42.91**	**258**	⇑*i*P	**P**	**02 41 43.4**	**+0.7**
GYA				AP	pP	02 41 47.6	+1.0
GYA				XP	sP	02 41 50.0	+1.8
GYA				PP	PP	02 43 25.8	+3.6
GYA				PCP	PcP	02 43 35.4	+2.0
GYA				SCP	ScP	02 47 25.3	+1.3
GYA				S	**S**	**02 48 04.1**	**-3.1**
GYA				SS	SS	02 51 12.0	-6.6
GYA				SCS	ScS	02 51 42.7	-0.7
GYA				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.8						
GYA				AMB	AMB		
	comp=Z,80nm,5.1s						
GYA				LR	LR		
	comp=N,320nm,13.2s,MS4.5						
GYA				LR	LR		
	comp=E,290nm,12.6s,MS4.5						
GYA				LR	LR		
	comp=Z,270nm,10.2s,MS4.4						
NVS	**Novosibirsk**	**43.36**	**307**	*e*P	**P**	**02 41 44.4**	**-1.6**
NVS				pmax	pmax		
	comp=Z,88nm,3.6s						
NVS				pmax	pmax		
	comp=E,57nm,3.3s						
WMQ	**Urumqi**	**45.48**	**291**	*e*P	**P**	**02 42 03.6**	**+0.4**
WMQ				AP	pP	02 42 08.6	+1.5
WMQ				XP	sP	02 42 10.6	+2.0
WMQ				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.5						
WMQ				LR	LR		
	comp=N,146nm,16.4s,MS4.2						
WMQ				LR	LR		
	comp=E,202nm,17.4s,MS4.2						
WMQ				LR	LR		
	comp=Z,237nm,16.4s,MS4.2						
KMI	**Kunming**	**46.41**	**260**	P	**P**	**02 42 11.8**	**+1.1**
KMI				AP	pP	02 42 17.2	+2.6
KMI				XP	sP	02 42 20.4	+4.3
KMI				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.8						
MK31	**Makanchi Array**	**47.35**	**297**	*e*P	**P**	**02 42 17.3**	**-0.5**
MKAR	**Makanchi Array**	**47.35**	**297**	P	**P**	**02 42 17.4**	**-0.4**
MKAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MKAR				MLR	MLR		
	comp=Z,168nm,18.0s						
MKAR	**Makanchi Array**	**47.35**	**297**	P	**P**	**02 42 17.4**	**-0.4**
	comp=Z,5.5nm,0.8s,mb4.5,baz=65,slow=7.5,SNR=48						
MKAR				LR	LR	03 03 46.6	
	comp=Z,168nm,18.0s,MS4.0,baz=357,slow=38						
KURK	**Kurchatov**	**47.62**	**303**	*e*P	**P**	**02 42 18.9**	**-1.0**
	comp=Z,16nm,0.8s,mb5.1						
YKA	**Yellowknife Ar**	**49.50**	**38**	⇑*e*P	**P**	**02 42 33.4**	**-0.7**
YKA	**Yellowknife Ar**	**49.50**	**38**	P	**P**	**02 42 33.4**	**-0.7**
	comp=Z,0.8nm,0.6s,mb3.9,baz=296,slow=7.4,SNR=9.9						
RES	**Resolute Bay**	**49.54**	**19**	*e*P	**P**	**02 42 34.9**	**+0.6**
LSA	**Lhasa**	**51.21**	**273**	P	**P**	**02 42 50.0**	**+2.5**
LSA	**Lhasa**	**51.21**	**273**	*e*P	**P**	**02 42 49.6**	**+2.1**
	comp=Z,15nm,0.7s,mb5.0						
LSA	**Lhasa**	**51.21**	**273**	*e*P	**P**	**02 42 49.6**	**+2.1**
LSA				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.0						
CHTO	**Chiang Mai**	**53.32**	**257**	*e*P	**P**	**02 43 04.1**	**+0.8**
	comp=Z,19nm,1.1s,mb4.9						
CHTO	**Chiang Mai**	**53.32**	**257**	*e*P	**P**	**02 43 04.1**	**+0.8**
CHTO				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.9						
AAK	**Ala-Archa**	**54.27**	**296**	*e*P	**P**	**02 43 09.2**	**-0.7**
	comp=Z,3.8nm,0.8s,mb4.4						
AAK	**Ala-Archa**	**54.27**	**296**	⇑*e*P	**P**	**02 43 09.1**	**-0.9**
AAK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
ARU	**Arti**	**54.92**	**318**	*e*P	**P**	**02 43 14.0**	**-0.5**
	comp=Z,20nm,0.8s,mb5.2						
ARU	**Arti**	**54.92**	**318**	⇑*i*P	**P**	**02 43 13.6**	**-0.9**
ARU				*e*		02 43 28.9	
ARU				*e*		02 44 14.4	
ARU				*e*		02 45 16.5	
ARU				*e*S	**S**	**02 50 52.8**	**-2.6**
ARU				*e*SS	SS	02 54 31.8	-6.4
ARU				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
TAPN	**Taplejung**	**55.03**	**274**	*e*P	**P**	**02 43 16.9**	**+1.2**
	comp=Z,38nm,0.9s,mb5.4						
ODAN	**Odare**	**55.57**	**273**	*e*P	**P**	**02 43 20.5**	**+0.9**
	comp=Z,18nm,0.7s,mb5.2						
JIRN	**Jiri**	**55.85**	**275**	*e*P	**P**	**02 43 22.9**	**+1.3**
	comp=Z,69nm,0.8s,mb5.7						
GUN	**Gumba**	**55.90**	**275**	*e*P	**P**	**02 43 23.0**	**+1.1**
	comp=Z,20nm,0.5s,mb5.4						
KKN	**Kakani**	**56.38**	**276**	*e*P	**P**	**02 43 26.3**	**+0.9**
	comp=Z,43nm,0.7s,mb5.6						
PKI	**Pulchoki**	**56.44**	**275**	*e*P	**P**	**02 43 26.7**	**+0.9**
	comp=Z,34nm,0.8s,mb5.4						
DMN	**Daman**	**56.61**	**276**	*e*P	**P**	**02 43 28.4**	**+1.3**
	comp=Z,104nm,0.9s,mb5.9						
GKN	**Gorkha**	**56.67**	**276**	*e*P	**P**	**02 43 28.4**	**+0.9**
	comp=Z,98nm,1.0s,mb5.8						
PRGR	**Permogore**	**57.03**	**327**	*i* P	**P**	**02 43 28.4**	**-1.1**
ARCES	**ARCESS Array B**	**57.20**	**341**	P	**P**	**02 43 28.7**	**-1.9**
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES				MLR	MLR		
	comp=Z,243nm,18.6s						
ARCES	**ARCESS Array B**	**57.20**	**341**	P	**P**	**02 43 28.7**	**-1.9**
	comp=Z,4.3nm,0.8s,mb4.5,baz=55,slow=5.0,SNR=10.0						
ARCES				LR	LR	03 13 14.7	
	comp=Z,243nm,18.6s,MS4.3,baz=10,slow=41						
KOLN	**Koldanda**	**57.52**	**277**	*e*P	**P**	**02 43 34.6**	**+1.1**
	comp=Z,60nm,0.9s,mb5.6						
BMO	**Blue Mountains**	**57.68**	**57**	*e*P	**P**	**02 43 34.6**	**+0.2**
	comp=Z,7.7nm,1.6s,mb4.5						
CHMT	**Chamberlain Mo**	**58.67**	**53**	*e*P	**P**	**02 43 40.1**	**-1.1**
BOZ	**Bozeman (W)**	**60.34**	**54**	*e*P	**P**	**02 43 52.3**	**-0.5**
	comp=Z,2.8nm,0.7s,mb4.4						
BOZ	**Bozeman (W)**	**60.34**	**54**	*e*P	**P**	**02 43 52.3**	**-0.5**
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
JOF	**Joensuu**	**60.85**	**334**	*e*p	**P**	**02 43 54.2**	**-1.8**
	comp=Z,12nm,0.9s,mb5.0						
JOF	**Joensuu**	**60.85**	**334**	*e*P	**P**	**02 43 54.2**	**-1.8**
JOF				pmax	pmax		

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      comp=Z,12nm,0.9s,mb5.0
QLMT  Earthquake Lak     60.97  54 eP      P       02 43 57.4 +0.3
NVAR  Mina Array Bea     61.08  64 P       P       02 43 58.0 +0.1
      comp=Z,0.5nm,0.7s,mb3.8,baz=287,slow=4.3,SNR=3.5
MOOW  Moose Ponds        62.04  55 eP      P       02 44 04.5 +0.2
      comp=Z,1.4nm,0.6s,mb4.3
TPAW  Teton Pass         62.09  55 eP      P       02 44 05.8 +1.1
LOHW  Long Hollow        62.20  55 eP      P       02 44 05.7 +0.3
      comp=Z,5.9nm,1.5s,mb4.5
REDW  Red Top Meadow     62.23  55 eP      P       02 44 07.3 +1.7
      comp=Z,7.4nm,1.0s,mb4.8
REDW                               epP     pP      02 44 18.5 +8.8
LAO   LASA Array         62.53  50 eP      P       02 44 07.3 -0.3
      comp=Z,8.6nm,0.8s,mb4.9
KBL   Kabul              62.61 292 eP      P       02 44 07.8 -0.5
KAF   Kangasniemi        62.92 336 ep      P       02 44 08.8 -1.1
      comp=Z,1.7nm,0.5s,mb4.4,baz=35,slow=6.2
KAF   Kangasniemi        62.92 336 eP      P       02 44 08.8 -1.1
KAF                                pmax    pmax
      comp=Z,2.0nm,0.5s,mb4.5
HWUT  Hardware Ranch     62.98  57 eP      P       02 44 10.2 -0.5
      comp=Z,1.8nm,0.7s,mb4.3
DUG   Dugway             63.19  59 eP      P       02 44 11.3 -0.8
      comp=Z,2.2nm,0.7s,mb4.4
DUG   Dugway             63.19  59 eP      P       02 44 11.3 -0.8
DUG                                pmax    pmax
      comp=Z,2.0nm,0.7s,mb4.4
BW06  Boulder Array      63.34  55 eP      P       02 44 12.4 -0.6
      comp=Z,5.7nm,1.0s,mb4.7
PDAR  Pinedale Array     63.34  55 P       P       02 44 12.5 -0.5
      comp=Z,1.4nm,0.8s,mb4.2,baz=281,slow=2.4,SNR=9.3
FIA1  FINESS Array S     63.52 335 eP      P       02 44 13.6 -0.4
FINES FINESS Array B     63.53 335 P       P       02 44 13.7 -0.2
      comp=Z,5.4nm,0.5s,mb4.8,baz=39,slow=7.3,SNR=42
FINES                              LR      LR      03 18 01.0
      comp=Z,118nm,19.1s,MS4.1,baz=145,slow=42
OBN   Obninsk            65.02 326⇓eP      P       02 44 22.6 -1.2
OBN                                e               02 45 04.3
OBN                                pmax    pmax
      comp=Z,21nm,1.8s,mb4.9
OBN                                MLR     MLR
      comp=Z,200nm,17.0s,MS4.4
PV10  Paradox Valley     66.58  58 eP      P       02 44 34.3 +0.2
VRSR  Storozhevoye       66.91 322 eP      P       02 44 35.8 -0.3
VRSR                               pmax    pmax
      comp=Z,3.0nm,0.8s,mb4.4
VRSR                               pmax    pmax
      comp=N,4.0nm,2.1s
VRSR                               pmax    pmax
      comp=E,1.0nm,0.8s
SMCO  Snowmass           67.20  57 eP      P       02 44 37.8 -0.3
      comp=E,3.9nm,0.7s,mb4.5
ISCO  Idaho Springs      67.53  55 eP      P       02 44 40.4 +0.2
      comp=E,4.6nm,0.9s,mb4.5
ISCO  Idaho Springs      67.53  55 eP      P       02 44 40.4 +0.2
ISCO                               pmax    pmax
      comp=Z,5.0nm,0.9s,mb4.5
NB2   NORSAR Subarra     67.57 342 P       P       02 44 39.8 -0.3
      comp=Z,18nm,0.8s,mb5.2,baz=26,slow=6.5
NOA   NORSAR Array B     67.57 342 P       P       02 44 40.1  0.0
NOA                                pmax    pmax
      comp=Z,14nm,0.8s
NOA                                MLR     MLR
      comp=Z,90nm,19.2s
NOA   NORSAR Array B     67.57 342 P       P       02 44 40.1 +0.1
      comp=Z,14nm,0.8s,mb5.0,baz=26,slow=6.4,SNR=34
NOA                                LR      LR      03 18 47.2
      comp=Z,90nm,19.2s,MS4.0,baz=0.0,slow=40
MVCO  Mesa Verde         67.69  59 eP      P       02 44 42.0 +0.7
      comp=Z,4.2nm,0.9s,mb4.5
NAO01 NORSAR Array S     67.81 342 eP      P       02 44 41.4 -0.2
      comp=Z,13nm,0.9s,mb5.0
GOF   Gofitskoye         69.80 315⇓iP      P       02 44 52.5 -1.7
GOF                                pmax    pmax
      comp=Z,24nm,0.6s,mb5.3
WB2   Warramunga Arr     69.82 200 eP      P       02 44 52.8 -1.7
WRA   Warramunga Arr     69.82 200 i P     P       02 44 52.7 -1.8
WRA                                pmax    pmax
      comp=Z,4.0nm,0.8s
WRA   Warramunga Arr     69.82 200 P       P       02 44 52.7 -1.8
      comp=Z,4.4nm,0.8s,mb4.4,baz=19,slow=6.8,SNR=16
DZM   Mont Dzumac        70.34 168 LR      LR      03 14 30.9
      comp=Z,122nm,18.8s,MS4.2,baz=221,slow=35
ANMO  Albuquerque        70.44  59 eP      P       02 44 59.1 +0.7
      comp=Z,2.2nm,0.8s,mb4.1
ANMO  Albuquerque        70.44  59 eP      P       02 44 59.1 +0.7
ANMO                               pmax    pmax
      comp=Z,2.0nm,0.8s
SUW   Suwalki            70.56 332 eP      P       02 44 58.4 -0.3
KIV   Kislovodsk         70.78 315 eP      P       02 45 00.7 +0.4
KIV                                pmax    pmax
      comp=Z,23nm,1.2s,mb5.0
KIV                                MLR     MLR
      comp=Z,171nm,17.0s,MS4.4
AKASG Malin Array Be     71.23 327 i P     P       02 45 02.2 -0.7
AKASG                              pmax    pmax
      comp=Z,8.0nm,0.6s
AKASG Malin Array Be     71.23 327 P       P       02 45 02.1 -0.8
      comp=Z,8.0nm,0.6s,mb4.8,baz=33,slow=6.1,SNR=46
AKBB  Malin Array Si     71.23 327 eP      P       02 45 01.9 -1.1
KIEV  Kiev               71.25 327 eP      P       02 45 02.1 -0.9
      comp=Z,12nm,0.9s,mb4.8
KIEV  Kiev               71.25 327 eP      P       02 45 02.1 -0.9
KIEV                               pmax    pmax
      comp=Z,12nm,0.9s,mb4.8
SCHQ  Schefferville      71.97  24 LR      LR      03 18 10.5
      comp=Z,129nm,19.8s,MS4.2,baz=260,slow=37
MNTX  Cornudas Mount     73.39  61 eP      P       02 45 15.8 -0.3
      comp=Z,5.7nm,1.3s,mb4.3
ASAR  Alice Springs      73.51 200 P       P       02 45 16.1 -0.5
ASAR                               pmax    pmax
      comp=Z,2.0nm,0.8s
ASAR  Alice Springs      73.51 200 P       P       02 45 16.1 -0.6
      comp=Z,2.3nm,0.8s,mb4.1,baz=11,slow=5.5,SNR=18
KWP   Kalwaria           74.44 330 eP      P       02 45 22.8 +0.8
OJC   Ojcow              74.89 332 eP      P       02 45 24.8 +0.3
STHS  Stebnicka Huta     75.11 331 eP      P       02 45 27.0 +1.1
      comp=Z,13nm,0.8s,mb4.9
STHS  Stebnicka Huta     75.11 331 eP      P       02 45 27.0 +1.1
STHS                               pmax    pmax
      comp=Z,13nm,0.8s,mb4.9
KOLS  Kolonicke sedl     75.18 330 eP      P       02 45 26.5 +0.2
BURAR Bucovina Array     75.27 327 ⇓P      P       02 45 26.8  0.0
BURAR Bucovina Array     75.27 327⇓iP      P       02 45 26.8  0.0
UZH   Uzhgorod           75.44 330 eP      P       02 45 24.0 -3.7
OKC   Ostrava-Krasne     75.74 333 eP      P       02 45 29.7 +0.2
OKC                                ePCP    PcP     02 45 43.2 +1.1
UPC   Upice              75.80 334 eP      P       02 45 30.2 +0.5
DPC   Dobruska-Polom     75.84 334 eP      P       02 45 30.7 +0.7
DPC                                ePCP    PcP     02 45 44.2 +1.6
CLL   Collm              75.93 336 i P     P       02 45 30.4 -0.1
CLL                                i               02 45 43.0
CLL                                pmax    pmax
      comp=Z,18nm,1.0s,mb5.0
CLL   Collm              75.93 336 eP      P       02 45 30.4 -0.1
      comp=Z,18nm,1.0s,mb5.0
CLL   Collm              75.93 336 i P     P       02 45 30.4 -0.1
      comp=Z,18nm,1.0s,mb5.0
CLL                                i pP    pP      02 45 34.2 -0.4
CLL                                i PcP   PcP     02 45 43.0 +0.1
MORC  Moravsky Berou     75.98 333 ⇑P      P       02 45 30.8  0.0
MORC  Moravsky Berou     75.98 333⇑iP      P       02 45 30.8  0.0
BRG   Berggiesshubel     76.06 336 eP      P       02 45 32.1 +0.8
BRG   Berggiesshubel     76.06 336 eP      P       02 45 32.2 +1.0
      comp=Z,5.7nm,0.7s,mb4.6
BRG                                e               02 45 44.8
      comp=Z,7.3nm,1.1s
BRG                                e               02 45 53.6
      comp=Z,38nm,1.9s
LTX   Lajitas            76.12  62 eP      P       02 45 31.1 -0.8
      comp=Z,13nm,1.4s,mb4.7
LTX                                epP     pP      02 45 42.9 +6.8
LTX   Lajitas            76.12  62 eP      P       02 45 31.2 -0.8
LTX                                e*PP    pP      02 45 42.9 +6.8
LTX                                pmax    pmax
      comp=Z,13nm,1.4s,mb4.7
TXAR  Lajitas Array      76.12  62 P       P       02 45 31.0 -1.0
TXAR  Lajitas Array      76.12  62 P       P       02 45 31.0 -1.0
TXAR                               pmax    pmax
      comp=Z,1.0nm,0.5s
TXAR  Lajitas Array      76.12  62 P       P       02 45 31.0 -1.0
      comp=Z,1.3nm,0.5s,mb4.1,baz=300,slow=4.6,SNR=25
VRI   Vrincioaia         76.17 325⇓iP      P       02 45 32.7 +0.7
KECS  Kecovo             76.17 331 eP      P       02 45 32.1 +0.2
      comp=Z,3.8nm,0.8s,mb4.4
KECS                               e               02 45 41.3
KECS  Kecovo             76.17 331 eP      P       02 45 32.1 +0.2
KECS                               e               02 45 41.3
KECS                               pmax    pmax
      comp=Z,4.0nm,0.8s,mb4.4
TIRR  Tirgusor           76.68 324 ⇓P      P       02 45 35.1 +0.2
TIRR  Tirgusor           76.68 324⇓iP      P       02 45 35.1 +0.2
PRU   Pruhonice          76.69 335 eP      P       02 45 35.0 +0.2
PRU                                ePCP    PcP     02 45 47.8 +1.6
VRAC  Vranov             76.69 333 ⇑P      P       02 45 35.5 +0.7
VRAC  Vranov             76.69 333⇑iP      P       02 45 35.5 +0.7
VYHS  Vyhne              76.70 332 eP      P       02 45 35.4 +0.5
      comp=Z,6.0nm,1.5s,mb4.3
VYHS                               e               02 45 48.1
VYHS  Vyhne              76.70 332 eP      P       02 45 35.4 +0.5
VYHS                               e               02 45 48.1
VYHS                               pmax    pmax
      comp=Z,6.0nm,1.5s,mb4.3
MLR   Muntele Rosu       76.78 326 ⇓P      P       02 45 36.3 +0.9
MLR   Muntele Rosu       76.78 326⇓iP      P       02 45 36.3 +0.8
PSZ   Piszkesteto        76.86 331 ⇑P      P       02 45 36.2 +0.4
PSZ   Piszkesteto        76.86 331⇑iP      P       02 45 36.2 +0.4
DRGR                     76.87 328 ⇓P      P       02 45 36.1 +0.2
DRGR                     76.87 328⇓iP      P       02 45 36.1 +0.2
MOX   Moxa               76.90 337 eP      P       02 45 37.0 +1.0
      comp=Z,8.0nm,1.1s,mb4.6
UBBA  Unterbreizbach     77.16 338 eP      P       02 45 38.2 +0.7
VOIR                     77.17 326 ⇑P      P       02 45 38.4 +0.8
VOIR                     77.17 326⇑iP      P       02 45 38.4 +0.8
MALT  Malatya            77.17 314 ⇑P      P       02 45 39.3 +1.6
MALT  Malatya            77.17 314⇑iP      P       02 45 39.3 +1.5
MODS  Modra-Piesok       77.30 332 eP      P       02 45 39.0 +0.7
MODS                               ePCP    PcP     02 45 51.7 +2.8
ROTZ  Rotzenmuhle        77.54 336 eP      P       02 45 39.9 +0.3
      comp=Z,5.0nm,1.1s,mb4.4
KHC   Kasperske Hory     77.73 335 eP      P       02 45 41.1 +0.4
KHC                                ePCP    PcP     02 45 51.5 +0.7
GRA1  Grafenberg Arr     77.88 337 eP      P       02 45 41.3 -0.2
      comp=Z,11nm,0.9s,mb4.8
GRF   Grafenberg Arr     77.88 337 eP      P       02 45 41.3 -0.2
GRF                                pmax    pmax
      comp=Z,11nm,0.9s,mb4.8
GRF   Grafenberg Arr     77.88 337 eP      P       02 45 41.3 -0.2
GRF                                pmax    pmax
      comp=Z,11nm,0.9s,mb4.8
GRF   Grafenberg Arr     77.88 337 eP      P       02 45 41.3 -0.2
      comp=Z,11nm,0.9s,mb4.8
WET   Wettzell           77.92 335 eP      P       02 45 42.3 +0.6
WET                                pmax    pmax
      comp=Z,12nm,1.3s,mb4.7
WET   Wettzell           77.92 335 eP      P       02 45 42.3 +0.6
      comp=Z,12nm,1.3s,mb4.7
GEC2  GERESS Array S     77.95 335 eP      P       02 45 42.1 +0.1
GEC2                               pmax    pmax
      comp=Z,3.0nm,0.7s,mb4.3
GEC2  GERESS Array S     77.95 335 eP      P       02 45 42.1 +0.1
      comp=Z,3.0nm,0.7s,mb4.3
GERES GERESS Array B     77.95 335 P       P       02 45 40.8 -1.2
GERES                              pmax    pmax
      comp=Z,2.0nm,0.6s
GERES                              MLR     MLR
      comp=Z,142nm,21.2s
GERES GERESS Array B     77.95 335 P       P       02 45 40.8 -1.1
      comp=Z,2.4nm,0.6s,mb4.3,baz=32,slow=5.1,SNR=13
GERES                              LR      LR      03 23 00.4
      comp=Z,142nm,21.2s,MS4.3,baz=297,slow=38
GZR   Gura Zlata         78.04 328 ⇑P      P       02 45 42.3 -0.2
GZR   Gura Zlata         78.04 328⇑iP      P       02 45 42.3 -0.2
TNS   Taunus Mts         78.10 339 eP      P       02 45 43.2 +0.5
TNS                                pmax    pmax
      comp=Z,7.0nm,0.7s,mb4.7
TNS   Taunus Mts         78.10 339 eP      P       02 45 43.2 +0.5
      comp=Z,7.0nm,0.7s,mb4.7
BZS   Buzias             78.27 328 ⇓P      P       02 45 43.7 -0.1
BZS   Buzias             78.27 328⇓iP      P       02 45 43.7  0.0
MEM   Membach            78.32 340 P       P       02 45 44.5 +0.5
      comp=Z,10nm,1.1s,mb4.7
ANTO  Ankara             78.58 318 eP      P       02 45 45.8 +0.2
      comp=Z,7.9nm,0.8s,mb4.7
ANTO  Ankara             78.58 318 eP      P       02 45 45.8 +0.2
ANTO                               pmax    pmax
      comp=Z,8.0nm,0.8s,mb4.7
ANTO  Ankara             78.58 318⇓iP      P       02 45 46.8 +1.2
BCLA  Clavier            78.66 341 P       P       02 45 45.8  0.0
MOA   Molln              78.69 334⇑iP      P       02 45 46.5 +0.5
      comp=Z,6.0nm,0.8s,mb4.5
MOA   Molln              78.69 334⇑ipP     P       02 45 46.5 +0.5
      comp=Z,6.0nm,0.8s,mb4.5
MIB   Mutribah           78.96 302 eP      P       02 45 48.0 +0.1
MIB                                AMb     AMB     02 45 49.7
      comp=Z,70nm,0.8s,mb5.7
MIB   Mutribah           78.96 302 eP      P       02 45 48.0 +0.2
MIB                                AMb     AMB     02 45 49.7
      comp=Z,69nm,0.8s,mb5.7
GIVF  Givet              79.06 341 eP      P       02 45 47.9 -0.1
KBD   Kabd               79.23 302 eP      P       02 45 49.8 +0.5
KBD                                AMb     AMB     02 45 52.4
      comp=Z,100nm,0.9s,mb5.7
KBD   Kabd               79.23 302 eP      P       02 45 49.7 +0.4
KBD                                AMb     AMB     02 45 52.9
      comp=Z,102nm,0.9s,mb5.7
BAIF  Baives             79.24 341⇑iP      P       02 45 48.9 -0.1
      comp=Z,6.3nm,0.9s,mb4.5
BAIF  Baives             79.24 341⇑iP      P       02 45 48.9 -0.1
BAIF                               pmax    pmax
      comp=Z,6.0nm,0.9s,mb4.5
BAIF  Baives             79.24 341⇑iP      P       02 45 48.9 -0.1
      comp=Z,13nm,0.9s,mb4.5
NAY   Al-Naaiem          79.44 302 eP      P       02 45 50.4  0.0
NAY                                AMb     AMB     02 45 52.4
      comp=Z,29nm,1.0s,mb5.2
NAY   Al-Naaiem          79.44 302 eP      P       02 45 50.7 +0.3
NAY                                AMb     AMB     02 45 53.0
      comp=Z,24nm,1.3s,mb5.0
RDF   Al-Radifah         79.50 302 eP      P       02 45 50.7 -0.1
RDF                                AMb     AMB     02 45 53.1
      comp=Z,95nm,1.1s,mb5.6
RDF   Al-Radifah         79.50 302 eP      P       02 45 50.9 +0.1
RDF                                AMb     AMB     02 45 53.1
      comp=Z,91nm,1.2s,mb5.6
PERS  Pernice            79.52 333 eP      P       02 45 51.1 +0.5
KBA   Koelnbreinsper     79.65 334⇑iP      P       02 45 50.5 -0.8
      comp=Z,16nm,1.1s,mb4.9
KBA   Koelnbreinsper     79.65 334⇑iP      P       02 45 50.5 -0.8
KBA                                pmax    pmax
      comp=Z,16nm,1.1s,mb4.9
BFO   Black Forest       79.88 338 eP      P       02 45 53.2 +0.7
BFO                                pmax    pmax
      comp=Z,11nm,1.3s,mb4.6
BFO   Black Forest       79.88 338 eP      P       02 45 53.2 +0.7
      comp=Z,11nm,1.3s,mb4.6
GOLS  Golise             79.92 332 i P     P       02 45 53.0 +0.2
WATA  Walderalm          79.93 335⇓iP      P       02 45 53.4 +0.6
      comp=Z,6.9nm,1.1s,mb4.5
WATA  Walderalm          79.93 335⇓ipP     P       02 45 53.4 +0.6
      comp=Z,6.9nm,1.1s,mb4.5
WATA  Walderalm          79.93 335⇓iP      P       02 45 53.4 +0.6
WATA                               pmax    pmax
      comp=Z,7.0nm,1.1s,mb4.5
WTTA  Wattenberg         79.98 335⇑iP      P       02 45 53.9 +0.8
      comp=Z,13nm,0.9s,mb4.9
WTTA  Wattenberg         79.98 335⇑ipP     P       02 45 53.9 +0.8
      comp=Z,13nm,0.9s,mb4.9
WTTA  Wattenberg         79.98 335⇑iP      P       02 45 53.9 +0.8
WTTA                               pmax    pmax
      comp=Z,13nm,0.9s,mb4.9
MOTA  Moosalm            80.05 336⇑iP      P       02 45 54.1 +0.6
      comp=Z,7.8nm,1.0s,mb4.6
MOTA  Moosalm            80.05 336⇑ipP     P       02 45 54.1 +0.6
      comp=Z,7.8nm,1.0s,mb4.6
MOTA  Moosalm            80.05 336⇑iP      P       02 45 54.1 +0.6
MOTA                               pmax    pmax
      comp=Z,8.0nm,1.0s,mb4.6
CDF   Champ du Feu       80.07 339 eP      P       02 45 53.5  0.0
      comp=Z,7.7nm,0.9s,mb4.6
CDF   Champ du Feu       80.07 339 eP      P       02 45 53.5  0.0
CDF                                pmax    pmax
      comp=Z,8.0nm,0.9s,mb4.7
CDF   Champ du Feu       80.07 339 eP      P       02 45 53.5  0.0
      comp=Z,15nm,0.9s,mb4.6
SQTA  Sankt Quirin       80.14 336⇑iP      P       02 45 55.1 +1.2
      comp=Z,9.5nm,1.1s,mb4.6
SQTA  Sankt Quirin       80.14 336⇑ipP     P       02 45 55.1 +1.2
      comp=Z,9.5nm,1.1s,mb4.6
SQTA  Sankt Quirin       80.14 336⇑iP      P       02 45 55.1 +1.2
SQTA                               pmax    pmax
      comp=Z,10.0nm,1.1s,mb4.7
VTS   Vitosha            80.29 326 ⇓P      P       02 45 55.5 +0.6
VTS   Vitosha            80.29 326⇓iP      P       02 45 55.5 +0.7
FETA  Feichten           80.45 336⇑ipP     P       02 45 56.5 +0.9
      comp=Z,4.6nm,0.8s,mb4.4
BOJS  Bojanci            80.49 332 i P     P       02 45 55.5 -0.3
MEZF  Maizieres J'vi     80.52 340⇑iP      P       02 45 56.1 +0.2
      comp=Z,13nm,0.8s,mb4.9
MEZF  Maizieres J'vi     80.52 340⇑iP      P       02 45 56.1 +0.2
      comp=Z,13nm,0.8s,mb4.6
HAU   Haudompre          80.67 339 eP      P       02 45 56.6 -0.2
      comp=Z,3.7nm,0.8s,mb4.4
HAU   Haudompre          80.67 339 eP      P       02 45 56.6 -0.2
HAU                                pmax    pmax
      comp=Z,4.0nm,0.8s,mb4.4
HAU   Haudompre          80.67 339 eP      P       02 45 56.6 -0.2
      comp=Z,7.4nm,0.8s,mb4.4
HINF  Hinteralfeld       80.73 339 eP      P       02 45 56.6 -0.5
      comp=Z,6.4nm,1.1s,mb4.5
HINF  Hinteralfeld       80.73 339 eP      P       02 45 56.6 -0.5
HINF                               pmax    pmax
      comp=Z,6.0nm,1.1s,mb4.4
HINF  Hinteralfeld       80.73 339 eP      P       02 45 56.6 -0.5
      comp=Z,13nm,1.1s,mb4.5
LDF   La Druitiere       81.53 343 eP      P       02 46 00.7 -0.6
      comp=Z,4.6nm,0.9s,mb4.4
LDF   La Druitiere       81.53 343 eP      P       02 46 00.7 -0.6
LDF                                pmax    pmax
      comp=Z,5.0nm,0.9s,mb4.4
LDF   La Druitiere       81.53 343 eP      P       02 46 00.7 -0.6
      comp=Z,9.2nm,0.9s,mb4.4
LOR   Lormes             81.95 340⇑iP      P       02 46 03.3 -0.3
      comp=Z,8.1nm,1.0s,mb4.6
LOR   Lormes             81.95 340⇑iP      P       02 46 03.3 -0.3
LOR                                pmax    pmax
      comp=Z,8.0nm,1.0s,mb4.6
LOR   Lormes             81.95 340⇑iP      P       02 46 03.3 -0.3
      comp=Z,16nm,1.0s,mb4.6
SSF   Saint Saulge       82.22 340 eP      P       02 46 04.6 -0.4
      comp=Z,5.8nm,1.0s,mb4.5
SSF   Saint Saulge       82.22 340 eP      P       02 46 04.6 -0.4
SSF                                pmax    pmax
      comp=Z,6.0nm,1.0s,mb4.5
SSF   Saint Saulge       82.22 340 eP      P       02 46 04.6 -0.4
      comp=Z,12nm,1.0s,mb4.5
SGMF  Saint Gilles       82.30 345⇑iP      P       02 46 04.6 -0.8
      comp=Z,15nm,1.1s,mb4.8
SGMF  Saint Gilles       82.30 345⇑iP      P       02 46 04.6 -0.8
SGMF                               pmax    pmax
      comp=Z,15nm,1.1s,mb4.8
SGMF  Saint Gilles       82.30 345⇑iP      P       02 46 04.6 -0.8
      comp=Z,30nm,1.1s,mb4.8
AVF   Avril sur Loir     82.52 341⇑iP      P       02 46 06.4 -0.2
      comp=Z,7.9nm,1.0s,mb4.7
AVF   Avril sur Loir     82.52 341⇑iP      P       02 46 06.4 -0.2
AVF                                pmax    pmax
      comp=Z,8.0nm,1.0s,mb4.7
AVF   Avril sur Loir     82.52 341⇑iP      P       02 46 06.4 -0.2
      comp=Z,16nm,1.0s,mb4.7
SMF   Signal de Mont     82.54 340⇑iP      P       02 46 06.7  0.0
      comp=Z,16nm,1.1s,mb5.0
SMF   Signal de Mont     82.54 340⇑iP      P       02 46 06.7  0.0
SMF                                pmax    pmax
      comp=Z,17nm,1.1s,mb5.0
SMF   Signal de Mont     82.54 340⇑iP      P       02 46 06.7  0.0
      comp=Z,33nm,1.1s,mb5.0
BGF   Bois d'Agland      82.85 341 eP      P       02 46 08.0 -0.3
      comp=Z,2.9nm,0.7s,mb4.4
BGF   Bois d'Agland      82.85 341 eP      P       02 46 08.0 -0.3
BGF                                pmax    pmax
      comp=Z,3.0nm,0.7s,mb4.4
BGF   Bois d'Agland      82.85 341 eP      P       02 46 08.0 -0.3
      comp=Z,5.8nm,0.7s,mb4.4
LPL   La Plagne          82.90 338 eP      P       02 46 09.5 +0.9
      comp=Z,11nm,1.0s,mb4.8
LPL   La Plagne          82.90 338 eP      P       02 46 09.5 +0.9
LPL                                pmax    pmax
      comp=Z,11nm,1.0s,mb4.8
LPL   La Plagne          82.90 338 eP      P       02 46 09.5 +0.9
      comp=Z,21nm,1.0s,mb4.8
LPG   La Plagne          82.91 338 eP      P       02 46 09.6 +0.9
      comp=Z,8.8nm,1.0s,mb4.7
LPG   La Plagne          82.91 338 eP      P       02 46 09.6 +0.9
LPG                                pmax    pmax
      comp=Z,9.0nm,1.0s,mb4.8
LPG   La Plagne          82.91 338 eP      P       02 46 09.6 +0.9
      comp=Z,18nm,1.0s,mb4.8
TCF   Toulx Ste Croi     83.24 341 eP      P       02 46 10.5 +0.1
      comp=Z,8.0nm,0.9s,mb4.8
TCF   Toulx Ste Croi     83.24 341 eP      P       02 46 10.5 +0.1
TCF                                pmax    pmax
      comp=Z,8.0nm,0.9s,mb4.8
TCF   Toulx Ste Croi     83.24 341 eP      P       02 46 10.5 +0.1
      comp=Z,16nm,0.9s,mb4.7
MFF   Saint Martin d     83.44 343 eP      P       02 46 11.3  0.0
      comp=Z,6.3nm,1.0s,mb4.6
MFF   Saint Martin d     83.44 343 eP      P       02 46 11.3  0.0
MFF                                pmax    pmax
      comp=Z,6.0nm,1.0s,mb4.6
MFF   Saint Martin d     83.44 343 eP      P       02 46 11.3  0.0
      comp=Z,12nm,1.0s,mb4.6
MBDF  Montbardon         83.63 338 eP      P       02 46 11.9 -0.5
      comp=Z,3.7nm,0.7s,mb4.6
MBDF  Montbardon         83.63 338 eP      P       02 46 11.9 -0.5
MBDF                               pmax    pmax
      comp=Z,4.0nm,0.7s,mb4.7
MBDF  Montbardon         83.63 338 eP      P       02 46 11.9 -0.5
      comp=Z,7.4nm,0.7s,mb4.6
ORIF  Oris-en-Rattie     83.67 338 eP      P       02 46 13.2 +0.6
      comp=Z,11nm,1.0s,mb4.9
ORIF  Oris-en-Rattie     83.67 338 eP      P       02 46 13.2 +0.6
ORIF                               pmax    pmax
      comp=Z,11nm,1.0s,mb4.9
ORIF  Oris-en-Rattie     83.67 338 eP      P       02 46 13.2 +0.6
      comp=Z,22nm,1.0s,mb4.9
AQU   L'Aquila           83.91 332 ⇑P      P       02 46 14.7 +0.9
AQU   L'Aquila           83.91 332⇑iP      P       02 46 14.7 +0.9
VIVF  Saint-Julien-l     84.03 339 eP      P       02 46 14.7 +0.3
SBF   Sospel             84.26 337 eP      P       02 46 15.2 -0.4
LFF   La Frestale        84.84 342 eP      P       02 46 18.1 -0.4
      comp=Z,22nm,1.2s,mb5.2
LFF   La Frestale        84.84 342 eP      P       02 46 18.1 -0.4
LFF                                pmax    pmax
      comp=Z,22nm,1.2s,mb5.2
LFF   La Frestale        84.84 342 eP      P       02 46 18.1 -0.4
      comp=Z,44nm,1.2s,mb5.2
PGF   Pioggiola          85.05 335 eP      P       02 46 19.2 -0.4
      comp=Z,10nm,1.1s,mb4.9
PGF   Pioggiola          85.05 335 eP      P       02 46 19.2 -0.4
PGF                                pmax    pmax
      comp=Z,10.0nm,1.1s,mb4.9
PGF   Pioggiola          85.05 335 eP      P       02 46 19.2 -0.4
      comp=Z,21nm,1.1s,mb4.9
EPF   Esparros           86.75 341 eP      P       02 46 29.8 +1.8
      comp=Z,2.0nm,0.6s,mb4.5
EPF   Esparros           86.75 341 eP      P       02 46 29.8 +1.8
EPF                                pmax    pmax
      comp=Z,2.0nm,0.6s,mb4.5
EPF   Esparros           86.75 341 eP      P       02 46 29.8 +1.8
      comp=Z,3.9nm,0.6s,mb4.5
ESDC  Sonseca Array      90.86 344 P       P       02 46 45.7 -1.8
      comp=Z,0.6nm,0.6s,mb4.1,baz=326,slow=4.1,SNR=4.8
KEST  Kesra              91.23 332 P       P       02 46 47.2 -2.1
      comp=Z,1.7nm,0.9s,mb4.4,baz=3.4,slow=2.6,SNR=5.6
VNA2  Neumayer--Watz    155.25 194 ePKPdf  PKPab   02 54 00.5 -0.6
      baz=161,slow=4.2
VNA2                               e               02 54 04.1
VNA2                               e               02 54 12.8
VNA2                               e               02 54 18.5
VNA2                               e               02 54 23.1
VNA2                               e               02 54 27.9
VNA2                               e               02 54 30.8
VNA3  Neumayer Olymp    155.31 192 ePKPdf  PKPab   02 54 00.6 -0.8
VNA3                               e               02 54 04.4
VNA3                               e               02 54 12.6
VNA3                               e               02 54 18.3
VNA3                               e               02 54 23.9
VNA3                               e               02 54 28.4
VNA3                               e               02 54 30.8
VNA1  Neumayer--Stat    155.63 194 ePKPdf  PKPab   02 54 02.5 -0.2
VNA1                               e               02 54 05.7
VNA1                               e               02 54 15.1
VNA1                               e               02 54 20.9
VNA1                               e               02 54 28.4
VNA1                               e               02 54 31.6
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*ISCJB **01** 02:45:27.8±1.8, 1.2S±0.2×101.7E±0.2, h188^{km}±16^{km}, mb3.7/10, Error ellipse: s-maj=39.0km s-min=15.9km az=140.2*
*NEIC **01** 02:45:27.4±2.1, 1.22S×101.68E, h171^{km}±18^{km}, mb3.9/3, Error ellipse: s-maj=30.2km s-min=10.8km az=52.0*
*IDC **01** 02:45:29.4±2.6, 1.34S×101.53E, h192^{km}±25^{km}, mb3.4/7, mb1 3.6/8, mb1mx3.4/20, mbtmp3.5/8, Error ellipse: s-maj=74.5km s-min=13.5km az=54.0*
ISC 01 02:45:28.7±1.8**, 12S**±02×**1018E**±02**, h180**^{km}±16^{km}**, n13, σ0^{s}61**/13**, mb3.7**/10**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	4.84	324	P	Pn	02 46 41.1	+0.6
	3.3nm,0.3s,baz=145,slow=9.3,SNR=24						
KULM	Kulim	6.50	350	*e*Pn	Pn	02 47 01.6	-0.6
WRA	Warramunga Arr	36.94	123	P	P	02 52 20.6	-0.1
	0.8nm,0.4s,mb3.8,baz=300,slow=9.1,SNR=5.4						
ASAR	Alice Springs	38.36	128	P	P	02 52 32.6	+0.1
	1.5nm,0.6s,mb3.8,baz=304,slow=8.0,SNR=20						
STKA	Stephens Creek	48.43	133	*e*P	P	02 53 52.3	-0.6
STKA	Stephens Creek	48.43	133	P	P	02 53 53.1	+0.2
	1.6nm,0.5s,mb3.9,baz=308,slow=12,SNR=5.6						
SONM	Songino Array	48.96	4	P	P	02 53 58.4	+1.7
	0.4nm,0.4s,mb3.5,baz=187,slow=9.4,SNR=7.2						
TKM2	Tokmak 2	49.79	335	*e*P	P	02 54 02.5	-0.5
	1.2nm,0.4s,mb3.9						
EKS2	Erkin-Say	50.37	333	*e*P	P	02 54 06.8	-0.7
	1.4nm,0.5s,mb3.9						
MKAR	Makanchi Array	50.72	343	P	P	02 54 09.5	-0.5
	0.2nm,0.3s,mb3.3,baz=157,slow=8.5,SNR=7.6						
KMBO	Kilima Mbogo	64.48	269	*e*P	P	02 55 46.9	+0.2
	1.4nm,0.8s,mb3.8						
FINES	FINESS Array B	84.19	332	P	P	02 57 39.6	+0.1
	0.7nm,0.5s,mb3.6,baz=134,slow=6.0,SNR=5.1						
ARCES	ARCESS Array B	86.28	340	P	P	02 57 49.7	0.0
	2.3nm,0.8s,mb3.9,baz=94,slow=6.8,SNR=3.5						

IDC 01 03:02:20.1±2.5**, 813N**×**12458E, h0**^{km}**, mb4.0**/3**, mb1 4.3**/3**, mb1mx3.7**/18**, mbtmp4.0**/3**, Error ellipse: s-maj=232.6km s-min=24.9km az=64.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	29.50	161	P	P	03 08 24.6	-1.6
	1.7nm,0.5s,baz=340,slow=11,SNR=7.1						
ASAR	Alice Springs	32.88	164	P	P	03 08 57.6	+1.6
	3.2nm,0.8s,baz=351,slow=15,SNR=13						
MKAR	Makanchi Array	52.75	324	P	P	03 11 36.9	0.0
	0.9nm,0.6s,baz=120,slow=7.9,SNR=12						

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*ISCJB **01** 03:02:56.7±0.6, 10.40N±0.03×62.92W±0.02, h12^{km}±4^{km}, Error ellipse: s-maj=4.6km s-min=3.4km az=157.7*
*TRN **01** 03:02:57.4, 10.51N×62.83W, h3^{km}, MD3.7*
*NEIC **01** 03:02:57.4, 10.51N×62.83W, h3^{km}, MD3.7(TRN), After TRN.*
*FUNV **01** 03:02:57.0, 10.41N×62.85W, h4^{km}, MW3.6*
ISC 01 03:02:56.7±0.5**, 1040N**±003×**6291W**±002**, h7**^{km}±4^{km}**, n22, σ1^{s}01**/38**, 4C-2D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUNV	Guanoco	0.24	189	⇑*i*P	Pg	03 03 02.4	+0.8
GUNV				*e*S	Sg	03 03 06.5	+1.7
CRUV	Carupano	0.42	310	⇑*i*P	Pg	03 03 04.7	-0.3
CRUV				*e*S	Sg	03 03 10.2	-0.4
GUIV	Guiria	0.71	70	*e*P	Pg	03 03 09.4	-1.1
GUIV				*e*S	Sg	03 03 20.3	+0.5
ITEV	Isla Los Testi	0.97	347	⇓*e*P	Pg	03 03 14.8	-0.6
ITEV				*e*S	Sg	03 03 28.9	+0.8
TCE	Chacachacare	1.17	75	⇑*i*P	Pg	03 03 17.7	-1.5
TCE				*e*S	Sg	03 03 33.1	-1.3
ORIV	Oritupano	1.41	201	*e*P	Pn	03 03 23.7	+0.8
ORIV				*e*S	Sb	03 03 43.0	+1.3
TPP	Pointe-a-Pierr	1.43	93	⇓*e*P	Pn	03 03 23.0	-0.1
TRN	Trinidad (W)	1.50	80	*e*P	Pn	03 03 23.4	-0.6
TRN				*e*S	Sn	03 03 44.7	+0.9
PCRV	Puerto La Cruz	1.72	263	*e*P	Pn	03 03 26.2	-0.8
PCRV				*e*S	Sn	03 03 50.0	+0.7
TBH	Brigand Hill	1.81	87	*e*P	Pn	03 03 29.3	+1.0
GRW	Mount Saint Ca	2.13	35	*e*P	Pn	03 03 32.1	-0.6
GRW				*e*S	Sn	03 04 01.6	+2.1
TPR	Prospect	2.23	69	*e*P	Pn	03 03 35.1	+1.0
TPR				*e*S	Sn	03 04 02.3	+0.3
PRGV	PARIAGUAN	2.37	227	*e*P	Pn	03 03 36.9	+0.9
PRGV				*e*S	Sn	03 04 05.3	0.0
RIOV	Rio Grande	2.56	155	*e*P	Pn	03 03 39.0	+0.4
RIOV				*e*S	Sn	03 04 08.2	-1.8
GURV	El Guri	2.63	184	*e*P	Pn	03 03 39.1	-0.5
CUPV	Cœpira	2.86	263	*e*P	Pn	03 03 43.2	+0.4
CUPV				*e*S	Sn	03 04 18.3	+0.9
BIRV	Birongo	3.31	272	*e*P	Pn	03 03 49.6	+0.7
MERV	Las Mercedes	3.53	251	*e*P	Pn	03 03 52.2	+0.1
MERV				*e*S	Sn	03 04 32.4	-1.7
CAOV	Caicara del Or	4.55	228	*e*P	Pn	03 04 06.0	0.0
CAOV				*e*S	Sn	03 04 57.0	-2.3
LUEV	Luepa	4.75	162	*e*P	Pn	03 04 07.7	-1.1
TURV	Turiamo	4.85	271	⇑*e*P	Pn	03 04 09.9	-0.3
BAUV	El Baul	5.27	254	*e*P	Pn	03 04 15.8	0.0
BAUV				*e*S	Sn	03 05 13.8	-3.1

MAN 01 03:30:21, 1112N×**12558E, h28**^{km}**, mb4.1, ML2.9, MS2.7, 1C, Samar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	0.59	274	*e*P	Pb	03 30 33.6	+0.7
PLP				*i* S	Sb	03 30 43.5	+2.5
SCPH	Surigao	1.34	184	*e*P	Pn	03 30 43.7	-0.1
RCP	Roxas	2.82	279	⇑*e*P	Pn	03 31 05.6	+1.4

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*IGQ **01** 03:55:23.4, 0.46N×80.16W, h20^{km}±3^{km}, Mb4.5, Ms4.3, Error ellipse: s-maj=5.3km s-min=2.5km az=47.8*
*ISCJB **01** 03:55:25.5±1.3, 0.33N±0.04×80.19W±0.04, h11^{km}±9^{km}, mb3.8/8, Error ellipse: s-maj=6.9km s-min=5.9km az=168.3*
*NEIC **01** 03:55:31.9±1.8, 0.40N×79.79W, h46^{km}±18^{km}, mb4.0/3, MD4.6(IGQ), Error ellipse: s-maj=22.9km s-min=14.3km az=56.0*
*IDC **01** 03:55:34.8±2.5, 0.25N×80.03W, h81^{km}±24^{km}, mb3.5/7, mb1 3.8/10, mb1mx3.6/20, mbtmp3.7/10, MS3.2/2, Ms1 3.2/2, ms1mx2.7/18, Error ellipse: s-maj=23.3km s-min=14.3km az=88.0*
ISC 01 03:55:26.1±1.1**, 034N**±004×**8017W**±004**, h10**^{km}±6^{km}**, n48, σ1^{s}08**/52**, mb3.8**/8**, 2C-17D, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAG1	Magdalena	0.56	136	⇓P	Pg	03 55 37.4	+0.3
JAMA	Jama	0.59	184	⇑P	Pg	03 55 37.4	-0.3
CHIS	Cerro-Chispas-	1.49	202	P	Pn	03 55 51.3	-1.7
CHIS	Cerro-Chispas-	1.49	202	S	Sn	03 56 12.1	-0.4
PINO	Pino	1.64	107	⇓P	Pn	03 55 53.6	-1.3
TERV	Terraza Guagua	1.64	108	⇓P	Pn	03 55 53.8	-1.3
GGP	Refugio Guagua	1.65	108	⇓P	Pn	03 55 53.7	-1.5
JUA2	San Juan 2	1.66	109	⇓P	Pn	03 55 54.1	-1.2
YANA	Yana	1.66	106	⇓P	Pn	03 55 53.9	-1.4
OTAV	Otavalo	1.72	93	*e*Pn	Pn	03 55 54.9	-1.3
OTAV				*e*Sn	Sn	03 56 18.0	-0.2
COTA	Cotacachi	1.83	90	⇓P	Pn	03 55 57.3	-0.3
CAMI	Rancho Maria	1.94	121	⇓P	Pn	03 55 59.1	-0.1
VC1	Cotopaxi 1	2.01	119	⇓P	Pn	03 56 00.3	+0.1
TAMB	Tambo	2.07	120	⇓P	Pn	03 56 01.2	+0.2
ANTI	Antisana	2.15	111	⇓P	Pn	03 56 02.3	+0.2
CAYA	Cayambe	2.19	97	⇓P	Pn	03 56 03.2	+0.5
IGUA	Igualata	2.37	140	P	Pn	03 56 05.2	+0.1
IGUA	Igualata	2.37	140	S	Sn	03 56 35.9	+1.6
BILB	Tungurahua vol	2.43	137	P	Pn	03 56 05.9	0.0
BILB	Tungurahua vol	2.43	137	S	Sn	03 56 35.6	0.0
JUIV	Juive	2.44	136	P	Pn	03 56 06.1	+0.1
JUIV	Juive	2.44	136	S	Sn	03 56 36.0	0.0
RUN5	Runtun	2.46	135	⇓P	Pn	03 56 07.2	+0.8
RUN5	Runtun	2.46	135	⇓S	Sn	03 56 36.8	+0.2
RETU	Refugio	2.47	136	P	Pn	03 56 07.2	+0.7
RETU	Refugio	2.47	136	S	Sn	03 56 37.7	+0.9
ULBA	Ulba	2.50	135	⇑P	Pn	03 56 07.4	+0.5
ARRY	Arrayan	2.51	137	⇓P	Pn	03 56 07.1	+0.1
PATA	Patacocha	2.52	137	P	Pn	03 56 07.6	+0.4
CONE	Cono NE Rev Vo	2.56	99	⇓P	Pn	03 56 09.9	+2.3
LAV3	Lava3-Reventad	2.57	100	⇓P	Pn	03 56 09.5	+1.6
ROSC	El Rosal	7.36	52	P	Pn	03 57 18.3	+4.6
ROSC				S	Sn	03 58 42.8	+5.4
ROSC				LR	LR	04 00 34.5	
ROSC	El Rosal	7.36	52	P	Pn	03 57 18.3	+4.6
	5.1nm,0.3s,baz=275,slow=19,SNR=14						
ROSC				S	Sn	03 58 42.8	+5.4
	0.8nm,0.3s,baz=282,slow=22,SNR=2.6						
ROSC				LR	LR	04 00 34.5	
	comp=Z,213nm,19.9s,baz=26,slow=41						
ATAH	Atahualpa	7.50	166	P	Pn	03 57 22.1	+6.5
	1.3nm,0.3s,baz=5.4,slow=11,SNR=8.1						
ATAH				S	Sn	03 58 49.4	+8.5
	1.0nm,0.3s,baz=340,slow=22,SNR=5.7						
JTS	JuntasAbangare	10.97	334	LR	LR	04 01 31.3	
	comp=Z,114nm,21.0s,baz=74,slow=32						
NNA	Nana	12.68	165	P	Pn	03 58 28.6	+1.9
	1.4nm,0.3s,baz=303,slow=7.4,SNR=4.0						
NNA				S	Sn	04 00 46.1	-2.0
	2.2nm,0.3s,baz=216,slow=18,SNR=6.5						
LPAZ	La Paz	20.34	145	*e*P	P	04 00 04.4	+1.5
	2.8nm,0.7s						
LPAZ	La Paz	20.34	145	P	P	04 00 04.1	+1.2
	2.8nm,0.7s,baz=330,slow=13,SNR=7.4						
SIV	San Ignacio	24.87	132	P	P	04 00 48.2	-1.0
	1.6nm,0.7s,mb3.7,baz=295,slow=8.7,SNR=6.5						
ANMO	Albuquerque	42.29	327	*e*P	P	04 03 24.0	+4.0
	4.8nm,1.0s,mb4.1						
SDCO	Great Sand Dun	43.94	331	*e*P	P	04 03 36.4	+3.0
	2.8nm,0.9s,mb4.0						
ULM	Lac du Bonnet	51.50	347	P	P	04 04 31.0	-0.8
ULM	Lac du Bonnet	51.50	347	P	P	04 04 31.0	-0.8
	0.6nm,0.4s,mb3.8,baz=180,slow=6.3,SNR=4.9						
NVAR	Mina Array Bea	51.59	322	P	P	04 04 36.1	+3.3
	0.4nm,0.7s,mb3.4,baz=148,slow=6.9						
YKA	Yellowknife Ar	67.16	343	P	P	04 06 20.0	0.0
	0.7nm,0.8s,mb3.7,baz=134,slow=6.2,SNR=14						
ESDC	Sonseca Array	79.18	50	P	P	04 07 32.0	+0.5
	1.4nm,0.8s,mb4.0,baz=261,slow=6.3,SNR=7.9						
TOA0	Torodi Ar. Sit	82.00	77	*e*P	P	04 07 45.3	-1.8
TORD	Torodi Ar. Bea	82.00	77	P	P	04 07 45.8	-1.4
	0.5nm,0.5s,mb3.7,baz=280,slow=6.3,SNR=25						

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*IDC **01** 04:17:39.6±1.3, 29.54N×68.02E, h0^{km}, mb3.6/7, mb1 3.8/7, mb1mx3.5/23, mbtmp3.6/7, Error ellipse: s-maj=31.9km s-min=29.2km az=154.0*
*MOS **01** 04:17:45.3±0.8, 29.86N×68.42E, h33^{km}, mb4.3/2, Error ellipse: s-maj=40.7km s-min=13.0km az=75.0*
*ISCJB **01** 04:17:46.4±2.2, 29.8N±0.1×68.0E±0.1, h65^{km}±18^{km}, mb3.5/7, Error ellipse: s-maj=18.1km s-min=16.2km az=176.7*
*NEIC **01** 04:17:46.5±4.0, 29.66N×68.12E, h48^{km}±31^{km}, mb3.9/1, Error ellipse: s-maj=31.4km s-min=23.2km az=175.0*
ISC 01 04:17:46.3±2.1**, 297N**±01×**679E**±01**, h47**^{km}±17^{km}**, n26, σ1^{s}37**/31**, mb3.7**/7**, 2D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DRP	Derazinda	2.84	43	P	Pn	04 18 39.6	+10
SBDP	Sheikh Budin	3.60	42	P	Pn	04 18 40.5	+0.9
SBDP				S	Sn	04 19 23.0	+2.2
THW	Thamme Wali	4.51	45	P	Pn	04 18 53.3	+1.3
THW				S	Sn	04 19 44.0	+0.8
KBL	Kabul	4.95	11	*e*Pn	Pn	04 18 58.8	+0.7
KBL				*e*Sn	Sn	04 19 54.9	+0.8
CEP	Cherat	5.35	38	P	Pn	04 19 03.5	-0.1
CEP				S	Sn	04 20 03.0	-0.9
KK31	Karatay Array	13.57	8	P	Pn	04 20 53.6	-2.4
	0.8nm,0.5s,baz=198,slow=14,SNR=9.4						
KK31				⇓S	Sn	04 23 18.4	-6.8
	2.4nm,0.7s,baz=194,slow=24						
UCH	Uchtor	13.62	21	*e*Pn	Pn	04 20 53.3	-3.3
	4.6nm,0.6s						
EKS2	Erkin-Say	13.80	18	*e*Pn	Pn	04 20 56.2	-2.9
	2.3nm,0.6s						
AAK	Ala-Archa	13.98	20	*e*Pn	Pn	04 20 57.6	-4.0
	4.6nm,0.9s						
AAK	Ala-Archa	13.98	20	*e*P	Pn	04 20 57.6	-4.0
AAK				pmax	pmax		
	comp=Z,5.0nm,0.9s						
TKM2	Tokmak 2	14.59	23	*e*Pn	Pn	04 21 06.8	-2.9
	comp=Z,2.8nm,0.8s						
TKM2	Tokmak 2	14.59	23	*e*P	Pn	04 21 06.9	-2.9
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MK31	Makanchi Array	20.43	29	*e*P	P	04 22 17.7	-1.7
MKAR	Makanchi Array	20.43	29	P	P	04 22 18.6	-0.8
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	Makanchi Array	20.43	29	P	P	04 22 18.6	-0.8
	comp=Z,1.7nm,0.7s,baz=216,slow=11,SNR=7.3						
AB31	Akbulak array	20.50	345	⇓P	P	04 22 20.1	0.0
	comp=Z,1.5nm,0.9s,baz=150,slow=12,SNR=6.5						
AKTK	Aktyubinsk	22.06	343	P	P	04 22 38.1	+1.2
AKTO	Aktyubinsk	22.06	343	P	P	04 22 38.1	+1.2
	comp=Z,0.6nm,0.5s,mb3.3,baz=236,slow=15,SNR=1.8						
KURK	Kurchatov	22.51	18	*e*P	P	04 22 40.3	-1.3
	comp=Z,5.7nm,1.2s,mb3.9						
KURK	Kurchatov	22.51	18	*e*P	P	04 22 40.3	-1.4
KURK				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb3.9						
SONM	Songino Array	34.61	48	P	P	04 24 29.3	-1.3
	comp=Z,0.4nm,1.0s,mb3.3,baz=247,slow=7.5,SNR=3.6						
ARCES	ARCESS Array B	46.62	341	P	P	04 26 10.9	+1.5
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	46.62	341	P	P	04 26 10.8	+1.5
	comp=Z,3.1nm,0.9s,mb4.2,baz=125,slow=7.8,SNR=4.0						
TORD	Torodi Ar. Bea	63.08	270	P	P	04 28 08.9	-0.3
	comp=Z,0.6nm,1.0s,mb3.7,baz=48,slow=6.0,SNR=3.5						
ASAR	Alice Springs	82.61	122	P	P	04 30 05.2	+0.6
	comp=Z,0.4nm,0.7s,mb3.6,baz=303,slow=5.3,SNR=4.9						
YKA	Yellowknife Ar	88.15	1	P	P	04 30 33.1	+1.5
	comp=Z,0.4nm,0.7s,mb3.7,baz=350,slow=4.8,SNR=6.1						

CASC 01 04:53:01.1±1.9**, 832N**×**8289W, h3**^{km}**, MD3.9, 1C-5D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVD	David	0.45	75	⇓*i*P	Pg	04 53 10.1	+0.3
BRU2	Volcan	0.51	23	⇓*i*P	Pg	04 53 12.3	+1.4
BRU2				*e*S	Sg	04 53 21.2	+3.5
TBS2		0.53	26	*e*P	Pg	04 53 18.4	+7.2
TBS2				*e*S	Sg	04 53 26.8	+8.8
BRU	Baru	0.58	34	⇓*i*P	Pg	04 53 13.6	+1.2
CTCR	Cotoan	0.59	13	⇓*i*P	Pg	04 53 13.6	+1.2
CTCR				*e*S	Sg	04 53 22.8	+2.7
BAR1		1.01	336	*e*P	Pg	04 53 19.8	-0.6
BAR1				*e*P		04 53 19.9	
BAR1				*e*S	Sg	04 53 35.1	+1.6
CNI	Changuinola	1.15	19	⇓*i*P	Pg	04 53 22.6	-0.6
QCR	Quepos	1.67	311	*e*P	Pn	04 53 29.8	-1.4
QCR				*e*S	Sn	04 53 53.3	+0.1
LCR2	La Lucha 2	1.79	322	*e*P	Pn	04 53 31.9	-1.1
LCR2				*e*S	Sn	04 53 58.2	+2.0
LAJ	Bijagual	1.96	322	*e*P	Pn	04 53 36.5	+1.3
LAJ				*e*S	Sn	04 54 05.0	+4.7
PRS1	Puriscal	2.17	320	*e*P	Pn	04 53 36.9	-1.3
PRS1				*e*S	Sn	04 54 05.7	+0.2
CGA2	Cerro Gallo 2	2.29	317	*e*P	Pn	04 53 40.6	+0.7
AZU	Azuero	2.64	101	*e*P	Pn	04 53 43.3	-1.4
PTP	Ponta Puerca	19.47	58	⇑*i*P		04 53 05.3	

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*IDC **01** 04:56:50.8±2.4, 29.42N×68.03E, h0^{km}, mb3.6/7, mb1 3.7/7, mb1mx3.6/22, mbtmp3.6/7, Error ellipse: s-maj=54.5km s-min=27.2km az=156.0*
*NEIC **01** 04:56:56.0±5.9, 29.51N×68.11E, h35^{km}±40^{km}, mb3.9/1, Error ellipse: s-maj=55.8km s-min=22.1km az=164.0*
*ISCJB **01** 04:56:58.1±2.4, 29.8N±0.2×68.0E±0.2, h55^{km}±17^{km}, mb3.6/7, Error ellipse: s-maj=30.3km s-min=19.6km az=153.1*
*MOS **01** 04:56:59.2±1.2, 30.17N×68.16E, h33^{km}, mb3.9/3, Error ellipse: s-maj=38.7km s-min=12.5km az=73.5*
ISC 01 04:56:56.7±2.6**, 296N**±02×**680E**±01**, h37**^{km}±18^{km}**, n25, σ1^{s}32**/27**, mb3.6**/7**, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DRP	Derazinda	2.87	41	P	Pn	04 57 55.0	+15
SBDP	Sheikh Budin	3.63	41	P	Pn	04 57 51.6	+1.3
THW	Thamme Wali	4.53	44	P	Pn	04 58 03.3	+0.5
KBL	Kabul	5.03	10	*e*Pn	Pn	04 58 10.4	+0.8
CEP	Cherat	5.38	37	P	Pn	04 58 14.6	+0.1
CEP				S	Sn	04 59 17.0	+1.8
UCH	Uchtor	13.68	21	*e*Pn	Pn	05 00 05.0	-3.0
EKS2	Erkin-Say	13.86	18	*e*Pn	Pn	05 00 07.9	-2.6
EKS2				*e*Sn	Sn	05 02 37.1	-5.9
AAK	Ala-Archa	14.04	20	*e*Pn	Pn	05 00 09.1	-3.9
TKM2	Tokmak 2	14.65	23	*e*Pn	Pn	05 00 17.4	-3.8
	3.0nm,0.6s						
TKM2	Tokmak 2	14.65	23	*e*P	Pn	05 00 17.4	-3.8
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MK31	Makanchi Array	20.48	29	*e*P	P	05 01 29.2	-2.0
MKAR	Makanchi Array	20.48	29	P	P	05 01 30.3	-0.8
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	20.48	29	P	P	05 01 30.3	-0.8
	comp=Z,1.3nm,0.6s,baz=208,slow=9.6,SNR=8.7						
AKTK	Aktyubinsk	22.16	343	P	P	05 01 50.5	+1.4
AKTO	Aktyubinsk	22.16	343	P	P	05 01 50.5	+1.4
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
AKTO	Aktyubinsk	22.16	343	P	P	05 01 50.5	+1.4
	comp=Z,1.8nm,0.6s,mb3.7,baz=164,slow=15,SNR=6.7						
KURK	Kurchatov	22.57	18	*e*P	P	05 01 51.9	-1.7
	comp=Z,6.0nm,1.2s,mb3.9						
KURK	Kurchatov	22.57	18	*e*P	P	05 01 51.9	-1.7
KURK				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb3.9						
ZAL	Zalesovo	27.23	22	P	P	05 02 36.9	-0.1
ZALV	Zalesovo Beam	27.25	22	P	P	05 02 36.9	-0.3
	comp=Z,1.0nm,0.7s,mb3.5,baz=225,slow=10.0,SNR=3.0						
SONM	Songino Array	34.62	47	P	P	05 03 43.6	+1.4
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	Songino Array	34.62	47	P	P	05 03 43.6	+1.4
	comp=Z,0.6nm,0.8s,mb3.6,baz=258,slow=7.4,SNR=5.4						
AKASG	Malin Array Be	35.82	317	P	P	05 03 53.1	+0.6
	comp=Z,0.1nm,0.3s,mb3.2,baz=97,slow=7.6,SNR=4.0						
TORD	Torodi Ar. Bea	63.13	270	P	P	05 07 20.5	-0.6
	comp=Z,0.4nm,0.6s,mb3.7,baz=62,slow=6.1,SNR=3.8						
YKA	Yellowknife Ar	88.23	1	P	P	05 09 44.4	+0.7
	comp=Z,0.4nm,0.6s,mb3.8,baz=351,slow=4.9,SNR=8.7						

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*CSEM **01** 04:57:22.4, 38.07N×20.25E, h13^{km}, MD3.5/3, After ATH*
ATH 01 04:57:22.4, 3807N×**2025E, h13**^{km}**, MD3.5**/3**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.29	68	*e*PG	Pg	04 57 28.7	+0.3
VLS	Valsamata	0.29	68	*e*Pg	Pg	04 57 28.7	+0.3
RLS	Riolos of Patr	0.96	90	*e*PB	Pb	04 57 40.8	-0.1
RLS	Riolos of Patr	0.96	90	*e*Pb	Pb	04 57 40.8	-0.1
EVR	Evrytania	1.49	55	*e*PB	Pb	04 57 50.4	+0.5
EVR	Evrytania	1.49	55	*e*Pb	Pb	04 57 50.4	+0.5
KEK	Kerkira	1.68	348	*e*PB	Pb	04 57 53.5	+0.4
KEK	Kerkira	1.68	348	*e*Pb	Pb	04 57 53.5	+0.4
THL	Klokotos Trika	2.03	42	*e*PN	Pn	04 57 58.5	+2.2
THL	Klokotos Trika	2.03	42	*e*Pn	Pn	04 57 58.5	+2.2

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*NEIC **01** 05:56:41.2, 32.76S×71.80W, h25^{km}, ML3.0(GUC), After GUC.*
GUC 01 05:56:41.2±0.7**, 3276S**×**7180W, h25**^{km}±12^{km}**, MD3.8, ML3.0, 2C-8D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PACH	Papudo	0.38	55	*i* S	Sb	05 56 55.5	+0.6
PTCH	Petorca	0.88	57	⇓*i*P	Pb	05 56 57.7	-0.2
PTCH				*i* S	Sb	05 57 09.3	+0.1
PTCH	Petorca	0.88	57	⇓*i*P	Pb	05 56 57.7	-0.2
PTCH				*i* S	Sb	05 57 09.3	+0.1
PTCH				AML	AML	05 57 10.2	
	comp=N,644nm,0.2s						
CHNG	Los Chungos	0.91	16	*e*P	Pb	05 56 49.4	-8.8
CHNG				*i* S	Sb	05 57 01.7	-8.2
PEL	Peldehue	1.01	113	⇑*i*P	Pn	05 56 59.2	-0.6
PEL				*i* S	Sb	05 57 13.0	0.0
PEL				AML	AML	05 57 13.8	
	comp=N,2µm,0.3s						
TACH	Talagante	1.15	141	⇓*i*P	Pn	05 57 01.0	-0.7
TACH				*i* S	Sn	05 57 15.0	-1.7
STL	Santa Lucia	1.19	125	⇓*i*P	Pn	05 57 01.0	-1.2
STL				*i* S	Sn	05 57 16.9	-0.7
DSCH	Colegio Aleman	1.22	122	*e*P	Pn	05 57 02.0	-0.6
DSCH				*i* S	Sn	05 57 17.9	-0.4
LNV	Longovilo	1.24	165	⇑*i*P	Pn	05 57 02.4	-0.5
ANTU	Antumapu	1.27	130	*e*P	Pn	05 57 03.4	+0.1
ANTU				*i* S	Sn	05 57 19.9	+0.3
FSR	Penalolen	1.29	124	*e*P	Pn	05 57 04.1	+0.5
FSR				*i* S	Sn	05 57 20.8	+0.7
FSR	Penalolen	1.29	124	*e*P	Pn	05 57 04.1	+0.5
FSR				*i* S	Sn	05 57 20.8	+0.7
FSR				AML	AML	05 57 21.7	
	comp=N,390nm,0.3s						
PCH	Pirque	1.38	129	⇓*i*P	Pn	05 57 05.2	+0.3
PCH				*i* S	Sn	05 57 23.5	+1.1
SJCH	San Jose de Ma	1.50	126	*e*P	Pn	05 57 06.4	-0.1
SJCH				*i* S	Sn	05 57 25.8	+0.5
SJCH	San Jose de Ma	1.50	126	*e*P	Pn	05 57 06.4	-0.1
SJCH				*i* S	Sn	05 57 25.8	+0.5
SJCH				AML	AML	05 57 27.0	
	comp=N,158nm,0.3s						
CHCH	Chadas Angostu	1.52	141	*e*P	Pn	05 57 07.3	+0.5
CHCH				*i* S	Sn	05 57 26.7	+1.0
CMCH	Combarbala	1.72	24	⇓*i*P	Pn	05 57 10.5	+1.0
CMCH				*i* S	Sn	05 57 32.3	+1.7
CMCH	Combarbala	1.72	24	⇓*i*P	Pn	05 57 10.5	+1.0
CMCH				*i* S	Sn	05 57 32.3	+1.7
CMCH				AML	AML	05 57 38.6	
	comp=E,469nm,0.6s						
CICH	Cipreses	1.94	144	⇓*i*P	Pn	05 57 13.8	+1.3
CICH				*i* S	Sn	05 57 39.3	+3.1

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*ISCJB **01** 05:57:35.5±1.0, 24.05S±0.05×66.7W±0.2, h196^{km}±11^{km}, mb3.5/6, Error ellipse: s-maj=27.7km s-min=8.8km az=2.5*
*IDC **01** 05:57:35.8±1.6, 24.02S×66.69W, h182^{km}±15^{km}, mb3.3/4, mb1 3.5/6, mb1mx3.4/16, mbtmp3.3/6, Error ellipse: s-maj=28.9km s-min=14.3km az=90.0*
*NEIC **01** 05:57:37.1±1.0, 23.99S×66.57W, h197^{km}±10^{km}, mb3.8/4, Error ellipse: s-maj=22.4km s-min=11.6km az=97.0*
ISC 01 05:57:36.9±1.2**, 2397S**±007×**667W**±02**, h191**^{km}±11^{km}**, n19, σ0^{s}85**/16**, mb3.6**/6**, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CFAA	Coronel Fontan	7.73	190	P	Pn	05 59 26.6	0.0
	baz=20,slow=15,SNR=2.5						
CFAA				S	Sn	06 00 48.9	-4.9
	0.2nm,0.3s,baz=189,slow=13,SNR=6.4						
LPAZ	La Paz	7.77	349	*e*Pn	Pn	05 59 28.3	+1.1
	2.0nm,0.3s						
LPAZ				*e*S	Sn	06 00 54.3	-0.5
LPAZ	La Paz	7.77	349	P	Pn	05 59 28.6	+1.4
	0.9nm,0.3s,baz=171,slow=8.4,SNR=24						
LPAZ				S	Sn	06 00 53.6	-1.1
	0.3nm,0.3s,baz=189,slow=22,SNR=4.8						
SIV	San Ignacio	9.51	34	P	Pn	05 59 50.1	+0.1
	0.5nm,0.3s,baz=234,slow=11,SNR=9.4						
WVT	Waverly	63.04	341	*e*P	P	06 07 42.1	-1.5
	1.7nm,0.6s,mb4.0						
TXAR	Lajitas Array	63.84	324	P	P	06 07 49.3	+0.3
	0.3nm,0.8s,mb3.2,baz=152,slow=9.7,SNR=3.7						
TORD	Torodi Ar. Bea	76.26	69	P	P	06 09 04.8	-0.1
TORD	Torodi Ar. Bea	76.26	69	P	P	06 09 04.8	-0.1
	0.5nm,0.5s,mb3.4,baz=258,slow=6.0,SNR=5.8						
ULM	Lac du Bonnet	78.30	341	*e*P	P	06 09 15.0	-0.4
	1.0nm,0.6s,mb3.6						
ULM	Lac du Bonnet	78.30	341	P	P	06 09 15.1	-0.4
	0.7nm,0.5s,mb3.5,baz=178,slow=8.5,SNR=3.9						
HLID	Hailey	80.24	327	*e*P	P	06 09 27.7	+1.6
	0.9nm,0.7s,mb3.5						
YKA	Yellowknife Ar	94.21	340	P	P	06 10 33.4	-0.1
YKA	Yellowknife Ar	94.21	340	P	P	06 10 33.4	-0.1
	0.3nm,0.5s,mb3.7,baz=136,slow=4.5,SNR=12						

WRA	**Warramunga Arr**	**131.80**	**207**	PKP	PKPdf	06 16 28.3	+0.2
WRA	**Warramunga Arr**	**131.80**	**207**	PKP	PKPdf	06 16 28.3	+0.2
	0.3nm,0.3s,baz=152,slow=1.8,SNR=3.3						
ZALV	**Zalesovo Beam**	**143.22**	**28**	PKP	PKPdf	06 16 45.9	-2.0
ZALV	**Zalesovo Beam**	**143.22**	**28**	PKP	PKPdf	06 16 45.9	-2.0
	0.3nm,0.4s,baz=256,slow=3.1,SNR=3.9						
MKAR	**Makanchi Array**	**146.30**	**40**	PKPbc	PKPbc	06 16 54.4	-0.5
MKAR	**Makanchi Array**	**146.30**	**40**	PKPbc	PKPbc	06 16 54.4	-0.5
	1.3nm,0.6s,baz=300,slow=3.3,SNR=14						

CASC 01 06:04:11.2±1.3**, 8.96N×84.12W, h13^{km}**±11^{km}**, MD3.6, 2C-3D, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QCR	**Quepos**	**0.47**	**354**	⇑*i*P	Pg	06 04 20.7	+0.2
QCR				*e*S	Sg	06 04 27.9	+1.1
BUS	**Buena Vista**	**0.69**	**31**	⇓*e*P	Pg	06 04 24.3	-0.4
BUS				*e*S	Sg	06 04 35.5	+1.7
LCR2	**La Lucha 2**	**0.79**	**8**	⇓*e*P	Pg	06 04 25.9	-0.6
LCR2				*e*S	Sg	06 04 37.8	+0.9
BAR1		**0.84**	**70**	*e*P	Pg	06 04 26.7	-0.9
BAR1				*e*S	Sg	06 04 38.0	-0.7
LAJ	**Bijagual**	**0.90**	**360**	⇓*i*P	Pg	06 04 26.7	-2.0
LAJ				*e*S	Sg	06 04 38.1	-2.4
PRS1	**Puriscal**	**1.04**	**349**	⇑*e*P	Pb	06 04 28.1	-2.9
PRS1				*e*S	Sb	06 04 42.5	-2.1
CGA2	**Cerro Gallo 2**	**1.11**	**342**	*e*P	Pb	06 04 30.8	-1.5
JCR	**Jicaral**	**1.32**	**312**	*e*P	Pn	06 04 34.9	-0.5
BRU	**Baru**	**1.54**	**95**	*e*P	Pn	06 04 39.8	+1.4
CNI	**Changuinola**	**1.64**	**74**	*e*P	Pn	06 04 39.3	-0.5
CNI				*e*S	Sn	06 05 01.2	+0.4

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*TEH **01** 06:28:54.5, 27.75N×57.62E, h32^{km}, ML3.5*
*KISR **01** 06:29:09.9±0.9, 28.62N×57.01E, h20^{km}±999^{km}, ML3.8*
*ISCJB **01** 06:29:10.3±0.8, 28.29N±0.04×56.99E±0.05, h10^{km}, Error ellipse: s-maj=7.2km s-min=5.3km az=34.3*
*CSEM **01** 06:29:11.9±0.2, 28.26N×57.06E, h30^{km}, ML3.5, Error ellipse: s-maj=5.4km s-min=2.9km az=137.0*

ISC 01 06:29:11.7±0.8**, 28.27N**±0.04×**57.08E**±0.05**, h10^{km}, n17, σ1^{s}05**/28**, 1D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IBND		**0.95**	**210**	⇓*e*Pg	**Pg**	**06 29 29.0**	**-0.9**
IBND				*e*Sg	**Sg**	**06 29 43.0**	**+0.8**
IBAF	**Bafgh**	**3.56**	**339**	*e*Pn	**Pb**	**06 30 14.1**	**-0.6**
IMEH	**Mehriz**	**3.77**	**326**	*e*Pn	**Pb**	**06 30 15.2**	**-3.2**
IMOK	**Mook**	**3.91**	**282**	*e*	**Sn**	**06 31 02.1**	**+4.4**
	comp=Z,457nm,0.1s						
IKOO		**4.46**	**21**	*e*Pn	**Pn**	**06 30 19.8**	**+0.4**
IDAH		**5.06**	**28**	*e*Pn	**Pn**	**06 30 27.6**	**-0.1**
IMON		**5.39**	**24**	*e*Pn	**Pn**	**06 30 32.2**	**+0.1**
SLWS		**6.72**	**240**	P	**Pn**	**06 30 47.8**	**-2.6**
SLWS				S	**Sn**	**06 32 03.0**	**-4.0**
IPIR	**Pirpir**	**6.92**	**311**	*e*	**Pb**	**06 31 05.3**	**-6.6**
	comp=Z,73nm,0.1s						
IPIR				*e*	**Sb**	**06 32 34.2**	**-0.4**
	comp=N,107nm,0.2s						
BOQSS		**7.27**	**253**	P	**Pn**	**06 30 56.9**	**-1.1**
BOQSS				S	**Sn**	**06 32 20.0**	**-0.6**
KBD	**Kabd**	**8.29**	**278**	*e*P	**Pn**	**06 31 13.2**	**+1.3**
KBD				*e*S	**Sn**	**06 32 45.6**	**0.0**
RDF	**Al-Radifah**	**8.40**	**277**	*e*P	**Pn**	**06 31 14.5**	**+1.0**
RDF				*e*S	**Sn**	**06 32 48.6**	**+0.2**
RDF				AML	AML	06 32 51.4	
	comp=Z,9.0nm,0.3s						
RDF	**Al-Radifah**	**8.40**	**277**	*e*P	**Pn**	**06 31 14.5**	**+1.0**
RDF				*e*S	**Sn**	**06 32 48.6**	**+0.2**
	comp=Z,9.0nm,0.3s						
MIB	**Mutribah**	**8.66**	**282**	*e*P	**Pn**	**06 31 18.3**	**+1.3**
MIB				*e*S	**Sn**	**06 32 54.0**	**-0.8**
MIB				AML	AML	06 32 54.7	
	comp=Z,7.8nm,0.4s						
MIB	**Mutribah**	**8.66**	**282**	*e*P	**Pn**	**06 31 18.3**	**+1.3**
MIB				*e*S	**Sn**	**06 32 54.0**	**-0.8**
	comp=Z,7.8nm,0.4s						
NAY	**Al-Naaiem**	**8.69**	**279**	*e*P	**Pn**	**06 31 19.1**	**+1.7**
NAY				*e*S	**Sn**	**06 32 56.0**	**+0.6**
NAY				AML	AML	06 33 00.2	
	comp=Z,2.9nm,0.3s						
NAY	**Al-Naaiem**	**8.69**	**279**	*e*P	**Pn**	**06 31 19.1**	**+1.7**
NAY				*e*S	**Sn**	**06 32 56.0**	**+0.6**
	comp=Z,2.9nm,0.3s						

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*ISCJB **01** 06:38:00.3±1.0, 13.93N±0.08×91.69W±0.06, h69^{km}±8^{km}, mb3.6/2, Error ellipse: s-maj=14.9km s-min=7.6km az=29.9*
*IDC **01** 06:38:01.6±2.0, 13.98N×91.63W, h48^{km}±21^{km}, mb3.4/2, mb1 3.8/5, mb1mx3.5/18, mbtmp3.5/5, ML3.6/3, Error ellipse: s-maj=28.2km s-min=13.4km az=34.0*
*CASC **01** 06:38:03.8±1.8, 13.93N×91.53W, h21^{km}±13^{km}, MD4.1*

ISC 01 06:38:01.9±0.9**, 13.93N**±0.08×**91.69W**±0.06**, h54^{km}**±9^{km}**, n26, σ1^{s}05**/15**, mb3.6**/2**, 4C-4D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	**Jato**	**0.39**	**8**	⇓*e*P	**Pn**	**06 38 13.3**	**+1.1**
JAT				*e*S	**Sn**	**06 38 18.6**	**-1.0**
FUG	**Fuego 3**	**0.97**	**58**	⇑*i*P	**Pn**	**06 38 19.2**	**-0.1**
PCG	**Pacaya**	**1.15**	**66**	⇓*e*P	**Pn**	**06 38 21.9**	**+0.3**
GCG	**Guatemala City**	**1.30**	**60**	*e*P	**Pn**	**06 38 24.1**	**+0.4**
GCG				*e*S	**Sn**	**06 38 41.9**	**+1.9**
RBDL	**Robledal**	**1.95**	**84**	⇑*e*P	x	06 38 33.9	
RBDL				*e*S	x	06 38 57.9	
RTR	**El Retiro**	**1.98**	**91**	⇑*e*P	x	06 38 34.6	
RTR				*e*S	x	06 38 58.2	
SBLS	**San Blas**	**2.01**	**92**	⇑*e*P	x	06 38 34.5	
SBLS				*e*S	x	06 38 58.5	
SNJE	**San Jose**	**2.02**	**92**	*e*P	x	06 38 34.9	
SNJE				*e*S	x	06 38 59.0	
MTO2	**Montecristo 2**	**2.31**	**78**	*e*P	x	06 38 38.4	
BOQS	**Boqueron**	**2.35**	**94**	*e*P	x	06 38 39.3	
PICS	**Picacho**	**2.37**	**94**	*e*P	x	06 38 39.1	
SNET	**Serv Nac Est T**	**2.40**	**96**	*e*P	x	06 38 38.1	
LFU	**La Fuente**	**2.51**	**94**	⇓*i*P	x	06 38 42.1	
LFU				*e*S	x	06 39 11.6	
LFRS	**El Faro**	**2.57**	**97**	*e*P	x	06 38 42.5	
LFRS				*e*S	x	06 39 11.5	
LBRS	**Las Brisas**	**2.58**	**94**	*e*P	x	06 38 42.7	
LBRS				*e*S	x	06 39 13.2	
LCBS	**La Ceiba**	**2.65**	**96**	⇓*e*P	x	06 38 43.7	
LCBS				*e*S	x	06 39 13.7	
SNVI	**San Vicente**	**2.79**	**96**	*e*P	x	06 38 45.9	
SNVI				*e*S	x	06 39 17.4	
VSM	**San Miguel**	**3.36**	**98**	*e*P	x	06 38 53.6	
BLLM	**Bellamira**	**3.39**	**98**	*e*P	x	06 38 54.8	
CNCH	**Conchagua**	**3.81**	**99**	*e*P	x	06 38 59.8	
CMIG	**Matias Romero**	**4.40**	**316**	P	**Pn**	**06 39 06.2**	**0.0**
	2.0nm,0.3s,baz=124,slow=11,SNR=43						
CMIG				S	**Sn**	**06 39 55.6**	**-0.5**
	6.0nm,0.3s,baz=51,slow=23,SNR=4.9						
TEIG	**Tepich**	**7.06**	**27**	P	**Pn**	**06 39 42.5**	**-0.1**
	22nm,0.3s,baz=226,slow=1.3,SNR=398						
TEIG				S	**Sn**	**06 41 00.2**	**-1.3**
	4.2nm,0.3s,baz=49,slow=22,SNR=7.2						
JTS	**JuntasAbangare**	**7.52**	**118**	P	**Pn**	**06 39 48.5**	**-0.4**
	0.7nm,0.3s,baz=315,slow=20,SNR=7.1						
JTS				S	**Sn**	**06 41 11.8**	**-1.0**
	0.3nm,0.3s,baz=342,slow=20,SNR=2.0						
TXAR	**Lajitas Array**	**18.92**	**326**	P	**Pn**	**06 42 19.9**	**+0.5**
	0.1nm,0.3s,baz=159,slow=12,SNR=12						
NVAR	**Mina Array Bea**	**33.91**	**321**	P	**P**	**06 44 42.0**	**+2.3**
	0.7nm,0.7s,mb3.7,baz=127,slow=9.4,SNR=8.0						
YKA	**Yellowknife Ar**	**51.16**	**347**	P	**P**	**06 46 57.4**	**-1.8**
	0.5nm,0.7s,mb3.5,baz=148,slow=7.4,SNR=9.0						

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*NIED **01** 06:40:00, 37.30N×141.10E, h83^{km}, Mw3.9 Best double couple: M$_0$7.32000×10^{14} NP1:φ$_s$120.00000°, δ45.00000°, λ-47.00000°. NP2:φ$_s$247.00000°, δ59.00000°, λ-124.00000°.*
*MOS **01** 06:40:21.3±0.7, 37.33N×141.23E, h94^{km}, mb3.6/2, Error ellipse: s-maj=21.6km s-min=16.2km az=85.9*
*ISCJB **01** 06:40:21.9±0.5, 37.24N±0.03×141.14E±0.07, h95^{km}±3^{km}, mb3.4/4, Error ellipse: s-maj=9.4km s-min=4.7km az=19.0*
*IDC **01** 06:40:22.1±1.7, 37.27N×141.18E, h79^{km}±17^{km}, mb3.3/4, mb1 3.6/8, mb1mx3.4/22, mbtmp3.7/8, Error ellipse: s-maj=31.0km s-min=11.6km az=94.0*
*NEIC **01** 06:40:24.4, 37.28N×140.99E, h87^{km}, MG4.0(JMA), After JMA.*
NEIC Recorded [2 JMA] in Fukushima and Ibaraki; [1 JMA] in Miyagi and Tochigi Prefectures.
*JMA **01** 06:40:24.3±0.1, 37.28N×140.99E, h87^{km}±1^{km}, M3.8*
JMA Felt II J1.

ISC 01 06:40:23.1±0.5**, 37.25N**±0.03×**141.13E**±0.07**, h89^{km}**±4^{km}**, n32, σ1^{s}13**/50**, mb3.4**/4**, 5C-6D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JFK	**Kawauchi**	**0.23**	**300**	⇓P	**Pn**	**06 40 36.7**	**+0.6**
JFK				S	**Sn**	**06 40 45.7**	**-0.1**
ONAJ	**Iwakimizuishiy**	**0.30**	**241**	⇓P	**Pn**	**06 40 37.1**	**+5.5**
ONAJ				S	**Sn**	**06 40 46.5**	**+0.2**
JMM	**Marumori**	**0.67**	**337**	⇓P	**Pn**	**06 40 39.7**	**+3.0**
JMM				S	**Sn**	**06 40 50.9**	**-0.4**
JFT	**Otama**	**0.69**	**293**	⇓P	**Pn**	**06 40 39.5**	**+2.6**
JFT				S	**Sn**	**06 40 50.7**	**-0.8**
JFY	**Yanaizu**	**1.15**	**278**	⇓P	**Pn**	**06 40 44.2**	**+1.1**
JFY				*e*S	**Sn**	**06 40 59.3**	**-1.1**
JOU	**Okura**	**1.17**	**342**	P	**Pn**	**06 40 45.4**	**+1.9**
JOU				*e*S	**Sn**	**06 41 01.3**	**+0.3**
JIO	**Ouri**	**1.22**	**8**	⇑P	**Pn**	**06 40 46.0**	**+1.9**
JIO				*e*S	**Sn**	**06 41 01.7**	**-0.2**
JYS	**Shirataka**	**1.28**	**319**	P	**Pn**	**06 40 46.6**	**+1.6**
JYS				*e*S	**Sn**	**06 41 03.1**	**-0.3**
JNS	**Sasagawa**	**1.55**	**292**	P	**Pn**	**06 40 48.9**	**+0.3**
JAG	**Ashikaga**	**1.58**	**239**	⇑P	**Pn**	**06 40 50.1**	**+1.1**
JAG				*e*S	**Sn**	**06 41 08.5**	**-1.4**
JKT	**Katashina**	**1.58**	**253**	P	**Pn**	**06 40 50.8**	**+1.8**
JKT				*e*S	**Sn**	**06 41 11.4**	**+1.4**
JHK	**Hiroka**	**1.69**	**271**	⇓P	**Pn**	**06 40 51.3**	**+0.8**
JMK	**Ichinoseki**	**1.70**	**2**	⇑P	**Pn**	**06 40 51.9**	**+1.2**
JMK				S	**Sn**	**06 41 12.6**	**-0.2**
JYA	**Atsumi**	**1.75**	**321**	⇑P	**Pn**	**06 40 52.6**	**+1.3**
JYK	**Kaneyama**	**1.77**	**340**	⇑P	**Pn**	**06 40 53.0**	**+1.3**
JYK				*e*S	**Sn**	**06 41 15.0**	**+0.5**
MJAR	**Matsushiro Arr**	**2.44**	**254**	P	**Pn**	**06 41 01.7**	**+0.9**
MJAR				S	**Sn**	**06 41 24.2**	**-6.1**
MJAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
MJAR				smax			
	comp=N,19nm,0.3s						
MJAR	**Matsushiro Arr**	**2.44**	**254**	P	**Pn**	**06 41 01.7**	**+0.9**
	comp=N,4.1nm,0.3s,baz=73,slow=14,SNR=21						
MJAR				S	**Sn**	**06 41 24.2**	**-6.1**
	comp=N,19nm,0.3s,baz=84,slow=15,SNR=17						
MAJO	**Matsushiro**	**2.45**	**254**	*e*Pn	**Pn**	**06 41 01.8**	**+1.0**
MAJO				*e*Sn	**Sn**	**06 41 25.6**	**-4.7**
MAT	**Matsushiro**	**2.45**	**254**	P	**Pn**	**06 41 01.9**	**+1.1**
MAT				S	**Sn**	**06 41 27.0**	**-3.3**
JHJ	**Hachijo jima 2**	**4.26**	**195**	P	**Pn**	**06 41 25.8**	**+0.1**
	comp=N,35nm,0.3s,baz=53,slow=18,SNR=12						
JHJ				S	**Sn**	**06 42 13.2**	**-1.1**
	comp=N,87nm,0.3s,baz=94,slow=23,SNR=9.9						
ASAJ	**Asahikawa**	**6.95**	**9**	P	**Pn**	**06 42 00.9**	**-1.3**
ASAJ				S	**Sn**	**06 43 18.4**	**-1.2**
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ				smax			
	comp=N,1.0nm,0.3s						
ASAJ	**Asahikawa**	**6.95**	**9**	P	**Pn**	**06 42 00.8**	**-1.3**
	comp=N,2.8nm,0.3s,baz=226,slow=18,SNR=12						
ASAJ				S	**Sn**	**06 43 18.4**	**-1.2**
	comp=N,0.5nm,0.3s,baz=324,slow=19,SNR=1.9						
YSS	**Yuzh-Sakhalins**	**9.77**	**7**	*e*P	**Pn**	**06 42 39.0**	**-1.6**
CBIJ	**Chichi jima**	**10.16**	**175**	P	**Pn**	**06 42 45.0**	**-1.0**
	comp=N,6.2nm,0.3s,baz=270,slow=20,SNR=4.0						
BOD	**Bodaibo**	**27.23**	**328**	*e*P	**P**	**06 45 58.3**	**0.0**
SONM	**Songino Array**	**27.48**	**304**	P	**P**	**06 46 00.4**	**-0.3**
SONM				*PP	pP	06 46 21.1	+0.2
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	**Songino Array**	**27.48**	**304**	P	**P**	**06 46 00.4**	**-0.2**
	comp=Z,0.7nm,0.6s,mb3.4,baz=103,slow=8.9,SNR=6.7						
SONM				pP	pP	06 46 21.1	+0.2
	comp=Z,0.5nm,0.6s,baz=110,slow=8.4,SNR=3.0						
ZALV	**Zalesovo Beam**	**41.60**	**312**	P	**P**	**06 48 02.3**	**+0.3**
	comp=Z,0.3nm,0.4s,mb3.4,baz=100,slow=6.0,SNR=2.6						
ZAL	**Zalesovo**	**41.61**	**312**	P	**P**	**06 48 02.3**	**+0.2**
MKAR	**Makanchi Array**	**43.81**	**302**	P	**P**	**06 48 19.8**	**-0.2**
	comp=Z,0.2nm,0.6s,mb3.0,baz=79,slow=9.3,SNR=3.2						
WRA	**Warramunga Arr**	**57.24**	**188**	P	**P**	**06 50 02.0**	**+0.9**
	comp=Z,0.4nm,0.4s,mb3.8,baz=360,slow=7.2,SNR=5.5						
AKASG	**Malin Array Be**	**73.99**	**322**	pP	pP	06 52 10.4	-1.3
	comp=Z,0.6nm,0.5s,baz=46,slow=5.5,SNR=2.2						

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*ISCJB **01** 06:48:24.5±0.3, 45.84N±0.02×7.11E±0.03, h2^{km}, Error ellipse: s-maj=2.9km s-min=2.1km az=12.8*
*ROM **01** 06:48:24.6±0.2, 45.84N×7.15E, h10^{km}±2^{km}, Md1.9/5, Ml2.5/1, Error ellipse: s-maj=3.1km s-min=2.1km az=82.0*
*NEIC **01** 06:48:25.0, 45.81N×7.21E, h2^{km}, ML2.5(ROM), ML2.4(LDG), After LDG.*
*LDG **01** 06:48:25.0±0.1, 45.81N×7.21E, h2^{km}, Md2.2/2, Ml2.4/11, Error ellipse: s-maj=1.9km s-min=0.9km az=95.0*
*ZUR **01** 06:48:25.6, 45.84N×7.15E, h3^{km}±2^{km}, ML1.2/6*
*STR **01** 06:48:26.8±0.4, 45.77N×7.09E, h2^{km}, Ml2.0, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 01 06:48:24.9±0.4**, 45.84N**±0.02×**7.13E**±0.03**, h13^{km}**±4^{km}**, n41, σ0^{s}72**/73**, 4C-2D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRGE	**Morge**	**0.08**	**217**	Pg	**Pg**	**06 48 27.7**	**+0.1**
MRGE				Sg	**Sg**	**06 48 29.1**	**-0.5**
	1μm,0.1s						
EMV	**Vieux Emosson**	**0.28**	**325**	⇑*i*Pg	**Pg**	**06 48 31.2**	**+0.5**
EMV				Sg	**Sg**	**06 48 35.0**	**+0.4**
EMV	**Vieux Emosson**	**0.28**	**325**	*i* Sg	**Pg**	**06 48 31.2**	**+0.5**
	187nm,0.1s						
EMV	**Vieux Emosson**	**0.28**	**325**	⇑*i*Pg	**Sg**	**06 48 35.0**	**+0.4**
	187nm,0.1s						
DIX	**Grande Dixence**	**0.31**	**38**	⇓*i*Pg	**Pg**	**06 48 31.5**	**+0.2**
DIX				Sg	**Sg**	**06 48 35.6**	**0.0**
DIX	**Grande Dixence**	**0.31**	**38**	⇓*i*Pg	**Pg**	**06 48 31.5**	**+0.2**
	241nm,0.2s						
DIX				*i* Sg	**Sg**	**06 48 35.7**	**+0.1**
	241nm,0.2s						
SALAN	**Lac Salanfe**	**0.33**	**341**	⇑*i*Pg	**Pg**	**06 48 32.1**	**+0.5**
	22nm,0.4s						
SALAN				*i* Sg	**Sg**	**06 48 36.5**	**+0.4**
	22nm,0.4s						
RSL	**Roselend**	**0.38**	**248**	Pg	**Pg**	**06 48 33.0**	**+0.4**
RSL				Sg	**Sg**	**06 48 38.0**	**+0.3**
GRYON	**Gryon**	**0.42**	**358**	*e*Sg	**Pg**	**06 48 33.6**	**+0.4**
	54nm,0.2s						
GRYON	**Gryon**	**0.42**	**358**	⇑*i*Pg	**Sg**	**06 48 39.0**	**+0.2**
	54nm,0.2s						
LPL	**La Plagne**	**0.42**	**221**	*e*Pg	**Pg**	**06 48 33.8**	**+0.5**
LPL				*e*Sg	**Sg**	**06 48 39.8**	**+0.8**
LPL	**La Plagne**	**0.42**	**221**	*e*Pg	**Pg**	**06 48 33.8**	**+0.5**
LPL				*e*Sg	**Sg**	**06 48 39.8**	**+0.8**
	13nm,0.2s						
LPG	**La Plagne**	**0.43**	**218**	*e*Pg	**Pg**	**06 48 33.9**	**+0.5**
LPG				*e*Sg	**Sg**	**06 48 39.1**	**-0.1**
LPG	**La Plagne**	**0.43**	**218**	*e*Pg	**Pg**	**06 48 33.9**	**+0.5**
LPG				*e*Sg	**Sg**	**06 48 39.1**	**-0.1**
	18nm,0.2s						
AIGLE	**Aigle**	**0.52**	**346**	*e*Pg	**Pg**	**06 48 35.8**	**+0.6**
	2.3nm,0.1s						
MMK	**Mattmark**	**0.62**	**69**	Pg	**Pg**	**06 48 36.6**	**-0.4**
MMK				Sg	**Sg**	**06 48 44.5**	**-0.7**
MMK	**Mattmark**	**0.62**	**69**	*i* Pg	**Pg**	**06 48 36.8**	**-0.2**
	2.8nm,0.1s						
ORO	**Oropa**	**0.63**	**109**	Pg	**Pg**	**06 48 37.1**	**-0.1**
ORO				Sg	**Sg**	**06 48 45.2**	**-0.3**
ORO	**Oropa**	**0.63**	**109**	Pg	**Pg**	**06 48 37.1**	**-0.1**
ORO				Sg	**Sg**	**06 48 45.2**	**-0.3**
	27nm,0.2s						
RSP	**Reno Superiore**	**0.69**	**173**	Pg	**Pg**	**06 48 38.6**	**+0.3**
RSP				Sg	**Sg**	**06 48 47.3**	**0.0**
RSP	**Reno Superiore**	**0.69**	**173**	Pg	**Pg**	**06 48 38.6**	**+0.3**
RSP				Sg	**Sg**	**06 48 47.3**	**0.0**
OG22	**Abries**	**1.02**	**187**	Pg	**Pg**	**06 48 44.8**	**+0.2**
OG22				Sg	**Sg**	**06 48 57.8**	**-0.1**
CABF	**La Chapelle**	**1.06**	**317**	*e*P	**Pb**	**06 48 47.7**	**+2.6**
CABF				*e*Sg	**Sg**	**06 49 00.9**	**+1.7**
CABF	**La Chapelle**	**1.06**	**317**	*e*Pg	**Pg**	**06 48 46.0**	**+0.6**
CABF	**La Chapelle**	**1.06**	**317**	*e*P	**Pb**	**06 48 47.7**	**+2.6**
CABF				*e*Sg	**Sg**	**06 49 00.9**	**+1.7**
	5.9nm,0.3s						
MBDF	**Montbardon**	**1.14**	**193**	*e*Pg	**Pg**	**06 48 46.1**	**-0.7**
MBDF				*e*Sg	**Sg**	**06 49 00.8**	**-0.8**
MBDF	**Montbardon**	**1.14**	**193**	*e*Pg	**Pg**	**06 48 46.1**	**-0.7**
MBDF				*e*Sg	**Sg**	**06 49 00.8**	**-0.8**
	9.2nm,0.2s						
ORIF	**Oris-en-Rattie**	**1.27**	**224**	*e*Pg	**Pg**	**06 48 49.5**	**+0.1**
ORIF				*e*Sg	**Sg**	**06 49 06.0**	**+0.1**
ORIF	**Oris-en-Rattie**	**1.27**	**224**	*e*Pg	**Pg**	**06 48 49.5**	**+0.1**
ORIF				*e*Sg	**Sg**	**06 49 06.0**	**+0.1**
	3.2nm,0.2s						
VIVF	**Saint-Julien-l**	**1.99**	**241**	*e*P	**Pn**	**06 49 00.9**	**+2.6**
VIVF				*e*Pg	**Pg**	**06 49 02.5**	**-0.6**
VIVF				*e*Sg	**Sg**	**06 49 28.7**	**-0.2**
VIVF	**Saint-Julien-l**	**1.99**	**241**	*e*Pg	**Pg**	**06 49 02.5**	**-0.6**
VIVF				*e*Sg	**Sg**	**06 49 28.7**	**-0.2**
	8.2nm,0.3s						
HINF	**Hinteralfeld**	**1.99**	**355**	*e*Pg	**Pg**	**06 49 02.7**	**-0.4**
HINF				*e*Sg	**Sg**	**06 49 28.0**	**-0.9**
HINF	**Hinteralfeld**	**1.99**	**355**	*e*Pg	**Pg**	**06 49 02.7**	**-0.4**
HINF				*e*Sg	**Sg**	**06 49 28.0**	**-0.9**
	4.4nm,0.2s						
HAU	**Haudompre**	**2.24**	**346**	*e*Pg	**Pg**	**06 49 07.0**	**-0.8**
HAU	**Haudompre**	**2.24**	**346**	*e*Pg	**Pg**	**06 49 07.0**	**-0.8**
SMF	**Signal de Mont**	**2.42**	**291**	*e*Pg	**Pg**	**06 49 11.1**	**-0.2**
SMF				*e*Sg	**Sg**	**06 49 41.5**	**-1.2**
SMF	**Signal de Mont**	**2.42**	**291**	*e*Pg	**Pg**	**06 49 11.1**	**-0.2**
SMF				*e*Sg	**Sg**	**06 49 41.5**	**-1.2**
	5.1nm,0.3s						
LOR	**Lormes**	**2.67**	**304**	*e*Pg	**Pg**	**06 49 16.1**	**-0.1**
LOR				*e*Sg	**Sg**	**06 49 50.2**	**-0.6**
	2.2nm,0.3s						
AVF	**Avril sur Loir**	**2.79**	**291**	*e*Pg	**Pg**	**06 49 17.8**	**-0.5**
AVF				*e*Sn	**Sn**	**06 49 42.0**	**-0.7**
AVF				*e*Sg	**Sg**	**06 49 52.9**	**-1.5**
	0.9nm,0.2s						
SSF	**Saint Saulge**	**2.79**	**297**	*e*Sg	**Sg**	**06 49 53.9**	**-0.6**
	1.6nm,0.3s						
BGF	**Bois d'Agland**	**3.06**	**285**	*e*Sg	**Sg**	**06 50 03.1**	**-0.1**
	5.0nm,0.3s						

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*IDC **01** 06:49:12.8±3.0, 6.20S×147.69E, h47^{km}±24^{km}, mb3.9/5, mb1 4.2/8, mb1mx4.0/15, mbtmp4.0/8, ML3.8/3, MS3.2/8, Ms1 3.2/8, ms1mx3.1/18, Error ellipse: s-maj=54.4km s-min=19.4km az=90.0*
*ISCJB **01** 06:49:13.6±2.7, 6.2S±0.1×147.5E±0.2, h65^{km}±22^{km}, mb4.2/8, Error ellipse: s-maj=26.3km s-min=18.4km az=162.8*
*NEIC **01** 06:49:14.9±1.7, 6.22S×147.59E, h65^{km}±14^{km}, mb4.4/6, Error ellipse: s-maj=15.3km s-min=11.9km az=72.0*

ISC 01 06:49:15.0±2.6**, 6.3S**±0.1×**147.5E**±0.2**, h62^{km}**±21^{km}**, n27, σ0^{s}80**/21**, mb4.2**/8**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.16**	**187**	P	**Pn**	**06 50 02.3**	**0.0**
	30nm,0.3s,baz=15,slow=4.9,SNR=45						
PMG				S	**Sn**	**06 50 38.3**	**-0.5**
	37nm,0.3s,baz=220,slow=20,SNR=7.0						
PMG				LR	LR	06 51 07.2	
	comp=Z,225nm,18.9s,baz=30,slow=36						
HNR	**Honiara**	**12.70**	**105**	LR	LR	06 56 13.8	
	comp=Z,84nm,21.9s,baz=178,slow=34						
CTA	**Charters Tower**	**13.81**	**185**	P	**Pn**	**06 52 28.7**	**+0.8**
	0.4nm,0.3s,baz=25,slow=9.4,SNR=3.5						
CTA				LR	LR	06 56 12.4	
	comp=Z,62nm,21.9s,baz=48,slow=30						
KAKA	**Kakadu**	**16.20**	**246**	*e*P	**Pn**	**06 53 00.5**	**+1.6**
	7.6nm,0.5s						
WB2	**Warramunga Arr**	**18.69**	**222**	*e*P	**Pn**	**06 53 28.2**	**-1.1**
	9.4nm,0.5s						
WRA	**Warramunga Arr**	**18.69**	**222**	P	**Pn**	**06 53 28.1**	**-1.3**
	0.7nm,0.3s,baz=46,slow=11,SNR=18						
WRA				LR	LR	07 00 05.9	
	comp=Z,87nm,20.0s,baz=40,slow=35						
WRA				ScP	ScP	07 01 26.5	+1.3
	0.1nm,0.3s,baz=41,slow=2.6,SNR=5.6						
ARMA	**Armidale**	**24.35**	**171**	*e*P	**P**	**06 54 27.6**	**+0.4**
FITZ	**Fitzroy Crossi**	**24.39**	**239**	*e*P	**P**	**06 54 28.3**	**+0.6**
	16nm,0.9s,mb4.4						
FITZ	**Fitzroy Crossi**	**24.39**	**239**	P	**P**	**06 54 28.7**	**+1.0**
	11nm,0.9s,mb4.3,baz=59,slow=10.0,SNR=33						
FITZ				LR	LR	07 04 05.0	
	comp=Z,59nm,18.3s,baz=62,slow=36						
STKA	**Stephens Creek**	**26.09**	**192**	*e*P	**P**	**06 54 42.3**	**-0.7**
	5.0nm,0.8s,mb4.1						
STKA	**Stephens Creek**	**26.09**	**192**	*e*P	**P**	**06 54 42.7**	**-0.3**
STKA	**Stephens Creek**	**26.09**	**192**	P	**P**	**06 54 42.6**	**-0.4**
	6.7nm,0.7s,mb4.3,baz=3.2,slow=8.1,SNR=21						
STKA				LR	LR	07 04 39.6	
	comp=Z,60nm,18.3s,baz=28,slow=35						
FORT	**Forrest**	**30.49**	**214**	*e*P	**P**	**06 55 22.2**	**0.0**
	7.3nm,0.6s,mb4.6						
KLBR	**Kellerberrin**	**37.56**	**224**	*e*P	**P**	**06 56 23.0**	**-0.5**
	14nm,1.0s,mb4.7						
MUN	**Mundaring**	**38.85**	**225**	*e*P	**P**	**06 56 34.9**	**+0.5**
KSRS	**Korea Array**	**47.17**	**339**	LR	LR	07 14 55.0	
	comp=Z,35nm,18.6s,baz=323,slow=33						
SONM	**Songino Array**	**64.88**	**331**	P	**P**	**06 59 47.9**	**+0.2**
	0.8nm,0.8s,mb3.8,baz=148,slow=8.7,SNR=5.8						
MKAR	**Makanchi Array**	**78.03**	**320**	P	**P**	**07 01 06.7**	**-0.2**
MKAR	**Makanchi Array**	**78.03**	**320**	P	**P**	**07 01 06.7**	**-0.2**
	0.7nm,0.7s,mb3.7,baz=96,slow=8.3,SNR=12						
ZALV	**Zalesovo Beam**	**79.50**	**328**	P	**P**	**07 01 13.6**	**-1.3**
ZALV				LR	LR	07 36 55.4	
ZALV	**Zalesovo Beam**	**79.50**	**328**	P	**P**	**07 01 13.6**	**-1.3**
	1.0nm,0.4s,mb4.1,baz=113,slow=6.5,SNR=5.1						
ZALV				LR	LR	07 36 55.4	
	comp=Z,31nm,18.3s,baz=352,slow=36						
QSPA	**South Pole Qui**	**83.72**	**180**	*e*P	**P**	**07 01 37.5**	**+0.8**
	2.1nm,0.5s,mb4.5						
GERES	**GERESS Array B**	**122.41**	**326**	PKP	PKPdf	07 08 02.6	-0.7
GERES	**GERESS Array B**	**122.41**	**326**	PKP	PKPdf	07 08 02.6	-0.7
	0.4nm,0.5s,baz=79,slow=2.1,SNR=4.3						
TOA0	**Torodi Ar. Sit**	**145.66**	**284**	*e*PKPdf	PKPdf	07 08 48.0	+0.5
TORD	**Torodi Ar. Bea**	**145.66**	**284**	PKPbc	PKPbc	07 08 48.0	+0.1
TORD	**Torodi Ar. Bea**	**145.66**	**284**	PKPbc	PKPbc	07 08 48.0	+0.1
	7.5nm,0.6s,baz=77,slow=4.3,SNR=48						

MAN 01 07:15:28, 11.20N×121.98E, h7^{km}, mb4.4, ML3.2, MS3.0, 2C, Panay

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KALP	**Kalibo**	**0.59**	**37**	⇑*e*P	Pg	07 15 41.1	+1.7
KALP				*e*S	Sg	07 15 50.0	+2.9
RCP	**Roxas**	**0.83**	**65**	⇑*e*P	Pg	07 15 44.7	+0.7
SNPH	**Sibulan**	**2.22**	**146**	*e*P	Pn	07 16 07.0	+1.7

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*ISCJB **01** 07:27:44.2±1.3, 32.0S±0.3×57.1E±0.3, h10^{km}, mb4.2/8, MS3.6/7, Error ellipse: s-maj=48.3km s-min=18.0km az=40.1*
*IDC **01** 07:27:44.9±1.6, 31.85S×57.21E, h0^{km}, mb3.8/4, mb1 4.0/5, mb1mx3.7/18, mbtmp3.8/5, ML4.2/1, MS3.6/7, Ms1 3.6/7, ms1mx3.3/29, Error ellipse: s-maj=84.8km s-min=27.9km az=33.0*
*NEIC **01** 07:27:46.1±1.0, 31.98S×57.09E, h10^{km}, mb4.5/4, Error ellipse: s-maj=37.0km s-min=14.4km az=40.0*

ISC 01 07:27:46.2±1.3**, 32.0S**±0.3×**57.1E**±0.3**, h10^{km}, n17, σ0^{s}56**/12**, mb4.2**/8**, MS3.6**/7**, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OPO	**Ambohidratompo**	**16.08**	**324**	Pn	**Pn**	**07 31 32.3**	**-0.1**
OPO				Sn	**Sn**	**07 34 22.3**	**-8.6**
OPO	**Ambohidratompo**	**16.08**	**324**	Pn	**Pn**	**07 31 32.3**	**-0.1**
	1.0nm,0.3s,baz=146,slow=11,SNR=4.3						
OPO				Sn	**Sn**	**07 34 22.3**	**-8.6**
	0.7nm,0.3s,baz=15,slow=20,SNR=3.2						
BOSA	**Boshof**	**27.63**	**269**	LR	LR	07 43 17.3	
	comp=Z,42nm,20.4s,MS3.0,baz=295,slow=34						
LBTB	**Lobatse**	**28.46**	**276**	LR	LR	07 43 22.1	
	comp=Z,60nm,21.3s,MS3.2,baz=16,slow=33						
MAW	**Mawson**	**35.80**	**176**	LR	LR	07 45 22.5	
	comp=Z,155nm,20.2s,MS3.8,baz=162,slow=29						

KMBO	Kilima Mbogo	35.97	325	LR	LR	07 47 22.4	
	comp=Z,67nm,18.6s,MS3.4,baz=95,slow=33						
VNDA	Vanda	62.12	166	LR	LR	08 01 30.6	
	comp=Z,114nm,20.4s,MS4.0,baz=224,slow=32						
WRA	Warramunga Arr	69.20	101	P	P	07 38 53.3	-0.1
	1.4nm,0.5s,mb4.1,baz=239,slow=4.7,SNR=7.1						
TORD	Torodi Ar. Bea	69.46	301	P	P	07 38 55.0	0.0
	1.4nm,1.0s,mb3.9,baz=149,slow=6.9,SNR=3.9						
TORD				LR	LR	08 08 06.4	
	comp=Z,71nm,21.2s,MS3.9,baz=270,slow=35						
STKA	Stephens Creek	69.74	115	P	P	07 38 56.6	0.0
	1.4nm,0.8s,mb4.0,baz=262,slow=7.1,SNR=3.9						
STKA				LR	LR	08 02 14.8	
	comp=Z,66nm,18.4s,MS3.9,baz=207,slow=30						
AML	Almayashu	75.34	13	P	P	07 39 29.2	-0.3
	3.8nm,0.8s,mb4.4						
EKS2	Erkin-Say	75.87	13	*e*P	P	07 39 33.1	+0.6
	4.9nm,1.0s,mb4.4						
AAK	Ala-Archa	75.98	13	*e*P	P	07 39 33.0	-0.1
	5.5nm,1.1s,mb4.4						
MKAR	Makanchi Array	81.67	17	P	P	07 40 03.2	-1.1
	0.2nm,0.5s,mb3.3,baz=201,slow=7.7,SNR=3.6						
KURK	Kurchatov	84.53	14	*e*P	P	07 40 20.1	+1.1
	11nm,1.3s,mb4.8						
YKA	Yellowknife Ar	149.03	353	PKPbc	PKPbc	07 47 33.9	+0.2
YKA	Yellowknife Ar	149.03	353	PKPbc	PKPbc	07 47 33.9	+0.2
	0.6nm,0.5s,baz=8.2,slow=2.5,SNR=26						

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*ISCJB **01** 08:09:01.9±0.7, 1.37N±0.08×125.9E±0.1, h10^{km}, mb4.2/5, Error ellipse: s-maj=22.1km s-min=10.5km az=163.9*

*IDC **01** 08:09:02.0±1.2, 1.36N×125.94E, h0^{km}, mb3.9/4, mb1 4.1/5, mb1mx3.8/15, mbtmp3.9/5, Error ellipse: s-maj=97.9km s-min=19.0km az=70.0*

*NEIC **01** 08:09:03.8±0.7, 1.37N×125.87E, h10^{km}, mb4.2/3, Error ellipse: s-maj=21.9km s-min=10.4km az=73.0*

ISC 01 08:09:03.8±0.7**, 1.35N**±0.08×**125.9E**±0.1**, h10**^{km}**, n12, σ0^{s}99**/12**, mb4.2**/5**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DAV	Davao City (W)	5.69	357	*e*Pn	Pn	08 10 28.3	-0.1
KSM	Kuching	15.54	271	*e*Pn	Pn	08 12 42.5	-0.8
FITZ	Fitzroy Crossi	19.33	181	*e*P	Pn	08 13 30.0	-0.5
	3.7nm,0.5s						
FITZ	Fitzroy Crossi	19.33	181	P	Pn	08 13 30.0	-0.4
	0.4nm,0.3s,baz=20,slow=11,SNR=11						
WRA	Warramunga Arr	22.74	159	P	P	08 14 04.8	-1.4
	6.1nm,0.8s,mb4.1,baz=338,slow=10,SNR=13						
WB2	Warramunga Arr	22.74	159	*e*P	P	08 14 06.1	-0.1
FORT	Forrest	32.02	176	*e*P	P	08 15 31.7	+1.1
	7.1nm,0.6s,mb4.7						
MUN	Mundaring	34.38	195	*e*P	P	08 15 53.6	+2.4
STKA	Stephens Creek	36.26	157	*e*P	P	08 16 06.9	-0.5
	1.7nm,0.6s,mb4.2						
STKA	Stephens Creek	36.26	157	P	P	08 16 07.0	-0.4
	1.7nm,0.6s,mb4.2,baz=345,slow=8.4,SNR=7.0						
SONM	Songino Array	49.28	343	P	P	08 17 53.7	+0.9
	0.5nm,0.6s,mb3.7,baz=161,slow=9.2,SNR=3.9						
MKAR	Makanchi Array	59.02	326	P	P	08 19 03.3	-0.6
	1.1nm,0.5s,mb4.1,baz=133,slow=7.0,SNR=13						

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*IDC **01** 08:12:14.8±1.3, 36.53N×72.91E, h0^{km}, mb3.8/6, mb1 3.9/9, mb1mx3.7/22, mbtmp3.8/9, ML3.5/3, Error ellipse: s-maj=31.0km s-min=29.7km az=87.0*

*ISCJB **01** 08:12:17.4±0.3, 36.70N±0.03×73.32E±0.05, h10^{km}, mb3.7/7, Error ellipse: s-maj=6.0km s-min=4.4km az=7.6*

*MOS **01** 08:12:18.2±1.1, 36.54N×72.94E, h33^{km}, mb4.1/3, Error ellipse: s-maj=30.5km s-min=10.2km az=81.3*

*BJI **01** 08:12:18.9, 36.66N×72.92E, h22^{km}, mb3.9, ML3.4*

*NEIC **01** 08:12:20.4±1.6, 36.71N×73.11E, h10^{km}, Error ellipse: s-maj=31.4km s-min=11.6km az=133.0*

ISC 01 08:12:19.2±0.3**, 36.69N**±0.03×**73.26E**±0.05**, h10**^{km}**, n41, σ1^{s}65**/48**, mb3.7**/7**, 3C-2D, Northwestern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHCP	Chirah Chowk	3.02	180	P	Pb	08 13 12.9	-0.2
CHCP				S	Sb	08 13 52.0	+1.9
CEP	Cherat	3.06	201	P	Pn	08 13 10.0	+2.3
KSH	Kashi	3.54	36	*e*P	Pb	08 13 19.6	-2.4
KSH				S	Sb	08 14 07.8	+2.8
KSH				Smax			
	comp=N,242nm,0.8s						
KSH				Smax			
	comp=E,260nm,0.9s						
KBL	Kabul	4.05	239	*e*Pn	Pn	08 13 22.0	+0.8
KBL				*e*Sn	Sb	08 14 17.9	-1.7
THW	Thamme Wali	4.08	198	P	Pn	08 13 24.0	+2.4
SBDP	Sheikh Budin	4.82	206	P	Pn	08 13 32.9	+1.1
AML	Almayashu	5.45	3	*e*Pn	Pn	08 13 42.7	+2.4
	comp=E,14nm,0.6s						
DRP	Derazinda	5.54	208	P	Pn	08 13 42.9	+1.2
EKS2	Erkin-Say	5.98	4	*e*Pn	Pn	08 13 49.8	+2.1
	comp=E,6.0nm,0.7s						
AAK	Ala-Archa	6.01	9	*e*Pn	Pn	08 13 50.3	+2.2
	comp=E,9.9nm,0.8s						
AAK	Ala-Archa	6.01	9	*e*PN	Pn	08 13 50.3	+2.2
AAK				pmax	pmax		
	comp=Z,10.0nm,0.8s						
TKM2	Tokmak 2	6.48	15	⇓Pn	Pn	08 13 57.5	+3.0
	comp=Z,0.5nm,0.7s						
TKM2				⇓Lg		08 15 42.4	
	comp=Z,4.1nm,1.2s						
TKM2	Tokmak 2	6.48	15	Pn	Pn	08 13 56.8	+2.2
	comp=Z,5.4nm,0.6s						
TKM2	Tokmak 2	6.48	15	PN	Pn	08 13 56.8	+2.3
TKM2				pmax	pmax		
	comp=Z,5.0nm,0.6s						
KK31	Karatay Array	6.74	343	Pn	Pn	08 13 58.5	+0.4
	comp=Z,1.2nm,0.3s,baz=162,slow=12,SNR=73						
KK31				⇑Pg	Pg	08 14 20.8	-7.5
	comp=Z,5.6nm,0.7s,baz=168,slow=14						
KK31				⇑Sn	Sn	08 15 13.2	-1.9
	comp=Z,4.7nm,0.6s,baz=152,slow=24						
KK31				⇑Lg		08 15 45.7	
	comp=Z,20nm,1.1s,baz=147,slow=25						
MK31	Makanchi Array	12.13	31	*e*Pn	Pn	08 15 13.8	+1.8
MKAR	Makanchi Array	12.13	31	Pn	Pn	08 15 13.8	+1.8
MKAR	Makanchi Array	12.13	31	Pn	Pn	08 15 13.8	+1.8
	comp=Z,0.1nm,0.3s,baz=196,slow=11,SNR=7.4						
KOLN	Koldanda	12.47	133	*e*P	Pn	08 15 18.0	+1.3
GKN	Gorkha	12.94	129	*e*P	Pn	08 15 22.9	-0.2
GKN				*e*S	Sn	08 17 45.3	-1.8
DMN	Daman	13.51	129	*e*P	Pn	08 15 31.2	+0.3
GUN	Gumba	13.79	126	*e*P	Pn	08 15 34.3	-0.5
JIRN	Jiri	14.16	126	*e*P	Pn	08 15 38.5	-1.4
KURK	Kurchatov	14.54	14	*e*Pn	Pn	08 15 47.0	+2.1
	comp=Z,5.2nm,1.0s						
KURK	Kurchatov	14.54	14	*e*P	Pn	08 15 47.0	+2.2
KURK				pmax	pmax		
	comp=Z,5.0nm,1.0s						
TAPN	Taplejung	15.38	123	*e*P	Pn	08 15 54.7	-1.5
TAPN				*e*S	Sn	08 18 41.6	-5.1
ODAN	Odare	15.49	125	*e*P	Pn	08 15 56.1	-1.6
AKTK	Aktyubinsk	17.58	326	P	Pn	08 16 22.9	-1.3
AKTO	Aktyubinsk	17.58	326	P	Pn	08 16 22.9	-1.3
	comp=Z,0.2nm,0.3s,baz=125,slow=16,SNR=5.7						
ZAL	Zalesovo	19.02	21	P	Pn	08 16 40.5	-1.2
ZALV	Zalesovo Beam	19.03	21	P	Pn	08 16 40.5	-1.4
	comp=Z,0.5nm,0.3s,baz=210,slow=11,SNR=10.0						
GTA	Gaotai	21.07	75	*e*P	P	08 17 08.5	+5.1
GTA				AP		08 17 12.7	
GTA				XP	sP	08 17 16.3	+8.8
GTA				AMB	AMB		
	comp=Z,3.0nm,1.2s,mb3.5						
ARCES	ARCESS Array B	41.67	337	P	P	08 20 04.7	-2.8
	comp=Z,5.9nm,0.9s,mb4.2,baz=108,slow=11,SNR=4.4						
NOA	NORSAR Array B	45.33	323	P	P	08 20 33.7	-3.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	45.33	323	P	P	08 20 33.7	-3.2
	comp=Z,0.6nm,0.8s,mb3.5,baz=90,slow=9.0,SNR=2.8						
TORD	Torodi Ar. Bea	67.54	270	P	P	08 23 11.0	-5.0
	comp=Z,0.3nm,0.6s,mb3.5,baz=63,slow=5.7,SNR=3.3						
INK	Inuvik	73.42	10	P	P	08 23 49.8	-1.2
INK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
INK	Inuvik	73.42	10	P	P	08 23 49.8	-1.2
	comp=Z,1.5nm,0.9s,mb3.9,baz=345,slow=5.6,SNR=6.8						
WRA	Warramunga Arr	80.56	123	P	P	08 24 30.4	-1.5
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	80.56	123	P	P	08 24 30.4	-1.5
	comp=Z,0.8nm,0.7s,mb3.8,baz=321,slow=4.9,SNR=4.8						
YKA	Yellowknife Ar	80.96	4	P	P	08 24 31.6	-1.8
	comp=Z,0.3nm,0.6s,mb3.4,baz=351,slow=5.4,SNR=9.5						

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*NEIC **01** 08:17:46.3, 18.17N×100.00W, h45^{km}, MD3.7(MEX), After MEX.*

MEX 01 08:17:46.3±0.7**, 18.17N**×**100.00W, h45**^{km}±12^{km}**, MD3.7, 3C, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLIG	Platanillo	0.52	65	⇑*i*P	Pn	08 17 56.2	-1.4
PLIG				*i* S	Sn	08 18 04.0	-1.6
YAIG	Yautepec	1.12	52	⇑*i*P	Pn	08 18 03.8	-1.8
YAIG				*i* S	Sn	08 18 17.2	-2.6
CAIG	El Cayaco	1.15	193	*i* P	Pn	08 18 04.7	-1.3
CAIG				*i* S	Sn	08 18 17.4	-3.1
ACX	Acapulco	1.30	176	*i* P	Pn	08 18 06.0	-2.0
ACX				*i* S	Sn	08 18 24.0	-0.2
UNM	Universidad Na	1.39	34	*i* P	Pn	08 18 07.7	-1.5
UNM				*i* S	Sn	08 18 24.8	-1.6
PPM	Popocatepetl	1.58	55	*i* P	Pn	08 18 10.9	-0.9
PPM				*i* S	Sn	08 18 30.8	-0.3
PTVM	Pico Tres Padr	1.65	31	*i* P	Pn	08 18 05.1	-7.6
PTVM				*i* S	Sn	08 18 24.5	-8.2
IIO	Organos	1.86	40	*i* P	Pn	08 18 14.9	-0.8
IIO				*i* S	Sn	08 18 34.1	-3.9
UTMO	Huajuapan	2.12	99	*i* P	Pn	08 18 18.5	-0.7
UTMO				*i* S	Sn	08 18 41.9	-2.5
TPIG	Tehuac#an	2.52	84	⇑*i*P	Pn	08 18 24.3	-0.5
TPIG				*i* S	Sn	08 18 51.7	-2.6
CMIG	Matias Romero	5.00	102	*i* P	Pn	08 18 58.5	-0.2
CMIG				*i* S	Sn	08 19 52.1	-3.2

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*IDC **01** 08:18:33.0±2.0, 45.53N×154.04E, h0^{km}, mb3.9/10, mb1 4.1/11, mb1mx3.9/22, mbtmp3.9/11, ML3.8/1, MS3.4/1, Ms1 3.4/1, ms1mx2.4/30, Error ellipse: s-maj=62.0km s-min=18.5km az=176.0*

*ISCJB **01** 08:18:34.7±0.7, 45.2N±0.1×153.89E±0.09, h33^{km}, mb3.9/15, Error ellipse: s-maj=20.3km s-min=5.2km az=158.7*

*NEIC **01** 08:18:34.7±0.7, 45.53N×154.03E, h10^{km}, mb4.1/3, Error ellipse: s-maj=17.1km s-min=9.4km az=172.0*

*BJI **01** 08:18:35.3, 45.98N×153.68E, h10^{km}, mB5.1, mb4.3*

*MOS **01** 08:18:37.3±1.4, 45.59N×153.77E, h44^{km}, mb4.1/10, Error ellipse: s-maj=14.9km s-min=12.3km az=91.6*

ISC 01 08:18:37.3±0.7**, 45.3N**±0.1×**153.89E**±0.09**, h35**^{km}**, n48, σ1^{s}04**/56**, mb3.9**/15**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	4.25	271	*e*PN	Pn	08 19 39.5	0.0
KUR				*e*S	Sn	08 20 27.0	-0.9
KUR				pmax	pmax		
	comp=Z,170nm,0.5s						
KUR				smax			
	comp=N,120nm,0.5s						
KUR				smax			
	comp=E,210nm,0.5s						
SKR	Severo-Kuril's	5.61	15	*e*PN	Pn	08 19 53.7	-4.4
YUK	Yuzh-Kuril'sk	5.86	261	PN	Pn	08 20 00.5	-1.1
NEM2	Nemuro 2	6.15	255	P	Pn	08 20 04.3	-1.3
NEM2				*e*S	Sn	08 21 11.3	-3.4
JRA	Rausu	6.40	261	P	Pn	08 20 09.6	+0.6
JRA				*e*S	Sn	08 21 21.2	+0.4
JNK	Nakash	6.78	259	P	Pn	08 20 14.3	0.0
JNK				*e*S	Sn	08 21 29.4	-0.8
JAK	Akkeshi	7.00	254	P	Pn	08 20 16.3	-0.9
JAK				*e*S	Sn	08 21 31.8	-3.7
JTKR	Abashiri--Toko	7.24	263	P	Pn	08 20 21.2	+0.6
JAR	Ashorobuto	7.53	258	P	Pn	08 20 25.2	+0.7
JMP	Maruseppu	7.62	264	P	Pn	08 20 26.9	+1.2
JOB	Onbets	7.62	255	P	Pn	08 20 26.5	+0.7
JSE	Soyaes	8.00	272	P	Pn	08 20 33.2	+2.2
JCH	Churui	8.05	254	P	Pn	08 20 31.1	-0.6
JCH				*e*S	Sn	08 21 56.9	-4.5
JKK2	Kamakawa 2	8.08	264	P	Pn	08 20 33.2	+1.1
ASAJ	Asahikawa	8.13	266	PN	Pn	08 20 34.1	+1.3
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	8.13	266	Pn	Pn	08 20 34.1	+1.3
	comp=Z,1.4nm,0.3s,baz=58,slow=13,SNR=10.0						
JNBK	Urakawa-nobuka	8.60	254	P	Pn	08 20 39.1	-0.1
JBT2	Biratori 2	8.67	257	P	Pn	08 20 40.0	-0.2
JBT2				*e*S	Sn	08 22 13.1	-3.6
JKB	Kayabe	9.93	255	P	Pn	08 20 56.5	-0.9
JKB				*e*S	Sn	08 22 41.5	-6.0
JTH	Tanohata	10.34	243	*e*S	Sn	08 22 50.7	-7.0
MA2	Magadan	14.44	354	*e*Pn	Pn	08 21 55.5	-3.5
BILL	Bilibino	23.71	12	*e*P	P	08 23 44.3	-1.3
	comp=Z,2.1nm,0.3s,mb4.0						
BILL	Bilibino	23.71	12	*e*P	P	08 23 44.3	-1.4
BILL				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.0						
ULN	Ulaanbaatar	31.92	292	*e*P	P	08 25 00.7	+1.4
	comp=Z,1.1nm,0.8s,mb3.7						
ULN	Ulaanbaatar	31.92	292	*e*P	P	08 25 00.7	+1.4
ULN				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.7						
SONM	Songino Array	32.36	292	P	P	08 25 04.8	+1.7
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	32.36	292	P	P	08 25 04.8	+1.7
	comp=Z,1.3nm,0.7s,mb3.9,baz=76,slow=8.1,SNR=11						
ZAK	Zakamensk	33.81	297	*e*P	P	08 25 15.1	-0.7
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
GTA	Gaotai	39.76	281	*e*P	P	08 26 08.6	+2.1
GTA				AP	pP	08 26 13.0	-3.8
GTA				XP	sP	08 26 16.1	-4.8
GTA				AMB	AMB		
	comp=Z,3.0nm,0.8s,mb4.1						
INK	Inuvik	42.61	32	P	P	08 26 29.1	-0.5
INK				pmax	pmax		
	comp=Z,1.0nm,1.0s						
INK	Inuvik	42.61	32	P	P	08 26 29.1	-0.4
	comp=Z,0.9nm,1.0s,mb3.5,baz=271,slow=12,SNR=5.5						
MK31	Makanchi Array	48.11	299	*e*P	P	08 27 14.2	+0.8
MKAR	Makanchi Array	48.11	299	P	P	08 27 14.3	+0.9
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MKAR				MLR	MLR		
	comp=Z,38nm,19.9s						
MKAR	Makanchi Array	48.11	299	P	P	08 27 14.3	+0.9
	comp=Z,2.9nm,0.7s,mb4.4,baz=67,slow=7.8,SNR=36						
KURK	Kurchatov	48.64	305	*e*P	P	08 27 17.3	-0.1
	comp=Z,2.8nm,0.8s,mb4.3						
KURK	Kurchatov	48.64	305	*e*P	P	08 27 17.3	-0.1
KURK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
YKA	Yellowknife Ar	51.78	36	P	P	08 27 40.1	-0.9
	comp=Z,0.4nm,0.6s,mb3.6,baz=295,slow=7.1,SNR=8.1						
NVAR	Mina Array Bea	62.64	62	P	P	08 28 58.7	+0.6
	comp=Z,0.6nm,0.7s,mb3.9,baz=294,slow=6.8,SNR=5.3						
PDAR	Pinedale Array	65.18	54	P	P	08 29 14.0	-0.7
	comp=Z,0.4nm,0.6s,mb3.7,baz=270,slow=3.0,SNR=5.1						
FINES	FINESS Array B	65.60	335	P	P	08 29 16.5	-0.6
FINES	FINESS Array B	65.60	335	P	P	08 29 16.5	-0.6
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
FINES	FINESS Array B	65.60	335	P	P	08 29 16.5	-0.6
	comp=Z,1.6nm,0.7s,mb4.2,baz=46,slow=5.5,SNR=4.0						
NOA	NORSAR Array B	69.79	342	P	P	08 29 43.2	-0.4
NOA	NORSAR Array B	69.79	342	P	P	08 29 43.2	-0.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NOA	NORSAR Array B	69.79	342	P	P	08 29 43.2	-0.4
	comp=Z,1.1nm,0.9s,mb3.8,baz=13,slow=8.2,SNR=2.5						
AKASG	Malin Array Be	73.07	327	P	P	08 30 03.4	-0.1
	comp=Z,0.3nm,0.4s,mb3.6,baz=32,slow=5.8,SNR=4.3						
TXAR	Lajitas Array	77.74	61	P	P	08 30 30.6	-0.1
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	77.74	61	P	P	08 30 30.6	-0.1
	comp=Z,0.8nm,0.7s,mb3.8,baz=303,slow=3.8,SNR=11						

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*IDC **01** 08:20:02.0±0.9, 0.46S×123.10E, h0^{km}, mb4.3/7, mb1 4.4/8, mb1mx4.2/18, mbtmp4.3/8, ML3.5/1, MS3.4/5, Ms1 3.4/5, ms1mx3.1/24, Error ellipse: s-maj=39.6km s-min=17.4km az=78.0*

*ISCJB **01** 08:20:06.6±2.5, 0.45S±0.08×123.37E±0.09, h40^{km}±24^{km}, mb4.8/24, MS3.3/5, Error ellipse: s-maj=18.7km s-min=9.6km az=141.9*

*MOS **01** 08:20:10.3±1.3, 0.51S×123.32E, h77^{km}, mb4.9/8, Error ellipse: s-maj=22.1km s-min=12.3km az=93.1*

*NEIC **01** 08:20:10.7±2.0, 0.53S×123.27E, h68^{km}±20^{km}, mb4.5/7, Error ellipse: s-maj=27.7km s-min=9.6km az=61.0*

*BJI **01** 08:20:10.6, 0.50S×123.30E, h68^{km}, mB5.4, mb4.5*

ISC 01 08:20:09.5±1.9**, 0.50S**±0.08×**123.36E**±0.09**, h51**^{km}±19^{km}**, n51, σ0^{s}92**/42**, mb4.8**/24**, MS3.3**/5**, 3C, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KKM	Kota Kinabalu	9.65	312	*e*Pn	Pn	08 22 26.4	+0.5
KKM				*e*Sn	Sn	08 24 01.8	-11
FITZ	Fitzroy Crossi	17.63	173	P	Pn	08 24 11.0	-0.6
	0.1nm,0.3s,baz=20,slow=15,SNR=3.6						
WRA	Warramunga Arr	22.11	152	P	P	08 25 00.0	-0.7
	6.9nm,0.6s,mb4.2,baz=330,slow=9.9,SNR=21						
WB2	Warramunga Arr	22.12	152	*e*P	P	08 25 00.1	-0.7
PSI	Prapat	24.65	278	LR	LR	08 35 37.9	
	comp=Z,128nm,18.4s,MS3.5,baz=176,slow=38						
PMG	Port Moresby	25.28	111	*e*P	P	08 25 32.3	+0.9
	37nm,1.3s,mb4.8						
PMG	Port Moresby	25.28	111	*e*P	P	08 25 32.3	+0.9
PMG				pmax	pmax		
	comp=Z,37nm,1.3s						
CHTO	Chiang Mai	30.72	310	*e*P	P	08 26 20.8	+0.9
	comp=Z,9.7nm,1.0s,mb4.6						
CHTO	Chiang Mai	30.72	310	*e*P	P	08 26 20.8	+0.9
CHTO				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
CBIJ	Chichi jima	32.88	32	P	P	08 26 38.2	-0.6
	comp=Z,86nm,0.6s,mb5.9,baz=250,slow=4.1,SNR=8.8						
CBIJ				LR	LR	08 37 24.2	
	comp=Z,79nm,19.8s,MS3.4,baz=186,slow=32						
JNU	Nakatsue	34.19	11	LR	LR	08 40 41.7	
	comp=Z,45nm,19.4s,MS3.2,baz=14,slow=36						
STKA	Stephens Creek	35.65	153	*e*P	P	08 27 04.8	+2.1
	comp=Z,0.9nm,0.3s,mb4.2						
STKA	Stephens Creek	35.65	153	P	P	08 27 04.1	+1.4
	comp=Z,1.0nm,0.5s,mb4.0,baz=313,slow=13,SNR=4.1						
KSRS	Korea Array	38.00	6	LR	LR	08 41 58.9	
	comp=Z,17nm,20.9s,MS2.8,baz=155,slow=35						
MJAR	Matsushiro Arr	39.35	19	P	P	08 27 33.1	-0.9
	comp=Z,6.5nm,0.7s,mb4.5,baz=191,slow=9.2,SNR=15						
MJAR				LR	LR	08 40 45.7	
	comp=Z,89nm,22.0s,MS3.5,baz=25,slow=32						
LSA	Lhasa	42.96	317	P	P	08 28 05.1	+1.3
ODAN	Odare	44.02	311	*e*P	P	08 28 12.2	-0.2
	comp=Z,18nm,0.7s,mb4.9						
TAPN	Taplejung	44.05	312	*e*P	P	08 28 12.4	-0.2
	comp=Z,11nm,0.5s,mb4.8						
GTA	Gaotai	45.20	334	*e*P	P	08 28 25.1	+3.6
GTA				AMB	AMB		
	comp=Z,6.0nm,1.1s,mb4.3						
JIRN	Jiri	45.35	311	*e*P	P	08 28 22.0	-1.0
	comp=Z,12nm,0.4s,mb5.0						
GUN	Gumba	45.72	311	*e*P	P	08 28 26.4	+0.6
	comp=Z,26nm,0.6s,mb5.3						
KKN	Kakani	46.11	311	*e*P	P	08 28 29.0	+0.1
GKN	Gorkha	46.70	311	*e*P	P	08 28 33.4	-0.2
	comp=Z,13nm,0.6s,mb5.1						
KOLN	Koldanda	47.38	310	*e*P	P	08 28 38.9	0.0
	comp=Z,10nm,0.6s,mb5.0						
ASAJ	Asahikawa	47.62	19	P	P	08 28 41.1	+0.7
ASAJ				pmax	pmax		
	comp=Z,12nm,0.7s						
ASAJ	Asahikawa	47.62	19	P	P	08 28 41.1	+0.7
	comp=Z,12nm,0.7s,mb5.0,baz=216,slow=10,SNR=15						
ULN	Ulaanbaatar	50.22	346	*e*P	P	08 29 00.6	+0.3
	comp=Z,2.1nm,0.6s,mb4.3						
ULN	Ulaanbaatar	50.22	346	*e*P	P	08 29 00.6	+0.3
ULN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
SONM	Songino Array	50.36	345	P	P	08 29 00.6	-0.7
	comp=Z,2.6nm,0.8s,mb4.3,baz=162,slow=8.4,SNR=21						
BOD	Bodaibo	58.62	354	*e*P	P	08 29 57.7	-3.4
MK31	Makanchi Array	59.23	328	*e*P	P	08 30 04.2	-1.4
MKAR	Makanchi Array	59.23	328	P	P	08 30 03.9	-1.7
	comp=Z,1.4nm,0.5s,mb4.2,baz=120,slow=8.9,SNR=16						
PET	Petropavlovsk	60.91	24	⇑*e*P	P	08 30 17.3	+0.3
PET				pmax	pmax		
	comp=Z,14nm,1.2s,mb5.0						
YAK	Yakutsk	62.55	3	⇑*e*P	P	08 30 28.4	+0.6
YAK				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.4						
KURK	Kurchatov	63.59	330	*e*P	P	08 30 34.7	-0.2
	comp=Z,4.5nm,0.6s,mb4.7						
KURK	Kurchatov	63.59	330	*e*P	P	08 30 34.7	-0.2
KURK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
MA2	Magadan	63.62	15	*e*P	P	08 30 34.9	0.0
	comp=Z,14nm,0.7s,mb5.1						
MA2	Magadan	63.62	15	*e*P	P	08 30 35.4	+0.5
MA2				pmax	pmax		
	comp=N,9.0nm,0.9s						
MA2				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
SEY	Seymchan	66.90	14	⇑*e*P	P	08 30 56.9	+0.8
TIXI	Tiksi	72.12	2	*e*P	P	08 31 26.0	-2.2
	comp=Z,4.2nm,0.8s,mb4.4						
TIXI	Tiksi	72.12	2	*e*P	P	08 31 25.3	-2.9
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
KIV	Kislovodsk	83.63	314	*e*P	P	08 32 33.7	+1.0
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
DAWY	Dawson	93.63	26	*e*P	P	08 33 20.8	+0.7
INK	Inuvik	95.30	21	P	P	08 33 27.7	0.0
	comp=Z,0.6nm,0.5s,mb4.3,baz=237,slow=5.5,SNR=6.7						
YKA	Yellowknife Ar	104.71	24	Pdif	Pdif	08 34 11.5	+1.5
YKA	Yellowknife Ar	104.71	24	Pdiff	Pdif	08 34 11.5	+1.5
	comp=Z,0.1nm,0.6s,baz=296,slow=5.0,SNR=5.6						
TORD	Torodi Ar. Bea	120.89	285	PKP	PKPdf	08 38 55.6	-1.6
TORD	Torodi Ar. Bea	120.89	285	PKP	PKPdf	08 38 55.6	-1.6
	comp=Z,0.6nm,0.7s,baz=73,slow=2.2,SNR=4.2						
TXAR	Lajitas Array	126.83	53	PKP	PKPdf	08 39 09.0	+0.7
TXAR	Lajitas Array	126.83	53	PKP	PKPdf	08 39 09.0	+0.7
	comp=Z,0.6nm,0.9s,baz=203,slow=1.0,SNR=4.6						
CNNC	Cliffs of the	140.16	28	*e*PKPdf	PKPdf	08 39 29.6	-3.5

MAN 01 08:31:04, 11.74N×**125.43E, h29**^{km}**, mb4.1, ML2.9, MS2.6, Samar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BESP	Borongan	0.14	176	*e*P	Pb	08 31 11.5	+2.0
BESP				*e*S	Sb	08 31 16.9	+3.8
PLP	Palo	0.72	218	*e*P	Pb	08 31 19.0	+1.0
PLP				*e*S	Sb	08 31 29.9	+2.4
CNP	Catarman	1.07	316	*e*P	Pn	08 31 23.6	+0.5

SSNC 01 09:06:28.1, 20.12N×**72.41W, h0**^{km}**, MD3.5, ML2.1, Haiti region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MASC	Masc	1.71	272	*e*PG	Pg	09 06 55.2	-5.7
	baz=111						
MASC				*e*SG	Sg	09 07 31.1	+8.0
	comp=N,1.2nm,0.1s						
MASC				*e*			
	comp=E,1.8nm,0.2s						
RCC	Rio Carpintero	3.09	268	*e*P	Pn	09 07 13.8	-4.3
RCC				*e*S	Sn	09 08 02.4	+6.6
	comp=N,6.8nm,0.2s						
RCC				*e*			
	comp=E,7.1nm,0.2s						
LMGC	Las Mercedes	4.32	270	*e*P	Pn	09 07 30.4	-4.6
LMGC				*e*S	Sn	09 08 30.6	+4.5
	comp=N,7.7nm,0.2s						
LMGC				*e*			
	comp=E,7.0nm,0.3s						
CCCC	Cccc	5.13	283	*e*P	Sn	09 08 44.2	-1.9

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*IDC **01** 09:33:14.8±1.3, 25.06S×176.86W, h0^{km}, mb4.3/3, mb1 4.6/6, mb1mx4.2/16, mbtmp4.7/6, ML4.3/3, MS3.7/2, Ms1 3.7/2, ms1mx2.9/28, Error ellipse: s-maj=35.0km s-min=24.3km az=129.0*

*ISCJB **01** 09:33:19.2±1.7,25.1S±0.1×176.6W±0.2,h58^{km}±23^{km}, mb4.6/5,MS3.7/2,Error ellipse: s-maj=32.5km s-min=12.0km az=23.6*

*NEIC **01** 09:33:21.7±1.3,25.10S×176.66W,h63^{km}±14^{km},Error ellipse: s-maj=19.0km s-min=11.0km az=128.0*

ISC 01 09:33:21.4±1.3,**25.13S**±0.09×**176.7W**±0.1,**h58**^{km}±18^{km},**n27,** σ**0^{s}99**/23,**mb4.6**/5,**MS3.7**/2,**South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**4.25**	**195**	Pn	**Pn**	**09 34 23.1**	**-0.5**
RAO				Sn	**Sn**	**09 35 11.4**	**-0.5**
RAO	**Raoul Island**	**4.25**	**195**	Pn	**Pn**	**09 34 23.1**	**-0.5**
	78nm,0.3s,baz=276,slow=23,SNR=2.8						
RAO				Sn	**Sn**	**09 35 11.4**	**-0.5**
	96nm,0.3s,baz=103,slow=23,SNR=5.7						
AFI	**Afiamalu**	**12.08**	**23**	Pn	**Pn**	**09 36 10.0**	**-0.8**
AFI				Sn	**Sn**	**09 38 17.3**	**-6.6**
AFI	**Afiamalu**	**12.08**	**23**	Pn	**Pn**	**09 36 10.0**	**-0.8**
	14nm,0.3s,baz=139,slow=3.2,SNR=22						
AFI				Sn	**Sn**	**09 38 17.3**	**-6.6**
	7.9nm,0.3s,baz=22,slow=22,SNR=5.3						
URZ	**Urewera**	**14.11**	**200**	Pn	**Pn**	**09 36 40.4**	**+2.2**
URZ				Sn	**Sn**	**09 38 57.1**	**-16**
URZ	**Urewera**	**14.11**	**200**	Pn	**Pn**	**09 36 40.4**	**+2.2**
	1.7nm,0.3s,baz=182,slow=0.8,SNR=9.9						
URZ				Sn	**Sn**	**09 38 57.1**	**-16**
	2.0nm,0.3s,baz=179,slow=15,SNR=8.7						
DZM	**Mont Dzumac**	**15.77**	**278**	Pn	**Pn**	**09 37 09.0**	**+9.1**
DZM	**Mont Dzumac**	**15.77**	**278**	Pn	**Pn**	**09 37 09.0**	**+9.1**
	0.2nm,0.3s,baz=72,slow=20,SNR=3.5						
RAR	**Rarotonga**	**16.02**	**79**	Pn	**Pn**	**09 37 03.9**	**+0.8**
RAR	**Rarotonga**	**16.02**	**79**	Pn	**Pn**	**09 37 03.9**	**+0.8**
	2.1nm,0.3s,baz=256,slow=12,SNR=5.2						
PPT	**Papeete**	**26.30**	**79**	LR	LR	09 47 20.6	
	comp=Z,72nm,20.8s,MS3.2,baz=273,slow=32						
CTAO	**Charters Tower**	**34.51**	**271**	*e*P	**P**	**09 40 05.9**	**+1.7**
	40nm,1.5s,mb5.1						
STKA	**Stephens Creek**	**37.11**	**250**	*e*P	**P**	**09 40 25.7**	**-0.7**
STKA	**Stephens Creek**	**37.11**	**250**	P	**P**	**09 40 25.5**	**-0.9**
	2.1nm,0.5s,mb4.2,baz=99,slow=11,SNR=10						
PMG	**Port Moresby**	**37.75**	**288**	P	**P**	**09 40 32.2**	**+0.2**
	7.2nm,0.7s,mb4.5,baz=106,slow=8.7,SNR=4.5						
WB2	**Warramunga Arr**	**45.34**	**266**	*e*P	**P**	**09 41 33.7**	**-0.3**
WRA	**Warramunga Arr**	**45.35**	**266**	P	**P**	**09 41 33.8**	**-0.3**
	1.0nm,0.6s,mb3.8,baz=104,slow=7.8,SNR=7.1						
MAW	**Mawson**	**77.64**	**200**	*e*P	**P**	**09 45 09.9**	**-1.2**
	26nm,1.1s,mb5.1						
ANMO	**Albuquerque**	**89.36**	**51**	LR	LR	10 20 29.6	
	comp=Z,92nm,18.6s,MS4.2,baz=118,slow=32						
MKAR	**Makanchi Array**	**115.22**	**312**	PKP		09 51 56.0	
MKAR	**Makanchi Array**	**115.22**	**312**	PKP		09 51 56.0	
	0.2nm,0.5s,baz=81,slow=0.8,SNR=5.4						
FINES	**FINESS Array B**	**140.54**	**343**	PKP	PKPdf	09 52 46.5	+3.0
FINES	**FINESS Array B**	**140.54**	**343**	PKP	PKPdf	09 52 46.5	+3.0
	2.3nm,0.9s,baz=134,slow=5.5,SNR=3.7						
NOA	**NORSAR Array B**	**143.70**	**354**	PKP	PKPdf	09 52 47.6	-1.6
NOA	**NORSAR Array B**	**143.70**	**354**	PKhKP		09 52 47.6	
	1.9nm,0.8s,baz=7.6,slow=2.3,SNR=4.2						
AKASG	**Malin Array Be**	**147.61**	**329**	PKPbc	PKPbc	09 52 59.5	+0.5
AKASG	**Malin Array Be**	**147.61**	**329**	PKPbc	PKPbc	09 52 59.5	+0.5
	0.7nm,0.4s,baz=43,slow=4.1,SNR=6.7						

*ISCJB **01** 09:48:44.0±1.1,28.44S±0.05×67.5W±0.1,h118^{km}±13^{km}, mb3.6/3,Error ellipse: s-maj=16.1km s-min=7.4km az=170.4*

*NEIC **01** 09:48:46.0,28.38S×67.75W,h146^{km},MG4.4(GUC),After GUC.*

*GUC **01** 09:48:46.0±0.9,28.38S×67.75W,h146^{km}±92^{km},ML4.4*

*IDC **01** 09:48:47.1±4.1,28.63S×67.69W,h135^{km}±40^{km},mb3.5/3, mb1 3.8/3,mb1mx3.4/14,mbtmp3.5/3,Error ellipse: s-maj=44.4km s-min=40.3km az=35.0*

ISC 01 09:48:45.1±1.0,**28.44S**±0.05×**67.5W**±0.1,**h116**^{km}±12^{km},**n17,** σ**0^{s}95**/25,**mb3.6**/3,**4C-2D,La Rioja Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPCH	**Copiapo**	**2.71**	**293**	*e*P	**Pn**	**09 49 27.9**	**+0.4**
CPCH				*i* S	**Sn**	**09 49 59.1**	**-1.1**
LCO	**Las Campanas**	**2.83**	**258**	⇑*i*P	**Pn**	**09 49 30.3**	**+1.2**
LCO				*e*Sn	**Sn**	**09 50 03.6**	**+0.6**
VACH	**Vallenar**	**2.84**	**267**	*e*P	**Pn**	**09 49 29.7**	**+0.6**
VACH				*i* S	**Sn**	**09 50 02.7**	**-0.3**
CFAA	**Coronel Fontan**	**3.21**	**191**	P	**Pn**	**09 49 34.7**	**+0.7**
CFAA				S	**Sn**	**09 50 10.6**	**-1.2**
CFAA	**Coronel Fontan**	**3.21**	**191**	P	**Pn**	**09 49 34.7**	**+0.7**
	1.5nm,0.3s,baz=2.4,slow=10,SNR=133						
CFAA				S	**Sn**	**09 50 10.6**	**-1.2**
	10nm,0.3s,baz=6.4,slow=12,SNR=38						
TLL	**Tololo Astrono**	**3.33**	**238**	⇑*i*P	**Pn**	**09 49 36.6**	**+1.0**
TLL				*i* S	**Sn**	**09 50 15.8**	**+1.2**
TLL	**Tololo Astrono**	**3.33**	**238**	⇑*i*P	**Pn**	**09 49 36.6**	**+1.0**
TLL				*i* S	**Sn**	**09 50 15.8**	**+1.2**
TLL				AML	AML	09 50 19.9	
	comp=E,132nm,0.4s						
CMCH	**Combarbala**	**4.06**	**227**	⇓*i*P	**Pn**	**09 49 44.4**	**-1.0**
CMCH				*i* S	**Sn**	**09 50 30.4**	**-1.5**
CMCH	**Combarbala**	**4.06**	**227**	⇓*i*P	**Pn**	**09 49 44.4**	**-1.0**
CMCH				*i* S	**Sn**	**09 50 30.4**	**-1.5**
CMCH				AML	AML	09 50 31.9	
	comp=E,687nm,0.6s						
CPN1	**Cerro Paranal**	**4.59**	**325**	*e*P	**Pn**	**09 49 53.7**	**+1.2**
CPN1				*i* S	**Sn**	**09 50 44.1**	**-0.6**
CEN1	**Los Morros**	**5.57**	**334**	⇑*i*P	**Pn**	**09 50 04.5**	**-1.2**
CEN1				*i* S	**Sn**	**09 51 02.5**	**-6.2**
TORD	**Torodi Ar. Bea**	**78.63**	**68**	P	**P**	**10 00 35.1**	**+0.4**
	comp=E,0.5nm,0.5s,mb3.6,baz=273,slow=5.1,SNR=8.2						
PDAR	**Pinedale Array**	**80.72**	**330**	P	**P**	**10 00 45.9**	**+0.6**
	comp=E,0.5nm,0.5s,mb3.6,baz=134,slow=8.7,SNR=7.8						
YKA	**Yellowknife Ar**	**98.11**	**340**	P	**P**	**10 02 06.9**	**-1.2**
	comp=E,0.1nm,0.5s,mb3.6,baz=143,slow=5.3,SNR=4.6						
WRA	**Warramunga Arr**	**127.46**	**206**	PKP	PKPdf	10 07 35.8	-1.2
	comp=E,0.7nm,0.7s,baz=175,slow=1.5,SNR=9.2						
ZALV	**Zalesovo Beam**	**147.49**	**31**	PKPbc	PKPbc	10 08 15.6	+0.4
	comp=E,1.6nm,0.3s,baz=290,slow=4.2,SNR=10						
MKAR	**Makanchi Array**	**150.15**	**44**	PKPbc	PKPbc	10 08 22.2	0.0
	comp=E,1.1nm,0.8s,baz=295,slow=3.1,SNR=9.1						

*IDC **01** 10:21:58.0±1.9,0.73N×97.30E,h0^{km},mb4.3/5,mb1 4.3/6, mb1mx3.9/20,mbtmp4.2/6,ML3.7/1,Error ellipse: s-maj=48.7km s-min=25.5km az=58.0*

*ISCJB **01** 10:22:01.8±1.3,0.8N±0.2×97.5E±0.1,h33^{km},mb4.5/9,Error ellipse: s-maj=27.1km s-min=17.8km az=34.7*

ISC 01 10:22:04.4±1.4,**0.9N**±0.2×**97.6E**±0.2,**h35**^{km},**n13,**σ**0^{s}35**/12, **mb4.5**/9,**Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.37**	**35**	Pn	**Pn**	**10 22 40.7**	**-0.1**
	15nm,0.3s,baz=238,slow=5.4,SNR=41						
ODAN	**Odare**	**27.63**	**340**	*e*P	**P**	**10 27 49.3**	**+0.5**
	12nm,0.8s,mb4.6						
TAPN	**Taplejung**	**27.98**	**341**	*e*P	**P**	**10 27 52.4**	**+0.5**
	24nm,0.9s,mb4.8						
JIRN	**Jiri**	**28.79**	**339**	*e*P	**P**	**10 27 59.6**	**+0.5**
GUN	**Gumba**	**29.13**	**338**	*e*P	**P**	**10 28 01.8**	**-0.4**
	10nm,0.5s,mb4.8						
GKN	**Gorkha**	**29.69**	**336**	*e*P	**P**	**10 28 06.7**	**-0.4**
KOLN	**Koldanda**	**29.91**	**335**	*e*P	**P**	**10 28 09.1**	**0.0**
	13nm,0.8s,mb4.8						
WRA	**Warramunga Arr**	**41.56**	**122**	P	**P**	**10 29 49.0**	**0.0**
	1.8nm,0.7s,mb3.8,baz=299,slow=9.0,SNR=14						
KSRS	**Korea Array**	**45.93**	**34**	P	**P**	**10 30 24.1**	**+0.2**
	2.4nm,0.7s,mb4.2,baz=220,slow=8.6,SNR=7.0						
SONM	**Songino Array**	**47.41**	**8**	P	**P**	**10 30 35.5**	**+0.1**
	1.1nm,0.4s,mb4.1,baz=188,slow=9.5,SNR=18						
MKAR	**Makanchi Array**	**47.65**	**346**	P	**P**	**10 30 36.9**	**-0.3**
	3.3nm,0.5s,mb4.7,baz=159,slow=7.9,SNR=56						
ZALV	**Zalesovo Beam**	**53.95**	**351**	P	**P**	**10 31 23.9**	**-0.6**
	3.3nm,0.4s,mb4.6,baz=179,slow=6.4,SNR=18						
TXAR	**Lajitas Array**	**143.77**	**32**	PKP	PKPdf	10 41 34.4	-2.2
	0.3nm,0.7s,baz=319,slow=1.0,SNR=3.7						

*BJI **01** 10:43:19.7,0.60N×126.46E,h10^{km},mB5.3,mb5.4,Ms4.7, Msz4.5*

*ISCJB **01** 10:43:26.0±0.2,1.21N±0.02×126.37E±0.03,h15^{km}, mb5.6/133,MS4.7/122,Error ellipse: s-maj=4.4km s-min=3.0km az=167.8*

*IDC **01** 10:43:25.2±0.4,1.14N×126.32E,h0^{km},mb5.5/23, mb1 5.4/24,mb1mx5.4/25,mbtmp5.5/24,ML5.0/1,MS4.3/16, Ms1 4.3/16,ms1mx4.2/25,Error ellipse: s-maj=15.4km s-min=8.8km az=70.0*

*GCMT **01** 10:43:26.7±0.2,1.30N×126.34E,h40^{km},MW5.4/82, Moment Tensor Solution. s82,c126; s82,c144; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}1.48±.03; $M_{\theta\theta}$-0.15±.02; $M_{\phi\phi}$-1.33±.03; $M_{r\theta}$-0.16±.02; $M_{\theta\phi}$-0.70±.02; $M_{\phi r}$-0.07±.03; Best double couple: $M_0$1.57600×10^{17} NP1:ϕ_s20.00000°,δ43.00000°, λ83.00000°. NP2:ϕ_s210.00000°,δ48.00000°,λ97.00000°. Principal axes: T 1.4950, Plg85.0000°, Azm179.0000°; N 0.1660, Plg5.0000°, Azm25.0000°; P -1.6580, Plg2.0000°, Azm295.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **01** 10:43:26.7±0.1,1.22N×126.35E,h10^{km},mb5.5/62, MS4.8/91 Error ellipse: s-maj=6.4km s-min=4.3km az=67.0*

NEIC Felt [III] on Ternate and at Manado, Indonesia.

*MOS **01** 10:43:29.0±1.1,1.28N×126.28E,h33^{km},mb5.8/49, MS4.5/26,Error ellipse: s-maj=9.7km s-min=5.1km az=111.1*

ISC 01 10:43:27.8±0.2,**1.21N**±0.02×**126.36E**±0.03,**h15**^{km}, **h15**^{km}±1.5^{km}**:pP-P,n597,**σ**1^{s}06**/356,**mb5.6**/133,**MS4.7**/122, **108C-82D,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	**General Santos**	**5.04**	**344**	⇓*e*P	**Pn**	**10 44 44.5**	**+1.6**
GSPH				*e*S	**Sn**	**10 45 39.6**	**-1.4**
AAI	**Ambon**	**5.20**	**159**	P	**Pn**	**10 44 49.1**	**+4.0**
	694nm,0.7s						
DAV	**Davao City (W)**	**5.87**	**352**	*e*Pn	**Pn**	**10 44 57.5**	**+3.2**
DAV				*e*Sn	**Sb**	**10 46 18.6**	**-1.5**
DAV	**Davao City (W)**	**5.87**	**352**	*e*P	**Pn**	**10 45 00.0**	**+5.7**
CTBH	**Cotabato--PC H**	**6.33**	**341**	⇑*i*P	**Pn**	**10 45 03.9**	**+3.3**
CTBH				*i* S	**Sn**	**10 46 13.5**	**+0.8**
PCI	**Palu**	**6.85**	**252**	P	**Pn**	**10 45 10.2**	**+2.4**
	832nm,1.2s						
BIPH	**Bislig**	**6.93**	**0**	⇓*i*P	**Pn**	**10 45 13.4**	**+4.6**
BIPH				*e*S	**Sn**	**10 46 12.5**	**-15**
CGP	**Cagayan de Oro**	**7.38**	**347**	⇓*e*P	**Pn**	**10 45 17.3**	**+2.2**
DCPH	**Dipolog City**	**7.91**	**338**	⇓*e*P	**Pn**	**10 45 26.0**	**+3.7**
SCPH	**Surigao**	**8.56**	**354**	*e*P	**Pn**	**10 45 34.6**	**+3.4**
SNPH	**Sibulan**	**8.66**	**339**	*e*P	**Pn**	**10 45 39.0**	**+6.4**
MYLDM	**Lahad Datu**	**8.78**	**297**	⇓P	**Pn**	**10 45 38.6**	**+4.3**
TBP	**Tagbilaran**	**8.78**	**344**	*e*P	**Pn**	**10 45 39.1**	**+4.7**
TSM	**Tawau**	**9.01**	**290**	⇓P	**Pn**	**10 45 40.4**	**+2.9**
TARAI	**Tarakan**	**9.03**	**284**	P	**Pn**	**10 45 40.7**	**+3.0**
	845nm,0.5s						
OCLP	**Ormoc**	**9.93**	**350**	*e*P	**Pn**	**10 45 57.6**	**+7.6**
BAKI	**Biak**	**10.03**	**104**	P	**Pn**	**10 45 56.8**	**+5.3**
	2µm,1.8s						
SDKM	**Sandakan**	**10.15**	**296**	⇑P	**Pn**	**10 45 56.7**	**+3.6**
RCP	**Roxas**	**10.89**	**341**	⇑*e*P	**Pn**	**10 46 10.2**	**+7.0**
KDM	**Kudat**	**11.06**	**301**	⇓P	**Pn**	**10 46 09.9**	**+4.4**
KKM	**Kota Kinabalu**	**11.20**	**296**	*e*Pn	**Pn**	**10 46 12.6**	**+5.0**
KKM	**Kota Kinabalu**	**11.20**	**296**	⇑P	**Pn**	**10 46 11.8**	**+4.3**
BATP	**Bataraza**	**11.38**	**312**	*e*P	**Pn**	**10 46 15.3**	**+5.5**
BTM	**Bintulu**	**13.41**	**279**	⇑P	**Pn**	**10 46 42.2**	**+4.4**
SBUM	**Sibu**	**14.19**	**275**	⇑P	**Pn**	**10 46 53.0**	**+4.7**
KAKA	**Kakadu**	**15.09**	**157**	*e*P	**Pn**	**10 46 59.4**	**-1.2**
	310nm,0.6s						
KSM	**Kuching**	**16.05**	**271**	*e*P	**Pn**	**10 47 16.2**	**+3.1**
KSM	**Kuching**	**16.05**	**271**	⇑P	**Pn**	**10 47 16.5**	**+3.4**
CAUP	**Cauayan**	**16.26**	**344**	*e*P	**Pn**	**10 47 18.1**	**+2.3**
KRKI	**Karangkates**	**16.70**	**236**	P	**Pn**	**10 47 24.9**	**+3.5**
	1µm,1.1s						
ABRA	**Dolores**	**17.25**	**342**	*e*P	**Pn**	**10 47 29.2**	**+0.9**
APYP	**Conner**	**17.29**	**343**	*e*P	**Pn**	**10 47 30.0**	**+1.2**
BJII	**Banjamegara**	**18.65**	**243**	P	**Pn**	**10 47 47.3**	**+1.7**
	244nm,1.8s						
TPI	**Tanjungpandan**	**19.11**	**258**	P	**Pn**	**10 47 52.9**	**+1.7**
	112nm,1.1s						
FITZ	**Fitzroy Crossi**	**19.20**	**182**	*e*P	**Pn**	**10 47 49.6**	**-2.6**
	61nm,0.8s						
FITZ				*e*S	**Sn**	**10 51 18.5**	**-8.8**
FITZ	**Fitzroy Crossi**	**19.20**	**182**	P	**Pn**	**10 47 51.4**	**-0.8**
	3.3nm,0.3s,baz=14,slow=10,SNR=59						
LEM	**Lembang**	**20.34**	**247**	P	**P**	**10 48 04.9**	**+1.2**
	174nm,0.9s						
CBJI	**Citeko**	**20.90**	**249**	P	**P**	**10 48 09.0**	**-0.8**
	265nm,0.9s						
SBJI	**Serang**	**21.47**	**250**	P	**P**	**10 48 20.4**	**+4.4**
	220nm,1.4s,mb5.3						
GUMO	**Guam**	**22.06**	**55**	*e*P	**P**	**10 48 21.8**	**-0.5**
	153nm,0.8s,mb5.5						
GUMO	**Guam**	**22.06**	**55**	*e*P	**P**	**10 48 21.8**	**-0.5**
GUMO				pmax	pmax		
	comp=Z,153nm,0.8s,mb5.5						
GUMO	**Guam**	**22.06**	**55**	P	**P**	**10 48 22.6**	**+0.3**
	comp=Z,151nm,0.7s,mb5.5,baz=203,slow=1.5,SNR=7.0						
WRA	**Warramunga Arr**	**22.43**	**160**	P	**P**	**10 48 26.6**	**+0.4**
	comp=Z,385nm,0.6s,mb6.0,baz=338,slow=9.6,SNR=800						
WRA				S	**S**	**10 52 28.0**	**-4.4**
	comp=Z,16nm,1.0s,baz=342,slow=18,SNR=7.6						
WB2	**Warramunga Arr**	**22.43**	**160**	⇑*i*P	**P**	**10 48 26.0**	**-0.2**
WB2				*e*S	**S**	**10 52 23.0**	**-9.5**
MYKOM	**Kota Tinggi**	**22.51**	**272**	⇓P	**P**	**10 48 28.5**	**+1.4**
KGM	**Kluang**	**23.05**	**272**	⇑P	**P**	**10 48 34.2**	**+1.4**
PMG	**Port Moresby**	**23.25**	**117**	*e*P	**P**	**10 48 35.5**	**+0.7**
	comp=Z,106nm,0.9s,mb5.3						
PMG				LR	LR		
	comp=Z,1µm,20.0s,MS4.4						
PMG	**Port Moresby**	**23.25**	**117**	*e*P	**P**	**10 48 35.5**	**+0.6**
PMG				pmax	pmax		
	comp=Z,106nm,0.9s						
PMG				MLR	MLR		
	comp=Z,1µm,20.0s						
PMG	**Port Moresby**	**23.25**	**117**	P	**P**	**10 48 36.1**	**+1.3**
	comp=Z,92nm,0.8s,mb5.2,baz=324,slow=5.1,SNR=47						
KTGM	**Kuala Trenggan**	**23.54**	**281**	⇑P	**P**	**10 48 38.5**	**+0.6**
YHNB	**Yeheng**	**23.81**	**349**	*e*P	**P**	**10 48 39.8**	**-0.5**
QIZ	**Qiongzhong**	**23.99**	**319**	P	**P**	**10 48 41.7**	**-0.3**
QIZ				XP	sP	10 48 46.9	-1.7
QIZ				S	**S**	**10 52 51.4**	**-7.1**
QIZ				AMB	AMB		
	comp=Z,59nm,0.7s,mb5.1						
QIZ				AMB	AMB		
	comp=Z,525nm,4.2s						
QIZ				LR	LR		
	comp=N,815nm,24.0s,MS4.3						
QIZ				LR	LR		
	comp=E,850nm,19.3s,MS4.3						
QIZ				LR	LR		
	comp=Z,2µm,25.3s						
QIZ	**Qiongzhong**	**23.99**	**319**	*e*P	**P**	**10 48 40.4**	**-1.6**
	comp=Z,49nm,0.8s,mb5.0						
QIZ				LR	LR		
	comp=Z,2µm,22.0s,MS4.5						
TATO	**Taipei**	**24.09**	**349**	*e*P	**P**	**10 48 41.7**	**-1.1**
	comp=Z,95nm,0.8s,mb5.3						
TATO				LR	LR		
	comp=Z,2µm,19.0s,MS4.5						
KSI	**Kapahiang**	**24.24**	**258**	P	**P**	**10 48 42.5**	**-1.9**
	comp=Z,258nm,0.7s,mb5.8						
FRIM	**Kepong**	**24.80**	**275**	⇓P	**P**	**10 48 50.0**	**+0.5**
GZH	**Guangzhou**	**25.15**	**331**	P	**P**	**10 48 54.9**	**+2.4**
GZH				S	**S**	**10 53 19.5**	**+2.4**
GZH				LR	LR		
	comp=N,489nm,23.0s,MS4.2						
GZH				LR	LR		
	comp=E,790nm,25.2s,MS4.2						
GZH				LR	LR		
	comp=Z,1µm,28.6s,MS4.2						
IPM	**Ipoh**	**25.51**	**278**	⇓P	**P**	**10 48 56.1**	**+0.2**
JOW	**Kunigami**	**25.54**	**4**	P	**P**	**10 48 57.6**	**+1.6**
	comp=Z,229nm,0.9s,mb5.7,baz=196,slow=7.5,SNR=14						
KULM	**Kulim**	**25.98**	**280**	*e*P	**P**	**10 48 59.4**	**-0.8**
KULM	**Kulim**	**25.98**	**280**	⇓P	**P**	**10 49 00.2**	**-0.1**
PPI	**Padang Panjang**	**26.02**	**266**	P	**P**	**10 48 59.3**	**-1.2**
	comp=Z,172nm,0.8s,mb5.6						
SNG	**Songkhla**	**26.34**	**284**	P	**P**	**10 48 59.0**	**-4.4**
	comp=Z,170nm,0.8s,mb5.6						
PSI	**Prapat**	**27.46**	**274**	P	**P**	**10 49 13.4**	**-0.2**
	comp=Z,142nm,0.8s,mb5.5,baz=98,slow=5.2,SNR=77						
KKTK	**Khon Kaen**	**27.64**	**304**	P	**P**	**10 49 15.0**	**-0.1**
CTA	**Charters Tower**	**28.78**	**138**	*e*P	**P**	**10 49 26.2**	**+1.0**
	comp=Z,36nm,1.2s,mb5.0						
CTA	**Charters Tower**	**28.78**	**138**	*e*P	**P**	**10 49 26.2**	**+1.0**
CTA				pmax	pmax		
	comp=Z,36nm,1.2s						
CTA	**Charters Tower**	**28.78**	**138**	P	**P**	**10 49 26.3**	**+1.1**
	comp=Z,34nm,0.9s,mb5.1,baz=322,slow=10,SNR=13						
CTAO	**Charters Tower**	**28.78**	**138**	*e*P	**P**	**10 49 25.9**	**+0.7**
	comp=Z,51nm,1.0s,mb5.2						
CTAO				LR	LR		
	comp=Z,637nm,20.0s,MS4.2						
CTAO	**Charters Tower**	**28.78**	**138**	*e*P	**P**	**10 49 25.9**	**+0.7**
CTAO				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.2						
CTAO				MLR	MLR		
	comp=Z,637nm,20.0s,MS4.2						
NST	**Nakhon Sawan**	**29.59**	**300**	P	**P**	**10 49 32.1**	**-0.4**
CBIJ	**Chichi jima**	**29.89**	**29**	P	**P**	**10 49 34.5**	**-0.5**
	comp=Z,224nm,0.7s,mb6.0,baz=290,slow=7.8,SNR=8.7						
SSE	**Sheshan**	**30.12**	**351**	P	**P**	**10 49 37.8**	**+0.8**
SSE				AP	pP	10 49 40.8	-0.9
SSE				S	**S**	**10 54 37.1**	**+1.8**
SSE				AMB	AMB		
	comp=Z,56nm,0.7s,mb5.4						
SSE				AMB	AMB		
	comp=Z,302nm,4.1s						
SSE				LR	LR		
	comp=N,577nm,25.0s,MS4.2						
SSE				LR	LR		
	comp=E,251nm,25.0s,MS4.2						
SSE				LR	LR		
	comp=Z,814nm,24.4s,MS4.3						
BDT	**Bhumibol Dam**	**31.27**	**302**	⇑P	**P**	**10 49 47.5**	**+0.2**
	comp=Z,24nm,0.8s,mb5.1						
BSI	**Banda Aceh**	**31.29**	**279**	P	**P**	**10 49 45.0**	**-2.6**
	comp=Z,56nm,1.4s,mb5.2						
WHN	**Wuhan**	**31.32**	**340**	⇓P	**P**	**10 49 47.8**	**+0.2**
WHN				LR	LR		
	comp=Z,2µm,22.6s,MS4.7						
GYA	**Guiyang**	**31.45**	**325**	⇑*i*P	**P**	**10 49 50.9**	**+2.1**
GYA				AP	pP	10 49 53.0	-0.5
GYA				XP	sP	10 49 55.4	0.0
GYA				PP	PP	10 50 55.4	-4.6
GYA				PCP	PcP	10 52 42.9	+0.8
GYA				S	**S**	**10 54 50.6**	**-5.6**
GYA				SS	SS	10 56 46.3	-25
GYA				SSS		10 57 08.8	
GYA				SCS	ScS	11 00 22.5	-0.1
GYA				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.5						
GYA				AMB	AMB		
	comp=Z,250nm,4.6s						
GYA				LR	LR		
	comp=N,670nm,13.8s,MS4.7						
GYA				LR	LR		
	comp=E,840nm,14.8s,MS4.7						
GYA				LR	LR		
	comp=Z,810nm,15.0s,MS4.5						
NJ2	**Nanjing**	**31.48**	**348**	*e*P	**P**	**10 49 50.0**	**+1.0**
NJ2				AP	pP	10 49 54.2	+0.5
NJ2				XP	sP	10 49 56.9	+1.2
NJ2				PP	PP	10 50 52.8	-7.5
NJ2				S	**S**	**10 54 56.0**	**-0.6**
NJ2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,630nm,4.6s						
NJ2				LR	LR		
	comp=N,920nm,18.0s,MS4.5						
NJ2				LR	LR		
	comp=E,610nm,22.9s,MS4.5						
NJ2				LR	LR		
	comp=Z,600nm,22.9s,MS4.2						
FORT	**Forrest**	**31.85**	**177**	⇑*i*P	**P**	**10 49 52.4**	**+0.1**
	comp=Z,165nm,0.6s,mb6.0						
FORT				*e*PCP	PcP	10 52 43.2	+0.2
CM31	**Chiang Mai Arr**	**31.90**	**304**	*e*P	**P**	**10 49 53.0**	**+0.2**
	comp=Z,12nm,0.6s,mb4.9						
CM31				LR	LR		
	comp=Z,622nm,20.0s,MS4.3						
CHRT	**Chiangrai**	**31.94**	**307**	⇑P	**P**	**10 49 53.0**	**-0.2**
	comp=Z,210nm,0.7s,mb6.1						
CHTO	**Chiang Mai**	**32.07**	**305**	*e*P	**P**	**10 49 54.1**	**-0.3**
	comp=Z,28nm,0.8s,mb5.1						
CHTO				*e*PcP	PcP	10 52 44.3	+0.4
CHTO				LR	LR		
	comp=Z,589nm,21.0s,MS4.2						
CHTO	**Chiang Mai**	**32.07**	**305**	*e*P	**P**	**10 49 54.1**	**-0.3**
CHTO				*e*		10 52 44.3	
CHTO				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.1						
CHTO				MLR	MLR		
	comp=Z,589nm,21.0s,MS4.2						
COCO	**West Island**	**32.20**	**245**	*e*P	**P**	**10 49 54.4**	**-1.2**
	comp=Z,70nm,0.7s,mb5.6						
COCO				LR	LR		
	comp=Z,1µm,20.0s,MS4.6						
KMI	**Kunming**	**32.94**	**318**	P	**P**	**10 50 03.1**	**+1.2**
KMI				AP	pP	10 50 10.3	+3.6
KMI				PP	PP	10 51 13.3	-3.2
KMI				PCP	PcP	10 52 47.4	+1.2
KMI				S	**S**	**10 55 19.7**	**+0.1**
KMI				SS	SS	10 57 22.9	-19
KMI				AMB	AMB		
	comp=Z,39nm,0.8s,mb5.4						
KMI				LR	LR		
	comp=N,667nm,19.6s,MS4.5						
KMI				LR	LR		
	comp=E,622nm,21.6s,MS4.5						
KMI				LR	LR		
	comp=Z,1µm,21.4s,MS4.6						
KLBR	**Kellerberrin**	**33.63**	**193**	*e*P	**P**	**10 50 07.9**	**+0.1**
	comp=Z,58nm,0.6s,mb5.7						
KLBR				*e*PCP	PcP	10 52 48.0	+0.1
MUN	**Mundaring**	**34.38**	**195**	*e*P	**P**	**10 50 14.3**	**-0.1**
MUN				*e*S	**S**	**10 55 40.9**	**-0.8**
NWAO	**Narrogin (SRO)**	**35.03**	**193**	*e*P	**P**	**10 50 19.8**	**-0.1**
	comp=Z,76nm,1.0s,mb5.6						
NWAO				*e*PcP	PcP	10 52 52.1	+0.1
NWAO				LR	LR		
	comp=Z,560nm,20.0s,MS4.3						
NWAO	**Narrogin (SRO)**	**35.03**	**193**	P	**P**	**10 50 20.5**	**+0.6**
	comp=Z,35nm,0.6s,mb5.5,baz=21,slow=9.9,SNR=41						
HNR	**Honiara**	**35.08**	**108**	*e*P	**P**	**10 50 20.1**	**-0.5**
	comp=Z,279nm,0.8s,mb6.2						
HNR				LR	LR		
	comp=Z,747nm,21.0s,MS4.4						
HNR	**Honiara**	**35.08**	**108**	*e*P	**P**	**10 50 20.1**	**-0.6**
HNR				pmax	pmax		
	comp=Z,279nm,0.8s,mb6.2						
HNR				MLR	MLR		
	comp=Z,747nm,21.0s,MS4.4						
HNR	**Honiara**	**35.08**	**108**	P	**P**	**10 50 20.7**	**0.0**
	comp=Z,270nm,0.7s,mb6.3,baz=261,slow=0.7,SNR=21						
HNR				LR	LR	11 03 58.2	
	comp=Z,507nm,21.6s,MS4.2,baz=359,slow=35						
STKA	**Stephens Creek**	**35.94**	**158**	⇑*i*P	**P**	**10 50 28.0**	**+0.2**
	comp=Z,75nm,0.8s,mb5.7						
STKA				*e*S	**S**	**10 56 00.3**	**-5.3**
STKA	**Stephens Creek**	**35.94**	**158**	P	**P**	**10 50 27.3**	**-0.5**
	comp=Z,110nm,0.9s,mb5.8,baz=331,slow=8.3,SNR=107						
KS15	**Wonju Array Si**	**36.08**	**2**	*e*P	**P**	**10 50 28.1**	**-0.9**
KSRS	**Korea Array**	**36.09**	**2**	P	**P**	**10 50 30.1**	**+1.0**
	comp=Z,16nm,0.7s,mb5.1,baz=181,slow=9.6,SNR=55						
KSRS				PcP	PcP	10 52 55.6	+0.6
	comp=Z,5.7nm,0.6s,baz=188,slow=2.8,SNR=9.4						
KSRS				LR	LR	11 06 43.4	
	comp=Z,244nm,18.1s,MS4.0,baz=185,slow=39						
INCN	**Inchon**	**36.09**	**0**	PFAKE		10 50 40.0	+11
INCN				LR	LR		
	comp=Z,571nm,22.0s,MS4.3						
CD2	**Chengdu**	**36.48**	**326**	⇓*i*P	**P**	**10 50 31.8**	**-0.7**
CD2				AP	pP	10 50 36.2	-1.0
CD2				XP	sP	10 50 39.2	0.0
CD2				PP	PP	10 51 56.3	+0.7
CD2				PCP	PcP	10 52 55.2	-1.1
CD2				S	**S**	**10 56 13.6**	**-0.4**
CD2				SCS	ScS	11 00 45.9	-3.1
CD2				AMB	AMB		
	comp=Z,100nm,1.0s,mb5.7						
CD2				AMB	AMB		
	comp=Z,190nm,9.6s						
CD2				LR	LR		
	comp=N,820nm,24.0s						
CD2				LR	LR		
	comp=E,770nm,32.0s						
CD2				LR	LR		
	comp=Z,640nm,21.6s,MS4.4						
XAN	**Xi’an**	**36.51**	**335**	P	**P**	**10 50 31.5**	**-1.1**
XAN				AP	pP	10 50 39.2	+1.8
XAN				AMB	AMB		
	comp=Z,47nm,0.8s,mb5.4						

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MAJO  Matsushiro        36.83  16  eP      P        10 50 34.8  -0.5
      comp=Z,111nm,1.1s,mb5.6
MAJO                               ePcP    PcP      10 52 57.5  +0.3
MAJO                                LR     LR
      comp=Z,990nm,19.0s,MS4.6
MAT   Matsushiro        36.83  16   P      P        10 50 34.7  -0.6
MAT                                 S      S        10 56 16.0  -3.1
MJAR  Matsushiro Arr    36.83  16   P      P        10 50 34.7  -0.6
MJAR                                                10 52 57.3
MJAR  Matsushiro Arr    36.83  16   P      P        10 50 34.6  -0.7
      comp=Z,46nm,0.7s,mb5.4,baz=181,slow=9.8,SNR=60
MJAR                                PcP    PcP      10 52 57.3  +0.1
      comp=Z,7.7nm,0.8s,baz=188,slow=3.0,SNR=4.4
MJAR                                LR     LR       11 03 46.8
      comp=Z,156nm,18.4s,MS3.8,baz=190,slow=33
DL2   Dalian            37.76 354   P      P        10 50 44.0  +0.8
DL2                                eS      S        10 56 33.6  +0.3
DL2                                 AMB    AMB
      comp=Z,190nm,0.6s,mb6.0
DL2                                 LR     LR
      comp=N,300nm,14.5s,MS4.4
DL2                                 LR     LR
      comp=E,320nm,15.0s,MS4.4
DL2                                 LR     LR
      comp=Z,400nm,18.4s,MS4.3
ARMA  Armidale          39.61 145⇑iP       P        10 50 59.8  +1.0
BJT   Baijiatuau        39.72 348  eP      P        10 50 59.5  -0.2
      comp=Z,41nm,0.7s,mb5.3
BJT                                 LR     LR
      comp=Z,503nm,22.0s,MS4.3
BJT   Baijiatuau        39.72 348  eP      P        10 50 59.5  -0.2
BJT                                 pmax   pmax
      comp=Z,41nm,0.7s
BJT                                 MLR    MLR
      comp=Z,503nm,22.0s
BJI   Beijing           39.74 348   P      P        10 50 59.3  -0.5
BJI                                 S      S        10 56 59.8  -3.4
BJI                                 AMB    AMB
      comp=Z,49nm,0.8s,mb5.3
BJI                                 LR     LR
      comp=N,396nm,29.1s,MS4.3
BJI                                 LR     LR
      comp=E,382nm,26.0s,MS4.3
BJI                                 LR     LR
      comp=Z,845nm,29.1s,MS4.4
LZH   Lanzhou           40.50 331  eP      P        10 51 06.5  +0.3
LZH                                 AP     pP       10 51 09.0  -2.0
LZH                                 XP     sP       10 51 10.0  -2.9
LZH                                 PP     PP       10 52 43.3  +3.7
LZH                                 AMB    AMB
      comp=Z,38nm,1.0s,mb5.1
LZH                                 AMB    AMB
      comp=Z,240nm,4.8s
LZH                                 LR     LR
      comp=E,2µm,15.9s
LZH                                 LR     LR
      comp=Z,2µm,16.5s,MS5.0
SNY   Shenyang          40.51 357  ⇑P      P        10 51 05.6  -0.6
SNY                                 AP     pP       10 51 09.9  -1.1
SNY                                 XP     sP       10 51 12.6  -0.3
SNY                                 AMB    AMB
      comp=Z,108nm,0.8s,mb5.5
SNY                                 AMB    AMB
      comp=Z,584nm,4.3s
SNY                                 LR     LR
      comp=N,630nm,20.2s,MS4.6
SNY                                 LR     LR
      comp=E,533nm,17.8s,MS4.6
SNY                                 LR     LR
      comp=Z,497nm,20.7s,MS4.3
HHC   Hu-ho-hao-te      41.67 343  eP      P        10 51 16.2  +0.5
HHC                                 AP     pP       10 51 20.7  +0.1
HHC                                 XP     sP       10 51 23.2  +0.7
HHC                                 PP     PP       10 52 57.1  +4.9
HHC                                 PCP    PcP      10 53 13.8  +1.4
HHC                                 PCS    PcS      10 57 02.8  -0.9
HHC                                 S      S        10 57 32.2  +0.3
HHC                                 SS     SS       11 00 33.4  -4.2
HHC                                 SCS    ScS      11 01 17.0  -1.8
HHC                                 AMB    AMB
      comp=Z,14nm,0.8s,mb4.6
HHC                                 AMB    AMB
      comp=Z,194nm,4.9s
HHC                                 LR     LR
      comp=N,424nm,21.8s,MS4.4
HHC                                 LR     LR
      comp=E,298nm,19.0s,MS4.4
HHC                                 LR     LR
      comp=Z,785nm,28.5s
VLA   Vladivostok       42.02   6⇓iP       P        10 51 18.8  +0.3
VLA   Vladivostok       42.02   6  eP      P        10 51 18.7  +0.2
VLA                                 pmax   pmax
      comp=Z,192nm,1.4s,mb5.5
CNB   Canberra Magne    42.22 152  eP      P        10 51 21.4  +1.1
      comp=Z,30nm,1.0s,mb4.9
CN2   Changchun         42.41 359  ⇑P      P        10 51 21.4  -0.3
CN2                                eXP     sP       10 51 28.4  -0.1
CN2                                eS      S        10 57 43.5  +0.8
CN2                                 AMB    AMB
      comp=Z,20nm,1.2s,mb4.6
CN2                                 AMB    AMB
      comp=Z,200nm,5.0s
CN2                                 LR     LR
      comp=N,600nm,19.0s,MS4.6
CN2                                 LR     LR
      comp=E,500nm,19.0s,MS4.6
CN2                                 LR     LR
      comp=Z,500nm,21.0s,MS4.4
TOO   Toolangi          42.46 157⇑iP       P        10 51 23.7  +1.5
      comp=Z,21nm,1.0s,mb4.7
TOO                                ePCP    PcP      10 53 02.0   -13
TOO   Toolangi          42.46 157⇑iP       P        10 51 23.7  +1.5
TOO                                e                10 53 02.0
TOO                                 pmax   pmax
      comp=Z,21nm,1.0s,mb4.7
MDJ   Mudanjiang        43.31   3   P      P        10 51 30.0  +1.0
MDJ                                 AP     pP       10 51 33.1  -0.8
MDJ                                 XP     sP       10 51 34.3  -1.5
MDJ                                 PP     PP       10 53 11.1  +1.2
MDJ                                 SCP    ScP      10 57 09.5  +0.7
MDJ                                 PCS    PcS      10 57 10.7  +0.5
MDJ                                 S      S        10 57 59.6  +3.6
MDJ                                 AMB    AMB
      comp=Z,136nm,1.1s,mb5.6
MDJ                                 AMB    AMB
      comp=Z,113nm,4.3s
MDJ                                 LR     LR
      comp=N,432nm,34.4s
MDJ                                 LR     LR
      comp=E,207nm,27.5s
MDJ                                 LR     LR
      comp=Z,549nm,33.9s,MS4.2
MDJ   Mudanjiang        43.31   3  eP      P        10 51 29.7  +0.7
      comp=Z,129nm,0.9s,mb5.7
MDJ                                 LR     LR
      comp=Z,747nm,20.0s,MS4.6
ERM   Erimo             43.34  18  eP      P        10 51 29.0  -0.3
      comp=Z,141nm,1.4s,mb5.5
ERM                                 LR     LR
      comp=Z,387nm,20.0s,MS4.3
ERM   Erimo             43.34  18  eP      P        10 51 29.0  -0.3
ERM                                 pmax   pmax
      comp=Z,141nm,1.4s,mb5.5
ERM                                 MLR    MLR
      comp=Z,387nm,20.0s,MS4.3
LSA   Lhasa             43.86 314   P      P        10 51 32.0  -1.7
LSA                                 AMB    AMB
      comp=Z,50nm,1.0s,mb5.2
LSA   Lhasa             43.86 314  eP      P        10 51 34.3  +0.6
      comp=Z,37nm,0.6s,mb5.3
LSA                                 LR     LR
      comp=Z,445nm,22.0s,MS4.3
LSA   Lhasa             43.86 314  eP      P        10 51 34.3  +0.6
LSA                                 pmax   pmax
      comp=Z,37nm,0.6s,mb5.3
LSA                                 MLR    MLR
      comp=Z,445nm,22.0s,MS4.3
GTA   Gaotai            45.08 331   P      P        10 51 42.9  -0.4
GTA                                 AP     pP       10 51 47.0  -1.1
GTA                                 XP     sP       10 51 50.1  +0.1
GTA                                 PCP    PcP      10 53 25.1  +1.2
GTA                                 PP     PP       10 53 27.0  -1.8
GTA                                 PCS    PcS      10 57 17.1  -0.5
GTA                                 S      S        10 58 24.0  +2.2
GTA                                 XS     sS       10 58 31.6  +1.8
GTA                                 SCS    ScS      11 01 37.1  -3.0
GTA                                 SS     SS       11 01 39.0  -5.3
GTA                                 AMB    AMB
      comp=Z,18nm,0.9s,mb4.9
GTA                                 AMB    AMB
      comp=Z,80nm,7.2s
GTA                                 LR     LR
      comp=N,393nm,24.3s,MS4.5
GTA                                 LR     LR
      comp=E,428nm,20.2s,MS4.5
GTA                                 LR     LR
      comp=Z,837nm,24.3s,MS4.6
TAPN  Taplejung         45.24 309  eP      P        10 51 44.1  -0.7
      comp=Z,59nm,0.7s,mb5.5
ODAN  Odare             45.27 308  eP      P        10 51 44.2  -0.8
      comp=Z,67nm,0.6s,mb5.6
NOUC  Port Laguerre     45.33 123  eP      P        10 51 45.8  +0.2
DZM   Mont Dzumac       45.44 123  eP      P        10 51 46.4   0.0
DZM   Mont Dzumac       45.44 123   P      P        10 51 46.1  -0.3
      comp=Z,87nm,0.9s,mb5.6,baz=337,slow=4.1,SNR=31
PALK  Pallekele         45.90 279  eP      P        10 51 47.3  -2.9
      comp=Z,22nm,0.9s,mb5.1
PALK                                LR     LR
      comp=Z,755nm,22.0s,MS4.6
JIRN  Jiri              46.58 308  eP      P        10 51 54.6  -0.8
      comp=Z,84nm,0.6s,mb5.8
GUN   Gumba             46.94 308  eP      P        10 51 57.4  -0.8
      comp=Z,135nm,0.5s,mb6.1
PKI   Pulchoki          47.16 307  eP      P        10 51 58.7  -1.2
KKN   Kakani            47.36 308  eP      P        10 52 00.2  -1.2
      comp=Z,58nm,0.7s,mb5.6
DMN   Daman             47.42 307  eP      P        10 52 00.9  -1.0
      comp=Z,46nm,0.5s,mb5.6
HABR  Khabarovsk        47.67   8⇑eP       P        10 52 04.5  +1.0
HABR                               e                10 53 33.6
HABR                               eS      S        10 58 59.1  +0.3
HABR                               e                11 01 54.7
HABR                               eSSS             11 03 32.9
HABR                                pmax   pmax
      comp=Z,250nm,1.2s,mb6.1
YSS   Yuzh-Sakhalins    47.75  15  eP      P        10 52 04.3  +0.2
      comp=Z,38nm,0.4s,mb5.8
YSS   Yuzh-Sakhalins    47.75  15⇑eP       P        10 52 04.0  -0.1
YSS                                e                10 52 19.5
YSS                                e                10 53 32.9
YSS                                 pmax   pmax
      comp=Z,100nm,1.0s,mb5.8
YSS                                 pmax   pmax
      comp=N,70nm,1.1s
YSS                                 pmax   pmax
      comp=E,90nm,1.2s
TAU   Tasmania Unive    47.80 159  eP      P        10 52 05.1  +0.6
      comp=E,84nm,1.2s,mb5.6
TAU   Tasmania Unive    47.80 159  eP      P        10 52 04.7  +0.1
TAU                                 pmax   pmax
      comp=Z,47nm,1.0s,mb5.5
GKN   Gorkha            47.96 308  eP      P        10 52 05.0  -1.1
      comp=Z,74nm,0.8s,mb5.8
KLR   Kul’dur           48.06   5⇓iP       P        10 52 04.0  -2.5
KLR                                 pmax   pmax
      comp=E,33nm,1.4s
KLR                                 pmax   pmax
      comp=Z,140nm,1.4s,mb5.8
HIA   Hailar            48.21 354  eP      P        10 52 08.3  +0.7
      comp=Z,124nm,1.1s,mb5.8
HIA                                 LR     LR
      comp=Z,421nm,21.0s,MS4.4
HIA   Hailar            48.21 354  eP      P        10 52 08.3  +0.7
HIA                                 pmax   pmax
      comp=Z,124nm,1.1s
HIA                                 MLR    MLR
      comp=Z,421nm,21.0s
KOLN  Koldanda          48.69 307  eP      P        10 52 10.9  -0.8
      comp=Z,256nm,0.7s,mb6.4
ULN   Ulaanbaatar       49.39 343  eP      P        10 52 16.7   0.0
      comp=Z,13nm,0.6s,mb5.1
ULN                                 LR     LR
      comp=Z,289nm,22.0s,MS4.2
ULN   Ulaanbaatar       49.39 343  eP      P        10 52 16.7  -0.1
ULN                                 pmax   pmax
      comp=Z,13nm,0.6s,mb5.1
ULN                                 MLR    MLR
      comp=Z,289nm,22.0s,MS4.2
SONM  Songino Array     49.56 342   P      P        10 52 17.9  -0.2
SONM                                                10 53 40.3
SONM  Songino Array     49.56 342   P      P        10 52 17.9  -0.1
      comp=Z,11nm,0.7s,mb5.0,baz=155,slow=9.3,SNR=56
SONM                                PcP    PcP      10 53 40.3  +0.6
      comp=Z,7.2nm,0.8s,baz=152,slow=3.6,SNR=3.7
SONM                                LR     LR       11 15 36.5
      comp=Z,295nm,19.5s,MS4.3,baz=166,slow=39
HYB   Hyderabad         49.66 292⇓eP       P        10 52 18.0  -1.3
      comp=Z,160nm,1.0s,mb6.0
HYB                                eS      S        10 59 10.0   -18
HYB   Hyderabad         49.66 292⇓eP       P        10 52 18.0  -1.3
HYB                                 pmax   pmax
      comp=Z,160nm,1.0s,mb6.0
HYB   Hyderabad         49.66 292⇓iP       P        10 52 18.0  -1.3
      comp=Z,160nm,1.0s,mb6.0
HYB                                e       pP       10 52 22.0  -2.2
HYB                                eS      S        10 59 22.0  -5.8
CIT   Chita             51.76 350⇑iP       P        10 52 36.0  +1.4
CIT                                e                10 52 43.2
CIT                                e                10 52 50.3
CIT                                e                10 53 48.6
CIT                                 pmax   pmax
      comp=Z,340nm,1.3s,mb6.1
ZAK   Zakamensk         52.77 342  eP      P        10 52 41.6  -0.5
ZAK                                e                10 53 51.7
ZAK                                 pmax   pmax
      comp=Z,10.0nm,1.3s,mb4.6
ZAK                                 pmax   pmax
      comp=Z,15nm,1.3s,mb4.8
FUNA  Funafuti          53.54 101  eP      P        10 52 48.8  +0.3
      comp=Z,260nm,1.2s,mb6.0
FUNA                                LR     LR
      comp=Z,3µm,19.0s,MS5.4
TLY   Talaya            53.80 343  eP      P        10 52 50.5  +0.8
      comp=Z,16nm,0.8s,mb5.0
TLY                                 LR     LR
      comp=Z,193nm,21.0s,MS4.1
TLY   Talaya            53.80 343  eP      P        10 52 50.0  +0.3
TLY                                e                11 02 32.3
TLY                                eSSS             11 05 52.2
TLY                                 pmax   pmax
      comp=Z,15nm,0.7s,mb5.0
TLY                                 MLR    MLR
      comp=Z,665nm,28.0s,MS4.5
IRK   Irkutsk           54.11 343  eP      P        10 52 53.3  +1.4
IRK                                 pmax   pmax
      comp=Z,44nm,1.2s,mb5.3
WMQ   Urumqi            54.58 326⇓iP       P        10 52 56.2  +0.7
WMQ                                 AP     pP       10 53 00.7  +0.2
WMQ                                 XP     sP       10 53 03.2  +0.8
WMQ                                 PCP    PcP      10 53 59.5  +0.9
WMQ                                 PP     PP       10 55 00.2  +2.1
WMQ                                 SCP    ScP      10 57 55.5  -1.2
WMQ                                 SCS    ScS      11 02 41.6  -2.8
WMQ                                 SS     SS       11 04 15.2  -2.3
WMQ                                 AMB    AMB
      comp=Z,71nm,0.8s,mb5.8
WMQ                                 AMB    AMB
      comp=Z,71nm,9.7s
WMQ                                 LR     LR
      comp=N,691nm,33.7s
WMQ                                 LR     LR
      comp=E,556nm,25.2s
WMQ                                 LR     LR
      comp=Z,606nm,22.9s
MOY   Mondy             54.62 341  eP      P        10 52 55.7  +0.1
MOY                                 pmax   pmax
      comp=Z,44nm,1.6s,mb5.2
NRGR  Nerungri          55.29 359  eP      P        10 53 01.4  +1.0
NRGR                                S      S        11 00 45.1  +1.5
NRGR                                smax
      comp=N,15nm,0.4s
CLNS  Chul’man          55.47 359c iP      P        10 53 02.7  +1.0
CLNS                               e                10 54 01.2
CLNS                               ePPP             10 55 02.3
CLNS                                pmax   pmax
      comp=N,61nm,1.1s
CLNS                                pmax   pmax
      comp=E,28nm,1.1s
CLNS                                pmax   pmax
      comp=Z,106nm,1.1s,mb5.8
CLNS                                pmax   pmax
      comp=Z,26nm,0.9s,mb5.3
CLNS                                pmax   pmax
      comp=N,27nm,1.0s
CLNS                                pmax   pmax
      comp=E,19nm,1.9s
BOD   Bodaibo           57.29 352⇓iP       P        10 53 14.7  +0.1
BOD                                 pmax   pmax
      comp=Z,88nm,0.8s,mb5.8
PET   Petropavlovsk     58.18  22  eP      P        10 53 20.7  -0.3
      comp=Z,124nm,1.4s,mb5.8
PET   Petropavlovsk     58.18  22  eP      P        10 53 21.4  +0.4
PET                                e*PP    pP       10 53 30.1  +4.1
PET                                eS      S        11 01 20.8  -1.1
PET                                eSS     SS       11 05 13.9  +0.1
PET                                 pmax   pmax
      comp=Z,79nm,1.4s,mb5.5
PET                                 pmax   pmax
      comp=Z,32nm,1.1s,mb5.3
PET                                 smax
      comp=E,200nm,21.6s
PET                                 MLR    MLR
      comp=Z,300nm,17.0s,MS4.5
MK31  Makanchi Array    59.42 326  eP      P        10 53 29.1  -0.6
MKAR  Makanchi Array    59.42 326   P      P        10 53 29.1  -0.6
      comp=Z,49nm,0.5s,mb5.8,baz=124,slow=8.7,SNR=488
MKAR                                LR     LR       11 19 38.4
      comp=Z,635nm,21.7s,MS4.7,baz=120,slow=37
KSH   Kashi             59.58 316  eP      P        10 53 32.5  +1.5
KSH                                eAP     pP       10 53 36.1  +0.1
KSH                                eXP     sP       10 53 39.1  +1.3
KSH                                ePCP    PcP      10 54 18.1  -0.2
KSH                                ePP     PP       10 55 45.1  +2.5
KSH                                ePPP             10 57 08.2
KSH                                eSCP    ScP      10 58 17.3  -1.5
KSH                                ePCS    PcS      10 58 19.4  -0.9
KSH                                eS      S        11 01 40.5  -0.1
KSH                                eXS     sS       11 01 47.8  -1.0
KSH                                ePS              11 01 57.3
KSH                                eSCS    ScS      11 03 18.1  -2.9
KSH                                eSS     SS       11 05 37.9  +1.6
KSH                                 LR     LR
      comp=N,398nm,5.1s
KSH                                 LR     LR
      comp=E,453nm,5.4s
KSH                                 LR     LR
      comp=Z,260nm,7.6s
ULHL  Ulahol            60.66 319   P      P        10 53 38.5  +0.2
      SNR=41
YAK   Yakutsk           60.72   2  eP      P        10 53 38.5  +0.1
YAK                                 LR     LR
      comp=Z,347nm,22.0s,MS4.5
YAK   Yakutsk           60.72   2c iP      P        10 53 38.3  -0.1
YAK                                 pmax   pmax
      comp=Z,260nm,1.4s,mb6.2
YAK                                 MLR    MLR
      comp=Z,200nm,20.0s,MS4.3
SNZO  South Karori      60.87 140   PFAKE           10 53 50.0   +10
SNZO                                LR     LR
      comp=Z,514nm,21.0s,MS4.7
MA2   Magadan           61.22  14  eP      P        10 53 42.8  +0.9
      comp=Z,96nm,0.9s,mb5.9
MA2                                 LR     LR
      comp=Z,297nm,21.0s,MS4.4
MA2   Magadan           61.22  14c iP      P        10 53 43.0  +1.2
MA2                                e                10 56 00.4
MA2                                ePPP             10 57 30.7
MA2                                eS      S        11 01 59.0  -1.9
MA2                                eSSS             11 08 42.7
MA2                                 pmax   pmax
      comp=N,60nm,0.9s
MA2                                 pmax   pmax
      comp=E,20nm,0.9s
MA2                                 pmax   pmax
      comp=Z,100nm,0.9s,mb6.0
MA2                                 MLR    MLR
      comp=Z,500nm,22.0s,MS4.6
KZA   Kyzart            61.23 319   P      P        10 53 42.7  +0.5
      SNR=72
TKM2  Tokmak 2          61.39 320   P      P        10 53 43.0  -0.4
      SNR=60
TKM2  Tokmak 2          61.39 320  eP      P        10 53 42.8  -0.6
      comp=Z,39nm,0.7s,mb5.6
TKM2                                LR     LR
      comp=Z,461nm,22.0s,MS4.6
TKM2  Tokmak 2          61.39 320  eP      P        10 53 42.8  -0.6
TKM2                                pmax   pmax
      comp=Z,39nm,0.7s,mb5.7
TKM2                                MLR    MLR
      comp=Z,461nm,22.0s,MS4.6
MCQ   Macquarie Isla    61.69 159  eP      P        10 53 46.7  +1.6
KBK   Karagaybulak      61.69 319   P      P        10 53 45.8  +0.4
      SNR=8.3
UCH   Uchtor            61.78 318   P      P        10 53 46.5  +0.5
      SNR=86
UCH   Uchtor            61.78 318   PFAKE           10 54 00.0   +14
UCH                                 LR     LR
      comp=Z,318nm,19.0s,MS4.5
CHMS  Chumysh           61.98 319   P      P        10 53 46.6  -0.7
      SNR=13
AAK   Ala-Archa         61.98 319   P      P        10 53 46.1  -1.2
      comp=Z,157nm,1.1s,mb6.0,SNR=26
AAK   Ala-Archa         61.98 319   P      P        10 53 46.0  -1.3
      SNR=19
AAK   Ala-Archa         61.98 319  eP      P        10 53 46.1  -1.2
      comp=Z,19nm,0.8s,mb5.3
AAK                                 LR     LR
      comp=Z,442nm,22.0s,MS4.6
AAK   Ala-Archa         61.98 319c iP      P        10 53 46.1  -1.2
AAK                                 pmax   pmax
      comp=Z,27nm,1.0s,mb5.3
FRU   Bishkek           61.99 319  eP      P        10 53 46.4  -1.0
USP   Ospenovka         62.27 320   P      P        10 53 48.6  -0.6
      SNR=74
AML   Almayashu         62.29 318   P      P        10 53 49.7  +0.3
      SNR=101
AML   Almayashu         62.29 318   PFAKE           10 54 00.0   +11
AML                                 LR     LR
      comp=Z,326nm,21.0s,MS4.5
EKS2  Erkin-Say         62.47 319   P      P        10 53 50.6  +0.1
      SNR=38
EKS2  Erkin-Say         62.47 319  eP      P        10 53 50.4  -0.1
      comp=Z,45nm,0.8s,mb5.7
EKS2                                LR     LR
      comp=Z,379nm,19.0s,MS4.6
ZALV  Zalesovo Beam     62.66 334   P      P        10 53 50.4  -1.3
      comp=Z,15nm,0.5s,mb5.4,baz=125,slow=5.8,SNR=63
ZALV                                LR     LR       11 24 23.7
      comp=Z,125nm,18.9s,MS4.1,baz=138,slow=39
ZAL   Zalesovo          62.66 334   P      P        10 53 50.4  -1.2
KBL   Kabul             62.77 309  eP      P        10 53 51.8  -1.0
KURK  Kurchatov         63.66 328   P      P        10 53 57.8  -0.6
      comp=Z,2µm,0.6s
KURK  Kurchatov         63.66 328  eP      P        10 53 57.8  -0.6
      comp=Z,208nm,0.6s,mb6.3
KURK                                LR     LR
      comp=Z,252nm,20.0s,MS4.4
KURK  Kurchatov         63.66 328c iP      P        10 53 57.8  -0.6
NVS   Novosibirsk       63.95 334⇑iP       P        10 53 58.9  -1.2
NVS                                e                10 54 15.7
NVS                                eS      S        11 02 28.9  -6.5
NVS                                ePS              11 03 04.5
NVS                                 pmax   pmax
      comp=Z,50nm,1.2s,mb5.4
NVS                                 pmax   pmax
      comp=N,37nm,1.3s
NVS                                 pmax   pmax
      comp=E,43nm,1.1s
NVS                                 smax
      comp=E,49nm,2.3s
NVS                                 smax
      comp=N,55nm,2.8s
SEY   Seymchan          64.55  13⇑iP       P        10 54 04.3  +0.3
CASY  Casey             68.29 187  eP      P        10 54 28.5  +0.7
CASY                                LR     LR
      comp=Z,669nm,19.0s,MS4.9
DRV   Dumont d’Urvil    68.42 174   P      pP       10 54 46.0   +12
DRV   Dumont d’Urvil    68.42 174   PP     PP       10 56 56.0  -3.7
DRV                                 S      sS       11 03 58.0   +20
DRV                                 L               11 11 00.0
DRV                                 R               11 16 00.0
BRVK  Borovoye          69.30 328   P      P        10 54 33.0  -1.4
      comp=Z,339nm,0.7s,mb6.4,SNR=34
TIXI  Tiksi             70.35   1  eP      P        10 54 39.7  -0.8
      comp=Z,42nm,0.8s,mb5.4
TIXI                                LR     LR
      comp=Z,319nm,20.0s,MS4.6
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TIXI	Tiksi	70.35	1	*e*P	P	10 54 35.9	-4.6
TIXI				*e*S	S	11 03 45.8	-6.2
TIXI				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.5						
MSEY	Mahe Island	71.05	265	PFAKE		10 55 00.0	+14
MSEY				LR	LR		
	comp=Z,668nm,20.0s,MS4.9						
BILL	Bilibino	72.07	15	*e*P	P	10 54 51.1	+0.2
	comp=Z,23nm,1.0s,mb5.1						
BILL				LR	LR		
	comp=Z,583nm,22.0s,MS4.8						
BILL	Bilibino	72.07	15⇑	*e*P	P	10 54 51.1	+0.2
BILL				*e*		10 55 02.4	
BILL						10 55 08.0	
BILL				pmax	pmax		
	comp=Z,48nm,1.8s,mb5.1						
AKTO	Aktyubinsk	75.40	322	LR	LR	11 30 03.6	
	comp=Z,344nm,21.9s,MS4.6,baz=110,slow=37						
SVE	Sverdlovsk	75.91	329⇑	*e*P	P	10 55 13.0	-0.6
SVE				pmax	pmax		
	comp=Z,320nm,1.0s,mb6.2						
ARU	Arti	76.86	328	P	P	10 55 18.4	-0.6
	comp=Z,1µm,0.7s,SNR=47						
ARU	Arti	76.86	328	*e*P	P	10 55 18.2	-0.8
	comp=Z,161nm,0.8s,mb6.0						
ARU				LR	LR		
	comp=Z,212nm,19.0s,MS4.5						
ARU	Arti	76.86	328⇑	*i*P	P	10 55 18.1	-0.9
ARU				*e*		10 55 28.0	
ARU				*e*		10 58 11.2	
ARU				*e*PPP		10 59 54.4	
ARU				*e*S	S	11 05 01.3	-4.8
ARU				*e*SS	SS	11 09 58.8	-3.7
ARU				pmax	pmax		
	comp=Z,153nm,0.8s,mb6.0						
SOKR	Solikamsk	78.71	331*c*	*i*P	P	10 55 28.7	-0.6
SOKR				pmax	pmax		
	comp=Z,150nm,1.1s,mb5.8						
SOKR				MLR	MLR		
	comp=Z,310nm,22.0s,MS4.6						
QRN	Al-Qurain	79.28	299	*e*P	P	10 55 32.6	-0.5
QRN				AMb	AMB	10 55 35.5	
	comp=Z,265nm,0.9s,mb6.2						
SDPT	Sand Point	79.48	34	*e*P	P	10 55 33.8	+0.2
	comp=Z,144nm,0.6s,mb6.1						
KBD	Kabd	79.51	299	*e*P	P	10 55 33.5	-0.9
KBD				AMb	AMB	10 55 36.5	
	comp=Z,340nm,0.8s,mb6.3						
RDF	Al-Radifah	79.62	299	*e*P	P	10 55 34.1	-0.8
RDF				AMb	AMB	10 55 36.9	
	comp=Z,124nm,0.8s,mb5.9						
MIB	Mutribah	79.87	300	*e*P	P	10 55 35.2	-1.1
MIB				AMb	AMB	10 55 38.3	
	comp=Z,196nm,0.9s,mb6.0						
NAY	Al-Naaiem	79.91	299	*e*P	P	10 55 35.4	-1.2
NAY				AMb	AMB	10 55 39.8	
	comp=Z,58nm,0.7s,mb5.6						
RST	Umm Al-Ruwaisa	80.14	300	*e*P	P	10 55 36.3	-1.5
RST				AMb	AMB	10 55 39.5	
	comp=Z,191nm,0.7s,mb6.1						
VNDA	Vanda	80.99	173	*e*P	P	10 55 41.5	+0.2
	comp=Z,24nm,0.9s,mb5.1						
VNDA				LR	LR		
	comp=Z,411nm,20.0s,MS4.8						
VNDA	Vanda	80.99	173	*e*P	P	10 55 41.5	+0.2
VNDA				pmax	pmax		
	comp=Z,25nm,0.9s						
VNDA				MLR	MLR		
	comp=Z,411nm,20.0s						
VNDA	Vanda	80.99	173	P	P	10 55 41.5	+0.1
	comp=Z,18nm,0.7s,mb5.1,baz=314,slow=6.0,SNR=37						
VNDA				LR	LR	11 28 44.8	
	comp=Z,246nm,20.6s,MS4.5,baz=331,slow=34						
MAW	Mawson	81.28	200	*e*P	P	10 55 41.8	-1.2
	comp=Z,13nm,0.7s,mb5.0						
MAW	Mawson	81.28	200	*e*P	P	10 55 41.8	-1.2
MAW				pmax	pmax		
	comp=Z,13nm,0.7s						
MAW	Mawson	81.28	200	P	P	10 55 43.2	+0.2
	comp=Z,19nm,0.8s,mb5.1,baz=62,slow=5.9,SNR=31						
MAW				LR	LR	11 26 43.1	
	comp=Z,203nm,21.5s,MS4.5,baz=61,slow=32						
SBA	Scott Base	81.91	172	*e*P	P	10 55 46.4	+0.2
	comp=Z,43nm,1.1s,mb5.3						
SBA	Scott Base	81.91	172	*e*P	P	10 55 46.4	+0.2
SBA				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.3						
DGRG	David-gareji	82.44	311	P	P	10 55 50.8	+1.1
BHD	Baghdad	82.63	303	*e*P	x	10 55 47.0	
MTA	Mtatsminda	82.89	312	P	P	10 55 52.3	+0.2
SVW2	Sparrevohn	83.17	29	*e*P	P	10 55 54.3	+1.2
HKR	Hakkari	83.41	308	*e*P	P	10 55 54.8	-0.1
GOR	Gori	83.43	312	P	P	10 55 55.8	+0.9
ZEI	Tsey	83.64	313	*e*P	P	10 55 56.4	+0.5
ZEI				pmax	pmax		
	comp=Z,150nm,0.9s,mb6.1						
MSL	Mosul	83.86	306	*e*P	x	10 55 57.0	
ONI	Oni	83.96	313	P	P	10 55 58.1	+0.6
KARS	Kars	84.10	311	*e*P	P	10 55 59.1	+0.8
AGRB	Hanur-Agry	84.11	309	*e*P	P	10 55 59.4	+1.0
KDAK	Kodiak Island	84.20	32	P	P	10 55 59.0	+0.6
	comp=Z,510nm,1.3s,mb6.5,SNR=6.5						
KDAK	Kodiak Island	84.20	32	*e*P	P	10 55 59.0	+0.6
	comp=Z,110nm,1.1s,mb5.9						
PRGR	Permogore	84.53	332⇓	*i*P	P	10 55 59.9	-0.1
PRGR				*e*	pP	10 56 04.9	-0.2
PRGR				*e*S	S	11 06 18.8	-7.3
KIV	Kislovodsk	84.60	314	P	P	10 56 01.5	+0.7
	comp=Z,430nm,0.7s,mb6.7,SNR=7.4						
KIV	Kislovodsk	84.60	314*c*	*i*P	P	10 56 00.4	-0.4
KIV				*e*		11 06 21.9	
KIV				pmax	pmax		
	comp=Z,75nm,1.0s,mb5.8						
KIV				pmax	pmax		
	comp=Z,85nm,4.2s						
KIV				MLR	MLR		
	comp=Z,165nm,21.0s,MS4.4						
PPT	Papeete	84.70	108	*e*S	S	11 06 26.0	-3.5
	comp=Z,214nm,26.0s						
PPT				*e*SS	SS	11 11 55.7	-5.7
	comp=Z,338nm,35.5s						
PPT				*e*LR	LR	11 22 49.2	
	comp=Z,510nm,28.5s						
PPT	Papeete	84.70	108	LR	LR	11 30 52.9	
	comp=Z,136nm,20.4s,MS4.3,baz=89,slow=34						
BTMT	Batman	85.22	308	*e*P	P	10 56 04.1	+0.1
EZM	Erzurum	85.39	310	*e*P	P	10 56 06.2	+1.4
SLKM	Skilak Lake	85.70	30	*e*P	P	10 56 05.9	0.0
VRHR	Novokhopersk	85.75	321	*e*P	P	10 56 05.6	-0.7
VRHR				pmax	pmax		
	comp=Z,240nm,0.6s,mb6.6						
VRHR				pmax	pmax		
	comp=N,110nm,0.7s						
VRHR				pmax	pmax		
	comp=E,80nm,0.5s						
PMR	Palmer	86.32	28	*e*P	P	10 56 09.4	+0.5
	comp=E,76nm,1.1s,mb5.8						
PMR	Palmer	86.32	28	*e*P	P	10 56 08.5	-0.4
PMR				pmax	pmax		
	comp=Z,81nm,1.2s,mb5.8						
EZC	Erzincan	86.57	310	*e*P	P	10 56 13.1	+2.4
SOC	Sochi	86.73	313	*i* P	P	10 56 11.9	+0.5
SOC	Sochi	86.73	313	*e*P	P	10 56 10.2	-1.2
SOC				*e*PPP		11 01 32.9	
SOC				*e*S	S	11 06 32.1	-16
SOC				*e*SSS		11 15 52.8	
SOC				pmax	pmax		
	comp=Z,103nm,0.6s,mb6.2						
GUMT	Gumushane	86.84	310	*e*P	P	10 56 12.8	+0.8
PTK	Pertek	86.88	309	*e*P	P	10 56 12.9	+0.6
COLA	College	87.11	25	*e*P	P	10 56 11.6	-1.2
	comp=Z,4.6nm,0.6s,mb4.9						
COLA	College	87.11	25	*e*P	P	10 56 11.6	-1.2
COLA				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.9						
VRSR	Storozhevoye	87.28	321	*e*P	P	10 56 13.6	-0.3
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.1						
VRSR				pmax	pmax		
	comp=N,1.0nm,0.6s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
URFA	Urfa	87.31	307	*e*P	P	10 56 14.1	-0.2
MALT	Malatya	87.63	308	*e*P	P	10 56 16.0	+0.1
MALT	Malatya	87.63	308⇓	*i*P	P	10 56 16.4	+0.5
MYA	Malataya	87.63	308	*e*P	P	10 56 16.6	+0.8
MOS	Moscow	88.29	326	*e*P	P	10 56 15.4	-3.2
MOS	Moscow	88.29	326	*e*P	P	10 56 16.2	-2.4
MOS				*e*		10 59 43.6	
MOS				pmax	pmax		
	comp=Z,115nm,1.2s,mb6.0						
ANN	Anapa	88.39	315	*e*P	P	10 56 17.3	-2.0
ANN				*e*		11 06 42.8	
ANN				pmax	pmax		
	comp=Z,184nm,0.9s,mb6.3						
GAZ	Gaziantep	88.60	307	*e*P	P	10 56 20.4	-0.1
SVSK	Karacayir	88.74	310	*e*P	P	10 56 17.4	-3.7
KMRS	Kahramanmaras	88.84	307	*e*P	P	10 56 21.8	+0.2
MENT	Mentasta	88.89	27	*e*P	P	10 56 21.6	+0.3
OBN	Obninsk	88.90	325⇑	*i*P	P	10 56 20.4	-1.1
OBN	Obninsk	88.90	325κ	*e*P	P	10 56 20.6	-0.9
OBN				*e*		10 56 31.0	
OBN				*e*		11 06 58.8	
OBN				pmax	pmax		
	comp=Z,128nm,1.4s,mb6.1						
OBN				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.6						
ASF	Jabal al Asfar	88.91	302	P	P	10 56 23.2	+1.2
	comp=Z,53nm,0.8s,mb5.9,baz=279,slow=0.7,SNR=48						
ASF				LR	LR	11 41 10.9	
	comp=Z,152nm,21.1s,MS4.4,baz=333,slow=39						
TOKT	Tokat	89.08	310	*e*P	P	10 56 23.8	+1.1
KMBO	Kilima Mbogo	89.13	269	*e*P	P	10 56 24.1	+0.5
	comp=Z,28nm,0.8s,mb5.7						
KMBO				LR	LR		
	comp=Z,327nm,20.0s,MS4.8						
KMBO	Kilima Mbogo	89.13	269	*e*P	P	10 56 24.1	+0.6
KMBO				pmax	pmax		
	comp=Z,28nm,0.8s						
KMBO				MLR	MLR		
	comp=Z,327nm,20.0s						
KMBO	Kilima Mbogo	89.13	269	P	P	10 56 24.5	+1.0
	comp=Z,24nm,0.9s,mb5.5,baz=49,slow=6.8,SNR=51						
KMBO				LR	LR	11 32 55.2	
	comp=Z,363nm,21.9s,MS4.8,baz=92,slow=33						
KVT	Kavak	89.45	311	*e*P	P	10 56 21.9	-2.5
SYO	Syowa Base	89.96	201⇓	*e*P	P	10 56 25.8	-0.3
SYO	Syowa Base	89.96	201⇓	*e*PcP	PcP	10 56 28.2	+0.8
EGAK	Eagle	89.98	25	*e*P	P	10 56 26.1	-0.2
	comp=Z,9.8nm,0.9s,mb5.1						
APA	Apatity	90.02	337⇑	*e*P	P	10 56 25.0	-1.5
APA				*i*		10 56 33.7	
APA				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.5						
MMAI	Mount Meron Ar	90.15	303	LR	LR	11 40 01.8	
	comp=Z,45nm,20.2s,MS3.9,baz=230,slow=38						
EIL	Elat	90.63	300	*e*P	P	10 56 29.4	-0.8
	comp=Z,244nm,0.7s,mb6.6						
EIL	Elat	90.63	300	LR	LR	11 41 47.8	
	comp=Z,189nm,20.2s,MS4.5,baz=98,slow=39						
NIG	Nigde	90.64	308	*e*P	P	10 56 29.9	-0.1
SIM	Simferopol’	90.75	315	*e*P	P	10 56 31.9	+1.5
SIM				S	S	11 07 25.0	-1.3
SIM				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.8						
DAWY	Dawson	90.79	26	*e*P	P	10 56 29.9	-0.2
TOS	Tosya	90.98	311	*e*P	P	10 56 30.9	-0.7
QSPA	South Pole Qui	91.13	180	*e*P	P	10 56 32.0	+0.6
	comp=Z,12nm,0.7s,mb5.3						
QSPA				LR	LR		
	comp=Z,608nm,20.0s,MS5.0						
JOF	Joensuu	91.24	333	*e*p	P	10 56 29.8	-2.4
	comp=Z,16nm,0.7s,mb5.5						
JOF	Joensuu	91.24	333	*e*P	P	10 56 29.8	-2.4
JOF				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.5						
BR131	Keskin Array S	91.33	310	*e*P	P	10 56 31.8	-1.4
	comp=Z,7.4nm,0.7s,mb5.1						
ANTO	Ankara	91.97	310	PFAKE		10 56 50.0	+14
ANTO				LR	LR		
	comp=Z,206nm,22.0s,MS4.5						
INK	Inuvik	92.63	21	*e*P	P	10 56 38.0	-0.5
	comp=Z,2µm,1.3s						
INK	Inuvik	92.63	21	*e*P	P	10 56 38.0	-0.6
INK				pmax	pmax		
	comp=Z,2µm,1.2s						
ARCES	ARCESS Array B	92.67	340	P	P	10 56 37.1	-1.6
	comp=Z,30nm,1.1s,mb5.7,baz=83,slow=3.2,SNR=16						
KIZT	Kizilcal	92.74	309	*e*P	P	10 56 39.2	-0.6
SKAG	Skagway	93.20	30	*e*P	P	10 56 43.0	+1.6
	comp=Z,62nm,1.4s,mb5.8						
SIT	Sitka	93.52	33	*e*P	P	10 56 42.4	-0.6
	comp=Z,73nm,1.3s,mb6.0						
SIT	Sitka	93.52	33	*e*P	P	10 56 42.4	-0.5
SIT				pmax	pmax		
	comp=Z,73nm,1.3s,mb6.0						
AKASG	Malin Array Be	93.60	321	P	P	10 56 42.0	-1.4
	comp=Z,12nm,0.7s,mb5.5,baz=68,slow=4.6,SNR=31						
AKASG				LR	LR	11 41 54.3	
	comp=Z,260nm,21.9s,MS4.7,baz=330,slow=38						
AKBB	Malin Array Si	93.60	321	*e*P	P	10 56 41.6	-1.8
KIEV	Kiev	93.61	321	*e*P	P	10 56 41.4	-2.1
	comp=Z,10nm,0.7s,mb5.4						
KIEV				LR	LR		
	comp=Z,388nm,22.0s,MS4.8						
KIEV	Kiev	93.61	321	*e*P	P	10 56 41.4	-2.1
KIEV				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.3						
KIEV				MLR	MLR		
	comp=Z,388nm,22.0s,MS4.8						
TAOE	Nuku Hiva Isla	93.63	99	*e*LR	LR	11 27 05.4	
	comp=Z,1µm,23.7s						
KAF	Kangasniemi	93.64	332	*e*p	P	10 56 46.8	+3.4
	comp=Z,22nm,0.6s,mb5.8						
KAF	Kangasniemi	93.64	332	*e*P	P	10 56 46.8	+3.4
KAF				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.8						
FIA1	FINESS Array S	93.86	332	*e*P	P	10 56 46.1	+1.7
FINES	FINESS Array B	93.86	332	P	P	10 56 42.7	-1.7
	comp=Z,11nm,0.6s,mb5.5,baz=50,slow=5.5,SNR=21						
FINES				LR	LR	11 42 23.8	
	comp=Z,272nm,21.0s,MS4.7,baz=329,slow=38						
MNK	Minsk	93.98	325	*e*P	P	10 56 41.0	-4.1
WRAK	Wrangell Islan	95.24	33	*e*P	P	10 56 51.5	+0.7
	comp=Z,77nm,1.4s,mb5.9						
VRI	Vrincioaia	95.85	316 ⇓	P	P	10 56 53.9	0.0
VRI	Vrincioaia	95.85	316⇓	*i*P	P	10 56 53.9	+0.1
DLBC	Dease Lake	96.08	31	*e*P	P	10 56 55.5	+0.9
MLR	Muntele Rosu	96.44	316 ⇑	P	P	10 56 56.6	+0.1
MLR	Muntele Rosu	96.44	316	P	P	10 56 56.9	+0.3
	comp=Z,14nm,0.7s,mb5.5,baz=111,slow=1.7,SNR=4.5						
MLR	Muntele Rosu	96.44	316⇑	*i*P	P	10 56 56.7	+0.1
BURAR	Bucovina Array	96.62	318 ⇑	P	P	10 56 57.0	-0.3
BURAR	Bucovina Array	96.62	318⇑	*i*P	P	10 56 57.0	-0.3
SUW	Suwalki	96.75	325	*e*P	P	10 56 57.0	-0.8
LVV	L’vov	97.02	320	*e*P	P	10 56 59.0	-0.1
LVV				*e*		10 57 12.0	
LSZ	Lusaka	98.20	255	*e*P	P	10 57 04.4	-0.8
	comp=Z,15nm,1.2s,mb5.4						
LSZ				LR	LR		
	comp=Z,408nm,19.0s,MS4.9						
LSZ	Lusaka	98.20	255	*e*P	P	10 57 04.4	-0.7
LSZ				pmax	pmax		
	comp=Z,15nm,1.2s,mb5.4						
LSZ				MLR	MLR		
	comp=Z,408nm,19.0s,MS4.9						
KOLS	Kolonicke sedl	98.32	320	*i* P	P	10 57 05.6	+0.7
UZH	Uzhgorod	98.37	319	*i* P	P	10 57 04.8	-0.4
UZH				*i*		10 57 22.4	
DRGR		98.44	318 ⇑	P	P	10 57 04.9	-0.6
DRGR		98.44	318⇑	*i*P	P	10 57 04.9	-0.7
RKT	Rikitea	98.45	113	*e*LR	LR	11 29 07.8	
	comp=Z,459nm,35.5s						
GZR	Gura Zlata	98.66	316 ⇑	P	P	10 57 06.5	-0.1
GZR	Gura Zlata	98.66	316⇑	*i*P	P	10 57 06.5	0.0
VTS	Vitosha	98.85	313 ⇓	P	P	10 57 06.9	-0.5
VTS	Vitosha	98.85	313⇓	*i*P	P	10 57 06.9	-0.6
STHS	Stebnicka Huta	98.88	320	*e*P	P	10 57 09.7	+2.3
	comp=Z,7.2nm,0.9s,mb5.2						
STHS	Stebnicka Huta	98.88	320	*e*P	P	10 57 09.7	+2.3
STHS				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb5.2						
STHS	Stebnicka Huta	98.88	320	*e*P	P	10 57 09.6	+2.2
KECS	Kecovo	99.57	320	*i* P	P	10 57 10.3	-0.2
	comp=Z,6.3nm,0.9s,mb5.0						
KECS	Kecovo	99.57	320	*i* P	P	10 57 10.3	-0.2
KECS				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb5.0						
OJC	Ojcow	99.61	321	*e*P	Pdif	10 57 10.4	-0.2
DAG	Danmarks Havn	99.68	352⇑	*i*P	Pdif	10 57 09.8	-1.1
DAG				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.3						
DAG	Danmarks Havn	99.68	352⇑	*i*P	Pdif	10 57 09.8	-1.1
	comp=Z,13nm,1.1s						
HFS	Hagfors	100.06	332	P	Pdif	10 57 10.7	-1.9
	comp=Z,3.8nm,0.6s,baz=94,slow=6.2,SNR=6.8						
BOSA	Boshof	100.33	241	PFAKE		10 57 30.0	+16
BOSA				LR	LR		
	comp=Z,406nm,19.0s,MS5.0						
VYHS	Vyhne	100.64	320	*e*P	Pdif	10 57 15.4	+0.3
	comp=Z,48nm,3.0s						
VYHS	Vyhne	100.64	320	*e*P	Pdif	10 57 15.4	+0.3
VYHS				pmax	pmax		
	comp=Z,48nm,3.0s						
VYHS	Vyhne	100.64	320	PDIF	Pdif	10 57 15.4	+0.3
MORC	Moravsky Berou	101.13	321 ⇑	P	Pdif	10 57 19.1	+1.8
MORC	Moravsky Berou	101.13	321⇑	*i*P	Pdif	10 57 19.1	+1.8
KSP	Ksiaz	101.61	323	*e*Pdif	Pdif	10 57 20.1	+0.7
YKA	Yellowknife Ar	101.93	25	P	Pdif	10 57 20.6	-0.3
YKA	Yellowknife Ar	101.93	25	*i* P	Pdif	10 57 20.6	-0.2
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA	Yellowknife Ar	101.93	25	P	Pdif	10 57 20.6	-0.3
	comp=Z,1.7nm,0.7s,baz=297,slow=4.3,SNR=40						
YKA				PKiKP	PKiKP	11 01 42.9	-0.6
	comp=Z,0.7nm,0.5s,baz=305,slow=1.8,SNR=19						
B04A	Port Angeles	102.44	40 ⇑	Pdiff	Pdif	10 57 23.6	+0.5
	baz=102						
E03A	Lebam	102.81	42 ⇑	Pdiff	Pdif	10 57 25.3	+0.6
	baz=103						
C04A	Brinnon	102.87	40 ⇑	Pdiff	Pdif	10 57 25.3	+0.2
	baz=103						
BRG	Berggiesshubel	103.02	323	*e*P	Pdif	10 57 25.3	-0.4
	comp=Z,5.5nm,0.9s						
BRG				*i*		10 57 30.5	
	comp=Z,8.9nm,0.8s						
BRG				*e*		10 57 44.2	
	comp=Z,7.8nm,1.1s						
A05A	Maple Falls	103.07	39 ⇑	Pdiff	Pdif	10 57 26.4	+0.5
	baz=103						
B05A	Bryant	103.28	40 ⇑	Pdiff	Pdif	10 57 27.4	+0.5
	baz=103						
I02A	Mapleton	103.30	44 ⇑	Pdiff	Pdif	10 57 28.4	+1.5
	baz=103						
E04A	Onalaska	103.35	41 ⇓	Pdiff	Pdif	10 57 28.0	+0.9
	baz=103						
A06A	Chilliwack	103.42	39 ⇑	Pdiff	Pdif	10 57 28.3	+0.8
	baz=103						
H03A	Soap Creek Ran	103.49	43 ⇑	Pdiff	Pdif	10 57 28.7	+0.9
	baz=103						
B06A	Marblemount	103.59	39 ⇓	Pdiff	Pdif	10 57 28.8	+0.5
	baz=104						
M01C	Crescent City	103.63	46 ⇓	Pdiff	Pdif	10 57 27.7	-0.7
	baz=104						
C05A	Tolt Reservoir	103.71	40 ⇑	Pdiff	Pdif	10 57 29.0	+0.2
	baz=104						
F04A	Amboy	103.74	42 ⇓	Pdiff	Pdif	10 57 29.1	+0.2
	baz=104						
MOA	Molln	103.75	320⇓	*i*Pdiff	Pdif	10 57 28.8	-0.2
KHC	Kasperske Hory	103.80	321	*e*P	Pdif	10 57 29.5	+0.4
GERES	GERESS Array B	103.81	321	Pdif	Pdif	10 57 28.4	-0.8
GERES	GERESS Array B	103.81	321	Pdiff	Pdif	10 57 28.4	-0.8
	comp=Z,1.1nm,0.7s,baz=49,slow=4.1,SNR=9.3						
E05A	Randle	104.00	41 ⇓	Pdiff	Pdif	10 57 30.6	+0.5
	baz=104						
A07A	Ashnola River,	104.12	39 ⇑	Pdiff	Pdif	10 57 31.1	+0.5
	baz=104						
H04A	Detroit Lake	104.25	43 ⇓	Pdiff	Pdif	10 57 32.3	+1.2
	baz=104						
HUMO	Hull Mountain	104.27	45	PFAKE		10 57 40.0	+8.7
HUMO				LR	LR		
	comp=Z,296nm,19.0s,MS4.8						
I04A	Tendick Farm,	104.34	44 ⇑	Pdiff	Pdif	10 57 32.4	+0.9
	baz=104						
F05A	White Salmon	104.40	42 ⇑	Pdiff	Pdif	10 57 32.7	+0.8
	baz=104						
D06A	Cle Elum	104.41	40 ⇓	Pdiff	Pdif	10 57 32.1	+0.2
	baz=104						
B07A	Winthrop	104.47	39 ⇑	Pdiff	Pdif	10 57 32.6	+0.5
	baz=104						
E06A	Yakima	104.52	41 ⇓	Pdiff	Pdif	10 57 33.2	+0.8
	baz=104						
YBH	Yreka Blue Hor	104.68	46	PFAKE		10 57 40.0	+6.9
YBH				LR	LR		
	comp=Z,613nm,21.0s,MS5.1						
YBH	Yreka Blue Hor	104.68	46 ⇑	Pdiff	Pdif	10 57 34.0	+0.9
	baz=105						
J04A	Umpqua Nationa	104.70	45 ⇑	Pdiff	Pdif	10 57 33.7	+0.6
	baz=105						
C07A	Waterville	104.76	40 ⇓	Pdiff	Pdif	10 57 34.2	+0.8
	baz=105						
A08A	Turner Farm, O	104.84	38 ⇑	Pdiff	Pdif	10 57 33.9	+0.2
	baz=105						
H05A	Madras	104.92	43 ⇑	Pdiff	Pdif	10 57 33.4	-0.7
	baz=105						
D07A	Quincy	104.97	40 ⇓	Pdiff	Pdif	10 57 34.2	-0.1
	baz=105						
B08A	Colville Reser	105.00	39 ⇑	Pdiff	Pdif	10 57 34.0	-0.5
	baz=105						
O02C	Red Bluff	105.02	48 ⇑	Pdiff	Pdif	10 57 35.5	+0.9
	baz=105						
I05A	Bend	105.03	44 ⇑	Pdiff	Pdif	10 57 35.8	+1.2
	baz=105						
WDC	Whiskeytown Da	105.10	47	PFAKE		11 02 00.0	+10
WDC				LR	LR		
	comp=Z,667nm,19.0s,MS5.2						
GASB	Alder Springs	105.20	48 ⇓	Pdiff	Pdif	10 57 36.8	+1.4
	baz=105						
E07A	Sunnyside	105.25	41 ⇑	Pdiff	Pdif	10 57 36.9	+1.2
	baz=105						
A09A	Danville	105.26	38 ⇓	Pdiff	Pdif	10 57 36.5	+0.9
	baz=105						
J05A	Fort Rock	105.30	44 ⇓	Pdiff	Pdif	10 57 36.7	+0.8
	baz=105						
C08A	Higginbotham F	105.37	39 ⇑	Pdiff	Pdif	10 57 37.1	+0.9
	baz=105						
H06A	Lindquist Farm	105.50	43 ⇓	Pdiff	Pdif	10 57 37.3	+0.6
	baz=105						
D08A	Wollman Farm,	105.70	40 ⇓	Pdiff	Pdif	10 57 38.3	+0.7
	baz=106						
K05A	Summer Lake	105.70	45 ⇑	Pdiff	Pdif	10 57 39.0	+1.3
	baz=106						
B09A	Rice	105.72	39 ⇓	Pdiff	Pdif	10 57 38.7	+0.9
	baz=106						
G07A	Ruggs Ranch, H	105.78	42 ⇓	Pdiff	Pdif	10 57 39.1	+1.1
	baz=106						
E08A	Dider Farm, El	105.79	41 ⇑	Pdiff	Pdif	10 57 38.5	+0.5
	baz=106						
I06A	Prineville	105.82	44 ⇑	Pdiff	Pdif	10 57 39.5	+1.3
	baz=106						
C09A	Chrisman Ranch	105.86	39 ⇓	Pdiff	Pdif	10 57 39.5	+1.2
	baz=106						
A10A	Northport	105.89	38 ⇓	Pdiff	Pdif	10 57 39.0	+0.5
	baz=106						
M05C	Lookout	105.91	46 ⇑	Pdiff	Pdif	10 57 39.0	+0.5
	baz=106						
L05A	Lakeview	105.94	46 ⇑	Pdiff	Pdif	10 57 39.7	+1.0
	baz=106						
J06A	Christmas Vall	106.07	44 ⇑	Pdiff	Pdif	10 57 39.6	+0.4
	baz=106						
D09A	Jones Farm, Ri	106.09	40 ⇓	Pdiff	Pdif	10 57 39.3	0.0
	baz=106						
K06A	Valley Falls	106.14	45 ⇓	Pdiff	Pdif	10 57 40.4	+0.8
	baz=106						
O04C	Chester	106.24	47 ⇑	Pdiff	Pdif	10 57 41.5	+1.5
	baz=106						
I07A	Izee	106.26	43 ⇓	Pdiff	Pdif	10 57 40.0	-0.1
	baz=106						
MOD	Modoc	106.36	46	PFAKE		11 02 00.0	+7.8
MOD				LR	LR		
	comp=Z,242nm,19.0s,MS4.8						
MOD	Modoc	106.36	46 ⇓	Pdiff	Pdif	10 57 41.4	+0.9
	baz=106						
M06C	Likely Place G	106.44	46 ⇑	Pdiff	Pdif	10 57 41.3	+0.4
	baz=106						
WENL	Wente Brothers	106.45	50 ⇓	Pdiff	Pdif	10 57 41.9	+1.0
	baz=106						
A11A	Hall Mountain,	106.63	38 ⇓	Pdiff	Pdif	10 57 42.2	+0.5
	baz=106						
H08A	Prairie City	106.69	43 ⇓	Pdiff	Pdif	10 57 43.6	+1.6
	baz=107						
D10A	Wagner Farm, O	106.75	40 ⇓	Pdiff	Pdif	10 57 42.5	+0.2
	baz=107						
F09A	S2 Ranch, Elgi	106.81	41 ⇓	Pdiff	Pdif	10 57 42.6	0.0
	baz=107						
K07A	Rock Creek Ran	106.87	45 ⇑	Pdiff	Pdif	10 57 44.0	+1.1
	baz=107						
BEKR	Beckwourth	106.90	48 ⇑	Pdiff	Pdif	10 57 43.7	+0.8

	baz=107						
LAVA	Lava Cap Winer	106.92	49	⇑Pdiff	Pdif	10 57 43.8	+0.7
	baz=107						
N06A	Buffalo Meadow	107.03	47	⇓Pdiff	Pdif	10 57 44.9	+1.4
	baz=107						
A12A	Yaak River Ran	107.07	38	⇑Pdiff	Pdif	10 57 45.2	+1.5
	baz=107						
O06A	Flanigan	107.21	47	⇑Pdiff	Pdif	10 57 44.9	+0.6
	baz=107						
BFO	Black Forest	107.33	322	PFAKE		11 02 10.0	+16
BFO				LR	LR		
	comp=Z,247nm,20.0s,MS4.8						
WVOR	Wild Horse Val	107.38	45	PFAKE		11 02 10.0	+16
WVOR				LR	LR		
	comp=Z,567nm,20.0s,MS5.1						
CMB	Columbia Colle	107.39	49	PFAKE		11 02 10.0	+16
CMB				LR	LR		
	comp=Z,243nm,19.0s,MS4.8						
CMB	Columbia Colle	107.39	49	⇑Pdiff	Pdif	10 57 46.8	+1.7
	baz=107						
BMO	Blue Mountains	107.50	42	PFAKE		11 02 10.0	+16
BMO				LR	LR		
	comp=Z,421nm,19.0s,MS5.0						
I09A	Lost Marbles R	107.50	43	⇑Pdiff	Pdif	10 57 46.1	+0.4
	baz=107						
N07B	Gerlach	107.65	46	⇑Pdiff	Pdif	10 57 47.0	+0.7
	baz=108						
L08A	Fields	107.66	45	⇑Pdiff	Pdif	10 57 47.3	+1.0
	baz=108						
E11A	Bogner Ranch,	107.69	40	⇓Pdiff	Pdif	10 57 47.3	+0.9
	baz=108						
J09A	Fry Pan Ranch,	107.70	44	⇑Pdiff	Pdif	10 57 46.8	+0.2
	baz=108						
A13A	Flathead Natio	107.83	37	⇑Pdiff	Pdif	10 57 46.9	-0.1
	baz=108						
K09A	Rome	107.93	44	⇑Pdiff	Pdif	10 57 47.8	+0.3
	baz=108						
R06C	Coleville	107.96	49	⇑Pdiff	Pdif	10 57 47.3	-0.4
	baz=108						
H10A	Noah’s Angus R	107.97	42	⇓Pdiff	Pdif	10 57 46.9	-0.8
	baz=108						
G11A	Walters Elk Ra	108.00	41	⇑Pdiff	Pdif	10 57 47.3	-0.5
	baz=108						
B13A	Whitefish	108.02	38	⇑Pdiff	Pdif	10 57 47.9	0.0
	baz=108						
U05C	Westside ANR,	108.05	51	⇓Pdiff	Pdif	10 57 49.3	+1.3
	baz=108						
WALA	Waterton Lakes	108.08	37	*e*P	Pdif	10 57 49.8	+1.6
	comp=Z,18nm,1.9s						
TSUM	Tsumeb	108.12	250	PFAKE		11 02 10.0	+14
TSUM				LR	LR		
	comp=Z,371nm,20.0s,MS4.9						
T06C	Millerton Lake	108.18	50	⇓Pdiff	Pdif	10 57 49.9	+1.2
	baz=108						
C13A	Hot Springs	108.22	38	⇑Pdiff	Pdif	10 57 49.6	+0.7
	baz=108						
R07C	Lee Vining	108.39	49	⇓Pdiff	Pdif	10 57 50.9	+1.3
	baz=108						
K10A	MacKenzie Ranc	108.50	44	⇑Pdiff	Pdif	10 57 51.4	+1.3
	baz=108						
N09A	Rock Creek Ran	108.67	46	⇑Pdiff	Pdif	10 57 52.0	+1.2
	baz=109						
C14A	Swan Lake	108.70	38	⇑Pdiff	Pdif	10 57 52.4	+1.4
	baz=109						
HELL	Mitchell Peak,	108.80	51	⇓Pdiff	Pdif	10 57 52.3	+0.9
	baz=109						
NVAR	Mina Array Bea	108.85	49	Pdif	Pdif	10 57 53.8	+2.2
NVAR				PKPdf	PKiKP	11 01 58.6	+1.6
NVAR				PP	PP	11 02 20.1	-3.4
NVAR				PKKP	PKKPbc	11 13 18.7	+13
NVAR	Mina Array Bea	108.85	49	Pdiff	Pdif	10 57 53.8	+2.2
	comp=Z,0.6nm,0.6s,baz=269,slow=3.1,SNR=6.7						
NVAR				PKiKP	PKiKP	11 01 58.6	+1.6
	comp=Z,0.8nm,0.8s,baz=284,slow=3.6,SNR=5.2						
NVAR				PP	PP	11 02 20.1	-3.4
	comp=Z,3.0nm,1.1s,baz=277,slow=6.4,SNR=6.9						
NVAR				PKKP	PKKPbc	11 13 18.7	+13
	comp=Z,0.7nm,0.7s,baz=113,slow=5.9,SNR=7.2						
E13A	Victor	108.95	40	⇓Pdiff	Pdif	10 57 53.2	+1.1
	baz=109						
Q08A	Gabbs	109.00	48	⇑Pdiff	Pdif	10 57 54.2	+2.0
	baz=109						
D14A	Greenough	109.13	39	⇓Pdiff	Pdif	10 57 53.2	+0.3
	baz=109						
O09A	Fish Creek Ran	109.13	47	⇑Pdiff	Pdif	10 57 53.8	+1.0
	baz=109						
S08C	White Mtn Res	109.22	50	⇑Pdiff	Pdif	10 57 54.7	+1.4
	baz=109						
LPL	La Plagne	109.43	320	*e*PKPdf	PKiKP	11 01 57.8	0.0
LPL	La Plagne	109.43	320	*e*PKIKP	PKiKP	11 01 57.8	0.0
G13A	Cobalt	109.44	41	⇓Pdiff	Pdif	10 57 54.4	+0.1
	baz=109						
L11A	Cat Creek Ranc	109.49	44	⇑Pdiff	Pdif	10 57 55.8	+1.3
	baz=109						
CWC	Cottonwood Cre	109.60	51	⇓Pdiff	Pdif	10 57 56.3	+1.4
	baz=110						
H13A	Challis	109.63	41	⇓Pdiff	Pdif	10 57 56.3	+1.2
	baz=110						
HLID	Hailey	109.90	42	PFAKE		11 02 10.0	+11
HLID				LR	LR		
	comp=Z,398nm,21.0s,MS5.0						
HLID	Hailey	109.90	42	⇑Pdiff	Pdif	10 57 57.8	+1.5
	baz=110						
K12A	Draper Farm, C	109.91	43	⇓Pdiff	Pdif	10 57 57.8	+1.5
	baz=110						
E15A	Deer Lodge	109.94	39	⇓Pdiff	Pdif	10 57 57.2	+0.7
	baz=110						
L12A	House Creek Ra	110.01	44	⇓Pdiff	Pdif	10 57 58.0	+1.2
	baz=110						
J13A	Cove Ranch, Pi	110.13	43	⇓Pdiff	Pdif	10 57 58.5	+1.2
	baz=110						
MPMC	Manual Prospec	110.17	51	⇓Pdiff	Pdif	10 57 59.0	+1.5
	baz=110						
LRMC	Laurel Mountai	110.18	51	⇓Pdiff	Pdif	10 57 59.0	+1.5
	baz=110						
ORIF	Oris-en-Rattie	110.22	319	*e*PKPdf	PKiKP	11 01 58.2	-1.1
ORIF	Oris-en-Rattie	110.22	319	*e*PKIKP	PKiKP	11 01 58.2	-1.1
ORIF	Oris-en-Rattie	110.22	319	*e*PKIKP	PKiKP	11 01 58.2	-1.1
	comp=Z,5.8nm,0.7s						
O11A	Cowboy Ranch,	110.25	46	⇑Pdiff	Pdif	10 57 58.8	+0.9
	baz=110						
F15A	Butte	110.27	40	⇑Pdiff	Pdif	10 57 59.4	+1.5
	baz=110						
S10A	Tonopah Range,	110.28	49	⇓Pdiff	Pdif	10 57 58.9	+0.9
	baz=110						
M12A	Wells	110.34	45	⇓Pdiff	Pdif	10 57 59.6	+1.3
	baz=110						
ELK	Elko	110.34	45	PFAKE		11 02 10.0	+10
ELK				LR	LR		
	comp=Z,458nm,20.0s,MS5.0						
FURC	Furnace Creek,	110.53	50	⇑Pdiff	Pdif	10 58 00.3	+1.2
	baz=110						
L13A	Double Diamond	110.77	44	⇓Pdiff	Pdif	10 58 01.6	+1.5
	baz=111						
BOZ	Bozeman (W)	110.90	40	PFAKE		11 02 10.0	+9.4
BOZ				LR	LR		
	comp=Z,240nm,21.0s,MS4.8						
BOZ	Bozeman (W)	110.90	40	⇓Pdiff	Pdif	10 58 02.8	+2.1
	baz=111						
PFO	Pinyon Flat Ob	111.69	53	PFAKE		11 02 10.0	+7.5
PFO				LR	LR		
	comp=Z,139nm,19.0s,MS4.6						
YMR	Madison River	111.74	40	PFAKE		11 02 10.0	+7.8
YMR				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
V11A	Goodsprings	111.82	50	⇓Pdiff	Pdif	10 58 06.2	+1.3
	baz=112						
LKWY	Lake	112.15	40	PFAKE		11 02 10.0	+7.0
LKWY				LR	LR		
	comp=Z,576nm,21.0s,MS5.1						
FCC	Fort Churchill	112.25	21	*e*PKPdf	PKiKP	11 02 01.3	-1.5
FCC	Fort Churchill	112.25	21	*e*PKIKP	PKiKP	11 02 01.3	-1.5
DUG	Dugway	112.27	45	*e*PKPdf	PKiKP	11 02 04.1	+0.7
DUG				LR	LR		
	comp=Z,468nm,22.0s,MS5.0						
DUG	Dugway	112.27	45	*e*PKIKP	PKiKP	11 02 04.1	+0.7
DUG				MLR	MLR		
	comp=Z,468nm,22.0s,MS5.0						
DUG	Dugway	112.27	45	⇑Pdiff	Pdif	10 58 07.9	+1.1
	baz=112						
V12A	Nelson	112.31	50	⇑Pdiff	Pdif	10 58 08.7	+1.7
	baz=112						
AHID	Auburn Hatcher	112.45	42	PFAKE		11 02 20.0	+16
AHID				LR	LR		
	comp=Z,325nm,19.0s,MS4.9						
HWUT	Hardware Ranch	112.60	43	PFAKE		11 02 20.0	+16
HWUT				LR	LR		
	comp=Z,358nm,19.0s,MS5.0						
MPU	Maple Canyon	113.17	45	PFAKE		11 02 20.0	+15
MPU				LR	LR		
	comp=Z,680nm,21.0s,MS5.2						
MSU	Marysvale	113.35	47	*e*PKPdf	PKiKP	11 02 06.6	+1.1
MSU	Marysvale	113.35	47	*e*PKIKP	PKiKP	11 02 06.6	+1.1
BW06	Boulder Array	113.48	42	PFAKE		11 02 20.0	+14
BW06				LR	LR		
	comp=Z,140nm,19.0s,MS4.6						
PDAR	Pinedale Array	113.48	42	PKPdf	PKiKP	11 02 05.8	+0.2
PDAR				PKKPbc	PKKPbc	11 12 49.7	-1.4
PDAR	Pinedale Array	113.48	42	PKiKP	PKiKP	11 02 05.8	+0.2
	comp=Z,1.0nm,0.6s,baz=255,slow=2.3,SNR=8.1						
PDAR				PKKPbc	PKKPbc	11 12 49.7	-1.4
	comp=Z,1.3nm,0.8s,baz=125,slow=4.9,SNR=9.9						
LAO	LASA Array	113.76	37	PFAKE		11 02 20.0	+14
LAO				LR	LR		
	comp=Z,583nm,20.0s,MS5.2						
RWWY	Rawlins	115.52	42	*e*PKPdf	PKPdf	11 02 09.7	+0.1
PV10	Paradox Valley	115.67	46	*e*PKPdf	PKPdf	11 02 10.7	+0.7
PV01	Paradox Valley	116.11	46	*e*PKPdf	PKPdf	11 02 11.3	+0.5
PV01				*e*PP	PP	11 03 12.5	-2.8
RSSD	Black Hills	116.39	38	PFAKE		11 02 20.0	+8.9
RSSD				LR	LR		
	comp=Z,251nm,21.0s,MS4.8						
MVCO	Mesa Verde	116.54	47	PFAKE		11 02 20.0	+8.3
MVCO				LR	LR		
	comp=Z,279nm,19.0s,MS4.9						
TUC	Tucson	116.62	53	PFAKE		11 02 20.0	+8.0
TUC				LR	LR		
	comp=Z,276nm,19.0s,MS4.9						
SMCO	Snowmass	116.80	44	*e*PKPdf	PKPdf	11 02 13.2	+1.1
ULM	Lac du Bonnet	117.33	29	*e*PKPdf	PKPdf	11 02 11.2	-1.6
ULM				LR	LR		
	comp=Z,618nm,20.0s,MS5.2						
ULM	Lac du Bonnet	117.33	29	PKP	PKPdf	11 02 11.7	-1.0
	comp=Z,5.1nm,0.6s,baz=319,slow=2.0,SNR=17						
ULM				PKKPbc	PKKPbc	11 12 39.7	+1.7
	comp=Z,1.0nm,0.7s,baz=113,slow=6.1,SNR=4.0						
ISCO	Idaho Springs	117.46	43	PFAKE		11 02 30.0	+17
ISCO				LR	LR		
	comp=Z,452nm,21.0s,MS5.1						
SDCO	Great Sand Dun	118.47	45	PFAKE		11 02 30.0	+15
SDCO				LR	LR		
	comp=Z,526nm,20.0s,MS5.2						
AGMN	Agassiz Refuge	118.61	31	*e*PKPdf	PKPdf	11 02 13.5	-1.8
LAZ	Ladron	118.68	49	*e*PKPdf	PKPdf	11 02 16.2	+0.4
ANMO	Albuquerque	118.97	48	*e*PKPdf	PKPdf	11 02 16.7	+0.3
ANMO				LR	LR		
	comp=Z,295nm,19.0s,MS4.9						
ANMO	Albuquerque	118.97	48	*e*PKIKP	PKPdf	11 02 16.7	+0.3
ANMO				MLR	MLR		
	comp=Z,295nm,19.0s						
LPM	Los Pinos Moun	119.10	49	*e*PKPdf	PKPdf	11 02 17.5	+0.8
BNM	Barren Site	119.17	49	*e*PKPdf	PKPdf	11 02 17.5	+0.7
EYMN	Ely	121.01	29	*e*PKPdf	PKPdf	11 02 19.0	-0.9
ECSD	EROS,Sioux Fal	121.05	35	*e*PKPdf	PKPdf	11 02 19.3	-0.8
MNTX	Cornudas Mount	121.11	51	*e*PKPdf	PKPdf	11 02 20.3	-0.3
CBKS	Cedar Bluff	121.91	42	PFAKE		11 02 30.0	+8.1
CBKS				LR	LR		
	comp=Z,372nm,20.0s,MS5.0						
EVO	Evora	122.37	318	*e*PKIKP	PKPdf	11 02 22.9	+0.1
	comp=Z,11nm,0.9s						
MDT	Midelt	122.73	311	PKP	PKPdf	11 02 24.4	+0.7
MDT	Midelt	122.73	311	PKP	PKPdf	11 02 24.4	+0.7
	comp=Z,1.9nm,0.6s,baz=108,slow=1.6,SNR=5.0						
SCHQ	Schefferville	123.10	9	*e*PKPdf	PKPdf	11 02 23.2	-0.5
SCHQ				LR	LR		
	comp=Z,611nm,20.0s,MS5.2						
SCHQ	Schefferville	123.10	9	PKP	PKPdf	11 02 23.5	-0.2
	comp=Z,8.7nm,0.6s,baz=354,slow=2.1,SNR=27						
TOA0	Torodi Ar. Sit	123.31	287	*e*PKPdf	PKPdf	11 02 24.2	-1.0
TORD	Torodi Ar. Bea	123.31	287	PKP	PKPdf	11 02 24.6	-0.6
TORD				PKKPbc	PKKPbc	11 12 15.7	+0.9
TORD	Torodi Ar. Bea	123.31	287	PKP	PKPdf	11 02 24.6	-0.6
	comp=Z,7.5nm,0.7s,baz=51,slow=1.8,SNR=27						
TORD				PKKPbc	PKKPbc	11 12 15.7	+0.9
	comp=Z,5.9nm,0.8s,baz=274,slow=3.8,SNR=30						
LTX	Lajitas	123.41	53	PFAKE		11 02 40.0	+15
LTX				LR	LR		
	comp=Z,457nm,19.0s,MS5.2						
TXAR	Lajitas Array	123.41	53	PKP	PKPdf	11 02 25.2	+0.2
TXAR				PKKPbc	PKKPbc	11 12 15.0	+0.3
TXAR	Lajitas Array	123.41	53	PKIKP	PKPdf	11 02 25.3	+0.2
TXAR	Lajitas Array	123.41	53	PKP	PKPdf	11 02 25.2	+0.2
	comp=Z,3.4nm,0.7s,baz=259,slow=0.9,SNR=42						
TXAR				PKKPbc	PKKPbc	11 12 15.0	+0.3
	comp=Z,1.0nm,0.9s,baz=108,slow=7.4,SNR=10						
COWI	Conover	123.46	29	*e*PKPdf	PKPdf	11 02 24.5	-0.1
KSU1	Kansas State U	123.78	40	*e*PKPdf	PKPdf	11 02 24.9	-0.6
WMOK	Wichita Mounta	124.67	45	*e*PKPdf	PKPdf	11 02 27.0	-0.4
WMOK	Wichita Mounta	124.67	45	*e*PKIKP	PKPdf	11 02 27.0	-0.4
JCT	Junction City	125.96	50	*e*PKPdf	PKPdf	11 02 29.8	-0.1
JCT				LR	LR		
	comp=Z,128nm,22.0s,MS4.5						
JCT	Junction City	125.96	50	*e*PKIKP	PKPdf	11 02 29.8	-0.2
JCT				MLR	MLR		
	comp=Z,128nm,22.0s,MS4.5						
HDIL	Hopedale	127.26	34	*e*PKPdf	PKPdf	11 02 31.5	-0.6
HDIL				LR	LR		
	comp=Z,236nm,19.0s,MS4.9						
FVM	French Village	128.30	37	*e*PKPdf	PKPdf	11 02 34.3	+0.1
FVM	French Village	128.30	37	*e*PKIKP	PKPdf	11 02 34.3	+0.1
NATX	Nacogdoches	129.16	46	PFAKE		11 02 50.0	+14
NATX				LR	LR		
	comp=Z,272nm,22.0s,MS4.9						
BLO	Bloomington	129.75	33	*e*PKPdf	PKPdf	11 02 36.9	0.0
BLO	Bloomington	129.75	33	*e*PKIKP	PKPdf	11 02 36.9	0.0
WCI	Wyandotte Cave	130.54	34	*e*PKPdf	PKPdf	11 02 38.2	-0.2
WCI	Wyandotte Cave	130.54	34	*e*PKIKP	PKPdf	11 02 38.2	-0.3
ACSO	Alum Creek Sta	130.82	30	*e*PKPdf	PKPdf	11 02 39.1	+0.2
LIC	Lamto	130.91	279	*e*PKPdf	PKPdf	11 02 40.0	+0.2
LIC	Lamto	130.91	279	*e*PKIKP	PKPdf	11 02 40.0	+0.2
	comp=Z,30nm,1.0s						
WVT	Waverly	131.09	37	*e*PKPdf	PKPdf	11 02 39.2	-0.4
WVT	Waverly	131.09	37	*e*PKIKP	PKPdf	11 02 39.2	-0.4
OXF	Oxford	131.15	40	PFAKE		11 02 50.0	+10
OXF				LR	LR		
	comp=Z,379nm,19.0s,MS5.1						
PLAL	Pickwick Lake	131.69	38	*e*PKPdf	PKPdf	11 02 39.6	-1.2
PLAL				LR	LR		
	comp=Z,217nm,19.0s,MS4.9						
LRAL	Lakeview Retre	133.64	40	*e*PKPdf	PKPdf	11 02 44.8	+0.4
LRAL				LR	LR		
	comp=Z,284nm,19.0s,MS5.0						
BLA	Blacksburg	134.42	30	*e*PKPdf	PKPdf	11 02 44.7	-1.1
BLA	Blacksburg	134.42	30	*e*PKIKP	PKPdf	11 02 44.7	-1.1
BRAL	Brewton	134.89	42	PFAKE		11 03 00.0	+13
BRAL				LR	LR		
	comp=Z,511nm,20.0s,MS5.2						
CBN	Corbin	135.08	27	PFAKE		11 03 00.0	+13
CBN				LR	LR		
	comp=Z,321nm,21.0s,MS5.0						
GOGA	Godfrey	135.56	36	PFAKE		11 03 00.0	+12
GOGA				LR	LR		
	comp=Z,224nm,21.0s,MS4.9						
CNNC	Cliffs of the	137.23	30	PFAKE		11 03 00.0	+8.9
CNNC				LR	LR		
	comp=Z,154nm,19.0s,MS4.8						
TEIG	Tepich	139.93	56	PFAKE		11 03 10.0	+14
TEIG				LR	LR		
	comp=Z,145nm,20.0s,MS4.7						
DWPF	Disney	140.48	40	PFAKE		11 03 10.0	+13
DWPF				LR	LR		
	comp=Z,276nm,21.0s,MS5.0						
TGUH	Tegucigalpa,Un	143.39	64	*e*PKPdf	PKPdf	11 03 00.5	-2.3
TGUH				LR	LR		
	comp=Z,171nm,21.0s,MS4.8						
BBSR	BB Station	145.00	16	*e*PKPdf	PKPdf	11 03 04.3	-0.9
MGV	Manicaragua	145.39	46	*e*P	PKPbc	11 03 06.6	+0.6
VCR	Vista de Mar	146.23	70	*e*P	PKPbc	11 03 10.2	+1.5
JCR	Jicaral	146.80	70	*e*P	PKPbc	11 03 11.6	+1.1
JTS	JuntasAbangare	146.81	69	*e*PKPdf	PKPdf	11 03 09.0	+0.3
JTS				LR	LR		
	comp=Z,272nm,21.0s,MS5.0						
JTS	JuntasAbangare	146.81	69	*e*PKP2	PKPdf	11 03 09.0	+0.3
JTS				MLR	MLR		
	comp=Z,272nm,21.0s						
TLL	Tololo Astrono	146.91	152	*e*P	PKPdf	11 03 09.2	+0.7
TLL	Tololo Astrono	146.91	152	*e*PKP2	PKPab	11 03 09.2	-2.4
TLL	Tololo Astrono	146.91	152	*e*P	PKPdf	11 03 08.9	+0.4
CCCC	Cccc	147.55	45	*e*P	PKPbc	11 03 14.1	+1.7
LAJ	Bijagual	147.72	69	*e*P	PKPbc	11 03 13.8	+0.8
QCR	Quepos	147.81	70	*e*P	PKPbc	11 03 14.2	+1.0
LCR2	La Lucha 2	147.87	70	*e*P	PKPdf	11 03 10.9	+0.4
LCO	Las Campanas	147.92	151	*e*PKPdf	PKPdf	11 03 11.3	+1.2
LCO				*e*PKPbc	PKPbc	11 03 13.9	+0.7
BAR1		148.67	70	*e*P	PKPdf	11 03 13.1	+1.3
BCIP	Isla Barro Col	151.94	68	*e*PKPbc	PKPbc	11 03 20.9	-2.4
SDDR	Presa de Saban	153.48	40	PFAKE		11 03 30.0	+11
SDDR				LR	LR		
	comp=Z,319nm,21.0s,MS5.1						
NNA	Nana	154.62	116	PFAKE		11 03 30.0	+9.3
NNA				LR	LR		
	comp=Z,171nm,20.0s,MS4.9						
OTAV	Otavalo	155.15	87	*e*PKPdf	PKPdf	11 03 22.6	+1.1
OTAV				*e*PKPbc	PKPdf	11 03 33.0	+11
OTAV				LR	LR		
	comp=Z,161nm,21.0s,MS4.8						
SJG	San Juan	157.19	32	PFAKE		11 03 30.0	+5.9
SJG				LR	LR		
	comp=Z,223nm,21.0s,MS5.0						
ROSC	El Rosal	158.47	74	PKP	PKPdf	11 03 25.3	-0.5
ROSC				PKPab	PKPab	11 04 02.3	+1.7
ROSC	El Rosal	158.47	74	PKP	PKPdf	11 03 25.3	-0.5
	comp=Z,5.5nm,0.4s,baz=90,slow=19,SNR=6.3						
ROSC				PKPab	PKPab	11 04 02.3	+1.7
	comp=Z,9.4nm,0.4s,baz=92,slow=22,SNR=8.9						
LPAZ	La Paz	159.30	137	*e*PKPdf	PKPdf	11 03 27.8	+1.1
LPAZ				*e*PKPab	PKPab	11 04 04.9	+1.1
LPAZ				LR	LR		
	comp=Z,193nm,22.0s,MS4.9						
LPAZ	La Paz	159.30	137	*e*PKIKP	PKPdf	11 03 27.8	+1.1
LPAZ				*e*		11 04 04.9	
LPAZ				MLR	MLR		
	comp=Z,193nm,22.0s						
LPAZ	La Paz	159.30	137	PKP	PKPdf	11 03 28.1	+1.5
	comp=Z,5.6nm,0.9s,baz=324,slow=0.6,SNR=17						
LPAZ				PKPab	PKPab	11 04 06.0	+2.2
	comp=Z,7.3nm,0.8s,baz=244,slow=4.0,SNR=7.1						

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*NEIC **01** 11:05:41.6±0.4, 51.43N×179.72W, h10^{km}, mb4.7/27, ML4.7(AEIC), Error ellipse: s-maj=12.3km s-min=5.1km az=177.0*

*BJI **01** 11:05:42.1, 52.19N×179.96W, h10^{km}, mB5.3, mb4.7, Ms4.7, Msz4.3*

*IDC **01** 11:05:43.8±3.9, 51.34N×179.63W, h29^{km}±26^{km}, mb4.2/22, mb1 4.3/23, mb1mx4.2/28, mbtmp4.2/23, ML4.3/1, MS3.8/3, Ms1 3.9/3, ms1mx3.3/29, Error ellipse: s-maj=21.0km s-min=12.5km az=170.0*

*ISCJB **01** 11:05:45.0±0.7, 51.60N±0.07×179.73W±0.03, h39^{km}±6^{km}, mb4.6/68, MS4.0/7, Error ellipse: s-maj=11.6km s-min=3.1km az=0.1*

*MOS **01** 11:05:47.6±0.9, 51.68N×179.71W, h62^{km}, mb4.6/27, Error ellipse: s-maj=11.8km s-min=9.7km az=101.3*

ISC 01 11:05:45.1±0.9**, 51.59N**±0.07×**179.72W**±0.03**, h26**^{km}±6^{km}**, h30**^{km}±3.8^{km}**:pP-P, n271,** σ**0$\overset{s}{.}$81**/269**, mb4.6**/68**, MS4.0**/7**, 62C-48D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AMKA	Amchitka	0.65	251	P	Pb	11 05 56.6	-1.3
AMKA				S	Sb	11 06 06.1	-0.4
ATKA	Atka Island	3.48	78	P	Pn	11 06 38.9	+1.4
SMY	Shemya	3.97	289	P	Pn	11 06 48.1	+3.8
SPIA	Saint Paul Isl	7.86	41	P	Pn	11 07 43.8	+6.2
UNV	Unalaska Valle	8.34	69	P	Pn	11 07 47.7	+3.5
PET	Petropavlovsk	13.31	285	*e*P	Pn	11 08 55.2	+3.1
PET				*e*S	Sn	11 11 21.0	+2.0
PET				pmax	pmax		
	comp=Z,24nm,1.6s						
PET				pmax	pmax		
	comp=Z,200nm,5.2s						
PET				MLR	MLR		
	comp=Z,500nm,19.0s						
SVW2	Sparrevohn	16.32	45	*e*Pn	Pn	11 09 32.5	+0.3
KDAK	Kodiak Island	16.79	58	Pn	Pn	11 09 36.9	-1.3
KDAK	Kodiak Island	16.79	58	Pn	Pn	11 09 36.9	-1.3
	comp=Z,1.1nm,0.3s,baz=159,slow=22,SNR=24						
BILL	Bilibino	17.86	343	*e*P	Pn	11 09 56.2	+4.9
	comp=Z,11nm,0.8s						
BILL	Bilibino	17.86	343	⇓*e*P	Pn	11 09 56.5	+5.2
BILL				pmax	pmax		
	comp=Z,22nm,1.4s						
SLKM	Skilak Lake	18.59	50	*e*P	Pn	11 10 00.0	-0.3
COLA	College	21.10	39	*e*P	P	11 10 29.0	+1.7
	comp=Z,7.7nm,0.9s,mb4.0						
COLA	College	21.10	39	*e*P	P	11 10 29.0	+1.7
COLA				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.0						
EGAK	Eagle	23.77	42	*e*P	P	11 10 55.5	+0.3
	comp=Z,14nm,0.8s,mb4.5						
DAWY	Dawson	24.35	44	*e*P	P	11 10 59.1	-1.3
YSS	Yuzh-Sakhalins	24.73	274	*e*P	P	11 11 03.5	-0.6
	comp=Z,12nm,0.6s,mb4.6						
YSS	Yuzh-Sakhalins	24.73	274	⇑*e*P	P	11 11 03.8	-0.3
YSS				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.6						
ASAJ	Asahikawa	26.14	268	P	P	11 11 16.1	-0.8
ASAJ				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ASAJ	Asahikawa	26.14	268	P	P	11 11 16.1	-0.8
	comp=Z,8.0nm,0.8s,mb4.3,baz=97,slow=18,SNR=5.7						
INK	Inuvik	27.62	35	*e*P	P	11 11 30.9	+1.0
	comp=Z,57nm,0.7s,mb5.3						
INK	Inuvik	27.62	35	P	P	11 11 30.5	+0.6
INK						11 14 45.6	
INK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK				MLR	MLR		
	comp=Z,140nm,19.8s						
INK	Inuvik	27.62	35	P	P	11 11 30.5	+0.6
	comp=Z,0.6nm,0.3s,mb3.8,baz=248,slow=13,SNR=23						
INK				PcP	PcP	11 14 45.6	-0.9
	comp=Z,0.5nm,0.6s,baz=262,slow=2.8,SNR=4.7						
INK				LR	LR	11 22 04.9	
	comp=Z,140nm,19.8s,MS3.5,baz=272,slow=35						
YAK	Yakutsk	28.85	311	*i* P	P	11 11 40.4	-0.5
KLR	Kul’dur	30.57	285	*e*P	P	11 11 52.8	-3.5
MJAR	Matsushiro Arr	33.26	260	LR	LR	11 24 55.9	
	comp=Z,146nm,19.7s,MS3.7,baz=215,slow=35						
MDJ	Mudanjiang	33.97	279	P	P	11 12 25.9	-0.3
MDJ				AP	pP	11 12 34.8	+0.9
MDJ				XP	sP	11 12 38.6	+1.6
MDJ				PP	PP	11 13 42.6	-0.5
MDJ				S	S	11 17 49.8	+0.4
MDJ				SCP	ScP	11 18 45.4	-1.2
MDJ				PCS	PcS	11 18 49.2	-0.5
MDJ				AMB	AMB		
	comp=Z,267nm,4.3s						
MDJ				LR	LR		
	comp=N,389nm,4.7s						
MDJ				LR	LR		
	comp=E,217nm,5.2s						
MDJ				LR	LR		
	comp=Z,430nm,4.6s						
YKW3	Yellowknife Ar	35.48	46	*e*P	P	11 12 38.0	-1.0
YKA	Yellowknife Ar	35.50	46	P	P	11 12 38.7	-0.4
YKA				PcP	PcP	11 15 07.0	-0.9
YKA				ScP	ScP	11 18 50.6	-1.2
YKA	Yellowknife Ar	35.50	46	⇑*e*P	P	11 12 38.7	-0.5
YKA	Yellowknife Ar	35.50	46	P	P	11 12 38.7	-0.4
	comp=Z,3.0nm,0.7s,mb4.3,baz=283,slow=8.3,SNR=43						
YKA				PcP	PcP	11 15 07.0	-0.9
	comp=Z,1.1nm,0.7s,baz=289,slow=3.2,SNR=10						
YKA				ScP	ScP	11 18 50.6	-1.2
	comp=Z,0.3nm,0.4s,baz=291,slow=3.6,SNR=11						
C04A	Brinnon	36.15	73	⇑P	P	11 12 46.2	+1.2
	baz=36						
B05A	Bryant	36.42	72	⇑P	P	11 12 48.3	+1.0
	baz=36						
C05A	Tolt Reservoir	36.93	73	⇑P	P	11 12 52.3	+0.8
	baz=37						
CN2	Changchun	36.95	280	*e*P	P	11 12 53.2	+1.5
D05A	Enumclaw	36.99	73	⇓P	P	11 12 53.0	+0.9
	baz=37						
A07A	Ashnola River,	37.07	70	⇑P	P	11 12 53.7	+1.0
	baz=37						
C06A	Tall Timber Ra	37.29	72	⇓P	P	11 12 54.9	+0.3
	baz=37						
F04A	Amboy	37.35	75	⇓P	P	11 12 54.7	-0.4
	baz=37						
BOD	Bodaibo	37.39	306	*e*P	P	11 12 54.1	-1.2
BOD				pmax	pmax		

	comp=Z,8.0nm,0.8s,mb4.6						
B07A	Winthrop	37.50	71	⇑P	P	11 12 56.7	+0.3
	baz=37						
D06A	Cle Elum	37.67	73	⇓P	P	11 12 58.0	+0.2
	baz=38						
HIA	Hailar	37.67	291	*i* P	P	11 12 57.4	-0.4
G04A	Mulino	37.68	77	⇓P	P	11 12 58.8	+0.9
	baz=38						
A08A	Turner Farm, O	37.76	69	⇑P	P	11 12 59.4	+0.8
	baz=38						
C07A	Waterville	37.90	72	⇓P	P	11 13 00.2	+0.5
	baz=38						
J02A	Umpqua	37.98	80	⇓P	P	11 13 02.2	+1.7
	baz=38						
B08A	Colville Reser	38.01	70	⇓P	P	11 13 00.8	+0.1
	baz=38						
H04A	Detroit Lake	38.13	77	⇑P	P	11 13 02.0	+0.2
	baz=38						
A09A	Danville	38.15	69	⇓P	P	11 13 02.1	+0.2
	baz=38						
D07A	Quincy	38.19	72	⇓P	P	11 13 02.7	+0.5
	baz=38						
J03A	Ideyld Park	38.35	79	⇓P	P	11 13 04.1	+0.5
	baz=38						
K02A	Glendale	38.36	81	⇓P	P	11 13 04.4	+0.7
	baz=38						
G05A	Wamic	38.37	76	⇑P	P	11 13 04.1	+0.4
	baz=38						
C08A	Higginbotham F	38.45	71	⇑P	P	11 13 04.7	+0.3
	baz=38						
E07A	Sunnyside	38.58	73	⇑P	P	11 13 06.0	+0.5
	baz=38						
L02A	Cave Junction	38.63	81	⇓P	P	11 13 07.3	+1.4
	baz=38						
B09A	Rice	38.67	70	⇑P	P	11 13 06.3	0.0
	baz=39						
H05A	Madras	38.73	77	⇓P	P	11 13 06.3	-0.5
	baz=39						
A10A	Northport	38.75	69	⇑P	P	11 13 06.9	+0.1
	baz=39						
G06A	Carlson Farm,	38.78	75	⇑P	P	11 13 07.9	+0.7
	baz=39						
F07A	Phinny Hill Vi	38.87	74	⇑P	P	11 13 07.5	-0.4
	baz=39						
D08A	Wollman Farm,	38.88	72	⇑P	P	11 13 07.4	-0.6
	baz=39						
J04A	Umpqua Nationa	38.95	79	⇓P	P	11 13 10.1	+1.4
	baz=39						
I05A	Bend	38.96	77	⇑P	P	11 13 09.1	+0.4
	baz=39						
KSRS	Korea Array	39.06	270	P	P	11 13 09.9	+0.3
	comp=Z,2.0nm,0.8s,mb3.9,baz=68,slow=10.0,SNR=3.8						
E08A	Dider Farm, El	39.08	73	⇓P	P	11 13 09.4	-0.4
	baz=39						
H06A	Lindquist Farm	39.23	76	⇓P	P	11 13 10.8	-0.2
	baz=39						
D09A	Jones Farm, Ri	39.24	72	⇓P	P	11 13 10.7	-0.3
	baz=39						
B10A	Chitwood Farm,	39.27	69	⇓P	P	11 13 11.8	+0.6
	baz=39						
G07A	Ruggs Ranch, H	39.35	75	⇓P	P	11 13 12.1	+0.1
	baz=39						
YBH	Yreka Blue Hor	39.42	81	⇑P	P	11 13 14.2	+1.6
	baz=39						
A11A	Hall Mountain,	39.45	68	⇑P	P	11 13 12.3	-0.5
	baz=39						
C10A	Spilker Farm,	39.46	70	⇓P	P	11 13 12.5	-0.3
	baz=39						
J05A	Fort Rock	39.46	78	⇑P	P	11 13 13.5	+0.6
	baz=39						
M02C	Callahan	39.52	82	⇓P	P	11 13 13.1	-0.3
	baz=39						
I06A	Prineville	39.72	77	⇑P	P	11 13 16.0	+0.9
	baz=40						
RES	Resolute Bay	39.79	24	*e*P	P	11 13 17.1	+1.8
	comp=Z,54nm,0.6s,mb5.5						
RES	Resolute Bay	39.79	24	*e*P	P	11 13 17.1	+1.8
RES				pmax	pmax		
	comp=Z,54nm,0.6s,mb5.5						
D10A	Wagner Farm, O	39.86	71	P	P	11 13 15.8	-0.4
	baz=40,SNR=5.1						
A12A	Yaak River Ran	39.87	68	⇓P	P	11 13 16.3	0.0
	baz=40						
M04C	Macdoel	39.92	81	⇑P	P	11 13 17.6	+0.8
	baz=40						
CIT	Chita	39.94	298	*e*P	P	11 13 17.0	+0.2
K05A	Summer Lake	39.98	79	⇑P	P	11 13 18.1	+0.8
	baz=40						
I07A	Izee	40.08	76	P	P	11 13 18.5	+0.5
	baz=40,SNR=8.9						
J06A	Christmas Vall	40.14	78	⇑P	P	11 13 18.9	+0.3
	baz=40						
F09A	S2 Ranch, Elgi	40.17	73	⇑P	P	11 13 19.5	+0.7
	baz=40						
WDC	Whiskeytown Da	40.18	83	⇓P	P	11 13 18.9	-0.1
	baz=40						
E10A	Myers Farm, Un	40.24	72	P	P	11 13 18.9	-0.4
	baz=40,SNR=5.7						
O02C	Red Bluff	40.27	83	⇓P	P	11 13 20.4	+0.7
	baz=40						
K06A	Valley Falls	40.33	78	⇓P	P	11 13 20.7	+0.6
	baz=40						
H08A	Prairie City	40.35	75	⇓P	P	11 13 20.9	+0.7
	baz=40						
L05A	Lakeview	40.39	80	⇓P	P	11 13 22.1	+1.4
	baz=40						
F10A	Beach Ranch, E	40.44	72	⇑P	P	11 13 20.9	-0.1
	baz=40						
J07A	Hines	40.58	77	⇑P	P	11 13 23.4	+1.2
	baz=40						
A13A	Flathead Natio	40.59	67	⇑P	P	11 13 22.2	0.0
	baz=40						
M05C	Lookout	40.59	81	⇓P	P	11 13 21.7	-0.6
	baz=40						
HATC	Hat Creek Radi	40.71	82	⇓P	P	11 13 23.8	+0.5
	baz=40						
I08A	Drewsey	40.74	76	⇓P	P	11 13 23.3	-0.2
	baz=41						
MOD	Modoc	40.80	80	⇓P	P	11 13 24.3	+0.3
	baz=41						
B13A	Whitefish	40.83	68	⇑P	P	11 13 22.8	-1.4
	baz=41						
E11A	Bogner Ranch,	40.84	71	⇑P	P	11 13 23.7	-0.7
	baz=41						
H09A	Durkee	40.87	74	⇓P	P	11 13 24.4	-0.2
	baz=41						
K07A	Rock Creek Ran	41.00	78	⇑P	P	11 13 26.0	+0.3
	baz=41						
M06C	Likely Place G	41.09	81	⇓P	P	11 13 27.0	+0.5
	baz=41						
J08A	Circle Bar Ran	41.10	77	⇑P	P	11 13 26.3	-0.2
	baz=41						
F11A	Grangeville	41.12	72	⇓P	P	11 13 26.0	-0.7
	baz=41						
I09A	Lost Marbles R	41.20	75	⇑P	P	11 13 26.6	-0.8
	baz=41						
O04C	Chester	41.23	82	⇑P	P	11 13 28.1	+0.5
	baz=41						
ELFS	Eagle Lake Fie	41.28	81	⇑P	P	11 13 29.3	+1.3
	baz=41						
G11A	Walters Elk Ra	41.31	73	⇑P	P	11 13 27.3	-1.0
	baz=41						
L07A	Adell	41.33	79	⇑P	P	11 13 27.5	-0.9
	baz=41						
ORV	Oroville	41.43	83	⇓P	P	11 13 28.9	-0.4
	baz=41						
SUTB	Sutter Butte	41.45	84	⇓P	P	11 13 29.8	+0.4
	baz=41						
D13A	Huson	41.49	69	⇑P	P	11 13 28.5	-1.2
	baz=41						
WVOR	Wild Horse Val	41.52	78	*e*P	P	11 13 25.0	-5.0
	comp=Z,6.5nm,1.0s,mb4.2						
WVOR	Wild Horse Val	41.52	78	*e*P	P	11 13 25.0	-4.9
WVOR				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
J09A	Fry Pan Ranch,	41.54	76	⇑P	P	11 13 30.2	0.0
	baz=41						
I10A	Payette	41.71	75	⇓P	P	11 13 31.0	-0.5
	baz=42						
MSO	Missoula	41.93	70	*e*P	P	11 13 32.9	-0.4
E13A	Victor	41.99	70	P	P	11 13 33.3	-0.4
	baz=42,SNR=6.9						
D14A	Greenough	42.05	69	P	P	11 13 33.8	-0.4
	baz=42,SNR=8.8						
J10A	Berg Farm, Mel	42.09	75	⇑P	P	11 13 34.7	+0.1
	baz=42						
F13A	Darby	42.25	71	⇑P	P	11 13 35.8	-0.1
	baz=42						
I11A	Placerville	42.31	74	⇑P	P	11 13 36.2	-0.2
	baz=42						
L09A	Wilkinson Ranc	42.35	78	⇓P	P	11 13 36.4	-0.3
	baz=42						
K10A	MacKenzie Ranc	42.40	76	⇑P	P	11 13 37.1	0.0
	baz=42						
E14A	Clinton	42.41	70	⇑P	P	11 13 36.8	-0.4
	baz=42						
D15A	Lincoln	42.65	69	⇑P	P	11 13 39.0	-0.1
	baz=42						
MFID	Camas Ranch	42.67	75	⇑P	P	11 13 39.1	-0.2
	baz=42						
G13A	Cobalt	42.69	72	⇓P	P	11 13 38.8	-0.7
	baz=43						
O07A	Toulon	42.69	81	⇓P	P	11 13 39.2	-0.4
	baz=42						
F14A	Wisdom	42.81	71	⇑P	P	11 13 40.0	-0.4
	baz=43						
E15A	Deer Lodge	42.91	69	P	P	11 13 40.5	-0.7
	baz=43,SNR=6.7						
G14A	Jackson	43.06	71	⇑P	P	11 13 42.4	-0.1
	baz=43						
N09A	Rock Creek Ran	43.11	79	⇓P	P	11 13 42.6	-0.3
	baz=43						
J12A	Stokes Ranch,	43.20	75	⇓P	P	11 13 43.1	-0.5
	baz=43						
F15A	Butte	43.31	70	⇓P	P	11 13 43.2	-1.2
	baz=43						
I13A	Wildhorse Cree	43.41	73	⇑P	P	11 13 45.1	-0.2
	baz=43						
L11A	Cat Creek Ranc	43.42	76	⇑P	P	11 13 46.0	+0.6
	baz=43						
HLID	Hailey	43.43	74	*e*P	P	11 13 45.0	-0.5
	comp=Z,2.1nm,0.8s,mb3.9						
HLID	Hailey	43.43	74	⇓P	P	11 13 45.8	+0.4
	baz=43						
MCMT	McKenzie Canyo	43.66	71	*e*P	P	11 13 47.1	-0.1
K12A	Draper Farm, C	43.67	75	P	P	11 13 47.8	+0.4
	baz=44,SNR=6.5						
J13A	Cove Ranch, Pi	43.67	74	⇑P	P	11 13 47.2	-0.2
	baz=44						
G15A	Dillon	43.68	71	P	P	11 13 46.9	-0.5
	baz=44,SNR=8.3						
EGMT	Eagleton	43.72	66	*e*P	P	11 13 46.9	-0.8
	comp=Z,9.1nm,1.0s,mb4.5						
EGMT	Eagleton	43.72	66	P	P	11 13 47.0	-0.7
	baz=44,SNR=5.8						
L12A	House Creek Ra	43.88	76	P	P	11 13 49.4	+0.3
	baz=44,SNR=12						
BOZ	Bozeman (W)	43.92	70	*e*P	P	11 13 49.0	-0.4
	comp=Z,8.3nm,0.8s,mb4.5						
BOZ	Bozeman (W)	43.92	70	*e*P	P	11 13 49.0	-0.4
BOZ				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
BOZ	Bozeman (W)	43.92	70	⇑P	P	11 13 49.3	-0.1
	baz=44						
NVAR	Mina Array Bea	44.09	82	P	P	11 13 49.5	-1.4
	comp=Z,1.6nm,0.8s,mb3.8,baz=291,slow=7.6,SNR=5.1						
QLMT	Earthquake Lak	44.49	71	*e*P	P	11 13 53.7	-0.3
L13A	Double Diamond	44.56	75	P	P	11 13 55.0	+0.4
	baz=44,SNR=6.0						
BJI	Beijing	44.77	281	P	P	11 13 55.0	-1.2
BJI				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
YMR	Madison River	44.86	71	*e*P	P	11 13 56.5	-0.3
	comp=Z,9.6nm,0.8s,mb4.7						
R09A	Tonopah	44.97	82	⇑P	P	11 13 58.0	+0.2
	baz=45						
YNR	Norris Junctio	45.00	70	*e*P	P	11 13 59.1	+1.2
YFT	Old Faithful	45.06	71	*e*P	P	11 13 57.8	-0.7
O12A	Currie	45.16	78	⇑P	P	11 13 59.0	-0.3
	baz=45						
S09A	Goldfield	45.20	82	⇓P	P	11 13 59.8	+0.1
	baz=45						
LKWY	Lake	45.25	70	*e*P	P	11 14 01.3	+1.3
IMW	Indian Meadow	45.31	71	*e*P	P	11 14 00.3	-0.2
	comp=Z,6.8nm,0.9s,mb4.5						
HVU	Hansel Valley	45.45	75	*e*P	P	11 14 01.5	-0.2
	comp=Z,6.6nm,0.9s,mb4.5						
HVU	Hansel Valley	45.45	75	*e*P	P	11 14 01.5	-0.1
HVU				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.5						
S10A	Tonopah Range,	45.46	82	⇑P	P	11 14 01.4	-0.4
	baz=45						
TLY	Talaya	45.47	302	*e*P	P	11 14 02.1	+0.5
	comp=Z,4.9nm,0.5s,mb4.6						
TLY	Talaya	45.47	302	*e*P	P	11 14 01.8	+0.2
TLY				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
MOOW	Moose Ponds	45.51	71	*e*P	P	11 14 01.8	-0.3
	comp=Z,1.7nm,0.4s,mb4.3						
ULN	Ulaanbaatar	45.65	296	⇑*e*P	P	11 14 03.7	+0.6
SPUT	South Promonto	45.93	75	*e*P	P	11 14 05.4	0.0
SONM	Songino Array	46.04	296	P	P	11 14 06.8	+0.6
SONM						11 15 41.0	
SONM				pmax	pmax		
	comp=Z,4.0nm,0.7s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	46.04	296	P	P	11 14 06.8	+0.6
	comp=Z,3.6nm,0.7s,mb4.4,baz=59,slow=9.3,SNR=29						
SONM				PcP	PcP	11 15 41.0	-1.2
	comp=Z,1.0nm,0.7s,baz=75,slow=1.7,SNR=3.8						
FCC	Fort Churchill	46.23	46	*e*P	P	11 14 06.3	-1.3
	comp=Z,3.0nm,0.8s,mb4.3						
FCC	Fort Churchill	46.23	46	*e*P	P	11 14 06.3	-1.2
FCC				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
ZAK	Zakamensk	46.35	300	*e*P	P	11 14 08.7	+0.1
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.1						
DUG	Dugway	46.38	77	*e*P	P	11 14 08.9	-0.1
	comp=Z,5.5nm,0.8s,mb4.5						
DUG	Dugway	46.38	77	*e*P	P	11 14 08.9	-0.1
DUG				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
DUG	Dugway	46.38	77	P	P	11 14 09.6	+0.6
	baz=46,SNR=8.3						
BW06	Boulder Array	46.79	72	*e*P	P	11 14 11.7	-0.5
	comp=Z,5.9nm,0.6s,mb4.7						
PDAR	Pinedale Array	46.79	72	P	P	11 14 11.7	-0.5
	comp=Z,6.4nm,0.8s,mb4.6,baz=311,slow=3.9,SNR=26						
HHC	Hu-ho-hao-te	47.08	285	*e*P	P	11 14 15.3	+0.9
HHC				AP	pP	11 14 25.2	+2.9
HHC				PCP	PcP	11 15 48.0	+2.0
HHC				PP	PP	11 16 05.6	+0.5
HHC				SCP	ScP	11 19 38.1	+0.2
HHC				PCS	PcS	11 19 41.9	+0.8
HHC				S	S	11 21 05.4	+0.7
HHC				SCS	ScS	11 24 05.3	-1.3
HHC				SS	SS	11 24 23.8	-7.6
HHC				AMB	AMB		
	comp=Z,14nm,1.0s,mb4.8						
HHC				AMB	AMB		
	comp=Z,172nm,6.7s						
HHC				LR	LR		
	comp=N,221nm,15.2s,MS4.4						
HHC				LR	LR		
	comp=E,222nm,16.1s,MS4.4						
HHC				LR	LR		
	comp=Z,101nm,15.2s,MS3.9						
MSU	Marysvale	47.81	78	*e*P	P	11 14 20.6	+0.4
MURC	Murrieta	47.87	87	⇑P	P	11 14 17.7	-3.0
	baz=48						
NJ2	Nanjing	48.23	271	*e*P	P	11 14 24.7	+1.2
NJ2				AMB	AMB		
	comp=Z,30nm,1.1s,mb5.2						
SRU	San Rafael	48.44	76	*e*P	P	11 14 25.7	+0.7
	comp=Z,4.8nm,0.5s,mb4.8						
SRU	San Rafael	48.44	76	*e*P	P	11 14 25.7	+0.7
SRU				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
PV10	Paradox Valley	49.80	76	*e*P	P	11 14 35.0	-0.4
X14A	Yava	49.98	83	⇑P	P	11 14 38.3	+1.5
	baz=50						
ULM	Lac du Bonnet	50.05	56	P	P	11 14 34.4	-2.7
	comp=Z,1.8nm,0.7s,mb4.2,baz=22,slow=3.1,SNR=4.4						
PV01	Paradox Valley	50.24	76	*e*P	P	11 14 38.2	-0.5
SDCO	Great Sand Dun	52.34	74	*e*P	P	11 14 54.1	-0.4
	comp=Z,1.9nm,0.9s,mb4.0						
ZALV	Zalesovo Beam	53.47	313	PcP	PcP	11 16 08.9	-0.3
	comp=Z,2.1nm,0.6s,baz=24,slow=3.3,SNR=9.7						
LZH	Lanzhou	54.77	285	*e*P	P	11 15 12.0	-0.4
LZH				AP	pP	11 15 22.0	+1.6
LZH				XP	sP	11 15 25.0	+1.6
LZH				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.9						
GTA	Gaotai	54.95	291	*e*P	P	11 15 13.8	+0.2
GTA				AP	pP	11 15 18.5	-3.1
GTA				XP	sP	11 15 21.1	-3.6
GTA				PP	PP	11 17 18.4	+1.9
GTA				S	S	11 22 50.0	-3.7
GTA				XS	sS	11 22 59.1	-7.7
GTA				SS	SS	11 26 32.0	-4.8
GTA				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.8						
GTA				AMB	AMB		
	comp=Z,219nm,6.1s						
GTA				LR	LR		
	comp=N,115nm,12.2s,MS4.3						
GTA				LR	LR		
	comp=E,105nm,13.3s,MS4.3						
GTA				LR	LR		
	comp=Z,120nm,10.3s,MS4.2						
CBKS	Cedar Bluff	55.06	70	*e*P	P	11 15 14.1	-0.4
MNTX	Cornudas Mount	56.48	80	*e*P	P	11 15 25.1	+0.4
	comp=Z,11nm,1.7s,mb4.6						
KSU1	Kansas State U	56.69	68	*e*P	P	11 15 24.8	-1.3
ARCES	ARCESS Array B	57.78	350	P	P	11 15 33.4	+0.1
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES	ARCESS Array B	57.78	350	P	P	11 15 33.4	0.0
	comp=Z,3.7nm,0.8s,mb4.5,baz=25,slow=7.8,SNR=7.4						
CD2	Chengdu	58.37	281	*e*P	P	11 15 38.5	+0.5
CD2				XP	sP	11 15 45.8	-3.3
CD2				PP	PP	11 17 49.5	+2.4
CD2				S	S	11 23 39.5	+0.5
CD2				XS	sS	11 23 46.8	-5.5
CD2				SS	SS	11 27 32.9	+2.0
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
CD2				LR	LR		
	comp=N,400nm,7.2s						
CD2				LR	LR		
	comp=Z,210nm,9.6s						
KURK	Kurchatov	58.46	313	⇑*e*P	P	11 15 38.2	-0.1
WMQ	Urumqi	58.74	302	*e*P	P	11 15 43.3	+2.9
WMQ				AP	pP	11 15 47.8	-0.7
WMQ				XP	sP	11 15 50.3	-1.3
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.8						
WMQ				LR	LR		
	comp=N,83nm,18.0s						
WMQ				LR	LR		
	comp=Z,108nm,20.3s,MS4.0						
TXAR	Lajitas Array	59.19	81	P	P	11 15 42.2	-1.5
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	59.19	81	P	P	11 15 42.2	-1.5
	comp=Z,1.3nm,0.7s,mb4.0,baz=296,slow=5.1,SNR=11						
MK31	Makanchi Array	59.45	308	*e*P	P	11 15 44.7	-0.6
MKAR	Makanchi Array	59.45	308	⇑*e*P	P	11 15 44.7	-0.6
MKAR	Makanchi Array	59.45	308	P	P	11 15 44.7	-0.6
	comp=Z,5.4nm,0.6s,mb4.8,baz=51,slow=7.3,SNR=68						
GYA	Guiyang	59.73	275	P	P	11 15 48.0	+0.5
GYA				AP	pP	11 15 58.7	+3.1
GYA				XP	sP	11 16 02.8	+4.2
GYA				PCP	PcP	11 16 34.4	+0.2
GYA				SCP	ScP	11 20 31.3	-1.8
GYA				S	S	11 23 54.6	-2.2
GYA				XS	sS	11 24 12.0	+2.0
GYA				PS		11 24 13.4	
GYA				SCS	ScS	11 25 31.8	-4.3
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
GYA				AMB	AMB		
	comp=Z,80nm,4.9s						
GYA				LR	LR		
	comp=N,330nm,18.6s,MS4.6						
GYA				LR	LR		
	comp=E,240nm,18.5s,MS4.6						
GYA				LR	LR		
	comp=Z,220nm,19.4s,MS4.3						
SCHQ	Schefferville	60.19	38	P	P	11 15 48.5	-1.8
	comp=Z,5.1nm,0.9s,mb4.6,baz=348,slow=12,SNR=5.5						
KMI	Kunming	63.13	277	P	P	11 16 11.0	+0.5
KMI				XP	sP	11 16 22.0	+0.4
KMI				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.4						
JOF	Joensuu	63.24	345	*e*p	P	11 16 09.5	-1.2
	comp=Z,7.8nm,0.7s,mb5.0						
JOF	Joensuu	63.24	345	*e*P	P	11 16 09.5	-1.2
JOF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb5.0						
OXF	Oxford	64.02	67	*e*P	P	11 16 14.9	-1.4
	comp=Z,41nm,1.0s,mb5.4						
OXF	Oxford	64.02	67	*e*P	P	11 16 14.9	-1.4
OXF				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.4						
PLAL	Pickwick Lake	64.44	65	*e*P	P	11 16 17.1	-1.9
	comp=Z,10nm,0.8s,mb4.9						
KAF	Kangasniemi	64.77	347	*e*p	P	11 16 19.3	-1.4
	comp=Z,7.8nm,0.7s,mb4.8,baz=14,slow=5.8						
KAF	Kangasniemi	64.77	347	*e*P	P	11 16 19.3	-1.4
KAF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
FINES	FINESS Array B	65.45	347	P	P	11 16 24.8	-0.3
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES	FINESS Array B	65.45	347	P	P	11 16 24.8	-0.3
	comp=Z,3.3nm,0.7s,mb4.5,baz=32,slow=7.6,SNR=12						
TKM2	Tokmak 2	65.54	309	P	P	11 16 27.1	+1.1
	SNR=6.5						
ULHL	Ulahol	65.72	308	P	P	11 16 28.1	+0.9
	SNR=5.3						
USP	Ospenovka	65.81	310	P	P	11 16 28.7	+1.0
	SNR=13						
AAK	Ala-Archa	66.29	309	P	P	11 16 31.1	+0.2
	SNR=7.5						
AAK	Ala-Archa	66.29	309	*e*P	P	11 16 30.2	-0.6
	comp=Z,5.1nm,0.6s,mb4.7						
AAK	Ala-Archa	66.29	309	⇓*i*P	P	11 16 30.8	0.0
AAK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
KZA	Kyzart	66.34	308	P	P	11 16 32.7	+1.5
	SNR=5.9						
EKS2	Erkin-Say	66.61	310	P	P	11 16 34.2	+1.3
	SNR=8.6						
EKS2	Erkin-Say	66.61	310	*e*P	P	11 16 32.9	0.0
	comp=Z,5.6nm,0.7s,mb4.7						
LSA	Lhasa	66.83	289	*e*P	P	11 16 35.1	+0.6
	comp=Z,5.0nm,0.6s,mb4.7						
LSA	Lhasa	66.83	289	*e*P	P	11 16 35.1	+0.6
LSA				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
AML	Almayashu	67.05	309	P	P	11 16 26.1	-10
	SNR=9.2						
AKTK	Aktyubinsk	67.18	324	P	P	11 16 35.7	-0.7
AKTO	Aktyubinsk	67.18	324	P	P	11 16 35.7	-0.7
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
AKTO	Aktyubinsk	67.18	324	P	P	11 16 35.7	-0.7
	comp=Z,1.0nm,0.6s,mb4.0,baz=300,slow=3.6,SNR=5.4						
NB2	NORSAR Subarra	67.38	354	P	P	11 16 37.4	-0.1
	comp=Z,1.1nm,0.5s,mb4.1,baz=7.1,slow=6.5						
NOA	NORSAR Array B	67.38	354	P	P	11 16 37.6	+0.1
NOA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,123nm,18.4s						
NOA	NORSAR Array B	67.38	354	P	P	11 16 37.6	+0.1
	comp=Z,2.9nm,0.8s,mb4.4,baz=7.5,slow=6.2,SNR=7.0						
NOA				LR	LR	11 46 29.4	
	comp=Z,123nm,18.4s,MS4.2,baz=80,slow=36						
HFS	Hagfors	68.11	353	P	P	11 16 41.3	-0.8
HFS				pmax	pmax		
	comp=Z,3.0nm,0.7s						
HFS	Hagfors	68.11	353	P	P	11 16 41.3	-0.7
	comp=Z,3.1nm,0.7s,mb4.4,baz=8.5,slow=3.0,SNR=9.9						
TAPN	Taplejung	70.59	290	*e*P	P	11 16 58.0	0.0
	comp=Z,21nm,0.7s,mb5.2						
ODAN	Odare	71.15	289	*e*P	P	11 17 01.0	-0.4
	comp=Z,10nm,0.8s,mb4.8						
GUN	Gumba	71.24	291	*e*P	P	11 17 02.1	+0.2
	comp=Z,31nm,0.5s,mb5.5						
JIRN	Jiri	71.25	291	*e*P	P	11 17 02.2	+0.2
	comp=Z,37nm,0.7s,mb5.4						
KKN	Kakani	71.68	292	*e*P	P	11 17 04.4	-0.2
	comp=Z,16nm,0.6s,mb5.2						
PKI	Pulchoki	71.77	291	*e*P	P	11 17 04.8	-0.3
	comp=Z,16nm,0.6s,mb5.1						
GKN	Gorkha	71.89	292	*e*P	P	11 17 05.5	-0.4
	comp=Z,11nm,0.4s,mb5.1						

DMN	Daman	71.92	292	*e*P	P	11 17 06.1	+0.1
	comp=Z,16nm,0.6s,mb5.1						
KOLN	Koldanda	72.67	293	*e*P	P	11 17 10.0	-0.5
	comp=Z,7.9nm,0.6s,mb4.8						
EKA	Eskdalemuir Ar	73.41	2	P	P	11 17 14.5	+0.1
EKA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
EKA	Eskdalemuir Ar	73.41	2	P	P	11 17 14.4	+0.1
	comp=Z,2.7nm,0.7s,mb4.3,baz=357,slow=5.1,SNR=8.5						
AKASG	Malin Array Be	75.17	341	*i* P	P	11 17 24.0	-0.7
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	Malin Array Be	75.17	341	P	P	11 17 23.9	-0.8
	comp=Z,2.1nm,0.5s,mb4.3,baz=22,slow=6.3,SNR=10						
KBL	Kabul	75.25	307	*e*P	P	11 17 25.0	-0.5
MEM	Membach	78.06	356	P	P	11 17 41.7	+0.7
SNF	Seneffe	78.22	357	P	P	11 17 42.2	+0.2
KHC	Kasperske Hory	79.02	351	⇑*e*P	P	11 17 46.6	+0.2
GERES	GERESS Array B	79.29	351	P	P	11 17 47.5	-0.3
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	79.29	351	P	P	11 17 47.5	-0.4
	comp=Z,1.3nm,0.6s,mb4.0,baz=36,slow=7.1,SNR=9.5						
DAVOX	Davos/Dischmat	81.66	353	P	P	11 17 59.7	-0.9
	comp=Z,3.9nm,0.7s,mb4.4,baz=359,slow=12,SNR=4.2						
WRA	Warramunga Arr	81.77	223	P	P	11 17 57.0	-4.4
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	81.77	223	P	P	11 17 57.0	-4.4
	comp=Z,1.1nm,0.8s,mb3.8,baz=37,slow=6.2,SNR=7.6						
STKA	Stephens Creek	89.80	212	P	P	11 18 38.1	-2.8
	comp=Z,2.9nm,0.9s,mb4.6,baz=345,slow=5.1,SNR=4.6						
TORD	Torodi Ar. Bea	115.52	358	PKP	PKPdf	11 24 22.6	-2.2
	comp=Z,0.3nm,0.5s,baz=350,slow=2.4,SNR=4.1						
MAW	Mawson	146.30	218	PKP2	PKPab	11 25 20.6	-2.1
MAW				pmax	pmax		
	comp=Z,2.0nm,1.0s						
MAW	Mawson	146.30	218	PKPbc	PKPbc	11 25 20.6	-1.2
	comp=Z,2.2nm,0.9s,baz=80,slow=7.9,SNR=4.3						
LBTB	Lobatse	147.17	314	*e*PKPbc	PKPbc	11 25 25.3	-0.3
LBTB	Lobatse	147.17	314	*e*PKP2	PKPab	11 25 25.3	-2.0
BOSA	Boshof	150.41	311	PKIKP	PKPbc	11 25 33.7	-0.2
BOSA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BOSA	Boshof	150.41	311	PKPbc	PKPbc	11 25 33.6	-0.2
	comp=Z,1.4nm,0.4s,baz=338,slow=2.9,SNR=5.6						

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*HEL **01** 11:08:02.1±0.3, 59.21N×27.18E, h0^{km}, ML1.6, ML2.1(NAO), Explosion*
*NAO **01** 11:08:03.4±2.4, 59.28N×27.07E, ML2.1*
*BER **01** 11:08:03.8±2.1, 59.29N×27.23E, h0^{km}, ML2.1(NAO), Suspected explosion*
ISC 01 11:08:02.4±1.7**, 59.29N**±0.08×**27.2E**±0.1**, h0^{km}, n14, $\sigma 0^{s}.$89**/20**, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VJF	Virojoki	1.26	7	*e*PB	Pb	11 08 26.3	-0.7
VJF				*e*S	Sg	11 08 43.5	+0.6
VJF				MSG		11 08 43.5	
	comp=Z,3.4nm,0.4s						
MEF	Metsahovi	1.71	304	*e*P	Pn	11 08 32.6	-0.8
MEF				*e*SN	Sn	11 08 56.1	+0.1
MEF				MSG		11 08 56.1	
	comp=Z,5.9nm,0.4s						
FIA0	FINESS Array S	2.24	346	Pn	Pn	11 08 41.3	+0.7
	baz=163,slow=18						
FIA0				Lg		11 09 13.3	
	baz=170,slow=37						
FIA0				Rg		11 09 26.2	
	baz=171,slow=28						
FIA0	FINESS Array S	2.24	346	Pn	Pn	11 08 41.3	+0.7
	baz=163,slow=18						
FIA0				Lg		11 09 13.3	
	baz=170,slow=37						
FIA0				Rg		11 09 26.2	
	baz=171,slow=28						
FIA1	FINESS Array S	2.24	346	*e*P	Pn	11 08 41.5	+0.9
FIA1				*e*SB	Sb	11 09 11.9	+0.1
KAF	Kangasniemi	2.87	351	*e*P	Pn	11 08 49.9	+0.6
KAF				*e*S	Sn	11 09 25.2	+0.7
KAF				MSG		11 09 25.2	
	comp=Z,1.4nm,0.2s						
RAF	Rauma	3.24	305	*e*P	Pn	11 08 56.1	+1.7
RAF				*e*SB	Sb	11 09 39.8	-0.9
RAF				MSG		11 09 39.8	
	comp=Z,1.7nm,0.4s						
JOF	Joensuu	4.14	27	*e*SG	Sg	11 10 14.4	-0.9
HFS	Hagfors	6.91	283	Sn	Sn	11 10 59.3	-4.5
	baz=99,slow=28						
HFS				Lg		11 11 36.6	
	baz=94,slow=37						
HFS	Hagfors	6.91	283	*e*S	Sn	11 10 59.3	-4.5
HFS				*e*SG	Sg	11 11 36.6	-7.3
HFS	Hagfors	6.91	283	Sn	Sn	11 10 59.3	-4.5
	baz=99,slow=28						
HFS				Lg		11 11 36.6	
	baz=94,slow=37						
ARA0	ARCESS Array S	10.32	357	Pn	Pn	11 10 29.9	-1.5
	baz=172,slow=16						
ARA0	ARCESS Array S	10.32	357	*e*P	Pn	11 10 29.9	-1.5
ARA0	ARCESS Array S	10.32	357	Pn	Pn	11 10 29.9	-1.5
	baz=172,slow=16						

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*CASC **01** 11:18:53.9±2.7, 11.06N×88.22W, h38^{km}±17^{km}, MD4.4*
*MOS **01** 11:18:55.3±0.9, 11.12N×87.91W, h32^{km}, mb4.9/14, Error ellipse: s-maj=15.8km s-min=7.1km az=113.5*
*IDC **01** 11:18:56.7±3.8, 11.09N×87.86W, h33^{km}±29^{km}, mb4.0/17, mb1 4.3/20, mb1mx4.3/26, mbtmp4.1/20, ML3.9/3, MS3.7/7, Ms1 3.6/7, ms1mx3.2/28, Error ellipse: s-maj=22.6km s-min=11.5km az=47.0*
*ISCJB **01** 11:18:56.6±0.6, 11.03N±0.03×87.95W±0.03, h44^{km}±6^{km}, mb4.5/50, MS3.9/9, Error ellipse: s-maj=6.3km s-min=4.8km az=138.9*
*NEIC **01** 11:18:58.2±0.7, 11.13N×87.88W, h45^{km}±6^{km}, mb4.6/32, Error ellipse: s-maj=8.1km s-min=5.0km az=223.0*
*BJI **01** 11:18:59.5, 11.10N×87.90W, h44^{km}, mB5.0, Ms5.0, Msz4.7*
ISC 01 11:18:59.0±0.5**, 11.16N**±0.04×**87.83W**±0.04**, h47**^{km}±5^{km}**, n379, $\sigma 0^{s}.$88**/365**, mb4.5**/50**, MS3.9**/9**, 78C-91D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COPN	Copaltepe	1.58	50	⇓*e*P	Pn	11 19 24.9	+0.3
COPN				*e*S	Sn	11 19 48.3	+4.3
TEL3	Telica 3	1.71	34	⇑*e*P	Pn	11 19 26.1	-0.2
TELN	Telica	1.74	34	⇑*e*P	Pn	11 19 26.4	-0.4
TELN				*e*S	Sn	11 19 52.4	+4.6
MOMJ	Momotombo	1.77	45	*e*P	Pn	11 19 27.0	-0.3
MOMJ				*e*S	Sn	11 19 53.0	+4.4
XAVN	Gruta Xavier	1.77	56	⇓*e*P	Pn	11 19 27.7	+0.5
XAVN				*e*S	Sn	11 19 54.0	+5.4
TICN	Ticuantepe	1.79	61	*e*P	Pn	11 19 27.9	+0.4
TICN				*e*S	Sn	11 19 54.3	+5.2
APYN	Apoyeque	1.80	53	⇓*e*P	Pn	11 19 27.9	+0.2
APYN				*e*S	Sn	11 19 53.7	+4.4
TISN	Laguna Tiscapa	1.82	57	*e*P	Pn	11 19 28.0	+0.2
TISN				*e*S	Sn	11 19 53.5	+3.9
MGAN	Managua	1.84	58	*e*P	Pn	11 19 28.1	0.0
MGAN				*e*S	Sn	11 19 57.7	+7.5
APON	Apoyo	1.89	66	⇑*e*P	Pn	11 19 28.5	-0.3
HUEN		2.00	54	*e*P	Pn	11 19 30.4	0.0
HUEN				*e*S	Sn	11 19 58.5	+4.2
CNCH	Conchagua	2.10	360	⇓*e*P	x	11 19 33.4	
CNCH				*e*S	x	11 19 59.9	
CONN	Concepcion	2.20	79	*e*P	Pn	11 19 32.3	-0.8
VSM	San Miguel	2.30	349	⇓*e*P	x	11 19 36.0	
VSM				*e*S	x	11 20 03.5	
BLLM	Bellamira	2.31	350	⇑*e*P	x	11 19 35.6	
BLLM				*e*S	x	11 20 03.5	
VCR	Vista de Mar	2.39	115	*e*P	Pn	11 19 33.3	-2.4
CAHU	Cacacuatique	2.62	352	⇑*e*P	x	11 19 40.6	
CAHU				*e*S	x	11 20 11.9	
SNVI	San Vicente	2.63	338	*e*P	x	11 19 40.5	
SNVI				*e*S	x	11 20 10.9	
LCBS	La Ceiba	2.72	336	⇑*e*P	x	11 19 40.6	
LCBS				*e*S	x	11 20 13.8	
LBRS	Las Brisas	2.82	335	*e*P	x	11 19 42.3	
LBRS				*e*S	x	11 20 15.4	
SNET	Serv Nac Est T	2.86	332	⇑*e*P	x	11 19 36.1	
SNET				*e*P	x	11 19 36.8	
BOQS	Boqueron	2.92	331	⇑*e*P	x	11 19 43.6	
BOQS				*e*S	x	11 20 15.4	
TGUH	Tegucigalpa,Un	2.93	11	*e*Pn	Pn	11 19 42.0	-1.2
JTS	JuntasAbangare	2.96	107	*e*Pn	Pn	11 19 41.4	-2.1
JTS				*e*Sn	Sn	11 20 18.7	+0.9
JTS	JuntasAbangare	2.96	107	Pn	Pn	11 19 41.5	-2.0
	39nm,0.3s,baz=316,slow=18,SNR=126						
JTS				Sn	Sn	11 20 17.7	-0.1
	156nm,0.3s,baz=273,slow=18,SNR=26						
JCR	Jicaral	2.98	116	*e*P	Pn	11 19 42.0	-1.7
SBLS	San Blas	3.19	327	⇓*e*P	x	11 19 47.8	
SBLS				*e*S	x	11 20 23.7	
SNJE	San Jose	3.20	327	*e*P	x	11 19 47.5	
SNJE				*e*S	x	11 20 23.3	
RTR	El Retiro	3.25	327	⇓*e*P	x	11 19 48.4	
RTR				*e*S	x	11 20 25.4	
RBDL	Robledal	3.45	329	⇑*e*P	x	11 19 51.5	
RBDL				*e*S	x	11 20 30.0	
CGA2	Cerro Gallo 2	3.50	109	*e*P	Pn	11 19 51.1	+0.2
MTO2	Montecristo 2	3.55	335	*e*P	x	11 19 53.1	
MTO2				*e*S	x	11 20 33.8	
PRS1	Puriscal	3.65	108	*e*P	Pn	11 19 53.0	0.0
LAJ	Bijagual	3.87	109	*e*P	Pn	11 19 50.5	-5.5
SJS	Escuela Geolog	3.91	108	*e*P	Pn	11 19 58.5	+2.0
QCR	Quepos	4.00	115	*e*P	Pn	11 19 57.0	-0.8
LCR2	La Lucha 2	4.02	110	⇑*e*P	Pn	11 19 58.6	+0.5
BUS	Buena Vista	4.31	111	*e*P	Pn	11 20 02.9	+0.7
FUG	Fuego 3	4.39	318	*e*S	Sn	11 20 44.9	-8.3
BAR1		4.84	113	*e*P	Pn	11 20 09.5	+0.1
TEIG	Tepich	9.03	357	Pn	Pn	11 21 07.0	+0.3
TEIG	Tepich	9.03	357	Pn	Pn	11 21 06.1	-0.7
	0.5nm,0.3s,baz=187,slow=16,SNR=6.5						
TEIG				LR	LR	11 25 10.2	
	comp=Z,620nm,18.2s,baz=199,slow=41						
CMIG	Matias Romero	9.03	312	Pn	Pn	11 21 04.5	-2.4
CMIG				Sn	Sn	11 22 43.9	-3.3
CMIG	Matias Romero	9.03	312	Pn	Pn	11 21 04.5	-2.4
	1.8nm,0.3s,baz=110,slow=8.3,SNR=74						
CMIG				Sn	Sn	11 22 43.9	-3.3
	0.7nm,0.3s,baz=292,slow=19,SNR=4.1						
PAYG	Puerto Ayora	12.01	192	*e*Pn	Pn	11 21 46.3	-1.3
IIO	Organos	13.43	310	*i* P	Pn	11 22 06.9	-0.1
OTAV	Otavalo	14.30	139	*e*Pn	Pn	11 22 21.1	+2.1
ROSC	El Rosal	14.76	114	*e*P	Pn	11 22 33.8	+8.8
ROSC	El Rosal	14.76	114	Pn	Pn	11 22 31.3	+6.4
	1.4nm,0.3s,baz=97,slow=20,SNR=5.8						
ATAH	Atahualpa	20.34	152	P	P	11 23 32.6	+1.1
	1.4nm,0.4s,baz=156,slow=20,SNR=1.7						
ATAH				LR	LR	11 29 49.7	
	comp=Z,190nm,20.4s,MS3.4,baz=352,slow=32						
LRAL	Lakeview Retre	21.79	2	*e*P	P	11 23 46.7	-0.3
	24nm,1.1s,mb4.5						
SJG	San Juan	22.07	69	P	P	11 23 51.0	+0.8
	5.2nm,0.3s,mb4.4,baz=311,slow=11,SNR=3.3						
JCT	Junction City	22.21	332	*e*P	P	11 23 50.8	-0.7
	17nm,0.8s,mb4.5						
JCT	Junction City	22.21	332	*e*P	P	11 23 50.8	-0.7
JCT				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.5						
HUMP	Col San Antoni	22.36	69	*e*P	P	11 23 57.6	+4.4
GOGA	Godfrey	22.51	10	*e*P	P	11 23 55.2	+0.5
	comp=Z,23nm,0.8s,mb4.7						
GOGA	Godfrey	22.51	10	*e*P	P	11 23 55.2	+0.6
GOGA				pmax	pmax		
	comp=Z,23nm,0.8s,mb4.7						
MTP	Monte Pirata	22.62	70	*e*P	P	11 23 58.6	+2.6
PCRV	Puerto La Cruz	22.82	90	P	P	11 23 58.3	+0.2
	comp=Z,7.8nm,0.5s,mb4.4,baz=350,slow=6.1,SNR=4.0						
OXF	Oxford	23.29	357	*e*P	P	11 24 01.5	-1.3
LTX	Lajitas	23.35	323	*e*P	P	11 24 02.1	-1.4
	comp=Z,12nm,0.9s,mb4.3						
LTX	Lajitas	23.35	323	*e*P	P	11 24 02.1	-1.4
LTX				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.3						
TXAR	Lajitas Array	23.35	323	P	P	11 24 02.7	-0.8
TXAR	Lajitas Array	23.35	323	P	P	11 24 02.7	-0.8
	comp=Z,9.4nm,0.8s,mb4.2,baz=142,slow=8.8,SNR=78						
JSC	Jenkinsville	23.79	14	*e*P	P	11 24 07.7	+0.2
MIAR	Mount Ida	23.86	348	*e*P	P	11 24 07.0	-1.1
	comp=Z,41nm,0.9s,mb4.9						
MIAR	Mount Ida	23.86	348	*e*P	P	11 24 07.0	-1.1
MIAR				pmax	pmax		
	comp=Z,41nm,0.9s,mb4.9						
UALR	University of	23.87	351	*e*P	P	11 24 06.7	-1.5
	comp=Z,17nm,0.8s,mb4.5						
CPCT	Cooper Cave	24.37	7	*e*P	P	11 24 12.8	+0.1
TKL	Tuckaleechee C	24.67	8	P	P	11 24 15.4	0.0
	comp=Z,16nm,1.0s,mb4.5,baz=174,slow=11,SNR=10						
TKL				LR	LR	11 35 46.1	
	comp=Z,116nm,18.0s,MS3.4,baz=60,slow=41						
WMOK	Wichita Mounta	25.51	339	*e*P	P	11 24 21.7	-1.4
	comp=Z,15nm,1.2s,mb4.4						
WMOK	Wichita Mounta	25.51	339	*e*P	P	11 24 21.7	-1.4
WMOK				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.4						
MNTX	Cornudas Mount	26.09	324	*e*P	P	11 24 27.0	-1.4
	comp=Z,7.3nm,1.1s,mb4.1						
AMTX	Amarillo	26.77	334	*e*P	P	11 24 34.0	-0.5
	comp=Z,58nm,1.0s,mb5.1						
BNM	Barren Site	28.61	326	*e*P	P	11 24 49.5	-1.5
KSU1	Kansas State U	28.91	346	*e*P	P	11 24 51.9	-1.6
	comp=Z,14nm,1.0s,mb4.7						
ANMO	Albuquerque	29.13	327	*i* P	P	11 24 56.5	+1.0
ANMO	Albuquerque	29.13	327	P	P	11 24 56.2	+0.7
	comp=Z,0.7nm,0.8s,mb3.5,baz=146,slow=7.3,SNR=2.4						
MCWV	Mont Chateau	29.26	13	*e*P	P	11 24 56.9	+0.2
TUC	Tucson	29.83	318	*e*P	P	11 25 01.1	-0.7
	comp=Z,5.4nm,1.2s,mb4.2						
TUC	Tucson	29.83	318	*e*P	P	11 25 01.2	-0.6
TUC				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.1						
116A	Eloy	30.59	318	⇑P	P	11 25 08.1	-0.5
	baz=31						
SDCO	Great Sand Dun	30.86	332	*e*P	P	11 25 10.6	-0.2
	comp=Z,8.1nm,1.5s,mb4.3						
Z14A	Wintersburg	31.91	318	⇑P	P	11 25 20.3	+0.2
	baz=32						
MVCO	Mesa Verde	31.91	328	⇓P	P	11 25 21.0	+0.9
	baz=32						
X15A	Humboldt	32.16	320	⇓P	P	11 25 22.9	+0.5
	baz=32,SNR=8.6						
Y14A	Wickenburg	32.30	319	P	P	11 25 24.2	+0.7
	baz=32,SNR=6.0						
WUAZ	Wupatki	32.31	322	*e*P	P	11 25 24.9	+1.2
	comp=Z,20nm,1.1s,mb4.9						
WUAZ	Wupatki	32.31	322	⇓P	P	11 25 24.9	+1.3
	baz=32,SNR=6.9						
X14A	Yava	32.56	319	⇑P	P	11 25 26.3	+0.4
	baz=33,SNR=5.7						
W15A	Williams	32.63	321	⇑P	P	11 25 27.6	+1.2
	baz=33,SNR=5.4						
PV01	Paradox Valley	32.65	329	*e*P	P	11 25 27.3	+0.7
SMCO	Snowmass	32.69	332	*e*P	P	11 25 27.5	+0.6
	comp=Z,9.2nm,1.4s,mb4.5						
Y13A	Salome	32.77	318	⇓P	P	11 25 28.7	+1.1
	baz=33						
PV10	Paradox Valley	33.08	329	*e*P	P	11 25 30.0	-0.3
W14A	Seligman	33.16	320	P	P	11 25 32.3	+1.3
	baz=33,SNR=11						
Y12C	Blythe	33.19	317	⇑P	P	11 25 32.2	+0.8
	baz=33						
X13A	Yucca	33.24	319	P	P	11 25 33.1	+1.2
	baz=33,SNR=7.0						
PDMCI	Parker Dam,Lak	33.27	318	P	P	11 25 32.9	+0.9
	baz=33,SNR=6.6						
LPAZ	La Paz	33.52	144	P	P	11 25 34.1	-0.2
	comp=Z,0.7nm,0.6s,mb3.8,baz=328,slow=9.8,SNR=4.5						
LPAZ				LR	LR	11 39 26.1	
	comp=Z,74nm,21.3s,MS3.4,baz=126,slow=37						
W13A	Hualapai Mount	33.59	319	⇓P	P	11 25 36.4	+1.5
	baz=34						
BC3	Big Chuckw Mtn	33.77	316	⇓P	P	11 25 37.2	+0.8
	baz=34						
IRM	Iron Mountain	33.85	317	⇓P	P	11 25 38.0	+0.9
	baz=34						
BELC	Belle Mtn.	34.34	316	⇑P	P	11 25 41.8	+0.5
	baz=34						
T14A	Hurricane	34.37	323	P	P	11 25 43.5	+2.0
	baz=34,SNR=11						
SRU	San Rafael	34.39	328	*e*P	P	11 25 49.5	+7.8
GMRC	Granite Mounta	34.56	317	⇑P	P	11 25 43.7	+0.5
	baz=34						
V12A	Nelson	34.60	319	⇑P	P	11 25 44.7	+1.1
	baz=35,SNR=12						
U12A	Valley of Fire	34.85	321	⇑P	P	11 25 46.6	+0.9
	baz=35						
MSU	Marysvale	34.85	326	*e*P	P	11 25 47.2	+1.5
S14A	Cedar City	34.89	324	⇑P	P	11 25 47.0	+0.9
	baz=35						
HEC	Hector,Ludlow	35.03	317	⇓P	P	11 25 47.3	0.0
	baz=35						
V11A	Goodsprings	35.04	319	⇑P	P	11 25 47.5	+0.1
	baz=35						
ARUT	Antelope Range	35.07	323	*e*P	P	11 25 48.3	+0.7
TUQ	Turquoise Mtn.	35.12	318	⇑P	P	11 25 48.0	-0.1
	baz=35						
SHPR	Sheep Range	35.28	320	*e*P	P	11 25 51.0	+1.5
DAU	Daniels Canyon	35.74	329	*e*P	P	11 25 51.6	-1.7
JLU	Jordanelle	35.98	329	*e*P	P	11 25 56.5	+1.2
R12A	Pony Springs,	36.12	323	⇑P	P	11 25 57.8	+1.2
	baz=36,SNR=12						
EDW2	Edwards Air Fo	36.19	316	⇑P	P	11 25 57.2	-0.1
	baz=36						
LRMC	Laurel Mountai	36.32	317	⇑P	P	11 25 58.8	+0.4
	baz=36						
FURC	Furnace Creek,	36.35	319	⇓P	P	11 25 59.0	+0.4
	baz=36						
MPMC	Manual Prospec	36.52	318	⇓P	P	11 26 00.5	+0.5
	baz=36						
Q12A	Willow Creek R	36.72	324	⇓P	P	11 26 02.9	+1.2
	baz=37						
BW06	Boulder Array	36.73	333	*e*P	P	11 26 01.4	-0.3
PDAR	Pinedale Array	36.73	333	P	P	11 26 01.3	-0.5
	comp=Z,3.9nm,1.1s,mb4.1,baz=134,slow=8.5,SNR=11						
PDAR				PcP	PcP	11 28 23.5	0.0
	comp=Z,0.9nm,0.9s,baz=112,slow=2.4,SNR=4.0						
PDAR				LR	LR	11 42 59.3	
	comp=Z,131nm,19.8s,MS3.7,baz=347,slow=39						
HWUT	Hardware Ranch	36.78	330	*e*P	P	11 26 01.7	-0.5
	comp=Z,7.0nm,0.9s,mb4.5						
ARVC	Arvin	36.90	315	⇑P	P	11 26 04.0	+0.7
	baz=37						
ISA	Isabella	36.95	316	⇓P	P	11 26 04.3	+0.6
	baz=37						
GRAC	Grapevine Rang	36.99	319	⇓P	P	11 26 04.9	+0.9
	baz=37						
P12A	McGill	37.05	324	⇑P	P	11 26 06.0	+1.5
	baz=37						
S10A	Tonopah Range,	37.06	321	P	P	11 26 06.2	+1.6
	baz=37,SNR=19						
Q11A	Duckwater	37.08	323	P	P	11 26 06.6	+1.8
	baz=37,SNR=11						
R10A	Warm Springs	37.11	322	P	P	11 26 07.0	+2.0
	baz=37,SNR=9.8						
S09A	Goldfield	37.33	320	P	P	11 26 07.9	+0.9
	baz=37,SNR=11						
VES	Vestal, Richgr	37.46	316	⇓P	P	11 26 08.7	+0.6
	baz=37						
O12A	Currie	37.50	325	⇑P	P	11 26 09.2	+0.9
	baz=38						
R09A	Tonopah	37.55	321	P	P	11 26 10.1	+1.3
	baz=38,SNR=13						
AGMN	Agassiz Refuge	37.63	351	*e*P	P	11 26 07.6	-1.7
	comp=Z,18nm,1.2s,mb4.7						
AGMN				*e*pP	pP	11 26 19.9	-1.8
REDW	Red Top Meadow	37.79	332	*e*P	P	11 26 10.2	-0.5
S08C	White Mtn Res	37.80	319	P	P	11 26 12.4	+1.5
	baz=38,SNR=11						
RCTC	Rector, Farmer	37.83	317	⇓P	P	11 26 11.9	+0.7
	baz=38						
LOHW	Long Hollow	37.87	333	*e*P	P	11 26 11.0	-0.4
	comp=Z,5.3nm,0.9s,mb4.3						
HELL	Mitchell Peak,	37.89	317	⇑P	P	11 26 12.6	+1.0
	baz=38						
O11A	Cowboy Ranch,	37.92	324	⇓P	P	11 26 12.7	+0.8
	baz=38						
TPAW	Teton Pass	37.93	332	*e*P	P	11 26 11.2	-0.7
	comp=Z,12nm,1.0s,mb4.6						
MOOW	Moose Ponds	38.04	333	*e*P	P	11 26 12.4	-0.4
P10A	Eureka	38.06	323	⇑P	P	11 26 13.7	+0.7
	baz=38						
N12A	Clover Valley,	38.06	326	⇑P	P	11 26 13.8	+0.7
	baz=38						
IMW	Indian Meadow	38.25	333	*e*P	P	11 26 13.8	-0.7
R08A	Mina	38.26	320	P	P	11 26 16.4	+1.7
	baz=38,SNR=20						
K14A	Jones Ranch, D	38.28	329	P	P	11 26 14.5	-0.4
	baz=38,SNR=12						
MLAC	Mammoth Lakes	38.30	319	⇓P	P	11 26 16.8	+1.7
	baz=38						
L13A	Double Diamond	38.34	328	⇓P	P	11 26 16.8	+1.4
	baz=38						
M12A	Wells	38.38	327	⇑P	P	11 26 17.0	+1.2
	baz=38						
N11A	Elko Archery C	38.43	325	P	P	11 26 17.9	+1.8
	baz=38,SNR=5.5						
NVAR	Mina Array Bea	38.44	320	P	P	11 26 16.9	+0.7
	comp=Z,14nm,1.1s,mb4.6,baz=125,slow=9.0,SNR=49						
NVAR				PcP	PcP	11 28 29.4	+0.6
	comp=Z,1.7nm,0.7s,baz=120,slow=4.6,SNR=7.3						
KCC	Kaiser Creek	38.45	318	⇑P	P	11 26 16.5	+0.2
	baz=38						
Q08A	Gabbs	38.46	321	P	P	11 26 17.8	+1.3
	baz=38,SNR=13						
O10A	Cortez Mining,	38.51	324	P	P	11 26 18.6	+1.8
	baz=38,SNR=5.4						
LKWY	Lake	38.54	334	*e*P	P	11 26 16.5	-0.5
	comp=Z,7.6nm,1.0s,mb4.4						
LKWY	Lake	38.54	334	*e*P	P	11 26 16.5	-0.5
LKWY				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.4						
YFT	Old Faithful	38.64	333	*e*P	P	11 26 17.4	-0.4
R07C	Lee Vining	38.71	319	⇓P	P	11 26 19.7	+1.2
	baz=39						
N10A	Dunphy	38.80	324	⇑P	P	11 26 19.5	+0.3
	baz=39						
O09A	Fish Creek Ran	38.84	323	⇑P	P	11 26 19.9	+0.4
	baz=39,SNR=7.4						
L12A	House Creek Ra	38.95	327	⇑P	P	11 26 20.7	+0.3
	baz=39						
S06C	San Francisco	39.11	318	⇑P	P	11 26 22.7	+0.8
	baz=39						
T05C	Eagle Field, D	39.11	316	⇑P	P	11 26 22.0	+0.1
	baz=39						
QLMT	Earthquake Lak	39.20	333	*e*P	P	11 26 24.0	+1.5
WAKR	Walker	39.20	319	*e*P	P	11 26 21.8	-0.8
R06C	Coleville	39.22	319	P	P	11 26 24.3	+1.5
	baz=39,SNR=6.0						
M10A	I.L. Ranch, Tu	39.35	325	P	P	11 26 25.1	+1.3
	baz=39,SNR=6.1						
L11A	Cat Creek Ranc	39.35	327	⇓P	P	11 26 24.4	+0.5
	baz=39						
J13A	Cove Ranch, Pi	39.41	329	⇑P	P	11 26 23.2	-1.1
	baz=39						
P07A	Fallon	39.47	321	⇑P	P	11 26 25.5	+0.7
	baz=40						
N09A	Rock Creek Ran	39.47	324	P	P	11 26 26.3	+1.5
	baz=40,SNR=9.6						
ULM	Lac du Bonnet	39.54	352	P	P	11 26 22.8	-2.4
	comp=Z,2.9nm,0.7s,mb4.1,baz=164,slow=8.8,SNR=7.6						
ULM				PcP	PcP	11 28 32.4	+0.4
	comp=Z,2.2nm,0.7s,baz=113,slow=1.5,SNR=3.9						
ULM				LR	LR	11 45 48.9	
	comp=Z,84nm,21.8s,MS3.5,baz=354,slow=41						
CMB	Columbia Colle	39.54	318	⇓P	P	11 26 25.4	-0.1
	baz=40						
PACP	Pacheco Peak	39.59	316	⇑P	P	11 26 26.0	+0.1
	baz=40						
DGMT	Dagmar	39.63	343	*e*P	P	11 26 25.6	-0.4
	comp=Z,14nm,0.7s,mb4.8						
HLID	Hailey	39.65	329	*e*P	P	11 26 26.4	+0.2
	comp=Z,2.8nm,1.0s,mb4.0						
HLID	Hailey	39.65	329	⇓P	P	11 26 26.0	-0.2
	baz=40						
L10A	Juniper Basin	39.68	326	⇓P	P	11 26 26.4	-0.2
	baz=40						
R05C	Kirkwood Meado	39.72	319	⇓P	P	11 26 28.3	+1.3
	baz=40,SNR=7.4						
I13A	Wildhorse Cree	39.76	330	⇓P	P	11 26 27.6	+0.4
	baz=40,SNR=6.3						
J12A	Stokes Ranch,	39.77	328	⇓P	P	11 26 27.6	+0.4
	baz=40						
N08A	GE Springer Mi	39.78	323	P	P	11 26 28.4	+1.0
	baz=40,SNR=8.2						
M09A	Marrel Ranch,	39.80	325	⇑P	P	11 26 27.9	+0.3
	baz=40						
MCMT	McKenzie Canyo	39.84	332	*e*P	P	11 26 29.0	+1.2
O07A	Toulon	39.84	322	⇓P	P	11 26 28.3	+0.3
	baz=40,SNR=6.7						
WCN	Washoe City	39.87	320	⇓P	P	11 26 28.7	+0.5
	baz=40,SNR=5.4						
PAHR	Pah Rah Range	39.87	321	*e*P	P	11 26 27.1	-1.1

S04C	**Ingram Canyon,**	**39.88**	**317**	⇓P	**P**	**11 26 28.6**	**+0.3**
	baz=40						
BOZ	**Bozeman (W)**	**39.92**	**334**	*e*P	**P**	**11 26 27.3**	**-1.3**
	comp=Z,6.4nm,1.1s,mb4.3						
BOZ	**Bozeman (W)**	**39.92**	**334**	*e*P	**P**	**11 26 27.3**	**-1.2**
BOZ				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.2						
BOZ	**Bozeman (W)**	**39.92**	**334**	P	**P**	**11 26 28.9**	**+0.4**
	baz=40,SNR=6.3						
G15A	**Dillon**	**39.93**	**333**	P	**P**	**11 26 29.6**	**+1.0**
	baz=40,SNR=7.2						
DLMT	**Dillon**	**40.13**	**333**	*e*P	**P**	**11 26 30.5**	**+0.2**
	comp=Z,14nm,1.2s,mb4.6						
P06A	**Stead Airport,**	**40.17**	**321**	⇑P	**P**	**11 26 31.1**	**+0.4**
	baz=40						
LAVA	**Lava Cap Winer**	**40.18**	**319**	⇓P	**P**	**11 26 30.7**	**0.0**
	baz=40						
MFID	**Camas Ranch**	**40.26**	**328**	⇓P	**P**	**11 26 31.4**	**0.0**
	baz=40						
H13A	**Challis**	**40.30**	**331**	P	**P**	**11 26 32.0**	**+0.3**
	baz=40,SNR=6.3						
L09A	**Wilkinson Ranc**	**40.31**	**325**	P	**P**	**11 26 32.5**	**+0.7**
	baz=40,SNR=7.9						
K10A	**MacKenzie Ranc**	**40.38**	**327**	⇑P	**P**	**11 26 32.2**	**-0.1**
	baz=40						
LRM	**Limekiln Ridge**	**40.42**	**333**	*e*P	**P**	**11 26 31.4**	**-1.2**
O06A	**Flanigan**	**40.42**	**321**	P	**P**	**11 26 33.9**	**+1.1**
	baz=40,SNR=15						
G14A	**Jackson**	**40.43**	**332**	⇓P	**P**	**11 26 32.8**	**0.0**
	baz=40						
F15A	**Butte**	**40.45**	**333**	P	**P**	**11 26 33.2**	**+0.3**
	baz=40,SNR=5.9						
BEKR	**Beckwourth**	**40.57**	**320**	⇓P	**P**	**11 26 34.4**	**+0.4**
	baz=41,SNR=5.7						
H12A	**Diamond D Ranc**	**40.58**	**330**	⇑P	**P**	**11 26 34.3**	**+0.3**
	baz=41,SNR=5.2						
Q04C	**Lincoln**	**40.64**	**318**	⇓P	**P**	**11 26 35.4**	**+0.8**
	baz=41						
I11A	**Placerville**	**40.68**	**328**	⇓P	**P**	**11 26 35.4**	**+0.6**
	baz=41						
G13A	**Cobalt**	**40.68**	**331**	⇑P	**P**	**11 26 34.7**	**-0.1**
	baz=41						
J10A	**Berg Farm, Mel**	**40.76**	**327**	⇑P	**P**	**11 26 35.6**	**+0.1**
	baz=41						
N06A	**Buffalo Meadow**	**40.77**	**322**	P	**P**	**11 26 36.2**	**+0.6**
	baz=41,SNR=14						
K09A	**Rome**	**40.79**	**326**	⇓P	**P**	**11 26 36.4**	**+0.6**
	baz=41,SNR=19						
L08A	**Fields**	**40.80**	**325**	⇑P	**P**	**11 26 36.0**	**+0.1**
	baz=41,SNR=6.6						
Q03C	**Winters**	**40.94**	**318**	⇓P	**P**	**11 26 37.9**	**+0.8**
	baz=41						
E15A	**Deer Lodge**	**40.97**	**334**	⇑P	**P**	**11 26 37.2**	**0.0**
	baz=41						
O05C	**Quincy**	**40.98**	**320**	⇓P	**P**	**11 26 37.6**	**+0.3**
	baz=41						
OHCM	**Honcut**	**40.98**	**319**	*e*P	**P**	**11 26 37.6**	**+0.2**
EGMT	**Eagleton**	**41.09**	**338**	*e*P	**P**	**11 26 38.3**	**+0.2**
	comp=Z,21nm,1.1s,mb4.7						
EGMT	**Eagleton**	**41.09**	**338**	P	**P**	**11 26 38.5**	**+0.3**
	baz=41,SNR=6.7						
ORV	**Oroville**	**41.12**	**319**	⇓P	**P**	**11 26 38.5**	**0.0**
	baz=41						
WVOR	**Wild Horse Val**	**41.13**	**325**	*e*P	**P**	**11 26 38.7**	**+0.1**
	comp=Z,41nm,1.6s,mb4.8						
WVOR	**Wild Horse Val**	**41.13**	**325**	*e*P	**P**	**11 26 38.7**	**+0.2**
WVOR				pmax	pmax		
	comp=Z,41nm,1.6s,mb4.8						
K08A	**Mann Creek Ran**	**41.23**	**325**	P	**P**	**11 26 40.0**	**+0.6**
	baz=41,SNR=21						
I10A	**Payette**	**41.24**	**328**	⇓P	**P**	**11 26 39.0**	**-0.4**
	baz=41						
J09A	**Fry Pan Ranch,**	**41.24**	**326**	P	**P**	**11 26 40.1**	**+0.7**
	baz=41,SNR=21						
ELFS	**Eagle Lake Fie**	**41.24**	**321**	P	**P**	**11 26 40.7**	**+1.2**
	baz=41,SNR=30						
F13A	**Darby**	**41.25**	**332**	P	**P**	**11 26 39.1**	**-0.4**
	baz=41,SNR=6.9						
L07A	**Adell**	**41.27**	**324**	P	**P**	**11 26 40.2**	**+0.6**
	baz=41,SNR=13						
H11A	**Donnelly**	**41.27**	**329**	⇓P	**P**	**11 26 39.0**	**-0.7**
	baz=41						
O04C	**Chester**	**41.29**	**321**	P	**P**	**11 26 41.2**	**+1.3**
	baz=41,SNR=9.7						
E14A	**Clinton**	**41.34**	**333**	⇓P	**P**	**11 26 39.8**	**-0.4**
	baz=41						
D15A	**Lincoln**	**41.40**	**334**	P	**P**	**11 26 41.0**	**+0.3**
	baz=41,SNR=7.5						
M06C	**Likely Place G**	**41.44**	**322**	P	**P**	**11 26 41.9**	**+0.8**
	baz=41,SNR=6.6						
H10A	**Noah's Angus R**	**41.56**	**329**	⇑P	**P**	**11 26 40.9**	**-1.1**
	baz=42						
CHMT	**Chamberlain Mo**	**41.62**	**334**	*e*P	**P**	**11 26 42.0**	**-0.4**
K07A	**Rock Creek Ran**	**41.64**	**325**	P	**P**	**11 26 43.2**	**+0.5**
	baz=42,SNR=18						
J08A	**Circle Bar Ran**	**41.64**	**326**	⇑P	**P**	**11 26 42.6**	**-0.1**
	baz=42,SNR=5.2						
I09A	**Lost Marbles R**	**41.65**	**327**	P	**P**	**11 26 42.6**	**-0.2**
	baz=42,SNR=6.1						
E13A	**Victor**	**41.67**	**332**	P	**P**	**11 26 42.6**	**-0.3**
	baz=42,SNR=8.6						
MOD	**Modoc**	**41.76**	**323**	*e*P	**P**	**11 26 42.6**	**-1.1**
MOD	**Modoc**	**41.76**	**323**	P	**P**	**11 26 44.0**	**+0.3**
	baz=42,SNR=8.2						
HATC	**Hat Creek Radi**	**41.81**	**321**	⇓P	**P**	**11 26 44.6**	**+0.5**
	baz=42						
MSO	**Missoula**	**41.85**	**333**	*e*P	**P**	**11 26 43.2**	**-1.2**
D14A	**Greenough**	**41.86**	**334**	⇑P	**P**	**11 26 43.5**	**-1.0**
	baz=42						
G11A	**Walters Elk Ra**	**41.89**	**330**	⇓P	**P**	**11 26 43.7**	**-1.0**
	baz=42						
M05C	**Lookout**	**41.93**	**322**	⇑P	**P**	**11 26 44.7**	**-0.5**
	baz=42						
GASB	**Alder Springs**	**41.95**	**319**	⇓P	**P**	**11 26 46.1**	**+0.7**
	baz=42						
LTIM	**Timbered Crate**	**42.04**	**321**	P	**P**	**11 26 46.5**	**+0.5**
I08A	**Drewsey**	**42.05**	**327**	⇓P	**P**	**11 26 45.2**	**-0.9**
	baz=42						
J07A	**Hines**	**42.11**	**325**	⇑P	**P**	**11 26 46.0**	**-0.6**
	baz=42						
L05A	**Lakeview**	**42.16**	**323**	⇓P	**P**	**11 26 46.2**	**-0.8**
	baz=42						
F11A	**Grangeville**	**42.19**	**330**	⇑P	**P**	**11 26 46.1**	**-1.0**
	baz=42						
D13A	**Huson**	**42.29**	**333**	P	**P**	**11 26 47.9**	**-0.1**
	baz=42,SNR=6.4						
M03C	**McCloud**	**42.48**	**321**	⇑P	**P**	**11 26 48.9**	**-0.8**
	baz=42						
C14A	**Swan Lake**	**42.49**	**334**	⇓P	**P**	**11 26 49.5**	**-0.1**
	baz=42						
J06A	**Christmas Vall**	**42.51**	**325**	P	**P**	**11 26 49.5**	**-0.3**
	baz=42,SNR=6.7						
H08A	**Prairie City**	**42.51**	**327**	⇑P	**P**	**11 26 49.1**	**-0.8**
	baz=42						
E11A	**Bogner Ranch,**	**42.55**	**331**	⇓P	**P**	**11 26 49.1**	**-1.0**
	baz=43						
M04C	**Macdoel**	**42.60**	**322**	⇑P	**P**	**11 26 49.5**	**-1.1**
	baz=43						
K05A	**Summer Lake**	**42.61**	**324**	⇓P	**P**	**11 26 50.1**	**-0.5**
	baz=43						
I07A	**Izee**	**42.68**	**326**	⇑P	**P**	**11 26 50.5**	**-0.7**
	baz=43						
F10A	**Beach Ranch, E**	**42.77**	**330**	⇑P	**P**	**11 26 50.9**	**-1.0**
	baz=43						
L04A	**Klamath Falls**	**42.87**	**322**	⇓P	**P**	**11 26 51.5**	**-1.2**
	baz=43						
F09A	**S2 Ranch, Elgi**	**42.93**	**329**	⇓P	**P**	**11 26 52.2**	**-0.9**
	baz=43						
O01C	**Eel River Cons**	**42.93**	**319**	⇓P	**P**	**11 26 53.3**	**0.0**
	baz=43						
I06A	**Prineville**	**42.98**	**325**	⇑P	**P**	**11 26 52.8**	**-0.8**
	baz=43						
K04A	**Chilquin**	**43.03**	**323**	⇓P	**P**	**11 26 53.6**	**-0.4**
	baz=43						
YBH	**Yreka Blue Hor**	**43.11**	**321**	⇑P	**P**	**11 26 53.2**	**-1.5**
	baz=43						
J05A	**Fort Rock**	**43.15**	**324**	⇓P	**P**	**11 26 54.5**	**-0.5**
	baz=43						
G08A	**Pilot Rock**	**43.18**	**328**	⇓P	**P**	**11 26 53.9**	**-1.3**
	baz=43						
B13A	**Whitefish**	**43.27**	**334**	⇓P	**P**	**11 26 55.2**	**-0.7**
	baz=43						
G07A	**Ruggs Ranch, H**	**43.54**	**327**	⇑P	**P**	**11 26 57.0**	**-1.1**
	baz=44						
D10A	**Wagner Farm, O**	**43.56**	**331**	⇓P	**P**	**11 26 57.1**	**-1.2**
	baz=44						
WALA	**Waterton Lakes**	**43.56**	**335**	*e*P	**P**	**11 26 58.1**	**-0.2**
	comp=Z,6.7nm,0.9s,mb4.4						
J04A	**Umpqua Nationa**	**43.63**	**323**	P	**P**	**11 26 59.5**	**+0.7**
	baz=44,SNR=8.7						
A13A	**Flathead Natio**	**43.67**	**335**	P	**P**	**11 26 59.4**	**+0.2**
	baz=44,SNR=7.2						
I05A	**Bend**	**43.71**	**325**	⇑P	**P**	**11 26 59.9**	**+0.4**
	baz=44						
G06A	**Carlson Farm,**	**44.04**	**327**	⇓P	**P**	**11 27 01.7**	**-0.4**
	baz=44						
D09A	**Jones Farm, Ri**	**44.07**	**330**	⇑P	**P**	**11 27 01.5**	**-0.8**
	baz=44						
F07A	**Phinny Hill Vi**	**44.09**	**328**	⇑P	**P**	**11 27 02.6**	**0.0**
	baz=44						
HBO	**Huckleberry Mo**	**44.11**	**324**	P	**P**	**11 27 02.8**	**0.0**
I04A	**Tendick Farm,**	**44.13**	**324**	⇓P	**P**	**11 27 02.1**	**-0.9**
	baz=44						
B11A	**Sandpoint**	**44.15**	**333**	P	**P**	**11 27 02.5**	**-0.5**
	baz=44,SNR=6.5						
IRO	**Indian Ridge**	**44.17**	**324**	P	**P**	**11 27 03.0**	**-0.2**
K02A	**Glendale**	**44.17**	**322**	⇑P	**P**	**11 27 02.3**	**-0.9**
	baz=44						
A12A	**Yaak River Ran**	**44.20**	**334**	⇓P	**P**	**11 27 03.1**	**-0.3**
	baz=44						
J03A	**Ideyld Park**	**44.21**	**323**	⇓P	**P**	**11 27 01.6**	**-1.9**
	baz=44						
NEW	**Newport**	**44.36**	**332**	*e*P	**P**	**11 27 03.3**	**-1.4**
D08A	**Wollman Farm,**	**44.37**	**330**	⇓P	**P**	**11 27 03.7**	**-1.0**
	baz=44						
G05A	**Wamic**	**44.41**	**326**	⇑P	**P**	**11 27 05.6**	**+0.5**
	baz=44						
E07A	**Sunnyside**	**44.50**	**329**	⇓P	**P**	**11 27 05.2**	**-0.5**
	baz=44						
A11A	**Hall Mountain,**	**44.53**	**333**	P	**P**	**11 27 06.2**	**+0.3**
	baz=45,SNR=8.5						
H04A	**Detroit Lake**	**44.55**	**325**	P	**P**	**11 27 05.8**	**-0.4**
	baz=44,SNR=7.2						
J02A	**Umpqua**	**44.57**	**323**	⇑P	**P**	**11 27 06.0**	**-0.4**
	baz=45						
HOOD	**Mount Hood Mea**	**44.65**	**326**	*e*P	**P**	**11 27 06.0**	**-1.0**
MXC	**Moxie City**	**44.73**	**328**	P	**P**	**11 27 08.1**	**+0.4**
KEBM	**Edson Butte**	**44.74**	**322**	*e*P	**P**	**11 27 06.9**	**-0.9**
I03A	**Eugene**	**44.74**	**324**	⇓P	**P**	**11 27 07.3**	**-0.5**
	baz=45						
F05A	**White Salmon**	**44.90**	**327**	⇓P	**P**	**11 27 08.9**	**-0.1**
	baz=45						
C08A	**Higginbotham F**	**44.93**	**330**	⇓P	**P**	**11 27 08.6**	**-0.6**
	baz=45						
B09A	**Rice**	**44.95**	**332**	P	**P**	**11 27 08.8**	**-0.5**
	baz=45,SNR=6.4						
D07A	**Quincy**	**44.98**	**329**	⇓P	**P**	**11 27 08.6**	**-1.0**
	baz=45						
G04A	**Mulino**	**45.03**	**325**	⇓P	**P**	**11 27 09.3**	**-0.8**
	baz=45						
E06A	**Yakima**	**45.07**	**328**	⇓P	**P**	**11 27 10.6**	**+0.3**
	baz=45,SNR=7.6						
A10A	**Northport**	**45.08**	**333**	⇑P	**P**	**11 27 09.3**	**-1.1**
	baz=45						
I02A	**Mapleton**	**45.09**	**323**	⇓P	**P**	**11 27 10.0**	**-0.5**
	baz=45						
H03A	**Soap Creek Ran**	**45.17**	**324**	⇑P	**P**	**11 27 10.6**	**-0.6**
	baz=45						
C07A	**Waterville**	**45.36**	**330**	⇓P	**P**	**11 27 12.8**	**+0.2**
	baz=45						
D06A	**Cle Elum**	**45.43**	**329**	⇓P	**P**	**11 27 12.6**	**-0.5**
	baz=45						
F04A	**Amboy**	**45.45**	**326**	⇓P	**P**	**11 27 13.0**	**-0.4**
	baz=45						
B08A	**Colville Reser**	**45.47**	**331**	⇓P	**P**	**11 27 12.2**	**-1.3**
	baz=46						
E05A	**Randle**	**45.49**	**327**	P	**P**	**11 27 13.0**	**-0.7**
	baz=46,SNR=8.6						
G03A	**Yamhill**	**45.55**	**325**	⇑P	**P**	**11 27 14.1**	**0.0**
	baz=46						
A09A	**Danville**	**45.55**	**332**	⇑P	**P**	**11 27 13.2**	**-0.9**
	baz=46						
LON	**Longmire**	**45.64**	**327**	*e*P	**P**	**11 27 22.2**	**+7.3**
A08A	**Turner Farm, O**	**45.85**	**331**	⇑P	**P**	**11 27 15.6**	**-0.9**
	baz=46						
C06A	**Tall Timber Ra**	**45.94**	**329**	⇓P	**P**	**11 27 17.1**	**-0.1**
	baz=46						
D05A	**Enumclaw**	**46.01**	**328**	⇓P	**P**	**11 27 17.6**	**-0.2**
	baz=46						
E04A	**Onalaska**	**46.02**	**327**	⇓P	**P**	**11 27 17.4**	**-0.5**
	baz=46						
C05A	**Tolt Reservoir**	**46.19**	**329**	⇓P	**P**	**11 27 18.2**	**-1.0**
	baz=46						
A07A	**Ashnola River,**	**46.45**	**331**	⇑P	**P**	**11 27 20.8**	**-0.4**
	baz=46						
E03A	**Lebam**	**46.45**	**326**	⇓P	**P**	**11 27 21.0**	**-0.2**
	baz=46						
CFAA	**Coronel Fontan**	**46.48**	**157**	P	**P**	**11 27 18.7**	**-3.0**
CFAA	**Coronel Fontan**	**46.48**	**157**	P	**P**	**11 27 18.7**	**-2.9**
	comp=Z,0.2nm,0.4s,baz=328,slow=5.9,SNR=4.8						
RPW	**Rockport**	**46.59**	**329**	P	**P**	**11 27 21.1**	**-1.2**
SCHQ	**Schefferville**	**46.62**	**17**	*e*P	**P**	**11 27 21.6**	**-0.8**
	comp=Z,12nm,1.1s,mb4.7						
SCHQ	**Schefferville**	**46.62**	**17**	P	**P**	**11 27 20.7**	**-1.7**
	comp=Z,4.4nm,0.9s,mb4.4,baz=229,slow=9.3,SNR=9.0						
B06A	**Marblemount**	**46.63**	**330**	⇓P	**P**	**11 27 21.9**	**-0.7**
	baz=47						
EDM	**Edmonton**	**46.67**	**339**	*e*P	**P**	**11 27 22.0**	**-0.9**
GNW	**Green Mountain**	**46.69**	**328**	*e*P	**P**	**11 27 22.4**	**-0.7**
B05A	**Bryant**	**46.77**	**329**	⇓P	**P**	**11 27 22.5**	**-1.2**
	baz=47						
C04A	**Brinnon**	**46.87**	**328**	⇑P	**P**	**11 27 23.7**	**-0.8**
	baz=47						
A06A	**Chilliwack**	**47.01**	**330**	⇓P	**P**	**11 27 24.8**	**-0.8**
	baz=47						
A05A	**Maple Falls**	**47.24**	**330**	⇑P	**P**	**11 27 27.2**	**-0.2**
	baz=47						
B04A	**Port Angeles**	**47.36**	**328**	P	**P**	**11 27 28.9**	**+0.6**
	baz=47,SNR=5.1						
FCC	**Fort Churchill**	**47.74**	**356**	*e*P	**P**	**11 27 29.4**	**-1.6**
	comp=Z,2.3nm,0.7s,mb4.3						
FCC	**Fort Churchill**	**47.74**	**356**	*e*P	**P**	**11 27 29.5**	**-1.6**
FCC				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
YKA	**Yellowknife Ar**	**54.75**	**345**	P	**P**	**11 28 22.3**	**-1.2**
YKA				PcP	PcP	11 29 26.1	+0.4
YKA				LR	LR	11 55 55.8	
YKA	**Yellowknife Ar**	**54.75**	**345**	P	**P**	**11 28 22.3**	**-1.3**
YKA						11 29 26.1	
YKA	**Yellowknife Ar**	**54.75**	**345**	P	**P**	**11 28 22.3**	**-1.2**
	comp=Z,6.1nm,0.9s,mb4.6,baz=139,slow=7.5,SNR=80						
YKA				PcP	PcP	11 29 26.0	+0.4
	comp=Z,1.8nm,0.8s,baz=143,slow=4.0,SNR=12						
YKA				LR	LR	11 55 55.8	
	comp=Z,62nm,18.2s,MS3.7,baz=160,slow=40						
DLBC	**Dease Lake**	**56.91**	**335**	*e*P	**P**	**11 28 39.4**	**+0.3**
RES	**Resolute Bay**	**63.63**	**358**	*e*P	**P**	**11 29 23.6**	**-1.2**
	comp=Z,225nm,0.8s						
RES	**Resolute Bay**	**63.63**	**358**	*e*P	**P**	**11 29 23.6**	**-1.2**
RES				pmax	pmax		
	comp=Z,225nm,0.8s						
INK	**Inuvik**	**64.32**	**343**	*e*P	**P**	**11 29 29.6**	**+0.2**
	comp=Z,1μm,1.2s						
INK	**Inuvik**	**64.32**	**343**	P	**P**	**11 29 29.0**	**-0.4**
INK				pmax	pmax		
	comp=Z,20nm,1.1s						
INK	**Inuvik**	**64.32**	**343**	P	**P**	**11 29 29.0**	**-0.4**
	comp=Z,20nm,1.1s,mb5.1,baz=134,slow=7.4,SNR=27						
EGAK	**Eagle**	**64.86**	**338**	*e*P	**P**	**11 29 32.8**	**-0.1**
	comp=Z,13nm,1.2s,mb4.8						
COLA	**College**	**67.47**	**336**	*e*P	**P**	**11 29 49.6**	**-0.1**
	comp=Z,14nm,1.3s,mb4.8						
COLA	**College**	**67.47**	**336**	*e*P	**P**	**11 29 49.6**	**-0.1**
COLA				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.8						
ESDC	**Sonseca Array**	**78.28**	**52**	P	**P**	**11 30 54.0**	**-0.2**
	comp=Z,1.2nm,0.7s,mb4.0,baz=289,slow=5.3,SNR=6.0						
MDT	**Midelt**	**78.39**	**59**	P	**P**	**11 30 55.1**	**+0.1**
	comp=Z,1.9nm,0.9s,mb4.0,baz=298,slow=6.7,SNR=3.6						
TIC	**Toumodi**	**81.72**	**85**	*e*P	**P**	**11 31 13.2**	**-0.1**
	comp=Z,7.3nm,0.2s,mb5.3						
LIC	**Lamto**	**81.78**	**85**	*e*P	**P**	**11 31 13.8**	**+0.1**
	comp=Z,48nm,1.3s,mb5.3						
KIC	**Kosan Boka**	**82.04**	**85**	*e*P	**P**	**11 31 15.1**	**+0.1**
	comp=Z,48nm,1.2s,mb5.3						
BILL	**Bilibino**	**85.58**	**339**	*e*P	**P**	**11 31 32.6**	**+0.6**
	comp=Z,7.9nm,0.8s,mb5.0						
BILL	**Bilibino**	**85.58**	**339**	⇑*e*P	**P**	**11 31 32.4**	**+0.4**
BILL				*e*		11 31 39.9	
BILL				*e*	pP	11 31 47.3	+1.4
BILL				pmax	pmax		
	comp=Z,17nm,1.9s,mb5.0						
TORD	**Torodi Ar. Bea**	**87.06**	**77**	P	**P**	**11 31 39.1**	**-1.2**
	comp=Z,0.5nm,0.5s,mb4.0,baz=296,slow=4.8,SNR=5.2						
GERES	**GERESS Array B**	**89.16**	**40**	P	**P**	**11 31 49.8**	**+0.1**
	comp=Z,0.5nm,0.5s,mb4.1,baz=236,slow=2.4,SNR=4.4						
SEY	**Seymchan**	**92.98**	**337**	*i* P	**P**	**11 32 07.1**	**0.0**
TIXI	**Tiksi**	**93.83**	**349**	*e*P	**P**	**11 32 10.6**	**-0.3**
	comp=Z,4.5nm,0.8s,mb5.0						
TIXI	**Tiksi**	**93.83**	**349**	⇓*e*P	**P**	**11 32 10.3**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb5.1						
SONM	**Songino Array**	**119.92**	**349**	PKIKP	PKPdf	11 37 43.1	-1.4
SONM	**Songino Array**	**119.92**	**349**	PKP	PKPdf	11 37 43.1	-1.4
	comp=Z,0.2nm,0.6s,baz=4.1,slow=1.4,SNR=5.1						
MKAR	**Makanchi Array**	**121.64**	**8**	PKIKP	PKPdf	11 37 46.2	-1.6
MKAR	**Makanchi Array**	**121.64**	**8**	PKP	PKPdf	11 37 46.2	-1.6
	comp=Z,0.4nm,0.8s,baz=298,slow=2.6,SNR=4.7						
WMQ	**Urumqi**	**125.14**	**4**	*e*PKP	PKPdf	11 37 55.2	+0.6
WMQ				LR	LR		
	comp=N,58nm,21.5s						
WMQ				LR	LR		
	comp=Z,48nm,17.0s,MS4.2						
HHC	**Hu-ho-hao-te**	**125.23**	**342**	*e*PKP	PKPdf	11 37 55.2	+0.3
HHC				XPKP		11 38 09.7	
HHC				PP	PP	11 39 49.0	+5.3
HHC				PKS		11 41 30.4	
HHC				SKS	SKSdf	11 45 02.9	-0.2
HHC				SKKS	SKKSac	11 46 36.8	-2.6
HHC				SS	SS	11 56 44.6	+7.8
HHC				PP	PP		
	comp=Z,50nm,5.8s						
HHC				LR	LR		
	comp=N,142nm,21.8s,MS4.9						
HHC				LR	LR		
	comp=E,207nm,19.0s,MS4.9						
HHC				LR	LR		
	comp=Z,121nm,19.0s,MS4.6						
NJ2	**Nanjing**	**130.02**	**330**	*e*PKP	PKPdf	11 38 08.0	+3.7
CD2	**Chengdu**	**136.72**	**345**	*e*PKP	PKPdf	11 38 18.3	+1.4
WRA	**Warramunga Arr**	**138.54**	**253**	PKIKP	PKPdf	11 38 19.6	-0.9
WRA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WRA	**Warramunga Arr**	**138.54**	**253**	PKP	PKPdf	11 38 19.6	-0.9
	comp=Z,1.7nm,0.7s,baz=93,slow=2.0,SNR=15						
GYA	**Guiyang**	**140.04**	**340**	*e*PDIF	Pdif	11 35 37.8	+0.7
GYA				PKP	PKPdf	11 38 24.5	+1.4
GYA				XPKP		11 38 43.5	
GYA				PP	PP	11 41 22.5	+3.8
GYA				PKS		11 41 59.0	
GYA				SKKS	SKKSac	11 48 07.6	-2.7
GYA				SS	SS	11 59 34.9	-1.9
GYA				PP	PP		
	comp=Z,110nm,7.6s						
GYA				LR	LR		
	comp=N,330nm,20.6s,MS5.2						
GYA				LR	LR		
	comp=E,240nm,21.5s,MS5.2						
GYA				LR	LR		
	comp=Z,220nm,21.4s,MS4.9						
KMI	**Kunming**	**142.50**	**344**	PKP	PKPdf	11 38 26.2	-1.4
KMI				XPKP		11 38 49.3	
HYB	**Hyderabad**	**148.58**	**26**	*i* PKP	PKPdf	11 38 40.0	+1.9

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*NEIC **01** 12:08:02.6, 16.49N×99.15W, h16^{km}, MD3.9(MEX), After MEX.*

MEX 01 12:07:59.3±0.8**, 1639N×9919W, h8**^{km}±12^{km}**, MD3.9, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ACX	**Acapulco**	**0.85**	**304**	*i* P	Pg	12 08 13.0	-2.6
ACX				*i* S	Sg	12 08 25.0	-1.6
PNIG	**Pinotepa**	**1.02**	**90**	*i* P	Pg	12 08 18.5	-0.4
PNIG				*i* S	Sg	12 08 29.2	-2.9
PNIG	**Pinotepa**	**1.02**	**90**	*i* P	Pg	12 08 16.7	-2.1
PNIG				*i* S	Sg	12 08 28.3	-3.8
CAIG	**El Cayaco**	**1.23**	**303**	*e*P	Pb	12 08 20.4	-2.4
CAIG				*i* S	Sb	12 08 34.6	-4.2
CAIG	**El Cayaco**	**1.23**	**303**	*e*P	Pb	12 08 19.8	-2.9
CAIG				*i* S	Sb	12 08 34.6	-4.2
UTMO	**Huajuapan**	**1.95**	**42**	*e*P	Pn	12 08 29.9	-2.9
UTMO				*i* S	Sn	12 08 52.6	-4.8
PLIG	**Platanillo**	**2.02**	**351**	*e*P	Pn	12 08 31.6	-2.1
PLIG				*i* S	Sn	12 08 54.0	-5.1
PLIG	**Platanillo**	**2.02**	**351**	*e*P	Pn	12 08 30.2	-3.5
PLIG				*i* S	Sn	12 08 55.9	-3.2
TPIG	**Tehuac#an**	**2.67**	**41**	*e*P	Pn	12 08 39.6	-3.0
TPIG				*i* S	Sn	12 09 11.8	-3.4
IIO	**Organos**	**3.22**	**8**	*i* P	Pn	12 08 49.7	-0.5
IIO				*i* S	Sn	12 09 24.7	-4.0

IDC 01 12:13:37.0±1.2**, 1484N×14597E, h0**^{km}**, mb3.5**/5**, mb1 3.8**/5**, mb1mx3.6**/17**, mbtmp3.6**/5**, Error ellipse: s-maj=45.5km s-min=20.2km az=109.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**1.64**	**221**	Pn	Pn	12 14 06.8	-0.3
	141nm,0.3s,baz=94,slow=2.4,SNR=69						
GUMO				Sn	Sn	12 14 22.1	-6.9
	70nm,0.3s,baz=87,slow=23,SNR=14						
MJAR	**Matsushiro Arr**	**22.70**	**344**	P	P	12 18 40.1	-0.1
	0.9nm,0.4s,baz=215,slow=5.6,SNR=4.5						
WRA	**Warramunga Arr**	**36.41**	**199**	P	P	12 20 43.7	+0.3
	0.5nm,0.9s,baz=24,slow=8.1,SNR=3.2						
MKAR	**Makanchi Array**	**61.34**	**315**	P	P	12 23 54.5	-0.1
	0.4nm,0.3s,baz=90,slow=8.9,SNR=8.3						
INK	**Inuvik**	**72.81**	**23**	P	P	12 25 07.6	+0.5
	0.6nm,0.7s,baz=249,slow=5.7,SNR=3.8						
YKA	**Yellowknife Ar**	**81.26**	**28**	P	P	12 25 54.5	-0.3
	0.2nm,0.4s,baz=283,slow=5.1,SNR=6.7						
FINES	**FINESS Array B**	**90.48**	**335**	P	P	12 26 37.5	-3.0
	3.1nm,1.1s,baz=46,slow=5.5,SNR=4.4						

GUC 01 12:14:16.8±0.5**, 3420S×7004W, h16**^{km}±5^{km}**, MD3.6, 1C-2D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CICH	**Cipreses**	**0.34**	**249**	⇑*i*P	Pg	12 14 23.8	-0.1
CICH				*i* S	Sg	12 14 29.3	+0.6
CHCH	**Chadas Angostu**	**0.58**	**297**	*e*P	Pg	12 14 27.5	-0.7
CHCH				*i* S	Sg	12 14 35.9	-0.1
FCH	**Farellones**	**0.90**	**346**	⇓*i*P	Pb	12 14 33.9	0.0
FCH				*i* S	Sb	12 14 47.5	+2.0
LNV	**Longovilo**	**1.17**	**282**	⇓*i*P	Pn	12 14 38.2	-0.2
LNV				*i* S	Sb	12 14 54.4	+1.0

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*ATH **01** 12:16:54.6, 4026N×2747E, h46^{km}, MD3.2/3*

*ISCJB **01** 12:16:55.9±0.7, 4026N±0.04×2721E±0.03, h6^{km}±7^{km}, Error ellipse: s-maj=7.1km s-min=4.2km az=166.4*

*CSEM **01** 12:16:55.9±0.1, 4029N×2721E, h10^{km}, MD3.0, Error ellipse: s-maj=1.7km s-min=1.3km az=4.0*

*ISK **01** 12:16:55.8, 4028N×2721E, h8^{km}, MD3.0*

ISC 01 12:16:56.4±0.7**, 4026N**±004×**2722E**±004**, h8**^{km}±6^{km}**, n30,** σ**0^{s}61**/39**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RKY	**Sarkoy-Tekirda**	**0.43**	**356**	PG	**Pg**	**12 17 04.4**	**-0.3**
RKY				SG	**Sg**	**12 17 10.8**	**+0.4**
RKY	**Sarkoy-Tekirda**	**0.43**	**356**	*e*Pg	**Pg**	**12 17 04.4**	**-0.3**
RKY				*e*Sg	**Sg**	**12 17 10.8**	**+0.4**
MRMT	**Marmara Adasi**	**0.45**	**40**	PG	**Pg**	**12 17 04.5**	**-0.6**
MRMT				SG	**Sg**	**12 17 11.1**	**+0.1**
MRMT	**Marmara Adasi**	**0.45**	**40**	*e*Pg	**Pg**	**12 17 04.5**	**-0.6**
MRMT				*e*Sg	**Sg**	**12 17 11.1**	**+0.1**
EDC	**Edincik**	**0.50**	**80**	PG	**Pg**	**12 17 06.4**	**+0.3**
EDC	**Edincik**	**0.50**	**80**	*e*Pg	**Pg**	**12 17 06.4**	**+0.3**
MFT	**Murefte**	**0.53**	**5**	PG	**Pg**	**12 17 05.9**	**-0.7**
MFT	**Murefte**	**0.53**	**5**	*e*Pg	**Pg**	**12 17 05.9**	**-0.7**
BNT	**Bandirma**	**0.55**	**80**	PG	**Pg**	**12 17 06.5**	**-0.4**
BNT				SG	**Sg**	**12 17 14.3**	**+0.3**
GADA	**Gvkgeada**	**1.01**	**267**	PG	**Pg**	**12 17 15.8**	**0.0**
GADA				SG	**Sg**	**12 17 30.0**	**+1.0**
GADA	**Gvkgeada**	**1.01**	**267**	*e*Pg	**Pg**	**12 17 15.8**	**0.0**
GADA				*e*Sg	**Sg**	**12 17 30.0**	**+1.0**
PRK	**Paraskevi**	**1.25**	**216**	*e*P	**Pn**	**12 17 18.7**	**-1.3**
PRK				*e*S	**Sb**	**12 17 35.5**	**-0.8**
DST	**Dursunbey**	**1.27**	**121**	PN	**Pn**	**12 17 20.2**	**-0.1**
DST	**Dursunbey**	**1.27**	**121**	*e*Pn	**Pn**	**12 17 20.2**	**-0.1**
CTT	**Catalca**	**1.28**	**46**	PN	**Pn**	**12 17 20.1**	**-0.4**
CTT	**Catalca**	**1.28**	**46**	*e*Pn	**Pn**	**12 17 20.1**	**-0.4**

AKS	Akhisar	1.45	161	PN	Pn	12 17 23.3	+0.4
AKS	Akhisar	1.45	161	ePn	Pn	12 17 23.3	+0.4
RDO	Rodhopi	1.56	305	eP	Pn	12 17 23.2	-1.1
LIA	Limnos Island	1.60	258	eP	Pn	12 17 26.0	+1.1
LIA				eS	Sn	12 17 46.3	+0.5
EDRB	Edirne	1.62	347	ePN	Pn	12 17 25.0	-0.2
EDRB	Edirne	1.62	347	ePn	Pn	12 17 25.0	-0.2
YLV	Yalova	1.67	79	ePN	Pn	12 17 26.2	+0.3
YLV	Yalova	1.67	79	ePn	Pn	12 17 26.2	+0.3
IZI	Iznik	1.73	87	ePN	Pn	12 17 27.0	+0.4
IZI	Iznik	1.73	87	ePn	Pn	12 17 27.0	+0.4
ADVT	Abdulvahap	1.93	84	ePN	Pn	12 17 30.0	+0.5
ADVT	Abdulvahap	1.93	84	ePn	Pn	12 17 30.0	+0.5
HRT	Hereke	1.95	72	ePN	Pn	12 17 30.2	+0.5
HRT	Hereke	1.95	72	ePn	Pn	12 17 30.2	+0.5

*CSEM **01** 12:18:21.8±0.9, 39.06N×29.44W, h0^{km}, ML2.8, Error ellipse: s-maj=7.1km s-min=5.0km az=55.0, After PDA*

*PDA **01** 12:18:21.8±0.9, 39.06N×29.44W, h0^{km}, MD3.5, ML2.8, Error ellipse: s-maj=7.1km s-min=5.0km az=55.0*

SVSA 01 12:18:21.8±0.9**, 39.06N×29.44W, h0^{km}, MD3.5, ML2.8, Error ellipse: s-maj=7.1km s-min=5.0km az=55.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCED	Cedros	0.72	126	eP	Pg	12 18 33.5	-2.0
PCED				eS	Sg	12 18 42.6	-2.2
PCED							
	164nm,0.1s						
PCED	Cedros	0.72	126	eP	Pg	12 18 33.5	-2.0
PCED				eS	Sg	12 18 42.6	-2.2
CALA	Caldeira	0.74	129	eP	Pg	12 18 34.9	-1.2
CALA				eS	Sg	12 18 44.0	-1.7
HOR	Horta	0.82	130	eS	Sg	12 18 46.0	-2.2
HOR	Horta	0.82	130	eS	Sg	12 18 46.0	-2.2
PCND	Candelaria	0.96	127	eS	Sg	12 18 49.4	-3.3
PCND							
	98nm,0.3s						
PICO	Pico	0.97	125	eP	Pg	12 18 37.8	-2.5
PICO				eS	Sg	12 18 50.0	-2.8
ROSA	Rosais	0.99	109	eP	Pg	12 18 37.7	-3.1
ROSA				eS	Sg	12 18 50.0	-3.7
PTEI	Pico do Teixo	1.01	123	eS	Sg	12 18 50.9	-3.5
PTEI							
	126nm,0.2s						
PBOI	Pico dos Bois	1.03	126	eS	Sg	12 18 51.6	-3.5
PBOI							
	70nm,0.1s						
PAMA	Santo Amaro	1.05	110	eS	Sg	12 18 51.6	-4.0
PAMA							
	35nm,0.2s						
PAMA	Santo Amaro	1.05	110	eS	Sg	12 18 51.6	-4.0
PPNO	Prainha do Nor	1.09	122	eP	Pg	12 18 39.5	-3.1
PPNO				eS	Sg	12 18 52.9	-3.8
PPNO							
	143nm,0.2s						
PPNO	Prainha do Nor	1.09	122	eP	Pg	12 18 39.5	-3.1
PPNO				eS	Sg	12 18 52.9	-3.8
PGRA	Graciosa	1.14	91	eS	Sg	12 18 53.8	-4.5
PGRA							
	35nm,0.3s						
PGRA	Graciosa	1.14	91	eS	Sg	12 18 53.8	-4.5
PMAN	Manadas	1.14	111	eS	Sg	12 18 53.5	-4.7
PMAN							
	132nm,0.1s						
PMAN	Manadas	1.14	111	eS	Sg	12 18 53.5	-4.7
PID	Ribeirinha	1.20	120	eP	Pg	12 18 40.5	-4.3
PID				eS	Sg	12 18 55.1	-5.2
PIED	Piedade	1.25	120	eP	Pg	12 18 41.6	-4.2
PIED				eS	Sg	12 18 56.8	-5.3

IDC 01 12:18:38.9±4.7**, 33.24S×77.81E, h0^{km}, mb3.7**/2**, mb1 4.0**/2**, mb1mx3.5**/15**, mbtmp3.7**/2**, MS3.7**/4**, Ms1 3.7**/4**, ms1mx3.2**/34**, Error ellipse: s-maj=173.8km s-min=47.5km az=33.0, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NWAO	Narrogin (SRO)	32.90	100	LR	LR	12 35 16.2	
	comp=Z,73nm,21.7s,baz=219,slow=30						
BOSA	Boshof	44.93	261	LR	LR	12 41 24.5	
	comp=Z,65nm,20.3s,baz=161,slow=30						
WRA	Warramunga Arr	51.70	90	P	P	12 27 48.0	0.0
	1.8nm,0.8s,baz=245,slow=7.3,SNR=7.6						
SNAA	Sanae	55.90	202	LR	LR	12 49 52.2	
	comp=Z,34nm,19.7s,baz=230,slow=34						
MKAR	Makanchi Array	79.77	3	P	P	12 30 49.0	+0.6
	0.2nm,0.8s,baz=184,slow=5.3,SNR=3.6						
MJAR	Matsushiro Arr	89.43	44	LR	LR	13 10 21.5	
	comp=Z,225nm,19.1s,baz=160,slow=35						
YKA	Yellowknife Ar	149.68	11	PKPbc	PKPbc	12 38 28.7	-1.0
	0.2nm,0.8s,baz=330,slow=3.6,SNR=3.3						

*NEIC **01** 12:33:47.1, 47.46S×165.58E, h33^{km}, ML3.9(WEL), After WEL.*

WEL 01 12:33:48.2±1.2**, 47.44S×165.71E, h33^{km}, ML3.8**/5**, Error ellipse: s-maj=12.1km s-min=10.4km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APZ	The Paps	1.67	69	PN	Pn	12 34 13.9	-1.2
APZ				SN	Sn	12 34 34.1	-1.3
WHZ	Wether Hill Ro	2.18	46	P	Pn	12 34 21.0	-1.2
WHZ	Wether Hill Ro	2.18	46	PN	Pn	12 34 21.0	-1.2
WHZ				SN	Sn	12 34 46.2	-1.9
DCZ	Deep Cove	2.20	27	eP	Pn	12 34 20.6	-1.9
SYZ	Scrubby Hill	2.51	70	PN	Pn	12 34 26.8	+0.1
MLZ	Mavora Lakes	2.70	40	eP	Pn	12 34 28.5	-0.8
MLZ	Mavora Lakes	2.70	40	PN	Pn	12 34 28.5	-0.8
TUZ	Tuapeka	3.08	63	P	Pn	12 34 33.7	-0.8
TUZ				S	Sn	12 35 09.2	-1.0
TUZ	Tuapeka	3.08	63	SN	Sn	12 35 09.2	-1.0
EAZ	Earnscleugh	3.33	50	eP	Pn	12 34 37.1	-0.9
EAZ	Earnscleugh	3.33	50	ePN	Pn	12 34 37.1	-0.8
WKZ	Wanaka	3.48	42	eP	Pn	12 34 40.2	+0.2
WKZ				S	Sn	12 35 20.0	-0.1
WKZ	Wanaka	3.48	42	PN	Pn	12 34 40.2	+0.2
ODZ	Otahua Downs	4.18	57	eP	Pn	12 34 47.2	-2.4
ODZ	Otahua Downs	4.18	57	PN	Pn	12 34 47.2	-2.4

MAN 01 12:45:13, 11.19N×121.99E, h9^{km}, mb4.5, ML3.4, MS3.2, 2C, Panay

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KALP	Kalibo	0.59	35	⇑eP	Pg	12 45 26.4	+1.9
KALP				eS	Sg	12 45 36.0	+3.8
RCP	Roxas	0.83	64	⇑eP	Pg	12 45 29.5	+0.6
LLP	Lapu-Lapu	2.13	114	eP	Pn	12 45 50.0	+1.2
LLP				eS	Sn	12 46 20.1	+4.8
SNPH	Sibulan	2.21	146	eP	Pn	12 45 51.5	+1.6
PAGZ	Pagadian	3.60	157	eP	Pn	12 46 13.1	+4.1

*IDC **01** 12:45:25.9±0.5, 1.01N×125.98E, h0^{km}, mb4.8/20, mb1 4.8/21, mb1mx4.8/23, mbtmp4.8/21, ML4.2/1, MS4.1/4, Ms1 4.1/4, ms1mx3.5/21, Error ellipse: s-maj=20.6km s-min=11.5km az=78.0*

*GCMT **01** 12:45:27.5±0.3, 0.92N×126.18E, h18^{km}, MW4.9/68, Moment Tensor Solution. s32,c39; s68,c80; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.77±.15; $M_{\theta\theta}$1.03±.09; $M_{\phi\phi}$1.74±.12; $M_{r\theta}$-1.40±.21; $M_{\theta\phi}$-0.92±.06; $M_{\phi r}$-0.00±.26; Best double couple: $M_0$2.87500×10^{16} NP1:ϕ_s339.00000°, δ38.00000°, λ-63.00000°. NP2: ϕ_s126.00000°, δ57.00000°, λ-110.00000°. Principal axes: T 2.5020, Plg10.0000°, Azm230.0000°; N 0.7450, Plg16.0000°, Azm137.0000°; P -3.2470, Plg71.0000°, Azm350.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **01** 12:45:27.5±0.2, 1.00N×126.01E, h10^{km}, mb5.0/24 Error ellipse: s-maj=9.1km s-min=4.3km az=71.0*

*BJI **01** 12:45:28.4, 0.78N×125.97E, h40^{km}, mB5.2, mb4.8, Ms4.6, Msz4.3*

*ISCJB **01** 12:45:29.4±0.2, 1.01N±0.03×126.14E±0.04, h35^{km}, mb5.0/75, MS4.2/14, Error ellipse: s-maj=6.3km s-min=4.4km az=160.4*

*MOS **01** 12:45:29.7±1.1, 1.05N×125.89E, h33^{km}, mb5.1/24, Error ellipse: s-maj=14.9km s-min=7.6km az=106.7*

ISC 01 12:45:31.5±0.2**, 0.99N**±0.03**×126.15E**±0.04**, h37^{km}, h37^{km}**±2.8^{km}**:pP-P, n179, $\sigma 1^{s}32$**/173**, mb5.0**/75**, MS4.2**/14**, 11C-13D, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAI	Ambon	5.07	156	P	Pn	12 46 47.6	+2.6
	120nm,1.2s						
MATI	Mati	5.92	1	eP	Pn	12 46 56.8	+0.1
PCI	Palu	6.59	253	P	Pn	12 47 07.1	+1.2
	244nm,1.2s						
BUKP	Musuan	6.93	351	eP	Pn	12 47 13.5	+2.9
MYLDM	Lahad Datu	8.70	299	⇓P	Pn	12 47 37.5	+2.6
TSM	Tawau	8.90	292	⇓P	Pn	12 47 38.9	+1.3
SDKM	Sandakan	10.06	298	⇓P	Pn	12 47 56.1	+2.5
KDM	Kudat	11.00	303	⇓P	Pn	12 48 08.7	+2.2
KKM	Kota Kinabalu	11.12	297	ePn	Pn	12 48 09.8	+1.8
KKM	Kota Kinabalu	11.12	297	⇑P	Pn	12 48 12.1	+4.0
SBUM	Sibu	14.00	276	⇑P	Pn	12 48 52.9	+5.4
KMMI	Kalianget	14.54	237	P	Pn	12 49 02.6	+7.7
	246nm,1.4s						
KAKA	Kakadu	14.97	156	eP	Pn	12 48 58.4	-2.1
	45nm,0.9s						
KAKA				e		12 49 06.8	
KSM	Kuching	15.85	272	eP	Pn	12 49 14.3	+2.4
KSM	Kuching	15.85	272	⇓P	Pn	12 49 16.9	+4.9
KRKI	Karangkates	16.40	236	P	Pn	12 49 22.9	+3.8
	370nm,1.4s						
BJII	Banjamegara	18.37	243	P	Pn	12 49 45.8	+2.4
	90nm,2.0s						
FITZ	Fitzroy Crossi	18.97	182	eP	Pn	12 49 49.3	-1.4
	51nm,0.9s						
FITZ				e		12 49 58.9	
FITZ	Fitzroy Crossi	18.97	182	P	Pn	12 49 48.0	-2.7
	0.5nm,0.3s,baz=20,slow=12,SNR=19						
WRA	Warramunga Arr	22.29	159	iP	P	12 50 24.0	-1.7
WRA				pmax	pmax		
	comp=Z,70nm,0.6s						
WRA	Warramunga Arr	22.29	159	P	P	12 50 24.9	-0.8
	comp=Z,70nm,0.6s,mb5.3,baz=338,slow=11,SNR=354						
WB2	Warramunga Arr	22.30	159	eP	P	12 50 24.9	-0.9
WB2				e		12 50 30.5	
MYKOM	Kota Tinggi	22.31	272	⇑P	P	12 50 26.8	+0.8
GUMO	Guam	22.36	55	LR	LR	12 58 00.8	
	comp=Z,410nm,19.9s,MS3.9,baz=343,slow=34						
KGM	Kluang	22.85	273	⇓P	P	12 50 33.2	+1.4
PMG	Port Moresby	23.33	117	eP	P	12 50 36.6	-0.2
	comp=Z,27nm,0.9s,mb4.7						
PMG	Port Moresby	23.33	117	eP	P	12 50 36.6	-0.2
PMG				pmax	pmax		
	comp=Z,27nm,0.9s						
PMG	Port Moresby	23.33	117	P	P	12 50 36.5	-0.2
	comp=Z,30nm,1.0s,mb4.7,baz=269,slow=9.3,SNR=8.4						
KTGM	Kuala Trenggan	23.38	281	⇓P	P	12 50 37.7	+0.3
QIZ	Qiongzhong	24.03	319	⇑P	P	12 50 44.5	+1.4
QIZ				AP		12 50 51.3	
QIZ				S	S	12 54 58.0	0.0
QIZ				XS	sS	12 55 13.9	-1.2
QIZ				AMB	AMB		
	comp=Z,43nm,1.6s,mb4.6						
QIZ				AMB	AMB		
	comp=Z,462nm,3.2s						
QIZ				LR	LR		
	comp=N,406nm,11.3s						
QIZ				LR	LR		
	comp=Z,490nm,21.2s						
FRIM	Kepong	24.61	276	⇓P	P	12 50 48.8	+0.2
IPM	Ipoh	25.33	278	⇓P	P	12 50 54.6	-0.6
JOW	Kunigami	25.78	4	P	P	12 50 59.4	+0.3
	comp=Z,38nm,0.7s,mb5.0,baz=144,slow=19,SNR=2.7						
KULM	Kulim	25.81	280	eP	P	12 50 57.6	-1.9
KULM	Kulim	25.81	280	⇓P	P	12 50 59.4	-0.1
PSI	Prapat	27.27	274	P	P	12 51 11.0	-1.7
	comp=Z,21nm,0.8s,mb4.7,baz=83,slow=6.1,SNR=13						
SSE	Sheshan	30.31	352	P	P	12 51 41.1	+1.6
SSE				S	S	12 56 40.3	+3.1
SSE				XS	sS	12 56 59.4	+4.9
SSE				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.1						
SSE				AMB	AMB		
	comp=Z,290nm,4.6s						
SSE				LR	LR		
	comp=N,134nm,23.4s,MS3.6						
SSE				LR	LR		
	comp=E,107nm,23.4s,MS3.6						
SSE				LR	LR		
	comp=Z,208nm,21.7s,MS3.7						
GYA	Guiyang	31.51	325	P	P	12 51 49.0	-1.1
GYA				AP	pP	12 52 02.4	+1.8
GYA				XP	sP	12 52 06.5	+1.5
GYA				PP	PP	12 52 57.5	-4.3
GYA				PPP		12 53 12.9	
GYA				PCP	PcP	12 54 44.9	+2.3
GYA				S	S	12 56 53.0	-3.1
GYA				XS	sS	12 57 14.7	+1.3
GYA				SCP	ScP	12 58 23.6	+0.5
GYA				PCS	PcS	12 58 27.7	+0.6
GYA				SS	SS	12 58 47.5	-25
GYA				SCS	ScS	13 02 20.0	-1.0
GYA				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.1						
GYA				AMB	AMB		
	comp=Z,140nm,5.7s						
GYA				LR	LR		
	comp=N,670nm,19.8s,MS4.5						
GYA				LR	LR		
	comp=E,640nm,20.8s,MS4.5						
GYA				LR	LR		
	comp=Z,610nm,21.0s,MS4.2						
FORT	Forrest	31.64	177	eP	P	12 51 51.6	+0.4
	comp=Z,147nm,0.8s,mb5.9						
NJ2	Nanjing	31.66	348	eP	P	12 51 52.7	+1.4
NJ2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.9						
KMI	Kunming	32.97	319	P	P	12 52 04.1	+1.1
KMI				AP	pP	12 52 15.6	+2.2
KMI				XP	sP	12 52 20.2	+2.4
KMI				S	S	12 57 21.0	+2.1
KMI				AMB	AMB		
	comp=Z,14nm,1.5s,mb4.7						
KMI				LR	LR		
	comp=N,170nm,17.6s,MS4.0						
KMI				LR	LR		
	comp=E,230nm,20.3s,MS4.0						
KMI				LR	LR		
	comp=Z,384nm,20.9s,MS4.1						
KLBR	Kellerberrin	33.36	193	eP	P	12 52 06.2	-0.1
	comp=Z,27nm,0.8s,mb5.2						
MUN	Mundaring	34.11	195	eP	P	12 52 12.6	-0.2
NWAO	Narrogin (SRO)	34.76	193	eP	P	12 52 18.7	+0.3
	comp=Z,18nm,0.9s,mb5.0						
NWAO	Narrogin (SRO)	34.76	193	eP	P	12 52 18.7	+0.3
NWAO				pmax	pmax		
	comp=Z,18nm,0.9s						
NWAO	Narrogin (SRO)	34.76	193	P	P	12 52 18.8	+0.3
	comp=Z,23nm,1.0s,mb5.0,baz=328,slow=4.2,SNR=7.2						
STKA	Stephens Creek	35.81	157	eP	P	12 52 27.7	+0.3
	comp=Z,58nm,0.9s,mb5.5						
STKA	Stephens Creek	35.81	157	P	P	12 52 28.2	+0.8
	comp=Z,74nm,0.8s,mb5.6,baz=330,slow=8.5,SNR=134						
STKA				PcP	PcP	12 54 55.4	+0.7
	comp=Z,3.1nm,0.5s,baz=72,slow=3.2,SNR=3.7						
KSRS	Korea Array	36.33	2	P	P	12 52 32.2	+0.4
	comp=Z,2.5nm,0.6s,mb4.3,baz=179,slow=9.7,SNR=10.0						
KSRS				PcP	PcP	12 54 57.5	+1.4
	comp=Z,2.7nm,0.8s,baz=181,slow=1.5,SNR=5.9						
CD2	Chengdu	36.55	327	⇑iP	P	12 52 32.6	-1.2
CD2				PP	PP	12 53 58.0	+0.5
CD2				S	S	12 58 15.8	+1.8
CD2				SS	SS	13 00 43.3	-12
CD2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.8						
CD2				AMB	AMB		
	comp=Z,40nm,7.2s						
CD2				LR	LR		
	comp=N,430nm,16.8s,MS4.4						
CD2				LR	LR		
	comp=E,370nm,15.6s,MS4.4						
CD2				LR	LR		
	comp=Z,410nm,16.8s,MS4.3						
XAN	Xi’an	36.63	336	P	P	12 52 32.6	-1.8
XAN				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.6						
MJAR	Matsushiro Arr	37.10	16	P	P	12 52 38.6	+0.2
	comp=Z,5.7nm,0.4s,mb4.8,baz=186,slow=8.9,SNR=24						
MAT	Matsushiro	37.10	16	P	P	12 52 38.2	-0.2
ARMA	Armidale	39.55	144	eP	P	12 53 00.4	+1.3
BJI	Beijing	39.92	348	P	P	12 53 01.3	-0.7
BJI				S	S	12 59 12.5	+7.9
BJI				AMB	AMB		
	comp=Z,8.0nm,0.6s,mb4.6						
BJI				LR	LR		
	comp=N,131nm,16.2s						
BJI				LR	LR		
	comp=E,126nm,22.4s						
BJI				LR	LR		
	comp=Z,379nm,30.5s						
LZH	Lanzhou	40.60	332	eP	P	12 53 08.0	+0.3
LZH				AP	pP	12 53 18.5	+0.2
LZH				XP	sP	12 53 22.0	-0.7
LZH				PP	PP	12 54 44.0	+2.3
LZH				PCP	PcP	12 55 11.5	+2.1
LZH				eS	S	12 59 14.2	-0.7
LZH				AMB	AMB		
	comp=Z,28nm,1.0s,mb4.8						
LZH				AMB	AMB		
	comp=Z,140nm,4.8s						
LZH				LR	LR		
	comp=E,1μm,14.4s						
LZH				LR	LR		
	comp=Z,1μm,16.0s,MS4.9						
SNY	Shenyang	40.72	357	⇑P	P	12 53 09.5	+0.9
SNY				AP	pP	12 53 19.0	-0.3
SNY				XP	sP	12 53 22.9	-0.8
SNY				AMB	AMB		
	comp=Z,24nm,0.9s,mb4.8						
SNY				AMB	AMB		
	comp=Z,539nm,4.7s						
SNY				LR	LR		
	comp=E,433nm,19.3s						
SNY				LR	LR		
	comp=Z,479nm,23.1s,MS4.3						
HHC	Hu-ho-hao-te	41.83	343	eP	P	12 53 19.9	+2.2
HHC				AP	pP	12 53 29.7	+1.3
HHC				XP	sP	12 53 33.7	+0.9
HHC				PP	PP	12 55 00.7	+5.7
HHC				PCP	PcP	12 55 16.8	+3.5
HHC				SCP	ScP	12 59 02.7	+1.7
HHC				PCS	PcS	12 59 06.8	+2.1
HHC				S	S	12 59 36.5	+3.5
HHC				XS	sS	12 59 53.8	+3.2
HHC				SS	SS	13 02 38.8	-1.4
HHC				SCS	ScS	13 03 18.3	+0.4
HHC				AMB	AMB		
	comp=Z,11nm,0.6s,mb4.7						
HHC				AMB	AMB		
	comp=Z,146nm,4.6s						
HHC				LR	LR		
	comp=N,211nm,19.9s,MS4.2						
HHC				LR	LR		
	comp=E,206nm,19.0s,MS4.2						
HHC				LR	LR		
	comp=Z,243nm,23.7s,MS4.0						
CNB	Canberra Magne	42.12	151	eP	P	12 53 21.9	+1.7
	comp=Z,24nm,1.1s,mb4.8						
TOO	Toolangi	42.33	157	eP	P	12 53 23.9	+2.0
	comp=Z,15nm,1.1s,mb4.5						
TOO	Toolangi	42.33	157	eP	P	12 53 23.9	+2.0
TOO				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.5						
CN2	Changchun	42.63	359	eP	P	12 53 27.3	+3.0
CN2				eS	S	12 59 48.8	+4.0
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
MDJ	Mudanjiang	43.55	4	P	P	12 53 31.0	-0.7
MDJ				AP	pP	12 53 39.7	-2.7
MDJ				XP	sP	12 53 43.4	-3.3
MDJ				SCP	ScP	12 59 07.8	0.0
MDJ				PCS	PcS	12 59 11.5	0.0
MDJ				S	S	12 59 58.0	-0.2
MDJ				AMB	AMB		
	comp=Z,11nm,2.1s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,135nm,4.6s						
MDJ				LR	LR		
	comp=N,105nm,38.4s						
MDJ				LR	LR		
	comp=E,54nm,31.8s						
MDJ				LR	LR		
	comp=Z,125nm,36.7s,MS3.5						
MDJ	Mudanjiang	43.55	4	eP	P	12 53 32.8	+1.1
	comp=Z,28nm,1.1s,mb4.9						
LSA	Lhasa	43.86	314	P	P	12 53 34.2	-0.2
LSA	Lhasa	43.86	314	eP	P	12 53 34.6	+0.1
	comp=Z,7.5nm,0.8s,mb4.5						
LSA	Lhasa	43.86	314	eP	P	12 53 34.6	+0.2
LSA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
GTA	Gaotai	45.17	331	eP	P	12 53 44.2	-0.5
GTA				AP	pP	12 53 54.2	-1.3
GTA				XP	sP	12 53 58.1	-1.7
GTA				PCP	PcP	12 55 25.7	+1.1
GTA				PP	PP	12 55 29.4	-1.5
GTA				S	S	13 00 22.1	+0.1
GTA				XS	sS	13 00 36.2	-3.5
GTA				SS	SS	13 03 36.1	-10
GTA				AMB	AMB		
	comp=Z,2.0nm,0.8s,mb4.0						
GTA				AMB	AMB		
	comp=Z,133nm,8.4s						
GTA				LR	LR		
	comp=N,248nm,16.7s,MS4.4						
GTA				LR	LR		
	comp=E,241nm,16.0s,MS4.4						
GTA				LR	LR		
	comp=Z,263nm,17.1s,MS4.2						
TAPN	Taplejung	45.22	309	eP	P	12 53 44.1	-1.2
ODAN	Odare	45.24	308	eP	P	12 53 44.2	-1.3
	comp=Z,24nm,0.7s,mb5.1						
ASAJ	Asahikawa	45.37	17	P	P	12 53 46.2	+0.1
	comp=Z,32nm,1.2s,mb5.0,baz=236,slow=14,SNR=7.2						
JIRN	Jiri	46.56	308	eP	P	12 53 54.5	-1.4
	comp=Z,23nm,0.7s,mb5.2						
GUN	Gumba	46.92	308	eP	P	12 53 57.3	-1.4
	comp=Z,41nm,0.7s,mb5.5						
PKI	Pulchoki	47.13	308	eP	P	12 53 59.5	-0.8
KKN	Kakani	47.33	308	eP	P	12 54 00.0	-1.9
	comp=Z,16nm,0.7s,mb5.0						
DMN	Daman	47.39	308	eP	P	12 54 00.7	-1.7
	comp=Z,31nm,0.9s,mb5.2						
HABR	Khabarovsk	47.92	8	eP	P	12 54 06.8	+0.7
HABR				eS	S	13 01 04.6	+3.5
HABR				e		13 03 57.9	
GKN	Gorkha	47.94	308	eP	P	12 54 04.8	-1.8
	comp=Z,30nm,0.9s,mb5.3						
KLR	Kul’dur	48.30	5	eP	P	12 54 06.2	-2.8
KLR				pmax	pmax		
	comp=Z,33nm,1.4s,mb5.2						
HIA	Hailar	48.41	354	eP	P	12 54 10.1	+0.2
	comp=Z,11nm,0.9s,mb4.9						
HIA	Hailar	48.41	354	eP	P	12 54 10.1	+0.2
HIA				pmax	pmax		
	comp=Z,11nm,0.9s						
KOLN	Koldanda	48.66	307	eP	P	12 54 10.8	-1.4
	comp=Z,54nm,0.7s,mb5.7						
ULN	Ulaanbaatar	49.55	343	eP	P	12 54 18.2	-0.4
	comp=Z,11nm,1.1s,mb4.8						
ULN	Ulaanbaatar	49.55	343	eP	P	12 54 18.2	-0.4
ULN				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.8						
SONM	Songino Array	49.71	343	P	P	12 54 18.9	-1.0
SONM				PcP	PcP	12 55 41.3	+0.7
SONM				LR	LR	13 16 57.0	
SONM	Songino Array	49.71	343	P	P	12 54 18.9	-1.0
SONM						12 55 41.3	
SONM	Songino Array	49.71	343	P	P	12 54 18.9	-1.0
	comp=Z,4.8nm,0.8s,mb4.6,baz=155,slow=7.7,SNR=21						
SONM				PcP	PcP	12 55 41.3	+0.7
	comp=Z,2.4nm,0.7s,baz=168,slow=4.4,SNR=4.7						
SONM				LR	LR	13 16 57.0	
	comp=Z,164nm,20.4s,MS4.0,baz=163,slow=38						
CIT	Chita	51.95	350	eP	P	12 54 37.4	+0.8
CIT				e	pP	12 54 47.3	-0.2

CIT				e		12 55 48.7	
ZAK	Zakamensk	52.92	342	eP	P	12 54 42.8	-1.1
ZAK				e		12 55 53.4	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.0						
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
WMQ	Urumqi	54.65	327	P	P	12 54 57.9	+1.2
WMQ				PCP	PcP	12 56 01.2	+1.9
WMQ				PP	PP	12 57 01.9	+2.4
WMQ				SCS	ScS	13 04 43.3	+0.2
WMQ				SS	SS	13 06 16.9	-0.6
WMQ				AMB	AMB		
	comp=Z,14nm,1.0s,mb5.0						
WMQ				AMB	AMB		
	comp=Z,46nm,7.4s						
WMQ				LR	LR		
	comp=N,209nm,22.4s,MS4.3						
WMQ				LR	LR		
	comp=E,163nm,22.4s,MS4.3						
WMQ				LR	LR		
	comp=Z,219nm,21.2s,MS4.2						
MOY	Mondy	54.76	341	eP	P	12 54 59.8	+2.5
CLNS	Chul'man	55.69	359	eP	P	12 55 04.6	+0.7
CLNS				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
CLNS				pmax	pmax		
	comp=N,9.0nm,0.7s						
CLNS				pmax	pmax		
	comp=E,11nm,1.1s						
BOD	Bodaibo	57.48	352	eP	P	12 55 16.6	0.0
BOD				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.0						
PET	Petropavlovsk	58.47	22	⇑eP	P	12 55 25.7	+2.1
PET				pmax	pmax		
	comp=Z,33nm,1.9s,mb5.0						
MK31	Makanchi Array	59.49	326	eP	P	12 55 29.7	-1.2
MKAR	Makanchi Array	59.49	326	P	P	12 55 29.7	-1.2
MKAR	Makanchi Array	59.49	326	P	P	12 55 29.7	-1.2
	comp=Z,6.1nm,0.7s,mb4.8,baz=120,slow=7.6,SNR=57						
KSH	Kashi	59.59	316	eP	P	12 55 36.4	+4.7
KSH				eAP	pP	12 55 41.2	-1.6
KSH				eXP	sP	12 55 44.4	-2.7
KSH				ePPP		12 59 16.1	
KSH				eS	S	13 03 43.6	+4.2
KSH				eXS	sS	13 03 53.1	-4.6
KSH				LR	LR		
	comp=N,431nm,4.2s						
KSH				LR	LR		
	comp=E,403nm,5.8s						
KSH				LR	LR		
	comp=Z,263nm,5.4s						
YAK	Yakutsk	60.95	2	eP	P	12 55 41.4	+0.8
	comp=Z,28nm,0.7s,mb5.5						
YAK	Yakutsk	60.95	2	⇓eP	P	12 55 40.8	+0.3
YAK				pmax	pmax		
	comp=Z,54nm,1.3s,mb5.5						
KZA	Kyzart	61.26	319	P	P	12 55 44.6	+1.6
	SNR=16						
TKM2	Tokmak 2	61.43	320	P	P	12 55 45.0	+0.8
	SNR=12						
TKM2	Tokmak 2	61.43	320	eP	P	12 55 43.6	-0.6
	comp=Z,8.5nm,0.8s,mb4.9						
TKM2	Tokmak 2	61.43	320	eP	P	12 55 43.6	-0.6
TKM2				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb5.0						
MA2	Magadan	61.49	14	eP	P	12 55 44.1	-0.2
	comp=Z,43nm,1.4s,mb5.4						
MA2	Magadan	61.49	14	eP	P	12 55 46.1	+1.9
MA2				e		12 56 27.6	
MA2				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.5						
MA2				pmax	pmax		
	comp=N,20nm,1.3s						
UCH	Uchtor	61.81	319	P	P	12 55 48.4	+1.6
	SNR=21						
UCH	Uchtor	61.81	319	eP	P	12 55 47.0	+0.2
	comp=N,463nm,0.6s						
AAK	Ala-Archa	62.01	319	eP	P	12 55 46.8	-1.3
	comp=N,6.2nm,1.0s,mb4.7						
AAK	Ala-Archa	62.01	319	eP	P	12 55 46.8	-1.3
AAK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
USP	Ospenovka	62.30	320	P	P	12 55 50.6	+0.5
	SNR=12						
AML	Almayashu	62.31	318	P	P	12 55 49.9	-0.3
	SNR=19						
AML	Almayashu	62.31	318	eP	P	12 55 50.1	-0.1
	comp=Z,121nm,0.6s						
EKS2	Erkin-Say	62.50	319	P	P	12 55 52.4	+1.1
	SNR=9.2						
EKS2	Erkin-Say	62.50	319	eP	P	12 55 51.0	-0.4
	comp=Z,9.8nm,0.9s,mb4.9						
KBL	Kabul	62.75	309	eP	P	12 55 51.8	-1.5
ZALV	Zalesovo Beam	62.77	334	P	P	12 55 51.9	-1.0
	comp=Z,3.1nm,0.6s,mb4.6,baz=140,slow=6.5,SNR=18						
ZAL	Zalesovo	62.77	334	P	P	12 55 51.9	-1.0
KURK	Kurchatov	63.75	328	P	P	12 55 58.3	-1.2
	comp=Z,220nm,0.7s,SNR=6.3						
KURK	Kurchatov	63.75	328	eP	P	12 55 58.8	-0.6
	comp=Z,24nm,0.8s,mb5.3						
KURK	Kurchatov	63.75	328	eP	P	12 55 58.8	-0.7
KURK				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.3						
NVS	Novosibirsk	64.06	334	eP	P	12 55 59.4	-2.0
NVS				pmax	pmax		
	comp=N,9.0nm,1.2s						
NVS				pmax	pmax		
	comp=E,8.0nm,1.2s						
NVS				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.9						
SEY	Seymchan	64.82	13	⇓iP	P	12 56 08.2	+1.9
BRVK	Borovoye	69.38	328	P	P	12 56 34.6	-0.8
	comp=Z,80nm,1.2s,mb5.5,SNR=8.4						
TIXI	Tiksi	70.58	1	eP	P	12 56 42.6	+0.2
	comp=Z,10nm,0.7s,mb4.9						
TIXI	Tiksi	70.58	1	eP	P	12 56 39.5	-2.9
TIXI				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
BILL	Bilibino	72.34	15	⇑iP	P	12 56 54.3	+1.2
BILL				e		12 56 59.8	
BILL						12 57 14.0	
BILL				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.5						
AKTK	Aktyubinsk	75.45	322	P	P	12 57 10.3	-1.3
AKTO	Aktyubinsk	75.45	322	P	P	12 57 10.3	-1.3
	comp=Z,4.5nm,0.7s,mb4.5,baz=105,slow=7.6,SNR=13						
ARU	Arti	76.94	328	P	P	12 57 19.5	-0.5
	comp=Z,117nm,0.7s,mb5.9,SNR=6.0						
ARU	Arti	76.94	328	eP	P	12 57 19.1	-0.9
	comp=Z,16nm,0.8s,mb5.0						
ARU	Arti	76.94	328	⇑iP	P	12 57 18.6	-1.4
ARU				e		13 00 10.9	
ARU				ePPP		13 01 59.7	
ARU				eS	S	13 07 03.4	-2.0
ARU				eSSS		13 15 21.4	
ARU				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
QRN	Al-Qurain	79.21	299	eP	P	12 57 31.2	-2.0
QRN				AMb	AMB	12 57 38.2	
	comp=Z,97nm,1.3s,mb5.6						
MIB	Mutribah	79.80	300	eP	P	12 57 34.6	-1.8
MIB				AMb	AMB	12 57 37.1	
	comp=Z,48nm,0.7s,mb5.5						
NAY	Al-Naaiem	79.84	299	eP	P	12 57 34.2	-2.5
NAY				AMb	AMB	12 57 39.5	
	comp=Z,21nm,1.0s,mb5.0						
RST	Umm Al-Ruwaisa	80.07	300	eP	P	12 57 35.8	-2.1
RST				AMb	AMB	12 57 38.2	
	comp=Z,49nm,0.8s,mb5.5						
VNDA	Vanda	80.80	173	eP	P	12 57 40.8	0.0
	comp=Z,16nm,0.8s,mb5.0						
VNDA	Vanda	80.80	173	eP	P	12 57 40.8	0.0
VNDA				pmax	pmax		
	comp=Z,16nm,0.8s						
VNDA	Vanda	80.80	173	P	P	12 57 41.1	+0.3
	comp=Z,17nm,0.8s,mb5.0,baz=312,slow=5.7,SNR=28						
MAW	Mawson	81.00	200	P	P	12 57 43.2	+1.2
	comp=Z,5.9nm,1.1s,mb4.4,baz=41,slow=10,SNR=4.5						
ZEI	Tsey	83.64	313	eP	P	12 57 56.2	-0.2
ZEI				i		12 58 03.1	
ZEI				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.3						
KIV	Kislovodsk	84.61	314	eP	P	12 58 03.7	+2.4
KIV				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb5.0						
PRGR	Permogore	84.63	332	⇓iP	P	12 58 00.3	-0.7
PRGR				eS	S	13 08 15.8	-10
PRGR				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.3						
VRHR	Novokhopersk	85.79	321	c iP	P	12 58 06.7	-0.3
VRHR				pmax	pmax		
	comp=Z,40nm,0.5s,mb5.9						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.4s						
VRHR				pmax	pmax		
	comp=E,20nm,0.5s						
ANN	Anapa	88.40	315	eP	P	12 58 18.9	-0.9
ANN				e		13 08 44.9	
ANN				pmax	pmax		
	comp=Z,381nm,1.6s						
ASF	Jabal al Asfar	88.85	302	P	P	12 58 22.2	-0.1
	comp=Z,11nm,0.8s,mb5.3,baz=313,slow=3.7,SNR=19						
KMBO	Kilima Mbogo	88.92	269	eP	P	12 58 23.9	+1.0
	comp=Z,29nm,1.5s,mb5.4						
KMBO	Kilima Mbogo	88.92	269	eP	P	12 58 24.0	+1.0
KMBO				pmax	pmax		
	comp=Z,29nm,1.5s						
KMBO	Kilima Mbogo	88.92	269	P	P	12 58 23.5	+0.5
	comp=Z,4.3nm,0.7s,mb4.9,baz=58,slow=9.7,SNR=16						
KMBO				LR	LR	13 34 46.6	
	comp=Z,111nm,20.1s,MS4.3,baz=91,slow=33						
OBN	Obninsk	88.96	325	⇑P	P	12 58 22.0	-0.2
OBN				e		12 58 29.0	
OBN				pmax	pmax		
	comp=Z,12nm,1.2s,mb5.1						
SYO	Syowa Base	89.67	201	⇑epP	P	12 58 29.4	+4.1
QSPA	South Pole Qui	90.91	180	eP	P	12 58 32.6	+1.7
	comp=Z,12nm,0.9s,mb5.2						
DAWY	Dawson	91.08	26	eP	P	12 58 33.5	+1.6
BRTR	Keskin Array B	91.31	310	P	P	12 58 32.9	-0.7
	baz=207,slow=19						
ARCES	ARCESS Array B	92.81	340	P	P	12 58 38.0	-1.8
	comp=Z,4.9nm,0.9s,mb4.9,baz=64,slow=5.5,SNR=4.9						
INK	Inuvik	92.91	21	eP	P	12 58 40.1	-0.2
	comp=Z,310nm,1.3s						
INK	Inuvik	92.91	21	eP	P	12 58 40.1	-0.2
INK				pmax	pmax		
	comp=Z,310nm,1.3s						
AKASG	Malin Array Be	93.64	321	P	P	12 58 42.7	-1.3
AKASG	Malin Array Be	93.64	321	P	P	12 58 42.7	-1.3
	comp=Z,1.4nm,0.6s,mb4.6,baz=68,slow=4.8,SNR=6.6						
FINES	FINESS Array B	93.96	332	i P	P	12 58 49.0	+3.7
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
FINES	FINESS Array B	93.96	332	P	P	12 58 43.8	-1.5
	comp=Z,1.8nm,0.9s,mb4.5,baz=170,slow=1.2,SNR=3.5						
BOSA	Boshof	100.04	241	LR	LR	13 39 34.8	
	comp=Z,134nm,22.0s,MS4.4,baz=103,slow=32						
YKA	Yellowknife Ar	102.22	24	i P	Pdif	12 59 23.6	+1.0
YKA	Yellowknife Ar	102.22	24	P	Pdif	12 59 22.0	-0.5
	comp=Z,0.4nm,0.8s,baz=294,slow=4.6,SNR=6.4						
YKA				PKKPbc	PKKPbc	13 15 24.7	-2.8
	comp=Z,0.3nm,0.8s,baz=122,slow=2.8,SNR=5.8						
PDAR	Pinedale Array	113.78	42	PKKPbc	PKKPbc	13 14 48.9	-1.6
	comp=Z,0.9nm,1.1s,baz=325,slow=1.1,SNR=3.5						
ULM	Lac du Bonnet	117.63	29	PKP	PKPdf	13 04 13.2	-0.5
ULM	Lac du Bonnet	117.63	29	PKP	PKPdf	13 04 13.2	-0.5
	comp=Z,2.5nm,0.9s,baz=317,slow=3.4,SNR=7.0						
TORD	Torodi Ar. Bea	123.18	286	PKP	PKPdf	13 04 25.6	+0.3
TORD				PKKPbc	PKKPbc	13 14 17.4	+1.7
TORD	Torodi Ar. Bea	123.18	286	PKP	PKPdf	13 04 25.6	+0.3
	comp=Z,1.9nm,0.9s,baz=92,slow=1.6,SNR=8.3						
TORD				PKKPbc	PKKPbc	13 14 17.4	+1.7
	comp=Z,1.2nm,0.8s,baz=269,slow=2.8,SNR=7.1						
SCHQ	Schefferville	123.35	9	PKP	PKPdf	13 04 25.4	+0.8
SCHQ	Schefferville	123.35	9	PKP	PKPdf	13 04 25.4	+0.8
	comp=Z,1.7nm,0.4s,baz=6.0,slow=19,SNR=5.3						
TXAR	Lajitas Array	123.71	53	PKP	PKPdf	13 04 27.1	+1.1
TXAR	Lajitas Array	123.71	53	PKIKP	PKPdf	13 04 27.1	+1.1
TXAR	Lajitas Array	123.71	53	PKP	PKPdf	13 04 27.1	+1.1
	comp=Z,1.5nm,0.7s,baz=218,slow=1.0,SNR=17						
JCT	Junction City	126.26	50	ePKPdf	PKPdf	13 04 32.3	+1.5
JCT	Junction City	126.26	50	ePKIKP	PKPdf	13 04 32.3	+1.4
JTS	JuntasAbangare	147.09	69	ePKPdf	PKPdf	13 05 10.2	+0.8
JTS				ePKPbc	PKPbc	13 05 11.9	+0.3
JTS	JuntasAbangare	147.09	69	ePKIKP	PKPdf	13 05 10.3	+0.8
JTS				e		13 05 12.0	
LCO	Las Campanas	147.82	152	ePKPbc	PKPbc	13 05 13.4	+0.1

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*SKO **01** 12:51:13.2, 4263N×2350E, h0^{km}, M2.3, ML2.6*
*BEO **01** 12:51:14.4±1.2, 4249N×2338E, h0^{km}±4^{km}, ML2.1/3*
ISC 01 12:51:14.5±2.2, **4258N**±006×**234E**±01, **h9**^{km}±7^{km}**, n8, σ0^{s}90**/14**, Bulgaria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VTS	Vitosha	0.14	274	ePg	Pg	12 51 16.6	-0.9
VTS				eSg	Sg	12 51 19.8	+0.2
BARS	Barje	1.18	282	ePg	Pg	12 51 36.4	-0.7
BARS				eSg	Sg	12 51 52.7	+0.3
STIP	Stip	1.26	226	eLg		12 51 32.2	
STIP				i Pg	Pg	12 51 38.0	-0.6
STIP				i Sg	Sg	12 51 56.6	+1.5
STIP				eLg		12 51 57.9	
	comp=E,17nm,0.2s						
STIP				eLg		12 51 58.4	
	comp=N,12nm,0.2s						
STIP	Stip	1.26	226	ePn	Pn	12 51 38.1	-0.2
STIP				eSn	Sn	12 51 54.0	-1.4
STIP	Stip	1.26	226	i Pg	Pg	12 51 38.0	-0.7
STIP				i Sg	Sg	12 51 56.6	+1.5
STIP				eLg		12 51 57.9	
	comp=N,17nm,0.2s						
STIP				eLg		12 51 58.3	
	comp=N,12nm,0.2s						
VAY	Valandovo	1.40	206	ePn	Pn	12 51 40.7	+0.5
VAY				eLg		12 52 01.4	
	comp=N,45nm,0.4s						
VAY				eLg		12 52 01.8	
	comp=E,86nm,0.6s						
VAY	Valandovo	1.40	206	ePn	Pn	12 51 40.7	+0.5
VAY				eLg		12 52 01.3	
	comp=E,45nm,0.4s						
VAY				eLg		12 52 01.7	
	comp=E,86nm,0.6s						
GRUS	Gruza	2.35	305	ePn	Pn	12 51 54.9	+1.6
GRUS				eSg	Sg	12 52 29.8	-0.2

GUC 01 12:53:00.6±0.7**, 3306S**×**7212W, h31**^{km}±10^{km}**, MD3.7, ML2.3, 2D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LNV	Longovilo	1.07	146	⇓iP	Pn	12 53 19.5	0.0
LNV				i S	Sn	12 53 33.5	+0.3
PEL	Peldehue	1.21	94	eP	Pn	12 53 21.7	+0.4
PEL				i S	Sn	12 53 38.0	+1.4
PEL				AML	AML	12 53 44.3	
	comp=N,115nm,0.3s						
CHCH	Chadas Angostu	1.50	126	⇓iP	Pn	12 53 27.1	+1.7
CHCH				i S	Sn	12 53 46.4	+2.5
FCH	Farellones	1.56	100	i P	Pn	12 53 27.9	+1.7
FCH				i S	Sn	12 53 48.9	+3.6
CICH	Cipreses	1.89	132	eP	Pn	12 53 32.3	+1.5

MAN 01 12:59:13, 1118N×**12198E, h8**^{km}**, mb4.3, ML3.1, MS2.9, 1C-1D, Panay**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KALP	Kalibo	0.60	35	⇓iP	Pg	12 59 26.0	+1.3
KALP				eS	Sg	12 59 35.9	+3.3
GUIM	Jordan	0.81	133	eP	Pg	12 59 28.1	-0.6
RCP	Roxas	0.84	63	⇑eP	Pg	12 59 29.4	+0.3
CUYO	Cuyo Island	1.00	251	eP	Pg	12 59 33.1	+0.8
CUYO				eS	Sg	12 59 47.8	+2.5

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*IDC **01** 13:26:55.4±1.2, 2.10N×12629E, h0^{km}, mb3.7/5, mb1 3.9/5, mb1mx3.7/15, mbtmp3.7/5, MS3.8/1, Ms1 3.8/1, ms1mx2.8/23, Error ellipse: s-maj=98.3km s-min=19.2km az=71.0*
*ISCJB **01** 13:26:58.3±1.0, 2.1N±02×1262E±05, h33^{km}, mb3.8/4, MS3.6/1, Error ellipse: s-maj=79.3km s-min=15.3km az=161.1*
ISC 01 13:27:00.4±1.0**, 20N**±02×**1262E**±05**, h35**^{km}**, n9, σ0^{s}62**/8**, mb3.8**/4**, MS3.6**/1**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	15.87	157	eP	Pn	13 30 46.1	+4.9
	63nm,1.8s						
FITZ	Fitzroy Crossi	19.98	182	eP	Pn	13 31 32.3	+0.5
	13nm,1.6s						
FITZ	Fitzroy Crossi	19.98	182	P	Pn	13 31 32.0	+0.3
	1.0nm,0.4s,baz=97,slow=16,SNR=7.4						
GUMO	Guam	21.75	57	LR	LR	13 39 01.9	
	comp=Z,274nm,20.4s,MS3.6,baz=251,slow=34						
WRA	Warramunga Arr	23.22	160	P	P	13 32 04.1	-0.4
	2.2nm,0.4s,mb3.9,baz=339,slow=11,SNR=58						
WB2	Warramunga Arr	23.22	160	eP	P	13 32 04.0	-0.6
STKA	Stephens Creek	36.72	158	P	P	13 34 05.0	+0.8
	1.1nm,0.4s,mb4.1,baz=12,slow=9.7,SNR=5.2						
SONM	Songino Array	48.77	342	P	P	13 35 42.4	+0.6
	0.4nm,0.8s,mb3.5,baz=148,slow=5.0,SNR=3.3						
MKAR	Makanchi Array	58.68	326	P	P	13 36 53.6	-0.7
	0.3nm,0.4s,mb3.6,baz=118,slow=8.0,SNR=8.8						

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*IDC **01** 13:28:05.5±1.2, 2476N×12231E, h0^{km}, mb3.7/4, mb1 3.9/5, mb1mx3.7/19, mbtmp3.8/5, ML4.0/1, Error ellipse: s-maj=66.0km s-min=20.9km az=68.0*
*ISCJB **01** 13:28:21.5±0.6, 25.19N±0.08×123.26E±0.07, h172^{km}±6^{km}, mb3.5/4, Error ellipse: s-maj=14.1km s-min=9.3km az=146.5*
*JMA **01** 13:28:23.7±0.3, 25.17N×12325E, h158^{km}±4^{km}, M3.2*
ISC 01 13:28:22.6±0.6**, 2522N**±008×**12325E**±007**, h165**^{km}±6^{km}**, n16, σ0^{s}71**/25**, mb3.5**/4**, Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.78	196	P	Pn	13 28 47.4	+0.2
YOJ				eS	Sn	13 29 06.2	+0.2
IRIF	Iriomote-Funau	0.98	153	P	Pn	13 28 48.4	-0.2
IRIF				eS	Sn	13 29 08.4	-0.2
JIJ	Ishigaki jima	1.18	136	P	Pn	13 28 50.2	0.0
JIJ				S	Sn	13 29 10.3	-1.1
JKRS	Kuro-shima	1.20	144	P	Pn	13 28 50.8	+0.4
JKRS				eS	Sn	13 29 11.4	-0.3
HATJ	Hateruma jima	1.26	156	P	Pn	13 28 51.4	+0.4
HATJ				eS	Sn	13 29 12.5	-0.3
JTJ	Tarama	1.44	113	P	Pn	13 28 53.6	+0.9
JTJ				eS	Sn	13 29 15.6	-0.2
JMJ	Miyako jima 2	1.90	102	P	Pn	13 28 58.2	+0.7
JMJ				S	Sn	13 29 24.1	-0.2
JOGS	Gusukube	2.01	103	P	Pn	13 29 00.0	+1.3
JOGS				eS	Sn	13 29 26.7	+0.1
JKE	Kume jima 2	3.38	70	P	Pn	13 29 16.0	+0.8
JKE				eS	Sn	13 29 55.8	-0.4
JOW	Kunigami	4.80	69	eS	Sn	13 30 24.6	-4.5
JTK	Tokunoshima	5.72	62	P	Pn	13 29 43.5	-2.1
KSRS	Korea Array	12.84	17	Pn	Pn	13 31 19.9	+0.9
	0.7nm,0.3s,baz=197,slow=11,SNR=15						
SONM	Songino Array	26.21	334	P	P	13 33 41.7	-0.2
	0.2nm,0.4s,mb3.1,baz=142,slow=7.3,SNR=2.9						
MKAR	Makanchi Array	38.94	314	P	P	13 35 31.0	-1.2
	0.4nm,0.5s,mb3.3,baz=101,slow=10.0,SNR=10						
WRA	Warramunga Arr	46.16	165	P	P	13 36 30.6	-0.1
	1.8nm,0.6s,mb3.9,baz=348,slow=8.7,SNR=13						
STKA	Stephens Creek	59.42	162	P	P	13 38 08.1	+0.4
	0.9nm,0.9s,mb3.6,baz=331,slow=10,SNR=2.9						

IDC 01 13:37:42.5±2.5**, 1514N**×**14436E, h0**^{km}**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/17**, mbtmp3.4**/3**, MS3.2**/4**, Ms1 3.2**/4**, ms1mx3.0**/11**, Error ellipse: s-maj=112.7km s-min=18.8km az=69.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.61	162	Pn	Pn	13 38 12.6	+0.3
	14nm,0.3s,baz=332,slow=12,SNR=7.1						
GUMO				Sn	Sn	13 38 33.5	-0.4
	49nm,0.3s,baz=58,slow=23,SNR=20						
KSRS	Korea Array	26.58	330	LR	LR	13 52 32.9	
	comp=Z,26nm,18.4s,baz=340,slow=34						
ASAJ	Asahikawa	28.92	357	LR	LR	13 55 01.7	
	comp=Z,29nm,20.1s,baz=350,slow=36						
WRA	Warramunga Arr	36.22	196	P	P	13 44 47.7	+0.4
	0.6nm,1.0s,baz=20,slow=10.0,SNR=3.7						
WRA				LR	LR	14 00 21.3	
	comp=Z,63nm,18.2s,baz=350,slow=38						
SONM	Songino Array	45.19	324	P	P	13 46 02.7	+1.5
	0.3nm,0.8s,baz=145,slow=5.3,SNR=2.5						
PSI	Prapat	46.41	259	LR	LR	14 05 02.8	
	comp=Z,57nm,18.0s,baz=42,slow=35						
MKAR	Makanchi Array	60.04	316	P	P	13 47 49.3	-1.9
	0.6nm,0.9s,baz=92,slow=7.2,SNR=3.8						

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*SKO **01** 13:50:30.3, 4015N×2159E, h0^{km}, M1.9, ML2.2*
*ATH **01** 13:50:30.4, 4035N×2145E, h4^{km}, MD3.1/4*
*ISCJB **01** 13:50:31.9±0.5, 4030N±002×2158E±004, h14^{km}±5^{km}, Error ellipse: s-maj=5.7km s-min=3.8km az=160.6*
*CSEM **01** 13:50:32.4±0.2, 4031N×2157E, h5^{km}, MD3.1, Error ellipse: s-maj=4.0km s-min=2.8km az=68.0*
*THE **01** 13:50:32.4, 4029N×2160E, h5^{km}, ML2.9*
ISC 01 13:50:32.4±0.5**, 4029N**±002×**2159E**±004**, h16**^{km}±5^{km}**, n24, σ0^{s}92**/40**, 2D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KZN	Kozani	0.14	84	⇓iPG	Pg	13 50 36.0	-0.3
KZN				eSG	Sg	13 50 38.8	-0.1
KZN	Kozani	0.14	84	⇓iPg	Pg	13 50 36.0	-0.3
KZN				eSg	Sg	13 50 38.8	-0.1
FNA	Florina	0.52	342	ePg	Pg	13 50 42.1	-0.6
FNA				eSg	Sg	13 50 49.7	0.0
FNA	Florina	0.52	342	ePg	Pg	13 50 42.1	-0.6
FNA				eSg	Sg	13 50 49.7	0.0
MEV	Metsovon	0.57	209	ePg	Pg	13 50 43.9	+0.1
MEV				eSg	Sg	13 50 51.6	+0.2
MEV	Metsovon	0.57	209	ePg	Pg	13 50 43.8	+0.1
MEV				eSg	Sg	13 50 51.6	+0.2
LIT	Litokhoron	0.72	105	ePg	Pg	13 50 45.3	-1.1
LIT				eSg	Sg	13 50 56.1	+0.1
LIT	Litokhoron	0.72	105	ePg	Pg	13 50 45.3	-1.1
LIT				eSg	Sg	13 50 56.1	+0.1
BIA	Bitola	0.75	345	i Pg	Pg	13 50 45.7	-1.5
BIA				i Sg	Sg	13 50 58.0	+0.9
BIA				eLg		13 50 59.0	
	comp=E,43nm,0.2s						
BIA				eLg		13 50 59.2	
	comp=N,41nm,0.3s						
BIA	Bitola	0.75	345	i Pg	Pg	13 50 45.6	-1.5
BIA				i Sg	Sg	13 50 58.0	+0.9
THL	Klokotos Trika	0.80	155	ePG	Pg	13 50 46.8	-1.1
THL				eSG	Sg	13 51 00.2	+1.8
THL	Klokotos Trika	0.80	155	ePg	Pg	13 50 46.8	-1.1
THL				eSg	Sg	13 51 00.2	+1.8
GRG	Griva	0.91	43	ePg	Pg	13 50 49.6	-0.5
GRG	Griva	0.91	43	ePg	Pg	13 50 49.6	-0.5
OHR	Ohrid	1.01	324	i Pg	Pg	13 50 51.3	-0.7
OHR				i Sg	Sg	13 51 06.7	+1.4
OHR				eLg		13 51 07.1	
	comp=N,61nm,0.5s						
OHR				eLg		13 51 07.5	
	comp=E,77nm,0.4s						
OHR	Ohrid	1.01	324	i Pg	Pg	13 50 51.3	-0.7
OHR				i Sg	Sg	13 51 06.7	+1.4
VAY	Valandovo	1.27	36	ePg	Pn	13 50 54.2	-1.3
VAY				i Sg	Sg	13 51 15.2	+1.6
VAY				eLg		13 51 16.3	
	comp=E,24nm,0.5s						
VAY				eLg		13 51 16.6	
	comp=N,14nm,0.5s						
VAY	Valandovo	1.27	36	ePg	Pn	13 50 54.2	-1.3
VAY				i Sg	Sg	13 51 15.1	+1.6
EVR	Evrytania	1.38	173	ePB	Pb	13 50 57.7	-0.1
EVR	Evrytania	1.38	173	ePb	Pb	13 50 57.7	-0.1
AGG	Agios Georgios	1.39	155	ePg	Pn	13 50 57.5	+0.3
AGG	Agios Georgios	1.39	155	ePg	Pn	13 50 57.5	+0.4
PLG	Polygyros	1.43	86	ePN	Pn	13 50 58.7	+1.1
PLG	Polygyros	1.43	86	ePn	Pn	13 50 58.7	+1.1

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*SKO **01** 13:56:18.9, 4014N×2160E, h0^{km}, M2.0, ML2.2*
*ISCJB **01** 13:56:20.7±0.4, 4030N±002×2163E±003, h15^{km}, Error*

ellipse: s-maj=3.8km s-min=3.2km az=154.2

*CSEM **01** 13:56:21.1±0.1, 4034N×2158E, h15km, MD3.1, Error ellipse: s-maj=2.1km s-min=1.4km az=78.0*

*THE **01** 13:56:21.7, 4030N×2163E, h11km, ML3.1*

*NEIC **01** 13:56:22.2, 4024N×2165E, h11km, MD3.1(ATH), After ATH.*

*ATH **01** 13:56:22.2, 4024N×2165E, h11km±1km, MD3.1/6*

ISC 01 13:56:21.2±0.4, **4030N**±002×**2163E**±003, **h19**km±5km, **n35**, σ**0s.76**/55, **5D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KZN	Kozani	0.11	85	⇓iPg	Pg	13 56 25.1	0.0
KZN				eSg	Sg	13 56 27.8	0.0
KZN	Kozani	0.11	85	⇓iPG	Pg	13 56 25.1	0.0
KZN				eSG	Sg	13 56 27.8	0.0
KZN	Kozani	0.11	85	⇓iPg	Pg	13 56 25.1	0.0
KZN				eSg	Sg	13 56 27.8	0.0
FNA	Florina	0.52	338	ePg	Pg	13 56 31.1	-0.7
FNA				eSg	Sg	13 56 39.7	+0.8
FNA	Florina	0.52	338	ePg	Pg	13 56 31.1	-0.7
FNA				eSg	Sg	13 56 39.7	+0.8
MEV	Metsovon	0.60	211	ePg	Pg	13 56 33.0	-0.1
MEV				eSg	Sg	13 56 42.3	+1.2
MEV	Metsovon	0.60	211	ePg	Pg	13 56 33.0	-0.1
MEV				eSg	Sg	13 56 42.3	+1.1
LIT	Litokhoron	0.69	106	ePg	Pg	13 56 34.4	-0.4
LIT				eSg	Sg	13 56 45.2	+1.2
LIT	Litokhoron	0.69	106	ePg	Pg	13 56 34.4	-0.4
LIT				eSg	Sg	13 56 45.2	+1.2
BIA	Bitola	0.76	342	i Pg	Pg	13 56 34.7	-1.4
BIA				i Sg	Sg	13 56 46.9	+0.6
BIA				eLg		13 56 47.9	
	comp=E,72nm,0.3s						
BIA				eLg		13 56 48.0	
	comp=N,83nm,0.4s						
BIA	Bitola	0.76	342	i Pg	Pg	13 56 34.7	-1.4
BIA				i Sg	Sg	13 56 46.8	+0.6
THL	Klokotos Trika	0.79	158	⇓iPG	Pg	13 56 36.1	-0.6
THL				eSB	Sb	13 56 46.7	+0.1
THL	Klokotos Trika	0.79	158	⇓iPg	Pg	13 56 36.1	-0.6
THL				eSb	Sb	13 56 46.7	+0.1
JAN	Janina	0.88	223	ePb	Pb	13 56 38.5	+0.7
JAN	Janina	0.88	223	ePB	Pb	13 56 38.5	+0.7
JAN	Janina	0.88	223	ePb	Pb	13 56 38.5	+0.7
GRG	Griva	0.88	41	ePg	Pg	13 56 37.5	-1.0
GRG				eSg	Sg	13 56 51.2	+1.0
GRG	Griva	0.88	41	ePg	Pg	13 56 37.5	-1.0
GRG				eSg	Sg	13 56 51.2	+1.0
OHR	Ohrid	1.03	322	i Pg	Pg	13 56 39.9	-1.4
OHR				i Sg	Sg	13 56 55.7	+0.9
OHR				eLg		13 56 55.9	
	comp=N,52nm,0.4s						
OHR				eLg		13 56 56.2	
	comp=E,129nm,0.6s						
OHR	Ohrid	1.03	322	i Pg	Pg	13 56 39.8	-1.5
OHR				i Sg	Sg	13 56 55.7	+0.9
VAY	Valandovo	1.25	35	ePn	Pn	13 56 44.2	+0.6
VAY				eLg		13 57 05.1	
	comp=E,21nm,0.5s						
VAY	Valandovo	1.25	35	ePn	Pn	13 56 44.2	+0.6
KNT	Kendrikon	1.29	48	ePg	Pg	13 56 45.6	-0.6
KNT	Kendrikon	1.29	48	ePg	Pg	13 56 45.7	-0.6
EVR	Evrytania	1.39	174	ePg	Pg	13 56 47.0	-1.0
EVR	Evrytania	1.39	174	ePG	Pg	13 56 47.0	-1.0
EVR	Evrytania	1.39	174	ePg	Pg	13 56 47.0	-1.0
PLG	Polygyros	1.39	86	ePg	Pg	13 56 48.0	-0.1
PLG				eSb	Sg	13 57 06.4	+0.2
PLG	Polygyros	1.39	86	ePG	Pg	13 56 48.0	-0.1
PLG				eSB	Sg	13 57 06.4	+0.2
PLG	Polygyros	1.39	86	ePg	Pg	13 56 48.0	-0.1
PLG				eSb	Sg	13 57 06.4	+0.2
KEK	Kerkira	1.52	248	ePb	Pg	13 56 50.7	+0.1
KEK	Kerkira	1.52	248	ePB	Pg	13 56 50.7	+0.1
KEK	Kerkira	1.52	248	ePb	Pg	13 56 50.7	+0.1
PAIG	Paliouri	1.61	103	ePg	Pn	13 56 48.6	-0.1
PAIG	Paliouri	1.61	103	ePg	Pn	13 56 48.6	-0.1

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*ISCJB **01** 14:25:15.5±0.6, 3895N±003×2323E±004, h12km±6km, Error ellipse: s-maj=5.3km s-min=4.2km az=0.2*

*NEIC **01** 14:25:15.9, 3892N×2323E, h7km, ML3.1(ATH), After ATH.*

*ATH **01** 14:25:15.9, 3892N×2324E, h8km±2km, MD3.1/7, ML3.1*

*THE **01** 14:25:15.5, 3892N×2326E, h9km, ML2.9*

*CSEM **01** 14:25:16.2±0.1, 3894N×2323E, h8km, ML3.1, Error ellipse: s-maj=3.2km s-min=2.2km az=89.0*

ISC 01 14:25:15.8±0.5, **3893N**±002×**2324E**±004, **h14**km±5km, **n35**, σ**0s.51**/56, **4C, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKR	Lokris	0.33	214	⇑iPb	Pg	14 25 22.5	-0.1
LKR				eSb	Sg	14 25 26.1	-1.0
LKR	Lokris	0.33	214	⇑iPB	Pg	14 25 22.5	-0.1
LKR				eSB	Sg	14 25 27.2	+0.1
LKR	Lokris	0.33	214	i Pb	Pg	14 25 22.5	-0.1
LKR				eSb	Sg	14 25 26.1	-1.0
NEO	Neokhori	0.38	358	⇑iPb	Pg	14 25 23.6	+0.2
NEO				eSb	Sg	14 25 28.6	0.0
NEO	Neokhori	0.38	358	⇑iPB	Pg	14 25 23.6	+0.2
NEO				eSB	Sg	14 25 28.6	0.0
NEO	Neokhori	0.38	358	i Pb	Pg	14 25 23.6	+0.2
NEO				eSb	Sg	14 25 28.6	0.0
XOR	Xorichti	0.44	355	ePg	Pg	14 25 24.7	+0.2
XOR				eSg	Sg	14 25 30.9	+0.4
XOR	Xorichti	0.44	355	ePg	Pg	14 25 24.7	+0.2
XOR				eSg	Sg	14 25 30.9	+0.5
AOS	Alonnisos	0.56	64	ePg	Pg	14 25 26.4	-0.3
AOS				eSg	Sg	14 25 33.9	-0.2
AOS	Alonnisos	0.56	64	ePg	Pg	14 25 26.4	-0.3
AOS				eSg	Sg	14 25 33.9	-0.1
AGG	Agios Georgios	0.71	278	ePg	Pg	14 25 29.1	-0.5
AGG				eSg	Sg	14 25 39.9	+0.8
AGG	Agios Georgios	0.71	278	ePg	Pg	14 25 29.1	-0.6
AGG				eSg	Sg	14 25 39.8	+0.7
ATH	Athens Observa	1.02	158	ePb	Pb	14 25 35.1	-0.2
ATH				eSb	Sb	14 25 49.3	+0.7
ATH	Athens Observa	1.02	158	ePB	Pb	14 25 35.1	-0.2
ATH				eSB	Sb	14 25 49.3	+0.7
ATH	Athens Observa	1.02	158	ePb	Pb	14 25 35.1	-0.2
ATH				eSb	Sb	14 25 49.3	+0.7
PAIG	Paliouri	1.05	19	ePg	Pg	14 25 35.6	-0.5
PAIG				eSg	Sg	14 25 50.5	+0.6
PAIG	Paliouri	1.05	19	ePg	Pg	14 25 35.6	-0.5
PAIG				eSg	Sg	14 25 50.5	+0.6
THL	Klokotos Trika	1.14	304	ePB	Pb	14 25 37.6	+0.3
THL	Klokotos Trika	1.14	304	ePb	Pb	14 25 37.6	+0.3
KVR	Kavouri	1.17	159	ePB	Pb	14 25 38.0	+0.2
KVR				eSB	Sb	14 25 54.0	+1.1
KVR	Kavouri	1.17	159	ePb	Pb	14 25 38.0	+0.2
KVR				eSb	Sb	14 25 54.0	+1.1
LIT	Litokhoron	1.31	334	ePg	Pn	14 25 39.1	-0.5
LIT				eSg	Sg	14 25 58.3	+0.3
LIT	Litokhoron	1.31	334	ePg	Pn	14 25 39.2	-0.4
LIT				eSg	Sg	14 25 58.3	+0.4
PLG	Polygyros	1.45	6	ePn	Pn	14 25 41.8	+0.2
PLG	Polygyros	1.45	6	ePg	Pn	14 25 41.0	-0.6
PLG	Polygyros	1.45	6	ePN	Pn	14 25 41.8	+0.2
PLG	Polygyros	1.45	6	ePg	Pn	14 25 41.0	-0.6
PLG	Polygyros	1.45	6	ePn	Pn	14 25 41.8	+0.2
OUR	Ouranopolis	1.52	22	ePg	Pn	14 25 41.7	-0.8
OUR	Ouranopolis	1.52	22	ePg	Pn	14 25 41.7	-0.8
SRS	Serrai	2.20	7	ePn	Pn	14 25 51.8	-0.2
SRS	Serrai	2.20	7	ePn	Pn	14 25 51.8	-0.2
VLI	Veliai	2.22	186	ePn	Pb	14 25 55.0	-0.6
VLI	Veliai	2.22	186	ePN	Pb	14 25 55.0	-0.6
VLI	Veliai	2.22	186	ePn	Pb	14 25 55.0	-0.6

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*BJI **01** 14:27:24.2, 151S×12250E, h20km, mB5.1, mb4.7, Ms4.4, Msz4.1*

*IDC **01** 14:27:29.4±0.8, 073S×12201E, h0km, mb4.7/10, mb1 4.7/11, mb1mx4.5/19, mbtmp4.6/11, ML3.6/1, MS3.4/5, Ms1 3.4/5, ms1mx3.1/27, Error ellipse: s-maj=27.0km s-min=14.4km az=64.0*

*MOS **01** 14:27:35.8±1.0, 069S×12205E, h64km, mb5.1/12, Error ellipse: s-maj=13.8km s-min=8.7km az=101.6*

*ISCJB **01** 14:27:37.9±1.3, 080S±005×12210E±006, h88km±13km, mb4.8/43, Error ellipse: s-maj=10.7km s-min=7.1km az=149.2*

*NEIC **01** 14:27:38.6±1.1, 085S×12204E, h80km±11km, mb4.9/20, Error ellipse: s-maj=10.3km s-min=6.1km az=65.0*

ISC 01 14:27:38.9±1.2, **086S**±005×**12208E**±006, **h81**km±12km, **h14**km±8.4km**:pP-P, n86,** σ**0s.99**/81, **mb4.8**/43, **1C-4D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DAV	Davao City (W)	8.62	24	ePn	Pn	14 29 41.8	+0.9
	500nm,1.0s						
KKM	Kota Kinabalu	9.01	320	P	Pn	14 29 46.3	0.0
KAKA	Kakadu	15.63	139	eP	Pn	14 31 12.6	-1.9
	30nm,0.6s						
FITZ	Fitzroy Crossi	17.49	169	eP	Pn	14 31 37.8	+0.2
	7.4nm,0.8s						
FITZ	Fitzroy Crossi	17.49	169	P	Pn	14 31 37.9	+0.3
	0.1nm,0.3s,baz=4.1,slow=2.0,SNR=4.9						
FITZ				LR	LR	14 40 08.4	
	comp=Z,92nm,19.3s,baz=162,slow=43						
KULM	Kulim	22.25	286	eP	P	14 32 28.4	-1.0
WRA	Warramunga Arr	22.45	148	P	P	14 32 31.3	0.0
	31nm,0.8s,mb4.7,baz=333,slow=9.9,SNR=145						
WB2	Warramunga Arr	22.45	148	eP	P	14 32 30.7	-0.7
QIZ	Qiongzhong	23.13	329	eP	P	14 32 33.5	-4.7
	192nm,1.6s,mb5.2						
PSI	Prapat	23.43	279	P	P	14 32 39.2	-1.9
	7.2nm,0.7s,mb4.1,baz=134,slow=9.4,SNR=4.0						
PMG	Port Moresby	26.36	110	P	P	14 33 08.6	+0.9
	23nm,0.8s,mb4.7,baz=310,slow=5.4,SNR=13						
GUMO	Guam	26.76	57	P	P	14 33 11.2	-0.2
JOW	Kunigami	28.17	12	P	P	14 33 26.1	+2.3
	33nm,0.6s,mb5.0,baz=138,slow=19,SNR=4.1						
CHTO	Chiang Mai	29.98	312	eP	P	14 33 39.1	-0.7
	10.0nm,1.0s,mb4.4						
CHTO	Chiang Mai	29.98	312	eP	P	14 33 39.2	-0.7
CHTO				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.4						
FORT	Forrest	30.30	170	eP	P	14 33 42.9	+0.4
	comp=Z,17nm,0.8s,mb4.7						
GYA	Guiyang	30.96	332	⇑iP	P	14 33 50.0	+1.6
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
KMI	Kunming	31.90	325	P	P	14 33 57.9	+1.2
KMI				AMB	AMB		
	comp=Z,9.0nm,1.1s,mb4.4						
JNU	Nakatsue	34.80	13	LR	LR	14 49 46.7	
	comp=Z,47nm,19.1s,baz=90,slow=38						
STKA	Stephens Creek	35.94	151	eP	P	14 34 32.9	+1.2
	comp=Z,5.6nm,0.8s,mb4.5						
STKA	Stephens Creek	35.94	151	P	P	14 34 32.5	+0.8
	comp=Z,7.2nm,0.8s,mb4.7,baz=322,slow=8.5,SNR=17						
STKA				LR	LR	14 51 55.1	
	comp=Z,67nm,19.0s,baz=24,slow=41						
CD2	Chengdu	36.07	333	eP	P	14 34 32.6	-0.2
CD2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
XAN	Xi'an	36.85	342	P	P	14 34 39.9	+0.5
XAN				AP	pP	14 34 48.9	-10
XAN				AMB	AMB		
	comp=Z,12nm,1.1s,mb4.7						
KSRS	Korea Array	38.50	7	P	P	14 34 53.8	+0.5
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
KSRS				MLR	MLR		
	comp=Z,35nm,21.1s						
KSRS	Korea Array	38.50	7	P	P	14 34 53.8	+0.6
	comp=Z,1.5nm,0.8s,mb3.9,baz=174,slow=36,SNR=3.8						
KSRS				LR	LR	14 50 33.3	
	comp=Z,34nm,21.1s,baz=314,slow=36						
HNR	Honiara	38.63	104	eP	P	14 34 56.0	+1.3
	comp=Z,84nm,0.9s,mb5.6						
HNR	Honiara	38.63	104	eP	P	14 34 56.0	+1.3
HNR				pmax	pmax		
	comp=Z,84nm,0.9s,mb5.6						
MJAR	Matsushiro Arr	40.12	20	P	P	14 35 04.7	-2.0
	comp=Z,15nm,0.8s,mb4.8,baz=192,slow=8.6,SNR=26						
MAJO	Matsushiro	40.12	20	eP	P	14 35 05.2	-1.5
	comp=Z,20nm,0.9s,mb5.0						
MAJO	Matsushiro	40.12	20	eP	P	14 35 05.2	-1.5
MAJO				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
MAT	Matsushiro	40.12	20	P	P	14 35 05.1	-1.6
LZH	Lanzhou	40.49	337	eP	P	14 35 10.5	+0.7
LZH				AP	pP	14 35 15.1	-14
LZH				XP	sP	14 35 18.5	-20
LZH				AMB	AMB		
	comp=Z,19nm,1.3s,mb4.8						
BJT	Baijiatuau	41.04	353	eP	P	14 35 14.2	0.0
	comp=Z,21nm,1.0s,mb4.9						
BJT	Baijiatuau	41.04	353	eP	P	14 35 14.2	-0.1
BJT				pmax	pmax		
	comp=Z,21nm,1.0s						
BJI	Beijing	41.06	353	P	P	14 35 14.5	+0.1
BJI				AMB	AMB		
	comp=Z,18nm,0.8s,mb5.0						
LSA	Lhasa	42.36	318	P	P	14 35 27.5	+2.3
LSA	Lhasa	42.36	318	eP	P	14 35 25.5	+0.3
	comp=Z,9.0nm,0.8s,mb4.5						
LSA	Lhasa	42.36	318	eP	P	14 35 25.5	+0.3
LSA				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
ODAN	Odare	43.30	312	eP	P	14 35 32.5	-0.4
TAPN	Taplejung	43.33	313	eP	P	14 35 33.3	+0.1
	comp=Z,32nm,0.9s,mb5.0						
JIRN	Jiri	44.63	312	eP	P	14 35 44.1	+0.6
GTA	Gaotai	44.97	335	eP	P	14 35 46.5	+0.5
GTA				AP	pP	14 35 50.9	-15
GTA				XP	sP	14 35 54.2	-21
GTA				AMB	AMB		
	comp=Z,13nm,1.4s,mb4.5						
GUN	Gumba	44.99	312	eP	P	14 35 46.9	+0.5
	comp=Z,43nm,0.7s,mb5.3						
PKI	Pulchoki	45.16	312	eP	P	14 35 47.7	0.0
KKN	Kakani	45.37	312	eP	P	14 35 49.8	+0.4
	comp=Z,20nm,0.9s,mb4.8						
DMN	Daman	45.41	311	eP	P	14 35 49.3	-0.4
MDJ	Mudanjiang	45.77	7	eP	P	14 35 52.0	-0.3
	comp=Z,13nm,0.8s,mb4.7						
GKN	Gorkha	45.97	312	eP	P	14 35 54.0	-0.1
	comp=Z,23nm,0.9s,mb4.9						
HYB	Hyderabad	46.55	295	eP	P	14 35 59.5	+0.7
HYB	Hyderabad	46.55	295	i P	P	14 35 59.5	+0.7
KOLN	Koldanda	46.62	311	eP	P	14 35 59.3	0.0
	comp=Z,34nm,0.8s,mb5.1						
ASAJ	Asahikawa	48.38	20	P	P	14 36 12.4	-0.2
ASAJ				pmax	pmax		
	comp=Z,12nm,0.8s						
ASAJ	Asahikawa	48.38	20	P	P	14 36 12.3	-0.2
	comp=Z,12nm,0.8s,mb4.8,baz=229,slow=13,SNR=7.2						
HIA	Hailar	49.97	358	eP	P	14 36 24.9	+0.3
	comp=Z,6.6nm,0.8s,mb4.6						
HIA	Hailar	49.97	358	eP	P	14 36 24.9	+0.3
HIA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ULN	Ulaanbaatar	50.26	347	eP	P	14 36 27.4	+0.6
	comp=Z,22nm,1.0s,mb5.0						
ULN	Ulaanbaatar	50.26	347	eP	P	14 36 27.4	+0.6
ULN				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.0						
SONM	Songino Array	50.38	346	P	P	14 36 28.2	+0.4
	comp=Z,12nm,1.0s,mb4.8,baz=167,slow=6.6,SNR=62						
HABR	Khabarovsk	50.41	11	eP	P	14 36 26.8	-1.1
HABR				eS	S	14 43 31.0	-4.2
HABR				eSS	SS	14 47 08.0	-2.1
YSS	Yuzh-Sakhalins	50.95	18	P	P	14 36 31.1	-0.9
	comp=Z,12nm,0.8s,mb5.0						
YSS	Yuzh-Sakhalins	50.95	18	P	P	14 36 31.1	-0.9
YSS				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
ZAK	Zakamensk	53.52	345	eP	P	14 36 50.9	-0.1
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.6s,mb4.1						
WMQ	Urumqi	54.05	330	P	P	14 36 56.6	+1.6
WMQ				AMB	AMB		
	comp=Z,24nm,0.9s,mb5.2						
WMQ				AMB	AMB		
	comp=Z,28nm,6.9s						
BOD	Bodaibo	58.85	355	eP	P	14 37 27.4	-1.4
BOD				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
MKAR	Makanchi Array	58.86	329	P	P	14 37 29.8	+0.7
	comp=Z,16nm,0.7s,mb5.2,baz=125,slow=8.4,SNR=31						
MKAR				LR	LR	15 02 04.4	
	comp=Z,63nm,19.4s,baz=176,slow=35						
ZAL	Zalesovo	62.71	336	P	P	14 37 54.0	-1.1
ZALV	Zalesovo Beam	62.71	336	P	P	14 37 54.0	-1.1
	comp=Z,4.9nm,0.7s,mb4.5,baz=124,slow=6.0,SNR=29						
YAK	Yakutsk	62.99	4	eP	P	14 37 56.4	-0.4
	comp=Z,25nm,0.8s,mb5.2						
YAK	Yakutsk	62.99	4	d iP	P	14 37 56.3	-0.5
YAK				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
KURK	Kurchatov	63.26	331	eP	P	14 37 59.0	+0.1
	comp=Z,20nm,0.8s,mb5.1						
KURK	Kurchatov	63.26	331	eP	P	14 37 59.0	+0.2
KURK				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
NVS	Novosibirsk	64.00	336	eP	P	14 38 02.1	-1.5
NVS				e		14 38 38.3	
MA2	Magadan	64.30	16	eP	P	14 38 05.7	+0.2
	comp=Z,19nm,0.8s,mb5.0						
MA2	Magadan	64.30	16	d iP	P	14 38 06.2	+0.7
MA2				pmax	pmax		
	comp=N,10.0nm,0.8s						
MA2				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.2						
CASY	Casey	65.80	185	P	P	14 38 12.4	-2.7
	comp=Z,38nm,1.1s,mb5.1						
SEY	Seymchan	67.56	14	⇓iP	P	14 38 26.2	-0.2
TIXI	Tiksi	72.52	2	eP	P	14 38 55.4	-1.2
	comp=Z,16nm,0.9s,mb4.8						
TIXI	Tiksi	72.52	2	⇓iP	P	14 38 55.4	-1.2
TIXI				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.8						
BILL	Bilibino	75.17	16	P	P	14 39 14.0	+1.9
VNDA	Vanda	79.53	172	P	P	14 39 37.6	+1.3
QSPA	South Pole Qui	89.08	180	eP	P	14 40 26.1	+1.5
	comp=Z,3.0nm,0.7s,mb4.4						
TXAR	Lajitas Array	128.06	53	PKP	PKPdf	14 46 37.6	+1.3
TXAR	Lajitas Array	128.06	53	PKIKP	PKPdf	14 46 37.6	+1.3
TXAR	Lajitas Array	128.06	53	PKP	PKPdf	14 46 37.6	+1.3
	comp=Z,0.3nm,0.8s,baz=337,slow=6.0,SNR=4.2						
LPAZ	La Paz	160.21	150	PKP2	PKPab	14 48 13.9	+3.6
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.9s						
LPAZ	La Paz	160.21	150	PKPab	PKPab	14 48 13.9	+3.5
	comp=Z,2.3nm,0.9s,baz=178,slow=5.8,SNR=6.9						

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*JMA **01** 14:27:59.8±0.7, 4700N×15268E, h30km, M4.0*

*IDC **01** 14:28:03.7±8.9, 4798N×15173E, h0km, mb3.7/3, mb1 3.8/4, mb1mx3.4/21, mbtmp3.7/4, ML3.1/1, Error ellipse: s-maj=203.3km s-min=41.8km az=132.0*

ISC 01 14:28:04.8±2.1, **472N**±02×**1519E**±04, **h35**km, **n16**, σ**1s.12**/21, **mb3.7**/3, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JRA	Rausu	5.75	238	P	Pn	14 29 31.1	+3.6
NEM2	Nemuro 2	5.77	231	P	Pn	14 29 27.0	-0.8
NEM2				eS	Sn	14 30 31.5	-1.2
JNK	Nakash	6.19	237	P	Pn	14 29 35.6	+2.0
JTKR	Abashiri--Toko	6.45	243	P	Pn	14 29 41.2	+4.0
JAK	Akkeshi	6.58	233	P	Pn	14 29 38.3	-0.7
JAK				eS	Sn	14 30 51.8	-0.9
JAR	Ashorobuto	6.92	239	P	Pn	14 29 46.0	+2.4
JAR				eS	Sn	14 31 06.0	+5.0
ASAJ	Asahikawa	7.20	248	Pn	Pn	14 29 53.4	+6.0
	0.3nm,0.3s,baz=87,slow=13,SNR=3.8						
JKK2	Kamakawa 2	7.22	246	P	Pn	14 29 52.0	+4.3
JCH	Churui	7.58	236	P	Pn	14 29 53.2	+0.6
JCH				eS	Sn	14 31 17.0	-0.2
JNBK	Urakawa-nobuka	8.14	236	P	Pn	14 30 00.0	-0.3
JNBK				eS	Sn	14 31 31.4	+0.4
JANG	Nango	10.12	232	eS	Sn	14 32 10.9	-8.6
JTH	Tanohata	10.25	229	eS	Sn	14 32 14.3	-8.5
MKAR	Makanchi Array	46.02	296	P	P	14 36 24.8	+0.3
	0.2nm,0.6s,mb3.2,baz=66,slow=6.9,SNR=5.8						
FINES	FINESS Array B	63.31	334	P	P	14 38 28.6	-0.9
	0.6nm,0.5s,mb4.0,baz=32,slow=7.6,SNR=6.1						
NB2	NORSAR Subarra	67.57	341	P	P	14 38 56.6	-0.5
	comp=Z,0.6nm,0.6s,mb3.8,baz=27,slow=6.5						
NOA	NORSAR Array B	67.57	341	P	P	14 38 56.4	-0.7
	comp=Z,1.2nm,0.7s,mb4.0,baz=27,slow=6.5,SNR=4.1						

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*SZGRF **01** 14:34:05.5, 3639N×7099E, h33km, mb4.8, Hindu Kush, Afghanistan, region*

*MOS **01** 14:34:21.6±0.9, 3655N×7141E, h228km, mb4.4/68, Error ellipse: s-maj=7.8km s-min=4.1km az=127.3*

*ISCJB **01** 14:34:21.9±0.2, 3654N±003×7135E±003, h230km, mb4.4/141, Error ellipse: s-maj=3.6km s-min=2.8km az=14.0*

*NEIC **01** 14:34:22.8±0.2, 3654N×7147E, mb4.4/84, Error ellipse: s-maj=5.4km s-min=4.5km az=152.0*

*IDC **01** 14:34:23.4±0.6, 3650N×7132E, h231km±5km, mb3.9/27, mb1 4.1/29, mb1mx4.0/31, mbtmp3.9/29, Error ellipse: s-maj=11.3km s-min=8.7km az=13.0*

*BJI **01** 14:34:23.6, 3681N×7136E, h237km, mB4.7, mb4.5*

*NNC **01** 14:34:27.5±12.0, 3733N×7235E, h0km, mb4.8, mpv4.5, Error ellipse: s-maj=116.4km s-min=72.1km az=31.0*

ISC 01 14:34:23.5±0.2, **3654N**±003×**7140E**±003, **h232**km, **h232**km±2.4km**:pP-P, n365,** σ**0s.93**/382, **mb4.4**/141, **49C-15D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEP	Cherat	2.75	171	P	Pn	14 35 11.1	-1.1
KBL	Kabul	2.77	225	ePn	Pn	14 35 10.3	-2.2
KBL				eSn	S	14 35 46.6	-4.3
CHCP	Chirah Chowk	3.26	152	⇓P	Pn	14 35 17.6	-0.3
THW	Thamme Wali	3.75	176	⇑P	Pn	14 35 22.5	-1.1
SBDP	Sheikh Budin	4.26	187	P	Pn	14 35 27.7	-2.0
KSH	Kashi	4.67	49	⇑iP	Pn	14 35 34.4	-0.2
KSH				S	S	14 36 28.4	-2.6
KSH				Smax			
	comp=N,3μm,0.6s						
KSH				Smax			
	comp=E,4μm,0.6s						
SARP	Sargodha	4.73	167	P	Pn	14 35 33.9	-1.6
DRP	Derazinda	4.89	192	P	Pn	14 35 35.9	-1.5
AML	Almayashu	5.86	17	P	Pn	14 35 48.0	-1.3
	SNR=459						
UCH	Uchtor	6.17	22	P	Pn	14 35 52.2	-1.1
	SNR=281						
UCH	Uchtor	6.17	22	ePn	Pn	14 35 52.0	-1.2
	comp=E,142nm,0.6s						
UCH				eSn	S	14 36 59.3	-5.6
KZA	Kyzart	6.28	27	P	Pn	14 35 53.0	-1.7
	SNR=62						
EKS2	Erkin-Say	6.38	16	P	Pn	14 35 54.6	-1.3
	SNR=104						
EKS2	Erkin-Say	6.38	16	ePn	Pn	14 35 54.2	-1.7
	comp=E,27nm,0.5s						
EKS2				eS	S	14 36 55.9	-14
AAK	Ala-Archa	6.53	20	P	Pn	14 35 57.0	-0.9
	SNR=89						
AAK	Ala-Archa	6.53	20	ePn	Pn	14 35 55.9	-2.1
	comp=E,55nm,0.4s						
AAK				eS	S	14 37 02.5	-11
AAK	Ala-Archa	6.53	20	ePN	Pn	14 35 55.9	-2.0
AAK				pmax	pmax		
	comp=Z,55nm,0.4s						
KK31	Karatay Array	6.59	354	⇓P	Pn	14 35 56.1	-2.5
	comp=Z,30nm,0.6s,baz=175,slow=13,SNR=224						
KK31				⇑S	S	14 37 06.4	-8.2
	comp=Z,108nm,0.5s,baz=163,slow=27,SNR=15						
KBK	Karagaybulak	6.69	23	P	Pn	14 35 59.1	-0.8
	SNR=70						
ULHL	Ulahol	6.81	32	P	Pn	14 36 00.5	-1.0
	SNR=77						
CHMS	Chumysh	6.94	21	P	Pn	14 36 02.4	-0.8
	SNR=20						
USP	Ospenovka	7.12	19	P	Pn	14 36 04.7	-0.7
	SNR=28						
TKM2	Tokmak 2	7.14	26	P	Pn	14 36 04.7	-0.9
	SNR=17						
TKM2	Tokmak 2	7.14	26	ePn	Pn	14 36 04.4	-1.3
	comp=Z,56nm,0.5s						
TKM2				eS	S	14 37 17.3	-10
TKM2	Tokmak 2	7.14	26	ePN	Pn	14 36 04.4	-1.2
TKM2				pmax	pmax		
	comp=Z,56nm,0.5s						
MK31	Makanchi Array	13.07	35	⇑P	Pn	14 37 20.1	-0.5

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      comp=Z,14nm,0.6s,baz=217,slow=13
MK31  Makanchi Array   13.07  35  ePn    Pn     14 37 19.0 -1.6
MK31  Makanchi Array   13.07  35  eP     Pn     14 37 19.0 -1.6
MKAR  Makanchi Array   13.07  35   P     Pn     14 37 18.9 -1.7
MKAR  Makanchi Array   13.07  35   P     Pn     14 37 18.9 -1.7
MKAR                               pmax  pmax
      comp=Z,1.0nm,0.3s
MKAR  Makanchi Array   13.07  35   P     Pn     14 37 18.9 -1.7
      comp=Z,1.4nm,0.3s,baz=216,slow=13,SNR=126
KOLN  Koldanda         13.53 127  eP     Pn     14 37 25.6 -0.9
GKN   Gorkha           14.05 124  eP     Pn     14 37 32.4 -0.5
      comp=Z,338nm,0.7s
WMQ   Urumqi           14.40  55   P     Pn     14 37 37.9 +0.9
WMQ                                XP           14 38 34.1
WMQ                                S     S      14 40 12.2 -4.3
WMQ                                PCP   PcP    14 42 38.1 +3.1
WMQ                                AMB   AMB
      comp=Z,24nm,0.8s
WMQ                                AMB   AMB
      comp=Z,28nm,6.7s
DMN   Daman            14.62 124  eP     Pn     14 37 39.9  0.0
      comp=Z,246nm,0.6s
KKN   Kakani           14.62 123  eP     Pn     14 37 39.5 -0.4
      comp=Z,256nm,0.6s
PKI   Pulchoki         14.85 123  eP     Pn     14 37 42.5 -0.2
      comp=Z,229nm,0.6s
GUN   Gumba            14.96 121  eP     Pn     14 37 43.8 -0.1
      comp=Z,129nm,0.6s
KURK  Kurchatov        15.09  18 ⇑P     Pn     14 37 49.5 +4.3
      comp=Z,9.2nm,0.9s
KURK  Kurchatov        15.09  18  eP     Pn     14 37 42.4 -2.8
      comp=Z,19nm,0.8s
KURK  Kurchatov        15.09  18⇓eP     Pn     14 37 42.4 -2.8
JIRN  Jiri             15.33 121  eP     Pn     14 37 48.0 -0.4
      comp=Z,160nm,0.5s
TAPN  Taplejung        16.58 119  eP     P      14 38 03.7 +1.9
      comp=Z,224nm,0.7s
ODAN  Odare            16.66 121  eP     P      14 38 04.8 +2.1
      comp=Z,213nm,0.7s
AKTK  Aktyubinsk       16.91 329   P     P      14 38 04.9 -0.2
AKTO  Aktyubinsk       16.91 329   P     P      14 38 04.9 -0.2
AKTO                               pmax  pmax
      comp=Z,5.0nm,0.3s
AKTO  Aktyubinsk       16.91 329   P     P      14 38 04.9 -0.2
      comp=Z,4.5nm,0.3s,baz=142,slow=9.4,SNR=93
LSA   Lhasa            17.88 107   P     P      14 38 20.1 +4.2
LSA                                AMB   AMB
      comp=Z,70nm,0.7s
LSA   Lhasa            17.88 107  eP     P      14 38 19.4 +3.5
      comp=Z,63nm,0.8s
LSA   Lhasa            17.88 107  eP     P      14 38 19.4 +3.5
LSA                                pmax  pmax
      comp=Z,63nm,0.8s
ZAL   Zalesovo         19.73  24   P     P      14 38 35.5  0.0
ZALV  Zalesovo Beam    19.74  24   P     P      14 38 35.5 -0.2
ZALV  Zalesovo Beam    19.74  24   P     P      14 38 35.5 -0.2
      comp=Z,2.5nm,0.3s,baz=210,slow=11,SNR=28
HYB   Hyderabad        20.07 160  eP     P      14 38 40.0 +0.4
HYB                               eS     S      14 42 23.0  +11
HYB   Hyderabad        20.07 160  i P    P      14 38 40.0 +0.4
HYB                               eS     S      14 42 15.0 +2.8
SVE   Sverdlovsk       21.54 344  eP     P      14 38 55.0 +0.6
SVE                               e             14 40 00.0
ARU   Arti             21.70 340  eP     P      14 38 55.4 -0.5
      comp=Z,22nm,0.9s,mb4.7
ARU                               e             14 40 01.1
ARU   Arti             21.70 340⇓iP     P      14 38 56.1 +0.2
ARU                               eS     S      14 42 41.9 +2.6
ARU                                pmax  pmax
      comp=Z,17nm,0.9s,mb4.6
ZEI   Tsey             22.02 295  eP     P      14 38 59.3 +0.3
ZEI                                pmax  pmax
      comp=Z,10.0nm,0.9s,mb4.3
GTA   Gaotai           22.54  74   P     P      14 39 06.7 +2.9
GTA                                AMB   AMB
      comp=Z,13nm,1.0s,mb4.4
KIV   Kislovodsk       23.06 298  eP     P      14 39 09.1 +0.7
KIV                               e*SP   sP     14 40 17.8 -1.0
KIV                               eS     S      14 43 07.4 +5.9
KIV                                pmax  pmax
      comp=Z,15nm,1.0s,mb4.5
KIV                                MLR   MLR
      comp=Z,53nm,13.0s
SOC   Sochi            25.14 296⇑iP     P      14 39 23.1 -4.3
SOC                               eS     S      14 43 29.6 -5.0
SOC                                pmax  pmax
      comp=Z,66nm,1.0s,mb5.2
LZH   Lanzhou          26.08  81  eP     P      14 39 38.5 +2.6
LZH                                AP    pP     14 40 20.5 -1.0
LZH                                XP    sP     14 40 49.0 +0.5
LZH                                AMB   AMB
      comp=Z,14nm,1.0s,mb4.5
ANN   Anapa            26.90 298  eP     P      14 39 35.7 -7.4
ANN                               e*PP   pP     14 40 18.8  -10
ANN                               eS     S      14 43 54.7 -7.5
ANN                                pmax  pmax
      comp=Z,199nm,1.4s,mb5.5
TLY   Talaya           27.38  46  eP     P      14 39 49.2 +2.0
      comp=Z,3.1nm,0.5s,mb4.2
TLY   Talaya           27.38  46  eP     P      14 39 49.2 +2.0
TLY                                pmax  pmax
      comp=Z,3.0nm,0.5s,mb4.2
CD2   Chengdu          27.41  92  eP     P      14 39 49.3 +1.6
CD2                                AP    pP     14 40 33.6 -0.1
CD2                                PP    PP     14 40 48.0 -6.5
CD2                                XP    sP     14 40 59.6 -1.0
CD2                                S     S      14 44 11.4 +0.8
CD2                                XS    sS     14 45 30.0 -3.4
CD2                                SS    SS     14 45 51.2  -25
CD2                                AMB   AMB
      comp=Z,10.0nm,0.6s,mb4.6
CD2                                AMB   AMB
      comp=Z,30nm,5.2s
SONM  Songino Array    28.04  55   P     P      14 39 54.8 +1.6
SONM                               *PP   pP     14 40 41.4 +2.2
SONM                               pmax  pmax
      comp=Z,2.0nm,0.8s
SONM                               pmax  pmax
      comp=Z,4.0nm,0.9s
SONM  Songino Array    28.04  55   P     P      14 39 54.8 +1.6
      comp=Z,1.5nm,0.8s,mb3.7,baz=264,slow=9.3,SNR=8.4
SONM                               pP    pP     14 40 41.4 +2.2
      comp=Z,3.5nm,0.9s,baz=253,slow=11,SNR=8.4
ULN   Ulaanbaatar      28.48  55  eP     P      14 39 57.8 +0.7
      comp=Z,3.3nm,1.0s,mb3.9
ULN                               epP    pP     14 40 44.6 +1.5
ULN   Ulaanbaatar      28.48  55  eP     P      14 39 57.8 +0.7
ULN                               e*PP   pP     14 40 44.6 +1.4
ULN                                pmax  pmax
      comp=Z,3.0nm,1.0s,mb3.9
ASF   Jabal al Asfar   28.72 271   P     P      14 40 00.8 +1.4
ASF                                pmax  pmax
      comp=Z,1.0nm,0.4s
ASF   Jabal al Asfar   28.72 271   P     P      14 40 00.8 +1.4
      comp=Z,0.7nm,0.4s,mb3.7,baz=56,slow=3.6,SNR=2.5
KMI   Kunming          29.09 104   P     P      14 40 04.5 +1.8
KMI                                AMB   AMB
      comp=Z,5.0nm,1.1s,mb4.1
MMAI  Mount Meron Ar   29.67 274   P     P      14 40 07.7  0.0
      comp=Z,0.3nm,0.3s,mb3.4,baz=108,slow=4.7,SNR=4.0
BR131 Keskin Array S   29.73 288  eP     P      14 40 08.8 +0.6
      comp=Z,2.4nm,0.6s
MOS   Moscow           29.83 321  eP     P      14 40 08.3 -0.5
MOS                                pmax  pmax
      comp=Z,60nm,1.1s,mb5.1
PRGR  Permogore        29.87 335  eP     P      14 40 08.3 -0.8
PRGR                              e             14 41 19.7
PRGR                              eS     S      14 44 42.0 -6.4
PRGR                               pmax  pmax
      comp=Z,33nm,0.8s,mb5.0
OBN   Obninsk          30.12 319⇓iP     P      14 40 11.5 +0.1
OBN                               e*PP   pP     14 41 01.6 +3.9
OBN                                pmax  pmax
      comp=Z,58nm,1.2s,mb5.1
PALK  Pallekele        30.35 162   P     P      14 40 13.4 -0.4
      comp=Z,22nm,1.1s,mb4.7
EIL   Elat             31.16 268  eP     P      14 40 21.5 +0.6
      comp=Z,128nm,1.0s,mb5.5
EIL   Elat             31.16 268   P     P      14 40 20.5 -0.4
      comp=Z,6.3nm,0.9s,mb4.2,baz=20,slow=3.7,SNR=4.0
HHC   Hu-ho-hao-te     31.44  70  eP     P      14 40 24.8 +1.6
HHC                                AP    pP     14 41 10.3 +0.6
HHC                                XP    sP     14 41 35.9 -0.6
HHC                                PP    PP     14 41 38.4 -0.7
HHC                                PCP   PcP    14 43 12.7 +2.3
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HHC                                S     S      14 45 17.0 +3.6
HHC                                SCP   ScP    14 46 33.8 +2.6
HHC                                XS    sS     14 46 35.7 -1.0
HHC                                PCS   PcS    14 46 57.6 +2.6
HHC                                SS    SS     14 47 22.2 -7.8
HHC                                SCS   ScS    14 50 29.9 +0.6
HHC                                AMB   AMB
      comp=Z,11nm,1.0s,mb4.4
HHC                                AMB   AMB
      comp=Z,124nm,4.0s
HHC                                LR    LR
      comp=N,82nm,13.3s
HHC                                LR    LR
      comp=E,109nm,12.3s
HHC                                LR    LR
      comp=Z,97nm,12.3s
GYA   Guiyang          31.55  98⇑iP     P      14 40 26.5 +2.2
GYA                                AP    pP     14 41 13.2 +2.4
GYA                                XP    sP     14 41 39.6 +2.1
GYA                                PP    PP     14 41 41.2 +0.7
GYA                                PCP   PcP    14 43 12.7 +1.8
GYA                                S     S      14 45 17.2 +1.8
GYA                                XS    sS     14 46 40.0 +1.3
GYA                                PCS   PcS    14 46 56.4 +0.6
GYA                                SCS   ScS    14 50 29.8 -0.5
GYA                                AMB   AMB
      comp=Z,10.0nm,1.0s,mb4.3
GYA                                AMB   AMB
      comp=Z,70nm,5.4s
KIS   Kishinev         33.07 302  e      pP     14 41 20.0 -3.9
AKASG Malin Array Be   33.17 309   P     P      14 40 37.5 -0.5
AKASG                              pP    pP     14 41 23.2 -1.6
AKASG Malin Array Be   33.17 309   P     P      14 40 37.5 -0.6
AKASG                              *PP   pP     14 41 23.2 -1.6
AKASG                              pmax  pmax
      comp=Z,2.0nm,0.5s
AKASG                              pmax  pmax
      comp=Z,2.0nm,0.7s
AKASG Malin Array Be   33.17 309   P     P      14 40 37.5 -0.5
      comp=Z,2.1nm,0.5s,mb4.0,baz=90,slow=7.5,SNR=25
AKASG                              pP    pP     14 41 23.2 -1.6
      comp=Z,1.6nm,0.7s,baz=84,slow=7.5,SNR=1.7
MLR   Muntele Rosu     35.04 299 ⇓P     P      14 40 56.4 +2.2
MLR   Muntele Rosu     35.04 299   P     P      14 40 55.2 +1.0
MLR                                pmax  pmax
      comp=Z,23nm,0.8s
MLR   Muntele Rosu     35.04 299   P     P      14 40 55.2 +1.0
      comp=Z,23nm,0.8s,mb4.8,baz=91,slow=4.1,SNR=9.6
MLR   Muntele Rosu     35.04 299⇓iP     P      14 40 56.4 +2.2
BURAR Bucovina Array   35.53 303 ⇑P     P      14 40 59.3 +1.0
BURAR Bucovina Array   35.53 303⇑iP     P      14 40 59.3 +1.0
JOF   Joensuu          35.99 330  ep     P      14 41 01.5 -0.5
      comp=Z,18nm,0.3s,mb5.1
JOF   Joensuu          35.99 330  eP     P      14 41 01.5 -0.5
JOF                                pmax  pmax
      comp=Z,18nm,0.3s,mb5.1
LVV   L'vov            36.40 307  eP     P      14 41 06.0 +0.4
KWP   Kalwaria         37.25 306  eP     P      14 41 14.1 +1.4
DRGR                   37.25 301 ⇓P     P      14 41 14.2 +1.3
DRGR                   37.25 301⇓iP     P      14 41 14.1 +1.3
IDI   Anoyia           37.41 282   P     P      14 41 13.4 -0.9
      comp=Z,8.0nm,0.7s,mb4.4,baz=119,slow=9.8,SNR=5.1
KOLS  Kolonicke sedl   37.52 305  eP     P      14 41 16.1 +1.1
FINES FINESS Array B   37.63 326   P     P      14 41 15.8  0.0
FINES FINESS Array B   37.63 326   P     P      14 41 15.8  0.0
FINES                              pmax  pmax
      comp=Z,8.0nm,0.5s
FINES FINESS Array B   37.63 326   P     P      14 41 15.8  0.0
      comp=Z,8.0nm,0.5s,mb4.5,baz=120,slow=11,SNR=46
KAF   Kangasniemi      37.77 327  ep     P      14 41 16.1 -0.8
      comp=Z,2.4nm,0.3s,mb4.2
KAF   Kangasniemi      37.77 327  eP     P      14 41 16.1 -0.8
KAF                                pmax  pmax
      comp=Z,2.0nm,0.3s,mb4.1
BZS   Buzias           38.07 300 ⇑P     P      14 41 20.4 +0.7
BZS   Buzias           38.07 300⇑iP     P      14 41 20.4 +0.7
STHS  Stebnicka Huta   38.20 306  eP     P      14 41 21.3 +0.6
      comp=Z,5.4nm,0.8s,mb4.1
STHS  Stebnicka Huta   38.20 306  eP     P      14 41 21.3 +0.6
STHS                               pmax  pmax
      comp=Z,5.0nm,0.8s,mb4.1
KECS  Kecovo           38.71 304  i P    P      14 41 25.8 +0.9
      comp=Z,1.7nm,0.7s,mb3.7
KECS  Kecovo           38.71 304  i P    P      14 41 25.8 +0.9
KECS                               pmax  pmax
      comp=Z,2.0nm,0.7s,mb3.8
NIE   Niedzica         38.80 306  eP     P      14 41 27.1 +1.4
OJC   Ojcow            39.14 307  eP     P      14 41 28.4 -0.1
NJ2   Nanjing          39.15  82  eP     P      14 41 30.7 +1.9
NJ2                                AMB   AMB
      comp=Z,100nm,0.8s,mb5.4
VYHS  Vyhne            39.80 304  i P    P      14 41 34.7 +0.7
      comp=Z,3.9nm,1.3s,mb3.7
VYHS  Vyhne            39.80 304  i P    P      14 41 34.7 +0.7
VYHS                               pmax  pmax
      comp=Z,4.0nm,1.3s,mb3.7
MORC  Moravsky Berou   40.60 306 ⇓P     P      14 41 41.5 +1.0
MORC  Moravsky Berou   40.60 306⇓iP     P      14 41 41.5 +1.0
MODS  Modra-Piesok     40.84 304  eP     P      14 41 42.1 -0.4
KEV   Kevo             40.88 338   P     P      14 41 42.5 -0.1
      comp=Z,16nm,0.8s,mb4.5
KEV   Kevo             40.88 338   P     P      14 41 42.5  0.0
KEV                                pmax  pmax
      comp=Z,16nm,0.8s,mb4.5
ARCES ARCESS Array B   41.23 337   P     P      14 41 45.9 +0.6
ARCES                              pmax  pmax
      comp=Z,12nm,0.6s
ARCES ARCESS Array B   41.23 337   P     P      14 41 45.9 +0.6
      comp=Z,12nm,0.6s,mb4.5,baz=114,slow=9.0,SNR=124
ARE0  ARCESS Array S   41.23 337  eP     P      14 41 45.7 +0.4
VRAC  Vranov           41.24 306 ⇓P     P      14 41 46.9 +1.2
VRAC  Vranov           41.24 306   P     P      14 41 46.0 +0.3
VRAC                               pmax  pmax
      comp=Z,12nm,0.9s
VRAC  Vranov           41.24 306   P     P      14 41 46.0 +0.3
      comp=Z,12nm,0.9s,mb4.3,baz=91,slow=9.1,SNR=9.7
VRAC  Vranov           41.24 306⇓iP     P      14 41 46.9 +1.2
DPC   Dobruska-Polom   41.36 307  eP     P      14 41 47.6 +0.9
UPC   Upice            41.56 308  eP     P      14 41 49.0 +0.7
KTK1  Kautokeino       41.71 336  eP     P      14 41 50.3 +1.1
CONA  Conrad Observa   41.83 304⇑iP     P      14 41 51.2 +0.7
      comp=Z,17nm,1.0s,mb4.4
TREC  Trest            41.96 306  eP     P      14 41 52.6 +1.0
GROS  Grobnik          42.23 302  i P    P      14 41 54.1 +0.4
PRU   Pruhonice        42.53 307  eP     P      14 41 57.1 +1.0
BOJS  Bojanci          42.53 300  i P    P      14 41 56.6 +0.4
TIP   Timpagrande      42.68 291  eP     P      14 41 53.6 -3.8
VNDS  Vrh nad Dolski   42.83 301  i P    P      14 41 59.3 +0.7
BRG   Berggiesshubel   42.85 308  i P    P      14 41 59.0 +0.3
BRG                                pmax  pmax
      comp=Z,12nm,0.9s,mb4.3
BRG   Berggiesshubel   42.85 308  eP     P      14 41 58.9 +0.2
      comp=Z,20nm,0.9s,mb4.5
BRG   Berggiesshubel   42.85 308  i P    P      14 41 59.0 +0.3
      comp=Z,20nm,0.9s,mb4.6
RUE   Ruedersdorf      42.88 311  eP     P      14 41 59.2 +0.3
      comp=Z,24nm,0.6s,mb4.8
LJU   Ljubljana        42.95 301  i P    P      14 42 00.2 +0.7
GEC2  GERESS Array S   43.17 305  eP     P      14 42 01.3  0.0
GEC2                               pmax  pmax
      comp=Z,9.0nm,1.3s,mb4.0
GEC2  GERESS Array S   43.17 305  eP     P      14 42 01.3  0.0
      comp=Z,9.0nm,1.3s,mb4.0
GERES GERESS Array B   43.17 305   P     P      14 42 01.5 +0.2
GERES                              pmax  pmax
      comp=Z,2.0nm,0.7s
GERES GERESS Array B   43.17 305   P     P      14 42 01.5 +0.3
      comp=Z,1.8nm,0.7s,mb3.6,baz=94,slow=7.2,SNR=12
FBE   Freiberg         43.22 308  eP     P      14 42 01.7 +0.1
      comp=Z,19nm,0.8s,mb4.6
KHC   Kasperske Hory   43.22 306  eP     P      14 42 01.6 -0.1
HFS   Hagfors          43.23 322   P     P      14 42 01.5 -0.1
HFS                                *PP   pP     14 42 49.7 -0.7
HFS                                pmax  pmax
      comp=Z,21nm,0.8s
HFS                                pmax  pmax
      comp=Z,3.0nm,0.6s
HFS   Hagfors          43.23 322   P     P      14 42 01.5 -0.1
      comp=Z,20nm,0.8s,mb4.6,baz=93,slow=12,SNR=27
HFS                                pP    pP     14 42 49.7 -0.7
      comp=Z,2.9nm,0.6s,baz=104,slow=6.1,SNR=2.3
CLL   Collm            43.42 309  i P    P      14 42 03.7 +0.5
CLL                                pmax  pmax
      comp=Z,11nm,0.9s,mb4.3
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CLL   Collm            43.42 309  eP     P      14 42 03.7 +0.5
      comp=Z,11nm,0.9s,mb4.3
CLL   Collm            43.42 309  i P    P      14 42 03.7 +0.5
      comp=Z,11nm,0.9s,mb4.3
CADS  Cadrg            43.47 302  i P    P      14 42 03.7  0.0
WET   Wettzell         43.68 306  eP     P      14 42 05.7 +0.4
WET                                pmax  pmax
      comp=Z,4.0nm,1.0s,mb3.7
WET   Wettzell         43.68 306  eP     P      14 42 05.7 +0.4
      comp=Z,4.0nm,1.0s,mb3.7
YAK   Yakutsk          43.74  35⇑eP     P      14 42 05.8 +0.2
YAK                                pmax  pmax
      comp=Z,9.0nm,0.8s,mb4.2
TANN  Tannenbergstha   43.83 308  eP     P      14 42 07.3 +0.8
      comp=Z,11nm,1.1s,mb4.1
NKC   Novy Kostel      43.85 307  eP     P      14 42 07.5 +0.8
GUNZ  Gunzen           43.91 308  eP     P      14 42 08.2 +1.0
      comp=Z,11nm,1.0s,mb4.1
WERD  Werda            43.92 308  eP     P      14 42 08.1 +0.9
      comp=Z,10.0nm,1.0s,mb4.1
ROTZ  Rotzenmuhle      44.05 307  eP     P      14 42 09.3 +1.1
      comp=Z,17nm,1.2s,mb4.2
MANZ  Manzenberg       44.09 307  eP     P      14 42 09.7 +1.1
      comp=Z,13nm,1.0s,mb4.2
MDJ   Mudanjiang       44.10  61   P     P      14 42 08.4 -0.3
MDJ                                AMB   AMB
      comp=Z,12nm,2.2s,mb3.8
MDJ                                AMB   AMB
      comp=Z,79nm,4.1s
MOX   Moxa             44.34 308  eP     P      14 42 11.3 +0.8
      comp=Z,11nm,1.0s,mb4.1
NB2   NORSAR Subarra   44.54 323   P     P      14 42 11.3 -0.6
      comp=Z,16nm,0.8s,mb4.4,baz=96,slow=7.9
NOA   NORSAR Array B   44.54 323   P     P      14 42 11.6 -0.3
NOA                                *PP   pP     14 43 00.1 -1.0
NOA                                pmax  pmax
      comp=Z,13nm,0.8s
NOA                                pmax  pmax
      comp=Z,1.0nm,0.6s
NOA   NORSAR Array B   44.54 323   P     P      14 42 11.6 -0.3
      comp=Z,13nm,0.8s,mb4.3,baz=96,slow=7.7,SNR=42
NOA                                pP    pP     14 43 00.1 -1.0
      comp=Z,1.1nm,0.6s,baz=96,slow=8.2,SNR=2.0
KSRS  Korea Array      44.56  71   P     P      14 42 13.3 +0.9
      comp=Z,1.2nm,0.5s,mb3.5,baz=268,slow=7.2,SNR=5.9
NAO01 NORSAR Array S   44.69 323  eP     P      14 42 11.4 -1.7
      comp=Z,10nm,0.9s,mb4.2
GRA1  Grafenberg Arr   44.70 307  eP     P      14 42 14.7 +1.4
      comp=Z,10.0nm,0.8s,mb4.2
GRF   Grafenberg Arr   44.70 307  eP     P      14 42 14.7 +1.4
GRF                                pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.2
GRF   Grafenberg Arr   44.70 307  eP     P      14 42 14.7 +1.4
GRF                                pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.2
GRF   Grafenberg Arr   44.70 307  eP     P      14 42 14.7 +1.4
      comp=Z,10.0nm,0.8s,mb4.2
BSEG  Bad Segeberg     44.90 313  eP     P      14 42 15.8 +0.9
BSEG                               pmax  pmax
      comp=Z,18nm,0.8s,mb4.5
BSEG  Bad Segeberg     44.90 313  eP     P      14 42 15.8 +0.9
      comp=Z,18nm,0.8s,mb4.5
CLZ   Clausthal        45.01 310  eP     P      14 42 16.7 +0.9
      comp=Z,21nm,1.2s,mb4.3
CLZ                               epP    pP     14 43 07.0 +2.0
CLZ   Clausthal        45.01 310  eP     P      14 42 16.7 +0.9
CLZ                               e*PP   pP     14 43 07.0 +2.0
CLZ                                pmax  pmax
      comp=Z,21nm,1.2s,mb4.3
MOTA  Moosalm          45.09 303⇑iP     P      14 42 15.7 -0.8
      comp=Z,5.4nm,0.9s,mb3.9
MOTA  Moosalm          45.09 303⇑iP     P      14 42 15.7 -0.8
MOTA                               pmax  pmax
      comp=Z,5.0nm,0.9s,mb3.8
NRDL  Niedersach Rie   45.12 311  eP     P      14 42 17.5 +0.9
      comp=Z,21nm,1.1s,mb4.4
KONO  Kongsberg        45.26 321  eP     P      14 42 16.5 -1.1
      comp=Z,10nm,0.8s,mb4.2
KONO  Kongsberg        45.26 321  eP     P      14 42 16.5 -1.1
KONO                               pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.2
UBBA  Unterbreizbach   45.35 308  eP     P      14 42 18.9 +0.5
      comp=Z,37nm,1.8s,mb4.4
FETA  Feichten         45.40 303⇑iP     P      14 42 18.5 -0.4
      comp=Z,13nm,1.0s,mb4.2
TIXI  Tiksi            45.61  22  eP     P      14 42 20.2  0.0
      comp=Z,5.4nm,0.3s,mb4.4
TIXI  Tiksi            45.61  22  eP     P      14 42 19.3 -0.9
TIXI                              e      pP     14 43 10.6 +1.0
TIXI                               pmax  pmax
      comp=Z,6.0nm,0.7s,mb4.0
DAVA  Damuels          45.92 304⇓iP     P      14 42 23.0  0.0
      comp=Z,31nm,0.8s,mb4.7
DAVA  Damuels          45.92 304⇓iP     P      14 42 23.0  0.0
      comp=Z,31nm,0.8s,mb4.7
DAVOX Davos/Dischmat   46.01 303   P     P      14 42 23.5 -0.1
      comp=Z,8.5nm,0.7s,mb4.2,baz=87,slow=7.7,SNR=9.8
TNS   Taunus Mts       46.41 308  eP     P      14 42 27.5 +0.8
TNS                                pmax  pmax
      comp=Z,16nm,1.1s,mb4.3
TNS   Taunus Mts       46.41 308  eP     P      14 42 27.5 +0.8
      comp=Z,16nm,1.1s,mb4.3
BFO   Black Forest     46.77 305  eP     P      14 42 29.4 -0.2
BFO                                pmax  pmax
      comp=Z,18nm,1.7s,mb4.1
BFO   Black Forest     46.77 305  eP     P      14 42 29.4 -0.2
      comp=Z,18nm,1.7s,mb4.1
BUG   Bochum--Univer   46.98 310  eP     P      14 42 32.4 +1.3
      comp=Z,16nm,0.8s,mb4.4
CDF   Champ du Feu     47.45 306⇑iP     P      14 42 35.0 +0.2
      comp=Z,7.8nm,0.9s,mb4.0
CDF   Champ du Feu     47.45 306⇑iP     P      14 42 35.0 +0.2
CDF                                pmax  pmax
      comp=Z,8.0nm,0.9s,mb4.0
CDF   Champ du Feu     47.45 306⇑iP     P      14 42 35.0 +0.2
      comp=Z,16nm,0.9s,mb4.0
PGF   Pioggiola        47.54 297⇑iP     P      14 42 34.8 -0.8
      comp=Z,8.9nm,0.7s,mb4.2
PGF   Pioggiola        47.54 297⇑iP     P      14 42 34.8 -0.8
PGF                                pmax  pmax
      comp=Z,9.0nm,0.7s,mb4.2
PGF   Pioggiola        47.54 297⇑iP     P      14 42 34.8 -0.8
      comp=Z,18nm,0.7s,mb4.2
HINF  Hinteralfeld     47.84 305  eP     P      14 42 37.5 -0.3
      comp=Z,10.0nm,0.8s,mb4.2
HINF  Hinteralfeld     47.84 305  eP     P      14 42 37.5 -0.3
HINF                               pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.2
HINF  Hinteralfeld     47.84 305  eP     P      14 42 37.5 -0.3
      comp=Z,20nm,0.8s,mb4.2
MEM   Membach          47.89 309   P     P      14 42 38.2  0.0
WLF   Walferdange      47.96 307   P     P      14 42 40.2 +1.6
WLF   Walferdange      47.96 307  eP     P      14 42 39.9 +1.3
      comp=Z,25nm,0.7s,mb4.7
HAU   Haudompre        48.14 305  eP     P      14 42 39.8 -0.3
      comp=Z,8.6nm,0.7s,mb4.2
HAU   Haudompre        48.14 305  eP     P      14 42 39.8 -0.3
HAU                                pmax  pmax
      comp=Z,9.0nm,0.7s,mb4.2
HAU   Haudompre        48.14 305  eP     P      14 42 39.8 -0.3
      comp=Z,17nm,0.7s,mb4.2
SBF   Sospel           48.32 300  eP     P      14 42 41.3 -0.2
      comp=Z,16nm,0.8s,mb4.4
SBF   Sospel           48.32 300  eP     P      14 42 41.3 -0.2
SBF                                pmax  pmax
      comp=Z,16nm,0.8s,mb4.4
SBF   Sospel           48.32 300  eP     P      14 42 41.3 -0.2
      comp=Z,32nm,0.8s,mb4.4
LPG   La Plagne        48.40 302  eP     P      14 42 42.5 +0.4
      comp=Z,17nm,0.9s,mb4.4
LPG   La Plagne        48.40 302  eP     P      14 42 42.5 +0.4
LPG                                pmax  pmax
      comp=Z,17nm,0.9s,mb4.4
LPG   La Plagne        48.40 302  eP     P      14 42 42.5 +0.4
      comp=Z,34nm,0.9s,mb4.3
LPL   La Plagne        48.41 302  eP     P      14 42 42.5 +0.3
      comp=Z,14nm,0.9s,mb4.3
LPL   La Plagne        48.41 302  eP     P      14 42 42.5 +0.3
LPL                                pmax  pmax
      comp=Z,14nm,0.9s,mb4.3
LPL   La Plagne        48.41 302  eP     P      14 42 42.5 +0.3
      comp=Z,28nm,0.9s,mb4.3
MBDF  Montbardon       48.57 301⇑iP     P      14 42 42.9 -0.5
      comp=Z,6.3nm,0.6s,mb4.1
MBDF  Montbardon       48.57 301⇑iP     P      14 42 42.9 -0.5
MBDF                               pmax  pmax
      comp=Z,6.0nm,0.6s,mb4.1
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MBDF  Montbardon        48.57 301⇑iP        P           14 42 42.9 -0.5
      comp=Z,13nm,0.6s,mb4.2
CABF  La Chapelle       48.60 303⇑iP        P           14 42 43.2 -0.4
      comp=Z,15nm,0.8s,mb4.4
CABF  La Chapelle       48.60 303⇑iP        P           14 42 43.2 -0.4
CABF                              pmax      pmax
      comp=Z,15nm,0.8s,mb4.4
CABF  La Chapelle       48.60 303⇑iP        P           14 42 43.2 -0.4
      comp=Z,30nm,0.8s,mb4.3
GIVF  Givet             48.73 308 eP        P           14 42 45.1 +0.6
DOU   Dourbes           48.87 308  P        P           14 42 46.5 +0.9
      comp=Z,7.0nm,1.1s,mb3.9
MEZF  Maizieres J'vi    48.89 306 eP        P           14 42 46.0 +0.3
FRF   La Foret Royal    48.95 299⇑iP        P           14 42 45.6 -0.7
      comp=Z,6.8nm,0.6s,mb4.2
FRF   La Foret Royal    48.95 299⇑iP        P           14 42 45.6 -0.7
FRF                               pmax      pmax
      comp=Z,7.0nm,0.6s,mb4.2
FRF   La Foret Royal    48.95 299⇑iP        P           14 42 45.6 -0.7
      comp=Z,14nm,0.6s,mb4.1
KMBO  Kilima Mbogo      49.10 228 eP        P           14 42 48.5 +0.8
      comp=Z,7.6nm,1.0s,mb4.0
KMBO  Kilima Mbogo      49.10 228  P        P           14 42 48.3 +0.5
KMBO                              pmax      pmax
      comp=Z,5.0nm,0.9s
KMBO  Kilima Mbogo      49.10 228  P        P           14 42 48.2 +0.5
      comp=Z,5.4nm,0.9s,mb3.9,baz=30,slow=11,SNR=11
BAIF  Baives            49.12 308 eP        P           14 42 48.1 +0.6
      comp=Z,17nm,0.9s,mb4.4
BAIF  Baives            49.12 308 eP        P           14 42 48.1 +0.6
BAIF                              pmax      pmax
      comp=Z,17nm,0.9s,mb4.4
BAIF  Baives            49.12 308 eP        P           14 42 48.1 +0.6
      comp=Z,34nm,0.9s,mb4.4
KEST  Kesra             49.33 289  P        P           14 42 49.3  0.0
      comp=Z,3.3nm,0.6s,mb3.9,baz=221,slow=0.6,SNR=6.4
SMRF  Simiane la Rot    49.59 300 eP        P           14 42 50.9 -0.2
      comp=Z,18nm,1.0s,mb4.3
SMRF  Simiane la Rot    49.59 300 eP        P           14 42 50.9 -0.2
      comp=Z,18nm,1.0s,mb4.0
LOR   Lormes            49.94 305 eP        P           14 42 54.2 +0.5
      comp=Z,7.8nm,1.0s,mb4.0
LOR   Lormes            49.94 305 eP        P           14 42 54.2 +0.5
LOR                               pmax      pmax
      comp=Z,8.0nm,1.0s,mb4.0
LOR   Lormes            49.94 305 eP        P           14 42 54.2 +0.5
      comp=Z,16nm,1.0s,mb4.0
VIVF  Saint-Julien-l    49.98 301 eP        P           14 42 53.8 -0.3
      comp=Z,13nm,0.8s,mb4.3
VIVF  Saint-Julien-l    49.98 301 eP        P           14 42 53.8 -0.3
VIVF                              pmax      pmax
      comp=Z,13nm,0.8s,mb4.3
VIVF  Saint-Julien-l    49.98 301 eP        P           14 42 53.8 -0.3
      comp=Z,26nm,0.8s,mb4.3
SMF   Signal de Mont    50.10 304⇑iP        P           14 42 54.6 -0.3
      comp=Z,22nm,0.8s,mb4.5
SMF   Signal de Mont    50.10 304⇑iP        P           14 42 54.6 -0.3
SMF                               pmax      pmax
      comp=Z,22nm,0.8s,mb4.5
SMF   Signal de Mont    50.10 304⇑iP        P           14 42 54.6 -0.3
      comp=Z,45nm,0.8s,mb4.5
SSF   Saint Saulge      50.22 304⇑iP        P           14 42 55.3 -0.5
      comp=Z,12nm,1.1s,mb4.1
SSF   Saint Saulge      50.22 304⇑iP        P           14 42 55.3 -0.5
SSF                               pmax      pmax
      comp=Z,12nm,1.1s,mb4.1
SSF   Saint Saulge      50.22 304⇑iP        P           14 42 55.3 -0.5
      comp=Z,24nm,1.1s,mb4.1
AVF   Avril sur Loir    50.39 304⇑iP        P           14 42 56.7 -0.4
      comp=Z,20nm,0.8s,mb4.5
AVF   Avril sur Loir    50.39 304⇑iP        P           14 42 56.7 -0.4
AVF                               pmax      pmax
      comp=Z,20nm,0.8s,mb4.5
AVF   Avril sur Loir    50.39 304⇑iP        P           14 42 56.7 -0.4
      comp=Z,40nm,0.8s,mb4.5
HYF   Humbligny         50.75 305 eP        P           14 42 59.8 +0.1
LASF  Ste Croix         50.76 301 eP        P           14 43 00.0 +0.1
      comp=Z,42nm,1.0s,mb4.5
BGF   Bois d'Agland     50.79 304 eP        P           14 42 59.6 -0.4
      comp=Z,9.4nm,0.9s,mb4.2
BGF   Bois d'Agland     50.79 304 eP        P           14 42 59.6 -0.4
BGF                               pmax      pmax
      comp=Z,9.0nm,0.9s,mb4.2
BGF   Bois d'Agland     50.79 304 eP        P           14 42 59.6 -0.4
      comp=Z,19nm,0.9s,mb4.2
TCF   Toulx Ste Croi    51.28 304⇑iP        P           14 43 03.8 +0.1
      comp=Z,21nm,1.0s,mb4.5
TCF   Toulx Ste Croi    51.28 304⇑iP        P           14 43 03.8 +0.1
TCF                               pmax      pmax
      comp=Z,21nm,1.0s,mb4.5
TCF   Toulx Ste Croi    51.28 304⇑iP        P           14 43 03.8 +0.1
      comp=Z,43nm,1.0s,mb4.5
CAF   Calviac           51.75 302 eP        P           14 43 07.4 +0.2
RJF   Les Rejaudoux     52.02 303 eP        P           14 43 09.5 +0.3
      comp=Z,7.1nm,0.9s,mb4.1
RJF   Les Rejaudoux     52.02 303 eP        P           14 43 09.5 +0.3
RJF                               pmax      pmax
      comp=Z,7.0nm,0.9s,mb4.1
RJF   Les Rejaudoux     52.02 303 eP        P           14 43 09.5 +0.3
      comp=Z,14nm,0.9s,mb4.1
MTLF  Montolieu         52.11 300 eP        P           14 43 09.7 -0.2
LDF   La Druitiere      52.21 307 eP        P           14 43 10.1 -0.4
      comp=Z,9.1nm,0.8s,mb4.3
LDF   La Druitiere      52.21 307 eP        P           14 43 10.1 -0.4
LDF                               pmax      pmax
      comp=Z,9.0nm,0.8s,mb4.2
LDF   La Druitiere      52.21 307 eP        P           14 43 10.1 -0.4
      comp=Z,18nm,0.8s,mb4.2
FLN   La Foliniere      52.40 307 eP        P           14 43 11.3 -0.6
      comp=Z,9.0nm,0.7s,mb4.3
FLN   La Foliniere      52.40 307 eP        P           14 43 11.3 -0.6
FLN                               pmax      pmax
      comp=Z,9.0nm,0.7s,mb4.3
FLN   La Foliniere      52.40 307 eP        P           14 43 11.3 -0.6
      comp=Z,18nm,0.7s,mb4.3
EKA   Eskdalemuir Ar    52.48 316  P        P           14 43 12.0 -0.4
EKA                               pmax      pmax
      comp=Z,6.0nm,1.0s
EKA   Eskdalemuir Ar    52.48 316  P        P           14 43 12.0 -0.4
      comp=Z,6.4nm,1.0s,mb4.0,baz=92,slow=8.3,SNR=6.3
LFF   La Frestale       52.65 303 eP        P           14 43 13.8  0.0
GRR   Gorron            52.74 307 eP        P           14 43 13.7 -0.7
      comp=Z,16nm,0.9s,mb4.4
GRR   Gorron            52.74 307 eP        P           14 43 13.7 -0.7
GRR                               pmax      pmax
      comp=Z,16nm,0.9s,mb4.5
GRR   Gorron            52.74 307 eP        P           14 43 13.7 -0.7
      comp=Z,31nm,0.9s,mb4.4
MFF   Saint Martin d    52.76 305 eP        P           14 43 13.9 -0.7
      comp=Z,19nm,1.1s,mb4.4
MFF   Saint Martin d    52.76 305 eP        P           14 43 13.9 -0.7
MFF                               pmax      pmax
      comp=Z,19nm,1.1s,mb4.4
MFF   Saint Martin d    52.76 305 eP        P           14 43 13.9 -0.7
      comp=Z,38nm,1.1s,mb4.4
MBAR  Mbarara           52.80 235 i P       P           14 43 14.7 -0.6
EPF   Esparros          53.51 300 eP        P           14 43 18.9 -1.2
      comp=Z,7.1nm,0.8s,mb4.2
EPF   Esparros          53.51 300 eP        P           14 43 18.9 -1.2
EPF                               pmax      pmax
      comp=Z,7.0nm,0.8s,mb4.2
EPF   Esparros          53.51 300 eP        P           14 43 18.9 -1.2
      comp=Z,14nm,0.8s,mb4.2
EPOB  Poblet            53.54 298  P        P           14 43 19.4 -1.0
      comp=Z,50nm,1.4s,mb4.8
EBIE  Bielsa            53.76 300  P        P           14 43 21.8 -0.1
      comp=Z,5.4nm,0.6s,mb4.2
SGMF  Saint Gilles      53.86 307 eP        P           14 43 22.3 -0.3
      comp=Z,12nm,0.9s,mb4.4
SGMF  Saint Gilles      53.86 307 eP        P           14 43 22.3 -0.3
SGMF                              pmax      pmax
      comp=Z,12nm,0.9s,mb4.4
SGMF  Saint Gilles      53.86 307 eP        P           14 43 22.3 -0.3
      comp=Z,24nm,0.9s,mb4.4
ETSF  Etsaut            54.17 300⇑iP        P           14 43 25.0 +0.1
      comp=Z,11nm,0.6s,mb4.6
ETSF  Etsaut            54.17 300⇑iP        P           14 43 25.0 +0.1
ETSF                              pmax      pmax
      comp=Z,11nm,0.6s,mb4.6
ETSF  Etsaut            54.17 300⇑iP        P           14 43 25.0 +0.1
      comp=Z,22nm,0.6s,mb4.5
SEY   Seymchan          54.20  34⇑iP        P           14 43 25.0 +0.2
ROSF  Rostrenen         54.30 308 eP        P           14 43 25.3 -0.4
      comp=Z,12nm,0.9s,mb4.4
ROSF  Rostrenen         54.30 308 eP        P           14 43 25.3 -0.4
ROSF                              pmax      pmax
      comp=Z,12nm,0.9s,mb4.4
ROSF  Rostrenen         54.30 308 eP        P           14 43 25.3 -0.4
      comp=Z,24nm,0.9s,mb4.4
QUIF  Quistinic         54.35 307 eP        P           14 43 25.5 -0.6
      comp=Z,3.8nm,0.6s,mb4.1
QUIF  Quistinic         54.35 307 eP        P           14 43 25.5 -0.6
QUIF                              pmax      pmax
      comp=Z,4.0nm,0.6s,mb4.1
QUIF  Quistinic         54.35 307 eP        P           14 43 25.5 -0.6
      comp=Z,7.6nm,0.6s,mb4.1
SJPF  Ste Jean          54.56 301 eP        P           14 43 28.5 +0.8
EALK  Alkurruntz        54.72 301  P        P           14 43 29.3 +0.4
      comp=Z,43nm,1.2s,mb4.8
ELAN  Lanestosa         56.04 302  P        P           14 43 37.4 -0.8
      comp=Z,64nm,1.0s,mb5.1
ETOB  Tobarra           56.39 296  P        P           14 43 40.7  0.0
      comp=Z,30nm,1.1s,mb4.7
EARI  Arriondas         57.23 302  P        P           14 43 45.7 -0.9
      comp=Z,65nm,1.6s,mb5.0
GUD   Guadarrama        57.49 299  P        P           14 43 48.3 -0.2
      comp=Z,6.5nm,0.6s,mb4.4
GUD   Guadarrama        57.49 299  P        P           14 43 48.3 -0.1
GUD                               pmax      pmax
      comp=Z,7.0nm,0.6s,mb4.5
ENIJ  Nijar             57.52 294  P        P           14 43 47.5 -1.3
      comp=Z,24nm,0.8s,mb4.9
ENIJ  Nijar             57.52 294  P        P           14 43 47.5 -1.2
ENIJ                              pmax      pmax
      comp=Z,24nm,0.8s,mb4.9
ESDC  Sonseca Array     57.73 298  P        P           14 43 49.9 -0.2
      comp=Z,6.3nm,0.6s,mb4.4
ESDC  Sonseca Array     57.73 298  P        P           14 43 49.6 -0.5
      comp=Z,5.0nm,0.6s,mb4.3,baz=59,slow=7.4,SNR=18
ESLA  Sonseca Array     57.73 298 eP        P           14 43 49.4 -0.7
      comp=Z,1.2nm,0.9s,mb3.5
EQES  Quesada           57.82 296  P        P           14 43 50.1 -0.7
      comp=Z,4.7nm,0.4s,mb4.5
EBER  Berja             58.05 295  P        P           14 43 51.2 -1.2
      comp=Z,22nm,0.8s,mb4.8
EBAN  Banos Encina      58.19 296  P        P           14 43 53.1 -0.2
      comp=Z,14nm,0.8s,mb4.7
EBAN  Banos Encina      58.19 296  P        P           14 43 53.1 -0.2
EBAN                              pmax      pmax
      comp=Z,15nm,0.8s,mb4.7
EADA  Adamuz            58.76 297  P        P           14 43 56.3 -0.9
      comp=Z,9.9nm,0.8s,mb4.5
ELUQ  Luque             58.78 296  P        P           14 43 57.1 -0.4
      comp=Z,6.0nm,0.4s,mb4.6
ELUQ  Luque             58.78 296  P        P           14 43 57.1 -0.3
ELUQ                              pmax      pmax
      comp=Z,6.0nm,0.4s,mb4.6
ECAL  Calabor           58.79 301  P        P           14 43 56.9 -0.5
      comp=Z,14nm,0.8s,mb4.6
ERUA  La Rua            58.89 302  P        P           14 43 57.6 -0.4
MVO   Moncorvo          59.29 301 eP        P           14 44 01.1 +0.2
      comp=Z,18nm,1.6s,mb4.4
ELOB  Lobios            59.72 302  P        P           14 44 03.9 +0.1
      comp=Z,21nm,0.8s,mb4.8
PCAB  Cabril            59.76 302 eP        P           14 44 05.0 +0.9
      comp=Z,22nm,1.7s,mb4.5
MTE   Manteigas         59.96 300 eP        P           14 44 06.4 +1.0
      comp=Z,22nm,1.3s,mb4.6
PVIS  Viseu             60.07 300 eP        P           14 44 06.6 +0.4
      comp=Z,18nm,1.0s,mb4.7
EBAD  Badajoz           60.26 298  P        P           14 44 06.3 -1.2
      comp=Z,29nm,0.8s,mb5.0
EMIN  Mina Concepcio    60.43 297  P        P           14 44 07.1 -1.5
      comp=Z,8.4nm,0.9s,mb4.4
MDT   Midelt            61.08 291  P        P           14 44 12.1 -1.0
      comp=Z,3.7nm,0.9s,mb4.0,baz=58,slow=6.9,SNR=7.8
EGRO  El Granado        61.12 297  P        P           14 44 12.6 -0.7
      comp=Z,9.6nm,0.6s,mb4.6
PBEJ  Beja              61.18 298 eP        P           14 44 14.4 +0.7
      comp=Z,12nm,1.3s,mb4.4
TOA0  Torodi Ar. Sit    66.04 269 eP        P           14 44 43.2 -2.6
TOA0                              epP       pP          14 45 40.0 +1.1
TORD  Torodi Ar. Bea    66.04 269  P        P           14 44 43.4 -2.3
      comp=Z,16nm,0.6s,mb4.8,baz=41,slow=5.7,SNR=105
RES   Resolute Bay      68.68 356 eP        P           14 45 01.5 +0.2
      comp=Z,74nm,0.9s,mb5.3
RES   Resolute Bay      68.68 356 eP        P           14 45 01.5 +0.2
RES                               pmax      pmax
      comp=Z,74nm,0.9s,mb5.3
INK   Inuvik            73.81   9 eP        P           14 45 32.7 +0.6
      comp=Z,391nm,1.1s
INK                               epP       pP          14 46 26.0 -0.4
INK   Inuvik            73.81   9 eP        P           14 45 32.7 +0.7
INK                               e*PP      pP          14 46 26.0 -0.4
INK                               pmax      pmax
      comp=Z,391nm,1.1s
COLA  College           74.34  16 eP        P           14 45 35.5 +0.3
      comp=Z,6.7nm,0.9s,mb4.3
COLA                              epP       pP          14 46 29.3 -0.3
COLA  College           74.34  16 eP        P           14 45 35.5 +0.3
COLA                              e*PP      pP          14 46 29.3 -0.3
COLA                              pmax      pmax
      comp=Z,7.0nm,0.9s,mb4.3
FITZ  Fitzroy Crossi    74.66 127  P        P           14 45 38.0 +0.4
      comp=Z,1.7nm,0.8s,mb3.7,baz=277,slow=20,SNR=4.0
KIC   Kosan Boka        75.11 267 eP        P           14 45 39.2 -1.3
      comp=Z,44nm,0.5s,mb5.3
TIC   Toumodi           75.17 267 eP        P           14 45 39.3 -1.5
LIC   Lamto             75.42 267 eP        P           14 45 40.8 -1.4
LIC   Lamto             75.42 267⇑iP        P           14 45 40.8 -1.4
      comp=Z,11nm,0.7s,mb4.6
LIC   Lamto             75.42 267⇑iP        P           14 45 40.8 -1.4
      comp=Z,21nm,0.7s,mb4.6
BOSA  Boshof            77.99 220  P        P           14 45 55.3 -0.8
BOSA                              pmax      pmax
      comp=Z,6.0nm,1.0s,mb4.2
BOSA  Boshof            77.99 220  P        P           14 45 55.3 -0.8
      comp=Z,6.0nm,1.0s,mb4.2,baz=18,slow=7.3,SNR=5.2
YKA   Yellowknife Ar    81.19   3  P        P           14 46 13.2 +0.3
YKA                               pP        pP          14 47 07.9 -0.4
YKA   Yellowknife Ar    81.19   3  P        P           14 46 13.2 +0.3
YKA                               *PP       pP          14 47 07.9 -0.4
YKA                               pmax      pmax
      comp=Z,4.0nm,0.8s
YKA                               pmax      pmax
      comp=Z,1.0nm,0.7s
YKA   Yellowknife Ar    81.19   3  P        P           14 46 13.2 +0.3
      comp=Z,4.3nm,0.8s,mb4.2,baz=349,slow=5.4,SNR=79
YKA                               pP        pP          14 47 07.9 -0.4
      comp=Z,1.4nm,0.7s,baz=349,slow=5.6,SNR=6.1
NWAO  Narrogin (SRO)    81.30 142  P        P           14 46 13.4 -0.5
      comp=Z,8.2nm,1.0s,mb4.3
NWAO  Narrogin (SRO)    81.30 142  P        P           14 46 13.4 -0.4
NWAO                              pmax      pmax
      comp=Z,8.0nm,1.0s
WRA   Warramunga Arr    81.74 122 i P       P           14 46 16.1 -0.3
WRA                               pmax      pmax
      comp=Z,2.0nm,0.5s
WRA   Warramunga Arr    81.74 122  P        P           14 46 16.1 -0.3
      comp=Z,2.3nm,0.5s,mb4.1,baz=324,slow=5.0,SNR=61
WRA                               pP        pP          14 47 12.3 +0.4
      comp=Z,0.7nm,0.6s,baz=328,slow=4.8,SNR=2.7
SCHQ  Schefferville     82.18 337  P        P           14 46 18.2 -0.1
SCHQ  Schefferville     82.18 337  P        P           14 46 18.2 -0.1
      comp=Z,1.5nm,0.7s,mb3.8,baz=15,slow=3.0,SNR=3.8
FCC   Fort Churchill    84.28 352 eP        P           14 46 29.2 +0.4
      comp=Z,9.6nm,1.3s,mb4.4
FCC   Fort Churchill    84.28 352 eP        P           14 46 29.2 +0.4
FCC                               pmax      pmax
      comp=Z,10.0nm,1.3s,mb4.4
STKA  Stephens Creek    94.55 127 ePdif     P           14 47 16.5 -1.1
STKA  Stephens Creek    94.55 127  P        P           14 47 17.7 +0.1
      comp=Z,0.5nm,0.6s,mb3.8,baz=333,slow=6.8,SNR=2.8
```

ISCJB ***01*** *15:17:39.9±0.4, 55.91N±0.05×91.35E±0.09, h10km, mb4.0/10, Error ellipse: s-maj=8.6km s-min=5.1km az=137.4*

IDC ***01*** *15:17:39.1±1.2, 55.76N×91.46E, h0km, mb3.9/9, mb1 4.0/11, mb1mx3.9/23, mbtmp3.9/11, ML3.7/2, Error ellipse: s-maj=27.8km s-min=15.1km az=117.0*

MOS ***01*** *15:17:40.8±1.0, 55.84N×91.33E, h18km, mb4.2/10, Error ellipse: s-maj=13.8km s-min=9.2km az=83.5*

ASRS ***01*** *15:17:40.6±1.2, 55.68N×91.34E, h15km, Ms3.2*

NEIC ***01*** *15:17:41.2±0.6, 55.84N×91.46E, h10km, mb3.8/8, Error ellipse: s-maj=15.0km s-min=6.5km az=126.0*

ISC 01 15:17:41.7±0.4**, 55.84N**±0.05×**91.41E**±0.08**, h10**km**, n60,** σ**1.14**/71**, mb4.0**/10**, 2C-2D, Southwestern Siberia**

```
Code  Station Name       Δ°   AZ°   Phase ID          Time       Res
                                    Op       ISC      h  m  s    ISC
KRAR  Krasnoyarsk        0.84  78  ePG       Pg       15 17 59.0 +1.1
CERR  Cheremushki        3.00 180  ePN       Pn       15 18 27.8 -1.4
CERR                               e                  15 19 08.5
CERR  Cheremushki        3.00 180  i Pn      Pn       15 18 27.8 -1.4
CERR                               i Pg      Pg       15 18 30.9 -8.2
CERR                               eSg       Sg       15 19 08.5 -9.3
ELT   Yel'tsovka         3.97 231  ePN       Pb       15 18 50.3 -1.3
ELT                                e         Sb       15 19 39.7 +0.1
ELT   Yel'tsovka         3.97 231  ePg       Pb       15 18 50.3 -1.3
ELT                                eSg       Sb       15 19 39.7 +0.1
ZALV  Zalesovo Beam      4.25 246   Pn       Pn       15 18 46.0 -0.5
ZALV                                Lg                15 19 50.0
ZALV  Zalesovo Beam      4.25 246   Pn       Pn       15 18 46.0 -0.5
      3.0nm,0.3s,baz=62,slow=14,SNR=29
ZALV                                Lg                15 19 50.0
      27nm,0.3s,baz=61,slow=28,SNR=16
ZAL   Zalesovo           4.27 246   PN       Pn       15 18 46.0 -0.6
ZAL                                                   15 19 50.1
ARTR  Artybash           4.73 213  ePg       Pg       15 19 03.2 -9.1
ARTR                               eSg       Sg       15 20 02.2  -11
NVS   Novosibirsk        4.77 261  ePN       Pn       15 18 54.1 +0.5
NVS                                e                  15 19 06.7
NVS                                e                  15 20 05.5
NVS   Novosibirsk        4.77 261  ePn       Pn       15 18 54.1 +0.6
NVS                                ePg       Pg       15 19 06.7 -6.3
NVS                                eSg       Sg       15 20 05.5 -9.3
UKR   Ust'-Kan           6.31 222  ePN       Pb       15 19 33.5 +1.9
UKR                                e                  15 20 54.7
UKR   Ust'-Kan           6.31 222  i Pg      Pb       15 19 33.5 +1.9
UKR                                eSg       Sg       15 20 54.7  -10
MOY   Mondy              7.05 122  ePN       Pb       15 19 46.4 +2.2
MOY                                eS        Sg       15 21 17.0  -11
MOY                                 pmax     pmax
      comp=Z,4.0nm,0.4s
MOY                                 smax
      comp=E,250nm,1.3s
TLY   Talaya             8.36 115  eP        Pn       15 19 45.7 +2.9
TLY                                 pmax     pmax
      comp=Z,1.0nm,0.3s
KURK  Kurchatov          9.22 241  ⇑Pn       Pn       15 20 03.0 +8.5
KURK                               ⇓Lg                15 22 29.9
      comp=Z,21nm,1.1s
KURK  Kurchatov          9.22 241  ePn       Pn       15 19 55.5 +1.0
      comp=Z,5.4nm,0.6s
KURK  Kurchatov          9.22 241  eP        Pn       15 19 55.5 +1.0
KURK                                pmax     pmax
      comp=Z,5.0nm,0.6s
MK31  Makanchi Array    10.70 216  ⇓Pn       Pn       15 20 15.7 +0.8
      comp=Z,2.1nm,0.5s,baz=31,slow=12,SNR=95
MK31                               ⇑Lg                15 23 02.4
      comp=Z,14nm,0.8s,baz=29,slow=28
MK31  Makanchi Array    10.70 216  ePn       Pn       15 20 12.8 -2.0
MK31  Makanchi Array    10.70 216  eP        Pn       15 20 12.8 -2.0
MKAR  Makanchi Array    10.70 216   Pn       Pn       15 20 13.2 -1.6
MKAR                                Sn       Sn       15 22 18.3 +3.8
MKAR                                Lg                15 23 10.8
MKAR  Makanchi Array    10.70 216   P        Pn       15 20 13.2 -1.6
MKAR                                                  15 22 18.3
MKAR                                pmax     pmax
      comp=Z,1.0nm,0.3s
MKAR  Makanchi Array    10.70 216   Pn       Pn       15 20 13.2 -1.6
      comp=Z,0.9nm,0.3s,baz=33,slow=13,SNR=80
MKAR                                Sn       Sn       15 22 18.3 +3.8
      comp=Z,0.4nm,0.3s,baz=34,slow=21,SNR=3.6
MKAR                                Lg                15 23 10.8
      comp=Z,0.8nm,0.3s,baz=37,slow=29,SNR=3.5
SONM  Songino Array     12.23 125   Pg       Px       15 21 21.3
      comp=Z,0.1nm,0.3s,baz=303,slow=19,SNR=3.3
SONM                                Lg                15 24 01.5
      comp=Z,0.2nm,0.3s,baz=300,slow=27,SNR=8.7
TKM2  Tokmak 2          16.47 225   P        Pn       15 21 33.7 +1.0
      comp=Z,2.5nm,1.0s
TKM2  Tokmak 2          16.47 225   P        Pn       15 21 33.7 +1.0
TKM2                                pmax     pmax
      comp=Z,3.0nm,1.0s
AAK   Ala-Archa         17.16 227   P        Pn       15 21 40.6 -0.7
      comp=Z,5.5nm,1.2s
AAK   Ala-Archa         17.16 227   P        Pn       15 21 40.6 -0.8
AAK                                 pmax     pmax
      comp=Z,6.0nm,1.2s
EKS2  Erkin-Say         17.43 228  eP        Pn       15 21 46.2 +1.4
      comp=Z,3.3nm,0.6s
UCH   Uchtor            17.49 226  eP        Pn       15 21 46.6 +1.1
      comp=Z,6.1nm,0.9s
AML   Almayashu         17.91 227   P        Pn       15 21 51.6 +0.9
      comp=Z,1.8nm,0.8s
ARU   Arti              18.22 286  eP        Pn       15 21 54.4  0.0
ARU                                eS        Sn       15 25 20.2 +2.6
YAK   Yakutsk           20.45  57  eP        P        15 22 18.5 -0.4
      comp=Z,14nm,0.4s
YAK   Yakutsk           20.45  57  i P       P        15 22 19.2 +0.3
YAK                                 pmax     pmax
      comp=Z,5.0nm,0.7s
AKTK  Aktyubinsk        20.61 269   P        P        15 22 20.1 -0.6
AKTO  Aktyubinsk        20.61 269   P        P        15 22 20.1 -0.7
AKTO                                pmax     pmax
      comp=Z,4.0nm,0.4s
AKTO  Aktyubinsk        20.61 269   P        P        15 22 20.1 -0.6
      comp=Z,3.6nm,0.4s,baz=72,slow=9.5,SNR=21
TIXI  Tiksi             22.33  30  eP        P        15 22 38.7 -0.3
      comp=Z,9.6nm,0.7s,mb4.3
TIXI  Tiksi             22.33  30  i P       P        15 22 39.0  0.0
TIXI                                pmax     pmax
      comp=Z,5.0nm,0.8s,mb4.0
ARCES ARCESS Array B    31.35 322   P        P        15 24 01.5 -0.4
ARCES                               pmax     pmax
      comp=Z,4.0nm,0.9s
ARCES ARCESS Array B    31.35 322   P        P        15 24 01.5 -0.4
      comp=Z,4.0nm,0.9s,mb4.2,baz=69,slow=10.0,SNR=3.1
FINES FINESS Array B    33.15 307  i P       P        15 24 18.3 +0.7
FINES                               pmax     pmax
      comp=Z,1.0nm,0.5s
FINES FINESS Array B    33.15 307   P        P        15 24 17.6 -0.1
      comp=Z,1.1nm,0.5s,mb4.0,baz=76,slow=8.0,SNR=7.9
AKASG Malin Array Be    36.42 289   P        P        15 24 46.1  0.0
AKASG                               pmax     pmax
      comp=Z,2.0nm,0.6s
AKASG Malin Array Be    36.42 289   P        P        15 24 46.1  0.0
      comp=Z,2.1nm,0.6s,mb4.2,baz=52,slow=8.7,SNR=6.6
NB2   NORSAR Subarra    39.82 311   P        P        15 25 14.5  0.0
      comp=Z,1.0nm,0.5s,mb3.8,baz=60,slow=8.6
NOA   NORSAR Array B    39.82 311   P        P        15 25 14.1 -0.4
NOA                                 pmax     pmax
      comp=Z,1.0nm,0.8s
NOA   NORSAR Array B    39.82 311   P        P        15 25 14.1 -0.4
      comp=Z,0.7nm,0.8s,mb3.4,baz=60,slow=6.0,SNR=3.0
CLL   Collm             44.44 299  eP        P        15 25 53.0 +0.6
GERES GERESS Array B    45.63 295   P        P        15 26 00.5 -1.3
      comp=Z,0.2nm,0.3s,mb3.6,baz=43,slow=10.0,SNR=3.8
INK   Inuvik            51.83  20  eP        P        15 26 48.9 -0.3
      comp=Z,55nm,0.7s
INK                                e                  15 26 55.4
INK   Inuvik            51.83  20   P        P        15 26 49.3 +0.1
INK                                 pmax     pmax
      comp=Z,2.0nm,0.8s
INK   Inuvik            51.83  20   P        P        15 26 49.2 +0.1
      comp=Z,1.7nm,0.8s,mb4.0,baz=342,slow=8.9,SNR=7.3
YKA   Yellowknife Ar    60.27  14  i P       P        15 27 49.0 -0.6
YKA                                 pmax     pmax
      comp=Z,1.0nm,0.6s
YKA   Yellowknife Ar    60.27  14   P        P        15 27 48.8 -0.7
      comp=Z,1.2nm,0.6s,mb4.1,baz=341,slow=7.6,SNR=27
FCC   Fort Churchill    65.66   3   P        P        15 28 21.7 -3.8
      comp=Z,4.0nm,0.9s,mb4.5
FCC   Fort Churchill    65.66   3   P        P        15 28 21.7 -3.8
FCC                                 pmax     pmax
      comp=Z,4.0nm,0.9s,mb4.5
TORD  Torodi Ar. Bea    79.08 277   P        P        15 29 44.7 -1.5
TORD  Torodi Ar. Bea    79.08 277   P        P        15 29 44.7 -1.5
      comp=Z,0.4nm,0.6s,mb3.5,baz=58,slow=4.8,SNR=2.8
```

ISCJB ***01*** *15:19:44.1±0.8, 6.59N±0.09×73.45W±0.07, h132km±11km, mb3.7/13, Error ellipse: s-maj=16.8km s-min=9.3km az=151.9*

NEIC ***01*** *15:19:44.9±0.7, 6.55N×73.40W, h128km±8km, mb4.1/6, Error ellipse: s-maj=10.8km s-min=8.9km az=111.0*

IDC ***01*** *15:19:44.5±1.2, 6.55N×73.41W, h123km±14km, mb3.5/10, mb1 3.8/11, mb1mx3.7/18, mbtmp3.6/11, Error ellipse: s-maj=17.2km s-min=14.9km az=136.0*

ISC 01 15:19:45.1±0.7**, 6.58N**±0.08×**73.44W**±0.07**, h124**km±10km**, n24,** σ**0.80**/24**, mb3.8**/13**, Northern Colombia**

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Code  Station Name       Δ°   AZ°   Phase ID          Time       Res
                                    Op       ISC      h  m  s    ISC
```

ROSC	**El Rosal**	1.93	207	*e*Pn	Pn	15 20 18.5	+0.6
ROSC				P		15 20 19.2	
ROSC				*e*Sn	Sn	15 20 39.4	-3.7
ROSC				S	Sn	15 20 42.6	-0.4
ROSC	**El Rosal**	1.93	207	P	Pn	15 20 19.2	+1.3
	41nm,0.3s,baz=77,slow=5.2,SNR=37						
ROSC				S	Sn	15 20 42.6	-0.4
	45nm,0.3s,baz=94,slow=21,SNR=7.3						
OTAV	**Otavalo**	8.04	219	P	Pn	15 21 38.4	-0.9
	4.3nm,0.8s						
PCRV	**Puerto La Cruz**	9.41	67	P	Pn	15 21 56.8	-1.0
	5.8nm,0.3s,baz=236,slow=6.7,SNR=10.0						
PCRV				S	Sn	15 23 42.4	+0.6
	3.1nm,0.3s,baz=162,slow=23,SNR=4.2						
SDDR	**Presa de Saban**	12.50	9	P	Pn	15 22 39.3	+0.5
	11nm,1.0s						
TEIG	**Tepich**	19.78	315	*e*P	P	15 24 06.3	+0.6
	8.1nm,0.5s						
LPAZ	**La Paz**	23.32	167	P	P	15 24 44.1	+1.8
	0.5nm,0.5s,mb3.1,baz=330,slow=13,SNR=2.7						
WVT	**Waverly**	32.23	338	P	P	15 26 01.7	+0.1
	2.8nm,0.8s,mb4.0						
TXAR	**Lajitas Array**	36.39	312	P	P	15 26 37.4	-0.2
	0.2nm,0.4s,mb3.4,baz=130,slow=8.7,SNR=6.1						
WMOK	**Wichita Mounta**	36.48	324	P	P	15 26 37.3	-1.0
	1.0nm,0.6s,mb3.9						
SDCO	**Great Sand Dun**	42.54	322	*e*P	P	15 27 29.4	+0.9
	2.1nm,0.8s,mb3.9						
ULM	**Lac du Bonnet**	47.40	341	P	P	15 28 06.2	-0.6
	2.3nm,0.6s,mb4.1,baz=155,slow=7.0,SNR=5.4						
PDAR	**Pinedale Array**	48.09	324	P	P	15 28 12.1	-0.1
	0.2nm,0.3s,mb3.4,baz=119,slow=9.4,SNR=4.6						
SCHQ	**Schefferville**	48.41	5	P	P	15 28 14.5	+0.1
	2.0nm,0.7s,mb4.1,baz=219,slow=9.0,SNR=5.3						
NVAR	**Mina Array Bea**	51.42	315	P	P	15 28 38.6	+1.1
	0.4nm,0.6s,mb3.6,baz=129,slow=7.1,SNR=2.7						
YKA	**Yellowknife Ar**	63.38	340	P	P	15 30 00.4	-0.5
YKA				pP	pP	15 30 31.3	+0.1
YKA	**Yellowknife Ar**	63.38	340	P	P	15 30 00.4	-0.5
	2.3nm,0.4s,mb4.5,baz=132,slow=6.7,SNR=72						
YKA				pP	pP	15 30 31.3	+0.1
	0.3nm,0.5s,baz=129,slow=6.8,SNR=2.3						
INK	**Inuvik**	73.15	340	P	P	15 31 01.6	-0.1
	1.1nm,0.5s,mb3.9,baz=107,slow=5.2,SNR=4.5						
TORD	**Torodi Ar. Bea**	74.10	78	P	P	15 31 07.1	-1.3
	0.4nm,0.9s,mb3.2,baz=258,slow=5.5,SNR=3.0						
ARCES	**ARCESS Array B**	87.00	20	P	P	15 32 16.1	0.0
	4.7nm,0.9s,mb4.4,baz=286,slow=4.2,SNR=9.0						
MKAR	**Makanchi Array**	122.65	20	PKP	PKPdf	15 38 25.4	-1.0
MKAR	**Makanchi Array**	122.65	20	PKP	PKPdf	15 38 25.4	-1.0
	0.1nm,0.4s,baz=302,slow=2.3,SNR=6.6						
WRA	**Warramunga Arr**	149.94	241	PKPbc	PKPbc	15 39 20.0	-1.8
WRA				pPKPbc	pPKPbc	15 39 53.0	-2.2
WRA	**Warramunga Arr**	149.94	241	PKPbc	PKPbc	15 39 20.0	-1.8
	1.3nm,0.5s,baz=108,slow=2.8,SNR=38						
WRA				pPKPbc	pPKPbc	15 39 53.0	-2.2
	0.8nm,0.6s,baz=109,slow=2.4,SNR=3.1						

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*NEIC **01** 15:27:07.4, 38.16S×17608E, h183^{km}, MG3.9(WEL), After WEL.*

WEL 01 15:27:07.7±0.3, 3808S×17603E, h174^{km}±2^{km}, ML3.8/8, 1C, Error ellipse: s-maj=2.2km s-min=1.8km az=0.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARZ	**Kaharoa**	0.18	70	PN	Pn	15 27 30.8	0.0
URZ	**Urewera**	0.87	102	P	Pn	15 27 33.8	-0.1
URZ	**Urewera**	0.87	102	PN	Pn	15 27 33.7	-0.2
URZ				SN	Sn	15 27 53.4	-0.5
KRVZ	**Karewarewa**	1.05	196	PN	Pn	15 27 35.3	+0.2
WTVZ	**West Tongariro**	1.09	198	P	Pn	15 27 35.7	+0.3
WTVZ	**West Tongariro**	1.09	198	PN	Pn	15 27 35.7	+0.3
TWVZ	**Taurewa**	1.09	205	P	Pn	15 27 36.0	+0.5
TWVZ	**Taurewa**	1.09	205	PN	Pn	15 27 35.8	+0.3
NGZ	**Ngauruhoe**	1.14	197	P	Pn	15 27 35.4	-0.5
NGZ	**Ngauruhoe**	1.14	197	PN	Pn	15 27 35.4	-0.4
BKZ	**Black Stump Fm**	1.14	161	P	Pn	15 27 36.1	+0.2
BKZ				S	Sn	15 27 57.7	0.0
BKZ	**Black Stump Fm**	1.14	161	⇑PN	Pn	15 27 36.1	+0.2
BKZ				SN	Sn	15 27 57.7	0.0
WPVZ	**Whakapapa**	1.18	198	P	Pn	15 27 36.5	+0.3
WPVZ	**Whakapapa**	1.18	198	PN	Pn	15 27 36.5	+0.3
MWZ	**Matawai**	1.21	102	P	Pn	15 27 36.9	+0.4
MWZ				S	Sn	15 27 59.3	+0.7
MWZ	**Matawai**	1.21	102	PN	Pn	15 27 36.8	+0.3
MWZ				SN	Sn	15 27 59.3	+0.6
TUVZ	**Tukino**	1.22	194	P	Pn	15 27 37.0	+0.5
TUVZ	**Tukino**	1.22	194	PN	Pn	15 27 36.9	+0.4
WNVZ	**Wahianoa**	1.29	195	P	Pn	15 27 37.3	+0.2
WNVZ	**Wahianoa**	1.29	195	PN	Pn	15 27 37.3	+0.2
PKVZ	**Pokaka**	1.32	204	PN	Pn	15 27 37.5	+0.1
MOVZ	**Moawhango**	1.34	189	P	Pn	15 27 37.3	-0.3
MOVZ	**Moawhango**	1.34	189	PN	Pn	15 27 37.3	-0.3
MTVZ	**Mangateitei**	1.37	198	PN	Pn	15 27 37.9	0.0
VRZ	**Vera Road**	1.44	223	*e*P	Pn	15 27 38.9	+0.4
VRZ	**Vera Road**	1.44	223	PN	Pn	15 27 38.9	+0.4
KNZ	**Kokohu**	1.60	126	*e*P	Pn	15 27 40.3	+0.2
KNZ	**Kokohu**	1.60	126	PN	Pn	15 27 40.3	+0.2
PUZ	**Puketiti**	1.76	90	P	Pn	15 27 41.5	-0.3
PUZ	**Puketiti**	1.76	90	PN	Pn	15 27 41.5	-0.3
WAZ	**Wanganui**	1.86	206	P	Pn	15 27 40.8	-1.9
MXZ	**Matakaoa Point**	1.88	75	*e*P	Pn	15 27 43.2	+0.2
MXZ	**Matakaoa Point**	1.88	75	PN	Pn	15 27 43.2	+0.2
TSZ	**Takapari Road**	1.97	181	P	Pn	15 27 43.2	-0.8
TSZ	**Takapari Road**	1.97	181	PN	Pn	15 27 43.2	-0.8
PXZ	**Pawanui**	2.05	162	PN	Pn	15 27 44.6	-0.3
MRZ	**Mangatainoka R**	2.60	188	P	Pn	15 27 49.2	-1.9
MRZ	**Mangatainoka R**	2.60	188	PN	Pn	15 27 49.2	-2.0
KIW	**Kapiti Island**	2.91	197	P	Pn	15 27 52.4	-2.4
KIW	**Kapiti Island**	2.91	197	PN	Pn	15 27 52.4	-2.4
MTW	**Mount Morrison**	3.10	187	P	Pn	15 27 54.2	-3.0
MTW	**Mount Morrison**	3.10	187	PN	Pn	15 27 54.2	-3.0
CAW	**Cannon Point**	3.11	193	P	Pn	15 27 54.6	-2.7
CAW	**Cannon Point**	3.11	193	PN	Pn	15 27 54.6	-2.8
MRW	**Makara Radio**	3.30	198	P	Pn	15 27 56.8	-2.9
MRW	**Makara Radio**	3.30	198	PN	Pn	15 27 56.8	-2.9
TRWZ	**Traveller**	3.32	184	PN	Pn	15 27 57.3	-2.7
PAWZ	**Paruwai Farm**	3.33	188	P	Pn	15 27 57.1	-2.9
PAWZ	**Paruwai Farm**	3.33	188	PN	Pn	15 27 57.1	-2.9
WEL	**Wellington**	3.34	196	P	Pn	15 27 57.2	-3.0
WEL	**Wellington**	3.34	196	PN	Pn	15 27 57.2	-3.0
SNZO	**South Karori**	3.38	197	P	Pn	15 27 57.4	-3.3
SNZO	**South Karori**	3.38	197	PN	Pn	15 27 57.4	-3.3
MSWZ	**Moikau Station**	3.38	190	P	Pn	15 27 57.3	-3.4
MSWZ	**Moikau Station**	3.38	190	PN	Pn	15 27 57.3	-3.4
TCW	**Tory Channel**	3.40	203	P	Pn	15 27 57.9	-3.1
TCW	**Tory Channel**	3.40	203	PN	Pn	15 27 57.9	-3.1
BHW	**Baring Head**	3.44	195	P	Pn	15 27 58.0	-3.4
BHW	**Baring Head**	3.44	195	PN	Pn	15 27 58.0	-3.4
TUWZ	**Tuamarina**	3.71	205	PN	Pn	15 28 01.5	-3.3
NNZ	**Nelson**	3.74	212	*e*P	Pn	15 28 01.9	-3.3
QRZ	**Quartz Range**	3.85	224	*e*P	Pn	15 28 03.8	-2.8
BSWZ	**Blackbirch Sta**	3.98	204	P	Pn	15 28 05.1	-3.2
BSWZ	**Blackbirch Sta**	3.98	204	PN	Pn	15 28 05.1	-3.2
THZ	**Tophouse**	4.39	212	*e*P	Pn	15 28 10.5	-3.0
THZ	**Tophouse**	4.39	212	PN	Pn	15 28 10.5	-3.0
KHZ	**Kahutara**	4.73	203	*e*P	Pn	15 28 13.9	-4.0
KHZ	**Kahutara**	4.73	203	PN	Pn	15 28 13.9	-3.9
DSZ	**Denniston Nort**	4.89	220	*e*P	Pn	15 28 20.6	+0.6
LTZ	**Lake Taylor**	5.50	210	*e*P	Pn	15 28 23.3	-4.6
LTZ	**Lake Taylor**	5.50	210	PN	Pn	15 28 23.3	-4.6

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*ISCJB **01** 16:27:46.9±0.5, 3891N±003×2120E±004, h19^{km}±7^{km}, Error ellipse: s-maj=5.6km s-min=4.9km az=39.6*

*CSEM **01** 16:27:46.7±0.1, 3893N×21.15E, h5^{km}, ML3.2, Error ellipse: s-maj=2.1km s-min=1.7km az=123.0*

*NEIC **01** 16:27:46.0, 3889N×21.15E, h20^{km}, MD3.3(ATH), After ATH.*

*ATH **01** 16:27:46.0, 3889N×21.15E, h20^{km}±1^{km}, MD3.3/11*

*THE **01** 16:27:47.0, 3895N×21.14E, h20^{km}, ML3.2*

ISC 01 16:27:46.7±0.5, 3893N±003×2117E±003, h14^{km}±4^{km}, n43, σ0^{s}.97/64, 3D, Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LKD	**Levkas**	0.47	242	*e*Pg	Pg	16 27 55.5	-0.5
LKD				*e*Sg	Sg	16 28 03.5	+1.4
LKD	**Levkas**	0.47	242	*e*Pg	Pg	16 27 55.5	-0.4
LKD				*e*Sg	Sg	16 28 03.5	+1.3
EVR	**Evrytania**	0.49	91	⇓*i*Pn	Pg	16 27 56.3	-0.2
EVR				*e*Sn	Sg	16 28 03.9	+0.8
EVR	**Evrytania**	0.49	91	⇓*i*PN	Pg	16 27 56.3	-0.2
EVR				*e*SN	Sg	16 28 03.9	+0.8
EVR	**Evrytania**	0.49	91	⇓*i*Pn	Pg	16 27 56.3	-0.2
EVR				*e*Sn	Sg	16 28 03.9	+0.8
JAN	**Janina**	0.77	341	*e*Pn	Pg	16 28 01.6	-0.1
JAN	**Janina**	0.77	341	*e*PN	Pg	16 28 01.6	-0.1
JAN	**Janina**	0.77	341	*e*Pn	Pg	16 28 01.6	-0.1
MEV	**Metsovon**	0.85	3	*e*Pg	Pg	16 28 02.9	-0.5
MEV				*e*Sg	Sg	16 28 14.3	-0.2
MEV	**Metsovon**	0.85	3	*e*Pg	Pg	16 28 02.8	-0.5
MEV				*e*Sg	Sg	16 28 14.3	-0.2
VLS	**Valsamata**	0.88	212	*e*Pb	Pg	16 28 01.6	-2.2
VLS				*e*Sn	Sg	16 28 15.1	-0.2
VLS	**Valsamata**	0.88	212	*e*PB	Pg	16 28 01.6	-2.2
VLS				*e*SN	Sg	16 28 15.1	-0.2
VLS	**Valsamata**	0.88	212	*e*Pb	Pg	16 28 01.6	-2.2
VLS				*e*Sn	Sg	16 28 15.1	-0.2
RLS	**Riolos of Patr**	0.90	165	*e*Pn	Pg	16 28 03.2	-0.9
RLS	**Riolos of Patr**	0.90	165	*e*PN	Pg	16 28 03.2	-0.9
RLS	**Riolos of Patr**	0.90	165	*e*Pn	Pg	16 28 03.2	-0.9
AGG	**Agios Georgios**	0.91	84	*e*Pg	Pg	16 28 03.9	-0.4
AGG				*e*Sg	Sg	16 28 17.2	+1.1
AGG	**Agios Georgios**	0.91	84	*e*Pg	Pg	16 28 03.9	-0.4
AGG				*e*Sg	Sg	16 28 17.2	+1.1
THL	**Klokotos Trika**	0.91	46	*e*PN	Pn	16 28 04.2	-0.9
THL				*e*SN	Sn	16 28 17.1	-1.0
THL	**Klokotos Trika**	0.91	46	*e*Pn	Pn	16 28 04.2	-0.9
THL				*e*Sn	Sn	16 28 17.1	-1.0
KEK	**Kerkira**	1.32	307	*e*Pn	Pn	16 28 11.1	+0.3
KEK				*e*Sn	Sn	16 28 29.6	+1.3
KEK	**Kerkira**	1.32	307	*e*PN	Pn	16 28 11.1	+0.3
KEK				*e*SN	Sn	16 28 29.6	+1.3
KEK	**Kerkira**	1.32	307	*e*Pn	Pn	16 28 11.1	+0.3
KEK				*e*Sn	Sn	16 28 29.6	+1.3
KZN	**Kozani**	1.45	18	*e*Pn	Pn	16 28 14.0	+1.4
KZN				*e*Sn	Sg	16 28 34.3	+0.8
KZN	**Kozani**	1.45	18	*e*PN	Pn	16 28 14.0	+1.4
KZN				*e*SN	Sg	16 28 34.3	+0.8
KZN	**Kozani**	1.45	18	*e*Pn	Pn	16 28 14.0	+1.4
KZN				*e*Sn	Sg	16 28 34.3	+0.8
LKR	**Lokris**	1.45	100	*e*Pn	Pn	16 28 12.9	+0.3
LKR	**Lokris**	1.45	100	*e*PN	Pn	16 28 12.9	+0.3
LKR	**Lokris**	1.45	100	*e*Pn	Pn	16 28 12.9	+0.3
LIT	**Litokhoron**	1.55	41	*e*Pg	Pn	16 28 13.5	-0.5
LIT				*e*Sg	Sn	16 28 33.3	-0.6
LIT	**Litokhoron**	1.55	41	*e*Pg	Pn	16 28 13.5	-0.5
NEO	**Neokhori**	1.64	76	*e*Pn	Pn	16 28 16.7	+1.5
NEO	**Neokhori**	1.64	76	*e*PN	Pn	16 28 16.7	+1.5
NEO	**Neokhori**	1.64	76	*e*Pn	Pn	16 28 16.7	+1.5
ITM	**Ithomi**	1.84	161	*e*Pn	Pn	16 28 19.3	+1.3
ITM	**Ithomi**	1.84	161	*e*PN	Pn	16 28 19.3	+1.3
ITM	**Ithomi**	1.84	161	*e*Pn	Pn	16 28 19.3	+1.3
FNA	**Florina**	1.86	5	*e*Pb	Pn	16 28 15.9	-2.3
PAIG	**Paliouri**	2.18	62	*e*Pn	Pn	16 28 22.0	-0.6
PAIG	**Paliouri**	2.18	62	*e*Pn	Pn	16 28 22.0	-0.6
VLI	**Veliai**	2.61	147	*e*Pn	Pn	16 28 28.7	+0.2
VLI	**Veliai**	2.61	147	*e*PN	Pn	16 28 28.7	+0.2
VLI	**Veliai**	2.61	147	*e*Pn	Pn	16 28 28.7	+0.2

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*ISCJB **01** 16:39:37.4±2.1, 69S±02×15477E±006, h92^{km}±22^{km}, mb4.2/10, Error ellipse: s-maj=29.4km s-min=9.3km az=0.8*

*IDC **01** 16:39:38.4±3.0, 682S×15476E, h88^{km}±27^{km}, mb3.4/3, mb1 3.5/5, mb1mx3.3/15, mbtmp3.5/5, MS2.8/1, Ms1 2.8/1, ms1mx2.5/12, Error ellipse: s-maj=35.9km s-min=15.6km az=1.0*

ISC 01 16:39:39.2±1.7, 69S±02×15477E±006, h93^{km}±18^{km}, n14, σ0^{s}.39/15, mb4.2/10, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	5.73	117	P	Pn	16 41 02.1	+0.3
	3.0nm,0.3s,baz=248,slow=12,SNR=3.2						
HNR				S	Sn	16 42 06.0	-0.1
	3.2nm,0.3s,baz=246,slow=3.9,SNR=2.3						
PMG	**Port Moresby**	7.95	251	P	Pn	16 41 31.3	-0.7
	0.7nm,0.3s,baz=72,slow=6.4,SNR=3.4						
PMG				S	Sn	16 43 00.9	+0.6
	2.0nm,0.3s,baz=104,slow=16,SNR=6.3						
PMG				LR	LR	16 44 10.5	
	comp=Z,60nm,18.4s,baz=120,slow=34						
WRA	**Warramunga Arr**	23.71	235	P	P	16 44 42.1	-0.7
	1.0nm,0.6s,mb3.4,baz=57,slow=9.4,SNR=11						
STKA	**Stephens Creek**	27.76	205	P	P	16 45 19.5	+0.3
	0.7nm,0.6s,mb3.4,baz=12,slow=9.3,SNR=3.0						
TAPN	**Taplejung**	73.14	301	*e*P	P	16 51 00.6	+0.6
ODAN	**Odare**	73.27	301	*e*P	P	16 51 00.7	-0.1
	11nm,0.7s,mb4.8						
JIRN	**Jiri**	74.52	301	*e*P	P	16 51 07.8	-0.3
	3.9nm,0.6s,mb4.3						
GUN	**Gumba**	74.86	301	*e*P	P	16 51 10.0	0.0
	10nm,0.7s,mb4.7						
KKN	**Kakani**	75.33	301	*e*P	P	16 51 13.1	+0.3
	6.8nm,0.7s,mb4.5						
DMN	**Daman**	75.43	301	*e*P	P	16 51 13.7	+0.4
	6.0nm,0.4s,mb4.7						
GKN	**Gorkha**	75.94	301	*e*P	P	16 51 16.3	+0.1
	4.6nm,0.5s,mb4.5						
KOLN	**Koldanda**	76.76	301	*e*P	P	16 51 20.5	-0.4
	6.7nm,0.8s,mb4.4						
MKAR	**Makanchi Array**	83.16	319	P	P	16 51 54.8	-0.1
	0.3nm,0.4s,mb3.5,baz=114,slow=5.5,SNR=4.6						
TORD	**Torodi Ar. Bea**	152.78	285	PKPbc	PKPbc	16 59 26.2	-0.1
	1.3nm,0.7s,baz=76,slow=0.5,SNR=9.3						
TORD				PKPab	PKPab	16 59 37.0	-0.5
	0.5nm,0.8s,baz=85,slow=3.8,SNR=4.6						

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*ISCJB **01** 16:42:11.6±0.9, 1083N±006×6182W±003, h5^{km}, Error ellipse: s-maj=9.5km s-min=3.6km az=19.8*

*FUNV **01** 16:42:11.9, 1078N×6182W, h5^{km}, MW2.5*

*TRN **01** 16:42:13.8, 1060N×6177W, h3^{km}, MD2.3*

ISC 01 16:42:11.6±1.4, 108N±01×6183W±003, h5^{km}±15^{km}, n7, σ0^{s}.91/14, 1C-2D, Trinidad

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TCE	**Chacachacare**	0.16	151	⇑*e*P	Pg	16 42 15.7	+0.9
TCE				*i* S	Sg	16 42 17.1	+0.2
GUIV	**Guiria**	0.43	244	⇓*e*P	Pg	16 42 19.6	-0.3
GUIV				*e*S	Sg	16 42 24.7	-0.8
TRN	**Trinidad (W)**	0.46	114	⇓*i*P	Pg	16 42 21.1	+0.6
TRN				*e*S	Sg	16 42 25.9	-0.7
TPP	**Pointe-a-Pierr**	0.64	144	*e*P	Pg	16 42 21.9	-2.0
TPP				*e*S	Sg	16 42 33.3	+1.2
GUNV	**Guanoco**	1.28	239	*e*P	Pg	16 42 35.8	-0.4
GUNV				*e*S	Sg	16 42 53.9	+0.9
ITEV	**Isla Los Testi**	1.38	292	*e*P	Pn	16 42 37.8	+0.2
ITEV				*e*S	Sb	16 42 57.2	+1.3
CRUV	**Carupano**	1.39	264	*e*P	Pn	16 42 36.5	-1.3
CRUV				*e*S	Sb	16 42 56.1	-0.2

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*CSEM **01** 16:45:34.5±0.1, 3454N×2239E, h10^{km}, MD3.9, Error ellipse: s-maj=4.4km s-min=2.4km az=57.0*

*HLW **01** 16:45:34.3, 3505N×2244E, h33^{km}, Mb3.0*

*ATH **01** 16:45:35.3, 3469N×2246E, h21^{km}±2^{km}, MD3.9/14*

*ISCJB **01** 16:45:35.1±1.6, 3457N±005×2233E±007, h26^{km}±15^{km}, mb3.7/5, Error ellipse: s-maj=10.5km s-min=6.3km az=143.8*

*NEIC **01** 16:45:42.0, 3494N×2262E, h10^{km}, ML3.0(ATH), After ATH.*

*IDC **01** 16:45:50.1±3.9, 3545N×2330E, h72^{km}±24^{km}, mb3.4/5, mb1 3.4/8, mb1mx3.3/23, mbtmp3.3/8, Error ellipse: s-maj=84.8km s-min=25.9km az=29.0*

ISC 01 16:45:38.8±0.7, 3464N±005×2241E±007, h41^{km}±10^{km}, n60, σ0^{s}.78/65, mb3.7/5, 2D, Central Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GVD	**Gavdhos**	1.39	81	*e*Pn	Pn	16 46 00.5	-1.2
GVD				*e*Sn	Sn	16 46 20.0	+1.1
GVD	**Gavdhos**	1.39	81	*e*PN	Pn	16 46 00.5	-1.2
GVD				*e*SN	Sn	16 46 20.0	+1.1
GVD	**Gavdhos**	1.39	81	*e*Pn	Pn	16 46 00.5	-1.2
GVD				*e*Sn	Sn	16 46 20.0	+1.1
VAM	**Vamos**	1.65	62	*e*PN	Pn	16 46 04.4	-0.9
VAM				*e*SN	Sn	16 46 25.9	+0.6
VAM	**Vamos**	1.65	62	*e*Pn	Pn	16 46 04.4	-0.9
VAM	**Vamos**	1.65	62	P	Pn	16 46 05.4	+0.1
VAM				*e*Sn	Sn	16 46 25.9	+0.6
KYTH	**Kithira**	1.71	17	*e*Pn	Pn	16 46 05.5	-0.6
KYTH	**Kithira**	1.71	17	*e*PN	Pn	16 46 05.5	-0.6
KYTH	**Kithira**	1.71	17	*e*Pn	Pn	16 46 05.5	-0.6
VLI	**Veliai**	2.12	11	*e*Pb	Pn	16 46 10.9	-0.8
VLI	**Veliai**	2.12	11	*e*PB	Pn	16 46 10.9	-0.8
VLI	**Veliai**	2.12	11	*e*Pb	Pn	16 46 10.9	-0.8
IDI	**Anoyia**	2.13	72	P	Pn	16 46 12.8	+0.9
	5.6nm,0.3s,baz=293,slow=17,SNR=38						
ITM	**Ithomi**	2.56	351	*e*Pn	Pn	16 46 17.4	-0.4
ITM	**Ithomi**	2.56	351	*e*PN	Pn	16 46 17.4	-0.4
ITM	**Ithomi**	2.56	351	*e*Pn	Pn	16 46 17.4	-0.4
NPS	**Neapolis**	2.70	76	*e*Pn	Pn	16 46 19.1	-0.6
NPS	**Neapolis**	2.70	76	*e*PN	Pn	16 46 19.1	-0.6
NPS	**Neapolis**	2.70	76	*e*Pn	Pn	16 46 19.1	-0.6
RLS	**Riolos of Patr**	3.49	348	*e*Pn	Pn	16 46 31.2	+0.6
RLS	**Riolos of Patr**	3.49	348	*e*PN	Pn	16 46 31.2	+0.6
RLS	**Riolos of Patr**	3.49	348	*e*Pn	Pn	16 46 31.2	+0.6
APE	**Apeiranthos**	3.50	45	*e*Pn	Pn	16 46 30.1	-0.6
APE	**Apeiranthos**	3.50	45	*e*PN	Pn	16 46 30.1	-0.6
APE	**Apeiranthos**	3.50	45	*e*Pn	Pn	16 46 30.1	-0.6
VLS	**Valsamata**	3.82	338	*e*PN	Pn	16 46 35.7	+0.6
VLS	**Valsamata**	3.82	338	*e*Pn	Pn	16 46 35.7	+0.6
VLS	**Valsamata**	3.82	338	P	Pn	16 46 36.5	+1.4
SLUM		3.92	142	P	Pn	16 46 36.9	+0.4
SLUM		3.92	142	P	Pn	16 46 36.8	+0.3
KARP	**Karpathos**	4.00	76	*e*Pn	Pn	16 46 38.3	+0.8
KARP				P		16 46 42.4	
KARP	**Karpathos**	4.00	76	*e*PN	Pn	16 46 38.3	+0.8
KARP	**Karpathos**	4.00	76	*e*Pn	Pn	16 46 38.3	+0.8
LKR	**Lokris**	4.03	7	*e*PN	Pn	16 46 38.5	+0.6
LKR	**Lokris**	4.03	7	*e*Pn	Pn	16 46 38.5	+0.6
LKR	**Lokris**	4.03	7	P	Pn	16 46 38.9	+1.0
EVR	**Evrytania**	4.29	354	*e*Pn	Pn	16 46 42.5	+0.9
EVR				P		16 46 47.7	
EVR	**Evrytania**	4.29	354	*e*PN	Pn	16 46 42.5	+0.9
EVR	**Evrytania**	4.29	354	*e*Pn	Pn	16 46 42.5	+0.9
NEO	**Neokhori**	4.70	8	*e*Pn	Pn	16 46 47.3	+0.1
NEO	**Neokhori**	4.70	8	*e*PN	Pn	16 46 47.3	+0.1
NEO	**Neokhori**	4.70	8	*e*Pn	Pn	16 46 47.3	+0.1
THL	**Klokotos Trika**	4.92	356	*e*PN	Pn	16 46 49.9	-0.3
THL	**Klokotos Trika**	4.92	356	*e*Pn	Pn	16 46 49.9	-0.3
HMAT	**Matruh**	5.29	131	⇓P	Pn	16 46 55.3	-0.1
KEK	**Kerkira**	5.48	338	*e*Pn	Pn	16 46 57.8	0.0
KEK	**Kerkira**	5.48	338	*e*PN	Pn	16 46 57.8	0.0
KEK	**Kerkira**	5.48	338	*e*Pn	Pn	16 46 57.8	0.0
HFRF	**Wahat Farafira**	9.02	144	P	Pn	16 47 46.5	0.0
AMAG	**Maghara**	9.94	111	P	Pn	16 47 57.4	-1.5
SUZ		10.04	116	P	Pn	16 47 59.4	-0.9
HDK1	**Dakhla**	10.90	144	⇓P	Pn	16 48 13.0	+0.9
MMAI	**Mount Meron Ar**	10.93	95	P	Pn	16 48 13.2	+0.6
	1.1nm,0.3s,baz=274,slow=12,SNR=8.4						
GERES	**GERESS Array B**	15.59	338	P	Pn	16 49 20.2	+4.7
	0.1nm,0.3s,baz=139,slow=16,SNR=3.8						
AKASG	**Malin Array Be**	16.80	15	P	Pn	16 49 28.7	-2.1
	0.2nm,0.3s,baz=206,slow=11,SNR=2.4						
EKA	**Eskdalemuir Ar**	27.21	327	P	P	16 51 24.7	+6.3
	0.7nm,0.6s,mb3.4,baz=130,slow=9.0,SNR=3.8						
ARCES	**ARCESS Array B**	34.99	2	P	P	16 52 26.8	+0.1
	2.5nm,0.9s,mb4.2,baz=186,slow=9.8,SNR=5.5						
MKAR	**Makanchi Array**	45.94	56	P	P	16 53 57.9	+0.5
	0.4nm,0.3s,mb3.8,baz=267,slow=7.9,SNR=5.9						
ZALV	**Zalesovo Beam**	46.99	46	P	P	16 54 05.3	-0.2
	0.5nm,0.4s,mb3.8,baz=279,slow=10,SNR=3.0						
SONM	**Songino Array**	61.55	50	P	P	16 55 52.1	+0.5
	0.1nm,0.5s,mb3.2,baz=274,slow=6.6,SNR=3.4						

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*NEIC **01** 16:48:45.6, 4427N×6987W, h8^{km}, MN2.1(WES), After WES.*

NEIC mgLg 2.1 [WES]. Felt at Monmouth and Winthrop.

OTT 01 16:48:44.3±0.5, 4423N×6987W, h5^{km}, MN2.5/3, Near Augusta, Maine, U.S. 170km southeast from Lac-Megantic, Qc Northern Appalachians Seismic Zone., Maine

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WVL	**Waterville**	0.37	24	PG	Pg	16 48 51.0	-0.4
WVL				SG	Sg	16 48 55.8	-0.5
PKME	**Peaks-Kenny Pk**	1.12	22	*e*Pg	Pg	16 49 04.2	-1.5
PKME				*e*Sg	Sg	16 49 18.4	-1.8
PKME	**Peaks-Kenny Pk**	1.12	22	PG	Pg	16 49 04.7	-1.0
PKME				SG	Sg	16 49 18.8	-1.4
PKME				Trac		16 49 21.9	
	comp=Z,28nm,0.1s						
LBNH	**Lisbon**	1.48	271	*e*Pn	Pn	16 49 10.6	-1.0
LBNH				*e*Sn	Sn	16 49 28.8	-2.4
LBNH	**Lisbon**	1.48	271	PG	Pg	16 49 11.0	-1.6
LBNH				SG	Sg	16 49 29.3	-2.5
LBNH				Trac		16 49 30.6	
	comp=Z,16nm,0.1s						
EMMW	**East Machias**	1.79	74	PN	Pn	16 49 16.2	+0.3
EMMW				SN	Sn	16 49 38.5	-0.5
HNH	**Hanover**	1.82	254	*e*Pn	Pn	16 49 16.6	+0.3
HNH				*e*Sn	Sn	16 49 38.8	-0.9
MOQ	**Mont Orford**	2.01	303	PN	Pn	16 49 20.3	+1.4
MOQ				SN	Sn	16 49 44.0	-0.4
MOQ				Trac		16 49 48.0	
	comp=Z,7.8nm,0.2s						
HRV	**Harvard--Oak R**	2.12	216	*e*Sn	Sn	16 49 42.9	-4.0
WES	**Weston**	2.12	210	*e*Sn	Sn	16 49 46.0	-1.1
GGN	**Saint George**	2.34	67	PN	Pn	16 49 22.3	-1.0
GGN				PG	Pg	16 49 27.9	-1.2
GGN				SN	Sn	16 49 50.6	-1.8
GGN				SG	Sg	16 49 57.9	-1.5
GGN				Trac		16 49 59.4	
	comp=Z,7.2nm,0.1s						
FRNY	**Flat Rock**	2.73	284	*e*Pn	Pn	16 49 28.3	-0.4
FRNY				*e*Sn	Sn	16 49 59.9	-2.1
ACCN	**Adirondack Com**	2.88	254	Pn	Pn	16 49 28.0	-2.7
NCB	**Newcomb**	3.15	267	*e*Pn	Pn	16 49 32.5	-2.0
NCB	**Newcomb**	3.15	267	PN	Pn	16 49 30.7	-3.8
NCB				SG	Sg	16 50 19.3	-6.0
DPQ	**Saint Jean**	3.19	321	SG	Sg	16 50 19.7	-7.2
DPQ				Trac		16 50 30.4	
	comp=Z,2.7nm,0.2s						
LMQ	**La Malbaie**	3.34	355	PN	Pn	16 49 36.7	-0.3
LMQ				SN	Sn	16 50 15.5	-1.6
LMQ				SG	Sg	16 50 28.1	-3.3

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*ISCJB **01** 16:51:57.9±0.6, 5151N±003×1605E±003, h0^{km}, Error ellipse: s-maj=4.3km s-min=2.5km az=16.3*

*IPEC **01** 16:51:58.9±0.3, 5160N×16.11E, h0^{km}, ML2.3/3, Error ellipse: s-maj=1.9km s-min=1.5km az=42.0*

*CSEM **01** 16:51:59.7±0.1, 5154N×1604E, h0^{km}, ML3.2/8, Error ellipse: s-maj=2.7km s-min=1.4km az=13.0*

*PRU **01** 16:52:00.8, 5150N×1601E, h0^{km}*

*WAR **01** 16:52:00.8, 5154N×1602E, ML2.6, Mining Induced*

*VIE **01** 16:52:01.9±0.5, 5136N×1603E, h0^{km}, mb2.3/4, ML2.7/4, Error ellipse: s-maj=3.2km s-min=3.0km az=168.0, Suspected Mining induced.*

*NEIC **01** 16:52:03.9±1.7, 5128N×1565E, h5^{km}, ML2.7(CLL), Error ellipse: s-maj=26.0km s-min=12.3km az=193.0*

ISC 01 16:51:59.1±0.6, 5155N±003×1604E±003, h0^{km}, n55, σ0^{s}.88/106, 4C-4D, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	0.73	167	*e*Pg	Pg	16 52 13.9	+0.9
KSP				*e*Sg	Sg	16 52 23.6	+1.2
KSP	**Ksiaz**	0.73	167	⇓*i*Pg	Pg	16 52 13.9	+0.9
KSP				*e*		16 52 15.9	
KSP				*i* Sg	Sg	16 52 23.6	+1.1
KSP				*e*		16 52 27.2	
KSP	**Ksiaz**	0.73	167	*e*Pg	Pg	16 52 13.6	+0.6
KSP				*e*Sg	Sg	16 52 22.9	+0.4
UPC	**Upice**	1.05	181	*e*Pg	Pg	16 52 19.6	+0.5
UPC	**Upice**	1.05	181	*e*PG	Pg	16 52 19.6	+0.5
UPC	**Upice**	1.05	181	*e*Pg	Pg	16 52 19.6	+0.5
DPC	**Dobruska-Polom**	1.22	171	*e*Pg	Pg	16 52 22.6	+0.2
DPC				*e*Sg	Sg	16 52 38.5	+0.3
DPC	**Dobruska-Polom**	1.22	171	*e*PG	Pg	16 52 22.6	+0.2
DPC				*e*SG	Sg	16 52 38.5	+0.3
	38nm,0.4s						

DPC	Dobruska-Polom	1.22	171	ePg	Pg	16 52 22.6	+0.2
DPC				eSg	Sg	16 52 38.3	+0.1
PVCC	Panska Ves	1.38	223	ePg	Pg	16 52 25.7	+0.1
PVCC				eSg	Sg	16 52 44.6	+1.1
PVCC	Panska Ves	1.38	223	ePG	Pg	16 52 25.7	+0.1
PVCC				eSG	Sg	16 52 44.6	+1.1
	107nm,0.2s						
PVCC	Panska Ves	1.38	223	ePg	Pg	16 52 25.7	+0.1
PVCC				eSg	Sg	16 52 44.1	+0.6
BRG	Berggiesshubel	1.48	243	Pn	Pn	16 52 26.6	-0.4
BRG				Pg	Pg	16 52 27.8	+0.3
BRG				Sg	Sg	16 52 47.7	+1.0
BRG	Berggiesshubel	1.48	243	Pn	Pn	16 52 26.6	-0.4
BRG	Berggiesshubel	1.48	243	PN	Pn	16 52 26.6	-0.4
BRG				PG	Pg	16 52 27.8	+0.3
BRG				SG	Sg	16 52 47.7	+1.0
	79nm,0.5s						
PRU	Pruhonice	1.83	212	ePn	Pn	16 52 31.7	-0.1
PRU				ePg	Pg	16 52 33.5	-0.7
PRU				eSg	Sg	16 52 57.3	-0.6
PRU	Pruhonice	1.83	212	ePN	Pn	16 52 31.7	-0.1
PRU				ePG	Pg	16 52 33.5	-0.7
PRU				eSG	Sg	16 52 57.3	-0.6
	31nm,0.4s						
PRU	Pruhonice	1.83	212	ePn	Pn	16 52 31.7	-0.1
CLL	Collm	1.92	264	ePn	Pn	16 52 33.0	+0.1
CLL				i Pg	Pg	16 52 35.1	-0.7
CLL				i Sg	Sg	16 53 00.9	+0.3
CLL	Collm	1.92	264	ePn	Pn	16 52 33.0	+0.1
CLL				i Pg	Pg	16 52 35.1	-0.7
CLL				i Sg	Sg	16 53 00.9	+0.3
	comp=Z,33nm,0.5s						
CLL	Collm	1.92	264	ePn	Pn	16 52 33.0	+0.1
MORC	Moravsky Berou	2.02	151	ePn	Pn	16 52 34.3	-0.1
MORC				eSg	Sg	16 53 02.9	-1.0
	comp=Z,27nm,0.4s						
OKC	Ostrava-Krasne	2.18	141	ePg	Pg	16 52 40.6	-0.2
OKC				eSg	Sg	16 53 09.4	+0.3
OKC	Ostrava-Krasne	2.18	141	ePG	Pg	16 52 40.6	-0.2
OKC				eSG	Sg	16 53 09.4	+0.3
	comp=Z,18nm,0.5s						
OKC	Ostrava-Krasne	2.18	141	ePg	Pg	16 52 40.6	-0.2
OKC				eSg	Sg	16 53 09.4	+0.3
VRAC	Vranov	2.27	171	ePn	Pn	16 52 38.3	+0.4
VRAC				eSg	Sg	16 53 11.1	-1.0
	comp=Z,9.7nm,0.2s						
KRUC	Moravsky	2.50	175	ePn	Pn	16 52 41.5	+0.5
KRUC				eSg	Sg	16 53 18.7	-0.8
	comp=Z,11nm,0.3s						
NKC	Novy Kostel	2.63	241	ePn	Pn	16 52 43.3	+0.6
NKC				ePg	Pg	16 52 49.3	-0.1
NKC				eSg	Sg	16 53 24.5	+1.0
NKC	Novy Kostel	2.63	241	ePN	Pn	16 52 43.3	+0.6
NKC				ePG	Pg	16 52 49.3	-0.1
NKC				eSG	Sg	16 53 24.5	+1.0
	comp=Z,39nm,0.3s						
NKC	Novy Kostel	2.63	241	ePn	Pn	16 52 43.3	+0.6
OJC	Ojcow	2.73	118	ePg	Pg	16 52 50.9	-0.5
OJC				eSg	Sg	16 53 26.8	0.0
OJC	Ojcow	2.73	118	ePg	Pg	16 52 50.9	-0.5
OJC				eSg	Sg	16 53 26.8	0.0
KHC	Kasperske Hory	2.89	214	ePn	Pn	16 52 46.3	0.0
KHC				ePg	Pg	16 52 51.8	-2.7
KHC				eSn	Sn	16 53 21.8	0.0
KHC				eSg	Sg	16 53 31.5	-0.4
KHC	Kasperske Hory	2.89	214	ePN	Pn	16 52 46.3	0.0
KHC				ePG	Pg	16 52 51.8	-2.7
KHC				eSN	Sn	16 53 21.8	0.0
KHC				eSG	Sg	16 53 31.5	-0.4
	comp=Z,9.7nm,0.5s						
KHC	Kasperske Hory	2.89	214	ePn	Pn	16 52 46.3	0.0
MOX	Moxa	2.93	254	ePg	Pg	16 52 55.2	-0.1
MOX				eSg	Sg	16 53 34.4	+1.2
MOX	Moxa	2.93	254	ePg	Pg	16 52 55.2	-0.1
MOX				eSg	Sg	16 53 34.4	+1.2
GEC2	GERESS Array S	3.10	210	ePn	Pn	16 52 48.6	-0.6
GEC2				ePg	Pg	16 52 56.3	-2.1
GEC2	GERESS Array S	3.10	210	ePn	Pn	16 52 48.6	-0.6
GEC2	GERESS Array S	3.10	210	ePg	Pg	16 52 56.3	-2.1
LIKS	Likavka	3.19	141	eSG	Sg	16 53 43.7	+2.3
LIKS	Likavka	3.19	141	eSg	Sg	16 53 43.7	+2.3
MODS	Modra-Piesok	3.28	165	eSG	Sg	16 53 42.8	-1.7
MODS	Modra-Piesok	3.28	165	eSg	Sg	16 53 42.8	-1.7
VYHS	Vyhne	3.55	148	ePG	Pg	16 53 05.7	-1.5
VYHS	Vyhne	3.55	148	ePg	Pg	16 53 05.7	-1.5
CONA	Conrad Observa	3.63	182	⇓iPn	Pn	16 52 56.9	+0.4
CONA				⇑iSg	Sg	16 53 55.8	+0.1
	comp=Z,12nm,0.7s						
CONA	Conrad Observa	3.63	182	Pn	Pn	16 52 56.9	+0.4
CONA				Sg	Sg	16 53 55.8	+0.1
	comp=Z,12nm,0.7s						
BSD	Bornholm Skovb	3.63	350	i P	Pn	16 52 55.6	-0.9
BSD				i S	Sn	16 53 36.0	-4.0
MOA	Molln	3.88	198	⇑iPn	Pn	16 53 00.7	+0.8
MOA				⇓iSg	Sg	16 54 03.7	0.0
	comp=Z,6.2nm,0.5s						
MOA	Molln	3.88	198	⇑iPn	Pn	16 53 00.7	+0.7
MOA				i Sg	Sg	16 54 03.7	0.0
MOA	Molln	3.88	198	⇑iPn	Pn	16 53 00.7	+0.8
MOA				⇓iSg	Sg	16 54 03.7	0.0
	comp=Z,6.2nm,0.5s						
MOA	Molln	3.88	198	Pn	Pn	16 53 00.7	+0.8
MOA				Sg	Sg	16 54 03.7	0.0
	comp=Z,6.2nm,0.5s						
STHS	Stebnicka Huta	3.95	121	ePG	Pg	16 53 15.5	+0.7
STHS				eSG	Sg	16 54 08.2	+2.2
STHS	Stebnicka Huta	3.95	121	ePg	Pg	16 53 15.5	+0.7
STHS				eSg	Sg	16 54 08.2	+2.2

ISCJB ***01*** *17:14:22.1±1.2, 46.7N±0.1×153.1E±0.2, h48km±12km, mb3.9/7, Error ellipse: s-maj=27.9km s-min=7.3km az=141.6*

MOS ***01*** *17:14:24.0±2.1, 46.79N×153.22E, h61km, mb4.2/6, Error ellipse: s-maj=25.2km s-min=12.3km az=58.1*

IDC ***01*** *17:14:29.6±4.6, 46.69N×152.95E, h99km±43km, mb3.5/8, mb1 3.7/9, mb1mx3.5/21, mbtmp3.5/9, Error ellipse: s-maj=28.1km s-min=22.1km az=128.0*

ISC 01 17:14:24.6±1.1, **46.7N**±0.1×**153.1E**±0.2, **h52**km±10km, **n36, σ1.21**/45, **mb3.9**/7, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	3.94	251	ePN	Pn	17 15 27.0	+4.6
KUR				eS	Sn	17 16 08.0	+0.7
KUR				pmax	pmax		
	comp=Z,110nm,0.8s						
KUR				smax			
	comp=N,220nm,0.8s						
KUR				smax			
	comp=E,560nm,0.8s						
SKR	Severo-Kuril's	4.49	25	ePN	Pn	17 15 28.0	-2.0
SKR				eS	Sn	17 16 16.0	-4.9
SKR				pmax	pmax		
	comp=N,80nm,0.5s						
SKR				pmax	pmax		
	comp=E,50nm,0.5s						
SKR				pmax	pmax		
	comp=Z,90nm,0.5s						
SKR				smax			
	comp=N,80nm,0.5s						
SKR				smax			
	comp=E,140nm,0.5s						
SKR				smax			
	comp=Z,160nm,0.9s						
YUK	Yuzh-Kuril'sk	5.75	246	ePN	Pn	17 15 47.3	0.0
NEM2	Nemuro 2	6.18	241	P	Pn	17 15 51.8	-1.4
NEM2				eS	Sn	17 16 58.7	-3.8
JRA	Rausu	6.27	247	P	Pn	17 15 56.2	+1.9
JNK	Nakash	6.70	246	P	Pn	17 16 00.6	+0.4
JNK				eS	Sn	17 17 15.0	-0.1
JAK	Akkeshi	7.02	242	P	Pn	17 16 03.6	-1.1
JAK				eS	Sn	17 17 19.8	-3.3
JTKR	Abashiri--Toko	7.03	251	P	Pn	17 16 06.1	+1.3
PET	Petropavlovsk	7.31	27	ePN	Pn	17 16 09.2	+0.7
JAR	Ashorobuto	7.44	247	P	Pn	17 16 11.4	+1.0
JAR				eS	Sn	17 17 33.5	+0.2
JKK2	Kamakawa 2	7.83	253	P	Pn	17 16 17.6	+1.8
ASAJ	Asahikawa	7.84	255	PN	Pn	17 16 18.6	+2.8
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	7.84	255	P	Pn	17 16 18.6	+2.7
	comp=Z,0.7nm,0.3s,baz=40,slow=4.1,SNR=5.7						
JCH	Churui	8.05	243	P	Pn	17 16 18.6	-0.2
JCH				eS	Sn	17 17 43.8	-4.5
JBT2	Biratori 2	8.59	247	P	Pn	17 16 26.2	+0.1
JNBK	Urakawa-nobuka	8.61	243	P	Pn	17 16 25.0	-1.4
JNBK				eS	Sn	17 17 58.1	-4.0
JKB	Kayabe	9.90	246	P	Pn	17 16 42.8	-1.2
JKB				eS	Sn	17 18 26.9	-6.7
JANG	Nango	10.51	238	eS	Sn	17 18 38.8	-10
OFUJ	Ofunato	11.31	232	eS	Sn	17 18 59.2	-8.9
JIO	Ouri	11.93	231	eS	Sn	17 19 13.1	-10
MJAR	Matsushiro Arr	15.03	233	P	Pn	17 17 58.6	+5.0
	comp=Z,0.2nm,0.3s,baz=32,slow=9.8,SNR=4.2						
KSRS	Korea Array	20.78	253	P	P	17 19 03.4	+2.2
	comp=Z,1.5nm,0.8s,baz=56,slow=9.6,SNR=4.8						
YKA	Yellowknife Ar	51.00	37	P	P	17 23 21.0	+0.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	51.00	37	P	P	17 23 21.0	+0.4
	comp=Z,0.5nm,0.5s,mb3.7,baz=295,slow=7.1,SNR=8.3						
FINES	FINESS Array B	64.14	335	P	P	17 24 52.1	-0.8
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	64.14	335	P	P	17 24 52.1	-0.8
	comp=Z,0.9nm,0.4s,mb4.1,baz=39,slow=6.9,SNR=8.9						
PDAR	Pinedale Array	64.79	54	P	P	17 24 58.4	+0.9
	comp=Z,0.7nm,0.8s,mb3.7,baz=270,slow=2.2,SNR=5.9						
NB2	NORSAR Subarra	68.33	341	P	P	17 25 19.3	-0.4
	comp=Z,1.3nm,0.6s,mb4.1,baz=27,slow=6.5						
NOA	NORSAR Array B	68.33	341	P	P	17 25 19.5	-0.2
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA	NORSAR Array B	68.33	341	P	P	17 25 19.5	-0.3
	comp=Z,2.0nm,0.7s,mb4.3,baz=28,slow=6.4,SNR=6.8						
WRA	Warramunga Arr	68.42	199	P	P	17 25 20.3	-0.5
WRA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
WRA	Warramunga Arr	68.42	199	P	P	17 25 20.3	-0.4
	comp=Z,0.6nm,1.0s,mb3.6,baz=22,slow=6.8,SNR=2.9						
AKASG	Malin Array Be	71.64	326	P	P	17 25 38.9	-1.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	71.64	326	P	P	17 25 38.9	-1.3
	comp=Z,1.1nm,0.5s,mb4.0,baz=34,slow=6.3,SNR=4.6						
TXAR	Lajitas Array	77.53	61	P	P	17 26 15.4	+0.6
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	77.53	61	P	P	17 26 15.4	+0.6
	comp=Z,1.0nm,0.5s,mb4.0,baz=302,slow=4.1,SNR=7.9						

IDC ***01*** *17:14:37.6±6.5, 7.02S×117.12E, h589km±102km, mb3.0/6, mb1 3.1/7, mb1mx3.0/17, mbtmp3.0/7, Error ellipse: s-maj=41.5km s-min=29.4km az=74.0*

ISCJB ***01*** *17:14:38.6±4.4, 7.1S±0.2×117.1E±0.3, h635km±76km, mb3.6/6, Error ellipse: s-maj=50.3km s-min=34.2km az=162.7*

NEIC ***01*** *17:14:38.0±2.6, 7.04S×117.12E, h597km±40km, mb3.8/1, Error ellipse: s-maj=36.0km s-min=19.2km az=64.0*

ISC 01 17:14:37.6±3.5, **7.0S**±0.2×**117.1E**±0.3, **h589**km±54km, **n12, σ0.43**/12, **mb3.6**/6, **Bali Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	13.80	144	eP	P	17 17 34.6	+0.1
	7.7nm,1.6s						
FITZ	Fitzroy Crossi	13.80	144	P	P	17 17 34.1	-0.4
	0.5nm,0.3s,baz=324,slow=10,SNR=44						
WRA	Warramunga Arr	21.08	129	P	P	17 18 41.4	-0.2
	0.7nm,0.4s,mb3.7,baz=311,slow=9.3,SNR=15						
WB2	Warramunga Arr	21.09	129	eP	P	17 18 41.9	+0.2
NWAO	Narrogin (SRO)	25.77	180	P	P	17 19 23.2	+0.1
NWAO	Narrogin (SRO)	25.77	180	P	P	17 19 23.2	+0.1
	4.1nm,0.8s,mb4.1,baz=7.1,slow=8.1,SNR=4.4						
STKA	Stephens Creek	33.66	140	eP	P	17 20 31.2	+0.3
	0.7nm,0.3s,mb3.8						
STKA	Stephens Creek	33.66	140	eP	P	17 20 30.7	-0.2
STKA	Stephens Creek	33.66	140	P	P	17 20 30.9	0.0
	1.0nm,0.3s,mb3.9,baz=308,slow=8.1,SNR=6.5						
SONM	Songino Array	55.44	351	P	P	17 23 18.0	+0.6
	0.6nm,0.5s,mb3.2,baz=169,slow=8.3,SNR=7.0						
MKAR	Makanchi Array	61.86	334	P	P	17 24 00.7	+0.3
	1.0nm,0.5s,mb3.3,baz=151,slow=7.6,SNR=10.0						
ZALV	Zalesovo Beam	66.55	340	P	P	17 24 29.0	-0.9
	0.7nm,0.3s,mb3.6,baz=151,slow=6.4,SNR=5.1						

ISCJB ***01*** *17:15:40.0±0.5, 55.70S±0.08×26.8W±0.1, h10km, mb4.7/13, MS4.3/6, Error ellipse: s-maj=12.5km s-min=11.2km az=139.5*

IDC ***01*** *17:15:40.7±0.7, 55.64S×26.61W, h0km, mb4.6/8, mb1 4.6/9, mb1mx4.5/14, mbtmp4.5/9, ML4.0/1, MS3.8/4, Ms1 3.7/4, ms1mx3.6/14, Error ellipse: s-maj=24.4km s-min=18.8km az=72.0*

NEIC ***01*** *17:15:41.6±0.3, 55.67S×26.93W, h10km, mb4.8/12, Error ellipse: s-maj=9.5km s-min=9.1km az=70.0*

BJI ***01*** *17:15:41.0, 55.70S×26.90W, h10km, mB5.1, Ms4.9, Msz4.9*

ISC 01 17:15:41.9±0.5, **55.73S**±0.08×**26.9W**±0.1, **h10**km, **n52, σ0.99**/25, **mb4.7**/13, **MS4.3**/6, **3D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EFI	East Falkland	18.82	269	P	Pn	17 20 00.7	-1.2
	43nm,0.9s						
SNAA	Sanae	18.97	157	P	Pn	17 20 03.6	+0.1
	0.4nm,0.3s,baz=296,slow=12,SNR=16						
SNAA				LR	LR	17 25 28.9	
	comp=Z,86nm,20.7s,baz=234,slow=31						
PMSA	Palmer Station	20.25	228	eP	P	17 20 15.8	-1.1
	83nm,1.1s						
PMSA	Palmer Station	20.25	228	P	P	17 20 20.9	+4.0
	19nm,0.6s,baz=340,slow=23,SNR=6.6						
SYO	Syowa Base	31.72	141	⇓eP	P	17 22 03.0	-2.3
SYO	Syowa Base	31.72	141	⇓epP	pP	17 22 05.8	-2.5
SYO	Syowa Base	31.72	141	⇓ePnPn		17 23 05.0	
QSPA	South Pole Qui	34.52	180	eP	P	17 22 30.1	+0.5
	9.1nm,0.5s,mb5.0						
QSPA				ePcP	PcP	17 25 03.5	-0.5
MAW	Mawson	40.30	144	eP	P	17 23 18.9	+0.3
	4.2nm,0.6s,mb4.3						
MAW	Mawson	40.30	144	P	P	17 23 19.4	+0.8
	4.2nm,0.6s,mb4.3,baz=219,slow=6.1,SNR=14						
MAW				LR	LR	17 37 17.0	
	comp=Z,153nm,21.1s,MS3.8,baz=248,slow=32						
BOSA	Boshof	45.72	76	eP	P	17 24 02.8	-0.1
	14nm,1.2s,mb4.8						
BOSA	Boshof	45.72	76	P	P	17 24 01.6	-1.3
	3.2nm,0.8s,mb4.3,baz=224,slow=9.8,SNR=5.5						
BOSA				LR	LR	17 40 33.1	
	comp=Z,203nm,18.3s,MS4.1,baz=178,slow=33						
SBA	Scott Base	46.41	184	eP	P	17 24 09.9	+2.0
	54nm,1.0s,mb5.4						
VNDA	Vanda	46.91	183	eP	P	17 24 12.4	+0.7
	6.5nm,0.6s,mb4.7						
VNDA	Vanda	46.91	183	P	P	17 24 12.3	+0.7
	8.3nm,0.5s,mb4.9,baz=184,slow=7.1,SNR=35						
LBTB	Lobatse	48.74	73	eP	P	17 24 26.6	+0.1
	7.4nm,0.9s,mb4.7						
LPAZ	La Paz	50.34	305	eP	P	17 24 39.5	+0.8
	7.7nm,0.7s,mb4.8						
LPAZ	La Paz	50.34	305	P	P	17 24 39.6	+0.9
	9.4nm,0.8s,mb4.9,baz=154,slow=6.3,SNR=41						
LSZ	Lusaka	58.09	69	P	P	17 25 35.2	0.0
	3.5nm,0.9s,mb4.4						
ATAH	Atahualpa	63.31	300	LR	LR	17 53 52.8	
	comp=Z,68nm,18.3s,MS3.9,baz=31,slow=36						
OTAV	Otavalo	69.63	303	eP	P	17 26 52.1	+0.8
	3.1nm,0.6s,mb4.4						
TOA0	Torodi Ar. Sit	72.69	29	eP	P	17 27 09.7	+0.1
TORD	Torodi Ar. Bea	72.69	29	P	P	17 27 10.3	+0.6
TORD	Torodi Ar. Bea	72.69	29	P	P	17 27 10.3	+0.6
	1.3nm,0.4s,mb4.2,baz=199,slow=6.2,SNR=17						
PCRV	Puerto La Cruz	72.81	321	P	P	17 27 10.9	+0.4
	15nm,0.6s,mb5.1,baz=147,slow=1.3,SNR=6.3						
JTS	JuntasAbangare	81.49	302	eP	P	17 27 58.0	-1.2
	11nm,1.0s,mb4.7						
STKA	Stephens Creek	92.19	170	eP	P	17 28 50.0	-1.6
STKA	Stephens Creek	92.19	170	P	P	17 28 50.7	-0.8
	1.1nm,0.8s,mb4.2,baz=160,slow=12,SNR=3.6						
WRA	Warramunga Arr	102.96	162	Pdif	Pdif	17 29 41.3	+0.9
WRA	Warramunga Arr	102.96	162	Pdiff	Pdif	17 29 41.3	+0.9
	0.6nm,0.8s,baz=196,slow=4.8,SNR=3.3						
FINES	FINESS Array B	124.01	28	PKP	PKPdf	17 34 37.9	-0.9
FINES	FINESS Array B	124.01	28	PKP	PKPdf	17 34 37.9	-0.9
	0.9nm,0.7s,baz=150,slow=5.7,SNR=5.7						
ARCES	ARCESS Array B	130.58	22	PKP	PKPdf	17 34 50.9	-0.2
ARCES	ARCESS Array B	130.58	22	PKP	PKPdf	17 34 50.9	-0.2
	2.9nm,0.8s,baz=132,slow=1.8,SNR=6.0						
KMI	Kunming	132.46	109	PKP	PKPdf	17 34 59.3	+3.2
GYA	Guiyang	135.62	112	ePDIF	Pdif	17 32 06.8	+1.2
GYA				PKP	PKPdf	17 35 03.4	+1.4
GYA				PP	PP	17 37 44.9	+5.2
GYA				PKS		17 38 37.9	
GYA				PPP		17 40 42.8	
GYA				SKS	SKSdf	17 42 11.3	-1.5
GYA				SKKS	SKKSac	17 44 34.6	0.0
GYA				SS	SS	17 55 39.9	+3.1
GYA				PP	PP		
	comp=Z,110nm,7.8s						
GYA				LR	LR		
	comp=N,430nm,21.6s,MS5.2						
GYA				LR	LR		
	comp=E,340nm,21.8s,MS5.2						
GYA				LR	LR		
	comp=Z,420nm,22.4s,MS5.1						
YKA	Yellowknife Ar	136.05	318	PKP	PKPdf	17 34 59.6	-2.0
YKA				PKP	PKPdf	17 35 03.6	+2.1
YKA	Yellowknife Ar	136.05	318	PKhKP		17 34 59.6	
	comp=Z,1.2nm,0.6s,baz=130,slow=2.1,SNR=16						
YKA				PKP	PKPdf	17 35 03.6	+2.1
	comp=Z,1.1nm,0.5s,baz=128,slow=2.2,SNR=18						
MKAR	Makanchi Array	136.61	71	PKP	PKPdf	17 35 03.3	+0.2
MKAR	Makanchi Array	136.61	71	PKP	PKPdf	17 35 03.3	+0.2
	comp=Z,0.4nm,0.6s,baz=230,slow=2.9,SNR=4.7						
CD2	Chengdu	137.57	105	ePKP	PKPdf	17 35 05.0	-0.4
CD2				XPKP		17 35 12.0	
CD2				PP	PP	17 37 56.0	+4.0
CD2				PKS		17 38 39.8	
CD2				SKS	SKSdf	17 42 10.2	-5.7
CD2				SKKS	SKKSac	17 44 42.6	-3.5
CD2				SS	SS	17 56 00.7	+0.5
CD2				PP	PP		
	comp=Z,120nm,10.2s						
WMQ	Urumqi	137.66	78	ePKP	PKPdf	17 35 05.7	+0.5
WMQ				LR	LR		
	comp=N,66nm,15.4s						
WMQ				LR	LR		
	comp=Z,51nm,17.6s,MS4.3						
ZALV	Zalesovo Beam	142.06	63	PKP	PKPdf	17 35 07.7	-5.2
ZALV				PKP	PKPdf	17 35 13.5	+0.7
ZALV	Zalesovo Beam	142.06	63	PKhKP		17 35 07.7	
	comp=Z,0.4nm,0.5s,baz=188,slow=4.4,SNR=2.8						
ZALV				PKP	PKPdf	17 35 13.5	+0.7
	comp=Z,0.9nm,0.4s,baz=252,slow=3.5,SNR=5.6						
INK	Inuvik	145.66	321	ePKPdf	PKPdf	17 35 18.1	-0.6
NJ2	Nanjing	146.35	120	ePKP	PKPdf	17 35 18.5	-2.5
DAWY	Dawson	146.71	312	ePKPdf	PKPdf	17 35 21.0	+0.5
HHC	Hu-ho-hao-te	149.13	101	ePKP	PKPdf	17 35 23.7	-1.6
HHC				PKS		17 38 57.3	
HHC				PP	PP	17 39 04.6	+3.0
HHC				SKS	SKSdf	17 42 30.4	-2.7
HHC				SKKS	SKKSac	17 45 53.5	+1.4
HHC				SS	SS	17 58 19.2	+5.7
HHC				PP	PP		
	comp=Z,78nm,8.5s						
HHC				LR	LR		
	comp=N,101nm,24.7s,MS4.7						
HHC				LR	LR		
	comp=E,115nm,23.7s,MS4.7						
HHC				LR	LR		
	comp=Z,224nm,24.7s,MS4.9						
COLA	College	150.46	312	ePKPbc	PKPbc	17 35 30.8	-1.2
COLA				ePKPab	PKPab	17 35 38.3	-0.4
SONM	Songino Array	150.53	86	PKPbc	PKPbc	17 35 32.5	-0.2
SONM	Songino Array	150.53	86	PKPbc	PKPbc	17 35 32.5	-0.2
	comp=Z,4.0nm,0.6s,baz=228,slow=2.9,SNR=30						
ULN	Ulaanbaatar	150.91	86	ePKPbc	PKPbc	17 35 32.8	-0.8

ISCJB ***01*** *17:20:35.0±0.6, 37.18N±0.04×71.96E±0.07, h127km±10km, mb3.7/3, Error ellipse: s-maj=9.2km s-min=6.4km az=172.1*

NEIC ***01*** *17:20:38.4±0.9, 37.39N×71.88E, h122km±10km, mb4.0/3, Error ellipse: s-maj=23.4km s-min=9.1km az=127.0*

IDC ***01*** *17:20:41.1±21.0, 37.58N×71.98E, h136km±122km, mb3.4/3, mb1 3.4/6, mb1mx3.1/21, mbtmp3.2/6, ML3.6/3, MS2.7/1, Ms1 2.7/1, ms1mx2.4/17, Error ellipse: s-maj=217.3km s-min=39.7km az=2.0*

NNC ***01*** *17:20:42.5±9.0, 37.74N×71.62E, h138km±184km, mb2.5, mpv3.1, Error ellipse: s-maj=93.1km s-min=51.8km az=8.0*

MOS ***01*** *17:20:43.8±1.3, 37.94N×71.82E, h150km, mb3.9/2, Error ellipse: s-maj=36.6km s-min=15.0km az=80.0*

ISC 01 17:20:36.1±0.6, **37.17N**±0.04×**71.98E**±0.07, **h123**km±9km, **n35, σ0.93**/41, **mb3.7**/3, **3C-1D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	3.55	223	ePn	Pn	17 21 33.6	+3.8
KBL				eSn	Sn	17 22 11.1	0.0
AML	Almayashu	5.13	14	P	Pn	17 21 51.5	+0.7
	SNR=57						
UCH	Uchtor	5.42	20	P	Pn	17 21 55.8	+1.2
	SNR=11						
UCH	Uchtor	5.42	20	ePn	Pn	17 21 55.3	+0.7
UCH				eSn	Sn	17 22 51.5	-4.3
KZA	Kyzart	5.51	26	P	Pn	17 21 56.9	+1.0
	SNR=11						
EKS2	Erkin-Say	5.66	14	P	Pn	17 21 58.7	+0.8
	SNR=31						
EKS2	Erkin-Say	5.66	14	ePn	Pn	17 21 58.3	+0.5
	4.3nm,0.3s						
EKS2				eSn	Sn	17 22 42.3	-19
EKS2				eSg	Sn	17 22 56.7	-4.9
AAK	Ala-Archa	5.79	19	P	Pn	17 22 00.9	+1.2
	SNR=7.7						
AAK	Ala-Archa	5.79	19	ePn	Pn	17 21 58.5	-1.2
	4.7nm,0.4s						
AAK	Ala-Archa	5.79	19	ePN	Pn	17 21 58.5	-1.2
AAK				pmax	pmax		
	comp=Z,5.0nm,0.4s						
KK31	Karatay Array	6.03	350	P	Pn	17 22 02.0	-0.9
	comp=Z,3.5nm,0.3s,baz=174,slow=13,SNR=66						
KK31				⇑S	Sn	17 23 03.3	-7.4
	comp=Z,4.2nm,0.2s,baz=169,slow=22						
TKM2	Tokmak 2	6.38	25	P	Pn	17 22 09.0	+1.4
	SNR=5.2						
TKM2	Tokmak 2	6.38	25	⇑P	Pn	17 22 08.6	+1.0
	comp=Z,0.2nm,0.5s						
TKM2				⇑S	Sn	17 23 17.6	-1.4
	comp=Z,0.3nm,0.7s						
TKM2	Tokmak 2	6.38	25	ePn	Pn	17 22 08.4	+0.8
	comp=Z,4.3nm,0.9s						
TKM2	Tokmak 2	6.38	25	ePN	Pn	17 22 08.4	+0.8
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.9s						
USP	Ospenovka	6.39	17	P	Pn	17 22 08.7	+1.0
	SNR=6.0						
MKAR	Makanchi Array	12.29	35	P	Pn	17 23 27.6	+0.8
	comp=Z,0.1nm,0.3s,baz=229,slow=13,SNR=3.4						
KOLN	Koldanda	13.55	130	eP	Pn	17 23 43.5	+0.1
	comp=Z,13nm,0.5s						
GKN	Gorkha	14.04	127	eP	Pn	17 23 49.1	-0.4
	comp=Z,13nm,0.4s						
KKN	Kakani	14.59	126	eP	Pn	17 23 55.5	-1.1
DMN	Daman	14.61	127	eP	Pn	17 23 56.9	+0.1
	comp=Z,8.0nm,0.4s						
GUN	Gumba	14.90	124	eP	Pn	17 24 00.0	-0.5
	comp=Z,8.4nm,0.4s						
AB31	Akbulak array	14.91	328	⇓P	Pn	17 23 58.1	-2.3
	comp=Z,0.4nm,0.3s,baz=131,slow=15,SNR=24						
TAPN	Taplejung	16.50	122	eP	Pn	17 24 19.7	-0.6
	comp=Z,6.2nm,0.4s						
ODAN	Odare	16.60	124	eP	Pn	17 24 21.8	+0.2
	comp=Z,7.6nm,0.4s						
AKTK	Aktyubinsk	16.62	327	P	Pn	17 24 20.5	-1.0
AKTO	Aktyubinsk	16.62	327	P	Pn	17 24 20.5	-1.0
	comp=Z,0.4nm,0.3s,baz=138,slow=12,SNR=6.2						
ZAL	Zalesovo	18.97	24	P	P	17 24 47.6	0.0
ZALV	Zalesovo Beam	18.98	24	P	P	17 24 47.5	-0.2
	comp=Z,0.4nm,0.3s,baz=209,slow=10,SNR=5.6						
ZALV				LR	LR	17 33 05.7	
	comp=Z,27nm,20.7s,baz=227,slow=40						
FINES	FINESS Array B	37.38	325	P	P	17 27 37.4	+0.9
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						

FINES	**FINESS Array B**	**37.38**	**325**	P	**P**	**17 27 37.4**	**+0.9**
	comp=Z,0.9nm,0.6s,mb3.9,baz=112,slow=11,SNR=3.0						
ARCES	**ARCESS Array B**	**40.83**	**337**	P	**P**	**17 28 06.2**	**+1.1**
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	**ARCESS Array B**	**40.83**	**337**	P	**P**	**17 28 06.2**	**+1.0**
	comp=Z,2.7nm,0.9s,mb4.1,baz=113,slow=9.3,SNR=6.6						
YKA	**Yellowknife Ar**	**80.54**	**3**	P	**P**	**17 32 35.3**	**+1.1**
YKA	**Yellowknife Ar**	**80.54**	**3**	P	**P**	**17 32 35.3**	**+1.1**
	comp=Z,0.2nm,0.5s,mb3.2,baz=350,slow=6.1,SNR=5.8						

IDC **01** *18:48:25.6±1.5, 49.12S×164.75E, h0^{km}, mb4.0/2, mb1 4.2/3, mb1mx4.0/10, mbtmp4.1/3, ML4.1/1, MS3.7/5, Ms1 3.7/5, ms1mx3.2/25, Error ellipse: s-maj=48.9km s-min=32.0km az=158.0*

NEIC **01** *18:48:27.0±1.2, 49.31S×164.57E, h10^{km}, Error ellipse: s-maj=26.1km s-min=8.2km az=154.0*

ISCJB **01** *18:48:27.7±1.3, 49.0S±0.1×164.5E±0.1, h10^{km}, mb3.8/2, MS3.8/4, Error ellipse: s-maj=22.5km s-min=7.6km az=156.7*

ISC 01 18:48:29.9±1.2, **48.9S**±0.1×**164.5E**±0.1, **h10**^{km}, **n51, σ1**^{s}**17**/43, **mb3.8**/2, **MS3.8**/4, **3D, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APZ	**The Paps**	**3.17**	**50**	⇓PN	**Pn**	**18 49 20.0**	**+0.2**
APZ				SN	**Sn**	**18 49 56.5**	**-1.2**
WHZ	**Wether Hill Ro**	**3.85**	**39**	P	**Pn**	**18 49 29.9**	**+0.7**
WHZ	**Wether Hill Ro**	**3.85**	**39**	PN	**Pn**	**18 49 29.7**	**+0.5**
WHZ				SN	**Sn**	**18 50 14.1**	**-0.4**
DCZ	**Deep Cove**	**3.92**	**29**	*e*P	**Pn**	**18 49 30.9**	**+0.9**
SYZ	**Scrubby Hill**	**3.97**	**55**	⇓PN	**Pn**	**18 49 31.0**	**+0.3**
MLZ	**Mavora Lakes**	**4.39**	**37**	*e*P	**Pn**	**18 49 37.2**	**+0.6**
MLZ	**Mavora Lakes**	**4.39**	**37**	PN	**Pn**	**18 49 36.4**	**-0.1**
MLZ				SN	**Sn**	**18 50 27.8**	**0.0**
TUZ	**Tuapeka**	**4.61**	**52**	P	**Pn**	**18 49 39.7**	**+0.2**
TUZ	**Tuapeka**	**4.61**	**52**	⇓PN	**Pn**	**18 49 39.7**	**+0.2**
MSZ	**Milford Sound**	**4.88**	**31**	*e*P	**Pn**	**18 49 46.1**	**+2.8**
EAZ	**Earnscleugh**	**4.97**	**44**	*e*P	**Pn**	**18 49 44.6**	**+0.1**
EAZ	**Earnscleugh**	**4.97**	**44**	PN	**Pn**	**18 49 44.3**	**-0.1**
WKZ	**Wanaka**	**5.16**	**39**	*e*P	**Pn**	**18 49 48.4**	**+1.3**
WKZ	**Wanaka**	**5.16**	**39**	PN	**Pn**	**18 49 48.3**	**+1.2**
HHSZ	**Highcliff Hill**	**5.17**	**56**	PN	**Pn**	**18 49 47.5**	**+0.4**
JCZ	**Jackson Bay**	**5.70**	**33**	*e*P	**Pn**	**18 49 57.4**	**+3.0**
JCZ	**Jackson Bay**	**5.70**	**33**	*e*PN	**Pn**	**18 49 56.6**	**+2.2**
ODZ	**Otahua Downs**	**5.75**	**50**	*e*P	**Pn**	**18 49 54.4**	**-0.8**
ODZ	**Otahua Downs**	**5.75**	**50**	PN	**Pn**	**18 49 54.4**	**-0.8**
LBZ	**Lake Benmore**	**6.02**	**43**	*e*P	**Pn**	**18 49 57.7**	**-1.2**
LBZ	**Lake Benmore**	**6.02**	**43**	PN	**Pn**	**18 49 57.7**	**-1.2**
FOZ	**Fox Glacier**	**6.48**	**36**	*e*P	**Pn**	**18 50 07.5**	**+2.3**
FOZ	**Fox Glacier**	**6.48**	**36**	PN	**Pn**	**18 50 07.0**	**+1.8**
RPZ	**Rata Peaks**	**6.93**	**44**	*e*P	**Pn**	**18 50 09.1**	**-2.3**
RPZ	**Rata Peaks**	**6.93**	**44**	Pn	**Pn**	**18 50 09.1**	**-2.3**
	3.8nm,0.3s,baz=149,slow=23,SNR=15						
RPZ				Sn	**Sn**	**18 51 27.0**	**-3.4**
	5.2nm,0.3s,baz=22,slow=21,SNR=7.6						
RPZ				LR	LR	18 53 04.1	
	comp=Z,360nm,20.9s,baz=350,slow=40						
RPZ	**Rata Peaks**	**6.93**	**44**	PN	**Pn**	**18 50 09.0**	**-2.4**
MQZ	**McQueen's Vall**	**7.71**	**50**	*e*P	**Pn**	**18 50 21.3**	**-0.8**
MQZ	**McQueen's Vall**	**7.71**	**50**	*e*PN	**Pn**	**18 50 21.2**	**-1.0**
LTZ	**Lake Taylor**	**8.22**	**44**	*e*P	**Pn**	**18 50 28.5**	**-0.6**
LTZ	**Lake Taylor**	**8.22**	**44**	*e*PN	**Pn**	**18 50 27.2**	**-1.9**
DSZ	**Denniston Nort**	**8.85**	**38**	*e*P	**Pn**	**18 50 37.9**	**+0.1**
DSZ	**Denniston Nort**	**8.85**	**38**	*e*PN	**Pn**	**18 50 36.5**	**-1.3**
KHZ	**Kahutara**	**9.10**	**48**	*e*P	**Pn**	**18 50 43.6**	**+2.4**
THZ	**Tophouse**	**9.31**	**43**	*e*P	**Pn**	**18 50 43.7**	**-0.3**
THZ	**Tophouse**	**9.31**	**43**	*e*PN	**Pn**	**18 50 43.6**	**-0.4**
QRZ	**Quartz Range**	**9.92**	**38**	*e*P	**Pn**	**18 50 52.3**	**-0.1**
TAU	**Tasmania Unive**	**13.35**	**290**	*e*P	**Pn**	**18 51 38.0**	**-1.4**
	7.0nm,0.5s						
STKA	**Stephens Creek**	**24.21**	**306**	P	**P**	**18 53 47.1**	**+0.6**
	1.5nm,0.8s,mb3.5,baz=134,slow=5.2,SNR=4.0						
WRA	**Warramunga Arr**	**37.67**	**309**	P	**P**	**18 55 44.5**	**-0.7**
	3.6nm,0.9s,mb4.1,baz=143,slow=9.2,SNR=21						
WRA				PcP	PcP	18 58 01.0	-1.5
	1.1nm,0.8s,baz=144,slow=2.9,SNR=6.3						
NWAO	**Narrogin (SRO)**	**38.43**	**277**	LR	LR	19 08 21.4	
	comp=Z,49nm,21.6s,MS3.3,baz=74,slow=31						
MAW	**Mawson**	**49.94**	**209**	LR	LR	19 15 57.7	
	comp=Z,122nm,21.8s,MS3.9,baz=241,slow=33						
CBIJ	**Chichi jima**	**78.26**	**340**	LR	LR	19 32 12.0	
	comp=Z,101nm,18.2s,MS4.2,baz=158,slow=34						
JNU	**Nakatsue**	**87.01**	**332**	LR	LR	19 37 09.9	
	comp=Z,46nm,19.4s,MS3.9,baz=213,slow=34						
MKAR	**Makanchi Array**	**118.98**	**309**	PKP	PKPdf	19 07 14.7	-3.1
MKAR	**Makanchi Array**	**118.98**	**309**	PKP	PKPdf	19 07 14.7	-3.1
	1.3nm,0.3s,baz=96,slow=2.9,SNR=9.2						
AKASG	**Malin Array Be**	**151.39**	**291**	PKPbc	PKPbc	19 08 20.9	-2.0
AKASG				PKPab	PKPab	19 08 28.5	-2.7
AKASG	**Malin Array Be**	**151.39**	**291**	PKPbc	PKPbc	19 08 20.9	-2.0
	1.4nm,0.7s,baz=85,slow=2.2,SNR=12						
AKASG				PKPab	PKPab	19 08 28.5	-2.7
	0.2nm,0.4s,baz=82,slow=2.8,SNR=4.7						
ARCES	**ARCESS Array B**	**151.48**	**331**	PKPbc	PKPbc	19 08 21.5	-1.0
ARCES				PKPab	PKPab	19 08 30.1	-0.9
ARCES	**ARCESS Array B**	**151.48**	**331**	PKPbc	PKPbc	19 08 21.5	-1.0
	3.3nm,0.7s,baz=90,slow=1.8,SNR=10						
ARCES				PKPab	PKPab	19 08 30.1	-0.9
	5.4nm,0.9s,baz=14,slow=6.2,SNR=3.2						
FINES	**FINESS Array B**	**153.66**	**314**	PKPbc	PKPbc	19 08 25.8	-1.8
FINES				PKPab	PKPab	19 08 36.8	-3.6
FINES	**FINESS Array B**	**153.66**	**314**	PKPbc	PKPbc	19 08 25.8	-1.8
	2.0nm,1.0s,baz=134,slow=5.5,SNR=3.6						
FINES				PKPab	PKPab	19 08 36.8	-3.6
	2.7nm,1.1s,baz=224,slow=5.0,SNR=3.2						

IDC **01** *19:06:36.9±1.8, 22.63S×171.18E, h0^{km}, mb3.8/2, mb1 4.1/3, mb1mx3.9/11, mbtmp4.0/3, ML4.4/1, MS3.5/7, Ms1 3.5/7, ms1mx3.3/27, Error ellipse: s-maj=70.8km s-min=36.6km az=173.0*

NEIC **01** *19:06:39.6±1.7, 22.38S×171.13E, h10^{km}, Error ellipse: s-maj=95.7km s-min=20.4km az=170.0*

SZGRF **01** *19:06:44.3, 21.61S×171.67E, h33^{km}, Southeast of Loyalty Islands*

ISC 01 19:06:42.6±3.5, **23.0S**±0.6×**171.1E**±0.2, **h41**^{km}±27^{km}, **n50, σ0**^{s}**35**/10, **mb3.8**/2, **MS3.5**/6, **2D, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**4.40**	**281**	*e*P	**Pn**	**19 07 46.7**	**-0.2**
DZM				*e*S	**Sn**	**19 08 35.6**	**-1.2**
DZM	**Mont Dzumac**	**4.40**	**281**	Pn	**Pn**	**19 07 46.9**	**+0.1**
DZM				Sn	**Sn**	**19 08 37.5**	**+0.6**
DZM	**Mont Dzumac**	**4.40**	**281**	Pn	**Pn**	**19 07 46.9**	**+0.1**
	19nm,0.3s,baz=113,slow=13,SNR=475						
DZM				Sn	**Sn**	**19 08 37.5**	**+0.6**
	13nm,0.3s,baz=143,slow=20,SNR=7.3						
NOUC	**Port Laguerre**	**4.52**	**280**	*e*P	**Pn**	**19 07 48.5**	**0.0**
NOUC				*e*S	**Sn**	**19 08 39.8**	**0.0**
HNR	**Honiara**	**17.18**	**320**	LR	LR	19 14 43.9	
	comp=Z,66nm,20.1s,baz=179,slow=29						
CTA	**Charters Tower**	**23.29**	**272**	LR	LR	19 19 55.4	
	comp=Z,107nm,18.9s,MS3.3,baz=53,slow=34						
PMG	**Port Moresby**	**26.60**	**297**	LR	LR	19 20 51.3	
	comp=Z,86nm,20.4s,MS3.3,baz=227,slow=32						
WRA	**Warramunga Arr**	**34.29**	**268**	P	**P**	**19 13 25.2**	**0.0**
	0.2nm,0.3s,mb3.5,baz=97,slow=8.6,SNR=7.6						
WRA				LR	LR	19 27 02.0	
	comp=Z,95nm,20.7s,MS3.5,baz=65,slow=36						
PPT	**Papeete**	**37.20**	**89**	*e*LR	LR	19 23 59.8	
	131nm,23.5s						
PPT	**Papeete**	**37.20**	**89**	LR	LR	19 25 19.2	
	comp=Z,140nm,19.4s,MS3.8,baz=217,slow=30						
NWAO	**Narrogin (SRO)**	**48.17**	**246**	LR	LR	19 36 13.2	
	comp=Z,82nm,19.8s,MS3.7,baz=56,slow=37						
RKT	**Rikitea**	**49.37**	**101**	*e*LR	LR	19 29 44.7	
	92nm,26.8s						
KSRS	**Korea Array**	**72.54**	**325**	LR	LR	19 48 30.2	
	comp=Z,27nm,20.0s,MS3.5,baz=325,slow=35						
SONM	**Songino Array**	**91.22**	**322**	P	**P**	**19 19 43.3**	**0.0**
	1.0nm,1.0s,mb4.1,baz=134,slow=4.2,SNR=5.8						
STHS	**Stebnicka Huta**	**144.52**	**326**	*e*PKP	PKPdf	19 26 17.5	+3.1
STHS	**Stebnicka Huta**	**144.52**	**326**	*e*PKP	PKPdf	19 26 17.5	+3.1
KECS	**Kecovo**	**145.48**	**325**	*i* PKP	PKPdf	19 26 16.6	+0.5
KECS	**Kecovo**	**145.48**	**325**	*i* PKP	PKPdf	19 26 16.6	+0.5
RUE	**Ruedersdorf**	**145.80**	**335**	*e*PKPbc	PKPbc	19 26 17.2	+0.2
OKC	**Ostrava-Krasne**	**145.81**	**328**	*e*PKP	PKPdf	19 26 16.5	-0.1
BSEG	**Bad Segeberg**	**145.84**	**340**	*e*PKPbc	PKPbc	19 26 17.1	0.0
BSEG	**Bad Segeberg**	**145.84**	**340**	*e*PKPbc	PKPbc	19 26 17.1	0.0
DPC	**Dobruska-Polom**	**146.31**	**331**	*e*PKP	PKPdf	19 26 18.9	+1.5
UPC	**Upice**	**146.34**	**331**	*e*PKP	PKPdf	19 26 18.4	+0.9
VYHS	**Vyhne**	**146.34**	**326**	*e*PKP	PKPdf	19 26 18.9	+1.4
VYHS	**Vyhne**	**146.34**	**326**	*e*PKP	PKPdf	19 26 18.8	+1.3
PVCC	**Panska Ves**	**146.96**	**332**	*e*PKP	PKPbc	19 26 21.1	+0.6
BRG	**Berggiesshubel**	**146.96**	**333**	*e*PKPbc	PKPbc	19 26 20.2	-0.3
BRG	**Berggiesshubel**	**146.96**	**333**	*e*P	PKPdf	19 26 20.4	+1.9
	11nm,1.2s						
CLL	**Collm**	**147.01**	**335**	⇓*i*P	PKPdf	19 26 20.6	+2.0
CLL				*e*		19 26 41.0	
CLL	**Collm**	**147.01**	**335**	*e*PKPbc	PKPbc	19 26 20.3	-0.3
CLL	**Collm**	**147.01**	**335**	⇓*i*PKPbc	PKPbc	19 26 20.6	0.0
	comp=Z,7.0nm,1.2s						
PRU	**Pruhonice**	**147.37**	**332**	*e*PKP	PKPbc	19 26 21.8	+0.1
TREC	**Trest**	**147.44**	**330**	*e*PKP	PKPbc	19 26 21.8	-0.1
CLZ	**Clausthal**	**147.57**	**338**	*e*PKPbc	PKPbc	19 26 21.8	-0.4
CLZ	**Clausthal**	**147.57**	**338**	*e*PKPbc	PKPbc	19 26 21.8	-0.4
WERD	**Werda**	**147.96**	**334**	*e*PKPbc	PKPbc	19 26 23.3	0.0
GUNZ	**Gunzen**	**148.01**	**334**	*e*PKPbc	PKPbc	19 26 23.4	0.0
WERN	**Wernitzgruen**	**148.05**	**334**	*e*PKPbc	PKPbc	19 26 23.7	+0.2
NKC	**Novy Kostel**	**148.07**	**334**	*e*PKP	PKPbc	19 26 23.4	-0.2
MANZ	**Manzenberg**	**148.40**	**334**	*e*PKPbc	PKPbc	19 26 24.5	+0.1
KHC	**Kasperske Hory**	**148.42**	**331**	*e*PKP	PKPbc	19 26 24.3	-0.2
GEC2	**GERESS Array S**	**148.58**	**331**	*e*PKPbc	PKPbc	19 26 24.8	-0.1
GEC2	**GERESS Array S**	**148.58**	**331**	*e*PKPbc	PKPbc	19 26 24.8	-0.1
GERES	**GERESS Array B**	**148.58**	**331**	PKPbc	PKPbc	19 26 24.4	-0.5
GERES	**GERESS Array B**	**148.58**	**331**	PKPbc	PKPbc	19 26 24.4	-0.5
	comp=Z,2.3nm,0.8s,baz=40,slow=1.7,SNR=17						
GRA1	**Grafenberg Arr**	**148.98**	**334**	*e*PKPbc	PKPbc	19 26 25.8	-0.1
GRF	**Grafenberg Arr**	**148.98**	**334**	*e*PKP	PKPbc	19 26 25.8	-0.1
GRF	**Grafenberg Arr**	**148.98**	**334**	*e*PKPbc	PKPbc	19 26 25.8	-0.1
TORD	**Torodi Ar. Bea**	**165.98**	**228**	PKPab	PKPab	19 27 45.4	+1.3
	comp=Z,1.3nm,1.0s,baz=121,slow=3.9,SNR=4.5						

ISCJB **01** *19:22:28.5±0.4, 29.28N±0.05×139.4E±0.1, h461^{km}±7^{km}, mb3.8/14, Error ellipse: s-maj=16.3km s-min=6.9km az=167.7*

JMA **01** *19:22:28.8±0.2, 29.35N×139.78E, h472^{km}±4^{km}, M4.1*

NEIC **01** *19:22:29.5±1.2, 29.24N×139.05E, h448^{km}±15^{km}, mb4.4/1, Error ellipse: s-maj=34.2km s-min=15.9km az=82.0*

IDC **01** *19:22:30.3±2.3, 29.22N×139.02E, h456^{km}±27^{km}, mb2.8/6, mb1 3.1/8, mb1mx2.9/20, mbtmp2.9/8, Error ellipse: s-maj=33.9km s-min=15.1km az=87.0*

ISC 01 19:22:29.6±0.4, **29.30N**±0.05×**139.5E**±0.1, **h459**^{km}±7^{km}, **n39, σ1**^{s}**05**/47, **mb3.8**/14, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	**Chichi jima**	**3.24**	**132**	P	**P**	**19 23 38.6**	**-0.6**
JHHJ	**Haha-jima-NKT**	**3.57**	**137**	P	**P**	**19 23 41.0**	**-0.8**
JHHJ				*e*S	**S**	**19 24 39.2**	**-1.2**
JHJ2	**Mitsune**	**3.81**	**4**	P	**P**	**19 23 44.6**	**+1.0**
BSO1	**Boso 1**	**5.49**	**13**	P	**P**	**19 23 59.7**	**+0.7**
BSO3	**Boso 3**	**5.56**	**9**	P	**P**	**19 24 00.2**	**+0.5**
BSO3				*e*S	**S**	**19 25 11.6**	**-1.7**
JIE	**Ise**	**5.60**	**336**	P	**P**	**19 24 02.1**	**+2.0**
JKN2	**Miekihoku**	**5.63**	**332**	P	**P**	**19 24 01.1**	**+0.7**
BSO4	**Boso 4**	**5.72**	**7**	*e*S	**S**	**19 25 15.5**	**-0.8**
HMMJ	**Hamamatsu 2**	**5.74**	**345**	P	**P**	**19 24 02.7**	**+1.2**
JOD2	**Odawara 2**	**5.96**	**357**	P	**P**	**19 24 04.2**	**+0.5**
JOD2				*e*S	**S**	**19 25 17.4**	**-3.2**
JNY	**Yasuok**	**6.20**	**348**	P	**P**	**19 24 07.2**	**+1.1**
JAO	**Obara**	**6.24**	**343**	P	**P**	**19 24 08.0**	**+1.5**
JEG	**Eigenji**	**6.38**	**337**	P	**P**	**19 24 10.0**	**+2.0**
JHU	**Hanno**	**6.54**	**359**	P	**P**	**19 24 09.1**	**-0.5**
JHU				*e*S	**S**	**19 25 27.2**	**-4.3**
JRY	**Ryogami san**	**6.72**	**356**	P	**P**	**19 24 12.0**	**+0.6**
JRY				*e*S	**S**	**19 25 33.8**	**-1.1**
JYT	**Yasato**	**6.94**	**5**	P	**P**	**19 24 13.6**	**-0.1**
JAG	**Ashikaga**	**7.11**	**360**	P	**P**	**19 24 15.0**	**-0.5**
JAG				*e*S	**S**	**19 25 36.9**	**-5.5**
MJAR	**Matsushiro Arr**	**7.30**	**352**	P	**P**	**19 24 17.3**	**-0.2**
	3.6nm,0.3s,baz=171,slow=11,SNR=33						
MAJO	**Matsushiro**	**7.30**	**352**	*e*P	**P**	**19 24 17.4**	**-0.1**
	15nm,0.6s						
MAT	**Matsushiro**	**7.30**	**352**	P	**P**	**19 24 17.8**	**+0.2**
MAT				*e*S	**S**	**19 25 44.5**	**-1.6**
JHO	**Hitachi**	**7.35**	**7**	P	**P**	**19 24 18.6**	**+0.5**
JHS	**Saijyo**	**7.84**	**318**	P	**P**	**19 24 23.6**	**+0.3**
JFK	**Kawauchi**	**8.13**	**8**	P	**P**	**19 24 27.5**	**+1.1**
JFK				*e*S	**S**	**19 25 59.9**	**-2.4**
JMK	**Ichinoseki**	**9.74**	**8**	P	**P**	**19 24 45.7**	**+2.0**
ASAJ	**Asahikawa**	**15.00**	**9**	P	**P**	**19 25 44.2**	**+4.0**
	0.6nm,0.3s,baz=190,slow=11,SNR=3.0						
TAPN	**Taplejung**	**45.31**	**281**	*e*P	**P**	**19 30 04.6**	**-0.6**
	4.4nm,0.4s,mb4.2						
ODAN	**Odare**	**45.72**	**280**	*e*P	**P**	**19 30 07.5**	**-0.9**
	8.8nm,0.4s,mb4.5						
JIRN	**Jiri**	**46.53**	**282**	*e*P	**P**	**19 30 14.4**	**-0.2**
	12nm,0.4s,mb4.7						
GUN	**Gumba**	**46.73**	**282**	*e*P	**P**	**19 30 15.8**	**-0.3**
	6.8nm,0.3s,mb4.5						
MKAR	**Makanchi Array**	**47.24**	**308**	P	**P**	**19 30 19.1**	**-0.6**
	0.2nm,0.3s,mb3.0,baz=87,slow=10,SNR=6.7						
KKN	**Kakani**	**47.28**	**282**	*e*P	**P**	**19 30 19.6**	**-0.6**
	3.1nm,0.3s,mb4.2						
DMN	**Daman**	**47.47**	**282**	*e*P	**P**	**19 30 21.0**	**-0.7**
	3.2nm,0.3s,mb4.3						
GKN	**Gorkha**	**47.77**	**282**	*e*P	**P**	**19 30 23.2**	**-0.8**
	4.1nm,0.4s,mb4.1						
KOLN	**Koldanda**	**48.72**	**283**	*e*P	**P**	**19 30 30.4**	**-0.7**
	5.5nm,0.6s,mb4.1						
WRA	**Warramunga Arr**	**49.20**	**186**	P	**P**	**19 30 34.6**	**0.0**
	0.4nm,0.3s,mb3.2,baz=2.8,slow=7.9,SNR=18						
STKA	**Stephens Creek**	**60.87**	**178**	P	**P**	**19 31 57.0**	**+0.6**
	0.3nm,0.4s,mb3.1,baz=336,slow=12,SNR=3.6						
YKA	**Yellowknife Ar**	**71.34**	**28**	P	**P**	**19 33 04.1**	**+2.6**
	0.2nm,0.5s,mb2.9,baz=290,slow=6.0,SNR=3.4						
NOA	**NORSAR Array B**	**80.68**	**337**	P	**P**	**19 33 53.4**	**0.0**
	1.0nm,0.9s,mb3.3,baz=44,slow=4.7,SNR=2.9						
BRTR	**Keskin Array B**	**82.76**	**312**	P	**P**	**19 34 04.2**	**-0.4**
	1.1nm,0.8s,mb3.4,baz=69,slow=8.4,SNR=3.6						

GUC 01 19:25:05.9±0.7, **32.66S**×**71.18W**, **h15**^{km}±4^{km}, **MD3.7, ML2.3, 3C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PEL	**Peldehue**	**0.64**	**139**	⇑*i*P	Pg	19 25 16.6	-1.8
PEL				*i* S	Sg	19 25 25.6	-1.2
PEL				AML	AML	19 25 26.9	
	comp=N,145nm,0.3s						
CHNG	**Los Chungos**	**0.82**	**341**	*i* P	Pg	19 25 11.8	-10
CHNG				*i* S	Sg	19 25 22.8	-10
TACH	**Talagante**	**1.01**	**168**	*i* P	Pb	19 25 23.7	-1.4
TACH				*i* S	Sb	19 25 37.6	-0.6
PCH	**Pirque**	**1.11**	**150**	⇑*i*P	Pb	19 25 25.3	-1.5
PCH				*i* S	Sb	19 25 40.5	-0.5
CHCH	**Chadas Angostu**	**1.34**	**161**	⇓*i*P	Pn	19 25 29.0	-1.1
CICH	**Cipreses**	**1.77**	**159**	⇑*i*P	Pn	19 25 36.2	+0.2
SFDO	**San Fernando**	**1.95**	**176**	*e*P	Pn	19 25 38.6	+0.1
TLL	**Tololo Astrono**	**2.51**	**7**	*e*P	Pn	19 25 48.1	+1.9
TLL				*i* S	Sn	19 26 19.2	+2.6
TLL				AML	AML	19 26 28.6	
	comp=N,45nm,0.6s						

IDC **01** *19:27:27.1±2.6, 46.78N×155.75E, h0^{km}, mb3.6/4, mb1 3.9/5, mb1mx3.5/21, mbtmp3.7/5, ML3.3/1, Error ellipse: s-maj=82.2km s-min=27.8km az=170.0*

MOS **01** *19:27:29.8±0.8, 46.79N×155.50E, h33^{km}, mb4.4/1, Error ellipse: s-maj=43.1km s-min=27.4km az=77.3*

ISCJB **01** *19:27:30.0±1.5, 46.8N±0.2×155.5E±0.2, h33^{km}, mb3.6/4, Error ellipse: s-maj=33.4km s-min=16.2km az=147.1*

ISC 01 19:27:32.4±1.5, **46.9N**±0.2×**155.6E**±0.2, **h35**^{km}, **n8, σ0**^{s}**76**/8, **mb3.6**/4, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**3.86**	**5**	*e*PN	**Pn**	**19 28 28.6**	**-0.5**
ASAJ	**Asahikawa**	**9.53**	**258**	PN	**Pn**	**19 29 46.1**	**-0.9**
ASAJ	**Asahikawa**	**9.53**	**258**	Pn	**Pn**	**19 29 46.1**	**-0.9**
	0.3nm,0.3s,baz=207,slow=9.0,SNR=2.8						
MKAR	**Makanchi Array**	**48.40**	**298**	P	**P**	**19 36 11.8**	**+1.1**
	0.2nm,0.7s,mb3.3,baz=80,slow=8.9,SNR=3.2						
YKA	**Yellowknife Ar**	**49.82**	**37**	P	**P**	**19 36 20.6**	**-0.7**
	0.2nm,0.5s,mb3.4,baz=292,slow=6.6,SNR=3.6						
FINES	**FINESS Array B**	**64.67**	**336**	P	**P**	**19 38 06.8**	**+0.7**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	**FINESS Array B**	**64.67**	**336**	P	**P**	**19 38 06.8**	**+0.7**
	comp=Z,1.9nm,0.9s,mb4.1,baz=28,slow=8.6,SNR=3.9						
TXAR	**Lajitas Array**	**75.95**	**62**	P	**P**	**19 39 15.9**	**+0.3**
	comp=Z,0.4nm,0.5s,mb3.6,baz=282,slow=4.5,SNR=4.2						

CSEM **01** *19:57:39.8±1.3, 36.85N×24.33W, h5^{km}, ML3.6, Error ellipse: s-maj=6.5km s-min=4.1km az=49.0, After PDA*

PDA **01** *19:57:39.8±1.3, 36.85N×24.33W, h5^{km}, MD3.7, ML3.6, Error ellipse: s-maj=6.5km s-min=4.1km az=49.0*

SVSA 01 19:57:39.8±1.3, **36.85N**×**24.33W**, **h5**^{km}, **MD3.7, ML3.6, Error ellipse: s-maj=6.5km s-min=4.1km az=49.0, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSMN	**Pico do Norte,**	**0.61**	**284**	*e*P	Pg	19 57 50.0	-1.6
PSMN				*e*S	Sg	19 57 58.0	-1.5
MIRA	**Miradouro**	**1.20**	**321**	*e*P	Pg	19 57 57.8	-5.1
MIRA				*e*S	Sg	19 58 12.2	-6.3
FRA1	**Furnas**	**1.21**	**318**	*e*P	Pg	19 57 58.0	-5.0
FRA1				*e*S	Sg	19 58 12.3	-6.5
PCNG	**Congro**	**1.25**	**317**	*e*P	Pg	19 57 59.0	-4.8
PCNG				*e*S	Sg	19 58 13.5	-6.5
PCNG							
	121nm,0.3s						
PCNG	**Congro**	**1.25**	**317**	*e*P	Pg	19 57 59.0	-4.8
PCNG				*e*S	Sg	19 58 13.5	-6.5
VIF	**Vila Franca**	**1.26**	**315**	*e*P	Pg	19 57 59.4	-4.5
VIF				*e*S	Sg	19 58 13.7	-6.6
VIF							
	181nm,0.3s						
VIF	**Vila Franca**	**1.26**	**315**	*e*P	Pg	19 57 59.4	-4.5
VIF				*e*S	Sg	19 58 13.7	-6.6
PFAD	**Fenais da Ajud**	**1.27**	**321**	*e*P	Pg	19 57 58.9	-5.2
PFAD				*e*S	Sg	19 58 14.3	-6.2
PRCH	**Ribeira Ch**	**1.27**	**314**	*e*P	Pg	19 57 59.3	-4.9
PRCH				*e*S	Sg	19 58 13.5	-7.1
PRCH							
	367nm,0.3s						
PRCH	**Ribeira Ch**	**1.27**	**314**	*e*P	Pg	19 57 59.3	-4.9
PRCH				*e*S	Sg	19 58 13.5	-7.1
MESC	**Monte Escuro**	**1.30**	**317**	*e*P	Pn	19 57 59.6	-5.0
MESC				*e*S	Sg	19 58 14.7	-6.8
LFA	**Lagoa do Fogo**	**1.30**	**315**	*e*P	Pn	19 57 59.9	-4.7
PMAT	**Coroa da Mata**	**1.33**	**317**	*e*P	Pn	19 58 00.1	-4.9
PMAT				*e*S	Sg	19 58 15.6	-6.9
PMAT							
	101nm,0.2s						
PMAT	**Coroa da Mata**	**1.33**	**317**	*e*P	Pn	19 58 00.1	-4.9
PMAT				*e*S	Sg	19 58 15.6	-6.9
CML	**Cha da Macela**	**1.34**	**314**	*e*P	Pn	19 58 00.4	-4.7
PVER	**Pico Vermelho**	**1.34**	**315**	*e*P	Pn	19 57 59.8	-5.3
PVER				*e*S	Sb	19 58 15.6	-7.2
PVER							
	128nm,0.4s						
PVER	**Pico Vermelho**	**1.34**	**315**	*e*P	Pn	19 57 59.8	-5.3
PVER				*e*S	Sb	19 58 15.6	-7.2
PDA	**Ponta Delgada**	**1.39**	**310**	*e*S	Sb	19 58 17.3	-7.0
PDA	**Ponta Delgada**	**1.39**	**310**	*e*S	Sb	19 58 17.3	-7.0
FAC	**Faja de Cima**	**1.40**	**311**	*e*P	Pn	19 58 01.2	-4.8
PSAN	**Santo Antonio**	**1.50**	**312**	*e*P	Pn	19 58 02.7	-4.6
PFET	**Feteiras**	**1.51**	**310**	*e*P	Pn	19 58 02.2	-5.3
SET2	**Ginetes**	**1.54**	**310**	*e*P	Pn	19 58 03.3	-4.6
SET4	**Mosteiros**	**1.56**	**311**	*e*P	Pn	19 58 03.3	-4.8
PFAV	**Pico das Favas**	**2.87**	**311**	*e*P	Pn	19 58 22.7	-3.5
PFAV				*e*S	Sn	19 58 54.0	-7.0
PFAV							
	36nm,0.4s						
PFAV	**Pico das Favas**	**2.87**	**311**	*e*P	Pn	19 58 22.7	-3.5
PFAV				*e*S	Sn	19 58 54.0	-7.0
PSCM	**Serra do Cume**	**2.88**	**311**	*e*P	Pn	19 58 21.7	-4.6
PSCM				*e*S	Sn	19 58 53.9	-7.5
PSCM							
	122nm,0.3s						
PSCM	**Serra do Cume**	**2.88**	**311**	*e*P	Pn	19 58 21.7	-4.6
PSCM				*e*S	Sn	19 58 53.9	-7.5
RIB2	**Ribeirinha**	**2.90**	**310**	*e*P	Pn	19 58 23.2	-3.4
RIB2				*e*S	Sn	19 58 54.5	-7.3
RIB2							
	48nm,0.2s						
RIB2	**Ribeirinha**	**2.90**	**310**	*e*P	Pn	19 58 23.2	-3.4
RIB2				*e*S	Sn	19 58 54.5	-7.3
ADH	**Angra Heroismo**	**2.92**	**309**	*e*S	Sn	19 58 55.2	-7.3
ADH	**Angra Heroismo**	**2.92**	**309**	*e*S	Sn	19 58 55.2	-7.3
PVNV	**Vila Nova**	**2.94**	**311**	*e*P	Pn	19 58 22.9	-4.3
PVNV				*e*S	Sn	19 58 54.3	-8.6
PVNV							
	37nm,0.3s						
PVNV	**Vila Nova**	**2.94**	**311**	*e*P	Pn	19 58 22.9	-4.3
PVNV				*e*S	Sn	19 58 54.3	-8.6
PPAD	**Pico dos Padre**	**2.99**	**309**	*e*P	Pn	19 58 23.0	-4.8
PPAD				*e*S	Sn	19 58 56.4	-7.5
PPAD							
	32nm,0.3s						
PPAD	**Pico dos Padre**	**2.99**	**309**	*e*P	Pn	19 58 23.0	-4.8
PPAD				*e*S	Sn	19 58 56.4	-7.5
PBIS	**Biscoitos**	**3.00**	**310**	*e*S	Sn	19 58 57.5	-6.8
PBIS							
	20nm,0.1s						
PBIS	**Biscoitos**	**3.00**	**310**	*e*S	Sn	19 58 57.5	-6.8
ASBA	**Santa Barbara**	**3.02**	**309**	*e*P	Pn	19 58 23.7	-4.6
ASBA				*e*S	Sn	19 58 57.4	-7.4
ASBA							
	65nm,0.2s						
ASBA	**Santa Barbara**	**3.02**	**309**	*e*P	Pn	19 58 23.7	-4.6
ASBA				*e*S	Sn	19 58 57.4	-7.4
PIED	**Piedade**	**3.35**	**299**	*e*P	Pn	19 58 28.4	-4.4
PID	**Ribeirinha**	**3.40**	**299**	*e*P	Pn	19 58 29.3	-4.2
PID				*e*S	Sn	19 59 06.2	-8.1
PMAN	**Manadas**	**3.47**	**302**	*e*P	Pn	19 58 30.0	-4.5
PMAN				*e*S	Sn	19 59 06.9	-9.1
PMAN							
	52nm,0.3s						
PMAN	**Manadas**	**3.47**	**302**	*e*P	Pn	19 58 30.0	-4.5
PMAN				*e*S	Sn	19 59 06.9	-9.1
PPNO	**Prainha do Nor**	**3.52**	**299**	*e*P	Pn	19 58 30.8	-4.3
PPNO				*e*S	Sn	19 59 09.0	-8.1
PPNO							
	38nm,0.1s						
PPNO	**Prainha do Nor**	**3.52**	**299**	*e*P	Pn	19 58 30.8	-4.3
PPNO				*e*S	Sn	19 59 09.0	-8.1
PAMA	**Santo Amaro**	**3.56**	**302**	*e*P	Pn	19 58 31.0	-4.6
PBOI	**Pico dos Bois**	**3.58**	**297**	*e*P	Pn	19 58 31.8	-4.2
PBOI				*e*S	Sn	19 59 09.7	-9.0
PBOI							
	24nm,0.1s						
PTEI	**Pico do Teixo**	**3.59**	**298**	*e*S	Sn	19 59 11.1	-7.9
PTEI							
	24nm,0.2s						
ROSA	**Rosais**	**3.62**	**302**	*e*P	Pn	19 58 32.1	-4.4
ROSA				*e*S	Sn	19 59 11.2	-8.4
PICO	**Pico**	**3.65**	**298**	*e*P	Pn	19 58 32.8	-4.1
PICO				*e*S	Sn	19 59 11.8	-8.4
PCND	**Candelaria**	**3.66**	**297**	*e*P	Pn	19 58 32.4	-4.6
PCND				*e*S	Sn	19 59 11.6	-8.9
PCND							
	30nm,0.2s						
HOR	**Horta**	**3.80**	**297**	*e*P	Pn	19 58 34.5	-4.5
HOR				*e*S	Sn	19 59 15.3	-8.8
CALA	**Caldeira**	**3.88**	**298**	*e*P	Pn	19 58 35.7	-4.3
CALA				*e*S	Sn	19 59 16.9	-9.0
PTCA	**Ponta do Capel**	**3.94**	**297**	*e*P	Pn	19 58 36.5	-4.5

BJI **01** *20:02:42.2, 0.04S×122.50E, h125^{km}, mB4.8, mb4.7*

ISCJB **01** *20:02:45.4±1.0, 0.33N±0.04×122.47E±0.06, h134^{km}±9^{km}, mb4.7/40, Error ellipse: s-maj=11.0km s-min=6.3km az=154.5*

IDC **01** *20:02:45.9±0.8, 0.35N×122.34E, h127^{km}±6^{km}, mb4.2/11, mb1 4.3/12, mb1mx4.2/19, mbtmp4.2/12, Error ellipse: s-maj=27.8km s-min=11.1km az=73.0*

NEIC **01** *20:02:48.3±1.3, 0.30N×122.37E, h149^{km}±12^{km}, mb4.8/14, Error ellipse: s-maj=14.5km s-min=5.2km az=63.0*

MOS **01** *20:02:51.0±0.9, 0.29N×122.38E, h193^{km}, mb4.8/9, Error ellipse: s-maj=21.4km s-min=10.1km az=109.5*

ISC 01 20:02:46.6±0.9, **0.31N**±0.04×**122.45E**±0.06, **h127**^{km}±8^{km}, **h128**^{km}±2.2^{km}**:pP-P, n98, σ0**^{s}**98**/97, **mb4.8**/40, **8C-6D,**

Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCI	Palu	2.88	245	P	Pn	20 03 30.0	-1.5
	699nm,0.9s						
TSM	Tawau	6.05	311	⇓P	Pn	20 04 11.4	-2.3
AAI	Ambon	6.98	125	P	Pn	20 04 31.5	+5.1
	170nm,1.1s						
SDKM	Sandakan	7.45	315	⇑P	Pn	20 04 32.6	-0.2
KKM	Kota Kinabalu	8.44	313	eP	Pn	20 04 45.9	-0.1
KKM	Kota Kinabalu	8.44	313	⇑P	Pn	20 04 46.3	+0.2
KDM	Kudat	8.63	320	⇑P	Pn	20 04 50.7	+2.0
KRKI	Karangkates	13.04	230	P	Pn	20 05 53.0	+5.8
	217nm,0.8s						
BJII	Banjamegara	14.80	239	P	Pn	20 06 10.9	+1.2
	147nm,1.5s						
KAKA	Kakadu	16.30	143	eP	Pn	20 06 29.5	+1.2
	10nm,0.4s						
LEM	Lembang	16.41	244	P	Pn	20 06 30.5	+0.9
	134nm,1.0s						
CBJI	Citeko	16.94	246	P	Pn	20 06 35.8	-0.4
	240nm,0.9s						
FITZ	Fitzroy Crossi	18.56	170	eP	P	20 06 54.6	+0.8
	23nm,0.3s						
FITZ				eS	S	20 10 19.1	+0.2
FITZ	Fitzroy Crossi	18.56	170	P	P	20 06 54.6	+0.8
	6.3nm,0.3s,baz=343,slow=12,SNR=165						
KGM	Kluang	19.20	275	⇑P	P	20 07 00.9	+0.1
KTGM	Kuala Trenggan	19.92	285	⇓P	P	20 07 09.5	+1.0
KSI	Kapahiang	20.23	259	P	P	20 07 12.3	+0.4
	99nm,1.5s						
FRIM	Kepong	21.01	278	⇓P	P	20 07 20.8	+0.5
IPM	Ipoh	21.80	281	⇑P	P	20 07 28.7	0.0
PPI	Padang Panjang	22.06	268	P	P	20 07 32.1	+0.6
	89nm,1.0s,mb5.0						
KULM	Kulim	22.32	283	⇓P	P	20 07 33.3	-0.9
QIZ	Qiongzhong	22.34	327	P	P	20 07 31.3	-3.0
QIZ				S	S	20 11 30.2	-0.6
QIZ				XS	sS	20 12 14.6	+2.0
QIZ				AMB	AMB		
	comp=Z,32nm,1.3s,mb4.5						
QIZ				AMB	AMB		
	comp=Z,169nm,4.7s						
WRA	Warramunga Arr	23.26	151	P	P	20 07 42.8	-0.1
	comp=Z,46nm,1.0s,mb4.8,baz=330,slow=11,SNR=390						
WB2	Warramunga Arr	23.26	151	eP	P	20 07 42.8	-0.2
PSI	Prapat	23.64	276	P	P	20 07 45.4	-1.2
	comp=Z,6.9nm,0.5s,mb4.2,baz=125,slow=9.5,SNR=6.4						
TSI	Tuntungan	24.07	278	P	P	20 07 49.8	-0.7
	comp=Z,83nm,1.0s,mb5.0						
CHTO	Chiang Mai	29.50	310	eP	P	20 08 39.9	+0.8
	comp=Z,16nm,1.2s,mb4.5						
CHTO	Chiang Mai	29.50	310	eP	P	20 08 39.9	+0.8
CHTO				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.5						
FORT	Forrest	31.37	171	eP	P	20 08 55.3	-0.1
	comp=Z,34nm,0.8s,mb5.1						
KLBR	Kellerberrin	32.03	188	eP	P	20 09 00.2	-1.0
	comp=Z,22nm,0.5s,mb5.2						
MUN	Mundaring	32.65	190	eP	P	20 09 05.9	-0.7
NWAO	Narrogin (SRO)	33.42	188	eP	P	20 09 12.6	-0.7
NWAO	Narrogin (SRO)	33.42	188	P	P	20 09 12.8	-0.5
NWAO				pmax	pmax		
	comp=Z,23nm,0.8s						
NWAO	Narrogin (SRO)	33.42	188	P	P	20 09 12.8	-0.5
	comp=Z,23nm,0.8s,mb5.1,baz=358,slow=10,SNR=20						
CD2	Chengdu	35.23	331	eP	P	20 09 29.5	+0.6
CD2				AP	pP	20 09 59.0	+2.3
CD2				XP	sP	20 10 13.5	+2.3
CD2				PP	PP	20 10 53.8	+2.4
CD2				S	S	20 14 54.5	+1.4
CD2				XS	sS	20 15 44.5	+2.8
CD2				SS	SS	20 17 20.2	-12
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.9						
CD2				AMB	AMB		
	comp=Z,30nm,5.2s						
CD2				LR	LR		
	comp=N,220nm,9.6s						
CD2				LR	LR		
	comp=Z,140nm,13.2s						
STKA	Stephens Creek	36.78	152	⇑iP	P	20 09 42.5	+0.3
	comp=Z,18nm,0.9s,mb5.0						
STKA	Stephens Creek	36.78	152	P	P	20 09 42.6	+0.4
	comp=Z,22nm,0.8s,mb5.2,baz=325,slow=7.8,SNR=63						
MJAR	Matsushiro Arr	38.90	20	P	P	20 09 59.1	-0.8
	comp=Z,2.4nm,0.9s,mb4.0,baz=202,slow=8.4,SNR=5.0						
ARMA	Armidale	41.28	140	eP	P	20 10 20.0	+0.4
HHC	Hu-ho-hao-te	41.55	348	eP	P	20 10 23.2	+1.6
HHC				AP	pP	20 10 51.6	+1.5
HHC				PP	PP	20 12 04.6	+4.4
HHC				PCP	PcP	20 12 18.3	+1.6
HHC				PCS	PcS	20 16 08.8	+0.7
HHC				S	S	20 16 28.8	+0.8
HHC				SS	SS	20 19 36.5	-1.4
HHC				SCS	ScS	20 20 10.2	-1.7
HHC				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.3						
HHC				AMB	AMB		
	comp=Z,151nm,5.1s						
HHC				LR	LR		
	comp=N,109nm,18.0s						
HHC				LR	LR		
	comp=E,108nm,19.9s						
HHC				LR	LR		
	comp=Z,192nm,16.1s						
LSA	Lhasa	41.75	317	P	P	20 10 25.4	+1.9
LSA	Lhasa	41.75	317	eP	P	20 10 24.8	+1.4
	comp=Z,9.2nm,0.6s,mb4.7						
LSA	Lhasa	41.75	317	eP	P	20 10 24.8	+1.3
LSA				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.7						
ODAN	Odare	42.81	311	eP	P	20 10 32.3	+0.2
	comp=Z,8.6nm,0.3s,mb5.0						
TAPN	Taplejung	42.83	312	eP	P	20 10 32.3	0.0
	comp=Z,9.8nm,0.5s,mb4.8						
GTA	Gaotai	44.08	335	eP	P	20 10 43.0	+1.0
GTA				PCP	PcP	20 12 24.9	-0.3
GTA				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.4						
JIRN	Jiri	44.13	311	eP	P	20 10 42.9	+0.2
	comp=Z,21nm,0.3s,mb5.3						
GUN	Gumba	44.50	311	eP	P	20 10 45.8	+0.2
	comp=Z,51nm,0.5s,mb5.5						
PKI	Pulchoki	44.68	310	eP	P	20 10 46.8	-0.3
KKN	Kakani	44.89	311	eP	P	20 10 48.8	+0.1
	comp=Z,8.9nm,0.3s,mb5.0						
DMN	Daman	44.93	310	eP	P	20 10 49.3	+0.3
GKN	Gorkha	45.49	311	eP	P	20 10 53.1	-0.3
	comp=Z,23nm,0.3s,mb5.3						
KOLN	Koldanda	46.16	310	eP	P	20 10 59.0	+0.2
	comp=Z,33nm,0.3s,mb5.6						
HABR	Khabarovsk	49.20	11	eP	P	20 11 21.0	-0.8
HABR				eS	S	20 18 04.7	-13
ULN	Ulaanbaatar	49.22	346	eP	P	20 11 21.9	0.0
	comp=Z,5.2nm,1.0s,mb4.4						
ULN	Ulaanbaatar	49.22	346	eP	P	20 11 22.0	0.0
ULN				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
SONM	Songino Array	49.35	346	P	P	20 11 23.4	+0.4
	comp=Z,2.6nm,0.6s,mb4.4,baz=165,slow=9.1,SNR=27						
SONM				pP	pP	20 11 51.4	-0.9
	comp=Z,1.9nm,0.7s,baz=165,slow=8.0,SNR=4.3						
SONM				ScP	ScP	20 16 24.4	-2.9
	comp=Z,0.6nm,0.9s,baz=113,slow=2.6,SNR=3.8						
ZAK	Zakamensk	52.49	345	eP	P	20 11 46.0	-0.5
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.2s,mb3.7						
WMQ	Urumqi	53.24	329	eP	P	20 11 53.4	+1.3
WMQ				AP	pP	20 12 24.4	+2.6
WMQ				XP	sP	20 12 39.9	+4.0
WMQ				PCP	PcP	20 12 59.6	+1.3
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.8						
WMQ				AMB	AMB		
	comp=Z,44nm,8.9s						
WMQ				LR	LR		
	comp=N,78nm,19.2s						
WMQ				LR	LR		
	comp=Z,51nm,17.5s						
MK31	Makanchi Array	58.06	329	eP	P	20 12 26.0	-0.5
MKAR	Makanchi Array	58.06	329	P	P	20 12 26.3	-0.2
MKAR				pP	pP	20 12 56.1	-0.5
MKAR				ScP	ScP	20 17 02.0	-3.5
MKAR	Makanchi Array	58.06	329	P	P	20 12 26.3	-0.2
	comp=Z,8.3nm,0.6s,mb4.9,baz=123,slow=8.7,SNR=118						
MKAR				pP	pP	20 12 56.1	-0.5
	comp=Z,1.8nm,0.8s,baz=121,slow=9.8,SNR=2.0						
MKAR				ScP	ScP	20 17 02.0	-3.5
	comp=Z,0.7nm,0.9s,baz=139,slow=4.0,SNR=4.1						
KZA	Kyzart	59.38	321	P	P	20 12 36.9	+1.3
	SNR=18						
TKM2	Tokmak 2	59.60	322	P	P	20 12 37.6	+0.5
	SNR=9.0						
TKM2	Tokmak 2	59.60	322	eP	P	20 12 37.2	+0.1
	comp=Z,28nm,1.2s,mb5.2						
TKM2	Tokmak 2	59.60	322	eP	P	20 12 37.2	0.0
TKM2				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.2						
KBK	Karagaybulak	59.87	321	P	P	20 12 39.7	+0.7
	SNR=7.2						
UCH	Uchtor	59.92	320	P	P	20 12 40.5	+1.1
	SNR=12						
UCH	Uchtor	59.92	320	eP	P	20 12 39.5	+0.1
	comp=Z,7.2nm,0.8s,mb4.8						
AAK	Ala-Archa	60.14	321	P	P	20 12 41.1	+0.3
	SNR=10						
AAK	Ala-Archa	60.14	321	eP	P	20 12 39.6	-1.3
	comp=Z,12nm,0.9s,mb4.9						
AAK	Ala-Archa	60.14	321	⇑eP	P	20 12 39.2	-1.7
AAK				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.9						
KBL	Kabul	60.32	310	eP	P	20 12 41.1	-1.1
AML	Almayashu	60.40	320	P	P	20 12 43.5	+0.9
	SNR=14						
AML	Almayashu	60.40	320	eP	P	20 12 42.8	+0.2
	comp=Z,16nm,0.9s,mb5.0						
USP	Ospenovka	60.47	321	P	P	20 12 43.3	+0.2
	SNR=6.6						
EKS2	Erkin-Say	60.61	321	P	P	20 12 44.2	+0.1
	SNR=15						
EKS2	Erkin-Say	60.61	321	eP	P	20 12 43.7	-0.3
	comp=Z,13nm,1.0s,mb4.9						
ZAL	Zalesovo	61.81	336	P	P	20 12 50.2	-1.7
ZALV	Zalesovo Beam	61.81	336	P	P	20 12 50.2	-1.7
	comp=Z,1.9nm,0.8s,mb4.2,baz=114,slow=6.6,SNR=10						
ZALV				pP	pP	20 13 19.9	-2.5
	comp=Z,2.2nm,0.7s,baz=132,slow=6.2,SNR=5.3						
YAK	Yakutsk	61.81	4	⇑eP	P	20 12 51.4	-0.3
YAK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
KURK	Kurchatov	62.44	330	eP	P	20 12 54.9	-1.2
	comp=Z,16nm,1.1s,mb5.0						
KURK				epP	pP	20 13 26.2	-0.6
KURK				ePcP	PcP	20 13 32.7	-1.7
KURK	Kurchatov	62.44	330	eP	P	20 12 54.9	-1.2
KURK				e		20 13 32.7	
KURK				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.0						
MA2	Magadan	63.09	16	eP	P	20 13 01.7	+1.4
MA2				i	pP	20 13 30.4	-0.6
MA2				i *PP	pP	20 13 44.1	+13
MA2				eS	S	20 21 05.2	-16
MA2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
BILL	Bilibino	73.96	16	⇓eP	P	20 14 13.2	+5.5
BILL				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.5						
ARU	Arti	75.58	329	eP	P	20 14 15.0	-2.3
ARU				eS	S	20 23 30.3	-17
VNDA	Vanda	80.63	172	P	P	20 14 44.5	-0.2
	comp=Z,1.9nm,0.7s,mb4.0,baz=275,slow=2.5,SNR=5.4						
OBN	Obninsk	87.38	325	P	P	20 15 22.0	+2.6
SYO	Syowa Base	87.72	201	⇓ePcP	PcP	20 15 22.2	-0.3
ARCES	ARCESS Array B	92.15	340	P	P	20 15 39.7	-1.6
	comp=Z,3.4nm,1.0s,mb4.5,baz=90,slow=3.8,SNR=3.8						
FINES	FINESS Array B	92.79	331	i P	P	20 15 42.7	-1.8
FINES				pmax	pmax		
	comp=Z,3.0nm,1.1s						
FINES	FINESS Array B	92.79	331	P	P	20 15 41.6	-2.8
	comp=Z,2.8nm,1.1s,mb4.5,baz=103,slow=6.1,SNR=3.6						
TORD	Torodi Ar. Bea	119.79	285	PKP	PKPdf	20 21 20.5	-2.4
TORD				pPKP	pPKPdf	20 21 55.2	-1.8
TORD	Torodi Ar. Bea	119.79	285	PKP	PKPdf	20 21 20.5	-2.4
	comp=Z,0.9nm,0.8s,baz=12,slow=1.5,SNR=8.5						
TORD				pPKP	pPKPdf	20 21 55.2	-1.8
	comp=Z,1.0nm,0.8s,baz=102,slow=2.0,SNR=4.5						
SCHQ	Schefferville	124.52	7	PKP	PKPdf	20 21 29.9	-0.9
SCHQ	Schefferville	124.52	7	PKP	PKPdf	20 21 29.9	-0.9
	comp=Z,1.4nm,0.6s,baz=0.0,slow=3.0,SNR=2.8						
TXAR	Lajitas Array	127.06	52	PKP	PKPdf	20 21 36.4	-0.1
TXAR	Lajitas Array	127.06	52	PKP	PKPdf	20 21 36.4	-0.1
	comp=Z,0.2nm,0.3s,baz=126,slow=2.2,SNR=3.4						

*IDC **01** 20:15:22.7±1.3, 46.89N×155.76E, h0^{km}, mb3.7/5, mb1 3.9/5, mb1mx3.6/20, mbtmp3.7/5, Error ellipse: s-maj=37.3km s-min=30.1km az=99.0*

*ISCJB **01** 20:15:23.6±8.2, 46.8N±0.2×155.8E±0.3, h18^{km}±57^{km}, mb3.7/5, Error ellipse: s-maj=36.7km s-min=31.2km az=21.1*

*MOS **01** 20:15:25.7±1.2, 46.90N×155.66E, h33^{km}, mb3.9/4, Error ellipse: s-maj=36.8km s-min=27.3km az=148.2*

ISC 01 20:15:27.4±8.6, 46.9N±0.2×155.7E±0.3, h30^{km}±60^{km}, n12, σ0.98/12, mb3.7/5, 1D, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	5.71	256	⇓iPN	Pn	20 16 51.2	+1.1
KUR				pmax	pmax		
	comp=Z,100nm,0.5s						
YUK	Yuzh-Kuril'sk	7.49	251	ePN	Pn	20 17 13.3	-1.3
ZALV	Zalesovo Beam	43.97	306	P	P	20 23 31.6	+0.1
	comp=Z,0.3nm,0.4s,mb3.4,baz=75,slow=6.1,SNR=2.8						
ZAL	Zalesovo	43.99	306	P	P	20 23 31.6	0.0
MKAR	Makanchi Array	48.46	298	P	P	20 24 08.1	+1.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	Makanchi Array	48.46	298	P	P	20 24 08.1	+1.3
	comp=Z,0.6nm,0.8s,mb3.7,baz=58,slow=7.9,SNR=7.8						
YKA	Yellowknife Ar	49.73	37	P	P	20 24 16.9	+0.5
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	49.73	37	P	P	20 24 16.9	+0.5
	comp=Z,0.6nm,0.8s,mb3.7,baz=294,slow=7.6,SNR=6.5						
FINES	FINESS Array B	64.66	336	P	P	20 26 00.0	-1.8
FINES				pmax	pmax		
	comp=Z,2.0nm,1.0s						
FINES	FINESS Array B	64.66	336	P	P	20 26 00.0	-1.8
	comp=Z,2.0nm,1.0s,mb4.1,baz=43,slow=6.3,SNR=2.7						
WRA	Warramunga Arr	69.26	202	P	P	20 26 31.5	0.0
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	Warramunga Arr	69.26	202	P	P	20 26 31.5	0.0
	comp=Z,0.7nm,0.8s,mb3.6,baz=21,slow=8.0,SNR=3.4						

*IDC **01** 20:38:37.8±5.4, 7.43S×128.53E, h99^{km}±53^{km}, mb3.6/5, mb1 3.7/7, mb1mx3.6/15, mbtmp3.6/7, Error ellipse: s-maj=52.2km s-min=22.6km az=72.0*

*ISCJB **01** 20:38:39.1±2.8, 7.5S±0.1×128.6E±0.2, h132^{km}±29^{km}, mb3.9/7, Error ellipse: s-maj=28.1km s-min=20.7km az=173.1*

*NEIC **01** 20:38:40.6±2.5, 7.53S×128.48E, h127^{km}±27^{km}, mb4.5/5, Error ellipse: s-maj=30.4km s-min=18.3km az=88.0*

ISC 01 20:38:37.7±2.6, 7.4S±0.1×128.6E±0.2, h99^{km}±26^{km}, n13, σ0.36/18, mb3.9/7, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.47	144	eP	Pn	20 40 15.1	+4.7
	45nm,0.4s						
KAKA				eS	Sn	20 41 23.0	+0.2
FITZ	Fitzroy Crossi	10.98	195	eP	Pn	20 41 12.0	+0.2
	22nm,0.9s						
FITZ				eS	Sn	20 43 04.2	-8.4
FITZ	Fitzroy Crossi	10.98	195	P	Pn	20 41 12.0	+0.2
	0.8nm,0.3s,baz=33,slow=12,SNR=29						
FITZ				S	Sn	20 43 05.3	-7.4
	3.6nm,0.3s,baz=131,slow=21,SNR=11						
WRA	Warramunga Arr	13.63	156	P	Pn	20 41 46.5	-0.3
	1.0nm,0.3s,baz=334,slow=13,SNR=24						
WRA				S	Sn	20 44 08.8	-8.1
	2.7nm,0.3s,baz=330,slow=22,SNR=8.8						
WB2	Warramunga Arr	13.63	156	eP	Pn	20 41 46.5	-0.4
WB2				eS	Sn	20 44 07.2	-10
FORT	Forrest	23.23	181	eP	P	20 43 35.8	-0.4
	10nm,0.7s,mb4.3						
KLBR	Kellerberrin	26.07	201	eP	P	20 44 02.3	+0.3
	12nm,1.1s,mb4.2						
STKA	Stephens Creek	27.17	155	eP	P	20 44 12.5	+0.5
	2.9nm,0.6s,mb4.0						
STKA	Stephens Creek	27.17	155	P	P	20 44 12.5	+0.5
	3.7nm,0.6s,mb4.1,baz=318,slow=8.8,SNR=15						
NWAO	Narrogin (SRO)	27.46	201	P	P	20 44 14.5	0.0
	5.5nm,0.7s,mb4.2,baz=0.0,slow=14,SNR=4.5						
SONM	Songino Array	58.42	343	P	P	20 48 23.5	+0.5
	0.2nm,0.6s,mb3.3,baz=159,slow=8.7,SNR=2.9						
MKAR	Makanchi Array	67.83	328	P	P	20 49 25.1	-0.1
	0.3nm,0.5s,mb3.4,baz=117,slow=8.7,SNR=6.6						
ZALV	Zalesovo Beam	71.36	334	P	P	20 49 46.3	-0.4
	0.4nm,0.5s,mb3.5,baz=143,slow=5.0,SNR=2.7						

MAN 01 20:47:01, 13.57N×120.95E, h6^{km}, mb4.5, ML3.4, MS3.3, 1C-1D, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGY	Tagaytay City	0.53	359	⇓iP	Pg	20 47 13.0	+1.9
TGY				i S	Sg	20 47 20.8	+2.8
LUBP	Lubang	0.70	283	eP	Pg	20 47 14.6	+0.1
LUBP				eS	Sg	20 47 25.2	+1.6
LQP	Lukban	0.79	47	eP	Pg	20 47 17.5	+1.4
BOAC	Boac	0.88	97	eP	Pg	20 47 16.8	-1.1
BOAC				eS	Sg	20 47 30.1	+0.8
GQP	Guinayangan	1.49	77	⇑eP	Pn	20 47 28.4	0.0
GQP				i S	Sn	20 47 49.1	+1.0
POLP	Polilio Island	1.50	40	eP	Pn	20 47 27.3	-1.2
OTRP	Odiongan	1.59	139	eP	Pn	20 47 29.8	+0.1
OTRP				eS	Sn	20 47 51.8	+1.1
BUSP	Coron	1.72	205	eP	Pn	20 47 32.9	+1.3
BUSP				eS	Sn	20 47 57.8	+4.0
BALP	Baler	2.24	16	eP	Pn	20 47 40.1	+1.4
ENPP	El Nido	2.78	212	eP	Pn	20 47 47.7	+1.5

JSN 01 20:52:16.2±1.6, 18.05N×75.59W, h0^{km}±18^{km}, MD3.6, 2C-5D, Jamaica region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YHJ	Yallahs	0.88	260	⇓eP	Pg	20 52 32.1	-0.9
GWJ	Greenwich	1.08	271	⇓eP	Pg	20 52 35.2	-1.8
HOJ	Hope	1.10	268	⇓eP	Pg	20 52 36.7	-0.7
STH	Stony Hill	1.16	271	⇑eP	Pg	20 52 36.5	-1.9
STH				eS	Sg	20 52 52.2	-1.3
PCJ	Portland Cotta	1.52	259	⇓eP	Pn	20 52 42.7	-2.1
PCJ				eS	Sg	20 53 03.0	-2.2
CVJ	Coleyville	1.86	276	⇓iP	Pn	20 52 48.0	-1.3
MCJ	Malvern	2.00	267	⇑eP	Pn	20 52 50.7	-0.6
MCJ				eS	Sn	20 53 16.3	-0.7

*NEIC **01** 21:06:24.2±1.8, 26.44S×27.87E, h5^{km}, Error ellipse: s-maj=30.7km s-min=11.8km az=112.0*

*ISCJB **01** 21:06:25.6±0.6, 26.41S±0.03×27.65E±0.04, h15^{km}±4^{km}, mb3.6/2, Error ellipse: s-maj=6.9km s-min=5.2km az=36.0*

*IDC **01** 21:06:25.4±1.5, 26.42S×27.64E, h0^{km}, mb3.7/2, mb1 3.8/7, mb1mx3.7/22, mbtmp3.8/7, ML3.7/4, Error ellipse: s-maj=20.0km s-min=15.1km az=110.0*

*PRE **01** 21:06:25.9±1.1, 26.41S×27.68E, h2^{km}, ML3.6*

ISC 01 21:06:26.3±0.6, 26.39S±0.03×27.67E±0.04, h9^{km}±3^{km}, n27, σ1.24/50, mb3.6/2, 1C, South Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KLOF	Kloof	0.07	303	⇑iP	Pg	21 06 28.1	-0.2
KLOF				eS	Sg	21 06 29.0	-0.8
KLOF				AML	AML	21 06 29.8	
	comp=Z,21µm,0.3s						
SLR	Silverton	0.85	40	eP	Pg	21 06 42.1	-0.6
SLR				eS	Sg	21 06 55.0	+1.3
SLR				AML	AML	21 07 00.2	
	comp=Z,447nm,0.9s						
KSR	Koster	0.88	307	eP	Pg	21 06 43.1	0.0
KSR				eS	Sg	21 06 54.8	+0.2
KSR				AML	AML	21 07 00.9	
	comp=Z,783nm,0.2s						
SEK	Senekal	1.93	181	eP	Pn	21 06 60.0	+0.7
SEK				eS	Sn	21 07 25.1	+1.4
SEK				AML	AML	21 07 28.3	
	comp=Z,214nm,0.2s						
LBTB	Lobatse	2.32	306	eP	Pn	21 07 06.1	+1.5
LBTB				eS	Sn	21 07 35.3	+2.1
LBTB				AML	AML	21 07 39.2	
	comp=Z,270nm,0.3s						
LBTB	Lobatse	2.32	306	Pn	Pn	21 07 06.7	+2.1
LBTB				Lg		21 07 37.9	
LBTB	Lobatse	2.32	306	Pn	Pn	21 07 06.7	+2.1
	comp=Z,18nm,0.3s,baz=135,slow=15,SNR=356						
LBTB				Lg		21 07 37.9	
	comp=Z,77nm,0.3s,baz=47,slow=22,SNR=52						
BOSA	Boshof	3.09	223	eP	Pn	21 07 15.5	+0.3
BOSA				eS	Sn	21 07 52.7	+0.5
BOSA				AML	AML	21 08 05.8	
	comp=Z,56nm,0.6s						
BOSA	Boshof	3.09	223	Pn	Pn	21 07 15.3	+0.1
BOSA				Pg	Pg	21 07 22.4	-3.1
BOSA				Sn	Sn	21 07 50.3	-1.9
BOSA				Lg		21 08 00.8	
BOSA	Boshof	3.09	223	Pn	Pn	21 07 15.3	+0.1
	comp=Z,5.9nm,0.3s,baz=48,slow=13,SNR=183						
BOSA				Pg	Pg	21 07 22.4	-3.1
	comp=Z,7.8nm,0.3s,baz=48,slow=14,SNR=21						
BOSA				Sn	Sn	21 07 50.3	-1.9
	comp=Z,12nm,0.3s,baz=18,slow=17,SNR=4.3						
BOSA				Lg		21 08 00.8	
	comp=Z,21nm,0.3s,baz=317,slow=20,SNR=12						
KSD	Kokstad	4.42	160	eP	Pn	21 07 34.0	+0.6
KSD				eS	Sn	21 08 23.7	-1.3
KSD				AML	AML	21 08 47.3	
	comp=Z,68nm,0.5s						
MSNA	Messina	4.56	29	eP	Pn	21 07 36.1	+0.6
MSNA				eS	Sn	21 08 26.4	-2.1
MSNA				AML	AML	21 08 54.7	
	comp=Z,108nm,0.4s						
PKA	Prieska	5.44	232	eP	Pn	21 07 48.0	+0.5
PKA				eS	Sn	21 08 49.7	-0.5
PKA				AML	AML	21 09 26.5	
	comp=Z,65nm,0.4s						
MATP	Matopo	5.98	7	Pn	Pn	21 07 55.6	+0.6
MATP				Sn	Sn	21 09 01.3	-2.4
MATP				Lg		21 09 29.9	
MATP	Matopo	5.98	7	Pn	Pn	21 07 55.6	+0.6
	comp=Z,1.1nm,0.3s,baz=185,slow=12,SNR=25						
MATP				Sn	Sn	21 09 01.3	-2.3
	comp=Z,2.2nm,0.3s,baz=236,slow=17,SNR=8.0						
MATP				Lg		21 09 29.9	
	comp=Z,5.5nm,0.3s,baz=269,slow=22,SNR=8.5						
UPI	Upington	6.04	250	eP	Pn	21 07 56.9	+1.2
UPI				eS	Sn	21 09 04.2	-0.8
UPI				AML	AML	21 09 34.9	
	comp=Z,23nm,0.6s						
SUR	Sutherland	8.45	223	eP	Pn	21 08 30.0	+1.1
SUR				eS	Sn	21 10 01.0	-3.4
SUR	Sutherland	8.45	223	Pn	Pn	21 08 28.4	-0.5
SUR				Sn	Sn	21 09 58.2	-6.2
SUR				Lg		21 10 45.3	
SUR	Sutherland	8.45	223	Pn	Pn	21 08 28.4	-0.5
	comp=Z,1.4nm,0.3s,baz=26,slow=15,SNR=32						
SUR				Sn	Sn	21 09 58.2	-6.2
	comp=Z,1.1nm,0.3s,baz=16,slow=19,SNR=3.9						
SUR				Lg		21 10 45.3	
	comp=Z,2.4nm,0.3s,baz=146,slow=22,SNR=3.6						
CVNA	Calvinia	8.59	232	eP	Pn	21 08 31.9	+1.1
CVNA				eS	Sn	21 10 04.4	-3.4
CVNA				AML	AML	21 10 58.2	
	comp=Z,29nm,0.6s						
KOMG	Komaggas	9.62	247	eP	Pn	21 08 46.3	+1.4
KOMG				eS	Sn	21 10 29.2	-3.9
KOMG				AML	AML	21 11 35.9	
	comp=Z,4.7nm,0.6s						
LSZ	Lusaka	11.06	3	Pn	Pn	21 09 02.2	-2.6
LSZ				Sn	Sn	21 11 00.9	-7.7
LSZ				Lg		21 12 09.6	
LSZ	Lusaka	11.06	3	Pn	Pn	21 09 02.2	-2.6
	comp=Z,0.3nm,0.3s,baz=196,slow=13,SNR=5.4						
LSZ				Sn	Sn	21 11 00.9	-7.7
	comp=Z,0.4nm,0.3s,baz=73,slow=17,SNR=4.4						
LSZ				Lg		21 12 09.6	
	comp=Z,0.2nm,0.3s,baz=246,slow=19,SNR=3.6						
TSUM	Tsumeb	11.73	305	Pn	Pn	21 09 13.8	0.0

TSUM	Tsumeb	11.73	305	Pn	Pn	21 09 13.8	0.0
TORD	Torodi Ar. Bea	46.72	324	P	P	21 14 56.0	+0.2
	comp=Z,0.8nm,0.8s,mb3.7,baz=144,slow=7.4,SNR=10						
MKAR	Makanchi Array	87.95	34	P	P	21 19 17.1	+0.8
	comp=Z,0.3nm,0.8s,mb3.6,baz=232,slow=1.6,SNR=3.5						

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*IDC **01** 21:15:06.8±3.8, 46.47N×155.00E, h0^{km}, mb3.8/5, mb1 4.0/5, mb1mx3.6/20, mbtmp3.8/5, MS3.5/1, Ms1 3.5/1, ms1mx2.8/24, Error ellipse: s-maj=115.9km s-min=36.3km az=9.0*

*MOS **01** 21:15:10.6±1.1, 46.58N×155.00E, h33^{km}, mb4.2/4, Error ellipse: s-maj=43.5km s-min=19.7km az=95.9*

*ISCJB **01** 21:15:13.4±6.8, 46.8N±0.4×155.0E±0.3, h50^{km}±43^{km}, mb3.8/7, Error ellipse: s-maj=74.9km s-min=27.2km az=171.4*

ISC 01 21:15:14.4±6.5**, 46.7N**±0.4×**155.0E**±0.3**, h44**^{km}±42^{km}**, n12, σ0^{s}82**/11**, mb3.8**/7**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	4.04	10	*e*PN	Pn	21 16 13.5	-0.1
JHJ	Hachijo jima 2	17.88	226	LR	LR	21 25 01.3	
	comp=Z,157nm,19.9s,baz=97,slow=34						
BILL	Bilibino	22.15	11	P	P	21 20 06.0	+0.1
BILL				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb3.9						
ZAK	Zakamensk	33.89	296	*e*P	P	21 21 54.5	+1.9
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.9s,mb3.7						
ZALV	Zalesovo Beam	43.70	306	P	P	21 23 13.6	-1.1
	comp=Z,0.5nm,0.4s,mb3.6,baz=64,slow=6.6,SNR=3.1						
ZAL	Zalesovo	43.72	306	P	P	21 23 13.6	-1.1
MKAR	Makanchi Array	48.13	298	P	P	21 23 49.4	-0.2
	comp=Z,0.2nm,0.6s,mb3.3,baz=67,slow=7.2,SNR=3.2						
ARCES	ARCESS Array B	58.31	341	P	P	21 25 04.5	+0.4
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES	ARCESS Array B	58.31	341	P	P	21 25 04.5	+0.4
	comp=Z,3.7nm,0.8s,mb4.4,baz=31,slow=7.3,SNR=5.1						
FINES	FINESS Array B	64.63	336	P	P	21 25 47.2	+0.4
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	64.63	336	P	P	21 25 47.2	+0.4
	comp=Z,1.4nm,0.6s,mb4.1,baz=34,slow=8.4,SNR=8.0						
TXAR	Lajitas Array	76.35	62	P	P	21 26 58.7	-0.1
	comp=Z,0.4nm,0.5s,mb3.6,baz=331,slow=5.2,SNR=4.0						

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*ISCJB **01** 21:18:44.4±1.6, 13.5S±0.1×166.8E±0.3, h150^{km}, mb3.6/4, Error ellipse: s-maj=35.6km s-min=18.6km az=174.1*

*IDC **01** 21:18:47.2±6.0, 13.58S×166.96E, h173^{km}±55^{km}, mb3.5/5, mb1 3.6/6, mb1mx3.5/15, mbtmp3.5/6, Error ellipse: s-maj=46.0km s-min=32.5km az=166.0*

*NEIC **01** 21:18:48.2±3.8, 13.65S×167.03E, h188^{km}±36^{km}, Error ellipse: s-maj=37.2km s-min=22.0km az=175.0*

ISC 01 21:18:45.4±1.6**, 13.5S**±0.1×**166.9E**±0.2**, h150**^{km}**, n46, σ0^{s}56**/8**, mb3.6**/4**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	8.58	183	P	Pn	21 20 46.6	+0.1
	0.4nm,0.3s,baz=94,slow=14,SNR=4.3						
CTA	Charters Tower	20.83	249	P	P	21 23 16.3	+1.0
CTA	Charters Tower	20.83	249	P	P	21 23 16.3	+1.0
	4.4nm,0.6s,baz=75,slow=14,SNR=6.5						
STKA	Stephens Creek	29.56	227	*e*P	P	21 24 35.6	-0.5
STKA	Stephens Creek	29.56	227	P	P	21 24 35.7	-0.4
	2.6nm,0.6s,mb4.1,baz=35,slow=8.0,SNR=14						
WRA	Warramunga Arr	31.81	254	P	P	21 24 55.1	-0.9
	0.8nm,0.6s,mb3.6,baz=85,slow=9.6,SNR=11						
SONM	Songino Array	81.27	324	P	P	21 30 44.8	+0.1
	0.1nm,0.4s,mb2.8,baz=140,slow=7.5,SNR=3.6						
MKAR	Makanchi Array	96.04	317	P	P	21 31 55.8	+0.1
	0.5nm,0.6s,mb4.0,baz=90,slow=6.0,SNR=7.2						
ARCES	ARCESS Array B	118.94	345	PKP	PKPdf	21 37 13.9	-1.6
ARCES	ARCESS Array B	118.94	345	PKP	PKPdf	21 37 13.9	-1.6
	4.8nm,0.9s,baz=54,slow=2.3,SNR=12						
FINES	FINESS Array B	124.42	338	PKP	PKPdf	21 37 24.9	-1.3
FINES	FINESS Array B	124.42	338	PKP	PKPdf	21 37 24.9	-1.3
	0.7nm,0.5s,baz=95,slow=2.3,SNR=6.3						
HINF	Hinteralfeld	141.92	338	*e*PKP1	PKPdf	21 37 56.9	-2.5
HAU	Haudompre	141.94	339	*e*PKP1	PKPdf	21 37 57.0	-2.4
CABF	La Chapelle	143.22	338	*e*PKP1	PKPdf	21 37 59.8	-2.0
FLN	La Foliniere	143.28	346	*e*PKP1	PKPdf	21 37 57.5	-4.3
LOR	Lormes	143.43	341	*e*PKP1	PKPdf	21 37 59.0	-3.1
GRR	Gorron	143.72	346	*e*PKP1	PKPdf	21 37 59.4	-3.2
	5.1nm,0.6s						
SSF	Saint Saulge	143.72	341	*e*PKP1	PKPdf	21 38 00.1	-2.5
	8.8nm,0.9s						
LPL	La Plagne	143.89	336	*e*PKP1	PKPdf	21 38 01.0	-2.0
	4.1nm,0.6s						
LPG	La Plagne	143.90	336	*e*PKP1	PKPdf	21 38 01.2	-1.8
	4.4nm,0.6s						
SMF	Signal de Mont	143.98	340	*e*PKP1	PKPdf	21 38 00.7	-2.4
	12nm,1.0s						
AVF	Avril sur Loir	144.01	341	*e*PKP1	PKPdf	21 38 00.6	-2.5
	5.9nm,0.8s						
SGMF	Saint Gilles	144.22	348	*e*PKP1	PKPdf	21 38 01.2	-2.2
	17nm,0.8s						
ROSF	Rostrenen	144.28	349	*e*PKP1	PKPdf	21 38 01.3	-2.2
	4.9nm,0.6s						
BGF	Bois d'Agland	144.38	341	*e*PKP1	PKPdf	21 38 02.0	-1.8
	16nm,0.9s						
MBDF	Montbardon	144.53	335	*e*PKP1	PKPdf	21 38 02.6	-1.5
	5.3nm,0.7s						
QUIF	Quistinic	144.66	348	*e*PKP1	PKPdf	21 38 02.4	-1.8
	11nm,0.6s						
ORIF	Oris-en-Rattie	144.72	336	*e*PKP1	PKPdf	21 38 03.6	-0.8
	17nm,0.8s						
TCF	Toulx Ste Croi	144.82	341	*e*PKP1	PKPdf	21 38 02.8	-1.8
	8.1nm,0.8s						
MFF	Saint Martin d	145.21	344	*e*PKP1	PKPbc	21 38 04.5	-0.6
	4.4nm,0.6s						
VIVF	Saint-Julien-l	145.24	338	*e*PKP1	PKPbc	21 38 04.4	-0.9
	9.5nm,0.9s						
PGF	Pioggiola	145.28	331	*e*PKP1	PKPbc	21 38 04.9	-0.6
	18nm,0.8s						
FRF	La Foret Royal	145.53	334	*e*PKP1	PKPbc	21 38 05.5	-0.8
	16nm,0.6s						
SMRF	Simiane la Rot	145.63	336	*e*PKP1	PKPbc	21 38 06.4	-0.2
	7.4nm,0.7s						
LMR	La Mourre	145.78	334	*e*PKP1	PKPbc	21 38 06.3	-0.7
	11nm,0.6s						
RJF	Les Rejaudoux	145.91	341	*e*PKP1	PKPbc	21 38 06.2	-1.2
CAF	Calviac	146.08	341	*e*PKP1	PKPbc	21 38 07.5	-0.4
LASF	Ste Croix	146.20	338	*e*PKP1	PKPbc	21 38 08.0	-0.3
	4.5nm,0.6s						
LFF	La Frestale	146.48	342	*e*PKP1	PKPbc	21 38 08.6	-0.4
	4.5nm,0.5s						
MTLF	Montolieu	147.43	339	*e*PKP1	PKPbc	21 38 11.3	-0.5
	7.5nm,0.6s						
EPF	Esparros	148.33	341	*e*PKP1	PKPbc	21 38 14.9	+0.7
	1.9nm,0.5s						
ETSF	Etsaut	148.73	342	*e*PKP1	PKPbc	21 38 15.6	+0.4
	8.4nm,0.8s						
KEST	Kesra	150.00	322	PKPbc	PKPbc	21 38 18.5	-0.1
	1.9nm,0.6s,baz=27,slow=5.5,SNR=8.7						
TORD	Torodi Ar. Bea	165.60	270	PKP	PKPdf	21 38 31.8	-1.3
TORD	Torodi Ar. Bea	165.60	270	PKP	PKPdf	21 38 31.8	-1.3
	0.2nm,0.5s,baz=1.8,slow=1.4,SNR=5.5						

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*MOS **01** 21:30:57.7±0.6, 54.96N×111.65E, h11^{km}, mb4.2/1, Error ellipse: s-maj=56.9km s-min=24.0km az=62.8*

BYKL 01 21:30:58.8±0.2**, 55.01N×111.72E, h8**^{km}±5^{km}**, 5C-1D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMO	Kumora	0.93	342	⇑*i*Pg	Pg	21 31 15.2	-1.4
KMO				*e*Sg	Sg	21 31 27.4	-1.2
KMO				Pmax			
	52nm,0.4s						
KMO				Smax			
	173nm,0.4s						
YOA	Uoyan	1.12	0	⇑*i*PG	Pg	21 31 19.5	-0.9
YOA				*e*		21 31 35.6	
YOA				pmax	pmax		
	comp=Z,60nm,0.2s						
YOA				smax			
	comp=N,586nm,0.4s						
YOA	Uoyan	1.12	0	*e*Pg	Pg	21 31 19.9	-0.5
YOA				*e*Sg	Sg	21 31 35.2	+0.2
YOA				Pmax			
	comp=N,59nm,0.1s						
YOA				Smax			
	comp=N,577nm,0.4s						
UKT	Uakit	1.19	65	⇓*i*Pg	Pg	21 31 20.0	-1.7
UKT				*e*		21 31 22.7	
UKT				*e*Sg	Sg	21 31 36.0	-1.1
UKT				*e*Sb	Sb	21 31 40.1	+2.9
UKT				max			
	comp=N,55nm,0.2s						
UKT				Smax			
	comp=N,159nm,0.2s						
NIZ	Nizh Angarsk	1.46	303	⇑*i*Pg	Pg	21 31 25.1	-1.7
NIZ				*e*		21 31 26.8	
NIZ				*e*Sg	Sg	21 31 44.7	-1.0
NIZ				max			
	comp=N,41nm,0.2s						
NIZ				Smax			
	comp=N,91nm,0.2s						
SVKR	Severomuysk	1.52	43	*e*PN	Pn	21 31 26.8	+0.5
SVKR				*e*		21 31 46.9	
SVKR				pmax	pmax		
	comp=Z,160nm,0.3s						
SVKR				smax			
	comp=N,449nm,0.5s						
SVKR	Severomuysk	1.52	43	*e*Pg	Pg	21 31 27.1	-0.9
SVKR				*e*Sg	Sg	21 31 48.1	+0.4
SVKR				Pmax			
	comp=N,168nm,0.2s						
SVKR				Smax			
	comp=N,448nm,0.5s						
SYVR	Suvo	1.69	217	*e*Pg	Pg	21 31 28.9	-2.2
SYVR				*e*Sg	Sg	21 31 51.9	-1.1
SYVR				Pmax			
	comp=N,20nm,0.3s						
SYVR				Smax			
	comp=N,128nm,0.2s						
MXMB	Maximikha	2.48	226	*e*Pn	Pn	21 31 39.6	+0.2
MXMB				*e*Pg	Pg	21 31 43.5	-2.7
MXMB				*e*Sg	Sg	21 32 16.8	-1.4
MXMB				Pmax			
	comp=N,12nm,0.4s						
MXMB				Smax			
	comp=N,311nm,0.8s						
NLYR	Nelyaty	2.70	55	*e*Pn	Pn	21 31 43.2	+0.8
NLYR				*e*Pg	Pg	21 31 46.6	-3.8
NLYR				*e*Sg	Sg	21 32 22.6	-2.7
OGRR	Ongureny	2.78	242	⇑*i*Pn	Pn	21 31 44.1	+0.6
OGRR				⇑*i*Pg	Pg	21 31 47.8	-4.2
OGRR				*e*Sg	Sg	21 32 24.5	-3.4
OGRR				Pmax			
	comp=N,11nm,0.3s						
OGRR				Smax			
	comp=N,71nm,0.5s						
BOD	Bodaibo	3.09	23	*e*Pg	Pg	21 31 53.5	-4.4
BOD				*e*Sg	Sg	21 32 33.4	-4.5
BOD				Pmax			
	comp=N,10.0nm,0.4s						
BOD				Smax			
	comp=N,32nm,0.4s						
CIT	Chita	3.19	159	*e*Sg	Sg	21 32 36.7	-4.4
CIT				Smax			
	comp=N,34nm,0.4s						
ZRHB	Zarechye	3.66	230	*e*Sg	Sg	21 32 52.9	-3.3
ZRHB				Smax			
	comp=N,99nm,0.9s						
TRTB	Turuntaevo	3.70	223	*e*Pg	Pg	21 32 05.8	-3.8
TRTB				*e*Sg	Sg	21 32 53.8	-3.7
TRTB				Pmax			
	comp=N,7.0nm,0.4s						
TRTB				Smax			
	comp=N,27nm,0.9s						
TRG	Tyrgan	3.90	237	*e*Pn	Pn	21 31 59.8	+0.9
TRG				*e*Sg	Sg	21 32 57.9	-5.9
TRG				Smax			
	comp=N,21nm,0.3s						
UUDB	Ulan-Yde	3.98	219	*e*Pg	Pg	21 32 11.1	-3.8
UUDB				*e*Sg	Sg	21 33 02.7	-3.6
UUDB				Pmax			
	comp=N,10.0nm,0.7s						
UUDB				Smax			
	comp=N,95nm,1.4s						
CRS	Chara	4.14	60	*e*PN	Pn	21 32 03.1	+0.9
CRS				*e*		21 32 12.2	
CRS				*e*		21 33 06.9	
CRS				pmax	pmax		
	comp=Z,8.0nm,0.7s						
CRS				smax			
	comp=E,99nm,1.5s						
CRS	Chara	4.14	60	*e*Pn	Pn	21 32 02.7	+0.5
CRS				*e*Pg	Pg	21 32 12.5	-5.5
CRS				*e*Sg	Sg	21 33 07.2	-4.4
CRS				Pmax			
	comp=E,8.0nm,0.6s						
CRS				Smax			
	comp=E,98nm,1.7s						
TUP	Tupik	4.81	94	*e*Pn	Pn	21 32 11.6	+0.2
TUP				*e*Sg	Sg	21 33 26.8	-6.3
TUP				Smax			
	comp=E,44nm,0.5s						
KPC	Khapcheranga	5.33	175	*e*Pn	Pn	21 32 19.2	+0.6
KPC				*e*Pg	Pg	21 32 34.0	-6.8
KPC				*e*Sg	Sg	21 33 44.1	-5.7
KPC				Pmax			
	comp=E,1.0nm,0.2s						
KPC				Smax			
	comp=E,18nm,0.8s						
MOY	Mondy	7.24	247	*e*PN	Pn	21 32 45.0	+0.2
MOY				*e*		21 33 06.8	
MOY				*e*		21 34 40.3	
MOY				pmax	pmax		
	comp=Z,1.0nm,0.1s						
MOY				smax			
	comp=E,29nm,1.8s						
ORL	Orlik	7.48	256	*e*PN	Pn	21 32 49.1	+1.1
ORL				*e*S	Sn	21 34 48.8	+36
ORL				smax			
	comp=N,21nm,1.5s						

CASC 01 21:32:22.2±2.9**, 8.61N×83.26W, h13**^{km}±13^{km}**, MD4.0, 5C-4D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRU2	Volcan	0.59	72	⇓*i*P	Pg	21 32 33.2	-0.5
BRU2				*e*S	Sg	21 32 42.3	+0.8
TBS2		0.62	73	⇓*e*P	Pg	21 32 36.1	+1.8
TBS2				*e*S	Sg	21 32 45.7	+3.2
BAR1		0.63	355	⇑*i*P	Pg	21 32 34.0	-0.6
BAR1				⇑*i*P		21 32 34.0	
BRU	Baru	0.71	74	⇓*i*P	Pg	21 32 35.5	-0.6
DVD	David	0.81	102	⇑*i*P	Pg	21 32 36.1	-1.9
BUS	Buena Vista	1.06	332	*e*P	Pb	21 32 41.1	-1.4
BUS				*e*S	Sb	21 32 57.9	+1.6
CNI	Changuinola	1.08	42	⇓*i*P	Pb	21 32 41.2	-1.6
QCR	Quepos	1.21	312	⇑*e*P	Pn	21 32 43.2	-1.6
QCR				*e*S	Sb	21 33 00.9	+0.3
URSC	Urasca	1.32	337	*e*P	Pn	21 32 44.7	-1.7
LCR2	La Lucha 2	1.35	327	*e*P	Pn	21 32 45.4	-1.3
LCR2				*e*S	Sb	21 33 04.0	-0.5
LAJ	Bijagual	1.51	326	*e*P	Pn	21 32 50.2	+1.2
LAJ				*e*S	Sn	21 33 14.2	+5.6
SJS	Escuela Geolog	1.54	329	*e*P	Pn	21 32 47.3	-2.1
SJS				*e*S	Sn	21 33 09.4	+0.1
PRS1	Puriscal	1.72	323	*e*P	Pn	21 32 50.6	-1.2
CGA2	Cerro Gallo 2	1.84	320	*e*P	Pn	21 32 52.9	-0.6
CGA2				*e*S	Sn	21 33 17.5	+0.8
JCR	Jicaral	2.21	304	*e*P	Pn	21 32 58.5	-0.1
CUI		2.79	317	*i* P	Pn	21 33 07.2	+0.6
CUI				*i* S	Sn	21 33 41.3	+1.3
VCR	Vista de Mar	2.79	303	*e*P	Pn	21 33 06.5	-0.1
LIM1	Limonal	2.86	317	*i* P	Pn	21 33 09.1	+1.5
AZU	Azuero	3.06	105	*e*S	Sn	21 33 46.7	-0.2
AZU				*e*P		21 33 09.8	
BCIP	Isla Barro Col	3.42	80	*e*P	Pn	21 33 13.9	-1.4
PTP	Ponta Puerca	19.63	59	⇑*i*P		21 32 32.5	

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*NIC **01** 23:04:15.6±0.2, 36.07N×35.94E, h15^{km}, mb4.2, ML3.8, MW3.3*

*ISCJB **01** 23:04:15.9±0.4, 35.96N±0.02×35.81E±0.02, h8^{km}±3^{km}, Error ellipse: s-maj=3.0km s-min=2.6km az=162.6*

*GII **01** 23:04:16.4±0.0, 35.94N×35.75E, h0^{km}, ML3.3/10, Mw2.8/3*

*CSEM **01** 23:04:16.3±0.1, 35.98N×35.85E, h15^{km}, Mw3.0, Error ellipse: s-maj=1.3km s-min=1.1km az=90.0*

*ISK **01** 23:04:16.4, 35.98N×35.86E, h14^{km}, MD3.6*

*GRAL **01** 23:04:17.0±3.4, 36.04N×35.73E, h0^{km}±40^{km}, MD3.7*

*NSSC **01** 23:04:17.9, 35.95N×35.95E, h11^{km}±1^{km}*

*HLW **01** 23:04:18.4, 36.09N×35.50E, h24^{km}, Mb3.6*

ISC 01 23:04:16.6±0.4**, 35.96N**±0.02×**35.83E**±0.02**, h7**^{km}±3^{km}**, n118, σ0^{s}74**/162**, 22D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARNB	Al Arnab	0.15	131	⇓P	Pg	23 04 20.4	+0.6
ARNB				⇑S	Sg	23 04 23.0	+1.0
HTY	Hatay	0.29	58	PG	Pg	23 04 22.5	+0.1
HTY				SG	Sg	23 04 26.8	+0.5
HTY	Hatay	0.29	58	*e*Pg	Pg	23 04 22.5	+0.1
HTY				*e*Sg	Sg	23 04 26.8	+0.5
SLNF	Slenfeh	0.49	139	⇓P	Pg	23 04 26.4	+0.4
SLNF				⇑S	Sg	23 04 32.7	+0.3
SLNF	Slenfeh	0.49	139	⇓*i*P	Pg	23 04 26.4	+0.4
BTCH	Batrach	0.52	82	⇑P	Pg	23 04 26.6	+0.1
BTCH				⇑S	Sg	23 04 33.4	0.0
BTCH	Batrach	0.52	82	⇑*i*P	Pg	23 04 26.6	0.0
WRDH	Warideh	0.66	134	⇓P	Pg	23 04 29.5	+0.2
WRDH				⇓S	Sg	23 04 37.2	-0.6
WRDH	Warideh	0.66	134	⇓*i*P	Pg	23 04 29.5	+0.2
KRTS	Karatas	0.71	329	PG	Pg	23 04 31.3	+1.0
KRTS	Karatas	0.71	329	*e*Pg	Pg	23 04 31.3	+1.0
DRWC	Darouich	0.94	46	⇑P	Pg	23 04 34.4	-0.3
DRWC				⇓S	Sg	23 04 47.4	+0.4
DRWC	Darouich	0.94	46	⇑*i*P	Pg	23 04 34.4	-0.3
DRWC				⇓*i*S	Sg	23 04 47.4	+0.4
BIDA	Albida	1.03	157	⇓P	Pg	23 04 35.9	-0.4
BIDA				⇑S	Sg	23 04 49.4	-0.3
BIDA	Albida	1.03	157	⇓*i*P	Pg	23 04 35.9	-0.5
BIDA				⇑*i*S	Sg	23 04 49.4	-0.3
CEYT	Ceyhan	1.05	356	PG	Pg	23 04 36.8	+0.1
CEYT				SG	Sg	23 04 51.2	+0.9
CEYT	Ceyhan	1.05	356	*e*Pg	Pg	23 04 36.8	+0.1
CEYT				*e*Sg	Sg	23 04 51.2	+0.9
KFRA	Kufra	1.09	133	⇓P	Pg	23 04 36.9	-0.6
KFRA				⇑S	Sg	23 04 51.5	-0.2
KFRA	Kufra	1.09	133	⇓*i*P	Pg	23 04 36.9	-0.6
KFRA				⇑*i*S	Sg	23 04 51.5	-0.1
MERS	Mersin	1.39	311	PN	Pn	23 04 41.7	-0.7
MERS	Mersin	1.39	311	*e*Pn	Pn	23 04 41.7	-0.7
KARA	Karaisali	1.44	335	PN	Pn	23 04 42.6	-0.4
KARA	Karaisali	1.44	335	*e*Pn	Pn	23 04 42.6	-0.4
HAWK	Haweek	1.51	162	⇑P	Pn	23 04 44.0	-0.1
HAWK				⇑S	Sn	23 05 04.2	+0.2
HAWK	Haweek	1.51	162	⇑*i*P	Pn	23 04 44.0	-0.1
HAWK				⇑*i*S	Sn	23 05 04.2	+0.2
KOZT	Kozan	1.51	360	PN	Pn	23 04 43.4	-0.7
GAZ	Gaziantep	1.64	42	PN	Pn	23 04 45.3	-0.5
GAZ	Gaziantep	1.64	42	*e*Pn	Pn	23 04 45.3	-0.5
HWQ	Hawqa	1.68	177	*e*P	Pn	23 04 46.0	-0.5
HWQ				*e*S	Sn	23 05 09.8	+1.6
SLMH	Al Salmeh	1.72	81	⇓P	Pn	23 04 45.7	-1.2
SLMH				⇑S	Sn	23 05 08.2	-0.8
SLMH	Al Salmeh	1.72	81	⇓*i*P	Pn	23 04 45.7	-1.2
SLMH				⇑*i*S	Sn	23 05 08.2	-0.9
PHNC	Paralimni	1.75	237	P	Pn	23 04 46.5	-0.9
PHNC				S	Sn	23 05 10.9	+1.0
IKL	Isikli	1.76	280	PN	Pn	23 04 47.2	-0.2
IKL	Isikli	1.76	280	*e*Pn	Pn	23 04 47.2	-0.2
KMRS	Kahramanmaras	1.76	29	PN	Pn	23 04 46.9	-0.6
KMRS	Kahramanmaras	1.76	29	*e*Pn	Pn	23 04 46.9	-0.6
RABH	Abou Rabah	1.90	143	⇑P	Pn	23 04 48.9	-0.4
RABH				⇑S	Sn	23 05 13.5	0.0
RABH	Abou Rabah	1.90	143	⇑*i*P	Pn	23 04 48.9	-0.4
RABH				⇑*i*S	Sn	23 05 13.5	+0.1
MARH	Ras Al Marh	2.01	164	⇑P	Pn	23 04 51.0	+0.2
MARH				⇑S	Sn	23 05 15.9	-0.2
MARH	Ras Al Marh	2.01	164	⇑*i*P	Pn	23 04 51.0	+0.2
MARH				⇑*i*S	Sn	23 05 15.9	-0.3
BHL	Bhannes	2.06	184	*e*P	Pn	23 04 51.0	-0.6
BHL				*e*S	Sg	23 05 20.4	-2.4
BEYL	Beyrouth	2.10	188	*e*P	Pn	23 04 52.8	+0.6
BEYL				*e*S	Sg	23 05 23.2	-1.0
JHLN	Al Jahlan	2.14	97	⇓P	Pn	23 04 52.2	-0.5
JHLN				⇑S	Sn	23 05 18.8	-0.7
JHLN	Al Jahlan	2.14	97	⇓*i*P	Pn	23 04 52.2	-0.5
JHLN				⇑*i*S	Sn	23 05 18.8	-0.7
ROOS	tl_alroos	2.15	146	⇑P	Pn	23 04 52.9	0.0
ROOS				⇑S	Sn	23 05 19.9	+0.1
ROOS	tl_alroos	2.15	146	⇑*i*P	Pn	23 04 52.9	0.0
ROOS				⇑*i*S	Sn	23 05 19.9	+0.1
CSS	Prodhromos	2.27	245	P	Pn	23 04 53.8	-0.7
CSS				S	Sn	23 05 23.4	+0.7
MAMC	Mammari	2.27	250	P	Pn	23 04 53.5	-1.0
MAMC				S	Sn	23 05 21.5	-1.2
NIG	Nigde	2.35	336	PN	Pn	23 04 55.8	+0.1
NIG	Nigde	2.35	336	*e*Pn	Pn	23 04 55.8	+0.1
RCY	Rachaya	2.47	180	*e*P	Pn	23 04 57.0	-0.3
MATL	Matirih	2.50	190	*e*P	Pn	23 04 57.0	-0.7
BRBR	Barbar	2.55	178	⇓P	Pn	23 04 58.7	+0.4
BRBR				⇑S	Sn	23 05 30.2	+0.7
BRBR	Barbar	2.55	178	⇓*i*P	Pn	23 04 58.7	+0.4
BRBR				⇑*i*S	Sn	23 05 30.2	+0.6
SZAC	Souni-Zanaja	2.69	244	P	Pn	23 04 59.8	-0.5
	4.8nm,0.3s						
SZAC				S	Sn	23 05 34.1	+1.0
ALFC	Alevga	2.75	254	P	Pn	23 04 59.2	-1.9
	5.1nm,0.2s						
ALFC				S	Sn	23 05 33.2	-1.4
KSDI	Kefar Szold	2.77	183	Pn	Pn	23 05 01.0	-0.4
KSDI	Kefar Szold	2.77	183	Pn	Pn	23 05 01.0	-0.3
URFA	Urfa	2.82	58	*e*PN	Pn	23 05 02.0	-0.1
URFA	Urfa	2.82	58	*e*Pn	Pn	23 05 02.0	-0.1
BNN	Bunyan	2.88	0	*e*PN	Pn	23 05 02.9	0.0
BNN	Bunyan	2.88	0	*e*Pn	Pn	23 05 02.9	0.0
HNTI	Hanita	2.92	191	Pn	Pn	23 05 03.6	+0.1
HNTI	Hanita	2.92	191	Pn	Pn	23 05 03.6	+0.1
MMC7	Mount Meron ar	2.96	187	Pn	Pn	23 05 03.6	-0.3
MMC7	Mount Meron ar	2.96	187	Pn	Pn	23 05 03.6	-0.3
MMA1	Mount Meron ar	2.96	187	Pn	Pn	23 05 03.8	-0.2
MMA1	Mount Meron ar	2.96	187	Pn	Pn	23 05 03.8	-0.2
MMA0	Mount Meron ar	2.96	187	Pn	Pn	23 05 03.7	-0.3
MMA0	Mount Meron ar	2.96	187	Pn	Pn	23 05 03.7	-0.3
MMC6	Mount Meron ar	2.97	187	Pn	Pn	23 05 03.8	-0.3
MMC6	Mount Meron ar	2.97	187	Pn	Pn	23 05 03.8	-0.3
KSHT	Keshet	2.97	180	Pn	Pn	23 05 05.1	+0.9
KSHT	Keshet	2.97	180	Pn	Pn	23 05 05.1	+0.9
AKMC	Akamas	3.00	253	P	Pn	23 05 04.2	-0.4
AKMC				S	Sn	23 05 40.5	-0.3
PPCY	Paphos	3.04	250	P	Pn	23 05 04.9	-0.2
PPCY				S	Sn	23 05 42.5	+0.7
MALT	Malatya	3.13	41	*e*PN	Pn	23 05 06.2	-0.1
MALT	Malatya	3.13	41	*e*Pn	Pn	23 05 06.2	-0.1
MYA	Malataya	3.14	41	*e*PN	Pn	23 05 06.6	+0.1
MYA	Malataya	3.14	41	*e*Pn	Pn	23 05 06.6	+0.1
OFRI	'Ofer	3.41	192	Pn	Pn	23 05 09.7	-0.4
OFRI	'Ofer	3.41	192	Pn	Pn	23 05 09.7	-0.4
KONT	Konya--Tatoy	3.41	306	*e*PN	Pn	23 05 11.2	+1.0
KONT	Konya--Tatoy	3.41	306	*e*Pn	Pn	23 05 11.2	+1.0
MMLI	Mount Malkishu	3.53	186	Pn	Pn	23 05 12.4	+0.5
MMLI				Sn	Sn	23 05 54.9	+1.0
MMLI	Mount Malkishu	3.53	186	Pn	Pn	23 05 12.4	+0.5
MMLI				Sn	Sn	23 05 54.9	+1.0
HMDT	Nahal Hemdat	3.71	184	Pn	Pn	23 05 14.9	+0.6
HMDT	Nahal Hemdat	3.71	184	Pn	Pn	23 05 14.9	+0.6
SLTI	Sal'it	3.77	190	Pn	Pn	23 05 15.5	+0.4
SLTI				Sn	Sn	23 06 00.7	+1.0
SLTI	Sal'it	3.77	190	Pn	Pn	23 05 15.5	+0.4
SLTI				Sn	Sn	23 06 00.7	+1.0
SVSK	Karacayir	4.05	13	*e*PN	Pn	23 05 19.5	+0.5
SVSK	Karacayir	4.05	13	*e*Pn	Pn	23 05 19.5	+0.5
KIZT	Kizilcal	4.28	314	*e*PN	Pn	23 05 23.7	+1.5
KIZT	Kizilcal	4.28	314	*e*Pn	Pn	23 05 23.7	+1.5
DRGI	Dragot	4.37	185	Pn	Pn	23 05 24.3	+0.8
DRGI	Dragot	4.37	185	Pn	Pn	23 05 24.3	+0.9
DSI	Dead Sea	4.40	185	Pn	Pn	23 05 24.5	+0.7
DSI	Dead Sea	4.40	185	Pn	Pn	23 05 24.5	+0.7
YTIR	Yattir	4.63	188	Pn	Pn	23 05 27.8	+0.9
YTIR	Yattir	4.63	188	Pn	Pn	23 05 27.8	+0.9
ELL	Elmali	4.84	281	*e*PN	Pn	23 05 31.6	+1.7
ELL	Elmali	4.84	281	*e*Pn	Pn	23 05 31.6	+1.7
MASH	Mash'abbe Sade	5.03	190	Pn	Pn	23 05 33.5	+1.1

MASH	**Mash'abbe Sade**	5.03	190	Pn	Pn	23 05 33.5	+1.0
KZIT	**Kziot**	5.18	194	Pn	Pn	23 05 35.0	+0.4
KZIT				Sn	Sn	23 06 35.2	+0.6
KZIT	**Kziot**	5.18	194	Pn	Pn	23 05 35.0	+0.4
KZIT				Sn	Sn	23 06 35.2	+0.6
PRNI	**Paran**	5.64	187	Pn	Pn	23 05 41.1	+0.3
PRNI	**Paran**	5.64	187	Pn	Pn	23 05 41.1	+0.3
AMAG	**Maghara**	5.74	203	⇓P	Pn	23 05 41.4	-0.8
KRMI	**Paran Flat**	5.90	189	Pn	Pn	23 05 45.0	+0.6
KRMI	**Paran Flat**	5.90	189	Pn	Pn	23 05 45.0	+0.6
HNKL	**Nakhl**	6.21	195	P	Pn	23 05 49.0	+0.3
SUZ		6.61	203	P	Pn	23 05 53.6	-0.5
HHAG	**Hagoal**	6.76	209	⇓P	Pn	23 05 55.6	-0.7
GLL	**Jalalah**	7.25	210	⇓P	Pn	23 06 02.3	-0.7
HRDS	**Abu Rudays**	7.54	197	P	Pn	23 06 07.3	+0.4
HKAT	**Jabal Katrina**	7.58	192	⇓P	Pn	23 06 08.8	+1.3
HMAT	**Matruh**	8.76	239	P	Pn	23 06 21.5	-2.2

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*NEIC **01** 23:11:46.0, 32.26S×71.86W, h30^{km}, ML2.9(GUC), After GUC.*

GUC 01 23:11:46.0±0.6, 32.26S×71.86W, h30^{km}±4^{km}, MD3.8, ML2.9, 1C-5D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	**Los Chungos**	0.48	39	⇓iP	Pb	23 11 46.8	-9.4
CHNG				iS	Sb	23 11 54.0	-9.1
PTCH	**Petorca**	0.78	90	⇓iP	Pn	23 12 00.8	-0.2
PTCH				iS	Sb	23 12 11.4	0.0
PTCH	**Petorca**	0.78	90	⇓iP	Pn	23 12 00.8	-0.2
PTCH				iS	Sb	23 12 11.4	0.0
PTCH				AML	AML	23 12 14.1	
	comp=E,608nm,0.2s						
CMCH	**Combarbala**	1.31	34	iP	Pn	23 12 09.0	+0.8
CMCH				iS	Sn	23 12 26.0	+1.4
CMCH	**Combarbala**	1.31	34	iP	Pn	23 12 09.0	+0.8
CMCH				iS	Sn	23 12 26.0	+1.4
CMCH				AML	AML	23 12 27.8	
	comp=E,457nm,0.4s						
PEL	**Peldehue**	1.32	132	eP	Pn	23 12 08.9	+0.5
PEL				iS	Sn	23 12 26.4	+1.5
PEL				AML	AML	23 12 29.7	
	comp=N,472nm,0.3s						
TACH	**Talagante**	1.59	151	⇓iP	Pn	23 12 13.0	+1.0
LNV	**Longovilo**	1.73	168	iP	Pn	23 12 15.2	+1.2
LNV				iS	Sn	23 12 37.6	+2.6
PCH	**Pirque**	1.76	141	iP	Pn	23 12 15.9	+1.4
CHCH	**Chadas Angostu**	1.95	149	eP	Pn	23 12 18.9	+1.9
CACH	**El Canelo**	2.13	151	⇓iP	Pn	23 12 21.5	+2.0
TLL	**Tololo Astrono**	2.28	24	eP	Pn	23 12 26.1	+4.6
TLL				iS	Sn	23 12 54.5	+6.0
CICH	**Cipreses**	2.38	150	eP	Pn	23 12 24.6	+1.7
SFDO	**San Fernando**	2.45	164	⇑iP	Pn	23 12 25.1	+1.2

IDC 01 23:15:30.5±19.0, 19.74S×68.66W, h157^{km}±114^{km}, mb3.6/2, mb1 3.7/4, mb1mx3.5/16, mbtmp3.6/4, Error ellipse: s-maj=258.8km s-min=32.9km az=21.0, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	**La Paz**	3.47	8	P	Pn	23 16 25.2	+1.1
	2.9nm,0.3s,baz=188,slow=8.8,SNR=83						
SIV	**San Ignacio**	8.13	64	P	Pn	23 17 24.8	-0.7
	3.5nm,0.3s,baz=252,slow=12,SNR=67						
TORD	**Torodi Ar. Bea**	76.55	71	P	P	23 27 04.2	+0.3
	0.7nm,0.4s,baz=252,slow=5.5,SNR=34						
TORD				pP	pP	23 27 30.6	-12
	0.8nm,0.4s,baz=253,slow=5.3,SNR=9.8						
YKA	**Yellowknife Ar**	89.61	341	P	P	23 28 09.5	-0.3
	0.6nm,0.7s,baz=133,slow=4.7,SNR=14						
YKA				pP	pP	23 28 35.1	-14
	0.3nm,0.6s,baz=135,slow=4.6,SNR=7.1						
SONM	**Songino Array**	151.69	7	PKPbc	PKPbc	23 35 06.4	+0.1
	0.4nm,0.5s,baz=330,slow=1.6,SNR=4.7						

IDC 01 23:41:18.6±0.9, 10.86N×43.50W, h0^{km}, mb3.9/8, mb1 4.1/8, mb1mx3.8/20, mbtmp3.9/8, Error ellipse: s-maj=29.1km s-min=24.1km az=30.0, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIV	**San Ignacio**	31.84	213	P	P	23 47 46.5	+1.1
	0.7nm,0.8s,baz=48,slow=12,SNR=4.3						
TORD	**Torodi Ar. Bea**	44.23	82	P	P	23 49 30.4	+0.4
	1.8nm,0.7s,baz=276,slow=8.5,SNR=19						
SCHQ	**Schefferville**	47.58	342	P	P	23 49 56.4	+0.5
	2.6nm,0.7s,baz=89,slow=8.4,SNR=6.6						
TXAR	**Lajitas Array**	58.80	298	P	P	23 51 19.1	+0.1
	0.7nm,0.7s,baz=123,slow=8.2,SNR=6.5						
FINES	**FINESS Array B**	70.80	28	P	P	23 52 37.6	+0.9
	1.5nm,0.9s,baz=261,slow=6.9,SNR=3.6						
YKA	**Yellowknife Ar**	71.73	332	P	P	23 52 41.1	-1.2
	0.1nm,0.5s,baz=115,slow=6.9,SNR=3.3						
BOSA	**Boshof**	77.07	123	P	P	23 53 12.9	-1.1
	4.2nm,1.0s,baz=23,slow=7.7,SNR=3.7						
INK	**Inuvik**	80.00	338	P	P	23 53 30.0	+0.5
	1.5nm,1.1s,baz=108,slow=5.1,SNR=3.7						

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*IDC **02** 00:41:11.2±1.0, 28.24N×94.16E, h0^{km}, mb3.8/8, mb1 3.9/8, mb1mx3.8/19, mbtmp3.8/8, MS3.4/1, Ms1 3.4/1, ms1mx2.2/28, Error ellipse: s-maj=36.1km s-min=21.5km az=58.0*

*ISCJB **02** 00:41:13.7±0.4, 28.14N±0.05×94.03E±0.03, h37^{km}, mb4.1/15, Error ellipse: s-maj=6.5km s-min=3.8km az=1.4*

*BJI **02** 00:41:13.5, 28.32N×94.12E, h30^{km}, mB4.6, mb4.2, ML3.9, Ms3.7, Msz3.4*

*MOS **02** 00:41:14.5±1.1, 28.25N×94.29E, h44^{km}, mb4.1/7, Error ellipse: s-maj=16.8km s-min=9.3km az=110.2*

*NEIC **02** 00:41:16.2±1.0, 28.27N×94.22E, h37^{km}±11^{km}, mb4.3/6, Error ellipse: s-maj=10.0km s-min=6.5km az=56.0*

ISC 02 00:41:16.1±0.7, 28.21N±0.05×94.05E±0.03, h35^{km}±8^{km}, n55, σ0^{s}.93/69, mb4.1/15, Eastern Xizang-India border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	**Lhasa**	2.95	301	PG	Pn	00 42 04.4	+4.0
LSA				SG	Sn	00 42 46.4	+12
LSA				Smax			
	comp=E,180nm,0.8s						
LSA	**Lhasa**	2.95	301	ePn	Pn	00 42 03.9	+3.6
LSA				eSn	Sn	00 42 35.4	+0.8
LSA	**Lhasa**	2.95	301	eP	Pn	00 42 03.9	+3.5
LSA				e		00 42 35.4	
TAPN	**Taplejung**	5.69	263	ePn	Pn	00 42 39.4	+1.4
TAPN				eSn	Sn	00 43 42.6	+0.5
	comp=E,524nm,0.9s						
ODAN	**Odare**	6.07	259	ePn	Pn	00 42 43.7	+0.4
ODAN				eSn	Sn	00 43 51.7	+0.2
	comp=E,299nm,0.5s						
JIRN	**Jiri**	6.98	267	ePn	Pn	00 42 56.6	+0.8
JIRN				eSn	Sn	00 44 13.2	-0.7
	comp=E,114nm,0.3s						
GUN	**Gumba**	7.23	270	ePn	Pn	00 42 59.9	+0.6
GUN				eSn	Sn	00 44 20.5	+0.4
	comp=E,114nm,0.5s						
PKI	**Pulchoki**	7.68	267	ePn	Pn	00 43 05.8	+0.4
PKI				eSn	Sn	00 44 30.3	-0.8
	comp=E,58nm,0.4s						
KKN	**Kakani**	7.77	269	ePn	Pn	00 43 07.1	+0.5
KKN				eSn	Sn	00 44 32.7	-0.7
	comp=E,84nm,0.4s						
DMN	**Daman**	7.94	268	ePn	Pn	00 43 09.3	+0.3
DMN				eSn	Sn	00 44 37.2	-0.4
	comp=E,56nm,0.4s						
GKN	**Gorkha**	8.32	271	ePn	Pn	00 43 15.0	+0.8
GKN				eSn	Sn	00 44 45.0	-1.9
	comp=E,87nm,0.4s						
KMI	**Kunming**	8.36	110	P	Pn	00 43 15.8	+1.1
KMI				AP		00 43 19.0	
KMI				S	Sn	00 44 41.0	-6.8
KMI				AMB	AMB		
	comp=Z,7.0nm,0.7s						
KMI				AMB	AMB		
	comp=Z,117nm,3.7s						
KMI				Smax			
	comp=N,21nm,1.8s						
KMI				Smax			
	comp=E,14nm,1.1s						
KMI				LR	LR		
	comp=N,244nm,6.4s						
KMI				LR	LR		
	comp=E,108nm,4.2s						
KMI				LR	LR		
	comp=Z,136nm,6.4s						
KOLN	**Koldanda**	9.25	270	ePn	Pn	00 43 26.6	-0.4
KOLN				eSn	Sn	00 45 08.2	-1.7
	comp=Z,55nm,0.4s						
CHTO	**Chiang Mai**	10.37	153	ePn	Pn	00 43 41.3	-1.1
	comp=Z,4.8nm,0.8s						
CHTO				eSn	Sn	00 45 37.4	0.0
CHTO	**Chiang Mai**	10.37	153	eP	Pn	00 43 41.3	-1.1
CHTO				e		00 45 37.4	
CHTO				pmax	pmax		
	comp=Z,5.0nm,0.8s						
GYA	**Guiyang**	11.35	96	P	Pn	00 43 53.9	-1.8
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s						
HYB	**Hyderabad**	17.86	236	eP	Pn	00 45 24.5	+2.7
HYB	**Hyderabad**	17.86	236	iP	Pn	00 45 24.5	+2.7
HYB				eS	S	00 48 44.0	-1.6
MK31	**Makanchi Array**	20.72	337	eP	P	00 45 52.8	-0.6
MKAR	**Makanchi Array**	20.72	337	P	P	00 45 53.3	0.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	20.72	337	P	P	00 45 53.2	-0.1
	comp=Z,1.0nm,0.6s,baz=146,slow=13,SNR=18						
AAK	**Ala-Archa**	21.40	317	P	P	00 46 00.8	+0.1
	comp=Z,5.2nm,1.0s,mb3.8						
AAK	**Ala-Archa**	21.40	317	P	P	00 46 00.8	+0.1
AAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb3.8						
SONM	**Songino Array**	21.82	23	P	P	00 46 03.8	-1.3
SONM				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SONM				MLR	MLR		
	comp=Z,93nm,18.3s						
SONM	**Songino Array**	21.82	23	P	P	00 46 03.8	-1.3
	comp=Z,1.5nm,0.6s,mb3.6,baz=205,slow=13,SNR=14						
SONM				LR	LR	00 55 17.3	
	comp=Z,93nm,18.3s,baz=313,slow=39						
KBL	**Kabul**	22.24	293	eP	P	00 46 10.2	+0.4
ZAK	**Zakamensk**	23.23	15	eP	P	00 46 17.2	-2.8
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.5						
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.4						
KURK	**Kurchatov**	25.34	337	eP	P	00 46 39.0	-0.5
	comp=Z,3.7nm,0.9s,mb3.9						
KURK	**Kurchatov**	25.34	337	eP	P	00 46 39.0	-0.5
KURK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.0						
ZAL	**Zalesovo**	26.59	348	P	P	00 46 51.2	+0.5
ZALV	**Zalesovo Beam**	26.59	348	P	P	00 46 51.2	+0.4
	comp=Z,0.5nm,0.3s,mb3.5,baz=152,slow=9.6,SNR=3.0						
HIA	**Hailar**	28.80	36	P	P	00 47 10.1	-0.5
BRVK	**Borovoye**	30.41	331	eP	P	00 47 24.6	-0.2
YAK	**Yakutsk**	41.16	25	P	P	00 48 56.0	-0.6
MALT	**Malatya**	46.98	297	P	P	00 49 44.2	+0.5
FINES	**FINESS Array B**	55.15	327	P	P	00 50 45.4	+0.7
FINES				pmax	pmax		
	comp=Z,3.0nm,1.0s						
FINES	**FINESS Array B**	55.15	327	P	P	00 50 45.4	+0.7
	comp=Z,2.6nm,1.0s,mb4.2,baz=80,slow=9.4,SNR=5.5						
FITZ	**Fitzroy Crossi**	55.26	143	eP	P	00 50 45.7	-0.3
	comp=Z,6.2nm,1.9s,mb4.3						
PSZ	**Piszkesteto**	59.34	311	eP	P	00 51 15.0	+0.5
	comp=Z,1.9nm,0.7s,mb4.2						
PSZ	**Piszkesteto**	59.34	311	eP	P	00 51 15.0	+0.5
PSZ				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
WRA	**Warramunga Arr**	61.71	136	P	P	00 51 31.3	+0.4
WRA				pmax	pmax		
	comp=Z,6.0nm,0.5s						
WRA	**Warramunga Arr**	61.71	136	P	P	00 51 31.3	+0.4
	comp=Z,6.2nm,0.5s,mb5.0,baz=326,slow=7.4,SNR=26						
WB2	**Warramunga Arr**	61.72	136	eP	P	00 51 31.1	+0.1
NB2	**NORSAR Subarra**	62.33	327	P	P	00 51 32.7	-1.9
	comp=Z,5.7nm,1.4s,mb4.5,baz=83,slow=6.9						
NOA	**NORSAR Array B**	62.33	327	P	P	00 51 35.5	+0.9
NOA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
NOA	**NORSAR Array B**	62.33	327	P	P	00 51 35.5	+0.8
	comp=Z,1.2nm,1.0s,mb4.0,baz=107,slow=6.4,SNR=2.7						
GERES	**GERESS Array B**	63.21	313	P	P	00 51 41.6	+1.0
	comp=Z,0.3nm,0.5s,mb3.7,baz=69,slow=5.8,SNR=2.5						
KEST	**Kesra**	70.15	301	P	P	00 52 26.1	+1.0
	comp=Z,1.9nm,1.1s,mb4.0,baz=82,slow=4.6,SNR=4.1						
SMF	**Signal de Mont**	70.21	313	eP	P	00 52 20.0	-5.3
	comp=Z,4.7nm,0.9s,mb4.4						
SMF	**Signal de Mont**	70.21	313	eP	P	00 52 20.0	-5.3
	comp=Z,9.3nm,0.9s,mb4.4						
AVF	**Avril sur Loir**	70.47	313	eP	P	00 52 20.6	-6.4
BGF	**Bois d'Agland**	70.88	313	eP	P	00 52 23.1	-6.3
TCF	**Toulx Ste Croi**	71.39	313	eP	P	00 52 26.3	-6.2
	comp=Z,4.1nm,1.0s,mb4.3						
TCF	**Toulx Ste Croi**	71.39	313	eP	P	00 52 26.3	-6.2
	comp=Z,8.2nm,1.0s,mb4.3						
TORD	**Torodi Ar. Bea**	85.94	283	P	P	00 53 53.8	+0.8
	comp=Z,1.5nm,0.7s,mb4.3,baz=80,slow=3.1,SNR=29						

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*ISCJB **02** 00:54:11.9±1.9, 11.1N±0.1×61.88W±0.07, h63^{km}±22^{km}, Error ellipse: s-maj=20.4km s-min=11.1km az=9.1*

*FUNV **02** 00:54:11.5, 11.16N×61.76W, h51^{km}, MW2.6*

ISC 02 00:54:12.3±1.9, 11.1N±0.1×61.87W±0.07, h61^{km}±24^{km}, n6, σ0^{s}.27/10, 1C, Windward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	**Guiria**	0.59	216	eP	Pn	00 54 25.1	-0.3
GUIV				eS	Sn	00 54 34.6	-0.3
TRN	**Trinidad (W)**	0.66	136	eP	Pn	00 54 26.1	0.0
TRN	**Trinidad (W)**	0.66	136	eP	Sn	00 54 36.6	+0.3
ITEV	**Isla Los Testi**	1.26	280	⇑eP	Pn	00 54 33.5	-0.2
ITEV				eS	Sn	00 54 50.0	+0.2
CRUV	**Carupano**	1.42	251	eP	Pn	00 54 35.5	-0.3
CRUV				eS	Sn	00 54 54.1	+0.5
GUNV	**Guanoco**	1.43	228	eP	Pn	00 54 36.3	+0.2
GUNV				eS	Sn	00 54 53.8	-0.1

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*IDC **02** 01:03:27.2±3.1, 38.76N×75.59E, h0^{km}, mb3.7/4, mb1 3.8/5, mb1mx3.4/20, mbtmp3.6/5, ML2.9/2, Error ellipse: s-maj=73.9km s-min=24.2km az=135.0*

*ISCJB **02** 01:03:29.9±0.5, 39.01N±0.04×75.95E±0.08, h10^{km}, mb3.6/4, Error ellipse: s-maj=9.3km s-min=5.0km az=2.5*

*MOS **02** 01:03:30.2±1.4, 38.80N×75.59E, h33^{km}, mb4.2/2, Error ellipse: s-maj=24.2km s-min=9.5km az=87.2*

*NEIC **02** 01:03:31.9±0.8, 38.79N×75.68E, h35^{km}, mb3.8/1, Error ellipse: s-maj=13.2km s-min=10.2km az=53.0*

*BJI **02** 01:03:31.5, 38.93N×75.56E, h7^{km}, ML3.1*

ISC 02 01:03:32.0±0.6, 39.06N±0.04×75.92E±0.09, h10^{km}, n41, σ1^{s}.61/50, mb3.6/4, 6C-2D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	0.46	5	PG	Pg	01 03 42.3	+1.3
KSH				SG	Sg	01 03 51.5	+4.4
KSH				Smax			
	comp=N,1µm,0.4s						
KSH				Smax			
	comp=E,1µm,0.7s						
KZA	**Kyzart**	3.06	351	P	Pn	01 04 21.9	+1.5
	SNR=11						
ULHL	**Ulahol**	3.20	4	P	Pg	01 04 32.6	-0.6
	SNR=5.7						
UCH	**Uchtor**	3.34	342	P	Pn	01 04 25.4	+1.1
	SNR=21						
UCH	**Uchtor**	3.34	342	ePn	Pn	01 04 25.2	+0.9
UCH				eSn	Sn	01 05 06.8	+2.8
AML	**Almayashu**	3.51	332	P	Pn	01 04 32.2	+5.7
	SNR=6.5						
AML	**Almayashu**	3.51	332	ePn	Pn	01 04 27.0	+0.5
AML				eSn	Sn	01 05 07.8	-0.2
KBK	**Karagaybulak**	3.67	349	P	Pn	01 04 26.6	-2.2
	SNR=17						
AAK	**Ala-Archa**	3.73	344	P	Pn	01 04 31.3	+1.6
	SNR=16						
AAK	**Ala-Archa**	3.73	344	ePn	Pn	01 04 29.8	+0.2
AAK				eSn	Sn	01 05 15.3	+1.7
AAK	**Ala-Archa**	3.73	344	ePN	Pn	01 04 29.8	+0.2
AAK				e		01 05 15.3	
TKM2	**Tokmak 2**	3.87	356	P	Pn	01 04 34.2	+2.7
	SNR=13						
TKM2	**Tokmak 2**	3.87	356	⇑Pn	Pn	01 04 34.6	+3.1
	comp=E,1.0nm,0.8s						
TKM2				⇓Lg		01 05 20.7	
	comp=E,2.9nm,0.8s						
TKM2	**Tokmak 2**	3.87	356	ePn	Pn	01 04 33.8	+2.3
TKM2				eSn	Sn	01 05 21.2	+4.3
TKM2	**Tokmak 2**	3.87	356	ePN	Pn	01 04 33.8	+2.3
TKM2				e		01 05 21.2	
EKS2	**Erkin-Say**	3.95	336	ePn	Pn	01 04 33.1	+0.5
EKS2				eSn	Sn	01 05 16.4	-2.6
USP	**Ospenovka**	4.34	346	P	Pn	01 04 41.6	+3.6
	SNR=5.6						
KK31	**Karatay Array**	5.75	316	Pn	Pn	01 04 54.3	-3.0
	comp=E,0.6nm,0.3s,baz=139,slow=13,SNR=22						
KK31				⇑Pg	Pg	01 05 09.1	-13
	comp=E,3.3nm,0.7s,baz=133,slow=15,SNR=4.5						
KK31				⇑Sn	Sn	01 05 55.8	-7.5
	comp=E,3.2nm,0.4s,baz=128,slow=24						
KK31				⇑Lg		01 06 09.8	
	comp=E,4.2nm,0.6s,baz=128,slow=31,SNR=3.6						
CHCP	**Chirah Chowk**	5.80	203	⇑P	Pn	01 05 02.0	+4.0
CEP	**Cherat**	6.14	213	⇓P	Pn	01 05 04.6	+1.9
CEP				S	Sn	01 06 13.0	0.0
THW	**Thamme Wali**	7.11	210	⇑P	Pn	01 05 17.8	+1.8
MKAR	**Makanchi Array**	9.03	29	Pn	Pn	01 05 45.5	+3.2
MKAR				Lg		01 08 26.4	
MKAR	**Makanchi Array**	9.03	29	Pn	Pn	01 05 45.5	+3.2
	comp=E,0.1nm,0.3s,baz=206,slow=11,SNR=5.3						
MKAR				Lg		01 08 26.4	
	comp=E,0.0nm,0.3s,baz=215,slow=23,SNR=2.7						
MK31	**Makanchi Array**	9.03	29	ePn	Pn	01 05 47.9	+5.5
KURK	**Kurchatov**	11.81	8	ePn	Pn	01 06 20.8	+0.4
BRVK	**Borovoye**	14.53	346	ePn	Pn	01 06 55.8	-1.7
	comp=E,1.5nm,0.4s						
BRVK	**Borovoye**	14.53	346	eP	Pn	01 06 55.8	-1.7
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.4s						
LSA	**Lhasa**	15.64	122	eP	Pn	01 07 10.6	-1.9
	comp=Z,2.0nm,0.3s						
LSA	**Lhasa**	15.64	122	eP	Pn	01 07 10.6	-1.8
LSA				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ZAL	**Zalesovo**	16.07	19	P	Pn	01 07 17.8	0.0
ZALV	**Zalesovo Beam**	16.09	19	Pn	Pn	01 07 17.8	-0.2
ZALV	**Zalesovo Beam**	16.09	19	Pn	Pn	01 07 17.8	-0.2
	comp=Z,0.1nm,0.3s,baz=206,slow=12,SNR=2.0						
ULN	**Ulaanbaatar**	24.12	58	P	P	01 08 46.0	-1.8
BR131	**Keskin Array S**	32.47	285	P	P	01 09 57.4	-5.0
FINES	**FINESS Array B**	37.67	323	P	P	01 10 44.7	-2.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	**FINESS Array B**	37.67	323	P	P	01 10 44.7	-2.2
	comp=Z,0.9nm,0.8s,mb3.6,baz=112,slow=9.1,SNR=2.9						
ARCES	**ARCESS Array B**	40.37	335	P	P	01 11 07.0	-2.4
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES	**ARCESS Array B**	40.37	335	P	P	01 11 07.0	-2.4
	comp=Z,3.6nm,0.9s,mb4.1,baz=104,slow=7.7,SNR=3.0						
TORD	**Torodi Ar. Bea**	69.64	271	P	P	01 14 37.0	-4.8
TORD	**Torodi Ar. Bea**	69.64	271	P	P	01 14 37.0	-4.8
	comp=Z,0.2nm,0.4s,mb3.4,baz=48,slow=5.4,SNR=8.5						
YKA	**Yellowknife Ar**	78.44	5	P	P	01 15 31.4	-1.1
	comp=Z,0.2nm,0.4s,mb3.4,baz=346,slow=5.6,SNR=4.5						

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*ISCJB **02** 01:11:28.1±0.9, 11.85N±0.04×61.79W±0.05, h108^{km}±7^{km}, Error ellipse: s-maj=7.3km s-min=6.9km az=6.8*

*TRN **02** 01:11:28.7, 11.85N×61.78W, h96^{km}, MD3.2*

*NEIC **02** 01:11:28.7, 11.85N×61.78W, h95^{km}, MD3.2(TRN), After TRN.*

*FUNV **02** 01:11:28.3, 11.91N×61.54W, h63^{km}, MW3.1*

ISC 02 01:11:29.2±0.9, 11.85N±0.04×61.79W±0.05, h102^{km}±8^{km}, n21, σ0^{s}.98/35, 2C-1D, Windward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRW	**Mount Saint Ca**	0.33	23	eP	Pn	01 11 43.8	-0.4
GRW				eS	Sn	01 11 56.2	+0.9
GRHS	**Sauteurs**	0.40	22	eP	Pn	01 11 44.1	-0.5
GRHS				eS	Sn	01 11 55.5	-0.6
GRIC	**Isle de Caille**	0.47	25	eP	Pn	01 11 44.7	-0.4
GRIC				eS	Sn	01 11 56.7	-0.2
GRSS	**Sisters**	0.48	22	eP	Pn	01 11 44.8	-0.3
TCE	**Chacachacare**	1.15	178	eP	Pn	01 11 51.5	0.0
TCE				eS	Sn	01 12 08.1	-0.1
TPR	**Prospect**	1.20	124	eP	Pn	01 11 51.9	-0.1
TPR				eS	Sn	01 12 09.0	-0.2
TRN	**Trinidad (W)**	1.26	162	eP	Pn	01 11 53.2	+0.5
TRN				eS	Sn	01 12 10.0	-0.4
GUIV	**Guiria**	1.27	199	eP	Pn	01 11 51.5	-1.3
GUIV				eS	Sn	01 12 09.5	-1.3
ITEV	**Isla Los Testi**	1.40	249	eP	Pn	01 11 54.0	-0.4
ITEV				eS	Sn	01 12 14.0	+0.5
TBH	**Brigand Hill**	1.54	152	eP	Pn	01 11 57.0	+0.9
TBH				eS	Sn	01 12 18.6	+2.2
TPP	**Pointe-a-Pierr**	1.56	168	eP	Pn	01 11 59.1	+2.7
TPP				eS	Sn	01 12 20.1	+3.1
CRUV	**Carupano**	1.84	230	⇑eP	Pn	01 11 59.5	-0.3
CRUV				eS	Sn	01 12 23.7	+0.6
GUNV	**Guanoco**	2.02	214	eP	Pn	01 12 02.0	-0.2
GUNV				eS	Sn	01 12 27.3	-0.1
PCRV	**Puerto La Cruz**	3.25	239	eP	Pn	01 12 19.4	+1.1
RIOV	**Rio Grande**	3.76	180	eP	Pn	01 12 24.3	-1.0
RIOV				eS	Sn	01 13 04.3	-4.3
PRGV	**PARIAGUAN**	4.16	223	⇑iP	Pn	01 12 30.9	+0.2
PRGV				eS	Sn	01 13 17.0	-1.3
GURV	**El Guri**	4.26	197	⇓iP	Pn	01 12 31.1	-0.9
CUPV	**Cœpira**	4.31	246	eP	Pn	01 12 34.1	+1.5
BIRV	**Birongo**	4.60	253	eP	Pn	01 12 37.5	+0.9
LUEV	**Luepa**	5.98	177	eP	Pn	01 12 52.7	-2.7
BAUV	**El Baul**	6.79	245	eP	Pn	01 13 06.6	+0.3

MEX 02 01:54:05.9±0.3, 15.55N×95.94W, h10^{km}±3^{km}, MD3.6, Near coast of Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	**Huatulco**	0.27	323	iP	Pg	01 54 11.0	-0.4
HUIG				iS	Sg	01 54 15.0	0.0
VHO	**Vista Hermosa**	1.69	333	iP	Pn	01 54 32.5	-3.1
VHO				iS	Sn	01 54 52.7	-4.7
CMIG	**Matias Romero**	1.84	33	iP	Pn	01 54 34.0	-3.5
CMIG				iS	Sn	01 54 56.4	-4.5
UTMO	**Huajuapan**	2.88	322	eP	Pn	01 54 48.9	-3.1
UTMO				iS	Sn	01 55 22.9	-3.9

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*SKO **02** 02:39:25.0, 42.05N×21.07E, h15^{km}, M1.5, ML1.9*

*THE **02** 02:39:25.9, 42.08N×21.17E, h3^{km}, ML2.7*

*CSEM **02** 02:39:27.5±0.3, 41.95N×21.22E, h17^{km}±1^{km}, ML2.7, Error ellipse: s-maj=6.3km s-min=2.4km az=123.0*

ISC 02 02:39:23.3±2.0, 42.17N±0.08×21.03E±0.09, h10^{km}, n25, σ0^{s}.79/41, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKO	**Skopje**	0.36	123	ePg	Pg	02 39 31.8	+1.4
SKO				eSg	Sg	02 39 35.6	+0.4
SKO	**Skopje**	0.36	123	iPg	Pg	02 39 31.8	+1.4
SKO				iSg	Sg	02 39 36.1	+0.9
SKO	**Skopje**	0.36	123	iPg	Pg	02 39 31.8	+1.4
SKO				iSg	Sg	02 39 36.2	+1.1
SKO				eLg		02 39 36.7	
	comp=N,132nm,0.2s						
SKO				eLg		02 39 36.7	
	comp=E,89nm,0.3s						
SKO	**Skopje**	0.36	123	ePg	Pg	02 39 31.8	+1.4
SKO				eSg	Sg	02 39 35.6	+0.4
KRUS	**Krusevo**	0.81	168	iPg	Pg	02 39 39.7	+0.8
KRUS				iSg	Sg	02 39 48.9	-0.6
KRUS	**Krusevo**	0.81	168	iPg	Pg	02 39 39.7	+0.8
KRUS				iSg	Sg	02 39 49.5	-0.1
KRUS	**Krusevo**	0.81	168	iPg	Pg	02 39 39.7	+0.7
KRUS				iSg	Sg	02 39 48.9	-0.7
STIP	**Stip**	0.98	118	iSg	Sg	02 39 54.5	-0.5
STIP	**Stip**	0.98	118	ePg	Pg	02 39 42.0	-0.1
STIP				iSg	Sg	02 39 54.4	-0.6
STIP				eLg		02 39 55.2	

	comp=N,4.1nm,0.2s						
STIP				*e*Lg		02 39 56.1	
	comp=E,2.8nm,0.2s						
STIP	Stip	0.98	118	*e*Pg	Pg	02 39 42.0	-0.2
STIP				*i* Sg	Sg	02 39 54.4	-0.5
OHR	Ohrid	1.07	190	*e*Pg	Pg	02 39 43.4	-0.4
OHR				*i* Sg	Sg	02 39 58.4	+0.7
OHR	Ohrid	1.07	190	*i* Pg	Pg	02 39 43.5	-0.3
OHR				*e*Lg		02 39 58.5	
	comp=N,34nm,0.5s						
OHR				*i* Sg	Sg	02 39 58.6	+0.9
OHR				*e*Lg		02 39 58.8	
	comp=E,99nm,0.8s						
OHR	Ohrid	1.07	190	*i* Pg	Pg	02 39 43.5	-0.3
OHR				*i* Sg	Sg	02 39 58.5	+0.8
BIA	Bitola	1.17	169	*e*Pg	Pg	02 39 45.2	-0.5
BIA	Bitola	1.17	169	*i* Pg	Pg	02 39 45.2	-0.5
BIA				*i* Sg	Sg	02 39 59.6	-1.2
BIA	Bitola	1.17	169	*i* Pg	Pg	02 39 45.2	-0.5
BIA				*i* Sg	Sg	02 39 59.6	-1.2
BIA				*e*Lg		02 40 00.4	
	comp=E,20nm,0.2s						
BIA				*e*Lg		02 40 00.8	
	comp=N,14nm,0.2s						
BIA	Bitola	1.17	169	*e*Pg	Pg	02 39 45.2	-0.5
BIA				*i* Sg	Sg	02 39 59.6	-1.2
FNA	Florina	1.41	169	*e*Pg	Pg	02 39 49.9	-0.3
FNA				*e*Sg	Sg	02 40 09.7	+1.2
FNA	Florina	1.41	169	*e*Pg	Pg	02 39 49.9	-0.4
VAY	Valandovo	1.43	126	*e*Pg	Pg	02 39 50.7	0.0
VAY	Valandovo	1.43	126	*e*Pg	Pg	02 39 50.4	-0.3
VAY	Valandovo	1.43	126	*i* Pg	Pg	02 39 50.6	0.0
VAY	Valandovo	1.43	126	*e*Pg	Pg	02 39 50.3	-0.4
GRG	Griva	1.59	139	*e*Pg	Pg	02 39 52.6	-1.1
GRG	Griva	1.59	139	*e*Pg	Pg	02 39 52.7	-1.0

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*NIED **02** 02:58:00, 23.90N×126.00E, h14km, Mw4.0 Best double couple: $M_0$1.21000×10^{15} NP1:ϕ_s244.00000°, δ35.00000°, λ116.00000°. NP2:ϕ_s33.00000°, δ59.00000°, λ73.00000°.*

*IDC **02** 02:58:30.4±1.2, 23.89N×125.92E, h0km, mb3.9/7, mb1 4.0/9, mb1mx3.9/18, mbtmp3.9/9, ML3.4/2, MS2.9/1, Ms1 2.9/1, ms1mx2.4/25, Error ellipse: s-maj=30.3km s-min=24.5km az=84.0*

*ISCJB **02** 02:58:31.7±1.7, 23.87N±0.08×126.12E±0.04, h21km±10km, mb4.2/15, Error ellipse: s-maj=14.0km s-min=6.0km az=171.3*

*NEIC **02** 02:58:32.9±4.6, 23.90N×125.99E, h15km±29km, mb4.3/3, Error ellipse: s-maj=18.7km s-min=11.0km az=158.0*

*JMA **02** 02:58:33.9±0.5, 23.91N×126.03E, h65km, M3.6*

ISC 02 02:58:31.7±1.9**, 23.90N**±0.07×**126.06E**±0.04**, h7**km±11km**, n41, σ1.07**/48**, mb4.2**/15**, Southeast of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOGS	Gusukube	1.04	325	P	Pb	02 58 52.7	+0.6
JOGS				*e*S	Sg	02 59 05.3	0.0
JMJ	Miyako jima 2	1.15	322	P	Pb	02 58 54.0	+0.1
JMJ				*e*S	Sb	02 59 09.9	+0.9
JTJ	Tarama	1.44	301	P	Pn	02 58 57.6	-0.7
JIJ	Ishigaki jima	1.81	285	P	Pn	02 59 03.0	-0.4
JIJ				S	Sn	02 59 27.3	+0.6
JKRS	Kuro-shima	1.91	280	P	Pn	02 59 04.5	-0.2
JKRS				*e*S	Sn	02 59 26.9	-2.1
HATJ	Hateruma jima	2.07	275	P	Pn	02 59 06.8	-0.1
HATJ				*e*S	Sn	02 59 30.5	-2.5
IRIF	Iriomote-Funau	2.18	282	P	Pn	02 59 08.0	-0.4
JKE	Kume jima 2	2.50	15	P	Pn	02 59 12.4	-0.4
JOW	Kunigami	3.54	34	Pn	Pn	02 59 27.2	+0.1
JOW				Sn	Sn	03 00 12.8	+3.6
JOW	Kunigami	3.54	34	P	Pn	02 59 27.5	+0.4
JOW	Kunigami	3.54	34	Pn	Pn	02 59 27.2	+0.1
	5.9nm,0.3s,baz=188,slow=10,SNR=4.2						
JOW				Sn	Sn	03 00 12.8	+3.6
	7.2nm,0.3s,baz=126,slow=19,SNR=4.0						
NACB	Ninganchiao	4.09	275	*e*Pn	Pn	02 59 33.1	-1.6
YHNB	Yeheng	4.35	281	*e*Pn	Pn	02 59 38.4	+0.2
JTK	Tokunoshima	4.66	33	P	Pn	02 59 41.8	-0.7
JMZ	Minamidaito 2	5.06	67	P	Pn	02 59 46.4	-1.6
JAM	Amami Oshima	5.50	35	P	Pn	02 59 53.0	-1.1
JAM				*e*S	Sn	03 00 51.3	-6.4
JNU	Nakatsue	10.11	24	LR	LR	03 05 11.3	
	comp=Z,70nm,21.5s,baz=37,slow=39						
MJAR	Matsushiro Arr	16.38	37	Pn	Pn	03 02 24.1	+2.0
MJAR	Matsushiro Arr	16.38	37	Pn	Pn	03 02 24.1	+2.0
	0.2nm,0.3s,baz=270,slow=13,SNR=2.9						
SONM	Songino Array	28.55	332	P	P	03 04 26.9	-1.1
	0.5nm,0.7s,mb3.4,baz=128,slow=9.2,SNR=3.2						
TAPN	Taplejung	34.66	284	*e*P	P	03 05 23.5	+1.4
	10nm,0.6s,mb4.9						
ODAN	Odare	34.98	283	*e*P	P	03 05 26.1	+1.3
	9.1nm,0.5s,mb4.9						
JIRN	Jiri	35.99	285	*e*P	P	03 05 35.1	+1.6
	9.4nm,0.7s,mb4.8						
GUN	Gumba	36.26	285	*e*P	P	03 05 37.1	+1.3
PKI	Pulchoki	36.69	285	*e*P	P	03 05 40.9	+1.4
KKN	Kakani	36.79	285	*e*P	P	03 05 41.1	+0.8
	4.7nm,0.3s,mb4.8						
DMN	Daman	36.96	285	*e*P	P	03 05 42.5	+0.8
GKN	Gorkha	37.35	285	*e*P	P	03 05 45.6	+0.5
KOLN	Koldanda	38.28	285	*e*P	P	03 05 54.0	+1.1
	6.2nm,0.8s,mb4.4						
MKAR	Makanchi Array	41.68	314	P	P	03 06 20.5	-0.5
	1.2nm,0.5s,mb3.8,baz=100,slow=10,SNR=40						
ZALV	Zalesovo Beam	42.97	325	P	P	03 06 29.1	-2.2
	1.1nm,0.5s,mb3.8,baz=114,slow=9.1,SNR=5.9						
WRA	Warramunga Arr	44.32	169	P	P	03 06 42.0	-0.5
	3.2nm,0.9s,mb4.0,baz=349,slow=8.8,SNR=5.5						
KURK	Kurchatov	45.21	319	*e*P	P	03 06 49.2	-0.2
	1.5nm,0.6s,mb4.0						
TKM2	Tokmak 2	45.47	307	*e*P	P	03 06 52.2	+0.6
	2.7nm,0.6s,mb4.2						
TIXI	Tiksi	47.80	1	*e*P	P	03 07 07.6	-1.8
	1.8nm,0.6s,mb4.3						
KBL	Kabul	50.31	296	*e*P	P	03 07 29.6	+0.5
FINES	FINESS Array B	73.91	330	P	P	03 10 08.0	+0.7
	1.1nm,0.6s,mb4.0,baz=74,slow=5.8,SNR=9.7						
NB2	NORSAR Subarra	80.52	333	P	P	03 10 44.2	-0.1
	comp=Z,2.2nm,0.8s,mb4.1,baz=53,slow=5.6						
NOA	NORSAR Array B	80.52	333	P	P	03 10 44.4	+0.1
	comp=Z,1.0nm,0.6s,mb3.9,baz=52,slow=5.6,SNR=3.5						
YKA	Yellowknife Ar	81.45	24	P	P	03 10 49.5	+0.2
YKA	Yellowknife Ar	81.45	24	P	P	03 10 49.5	+0.2
	comp=Z,0.3nm,0.7s,mb3.4,baz=300,slow=5.4,SNR=5.1						

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*IDC **02** 03:10:40.6±1.9, 6.91N×127.14E, h0km, mb3.9/4, mb1 4.1/4, mb1mx3.7/18, mbtmp3.9/4, Error ellipse: s-maj=115.1km s-min=23.1km az=68.0*

*ISCJB **02** 03:10:54.9±0.9, 6.64N±0.06×126.6E±0.1, h134km±8km, mb4.0/8, Error ellipse: s-maj=21.5km s-min=9.6km az=169.4*

*MAN **02** 03:10:55, 6.86N×126.83E, h118km, mb4.8, ML3.7, MS3.8*

*NEIC **02** 03:10:55.9±1.9, 6.71N×126.80E, h130km±13km, mb4.3/6, Error ellipse: s-maj=47.5km s-min=8.8km az=67.0*

ISC 02 03:10:56.4±0.9**, 6.62N**±0.06×**126.6E**±0.1**, h129**km±7km**, n17, σ0.67**/21**, mb4.0**/8**, 2C-2D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	0.47	314	*e*S	Sn	03 11 28.4	-1.0
DAV	Davao City (W)	1.10	294	*e*Pn	Pn	03 11 21.5	+1.3
DAV				*e*Sn	Sn	03 11 39.1	+0.8
DMPH	Davao City--Mi	1.17	293	⇓*i*P	Pn	03 11 22.0	+1.1
DMPH				*i* S	Sn	03 11 43.9	+4.4
GSPH	General Santos	1.72	252	⇑*e*P	Pn	03 11 26.7	-0.3
GSPH				*e*S	Sn	03 11 49.8	-0.6
CGP	Cagayan de Oro	2.62	314	⇓*e*P	Pn	03 11 34.1	-4.1
CGP				*i* S	Sn	03 12 09.3	-0.9
SCPH	Surigao	3.33	341	⇑*e*P	Sn	03 12 26.8	+0.2
KAKA	Kakadu	20.07	163	*e*P	P	03 15 19.5	-0.2
	10.0nm,0.7s						
FITZ	Fitzroy Crossi	24.59	182	*e*P	P	03 16 04.7	+0.1
	9.6nm,0.7s,mb4.4						
FITZ	Fitzroy Crossi	24.59	182	P	P	03 16 04.9	+0.3
	6.5nm,0.7s,mb4.2,baz=360,slow=4.4,SNR=29						
WRA	Warramunga Arr	27.48	164	P	P	03 16 30.2	-0.5
	0.9nm,0.4s,mb3.8,baz=347,slow=11,SNR=3.1						
FORT	Forrest	37.22	178	*e*P	P	03 17 55.7	+0.4
	11nm,0.9s,mb4.5						
KLBR	Kellerberrin	38.93	192	*e*P	P	03 18 10.2	+0.5
	3.2nm,0.4s,mb4.3						
STKA	Stephens Creek	40.87	160	P	P	03 18 25.4	-0.4
	0.6nm,0.3s,mb3.6,baz=343,slow=11,SNR=5.8						
MKAR	Makanchi Array	55.13	324	P	P	03 20 15.3	0.0
MKAR	Makanchi Array	55.13	324	P	P	03 20 15.3	0.0
	0.7nm,0.6s,mb3.6,baz=116,slow=7.1,SNR=22						
EKS2	Erkin-Say	58.66	317	*e*P	P	03 20 40.3	+0.1
	0.9nm,0.8s,mb3.6						
KURK	Kurchatov	59.26	327	*e*P	P	03 20 43.7	-0.5
	1.1nm,0.6s,mb3.9						

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*NEIC **02** 03:12:16.0, 16.71N×99.94W, h20km, MD3.7(MEX), After MEX.*

MEX 02 03:12:15.2±1.2**, 16.78N×99.91W, h5**km±9km**, MD3.7, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	Acapulco	0.09	356	*i* P	Pg	03 12 16.0	-1.2
ACX				*i* S	Sg	03 12 18.0	-0.5
CAIG	El Cayaco	0.44	308	*i* P	Pg	03 12 23.5	-0.2
CAIG				*i* S	Sg	03 12 30.1	+0.7
MEIG	Mezcala	1.18	14	*i* P	Pg	03 12 35.9	-2.0
MEIG				*i* S	Sg	03 12 49.8	-3.3
PLIG	Platanillo	1.66	14	*e*P	Pn	03 12 41.6	-3.3
PLIG				*i* S	Sn	03 13 02.1	-4.4
ZIIG	Zihuatanejo	1.70	299	*e*P	Pn	03 12 41.6	-3.9
ZIIG				*i* S	Sn	03 13 01.1	-6.5
UTMO	Huajuapan	2.27	62	*i* P	Pn	03 12 51.0	-2.3
UTMO				*i* S	Sn	03 13 17.2	-4.5
TPIG	Tehuac#an	2.93	56	*i* S	Sn	03 13 35.2	-2.8
IIO	Organos	3.02	22	*e*P	Pn	03 13 05.9	+2.2
IIO				*i* S	Sn	03 13 46.9	+6.7
VHO	Vista Hermosa	3.06	84	*i* P	Pn	03 13 02.4	-1.7
VHO				*i* S	Sn	03 13 36.2	-4.9
CMIG	Matias Romero	4.82	86	*i* S	Sn	03 14 19.6	-5.1
CMIG	Matias Romero	4.82	86	*i* S	Sn	03 14 19.6	-5.1

IDC 02 03:16:16.2±1.6**, 21.03S×68.73W, h116**km±7km**, mb3.3**/4**, mb1 3.6**/6**, mb1mx3.5**/15**, mbtmp3.4**/6**, Error ellipse: s-maj=44.6km s-min=26.6km az=19.0, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	4.75	7	P	Pn	03 17 27.9	+2.1
	1.3nm,0.3s,baz=186,slow=8.0,SNR=29						
LPAZ				S	Sn	03 18 11.2	-8.6
	0.6nm,0.3s,baz=205,slow=4.2,SNR=3.6						
SIV	San Ignacio	8.82	57	P	Pn	03 18 19.7	-1.2
	5.7nm,0.3s,baz=243,slow=11,SNR=128						
TXAR	Lajitas Array	60.34	325	P	P	03 26 12.6	-0.4
	0.1nm,0.5s,baz=160,slow=12,SNR=4.9						
ULM	Lac du Bonnet	74.92	342	P	P	03 27 43.1	-1.0
	1.1nm,0.6s,baz=175,slow=8.0,SNR=4.4						
TORD	Torodi Ar. Bea	77.04	70	P	P	03 27 57.1	+0.2
	1.3nm,0.5s,baz=249,slow=5.0,SNR=18						
TORD				pP	pP	03 28 24.8	-1.5
	0.3nm,0.6s,baz=256,slow=5.2,SNR=1.7						
YKA	Yellowknife Ar	90.80	341	P	P	03 29 05.8	0.0
	0.2nm,0.5s,baz=134,slow=4.5,SNR=8.0						
YKA				pP	pP	03 29 36.0	+0.2
	0.3nm,0.7s,baz=132,slow=5.0,SNR=3.3						
MKAR	Makanchi Array	145.16	36	PKPbc	PKPbc	03 35 40.5	+0.7
	0.6nm,0.5s,baz=336,slow=2.8,SNR=9.9						
MKAR				pPKPbc		03 36 10.9	
	0.3nm,0.6s,baz=337,slow=3.0,SNR=3.1						

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*ISCJB **02** 03:54:24.4±0.1, 47.544N±0.008×7.52E±0.01, h0km, Error ellipse: s-maj=1.2km s-min=1.0km az=156.2*

*ZUR **02** 03:54:27.7, 47.58N×7.60E, h4km±1km, ML3.2*

*CSEM **02** 03:54:27.5±0.0, 47.59N×7.60E, h11km, ML3.7/46, Error ellipse: s-maj=0.6km s-min=0.5km az=178.0*

*LEDBW **02** 03:54:27.7±0.1, 47.592N±0.003×7.609E±0.004, h5km±1km, ML3.3, Error ellipse: s-maj=1.2km s-min=1.0km az=122.0*

*ROM **02** 03:54:27.0±0.6, 47.65N×7.47E, h10km, Ml3.2/5, Error ellipse: s-maj=8.6km s-min=3.9km az=142.0*

*BGR **02** 03:54:27.9±0.2, 47.60N×7.59E, h5km, ML3.1/3, Error ellipse: s-maj=2.2km s-min=1.1km az=69.0*

*NEIC **02** 03:54:27.2, 47.58N×7.62E, h5km, ML3.6(LDG), ML3.4(STR), ML3.4(SZGRF), ML3.3(ZUR), ML3.2(ROM), After STR.*

*STR **02** 03:54:27.2±0.1, 47.58N×7.62E, h5km, Ml3.4, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

*LDG **02** 03:54:27.6±0.0, 47.58N×7.58E, h8km, Md3.6/2, Ml3.6/46, Error ellipse: s-maj=1.0km s-min=0.8km az=140.0*

*PRU **02** 03:54:27.8, 47.61N×7.68E, h0km*

*GEN **02** 03:54:29.8, 47.41N×7.53E, h13km, ML3.0*

ISC 02 03:54:25.8±0.1**, 47.570N**±0.007×**7.522E**±0.009**, h0**km**, n515, σ1.39**/933**, 69C-67D, Switzerland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WEIL	Weil am Rhein	0.06	66	⇑*i*Pg	Pg	03 54 28.7	+1.8
WEIL				*i* Sg	Sg	03 54 29.8	+2.1
LOES	Loerrach-Stett	0.10	70	⇑*i*Pg	Pg	03 54 29.2	+1.4
LOES				*i* Sg	Sg	03 54 30.7	+1.6
BBS	Basel-Blauen	0.11	185	⇑*i*P*	Pg	03 54 30.7	+2.9
BBS	Basel-Blauen	0.11	185	Pg	Pg	03 54 30.6	+2.8
BBS				Sg	Sg	03 54 33.0	+3.9
BBS	Basel-Blauen	0.11	185	Pg	Pg	03 54 30.6	+2.8
BBS				Sg	Sg	03 54 33.0	+3.9
BBS	Basel-Blauen	0.11	185	⇑*i*Pg	Pg	03 54 30.7	+2.9
WYH	Wyhlen	0.12	99	⇓*i*Pg	Pg	03 54 29.5	+1.3
WYH				*i* Sg	Sg	03 54 30.8	+1.1
ENDD	Endenburg	0.21	45	⇑*i*Pg	Pg	03 54 30.9	+1.2
ENDD				Sg	Sg	03 54 33.3	+0.8
BALST	Balsthal	0.26	153	*e*Pg	Pg	03 54 33.0	+2.2
	SNR=187						
BALST				*e*Sg	Sg	03 54 36.6	+2.4
	SNR=6.6						
BALST	Balsthal	0.26	153	⇓*i*Pg	Pg	03 54 33.0	+2.2
	14μm,0.5s						
BALST				*i* Sg	Sg	03 54 36.7	+2.5
	14μm,0.5s						
BALST	Balsthal	0.26	153	⇓*i*Pg	Pg	03 54 33.0	+2.2
	14μm,0.5s						
BALST				*i* Sg	Sg	03 54 36.7	+2.5
	14μm,0.5s						
BALST	Balsthal	0.26	153	⇓*i*Pg	Pg	03 54 33.0	+2.2
BALST				*i* Sg	Sg	03 54 36.7	+2.5
BOURR	Bourrignon	0.27	229	*e*Pg	Pg	03 54 34.1	+3.2
	SNR=636						
BOURR	Bourrignon	0.27	229	⇑*i*Pg	Pg	03 54 34.1	+3.2
	3μm,0.5s						
BOURR	Bourrignon	0.27	229	⇑*i*Pg	Pg	03 54 34.1	+3.2
	3μm,0.5s						
BOURR	Bourrignon	0.27	229	⇑*i*Pg	Pg	03 54 34.1	+3.3
BOURR				Sg	Sg	03 54 38.8	+4.5
STAU	Staufen im Bre	0.33	25	⇑*i*Pg	Pg	03 54 33.5	+1.3
STAU				*i* Sg	Sg	03 54 37.6	+1.1
BREM	Bremgarten	0.35	12	⇑*i*Pg	Pg	03 54 34.5	+2.0
BREM				Sg	Sg	03 54 39.7	+2.7
MOF	Molkenrain	0.39	317	⇓*i*P*	Pg	03 54 35.9	+2.7
MOF				S*	Sg	03 54 41.5	+3.3
MOF	Molkenrain	0.39	317	Pg	Pg	03 54 35.7	+2.5
MOF				Sg	Sg	03 54 41.5	+3.3
MOF	Molkenrain	0.39	317	Pg	Pg	03 54 35.7	+2.5
MOF				Sg	Sg	03 54 41.5	+3.3
MOF	Molkenrain	0.39	317	Pg	Pg	03 54 35.7	+2.5
MOF				Sg	Sg	03 54 41.5	+3.3
MOF	Molkenrain	0.39	317	⇓*i*Pg	Pg	03 54 35.9	+2.7
MOF				Sg	Sg	03 54 41.5	+3.3
SULZ	Cheisacher	0.40	96	⇓*i*P*	Pg	03 54 34.6	+1.1
SULZ				*i* S*	Sg	03 54 39.4	+0.7
SULZ	Cheisacher	0.40	96	⇓*i*Pg	Pg	03 54 34.6	+1.1
	4μm,0.5s						
SULZ				*e*Sg	Sg	03 54 39.5	+0.8
	4μm,0.5s						
SULZ	Cheisacher	0.40	96	⇓*i*Pg	Pg	03 54 34.6	+1.1
	4μm,0.5s						
SULZ				*e*Sg	Sg	03 54 39.5	+0.8
	4μm,0.5s						
SULZ	Cheisacher	0.40	96	⇓*i*Pg	Pg	03 54 34.6	+1.1
SULZ				*i* Sg	Sg	03 54 39.4	+0.7
FELD	Feldberg im Sc	0.45	46	⇑*i*P*	Pg	03 54 35.4	+1.0
FELD				*i* S*	Sg	03 54 40.9	+0.8
FELD	Feldberg im Sc	0.45	46	Pg	Pg	03 54 35.3	+0.9
FELD				Sg	Sg	03 54 40.6	+0.4
FELD	Feldberg im Sc	0.45	46	Pg	Pg	03 54 35.3	+0.9
FELD				Sg	Sg	03 54 40.6	+0.4
FELD	Feldberg im Sc	0.45	46	⇑*i*Pg	Pg	03 54 35.4	+1.0
FELD	Feldberg im Sc	0.45	46	⇑*i*Pg	Pg	03 54 35.3	+0.9
FELD				*i* Sg	Sg	03 54 40.9	+0.8
KIZ	Kirchzarten	0.47	34	⇑*i*P*	Pg	03 54 35.9	+1.0
KIZ				*i* S*	Sg	03 54 41.5	+0.6
KIZ	Kirchzarten	0.47	34	⇑*i*Pg	Pg	03 54 35.9	+1.0
KIZ	Kirchzarten	0.47	34	⇑*i*Pg	Pg	03 54 35.9	+1.1
KIZ				*i* Sg	Sg	03 54 41.5	+0.6
FBB	Freiburg im Br	0.49	27	⇑*i*P*	Pg	03 54 36.4	+1.3
FBB	Freiburg im Br	0.49	27	⇑*i*Pg	Pg	03 54 36.4	+1.3
FBB	Freiburg im Br	0.49	27	⇑*i*Pg	Pg	03 54 35.7	+0.5
HINF	Hinteralfeld	0.52	299	*e*Pg	Pg	03 54 38.0	+2.3
HINF				*e*P		03 54 39.1	
HINF				*e*Pn	Pg	03 54 40.0	+4.3
HINF				*e*Sg	Sg	03 54 44.9	+2.5
HINF				*e*Sn	Sg	03 54 48.9	+6.5
HINF	Hinteralfeld	0.52	299	*e*Pg	Pg	03 54 38.0	+2.3
HINF	Hinteralfeld	0.52	299	*e*P	Pg	03 54 39.1	+3.4
	SNR=1.0						
HINF	Hinteralfeld	0.52	299	*e*Pn	Pg	03 54 40.0	+4.3
HINF				*e*Sg	Sg	03 54 44.9	+2.5
HINF				*e*Sn	Sg	03 54 48.9	+6.5
	641nm,0.2s						
HINF	Hinteralfeld	0.52	299	*e*Pg	Pg	03 54 38.0	+2.3
HINF	Hinteralfeld	0.52	299	*e*P	Pg	03 54 39.1	+3.4
	SNR=1.0						
HINF	Hinteralfeld	0.52	299	*e*Pn	Pg	03 54 40.0	+4.3
HINF				*e*Sg	Sg	03 54 44.9	+2.5
HINF				*e*Sn	Sg	03 54 48.9	+6.5
	320nm,0.2s						
LOMF	Lomont	0.52	245	⇑*i*P*	Pg	03 54 38.9	+3.1
LOMF				S*	Sg	03 54 47.1	+4.6
LOMF	Lomont	0.52	245	Pg	Pg	03 54 38.8	+3.1
LOMF				Sg	Sg	03 54 46.9	+4.4
LOMF	Lomont	0.52	245	Pg	Pg	03 54 38.8	+3.1
LOMF				Sg	Sg	03 54 46.9	+4.4
LOMF	Lomont	0.52	245	Pg	Pg	03 54 38.8	+3.1
LOMF				Sg	Sg	03 54 46.9	+4.4
LOMF	Lomont	0.52	245	⇑*i*Pg	Pg	03 54 38.9	+3.1
LOMF				Sg	Sg	03 54 47.1	+4.6
SLE	Schleitheim	0.68	73	⇑*i*P*	Pg	03 54 39.5	+0.6
SLE				⇑*i*PmP		03 54 41.4	
SLE				*i* S*	Sg	03 54 48.0	+0.2
SLE				*i* SmS		03 54 51.0	
SLE	Schleitheim	0.68	73	*i* Sg	Pg	03 54 39.5	+0.6
	8μm,0.4s						
SLE	Schleitheim	0.68	73	⇑*i*Pg	Pg	03 54 41.4	+2.5
	8μm,0.4s						
SLE	Schleitheim	0.68	73	⇑*i*Pg	Pg	03 54 41.4	+2.5
	8μm,0.4s						
SLE	Schleitheim	0.68	73	⇑*i*Pg	Pg	03 54 39.5	+0.6
SLE	Schleitheim	0.68	73	⇑*i*PmP		03 54 41.4	
SLE				*i* Sg	Sg	03 54 48.0	+0.2
SLE				*i* SmS		03 54 51.0	
ECH	Echery	0.69	339	⇓*i*P*	Pg	03 54 41.0	+1.9
ECH				PmP		03 54 41.8	
ECH				*i* S*	Sg	03 54 50.2	+2.2
ECH	Echery	0.69	339	Pg	Pg	03 54 40.9	+1.8
ECH				Sg	Sg	03 54 50.1	+2.1
ECH	Echery	0.69	339	Pg	Pg	03 54 40.9	+1.8
ECH				Sg	Sg	03 54 50.1	+2.1
ECH	Echery	0.69	339	Pg	Pg	03 54 40.9	+1.8
ECH				Sg	Sg	03 54 50.1	+2.1
ECH	Echery	0.69	339	⇓*i*Pg	Pg	03 54 41.0	+1.9
ECH				*i* Sg	Sg	03 54 50.2	+2.2
FLACH	Flaach	0.71	89	⇑*i*Pg	Sg	03 54 48.1	-0.4
	2μm,0.2s						
ZUR	Degenried	0.75	105	*e*Pg	Pg	03 54 41.2	+1.1
	SNR=31						
ZUR				*e*Sg	Sg	03 54 50.8	+1.1
	SNR=4.9						
ZUR	Degenried	0.75	105	⇓*i*Pg	Sg	03 54 51.1	+1.4
	2μm,0.4s						
TRULL	Truellikon	0.79	84	⇑*i*Pg	Pg	03 54 40.4	-0.5
	3μm,0.4s						
TRULL	Truellikon	0.79	84	⇑*i*Pg	Pg	03 54 40.4	-0.5
	3μm,0.4s						
CDF	Champ du Feu	0.86	349	*e*Pg	Pg	03 54 44.0	+1.7
CDF				*e*Pn	Pn	03 54 44.5	-0.6
CDF				*e*Sg	Sg	03 54 53.6	+0.2
CDF				*e*Sn	Sg	03 54 56.4	+3.0
CDF	Champ du Feu	0.86	349	*e*Pg	Pg	03 54 44.0	+1.7
CDF	Champ du Feu	0.86	349	*e*Pn	Pn	03 54 44.5	-0.6
	SNR=1.0						
CDF				*e*Sg	Sg	03 54 53.6	+0.2
	SNR=1.0						
CDF				*e*Sn	Sg	03 54 56.4	+3.0
	826nm,0.3s						
CDF	Champ du Feu	0.86	349	*e*Pg	Pg	03 54 44.0	+1.7
CDF	Champ du Feu	0.86	349	*e*Pn	Pn	03 54 44.5	-0.6
	SNR=1.0						
CDF				*e*Sg	Sg	03 54 53.6	+0.2
	SNR=1.0						
CDF				*e*Sn	Sg	03 54 56.4	+3.0
	413nm,0.3s						
TORNY	Torny/Romont	0.88	206	⇑*i*Pg	Pg	03 54 45.7	+3.0
	4μm,0.4s						
TORNY	Torny/Romont	0.88	206	⇑*i*Pg	Pg	03 54 45.7	+3.0
	4μm,0.4s						
HAU	Haudompre	0.90	299	*e*Pg	Pg	03 54 45.2	+2.1
HAU				*e*Sg	Sg	03 54 57.0	+2.2
HAU				*e*Sn	Sn	03 54 59.0	-0.5
HAU	Haudompre	0.90	299	*e*Pg	Pg	03 54 45.2	+2.1
HAU				*e*Sg	Sg	03 54 57.0	+2.2
	1μm,0.3s,SNR=1.0						
HAU				*e*Sn	Sn	03 54 59.0	-0.5
	SNR=1.0						
HAU	Haudompre	0.90	299	*e*Pg	Pg	03 54 45.2	+2.1
HAU				*e*Sg	Sg	03 54 57.0	+2.2
	570nm,0.3s,SNR=1.0						
HAU				*e*Sn	Sn	03 54 59.0	-0.5
	SNR=1.0						
WIMIS	Wimmis	0.91	176	⇑*i*Pg	Pg	03 54 45.2	+2.0
	830nm,0.5s						
WIMIS	Wimmis	0.91	176	⇑*i*Pg	Pg	03 54 45.2	+2.0
	830nm,0.5s						
STEIN	Stein am Rhein	0.92	83	⇑*i*Pg	Pg	03 54 41.2	-2.2
	1μm,0.4s						
STEIN	Stein am Rhein	0.92	83	⇑*i*Pg	Pg	03 54 41.2	-2.2
	1μm,0.4s						
HASLI	Hasliberg/Brie	0.92	152	⇓*i*Pg	Pg	03 54 44.7	+1.3
	2μm,0.6s						
HASLI	Hasliberg/Brie	0.92	152	⇓*i*Pg	Pg	03 54 44.7	+1.3
	2μm,0.6s						
OFBG	Offenburg	0.93	19	⇑*i*Pg	Pg	03 54 44.5	+1.0
BNALP	Bannalp	0.93	138	⇓*i*Pg	Pg	03 54 44.2	+0.6
	1μm,0.3s						
BNALP	Bannalp	0.93	138	⇓*i*Pg	Pg	03 54 44.2	+0.6
	1μm,0.3s						
BFO	Black Forest	0.94	35	⇑*e*P*	Pb	03 54 44.4	-0.4
BFO				*i* PmP		03 54 45.0	
BFO				S*	Sg	03 54 56.2	+0.4
BFO				*i* SmS		03 54 57.8	
BFO	Black Forest	0.94	35	*e*Pg	Pg	03 54 44.6	+0.9
BFO				*e*Sg	Sg	03 54 56.8	+1.0
BFO	Black Forest	0.94	35	*e*Pg	Pg	03 54 44.6	+0.9
BFO				*e*Sg	Sg	03 54 56.8	+1.0
BFO	Black Forest	0.94	35	⇑*e*Pg	Pb	03 54 44.4	-0.4
BFO				Sg	Sg	03 54 56.2	+0.4
BFO	Black Forest	0.94	35	*i* PmP		03 54 45.0	
BFO				*i* SmS		03 54 57.8	
WILA	Wila	0.95	99	*e*Pg	Pg	03 54 45.2	+1.2
	SNR=119						
WILA				*e*Sg	Sg	03 54 57.2	+0.8
	SNR=14						
WILA	Wila	0.95	99	⇓*i*Pg	Pg	03 54 41.7	-2.3
	4μm,0.4s						
WILA	Wila	0.95	99	⇓*i*Pg	Pg	03 54 41.7	-2.3
	4μm,0.4s						
BRANT	Les Verrieres	0.95	229	⇑*i*Pg	Pg	03 54 46.6	+2.5
	1μm,0.5s						
BRANT	Les Verrieres	0.95	229	⇑*i*Pg	Pg	03 54 46.6	+2.5
	1μm,0.5s						
MUO	Muotathal	0.97	128	⇓*i*Pg	Pg	03 54 45.2	+0.8
	2μm,0.7s						
MUO	Muotathal	0.97	128	⇓*i*Pg	Pg	03 54 45.2	+0.8
	2μm,0.7s						
SISB	Singen-Schiene	0.98	83	⇑*i*P*	Pb	03 54 45.4	-0.2
SISB				⇑*i*PmP		03 54 45.9	
SISB				S*	Sb	03 54 58.0	-1.1
SISB				SmS		03 54 59.6	

SISB	Singen-Schiene	0.98	83	⇑iPn	Pb	03 54 45.4	-0.2
SISB				Sn	Sb	03 54 58.0	-1.1
SISB	Singen-Schiene	0.98	83	⇑iPmP		03 54 45.9	
SISB				Sx	Sx	03 54 59.6	
WEIN	Weingarten	0.99	92	⇓iPg	Pg	03 54 45.3	+0.5
	3µm,0.3s						
WEIN	Weingarten	0.99	92	⇓iPg	Pg	03 54 45.3	+0.5
	3µm,0.3s						
SPAK	Spaichingen-Ko	1.00	57	⇑iP*	Pb	03 54 45.7	-0.3
SPAK	Spaichingen-Ko	1.00	57	Pg	Pg	03 54 45.6	+0.6
SPAK				Sg	Sg	03 54 57.3	-0.8
SPAK	Spaichingen-Ko	1.00	57	Pg	Pg	03 54 45.6	+0.6
SPAK				Sg	Sg	03 54 57.3	-0.8
SPAK	Spaichingen-Ko	1.00	57	⇑iPg	Pb	03 54 45.7	-0.3
STR	Strasbourg	1.03	9	Pg	Pg	03 54 47.1	+1.6
STR	Strasbourg	1.03	9	Pg	Pg	03 54 47.1	+1.6
STR	Strasbourg	1.03	9	Pg	Pg	03 54 47.1	+1.6
MSS	Messtetten	1.14	57	⇑iPn	Pn	03 54 47.5	-1.5
GUT	Gutenstein	1.19	64	⇑iPn	Pn	03 54 48.1	-1.5
GUT				Pg	Pg	03 54 49.2	+0.7
GUT				Sn	Sn	03 55 03.3	-3.1
GUT	Gutenstein	1.19	64	⇑iPn	Pn	03 54 48.1	-1.5
GUT				Sn	Sn	03 55 03.3	-3.1
GUT	Gutenstein	1.19	64	P	Pg	03 54 49.2	+0.7
SENIN	Lac Senin/Sane	1.22	187	⇑iP	Pg	03 54 46.5	-2.6
	964nm,0.4s						
THEF	They Montfort	1.23	303	Pn	Pn	03 54 50.5	+0.3
THEF				⇑ePg	Pg	03 54 51.2	+2.0
THEF	They Montfort	1.23	303	Pg	Pg	03 54 51.1	+1.8
THEF	They Montfort	1.23	303	Pg	Pg	03 54 51.1	+1.8
THEF	They Montfort	1.23	303	Pg	Pg	03 54 51.1	+1.8
THEF	They Montfort	1.23	303	Pn	Pn	03 54 50.5	+0.3
THEF	They Montfort	1.23	303	⇑eP	Pg	03 54 51.2	+2.0
LLS	Linth-Limmern	1.25	125	⇓iPg	Pg	03 54 45.3	-4.3
	303nm,0.5s						
MSG	Moessingen	1.31	50	Pn	Pn	03 54 49.6	-1.8
GIMEL	St. Georges /	1.34	220	⇑iPn	Pn	03 54 45.8	-6.0
	1µm,0.2s						
FUSIO	Fusio	1.36	145	⇓iP	Pg	03 54 45.8	-6.1
	397nm,0.2s						
LIENZ	Kamor/St.Gall	1.37	101	ePn	Pn	03 54 52.3	+0.2
	SNR=9.7						
LIENZ	Kamor/St.Gall	1.37	101	⇓iPn	Pn	03 54 45.4	-6.7
	901nm,0.6s						
PLONS	Plons/SG	1.37	112	⇓iPn	Pn	03 54 46.6	-5.5
	504nm,0.4s						
CABF	La Chapelle	1.37	226	ePn	Pn	03 54 52.6	+0.4
CABF				ePg	Pg	03 54 54.5	+2.4
CABF				eSn	Sn	03 55 09.6	-1.4
CABF				eSg	Sg	03 55 12.1	+2.3
CABF	La Chapelle	1.37	226	ePn	Pn	03 54 52.6	+0.4
	SNR=1.0						
CABF	La Chapelle	1.37	226	ePg	Pg	03 54 54.5	+2.4
	SNR=1.0						
CABF				eSn	Sn	03 55 09.6	-1.4
	SNR=1.0						
CABF				eSg	Sg	03 55 12.1	+2.3
	192nm,0.3s						
CABF	La Chapelle	1.37	226	ePn	Pn	03 54 52.6	+0.4
	SNR=1.0						
CABF	La Chapelle	1.37	226	ePg	Pg	03 54 54.5	+2.4
	SNR=1.0						
CABF				eSn	Sn	03 55 09.6	-1.4
	SNR=1.0						
CABF				eSg	Sg	03 55 12.1	+2.3
	96nm,0.3s						
LBG	Lerchenberg	1.39	37	⇑iPn	Pn	03 54 50.5	-1.9
LBG				Pg	Pg	03 54 52.8	+0.4
LBG				Sg	Sg	03 55 10.5	+0.2
LBG	Lerchenberg	1.39	37	⇑iPn	Pn	03 54 50.5	-1.9
LBG				S	Sg	03 55 10.5	+0.2
LBG	Lerchenberg	1.39	37	P	Pg	03 54 52.8	+0.4
TUBL	Tuebingen-Lenn	1.42	47	⇑iPn	Pn	03 54 51.2	-1.6
TUBL				Sg	Sg	03 55 11.6	+0.3
TUBL	Tuebingen-Lenn	1.42	47	⇑iPn	Pn	03 54 51.2	-1.6
TUBL				S	Sg	03 55 11.6	+0.3
LANF	Langenberg	1.43	8	Pg	Pg	03 54 54.4	+1.3
LANF	Langenberg	1.43	8	Pg	Pg	03 54 54.1	+1.0
LANF	Langenberg	1.43	8	Pg	Pg	03 54 54.1	+1.0
LANF	Langenberg	1.43	8	Pg	Pg	03 54 54.1	+1.0
DIX	Grande Dixence	1.49	183	Pg	Pg	03 54 55.0	+0.6
DIX				Sg	Sg	03 55 16.6	+2.9
DIX	Grande Dixence	1.49	183	Pg	Pg	03 54 55.0	+0.6
DIX				Sg	Sg	03 55 16.6	+2.9
BUCH	Bad Urach	1.51	54	⇑ePn	Pn	03 54 52.4	-1.8
BUCH				Pg	Pg	03 54 55.4	+0.6
BUCH				Sg	Sg	03 55 14.5	+0.2
BUCH	Bad Urach	1.51	54	⇑ePn	Pn	03 54 52.4	-1.8
BUCH				S	Sg	03 55 14.5	+0.2
BUCH	Bad Urach	1.51	54	P	Pg	03 54 55.4	+0.6
MMK	Mattmark	1.55	169	Pg	Pg	03 54 55.9	+0.4
MMK				Sg	Sg	03 55 17.4	+1.9
MMK	Mattmark	1.55	169	Pg	Pg	03 54 55.9	+0.4
MMK				Sg	Sg	03 55 17.4	+1.9
EMV	Vieux Emosson	1.57	196	Pg	Pg	03 54 57.7	+1.9
EMV				Sg	Sg	03 55 18.6	+2.5
EMV	Vieux Emosson	1.57	196	⇑iPn	Pn	03 54 46.9	-7.9
	464nm,0.5s						
EMV	Vieux Emosson	1.57	196	Pg	Pg	03 54 57.7	+1.9
EMV				Sg	Sg	03 55 18.6	+2.5
DAVA	Damuels	1.63	99	⇑ePn	Pn	03 54 55.9	+0.3
	SNR=12						
DAVA				⇓iPg	Pg	03 54 57.6	+0.6
DAVA	Damuels	1.63	99	⇑iSn	Sn	03 55 16.9	-0.4
DAVA				⇑iSg	Sg	03 55 19.0	+1.0
	comp=Z,217nm,0.3s						
DAVA	Damuels	1.63	99	⇑ePn	Pn	03 54 55.9	+0.3
DAVA				⇓iPg	Pg	03 54 57.6	+0.6
DAVA				i Sn	Sn	03 55 16.9	-0.4
DAVA				i Sg	Sg	03 55 19.0	+1.0
DAVA	Damuels	1.63	99	⇑ePn	Pn	03 54 55.9	+0.3
	SNR=12						
DAVA				⇓iPg	Pg	03 54 57.6	+0.6
DAVA				⇑iSn	Sn	03 55 16.9	-0.4
DAVA				⇑iSg	Sg	03 55 19.0	+1.0
	217nm,0.3s						
DAVA	Damuels	1.63	99	⇑ePn	Pn	03 54 55.9	+0.2
STU	Stuttgart	1.64	42	ePg	Pg	03 54 57.8	+0.5
	SNR=5.4						
STU				eSg	Sg	03 55 18.3	-0.3
	SNR=9.0						
STU	Stuttgart	1.64	42	ePg	Pg	03 54 57.8	+0.5
STU				eSg	Sg	03 55 18.3	-0.3
STU	Stuttgart	1.64	42	ePg	Pg	03 54 57.8	+0.5
STU				eSg	Sg	03 55 18.3	-0.3
TUE	Stuetta	1.66	131	Pg	Pg	03 54 57.6	0.0
TUE				Sg	Sg	03 55 20.4	+1.2
TUE	Stuetta	1.66	131	Pg	Pg	03 54 57.6	0.0
TUE				Sg	Sg	03 55 20.4	+1.2
	75nm,0.3s						
TUE	Stuetta	1.66	131	Pg	Pg	03 54 57.6	0.0
TUE				Sg	Sg	03 55 20.4	+1.2
	75nm,0.3s						
RFYF	Reffroy	1.73	308	ePn	Pn	03 54 57.6	+0.4
RFYF				ePg	Pg	03 55 00.8	+1.8
RFYF				eSg	Sg	03 55 24.3	+2.8
RFYF	Reffroy	1.73	308	ePn	Pn	03 54 57.6	+0.4
	baz=129						
RFYF	Reffroy	1.73	308	ePg	Pg	03 55 00.8	+1.8
	baz=125						
RFYF				eSg	Sg	03 55 24.3	+2.8
	154nm,0.2s						
RFYF	Reffroy	1.73	308	ePn	Pn	03 54 57.6	+0.4
RFYF	Reffroy	1.73	308	ePg	Pg	03 55 00.8	+1.8
RFYF				eSg	Sg	03 55 24.3	+2.8
	77nm,0.2s						
UBR	Ueberruh	1.75	85	⇑ePn	Pn	03 54 57.1	-0.3
UBR				Pg	Pg	03 55 00.3	+0.9
UBR				Sg	Sg	03 55 22.6	+0.5
UBR	Ueberruh	1.75	85	⇑ePn	Pn	03 54 57.1	-0.3
UBR				S	Sg	03 55 22.6	+0.5
UBR	Ueberruh	1.75	85	P	Pg	03 55 00.3	+0.9
SFTF	Sexfontaines	1.79	292	ePn	Pn	03 54 58.1	+0.2
SFTF				ePg	Pg	03 55 02.0	+1.9
SFTF				eSn	Sn	03 55 19.3	-2.0
SFTF				eSg	Sg	03 55 24.9	+1.7
SFTF	Sexfontaines	1.79	292	ePn	Pn	03 54 58.1	+0.2
	baz=111						
SFTF	Sexfontaines	1.79	292	ePg	Pg	03 55 02.0	+1.9
	baz=115						
SFTF				eSn	Sn	03 55 19.3	-2.0
SFTF				eSg	Sg	03 55 24.9	+1.7
	116nm,0.2s						
SFTF	Sexfontaines	1.79	292	ePn	Pn	03 54 58.1	+0.2
SFTF	Sexfontaines	1.79	292	ePg	Pg	03 55 02.0	+1.9
SFTF				eSn	Sn	03 55 19.3	-2.0
SFTF				eSg	Sg	03 55 24.9	+1.7
	58nm,0.2s						
DAVOX	Davos/Dischmat	1.79	115	Pg	Pg	03 54 59.1	-1.0
DAVOX				Sg	Sg	03 55 24.1	+0.8
DAVOX	Davos/Dischmat	1.79	115	⇓iPn	Pn	03 54 50.5	-7.4
	653nm,0.3s						
DAVOX	Davos/Dischmat	1.79	115	Pg	Pg	03 54 59.1	-1.0
DAVOX				Sg	Sg	03 55 24.1	+0.8
KTD	Kalmit	1.79	12	Pg	Pg	03 55 01.1	+1.0
KTD	Kalmit	1.79	12	Pg	Pg	03 55 01.0	+0.9
KTD				Sg	Sg	03 55 24.2	+0.9
KTD	Kalmit	1.79	12	Pg	Pg	03 55 01.0	+0.9
KTD				Sg	Sg	03 55 24.2	+0.9
KTD	Kalmit	1.79	12	Px	Px	03 55 01.1	
MRGE	Morge	1.83	190	Pg	Pg	03 54 59.5	-1.3
MRGE				Sg	Sg	03 55 26.8	+2.3
	230nm,0.6s						
MRGE	Morge	1.83	190	Pg	Pg	03 54 59.5	-1.3
MRGE				Sg	Sg	03 55 26.8	+2.3
	230nm,0.6s						
OBER	Oberstdorf	1.89	94	⇓iPn	Pn	03 54 59.3	+0.1
OBER				i Pg	Pg	03 55 02.6	+0.7
OBER				i Sg	Sg	03 55 26.6	+0.2
MEZF	Maizieres J’vi	1.90	300	ePn	Pn	03 54 59.5	0.0
MEZF				ePg	Pg	03 55 03.8	+1.6
MEZF				eSn	Sn	03 55 21.0	-3.1
MEZF				eSg	Sg	03 55 28.0	+1.1
MEZF	Maizieres J’vi	1.90	300	ePn	Pn	03 54 59.5	0.0
	baz=120,SNR=1.0						
MEZF	Maizieres J’vi	1.90	300	ePg	Pg	03 55 03.8	+1.6
	baz=119						
MEZF				eSn	Sn	03 55 21.0	-3.1
MEZF				eSg	Sg	03 55 28.0	+1.1
	76nm,0.2s,baz=115,SNR=1.0						
MEZF	Maizieres J’vi	1.90	300	ePn	Pn	03 54 59.5	0.0
	SNR=1.0						
MEZF	Maizieres J’vi	1.90	300	ePg	Pg	03 55 03.8	+1.6
MEZF				eSn	Sn	03 55 21.0	-3.1
MEZF				eSg	Sg	03 55 28.0	+1.1
	38nm,0.2s,SNR=1.0						
VAI	Varese	1.91	153	Pg	Pg	03 55 00.7	-1.6
VAI	Varese	1.91	153	Pg	Pg	03 55 00.7	-1.6
	67nm,0.3s						
VAI	Varese	1.91	153	Pg	Pg	03 55 00.7	-1.6
	67nm,0.3s						
MUGIO	Muggio	1.95	147	Pg	Pg	03 55 01.1	-2.1
MUGIO	Muggio	1.95	147	ePn	Pn	03 54 50.6	-10
	419nm,0.5s						
MUGIO	Muggio	1.95	147	Pg	Pg	03 55 01.1	-2.1
ORO	Oropa	1.97	171	Pg	Pg	03 55 02.8	-0.7
ORO	Oropa	1.97	171	Pg	Pg	03 55 02.8	-0.7
	257nm,0.2s						
ORO	Oropa	1.97	171	Pg	Pg	03 55 02.8	-0.7
	257nm,0.2s						
TRAV		2.06	176	P	Pn	03 55 00.9	-0.8
BERNI	Berninapass	2.06	123	⇓iPn	Pn	03 54 52.2	-9.5
	129nm,0.3s						
HDH	Heidenheim-Cha	2.07	60	⇓ePn	Pn	03 54 59.7	-2.0
HDH				⇓iPg	Pg	03 55 05.4	0.0
HDH				Sn	Sn	03 55 24.9	-3.3
HDH				Sg	Sg	03 55 30.7	-1.4
HDH	Heidenheim-Cha	2.07	60	⇓ePn	Pn	03 54 59.7	-2.0
HDH				Sn	Sn	03 55 24.9	-3.3
HDH	Heidenheim-Cha	2.07	60	⇓iP	Pg	03 55 05.4	0.0
HDH				S	Sg	03 55 30.7	-1.4
SWS	Schriesheim-Wi	2.07	22	Pn	Pn	03 54 59.6	-2.2
SWS	Schriesheim-Wi	2.07	22	Pn	Pn	03 54 59.6	-2.2
FUORN	Ofenpass-Fuorn	2.10	116	Pg	Pg	03 55 03.8	-2.2
FUORN	Ofenpass-Fuorn	2.10	116	Pg	Pg	03 55 03.8	-2.2
LPL	La Plagne	2.12	195	ePn	Pn	03 55 03.5	+1.0
LPL				ePg	Pg	03 55 07.9	+1.4
LPL				eSg	Sg	03 55 34.3	+0.3
LPL	La Plagne	2.12	195	ePn	Pn	03 55 03.5	+1.0
	SNR=1.0						
LPL	La Plagne	2.12	195	ePg	Pg	03 55 07.9	+1.4
LPL				eSg	Sg	03 55 34.3	+0.3
	34nm,0.3s,SNR=1.0						
LPL	La Plagne	2.12	195	ePn	Pn	03 55 03.5	+1.0
	SNR=1.0						
LPL	La Plagne	2.12	195	ePg	Pg	03 55 07.9	+1.4
LPL				eSg	Sg	03 55 34.3	+0.3
	17nm,0.3s,SNR=1.0						
LPG	La Plagne	2.14	195	ePn	Pn	03 55 03.9	+1.2
LPG				ePg	Pg	03 55 08.3	+1.5
LPG				eSg	Sg	03 55 35.8	+1.3
LPG	La Plagne	2.14	195	ePn	Pn	03 55 03.9	+1.2
	SNR=1.0						
LPG	La Plagne	2.14	195	ePg	Pg	03 55 08.3	+1.5
LPG				eSg	Sg	03 55 35.8	+1.3
	84nm,0.4s,SNR=1.0						
LPG	La Plagne	2.14	195	ePn	Pn	03 55 03.9	+1.2
	SNR=1.0						
LPG	La Plagne	2.14	195	ePg	Pg	03 55 08.3	+1.5
LPG				eSg	Sg	03 55 35.8	+1.3
	42nm,0.4s,SNR=1.0						
RUP	Ruppelstein	2.16	352	ePg	Pg	03 55 08.4	+1.3
	SNR=5.5						
RETA	Reutte	2.20	91	⇑ePn	Pn	03 55 03.6	+0.1
	SNR=12						
RETA				⇑iPg	Pg	03 55 08.8	+0.9
RETA				⇓iSg	Sg	03 55 35.8	-0.5
	29nm,0.1s						
RETA	Reutte	2.20	91	Pn	Pn	03 55 03.6	+0.1
	SNR=12						
TOD	Tromm	2.21	22	⇑iPg	Pg	03 55 08.8	+0.7
TOD	Tromm	2.21	22	Pn	Pn	03 55 02.3	-1.4
TOD	Tromm	2.21	22	Pn	Pn	03 55 02.3	-1.4
TOD	Tromm	2.21	22	⇑iP	Pg	03 55 08.8	+0.7
BRMO	Bormio	2.24	118	Pg	Pg	03 55 05.9	-2.7
BRMO	Bormio	2.24	118	Pg	Pg	03 55 05.9	-2.7
	22nm,0.3s						
BRMO	Bormio	2.24	118	Pg	Pg	03 55 05.9	-2.7
	22nm,0.3s						
FETA	Feichten	2.25	103	⇑ePn	Pn	03 55 05.5	+1.3
	SNR=15						
FETA				⇓iPg	Pg	03 55 09.6	+0.7
FETA				⇑iSg	Sg	03 55 38.6	+0.5
	22nm,0.3s						
FETA	Feichten	2.25	103	Pn	Pn	03 55 05.5	+1.3
	SNR=15						
SIND	Sindeldorf	2.26	37	⇓ePn	Pn	03 55 01.8	-2.5
SIND				Pg	Pg	03 55 09.0	-0.1
SIND				Sg	Sg	03 55 37.7	-0.5
SIND	Sindeldorf	2.26	37	⇓ePn	Pn	03 55 01.8	-2.5
SIND				S	Sg	03 55 37.7	-0.5
SIND	Sindeldorf	2.26	37	P	Pg	03 55 09.0	-0.1
WLF	Walferdange	2.29	337	ePg	Pg	03 55 10.7	+1.1
	SNR=5.3						
WLF				eSg	Sg	03 55 39.5	+0.3
	SNR=4.8						
WLF	Walferdange	2.29	337	PN	Pn	03 55 06.3	+1.6
WLF				PG	Pg	03 55 10.7	+1.1
WLF				SN	Sn	03 55 39.8	+6.2
	comp=N,36nm,0.0s						
WLF				SG	Sg	03 55 43.4	+4.2
WLF	Walferdange	2.29	337	Pn	Pn	03 55 06.2	+1.5
WLF	Walferdange	2.29	337	Pg	Pg	03 55 10.7	+1.1
WLF				Sg	Sg	03 55 43.3	+4.1
ABH	Alteburg	2.31	0	ePn	Pn	03 55 05.3	+0.2
	SNR=1.8						
ABH				Pg	Pg	03 55 10.7	+0.6
ABH	Alteburg	2.31	0	Pn	Pn	03 55 04.5	-0.6
ABH				Pg	Pg	03 55 10.7	+0.6
ABH	Alteburg	2.31	0	Pn	Pn	03 55 04.5	-0.6
ABH	Alteburg	2.31	0	P	Pg	03 55 10.7	+0.6
MDI	Monti di Nese	2.34	139	Pg	Pg	03 55 07.1	-3.6
MDI	Monti di Nese	2.34	139	Pg	Pg	03 55 07.1	-3.6
NORI	Noerdlinger Ri	2.38	60	ePn	Pn	03 55 04.6	-1.4
NORI				i Pg	Pg	03 55 11.3	0.0
NORI				eSn	Sn	03 55 32.6	-3.2
NORI				i Sg	Sg	03 55 40.6	-1.5
RSP	Reno Superiore	2.43	184	Pg	Pg	03 55 08.4	-3.9
RSP	Reno Superiore	2.43	184	Pg	Pg	03 55 08.4	-3.9
	comp=N,104nm,0.6s						
RSP	Reno Superiore	2.43	184	P	Pn	03 55 06.1	-0.5
MOTA	Moosalm	2.44	94	⇓ePn	Pn	03 55 07.7	+0.8
	SNR=7.7						
MOTA	Moosalm	2.44	94	⇓iPg	Pg	03 55 12.8	+0.2
MOTA	Moosalm	2.44	94	⇓iSg	Sg	03 55 44.7	+0.6
	comp=N,30nm,0.2s						
MOTA	Moosalm	2.44	94	⇓ePn	Pn	03 55 07.7	+0.8
MOTA				⇓iPg	Pg	03 55 12.8	+0.2
MOTA				i Sg	Sg	03 55 44.7	+0.6
MOTA	Moosalm	2.44	94	⇓ePn	Pn	03 55 07.7	+0.8
	SNR=7.7						
MOTA				⇓iPg	Pg	03 55 12.8	+0.2
MOTA				⇓iSg	Sg	03 55 44.7	+0.6
	comp=N,30nm,0.2s						
MOTA	Moosalm	2.44	94	⇓ePn	Pn	03 55 07.7	+0.8
LOR	Lormes	2.51	264	ePn	Pn	03 55 07.3	-0.5
LOR				ePg	Pg	03 55 15.4	+1.6
LOR				eSn	Sn	03 55 36.4	-2.6
LOR				eSg	Sg	03 55 46.5	+0.2
LOR	Lormes	2.51	264	ePn	Pn	03 55 07.3	-0.5
	baz=76,SNR=1.0						
LOR	Lormes	2.51	264	ePg	Pg	03 55 15.4	+1.6
	baz=87						
LOR				eSn	Sn	03 55 36.4	-2.6
LOR				eSg	Sg	03 55 46.5	+0.2
	comp=N,242nm,0.3s,SNR=1.0						
LOR	Lormes	2.51	264	ePn	Pn	03 55 07.3	-0.5
	SNR=1.0						
LOR	Lormes	2.51	264	ePg	Pg	03 55 15.4	+1.6
LOR				eSn	Sn	03 55 36.4	-2.6
LOR				eSg	Sg	03 55 46.5	+0.2
	comp=N,121nm,0.3s,SNR=1.0						
SQTA	Sankt Quirin	2.53	97	⇑ePn	Pn	03 55 09.0	+0.9
	SNR=18						
SQTA	Sankt Quirin	2.53	97	⇓iPg	Pg	03 55 14.2	0.0
SQTA	Sankt Quirin	2.53	97	⇑iSg	Sg	03 55 46.7	-0.2
	comp=N,61nm,0.2s						
SQTA	Sankt Quirin	2.53	97	⇑ePn	Pn	03 55 08.9	+0.9
SQTA				⇓iPg	Pg	03 55 14.2	0.0
SQTA				i Sg	Sg	03 55 46.8	-0.2
SQTA	Sankt Quirin	2.53	97	⇑ePn	Pn	03 55 09.0	+0.9
	SNR=18						
SQTA				⇓iPg	Pg	03 55 14.2	0.0
SQTA				⇑iSg	Sg	03 55 46.7	-0.2
	comp=N,61nm,0.2s						
SQTA	Sankt Quirin	2.53	97	⇑ePn	Pn	03 55 08.9	+0.8
MABI	Malga Bissina	2.55	125	Pg	Pg	03 55 11.5	-3.2
MABI	Malga Bissina	2.55	125	Pg	Pg	03 55 11.5	-3.2
MABI	Malga Bissina	2.55	125	Pg	Pg	03 55 11.5	-3.2
GDM	Grand’Maison	2.56	203	Pg	Pg	03 55 16.2	+1.4
GDM	Grand’Maison	2.56	203	Pg	Pg	03 55 16.2	+1.4
GDM	Grand’Maison	2.56	203	Pg	Pg	03 55 16.2	+1.4
BNI	Bardonecchia	2.58	193	ePn	Pn	03 55 10.2	+1.3
BNI				ePg	Pg	03 55 16.1	+0.7
BNI				eSg	Sg	03 55 49.6	+0.8
BNI	Bardonecchia	2.58	193	Pg	Pn	03 55 10.5	+1.7
BNI	Bardonecchia	2.58	193	ePn	Pn	03 55 10.1	+1.3
BNI	Bardonecchia	2.58	193	ePg	Pg	03 55 16.0	+0.7
FUR	Furstenfeldbru	2.60	75	ePg	Pg	03 55 15.7	+0.1
	SNR=5.7						
FUR				eSg	Sg	03 55 48.3	-0.9
	SNR=19						
FUR	Furstenfeldbru	2.60	75	ePg	Pg	03 55 15.5	-0.1
FUR				eSg	Sg	03 55 48.7	-0.5
FUR	Furstenfeldbru	2.60	75	ePg	Pg	03 55 15.5	-0.1
FUR				eSg	Sg	03 55 48.7	-0.5
GRN	Grenoble	2.63	208	Pg	Pg	03 55 18.0	+1.8
GRN	Grenoble	2.63	208	Pg	Pg	03 55 18.0	+1.8
GRN	Grenoble	2.63	208	Pg	Pg	03 55 18.0	+1.8
SMF	Signal de Mont	2.68	251	ePn	Pn	03 55 09.7	-0.4
SMF				ePg	Pg	03 55 17.9	+0.8
SMF				eSn	Sn	03 55 41.2	-2.0
SMF				eSg	Sg	03 55 51.1	-0.7
SMF	Signal de Mont	2.68	251	ePn	Pn	03 55 09.7	-0.4
	SNR=1.0						
SMF	Signal de Mont	2.68	251	ePg	Pg	03 55 17.9	+0.8
SMF				eSn	Sn	03 55 41.2	-2.0
SMF				eSg	Sg	03 55 51.1	-0.7
	comp=N,91nm,0.2s,SNR=1.0						
SMF	Signal de Mont	2.68	251	ePn	Pn	03 55 09.7	-0.4
	SNR=1.0						
SMF	Signal de Mont	2.68	251	ePg	Pg	03 55 17.9	+0.8
SMF				eSn	Sn	03 55 41.2	-2.0
SMF				eSg	Sg	03 55 51.1	-0.7
	comp=N,46nm,0.2s,SNR=1.0						
TNS	Taunus Mts	2.73	13	ePn	Pn	03 55 09.7	-1.0
	SNR=7.1						
TNS				eSg	Sg	03 55 51.8	-1.5
	SNR=4.5						
APPI	Appiano	2.76	112	Pg	Pn	03 55 14.0	+2.8
APPI	Appiano	2.76	112	Pg	Pn	03 55 14.0	+2.8
	comp=N,35nm,0.5s						
WATA	Walderalm	2.76	93	⇑iPn	Pn	03 55 12.3	+1.0
WATA	Walderalm	2.76	93	⇑iSg	Sg	03 55 55.3	+0.8
	comp=N,17nm,0.2s						
WATA	Walderalm	2.76	93	⇑iPn	Pn	03 55 12.3	+1.0
WATA				i Sg	Sg	03 55 55.3	+0.8
WATA	Walderalm	2.76	93	⇑iPn	Pn	03 55 12.3	+1.0
WATA				⇑iSg	Sg	03 55 55.3	+0.8
	comp=N,17nm,0.2s						
WATA	Walderalm	2.76	93	⇑iPn	Pn	03 55 12.3	+1.0
WATA				i Sg	Sg	03 55 55.3	+0.8
SSF	Saint Saulge	2.78	261	ePn	Pn	03 55 11.6	+0.1
SSF				ePg	Pg	03 55 20.1	+1.1
SSF				eSg	Sg	03 55 55.3	+0.2
SSF	Saint Saulge	2.78	261	ePn	Pn	03 55 11.6	+0.1
	SNR=1.0						
SSF	Saint Saulge	2.78	261	ePg	Pg	03 55 20.1	+1.1
	SNR=1.0						
SSF				eSg	Sg	03 55 55.3	+0.2
	comp=N,110nm,0.4s,SNR=1.0						
SSF	Saint Saulge	2.78	261	ePn	Pn	03 55 11.6	+0.1
	SNR=1.0						
SSF	Saint Saulge	2.78	261	ePg	Pg	03 55 20.1	+1.1
	SNR=1.0						
SSF				eSg	Sg	03 55 55.3	+0.2
	comp=N,55nm,0.4s,SNR=1.0						
MAGA	Magasa	2.79	129	Pg	Pn	03 55 14.1	+2.4
	comp=N,460nm,0.5s						
WTTA	Wattenberg	2.81	95	⇑ePn	Pn	03 55 13.3	+1.4
	SNR=13						
WTTA	Wattenberg	2.81	95	⇓iSg	Sg	03 55 56.2	+0.1
	comp=N,26nm,0.2s						
WTTA	Wattenberg	2.81	95	⇑ePn	Pn	03 55 13.3	+1.4
WTTA				i Sg	Sg	03 55 56.2	+0.1
WTTA	Wattenberg	2.81	95	⇑ePn	Pn	03 55 13.3	+1.4
	SNR=13						
WTTA				⇓iSg	Sg	03 55 56.2	+0.1
	comp=N,26nm,0.2s						
WTTA	Wattenberg	2.81	95	⇑ePn	Pn	03 55 13.3	+1.4
WTTA				i Sg	Sg	03 55 56.2	+0.2
SALO	Salr	2.84	132	Pg	Pn	03 55 14.3	+1.9
ORIF	Oris-en-Rattie	2.89	204	ePn	Pn	03 55 13.2	+0.2
ORIF				ePg	Pg	03 55 21.5	+0.4
ORIF				eSg	Sg	03 55 57.9	-0.6
ORIF	Oris-en-Rattie	2.89	204	ePn	Pn	03 55 13.2	+0.2
	SNR=1.0						
ORIF	Oris-en-Rattie	2.89	204	ePg	Pg	03 55 21.5	+0.4
	SNR=1.0						
ORIF				eSg	Sg	03 55 57.9	-0.6
	comp=N,38nm,0.4s,SNR=1.0						
ORIF	Oris-en-Rattie	2.89	204	ePn	Pn	03 55 13.2	+0.2
	SNR=1.0						
ORIF	Oris-en-Rattie	2.89	204	ePg	Pg	03 55 21.5	+0.4
	SNR=1.0						
ORIF				eSg	Sg	03 55 57.9	-0.6
	comp=N,19nm,0.4s,SNR=1.0						
MBDF	Montbardon	2.89	191	ePn	Pn	03 55 12.8	-0.2
MBDF				ePg	Pg	03 55 21.8	+0.6
MBDF				eSg	Sg	03 55 58.3	-0.3
MBDF	Montbardon	2.89	191	ePn	Pn	03 55 12.8	-0.2
	SNR=1.0						
MBDF	Montbardon	2.89	191	ePg	Pg	03 55 21.8	+0.6
MBDF				eSg	Sg	03 55 58.3	-0.3
	comp=N,58nm,0.6s						
MBDF	Montbardon	2.89	191	ePn	Pn	03 55 12.8	-0.2
	SNR=1.0						
MBDF	Montbardon	2.89	191	ePg	Pg	03 55 21.8	+0.6
MBDF				eSg	Sg	03 55 58.3	-0.3
	comp=N,29nm,0.6s						
AVF	Avril sur Loir	2.95	256	ePn	Pn	03 55 13.8	0.0
AVF				ePg	Pg	03 55 23.1	+0.8
AVF				eSn	Sn	03 55 47.5	-2.4
AVF				eSg	Sg	03 55 59.4	-1.1
AVF	Avril sur Loir	2.95	256	ePn	Pn	03 55 13.8	0.0
	SNR=1.0						
AVF	Avril sur Loir	2.95	256	ePg	Pg	03 55 23.1	+0.8
	SNR=1.0						
AVF				eSn	Sn	03 55 47.5	-2.4
	SNR=1.0						

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AVF                              eSg     Sg   03 55 59.4 -1.1
      comp=N,25nm,0.2s,SNR=1.0
AVF   Avril sur Loir    2.95 256 ePn     Pn   03 55 13.8  0.0
      SNR=1.0
AVF   Avril sur Loir    2.95 256 ePg     Pg   03 55 23.1 +0.8
      SNR=1.0
AVF                              eSn     Sn   03 55 47.5 -2.4
      SNR=1.0
AVF                              eSg     Sg   03 55 59.4 -1.1
      comp=N,12nm,0.2s,SNR=1.0
GIVF  Givet             3.10 326 ePn     Pn   03 55 17.1 +1.2
GIVF                             eSn     Sn   03 55 49.8 -3.8
GIVF                             eSg     Sg   03 56 02.9 -2.4
GIVF  Givet             3.10 326 ePn     Pn   03 55 17.1 +1.2
      SNR=1.0
GIVF                             eSn     Sn   03 55 49.8 -3.8
      SNR=1.0
GIVF                             eSg     Sg   03 56 02.9 -2.4
      comp=N,47nm,0.4s,SNR=1.0
GIVF  Givet             3.10 326 ePn     Pn   03 55 17.1 +1.2
      SNR=1.0
GIVF                             eSn     Sn   03 55 49.8 -3.8
      SNR=1.0
GIVF                             eSg     Sg   03 56 02.9 -2.4
      comp=N,23nm,0.4s,SNR=1.0
PCP   Pian Castagno     3.11 166  P      Pn   03 55 15.6 -0.5
PLDF  La Plantade       3.12 241  Pn     Pn   03 55 15.3 -0.9
PLDF  La Plantade       3.12 241  Pn     Pn   03 55 15.3 -0.9
PLDF  La Plantade       3.12 241  Pn     Pn   03 55 15.3 -0.9
SURF  Saint Ours        3.13 189  Pg     Pg   03 55 26.6 +0.9
SURF  Saint Ours        3.13 189  Pg     Pg   03 55 26.6 +0.9
DOU   Dourbes           3.18 324  PN     Pn   03 55 18.6 +1.6
DOU                               PG     Pg   03 55 27.0 +0.2
DOU                               SN     Sn   03 55 56.3 +0.6
      comp=N,5.0nm,0.0s
DOU                               SG     Sg   03 56 05.8 -2.2
DOU   Dourbes           3.18 324  Pn     Pn   03 55 18.6 +1.5
DOU   Dourbes           3.18 324  Pg     Pg   03 55 27.0 +0.2
DOU                               Sn     Sn   03 55 56.3 +0.6
DOU                               Sg     Sg   03 56 05.8 -2.2
MEM   Membach           3.20 342  PN     Pn   03 55 18.3 +1.0
MEM                               PG     Pg   03 55 28.3 +1.2
MEM                               SN     Sn   03 55 53.2 -3.0
      comp=E,9.2nm,0.0s
MEM                               SG     Sg   03 56 11.3 +2.7
MEM   Membach           3.20 342  Pn     Pn   03 55 18.2 +0.9
MEM   Membach           3.20 342  Pg     Pg   03 55 28.2 +1.1
MEM                               Sn     Sn   03 55 53.1 -3.0
MEM                               Sg     Sg   03 56 11.2 +2.6
BCLA  Clavier           3.21 334  PN     Pn   03 55 18.9 +1.5
BCLA                              PG     Pg   03 55 29.3 +2.1
BCLA                              SN     Sn   03 55 56.7 +0.5
      comp=E,12nm,0.0s
BCLA                              SG     Sg   03 56 11.5 +2.8
BCLA  Clavier           3.21 334  Pn     Pn   03 55 18.8 +1.4
BCLA  Clavier           3.21 334  Pg     Pg   03 55 29.2 +2.0
BCLA                              Sn     Sn   03 55 56.6 +0.4
BCLA                              Sg     Sg   03 56 11.5 +2.8
GRFO  Grafenberg        3.24  48 ePg     Pg   03 55 27.0 -1.0
GRFO                             eSg     Sg   03 56 08.4 -1.5
GRFO  Grafenberg        3.24  48 ePg     Pg   03 55 27.0 -0.9
GRFO                             eSg     Sg   03 56 08.4 -1.6
GRA1  Grafenberg Arr    3.25  48 ePg     Pg   03 55 27.5 -0.5
GRA1                             eSg     Sg   03 56 08.5 -1.5
GRA1  Grafenberg Arr    3.25  48 ePg     Pg   03 55 27.5 -0.5
GRA1                             eSg     Sg   03 56 08.5 -1.5
GRF   Grafenberg Arr    3.25  48 ePg     Pg   03 55 27.6 -0.3
      SNR=23
GRF                              eSg     Sg   03 56 07.4 -2.6
      SNR=6.0
BAIF  Baives            3.32 320 ePn     Pn   03 55 19.8 +0.9
BAIF                             eSn     Sn   03 55 54.8 -4.2
BAIF                             eSg     Sg   03 56 11.5 -0.8
BAIF  Baives            3.32 320 ePn     Pn   03 55 19.8 +0.9
      SNR=1.0
BAIF                             eSn     Sn   03 55 54.8 -4.2
      comp=E,24nm,0.4s,SNR=1.0
BAIF                             eSg     Sg   03 56 11.5 -0.8
      comp=E,24nm,0.4s
BAIF  Baives            3.32 320 ePn     Pn   03 55 19.8 +0.9
      SNR=1.0
BAIF                             eSn     Sn   03 55 54.8 -4.2
      comp=E,12nm,0.4s,SNR=1.0
BAIF                             eSg     Sg   03 56 11.5 -0.8
      comp=E,12nm,0.4s
HYF   Humbligny         3.33 267 ePn     Pn   03 55 20.6 +1.5
HYF                              ePg     Pg   03 55 31.4 +1.8
HYF                              eSg     Sg   03 56 14.5 +1.8
HYF   Humbligny         3.33 267 ePn     Pn   03 55 20.6 +1.5
HYF   Humbligny         3.33 267 ePg     Pg   03 55 31.4 +1.8
HYF                              eSg     Sg   03 56 14.5 +1.8
HYF   Humbligny         3.33 267 ePn     Pn   03 55 20.6 +1.5
HYF   Humbligny         3.33 267 ePg     Pg   03 55 31.4 +1.8
HYF                              eSg     Sg   03 56 14.5 +1.8
STV   Sta Anna Valdi    3.33 182  P      Pn   03 55 17.8 -1.3
ENR   Entracque         3.34 181  P      Pn   03 55 17.9 -1.4
BGF   Bois d’Agland     3.35 254 ePn     Pn   03 55 19.0 -0.4
BGF                              ePg     Pg   03 55 30.2 +0.2
BGF                              eSn     Sn   03 55 57.3 -2.6
BGF                              eSg     Sg   03 56 12.5 -1.0
BGF   Bois d’Agland     3.35 254 ePn     Pn   03 55 19.0 -0.4
      SNR=1.0
BGF   Bois d’Agland     3.35 254 ePg     Pg   03 55 30.2 +0.2
      SNR=1.0
BGF                              eSn     Sn   03 55 57.3 -2.6
      SNR=1.0
BGF                              eSg     Sg   03 56 12.5 -1.0
      comp=E,148nm,0.4s,SNR=1.0
BGF   Bois d’Agland     3.35 254 ePn     Pn   03 55 19.0 -0.4
      SNR=1.0
BGF   Bois d’Agland     3.35 254 ePg     Pg   03 55 30.2 +0.2
      SNR=1.0
BGF                              eSn     Sn   03 55 57.3 -2.6
      SNR=1.0
BGF                              eSg     Sg   03 56 12.5 -1.0
      comp=E,74nm,0.4s,SNR=1.0
VIVF  Saint-Julien-l    3.36 217 ePn     Pn   03 55 18.5 -1.0
VIVF                             ePg     Pg   03 55 29.8 -0.3
VIVF                             eSn     Sn   03 55 56.4 -3.6
VIVF                             eSg     Sg   03 56 12.8 -0.8
VIVF  Saint-Julien-l    3.36 217 ePn     Pn   03 55 18.5 -1.0
      SNR=1.0
VIVF  Saint-Julien-l    3.36 217 ePg     Pg   03 55 29.8 -0.3
VIVF                             eSn     Sn   03 55 56.4 -3.6
      SNR=1.0
VIVF                             eSg     Sg   03 56 12.8 -0.8
      comp=E,47nm,0.3s,SNR=1.0
VIVF  Saint-Julien-l    3.36 217 ePn     Pn   03 55 18.5 -1.0
      SNR=1.0
VIVF  Saint-Julien-l    3.36 217 ePg     Pg   03 55 29.8 -0.3
VIVF                             eSn     Sn   03 55 56.4 -3.6
      SNR=1.0
VIVF                             eSg     Sg   03 56 12.8 -0.8
      comp=E,24nm,0.3s,SNR=1.0
AGO   Saint Agoulin     3.38 245  Pn     Pn   03 55 19.3 -0.4
AGO   Saint Agoulin     3.38 245  Pg     Pg   03 55 31.6 +1.1
AGO   Saint Agoulin     3.38 245  Pn     Pn   03 55 19.3 -0.4
AGO                               Pg     Pg   03 55 31.6 +1.1
AGO   Saint Agoulin     3.38 245  Pn     Pn   03 55 19.3 -0.4
AGO   Saint Agoulin     3.38 245  Pg     Pg   03 55 31.6 +1.1
SC2M  Scurtabr          3.46 155  P      Pn   03 55 20.9  0.0
MONE  Monesi            3.49 177  P      Pn   03 55 20.1 -1.2
ABTA  Abfaltersbach     3.50 102⇓iPg     Pg   03 55 32.9  0.0
ABTA  Abfaltersbach     3.50 102         Pn   03 55 23.3 +1.9
ABTA  Abfaltersbach     3.50 102  Pg     Pg   03 55 32.9  0.0
RJOB  Jochberg          3.57  85⇓iPn     Pn   03 55 23.2 +0.8
PYM   Petit Puy Mans    3.60 241  Pn     Pn   03 55 24.4 +1.6
PYM   Petit Puy Mans    3.60 241  Pn     Pn   03 55 24.4 +1.6
PYM   Petit Puy Mans    3.60 241  Pn     Pn   03 55 24.4 +1.6
SNF   Seneffe           3.63 325  PN     Pn   03 55 25.2 +2.0
SNF                               PG     Pg   03 55 35.6 +0.2
SNF   Seneffe           3.63 325  Pn     Pn   03 55 25.2 +2.0
SNF   Seneffe           3.63 325  Pg     Pg   03 55 35.5 +0.1
UBBA  Unterbreizbach    3.64  26 ePg     Pg   03 55 35.0 -0.4
      SNR=4.3
UBBA                             eSg     Sg   03 56 19.7 -2.8
      SNR=3.1
SBF   Sospel            3.71 181 ePn     Pn   03 55 25.2 +0.9
SBF                              eSn     Sn   03 56 06.0 -2.6
SBF                              eSg     Sg   03 56 24.6 -0.3
SBF   Sospel            3.71 181 ePn     Pn   03 55 25.2 +0.9
      SNR=1.0
SBF                              eSn     Sn   03 56 06.0 -2.6
SBF                              eSg     Sg   03 56 24.6 -0.3
      comp=E,28nm,0.5s
SBF   Sospel            3.71 181 ePn     Pn   03 55 25.2 +0.9
      SNR=1.0
SBF                              eSn     Sn   03 56 06.0 -2.6
SBF                              eSg     Sg   03 56 24.6 -0.3
      comp=E,14nm,0.5s
NEGI  Negi              3.73 178  P      Pn   03 55 23.1 -1.4
LBL   Lubilhac          3.77 233  Pn     Pn   03 55 24.4 -0.7
LBL   Lubilhac          3.77 233  Pg     Pg   03 55 39.6 +1.6
LBL   Lubilhac          3.77 233  Pn     Pn   03 55 24.4 -0.7
LBL                               Pg     Pg   03 55 39.6 +1.6
LBL   Lubilhac          3.77 233  Pn     Pn   03 55 24.4 -0.7
LBL   Lubilhac          3.77 233  Pg     Pg   03 55 39.6 +1.6
UCC   Uccle             3.84 328  PN     Pn   03 55 25.6 -0.5
UCC                               PG     Pg   03 55 40.0 +0.7
UCC   Uccle             3.84 328  Pn     Pn   03 55 25.6 -0.5
UCC   Uccle             3.84 328  Pg     Pg   03 55 40.0 +0.6
SMRF  Simiane la Rot    3.84 201 ePn     Pn   03 55 26.1  0.0
SMRF                             ePg     Pg   03 55 39.4  0.0
SMRF                             eSn     Sn   03 56 08.2 -3.8
SMRF                             eSg     Sg   03 56 29.8 +0.6
SMRF  Simiane la Rot    3.84 201 ePn     Pn   03 55 26.1  0.0
      SNR=1.0
SMRF  Simiane la Rot    3.84 201 ePg     Pg   03 55 39.4  0.0
      SNR=1.0
SMRF                             eSn     Sn   03 56 08.2 -3.8
SMRF                             eSg     Sg   03 56 29.8 +0.6
      comp=E,11nm,0.6s
SMRF  Simiane la Rot    3.84 201 ePn     Pn   03 55 26.1  0.0
      SNR=1.0
SMRF  Simiane la Rot    3.84 201 ePg     Pg   03 55 39.4  0.0
      SNR=1.0
SMRF                             eSn     Sn   03 56 08.2 -3.8
SMRF                             eSg     Sg   03 56 29.8 +0.6
      comp=E,5.4nm,0.6s
TCF   Toulx Ste Croi    3.86 253 ePn     Pn   03 55 25.8 -0.6
TCF                              ePg     Pg   03 55 40.0 +0.3
TCF                              eSn     Sn   03 56 09.4 -3.0
TCF                              eSg     Sg   03 56 29.4 -0.3
TCF   Toulx Ste Croi    3.86 253 ePn     Pn   03 55 25.8 -0.6
TCF   Toulx Ste Croi    3.86 253 ePg     Pg   03 55 40.0 +0.3
      SNR=1.0
TCF                              eSn     Sn   03 56 09.4 -3.0
      comp=E,68nm,0.6s,SNR=1.0
TCF                              eSg     Sg   03 56 29.4 -0.3
      comp=E,42nm,0.4s
TCF   Toulx Ste Croi    3.86 253 ePn     Pn   03 55 25.8 -0.6
TCF   Toulx Ste Croi    3.86 253 ePg     Pg   03 55 40.0 +0.3
      SNR=1.0
TCF                              eSn     Sn   03 56 09.4 -3.0
      comp=E,34nm,0.6s,SNR=1.0
TCF                              eSg     Sg   03 56 29.4 -0.3
      comp=E,21nm,0.4s
WET   Wettzell          3.90  64 ePn     Pn   03 55 25.6 -1.4
      SNR=4.5
WET                              ePg     Pg   03 55 39.3 -1.3
      SNR=3.2
WET                              eSn     Sn   03 56 07.7 -5.7
      SNR=2.6
WET                              eSg     Sg   03 56 27.9 -3.2
      SNR=5.7
KBA   Koelnbreinsper    3.99  95⇓iPn     Pn   03 55 29.6 +1.5
KBA   Koelnbreinsper    3.99  95⇑iSn     Sn   03 56 14.6 -1.0
KBA   Koelnbreinsper    3.99  95⇓iPn     Pn   03 55 29.6 +1.5
KBA                               i Sn   Sn   03 56 14.6 -1.0
KBA   Koelnbreinsper    3.99  95⇓iPn     Pn   03 55 29.6 +1.5
KBA                             ⇑iSn     Sn   03 56 14.6 -1.0
KBA   Koelnbreinsper    3.99  95⇓iPn     Pn   03 55 29.6 +1.4
KBA                               i Sn   Sn   03 56 14.6 -1.0
FRF   La Foret Royal    4.06 189 ePn     Pn   03 55 29.2 +0.1
FRF                              ePg     Pg   03 55 42.9 -0.6
FRF                              eSn     Sn   03 56 13.6 -3.6
FRF                              eSg     Sg   03 56 34.2 -1.9
FRF   La Foret Royal    4.06 189 ePn     Pn   03 55 29.2 +0.1
      SNR=1.0
FRF   La Foret Royal    4.06 189 ePg     Pg   03 55 42.9 -0.6
FRF                              eSn     Sn   03 56 13.6 -3.6
      SNR=1.0
FRF                              eSg     Sg   03 56 34.2 -1.9
      comp=E,17nm,0.5s
FRF   La Foret Royal    4.06 189 ePn     Pn   03 55 29.2 +0.1
      SNR=1.0
FRF   La Foret Royal    4.06 189 ePg     Pg   03 55 42.9 -0.6
FRF                              eSn     Sn   03 56 13.6 -3.6
      SNR=1.0
FRF                              eSg     Sg   03 56 34.2 -1.9
      comp=E,8.4nm,0.5s
MOX   Moxa              4.09  40 ePn     Pn   03 55 26.9 -2.6
      SNR=2.3
MOX                              ePg     Pg   03 55 42.5 -1.6
      SNR=6.3
MOX                              eSg     Sg   03 56 34.0 -3.1
      SNR=2.8
MOX   Moxa              4.09  40 ePn     Pn   03 55 26.8 -2.7
MOX                              ePg     Pg   03 55 42.5 -1.6
MOX                              eSg     Sg   03 56 36.0 -1.0
MOX   Moxa              4.09  40 ePN     Pn   03 55 26.8 -2.7
MOX                              ePG     Pg   03 55 42.5 -1.6
MOX                              eSG     Sg   03 56 36.0 -1.0
MOX   Moxa              4.09  40 ePn     Pn   03 55 26.8 -2.7
NKC   Novy Kostel       4.20  49 ePn     Pn   03 55 35.1 +4.0
NKC                              ePg     Pg   03 55 44.2 -2.1
NKC                              eSg     Sg   03 56 37.6 -3.1
NKC   Novy Kostel       4.20  49 ePN     Pn   03 55 35.1 +4.0
NKC                              ePG     Pg   03 55 44.2 -2.1
NKC                              eSG     Sg   03 56 37.6 -3.1
      comp=E,35nm,0.4s
NKC   Novy Kostel       4.20  49 ePn     Pn   03 55 35.1 +4.0
GUNZ  Gunzen            4.22  47 ePg     Pg   03 55 44.8 -2.0
      SNR=9.9
GUNZ                             eSg     Sg   03 56 37.5 -3.9
      SNR=8.0
WERD  Werda             4.27  46 ePg     Pg   03 55 45.6 -1.9
      SNR=8.1
WERD                             eSg     Sg   03 56 38.8 -4.0
      SNR=3.6
LMR   La Mourre         4.30 190 ePn     Pn   03 55 30.8 -1.6
LMR                              ePg     Pg   03 55 46.5 -1.6
LMR                              eSn     Sn   03 56 19.1 -4.0
LMR                              eSg     Sg   03 56 42.1 -1.6
LMR   La Mourre         4.30 190 ePn     Pn   03 55 30.8 -1.6
      SNR=1.0
LMR   La Mourre         4.30 190 ePg     Pg   03 55 46.5 -1.6
      SNR=1.0
LMR                              eSn     Sn   03 56 19.1 -4.0
      SNR=1.0
LMR                              eSg     Sg   03 56 42.1 -1.6
      comp=E,6.4nm,0.4s,SNR=1.0
LMR   La Mourre         4.30 190 ePn     Pn   03 55 30.8 -1.6
      SNR=1.0
LMR   La Mourre         4.30 190 ePg     Pg   03 55 46.5 -1.6
      SNR=1.0
LMR                              eSn     Sn   03 56 19.1 -4.0
      SNR=1.0
LMR                              eSg     Sg   03 56 42.1 -1.6
      comp=E,3.2nm,0.4s,SNR=1.0
TANN  Tannenbergstha    4.32  47 ePg     Pg   03 55 46.7 -1.9
      SNR=12
TANN                             eSg     Sg   03 56 41.5 -3.1
      SNR=5.1
GEC2  GERESS Array S    4.33  71 eSn     Sn   03 56 18.5 -5.3
      SNR=6.3
GEC2                             eSg     Sg   03 56 40.9 -3.8
      SNR=4.7
KHC   Kasperske Hory    4.33  67 ePn     Pn   03 55 31.5 -1.3
KHC                              e            03 55 37.8
KHC   Kasperske Hory    4.33  67 ePN     Pn   03 55 31.5 -1.3
KHC                              ex      x    03 55 37.8
KHC                              ePG     Pg   03 55 44.3 -4.4
KHC                              eSN     Sn   03 56 19.8 -4.2
KHC                              eSG     Sg   03 56 41.4 -3.4
      comp=E,38nm,0.5s
KHC   Kasperske Hory    4.33  67 ePn     Pn   03 55 31.5 -1.3
KHC                              eSn     Sn   03 56 19.8 -4.2
KHC                              eSg     Sg   03 56 41.4 -3.4
      comp=E,38nm,0.5s
LASF  Ste Croix         4.33 218 ePn     Pn   03 55 32.0 -0.9
LASF                             ePg     Pg   03 55 48.5 -0.3
LASF                             eSn     Sn   03 56 21.5 -2.5
LASF                             eSg     Sg   03 56 43.2 -1.7
LASF  Ste Croix         4.33 218 ePn     Pn   03 55 32.0 -0.9
      SNR=1.0
LASF  Ste Croix         4.33 218 ePg     Pg   03 55 48.5 -0.3
      SNR=1.0
LASF                             eSn     Sn   03 56 21.5 -2.5
      SNR=1.0
LASF                             eSg     Sg   03 56 43.2 -1.7
      comp=E,31nm,0.5s,SNR=1.0
LASF  Ste Croix         4.33 218 ePn     Pn   03 55 32.0 -0.9
      SNR=1.0
LASF  Ste Croix         4.33 218 ePg     Pg   03 55 48.5 -0.3
      SNR=1.0
LASF                             eSn     Sn   03 56 21.5 -2.5
      SNR=1.0
LASF                             eSg     Sg   03 56 43.2 -1.7
      comp=E,15nm,0.5s,SNR=1.0
MOA   Molln             4.56  84⇓iPn     Pn   03 55 36.0  0.0
MOA   Molln             4.56  84⇓iSn     Sn   03 56 25.3 -4.3
MOA                             ⇑iSg     Sg   03 56 51.5 -0.8
      comp=E,23nm,0.4s
MOA   Molln             4.56  84⇓iPn     Pn   03 55 36.0  0.0
MOA                               i Sn   Sn   03 56 25.4 -4.3
MOA                               i Sg   Sg   03 56 51.5 -0.8
MOA   Molln             4.56  84⇓iPn     Pn   03 55 36.0  0.0
MOA                             ⇓iSn     Sn   03 56 25.3 -4.3
MOA                             ⇑iSg     Sg   03 56 51.5 -0.8
      comp=E,23nm,0.4s
MOA   Molln             4.56  84⇓iPn     Pn   03 55 36.0  0.0
MOA                                 Sn   Sn   03 56 25.3 -4.4
MOA                                 Sg   Sg   03 56 51.5 -0.8
      comp=E,23nm,0.4s
NEUB  Neuenburg         4.58  36 ePg     Pg   03 55 52.8 -0.8
      SNR=4.4
NEUB                             eSg     Sg   03 56 51.0 -1.9
      SNR=3.4
CAF   Calviac           4.62 237 ePn     Pn   03 55 36.6 -0.2
CAF                              ePg     Pg   03 55 53.5 -0.8
CAF                              eSg     Sg   03 56 51.3 -2.8
CAF   Calviac           4.62 237 ePn     Pn   03 55 36.6 -0.2
CAF   Calviac           4.62 237 ePg     Pg   03 55 53.5 -0.8
CAF                              eSg     Sg   03 56 51.3 -2.8
      comp=E,22nm,0.4s
CAF   Calviac           4.62 237 ePn     Pn   03 55 36.6 -0.2
CAF   Calviac           4.62 237 ePg     Pg   03 55 53.5 -0.8
VOY   Vojsko            4.64 107 ePn     Pn   03 55 38.0 +1.0
VOY                              eSn     Sn   03 56 31.2 -0.3
VOY                              e            03 56 56.6
VOY   Vojsko            4.64 107 ePn     Pn   03 55 38.0 +1.0
VOY                              eSn     Sn   03 56 31.2 -0.3
VOY                              e            03 56 56.6
VOY   Vojsko            4.64 107 ePn     Pn   03 55 38.0 +1.0
VOY                              eSn     Sn   03 56 31.2 -0.3
CLZ   Clausthal         4.66  22 eSg     Sg   03 56 54.3 -1.1
      SNR=3.2
RJF   Les Rejaudoux     4.73 244 ePn     Pn   03 55 37.4 -0.9
RJF                              eSg     Sg   03 56 53.3 -4.4
RJF   Les Rejaudoux     4.73 244 ePn     Pn   03 55 37.4 -0.9
      SNR=1.0
RJF                              eSg     Sg   03 56 53.3 -4.4
      comp=E,30nm,0.4s
RJF   Les Rejaudoux     4.73 244 ePn     Pn   03 55 37.4 -0.9
      SNR=1.0
CLL   Collm             5.17  42 ePn     Pn   03 55 41.0 -3.4
CLL                              ePg     Pg   03 56 02.0 -2.9
CLL                              eSg     Sg   03 57 06.8 -5.1
      SNR=4.8
CLL   Collm             5.17  42 ePn     Pn   03 55 41.0 -3.4
CLL                              ePg     Pg   03 56 02.0 -2.9
CLL                              e            03 57 10.0
CLL                              eSg     Sg   03 57 15.0 +3.1
CLL   Collm             5.17  42 ePn     Pn   03 55 41.0 -3.4
CLL                              ePg     Pg   03 56 02.0 -2.9
CLL                              ex      x    03 57 10.0
CLL                              eSg     Sg   03 57 15.0 +3.1
      comp=Z,16nm,1.0s
CLL   Collm             5.17  42 ePn     Pn   03 55 41.0 -3.4
CLL   Collm             5.17  42 ePg     Pg   03 56 02.0 -2.9
LDF   La Druitiere      5.22 284 ePn     Pn   03 55 44.1 -1.0
LDF                              ePg     Pg   03 56 05.4 -0.5
LDF                              eSn     Sn   03 56 41.1 -4.9
LDF                              eSg     Sg   03 57 10.9 -2.7
LDF   La Druitiere      5.22 284 ePn     Pn   03 55 44.1 -1.0
      SNR=1.0
LDF   La Druitiere      5.22 284 ePg     Pg   03 56 05.4 -0.5
      SNR=1.0
LDF                              eSn     Sn   03 56 41.1 -4.9
      SNR=1.0
LDF                              eSg     Sg   03 57 10.9 -2.7
      comp=Z,19nm,0.3s,SNR=1.0
LDF   La Druitiere      5.22 284 ePn     Pn   03 55 44.1 -1.0
      SNR=1.0
LDF   La Druitiere      5.22 284 ePg     Pg   03 56 05.4 -0.5
      SNR=1.0
LDF                              eSn     Sn   03 56 41.1 -4.9
      SNR=1.0
LDF                              eSg     Sg   03 57 10.9 -2.7
      comp=Z,9.6nm,0.3s,SNR=1.0
PRU   Pruhonice         5.23  60 ePG     Pg   03 56 03.2 -2.8
PRU                              eSG     Sg   03 57 10.1 -3.7
      comp=Z,18nm,0.5s
PRU   Pruhonice         5.23  60 ePg     Pg   03 56 03.2 -2.8
PRU                              eSg     Sg   03 57 10.1 -3.7
      comp=Z,18nm,0.5s
MFF   Saint Martin d    5.33 262 ePn     Pn   03 55 46.4 -0.1
MFF                              ePg     Pg   03 56 08.6 +0.8
MFF                              eSn     Sn   03 56 43.9 -4.6
MFF                              eSg     Sg   03 57 13.2 -3.6
MFF   Saint Martin d    5.33 262 ePn     Pn   03 55 46.4 -0.1
      SNR=1.0
MFF   Saint Martin d    5.33 262 ePg     Pg   03 56 08.6 +0.8
      SNR=1.0
MFF                              eSn     Sn   03 56 43.9 -4.6
      SNR=1.0
MFF                              eSg     Sg   03 57 13.2 -3.6
      comp=Z,39nm,0.6s,SNR=1.0
MFF   Saint Martin d    5.33 262 ePn     Pn   03 55 46.4 -0.1
      SNR=1.0
MFF   Saint Martin d    5.33 262 ePg     Pg   03 56 08.6 +0.8
      SNR=1.0
MFF                              eSn     Sn   03 56 43.9 -4.6
      SNR=1.0
BRG   Berggiesshubel    5.35  49 ePg     Pg   03 56 05.9 -2.3
      SNR=4.9
BRG                              eSg     Sg   03 57 13.5 -4.1
      SNR=3.4
BRG   Berggiesshubel    5.35  49  SG     Sg   03 57 13.6 -3.9
      comp=Z,8.9nm,0.4s
LFF   La Frestale       5.39 243 ePn     Pn   03 55 48.4 +1.0
LFF                              eSg     Sg   03 57 16.9 -1.9
LFF   La Frestale       5.39 243 ePn     Pn   03 55 48.4 +1.0
LFF                              eSg     Sg   03 57 16.9 -1.9
      comp=Z,62nm,0.6s
LFF   La Frestale       5.39 243 ePn     Pn   03 55 48.4 +1.0
LFF                              eSg     Sg   03 57 16.9 -1.9
      comp=Z,31nm,0.6s
FLN   La Foliniere      5.49 286 ePn     Pn   03 55 46.7 -2.0
FLN                              ePg     Pg   03 56 11.1 +0.2
FLN                              eSn     Sn   03 56 46.6 -5.9
FLN                              eSg     Sg   03 57 18.7 -3.3
FLN   La Foliniere      5.49 286 ePn     Pn   03 55 46.7 -2.0
      baz=105,SNR=1.0
FLN   La Foliniere      5.49 286 ePg     Pg   03 56 11.1 +0.2
      baz=105
FLN                              eSn     Sn   03 56 46.6 -5.9
      SNR=1.0
FLN                              eSg     Sg   03 57 18.7 -3.3
      comp=Z,24nm,0.4s,SNR=1.0
FLN   La Foliniere      5.49 286 ePn     Pn   03 55 46.7 -2.0
      SNR=1.0
FLN   La Foliniere      5.49 286 ePg     Pg   03 56 11.1 +0.2
FLN                              eSn     Sn   03 56 46.6 -5.9
      SNR=1.0
FLN                              eSg     Sg   03 57 18.7 -3.3
      comp=Z,12nm,0.4s,SNR=1.0
PVCC  Panska Ves        5.50  55 eSG     Sg   03 57 19.2 -3.1
      comp=Z,27nm,0.4s
MTLF  Montolieu         5.64 223 ePn     Pn   03 55 50.0 -0.8
MTLF                             ePg     Pg   03 56 13.4 -0.4
MTLF                             eSn     Sn   03 56 52.8 -3.4
MTLF                             eSg     Sg   03 57 24.7 -2.2
MTLF  Montolieu         5.64 223 ePn     Pn   03 55 50.0 -0.8
      SNR=1.0
MTLF  Montolieu         5.64 223 ePg     Pg   03 56 13.4 -0.4
      SNR=1.0
MTLF                             eSn     Sn   03 56 52.8 -3.4
MTLF                             eSg     Sg   03 57 24.7 -2.2
      comp=Z,10nm,0.5s,SNR=1.0
MTLF  Montolieu         5.64 223 ePn     Pn   03 55 50.0 -0.8
      SNR=1.0
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MTLF	Montolieu	5.64	223	ePg	Pg	03 56 13.4	-0.4
	SNR=1.0						
MTLF				eSn	Sn	03 56 52.8	-3.4
MTLF				eSg	Sg	03 57 24.7	-2.2
	comp=Z,5.1nm,0.5s,SNR=1.0						
GRR	Gorron	5.69	281	ePn	Pn	03 55 51.6	+0.1
GRR				eSn	Sn	03 56 51.3	-6.1
GRR				eSg	Sg	03 57 25.7	-2.7
GRR	Gorron	5.69	281	ePn	Pn	03 55 51.6	+0.1
	SNR=1.0						
GRR				eSn	Sn	03 56 51.3	-6.1
GRR				eSg	Sg	03 57 25.7	-2.7
	comp=Z,16nm,0.3s,SNR=1.0						
GRR	Gorron	5.69	281	ePn	Pn	03 55 51.6	+0.1
	SNR=1.0						
GRR				eSn	Sn	03 56 51.3	-6.1
GRR				eSg	Sg	03 57 25.7	-2.7
	comp=Z,8.0nm,0.3s,SNR=1.0						
DPC	Dobruska-Polom	6.43	61	eSG	Sg	03 57 47.8	-4.3
	comp=Z,8.6nm,0.5s						
MODS	Modra-Piesok	6.60	79	eSG	Sg	03 57 52.9	-4.8
SMOL	Smolenice	6.71	78	eSG	Sg	03 58 00.2	-1.0
SMOL	Smolenice	6.71	78	eSg	Sg	03 58 00.2	-1.0
EPF	Esparros	6.80	231	ePn	Pn	03 56 06.2	-0.5
EPF				eSg	Sg	03 58 01.3	-2.8
EPF	Esparros	6.80	231	ePn	Pn	03 56 06.2	-0.5
EPF				eSg	Sg	03 58 01.3	-2.8
	comp=Z,7.6nm,0.6s,SNR=1.0						
SGMF	Saint Gilles	6.81	279	ePn	Pn	03 56 06.8	-0.1
SGMF				eSn	Sn	03 57 17.1	-8.0
SGMF				eSg	Sg	03 58 01.7	-2.7
SGMF	Saint Gilles	6.81	279	ePn	Pn	03 56 06.8	-0.1
	SNR=1.0						
SGMF				eSn	Sn	03 57 17.1	-8.0
	comp=Z,4.3nm,0.3s						
SGMF				eSg	Sg	03 58 01.7	-2.7
	comp=Z,14nm,0.5s						
SGMF	Saint Gilles	6.81	279	ePn	Pn	03 56 06.8	-0.1
	SNR=1.0						
SGMF				eSn	Sn	03 57 17.1	-8.0
	comp=Z,2.2nm,0.3s						
SGMF				eSg	Sg	03 58 01.7	-2.7
	comp=Z,6.9nm,0.5s						
QUIF	Quistinic	7.22	277	ePn	Pn	03 56 12.4	0.0
QUIF				eSn	Sn	03 57 26.6	-8.4
QUIF				eSg	Sg	03 58 14.2	-3.2
QUIF	Quistinic	7.22	277	ePn	Pn	03 56 12.4	0.0
	SNR=1.0						
QUIF				eSn	Sn	03 57 26.6	-8.4
	comp=Z,5.4nm,0.3s,SNR=1.0						
QUIF				eSg	Sg	03 58 14.2	-3.2
	comp=Z,10nm,0.4s						
QUIF	Quistinic	7.22	277	ePn	Pn	03 56 12.4	0.0
	SNR=1.0						
QUIF				eSn	Sn	03 57 26.6	-8.4
	comp=Z,2.7nm,0.3s,SNR=1.0						
QUIF				eSg	Sg	03 58 14.2	-3.2
	comp=Z,5.1nm,0.4s						
ROSF	Rostrenen	7.29	280	ePn	Pn	03 56 13.0	-0.5
ROSF				eSn	Sn	03 57 29.5	-7.4
ROSF				eSg	Sg	03 58 16.8	-3.0
ROSF	Rostrenen	7.29	280	ePn	Pn	03 56 13.0	-0.5
ROSF				eSn	Sn	03 57 29.5	-7.4
	comp=Z,6.8nm,0.4s,SNR=1.0						
ROSF				eSg	Sg	03 58 16.8	-3.0
	comp=Z,18nm,0.6s						
ROSF	Rostrenen	7.29	280	ePn	Pn	03 56 13.0	-0.5
ROSF				eSn	Sn	03 57 29.5	-7.4
	comp=Z,3.4nm,0.4s,SNR=1.0						
ROSF				eSg	Sg	03 58 16.8	-3.0
	comp=Z,9.1nm,0.6s						
ETSF	Etsaut	7.37	234	eSg	Sg	03 58 20.0	-2.4
	comp=Z,3.5nm,0.4s						
ETSF	Etsaut	7.37	234	eSg	Sg	03 58 20.0	-2.4
	comp=Z,1.8nm,0.4s						
OKC	Ostrava-Krasne	7.39	68	eSG	Sg	03 58 18.2	-4.7
SJPF	Ste Jean	7.60	237	eSg	Sg	03 58 26.9	-3.0
	comp=Z,2.6nm,0.4s						
VYHS	Vyhne	7.64	79	eSG	Sg	03 58 32.1	+1.0
VYHS	Vyhne	7.64	79	eSg	Sg	03 58 32.1	+1.0
KECS	Kecovo	8.74	79	i SG	Sg	03 59 01.0	-5.2
STHS	Stebnicka Huta	9.30	73	eSG	Sx	03 59 21.3	

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*ISCJB **02** 03:55:20.6±0.9, 23.18S±0.04×67.47W±0.08, h94^{km}±12^{km}, mb3.9/4, Error ellipse: s-maj=13.2km s-min=5.9km az=15.0*

*IDC **02** 03:55:23.3±2.2, 23.04S×67.60W, h114^{km}±20^{km}, mb3.7/4, mb1 3.8/7, mb1mx3.5/17, mbtmp3.7/7, Error ellipse: s-maj=36.7km s-min=18.5km az=86.0*

*NEIC **02** 03:55:26.2, 23.29S×68.06W, h150^{km}, mb4.3/2, MD3.8(GUC), After GUC.*

*GUC **02** 03:55:26.2±0.6, 23.29S×68.06W, h150^{km}, MD3.8, ML3.9*

ISC 02 03:55:22.0±0.7**, 23.17S**±0.04×**67.47W**±0.07**, h89**^{km}±10^{km}**, n24, σ1^{s}35**/30**, mb3.9**/4**, 3D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEN1	Los Morros	2.52	265	⇓iP	Pn	03 56 02.6	+1.7
CEN1				eS	Sn	03 56 31.0	0.0
CEN1				AML	AML	03 56 40.3	
	comp=N,476nm,0.4s						
ANCH	Antofagasta	2.74	259	⇓iP	Pn	03 56 04.4	+0.3
ANCH				i S	Sn	03 56 33.3	-3.1
ANCH	Antofagasta	2.74	259	⇓iP	Pn	03 56 04.4	+0.3
ANCH				i S	Sn	03 56 33.3	-3.1
ANCH				AML	AML	03 56 42.9	
	comp=N,917nm,0.6s						
CPN1	Cerro Paranal	3.05	241	eP	Pn	03 56 09.6	+1.5
CPN1				i S	Sn	03 56 42.8	-0.9
CPN1				AML	AML	03 56 53.5	
	comp=E,511nm,0.7s						
CPCH	Copiapo	4.91	211	eS	Sn	03 57 28.7	-0.4
LCO	Las Campanas	6.50	206	ePn	Pn	03 56 54.6	-0.4
	comp=E,7.7nm,0.4s						
LCO				eSn	Sn	03 58 05.6	-2.0
LPAZ	La Paz	6.88	355	ePn	Pn	03 57 01.0	+0.8
	comp=E,5.8nm,0.5s						
LPAZ				S	Sn	03 58 16.3	-0.7
LPAZ	La Paz	6.88	355	P	Pn	03 57 01.5	+1.2
	comp=E,2.4nm,0.3s,baz=182,slow=8.4,SNR=38						
LPAZ				S	Sn	03 58 16.3	-0.7
	comp=E,0.6nm,0.3s,baz=73,slow=19,SNR=2.7						
ARE	Arequipa	7.67	330	eP	Pn	03 57 13.0	+1.9
ARE				eS	Sn	03 58 26.0	-10
CFAA	Coronel Fontan	8.43	184	P	Pn	03 57 24.1	+2.8
	comp=E,0.2nm,0.3s,baz=359,slow=14,SNR=16						
CFAA				S	Sn	03 58 54.0	-0.7
	comp=E,0.2nm,0.3s,baz=285,slow=20,SNR=5.1						
SIV	San Ignacio	9.35	41	P	Pn	03 57 34.0	+0.1
	comp=E,14nm,0.3s,baz=224,slow=13,SNR=256						
SIV				S	Sn	03 59 15.0	-2.3
	comp=E,2.3nm,0.3s,baz=126,slow=23,SNR=6.5						
VNA3	Neumayer Olymp	58.07	161	e	P	04 05 06.7	+1.3
VNA3				e		04 05 09.5	
VNA1	Neumayer--Stat	58.27	160	e	P	04 05 08.7	+1.9
VNA1				e		04 05 11.3	
VNA2	Neumayer--Watz	58.64	161	e	P	04 05 10.8	+1.4
VNA2				e		04 05 13.3	
TOA0	Torodi Ar. Sit	76.68	69	eP	P	04 07 03.0	-0.7
TORD	Torodi Ar. Bea	76.68	69	P	P	04 07 02.8	-0.9
	comp=E,1.3nm,0.4s,mb4.0,baz=256,slow=5.5,SNR=56						
BOSA	Boshof	81.50	117	P	P	04 07 29.1	-0.8
	comp=E,1.8nm,0.9s,mb3.9,baz=243,slow=4.5,SNR=3.8						
MATP	Matopo	87.37	111	P	P	04 07 60.0	+0.3
	comp=E,2.7nm,0.9s,mb4.2,baz=225,slow=4.3,SNR=4.0						
YKA	Yellowknife Ar	93.20	340	P	P	04 08 23.0	-2.8
YKA				pP	pP	04 08 57.4	+7.8
YKA	Yellowknife Ar	93.20	340	P	P	04 08 23.0	-2.8
	comp=E,0.1nm,0.4s,mb3.5,baz=133,slow=4.4,SNR=3.5						
YKA				pP	pP	04 08 57.4	+7.8
	comp=E,0.3nm,0.7s,baz=131,slow=4.3,SNR=4.6						
WRA	Warramunga Arr	132.15	208	PKP	PKPdf	04 14 24.1	-2.0
WRA	Warramunga Arr	132.15	208	PKP	PKPdf	04 14 24.1	-2.0
	comp=E,0.8nm,0.5s,baz=160,slow=1.2,SNR=2.8						
MKAR	Makanchi Array	146.16	38	PKPbc	PKPbc	04 14 49.2	-2.6
MKAR	Makanchi Array	146.16	38	PKPbc	PKPbc	04 14 49.2	-2.6
	comp=E,0.7nm,0.9s,baz=322,slow=2.8,SNR=6.6						

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*IDC **02** 04:20:34.4±7.5, 36.76N×71.95E, h218^{km}±64^{km}, mb2.8/3, mb1 3.1/6, mb1mx2.9/22, mbtmp3.0/6, Error ellipse: s-maj=67.3km s-min=31.5km az=151.0*

*ISCJB **02** 04:20:38.3±0.8, 37.14N±0.08×71.8E±0.1, h248^{km}±7^{km}, mb3.0/3, Error ellipse: s-maj=20.3km s-min=7.1km az=33.9*

*NEIC **02** 04:20:38.3±1.0, 37.01N×72.01E, h248^{km}±8^{km}, mb3.7/4, Error ellipse: s-maj=26.0km s-min=9.1km az=130.0*

*NNC **02** 04:20:48.7±1.4, 38.00N×72.05E, h282^{km}±10^{km}, mb2.0, mpv3.1, Error ellipse: s-maj=18.2km s-min=7.3km az=1.0*

ISC 02 04:20:39.1±0.8**, 37.13N**±0.08×**71.9E**±0.1**, h238**^{km}±7^{km}**, n26, σ1^{s}14**/33**, mb3.0**/3**, 3C, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	3.45	222	ePn	Pn	04 21 36.5	+0.5
KBL				eS	S	04 22 19.7	-1.2
AML	Almayashu	5.19	15	P	Pn	04 21 57.9	+1.1
	SNR=92						
AML	Almayashu	5.19	15	ePn	Pn	04 21 57.5	+0.8
	25nm,0.3s						
AML				eSn	S	04 22 56.3	-2.4
UCH	Uchtor	5.49	21	P	Pn	04 22 01.7	+1.2
	SNR=25						
UCH	Uchtor	5.49	21	ePn	Pn	04 22 01.2	+0.7
	9.1nm,0.4s						
UCH				eSn	S	04 23 03.1	-2.2
KZA	Kyzart	5.59	27	P	Pn	04 22 02.4	+0.7
	SNR=9.2						
EKS2	Erkin-Say	5.72	14	P	Pn	04 22 05.0	+1.7
	SNR=5.7						
EKS2	Erkin-Say	5.72	14	ePn	Pn	04 22 04.1	+0.8
	2.1nm,0.3s						
EKS2				eS	S	04 23 09.6	-0.9
AAK	Ala-Archa	5.86	19	P	Pn	04 22 06.4	+1.3
	SNR=10						
AAK	Ala-Archa	5.86	19	ePn	Pn	04 22 05.0	-0.1
	2.8nm,0.5s						
AAK				eS	S	04 23 06.0	-7.7
KBK	Karagaybulak	6.01	22	P	Pn	04 22 08.4	+1.4
	SNR=7.1						
KK31	Karatay Array	6.06	351	P	Pn	04 22 08.3	+0.7
	1.2nm,0.2s,baz=162,slow=11,SNR=40						
KK31				⇑S	S	04 23 12.2	-6.1
	11nm,0.7s,baz=173,slow=21,SNR=21						
ULHL	Ulahol	6.12	32	P	Pn	04 22 09.1	+0.7
	SNR=7.0						
TKM2	Tokmak 2	6.45	25	P	Pn	04 22 13.4	+0.8
	SNR=16						
TKM2	Tokmak 2	6.45	25	⇑P	Pn	04 22 12.7	+0.1
	1.0nm,0.7s						
TKM2				⇑S	S	04 23 21.3	-6.0
	0.8nm,1.1s						
TKM2	Tokmak 2	6.45	25	ePn	Pn	04 22 13.1	+0.5
	5.4nm,0.5s						
MK31	Makanchi Array	12.38	35	P	Pn	04 23 26.8	-0.7
	0.7nm,0.4s,baz=215,slow=15,SNR=27						
MK31	Makanchi Array	12.38	35	ePn	Pn	04 23 26.8	-0.6
MKAR	Makanchi Array	12.38	35	P	Pn	04 23 26.6	-0.9
	0.4nm,0.3s,baz=208,slow=12,SNR=24						
AB31	Akbulak array	14.89	328	P	Pn	04 23 58.0	-0.2
	0.4nm,0.5s,baz=150,slow=12,SNR=7.3						
AKTK	Aktyubinsk	16.60	328	P	P	04 24 18.4	+1.4
AKTO	Aktyubinsk	16.60	328	P	P	04 24 18.4	+1.4
	0.3nm,0.3s,baz=131,slow=11,SNR=5.6						
ZALV	Zalesovo Beam	19.06	24	P	P	04 24 43.4	-0.2
	0.5nm,0.3s,baz=221,slow=9.8,SNR=7.4						
NOA	NORSAR Array B	44.30	323	P	P	04 28 24.1	-1.0
	1.0nm,0.8s,mb3.2,baz=85,slow=5.8,SNR=3.5						
TORD	Torodi Ar. Bea	66.43	269	P	P	04 31 00.9	-2.3
	0.1nm,0.3s,mb2.9,baz=46,slow=6.2,SNR=3.6						
YKA	Yellowknife Ar	80.59	3	P	P	04 32 24.5	-0.2
	0.2nm,0.5s,mb3.0,baz=354,slow=5.3,SNR=5.0						

IDC 02 05:28:37.4±2.0**, 54.39N×86.77E, h0**^{km}**, mb4.3**/1**, mb1 3.7**/2**, mb1mx3.2**/20**, mbtmp3.7**/2**, ML2.7**/1**, Error ellipse: s-maj=23.8km s-min=15.8km az=179.0, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZALV	Zalesovo Beam	1.23	250	Pg	Pg	05 28 59.6	-1.3
	1.1nm,0.3s,baz=69,slow=17,SNR=13						
ZALV				Lg		05 29 18.1	
	0.8nm,0.3s,baz=70,slow=28,SNR=6.7						
MKAR	Makanchi Array	8.12	202	Pn	Pn	05 30 37.7	+1.4
	0.1nm,0.3s,baz=26,slow=14,SNR=13						
KSRS	Korea Array	32.69	104	P	P	05 35 11.1	0.0
	1.1nm,0.3s,baz=304,slow=9.1,SNR=4.3						

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*ISCJB **02** 05:31:09.9±0.8, 32.79N±0.04×3.44W±0.06, h10^{km}, Error ellipse: s-maj=8.3km s-min=4.2km az=37.3*

*CSEM **02** 05:31:10.8±0.7, 32.88N×3.42W, h10^{km}, MD3.8, Error ellipse: s-maj=14.2km s-min=6.7km az=138.0*

*MDD **02** 05:31:10.7±1.3, 32.65N×3.46W, h1^{km}±23^{km}, mb3.9/7, Error ellipse: s-maj=27.6km s-min=7.0km az=140.0, PRXIMO*

*INMG **02** 05:31:12.9±0.8, 32.83N×3.69W, h0^{km}, ML2.3, Error ellipse: s-maj=6.4km s-min=5.6km az=121.0*

*CNRM **02** 05:31:12.0, 32.52N×3.39W, h20^{km}, MD3.8*

ISC 02 05:31:11.1±0.8**, 32.73N**±0.04×**3.49W**±0.05**, h10**^{km}**, n36, σ1^{s}22**/56**, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZFT	Errachidia	1.01	227	P	Pg	05 31 28.0	-2.5
ZFT				S	Sg	05 31 42.0	-1.6
CZD	Col de Zad	1.34	283	i P	Pn	05 31 36.5	+0.6
CZD				i S	Sb	05 31 54.0	+0.4
TZK	Tazeka	1.48	337	i P	Pn	05 31 38.5	+0.8
TZK				i S	Sn	05 31 59.5	+2.4
IFR	Ifrane	1.58	300	P	Pn	05 31 40.0	+0.8
IFR				S	Sn	05 32 02.0	+2.3
MIF	Mishlifen	1.61	295	i P	Pn	05 31 40.5	+0.9
MIF				i S	Sn	05 32 02.0	+1.6
TGT	Taghat	1.87	316	i P	Pn	05 31 44.5	+1.3
TGT				i S	Sn	05 32 08.0	+1.2
KIB	El Ksiba	2.16	267	i P	Pn	05 31 48.0	+0.9
KIB				i S	Sn	05 32 13.0	-0.9
TZC	Tazercounte	2.60	258	P	Pn	05 31 53.0	-0.2
TZC				S	Sn	05 32 20.0	-4.9
TZC	Tazercounte	2.60	258	eP	Pn	05 31 53.0	-0.2
EGUA	Guajares	4.09	359	P	Pn	05 32 13.6	-0.1
	0.8nm,0.2s,SNR=7.9						
EGUA	Guajares	4.09	359	P	Pn	05 32 12.3	-1.4
	0.8nm,0.2s,SNR=7.9						
EBER	Berja	4.19	7	P	Pn	05 32 15.5	+0.6
	2.9nm,0.4s,SNR=7.9						
EBER				S	Sn	05 33 03.1	-0.8
	9.4nm,0.4s,SNR=7.9						
EBER	Berja	4.19	7	P	Pn	05 32 15.5	+0.5
	2.9nm,0.4s,SNR=7.9						
EBER				S	Sn	05 33 03.1	-0.8
	9.4nm,0.4s,SNR=7.9						
ERON	Agron	4.29	357	P	Pn	05 32 16.8	+0.4
	1.9nm,0.5s,SNR=7.9						
ERON	Agron	4.29	357	P	Pn	05 32 16.0	-0.3
	1.9nm,0.5s,SNR=7.9						
EQUE	Quentar	4.46	0	P	Pn	05 32 20.0	+1.2
	0.7nm,0.3s,SNR=4.0						
EQUE				S	Sn	05 33 10.0	-0.8
	1.5nm,0.3s,SNR=4.0						
EQUE	Quentar	4.46	0	P	Pn	05 32 20.8	+2.0
	0.7nm,0.3s,SNR=4.0						
EQUE				S	Sn	05 33 10.0	-0.8
	1.5nm,0.3s,SNR=4.0						
ECOG	Cogollos-Vega	4.54	359	P	Pn	05 32 21.1	+1.3
	1.4nm,0.2s,SNR=7.9						
EQES	Quesada	5.07	4	P	Pn	05 32 28.0	+0.9
	2.8nm,0.3s,SNR=4.7						
EQES				S	Sn	05 33 24.5	-1.3
	1.1nm,0.2s,SNR=7.9						
EQES	Quesada	5.07	4	P	Pn	05 32 28.0	+0.8
	2.8nm,0.3s,SNR=4.7						
EQES				S	Sn	05 33 24.5	-1.3
	1.1nm,0.2s,SNR=7.9						
EMUR	La Murta	5.42	19	P	Pn	05 32 32.1	+0.1
	2.8nm,0.3s,SNR=7.9						
EADA	Adamuz	5.50	351	S	Sn	05 33 34.6	-1.7
	0.4nm,0.1s,SNR=7.9						
EADA	Adamuz	5.50	351	S	Sn	05 33 34.6	-1.6
	0.4nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	5.66	333	P	Pn	05 32 35.3	0.0
	0.6nm,0.1s,SNR=7.0						
EMIN				S	Sn	05 33 38.3	-2.0
	0.5nm,0.2s						
EMIN	Mina Concepcio	5.66	333	P	Pn	05 32 35.3	+0.1
	0.6nm,0.1s,SNR=7.0						
PBDV	Barranco-do-Ve	5.79	322	eP	Pn	05 32 37.0	-0.1
PBDV				eS	Sn	05 33 42.7	-0.9
EGRO	El Granado	5.80	327	P	Pn	05 32 37.0	-0.2
	2.0nm,0.2s,SNR=11						
EGRO				S	Sn	05 33 40.8	-3.0
	2.4nm,0.3s,SNR=7.3						
EGRO	El Granado	5.80	327	P	Pn	05 32 36.3	-0.9
	2.0nm,0.2s,SNR=11						
PVAQ	Vaqueiros	5.81	325	eP	Pn	05 32 36.8	-0.5
PVAQ				eS	Sn	05 33 40.2	-3.8
PVAQ				A		05 33 42.8	
	3.8nm,0.4s						
PVAQ	Vaqueiros	5.81	325	P	Pn	05 32 36.8	-0.5
PVAQ				S	Sn	05 33 40.2	-3.8
	1.9nm,0.4s						
PBEJ	Beja	6.38	327	eS	Sn	05 33 56.0	-2.0
PBEJ	Beja	6.38	327	S	Sn	05 33 56.0	-2.0
EBAD	Badajoz	6.66	336	P	Pn	05 32 48.8	-0.1
	0.4nm,0.1s,SNR=6.9						
EBAD				S	Sn	05 34 01.2	-3.7
	2.1nm,0.3s						
EBAD	Badajoz	6.66	336	P	Pn	05 32 48.8	-0.2
	0.4nm,0.1s,SNR=6.9						
PESTR	Estremoz	6.97	333	eP	Pn	05 32 53.9	+0.7
PCBR	Castelo Branco	7.79	337	eP	Pn	05 33 05.0	+0.5

JMA 02 05:40:45.5±0.2**, 29.29N×139.74E, h468**^{km}**, M3.7, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	Chichi jima	3.07	135	eS	S	05 42 49.5	-1.0
JHHJ	Haha-jima-NKT	3.42	140	eS	S	05 42 54.4	-0.8
BSO1	Boso 1	5.45	11	eS	S	05 43 28.7	+0.7
BSO3	Boso 3	5.53	7	eS	S	05 43 30.3	+0.8
JIE	Ise	5.70	334	P	P	05 42 19.1	+1.7
BSO4	Boso 4	5.71	5	eS	S	05 43 32.5	-0.1
JKN2	Miekihoku	5.75	330	P	P	05 42 18.7	+0.9
JOD2	Odawara 2	5.98	355	P	P	05 42 20.6	+0.5
JOD2				eS	S	05 43 37.9	+0.3
JNY	Yasuok	6.26	346	P	P	05 42 24.2	+1.3
JAO	Obara	6.32	341	P	P	05 42 25.9	+2.4
JEG	Eigenji	6.48	335	P	P	05 42 27.3	+2.1
JHU	Hanno	6.55	357	P	P	05 42 26.1	+0.2
JHU				eS	S	05 43 43.6	-4.6
JRY	Ryogami san	6.75	354	P	P	05 42 28.7	+0.8
JRY				eS	S	05 43 49.7	-2.1
JTO	Tosashimizu	6.93	303	P	P	05 42 29.3	-0.6
JAG	Ashikaga	7.12	358	P	P	05 42 32.0	+0.2
JAG				eS	S	05 43 54.3	-4.6
MAT	Matsushiro	7.35	350	P	P	05 42 34.6	+0.5
MAT				eS	S	05 44 01.7	-1.6
JHS	Saijyo	7.99	317	P	P	05 42 41.4	+0.4
JFK	Kawauchi	8.11	6	P	P	05 42 44.5	+2.3
JMK	Ichinoseki	9.71	7	P	P	05 43 03.8	+4.4

GUC 02 05:41:46.0±0.8**, 33.42S×71.97W, h6**^{km}±10^{km}**, MD3.6, ML2.3, 2C-9D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IHA	Instituto Hidr	0.48	35	⇓iP	Pg	05 41 56.2	+1.0
IHA				i S	Sg	05 42 02.6	+1.2
LNV	Longovilo	0.71	139	⇓iP	Pg	05 41 59.8	+0.2
LNV				i S	Sg	05 42 10.3	+1.4
TACH	Talagante	0.89	106	⇓iP	Pg	05 42 02.9	-0.2
TACH				i S	Sg	05 42 15.3	+0.6
PEL	Peldehue	1.11	76	⇑iP	Pg	05 42 06.7	-0.6
PEL				i S	Sg	05 42 21.9	+0.3
PEL				AML	AML	05 42 28.3	
	comp=E,362nm,0.4s						
STL	Santa Lucia	1.11	91	eP	Pg	05 42 06.0	-1.3
STL				AML	AML	05 42 25.9	
	comp=E,57nm,0.3s						
ANTU	Antumapu	1.12	98	⇓iP	Pg	05 42 07.2	-0.4
ANTU				eS	Sg	05 42 23.0	+0.9
ANTU				AML	AML	05 42 27.7	
	comp=N,252nm,0.4s						
DSCH	Colegio Aleman	1.17	89	eP	Pg	05 42 07.2	-1.3
DSCH				AML	AML	05 42 28.2	
	comp=E,64nm,0.4s						
FSR	Penalolen	1.20	93	⇑iP	Pg	05 42 08.4	-0.7
FSR				eS	Sg	05 42 24.9	+0.2
FSR				AML	AML	05 42 31.4	
	comp=E,217nm,0.2s						
CHCH	Chadas Angostu	1.21	115	eP	Pg	05 42 08.0	-1.2
CHCH				i S	Sg	05 42 24.6	-0.3
PCH	Pirque	1.23	100	⇓iP	Pg	05 42 08.5	-1.1
CACH	El Canelo	1.33	122	⇓iP	Pn	05 42 10.9	-0.2
CACH				i S	Sb	05 42 29.7	+1.0
FCH	Farellones	1.41	87	⇓iP	Pn	05 42 11.6	-0.5
FCH				i S	Sb	05 42 31.5	+0.7
SFDO	San Fernando	1.43	147	⇓iP	Pn	05 42 11.1	-1.4
SFDO				i S	Sb	05 42 31.5	0.0
CICH	Cipreses	1.57	125	⇓iP	Pn	05 42 14.0	-0.4
CICH				i S	Sn	05 42 35.9	+0.9

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*NIED **02** 05:43:00, 30.00N×131.40E, h17^{km}, Mw4.0 Best double couple: $M_0$1.13000×10^{15} NP1:ϕ_s223.00000°, δ38.00000°, λ97.00000°. NP2:ϕ_s34.00000°, δ52.00000°, λ85.00000°.*

JMA 02 05:43:07.4±0.2**, 29.97N×131.38E, h37**^{km}±3^{km}**, M3.5, Southeast of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTN	Tanegashima 3	0.77	333	P	Pn	05 43 21.7	0.0
JTN				S	Sn	05 43 32.4	+0.4
JKC	Kuchinoerabu	1.14	296	P	Pn	05 43 27.4	+0.6
JKC				eS	Sn	05 43 41.4	+0.2
JTSR	Tashiro 2	1.26	342	P	Pn	05 43 29.0	+0.5
JNN	Nakanoshima	1.31	265	P	Pn	05 43 30.3	+1.1
JNAR	Kushima--Naru	1.55	357	P	Pn	05 43 33.8	+1.2
JSU	Suzuyama	1.73	333	P	Pn	05 43 35.5	+0.6
JSU				eS	Sn	05 43 56.5	+0.8
JTZ	Takazaki	1.94	353	P	Pn	05 43 39.5	+1.6
JTZ				S	Sn	05 44 02.2	+1.2
JAM	Amami Oshima	2.20	225	P	Pn	05 43 42.7	+1.3
JAM				eS	Sn	05 44 08.4	+1.1
JZO	Okuchi	2.27	343	P	Pn	05 43 43.7	+1.4

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*ISCJB **02** 06:18:26.1±2.4, 6.02S±0.10×147.0E±0.2, h67^{km}±23^{km}, mb4.0/9, Error ellipse: s-maj=25.0km s-min=16.6km az=178.3*

*NEIC **02** 06:18:26.8±2.1, 5.92S×146.84E, h49^{km}±20^{km}, mb4.5/2, Error ellipse: s-maj=25.8km s-min=15.2km az=88.0*

*IDC **02** 06:18:26.6±3.1, 6.00S×147.01E, h52^{km}±29^{km}, mb4.0/8, mb1 4.1/10, mb1mx4.1/14, mbtmp4.0/10, ML3.9/2, MS3.5/6, Ms1 3.5/6, ms1mx3.3/21, Error ellipse: s-maj=42.6km s-min=16.7km az=84.0*

ISC 02 06:18:28.0±2.1**, 6.0S**±0.1×**147.0E**±0.1**, h67**^{km}±21^{km}**, n25, σ1^{s}11**/19**, mb4.0**/9**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.35	177	P	Pn	06 19 17.0	-0.9
	12nm,0.3s,baz=325,slow=7.8,SNR=22						
PMG				S	Sn	06 19 56.5	0.0
	45nm,0.3s,baz=181,slow=23,SNR=7.5						
PMG				LR	LR	06 20 45.5	
	comp=Z,577nm,21.9s,baz=174,slow=41						
COEN	Coen	8.72	205	ePn	Pn	06 20 31.3	-0.3
HNR	Honiara	13.26	106	LR	LR	06 25 50.9	
	comp=Z,118nm,19.9s,baz=179,slow=34						
CTA	Charters Tower	13.98	183	eP	Pn	06 21 45.2	+2.2
	8.9nm,1.3s						
CTA	Charters Tower	13.98	183	LR	LR	06 26 46.3	
	comp=Z,222nm,19.6s,baz=36,slow=36						
KAKA	Kakadu	15.82	244	eP	Pn	06 22 08.7	+1.9
	16nm,0.4s						
WB2	Warramunga Arr	18.50	221	eP	Pn	06 22 38.7	-1.1
WRA	Warramunga Arr	18.51	221	P	Pn	06 22 38.4	-1.5
	1.3nm,0.3s,baz=44,slow=12,SNR=11						
WRA				PcP	PcP	06 27 07.7	+0.9
	0.7nm,0.3s,baz=12,slow=1.6,SNR=8.0						

GUMO	Guam	19.62	354	LR	LR	06 28 32.1	
	comp=Z,170nm,19.2s,baz=156,slow=31						
FITZ	Fitzroy Crossi	24.05	238	eP	P	06 23 37.4	+0.2
	31nm,0.9s,mb4.6						
FITZ	Fitzroy Crossi	24.05	238	P	P	06 23 37.5	+0.3
	18nm,0.8s,mb4.5,baz=79,slow=9.0,SNR=22						
ARMA	Armidale	24.64	170	eP	P	06 23 46.1	+3.7
STKA	Stephens Creek	26.20	190	eP	P	06 23 54.9	-1.6
	2.4nm,0.4s,mb4.0						
STKA	Stephens Creek	26.20	190	P	P	06 23 58.4	+1.9
	3.0nm,0.6s,mb3.9,baz=359,slow=9.4,SNR=13						
STKA				LR	LR	06 34 47.8	
	comp=Z,156nm,18.8s,baz=207,slow=37						
MJAR	Matsushiro Arr	43.15	350	P	P	06 26 21.6	-0.5
	2.2nm,0.7s,mb4.0,baz=186,slow=7.5,SNR=4.6						
KSRS	Korea Array	46.79	339	P	P	06 26 51.6	+0.7
	2.2nm,0.8s,mb3.9,baz=163,slow=9.1,SNR=4.6						
KSRS				LR	LR	06 43 32.1	
	comp=Z,47nm,21.9s,baz=246,slow=32						
ULN	Ulaanbaatar	64.15	331	eP	P	06 28 55.5	+0.1
	1.9nm,0.8s,mb4.0						
SONM	Songino Array	64.44	331	P	P	06 28 58.3	+1.0
	1.4nm,0.7s,mb3.9,baz=159,slow=5.3,SNR=7.5						
VNDA	Vanda	71.87	177	P	P	06 29 43.2	-0.2
	3.6nm,0.6s,mb4.3,baz=18,slow=9.0,SNR=10.0						
MKAR	Makanchi Array	77.53	320	P	P	06 30 16.4	-0.3
	0.5nm,0.4s,mb3.6,baz=98,slow=9.6,SNR=14						
ZALV	Zalesovo Beam	79.05	328	P	P	06 30 23.4	-1.5
	1.1nm,0.5s,mb3.9,baz=108,slow=4.8,SNR=5.0						
TORD	Torodi Ar. Bea	145.11	284	PKPbc	PKPbc	06 37 58.2	-0.3
	2.4nm,0.5s,baz=74,slow=3.6,SNR=39						
KIC	Kosan Boka	151.91	272	ePKP1	PKPbc	06 38 16.0	-0.6
	43nm,1.1s						
TIC	Toumodi	152.19	273	ePKP1	PKPbc	06 38 16.9	-0.3
	19nm,0.2s						
LIC	Lamto	152.20	272	ePKP1	PKPbc	06 38 17.0	-0.2
	48nm,1.2s						

NEIC ***02*** *06:40:21.6±0.7, 47.26N×153.17E, h10^{km}, mb4.5/1, Error ellipse: s-maj=29.5km s-min=11.2km az=141.0*

ISCJB ***02*** *06:40:28.1±1.6, 47.2N±0.1×153.0E±0.2, h84^{km}±15^{km}, mb3.7/8, Error ellipse: s-maj=30.8km s-min=11.1km az=139.3*

MOS ***02*** *06:40:28.5±1.4, 47.21N×152.81E, h89^{km}, mb4.0/4, Error ellipse: s-maj=33.0km s-min=14.5km az=58.3*

IDC ***02*** *06:40:31.6±4.0, 47.10N×152.90E, h101^{km}±36^{km}, mb3.4/7, mb1 3.6/9, mb1mx3.4/21, mbtmp3.4/9, Error ellipse: s-maj=26.8km s-min=19.6km az=134.0*

ISC 02 06:40:29.4±1.4**, 47.1N**±0.1×**153.0E**±0.2**, h80**^{km}±13^{km}**, n24, σ0^{s}87**/23**, mb3.7**/8**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	4.09	29	ePN	Pn	06 41 29.5	+0.1
SKR				e		06 42 15.0	
ASAJ	Asahikawa	7.91	251	PN	Pn	06 42 22.3	+0.8
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	7.91	251	P	Pn	06 42 22.3	+0.8
	comp=Z,0.8nm,0.3s,baz=79,slow=16,SNR=6.7						
ERM	Erimo	8.71	238	ePn	Pn	06 42 29.7	-2.7
	comp=Z,6.8nm,0.6s						
ERM	Erimo	8.71	238	ePN	Pn	06 42 29.7	-2.7
ERM				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MJAR	Matsushiro Arr	15.27	231	P	Pn	06 44 01.4	+1.1
	comp=Z,0.3nm,0.3s,baz=34,slow=9.1,SNR=4.3						
INCN	Inchon	21.68	253	eP	P	06 45 13.9	+0.4
	comp=Z,5.6nm,0.3s,mb4.4						
IMA2	Indian Mountai	33.53	36	eP	P	06 46 59.2	-1.6
INK	Inuvik	41.36	33	P	P	06 48 07.5	+0.6
INK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
INK	Inuvik	41.36	33	P	P	06 48 07.5	+0.6
	comp=Z,1.8nm,0.7s,mb4.0,baz=266,slow=6.9,SNR=11						
ZALV	Zalesovo Beam	42.34	305	PcP	PcP	06 50 06.8	-0.2
	comp=Z,0.3nm,0.3s,baz=77,slow=1.9,SNR=3.5						
MKAR	Makanchi Array	46.71	297	P	P	06 48 49.9	-0.1
	comp=Z,0.2nm,0.6s,mb3.0,baz=66,slow=9.2,SNR=3.3						
MKAR				PcP	PcP	06 50 22.1	-0.1
	comp=Z,0.4nm,0.4s,baz=73,slow=2.2,SNR=7.7						
YKA	Yellowknife Ar	50.65	37	P	P	06 49 20.7	+0.8
YKA	Yellowknife Ar	50.65	37	P	P	06 49 20.7	+0.8
	comp=Z,0.3nm,0.4s,mb3.6,baz=297,slow=6.9,SNR=5.9						
GCMT	Greycliff	62.53	51	eP	P	06 50 44.5	+0.2
FINES	FINESS Array B	63.67	335	P	P	06 50 51.1	-0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	63.67	335	P	P	06 50 51.1	-0.5
	comp=Z,0.7nm,0.4s,mb3.8,baz=41,slow=8.4,SNR=8.9						
NOA	NORSAR Array B	67.84	341	P	P	06 51 18.3	-0.2
NOA	NORSAR Array B	67.84	341	P	P	06 51 18.3	-0.2
	comp=Z,0.4nm,0.7s,mb3.4,baz=2.1,slow=13,SNR=2.3						
WRA	Warramunga Arr	68.86	199	P	P	06 51 24.4	-0.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA	Warramunga Arr	68.86	199	P	P	06 51 24.4	-0.8
	comp=Z,0.7nm,0.4s,mb3.9,baz=16,slow=6.9,SNR=2.9						
TXAR	Lajitas Array	77.35	61	P	P	06 52 16.1	+0.7
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	77.35	61	P	P	06 52 16.1	+0.7
	comp=Z,0.8nm,0.6s,mb3.6,baz=301,slow=5.3,SNR=13						
HBAR	Harrisburg	79.85	48	eP	P	06 52 28.9	-0.1

IDC ***02*** *07:09:01.1±1.6, 40.90N×72.20E, h0^{km}, mb3.9/6, mb1 4.0/9, mb1mx3.7/21, mbtmp3.8/9, ML3.3/3, Error ellipse: s-maj=31.4km s-min=15.4km az=160.0*

NEIC ***02*** *07:09:04.2±2.2, 41.07N×72.05E, h10^{km}, Error ellipse: s-maj=39.4km s-min=8.0km az=172.0*

ISCJB ***02*** *07:09:07.3±1.2, 41.13N±0.08×72.07E±0.09, h52^{km}±13^{km}, mb3.8/6, Error ellipse: s-maj=15.6km s-min=8.7km az=34.3*

BJI ***02*** *07:09:07.7, 40.67N×72.09E, h10^{km}, ML3.9, Ms3.6*

MOS ***02*** *07:09:09.9±1.6, 41.42N×72.08E, h61^{km}, mb4.2/3, Error ellipse: s-maj=19.1km s-min=11.8km az=59.5*

NNC ***02*** *07:09:11.2±2.0, 41.65N×72.19E, h17^{km}±12^{km}, mb4.3, mpv4.0, Error ellipse: s-maj=12.4km s-min=5.1km az=177.0*

ISC 02 07:09:09.0±1.0**, 41.17N**±0.08×**72.10E**±0.08**, h48**^{km}±11^{km}**, n45, σ0^{s}83**/48**, mb3.8**/6**, 4C-2D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	1.53	51	P	Pn	07 09 32.2	-1.7
	SNR=262						
AML	Almayashu	1.53	51	eP	Pn	07 09 32.6	-1.3
EKS2	Erkin-Say	1.95	39	P	Pn	07 09 39.5	-0.1
	SNR=92						
EKS2	Erkin-Say	1.95	39	eP	Pn	07 09 39.6	+0.1
UCH	Uchtor	2.09	59	P	Pn	07 09 41.3	-0.3
	SNR=149						
KK31	Karatay Array	2.27	329	Pn	Pn	07 09 45.4	+1.4
	40nm,0.2s,baz=137,slow=13,SNR=1524						
KK31				Lg		07 10 13.0	
	380nm,0.6s,baz=139,slow=30,SNR=12						
AAK	Ala-Archa	2.31	50	P	Pn	07 09 44.6	+0.1
	SNR=122						
AAK	Ala-Archa	2.31	50	ePN	Pn	07 09 43.5	-1.1
FRU	Bishkek	2.51	48	ePN	Pn	07 09 50.4	+3.1
FRU				i S	Sn	07 10 21.4	+4.8
FRU				pmax	pmax		
	comp=Z,115nm,1.5s						
FRU				smax			
	comp=N,730nm,1.2s						
KZA	Kyzart	2.53	68	P	Pn	07 09 47.4	-0.2
	SNR=160						
KBK	Karagaybulak	2.59	54	P	Pn	07 09 49.4	+1.0
	SNR=211						
CHMS	Chumysh	2.69	46	P	Pn	07 09 49.9	+0.2
	SNR=27						
USP	Ospenovka	2.75	40	P	Pn	07 09 50.4	-0.2
	SNR=33						
TKM2	Tokmak 2	3.14	55	P	Pn	07 09 56.1	+0.3
	SNR=18						
TKM2	Tokmak 2	3.14	55	⇑Pn	Pn	07 09 56.3	+0.4
	comp=N,14nm,0.8s						
TKM2				⇑Lg		07 10 40.6	
	comp=N,16nm,0.5s						
TKM2	Tokmak 2	3.14	55	ePn	Pn	07 09 55.9	0.0
TKM2	Tokmak 2	3.14	55	ePN	Pn	07 09 55.9	0.0
ULHL	Ulahol	3.28	69	P	Pn	07 09 58.2	+0.3
	SNR=7.3						
KSH	Kashi	3.39	118	P	Pn	07 09 58.4	-0.9
KSH				S	Sn	07 10 39.0	+0.8
KSH				Smax			
	comp=N,910nm,0.9s						
KSH				Smax			
	comp=E,627nm,0.8s						
KNDC	Almaty	4.15	59	⇓Pn	Pn	07 10 10.0	+0.2
	comp=E,57nm,0.5s						
KNDC				⇓Lg		07 11 13.0	
	comp=E,289nm,0.8s						
MK31	Makanchi Array	9.25	49	Pn	Pn	07 11 21.9	+2.3
	comp=E,3.9nm,0.7s,baz=225,slow=13,SNR=18						
MK31				⇑Lg		07 13 49.5	
	comp=E,4.2nm,0.6s,baz=223,slow=27,SNR=5.9						
MK31	Makanchi Array	9.25	49	ePn	Pn	07 11 18.9	-0.8
MK31	Makanchi Array	9.25	49	eP	Pn	07 11 18.9	-0.7
MKAR	Makanchi Array	9.25	49	Pn	Pn	07 11 18.7	-0.9
MKAR				Lg		07 13 54.4	
MKAR	Makanchi Array	9.25	49	Pn	Pn	07 11 18.7	-0.9
	comp=E,0.1nm,0.3s,baz=228,slow=13,SNR=8.8						
MKAR				Lg		07 13 54.4	
	comp=E,0.6nm,0.3s,baz=222,slow=27,SNR=6.9						
KURK	Kurchatov	10.57	23	⇑Lg		07 14 34.1	
	comp=E,12nm,0.8s						
AB31	Akbulak array	11.78	317	P	Pn	07 11 54.9	+0.7
	comp=E,2.9nm,0.7s,baz=130,slow=13,SNR=34						
AKTK	Aktyubinsk	13.49	318	Pn	Pn	07 12 16.4	-1.1
AKTK				Lg		07 16 17.1	
AKTO	Aktyubinsk	13.49	318	P	Pn	07 12 16.5	-1.0
AKTO						07 14 53.6	
AKTO	Aktyubinsk	13.49	318	Pn	Pn	07 12 16.4	-1.1
	comp=E,0.1nm,0.3s,baz=126,slow=8.7,SNR=4.7						
AKTO				Sn	Sn	07 14 53.6	+7.9
	baz=305,slow=13,SNR=2.3						
AKTO				Lg		07 16 17.1	
	comp=E,0.1nm,0.3s,baz=234,slow=17,SNR=2.3						
ZAL	Zalesovo	15.35	29	P	Pn	07 12 42.4	+0.2
ZALV	Zalesovo Beam	15.37	29	Pn	Pn	07 12 42.4	0.0
ZALV				Lg		07 17 18.6	
ZALV	Zalesovo Beam	15.37	29	Pn	Pn	07 12 42.4	0.0
	comp=E,0.3nm,0.3s,baz=161,slow=36,SNR=3.0						
ZALV				Sn	Sn	07 15 42.6	+11
	comp=E,0.1nm,0.3s,baz=225,slow=22,SNR=3.4						
ZALV				Lg		07 17 18.6	
	comp=E,0.2nm,0.3s,baz=203,slow=21,SNR=2.4						
FINES	FINESS Array B	34.21	322	P	P	07 15 50.2	+0.6
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	34.21	322	P	P	07 15 50.2	+0.6
	comp=Z,1.0nm,0.4s,mb4.1,baz=111,slow=10,SNR=10						
ARCES	ARCESS Array B	37.22	335	P	P	07 16 15.0	-0.3
ARCES	ARCESS Array B	37.22	335	P	P	07 16 15.0	-0.3
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES	ARCESS Array B	37.22	335	P	P	07 16 15.0	-0.3
	comp=Z,4.0nm,0.9s,mb4.2,baz=99,slow=7.9,SNR=9.7						
GERES	GERESS Array B	41.10	301	P	P	07 16 49.2	+1.3
	comp=Z,0.4nm,0.4s,mb3.4,baz=60,slow=8.1,SNR=4.1						
NB2	NORSAR Subarra	41.27	320	P	P	07 16 48.9	-0.2
	comp=Z,0.8nm,0.5s,mb3.6,baz=92,slow=8.6						
NOA	NORSAR Array B	41.27	320	P	P	07 16 48.8	-0.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	41.27	320	P	P	07 16 48.8	-0.4
	comp=Z,0.8nm,0.7s,mb3.4,baz=93,slow=7.6,SNR=4.0						
TORD	Torodi Ar. Bea	66.75	267	P	P	07 19 55.1	-0.4
	comp=Z,1.8nm,0.7s,mb4.2,baz=50,slow=5.4,SNR=14						
YKA	Yellowknife Ar	76.55	3	P	P	07 20 53.1	-0.6
YKA	Yellowknife Ar	76.55	3	P	P	07 20 53.1	-0.5
	comp=Z,0.3nm,0.5s,mb3.5,baz=350,slow=5.8,SNR=10						

NEIC ***02*** *07:52:33.2, 18.09N×101.60W, h30^{km}, MD4.3(MEX), After MEX.*

MEX 02 07:52:33.0±0.7**, 18.06N×101.58W, h42**^{km}±12^{km}**, MD4.3, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZIIG	Zihuatanejo	0.46	166	i P	Pn	07 52 41.5	-1.8
ZIIG				i S	Sn	07 52 49.0	-1.6
CAIG	El Cayaco	1.60	129	i P	Pn	07 52 57.4	-1.5
CAIG				i S	Sn	07 53 18.1	-0.3
CAIG	El Cayaco	1.60	129	i P	Pn	07 52 57.4	-1.5
CAIG				i S	Sn	07 53 16.5	-1.8
MOIG	Morelia	1.65	13	eP	Pn	07 52 58.1	-1.5
MOIG				i S	Sn	07 53 17.2	-2.4
MOIG	Morelia	1.65	13	eP	Pn	07 52 58.1	-1.5
MOIG				i S	Sn	07 53 17.4	-2.2
MMIG	Aquila	1.70	278	i P	Pn	07 52 58.8	-1.3
MMIG				i S	Sn	07 53 18.8	-1.8
MEIG	Mezcala	1.87	94	i P	Pn	07 53 01.2	-1.3
MEIG				i S	Sn	07 53 22.7	-2.2
ACX	Acapulco	1.98	126	i P	Pn	07 53 01.0	-3.0
ACX				i S	Sn	07 53 25.5	-2.1
PLIG	Platanillo	2.00	80	i P	Pn	07 53 02.8	-1.5
PLIG				i S	Sn	07 53 27.8	-0.3
PLIG	Platanillo	2.00	80	i P	Pn	07 53 03.5	-0.8
PLIG				i S	Sn	07 53 27.0	-1.1
SZVM	Salazar	2.43	58	eP	Pn	07 53 09.3	-1.0
SZVM				i S	Sn	07 53 38.2	-0.6
YAIG	Yautepec	2.51	71	i P	Pn	07 53 10.3	-1.1
YAIG				i S	Sn	07 53 40.3	-0.5
YAIG	Yautepec	2.51	71	i P	Pn	07 53 10.3	-1.1
YAIG				i S	Sn	07 53 39.7	-1.1
UNM	Universidad Na	2.60	61	i P	Pn	07 53 09.6	-2.9
UNM				i S	Sn	07 53 39.0	-4.0
UNM	Universidad Na	2.60	61	eP	Pn	07 53 10.2	-2.4
UNM				i S	Sn	07 53 42.5	-0.5
SFJM	Santa Fe	2.78	330	i P	Pn	07 53 13.0	-2.1
SFJM				i S	Sn	07 53 50.0	+2.6
PTVM	Pico Tres Padr	2.79	56	i P	Pn	07 53 12.4	-2.8
PTVM				i S	Sn	07 53 47.2	-0.4
IIO	Organos	3.10	60	i P	Pn	07 53 19.0	-0.5
IIO				i S	Sn	07 53 56.8	+1.4
CJM	Chamela	3.58	294	eP	Pn	07 53 29.0	+3.0
CJM				i S	Sn	07 54 07.8	+0.6
UTMO	Huajuapan	3.60	93	i P	Pn	07 53 26.1	-0.2
UTMO				i S	Sn	07 54 06.1	-1.5
PNIG	Pinotepa	3.69	116	i P	Pn	07 53 28.9	+1.3
PNIG				i S	Sn	07 54 09.2	-0.6
TPIG	Tehuac#an	4.02	84	i P	Pn	07 53 31.6	-0.5
TPIG				i S	Sn	07 54 20.9	+2.9
VHO	Vista Hermosa	4.72	101	i P	Pn	07 53 41.9	+0.2
VHO				i S	Sn	07 54 33.3	-2.0
VHO	Vista Hermosa	4.72	101	i P	Pn	07 53 41.9	+0.2
VHO				i S	Sn	07 54 34.3	-1.0
HUIG	Huatulco	5.71	113	i P	Pn	07 53 51.8	-3.5
HUIG				i S	Sn	07 54 58.1	-1.5
HUIG	Huatulco	5.71	113	eP	Pn	07 53 57.3	+2.0
HUIG				i S	Sn	07 54 58.1	-1.5
CMIG	Matias Romero	6.46	98	i P	Pn	07 54 05.1	-0.4
CMIG				i S	Sn	07 55 18.4	+0.4
LNIG	Linares	7.09	16	i P	Pn	07 54 18.0	+3.8
LNIG				i S	Sn	07 55 36.0	+2.5

IDC ***02*** *07:57:06.3±0.6, 56.51N×163.03E, h0^{km}, mb4.4/24, mb1 4.6/24, mb1mx4.6/26, mbtmp4.4/24, MS3.7/2, Ms1 3.7/2, ms1mx3.0/27, Error ellipse: s-maj=18.0km s-min=12.7km az=160.0*

KRSC ***02*** *07:57:07.2±0.1, 56.44N×163.31E, h15^{km}±15^{km}, ML4.8*

ISCJB ***02*** *07:57:09.1±0.7, 56.48N±0.03×163.23E±0.03, h27^{km}±5^{km}, mb4.6/70, MS4.1/11, Error ellipse: s-maj=4.8km s-min=2.4km az=160.3*

NEIC ***02*** *07:57:10.6±0.2, 56.49N×163.04E, mb4.7/33, Error ellipse: s-maj=5.4km s-min=3.5km az=170.0*

MOS ***02*** *07:57:10.1±1.2, 56.38N×163.24E, h40^{km}, mb4.8/35, Error ellipse: s-maj=10.7km s-min=5.4km az=82.2*

BJI ***02*** *07:57:11.7, 56.75N×162.33E, h33^{km}, mB4.8, mb4.6, Ms4.6, Msz4.1*

ISC 02 07:57:08.5±0.7**, 56.54N**±0.03×**163.16E**±0.03**, h9**^{km}±4^{km}**, h42**^{km}±2.6^{km}**:pP-P, n327, σ0^{s}84**/350**, mb4.6**/70**, MS4.1**/11**, 77C-44D, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBTR	Krutoberegovo	0.39	209	eP	Pg	07 57 15.3	-0.7
KBTR				i S	Sg	07 57 20.3	-0.8
SMKR	Semkarok	0.94	273	i P	Pg	07 57 26.5	+0.1
BDR	Baidarnaya	1.08	272	i P	Pg	07 57 29.2	0.0
BDR				i S	Sg	07 57 45.2	+2.1
SRKR	Sorokina	1.10	277	i P	Pg	07 57 29.5	-0.2
CIRR	Tsirk	1.41	253	eP	Pn	07 57 34.2	0.0
CIRR				i S	Sb	07 57 53.3	+0.4
KLY	Klyuchi	1.41	262	eP	Pn	07 57 32.1	-2.1
KLY				i S	Sb	07 57 50.7	-2.2
ZLN	Zelenaya	1.41	249	eP	Pn	07 57 34.2	-0.1
ZLN				i S	Sn	07 57 54.2	+1.2
KRSR	Krestovskiy	1.48	258	i P	Pn	07 57 34.7	-0.5
KRSR				i S	Sn	07 57 55.5	+0.9
BZMR	Bezymyannaya	1.61	249	eP	Pn	07 57 36.9	-0.1
BZMR				i S	Sn	07 57 58.1	+0.3
KPT	Kopyto	1.74	252	eP	Pn	07 57 39.3	+0.6
KPT				i S	Sn	07 58 03.1	+2.1
KMNR	Kamenistaya	1.81	245	eP	Pn	07 57 40.3	+0.5
KMNR				i S	Sn	07 58 04.2	+1.3
KOZR	Kozyr	1.88	257	PN	Pn	07 57 42.3	+1.6
KOZR				S	Sn	07 58 08.2	+3.7
KOZ	Kozyrevsk	1.89	256	eP	Pn	07 57 42.3	+1.4
KOZ				i S	Sn	07 58 08.2	+3.4
SRDR	Sredinnyy	1.92	265	eP	Pn	07 57 42.1	+0.8
SRDR				i S	Sn	07 58 07.2	+1.6
TUMR	Tumrok	2.11	235	eP	Pn	07 57 44.8	+0.9
TUMR				i S	Sn	07 58 12.7	+2.5
MKZ	Mys Kozlova	2.15	203	eP	Pn	07 57 42.9	-1.5
MKZ				i S	Sn	07 58 08.7	-2.5
KII	Karymskiy	3.29	222	eP	Pn	07 58 00.6	+0.6
KII				i S	Sn	07 58 39.2	0.0
SPN	Mys Shipunski	3.90	209	eP	Pn	07 58 06.7	-1.8
SPN				i S	Sn	07 58 50.9	-3.4
NLC	Nalytchevo	4.03	215	eP	Pn	07 58 09.6	-0.7
NLC				i S	Sn	07 58 56.1	-1.5
GNL	Ganaly	4.13	229	eP	Pn	07 58 12.6	+0.9
AVH	Avacha	4.16	220	eP	Pn	07 58 13.3	+1.3
PET	Petropavlovsk	4.38	218	ePn	Pn	07 58 15.2	+0.1
PET	Petropavlovsk	4.38	218	eP	Pn	07 58 15.9	+0.8
PET				i S	Sn	07 59 06.9	+0.6
RUS	Russkaya	4.93	215	eP	Pn	07 58 22.9	+0.3
RUS				i S	Sn	07 59 17.9	-1.7
GRL	Gorelyy	4.97	219	eP	Pn	07 58 25.3	+2.1
GRL				i S	Sn	07 59 23.0	+2.2
SKR	Severo-Kuril's	7.21	218	ePN	Pn	07 58 53.5	-0.4
SKR				pmax	pmax		
	comp=E,40nm,0.4s						
SKR				pmax	pmax		
	comp=Z,80nm,0.4s						
MA2	Magadan	7.24	300	ePn	Pn	07 58 53.9	-0.3
MA2	Magadan	7.24	300	ePN	Pn	07 59 00.4	+6.1
MA2				eS	Sn	08 00 22.6	+6.1
MA2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
SEY	Seymchan	8.40	324	i PN	Pn	07 59 15.4	+5.3
BILL	Bilibino	11.63	6	ePN	Pn	08 00 00.4	+6.1
BILL				pmax	pmax		
	comp=Z,3.0nm,1.2s						
YAK	Yakutsk	17.81	302	eP	Pn	08 01 20.1	+3.9
YAK				pmax	pmax		
	comp=Z,26nm,1.1s						
YAK				pmax	pmax		
	comp=N,8.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,22nm,1.2s						
ASAJ	Asahikawa	17.99	235	P	Pn	08 01 19.6	+1.1
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	17.99	235	P	Pn	08 01 19.6	+1.1
	comp=Z,1.9nm,0.3s,baz=48,slow=6.1,SNR=16						
ERM	Erimo	19.43	230	eP	Pn	08 01 33.5	-2.4
	comp=Z,27nm,0.8s						
ERM	Erimo	19.43	230	eP	Pn	08 01 33.5	-2.5
ERM				pmax	pmax		
	comp=Z,27nm,0.8s						
KLR	Kul'dur	20.18	262	eP	P	08 01 38.7	-4.2
KLR				MLR	MLR		
	comp=Z,1µm,12.0s,MS4.4						
TIXI	Tiksi	20.82	330	eP	P	08 01 51.3	+1.5
	comp=Z,32nm,0.7s						
TIXI	Tiksi	20.82	330	eP	P	08 01 49.3	-0.5
TIXI				eS	S	08 05 40.9	-0.9
TIXI				pmax	pmax		
	comp=Z,35nm,0.7s						
TIXI				MLR	MLR		
	comp=Z,254nm,14.0s,MS3.8						
IMA2	Indian Mountai	22.33	47	eP	P	08 02 06.3	+0.3
COLA	College	24.76	50	eP	P	08 02 29.7	-0.2
	comp=Z,20nm,1.0s,mb4.6						
MAJO	Matsushiro	26.10	231	eP	P	08 02 40.6	-1.6
	comp=Z,15nm,0.8s,mb4.6						
MAJO	Matsushiro	26.10	231	eP	P	08 02 40.7	-1.6
MAJO				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.6						
MAT	Matsushiro	26.10	231	P	P	08 02 39.7	-2.6
MJAR	Matsushiro Arr	26.10	231	P	P	08 02 40.1	-2.2
MJAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MJAR	Matsushiro Arr	26.10	231	P	P	08 02 40.1	-2.2
	comp=Z,6.3nm,0.8s,mb4.2,baz=23,slow=8.8,SNR=14						
HIA	Hailar	26.79	273	i P	P	08 02 45.1	-3.3
EGAK	Eagle	27.62	50	eP	P	08 02 54.5	-1.2
	comp=Z,17nm,0.8s,mb4.7						
DAWY	Dawson	28.50	51	eP	P	08 03 03.6	0.0
INK	Inuvik	30.08	42	eP	P	08 03 17.5	0.0
	comp=Z,149nm,0.9s,mb5.7						
INK	Inuvik	30.08	42	P	P	08 03 17.3	-0.2
INK						08 06 17.9	
INK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	Inuvik	30.08	42	P	P	08 03 17.3	-0.2
	comp=Z,4.1nm,0.9s,mb4.2,baz=286,slow=6.1,SNR=22						
INK				PcP	PcP	08 06 17.9	-0.9
	comp=Z,0.7nm,0.5s,baz=200,slow=1.3,SNR=6.2						
KSRS	Korea Array	30.21	246	P	P	08 03 19.2	+0.2
	comp=Z,1.4nm,0.7s,mb3.8,baz=40,slow=8.2,SNR=3.7						
TLY	Talaya	34.26	288	i P	P	08 03 57.4	+3.1
ULN	Ulaanbaatar	34.56	280	i P	P	08 04 00.4	+3.4
DLBC	Dease Lake	34.63	58	eP	P	08 03 58.5	+1.0
SONM	Songino Array	34.93	280	P	P	08 03 59.3	-0.9
SONM				pmax	pmax		
	comp=Z,4.0nm,0.6s						
SONM				MLR	MLR		
	comp=Z,115nm,20.9s						
SONM	Songino Array	34.93	280	P	P	08 03 59.3	-0.9
	comp=Z,3.5nm,0.6s,mb4.5,baz=81,slow=9.3,SNR=5.9						
SONM				LR	LR	08 17 56.7	
	comp=Z,115nm,20.9s,MS3.6,baz=317,slow=36						
ZAK	Zakamensk	35.16	286	eP	P	08 04 02.3	+0.2
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.4s,mb3.5						
HHC	Hu-ho-hao-te	36.53	267	eP	P	08 04 13.1	-0.9
HHC				AP	pP	08 04 25.2	+8.4
HHC				XP	sP	08 04 30.6	+13
HHC				PP	PP	08 05 37.7	+0.8
HHC				PCP	PcP	08 06 37.1	-0.2
HHC				S	S	08 09 49.7	-6.4
HHC				XS	sS	08 10 10.5	+10
HHC				SCP	ScP	08 10 18.2	-5.6
HHC				PCS	PcS	08 10 23.8	-1.3
HHC				SS	SS	08 12 16.7	-19
HHC				SCS	ScS	08 14 23.2	-6.9
HHC				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.8						
HHC				AMB	AMB		
	comp=Z,92nm,5.1s						
HHC				LR	LR		
	comp=N,150nm,19.0s,MS4.0						
HHC				LR	LR		
	comp=E,167nm,16.1s,MS4.0						
HHC				LR	LR		
	comp=Z,103nm,18.0s,MS3.6						
BTO	Baotou	37.55	268	eP	P	08 04 24.5	+1.8
NJ2	Nanjing	39.08	250	eP	P	08 04 35.1	-0.5
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
YKW3	Yellowknife Ar	39.42	46	eP	P	08 04 37.8	-0.2
RES	Resolute Bay	39.45	24	eP	P	08 04 38.3	+0.1
YKA	Yellowknife Ar	39.45	46	P	P	08 04 38.3	-0.1
	comp=Z,4.5nm,0.6s,mb4.4,baz=299,slow=8.1,SNR=61						
YKA				PcP	PcP	08 06 45.1	-0.9
	comp=Z,0.7nm,0.7s,baz=310,slow=3.8,SNR=7.8						
ZALV	Zalesovo Beam	42.46	301	PcP	PcP	08 06 54.7	-1.2

	comp=Z,0.4nm,0.3s,baz=348,slow=3.4,SNR=3.7						
NLWA	Neilton Lookou	43.86	70	⇑P	P	08 05 15.2	+0.6
	baz=44						
GTA	Gaotai	44.03	275	P	P	08 05 15.2	-0.9
GTA				AP	pP	08 05 27.9	+9.0
GTA				XP	sP	08 05 33.2	+13
GTA				PP	PP	08 06 59.6	+1.2
GTA				PCP	PcP	08 07 00.4	-1.0
GTA				PPP		08 07 37.2	
GTA				S	S	08 11 43.2	-4.9
GTA				SS	SS	08 14 52.6	-12
GTA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
GTA				AMB	AMB		
	comp=Z,105nm,4.6s						
GTA				LR	LR		
	comp=N,174nm,17.5s,MS4.1						
GTA				LR	LR		
	comp=E,160nm,19.0s,MS4.1						
GTA				LR	LR		
	comp=Z,175nm,19.0s,MS4.0						
LZH	Lanzhou	44.17	268	*e*P	P	08 05 15.9	-1.4
LZH				AP	pP	08 05 28.0	+7.9
LZH				XP	sP	08 05 33.5	+12
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.7						
LZH				AMB	AMB		
	comp=Z,58nm,4.0s						
LZH				LR	LR		
	comp=E,365nm,13.0s						
LZH				LR	LR		
	comp=Z,471nm,14.8s,MS4.5						
B05A	Bryant	44.21	68	⇑P	P	08 05 17.9	+0.4
	baz=44						
B06A	Marblemount	44.36	67	⇑P	P	08 05 18.4	-0.2
	baz=44						
A07A	Ashnola River,	44.58	66	⇓P	P	08 05 20.6	+0.3
	baz=44						
D05A	Enumclaw	44.96	69	⇓P	P	08 05 24.5	+1.0
	baz=45						
C06A	Tall Timber Ra	45.05	67	⇑P	P	08 05 24.4	+0.3
	baz=45						
B07A	Winthrop	45.09	66	⇓P	P	08 05 24.1	-0.3
	baz=45						
A08A	Turner Farm, O	45.20	65	⇓P	P	08 05 25.1	-0.2
	baz=45						
EDM	Edmonton	45.33	57	*e*P	P	08 05 26.2	-0.1
EDM				*e*pP	pP	08 05 34.3	+5.2
E05A	Randle	45.49	69	⇓P	P	08 05 28.0	+0.3
	baz=45						
A09A	Danville	45.53	65	⇑P	P	08 05 28.0	+0.1
	baz=45						
D06A	Cle Elum	45.55	68	⇓P	P	08 05 28.1	0.0
	baz=46						
B08A	Colville Reser	45.55	66	⇑P	P	08 05 28.0	-0.2
	baz=46						
C07A	Waterville	45.62	67	⇓P	P	08 05 28.2	-0.5
	baz=46						
H03A	Soap Creek Ran	45.95	72	⇓P	P	08 05 31.7	+0.4
	baz=46						
D07A	Quincy	45.99	67	⇑P	P	08 05 31.6	-0.1
	baz=46						
A10A	Northport	46.04	64	⇑P	P	08 05 32.0	+0.1
	baz=46						
C08A	Higginbotham F	46.08	66	⇑P	P	08 05 32.1	-0.2
	baz=46						
B09A	Rice	46.11	65	⇑P	P	08 05 32.4	-0.1
	baz=46						
HOOD	Mount Hood Mea	46.38	70	*e*P	P	08 05 35.0	+0.3
C09A	Chrisman Ranch	46.46	66	⇓P	P	08 05 34.9	-0.3
	baz=46						
E07A	Sunnyside	46.48	68	⇑P	P	08 05 35.5	+0.1
	baz=46						
NEW	Newport	46.73	65	P	P	08 05 36.8	-0.6
NEW				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NEW	Newport	46.73	65	P	P	08 05 36.8	-0.6
	comp=Z,1.4nm,0.8s,mb4.0,baz=314,slow=12,SNR=3.5						
F07A	Phinny Hill Vi	46.89	69	P	P	08 05 39.0	+0.4
	baz=47,SNR=6.2						
D09A	Jones Farm, Ri	46.93	67	⇑P	P	08 05 38.5	-0.4
	baz=47						
B11A	Sandpoint	46.99	64	⇑P	P	08 05 39.6	+0.1
	baz=47						
J03A	Ideyld Park	47.01	73	⇑P	P	08 05 40.3	+0.7
	baz=47						
A12A	Yaak River Ran	47.01	63	⇑P	P	08 05 39.8	+0.2
	baz=47						
I04A	Tendick Farm,	47.01	72	⇑P	P	08 05 39.5	-0.2
	baz=47						
KURK	Kurchatov	47.45	301	*i* P	P	08 05 45.2	+2.2
D10A	Wagner Farm, O	47.46	66	⇑P	P	08 05 42.8	-0.3
	baz=47						
H06A	Lindquist Farm	47.46	70	⇑P	P	08 05 43.0	-0.2
	baz=47						
WMQ	Urumqi	47.54	288	*e*P	P	08 05 43.7	0.0
WMQ				AP	pP	08 05 56.1	+10
WMQ				XP	sP	08 06 01.5	+14
WMQ				PCP	PcP	08 07 14.2	+0.6
WMQ				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
WMQ				LR	LR		
	comp=N,89nm,17.6s,MS3.9						
WMQ				LR	LR		
	comp=E,57nm,15.7s,MS3.9						
WMQ				LR	LR		
	comp=Z,89nm,16.0s,MS3.8						
HUMO	Hull Mountain	47.54	74	⇑P	P	08 05 44.0	+0.2
	baz=48						
J04A	Umpqua Nationa	47.55	73	⇓P	P	08 05 44.7	+0.8
	baz=48						
A13A	Flathead Natio	47.62	62	P	P	08 05 44.4	0.0
	baz=48,SNR=9.6						
G08A	Pilot Rock	47.80	69	⇑P	P	08 05 45.5	-0.2
	baz=48						
E10A	Myers Farm, Un	47.93	66	⇑P	P	08 05 46.1	-0.6
	baz=48						
B13A	Whitefish	47.97	63	⇑P	P	08 05 47.0	-0.1
	baz=48						
J05A	Fort Rock	47.98	72	⇑P	P	08 05 47.6	+0.4
	baz=48						
CD2	Chengdu	48.09	264	*e*P	P	08 05 46.4	-1.8
CD2				AP	pP	08 05 58.8	+7.7
CD2				XP	sP	08 06 04.1	+12
CD2				PP	PP	08 07 37.8	-2.4
CD2				S	S	08 12 38.8	-7.9
CD2				XS	sS	08 12 59.9	+8.6
CD2				SS	SS	08 16 01.9	-13
CD2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb5.0						
CD2				AMB	AMB		
	comp=Z,30nm,6.8s						
CD2				LR	LR		
	comp=N,360nm,12.0s,MS4.6						
CD2				LR	LR		
	comp=E,200nm,14.4s,MS4.6						
CD2				LR	LR		
	comp=Z,140nm,12.0s,MS4.2						
F10A	Beach Ranch, E	48.22	67	⇑P	P	08 05 48.8	-0.2
	baz=48						
YBH	Yreka Blue Hor	48.28	75	⇑P	P	08 05 50.2	+0.7
	baz=48						
MK31	Makanchi Array	48.29	295	*e*P	P	08 05 47.4	-2.1
MKAR	Makanchi Array	48.29	295	*i* P	P	08 05 47.5	-2.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	Makanchi Array	48.29	295	P	P	08 05 47.5	-2.0
	comp=Z,0.6nm,0.4s,mb4.0,baz=50,slow=6.0,SNR=17						
C13A	Hot Springs	48.39	64	P	P	08 05 50.5	+0.1
	baz=48,SNR=9.9						
E11A	Bogner Ranch,	48.47	66	⇓P	P	08 05 50.4	-0.5
	baz=48						
H08A	Prairie City	48.47	69	⇑P	P	08 05 50.5	-0.5
	baz=48						
K05A	Summer Lake	48.55	72	⇓P	P	08 05 51.8	+0.2
	baz=48						
J06A	Christmas Vall	48.58	71	P	P	08 05 52.1	+0.3
	baz=48,SNR=6.7						
C14A	Swan Lake	48.74	63	⇑P	P	08 05 52.7	-0.3
	baz=49						
F11A	Grangeville	48.82	66	⇑P	P	08 05 53.0	-0.7
	baz=49						
K06A	Valley Falls	48.84	72	⇓P	P	08 05 54.3	+0.4
	baz=49						
D13A	Huson	48.85	64	⇑P	P	08 05 53.5	-0.3
	baz=49						
H09A	Durkee	48.89	68	⇓P	P	08 05 54.1	-0.1
	baz=49						
M03C	McCloud	48.92	75	⇑P	P	08 05 56.1	+1.6
	baz=49						
BMO	Blue Mountains	48.95	68	*e*P	P	08 05 54.8	+0.2
	comp=Z,2.9nm,0.7s,mb4.4						
I08A	Drewsey	48.95	70	P	P	08 05 55.0	+0.4
	baz=49,SNR=6.0						
L05A	Lakeview	49.06	73	⇑P	P	08 05 56.4	+0.8
	baz=49						
G11A	Walters Elk Ra	49.10	67	P	P	08 05 55.5	-0.3
	baz=49,SNR=5.9						
D14A	Greenough	49.33	64	P	P	08 05 57.2	-0.3
	baz=49,SNR=6.8						
I09A	Lost Marbles R	49.33	69	⇑P	P	08 05 57.5	-0.1
	baz=49						
O02C	Red Bluff	49.34	76	⇓P	P	08 05 57.6	-0.1
	baz=49						
M05C	Lookout	49.38	74	⇑P	P	08 05 58.6	+0.6
	baz=49						
J08A	Circle Bar Ran	49.38	70	⇑P	P	08 05 58.2	+0.2
	baz=49						
H10A	Noah’s Angus R	49.42	68	⇑P	P	08 05 58.0	-0.2
	baz=49						
E13A	Victor	49.43	65	⇑P	P	08 05 57.8	-0.5
	baz=49						
MOD	Modoc	49.44	73	*e*P	P	08 05 58.9	+0.5
	comp=Z,2.3nm,0.6s,mb4.4						
MOD	Modoc	49.44	73	⇓P	P	08 05 59.1	+0.6
	baz=49						
K07A	Rock Creek Ran	49.45	71	⇑P	P	08 05 57.7	-0.7
	baz=49						
HATC	Hat Creek Radi	49.59	75	⇓P	P	08 06 01.3	+1.7
	baz=50						
FCC	Fort Churchill	49.70	42	*e*P	P	08 05 60.0	-0.2
	comp=Z,10nm,0.9s,mb4.8						
FCC	Fort Churchill	49.70	42	*e*P	P	08 06 00.0	-0.2
FCC				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
H11A	Donnelly	49.71	67	P	P	08 06 00.3	-0.2
	baz=50,SNR=7.8						
J09A	Fry Pan Ranch,	49.77	70	P	P	08 06 01.2	+0.4
	baz=50,SNR=5.5						
E14A	Clinton	49.80	64	⇓P	P	08 06 01.2	+0.1
	baz=50						
F13A	Darby	49.81	65	⇓P	P	08 06 00.9	-0.3
	baz=50						
K08A	Mann Creek Ran	49.82	71	⇑P	P	08 06 01.2	-0.1
	baz=50						
D15A	Lincoln	49.84	63	⇑P	P	08 06 01.6	+0.1
	baz=50						
L07A	Adell	49.87	72	⇑P	P	08 06 02.3	+0.6
	baz=50						
GYA	Guiyang	49.98	257	*e*P	P	08 06 03.2	+0.5
GYA				AP	pP	08 06 15.9	+10
GYA				XP	sP	08 06 21.0	+14
GYA				PCP	PcP	08 07 23.6	+0.9
GYA				PP	PP	08 07 58.5	+1.0
GYA				PPP		08 08 54.6	
GYA				SCP	ScP	08 11 13.8	-4.4
GYA				PCS	PcS	08 11 19.2	-0.5
GYA				S	S	08 13 07.8	-5.4
GYA				SCS	ScS	08 15 47.5	-6.7
GYA				SS	SS	08 16 37.0	-8.8
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
GYA				AMB	AMB		
	comp=Z,80nm,5.2s						
GYA				LR	LR		
	comp=N,350nm,18.2s,MS4.5						
GYA				LR	LR		
	comp=E,240nm,18.4s,MS4.5						
GYA				LR	LR		
	comp=Z,260nm,19.6s,MS4.2						
KEV	Kevo	50.10	342	*e*p	P	08 06 01.8	-1.3
	comp=Z,16nm,0.8s,mb5.1						
KEV	Kevo	50.10	342	*e*P	P	08 06 01.8	-1.3
KEV				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.1						
O04C	Chester	50.15	75	⇑P	P	08 06 03.7	-0.1
	baz=50						
E15A	Deer Lodge	50.21	64	⇓P	P	08 06 04.3	+0.1
	baz=50						
J10A	Berg Farm, Mel	50.22	69	⇓P	P	08 06 04.1	-0.2
	baz=50						
K09A	Rome	50.23	70	⇓P	P	08 06 05.0	+0.5
	baz=50						
L08A	Fields	50.27	71	⇑P	P	08 06 05.1	+0.3
	baz=50						
I11A	Placerville	50.30	68	P	P	08 06 04.5	-0.4
	baz=50,SNR=5.3						
G13A	Cobalt	50.35	66	⇓P	P	08 06 04.8	-0.5
	baz=50						
M07A	Soldier Meadow	50.41	73	⇓P	P	08 06 05.6	-0.1
	baz=50						
O05C	Quincy	50.49	75	⇑P	P	08 06 06.7	+0.2
	baz=50						
N06A	Buffalo Meadow	50.51	74	⇓P	P	08 06 07.1	+0.5
	baz=50						
ARCES	ARCESS Array B	50.55	342	P	P	08 06 05.9	-0.6
ARCES				pmax	pmax		
	comp=Z,10.0nm,0.8s						
ARCES	ARCESS Array B	50.55	342	P	P	08 06 05.9	-0.6
	comp=Z,9.5nm,0.8s,mb4.8,baz=26,slow=9.2,SNR=14						
K10A	MacKenzie Ranc	50.62	70	⇑P	P	08 06 07.5	+0.1
	baz=50						
F15A	Butte	50.70	64	⇓P	P	08 06 08.1	+0.2
	baz=51						
H13A	Challis	50.71	66	⇑P	P	08 06 07.7	-0.3
	baz=51,SNR=5.9						
MFID	Camas Ranch	50.71	68	⇓P	P	08 06 07.6	-0.5
	baz=51						
L09A	Wilkinson Ranc	50.75	71	⇑P	P	08 06 08.5	+0.1
	baz=51						
M08A	Happy Creek Ra	50.78	72	⇑P	P	08 06 08.2	-0.5
	baz=51						
CVS	Carmenet Viney	50.83	78	⇑P	P	08 06 08.4	-0.7
	baz=51						
BEKR	Beckwourth	50.86	75	⇑P	P	08 06 08.8	-0.4
	baz=51						
G15A	Dillon	51.17	65	P	P	08 06 11.5	0.0
	baz=51,SNR=9.0						
J12A	Stokes Ranch,	51.21	68	⇑P	P	08 06 11.9	+0.2
	baz=51						
I13A	Wildhorse Cree	51.24	67	P	P	08 06 12.3	+0.3
	baz=51,SNR=5.6						
BOZ	Bozeman (W)	51.26	64	⇓P	P	08 06 12.8	+0.7
	baz=51						
M09A	Marrel Ranch,	51.29	71	⇓P	P	08 06 13.0	+0.6
	baz=51						
L10A	Juniper Basin	51.33	70	⇓P	P	08 06 13.4	+0.6
	baz=51						
HLID	Hailey	51.34	67	*e*P	P	08 06 12.8	+0.1
HLID	Hailey	51.34	67	⇓P	P	08 06 12.9	+0.1
	baz=51						
N08A	GE Springer Mi	51.39	72	⇑P	P	08 06 13.3	+0.1
	baz=51						
O07A	Toulon	51.44	73	⇑P	P	08 06 14.0	+0.4
	baz=51						
J13A	Cove Ranch, Pi	51.57	67	⇑P	P	08 06 14.7	+0.2
	baz=52						
WCN	Washoe City	51.59	75	⇓P	P	08 06 15.2	+0.5
	baz=52						
L11A	Cat Creek Ranc	51.64	70	⇑P	P	08 06 15.6	+0.6
	baz=52						
N09A	Rock Creek Ran	51.66	72	⇑P	P	08 06 15.6	+0.4
	baz=52						
M10A	I.L. Ranch, Tu	51.69	71	⇑P	P	08 06 16.1	+0.7
	baz=52						
K12A	Draper Farm, C	51.74	69	⇑P	P	08 06 16.4	+0.5
	baz=52						
R05C	Kirkwood Meado	51.85	76	⇑P	P	08 06 17.2	+0.5
	baz=52						
L12A	House Creek Ra	52.04	69	⇑P	P	08 06 18.7	+0.7
	baz=52						
R06C	Coleville	52.32	75	⇓P	P	08 06 21.1	+0.9
	baz=52						
O09A	Fish Creek Ran	52.33	72	⇑P	P	08 06 21.2	+1.0
	baz=52						
S06C	San Francisco	52.58	76	⇑P	P	08 06 22.2	+0.2
	baz=52						
L13A	Double Diamond	52.63	68	⇑P	P	08 06 23.3	+0.9
	baz=52						
K14A	Jones Ranch, D	52.70	67	⇓P	P	08 06 23.7	+0.8
	baz=53						
IMW	Indian Meadow	52.85	65	*e*P	P	08 06 25.0	+0.9
	comp=Z,8.1nm,1.2s,mb4.5						
Q08A	Gabbs	52.89	74	⇑P	P	08 06 25.2	+0.9
	baz=53						
DCID1	Drake Creek	52.95	65	*e*P	P	08 06 26.0	+1.2
N12A	Clover Valley,	52.96	70	⇑P	P	08 06 25.3	+0.5
	baz=53						
NVAR	Mina Array Bea	53.00	75	P	P	08 06 25.7	+0.5
NVAR	Mina Array Bea	53.00	75	P	P	08 06 25.7	+0.5
	comp=Z,1.4nm,0.7s,mb4.0,baz=313,slow=6.3,SNR=15						
MOOW	Moose Ponds	53.06	65	*e*P	P	08 06 26.0	+0.5
	comp=Z,1.7nm,0.3s,mb4.5						
LAO	LASA Array	53.15	59	*e*P	P	08 06 26.1	0.0
	comp=Z,10nm,0.9s,mb4.8						
LAO				*e*pP	pP	08 06 34.6	+5.6
KMI	Kunming	53.17	260	P	P	08 06 26.0	-0.6
KMI				AP	pP	08 06 41.0	+12
KMI				XP	sP	08 06 44.3	+14
KMI				S	S	08 13 51.3	-6.0
KMI				SS	SS	08 17 29.7	-6.7
KMI				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
KMI				AMB	AMB		
	comp=Z,46nm,3.9s						
KMI				LR	LR		
	comp=N,218nm,9.9s						
KMI				LR	LR		
	comp=E,149nm,14.0s						
KMI				LR	LR		
	comp=Z,134nm,14.1s,MS4.1						
O12A	Currie	53.54	70	⇓P	P	08 06 29.8	+0.7
	baz=54						
R09A	Tonopah	53.80	74	⇑P	P	08 06 31.6	+0.5
	baz=54						
HELL	Mitchell Peak,	53.91	77	P	P	08 06 31.8	0.0
	baz=54,SNR=5.4						
S09A	Goldfield	54.10	74	⇓P	P	08 06 33.6	+0.3
	baz=54						
Q11A	Duckwater	54.10	72	⇓P	P	08 06 33.4	+0.1
	baz=54						
R10A	Warm Springs	54.17	73	⇑P	P	08 06 33.9	+0.1
	baz=54						
S10A	Tonopah Range,	54.29	74	⇓P	P	08 06 34.1	-0.5
	baz=54						
BW06	Boulder Array	54.37	65	*e*P	P	08 06 35.4	+0.2
VES	Vestal, Richgr	54.50	77	⇓P	P	08 06 36.6	+0.4
	baz=54						
DUG	Dugway	54.60	69	⇑P	P	08 06 36.6	-0.3
	baz=54						
AAK	Ala-Archa	55.15	296	*e*P	P	08 06 38.5	-2.3
	comp=Z,2.3nm,0.5s,mb4.5						
AAK	Ala-Archa	55.15	296	*e*P	P	08 06 38.5	-2.3
AAK				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
JOF	Joensuu	55.17	335	*e*p	P	08 06 39.6	-1.1
	comp=Z,9.2nm,0.4s,mb5.2						
JOF	Joensuu	55.17	335	*e*P	P	08 06 39.6	-1.1
JOF				pmax	pmax		
	comp=Z,9.0nm,0.4s,mb5.2						
ULM	Lac du Bonnet	55.20	50	P	P	08 06 41.0	-0.1
	comp=Z,9.1nm,0.6s,mb5.0,baz=313,slow=7.2,SNR=31						
FURC	Furnace Creek,	55.22	75	⇑P	P	08 06 41.9	+0.4
	baz=55						
LRMC	Laurel Mountai	55.52	77	⇑P	P	08 06 43.5	-0.1
	baz=56						
GSC	Goldstone	56.13	76	⇓P	P	08 06 48.1	+0.1
	baz=56						
SRU	San Rafael	56.58	68	*e*P	P	08 06 51.4	+0.3
	comp=Z,5.3nm,0.8s,mb4.6						
SRU	San Rafael	56.58	68	*e*P	P	08 06 51.4	+0.3
SRU				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
AKTK	Aktyubinsk	56.80	312	P	P	08 06 51.6	-0.9
AKTK				PcP	PcP	08 07 47.2	-1.0
AKTO	Aktyubinsk	56.80	312	P	P	08 06 51.6	-0.9
AKTO						08 07 47.2	
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
AKTO	Aktyubinsk	56.80	312	P	P	08 06 51.6	-0.9
	comp=Z,1.4nm,0.6s,mb4.2,baz=73,slow=5.2,SNR=7.4						
AKTO				PcP	PcP	08 07 47.2	-1.0
	comp=Z,1.4nm,0.6s,baz=39,slow=7.1,SNR=3.6						
KAF	Kangasniemi	56.99	337	*e*p	P	08 06 52.6	-1.1
	baz=26,slow=6.6						
FINES	FINESS Array B	57.64	337	*i* P	P	08 07 00.0	+1.7
FINES				pmax	pmax		
	comp=Z,9.0nm,0.7s						
FINES	FINESS Array B	57.64	337	P	P	08 06 57.4	-0.9
	comp=Z,8.8nm,0.7s,mb4.9,baz=40,slow=6.2,SNR=15						
IRM	Iron Mountain	57.88	76	⇑P	P	08 06 59.9	-0.4
	baz=58						
BC3	Big Chuckw Mtn	58.10	76	⇑P	P	08 07 02.7	+0.7
	baz=58						
W14A	Seligman	58.18	73	⇓P	P	08 07 02.9	+0.4
	baz=58						
X13A	Yucca	58.26	74	⇓P	P	08 07 03.1	+0.1
	baz=58						
PDMCI	Parker Dam,Lak	58.31	75	⇑P	P	08 07 02.9	-0.5
	baz=58						
EYMN	Ely	58.82	49	*e*P	P	08 07 06.4	-0.3
	comp=Z,17nm,0.6s,mb5.3						
WUAZ	Wupatki	58.85	72	⇓P	P	08 07 06.6	-0.5
	baz=59						
OBN	Obninsk	60.54	328	*i* P	P	08 07 18.3	-0.2
OBN				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
115A	Sonoran Desert	60.56	75	⇓P	P	08 07 18.8	-0.2
	baz=60						
NB2	NORSAR Subarra	60.70	345	P	P	08 07 18.8	-0.6
	comp=Z,2.5nm,0.6s,mb4.5,baz=18,slow=6.9						
NOA	NORSAR Array B	60.70	345	P	P	08 07 19.0	-0.4
NOA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NOA	NORSAR Array B	60.70	345	P	P	08 07 19.0	-0.5
	comp=Z,4.7nm,0.7s,mb4.7,baz=18,slow=6.9,SNR=12						
HFS	Hagfors	61.18	343	P	P	08 07 21.9	-0.9
HFS				pmax	pmax		
	comp=Z,4.0nm,0.7s						
HFS	Hagfors	61.18	343	P	P	08 07 21.9	-0.9
	comp=Z,3.9nm,0.7s,mb4.7,baz=60,slow=7.0,SNR=11						
SCHQ	Schefferville	61.77	30	P	P	08 07 26.1	-0.7
	comp=Z,9.5nm,0.7s,mb5.1,baz=350,slow=5.9,SNR=37						
ANMO	Albuquerque	61.85	69	P	P	08 07 28.2	+0.5
ANMO				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ANMO	Albuquerque	61.85	69	P	P	08 07 28.1	+0.5
	comp=Z,0.9nm,0.9s,mb3.9,baz=46,slow=4.7,SNR=4.1						
MNTX	Cornudas Mount	64.96	70	*e*P	P	08 07 49.0	+0.7
	comp=Z,9.5nm,1.2s,mb4.7						
WMOK	Wichita Mounta	65.90	63	*e*P	P	08 07 54.3	0.0
	comp=Z,9.5nm,0.8s,mb4.9						
WMOK	Wichita Mounta	65.90	63	*e*P	P	08 07 54.3	-0.1
WMOK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
AKASG	Malin Array Be	66.54	330	P	P	08 07 57.6	-0.5
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
AKASG	Malin Array Be	66.54	330	P	P	08 07 57.6	-0.6
	comp=Z,2.7nm,0.6s,mb4.5,baz=28,slow=6.1,SNR=8.4						
FVM	French Village	67.26	55	*e*P	P	08 08 02.6	-0.4
LTX	Lajitas	67.73	70	*e*P	P	08 08 05.7	-0.3
	comp=Z,13nm,1.0s,mb4.9						
LTX	Lajitas	67.73	70	*e*P	P	08 08 05.7	-0.4
LTX				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
TXAR	Lajitas Array	67.73	70	P	P	08 08 06.1	0.0
TXAR				pmax	pmax		
	comp=Z,7.0nm,0.9s						
TXAR	Lajitas Array	67.73	70	P	P	08 08 06.1	0.0
	comp=Z,7.2nm,0.9s,mb4.7,baz=297,slow=4.6,SNR=40						
EKA	Eskdalemuir Ar	67.93	352	P	P	08 08 06.3	-0.6
EKA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
EKA	Eskdalemuir Ar	67.93	352	P	P	08 08 06.2	-0.6
	comp=Z,7.8nm,0.7s,mb4.9,baz=17,slow=5.6,SNR=24						
SIUC	Southern Illin	68.03	55	*e*P	P	08 08 07.8	0.0
LPIG	La Paz	68.37	79	LR	LR	08 34 39.0	
	comp=Z,56nm,19.3s,MS3.8,baz=123,slow=33						
MIAR	Mount Ida	68.59	60	*e*P	P	08 08 11.2	-0.2
	comp=Z,10nm,0.9s,mb4.8						
MIAR	Mount Ida	68.59	60	*e*P	P	08 08 11.2	-0.2
MIAR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
ACSO	Alum Creek Sta	68.65	49	*e*P	P	08 08 10.8	-0.8
	comp=Z,19nm,0.8s,mb5.1						
JCT	Junction City	68.80	67	*e*P	P	08 08 12.6	-0.2
	comp=Z,20nm,0.9s,mb5.0						
JCT	Junction City	68.80	67	*e*P	P	08 08 12.6	-0.2
JCT				pmax	pmax		

	comp=Z,20nm,0.9s,mb5.0						
OJC	Ojcow	69.36	336	*e*P	P	08 08 16.2	+0.3
CLL	Collm	69.72	341	⇑*i*P	P	08 08 21.5	+3.4
	comp=Z,15nm,1.4s,mb4.7						
CLL	Collm	69.72	341	⇑*i*P	P	08 08 21.5	+3.4
CLL				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.7						
CLL	Collm	69.72	341	⇑*i*Pmax		08 08 21.5	
	comp=Z,15nm,1.4s						
STHS	Stebnicka Huta	69.77	335	*i* P	P	08 08 19.4	+0.9
	comp=Z,4.3nm,0.7s,mb4.5						
STHS				*e*	pP	08 08 23.2	+1.8
STHS	Stebnicka Huta	69.77	335	*i* P	P	08 08 19.4	+0.9
STHS				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
STHS	Stebnicka Huta	69.77	335	*i* P	P	08 08 19.4	+0.9
STHS				*i*	pP	08 08 23.2	+1.8
KOLS	Kolonicke sedl	69.97	334	*e*P	P	08 08 19.9	+0.2
DPC	Dobruska-Polom	69.99	338	*e*P	P	08 08 19.9	+0.1
DCN	Croghan	70.19	354	⇑*i*P	P	08 08 20.7	-0.3
DLF	Lyons Farm	70.20	353	⇑*i*P	P	08 08 20.7	-0.3
PRU	Pruhonice	70.69	339	*e*P	P	08 08 27.8	+3.7
PRU				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
VRAC	Vranov	70.92	338	P	P	08 08 25.9	+0.4
VRAC				pmax	pmax		
	comp=Z,3.0nm,0.5s						
VRAC	Vranov	70.92	338	P	P	08 08 25.9	+0.5
	comp=Z,2.9nm,0.5s,mb4.5,baz=278,slow=6.3,SNR=3.9						
VYHS	Vyhne	71.19	336	*e*P	P	08 08 27.8	+0.6
	comp=Z,5.2nm,1.5s,mb4.2						
VYHS	Vyhne	71.19	336	*e*P	P	08 08 27.8	+0.6
VYHS				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.2						
MEM	Membach	71.55	345	P	P	08 08 26.0	-3.3
	comp=Z,7.5nm,1.4s,mb4.4						
SWET	Sewanee	71.58	54	*e*P	P	08 08 28.9	-0.8
KHC	Kasperske Hory	71.70	339	*e*P	P	08 08 34.4	+4.2
BCLA	Clavier	71.83	345	P	P	08 08 28.7	-2.3
	comp=Z,12nm,2.5s,mb4.4						
GERES	GERESS Array B	71.94	339	P	P	08 08 31.8	+0.1
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	71.94	339	P	P	08 08 31.8	+0.1
	comp=Z,1.1nm,0.6s,mb4.0,baz=28,slow=6.0,SNR=9.0						
DOU	Dourbes	72.25	346	P	P	08 08 33.3	-0.2
	comp=Z,8.1nm,2.1s,mb4.3						
LRAL	Lakeview Retre	72.92	56	*e*P	P	08 08 36.6	-1.1
CDF	Champ du Feu	73.50	344	*e*P	P	08 08 40.7	-0.2
	comp=Z,3.1nm,0.6s,mb4.4						
CDF	Champ du Feu	73.50	344	*e*P	P	08 08 40.7	-0.2
CDF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
CDF	Champ du Feu	73.50	344	*e*P	P	08 08 40.7	-0.2
	comp=Z,6.2nm,0.7s,mb4.4						
FLN	La Foliniere	74.18	349	*e*P	P	08 08 44.1	-0.8
	comp=Z,9.7nm,0.8s,mb4.8						
FLN	La Foliniere	74.18	349	*e*P	P	08 08 44.1	-0.8
FLN				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
FLN	La Foliniere	74.18	349	*e*P	P	08 08 44.1	-0.8
	comp=Z,19nm,0.8s,mb4.8						
LDF	La Druitiere	74.31	349	*e*P	P	08 08 44.9	-0.8
GRR	Gorron	74.59	349	*e*P	P	08 08 46.7	-0.6
	comp=Z,8.3nm,0.8s,mb4.7						
GRR	Gorron	74.59	349	*e*P	P	08 08 46.7	-0.6
GRR				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
GRR	Gorron	74.59	349	*e*P	P	08 08 46.7	-0.6
	comp=Z,16nm,0.8s,mb4.7						
ROSF	Rostrenen	74.88	351	*e*P	P	08 08 48.6	-0.4
SGMF	Saint Gilles	74.89	350	*e*P	P	08 08 48.5	-0.6
	comp=Z,8.1nm,0.9s,mb4.7						
SGMF	Saint Gilles	74.89	350	*e*P	P	08 08 48.5	-0.6
SGMF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
SGMF	Saint Gilles	74.89	350	*e*P	P	08 08 48.5	-0.6
	comp=Z,16nm,0.9s,mb4.7						
CABF	La Chapelle	75.44	344	*e*P	P	08 08 52.1	-0.1
	comp=Z,5.9nm,0.9s,mb4.5						
CABF	La Chapelle	75.44	344	*e*P	P	08 08 52.1	-0.1
CABF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
CABF	La Chapelle	75.44	344	*e*P	P	08 08 52.1	-0.1
	comp=Z,12nm,0.9s,mb4.5						
AVF	Avril sur Loir	75.66	346	*e*P	P	08 08 52.1	-1.4
	comp=Z,8.0nm,1.1s,mb4.6						
AVF	Avril sur Loir	75.66	346	*e*P	P	08 08 52.1	-1.4
AVF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
AVF	Avril sur Loir	75.66	346	*e*P	P	08 08 52.1	-1.4
	comp=Z,16nm,1.1s,mb4.5						
LPL	La Plagne	76.40	343	*e*P	P	08 08 58.4	+0.6
LPG	La Plagne	76.42	343	*e*P	P	08 08 58.7	+0.9
	comp=Z,13nm,1.3s,mb4.7						
LPG	La Plagne	76.42	343	*e*P	P	08 08 58.7	+0.9
LPG				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
LPG	La Plagne	76.42	343	*e*P	P	08 08 58.7	+0.9
	comp=Z,26nm,1.3s,mb4.7						
ORIF	Oris-en-Rattie	77.12	344	*e*P	P	08 09 01.6	-0.2
	comp=Z,4.4nm,0.8s,mb4.4						
ORIF	Oris-en-Rattie	77.12	344	*e*P	P	08 09 01.6	-0.2
ORIF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
ORIF	Oris-en-Rattie	77.12	344	*e*P	P	08 09 01.6	-0.2
	comp=Z,8.9nm,0.8s,mb4.4						
FRF	La Foret Royal	78.32	343	*e*P	P	08 09 08.2	-0.3
PGF	Pioggiola	78.90	341	*e*P	P	08 09 11.6	-0.1
	comp=Z,6.4nm,0.9s,mb4.5						
PGF	Pioggiola	78.90	341	*e*P	P	08 09 11.6	-0.1
PGF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
PGF	Pioggiola	78.90	341	*e*P	P	08 09 11.6	-0.1
	comp=Z,13nm,0.9s,mb4.6						
WRA	Warramunga Arr	79.96	207	P	P	08 09 16.3	-1.3
WRA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
WRA	Warramunga Arr	79.96	207	P	P	08 09 16.3	-1.4
	comp=Z,2.1nm,0.8s,mb4.1,baz=21,slow=5.6,SNR=5.3						
ETSF	Etsaut	79.98	348	*e*P	P	08 09 18.0	+0.4
ESDC	Sonseca Array	83.53	350	P	P	08 09 36.2	-0.2
	comp=Z,1.9nm,0.6s,mb4.4,baz=0.8,slow=5.4,SNR=7.0						
STKA	Stephens Creek	89.96	198	P	P	08 10 06.9	-0.6
	comp=Z,2.2nm,0.7s,mb4.6,baz=340,slow=7.8,SNR=6.9						
TORD	Torodi Ar. Bea	108.87	341	PP	PP	08 16 02.3	-1.7
	comp=Z,1.4nm,1.1s,baz=20,slow=7.0,SNR=4.3						

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*NEIC **02** 08:06:37.2, 45.10S×166.68E, h5^{km}, ML4.3(WEL), After WEL.*

WEL 02 08:06:38.7±0.8**, 45.15S×166.75E, h12^{km}, ML4.3**/17**, 1C-3D, Error ellipse: s-maj=8.6km s-min=2.4km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DCZ	Deep Cove	0.44	139	P	Pg	08 06 47.4	+0.1
DCZ				S	Sg	08 06 53.6	+0.4
DCZ	Deep Cove	0.44	139	⇓P*	Pg	08 06 47.4	+0.1
DCZ				S*	Sg	08 06 53.5	+0.3
MSZ	Milford Sound	0.96	61	P	Pg	08 06 55.4	-1.9
MSZ				S	Sg	08 07 09.0	-0.8
MSZ	Milford Sound	0.96	61	P*	Pb	08 06 55.4	-1.9
MSZ				S*	Sb	08 07 08.7	-1.3
MLZ	Mavora Lakes	1.03	102	P	Pb	08 06 56.7	-1.7
MLZ	Mavora Lakes	1.03	102	⇓P*	Pb	08 06 56.7	-1.7
WHZ	Wether Hill Ro	1.12	132	P	Pb	08 06 58.8	-1.3
WHZ	Wether Hill Ro	1.12	132	⇓P*	Pb	08 06 58.8	-1.3
WKZ	Wanaka	1.64	80	P	Pn	08 07 07.7	+0.3
WKZ				S	Sn	08 07 31.2	+2.8
WKZ	Wanaka	1.64	80	PN	Pn	08 07 07.6	+0.3
WKZ				SN	Sn	08 07 31.0	+2.6
JCZ	Jackson Bay	1.79	54	P	Pn	08 07 07.9	-1.5
JCZ	Jackson Bay	1.79	54	⇑PN	Pn	08 07 07.9	-1.5
EAZ	Earnscleugh	1.81	94	P	Pn	08 07 09.7	0.0
EAZ	Earnscleugh	1.81	94	PN	Pn	08 07 09.6	-0.1
APZ	The Paps	1.89	153	PN	Pn	08 07 11.1	+0.3
SYZ	Scrubby Hill	2.17	131	PN	Pn	08 07 14.2	-0.4
TUZ	Tuapeka	2.18	113	*e*P	Pn	08 07 14.5	-0.3
TUZ	Tuapeka	2.18	113	PN	Pn	08 07 14.0	-0.8
LBZ	Lake Benmore	2.56	74	P	Pn	08 07 19.9	-0.1
LBZ	Lake Benmore	2.56	74	PN	Pn	08 07 19.8	-0.2
FOZ	Fox Glacier	2.64	54	P	Pn	08 07 19.6	-1.4
FOZ	Fox Glacier	2.64	54	PN	Pn	08 07 19.5	-1.5
ODZ	Otahua Downs	2.76	89	*e*P	Pn	08 07 22.0	-0.7
ODZ	Otahua Downs	2.76	89	PN	Pn	08 07 22.0	-0.7
HHSZ	Highcliff Hill	2.81	107	PN	Pn	08 07 23.1	-0.2
RPZ	Rata Peaks	3.40	67	P	Pn	08 07 30.5	-1.0
RPZ	Rata Peaks	3.40	67	PN	Pn	08 07 29.9	-1.6
WVZ	Waitaha Valley	3.54	56	P	Pn	08 07 31.1	-2.4
WVZ	Waitaha Valley	3.54	56	PN	Pn	08 07 31.0	-2.5
MQZ	McQueen's Vall	4.47	73	PN	Pn	08 07 45.1	-1.1
CRLZ	Canterbury Las	4.50	72	*e*PN	Pn	08 07 42.7	-3.9
CRLZ				SN	Sn	08 08 36.7	-2.1
LTZ	Lake Taylor	4.63	61	*e*PN	Pn	08 07 45.8	-2.7
DSZ	Denniston Nort	5.01	49	PN	Pn	08 07 50.4	-3.2
DSZ				SN	Sn	08 08 45.3	-6.2
THZ	Tophouse	5.61	55	*e*PN	Pn	08 07 59.5	-2.5
KHZ	Kahutara	5.62	63	*e*PN	Pn	08 08 01.6	-0.5
QRZ	Quartz Range	6.05	46	PN	Pn	08 08 05.2	-2.8
QRZ				SN	Sn	08 09 08.7	-8.4
NNZ	Nelson	6.24	53	PN	Pn	08 08 08.4	-2.1
TUWZ	Tuamarina	6.43	57	*e*PN	Pn	08 08 12.2	-1.0
TCW	Tory Channel	6.76	57	*e*PN	Pn	08 08 16.0	-1.7
DUWZ	D'Urville Isla	6.82	53	*e*PN	Pn	08 08 16.9	-1.6
CAW	Cannon Point	7.30	59	*e*PN	Pn	08 08 21.4	-3.7
HIZ	Hauiti	8.97	45	PN	Pn	08 08 45.8	-2.3
WCZ	Waipu Caves	10.86	35	*e*PN	Pn	08 09 11.2	-2.7

WEL 02 08:54:52.4±0.5**, 45.22S×166.84E, h12^{km}, ML3.6**/11**, 1D, Error ellipse: s-maj=4.8km s-min=2.1km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DCZ	Deep Cove	0.34	139	P*	Pg	08 54 59.5	+0.3
DCZ				S*	Sg	08 55 04.8	+1.0
MSZ	Milford Sound	0.95	55	P*	Pb	08 55 07.9	-2.8
MLZ	Mavora Lakes	0.95	98	⇓P*	Pb	08 55 08.8	-1.9
MLZ				S*	Sb	08 55 21.3	-1.9
WHZ	Wether Hill Ro	1.03	131	P*	Pb	08 55 10.9	-1.2
WKZ	Wanaka	1.59	76	PN	Pn	08 55 20.0	-0.4
EAZ	Earnscleugh	1.74	91	PN	Pn	08 55 22.3	-0.1
JCZ	Jackson Bay	1.79	51	PN	Pn	08 55 20.1	-2.9
APZ	The Paps	1.80	154	PN	Pn	08 55 23.4	+0.2
SYZ	Scrubby Hill	2.08	130	PN	Pn	08 55 26.7	-0.3
TUZ	Tuapeka	2.09	112	PN	Pn	08 55 26.6	-0.6
LBZ	Lake Benmore	2.52	72	PN	Pn	08 55 32.2	-1.0
ODZ	Otahua Downs	2.70	88	PN	Pn	08 55 34.3	-1.3
ODZ				SN	Sn	08 56 05.2	-3.0
HHSZ	Highcliff Hill	2.72	105	PN	Pn	08 55 35.5	-0.3
RPZ	Rata Peaks	3.37	65	PN	Pn	08 55 42.6	-2.2
RPZ				SN	Sn	08 56 23.0	-1.7
LTZ	Lake Taylor	4.61	60	*e*PN	Pn	08 55 59.7	-2.2
DSZ	Denniston Nort	5.01	48	PN	Pn	08 56 02.9	-4.4
THZ	Tophouse	5.60	54	*e*PN	Pn	08 56 12.4	-3.1
QRZ	Quartz Range	6.05	45	*e*PN	Pn	08 56 17.4	-4.3
NNZ	Nelson	6.23	52	*e*PN	Pn	08 56 21.0	-3.1
WCZ	Waipu Caves	10.88	34	*e*PN	Pn	08 57 24.1	-3.8

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*CNRM **02** 09:35:54.1, 32.47N×3.22W, h31^{km}, MD3.8*

CSEM 02 09:35:53.2±0.4**, 32.49N×3.34W, h35^{km}, MD3.8, Error ellipse: s-maj=8.0km s-min=5.4km az=103.0, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZFT	Errachidia	0.97	243	*i* P	Pn	09 36 11.0	+0.7
ZFT				*i* S	Sn	09 36 24.0	+1.1
CZD	Col de Zad	1.54	291	*i* P	Pn	09 36 20.0	+1.9
CZD				*i* S	Sn	09 36 39.0	+2.1
TZK	Tazeka	1.75	336	*i* P	Pn	09 36 22.0	+1.0
TZK				*i* S	Sn	09 36 41.0	-1.1
IFR	Ifrane	1.82	305	P	Pn	09 36 24.0	+2.0
IFR				S	Sn	09 36 46.0	+2.1
MIF	Mishlifen	1.84	301	*i* P	Pn	09 36 23.0	+0.8
MIF				*i* S	Sn	09 36 45.0	+0.7
TGT	Taghat	2.14	318	*i* P	Pn	09 36 29.0	+2.6
TGT				*i* S	Sn	09 36 52.5	+0.9
KIB	El Ksiba	2.29	273	*i* P	Pn	09 36 30.0	+1.6
KIB				*i* S	Sn	09 36 56.0	+0.7
TZC	Tazercounte	2.69	264	*e*P	Pn	09 36 35.0	+1.0
TZC				*i* S	Sn	09 37 07.0	+1.7

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*IDC **02** 09:58:05.0±1.0, 1.23N×126.27E, h0^{km}, mb4.0/5, mb1 4.1/6, mb1mx4.0/15, mbtmp4.0/6, ML3.6/1, MS3.3/1, Ms1 3.3/1, ms1mx2.9/23, Error ellipse: s-maj=57.0km s-min=17.8km az=77.0*

*NEIC **02** 09:58:05.9±0.5, 1.20N×126.41E, h10^{km}, mb4.3/2, Error ellipse: s-maj=32.0km s-min=8.5km az=74.0*

*ISCJB **02** 09:58:07.3±0.7, 1.2N±0.1×126.2E±0.3, h33^{km}, mb4.0/6, Error ellipse: s-maj=43.3km s-min=11.7km az=164.5*

ISC 02 09:58:09.5±0.7**, 1.2N**±0.1**×126.3E**±0.3**, h35^{km}, n11, σ0^{s}.55**/10**, mb4.0**/6**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	19.14	182	P	Pn	10 02 30.8	-0.1
	0.1nm,0.3s,baz=7.4,slow=13,SNR=3.4						
GUMO	Guam	22.12	55	LR	LR	10 10 16.3	
	comp=Z,70nm,19.1s,baz=189,slow=33						
WRA	Warramunga Arr	22.38	160	P	P	10 03 04.9	+0.1
	8.8nm,0.7s,mb4.3,baz=338,slow=11,SNR=20						
WB2	Warramunga Arr	22.39	160	*e*P	P	10 03 04.3	-0.6
STKA	Stephens Creek	35.89	158	*e*P	P	10 05 06.0	-0.3
	2.8nm,0.9s,mb4.2						
STKA	Stephens Creek	35.89	158	P	P	10 05 08.8	+2.4
	2.7nm,0.7s,mb4.3,baz=324,slow=9.8,SNR=6.8						
MJAR	Matsushiro Arr	36.90	16	P	P	10 05 14.7	-0.2
	1.6nm,0.9s,mb3.9,baz=187,slow=8.6,SNR=3.5						
SONM	Songino Array	49.61	342	P	P	10 06 57.6	+0.3
	0.4nm,0.7s,mb3.6,baz=160,slow=7.0,SNR=2.8						
MK31	Makanchi Array	59.45	326	*e*P	P	10 08 08.8	0.0
MKAR	Makanchi Array	59.45	326	P	P	10 08 08.9	0.0
	0.9nm,0.5s,mb4.0,baz=119,slow=8.2,SNR=8.7						
KURK	Kurchatov	63.70	328	*e*P	P	10 08 37.2	-0.3
	1.2nm,0.4s,mb4.3						

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*HEL **02** 10:04:34.8±0.6, 59.22N×27.23E, h0^{km}, ML1.7, ML2.1(NAO), Explosion*

*BER **02** 10:04:36.6±2.5, 59.28N×27.18E, h0^{km}, ML2.1(NAO), Suspected explosion*

*NAO **02** 10:04:37.0±2.0, 59.31N×27.08E, ML2.1*

ISC 02 10:04:35.9±1.5**, 59.34N**±0.06**×26.9E**±0.1**, h0^{km}, n17, σ1^{s}.31**/25**, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VJF	Virojoki	1.25	15	*e*P	Pg	10 04 58.7	-1.1
VJF				*e*S	Sg	10 05 15.8	-0.2
VJF				MSG		10 05 15.8	
	comp=Z,3.9nm,0.2s						
MEF	Metsahovi	1.54	306	*e*PN	Pn	10 05 06.5	+2.0
MEF				*e*S	Sn	10 05 28.3	+3.2
MEF				MSG		10 05 28.3	
	comp=Z,4.9nm,0.1s						
FIA0	FINESS Array S	2.15	350	Pn	Pn	10 05 14.5	+1.5
	baz=164,slow=18						
FIA0				Lg		10 05 46.4	
	baz=166,slow=28						
FIA0				Rg		10 05 59.0	
	baz=163,slow=37						
FIA0	FINESS Array S	2.15	350	*e*PB	Pb	10 05 14.8	-0.8
	baz=167						
FIA0				*e*SB	Sb	10 05 43.9	+1.1
FIA0				MSG		10 05 43.9	
	comp=Z,4.3nm,0.3s						
FIA0	FINESS Array S	2.15	350	Pn	Pn	10 05 14.5	+1.5
	baz=164,slow=18						
FIA0				Lg		10 05 46.4	
	baz=166,slow=28						
FIA0				Rg		10 05 59.0	
	baz=163,slow=37						
KAF	Kangasniemi	2.79	354	*e*P	Pn	10 05 23.5	+1.7
KAF				*e*SG	Sg	10 06 04.4	-1.2
KAF				MSG		10 06 04.4	
	comp=Z,2.4nm,0.2s						
KEF	Keuruu	3.00	342	*e*PG	Pg	10 05 31.7	-1.7
KEF				*e*SG	Sg	10 06 13.1	+0.8
KEF				MSG		10 06 13.1	
	comp=Z,2.5nm,0.4s						
RAF	Rauma	3.06	306	*e*PB	Pb	10 05 29.8	-1.4
RAF				*e*SB	Sb	10 06 10.0	+0.9
RAF				MSG		10 06 10.0	
	comp=Z,1.2nm,0.2s						
HFS	Hagfors	6.72	282	Pn	Pn	10 06 15.8	+0.1
	baz=78,slow=18						
HFS				Sn	Sn	10 07 32.2	-0.6
	baz=85,slow=37						
HFS				Lg		10 08 08.1	
	baz=95,slow=37						
HFS	Hagfors	6.72	282	*e*P	Pn	10 06 15.8	+0.1
HFS				*e*S	Sn	10 07 32.2	-0.6
HFS				*e*SG	Sg	10 08 08.1	-3.3
HFS	Hagfors	6.72	282	Pn	Pn	10 06 15.8	+0.1
	baz=78,slow=18						
HFS				Sn	Sn	10 07 32.2	-0.6
	baz=85,slow=37						
HFS				Lg		10 08 08.1	
	baz=95,slow=37						
NB2	NORSAR Subarra	7.99	289	Lg		10 08 48.3	
NB2	NORSAR Subarra	7.99	289	*e*SG	Sg	10 08 48.3	-4.0
NB2	NORSAR Subarra	7.99	289	Lg		10 08 48.3	
ARA0	ARCESS Array S	10.25	357	Pn	Pn	10 07 03.5	-0.5
	baz=174,slow=14						
ARA0	ARCESS Array S	10.25	357	*e*P	Pn	10 07 03.5	-0.5
ARA0	ARCESS Array S	10.25	357	Pn	Pn	10 07 03.5	-0.5
	baz=174,slow=14						

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*PRU **02** 10:31:20.3, 50.25N×18.96E, h0^{km}*

*VIE **02** 10:31:25.2±0.9, 49.86N×18.73E, h0^{km}, mb2.2/2, ML2.4/3, Error ellipse: s-maj=6.3km s-min=4.8km az=153.0 34 km E of Ostrava Suspected Mining induced.*

WAR 02 10:31:19.5, 50.23N×19.07E, ML2.8, 2C, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKC	Ostrava-Krasne	0.72	237	*e*PG	Pg	10 31 33.2	0.0
OKC				*e*SG	Sg	10 31 43.3	+0.8
	44nm,0.4s						
LIKS	Likavka	1.18	179	*e*SG	Sg	10 31 58.3	+0.8
STHS	Stebnicka Huta	1.63	119	*i* PN	Pn	10 31 51.0	+1.7
STHS				*e*SN	Sn	10 32 14.7	+3.8
VYHS	Vyhne	1.75	185	*i* PN	Pn	10 31 50.0	-1.0
VYHS				*e*SN	Sn	10 32 13.0	-0.9
DPC	Dobruska-Polom	1.77	275	*e*PG	Pg	10 31 50.1	-3.3
DPC				*e*SG	Sg	10 32 14.0	-2.3
	22nm,0.4s						
KECS	Kecovo	1.98	152	*e*PN	Pn	10 31 56.3	+2.1
KECS				*e*SN	Sn	10 32 20.1	+0.4
UPC	Upice	1.98	279	*e*SG	Sg	10 32 20.3	-2.7
MODS	Modra-Piesok	2.20	213	*e*PN	Pn	10 31 56.0	-1.2
KOLS	Kolonicke sedl	2.46	121	*e*PN	Pn	10 32 05.0	+4.3
PRU	Pruhonice	2.93	267	*e*SG	Sg	10 32 50.4	-3.1
	8.7nm,0.6s						
KHC	Kasperske Hory	3.73	255	*e*PN	Pn	10 32 17.0	-1.3
KHC				*e*PG	Pg	10 32 30.0	-1.0
KHC				*e*SG	Sg	10 33 16.9	-2.5
	14nm,0.5s						
MOA	Molln	3.96	235	⇑*i*Sg	Sg	10 33 22.9	-3.8
	comp=Z,5.7nm,0.6s						
MOA	Molln	3.96	235	⇑*i*Sg	Sg	10 33 22.9	-3.8
	5.7nm,0.6s						
CLL	Collm	4.00	288	*e*Sg	Sg	10 33 27.0	-1.0
	comp=Z,10.0nm,0.6s						
NKC	Novy Kostel	4.25	273	*e*SG	Sg	10 33 32.7	-3.4
	comp=Z,38nm,1.2s						

IDC 02 10:46:35.7±2.8**, 7.06S×108.19E, h0^{km}, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.6**/17**, mbtmp3.8**/3**, Error ellipse: s-maj=150.2km s-min=28.0km az=51.0, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	28.41	119	P	P	10 52 31.7	-0.5
	0.4nm,0.3s,baz=291,slow=11,SNR=16						
STKA	Stephens Creek	39.73	133	P	P	10 54 10.7	+0.5
	1.9nm,0.3s,baz=307,slow=9.6,SNR=8.2						
MKAR	Makanchi Array	58.35	339	P	P	10 56 32.6	0.0
	0.3nm,0.6s,baz=139,slow=8.4,SNR=4.8						

WEL 02 11:04:04.8±0.5**, 37.28S×178.35E, h44^{km}**±3^{km}**, ML3.6**/4**, Error ellipse: s-maj=4.8km s-min=3.5km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	0.28	187	PN	Pn	11 04 13.1	-0.1
MXZ				SN	Sn	11 04 19.2	+0.1
PUZ	Puketiti	0.79	185	PN	Pn	11 04 19.4	-0.2
PUZ				SN	Sn	11 04 29.7	-0.6
MWZ	Matawai	1.24	212	PN	Pn	11 04 25.7	+0.1
MWZ				SN	Sn	11 04 41.5	+0.5
URZ	Urewera	1.39	225	PN	Pn	11 04 27.2	-0.4
MARZ	Manawahe	1.51	242	PN	Pn	11 04 28.7	-0.6
KNZ	Kokohu	1.82	197	PN	Pn	11 04 31.9	-1.6
KUZ	Kuaotunu	2.17	283	PN	Pn	11 04 38.8	+0.3
BKZ	Black Stump Fm	2.38	217	PN	Pn	11 04 40.9	-0.4
TUVZ	Tukino	2.91	226	PN	Pn	11 04 48.1	-0.3
WNVZ	Wahianoa	2.98	226	PN	Pn	11 04 49.0	-0.5
PXZ	Pawanui	2.98	203	*e*PN	Pn	11 04 46.0	-3.5
PXZ				SN	Sn	11 05 18.9	-5.2
MTVZ	Mangateitei	3.09	226	*e*PN	Pn	11 04 50.3	-0.7
TSZ	Takapari Road	3.34	213	*e*PN	Pn	11 04 51.7	-2.8
WCZ	Waipu Caves	3.49	291	PN	Pn	11 04 58.4	+1.8
BFZ	Birch Farm	3.77	205	*e*PN	Pn	11 04 56.5	-3.8
OUZ	Omahuta	4.36	297	PN	Pn	11 05 11.1	+2.6
THZ	Tophouse	6.14	222	*e*PN	Pn	11 05 28.2	-4.7
MQZ	McQueen's Vall	7.75	212	SN	Sn	11 07 08.9	-12

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*ISCJB **02** 11:29:57.4±2.4, 5.5S±0.2×147.3E±0.2, h194^{km}±19^{km}, mb4.0/5, Error ellipse: s-maj=31.9km s-min=24.7km az=170.8*

*NEIC **02** 11:29:58.3±1.7, 5.45S×147.29E, h192^{km}±14^{km}, mb4.9/4, Error ellipse: s-maj=20.7km s-min=15.8km az=96.0*

*IDC **02** 11:29:58.1±3.2, 5.45S×147.40E, h192^{km}±33^{km}, mb3.5/2, mb1 3.8/5, mb1mx3.5/13, mbtmp3.7/5, Error ellipse: s-maj=49.1km s-min=25.5km az=104.0*

ISC 02 11:29:57.7±2.4**, 5.5S**±0.2**×147.3E**±0.2**, h182^{km}**±19^{km}**, n15, σ0^{s}.71**/14**, mb4.0**/5**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.90	182	P	Pn	11 30 59.0	+1.5
	14nm,0.3s,baz=344,slow=7.4,SNR=43						
PMG				S	Sn	11 31 43.0	-1.4
	21nm,0.3s,baz=11,slow=22,SNR=18						
CTA	Charters Tower	14.55	184	P	Pn	11 33 15.4	+0.2
	0.1nm,0.3s,baz=27,slow=16,SNR=2.2						
KAKA	Kakadu	16.31	243	*e*P	Pn	11 33 36.6	-0.2
	44nm,0.4s						
WB2	Warramunga Arr	19.10	220	*e*P	P	11 34 07.1	+0.3
WRA	Warramunga Arr	19.11	220	P	P	11 34 07.5	+0.7
	6.8nm,0.3s,baz=45,slow=12,SNR=300						
FITZ	Fitzroy Crossi	24.58	238	*e*P	P	11 35 01.3	+0.1
	45nm,0.5s,mb5.2						
FITZ	Fitzroy Crossi	24.58	238	P	P	11 35 01.8	+0.6
	23nm,0.5s,mb5.0,baz=54,slow=9.9,SNR=88						
STKA	Stephens Creek	26.79	191	*e*P	P	11 35 21.2	+0.3
	1.6nm,0.4s,mb4.0						
STKA	Stephens Creek	26.79	191	P	P	11 35 21.0	+0.1
	1.3nm,0.7s,mb3.7,baz=8.9,slow=8.0,SNR=4.4						
KLBR	Kellerberrin	37.94	223	*e*P	P	11 36 57.0	-0.8
	4.8nm,0.4s,mb4.5						
CASY	Casey	65.82	195	*e*P	P	11 40 23.3	+0.1
MKAR	Makanchi Array	77.28	320	P	P	11 41 31.9	-0.2
	0.2nm,0.5s,mb3.0,baz=97,slow=6.0,SNR=3.2						
ZALV	Zalesovo Beam	78.73	328	P	P	11 41 39.1	-0.7
	0.4nm,0.5s,mb3.4,baz=122,slow=5.2,SNR=2.5						
TORD	Torodi Ar. Bea	145.24	285	PKPbc	PKPbc	11 49 13.7	-1.2
TORD	Torodi Ar. Bea	145.24	285	PKPbc	PKPbc	11 49 13.7	-1.2
	0.3nm,0.3s,baz=79,slow=2.8,SNR=8.0						

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*SKO **02** 12:06:25.3, 39.11N×20.44E, h0^{km}*

*TIR **02** 12:06:26.3±6.6, 40.21N×20.75E, h6^{km}±999^{km}, ML4.2*

*LDG **02** 12:06:26.1±0.1, 39.67N×20.77E, h10^{km}, Mb4.8/36, Ms3.5/6, Error ellipse: s-maj=5.8km s-min=2.8km az=20.0*

*ISCJB **02** 12:06:27.5±0.3, 39.44N±0.01×20.68E±0.01, h10^{km}±2^{km}, mb4.7/81, MS4.1/25, Error ellipse: s-maj=2.3km*

s-min=1.7km az=16.6

PRU ***02*** *12:06:27.5, 3948N×2084E, h0^{km}, M4.7*

BJI ***02*** *12:06:27.1, 3959N×2046E, h21^{km}, mB5.1, mb4.7, Ms5.0, Msz4.7*

IDC ***02*** *12:06:27.2±0.6, 3954N×2079E, h0^{km}, mb4.5/18, mb1 4.5/28, mb1mx4.5/31, mbtmp4.4/28, ML4.2/10, MS4.0/14, Ms1 4.0/14, ms1mx3.7/32, Error ellipse: s-maj=13.8km s-min=11.4km az=52.0*

ATH ***02*** *12:06:28.1, 3949N×2066E, h10^{km}±1^{km}, MD4.3/26, ML4.4*

NEIC ***02*** *12:06:28.0, 3950N×2067E, h5^{km}, mb4.7/30, ML5.0(THE), ML4.4(ATH), After ATH.*

PDG ***02*** *12:06:28.9±3.2, 3951N×2065E, h9^{km}±9^{km}, MD4.6/10, ML4.5/10, Error ellipse: s-maj=4.9km s-min=4.5km az=90.0*

CSEM ***02*** *12:06:29.2±0.0, 3947N×2060E, h10^{km}, mb4.7/18, Ms3.5, Error ellipse: s-maj=1.3km s-min=1.0km az=176.0*

MOS ***02*** *12:06:29.4±1.3, 3950N×2053E, h23^{km}, mb4.8/31, MS4.1/22, Error ellipse: s-maj=3.6km s-min=2.4km az=102.8*

THE ***02*** *12:06:30.1, 3939N×2081E, h3^{km}, ML5.0*

SZGRF ***02*** *12:06:37.1, 3983N×2037E, h10^{km}, mb4.2, Greece-Albania border region*

HLW ***02*** *12:06:47.1, 3855N×2252E, h33^{km}, Mb3.9*

ISC 02 12:06:28.8±0.3, **3944N**±001×**2071E**±001, **h7**^{km}±2^{km}, **h35**^{km}±1.8^{km}**:pP-P, n797,** σ1^{s}**29**/909, **mb4.7**/81, **MS4.1**/25, **66C-29D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAN	Janina	0.24	27	*e*Pg	Pg	12 06 33.0	-0.7
JAN	Janina	0.24	27	*e*PG	Pg	12 06 33.0	-0.7
JAN				*e*SG	Sg	12 06 36.1	-0.9
JAN	Janina	0.24	27	*e*Pg	Pg	12 06 33.0	-0.7
MEV	Metsovon	0.53	49	P	Pg	12 06 38.4	-0.6
MEV	Metsovon	0.53	49	*e*Pg	Pg	12 06 38.5	-0.5
SRN	Sarande	0.70	309	*i* PG	Pg	12 06 40.7	-1.7
SRN				*i* SG	Sg	12 06 50.9	-0.6
LKD	Levkas	0.73	184	P	Pg	12 06 42.0	-0.9
LKD	Levkas	0.73	184	*e*Pg	Pg	12 06 43.6	+0.8
LKD				*e*Sg	Sg	12 06 53.9	+1.5
LKD	Levkas	0.73	184	*e*Pg	Pg	12 06 43.7	+0.8
LKD				*e*Sg	Sg	12 06 53.9	+1.5
KEK	Kerkira	0.76	292	*i* Pb	Pg	12 06 41.5	-1.9
KEK	Kerkira	0.76	292	*i* PB	Pg	12 06 41.5	-1.9
KEK	Kerkira	0.76	292	Pg	Pg	12 06 42.3	-1.1
KEK				Sg	Sg	12 06 56.6	+3.4
	42µm,1.2s						
EVR	Evrytania	1.00	121	*e*Pg	Pg	12 06 47.6	-0.4
EVR	Evrytania	1.00	121	*e*PG	Pg	12 06 47.6	-0.4
THL	Klokotos Trika	1.02	82	*e*PB	Pb	12 06 47.0	-1.7
KZN	Kozani	1.19	43	*e*Pn	Pn	12 06 49.8	-2.1
KZN	Kozani	1.19	43	*e*PN	Pn	12 06 49.8	-2.1
VLS	Valsamata	1.26	184	*e*Pg	Pg	12 06 52.5	-0.5
VLS				*e*Sb	Sb	12 07 12.0	+2.7
VLS	Valsamata	1.26	184	*e*PG	Pg	12 06 52.5	-0.5
VLS				*e*SB	Sb	12 07 12.0	+2.7
AGG	Agios Georgios	1.33	108	*e*Pg	Pg	12 06 53.5	-0.8
AGG	Agios Georgios	1.33	108	*e*Pg	Pg	12 06 53.5	-0.7
VLO	Vlora	1.39	318	*i* PN	Pn	12 06 55.6	+1.0
VLO				*i* SN	Sg	12 07 17.5	+4.0
FNA	Florina	1.44	21	*e*Pg	Pg	12 06 55.8	-0.6
FNA	Florina	1.44	21	P	Pn	12 06 54.8	-0.5
FNA	Florina	1.44	21	*e*Pg	Pg	12 06 55.8	-0.6
RLS	Riolos of Patr	1.50	157	*e*Pg	Pg	12 06 57.1	-0.5
RLS	Riolos of Patr	1.50	157	*e*PG	Pg	12 06 57.1	-0.5
RLS	Riolos of Patr	1.50	157	*e*Pg	Pg	12 06 57.1	-0.5
LIT	Litokhoron	1.52	64	*e*Pg	Pg	12 06 56.9	-1.1
LIT				*e*Sg	Sg	12 07 18.1	+0.3
LIT	Litokhoron	1.52	64	P	Pn	12 06 57.1	+0.7
LIT	Litokhoron	1.52	64	*e*Pg	Pg	12 06 56.9	-1.1
LIT				*e*Sg	Sg	12 07 18.1	+0.3
BIA	Bitola	1.65	16	*e*Pb	Pb	12 06 59.6	+0.1
BIA				*e*Sb	Sg	12 07 25.0	+3.2
BIA	Bitola	1.65	16	*e*Pn	Pn	12 06 58.4	+0.2
BIA				*e*Sn	Sg	12 07 25.8	+4.0
BIA				*e*Sn	Sg	12 07 26.2	+4.4
BIA	Bitola	1.65	16	*e*Pn	Pn	12 06 58.3	+0.2
BIA	Bitola	1.65	16	P	Pn	12 06 58.7	+0.6
BIA				*e*Sn	Sg	12 07 25.7	+3.9
OHR	Ohrid	1.67	2	*e*Pb	Pb	12 07 00.1	+0.2
OHR				*e*Sb	Sg	12 07 24.1	+1.5
OHR	Ohrid	1.67	2	P	Pn	12 06 59.8	+1.3
OHR	Ohrid	1.67	2	*e*Pn	Pn	12 06 59.9	+1.4
OHR				*i* Sn	Sg	12 07 24.9	+2.3
OHR				*i* Sn	Sg	12 07 26.3	+3.7
OHR	Ohrid	1.67	2	*e*Pn	Pn	12 06 59.9	+1.4
OHR				*i* Sn	Sg	12 07 24.9	+2.3
SCTE	Santa Cesarea	1.84	291	Pg	Pn	12 07 00.5	-0.3
	8µm,1.1s						
XOR	Xorichti	1.93	91	*e*Pb	Pb	12 07 02.8	-1.4
XOR	Xorichti	1.93	91	*e*Pb	Pb	12 07 02.8	-1.4
XOR	Xorichti	1.93	91	P	Pn	12 07 03.5	+1.6
LKR	Lokris	1.95	113	*e*Pn	Pn	12 07 03.7	+1.4
LKR				*e*Sn	Sg	12 07 31.6	+0.2
LKR	Lokris	1.95	113	*e*PN	Pn	12 07 03.7	+1.4
LKR				*e*SN	Sn	12 07 29.9	+3.0
LKR	Lokris	1.95	113	*e*Pn	Pn	12 07 03.7	+1.4
NEO	Neokhori	1.95	93	*e*Pg	Pg	12 07 05.0	-1.3
NEO				*e*Sn	Sg	12 07 31.4	-0.2
NEO	Neokhori	1.95	93	*e*PG	Pg	12 07 05.0	-1.3
NEO				*e*SN	Sn	12 07 30.4	+3.3
NEO	Neokhori	1.95	93	*e*Pg	Pg	12 07 05.0	-1.3
KRUS	Krusevo	1.97	12	*e*Pn	Pn	12 07 03.8	+1.2
KRUS	Krusevo	1.97	12	*e*Pn	Pn	12 07 03.8	+1.2
GRG	Griva	2.00	40	*e*Pn	Pn	12 07 04.8	+1.9
GRG	Griva	2.00	40	P	Pn	12 07 04.1	+1.2
GRG	Griva	2.00	40	*e*Pn	Pn	12 07 04.8	+1.9
TIR	Tirane	2.01	342	*i* PN	Pn	12 07 05.3	+2.1
TIR	Tirane	2.01	342	Pg	Pn	12 07 04.8	+1.6
TIR				Sg	Sg	12 07 38.1	+4.6
THE	Thessaloniki	2.10	55	*e*Pn	Pn	12 07 04.7	+0.3
THE	Thessaloniki	2.10	55	*e*Pn	Pn	12 07 04.7	+0.3
THE	Thessaloniki	2.10	55	P	Pn	12 07 06.2	+1.8
HORT	Hortiatis	2.17	57	*e*Pn	Pn	12 07 06.4	+1.1
HORT	Hortiatis	2.17	57	*e*Pn	Pn	12 07 06.4	+1.1
HORT	Hortiatis	2.17	57	P	Pn	12 07 07.5	+2.2
LCI	Lecce	2.19	295	P	Pn	12 07 05.1	-0.5
LCI	Lecce	2.19	295	Pg	Pn	12 07 05.8	+0.2
	2µm,0.8s						
PLG	Polygyros	2.30	65	*e*Pn	Pn	12 07 08.2	+1.1
PLG	Polygyros	2.30	65	*e*Pn	Pn	12 07 08.6	+1.4
PLG	Polygyros	2.30	65	*e*PN	Pn	12 07 08.2	+1.1
PLG	Polygyros	2.30	65	*e*Pn	Pn	12 07 08.2	+1.1
PAIG	Paliouri	2.34	77	*e*Pn	Pn	12 07 08.1	+0.4
PAIG	Paliouri	2.34	77	*e*Pn	Pn	12 07 08.1	+0.4
PAIG	Paliouri	2.34	77	P	Pn	12 07 09.2	+1.5
VAY	Valandovo	2.36	36	*e*Pn	Pn	12 07 08.2	+0.3
VAY	Valandovo	2.36	36	*e*Pn	Pn	12 07 08.3	+0.4
VAY				*i* Sn	Sn	12 07 40.6	+3.6
VAY	Valandovo	2.36	36	*e*Pn	Pn	12 07 08.3	+0.4
VAY	Valandovo	2.36	36	P	Pn	12 07 09.2	+1.3
VAY				*i* Sn	Sn	12 07 40.6	+3.6
KNT	Kendrikon	2.40	43	*e*Pn	Pn	12 07 09.8	+1.3
KNT	Kendrikon	2.40	43	P	Pn	12 07 09.6	+1.1
KNT	Kendrikon	2.40	43	*e*Pn	Pn	12 07 09.8	+1.3
ITM	Ithomi	2.45	157	*e*Pn	Pn	12 07 12.1	+3.0
ITM	Ithomi	2.45	157	*e*PN	Pn	12 07 12.1	+3.0
SOH	Sokhos	2.45	55	*e*Pn	Pn	12 07 10.8	+1.5
SOH	Sokhos	2.45	55	P	Pn	12 07 11.1	+1.9
SOH	Sokhos	2.45	55	*e*Pn	Pn	12 07 10.8	+1.6
MGER	Gerania Oros	2.47	125	*e*PG	Pg	12 07 15.5	-0.6
AOS	Alonnisos	2.48	95	P	Pn	12 07 11.3	+1.8
AOS	Alonnisos	2.48	95	*e*Pn	Pn	12 07 10.1	+0.6
AOS	Alonnisos	2.48	95	*e*Pn	Pn	12 07 10.1	+0.6
STIP	Stip	2.52	26	*e*Pn	Pn	12 07 12.7	+2.6
STIP	Stip	2.52	26	*e*Pn	Pn	12 07 13.0	+2.9
STIP				*e*Sn	Sg	12 07 46.3	-3.4
STIP	Stip	2.52	26	*e*Pn	Pn	12 07 12.7	+2.6
SKO	Skopje	2.59	12	*e*Pn	Pn	12 07 12.2	+1.1
SKO	Skopje	2.59	12	P	Pn	12 07 13.0	+1.9
SKO	Skopje	2.59	12	*e*Pn	Pn	12 07 12.5	+1.4
SKO	Skopje	2.59	12	*e*Pn	Pn	12 07 12.5	+1.4
NAIG	Nisos Aigina	2.75	127	*e*Pb	Pb	12 07 15.0	-3.2
NAIG	Nisos Aigina	2.75	127	*e*PB	Pb	12 07 15.0	-3.2
ULC	Ulcinj	2.76	337	⇑*i*Pn	Pn	12 07 13.5	+0.1
ULC				*e*Sn	Sn	12 07 47.9	+1.0
ULC	Ulcinj	2.76	337	⇑*i*Pn	Pn	12 07 13.5	+0.1
ULC				*e*Sn	Sn	12 07 47.9	+1.0
ULC	Ulcinj	2.76	337	⇑*i*Pn	Pn	12 07 13.5	+0.1
ULC				*e*Sn	Sn	12 07 47.9	+1.0
ATH	Athens Observa	2.77	121	*e*Pn	Pb	12 07 17.0	-1.6
ATH	Athens Observa	2.77	121	*e*PB	Pb	12 07 17.0	-1.6
SRS	Serrai	2.77	52	*e*Pn	Pn	12 07 14.5	+1.0
SRS	Serrai	2.77	52	*e*Pn	Pn	12 07 14.5	+0.9
PTL	Penteli	2.83	118	*e*Pn	Pb	12 07 18.5	-1.1
PTL	Penteli	2.83	118	*e*PB	Pb	12 07 18.5	-1.1
PE1	Pezze di Greco	2.87	300	*e*Pn	Pn	12 07 13.9	-1.0
KVR	Kavouri	2.89	123	*e*PB	Pb	12 07 18.0	-2.6
KVR	Kavouri	2.89	123	*e*Pn	Pb	12 07 18.0	-2.6
NVR	Nevrokopi	3.07	51	*e*Pn	Pn	12 07 19.4	+1.7
NVR	Nevrokopi	3.07	51	*e*PB	Pn	12 07 19.4	+1.7
NVR	Nevrokopi	3.07	51	*e*Pn	Pn	12 07 19.4	+1.7
TIP	Timpagrande	3.08	266	*e*Pn	Pn	12 07 17.0	-0.7
TIP	Timpagrande	3.08	266	*e*Pn	Pn	12 07 17.0	-0.8
NOCI	Noci	3.10	297	Pn	Pn	12 07 17.8	-0.3
	2µm,0.8s						
MMB	Musomiste	3.15	46	P	Pn	12 07 21.2	+2.4
SERS	Sersale	3.15	264	Pn	Pn	12 07 17.7	-1.0
	909nm,1.5s						
BUM	Brajici-Budva	3.17	335	⇑*i*Pn	Pn	12 07 19.1	0.0
BUM				*e*Sn	Sn	12 07 58.1	+1.0
BUM	Brajici-Budva	3.17	335	⇑*i*Pn	Pn	12 07 19.1	0.0
BUM				*e*Sn	Sn	12 07 58.1	+1.0
BUM	Brajici-Budva	3.17	335	*i* PG	Pn	12 07 19.1	0.0
BUM				*i* SG	Sn	12 07 58.1	+1.0
BUM	Brajici-Budva	3.17	335	⇑*i*Pn	Pn	12 07 19.1	0.0
BUM				*e*Sn	Sn	12 07 58.1	+1.0
PDG	Podgorica	3.18	340	*i* PG	Pn	12 07 19.3	+0.1
PDG				*i* SG	Sn	12 07 58.7	+1.3
PDG	Podgorica	3.18	340	⇑*i*Pn	Pn	12 07 19.3	+0.1
PDG				*e*Sn	Sn	12 07 58.7	+1.3
TTG	Podgorica	3.18	340	⇑*i*Pn	Pn	12 07 19.3	+0.1
TTG				*e*Sn	Sn	12 07 58.7	+1.3
TTG	Podgorica	3.18	340	⇑*i*Pn	Pn	12 07 19.3	+0.1
TTG				*e*Sn	Sn	12 07 58.7	+1.3
TTG	Podgorica	3.18	340	⇑*i*Pn	Pn	12 07 19.3	+0.1
TTG				*e*Sn	Sn	12 07 58.7	+1.3
PVY	Plav	3.20	350	⇑*i*Pn	Pn	12 07 19.6	+0.1
PVY				*e*Sn	Sn	12 07 58.7	+0.8
PVY	Plav	3.20	350	⇑*i*Pn	Pn	12 07 19.6	+0.1
PVY				*e*Sn	Sn	12 07 58.7	+0.8
PVY	Plav	3.20	350	*i* PG	Pn	12 07 19.6	+0.1
PVY	Plav	3.20	350	⇑*i*Pn	Pn	12 07 19.6	+0.1
PVY				*e*Sn	Sn	12 07 58.7	+0.8
VLI	Veliai	3.23	146	*e*Pn	Pn	12 07 22.2	+2.3
VLI	Veliai	3.23	146	*e*PN	Pn	12 07 22.2	+2.3
VLI	Veliai	3.23	146	*e*Pn	Pn	12 07 22.2	+2.3
ORI	Oriolo Calabro	3.34	282	P	Pn	12 07 22.1	+0.7
BAI	Bari	3.37	301	*e*Pn	Pn	12 07 21.5	-0.3
GRI	Girifalco	3.39	261	P	Pn	12 07 23.0	+0.9
GRI	Girifalco	3.39	261	Pn	Pn	12 07 23.1	+1.0
	281nm,0.5s						
SG1	Sgolgore (BA)	3.39	296	*e*Pn	Pn	12 07 21.3	-0.8
LOS	Limnos	3.41	80	P	Pn	12 07 25.3	+3.0
HCY	Herceg Novi	3.44	332	⇑*i*Pn	Pn	12 07 22.1	-0.7
HCY				*e*Sn	Sn	12 08 03.7	-0.1
HCY	Herceg Novi	3.44	332	⇑*i*Pn	Pn	12 07 22.1	-0.7
HCY				*e*Sn	Sn	12 08 03.7	-0.1
HCY	Herceg Novi	3.44	332	*i* PG	Pn	12 07 22.1	-0.7
HCY				*i* SG	Sn	12 08 03.7	-0.1
HCY	Herceg Novi	3.44	332	⇑*i*Pn	Pn	12 07 22.1	-0.7
HCY				*e*Sn	Sn	12 08 03.7	-0.1
AMUR	Altamura	3.47	296	Pn	Pn	12 07 22.8	-0.4
	1µm,0.7s						
MIGL	Miglionico	3.48	291	Pn	Pn	12 07 23.3	0.0
	19µm,1.4s						
LIA	Limnos Island	3.48	81	*e*Pb	Pb	12 07 28.2	-2.6
LIA	Limnos Island	3.48	81	*e*PB	Pb	12 07 26.6	-4.2
BEY	Berane	3.48	350	⇑*i*Pn	Pn	12 07 23.2	-0.2
BEY				*e*Sn	Sn	12 08 05.1	+0.3
IVA	Berane	3.48	350	⇑*i*Pn	Pn	12 07 23.2	-0.2
IVA				*e*Sn	Sn	12 08 05.1	+0.3
IVA	Berane	3.48	350	⇑*i*Pn	Pn	12 07 23.2	-0.2
IVA				*e*Sn	Sn	12 08 05.1	+0.3
IVA	Berane	3.48	350	⇑*i*Pn	Pn	12 07 23.2	-0.2
IVA				*e*Sn	Sn	12 08 05.1	+0.3
CARO	Carolei	3.49	268	Pn	Pn	12 07 23.8	+0.4
	846nm,0.8s						
NKY	Niksic	3.61	340	⇑*i*Pn	Pn	12 07 25.2	+0.1
NKY				*e*Sn	Sn	12 08 08.1	+0.2
NKY	Niksic	3.61	340	⇑*i*Pn	Pn	12 07 25.2	+0.1
NKY				*e*Sn	Sn	12 08 08.1	+0.2
NKY	Niksic	3.61	340	⇑*i*Pn	Pn	12 07 25.2	+0.1
NKY				*e*Sn	Sn	12 08 08.1	+0.2
SCHR	S. Chirico Rap	3.65	284	Pn	Pn	12 07 27.1	+1.5
	330nm,0.7s						
KYTH	Kithira	3.65	149	*e*Pb	Pb	12 07 30.0	-3.6
KYTH	Kithira	3.65	149	*e*PB	Pb	12 07 30.0	-3.6
KYTH	Kithira	3.65	149	*e*Pb	Pb	12 07 30.0	-3.6
VTS	Vitosha	3.67	30	*e*Pn	Pn	12 07 28.8	+2.8
VTS				*e*Sn	Sn	12 08 14.3	+4.8
VTS	Vitosha	3.67	30	⇑*i*P	Pn	12 07 28.7	+2.7
VTS	Vitosha	3.67	30	*e*Pn	Pn	12 07 28.8	+2.8
VTS				*e*Sn	Sn	12 08 14.3	+4.8
CDT	Castel del Mon	3.77	297	*e*Pn	Pn	12 07 27.1	-0.2
SIRI	Monte Sirino -	3.80	283	Pn	Pn	12 07 29.2	+1.5
	564nm,0.7s						
BRY	Bratogost	3.83	335	⇑*i*Pn	Pn	12 07 28.0	-0.1
BRY				*e*Sn	Sn	12 08 13.2	-0.1
BRY	Bratogost	3.83	335	⇑*i*Pn	Pn	12 07 28.0	-0.1
BRY				*e*Sn	Sn	12 08 13.2	-0.1
BRY	Bratogost	3.83	335	⇑*i*Pn	Pn	12 07 28.0	-0.1
BRY				*e*Sn	Sn	12 08 13.2	-0.1
JOPP	Joppolo	3.85	259	Pn	Pn	12 07 27.8	-0.6
	1µm,1.7s						
MCEL	Monticello	3.88	285	Pn	Pn	12 07 29.8	+1.0
	537nm,0.6s						
SOI	Samo	3.89	251	P	Pn	12 07 27.9	-1.0
SOI	Samo	3.89	251	Pn	Pn	12 07 28.2	-0.7
	144nm,0.5s						
MTSN	Montesano sull	3.91	284	Pn	Pn	12 07 29.8	+0.7
	967nm,0.9s						
PALZ	Palazzo San Ge	3.94	294	Pn	Pn	12 07 29.8	+0.2
	9µm,1.4s						
MPAZ	Palizzi	3.97	250	Pn	Pn	12 07 28.5	-1.5
	238nm,0.5s						
UPM	Unac-Piva	4.00	341	⇑*i*Pn	Pn	12 07 30.7	+0.3
UPM				*e*Sn	Sn	12 08 17.9	+0.4
UPM	Unac-Piva	4.00	341	⇑*i*Pn	Pn	12 07 30.7	+0.3
UPM				*e*Sn	Sn	12 08 17.9	+0.4
UPM	Unac-Piva	4.00	341	⇑*i*Pn	Pn	12 07 30.7	+0.3
UPM				*e*Sn	Sn	12 08 17.9	+0.4
PLE	Pljevlja	4.01	346	⇑*i*Pn	Pn	12 07 30.9	+0.3
PLE				*e*Sn	Sn	12 08 17.9	+0.1
PLE	Pljevlja	4.01	346	⇑*i*Pn	Pn	12 07 30.9	+0.3
PLE				*e*Sn	Sn	12 08 17.9	+0.1
PLE	Pljevlja	4.01	346	⇑*i*Pn	Pn	12 07 30.9	+0.3
PLE				*e*Sn	Sn	12 08 17.9	+0.1
MGR	Morigerati	4.03	282	P	Pn	12 07 31.5	+0.6
MGR	Morigerati	4.03	282	Pn	Pn	12 07 31.7	+0.8
	3µm,1.5s						
PLD	Plovdiv	4.04	47	P	Pn	12 07 34.1	+3.1
PGB	Panagyurishte	4.06	39	P	Pn	12 07 34.1	+2.8
RDO	Rodhopi	4.07	64	*e*Pn	Pn	12 07 31.2	-0.2
RDO	Rodhopi	4.07	64	*e*PN	Pn	12 07 31.2	-0.2
RDO	Rodhopi	4.07	64	*e*Pn	Pn	12 07 31.2	-0.2
SCLL	Scilla	4.07	255	P	Pn	12 07 31.3	-0.2
SCLL	Scilla	4.07	255	Pn	Pn	12 07 30.7	-0.8
	153nm,0.9s						
BULG	Bulgheria - Ca	4.16	281	Pn	Pn	12 07 32.8	+0.2
	626nm,0.9s						
MTTG	Motta San Giov	4.18	251	P	Pn	12 07 32.0	-0.9
VULT	Monte Vulture	4.18	293	Pn	Pn	12 07 34.9	+1.9
	1µm,1.1s						
KDZ	Kurdzhali	4.21	57	P	Pn	12 07 33.9	+0.5
MSRU	Castanea	4.23	256	Pn	Pn	12 07 32.5	-1.1
	472nm,0.7s						
FGMS	Monte Sant’Ang	4.27	304	P	Pn	12 07 34.5	+0.3
MS1	Monte Sant’Ang	4.28	303	*e*Pn	Pn	12 07 34.4	+0.1
MSAG	Monte S. Angel	4.30	303	Pn	Pn	12 07 34.7	+0.1
	515nm,0.5s						
MSAG	Monte S. Angel	4.30	303	P	Pn	12 07 35.2	+0.6
FG4	Candela	4.32	295	P	Pn	12 07 36.5	+1.7
PRK	Paraskevi	4.32	91	*e*PN	Pn	12 07 36.7	+1.9
SGRT	San Giovanni R	4.43	303	P	Pn	12 07 36.1	-0.3
SGRT	San Giovanni R	4.43	303	Pn	Pn	12 07 35.9	-0.5
	440nm,0.6s						
MCRV	Calabrutti - M	4.46	289	Pn	Pn	12 07 37.5	+0.8
	244nm,0.5s						
SNAL	S. Angelo Dei	4.47	291	Pn	Pn	12 07 38.1	+1.2
	918nm,1.2s						
APE	Apeiranthos	4.47	120	*e*Pn	Pn	12 07 40.0	+3.1
APE	Apeiranthos	4.47	120	*e*PN	Pn	12 07 40.0	+3.1
APE	Apeiranthos	4.47	120	*e*Pn	Pn	12 07 40.0	+3.1
CAFE	Carife	4.48	293	Pn	Pn	12 07 37.8	+0.8
	994nm,1.4s						
RGNG	Rignano Grg	4.50	301	P	Pn	12 07 37.2	-0.1
DIM	Dimitrovgrad	4.50	53	P	Pn	12 07 40.2	+2.9
MMME	Mongiuffi-Meli	4.52	252	Pn	Pn	12 07 37.5	-0.2
	294nm,0.7s						
FG5	Orsara di Pugl	4.55	296	P	Pn	12 07 39.0	+1.0
SLNA	Salina	4.66	261	P	Pn	12 07 42.1	+2.6
FG2	Serracapriola	4.84	301	P	Pn	12 07 42.5	+0.5
PSB1	Pescosannita	4.85	293	P	Pn	12 07 43.4	+1.3
PSB1	Pescosannita	4.85	293	Pn	Pn	12 07 43.1	+1.0
	322nm,0.8s						
VAM	Vamos	4.89	144	*e*Pn	Pn	12 07 46.3	+3.6
VAM	Vamos	4.89	144	*e*PN	Pn	12 07 46.3	+3.6
CIGN	Sant’Elia a Pi	4.95	298	P	Pn	12 07 44.7	+1.3
CIGN	Sant’Elia a Pi	4.95	298	Pn	Pn	12 07 44.3	+0.9
	636nm,1.1s						
SACR	S. Croce Del S	4.98	295	Pn	Pn	12 07 45.2	+1.2
	250nm,0.8s						
SSY	Sortino	4.99	245	P	Pn	12 07 45.6	+1.6
PTRJ	Pietraroja	5.09	294	Pn	Pn	12 07 46.6	+1.1
	285nm,0.6s						
SMG	Samos	5.10	108	*e*Pn	Pn	12 07 46.9	+1.3
SMG	Samos	5.10	108	*e*PN	Pn	12 07 46.9	+1.3
SMG	Samos	5.10	108	*e*Pn	Pn	12 07 46.9	+1.3
GALF	Gagliano Caste	5.11	252	Pn	Pn	12 07 49.6	+3.8
BSSO	Busso	5.12	296	Pn	Pn	12 07 46.7	+0.9
	412nm,0.9s						
TRIV	Trivento	5.23	298	Pn	Pn	12 07 48.3	+0.9
	316nm,0.6s						
IDI	Anoyia	5.31	140	Pn	Pn	12 07 49.9	+1.4
IDI				Sn	Sn	12 08 47.7	-2.3
IDI	Anoyia	5.31	140	Pn	Pn	12 07 49.9	+1.4
	5.3nm,0.3s,baz=305,slow=13,SNR=12						
IDI				Sn	Sn	12 08 47.7	-2.3
	7.9nm,0.3s,baz=138,slow=21,SNR=3.4						
IDI	Anoyia	5.31	140	Pn	Pn	12 07 49.9	+1.4
IDI				Sn	Sn	12 08 47.7	-2.3
VAE	Valguarnera	5.32	250	Pn	Pn	12 07 51.3	+2.8
VAE				Sn	Sn	12 08 50.8	+0.8
VAE	Valguarnera	5.32	250	Pn	Pn	12 07 51.3	+2.8
	4.8nm,0.3s,baz=298,slow=12,SNR=4.1						
VAE				Sn	Sn	12 08 50.8	+0.8
	14nm,0.3s,baz=273,slow=4.7,SNR=4.4						
VAE	Valguarnera	5.32	250	Pn	Pn	12 07 51.3	+2.8
VAE				Sn	Sn	12 08 50.8	+0.8
VAGA	Valle Agricola	5.32	294	Pn	Pn	12 07 49.5	+0.9
	291nm,0.7s						
GVD	Gavdhos	5.32	149	*e*Pn	Pn	12 07 50.0	+1.3
GVD	Gavdhos	5.32	149	*e*PN	Pn	12 07 50.0	+1.3
GVD	Gavdhos	5.32	149	*e*Pn	Pn	12 07 50.0	+1.3
JMB	Yambol	5.38	54	P	Pn	12 07 52.2	+2.8
MIDA	Miranda	5.39	296	P	Pn	12 07 50.6	+1.1
CSLB	Castelbuono	5.42	256	P	Pn	12 07 52.1	+2.2
GIB	Gibilmanna	5.42	257	Pn	Pn	12 07 51.6	+1.6
	223nm,0.9s						
GIB	Gibilmanna	5.42	257	P	Pn	12 07 52.1	+2.1
RAFF	Raffo Rosso	5.46	248	P	Pn	12 07 49.9	-0.6
ZIMR		5.47	38	P	Pn	12 07 54.0	+3.3
RNI2	Rionero Sannit	5.48	296	P	Pn	12 07 52.1	+1.3
RNI2	Rionero Sannit	5.48	296	Pn	Pn	12 07 52.0	+1.2
	636nm,1.1s						
SZH	Strazhica	5.48	44	P	Pn	12 07 53.9	+3.1
SDI	San Donato	5.72	296	P	Pn	12 07 55.3	+1.2
INTR	Introdacqua	5.77	299	Pn	Pn	12 07 53.6	-1.2
	714nm,0.8s						
INTR	Introdacqua	5.77	299	P	Pn	12 07 54.2	-0.6
VVLD	Villa Vallelon	5.91	297	Pn	Pn	12 07 56.6	-0.1
	425nm,0.7s						
VVLD	Villa Vallelon	5.91	297	P	Pn	12 07 57.6	+0.9
GIUL	Giuliano Di Ro	6.06	293	Pn	Pn	12 07 58.8	0.0
	97nm,0.7s						
FAGN	Fagnano	6.10	300	Pn	Pn	12 07 59.7	+0.5
	189nm,0.7s						
PTQR	Pietraquaria	6.12	297	P	Pn	12 08 00.8	+1.2
GZR	Gura Zlata	6.14	14	P	Pn	12 08 02.3	+2.4
GZR	Gura Zlata	6.14	14	⇓*i*P	Pn	12 08 02.1	+2.2
GZR	Gura Zlata	6.14	14	P	Pn	12 08 02.3	+2.4
BZS	Buzias	6.21	6	P	Pn	12 08 02.9	+2.1
BZS	Buzias	6.21	6	⇑*i*P	Pn	12 08 01.9	+1.1
BZS	Buzias	6.21	6	P	Pn	12 08 02.9	+2.1
TERO	Teramo	6.24	303	P	Pn	12 08 02.0	+0.7
TERO	Teramo	6.24	303	Pn	Pn	12 08 01.7	+0.4
	203nm,0.6s						
AQU	L’Aquila	6.26	300	*e*Pn	Pn	12 08 01.5	+0.1
AQU				*e*Sn	Sn	12 09 11.6	-1.5
AQU	L’Aquila	6.26	300	⇓*i*P	Pn	12 08 01.2	-0.2
AQU	L’Aquila	6.26	300	*e*Pn	Pn	12 08 01.5	+0.1
AQU				*e*S	Sn	12 09 11.6	-1.5
OFFI	Offida	6.34	306	P	Pn	12 08 04.6	+1.9
OFFI	Offida	6.34	306	Pn	Pn	12 08 04.4	+1.7
	674nm,0.7s						
CERT	Cerreto	6.39	296	P	Pn	12 08 03.9	+0.7
CERT	Cerreto	6.39	296	Pn	Pn	12 08 02.9	-0.3
	121nm,0.6s						
FIAM	Fiamignano	6.41	299	P	Pn	12 08 05.4	+1.8
FIAM	Fiamignano	6.41	299	Pn	Pn	12 08 04.8	+1.2
	205nm,0.9s						
LNSS	Leonessa	6.61	301	Pn	Pn	12 08 07.1	+0.9
	488nm,0.6s						
NRCA	Norcia	6.66	303	P	Pn	12 08 07.4	+0.4
NVLJ	Novalja	6.72	322	*e*Pn	Pn	12 08 07.7	-0.1
NVLJ				Sn	Sn	12 09 19.9	-4.5
AOI	Ancona	6.73	310	P	Pn	12 08 08.0	0.0
MNS	Montasola	6.76	298	Pg	Pn	12 08 09.7	+1.4
	79nm,0.6s						
MNS	Montasola	6.76	298	P	Pn	12 08 10.1	+1.8
VOIR		6.80	27	⇓P	Pn	12 08 12.5	+3.6
VOIR		6.80	27	⇓*i*P	Pn	12 08 12.5	+3.6
CING	Cingoli	6.88	307	P	Pn	12 08 09.3	-0.7
CING	Cingoli	6.88	307	Pn	Pn	12 08 08.3	-1.7
	106nm,0.8s						
PKSM	Moragy	6.94	348	⇓P	Pn	12 08 11.0	+0.2
PKSM	Moragy	6.94	348	⇓*i*P	Pn	12 08 11.0	+0.2
SNTG	Esanatoglia	6.98	306	P	Pn	12 08 11.3	-0.1
TOLF	Tolfa	7.11	294	P	Pn	12 08 13.9	+0.7
MLR	Muntele Rosu	7.18	31	P	Pn	12 08 18.0	+3.9
MLR	Muntele Rosu	7.18	31	P	Pn	12 08 18.1	+4.0
MLR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MLR	Muntele Rosu	7.18	31	Pn	Pn	12 08 18.1	+3.9
	comp=Z,2.2nm,0.3s,baz=237,slow=6.0,SNR=20						
MLR	Muntele Rosu	7.18	31	⇓*i*P	Pn	12 08 17.5	+3.4
MLR	Muntele Rosu	7.18	31	P	Pn	12 08 18.0	+3.9
MURB	Monte Urbino	7.25	304	P	Pn	12 08 16.1	+1.1
BOJS	Bojanci	7.28	328	*i* Pn	Pn	12 08 15.0	-0.5
BOJS				*e*Sn	Sn	12 09 34.4	-4.0
BOJS	Bojanci	7.28	328	*i* Pn	Pn	12 08 15.0	-0.5
BOJS				*e*Sn	Sn	12 09 34.4	-4.0
BOJS	Bojanci	7.28	328	*i* Pn	Pn	12 08 15.0	-0.5
BOJS				*e*Sn	Sn	12 09 34.4	-3.9
FSSB	Fossombrone	7.31	308	P	Pn	12 08 13.3	-2.6
PESA	Pesaro	7.41	310	P	Pn	12 08 17.9	+0.6
DRGR		7.49	11	P	Pn	12 08 21.1	+2.7
CDCA	Citt‘ di Caste	7.53	305	P	Pn	12 08 21.0	+2.1
BADI	Badiali	7.54	305	P	Pn	12 08 20.2	+1.1
RSM	Repubblica di	7.64	309	P	Pn	12 08 20.2	-0.2
KOGS	Kog	7.73	336	*i* Pn	Pn	12 08 20.9	-0.7
KOGS	Kog	7.73	336	*i* Pn	Pn	12 08 20.9	-0.7
CRE	Caprese Michel	7.79	305	P	Pn	12 08 22.8	+0.4
VRI	Vrincioaia	7.80	33	P	Pn	12 08 26.3	+3.7
VRI	Vrincioaia	7.80	33	⇑*i*P	Pn	12 08 26.6	+3.9
VRI	Vrincioaia	7.80	33	P	Pn	12 08 26.3	+3.6
LTBQ	Tobruq	7.81	160	*i* P	Pn	12 08 18.4	-4.5
	SNR=135						
CEY	Cerknica	7.82	326	P	Pn	12 08 22.4	-0.4
PDKS	Podkum	7.84	329	*e*Pn	Pn	12 08 22.0	-1.1
PDKS				*e*Sn	Sn	12 09 47.3	-4.7
PDKS	Podkum	7.84	329	*e*Pn	Pn	12 08 22.0	-1.1
PDKS				*e*Sn	Sn	12 09 47.3	-4.7
SFI	Santa Sofia	7.99	307	P	Pn	12 08 26.0	+0.7
LJU	Ljubljana	8.02	327	*e*Pn	Pn	12 08 24.5	-1.1
LJU				*e*Sn	Sn	12 09 54.0	-2.4
JAVS	Javornik	8.10	325	*i* Pn	Pn	12 08 26.0	-0.7
JAVS				*i* Sn	Sn	12 09 54.7	-3.7
JAVS	Javornik	8.10	325	*i* Pn	Pn	12 08 26.0	-0.7
JAVS				*i* Sn	Sn	12 09 54.7	-3.7
JAVS	Javornik	8.10	325	*i* Sn	Sn	12 09 54.7	-3.7

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BUD   Budapest          8.13 352  ePn    Pn     12 08 30.8 +3.6
CSNT  Castellina Chi    8.14 303   P     Pn     12 08 29.0 +1.7
VMG   Vicchio           8.21 306   P     Pn     12 08 29.6 +1.3
PERS  Pernice           8.28 332  i Pn   Pn     12 08 27.8 -1.4
PERS                              i Sn   Sn     12 09 57.7 -5.1
PERS  Pernice           8.28 332  i Pn   Pn     12 08 27.8 -1.4
PERS                              i Sn   Sn     12 09 57.7 -5.1
VOY   Vojsko            8.28 325  ePn    Pn     12 08 28.3 -0.9
VOY                               eSn    Sn     12 09 58.8 -4.1
VOY   Vojsko            8.28 325  ePn    Pn     12 08 28.3 -0.9
VOY                               eSn    Sn     12 09 58.8 -4.1
VOY   Vojsko            8.28 325  eSn    Sn     12 09 58.8 -4.1
SEI   Scarperia         8.37 306   P     Pn     12 08 32.7 +2.2
OBKA  Obir              8.38 329  i Pn   Pn     12 08 30.0 -0.6
      SNR=34
OBKA  Obir              8.38 329⥣eSn    Sn     12 10 02.3 -3.2
OBKA  Obir              8.38 329  i Pn   Pn     12 08 30.0 -0.6
OBKA                              eSn    Sn     12 10 02.3 -3.2
OBKA  Obir              8.38 329  i Pn   Pn     12 08 30.0 -0.6
      SNR=34
OBKA                             ⥣eSn    Sn     12 10 02.3 -3.2
PSZ   Piszkesteto       8.50 356  ePn    Pn     12 08 32.3 +0.1
PSZ                               eSn    Sn     12 10 03.0 -5.3
PSZ   Piszkesteto       8.50 356⥣iP     Pn     12 08 33.1 +0.9
PSZ   Piszkesteto       8.50 356⥥eP     Pn     12 08 34.2 +2.0
PSZ                               eSn    Sn     12 10 03.0 -5.3
CADS  Cadrg             8.50 325  i Pn   Pn     12 08 31.4 -0.9
CADS                              eSn    Sn     12 10 03.2 -5.0
CADS  Cadrg             8.50 325  i Pn   Pn     12 08 31.4 -0.9
CADS                              eSn    Sn     12 10 03.2 -5.0
CADS  Cadrg             8.50 325  i Pn   Pn     12 08 31.4 -0.8
LJBD  Adjabya           8.52 183⥥iP     Pn     12 08 23.2 -9.3
      SNR=132
FNVD  Fontana Vidola    8.58 307   P     Pn     12 08 36.3 +3.0
ARSA  Arzberg           8.67 336⥣iPn    Pn     12 08 33.8 -0.8
      SNR=12
ARSA  Arzberg           8.67 336⥥eSn    Sn     12 10 07.2 -5.3
ARSA  Arzberg           8.67 336⥣iPn    Pn     12 08 33.8 -0.8
ARSA                              eSn    Sn     12 10 07.2 -5.4
ARSA  Arzberg           8.67 336⥣iPn    Pn     12 08 33.8 -0.8
      SNR=12
ARSA                             ⥥eSn    Sn     12 10 07.2 -5.3
GMNA  Gemona            8.76 324   P     Pn     12 08 37.3 +1.5
VSL   Villasalto        8.77 274  ePn    Pn     12 08 38.3 +2.4
BURAR Bucovina Array    8.80  20⥣iP     Pn     12 08 39.7 +3.3
BURAR Bucovina Array    8.80  20   P     Pn     12 08 40.5 +4.1
PTCC  Patocco-Chiusa    8.81 325   P     Pn     12 08 35.3 -1.1
KECS  Kecovo            9.04 359  i Pn   Pn     12 08 41.4 +1.7
KECS                              eSn    Sn     12 10 11.8  -10
KECS  Kecovo            9.04 359  i PN   Pn     12 08 41.4 +1.7
KECS                              eSN    Sn     12 10 11.8  -10
KECS  Kecovo            9.04 359  i Pn   Pn     12 08 41.4 +1.7
ZST   Bratislava        9.13 345  ePn    Pn     12 08 43.5 +2.6
ZST   Bratislava        9.13 345  ePN    Pn     12 08 43.5 +2.6
VYHS  Vyhne             9.15 352  i Pn   Pn     12 08 42.6 +1.4
VYHS                              i Sn   Sn     12 10 21.1 -3.2
VYHS  Vyhne             9.15 352  i PN   Pn     12 08 42.6 +1.4
VYHS                              i SN   Sn     12 10 21.1 -3.2
VYHS  Vyhne             9.15 352  i Pn   Pn     12 08 42.6 +1.4
VYHS                              i Sn   Sn     12 10 21.1 -3.2
FVI   Forni Avoltri     9.21 324   P     Pn     12 08 41.3 -0.7
MODS  Modra-Piesok      9.27 346  ePn    Pn     12 08 44.0 +1.3
MODS                              i Sn   Sn     12 10 22.1 -5.1
MODS  Modra-Piesok      9.27 346  ePN    Pn     12 08 44.0 +1.3
MODS                              i SN   Sn     12 10 22.1 -5.1
KBA   Koelnbreinsper    9.33 327⥣iPn    Pn     12 08 43.0 -0.6
      SNR=6.7
KBA   Koelnbreinsper    9.33 327 ⥣Sn    Sn     12 10 23.4 -5.4
KBA   Koelnbreinsper    9.33 327⥣iPn    Pn     12 08 43.0 -0.6
KBA                                Sn    Sn     12 10 23.4 -5.4
KBA   Koelnbreinsper    9.33 327⥣iPn    Pn     12 08 43.0 -0.6
      SNR=6.7
KBA                              ⥣Sn    Sn     12 10 23.4 -5.4
PGF   Pioggiola         9.38 293  eP     Pn     12 08 42.1 -2.2
      comp=Z,38nm,0.7s
KOLS  Kolonicke sedl    9.56   6  i Pn   Pn     12 08 48.9 +2.2
KOLS  Kolonicke sedl    9.56   6  i PN   Pn     12 08 48.9 +2.2
MOA   Molln             9.61 333⥥iPn    Pn     12 08 46.5 -1.0
      SNR=22
MOA   Molln             9.61 333⥥iSn    Sn     12 10 31.8 -3.9
MOA   Molln             9.61 333   P     Pn     12 08 47.2 -0.3
MOA   Molln             9.61 333⥥iPn    Pn     12 08 46.5 -1.0
      SNR=22
MOA                              ⥥iSn    Sn     12 10 31.8 -3.9
JAVC  Velka Javorina    9.67 348   P     Pn     12 08 53.4 +5.2
KEST  Kesra             9.75 251   Pn    Pn     12 08 51.2 +1.9
      comp=Z,0.3nm,0.3s,baz=48,slow=5.0,SNR=5.5
HMAT  Matruh            9.82 146   P     Pn     12 08 46.5 -3.9
NIE   Niedzica          9.98 359  eP     Pn     12 08 55.0 +2.5
STHS  Stebnicka Huta    9.98   2  ePn    Pn     12 08 52.4 -0.1
STHS  Stebnicka Huta    9.98   2  ePN    Pn     12 08 52.4 -0.1
STHS  Stebnicka Huta    9.98   2  ePn    Pn     12 08 52.4 -0.1
WTTA  Wattenberg       10.23 323⥥iPn    Pn     12 08 54.9 -1.0
      SNR=16
WTTA  Wattenberg       10.23 323⥥iPn    Pn     12 08 54.9 -1.0
WTTA                              eSn    Sn     12 10 47.6 -3.2
WTTA  Wattenberg       10.23 323⥥iPn    Pn     12 08 54.9 -1.0
      SNR=16
WTTA                             ⥣eSn    Sn     12 10 47.6 -3.2
KWP   Kalwaria         10.29   7  eP     Pn     12 09 00.6 +3.8
KWP   Kalwaria         10.29   7  eP     Pn     12 09 00.5 +3.8
VRAC  Vranov           10.30 345   Pn    Pn     12 08 56.2 -0.6
VRAC  Vranov           10.30 345   P     Pn     12 08 56.3 -0.5
VRAC                               pmax  pmax
      comp=Z,1.0nm,0.3s
VRAC  Vranov           10.30 345   Pn    Pn     12 08 56.3 -0.6
      comp=Z,0.5nm,0.3s,baz=180,slow=5.1,SNR=2.4
VRAC  Vranov           10.30 345   Pn    Pn     12 08 56.2 -0.6
WATA  Walderalm        10.31 323⥥ePn    Pn     12 08 56.7 -0.3
      SNR=9.5
WATA  Walderalm        10.31 323⥥ePn    Pn     12 08 56.7 -0.3
WATA                              i Sn   Sn     12 10 49.0 -3.8
WATA  Walderalm        10.31 323⥥ePn    Pn     12 08 56.7 -0.3
      SNR=9.5
WATA                             ⥣iSn    Sn     12 10 49.0 -3.8
SQTA  Sankt Quirin     10.40 321 ⥣Pn    Pn     12 08 58.4  0.0
      SNR=9.3
SQTA  Sankt Quirin     10.40 321 ⥣Pn    Pn     12 08 58.4  0.0
SQTA                              i Sn   Sn     12 10 51.0 -4.1
SQTA  Sankt Quirin     10.40 321 ⥣Pn    Pn     12 08 58.4  0.0
      SNR=9.3
SQTA                             ⥥iSn    Sn     12 10 51.0 -4.1
TREC  Trest            10.54 341   AMS   AMS    12 13 20.0
      comp=Z,2µm,12.9s
MOTA  Moosalm          10.54 322⥣ePn    Pn     12 08 59.7 -0.5
      SNR=39
MOTA  Moosalm          10.54 322⥣ePn    Pn     12 08 59.7 -0.5
MOTA                              i Sn   Sn     12 10 55.0 -3.5
MOTA  Moosalm          10.54 322⥣ePn    Pn     12 08 59.7 -0.5
      SNR=39
MOTA                             ⥥iSn    Sn     12 10 55.0 -3.5
MORC  Moravsky Berou   10.58 349   P     Pn     12 09 01.5 +0.8
      comp=Z,8.5nm,0.9s
MORC                              eSn    Sn     12 10 54.3 -5.1
MORC  Moravsky Berou   10.58 349   P     Pn     12 09 01.5 +0.8
MORC                              e             12 10 54.3
MORC                               pmax  pmax
      comp=Z,9.0nm,0.9s
MORC  Moravsky Berou   10.58 349⥣iP     Pn     12 09 02.3 +1.6
GEC2  GERESS Array S   10.66 334  eP     Pn     12 09 01.0 -0.8
GEC2                               MLR   MLR
      comp=Z,2µm,14.9s
GEC2  GERESS Array S   10.66 334  ePn    Pn     12 09 01.0 -0.8
GEC2                              eL            12 14 13.8
      comp=Z,2µm,14.9s
GERES GERESS Array B   10.66 334   Pn    Pn     12 09 00.5 -1.4
GERES                              Sn    Sn     12 10 55.1 -6.3
GERES GERESS Array B   10.66 334   P     Pn     12 09 00.5 -1.3
GERES                                           12 10 55.1
GERES                              pmax  pmax
      comp=Z,2.0nm,0.3s
GERES                              smax
      comp=N,1.0nm,0.3s
GERES GERESS Array B   10.66 334   Pn    Pn     12 09 00.5 -1.4
      comp=N,1.5nm,0.3s,baz=150,slow=14,SNR=30
GERES                              Sn    Sn     12 10 55.1 -6.3
      comp=N,1.1nm,0.3s,baz=142,slow=22,SNR=4.4
DAVOX Davos/Dischmat   10.79 316   Pn    Pn     12 09 04.4 +0.9
DAVOX                              Sn    Sn     12 10 58.4 -6.1
DAVOX                              LR    LR     12 13 56.5
DAVOX Davos/Dischmat   10.79 316   Pn    Pn     12 09 04.4 +0.9
      comp=N,2.4nm,0.3s,baz=141,slow=19,SNR=12
DAVOX                              Sn    Sn     12 10 58.3 -6.1
      comp=N,1.2nm,0.3s,baz=174,slow=21,SNR=2.7
DAVOX                              LR    LR     12 13 56.5
      comp=N,772nm,18.6s,baz=77,slow=42
DAVOX Davos/Dischmat   10.79 316   Pn    Pn     12 09 04.4 +0.8
OJC   Ojcow            10.80 357  eP     Pn     12 09 08.4 +4.7
SBF   Sospel           10.87 298  eP     Pn     12 09 04.8 +0.1
SBF                                pmax  pmax
      comp=Z,30nm,1.0s
SBF   Sospel           10.87 298  eP     Pn     12 09 04.8 +0.1
      comp=Z,60nm,1.0s
SBF   Sospel           10.87 298  eP     Pn     12 09 04.8 +0.1
      comp=Z,30nm,1.0s
TUE   Stuetta          10.89 314   P     Pn     12 09 05.9 +0.9
KHC   Kasperske Hory   10.95 335  eP     Pn     12 09 05.0 -0.8
KHC                               e             12 09 14.0
KHC                               e             12 09 56.5
KHC                               e             12 11 03.5
KHC                               e             12 11 11.5
KHC   Kasperske Hory   10.95 335  eP     Pn     12 09 05.0 -0.8
KHC                               ex     x      12 09 14.0
KHC                               ex     x      12 09 56.5
KHC                               eS     Sn     12 11 03.5 -4.9
KHC                               ex     x      12 11 11.5
KHC                                AMS   AMS    12 14 00.0
      comp=Z,2µm,10.5s
KHC   Kasperske Hory   10.95 335  eS     Sn     12 11 11.5 +3.1
      comp=Z,2µm,10.5s
DAVA  Damuels          11.11 318   P     Pn     12 09 09.8 +1.8
WET   Wettzell         11.20 333  ePn    Pn     12 09 08.5 -0.7
WET   Wettzell         11.20 333  ePn    Pn     12 09 08.5 -0.7
WET   Wettzell         11.20 333  ePn    Pn     12 09 08.5 -0.7
DPC   Dobruska-Polom   11.34 346  eP     Pn     12 09 17.9 +6.8
DPC                                AMS   AMS    12 14 10.0
      comp=Z,3µm,12.1s
LMR   La Mourre        11.36 295  eP     Pn     12 09 10.6 -0.7
      comp=Z,43nm,1.5s
LMR   La Mourre        11.36 295  eP     Pn     12 09 10.6 -0.7
LMR                                pmax  pmax
      comp=Z,43nm,1.5s
LMR   La Mourre        11.36 295  eP     Pn     12 09 10.6 -0.7
      comp=Z,85nm,1.5s
PRU   Pruhonice        11.42 339  eP     Pn     12 09 12.8 +0.6
PRU                                AMS   AMS    12 13 50.0
      comp=Z,2µm,15.3s
PRU   Pruhonice        11.42 339  eP     Pn     12 09 12.8 +0.6
      comp=Z,2µm,15.3s
UPC   Upice            11.55 345  eP     Pn     12 09 19.3 +5.3
MBDF  Montbardon       11.62 302  eP     Pn     12 09 14.2 -0.8
      comp=Z,8.9nm,0.8s
MBDF  Montbardon       11.62 302  eP     Pn     12 09 14.2 -0.8
MBDF                               pmax  pmax
      comp=Z,9.0nm,0.8s
MBDF  Montbardon       11.62 302  eP     Pn     12 09 14.2 -0.8
      comp=Z,18nm,0.8s
BNI   Bardonecchia     11.81 303  ePn    Pn     12 09 12.6 -5.0
      comp=Z,18nm,1.1s
BNI   Bardonecchia     11.81 303  eP     Pn     12 09 12.6 -4.9
BNI                                pmax  pmax
      comp=Z,18nm,1.1s
PVCC  Panska Ves       11.90 341   AMS   AMS    12 14 20.0
      comp=Z,2µm,13.1s
LPG   La Plagne        11.95 305  eP     Pn     12 09 18.5 -0.9
      comp=Z,19nm,0.7s
LPG   La Plagne        11.95 305  eP     Pn     12 09 18.5 -0.9
LPG                                pmax  pmax
      comp=Z,19nm,0.7s
LPG   La Plagne        11.95 305  eP     Pn     12 09 18.5 -0.9
      comp=Z,38nm,0.7s
ROTZ  Rotzenmuhle      11.96 332  ePn    Pn     12 09 18.5 -1.1
ROTZ                              eL            12 14 47.9
      comp=Z,2µm,12.7s
LPL   La Plagne        11.97 305  eP     Pn     12 09 18.6 -1.1
      comp=Z,8.9nm,0.5s
LPL   La Plagne        11.97 305  eP     Pn     12 09 18.6 -1.1
LPL                                pmax  pmax
      comp=Z,9.0nm,0.5s
LPL   La Plagne        11.97 305  eP     Pn     12 09 18.6 -1.1
      comp=Z,18nm,0.5s
RSL   Roselend         12.11 306  eP     Pn     12 09 21.7 +0.1
RSL   Roselend         12.11 306   P     Pn     12 09 22.4 +0.8
SMRF  Simiane la Rot   12.18 297  eP     Pn     12 09 22.5 -0.2
SPAK  Spaichingen-Ko   12.21 319   P     Pn     12 09 21.8 -1.1
GRF   Grafenberg Arr   12.27 330  eL            12 16 12.3
      comp=Z,2µm,9.3s
NKC   Novy Kostel      12.27 334  eP     Pn     12 09 24.3 +0.4
NKC                                AMS   AMS    12 14 40.0
      comp=Z,2µm,9.1s
NKC   Novy Kostel      12.27 334  eP     Pn     12 09 24.3 +0.4
      comp=Z,2µm,9.1s
ORIF  Oris-en-Rattie   12.28 301  eP     Pn     12 09 22.0 -2.0
      comp=Z,14nm,1.0s
ORIF  Oris-en-Rattie   12.28 301  eP     Pn     12 09 22.0 -2.0
ORIF                               pmax  pmax
      comp=Z,14nm,1.0s
ORIF  Oris-en-Rattie   12.28 301  eP     Pn     12 09 22.0 -2.0
      comp=Z,28nm,1.0s
ORIF                              eMLR   MLR
      comp=Z,925nm,19.2s
STU   Stuttgart        12.46 322  ePn    Pn     12 09 26.1 -0.3
STU   Stuttgart        12.46 322  ePn    Pn     12 09 26.1 -0.3
STU   Stuttgart        12.46 322  ePn    Pn     12 09 26.1 -0.3
FELD  Feldberg im Sc   12.47 317   P     Pn     12 09 24.4 -2.1
BFO   Black Forest     12.59 319  ePn    Pn     12 09 29.5 +1.4
BFO   Black Forest     12.59 319  ePn    Pn     12 09 29.5 +1.4
HNAT  Natroun          12.73 137   P     Pn     12 09 25.4 -4.9
KIEV  Kiev             12.75  25  ePn    Pn     12 09 32.3 +2.0
      comp=Z,9.6nm,0.9s
KIEV  Kiev             12.75  25  eP     Pn     12 09 32.3 +2.0
KIEV                               pmax  pmax
      comp=Z,10.0nm,0.9s
KIEV  Kiev             12.75  25  eP     Pn     12 09 32.3 +2.0
      comp=Z,10.0nm,0.9s
AKASG Malin Array Be   12.76  25   Pn    Pn     12 09 30.9 +0.5
AKASG Malin Array Be   12.76  25  i P    Pn     12 09 34.0 +3.5
AKASG                              pmax  pmax
      comp=Z,1.0nm,0.4s
AKASG Malin Array Be   12.76  25   Pn    Pn     12 09 30.9 +0.4
      comp=Z,0.4nm,0.3s,baz=209,slow=12,SNR=8.6
AKASG Malin Array Be   12.76  25   Pn    Pn     12 09 30.9 +0.4
AKASG Malin Array Be   12.76  25  i P    Pn     12 09 34.0 +3.5
      comp=Z,1.0nm,0.4s
LOMF  Lomont           12.81 313  eP     Pn     12 09 31.5 +0.3
CABF  La Chapelle      12.87 309  eP     Pn     12 09 29.2 -2.8
      comp=Z,7.5nm,0.6s
CABF  La Chapelle      12.87 309  eP     Pn     12 09 29.2 -2.8
CABF                               pmax  pmax
      comp=Z,8.0nm,0.6s
CABF  La Chapelle      12.87 309  eP     Pn     12 09 29.2 -2.8
      comp=Z,15nm,0.6s
MOX   Moxa             12.91 333  eP     Pn     12 09 31.8 -0.7
      comp=Z,28nm,0.9s
MOX                               eSS           12 12 25.5
MOX   Moxa             12.91 333  eP     Pn     12 09 31.8 -0.7
      comp=Z,28nm,0.9s
MOX                               e             12 12 25.5
MOX
      comp=Z,1µm,20.0s
MOX   Moxa             12.91 333  eP     Pn     12 09 31.8 -0.7
MOX                                pmax  pmax
      comp=Z,28nm,0.9s
MOX                                MLR   MLR
      comp=Z,1µm,20.0s
MOX   Moxa             12.91 333  ePn    Pn     12 09 32.0 -0.5
MOF   Molkenrain       12.92 315  eP     Pn     12 09 31.1 -1.6
MOF   Molkenrain       12.92 315   P     Pn     12 09 32.6 -0.1
CLL   Collm            13.04 338  ePn    Pn     12 09 38.0 +3.7
CLL                               e             12 09 46.0
CLL                               e      Sn     12 12 18.0  +19
CLL                               eSg           12 13 27.0
CLL   Collm            13.04 338  e(Pn)  Pn     12 09 38.0 +3.7
CLL                               ex     x      12 09 43.0
      comp=Z,19nm,1.3s
HINF  Hinteralfeld     13.06 314  eP     Pn     12 09 31.8 -2.8
      comp=Z,4.9nm,0.4s
HINF  Hinteralfeld     13.06 314  eP     Pn     12 09 31.8 -2.8
HINF                               pmax  pmax
      comp=Z,5.0nm,0.4s
HINF  Hinteralfeld     13.06 314  eP     Pn     12 09 31.8 -2.8
      comp=Z,9.9nm,0.4s
ECH   Echery           13.12 316  eP     Pn     12 09 34.4 -1.1
ECH   Echery           13.12 316   P     Pn     12 09 34.5 -1.0
CDF   Champ du Feu     13.18 317  eP     Pn     12 09 34.1 -2.2
      comp=Z,22nm,1.1s
CDF   Champ du Feu     13.18 317  eP     Pn     12 09 34.1 -2.2
CDF                                pmax  pmax
      comp=Z,22nm,1.1s
CDF   Champ du Feu     13.18 317  eP     Pn     12 09 34.1 -2.2
      comp=Z,45nm,1.1s
GLL   Jalalah          13.37 134   P     Pn     12 09 33.5 -5.5
GLL                                S     Sn     12 11 35.9  -32
LASF  Ste Croix        13.40 296  eP     Pn     12 09 38.2 -1.1
      comp=Z,60nm,1.2s
HAU   Haudompre        13.44 314  eP     Pn     12 09 37.9 -2.0
      comp=Z,6.7nm,0.4s
HAU   Haudompre        13.44 314  eP     Pn     12 09 37.9 -2.0
HAU                                pmax  pmax
      comp=Z,7.0nm,0.4s
HAU   Haudompre        13.44 314  eP     Pn     12 09 37.9 -2.0
      comp=Z,13nm,0.4s
HAU                               eMLR   MLR
      comp=Z,555nm,18.8s
AMAG  Maghara          13.47 127 ⥥P     Pn     12 09 34.9 -5.4
MMAI  Mount Meron Ar   13.48 114   Pn    Pn     12 09 40.2 -0.2
      comp=Z,1.7nm,0.3s,baz=316,slow=13,SNR=7.4
THEF  They Montfort    13.77 314  eP     Pn     12 09 43.7 -0.6
SUZ                    13.82 130   P     Pn     12 09 39.9 -5.1
TNS   Taunus Mts       13.83 325  ePn    Pn     12 09 44.2 -1.0
TNS   Taunus Mts       13.83 325  ePn    Pn     12 09 44.2 -1.0
TNS   Taunus Mts       13.83 325  ePn    Pn     12 09 44.2 -1.0
MALT  Malatya          13.85  89  ePn    Pn     12 09 54.6 +9.1
MALT  Malatya          13.85  89⥥iP     Pn     12 09 54.3 +8.8
MALT  Malatya          13.85  89  ePn    Pn     12 09 54.6 +9.1
ZAF                    14.07 132   P     Pn     12 09 43.3 -5.2
ZNM                    14.18 131   P     Pn     12 09 44.9 -5.1
SMF   Signal de Mont   14.27 306  eP     Pn     12 09 49.0 -2.1
      comp=Z,5.7nm,0.6s
SMF   Signal de Mont   14.27 306  eP     Pn     12 09 49.0 -2.1
SMF                                pmax  pmax
      comp=Z,6.0nm,0.6s
SMF   Signal de Mont   14.27 306  eP     Pn     12 09 49.0 -2.1
      comp=Z,11nm,0.6s
MTLF  Montolieu        14.42 292  eP     Pn     12 09 51.6 -1.5
MTLF                               pmax  pmax
      comp=Z,25nm,1.4s
MTLF  Montolieu        14.42 292  eP     Pn     12 09 51.6 -1.5
      comp=Z,49nm,1.4s
MTLF  Montolieu        14.42 292  eP     Pn     12 09 51.6 -1.5
      comp=Z,25nm,1.4s
MEZF  Maizieres J'vi   14.44 314  eP     Pn     12 09 51.1 -2.3
      comp=Z,44nm,0.9s
MEZF  Maizieres J'vi   14.44 314  eP     Pn     12 09 51.1 -2.3
      comp=Z,44nm,0.9s
HNKL  Nakhl            14.45 127   P     Pn     12 09 48.5 -5.2
HNKL  Nakhl            14.45 127   P     Pn     12 09 48.5 -5.2
      comp=Z,285nm,0.6s
LOR   Lormes           14.53 308  eP     Pn     12 09 51.0 -3.6
      comp=Z,7.4nm,0.7s
LOR   Lormes           14.53 308  eP     Pn     12 09 51.0 -3.6
LOR                                pmax  pmax
      comp=Z,7.0nm,0.7s
LOR   Lormes           14.53 308  eP     Pn     12 09 51.0 -3.6
      comp=Z,15nm,0.7s
LOR                               eMLR   MLR
      comp=Z,290nm,18.8s
AVF   Avril sur Loir   14.63 306  eP     Pn     12 09 53.6 -2.5
      comp=Z,4.9nm,0.7s
AVF   Avril sur Loir   14.63 306  eP     Pn     12 09 53.6 -2.5
AVF                                pmax  pmax
      comp=Z,5.0nm,0.7s
AVF   Avril sur Loir   14.63 306  eP     Pn     12 09 53.6 -2.5
      comp=Z,9.8nm,0.7s
SSF   Saint Saulge     14.65 307  eP     Pn     12 09 55.4 -0.9
SSF                                pmax  pmax
      comp=Z,6.0nm,0.7s
SSF   Saint Saulge     14.65 307  eP     Pn     12 09 55.4 -0.9
      comp=Z,13nm,0.7s
SSF   Saint Saulge     14.65 307  eP     Pn     12 09 55.4 -0.9
      comp=Z,6.3nm,0.7s
SUW   Suwalki          14.68   6  eP     Pn     12 09 59.0 +2.4
CAF   Calviac          14.86 298  eP     Pn     12 09 58.3 -0.9
CAF                                pmax  pmax
      comp=Z,13nm,1.1s
CAF   Calviac          14.86 298  eP     Pn     12 09 58.3 -0.9
      comp=Z,27nm,1.1s
CAF   Calviac          14.86 298  eP     Pn     12 09 58.3 -0.9
      comp=Z,13nm,1.1s
BGF   Bois d'Agland    14.86 304  eP     Pn     12 09 56.9 -2.3
      comp=Z,7.0nm,0.6s
BGF   Bois d'Agland    14.86 304  eP     Pn     12 09 56.9 -2.3
BGF                                pmax  pmax
      comp=Z,7.0nm,0.6s
BGF   Bois d'Agland    14.86 304  eP     Pn     12 09 56.9 -2.3
      comp=Z,14nm,0.6s
ASF   Jabal al Asfar   14.99 114   Pn    Pn     12 10 01.8 +0.8
ASF                                LR    LR     12 16 07.7
ASF   Jabal al Asfar   14.99 114   P     Pn     12 10 01.8 +0.8
ASF                                MLR   MLR
      comp=Z,139nm,18.9s
ASF   Jabal al Asfar   14.99 114   Pn    Pn     12 10 01.8 +0.8
      comp=Z,0.3nm,0.3s,baz=195,slow=22,SNR=2.6
ASF                                LR    LR     12 16 07.7
      comp=Z,139nm,18.9s,baz=168,slow=39
TCF   Toulx Ste Croi   15.18 303  eP     Pn     12 10 01.0 -2.4
MEM   Membach          15.23 322   P     Pn     12 10 04.4 +0.4
      comp=Z,13nm,1.0s
EIL   Elat             15.23 125   Pn    Pn     12 10 02.1 -2.1
EIL                                Sn    Sn     12 12 45.0 -8.3
EIL   Elat             15.23 125   Pn    Pn     12 10 02.1 -2.1
      comp=Z,0.4nm,0.3s,baz=335,slow=14,SNR=6.0
EIL                                Sn    Sn     12 12 45.0 -8.3
      comp=Z,1.0nm,0.3s,baz=23,slow=22,SNR=4.3
BCLA  Clavier          15.45 320   P     Pn     12 10 08.6 +1.7
      comp=Z,11nm,1.6s
GIVF  Givet            15.49 319  eP     Pn     12 10 05.1 -2.4
DOU   Dourbes          15.60 318   P     Pn     12 10 09.9 +0.9
      comp=Z,10nm,1.8s
DOU   Dourbes          15.60 318   P     Pn     12 10 09.8 +0.8
      comp=Z,10nm,1.8s
LFF   La Frestale      15.78 297  eP     Pn     12 10 09.2 -2.1
BAIF  Baives           15.78 318  eP     Pn     12 10 09.4 -1.9
      comp=Z,10nm,0.9s
BAIF  Baives           15.78 318  eP     Pn     12 10 09.4 -1.9
BAIF                               pmax  pmax
      comp=Z,11nm,0.9s
BAIF  Baives           15.78 318  eP     Pn     12 10 09.4 -1.9
      comp=Z,21nm,0.9s
MNK   Minsk            15.82  15  eP     Pn     12 10 08.0 -3.8
HHRG  Al Ghardaqah     16.23 135   P     Pn     12 10 13.8 -3.4
ETSF  Etsaut           16.38 289  eP     Pn     12 10 17.4 -1.7
ETSF                               pmax  pmax
      comp=Z,27nm,1.4s
ETSF  Etsaut           16.38 289  eP     Pn     12 10 17.4 -1.7
      comp=Z,54nm,1.4s
ETSF  Etsaut           16.38 289  eP     Pn     12 10 17.4 -1.7
      comp=Z,27nm,1.4s
MFF   Saint Martin d   16.82 302  eP     Pn     12 10 22.4 -2.2
      comp=Z,18nm,1.1s
MFF   Saint Martin d   16.82 302  eP     Pn     12 10 22.4 -2.2
MFF                                pmax  pmax
      comp=Z,18nm,1.1s
MFF   Saint Martin d   16.82 302  eP     Pn     12 10 22.4 -2.2
      comp=Z,35nm,1.1s
SJPF  Ste Jean         16.88 290  eP     Pn     12 10 24.4 -1.1
SJPF                               pmax  pmax
      comp=Z,14nm,1.1s
SJPF  Ste Jean         16.88 290  eP     Pn     12 10 24.4 -1.1
      comp=Z,29nm,1.1s
SJPF  Ste Jean         16.88 290  eP     Pn     12 10 24.4 -1.1
      comp=Z,14nm,1.1s
KIV   Kislovodsk       17.01  68  ePn    Pn     12 10 30.8 +3.8
KIV   Kislovodsk       17.01  68⥣eP     Pn     12 10 29.6 +2.6
KIV                                pmax  pmax
      comp=Z,31nm,1.2s
KIV                                MLR   MLR
      comp=Z,100nm,15.0s
KIV   Kislovodsk       17.01  68  eP     Pn     12 10 29.6 +2.6
      comp=Z,100nm,15.0s
VORD  Divnogorie       17.39  42  eP     Pn     12 10 33.2 +1.5
VORD                               pmax  pmax
      comp=Z,20nm,1.3s
VORD                               pmax  pmax
      comp=N,10.0nm,1.0s
VORD                               pmax  pmax
      comp=E,20nm,0.9s
VORD                               MLR   MLR
      comp=Z,780nm,11.0s
VORD                               MLR   MLR
      comp=N,410nm,7.0s
VORD                               MLR   MLR
      comp=E,380nm,6.0s
VORD  Divnogorie       17.39  42  eP     Pn     12 10 33.2 +1.5
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             comp=E,410nm,7.0s
LDF    La Druitiere      17.51 308  eP    Pn     12 10 32.6  -0.7
LDF                                  pmax  pmax
             comp=Z,35nm,1.3s
LDF    La Druitiere      17.51 308  eP    Pn     12 10 32.6  -0.7
             comp=Z,70nm,1.3s
LDF    La Druitiere      17.51 308  eP    Pn     12 10 32.6  -0.7
             comp=Z,35nm,1.3s
ZEI    Tsey              17.78  72  eP    Pn     12 10 39.0  +2.4
FLN    La Foliniere      17.80 309  eP    Pn     12 10 34.2  -2.6
             comp=Z,34nm,1.3s
FLN    La Foliniere      17.80 309  eP    Pn     12 10 34.2  -2.6
FLN                                  pmax  pmax
             comp=Z,34nm,1.3s
FLN    La Foliniere      17.80 309  eP    Pn     12 10 34.2  -2.6
             comp=Z,68nm,1.3s
FLN                                 eMLR  MLR
             comp=Z,409nm,19.2s
GRR    Gorron            17.88 307  eP    Pn     12 10 36.8  -1.1
GRR                                  pmax  pmax
             comp=Z,14nm,0.9s
GRR    Gorron            17.88 307  eP    Pn     12 10 36.8  -1.1
             comp=Z,28nm,0.9s
GRR    Gorron            17.88 307  eP    Pn     12 10 36.8  -1.1
             comp=Z,14nm,0.9s
MSL    Mosul             17.94  93  eP    x      12 10 47.5
VRHR   Novokhopersk      18.70  45  eP    Pn     12 10 49.8  +1.9
VRHR                                 pmax  pmax
             comp=Z,5.0nm,0.3s
VRHR                                 pmax  pmax
             comp=N,10.0nm,0.4s
VRHR                                 pmax  pmax
             comp=E,3.0nm,0.3s
VRHR   Novokhopersk      18.70  45  eP    Pn     12 10 49.8  +1.9
             comp=E,10.0nm,0.4s
OBN    Obninsk           18.95  29⇑eP    Pn     12 10 48.9  -1.9
OBN                                  pmax  pmax
             comp=Z,76nm,1.5s
OBN                                  MLR   MLR
             comp=Z,400nm,26.0s
ESDC   Sonseca Array     19.02 279   P    Pn     12 10 51.5  -0.3
             comp=Z,0.7nm,0.3s,baz=72,slow=11,SNR=21
ESLA   Sonseca Array     19.02 279  ePn   Pn     12 10 51.9  +0.1
ESLA   Sonseca Array     19.02 279  ePn   Pn     12 10 51.9  +0.1
QUIF   Quistinic         19.18 304  eP    Pn     12 10 51.0  -2.7
             comp=Z,75nm,1.6s
QUIF   Quistinic         19.18 304  eP    Pn     12 10 51.0  -2.7
QUIF                                 pmax  pmax
             comp=Z,75nm,1.6s
QUIF   Quistinic         19.18 304  eP    Pn     12 10 51.0  -2.7
             comp=Z,150nm,1.6s
PAB    San Pablo         19.33 278  eP    Pn     12 10 56.3  +0.8
             comp=Z,29nm,1.1s
PAB                                 epP   pP     12 11 04.6  +8.0
PAB    San Pablo         19.33 278  eP    Pn     12 10 56.3  +0.8
PAB                                  pmax  pmax
             comp=Z,29nm,1.1s
PAB    San Pablo         19.33 278  eP    Pn     12 10 56.3  +0.8
             comp=Z,29nm,1.1s
VSU    Vasula            19.43  10⇑eP    Pn     12 10 54.5  -2.1
MOS    Moscow            19.81  29  eP    Pn     12 11 00.1  -1.1
MOS                                 eS    Sn     12 14 43.2  -0.6
MOS                                  pmax  pmax
             comp=Z,106nm,1.1s
MOS    Moscow            19.81  29  eP    Pn     12 11 00.1  -1.1
             comp=Z,106nm,1.1s
BHD    Baghdad           20.01 101  eP    x      12 11 06.0
PBRG   Braganca          20.94 285  eP    P      12 11 12.7  +0.7
             comp=Z,41nm,2.1s
HFS    Hagfors           21.18 350   P    P      12 11 13.2  -1.2
HFS                                  LR    LR    12 20 35.2
HFS    Hagfors           21.18 350   P    P      12 11 13.2  -1.3
HFS                                  pmax  pmax
             comp=Z,9.0nm,0.5s
HFS                                  MLR   MLR
             comp=Z,527nm,20.5s
HFS    Hagfors           21.18 350   P    P      12 11 13.2  -1.2
             comp=Z,9.1nm,0.5s,mb4.3,baz=163,slow=11,SNR=30
HFS                                  LR    LR    12 20 35.2
             comp=Z,527nm,20.5s,MS3.9,baz=181,slow=40
MVO    Moncorvo          21.20 284  eP    P      12 11 15.3  +0.5
             comp=Z,28nm,1.4s,mb4.4
PVIS   Viseu             21.89 283  eP    P      12 11 21.8  -0.4
             comp=Z,24nm,1.5s,mb4.4
FINES  FINESS Array B    22.28   7   P    P      12 11 24.3  -1.9
FINES                                pmax  pmax
             comp=Z,5.0nm,0.5s
FINES                                MLR   MLR
             comp=Z,262nm,18.5s
FINES  FINESS Array B    22.28   7   P    P      12 11 24.2  -2.0
             comp=Z,5.0nm,0.5s,mb4.2,baz=177,slow=9.6,SNR=19
FINES                                LR    LR    12 20 23.7
             comp=Z,262nm,18.5s,MS3.7,slow=38
FIA1   FINESS Array S    22.28   7  eP    P      12 11 24.7  -1.5
NAO01  NORSAR Array S    22.29 347  ePn   P      12 11 24.7  -1.6
EVO    Evora             22.31 277  eP    P      12 11 27.0  +0.2
             comp=Z,26nm,1.0s,mb4.3
EVO                                 eMLR  MLR
             comp=Z,246nm,22.0s,MS3.3
PVAQ   Vaqueiros         22.33 274  eP    P      12 11 27.5  +0.5
             comp=Z,45nm,1.4s,mb4.7
EVOP   Sao Brissos       22.40 277  eP    P      12 11 27.0  -0.7
             comp=Z,13nm,1.0s,mb4.3
NB2    NORSAR Subarra    22.42 348   P    P      12 11 25.9  -1.8
             comp=Z,14nm,0.8s,mb4.5,baz=158,slow=11
NB2    NORSAR Subarra    22.42 348   P    P      12 11 27.5  -0.2
NOA    NORSAR Array B    22.42 348   P    P      12 11 26.4  -1.3
NOA                                  pmax  pmax
             comp=Z,13nm,0.9s
NOA                                  MLR   MLR
             comp=Z,387nm,21.4s
NOA    NORSAR Array B    22.42 348   P    P      12 11 26.4  -1.3
             comp=Z,13nm,0.9s,mb4.4,baz=158,slow=9.3,SNR=21
NOA                                  LR    LR    12 20 43.7
             comp=Z,387nm,21.4s,MS3.8,baz=170,slow=38
EKA    Eskdalemuir Ar    22.50 323   P    P      12 11 28.1  -0.5
EKA                                  pmax  pmax
             comp=Z,13nm,0.8s
EKA    Eskdalemuir Ar    22.50 323   P    P      12 11 28.1  -0.5
             comp=Z,13nm,0.8s,mb4.4,baz=122,slow=8.1,SNR=22
ESK    Eskdalemuir       22.51 323  eP    P      12 11 28.3  -0.5
             comp=Z,45nm,1.0s,mb4.9
ESK    Eskdalemuir       22.51 323  eP    P      12 11 28.3  -0.4
ESK                                  pmax  pmax
             comp=Z,45nm,1.0s,mb4.8
ESK    Eskdalemuir       22.51 323  eP    P      12 11 28.3  -0.4
             comp=Z,45nm,1.0s,mb4.9
KAF    Kangasniemi       22.96   7  ep    P      12 11 31.0  -2.4
             comp=Z,15nm,0.6s,mb4.6,baz=188,slow=11
KAF    Kangasniemi       22.96   7  eP    P      12 11 31.0  -2.4
KAF                                  pmax  pmax
             comp=Z,15nm,0.6s,mb4.6
PTEO   Sao Teotonio      23.07 275  eP    P      12 11 34.3  -0.6
MIB    Mutribah          23.86 106  eP    P      12 11 41.2  -1.6
MIB                                  AMb   AMB   12 11 42.3
             comp=Z,41nm,0.8s,mb4.9
MIB    Mutribah          23.86 106  eP    P      12 11 41.2  -1.5
             comp=Z,41nm,0.8s,mb4.9
NAY    Al-Naaiem         24.07 107  eP    P      12 11 43.1  -1.6
NAY                                  AMb   AMB   12 11 44.4
             comp=Z,7.4nm,0.8s,mb4.2
NAY    Al-Naaiem         24.07 107  eP    P      12 11 43.1  -1.6
             comp=Z,7.4nm,0.8s,mb4.2
JOF    Joensuu           24.37  12  ep    P      12 11 44.5  -2.6
             comp=Z,23nm,1.0s,mb4.6
JOF    Joensuu           24.37  12  eP    P      12 11 44.5  -2.6
JOF                                  pmax  pmax
             comp=Z,23nm,1.0s,mb4.6
KBD    Kabd              24.45 106  eP    P      12 11 46.1  -2.0
KBD                                  AMb   AMB   12 11 49.6
             comp=Z,148nm,1.8s,mb5.1
KBD    Kabd              24.45 106  eP    P      12 11 46.2  -1.9
             comp=Z,148nm,1.8s,mb5.1
QRN    Al-Qurain         24.84 107  eP    P      12 11 49.5  -2.2
QRN                                  AMb   AMB   12 11 50.8
             comp=Z,72nm,1.4s,mb5.0
AKTK   Aktyubinsk        28.32  55   P    P      12 12 22.1  -0.8
AKTK                                 LR    LR    12 25 48.6
AKTO   Aktyubinsk        28.32  55   P    P      12 12 22.1  -0.8
AKTO                                 pmax  pmax
             comp=Z,6.0nm,0.8s,mb4.3
AKTO                                 MLR   MLR
             comp=Z,259nm,18.6s,MS3.9
AKTO   Aktyubinsk        28.32  55   P    P      12 12 22.1  -0.8
             comp=Z,5.8nm,0.8s,mb4.3,baz=270,slow=11,SNR=13
AKTO                                 LR    LR    12 25 48.6
             comp=Z,259nm,18.6s,MS3.9,baz=290,slow=41
APA    Apatity           29.05  10⇓eP    P      12 12 23.0  -6.2
APA                                  pmax  pmax
             comp=Z,8.0nm,0.8s,mb4.5
ARU    Arti              30.03  43  eP    P      12 12 36.9  -1.1
             comp=Z,7.5nm,0.6s,mb4.6
ARU    Arti              30.03  43⇓iP    P      12 12 36.8  -1.2
ARU                                 e            12 13 31.8
ARU                                 eS    S      12 17 32.2  -3.9
ARU                                  pmax  pmax
             comp=Z,15nm,1.2s,mb4.6
ARCES  ARCESS Array B    30.27   3   P    P      12 12 37.5  -2.5
ARCES  ARCESS Array B    30.27   3   P    P      12 12 37.5  -2.5
ARCES                                pmax  pmax
             comp=Z,4.0nm,0.8s
ARCES  ARCESS Array B    30.27   3   P    P      12 12 37.5  -2.5
             comp=Z,4.2nm,0.8s,mb4.2,baz=178,slow=7.2,SNR=13
KEV    Kevo              30.57   4  ep    P      12 12 40.9  -1.7
             comp=Z,28nm,0.9s,mb5.1
KEV    Kevo              30.57   4  eP    P      12 12 40.9  -1.7
KEV                                  pmax  pmax
             comp=Z,28nm,0.9s,mb5.1
TOA0   Torodi Ar. Sit    31.11 218  eP    P      12 12 47.2  -0.7
TORD   Torodi Ar. Bea    31.11 218   P    P      12 12 47.1  -0.7
             comp=Z,8.9nm,0.8s,mb4.6,baz=31,slow=6.9,SNR=48
BRVK   Borovoye          36.14  51  eP    P      12 13 30.9  -0.4
             comp=Z,24nm,1.1s,mb5.0
BRVK   Borovoye          36.14  51  eP    P      12 13 30.9  -0.5
BRVK                                 pmax  pmax
             comp=Z,24nm,1.1s,mb5.0
BRVK   Borovoye          36.14  51  ⇓P    P      12 13 31.0  -0.3
             SNR=6.3
KBL    Kabul             38.55  82  eP    P      12 13 51.9  -0.2
KBL    Kabul             38.55  82  eP    P      12 13 51.8  -0.2
EKS2   Erkin-Say         39.61  68  eP    P      12 14 00.8  +0.1
             comp=Z,18nm,1.1s,mb4.7
EKS2   Erkin-Say         39.61  68  eP    P      12 14 00.9  +0.1
             comp=Z,18nm,1.1s,mb4.7
TIC    Toumodi           40.03 222  eP    P      12 14 07.0  +2.5
             comp=Z,7.2nm,0.2s,mb5.0
KIC    Kosan Boka        40.12 222  eP    P      12 14 04.8  -0.5
             comp=Z,111nm,1.5s,mb5.4
AAK    Ala-Archa         40.13  67  eP    P      12 14 04.4  -0.7
AAK    Ala-Archa         40.13  67⇑eP    P      12 14 04.6  -0.5
AAK                                  pmax  pmax
             comp=Z,8.0nm,1.1s,mb4.4
AAK    Ala-Archa         40.13  67   P    P      12 14 03.9  -1.2
             SNR=5.4
AAK    Ala-Archa         40.13  67  eP    P      12 14 04.6  -0.5
             comp=Z,8.0nm,1.1s,mb4.4
FRU    Bishkek           40.17  67  eP    P      12 14 05.0  -0.4
UCH    Uchtor            40.24  68  eP    P      12 14 06.3  +0.2
             comp=Z,12nm,1.4s,mb4.5
UCH    Uchtor            40.24  68  eP    P      12 14 06.3  +0.3
             comp=Z,12nm,1.4s,mb4.5
LIC    Lamto             40.39 222  eP    P      12 14 07.0  -0.5
             comp=Z,51nm,1.2s,mb5.1
LIC    Lamto             40.39 222  eP    P      12 14 07.3  -0.2
             comp=Z,27nm,0.9s,mb4.7
LIC    Lamto             40.39 222  eP    P      12 14 07.3  -0.2
             comp=Z,13nm,0.9s,mb4.7
KURK   Kurchatov         41.42  55  eP    P      12 14 14.8  -0.8
             comp=Z,20nm,1.1s,mb4.7
KURK   Kurchatov         41.42  55  eP    P      12 14 14.9  -0.7
KURK                                 pmax  pmax
             comp=Z,20nm,1.1s,mb4.7
KURK   Kurchatov         41.42  55   P    P      12 14 15.0  -0.6
             SNR=9.5
KMBO   Kilima Mbogo      43.13 155   LR   LR     12 33 59.0
             comp=Z,160nm,20.8s,MS3.9,baz=58,slow=38
NVS    Novosibirsk       43.72  48  i P   P      12 14 33.6  -0.6
NVS                                  pmax  pmax
             comp=E,13nm,1.2s
NVS                                  pmax  pmax
             comp=Z,27nm,1.2s,mb4.8
MK31   Makanchi Array    44.53  60  eP    P      12 14 39.7  -1.1
MK31                                epP   pP     12 14 50.8  +7.7
MK31   Makanchi Array    44.53  60  eP    P      12 14 39.7  -1.2
MKAR   Makanchi Array    44.53  60   P    P      12 14 39.8  -1.1
MKAR                                 ScP   ScP   12 20 15.2  -1.3
MKAR                                 LR    LR    12 35 48.6
MKAR   Makanchi Array    44.53  60   P    P      12 14 39.8  -1.1
             comp=Z,5.3nm,0.6s,mb4.6,baz=282,slow=7.0,SNR=50
MKAR                                 ScP   ScP   12 20 15.2  -1.3
             comp=Z,0.4nm,0.6s,baz=303,slow=3.9,SNR=3.6
MKAR                                 LR    LR    12 35 48.7
             comp=Z,153nm,20.0s,MS3.9,baz=288,slow=40
ZAA0   Zalesovo Array    44.75  49  eP    P      12 14 41.5  -1.0
ZAA0   Zalesovo Array    44.75  49  eP    P      12 14 41.5  -1.0
ZALV   Zalesovo Beam     44.75  49   P    P      12 14 41.6  -0.9
             comp=Z,9.5nm,0.5s,mb4.8,baz=280,slow=8.4,SNR=42
ZALV                                 LR    LR    12 35 34.3
             comp=Z,111nm,18.1s,MS3.8,baz=3.7,slow=39
WMQ    Urumqi            49.03  62  eP    P      12 15 18.4  +2.3
WMQ                                  AP    pP    12 15 28.4   +10
WMQ                                  XP    sP    12 15 32.4   +13
WMQ                                  PCP   PcP   12 16 42.4  +2.5
WMQ                                  AMB   AMB
             comp=Z,11nm,0.9s,mb4.9
WMQ                                  AMB   AMB
             comp=Z,55nm,7.6s
WMQ                                  LR    LR
             comp=N,142nm,19.0s,MS4.2
WMQ                                  LR    LR
             comp=E,167nm,18.0s,MS4.2
KOLN   Koldanda          52.70  83  eP    P      12 15 42.2  -1.9
             comp=E,26nm,0.9s,mb5.2
GKN    Gorkha            53.38  82  eP    P      12 15 47.3  -1.8
             comp=E,50nm,1.0s,mb5.4
DMN    Daman             53.94  82  eP    P      12 15 51.5  -1.7
             comp=E,37nm,0.8s,mb5.3
KKN    Kakani            53.98  82  eP    P      12 15 51.6  -1.9
             comp=E,20nm,0.7s,mb5.1
PKI    Pulchoki          54.19  82  eP    P      12 15 53.5  -1.5
             comp=E,26nm,0.8s,mb5.2
GUN    Gumba             54.38  81  eP    P      12 15 55.0  -1.4
             comp=E,56nm,1.1s,mb5.4
JIRN   Jiri              54.74  81  eP    P      12 15 57.4  -1.6
             comp=E,21nm,0.8s,mb5.2
MOY    Mondy             54.80  49  eP    P      12 15 59.0  -0.1
TAPN   Taplejung         56.06  81  eP    P      12 16 07.0  -1.5
             comp=E,54nm,1.0s,mb5.5
ODAN   Odare             56.07  81  eP    P      12 16 07.0  -1.6
             comp=E,18nm,0.8s,mb5.1
TLY    Talaya            56.33  48  eP    P      12 16 10.0   0.0
TLY    Talaya            56.33  48  eP    P      12 16 10.2  +0.1
TLY                                  pmax  pmax
             comp=Z,13nm,1.2s,mb4.8
TLY                                  MLR   MLR
             comp=Z,108nm,14.0s,MS4.1
TLY    Talaya            56.33  48   P    P      12 16 10.9  +0.8
             SNR=6.6
TLY    Talaya            56.33  48  eP    P      12 16 10.0  -0.1
IRK    Irkutsk           56.47  47⇑iP    P      12 16 09.6  -1.5
IRK                                  pmax  pmax
             comp=Z,22nm,2.7s,mb4.7
ZAK    Zakamensk         56.62  49⇓iP    P      12 16 11.8  -0.4
ZAK                                  pmax  pmax
             comp=Z,3.0nm,1.0s,mb4.3
SCHQ   Schefferville     57.64 317   P    P      12 16 18.2  -1.0
             comp=Z,4.8nm,0.8s,mb4.5,baz=55,slow=6.0,SNR=15
SCHQ                                 LR    LR    12 38 28.5
             comp=Z,81nm,19.0s,MS3.9,baz=276,slow=33
SCHQ   Schefferville     57.64 317   P    P      12 16 18.2  -1.1
TIXI   Tiksi             58.42  21  eP    P      12 16 24.4  -0.1
TIXI   Tiksi             58.42  21⇑eP    P      12 16 24.5   0.0
TIXI                                 pmax  pmax
             comp=Z,10.0nm,1.4s,mb4.7
TIXI                                 MLR   MLR
             comp=Z,200nm,18.0s,MS4.3
GTA    Gaotai            59.11  62  eP    P      12 16 28.8  -1.0
GTA                                  AP    pP    12 16 33.7  +1.6
GTA                                  XP    sP    12 16 36.0  +3.0
GTA                                  PCP   PcP   12 17 16.8  -1.6
GTA                                  PP    PP    12 18 41.3  +1.2
GTA                                  PPP         12 20 07.2
GTA                                  S     S     12 24 31.9  -5.3
GTA                                  XS    sS    12 24 49.7  +8.7
GTA                                  PS          12 24 51.2
GTA                                  SS    SS    12 28 28.0  -2.8
GTA                                  AMB   AMB
             comp=Z,4.0nm,1.0s,mb4.4
GTA                                  AMB   AMB
             comp=Z,106nm,5.3s
GTA                                  LR    LR
             comp=N,158nm,17.5s,MS4.3
GTA                                  LR    LR
             comp=E,133nm,19.4s,MS4.3
GTA                                  LR    LR
             comp=Z,107nm,17.9s,MS4.0
BOD    Bodaibo           59.29  38  eP    P      12 16 28.1  -2.7
BOD                                  pmax  pmax
             comp=Z,4.0nm,1.1s,mb4.4
SONM   Songino Array     59.55  51   P    P      12 16 32.3  -0.4
SONM                                 pmax  pmax
             comp=Z,6.0nm,1.0s
SONM   Songino Array     59.55  51   P    P      12 16 32.3  -0.4
             comp=Z,6.1nm,1.0s,mb4.6,baz=290,slow=9.2,SNR=22
ULN    Ulaanbaatar       59.93  51  eP    P      12 16 34.9  -0.5
             comp=Z,5.9nm,0.9s,mb4.6
ULN    Ulaanbaatar       59.93  51  eP    P      12 16 34.9  -0.4
             comp=Z,5.9nm,0.9s,mb4.6
LZH    Lanzhou           63.51  64  eP    P      12 17 01.5  +1.8
LZH                                  AP    pP    12 17 10.6  +8.6
LZH                                  XP    sP    12 17 14.9   +12
LZH                                  PP    PP    12 19 22.5  +3.5
LZH                                 eS    S      12 25 29.0  -4.3
LZH                                  XS    sS    12 25 44.0  +6.8
LZH                                 eSS   SS     12 29 38.0  -1.9
LZH                                  AMB   AMB
             comp=Z,24nm,1.0s,mb5.2
LZH                                  AMB   AMB
             comp=Z,160nm,4.8s
LZH                                  LR    LR
             comp=E,434nm,14.8s
LZH                                  LR    LR
             comp=Z,679nm,15.0s,MS5.0
YAK    Yakutsk           63.94  30  i P   P      12 17 03.1  +1.0
YAK                                  pmax  pmax
             comp=Z,10.0nm,0.9s,mb4.8
YAK                                  MLR   MLR
             comp=Z,100nm,21.0s,MS4.0
CD2    Chengdu           66.17  69⇑iP    P      12 17 15.9  -1.2
CD2                                  AP    pP    12 17 26.2  +6.7
CD2                                  XP    sP    12 17 30.5   +10
CD2                                  PP    PP    12 19 43.6  +1.1
CD2                                  S     S     12 25 59.8  -6.4
CD2                                  XS    sS    12 26 16.9  +6.8
CD2                                  SS    SS    12 30 16.6  -5.0
CD2                                  AMB   AMB
             comp=Z,10.0nm,1.0s,mb4.8
CD2                                  AMB   AMB
             comp=Z,30nm,8.2s
CD2                                  LR    LR
             comp=N,210nm,10.8s,MS4.7
CD2                                  LR    LR
             comp=E,170nm,13.2s,MS4.7
CD2                                  LR    LR
             comp=Z,120nm,14.4s,MS4.2
HHC    Hu-ho-hao-te      66.20  56  eP    P      12 17 17.8  +0.7
HHC                                  AP    pP    12 17 28.2  +8.7
HHC                                  XP    sP    12 17 32.0   +12
HHC                                  PCP   PcP   12 17 48.2  +0.9
HHC                                  PP    PP    12 19 45.3  +2.8
HHC                                  SCP         12 21 48.4
HHC                                  PCS         12 21 50.9
HHC                                  S     S     12 26 03.8  -2.5
HHC                                  XS    sS    12 26 18.0  +7.8
HHC                                  PS          12 26 29.0
HHC                                  SCS   ScS   12 27 06.4  -7.6
HHC                                  SS    SS    12 30 18.0  -3.5
HHC                                  AMB   AMB
             comp=Z,14nm,0.8s,mb5.0
HHC                                  AMB   AMB
             comp=Z,59nm,5.1s
HHC                                  LR    LR
             comp=N,201nm,18.0s,MS4.6
HHC                                  LR    LR
             comp=E,215nm,16.1s,MS4.6
HHC                                  LR    LR
             comp=Z,172nm,15.2s,MS4.4
BOSA   Boshof            67.83 176   P    P      12 17 27.7  +0.3
BOSA                                 pmax  pmax
             comp=Z,4.0nm,1.0s,mb4.4
BOSA                                 MLR   MLR
             comp=Z,201nm,19.5s,MS4.3
BOSA   Boshof            67.83 176   P    P      12 17 27.6  +0.3
             comp=Z,3.8nm,1.0s,mb4.4,baz=347,slow=12,SNR=4.5
BOSA                                 LR    LR    12 49 58.2
             comp=Z,201nm,19.5s,MS4.3,baz=6.1,slow=38
BOSA   Boshof            67.83 176   P    P      12 17 27.6  +0.2
FCC    Fort Churchill    68.24 329  eP    P      12 17 29.0  -0.7
FCC    Fort Churchill    68.24 329  eP    P      12 17 29.0  -0.7
KMI    Kunming           68.63  75   P    P      12 17 34.3  +1.6
KMI                                  AMB   AMB
             comp=Z,5.0nm,1.0s,mb4.4
BJI    Beijing           69.59  55   P    P      12 17 34.0  -4.5
BJI                                  AMB   AMB
             comp=Z,4.0nm,0.7s,mb4.5
BILL   Bilibino          69.76  13⇑eP    P      12 17 38.4  -0.6
BILL                                 pmax  pmax
             comp=Z,5.0nm,1.1s,mb4.4
BILL                                 MLR   MLR
             comp=Z,200nm,23.0s,MS4.3
GYA    Guiyang           70.77  71  eP    P      12 17 47.4  +1.5
GYA                                  AP    pP    12 17 58.6   +10
GYA                                  XP    sP    12 18 02.5   +13
GYA                                  PCP   PcP   12 18 08.8  +2.1
GYA                                  PP    PP    12 20 26.0  +3.6
GYA                                  S     S     12 26 57.4  -3.6
GYA                                  XS    sS    12 27 15.0   +10
GYA                                  PS          12 27 30.0
GYA                                  SKS         12 27 42.2
GYA                                  SS    SS    12 31 31.4  -1.3
GYA                                  AMB   AMB
             comp=Z,10.0nm,1.0s,mb4.7
GYA                                  AMB   AMB
             comp=Z,110nm,6.9s
GYA                                  LR    LR
             comp=N,350nm,19.2s,MS4.8
GYA                                  LR    LR
             comp=E,340nm,18.4s,MS4.8
GYA                                  LR    LR
             comp=Z,460nm,19.6s,MS4.7
INK    Inuvik            70.85 350  eP    P      12 17 45.1  -0.6
INK    Inuvik            70.85 350  eP    P      12 17 45.1  -0.6
SEY    Seymchan          70.91  21⇑eP    P      12 17 46.4  +0.3
YKW3   Yellowknife Ar    72.21 340  eP    P      12 17 53.2  -0.8
YKW3   Yellowknife Ar    72.21 340  eP    P      12 17 53.2  -0.8
YKA    Yellowknife Ar    72.26 340   P    P      12 17 53.9  -0.3
YKA                                  LR    LR    12 48 10.4
YKA    Yellowknife Ar    72.26 340   P    P      12 17 53.9  -0.4
YKA                                  pmax  pmax
             comp=Z,2.0nm,0.8s
YKA    Yellowknife Ar    72.26 340   P    P      12 17 53.9  -0.3
             comp=Z,2.0nm,0.8s,mb4.1,baz=36,slow=5.4,SNR=29
YKA                                  LR    LR    12 48 10.4
             comp=Z,115nm,20.0s,MS4.1,baz=50,slow=35
KLR    Kul'dur           72.81  40  eP    P      12 17 53.2  -4.6
CN2    Changchun         72.92  47  eP    P      12 17 56.4  -2.1
CN2                                 eXP   sP     12 18 06.7  +4.9
CN2                                 eS    S      12 27 17.6  -7.7
CN2                                  AMB   AMB
             comp=Z,10.0nm,0.9s,mb4.8
CN2                                  AMB   AMB
             comp=Z,200nm,3.0s
MA2    Magadan           73.08  24  eP    P      12 17 58.9  -0.4
             comp=Z,11nm,0.9s,mb4.8
MA2    Magadan           73.08  24  eP    P      12 17 59.0  -0.2
MA2                                 eS    S      12 27 22.0  -4.6
MA2                                 eSSS         12 35 21.9
MA2                                  pmax  pmax
             comp=Z,10.0nm,0.9s,mb4.8
MA2                                  MLR   MLR
             comp=Z,200nm,21.1s,MS4.4
MA2    Magadan           73.08  24  eP    P      12 17 58.8  -0.4
             comp=Z,11nm,0.9s,mb4.8
IMA2   Indian Mountai    74.74 358  eP    P      12 18 09.1  +0.3
IMA2   Indian Mountai    74.74 358  eP    P      12 18 09.1  +0.3
ULM    Lac du Bonnet     74.78 323   P    P      12 18 09.0  -0.3
             comp=Z,6.8nm,0.9s,mb4.6,baz=47,slow=5.5,SNR=12
ULM                                  LR    LR    12 49 50.3
             comp=Z,170nm,19.3s,MS4.4,baz=348,slow=35
COLA   College           75.64 355  eP    P      12 18 14.2  +0.2
DAWY   Dawson            75.64 351  eP    P      12 18 14.2  +0.2
DAWY   Dawson            75.64 351  eP    P      12 18 14.2  +0.2
NJ2    Nanjing           76.06  60  eP    P      12 18 19.8  +2.8
NJ2                                  AMB   AMB
             comp=Z,10.0nm,0.7s,mb4.8
MPR    Mayaguez          77.05 283  eP    P      12 18 25.0  +2.2
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MPR	Mayaguez	77.05	283	eP	P	12 18 25.0	+2.2
KSRS	Korea Array	78.42	51	P	P	12 18 28.7	-1.5
	comp=Z,2.5nm,0.6s,mb4.3,baz=310,slow=4.4,SNR=13						
EDM	Edmonton	79.53	334	eP	P	12 18 36.1	+0.1
EDM	Edmonton	79.53	334	eP	P	12 18 36.1	+0.1
YSS	Yuzh-Sakhalins	79.66	36	eP	P	12 18 36.4	-0.4
YSS	Yuzh-Sakhalins	79.66	36	⇑eP	P	12 18 36.4	-0.4
YSS				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
YSS				MLR	MLR		
	comp=Z,200nm,25.0s,MS4.4						
LRAL	Lakeview Retre	81.64	306	eP	P	12 18 48.5	+0.8
	comp=Z,12nm,0.9s,mb4.8						
LRAL	Lakeview Retre	81.64	306	eP	P	12 18 48.5	+0.8
	comp=Z,12nm,0.9s,mb4.8						
LAO	LASA Array	82.03	326	eP	P	12 18 50.7	+1.2
LAO	LASA Array	82.03	326	eP	P	12 18 50.7	+1.2
KSU1	Kansas State U	83.06	316	eP	P	12 18 55.3	+0.4
KSU1	Kansas State U	83.06	316	eP	P	12 18 55.3	+0.3
WALA	Waterton Lakes	83.18	332	eP	P	12 18 55.2	-0.2
	comp=Z,7.2nm,1.0s,mb4.7						
WALA	Waterton Lakes	83.18	332	eP	P	12 18 55.2	-0.2
	comp=Z,7.2nm,1.0s,mb4.7						
BSMT	Bassoo Peak	84.51	332	eP	P	12 19 02.9	+0.7
BSMT	Bassoo Peak	84.51	332	eP	P	12 19 02.9	+0.7
RLMT	Red Lodge	84.57	327	eP	P	12 19 03.1	+0.5
	comp=Z,8.1nm,0.9s,mb4.8						
RLMT	Red Lodge	84.57	327	eP	P	12 19 03.1	+0.5
	comp=Z,8.1nm,0.9s,mb4.8						
MIAR	Mount Ida	84.59	311	eP	P	12 19 04.1	+1.2
MIAR	Mount Ida	84.59	311	eP	P	12 19 04.1	+1.2
CHMT	Chamberlain Mo	84.72	330	eP	P	12 19 03.4	+0.1
CHMT	Chamberlain Mo	84.72	330	eP	P	12 19 03.4	+0.1
MJAR	Matsushiro Arr	85.00	46	P	P	12 19 02.9	-2.0
MJAR				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MJAR	Matsushiro Arr	85.00	46	P	P	12 19 02.9	-2.1
	comp=Z,6.8nm,0.9s,mb4.8,baz=307,slow=4.6,SNR=8.8						
MSO	Missoula	85.05	331	eP	P	12 19 05.3	+0.3
MSO	Missoula	85.05	331	eP	P	12 19 05.3	+0.3
BOZ	Bozeman (W)	85.12	329	eP	P	12 19 06.3	+1.0
	comp=Z,6.6nm,1.1s,mb4.7						
BOZ	Bozeman (W)	85.12	329	eP	P	12 19 06.4	+1.0
BOZ				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.7						
BOZ	Bozeman (W)	85.12	329	eP	P	12 19 06.3	+0.9
	comp=Z,6.6nm,1.1s,mb4.7						
LRM	Limekiln Ridge	85.31	329	eP	P	12 19 06.9	+0.6
LRM	Limekiln Ridge	85.31	329	eP	P	12 19 06.9	+0.6
LKWY	Lake	85.50	327	eP	P	12 19 09.4	+2.1
LKWY	Lake	85.50	327	eP	P	12 19 09.4	+2.1
QLMT	Earthquake Lak	85.71	328	eP	P	12 19 09.9	+1.6
QLMT	Earthquake Lak	85.71	328	eP	P	12 19 09.9	+1.6
DLMT	Dillon	85.74	329	eP	P	12 19 09.3	+0.9
DLMT	Dillon	85.74	329	eP	P	12 19 09.3	+0.8
IMW	Indian Meadow	86.27	327	eP	P	12 19 12.6	+1.5
	comp=Z,11nm,1.3s,mb4.9						
IMW	Indian Meadow	86.27	327	eP	P	12 19 12.6	+1.5
	comp=Z,11nm,1.3s,mb4.9						
AHID	Auburn Hatcher	87.26	327	eP	P	12 19 16.4	+0.5
	comp=Z,4.8nm,0.9s,mb4.7						
AHID	Auburn Hatcher	87.26	327	eP	P	12 19 16.4	+0.4
	comp=Z,4.8nm,0.9s,mb4.7						
WMOK	Wichita Mounta	87.43	314	eP	P	12 19 17.8	+0.9
	comp=Z,8.9nm,1.1s,mb4.9						
WMOK	Wichita Mounta	87.43	314	eP	P	12 19 17.8	+0.9
WMOK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.9						
WMOK	Wichita Mounta	87.43	314	eP	P	12 19 17.8	+0.9
	comp=Z,8.9nm,1.1s,mb4.9						
HAWA	Hanford	87.44	334	eP	P	12 19 17.3	+0.5
HAWA	Hanford	87.44	334	eP	P	12 19 17.3	+0.5
HWUT	Hardware Ranch	88.40	326	eP	P	12 19 21.7	+0.3
	comp=Z,9.2nm,1.0s,mb5.0						
HWUT	Hardware Ranch	88.40	326	eP	P	12 19 21.7	+0.2
	comp=Z,9.2nm,1.0s,mb5.0						
JLU	Jordanelle	89.18	326	eP	P	12 19 25.7	+0.6
JLU	Jordanelle	89.18	326	eP	P	12 19 25.7	+0.6
PV01	Paradox Valley	89.86	322	eP	P	12 19 28.5	+0.1
PV01	Paradox Valley	89.86	322	eP	P	12 19 28.5	+0.1
PV10	Paradox Valley	89.89	323	eP	P	12 19 28.8	+0.3
PV10	Paradox Valley	89.89	323	eP	P	12 19 28.8	+0.3
SRU	San Rafael	89.98	324	eP	P	12 19 28.3	-0.6
DUG	Dugway	90.10	326	eP	P	12 19 29.8	+0.3
	comp=Z,7.2nm,1.0s,mb5.0						
DUG	Dugway	90.10	326	eP	P	12 19 29.8	+0.3
DUG				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
DUG	Dugway	90.10	326	eP	P	12 19 29.8	+0.3
	comp=Z,7.2nm,1.0s,mb5.0						
MSU	Marysvale	91.21	325	eP	P	12 19 34.6	0.0
MSU				epP	pP	12 19 46.0	+8.9
MSU	Marysvale	91.21	325	eP	P	12 19 34.6	0.0
MSU				epP	pP	12 19 46.0	+8.9
WUAZ	Wupatki	93.30	323	eP	P	12 19 45.1	+0.7
	comp=Z,4.9nm,1.0s,mb4.9						
WUAZ	Wupatki	93.30	323	eP	P	12 19 45.1	+0.8
	comp=Z,4.9nm,1.0s,mb4.9						
MNTX	Cornudas Mount	93.33	316	eP	P	12 19 44.4	-0.1
MNTX	Cornudas Mount	93.33	316	eP	P	12 19 44.4	-0.2
NVAR	Mina Array Bea	93.87	329	P	P	12 19 47.1	+0.2
	comp=Z,0.6nm,0.7s,mb4.1,baz=57,slow=3.3,SNR=4.8						
LTX	Lajitas	94.21	314	eP	P	12 19 46.5	-2.2
LTX	Lajitas	94.21	314	eP	P	12 19 46.5	-2.2
TXAR	Lajitas Array	94.21	314	P	P	12 19 49.3	+0.6
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
TXAR	Lajitas Array	94.21	314	P	P	12 19 49.3	+0.6
	comp=Z,2.3nm,0.9s,mb4.6,baz=68,slow=4.3,SNR=24						
LPAZ	La Paz	99.28	257	LR	LR	13 03 05.2	
	comp=Z,74nm,19.4s,MS4.2,baz=89,slow=34						
WRA	Warramunga Arr	120.43	92	PKP	PKPdf	12 25 19.6	-1.6
WRA	Warramunga Arr	120.43	92	PKIKP	PKPdf	12 25 19.6	-1.6
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	120.43	92	PKP	PKPdf	12 25 19.6	-1.6
	comp=Z,0.7nm,0.7s,baz=335,slow=1.8,SNR=7.1						
WRA	Warramunga Arr	120.43	92	PKIKP	PKPdf	12 25 19.6	-1.6

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*HEL **02** 12:26:33.7±0.2, 67.68N×33.94E, h0^{km}, ML2.2, ML2.3(BER), ML2.4(NAO), Explosion*

*ISCJB **02** 12:26:34.0±1.2, 67.61N±0.04×33.5E±0.2, h0^{km}, Error ellipse: s-maj=11.5km s-min=6.0km az=175.1*

*IDC **02** 12:26:34.9±2.6, 67.76N×33.97E, h0^{km}, mb1 3.4/4, mb1mx3.2/21, mbtmp3.4/4, ML2.8/4, Error ellipse: s-maj=28.9km s-min=9.9km az=72.0*

*NAO **02** 12:26:34.5±1.3, 67.68N×33.82E, ML2.4*

ISC 02 12:26:35.9±1.0**, 67.65N**±0.03×**33.4E**±0.1**, h0^{km}, n23, σ1^{s}43**/40**, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA0	Apatity Array	0.15	253	Pg	Pg	12 26 40.2	+1.5
	baz=72,slow=12						
APA0				Lg		12 26 45.3	
	baz=56,slow=28						
APA0				Rg		12 26 47.7	
	baz=83,slow=37						
APA0	Apatity Array	0.15	253	i P	Pg	12 26 40.2	+1.5
APA0				i S	Sg	12 26 45.3	+4.7
APA0				eRG		12 26 47.7	
APA0	Apatity Array	0.15	253	P	Pg	12 26 40.2	+1.5
	baz=72,slow=12						
APA0				Lg		12 26 45.3	
	baz=56,slow=28						
APA0				Rg		12 26 47.7	
	baz=83,slow=37						
KU6	Riekki	2.13	222	eP	Pn	12 27 13.2	+0.6
	baz=34						
KU6				eSG	Sg	12 27 44.4	+0.2
MSF	Maaselka	2.44	226	ePB	Pb	12 27 18.6	-2.0
MSF				eSB	Sb	12 27 53.4	+2.1
MSF				MSG		12 27 53.4	
	comp=Z,4.6nm,0.2s						
SGF	Sodankyl	2.63	269	eP	Pn	12 27 20.8	+1.3
SGF				eSB	Sb	12 27 59.0	+2.4
SGF				MSG		12 27 59.0	
	comp=Z,10nm,0.2s						
KEV	Kevo	3.14	315	eP	Pn	12 27 27.3	+0.8
KEV				eSG	Sg	12 28 14.4	-2.2
KEV				MSG		12 28 14.4	
	comp=Z,12nm,0.4s						
ARA0	ARCESS Array S	3.45	307	Pn	Pn	12 27 30.9	+0.2
	baz=122,slow=16						
ARA0				Sn	Sn	12 28 12.9	+0.8
	baz=124,slow=28						
ARA0				Lg		12 28 23.7	
	baz=109,slow=37						
ARA0	ARCESS Array S	3.45	307	eP	Pn	12 27 30.9	+0.2
ARA0				eS	Sn	12 28 12.9	+0.8
ARA0				eSG		12 28 23.7	
ARA0	ARCESS Array S	3.45	307	Pn	Pn	12 27 30.9	+0.2
	baz=122,slow=16						
ARA0				Sn	Sn	12 28 12.9	+0.8
	baz=124,slow=28						
ARA0				Lg		12 28 23.7	
	baz=109,slow=37						
ARCES	ARCESS Array B	3.45	307	Pn	Pn	12 27 31.3	+0.6
	comp=Z,4.3nm,0.3s,baz=120,slow=15,SNR=328						
ARCES				Pg	Pg	12 27 38.5	-3.3
	comp=Z,1.5nm,0.3s,baz=118,slow=14,SNR=8.5						
ARCES				Sn	Sn	12 28 13.2	+1.1
	comp=Z,4.5nm,0.3s,baz=119,slow=25,SNR=20						
ARCES				Lg		12 28 26.0	
	comp=Z,9.7nm,0.3s,baz=116,slow=36,SNR=14						
HEF	Hetta	3.72	286	eP	Pn	12 27 35.2	+0.7
	baz=92						
HEF				eSG	Sg	12 28 35.3	-0.1
OUL	Oulu	3.96	233	ePB	Pb	12 27 42.5	-3.9
	baz=49						
OUL				eSG	Sg	12 28 41.1	-1.7
OUL				MSG		12 28 41.1	
	comp=Z,3.3nm,0.4s						
KTK1	Kautokeino	4.00	295	eP	Pn	12 27 38.8	+0.6
KTK1				eSG	Sg	12 28 42.3	-1.8
KTK1				AML	AML	12 28 43.4	
	comp=Z,14nm,0.2s						
FIA0	FINESS Array S	6.97	210	Pn	Pn	12 28 17.9	-1.1
	baz=24,slow=14						
FIA0				Sn	Sn	12 29 36.7	-2.2
	baz=44,slow=22						
FIA0				Lg		12 30 09.3	
	baz=28,slow=22						
FIA0	FINESS Array S	6.97	210	eP	Pn	12 28 17.9	-1.1
FIA0				eS	Sn	12 29 36.7	-2.2
FIA0				eSG		12 30 09.3	
FIA0	FINESS Array S	6.97	210	Pn	Pn	12 28 17.9	-1.1
	baz=24,slow=14						
FIA0				Sn	Sn	12 29 36.7	-2.2
	baz=44,slow=22						
FIA0				Lg		12 30 09.3	
	baz=28,slow=22						
FINES	FINESS Array B	6.97	210	Pn	Pn	12 28 17.8	-1.3
	comp=Z,0.1nm,0.3s,baz=32,slow=12,SNR=5.3						
FINES				Sn	Sn	12 29 40.6	+1.7
	comp=Z,0.3nm,0.3s,baz=25,slow=21,SNR=5.7						
HFS	Hagfors	11.43	238	Pn	Pn	12 29 18.1	-2.0
	comp=Z,0.1nm,0.3s,baz=48,slow=12,SNR=2.7						
SPA0	Spitsbergen Ar	11.61	343	Pn	Pn	12 29 19.0	-3.5
	baz=156,slow=16						
SPA0	Spitsbergen Ar	11.61	343	eP	Pn	12 29 19.0	-3.5
SPA0	Spitsbergen Ar	11.61	343	P	Pn	12 29 19.0	-3.5
	baz=156,slow=16						
AKASG	Malin Array Be	17.12	189	P	Pn	12 30 37.0	+0.7
	comp=Z,0.3nm,0.3s,baz=182,slow=10,SNR=2.6						

FUNV 02 12:28:27.7, 7.13N×73.14W, h136^{km}, MW3.5, 1C, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	Capacho	1.09	48	⇑iP	Pn	12 28 51.5	-0.5
CAPV				eS	Sn	12 29 09.8	-0.7
VIGV	El Vigia	2.44	46	eP	Pn	12 29 07.0	-0.4
VIGV				eS	Sn	12 29 35.3	-2.7
SOCV	Socops	2.54	63	eP	Pn	12 29 07.8	-0.8
SOCV				eS	Sn	12 29 36.9	-3.2
VIRV	Villa del Rosa	3.42	12	eP	Pn	12 29 18.4	-1.7
VIRV				eS	Sn	12 29 56.4	-4.2
CURV	Curarigua	4.25	47	eP	Pn	12 29 29.9	-1.1
SANV	Sanarito	4.27	56	eP	Pn	12 29 30.7	-0.5
SIQV	Siquisique	4.80	43	eP	Pn	12 29 36.7	-1.5
TEPV	Terepaima	4.81	54	eP	Pn	12 29 37.1	-1.3
BAUV	El Baul	5.36	70	eP	Pn	12 29 42.9	-2.8
TURV	Turiamo	6.19	57	eP	Pn	12 29 54.8	-2.1
CAOV	Caicara del Or	6.77	88	eP	Pn	12 30 01.3	-3.4
BIRV	Birongo	7.56	63	eP	Pn	12 30 12.8	-2.5
CUPV	Cœpira	7.83	68	eP	Pn	12 30 16.8	-2.1

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*LDG **02** 13:09:04.1±0.1, 39.67N×20.72E, h10^{km}, Mb4.8/14, Ms3.1/6, Error ellipse: s-maj=7.4km s-min=3.4km az=19.0*

*BJI **02** 13:09:04.4, 39.42N×20.27E, h25^{km}, mB5.3, mb4.4*

*IDC **02** 13:09:05.7±0.7, 39.50N×20.59E, h0^{km}, mb4.2/15, mb1 4.3/23, mb1mx4.3/29, mbtmp4.2/23, ML4.1/9, MS3.8/11, Ms1 3.8/11, ms1mx3.4/37, Error ellipse: s-maj=12.9km s-min=11.9km az=41.0*

*ISCJB **02** 13:09:05.2±0.3, 39.37N±0.02×20.52E±0.02, h10^{km}±2^{km}, mb4.4/32, MS3.9/12, Error ellipse: s-maj=3.3km s-min=2.3km az=38.1*

*NEIC **02** 13:09:06.9, 39.51N×20.67E, h5^{km}, ML4.3(ATH), After ATH.*

*TIR **02** 13:09:06.7±5.7, 40.23N×20.78E, h6^{km}±999^{km}, ML3.0*

*SKO **02** 13:09:06.1, 39.52N×20.42E, h15^{km}*

*ATH **02** 13:09:06.8, 39.47N×20.68E, h5^{km}±2^{km}, MD4.1/22, ML4.3*

*CSEM **02** 13:09:07.4±0.1, 39.46N×20.61E, h0^{km}, Ms3.1, Error ellipse: s-maj=1.5km s-min=1.5km az=56.0*

*MOS **02** 13:09:07.8±1.4, 39.47N×20.45E, h23^{km}, mb4.4/17, Error ellipse: s-maj=5.9km s-min=3.2km az=96.9*

*THE **02** 13:09:08.0, 39.38N×20.66E, h3^{km}, ML4.7*

*PDG **02** 13:09:08.5±0.5, 39.48N×20.48E, h9^{km}±1^{km}, ML4.0/10, Error ellipse: s-maj=1.3km s-min=1.4km az=0.0*

ISC 02 13:09:06.8±0.4**, 39.41N**±0.02×**20.57E**±0.02**, h4^{km}**±2^{km}**, n401, σ1^{s}37**/479**, mb4.4**/32**, MS3.9**/12**, 69C-19D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAN	Janina	0.33	42	⇓iPg	Pg	13 09 11.8	-1.4
JAN	Janina	0.33	42	⇓iPG	Pg	13 09 11.8	-1.4
JAN				eSG	Sg	13 09 15.0	-2.5
JAN	Janina	0.33	42	⇓iPg	Pg	13 09 11.8	-1.4
MEV	Metsovon	0.64	54	ePg	Pg	13 09 18.7	-0.2
MEV	Metsovon	0.64	54	ePg	Pg	13 09 18.7	-0.3
SRN	Sarande	0.64	317	i PG	Pg	13 09 19.3	+0.2
SRN				i SG	Sg	13 09 33.7	+6.3
KEK	Kerkira	0.67	297	ePb	Pb	13 09 20.7	-0.3
KEK	Kerkira	0.67	297	ePB	Pb	13 09 20.7	-0.3
KEK	Kerkira	0.67	297	Pg	Pg	13 09 20.1	+0.6
KEK	Kerkira	0.67	297	ePb	Pb	13 09 20.7	-0.3
KEK				Sg	Sg	13 09 34.4	+6.2
LKD	Levkas	0.70	175	ePg	Pg	13 09 21.1	+0.8
LKD				eSg	Sg	13 09 30.7	+1.3
LKD	Levkas	0.70	175	ePg	Pg	13 09 21.0	+0.7
LKD				eSg	Sg	13 09 30.7	+1.3
EVR	Evrytania	1.08	117	ePg	Pg	13 09 26.8	-0.8
EVR	Evrytania	1.08	117	ePN	Pg	13 09 26.8	-0.8
EVR	Evrytania	1.08	117	ePg	Pg	13 09 26.8	-0.8
THL	Klokotos Trika	1.13	82	ePG	Pg	13 09 26.3	-2.2
THL	Klokotos Trika	1.13	82	ePg	Pg	13 09 26.3	-2.2
KBN	Korca	1.23	8	i PN	Pn	13 09 28.7	-2.0
KBN				i SN	Sn	13 09 51.3	+3.6
VLS	Valsamata	1.23	179	ePg	Pb	13 09 31.4	+0.8
VLS				eSb	Sb	13 09 52.0	+5.2
VLS	Valsamata	1.23	179	ePB	Pb	13 09 31.4	+0.8
VLS				eSB	Sb	13 09 50.3	+3.5
VLS	Valsamata	1.23	179	ePg	Pb	13 09 31.4	+0.8
VLS				eSb	Sb	13 09 52.0	+5.2
KZN	Kozani	1.29	46	ePb	Pn	13 09 29.2	-2.4
KZN	Kozani	1.29	46	ePG	Pn	13 09 29.2	-2.4
KZN	Kozani	1.29	46	ePb	Pn	13 09 29.2	-2.4
VLO	Vlora	1.34	322	i PN	Pg	13 09 39.5	+7.0
VLO				i SN	Sg	13 09 55.2	+5.4
AGG	Agios Georgios	1.42	105	ePg	Pg	13 09 33.2	-0.8
AGG				eSg	Sg	13 09 52.4	-0.2
AGG	Agios Georgios	1.42	105	ePg	Pg	13 09 33.2	-0.9
AGG				eSg	Sg	13 09 52.3	-0.2
FNA	Florina	1.51	24	ePg	Pg	13 09 34.5	-1.1
FNA	Florina	1.51	24	ePg	Pg	13 09 34.5	-1.2
RLS	Riolos of Patr	1.52	152	ePb	Pb	13 09 37.8	+2.3
RLS	Riolos of Patr	1.52	152	ePG	Pg	13 09 35.3	-0.6
RLS	Riolos of Patr	1.52	152	ePb	Pb	13 09 37.8	+2.3
LIT	Litokhoron	1.64	64	ePg	Pg	13 09 36.1	-2.0
LIT	Litokhoron	1.64	64	ePg	Pg	13 09 36.1	-2.0
BIA	Bitola	1.71	20	ePb	Pb	13 09 38.1	-0.7
BIA	Bitola	1.71	20	ePn	Pn	13 09 36.9	-0.5
BIA				i Pg	Pg	13 09 39.2	-0.3
BIA	Bitola	1.71	20	ePn	Pn	13 09 36.8	-0.6
OHR	Ohrid	1.71	6	ePb	Pb	13 09 38.5	-0.2
OHR	Ohrid	1.71	6	ePn	Pn	13 09 37.8	+0.5
OHR	Ohrid	1.71	6	ePn	Pn	13 09 37.8	+0.5
SCTE	Santa Cesarea	1.75	293	Pg	Pg	13 09 39.2	-1.1
SCTE				Sg	Sg	13 10 03.9	+1.0
TIR	Tirane	2.01	345	ePn	Pn	13 09 43.8	+2.3
TIR	Tirane	2.01	345	P	Pg	13 09 44.7	-0.6
TIR	Tirane	2.01	345	i SN	Sg	13 10 14.7	+3.4
TIR				i PN	Pn	13 09 44.1	+2.6
TIR	Tirane	2.01	345	ePn	Pn	13 09 43.8	+2.3
TIR	Tirane	2.01	345	Pg	Pg	13 09 44.2	-1.1
TIR				Sg	Sg	13 10 16.0	+4.7
KRUS	Krusevo	2.03	15	ePn	Pn	13 09 43.5	+1.8
KRUS				i Pg	Pg	13 09 45.6	+0.1
KRUS	Krusevo	2.03	15	ePn	Pn	13 09 43.5	+1.8
XOR	Xorichti	2.04	90	ePb	Pb	13 09 42.8	-1.5
XOR	Xorichti	2.04	90	ePb	Pb	13 09 42.8	-1.5
LKR	Lokris	2.04	111	ePg	Pn	13 09 42.7	+0.8
LKR	Lokris	2.04	111	ePN	Pn	13 09 42.7	+0.8
LKR	Lokris	2.04	111	ePg	Pn	13 09 42.7	+0.8
NEO	Neokhori	2.06	92	ePn	Pn	13 09 44.2	+2.0
NEO	Neokhori	2.06	92	ePG	Pn	13 09 44.2	+2.0
NEO	Neokhori	2.06	92	ePn	Pn	13 09 44.2	+2.0
GRG	Griva	2.09	42	ePn	Pn	13 09 44.1	+1.5
GRG	Griva	2.09	42	ePn	Pn	13 09 44.1	+1.5
LCI	Lecce	2.10	297	Pn	Pn	13 09 44.6	+1.9
LCI	Lecce	2.10	297	Pn	Pn	13 09 44.6	+1.9
THE	Thessaloniki	2.21	56	ePn	Pn	13 09 44.7	+0.4
THE				eSn	Sn	13 10 14.2	+2.2
THE	Thessaloniki	2.21	56	ePn	Pn	13 09 44.7	+0.5
THE				eSn	Sn	13 10 14.2	+2.2
HORT	Hortiatis	2.28	58	ePn	Pn	13 09 45.9	+0.7
HORT	Hortiatis	2.28	58	ePn	Pn	13 09 45.9	+0.7
PLG	Polygyros	2.42	66	ePn	Pn	13 09 48.1	+1.0
PLG	Polygyros	2.42	66	ePn	Pn	13 09 47.1	0.0
PLG	Polygyros	2.42	66	ePN	Pn	13 09 48.1	+1.0
PLG	Polygyros	2.42	66	ePn	Pn	13 09 48.1	+1.0
VAY	Valandovo	2.45	38	ePn	Pn	13 09 49.0	+1.5
VAY	Valandovo	2.45	38	ePn	Pn	13 09 47.2	-0.3
VAY				i Pg	Pg	13 09 52.5	-1.2
VAY	Valandovo	2.45	38	ePn	Pn	13 09 49.0	+1.5
PAIG	Paliouri	2.46	77	ePn	Pn	13 09 47.7	0.0
PAIG	Paliouri	2.46	77	ePn	Pn	13 09 47.7	+0.1
ITM	Ithomi	2.47	154	ePg	Pg	13 09 55.0	+0.9
ITM	Ithomi	2.47	154	ePN	Pn	13 09 51.3	+3.5
ITM	Ithomi	2.47	154	ePg	Pg	13 09 55.0	+0.9
KNT	Kendrikon	2.50	45	ePn	Pn	13 09 50.1	+1.9
KNT	Kendrikon	2.50	45	ePn	Pn	13 09 50.1	+1.9
SOH	Sokhos	2.56	56	ePn	Pn	13 09 49.7	+0.7
SOH	Sokhos	2.56	56	ePn	Pn	13 09 49.7	+0.6
STIP	Stip	2.59	28	ePn	Pn	13 09 51.4	+1.9
STIP				i Pg	Pg	13 09 52.5	-4.0
STIP	Stip	2.59	28	ePn	Pn	13 09 51.3	+1.8
SKO	Skopje	2.65	14	ePn	Pn	13 09 52.9	+2.7
SKO	Skopje	2.65	14	i Pn	Pn	13 09 52.8	+2.5
SKO				ePn	Pn	13 09 53.4	+3.2
SKO	Skopje	2.65	14	ePn	Pn	13 09 52.9	+2.7
ULC	Ulcinj	2.74	339	⇑iPn	Pn	13 09 52.4	+0.9
ULC				eSn	Sn	13 10 26.6	+1.5
ULC	Ulcinj	2.74	339	⇑iPn	Pn	13 09 52.4	+0.9
ULC				eSn	Sn	13 10 26.6	+1.5
PE1	Pezze di Greco	2.78	301	ePn	Pn	13 09 52.7	+0.6
NAIG	Nisos Aigina	2.82	125	ePb	Pn	13 09 53.0	+0.4
NAIG	Nisos Aigina	2.82	125	ePB	Pb	13 09 54.0	-3.7
NAIG	Nisos Aigina	2.82	125	ePb	Pn	13 09 53.0	+0.4
ATH	Athens Observa	2.85	119	ePg	Pg	13 09 57.7	-3.7
ATH	Athens Observa	2.85	119	ePN	Pn	13 09 55.7	+2.6
ATH	Athens Observa	2.85	119	ePg	Pg	13 09 57.7	-3.7
SRS	Serrai	2.88	53	ePn	Pn	13 09 53.6	+0.2
SRS	Serrai	2.88	53	ePn	Pn	13 09 53.6	+0.2
PTL	Penteli	2.92	117	⇑iPb	Pn	13 09 55.0	+1.1
PTL	Penteli	2.92	117	⇑iPB	Pn	13 09 55.0	+1.1
PTL	Penteli	2.92	117	⇑iPb	Pn	13 09 55.0	+1.1
TIP	Timpagrande	2.96	267	P	Pn	13 09 56.1	+1.5
TIP	Timpagrande	2.96	267	Pn	Pn	13 09 56.5	+1.9
KVR	Kavouri	2.96	121	ePN	Pn	13 09 56.5	+1.9
KVR	Kavouri	2.96	121	ePb	Pn	13 09 56.5	+1.9
NOCI	Noci	3.02	298	Pn	Pn	13 09 56.3	+1.0
SERS	Sersale	3.03	264	Pn	Pn	13 09 57.1	+1.5
	290nm,1.2s						
BUM	Brajici-Budva	3.15	337	⇑iPn	Pn	13 09 57.8	+0.6
BUM				eSn	Sn	13 10 37.0	+1.7
BUM	Brajici-Budva	3.15	337	⇑iPn	Pn	13 09 57.8	+0.6
BUM				eSn	Sn	13 10 37.0	+1.7
BUM	Brajici-Budva	3.15	337	i SG	Sn	13 10 37.0	+1.7
BUM				i PG	Pn	13 09 57.8	+0.6
BUM	Brajici-Budva	3.15	337	⇑iPn	Pn	13 09 57.8	+0.6
PDG	Podgorica	3.17	342	i SG	Sn	13 10 37.3	+1.5
PDG				i PG	Pn	13 09 58.7	+1.2
PDG	Podgorica	3.17	342	⇑iPn	Pn	13 09 58.7	+1.2
TTG	Podgorica	3.17	342	⇑iPn	Pn	13 09 58.7	+1.2
TTG				eSn	Sn	13 10 37.3	+1.5
TTG	Podgorica	3.17	342	⇑iPn	Pn	13 09 58.7	+1.2
TTG				eSn	Sn	13 10 37.3	+1.5
TTG	Podgorica	3.17	342	⇑iPn	Pn	13 09 58.7	+1.2
TTG				eS	Sn	13 10 37.3	+1.5
NVR	Nevrokopi	3.18	51	ePb	Pn	13 09 58.6	+1.1
NVR	Nevrokopi	3.18	51	ePB	Pn	13 09 58.6	+1.1
NVR	Nevrokopi	3.18	51	ePb	Pn	13 09 58.6	+1.1
PVY	Plav	3.21	352	⇑iPn	Pn	13 09 59.5	+1.5
PVY				eSn	Sn	13 10 38.5	+1.7
PVY	Plav	3.21	352	⇑iPn	Pn	13 09 59.5	+1.5
PVY				eSn	Sn	13 10 38.5	+1.7
PVY	Plav	3.21	352	i PG	Pn	13 09 59.5	+1.5
PVY	Plav	3.21	352	⇑iPn	Pn	13 09 59.5	+1.5
PVY				eSn	Sn	13 10 38.5	+1.7
VLI	Veliai	3.27	144	ePn	Pn	13 10 04.4	+5.5
VLI	Veliai	3.27	144	ePN	Pn	13 10 01.5	+2.6
VLI	Veliai	3.27	144	ePn	Pn	13 10 04.4	+5.5
AMUR	Altamura	3.38	297	Pn	Pn	13 10 01.2	+0.8
HCY	Herceg Novi	3.42	333	⇑iPn	Pn	13 10 01.3	+0.5
HCY				eSn	Sn	13 10 43.2	+1.5
HCY	Herceg Novi	3.42	333	⇑iPn	Pn	13 10 01.3	+0.5
HCY				eSn	Sn	13 10 43.2	+1.5
BEY	Berane	3.50	352	i PG	Pn	13 10 03.8	+1.9
BEY				i SG	Sn	13 10 45.1	+1.4
BEY	Berane	3.50	352	⇑iPn	Pn	13 10 03.8	+1.9
BEY				eSn	Sn	13 10 45.0	+1.3
IVA	Berane	3.50	352	⇑iPn	Pn	13 10 03.8	+1.9
IVA				eSn	Sn	13 10 45.0	+1.3
IVA	Berane	3.50	352	⇑iPn	Pn	13 10 03.8	+1.9
IVA				eSn	Sn	13 10 45.0	+1.3
IVA	Berane	3.50	352	⇑iPn	Pn	13 10 03.8	+1.9
IVA				eSn	Sn	13 10 45.0	+1.3
LIA	Limnos Island	3.60	81	ePb	Pb	13 10 06.0	-4.9
LIA	Limnos Island	3.60	81	ePB	Pb	13 10 06.0	-4.9
LIA	Limnos Island	3.60	81	ePb	Pb	13 10 06.0	-4.9
NKY	Niksic	3.60	341	⇑iPn	Pn	13 10 04.8	+1.5
NKY				eSn	Sn	13 10 47.8	+1.5
NKY	Niksic	3.60	341	⇑iPn	Pn	13 10 04.8	+1.5
NKY				eSn	Sn	13 10 47.8	+1.5
NKY	Niksic	3.60	341	i PG	Pn	13 10 04.6	+1.3
NKY				i SG	Sn	13 10 47.8	+1.5
KYTH	Kithira	3.69	147	ePn	Pb	13 10 08.5	-3.9
KYTH	Kithira	3.69	147	ePB	Pb	13 10 08.5	-3.9
KYTH	Kithira	3.69	147	ePn	Pb	13 10 08.5	-3.9
VTS	Vitosha	3.76	31	⇑P	Pn	13 10 07.9	+2.4
VTS	Vitosha	3.76	31	⇑iP	Pn	13 10 07.9	+2.4
SOI	Samo	3.77	251	Pn	Pn	13 10 07.6	+1.9
SOI	Samo	3.77	251	Pn	Pn	13 10 07.6	+1.9
BRY	Bratogost	3.81	337	⇑iPn	Pn	13 10 06.8	+0.6
BRY				eSn	Sn	13 10 52.4	+1.0
BRY	Bratogost	3.81	337	⇑iPn	Pn	13 10 06.8	+0.6
BRY				eSn	Sn	13 10 52.4	+1.0
UPM	Unac-Piva	3.99	342	⇑iPn	Pn	13 10 10.5	+1.8
UPM				eSn	Sn	13 10 57.2	+1.3
UPM	Unac-Piva	3.99	342	⇑iPn	Pn	13 10 10.5	+1.8
UPM				eSn	Sn	13 10 57.2	+1.3
UPM	Unac-Piva	3.99	342	⇑iPn	Pn	13 10 10.5	+1.8
PLE	Pljevlja	4.01	348	⇑iPn	Pn	13 10 10.8	+1.8
PLE				eSn	Sn	13 10 57.3	+0.8
PLE	Pljevlja	4.01	348	⇑iPn	Pn	13 10 10.8	+1.8
PLE				eSn	Sn	13 10 57.3	+0.8
PLE	Pljevlja	4.01	348	⇑iPn	Pn	13 10 10.8	+1.8

Sta	Name	Dist	Azi	Phase	ISC	Time	Res
PLE				*e*Sn	Sn	13 10 57.3	+0.8
RDO	**Rodhopi**	4.18	64	*e*Pn	Pn	13 10 13.2	+1.9
RDO	**Rodhopi**	4.18	64	*e*PN	Pn	13 10 13.2	+1.9
RDO	**Rodhopi**	4.18	64	*e*Pn	Pn	13 10 13.2	+1.9
PRK	**Paraskevi**	4.43	90	*e*Pb	Pn	13 10 18.5	+3.8
PRK	**Paraskevi**	4.43	90	*e*PN	Pn	13 10 16.0	+1.3
PRK	**Paraskevi**	4.43	90	*e*Pb	Pn	13 10 18.5	+3.8
APE	**Apeiranthos**	4.55	119	*e*Pn	Pn	13 10 20.5	+4.1
APE	**Apeiranthos**	4.55	119	*e*PN	Pn	13 10 20.5	+4.1
APE	**Apeiranthos**	4.55	119	*i* P	Pn	13 10 19.5	+3.1
APE	**Apeiranthos**	4.55	119	*e*Pn	Pn	13 10 20.5	+4.1
DIVS	**Divcibare**	4.71	355	*e*Pn	Pn	13 10 19.7	+1.2
DIVS	**Divcibare**	4.71	355	*e*Pn	Pn	13 10 19.7	+1.2
VAM	**Vamos**	4.93	143	P	Pn	13 10 28.2	+6.6
IDI	**Anoyia**	5.37	139	Pn	Pn	13 10 29.4	+1.8
IDI				Sn	Sn	13 11 29.2	-0.6
IDI	**Anoyia**	5.37	139	Pn	Pn	13 10 29.4	+1.8
	1.8nm,0.3s,baz=320,slow=16,SNR=6.8						
IDI				Sn	Sn	13 11 29.2	-0.6
	2.7nm,0.3s,baz=292,slow=16,SNR=2.8						
IDI	**Anoyia**	5.37	139	Pn	Pn	13 10 29.4	+1.8
IDI				Sn	Sn	13 11 29.2	-0.6
AQU	**L'Aquila**	6.17	301	*e*P	Pn	13 10 40.2	+1.5
AQU				pmax	pmax		
	comp=Z,72nm,0.8s						
AQU	**L'Aquila**	6.17	301	*e*P	Pn	13 10 40.2	+1.5
	comp=Z,72nm,0.8s						
GZR	**Gura Zlata**	6.20	15	⇑*i*P	Pn	13 10 40.8	+1.8
NVLJ	**Novalja**	6.67	322	*e*Pn	Pn	13 10 43.8	-1.7
NVLJ				Sn	Sn	13 11 59.5	-2.5
NVLJ	**Novalja**	6.67	322	*e*Pn	Pn	13 10 43.7	-1.8
NVLJ				Sn	Sn	13 11 59.4	-2.5
VOIR		6.88	27	⇓P	Pn	13 10 50.9	+2.6
VOIR		6.88	27	⇓*i*P	Pn	13 10 50.9	+2.6
PKSM	**Moragy**	6.94	349	⇑P	Pn	13 10 50.2	+0.9
PKSM	**Moragy**	6.94	349	⇑*i*P	Pn	13 10 50.2	+1.0
BOJS	**Bojanci**	7.25	329	*i* Pn	Pn	13 10 54.1	+0.7
BOJS				*i* Sn	Sn	13 12 14.4	-1.7
BOJS	**Bojanci**	7.25	329	*i* Pn	Pn	13 10 54.1	+0.7
BOJS				*i* Sn	Sn	13 12 14.4	-1.7
BOJS	**Bojanci**	7.25	329	*i* Pn	Pn	13 10 54.1	+0.7
MLR	**Muntele Rosu**	7.26	31	⇑P	Pn	13 10 56.2	+2.6
MLR	**Muntele Rosu**	7.26	31	Pn	Pn	13 10 54.1	+0.5
	comp=Z,1.2nm,0.3s,baz=271,slow=8.9,SNR=15						
MLR				LR	LR	13 13 43.9	
	comp=Z,308nm,21.6s,baz=194,slow=39						
MLR	**Muntele Rosu**	7.26	31	⇑*i*P	Pn	13 10 56.3	+2.7
CRES	**Cresnjev**	7.44	331	*e*Pn	Pn	13 10 55.6	-0.4
CRES	**Cresnjev**	7.44	331	*e*Pn	Pn	13 10 55.6	-0.4
CRES	**Cresnjev**	7.44	331	*e*Pn	Pn	13 10 55.6	-0.4
VISS	**Visnje**	7.66	328	*e*Pn	Pn	13 10 59.0	0.0
VISS	**Visnje**	7.66	328	*e*Pn	Pn	13 10 59.0	0.0
VISS	**Visnje**	7.66	328	*e*Pn	Pn	13 10 59.0	0.0
PLOR	**Plostina**	7.84	33	⇓*i*P	Pn	13 11 04.5	+2.9
VRI	**Vrincioaia**	7.89	33	⇑P	Pn	13 11 05.2	+3.0
VRI	**Vrincioaia**	7.89	33	⇑*i*P	Pn	13 11 05.3	+3.1
VRI	**Vrincioaia**	7.89	33	⇑P	Pn	13 11 05.2	+3.0
LJU	**Ljubljana**	7.98	328	*e*Pn	Pn	13 11 03.6	+0.1
LJU				*e*(Sn)	Sn	13 12 50.0	+16
JAVS	**Javornik**	8.06	326	*e*Pn	Pn	13 11 04.9	+0.4
JAVS				*i* Sn	Sn	13 12 33.3	-2.7
JAVS	**Javornik**	8.06	326	*e*Pn	Pn	13 11 04.9	+0.4
JAVS				*i* Sn	Sn	13 12 33.3	-2.7
JAVS	**Javornik**	8.06	326	*e*Pn	Pn	13 11 04.9	+0.4
JAVS				*i* Sn	Sn	13 12 33.3	-2.7
VOY	**Vojsko**	8.24	326	*e*Pn	Pn	13 11 07.1	+0.1
VOY				*e*Sn	Sn	13 12 40.2	-0.3
VOY	**Vojsko**	8.24	326	*e*Pn	Pn	13 11 07.1	+0.1
VOY				*e*Sn	Sn	13 12 40.2	-0.3
VOY	**Vojsko**	8.24	326	*e*Pn	Pn	13 11 07.1	+0.1
PERS	**Pernice**	8.25	333	*e*Pn	Pn	13 11 06.3	-0.9
PERS				*e*Sn	Sn	13 12 36.8	-4.0
PERS	**Pernice**	8.25	333	*e*Pn	Pn	13 11 06.3	-0.9
PERS				*e*Sn	Sn	13 12 36.8	-4.0
PERS	**Pernice**	8.25	333	*e*Pn	Pn	13 11 06.3	-0.9
PERS				*e*Sn	Sn	13 12 36.8	-4.0
OBKA	**Obir**	8.35	330	⇑*i*Pn	Pn	13 11 08.2	-0.3
	SNR=8.8						
OBKA	**Obir**	8.35	330	⇑*i*Sn	Sn	13 12 41.9	-1.4
OBKA	**Obir**	8.35	330	⇑*i*Pn	Pn	13 11 08.2	-0.3
OBKA				*i* Sn	Sn	13 12 41.9	-1.4
OBKA	**Obir**	8.35	330	⇑*i*Pn	Pn	13 11 08.2	-0.3
	SNR=8.8						
OBKA				⇑*i*Sn	Sn	13 12 41.9	-1.4
OBKA	**Obir**	8.35	330	⇑*i*Pn	Pn	13 11 08.2	-0.4
CADS	**Cadrg**	8.46	326	*e*Pn	Pn	13 11 10.1	+0.1
CADS	**Cadrg**	8.46	326	*e*Pn	Pn	13 11 10.1	+0.1
PSZ	**Piszkesteto**	8.52	357	⇑P	Pn	13 11 12.2	+1.4
PSZ	**Piszkesteto**	8.52	357	⇑*e*	Pn	13 11 12.2	+1.3
PSZ	**Piszkesteto**	8.52	357	⇑*i*P	Pn	13 11 12.3	+1.4
BURAR	**Bucovina Array**	8.87	21	⇑P	Pn	13 11 17.9	+2.2
BURAR	**Bucovina Array**	8.87	21	⇑*i*P	Pn	13 11 17.9	+2.3
KECS	**Kecovo**	9.07	360	*i* Pn	Pn	13 11 19.7	+1.3
KECS				*e*Sn	Sn	13 12 43.0	-18
KECS	**Kecovo**	9.07	360	*i* PN	Pn	13 11 19.7	+1.3
KECS				*e*SN	Sn	13 12 43.0	-18
KECS	**Kecovo**	9.07	360	*i* Pn	Pn	13 11 19.7	+1.3
ZST	**Bratislava**	9.13	345	*e*Pn	Pn	13 11 20.8	+1.6
ZST	**Bratislava**	9.13	345	*e*PN	Pn	13 11 20.8	+1.6
VYHS	**Vyhne**	9.17	353	*i* Pn	Pn	13 11 20.5	+0.8
VYHS				*i* Sn	Sn	13 13 00.9	-2.4
VYHS	**Vyhne**	9.17	353	*i* PN	Pn	13 11 20.5	+0.8
VYHS				*i* SN	Sn	13 13 00.9	-2.4
VYHS	**Vyhne**	9.17	353	*i* Pn	Pn	13 11 20.5	+0.8
VYHS				*i* Sn	Sn	13 13 00.9	-2.4
MODS	**Modra-Piesok**	9.27	346	*i* Pn	Pn	13 11 22.2	+1.1
MODS	**Modra-Piesok**	9.27	346	*i* PN	Pn	13 11 22.2	+1.1
PGF	**Pioggiola**	9.29	293	*e*P	Pn	13 11 20.3	-1.2
	comp=Z,23nm,0.9s						
PGF	**Pioggiola**	9.29	293	*e*P	Pn	13 11 20.3	-1.2
	comp=Z,11nm,0.9s						
KBA	**Koelnbreinsper**	9.30	328	⇓*i*Pn	Pn	13 11 21.4	-0.1
	SNR=6.7						
KBA	**Koelnbreinsper**	9.30	328	⇓*i*Pn	Pn	13 11 21.4	-0.1
KBA	**Koelnbreinsper**	9.30	328	⇓*i*Pn	Pn	13 11 21.4	-0.1
	SNR=6.7						
KBA	**Koelnbreinsper**	9.30	328	⇓*i*Pn	Pn	13 11 21.4	-0.1
UZH	**Uzhgorod**	9.30	7	*e*P	Pn	13 11 20.0	-1.6
MOA	**Molln**	9.59	334	⇑*i*Pn	Pn	13 11 25.4	-0.1
	SNR=7.6						
MOA	**Molln**	9.59	334	⇑*i*Sn	Sn	13 13 11.6	-2.1
MOA	**Molln**	9.59	334	⇑*i*Pn	Pn	13 11 25.4	-0.1
MOA				*i* Sn	Sn	13 13 11.6	-2.1
MOA	**Molln**	9.59	334	⇑*i*Pn	Pn	13 11 25.4	-0.1
	SNR=7.6						
MOA				⇑*i*Sn	Sn	13 13 11.6	-2.1
MOA	**Molln**	9.59	334	⇑*i*Pn	Pn	13 11 25.4	-0.1
KOLS	**Kolonicke sedl**	9.60	7	*i* Pn	Pn	13 11 28.1	+2.4
KOLS	**Kolonicke sedl**	9.60	7	*i* PN	Pn	13 11 28.1	+2.4
NIE	**Niedzica**	10.01	359	*e*P	Pn	13 11 34.4	+3.1
STHS	**Stebnicka Huta**	10.02	3	*e*Pn	Pn	13 11 33.5	+2.1
STHS	**Stebnicka Huta**	10.02	3	*e*PN	Pn	13 11 33.5	+2.1
WTTA	**Wattenberg**	10.19	323	⇑*i*Pn	Pn	13 11 34.4	+0.6
WTTA				*i*		13 13 26.6	
WTTA	**Wattenberg**	10.19	323	⇑*i*Pn	Pn	13 11 34.4	+0.6
	SNR=11						
WTTA	**Wattenberg**	10.19	323	⇑*i*P	Pn	13 11 34.4	+0.7
WTTA				*i*		13 13 26.7	
WTTA	**Wattenberg**	10.19	323	⇑*i*Pn	Pn	13 11 34.4	+0.7
WTTA				*i* S	Sn	13 13 26.7	-1.7
WATA	**Walderalm**	10.27	323	⇓*i*Pn	Pn	13 11 34.0	-0.8
WATA	**Walderalm**	10.27	323	⇓*i*Pn	Pn	13 11 34.0	-0.8
WATA	**Walderalm**	10.27	323	⇓*i*Pn	Pn	13 11 34.0	-0.8
VRAC	**Vranov**	10.29	345	Pn	Pn	13 11 33.5	-1.6
VRAC	**Vranov**	10.29	345	P	Pn	13 11 33.5	-1.7
VRAC				pmax	pmax		
	comp=Z,1.0nm,0.3s						
VRAC	**Vranov**	10.29	345	Pn	Pn	13 11 33.5	-1.6
	comp=Z,0.6nm,0.3s,baz=248,slow=16,SNR=2.7						
SQTA	**Sankt Quirin**	10.36	322	⇑*i*Sn	Sn	13 13 30.5	-2.0
SQTA	**Sankt Quirin**	10.36	322	⇑*i*Pn	Pn	13 11 36.7	+0.6
SQTA				*i* Sn	Sn	13 13 30.5	-2.0
SQTA	**Sankt Quirin**	10.36	322	⇑*i*Pn	Pn	13 11 36.7	+0.6
	SNR=8.6						
SQTA	**Sankt Quirin**	10.36	322	Sn	Sn	13 13 30.5	-2.0
SQTA	**Sankt Quirin**	10.36	322	⇑*i*P	Pn	13 11 36.7	+0.7
SQTA				*i*		13 13 30.5	
SQTA	**Sankt Quirin**	10.36	322	⇑*i*Pn	Pn	13 11 36.7	+0.7
SQTA				*i* S	Sn	13 13 30.5	-2.0
FETA	**Feichten**	10.45	320	⇓*i*Pn	Pn	13 11 37.5	+0.2
FETA	**Feichten**	10.45	320	Pn	Pn	13 11 37.5	+0.2
MOTA	**Moosalm**	10.50	322	⇓*i*Pn	Pn	13 11 38.2	+0.2
	SNR=19						
MOTA	**Moosalm**	10.50	322	⇓*i*Pn	Pn	13 11 38.1	+0.2
MOTA	**Moosalm**	10.50	322	⇓*i*Pn	Pn	13 11 38.2	+0.2
	SNR=19						
MOTA	**Moosalm**	10.50	322	⇓*i*Pn	Pn	13 11 38.2	+0.3
OKC	**Ostrava-Krasne**	10.57	351	*e*P	Pn	13 11 39.9	+1.0
GERES	**GERESS Array B**	10.64	335	Pn	Pn	13 11 39.3	-0.6
GERES				Sn	Sn	13 13 35.7	-3.7
GERES	**GERESS Array B**	10.64	335	P	Pn	13 11 39.3	-0.6
GERES						13 13 35.7	
GERES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GERES	**GERESS Array B**	10.64	335	Pn	Pn	13 11 39.3	-0.6
	comp=Z,1.1nm,0.3s,baz=154,slow=13,SNR=22						
GERES				Sn	Sn	13 13 35.7	-3.7
	comp=Z,0.3nm,0.3s,baz=143,slow=20,SNR=3.0						
DAVOX	**Davos/Dischmat**	10.73	317	Pn	Pn	13 11 41.6	+0.4
DAVOX				Sn	Sn	13 13 38.3	-3.4
DAVOX				LR	LR	13 16 25.0	
DAVOX	**Davos/Dischmat**	10.73	317	Pn	Pn	13 11 41.6	+0.4
	comp=Z,0.8nm,0.3s,baz=139,slow=13,SNR=6.9						
DAVOX				Sn	Sn	13 13 38.3	-3.4
	comp=Z,0.4nm,0.3s,baz=313,slow=20,SNR=2.3						
DAVOX				LR	LR	13 16 25.0	
	comp=Z,292nm,18.2s,baz=253,slow=41						
SBF	**Sospel**	10.79	299	*e*P	Pn	13 11 41.7	-0.2
SBF				pmax	pmax		
	comp=Z,17nm,0.9s						
SBF	**Sospel**	10.79	299	*e*P	Pn	13 11 41.7	-0.2
	comp=Z,34nm,0.9s						
SBF	**Sospel**	10.79	299	*e*P	Pn	13 11 41.7	-0.2
	comp=Z,17nm,0.9s						
OJC	**Ojcow**	10.82	357	*e*P	Pn	13 11 46.6	+4.2
KHC	**Kasperske Hory**	10.93	335	*e*P	Pn	13 11 43.2	-0.6
KHC				AMS	AMS	13 16 30.0	
	comp=Z,900nm,10.8s						
KHC	**Kasperske Hory**	10.93	335	*e*P	Pn	13 11 43.2	-0.6
	comp=Z,900nm,10.8s						
LMR	**La Mourre**	11.27	295	*e*P	Pn	13 11 48.5	0.0
DPC	**Dobruska-Polom**	11.34	346	*e*P	Pn	13 11 49.5	0.0
DPC				AMS	AMS	13 17 00.0	
	comp=Z,1µm,11.9s						
DPC	**Dobruska-Polom**	11.34	346	*e*P	Pn	13 11 49.5	0.0
	comp=Z,1µm,11.9s						
PRU	**Pruhonice**	11.41	340	AMS	AMS	13 16 40.0	
	comp=Z,1µm,15.4s						
MBDF	**Montbardon**	11.54	302	*e*P	Pn	13 11 52.2	-0.1
LPG	**La Plagne**	11.87	305	*e*P	Pn	13 11 56.9	+0.1
LPG				pmax	pmax		
	comp=Z,13nm,0.9s						
LPG	**La Plagne**	11.87	305	*e*P	Pn	13 11 56.9	+0.1
	comp=Z,27nm,0.9s						
LPG	**La Plagne**	11.87	305	*e*P	Pn	13 11 56.9	+0.1
	comp=Z,13nm,0.9s						
LPL	**La Plagne**	11.89	305	*e*P	Pn	13 11 57.1	0.0
LPL				pmax	pmax		
	comp=Z,4.0nm,0.6s						
LPL	**La Plagne**	11.89	305	*e*P	Pn	13 11 57.1	0.0
	comp=Z,8.6nm,0.6s						
LPL	**La Plagne**	11.89	305	*e*P	Pn	13 11 57.1	0.0
	comp=Z,4.3nm,0.6s						
SMRF	**Simiane la Rot**	12.10	297	*e*P	Pn	13 11 59.6	-0.2
	comp=Z,9.3nm,0.8s						
SMRF	**Simiane la Rot**	12.10	297	*e*P	Pn	13 11 59.6	-0.2
	comp=Z,4.7nm,0.8s						
ORIF	**Oris-en-Rattie**	12.20	302	*e*P	Pn	13 11 59.9	-1.4
ORIF				*e*MLR	MLR		
	comp=Z,298nm,20.2s						
CABF	**La Chapelle**	12.80	309	*e*P	Pn	13 12 06.8	-2.6
AKASG	**Malin Array Be**	12.83	26	Pn	Pn	13 12 09.5	-0.3
AKASG	**Malin Array Be**	12.83	26	*i* P	Pn	13 12 15.8	+6.0
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.7s						
AKASG	**Malin Array Be**	12.83	26	Pn	Pn	13 12 09.5	-0.3
	comp=Z,0.2nm,0.3s,baz=310,slow=9.5,SNR=4.2						
AKASG	**Malin Array Be**	12.83	26	Pn	Pn	13 12 09.5	-0.3
MOX	**Moxa**	12.88	334	*e*P	Pn	13 12 10.6	+0.1
	comp=Z,18nm,0.9s						
MOX	**Moxa**	12.88	334	*e*P	Pn	13 12 10.6	+0.1
MOX				pmax	pmax		
	comp=Z,18nm,0.9s						
CDF	**Champ du Feu**	13.13	318	*e*P	Pn	13 12 13.2	-0.7
	comp=Z,27nm,1.1s						
CDF	**Champ du Feu**	13.13	318	*e*P	Pn	13 12 13.2	-0.7
	comp=Z,13nm,1.1s						
LASF	**Ste Croix**	13.32	296	*e*P	Pn	13 12 16.7	+0.2
	comp=Z,33nm,1.1s						
LASF	**Ste Croix**	13.32	296	*e*P	Pn	13 12 16.7	+0.2
	comp=Z,16nm,1.1s						
HAU	**Haudompre**	13.38	315	*e*P	Pn	13 12 15.6	-1.8
HAU				*e*MLR	MLR		
	comp=Z,298nm,17.8s						
MMAI	**Mount Meron Ar**	13.57	113	Pn	Pn	13 12 18.3	-1.7
	comp=Z,0.9nm,0.3s,baz=283,slow=15,SNR=3.9						
SMF	**Signal de Mont**	14.20	306	*e*P	Pn	13 12 26.8	-1.7
MTLF	**Montolieu**	14.32	292	*e*P	Pn	13 12 28.8	-1.4
LOR	**Lormes**	14.46	308	*e*P	Pn	13 12 28.2	-3.8
LOR				*e*MLR	MLR		
	comp=Z,183nm,18.5s						
AVF	**Avril sur Loir**	14.56	306	*e*P	Pn	13 12 31.4	-2.1
SSF	**Saint Saulge**	14.58	307	*e*P	Pn	13 12 31.9	-1.8
	comp=Z,18nm,1.0s						
SSF	**Saint Saulge**	14.58	307	*e*P	Pn	13 12 31.9	-1.8
	comp=Z,8.9nm,1.0s						
CAF	**Calviac**	14.78	298	*e*P	Pn	13 12 35.3	-1.1
BGF	**Bois d'Agland**	14.79	305	*e*P	Pn	13 12 34.2	-2.4
ASF	**Jabal al Asfar**	15.08	114	LR	LR	13 19 41.3	
	comp=Z,92nm,18.9s,baz=61,slow=42						
EIL	**Elat**	15.31	125	Pn	Pn	13 12 41.8	-1.8
	comp=Z,0.1nm,0.3s,baz=3.5,slow=15,SNR=3.8						
ETSF	**Etsaut**	16.28	289	*e*P	Pn	13 12 54.9	-1.3
MFF	**Saint Martin d**	16.74	302	*e*P	Pn	13 12 58.9	-3.1
	comp=Z,26nm,1.1s						
MFF	**Saint Martin d**	16.74	302	*e*P	Pn	13 12 58.9	-3.1
	comp=Z,13nm,1.1s						
SJPF	**Ste Jean**	16.79	290	*e*P	Pn	13 13 02.0	-0.7
KIV	**Kislovodsk**	17.12	67	*i* P	Pn	13 13 10.7	+3.8
KIV				pmax	pmax		
	comp=Z,45nm,2.0s						
KIV				MLR	MLR		
	comp=Z,100nm,18.0s						
LDF	**La Druitiere**	17.44	309	*e*P	Pn	13 13 07.9	-2.9
FLN	**La Foliniere**	17.73	309	*e*P	Pn	13 13 12.0	-2.4
FLN				*e*MLR	MLR		
	comp=Z,156nm,22.0s						
GRR	**Gorron**	17.81	307	*e*P	Pn	13 13 11.0	-4.4
ZEI	**Tsey**	17.89	72	*e*P	Pn	13 13 17.8	+1.3
ESDC	**Sonseca Array**	18.91	279	P	Pn	13 13 28.3	-0.6
	comp=Z,0.4nm,0.3s,baz=75,slow=12,SNR=9.5						
OBN	**Obninsk**	19.02	29	⇑*e*P	Pn	13 13 30.0	-0.1
OBN				pmax	pmax		
	comp=Z,15nm,0.7s						
OBN				MLR	MLR		
	comp=Z,100nm,14.0s						
OBN	**Obninsk**	19.02	29	*e*P	Pn	13 13 30.0	-0.1
	comp=Z,100nm,14.0s						
VSU	**Vasula**	19.48	10	*i* P	Pn	13 13 34.5	-1.1
MOS	**Moscow**	19.89	29	*e*P	Pn	13 13 39.3	-1.2
MOS				pmax	pmax		
	comp=Z,58nm,1.1s						
MOS	**Moscow**	19.89	29	*e*P	Pn	13 13 39.3	-1.2
	comp=Z,58nm,1.1s						
PBRG	**Braganca**	20.84	285	*e*P	P	13 13 51.6	+2.2
	comp=Z,24nm,1.6s						
MVO	**Moncorvo**	21.09	284	*e*P	P	13 13 54.5	+2.4
	comp=Z,18nm,1.5s,mb4.2						
HFS	**Hagfors**	21.19	350	P	P	13 13 51.5	-1.5
HFS				pmax	pmax		
	comp=Z,8.0nm,0.8s						
HFS				MLR	MLR		
	comp=Z,148nm,21.2s						
HFS	**Hagfors**	21.19	350	P	P	13 13 51.5	-1.5
	comp=Z,7.8nm,0.8s,mb4.1,baz=163,slow=11,SNR=21						
HFS				LR	LR	13 22 12.8	
	comp=Z,148nm,21.2s,MS3.3,baz=61,slow=37						
MDT	**Midelt**	21.34	260	P	P	13 13 54.7	-0.2
	comp=Z,0.8nm,0.8s,baz=24,slow=20,SNR=2.3						
KONO	**Kongsberg**	21.42	345	*i* P	P	13 13 55.0	-0.4
PBEJ	**Beja**	22.19	275	*e*P	P	13 14 05.1	+1.1
EVO	**Evora**	22.20	277	*e*P	P	13 14 04.8	+0.7
EVO				*e*MLR	MLR		
	comp=Z,141nm,19.0s,MS3.1						
FINES	**FINESS Array B**	22.32	7	P	P	13 14 04.0	-1.1
FINES				pmax	pmax		
	comp=Z,10.0nm,0.9s						
FINES				MLR	MLR		
	comp=Z,187nm,19.3s						
FINES	**FINESS Array B**	22.32	7	P	P	13 14 04.0	-1.2
	comp=Z,10nm,0.9s,mb4.2,baz=161,slow=14,SNR=15						
FINES				LR	LR	13 24 03.9	
	comp=Z,187nm,19.3s,MS3.5,slow=40						
NB2	**NORSAR Subarra**	22.42	348	P	P	13 14 05.1	-1.1
	comp=Z,11nm,0.8s,mb4.3,baz=161,slow=11						
NOA	**NORSAR Array B**	22.42	348	P	P	13 14 05.0	-1.2
NOA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,160nm,18.1s						
NOA	**NORSAR Array B**	22.42	348	P	P	13 14 05.0	-1.2
	comp=Z,10nm,0.8s,mb4.3,baz=158,slow=9.2,SNR=16						
NOA				LR	LR	13 22 58.4	
	comp=Z,160nm,18.1s,MS3.5,baz=295,slow=37						
EKA	**Eskdalemuir Ar**	22.46	323	P	P	13 14 07.0	+0.4
EKA				pmax	pmax		
	comp=Z,16nm,0.8s						
EKA	**Eskdalemuir Ar**	22.46	323	P	P	13 14 07.0	+0.4
	comp=Z,16nm,0.8s,mb4.5,baz=123,slow=9.4,SNR=22						
KAF	**Kangasniemi**	23.00	7	*e*p	P	13 14 09.9	-2.4
	comp=Z,9.5nm,0.8s,mb4.3,baz=189,slow=11						
KAF	**Kangasniemi**	23.00	7	*e*P	P	13 14 09.9	-2.4
KAF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.3						
JOF	**Joensuu**	24.42	12	*e*p	P	13 14 21.4	-4.6
	comp=Z,21nm,0.9s,mb4.6						
JOF	**Joensuu**	24.42	12	*e*P	P	13 14 21.4	-4.6
JOF				pmax	pmax		
	comp=Z,21nm,0.9s,mb4.6						
AKTK	**Aktyubinsk**	28.43	55	P	P	13 15 01.0	-1.3
	comp=Z,3.0nm,0.7s,mb4.0						
AKTO	**Aktyubinsk**	28.43	55	P	P	13 15 01.0	-1.3
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.0						
AKTO	**Aktyubinsk**	28.43	55	P	P	13 15 01.0	-1.3
	comp=Z,2.7nm,0.7s,mb4.0,baz=268,slow=11,SNR=8.6						
ARCES	**ARCESS Array B**	30.30	3	P	P	13 15 17.1	-1.7
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES	**ARCESS Array B**	30.30	3	P	P	13 15 17.1	-1.7
	comp=Z,4.1nm,0.8s,mb4.2,baz=186,slow=9.8,SNR=6.3						
KEV	**Kevo**	30.60	4	*e*p	P	13 15 19.6	-1.8
TORD	**Torodi Ar. Bea**	31.02	218	P	P	13 15 26.0	+0.4
	comp=Z,2.9nm,0.6s,mb4.3,baz=37,slow=8.4,SNR=19						
BRVK	**Borovoye**	36.25	51	*e*P	P	13 16 10.9	+0.2
BRVK				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
BRVK	**Borovoye**	36.25	51	*e*P	P	13 16 10.9	+0.2
	comp=Z,6.0nm,1.2s,mb4.4						
AAK	**Ala-Archa**	40.24	67	*i* P	P	13 16 43.7	-0.8
AAK				pmax	pmax		
	comp=Z,7.0nm,1.7s,mb4.1						
AAK				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.7						
AAK	**Ala-Archa**	40.24	67	*i* P	P	13 16 43.7	-0.8
	comp=Z,100nm,17.0s						
LIC	**Lamto**	40.29	222	*e*P	P	13 16 45.5	+0.3
KURK	**Kurchatov**	41.52	54	*d* *i*P	P	13 16 54.6	-0.4
KURK	**Kurchatov**	41.52	54	*i* P	P	13 16 54.6	-0.4
MKAR	**Makanchi Array**	44.64	59	P	P	13 17 18.5	-1.7
	comp=Z,1.4nm,0.8s,mb3.8,baz=112,slow=7.9,SNR=7.7						
MKAR				LR	LR	13 41 06.2	
	comp=Z,60nm,18.0s,MS3.6,baz=166,slow=43						
ZALV	**Zalesovo Beam**	44.85	49	P	P	13 17 20.7	-1.2
	comp=Z,3.8nm,0.5s,mb4.5,baz=280,slow=8.9,SNR=20						
KOLN	**Koldanda**	52.82	82	*e*P	P	13 18 21.4	-2.0
GKN	**Gorkha**	53.50	82	*e*P	P	13 18 26.8	-1.6
	comp=Z,17nm,0.8s,mb5.0						
DMN	**Daman**	54.05	82	*e*P	P	13 18 30.9	-1.6
	comp=Z,26nm,1.0s,mb5.1						
KKN	**Kakani**	54.10	81	*e*P	P	13 18 31.0	-1.8
	comp=Z,9.6nm,0.6s,mb4.9						
PKI	**Pulchoki**	54.31	82	*e*P	P	13 18 32.6	-1.7
GUN	**Gumba**	54.50	81	*e*P	P	13 18 34.2	-1.5
	comp=Z,25nm,1.0s,mb5.1						
JIRN	**Jiri**	54.86	81	*e*P	P	13 18 36.8	-1.5
	comp=Z,12nm,0.9s,mb4.9						
TAPN	**Taplejung**	56.18	81	*e*P	P	13 18 46.3	-1.5
	comp=Z,17nm,0.8s,mb5.1						
ODAN	**Odare**	56.19	81	*e*P	P	13 18 46.5	-1.4
TLY	**Talaya**	56.43	48	*i* P	P	13 18 49.9	+0.6
ZAK	**Zakamensk**	56.73	49	*e*P	P	13 18 50.8	-0.6
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.9						
ZAK	**Zakamensk**	56.73	49	*e*P	P	13 18 50.8	-0.6
	comp=Z,1.0nm,0.9s,mb3.9						
SCHQ	**Schefferville**	57.58	317	P	P	13 18 54.8	-2.6
	comp=Z,1.9nm,0.9s,mb4.1,baz=43,slow=19,SNR=3.5						
TIXI	**Tiksi**	58.49	21	⇑*e*P	P	13 19 03.4	-0.1
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.1						
TIXI	**Tiksi**	58.49	21	*e*P	P	13 19 03.4	-0.1
	comp=Z,3.0nm,1.4s,mb4.1						
BOD	**Bodaibo**	59.38	38	*e*P	P	13 19 07.9	-2.0
SONM	**Songino Array**	59.66	51	P	P	13 19 10.6	-1.3
SONM				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SONM	**Songino Array**	59.66	51	P	P	13 19 10.6	-1.3
	comp=Z,1.8nm,0.8s,mb4.2,baz=290,slow=9.4,SNR=16						
ULN	**Ulaanbaatar**	60.04	51	*i* P	P	13 19 14.4	-0.2
YAK	**Yakutsk**	64.02	30	*i* P	P	13 19 41.8	+0.7
YAK				MLR	MLR		
	comp=Z,100nm,18.0s,MS4.0						
YAK	**Yakutsk**	64.02	30	*i* P	P	13 19 41.8	+0.7
	comp=Z,100nm,18.0s						
BOSA	**Boshof**	67.81	176	LR	LR	13 52 25.9	
	comp=Z,200nm,18.2s,MS4.4,baz=90,slow=38						
BILL	**Bilibino**	69.81	13	*i* P	P	13 20 18.1	+0.2
BILL				*e*		13 22 50.6	
BILL				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
BILL				MLR	MLR		
	comp=Z,100nm,15.0s,MS4.2						
BILL	**Bilibino**	69.81	13	*i* P	P	13 20 18.1	+0.2
	comp=Z,2.0nm,0.9s,mb4.0						
INK	**Inuvik**	70.86	350	LR	LR	13 56 10.4	
	comp=Z,115nm,18.9s,MS4.2,baz=96,slow=40						
SEY	**Seymchan**	70.98	21	*i* P	P	13 20 25.8	+0.7
YKA	**Yellowknife Ar**	72.25	340	P	P	13 20 31.8	-0.9
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA				MLR	MLR		
	comp=Z,75nm,20.1s						
YKA	**Yellowknife Ar**	72.25	340	P	P	13 20 31.8	-0.9
	comp=Z,1.0nm,0.7s,mb3.8,baz=35,slow=5.3,SNR=19						
YKA				LR	LR	13 53 36.9	
	comp=Z,75nm,20.1s,MS4.0,baz=165,slow=37						
CN2	**Changchun**	73.02	47	*e*P	P	13 20 36.1	-1.6
MA2	**Magadan**	73.16	24	*e*P	P	13 20 39.0	+0.8
MA2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
ULM	**Lac du Bonnet**	74.73	323	P	P	13 20 46.9	-0.7
	comp=Z,3.4nm,0.8s,mb4.3,baz=64,slow=6.2,SNR=7.3						
KSRS	**Korea Array**	78.53	51	P	P	13 21 07.8	-1.4
	comp=Z,1.4nm,0.9s,mb3.9,baz=303,slow=4.1,SNR=4.0						
YSS	**Yuzh-Sakhalins**	79.75	36	*e*P	P	13 21 15.0	-0.8
YSS				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
YSS	**Yuzh-Sakhalins**	79.75	36	*e*P	P	13 21 15.0	-0.8
	comp=Z,20nm,0.9s,mb5.0						
TXAR	**Lajitas Array**	94.15	314	P	P	13 22 28.3	+1.4
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	**Lajitas Array**	94.15	314	P	P	13 22 28.3	+1.4
	comp=Z,0.7nm,0.7s,mb4.2,baz=56,slow=3.6,SNR=9.3						
CBIJ	**Chichi jima**	94.34	50	LR	LR	14 08 31.3	
	comp=Z,261nm,20.5s,MS4.7,baz=92,slow=38						

IDC **02** *13:45:01.3±0.8, 46.46N×155.60E, h0km, mb3.8/11, mb1 4.1/13, mb1mx3.9/22, mbtmp3.8/13, ML3.7/2, Error ellipse: s-maj=24.3km s-min=17.4km az=157.0*

NEIC **02** *13:45:02.9±0.6, 46.52N×155.56E, h10km, mb3.8/1, Error ellipse: s-maj=15.9km s-min=11.5km az=145.0*

MOS **02** *13:45:03.8±1.6, 46.38N×155.66E, h33km, mb4.0/9, Error ellipse: s-maj=14.0km s-min=10.1km az=83.2*

ISCJB **02** *13:45:04.5±0.6, 46.49N±0.09×155.6E±0.1, h33km, mb3.8/16, Error ellipse: s-maj=15.1km s-min=8.7km az=145.0*

ISC 02 13:45:02.1±4.7**, 46.52N**±0.09×**155.7E**±0.1**, h4**km±29km**, n37, σ0.87**/37**, mb3.8**/16**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	4.18	4	*e*PN	Pn	13 46 13.0	+6.4
KUR	Kuril'sk	5.60	260	PN	Pn	13 46 26.0	-0.1
KUR				pmax	pmax		
	comp=Z,220nm,0.8s						
PET	Petropavlovsk	6.79	15	*e*PN	Pn	13 46 42.0	-0.5
ASAJ	Asahikawa	9.52	260	PN	Pn	13 47 20.5	+0.6
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	9.52	260	Pn	Pn	13 47 20.5	+0.6
	comp=Z,1.0nm,0.3s,baz=94,slow=13,SNR=9.6						
ERM	Erimo	10.04	248	*i* PN	Pn	13 47 27.6	+0.5
MJAR	Matsushiro Arr	16.41	239	Pn	Pn	13 48 52.6	-0.6
MJAR	Matsushiro Arr	16.41	239	Pn	Pn	13 48 52.6	-0.6
	comp=Z,0.2nm,0.3s,baz=27,slow=13,SNR=4.1						
YAK	Yakutsk	21.49	326	*i* P	P	13 49 51.8	+0.3
YAK				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.1						
BILL	Bilibino	22.26	11	*i* P	P	13 49 59.6	-0.1
BILL				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.7						
TIXI	Tiksi	28.20	342	*e*P	P	13 50 54.2	-1.3
	comp=Z,1.0nm,0.6s,mb3.6						
TIXI	Tiksi	28.20	342	*i* P	P	13 50 54.7	-0.8
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.8s,mb3.9						
TIXI				MLR	MLR		
	comp=Z,100nm,21.0s						
SONM	Songino Array	33.07	291	P	P	13 51 39.5	+0.9
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	Songino Array	33.07	291	P	P	13 51 39.5	+0.9
	comp=Z,0.5nm,0.8s,mb3.5,baz=61,slow=8.0,SNR=4.2						
INK	Inuvik	40.90	32	P	P	13 52 44.6	-0.3
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	Inuvik	40.90	32	P	P	13 52 44.6	-0.3
	comp=Z,0.6nm,0.5s,mb3.5,baz=294,slow=8.2,SNR=9.9						
ZALV	Zalesovo Beam	44.17	307	P	P	13 53 11.4	-0.2
	comp=Z,0.6nm,0.4s,mb3.6,baz=39,slow=9.3,SNR=3.4						
ZAL	Zalesovo	44.19	307	P	P	13 53 11.4	-0.4
MK31	Makanchi Array	48.61	299	*e*P	P	13 53 45.4	-1.3
MKAR	Makanchi Array	48.61	299	*e*P	P	13 53 45.7	-0.9
MKAR	Makanchi Array	48.61	299	P	P	13 53 45.7	-0.9
	comp=Z,0.3nm,0.5s,mb3.6,baz=65,slow=7.0,SNR=7.2						
KURK	Kurchatov	48.95	305	*i* P	P	13 53 50.9	+1.7
YKA	Yellowknife Ar	50.05	37	P	P	13 53 57.2	-0.2
YKA	Yellowknife Ar	50.05	37	P	P	13 53 57.2	-0.2
	comp=Z,0.2nm,0.4s,mb3.5,baz=295,slow=7.2,SNR=4.3						
BRVK	Borovoye	52.40	311	*i* P	P	13 54 15.8	+0.6
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
AAK	Ala-Archa	55.51	298	*i* P	P	13 54 39.2	+1.1
AAK				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.9						
NVAR	Mina Array Bea	60.97	64	P	P	13 55 17.9	+1.5
	comp=Z,1.3nm,0.9s,mb4.1,baz=304,slow=5.3,SNR=8.8						
FINES	FINESS Array B	64.99	336	P	P	13 55 43.2	+0.5
FINES	FINESS Array B	64.99	336	P	P	13 55 43.2	+0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	64.99	336	P	P	13 55 43.2	+0.5
	comp=Z,0.8nm,0.5s,mb4.0,baz=37,slow=8.1,SNR=7.7						
WRA	Warramunga Arr	68.90	202	P	P	13 56 06.2	-1.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	68.90	202	P	P	13 56 06.2	-1.8
	comp=Z,1.0nm,0.6s,mb3.9,baz=23,slow=7.1,SNR=6.6						
TXAR	Lajitas Array	76.06	62	P	P	13 56 51.7	+0.9
TXAR	Lajitas Array	76.06	62	*e*P	P	13 56 51.7	+0.9
TXAR	Lajitas Array	76.06	62	P	P	13 56 51.7	+0.9
	comp=Z,1.1nm,0.5s,mb4.1,baz=308,slow=5.0,SNR=27						
STKA	Stephens Creek	79.06	192	P	P	13 57 07.4	+0.2
	comp=Z,0.9nm,0.7s,mb3.8,baz=2.3,slow=6.3,SNR=2.8						
GERES	GERESS Array B	79.42	336	P	P	13 57 07.9	-1.3
	comp=Z,0.2nm,0.3s,mb3.5,baz=10,slow=8.4,SNR=3.6						

ISCJB ***02*** *14:01:17.6±0.7, 42.75N±0.06×2.52W±0.05, h10^{km}, Error ellipse: s-maj=9.4km s-min=4.8km az=168.1*

NEIC ***02*** *14:01:17.4, 42.64N×2.51W, h2^{km}, ML3.2(STR), After STR.*

STR ***02*** *14:01:17.4±1.1, 42.64N×2.51W, h2^{km}, Ml3.2, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

CSEM ***02*** *14:01:19.2±0.2, 42.74N×2.50W, h8^{km}, mb3.6/1, Error ellipse: s-maj=5.2km s-min=3.1km az=175.0*

ISC 02 14:01:18.4±0.7, **42.73N**±0.06×**2.53W**±0.05, **h10**^{km}**, n30,** σ**1ˢ.22**/45**, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ECRI	Cripan	0.12	173	Pg	Pg	14 01 21.9	+0.6
	SNR=7.9						
EARA	Aranguren	0.70	86	Pg	Pg	14 01 34.0	+2.0
	36nm,0.5s,SNR=8.5						
IUSE	Utxeti	0.76	73	Pg	Pg	14 01 34.1	+1.1
	5.9nm,0.5s,SNR=5.5						
ELAN	Lanestosa	0.83	308	Pg	Pg	14 01 35.5	+1.0
	13nm,0.6s,SNR=12						
ELIZ	Elizondo	0.85	59	Pg	Pg	14 01 34.4	-0.5
	13nm,0.5s,SNR=6.5						
IPRE	Itoiz	0.87	84	Pg	Pg	14 01 36.1	+1.0
	9.9nm,0.5s,SNR=10						
EALK	Alkurruntz	0.90	56	Pg	Pg	14 01 34.9	-0.8
	22nm,0.4s,SNR=17						
OSSF	Osses	1.07	60	Pg	Pg	14 01 38.2	-0.8
OSSF				Sg	Sg	14 01 52.4	-0.5
OSSF	Osses	1.07	60	Pg	Pg	14 01 38.2	-0.8
OSSF				Sg	Sg	14 01 52.4	-0.5
OSSF	Osses	1.07	60	Pg	Pg	14 01 38.2	-0.8
OSSF				Sg	Sg	14 01 52.4	-0.5
LARF	Larrau	1.18	74	Pg	Pg	14 01 39.4	-1.6
LARF				Sg	Sg	14 01 57.3	+1.0
LARF	Larrau	1.18	74	Pg	Pg	14 01 39.4	-1.6
LARF				Sg	Sg	14 01 57.3	+1.0
LARF	Larrau	1.18	74	Pg	Pg	14 01 39.4	-1.6
LARF				Sg	Sg	14 01 57.3	+1.0
ORDF	Ordiarp	1.27	67	Pg	Pg	14 01 41.7	-1.0
ORDF				Sg	Sg	14 02 00.8	+1.6
ORDF	Ordiarp	1.27	67	Pg	Pg	14 01 41.7	-1.0
ORDF				Sg	Sg	14 02 00.8	+1.6
ORDF	Ordiarp	1.27	67	Pg	Pg	14 01 41.7	-1.0
ORDF				Sg	Sg	14 02 00.8	+1.6
ATE	Arette	1.39	74	Pg	Pg	14 01 44.8	-0.3
ATE				Sg	Sg	14 02 04.1	+0.9
ATE	Arette	1.39	74	Pg	Pg	14 01 44.8	-0.3
ATE				Sg	Sg	14 02 04.1	+0.9
ATE	Arette	1.39	74	Pg	Pg	14 01 44.8	-0.3
ATE				Sg	Sg	14 02 04.1	+0.9
ESAC	San Caprasio	1.83	123	Pg	Pg	14 01 52.4	-1.1
	37nm,0.5s,SNR=7.5						
LABF	Labassere	1.94	80	Pg	Pn	14 01 53.1	+1.7
LABF				Sg	Sg	14 02 19.2	-1.6
LABF	Labassere	1.94	80	Pg	Pn	14 01 53.1	+1.7
LABF				Sg	Sg	14 02 19.2	-1.6
LABF	Labassere	1.94	80	Pg	Pn	14 01 53.1	+1.7
LABF				Sg	Sg	14 02 19.2	-1.6
EBIE	Bielsa	1.97	90	Pn	Pn	14 01 53.4	+1.6
	7.2nm,0.4s,SNR=11						
EARI	Arriondas	2.05	287	Pg	Pg	14 01 56.7	-1.0
	5.7nm,0.4s,SNR=8.7						
MELF	Melles	2.42	85	Pg	Pg	14 02 02.8	-2.1
MELF	Melles	2.42	85	Pg	Pg	14 02 02.8	-2.1
MELF	Melles	2.42	85	Pg	Pg	14 02 02.8	-2.1
SALF	Salau	2.74	88	Pg	Pg	14 02 09.5	-1.4
SALF	Salau	2.74	88	Pg	Pg	14 02 09.5	-1.4

ISCJB ***02*** *14:28:43.5±0.5, 39.47N±0.03×20.73E±0.07, h2^{km}, Error ellipse: s-maj=8.2km s-min=3.8km az=7.3*

CSEM ***02*** *14:28:43.8±0.1, 39.49N×20.70E, h2^{km}, MD3.6, Error ellipse: s-maj=3.0km s-min=1.9km az=109.0*

NEIC ***02*** *14:28:43.6, 39.49N×20.70E, h5^{km}, MD3.6(ATH), After ATH.*

ATH ***02*** *14:28:43.6, 39.49N×20.70E, h5^{km}±3^{km}, MD3.6/8*

THE ***02*** *14:28:44.5, 39.46N×20.76E, h3^{km}, ML3.6*

ISC 02 14:28:44.1±0.6, **39.48N**±0.03×**20.76E**±0.08, **h4**^{km}±8^{km}**, n40,** σ**0ˢ.82**/48**, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAN	Janina	0.19	21	*e*Pg	Pg	14 28 47.4	-0.5
JAN	Janina	0.19	21	*e*PG	Pg	14 28 47.4	-0.5
JAN	Janina	0.19	21	*e*Pg	Pg	14 28 47.4	-0.5
MEV	Metsovon	0.47	50	*e*Pg	Pg	14 28 53.7	+0.5
MEV	Metsovon	0.47	50	*e*Pg	Pg	14 28 53.7	+0.5
LKD	Levkas	0.77	186	*e*Pg	Pg	14 28 58.8	-0.2
LKD	Levkas	0.77	186	*e*Pg	Pg	14 28 58.8	-0.1
KEK	Kerkira	0.78	288	*e*Pb	Pg	14 28 57.9	-1.1
KEK	Kerkira	0.78	288	*e*PB	Pg	14 28 57.9	-1.1
KEK	Kerkira	0.78	288	*e*Pb	Pg	14 28 57.9	-1.1
THL	Klokotos Trika	0.97	84	*e*PN	Pn	14 29 03.8	-0.7
THL	Klokotos Trika	0.97	84	*e*Pn	Pn	14 29 03.8	-0.7
EVR	Evrytania	0.99	124	*e*Pg	Pg	14 29 02.9	-0.2
EVR	Evrytania	0.99	124	*e*PG	Pg	14 29 02.9	-0.2
EVR	Evrytania	0.99	124	*e*Pg	Pg	14 29 02.9	-0.2
VLS	Valsamata	1.30	186	*e*Pg	Pg	14 29 08.4	-0.7
VLS				*e*Sb	Sg	14 29 27.7	+1.7
VLS	Valsamata	1.30	186	*e*PG	Pg	14 29 08.4	-0.7
VLS				*e*SB	Sg	14 29 27.7	+1.7
VLS	Valsamata	1.30	186	*e*Pg	Pg	14 29 08.4	-0.7
VLS				*e*Sb	Sg	14 29 27.7	+1.7
FNA	Florina	1.39	20	*e*Pg	Pn	14 29 09.7	-0.6
FNA	Florina	1.39	20	*e*Pg	Pn	14 29 09.7	-0.5
RLS	Riolos of Patr	1.52	158	*e*Pb	Pb	14 29 13.0	+0.1
RLS	Riolos of Patr	1.52	158	*e*PB	Pb	14 29 13.0	+0.1
RLS	Riolos of Patr	1.52	158	*e*Pb	Pb	14 29 13.0	+0.1
BIA	Bitola	1.60	15	*i* Pn	Pg	14 29 15.1	+0.4
BIA				*i* Sn	Sg	14 29 42.1	+6.6
BIA	Bitola	1.60	15	*i* Pn	Pn	14 29 15.1	+1.9
OHR	Ohrid	1.63	1	*i* Pn	Pg	14 29 16.4	+1.0
OHR				*i* Sn	Sb	14 29 40.0	+4.3
OHR	Ohrid	1.63	1	*i* Pn	Pg	14 29 16.4	+1.0
OHR				*i* Sn	Sb	14 29 40.0	+4.3
KRUS	Krusevo	1.93	11	*i* Pn	Pg	14 29 20.1	-0.9
KRUS				*i* Sn	Sg	14 29 49.9	+3.9
KRUS	Krusevo	1.93	11	*i* Pn	Pg	14 29 20.1	-0.9
KRUS				*i* Sn	Sg	14 29 49.8	+3.8
GRG	Griva	1.94	40	*e*Pb	Pb	14 29 19.8	-0.2
GRG	Griva	1.94	40	*e*Pb	Pb	14 29 19.8	-0.2
PLG	Polygyros	2.25	66	*e*Pn	Pb	14 29 24.7	-0.6
PLG	Polygyros	2.25	66	*e*PN	Pb	14 29 24.7	-0.6
PLG	Polygyros	2.25	66	*e*Pn	Pb	14 29 24.7	-0.6
VAY	Valandovo	2.30	36	*e*Pn	Pb	14 29 26.3	+0.1
VAY	Valandovo	2.30	36	*e*Pn	Pb	14 29 26.2	0.0
ITM	Ithomi	2.47	158	*e*Pn	Pb	14 29 28.9	-0.1
ITM	Ithomi	2.47	158	*e*PN	Pb	14 29 28.9	-0.1
OUR	Ouranopolis	2.62	70	*e*Pn	Pn	14 29 27.0	-0.2
OUR	Ouranopolis	2.62	70	*e*Pn	Pn	14 29 27.0	-0.2

NEIC ***02*** *14:40:02.2, 35.04N×3.89W, h1^{km}, MG3.5(MDD), After MDD.*

CSEM ***02*** *14:40:02.3±0.2, 35.04N×3.75W, h12^{km}, ML3.3/2, Error ellipse: s-maj=5.1km s-min=3.8km az=109.0*

INMG ***02*** *14:40:03.1±1.4, 35.04N×3.86W, h13^{km}±12^{km}, ML2.6, Error ellipse: s-maj=10.1km s-min=5.6km az=144.0*

ISCJB ***02*** *14:40:03.2±0.4, 35.11N±0.02×3.87W±0.03, h26^{km}±3^{km}, Error ellipse: s-maj=3.9km s-min=2.8km az=19.0*

MDD ***02*** *14:40:03.7±0.1, 35.05N×3.75W, h0^{km}, mb3.5/14, Error ellipse: s-maj=1.4km s-min=1.3km az=32.0, PRXIMO*

CNRM ***02*** *14:40:04.3, 35.01N×3.83W, h0^{km}, MD3.5*

ISC 02 14:40:03.5±0.4, **35.10N**±0.02×**3.83W**±0.02, **h19**^{km}±2^{km}**, n62,** σ**1ˢ.02**/110**, 1D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TOU	Touzarine	0.15	156	*i* P	Pg	14 40 05.0	-3.0
TOU				*i* S	Sg	14 40 08.0	-2.9
MPAL	Palemas	0.15	323	*i* P	Pg	14 40 08.0	0.0
MPAL				*e*S	Sg	14 40 12.0	+0.9
EMEL	Melilla	0.74	74	⇓P	Pb	14 40 17.0	-0.8
	319nm,0.2s,SNR=18						
EMEL				S	Sb	14 40 28.1	+0.6
	921nm,0.2s,SNR=5.1						
EMLI	Melilla	0.75	74	P	Pb	14 40 17.0	-0.9
	319nm,0.2s,SNR=18						
EMLI				S	Sb	14 40 28.1	+0.5
	921nm,0.2s,SNR=5.1						
MELI	Melilla	0.76	75	P	Pb	14 40 17.3	-0.7
ZAI	Zaio	0.90	98	*i* P	Pb	14 40 20.0	-0.4
ZAI				*i* S	Sb	14 40 33.5	+1.5
TZK	Tazeka	1.05	196	*i* P	Pb	14 40 21.0	-2.1
TZK				*i* S	Sb	14 40 36.0	-0.4
EALB	Alboran	1.06	37	P	Pb	14 40 22.8	-0.4
	62nm,0.8s,SNR=7.9						
EALB				S	Sb	14 40 35.9	-0.7
	46nm,0.1s,SNR=4.0						
EALB	Alboran	1.06	37	S	Sb	14 40 38.7	+2.1
	46nm,0.1s,SNR=4.0						
DKH	Dar Kharkhour	1.31	288	*i* P	Pg	14 40 30.0	+1.1
DKH				*i* S	Sg	14 40 47.0	+0.9
TGT	Taghat	1.44	225	*i* P	Pn	14 40 30.0	+1.4
TGT				*i* S	Sn	14 40 48.0	+1.1
EMIJ	Mijas	1.65	333	P	Pn	14 40 32.0	+0.6
EMIJ				S	Sg	14 40 56.2	-0.6
EMIJ	Mijas	1.65	333	P	Pn	14 40 32.0	+0.6
	0.8nm,0.1s,SNR=6.3						
EMIJ				S	Sn	14 40 52.6	+0.6
	7.4nm,0.2s,SNR=4.0						
EMIJ	Mijas	1.65	333	P	Pn	14 40 32.0	+0.6
	0.8nm,0.1s,SNR=6.3						
EMIJ				S	Sg	14 40 56.2	-0.6
	7.4nm,0.2s,SNR=4.0						
EMAL	Malaga-Limoner	1.73	344	S	Sn	14 40 53.4	-0.6
EGUA	Guajares	1.74	7	P	Pn	14 40 31.6	-1.1
EGUA				S	Sn	14 40 54.7	+0.4
EGUA	Guajares	1.74	7	P	Pn	14 40 32.4	-0.3
	0.8nm,0.2s,SNR=4.0						
EGUA				S	Sn	14 40 53.7	-0.6
	6.8nm,0.3s,SNR=4.0						
EGUA	Guajares	1.74	7	P	Pn	14 40 31.6	-1.1
	0.8nm,0.2s,SNR=4.0						
EGUA				S	Sn	14 40 54.7	+0.4
	6.8nm,0.3s,SNR=4.0						
EJIF	Jimena Fronter	1.90	316	P	Pn	14 40 33.7	-1.1
EJIF				P		14 40 38.3	
EJIF				S	Sn	14 40 58.1	0.0
EJIF	Jimena Fronter	1.90	316	P	Pn	14 40 35.3	+0.5
	3.3nm,0.3s,SNR=4.0						
EJIF				S	Sn	14 40 58.1	0.0
	6.7nm,0.4s,SNR=4.0						
EJIF	Jimena Fronter	1.90	316	P	Pn	14 40 33.7	-1.1
	3.3nm,0.3s,SNR=4.0						
EJIF				S	Sn	14 40 58.1	0.0
	6.7nm,0.4s,SNR=4.0						
EBER	Berja	1.95	23	P	Pn	14 40 36.0	+0.5
EBER				S	Sn	14 41 00.0	+0.6
EBER	Berja	1.95	23	P	Pn	14 40 35.0	-0.5
	1.3nm,0.3s,SNR=7.9						
EBER				S	Sn	14 40 58.0	-1.4
	31nm,0.4s,SNR=7.9						
EBER	Berja	1.95	23	P	Pn	14 40 36.0	+0.5
	1.3nm,0.3s,SNR=7.9						
EBER				S	Sn	14 41 00.0	+0.6
	31nm,0.4s,SNR=7.9						
MIF	Mishlifen	2.05	215	*i* P	Pn	14 40 38.0	+1.1
MIF				*i* S	Sn	14 41 01.0	-0.9
EQUE	Quentar	2.12	8	P	Pn	14 40 38.0	+0.1
	0.5nm,0.2s,SNR=6.7						
EQUE				S	Sn	14 41 03.3	-0.4
	4.6nm,0.2s,SNR=4.0						
EQUE	Quentar	2.12	8	P	Pn	14 40 39.4	+1.5
	0.5nm,0.2s,SNR=6.7						
EQUE				S	Sb	14 41 06.7	-0.6
	4.6nm,0.2s,SNR=4.0						
ECOG	Cogollos-Vega	2.18	5	P	Pb	14 40 41.4	-0.9
ECOG	Cogollos-Vega	2.18	5	P	Pn	14 40 39.6	+0.9
	4.6nm,0.3s,SNR=4.0						
ECOG	Cogollos-Vega	2.18	5	P	Pb	14 40 41.4	-0.9
	4.6nm,0.3s,SNR=4.0						
ESPR	Espera	2.41	318	P	Pb	14 40 45.8	-0.5
ESPR				S	Sn	14 41 13.0	+2.1
ESPR	Espera	2.41	318	P	Pn	14 40 42.5	+0.6
	5.1nm,0.2s,SNR=4.0						
ESPR				S	Sn	14 41 11.6	+0.7
	6.4nm,0.3s,SNR=4.0						
ESPR	Espera	2.41	318	P	Pb	14 40 45.8	-0.5
	5.1nm,0.2s,SNR=4.0						
ESPR				S	Sn	14 41 13.0	+2.1
	6.4nm,0.3s,SNR=4.0						
EQES	Quesada	2.76	13	S	Sn	14 41 19.1	-0.4
	8.7nm,0.3s						
ZFT	Errachidia	3.09	188	*i* P	Pn	14 40 52.0	+0.8
ZFT				*i* S	Sn	14 41 27.0	-0.6
EADA	Adamuz	3.12	349	P	Pn	14 40 54.7	+3.1
EADA				S	Sn	14 41 31.9	+3.6
EADA	Adamuz	3.12	349	P	Pn	14 40 52.4	+0.8
	0.4nm,0.1s,SNR=4.0						
EADA				S	Sn	14 41 28.3	0.0
	2.1nm,0.2s,SNR=4.0						
KIB	El Ksiba	3.12	217	*e*P	Pn	14 40 53.0	+1.4
KIB				*i* S	Sn	14 41 28.0	-0.3
EMUR	La Murta	3.44	37	P	Pn	14 40 56.1	+0.1
	3.4nm,0.3s,SNR=7.9						
EMUR				S	Sn	14 41 34.6	-1.6
	7.8nm,0.4s,SNR=4.0						
EMIN	Mina Concepcio	3.51	320	P	Pn	14 40 56.4	-0.6
EMIN				S	Sn	14 41 37.0	-1.0
EMIN	Mina Concepcio	3.51	320	P	Pn	14 40 57.6	+0.5
	0.9nm,0.1s,SNR=9.1						
EMIN				S	Sn	14 41 38.2	+0.2
	1.2nm,0.2s						
TZC	Tazercounte	3.69	218	*e*P	Pn	14 41 01.0	+1.6
TZC				*i* S	Sn	14 41 42.0	-0.4
EGRO	El Granado	3.82	311	P	Pn	14 41 01.0	-0.3
EGRO				S	Sn	14 41 43.8	-1.9
EGRO	El Granado	3.82	311	P	Pn	14 41 01.4	+0.1
	2.0nm,0.1s,SNR=14						
EGRO				S	Sn	14 41 45.2	-0.4
	4.9nm,0.3s,SNR=7.9						
PVAQ	Vaqueiros	3.89	307	*e*Pn	Pn	14 41 02.3	0.0
PVAQ				*e*Sn	Sn	14 41 45.8	-1.6
PVAQ				A		14 41 47.2	
	12nm,0.4s						
PVAQ	Vaqueiros	3.89	307	*e*Pn	Pn	14 41 02.3	0.0
PVAQ				*e*Sn	Sn	14 41 45.8	-1.6
	12nm,0.4s						
PBDV	Barranco-do-Ve	3.95	304	*e*Sn	Sn	14 41 48.0	-0.7
PBDV				A		14 41 50.1	
	6.5nm,0.3s						
PBDV	Barranco-do-Ve	3.95	304	S	Sn	14 41 48.0	-0.7
	3.2nm,0.3s						
PBDV	Barranco-do-Ve	3.95	304	*e*Sn	Sn	14 41 48.0	-0.7
	6.5nm,0.3s						
ETOB	Tobarra	3.98	27	P	Pn	14 41 05.3	+1.9
ETOB				S	Sn	14 41 51.6	+2.0
ETOB	Tobarra	3.98	27	P	Pn	14 41 03.9	+0.4
	1.4nm,0.2s,SNR=4.0						
ETOB				S	Sn	14 41 48.1	-1.5
	4.6nm,0.5s,SNR=7.9						
PBEJ	Beja	4.37	313	*e*Pn	Pn	14 41 09.6	+0.8
PBEJ				*e*Sn	Sn	14 41 58.1	-1.0
PBEJ	Beja	4.37	313	*e*Pn	Pn	14 41 09.6	+0.8
PBEJ				*e*Sn	Sn	14 41 58.1	-1.0
EBAD	Badajoz	4.45	326	P	Pn	14 41 10.1	+0.2
EBAD				S	Sn	14 41 59.1	-2.1
EBAD	Badajoz	4.45	326	P	Pn	14 41 10.7	+0.8
	0.7nm,0.1s,SNR=4.0						
EBAD				S	Sn	14 42 00.5	-0.6
	3.6nm,0.2s						
MORF	Marmelete	4.48	301	*e*Pn	Pn	14 41 11.3	+1.0
MORF				*e*Sn	Sn	14 42 00.7	-1.1
MORF				A		14 42 13.7	
	3.7nm,0.4s						
MORF	Marmelete	4.48	301	P	Pn	14 41 11.3	+1.0
MORF				S	Sn	14 42 00.7	-1.1
	3.7nm,0.4s						
PFVI	Vila Bisbo	4.53	298	*e*Pn	Pn	14 41 11.2	+0.2
PFVI				A		14 42 15.6	
	9.3nm,0.9s						
ESDC	Sonseca Array	4.57	359	P	Pn	14 41 12.3	+0.8
	0.8nm,0.1s,baz=179,slow=12,SNR=4.0						
CIA	Chichaoua	5.43	231	*e*P	Pn	14 41 24.0	+0.6
CIA				*i* S	Sn	14 42 24.0	-1.3
ECAL	Calabor	7.20	342	P	Pn	14 41 51.5	+3.9
ECAL	Calabor	7.20	342	P	Pn	14 41 49.2	+1.5
	1.2nm,0.7s,SNR=4.0						

IDC 02 14:44:45.3±61.0, **1.67N**×**95.81E, h0**^{km}**, mb3.8**/3**, mb1 3.8**/3**, mb1mx3.5**/19**, mbtmp3.8**/3**, Error ellipse: s-maj=1170.0km s-min=156.4km az=177.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	46.47	347	P	P	14 53 13.9	0.0
	1.0nm,0.5s,baz=160,slow=8.2,SNR=11						
SONM	Songino Array	46.89	10	P	P	14 53 17.4	+0.1
	0.1nm,0.3s,baz=185,slow=7.2,SNR=4.2						
ZALV	Zalesovo Beam	52.89	352	P	P	14 54 02.8	0.0
	1.3nm,0.6s,baz=177,slow=7.9,SNR=7.6						

IDC ***02*** *14:53:19.1±1.0, 20.71N×120.03E, h0^{km}, mb3.7/6, mb1 3.9/6, mb1mx3.8/17, mbtmp3.7/6, Error ellipse: s-maj=72.3km s-min=19.6km az=65.0*

ISCJB ***02*** *14:53:22.2±0.8, 20.6N±0.2×119.9E±0.4, h33^{km}, mb3.7/6, Error ellipse: s-maj=57.6km s-min=13.2km az=149.3*

ISC 02 14:53:24.3±0.8, **20.7N**±0.2×**120.0E**±0.4**, h35**^{km}**, n7,** σ**0ˢ.55**/7**, mb3.7**/6**, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGCP	Mt. Cagua	3.10	142	*e*P	Pn	14 54 10.2	-0.4
SONM	Songino Array	29.23	341	P	P	14 59 21.8	-0.9
	0.5nm,0.8s,mb3.3,baz=165,slow=10,SNR=4.4						
MKAR	Makanchi Array	40.18	319	P	P	15 00 57.3	+0.2
	0.7nm,0.6s,mb3.5,baz=114,slow=10,SNR=9.5						
ZALV	Zalesovo Beam	42.65	330	P	P	15 01 17.2	+0.1
	0.4nm,0.4s,mb3.5,baz=120,slow=8.5,SNR=3.3						
WRA	Warramunga Arr	42.75	160	P	P	15 01 17.9	-0.4
	1.4nm,0.5s,mb3.9,baz=342,slow=9.0,SNR=12						
STKA	Stephens Creek	56.21	158	P	P	15 03 01.6	+0.7
	1.7nm,0.9s,mb4.1,baz=0.0,slow=7.1,SNR=3.9						
YKA	Yellowknife Ar	86.58	22	P	P	15 06 04.3	+0.7
	0.3nm,0.7s,mb3.6,baz=315,slow=4.6,SNR=9.2						

ISCJB ***02*** *15:02:15.2±1.1, 30.95S±0.04×177.79W±0.08, h43^{km}±10^{km}, mb4.9/27, MS4.2/13, Error ellipse: s-maj=12.2km s-min=5.2km az=22.0*

MOS ***02*** *15:02:15.1±1.2, 30.39S×177.84W, h33^{km}, mb5.1/8, Error ellipse: s-maj=22.1km s-min=14.8km az=176.3*

IDC ***02*** *15:02:19.6±0.7, 30.34S×177.89W, h60^{km}±5^{km}, mb4.4/9, mb1 4.6/10, mb1mx4.5/12, mbtmp4.5/10, MS4.1/13, Ms1 4.1/13, ms1mx4.0/16, Error ellipse: s-maj=24.7km s-min=15.4km az=161.0*

NEIC ***02*** *15:02:21.1±2.8, 31.02S×177.87W, h91^{km}±24^{km}, mb5.0/6, Error ellipse: s-maj=27.3km s-min=18.7km az=214.0*

BJI ***02*** *15:02:21.0, 31.74S×178.04W, h103^{km}, mB5.3, mb5.0*

ISC 02 15:02:15.4±1.5, **30.82S**±0.03×**177.81W**±0.07**, h26**^{km}±11^{km}**, n178,** σ**1ˢ.43**/120**, mb4.9**/27**, MS4.2**/13**, 1C-3D, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	7.46	205	P	Pn	15 04 06.2	+3.8
MXZ				S	Sn	15 05 33.3	+7.2
MXZ	Matakaoa Point	7.46	205	PN	Pn	15 04 05.9	+3.5
MXZ				SN	Sn	15 05 33.2	+7.1
PUZ	Puketiti	7.93	203	*e*P	Pn	15 04 12.7	+3.8
PUZ	Puketiti	7.93	203	*e*PN	Pn	15 04 11.5	+2.5
PUZ				SN	Sn	15 05 42.8	+5.0
WCZ	Waipu Caves	8.32	230	PN	Pn	15 04 24.8	+11
MWZ	Matawai	8.43	206	*e*P	Pn	15 04 18.9	+3.2
MWZ				S	Sn	15 05 57.8	+7.9
MWZ	Matawai	8.43	206	PN	Pn	15 04 17.5	+1.8
MWZ				SN	Sn	15 05 57.4	+7.5
OUZ	Omahuta	8.45	236	PN	Pn	15 04 26.9	+11
URZ	Urewera	8.53	208	P	Pn	15 04 20.8	+3.8
URZ	Urewera	8.53	208	P	Pn	15 04 20.3	+3.2
	3.0nm,0.3s,baz=225,slow=7.5,SNR=32						
URZ				S	Sn	15 06 02.1	+10
	24nm,0.3s,baz=159,slow=16,SNR=16						
URZ	Urewera	8.53	208	*e*PN	Pn	15 04 19.5	+2.5
BKZ	Black Stump Fm	9.55	208	*e*P	Pn	15 04 29.9	-1.2
BKZ	Black Stump Fm	9.55	208	*e*PN	Pn	15 04 31.5	+0.4
BKZ				SN	Sn	15 06 24.2	+6.7
HIZ	Hauiti	9.77	216	*e*PN	Pn	15 04 40.5	+6.4
PXZ	Pawanui	10.17	204	*e*PN	Pn	15 04 39.1	-0.4
PXZ				SN	Sn	15 06 35.5	+2.8
TSZ	Takapari Road	10.53	207	*e*PN	Pn	15 04 44.5	+0.1
BFZ	Birch Farm	10.96	204	*e*P	Pn	15 04 50.4	0.0
BFZ	Birch Farm	10.96	204	PN	Pn	15 04 50.4	0.0
BFZ				SN	Sn	15 06 53.0	+1.0

TIWZ	Tintock	11.18	206	SN	Sn	15 06 59.5	+2.2
MRZ	Mangatainoka R	11.19	207	eP	Pn	15 04 53.1	-0.5
MRZ	Mangatainoka R	11.19	207	PN	Pn	15 04 52.7	-0.8
MRZ				SN	Sn	15 06 57.4	-0.4
KIW	Kapiti Island	11.63	208	P	Pn	15 04 59.0	-0.6
KIW	Kapiti Island	11.63	208	ePN	Pn	15 04 57.6	-1.9
MTW	Mount Morrison	11.65	206	ePN	Pn	15 04 58.3	-1.5
MTW				SN	Sn	15 07 08.5	-0.5
CAW	Cannon Point	11.77	207	P	Pn	15 05 01.0	-0.5
CAW	Cannon Point	11.77	207	ePN	Pn	15 05 00.5	-1.0
CAW				SN	Sn	15 07 09.3	-2.7
PAWZ	Paruwai Farm	11.87	206	SN	Sn	15 07 14.4	0.0
MSWZ	Moikau Station	11.97	206	SN	Sn	15 07 18.4	+1.7
MRW	Makara Radio	12.02	208	SN	Sn	15 07 18.6	+0.4
SNZO	South Karori	12.09	208	ePn	Pn	15 05 09.8	+4.0
BHW	Baring Head	12.11	207	SN	Sn	15 07 19.4	-0.7
TCW	Tory Channel	12.19	210	ePN	Pn	15 05 05.9	-1.2
TCW				SN	Sn	15 07 21.0	-1.1
TUWZ	Tuamarina	12.51	210	ePN	Pn	15 05 10.3	-1.3
TUWZ				SN	Sn	15 07 27.7	-2.2
NNZ	Nelson	12.59	212	ePN	Pn	15 05 10.7	-1.9
NNZ				SN	Sn	15 07 31.3	-0.6
THZ	Tophouse	13.23	212	eP	Pn	15 05 23.3	+1.8
THZ	Tophouse	13.23	212	ePN	Pn	15 05 20.5	-0.9
THZ				SN	Sn	15 07 45.0	-2.8
KHZ	Kahutara	13.49	209	ePN	Pn	15 05 24.4	-0.6
KHZ				SN	Sn	15 07 51.7	-2.3
LTZ	Lake Taylor	14.33	211	ePN	Pn	15 05 36.1	-0.3
LTZ				SN	Sn	15 08 09.6	-4.8
CRLZ	Canterbury Las	14.83	208	SN	Sn	15 08 20.5	-6.1
MQZ	McQueen's Vall	14.93	208	SN	Sn	15 08 24.3	-4.6
WVZ	Waitaha Valley	15.27	214	ePN	Pn	15 05 51.6	+2.6
RPZ	Rata Peaks	15.61	211	P	Pn	15 05 54.9	+1.4
	0.5nm,0.3s,baz=7.1,slow=16,SNR=4.4						
RPZ				S	Sn	15 08 42.3	-3.3
	2.7nm,0.3s,baz=348,slow=20,SNR=8.2						
FOZ	Fox Glacier	16.14	215	ePN	Pn	15 05 59.4	-0.9
DZM	Mont Dzumac	16.57	298	P	Pn	15 06 07.4	+1.5
	0.4nm,0.3s,baz=99,slow=16,SNR=10						
DZM				LR	LR	15 11 03.9	
	comp=Z,1µm,19.2s,baz=177,slow=32						
NOUC	Port Laguerre	16.66	298	eP	Pn	15 06 07.5	+0.5
JCZ	Jackson Bay	16.97	215	P	Pn	15 06 15.6	+4.8
JCZ	Jackson Bay	16.97	215	ePN	Pn	15 06 11.8	+1.0
AFI	Afiamalu	17.72	20	S	Sx	15 09 07.3	
	0.8nm,0.3s,baz=23,slow=23,SNR=2.3						
RAR	Rarotonga	18.80	64	P	Pn	15 06 31.9	-1.5
	1.0nm,0.3s,baz=226,slow=6.1,SNR=5.6						
RAR				S	Sn	15 09 40.5	-23
	1.3nm,0.3s,baz=137,slow=23,SNR=3.2						
RAR				LR	LR	15 12 01.7	
	comp=Z,441nm,19.9s,baz=231,slow=31						
ARMA	Armidale	26.27	263	eP	P	15 07 52.5	+3.9
CNB	Canberra Magne	27.80	252	eP	P	15 08 05.9	+3.6
	16nm,0.9s,mb4.7						
EIDS	Eidsvold	27.93	273	eP	P	15 08 04.0	+0.5
PPT	Papeete	28.84	69	eLR	LR	15 15 25.4	
	1µm,27.0s,baz=238						
PPT	Papeete	28.84	69	P	P	15 08 12.3	+0.7
PPT				LR	LR	15 17 07.8	
PPT	Papeete	28.84	69	P	P	15 08 12.3	+0.7
	12nm,0.6s,mb4.8,baz=175,slow=13,SNR=2.7						
PPT				LR	LR	15 17 07.8	
	comp=Z,163nm,20.4s,MS3.6,baz=265,slow=31						
HNR	Honiara	29.70	311	LR	LR	15 18 02.1	
	comp=Z,286nm,21.7s,MS3.9,baz=178,slow=32						
TOO	Toolangi	30.96	247	eP	P	15 08 33.4	+3.2
	9.6nm,1.3s,mb4.5						
CTA	Charters Tower	34.03	280	eP	P	15 08 58.0	+0.7
	28nm,1.3s,mb5.0						
CTA	Charters Tower	34.03	280	eP	P	15 08 58.0	+0.7
CTA				pmax	pmax		
	comp=Z,28nm,1.3s						
CTA	Charters Tower	34.03	280	P	P	15 08 57.6	+0.3
	comp=Z,30nm,0.8s,mb5.3,baz=96,slow=10,SNR=24						
CTAO	Charters Tower	34.03	280	eP	P	15 08 57.8	+0.4
	comp=Z,27nm,0.8s,mb5.2						
CTAO	Charters Tower	34.03	280	eP	P	15 08 57.8	+0.5
CTAO				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.2						
STKA	Stephens Creek	34.55	257	eP	P	15 09 03.8	+2.1
	comp=Z,26nm,0.6s,mb5.3						
STKA	Stephens Creek	34.55	257	P	P	15 09 03.9	+2.2
	comp=Z,34nm,0.7s,mb5.4,baz=95,slow=9.3,SNR=107						
STKA				LR	LR	15 21 56.4	
	comp=Z,700nm,18.9s,MS4.4,baz=283,slow=34						
RKT	Rikitea	38.75	89	eS	S	15 15 36.9	+3.5
	comp=Z,136nm,28.0s						
RKT				eLR	LR	15 20 12.9	
	comp=Z,844nm,27.2s,baz=261						
PMG	Port Moresby	38.94	296	P	P	15 09 38.5	-0.7
	comp=Z,8.6nm,0.8s,mb4.5						
PMG	Port Moresby	38.94	296	P	P	15 09 38.6	-0.6
PMG				pmax	pmax		
	comp=Z,9.0nm,0.8s						
TAOE	Nuku Hiva Isla	41.32	66	eLR	LR	15 20 57.2	
	comp=Z,1µm,26.8s						
WB2	Warramunga Arr	44.27	272	eP	P	15 10 22.0	-0.9
WRA	Warramunga Arr	44.28	272	P	P	15 10 22.5	-0.5
WRA				LR	LR	15 27 15.1	
WRA	Warramunga Arr	44.28	272	P	P	15 10 22.5	-0.6
	comp=Z,30nm,0.5s,mb5.3,baz=110,slow=8.1,SNR=165						
WRA				LR	LR	15 27 15.1	
	comp=Z,438nm,21.3s,MS4.3,baz=115,slow=34						
FORT	Forrest	46.10	255	eP	P	15 10 37.1	-0.3
	comp=Z,16nm,0.7s,mb5.1						
VNDA	Vanda	47.70	186	LR	LR	15 26 37.8	
	comp=Z,212nm,19.2s,MS4.1,baz=72,slow=30						
FITZ	Fitzroy Crossi	52.53	270	eP	P	15 11 27.5	+0.9
	comp=Z,16nm,1.2s,mb4.8						
KLBR	Kellerberrin	54.37	251	eP	P	15 11 39.5	-0.5
	comp=Z,25nm,1.2s,mb5.0						
NWAO	Narrogin (SRO)	54.41	250	eP	P	15 11 33.1	-7.2
	comp=Z,23nm,1.3s,mb4.9						
NWAO	Narrogin (SRO)	54.41	250	eP	P	15 11 33.1	-7.1
NWAO				pmax	pmax		
	comp=Z,23nm,1.3s						
CASY	Casey	54.85	208	eP	P	15 11 45.2	+2.3
MAW	Mawson	71.98	201	eP	P	15 13 38.4	+2.2
	comp=Z,4.5nm,0.8s,mb4.5						
MAW	Mawson	71.98	201	P	P	15 13 38.3	+2.2
	comp=Z,3.9nm,0.7s,mb4.5,baz=143,slow=4.8,SNR=11						
MAW				LR	LR	15 41 45.8	
	comp=Z,214nm,18.6s,MS4.5,baz=338,slow=33						
SYO	Syowa Base	76.75	193	⇓eX	P	15 14 06.4	+2.5
VNA3	Neumayer Olymp	77.88	176	eP	P	15 14 13.5	+3.3
VNA3				e	pP	15 14 21.5	+2.8
VNA3				e		15 14 30.7	
VNA3				e		15 14 43.3	
VNA2	Neumayer--Watz	78.31	177	eP	P	15 14 16.2	+3.6
	baz=173,slow=4.1						
VNA2				e	pP	15 14 23.9	+2.8
VNA2				e		15 14 33.4	
VNA2				e		15 14 46.2	
VNA1	Neumayer--Stat	78.54	176	eP	P	15 14 18.3	+4.4
VNA1				e		15 14 35.0	
VNA1				e		15 14 48.0	
MJAR	Matsushiro Arr	78.68	325	P	P	15 14 11.4	-3.6
	comp=Z,3.9nm,0.9s,mb4.3,baz=153,slow=6.3,SNR=6.2						
MJAR				LR	LR	15 41 32.4	
	comp=Z,71nm,21.4s,MS4.0,baz=300,slow=30						
JNU	Nakatsue	79.98	318	LR	LR	15 43 50.0	
	comp=Z,81nm,20.4s,MS4.1,baz=282,slow=31						
KSRS	Korea Array	84.77	320	P	P	15 14 45.4	-1.7
	comp=Z,2.8nm,1.0s,mb4.3,baz=154,slow=6.2,SNR=6.0						
KSRS				LR	LR	15 51 16.0	
	comp=Z,78nm,18.8s,MS4.1,baz=270,slow=35						
YSS	Yuzh-Sakhalins	85.19	334	eP	P	15 14 49.0	0.0
	comp=Z,20nm,1.0s,mb5.2						
YSS	Yuzh-Sakhalins	85.19	334	⇓eP	P	15 14 49.5	+0.5
YSS				e		15 15 04.4	
YSS				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
KULM	Kulim	85.45	279	P	P	15 14 49.5	-1.7
NJ2	Nanjing	86.64	311	eP	P	15 15 00.1	+3.5
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.5						
NVAR	Mina Array Bea	88.43	43	P	P	15 15 04.6	-0.4
	comp=Z,1.7nm,0.8s,mb4.3,baz=208,slow=6.3,SNR=15						
NVAR				pP	pP	15 15 21.9	+8.4
	comp=Z,7.6nm,0.8s,baz=208,slow=6.5,SNR=23						
CN2	Changchun	90.58	323	⇓P	P	15 15 15.0	+0.1
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb5.1						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
KLR	Kul'dur	91.48	330	eP	P	15 15 16.0	-2.9
GYA	Guiyang	91.90	300	eP	P	15 15 20.4	-1.1
GYA				PP	PP	15 19 09.0	+7.7
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb5.1						
GYA				AMB	AMB		
	comp=Z,120nm,6.9s						
TXAR	Lajitas Array	92.47	57	P	P	15 15 24.3	+0.2
TXAR				pP	pP	15 15 41.4	+8.7
TXAR				LR	LR	15 46 44.1	
TXAR	Lajitas Array	92.47	57	P	P	15 15 24.3	+0.2
TXAR				*PP	pP	15 15 41.4	+8.7
TXAR	Lajitas Array	92.47	57	P	P	15 15 24.3	+0.2
	comp=Z,1.4nm,1.1s,mb4.2,baz=210,slow=7.1,SNR=6.7						
TXAR				pP	pP	15 15 41.4	+8.7
	comp=Z,2.9nm,1.0s,baz=205,slow=5.5,SNR=9.5						
TXAR				LR	LR	15 46 44.1	
	comp=Z,93nm,20.3s,MS4.2,baz=180,slow=29						
BJI	Beijing	93.34	315	P	P	15 15 28.0	+0.2
BJI				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb5.0						
ANMO	Albuquerque	93.71	51	iP	P	15 15 28.4	-1.2
MA2	Magadan	93.74	345	P	P	15 15 29.2	+0.1
MA2	Magadan	93.74	345	iP	P	15 15 29.0	-0.1
MA2				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.8						
KMI	Kunming	94.16	297	P	P	15 15 32.5	+0.6
KMI				AMB	AMB		
	comp=Z,3.0nm,1.2s,mb4.6						
CD2	Chengdu	96.45	302	eP	P	15 15 41.0	-1.3
CD2				PP	PP	15 19 44.5	+7.7
CD2				AMB	AMB		
	comp=Z,20nm,1.2s,mb5.4						
CD2				AMB	AMB		
	comp=Z,40nm,8.4s						
HHC	Hu-ho-hao-te	96.64	314	eP	P	15 15 44.7	+1.8
HHC				PP	PP	15 19 47.5	+9.4
HHC				AMB	AMB		
	comp=Z,14nm,0.9s,mb5.4						
HHC				AMB	AMB		
	comp=Z,192nm,3.3s						
HHC				LR	LR		
	comp=N,226nm,23.7s,MS5.0						
HHC				LR	LR		
	comp=E,543nm,24.7s,MS5.0						
HHC				LR	LR		
	comp=Z,166nm,22.8s,MS4.5						
LPAZ	La Paz	97.82	114	LR	LR	15 54 06.2	
	comp=Z,49nm,18.6s,MS4.0,baz=9.6,slow=32						
LZH	Lanzhou	99.10	307	eP	P	15 15 53.0	-1.1
LZH				PP	PP	15 20 05.1	+8.0
LZH				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.6						
LZH				AMB	AMB		
	comp=Z,110nm,5.2s						
BILL	Bilibino	99.27	354	eP	P	15 15 52.0	-2.0
BILL				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb4.3						
WMQ	Urumqi	113.61	308	PKP	PKiKP	15 20 48.4	-2.6
WMQ				LR	LR		
	comp=N,84nm,15.4s,MS4.7						
WMQ				LR	LR		
	comp=E,144nm,16.7s,MS4.7						
WMQ				LR	LR		
	comp=Z,107nm,20.6s,MS4.4						
MK31	Makanchi Array	118.17	310	ePKPdf	PKPdf	15 20 55.4	-4.2
MK31	Makanchi Array	118.17	310	ePKIKP	PKPdf	15 20 55.4	-4.3
MKAR	Makanchi Array	118.17	310	PKP	PKPdf	15 20 57.4	-2.3
MKAR	Makanchi Array	118.17	310	⇑iPKIKP	PKPdf	15 20 59.0	-0.7
MKAR	Makanchi Array	118.17	310	PKP	PKPdf	15 20 57.4	-2.3
	comp=Z,1.2nm,0.6s,baz=90,slow=1.3,SNR=8.3						
ZALV	Zalesovo Beam	118.45	318	PKP	PKPdf	15 20 57.0	-3.0
ZALV	Zalesovo Beam	118.45	318	PKP	PKPdf	15 20 57.0	-3.0
	comp=Z,1.2nm,0.7s,baz=96,slow=1.5,SNR=3.7						
ZAL	Zalesovo	118.46	318	PKIKP	PKPdf	15 20 57.0	-3.0
KURK	Kurchatov	121.46	314	ePKPdf	PKPdf	15 21 03.4	-2.5
KURK	Kurchatov	121.46	314	i PKIKP	PKPdf	15 21 04.1	-1.8
TKM2	Tokmak 2	121.76	304	ePKPdf	PKPdf	15 21 04.8	-2.0
TKM2	Tokmak 2	121.76	304	ePKIKP	PKPdf	15 21 04.8	-1.9
AAK	Ala-Archa	122.48	304	i PKIKP	PKPdf	15 21 05.5	-2.6
AML	Almayashu	122.94	303	ePKPdf	PKPdf	15 21 07.8	-1.2
EKS2	Erkin-Say	123.00	303	ePKPdf	PKPdf	15 21 07.2	-1.8
KBL	Kabul	124.54	293	ePKPdf	PKPdf	15 21 11.4	-0.9
SCHQ	Schefferville	126.44	42	PKP	PKPdf	15 21 13.6	-1.7
SCHQ	Schefferville	126.44	42	PKP	PKPdf	15 21 13.6	-1.7
	comp=Z,3.6nm,1.1s,baz=72,slow=13,SNR=2.8						
SCHQ				pPKP	pPKPdf	15 21 30.4	+6.2
	comp=Z,5.9nm,0.9s,baz=288,slow=4.3,SNR=4.3						
BRVK	Borovoye	126.89	316	ePKPdf	PKPdf	15 21 14.2	-2.0
BRVK	Borovoye	126.89	316	ePKIKP	PKPdf	15 21 14.2	-2.0
ARCES	ARCESS Array B	139.03	348	PKP	PKPdf	15 21 36.0	-2.5
ARCES	ARCESS Array B	139.03	348	PKIKP	PKPdf	15 21 36.0	-2.5
ARCES	ARCESS Array B	139.03	348	PKhKP		15 21 30.7	
	comp=Z,3.8nm,1.0s,baz=50,slow=6.5,SNR=5.2						
ARCES				PKP	PKPdf	15 21 36.0	-2.5
	comp=Z,5.0nm,1.0s,baz=36,slow=4.2,SNR=5.1						
JOF	Joensuu	142.87	338	ep	PKPdf	15 21 44.7	-0.9
	comp=Z,4.1nm,0.6s						
JOF	Joensuu	142.87	338	ePKIKP	PKPdf	15 21 44.7	-0.9
JOF				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ZEI	Tsey	144.87	302	ePKIKP	PKPdf	15 21 47.5	-2.3
FIA1	FINESS Array S	145.59	340	ePKPdf	PKPdf	15 21 47.3	-3.1
FINES	FINESS Array B	145.59	340	PKPbc	PKPbc	15 21 47.6	-3.1
FINES	FINESS Array B	145.59	340	PKP2	PKPab	15 21 47.6	-3.4
FINES	FINESS Array B	145.59	340	PKPbc	PKPbc	15 21 47.6	-3.1
	comp=Z,19nm,0.7s,baz=62,slow=3.7,SNR=67						
KIV	Kislovodsk	145.60	304	i PKIKP	PKPdf	15 21 50.8	-0.2
KIV				pmax	pmax		
	comp=Z,4.0nm,0.6s						
OBN	Obninsk	145.61	325	i PKIKP	PKPdf	15 21 49.6	-1.0
OBN				pmax	pmax		
	comp=Z,34µm,1.0s						
VSU	Vasula	147.68	336	i PKP2	PKPbc	15 21 54.4	-2.4
NB2	NORSAR Subarra	149.19	351	PKPa	PKPdf	15 21 58.1	+1.7
	comp=Z,5.6nm,0.7s,baz=16,slow=2.9						
NOA	NORSAR Array B	149.19	351	PKPbc	PKPbc	15 21 58.6	-2.0
NOA	NORSAR Array B	149.19	351	PKIKP	PKPdf	15 21 58.6	+2.2
NOA	NORSAR Array B	149.19	351	PKPbc	PKPbc	15 21 58.6	-2.0
	comp=Z,12nm,0.9s,baz=13,slow=4.3,SNR=11						
MALT	Malatya	149.39	294	ePKPbc	PKPbc	15 22 01.5	-0.4
MALT	Malatya	149.39	294	ePKP2	PKPbc	15 22 01.5	-0.4
HFS	Hagfors	149.69	349	PKPbc	PKPbc	15 21 59.5	-2.4
HFS	Hagfors	149.69	349	PKP2	PKPbc	15 21 59.5	-2.4
HFS	Hagfors	149.69	349	PKPbc	PKPbc	15 21 59.5	-2.4
	comp=Z,14nm,0.8s,baz=72,slow=4.8,SNR=16						
HFS				pPKPbc	pPKPbc	15 22 16.6	+5.9
	comp=Z,10nm,0.8s,baz=243,slow=1.3,SNR=5.0						
ASF	Jabal al Asfar	150.45	282	PKPbc	PKPbc	15 22 05.5	+0.8
	comp=Z,6.9nm,0.7s,baz=356,slow=0.7,SNR=14						
KONO	Kongsberg	150.74	352	i PKIKP	PKPbc	15 22 05.2	+0.8
AKASG	Malin Array Be	151.73	322	PKPbc	PKPbc	15 22 04.6	-2.4
AKASG	Malin Array Be	151.73	322	PKIKP	PKPbc	15 22 04.6	-2.4
AKASG	Malin Array Be	151.73	322	PKPbc	PKPbc	15 22 04.6	-2.4
	comp=Z,16nm,0.7s,baz=48,slow=2.8,SNR=28						
AKBB	Malin Array Si	151.73	322	ePKPbc	PKPbc	15 22 04.4	-2.7
AKBB	Malin Array Si	151.73	322	ePKIKP	PKPbc	15 22 04.4	-2.6
KIEV	Kiev	151.75	322	ePKPbc	PKPbc	15 22 04.6	-2.5
KIEV	Kiev	151.75	322	ePKIKP	PKPbc	15 22 04.6	-2.5
ANTO	Ankara	153.56	298	ePKPbc	PKPbc	15 22 10.3	-1.1
ANTO	Ankara	153.56	298	ePKIKP	PKPbc	15 22 10.4	-1.1
LIC	Lamto	154.61	163	ePKIKP	PKPab	15 22 32.9	+3.9
	comp=Z,50nm,0.9s						
KIC	Kosan Boka	154.81	164	ePKIKP	PKPab	15 22 32.8	+2.9
	comp=Z,101nm,0.8s						
TIC	Toumodi	155.02	163	ePKIKP	PKPab	15 22 32.7	+2.0
	comp=Z,12nm,0.8s						
EKA	Eskdalemuir Ar	155.20	7	PKPab	PKPab	15 22 27.5	-2.9
	comp=Z,2.9nm,0.8s,baz=331,slow=3.2,SNR=3.7						
CLL	Collm	158.01	342	ePKP2	PKPab	15 22 43.0	+0.4
CLL				pmax	pmax		
	comp=Z,7.0nm,0.9s						
CLL	Collm	158.01	342	ePKPab	PKPab	15 22 43.0	+0.4
	comp=Z,7.0nm,0.9s						
BRG	Berggiesshubel	158.13	340	ePKP2	PKPab	15 22 40.2	-3.0
BRG				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BRG	Berggiesshubel	158.13	340	e(P)	PKPab	15 22 40.2	-3.0
	comp=Z,3.7nm,0.9s						
MOX	Moxa	158.98	343	ePKP	PKPab	15 22 47.1	+0.3
MOX	Moxa	158.98	343	ePKP2	PKPab	15 22 47.1	+0.3
KHC	Kasperske Hory	159.78	338	i PKP2	PKPab	15 22 50.7	+0.3
KHC	Kasperske Hory	159.78	338	ePKPab	PKPab	15 22 50.5	+0.1
GERES	GERESS Array B	159.99	337	PKPab	PKPab	15 22 51.1	-0.2
	comp=Z,1.3nm,0.7s,baz=35,slow=4.9,SNR=7.5						
TORD	Torodi Ar. Bea	162.41	178	PKP	PKPdf	15 22 16.0	+0.7
TORD				PKPab	PKPab	15 23 04.8	+2.2
TORD	Torodi Ar. Bea	162.41	178	PKP	PKPdf	15 22 16.0	+0.7
	comp=Z,1.5nm,1.1s,baz=246,slow=1.2,SNR=4.6						
TORD				pPKP	pPKPdf	15 22 32.2	+8.0
	comp=Z,2.1nm,1.0s,baz=29,slow=0.8,SNR=6.6						
TORD				PKPab	PKPab	15 23 04.8	+2.2
	comp=Z,6.8nm,0.9s,baz=178,slow=3.2,SNR=16						
DAVOX	Davos/Dischmat	162.99	342	PKPab	PKPab	15 23 03.3	-1.1
	comp=Z,6.1nm,0.8s,baz=8.1,slow=3.8,SNR=6.6						

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*NEIC **02** 15:04:29.7, 2722S×6952W, h103^{km}, MD3.5(GUC), After GUC.*

GUC 02 15:04:29.7±1.1**, 2722S×6952W, h103^{km}**±33^{km}**, MD3.5, ML4.4, 3C-5D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPCH	Copiapo	0.75	259	⇓iP	Pn	15 04 48.5	+0.7
CPCH				i S	Sn	15 05 01.6	+0.1
VACH	Vallenar	1.74	219	⇓iP	Pn	15 05 00.1	+1.0
VACH				i S	Sn	15 05 22.2	+0.8
VACH	Vallenar	1.74	219	⇓iP	Pn	15 05 00.1	+1.0
VACH				i S	Sn	15 05 22.2	+0.8
VACH				AML	AML	15 05 24.4	
	comp=N,9µm,0.1s						
LCO	Las Campanas	2.07	210	ePn	Pn	15 05 04.4	+1.1
LCO				eSn	Sn	15 05 29.2	+0.2
CPN1	Cerro Paranal	2.70	343	⇑iP	Pn	15 05 12.5	+1.0
CPN1				AML	AML	15 05 54.3	
	comp=E,729nm,0.4s						
TLL	Tololo Astrono	3.15	201	⇓iP	Pn	15 05 18.7	+1.2
TLL				i S	Sn	15 05 55.6	+1.2
TLL	Tololo Astrono	3.15	201	⇓iP	Pn	15 05 18.7	+1.2
TLL				i S	Sn	15 05 55.6	+1.2
TLL				AML	AML	15 05 57.2	
	comp=N,367nm,0.3s						
ANCH	Antofagasta	3.61	347	⇑iP	Pn	15 05 23.3	-0.4
ANCH				AML	AML	15 06 20.9	
	comp=E,473nm,0.6s						
CEN1	Los Morros	3.86	351	⇑iP	Pn	15 05 24.5	-2.6

JMA 02 15:17:20.6±0.2**, 4394N×14763E, h20^{km}, M3.7, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	1.48	248	P	Pn	15 17 46.7	+0.6
NEM2				eS	Sn	15 18 05.6	+0.7
JRA	Rausu	1.81	271	P	Pn	15 17 51.4	+0.8
JRA				eS	Sn	15 18 14.2	+1.2
JNK	Nakash	2.14	261	P	Pn	15 17 56.1	+1.0
JNK				eS	Sn	15 18 21.3	+0.3
JAK	Akkeshi	2.33	247	P	Pn	15 17 58.7	+0.9
JAK				eS	Sn	15 18 26.9	+1.0
JTKR	Abashiri--Toko	2.69	272	P	Pn	15 18 03.3	+0.6
JAR	Ashorobuto	2.88	258	P	Pn	15 18 07.0	+1.7
JAR				eS	Sn	15 18 41.5	+2.3
JOB	Onbets	2.95	251	P	Pn	15 18 08.1	+1.8
JOB				eS	Sn	15 18 43.1	+2.0
JMP	Maruseppu	3.08	273	P	Pn	15 18 09.2	+1.1
JCH	Churui	3.39	248	P	Pn	15 18 13.8	+1.5
JCH				eS	Sn	15 18 52.4	+0.6

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*ISCJB **02** 15:20:34.6±0.2, 35.17N±0.01×4.08W±0.02, h10^{km}, mb3.8/2, Error ellipse: s-maj=2.2km s-min=2.0km az=179.3*

*CSEM **02** 15:20:34.9±0.1, 35.09N×3.96W, h15^{km}, ML3.8/3, Error ellipse: s-maj=1.6km s-min=1.1km az=107.0*

*IDC **02** 15:20:34.8±1.4, 35.11N×4.98W, h0^{km}, mb3.7/2, mb1 3.9/3, mb1mx3.5/20, mbtmp3.7/3, ML4.3/1, Error ellipse: s-maj=93.7km s-min=17.9km az=80.0*

*NEIC **02** 15:20:36.3, 35.16N×4.02W, h0^{km}, MG4.1(MDD), After MDD.*

*SFS **02** 15:20:36.0, 35.16N×4.02W, h0^{km}, ML4.1*

*CNRM **02** 15:20:36.8, 35.10N×3.97W, h8^{km}, MD3.9*

*MDD **02** 15:20:37.0±0.2, 35.07N×3.97W, h1^{km}, mb4.1/24, Error ellipse: s-maj=1.3km s-min=0.9km az=7.0, PRXIMO*

*INMG **02** 15:20:37.1±1.3, 35.03N×4.02W, h28^{km}±11^{km}, ML3.0, Error ellipse: s-maj=5.6km s-min=3.7km az=177.0*

ISC 02 15:20:35.3±0.2**, 3515N**±001×**404W**±002**, h10^{km}, n138, σ1§24**/245**, mb3.8**/2**, 6C-3D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MPAL	Palemas	0.11	47	i P	Pg	15 20 39.5	+1.4
TOU	Touzarine	0.30	129	P	Pg	15 20 41.0	-0.3
TOU				S	Sg	15 20 45.0	-0.4
TOU	Touzarine	0.30	129	i P	Pg	15 20 41.0	-0.3
EMEL	Melilla	0.90	80	P	Pg	15 20 52.0	-0.7
	409nm,0.2s,SNR=19						
EMEL				S	Sg	15 21 05.3	+0.9
	2µm,0.4s,SNR=7.7						
EMLI	Melilla	0.90	80	P	Pg	15 20 52.0	-0.8
	409nm,0.2s,SNR=19						
EMLI				S	Sg	15 21 05.3	+0.8
	2µm,0.4s,SNR=7.7						
MELI	Melilla	0.92	81	⇑P	Pg	15 20 52.7	-0.3
MELI				S	Sg	15 21 04.9	0.0
MELI	Melilla	0.92	81	i P	Pg	15 20 52.7	-0.3
MELI				eS	Sg	15 21 04.9	0.0
TZK	Tazeka	1.07	186	i P	Pg	15 20 55.0	-0.8
TZK				i S	Sg	15 21 09.0	-0.7
ZAI	Zaio	1.08	99	i P	Pg	15 20 55.0	-1.0
ZAI				i S	Sg	15 21 09.0	-1.0
DKH	Dar Kharkhour	1.13	288	i P	Pn	15 20 58.0	+0.8
DKH				i S	Sn	15 21 14.0	+1.2
EALB	Alboran	1.14	46	P	Pn	15 20 56.6	-0.7
	159nm,0.2s,SNR=9.3						
EALB				S	Sn	15 21 12.1	-0.8
	236nm,2.1s						
EALB	Alboran	1.14	46	P	Pn	15 20 56.6	-0.7
	159nm,0.2s,SNR=9.3						
EALB				S	Sn	15 21 12.1	-0.8
	236nm,2.1s						
TGT	Taghat	1.36	218	i P	Pn	15 21 01.0	+0.6
TGT				i S	Sn	15 21 19.0	+0.4
EMIJ	Mijas	1.53	337	P	Pn	15 21 02.0	-0.7
EMIJ				S	Sn	15 21 23.1	+0.4
EMIJ	Mijas	1.53	337	P	Pn	15 21 02.0	-0.7
	3.2nm,0.1s,SNR=13						
EMIJ				S	Sn	15 21 23.1	+0.4
	28nm,0.5s,SNR=8.4						
EMAL	Malaga-Limoner	1.64	349	P	Pn	15 21 04.6	+0.3
EMAL				S	Sn	15 21 23.7	-1.6
EMAL	Malaga-Limoner	1.64	349	P	Pn	15 21 04.6	+0.3
	8.6nm,0.3s,SNR=7.9						
EMAL				S	Sn	15 21 24.9	-0.4
	38nm,0.3s,SNR=18						
EMAL	Malaga-Limoner	1.64	349	P	Pn	15 21 04.6	+0.4
	8.6nm,0.3s,SNR=7.9						
EMAL				eS	Sn	15 21 23.0	-2.3
EGUA	Guajares	1.72	13	⇑P	Pn	15 21 04.2	-1.2
EGUA				S	Sn	15 21 27.5	+0.1
EGUA	Guajares	1.72	13	⇑P	Pn	15 21 04.5	-0.9
	13nm,0.4s,SNR=18						
EGUA				S	Sn	15 21 26.9	-0.5
	49nm,0.4s,SNR=7.9						
EGUA	Guajares	1.72	13	⇑P	Pn	15 21 04.2	-1.2
EGUA				S	Sn	15 21 27.5	+0.1
	49nm,0.4s,SNR=7.9						
EJIF	Jimena Fronter	1.74	319	P	Pn	15 21 06.5	+0.9
	4.2nm,0.2s,SNR=7.9						
EJIF				S	Sn	15 21 28.5	+0.6
	445nm,1.6s,SNR=7.9						
EJIF	Jimena Fronter	1.74	319	P	Pn	15 21 06.5	+0.9
	4.2nm,0.2s,SNR=7.9						
IFR	Ifrane	1.86	209	P	Pn	15 21 08.0	+0.7
IFR				S	Sn	15 21 31.0	+0.2
ERON	Agron	1.87	6	P	Pn	15 21 06.8	-0.6
	21nm,0.3s,SNR=13						
ERON				S	Sn	15 21 31.0	-0.1
	95nm,0.4s,SNR=9.5						
EBER	Berja	1.98	28	P	Pn	15 21 07.9	-1.0
	9.7nm,0.3s,SNR=7.9						
EBER				S	Sn	15 21 32.8	-0.8
	72nm,0.3s,SNR=7.9						
EBER	Berja	1.98	28	P	Pn	15 21 07.9	-1.0
	9.7nm,0.3s,SNR=7.9						

EBER				S	Sn	15 21 32.8	-0.9
	72nm,0.3s,SNR=7.9						
ELOJ	Sierra Loja	2.00	357	P	Pn	15 21 10.3	+1.2
ELOJ				S	Sn	15 21 35.4	+1.3
ELOJ	Sierra Loja	2.00	357	P	Pn	15 21 09.6	+0.5
	23nm,0.3s,SNR=7.9						
ELOJ				S	Sn	15 21 34.1	0.0
	46nm,0.4s,SNR=7.9						
ELOJ	Sierra Loja	2.00	357	P	Pn	15 21 10.3	+1.2
	23nm,0.3s,SNR=7.9						
ELOJ				S	Sn	15 21 35.4	+1.3
	46nm,0.4s,SNR=7.9						
MIF	Mishlifen	2.00	210	*i* P	Pn	15 21 10.0	+0.9
MIF				*i* S	Sn	15 21 32.0	-2.2
LIJA	Lijar	2.07	328	*i* P	Pn	15 21 12.5	+2.3
LIJA				*e*S	Sn	15 21 41.2	+5.2
EQUE	Quentar	2.11	13	⇓P	Pn	15 21 10.9	+0.2
	16nm,0.4s,SNR=18						
EQUE				S	Sn	15 21 36.7	-0.2
	117nm,0.6s,SNR=7.6						
EQUE	Quentar	2.11	13	P	Pn	15 21 10.9	+0.3
	16nm,0.4s,SNR=18						
EQUE				S	Sn	15 21 37.6	+0.7
	117nm,0.6s,SNR=7.6						
ECOG	Cogollos-Vega	2.16	10	P	Pn	15 21 12.0	+0.7
ECOG				S	Sn	15 21 39.2	+1.1
ECOG	Cogollos-Vega	2.16	10	P	Pn	15 21 12.0	+0.7
	SNR=7.9						
ECOG				P		15 21 12.0	
	24nm,0.4s,SNR=7.9						
ECOG				S	Sn	15 21 38.1	0.0
	63nm,0.5s,SNR=7.9						
ECOG	Cogollos-Vega	2.16	10	P	Pn	15 21 12.0	+0.7
	24nm,0.4s,SNR=7.9						
ECOG				S	Sn	15 21 39.2	+1.1
ESPR	Espera	2.26	320	P	Pn	15 21 14.5	+1.7
ESPR				S	Sn	15 21 43.0	+2.4
ESPR	Espera	2.26	320	P	Pn	15 21 13.5	+0.8
	5.3nm,0.2s,SNR=9.7						
ESPR				S	Sn	15 21 40.9	+0.2
	44nm,0.3s,SNR=5.1						
ESPR	Espera	2.26	320	P	Pn	15 21 14.5	+1.7
	5.3nm,0.2s,SNR=9.7						
ESPR				S	Sn	15 21 43.0	+2.3
	44nm,0.3s,SNR=5.1						
CZD	Col de Zad	2.27	202	*i* P	Pn	15 21 12.0	-0.9
CZD				*i* S	Sn	15 21 41.0	+0.1
ENIJ	Nijar	2.35	39	P	Pn	15 21 14.3	+0.4
	5.7nm,0.3s,SNR=7.9						
ENIJ				S	Sn	15 21 40.7	-2.1
	16nm,1.1s,SNR=7.9						
ENIJ	Nijar	2.35	39	P	Pn	15 21 14.3	+0.4
	5.7nm,0.3s,SNR=7.9						
MDT	Midelt	2.38	192	Pg	Pg	15 21 15.2	-5.7
MDT				Sn	Sn	15 21 44.2	+0.6
MDT	Midelt	2.38	192	Pg	Pg	15 21 15.2	-5.7
	14nm,0.3s,baz=14,slow=10,SNR=316						
MDT				Sn	Sn	15 21 44.2	+0.6
	33nm,0.3s,baz=127,slow=20,SNR=16						
MDT	Midelt	2.38	192	Pg	Pg	15 21 15.2	-5.7
MDT				Sn	Sn	15 21 44.2	+0.7
ELUQ	Luque	2.41	356	P	Pn	15 21 17.2	+2.4
ELUQ				S	Sn	15 21 46.7	+2.3
ELUQ	Luque	2.41	356	P	Pn	15 21 15.5	+0.7
	14nm,0.3s,SNR=8.0						
ELUQ				S	Sn	15 21 43.4	-1.0
	27nm,0.4s,SNR=4.0						
ELUQ	Luque	2.41	356	P	Pn	15 21 17.2	+2.4
	14nm,0.3s,SNR=8.0						
ELUQ				S	Sn	15 21 46.7	+2.3
	27nm,0.4s,SNR=4.0						
EQES	Quesada	2.76	16	P	Pn	15 21 21.5	+1.9
EQES				S	Sn	15 21 53.2	+0.2
EQES	Quesada	2.76	16	P	Pn	15 21 20.5	+0.9
	12nm,0.2s,SNR=34						
EQES				S	Sn	15 21 52.1	-0.9
	88nm,0.4s,SNR=4.9						
EQES	Quesada	2.76	16	P	Pn	15 21 21.5	+1.9
	12nm,0.2s,SNR=34						
EQES				S	Sn	15 21 53.2	+0.2
	88nm,0.4s,SNR=4.9						
EBAN	Banos Encina	3.02	4	P	Pn	15 21 24.3	+1.2
EBAN				S	Sn	15 22 03.2	+3.9
EBAN	Banos Encina	3.02	4	P	Pn	15 21 24.3	+1.2
	3.2nm,0.3s,SNR=7.1						
EBAN				S	Sn	15 21 58.5	-0.8
	61nm,0.5s,SNR=7.9						
EBAN	Banos Encina	3.02	4	P	Pn	15 21 24.3	+1.2
	3.2nm,0.3s,SNR=7.1						
EBAN				S	Sn	15 22 03.2	+3.9
	61nm,0.5s,SNR=7.9						
EADA	Adamuz	3.04	352	P	Pn	15 21 24.8	+1.3
	9.8nm,0.4s,SNR=21						
EADA				S	Sn	15 21 59.5	-0.5
	36nm,0.6s,SNR=4.6						
EADA	Adamuz	3.04	352	P	Pn	15 21 24.8	+1.3
	9.8nm,0.4s,SNR=21						
EADA				S	Sn	15 21 59.5	-0.5
	36nm,0.6s,SNR=4.6						
KIB	El Ksiba	3.06	214	*e*P	Pn	15 21 24.0	+0.2
KIB				*i* S	Sn	15 22 00.0	-0.4
ZFT	Errachidia	3.12	185	*i* P	Pn	15 21 24.0	-0.6
ZFT				*i* S	Sn	15 22 00.0	-1.9
EMIN	Mina Concepcio	3.37	322	P	Pn	15 21 28.2	+0.2
	2.8nm,0.2s,SNR=21						
EMIN				S	Sn	15 22 07.1	-0.8
	15nm,0.3s						
EMIN	Mina Concepcio	3.37	322	P	Pn	15 21 28.2	+0.3
	2.8nm,0.2s,SNR=21						
EMIN				S	Sn	15 22 07.1	-0.8
	15nm,0.3s						
ERIP	Rio Piedras	3.42	311	⇑P	Pn	15 21 29.1	+0.5
ERIP				S	Sn	15 22 07.4	-1.8
ERIP	Rio Piedras	3.42	311	⇑P	Pn	15 21 29.1	+0.5
	8.4nm,0.4s,SNR=18						
ERIP				S	Sn	15 22 08.5	-0.7
	35nm,0.2s,SNR=7.9						
ERIP	Rio Piedras	3.42	311	P	Pn	15 21 29.1	+0.5
	8.4nm,0.4s,SNR=18						
ERIP				S	Sn	15 22 07.4	-1.8
	35nm,0.2s,SNR=7.9						
EMUR	La Murta	3.51	39	P	Pn	15 21 31.9	+2.0
EMUR				S	Sn	15 22 10.0	-1.4
EMUR	La Murta	3.51	39	P	Pn	15 21 29.0	-0.9
	2.2nm,0.3s,SNR=4.0						
EMUR				S	Sn	15 22 09.1	-2.3
	19nm,0.4s,SNR=5.5						
EMUR	La Murta	3.51	39	P	Pn	15 21 31.9	+2.0
	2.2nm,0.3s,SNR=4.0						
EMUR				S	Sn	15 22 10.0	-1.4
	19nm,0.4s,SNR=5.5						
TZC	Tazercounte	3.63	215	S	Sn	15 22 12.0	-2.4
TZC	Tazercounte	3.63	215	*e*P	Pn	15 21 32.0	+0.5
EGRO	El Granado	3.66	312	P	Pn	15 21 32.2	+0.2
	6.8nm,0.2s,SNR=24						
EGRO				S	Sn	15 22 14.0	-1.2
	27nm,0.2s,SNR=6.5						
EGRO	El Granado	3.66	312	P	Pn	15 21 32.2	+0.2
	6.8nm,0.2s,SNR=24						
EGRO				S	Sn	15 22 14.0	-1.2
	27nm,0.2s,SNR=6.5						
EVIA	Vianos	3.69	19	P	Pn	15 21 34.7	+2.3
EVIA				S	Sn	15 22 20.8	+4.8
EVIA	Vianos	3.69	19	P	Pn	15 21 32.3	-0.1
	2.0nm,0.2s,SNR=5.6						
EVIA				S	Sn	15 22 13.9	-2.1
	39nm,0.6s,SNR=5.3						
EVIA	Vianos	3.69	19	P	Pn	15 21 34.7	+2.3
	2.0nm,0.2s,SNR=5.6						
EVIA				S	Sn	15 22 20.8	+4.8
	39nm,0.6s,SNR=5.3						
PVAQ	Vaqueiros	3.73	308	*e*Pn	Pn	15 21 32.9	0.0
PVAQ				*e*Sn	Sn	15 22 15.4	-1.4
PVAQ				A		15 22 16.8	
	41nm,0.2s						
PVAQ	Vaqueiros	3.73	308	*e*Pn	Pn	15 21 32.9	0.0
PVAQ				*e*Sn	Sn	15 22 15.4	-1.4
	41nm,0.2s						
PBDV	Barranco-do-Ve	3.78	305	*e*Pn	Pn	15 21 34.0	+0.4
PBDV				*e*Sn	Sn	15 22 16.8	-1.3
PBDV				A		15 22 24.8	
	20nm,0.4s						
PBDV	Barranco-do-Ve	3.78	305	*e*Pn	Pn	15 21 34.0	+0.4
PBDV				*e*Sn	Sn	15 22 16.8	-1.3
	20nm,0.4s						
ETOB	Tobarra	4.02	29	P	Pn	15 21 38.8	+1.9
ETOB				S	Sn	15 22 24.2	+0.2
ETOB	Tobarra	4.02	29	P	Pn	15 21 36.8	-0.1
	4.5nm,0.2s,SNR=13						
ETOB				S	Sn	15 22 21.9	-2.1
	16nm,0.4s,SNR=9.0						
ETOB	Tobarra	4.02	29	P	Pn	15 21 38.8	+1.9
	4.5nm,0.2s,SNR=13						
ETOB				S	Sn	15 22 24.2	+0.2
	16nm,0.4s,SNR=9.0						
MORF	Marmelete	4.30	301	*e*Pn	Pn	15 21 42.1	+1.3
MORF				*e*Sn	Sn	15 22 30.1	-1.0
MORF				A		15 22 33.0	
	16nm,0.1s						
MORF	Marmelete	4.30	301	*e*Pn	Pn	15 21 42.1	+1.3
MORF				*e*Sn	Sn	15 22 30.1	-1.0
	16nm,0.1s						
EBAD	Badajoz	4.32	327	P	Pn	15 21 41.8	+0.8
	5.7nm,0.3s,SNR=22						
EBAD				S	Sn	15 22 30.1	-1.2
	30nm,0.2s,SNR=5.4						
EBAD	Badajoz	4.32	327	P	Pn	15 21 41.8	+0.8
	5.7nm,0.3s,SNR=22						
EBAD				S	Sn	15 22 30.1	-1.2
	30nm,0.2s,SNR=5.4						
PFVI	Vila Bisbo	4.35	298	*e*Pn	Pn	15 21 42.6	+1.1
PFVI				*e*Sn	Sn	15 22 30.2	-2.0
PFVI				A		15 22 45.1	
	18nm,0.6s						
PFVI	Vila Bisbo	4.35	298	*e*Pn	Pn	15 21 42.6	+1.1
PFVI				*e*Sn	Sn	15 22 30.2	-2.0
	18nm,0.6s						
PTEO	Sao Teotonio	4.47	304	*e*Sn	Sn	15 22 33.9	-1.4
PTEO				A		15 22 36.9	
	19nm,0.4s						
PTEO	Sao Teotonio	4.47	304	S	Sn	15 22 33.9	-1.4
	9.6nm,0.4s						
PTEO	Sao Teotonio	4.47	304	*e*Sn	Sn	15 22 33.9	-1.4
	19nm,0.4s						
ESDC	Sonseca Array	4.52	1	Pn	Pn	15 21 45.1	+1.3
	6.5nm,0.3s,baz=181,slow=12,SNR=36						
ESDC				Sn	Sn	15 22 34.4	-1.9
	2.8nm,0.3s,baz=189,slow=22,SNR=5.8						
ESDC	Sonseca Array	4.52	1	P	Pn	15 21 44.9	+1.1
	12nm,0.4s,baz=178,slow=12,SNR=33						
ESDC				S	Sn	15 22 34.4	-1.9
	2.8nm,0.3s,baz=192,slow=23,SNR=4.5						
ESDC	Sonseca Array	4.52	1	P	Pn	15 21 44.9	+1.1
	12nm,0.4s,SNR=33						
ESDC				S	Sn	15 22 34.4	-1.9
	2.8nm,0.3s,SNR=4.5						
PESTR	Estremoz	4.67	324	*e*Pn	Pn	15 21 47.2	+1.3
PESTR				*e*Sn	Sn	15 22 38.7	-1.5
PESTR				A		15 22 47.7	
	12nm,0.8s						
PESTR	Estremoz	4.67	324	*e*Pn	Pn	15 21 47.2	+1.3
PESTR				*e*Sn	Sn	15 22 38.7	-1.5
	12nm,0.8s						
MOE	Montemor	4.83	315	*e*Sn	Sn	15 22 42.6	-1.3
MOE	Montemor	4.83	315	S	Sn	15 22 42.6	-1.3
MOE	Montemor	4.83	315	*e*Sn	Sn	15 22 42.6	-1.3
ECHE	Chera	5.06	28	P	Pn	15 21 53.3	+2.0
ECHE	Chera	5.06	28	P	Pn	15 21 50.9	-0.3
	1.3nm,0.3s,SNR=4.0						
ECHE				S	Sn	15 22 46.6	-3.1
	24nm,2.4s,SNR=7.9						
ECHE	Chera	5.06	28	P	Pn	15 21 53.3	+2.0
	1.3nm,0.3s,SNR=4.0						
PCBR	Castelo Branco	5.42	331	*e*Pn	Pn	15 21 57.1	+0.9
PCBR				*e*Sn	Sn	15 22 56.9	-1.7
PCBR				A		15 23 11.0	
	7.4nm,0.4s						
PCBR	Castelo Branco	5.42	331	P	Pn	15 21 57.1	+0.9
PCBR				S	Sn	15 22 56.9	-1.7
	3.7nm,0.4s						
GUD	Guadarrama	5.48	359	⇓P	Pn	15 21 58.3	+1.3
GUD				S	Sn	15 22 58.1	-2.1
GUD	Guadarrama	5.48	359	⇓P	Pn	15 21 58.3	+1.3
	8.1nm,0.4s,SNR=18						
GUD				S	Sn	15 22 58.1	-2.1
	8.7nm,0.5s,SNR=7.9						
PTOM	Tomar	5.66	323	*e*Pn	Pn	15 22 00.8	+1.4
EIBI	Ibiza	5.79	46	P	Pn	15 22 02.0	+0.8
EIBI				S	Sn	15 23 05.2	-2.4
EIBI	Ibiza	5.79	46	P	Pn	15 22 00.7	-0.5
	6.0nm,0.3s,SNR=4.0						
EIBI				S	Sn	15 23 03.9	-3.7
	4.6nm,0.4s,SNR=7.9						
EIBI	Ibiza	5.79	46	P	Pn	15 22 02.0	+0.8
	6.0nm,0.3s,SNR=4.0						
EMOS	Mosqueruela	5.92	27	P	Pn	15 22 05.2	+2.1
EMOS	Mosqueruela	5.92	27	P	Pn	15 22 03.4	+0.3
	0.7nm,0.3s,SNR=7.9						
EMOS	Mosqueruela	5.92	27	P	Pn	15 22 05.2	+2.1
	0.7nm,0.3s,SNR=7.9						
MVO	Moncorvo	6.45	339	*e*Pn	Pn	15 22 11.8	+1.5
MVO				*e*Sn	Sn	15 23 21.8	-2.1
MVO				A		15 23 26.0	
	13nm,0.8s						
MVO	Moncorvo	6.45	339	P	Pn	15 22 11.8	+1.5
MVO				S	Sn	15 23 21.8	-2.1
	6.6nm,0.8s						
ERTA	Horta de San J	6.74	29	S	Sn	15 23 27.6	-3.6
	0.2nm,0.2s,SNR=7.9						
PBRG	Braganca	6.97	343	*e*Pn	Pn	15 22 18.8	+1.3
PBRG				*e*Sn	Sn	15 23 33.6	-3.2
PBRG				A		15 23 35.7	
	7.3nm,0.3s						
PBRG	Braganca	6.97	343	P	Pn	15 22 18.8	+1.3
PBRG				S	Sn	15 23 33.6	-3.2
	3.7nm,0.3s						
ECAL	Calabor	7.10	343	P	Pn	15 22 21.0	+1.8
ECAL				S	Sn	15 23 38.3	-1.6
ECAL	Calabor	7.10	343	P	Pn	15 22 20.3	+1.0
	4.3nm,0.2s,SNR=7.9						
ECAL				S	Sn	15 23 36.7	-3.3
	8.7nm,0.6s,SNR=8.2						
ECAL	Calabor	7.10	343	P	Pn	15 22 21.0	+1.7
	4.3nm,0.2s,SNR=7.9						
ETOS	Mallorca	7.14	48	P	Pn	15 22 20.6	+0.8
ETOS				S	Sn	15 23 38.6	-2.3
ETOS	Mallorca	7.14	48	P	Pn	15 22 19.0	-0.7
	1.6nm,0.4s,SNR=7.9						
ETOS				S	Sn	15 23 36.3	-4.5
	0.7nm,0.3s,SNR=7.9						
ETOS	Mallorca	7.14	48	P	Pn	15 22 20.6	+0.8
	1.6nm,0.4s,SNR=7.9						
PCAB	Cabril	7.26	336	*e*Pn	Pn	15 22 22.9	+1.5
PCAB				*e*Sn	Sn	15 23 39.9	-3.9
PCAB				A		15 23 45.5	
	8.2nm,0.6s						
PCAB	Cabril	7.26	336	P	Pn	15 22 22.9	+1.5
PCAB				S	Sn	15 23 39.9	-3.9
	4.1nm,0.6s						
ELOB	Lobios	7.41	336	P	Pn	15 22 24.7	+1.2
	1.6nm,0.3s,SNR=4.7						
ELOB				S	Sn	15 23 43.8	-3.8
	9.7nm,0.4s,SNR=5.1						
ELOB	Lobios	7.41	336	P	Pn	15 22 24.7	+1.2
	1.6nm,0.3s,SNR=4.7						
EARI	Arriondas	8.19	354	P	Pn	15 22 35.8	+1.6
	0.9nm,0.4s,SNR=4.0						
EARI	Arriondas	8.19	354	P	Pn	15 22 35.8	+1.6
	0.9nm,0.4s,SNR=4.0						
EALK	Alkurruntz	8.29	13	P	Pn	15 22 37.8	+2.2
EALK				S	Sn	15 24 04.9	-4.4
EALK	Alkurruntz	8.29	13	P	Pn	15 22 36.7	+1.1
	6.6nm,0.3s,SNR=9.5						
EALK				S	Sn	15 24 04.9	-4.4
	SNR=5.0						
EALK	Alkurruntz	8.29	13	P	Pn	15 22 37.8	+2.2
EPON	Pontenova	8.51	344	P	Pn	15 22 40.8	+2.1
EPON	Pontenova	8.51	344	P	Pn	15 22 39.9	+1.3
	1.8nm,0.4s,SNR=7.9						
EPON				S	Sn	15 24 11.1	-3.6
	4.7nm,2.3s,SNR=7.9						
EPON	Pontenova	8.51	344	P	Pn	15 22 40.8	+2.2
TORD	Torodi Ar. Bea	22.51	165	P	P	15 25 39.4	+4.2
	3.1nm,0.8s,mb3.8,baz=346,slow=12,SNR=14						
YKA	Yellowknife Ar	68.04	332	P	P	15 31 33.7	-0.9
YKA	Yellowknife Ar	68.04	332	P	P	15 31 33.7	-0.9
	0.6nm,0.7s,mb3.8,baz=60,slow=6.4,SNR=4.0						

IDC ***02*** *15:42:06.5±2.0, 46.30N×153.26E, h0^{km}, mb3.6/5, mb1 3.8/6, mb1mx3.6/20, mbtmp3.7/6, ML3.2/1, Error ellipse: s-maj=63.6km s-min=24.3km az=162.0*

ISCJB ***02*** *15:42:10.8±2.0, 45.7N±0.2×153.1E±0.2, h69^{km}±24^{km}, mb3.5/4, Error ellipse: s-maj=39.1km s-min=16.3km az=168.2*

MOS ***02*** *15:42:10.6±0.9, 46.19N×152.99E, h50^{km}, mb4.1/2, Error ellipse: s-maj=51.5km s-min=30.6km az=157.9*

ISC 02 15:42:12.4±1.8**, 45.8N**±0.3×**153.1E**±0.2**, h63**^{km}±24^{km}**, n25, σ0ˢ.95**/24**, mb3.6**/4**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	3.73	264	*e*PN	Pn	15 43 07.5	+0.1
KUR				*e*S	Sn	15 43 49.0	-1.0
KUR				pmax	pmax		
	comp=Z,160nm,0.4s						
KUR				smax			
	comp=N,150nm,0.5s						
KUR				smax			
	comp=E,150nm,0.5s						
NEM2	Nemuro 2	5.79	248	P	Pn	15 43 34.1	-1.4
NEM2				*e*S	Sx	15 44 37.8	
JNK	Nakash	6.37	253	P	Pn	15 43 43.5	0.0
JNK				*e*S	Sn	15 44 54.3	-0.5
JAK	Akkeshi	6.63	248	P	Pn	15 43 45.1	-2.0
JAK				*e*S	Sx	15 44 58.1	
JTKR	Abashiri--Toko	6.78	258	P	Pn	15 43 50.3	+1.1
JAR	Ashorobuto	7.12	253	P	Pn	15 43 54.1	+0.3
JAR				*e*S	Sn	15 45 13.9	+0.7
JOB	Onbets	7.24	250	P	Pn	15 43 55.7	+0.3
JOB				*e*S	Sx	15 45 14.3	
JKK2	Kamakawa 2	7.61	259	P	Pn	15 44 02.2	+1.7
ASAJ	Asahikawa	7.64	261	PN	Pn	15 44 01.3	+0.4
ASAJ	Asahikawa	7.64	261	Pn	Pn	15 44 01.3	+0.4
	comp=E,0.3nm,0.3s,baz=69,slow=27,SNR=3.6						
JCH	Churui	7.68	249	P	Pn	15 44 00.7	-0.8
JCH				*e*S	Sx	15 45 23.3	
JEM	Erimo	8.11	246	P	Pn	15 44 07.1	-0.2
JEM				*e*S	Sx	15 45 34.7	
JNBK	Urakawa-nobuka	8.24	249	*e*S	Sx	15 45 35.3	
JNB	Noboribetsu	9.29	254	P	Pn	15 44 24.9	+1.5
JKB	Kayabe	9.55	250	*e*S	Sx	15 46 06.3	
JANG	Nango	10.05	242	*e*S	Sx	15 46 16.9	
JTM	Tenmabayashi	10.09	245	*e*S	Sx	15 46 19.1	
KSRS	Korea Array	20.52	255	P	P	15 46 50.1	+4.8
	comp=E,0.7nm,0.7s,baz=49,slow=8.4,SNR=5.0						
MKAR	Makanchi Array	47.41	298	P	P	15 50 40.2	+0.1
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	47.41	298	P	P	15 50 40.2	+0.1
	comp=Z,0.6nm,0.6s,mb3.7,baz=72,slow=7.8,SNR=7.0						
YKA	Yellowknife Ar	51.73	36	P	P	15 51 11.3	-1.4
YKA	Yellowknife Ar	51.73	36	P	P	15 51 11.3	-1.4
	comp=Z,0.2nm,0.7s,mb3.2,baz=293,slow=6.7,SNR=3.6						
FINES	FINESS Array B	64.94	335	P	P	15 52 44.8	0.0
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	64.94	335	P	P	15 52 44.8	0.0
	comp=Z,0.7nm,0.4s,mb4.0,baz=64,slow=6.3,SNR=7.5						
TXAR	Lajitas Array	77.98	60	P	P	15 54 04.8	+0.9
	comp=Z,0.4nm,0.6s,mb3.5,baz=303,slow=4.0,SNR=5.2						

ISCJB ***02*** *15:46:16.7±0.5, 36.27N±0.02×34.13E±0.04, h29^{km}±6^{km}, Error ellipse: s-maj=5.5km s-min=3.7km az=25.2*

ISK ***02*** *15:46:16.5, 36.33N×34.18E, h17^{km}, MD3.4*

GRAL ***02*** *15:46:17.7±1.2, 36.14N×33.88E, h14^{km}±791^{km}, MD3.6*

CSEM ***02*** *15:46:17.0±0.1, 36.31N×34.11E, h40^{km}, Mw3.3, Error ellipse: s-maj=2.1km s-min=1.1km az=104.0*

NIC ***02*** *15:46:17.8±0.5, 36.17N×34.13E, h60^{km}, mb4.0, ML3.6, MW3.3*

GII ***02*** *15:46:18.1±0.6, 36.12N×33.99E, h11^{km}±2^{km}, ML2.8/5*

HLW ***02*** *15:46:38.4, 34.85N×33.07E, h33^{km}, Mb3.1*

ISC 02 15:46:17.5±0.6**, 36.29N**±0.03×**34.12E**±0.04**, h25**^{km}±7^{km}**, n83, σ0ˢ.96**/99**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IKL	Isikli	0.35	262	*i* PG	Pb	15 46 25.6	+0.3
IKL				*i* SG	Sb	15 46 31.4	+0.8
IKL	Isikli	0.35	262	*i* Pg	Pb	15 46 25.6	+0.3
MERS	Mersin	0.66	30	*i* PG	Pb	15 46 28.6	-1.8
MERS				*i* SG	Sb	15 46 37.8	-1.5
MERS	Mersin	0.66	30	*i* Pg	Pb	15 46 28.6	-1.8
KRTS	Karatas	1.05	74	PG	Pn	15 46 36.3	-0.3
KRTS	Karatas	1.05	74	*e*Pg	Pn	15 46 36.3	-0.3
KARA	Karaisali	1.23	38	PN	Pn	15 46 38.0	-1.0
KARA	Karaisali	1.23	38	*e*Pn	Pn	15 46 38.0	-1.0
PHNC	Paralimni	1.29	183	P	Pn	15 46 38.3	-1.5
PHNC				S	Sn	15 46 54.5	-1.7
MAMC	Mammari	1.33	213	P	Pn	15 46 39.8	-0.7
CSS	Prodhromos	1.47	206	P	Pn	15 46 40.4	-2.0
CSS				S	Sn	15 46 59.1	-1.7
CEYT	Ceyhan	1.50	61	PN	Pn	15 46 42.9	+0.2
CEYT	Ceyhan	1.50	61	*e*Pn	Pn	15 46 42.9	+0.2
HTY	Hatay	1.64	95	PN	Pn	15 46 45.0	+0.2
HTY	Hatay	1.64	95	*e*Pn	Pn	15 46 45.0	+0.2
ALFC	Alevga	1.67	228	P	Pn	15 46 43.6	-1.6
	37nm,0.1s						
ALFC				S	Sn	15 47 05.0	-0.8
KOZT	Kozan	1.81	49	PN	Pn	15 46 46.4	-0.7
SZAC	Souni-Zanaja	1.83	214	P	Pn	15 46 47.6	+0.3
	10.0nm,0.2s						
SZAC				S	Sn	15 47 14.6	+4.9
NIG	Nigde	1.86	12	PN	Pn	15 46 48.1	+0.4
NIG	Nigde	1.86	12	*e*Pn	Pn	15 46 48.1	+0.4
AKMC	Akamas	1.92	230	⇑P	Pn	15 46 48.4	-0.2
PPCY	Paphos	2.01	226	P	Pn	15 46 51.7	+1.9
KONT	Konya--Tatoy	2.17	320	PN	Pn	15 46 53.5	+1.6
KONT	Konya--Tatoy	2.17	320	*e*Pn	Pn	15 46 53.5	+1.6
HWQ	Hawqa	2.50	143	*e*P	Pn	15 46 57.0	+0.4
HWQ				*e*S	Sn	15 47 26.1	-0.2
KMRS	Kahramanmaras	2.54	61	*e*PN	Pn	15 46 56.6	-0.5
KMRS	Kahramanmaras	2.54	61	*e*Pn	Pn	15 46 56.6	-0.5
GAZ	Gaziantep	2.64	70	*e*PN	Pn	15 46 57.8	-0.6
GAZ	Gaziantep	2.64	70	*e*Pn	Pn	15 46 57.8	-0.6
BHL	Bhannes	2.69	152	*e*P	Pn	15 46 58.8	-0.4
BHL				*e*S	Sn	15 47 29.8	-1.2
BNN	Bunyan	2.90	28	*e*PN	Pn	15 47 02.6	+0.5
BNN	Bunyan	2.90	28	*e*Pn	Pn	15 47 02.6	+0.5
MATL	Matirih	2.97	160	*e*P	Pn	15 47 01.5	-1.4
KAMT	Kaman	3.09	354	*e*PN	Pn	15 47 04.9	+0.3
KAMT	Kaman	3.09	354	*e*Pn	Pn	15 47 04.9	+0.3
RCY	Rachaya	3.13	153	*e*P	Pn	15 47 05.4	+0.2
RCY				*e*S	Sn	15 47 40.6	-1.1
KIZT	Kizilcal	3.14	326	*e*PN	Pn	15 47 06.3	+1.0
KIZT	Kizilcal	3.14	326	*e*Pn	Pn	15 47 06.3	+1.0
HNTI	Hanita	3.32	164	Pn	Pn	15 47 07.8	+0.1
HNTI	Hanita	3.32	164	Pn	Pn	15 47 07.8	0.0
KSDI	Kefar Szold	3.34	157	Pn	Pn	15 47 08.1	0.0
KSDI	Kefar Szold	3.34	157	Pn	Pn	15 47 08.1	0.0
MMA0	Mount Meron ar	3.44	162	Pn	Pn	15 47 09.4	0.0
MMA0	Mount Meron ar	3.44	162	Pn	Pn	15 47 09.4	0.0
YOZ	Yozgat	3.48	16	*e*PN	Pn	15 47 10.6	+0.7
YOZ	Yozgat	3.48	16	*e*Pn	Pn	15 47 10.6	+0.7
KSHT	Keshet	3.58	157	Pn	Pn	15 47 12.6	+1.2
KSHT				Sn	Sn	15 47 54.5	+1.6
KSHT	Keshet	3.58	157	Pn	Pn	15 47 12.6	+1.2
KSHT				Sn	Sn	15 47 54.5	+1.5
OFRI	'Ofer	3.73	169	Pn	Pn	15 47 13.2	-0.2
OFRI	'Ofer	3.73	169	Pn	Pn	15 47 13.2	-0.2
MALT	Malatya	3.99	58	*e*PN	Pn	15 47 18.0	+1.0
MALT	Malatya	3.99	58	*e*Pn	Pn	15 47 18.0	+1.0
MMLI	Mount Malkishu	3.99	164	Pn	Pn	15 47 17.4	+0.3
MMLI				Sn	Sn	15 48 03.2	+0.2
MMLI	Mount Malkishu	3.99	164	Pn	Pn	15 47 17.6	+0.5
MMLI				Sn	Sn	15 48 03.2	+0.2
MMLI	Mount Malkishu	3.99	164	Pn	Pn	15 47 17.4	+0.4
MMLI				Sn	Sn	15 48 03.2	+0.2
SLTI	Sal'it	4.11	169	Pn	Pn	15 47 18.9	+0.2
SLTI				Sn	Sn	15 48 06.7	+0.8
SLTI	Sal'it	4.11	169	Pn	Pn	15 47 18.9	+0.2
SLTI				Sn	Sn	15 48 06.7	+0.7
HMDT	Nahal Hemdat	4.19	163	Pn	Pn	15 47 21.0	+1.2
HMDT	Nahal Hemdat	4.19	163	Pn	Pn	15 47 21.0	+1.2
DRGI	Dragot	4.80	167	Pn	Pn	15 47 29.2	+0.9
DRGI	Dragot	4.80	167	Pn	Pn	15 47 29.2	+1.0
DSI	Dead Sea	4.82	167	Pn	Pn	15 47 29.6	+1.1
DSI	Dead Sea	4.82	167	Pn	Pn	15 47 29.6	+1.1
MASH	Mash'abbe Sade	5.31	174	Pn	Pn	15 47 35.7	+0.6
MASH	Mash'abbe Sade	5.31	174	Pn	Pn	15 47 35.7	+0.5

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SVTA	**Shivta**	5.36	175	Pn	**Pn**	**15 47 37.1**	**+1.2**
SVTA	**Shivta**	5.36	175	Pn	**Pn**	**15 47 37.1**	**+1.2**
KZIT	**Kziot**	5.38	177	Pn	**Pn**	**15 47 36.8**	**+0.7**
KZIT	**Kziot**	5.38	177	Pn	**Pn**	**15 47 36.8**	**+0.7**
AMAG	**Maghara**	5.68	188	P	**Pn**	**15 47 39.7**	**-0.6**
ZFRI	**Zfri**	5.79	171	Pn	**Pn**	**15 47 43.4**	**+1.6**
ZFRI	**Zfri**	5.79	171	Pn	**Pn**	**15 47 43.4**	**+1.6**
PRNI	**Paran**	5.97	173	Pn	**Pn**	**15 47 45.1**	**+0.9**
PRNI	**Paran**	5.97	173	Pn	**Pn**	**15 47 45.1**	**+0.9**
HRFI	**Mount Harif**	6.29	173	Pn	**Pn**	**15 47 49.2**	**+0.6**
HRFI	**Mount Harif**	6.29	173	Pn	**Pn**	**15 47 49.2**	**+0.6**
HNKL	**Nakhl**	6.34	181	P	**Pn**	**15 47 49.9**	**+0.5**
SUZ		6.52	190	P	**Pn**	**15 47 51.2**	**-0.6**
HKAT	**Jabal Katrina**	7.75	181	P	**Pn**	**15 48 09.4**	**+0.8**
HKAT	**Jabal Katrina**	7.75	181	P	**Pn**	**15 48 09.4**	**+0.8**
HMAT	**Matruh**	7.81	230	P	**Pn**	**15 48 07.7**	**-1.8**
SLUM		8.81	240	P	**Pn**	**15 48 22.8**	**-0.4**
HFRF	**Wahat Farafira**	10.37	210	P	**Pn**	**15 48 44.2**	**-0.4**

CASC 02 15:57:02.0±6.3, 12.05N×84.67W, h26^{km}±34^{km}, MD3.7, ML3.4, 9C-2D, Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CONN	**Concepcion**	1.06	243⇑	iP	Pn	15 57 24.6	+3.5
APON	**Apoyo**	1.38	265	eP	Pn	15 57 27.3	+1.8
LIM1	**Limonal**	1.46	203⇑	eP	Pn	15 57 26.3	-0.3
LIM1				eS	Sn	15 57 46.0	+1.1
CUI		1.46	200⇑	eP	Pn	15 57 27.1	+0.4
CUI				eS	Sn	15 57 47.8	+2.7
HUEN		1.50	281	eP	Pn	15 57 29.6	+2.4
TICN	**Ticuantepe**	1.53	270⇓	eP	Pn	15 57 28.4	+0.8
MGAN	**Managua**	1.55	274⇑	eP	Pn	15 57 29.0	+1.1
MGAN				eS	Sn	15 57 51.5	+4.3
MGAN				i		15 57 55.3	
	comp=N,519nm,0.0s						
TISN	**Laguna Tiscapa**	1.57	274	eP	Pn	15 57 29.2	+1.0
XAVN	**Gruta Xavier**	1.63	274⇑	eP	Pn	15 57 29.6	+0.6
APYN	**Apoyeque**	1.66	277⇑	eP	Pn	15 57 30.2	+0.8
MOMJ	**Momotombo**	1.87	281	eP	Pn	15 57 30.6	-1.7
MOMJ				eS	Sn	15 57 57.4	+2.4
COPN	**Copaltepe**	1.89	274⇓	eP	Pn	15 57 30.4	-2.1
COPN				eS	Sn	15 57 54.5	-1.0
CGA2	**Cerro Gallo 2**	2.03	174	eP	Pn	15 57 35.0	+0.5
CGA2				eS	Sn	15 58 00.7	+1.7
PRS1	**Puriscal**	2.08	170	eP	Pn	15 57 36.9	+1.7
VCR	**Vista de Mar**	2.13	206⇑	iP	Pn	15 57 29.4	-6.5
TEL3	**Telica 3**	2.19	284⇑	eP	Pn	15 57 35.1	-1.6
TEL3				eS	Sn	15 58 01.8	-1.3
JCR	**Jicaral**	2.23	191⇑	eP	Pn	15 57 32.8	-4.4
JCR				eS	Sn	15 57 57.5	-6.5
LAJ	**Bijagual**	2.24	166	eP	Pn	15 57 36.8	-0.5
URSC	**Urasca**	2.37	158	eP	Pn	15 57 42.9	+3.8
LCR2	**La Lucha 2**	2.38	164	eP	Pn	15 57 40.7	+1.3
LCR2				eS	Sn	15 58 09.8	+2.1
QCR	**Quepos**	2.65	169	eP	Pn	15 57 42.0	-1.1
QCR				eS	Sn	15 58 12.2	-2.2
BAR1		3.09	154	eP	Pn	15 57 51.0	+1.9
BAR1				eS	Sn	15 58 27.7	+2.5

IDC 02 16:02:31.4±6.5, 20.97N×144.79E, h104^{km}±57^{km}, mb3.8/10, mb1 3.9/11, mb1mx3.8/20, mbtmp3.7/11, MS3.0/2, Ms1 3.0/2, ms1mx2.5/31, Error ellipse: s-maj=31.9km s-min=19.2km az=83.0, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	7.34	179	LR	LR	16 06 45.0	
	comp=Z,209nm,21.3s,baz=269,slow=35						
MJAR	**Matsushiro Arr**	16.55	341	P	Pn	16 06 15.6	-1.5
	0.4nm,0.3s,baz=161,slow=9.2,SNR=6.2						
KSRS	**Korea Array**	22.00	322	P	P	16 07 17.9	+0.8
	8.2nm,0.7s,baz=147,slow=8.3,SNR=30						
KSRS				LR	LR	16 15 10.1	
	comp=Z,23nm,18.1s,baz=115,slow=34						
ASAJ	**Asahikawa**	23.16	356	P	P	16 07 28.7	+0.1
	2.4nm,0.5s,baz=207,slow=21,SNR=6.1						
SONM	**Songino Array**	40.85	320	P	P	16 10 03.2	+0.3
	1.6nm,0.5s,baz=135,slow=7.5,SNR=14						
WRA	**Warramunga Arr**	41.92	195	P	P	16 10 11.7	-0.2
	1.7nm,0.6s,baz=15,slow=8.7,SNR=14						
ZALV	**Zalesovo Beam**	55.71	322	P	P	16 11 56.5	-0.4
	1.9nm,0.5s,baz=101,slow=7.9,SNR=9.6						
MKAR	**Makanchi Array**	56.29	313	P	P	16 12 01.7	+0.6
	1.5nm,0.6s,baz=90,slow=9.2,SNR=23						
YKA	**Yellowknife Ar**	76.40	28	P	P	16 14 08.4	-0.7
	0.4nm,0.5s,baz=286,slow=5.6,SNR=5.5						
ARCES	**ARCESS Array B**	80.08	342	P	P	16 14 29.6	+0.3
	7.5nm,1.1s,baz=10,slow=7.5,SNR=5.9						
NVAR	**Mina Array Bea**	82.42	52	P	P	16 14 44.1	+1.8
	0.4nm,0.6s,baz=268,slow=3.8,SNR=4.4						
FINES	**FINESS Array B**	84.48	335	P	P	16 14 51.5	-0.8
	2.2nm,0.5s,baz=85,slow=4.9,SNR=20						
LPAZ	**La Paz**	148.50	87	PKPbc	PKPbc	16 22 07.0	+0.2
	1.1nm,0.7s,baz=355,slow=7.2,SNR=6.0						

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*IDC **02** 16:25:59.9±1.1, 1.04N×126.34E, h0^{km}, mb3.8/5, mb1 3.9/5, mb1mx3.8/14, mbtmp3.8/5, Error ellipse: s-maj=139.9km s-min=20.1km az=67.0*

*NEIC **02** 16:26:01.9±0.5, 0.95N×126.14E, h10^{km}, mb4.3/3, Error ellipse: s-maj=83.0km s-min=8.0km az=66.0*

*ISCJB **02** 16:26:05.6±6.5, 1.0N±0.3×126.3E±0.8, h57^{km}±66^{km}, mb4.0/8, Error ellipse: s-maj=140.9km s-min=21.3km az=158.4*

ISC 02 16:26:07.5±5.5, 1.0N±0.3×126.4E±0.8, h56^{km}±58^{km}, n10, σ0^{s}50/10, mb4.0/8, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	14.86	156	eP	**Pn**	**16 29 34.4**	**0.0**
WRA	**Warramunga Arr**	22.19	160	P	**P**	**16 30 58.9**	**-0.3**
	3.5nm,0.7s,mb3.9,baz=339,slow=12,SNR=10						
WB2	**Warramunga Arr**	22.20	160	eP	**P**	**16 30 59.2**	**0.0**
STKA	**Stephens Creek**	35.70	157	P	**P**	**16 33 00.9**	**+0.3**
	1.2nm,0.6s,mb4.0,baz=337,slow=10,SNR=4.5						
ULN	**Ulaanbaatar**	49.63	343	P	**P**	**16 34 53.7**	**+0.4**
	1.1nm,0.7s,mb4.0						
SONM	**Songino Array**	49.80	342	P	**P**	**16 34 54.8**	**+0.3**
	0.6nm,0.6s,mb3.8,baz=159,slow=8.5,SNR=5.1						
MKAR	**Makanchi Array**	59.63	326	P	**P**	**16 36 05.2**	**-0.5**
	0.9nm,0.5s,mb4.0,baz=119,slow=7.6,SNR=15						
UCH	**Uchtor**	61.98	319	P	**P**	**16 36 22.6**	**+0.7**
	1.1nm,0.6s,mb4.2						
ZALV	**Zalesovo Beam**	62.89	334	P	**P**	**16 36 26.5**	**-1.2**
	0.4nm,0.4s,mb3.9,baz=138,slow=6.6,SNR=2.6						
KURK	**Kurchatov**	63.88	328	eP	**P**	**16 36 34.4**	**+0.1**
	4.1nm,0.8s,mb4.5						

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*ISCJB **02** 16:28:20.8±0.8, 13.13N±0.08×89.71W±0.06, h72^{km}±8^{km}, mb4.3/22, Error ellipse: s-maj=15.2km s-min=5.7km az=36.2*

*IDC **02** 16:28:21.0±1.7, 13.39N×89.42W, h46^{km}±16^{km}, mb4.1/8, mb1 4.3/10, mb1mx4.1/18, mbtmp4.1/10, ML3.8/2, MS3.1/3, Ms1 3.1/3, ms1mx2.8/26, Error ellipse: s-maj=30.3km s-min=10.8km az=41.0*

*CASC **02** 16:28:22.2±10.0, 15.10N×87.73W, h20^{km}±304^{km}, MD4.3, ML3.3, mb4.4(NEIC)*

*NEIC **02** 16:28:27.1±1.6, 13.47N×89.39W, h104^{km}±13^{km}, mb4.4/20, Error ellipse: s-maj=18.0km s-min=9.1km az=49.0*

*BJI **02** 16:28:27.1, 13.50N×89.40W, h103^{km}, mB5.0*

ISC 02 16:28:22.9±0.7, 13.23N±0.08×89.63W±0.06, h71^{km}±7^{km}, n77, σ1^{s}22/61, mb4.3/22, 1C-9D, El Salvador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOQS	**Boqueron**	0.60	34⇑	eP	x	16 28 51.8	
PICS	**Picacho**	0.62	35⇓	eP	x	16 28 52.1	
SNJE	**San Jose**	0.64	2⇓	eP	x	16 28 51.3	
SNJE				eS	x	16 29 14.3	
LFRS	**El Faro**	0.67	54⇓	eP	x	16 28 52.3	
LFU	**La Fuente**	0.72	44⇓	eP	x	16 28 53.7	
LCBS	**La Ceiba**	0.76	56⇓	eP	x	16 28 53.7	
LCBS				eS	x	16 29 14.6	
LBRS	**Las Brisas**	0.76	48⇓	eP	x	16 28 54.3	
SNVI	**San Vicente**	0.85	63⇓	eP	x	16 28 55.2	
SNVI				eS	x	16 29 13.8	
MTO2	**Montecristo 2**	1.19	12⇓	eP	x	16 29 00.4	
VSM	**San Miguel**	1.33	81⇓	eP	x	16 29 01.9	
VSM				eS	x	16 29 24.1	
BLLM	**Bellamira**	1.37	81	eP	x	16 29 02.0	
BLLM				eS	x	16 29 25.1	
CAHU	**Cacacuatique**	1.48	68	eP	x	16 29 04.4	
CAHU				eS	x	16 29 32.2	
TGUH	**Tegucigalpa,Un**	2.43	70	ePn	**Pn**	**16 29 01.5**	**+1.1**
TELN	**Telica**	2.79	103	eP	**Pn**	**16 29 05.7**	**+0.4**
TELN				eS	**Sn**	**16 29 39.9**	**+1.9**
TELN				i		16 29 44.5	
	comp=Z,114nm,0.2s						
MOMJ	**Momotombo**	3.12	105	eP	**Pn**	**16 29 09.6**	**-0.1**
COPN	**Copaltepe**	3.14	109	eP	**Pn**	**16 29 09.4**	**-0.7**
COPN				eS	**Sn**	**16 29 46.4**	**0.0**
APYN	**Apoyeque**	3.35	107	eP	**Pn**	**16 29 12.6**	**-0.3**
APYN				eS	**Sn**	**16 29 51.7**	**+0.3**
MGAN	**Managua**	3.47	108	eP	**Pn**	**16 29 14.0**	**-0.5**
MGAN				eS	**Sn**	**16 29 54.6**	**+0.1**
MGAN				i		16 29 58.3	
	comp=E,228nm,0.3s						
TICN	**Ticuantepe**	3.52	109	eP	**Pn**	**16 29 15.1**	**-0.1**
TICN				eS	**Sn**	**16 29 55.5**	**-0.2**
JTS	**JuntasAbangare**	5.43	122	ePn	**Pn**	**16 29 39.4**	**-1.9**
	comp=E,36nm,1.8s						
JTS				eSn	Sn	16 31 05.6	+23
JTS	**JuntasAbangare**	5.43	122	P	**Pn**	**16 29 40.0**	**-1.3**
	comp=E,3.1nm,0.3s,baz=302,slow=19,SNR=4.1						
JTS				S	**Sn**	**16 30 39.3**	**-3.1**
	comp=E,1.8nm,0.3s,baz=300,slow=20,SNR=2.3						
JTS				LR	LR	16 32 10.5	
	comp=E,245nm,20.0s,baz=308,slow=43						
JCR	**Jicaral**	5.55	127	eP	**Pn**	**16 29 41.4**	**-1.7**
CGA2	**Cerro Gallo 2**	5.98	122	eP	**Pn**	**16 29 50.6**	**+1.8**
PRS1	**Puriscal**	6.12	121	eP	**Pn**	**16 29 51.0**	**+0.2**
LAJ	**Bijagual**	6.35	121	eP	**Pn**	**16 29 50.3**	**-3.6**
LAJ				eS	**Sn**	**16 30 53.9**	**-11**
CMIG	**Matias Romero**	6.37	308	P	**Pn**	**16 29 51.3**	**-2.8**
	comp=E,2.1nm,0.3s,baz=103,slow=11,SNR=25						
CMIG				S	**Sn**	**16 31 04.9**	**-0.5**
	comp=E,1.9nm,0.3s,baz=24,slow=20,SNR=3.0						
LCR2	**La Lucha 2**	6.51	122	eP	**Pn**	**16 29 56.3**	**+0.2**
QCR	**Quepos**	6.55	125	eP	**Pn**	**16 29 55.8**	**-0.9**
URSC	**Urasca**	6.65	120	eP	**Pn**	**16 29 59.4**	**+1.3**
TEIG	**Tepich**	7.08	10	ePn	**Pn**	**16 30 06.4**	**+2.6**
	comp=E,40nm,0.7s						
TEIG	**Tepich**	7.08	10	P	**Pn**	**16 30 06.8**	**+2.9**
	comp=E,6.3nm,0.3s,baz=222,slow=23,SNR=35						
TEIG				S	**Sn**	**16 31 10.4**	**-12**
	baz=211,slow=18,SNR=2.2						
TEIG				LR	LR	16 32 47.0	
	comp=E,71nm,21.1s,baz=269,slow=39						
BAR1		7.35	122	eP	**Pn**	**16 30 07.4**	**-0.3**
PAYG	**Puerto Ayora**	13.83	183	Pn	**Pn**	**16 31 48.7**	**+13**
	comp=E,38nm,1.1s						
LTX	**Lajitas**	20.65	323	eP	**P**	**16 32 58.2**	**+1.3**
	comp=E,6.1nm,0.8s						
TXAR	**Lajitas Array**	20.65	323	P	**P**	**16 32 58.4**	**+1.5**
	comp=E,8.1nm,0.8s,baz=149,slow=11,SNR=62						
TXAR				PcP	PcP	16 37 07.6	+2.8
	comp=E,0.8nm,0.9s,baz=149,slow=0.7,SNR=5.0						
OXF	**Oxford**	21.19	0	eP	**P**	**16 33 01.6**	**-0.9**
	comp=E,36nm,0.9s,mb4.7						
MIAR	**Mount Ida**	21.52	351	eP	**P**	**16 33 08.4**	**+2.2**
	comp=E,7.4nm,0.6s,mb4.2						
WVT	**Waverly**	22.86	4	eP	**P**	**16 33 21.2**	**+0.9**
	comp=E,3.0nm,0.5s,mb3.9						
WMOK	**Wichita Mounta**	22.96	340	eP	**P**	**16 33 19.5**	**-1.9**
	comp=E,4.1nm,0.9s,mb3.8						
ATAH	**Atahualpa**	22.99	150	LR	LR	16 41 31.4	
	comp=E,92nm,18.6s,baz=183,slow=34						
MNTX	**Cornudas Mount**	23.40	324	eP	**P**	**16 33 25.5**	**0.0**
	comp=E,3.7nm,0.8s,mb3.8						
SIUC	**Southern Illin**	24.39	1	P	**P**	**16 33 35.3**	**+0.8**
	comp=E,34nm,1.1s,mb4.6						
BNM	**Barren Site**	25.93	326	eP	**P**	**16 33 49.1**	**+0.6**
ECSD	**EROS,Sioux Fal**	30.99	350	eP	**P**	**16 34 32.3**	**-1.2**
	comp=E,7.6nm,1.0s,mb4.4						
AGMN	**Agassiz Refuge**	35.34	353	eP	**P**	**16 35 10.7**	**-0.7**
	comp=E,8.6nm,0.6s,mb4.8						
NVAR	**Mina Array Bea**	35.73	320	P	**P**	**16 35 16.9**	**+2.0**
NVAR				PcP	PcP	16 37 43.5	+1.9
NVAR	**Mina Array Bea**	35.73	320	P	**P**	**16 35 16.9**	**+2.0**
	comp=E,7.2nm,0.9s,mb4.6,baz=128,slow=9.8,SNR=35						
NVAR				PcP	PcP	16 37 43.5	+1.9
	comp=E,0.9nm,0.7s,baz=128,slow=5.6,SNR=5.8						
LPAZ	**La Paz**	36.22	143	eP	**P**	**16 35 26.4**	**+7.2**
	comp=E,0.5nm,0.6s,mb3.6						
CMB	**Columbia Colle**	36.84	318	eP	**P**	**16 35 25.6**	**+1.3**
	comp=E,3.9nm,0.8s,mb4.4						
HLID	**Hailey**	36.98	330	eP	**P**	**16 35 28.1**	**+2.6**
	comp=E,1.0nm,0.8s,mb3.8						
ULM	**Lac du Bonnet**	37.27	353	P	**P**	**16 35 26.1**	**-1.7**
	comp=E,7.0nm,0.9s,mb4.6,baz=166,slow=10.0,SNR=11						
SIV	**San Ignacio**	40.50	135	P	**P**	**16 35 54.8**	**-0.4**
	comp=E,1.4nm,0.7s,mb3.9,baz=283,slow=8.4,SNR=9.5						
SCHQ	**Schefferville**	45.18	18	eP	**P**	**16 36 31.8**	**-0.7**
	comp=E,15nm,1.1s,mb4.6						
SCHQ	**Schefferville**	45.18	18	P	**P**	**16 36 32.1**	**-0.4**
	comp=E,5.4nm,0.5s,mb4.5,baz=211,slow=6.0,SNR=21						
SCHQ				PcP	PcP	16 38 11.1	-0.6
	comp=E,2.0nm,0.7s,baz=229,slow=9.3,SNR=3.9						
FCC	**Fort Churchill**	45.57	357	eP	**P**	**16 36 34.8**	**-0.7**
	comp=E,4.2nm,0.9s,mb4.2						
YKA	**Yellowknife Ar**	52.32	346	P	**P**	**16 37 26.5**	**-0.6**
	comp=E,1.3nm,0.3s,mb4.4,baz=146,slow=7.8,SNR=38						
DLBC	**Dease Lake**	54.31	335	eP	**P**	**16 37 42.3**	**+0.5**
RCBR	**Riachuelo**	56.61	106	eP	**P**	**16 37 59.8**	**+0.7**
	comp=E,7.8nm,0.8s,mb4.8						
RES	**Resolute Bay**	61.52	358	eP	**P**	**16 38 30.7**	**-1.3**
	comp=E,165nm,0.7s						
INK	**Inuvik**	61.84	343	eP	**P**	**16 38 33.6**	**-0.6**
	comp=E,120nm,0.8s						
BORG	**Borgarnes**	68.91	25	P	**P**	**16 39 16.8**	**-3.1**
ESK	**Eskdalemuir**	77.21	36	P	**P**	**16 40 03.0**	**-6.1**
	comp=E,26nm,1.3s,mb4.8						
PMSA	**Palmer Station**	80.16	169	P	**P**	**16 40 28.1**	**+3.1**
	comp=E,52nm,1.2s,mb5.2						
ARCES	**ARCESS Array B**	86.14	19	P	**P**	**16 40 55.3**	**-0.5**
	comp=E,11nm,1.1s,mb4.7,baz=354,slow=3.7,SNR=5.1						
TORD	**Torodi Ar. Bea**	88.31	77	P	**P**	**16 41 06.5**	**-0.9**
	comp=E,0.3nm,0.6s,mb3.5,baz=289,slow=6.0,SNR=2.6						
KSRS	**Korea Array**	118.47	327	PKP	PKPdf	16 47 04.3	+1.4
	comp=E,1.6nm,0.8s,baz=35,slow=1.6,SNR=4.2						
MKAR	**Makanchi Array**	119.81	6	PKP	PKPdf	16 47 04.4	-0.8
MKAR	**Makanchi Array**	119.81	6	PKP	PKPdf	16 47 04.4	-0.8
	comp=E,0.3nm,0.6s,baz=325,slow=2.9,SNR=6.9						
HHC	**Hu-ho-hao-te**	122.73	341	ePKP	PKPdf	16 47 11.7	+0.7
HHC				PP	PP	16 48 53.2	+5.0
HHC				PKS		16 50 47.1	
HHC				SKS	SKSdf	16 54 11.9	-5.1
HHC				SKKS	SKKSac	16 55 34.4	-7.7
HHC				PP	PP		
	comp=Z,131nm,6.1s						
HHC				LR	LR		
	comp=N,131nm,22.8s						
HHC				LR	LR		
	comp=E,495nm,21.8s						
HHC				LR	LR		
	comp=Z,131nm,21.8s						
WMQ	**Urumqi**	123.17	2	ePKP	PKPdf	16 47 12.7	+0.9
LZH	**Lanzhou**	129.33	346	ePKP	PKPdf	16 47 24.9	+1.1
LZH				XPKP		16 48 04.2	
CD2	**Chengdu**	134.27	344	ePKP	PKPdf	16 47 33.1	-0.2
WRA	**Warramunga Arr**	137.43	255	PKP	PKPdf	16 47 40.9	+1.6
WRA	**Warramunga Arr**	137.43	255	PKP	PKPdf	16 47 40.9	+1.6
	comp=Z,0.6nm,0.6s,baz=89,slow=3.2,SNR=3.3						
GYA	**Guiyang**	137.49	338	ePDIF	Pdif	16 44 45.8	-1.0
GYA				PKP	PKPdf	16 47 38.8	-0.6
GYA				XPKP		16 48 18.4	
GYA				PP	PP	16 50 24.4	+0.2
GYA				PKS		16 51 13.5	
GYA				SKS	SKSdf	16 54 37.1	-7.2
GYA				PP	PP		
	comp=Z,80nm,7.9s						
FITZ	**Fitzroy Crossi**	145.74	257	PKPbc	PKPbc	16 47 54.8	0.0
FITZ	**Fitzroy Crossi**	145.74	257	PKPbc	PKPbc	16 47 54.8	0.0
	comp=Z,2.7nm,0.8s,baz=180,slow=1.0,SNR=3.9						

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*ISCJB **02** 16:46:20.9±1.2, 34.48N±0.09×31.1E±0.1, h10^{km}, Error ellipse: s-maj=16.9km s-min=5.5km az=44.4*

*CSEM **02** 16:46:22.4±0.2, 34.44N×31.12E, h20^{km}, Mw3.0, Error ellipse: s-maj=7.1km s-min=3.0km az=133.0*

*NIC **02** 16:46:25.1±0.2, 34.76N×31.03E, h25^{km}, ML2.9, MW3.0*

*HLW **02** 16:46:35.1, 33.68N×30.86E, h33^{km}, Mb3.2*

ISC 02 16:46:21.8±1.3, 34.57N±0.10×31.1E±0.1, h10^{km}, n15, σ0^{s}83/17, Cyprus region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPCY	**Paphos**	1.08	73	P	**Pb**	**16 46 42.8**	**+0.2**
AKMC	**Akamas**	1.12	66	P	**Pb**	**16 46 43.6**	**+0.4**
ALFC	**Alevga**	1.37	64	P	**Pn**	**16 46 46.8**	**-0.2**
	7.2nm,0.2s						
ALFC				S	**Sb**	**16 47 03.5**	**-1.7**
SZAC	**Souni-Zanaja**	1.49	82	P	**Pn**	**16 46 49.2**	**+0.6**
	7.8nm,0.2s						
SZAC				S	**Sn**	**16 47 08.3**	**+0.2**
MAMC	**Mammari**	1.85	70	P	**Pn**	**16 46 54.4**	**+0.8**
AMAG	**Maghara**	4.30	155	P	**Pn**	**16 47 28.3**	**+1.0**
HMAT	**Matruh**	4.83	225	P	**Pn**	**16 47 35.1**	**+0.6**
HMAT	**Matruh**	4.83	225	P	**Pn**	**16 47 35.1**	**+0.6**
	964nm,0.1s						
SUZ		4.94	162	P	**Pn**	**16 47 36.0**	**0.0**
HSAF	**As Saff**	4.95	175	P	**Pn**	**16 47 35.0**	**-1.2**
GLL	**Jalalah**	5.00	174	P	**Pn**	**16 47 35.7**	**-1.2**
HNKL	**Nakhl**	5.23	151	P	**Pn**	**16 47 41.0**	**+1.0**
HNKL	**Nakhl**	5.23	151	P	**Pn**	**16 47 41.0**	**+0.9**
HKAT	**Jabal Katrina**	6.52	157	P	**Pn**	**16 47 58.1**	**+0.4**
HFRF	**Wahat Farafira**	7.77	199	P	**Pn**	**16 48 13.9**	**-1.1**

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*BJI **02** 16:57:27.1, 53.20N×158.92E, h137^{km}, mB4.7, mb4.6*

*ISCJB **02** 16:57:28.9±0.2, 53.14N±0.02×158.58E±0.03, h130^{km}±1^{km}, mb4.5/105, Error ellipse: s-maj=4.2km s-min=2.8km az=158.4*

*MOS **02** 16:57:28.3±1.0, 53.14N×158.62E, h125^{km}, mb4.5/58, Error ellipse: s-maj=9.6km s-min=4.8km az=90.0*

*NEIC **02** 16:57:29.3±0.5, 53.19N×158.58E, h119^{km}±4^{km}, mb4.6/66, Error ellipse: s-maj=6.0km s-min=3.7km az=170.0*

*KRSC **02** 16:57:29.1±1.0, 53.08N×158.94E, h122^{km}±31^{km}, ML4.7*

*IDC **02** 16:57:29.2±2.7, 53.32N×158.49E, h114^{km}±25^{km}, mb4.2/21, mb1 4.4/22, mb1mx4.4/24, mbtmp4.2/22, MS2.9/1, Ms1 2.9/1, ms1mx2.5/31, Error ellipse: s-maj=16.8km s-min=10.1km az=154.0*

ISC 02 16:57:30.3±0.2, 53.17N±0.02×158.51E±0.03, h125^{km}±1^{km}, h129^{km}±1.6^{km}:pP-P, n496, σ0^{s}76/515, mb4.6/105, 85C-93D, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PET	**Petropavlovsk**	0.17	148	ePn	**Pn**	**16 57 45.5**	**-1.9**
PET				eSn	**Sn**	**16 57 57.7**	**-2.5**
PET	**Petropavlovsk**	0.17	148	i PN	**Pn**	**16 57 45.6**	**-1.8**
PET				eS	**Sn**	**16 57 57.7**	**-2.5**
PET	**Petropavlovsk**	0.17	148	i P	**Pn**	**16 57 46.3**	**-1.1**
PET				i S	**Sn**	**16 57 58.6**	**-1.6**
AVH	**Avacha**	0.17	54	eP	**Pn**	**16 57 47.0**	**-0.3**
NLC	**Nalytchevo**	0.50	89	eP	**Pn**	**16 57 46.6**	**-2.1**
GNL	**Ganaly**	0.63	328	eP	**Pn**	**16 57 50.4**	**+0.9**
GNL				i S	**Sn**	**16 58 06.1**	**+1.9**
GRL	**Gorelyy**	0.67	203	eP	**Pn**	**16 57 49.8**	**0.0**
GRL				i S	**Sn**	**16 58 04.8**	**+0.2**
RUS	**Russkaya**	0.73	180	i P	**Pn**	**16 57 48.5**	**-1.8**
SPN	**Mys Shipunski**	0.92	94	i P	**Pn**	**16 57 48.7**	**-3.2**
SPN				i S	**Sn**	**16 58 03.1**	**-5.1**
KII	**Karymskiy**	1.04	32	i P	**Pn**	**16 57 52.4**	**-0.6**
KII				i S	**Sn**	**16 58 09.7**	**-0.6**
MIPR	**Malaya Ipel'ka**	1.39	231	i P	**Pn**	**16 57 58.0**	**+1.3**
TUMR	**Tumrok**	2.33	24	i P	**Pn**	**16 58 08.8**	**+0.8**
TUMR				i S	**Sn**	**16 58 38.3**	**+1.3**
MKZ	**Mys Kozlova**	2.36	53	eP	**Pn**	**16 58 06.1**	**-2.3**
MKZ				i S	**Sn**	**16 58 32.7**	**-5.0**
KMNR	**Kamenistaya**	2.79	21	i P	**Pn**	**16 58 14.7**	**+0.9**
SKR	**Severo-Kuril's**	2.89	212	ePN	**Pn**	**16 58 14.0**	**-1.3**
SKR				i S	**Sn**	**16 58 49.9**	**0.0**
SKR				pmax	pmax		
	comp=Z,1μm,0.5s						
SKR				pmax	pmax		
	comp=N,1μm,0.2s						
SKR				pmax	pmax		
	comp=E,690nm,0.5s						
SKR				smax			
	comp=N,1μm,0.5s						
ALID	**Alaid**	2.94	220	eP	**Pn**	**16 58 16.6**	**+0.8**
KPT	**Kopyto**	2.98	19	i P	**Pn**	**16 58 16.9**	**+0.6**
BZMR	**Bezymyannaya**	3.01	22	eP	**Pn**	**16 58 17.7**	**+1.0**
KOZ	**Kozyrevsk**	3.01	15	eP	**Pn**	**16 58 17.4**	**+0.7**
KOZ				i S	**Sn**	**16 58 52.2**	**-0.3**
KOZR	**Kozyr**	3.02	15	PN	**Pn**	**16 58 17.4**	**+0.6**
KOZR				S	**Sn**	**16 58 52.2**	**-0.6**
ZLN	**Zelenaya**	3.15	24	eP	**Pn**	**16 58 20.1**	**+1.5**
CIRR	**Tsirk**	3.23	23	eP	**Pn**	**16 58 20.9**	**+1.3**
SRDR	**Sredinnyy**	3.24	12	eP	**Pn**	**16 58 20.3**	**+0.6**
SRDR				i S	**Sn**	**16 58 57.9**	**0.0**
KRSR	**Krestovskiy**	3.28	20	eP	**Pn**	**16 58 20.6**	**+0.3**
KLY	**Klyuchi**	3.39	21	eP	**Pn**	**16 58 22.8**	**+1.1**
KLY				i S	**Sn**	**16 59 01.5**	**0.0**
BDR	**Baidarnaya**	3.75	23	eP	**Pn**	**16 58 27.6**	**+1.1**
SRKR	**Sorokina**	3.82	23	i P	**Pn**	**16 58 28.3**	**+0.9**
SMKR	**Semkarok**	3.83	25	eP	**Pn**	**16 58 27.8**	**+0.3**
KBTR	**Krutoberegovo**	3.94	38	eP	**Pn**	**16 58 27.8**	**-1.2**
KBTR				i S	**Sn**	**16 59 10.2**	**-4.4**
MA2	**Magadan**	7.72	329	ePn	**Pn**	**16 59 21.3**	**+1.5**
	comp=N,24nm,0.6s						
MA2	**Magadan**	7.72	329d	iPN	**Pn**	**16 59 21.4**	**+1.6**
MA2				pmax	pmax		
	comp=Z,400nm,0.3s						
SEY	**Seymchan**	10.31	344	i PN	**Pn**	**16 59 55.2**	**+0.6**
YSS	**Yuzh-Sakhalins**	11.87	245	ePn	**Pn**	**17 00 18.0**	**+2.6**
	comp=Z,16nm,1.1s						
YSS	**Yuzh-Sakhalins**	11.87	245	i PN	**Pn**	**17 00 18.6**	**+3.3**
YSS				pmax	pmax		
	comp=Z,20nm,1.0s						
ASAJ	**Asahikawa**	13.85	236	P	**Pn**	**17 00 42.7**	**+1.6**
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ	**Asahikawa**	13.85	236	P	**Pn**	**17 00 42.6**	**+1.6**
	comp=Z,4.4nm,0.3s,baz=60,slow=11,SNR=38						
ERM	**Erimo**	15.18	229	ePn	**Pn**	**17 00 55.7**	**-2.2**
	comp=Z,40nm,0.4s						
ERM	**Erimo**	15.18	229	eP	**Pn**	**17 00 55.7**	**-2.2**
ERM				pmax	pmax		
	comp=Z,40nm,0.4s						
BILL	**Bilibino**	15.38	11	ePn	**Pn**	**17 00 59.0**	**-1.1**
	comp=Z,6.0nm,0.6s						
BILL	**Bilibino**	15.38	11c	iP	**Pn**	**17 00 59.4**	**-0.7**
BILL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
HABR	**Khabarovsk**	15.52	262⇑	eP	**Pn**	**17 01 07.3**	**+5.2**
HABR				pmax	pmax		
	comp=Z,43nm,1.6s						
KLR	**Kul'dur**	17.18	268	eP	**Pn**	**17 01 21.8**	**-0.6**
YAK	**Yakutsk**	17.67	312	eP	**Pn**	**17 01 27.6**	**-0.6**
	comp=Z,125nm,0.8s						
YAK	**Yakutsk**	17.67	312c	iP	**Pn**	**17 01 27.8**	**-0.4**
YAK				eS	**S**	**17 04 47.0**	**+3.0**
YAK				pmax	pmax		
	comp=Z,121nm,0.9s						
YAK				pmax	pmax		
	comp=N,22nm,1.7s						
YAK				pmax	pmax		
	comp=E,26nm,0.9s						
YAK				smax			
	comp=E,107nm,2.4s						
YAK				smax			
	comp=N,117nm,4.3s						
CLNS	**Chul'man**	19.51	294	eP	**P**	**17 01 49.4**	**+2.1**
CLNS				pmax	pmax		
	comp=N,10.0nm,0.9s						
CLNS				pmax	pmax		
	comp=E,13nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,14nm,0.9s						
MDJ	**Mudanjiang**	20.73	257	P	**P**	**17 01 59.3**	**-1.3**
MDJ				AMB	AMB		
	comp=Z,5.0nm,1.1s						
MDJ				AMB	AMB		
	comp=Z,72nm,4.9s						
MAJO	**Matsushiro**	21.86	229	eP	**P**	**17 02 13.4**	**+0.7**
	comp=Z,20nm,0.7s,mb4.5						
MAJO	**Matsushiro**	21.86	229	eP	**P**	**17 02 13.4**	**+0.7**
MAJO				pmax	pmax		
	comp=Z,20nm,0.7s,mb4.6						
MAT	**Matsushiro**	21.86	229	P	**P**	**17 02 13.6**	**+0.9**
MAT				eS	**S**	**17 06 08.0**	**+1.8**

MJAR	**Matsushiro Arr**	**21.86**	**229**	P	**P**	**17 02 14.3**	**+1.6**
MJAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
MJAR	**Matsushiro Arr**	**21.86**	**229**	P	**P**	**17 02 14.3**	**+1.7**
	comp=Z,4.4nm,0.6s,mb4.0,baz=23,slow=11,SNR=11						
TIXI	**Tiksi**	**22.62**	**336**	*e*P	**P**	**17 02 19.3**	**-0.9**
	comp=Z,10nm,0.5s,mb4.4						
TIXI	**Tiksi**	**22.62**	**336**	*e*P	**P**	**17 02 18.2**	**-2.0**
TIXI				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.2						
TIXI				MLR	MLR		
	comp=Z,94nm,12.0s						
CN2	**Changchun**	**23.64**	**260**	*e*P	**P**	**17 02 29.2**	**-0.6**
HIA	**Hailar**	**24.39**	**277**	*e*P	**P**	**17 02 36.4**	**-0.1**
	comp=Z,19nm,0.6s,mb4.6						
HIA	**Hailar**	**24.39**	**277**	*e*P	**P**	**17 02 36.4**	**-0.1**
HIA				pmax	pmax		
	comp=Z,19nm,0.6s						
BOD	**Bodaibo**	**25.27**	**299**	*e*P	**P**	**17 02 44.2**	**-0.3**
BOD				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.4						
KSRS	**Korea Array**	**26.37**	**246**	P	**P**	**17 02 55.5**	**+0.9**
	comp=Z,1.7nm,0.9s,mb3.5,baz=40,slow=9.2,SNR=4.9						
KSRS				LR	LR	17 15 31.2	
	comp=Z,26nm,18.4s,baz=350,slow=41						
IMA2	**Indian Mountai**	**26.63**	**42**	*e*P	**P**	**17 02 55.2**	**-1.3**
KDAK	**Kodiak Island**	**27.60**	**61**	P	**P**	**17 03 03.0**	**-2.4**
	comp=Z,13nm,0.7s,mb4.6,baz=317,slow=12,SNR=11						
JNU	**Nakatsue**	**28.13**	**236**	P	**P**	**17 03 11.2**	**+0.9**
	comp=Z,7.5nm,1.1s,mb4.2,baz=45,slow=2.9,SNR=3.4						
PMR	**Palmer**	**28.71**	**52**	*e*P	**P**	**17 03 13.3**	**-1.8**
	comp=Z,9.6nm,0.6s,mb4.6						
PMR	**Palmer**	**28.71**	**52**	*e*P	**P**	**17 03 13.3**	**-1.9**
PMR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
COLA	**College**	**29.03**	**45**	*e*P	**P**	**17 03 16.6**	**-1.4**
	comp=Z,11nm,0.6s,mb4.7						
COLA	**College**	**29.03**	**45**	*e*P	**P**	**17 03 16.6**	**-1.3**
COLA				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.7						
EGAK	**Eagle**	**31.89**	**45**	*e*P	**P**	**17 03 41.1**	**-2.0**
	comp=Z,30nm,0.6s,mb5.2						
ULN	**Ulaanbaatar**	**32.55**	**282**	*i* P	**P**	**17 03 50.0**	**+0.9**
DAWY	**Dawson**	**32.76**	**46**	*e*P	**P**	**17 03 49.8**	**-0.9**
SONM	**Songino Array**	**32.95**	**282**	P	**P**	**17 03 53.2**	**+0.6**
SONM						17 06 34.0	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM				pmax	pmax		
	comp=N,1.0nm,0.8s						
SONM	**Songino Array**	**32.95**	**282**	P	**P**	**17 03 53.2**	**+0.6**
	comp=N,1.2nm,0.3s,mb4.2,baz=63,slow=8.1,SNR=26						
SONM				PcP	PcP	17 06 34.0	+0.4
	comp=N,1.0nm,0.5s,baz=26,slow=0.6,SNR=7.9						
SONM				ScP	ScP	17 10 07.7	+1.8
	comp=N,1.1nm,0.8s,baz=88,slow=3.4,SNR=6.8						
HHC	**Hu-ho-hao-te**	**33.69**	**268**	*e*P	**P**	**17 03 59.3**	**+0.2**
HHC				AP	pP	17 04 27.0	+0.6
HHC				XP	sP	17 04 41.7	+1.0
HHC				PP	PP	17 05 16.1	-1.5
HHC				PCP	PcP	17 06 37.7	+1.9
HHC				S	**S**	**17 09 12.3**	**-0.5**
HHC				SCP	ScP	17 10 10.1	+1.5
HHC				PCS	PcS	17 10 21.5	-0.3
HHC				SS	SS	17 11 25.6	-18
HHC				SCS	ScS	17 14 09.2	-1.0
HHC				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.7						
HHC				AMB	AMB		
	comp=Z,74nm,4.3s						
HHC				LR	LR		
	comp=N,115nm,17.1s						
HHC				LR	LR		
	comp=E,114nm,19.0s						
HHC				LR	LR		
	comp=Z,151nm,19.0s						
INK	**Inuvik**	**34.40**	**38**	*e*P	**P**	**17 04 04.3**	**-0.5**
	comp=Z,934nm,0.6s						
INK	**Inuvik**	**34.40**	**38**	P	**P**	**17 04 04.6**	**-0.2**
INK				pmax	pmax		
	comp=Z,22nm,0.5s						
INK	**Inuvik**	**34.40**	**38**	P	**P**	**17 04 04.6**	**-0.2**
	comp=Z,22nm,0.5s,mb5.3,baz=298,slow=7.6,SNR=121						
SKAG	**Skagway**	**35.83**	**53**	*e*P	**P**	**17 04 17.0**	**-0.2**
	comp=Z,19nm,0.8s,mb5.1						
DLBC	**Dease Lake**	**38.77**	**53**	*e*P	**P**	**17 04 42.4**	**+0.4**
LZH	**Lanzhou**	**41.38**	**268**	*e*P	**P**	**17 05 02.8**	**-1.1**
LZH				AP	pP	17 05 33.5	+1.6
LZH				XP	sP	17 05 45.2	-0.9
LZH				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.7						
GTA	**Gaotai**	**41.65**	**275**	P	**P**	**17 05 07.0**	**+1.0**
GTA				PP	PP	17 06 50.5	+6.0
GTA				PCP	PcP	17 06 57.5	-2.9
GTA				PPP		17 07 28.5	
GTA				SCP	ScP	17 10 32.3	-6.3
GTA				S	**S**	**17 11 15.7**	**+2.8**
GTA				SS	SS	17 14 23.9	+1.2
GTA				SCS	ScS	17 14 49.3	-6.3
GTA				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.5						
GTA				AMB	AMB		
	comp=Z,72nm,5.3s						
GTA				LR	LR		
	comp=N,144nm,15.2s						
GTA				LR	LR		
	comp=E,89nm,15.2s						
GTA				LR	LR		
	comp=Z,147nm,17.5s						
ZALV	**Zalesovo Beam**	**41.93**	**302**	P	**P**	**17 05 06.2**	**-1.8**
ZALV				PcP	PcP	17 07 01.2	+0.2
ZALV	**Zalesovo Beam**	**41.93**	**302**	P	**P**	**17 05 06.2**	**-1.8**
	comp=Z,1.5nm,0.4s,mb4.1,baz=56,slow=7.1,SNR=8.3						
ZALV				PcP	PcP	17 07 01.2	+0.2
	comp=Z,1.4nm,0.4s,baz=79,slow=3.9,SNR=4.8						
ZAL	**Zalesovo**	**41.95**	**302**	P	**P**	**17 05 06.2**	**-2.0**
ZAL						17 07 01.2	
NVS	**Novosibirsk**	**42.28**	**304**	*i* P	**P**	**17 05 10.0**	**-0.9**
NVS				*e*	pP	17 05 39.9	+0.8
NVS				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.7						
NVS				pmax	pmax		
	comp=N,9.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,13nm,1.0s						
RES	**Resolute Bay**	**43.61**	**22**	*e*P	**P**	**17 05 20.9**	**-0.5**
	comp=E,92nm,0.6s,mb5.7						
RES				*e*PP	PP	17 07 02.5	-2.4
RES	**Resolute Bay**	**43.61**	**22**	*e*P	**P**	**17 05 20.9**	**-0.5**
RES				*e*		17 07 02.6	
RES				pmax	pmax		
	comp=Z,92nm,0.6s,mb5.7						
YKA	**Yellowknife Ar**	**43.75**	**42**	P	**P**	**17 05 22.3**	**-0.3**
YKA				pmax	pmax		
	comp=Z,15nm,0.7s						
YKA	**Yellowknife Ar**	**43.75**	**42**	P	**P**	**17 05 22.3**	**-0.3**
	comp=Z,15nm,0.7s,mb4.8,baz=298,slow=8.1,SNR=173						
CD2	**Chengdu**	**45.03**	**263**	*e*P	**P**	**17 05 33.0**	**-0.2**
CD2				AP	pP	17 06 01.6	0.0
CD2				XP	sP	17 06 16.2	+0.6
CD2				PP	PP	17 07 20.8	+0.2
CD2				S	**S**	**17 12 01.2**	**-1.1**
CD2				SS	SS	17 15 17.9	-8.7
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
CD2				AMB	AMB		
	comp=Z,30nm,6.2s						
WMQ	**Urumqi**	**46.04**	**288**	*e*P	**P**	**17 05 42.2**	**+1.2**
WMQ				AP	pP	17 06 10.9	+1.3
WMQ				XP	sP	17 06 25.4	+1.8
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.6						
WMQ				AMB	AMB		
	comp=Z,57nm,6.7s						
GYA	**Guiyang**	**46.59**	**256**	*e*P	**P**	**17 05 46.4**	**+1.0**
GYA				AP	pP	17 06 15.4	+1.3
GYA				XP	sP	17 06 29.2	+1.2
GYA				PCP	PcP	17 07 18.3	+0.9
GYA				PP	PP	17 07 36.2	-0.3
GYA				SCP	ScP	17 10 58.9	-0.1
GYA				PCS	PcS	17 11 11.9	-0.6
GYA				S	**S**	**17 12 23.8**	**-0.9**
GYA				XS	sS	17 13 14.5	+0.3
GYA				SCS	ScS	17 15 25.0	-2.3
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
GYA				AMB	AMB		
	comp=Z,120nm,6.4s						
KURK	**Kurchatov**	**46.88**	**301**	*e*P	**P**	**17 05 46.3**	**-1.1**
	comp=Z,16nm,0.7s,mb4.8						
KURK	**Kurchatov**	**46.88**	**301**	*e*P	**P**	**17 05 46.3**	**-1.1**
KURK				pmax	pmax		
	comp=Z,16nm,0.7s,mb4.9						
MK31	**Makanchi Array**	**47.26**	**295**	*e*P	**P**	**17 05 49.2**	**-1.2**
MK31				*e*ScP	ScP	17 10 53.1	-8.5
MKAR	**Makanchi Array**	**47.26**	**295**	P	**P**	**17 05 49.2**	**-1.3**
MKAR	**Makanchi Array**	**47.26**	**295**	*i* P	**P**	**17 05 49.2**	**-1.2**
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
MKAR	**Makanchi Array**	**47.26**	**295**	P	**P**	**17 05 49.2**	**-1.3**
	comp=Z,3.2nm,0.5s,mb4.3,baz=54,slow=6.4,SNR=137						
NLWA	**Neilton Lookou**	**47.66**	**64**	⇓P	**P**	**17 05 53.1**	**-0.5**
	baz=47						
A06A	**Chilliwack**	**47.91**	**61**	⇑P	**P**	**17 05 54.7**	**-0.7**
	baz=48						
C04A	**Brinnon**	**47.95**	**63**	⇓P	**P**	**17 05 55.0**	**-0.7**
	baz=48						
B05A	**Bryant**	**48.08**	**62**	⇓P	**P**	**17 05 56.3**	**-0.5**
	baz=48						
A07A	**Ashnola River,**	**48.51**	**60**	⇑P	**P**	**17 05 59.7**	**-0.3**
	baz=48						
C05A	**Tolt Reservoir**	**48.65**	**62**	⇓P	**P**	**17 06 00.5**	**-0.6**
	baz=48						
D05A	**Enumclaw**	**48.80**	**63**	⇓P	**P**	**17 06 02.2**	**-0.1**
	baz=49						
C06A	**Tall Timber Ra**	**48.93**	**62**	⇓P	**P**	**17 06 02.9**	**-0.4**
	baz=49						
B07A	**Winthrop**	**49.01**	**61**	⇑P	**P**	**17 06 03.2**	**-0.6**
	baz=49						
A08A	**Turner Farm, O**	**49.15**	**60**	⇓P	**P**	**17 06 04.4**	**-0.4**
	baz=49						
E05A	**Randle**	**49.31**	**64**	⇑P	**P**	**17 06 05.9**	**-0.3**
	baz=49						
F04A	**Amboy**	**49.35**	**65**	⇑P	**P**	**17 06 06.0**	**-0.4**
	baz=49						
D06A	**Cle Elum**	**49.41**	**62**	⇓P	**P**	**17 06 06.4**	**-0.5**
	baz=49						
EDM	**Edmonton**	**49.48**	**52**	*e*P	**P**	**17 06 06.6**	**-0.8**
B08A	**Colville Reser**	**49.48**	**60**	⇓P	**P**	**17 06 07.0**	**-0.5**
	baz=49						
A09A	**Danville**	**49.49**	**59**	⇑P	**P**	**17 06 06.9**	**-0.6**
	baz=49						
C07A	**Waterville**	**49.52**	**61**	⇓P	**P**	**17 06 06.8**	**-0.9**
	baz=49						
BRVK	**Borovoye**	**49.62**	**308**	*e*P	**P**	**17 06 07.1**	**-1.3**
	comp=Z,10nm,0.4s,mb5.1						
BRVK				*e*PcP	PcP	17 07 26.9	-1.0
BRVK	**Borovoye**	**49.62**	**308**	*e*P	**P**	**17 06 07.1**	**-1.3**
BRVK				*e*		17 07 26.9	
BRVK				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.1						
E06A	**Yakima**	**49.74**	**63**	⇓P	**P**	**17 06 09.2**	**-0.2**
	baz=50						
D07A	**Quincy**	**49.87**	**62**	⇓P	**P**	**17 06 09.7**	**-0.7**
	baz=50						
KMI	**Kunming**	**49.90**	**258**	P	**P**	**17 06 11.4**	**+0.5**
KMI				AP	pP	17 06 40.0	+0.1
KMI				AMB	AMB		
	comp=Z,3.0nm,1.2s,mb4.1						
F05A	**White Salmon**	**49.90**	**64**	⇓P	**P**	**17 06 10.0**	**-0.6**
	baz=50						
C08A	**Higginbotham F**	**49.99**	**61**	⇑P	**P**	**17 06 10.7**	**-0.6**
	baz=50						
A10A	**Northport**	**50.02**	**59**	⇓P	**P**	**17 06 10.9**	**-0.5**
	baz=50						
B09A	**Rice**	**50.06**	**60**	⇑P	**P**	**17 06 11.1**	**-0.7**
	baz=50						
H04A	**Detroit Lake**	**50.27**	**66**	⇑P	**P**	**17 06 12.6**	**-0.8**
	baz=50						
E07A	**Sunnyside**	**50.34**	**62**	⇑P	**P**	**17 06 13.8**	**-0.1**
	baz=50						
J02A	**Umpqua**	**50.34**	**68**	⇓P	**P**	**17 06 14.2**	**+0.2**
	baz=50						
C09A	**Chrisman Ranch**	**50.39**	**60**	⇑P	**P**	**17 06 13.6**	**-0.7**
	baz=50						
A11A	**Hall Mountain,**	**50.64**	**58**	⇑P	**P**	**17 06 16.2**	**0.0**
	baz=50						
J03A	**Ideyld Park**	**50.68**	**67**	⇑P	**P**	**17 06 16.8**	**+0.3**
	baz=50						
NEW	**Newport**	**50.69**	**59**	*e*P	**P**	**17 06 15.2**	**-1.3**
	comp=Z,4.7nm,0.9s,mb4.5						
NEW	**Newport**	**50.69**	**59**	*e*P	**P**	**17 06 15.2**	**-1.4**
NEW				pmax	pmax		
	comp=Z,5.0nm,0.9s						
I04A	**Tendick Farm,**	**50.71**	**67**	⇓P	**P**	**17 06 16.4**	**-0.4**
	baz=50						
F07A	**Phinny Hill Vi**	**50.72**	**63**	⇓P	**P**	**17 06 16.3**	**-0.5**
	baz=50						
E08A	**Dider Farm, El**	**50.80**	**62**	⇓P	**P**	**17 06 16.8**	**-0.6**
	baz=51						
H05A	**Madras**	**50.81**	**65**	⇓P	**P**	**17 06 16.8**	**-0.7**
	baz=51						
D09A	**Jones Farm, Ri**	**50.84**	**61**	⇑P	**P**	**17 06 17.0**	**-0.6**
	baz=51						
C10A	**Spilker Farm,**	**50.88**	**60**	⇑P	**P**	**17 06 17.4**	**-0.5**
	baz=51						
B11A	**Sandpoint**	**50.97**	**59**	⇓P	**P**	**17 06 18.4**	**-0.3**
	baz=51						
A12A	**Yaak River Ran**	**51.02**	**58**	⇓P	**P**	**17 06 19.1**	**+0.1**
	baz=51						
L02A	**Cave Junction**	**51.11**	**69**	⇑P	**P**	**17 06 20.3**	**+0.5**
	baz=51						
HUMO	**Hull Mountain**	**51.18**	**68**	⇑P	**P**	**17 06 20.2**	**-0.1**
	baz=51						
H06A	**Lindquist Farm**	**51.24**	**65**	⇑P	**P**	**17 06 20.2**	**-0.6**
	baz=51						
G07A	**Ruggs Ranch, H**	**51.26**	**64**	⇓P	**P**	**17 06 20.6**	**-0.2**
	baz=51						
D10A	**Wagner Farm, O**	**51.38**	**61**	P	**P**	**17 06 20.9**	**-0.9**
	baz=51,SNR=5.1						
F08A	**Pendleton**	**51.40**	**63**	⇓P	**P**	**17 06 21.4**	**-0.5**
	baz=51						
A13A	**Flathead Natio**	**51.65**	**57**	P	**P**	**17 06 23.2**	**-0.4**
	baz=51,SNR=18						
J05A	**Fort Rock**	**51.69**	**67**	⇑P	**P**	**17 06 24.4**	**+0.3**
	baz=52,SNR=6.4						
WALA	**Waterton Lakes**	**51.82**	**57**	*e*P	**P**	**17 06 24.2**	**-0.8**
	comp=Z,7.4nm,0.7s,mb4.8						
I06A	**Prineville**	**51.83**	**65**	⇓P	**P**	**17 06 24.9**	**-0.2**
	baz=52						
E10A	**Myers Farm, Un**	**51.84**	**61**	⇑P	**P**	**17 06 24.4**	**-0.7**
	baz=52						
YBH	**Yreka Blue Hor**	**51.89**	**69**	⇑P	**P**	**17 06 26.1**	**+0.5**
	baz=52						
F09A	**S2 Ranch, Elgi**	**51.92**	**62**	⇑P	**P**	**17 06 25.6**	**-0.1**
	baz=52						
B13A	**Whitefish**	**51.98**	**58**	P	**P**	**17 06 25.9**	**-0.2**
	baz=52,SNR=6.4						
M02C	**Callahan**	**52.04**	**69**	⇓P	**P**	**17 06 27.2**	**+0.6**
	baz=52						
L04A	**Klamath Falls**	**52.06**	**68**	⇓P	**P**	**17 06 26.9**	**0.0**
	baz=52						
F10A	**Beach Ranch, E**	**52.11**	**62**	⇑P	**P**	**17 06 26.7**	**-0.4**
	baz=52						
I07A	**Izee**	**52.12**	**65**	⇓P	**P**	**17 06 26.8**	**-0.5**
	baz=52						
K05A	**Summer Lake**	**52.25**	**67**	⇓P	**P**	**17 06 28.6**	**+0.4**
	baz=52						
H08A	**Prairie City**	**52.29**	**64**	⇑P	**P**	**17 06 28.2**	**-0.3**
	baz=52						
J06A	**Christmas Vall**	**52.31**	**66**	P	**P**	**17 06 28.9**	**+0.3**
	baz=52,SNR=6.5						
M04C	**Macdoel**	**52.35**	**68**	⇓P	**P**	**17 06 29.5**	**+0.5**
	baz=52						
C13A	**Hot Springs**	**52.38**	**58**	⇑P	**P**	**17 06 29.2**	**+0.1**
	baz=52						
E11A	**Bogner Ranch,**	**52.40**	**61**	⇑P	**P**	**17 06 28.8**	**-0.5**
	baz=52						
KEV	**Kevo**	**52.44**	**341**	*e*p	**P**	**17 06 27.6**	**-1.6**
M03C	**McCloud**	**52.53**	**69**	⇓P	**P**	**17 06 30.4**	**+0.1**
	baz=52						
K06A	**Valley Falls**	**52.56**	**66**	P	**P**	**17 06 31.1**	**+0.6**
	baz=52,SNR=5.7						
ARU	**Arti**	**52.69**	**317**	*e*P	**P**	**17 06 29.8**	**-1.5**
	comp=Z,17nm,0.4s,mb5.4						
ARU	**Arti**	**52.69**	**317**	⇑*i*P	**P**	**17 06 30.5**	**-0.8**
ARU				*e*	pP	17 07 00.7	+0.2
ARU				*e*		17 07 37.8	
ARU				*e*S	**S**	**17 13 49.9**	**+1.0**
ARU				*e*SS	SS	17 17 26.5	-1.7
ARU				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.9						
F11A	**Grangeville**	**52.73**	**61**	⇓P	**P**	**17 06 31.1**	**-0.6**
	baz=52						
L05A	**Lakeview**	**52.73**	**67**	⇓P	**P**	**17 06 32.2**	**+0.4**
	baz=52						
I08A	**Drewsey**	**52.74**	**64**	⇑P	**P**	**17 06 31.8**	**0.0**
	baz=52						
C14A	**Swan Lake**	**52.75**	**58**	⇓P	**P**	**17 06 31.3**	**-0.5**
	baz=52						
WDC	**Whiskeytown Da**	**52.75**	**70**	⇓P	**P**	**17 06 32.2**	**+0.2**
	baz=52						
O02C	**Red Bluff**	**52.88**	**70**	⇑P	**P**	**17 06 33.4**	**+0.5**
	baz=53						
ARCES	**ARCESS Array B**	**52.92**	**341**	P	**P**	**17 06 31.5**	**-1.2**
ARCES	**ARCESS Array B**	**52.92**	**341**	P	**P**	**17 06 31.5**	**-1.2**
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ARCES	**ARCESS Array B**	**52.92**	**341**	P	**P**	**17 06 31.5**	**-1.2**
	comp=Z,5.3nm,0.8s,mb4.6,baz=40,slow=8.2,SNR=15						
G11A	**Walters Elk Ra**	**52.99**	**62**	⇑P	**P**	**17 06 32.9**	**-0.8**
	baz=53						
M05C	**Lookout**	**53.02**	**68**	⇓P	**P**	**17 06 34.4**	**+0.5**
	baz=53						
P01C	**Double 8 Ranch**	**53.05**	**71**	⇓P	**P**	**17 06 34.4**	**+0.2**
	baz=53						
MOD	**Modoc**	**53.12**	**67**	⇑P	**P**	**17 06 34.7**	**0.0**
	baz=53						
I09A	**Lost Marbles R**	**53.15**	**64**	⇑P	**P**	**17 06 34.8**	**0.0**
	baz=53						
K07A	**Rock Creek Ran**	**53.18**	**66**	⇑P	**P**	**17 06 35.2**	**+0.2**
	baz=53						
H10A	**Noah's Angus R**	**53.27**	**63**	⇑P	**P**	**17 06 35.4**	**-0.3**
	baz=53						
GASB	**Alder Springs**	**53.28**	**71**	⇓P	**P**	**17 06 36.3**	**+0.5**
	baz=53						
D14A	**Greenough**	**53.32**	**58**	⇓P	**P**	**17 06 35.5**	**-0.5**
	baz=53						
E13A	**Victor**	**53.39**	**59**	⇓P	**P**	**17 06 36.5**	**-0.1**
	baz=53						
LSA	**Lhasa**	**53.47**	**272**	P	**P**	**17 06 37.2**	**-0.2**
LSA	**Lhasa**	**53.47**	**272**	*e*P	**P**	**17 06 38.0**	**+0.7**
	comp=Z,3.1nm,0.6s,mb4.5						
LSA	**Lhasa**	**53.47**	**272**	*e*P	**P**	**17 06 38.0**	**+0.6**
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
M06C	**Likely Place G**	**53.49**	**68**	⇑P	**P**	**17 06 37.6**	**+0.2**
	baz=53						
J09A	**Fry Pan Ranch,**	**53.56**	**64**	⇓P	**P**	**17 06 38.0**	**+0.2**
	baz=53						
K08A	**Mann Creek Ran**	**53.57**	**65**	⇑P	**P**	**17 06 38.2**	**+0.3**
	baz=53						
L07A	**Adell**	**53.58**	**67**	⇑P	**P**	**17 06 38.2**	**+0.2**
	baz=53						
H11A	**Donnelly**	**53.59**	**62**	⇑P	**P**	**17 06 37.7**	**-0.3**
	baz=53						
ELFS	**Eagle Lake Fie**	**53.75**	**69**	⇓P	**P**	**17 06 40.2**	**+0.9**
	baz=54						
O04C	**Chester**	**53.75**	**69**	⇓P	**P**	**17 06 39.9**	**+0.6**
	baz=54						
F13A	**Darby**	**53.75**	**60**	⇑P	**P**	**17 06 38.5**	**-0.7**
	baz=54						
E14A	**Clinton**	**53.77**	**59**	⇑P	**P**	**17 06 38.8**	**-0.5**
	baz=54						
D15A	**Lincoln**	**53.85**	**58**	⇑P	**P**	**17 06 39.5**	**-0.4**
	baz=54						
MNRC	**McLaughlin Nat**	**53.96**	**71**	⇓P	**P**	**17 06 41.3**	**+0.5**
	baz=54						
K09A	**Rome**	**54.01**	**65**	⇑P	**P**	**17 06 41.0**	**-0.1**
	baz=54						
L08A	**Fields**	**54.01**	**66**	⇑P	**P**	**17 06 41.6**	**+0.4**
	baz=54						
FCC	**Fort Churchill**	**54.02**	**38**	*e*P	**P**	**17 06 40.2**	**-0.7**
	comp=Z,21nm,0.5s,mb5.4						
FCC	**Fort Churchill**	**54.02**	**38**	*e*P	**P**	**17 06 40.2**	**-0.7**
FCC				pmax	pmax		
	comp=Z,21nm,0.5s,mb5.4						
ORV	**Oroville**	**54.03**	**70**	⇓P	**P**	**17 06 41.2**	**-0.2**
	baz=54						
O05C	**Quincy**	**54.09**	**69**	⇑P	**P**	**17 06 42.4**	**+0.7**
	baz=54						
SUTB	**Sutter Butte**	**54.09**	**71**	⇓P	**P**	**17 06 41.6**	**-0.2**
	baz=54						
M07A	**Soldier Meadow**	**54.10**	**67**	P	**P**	**17 06 42.9**	**+1.1**
	baz=54,SNR=6.8						
N06A	**Buffalo Meadow**	**54.16**	**68**	P	**P**	**17 06 42.8**	**+0.5**
	baz=54,SNR=9.3						
AAK	**Ala-Archa**	**54.19**	**295**	⇓*e*P	**P**	**17 06 40.9**	**-1.5**
AAK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
E15A	**Deer Lodge**	**54.20**	**59**	⇑P	**P**	**17 06 41.6**	**-0.8**
	baz=54						
F14A	**Wisdom**	**54.24**	**59**	⇑P	**P**	**17 06 42.8**	**+0.1**
	baz=54						
G13A	**Cobalt**	**54.27**	**61**	P	**P**	**17 06 42.4**	**-0.5**
	baz=54,SNR=7.8						
H12A	**Diamond D Ranc**	**54.31**	**62**	⇑P	**P**	**17 06 44.0**	**+0.7**
	baz=54						
K10A	**MacKenzie Ranc**	**54.42**	**64**	⇓P	**P**	**17 06 44.3**	**+0.2**
	baz=54						
M08A	**Happy Creek Ra**	**54.49**	**66**	⇑P	**P**	**17 06 45.2**	**+0.6**
	baz=54						
L09A	**Wilkinson Ranc**	**54.50**	**66**	⇑P	**P**	**17 06 45.2**	**+0.5**
	baz=54						
O06A	**Flanigan**	**54.56**	**69**	⇑P	**P**	**17 06 45.6**	**+0.5**
	baz=54						
H13A	**Challis**	**54.61**	**61**	P	**P**	**17 06 45.3**	**-0.2**
	baz=54,SNR=5.5						
N07B	**Gerlach**	**54.62**	**67**	P	**P**	**17 06 46.1**	**+0.6**
	baz=54,SNR=7.7						
F15A	**Butte**	**54.67**	**59**	⇑P	**P**	**17 06 45.8**	**-0.1**
	baz=54						
LAVA	**Lava Cap Winer**	**55.01**	**70**	⇑P	**P**	**17 06 48.5**	**+0.1**
	baz=55						
M09A	**Marrel Ranch,**	**55.02**	**66**	⇓P	**P**	**17 06 49.0**	**+0.6**
	baz=55						
J12A	**Stokes Ranch,**	**55.06**	**63**	P	**P**	**17 06 49.0**	**+0.3**
	baz=55,SNR=6.7						
N08A	**GE Springer Mi**	**55.08**	**67**	⇑P	**P**	**17 06 49.5**	**+0.6**
	baz=55						
O07A	**Toulon**	**55.09**	**68**	P	**P**	**17 06 49.9**	**+0.9**
	baz=55,SNR=7.0						
L10A	**Juniper Basin**	**55.11**	**65**	P	**P**	**17 06 49.8**	**+0.7**
	baz=55,SNR=5.9						
I13A	**Wildhorse Cree**	**55.13**	**62**	P	**P**	**17 06 49.4**	**+0.2**
	baz=55,SNR=12						
G15A	**Dillon**	**55.13**	**60**	⇓P	**P**	**17 06 49.1**	**0.0**
	baz=55						
MCMT	**McKenzie Canyo**	**55.17**	**60**	*e*P	**P**	**17 06 48.8**	**-0.6**
WCN	**Washoe City**	**55.19**	**69**	⇑P	**P**	**17 06 50.4**	**+0.7**
	baz=55						
HLID	**Hailey**	**55.21**	**62**	⇓P	**P**	**17 06 50.0**	**+0.3**
	baz=55						
BOZ	**Bozeman (W)**	**55.25**	**59**	*e*P	**P**	**17 06 49.7**	**-0.3**
	comp=Z,3.3nm,0.7s,mb4.5						
BOZ	**Bozeman (W)**	**55.25**	**59**	*e*P	**P**	**17 06 49.7**	**-0.3**
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
BOZ	**Bozeman (W)**	**55.25**	**59**	⇓P	**P**	**17 06 50.5**	**+0.6**
	baz=55						
R05C	**Kirkwood Meado**	**55.42**	**70**	⇓P	**P**	**17 06 51.7**	**+0.4**
	baz=55						
L11A	**Cat Creek Ranc**	**55.44**	**64**	P	**P**	**17 06 52.1**	**+0.7**
	baz=55,SNR=9.1						
J13A	**Cove Ranch, Pi**	**55.45**	**62**	⇑P	**P**	**17 06 52.0**	**+0.5**
	baz=55						
M10A	**I.L. Ranch, Tu**	**55.45**	**65**	⇓P	**P**	**17 06 52.5**	**+0.9**
	baz=55						
S04C	**Ingram Canyon,**	**55.54**	**72**	⇑P	**P**	**17 06 52.9**	**+0.7**
	baz=55						
K12A	**Draper Farm, C**	**55.58**	**63**	P	**P**	**17 06 52.8**	**+0.3**
	baz=55,SNR=7.7						
CMB	**Columbia Colle**	**55.71**	**71**	*e*P	**P**	**17 06 53.2**	**-0.2**
	comp=Z,3.5nm,0.9s,mb4.4						
CMB	**Columbia Colle**	**55.71**	**71**	*e*P	**P**	**17 06 53.2**	**-0.2**
CMB				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
CMB	**Columbia Colle**	**55.71**	**71**	⇓P	**P**	**17 06 53.9**	**+0.5**
	baz=56						
L12A	**House Creek Ra**	**55.85**	**64**	⇓P	**P**	**17 06 55.1**	**+0.7**
	baz=56						
R06C	**Coleville**	**55.90**	**70**	P	**P**	**17 06 55.6**	**+0.9**
	baz=56,SNR=8.0						
PACP	**Pacheco Peak**	**55.91**	**72**	⇓P	**P**	**17 06 55.3**	**+0.4**
	baz=56						
QLMT	**Earthquake Lak**	**55.91**	**59**	*e*P	**P**	**17 06 54.8**	**+0.1**
M11A	**Holland Ranch,**	**55.93**	**65**	⇓P	**P**	**17 06 55.6**	**+0.7**
	baz=56						

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O09A  Fish Creek Ran    56.03  67 ⇑P    P      17 06 56.4 +0.8
      baz=56
S06C  San Francisco     56.12  71  P    P      17 06 56.6 +0.3
      baz=56,SNR=8.3
HAST  UC Hastings Re    56.19  73 ⇓P    P      17 06 56.6 -0.2
      baz=56
R07C  Lee Vining        56.43  70 ⇑P    P      17 06 59.5 +1.0
      baz=56
L13A  Double Diamond    56.47  63  P    P      17 06 60.0 +1.2
      baz=56,SNR=5.9
Q08A  Gabbs             56.52  68  P    P      17 06 59.7 +0.6
      baz=56,SNR=9.4
K14A  Jones Ranch, D    56.57  62  P    P      17 07 00.5 +1.0
      baz=56,SNR=10
NVAR  Mina Array Bea    56.61  69  P    P      17 07 00.3 +0.5
      comp=Z,3.7nm,0.5s,mb4.6,baz=314,slow=6.1,SNR=36
LKWY  Lake              56.62  59 eP    P      17 07 01.1 +1.3
      comp=Z,8.1nm,0.9s,mb4.8
LKWY  Lake              56.62  59 eP    P      17 07 01.1 +1.3
LKWY                              pmax  pmax
      comp=Z,8.0nm,0.9s,mb4.8
N12A  Clover Valley,    56.74  65 ⇓P    P      17 07 01.7 +1.0
      baz=56
R08A  Mina              56.78  69 ⇓P    P      17 07 01.6 +0.6
      baz=57
IMW   Indian Meadow     56.81  60 eP    P      17 07 01.7 +0.6
      comp=Z,5.3nm,0.9s,mb4.6
P10A  Eureka            56.81  67 ⇑P    P      17 07 01.4 +0.2
      baz=57
KCC   Kaiser Creek      56.81  71 ⇑P    P      17 07 01.7 +0.5
      baz=57
O11A  Cowboy Ranch,     56.90  66 ⇓P    P      17 07 02.3 +0.5
      baz=57
JOF   Joensuu           57.09 334 ep    P      17 07 01.4 -1.4
      comp=Z,5.8nm,0.4s,mb5.0
JOF   Joensuu           57.09 334 eP    P      17 07 01.4 -1.4
JOF                               pmax  pmax
      comp=Z,6.0nm,0.4s,mb5.0
N13A  Wendover, West    57.19  64 ⇑P    P      17 07 04.0 +0.1
      baz=57
REDW  Red Top Meadow    57.23  60 eP    P      17 07 04.0  0.0
      comp=Z,11nm,1.3s,mb4.7
TAPN  Taplejung         57.25 273 eP    P      17 07 04.3 -0.1
      comp=Z,8.9nm,0.6s,mb5.0
P11A  Circle Ranch,     57.25  66 ⇑P    P      17 07 05.1 +0.8
      baz=57
O12A  Currie            57.30  65  P    P      17 07 04.9 +0.3
      baz=57,SNR=6.3
S08C  White Mtn Res     57.34  70 ⇓P    P      17 07 05.3 +0.4
      baz=57
HELL  Mitchell Peak,    57.43  71  P    P      17 07 05.4 -0.2
      baz=57,SNR=8.8
R09A  Tonopah           57.44  68  P    P      17 07 05.8 +0.2
      baz=57,SNR=10
TPH   Tonopah           57.47  69  P    P      17 07 05.6 -0.2
TIN   Tinemaha          57.62  70 ⇓P    P      17 07 07.6 +0.7
      baz=57
S09A  Goldfield         57.71  69  P    P      17 07 07.9 +0.3
      baz=58,SNR=6.4
P12A  McGill            57.77  66 ⇓P    P      17 07 08.2 +0.2
      baz=58
ODAN  Odare             57.80 273 eP    P      17 07 08.6 +0.3
Q11A  Duckwater         57.80  67 ⇓P    P      17 07 08.4 +0.2
      baz=58
R10A  Warm Springs      57.83  68 ⇓P    P      17 07 08.8 +0.4
      baz=58
SMMC  Simmler           57.84  73 ⇓P    P      17 07 09.0 +0.5
      baz=58
S10A  Tonopah Range,    57.93  68 ⇓P    P      17 07 09.3 +0.3
      baz=58
JIRN  Jiri              57.93 274 eP    P      17 07 09.1 -0.1
GUN   Gumba             57.94 275 eP    P      17 07 08.8 -0.5
      comp=Z,7.6nm,0.4s,mb5.1
HWUT  Hardware Ranch    58.08  62 eP    P      17 07 10.0  0.0
      comp=Z,8.9nm,1.0s,mb4.8
Q12A  Willow Creek R    58.12  66 ⇑P    P      17 07 10.6 +0.2
      baz=58
CWC   Cottonwood Cre    58.14  71 ⇑P    P      17 07 11.0 +0.5
      baz=58
GRAC  Grapevine Rang    58.14  70 ⇑P    P      17 07 11.3 +0.7
      baz=58
KKM   Kota Kinabalu     58.23 232  P    P      17 07 12.2 +0.8
KKN   Kakani            58.38 275 eP    P      17 07 12.1 -0.3
      comp=Z,16nm,0.5s,mb5.3
DUG   Dugway            58.41  64 eP    P      17 07 11.4 -0.9
      comp=Z,19nm,1.5s,mb4.9
DUG   Dugway            58.41  64 eP    P      17 07 11.4 -1.0
DUG                               pmax  pmax
      comp=Z,19nm,1.5s,mb4.9
DUG   Dugway            58.41  64 ⇓P    P      17 07 12.6 +0.2
      baz=58
ISA   Isabella          58.47  72 ⇑P    P      17 07 12.6 -0.3
      baz=58
PKI   Pulchoki          58.47 275 eP    P      17 07 12.8 -0.2
S11A  Rachel            58.60  68 ⇑P    P      17 07 13.9 +0.2
      baz=58
GKN   Gorkha            58.61 276 eP    P      17 07 13.1 -0.9
      comp=Z,5.5nm,0.3s,mb5.0
DMN   Daman             58.62 275 eP    P      17 07 13.4 -0.6
      comp=Z,9.9nm,0.6s,mb5.0
MPMC  Manual Prospec    58.74  71 ⇑P    P      17 07 14.9 +0.2
      baz=58
R12A  Pony Springs,     58.75  67 ⇑P    P      17 07 15.0 +0.3
      baz=58
FURC  Furnace Creek,    58.81  70 ⇑P    P      17 07 15.5 +0.3
      baz=59
NLU   North Lily Min    58.98  64 eP    P      17 07 16.4 +0.1
DAU   Daniels Canyon    59.09  63 eP    P      17 07 17.8 +0.8
EDW2  Edwards Air Fo    59.30  72 ⇓P    P      17 07 18.6  0.0
      baz=59
KOLN  Koldanda          59.41 276 eP    P      17 07 18.4 -1.0
      comp=Z,6.6nm,0.6s,mb4.9
ULM   Lac du Bonnet     59.46  46 eP    P      17 07 18.8 -0.6
      comp=Z,7.5nm,0.4s,mb5.1
ULM   Lac du Bonnet     59.46  46  P    P      17 07 18.9 -0.6
      comp=Z,11nm,0.4s,mb5.3,baz=318,slow=7.3,SNR=42
FIA1  FINESS Array S    59.67 336 eP    P      17 07 19.7 -1.0
FINES FINESS Array B    59.67 336 i P   P      17 07 20.2 -0.5
FINES                             pmax  pmax
      comp=Z,5.0nm,0.4s
FINES FINESS Array B    59.67 336  P    P      17 07 20.1 -0.6
      comp=Z,5.0nm,0.4s,mb4.9,baz=39,slow=8.0,SNR=84
ARUT  Antelope Range    59.78  66 eP    P      17 07 20.5 -1.3
TMUT  Trail Mountain    59.91  64 eP    P      17 07 22.9 +0.1
BFSC  Mount Baldy St    59.95  72 ⇑P    P      17 07 23.0 -0.1
      baz=60
V11A  Goodsprings       60.07  69 ⇓P    P      17 07 23.5 -0.4
      baz=60
T13A  Saint George      60.07  67 ⇓P    P      17 07 23.7 -0.1
      baz=60
TUQ   Turquoise Mtn.    60.08  70 ⇓P    P      17 07 24.3 +0.3
      baz=60
HEC   Hector,Ludlow     60.28  71 ⇓P    P      17 07 25.7 +0.4
      baz=60
SRU   San Rafael        60.42  63 eP    P      17 07 26.2  0.0
      comp=Z,15nm,0.9s,mb5.0
SRU   San Rafael        60.42  63 eP    P      17 07 26.2  0.0
SRU                               pmax  pmax
      comp=Z,15nm,0.9s,mb5.0
V12A  Nelson            60.47  69 ⇑P    P      17 07 27.0 +0.4
      baz=60
T14A  Hurricane         60.49  67 ⇓P    P      17 07 27.2 +0.5
      baz=60
MURC  Murrieta          60.68  72 ⇑P    P      17 07 28.0  0.0
      baz=60
GMRC  Granite Mounta    60.70  70 ⇓P    P      17 07 28.4 +0.2
      baz=60
AGMN  Agassiz Refuge    60.92  47 eP    P      17 07 27.7 -1.8
      comp=Z,3.5nm,0.6s,mb4.6
BELC  Belle Mtn.        61.07  71 ⇓P    P      17 07 30.6  0.0
      baz=61
IRM   Iron Mountain     61.44  70 ⇑P    P      17 07 33.4 +0.2
      baz=61
W13A  Hualapai Mount    61.47  69 ⇑P    P      17 07 33.6 +0.2
      baz=61
BC3   Big Chuckw Mtn    61.63  71 ⇓P    P      17 07 34.3 -0.2
      baz=61
PV10  Paradox Valley    61.75  63  P    P      17 07 35.4 +0.3
W14A  Seligman          61.84  68  P    P      17 07 36.5 +0.6
      baz=62,SNR=7.2
X13A  Yucca             61.87  69  P    P      17 07 36.0  0.0
      baz=62,SNR=5.1
PDMCI Parker Dam,Lak    61.91  70 ⇑P    P      17 07 36.4 +0.1
      baz=62
OBN   Obninsk           61.93 326 eP    P      17 07 35.8 -0.3
OBN                               pmax  pmax
      comp=Z,4.0nm,0.7s,mb4.6
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Y12C  Blythe            62.09  70 ⇓P    P      17 07 37.8 +0.2
      baz=62
PV01  Paradox Valley    62.17  63 eP    P      17 07 37.7 -0.3
W15A  Williams          62.32  68 ⇓P    P      17 07 40.1 +1.1
      baz=62
Y13A  Salome            62.44  70 ⇓P    P      17 07 40.1 +0.3
      baz=62
X14A  Yava              62.49  69 ⇓P    P      17 07 40.8 +0.6
      baz=62
WUAZ  Wupatki           62.56  67 ⇓P    P      17 07 41.0 +0.4
      baz=62
Y14A  Wickenburg        62.81  69 ⇓P    P      17 07 42.6 +0.3
      baz=63
X15A  Humboldt          62.84  68  P    P      17 07 43.5 +1.0
      baz=63,SNR=5.6
MVCO  Mesa Verde        62.89  64 ⇓P    P      17 07 43.4 +0.6
      baz=63
NB2   NORSAR Subarra    63.20 343  P    P      17 07 43.8 -0.6
      comp=Z,6.3nm,0.6s,mb4.7,baz=24,slow=6.9
NOA   NORSAR Array B    63.20 343  P    P      17 07 44.0 -0.4
NOA                               pmax  pmax
      comp=Z,7.0nm,0.5s
NOA   NORSAR Array B    63.20 343  P    P      17 07 44.0 -0.5
      comp=Z,6.7nm,0.5s,mb4.8,baz=22,slow=6.7,SNR=25
Z14A  Wintersburg       63.27  70 ⇑P    P      17 07 45.9 +0.6
      baz=63
ECSD  EROS,Sioux Fal    64.03  51 eP    P      17 07 48.9 -1.2
      comp=Z,11nm,0.6s,mb4.9
115A  Sonoran Desert    64.16  70 ⇑P    P      17 07 52.1 +0.9
      baz=64
ANMO  Albuquerque       65.67  64  P    P      17 08 00.2 -0.7
      comp=Z,2.0nm,0.8s,mb4.0
ANMO  Albuquerque       65.67  64  P    P      17 08 00.2 -0.8
ANMO                              pmax  pmax
      comp=Z,2.0nm,0.8s
SCHQ  Schefferville     66.02  27  P    P      17 08 02.0 -0.9
      comp=Z,3.4nm,0.5s,mb4.5,baz=7.3,slow=8.3,SNR=25
Y22C  IRIS PASSCAL I    66.08  65 ⇓P    P      17 08 05.5 +1.9
      baz=66
KULM  Kulim             66.91 246 eP    P      17 08 09.7 +0.6
SCIA  State Center      67.02  50 eP    P      17 08 08.4 -1.0
      comp=Z,31nm,0.8s,mb5.2
AKASG Malin Array Be    68.05 328  P    P      17 08 14.4 -1.4
AKASG                             pmax  pmax
      comp=Z,2.0nm,0.3s
AKASG Malin Array Be    68.05 328  P    P      17 08 14.4 -1.4
      comp=Z,2.3nm,0.3s,mb4.4,baz=29,slow=6.7,SNR=10
WMOK  Wichita Mounta    69.89  59 eP    P      17 08 26.0 -1.4
      comp=Z,7.7nm,0.8s,mb4.6
WMOK  Wichita Mounta    69.89  59 eP    P      17 08 26.0 -1.4
WMOK                              pmax  pmax
      comp=Z,8.0nm,0.8s,mb4.6
LTX   Lajitas           71.48  66 eP    P      17 08 37.0 -0.1
      comp=Z,6.4nm,0.4s,mb4.8
LTX   Lajitas           71.48  66 eP    P      17 08 37.1  0.0
LTX                               pmax  pmax
      comp=Z,6.0nm,0.4s,mb4.8
TXAR  Lajitas Array     71.48  66  P    P      17 08 37.2 +0.1
TXAR                              pmax  pmax
      comp=Z,8.0nm,0.4s
TXAR  Lajitas Array     71.48  66  P    P      17 08 37.1  0.0
      comp=Z,8.2nm,0.4s,mb4.9,baz=298,slow=5.1,SNR=161
STHS  Stebnicka Huta    71.59 332 i P   P      17 08 38.0 +0.6
      comp=Z,2.6nm,0.8s,mb4.1
STHS  Stebnicka Huta    71.59 332 i P   P      17 08 38.0 +0.6
STHS                              pmax  pmax
      comp=Z,3.0nm,0.8s,mb4.2
KOLS  Kolonicke sedl    71.73 331 i P   P      17 08 37.9 -0.4
CLL   Collm             71.94 338 i P   P      17 08 38.9 -0.6
CLL                               pmax  pmax
      comp=Z,12nm,1.3s,mb4.6
CLL   Collm             71.94 338 i P   P      17 08 38.9 -0.6
      comp=Z,12nm,1.3s,mb4.6
BURAR Bucovina Array    72.03 329⇓iP    P      17 08 39.4 -0.7
BRG   Berggiesshubel    72.13 337 eP    P      17 08 37.5 -3.1
BRG                               pmax  pmax
      comp=Z,1.0nm,0.2s,mb4.3
BRG   Berggiesshubel    72.13 337 eP    P      17 08 37.5 -3.1
      comp=Z,1.5nm,0.2s,mb4.6
KECS  Kecovo            72.65 332 i P   P      17 08 43.0 -0.7
      comp=Z,1.9nm,1.0s,mb3.9
KECS  Kecovo            72.65 332 i P   P      17 08 43.0 -0.7
KECS                              pmax  pmax
      comp=Z,2.0nm,1.0s,mb3.9
KECS  Kecovo            72.65 332  P    P      17 08 43.0 -0.7
VYHS  Vyhne             73.09 333 eP    P      17 08 46.6 +0.2
      comp=Z,1.0nm,0.6s,mb3.8
VYHS  Vyhne             73.09 333 eP    P      17 08 46.6 +0.2
VYHS                              pmax  pmax
      comp=Z,1.0nm,0.6s,mb3.8
SMOL  Smolenice         73.45 334 eP    P      17 08 48.7 +0.3
DRGR                    73.53 330 ⇑P    P      17 08 48.6 -0.4
DRGR                    73.53 330⇑iP    P      17 08 48.6 -0.3
MLR   Muntele Rosu      73.68 327 ⇓P    P      17 08 50.3 +0.4
MLR   Muntele Rosu      73.68 327⇓iP    P      17 08 50.3 +0.5
KHC   Kasperske Hory    73.84 337 eP    P      17 08 50.5 -0.2
BEBN  Eben Emael        73.91 342  P    P      17 08 51.5 +0.4
VOIR                    74.02 328 ⇓P    P      17 08 51.8  0.0
VOIR                    74.02 328⇓iP    P      17 08 51.8  0.0
MEM   Membach           74.03 342  P    P      17 08 52.0 +0.2
      comp=Z,10nm,0.9s,mb4.5
GERES GERESS Array B    74.08 337  P    P      17 08 52.0 -0.1
GERES                             pmax  pmax
      comp=Z,2.0nm,0.6s
GERES GERESS Array B    74.08 337  P    P      17 08 52.0 -0.1
      comp=Z,1.5nm,0.6s,mb3.9,baz=32,slow=5.5,SNR=12
UCC   Uccle             74.15 343  P    P      17 08 52.4 -0.1
      comp=Z,28nm,2.4s,mb4.6
BCLA  Clavier           74.34 343  P    P      17 08 53.9 +0.3
SNF   Seneffe           74.44 343  P    P      17 08 54.2 +0.1
      comp=Z,8.7nm,1.9s,mb4.2
GIVF  Givet             74.73 343 eP    P      17 08 55.5 -0.4
GZR   Gura Zlata        74.77 329⇓iP    P      17 08 55.6 -0.5
DOU   Dourbes           74.78 343  P    P      17 08 56.4 +0.2
BAIF  Baives            74.89 343 eP    P      17 08 56.6 -0.1
      comp=Z,7.7nm,0.7s,mb4.5
BAIF  Baives            74.89 343 eP    P      17 08 56.6 -0.1
BAIF                              pmax  pmax
      comp=Z,8.0nm,0.7s,mb4.6
BAIF  Baives            74.89 343 eP    P      17 08 56.6 -0.1
      comp=Z,15nm,0.7s,mb4.5
BZS   Buzias            74.92 330 ⇑P    P      17 08 56.2 -0.8
BZS   Buzias            74.92 330⇑iP    P      17 08 56.2 -0.8
WRA   Warramunga Arr    75.75 203  P    P      17 09 02.2 +0.3
WRA                               pmax  pmax
      comp=Z,1.0nm,0.5s
WRA   Warramunga Arr    75.75 203  P    P      17 09 02.2 +0.3
      comp=Z,0.7nm,0.5s,mb3.6,baz=24,slow=6.2,SNR=2.5
CDF   Champ du Feu      75.89 341 eP    P      17 09 02.3 -0.2
      comp=Z,4.0nm,0.6s,mb4.3
CDF   Champ du Feu      75.89 341 eP    P      17 09 02.3 -0.2
CDF                               pmax  pmax
      comp=Z,4.0nm,0.6s,mb4.3
CDF   Champ du Feu      75.89 341 eP    P      17 09 02.3 -0.2
      comp=Z,8.0nm,0.6s,mb4.3
MEZF  Maizieres J'vi    76.23 342 eP    P      17 09 04.5 +0.1
      comp=Z,22nm,0.5s,mb5.2
MEZF  Maizieres J'vi    76.23 342 eP    P      17 09 04.5 +0.1
      comp=Z,22nm,0.5s,mb4.9
HAU   Haudompre         76.46 341 eP    P      17 09 05.5 -0.3
      comp=Z,4.6nm,0.6s,mb4.4
HAU   Haudompre         76.46 341 eP    P      17 09 05.5 -0.3
HAU                               pmax  pmax
      comp=Z,5.0nm,0.6s,mb4.4
HAU   Haudompre         76.46 341 eP    P      17 09 05.5 -0.3
      comp=Z,9.1nm,0.6s,mb4.4
HINF  Hinteralfeld      76.55 341 eP    P      17 09 05.7 -0.5
      comp=Z,3.5nm,0.6s,mb4.3
HINF  Hinteralfeld      76.55 341 eP    P      17 09 05.7 -0.5
HINF                              pmax  pmax
      comp=Z,4.0nm,0.6s,mb4.3
HINF  Hinteralfeld      76.55 341 eP    P      17 09 05.7 -0.5
      comp=Z,7.0nm,0.6s,mb4.2
FLN   La Foliniere      76.90 346 eP    P      17 09 07.6 -0.6
LDF   La Druitiere      77.01 346 eP    P      17 09 08.2 -0.6
GRR   Gorron            77.32 346 eP    P      17 09 10.2 -0.3
      comp=Z,7.2nm,0.7s,mb4.5
GRR   Gorron            77.32 346 eP    P      17 09 10.2 -0.3
GRR                               pmax  pmax
      comp=Z,7.0nm,0.7s,mb4.5
GRR   Gorron            77.32 346 eP    P      17 09 10.2 -0.3
      comp=Z,14nm,0.7s,mb4.5
LOR   Lormes            77.64 343 eP    P      17 09 12.1 -0.2
      comp=Z,10nm,0.5s,mb4.8
LOR   Lormes            77.64 343 eP    P      17 09 12.1 -0.2
LOR                               pmax  pmax
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      comp=Z,10.0nm,0.5s,mb4.8
LOR   Lormes            77.64 343 eP    P      17 09 12.1 -0.2
      comp=Z,21nm,0.5s,mb4.8
ROSF  Rostrenen         77.70 348 eP    P      17 09 13.3 +0.7
CABF  La Chapelle       77.85 341 eP    P      17 09 13.7 +0.2
      comp=Z,6.4nm,0.7s,mb4.5
CABF  La Chapelle       77.85 341 eP    P      17 09 13.7 +0.2
CABF                              pmax  pmax
      comp=Z,6.0nm,0.7s,mb4.4
CABF  La Chapelle       77.85 341 eP    P      17 09 13.7 +0.2
      comp=Z,13nm,0.7s,mb4.5
HYF   Humbligny         77.85 343 eP    P      17 09 13.8 +0.3
SSF   Saint Saulge      77.90 343 eP    P      17 09 13.6 -0.2
      comp=Z,6.2nm,0.5s,mb4.6
SSF   Saint Saulge      77.90 343 eP    P      17 09 13.6 -0.2
SSF                               pmax  pmax
      comp=Z,6.0nm,0.5s,mb4.6
SSF   Saint Saulge      77.90 343 eP    P      17 09 13.6 -0.2
      comp=Z,12nm,0.5s,mb4.6
QUIF  Quistinic         78.10 348 eP    P      17 09 14.5 -0.4
AVF   Avril sur Loir    78.19 343 eP    P      17 09 15.4  0.0
      comp=Z,9.6nm,0.6s,mb4.7
AVF   Avril sur Loir    78.19 343 eP    P      17 09 15.4  0.0
AVF                               pmax  pmax
      comp=Z,10.0nm,0.6s,mb4.7
AVF   Avril sur Loir    78.19 343 eP    P      17 09 15.4  0.0
      comp=Z,19nm,0.6s,mb4.7
SMF   Signal de Mont    78.24 342 eP    P      17 09 15.5 -0.2
      comp=Z,4.7nm,0.5s,mb4.5
SMF   Signal de Mont    78.24 342 eP    P      17 09 15.5 -0.2
SMF                               pmax  pmax
      comp=Z,5.0nm,0.5s,mb4.5
SMF   Signal de Mont    78.24 342 eP    P      17 09 15.5 -0.2
      comp=Z,9.3nm,0.5s,mb4.5
BGF   Bois d'Agland     78.50 343 eP    P      17 09 17.1  0.0
      comp=Z,4.7nm,0.5s,mb4.6
BGF   Bois d'Agland     78.50 343 eP    P      17 09 17.1  0.0
BGF                               pmax  pmax
      comp=Z,5.0nm,0.5s,mb4.6
BGF   Bois d'Agland     78.50 343 eP    P      17 09 17.1  0.0
      comp=Z,9.3nm,0.5s,mb4.6
LPL   La Plagne         78.77 340 eP    P      17 09 19.5 +0.9
      comp=Z,5.8nm,0.6s,mb4.6
LPL   La Plagne         78.77 340 eP    P      17 09 19.5 +0.9
LPL                               pmax  pmax
      comp=Z,6.0nm,0.6s,mb4.6
LPL   La Plagne         78.77 340 eP    P      17 09 19.5 +0.9
      comp=Z,12nm,0.6s,mb4.6
LPG   La Plagne         78.78 340 eP    P      17 09 19.7 +1.0
      comp=Z,9.2nm,0.7s,mb4.7
LPG   La Plagne         78.78 340 eP    P      17 09 19.7 +1.0
LPG                               pmax  pmax
      comp=Z,9.0nm,0.7s,mb4.7
LPG   La Plagne         78.78 340 eP    P      17 09 19.7 +1.0
      comp=Z,18nm,0.7s,mb4.7
TCF   Toulx Ste Croi    78.88 343 eP    P      17 09 19.3 +0.1
      comp=Z,5.3nm,0.7s,mb4.5
TCF   Toulx Ste Croi    78.88 343 eP    P      17 09 19.3 +0.1
TCF                               pmax  pmax
      comp=Z,5.0nm,0.7s,mb4.5
TCF   Toulx Ste Croi    78.88 343 eP    P      17 09 19.3 +0.1
      comp=Z,11nm,0.7s,mb4.5
PLDF  La Plantade       78.94 342 eP    P      17 09 19.9 +0.4
AGO   Saint Agoulin     78.94 343 eP    P      17 09 20.6 +1.1
MFF   Saint Martin d    78.95 345 eP    P      17 09 19.8 +0.2
      comp=Z,9.4nm,0.7s,mb4.7
MFF   Saint Martin d    78.95 345 eP    P      17 09 19.8 +0.2
MFF                               pmax  pmax
      comp=Z,9.0nm,0.7s,mb4.7
MFF   Saint Martin d    78.95 345 eP    P      17 09 19.8 +0.2
      comp=Z,19nm,0.7s,mb4.7
PYM   Petit Puy Mans    79.26 343 eP    P      17 09 22.0 +0.7
ORIF  Oris-en-Rattie    79.52 341 eP    P      17 09 23.4 +0.7
      comp=Z,6.1nm,0.8s,mb4.5
ORIF  Oris-en-Rattie    79.52 341 eP    P      17 09 23.4 +0.7
ORIF                              pmax  pmax
      comp=Z,6.0nm,0.8s,mb4.5
ORIF  Oris-en-Rattie    79.52 341 eP    P      17 09 23.4 +0.7
      comp=Z,12nm,0.8s,mb4.5
MBDF  Montbardon        79.52 340 eP    P      17 09 23.0 +0.3
      comp=Z,3.5nm,0.7s,mb4.3
MBDF  Montbardon        79.52 340 eP    P      17 09 23.0 +0.3
MBDF                              pmax  pmax
      comp=Z,3.0nm,0.7s,mb4.2
MBDF  Montbardon        79.52 340 eP    P      17 09 23.0 +0.3
      comp=Z,6.9nm,0.7s,mb4.3
VIVF  Saint-Julien-l    79.81 341 eP    P      17 09 24.8 +0.5
      comp=Z,15nm,0.9s,mb4.8
VIVF  Saint-Julien-l    79.81 341 eP    P      17 09 24.8 +0.5
VIVF                              pmax  pmax
      comp=Z,15nm,0.9s,mb4.8
VIVF  Saint-Julien-l    79.81 341 eP    P      17 09 24.8 +0.5
      comp=Z,31nm,0.9s,mb4.8
RJF   Les Rejaudoux     79.95 344 eP    P      17 09 25.5 +0.5
      comp=Z,4.0nm,0.6s,mb4.4
RJF   Les Rejaudoux     79.95 344 eP    P      17 09 25.5 +0.5
RJF                               pmax  pmax
      comp=Z,4.0nm,0.6s,mb4.4
RJF   Les Rejaudoux     79.95 344 eP    P      17 09 25.5 +0.5
      comp=Z,7.9nm,0.6s,mb4.4
CAF   Calviac           80.22 343 eP    P      17 09 27.3 +0.8
      comp=Z,10nm,0.6s,mb4.8
CAF   Calviac           80.22 343 eP    P      17 09 27.3 +0.8
CAF                               pmax  pmax
      comp=Z,10.0nm,0.6s,mb4.8
CAF   Calviac           80.22 343 eP    P      17 09 27.3 +0.8
      comp=Z,20nm,0.6s,mb4.9
LFF   La Frestale       80.43 344 eP    P      17 09 28.2 +0.6
SMRF  Simiane la Rot    80.48 341 eP    P      17 09 28.9 +1.0
      comp=Z,4.2nm,0.6s,mb4.5
SMRF  Simiane la Rot    80.48 341 eP    P      17 09 28.9 +1.0
      comp=Z,4.2nm,0.6s,mb4.2
FRF   La Foret Royal    80.66 340 eP    P      17 09 29.0 +0.2
LASF  Ste Croix         80.72 342 eP    P      17 09 29.9 +0.8
      comp=Z,20nm,0.9s,mb4.7
LMR   La Mourre         80.91 340 eP    P      17 09 30.0 -0.2
      comp=Z,4.4nm,0.6s,mb4.5
LMR   La Mourre         80.91 340 eP    P      17 09 30.0 -0.2
LMR                               pmax  pmax
      comp=Z,4.0nm,0.6s,mb4.4
LMR   La Mourre         80.91 340 eP    P      17 09 30.0 -0.2
      comp=Z,8.8nm,0.6s,mb4.5
PGF   Pioggiola         81.11 338 eP    P      17 09 30.8 -0.5
      comp=Z,7.2nm,0.7s,mb4.6
PGF   Pioggiola         81.11 338 eP    P      17 09 30.8 -0.5
PGF                               pmax  pmax
      comp=Z,7.0nm,0.7s,mb4.6
PGF   Pioggiola         81.11 338 eP    P      17 09 30.8 -0.5
      comp=Z,14nm,0.7s,mb4.6
MTLF  Montolieu         81.73 343 eP    P      17 09 35.3 +0.8
      comp=Z,6.3nm,0.7s,mb4.5
MTLF  Montolieu         81.73 343 eP    P      17 09 35.3 +0.8
MTLF                              pmax  pmax
      comp=Z,6.0nm,0.7s,mb4.5
MTLF  Montolieu         81.73 343 eP    P      17 09 35.3 +0.8
      comp=Z,12nm,0.7s,mb4.5
EPF   Esparros          82.36 344 eP    P      17 09 37.8  0.0
      comp=Z,7.2nm,0.6s,mb4.7
EPF   Esparros          82.36 344 eP    P      17 09 37.8  0.0
EPF                               pmax  pmax
      comp=Z,7.0nm,0.6s,mb4.7
EPF   Esparros          82.36 344 eP    P      17 09 37.8  0.0
      comp=Z,14nm,0.6s,mb4.7
SJPF  Ste Jean          82.53 345 eP    P      17 09 39.8 +1.1
      comp=Z,7.4nm,0.6s,mb4.7
SJPF  Ste Jean          82.53 345 eP    P      17 09 39.8 +1.1
SJPF                              pmax  pmax
      comp=Z,7.0nm,0.6s,mb4.7
SJPF  Ste Jean          82.53 345 eP    P      17 09 39.8 +1.1
      comp=Z,15nm,0.6s,mb4.7
ETSF  Etsaut            82.63 345 eP    P      17 09 40.2 +1.0
      comp=Z,14nm,0.6s,mb5.0
ETSF  Etsaut            82.63 345 eP    P      17 09 40.2 +1.0
ETSF                              pmax  pmax
      comp=Z,15nm,0.6s,mb5.0
ETSF  Etsaut            82.63 345 eP    P      17 09 40.2 +1.0
      comp=Z,29nm,0.6s,mb5.0
ESDC  Sonseca Array     86.30 347  P    P      17 09 57.5 -0.2
      comp=Z,3.9nm,0.7s,mb4.4,baz=3.9,slow=4.9,SNR=9.1
KEST  Kesra             87.50 335  P    P      17 10 02.1 -1.5
      comp=Z,3.0nm,0.8s,mb4.4,baz=304,slow=4.6,SNR=7.3
QSPA  South Pole Qui   142.91 180 ePKPdf PKPdf 17 16 44.1 -2.9
SUR   Sutherland       143.35 287  PKP  PKPdf  17 16 47.4 -1.9
SUR   Sutherland       143.35 287  PKP  PKPdf  17 16 47.4 -1.9
      comp=Z,1.9nm,0.6s,baz=45,slow=2.9,SNR=3.4
```

ISCJB **02** *17:20:03.2±0.2, 7.38S±0.03×129.61E±0.04, h74^{km}, mb4.9/65, Error ellipse: s-maj=6.6km s-min=4.2km az=151.7*

BJI **02** *17:20:03.0, 7.44S×129.72E, h85^{km}, mB5.1, mb4.9, Ms4.8, Msz4.5*

MOS **02** *17:20:05.7±0.9, 7.22S×129.43E, h89^{km}, mb4.9/18, Error ellipse: s-maj=13.0km s-min=7.1km az=105.4*

NEIC **02** *17:20:05.5±0.2, 7.29S×129.53E, mb4.8/31, Error ellipse: s-maj=8.8km s-min=5.0km az=65.0*

IDC **02** *17:20:08.5±3.9, 7.29S×129.49E, h99^{km}±36^{km}, mb4.4/12, mb1 4.4/13, mb1mx4.4/17, mbtmp4.4/13, MS3.5/5, Ms1 3.5/5, ms1mx3.1/19, Error ellipse: s-maj=20.4km s-min=11.0km az=71.0*

ISC 02 17:20:05.3±0.2**, 7.40S**±0.03×**129.58E**±0.05**, h76^{km}, h76^{km}**±1.4^{km}**:pP-P, n153,** σ1^{s}09/146**, mb4.9**/65**, 7C-2D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	Ambon	3.94	339	P	Pn	17 21 07.0	+3.6
	829nm,0.7s						
KAKA	Kakadu	5.98	152	*e*P	Pn	17 21 33.1	+1.9
	259nm,0.2s						
KAKA				*e*S	Sn	17 22 36.8	-1.5
WSI	Waingapu	9.46	256	P	Pn	17 22 18.5	-0.2
	2µm,0.5s						
FITZ	Fitzroy Crossi	11.31	199	*e*P	Pn	17 22 41.6	-2.4
	135nm,0.3s						
FITZ				*e*S	Sn	17 24 38.9	-10
FITZ	Fitzroy Crossi	11.31	199	P	Pn	17 22 42.8	-1.2
	24nm,0.3s,baz=25,slow=11,SNR=206						
FITZ				S	Sn	17 24 36.6	-12
	14nm,0.3s,baz=79,slow=19,SNR=9.7						
FITZ				LR	LR	17 27 16.0	
	comp=Z,62nm,18.8s,baz=23,slow=38						
PCI	Palu	11.66	303	P	Pn	17 22 54.3	+5.4
	131nm,1.1s						
WRA	Warramunga Arr	13.29	160	P	Pn	17 23 08.6	-2.2
	5.7nm,0.3s,baz=337,slow=13,SNR=88						
WRA				S	Sn	17 25 25.7	-11
	19nm,0.3s,baz=343,slow=22,SNR=12						
WB2	Warramunga Arr	13.30	160	⇑*i*P	Pn	17 23 08.4	-2.5
WB2				*e*S	Sn	17 25 27.3	-10
COEN	Coen	14.86	117	*e*Pn	Pn	17 23 30.4	-0.9
COEN				*e*Sn	Sn	17 26 03.8	-11
KRKI	Karangkates	16.99	266	P	Pn	17 23 59.6	+1.4
	249nm,0.8s						
PMG	Port Moresby	17.50	98	*e*Pn	Pn	17 24 09.3	+4.8
	118nm,1.0s						
PMG	Port Moresby	17.50	98	P	Pn	17 24 08.2	+3.8
PMG				S	S	17 27 12.2	-10
PMG				pmax	pmax		
	comp=Z,6.0nm,0.3s						
PMG				smax			
	comp=N,1.0nm,0.3s						
PMG	Port Moresby	17.50	98	P	Pn	17 24 08.2	+3.7
	comp=N,6.4nm,0.3s,baz=274,slow=6.9,SNR=23						
PMG				S	S	17 27 12.2	-10
	comp=N,0.9nm,0.3s,baz=243,slow=18,SNR=5.6						
KKM	Kota Kinabalu	18.88	315	*e*P	Pn	17 24 21.3	+0.3
CTA	Charters Tower	20.50	130	*e*P	P	17 24 41.3	+4.1
	comp=N,7.8nm,0.5s						
CTA				*e*S	S	17 28 30.1	+7.6
CTA	Charters Tower	20.50	130	*e*P	P	17 24 41.3	+4.1
CTA				*e*S	S	17 28 30.1	+7.6
CTA				pmax	pmax		
	comp=Z,8.0nm,0.5s						
CTA	Charters Tower	20.50	130	P	P	17 24 41.5	+4.3
	comp=Z,10nm,0.5s,baz=312,slow=11,SNR=14						
CTAO	Charters Tower	20.50	130	*e*P	P	17 24 40.9	+3.7
CTAO				*e*Sn	S	17 28 04.5	-18
KSM	Kuching	21.16	294	*e*P	P	17 24 43.8	-0.6
CBJI	Citeko	22.59	271	P	P	17 24 58.0	-1.7
	comp=Z,88nm,0.9s,mb5.1						
TGY	Tagaytay City	23.02	338	P	P	17 25 05.1	+1.0
	comp=Z,292nm,0.7s,mb5.7,baz=184,slow=4.8,SNR=13						
FORT	Forrest	23.30	183	*e*P	P	17 25 07.7	+1.2
	comp=Z,64nm,0.7s,mb5.1						
FORT				*e*S	S	17 29 20.8	+7.6
GUMO	Guam	25.79	36	P	P	17 25 27.8	-1.5
	comp=Z,91nm,0.9s,mb5.2						
GUMO	Guam	25.79	36	P	P	17 25 27.8	-1.5
GUMO				pmax	pmax		
	comp=Z,91nm,0.9s,mb5.2						
KLBR	Kellerberrin	26.48	203	*e*P	P	17 25 35.9	+0.5
	comp=Z,7.3nm,0.5s,mb4.4						
KLBR				*e*S	S	17 30 31.8	+28
STKA	Stephens Creek	26.80	157	⇑*i*P	P	17 25 40.0	+1.7
	comp=Z,12nm,0.9s,mb4.4						
STKA				*e*S	S	17 30 41.8	+33
STKA	Stephens Creek	26.80	157	P	P	17 25 40.1	+1.8
	comp=Z,11nm,0.6s,mb4.6,baz=324,slow=8.6,SNR=35						
STKA				LR	LR	17 37 11.4	
	comp=Z,86nm,18.6s,baz=333,slow=38						
MUN	Mundaring	27.45	205	*e*P	P	17 25 44.5	+0.4
MUN				*e*S	S	17 30 54.7	+36
NWAO	Narrogin (SRO)	27.87	203	*e*P	P	17 25 46.7	-1.1
	comp=Z,25nm,1.2s,mb4.6						
NWAO	Narrogin (SRO)	27.87	203	P	P	17 25 49.2	+1.4
NWAO				pmax	pmax		
	comp=Z,5.0nm,0.4s						
NWAO				MLR	MLR		
	comp=Z,134nm,18.8s						
NWAO	Narrogin (SRO)	27.87	203	P	P	17 25 49.1	+1.3
	comp=Z,4.8nm,0.4s,mb4.4,baz=12,slow=9.1,SNR=9.1						
NWAO				LR	LR	17 37 47.1	
	comp=Z,134nm,18.8s,baz=195,slow=38						
ARMA	Armidale	30.84	141	*e*P	P	17 26 17.5	+3.3
KULM	Kulim	31.50	293	*e*P	P	17 26 19.7	-0.5
PSI	Prapat	32.23	287	P	P	17 26 27.0	+0.3
	comp=Z,3.8nm,0.4s,mb4.5,baz=116,slow=1.6,SNR=5.4						
TOO	Toolangi	33.33	157	⇑*i*P	P	17 26 39.3	+3.4
	comp=Z,7.4nm,0.5s,mb4.8						
TOO	Toolangi	33.33	157	⇑*i*P	P	17 26 39.3	+3.4
TOO				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
DZM	Mont Dzumac	38.38	116	P	P	17 27 20.9	+1.5
	comp=Z,8.5nm,0.9s,mb4.6,baz=219,slow=12,SNR=4.8						
CM31	Chiang Mai Arr	39.67	311	*e*P	P	17 27 29.5	-0.6
	comp=Z,7.5nm,0.9s,mb4.5						
CHTO	Chiang Mai	39.89	311	*e*P	P	17 27 31.8	-0.1
	comp=Z,15nm,0.8s,mb4.9						
CHTO	Chiang Mai	39.89	311	*e*P	P	17 27 31.8	-0.2
CHTO				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.9						
GYA	Guiyang	40.34	327	*e*P	P	17 27 37.2	+1.6
GYA				AP	pP	17 27 56.2	+2.1
GYA				XP	sP	17 28 04.9	+2.0
GYA				PP	PP	17 29 15.2	+5.3
GYA				SCP	ScP	17 33 20.9	+0.5
GYA				PCS	PcS	17 33 29.5	+1.1
GYA				S	S	17 33 40.0	+2.0
GYA				XS	sS	17 34 12.2	+2.5
GYA				SS	SS	17 36 35.4	-4.4
GYA				SCS	ScS	17 37 33.7	-0.9
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.0						
GYA				AMB	AMB		
	comp=Z,130nm,5.2s						
GYA				LR	LR		
	comp=N,450nm,19.0s						
GYA				LR	LR		
	comp=E,440nm,18.6s						
GYA				LR	LR		
	comp=Z,360nm,19.4s						
NJ2	Nanjing	40.55	346	*e*P	P	17 27 32.0	-5.2
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
KMI	Kunming	41.57	322	P	P	17 27 46.8	+1.1
KMI				AP	pP	17 28 06.6	+2.3
KMI				XP	sP	17 28 16.0	+2.9
KMI				PP	PP	17 29 26.2	+3.0
KMI				S	S	17 33 58.2	+1.9
KMI				SS	SS	17 37 01.7	-2.4
KMI				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb4.3						
KMI				AMB	AMB		
	comp=Z,42nm,4.0s						
KMI				LR	LR		
	comp=N,92nm,12.3s						
KMI				LR	LR		
	comp=E,145nm,13.5s						
KMI				LR	LR		
	comp=Z,128nm,14.2s						
MJAR	Matsushiro Arr	44.45	10	P	P	17 28 08.0	-0.8
	comp=Z,16nm,0.9s,mb4.8,baz=190,slow=9.3,SNR=22						
MAJO	Matsushiro	44.45	10	*e*P	P	17 28 07.6	-1.2
	comp=Z,31nm,0.9s,mb5.0						
MAJO	Matsushiro	44.45	10	*e*P	P	17 28 07.6	-1.2
MAJO				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.0						
KSRS	Korea Array	44.65	358	P	P	17 28 10.5	+0.2
KSRS				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
KSRS				MLR	MLR		
	comp=Z,23nm,21.3s						
KSRS	Korea Array	44.65	358	P	P	17 28 10.5	+0.2
	comp=Z,3.9nm,0.8s,mb4.2,baz=173,slow=9.0,SNR=16						
KSRS				LR	LR	17 44 08.8	
	comp=Z,23nm,21.3s,baz=335,slow=32						
CD2	Chengdu	45.42	328	*e*P	P	17 28 17.7	+1.1
CD2				AP	pP	17 28 36.2	+0.8
CD2				XP	sP	17 28 45.2	+1.1
CD2				PP	PP	17 30 06.0	+1.7
CD2				S	S	17 34 53.8	+1.4
CD2				XS	sS	17 35 25.9	+1.4
CD2				SS	SS	17 38 10.4	-6.9
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
CD2				AMB	AMB		
	comp=Z,30nm,7.4s						
CD2				LR	LR		
	comp=N,130nm,10.8s						
CD2				LR	LR		
	comp=Z,200nm,10.8s						
BJT	Baijiatuau	48.78	346	*e*P	P	17 28 42.0	-0.6
	comp=Z,23nm,0.6s,mb5.3						
BJT	Baijiatuau	48.78	346	*e*P	P	17 28 42.0	-0.6
BJT				pmax	pmax		
	comp=Z,23nm,0.6s						
BJI	Beijing	48.80	346	P	P	17 28 42.3	-0.4
BJI				AMB	AMB		
	comp=Z,33nm,0.7s,mb5.4						
LZH	Lanzhou	49.56	332	*e*P	P	17 28 48.5	-0.1
LZH				AP	pP	17 29 06.8	-0.9
LZH				XP	sP	17 29 14.5	-1.8
LZH				PCP	PcP	17 30 08.8	-0.5
LZH				PP	PP	17 30 44.6	+0.9
LZH				SCP	ScP	17 33 55.5	-2.7
LZH				*e*S	S	17 35 50.3	-0.7
LZH				SS	SS	17 39 20.3	-4.0
LZH				AMB	AMB		
	comp=Z,25nm,1.0s,mb5.1						
LZH				AMB	AMB		
	comp=Z,100nm,4.0s						
LZH				LR	LR		
	comp=E,374nm,14.2s						
LZH				LR	LR		
	comp=Z,485nm,14.3s						
VLA	Vladivostok	50.32	2	*i* P	P	17 28 54.7	+0.5
HHC	Hu-ho-hao-te	50.80	342	*e*P	P	17 29 00.6	+2.8
HHC				AP	pP	17 29 19.4	+2.4
HHC				XP	sP	17 29 28.2	+2.6
HHC				PCP	PcP	17 30 16.4	+2.7
HHC				PP	PP	17 30 59.1	+4.3
HHC				SCP	ScP	17 34 04.1	+0.8
HHC				PCS	PcS	17 34 12.5	+1.3
HHC				S	S	17 36 13.1	+5.1
HHC				PS		17 36 29.7	
HHC				XS	sS	17 36 42.5	+2.0
HHC				AMB	AMB		
	comp=Z,14nm,0.9s,mb5.0						
HHC				AMB	AMB		
	comp=Z,163nm,4.8s						
HHC				LR	LR		
	comp=N,157nm,20.9s						
HHC				LR	LR		
	comp=E,395nm,24.7s						
HHC				LR	LR		
	comp=Z,147nm,24.7s						
CN2	Changchun	51.10	356	*e*P	P	17 29 02.8	+2.8
MDJ	Mudanjiang	51.77	0	P	P	17 29 05.8	+0.7
MDJ				AMB	AMB		
	comp=Z,14nm,1.1s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,127nm,4.8s						
MDJ	Mudanjiang	51.77	0	*e*P	P	17 29 05.2	+0.2
	comp=Z,15nm,1.0s,mb5.0						
LSA	Lhasa	52.20	317	P	P	17 29 09.8	+1.2
LSA	Lhasa	52.20	317	*e*P	P	17 29 09.0	+0.4
	comp=Z,6.1nm,0.4s,mb5.0						
LSA	Lhasa	52.20	317	*e*P	P	17 29 09.0	+0.4
LSA				pmax	pmax		
	comp=Z,6.0nm,0.4s,mb5.0						
ODAN	Odare	53.21	311	*e*P	P	17 29 15.6	-0.4
	comp=Z,13nm,0.3s,mb5.4						
TAPN	Taplejung	53.24	312	*e*P	P	17 29 15.9	-0.4
	comp=Z,31nm,0.4s,mb5.7						
GTA	Gaotai	54.12	332	*e*P	P	17 29 22.5	0.0
GTA				PCP	PcP	17 30 22.2	-4.1
GTA				PP	PP	17 31 29.0	+4.1
GTA				PPP		17 32 45.4	
GTA				S	S	17 36 52.5	-1.0
GTA				AMB	AMB		
	comp=Z,5.0nm,0.8s,mb4.6						
GTA				AMB	AMB		
	comp=Z,113nm,5.3s						
GTA				LR	LR		
	comp=N,150nm,17.5s						
GTA				LR	LR		
	comp=E,152nm,17.1s						
GTA				LR	LR		
	comp=Z,173nm,18.6s						
JIRN	Jiri	54.54	312	*e*P	P	17 29 25.4	-0.3
	comp=Z,19nm,0.4s,mb5.4						
GUN	Gumba	54.91	312	*e*P	P	17 29 28.0	-0.4
	comp=Z,51nm,0.4s,mb5.9						
PKI	Pulchoki	55.07	311	*e*P	P	17 29 29.3	-0.3
	comp=Z,13nm,0.4s,mb5.3						
KKN	Kakani	55.29	311	*e*P	P	17 29 30.6	-0.5
	comp=Z,21nm,0.6s,mb5.3						
DMN	Daman	55.32	311	*e*P	P	17 29 30.9	-0.5
	comp=Z,18nm,0.6s,mb5.3						
YSS	Yuzh-Sakhalins	55.37	11	*e*P	P	17 29 31.4	+0.1
	comp=Z,14nm,0.7s,mb5.1						
YSS	Yuzh-Sakhalins	55.37	11	*e*P	P	17 29 31.5	+0.2
YSS				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.2						
HABR	Khabarovsk	55.84	4	*e*P	P	17 29 35.2	+0.5
HABR				*e*S	S	17 37 14.8	-1.3
HABR				*e*		17 39 12.8	
HABR				*e*SS	SS	17 41 03.9	+0.8
GKN	Gorkha	55.88	311	*e*P	P	17 29 34.8	-0.6
	comp=Z,34nm,0.3s,mb5.9						
KLR	Kul’dur	56.42	2	*e*P	P	17 29 35.6	-3.2
KOLN	Koldanda	56.54	310	*e*P	P	17 29 39.7	-0.4
HIA	Hailar	57.08	352	P	P	17 29 43.1	-0.3
	comp=Z,3.5nm,0.6s,mb4.6						
HIA	Hailar	57.08	352	P	P	17 29 43.2	-0.3
HIA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ULN	Ulaanbaatar	58.52	342	*e*P	P	17 29 54.1	+0.5
	comp=Z,4.8nm,0.6s,mb4.7						
ULN	Ulaanbaatar	58.52	342	*e*P	P	17 29 54.1	+0.5
ULN				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
SONM	Songino Array	58.69	342	P	P	17 29 55.3	+0.5
	comp=Z,3.5nm,0.7s,mb4.5,baz=159,slow=7.0,SNR=36						
ZAK	Zakamensk	61.91	341	*e*P	P	17 30 16.6	-0.1
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.1						
TLY	Talaya	62.93	342	*e*P	P	17 30 24.1	+0.6
	comp=Z,9.1nm,1.0s,mb4.7						
TLY	Talaya	62.93	342	*e*P	P	17 30 24.1	+0.7
TLY				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
IRK	Irkutsk	63.23	343	⇑*i*P	P	17 30 25.6	+0.1
IRK				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
WMQ	Urumqi	63.50	327	*e*P	P	17 30 28.9	+1.5
WMQ				AP	pP	17 30 48.5	+1.3
WMQ				XP	sP	17 30 57.1	+1.4
WMQ				PCP	PcP	17 31 04.9	+1.4
WMQ				AMB	AMB		
	comp=Z,11nm,0.6s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,75nm,7.1s						
MOY	Mondy	63.75	341	*e*P	P	17 30 30.0	+1.1
MOY				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.7						
BOD	Bodaibo	66.22	351	⇓*i*P	P	17 30 44.2	-0.6
BOD				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.3						
MK31	Makanchi Array	68.33	327	*e*P	P	17 30 58.0	-0.4
MKAR	Makanchi Array	68.33	327	*i* P	P	17 30 58.2	-0.2
MKAR				pmax	pmax		
	comp=Z,7.0nm,0.5s						
MKAR	Makanchi Array	68.33	327	P	P	17 30 58.2	-0.1
	comp=Z,7.1nm,0.5s,mb4.8,baz=116,slow=8.3,SNR=205						
MA2	Magadan	68.87	11	*e*P	P	17 31 02.1	+0.7
	comp=Z,12nm,0.9s,mb4.7						
MA2	Magadan	68.87	11	*e*P	P	17 31 02.8	+1.4
MA2				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.9						
YAK	Yakutsk	69.22	0	*e*P	P	17 31 03.2	-0.4
	comp=Z,46nm,0.8s,mb5.4						
YAK	Yakutsk	69.22	0	*e*P	P	17 31 03.5	-0.1
YAK				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.3						
YAK				pmax	pmax		
	comp=N,11nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,0.8s						
TKM2	Tokmak 2	70.03	321	*e*P	P	17 31 09.1	+0.1
	comp=E,2.7nm,0.6s,mb4.2						
TKM2	Tokmak 2	70.03	321	*e*P	P	17 31 09.1	+0.1
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
UCH	Uchtor	70.36	320	*e*P	P	17 31 11.6	+0.6
	comp=Z,3.4nm,0.8s,mb4.2						
AAK	Ala-Archa	70.58	320	*e*P	P	17 31 11.7	-0.6
	comp=Z,2.9nm,0.7s,mb4.2						
AAK				*e*pP	pP	17 31 32.1	-0.4
AAK	Ala-Archa	70.58	320	*e*P	P	17 31 11.7	-0.6
AAK				*e**PP	pP	17 31 32.1	-0.3
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.2						
KBL	Kabul	70.70	310	*e*P	P	17 31 12.8	-0.5
EKS2	Erkin-Say	71.05	320	*e*P	P	17 31 15.4	+0.3
	comp=Z,6.2nm,1.0s,mb4.4						
EKS2				*e*pP	pP	17 31 35.1	-0.2
ZALV	Zalesovo Beam	71.76	334	P	P	17 31 18.4	-0.8
	comp=Z,6.0nm,0.4s,mb4.8,baz=119,slow=4.8,SNR=47						
ZAL	Zalesovo	71.76	334	P	P	17 31 18.4	-0.8
VNDA	Vanda	72.10	173	*e*P	P	17 31 22.0	+1.1
	comp=Z,4.0nm,0.7s,mb4.4						
VNDA	Vanda	72.10	173	*e*P	P	17 31 22.0	+1.0
VNDA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
VNDA	Vanda	72.10	173	P	P	17 31 21.9	+1.0
	comp=Z,4.4nm,0.7s,mb4.4,baz=307,slow=7.1,SNR=13						
SEY	Seymchan	72.27	11	⇑*e*P	P	17 31 23.1	+1.0
KURK	Kurchatov	72.64	329	*e*P	P	17 31 24.0	-0.5
	comp=Z,26nm,1.1s,mb5.0						
KURK	Kurchatov	72.64	329	*e*P	P	17 31 24.0	-0.5
KURK				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.0						
SBA	Scott Base	72.99	172	*e*P	P	17 31 28.4	+2.2
	comp=Z,56nm,1.5s,mb5.2						
SBA	Scott Base	72.99	172	*e*P	P	17 31 28.4	+2.1
SBA				pmax	pmax		
	comp=Z,56nm,1.5s,mb5.2						
NVS	Novosibirsk	73.05	334	*i* P	P	17 31 25.7	-1.1
NVS				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.8						
NVS				pmax	pmax		
	comp=N,12nm,1.5s						
NVS				pmax	pmax		
	comp=E,13nm,1.3s						
MAW	Mawson	74.43	201	P	P	17 31 36.5	+1.7
	comp=E,3.6nm,0.5s,mb4.4,baz=62,slow=7.5,SNR=10						
BRVK	Borovoye	78.25	328	*e*P	P	17 31 55.6	-1.0
	comp=E,7.1nm,0.8s,mb4.5						
BRVK	Borovoye	78.25	328	*e*P	P	17 31 55.6	-1.0
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
TIXI	Tiksi	78.89	360	*e*P	P	17 31 58.6	-1.2
	comp=Z,8.9nm,0.8s,mb4.7						
TIXI	Tiksi	78.89	360	*e*P	P	17 31 58.7	-1.0
TIXI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.4						
PPT	Papeete	79.11	106	LR	LR	18 01 08.1	
	comp=Z,206nm,20.8s,baz=13,slow=31						
BILL	Bilibino	79.60	13	*e*P	P	17 32 01.7	-2.0
BILL				pmax	pmax		
	comp=Z,1.0nm,1.3s						
QSPA	South Pole Qui	82.58	180	*e*P	P	17 32 19.9	+0.5
	comp=Z,16nm,0.8s,mb4.9						
ARU	Arti	85.83	328	*e*P	P	17 32 34.9	-1.3
	comp=Z,11nm,0.8s,mb4.8						
ARU	Arti	85.83	328	⇑*i*P	P	17 32 35.3	-0.9
ARU				*e*		17 35 55.2	
ARU				*e*PPP		17 37 47.5	
ARU				*e*S	S	17 42 49.4	-14
ARU				*e*SS	SS	17 48 34.7	-7.1
ARU				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
QRN	Al-Qurain	86.27	299	*e*P	P	17 32 37.9	-1.2
QRN				AMb	AMB	17 32 40.5	
	comp=Z,18nm,0.6s,mb5.2						
RDF	Al-Radifah	86.62	300	*e*P	P	17 32 40.1	-0.7
RDF				AMb	AMB	17 32 42.3	
	comp=Z,18nm,0.8s,mb5.1						
NAY	Al-Naaiem	86.94	300	*e*P	P	17 32 40.9	-1.5
NAY				AMb	AMB	17 32 45.5	
	comp=Z,8.2nm,0.6s,mb4.8						
MIB	Mutribah	86.96	300	*e*P	P	17 32 41.0	-1.4
MIB				AMb	AMB	17 32 45.4	
	comp=Z,8.7nm,0.6s,mb4.9						
COLA	College	93.49	25	⇓*e*P	P	17 33 12.8	+0.7
VNA2	Neumayer--Watz	96.75	193	*e*P	P	17 33 27.8	+0.8
VNA2				*e*		17 33 35.8	
VNA2				*e*	pP	17 33 46.7	-1.2
VNA2				*e*		17 33 55.4	
ARCES	ARCESS Array B	101.81	340	P	Pdif	17 33 48.5	-1.4
	comp=Z,1.8nm,0.7s,baz=77,slow=5.7,SNR=5.2						
ARCES				PKiKP	PKiKP	17 38 12.0	-0.2
	comp=Z,1.7nm,0.8s,baz=110,slow=2.1,SNR=6.5						
ARCES				PKKPbc	PKKPbc	17 49 55.5	-2.5
	comp=Z,3.2nm,1.0s,baz=232,slow=6.0,SNR=4.2						
AKASG	Malin Array Be	102.25	320	*i* P	Pdif	17 33 55.0	+3.1
YKA	Yellowknife Ar	108.29	26	PKPdf	PKiKP	17 38 24.4	0.0
YKA				PKKPbc	PKKPbc	17 49 34.4	-3.7
YKA	Yellowknife Ar	108.29	26	PKiKP	PKiKP	17 38 24.4	0.0
	comp=Z,0.4nm,0.6s,baz=290,slow=1.6,SNR=8.8						
YKA				PKKPbc	PKKPbc	17 49 34.3	-3.7
	comp=Z,0.4nm,0.7s,baz=107,slow=3.2,SNR=7.9						
GERES	GERESS Array B	112.46	320	PKPdf	PKiKP	17 38 32.8	+0.1
GERES	GERESS Array B	112.46	320	PKIKP	PKiKP	17 38 32.8	+0.1
GERES	GERESS Array B	112.46	320	PKiKP	PKiKP	17 38 32.8	+0.1
	comp=Z,0.9nm,0.6s,baz=90,slow=1.3,SNR=8.6						
MSU	Marysvale	116.58	51	PKPdf	PKPdf	17 38 39.5	-1.4
MSU	Marysvale	116.58	51	PKIKP	PKPdf	17 38 39.5	-1.4
PV01	Paradox Valley	119.43	50	*e*PKPdf	PKPdf	17 38 47.7	+1.3
ULM	Lac du Bonnet	123.01	33	PKP	PKPdf	17 38 52.6	-0.3
ULM	Lac du Bonnet	123.01	33	PKP	PKPdf	17 38 52.6	-0.3
	comp=Z,1.1nm,0.4s,baz=260,slow=3.2,SNR=4.9						
MNTX	Cornudas Mount	123.52	57	*e*PKPdf	PKPdf	17 38 55.5	+1.1
TXAR	Lajitas Array	125.49	59	PKP	PKPdf	17 38 59.6	+1.3
TXAR	Lajitas Array	125.49	59	PKIKP	PKPdf	17 38 59.6	+1.3
TXAR	Lajitas Array	125.49	59	PKP	PKPdf	17 38 59.6	+1.3
	comp=Z,0.5nm,0.4s,baz=229,slow=0.8,SNR=9.9						
TORD	Torodi Ar. Bea	128.48	281	PKP	PKPdf	17 39 04.6	+0.2
TORD				SKPbc		17 42 13.9	
TORD	Torodi Ar. Bea	128.48	281	PKP	PKPdf	17 39 04.6	+0.2
	comp=Z,1.5nm,0.5s,baz=59,slow=2.4,SNR=19						
TORD				SKPbc		17 42 13.9	
	comp=Z,0.9nm,0.7s,baz=78,slow=3.6,SNR=5.6						
SCHQ	Schefferville	130.90	12	PKP	PKPdf	17 39 08.1	+0.3
SCHQ	Schefferville	130.90	12	PKP	PKPdf	17 39 08.1	+0.3
	comp=Z,2.9nm,1.0s,baz=9.5,slow=5.9,SNR=3.8						
JTS	JuntasAbangare	145.76	83	*e*PKPbc	PKPbc	17 39 37.2	+0.5
JTS	JuntasAbangare	145.76	83	*e*PKP2	PKPab	17 39 37.3	+0.1
LPAZ	La Paz	150.65	143	*e*PKPdf	PKPdf	17 39 45.5	+1.4
LPAZ				*e*PKPbc	PKPbc	17 39 51.6	+2.1
LPAZ				PKPbc	PKPbc	17 39 52.2	+2.6
LPAZ				*e*PKPab	PKPab	17 39 59.0	+2.5
LPAZ	La Paz	150.65	143	*e*PKIKP	PKPdf	17 39 45.5	+1.4
LPAZ	La Paz	150.65	143	PKPbc	PKPbc	17 39 52.2	+2.6
	comp=Z,11nm,0.4s,baz=50,slow=3.2,SNR=11						

MAN 02 17:36:45, 6.07N×124.84E, h28^{km}, mb4.8, ML3.7, MS3.7,

1C, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	**General Santos**	**0.11**	**79**	⇑*e*P	Pb	17 36 55.5	+5.3
GSPH				*e*S	Sb	17 37 03.2	+10
MATI	**Mati**	**1.66**	**58**	*e*P	Pn	17 37 14.7	+2.5
BUKP	**Musuan**	**1.81**	**7**	*e*P	Pn	17 37 15.0	+0.6
PAGZ	**Pagadian**	**2.29**	**321**	*e*S	Sn	17 37 50.1	+1.9

ISCJB ***02*** *17:53:21.7±0.6, 41.76N±0.03×19.63E±0.04, h8^{km}, Error ellipse: s-maj=5.8km s-min=2.4km az=40.3*
CSEM ***02*** *17:53:21.6±0.2, 41.73N×19.69E, h8^{km}, ML2.5/10, Error ellipse: s-maj=4.7km s-min=1.8km az=36.0*
TIR ***02*** *17:53:21.5±1.1, 41.74N×19.62E, h20^{km}±12^{km}, ML3.0*
SKO ***02*** *17:53:21.4, 41.87N×19.58E, h0^{km}*
PDG ***02*** *17:53:24.6±0.2, 41.88N×19.58E, h11^{km}±1^{km}, ML2.5/10, Error ellipse: s-maj=1.0km s-min=0.8km az=90.0*
ISC 02 17:53:22.5±0.6**, 41.74N**±0.04×**19.61E**±0.04**, h9**^{km}±9^{km}**, n36, σ0^{s}81**/71**, 6C-2D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ULC	**Ulcinj**	**0.35**	**309**	⇑*i*Pg	**Pg**	**17 53 29.7**	**+0.4**
ULC				*i* Sg	**Sg**	**17 53 34.9**	**+1.0**
ULC	**Ulcinj**	**0.35**	**309**	*i* PG	**Pg**	**17 53 29.7**	**+0.4**
ULC				*i* SG	**Sg**	**17 53 34.9**	**+1.0**
ULC	**Ulcinj**	**0.35**	**309**	⇑*i*Pg	**Pg**	**17 53 29.7**	**+0.4**
ULC				*i* Sg	**Sg**	**17 53 34.9**	**+1.0**
PDG	**Podgorica**	**0.73**	**339**	*i* PG	**Pg**	**17 53 35.9**	**-0.7**
PDG				*i* SG	**Sg**	**17 53 47.0**	**+0.8**
PDG	**Podgorica**	**0.73**	**339**	⇑*i*Pg	**Pg**	**17 53 35.9**	**-0.7**
PDG				*e*Sg	**Sg**	**17 53 47.0**	**+0.8**
TTG	**Podgorica**	**0.73**	**339**	⇑*i*Pg	**Pg**	**17 53 35.9**	**-0.7**
TTG				*e*Sg	**Sg**	**17 53 47.0**	**+0.8**
BUM	**Brajici-Budva**	**0.77**	**317**	*e*Pg	**Pg**	**17 53 37.1**	**-0.2**
BUM				*i* Sg	**Sg**	**17 53 47.2**	**-0.1**
BUM	**Brajici-Budva**	**0.77**	**317**	*i* PG	**Pg**	**17 53 37.1**	**-0.2**
BUM				*i* SG	**Sg**	**17 53 47.2**	**-0.1**
BUM	**Brajici-Budva**	**0.77**	**317**	*e*Pg	**Pg**	**17 53 37.1**	**-0.2**
BUM				*i* Sg	**Sg**	**17 53 47.2**	**-0.1**
PVY	**Plav**	**0.89**	**17**	*e*Pg	**Pg**	**17 53 39.0**	**-0.6**
PVY				*e*Sg	**Sg**	**17 53 51.8**	**+0.6**
PVY	**Plav**	**0.89**	**17**	*i* PG	**Pg**	**17 53 39.0**	**-0.6**
PVY				*i* SG	**Sg**	**17 53 51.8**	**+0.6**
PVY	**Plav**	**0.89**	**17**	*e*Pg	**Pg**	**17 53 39.0**	**-0.6**
PVY				*e*Sg	**Sg**	**17 53 51.8**	**+0.6**
HCY	**Herceg Novi**	**1.09**	**311**	⇓*i*Pg	**Pg**	**17 53 43.1**	**-0.2**
HCY				*i* Sg	**Sg**	**17 53 58.0**	**+0.6**
HCY	**Herceg Novi**	**1.09**	**311**	*i* PG	**Pg**	**17 53 43.1**	**-0.2**
HCY				*i* SG	**Sg**	**17 53 58.0**	**+0.6**
HCY	**Herceg Novi**	**1.09**	**311**	⇓*i*Pg	**Pg**	**17 53 43.1**	**-0.2**
HCY				*i* Sg	**Sg**	**17 53 58.0**	**+0.6**
OHR	**Ohrid**	**1.09**	**125**	*e*Pg	**Pg**	**17 53 42.5**	**-0.9**
OHR				*e*Sg	**Sg**	**17 53 58.9**	**+1.3**
OHR	**Ohrid**	**1.09**	**125**	*e*Pg	**Pg**	**17 53 42.5**	**-1.0**
OHR				*e*Sg	**Sg**	**17 53 58.9**	**+1.2**
BEY	**Berane**	**1.15**	**11**	*i* PG	**Pg**	**17 53 43.3**	**-1.2**
BEY				*i* SG	**Sg**	**17 54 00.6**	**+1.2**
BEY	**Berane**	**1.15**	**11**	⇑*i*Pg	**Pg**	**17 53 43.3**	**-1.2**
IVA	**Berane**	**1.15**	**11**	⇑*i*Pg	**Pg**	**17 53 43.3**	**-1.2**
IVA				*e*Sg	**Sg**	**17 54 00.6**	**+1.2**
NKY	**Niksic**	**1.16**	**337**	*e*Pg	**Pg**	**17 53 43.6**	**-1.2**
NKY				*e*Sg	**Sg**	**17 54 00.4**	**+0.6**
NKY	**Niksic**	**1.16**	**337**	*i* PG	**Pg**	**17 53 43.6**	**-1.2**
NKY				*i* SG	**Sg**	**17 54 00.4**	**+0.6**
NKY	**Niksic**	**1.16**	**337**	*e*Pg	**Pg**	**17 53 43.6**	**-1.2**
NKY				*e*Sg	**Sg**	**17 54 00.4**	**+0.6**
KRUS	**Krusevo**	**1.29**	**106**	*e*Pn	**Pn**	**17 53 46.4**	**-0.2**
KRUS				*e*Sg	**Sg**	**17 54 04.2**	**+0.4**
KRUS	**Krusevo**	**1.29**	**106**	*e*Pn	**Pn**	**17 53 46.4**	**-0.2**
KRUS				*e*Sg	**Sg**	**17 54 04.2**	**+0.4**
SKO	**Skopje**	**1.39**	**80**	*e*Pn	**Pn**	**17 53 48.4**	**+0.4**
SKO				*e*Sg	**Sg**	**17 54 06.7**	**-0.4**
SKO	**Skopje**	**1.39**	**80**	*e*Pn	**Pn**	**17 53 48.3**	**+0.3**
SKO				*e*Sg	**Sg**	**17 54 06.6**	**-0.4**
BRY	**Bratogost**	**1.40**	**326**	*e*Pg	**Pg**	**17 53 48.4**	**-0.9**
BRY				*e*Sg	**Sg**	**17 54 08.5**	**+1.0**
BRY	**Bratogost**	**1.40**	**326**	*i* PG	**Pg**	**17 53 48.4**	**-0.9**
BRY				*i* SG	**Sg**	**17 54 08.5**	**+1.0**
BRY	**Bratogost**	**1.40**	**326**	*e*Pg	**Pg**	**17 53 48.4**	**-0.9**
BRY				*e*Sg	**Sg**	**17 54 08.5**	**+1.0**
BIA	**Bitola**	**1.48**	**119**	*e*Pn	**Pn**	**17 53 49.9**	**+0.7**
BIA				*e*Sg	**Sg**	**17 54 10.4**	**+0.4**
BIA	**Bitola**	**1.48**	**119**	*e*Pn	**Pn**	**17 53 49.9**	**+0.6**
BIA				*e*Sg	**Sg**	**17 54 10.3**	**+0.3**
UPM	**Unac-Piva**	**1.55**	**341**	*e*Pg	**Pg**	**17 53 50.7**	**-1.4**
UPM				*e*Sg	**Sg**	**17 54 13.0**	**+0.8**
UPM	**Unac-Piva**	**1.55**	**341**	*e*Pg	**Pg**	**17 53 50.7**	**-1.4**
UPM				*e*Sg	**Sg**	**17 54 13.0**	**+0.8**
PLE	**Pljevlja**	**1.59**	**354**	*e*Pg	**Pg**	**17 53 51.5**	**-1.5**
PLE				*e*Sg	**Sg**	**17 54 13.2**	**-0.5**
PLE	**Pljevlja**	**1.59**	**354**	*e*Pg	**Pg**	**17 53 51.5**	**-1.5**
PLE				*e*Sg	**Sg**	**17 54 13.2**	**-0.5**

ISCJB ***02*** *18:25:24.8±0.5, 25.77N±0.06×99.77E±0.04, h10^{km}, mb4.2/18, MS3.4/5, Error ellipse: s-maj=8.4km s-min=5.3km az=9.5*
IDC ***02*** *18:25:26.3±0.9, 25.70N×99.51E, h0^{km}, mb4.0/10, mb1 4.1/10, mb1mx4.0/21, mbtmp4.0/10, MS3.5/5, Ms1 3.5/5, ms1mx3.2/40, Error ellipse: s-maj=34.8km s-min=18.2km az=52.0*
BJI ***02*** *18:25:27.9, 25.90N×99.79E, h21^{km}, mB4.8, mb4.3, ML4.2, Ms4.4, Msz4.0*
ISC 02 18:25:26.9±0.4**, 25.75N**±0.05×**99.71E**±0.04**, h10**^{km}**, n32, σ1^{s}35**/36**, mb4.2**/18**, MS3.4**/5**, 1C-2D, Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMI	**Kunming**	**2.81**	**102**	P	**Pn**	**18 26 14.2**	**+2.3**
KMI				PG	**Pg**	**18 26 19.6**	**-1.1**
KMI				SG	**Sg**	**18 26 56.2**	**-0.9**
KMI				Smax			
	comp=N,1μm,1.0s						
KMI				Smax			
	comp=E,712nm,1.4s						
CD2	**Chengdu**	**6.25**	**34**	*e*P	**Pn**	**18 26 59.4**	**+0.2**
CD2				PG	**Pg**	**18 27 18.5**	**-8.2**
CD2				S	**Sn**	**18 28 02.6**	**-8.1**
CD2				SG	**Sg**	**18 28 38.0**	**-10**
CD2				LR	LR		
	comp=Z,5μm,9.0s						
GYA	**Guiyang**	**6.29**	**82**	P	**Pn**	**18 27 02.4**	**+2.7**
CHG	**Chiang Mai**	**6.94**	**186**	⇓P	**Pn**	**18 27 16.5**	**+7.8**
	comp=Z,88nm,1.0s						
NANT	**Nan**	**6.98**	**172**	⇓P	**Pg**	**18 27 41.0**	**+0.4**
	comp=Z,410nm,1.0s						
LZH	**Lanzhou**	**10.89**	**18**	*e*P	**Pn**	**18 28 04.5**	**+1.7**
LZH				AP		18 28 07.5	
LZH				XP		18 28 10.5	
LZH				PP		18 28 13.0	
LZH				*e*S	**Sn**	**18 30 05.0**	**+0.2**
LZH				XS		18 30 10.1	
LZH				SS		18 30 20.0	
LZH				AMB	AMB		
	comp=Z,41nm,1.4s						
LZH				AMB	AMB		
	comp=Z,240nm,4.8s						
LZH				LR	LR		
	comp=N,978nm,7.7s						
LZH				LR	LR		
	comp=Z,654nm,8.7s						
XAN	**Xi'an**	**11.48**	**42**	P	**Pn**	**18 28 10.9**	**-0.1**
XAN				AP		18 28 21.8	
XAN				AMB	AMB		
	comp=Z,5.0nm,1.2s						
XAN				LR	LR		
	comp=N,822nm,16.3s						
XAN				LR	LR		
	comp=E,767nm,15.2s						
XAN				LR	LR		
	comp=Z,691nm,8.8s						
WHN	**Wuhan**	**13.76**	**66**	⇑P	**Pn**	**18 28 44.0**	**+1.9**
NJ2	**Nanjing**	**17.89**	**65**	*e*P	**Pn**	**18 29 34.1**	**-1.7**
NJ2				AP	pP	18 29 39.0	-0.3
NJ2				XP	sP	18 29 42.7	+2.1
NJ2				PP		18 29 49.1	
NJ2				S	**Sn**	**18 32 50.0**	**-5.3**
NJ2				AMB	AMB		
	comp=Z,70nm,1.0s						
NJ2				AMB	AMB		
	comp=Z,330nm,4.8s						
NJ2				LR	LR		
	comp=N,650nm,10.9s						
NJ2				LR	LR		
	comp=E,870nm,17.0s						
NJ2				LR	LR		
	comp=Z,870nm,17.0s						
BJI	**Beijing**	**19.80**	**40**	P	**Pn**	**18 29 57.5**	**-1.5**
BJI				AMB	AMB		
	comp=Z,15nm,1.0s						
WMQ	**Urumqi**	**20.51**	**335**	*e*P	**P**	**18 30 06.0**	**+0.9**
WMQ				AP		18 30 11.0	
WMQ				XP	sP	18 30 13.0	+3.7
WMQ				AMB	AMB		
	comp=Z,14nm,1.0s						
SONM	**Songino Array**	**22.66**	**12**	P	**P**	**18 30 28.6**	**+0.4**
	comp=Z,2.1nm,0.8s,mb3.6,baz=193,slow=9.9,SNR=10						
SONM				LR	LR	18 39 09.7	
	comp=Z,65nm,20.1s,MS3.1,baz=332,slow=36						
PSI	**Prapat**	**22.83**	**182**	LR	LR	18 39 11.5	
	comp=Z,60nm,21.0s,MS3.0,baz=312,slow=36						
MKAR	**Makanchi Array**	**25.16**	**331**	P	**P**	**18 30 53.0**	**+0.8**
	comp=Z,4.0nm,0.7s,mb4.1,baz=140,slow=10.0,SNR=61						
KSRS	**Korea Array**	**26.61**	**57**	P	**P**	**18 31 09.2**	**+3.8**
	comp=Z,1.9nm,1.0s,mb3.6,baz=242,slow=9.6,SNR=4.1						
KSRS				LR	LR	18 41 17.3	
	comp=Z,99nm,19.4s,MS3.4,baz=260,slow=36						
JNU	**Nakatsue**	**28.04**	**67**	LR	LR	18 42 14.3	
	comp=Z,112nm,20.0s,MS3.5,baz=16,slow=36						
ZALV	**Zalesovo Beam**	**30.27**	**342**	P	**P**	**18 31 38.0**	**+0.1**
	comp=Z,0.5nm,0.3s,mb3.6,baz=156,slow=11,SNR=5.5						
AKTO	**Aktyubinsk**	**40.29**	**319**	P	**P**	**18 33 04.8**	**+0.7**
	comp=Z,1.0nm,0.6s,mb3.7,baz=110,slow=7.8,SNR=3.9						
RDF	**Al-Radifah**	**46.14**	**286**	*e*P	**P**	**18 33 51.6**	**-0.1**
RDF				AMb	AMB	18 33 53.6	
	comp=Z,16nm,0.8s,mb5.0						
MIB	**Mutribah**	**46.20**	**287**	*e*P	**P**	**18 33 51.6**	**-0.5**
MIB				AMb	AMB	18 33 54.1	
	comp=Z,10nm,0.6s,mb4.9						
NAY	**Al-Naaiem**	**46.36**	**287**	*e*P	**P**	**18 33 53.0**	**-0.4**
NAY				AMb	AMB	18 33 55.1	
	comp=Z,9.2nm,0.7s,mb4.8						
WRA	**Warramunga Arr**	**56.52**	**140**	P	**P**	**18 35 10.5**	**+0.9**
	comp=Z,2.0nm,0.5s,mb4.4,baz=330,slow=7.6,SNR=9.3						
AKASG	**Malin Array Be**	**58.33**	**315**	P	**P**	**18 35 20.9**	**-1.1**
	comp=Z,1.1nm,0.6s,mb4.1,baz=74,slow=7.0,SNR=7.1						
NOA	**NORSAR Array B**	**67.11**	**328**	P	**P**	**18 36 23.1**	**+2.7**
	comp=Z,1.3nm,0.8s,mb4.0,baz=90,slow=6.7,SNR=2.8						
GERES	**GERESS Array B**	**68.54**	**315**	P	**P**	**18 36 30.6**	**+0.9**
	comp=Z,1.1nm,0.7s,mb3.9,baz=64,slow=6.1,SNR=10						
STKA	**Stephens Creek**	**69.87**	**143**	P	**P**	**18 36 39.6**	**+1.6**
	comp=Z,2.1nm,0.8s,mb4.1,baz=307,slow=7.9,SNR=3.6						
LPG	**La Plagne**	**74.07**	**313**	*e*P	**P**	**18 37 01.0**	**-2.2**
	comp=Z,13nm,0.8s,mb4.6						
LPL	**La Plagne**	**74.08**	**313**	*e*P	**P**	**18 37 01.0**	**-2.2**
	comp=Z,10nm,0.7s,mb4.6						
MBDF	**Montbardon**	**74.33**	**312**	*e*P	**P**	**18 37 05.1**	**+0.4**
	comp=Z,4.0nm,0.7s,mb4.2						
ORIF	**Oris-en-Rattie**	**74.86**	**313**	*e*P	**P**	**18 37 04.8**	**-2.9**
	comp=Z,3.2nm,0.6s,mb4.1						
SSF	**Saint Saulge**	**75.60**	**315**	*e*P	**P**	**18 37 10.0**	**-2.0**
	comp=Z,6.7nm,0.8s,mb4.3						
TSUM	**Tsumeb**	**91.41**	**249**	LR	LR	19 17 01.6	
	comp=Z,98nm,19.0s,MS4.3,baz=166,slow=34						

ISCJB ***02*** *18:29:25.5±1.5, 47.1N±0.2×152.4E±0.3, h33^{km}, mb3.9/5, Error ellipse: s-maj=40.4km s-min=14.8km az=141.3*
MOS ***02*** *18:29:25.6±1.3, 47.25N×152.29E, h33^{km}, mb4.1/5, Error ellipse: s-maj=39.0km s-min=27.2km az=46.3*
IDC ***02*** *18:29:36.9±6.8, 46.08N×151.98E, h160^{km}±87^{km}, mb3.4/5, mb1 3.5/6, mb1mx3.2/19, mbtmp3.3/6, Error ellipse: s-maj=117.8km s-min=32.8km az=14.0*
ISC 02 18:29:27.4±1.5**, 47.1N**±0.2×**152.5E**±0.3**, h35**^{km}**, n13, σ1^{s}12**/14**, mb3.9**/5**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**3.68**	**242**	*e*PN	**Pn**	**18 30 21.0**	**-0.8**
KUR				*e*S	**Sn**	**18 31 11.5**	**+7.6**
KUR				pmax	pmax		
	comp=Z,110nm,0.6s						
KUR				smax			
	comp=N,140nm,0.9s						
KUR				smax			
	comp=E,140nm,0.9s						
ASAJ	**Asahikawa**	**7.52**	**250**	PN	**Pn**	**18 31 15.9**	**+1.4**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**7.52**	**250**	P	**Pn**	**18 31 15.9**	**+1.4**
	comp=Z,0.5nm,0.3s,baz=52,slow=11,SNR=4.8						
MKAR	**Makanchi Array**	**46.39**	**297**	P	**P**	**18 37 48.0**	**-2.0**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	**Makanchi Array**	**46.39**	**297**	P	**P**	**18 37 48.0**	**-2.0**
	comp=Z,0.5nm,0.8s,mb3.5,baz=62,slow=6.7,SNR=3.0						
FINES	**FINESS Array B**	**63.55**	**334**	P	**P**	**18 39 54.2**	**+0.5**
FINES				pmax	pmax		
	comp=Z,3.0nm,1.0s						
FINES	**FINESS Array B**	**63.55**	**334**	P	**P**	**18 39 54.2**	**+0.5**
	comp=Z,2.8nm,1.0s,mb4.2,baz=33,slow=8.3,SNR=4.4						
NOA	**NORSAR Array B**	**67.77**	**341**	P	**P**	**18 40 22.4**	**+1.4**
NOA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
NOA	**NORSAR Array B**	**67.77**	**341**	P	**P**	**18 40 22.4**	**+1.4**
	comp=Z,1.5nm,0.9s,mb4.0,baz=28,slow=6.4,SNR=2.5						
AKASG	**Malin Array Be**	**71.02**	**326**	P	**P**	**18 40 40.7**	**-0.5**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	**Malin Array Be**	**71.02**	**326**	P	**P**	**18 40 40.7**	**-0.6**
	comp=Z,0.9nm,0.5s,mb4.0,baz=34,slow=6.2,SNR=5.9						
TXAR	**Lajitas Array**	**77.72**	**60**	P	**P**	**18 41 20.4**	**-0.2**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	**Lajitas Array**	**77.72**	**60**	P	**P**	**18 41 20.4**	**-0.2**
	comp=Z,0.5nm,0.6s,mb3.6,baz=303,slow=4.5,SNR=6.1						

MDD ***02*** *18:49:51.8±1.7, 36.02N×10.40W, h50^{km}±73^{km}, mb4.1/20, Error ellipse: s-maj=14.8km s-min=7.4km az=58.0, PRXIMO*
SFS ***02*** *18:49:51.0, 36.09N×10.40W, h25^{km}, ML3.3*
NEIC ***02*** *18:49:51.3, 36.07N×10.46W, h30^{km}, MN3.3(MDD), After MDD.*
INMG ***02*** *18:49:52.8±1.5, 36.14N×10.25W, h10^{km}, ML3.0, Error ellipse: s-maj=5.1km s-min=3.2km az=70.0*
ISCJB ***02*** *18:49:53.3±0.7, 36.38N±0.03×9.92W±0.04, h10^{km}, Error ellipse: s-maj=5.9km s-min=3.7km az=139.0*
CSEM ***02*** *18:49:53.3±0.4, 36.16N×10.08W, h40^{km}, ML3.0, Error ellipse: s-maj=8.1km s-min=6.0km az=52.0*
CNRM ***02*** *18:49:53.8, 35.77N×10.29W, h29^{km}, MD3.7*
IGIL ***02*** *18:49:53.0, 36.00N×10.30W, h28^{km}, ML3.3*
LDG ***02*** *18:49:54.1±0.7, 36.13N×9.76W, h10^{km}, Ml3.9/4, Error ellipse: s-maj=14.3km s-min=8.8km az=36.0*
ISC 02 18:49:54.3±0.7**, 36.35N**±0.03×**9.99W**±0.04**, h10**^{km}**, n137, σ1^{s}25**/247**, 5C, West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**1.22**	**50**	*i* P	**Pn**	**18 50 18.4**	**+1.0**
PFVI				*e*S	**Sb**	**18 50 37.1**	**+3.9**
PFVI				A		18 50 38.6	
	96nm,0.1s						
PFVI	**Vila Bisbo**	**1.22**	**50**	⇑P	**Pn**	**18 50 18.4**	**+1.0**
PFVI				S	**Sb**	**18 50 37.1**	**+3.9**
	48nm,0.1s						
MORF	**Marmelete**	**1.44**	**48**	*i* P	**Pn**	**18 50 21.5**	**+1.1**
MORF				S	**Sn**	**18 50 42.7**	**+3.3**
MORF				A		18 50 46.3	
	90nm,0.2s						
MORF	**Marmelete**	**1.44**	**48**	⇑P	**Pn**	**18 50 21.5**	**+1.1**
MORF				S	**Sn**	**18 50 42.7**	**+3.3**
	90nm,0.2s						
PTEO	**Sao Teotonio**	**1.57**	**40**	*e*P	**Pn**	**18 50 22.8**	**+0.6**
PTEO				*e*S	**Sn**	**18 50 45.7**	**+3.2**
PTEO				A		18 50 47.2	
	99nm,0.4s						
PTEO	**Sao Teotonio**	**1.57**	**40**	*e*P	**Pn**	**18 50 22.8**	**+0.6**
PTEO				*e*S	**Sn**	**18 50 45.7**	**+3.2**
	99nm,0.4s						
PBDV	**Barranco-do-Ve**	**1.88**	**61**	*e*P	**Pn**	**18 50 27.4**	**+1.0**
PBDV				S	**Sn**	**18 50 52.7**	**+2.5**
PBDV				A		18 50 57.5	
	36nm,0.2s						
PBDV	**Barranco-do-Ve**	**1.88**	**61**	*e*P	**Pn**	**18 50 27.4**	**+1.0**
PBDV				S	**Sn**	**18 50 52.7**	**+2.5**
	36nm,0.2s						
PVAQ	**Vaqueiros**	**2.11**	**59**	*i* P	**Pn**	**18 50 30.4**	**+0.8**
PVAQ				*e*S	**Sn**	**18 50 58.1**	**+2.3**
PVAQ				A		18 51 00.5	
	50nm,0.3s						
PVAQ	**Vaqueiros**	**2.11**	**59**	⇑P	**Pn**	**18 50 30.4**	**+0.8**
PVAQ				S	**Sn**	**18 50 58.1**	**+2.3**
	25nm,0.3s						
EGRO	**El Granado**	**2.33**	**59**	P	**Pn**	**18 50 33.5**	**+0.8**
EGRO				S	**Sn**	**18 51 03.7**	**+2.3**
EGRO	**El Granado**	**2.33**	**59**	P	**Pn**	**18 50 33.5**	**+0.8**
	0.8nm,0.0s,SNR=28						
EGRO				S	**Sn**	**18 51 03.7**	**+2.3**
	56nm,0.2s,SNR=26						
EGRO	**El Granado**	**2.33**	**59**	P	**Pn**	**18 50 33.5**	**+0.8**
	0.8nm,0.0s,SNR=28						
EGRO				S	**Sn**	**18 51 03.7**	**+2.3**
	56nm,0.2s,SNR=26						
PBEJ	**Beja**	**2.38**	**45**	*e*P	**Pn**	**18 50 34.3**	**+0.9**
PBEJ				*e*S	**Sn**	**18 51 05.3**	**+2.6**
PBEJ				A		18 51 08.1	
	31nm,0.2s						
PBEJ	**Beja**	**2.38**	**45**	*e*P	**Pn**	**18 50 34.3**	**+0.9**
PBEJ				*e*S	**Sn**	**18 51 05.3**	**+2.6**
	31nm,0.2s						
ERIP	**Rio Piedras**	**2.42**	**64**	⇑P	**Pn**	**18 50 34.6**	**+0.7**
	10.0nm,0.1s,SNR=18						
ERIP				S	**Sn**	**18 51 05.4**	**+1.9**
	99nm,0.1s,SNR=7.9						
MOE	**Montemor**	**2.53**	**31**	*e*P	**Pn**	**18 50 36.5**	**+1.0**
MOE				*e*S	**Sn**	**18 51 09.1**	**+2.7**
EVOP	**Sao Brissos**	**2.64**	**34**	*e*Pn	**Pn**	**18 50 37.2**	**+0.3**
EVOP	**Sao Brissos**	**2.64**	**34**	*e*Pg	**Pg**	**18 50 43.7**	**-1.1**
EVOP				*e*Sn	**Sn**	**18 51 08.1**	**-0.8**
PMAFR	**Mafra**	**2.66**	**12**	*e*P	**Pn**	**18 50 36.9**	**-0.3**
PMAFR				*e*S	**Sn**	**18 51 10.6**	**+1.0**
PMAFR				A		18 51 16.2	
	72nm,0.3s						
PMAFR	**Mafra**	**2.66**	**12**	*e*P	**Pn**	**18 50 36.9**	**-0.3**
PMAFR				*e*S	**Sn**	**18 51 10.6**	**+1.0**
	72nm,0.3s						
EVO	**Evora**	**2.69**	**35**	*e*Pn	**Pn**	**18 50 37.2**	**-0.4**
EVO	**Evora**	**2.69**	**35**	*e*Pg	**Pg**	**18 50 43.7**	**-2.1**
EVO				*e*Sn	**Sn**	**18 51 08.1**	**-2.1**
	200nm,0.4s						
EMIN	**Mina Concepcio**	**3.01**	**61**	P	**Pn**	**18 50 42.4**	**+0.4**
EMIN				S	**Sn**	**18 51 19.5**	**+1.5**
EMIN	**Mina Concepcio**	**3.01**	**61**	P	**Pn**	**18 50 42.3**	**+0.3**
	1.3nm,0.1s,SNR=30						
EMIN				S	**Sn**	**18 51 19.5**	**+1.5**
	18nm,0.2s,SNR=21						
EMIN	**Mina Concepcio**	**3.01**	**61**	P	**Pn**	**18 50 42.4**	**+0.4**
	1.3nm,0.1s,SNR=30						
EMIN				S	**Sn**	**18 51 19.5**	**+1.4**
	18nm,0.2s,SNR=21						
ALMR	**Almeirim**	**3.02**	**21**	*e*P	**Pn**	**18 50 43.2**	**+1.0**
ALMR				*e*S	**Sn**	**18 51 20.1**	**+1.8**
ALMR				*e*S	**Sn**	**18 51 20.1**	**+1.8**
ALMR				AML	AML	18 51 21.4	
	comp=N,70nm,0.2s						
ALMR	**Almeirim**	**3.02**	**21**	*e*P	**Pn**	**18 50 43.2**	**+1.1**
ALMR				*e*S	**Sn**	**18 51 20.1**	**+1.8**
ALMR				*e*S	**Sn**	**18 51 20.1**	**+1.8**
PESTR	**Estremoz**	**3.16**	**36**	*e*P	**Pn**	**18 50 45.5**	**+1.5**
PESTR				*e*S	**Sn**	**18 51 23.5**	**+1.8**
PESTR				A		18 51 25.2	
	comp=N,25nm,0.4s						
PESTR	**Estremoz**	**3.16**	**36**	*e*P	**Pn**	**18 50 45.5**	**+1.5**
PESTR				*e*S	**Sn**	**18 51 23.5**	**+1.8**
	comp=N,25nm,0.4s						
ESPR	**Espera**	**3.37**	**80**	P	**Pn**	**18 50 46.7**	**-0.2**
	comp=N,21nm,0.2s,SNR=136						
ESPR				S	**Sn**	**18 51 26.9**	**0.0**
	comp=N,137nm,0.3s,SNR=43						
ESPR	**Espera**	**3.37**	**80**	P	**Pn**	**18 50 46.7**	**-0.2**
	comp=N,21nm,0.2s,SNR=136						
ESPR				S	**Sn**	**18 51 26.9**	**0.0**
	comp=N,137nm,0.3s,SNR=43						
EBAD	**Badajoz**	**3.37**	**44**	P	**Pn**	**18 50 47.4**	**+0.4**
	comp=N,0.7nm,0.1s,SNR=14						
EBAD				S	**Sn**	**18 51 28.6**	**+1.6**
	comp=N,19nm,0.1s,SNR=15						
EBAD	**Badajoz**	**3.37**	**44**	P	**Pn**	**18 50 47.4**	**+0.4**
	comp=N,0.7nm,0.1s,SNR=14						
EBAD				S	**Sn**	**18 51 28.6**	**+1.5**
	comp=N,19nm,0.1s,SNR=15						
PTOM	**Tomar**	**3.50**	**20**	S	**Sn**	**18 51 31.0**	**+0.9**
PTOM				A		18 51 35.3	
	comp=N,30nm,0.2s						
PTOM	**Tomar**	**3.50**	**20**	S	**Sn**	**18 51 31.0**	**+0.9**
	comp=N,15nm,0.2s						
PTOM	**Tomar**	**3.50**	**20**	S	**Sn**	**18 51 31.0**	**+0.9**
	comp=N,30nm,0.2s						
EJIF	**Jimena Fronter**	**3.65**	**87**	P	**Pn**	**18 50 50.9**	**+0.1**
EJIF				S	**Sn**	**18 51 34.7**	**+0.9**
EJIF	**Jimena Fronter**	**3.65**	**87**	P	**Pn**	**18 50 50.1**	**-0.6**
	comp=N,3.8nm,0.3s,SNR=7.9						
EJIF				S	**Sn**	**18 51 33.0**	**-0.9**
	comp=N,3.7nm,0.2s,SNR=7.9						
EJIF	**Jimena Fronter**	**3.65**	**87**	P	**Pn**	**18 50 50.9**	**+0.1**
	comp=N,3.8nm,0.3s,SNR=7.9						
EJIF				S	**Sn**	**18 51 34.7**	**+0.8**
	comp=N,3.7nm,0.2s,SNR=7.9						
LIJA	**Lijar**	**3.73**	**80**	*e*P	**Pn**	**18 50 52.0**	**+0.1**
LIJA				*e*S	**Sn**	**18 51 35.5**	**-0.4**
PCBR	**Castelo Branco**	**4.01**	**29**	*e*P	**Pn**	**18 50 56.3**	**+0.5**
PCBR				*e*S	**Sn**	**18 51 43.3**	**+0.5**
PCBR				A		18 51 45.6	
	comp=N,14nm,0.3s						
PCBR	**Castelo Branco**	**4.01**	**29**	*e*P	**Pn**	**18 50 56.3**	**+0.5**
PCBR				*e*S	**Sn**	**18 51 43.3**	**+0.5**
	comp=N,14nm,0.3s						
EMIJ	**Mijas**	**4.21**	**86**	P	**Pn**	**18 50 57.5**	**-1.1**
EMIJ				S	**Sn**	**18 51 47.1**	**-0.6**
EMIJ	**Mijas**	**4.21**	**86**	P	**Pn**	**18 50 57.9**	**-0.6**
	comp=N,2.6nm,0.4s,SNR=6.8						
EMIJ				S	**Sn**	**18 51 47.1**	**-0.6**
	comp=N,7.4nm,0.2s,SNR=4.7						
EMIJ	**Mijas**	**4.21**	**86**	P	**Pn**	**18 50 57.5**	**-1.0**
	comp=N,2.6nm,0.4s,SNR=6.8						
EMIJ				S	**Sn**	**18 51 47.1**	**-0.6**
	comp=N,7.4nm,0.2s,SNR=4.7						
MTE	**Manteigas**	**4.48**	**25**	*e*P	**Pn**	**18 51 02.6**	**+0.4**
MTE				*e*S	**Sn**	**18 51 54.6**	**+0.3**
MTE				A		18 51 58.7	
	comp=N,24nm,0.4s						
MTE	**Manteigas**	**4.48**	**25**	P	**Pn**	**18 51 02.6**	**+0.4**
MTE				S	**Sn**	**18 51 54.6**	**+0.3**
	comp=N,12nm,0.4s						
TGT	**Taghat**	**4.63**	**118**	*e*P	**Pn**	**18 51 00.0**	**-4.3**
PVIS	**Viseu**	**4.66**	**20**	*e*S	**Sn**	**18 51 57.9**	**-0.9**
PVIS				A		18 52 02.4	
	comp=N,13nm,0.3s						
EADA	**Adamuz**	**4.69**	**66**	⇑P	**Pn**	**18 51 05.3**	**+0.3**
	comp=N,3.9nm,0.1s,SNR=18						
EADA				S	**Sn**	**18 51 59.5**	**+0.1**
	comp=N,2.4nm,0.1s,SNR=10.0						
EADA	**Adamuz**	**4.69**	**66**	P	**Pn**	**18 51 05.3**	**+0.3**
	comp=N,3.9nm,0.1s,SNR=18						
EADA				S	**Sn**	**18 51 59.5**	**+0.1**
	comp=N,2.4nm,0.1s,SNR=10.0						
ELUQ	**Luque**	**4.74**	**73**	P	**Pn**	**18 51 05.8**	**0.0**
	comp=N,3.5nm,0.2s,SNR=5.9						
ELUQ				S	**Sn**	**18 52 00.7**	**-0.2**
	comp=N,1.7nm,0.1s						
ELUQ	**Luque**	**4.74**	**73**	P	**Pn**	**18 51 05.8**	**0.0**
	comp=N,3.5nm,0.2s,SNR=5.9						
ELUQ				S	**Sn**	**18 52 00.6**	**-0.2**
ELOJ	**Sierra Loja**	**4.76**	**79**	P	**Pn**	**18 51 07.2**	**+1.2**
ELOJ				S	**Sn**	**18 52 02.6**	**+1.4**
ELOJ	**Sierra Loja**	**4.76**	**79**	P	**Pn**	**18 51 05.8**	**-0.2**
	comp=N,2.0nm,0.2s,SNR=7.9						
ELOJ				S	**Sn**	**18 52 00.4**	**-0.8**
	comp=N,1.2nm,0.2s,SNR=7.9						
ELOJ	**Sierra Loja**	**4.76**	**79**	P	**Pn**	**18 51 07.2**	**+1.2**
	comp=N,2.0nm,0.2s,SNR=7.9						
ELOJ				S	**Sn**	**18 52 02.6**	**+1.4**
	comp=N,1.2nm,0.2s,SNR=7.9						
MIF	**Mishlifen**	**4.89**	**125**	*i* P	**Pn**	**18 51 04.0**	**-3.8**
KIB	**El Ksiba**	**4.98**	**138**	*e*P	**Pn**	**18 51 02.5**	**-6.6**

ERON	**Agron**	5.02	80	P	Pn	18 51 10.2	+0.7
ERON	**Agron**	5.02	80	P	Pn	18 51 09.3	-0.2
	comp=N,2.0nm,0.2s,SNR=7.9						
ERON				S	Sn	18 52 06.7	-0.8
	comp=N,7.7nm,3.2s,SNR=7.9						
ERON	**Agron**	5.02	80	P	Pn	18 51 10.2	+0.6
	comp=N,2.0nm,0.2s,SNR=7.9						
TZC	**Tazercounte**	5.09	144	*i* P	Pn	18 51 03.0	-7.6
EGUA	**Guajares**	5.19	83	P	Pn	18 51 12.6	+0.6
EGUA	**Guajares**	5.19	83	P	Pn	18 51 11.5	-0.5
	comp=N,0.3nm,0.1s,SNR=7.9						
EGUA				S	Sn	18 52 09.9	-2.1
	comp=N,112nm,7.0s,SNR=7.9						
EGUA	**Guajares**	5.19	83	P	Pn	18 51 12.6	+0.6
	comp=N,0.3nm,0.1s,SNR=7.9						
PVRL	**Vila Real**	5.23	19	*e*P	Pn	18 51 12.1	-0.4
PVRL				*e*S	Sn	18 52 12.1	-0.8
PVRL				A		18 52 15.7	
	comp=N,20nm,0.3s						
PVRL	**Vila Real**	5.23	19	P	Pn	18 51 12.1	-0.4
PVRL				S	Sn	18 52 12.1	-0.8
	comp=N,10nm,0.3s						
ECOG	**Cogollos-Vega**	5.24	78	P	Pn	18 51 12.8	+0.1
ECOG				S	Sn	18 52 14.2	+1.2
ECOG	**Cogollos-Vega**	5.24	78	P	Pn	18 51 12.8	+0.1
	comp=N,1.2nm,0.1s,SNR=7.9						
ECOG				S	Sn	18 52 11.9	-1.1
	comp=N,5.0nm,0.3s,SNR=7.9						
ECOG	**Cogollos-Vega**	5.24	78	P	Pn	18 51 12.8	+0.2
	comp=N,1.2nm,0.1s,SNR=7.9						
ECOG				S	Sn	18 52 14.2	+1.2
	comp=N,5.0nm,0.3s,SNR=7.9						
CZD	**Col de Zad**	5.25	128	*e*P	Pn	18 51 08.0	-4.8
TZK	**Tazeka**	5.26	114	*e*P	Pn	18 51 10.0	-2.9
EBAN	**Banos Encina**	5.27	68	P	Pn	18 51 12.7	-0.4
EBAN				S	Sn	18 52 12.7	-1.2
EBAN	**Banos Encina**	5.27	68	P	Pn	18 51 12.9	-0.2
	comp=N,2.3nm,0.2s,SNR=7.0						
EBAN				S	Sn	18 52 12.7	-1.2
	comp=N,2.5nm,0.2s,SNR=7.8						
EBAN	**Banos Encina**	5.27	68	P	Pn	18 51 12.7	-0.4
	comp=N,2.3nm,0.2s,SNR=7.0						
EBAN				S	Sn	18 52 12.7	-1.2
	comp=N,2.5nm,0.2s,SNR=7.8						
EQUE	**Quentar**	5.33	79	P	Pn	18 51 13.5	-0.3
	comp=N,3.1nm,0.2s,SNR=18						
EQUE				S	Sn	18 52 13.5	-1.7
	comp=N,8.5nm,0.5s,SNR=4.9						
EQUE	**Quentar**	5.33	79	P	Pn	18 51 14.6	+0.8
	comp=N,3.1nm,0.2s,SNR=18						
EQUE				S	Sn	18 52 15.8	+0.5
	comp=N,8.5nm,0.5s,SNR=4.9						
MVO	**Moncorvo**	5.34	25	*e*P	Pn	18 51 13.8	-0.2
MVO				*e*S	Sn	18 52 14.8	-0.7
MVO				A		18 52 19.4	
	comp=N,12nm,0.2s						
MVO	**Moncorvo**	5.34	25	P	Pn	18 51 13.8	-0.2
MVO				S	Sn	18 52 14.8	-0.7
	comp=N,6.2nm,0.2s						
PCAB	**Cabril**	5.57	15	*e*S	Sn	18 52 19.1	-2.1
PCAB				A		18 52 21.7	
	comp=N,9.1nm,0.3s						
PCAB	**Cabril**	5.57	15	S	Sn	18 52 19.1	-2.1
	comp=N,4.6nm,0.3s						
ELOB	**Lobios**	5.71	15	P	Pn	18 51 18.7	-0.5
ELOB				S	Sn	18 52 21.8	-3.0
ELOB	**Lobios**	5.71	15	S	Sn	18 52 23.3	-1.4
	comp=N,5.3nm,0.2s,SNR=7.9						
ELOB	**Lobios**	5.71	15	P	Pn	18 51 18.7	-0.4
	comp=N,0.2nm,0.0s,SNR=6.5						
EQES	**Quesada**	5.72	73	P	Pn	18 51 18.4	-0.8
EQES				S	Sn	18 52 24.3	-0.6
EQES	**Quesada**	5.72	73	P	Pn	18 51 19.1	-0.1
	comp=N,4.4nm,0.4s,SNR=9.5						
EQES				S	Sn	18 52 24.0	-1.0
	comp=N,1.7nm,0.2s,SNR=9.2						
EQES	**Quesada**	5.72	73	P	Pn	18 51 18.4	-0.8
	comp=N,4.4nm,0.4s,SNR=9.5						
EQES				S	Sn	18 52 24.3	-0.6
	comp=N,1.7nm,0.2s,SNR=9.2						
EBER	**Berja**	5.74	82	P	Pn	18 51 18.9	-0.6
EBER				S	Sn	18 52 24.5	-0.8
EBER	**Berja**	5.74	82	P	Pn	18 51 18.9	-0.6
	comp=N,0.4nm,0.2s,SNR=7.9						
EBER				S	Sn	18 52 23.7	-1.7
	comp=N,14nm,0.6s,SNR=7.9						
EBER	**Berja**	5.74	82	P	Pn	18 51 18.9	-0.6
	comp=N,0.4nm,0.2s,SNR=7.9						
EBER				S	Sn	18 52 24.5	-0.9
	comp=N,14nm,0.6s,SNR=7.9						
ESDC	**Sonseca Array**	5.80	53	P	Pn	18 51 21.1	+0.7
ESDC				S	Sn	18 52 27.5	+0.5
ESDC	**Sonseca Array**	5.80	53	P	Pn	18 51 21.1	+0.7
	comp=N,2.4nm,0.1s,baz=236,slow=13,SNR=18						
ESDC				S	Sn	18 52 26.6	-0.4
	comp=N,4.5nm,0.3s,baz=240,slow=23,SNR=49						
ESDC	**Sonseca Array**	5.80	53	P	Pn	18 51 21.0	+0.6
ESDC				S	Sn	18 52 27.5	+0.5
	comp=N,4.5nm,0.3s,SNR=49						
EZAM	**Zamans**	5.88	9	P	Pn	18 51 20.1	-1.3
EZAM				S	Sn	18 52 23.6	-5.2
EZAM	**Zamans**	5.88	9	S	Sn	18 52 25.9	-2.9
	comp=N,3.2nm,0.3s,SNR=7.9						
EZAM	**Zamans**	5.88	9	P	Pn	18 51 20.1	-1.3
PBRG	**Braganca**	6.01	24	*e*P	Pn	18 51 23.6	+0.4
PBRG				*e*S	Sn	18 52 30.7	-1.3
PBRG				A		18 52 33.9	
	comp=N,7.1nm,0.2s						
PBRG	**Braganca**	6.01	24	P	Pn	18 51 23.6	+0.4
PBRG				S	Sn	18 52 30.7	-1.3
	comp=N,3.5nm,0.2s						
ECAL	**Calabor**	6.13	23	P	Pn	18 51 24.3	-0.6
ECAL				S	Sn	18 52 33.7	-1.4
ECAL	**Calabor**	6.13	23	P	Pn	18 51 25.1	+0.2
	comp=N,1.3nm,0.2s,SNR=5.9						
ECAL				S	Sn	18 52 33.7	-1.4
	comp=N,16nm,0.3s,SNR=5.8						
ECAL	**Calabor**	6.13	23	P	Pn	18 51 24.3	-0.6
	comp=N,1.3nm,0.2s,SNR=5.9						
ECAL				S	Sn	18 52 33.7	-1.3
	comp=N,16nm,0.3s,SNR=5.8						
GUD	**Guadarrama**	6.27	45	P	Pn	18 51 27.7	+0.8
	comp=N,1.0nm,0.2s,SNR=7.9						
GUD				S	Sn	18 52 38.5	-0.1
	comp=N,8.4nm,0.3s,SNR=7.9						
GUD	**Guadarrama**	6.27	45	P	Pn	18 51 27.6	+0.8
GUD				S	Sn	18 52 38.5	0.0
	comp=N,8.4nm,0.3s,SNR=7.9						
ZFT	**Errachidia**	6.35	131	P	Pn	18 51 23.0	-4.9
ZFT				S	Sn	18 52 29.0	-11
EVIA	**Vianos**	6.38	67	P	Pn	18 51 28.1	-0.1
	comp=N,0.8nm,0.1s,SNR=7.9						
EVIA				S	Sn	18 52 39.8	-1.3
	comp=N,4.2nm,0.2s,SNR=6.2						
EVIA	**Vianos**	6.38	67	P	Pn	18 51 28.1	-0.2
	comp=N,0.8nm,0.1s,SNR=7.9						
EVIA				S	Sn	18 52 39.8	-1.3
	comp=N,4.2nm,0.2s,SNR=6.2						
EMAZ	**Mazaricos**	6.64	6	P	Pn	18 51 29.5	-2.3
EMAZ				S	Sn	18 52 42.7	-4.8
EMAZ	**Mazaricos**	6.64	6	S	Sn	18 52 43.7	-3.9
	comp=N,14nm,0.3s,SNR=7.1						
EMAZ	**Mazaricos**	6.64	6	P	Pn	18 51 29.5	-2.4
	comp=N,5.6nm,0.3s,SNR=7.2						
ETOB	**Tobarra**	7.09	69	P	Pn	18 51 37.2	-0.8
ETOB				S	Sn	18 52 55.8	-2.9
ETOB	**Tobarra**	7.09	69	P	Pn	18 51 37.5	-0.6
	comp=N,1.4nm,0.2s,SNR=6.9						
ETOB				S	Sn	18 52 57.0	-1.8
	comp=N,4.6nm,0.2s,SNR=7.9						
ETOB	**Tobarra**	7.09	69	P	Pn	18 51 37.2	-0.9
	comp=N,1.4nm,0.2s,SNR=6.9						
ETOB				S	Sn	18 52 55.8	-2.9
	comp=N,4.6nm,0.2s,SNR=7.9						
EPON	**Pontenova**	7.30	17	P	Pn	18 51 40.5	-0.4
EPON				S	Sn	18 53 01.6	-2.3
EPON	**Pontenova**	7.30	17	P	Pn	18 51 40.8	-0.2
	comp=N,1.0nm,0.3s,SNR=7.9						
EPON				S	Sn	18 53 01.1	-2.8
	comp=N,1.3nm,0.2s,SNR=7.9						
EPON	**Pontenova**	7.30	17	P	Pn	18 51 40.5	-0.5
	comp=N,1.0nm,0.3s,SNR=7.9						
EPON				S	Sn	18 53 01.6	-2.3
	comp=N,1.3nm,0.2s,SNR=7.9						
EARI	**Arriondas**	7.86	26	P	Pn	18 51 50.1	+1.6
EARI				S	Sn	18 53 16.6	-0.9
EARI	**Arriondas**	7.86	26	P	Pn	18 51 48.8	+0.2
	comp=N,0.5nm,0.3s,SNR=7.9						
EARI				S	Sn	18 53 14.6	-2.9
	comp=N,0.4nm,0.2s,SNR=7.9						
EARI	**Arriondas**	7.86	26	P	Pn	18 51 50.1	+1.5
	comp=N,0.5nm,0.3s,SNR=7.9						
EARI				S	Sn	18 53 16.6	-0.9
	comp=N,0.4nm,0.2s,SNR=7.9						
EMOS	**Mosqueruela**	8.48	59	P	Pn	18 51 59.2	+2.1
EMOS				S	Sn	18 53 32.3	-0.6
EMOS	**Mosqueruela**	8.48	59	P	Pn	18 51 57.8	+0.7
	comp=N,0.7nm,0.3s,SNR=7.9						
EMOS				S	Sn	18 53 30.5	-2.4
	comp=N,1.3nm,0.2s,SNR=7.9						
EMOS	**Mosqueruela**	8.48	59	S	Sn	18 53 32.3	-0.6
	comp=N,1.3nm,0.2s,SNR=7.9						
ELAN	**Lanestosa**	8.53	34	P	Pn	18 51 58.6	+0.9
	comp=N,15nm,2.9s,SNR=7.9						
ELAN				S	Sn	18 53 30.8	-3.2
	comp=N,0.8nm,0.2s,SNR=4.0						
ESAC	**San Caprasio**	9.14	51	P	Pn	18 52 07.0	+0.8
	comp=N,11nm,2.0s,SNR=7.9						
ESAC				S	Sn	18 53 45.7	-3.5
	comp=N,5.7nm,0.3s,SNR=4.0						
EALK	**Alkurruntz**	9.47	41	P	Pn	18 52 11.1	+0.4
	comp=N,15nm,3.3s,SNR=7.9						
EALK				S	Sn	18 53 53.9	-3.2
	comp=N,1.8nm,0.3s,SNR=7.9						
SJPF	**Ste Jean**	9.55	42	*e*Pn	Pn	18 52 12.4	+0.7
SJPF				*e*Sn	Sn	18 53 56.0	-3.1
SJPF	**Ste Jean**	9.55	42	P	Pn	18 52 12.4	+0.7
SJPF				S	Sn	18 53 56.0	-3.1
	comp=N,2.5nm,0.5s						
SJPF	**Ste Jean**	9.55	42	*e*Pn	Pn	18 52 12.4	+0.7
SJPF				*e*Sn	Sn	18 53 56.0	-3.1
	comp=N,4.9nm,0.5s						
SJPF	**Ste Jean**	9.55	42	*e*Pn	Pn	18 52 12.4	+0.7
ETSF	**Etsaut**	9.78	45	*e*Pn	Pn	18 52 15.6	+0.7
ETSF				*e*Sn	Sn	18 54 02.3	-2.5
ETSF	**Etsaut**	9.78	45	P	Pn	18 52 15.6	+0.7
ETSF				S	Sn	18 54 02.3	-2.5
	comp=N,5.7nm,1.0s						
ETSF	**Etsaut**	9.78	45	*e*Pn	Pn	18 52 15.6	+0.7
ETSF				*e*Sn	Sn	18 54 02.3	-2.5
	comp=N,11nm,1.0s						
ETSF	**Etsaut**	9.78	45	*e*Pn	Pn	18 52 15.6	+0.7
EBIE	**Bielsa**	10.06	48	P	Pn	18 52 19.0	+0.2
	comp=N,0.2nm,3.1s,SNR=7.9						
EBIE				S	Sn	18 54 08.0	-3.7
	comp=N,1.0nm,0.3s,SNR=7.9						
EPF	**Esparros**	10.38	47	S	Sn	18 54 17.1	-2.5
	comp=N,3.4nm,0.5s						
EPF	**Esparros**	10.38	47	*e*Pn	Pn	18 52 21.6	-1.6
EPF				*e*Sn	Sn	18 54 17.1	-2.5
	comp=N,6.8nm,0.5s						
EPF	**Esparros**	10.38	47	*e*Pn	Pn	18 52 21.6	-1.6

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*MOS **02** 18:52:19.6±0.9, 13.69N×120.68E, h121^{km}, mb4.4/18, Error ellipse: s-maj=20.2km s-min=7.8km az=110.5*

*BJI **02** 18:52:20.6, 13.59N×120.72E, h137^{km}, mB5.0, mb4.7*

*IDC **02** 18:52:20.0±0.9, 13.64N×120.69E, h112^{km}±6^{km}, mb3.9/16, mb1 4.0/16, mb1mx3.9/23, mbtmp3.9/16, MS2.8/1, Ms1 2.8/1, ms1mx2.6/23, Error ellipse: s-maj=31.3km s-min=14.8km az=67.0*

*ISCJB **02** 18:52:20.2±0.3, 13.70N±0.03×120.61E±0.05, h120^{km}±2^{km}, mb4.6/51, Error ellipse: s-maj=8.6km s-min=4.7km az=6.7*

*NEIC **02** 18:52:21.6±0.7, 13.81N×120.92E, h125^{km}±6^{km}, mb4.7/13, Error ellipse: s-maj=12.9km s-min=8.9km az=74.0*

*MAN **02** 18:52:21, 13.69N×120.54E, h95^{km}, mb4.5, ML3.4, MS3.3*

ISC 02 18:52:21.2±0.3**, 13.70N**±0.03×**120.63E**±0.05**, h114**^{km}±2^{km}**, h161**^{km}±11.3^{km}**:pP-P, n109, σ1.03**/119**, mb4.6**/51**, 7C-6D, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LUBP	**Lubang**	0.37	276	*e*P	Pn	18 52 36.7	-1.0
LUBP				*e*S	Sn	18 52 48.1	-2.1
TGY	**Tagaytay City**	0.50	36	P	Pn	18 52 38.6	+0.1
	930nm,0.3s,baz=264,slow=1.5,SNR=138						
TGY				S	Sn	18 52 51.7	+0.2
	5µm,0.3s,baz=307,slow=20,SNR=163						
TGY	**Tagaytay City**	0.50	36⇑	*e*P	Pn	18 52 40.0	+1.5
TGY				*i* S	Sn	18 52 53.2	+1.7
LQP	**Lukban**	0.97	65⇓	*e*P	Pn	18 52 43.0	+0.5
BUSP	**Coron**	1.73	194	*e*P	Pn	18 52 50.3	-0.8
BUSP				*e*S	Sn	18 53 12.3	-1.6
GQP	**Guinayangan**	1.78	83⇓	*i*P	Pn	18 52 58.1	+6.5
PCPH	**Palayan**	1.91	14⇓	*e*P	Pn	18 52 52.1	-1.2
PCPH				*e*S	Sn	18 53 17.5	-0.2
SCZP	**Santa Cruz**	2.18	342	*e*P	Pn	18 52 56.0	-0.7
SCZP				*e*S	Sn	18 53 22.7	-1.1
BALP	**Baler**	2.23	24	*e*P	Pn	18 52 58.1	+0.8
ENPP	**El Nido**	2.74	206	*e*P	Pn	18 53 03.6	-0.3
BOLP	**Bolinao**	2.76	346	*e*P	Pn	18 53 03.5	-0.7
CUYO	**Cuyo Island**	2.85	172	*e*P	Pn	18 53 05.3	-0.1
CAUP	**Cauayan**	3.43	19	*e*P	Pn	18 53 15.2	+2.1
GUIM	**Jordan**	3.60	148	*e*P	Pn	18 53 17.6	+2.2
ABRA	**Dolores**	3.93	1	*e*P	Pn	18 53 19.3	-0.4
PPR	**Puerto Princes**	4.32	206⇑	*e*P	Pn	18 53 27.0	+2.0
PPR				*e*S	Sn	18 54 15.0	+0.6
OCLP	**Ormoc**	4.69	124	*e*P	Pn	18 53 24.9	-5.1
MSLP	**Maasin**	5.45	130	*e*P	Pn	18 53 43.0	+2.8
BATP	**Bataraza**	5.60	210	*e*P	Pn	18 53 42.6	+0.3
PAGZ	**Pagadian**	6.41	155	*e*P	Pn	18 53 57.6	+4.4
KKM	**Kota Kinabalu**	8.76	210	*e*Pn	Pn	18 54 30.4	+5.3
WHN	**Wuhan**	17.74	342	⇑P	Pn	18 56 23.0	+2.0
KMI	**Kunming**	20.32	307	P	P	18 56 50.6	+2.3
KMI				AMB	AMB		
	comp=Z,6.0nm,1.5s						
CM31	**Chiang Mai Arr**	21.36	286	P	P	18 57 01.2	+1.6
	comp=Z,2.5nm,0.6s,mb3.7						
CD2	**Chengdu**	23.12	321	*e*P	P	18 57 17.5	+0.1
CD2				AP		18 57 45.8	
CD2				PP		18 57 55.7	
CD2				XP	sP	18 58 02.8	+8.8
CD2				S	S	19 01 15.3	-4.7
CD2				SS		19 02 14.5	
CD2				AMB	AMB		
	comp=Z,60nm,0.8s,mb5.0						
CD2				AMB	AMB		
	comp=Z,170nm,4.8s						
CD2				LR	LR		
	comp=N,190nm,9.6s						
CD2				LR	LR		
	comp=Z,150nm,7.2s						
KSRS	**Korea Array**	24.54	14	P	P	18 57 30.9	+0.7
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.6s						
KSRS				MLR	MLR		
	comp=Z,21nm,20.2s						
KSRS	**Korea Array**	24.54	14	P	P	18 57 30.9	+0.6
	comp=Z,0.8nm,0.6s,baz=200,slow=11,SNR=3.9						
KSRS				LR	LR	19 07 32.4	
	comp=Z,20nm,20.1s,baz=335,slow=37						
LZH	**Lanzhou**	26.91	329	⇑P	P	18 57 51.3	-0.4
LZH				AMB	AMB		
	comp=Z,21nm,1.4s,mb4.5						
HHC	**Hu-ho-hao-te**	28.19	345	*e*P	P	18 58 05.7	+2.7
HHC				AP	pP	18 58 35.3	+7.4
HHC				XP	sP	18 58 51.9	+11
HHC				PP	PP	18 59 00.8	-8.0
HHC				PCP	PcP	19 01 16.3	+2.2
HHC				S	S	19 02 43.6	+3.4
HHC				XS	sS	19 03 31.0	+7.3
HHC				SS	SS	19 04 16.6	-27
HHC				SCP	ScP	19 04 43.1	-1.7
HHC				SCS	ScS	19 08 34.6	-2.9
HHC				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.4						
HHC				AMB	AMB		
	comp=Z,182nm,5.0s						
HHC				LR	LR		
	comp=N,133nm,19.9s						
HHC				LR	LR		
	comp=E,625nm,19.9s						
HHC				LR	LR		
	comp=Z,162nm,19.9s						
GTA	**Gaotai**	31.51	328	*e*P	P	18 58 32.9	+0.6
GTA				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.6						
LSA	**Lhasa**	31.55	305	P	P	18 58 34.2	+1.3
LSA	**Lhasa**	31.55	305	*e*P	P	18 58 34.4	+1.4
	comp=Z,5.4nm,0.6s,mb4.5						
LSA	**Lhasa**	31.55	305	*e*P	P	18 58 34.4	+1.5
LSA				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
TAPN	**Taplejung**	33.57	299	*e*P	P	18 58 51.2	+0.7
	comp=Z,25nm,0.9s,mb5.0						
ODAN	**Odare**	33.70	298	*e*P	P	18 58 52.0	+0.3
	comp=Z,42nm,0.7s,mb5.3						
JIRN	**Jiri**	34.95	299	*e*P	P	18 59 03.3	+0.8
	comp=Z,31nm,0.5s,mb5.4						
GUN	**Gumba**	35.29	299	*e*P	P	18 59 05.9	+0.6
	comp=Z,39nm,0.5s,mb5.5						
PKI	**Pulchoki**	35.59	298	*e*P	P	18 59 08.2	+0.2
	comp=Z,18nm,0.5s,mb5.3						
KKN	**Kakani**	35.76	299	*e*P	P	18 59 09.4	0.0
	comp=Z,14nm,0.5s,mb5.1						
DMN	**Daman**	35.86	298	*e*P	P	18 59 10.2	-0.1
	comp=Z,19nm,0.6s,mb5.2						
ULN	**Ulaanbaatar**	35.89	344	*e*P	P	18 59 09.7	-0.5
	comp=Z,7.9nm,1.0s,mb4.6						
ULN	**Ulaanbaatar**	35.89	344	*e*P	P	18 59 09.7	-0.5
ULN				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
SONM	**Songino Array**	36.04	344	P	P	18 59 11.4	-0.1
	comp=Z,7.7nm,0.7s,mb4.8,baz=161,slow=10,SNR=60						
WRA	**Warramunga Arr**	36.05	158	*i* P	P	18 59 11.6	-0.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRA	**Warramunga Arr**	36.05	158	P	P	18 59 10.2	-1.6
	comp=Z,0.8nm,0.5s,mb3.9,baz=331,slow=10.0,SNR=14						
GKN	**Gorkha**	36.37	299	*e*P	P	18 59 14.0	-0.6
KOLN	**Koldanda**	37.19	298	*e*P	P	18 59 20.7	-0.9
	comp=Z,7.1nm,0.8s,mb4.6						
ZAK	**Zakamensk**	39.22	342⇑	*e*P	P	18 59 37.5	-0.7
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
TLY	**Talaya**	40.28	344	*i* P	P	18 59 46.6	-0.4
IRK	**Irkutsk**	40.62	345	*e*P	P	18 59 49.7	-0.1
IRK				pmax	pmax		
	comp=Z,21nm,3.8s						
MOY	**Mondy**	41.05	341	*e*P	P	18 59 53.2	0.0
WMQ	**Urumqi**	41.17	323	*e*P	P	18 59 55.4	+1.0
WMQ				AP	pP	19 00 26.7	+6.4
WMQ				XP	sP	19 00 42.9	+10
WMQ				PP	PP	19 01 35.2	+3.6
WMQ				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
WMQ				AMB	AMB		
	comp=Z,51nm,8.8s						
WMQ				LR	LR		
	comp=N,94nm,16.1s						
WMQ				LR	LR		
	comp=Z,65nm,14.8s						
NRGR	**Nerungri**	42.99	3	*e*P	P	19 00 10.4	+1.5
MK31	**Makanchi Array**	45.99	324	*e*P	P	19 00 33.2	+0.2
MKAR	**Makanchi Array**	45.99	324	*i* P	P	19 00 33.5	+0.5
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.7s						
MKAR	**Makanchi Array**	45.99	324	P	P	19 00 33.6	+0.6
	comp=Z,8.4nm,0.7s,mb4.6,baz=130,slow=9.0,SNR=80						
ULHL	**Ulahol**	47.68	315	P	P	19 00 47.4	+1.2
	SNR=23						
KZA	**Kyzart**	48.29	315	P	P	19 00 52.3	+1.3
	SNR=15						
TKM2	**Tokmak 2**	48.38	316	P	P	19 00 52.7	+1.1
	SNR=7.3						
TKM2	**Tokmak 2**	48.38	316	*e*P	P	19 00 52.4	+0.8
	comp=Z,6.2nm,0.6s,mb4.6						
TKM2	**Tokmak 2**	48.38	316	*e*P	P	19 00 52.4	+0.8
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.6						
YAK	**Yakutsk**	48.70	6*c*	*i*P	P	19 00 52.3	-1.4
YAK				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
YAK				MLR	MLR		
	comp=Z,100nm,26.0s						
KBK	**Karagaybulak**	48.72	315	P	P	19 00 55.5	+1.2
	SNR=15						
UCH	**Uchtor**	48.86	315	*e*P	P	19 00 56.6	+1.3
	comp=Z,14nm,0.9s,mb4.9						
CHMS	**Chumysh**	48.98	316	P	P	19 00 56.6	+0.3
	SNR=5.3						
AAK	**Ala-Archa**	49.02	315	*e*P	P	19 00 56.1	-0.4
	comp=Z,4.2nm,0.8s,mb4.4						
AAK	**Ala-Archa**	49.02	315⇓	*e*P	P	19 00 56.9	+0.4
AAK				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
AAK				MLR	MLR		
	comp=Z,200nm,25.0s						
ZALV	**Zalesovo Beam**	49.03	333	P	P	19 00 55.8	-0.6
	comp=Z,5.9nm,0.3s,mb5.0,baz=127,slow=6.4,SNR=29						
ZAL	**Zalesovo**	49.03	333	P	P	19 00 55.8	-0.6
USP	**Ospenovka**	49.25	316	P	P	19 00 59.0	+0.7
	SNR=9.9						
AML	**Almayashu**	49.39	314	*e*P	P	19 01 00.4	+1.1
	comp=Z,9.8nm,0.8s,mb4.8						
EKS2	**Erkin-Say**	49.52	315	P	P	19 01 01.2	+0.8
	SNR=10						
EKS2	**Erkin-Say**	49.52	315	*e*P	P	19 01 01.1	+0.7
	comp=Z,6.4nm,0.8s,mb4.6						
STKA	**Stephens Creek**	49.57	156	P	P	19 00 59.3	-1.5
	comp=Z,1.0nm,0.8s,mb3.8,baz=330,slow=15,SNR=3.7						
KURK	**Kurchatov**	50.15	326	*e*P	P	19 01 04.8	-0.1
	comp=Z,47nm,0.6s,mb5.6						
KURK	**Kurchatov**	50.15	326	*e*P	P	19 01 04.8	-0.2
KURK				pmax	pmax		
	comp=Z,47nm,0.6s,mb5.6						
NVS	**Novosibirsk**	50.31	333	*e*P	P	19 01 05.2	-0.9
NVS				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
NVS				pmax	pmax		
	comp=N,5.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,8.0nm,1.3s						
KBL	**Kabul**	50.85	303	*e*P	P	19 01 10.5	-0.1
MA2	**Magadan**	50.93	19	P	P	19 01 10.3	-0.3
MA2				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
BRVK	**Borovoye**	55.81	326	*e*P	P	19 01 46.2	-0.2
	comp=Z,21nm,1.1s,mb5.1						
BRVK	**Borovoye**	55.81	326	*e*P	P	19 01 46.2	-0.2
BRVK				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.1						
TIXI	**Tiksi**	58.14	3⇓	*e*P	P	19 02 00.9	-1.7
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
BILL	**Bilibino**	61.73	18	*e*P	P	19 02 26.1	-1.1
	comp=Z,4.8nm,0.6s,mb4.7						
BILL	**Bilibino**	61.73	18⇓	*e*P	P	19 02 26.8	-0.4
BILL				*e**PP	pP	19 03 07.6	+13
BILL				*e*		19 04 41.5	
BILL				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
AKTK	**Aktyubinsk**	62.17	320	P	P	19 02 30.2	-0.2
AKTO	**Aktyubinsk**	62.17	320	P	P	19 02 30.2	-0.2
AKTO				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
AKTO	**Aktyubinsk**	62.17	320	P	P	19 02 30.2	-0.2
	comp=Z,4.5nm,0.5s,mb4.7,baz=102,slow=9.3,SNR=20						
ARU	**Arti**	63.35	327	*e*P	P	19 02 36.8	-1.3
	comp=Z,11nm,0.6s,mb5.0						
ARU	**Arti**	63.35	327⇑	*i*P	P	19 02 37.0	-1.1
ARU				*e*		19 04 54.4	
ARU				*e*S	S	19 11 01.9	+0.5
ARU				*e*SS	SS	19 15 09.8	0.0
ARU				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
KBD	**Kabd**	68.68	296	*e*P	P	19 03 12.0	-0.8
KBD				AMb	AMB	19 03 14.4	
	comp=Z,68nm,1.1s,mb5.4						
RDF	**Al-Radifah**	68.83	296	*e*P	P	19 03 13.1	-0.6
RDF				AMb	AMB	19 03 15.1	
	comp=Z,20nm,1.1s,mb4.9						
MIB	**Mutribah**	68.95	297	*e*P	P	19 03 13.8	-0.6
MIB				AMb	AMB	19 03 14.8	
	comp=Z,15nm,0.5s,mb5.1						
NAY	**Al-Naaiem**	69.07	296	*e*P	P	19 03 14.4	-0.8
NAY				AMb	AMB	19 03 15.3	
	comp=Z,7.7nm,0.6s,mb4.7						
KIV	**Kislovodsk**	71.98	312	*e*P	P	19 03 33.0	+0.4
KIV				*e**PP	pP	19 04 15.1	+14
KIV				*e*		19 06 14.8	
KIV				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
OBN	**Obninsk**	75.50	324	*e*P	P	19 03 52.1	-0.8
OBN				pmax	pmax		

	comp=Z,3.0nm,0.5s,mb4.3						
ASF	Jabal al Asfar	77.60	300	P	P	19 04 06.0	+0.8
	comp=Z,1.6nm,0.6s,mb3.9,baz=332,slow=4.5,SNR=7.7						
ARCES	ARCESS Array B	79.06	339	P	P	19 04 11.6	-1.0
	comp=Z,1.5nm,0.4s,mb4.1,baz=76,slow=7.2,SNR=23						
BRTR	Keskin Array B	79.10	308	P	P	19 04 13.1	-0.3
	comp=Z,1.2nm,0.6s,mb3.9,baz=72,slow=4.7						
FINES	FINESS Array B	80.25	331	iP	P	19 04 18.2	-0.9
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	80.25	331	P	P	19 04 17.5	-1.6
	comp=Z,1.4nm,0.6s,mb4.0,baz=67,slow=6.4,SNR=6.3						
AKASG	Malin Array Be	80.42	320	iP	P	19 04 18.7	-1.5
AKASG	Malin Array Be	80.42	320	P	P	19 04 18.8	-1.4
	comp=Z,0.3nm,0.4s,mb3.5,baz=65,slow=5.2,SNR=4.5						
INK	Inuvik	83.12	21	eP	P	19 04 33.3	-0.8
	comp=Z,75nm,0.8s,mb5.6						
INK	Inuvik	83.12	21	P	P	19 04 33.2	-0.9
INK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
INK	Inuvik	83.12	21	P	P	19 04 33.2	-0.8
	comp=Z,2.5nm,0.9s,mb4.0,baz=263,slow=4.7,SNR=7.9						
HFS	Hagfors	86.45	331	P	P	19 04 49.4	-1.4
	comp=Z,3.2nm,0.8s,mb4.3,baz=132,slow=4.2,SNR=6.7						
NB2	NORSAR Subarra	87.23	333	P	P	19 04 52.6	-2.1
	comp=Z,2.0nm,0.7s,mb4.2,baz=68,slow=4.6						
NOA	NORSAR Array B	87.23	333	P	P	19 04 52.3	-2.3
	comp=Z,1.9nm,0.8s,mb4.1,baz=67,slow=4.6,SNR=4.7						
YKA	Yellowknife Ar	92.81	22	P	P	19 05 20.0	-0.7
	comp=Z,0.3nm,0.5s,mb3.8,baz=307,slow=4.3,SNR=12						

IDC ***02*** *19:10:09.7±1.0, 52.17N×170.11E, h0^{km}, mb3.9/11, mb1 4.2/11, mb1mx4.0/22, mbtmp3.9/11, MS3.3/3, Ms1 3.3/3, ms1mx2.9/33, Error ellipse: s-maj=31.0km s-min=17.3km az=171.0*

ISCJB ***02*** *19:10:10.8±8.6, 52.1N±0.2×170.2E±0.1, h19^{km}±59^{km}, mb4.1/20, MS3.2/4, Error ellipse: s-maj=28.7km s-min=14.4km az=1.9*

MOS ***02*** *19:10:12.7±1.1, 52.14N×170.19E, h33^{km}, mb4.3/13, Error ellipse: s-maj=30.4km s-min=15.3km az=105.3*

ISC 02 19:10:14.2±8.6**, 52.2N**±0.2×**170.2E**±0.1**, h30**^{km}±59^{km}**, n40, σ0**^{s}**.82**/37**, mb4.1**/20**, MS3.3**/3**, 3C-1D, Near Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAJ	Asahikawa	20.00	257	LR	LR	19 23 18.1	
	comp=Z,49nm,18.8s,baz=223,slow=40						
KDAK	Kodiak Island	21.88	60	P	P	19 15 02.4	-2.0
	8.2nm,0.7s,mb4.3,baz=324,slow=17,SNR=6.9						
YAK	Yakutsk	23.69	310	eP	P	19 15 23.5	+0.4
YAK				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.4						
YAK				pmax	pmax		
	comp=N,2.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,10.0nm,1.5s						
TIXI	Tiksi	26.63	332⇓	eP	P	19 15 50.4	+0.8
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.4						
TIXI				MLR	MLR		
	comp=Z,100nm,20.0s,MS3.4						
INK	Inuvik	30.85	37	P	P	19 16 27.0	-0.2
INK				pmax	pmax		
	comp=Z,2.0nm,1.0s						
INK	Inuvik	30.85	37	P	P	19 16 27.0	-0.2
	comp=Z,2.3nm,1.0s,mb3.9,baz=272,slow=14,SNR=9.2						
KSRS	Korea Array	32.87	260	LR	LR	19 28 40.4	
	comp=Z,29nm,20.1s,MS3.0,baz=345,slow=34						
DLBC	Dease Lake	33.59	55	P	P	19 16 52.6	+1.3
	baz=306,slow=14						
YKA	Yellowknife Ar	39.57	45	iP	P	19 17 42.0	-0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	39.57	45	P	P	19 17 42.0	-0.1
	comp=Z,0.7nm,0.7s,mb3.5,baz=291,slow=7.8,SNR=5.5						
SONM	Songino Array	40.04	290	P	P	19 17 46.8	+0.6
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	40.04	290	P	P	19 17 46.8	+0.6
	comp=Z,1.0nm,0.7s,mb3.7,baz=58,slow=9.4,SNR=6.2						
NVAR	Mina Array Bea	50.14	76	P	P	19 19 07.7	+1.1
	comp=Z,0.4nm,0.5s,mb3.7,baz=303,slow=5.1,SNR=4.4						
KURK	Kurchatov	53.29	308⇑	eP	P	19 19 29.8	-0.1
MKAR	Makanchi Array	53.97	302⇑	eP	P	19 19 34.2	-0.7
MKAR	Makanchi Array	53.97	302	P	P	19 19 34.2	-0.7
	comp=Z,0.2nm,0.4s,mb3.4,baz=52,slow=6.8,SNR=12						
ULM	Lac du Bonnet	54.77	52	LR	LR	19 42 42.4	
	comp=Z,61nm,18.9s,MS3.7,baz=286,slow=36						
AAK	Ala-Archa	60.86	303⇑	eP	P	19 20 23.2	-0.4
AAK				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.4						
TXAR	Lajitas Array	65.16	74	P	P	19 20 52.9	+0.6
TXAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
TXAR	Lajitas Array	65.16	74	P	P	19 20 52.9	+0.5
	comp=Z,3.0nm,0.8s,mb4.4,baz=301,slow=4.2,SNR=24						
NOA	NORSAR Array B	65.87	349	P	P	19 20 56.3	-0.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
NOA	NORSAR Array B	65.87	349	P	P	19 20 56.3	-0.1
	comp=Z,2.0nm,0.8s,mb4.2,baz=15,slow=6.5,SNR=4.4						
OBN	Obninsk	66.36	333	eP	P	19 20 59.8	+0.2
OBN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
AKASG	Malin Array Be	72.29	335	iP	P	19 21 38.0	+1.6
AKASG	Malin Array Be	72.29	335	P	P	19 21 36.3	-0.1
	comp=Z,0.3nm,0.4s,mb3.5,baz=29,slow=6.3,SNR=4.3						
KIV	Kislovodsk	74.07	323	eP	P	19 21 46.8	-0.2
KIV				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
KHC	Kasperske Hory	77.11	344	eP	P	19 22 05.0	+0.7
GERES	GERESS Array B	77.37	344	P	P	19 22 06.5	+0.7
GERES				pmax	pmax		
	comp=Z,2.0nm,1.1s						
GERES	GERESS Array B	77.37	344	P	P	19 22 06.5	+0.8
	comp=Z,2.1nm,1.1s,mb4.0,baz=29,slow=4.7,SNR=7.4						
WRA	Warramunga Arr	78.32	214	P	P	19 22 11.0	-0.3
WRA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WRA	Warramunga Arr	78.32	214	P	P	19 22 11.0	-0.3
	comp=Z,1.5nm,0.7s,mb4.0,baz=26,slow=6.0,SNR=6.7						
MEZF	Maizieres J'vi	78.89	350	eP	P	19 22 14.1	-0.1
HAU	Haudompre	79.23	349	eP	P	19 22 15.5	-0.6
LOR	Lormes	80.23	351	eP	P	19 22 21.1	-0.4
AVF	Avril sur Loir	80.75	351	eP	P	19 22 23.9	-0.4
	comp=Z,5.4nm,0.8s,mb4.2						
SMF	Signal de Mont	80.85	351	eP	P	19 22 25.6	+0.7
	comp=Z,16nm,1.0s,mb4.6						
LPL	La Plagne	81.64	348	eP	P	19 22 29.7	+0.6
LPG	La Plagne	81.65	348	eP	P	19 22 29.5	+0.4
	comp=Z,14nm,1.1s,mb4.5						
ORIF	Oris-en-Rattie	82.33	349	eP	P	19 22 30.8	-1.9
	comp=Z,12nm,1.0s,mb4.5						
MBDF	Montbardon	82.41	348	eP	P	19 22 31.4	-1.7

CSEM ***02*** *19:13:14.4±0.1, 42.39N×43.47E, h2^{km}, mb4.2, Error ellipse: s-maj=2.4km s-min=1.0km az=132.0*

MOS ***02*** *19:13:14.5±0.8, 42.39N×43.51E, h8^{km}, mb4.2/1, Error ellipse: s-maj=16.4km s-min=6.1km az=75.5*

ISCJB ***02*** *19:13:15.6±0.5, 42.51N±0.02×43.43E±0.04, h4^{km}±4^{km}, Error ellipse: s-maj=4.5km s-min=3.5km az=175.4*

ISC 02 19:13:16.3±0.6**, 42.51N**±0.02×**43.43E**±0.04**, h7**^{km}±4^{km}**, n39, σ0**^{s}**.87**/70**, 6C-4D, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONI	Oni	0.07	13	P	Pg	19 13 18.1	0.0
ONI				S	Sg	19 13 19.8	+0.3
ONI	Oni	0.07	13	P	Pg	19 13 18.0	-0.1
ONI				S	Sg	19 13 19.6	+0.2
ZEI	Tsey	0.43	53⇑	iPG	Pg	19 13 24.0	-0.7
ZEI				iS	Sg	19 13 30.4	0.0
ZEI	Tsey	0.43	53	iPg	Pg	19 13 24.0	-0.7
ZEI				iSg	Sg	19 13 30.4	0.0
LACR	Lac	0.71	64⇑	iPG	Pg	19 13 28.6	-1.4
LACR				iS	Sg	19 13 38.3	-1.0
LACR	Lac	0.71	64	iPg	Pg	19 13 28.6	-1.4
LACR				iSg	Sg	19 13 38.3	-1.0
GOR	Gori	0.73	136	P	Pg	19 13 30.5	+0.2
GOR				S	Sg	19 13 40.6	+0.8
KORR	Kora	0.74	39⇓	iPG	Pg	19 13 29.9	-0.7
KORR				iS	Sg	19 13 40.5	+0.2
KORR	Kora	0.74	39	iPg	Pg	19 13 29.9	-0.7
KORR				iSg	Sg	19 13 40.5	+0.2
LSNR	Lesken	0.81	20⇑	iPG	Pg	19 13 31.9	-0.1
LSNR				iS	Sg	19 13 43.9	+1.4
LSNR	Lesken	0.81	20	iPg	Pg	19 13 31.9	-0.1
LSNR				iSg	Sg	19 13 43.9	+1.4
ARNR	Ardon	0.92	42	iPG	Pg	19 13 33.7	-0.3
ARNR				iS	Sg	19 13 46.3	+0.3
ARNR	Ardon	0.92	42	iPg	Pg	19 13 33.7	-0.3
ARNR				iSg	Sg	19 13 46.3	+0.3
VLKR	Vladikavkaz	1.06	59⇑	iPG	Pg	19 13 35.3	-1.4
VLKR				iS	Sg	19 13 49.7	-0.8
VLKR	Vladikavkaz	1.06	59	iPg	Pg	19 13 35.3	-1.4
VLKR				iSg	Sg	19 13 49.7	-0.8
KMSR	Komsomolskaya	1.07	36	iPG	Pg	19 13 37.4	+0.6
KMSR				iS	Sg	19 13 52.2	+1.5
KMSR	Komsomolskaya	1.07	36	iPg	Pg	19 13 37.4	+0.6
KMSR				iSg	Sg	19 13 52.2	+1.5
SNJR	Sundja	1.16	61	ePG	Pg	19 13 37.0	-1.6
SNJR				iS	Sg	19 13 52.8	-0.8
SNJR	Sundja	1.16	61	ePg	Pg	19 13 37.0	-1.6
SNJR				iSg	Sg	19 13 52.8	-0.8
KUBR	Kubataba	1.29	359d	iPG	Pg	19 13 40.5	-0.5
KUBR				iS	Sg	19 13 59.1	+1.3
KUBR				pmax	pmax		
	comp=Z,38nm,0.4s						
KUBR				smax			
	comp=E,410nm,0.5s						
KUBR	Kubataba	1.29	359	iPg	Pg	19 13 40.5	-0.5
	comp=E,38nm,0.4s						
KUBR				iSg	Sg	19 13 59.1	+1.3
MTA	Mtatsminda	1.30	128	P	Pn	19 13 40.3	-0.6
MTA				S	Sb	19 13 57.8	-0.2
SHAR	Shatzhatmas	1.35	336⇑	iPG	Pg	19 13 41.4	-0.8
SHAR				iS	Sb	19 13 59.3	-0.2
SHAR	Shatzhatmas	1.35	336	iPg	Pg	19 13 41.4	-0.8
SHAR				iSg	Sb	19 13 59.3	-0.2
PRTR	Priterechnaya	1.39	26	iPG	Pg	19 13 43.0	0.0
PRTR				eS	Sg	19 14 02.2	+1.2
PRTR	Priterechnaya	1.39	26	iPg	Pg	19 13 43.0	0.0
PRTR				eSg	Sg	19 14 02.2	+1.2
KIV	Kislovodsk	1.54	340⇑	iPN	Pn	19 13 45.1	+0.9
KIV	Kislovodsk	1.54	340	iPn	Pn	19 13 45.1	+0.9
TRKR	Terskaya	1.54	38	ePG	Pn	19 13 43.8	-0.4
TRKR				eS	Sn	19 14 04.5	0.0
TRKR	Terskaya	1.54	38	ePg	Pn	19 13 43.8	-0.4
TRKR				eSg	Sn	19 14 04.5	0.0
PYA	Pyatigorsk	1.54	350⇓	iPN	Pn	19 13 44.6	+0.3
PYA	Pyatigorsk	1.54	350	iPn	Pn	19 13 44.6	+0.3
BEYR	Belyy Ugol+	1.56	344⇓	iPN	Pn	19 13 44.4	-0.2
BEYR	Belyy Ugol+	1.56	344	iPn	Pn	19 13 44.4	-0.2
BCA	Borcka	1.72	232	PN	Pn	19 13 45.9	-0.7
BCA				SN	Sn	19 14 08.2	-0.6
BCA	Borcka	1.72	232	ePn	Pn	19 13 45.9	-0.7
BCA				eSn	Sn	19 14 08.2	-0.6
DGRG	David-gareji	1.79	126	P	Pn	19 13 49.5	+1.8
DGRG				S	Sg	19 14 16.2	+2.2
KARS	Kars	1.91	188	ePN	Pn	19 13 50.1	+0.8
EZM	Erzurum	3.03	212	ePN	Pn	19 14 04.9	+0.1

NEIC ***02*** *20:05:00.7, 37.07N×12.42W, h0^{km}, MG3.7(MDD), After MDD.*

CSEM ***02*** *20:05:00.7±4.1, 37.07N×12.42W, h0^{km}, mb3.7/5, Error ellipse: s-maj=35.4km s-min=27.3km az=68.0*

INMG ***02*** *20:05:04.3±1.1, 36.74N×12.55W, h10^{km}, ML1.9, Error ellipse: s-maj=12.6km s-min=7.9km az=112.0*

MDD 02 20:05:02.1±2.9**, 36.89N×12.46W, h23**^{km}±129^{km}**, mb3.7**/5**, Error ellipse: s-maj=145.0km s-min=21.5km az=59.0, PRXIMO, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PFVI	Vila Bisbo	2.92	84	ePn	Pn	20 05 45.7	-1.3
PFVI				eSn	Sn	20 06 16.9	-4.4
MORF	Marmelete	3.07	81	ePn	Pn	20 05 47.8	-1.4
MORF				eSn	Sn	20 06 22.3	-2.9
MORF				A		20 06 29.1	
	3.3nm,0.3s						
MORF	Marmelete	3.07	81	P	Pn	20 05 47.8	-1.4
MORF				S	Sn	20 06 22.3	-2.9
	3.3nm,0.3s						
PMAFR	Mafra	3.25	50	eSn	Sn	20 06 26.9	-2.7
PMAFR	Mafra	3.25	50	S	Sn	20 06 26.9	-2.7
PBDV	Barranco-do-Ve	3.64	83	ePn	Pn	20 05 56.6	-0.3
PBDV				eSn	Sn	20 06 36.6	-2.5
PVAQ	Vaqueiros	3.82	81	ePn	Pn	20 05 58.8	-0.7
PVAQ				eSn	Sn	20 06 39.8	-3.9
PVAQ				A		20 06 44.9	
	1.6nm,0.1s						
PVAQ	Vaqueiros	3.82	81	P	Pn	20 05 58.8	-0.7
PVAQ				S	Sn	20 06 39.8	-3.9
	1.6nm,0.1s						
PBEJ	Beja	3.83	71	ePn	Pn	20 05 59.0	-0.5
PBEJ				A		20 06 44.9	
	2.2nm,0.1s						
EGRO	El Granado	4.03	79	P	Pn	20 06 01.8	-0.4
	0.6nm,0.1s,SNR=5.7						
EGRO				S	Sn	20 06 45.3	-3.3
	1.0nm,0.3s						
EGRO	El Granado	4.03	79	P	Pn	20 06 01.8	-0.4
	0.6nm,0.1s,SNR=5.7						
EGRO				S	Sn	20 06 45.3	-3.3
	1.0nm,0.3s						
PESTR	Estremoz	4.33	61	ePn	Pn	20 06 06.1	-0.3
PESTR				eSn	Sn	20 06 52.5	-3.7
EMIN	Mina Concepcio	4.70	77	P	Pn	20 06 10.4	-1.1
EMIN				S	Sn	20 07 03.2	-2.0
EMIN	Mina Concepcio	4.70	77	P	Pn	20 06 10.4	-1.1
	0.4nm,0.1s,SNR=8.0						
EMIN				S	Sn	20 07 01.6	-3.5
	0.5nm,0.2s						
EMIN	Mina Concepcio	4.70	77	P	Pn	20 06 10.4	-1.0
	0.4nm,0.1s,SNR=8.0						
EMIN				S	Sn	20 07 03.2	-2.0
	0.5nm,0.2s						
EBAD	Badajoz	4.70	65	P	Pn	20 06 10.4	-1.1
	0.4nm,0.1s,SNR=6.1						
EBAD				S	Sn	20 07 00.5	-4.7
	2.3nm,0.2s						
EBAD	Badajoz	4.70	65	P	Pn	20 06 10.4	-1.1
	0.4nm,0.1s,SNR=6.1						
EBAD				S	Sn	20 07 00.5	-4.7
	2.3nm,0.2s						
ESPR	Espera	5.29	88	P	Pn	20 06 19.4	-0.2
ESPR				S	Sn	20 07 16.7	-3.2
ESPR	Espera	5.29	88	P	Pn	20 06 19.4	-0.2
	0.5nm,0.1s,SNR=4.0						
ESPR				S	Sn	20 07 16.1	-3.8
	1.6nm,0.3s,SNR=7.9						
ESPR	Espera	5.29	88	P	Pn	20 06 19.4	-0.3
	0.5nm,0.1s,SNR=4.0						
ESPR				S	Sn	20 07 16.7	-3.2
	1.6nm,0.3s,SNR=7.9						
MVO	Moncorvo	6.01	43	eSn	Sn	20 07 33.1	-4.4
MVO	Moncorvo	6.01	43	S	Sn	20 07 33.1	-4.4
ELOB	Lobios	6.03	33	S	Sn	20 07 32.2	-5.8
	0.3nm,0.2s,SNR=7.9						
ELOB	Lobios	6.03	33	S	Sn	20 07 32.2	-5.8
	0.3nm,0.2s,SNR=7.9						
EADA	Adamuz	6.39	76	P	Pn	20 06 34.1	-0.6
EADA				S	Sn	20 07 44.4	-2.6
EADA	Adamuz	6.39	76	P	Pn	20 06 34.2	-0.6
	0.2nm,0.1s,SNR=4.0						
EADA				S	Sn	20 07 42.0	-5.0
	0.3nm,0.2s,SNR=7.9						
EADA	Adamuz	6.39	76	P	Pn	20 06 34.2	-0.6
	0.2nm,0.1s,SNR=4.0						
EADA				S	Sn	20 07 44.4	-2.6
	0.3nm,0.2s,SNR=7.9						
EMAZ	Mazaricos	6.62	23	S	Sn	20 07 46.2	-6.3
	SNR=7.9						
EMAZ	Mazaricos	6.62	23	S	Sn	20 07 44.7	-7.9
	1.0nm,0.2s,SNR=7.9						

MOS ***02*** *20:17:08.9±1.8, 53.41N×160.13E, h62^{km}, mb4.1/4, Error ellipse: s-maj=21.9km s-min=8.7km az=73.2*

ISCJB ***02*** *20:17:09.2±0.5, 53.30N±0.03×160.28E±0.08, h63^{km}±5^{km}, mb3.7/9, Error ellipse: s-maj=9.6km s-min=3.5km az=31.3*

KRSC ***02*** *20:17:09.7±1.0, 53.35N×160.24E, h49^{km}±49^{km}, ML4.3*

IDC ***02*** *20:17:12.4±6.8, 53.54N×159.91E, h79^{km}±63^{km}, mb3.4/9, mb1 3.7/10, mb1mx3.5/21, mbtmp3.5/10, ML3.4/1, Error ellipse: s-maj=25.2km s-min=19.8km az=142.0*

ISC 02 20:17:10.3±0.5**, 53.30N**±0.04×**160.24E**±0.08**, h60**^{km}±4^{km}**, n38, σ1**^{s}**.11**/55**, mb3.7**/9**, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SPN	Mys Shipunski	0.24	213	iP	Pn	20 17 18.6	-1.3
SPN				iS	Sn	20 17 25.3	-1.5
NLC	Nalytchevo	0.55	257	eP	Pn	20 17 22.0	-0.8
NLC				iS	Sn	20 17 31.2	-0.6
KII	Karymskiy	0.88	328	eP	Pn	20 17 25.3	-1.4
KII				iS	Sn	20 17 36.6	-2.2
AVH	Avacha	0.90	269	iP	Pn	20 17 27.1	+0.1
AVH				iS	Sn	20 17 40.0	+0.7
PET	Petropavlovsk	0.99	255	eP	Pn	20 17 28.0	-0.2
PET				iS	Sn	20 17 41.4	0.0
RUS	Russkaya	1.35	231	eP	Pn	20 17 32.9	-0.1
RUS				iS	Sn	20 17 49.9	-0.1
GNL	Ganaly	1.43	287	eP	Pn	20 17 34.3	+0.3
GNL				iS	Sn	20 17 52.5	+0.8
GRL	Gorelyy	1.51	241	eP	Pn	20 17 35.9	+0.9
GRL				iS	Sn	20 17 55.1	+1.5
MKZ	Mys Kozlova	1.54	34	eP	Pn	20 17 32.9	-2.6
MKZ				iS	Sn	20 17 50.0	-4.5
TUMR	Tumrok	1.99	359	eP	Pn	20 17 41.4	-0.2
TUMR				iS	Sn	20 18 04.3	-1.1
MIPR	Malaya Ipel'ka	2.35	246	eP	Pn	20 17 48.2	+1.8
KMNR	Kamenistaya	2.47	0	eP	Pn	20 17 48.3	+0.3
KMNR				iS	Sn	20 18 16.8	-0.2
KIRR	Kirishev	2.66	1	eP	Pn	20 17 50.5	-0.2
KPT	Kopyto	2.68	360	eP	Pn	20 17 51.6	+0.7
KOZ	Kozyrevsk	2.78	356	eP	Pn	20 17 51.9	-0.4
KOZR	Kozyr	2.78	356	PN	Pn	20 17 51.9	-0.5
KRSR	Krestovskiy	2.93	4	P	Pn	20 17 55.5	+1.1
KLY	Klyuchi	3.03	4	eP	Pn	20 17 56.2	+0.4
KLY				iS	Sn	20 18 30.4	-0.5
SRDR	Sredinnyy	3.04	355	eP	Pn	20 17 55.4	-0.5
KBTR	Krutoberegovo	3.28	26	eP	Pn	20 18 00.3	+1.1
KBTR				iS	Sn	20 18 37.1	+0.2
BDR	Baidarnaya	3.33	9	eP	Pn	20 18 01.2	+1.4
BDR				iS	Sn	20 18 39.3	+1.3
SMKR	Semkarok	3.37	12	eP	Pn	20 18 01.9	+1.5
SMKR				iS	Sn	20 18 40.5	+1.4
SRKR	Sorokina	3.41	9	eP	Pn	20 18 02.4	+1.5
SRKR				iS	Sn	20 18 41.1	+1.1
SKR	Severo-Kuril's	3.65	226	ePN	Pn	20 18 08.5	+4.3
SKR				eS	Sn	20 18 46.5	+0.5
SKR				smax			
	comp=N,180nm,0.5s						
SKR				smax			
	comp=E,180nm,0.5s						
SKR				smax			
	comp=Z,60nm,0.5s						
ASAJ	Asahikawa	14.79	239	P	Pn	20 20 37.0	+1.2
	comp=Z,0.3nm,0.3s,baz=45,slow=2.9,SNR=3.4						
MJAR	Matsushiro Arr	22.74	231	P	P	20 22 08.1	+1.0
MJAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MJAR	Matsushiro Arr	22.74	231	P	P	20 22 08.1	+1.0
	comp=Z,3.3nm,0.7s,mb3.9,baz=19,slow=11,SNR=10						
SONM	Songino Array	33.94	283	P	P	20 23 46.1	-1.3
	comp=Z,0.3nm,0.5s,mb3.5,baz=71,slow=7.5,SNR=2.7						
SONM				PcP	PcP	20 26 24.7	+0.3
	comp=Z,0.4nm,0.5s,baz=89,slow=1.4,SNR=4.2						
YKA	Yellowknife Ar	42.96	43	P	P	20 25 02.6	-0.3
	comp=Z,0.2nm,0.6s,mb3.0,baz=299,slow=7.9,SNR=3.7						
MKAR	Makanchi Array	48.15	296	P	P	20 25 41.5	-2.5
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	48.15	296	P	P	20 25 41.5	-2.5
	comp=Z,0.9nm,0.5s,mb4.1,baz=52,slow=6.9,SNR=24						
FINES	FINESS Array B	59.97	337	P	P	20 27 07.6	-2.2
FINES				pmax	pmax		
	comp=Z,3.0nm,1.0s						
FINES	FINESS Array B	59.97	337	P	P	20 27 07.6	-2.2
	comp=Z,2.9nm,1.0s,mb4.3,baz=41,slow=6.1,SNR=4.6						
NOA	NORSAR Array B	63.37	344	P	P	20 27 31.2	-1.5
NOA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
NOA	NORSAR Array B	63.37	344	P	P	20 27 31.2	-1.5
	comp=Z,1.0nm,1.0s,mb3.9,baz=15,slow=5.5,SNR=2.2						
AKASG	Malin Array Be	68.48	329	P	P	20 28 03.5	-2.3
	comp=Z,0.3nm,0.3s,mb3.7,baz=29,slow=6.7,SNR=3.3						
TXAR	Lajitas Array	70.48	67	P	P	20 28 19.1	+0.7
	comp=Z,0.4nm,0.4s,mb3.7,baz=294,slow=5.9,SNR=8.0						
WRA	Warramunga Arr	76.30	205	P	P	20 28 52.7	+0.2
	comp=Z,0.1nm,0.3s,mb3.2,baz=9.7,slow=5.9,SNR=5.9						

ISCJB ***02*** *20:28:52.3±2.0, 19.96S±0.08×176.1W±0.2, h182^{km}±24^{km}, mb4.4/11, Error ellipse: s-maj=24.2km s-min=13.1km az=4.0*

NEIC ***02*** *20:28:53.6±1.3, 19.92S×176.02W, h182^{km}±12^{km}, mb4.8/5, Error ellipse: s-maj=16.8km s-min=9.0km az=133.0*

IDC ***02*** *20:28:53.5±2.5, 19.90S×176.03W, h176^{km}±23^{km}, mb4.0/8, mb1 4.1/10, mb1mx3.9/18, mbtmp4.0/10, Error ellipse: s-maj=23.8km s-min=14.1km az=133.0*

ISC 02 20:28:51.8±1.9**, 19.97S**±0.09×**176.1W**±0.2**, h156**^{km}±24^{km}**, n43, σ1**^{s}**.08**/27**, mb4.4**/11**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.33	35	P	Pn	20 30 36.5	+0.2
	3.7nm,0.3s,baz=198,slow=9.6,SNR=3.8						
AFI				S	Sn	20 31 50.8	-7.5
	6.9nm,0.3s,baz=244,slow=23,SNR=7.4						
DZM	Mont Dzumac	16.41	260	P	Pn	20 32 40.2	+7.0
	4.6nm,0.3s,baz=73,slow=18,SNR=50						
DZM				S	S	20 35 23.8	-12
	2.8nm,0.3s,baz=103,slow=19,SNR=115						
PUZ	Puketiti	18.69	194	ePN	Pn	20 32 58.9	-1.3
URZ	Urewera	19.15	196	P	P	20 33 03.4	+0.4
	5.7nm,0.3s,baz=16,slow=1.9,SNR=31						
URZ				S	S	20 36 26.0	-5.7
	0.8nm,0.3s,baz=36,slow=23,SNR=7.1						
URZ	Urewera	19.15	196	ePN	Pn	20 33 02.6	-3.0
LTZ	Lake Taylor	24.76	201	ePN	P	20 34 00.9	+2.1
RPZ	Rata Peaks	26.00	202	P	P	20 34 11.4	+1.4
	11nm,0.6s,mb4.7,baz=355,slow=18,SNR=11						
CTA	Charters Tower	35.29	263	eP	P	20 35 33.3	+1.3
	12nm,0.3s,mb5.0						
CTA	Charters Tower	35.29	263	P	P	20 35 33.4	+1.4
	14nm,0.4s,mb5.0,baz=89,slow=10,SNR=68						
CTAO	Charters Tower	35.29	263	eP	P	20 35 33.1	+1.1
	18nm,0.6s,mb4.9						
PMG	Port Moresby	36.95	281	P	P	20 35 46.9	+0.8
	16nm,0.9s,mb4.6,baz=90,slow=4.1,SNR=3.5						
STKA	Stephens Creek	39.60	244	eP	P	20 36 08.8	+0.7
STKA	Stephens Creek	39.60	244	P	P	20 36 08.6	+0.5
	2.5nm,0.5s,mb4.1,baz=103,slow=12,SNR=11						
WB2	Warramunga Arr	46.40	261	eP	P	20 37 02.6	-0.3
WRA	Warramunga Arr	46.41	261	P	P	20 37 02.7	-0.3
	6.0nm,0.4s,mb4.6,baz=98,slow=8.7,SNR=107						
KAKA	Kakadu	49.72	270	eP	P	20 37 28.3	-0.2
	6.9nm,0.4s,mb4.6						
KAKA	Kakadu	49.72	270	eP	P	20 37 28.5	+0.1
FORT	Forrest	51.12	246	eP	P	20 37 37.2	-1.5
	16nm,0.9s,mb4.6						
FITZ	Fitzroy Crossi	54.84	262	eP	P	20 38 06.4	+0.2
	9.3nm,1.4s,mb4.3						
FITZ	Fitzroy Crossi	54.84	262	P	P	20 38 06.4	+0.2
	2.5nm,0.7s,mb4.0,baz=96,slow=10,SNR=13						
KLBR	Kellerberrin	59.87	244	eP	P	20 38 40.1	-1.1
	17nm,1.2s,mb4.8						
MJAR	Matsushiro Arr	70.84	322	P	P	20 39 50.5	-1.1
MJAR	Matsushiro Arr	70.84	322	P	P	20 39 50.5	-1.1
	0.6nm,0.5s,mb3.6,baz=159,slow=5.7,SNR=4.7						
NVAR	Mina Array Bea	79.44	43	P	P	20 40 40.8	0.0
	0.7nm,0.6s,mb3.5,baz=230,slow=10,SNR=4.1						
MKAR	Makanchi Array	112.11	313	PKPdf	PKiKP	20 47 06.2	-2.3
MKAR	Makanchi Array	112.11	313	PKiKP	PKiKP	20 47 06.2	-2.3
	0.4nm,0.4s,baz=198,slow=0.9,SNR=17						
ARCES	ARCESS Array B	128.71	350	PKP	PKPdf	20 47 38.0	-1.7
ARCES	ARCESS Array B	128.71	350	PKP	PKPdf	20 47 38.0	-1.7
	3.2nm,0.8s,baz=325,slow=1.5,SNR=5.7						
AKASG	Malin Array Be	143.37	333	PKP	PKPdf	20 48 02.5	-4.9
AKASG	Malin Array Be	143.37	333	PKhKP		20 48 02.5	
	0.9nm,0.3s,baz=40,slow=4.1,SNR=14						
BR131	Keskin Array S	147.76	314	ePKPbc	PKPbc	20 48 16.8	-1.5
BRTR	Keskin Array B	147.76	314	PKPbc	PKPbc	20 48 16.6	-1.7
BRTR	Keskin Array B	147.76	314	PKPbc	PKPbc	20 48 16.6	-1.7
	5.1nm,0.6s,baz=116,slow=3.4,SNR=16						

ASF	Jabal al Asfar	148.07	299	PKPbc	PKPbc	20 48 18.9	-0.5
ASF	Jabal al Asfar	148.07	299	PKPbc	PKPbc	20 48 18.9	-0.5
	2.6nm,0.7s,baz=193,slow=2.6,SNR=6.8						
MMAI	Mount Meron Ar	149.06	301	PKPbc	PKPbc	20 48 21.5	-0.4
	3.5nm,0.5s,baz=70,slow=7.2,SNR=23						
KHC	Kasperske Hory	149.88	347	*e*PKPbc	PKPbc	20 48 22.0	-1.3
GERES	GERESS Array B	150.13	347	PKPbc	PKPbc	20 48 23.0	-0.9
GERES	GERESS Array B	150.13	347	PKPbc	PKPbc	20 48 23.0	-0.9
	1.9nm,0.7s,baz=31,slow=3.1,SNR=15						
EIL	Elat	150.26	295	PKPbc	PKPbc	20 48 24.0	-0.9
EIL	Elat	150.26	295	PKPbc	PKPbc	20 48 24.0	-0.9
	6.6nm,0.8s,baz=359,slow=5.2,SNR=9.1						
DAVOX	Davos/Dischmat	152.81	351	PKPbc	PKPbc	20 48 29.3	-0.9
DAVOX	Davos/Dischmat	152.81	351	PKPbc	PKPbc	20 48 29.3	-0.9
	2.6nm,0.5s,baz=313,slow=6.2,SNR=6.2						

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*NEIC **02** 20:37:24.9, 29.88S×71.59W, h33^{km}, ML3.8(GUC), After GUC.*

GUC 02 20:37:24.9±0.5, 29.88S×71.59W, h33^{km}±8^{km}, ML3.8, 4C-3D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TLL	Tololo Astrono	0.74	113	⇓*i*P	Pn	20 37 39.5	+0.5
TLL				*i* S	Sn	20 37 50.2	+1.1
TLL	Tololo Astrono	0.74	113	⇓*i*P	Pn	20 37 39.5	+0.5
TLL				*i* S	Sn	20 37 50.2	+1.1
TLL				AML	AML	20 37 56.9	
	comp=N,2µm,0.4s						
OVCH	Ovalle	0.80	155	⇑*i*P	Pn	20 37 39.5	-0.4
OVCH				*i* S	Sn	20 37 50.4	-0.2
OVCH	Ovalle	0.80	155	⇑*i*P	Pn	20 37 39.5	-0.4
OVCH				*i* S	Sn	20 37 50.4	-0.2
OVCH				AML	AML	20 37 55.4	
	comp=N,2µm,0.5s						
LCO	Las Campanas	1.16	42	*e*P	Pn	20 37 45.1	+0.2
LCO				*e*S	Sn	20 38 01.8	+2.2
CMCH	Combarbala	1.39	159	*e*P	Pn	20 37 49.0	+1.0
CMCH				*e*S	Sn	20 38 07.6	+2.5
CMCH	Combarbala	1.39	159	*e*P	Pn	20 37 49.0	+1.0
CMCH				*e*S	Sn	20 38 07.6	+2.5
CMCH				AML	AML	20 38 10.6	
	comp=E,8µm,0.6s						
VACH	Vallenar	1.49	29	⇑*i*P	Pn	20 37 50.6	+1.2
VACH				*i* S	Sn	20 38 09.8	+2.2
VACH	Vallenar	1.49	29	⇑*i*P	Pn	20 37 50.6	+1.2
VACH				*i* S	Sn	20 38 09.8	+2.2
VACH				AML	AML	20 38 12.6	
	comp=E,4µm,0.2s						
PTCH	Petorca	2.44	167	⇓*i*P	Pn	20 38 03.6	+1.1
PTCH				AMP		20 38 42.2	
	comp=E,880nm,0.5s						

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*ISCJB **02** 20:39:56.9±0.3, 38.31N±0.02×22.07E±0.03, h13^{km}, mb3.6/3, Error ellipse: s-maj=3.9km s-min=2.9km az=175.4*

*CSEM **02** 20:39:56.7±0.1, 38.26N×22.07E, h2^{km}±1^{km}, ML3.2, Error ellipse: s-maj=2.3km s-min=1.9km az=56.0*

*NEIC **02** 20:39:56.4, 38.29N×22.05E, h13^{km}, ML3.2(ATH), After ATH.*

*IDC **02** 20:39:56.2±1.6, 38.17N×22.31E, h0^{km}, mb3.7/3, mb1 3.6/4, mb1mx3.4/19, mbtmp3.6/4, ML2.4/1, Error ellipse: s-maj=38.6km s-min=25.6km az=120.0*

*ATH **02** 20:39:56.3, 38.29N×22.04E, h13^{km}±2^{km}, MD3.5/14, ML3.2*

*THE **02** 20:39:58.1, 38.38N×22.05E, h3^{km}, ML3.5*

ISC 02 20:39:56.3±0.5, **38.30N**±0.02×**22.11E**±0.03, **h1**^{km}±4^{km}, **n70**, σ**1^{s}00**/94, **mb3.6**/3, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RLS	Riolos of Patr	0.56	245	*e*Pb	Pg	20 40 06.8	-0.2
RLS	Riolos of Patr	0.56	245	*e*PB	Pg	20 40 06.8	-0.2
RLS	Riolos of Patr	0.56	245	*e*Pb	Pg	20 40 06.8	-0.2
EVR	Evrytania	0.66	339	*e*Pg	Pg	20 40 08.6	-0.4
EVR	Evrytania	0.66	339	*e*PG	Pg	20 40 08.6	-0.4
EVR	Evrytania	0.66	339	*e*Pg	Pg	20 40 08.6	-0.4
AGG	Agios Georgios	0.74	13	*e*Pg	Pg	20 40 10.2	-0.4
AGG				*e*Sg	Sg	20 40 21.0	+0.7
AGG	Agios Georgios	0.74	13	*e*Pg	Pg	20 40 10.2	-0.4
AGG				*e*Sg	Sg	20 40 21.0	+0.7
LKR	Lokris	0.78	63	*e*Pb	Pg	20 40 11.0	-0.4
LKR				*e*Sb	Sb	20 40 23.9	0.0
LKR	Lokris	0.78	63	*e*PB	Pg	20 40 11.0	-0.4
LKR				*e*SB	Sb	20 40 23.9	0.0
LKR	Lokris	0.78	63	*e*Pb	Pg	20 40 11.0	-0.4
LKR				*e*Sb	Sb	20 40 23.9	0.0
ITM	Ithomi	1.12	187	*e*Pg	Pg	20 40 17.0	-0.9
ITM				*e*Sg	Sg	20 40 35.8	+3.4
ITM	Ithomi	1.12	187	*e*PG	Pg	20 40 17.0	-0.9
ITM				*e*SB	Sb	20 40 33.2	-0.4
ITM	Ithomi	1.12	187	*e*Pg	Pg	20 40 17.0	-0.9
VLS	Valsamata	1.20	265	*e*Pn	Pn	20 40 18.0	-2.2
VLS	Valsamata	1.20	265	*e*PN	Pn	20 40 18.0	-2.2
VLS	Valsamata	1.20	265	*e*Pn	Pn	20 40 18.0	-2.2
LKD	Levkas	1.21	290	*e*Pg	Pg	20 40 19.3	-0.3
LKD				*e*Sg	Sg	20 40 35.8	+0.5
LKD	Levkas	1.21	290	*e*Pg	Pg	20 40 19.3	-0.3
LKD				*e*Sg	Sg	20 40 35.8	+0.5
THL	Klokotos Trika	1.27	357	*e*PB	Pb	20 40 20.5	-0.5
THL	Klokotos Trika	1.27	357	*e*Pb	Pb	20 40 20.5	-0.5
ATH	Athens Observa	1.31	104	*e*Pb	Pb	20 40 21.9	+0.2
ATH				*e*Sb	Sn	20 40 41.2	+1.4
ATH	Athens Observa	1.31	104	*e*PB	Pb	20 40 21.9	+0.2
ATH				*e*SB	Sn	20 40 41.2	+1.4
ATH	Athens Observa	1.31	104	*e*Pb	Pb	20 40 21.9	+0.2
ATH				*e*Sb	Sn	20 40 41.2	+1.4
NEO	Neokhori	1.33	41	P	Pg	20 40 21.8	-0.1
XOR	Xorichti	1.36	38	*e*Pg	Pg	20 40 21.9	-0.6
XOR	Xorichti	1.36	38	*e*Pg	Pg	20 40 21.9	-0.5
KVR	Kavouri	1.39	109	*e*PG	Pg	20 40 23.0	0.0
KVR	Kavouri	1.39	109	*e*Pg	Pg	20 40 23.0	0.0
PTL	Penteli	1.41	100	*e*Pg	Pg	20 40 24.0	+0.7
PTL	Penteli	1.41	100	*e*PG	Pg	20 40 24.0	+0.7
PTL	Penteli	1.41	100	*e*Pg	Pg	20 40 24.0	+0.7
AOS	Alonnisos	1.64	57	*e*Pb	Pb	20 40 26.5	-0.8
AOS	Alonnisos	1.64	57	*e*Pb	Pb	20 40 26.5	-0.8
JAN	Janina	1.67	325	P	Pg	20 40 33.0	+4.6
VLI	Veliai	1.71	157	*e*Pn	Pn	20 40 27.2	0.0
VLI				*e*Sb	Sb	20 40 51.2	+0.8
VLI	Veliai	1.71	157	*e*PN	Pn	20 40 27.2	0.0
VLI				*e*SB	Sb	20 40 51.2	+0.8
VLI	Veliai	1.71	157	*e*Pn	Pn	20 40 27.2	0.0
VLI				*e*Sb	Sb	20 40 51.2	+0.8
LIT	Litokhoron	1.83	9	*e*Pb	Pb	20 40 29.5	-1.0
LIT				*e*Sb	Sn	20 40 51.7	-0.9
LIT	Litokhoron	1.83	9	*e*Pb	Pb	20 40 29.5	-1.0
LIT				*e*Sb	Sn	20 40 51.7	-0.9
KZN	Kozani	2.02	353	*e*Pn	Pn	20 40 32.6	+1.1
KZN				*e*Sb	Sb	20 40 59.4	-0.2
KZN	Kozani	2.02	353	*e*PN	Pn	20 40 32.6	+1.1
KZN				*e*SB	Sb	20 40 59.4	-0.2
KZN	Kozani	2.02	353	*e*Pn	Pn	20 40 32.6	+1.1
PAIG	Paliouri	2.04	36	*e*Pn	Pn	20 40 31.6	-0.1
PAIG	Paliouri	2.04	36	*e*Pn	Pn	20 40 31.6	-0.1
KYTH	Kithira	2.15	160	*e*Pn	Pn	20 40 35.0	+1.8
KYTH	Kithira	2.15	160	*e*PN	Pn	20 40 35.0	+1.8
KYTH	Kithira	2.15	160	*e*Pn	Pn	20 40 35.0	+1.8
KEK	Kerkira	2.29	309	*e*Pg	Pn	20 40 37.0	+1.8
KEK	Kerkira	2.29	309	*e*PG	Pn	20 40 37.0	+1.8
KEK	Kerkira	2.29	309	*e*Pg	Pn	20 40 37.0	+1.8
PLG	Polygyros	2.32	26	*e*Pn	Pn	20 40 35.2	-0.4
PLG	Polygyros	2.32	26	*e*PB	Pn	20 40 35.2	-0.4
PLG	Polygyros	2.32	26	*e*Pn	Pn	20 40 35.2	-0.4
FNA	Florina	2.55	347	*e*Pn	Pn	20 40 39.2	+0.5
FNA				*e*Sn	Sn	20 41 09.6	-0.8
FNA	Florina	2.55	347	*e*Pn	Pn	20 40 39.2	+0.5
FNA				*e*Sn	Sn	20 41 09.6	-0.8
GRG	Griva	2.67	5	*e*Pn	Pn	20 40 40.7	+0.3
GRG	Griva	2.67	5	*e*Pn	Pn	20 40 40.7	+0.3
SOH	Sokhos	2.70	21	*e*Pn	Pn	20 40 41.4	+0.6
SOH	Sokhos	2.70	21	*e*Pn	Pn	20 40 41.4	+0.6
KNT	Kendrikon	2.92	12	*e*Pn	Pn	20 40 45.1	+1.1
KNT	Kendrikon	2.92	12	*e*Pn	Pn	20 40 45.1	+1.2
KRUS	Krusevo	3.14	348	*e*Pn	Pn	20 40 49.2	+2.3
KRUS	Krusevo	3.14	348	*e*Pn	Pn	20 40 49.1	+2.2
IDI	Anoyia	3.74	143	Pn	Pn	20 40 52.5	-2.6
IDI				Sn	Sn	20 41 37.2	-2.6
IDI	Anoyia	3.74	143	Pn	Pn	20 40 52.5	-2.7
	0.3nm,0.3s,baz=340,slow=17,SNR=3.7						
IDI				Sn	Sn	20 41 37.2	-2.6
	1.0nm,0.3s,baz=119,slow=19,SNR=2.7						
IDI	Anoyia	3.74	143	Pn	Pn	20 40 52.5	-2.7
IDI				Sn	Sn	20 41 37.2	-2.6
TORD	Torodi Ar. Bea	30.93	221	P	P	20 46 14.9	+0.1
	0.5nm,0.7s,mb3.5,baz=35,slow=9.7,SNR=4.6						
MKAR	Makanchi Array	44.17	59	P	P	20 48 05.2	-1.3
	0.4nm,0.5s,mb3.5,baz=270,slow=8.0,SNR=16						
ZALV	Zalesovo Beam	44.68	48	P	P	20 48 11.0	+0.6
	0.6nm,0.4s,mb3.9,baz=265,slow=9.1,SNR=3.0						

IDC 02 20:42:56.3±3.6, **45.79N×154.11E, h0**^{km}, **mb3.6**/4, **mb1 3.8**/4, **mb1mx3.5**/19, **mbtmp3.6**/4, **Error ellipse: s-maj=134.4km s-min=30.6km az=4.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	32.32	291	P	P	20 49 26.0	-0.7
	0.2nm,0.5s,baz=99,slow=11,SNR=2.3						
MKAR	Makanchi Array	48.01	299	P	P	20 51 37.6	+0.9
	0.3nm,0.5s,baz=64,slow=6.8,SNR=12						
FINES	FINESS Array B	65.21	335	P	P	20 53 38.7	-0.2
	1.5nm,0.9s,baz=35,slow=7.0,SNR=5.1						
TXAR	Lajitas Array	77.36	61	P	P	20 54 53.1	+0.2
	0.3nm,0.7s,baz=306,slow=2.0,SNR=3.4						

IDC 02 20:54:31.9±1.6, **1.31N×125.90E, h0**^{km}, **mb3.9**/3, **mb1 4.0**/4, **mb1mx3.7**/16, **mbtmp3.9**/4, **ML3.4**/1, **Error ellipse: s-maj=108.5km s-min=22.4km az=67.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	19.29	181	P	Pn	20 58 59.0	-0.4
	0.1nm,0.3s,baz=350,slow=11,SNR=3.4						
WRA	Warramunga Arr	22.69	159	P	P	20 59 34.6	-0.5
	1.7nm,0.3s,baz=337,slow=11,SNR=28						
WB2	Warramunga Arr	22.69	159	*e*P	P	20 59 35.2	0.0
STKA	Stephens Creek	36.21	157	P	P	21 01 36.6	+0.1
	1.2nm,0.7s,baz=343,slow=11,SNR=4.6						
MKAR	Makanchi Array	59.08	326	P	P	21 04 34.0	+0.1
	0.5nm,0.4s,baz=118,slow=8.0,SNR=17						

IGQ 02 20:58:25.8, 0.78S×79.96W, h14^{km}±3^{km}, **Mb4.0, Ms3.8, 18C-11D, Error ellipse: s-maj=1.9km s-min=1.5km az=84.9, Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAG1	Magdalena	0.72	15	P	Pg	20 58 41.4	+1.5
CHIS	Cerro-Chispas-	0.81	250	⇑P	Pg	20 58 40.8	-0.8
CHIS	Cerro-Chispas-	0.81	250	⇑S	Sg	20 58 52.3	0.0
CAMI	Rancho Maria	1.46	86	⇑P	Pn	20 58 54.1	+2.4
CAMI	Rancho Maria	1.46	86	⇑S	Sn	20 59 13.7	+3.0
JUA2	San Juan 2	1.47	68	⇓P	Pn	20 58 52.8	+1.0
JUA2	San Juan 2	1.47	68	⇓S	Sn	20 59 13.2	+2.4
TERV	Terraza Guagua	1.48	66	⇓P	Pn	20 58 53.5	+1.5
PINO	Pino	1.49	66	⇓P	Pn	20 58 52.5	+0.4
PINO	Pino	1.49	66	⇓S	Sn	20 59 14.1	+2.8
GGP	Refugio Guagua	1.49	66	⇑P	Pn	20 58 52.9	+0.8
GGP	Refugio Guagua	1.49	66	⇑S	Sn	20 59 14.3	+2.9
IGUA	Igualata	1.50	118	⇑P	Pn	20 58 54.3	+2.0
IGUA	Igualata	1.50	118	⇑S	Sn	20 59 14.8	+3.1
VC1	Cotopaxi 1	1.56	85	⇑P	Pn	20 58 56.1	+3.0
VC1	Cotopaxi 1	1.56	85	⇑S	Sn	20 59 18.4	+5.2
TAMB	Tambo	1.60	87	P	Pn	20 58 56.7	+3.1
PISA	Pisayambo	1.60	100	P	Pn	20 58 55.9	+2.2
JUIV	Juive	1.63	113	P	Pn	20 58 56.2	+2.1
JUIV	Juive	1.63	113	S	Sn	20 59 18.0	+3.2
RETU	Refugio	1.66	114	⇑P	Pn	20 58 57.2	+2.7
RETU	Refugio	1.66	114	⇑S	Sn	20 59 19.5	+4.0
RUN5	Runtun	1.66	112	⇓P	Pn	20 58 56.7	+2.1
RUN5	Runtun	1.66	112	⇓S	Sn	20 59 18.9	+3.2
ARRY	Arrayan	1.67	116	⇓P	Pn	20 58 56.6	+1.9
ARRY	Arrayan	1.67	116	⇓S	Sn	20 59 18.7	+2.8
PATA	Patacocha	1.69	115	P	Pn	20 58 57.4	+2.4
PATA	Patacocha	1.69	115	S	Sn	20 59 19.3	+3.0
ULBA	Ulba	1.69	113	⇑P	Pn	20 58 57.1	+2.2
ULBA	Ulba	1.69	113	⇑S	Sn	20 59 19.1	+2.7
ANTI	Antisana	1.83	80	⇑P	Pn	20 58 59.2	+2.4
ANTI	Antisana	1.83	80	⇑S	Sn	20 59 23.7	+3.9
COTA	Cotacachi	1.96	56	⇑P	Pn	20 58 59.9	+1.2
COTA	Cotacachi	1.96	56	⇑S	Sn	20 59 26.1	+3.1
CAYR	Refugio Cayamb	2.11	68	P	Pn	20 59 03.6	+2.9
CAYR	Refugio Cayamb	2.11	68	S	Sn	20 59 31.4	+4.8
CAYA	Cayambe	2.14	67	⇓P	Pn	20 59 04.0	+2.9
CAYA	Cayambe	2.14	67	⇓S	Sn	20 59 33.3	+5.7

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*ISCJB **02** 21:10:03.7±0.8, 28.73N±0.05×103.0E±0.2, h10^{km}, mb3.4/2, Error ellipse: s-maj=28.1km s-min=5.0km az=9.2*

*IDC **02** 21:10:04.7±1.8, 28.60N×102.32E, h0^{km}, mb3.4/2, mb1 3.5/3, mb1mx3.3/20, mbtmp3.3/3, Error ellipse: s-maj=81.7km s-min=28.4km az=64.0*

*BJI **02** 21:10:08.1, 28.82N×102.79E, h15^{km}, ML3.1*

ISC 02 21:10:06.4±0.8, **28.82N**±0.04×**102.8E**±0.2, **h10**^{km}, **n6**, σ**1^{s}65**/11, **mb3.4**/2, **Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CD2	Chengdu	2.26	23	*e*P	Pn	21 10 45.8	+2.0
CD2				PG	Pg	21 10 48.7	-1.0
CD2				S	Sn	21 11 10.8	-0.9
CD2				SG	Sg	21 11 17.5	-1.5
CD2				Smax			
	comp=N,370nm,0.5s						
CD2				Smax			
	comp=E,370nm,0.6s						
KMI	Kunming	3.69	180	P	Pn	21 11 06.3	+2.9
KMI				PG	Pg	21 11 15.0	-2.1
KMI				SG	Sg	21 12 02.3	-2.5
KMI				Smax			
	comp=N,19nm,0.7s						
KMI				Smax			
	comp=E,18nm,0.9s						
GYA	Guiyang	4.20	123	P	Pn	21 11 13.3	+2.8
SONM	Songino Array	19.19	7	P	Pn	21 14 32.5	+1.4
	baz=208,slow=9.6,SNR=2.6						
MKAR	Makanchi Array	24.03	324	P	P	21 15 21.1	-0.3
	comp=E,0.4nm,0.7s,mb2.9,baz=125,slow=11,SNR=3.7						
WRA	Warramunga Arr	57.28	144	P	P	21 19 54.7	+0.3
	comp=E,0.5nm,0.5s,mb3.8,baz=323,slow=9.3,SNR=5.0						

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*MOS **02** 21:22:05.6±1.6, 41.05N×71.93E, h33^{km}, mb4.0/9, Error ellipse: s-maj=14.3km s-min=8.6km az=76.9*

*BJI **02** 21:22:05.8, 40.75N×71.76E, h30^{km}, mb4.0, ML4.3, Ms3.9, Msz3.5*

*ISCJB **02** 21:22:06.3±0.3, 41.14N±0.03×71.97E±0.05, h31^{km}, mb3.9/12, MS3.6/3, Error ellipse: s-maj=5.2km s-min=3.7km az=28.2*

*NNC **02** 21:22:07.1±1.0, 41.44N×72.15E, h0^{km}, mb4.1, mpv3.7, Error ellipse: s-maj=10.4km s-min=3.1km az=178.0*

*IDC **02** 21:22:07.1±1.4, 41.07N×72.19E, h31^{km}±5^{km}, mb3.8/6, mb1 3.9/9, mb1mx3.6/21, mbtmp3.7/9, ML3.2/3, MS3.3/1, Ms1 3.3/1, ms1mx2.8/26, Error ellipse: s-maj=30.8km s-min=14.4km az=160.0*

*NEIC **02** 21:22:08.8±0.6, 41.25N×72.06E, mb3.7/2, Error ellipse: s-maj=9.9km s-min=7.1km az=159.0*

ISC 02 21:22:08.8±0.3, **41.18N**±0.03×**72.03E**±0.05, **h33**^{km}, **h33**^{km}±.6^{km}**:pP-P, n87,** σ**1^{s}29**/98, **mb3.9**/12, **MS3.6**/3, **4C-6D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	1.56	52	P	Pn	21 22 33.0	-1.3
	SNR=781						
AML	Almayashu	1.56	52	*e*Pn	Pn	21 22 33.0	-1.2
AML				*e*Sn	Sn	21 22 51.6	-1.7
EKS2	Erkin-Say	1.97	41	P	Pn	21 22 40.2	+0.4
	SNR=361						
EKS2	Erkin-Say	1.97	41	*e*Pn	Pn	21 22 40.2	+0.4
UCH	Uchtor	2.13	60	P	Pn	21 22 41.9	-0.2
	SNR=440						
UCH	Uchtor	2.13	60	*e*Pn	Pn	21 22 41.8	-0.2
UCH				*e*Sn	Sn	21 23 09.3	+2.0
KK31	Karatay Array	2.23	330	⇓Pn	Pn	21 22 45.6	+2.2
	20nm,0.3s,baz=138,slow=12,SNR=5403						
KK31				⇓Lg		21 23 12.9	
	218nm,0.3s,baz=141,slow=29,SNR=11						
AAK	Ala-Archa	2.34	51	*e*Pn	Pn	21 22 44.7	-0.2
AAK				*e*Sn	Sn	21 23 14.8	+2.3
AAK	Ala-Archa	2.34	51	*e*PN	Pn	21 22 44.7	-0.2
AAK				*e*		21 23 14.8	
FRU	Bishkek	2.54	49	*e*PN	Pn	21 22 48.5	+0.9
FRU				*i* S	Sn	21 23 22.5	+5.2
FRU				pmax	pmax		
	comp=Z,306nm,1.5s						
FRU				smax			
	comp=N,2µm,1.2s						
KZA	Kyzart	2.57	69	P	Pn	21 22 48.2	+0.1
	SNR=75						
KBK	Karagaybulak	2.63	55	P	Pn	21 22 50.0	+1.2
	SNR=25						
CHMS	Chumysh	2.72	47	P	Pn	21 22 50.6	+0.5
	SNR=12						
USP	Ospenovka	2.77	40	P	Pn	21 22 51.0	+0.1
	SNR=60						
TKM2	Tokmak 2	3.17	56	P	Pn	21 22 56.6	+0.2
	SNR=31						
TKM2	Tokmak 2	3.17	56	⇓Pn	Pn	21 22 56.5	+0.2
	comp=N,0.8nm,0.5s						
TKM2				⇑Lg		21 23 41.1	
	comp=N,50nm,0.5s						
TKM2	Tokmak 2	3.17	56	*e*Pn	Pn	21 22 56.9	+0.5
TKM2	Tokmak 2	3.17	56	*e*PN	Pn	21 22 56.9	+0.6
ULHL	Ulahol	3.33	70	P	Pn	21 23 00.0	+1.6
	SNR=12						
KSH	Kashi	3.44	118	P	Pn	21 22 58.8	-1.2
KSH				S	Sn	21 23 37.7	-1.9
KSH				Smax			
	comp=N,1µm,0.8s						
KSH				Smax			
	comp=E,1µm,0.8s						
KNDC	Almaty	4.19	59	⇑Pn	Pn	21 23 10.1	-0.2
	comp=E,182nm,0.6s						
KNDC				⇓Lg		21 24 13.6	
	comp=E,714nm,0.9s						
AAA	Alma-Ata	4.20	59	*e*PN	Pn	21 23 20.1	+10
AAA				*e*S	Sn	21 24 13.0	+15
AAA				smax			
	comp=N,1.0nm,0.8s						
KBL	Kabul	7.04	201	*e*Pn	Pn	21 23 51.1	+1.7
KBL				*e*Sn	Sn	21 25 10.4	+2.1
CEP	Cherat	7.35	181	P	Pn	21 23 54.9	+1.2
CEP				S	Sn	21 25 15.0	-0.9
CHCP	Chirah Chowk	7.57	172	P	Pn	21 23 57.8	+1.0
THW	Thamme Wali	8.38	182	P	Pn	21 24 07.1	-0.7
SBDP	Sheikh Budin	8.92	187	P	Pn	21 24 16.9	+1.6
MK31	Makanchi Array	9.28	49	⇓Pn	Pn	21 24 21.4	+1.3
	comp=N,7.1nm,0.7s						
MK31				⇑Lg		21 26 50.7	
	comp=N,14nm,0.6s						
MK31	Makanchi Array	9.28	49	*e*Pn	Pn	21 24 19.3	-0.8
MK31	Makanchi Array	9.28	49	*e*P	Pn	21 24 19.3	-0.8
MKAR	Makanchi Array	9.28	49	Pn	Pn	21 24 19.2	-0.9
MKAR				Lg		21 26 55.2	
MKAR	Makanchi Array	9.28	49	Pn	Pn	21 24 19.2	-0.9
	comp=N,0.2nm,0.3s,baz=228,slow=13,SNR=16						
MKAR				Lg		21 26 55.2	
	comp=N,1.1nm,0.3s,baz=221,slow=27,SNR=6.4						
KURK	Kurchatov	10.58	23	⇑Pn	Pn	21 24 36.5	-1.3
	comp=N,0.6nm,0.5s						
KURK				⇓Lg		21 27 34.4	
	comp=N,38nm,0.8s						
KURK	Kurchatov	10.58	23	*e*Pn	Pn	21 24 41.1	+3.2
KURK	Kurchatov	10.58	23	*e*P	Pn	21 24 41.1	+3.2
AB31	Akbulak array	11.73	318	P	Pn	21 24 54.4	+0.8
	comp=N,6.0nm,0.6s,baz=130,slow=12,SNR=67						
BRVK	Borovoye	11.94	355	*e*Pn	Pn	21 25 01.1	+4.6
	comp=N,4.8nm,0.6s						
BRVK	Borovoye	11.94	355	*e*P	Pn	21 25 01.1	+4.6
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.6s						
AKTK	Aktyubinsk	13.44	318	Pn	Pn	21 25 15.0	-2.0
AKTO	Aktyubinsk	13.44	318	P	Pn	21 25 15.0	-2.0
AKTO	Aktyubinsk	13.44	318	Pn	Pn	21 25 15.0	-2.0
	comp=Z,0.1nm,0.3s,baz=130,slow=16,SNR=4.0						
ZAL	Zalesovo	15.36	30	P	Pn	21 25 42.1	-0.8
ZAL						21 28 34.5	
ZALV	Zalesovo Beam	15.38	30	Pn	Pn	21 25 42.1	-1.0
ZALV				Sn	Sn	21 28 34.5	+2.2
ZALV	Zalesovo Beam	15.38	30	Pn	Pn	21 25 42.1	-1.0
	comp=Z,0.1nm,0.3s,baz=218,slow=11,SNR=2.8						
ZALV				Sn	Sn	21 28 34.5	+2.2
	comp=Z,0.2nm,0.3s,baz=236,slow=16,SNR=2.9						
NVS	Novosibirsk	15.56	25	*e*P	Pn	21 25 55.3	+10
NVS				*e*S	Sn	21 28 35.7	-0.8
KOLN	Koldanda	16.41	141	*e*P	Pn	21 25 49.4	-7.1
	comp=Z,11nm,0.5s						
KOLN	Koldanda	16.41	141	*e*P	Pn	21 25 49.4	-7.1
	comp=Z,6.4nm,0.3s						
GKN	Gorkha	16.72	138	*e*P	Pn	21 25 52.9	-7.6
	comp=Z,14nm,0.4s						
GKN	Gorkha	16.72	138	*e*P	Pn	21 25 52.4	-8.1
	comp=Z,14nm,0.4s						
KKN	Kakani	17.23	137	*e*P	Pn	21 25 59.5	-7.3
	comp=Z,10nm,0.6s						
KKN	Kakani	17.23	137	*e*P	Pn	21 25 59.4	-7.4
	comp=Z,10nm,0.6s						
DMN	Daman	17.28	137	*e*P	Pn	21 26 00.4	-7.1
DMN	Daman	17.28	137	*e*P	Pn	21 26 00.3	-7.2
GUN	Gumba	17.44	135	*e*P	Pn	21 26 02.5	-7.0
	comp=Z,28nm,0.8s						
GUN	Gumba	17.44	135	*e*P	Pn	21 26 02.5	-7.0
PKI	Pulchoki	17.47	137	*e*P	Pn	21 26 03.5	-6.3
ARU	Arti	17.60	335	P	Pn	21 26 17.0	+5.8
	comp=Z,2.7nm,0.4s						
ARU	Arti	17.60	335	*e*P	Pn	21 26 09.2	-2.0
ARU				*e*S	Sn	21 29 33.5	+7.5
JIRN	Jiri	17.81	135	*e*P	Pn	21 26 07.6	-6.4
	comp=Z,16nm,0.4s						
JIRN	Jiri	17.81	135	*e*P	Pn	21 26 07.4	-6.6
	comp=Z,16nm,0.4s						
TAPN	Taplejung	18.89	132	*e*P	Pn	21 26 21.4	-5.7
	comp=Z,13nm,0.9s						
TAPN	Taplejung	18.89	132	*e*P	Pn	21 26 21.2	-5.9
	comp=Z,11nm,0.8s						
ODAN	Odare	19.09	134	*e*P	Pn	21 26 23.4	-6.2
ODAN	Odare	19.09	134	*e*P	Pn	21 26 24.5	-5.1
LSA	Lhasa	19.29	120	P	Pn	21 26 30.2	-1.8
LSA	Lhasa	19.29	120	*e*P	Pn	21 26 30.6	-1.4
	comp=Z,4.6nm,0.8s						
LSA	Lhasa	19.29	120	*e*P	Pn	21 26 30.6	-1.4
LSA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
GTA	Gaotai	21.23	86	*e*P	P	21 26 58.1	+6.3
GTA				AP		21 27 02.2	
GTA				XP	sP	21 27 04.4	-0.5
GTA				AMB	AMB		
	comp=Z,3.0nm,1.2s,mb3.5						
KIV	Kislovodsk	21.74	287	*e*P	P	21 26 48.9	-8.3
KIV				pmax	pmax		
	comp=Z,13nm,1.5s,mb4.1						
ZAK	Zakamensk	23.50	56	*e*P	P	21 27 20.3	+4.6
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.5						
SONM	Songino Array	25.24	63	pP	pP	21 27 38.8	-2.3
	comp=Z,2.6nm,1.1s,baz=270,slow=9.7,SNR=11						
OBN	Obninsk	27.12	313	*e*P	P	21 27 45.3	-3.1
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.9						
HHC	Hu-ho-hao-te	29.66	77	*e*P	P	21 28 12.2	+1.0
HHC				AP	pP	21 28 21.8	+1.0
HHC				XP	sP	21 28 25.7	+0.9
HHC				PP	PP	21 29 07.9	-10
HHC				PCP	PcP	21 31 18.9	+4.0
HHC				S	S	21 33 02.8	-1.7
HHC				PCS	PcS	21 35 00.5	+2.5
HHC				SCS	ScS	21 38 50.1	+1.1
HHC				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.4						
HHC				LR	LR		
	comp=N,187nm,16.1s,MS3.9						
HHC				LR	LR		
	comp=E,159nm,16.1s,MS3.9						
HHC				LR	LR		
	comp=Z,84nm,15.2s,MS3.5						
FINES	FINESS Array B	34.17	322	*i* P	P	21 28 50.9	+0.4
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	34.17	322	P	P	21 28 50.9	+0.4

	comp=Z,0.7nm,0.4s,mb4.0,baz=111,slow=8.6,SNR=8.2						
FINES				pP	pP	21 29 00.1	-0.1
	comp=Z,1.8nm,0.6s,baz=114,slow=9.6,SNR=2.8						
ARCES	**ARCESS Array B**	**37.19**	**335**	P	**P**	**21 29 16.4**	**+0.1**
ARCES				*PP	pP	21 29 26.1	+0.1
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ARCES	**ARCESS Array B**	**37.19**	**335**	P	**P**	**21 29 16.4**	**+0.1**
	comp=Z,2.5nm,0.8s,mb4.1,baz=99,slow=7.5,SNR=6.1						
ARCES				pP	pP	21 29 26.1	+0.1
	comp=Z,5.3nm,0.9s,baz=104,slow=3.9,SNR=2.0						
GERES	**GERESS Array B**	**41.04**	**301**	P	**P**	**21 29 49.9**	**+1.1**
GERES				*PP	pP	21 29 59.1	+0.5
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GERES	**GERESS Array B**	**41.04**	**301**	P	**P**	**21 29 49.9**	**+1.2**
	comp=Z,0.5nm,0.5s,mb3.4,baz=66,slow=7.3,SNR=5.1						
GERES				pP	pP	21 29 59.1	+0.5
	comp=Z,0.4nm,0.5s,baz=56,slow=8.3,SNR=3.1						
TIXI	**Tiksi**	**41.15**	**24**	*i* P	**P**	**21 29 48.3**	**-1.1**
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.5						
TIXI				MLR	MLR		
	comp=Z,100nm,18.0s,MS3.7						
NB2	**NORSAR Subarra**	**41.23**	**320**	P	**P**	**21 29 49.7**	**-0.4**
	comp=Z,1.6nm,0.8s,mb3.7,baz=91,slow=8.6						
NOA	**NORSAR Array B**	**41.23**	**320**	P	**P**	**21 29 50.1**	**0.0**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	**NORSAR Array B**	**41.23**	**320**	P	**P**	**21 29 50.1**	**0.0**
	comp=Z,0.9nm,0.6s,mb3.6,baz=92,slow=8.2,SNR=3.0						
KSRS	**Korea Array**	**42.77**	**76**	LR	LR	21 47 42.7	
	comp=Z,34nm,18.5s,MS3.3,baz=342,slow=36						
TORD	**Torodi Ar. Bea**	**66.69**	**267**	P	**P**	**21 32 55.7**	**-0.9**
	comp=Z,3.2nm,0.7s,mb4.5,baz=47,slow=5.6,SNR=25						
TORD				pP	pP	21 33 05.7	-1.2
	comp=Z,1.1nm,0.7s,baz=47,slow=6.3,SNR=5.6						
YKA	**Yellowknife Ar**	**76.54**	**3**	P	**P**	**21 33 53.8**	**-1.3**
YKA				*PP	pP	21 34 03.2	-2.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**76.54**	**3**	P	**P**	**21 33 53.8**	**-1.3**
	comp=Z,1.0nm,0.8s,mb3.8,baz=351,slow=5.9,SNR=18						
YKA				pP	pP	21 34 03.2	-2.3
	comp=Z,1.4nm,0.8s,baz=351,slow=6.0,SNR=11						

CSEM ***02*** *21:30:07.8, 3970N×2085E, h10^{km}, MD3.2/3, After ATH*

ATH 02 21:30:08.0, 3970N×2084E, h10^{km}, MD3.2/3,
Greece-Albania border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAN	**Janina**	**0.04**	**169**	*e*PG	Pg	21 30 09.0	-0.9
JAN	**Janina**	**0.04**	**169**	*e*Pg	Pg	21 30 08.0	-1.9
KEK	**Kerkira**	**0.80**	**271**	*e*PB	Pb	21 30 23.5	-0.5
KEK	**Kerkira**	**0.80**	**271**	*e*Pb	Pb	21 30 23.5	-0.5
EVR	**Evrytania**	**1.08**	**136**	*e*PN	Pn	21 30 29.0	-0.2
EVR	**Evrytania**	**1.08**	**136**	*e*Pn	Pn	21 30 29.0	-0.2
KRUS	**Krusevo**	**1.70**	**10**	*e*Pn	Pn	21 30 40.7	+3.1

MAN 02 21:31:22, 1352N×12193E, h12^{km}, mb3.7, ML2.5, MS2.0,
1D, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOAC	**Boac**	**0.11**	**235**	*e*P	Pg	21 31 26.2	+1.2
BOAC				*e*S	Sg	21 31 30.4	+3.3
GQP	**Guinayangan**	**0.63**	**52**	⇓*i*P	Pg	21 31 34.7	+0.4
GQP				*i* S	Sg	21 31 44.4	+1.9
LQP	**Lukban**	**0.70**	**327**	*e*P	Pg	21 31 36.9	+1.3
OTRP	**Odiongan**	**1.15**	**176**	*e*P	Pb	21 31 44.0	+0.1
OTRP				*e*S	Sb	21 31 59.8	+1.0

NEIC ***02*** *21:31:53.6, 3895S×17490E, h266^{km}, MG4.0(WEL), After WEL.*

WEL 02 21:31:59.1±0.5**, 3911S×17493E, h219^{km}**±4^{km}**, ML3.6**/11**,**
1C, Error ellipse: s-maj=3.5km s-min=3.0km az=90.0,
North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRZ	**Vera Road**	**0.13**	**264**	P	Pn	21 32 27.0	-0.6
VRZ	**Vera Road**	**0.13**	**264**	PN	Pn	21 32 27.0	-0.5
PKVZ	**Pokaka**	**0.37**	**119**	PN	Pn	21 32 27.9	-0.1
TWVZ	**Taurewa**	**0.40**	**84**	P	Pn	21 32 27.7	-0.4
TWVZ	**Taurewa**	**0.40**	**84**	PN	Pn	21 32 27.7	-0.4
WPVZ	**Whakapapa**	**0.49**	**101**	P	Pn	21 32 28.3	0.0
WPVZ	**Whakapapa**	**0.49**	**101**	PN	Pn	21 32 28.3	0.0
MTVZ	**Mangateitei**	**0.50**	**123**	PN	Pn	21 32 28.3	-0.1
FWVZ	**Far West T-bar**	**0.51**	**107**	P	Pn	21 32 28.4	0.0
FWVZ	**Far West T-bar**	**0.51**	**107**	PN	Pn	21 32 28.3	0.0
FWVZ				SN	S	21 32 51.0	-0.2
WTVZ	**West Tongariro**	**0.52**	**91**	P	Pn	21 32 28.4	0.0
WTVZ	**West Tongariro**	**0.52**	**91**	PN	Pn	21 32 28.4	-0.1
TRVZ	**Turoa**	**0.52**	**111**	PN	Pn	21 32 28.6	+0.1
NGZ	**Ngauruhoe**	**0.53**	**97**	P	Pn	21 32 28.4	-0.1
NGZ	**Ngauruhoe**	**0.53**	**97**	PN	Pn	21 32 28.4	0.0
WNVZ	**Wahianoa**	**0.56**	**113**	P	Pn	21 32 28.7	+0.1
WNVZ	**Wahianoa**	**0.56**	**113**	PN	Pn	21 32 28.7	+0.1
OTVZ	**Oturere**	**0.58**	**95**	PN	Pn	21 32 29.0	+0.3
OTVZ				SN	S	21 32 52.3	+0.7
TUVZ	**Tukino**	**0.59**	**106**	P	Pn	21 32 28.8	+0.1
TUVZ	**Tukino**	**0.59**	**106**	PN	Pn	21 32 28.8	+0.1
HIZ	**Hauiti**	**0.60**	**355**	P	Pn	21 32 27.8	-1.0
HIZ	**Hauiti**	**0.60**	**355**	PN	Pn	21 32 27.8	-1.0
HIZ				SN	S	21 32 50.2	-1.7
KATZ	**Kakaramea**	**0.61**	**77**	P	Pn	21 32 28.7	-0.1
KATZ	**Kakaramea**	**0.61**	**77**	PN	Pn	21 32 28.6	-0.2
WAZ	**Wanganui**	**0.64**	**176**	P	Pn	21 32 29.5	+0.6
WAZ	**Wanganui**	**0.64**	**176**	PN	Pn	21 32 29.2	+0.3
NEZ	**North Egmont**	**0.66**	**256**	P	Pn	21 32 29.2	+0.2
NEZ	**North Egmont**	**0.66**	**256**	PN	Pn	21 32 29.1	+0.1
MOVZ	**Moawhango**	**0.71**	**115**	P	Pn	21 32 28.8	-0.4
MOVZ	**Moawhango**	**0.71**	**115**	PN	Pn	21 32 28.8	-0.4
MOVZ				SN	S	21 32 50.6	-2.1
PKE	**Pukeiti**	**0.73**	**263**	P	Pn	21 32 29.0	-0.3
PKE	**Pukeiti**	**0.73**	**263**	PN	Pn	21 32 29.1	-0.2
NWEZ	**Newall Road**	**0.84**	**259**	PN	Pn	21 32 29.8	-0.1
BKZ	**Black Stump Fm**	**1.22**	**93**	PN	Pn	21 32 31.3	-0.9
TSZ	**Takapari Road**	**1.24**	**140**	P	Pn	21 32 32.6	+0.2
TSZ	**Takapari Road**	**1.24**	**140**	PN	Pn	21 32 32.5	+0.1
MRZ	**Mangatainoka R**	**1.63**	**162**	P	Pn	21 32 35.2	-0.3
MRZ	**Mangatainoka R**	**1.63**	**162**	PN	Pn	21 32 35.2	-0.4
KIW	**Kapiti Island**	**1.75**	**180**	P	Pn	21 32 36.2	-0.4
KIW	**Kapiti Island**	**1.75**	**180**	PN	Pn	21 32 36.2	-0.3
PXZ	**Pawanui**	**1.76**	**122**	PN	Pn	21 32 36.6	-0.1
TIWZ	**Tintock**	**1.82**	**156**	PN	Pn	21 32 37.0	-0.3
DUWZ	**D'Urville Isla**	**1.86**	**204**	PN	Pn	21 32 37.2	-0.4
BFZ	**Birch Farm**	**1.87**	**147**	P	Pn	21 32 37.3	-0.4
BFZ	**Birch Farm**	**1.87**	**147**	PN	Pn	21 32 37.3	-0.4
URZ	**Urewera**	**1.91**	**64**	P	Pn	21 32 36.1	-2.1
URZ	**Urewera**	**1.91**	**64**	PN	Pn	21 32 36.1	-2.0
CAW	**Cannon Point**	**2.00**	**177**	SN	S	21 33 08.5	-1.8
MTW	**Mount Morrison**	**2.09**	**168**	P	Pn	21 32 39.2	-0.7
MTW	**Mount Morrison**	**2.09**	**168**	PN	Pn	21 32 39.2	-0.7
MRW	**Makara Radio**	**2.12**	**185**	P	Pn	21 32 39.6	-0.6
MRW	**Makara Radio**	**2.12**	**185**	PN	Pn	21 32 39.6	-0.5
KNZ	**Kokohu**	**2.14**	**88**	P	Pn	21 32 39.5	-0.9
KNZ	**Kokohu**	**2.14**	**88**	PN	Pn	21 32 39.5	-0.9
TCW	**Tory Channel**	**2.16**	**193**	P	Pn	21 32 40.2	-0.3
TCW	**Tory Channel**	**2.16**	**193**	PN	Pn	21 32 40.2	-0.3
MWZ	**Matawai**	**2.18**	**70**	P	Pn	21 32 39.1	-1.7
MWZ	**Matawai**	**2.18**	**70**	PN	Pn	21 32 39.1	-1.7
SNZO	**South Karori**	**2.20**	**184**	P	Pn	21 32 40.2	-0.8
SNZO	**South Karori**	**2.20**	**184**	PN	Pn	21 32 40.2	-0.8
BHW	**Baring Head**	**2.29**	**181**	P	Pn	21 32 41.1	-0.8
BHW	**Baring Head**	**2.29**	**181**	PN	Pn	21 32 41.1	-0.8
PAWZ	**Paruwai Farm**	**2.30**	**171**	P	Pn	21 32 41.3	-0.7
PAWZ	**Paruwai Farm**	**2.30**	**171**	PN	Pn	21 32 41.3	-0.7
MSWZ	**Moikau Station**	**2.31**	**174**	P	Pn	21 32 41.4	-0.7
MSWZ	**Moikau Station**	**2.31**	**174**	PN	Pn	21 32 41.4	-0.7
TRWZ	**Traveller**	**2.36**	**166**	PN	Pn	21 32 41.9	-0.7
NNZ	**Nelson**	**2.41**	**209**	P	Pn	21 32 42.3	-0.9
NNZ				S	S	21 33 15.3	-2.6
NNZ	**Nelson**	**2.41**	**209**	⇑PN	Pn	21 32 42.3	-0.9
NNZ				SN	S	21 33 15.3	-2.6
TUWZ	**Tuamarina**	**2.43**	**198**	PN	Pn	21 32 42.7	-0.7
QRZ	**Quartz Range**	**2.51**	**226**	P	Pn	21 32 42.6	-1.7
QRZ	**Quartz Range**	**2.51**	**226**	PN	Pn	21 32 42.4	-1.9
BSWZ	**Blackbirch Sta**	**2.72**	**197**	P	Pn	21 32 46.1	-0.4
BSWZ	**Blackbirch Sta**	**2.72**	**197**	PN	Pn	21 32 46.1	-0.4
PUZ	**Puketiti**	**2.81**	**69**	P	Pn	21 32 44.5	-3.1
PUZ	**Puketiti**	**2.81**	**69**	PN	Pn	21 32 45.3	-2.3
THZ	**Tophouse**	**3.06**	**210**	*e*P	Pn	21 32 49.1	-1.3
THZ				S	S	21 33 28.3	-2.5
THZ	**Tophouse**	**3.06**	**210**	PN	Pn	21 32 48.8	-1.6
THZ				SN	S	21 33 28.3	-2.6
MXZ	**Matakaoa Point**	**3.08**	**61**	P	Pn	21 32 48.4	-2.2
MXZ	**Matakaoa Point**	**3.08**	**61**	PN	Pn	21 32 48.4	-2.2
KHZ	**Kahutara**	**3.46**	**197**	P	Pn	21 32 54.0	-1.1
KHZ				S	S	21 33 36.1	-3.2
KHZ	**Kahutara**	**3.46**	**197**	PN	Pn	21 32 54.0	-1.1
KHZ				SN	S	21 33 36.1	-3.1
DSZ	**Denniston Nort**	**3.55**	**221**	*e*P	Pn	21 32 53.9	-2.2
DSZ				S	S	21 33 36.7	-4.3
DSZ	**Denniston Nort**	**3.55**	**221**	PN	Pn	21 32 53.9	-2.2
DSZ				SN	S	21 33 36.7	-4.3
LTZ	**Lake Taylor**	**4.18**	**208**	*e*P	Pn	21 33 02.0	-1.7
LTZ	**Lake Taylor**	**4.18**	**208**	PN	Pn	21 33 02.0	-1.7
MQZ	**McQueen's Vall**	**4.90**	**200**	*e*P	Pn	21 33 09.7	-2.9
MQZ	**McQueen's Vall**	**4.90**	**200**	PN	Pn	21 33 09.7	-2.9
WVZ	**Waitaha Valley**	**5.07**	**217**	P	Pn	21 33 12.4	-2.3
WVZ	**Waitaha Valley**	**5.07**	**217**	PN	Pn	21 33 12.4	-2.4
RPZ	**Rata Peaks**	**5.44**	**211**	P	Pn	21 33 16.8	-2.6
RPZ	**Rata Peaks**	**5.44**	**211**	PN	Pn	21 33 16.8	-2.7
FOZ	**Fox Glacier**	**5.94**	**220**	*e*P	Pn	21 33 21.5	-4.3
FOZ	**Fox Glacier**	**5.94**	**220**	PN	Pn	21 33 21.2	-4.5
LBZ	**Lake Benmore**	**6.35**	**212**	*e*P	Pn	21 33 27.9	-3.1
LBZ	**Lake Benmore**	**6.35**	**212**	PN	Pn	21 33 27.9	-3.1
ODZ	**Otahua Downs**	**6.73**	**207**	*e*P	Pn	21 33 33.7	-2.1
ODZ	**Otahua Downs**	**6.73**	**207**	PN	Pn	21 33 33.7	-2.1
JCZ	**Jackson Bay**	**6.78**	**221**	*e*P	Pn	21 33 33.2	-3.3
JCZ	**Jackson Bay**	**6.78**	**221**	PN	Pn	21 33 33.2	-3.2
WKZ	**Wanaka**	**7.21**	**216**	PN	Pn	21 33 37.6	-4.4

MOS ***02*** *21:34:09.2±0.3, 5280N×10702E, h13^{km}, mb4.2/1, Error ellipse: s-maj=52.3km s-min=21.5km az=70.3*

BYKL 02 21:34:10.2±0.2**, 5284N×10690E, h13^{km}**±3^{km}**, 7C-1D,**
Lake Baykal region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZRHB	**Zarechye**	**0.33**	**152**	⇑*i*Pg	Pg	21 34 16.6	-0.2
ZRHB				*e*Sg	Sg	21 34 21.7	+0.5
ZRHB				Pmax			
	2µm,0.2s						
ZRHB				Smax			
	3µm,0.2s						
TRG	**Tyrgan**	**0.34**	**257**	⇑*i*Pg	Pg	21 34 16.9	-0.2
TRG				*e*Sg	Sg	21 34 21.8	0.0
TRG				Pmax			
	202nm,0.1s						
TRG				Smax			
	2µm,0.2s						
KELR	**Kotokel**	**0.72**	**96**	⇑*i*Pg	Pg	21 34 23.3	-0.9
KELR				*e*Pb	Pb	21 34 25.9	+1.3
KELR				*e*Sg	Sg	21 34 32.7	-0.9
KELR				max			
	748nm,0.2s						
KELR				Smax			
	1µm,0.2s						
TRTB	**Turuntaevo**	**0.76**	**144**	⇓*i*Pg	Pg	21 34 23.8	-1.0
	368nm,0.3s						
TRTB				⇑*i*Pg	Pg	21 34 23.8	-1.0
	190nm,0.3s						
TRTB				⇑*i*Pg	Pg	21 34 23.8	-1.0
	418nm,0.3s						
TRTB				*e*Sg	Sg	21 34 33.7	-1.0
TRTB				*e*Sb	Sb	21 34 37.7	+2.3
TRTB				Pmax			
	330nm,0.1s						
TRTB				max			
	867nm,0.2s						
FFNB	**Fofonovo**	**0.80**	**186**	*e*Pg	Pg	21 34 24.6	-1.0
FFNB				*e*Sg	Sg	21 34 35.1	-1.0
FFNB				Pmax			
	683nm,0.1s						
FFNB				Smax			
	3µm,0.2s						
KAB	**Kabansk**	**0.81**	**191**	⇑*i*PG	Pg	21 34 24.8	-1.0
KAB				*i*		21 34 36.2	
KAB				pmax	pmax		
	comp=Z,171nm,0.1s						
KAB				smax			
	comp=E,2µm,0.3s						
KAB	**Kabansk**	**0.81**	**191**	*e*Pg	Pg	21 34 24.9	-0.9
KAB				*e*Pb	Pb	21 34 26.4	+0.4
KAB				*e*Sg	Sg	21 34 36.0	-0.3
KAB				*e*Sb	Sb	21 34 38.9	+2.1
KAB				Pmax			
	comp=E,212nm,0.1s						
KAB				max			
	comp=E,2µm,0.2s						
OGRR	**Ongureny**	**0.91**	**27**	*e*PG	Pg	21 34 26.6	-1.1
OGRR				*e*		21 34 38.7	
OGRR				pmax	pmax		
	comp=Z,64nm,0.4s						
OGRR				smax			
	comp=E,485nm,0.6s						
OGRR	**Ongureny**	**0.91**	**27**	*e*Pg	Pg	21 34 26.6	-1.1
OGRR				*e*Sg	Sg	21 34 38.7	-0.9
OGRR				Pmax			
	comp=E,33nm,0.1s						
OGRR				Smax			
	comp=E,321nm,0.3s						
UUDB	**Ulan-Yde**	**1.08**	**154**	⇑*i*Pg	Pg	21 34 29.4	-1.6
UUDB				*e*Sg	Sg	21 34 43.6	-1.5
UUDB				Pmax			
	comp=E,135nm,0.1s						
UUDB				Smax			
	comp=E,645nm,0.4s						
MXMB	**Maximikha**	**1.19**	**68**	*e*Pg	Pg	21 34 31.6	-1.5
MXMB				*e*Pb	Pb	21 34 32.9	+0.3
MXMB				*e*Sg	Sg	21 34 47.9	-0.7
MXMB				max			
	comp=E,54nm,0.1s						
MXMB				Smax			
	comp=E,494nm,0.2s						
IRK	**Irkutsk**	**1.71**	**251**	*e*PN	Pn	21 34 40.4	+0.7
IRK				*e*		21 35 02.8	
IRK				pmax	pmax		
	comp=Z,100nm,0.2s						
IRK				smax			
	comp=N,2µm,0.4s						
IRK	**Irkutsk**	**1.71**	**251**	*e*Pg	Pg	21 34 41.1	-1.9
IRK				*e*Sg	Sg	21 35 03.0	-2.3
IRK				Pmax			
	comp=N,102nm,0.2s						
IRK				Smax			
	comp=N,2µm,0.4s						
TLY	**Talaya**	**2.31**	**241**	*e*Pn	Pn	21 34 48.5	+0.6
TLY				*e*Pg	Pg	21 34 51.1	-3.4
TLY				*e*Sg	Sg	21 35 20.8	-3.7
TLY				Pmax			
	comp=N,14nm,0.2s						
TLY				Smax			
	comp=N,118nm,0.2s						
ARS	**Arshan**	**2.89**	**253**	*e*Pn	Pn	21 34 57.3	+1.4
ARS				*e*Pg	Pg	21 35 01.3	-4.3
ARS				*e*Sg	Sg	21 35 38.4	-4.7
ARS				Pmax			
	comp=N,32nm,0.2s						
ARS				Smax			
	comp=N,434nm,0.5s						
NIZ	**Nizh Angarsk**	**3.32**	**27**	*e*PN	Pn	21 35 03.0	+1.2
NIZ				*e*		21 35 09.2	
NIZ				*e*S	Sn	21 35 41.9	+0.8
NIZ				*e*		21 35 51.7	
NIZ				pmax	pmax		
	comp=Z,20nm,0.3s						
NIZ				smax			
	comp=N,135nm,0.6s						
NIZ	**Nizh Angarsk**	**3.32**	**27**	*e*Pn	Pn	21 35 03.0	+1.2
NIZ				*e*Sn	Sn	21 35 41.5	+0.4
NIZ				*e*Sg	Sg	21 35 52.3	-4.5
NIZ				Smax			
	comp=N,136nm,0.6s						
ZAK	**Zakamensk**	**3.34**	**224**	*e*Pn	Pn	21 35 02.9	+0.9
ZAK				*e*Pg	Pg	21 35 11.1	-3.0
ZAK				*e*Sg	Sg	21 35 54.5	-2.9
ZAK				Pmax			
	comp=N,6.0nm,0.1s						
ZAK				Smax			
	comp=N,40nm,0.4s						
MOY	**Mondy**	**3.81**	**254**	*e*Pn	Pn	21 35 11.1	+2.5
MOY				*e*Pg	Pg	21 35 18.7	-4.5
MOY				*e*		21 35 56.6	
MOY				*e*		21 36 05.4	
MOY				*e*Sg	Sg	21 36 07.9	-4.7
MOY				Pmax			
	comp=N,21nm,0.4s						
MOY				Smax			
	comp=N,119nm,0.7s						
KMO	**Kumora**	**3.96**	**38**	*e*Pn	Pn	21 35 11.9	+1.4
KMO				*e*Sg	Sg	21 36 11.4	-5.7
KMO				Smax			
	comp=N,55nm,1.0s						
CIT	**Chita**	**4.15**	**99**	*e*Pn	Pn	21 35 12.1	-1.1
CIT				*e*Pg	Pg	21 35 24.3	-5.4
CIT				*e*Sg	Sg	21 36 19.4	-4.0
CIT				Pmax			
	comp=N,19nm,0.6s						
CIT				Smax			
	comp=N,86nm,1.0s						
ORL	**Orlik**	**4.33**	**269**	*e*PN	Pn	21 35 17.5	+1.9
ORL				*e*		21 35 28.7	
ORL				*e*		21 36 23.8	
ORL				pmax	pmax		
	comp=Z,9.0nm,0.6s						
ORL				smax			
	comp=N,70nm,0.7s						
ORL	**Orlik**	**4.33**	**269**	*e*Pn	Pn	21 35 16.9	+1.3
ORL				*e*Pg	Pg	21 35 28.8	-4.2
ORL				*e*		21 36 09.4	
ORL				*e*Sg	Sg	21 36 23.9	-5.0
ORL				Pmax			
	comp=N,9.0nm,0.9s						
ORL				Smax			
	comp=N,76nm,0.4s						
KPC	**Khapcheranga**	**4.66**	**130**	*e*Pn	Pn	21 35 18.7	-1.4
KPC				*e*Pg	Pg	21 35 33.5	-5.8
KPC				*e*Sg	Sg	21 36 33.6	-6.0
KPC				Pmax			
	comp=N,7.0nm,0.2s						
KPC				Smax			
	comp=N,74nm,0.8s						
UKT	**Uakit**	**4.76**	**53**	*e*Pn	Pn	21 35 22.5	+1.0
UKT				*e*Pg	Pg	21 35 36.1	-5.2
UKT				*e*Sg	Sg	21 36 38.2	-4.7
UKT				Pmax			
	comp=N,5.0nm,0.6s						
UKT				Smax			
	comp=N,17nm,0.5s						

IGQ 02 21:45:53.8, 155S×8127W, h12^{km}±7^{km}**, Mb4.2, Ms4.0,**
5C-5D, Error ellipse: s-maj=10.2km s-min=7.5km
az=50.3, Off coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHIS	**Cerro-Chispas-**	**0.73**	**48**	⇑P	Pg	21 46 07.8	-0.3
CHIS				⇑S	Sg	21 46 16.9	-0.8
ARRY	**Arrayan**	**2.81**	**89**	⇑P	Pn	21 46 39.6	+0.9
ARRY	**Arrayan**	**2.81**	**89**	⇑S	Sn	21 47 14.7	+2.2
RETU	**Refugio**	**2.82**	**88**	P	Pn	21 46 41.2	+2.4
PATA	**Patacocha**	**2.83**	**89**	P	Pn	21 46 42.1	+3.2
RUN5	**Runtun**	**2.85**	**87**	P	Pn	21 46 41.4	+2.3
CAMI	**Rancho Maria**	**2.90**	**73**	P	Pn	21 46 42.6	+2.8
PISA	**Pisayambo**	**2.92**	**81**	P	Pn	21 46 43.0	+2.9
TERV	**Terraza Guagua**	**2.99**	**63**	P	Pn	21 46 44.6	+3.5
PINO	**Pino**	**3.00**	**63**	⇓P	Pn	21 46 42.5	+1.3
GGP	**Refugio Guagua**	**3.00**	**63**	⇓P	Pn	21 46 42.9	+1.7
VC1	**Cotopaxi 1**	**3.00**	**73**	P	Pn	21 46 44.8	+3.6
TAMB	**Tambo**	**3.02**	**74**	⇑P	Pn	21 46 45.2	+3.7
ANTI	**Antisana**	**3.29**	**71**	⇓P	Pn	21 46 48.8	+3.6
COTA	**Cotacachi**	**3.48**	**58**	P	Pn	21 46 55.0	+7.2
CAYR	**Refugio Cayamb**	**3.61**	**65**	⇓P	Pn	21 46 54.2	+4.6
CAYA	**Cayambe**	**3.65**	**64**	⇓P	Pn	21 46 53.9	+3.7

MOS ***02*** *22:00:04.8±1.3, 5575N×16460E, h31^{km}, mb4.3/1, Error ellipse: s-maj=25.9km s-min=14.9km az=49.1*

KRSC 02 22:00:04.8±0.4**, 5575N×16460E, h30^{km}**±30^{km}**, ML4.3,**
Komandorsky Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	**Krutoberegovo**	**1.10**	**295**	*e*P	Pn	22 00 23.1	-1.0
KBTR				*i* S	Sn	22 00 36.6	-1.7
SMKR	**Semkarok**	**1.94**	**297**	*e*P	Pn	22 00 36.7	+1.1
SMKR				*i* S	Sn	22 01 00.1	+1.1
MKZ	**Mys Kozlova**	**2.04**	**235**	*e*P	Pn	22 00 38.4	+1.4
MKZ				*i* S	Sn	22 01 03.0	+1.7
BDR	**Baidarnaya**	**2.07**	**295**	*e*P	Pn	22 00 39.0	+1.6
BDR				*i* S	Sn	22 01 04.8	+2.7
SRKR	**Sorokina**	**2.12**	**297**	*e*P	Pn	22 00 39.6	+1.5
SRKR				*i* S	Sn	22 01 05.3	+1.9
ZLN	**Zelenaya**	**2.15**	**279**	*e*P	Pn	22 00 41.0	+2.4
ZLN				*i* S	Sn	22 01 07.3	+3.0
CIRR	**Tsirk**	**2.20**	**281**	*e*P	Pn	22 00 41.3	+2.1
CIRR				*i* S	Sn	22 01 08.2	+2.9
KLY	**Klyuchi**	**2.29**	**286**	*e*P	Pn	22 00 40.8	+0.4
KLY				*i* S	Sn	22 01 07.0	-0.5
KRSR	**Krestovskiy**	**2.31**	**283**	*e*P	Pn	22 00 42.7	+1.9
KRSR				*i* S	Sn	22 01 10.8	+2.6
BZMR	**Bezymyannaya**	**2.33**	**276**	*e*P	Pn	22 00 43.5	+2.6
BZMR				*i* S	Sn	22 01 10.9	+2.4
KIRR	**Kirishev**	**2.41**	**277**	*e*P	Pn	22 00 44.8	+2.7
KIRR				*i* S	Sn	22 01 14.2	+3.7
KPT	**Kopyto**	**2.48**	**277**	*e*P	Pn	22 00 45.7	+2.7
KPT				*i* S	Sn	22 01 15.2	+3.0
TUMR	**Tumrok**	**2.58**	**261**	*e*P	Pn	22 00 47.7	+3.3
TUMR				*i* S	Sn	22 01 18.9	+4.3
KOZR	**Kozyr**	**2.67**	**279**	PN	Pn	22 00 49.1	+3.5
KOZR				S	Sn	22 01 21.9	+5.0
KOZ	**Kozyrevsk**	**2.68**	**279**	*e*P	Pn	22 00 49.1	+3.3
KOZ				*i* S	Sn	22 01 21.9	+4.7
SRDR	**Sredinnyy**	**2.80**	**284**	*e*P	Pn	22 00 50.2	+2.8
SRDR				*i* S	Sn	22 01 23.6	+3.5
KII	**Karymskiy**	**3.44**	**242**	*e*P	Pn	22 00 59.7	+3.5
KII				*i* S	Sn	22 01 39.9	+4.1
SPN	**Mys Shipunski**	**3.77**	**227**	*e*P	Pn	22 01 02.3	+1.5
SPN				*i* S	Sn	22 01 43.9	-0.2
NLC	**Nalytchevo**	**4.01**	**232**	*e*P	Pn	22 01 06.3	+2.2
NLC				*i* S	Sn	22 01 51.0	+1.0
AVH	**Avacha**	**4.23**	**236**	*e*P	Pn	22 01 10.8	+3.7
AVH				*i* S	Sn	22 01 58.0	+2.7
GNL	**Ganaly**	**4.38**	**245**	*e*P	Pn	22 01 12.8	+3.7
PET	**Petropavlovsk**	**4.42**	**234**	*e*P	Pn	22 01 12.8	+3.1
PET				*i* S	Sn	22 02 01.7	+1.6
RUS	**Russkaya**	**4.89**	**230**	*e*P	Pn	22 01 18.6	+2.5
RUS				*i* S	Sn	22 02 11.9	+0.3
GRL	**Gorelyy**	**5.00**	**233**	*e*P	Pn	22 01 21.3	+3.7

BGS ***02*** *22:02:38.3, 38.11N×72.25E, h33^{km}, mb5.2*

NNC ***02*** *22:02:41.9±1.1, 39.03N×71.09E, h0^{km}, mb5.5, mpv5.2, Error ellipse: s-maj=8.5km s-min=5.9km az=29.0*

IDC ***02*** *22:02:44.0±3.1, 39.02N×71.41E, h12^{km}±18^{km}, mb4.9/21, mb1 5.1/24, mb1mx5.1/24, mbtmp5.0/24, ML5.0/3, MS4.5/19, Ms1 4.5/19, ms1mx4.3/28, Error ellipse: s-maj=14.1km s-min=10.5km az=2.0*

BJI ***02*** *22:02:45.0, 39.18N×71.36E, h30^{km}, mB5.3, mb5.1, ML5.0, Ms5.0, Msz4.9*

SZGRF ***02*** *22:02:45.1, 37.98N×71.18E, h33^{km}, mb5.0, Afghanistan-Tajikistan border region*

ISCJB ***02*** *22:02:46.2±0.1, 39.01N±0.02×71.33E±0.02, h40^{km}, mb5.2/242, MS4.7/57, Error ellipse: s-maj=2.8km s-min=2.0km az=179.2*

GCMT ***02*** *22:02:47.2±0.2, 39.15N×71.12E, h17^{km}, MW5.2/81, Moment Tensor Solution. s55,c82; s81,c154; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}6.40±.18; $M_{\theta\theta}$-4.60±.15; $M_{\phi\phi}$-1.80±.13; $M_{r\theta}$2.23±.39; $M_{\theta\phi}$-4.27±.11; $M_{\phi r}$-1.51±.37; Best double couple: $M_0$7.62300×10^{16} NP1:ϕ_s213.00000°, δ45.00000°, λ58.00000°. NP2: ϕ_s75.00000°, δ53.00000°, λ118.00000°. Principal axes: T*

7.4900, Plg68.0000°, Azm46.0000°; N 0.2670, Plg22.0000°, Azm237.0000°; P -7.7570, Plg4.0000°, Azm145.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.

*MOS **02** 22:02:47.3±0.9, 39.07N×71.38E, h50^{km}, mb5.4/113, MS4.7/35 Error ellipse: s-maj=5.4km s-min=3.3km az=133.8*

MOS Felt (III) at Tashkent.

*NEIC **02** 22:02:47.2±0.1, 38.97N×71.37E, h35^{km}, mb5.2/149, MS4.7/2, Error ellipse: s-maj=3.7km s-min=2.4km az=186.0*

NEIC Felt [III] at Tashkent, Uzbekistan.

ISC 02 22:02:48.4±0.1**, 39.04N**±0.02×**71.34E**±0.02**, h42**^{km}**, h42**^{km}±3.1^{km}**:pP-P, n723,** σ0^{s}**92**/746**, mb5.2**/241**, MS4.7**/57**, 153C-53D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	3.57	29	P	Pn	22 03 42.8	+1.6
	SNR=2734						
AML	Almayashu	3.57	29	⇑*i*Pn	Pn	22 03 42.9	+1.7
AML				*e*Sn	Sn	22 04 22.9	+0.8
KSH	Kashi	3.63	81	⇑*i*P	Pn	22 03 43.5	+1.5
KSH				*e*S	Sn	22 04 24.2	+0.7
KSH				LR	LR		
	comp=N,56µm,4.0s						
KSH				LR	LR		
	comp=E,66µm,4.6s						
KSH				LR	LR		
	comp=Z,52µm,5.7s						
UCH	Uchtor	4.00	36	P	Pn	22 03 49.1	+2.1
	SNR=1568						
UCH	Uchtor	4.00	36	⇑*i*Pn	Pn	22 03 48.9	+1.9
UCH				*e*Sn	Sn	22 04 39.7	+7.2
EKS2	Erkin-Say	4.06	26	P	Pn	22 03 49.7	+1.8
	SNR=1056						
EKS2	Erkin-Say	4.06	26	*e*Pn	Pn	22 03 50.0	+2.1
EKS2				*e*Sn	Sn	22 04 42.3	+8.1
KK31	Karatay Array	4.11	351	⇓Pn	Pn	22 03 49.0	+0.4
	comp=Z,453nm,0.4s,baz=168,slow=13						
KK31				⇑Sn	Sn	22 04 41.0	+5.7
	comp=Z,2µm,0.5s,baz=180,slow=23,SNR=12						
KZA	Kyzart	4.25	43	P	Pn	22 03 52.4	+1.8
	SNR=339						
AAK	Ala-Archa	4.31	33	Pn	Pn	22 03 52.5	+1.1
	comp=Z,10µm,0.4s						
AAK	Ala-Archa	4.31	33	P	Pn	22 03 54.3	+2.9
	SNR=631						
AAK	Ala-Archa	4.31	33	*e*Pn	Pn	22 03 52.2	+0.8
AAK	Ala-Archa	4.31	33	*c* *i*PN	Pn	22 03 52.4	+1.0
AAK	Ala-Archa	4.31	33	P	Pn	22 03 52.2	+0.8
	SNR=460						
FRU	Bishkek	4.53	32	⇑*i*PN	Pn	22 03 56.0	+1.6
FRU				*e*S	Sn	22 04 52.0	+6.3
FRU				pmax	pmax		
	comp=Z,2µm,1.8s						
FRU				pmax	pmax		
	comp=Z,3µm,3.0s						
FRU				smax			
	comp=N,16µm,4.5s						
KBK	Karagaybulak	4.53	36	P	Pn	22 03 56.6	+2.3
	SNR=1651						
CHMS	Chumysh	4.72	32	P	Pn	22 03 58.7	+1.7
	SNR=733						
USP	Ospenovka	4.85	28	P	Pn	22 04 00.1	+1.4
	SNR=1278						
KBL	Kabul	4.86	203	⇑*i*Pn	Pn	22 04 01.2	+2.3
KBL				*e*Sn	Sn	22 05 01.1	+7.3
ULHL	Ulahol	4.91	48	P	Pn	22 04 01.0	+1.3
	SNR=104						
TKM2	Tokmak 2	5.04	38	P	Pn	22 04 03.4	+2.0
	SNR=210						
TKM2	Tokmak 2	5.04	38	⇑Pn	Pn	22 04 01.0	-0.4
	comp=N,28nm,0.5s						
TKM2				⇓Sn	Sn	22 05 02.6	+4.3
	comp=N,50nm,0.6s						
TKM2	Tokmak 2	5.04	38	*e*Pn	Pn	22 04 02.8	+1.4
	comp=N,3.3nm,0.8s						
TKM2	Tokmak 2	5.04	38	*e*PN	Pn	22 04 02.8	+1.4
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CEP	Cherat	5.23	175	⇑P	Pn	22 04 06.3	+2.3
CHCP	Chirah Chowk	5.59	163	P	Pn	22 04 12.3	+3.3
KNDC	Almaty	5.95	44	⇑Pn	Pn	22 04 13.5	-0.4
	comp=Z,1µm,1.1s						
KNDC				⇓Lg		22 05 55.4	
	comp=Z,4µm,1.0s						
AAA	Alma-Ata	5.98	43	*i* P	Pn	22 04 17.2	+2.9
AAA	Alma-Ata	5.98	43	*e*PN	Pn	22 04 15.5	+1.2
AAA				*e*S	Sn	22 05 27.0	+5.6
AAA				pmax	pmax		
	comp=Z,1µm,4.0s						
AAA				smax			
	comp=N,4µm,4.5s						
AAA				MLR	MLR		
	comp=Z,13µm,8.5s						
THW	Thamme Wali	6.24	177	P	Pn	22 04 20.3	+2.4
SBDP	Sheikh Budin	6.74	184	P	Pn	22 04 25.7	+0.9
DRP	Derazinda	7.34	188	P	Pn	22 04 43.9	+11
DRP				S	Sn	22 05 57.0	+2.0
ABKT	Ailbek	10.43	268	Pn	Pn	22 05 12.5	-2.7
	comp=Z,702nm,0.5s,SNR=18						
VAN	Vannovskaya	10.43	268	P	Pn	22 05 10.8	-4.5
MK31	Makanchi Array	11.15	42	Pn	Pn	22 05 26.6	+1.5
	comp=Z,36nm,0.7s,baz=230,slow=13,SNR=346						
MK31				⇑Lg		22 08 36.3	
	comp=Z,65nm,0.7s						
MK31	Makanchi Array	11.15	42	*e*Pn	Pn	22 05 24.9	-0.2
MK31	Makanchi Array	11.15	42	*e*P	Pn	22 05 24.9	-0.2
MKAR	Makanchi Array	11.15	42	Pn	Pn	22 05 25.4	+0.4
MKAR				Lg		22 08 43.3	
MKAR	Makanchi Array	11.15	42	*i* P	Pn	22 05 25.5	+0.4
MKAR				pmax	pmax		
	comp=Z,40nm,0.7s						
MKAR	Makanchi Array	11.15	42	Pn	Pn	22 05 25.4	+0.4
	comp=Z,2.8nm,0.3s,baz=233,slow=12,SNR=208						
MKAR				Lg		22 08 43.3	
	comp=Z,2.1nm,0.3s,baz=233,slow=22,SNR=5.1						
KURK	Kurchatov	12.75	21	Pn	Pn	22 05 43.6	-3.4
	comp=Z,314nm,0.9s,SNR=24						
KURK	Kurchatov	12.75	21	⇑Pn	Pn	22 05 45.0	-1.9
	comp=Z,24nm,0.9s						
KURK				⇑Lg		22 09 30.2	
	comp=Z,278nm,1.6s						
KURK	Kurchatov	12.75	21	*e*Pn	Pn	22 05 43.3	-3.7
	comp=Z,214nm,0.8s						
KURK	Kurchatov	12.75	21	*c* *i*P	Pn	22 05 43.5	-3.5
KURK	Kurchatov	12.75	21	P	Pn	22 05 44.3	-2.7
	SNR=17						
AB31	Akbulak array	13.07	325	Pn	Pn	22 05 47.5	-3.8
	comp=Z,75nm,0.5s,baz=139,slow=12,SNR=1225						
AB31				Sn	Sn	22 08 12.5	-2.7
	comp=Z,470nm,0.7s,baz=143,slow=24,SNR=18						
WMQ	Urumqi	13.16	63	P	Pn	22 05 50.8	-1.8
WMQ				AP		22 05 59.1	
WMQ				PP		22 06 02.2	
WMQ				XP		22 06 05.8	
WMQ				S	Sn	22 08 14.9	-2.7
WMQ				XS		22 08 30.0	
WMQ				SS		22 08 33.1	
WMQ				PCP	PcP	22 11 19.4	-2.1
WMQ				SCP	ScP	22 14 47.6	-3.7
WMQ				AMB	AMB		
	comp=Z,112nm,0.6s						
WMQ				AMB	AMB		
	comp=Z,110nm,8.1s						
WMQ				LR	LR		
	comp=N,2µm,20.0s						
WMQ				LR	LR		
	comp=E,2µm,20.0s						
WMQ				LR	LR		
	comp=Z,2µm,21.8s						
BRVK	Borovoye	14.04	357	Pn	Pn	22 06 01.4	-3.1
	comp=Z,703nm,0.9s,SNR=36						
BRVK	Borovoye	14.04	357	*e*Pn	Pn	22 06 01.4	-3.1
	comp=Z,149nm,0.9s						
BRVK	Borovoye	14.04	357	*e*P	Pn	22 06 01.4	-3.1
BRVK				pmax	pmax		
	comp=Z,149nm,0.9s						
BRVK	Borovoye	14.04	357	P	Pn	22 06 03.6	-0.9
	SNR=21						
AKTK	Aktyubinsk	14.78	325	Pn	Pn	22 06 10.6	-3.9
AKTK				Sn	Sn	22 08 54.0	-2.9
AKTK				LR	LR	22 12 28.5	
AKTO	Aktyubinsk	14.78	325	P	Pn	22 06 10.6	-3.9
AKTO						22 08 54.1	
AKTO				pmax	pmax		
	comp=Z,6.0nm,0.3s						
AKTO				smax			
	comp=N,25nm,0.3s						
AKTO				MLR	MLR		
	comp=Z,4µm,20.6s						
AKTO	Aktyubinsk	14.78	325	Pn	Pn	22 06 10.6	-3.9
	comp=Z,6.0nm,0.3s,baz=131,slow=13,SNR=120						
AKTO				Sn	Sn	22 08 54.0	-2.9
	comp=Z,25nm,0.3s,baz=193,slow=24,SNR=11						
AKTO				LR	LR	22 12 28.5	
	comp=Z,4µm,20.6s,baz=324,slow=39						
KOLN	Koldanda	15.19	134	*e*P	Pn	22 06 14.9	-5.0
GKN	Gorkha	15.61	131	*e*P	Pn	22 06 19.1	-6.3
	comp=Z,263nm,0.4s						
KKN	Kakani	16.14	130	*e*P	Pn	22 06 25.9	-6.4
DMN	Daman	16.18	131	*e*P	Pn	22 06 27.3	-5.4
PKI	Pulchoki	16.38	130	*e*P	Pn	22 06 30.1	-5.2
	comp=Z,340nm,0.8s						
GUN	Gumba	16.42	128	*e*P	Pn	22 06 29.9	-5.8
	comp=Z,758nm,1.0s						
JIRN	Jiri	16.79	128	*e*P	Pn	22 06 34.8	-5.6
ZAL	Zalesovo	17.50	27	P	Pn	22 06 46.5	-2.5
ZALV	Zalesovo Beam	17.51	27	P	Pn	22 06 46.5	-2.7
	comp=Z,24nm,0.3s,baz=213,slow=11,SNR=193						
ZALV				LR	LR	22 13 47.5	
	comp=Z,1µm,19.1s,baz=226,slow=38						
NVS	Novosibirsk	17.73	23	⇑*i*P	Pn	22 06 49.2	-2.6
NVS				*i* S	S	22 09 57.5	-16
TAPN	Taplejung	17.96	126	*e*P	Pn	22 06 48.8	-6.1
	comp=Z,297nm,0.7s						
ODAN	Odare	18.11	127	*e*P	Pn	22 06 51.6	-5.1
	comp=Z,354nm,0.8s						
BANOM	Banah	18.19	228	⇓P	Pn	22 06 54.5	-3.1
	SNR=8.6						
MAK	Makhachkala	18.39	290	*c* *i*P	Pn	22 06 58.2	-1.9
MAK				*i* S	S	22 10 21.1	-6.5
MAK				pmax	pmax		
	comp=Z,713nm,1.9s						
MAK				MLR	MLR		
	comp=Z,6µm,12.0s						
LSA	Lhasa	18.79	114	P	Pn	22 07 04.1	-0.9
LSA				S	S	22 10 36.9	+1.5
LSA				LR	LR		
	comp=N,1µm,13.0s						
LSA				LR	LR		
	comp=E,3µm,10.2s						
LSA				LR	LR		
	comp=Z,4µm,12.5s						
LSA	Lhasa	18.79	114	*e*Pn	Pn	22 07 04.4	-0.5
	comp=Z,72nm,0.7s						
LSA	Lhasa	18.79	114	*e*P	Pn	22 07 04.4	-0.6
LSA				pmax	pmax		
	comp=Z,72nm,0.7s						
BIDO	Bidbid	19.12	220	P	Pn	22 07 07.0	-2.0
	SNR=7.0						
SVE	Sverdlovsk	19.14	342	⇓*e*P	Pn	22 07 08.0	-1.0
SVE				*e*S	S	22 10 46.0	+3.6
SVE				MLR	MLR		
	comp=N,5µm,10.0s						
SVE				MLR	MLR		
	comp=E,4µm,10.0s						
SVE				MLR	MLR		
	comp=Z,8µm,10.0s						
ASHO	Ashiyiah	19.28	227	⇑P	Pn	22 07 10.2	-0.7
	SNR=15						
ARU	Arti	19.35	338	P	Pn	22 07 09.6	-1.8
	comp=Z,776nm,0.8s,SNR=47						
ARU	Arti	19.35	338	*e*P	Pn	22 07 09.3	-2.1
	comp=Z,106nm,0.8s						
ARU				*e*Sn	Sn	22 10 39.9	-7.4
ARU	Arti	19.35	338	⇑*i*P	Pn	22 07 09.4	-2.0
ARU				*e*S	S	22 10 45.3	-1.2
ARU				pmax	pmax		
	comp=Z,101nm,0.8s						
ARU				MLR	MLR		
	comp=Z,2µm,17.0s						
ARU				MLR	MLR		
	comp=N,1µm,16.0s						
ARU				MLR	MLR		
	comp=E,1µm,16.0s						
HOQ	Hoqain	19.48	222	⇑P	Pn	22 07 09.3	-4.0
	SNR=8.0						
WBK	Wadi Bani Khal	19.49	216	⇑P	Pn	22 07 11.3	-2.0
	SNR=5.4						
DGRG	David-gareji	19.95	285	P	Pn	22 07 19.4	+0.8
DGRG				S	sS	22 11 24.9	+10
ARQ	Araqi	20.10	223	P	P	22 07 19.3	+0.8
	SNR=11						
JMDO	Jabal Madar	20.10	218	⇑P	P	22 07 18.5	0.0
	SNR=6.7						
BSY	Bisya	20.23	221	P	P	22 07 19.8	-0.1
	SNR=24						
MTA	Mtatsminda	20.37	286	P	P	22 07 21.3	-0.1
MTA				S	S	22 11 07.8	+0.6
ZEI	Tsey	21.04	289	*e*P	P	22 07 28.0	-0.5
ZEI				*e*S	S	22 11 20.2	-0.1
ONI	Oni	21.36	288	P	P	22 07 33.4	+1.4
ONI				S	S	22 11 30.9	+4.1
MIB	Mutribah	21.79	252	*e*P	P	22 07 36.2	-0.4
MIB				AMb	AMB	22 07 43.0	
	comp=Z,412nm,0.7s,mb6.0						
MIB	Mutribah	21.79	252	*e*P	P	22 07 36.7	+0.1
MIB				AMb	AMB	22 07 43.0	
	comp=Z,371nm,0.7s,mb5.9						
KBD	Kabd	21.86	250	*e*P	P	22 07 36.6	-0.8
KBD				AMb	AMB	22 07 41.3	
	comp=Z,582nm,0.6s,mb6.2						
KBD	Kabd	21.86	250	*e*P	P	22 07 37.4	0.0
KBD				AMb	AMB	22 07 41.6	
	comp=Z,694nm,0.7s,mb6.2						
QRN	Al-Qurain	21.93	249	*e*P	P	22 07 37.2	-1.0
QRN				AMb	AMB	22 07 42.0	
	comp=Z,103nm,0.7s,mb5.4						
QRN	Al-Qurain	21.93	249	*e*P	P	22 07 37.4	-0.8
QRN				AMb	AMB	22 07 41.6	
	comp=Z,107nm,0.8s,mb5.3						
KIV	Kislovodsk	21.96	292	P	P	22 07 37.4	-1.0
	comp=Z,1µm,0.7s,mb6.4,SNR=16						
KIV	Kislovodsk	21.96	292	*e*P	P	22 07 37.1	-1.3
	comp=Z,214nm,0.7s,mb5.7						
KIV	Kislovodsk	21.96	292	*e*P	P	22 07 37.0	-1.4
KIV				*e*		22 07 50.9	
KIV				pmax	pmax		
	comp=Z,20nm,0.5s,mb4.8						
KIV				MLR	MLR		
	comp=Z,2µm,16.0s,MS4.5						
KIV	Kislovodsk	21.96	292	P	P	22 07 40.7	+2.3
	SNR=20						
GTA	Gaotai	22.03	80	⇑P	P	22 07 39.4	+0.2
GTA				AP		22 07 50.7	
GTA				XP	sP	22 07 56.1	+1.3
GTA				S	S	22 11 42.0	+2.2
GTA				SS		22 12 07.8	
GTA				PCS	PcS	22 15 08.5	-6.0
GTA				AMB	AMB		
	comp=Z,29nm,1.2s,mb4.6						
GTA				AMB	AMB		
	comp=Z,618nm,5.7s						
GTA				LR	LR		
	comp=N,3µm,18.6s,MS4.8						
GTA				LR	LR		
	comp=E,2µm,19.0s,MS4.8						
GTA				LR	LR		
	comp=Z,3µm,18.6s,MS4.7						
RDF	Al-Radifah	22.10	250	*e*P	P	22 07 39.0	-1.0
RDF				AMb	AMB	22 07 44.1	
	comp=Z,220nm,0.6s,mb5.8						
RDF	Al-Radifah	22.10	250	*e*	P	22 07 39.9	-0.1
RDF				*e*P		22 07 39.9	
RDF				AMb	AMB	22 07 44.5	
	comp=Z,251nm,0.7s,mb5.8						
NAY	Al-Naaiem	22.15	251	*e*P	P	22 07 39.6	-0.9
NAY				AMb	AMB	22 07 47.5	
	comp=Z,65nm,0.6s,mb5.3						
NAY	Al-Naaiem	22.15	251	*e*P	P	22 07 40.4	-0.2
NAY				AMb	AMB	22 07 47.5	
	comp=Z,77nm,0.6s,mb5.3						
HYB	Hyderabad	22.45	162	*e*P	P	22 07 41.5	-2.2
	comp=Z,175nm,1.0s,mb5.4						
HYB				*e*		22 08 07.0	
HYB				*e*S	S	22 11 46.0	-2.0
HYB	Hyderabad	22.45	162	*e*P	P	22 07 41.5	-2.2
HYB				*e*		22 08 07.0	
HYB				*e*S	S	22 11 46.0	-2.0
HYB				pmax	pmax		
	comp=Z,175nm,1.0s,mb5.4						
HYB	Hyderabad	22.45	162	*i* P	P	22 07 41.5	-2.2
	comp=Z,175nm,1.0s,mb5.4						
HYB				*e*		22 08 07.0	
HYB				*e*S	S	22 11 40.0	-8.0
HYB				LR	LR	22 15 00.0	
	comp=Z,7.5nm,10.0s						
BHD	Baghdad	22.48	264	*e*P	x	22 07 43.0	
BHD				*e*S	x	22 11 50.0	
MSL	Mosul	22.50	272	*e*P	x	22 07 54.0	
MSL				*e*S	x	22 12 03.0	
SOKR	Solikamsk	22.53	341	*d* *i*P	P	22 07 44.3	0.0
SOKR				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.1						
SOKR				MLR	MLR		
	comp=Z,2µm,16.0s,MS4.7						
VRHR	Novokhopersk	24.02	310	*e*P	P	22 07 57.5	-1.6
VRHR				*e*S	S	22 12 17.9	+4.7
VRHR				pmax	pmax		
	comp=Z,50nm,0.7s,mb5.0						
VRHR				pmax	pmax		
	comp=N,70nm,1.1s						
VRHR				pmax	pmax		
	comp=E,60nm,0.8s						
VRHR				smax			
	comp=N,660nm,11.0s						
VRHR				smax			
	comp=Z,300nm,9.7s						
VRHR				smax			
	comp=E,440nm,8.5s						
VRHR				MLR	MLR		
	comp=N,500nm,8.0s						
VRHR				MLR	MLR		
	comp=Z,1µm,8.0s						
VRHR				MLR	MLR		
	comp=E,1µm,9.0s						
SOC	Sochi	24.10	291	*e*P	P	22 07 56.7	-3.2
SOC				*e*PPP		22 08 37.3	
SOC				*e*S	S	22 12 11.2	-3.4
SOC				*e*SSS		22 13 11.5	
SOC				MLR	MLR		
	comp=Z,2µm,17.0s,MS4.7						
MOY	Mondy	24.18	49	*e*P	P	22 08 01.1	+0.6
MOY				pmax	pmax		
	comp=Z,117nm,2.4s,mb4.9						
ZAK	Zakamensk	25.18	53	⇑*i*P	P	22 08 10.1	+0.5
ZAK				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.0						
MALT	Malatya	25.63	279	⇓P	P	22 08 16.1	+2.2
MALT	Malatya	25.63	279	⇓*i*P	P	22 08 16.1	+2.2
TLY	Talaya	25.75	50	P	P	22 08 15.8	+1.0
	comp=Z,190nm,1.2s,mb5.5,SNR=6.3						
TLY	Talaya	25.75	50	⇑*i*P	P	22 08 15.7	+0.9
TLY	Talaya	25.75	50	*c* *i*P	P	22 08 15.5	+0.7
TLY				*e*		22 13 38.6	
TLY				pmax	pmax		
	comp=Z,42nm,1.2s,mb4.8						
TLY				MLR	MLR		
	comp=Z,622nm,17.0s,MS4.2						
TLY	Talaya	25.75	50	P	P	22 08 16.0	+1.2
	SNR=11						
ANN	Anapa	25.75	294	*e*P	P	22 08 13.9	-1.0
ANN				*e**PP	pP	22 08 23.2	-3.0
ANN				*e*		22 08 50.8	
ANN				*e*S	S	22 12 43.0	+2.0
ANN				*e*SS		22 13 42.9	
ANN				pmax	pmax		
	comp=Z,164nm,0.9s,mb5.6						
ANN				MLR	MLR		
	comp=Z,739nm,12.0s,MS4.4						
LZH	Lanzhou	25.86	86	⇑P	P	22 08 16.8	+0.8
LZH				AP	pP	22 08 26.5	-0.7
LZH				XP	sP	22 08 31.5	-0.8
LZH				PP		22 08 58.1	
LZH				PCP	PcP	22 11 45.3	+1.0
LZH				*e*S	S	22 12 39.1	-3.7
LZH				XS	sS	22 13 00.1	-1.6
LZH				SS		22 13 46.3	
LZH				SCP	ScP	22 15 21.9	+1.6
LZH				PCS	PcS	22 15 27.8	+2.8
LZH				AMB	AMB		
	comp=Z,101nm,1.0s,mb5.3						
LZH				AMB	AMB		
	comp=Z,490nm,4.8s						
LZH				LR	LR		
	comp=E,3µm,12.1s						
LZH				LR	LR		
	comp=Z,3µm,13.2s,MS5.0						
WHFO	Wadi Hawf	26.01	221	P	P	22 08 17.9	+0.4
	SNR=50						
RBK	Rabkut	26.14	220	P	P	22 08 18.3	-0.4
	SNR=17						
IRK	Irkutsk	26.28	49	*e*P	P	22 08 19.5	-0.1
IRK				pmax	pmax		
	comp=N,81nm,1.1s						
ABTO	Aybut	26.73	221	⇑P	P	22 08 24.3	+0.3
	SNR=44						
SONM	Songino Array	26.74	59	P	P	22 08 23.4	-0.4
SONM						22 11 46.7	
SONM				pmax	pmax		
	comp=Z,37nm,1.0s						
SONM				pmax	pmax		
	comp=Z,4.0nm,0.9s						
SONM				pmax	pmax		
	comp=N,2.0nm,0.9s						
SONM				MLR	MLR		
	comp=Z,2µm,18.7s						
SONM	Songino Array	26.74	59	P	P	22 08 23.4	-0.3
	comp=Z,37nm,1.0s,mb4.9,baz=269,slow=9.2,SNR=101						
SONM				PcP	PcP	22 11 46.7	+0.6
	comp=Z,4.4nm,0.8s,baz=251,slow=4.4,SNR=5.0						
SONM				ScP	ScP	22 15 27.3	+4.6
	comp=Z,1.7nm,0.9s,baz=288,slow=1.4,SNR=4.2						
SONM				LR	LR	22 19 53.5	
	comp=Z,2µm,18.7s,MS4.7,baz=263,slow=39						
ULN	Ulaanbaatar	27.18	59	⇑*i*P	P	22 08 27.8	0.0
ULN	Ulaanbaatar	27.18	59	P	P	22 08 28.2	+0.4
	SNR=12						
PRGR	Permogore	27.60	333	⇑*i*P	P	22 08 29.6	-1.7
PRGR				*e*S	S	22 13 06.3	-3.4
PRGR				pmax	pmax		
	comp=Z,23nm,0.5s,mb5.1						
CD2	Chengdu	27.66	97	*e*P	P	22 08 33.4	+1.1
CD2				AP	pP	22 08 45.1	+1.5
CD2				XP	sP	22 08 50.6	+2.0
CD2				PP		22 09 23.4	
CD2				PCP	PcP	22 11 46.5	-2.1
CD2				S	S	22 13 10.1	-1.3
CD2				XS	sS	22 13 30.0	-0.3
CD2				SS		22 14 30.8	
CD2				AMB	AMB		
	comp=Z,110nm,1.0s,mb5.4						
CD2				AMB	AMB		
	comp=Z,340nm,7.8s						
CD2				LR	LR		
	comp=N,2µm,15.6s,MS4.9						
CD2				LR	LR		
	comp=E,2µm,14.4s,MS4.9						
CD2				LR	LR		
	comp=Z,2µm,10.8s,MS4.9						
MOS	Moscow	27.91	318	*e*P	P	22 08 34.4	+0.2
MOS				*i* PPP		22 09 31.1	
MOS				*e*S	S	22 13 17.4	+2.7
MOS				*e*SSS		22 14 51.1	
MOS				pmax	pmax		
	comp=Z,196nm,1.9s,mb5.4						
MOS				MLR	MLR		
	comp=E,3µm,13.0s						
MOS				MLR	MLR		
	comp=Z,4µm,13.0s,MS5.1						
SIM	Simferopol’	28.11	294	*de*P	P	22 08 36.3	+0.2
SIM				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.3						
OBN	Obninsk	28.24	316	P	P	22 08 36.8	-0.3
	comp=Z,514nm,0.5s,mb6.4,SNR=9.5						
OBN	Obninsk	28.24	316	⇑*i*P	P	22 08 36.6	-0.5
OBN				LR	LR		
	comp=Z,900nm,12.0s,MS4.6						
OBN	Obninsk	28.24	316	*c* *i*P	P	22 08 36.5	-0.6
OBN				*e*		22 11 50.0	
OBN				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.1						
OBN				MLR	MLR		

	comp=Z,900nm,12.0s,MS4.6						
ASF	**Jabal al Asfar**	**28.71**	**267**	P	**P**	**22 08 43.0**	**+1.4**
ASF				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ASF				MLR	MLR		
	comp=Z,401nm,18.9s						
ASF	**Jabal al Asfar**	**28.71**	**267**	P	**P**	**22 08 43.0**	**+1.4**
	comp=Z,4.3nm,0.8s,mb4.2,baz=290,slow=3.8,SNR=6.9						
ASF				LR	LR	22 21 23.5	
	comp=Z,401nm,18.9s,MS4.0,baz=297,slow=39						
BR131	**Keskin Array S**	**29.01**	**283**	*e*P	**P**	**22 08 44.5**	**+0.4**
	comp=Z,8.7nm,0.5s,mb4.7						
MMAI	**Mount Meron Ar**	**29.55**	**269**	P	**P**	**22 08 50.6**	**+1.6**
	comp=Z,0.6nm,0.5s,baz=52,slow=9.5,SNR=3.9						
MMAI				PcP	PcP	22 11 54.9	+1.6
	comp=Z,5.9nm,0.8s,baz=50,slow=4.4,SNR=7.8						
MMAI				ScP	ScP	22 15 35.5	+3.8
	comp=Z,1.4nm,0.7s,baz=340,slow=3.9,SNR=4.0						
MMAI				LR	LR	22 22 59.0	
	comp=Z,502nm,18.5s,MS4.2,baz=15,slow=41						
ANTO	**Ankara**	**29.62**	**284**	⇑P	**P**	**22 08 50.4**	**+0.8**
ANTO	**Ankara**	**29.62**	**284**	⇑*i*P	**P**	**22 08 50.4**	**+0.8**
KMI	**Kunming**	**29.84**	**108**	P	**P**	**22 08 51.2**	**-0.4**
KMI				AP	pP	22 09 00.5	-2.5
KMI				XP	sP	22 09 07.1	-0.9
KMI				PP	PP	22 09 48.6	-11
KMI				PPP		22 10 04.4	
KMI				S	**S**	**22 13 49.1**	**+3.4**
KMI				AMB	AMB		
	comp=Z,34nm,0.9s,mb5.1						
KMI				AMB	AMB		
	comp=Z,199nm,5.9s						
KMI				LR	LR		
	comp=N,1µm,12.4s,MS4.7						
KMI				LR	LR		
	comp=E,588nm,15.8s,MS4.7						
KMI				LR	LR		
	comp=Z,1µm,13.0s,MS4.8						
XAN	**Xi’an**	**30.46**	**88**	P	**P**	**22 08 56.8**	**-0.2**
XAN				AP	pP	22 09 09.8	+1.4
XAN				AMB	AMB		
	comp=Z,24nm,0.7s,mb5.0						
HHC	**Hu-ho-hao-te**	**30.71**	**74**	*e*P	**P**	**22 09 00.9**	**+1.7**
HHC				AP	pP	22 09 12.8	+2.3
HHC				PP	PP	22 10 03.0	-5.8
HHC				PCP	PcP	22 11 58.2	+2.1
HHC				S	**S**	**22 14 00.4**	**+1.4**
HHC				XS	sS	22 14 18.7	+0.7
HHC				SCP	ScP	22 15 36.7	+1.4
HHC				SS	SS	22 15 42.8	-28
HHC				SCS	ScS	22 19 31.6	-0.2
HHC				AMB	AMB		
	comp=Z,16nm,0.9s,mb4.8						
HHC				LR	LR		
	comp=N,1µm,15.2s,MS4.8						
HHC				LR	LR		
	comp=E,752nm,14.7s,MS4.8						
HHC				LR	LR		
	comp=Z,874nm,19.1s,MS4.4						
CHRT	**Chiangrai**	**31.08**	**120**	⇑P	**P**	**22 09 00.0**	**-2.6**
	comp=Z,737nm,1.0s,mb6.5						
CHTO	**Chiang Mai**	**31.26**	**122**	*e*P	**P**	**22 09 02.8**	**-1.4**
	comp=Z,14nm,1.0s,mb4.7						
CHTO	**Chiang Mai**	**31.26**	**122**	*e*P	**P**	**22 09 02.8**	**-1.4**
CHTO				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.7						
MUKL	**Al Mukalla**	**31.38**	**225**	*e*P	**P**	**22 09 06.3**	**+1.0**
AKASG	**Malin Array Be**	**31.62**	**306**	P	**P**	**22 09 06.6**	**-0.6**
AKASG				LR	LR	22 24 33.9	
AKASG	**Malin Array Be**	**31.62**	**306**	P	**P**	**22 09 06.6**	**-0.5**
AKASG				pmax	pmax		
	comp=Z,25nm,0.7s						
AKASG				MLR	MLR		
	comp=Z,941nm,19.3s						
AKASG	**Malin Array Be**	**31.62**	**306**	P	**P**	**22 09 06.6**	**-0.6**
	comp=Z,25nm,0.7s,mb5.1,baz=79,slow=7.4,SNR=72						
AKASG				LR	LR	22 24 33.9	
	comp=Z,941nm,19.3s,MS4.5,baz=95,slow=41						
AKBB	**Malin Array Si**	**31.62**	**306**	*e*P	**P**	**22 09 06.3**	**-0.8**
KIEV	**Kiev**	**31.64**	**306**	*e*P	**P**	**22 09 06.1**	**-1.1**
	comp=Z,44nm,0.8s,mb5.3						
KIEV	**Kiev**	**31.64**	**306**	*e*P	**P**	**22 09 06.1**	**-1.1**
KIEV				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.3						
KIS	**Kishinev**	**31.77**	**299**	*e*P	**P**	**22 09 07.0**	**-1.4**
KIS				*e*		22 09 30.0	
KIS				*e*		22 10 21.0	
KIS	**Kishinev**	**31.77**	**299**	*e*P	**P**	**22 09 07.0**	**-1.4**
KIS				LRM		22 26 32.0	
	comp=Z,2µm,14.0s						
CIT	**Chita**	**31.83**	**52**	*e*P	**P**	**22 09 08.6**	**-0.3**
CIT				*e*	pP	22 09 21.3	+1.0
CIT				*e*		22 09 28.6	
CIT				pmax	pmax		
	comp=Z,91nm,1.2s,mb5.5						
GYA	**Guiyang**	**32.05**	**102**	⇑*i*P	**P**	**22 09 11.4**	**+0.3**
GYA				AP	pP	22 09 25.8	+3.3
GYA				PP	PP	22 10 20.0	-4.0
GYA				PPP		22 10 36.2	
GYA				PCP	PcP	22 12 01.7	+1.7
GYA				S	**S**	**22 14 21.7**	**+1.4**
GYA				XS	sS	22 14 42.0	+2.7
GYA				SCP	ScP	22 15 40.1	0.0
GYA				PCS	PcS	22 15 41.8	-3.1
GYA				SS	SS	22 16 14.2	-25
GYA				SCS	ScS	22 19 37.2	-1.7
GYA				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.2						
GYA				AMB	AMB		
	comp=Z,240nm,5.1s						
GYA				LR	LR		
	comp=N,800nm,12.2s,MS4.9						
GYA				LR	LR		
	comp=E,1µm,10.7s,MS4.9						
GYA				LR	LR		
	comp=Z,1µm,11.4s,MS4.9						
TIRR	**Tirgusor**	**32.20**	**294**	⇑P	**P**	**22 09 14.9**	**+2.7**
TIRR	**Tirgusor**	**32.20**	**294**	⇑*i*P	**P**	**22 09 14.9**	**+2.7**
BDT	**Bhumibol Dam**	**32.44**	**124**	P	**P**	**22 09 13.0**	**-1.6**
NANT	**Nan**	**32.44**	**120**	⇓P	**P**	**22 09 12.0**	**-2.6**
	comp=Z,275nm,1.0s,mb6.0						
PALK	**Pallekele**	**32.73**	**163**	*e*P	**P**	**22 09 16.3**	**-0.8**
	comp=Z,26nm,1.1s,mb5.1						
MNK	**Minsk**	**32.96**	**312**	*e*P	pP	22 09 33.0	+2.8
BOD	**Bodaibo**	**33.24**	**41**	*e*P	**P**	**22 09 20.5**	**-0.7**
BOD				pmax	pmax		
	comp=Z,152nm,0.9s,mb5.9						
PLOR	**Plostina**	**33.32**	**297**	⇑*i*P	**P**	**22 09 23.4**	**+1.4**
JMB	**Yambol**	**33.78**	**290**	*e*P	**P**	**22 09 27.1**	**+1.0**
JOF	**Joensuu**	**33.83**	**328**	*e*p	**P**	**22 09 25.9**	**-0.4**
	comp=Z,47nm,0.8s,mb5.5						
JOF	**Joensuu**	**33.83**	**328**	*e*P	**P**	**22 09 25.9**	**-0.4**
JOF				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.5						
MLR	**Muntele Rosu**	**33.84**	**296**	⇓P	**P**	**22 09 28.7**	**+2.1**
MLR	**Muntele Rosu**	**33.84**	**296**	⇓*i*P	**P**	**22 09 28.7**	**+2.1**
BURAR	**Bucovina Array**	**34.19**	**300**	⇓P	**P**	**22 09 30.0**	**+0.4**
BURAR	**Bucovina Array**	**34.19**	**300**	⇓*i*P	**P**	**22 09 30.0**	**+0.4**
NST	**Nakhon Sawan**	**34.33**	**125**	P	**P**	**22 09 31.0**	**0.0**
	comp=Z,58nm,1.0s,mb5.5						
VOIR		**34.48**	**296**	⇑*i*P	**P**	**22 09 32.9**	**+0.8**
LVV	**L’vov**	**34.92**	**304**	*e*P	**P**	**22 09 35.7**	**-0.1**
LVV				*e*		22 10 56.5	
LVV				*e*S	**S**	**22 14 57.7**	**-6.5**
LVV				MLR	MLR		
	comp=E,600nm,14.0s,MS4.6						
LVV				MLR	MLR		
	comp=Z,800nm,14.0s,MS4.6						
LVV				MLR	MLR		
	comp=N,300nm,12.0s,MS4.6						
TRBA	**At Turbah**	**35.21**	**231**	*e*P	**P**	**22 09 39.9**	**+1.2**
APA	**Apatity**	**35.41**	**336**	⇑*i*P	**P**	**22 09 39.0**	**-0.9**
APA				*i*		22 11 02.6	
APA				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
FIA1	**FINESS Array S**	**35.56**	**324**	*e*P	**P**	**22 09 40.6**	**-0.5**
FINES	**FINESS Array B**	**35.56**	**324**	*i* P	**P**	**22 09 40.7**	**-0.5**
FINES				pmax	pmax		
	comp=Z,15nm,0.5s						
FINES	**FINESS Array B**	**35.56**	**324**	P	**P**	**22 09 40.7**	**-0.5**
	comp=Z,15nm,0.5s,mb5.2,baz=115,slow=10,SNR=152						
FINES				LR	LR	22 24 33.5	
	comp=Z,443nm,21.7s,MS4.2,slow=37						
KKTK	**Khon Kaen**	**35.61**	**121**	P	**P**	**22 09 42.0**	**-0.1**
	comp=Z,1µm,0.5s						
SUW	**Suwalki**	**35.61**	**311**	*e*P	**P**	**22 09 41.3**	**-0.4**
KWP	**Kalwaria**	**35.78**	**303**	*e*P	**P**	**22 09 44.1**	**+0.8**
KWP				*e*pP	pP	22 09 48.0	-6.7
KWP	**Kalwaria**	**35.78**	**303**	*e*P	**P**	**22 09 44.1**	**+0.8**
KWP				*e*pP	pP	22 09 48.0	-6.7
DRGR		**35.96**	**299**	⇑P	**P**	**22 09 45.9**	**+1.1**
DRGR		**35.96**	**299**	⇑*i*P	**P**	**22 09 45.9**	**+1.1**
WHN	**Wuhan**	**36.05**	**90**	⇑P	**P**	**22 09 46.5**	**+0.7**
WHN				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.5						
GZR	**Gura Zlata**	**36.07**	**296**	⇓P	**P**	**22 09 46.3**	**+0.5**
GZR	**Gura Zlata**	**36.07**	**296**	⇓*i*P	**P**	**22 09 46.3**	**+0.5**
KOLS	**Kolonicke sedl**	**36.09**	**302**	*i* P	**P**	**22 09 46.0**	**+0.1**
	comp=Z,182nm,2.9s,mb5.5						
KOLS				*i* PP	PP	22 10 57.0	-11
KOLS	**Kolonicke sedl**	**36.09**	**302**	*i* P	**P**	**22 09 46.0**	**+0.1**
KOLS				pmax	pmax		
	comp=Z,183nm,2.9s,mb5.5						
UZH	**Uzhgorod**	**36.10**	**302**	*e*P	**P**	**22 09 47.0**	**+1.0**
UZH				*e*		22 10 02.0	
UZH				*e*		22 11 04.0	
UZH				*e*S	**S**	**22 15 19.0**	**-3.3**
UZH				MLR	MLR		
	comp=Z,1µm,14.0s,MS4.9						
VTS	**Vitosha**	**36.21**	**291**	⇓P	**P**	**22 09 48.2**	**+1.2**
VTS	**Vitosha**	**36.21**	**291**	⇓*i*P	**P**	**22 09 48.2**	**+1.2**
NNT	**Nongplab**	**36.42**	**129**	P	**P**	**22 09 50.0**	**+1.0**
STHS	**Stebnicka Huta**	**36.74**	**303**	*i* P	**P**	**22 09 51.3**	**-0.2**
STHS				*e*		22 10 58.6	
STHS				*e*SS	SS	22 18 20.0	+6.3
BZS	**Buzias**	**36.85**	**297**	⇑P	**P**	**22 09 53.5**	**+1.1**
BZS	**Buzias**	**36.85**	**297**	⇑*i*P	**P**	**22 09 53.5**	**+1.1**
KECS	**Kecovo**	**37.30**	**302**	*e*P	**P**	**22 09 56.6**	**+0.4**
	comp=Z,6.1nm,0.7s,mb4.5						
KECS				*e*PP	PP	22 11 07.7	-14
KECS	**Kecovo**	**37.30**	**302**	*e*P	**P**	**22 09 56.6**	**+0.4**
KECS				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.5						
NIE	**Niedzica**	**37.35**	**303**	*e*P	**P**	**22 09 57.8**	**+1.2**
NIE				*e*PP	PP	22 11 11.1	-11
OJC	**Ojcow**	**37.64**	**305**	*e*P	**P**	**22 09 58.8**	**-0.2**
OJC				*e*PP	PP	22 11 14.2	-11
PSZ	**Piszkesteto**	**37.75**	**301**	*e*P	**P**	**22 09 57.1**	**-2.9**
	comp=Z,9.0nm,0.8s,mb4.5						
PSZ	**Piszkesteto**	**37.75**	**301**	*e*P	**P**	**22 09 57.1**	**-2.9**
PSZ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
PSZ	**Piszkesteto**	**37.75**	**301**	⇑*e*pP	pP	22 10 04.6	-7.0
PSZ	**Piszkesteto**	**37.75**	**301**	⇓*i*P	**P**	**22 09 57.0**	**-3.0**
KRUS	**Krusevo**	**37.90**	**290**	*e*Pn	**P**	**22 10 01.6**	**+0.2**
FNA	**Florina**	**37.95**	**289**	*e*P	**P**	**22 10 01.8**	**0.0**
DIVS	**Divcibare**	**38.24**	**295**	*e*P	**P**	**22 10 05.1**	**+0.9**
VYHS	**Vyhne**	**38.40**	**302**	*i* P	**P**	**22 10 04.9**	**-0.6**
	comp=Z,63nm,2.3s,mb4.9						
VYHS				*e*PP	PP	22 11 28.9	-4.8
VYHS	**Vyhne**	**38.40**	**302**	*i* P	**P**	**22 10 04.9**	**-0.6**
VYHS				pmax	pmax		
	comp=Z,63nm,2.3s,mb4.9						
KEV	**Kevo**	**38.56**	**337**	*e*p	**P**	**22 10 05.4**	**-1.1**
	comp=Z,14nm,0.5s,mb5.0						
KEV	**Kevo**	**38.56**	**337**	*e*P	**P**	**22 10 05.4**	**-1.1**
KEV				pmax	pmax		
	comp=Z,14nm,0.5s,mb5.0						
QIZ	**Qiongzhong**	**38.75**	**110**	P	**P**	**22 10 08.8**	**0.0**
QIZ				AP	pP	22 10 20.5	+0.2
QIZ				S	**S**	**22 16 03.0**	**-0.2**
QIZ				XS	sS	22 16 23.6	+1.1
QIZ				SS	SS	22 18 49.1	-5.9
QIZ				AMB	AMB		
	comp=Z,69nm,1.1s,mb5.3						
QIZ				LR	LR		
	comp=N,1µm,15.0s,MS4.9						
QIZ				LR	LR		
	comp=E,1µm,15.0s,MS4.9						
QIZ				LR	LR		
	comp=Z,1µm,14.7s,MS4.9						
PKSM	**Moragy**	**38.82**	**298**	⇓P	**P**	**22 10 09.7**	**+0.6**
PKSM	**Moragy**	**38.82**	**298**	⇓*i*P	**P**	**22 10 09.7**	**+0.7**
CLNS	**Chul’man**	**38.89**	**45**	*e*P	**P**	**22 10 09.4**	**-0.1**
CLNS				*e*PPP		22 11 49.4	
CLNS				*e*		22 12 26.1	
CLNS				*e*SS	SS	22 18 47.5	-9.2
CLNS				pmax	pmax		
	comp=Z,68nm,0.9s,mb5.4						
CLNS				pmax	pmax		
	comp=N,15nm,0.8s						
CLNS				pmax	pmax		
	comp=E,39nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
CLNS				pmax	pmax		
	comp=N,10.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,13nm,0.9s						
CLNS				MLR	MLR		
	comp=Z,2µm,13.0s,MS5.0						
CLNS				MLR	MLR		
	comp=N,500nm,12.0s,MS5.0						
CLNS				MLR	MLR		
	comp=E,1µm,15.0s,MS5.0						
ARCES	**ARCESS Array B**	**38.91**	**336**	P	**P**	**22 10 09.4**	**-0.1**
ARCES				LR	LR	22 27 22.8	
ARCES	**ARCESS Array B**	**38.91**	**336**	P	**P**	**22 10 09.4**	**-0.1**
ARCES				pmax	pmax		
	comp=Z,32nm,0.7s						
ARCES				MLR	MLR		
	comp=Z,2µm,20.2s						
ARCES	**ARCESS Array B**	**38.91**	**336**	P	**P**	**22 10 09.4**	**-0.1**
	comp=Z,32nm,0.7s,mb5.2,baz=108,slow=7.3,SNR=160						
ARCES				LR	LR	22 27 22.8	
	comp=Z,2µm,20.2s,MS5.0,baz=112,slow=38						
ARE0	**ARCESS Array S**	**38.91**	**336**	*e*P	**P**	**22 10 08.6**	**-1.0**
NJ2	**Nanjing**	**38.93**	**85**	*e*P	**P**	**22 10 11.8**	**+1.7**
NJ2				AP	pP	22 10 23.9	+2.2
NJ2				PP	PP	22 11 46.7	+7.0
NJ2				S	**S**	**22 16 08.0**	**+2.4**
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,280nm,5.2s						
NJ2				LR	LR		
	comp=N,2µm,18.0s,MS5.2						
NJ2				LR	LR		
	comp=E,2µm,14.8s,MS5.2						
NJ2				LR	LR		
	comp=Z,2µm,14.8s,MS5.1						
GZH	**Guangzhou**	**38.97**	**102**	P	**P**	**22 10 07.5**	**-3.0**
MORC	**Moravsky Berou**	**39.12**	**304**	⇓P	**P**	**22 10 12.0**	**+0.5**
MORC	**Moravsky Berou**	**39.12**	**304**	⇓*i*P	**P**	**22 10 12.0**	**+0.5**
GKP	**Gorka Klasztor**	**39.12**	**310**	*e*P	**P**	**22 10 11.6**	**+0.2**
GKP				*e*pP	pP	22 10 16.7	-6.4
GKP	**Gorka Klasztor**	**39.12**	**310**	*e*P	**P**	**22 10 11.6**	**+0.1**
GKP				*e*pP	pP	22 10 16.7	-6.3
SMOL	**Smolenice**	**39.33**	**302**	*e*P	**P**	**22 10 13.9**	**+0.7**
KTK1	**Kautokeino**	**39.42**	**335**	*e*P	**P**	**22 10 13.2**	**-0.5**
KTK1				AMb	AMB	22 10 17.0	
	comp=Z,74nm,1.2s,mb5.3						
MODS	**Modra-Piesok**	**39.44**	**302**	*i* P	**P**	**22 10 14.7**	**+0.5**
	comp=Z,52nm,2.5s,mb4.8						
MODS				*e*PP	PP	22 11 44.9	-0.2
MODS	**Modra-Piesok**	**39.44**	**302**	*i* P	**P**	**22 10 14.7**	**+0.5**
MODS				*e*		22 11 44.9	
MODS				pmax	pmax		
	comp=Z,52nm,2.5s,mb4.8						
VRAC	**Vranov**	**39.78**	**303**	⇓P	**P**	**22 10 17.9**	**+0.9**
VRAC	**Vranov**	**39.78**	**303**	⇓*i*P	**P**	**22 10 17.9**	**+0.9**
KSP	**Ksiaz**	**39.83**	**306**	*e*P	**P**	**22 10 17.9**	**+0.5**
KSP				*e*pP	pP	22 10 23.0	-6.0
KSP	**Ksiaz**	**39.83**	**306**	⇑*e*P	**P**	**22 10 17.5**	**+0.1**
KSP				*e*pP	pP	22 10 21.3	-7.7
KSP				*e*PP	PP	22 11 46.8	-2.4
DPC	**Dobruska-Polom**	**39.85**	**305**	*e*P	**P**	**22 10 18.1**	**+0.5**
DPC				*e*pP	pP	22 10 23.7	-5.5
DPC				*e*PP	PP	22 11 42.8	-6.7
DPC				AMS	AMS	22 28 50.0	
	comp=Z,1µm,10.7s						
SOP	**Sopron**	**40.01**	**301**	⇓*e*P	**P**	**22 10 19.7**	**+0.7**
UPC	**Upice**	**40.03**	**305**	*e*P	**P**	**22 10 19.8**	**+0.7**
UPC				*e*pP	pP	22 10 23.5	-7.2
UPC				*e*PP	PP	22 11 50.5	-1.0
CN2	**Changchun**	**40.25**	**65**	*e*P	**P**	**22 10 20.3**	**-0.7**
CN2				*e*AP	pP	22 10 32.2	-0.4
CN2				*e*XP	sP	22 10 38.0	+0.5
CN2				*e*S	**S**	**22 16 24.0**	**-1.2**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.5						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,600nm,14.0s,MS5.0						
CN2				LR	LR		
	comp=E,1µm,14.0s,MS5.0						
CN2				LR	LR		
	comp=Z,1µm,21.0s						
CONA	**Conrad Observa**	**40.44**	**301**	*i* P	**P**	**22 10 23.2**	**+0.7**
	comp=Z,43nm,1.6s,mb4.9,SNR=9.4						
TREC	**Trest**	**40.50**	**303**	*e*P	**P**	**22 10 23.5**	**+0.5**
ARSA	**Arzberg**	**40.77**	**300**	⇓*i*P	**P**	**22 10 24.9**	**-0.4**
	comp=Z,11nm,0.7s,mb4.6						
PVCC	**Panska Ves**	**40.95**	**305**	*e*P	**P**	**22 10 26.6**	**0.0**
PVCC				AMS	AMS	22 29 30.0	
	comp=Z,2µm,10.4s						
PRU	**Pruhonice**	**41.03**	**305**	*e*P	**P**	**22 10 27.6**	**+0.3**
PRU				*e*pP	pP	22 10 34.1	-4.8
PRU				AMS	AMS	22 29 30.0	
	comp=Z,1µm,11.6s						
SSE	**Sheshan**	**41.13**	**85**	P	**P**	**22 10 28.9**	**+0.5**
SSE				PP	PP	22 12 03.9	+0.1
SSE				S	**S**	**22 16 37.4**	**-1.3**
SSE				XS	sS	22 16 59.8	+1.8
SSE				AMB	AMB		
	comp=Z,62nm,0.8s,mb5.3						
SSE				AMB	AMB		
	comp=Z,247nm,6.2s						
SSE				LR	LR		
	comp=N,596nm,14.2s,MS4.8						
SSE				LR	LR		
	comp=E,834nm,14.2s,MS4.8						
SSE				LR	LR		
	comp=Z,1µm,13.4s,MS5.0						
PERS	**Pernice**	**41.15**	**299**	*i* P	**P**	**22 10 28.6**	**+0.2**
SNG	**Songkhla**	**41.25**	**133**	P	**P**	**22 10 29.0**	**-0.5**
	comp=Z,156nm,0.7s,mb5.8						
BOJS	**Bojanci**	**41.28**	**298**	*i* P	**P**	**22 10 29.8**	**+0.4**
BRG	**Berggiesshubel**	**41.31**	**306**	*i* P	**P**	**22 10 29.9**	**+0.3**
	comp=Z,23nm,0.8s,mb4.8						
BRG				*i*		22 11 59.2	
BRG				LR	LR		
	comp=Z,1µm,10.2s,MS5.0						
BRG	**Berggiesshubel**	**41.31**	**306**	*i* P	**P**	**22 10 29.9**	**+0.3**
BRG				pmax	pmax		
	comp=Z,23nm,0.8s,mb4.9						
BRG				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.3						
BRG				MLR	MLR		
	comp=N,349nm,10.9s,MS4.9						
BRG				MLR	MLR		
	comp=E,762nm,11.0s,MS4.9						
BRG				MLR	MLR		
	comp=Z,1µm,10.2s,MS5.0						
BRG	**Berggiesshubel**	**41.31**	**306**	*e*P	**P**	**22 10 30.0**	**+0.4**
	comp=Z,38nm,0.8s,mb5.1						
BRG	**Berggiesshubel**	**41.31**	**306**	*i* P	**P**	**22 10 29.9**	**+0.3**
	comp=Z,38nm,0.8s,mb5.1						
BRG				*i*		22 11 59.2	
	comp=Z,15nm,1.2s						
BRG							
	comp=N,583nm,10.9s						
BRG							
	comp=E,1µm,11.0s						
BRG							
	comp=Z,2µm,10.2s						
MOA	**Molln**	**41.51**	**301**	⇑*i*P	**P**	**22 10 31.4**	**+0.1**
	comp=Z,9.7nm,0.7s,mb4.5,SNR=8.1						
VNDS	**Vrh nad Dolski**	**41.54**	**299**	*i* P	**P**	**22 10 31.9**	**+0.4**
OBKA	**Obir**	**41.56**	**299**	*i* P	**P**	**22 10 32.5**	**+0.7**
	comp=Z,21nm,1.2s,mb4.6,SNR=11						
GEC2	**GERESS Array S**	**41.73**	**303**	*e*P	**P**	**22 10 33.3**	**+0.2**
GEC2				pmax	pmax		
	comp=Z,50nm,1.9s,mb4.8						
GEC2	**GERESS Array S**	**41.73**	**303**	*e*P	**P**	**22 10 33.3**	**+0.2**
	comp=Z,50nm,1.9s,mb4.8						
GERES	**GERESS Array B**	**41.73**	**303**	P	**P**	**22 10 33.4**	**+0.3**
GERES				pmax	pmax		
	comp=Z,5.0nm,0.5s						
GERES				MLR	MLR		
	comp=Z,541nm,20.1s						
GERES	**GERESS Array B**	**41.73**	**303**	P	**P**	**22 10 33.4**	**+0.4**
	comp=Z,4.6nm,0.5s,mb4.3,baz=69,slow=7.7,SNR=41						
GERES				LR	LR	22 30 23.7	
	comp=Z,541nm,20.1s,MS4.4,baz=87,slow=40						
MOR8	**Moi Rana**	**41.76**	**329**	*e*P	**P**	**22 10 32.0**	**-1.0**
MOR8				AMb	AMB	22 10 39.3	
	comp=Z,85nm,1.4s,mb5.2						
YAK	**Yakutsk**	**41.76**	**37**	⇑*i*P	**P**	**22 10 32.2**	**-0.9**
YAK	**Yakutsk**	**41.76**	**37**	*c* *i*P	**P**	**22 10 32.1**	**-1.1**
YAK				*e**PP	pP	22 10 41.7	-3.1
YAK				*e*		22 12 07.6	
YAK				*e*		22 12 26.1	
YAK				*e*S	**S**	**22 16 48.2**	**+1.0**
YAK				*e*SS	SS	22 19 49.1	-4.6
YAK				*e*		22 20 36.3	
YAK				pmax	pmax		
	comp=Z,75nm,0.9s,mb5.3						
YAK				pmax	pmax		
	comp=N,11nm,1.1s						
YAK				pmax	pmax		
	comp=E,34nm,1.2s						
YAK				pmax	pmax		
	comp=Z,14nm,0.6s,mb4.8						
YAK				pmax	pmax		
	comp=N,9.0nm,1.0s						
YAK				smax			
	comp=N,99nm,2.4s						
YAK				smax			
	comp=E,126nm,2.8s						
YAK				MLR	MLR		
	comp=N,197nm,15.0s,MS4.4						
YAK				MLR	MLR		
	comp=Z,288nm,15.0s,MS4.3						
YAK				MLR	MLR		
	comp=E,317nm,16.0s,MS4.4						
KHC	**Kasperske Hory**	**41.77**	**303**	*e*P	**P**	**22 10 34.0**	**+0.6**
KHC				*e*pP	pP	22 10 40.1	-4.9
KHC				*e*PP	PP	22 12 13.1	+2.8
KHC				AMS	AMS	22 30 00.0	
	comp=Z,900nm,11.0s						
CLL	**Collm**	**41.85**	**307**	⇑*i*P	**P**	**22 10 34.0**	**0.0**
	comp=Z,42nm,0.6s,mb5.2						
CLL				*i* pP	pP	22 10 37.7	-7.9
CLL				*e*ScP	ScP	22 16 21.0	+4.9
CLL				*e*S	**S**	**22 16 32.0**	**-17**
CLL				LR	LR		
	comp=Z,2µm,10.3s,MS5.3						
CLL	**Collm**	**41.85**	**307**	⇑*i*P	**P**	**22 10 34.0**	**0.0**
CLL				pmax	pmax		
	comp=Z,42nm,0.6s,mb5.2						
CLL				MLR	MLR		
	comp=Z,2µm,10.3s,MS5.3						
CLL	**Collm**	**41.85**	**307**	⇑*i*P	**P**	**22 10 33.7**	**-0.3**
	comp=Z,43nm,0.6s,mb5.3						
CLL				*e*pP	pP	22 10 41.2	-4.4
CLL				*e*PP	PP	22 12 09.3	-1.8
CLL				*e*ScP	ScP	22 16 21.3	+5.2
CLL				*e*LR	LR	22 23 04.5	
CLL				*e*L		22 31 27.3	
	comp=Z,1µm,18.0s						
CLL	**Collm**	**41.85**	**307**	⇑*i*P	**P**	**22 10 34.0**	**0.0**
	comp=Z,42nm,0.6s,mb5.2						
CLL				*i* pP	pP	22 10 37.7	-7.9
CLL				*i* sP	sP	22 10 39.2	-11
CLL				*e*x	x	22 12 06.0	
CLL				*e*PP	PP	22 12 14.0	+2.9
CLL				*e*x	x	22 12 24.0	
CLL				*e*ScP	ScP	22 16 21.0	+4.9
JAVS	**Javornik**	**42.01**	**299**	*i* P	**P**	**22 10 35.5**	**+0.1**
QZH	**Quanzhou**	**42.02**	**95**	*e*P	**P**	**22 10 36.2**	**+0.5**
QZH				*e*S	**S**	**22 16 56.4**	**+4.6**
QZH				LR	LR		
	comp=N,1µm,11.6s,MS5.2						
QZH				LR	LR		
	comp=E,1µm,12.4s,MS5.2						
QZH				LR	LR		
	comp=Z,2µm,13.7s,MS5.2						
VOY	**Vojsko**	**42.10**	**299**	*e*P	**P**	**22 10 36.3**	**+0.2**
VOY				*e*		22 10 53.1	
FG4	**Candela**	**42.14**	**291**	P	**P**	**22 10 40.9**	**+4.4**
MYKA	**Terra Mystica**	**42.15**	**300**	⇓*i*P	**P**	**22 10 37.0**	**+0.5**
	comp=Z,12nm,0.7s,mb4.6						

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WET   Wettzell          42.22 304  eP     P       22 10 37.3 +0.2
WET                                 pmax   pmax
      comp=Z,18nm,1.2s,mb4.6
WET   Wettzell          42.22 304  eP     P       22 10 37.3 +0.2
      comp=Z,18nm,1.2s,mb4.6
MRLC  Muro Lucano       42.27 291   P     P       22 10 41.2 +3.6
KBA   Koelnbreinsper    42.27 300⇑iP      P       22 10 37.8 +0.3
      comp=Z,10.0nm,0.7s,mb4.6
KBA   Koelnbreinsper    42.27 300⇑iP      P       22 10 37.8 +0.3
KBA                                 pmax   pmax
      comp=Z,10.0nm,0.7s,mb4.5
FG5   Orsara di Pugl    42.28 292  i Pr   P       22 10 38.9 +1.3
      comp=Z,54nm,0.8s,mb5.2
FG5   Orsara di Pugl    42.28 292  i P    P       22 10 38.9 +1.3
FG5                                 pmax   pmax
      comp=Z,54nm,0.8s,mb5.2
TANN  Tannenbergstha    42.30 306  eP     P       22 10 38.0 +0.3
      comp=Z,10.0nm,0.8s,mb4.5
NKC   Novy Kostel       42.33 305  eP     P       22 10 39.4 +1.4
NKC                                 AMS    AMS    22 30 20.0
      comp=Z,2µm,10.3s
PTCC  Patocco-Chiusa    42.39 300  i Pr   P       22 10 38.6 +0.1
      comp=Z,7.1nm,0.6s,mb4.5
SGO   Sicignano         42.45 291  i Pr   P       22 10 40.0 +0.9
      comp=Z,36nm,0.6s,mb5.2
SGO   Sicignano         42.45 291  i P    P       22 10 40.0 +0.9
SGO                                 pmax   pmax
      comp=Z,37nm,0.6s,mb5.2
GMNA  Gemona            42.50 299  i P    P       22 10 39.7 +0.3
      comp=Z,49nm,0.7s,mb5.2
NB2   NORSAR Subarra    42.54 321   P     P       22 10 38.6 -0.9
      comp=Z,20nm,0.6s,mb5.0,baz=92,slow=8.6
NOA   NORSAR Array B    42.54 321   P     P       22 10 38.8 -0.7
NOA                                 pmax   pmax
      comp=Z,24nm,0.6s
NOA                                 MLR    MLR
      comp=Z,605nm,18.1s
NOA   NORSAR Array B    42.54 321   P     P       22 10 38.8 -0.8
      comp=Z,24nm,0.6s,mb5.1,baz=93,slow=8.0,SNR=68
NOA                                 LR     LR     22 30 05.8
      comp=Z,605nm,18.1s,MS4.5,baz=85,slow=38
CSSN  Cassano Irpino    42.57 291   P     P       22 10 41.3 +1.2
      comp=Z,20nm,0.6s,mb5.0
FVI   Forni Avoltri     42.74 300  i Pr   P       22 10 41.1 -0.2
      comp=Z,3.8nm,0.3s,mb4.6
FVI   Forni Avoltri     42.74 300  i P    P       22 10 41.1 -0.2
FVI                                 pmax   pmax
      comp=Z,4.0nm,0.3s,mb4.6
MOX   Moxa              42.80 306  eP     P       22 10 42.3 +0.5
      comp=Z,29nm,0.9s,mb5.0
MOX                                e              22 12 30.1
MOX
      comp=Z,1µm,14.0s
MOX   Moxa              42.80 306  eP     P       22 10 42.3 +0.5
MOX                                e              22 12 30.1
MOX                                 pmax   pmax
      comp=Z,29nm,0.9s,mb5.0
MOX                                 MLR    MLR
      comp=Z,1µm,14.0s,MS5.0
MOX   Moxa              42.80 306  eP     P       22 10 42.2 +0.4
      comp=Z,22nm,0.8s,mb4.9
KULM  Kulim             42.80 134  eP     P       22 10 42.0 -0.2
MTTG  Motta San Giov    42.96 287   P     P       22 10 45.0 +1.7
      comp=Z,43nm,0.6s,mb5.4
MDJ   Mudanjiang        42.97  63   P     P       22 10 42.9 -0.3
MDJ                                 AP     pP     22 10 54.3 -0.6
MDJ                                 XP     sP     22 10 59.2 -0.6
MDJ                                 PP     PP     22 12 24.2 +0.9
MDJ                                 PCP    PcP    22 12 31.0 -2.1
MDJ                                 S      S      22 17 05.2 -0.2
MDJ                                 XS     sS     22 17 26.7 +1.9
MDJ                                 AMB    AMB
      comp=Z,17nm,1.0s,mb4.7
MDJ                                 AMB    AMB
      comp=Z,245nm,5.3s
MDJ                                 LR     LR
      comp=N,722nm,12.6s,MS5.0
MDJ                                 LR     LR
      comp=E,1µm,13.9s,MS5.0
MDJ                                 LR     LR
      comp=Z,1µm,14.2s,MS5.0
BSEG  Bad Segeberg      43.20 311  eP     P       22 10 45.5 +0.6
BSEG                                pmax   pmax
      comp=Z,44nm,0.7s,mb5.3
BSEG  Bad Segeberg      43.20 311  eP     P       22 10 45.5 +0.6
      comp=Z,44nm,0.7s,mb5.3
CING  Cingoli           43.20 295   P     P       22 10 45.2 +0.1
      comp=Z,64nm,1.9s,mb5.0
GRA1  Grafenberg Arr    43.20 305  eP     P       22 10 46.3 +1.3
      comp=Z,44nm,0.9s,mb5.2
GRA1                               ePP    PP      22 12 25.9 +0.2
GRF   Grafenberg Arr    43.20 305  eP     P       22 10 46.3 +1.3
GRF                                e              22 12 25.9
GRF                                 pmax   pmax
      comp=Z,44nm,0.9s,mb5.2
GRF   Grafenberg Arr    43.20 305  eP     P       22 10 46.3 +1.3
      comp=Z,44nm,0.9s,mb5.2
GRF                                ePP    PP      22 12 25.9 +0.2
GRFO  Grafenberg        43.20 305  eP     P       22 10 46.0 +1.0
      comp=Z,47nm,0.9s,mb5.2
GRFO  Grafenberg        43.20 305  eP     P       22 10 46.0 +1.0
GRFO                                pmax   pmax
      comp=Z,47nm,0.9s,mb5.2
SDI   San Donato        43.21 293   P     P       22 10 46.3 +1.1
KONO  Kongsberg         43.31 319  eP     P       22 10 45.3 -0.4
      comp=Z,27nm,0.9s,mb5.0
KONO  Kongsberg         43.31 319  eP     P       22 10 45.3 -0.5
KONO                                pmax   pmax
      comp=Z,27nm,0.9s,mb5.0
AQU   L'Aquila          43.32 294  eP     P       22 10 46.0 -0.1
      comp=Z,22nm,1.1s,mb4.8
AQU   L'Aquila          43.32 294  eP     P       22 10 46.0 -0.1
AQU                                 pmax   pmax
      comp=Z,22nm,1.1s,mb4.8
TIXI  Tiksi             43.33  23  eP     P       22 10 45.0 -0.7
      comp=Z,79nm,0.7s,mb5.5
TIXI  Tiksi             43.33  23  eP     P       22 10 42.7 -3.0
TIXI                               eS     S       22 17 07.5 -2.5
TIXI                               eSS    SS      22 20 20.8 -3.4
TIXI                                pmax   pmax
      comp=Z,84nm,0.7s,mb5.6
TIXI                                MLR    MLR
      comp=Z,561nm,13.0s,MS4.7
WTTA  Wattenberg        43.37 301⇑iP      P       22 10 46.2 -0.3
      comp=Z,26nm,0.9s,mb5.0
WTTA  Wattenberg        43.37 301⇑iP      P       22 10 46.2 -0.2
WTTA                                pmax   pmax
      comp=Z,27nm,0.9s,mb5.0
NRCA  Norcia            43.40 294   P     P       22 10 47.4 +0.7
      comp=Z,22nm,0.8s,mb4.9
CLZ   Clausthal         43.41 308  eP     P       22 10 47.0 +0.3
CLZ                                 pmax   pmax
      comp=Z,21nm,0.7s,mb5.0
CLZ   Clausthal         43.41 308  eP     P       22 10 47.0 +0.3
      comp=Z,21nm,0.7s,mb5.0
FSSB  Fossombrone       43.41 296   P     P       22 10 47.1 +0.3
      comp=Z,18nm,0.7s,mb4.9
PTQR  Pietraquaria      43.41 293   P     P       22 10 48.1 +1.2
      comp=Z,48nm,1.0s,mb5.2
FUR   Furstenfeldbru    43.43 302  eP     P       22 10 47.2 +0.3
KLR   Kul'dur           43.46  56⇓iP      P       22 10 43.3 -3.8
KLR                                 pmax   pmax
      comp=Z,36nm,0.9s,mb5.1
KLR                                 MLR    MLR
      comp=Z,4µm,12.0s,MS5.6
NRDL  Niedersach Rie    43.48 309  eP     P       22 10 47.9 +0.6
DOMB  Dombas            43.61 323  eP     P       22 10 47.7 -0.4
DOMB                                AMb    AMB    22 10 55.7
      comp=Z,90nm,2.1s,mb5.1
CTI   Castel Tesino     43.62 299  i Pr   P       22 10 48.3 -0.2
      comp=Z,14nm,0.6s,mb4.9
CTI   Castel Tesino     43.62 299  i P    P       22 10 48.3 -0.2
CTI                                 pmax   pmax
      comp=Z,14nm,0.6s,mb4.9
ASS   Assisi            43.66 295  i Pu           22 10 50.3
      comp=Z,2.5nm,0.7s
ASS   Assisi            43.66 295  i P    P       22 10 50.3 +1.5
ASS                                 pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.1
SQTA  Sankt Quirin      43.67 301⇑iP      P       22 10 48.4 -0.4
      comp=Z,6.6nm,0.9s,mb4.3,SNR=7.5
SQTA  Sankt Quirin      43.67 301⇑iP      P       22 10 48.4 -0.4
SQTA                                pmax   pmax
      comp=Z,7.0nm,0.9s,mb4.4
MURB  Monte Urbino      43.70 295   P     P       22 10 51.9 +2.8
      comp=Z,40nm,0.6s,mb5.3
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MOTA  Moosalm           43.71 301⇑iP      P       22 10 48.4 -0.7
      comp=Z,18nm,1.0s,mb4.8,SNR=12
MOTA  Moosalm           43.71 301⇑iP      P       22 10 48.5 -0.7
MOTA                                pmax   pmax
      comp=Z,18nm,1.0s,mb4.8
UBBA  Unterbreizbach    43.79 306  eP     P       22 10 49.7  0.0
BADI  Badiali           43.83 296   P     P       22 10 51.0 +0.8
      comp=Z,29nm,1.0s,mb5.0
KSRS  Korea Array       43.85  74   P     P       22 10 49.2 -1.2
      comp=Z,8.6nm,0.8s,mb4.5,baz=285,slow=6.7,SNR=14
KSRS                                PcP    PcP    22 12 36.0 -0.2
      comp=Z,4.5nm,0.8s,baz=299,slow=1.8,SNR=6.2
KSRS                                LR     LR     22 30 48.5
      comp=Z,506nm,21.0s,MS4.4,baz=289,slow=38
PSI   Prapat            43.95 138   LR     LR     22 30 25.4
      comp=Z,403nm,21.4s,MS4.3,baz=310,slow=38
SFI   Santa Sofia       44.01 296   P     P       22 10 52.9 +1.3
      comp=Z,126nm,2.5s,mb5.2
SFI   Santa Sofia       44.01 296   P     P       22 10 52.9 +1.3
SFI                                 pmax   pmax
      comp=Z,126nm,2.5s,mb5.2
CRE   Caprese Michel    44.01 296  i Pr   P       22 10 53.0 +1.4
      comp=Z,12nm,0.7s,mb4.8
CRE   Caprese Michel    44.01 296  i P    P       22 10 53.0 +1.4
CRE                                 pmax   pmax
      comp=Z,12nm,0.7s,mb4.7
FETA  Feichten          44.03 301⇑iP      P       22 10 51.1 -0.6
      comp=Z,9.5nm,1.1s,mb4.5,SNR=8.5
VAE   Valguarnera       44.10 287   LR     LR     22 33 47.3
      comp=Z,256nm,18.2s,MS4.2,baz=2.3,slow=42
VMG   Vicchio           44.20 296  i Pr   P       22 10 54.9 +1.7
      comp=Z,34nm,0.6s,mb5.3
SEI   Scarperia         44.31 297   P     P       22 10 55.4 +1.4
      comp=Z,140nm,0.6s,mb5.9
YHNB  Yeheng            44.32  94  eP     P       22 10 54.4 +0.1
BRMO  Bormio            44.39 300  i Pr   P       22 10 54.3 -0.3
      comp=Z,10.0nm,0.9s,mb4.5
FNVD  Fontana Vidola    44.44 297   P     P       22 10 57.7 +2.6
DAVA  Damuels           44.54 301  i P    P       22 10 55.5 -0.3
      comp=Z,26nm,0.5s,mb5.3,SNR=11
STU   Stuttgart         44.67 304  eP     P       22 10 57.3 +0.5
TOD   Tromm             44.76 305  eP     P       22 10 57.5  0.0
GRFL  Gerfalco          44.82 296  i Pu           22 10 58.2
      comp=Z,12nm,0.7s
ERBM  Eremo             44.87 297   P     P       22 10 57.8 -0.7
      comp=Z,688nm,3.9s
TNS   Taunus Mts        44.87 306  eP     P       22 10 58.6 +0.2
TNS                                 pmax   pmax
      comp=Z,14nm,0.7s,mb4.9
TNS   Taunus Mts        44.87 306  eP     P       22 10 58.6 +0.2
      comp=Z,14nm,0.7s,mb4.9
IBBN  Ibbenburen        44.94 309  eP     P       22 10 59.2 +0.3
VLC   Villacollemand    44.96 297  eP     P       22 10 59.4 +0.3
      comp=Z,29nm,0.8s,mb5.2
VLA   Vladivostok       44.96  64d iP     P       22 10 57.9 -1.3
VLA                                 pmax   pmax
      comp=Z,68nm,1.1s,mb5.4
VLA                                 MLR    MLR
      comp=Z,900nm,18.0s,MS4.7
SPAK  Spaichingen-Ko    45.08 303  eP     P       22 10 59.9 -0.2
BFO   Black Forest      45.33 303   P     P       22 11 02.7 +0.7
      comp=Z,112nm,0.8s,mb5.8,SNR=5.7
BFO   Black Forest      45.33 303  eP     P       22 11 02.0  0.0
BFO                                 pmax   pmax
      comp=Z,13nm,0.9s,mb4.8
BFO   Black Forest      45.33 303  eP     P       22 11 02.0  0.0
      comp=Z,13nm,0.9s,mb4.8
BUG   Bochum--Univer    45.38 308  eP     P       22 11 02.9 +0.5
LANF  Langenberg        45.53 304  eP     P       22 11 03.7 +0.1
FELD  Feldberg im Sc    45.64 303  eP     P       22 11 04.2 -0.3
HABR  Khabarovsk        45.75  56  eP     P       22 11 04.5 -0.9
HABR                               e              22 12 42.5
HABR                               e              22 12 52.9
HABR                               eS     S       22 17 47.6 +1.9
HABR                               e              22 20 57.3
HABR                                pmax   pmax
      comp=Z,28nm,0.9s,mb5.2
RUP   Ruppelstein       45.85 305  eP     P       22 11 06.3 +0.1
CDF   Champ du Feu      45.99 304⇑iP      P       22 11 07.0 -0.3
      comp=Z,17nm,0.9s,mb5.0
CDF   Champ du Feu      45.99 304⇑iP      P       22 11 07.0 -0.3
CDF                                 pmax   pmax
      comp=Z,17nm,0.9s,mb5.0
CDF   Champ du Feu      45.99 304⇑iP      P       22 11 07.0 -0.3
      comp=Z,34nm,0.9s,mb5.0
MOF   Molkenrain        46.22 303  eP     P       22 11 08.9 -0.2
MEM   Membach           46.32 307   P     P       22 11 10.3 +0.5
      comp=Z,12nm,1.0s,mb4.8
PGF   Pioggiola         46.39 295⇑iP      P       22 11 10.4 -0.1
      comp=Z,24nm,1.0s,mb5.1
PGF   Pioggiola         46.39 295⇑iP      P       22 11 10.4 -0.1
PGF                                 pmax   pmax
      comp=Z,24nm,1.0s,mb5.1
PGF   Pioggiola         46.39 295⇑iP      P       22 11 10.4 -0.1
      comp=Z,48nm,1.0s,mb5.1
HINF  Hinteralfeld      46.41 303⇑iP      P       22 11 10.3 -0.3
      comp=Z,12nm,0.7s,mb4.9
HINF  Hinteralfeld      46.41 303⇑iP      P       22 11 10.3 -0.3
HINF                                pmax   pmax
      comp=Z,12nm,0.7s,mb4.9
HINF  Hinteralfeld      46.41 303⇑iP      P       22 11 10.3 -0.3
      comp=Z,24nm,0.7s,mb5.0
WLF   Walferdange       46.43 306  eP     P       22 11 11.4 +0.7
      comp=Z,34nm,0.8s,mb5.3
WLF   Walferdange       46.43 306  eP     P       22 11 11.4 +0.7
WLF                                 pmax   pmax
      comp=Z,34nm,0.8s,mb5.3
WLF   Walferdange       46.43 306   P     P       22 11 11.8 +1.0
      comp=Z,28nm,1.0s,mb5.1
WLF   Walferdange       46.43 306  eP     P       22 11 11.5 +0.8
LOMF  Lomont            46.54 302  eP     P       22 11 12.4 +0.8
HAU   Haudompre         46.69 303⇑iP      P       22 11 12.7 -0.1
      comp=Z,24nm,0.8s,mb5.2
HAU                                 LR     LR
      comp=Z,260nm,17.0s,MS4.3
HAU   Haudompre         46.69 303⇑iP      P       22 11 12.7 -0.1
HAU                                 pmax   pmax
      comp=Z,24nm,0.8s,mb5.2
HAU                                 MLR    MLR
      comp=Z,260nm,17.0s,MS4.3
HAU   Haudompre         46.69 303⇑iP      P       22 11 12.7 -0.1
      comp=Z,48nm,0.8s,mb5.2
HAU                                eMLR   MLR
      comp=Z,263nm,17.0s,MS4.0
BCLA  Clavier           46.80 307   P     P       22 11 14.0 +0.4
      comp=Z,12nm,2.3s,mb4.4
THEF  They Montfort     46.87 304  eP     P       22 11 13.9 -0.3
SAOF  Saorge            46.96 298  eP     P       22 11 15.1 +0.1
AUTN  L'Aution          47.05 298  eP     P       22 11 16.2 +0.6
LPG   La Plagne         47.08 300⇑iP      P       22 11 16.2 +0.3
      comp=Z,32nm,0.8s,mb5.3
LPG   La Plagne         47.08 300⇑iP      P       22 11 16.2 +0.3
LPG                                 pmax   pmax
      comp=Z,32nm,0.8s,mb5.3
LPG   La Plagne         47.08 300⇑iP      P       22 11 16.2 +0.3
      comp=Z,63nm,0.8s,mb5.3
SBF   Sospel            47.08 297⇑iP      P       22 11 16.2 +0.3
      comp=Z,45nm,0.8s,mb5.5
SBF   Sospel            47.08 297⇑iP      P       22 11 16.2 +0.3
SBF                                 pmax   pmax
      comp=Z,45nm,0.8s,mb5.5
SBF   Sospel            47.08 297⇑iP      P       22 11 16.2 +0.3
      comp=Z,90nm,0.8s,mb5.5
LPL   La Plagne         47.09 300⇑iP      P       22 11 16.2 +0.3
      comp=Z,24nm,0.8s,mb5.2
LPL   La Plagne         47.09 300⇑iP      P       22 11 16.2 +0.3
LPL                                 pmax   pmax
      comp=Z,24nm,0.8s,mb5.2
LPL   La Plagne         47.09 300⇑iP      P       22 11 16.2 +0.3
      comp=Z,48nm,0.8s,mb5.2
RSL   Roselend          47.11 300  eP     P       22 11 16.0 -0.1
LUCF  Luceram           47.13 298  eP     P       22 11 16.5 +0.2
REVF  Revere            47.17 297  eP     P       22 11 16.4 -0.2
TOUF  Mont Tournerai    47.17 298  eP     P       22 11 16.9 +0.3
GIVF  Givet             47.17 306  eP     P       22 11 17.0 +0.5
      comp=Z,22nm,0.8s,mb5.1
GIVF  Givet             47.17 306  eP     P       22 11 17.0 +0.5
GIVF                                pmax   pmax
      comp=Z,22nm,0.8s,mb5.1
GIVF  Givet             47.17 306  eP     P       22 11 17.0 +0.5
      comp=Z,44nm,0.8s,mb5.1
CABF  La Chapelle       47.22 301  eP     P       22 11 16.8 -0.1
      comp=Z,15nm,0.8s,mb5.0
CABF  La Chapelle       47.22 301  eP     P       22 11 16.8 -0.1
CABF                                pmax   pmax
      comp=Z,15nm,0.8s,mb5.0
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CABF  La Chapelle       47.22 301  eP     P       22 11 16.8 -0.1
      comp=Z,29nm,0.8s,mb5.0
BNI   Bardonecchia      47.26 299  eP     P       22 11 17.0 -0.2
      comp=Z,25nm,0.8s,mb5.2
BNI   Bardonecchia      47.26 299  eP     P       22 11 17.0 -0.2
BNI                                 pmax   pmax
      comp=Z,25nm,0.8s,mb5.2
MBDF  Montbardon        47.28 299  eP     P       22 11 17.1 -0.4
      comp=Z,26nm,0.8s,mb5.2
MBDF  Montbardon        47.28 299  eP     P       22 11 17.1 -0.4
MBDF                                pmax   pmax
      comp=Z,26nm,0.8s,mb5.2
MBDF  Montbardon        47.28 299  eP     P       22 11 17.1 -0.4
      comp=Z,51nm,0.8s,mb5.2
UCC   Uccle             47.31 307   P     P       22 11 17.6 +0.1
DOU   Dourbes           47.32 306   P     P       22 11 17.9 +0.2
      comp=Z,25nm,2.9s,mb4.6
MEZF  Maizieres J'vi    47.41 304⇑iP      P       22 11 18.8 +0.4
      comp=Z,127nm,1.1s,mb5.8
MEZF  Maizieres J'vi    47.41 304⇑iP      P       22 11 18.8 +0.4
      comp=Z,127nm,1.1s,mb5.5
SNF   Seneffe           47.42 307   P     P       22 11 18.6 +0.2
      comp=Z,12nm,1.2s,mb4.7
CALN  Calern            47.49 298  eP     P       22 11 19.3 +0.2
BAIF  Baives            47.57 306⇑iP      P       22 11 20.2 +0.6
      comp=Z,43nm,0.8s,mb5.5
BAIF  Baives            47.57 306⇑iP      P       22 11 20.2 +0.6
BAIF                                pmax   pmax
      comp=Z,43nm,0.8s,mb5.5
BAIF  Baives            47.57 306⇑iP      P       22 11 20.2 +0.6
      comp=Z,86nm,0.8s,mb5.5
FRF   La Foret Royal    47.72 297⇑iP      P       22 11 20.7 -0.2
      comp=Z,20nm,0.7s,mb5.2
FRF   La Foret Royal    47.72 297⇑iP      P       22 11 20.7 -0.2
FRF                                 pmax   pmax
      comp=Z,20nm,0.7s,mb5.3
FRF   La Foret Royal    47.72 297⇑iP      P       22 11 20.7 -0.2
      comp=Z,39nm,0.7s,mb5.2
ORIF  Oris-en-Rattie    47.84 299  eP     P       22 11 21.8 +0.1
      comp=Z,10nm,0.7s,mb5.0
ORIF  Oris-en-Rattie    47.84 299  eP     P       22 11 21.8 +0.1
ORIF                                pmax   pmax
      comp=Z,10.0nm,0.7s,mb5.0
ORIF  Oris-en-Rattie    47.84 299  eP     P       22 11 21.8 +0.1
      comp=Z,20nm,0.7s,mb5.0
ORIF                               eMLR   MLR
      comp=Z,985nm,21.5s,MS4.5
LMR   La Mourre         47.88 297⇑iP      P       22 11 22.4 +0.3
      comp=Z,9.8nm,0.9s,mb4.8
LMR   La Mourre         47.88 297⇑iP      P       22 11 22.4 +0.3
LMR                                 pmax   pmax
      comp=Z,10.0nm,0.9s,mb4.8
LMR   La Mourre         47.88 297⇑iP      P       22 11 22.4 +0.3
      comp=Z,20nm,0.9s,mb4.8
TAVF  Tavernes          48.11 298  eP     P       22 11 24.2 +0.3
SMRF  Simiane la Rot    48.33 298  eP     P       22 11 25.7 +0.1
      comp=Z,28nm,0.9s,mb5.3
SMRF  Simiane la Rot    48.33 298  eP     P       22 11 25.7 +0.1
      comp=Z,28nm,0.9s,mb5.0
LOR   Lormes            48.51 303⇑iP      P       22 11 26.3 -0.6
      comp=Z,12nm,0.8s,mb5.0
LOR                                 LR     LR
      comp=Z,420nm,18.8s,MS4.5
LOR   Lormes            48.51 303⇑iP      P       22 11 26.3 -0.6
LOR                                 pmax   pmax
      comp=Z,12nm,0.8s,mb5.0
LOR                                 MLR    MLR
      comp=Z,420nm,18.8s,MS4.5
LOR   Lormes            48.51 303⇑iP      P       22 11 26.3 -0.6
      comp=Z,24nm,0.8s,mb5.0
LOR                                eMLR   MLR
      comp=Z,422nm,18.8s,MS4.2
KEST  Kesra             48.53 287   P     P       22 11 27.7 +0.5
      comp=Z,4.7nm,0.8s,mb4.6,baz=289,slow=6.8,SNR=11
VIVF  Saint-Julien-l    48.67 300⇑iP      P       22 11 28.3 +0.1
      comp=Z,12nm,0.7s,mb5.0
VIVF  Saint-Julien-l    48.67 300⇑iP      P       22 11 28.3 +0.1
VIVF                                pmax   pmax
      comp=Z,13nm,0.7s,mb5.1
VIVF  Saint-Julien-l    48.67 300⇑iP      P       22 11 28.3 +0.1
      comp=Z,25nm,0.7s,mb5.1
SMF   Signal de Mont    48.70 302⇑iP      P       22 11 28.0 -0.4
      comp=Z,13nm,0.6s,mb5.1
SMF   Signal de Mont    48.70 302⇑iP      P       22 11 28.0 -0.4
SMF                                 pmax   pmax
      comp=Z,13nm,0.6s,mb5.1
SMF   Signal de Mont    48.70 302⇑iP      P       22 11 28.0 -0.4
      comp=Z,26nm,0.6s,mb5.1
SSF   Saint Saulge      48.80 303⇑iP      P       22 11 28.6 -0.5
      comp=Z,14nm,0.8s,mb5.0
SSF   Saint Saulge      48.80 303⇑iP      P       22 11 28.6 -0.5
SSF                                 pmax   pmax
      comp=Z,14nm,0.8s,mb5.0
SSF   Saint Saulge      48.80 303⇑iP      P       22 11 28.6 -0.5
      comp=Z,28nm,0.8s,mb5.0
AVF   Avril sur Loir    48.98 302⇑iP      P       22 11 30.3 -0.2
      comp=Z,34nm,0.7s,mb5.5
AVF   Avril sur Loir    48.98 302⇑iP      P       22 11 30.3 -0.2
AVF                                 pmax   pmax
      comp=Z,34nm,0.7s,mb5.5
AVF   Avril sur Loir    48.98 302⇑iP      P       22 11 30.3 -0.2
      comp=Z,67nm,0.7s,mb5.5
PLDF  La Plantade       49.04 301  eP     P       22 11 30.8 -0.2
HYF   Humbligny         49.31 303  eP     P       22 11 33.2 +0.2
AGO   Saint Agoulin     49.34 302  eP     P       22 11 33.4 +0.1
BGF   Bois d'Agland     49.38 302⇑iP      P       22 11 33.3 -0.3
      comp=Z,21nm,0.8s,mb5.2
BGF   Bois d'Agland     49.38 302⇑iP      P       22 11 33.3 -0.3
BGF                                 pmax   pmax
      comp=Z,21nm,0.8s,mb5.2
BGF   Bois d'Agland     49.38 302⇑iP      P       22 11 33.3 -0.3
      comp=Z,41nm,0.8s,mb5.2
LASF  Ste Croix         49.47 299⇑iP      P       22 11 34.8 +0.5
      comp=Z,50nm,0.8s,mb5.3
PYM   Petit Puy Mans    49.52 301  eP     P       22 11 34.8 +0.2
LBL   Lubilhac          49.52 300  eP     P       22 11 34.8 +0.1
TCF   Toulx Ste Croi    49.88 302⇑iP      P       22 11 37.6 +0.2
      comp=Z,29nm,0.7s,mb5.4
TCF   Toulx Ste Croi    49.88 302⇑iP      P       22 11 37.6 +0.2
TCF                                 pmax   pmax
      comp=Z,29nm,0.7s,mb5.4
TCF   Toulx Ste Croi    49.88 302⇑iP      P       22 11 37.6 +0.2
      comp=Z,58nm,0.7s,mb5.4
XSO   Sourhope Farm     50.13 315⇓eP      P       22 11 38.7 -0.4
SKP1  Kophill           50.23 310⇓eP      P       22 11 39.6 -0.4
ESY   Stoneypath        50.23 315  eP     P       22 11 39.4 -0.5
XAL   Allendale         50.26 314⇓eP      P       22 11 39.7 -0.4
KBI1  Birley Grange     50.26 312⇓eP      P       22 11 39.6 -0.5
LHO   Holmfirth         50.38 312  eP     P       22 11 40.6 -0.4
JMIC  Jan Mayen         50.38 335   LR     LR     22 33 23.5
      comp=Z,931nm,18.4s,MS4.8,baz=82,slow=36
CAF   Calviac           50.41 300⇑iP      P       22 11 41.8 +0.4
      comp=Z,16nm,0.8s,mb5.1
CAF   Calviac           50.41 300⇑iP      P       22 11 41.8 +0.4
CAF                                 pmax   pmax
      comp=Z,16nm,0.8s,mb5.1
CAF   Calviac           50.41 300⇑iP      P       22 11 41.8 +0.4
      comp=Z,32nm,0.8s,mb5.1
KWE   Weaver Farm       50.51 311  eP     P       22 11 41.6 -0.4
RJF   Les Rejaudoux     50.65 301  eP     P       22 11 43.7 +0.4
RJF                                 LR     LR
      comp=Z,390nm,17.3s,MS4.5
RJF   Les Rejaudoux     50.65 301  eP     P       22 11 43.7 +0.4
RJF                                eMLR   MLR
      comp=Z,393nm,17.2s,MS4.2
EJON  La Jonquera       50.69 297   P     P       22 11 42.9 -0.7
      comp=Z,146nm,3.5s
LDF   La Druitiere      50.69 306⇑iP      P       22 11 43.1 -0.4
      comp=Z,38nm,0.6s,mb5.5
LDF   La Druitiere      50.69 306⇑iP      P       22 11 43.1 -0.4
LDF                                 pmax   pmax
      comp=Z,38nm,0.6s,mb5.5
LDF   La Druitiere      50.69 306⇑iP      P       22 11 43.1 -0.4
      comp=Z,77nm,0.6s,mb5.5
ESK   Eskdalemuir       50.70 315   P     P       22 11 43.3 -0.2
      comp=Z,180nm,0.8s,mb6.0,SNR=6.4
ESK   Eskdalemuir       50.70 315⇓eP      P       22 11 42.9 -0.5
ESK                                 AMb    AMB    22 11 43.4
      comp=Z,40nm,1.0s,mb5.3
ESK   Eskdalemuir       50.70 315  eP     P       22 11 42.8 -0.7
      comp=Z,26nm,0.9s,mb5.2
ESK   Eskdalemuir       50.70 315  eP     P       22 11 42.8 -0.7
ESK                                 pmax   pmax
      comp=Z,26nm,0.9s,mb5.2
EAU   Auchinoon         50.71 315  eP     P       22 11 42.8 -0.7
KMBO  Kilima Mbogo      50.76 226  i P    P       22 11 45.9 +1.5
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KMBO                                 pmax    pmax
          comp=Z,11nm,0.9s
KMBO  Kilima Mbogo     50.76 226   P        P         22 11 45.6 +1.2
          comp=Z,11nm,0.9s,mb4.8,baz=37,slow=12,SNR=11
KMBO                                 LR      LR       22 35 02.2
          comp=Z,221nm,20.0s,MS4.2,baz=276,slow=38
CKE   Keswick          50.83 314⇓eP      P         22 11 44.2  -0.2
MTLF  Montolieu        50.84 298⇑iP      P         22 11 44.9 +0.2
          comp=Z,11nm,0.7s,mb4.9
MTLF  Montolieu        50.84 298⇑iP      P         22 11 44.9 +0.2
MTLF                                 pmax    pmax
          comp=Z,11nm,0.7s,mb4.9
MTLF  Montolieu        50.84 298⇑iP      P         22 11 44.9 +0.2
          comp=Z,22nm,0.7s,mb4.9
FLN   La Foliniere     50.87 306⇑iP      P         22 11 44.3  -0.5
          comp=Z,32nm,0.7s,mb5.4
FLN                                  LR      LR
          comp=Z,840nm,17.8s,MS4.8
FLN   La Foliniere     50.87 306⇑iP      P         22 11 44.3  -0.5
FLN                                  pmax    pmax
          comp=Z,32nm,0.7s,mb5.4
FLN                                  MLR     MLR
          comp=Z,840nm,17.8s,MS4.8
FLN   La Foliniere     50.87 306⇑iP      P         22 11 44.3  -0.5
          comp=Z,65nm,0.7s,mb5.3
FLN                                 eMLR     MLR
          comp=Z,843nm,17.8s,MS4.5
SWN1  Swindon          50.88 310  eP      P         22 11 44.8  -0.1
EAB   Aberfoyle        51.11 316  eP      P         22 11 45.8  -0.7
YSS   Yuzh-Sakhalins   51.17  56  i P     P         22 11 47.1   0.0
YSS   Yuzh-Sakhalins   51.17  56⇑eP      P         22 11 46.7  -0.4
YSS                                 e        pP       22 12 00.0 +1.0
YSS                                  pmax    pmax
          comp=Z,40nm,1.1s,mb5.3
YSS                                  MLR     MLR
          comp=Z,1µm,13.0s,MS5.0
YSS                                  MLR     MLR
          comp=E,700nm,14.0s
GRR   Gorron           51.22 305⇑iP      P         22 11 47.0  -0.5
          comp=E,60nm,0.7s,mb5.6
GRR   Gorron           51.22 305⇑iP      P         22 11 47.0  -0.5
GRR                                  pmax    pmax
          comp=Z,60nm,0.7s,mb5.6
GRR   Gorron           51.22 305⇑iP      P         22 11 47.0  -0.5
          comp=Z,119nm,0.7s,mb5.6
GCD   Castle Douglas   51.23 314⇓eP      P         22 11 47.1  -0.3
HLM1  Long Mynd        51.25 311⇓eP      P         22 11 47.1  -0.4
PGBU  Glenifferbraes   51.28 315  eP      P         22 11 47.6  -0.2
PGBU                                 AMb     AMB      22 11 58.5
          comp=Z,80nm,1.5s,mb5.4
LFF   La Frestale      51.29 301⇑iP      P         22 11 48.4 +0.3
          comp=Z,38nm,0.8s,mb5.4
LFF   La Frestale      51.29 301⇑iP      P         22 11 48.4 +0.3
LFF                                  pmax    pmax
          comp=Z,38nm,0.8s,mb5.4
LFF   La Frestale      51.29 301⇑iP      P         22 11 48.4 +0.3
          comp=Z,77nm,0.8s,mb5.4
KAC   Achnashellach    51.30 318⇓eP      P         22 11 47.4  -0.6
MFF   Saint Martin d   51.33 303⇑iP      P         22 11 47.7  -0.6
          comp=Z,17nm,0.9s,mb5.0
MFF   Saint Martin d   51.33 303⇑iP      P         22 11 47.7  -0.6
MFF                                  pmax    pmax
          comp=Z,17nm,0.9s,mb5.0
MFF   Saint Martin d   51.33 303⇑iP      P         22 11 47.7  -0.6
          comp=Z,34nm,0.9s,mb5.0
SBD1  Bryn Du          51.36 312  eP      P         22 11 48.1  -0.4
HGH   Gray Hill        51.45 310  eP      P         22 11 48.9  -0.2
MCH1  Michaelchurch    51.46 310⇓eP      P         22 11 48.7  -0.5
MCH1                            ⇓eP               22 11 48.7
MCH1                                 AMb     AMB      22 11 53.5
          comp=Z,69nm,2.0s,mb5.2
KPL   Plockton         51.53 318  eP      P         22 11 49.1  -0.5
KPL                                  AMb     AMB      22 11 49.9
          comp=Z,82nm,1.4s,mb5.5
KSM   Kuching          51.59 127  eP      P         22 11 48.7  -1.9
HTR   Trewern Hill     51.60 311⇓eP      P         22 11 49.9  -0.4
GAL1  Galloway         51.66 314⇓eP      P         22 11 50.2  -0.4
GIM   North Isle of    51.67 314⇓eP      P         22 11 50.6  -0.2
KAR1  Arisaig          51.73 317⇓eP      P         22 11 51.0  -0.2
JRS   Jersey           51.75 307  eP      P         22 11 50.4  -1.0
MAJO  Matsushiro       51.81  70  eP      P         22 11 50.8  -1.3
          comp=Z,29nm,0.9s,mb5.2
MAJO  Matsushiro       51.81  70  eP      P         22 11 50.8  -1.3
MAJO                                 pmax    pmax
          comp=Z,29nm,0.9s,mb5.2
MAT   Matsushiro       51.81  70   P      P         22 11 50.1  -2.0
MAT                                 eS       S        22 19 17.6 +6.3
MJAR  Matsushiro Arr   51.81  70   P      P         22 11 51.2  -0.9
MJAR                                 pmax    pmax
          comp=Z,17nm,0.9s
MJAR  Matsushiro Arr   51.81  70   P      P         22 11 51.2  -0.9
          comp=Z,17nm,0.9s,mb5.0,baz=291,slow=9.2,SNR=30
EMIR  Miracle          51.83 297   P      P         22 11 52.6 +0.5
          comp=Z,101nm,2.3s,mb5.3
WIM   Isle of Man      51.83 313⇓eP      P         22 11 51.8  -0.2
WLF1  Llynfaes         51.91 312  eP      P         22 11 51.9  -0.7
WCB1  Church Bay       51.97 312  eP      P         22 11 52.5  -0.5
GMK   Mull of Kintyr   52.01 315  eP      P         22 11 52.8  -0.5
YRE   Yr Eifl          52.02 312⇓eP      P         22 11 53.1  -0.2
YRC   Rhoscolyn        52.02 312⇓eP      P         22 11 53.2  -0.2
KKM   Kota Kinabalu    52.09 117  eP      P         22 11 55.1 +0.7
SEY   Seymchan         52.17  35⇓eP      P         22 11 54.6 +0.3
MA2   Magadan          52.21  39⇑iP      P         22 11 54.3  -0.4
MA2   Magadan          52.21  39  eP      P         22 11 54.3  -0.4
MA2                                 e                 22 13 05.1
MA2                                 eS       S        22 19 15.4  -0.8
MA2                                 e                 22 21 37.2
MA2                                  pmax    pmax
          comp=Z,40nm,0.9s,mb5.3
MA2                                  MLR     MLR
          comp=Z,700nm,21.6s,MS4.7
HEX   Exmoor           52.22 309⇓eP      P         22 11 54.0  -0.9
EPF   Esparros         52.23 299  eP      P         22 11 54.2  -0.9
          comp=Z,14nm,0.9s,mb4.9
EPF   Esparros         52.23 299  eP      P         22 11 54.2  -0.9
EPF                                  pmax    pmax
          comp=Z,14nm,0.9s,mb4.9
EPF   Esparros         52.23 299  eP      P         22 11 54.2  -0.9
          comp=Z,29nm,0.9s,mb4.9
EPOB  Poblet           52.34 296   P      P         22 11 56.6 +0.6
          comp=Z,110nm,2.3s,mb5.4
DAG   Danmarks Havn    52.38 343⇑iP      P         22 11 56.0 +0.3
DAG                                  pmax    pmax
          comp=Z,25nm,0.6s,mb5.3
DAG   Danmarks Havn    52.38 343⇑iP      P         22 11 56.0 +0.3
          comp=Z,25nm,0.6s,mb5.3
DYA   Yadsworthy       52.49 309  eP      P         22 11 56.2  -0.7
DYA                                  AMb     AMB      22 12 01.9
          comp=Z,65nm,1.6s,mb5.3
EBIE  Bielsa           52.49 298   P      P         22 11 56.9  -0.1
          comp=Z,181nm,2.5s,mb5.6
GMM   Mts of Mourne    52.52 314⇓eP      P         22 11 56.7  -0.4
HTL   Hartland         52.65 310  eP      P         22 11 57.5  -0.6
HTL                                  AMb     AMB      22 11 57.8
          comp=Z,103nm,1.4s,mb5.6
ROSF  Rostrenen        52.76 306⇑iP      P         22 11 58.6  -0.3
          comp=Z,42nm,0.6s,mb5.5
ROSF  Rostrenen        52.76 306⇑iP      P         22 11 58.6  -0.3
ROSF                                 pmax    pmax
          comp=Z,42nm,0.6s,mb5.5
ROSF  Rostrenen        52.76 306⇑iP      P         22 11 58.6  -0.3
          comp=Z,85nm,0.6s,mb5.5
QUIF  Quistinic        52.84 306⇑iP      P         22 11 59.0  -0.5
          comp=Z,38nm,0.6s,mb5.5
QUIF  Quistinic        52.84 306⇑iP      P         22 11 59.0  -0.5
QUIF                                 pmax    pmax
          comp=Z,39nm,0.6s,mb5.5
QUIF  Quistinic        52.84 306⇑iP      P         22 11 59.0  -0.5
          comp=Z,77nm,0.6s,mb5.5
ETSF  Etsaut           52.90 299  eP      P         22 12 00.3 +0.3
          comp=Z,27nm,0.9s,mb5.2
ETSF  Etsaut           52.90 299  eP      P         22 12 00.3 +0.3
ETSF                                 pmax    pmax
          comp=Z,27nm,0.9s,mb5.2
ETSF  Etsaut           52.90 299  eP      P         22 12 00.3 +0.3
          comp=Z,53nm,0.9s,mb5.2
ERTA  Horta de San J   53.02 296   P      P         22 12 00.6  -0.3
          comp=Z,244nm,3.3s
EIBI  Ibiza            53.06 294   P      P         22 12 00.6  -0.7
          comp=Z,149nm,1.7s,mb5.6
DLF   Lyons Farm       53.13 313  eP      P         22 12 01.1  -0.5
ERM   Erimo            53.17  62   P      P         22 12 02.2 +0.1
          comp=Z,232nm,0.5s,mb6.4,SNR=6.5
SJPF  Ste Jean         53.27 299  eP      P         22 12 02.3  -0.5
          comp=Z,13nm,0.9s,mb4.9
SJPF  Ste Jean         53.27 299  eP      P         22 12 02.3  -0.5
SJPF                                 pmax    pmax
          comp=Z,13nm,0.9s,mb4.9
SJPF  Ste Jean         53.27 299  eP      P         22 12 02.3  -0.5
          comp=Z,26nm,0.9s,mb4.9
ESAC  San Caprasio     53.28 297   P      P         22 12 02.1  -0.7
          comp=Z,243nm,2.5s,mb5.7
CRQ2  Rosemanowes 2    53.33 309  eP      P         22 12 02.1  -1.0
CMA1  Manaccan         53.33 309  eP      P         22 12 02.6  -0.5
CCA1  Carnmenellis     53.36 309  eP      P         22 12 02.4  -0.9
EALK  Alkurruntz       53.42 300   P      P         22 12 03.7  -0.2
          comp=Z,89nm,1.9s,mb5.4
DCN   Croghan          53.54 313  eP      P         22 12 04.4  -0.2
CPZ   Penzance         53.58 309  eP      P         22 12 04.0  -1.0
ECRI  Cripan           54.33 299   P      P         22 12 11.2 +0.7
          comp=Z,11nm,0.6s,mb5.0
ECRI  Cripan           54.33 299   P      P         22 12 11.2 +0.6
ECRI                                 pmax    pmax
          comp=Z,11nm,0.6s,mb5.0
ECHE  Chera            54.47 295   P      P         22 12 12.3 +0.7
          comp=Z,13nm,0.8s,mb4.9
ECHE  Chera            54.47 295   P      P         22 12 12.3 +0.7
ECHE                                 pmax    pmax
          comp=Z,13nm,0.8s,mb4.9
ELAN  Lanestosa        54.72 300   P      P         22 12 13.9 +0.6
          comp=Z,52nm,0.9s,mb5.6
ETOB  Tobarra          55.28 294   P      P         22 12 16.3  -1.1
          comp=Z,168nm,3.1s
EARI  Arriondas        55.88 301   P      P         22 12 21.9 +0.2
          comp=Z,65nm,1.3s,mb5.5
EVIA  Vianos           55.96 295   P      P         22 12 22.1  -0.2
          comp=Z,15nm,1.0s,mb5.0
EVIA  Vianos           55.96 295   P      P         22 12 22.1  -0.2
EVIA                                 pmax    pmax
          comp=Z,15nm,1.0s,mb5.0
BILL  Bilibino         56.22  27c iP      P         22 12 24.1 +0.4
BILL                                 pmax    pmax
          comp=Z,27nm,0.9s,mb5.3
BILL                                 MLR     MLR
          comp=Z,1µm,20.0s,MS4.9
GUD   Guadarrama       56.26 298   P      P         22 12 24.4   0.0
          comp=Z,4.9nm,0.6s,mb4.7
GUD   Guadarrama       56.26 298   P      P         22 12 24.4   0.0
GUD                                  pmax    pmax
          comp=Z,5.0nm,0.6s,mb4.7
ESDC  Sonseca Array    56.54 297   P      P         22 12 26.2  -0.3
          comp=Z,18nm,0.9s,mb5.1
ESDC  Sonseca Array    56.54 297   P      P         22 12 26.0  -0.5
          comp=Z,15nm,0.8s,mb5.1,baz=56,slow=7.4,SNR=41
ESDC                                 LR      LR       22 35 53.7
          comp=Z,122nm,21.7s,MS4.0,baz=10.0,slow=35
EQES  Quesada          56.72 294   P      P         22 12 26.3  -1.5
          comp=Z,202nm,2.2s,mb5.8
PAB   San Pablo        56.86 297  eP      P         22 12 28.4  -0.3
          comp=Z,7.9nm,0.8s,mb4.8
PAB   San Pablo        56.86 297  eP      P         22 12 28.4  -0.3
PAB                                  pmax    pmax
          comp=Z,8.0nm,0.8s,mb4.8
EBAN  Banos Encina     57.07 295   P      P         22 12 30.2   0.0
          comp=Z,14nm,0.6s,mb5.2
EBAN  Banos Encina     57.07 295   P      P         22 12 30.2   0.0
EBAN                                 pmax    pmax
          comp=Z,14nm,0.6s,mb5.2
EPON  Pontenova        57.16 302   P      P         22 12 31.0 +0.2
          comp=Z,72nm,1.1s,mb5.6
ECOG  Cogollos-Vega    57.31 294   P      P         22 12 31.1  -0.9
          comp=Z,4.3nm,0.7s,mb4.6
ECOG  Cogollos-Vega    57.31 294   P      P         22 12 31.1  -0.9
ECOG                                 pmax    pmax
          comp=Z,4.0nm,0.7s,mb4.6
ECAL  Calabor          57.47 300   P      P         22 12 33.5 +0.5
          comp=Z,52nm,0.9s,mb5.6
PBRG  Braganca         57.53 300  eP      P         22 12 33.4   0.0
          comp=Z,30nm,1.7s,mb5.0
ERUA  La Rua           57.55 301   P      P         22 12 33.8 +0.2
          comp=Z,16nm,0.8s,mb5.1
ERUA  La Rua           57.55 301   P      P         22 12 33.8 +0.2
ERUA                                 pmax    pmax
          comp=Z,16nm,0.8s,mb5.1
EADA  Adamuz           57.63 295   P      P         22 12 33.1  -1.1
          comp=Z,23nm,1.0s,mb5.2
ELUQ  Luque            57.68 294   P      P         22 12 34.1  -0.4
          comp=Z,27nm,0.8s,mb5.3
ELUQ  Luque            57.68 294   P      P         22 12 34.2  -0.4
ELUQ                                 pmax    pmax
          comp=Z,27nm,0.8s,mb5.3
MVO   Moncorvo         58.00 299  eP      P         22 12 37.0 +0.2
          comp=Z,18nm,1.1s,mb5.0
STS   Santiago         58.27 302   P      P         22 12 38.8 +0.2
          comp=Z,12nm,0.6s,mb5.1
STS   Santiago         58.27 302   P      P         22 12 38.8 +0.2
STS                                  pmax    pmax
          comp=Z,12nm,0.6s,mb5.1
ELOB  Lobios           58.39 300   P      P         22 12 39.8 +0.3
          comp=Z,33nm,0.6s,mb5.5
PVRL  Vila Real        58.42 300  eP      P         22 12 40.1 +0.4
          comp=Z,24nm,1.8s,mb4.9
PCAB  Cabril           58.44 300  eP      P         22 12 40.4 +0.6
          comp=Z,55nm,0.9s,mb5.6
MTE   Manteigas        58.69 299  eP      P         22 12 41.4  -0.2
          comp=Z,20nm,1.0s,mb5.1
MTE   Manteigas        58.69 299  eP      P         22 12 40.8  -0.8
          comp=Z,22nm,1.0s,mb5.1
XMIS  Christmas Isla   58.72 140  eP      P         22 12 40.1  -1.8
PVIS  Viseu            58.79 299  eP      P         22 12 42.8 +0.6
          comp=Z,21nm,1.0s,mb5.1
PCBR  Castelo Branco   58.90 298  eP      P         22 12 43.1 +0.1
EBAD  Badajoz          59.07 297   P      P         22 12 43.8  -0.4
          comp=Z,35nm,1.1s,mb5.3
ESPR  Espera           59.12 294   P      P         22 12 43.4  -1.3
          comp=Z,56nm,1.2s,mb5.5
EMIN  Mina Concepcio   59.28 296   P      P         22 12 44.7  -1.1
          comp=Z,24nm,0.7s,mb5.3
PESTR Estremoz         59.42 297  eP      P         22 12 47.1 +0.5
PTOM  Tomar            59.64 298  eP      P         22 12 48.6 +0.5
          comp=Z,37nm,0.9s,mb5.4
EGRO  El Granado       59.96 296   P      P         22 12 49.7  -0.7
          comp=Z,44nm,1.0s,mb5.4
PVAQ  Vaqueiros        60.19 296  eP      P         22 12 52.3 +0.4
PBDV  Barranco-do-Ve   60.41 296  eP      P         22 12 54.0 +0.5
SFJD  Kangerlussuaq    65.49 339  i P     P         22 13 26.7   0.0
SFJD                                 pmax    pmax
          comp=Z,26nm,0.9s,mb5.3
SFJD                                 MLR     MLR
          comp=Z,250nm,21.0s,MS4.4
SFJD  Kangerlussuaq    65.49 339  i P     P         22 13 26.7   0.0
          comp=Z,26nm,0.9s,mb5.2
SFJD
          comp=Z,240nm,21.0s
TOA0  Torodi Ar. Sit   66.07 268  eP      P         22 13 30.0  -1.2
TORD  Torodi Ar. Bea   66.07 268   P      P         22 13 30.2  -1.1
TORD                                 LR      LR       22 48 01.5
TORD  Torodi Ar. Bea   66.07 268   P      P         22 13 30.2  -1.0
          comp=Z,50nm,0.7s,mb5.7,baz=48,slow=5.6,SNR=638
TORD                                 LR      LR       22 48 01.5
          comp=Z,264nm,18.0s,MS4.5,baz=40,slow=41
TNA   Tin City         66.12  23  eP      P         22 13 30.8   0.0
          comp=Z,5.7nm,0.8s,mb4.7
RES   Resolute Bay     66.19 356  eP      P         22 13 30.8  -0.3
          comp=Z,313nm,0.9s,mb6.3
RES   Resolute Bay     66.19 356  eP      P         22 13 30.8  -0.3
RES                                  pmax    pmax
          comp=Z,313nm,0.9s,mb6.3
LSZ   Lusaka           67.41 226  eP      P         22 13 39.1  -0.5
          comp=Z,8.4nm,0.9s,mb4.8
LSZ   Lusaka           67.41 226  eP      P         22 13 39.1  -0.5
LSZ                                  pmax    pmax
          comp=Z,8.0nm,0.9s,mb4.8
IMA2  Indian Mountai   69.62  18⇑iP      P         22 13 52.2  -0.5
INK   Inuvik           71.36   9  eP      P         22 14 03.2  -0.1
          comp=Z,2µm,0.9s
INK   Inuvik           71.36   9  eP      P         22 14 03.2  -0.1
INK                                  pmax    pmax
          comp=Z,2µm,0.9s
COLA  College          71.97  16  eP      P         22 14 07.0   0.0
          comp=Z,57nm,0.8s,mb5.5
COLA  College          71.97  16  eP      P         22 14 07.0  -0.1
COLA                                 pmax    pmax
          comp=Z,57nm,0.8s,mb5.5
MCK   McKinley         72.70  18  eP      P         22 14 10.9  -0.5
          comp=Z,4.4nm,0.6s,mb4.6
MCK   McKinley         72.70  18  eP      P         22 14 10.9  -0.5
MCK                                  pmax    pmax
          comp=Z,4.0nm,0.6s,mb4.5
EGAK  Eagle            73.42  14  eP      P         22 14 15.4  -0.3
          comp=Z,16nm,0.9s,mb5.0
DAWY  Dawson           74.39  13⇑eP      P         22 14 21.2  -0.2
PMR   Palmer           74.48  19  eP      P         22 14 20.9  -1.0
          comp=Z,26nm,0.8s,mb5.2
PMR   Palmer           74.48  19  eP      P         22 14 20.9  -1.0
PMR                                  pmax    pmax
          comp=Z,26nm,0.8s,mb5.2
SML   Sawmill          74.49  18⇑eP      P         22 14 21.4  -0.6
SLKM  Skilak Lake      75.12  20  eP      P         22 14 24.7  -1.0
KIC   Kosan Boka       75.21 266  eP      P         22 14 26.2  -0.7
          comp=Z,61nm,0.7s,mb5.7
TIC   Toumodi          75.25 267  eP      P         22 14 26.1  -1.1
          comp=Z,18nm,0.9s,mb5.0
LIC   Lamto            75.52 266  eP      P         22 14 27.7  -1.0
          comp=Z,54nm,0.8s,mb5.5
LIC   Lamto            75.52 266  eP      P         22 14 28.0  -0.7
          comp=Z,18nm,0.8s,mb5.0
LIC                                  LR      LR
          comp=Z,210nm,22.8s,MS4.4
LIC   Lamto            75.52 266  eP      P         22 14 28.0  -0.7
          comp=Z,36nm,0.8s,mb5.0
LIC                                 eMLR     MLR
          comp=Z,416nm,22.8s,MS4.4
DIV   Divide           75.70  18  eP      P         22 14 28.8  -0.1
FITZ  Fitzroy Crossi   76.20 127  eP      P         22 14 32.1  -0.3
          comp=Z,43nm,0.9s,mb5.4
FITZ  Fitzroy Crossi   76.20 127   P      P         22 14 32.5 +0.1
          comp=Z,27nm,0.9s,mb5.2,baz=341,slow=7.1,SNR=19
KAKA  Kakadu           76.70 119⇑iP      P         22 14 34.7  -0.6
          comp=Z,16nm,0.5s,mb5.2
KAKA  Kakadu           76.70 119  eP      P         22 14 34.6  -0.6
TSUM  Tsumeb           76.70 232  eP      P         22 14 35.1   0.0
          comp=Z,6.5nm,0.6s,mb4.7
LBTB  Lobatse          76.74 222  eP      P         22 14 35.4 +0.1
          comp=Z,13nm,0.7s,mb5.0
LBTB  Lobatse          76.74 222  eP      P         22 14 35.4 +0.1
LBTB                                 pmax    pmax
          comp=Z,13nm,0.7s,mb5.0
KDAK  Kodiak Island    76.75  22   P      P         22 14 35.0   0.0
          comp=Z,234nm,1.9s,mb5.8,SNR=5.3
YKA   Yellowknife Ar   78.70   3   P      P         22 14 45.4  -0.3
YKA                                  PKKPbc  PKKPbc   22 33 38.8  -1.1
YKA   Yellowknife Ar   78.70   3  i P     P         22 14 45.4  -0.3
YKA                                  pmax    pmax
          comp=Z,10.0nm,0.5s
YKA   Yellowknife Ar   78.70   3   P      P         22 14 45.4  -0.3
          comp=Z,10nm,0.5s,mb5.0,baz=350,slow=5.7,SNR=240
YKA                                  PKKPbc  PKKPbc   22 33 38.8  -1.1
          comp=Z,0.2nm,0.5s,baz=168,slow=2.6,SNR=7.9
SKAG  Skagway          79.40  13  eP      P         22 14 50.7 +1.1
          comp=Z,33nm,1.2s,mb5.1
SKAG                                 LR      LR
          comp=Z,500nm,19.0s,MS4.9
BOSA  Boshof           79.86 220  eP      P         22 14 52.4  -0.1
          comp=Z,18nm,1.0s,mb5.0
BOSA  Boshof           79.86 220   P      P         22 14 52.7 +0.3
BOSA                                 pmax    pmax
          comp=Z,14nm,0.9s,mb4.9
BOSA  Boshof           79.86 220   P      P         22 14 52.6 +0.2
          comp=Z,14nm,0.9s,mb4.9,baz=46,slow=6.2,SNR=19
SCHQ  Schefferville    79.87 337   P      P         22 14 52.0  -0.3
          comp=Z,15nm,0.8s,mb5.0,baz=44,slow=4.8,SNR=30
SCHQ                                 LR      LR       22 49 43.1
          comp=Z,393nm,19.4s,MS4.8,baz=49,slow=35
DLBC  Dease Lake       81.25  11  eP      P         22 15 00.4 +0.7
FCC   Fort Churchill   81.80 352  eP      P         22 15 02.4  -0.2
          comp=Z,24nm,0.9s,mb5.1
FCC   Fort Churchill   81.80 352  eP      P         22 15 02.4  -0.1
FCC                                  pmax    pmax
          comp=Z,24nm,0.9s,mb5.1
MUN   Mundaring        82.04 143  eP      P         22 15 03.2  -0.8
KLBR  Kellerberrin     82.46 141  eP      P         22 15 04.8  -1.4
          comp=Z,18nm,0.7s,mb5.1
WRAK  Wrangell Islan   82.81  13  eP      P         22 15 08.1 +0.3
          comp=Z,23nm,0.8s,mb5.2
WRA   Warramunga Arr   83.11 122  i P     P         22 15 09.0  -0.8
WRA                                  pmax    pmax
          comp=Z,34nm,0.8s
WRA   Warramunga Arr   83.11 122   P      P         22 15 09.0  -0.8
          comp=Z,34nm,0.8s,mb5.4,baz=322,slow=5.0,SNR=142
WB2   Warramunga Arr   83.12 122⇑iP      P         22 15 09.0  -0.9
WB2   Warramunga Arr   83.12 122  eP      P         22 15 09.4  -0.5
NWAO  Narrogin (SRO)   83.31 143   P      P         22 15 09.3  -1.2
NWAO  Narrogin (SRO)   83.31 143   P      P         22 15 09.3  -1.3
NWAO                                 pmax    pmax
          comp=Z,23nm,0.9s
NWAO  Narrogin (SRO)   83.31 143   P      P         22 15 09.3  -1.2
          comp=Z,22nm,0.9s,mb5.2,baz=336,slow=4.7,SNR=8.2
COEN  Coen             85.10 112  eP      P         22 15 18.2  -1.9
FFC   Flin Flon        86.43 356   P      P         22 15 26.2 +0.1
          comp=Z,159nm,0.9s,mb6.2,SNR=14
FORT  Forrest          87.23 134  eP      P         22 15 29.5  -0.7
          comp=Z,43nm,0.8s,mb5.7
EDM   Edmonton         88.02   3  eP      P         22 15 33.8   0.0
ULM   Lac du Bonnet    90.38 352   P      P         22 15 44.6  -0.3
          comp=Z,7.3nm,0.8s,mb5.0,baz=26,slow=5.0,SNR=13
ULM                                  LR      LR       22 58 34.0
          comp=Z,288nm,21.7s,MS4.7,baz=39,slow=37
MSNY  Massena          90.98 337  eP      P         22 15 48.0 +0.1
LONY  Lake Ozonia      91.23 336  eP      P         22 15 49.4 +0.3
          comp=Z,16nm,0.8s,mb5.4
CTA   Charters Tower   91.36 115⇓iP      P         22 15 50.2 +0.3
          comp=Z,15nm,1.0s,mb5.3
CTA   Charters Tower   91.36 115⇓iP      P         22 15 50.2 +0.3
CTA                                  pmax    pmax
          comp=Z,15nm,1.0s
PGC   Sidney           91.71  10  eP      P         22 15 51.8 +0.6
          comp=Z,28nm,1.0s,mb5.5
MCW   Mount Constitu   91.76   9   P      P         22 15 52.5 +1.1
CMW   Cultus Mountai   92.10   9   P      P         22 15 53.8 +0.8
RPW   Rockport         92.15   9   P      P         22 15 53.6 +0.4
WALA  Waterton Lakes   92.16   3  eP      P         22 15 53.0  -0.3
          comp=Z,11nm,1.1s,mb5.1
OBC   Olympics--Boni   92.23  10   P      P         22 15 55.5 +1.9
AGMN  Agassiz Refuge   92.30 351  eP      P         22 15 54.0 +0.1
          comp=Z,13nm,0.9s,mb5.3
JCW   Jim Creek        92.35   9   P      P         22 15 54.6 +0.4
HDW   Hoodsport        92.74  10   P      P         22 15 57.7 +1.7
NEW   Newport          92.75   6  eP      P         22 15 56.1 +0.1
          comp=Z,6.9nm,0.8s,mb5.1
NEW   Newport          92.75   6  eP      P         22 15 56.1 +0.1
NEW                                  pmax    pmax
          comp=Z,7.0nm,0.8s
DGMT  Dagmar           92.78 357  eP      P         22 15 56.6 +0.5
          comp=Z,20nm,0.9s,mb5.5
CHMT  Chamberlain Mo   94.33   3  eP      P         22 16 03.8 +0.5
BOZ   Bozeman (W)      95.65   2  eP      P         22 16 10.0 +0.6
          comp=Z,3.5nm,0.8s,mb4.8
BOZ   Bozeman (W)      95.65   2  eP      P         22 16 10.0 +0.7
BOZ                                  pmax    pmax
          comp=Z,3.0nm,0.8s,mb4.8
STKA  Stephens Creek   96.08 126  eP      P         22 16 10.0  -1.3
          comp=Z,1.3nm,0.9s,mb4.4
STKA  Stephens Creek   96.08 126  eP      P         22 16 10.0  -1.3
STKA  Stephens Creek   96.08 126   P      P         22 16 09.9  -1.4
          comp=Z,0.9nm,0.4s,mb4.5,baz=354,slow=21,SNR=6.1
ECSD  EROS,Sioux Fal   96.89 351  eP      P         22 16 14.9  -0.1
          comp=Z,8.4nm,0.8s,mb5.2
SPUT  South Promonto   99.96   3  ePdif   Pdif      22 16 28.7  -0.1
BGU   Big Grassy Mou  100.31   3  eP      Pdif      22 16 28.8  -1.6
DAU   Daniels Canyon  100.89   2  ePdif   Pdif      22 16 27.2  -5.8
TMUT  Trail Mountain  102.00   2  ePdif   Pdif      22 16 40.0 +2.1
NVAR  Mina Array Bea  102.40   8   P      Pdif      22 16 41.1 +1.4
          comp=Z,0.3nm,0.6s,baz=34,slow=3.4,SNR=3.1
NOUC  Port Laguerre   107.29 105  eP      Pdif      22 17 04.8 +3.4
SNAA  Sanae           121.86 201   PKP    PKPdf     22 21 37.1 +0.5
SNAA  Sanae           121.86 201   PKIKP  PKPdf     22 21 37.1 +0.5
SNAA                                 pmax    pmax
          comp=Z,2.0nm,0.9s
SNAA  Sanae           121.86 201   PKP    PKPdf     22 21 37.1 +0.5
          comp=Z,2.0nm,0.9s,baz=114,slow=1.5,SNR=6.6
VNA2  Neumayer--Watz  122.85 203  ePKPdf  PKPdf     22 21 39.3 +0.8
          baz=26,slow=3.7
VNA2                                e                 22 21 43.7
VNA2                                e                 22 21 47.1
VNA2                                e                 22 21 52.9
VNA1  Neumayer--Stat  123.00 203  ePKPdf  PKPdf     22 21 39.3 +0.5
VNA1                                e                 22 21 43.5
VNA1                                e                 22 21 52.9
URZ   Urewera         123.61 115   PKP    PKPdf     22 21 39.0  -2.0
URZ   Urewera         123.61 115   PKP    PKPdf     22 21 39.0  -2.0
          comp=Z,9.1nm,0.9s,baz=352,slow=4.7,SNR=4.5
VNA3  Neumayer Olymp  123.66 203  ePKPdf  PKPdf     22 21 40.8 +0.7
VNA3                                e                 22 21 45.1
ROSC  El Rosal        126.02 316  ePKPdf  PKPdf     22 21 47.4 +0.9
LPAZ  La Paz          138.01 291   PKP    PKPdf     22 22 08.8  -0.1
LPAZ  La Paz          138.01 291   PKIKP  PKPdf     22 22 08.8  -0.1
```

LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LPAZ	**La Paz**	**138.01**	**291**	PKP	PKPdf	22 22 08.8	-0.1
	comp=Z,1.7nm,0.8s,baz=14,slow=5.3,SNR=8.4						
LCO	**Las Campanas**	**147.19**	**276**	*e*PKPdf	PKPdf	22 22 26.1	+1.3

BJI ***02*** *22:32:15.9, 37.81N×91.93E, h5^{km}, mB5.4, mb5.5, ML6.0, Ms5.6, Msz5.5*

LDG ***02*** *22:32:16.7±0.1, 37.79N×91.64E, h10^{km}, Mb5.3/38, Ms4.7/10, Error ellipse: s-maj=5.5km s-min=3.6km az=136.0*

NEIC ***02*** *22:32:18.8±0.1, 37.69N×91.77E, h10^{km}, mb5.3/120, MS5.1/4, MW5.3, Error ellipse: s-maj=4.0km s-min=2.5km az=22.0, Moment Tensor Solution. s9 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.13; M$_{\theta\theta}$-1.12; M$_{\phi\phi}$0.00; M$_{r\theta}$0.28; M$_{\theta\phi}$0.33; M$_{\phi r}$-0.49; Best double couple: M$_0$1.30000×10^{17} NP1:φ$_s$268.00000°, δ38.00000°, λ62.00000°. NP2: φ$_s$123.00000°, δ57.00000°, λ111.00000°. Principal axes: T 1.3200, Plg70.0000°, Azm79.0000°; N -0.0400, Plg17.0000°, Azm291.0000°; P -1.2800, Plg10.0000°, Azm198.0000°;*

MOS ***02*** *22:32:18.6±0.8, 37.71N×91.78E, h21^{km}, mb5.4/91, MS5.1/40 Error ellipse: s-maj=6.6km s-min=3.6km az=127.9*

GCMT ***02*** *22:32:18.8±0.2, 37.87N×91.85E, h20^{km}, MW5.4/97, Moment Tensor Solution. s67,c105; s97,c199; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.18±.04; M$_{\theta\theta}$-1.63±.03; M$_{\phi\phi}$0.44±.02; M$_{r\theta}$-0.12±.04; M$_{\theta\phi}$0.16±.02; M$_{\phi r}$-0.24±.05; Best double couple: M$_0$1.45300×10^{17} NP1:φ$_s$111.00000°, δ45.00000°, λ114.00000°. NP2:φ$_s$258.00000°, δ49.00000°, λ67.00000°. Principal axes: T 1.2590, Plg73.0000°, Azm101.0000°; N 0.3830, Plg17.0000°, Azm273.0000°; P -1.6460, Plg2.0000°, Azm4.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISCJB ***02*** *22:32:19.0±0.1, 37.67N±0.02×91.67E±0.02, h20^{km}, mb5.2/198, MS5.2/69 Error ellipse: s-maj=2.9km s-min=2.2km az=15.7*

IDC ***02*** *22:32:19.8±0.6, 37.78N×91.89E, h18^{km}±2^{km}, mb4.8/20, mb1 4.9/23, mb1mx4.9/24, mbtmp4.8/23, ML4.8/3, MS4.9/27, Ms1 4.9/27, ms1mx4.8/33, Error ellipse: s-maj=16.8km s-min=11.0km az=30.0*

NNC ***02*** *22:32:20.8±2.7, 37.98N×91.92E, h21^{km}±21^{km}, mb5.5, Error ellipse: s-maj=29.3km s-min=17.7km az=69.0*

SZGRF ***02*** *22:32:25.9, 36.96N×90.60E, h33^{km}, mb5.3, MS5.1, Southern Xinjiang, China*

ISC 02 22:32:20.9±0.1**, 37.70N**±0.02×**91.77E**±0.02**, h21**^{km}**, h21**^{km}±1.3^{km}**:pP-P, n783,** σ0^s**90**/785**, mb5.2**/197**, MS5.1**/68**, 162C-100D, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GTA	**Gaotai**	**6.53**	**72**	P	**Pn**	**22 33 55.2**	**-0.6**
GTA				S	**Sn**	**22 35 05.6**	**-4.0**
GTA				SG	Sn	22 35 39.4	+30
GTA				Smax			
	comp=N,4μm,1.6s						
GTA				Smax			
	comp=E,3μm,1.3s						
GTA				LR	LR		
	comp=N,47μm,12.9s						
GTA				LR	LR		
	comp=E,52μm,13.7s						
GTA				LR	LR		
	comp=Z,53μm,13.3s						
WMQ	**Urumqi**	**6.85**	**334**	P	**Pn**	**22 34 00.3**	**+0.2**
WMQ				Smax			
	comp=N,7μm,0.8s						
WMQ				Smax			
	comp=E,6μm,0.8s						
WMQ				LR	LR		
	comp=N,16μm,12.9s						
WMQ				LR	LR		
	comp=E,27μm,18.0s						
WMQ				LR	LR		
	comp=Z,18μm,13.8s						
LZH	**Lanzhou**	**9.81**	**96**	⇑P	**Pn**	**22 34 38.6**	**-2.1**
LZH				AP		22 34 41.5	
LZH				XP		22 34 43.0	
LZH				PP		22 34 47.0	
LZH				PPP		22 34 53.3	
LZH				*e*S	**Sn**	**22 36 26.3**	**-3.8**
LZH				SS		22 36 43.3	
LZH				AMB	AMB		
	comp=Z,2μm,1.0s						
LZH				AMB	AMB		
	comp=Z,5μm,4.0s						
LZH				LR	LR		
	comp=E,32μm,10.2s						
LZH				LR	LR		
	comp=Z,33μm,13.6s						
TAPN	**Taplejung**	**10.87**	**200**	*e*P	**Pn**	**22 34 57.1**	**+1.8**
	comp=Z,303nm,1.2s						
GUN	**Gumba**	**10.94**	**209**	*e*P	**Pn**	**22 34 58.9**	**+2.6**
	comp=Z,546nm,1.1s						
JIRN	**Jiri**	**11.06**	**207**	*e*P	**Pn**	**22 35 00.5**	**+2.6**
	comp=Z,365nm,1.1s						
KKN	**Kakani**	**11.29**	**211**	*e*P	**Pn**	**22 35 03.2**	**+2.2**
	comp=Z,431nm,1.4s						
GKN	**Gorkha**	**11.37**	**214**	*e*P	**Pn**	**22 35 03.9**	**+1.7**
	comp=Z,390nm,1.3s						
ODAN	**Odare**	**11.42**	**200**	*e*P	**Pn**	**22 35 03.7**	**+0.8**
	comp=Z,170nm,0.9s						
PKI	**Pulchoki**	**11.43**	**210**	*e*P	**Pn**	**22 35 05.2**	**+2.2**
	comp=Z,634nm,1.1s						
MK31	**Makanchi Array**	**11.48**	**325**	⇑Pn	**Pn**	**22 35 04.0**	**+0.5**
	comp=Z,353nm,0.9s,baz=133,slow=14						
MK31				⇓Sn	**Sn**	**22 37 12.8**	**+1.8**
	comp=Z,291nm,0.7s,baz=138,slow=24						
MK31				⇓Lg		22 38 21.5	
	comp=Z,547nm,0.9s						
MKAR	**Makanchi Array**	**11.48**	**325**	Pn	**Pn**	**22 35 01.6**	**-1.9**
MKAR				Sn	**Sn**	**22 37 05.2**	**-5.7**
MKAR				Lg		22 38 17.2	
MKAR				LR	LR	22 40 04.0	
MKAR	**Makanchi Array**	**11.48**	**325**	*i* P	**Pn**	**22 35 01.6**	**-1.9**
MKAR				pmax	pmax		
	comp=Z,89nm,0.6s						
MKAR	**Makanchi Array**	**11.48**	**325**	Pn	**Pn**	**22 35 01.6**	**-1.9**
	comp=Z,23nm,0.3s,baz=127,slow=14,SNR=328						
MKAR				Sn	**Sn**	**22 37 05.2**	**-5.7**
	comp=Z,11nm,0.3s,baz=146,slow=26,SNR=3.8						
MKAR				Lg		22 38 17.2	
	baz=129,slow=32,SNR=2.0						
MKAR				LR	LR	22 40 04.0	
	comp=Z,7μm,18.7s,baz=144,slow=40						
DMN	**Daman**	**11.52**	**211**	*e*P	**Pn**	**22 35 06.3**	**+2.1**
	comp=Z,1μm,1.9s						
CD2	**Chengdu**	**12.00**	**121**	*e*P	**Pn**	**22 35 11.6**	**+0.9**
CD2				XP		22 35 18.6	
CD2				PP		22 35 23.7	
CD2				S	**Sn**	**22 37 18.7**	**-5.2**
CD2				XS		22 37 31.5	
CD2				SS		22 37 39.7	
CD2				AMB	AMB		
	comp=Z,180nm,1.0s						
CD2				AMB	AMB		
	comp=Z,1μm,9.6s						
CD2				LR	LR		
	comp=N,17μm,8.4s						
CD2				LR	LR		
	comp=E,17μm,8.4s						
CD2				LR	LR		
	comp=Z,26μm,7.8s						
KOLN	**Koldanda**	**12.05**	**217**	*e*P	**Pn**	**22 35 12.3**	**+0.9**
	comp=Z,154nm,1.3s						
KSH	**Kashi**	**12.49**	**283**	*e*P	**Pn**	**22 35 18.5**	**+1.1**
KSH				*e*AP		22 35 21.9	
KSH				*e*XP		22 35 25.1	
KSH				*e*PP		22 35 28.6	
KSH				*e*PPP		22 35 35.5	
KSH				*e*S	**Sn**	**22 37 37.5**	**+1.6**
KSH				*e*XS		22 37 44.6	
KSH				AMB	AMB		
	comp=Z,474nm,2.8s						
KSH				LR	LR		
	comp=N,11μm,4.9s						
KSH				LR	LR		
	comp=E,23μm,6.2s						
KSH				LR	LR		
	comp=Z,17μm,11.6s						
KNDC	**Almaty**	**12.54**	**301**	⇑Pn	**Pn**	**22 35 17.7**	**-0.4**
	comp=Z,433nm,0.8s						
KNDC				⇑Lg		22 38 58.3	
	comp=Z,2μm,1.7s						
AAA	**Alma-Ata**	**12.58**	**301**	*i* P	**Pn**	**22 35 18.8**	**+0.2**
AAA	**Alma-Ata**	**12.58**	**301**	*e*P	**Pn**	**22 35 18.5**	**-0.1**
AAA				*e*S	**Sn**	**22 37 43.0**	**+5.1**
AAA				pmax	pmax		
	comp=Z,2μm,2.2s						
AAA				smax			
	comp=E,2μm,2.6s						
AAA				MLR	MLR		
	comp=Z,16μm,19.0s						
TKM2	**Tokmak 2**	**13.39**	**298**	⇓Pn	**Pn**	**22 35 28.4**	**-1.3**
	comp=Z,31nm,0.8s						
TKM2				⇑Lg		22 39 24.5	
	comp=Z,122nm,1.4s						
TKM2	**Tokmak 2**	**13.39**	**298**	⇑*i*Pn	**Pn**	**22 35 28.7**	**-1.0**
	comp=Z,37nm,0.5s						
TKM2	**Tokmak 2**	**13.39**	**298**	*e*P	**Pn**	**22 35 28.8**	**-0.9**
TKM2				pmax	pmax		
	comp=Z,37nm,0.5s						
UCH	**Uchtor**	**13.98**	**294**	*e*Pn	**Pn**	**22 35 36.9**	**-0.9**
	comp=Z,65nm,0.8s						
FRU	**Bishkek**	**14.06**	**297**	P	**Pn**	**22 35 37.0**	**-1.8**
FRU				MLR	MLR		
	comp=Z,24μm,17.0s						
AAK	**Ala-Archa**	**14.09**	**296**	*e*Pn	**Pn**	**22 35 37.6**	**-1.7**
AAK	**Ala-Archa**	**14.09**	**296**	*i* P	**Pn**	**22 35 39.1**	**-0.2**
XAN	**Xi'an**	**14.38**	**100**	P	**Pn**	**22 35 36.9**	**-6.3**
XAN				AP	pP	22 35 48.5	-7.4
XAN				AMB	AMB		
	comp=Z,166nm,1.1s						
XAN				AMB	AMB		
	comp=Z,412nm,8.7s						
XAN				LR	LR		
	comp=N,5μm,11.3s						
XAN				LR	LR		
	comp=E,20μm,11.5s						
XAN				LR	LR		
	comp=Z,20μm,11.6s						
BTO	**Baotou**	**14.46**	**73**	*e*P	**Pn**	**22 35 40.8**	**-3.4**
BTO				AMB	AMB		
	comp=Z,74nm,0.9s						
BTO				LR	LR		
	comp=N,8μm,13.7s						
BTO				LR	LR		
	comp=E,6μm,12.9s						
AML	**Almayashu**	**14.56**	**293**	*e*Pn	**Pn**	**22 35 46.9**	**+1.4**
	comp=E,43nm,0.6s						
EKS2	**Erkin-Say**	**14.61**	**295**	*e*Pn	**Pn**	**22 35 46.0**	**-0.4**
	comp=E,16nm,0.4s						
SONM	**Songino Array**	**14.74**	**42**	Pn	**Pn**	**22 35 47.3**	**-0.7**
SONM				Lg		22 39 58.0	
SONM	**Songino Array**	**14.74**	**42**	P	**Pn**	**22 35 47.3**	**-0.7**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SONM	**Songino Array**	**14.74**	**42**	Pn	**Pn**	**22 35 47.3**	**-0.7**
	comp=Z,1.1nm,0.3s,baz=226,slow=12,SNR=261						
SONM				Lg		22 39 58.0	
	comp=Z,12nm,0.3s,baz=244,slow=27,SNR=8.2						
ULN	**Ulaanbaatar**	**15.11**	**43**	*e*Pn	**Pn**	**22 35 55.7**	**+2.7**
ZAK	**Zakamensk**	**15.12**	**29**	*e*P	**Pn**	**22 35 53.0**	**-0.1**
ZAK				pmax	pmax		
	comp=Z,115nm,1.1s						
ZAK				pmax	pmax		
	comp=Z,38nm,1.1s						
MOY	**Mondy**	**15.41**	**22**	*e*P	**Pn**	**22 35 56.5**	**-0.4**
MOY				pmax	pmax		
	comp=Z,634nm,2.3s						
CHCP	**Chirah Chowk**	**15.57**	**261**	P	**Pn**	**22 35 57.7**	**-1.4**
KMI	**Kunming**	**15.63**	**140**	P	**Pn**	**22 35 57.7**	**-2.3**
KMI				AP	pP	22 36 01.5	-8.3
KMI				XP	sP	22 36 04.7	-7.8
KMI				PP		22 36 11.8	
KMI				PPP		22 36 17.2	
KMI				S	**Sn**	**22 38 46.3**	**-6.3**
KMI				AMB	AMB		
	comp=Z,46nm,1.6s						
KMI				AMB	AMB		
	comp=Z,427nm,3.2s						
KMI				LR	LR		
	comp=N,9μm,11.8s						
KMI				LR	LR		
	comp=E,9μm,18.2s						
KMI				LR	LR		
	comp=Z,7μm,10.7s						
HHC	**Hu-ho-hao-te**	**15.65**	**72**	*e*P	**Pn**	**22 35 55.9**	**-4.2**
HHC				AP	pP	22 35 59.5	-10
HHC				XP	sP	22 36 02.9	-10
HHC				PP		22 36 08.9	
HHC				S	**Sn**	**22 38 47.1**	**-5.7**
HHC				XS	sS	22 38 56.8	-20
HHC				SS		22 39 05.4	
HHC				PCP	PcP	22 40 58.5	-2.0
HHC				AMB	AMB		
	comp=Z,66nm,0.9s						
HHC				AMB	AMB		
	comp=Z,685nm,4.0s						
HHC				LR	LR		
	comp=N,27μm,14.3s						
HHC				LR	LR		
	comp=E,20μm,13.7s						
HHC				LR	LR		
	comp=Z,22μm,13.7s						
KURK	**Kurchatov**	**16.03**	**328**	Pn	**Pn**	**22 36 01.9**	**-3.1**
	comp=Z,562nm,1.1s,SNR=18						
KURK	**Kurchatov**	**16.03**	**328**	⇓Pn	**Pn**	**22 36 02.7**	**-2.3**
	comp=Z,78nm,0.8s						
KURK				⇑Sn	**Sn**	**22 38 58.3**	**-3.7**
	comp=Z,111nm,1.2s						
KURK				⇓Lg		22 40 46.6	
	comp=Z,433nm,2.0s						
KURK	**Kurchatov**	**16.03**	**328**	*e*Pn	**Pn**	**22 36 00.3**	**-4.7**
	comp=Z,182nm,0.9s						
KURK	**Kurchatov**	**16.03**	**328**	*i* P	**Pn**	**22 36 01.3**	**-3.7**
TLY	**Talaya**	**16.30**	**27**	*e*Pn	**Pn**	**22 36 07.6**	**-0.8**
TLY	**Talaya**	**16.30**	**27**	*e*P	**Pn**	**22 36 11.9**	**+3.5**
TLY				pmax	pmax		
	comp=Z,99nm,1.2s						
TLY				MLR	MLR		
	comp=Z,1μm,10.0s						
TIY	**Taiyuan**	**16.36**	**84**	⇑*i*P	**Pn**	**22 36 10.1**	**+0.9**
TIY				S	**Sn**	**22 39 10.5**	**+0.4**
TIY				LR	LR		
	comp=N,5μm,6.0s						
TIY				LR	LR		
	comp=E,20μm,10.4s						
CEP	**Cherat**	**16.57**	**262**	P	**Pn**	**22 36 05.0**	**-7.0**
GYA	**Guiyang**	**16.86**	**127**	⇑*i*P	**Pn**	**22 36 16.9**	**+1.3**
GYA				AP	pP	22 36 20.2	-3.2
GYA				XP	sP	22 36 23.4	-2.7
GYA				PP		22 36 30.2	
GYA				S	**Sn**	**22 39 28.1**	**+5.8**
GYA				SS		22 39 43.5	
GYA				SSS		22 39 56.0	
GYA				PCP	PcP	22 41 05.2	+2.6
GYA				AMB	AMB		
	comp=Z,60nm,1.3s						
GYA				AMB	AMB		
	comp=Z,200nm,4.2s						
GYA				LR	LR		
	comp=N,3μm,11.7s						
GYA				LR	LR		
	comp=E,5μm,11.4s						
GYA				LR	LR		
	comp=Z,5μm,12.0s						
ZAL	**Zalesovo**	**16.93**	**346**	P	**Pn**	**22 36 13.5**	**-2.9**
ZALV	**Zalesovo Beam**	**16.94**	**346**	Pn	**Pn**	**22 36 13.5**	**-3.0**
ZALV				LR	LR	22 43 26.1	
ZALV	**Zalesovo Beam**	**16.94**	**346**	Pn	**Pn**	**22 36 13.5**	**-3.0**
	comp=Z,3.5nm,0.3s,baz=167,slow=12,SNR=182						
ZALV				LR	LR	22 43 26.1	
	comp=Z,2μm,21.5s,baz=166,slow=39						
IRK	**Irkutsk**	**16.98**	**27**	*e*P	**Pn**	**22 36 17.2**	**+0.2**
IRK				pmax	pmax		
	comp=Z,272nm,1.8s						
KK31	**Karatay Array**	**17.05**	**295**	⇓Pn	**Pn**	**22 36 19.0**	**+1.1**
	comp=Z,102nm,1.4s,baz=40,slow=38,SNR=156						
KK31				⇑Lg		22 41 22.5	
	comp=Z,84nm,1.1s						
THW	**Thamme Wali**	**17.07**	**259**	P	**Pn**	**22 36 15.2**	**-3.0**
SBDP	**Sheikh Budin**	**17.99**	**259**	P	**Pn**	**22 36 27.1**	**-2.6**
NVS	**Novosibirsk**	**18.11**	**344**	⇓*i*P	**Pn**	**22 36 27.0**	**-3.9**
NVS				*i* S	**Sn**	**22 39 45.6**	**-6.6**
DRP	**Derazinda**	**18.68**	**258**	P	**Pn**	**22 36 37.2**	**-0.9**
CHRT	**Chiangrai**	**19.09**	**156**	⇑P	**Pn**	**22 36 43.0**	**-0.1**
	comp=Z,658nm,1.0s						
CHTO	**Chiang Mai**	**19.84**	**160**	⇑*e*P	**Pn**	**22 36 49.8**	**-2.3**
	comp=Z,77nm,1.1s						
CHTO	**Chiang Mai**	**19.84**	**160**	P	**Pn**	**22 36 49.9**	**-2.1**
CHTO				pmax	pmax		
	comp=Z,77nm,1.1s						
WHN	**Wuhan**	**19.98**	**104**	⇓P	**Pn**	**22 36 51.5**	**-2.3**
WHN				S	**Sn**	**22 40 34.0**	**-3.9**
WHN				AMB	AMB		
	comp=Z,469nm,1.0s						
WHN				LR	LR		
	comp=Z,34μm,14.1s						
TIA	**Tai'an**	**20.30**	**86**	⇑P	**P**	**22 36 54.7**	**-0.7**
TIA				S	**S**	**22 40 39.7**	**-2.4**
TIA				AMB	AMB		
	comp=Z,1μm,3.0s						
TIA				LR	LR		
	comp=E,11μm,11.0s						
CIT	**Chita**	**20.94**	**40**	*e*P	**P**	**22 37 01.3**	**-0.9**
CIT				*e*		22 37 11.1	
CIT				*e*		22 41 14.0	
CIT				pmax	pmax		
	comp=Z,575nm,1.3s						
BDT	**Bhumibol Dam**	**21.35**	**161**	P	**P**	**22 37 06.5**	**-0.3**
	comp=Z,24nm,0.9s,mb4.5						
BRVK	**Borovoye**	**21.41**	**323**	*e*P	**P**	**22 37 06.2**	**-0.9**
	comp=Z,153nm,0.8s,mb5.4						
BRVK	**Borovoye**	**21.41**	**323**	*e*P	**P**	**22 37 06.3**	**-0.9**
BRVK				pmax	pmax		
	comp=Z,150nm,0.8s,mb5.4						
NJ2	**Nanjing**	**22.88**	**96**	*e*P	**P**	**22 37 18.9**	**-4.2**
NJ2				AP		22 37 22.1	
NJ2				XP	sP	22 37 29.0	-2.8
NJ2				PP		22 37 48.0	
NJ2				S	**S**	**22 41 24.0**	**-7.8**
NJ2				XS	sS	22 41 37.0	-5.1
NJ2				SS		22 42 07.0	
NJ2				AMB	AMB		
	comp=Z,90nm,1.1s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,440nm,5.3s						
NJ2				LR	LR		
	comp=N,7μm,12.0s,MS5.7						
NJ2				LR	LR		
	comp=E,15μm,11.8s,MS5.7						
NJ2				LR	LR		
	comp=Z,15μm,11.8s,MS5.7						
NST	**Nakhon Sawan**	**23.16**	**159**	P	**P**	**22 37 25.0**	**-1.0**
	comp=Z,83nm,1.0s,mb5.1						
HYB	**Hyderabad**	**23.31**	**213**	*e*P	**P**	**22 37 25.0**	**-2.6**
	comp=Z,50nm,1.0s,mb4.9						
HYB				*e*S	**S**	**22 41 36.0**	**-2.8**
HYB				*e*LR	LR	22 47 00.0	
HYB	**Hyderabad**	**23.31**	**213**	*e*P	**P**	**22 37 25.0**	**-2.6**
HYB				*e*S	**S**	**22 41 36.0**	**-2.8**
HYB				pmax	pmax		
	comp=Z,50nm,1.0s,mb4.9						
HYB	**Hyderabad**	**23.31**	**213**	*i* P	**P**	**22 37 25.0**	**-2.6**
	comp=Z,50nm,1.0s,mb4.9						
HYB				*e*S	**S**	**22 41 36.0**	**-2.8**
HYB				LR	LR	22 47 00.0	
	comp=Z,25nm,14.0s						
KKTK	**Khon Kaen**	**23.41**	**152**	⇓P	**P**	**22 37 28.0**	**-0.7**
	comp=Z,617nm,0.8s,mb6.1						
DL2	**Dalian**	**23.42**	**78**	⇑*i*P	**P**	**22 37 27.3**	**-1.4**
DL2				S	**S**	**22 41 41.0**	**+0.6**
DL2				LG1		22 44 45.8	
DL2				LG2		22 45 21.9	
DL2				AMB	AMB		
	comp=Z,170nm,0.9s,mb5.5						
DL2				AMB	AMB		
	comp=Z,560nm,4.7s						
DL2				LR	LR		
	comp=N,3μm,15.2s,MS5.1						
DL2				LR	LR		
	comp=E,4μm,13.6s,MS5.1						
DL2				LR	LR		
	comp=Z,5μm,12.8s,MS5.2						
GZH	**Guangzhou**	**23.55**	**122**	P	**P**	**22 37 26.0**	**-4.1**
GZH				S	**S**	**22 41 36.9**	**-5.9**
GZH				AMB	AMB		
	comp=Z,268nm,1.4s,mb5.5						
GZH				LR	LR		
	comp=N,9μm,14.9s,MS5.5						
GZH				LR	LR		
	comp=E,7μm,15.3s,MS5.5						
GZH				LR	LR		
	comp=Z,6μm,12.5s,MS5.3						
QIZ	**Qiongzhong**	**24.39**	**135**	P	**P**	**22 37 37.3**	**-0.5**
QIZ				XP	sP	22 37 42.1	-4.6
QIZ				S	**S**	**22 41 58.1**	**+1.6**
QIZ				XS	sS	22 42 03.7	-3.1
QIZ				PCS	PcS	22 44 54.1	-2.8
QIZ				AMB	AMB		
	comp=Z,232nm,0.9s,mb5.6						
QIZ				LR	LR		
	comp=E,3μm,14.0s						
QIZ				LR	LR		
	comp=Z,4μm,11.9s,MS5.2						
HKC	**Hong Kong Obse**	**24.65**	**122**	*e*P	**P**	**22 37 40.0**	**-0.1**
HKC	**Hong Kong Obse**	**24.65**	**122**	P	**P**	**22 37 40.0**	**-0.1**
SNY	**Shenyang**	**24.72**	**70**	⇑P	**P**	**22 37 39.6**	**-1.0**
SNY				S	**S**	**22 42 02.3**	**+0.9**
SNY				AMB	AMB		
	comp=Z,223nm,1.7s,mb5.4						
SNY				AMB	AMB		
	comp=Z,2μm,3.5s						
SNY				LR	LR		
	comp=E,10μm,10.2s						
SNY				LR	LR		
	comp=Z,13μm,10.8s,MS5.7						
BOD	**Bodaibo**	**24.86**	**29**	*e*P	**P**	**22 37 40.8**	**-0.9**
BOD				*e*		22 37 47.8	
BOD				pmax	pmax		
	comp=Z,97nm,1.1s,mb5.2						
BOD				pmax	pmax		
	comp=Z,163nm,1.3s,mb5.4						
SSE	**Sheshan**	**25.09**	**96**	P	**P**	**22 37 44.2**	**+0.1**
SSE				XP	sP	22 37 48.5	-4.5
SSE				S	**S**	**22 42 07.5**	**0.0**
SSE				XS	sS	22 42 12.5	-5.4
SSE				AMB	AMB		
	comp=Z,611nm,1.0s,mb6.1						
SSE				AMB	AMB		
	comp=Z,788nm,6.3s						
SSE				LR	LR		
	comp=N,6μm,13.8s,MS5.4						
SSE				LR	LR		
	comp=E,5μm,13.8s,MS5.4						
SSE				LR	LR		
	comp=Z,8μm,14.0s,MS5.4						
AB31	**Akbulak array**	**25.63**	**307**	P	**P**	**22 37 48.6**	**-0.2**
	comp=Z,35nm,0.8s,mb4.9,baz=90,slow=9.3,SNR=139						
NNT	**Nongplab**	**26.00**	**162**	P	**P**	**22 37 52.0**	**-0.4**
QZH	**Quanzhou**	**26.11**	**111**	⇓*i*P	**P**	**22 37 53.8**	**+0.5**
QZH				AMB	AMB		
	comp=Z,150nm,0.8s,mb5.6						
QZH				LR	LR		
	comp=N,7μm,12.6s						
QZH				LR	LR		
	comp=E,9μm,9.7s						
QZH				LR	LR		
	comp=Z,14μm,10.7s,MS5.8						
CN2	**Changchun**	**26.11**	**66**	⇑P	**P**	**22 37 52.0**	**-1.2**
CN2				*e*XP	sP	22 37 59.0	-3.1
CN2				*e*S	**S**	**22 42 20.0**	**-3.5**
CN2				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.7						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,6μm,11.0s,MS5.9						
CN2				LR	LR		
	comp=E,17μm,11.0s,MS5.9						
CN2				LR	LR		
	comp=Z,18μm,12.0s,MS5.8						
ABKT	**Ailbek**	**26.51**	**281**	P	**P**	**22 37 58.5**	**+1.6**
	comp=Z,261nm,0.9s,mb5.8,SNR=8.4						
AKTK	**Aktyubinsk**	**27.14**	**309**	P	**P**	**22 38 02.8**	**+0.4**
AKTO	**Aktyubinsk**	**27.14**	**309**	P	**P**	**22 38 02.8**	**+0.4**
AKTO				pmax	pmax		

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          comp=Z,7.0nm,0.8s,mb4.2
AKTO  Aktyubinsk       27.14 309   P       P        22 38 02.8 +0.4
          comp=Z,7.4nm,0.8s,mb4.3,baz=94,slow=8.8,SNR=18
INCN  Inchon           27.53  80  eP       P        22 38 05.2 -0.9
SVE   Sverdlovsk       28.12 323⇑eP       P        22 38 17.0 +5.8
SVE                                pmax    pmax
          comp=Z,290nm,2.0s,mb5.6
TATO  Taipei           28.25 108  eP       P        22 38 12.2 -0.4
          comp=Z,44nm,0.7s,mb5.2
YHNB  Yeheng           28.34 109  eP       P        22 38 13.2 -0.2
YHNB                              e                 22 38 24.6
KSRS  Korea Array      28.55  79   P       P        22 38 13.6 -1.5
          comp=Z,66nm,0.7s,mb5.5,baz=278,slow=8.3,SNR=138
KSRS                               LR      LR       22 51 02.0
          comp=Z,5µm,18.9s,MS5.2,baz=284,slow=40
NACB  Ninganchiao      28.78 109  eP       P        22 38 17.5 +0.1
NRGR  Nerungri         28.93  38  eP       P        22 38 17.7 -0.6
ARU   Arti             28.95 321  eP       P        22 38 18.3 -0.3
          comp=Z,55nm,0.9s,mb5.3
ARU   Arti             28.95 321⇑iP       P        22 38 18.3 -0.2
ARU                               ePPP              22 39 15.8
ARU                               eS       S        22 43 07.5 -0.5
ARU                               eSS      SS       22 44 30.2  -40
ARU                                pmax    pmax
          comp=Z,61nm,1.4s,mb5.1
ARU                                MLR     MLR
          comp=Z,3µm,18.0s,MS4.9
ARU                                MLR     MLR
          comp=N,1µm,22.0s,MS4.8
ARU                                MLR     MLR
          comp=E,2µm,17.0s,MS4.8
CLNS  Chul'man         29.09  38  eP       P        22 38 16.1 -3.7
CLNS                               pmax    pmax
          comp=N,10.0nm,1.1s
CLNS                               pmax    pmax
          comp=Z,24nm,1.1s,mb4.8
CLNS                               pmax    pmax
          comp=E,25nm,1.2s
CLNS                               MLR     MLR
          comp=Z,5µm,12.0s,MS5.3
CLNS                               MLR     MLR
          comp=N,1µm,15.0s,MS5.1
CLNS                               MLR     MLR
          comp=E,3µm,12.0s,MS5.1
MDJ   Mudanjiang       29.11  64   P       P        22 38 19.4 -0.6
MDJ                                AP      pP       22 38 22.4 -4.0
MDJ                                XP      sP       22 38 23.8 -5.2
MDJ                                PCP     PcP      22 41 27.1 -0.4
MDJ                                S       S        22 43 10.6 -0.1
MDJ                                PCS     PcS      22 45 08.4 -1.8
MDJ                                SCS     ScS      22 49 04.1 +2.4
MDJ                                AMB     AMB
          comp=Z,54nm,1.7s,mb5.0
MDJ                                AMB     AMB
          comp=Z,393nm,5.4s
MDJ                                LR      LR
          comp=N,4µm,12.4s,MS5.7
MDJ                                LR      LR
          comp=E,9µm,11.7s,MS5.7
MDJ                                LR      LR
          comp=Z,11µm,12.1s,MS5.7
VLA   Vladivostok      30.81  67⇑eP       P        22 38 34.5 -0.7
VLA                                pmax    pmax
          comp=Z,99nm,1.5s,mb5.4
VLA                                MLR     MLR
          comp=Z,4µm,13.0s,MS5.2
KLR   Kul'dur          30.88  55⇓iP       P        22 38 31.7 -3.9
KLR                               eS       S        22 43 39.5 +1.2
KLR                                pmax    pmax
          comp=E,85nm,1.6s
KLR                                pmax    pmax
          comp=Z,110nm,1.6s,mb5.4
KLR                                MLR     MLR
          comp=Z,25µm,12.0s,MS6.1
SOKR  Solikamsk        31.24 326d iP       P        22 38 39.8 +1.1
SOKR                               pmax    pmax
          comp=Z,60nm,1.3s,mb5.3
SOKR                               MLR     MLR
          comp=Z,3µm,18.0s,MS4.9
HABR  Khabarovsk       32.99  57⇑eP       P        22 38 52.6 -1.6
HABR                              e                 22 40 01.8
HABR                              eS       S        22 44 10.7 -0.5
HABR                              eSS      SS       22 46 11.1  -22
HABR                               pmax    pmax
          comp=Z,73nm,1.2s,mb5.5
KULM  Kulim            33.26 164⇑eP       P        22 38 56.2 -0.6
KULM  Kulim            33.26 164 ⇓P       P        22 38 56.8 -0.1
YAK   Yakutsk          33.69  31  eP       P        22 38 59.2 -0.9
          comp=Z,56nm,0.6s,mb5.7
YAK   Yakutsk          33.69  31c iP       P        22 38 58.9 -1.2
YAK                               e*PP     pP       22 39 07.0 +0.5
YAK                               e                 22 40 12.4
YAK                               e                 22 41 35.7
YAK                               eS       S        22 44 22.0 +0.2
YAK                               eSS      SS       22 46 29.6  -18
YAK                               e                 22 49 26.9
YAK                                pmax    pmax
          comp=Z,53nm,1.0s,mb5.4
YAK                                pmax    pmax
          comp=N,14nm,1.2s
YAK                                pmax    pmax
          comp=E,48nm,1.3s
YAK                                pmax    pmax
          comp=Z,19nm,0.6s,mb5.2
YAK                                pmax    pmax
          comp=N,9.0nm,0.8s
YAK                                smax
          comp=N,125nm,2.6s
YAK                                smax
          comp=E,215nm,2.6s
YAK                                MLR     MLR
          comp=Z,3µm,18.0s,MS5.0
YAK                                MLR     MLR
          comp=E,2µm,15.0s
KTGM  Kuala Trenggan   33.85 159 ⇓P       P        22 39 00.6 -1.4
IPM   Ipoh             34.13 163 ⇓P       P        22 39 03.2 -1.2
FRIM  Kepong           35.47 163 ⇓P       P        22 39 16.3 +0.3
ZEI   Tsey             36.50 293  eP       P        22 39 24.5 -0.1
ZEI                               i                 22 39 35.7
ZEI                               e                 22 40 48.1
ZEI                               e                 22 41 46.8
ZEI                                pmax    pmax
          comp=Z,9.0nm,0.8s,mb4.7
MAJO  Matsushiro       36.75  77  eP       P        22 39 20.9 -6.0
MAJO  Matsushiro       36.75  77   P       P        22 39 24.7 -2.1
MAJO                               pmax    pmax
          comp=Z,14nm,0.7s,mb4.9
MJAR  Matsushiro Arr   36.76  77   P       P        22 39 24.7 -2.2
MJAR                                                22 41 48.0
MJAR                               pmax    pmax
          comp=Z,16nm,0.8s
MJAR                               pmax    pmax
          comp=Z,5.0nm,0.9s
MJAR                               MLR     MLR
          comp=Z,2µm,19.7s
MJAR  Matsushiro Arr   36.76  77   P       P        22 39 24.6 -2.2
          comp=Z,16nm,0.8s,mb4.9,baz=290,slow=10.0,SNR=24
MJAR                               PcP     PcP      22 41 48.0 -0.9
          comp=Z,4.8nm,0.9s,baz=283,slow=3.3,SNR=4.9
MJAR                               LR      LR       22 55 08.5
          comp=Z,2µm,19.7s,MS4.9,baz=290,slow=37
KGM   Kluang           37.06 161 ⇓P       P        22 39 29.9 +0.3
PRGR  Permogore        37.11 325⇑iP       P        22 39 33.1 +3.6
PRGR                              eS       S        22 45 18.9 +4.5
KIV   Kislovodsk       37.21 296  i P      P        22 39 31.5 +0.8
KIV   Kislovodsk       37.21 296  i P      P        22 39 31.4 +0.7
KIV                               e                 22 41 47.3
KIV                               eSS      SS       22 47 52.7 -6.7
KIV                                pmax    pmax
          comp=Z,5.0nm,1.7s,mb4.1
KIV                                MLR     MLR
          comp=Z,3µm,15.0s,MS5.2
MYKOM Kota Tinggi      37.42 160 ⇓P       P        22 39 32.4 -0.3
KBD   Kabd             37.47 270  eP       P        22 39 32.9 -0.1
KBD                                AMb     AMB      22 39 39.9
          comp=Z,134nm,0.7s,mb5.9
MIB   Mutribah         37.49 271  eP       P        22 39 34.0 +0.8
MIB                                AMb     AMB      22 39 40.1
          comp=Z,76nm,0.8s,mb5.6
VRHR  Novokhopersk     37.52 307  eP       P        22 39 34.1 +1.0
VRHR                               pmax    pmax
          comp=Z,20nm,0.6s,mb5.0
VRHR                               pmax    pmax
          comp=N,30nm,0.7s
VRHR                               pmax    pmax
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          comp=E,10.0nm,0.6s
VRHR                               MLR     MLR
          comp=Z,2µm,11.0s,MS5.1
VRHR                               MLR     MLR
          comp=N,600nm,12.0s,MS4.9
VRHR                               MLR     MLR
          comp=E,1µm,13.0s,MS4.9
RDF   Al-Radifah       37.69 270  eP       P        22 39 34.5 -0.3
RDF                                AML     AML      22 39 44.9
          comp=Z,8.2nm,0.5s
NAY   Al-Naaiem        37.80 271  eP       P        22 39 35.8  0.0
NAY                                AMb     AMB      22 39 42.7
          comp=Z,41nm,0.7s,mb5.3
KDM   Kudat            38.17 137 ⇑P       P        22 39 39.4 +0.4
YSS   Yuzh-Sakhalins   38.22  59  eP       P        22 39 37.9 -1.2
YSS   Yuzh-Sakhalins   38.22  59⇑eP       P        22 39 38.0 -1.1
YSS                               e*SP     sP       22 39 42.0 -6.1
YSS                               e                 22 41 07.0
YSS                               ePPP              22 41 36.0
YSS                               e                 22 41 53.1
YSS                               eS       S        22 45 31.0 -0.5
YSS                               eSS      SS       22 48 06.0  -14
YSS                               eSSS              22 48 47.0
YSS                                pmax    pmax
          comp=Z,90nm,1.2s,mb5.4
YSS                                MLR     MLR
          comp=Z,5µm,12.0s,MS5.5
YSS                                MLR     MLR
          comp=N,2µm,13.0s
KKM   Kota Kinabalu    38.57 139⇑iP       P        22 39 42.6 +0.2
KKM   Kota Kinabalu    38.57 139 ⇓P       P        22 39 42.9 +0.5
TIXI  Tiksi            38.92  18  eP       P        22 39 42.8 -1.9
TIXI  Tiksi            38.92  18  eP       P        22 39 41.2 -3.5
TIXI                              e                 22 41 12.7
TIXI                              eS       S        22 45 39.2 -2.4
TIXI                               pmax    pmax
          comp=Z,60nm,0.9s,mb5.3
TIXI                               MLR     MLR
          comp=Z,4µm,12.0s,MS5.5
VORD  Divnogorie       38.99 307  eP       P        22 39 45.2 -0.3
VORD                              e*PP     pP       22 39 49.3 -2.7
VORD                               pmax    pmax
          comp=Z,3.0nm,0.4s,mb4.4
VORD                               pmax    pmax
          comp=N,30nm,0.6s
VORD                               pmax    pmax
          comp=E,20nm,0.6s
VORD                               MLR     MLR
          comp=Z,1µm,12.0s,MS4.9
VORD                               MLR     MLR
          comp=N,1µm,14.0s
VORD                               MLR     MLR
          comp=E,2µm,20.0s
ERM   Erimo            39.20  67  eP       P        22 39 45.9 -1.5
          comp=E,125nm,1.1s,mb5.6
ERM   Erimo            39.20  67  i P      P        22 39 47.1 -0.3
SOC   Sochi            39.40 295  eP       P        22 39 44.4 -4.6
SOC                               e                 22 41 19.1
SOC                               eS       S        22 45 45.4 -3.9
SOC                               e                 22 49 58.9
SOC                                MLR     MLR
          comp=Z,3µm,17.0s,MS5.2
SDKM  Sandakan         39.43 138 ⇑P       P        22 39 49.5  0.0
BTM   Bintulu          39.50 145 ⇓P       P        22 39 49.9 -0.3
SBUM  Sibu             39.79 147 ⇑P       P        22 39 53.3 +0.8
KSM   Kuching          39.88 150  eP       P        22 39 53.4 +0.1
KSM   Kuching          39.88 150 ⇓P       P        22 39 53.8 +0.4
MOS   Moscow           40.09 315  eP       P        22 39 55.2 +0.5
MOS                               i                 22 40 06.1
MOS                               e                 22 41 25.6
MOS                               ePPP              22 41 51.1
MOS                               eS       S        22 45 59.4 -0.1
MOS                               e                 22 46 10.7
MOS                                pmax    pmax
          comp=Z,85nm,1.2s,mb5.3
MOS                                MLR     MLR
          comp=E,5µm,13.0s
MOS                                MLR     MLR
          comp=Z,6µm,13.0s,MS5.6
MYLDM Lahad Datu       40.52 136 ⇓P       P        22 39 53.8 -4.9
OBN   Obninsk          40.67 314  i P      P        22 39 59.3 -0.1
OBN                               eSS      SS       22 49 06.3 -2.1
OBN                                pmax    pmax
          comp=Z,24nm,0.6s,mb5.0
OBN                                MLR     MLR
          comp=Z,3µm,17.0s,MS5.3
ANN   Anapa            40.81 298  eP       P        22 40 05.0 +4.2
ANN                               e*PP     pP       22 40 08.8 +1.6
ANN                               e                 22 41 41.7
ANN                               eS       S        22 46 20.3  +10
ANN                                pmax    pmax
          comp=Z,73nm,1.5s,mb5.1
ANN                                MLR     MLR
          comp=Z,3µm,19.0s,MS5.2
ANN                                MLR     MLR
          comp=N,4µm,19.0s,MS5.4
ANN                                MLR     MLR
          comp=E,4µm,19.0s,MS5.4
TSM   Tawau            40.92 138 ⇓P       P        22 40 02.1 +0.2
MALT  Malatya          41.54 288  eP       P        22 40 07.5 +0.6
MALT  Malatya          41.54 288⇑iP       P        22 40 08.9 +2.1
MA2   Magadan          42.94  40  eP       P        22 40 17.6 -0.3
          comp=E,64nm,1.0s,mb5.3
MA2   Magadan          42.94  40  eP       P        22 40 17.4 -0.5
MA2                               e                 22 42 05.5
MA2                                pmax    pmax
          comp=Z,100nm,1.0s,mb5.5
SIM   Simferopol'      43.10 299   P       P        22 40 19.7 +0.2
SIM                               eS       S        22 46 52.0 +7.6
SIM                                pmax    pmax
          comp=Z,30nm,1.1s,mb4.9
SIM                                MLR     MLR
          comp=Z,1µm,15.0s,MS4.9
APA   Apatity          43.78 332⇓iP       P        22 40 30.0 +5.4
APA                               i                 22 42 06.4
APA                                pmax    pmax
          comp=Z,14nm,0.6s,mb4.9
APA                                MLR     MLR
          comp=Z,8µm,16.0s,MS5.7
JOF   Joensuu          43.91 325  ep       P        22 40 25.4 -0.3
          comp=Z,35nm,0.6s,mb5.3
JOF   Joensuu          43.91 325  eP       P        22 40 25.4 -0.3
JOF                                pmax    pmax
          comp=Z,35nm,0.6s,mb5.3
SEY   Seymchan         43.98  35c iP       P        22 40 26.3  0.0
BRTR  Keskin Array B   44.71 291   P       P        22 40 32.4 -0.1
BRTR                               *PP     pP       22 40 38.1 -0.9
BRTR                               pmax    pmax
          comp=Z,15nm,0.9s
BRTR                               pmax    pmax
          comp=Z,13nm,0.6s
BRTR  Keskin Array B   44.71 291   P       P        22 40 32.4  0.0
          comp=Z,14nm,0.9s,mb4.8,baz=88,slow=5.5,SNR=4.3
BRTR                               pP      pP       22 40 38.1 -0.9
          comp=Z,13nm,0.6s,baz=88,slow=6.4,SNR=3.3
ASF   Jabal al Asfar   44.78 280   P       P        22 40 32.7 -0.5
ASF                                pmax    pmax
          comp=Z,8.0nm,0.9s
ASF   Jabal al Asfar   44.78 280   P       P        22 40 32.7 -0.5
          comp=Z,8.3nm,0.9s,mb4.5,baz=322,slow=1.0,SNR=14
ANTO  Ankara           45.30 292 ⇓P       P        22 40 37.5 +0.3
ANTO  Ankara           45.30 292   P       P        22 40 37.5 +0.4
ANTO                               pmax    pmax
          comp=Z,120nm,1.3s,mb5.6
ANTO  Ankara           45.30 292⇓iP       P        22 40 37.5 +0.4
AKASG Malin Array Be   45.37 308  i P      P        22 40 37.0 -0.5
AKASG                              pmax    pmax
          comp=Z,8.0nm,0.7s
AKASG Malin Array Be   45.37 308   P       P        22 40 36.3 -1.2
          comp=Z,8.4nm,0.7s,mb4.7,baz=70,slow=7.2,SNR=24
AKASG                              LR      LR       23 03 01.8
          comp=Z,1µm,19.7s,MS4.8,baz=95,slow=41
KIEV  Kiev             45.38 308  eP       P        22 40 36.6 -1.0
          comp=Z,14nm,0.6s,mb5.0
KIEV  Kiev             45.38 308   P       P        22 40 36.7 -0.9
KIEV                               pmax    pmax
          comp=Z,14nm,0.7s,mb4.9
MNK   Minsk            45.74 313  eP       P        22 40 39.0 -1.4
VSU   Vasula           46.05 319  i P      P        22 40 43.7 +0.9
FINES FINESS Array B   46.30 323   P       P        22 40 44.3 -0.4
FINES                              *PP     pP       22 40 49.9 -1.3
FINES                              pmax    pmax
          comp=Z,9.0nm,0.5s
FINES                              pmax    pmax
          comp=Z,15nm,0.5s
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FINES                              MLR     MLR
          comp=Z,2µm,18.1s
FINES FINESS Array B   46.30 323   P       P        22 40 44.3 -0.4
          comp=Z,8.6nm,0.5s,mb5.0,baz=94,slow=8.0,SNR=132
FINES                              pP      pP       22 40 49.9 -1.3
          comp=Z,15nm,0.5s,baz=87,slow=8.5,SNR=17
FINES                              LR      LR       23 01 07.8
          comp=Z,2µm,18.1s,MS5.0,slow=37
KIS   Kishinev         46.30 303  eP       P        22 40 48.0 +3.0
KIS                                MLR     MLR
          comp=Z,2µm,13.0s,MS5.3
KIS                                MLR     MLR
          comp=Z,2µm,13.0s
KEV   Kevo             46.48 334  ep       P        22 40 45.3 -0.7
          comp=Z,27nm,0.9s,mb5.2
KEV   Kevo             46.48 334  eP       P        22 40 45.3 -0.7
KEV                                pmax    pmax
          comp=Z,27nm,0.9s,mb5.2
ARCES ARCESS Array B   46.97 334   P       P        22 40 49.5 -0.4
ARCES                              *PP     pP       22 40 55.4 -1.0
ARCES                              pmax    pmax
          comp=Z,3.0nm,0.4s
ARCES                              pmax    pmax
          comp=Z,8.0nm,0.5s
ARCES                              MLR     MLR
          comp=Z,2µm,19.0s
ARCES ARCESS Array B   46.97 334   P       P        22 40 49.5 -0.4
          comp=Z,3.3nm,0.4s,mb4.7,baz=90,slow=7.9,SNR=58
ARCES                              pP      pP       22 40 55.4 -1.0
          comp=Z,8.4nm,0.5s,baz=91,slow=7.9,SNR=6.7
ARCES                              LR      LR       23 00 35.8
          comp=Z,2µm,18.9s,MS5.1,baz=101,slow=36
ISP   Isparta          47.62 290  eP       P        22 41 00.1 +4.7
PET   Petropavlovsk    47.67  49⇑iP       P        22 40 53.8 -1.7
PET   Petropavlovsk    47.67  49⇓iP       P        22 40 54.1 -1.4
PET                                pmax    pmax
          comp=Z,129nm,1.1s,mb5.9
PET                                MLR     MLR
          comp=Z,2µm,19.0s,MS5.0
KTK1  Kautokeino       47.73 333  eP       P        22 40 55.4 -0.4
KTK1                              epP      pP       22 40 59.0 -3.3
PLOR  Plostina         48.03 301⇑iP       P        22 40 59.3 +0.9
BURAR Bucovina Array   48.55 304⇓iP       P        22 41 02.6 +0.2
MLR   Muntele Rosu     48.60 301 ⇓P       P        22 41 04.4 +1.6
MLR   Muntele Rosu     48.60 301   LR      LR       23 06 11.6
          comp=Z,3µm,18.4s,MS5.3,baz=266,slow=42
MLR   Muntele Rosu     48.60 301⇓iP       P        22 41 04.4 +1.6
LVV   L'vov            48.81 307  eP       P        22 41 05.1 +0.7
LVV                               i S      S        22 48 11.1 +4.9
LVV                                MLR     MLR
          comp=E,2µm,16.0s
LVV                                MLR     MLR
          comp=Z,1µm,16.0s,MS5.0
LVV                                MLR     MLR
          comp=N,1µm,10.0s
JMB   Yambol           49.01 297  eP       P        22 41 06.8 +0.8
VOIR                   49.22 301 ⇓P       P        22 41 08.0 +0.4
VOIR                   49.22 301⇓iP       P        22 41 08.0 +0.4
SZH   Strazhica        49.23 298  eP       P        22 41 08.0 +0.3
TRO   Tromso           49.28 334  eP       P        22 41 06.3 -1.4
KWP   Kalwaria         49.69 307  eP       P        22 41 11.8 +0.7
KWP   Kalwaria         49.69 307  eP       P        22 41 11.8 +0.7
KWP   Kalwaria         49.69 307   P       P        22 41 11.6 +0.5
KWP                                pmax    pmax
          comp=Z,140nm,1.0s,mb6.0
BILL  Bilibino         49.91  28c iP       P        22 41 12.8 +0.2
BILL                              eSS      SS       22 51 54.6 +1.0
BILL                               pmax    pmax
          comp=Z,141nm,2.6s,mb5.5
BILL                               MLR     MLR
          comp=Z,3µm,17.0s,MS5.3
KOLS  Kolonicke sedl   50.13 306  i P      P        22 41 14.5  0.0
UZH   Uzhgorod         50.20 306  eP       P        22 41 19.2 +4.2
UZH                               i        pP       22 41 26.8 +5.2
UZH                               i                 22 42 40.0
UZH                               eS       S        22 48 34.0 +8.3
UZH                                MLR     MLR
          comp=Z,2µm,12.0s,MS5.4
DRGR                   50.41 304 ⇑P       P        22 41 16.9 +0.3
DRGR                   50.41 304⇑iP       P        22 41 16.9 +0.2
STHS  Stebnicka Huta   50.66 307  i P      P        22 41 18.6 +0.1
          comp=Z,5.4nm,1.0s,mb4.4
STHS  Stebnicka Huta   50.66 307  i P      P        22 41 18.6 +0.1
STHS                               pmax    pmax
          comp=Z,5.0nm,1.0s,mb4.4
GZR   Gura Zlata       50.77 302 ⇓P       P        22 41 20.8 +1.4
GZR   Gura Zlata       50.77 302⇓iP       P        22 41 20.8 +1.4
MOR8  Moi Rana         51.16 329  eP       P        22 41 20.5 -1.5
NIE   Niedzica         51.25 307  eP       P        22 41 23.5 +0.6
LOF   Lofoten          51.30 332  eP       P        22 41 23.8 +0.8
          comp=Z,306nm,1.7s,mb6.0
LOF   Lofoten          51.30 332  eP       P        22 41 23.8 +0.8
LOF                                AMb     AMB      22 41 29.0
          comp=Z,306nm,1.7s,mb6.0
MMB   Musomiste        51.30 297  eP       P        22 41 23.5 +0.1
VTS   Vitosha          51.34 298  eP       P        22 41 24.0 +0.3
OJC   Ojcow            51.36 309  eP       P        22 41 23.7  0.0
KECS  Kecovo           51.40 306  i P      P        22 41 23.7 -0.3
          comp=Z,48nm,3.1s
KECS  Kecovo           51.40 306  i P      P        22 41 23.7 -0.3
KECS                               pmax    pmax
          comp=Z,48nm,3.1s
BZS   Buzias           51.48 302 ⇑P       P        22 41 24.9 +0.1
BZS   Buzias           51.48 302⇑iP       P        22 41 24.9 +0.2
PSZ   Piszkesteto      51.93 306  eP       P        22 41 29.3 +1.2
PSZ   Piszkesteto      51.93 306   P       P        22 41 28.7 +0.7
PSZ                                pmax    pmax
          comp=Z,23nm,1.0s,mb5.1
PSZ   Piszkesteto      51.93 306⇑eP       P        22 41 30.3 +2.2
VAY   Valandovo        52.21 297  eP       P        22 41 27.2 -3.0
NSS   Namsos           52.42 328  eP       P        22 41 29.2 -2.2
VYHS  Vyhne            52.44 307  i P      P        22 41 32.5 +0.7
          comp=Z,13nm,1.6s,mb4.6
VYHS  Vyhne            52.44 307  i P      P        22 41 32.5 +0.7
VYHS                               pmax    pmax
          comp=Z,13nm,1.6s,mb4.6
PTL   Penteli          52.46 293  eP       P        22 41 32.0 -0.1
HFS   Hagfors          52.47 322   LR      LR       23 04 48.9
          comp=Z,1µm,18.1s,MS5.0,baz=77,slow=37
OKC   Ostrava-Krasne   52.49 308  eP       P        22 41 31.6 -0.6
OKC                               epP      pP       22 41 37.3 -1.5
OKC   Ostrava-Krasne   52.49 308  eP       P        22 41 31.6 -0.6
OKC                               epP      pP       22 41 37.3 -1.5
OKC                                AMS     AMS      23 06 00.0
          comp=Z,2µm,15.5s
KVR   Kavouri          52.61 292  eP       P        22 41 33.0 -0.3
BUD   Budapest         52.62 305⇑epP      pP       22 41 39.2 -0.6
NAIG  Nisos Aigina     52.85 293  eP       P        22 41 40.0 +5.0
MORC  Moravsky Berou   52.88 309  eP       P        22 41 35.5 +0.4
MORC  Moravsky Berou   52.88 309   P       P        22 41 35.3 +0.2
MORC                               pmax    pmax
          comp=Z,24nm,1.0s,mb5.1
MORC  Moravsky Berou   52.88 309⇓iP       P        22 41 35.7 +0.6
KRUS  Krusevo          53.13 298  eP       P        22 41 34.0 -3.0
PKSM  Moragy           53.27 304 ⇑P       P        22 41 37.6 -0.3
PKSM  Moragy           53.27 304⇑iP       P        22 41 37.7 -0.3
KSP   Ksiaz            53.34 310  eP       P        22 41 37.9 -0.5
KSP                                LR      LR
          comp=Z,6µm,16.9s,MS5.8
NB2   NORSAR Subarra   53.47 323   P       P        22 41 38.4 -0.8
          comp=Z,17nm,0.6s,mb5.2,baz=77,slow=7.9
NOA   NORSAR Array B   53.47 323   P       P        22 41 38.1 -1.0
NOA                                pP      pP       22 41 43.6 -2.2
NOA                                LR      LR       23 06 55.9
NOA   NORSAR Array B   53.47 323   P       P        22 41 38.1 -1.1
NOA                                *PP     pP       22 41 43.6 -2.2
NOA                                pmax    pmax
          comp=Z,7.0nm,0.5s
NOA                                pmax    pmax
          comp=Z,19nm,0.6s
NOA                                MLR     MLR
          comp=Z,1µm,18.0s
NOA   NORSAR Array B   53.47 323   P       P        22 41 38.1 -1.0
          comp=Z,7.0nm,0.5s,mb4.8,baz=76,slow=7.3,SNR=26
NOA                                pP      pP       22 41 43.6 -2.2
          comp=Z,19nm,0.6s,baz=76,slow=7.4,SNR=21
NOA                                LR      LR       23 06 55.9
          comp=Z,1µm,18.0s,MS5.0,baz=75,slow=39
DPC   Dobruska-Polom   53.47 309  eP       P        22 41 39.5 +0.1
DPC                               epP      pP       22 41 44.6 -1.4
DPC                                AMS     AMS      23 06 30.0
          comp=Z,2µm,10.0s
MODS  Modra-Piesok     53.47 307  i P      P        22 41 39.7 +0.3
MODS                              ePP      PP       22 43 39.0 -0.7
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UPC	Upice	53.61	310	eP	P	22 41 40.6	+0.2
UPC				epP	pP	22 41 45.8	-1.2
VRAC	Vranov	53.61	308	⇑P	P	22 41 41.9	+1.5
VRAC	Vranov	53.61	308	LR	LR	23 06 09.1	
	comp=Z,1µm,20.8s,MS4.9,baz=77,slow=38						
VRAC	Vranov	53.61	308	⇑iP	P	22 41 41.9	+1.5
EVR	Evrytania	53.63	294	eP	P	22 41 39.0	-1.7
ZST	Bratislava	53.64	307	i P	P	22 41 49.7	+9.1
ZST				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
VLI	Veliai	53.66	292	eP	P	22 41 29.5	-11
NAO01	NORSAR Array S	53.67	323	eP	P	22 41 39.2	-1.4
	comp=Z,24nm,0.8s,mb5.2						
KYTH	Kithira	53.76	291	eP	P	22 41 26.5	-15
SOP	Sopron	54.15	306	⇑eP	P	22 41 44.4	0.0
DOMB	Dombas	54.23	325	eP	P	22 41 44.2	-0.6
DOMB				esP	sP	22 41 49.0	-4.9
TREC	Trest	54.31	308	eP	P	22 41 50.9	+5.4
PVCC	Panska Ves	54.48	310	eP	P	22 41 46.4	-0.4
PVCC				epP	pP	22 41 51.9	-1.5
PVCC				AMS	AMS	23 05 40.0	
	comp=Z,3µm,15.5s						
KONO	Kongsberg	54.59	322	eP	P	22 41 47.1	-0.3
PRU	Pruhonice	54.67	310	eP	P	22 41 45.4	-2.7
PRU				AMS	AMS	23 05 50.0	
	comp=Z,2µm,15.0s						
BRG	Berggiesshubel	54.75	311	eP	P	22 41 48.2	-0.5
BRG				i		22 41 59.3	
BRG				pmax	pmax		
	comp=Z,11nm,1.6s,mb4.6						
BRG	Berggiesshubel	54.75	311	eP	P	22 41 49.2	+0.5
	comp=Z,19nm,1.1s,mb5.0						
BRG	Berggiesshubel	54.75	311	eP	P	22 41 48.2	-0.5
	comp=Z,18nm,1.6s,mb4.8						
BRG				i		22 41 59.3	
	comp=Z,19nm,1.1s						
CLL	Collm	55.18	311	i P	P	22 41 50.5	-1.3
	comp=Z,10.0nm,1.2s,mb4.7						
CLL				i	pP	22 41 56.1	-2.3
CLL				i		22 42 03.2	
CLL				LR	LR		
	comp=Z,3µm,11.2s,MS5.6						
CLL	Collm	55.18	311	i P	P	22 41 50.5	-1.3
CLL				i	pP	22 41 56.1	-2.3
CLL				i		22 42 03.2	
CLL				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.7						
CLL				MLR	MLR		
	comp=Z,3µm,11.2s,MS5.6						
CLL	Collm	55.18	311	eP	P	22 41 52.5	+0.7
CLL	Collm	55.18	311	i P	P	22 41 50.5	-1.3
	comp=Z,10.0nm,1.2s,mb4.7						
CLL				i (pP)	pP	22 41 56.1	-2.3
	comp=Z,26nm,1.3s						
CLL				i x	x	22 42 03.2	
CLL				i x	x	22 42 19.2	
PERS	Pernice	55.42	305	i P	P	22 41 53.8	+0.1
KHC	Kasperske Hory	55.54	309	eP	P	22 41 54.6	+0.1
KHC				epP	pP	22 41 59.4	-1.7
KHC				e		22 42 21.5	
KHC				e		22 42 57.0	
KHC				LR	LR		
	comp=Z,2µm,13.6s,MS5.3						
KHC	Kasperske Hory	55.54	309	eP	P	22 41 54.6	+0.1
KHC				e*PP	pP	22 41 59.4	-1.7
KHC				e		22 42 57.0	
KHC				MLR	MLR		
	comp=Z,2µm,13.6s,MS5.3						
KHC	Kasperske Hory	55.54	309	eP	P	22 41 54.6	+0.1
KHC				epP	pP	22 41 59.4	-1.7
KHC				ex	x	22 42 21.5	
KHC				ePCP	PcP	22 42 57.0	+2.8
KHC				AMS	AMS	23 07 50.0	
	comp=Z,2µm,13.6s						
GEC2	GERESS Array S	55.56	308	eP	P	22 41 55.2	+0.6
GEC2				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.9						
GEC2	GERESS Array S	55.56	308	eP	P	22 41 55.2	+0.6
	comp=Z,17nm,1.4s,mb4.9						
GERES	GERESS Array B	55.56	308	P	P	22 41 54.5	-0.1
GERES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
GERES				MLR	MLR		
	comp=Z,813nm,19.5s						
GERES	GERESS Array B	55.56	308	P	P	22 41 54.5	-0.1
	comp=Z,3.8nm,0.8s,mb4.5,baz=68,slow=6.8,SNR=20						
GERES				LR	LR	23 10 04.4	
	comp=Z,813nm,19.5s,MS4.8,baz=79,slow=41						
BOJS	Bojanci	55.74	304	eP	P	22 41 56.0	+0.1
TANN	Tannenbergstha	55.79	311	eP	P	22 41 56.7	+0.5
NKC	Novy Kostel	55.86	310	eP	P	22 41 58.4	+1.7
NKC	Novy Kostel	55.86	310	eP	P	22 41 58.4	+1.7
NKC				MLR	MLR		
	comp=E,2µm,13.8s						
VNDS	Vrh nad Dolski	55.88	305	eP	P	22 41 56.3	-0.6
BSEG	Bad Segeberg	55.89	315	eP	P	22 41 58.0	+1.1
BSEG				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.2						
BSEG	Bad Segeberg	55.89	315	eP	P	22 41 58.0	+1.1
	comp=Z,29nm,1.3s,mb5.2						
WET	Wettzell	55.97	309	eP	P	22 41 58.1	+0.6
ROTZ	Rotzenmuhle	56.17	310	eP	P	22 41 59.0	+0.1
MOX	Moxa	56.23	311	eP	P	22 41 59.8	+0.5
	comp=Z,21nm,1.4s,mb5.0						
MOX				e		22 42 27.5	
MOX				LR	LR		
	comp=Z,2µm,17.0s,MS5.3						
MOX	Moxa	56.23	311	eP	P	22 41 59.8	+0.5
MOX				e		22 42 27.5	
	comp=Z,21nm,1.4s						
MOX							
	comp=Z,2µm,17.0s						
MOX	Moxa	56.23	311	eP	P	22 41 59.9	+0.6
JAVS	Javornik	56.37	305	eP	P	22 41 59.9	-0.5
KBA	Koelnbreinsper	56.41	307	⇑iP	P	22 42 01.2	+0.5
	comp=Z,25nm,1.5s,mb5.0						
KBA	Koelnbreinsper	56.41	307	⇑iP	P	22 42 01.1	+0.5
	comp=Z,25nm,1.5s,mb5.0						
KBA	Koelnbreinsper	56.41	307	⇑ipP	pP	22 42 01.2	-6.1
	comp=Z,25nm,1.5s						
KBA	Koelnbreinsper	56.41	307	⇑iP	P	22 42 01.2	+0.5
KBA				pmax	pmax		
	comp=Z,25nm,1.5s,mb5.0						
VOY	Vojsko	56.43	305	eP	P	22 42 00.8	-0.1
NRDL	Niedersach Rie	56.48	313	eP	P	22 42 01.7	+0.6
CLZ	Clausthal	56.55	313	eP	P	22 42 01.6	0.0
CLZ				pmax	pmax		
	comp=Z,234nm,3.0s						
CLZ	Clausthal	56.55	313	eP	P	22 42 01.6	0.0
	comp=Z,234nm,3.0s						
GRA1	Grafenberg Arr	56.79	310	eP	P	22 42 04.2	+0.8
	comp=Z,439nm,3.3s						
GRA1				LR	LR		
	comp=Z,2µm,19.1s,MS5.1						
GRF	Grafenberg Arr	56.79	310	eP	P	22 42 04.2	+0.8
GRF				pmax	pmax		
	comp=Z,439nm,3.3s						
GRF				MLR	MLR		
	comp=Z,2µm,19.1s,MS5.1						
GRF	Grafenberg Arr	56.79	310	eP	P	22 42 04.2	+0.8
	comp=Z,439nm,3.3s						
GRF				eL		23 07 20.5	
	comp=Z,2µm,19.1s						
GRFO	Grafenberg	56.80	310	eP	P	22 42 04.8	+1.4
	comp=Z,32nm,0.9s,mb5.3						
GRFO	Grafenberg	56.80	310	eP	P	22 42 04.8	+1.4
GRFO				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.3						
UBBA	Unterbreizbach	57.13	312	eP	P	22 42 06.2	+0.5
TIP	Timpagrande	57.14	297	eP	P	22 42 06.4	+0.4
FUR	Furstenfeldbru	57.31	308	eP	P	22 42 07.5	+0.4
FUR				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.2						
FUR	Furstenfeldbru	57.31	308	eP	P	22 42 07.5	+0.4
	comp=Z,38nm,1.4s,mb5.2						
WTTA	Wattenberg	57.42	307	i P	P	22 42 08.1	+0.2
	comp=Z,68nm,1.1s,mb5.6,SNR=9.3						
WTTA	Wattenberg	57.42	307	i pP	pP	22 42 08.1	-6.4
	comp=Z,68nm,1.1s,SNR=9.3						
WTTA	Wattenberg	57.42	307	i P	P	22 42 08.1	+0.2
WTTA				pmax	pmax		
	comp=Z,68nm,1.1s,mb5.6						
SGO	Sicignano	57.59	299	P	P	22 42 10.2	+1.0
	comp=Z,26nm,0.8s,mb5.3						
SGO	Sicignano	57.59	299	P	P	22 42 10.2	+1.0
SGO				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.3						
SQTA	Sankt Quirin	57.71	307	⇑iP	P	22 42 09.3	-0.5
	comp=Z,34nm,1.2s,mb5.2						
SQTA	Sankt Quirin	57.71	307	⇑iP	P	22 42 09.3	-0.6
SQTA				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.2						
MOTA	Moosalm	57.73	307	⇑iP	P	22 42 09.4	-0.6
	comp=Z,22nm,1.0s,mb5.2,SNR=13						
MOTA	Moosalm	57.73	307	⇑iP	P	22 42 09.4	-0.6
MOTA				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.1						
CTI	Castel Tesino	57.88	306	i Pr	P	22 42 11.7	+0.6
	comp=Z,292nm,2.8s,mb5.8						
CTI	Castel Tesino	57.88	306	i P	P	22 42 11.7	+0.6
CTI				pmax	pmax		
	comp=Z,292nm,2.8s,mb5.8						
RETA	Reutte	57.89	308	⇑iP	P	22 42 10.8	-0.3
	comp=Z,30nm,1.0s,mb5.3						
IBBN	Ibbenburen	57.90	314	eP	P	22 42 12.3	+1.2
FSSB	Fossombrone	58.06	303	P	P	22 42 12.3	-0.1
	comp=Z,15nm,1.0s,mb5.0						
JMIC	Jan Mayen	58.07	338	LR	LR	23 11 43.2	
	comp=Z,1µm,21.8s,MS5.0,baz=275,slow=41						
DAG	Danmarks Havn	58.07	345	⇑iP	P	22 42 11.0	-1.0
DAG				pmax	pmax		
	comp=Z,19nm,0.4s,mb5.5						
DAG	Danmarks Havn	58.07	345	⇑iP	P	22 42 11.0	-1.0
	comp=Z,19nm,0.4s,mb5.5						
FETA	Feichten	58.09	307	⇑iP	P	22 42 12.0	-0.6
	comp=Z,26nm,1.3s,mb5.1,SNR=13						
SDI	San Donato	58.16	300	P	P	22 42 13.9	+0.8
	comp=Z,50nm,1.4s,mb5.3						
SDI	San Donato	58.16	300	P	P	22 42 13.9	+0.8
SDI				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.3						
AQU	L'Aquila	58.18	301	eP	P	22 42 13.8	+0.6
	comp=Z,41nm,1.1s,mb5.4						
AQU	L'Aquila	58.18	301	eP	P	22 42 13.8	+0.6
AQU					pP	22 42 20.6	+0.7
AQU				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.4						
NRCA	Norcia	58.18	302	P	P	22 42 13.5	+0.3
	comp=Z,18nm,1.0s,mb5.1						
VVLD	Villa Vallelon	58.22	301	P	P	22 42 12.7	-0.9
	comp=Z,77nm,1.3s,mb5.6						
TNS	Taunus Mts	58.27	311	eP	P	22 42 13.8	+0.1
TOD	Tromm	58.29	311	eP	P	22 42 18.9	+5.0
PTQR	Pietraquaria	58.31	301	P	P	22 42 13.9	-0.3
	comp=Z,44nm,1.4s,mb5.3						
BUG	Bochum--Univer	58.50	313	eP	P	22 42 15.9	+0.6
DAVOX	Davos/Dischmat	58.72	307	LR	LR	23 12 49.0	
	comp=Z,1µm,18.8s,MS5.1,baz=66,slow=41						
SPAK	Spaichingen-Ko	58.88	309	eP	P	22 42 18.9	+0.9
BFO	Black Forest	59.07	309	eP	P	22 42 19.7	+0.3
BFO				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.2						
BFO	Black Forest	59.07	309	eP	P	22 42 19.7	+0.3
	comp=Z,28nm,1.2s,mb5.2						
LANF	Langenberg	59.13	310	eP	P	22 42 19.5	-0.3
VLC	Villacollemand	59.45	304	eP	P	22 42 23.8	+1.7
	comp=Z,46nm,1.0s,mb5.5						
FELD	Feldberg im Sc	59.45	309	eP	P	22 42 21.1	-0.9
CDF	Champ du Feu	59.68	310	⇑iP	P	22 42 22.6	-1.0
	comp=Z,19nm,1.1s,mb5.0						
CDF	Champ du Feu	59.68	310	⇑iP	P	22 42 22.6	-1.0
CDF				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.0						
CDF	Champ du Feu	59.68	310	⇑iP	P	22 42 22.6	-1.0
	comp=Z,38nm,1.1s,mb5.0						
WLF	Walferdange	59.85	311	eP	P	22 42 26.4	+1.7
HINF	Hinteralfeld	60.18	309	eP	P	22 42 26.0	-1.0
	comp=Z,12nm,0.9s,mb4.9						
HINF	Hinteralfeld	60.18	309	eP	P	22 42 26.0	-1.0
HINF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
HINF	Hinteralfeld	60.18	309	eP	P	22 42 26.0	-1.0
	comp=Z,24nm,0.9s,mb4.9						
TNA	Tin City	60.35	28	eP	P	22 42 28.3	+0.4
	comp=Z,38nm,1.1s,mb5.3						
HAU	Haudompre	60.41	310	eP	P	22 42 27.5	-1.1
	comp=Z,14nm,1.0s,mb4.9						
HAU				LR	LR		
	comp=Z,2µm,17.5s,MS5.3						
HAU	Haudompre	60.41	310	eP	P	22 42 27.5	-1.1
HAU				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
HAU				MLR	MLR		
	comp=Z,2µm,17.5s,MS5.3						
HAU	Haudompre	60.41	310	eP	P	22 42 27.5	-1.1
	comp=Z,28nm,1.0s,mb5.0						
HAU				eMLR	MLR		
	comp=Z,2µm,17.5s,MS5.0						
GIVF	Givet	60.46	312	⇑iP	P	22 42 28.3	-0.6
THEF	They Montfort	60.54	310	eP	P	22 42 28.9	-0.6
BAIF	Baives	60.83	312	eP	P	22 42 30.8	-0.7
	comp=Z,19nm,1.1s,mb5.1						
BAIF	Baives	60.83	312	eP	P	22 42 30.8	-0.7
BAIF				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.1						
BAIF	Baives	60.83	312	eP	P	22 42 30.8	-0.7
	comp=Z,38nm,1.1s,mb5.1						
MEZF	Maizieres J'vi	60.99	311	⇑iP	P	22 42 31.9	-0.6
PGF	Pioggiola	61.05	303	eP	P	22 42 32.5	-0.6
	comp=Z,15nm,0.9s,mb5.1						
PGF	Pioggiola	61.05	303	eP	P	22 42 32.5	-0.6
PGF				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.1						
PGF	Pioggiola	61.05	303	eP	P	22 42 32.5	-0.6
	comp=Z,29nm,0.9s,mb5.1						
CABF	La Chapelle	61.16	308	eP	P	22 42 32.7	-1.1
	comp=Z,5.6nm,0.8s,mb4.8						
CABF	La Chapelle	61.16	308	eP	P	22 42 32.7	-1.1
CABF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
CABF	La Chapelle	61.16	308	eP	P	22 42 32.7	-1.1
	comp=Z,11nm,0.8s,mb4.8						
LPG	La Plagne	61.23	307	⇑iP	P	22 42 34.3	+0.1
	comp=Z,63nm,1.0s,mb5.7						
LPG	La Plagne	61.23	307	⇑iP	P	22 42 34.3	+0.1
LPG				pmax	pmax		
	comp=Z,63nm,1.0s,mb5.7						
LPG	La Plagne	61.23	307	⇑iP	P	22 42 34.3	+0.1
	comp=Z,126nm,1.0s,mb5.7						
LPL	La Plagne	61.23	307	⇑iP	P	22 42 34.2	0.0
	comp=Z,53nm,1.0s,mb5.6						
LPL	La Plagne	61.23	307	⇑iP	P	22 42 34.2	0.0
LPL				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.6						
LPL	La Plagne	61.23	307	⇑iP	P	22 42 34.2	0.0
	comp=Z,106nm,1.0s,mb5.6						
SAOF	Saorge	61.37	305	eP	P	22 42 34.7	-0.5
AUTN	L'Aution	61.45	305	eP	P	22 42 36.1	+0.4
BNI	Bardonecchia	61.47	306	eP	P	22 42 38.0	+2.2
	comp=Z,43nm,1.1s,mb5.5						
BNI	Bardonecchia	61.47	306	P	P	22 42 35.6	-0.2
BNI				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.5						
SBF	Sospel	61.50	305	eP	P	22 42 35.3	-0.8
	comp=Z,73nm,1.0s,mb5.8						
SBF	Sospel	61.50	305	eP	P	22 42 35.3	-0.8
SBF				pmax	pmax		
	comp=Z,73nm,1.0s,mb5.8						
SBF	Sospel	61.50	305	eP	P	22 42 35.3	-0.8
	comp=Z,147nm,1.0s,mb5.8						
LUCF	Luceram	61.55	305	eP	P	22 42 36.9	+0.5
MBDF	Montbardon	61.55	306	⇑iP	P	22 42 36.0	-0.4
	comp=Z,12nm,0.6s,mb5.2						
MBDF	Montbardon	61.55	306	⇑iP	P	22 42 36.0	-0.4
MBDF				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.2						
MBDF	Montbardon	61.55	306	⇑iP	P	22 42 36.0	-0.4
	comp=Z,24nm,0.6s,mb5.2						
TOUF	Mont Tournerai	61.56	305	eP	P	22 42 36.0	-0.5
MVIF	Mont Vial	61.67	305	eP	P	22 42 37.7	+0.5
ORIF	Oris-en-Rattie	62.04	307	⇑iP	P	22 42 38.7	-1.0
	comp=Z,21nm,0.7s,mb5.4						
ORIF	Oris-en-Rattie	62.04	307	⇑iP	P	22 42 38.7	-1.0
ORIF				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.4						
ORIF	Oris-en-Rattie	62.04	307	⇑iP	P	22 42 38.7	-1.0
	comp=Z,43nm,0.7s,mb5.4						
ORIF				eMLR	MLR		
	comp=Z,1µm,19.0s,MS4.9						
FRF	La Foret Royal	62.15	305	eP	P	22 42 39.3	-1.1
	comp=Z,11nm,0.9s,mb5.0						
FRF	La Foret Royal	62.15	305	eP	P	22 42 39.3	-1.1
FRF				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.0						
FRF	La Foret Royal	62.15	305	eP	P	22 42 39.3	-1.1
	comp=Z,23nm,0.9s,mb5.0						
LOR	Lormes	62.25	310	⇑iP	P	22 42 39.5	-1.6
	comp=Z,11nm,0.9s,mb5.0						
LOR				LR	LR		
	comp=Z,750nm,17.0s,MS4.9						
LOR	Lormes	62.25	310	⇑iP	P	22 42 39.5	-1.6
LOR				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.0						
LOR				MLR	MLR		
	comp=Z,750nm,17.0s,MS4.9						
LOR	Lormes	62.25	310	⇑iP	P	22 42 39.5	-1.6
	comp=Z,22nm,0.9s,mb5.0						
LOR				eMLR	MLR		
	comp=Z,747nm,17.0s,MS4.6						
LMR	La Mourre	62.34	305	eP	P	22 42 40.9	-0.8
SMF	Signal de Mont	62.54	309	⇑iP	P	22 42 41.9	-1.1
	comp=Z,49nm,1.0s,mb5.6						
SMF	Signal de Mont	62.54	309	⇑iP	P	22 42 41.9	-1.1
SMF				pmax	pmax		
	comp=Z,49nm,1.0s,mb5.6						
SMF	Signal de Mont	62.54	309	⇑iP	P	22 42 41.9	-1.1
	comp=Z,98nm,1.0s,mb5.6						
SSF	Saint Saulge	62.56	310	eP	P	22 42 41.8	-1.3
	comp=Z,5.8nm,0.8s,mb4.8						
SSF	Saint Saulge	62.56	310	eP	P	22 42 41.8	-1.3
SSF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
SSF	Saint Saulge	62.56	310	eP	P	22 42 41.8	-1.3
	comp=Z,12nm,0.8s,mb4.8						
EKA	Eskdalemuir Ar	62.56	320	P	P	22 42 42.4	-0.6
EKA						22 43 22.4	
EKA				pmax	pmax		
	comp=Z,8.0nm,1.0s						
EKA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
EKA	Eskdalemuir Ar	62.56	320	P	P	22 42 42.4	-0.6
	comp=Z,7.5nm,1.0s,mb4.8,baz=60,slow=6.4,SNR=10						
EKA				PcP	PcP	22 43 22.4	+0.4
	comp=Z,9.1nm,0.8s,baz=61,slow=7.0,SNR=3.8						
SMRF	Simiane la Rot	62.65	306	eP	P	22 42 43.1	-0.7
	comp=Z,27nm,1.0s,mb5.3						
SMRF	Simiane la Rot	62.65	306	eP	P	22 42 43.1	-0.7
	comp=Z,27nm,1.0s,mb5.0						
AVF	Avril sur Loir	62.77	309	⇑iP	P	22 42 43.3	-1.3
	comp=Z,22nm,1.0s,mb5.2						
AVF	Avril sur Loir	62.77	309	⇑iP	P	22 42 43.3	-1.3
AVF				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.2						
AVF	Avril sur Loir	62.77	309	⇑iP	P	22 42 43.3	-1.3
	comp=Z,44nm,1.0s,mb5.3						
VIVF	Saint-Julien-l	62.83	307	eP	P	22 42 44.0	-1.0
	comp=Z,28nm,1.1s,mb5.3						
VIVF	Saint-Julien-l	62.83	307	eP	P	22 42 44.0	-1.0
VIVF				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.3						
VIVF	Saint-Julien-l	62.83	307	eP	P	22 42 44.0	-1.0
	comp=Z,57nm,1.1s,mb5.3						
PLDF	La Plantade	62.98	309	eP	P	22 42 46.0	0.0
HYF	Humbligny	62.99	310	eP	P	22 42 45.2	-0.8
KAKA	Kakadu	63.00	134	eP	P	22 42 45.2	-1.2
	comp=Z,48nm,0.8s,mb5.7						
BGF	Bois d'Agland	63.19	309	⇑iP	P	22 42 46.1	-1.2
	comp=Z,19nm,0.9s,mb5.2						
BGF	Bois d'Agland	63.19	309	⇑iP	P	22 42 46.1	-1.2
BGF				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.2						
BGF	Bois d'Agland	63.19	309	⇑iP	P	22 42 46.1	-1.2
	comp=Z,37nm,0.9s,mb5.2						
AGO	Saint Agoulin	63.25	309	eP	P	22 42 47.7	0.0
KMBO	Kilima Mbogo	63.36	246	eP	P	22 42 49.5	+0.6
	comp=Z,27nm,1.3s,mb5.2						
KMBO	Kilima Mbogo	63.36	246	P	P	22 42 49.6	+0.7
	comp=Z,9.8nm,0.9s,mb5.0,baz=33,slow=10,SNR=18						
KMBO				LR	LR	23 10 47.7	
	comp=Z,669nm,18.5s,MS4.8,baz=275,slow=36						
LBL	Lubilhac	63.55	308	eP	P	22 42 49.8	0.0
TCF	Toulx Ste Croi	63.71	309	⇑iP	P	22 42 49.9	-0.9
	comp=Z,45nm,1.0s,mb5.5						
TCF	Toulx Ste Croi	63.71	309	⇑iP	P	22 42 49.9	-0.9
TCF				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.5						
TCF	Toulx Ste Croi	63.71	309	⇑iP	P	22 42 49.9	-0.9
	comp=Z,89nm,1.0s,mb5.4						
LASF	Ste Croix	63.71	307	eP	P	22 42 50.2	-0.6
	comp=Z,74nm,1.1s,mb5.3						
KEST	Kesra	63.95	296	P	P	22 42 52.1	-0.5
	comp=Z,3.4nm,0.9s,mb4.3,baz=309,slow=2.4,SNR=8.0						
KEST				LR	LR	23 15 29.2	
	comp=Z,226nm,18.9s,MS4.4,baz=356,slow=40						
FITZ	Fitzroy Crossi	64.00	144	⇑iP	P	22 42 52.5	-0.4
	comp=Z,70nm,0.9s,mb5.7						
FITZ	Fitzroy Crossi	64.00	144	eP	P	22 42 52.4	-0.5
LDF	La Druitiere	64.02	312	eP	P	22 42 51.4	-1.4
	comp=Z,10nm,0.7s,mb5.0						
LDF	La Druitiere	64.02	312	eP	P	22 42 51.4	-1.4
LDF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
LDF	La Druitiere	64.02	312	eP	P	22 42 51.4	-1.4
	comp=Z,20nm,0.7s,mb5.0						
FLN	La Foliniere	64.15	313	eP	P	22 42 52.3	-1.4
FLN				LR	LR		
	comp=Z,2µm,18.3s,MS5.2						
FLN	La Foliniere	64.15	313	eP	P	22 42 52.3	-1.4
FLN				eMLR	MLR		
	comp=Z,2µm,18.2s,MS4.9						
CAF	Calviac	64.44	308	eP	P	22 42 55.0	-0.6
	comp=Z,16nm,1.1s,mb5.0						
CAF	Calviac	64.44	308	eP	P	22 42 55.0	-0.6
CAF				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.0						
CAF	Calviac	64.44	308	eP	P	22 42 55.0	-0.6
	comp=Z,33nm,1.1s,mb5.0						
GRR	Gorron	64.55	312	eP	P	22 42 54.9	-1.4
	comp=Z,18nm,0.8s,mb5.1						
GRR	Gorron	64.55	312	eP	P	22 42 54.9	-1.4
GRR				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
GRR	Gorron	64.55	312	eP	P	22 42 54.9	-1.4
	comp=Z,35nm,0.8s,mb5.1						
RJF	Les Rejaudoux	64.60	309	eP	P	22 42 56.1	-0.5
	comp=Z,38nm,1.3s,mb5.3						
RJF				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
RJF	Les Rejaudoux	64.60	309	eP	P	22 42 56.1	-0.5
RJF				pmax	pmax		
	comp=Z,38nm,1.3s,mb5.3						
RJF				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
RJF	Les Rejaudoux	64.60	309	eP	P	22 42 56.1	-0.5
	comp=Z,76nm,1.3s,mb5.3						
RJF				eMLR	MLR		
	comp=Z,1µm,19.0s,MS4.8						
MFF	Saint Martin d	64.99	310	eP	P	22 42 57.9	-1.3
	comp=Z,21nm,1.0s,mb5.1						
MFF	Saint Martin d	64.99	310	eP	P	22 42 57.9	-1.3
MFF				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.1						
MFF	Saint Martin d	64.99	310	eP	P	22 42 57.9	-1.3
	comp=Z,42nm,1.0s,mb5.1						
IMA2	Indian Mountai	65.07	24	eP	P	22 42 59.0	-0.3
MTLF	Montolieu	65.10	306	eP	P	22 42 59.1	-0.9
	comp=Z,14nm,1.0s,mb5.0						
MTLF	Montolieu	65.10	306	eP	P	22 42 59.1	-0.9
MTLF				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
MTLF	Montolieu	65.10	306	eP	P	22 42 59.1	-0.9
	comp=Z,28nm,1.1s,mb4.9						
LFF	La Frestale	65.26	309	eP	P	22 43 00.4	-0.5
	comp=Z,23nm,0.8s,mb5.3						
LFF	La Frestale	65.26	309	eP	P	22 43 00.4	-0.5
LFF				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.3						
LFF	La Frestale	65.26	309	eP	P	22 43 00.4	-0.5
	comp=Z,46nm,0.8s,mb5.2						
ROSF	Rostrenen	65.98	313	eP	P	22 43 04.4	-1.1
	comp=Z,29nm,1.1s,mb5.2						
ROSF	Rostrenen	65.98	313	eP	P	22 43 04.4	-1.1
ROSF				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.2						
ROSF	Rostrenen	65.98	313	eP	P	22 43 04.4	-1.1
	comp=Z,59nm,1.1s,mb5.2						
QUIF	Quistinic	66.13	313	eP	P	22 43 05.4	-1.1
	comp=Z,44nm,1.3s,mb5.3						

QUIF	Quistinic	66.13	313	*e*P	P	22 43 05.4	-1.1
QUIF				pmax	pmax		
	comp=Z,44nm,1.3s,mb5.3						
QUIF	Quistinic	66.13	313	*e*P	P	22 43 05.4	-1.1
	comp=Z,89nm,1.2s,mb5.3						
EMIR	Miracle	66.25	305	P	P	22 43 06.9	-0.5
	comp=Z,85nm,1.6s,mb5.5						
EPF	Esparros	66.45	307	*e*P	P	22 43 07.9	-0.7
	comp=Z,8.9nm,0.8s,mb4.8						
EPF	Esparros	66.45	307	*e*P	P	22 43 07.9	-0.7
EPF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
EPF	Esparros	66.45	307	*e*P	P	22 43 07.9	-0.7
	comp=Z,18nm,0.8s,mb4.8						
ETOS	Mallorca	66.48	303	P	P	22 43 08.2	-0.6
	comp=Z,21nm,0.8s,mb5.2						
EBIE	Bielsa	66.75	307	P	P	22 43 10.3	-0.3
	comp=Z,10nm,0.8s,mb4.9						
EPOB	Poblet	66.82	305	P	P	22 43 10.2	-0.9
	comp=Z,13nm,0.8s,mb5.0						
ETSF	Etsaut	67.09	307	*e*P	P	22 43 12.3	-0.4
	comp=Z,24nm,1.1s,mb5.1						
ETSF	Etsaut	67.09	307	*e*P	P	22 43 12.3	-0.4
ETSF				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.1						
ETSF	Etsaut	67.09	307	*e*P	P	22 43 12.3	-0.4
	comp=Z,48nm,1.1s,mb5.1						
SJPF	Ste Jean	67.40	308	*e*P	P	22 43 13.5	-1.2
ERTA	Horta de San J	67.51	305	P	P	22 43 14.3	-1.1
	comp=Z,30nm,1.3s,mb5.2						
EALK	Alkurruntz	67.52	308	P	P	22 43 15.0	-0.5
	comp=Z,47nm,1.6s,mb5.3						
ESAC	San Caprasio	67.63	306	P	P	22 43 15.6	-0.6
	comp=Z,60nm,1.5s,mb5.4						
COLA	College	67.70	23	⇑*i*P	P	22 43 16.3	+0.1
COLA	College	67.70	23	P	P	22 43 15.9	-0.3
COLA				pmax	pmax		
	comp=Z,93nm,0.9s,mb5.8						
RES	Resolute Bay	67.81	2	*e*P	P	22 43 16.6	-0.1
	comp=Z,2µm,1.4s						
RES	Resolute Bay	67.81	2	P	P	22 43 16.7	-0.1
RES				pmax	pmax		
	comp=Z,2µm,1.3s						
MCK	McKinley	68.12	25	*e*P	P	22 43 19.2	+0.4
EMOS	Mosqueruela	68.34	305	P	P	22 43 19.2	-1.4
	comp=Z,24nm,0.9s,mb5.2						
INK	Inuvik	69.03	16	*e*P	P	22 43 23.8	-0.7
PMR	Palmer	69.49	26	*e*P	P	22 43 27.2	-0.2
	comp=Z,72nm,1.2s,mb5.5						
PMR	Palmer	69.49	26	*e*P	P	22 43 27.2	-0.2
PMR				pmax	pmax		
	comp=Z,72nm,1.2s,mb5.5						
SML	Sawmill	69.63	26	*e*P	P	22 43 28.5	+0.2
SML						22 43 54.5	
PMG	Port Moresby	69.78	120	*e*P	P	22 43 29.6	-0.2
EGAK	Eagle	69.80	21	*e*P	P	22 43 28.8	-0.4
	comp=Z,72nm,1.0s,mb5.6						
SLKM	Skilak Lake	69.83	28	*e*P	P	22 43 28.6	-1.0
SLKM	Skilak Lake	69.83	28	P	P	22 43 29.2	-0.3
WRA	Warramunga Arr	69.93	137	P	P	22 43 30.2	-0.4
WRA				*PP	pP	22 43 36.2	-1.2
WRA				pmax	pmax		
	comp=Z,81nm,0.9s						
WRA				pmax	pmax		
	comp=Z,9.0nm,0.6s						
WRA	Warramunga Arr	69.93	137	P	P	22 43 30.2	-0.4
	comp=Z,81nm,0.9s,mb5.6,baz=338,slow=6.4,SNR=154						
WRA				pP	pP	22 43 36.2	-1.2
	comp=Z,9.3nm,0.6s,baz=303,slow=6.3,SNR=5.7						
WB2	Warramunga Arr	69.94	137	*e*P	P	22 43 30.1	-0.6
MENT	Mentasta	70.37	24	*e*P	P	22 43 33.1	+0.3
GUD	Guadarrama	70.56	307	P	P	22 43 34.0	-0.4
	comp=Z,16nm,1.0s,mb4.9						
GUD	Guadarrama	70.56	307	P	P	22 43 34.0	-0.4
GUD				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
EVIA	Vianos	70.59	304	P	P	22 43 34.7	+0.2
	comp=Z,2.2nm,0.5s,mb4.3						
EVIA	Vianos	70.59	304	P	P	22 43 34.7	+0.1
EVIA				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
KDAK	Kodiak Island	70.72	31	P	P	22 43 34.0	-1.0
	comp=Z,583nm,0.7s,SNR=7.7						
KDAK	Kodiak Island	70.72	31	*e*P	P	22 43 34.7	-0.2
KDAK	Kodiak Island	70.72	31	LR	LR	23 17 00.7	
	comp=Z,1µm,19.0s,MS5.2,baz=275,slow=38						
DAWY	Dawson	70.84	21	*e*P	P	22 43 35.2	-0.5
EPON	Pontenova	70.94	310	P	P	22 43 35.9	-0.8
	comp=Z,78nm,1.6s,mb5.4						
ESDC	Sonseca Array	70.97	306	P	P	22 43 36.2	-0.6
	comp=Z,11nm,0.8s,mb4.8						
ESDC	Sonseca Array	70.97	306	P	P	22 43 35.9	-1.0
	comp=Z,8.1nm,0.7s,mb4.8,baz=50,slow=6.3,SNR=27						
ESDC				LR	LR	23 17 46.1	
	comp=Z,711nm,18.2s,MS5.0,baz=45,slow=38						
DIV	Divide	70.99	26	*e*P	P	22 43 36.8	+0.2
EYAK	Cordova Ski Ar	71.41	26	*e*P	P	22 43 38.9	-0.2
EQES	Quesada	71.42	304	P	P	22 43 38.4	-1.2
	comp=Z,22nm,1.0s,mb5.0						
ECAL	Calabor	71.46	309	P	P	22 43 39.6	-0.3
	comp=Z,55nm,1.9s,mb5.2						
PBRG	Braganca	71.54	309	*e*P	P	22 43 40.6	+0.3
	comp=Z,23nm,1.4s,mb4.9						
PBRG				*e*pP	pP	22 43 50.6	+3.5
EBAN	Banos Encina	71.69	304	P	P	22 43 40.4	-0.9
	comp=Z,26nm,1.0s,mb5.1						
EBAN	Banos Encina	71.69	304	P	P	22 43 40.4	-0.8
EBAN				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
SFJD	Kangerlussuaq	71.76	345	*e*P	P	22 43 40.1	-1.1
	comp=Z,46nm,1.0s,mb5.4						
SFJD				pP	pP	22 43 45.4	-2.5
SFJD				LR	LR	23 20 08.8	
SFJD	Kangerlussuaq	71.76	345	*e*P	P	22 43 40.1	-1.1
SFJD				*PP	pP	22 43 45.4	-2.6
SFJD				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.4						
SFJD	Kangerlussuaq	71.76	345	P	P	22 43 39.8	-1.3
	comp=Z,7.5nm,0.8s,mb4.7,baz=26,slow=11,SNR=3.4						
SFJD				pP	pP	22 43 45.4	-2.5
	comp=Z,16nm,0.4s,baz=64,slow=1.9,SNR=7.3						
SFJD				LR	LR	23 20 08.8	
	comp=Z,911nm,18.7s,MS5.1,baz=273,slow=40						
SFJD	Kangerlussuaq	71.76	345	*i* P	P	22 43 45.4	+4.2
	comp=Z,37nm,1.0s,mb5.3						
SFJD							
	comp=Z,750nm,18.0s						
EBER	Berja	71.80	303	P	P	22 43 41.3	-0.7
	comp=Z,230nm,2.0s,mb5.8						
MVO	Moncorvo	72.08	308	*e*P	P	22 43 44.5	+1.0
	comp=Z,22nm,1.6s,mb4.8						
MVO				*e*pP	pP	22 43 53.7	+3.4
MVO	Moncorvo	72.08	308	*e*LQ		23 09 55.2	
MVO				A		23 18 20.8	
	comp=Z,789nm,18.0s						
EGUA	Guajares	72.28	303	P	P	22 43 43.6	-1.2
	comp=Z,10nm,1.4s,mb4.6						
EGUA	Guajares	72.28	303	P	P	22 43 43.6	-1.2
EGUA				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.6						
ELUQ	Luque	72.34	304	P	P	22 43 44.4	-0.8
	comp=Z,20nm,0.8s,mb5.1						
ELUQ	Luque	72.34	304	P	P	22 43 44.4	-0.8
ELUQ				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
PCAB	Cabril	72.39	309	*e*P	P	22 43 46.9	+1.5
	comp=Z,49nm,1.7s,mb5.2						
PCAB				*e*pP	pP	22 43 55.5	+3.3
MTE	Manteigas	72.84	308	*e*P	P	22 43 49.7	+1.6
	comp=Z,32nm,1.7s,mb5.0						
PVIS	Viseu	72.87	308	*e*P	P	22 43 49.4	+1.1
	comp=Z,26nm,2.3s,mb4.8						
MUN	Mundaring	72.98	158	*e*P	P	22 43 47.8	-0.9
KLBR	Kellerberrin	73.08	157	*e*P	P	22 43 48.5	-0.9
	comp=Z,43nm,0.9s,mb5.4						
PCBR	Castelo Branco	73.12	307	*e*P	P	22 43 49.9	+0.2
EBAD	Badajoz	73.44	306	P	P	22 43 51.5	-0.1
	comp=Z,85nm,2.3s,mb5.3						
PESTR	Estremoz	73.75	307	*e*P	P	22 43 53.7	+0.2
	comp=Z,14nm,1.8s,mb4.6						
EJIF	Jimena Fronter	73.76	304	P	P	22 43 52.9	-0.7
	comp=Z,42nm,1.2s,mb5.2						
EJIF	Jimena Fronter	73.76	304	P	P	22 43 52.9	-0.7
EJIF				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.2						
ESPR	Espera	73.78	304	P	P	22 43 52.4	-1.3
	comp=Z,255nm,2.6s,mb5.7						
EMIN	Mina Concepcio	73.79	305	P	P	22 43 52.8	-1.0
	comp=Z,28nm,1.7s,mb4.9						
PTOM	Tomar	73.83	308	*e*P	P	22 43 55.1	+1.1
	comp=Z,18nm,1.9s,mb4.7						
PTOM				*e*pP	pP	22 44 04.7	+3.9
NWAO	Narrogin (SRO)	74.17	158	*e*P	P	22 43 54.6	-1.1
	comp=Z,37nm,0.9s,mb5.3						
NWAO	Narrogin (SRO)	74.17	158	P	P	22 43 55.0	-0.7
NWAO				pmax	pmax		
	comp=Z,25nm,0.9s						
EVO	Evora	74.21	307	⇑*i*P	P	22 43 56.1	-0.1
EVO				*e*MLR	MLR		
	comp=Z,728nm,17.2s,MS4.7						
PBEJ	Beja	74.41	306	*e*P	P	22 43 57.7	+0.3
	comp=Z,16nm,2.0s,mb4.6						
PBDV	Barranco-do-Ve	74.91	305	*e*LQ		23 10 50.0	
PBDV				A		23 20 22.7	
	comp=Z,867nm,18.0s						
PTEO	Sao Teotonio	75.25	306	*e*P	P	22 44 05.0	+2.8
	comp=Z,28nm,1.2s,mb5.1						
MDT	Midelt	75.27	300	LR	LR	23 23 52.7	
	comp=Z,238nm,19.4s,MS4.5,baz=18,slow=41						
MORF	Marmelete	75.34	306	*e*LQ		23 13 43.0	
MORF				A		23 23 43.7	
	comp=Z,976nm,18.0s						
PFVI	Vila Bisbo	75.56	306	*e*LQ		23 14 05.3	
PFVI				A		23 23 38.0	
	comp=Z,779nm,18.0s						
SKAG	Skagway	75.65	23	*e*P	P	22 44 04.6	+0.5
	comp=Z,127nm,1.4s,mb5.7						
FORT	Forrest	76.10	148	⇑*i*P	P	22 44 06.4	-0.5
	comp=Z,63nm,0.9s,mb5.5						
CTA	Charters Tower	76.99	128	⇑*i*P	P	22 44 11.5	-0.7
	comp=Z,37nm,0.9s,mb5.3						
CTA	Charters Tower	76.99	128	⇑*i*P	P	22 44 11.5	-0.7
CTA				pmax	pmax		
	comp=Z,37nm,0.9s						
CTAO	Charters Tower	76.99	128	*e*P	P	22 44 11.7	-0.5
	comp=Z,46nm,0.8s,mb5.5						
CTAO	Charters Tower	76.99	128	*e*P	P	22 44 11.7	-0.5
CTAO				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.4						
YKW3	Yellowknife Ar	77.85	12	*e*P	P	22 44 15.9	-0.5
YKA	Yellowknife Ar	77.92	12	P	P	22 44 15.9	-0.9
YKA				pP	pP	22 44 22.0	-1.7
YKA				PKKPbc	PKKPbc	23 03 16.0	-1.3
YKA				LR	LR	23 20 49.2	
YKA	Yellowknife Ar	77.92	12	P	P	22 44 15.9	-0.9
YKA				*PP	pP	22 44 22.0	-1.7
YKA				pmax	pmax		
	comp=Z,12nm,0.8s						
YKA				pmax	pmax		
	comp=Z,17nm,0.6s						
YKA				MLR	MLR		
	comp=Z,271nm,18.2s						
YKA	Yellowknife Ar	77.92	12	P	P	22 44 15.9	-0.9
	comp=Z,12nm,0.8s,mb4.8,baz=341,slow=5.2,SNR=124						
YKA				pP	pP	22 44 22.0	-1.7
	comp=Z,17nm,0.6s,baz=338,slow=5.2,SNR=34						
YKA				PKKPbc	PKKPbc	23 03 16.0	-1.3
	comp=Z,0.3nm,0.5s,baz=150,slow=2.1,SNR=6.7						
YKA				LR	LR	23 20 49.2	
	comp=Z,271nm,18.2s,MS4.6,baz=210,slow=37						
DLBC	Dease Lake	78.06	21	*e*P	P	22 44 18.8	+1.0
LSZ	Lusaka	79.56	242	*e*P	P	22 44 26.6	+0.1
LSZ	Lusaka	79.56	242	P	P	22 44 26.7	+0.2
LSZ				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
TORD	Torodi Ar. Bea	82.15	280	P	P	22 44 39.8	-0.7
	comp=Z,18nm,1.0s,mb5.0,baz=44,slow=4.4,SNR=66						
TORD				LR	LR	23 26 07.5	
	comp=Z,414nm,21.0s,MS4.8,baz=0.0,slow=39						
STKA	Stephens Creek	83.38	139	⇑*i*P	P	22 44 45.4	-1.0
	comp=Z,42nm,0.9s,mb5.5						
STKA	Stephens Creek	83.38	139	P	P	22 44 45.6	-0.8
	comp=Z,47nm,0.8s,mb5.5,baz=328,slow=6.1,SNR=81						
STKA				LR	LR	23 24 03.3	
	comp=Z,320nm,20.5s,MS4.7,baz=112,slow=37						
FCC	Fort Churchill	83.77	3	P	P	22 44 47.2	-1.0
FCC				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.6						
EIDS	Eidsvold	83.87	129	*e*P	P	22 44 48.3	-0.8
BBB	Bella Bella	83.97	23	LR	LR	23 26 26.5	
	comp=Z,546nm,18.6s,MS5.0,baz=150,slow=39						
SCHQ	Schefferville	86.02	348	P	P	22 44 58.5	-1.0
	comp=Z,12nm,0.8s,mb5.2,baz=9.1,slow=3.5,SNR=15						
SCHQ				LR	LR	23 26 39.2	
	comp=Z,715nm,18.8s,MS5.1,baz=25,slow=38						
EDM	Edmonton	86.86	15	*e*P	P	22 45 03.3	-0.4
EDM	Edmonton	86.86	15	P	P	22 45 03.8	+0.1
ARMA	Armidale	87.86	132	*e*P	P	22 45 09.0	+0.3
PGC	Sidney	88.51	22	*e*P	P	22 45 12.5	+0.8
	comp=Z,48nm,1.0s,mb5.8						
A05A	Maple Falls	88.60	22	⇑P	P	22 45 11.6	-0.6
	baz=88						
A04A	Legoe Bay, Lum	88.67	22	⇑P	P	22 45 12.9	+0.4
	baz=88,SNR=8.6						
A06A	Chilliwack	88.69	21	⇓P	P	22 45 12.0	-0.5
	baz=88						
C03A	Quillayute Air	88.78	23	⇓P	P	22 45 14.0	+1.0
	baz=88						
B04A	Port Angeles	89.02	23	⇑P	P	22 45 14.9	+0.8
	baz=89						
A07A	Ashnola River,	89.04	20	⇓P	P	22 45 14.5	+0.3
	baz=89,SNR=11						
CMW	Cultus Mountai	89.11	22	P	P	22 45 14.8	+0.3
B06A	Marblemount	89.21	21	⇑P	P	22 45 15.2	+0.2
	baz=89						
B05A	Bryant	89.26	22	P	P	22 45 15.8	+0.6
	baz=89,SNR=7.7						
A08A	Turner Farm, O	89.43	20	P	P	22 45 16.6	+0.6
	baz=89,SNR=18						
C04A	Brinnon	89.48	23	⇓P	P	22 45 17.1	+0.8
	baz=89,SNR=12						
NLWA	Neilton Lookou	89.50	23	⇑P	P	22 45 17.2	+0.8
	baz=89						
A09A	Danville	89.59	19	⇓P	P	22 45 17.1	+0.3
	baz=89,SNR=7.6						
B07A	Winthrop	89.65	21	P	P	22 45 17.3	+0.2
	baz=89,SNR=18						
GNW	Green Mountain	89.67	23	*e*P	P	22 45 17.9	+0.7
D03A	Wishkah Elem.	89.77	23	⇓P	P	22 45 18.9	+1.2
	baz=89						
TOO	Toolangi	89.82	140	*e*P	P	22 45 18.1	+0.3
	comp=Z,22nm,0.9s,mb5.5						
TOO	Toolangi	89.82	140	*e*P	P	22 45 18.1	+0.3
TOO				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.5						
A10A	Northport	89.86	19	⇓P	P	22 45 18.2	+0.2
	baz=90						
C05A	Tolt Reservoir	89.89	22	P	P	22 45 18.6	+0.4
	baz=90,SNR=23						
C06A	Tall Timber Ra	89.92	21	⇑P	P	22 45 18.4	+0.1
	baz=90,SNR=8.3						
NLW	Nelson Butte	89.93	21	P	P	22 45 19.2	+0.8
B08A	Colville Reser	89.96	20	P	P	22 45 18.8	+0.2
	baz=90,SNR=28						
CNB	Canberra Magne	90.16	136	*e*P	P	22 45 18.7	-0.7
	comp=Z,18nm,0.9s,mb5.4						
A11A	Hall Mountain,	90.18	18	⇓P	P	22 45 20.2	+0.6
	baz=90,SNR=6.4						
B09A	Rice	90.22	19	P	P	22 45 20.4	+0.7
	baz=90,SNR=38						
D05A	Enumclaw	90.26	22	⇓P	P	22 45 20.9	+1.0
	baz=90,SNR=7.1						
E03A	Lebam	90.34	24	⇑P	P	22 45 21.4	+1.0
	baz=90,SNR=7.5						
C07A	Waterville	90.36	21	⇑P	P	22 45 20.2	-0.2
	baz=90,SNR=19						
ETW	Entiat	90.37	21	P	P	22 45 21.0	+0.6
A12A	Yaak River Ran	90.37	18	⇓P	P	22 45 20.5	0.0
	baz=90,SNR=6.7						
WTV	Waterville	90.39	21	P	P	22 45 20.9	+0.4
BMW	Boistfort Moun	90.51	23	P	P	22 45 22.6	+1.4
C08A	Higginbotham F	90.56	20	P	P	22 45 21.6	+0.3
	baz=90,SNR=26						
B10A	Chitwood Farm,	90.57	19	⇓P	P	22 45 21.8	+0.4
	baz=90						
D06A	Cle Elum	90.59	22	⇑P	P	22 45 21.7	+0.2
	baz=90,SNR=5.6						
NEW	Newport	90.63	19	*e*P	P	22 45 21.8	+0.1
	comp=Z,39nm,1.1s,mb5.7						
NEW	Newport	90.63	19	*e*P	P	22 45 21.8	+0.2
NEW				pmax	pmax		
	comp=Z,39nm,1.1s						
B11A	Sandpoint	90.66	18	⇓P	P	22 45 21.9	+0.1
	baz=90						
WALA	Waterton Lakes	90.66	17	*e*P	P	22 45 21.6	-0.1
A13A	Flathead Natio	90.67	17	⇓P	P	22 45 21.5	-0.3
	baz=90,SNR=7.6						
TBM	Table Mountain	90.68	21	P	P	22 45 22.6	+0.7
BOSA	Boshof	90.70	234	P	P	22 45 21.8	-0.3
BOSA				LR	LR	23 22 50.1	
BOSA	Boshof	90.70	234	P	P	22 45 21.8	-0.3
BOSA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.1						
BOSA				MLR	MLR		
	comp=Z,487nm,21.7s,MS4.9						
BOSA	Boshof	90.70	234	P	P	22 45 21.8	-0.3
	comp=Z,10nm,1.0s,mb5.1,baz=55,slow=6.1,SNR=8.6						
BOSA				LR	LR	23 22 50.1	
	comp=Z,487nm,21.7s,MS4.9,baz=40,slow=33						
LON	Longmire	90.70	22	*e*P	P	22 45 22.4	+0.4
C09A	Chrisman Ranch	90.76	20	⇓P	P	22 45 22.6	+0.4
	baz=90						
WPW	White Pass	90.83	22	P	P	22 45 23.6	+1.0
D07A	Quincy	90.84	21	⇓P	P	22 45 22.8	+0.1
	baz=90,SNR=12						
E05A	Randle	90.89	22	⇑P	P	22 45 23.0	+0.1
	baz=90,SNR=6.9						
F03A	Seaside	90.89	24	⇑P	P	22 45 23.9	+1.0
	baz=90						
C10A	Spilker Farm,	90.99	19	⇓P	P	22 45 23.2	-0.1
	baz=91						
OD2	Odessa Site #2	91.01	20	P	P	22 45 23.9	+0.4
E06A	Yakima	91.14	22	P	P	22 45 24.8	+0.7
	baz=91,SNR=23						
B13A	Whitefish	91.18	17	⇓P	P	22 45 24.4	+0.2
	baz=91,SNR=17						
F04A	Amboy	91.25	23	⇑P	P	22 45 25.0	+0.4
	baz=91,SNR=7.6						
D08A	Wollman Farm,	91.26	20	⇓P	P	22 45 24.8	+0.2
	baz=91,SNR=8.4						
KIC	Kosan Boka	91.28	279	*e*P	P	22 45 24.0	-1.3
	comp=Z,96nm,0.9s,mb6.1						
MXC	Moxie City	91.31	21	P	P	22 45 25.9	+1.1
TIC	Toumodi	91.33	279	*e*P	P	22 45 24.3	-1.2
	comp=Z,9.5nm,0.9s,mb5.1						
D09A	Jones Farm, Ri	91.42	20	⇑P	P	22 45 25.3	-0.1
	baz=91						
E07A	Sunnyside	91.45	21	⇓P	P	22 45 25.6	+0.1
	baz=91,SNR=19						
G03A	Yamhill	91.53	24	⇓P	P	22 45 26.6	+0.8
	baz=91,SNR=9.0						
F05A	White Salmon	91.59	23	⇑P	P	22 45 27.2	+1.1
	baz=91						
LIC	Lamto	91.59	279	*e*P	P	22 45 25.5	-1.2
	comp=Z,35nm,1.0s,mb5.6						
LIC	Lamto	91.59	279	⇑*i*P	P	22 45 25.5	-1.2
	comp=Z,14nm,1.0s,mb5.2						
LIC				LR	LR		
	comp=Z,90nm,20.5s,MS4.2						
LIC	Lamto	91.59	279	⇑*i*P	P	22 45 25.5	-1.2
	comp=Z,28nm,1.0s,mb5.2						
LIC				*e*MLR	MLR		
	comp=Z,184nm,20.5s,MS4.2						
BSMT	Bassoo Peak	91.59	18	*e*P	P	22 45 26.9	+0.7
HAWA	Hanford	91.70	21	*e*P	P	22 45 27.5	+0.8
D10A	Wagner Farm, O	91.71	19	⇓P	P	22 45 26.8	+0.1
	baz=91,SNR=7.8						
E08A	Dider Farm, El	91.74	21	⇑P	P	22 45 27.4	+0.6
	baz=91						
C13A	Hot Springs	91.80	17	⇓P	P	22 45 27.4	+0.3
	baz=91,SNR=11						
H02A	Toledo	91.86	25	⇓P	P	22 45 28.6	+1.2
	baz=92						
G04A	Mulino	91.88	23	⇓P	P	22 45 28.4	+0.9
	baz=92,SNR=5.8						
C14A	Swan Lake	91.91	17	⇑P	P	22 45 27.5	-0.1
	baz=92						
E09A	Wood Farm, Sta	91.97	20	P	P	22 45 28.3	+0.4
	baz=92,SNR=13						
F07A	Phinny Hill Vi	92.03	22	⇑P	P	22 45 28.5	+0.3
	baz=92						
HOOD	Mount Hood Mea	92.04	23	*e*P	P	22 45 29.4	+1.2
H03A	Soap Creek Ran	92.09	24	⇓P	P	22 45 29.6	+1.1
	baz=92						
ULM	Lac du Bonnet	92.17	5	P	P	22 45 26.6	-2.2
	comp=Z,11nm,0.8s,mb5.2,baz=324,slow=6.5,SNR=13						
ULM				pP	pP	22 45 33.0	-2.7
	comp=Z,12nm,0.8s,baz=356,slow=6.0,SNR=7.5						
ULM				LR	LR	23 31 01.5	
	comp=Z,837nm,18.7s,MS5.2,baz=43,slow=38						
E10A	Myers Farm, Un	92.28	20	⇑P	P	22 45 29.5	+0.2
	baz=92						
D13A	Huson	92.38	18	⇓P	P	22 45 29.3	-0.5
	baz=92						
G06A	Carlson Farm,	92.42	22	⇑P	P	22 45 30.5	+0.5
	baz=92,SNR=7.5						
H04A	Detroit Lake	92.44	24	⇑P	P	22 45 30.2	+0.1
	baz=92,SNR=6.6						
F08A	Pendleton	92.45	21	⇑P	P	22 45 30.5	+0.4
	baz=92						
I02A	Mapleton	92.52	25	⇓P	P	22 45 30.7	+0.2
	baz=92						
EGMT	Eagleton	92.52	14	*e*P	P	22 45 30.2	-0.2
EGMT	Eagleton	92.52	14	⇑P	P	22 45 29.6	-0.8
	baz=92						
D14A	Greenough	92.62	17	⇑P	P	22 45 30.5	-0.4
	baz=92,SNR=7.2						
E11A	Bogner Ranch,	92.63	19	P	P	22 45 30.9	-0.1
	baz=92,SNR=13						
G07A	Ruggs Ranch, H	92.68	22	P	P	22 45 31.7	+0.5
	baz=92,SNR=9.8						
F10A	Beach Ranch, E	92.72	20	⇓P	P	22 45 31.9	+0.5
	baz=92						
I03A	Eugene	92.72	25	⇓P	P	22 45 32.3	+0.8
	baz=92						
MSO	Missoula	92.75	17	*e*P	P	22 45 31.2	-0.3
H05A	Madras	92.78	23	⇓P	P	22 45 32.3	+0.6
	baz=92						
CHMT	Chamberlain Mo	92.83	17	*e*P	P	22 45 31.6	-0.3
G08A	Pilot Rock	92.87	21	⇓P	P	22 45 32.5	+0.5
	baz=92						
D15A	Lincoln	92.88	16	⇓P	P	22 45 31.8	-0.2
	baz=92,SNR=7.9						
H06A	Lindquist Farm	92.97	22	⇑P	P	22 45 32.9	+0.3
	baz=93,SNR=9.7						
DGMT	Dagmar	93.04	11	*e*P	P	22 45 33.2	+0.4
E13A	Victor	93.06	18	P	P	22 45 32.4	-0.5
	baz=93,SNR=12						
F11A	Grangeville	93.08	19	⇑P	P	22 45 32.7	-0.3
	baz=93,SNR=9.4						
I04A	Tendick Farm,	93.17	24	P	P	22 45 34.1	+0.7
	baz=93,SNR=6.8						
I05A	Bend	93.20	23	⇑P	P	22 45 34.1	+0.5
	baz=93						
E14A	Clinton	93.25	17	⇓P	P	22 45 33.3	-0.5
	baz=93,SNR=9.0						
J03A	Ideyld Park	93.36	25	⇑P	P	22 45 34.9	+0.5
	baz=93						
G11A	Walters Elk Ra	93.50	19	⇑P	P	22 45 34.4	-0.6
	baz=93,SNR=8.8						
F13A	Darby	93.63	18	⇓P	P	22 45 35.2	-0.4
	baz=93,SNR=15						
H08A	Prairie City	93.65	21	⇑P	P	22 45 36.2	+0.5
	baz=93						
I06A	Prineville	93.72	23	⇓P	P	22 45 36.8	+0.7
	baz=93,SNR=9.3						
K02A	Glendale	93.73	25	⇑P	P	22 45 37.1	+1.0
	baz=93						
BMO	Blue Mountains	93.73	20	*e*P	P	22 45 35.0	-1.1
	comp=Z,27nm,1.5s,mb5.5						
J04A	Umpqua Nationa	93.76	24	⇑P	P	22 45 37.0	+0.7
	baz=93,SNR=7.5						
H09A	Durkee	93.81	21	⇓P	P	22 45 37.1	+0.7
	baz=93						
I07A	Izee	93.81	22	⇓P	P	22 45 37.3	+0.9
	baz=93						
F14A	Wisdom	93.84	17	⇓P	P	22 45 36.4	-0.1
	baz=94						
J05A	Fort Rock	94.00	24	⇑P	P	22 45 38.2	+0.8
	baz=94						
F15A	Butte	94.02	17	⇓P	P	22 45 37.0	-0.3
	baz=94						
HUMO	Hull Mountain	94.05	25	⇑P	P	22 45 38.3	+0.7
	baz=94						
LRM	Limekiln Ridge	94.05	17	*e*P	P	22 45 37.6	+0.2
AGMN	Agassiz Refuge	94.11	5	*e*P	P	22 45 35.8	-1.9
	comp=Z,28nm,1.0s,mb5.6						
H10A	Noah’s Angus R	94.13	20	⇑P	P	22 45 37.9	0.0
	baz=94						
H11A	Donnelly	94.22	19	⇓P	P	22 45 38.0	-0.3
	baz=94,SNR=12						

L02A	Cave Junction	94.23	26	⇓P	P	22 45 39.5	+1.1
	baz=94						
I08A	Drewsey	94.24	21	⇑P	P	22 45 38.9	+0.5
	baz=94						
G13A	Cobalt	94.31	18	⇓P	P	22 45 38.8	+0.1
	baz=94						
J06A	Christmas Vall	94.37	23	⇑P	P	22 45 39.6	+0.6
	baz=94						
BOZ	Bozeman (W)	94.40	16	*e*P	P	22 45 39.4	+0.3
	comp=Z,14nm,1.0s,mb5.3						
BOZ	Bozeman (W)	94.40	16	*e*P	P	22 45 39.4	+0.3
BOZ				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.3						
BOZ	Bozeman (W)	94.40	16	⇓P	P	22 45 38.8	-0.3
	baz=94						
I09A	Lost Marbles R	94.42	21	⇑P	P	22 45 39.2	0.0
	baz=94						
K04A	Chilquin	94.45	24	⇓P	P	22 45 39.9	+0.5
	baz=94						
J07A	Hines	94.51	22	⇓P	P	22 45 40.6	+0.9
	baz=94						
I10A	Payette	94.58	20	⇑P	P	22 45 40.6	+0.6
	baz=94						
K05A	Summer Lake	94.61	24	⇑P	P	22 45 41.4	+1.2
	baz=94						
G15A	Dillon	94.66	17	⇑P	P	22 45 40.1	-0.2
	baz=94,SNR=7.2						
H12A	Diamond D Ranc	94.66	19	⇑P	P	22 45 40.6	+0.3
	baz=94						
EYMN	Ely	94.68	2	*e*P	P	22 45 39.7	-0.7
K06A	Valley Falls	94.75	23	⇑P	P	22 45 41.4	+0.7
	baz=94						
J08A	Circle Bar Ran	94.77	22	⇑P	P	22 45 41.3	+0.4
	baz=94						
L04A	Klamath Falls	94.79	24	⇓P	P	22 45 41.8	+0.9
	baz=94						
MCMT	McKenzie Canyo	94.89	17	*e*P	P	22 45 41.1	-0.3
YBH	Yreka Blue Hor	94.91	25	⇓P	P	22 45 42.1	+0.6
	baz=94						
I11A	Placerville	94.97	20	⇓P	P	22 45 41.7	0.0
	baz=95						
J09A	Fry Pan Ranch,	94.99	21	⇑P	P	22 45 41.9	+0.1
	baz=95						
K07A	Rock Creek Ran	95.15	22	⇑P	P	22 45 43.2	+0.6
	baz=95						
M04C	Macdoel	95.16	25	⇓P	P	22 45 43.4	+0.8
	baz=95						
M02C	Callahan	95.17	25	⇓P	P	22 45 43.3	+0.6
	baz=95						
J10A	Berg Farm, Mel	95.20	20	⇓P	P	22 45 42.6	-0.2
	baz=95						
QLMT	Earthquake Lak	95.22	16	*e*P	P	22 45 43.4	+0.5
L05A	Lakeview	95.24	24	⇑P	P	22 45 44.2	+1.1
	baz=95						
K08A	Mann Creek Ran	95.34	22	⇑P	P	22 45 44.1	+0.7
	baz=95						
I13A	Wildhorse Cree	95.44	18	⇓P	P	22 45 44.3	+0.4
	baz=95						
M03C	McCloud	95.52	25	⇑P	P	22 45 45.4	+1.1
	baz=95						
MOD	Modoc	95.54	23	*e*P	P	22 45 45.4	+1.0
MOD	Modoc	95.54	23	⇑P	P	22 45 45.5	+1.0
	baz=95						
WVOR	Wild Horse Val	95.57	22	*e*P	P	22 45 43.9	-0.7
	comp=Z,14nm,1.1s,mb5.3						
WVOR	Wild Horse Val	95.57	22	*e*P	P	22 45 43.9	-0.6
WVOR				pmax	pmax		
	comp=Z,14nm,1.1s,mb5.3						
K09A	Rome	95.60	21	⇑P	P	22 45 45.2	+0.6
	baz=95						
LKWY	Lake	95.69	16	*e*P	P	22 45 47.0	+2.0
	comp=Z,10nm,0.6s,mb5.4						
LKWY	Lake	95.69	16	*e*P	P	22 45 47.0	+1.9
LKWY				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.4						
HLID	Hailey	95.70	19	*e*P	P	22 45 45.0	-0.1
	comp=Z,22nm,1.6s,mb5.3						
HLID	Hailey	95.70	19	⇑P	P	22 45 45.3	+0.2
	baz=95						
L07A	Adell	95.74	23	⇑P	P	22 45 46.7	+1.4
	baz=95						
M05C	Lookout	95.76	24	⇓P	P	22 45 46.6	+1.1
	baz=95						
K10A	MacKenzie Ranc	95.77	21	⇑P	P	22 45 46.3	+0.8
	baz=95						
J12A	Stokes Ranch,	95.81	19	⇑P	P	22 45 46.1	+0.5
	baz=95,SNR=11						
L08A	Fields	95.88	22	⇑P	P	22 45 47.2	+1.2
	baz=96						
J13A	Cove Ranch, Pi	95.91	19	⇑P	P	22 45 46.5	+0.4
	baz=96,SNR=8.9						
O01C	Eel River Cons	95.94	27	⇓P	P	22 45 47.8	+1.5
	baz=96						
WDC	Whiskeytown Da	96.00	26	*e*P	P	22 45 46.8	+0.2
	comp=Z,30nm,1.7s,mb5.4						
WDC	Whiskeytown Da	96.00	26	*e*P	P	22 45 46.8	+0.3
WDC				pmax	pmax		
	comp=Z,30nm,1.7s,mb5.5						
M06C	Likely Place G	96.12	24	⇑P	P	22 45 48.2	+1.1
	baz=96						
HATC	Hat Creek Radi	96.15	25	⇑P	P	22 45 48.2	+1.0
	baz=96						
IMW	Indian Meadow	96.21	16	*e*P	P	22 45 48.6	+1.2
	comp=Z,16nm,0.9s,mb5.5						
L09A	Wilkinson Ranc	96.24	22	⇑P	P	22 45 48.1	+0.6
	baz=96						
O02C	Red Bluff	96.27	26	⇓P	P	22 45 49.0	+1.2
	baz=96						
M07A	Soldier Meadow	96.36	23	⇑P	P	22 45 49.0	+0.8
	baz=96						
MOOW	Moose Ponds	96.40	16	*e*P	P	22 45 48.9	+0.6
	comp=Z,19nm,1.4s,mb5.3						
K12A	Draper Farm, C	96.44	19	⇓P	P	22 45 48.9	+0.4
	baz=96						
M08A	Happy Creek Ra	96.55	22	⇑P	P	22 45 49.6	+0.6
	baz=96						
ELFS	Eagle Lake Fie	96.57	24	⇓P	P	22 45 50.2	+1.1
	baz=96						
K13A	Stover Farm, H	96.64	19	⇑P	P	22 45 49.8	+0.4
	baz=96						
O04C	Chester	96.72	25	⇓P	P	22 45 50.5	+0.7
	baz=96						
N06A	Buffalo Meadow	96.74	24	⇑P	P	22 45 50.5	+0.7
	baz=96						
REDW	Red Top Meadow	96.74	16	*e*PP	PP	22 49 53.5	+10
GASB	Alder Springs	96.76	26	⇓P	P	22 45 51.2	+1.2
	baz=96						
M09A	Marrel Ranch,	96.85	22	⇓P	P	22 45 50.9	+0.5
	baz=96						
N07B	Gerlach	96.98	23	⇓P	P	22 45 51.4	+0.4
	baz=97						
L13A	Double Diamond	97.20	19	⇑P	P	22 45 53.3	+1.3
	baz=97						
AHID	Auburn Hatcher	97.25	17	*e*PP	PP	22 49 54.1	+6.5
ORV	Oroville	97.27	25	⇓P	P	22 45 52.4	+0.1
	baz=97						
OHCM	Honcut	97.47	25	*e*P	P	22 45 53.2	0.0
MNRC	McLaughlin Nat	97.55	26	⇓P	P	22 45 54.4	+0.9
	baz=97						
O07A	Toulon	97.57	23	⇑P	P	22 45 54.4	+0.7
	baz=97						
HNH	Hanover	97.69	348	*e*PP	PP	22 49 51.2	+0.3
CVS	Carmenet Viney	98.02	27	⇓P	P	22 45 56.0	+0.3
	baz=98						
HWUT	Hardware Ranch	98.24	17	*e*P	P	22 45 57.4	+0.7
	comp=Z,9.0nm,0.9s,mb5.3						
LAVA	Lava Cap Winer	98.24	25	⇑P	P	22 45 57.2	+0.5
	baz=98						
R05C	Kirkwood Meado	98.51	25	⇓P	P	22 45 58.6	+0.7
	baz=98						
ECSD	EROS,Sioux Fal	98.59	6	*e*P	P	22 45 57.4	-0.7
	comp=Z,25nm,1.0s,mb5.7						
R06C	Coleville	98.88	24	⇑P	P	22 46 00.1	+0.5
	baz=98						
DUG	Dugway	99.27	19	*e*P	P	22 46 05.0	+3.8
	comp=Z,27nm,1.6s,mb5.5						
DUG	Dugway	99.27	19	*e*P	P	22 46 05.1	+3.9
DUG				pmax	pmax		
	comp=Z,27nm,1.6s,mb5.5						
MSU	Marysvale	101.02	19	*e*Pdif	Pdif	22 46 11.3	+2.3
MSU				*e*PP	PP	22 50 23.2	+6.9
WUAZ	Wupatki	104.05	19	*e*PP	PP	22 50 50.0	+11
GNAR	Gosnell	106.69	2	*e*P	Pdif	22 46 31.1	-3.2
	comp=Z,562nm,0.4s						
LHS	Liberty Hill	107.86	354	*e*PP	PP	22 51 12.0	+4.9
TXAR	Lajitas Array	111.77	14	PKPdf	PKiKP	22 50 53.7	-0.6
TXAR				PKKPab	PKKPab	23 01 56.0	-3.8
TXAR	Lajitas Array	111.77	14	*i* PKIKP	PKiKP	22 50 53.7	-0.7
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	111.77	14	PKiKP	PKiKP	22 50 53.7	-0.6
	comp=Z,0.8nm,0.7s,baz=20,slow=2.9,SNR=5.6						
TXAR				PKKPab	PKKPab	23 01 56.0	-3.8
	comp=Z,0.6nm,0.7s,baz=178,slow=5.0,SNR=5.3						
VNDA	Vanda	122.38	166	PKP	PKPdf	22 51 12.6	-0.6
VNDA	Vanda	122.38	166	PKIKP	PKPdf	22 51 12.6	-0.5
VNDA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
VNDA	Vanda	122.38	166	PKP	PKPdf	22 51 12.6	-0.6
	comp=Z,6.2nm,0.9s,baz=318,slow=3.7,SNR=5.6						
PPT	Papeete	123.06	87	*e*LR	LR	23 29 23.0	
	comp=Z,321nm,23.5s						
TGUH	Tegucigalpa,Un	128.51	359	*e*PKPdf	PKPdf	22 51 26.8	0.0
ROSC	El Rosal	135.73	340	PKP	PKPdf	22 51 41.8	+1.4
ROSC	El Rosal	135.73	340	PKP	PKPdf	22 51 41.8	+1.4
	comp=Z,5.3nm,0.4s,baz=73,slow=19,SNR=4.1						
RKT	Rikitea	137.58	84	*e*LR	LR	23 36 09.8	
	comp=Z,589nm,24.8s						
OTAV	Otavalo	141.19	344	*e*PKPdf	PKPdf	22 51 50.0	-0.5
LPAZ	La Paz	152.26	315	PKP	PKPdf	22 52 09.4	+0.7
LPAZ				PKPbc	PKPbc	22 52 15.0	-0.5
LPAZ	La Paz	152.26	315	PKIKP	PKPdf	22 52 09.5	+0.7
LPAZ						22 52 15.0	
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.9s						
LPAZ				pmax	pmax		
	comp=Z,8.0nm,1.0s						
LPAZ	La Paz	152.26	315	PKP	PKPdf	22 52 09.4	+0.7
	comp=Z,4.4nm,0.9s,baz=38,slow=4.7,SNR=18						
LPAZ				PKPbc	PKPbc	22 52 15.0	-0.5
	comp=Z,7.5nm,1.0s,baz=15,slow=5.5,SNR=9.3						
LCO	Las Campanas	163.00	296	*e*PKPdf	PKPdf	22 52 22.1	+0.3

ISCJB ***02*** *23:14:28.2±0.4, 52.25N±0.05×175.71W±0.03, h112*^{km}*±3*^{km}*, mb4.5/61, Error ellipse: s-maj=8.3km s-min=3.4km az=179.5*

MOS ***02*** *23:14:28.1±1.0, 52.18N×175.69W, h116*^{km}*, mb4.4/17, Error ellipse: s-maj=11.3km s-min=9.2km az=57.7*

NEIC ***02*** *23:14:29.2±0.5, 52.14N×175.67W, h112*^{km}*±4*^{km}*, mb4.7/29, Error ellipse: s-maj=8.3km s-min=4.2km az=174.0*

BJI ***02*** *23:14:29.5, 53.01N×175.93W, h111*^{km}*, mB5.2, mb4.8*

IDC ***02*** *23:14:30.4±1.6, 52.28N×175.64W, h121*^{km}*±12*^{km}*, mb4.0/19, mb1 4.1/19, mb1mx3.9/27, mbtmp4.0/19, Error ellipse: s-maj=19.3km s-min=10.5km az=165.0*

ISC 02 23:14:29.3±0.4**, 52.23N**±0.05×**175.70W**±0.03**, h108**^{km}±3^{km}**, h112**^{km}±.8^{km}**:pP-P, n368,** σ0^{s}**65**/368**, mb4.5**/61**, 76C-85D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ADK	Adak	0.70	241	P	Pn	23 14 47.0	-0.4
ADK				S	Sn	23 15 01.7	+0.8
ATKA	Atka Island	0.93	91	P	Pn	23 14 48.1	-1.4
ATKA				S	Sn	23 15 02.6	-2.1
UNV	Unalaska Valle	5.78	70	P	Pn	23 15 52.7	+0.1
SPIA	Saint Paul Isl	5.88	30	P	Pn	23 15 57.4	+3.5
AKLV	Akutan Long Va	6.17	68	P	Pn	23 15 57.9	0.0
SMY	Shemya	6.25	279	P	Pn	23 16 00.4	+1.4
AKUT	Akutan	6.27	68	*e*Pn	Pn	23 15 59.7	+0.5
SDPT	Sand Point	9.54	65	*e*Pn	Pn	23 16 41.9	-1.6
SVW2	Sparrevohn	14.13	43	*e*P	Pn	23 17 48.2	+3.9
KDAK	Kodiak Island	14.35	58	*e*Pn	Pn	23 17 44.4	-2.7
KDAK	Kodiak Island	14.35	58	P	Pn	23 17 43.8	-3.3
	13nm,0.3s,baz=291,slow=9.4,SNR=69						
KDAK				S	Sn	23 20 24.7	-0.3
	1.1nm,0.3s,baz=338,slow=5.4,SNR=6.7						
SLKM	Skilak Lake	16.28	49	*e*P	Pn	23 18 10.6	-0.7
PMR	Palmer	17.15	47	*e*P	Pn	23 18 22.0	0.0
	8.5nm,0.4s						
PMR	Palmer	17.15	47	*e*P	Pn	23 18 22.0	0.0
PMR				pmax	pmax		
	comp=Z,9.0nm,0.4s						
SML	Sawmill	17.58	46	*e*Pn	Pn	23 18 27.1	-0.1
IMA2	Indian Mountai	17.73	30	*e*P	Pn	23 18 30.2	+1.2
BILL	Bilibino	18.09	338	*e*P	P	23 18 35.0	+2.7
	comp=Z,103nm,1.0s						
BILL	Bilibino	18.09	338*d*	*i*P	P	23 18 35.2	+3.0
BILL				pmax	pmax		
	comp=Z,69nm,0.9s						
MCK	McKinley	18.11	40	*e*Pn	Pn	23 18 34.0	+0.5
	comp=Z,33nm,0.6s						
MCK	McKinley	18.11	40	*e*P	P	23 18 34.0	+1.6
MCK				pmax	pmax		
	comp=Z,33nm,0.6s						
DIV	Divide	18.54	50	*e*Pn	Pn	23 18 37.8	-0.9
COLA	College	19.06	38	*e*P	P	23 18 43.5	+0.7
	comp=Z,41nm,0.6s						
COLA	College	19.06	38	*e*P	P	23 18 43.5	+0.7
COLA				pmax	pmax		
	comp=Z,41nm,0.6s						
SEY	Seymchan	19.96	315	⇑*e*P	P	23 18 55.3	+2.8
MENT	Mentasta	19.99	45	*e*P	P	23 18 53.4	+0.6
MA2	Magadan	20.01	305	*e*P	P	23 18 55.2	+2.1
	comp=Z,9.3nm,0.7s						
MA2	Magadan	20.01	305	⇑*e*P	P	23 18 55.3	+2.2
MA2				pmax	pmax		
	comp=Z,12nm,0.8s						
MA2				MLR	MLR		
	comp=Z,600nm,21.0s						
EGAK	Eagle	21.64	41	*e*P	P	23 19 10.0	-0.5
	comp=Z,25nm,0.6s,mb4.7						
DAWY	Dawson	22.17	44	*e*P	P	23 19 15.9	-0.2
SKAG	Skagway	23.48	56	*e*P	P	23 19 24.0	-4.9
	comp=Z,12nm,0.7s,mb4.3						
INK	Inuvik	25.66	35	*e*P	P	23 19 48.8	+0.2
INK	Inuvik	25.66	35	P	P	23 19 48.0	-0.6
INK						23 23 15.4	
INK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK				pmax	pmax		
	comp=N,6.0nm,0.8s						
INK	Inuvik	25.66	35	P	P	23 19 48.0	-0.6
	comp=N,1.9nm,0.6s,mb3.7,baz=236,slow=8.2,SNR=16						
INK				PcP	PcP	23 23 15.4	-0.5
	comp=N,0.5nm,0.5s,baz=324,slow=4.0,SNR=3.7						
INK				ScP	ScP	23 26 43.1	-2.1
	comp=N,6.3nm,0.8s,baz=239,slow=3.0,SNR=20						
ASAJ	Asahikawa	28.63	270	P	P	23 20 16.2	+0.8
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.7s						
ASAJ	Asahikawa	28.63	270	P	P	23 20 16.1	+0.8
	comp=Z,7.4nm,0.7s,mb4.4,baz=129,slow=19,SNR=4.9						
YAK	Yakutsk	30.32	310	*i* P	P	23 20 29.6	-0.5
YAK				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.3						
C03A	Quillayute Air	32.52	77	⇓P	P	23 20 49.8	+0.2
	baz=32						
B04A	Port Angeles	33.11	76	⇑P	P	23 20 54.9	+0.2
	baz=33						
NLWA	Neilton Lookou	33.20	77	*e*P	P	23 20 56.2	+0.7
	comp=Z,16nm,1.0s,mb4.8						
NLWA	Neilton Lookou	33.20	77	⇓P	P	23 20 56.1	+0.6
	baz=33						
YKA	Yellowknife Ar	33.24	48	P	P	23 20 54.9	-0.9
YKA				PcP	PcP	23 23 35.0	-0.4
YKA				ScP	ScP	23 27 07.2	-2.4
YKA	Yellowknife Ar	33.24	48	P	P	23 20 54.8	-0.9
YKA						23 23 35.0	
YKA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA				pmax	pmax		
	comp=N,1.0nm,0.6s						
YKA	Yellowknife Ar	33.24	48	P	P	23 20 54.8	-0.9
	comp=N,1.6nm,0.5s,mb4.2,baz=283,slow=8.0,SNR=28						
YKA				PcP	PcP	23 23 35.0	-0.4
	comp=N,0.7nm,0.6s,baz=293,slow=2.9,SNR=7.1						
YKA				ScP	ScP	23 27 07.2	-2.4
	comp=N,0.7nm,0.6s,baz=289,slow=3.2,SNR=12						
A04A	Legoe Bay, Lum	33.28	75	⇑P	P	23 20 56.8	+0.5
	baz=33						
A05A	Maple Falls	33.53	74	⇑P	P	23 20 58.5	+0.1
	baz=33						
HDW	Hoodsport	33.57	76	P	P	23 20 59.6	+0.9
C04A	Brinnon	33.59	76	⇑P	P	23 20 59.3	+0.5
	baz=33						
GNW	Green Mountain	33.74	76	*e*P	P	23 21 01.4	+1.2
E03A	Lebam	33.79	78	⇓P	P	23 21 01.1	+0.5
	baz=34,SNR=6.2						
A06A	Chilliwack	33.84	73	⇓P	P	23 21 01.0	-0.1
	baz=34						
B05A	Bryant	33.85	75	⇓P	P	23 21 01.5	+0.3
	baz=34,SNR=7.1						
F03A	Seaside	34.09	79	⇑P	P	23 21 03.8	+0.5
	baz=34						
C05A	Tolt Reservoir	34.36	76	⇓P	P	23 21 05.8	+0.3
	baz=34,SNR=6.9						
D05A	Enumclaw	34.42	77	⇓P	P	23 21 07.0	+0.9
	baz=34,SNR=6.0						
A07A	Ashnola River,	34.51	73	P	P	23 21 07.3	+0.5
	baz=34,SNR=12						
G03A	Yamhill	34.57	80	⇑P	P	23 21 08.0	+0.6
	baz=34						
C06A	Tall Timber Ra	34.73	75	⇑P	P	23 21 08.7	+0.1
	baz=34						
LON	Longmire	34.74	77	*e*P	P	23 21 09.5	+0.6
F04A	Amboy	34.78	79	⇑P	P	23 21 09.5	+0.3
	baz=35,SNR=9.8						
E05A	Randle	34.87	77	P	P	23 21 09.9	0.0
	baz=35,SNR=6.9						
H03A	Soap Creek Ran	34.90	81	⇓P	P	23 21 10.7	+0.5
	baz=35						
I02A	Mapleton	34.93	83	⇓P	P	23 21 11.1	+0.6
	baz=35						
B07A	Winthrop	34.93	74	⇓P	P	23 21 10.5	+0.1
	baz=35,SNR=10						
D06A	Cle Elum	35.10	76	⇓P	P	23 21 12.1	+0.1
	baz=35,SNR=5.6						
A08A	Turner Farm, O	35.20	72	⇓P	P	23 21 12.6	-0.2
	baz=35,SNR=12						
TBM	Table Mountain	35.26	76	P	P	23 21 13.8	+0.5
C07A	Waterville	35.33	75	⇓P	P	23 21 13.6	-0.3
	baz=35,SNR=9.3						
E06A	Yakima	35.34	77	⇓P	P	23 21 14.3	+0.3
	baz=35,SNR=6.0						
F05A	White Salmon	35.39	78	⇑P	P	23 21 14.5	+0.2
	baz=35						
WTV	Waterville	35.39	75	P	P	23 21 14.2	-0.2
J02A	Umpqua	35.43	83	⇓P	P	23 21 14.5	-0.2
	baz=35						
B08A	Colville Reser	35.44	73	⇑P	P	23 21 14.7	-0.1
	baz=35,SNR=16						
H04A	Detroit Lake	35.57	80	⇓P	P	23 21 16.4	+0.4
	baz=35,SNR=21						
A09A	Danville	35.60	72	⇑P	P	23 21 16.1	0.0
	baz=35,SNR=6.6						
D07A	Quincy	35.62	75	⇓P	P	23 21 16.1	-0.3
	baz=35,SNR=8.5						
VFP	Flag Point	35.67	79	P	P	23 21 17.5	+0.7
EPH	Ephrata	35.77	75	P	P	23 21 17.5	-0.2
J03A	Ideyld Park	35.80	83	⇓P	P	23 21 17.9	0.0
	baz=36						
K02A	Glendale	35.81	84	⇑P	P	23 21 18.3	+0.3
	baz=36						
MJAR	Matsushiro Arr	35.81	263	P	P	23 21 18.9	+0.8
MJAR				pmax	pmax		
	comp=Z,4.0nm,0.4s						
MJAR	Matsushiro Arr	35.81	263	P	P	23 21 18.9	+0.8
	comp=Z,3.9nm,0.4s,mb4.7,baz=48,slow=7.4,SNR=20						
MAJO	Matsushiro	35.81	263	*e*P	P	23 21 17.6	-0.5
	comp=Z,26nm,0.8s,mb5.2						
MAJO	Matsushiro	35.81	263	*e*P	P	23 21 17.6	-0.5
MAJO				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.2						
MAT	Matsushiro	35.81	263	P	P	23 21 18.6	+0.5
C08A	Higginbotham F	35.89	74	P	P	23 21 18.6	-0.1
	baz=36,SNR=5.9						
I04A	Tendick Farm,	35.90	82	⇑P	P	23 21 19.0	+0.2
	baz=36,SNR=9.7						
E07A	Sunnyside	36.01	76	⇓P	P	23 21 19.8	+0.1
	baz=36,SNR=6.2						
MDW	Midway	36.04	76	P	P	23 21 20.3	+0.3
L02A	Cave Junction	36.08	85	⇓P	P	23 21 20.4	0.0
	baz=36						
B09A	Rice	36.11	73	⇓P	P	23 21 20.5	0.0
	baz=36,SNR=7.4						
CROR	Criterion Ridg	36.13	79	P	P	23 21 21.4	+0.6
H05A	Madras	36.17	80	⇑P	P	23 21 21.3	+0.2
	baz=36						
A10A	Northport	36.19	71	⇓P	P	23 21 21.0	-0.2
	baz=36,SNR=5.9						
G06A	Carlson Farm,	36.22	79	⇑P	P	23 21 21.4	-0.1
	baz=36,SNR=6.5						
HUMO	Hull Mountain	36.23	84	⇓P	P	23 21 21.6	0.0
	baz=36						
OD2	Odessa Site #2	36.28	74	P	P	23 21 21.7	-0.2
HAWA	Hanford	36.28	76	*e*P	P	23 21 21.9	-0.1
	comp=Z,24nm,0.7s,mb5.2						
F07A	Phinny Hill Vi	36.30	77	⇑P	P	23 21 22.4	+0.3
	baz=36,SNR=6.7						
D08A	Wollman Farm,	36.32	75	⇓P	P	23 21 22.1	-0.2
	baz=36,SNR=7.3						
C09A	Chrisman Ranch	36.34	74	P	P	23 21 22.3	-0.1
	baz=36,SNR=5.5						
J04A	Umpqua Nationa	36.39	82	⇑P	P	23 21 23.5	+0.5
	baz=36,SNR=8.7						
I05A	Bend	36.40	81	⇑P	P	23 21 23.3	+0.2
	baz=36						
E08A	Dider Farm, El	36.52	76	⇑P	P	23 21 23.6	-0.4
	baz=36						
H06A	Lindquist Farm	36.66	79	P	P	23 21 25.6	+0.3
	baz=36,SNR=12						
D09A	Jones Farm, Ri	36.68	75	⇓P	P	23 21 25.2	-0.2
	baz=36						
B10A	Chitwood Farm,	36.71	72	⇑P	P	23 21 25.3	-0.4
	baz=36						
G07A	Ruggs Ranch, H	36.78	78	P	P	23 21 26.5	+0.2
	baz=37,SNR=5.1						
NEW	Newport	36.79	72	*e*P	P	23 21 25.9	-0.3
	comp=Z,19nm,0.9s,mb5.0						
NEW	Newport	36.79	72	*e*P	P	23 21 25.9	-0.4
NEW				pmax	pmax		
	comp=Z,19nm,0.9s						
YBH	Yreka Blue Hor	36.87	85	*e*P	P	23 21 27.7	+0.7
	comp=Z,7.0nm,0.9s,mb4.6						
YBH	Yreka Blue Hor	36.87	85	*e*P	P	23 21 27.7	+0.6
YBH				pmax	pmax		
	comp=Z,7.0nm,0.9s						
YBH	Yreka Blue Hor	36.87	85	⇓P	P	23 21 28.0	+1.0
	baz=37,SNR=5.9						
C10A	Spilker Farm,	36.90	73	⇓P	P	23 21 27.0	-0.2
	baz=37						
J05A	Fort Rock	36.90	82	⇓P	P	23 21 28.3	+1.0
	baz=37,SNR=6.6						
A11A	Hall Mountain,	36.90	71	⇓P	P	23 21 27.5	+0.3
	baz=37,SNR=14						
M02C	Callahan	36.98	86	⇓P	P	23 21 28.6	+0.6
	baz=37						
F08A	Pendleton	37.04	77	⇓P	P	23 21 28.4	0.0
	baz=37						
E09A	Wood Farm, Sta	37.05	75	P	P	23 21 28.4	-0.2
	baz=37,SNR=13						
L04A	Klamath Falls	37.12	84	P	P	23 21 29.9	+0.8
	baz=37,SNR=5.9						
O01C	Eel River Cons	37.12	88	⇑P	P	23 21 29.7	+0.5
	baz=37						
B11A	Sandpoint	37.15	72	P	P	23 21 29.3	0.0
	baz=37,SNR=6.7						
I06A	Prineville	37.16	80	⇑P	P	23 21 30.1	+0.6
	baz=37						
G08A	Pilot Rock	37.20	78	⇓P	P	23 21 29.7	-0.1
	baz=37						
D10A	Wagner Farm, O	37.29	74	P	P	23 21 30.1	-0.5
	baz=37,SNR=12						
A12A	Yaak River Ran	37.32	70	⇓P	P	23 21 30.6	-0.2
	baz=37						
M04C	Macdoel	37.38	84	⇑P	P	23 21 32.1	+0.8
	baz=37,SNR=5.3						
K05A	Summer Lake	37.42	82	⇓P	P	23 21 32.6	+0.9
	baz=37,SNR=11						
M03C	McCloud	37.50	85	⇓P	P	23 21 33.2	+0.8
	baz=37						
I07A	Izee	37.51	80	⇓P	P	23 21 32.9	+0.4
	baz=37,SNR=18						
J06A	Christmas Vall	37.58	81	P	P	23 21 34.0	+1.0
	baz=37,SNR=14						
F09A	S2 Ranch, Elgi	37.60	76	⇑P	P	23 21 33.4	+0.2
	baz=37,SNR=7.5						
WDC	Whiskeytown Da	37.65	86	⇓P	P	23 21 33.9	+0.3
	baz=37						
E10A	Myers Farm, Un	37.68	75	⇑P	P	23 21 33.3	-0.5
	baz=38,SNR=6.5						
O02C	Red Bluff	37.73	87	⇑P	P	23 21 35.0	+0.6

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      baz=38,SNR=6.8
K06A  Valley Falls      37.77  82 ⇓P       P          23 21 35.2 +0.6
      baz=38,SNR=9.3
H08A  Prairie City      37.78  78 ⇓P       P          23 21 34.6 -0.1
      baz=38
P01C  Double 8 Ranch    37.82  88 ⇓P       P          23 21 35.3 +0.2
      baz=38
L05A  Lakeview          37.84  83 ⇓P       P          23 21 35.7 +0.4
      baz=38
F10A  Beach Ranch, E    37.87  76  P       P          23 21 35.4 -0.1
      baz=38,SNR=6.2
LTIM  Timbered Crate    37.94  85  P       P          23 21 36.9 +0.8
J07A  Hines             38.02  80 ⇑P       P          23 21 36.9 +0.2
      baz=38
A13A  Flathead Natio    38.04  70  P       P          23 21 36.5 -0.4
      baz=38,SNR=5.4
M05C  Lookout           38.05  84 ⇑P       P          23 21 37.6 +0.6
      baz=38,SNR=9.4
GASB  Alder Springs     38.09  88 ⇓P       P          23 21 37.8 +0.4
      baz=38
HATC  Hat Creek Radi    38.17  85 ⇓P       P          23 21 38.5 +0.5
      baz=38
I08A  Drewsey           38.17  79 ⇑P       P          23 21 38.3 +0.3
      baz=38
MOD   Modoc             38.25  83 ⇓P       P          23 21 38.5 -0.2
      baz=38
WALA  Waterton Lakes    38.27  69 eP       P          23 21 38.2 -0.6
      comp=Z,12nm,1.3s,mb4.5
HOPS  Hopland           38.28  89 ⇑P       P          23 21 38.9 -0.1
      baz=38
E11A  Bogner Ranch,     38.28  74  P       P          23 21 37.6 -1.2
      baz=38,SNR=5.2
B13A  Whitefish         38.28  71 ⇓P       P          23 21 38.4 -0.5
      baz=38
H09A  Durkee            38.31  78 ⇓P       P          23 21 39.3 +0.2
      baz=38
BSMT  Bassoo Peak       38.36  72  P       P          23 21 39.4 -0.1
BMO   Blue Mountains    38.42  77 eP       P          23 21 39.7 -0.3
      comp=Z,5.1nm,0.8s,mb4.4
K07A  Rock Creek Ran    38.44  81 ⇑P       P          23 21 40.9 +0.7
      baz=38
J08A  Circle Bar Ran    38.53  80 ⇑P       P          23 21 41.2 +0.2
      baz=38
M06C  Likely Place G    38.54  84 ⇓P       P          23 21 41.2  0.0
      baz=38
F11A  Grangeville       38.56  75 ⇓P       P          23 21 40.8 -0.4
      baz=38
C13A  Hot Springs       38.57  72  P       P          23 21 40.9 -0.3
      baz=38,SNR=12
O04C  Chester           38.69  86 ⇑P       P          23 21 42.8 +0.4
      baz=38,SNR=7.4
MNRC  McLaughlin Nat    38.73  89 ⇑P       P          23 21 42.8 +0.1
      baz=38
G11A  Walters Elk Ra    38.75  76  P       P          23 21 42.8 -0.1
      baz=39,SNR=6.3
L07A  Adell             38.77  82 ⇓P       P          23 21 43.0  0.0
      baz=39
K08A  Mann Creek Ran    38.88  81 ⇓P       P          23 21 44.3 +0.4
      baz=39
H10A  Noah's Angus R    38.90  77  P       P          23 21 44.1  0.0
      baz=39,SNR=11
ORV   Oroville          38.90  87 ⇑P       P          23 21 43.5 -0.7
      baz=39
SUTB  Sutter Butte      38.92  88 ⇓P       P          23 21 44.0 -0.4
      baz=39
D13A  Huson             38.93  72  P       P          23 21 43.9 -0.5
      baz=39,SNR=5.2
C14A  Swan Lake         39.00  71 ⇓P       P          23 21 44.3 -0.6
      baz=39
BOD   Bodaibo           39.01 307 eP       P          23 21 39.8 -5.0
BOD                                pmax    pmax
      comp=Z,2.0nm,1.6s,mb3.7
BOD                                pmax    pmax
      comp=Z,6.0nm,1.9s,mb4.1
O05C  Quincy            39.01  86  P       P          23 21 45.7 +0.6
      baz=39,SNR=6.4
OHCM  Honcut            39.04  87 eP       P          23 21 43.8 -1.5
I10A  Payette           39.14  78 ⇑P       P          23 21 46.6 +0.5
      baz=39
N06A  Buffalo Meadow    39.21  84 ⇓P       P          23 21 47.3 +0.6
      baz=39
M07A  Soldier Meadow    39.23  83  P       P          23 21 48.2 +1.3
      baz=39,SNR=6.5
CN2   Changchun         39.27 282 eP       P          23 21 47.7 +0.5
CN2                               eS       S          23 27 39.4 -0.2
CN2                                AMB     AMB
      comp=Z,10.0nm,0.6s,mb4.8
CN2                                AMB     AMB
      comp=Z,200nm,3.0s
CN2                                LR      LR
      comp=N,500nm,20.0s
CN2                                LR      LR
      comp=E,700nm,20.0s
CN2                                LR      LR
      comp=Z,700nm,19.0s
L08A  Fields            39.27  81 ⇓P       P          23 21 47.9 +0.7
      baz=39
H11A  Donnelly          39.27  77 ⇑P       P          23 21 46.8 -0.4
      baz=39
E13A  Victor            39.43  73 ⇑P       P          23 21 48.0 -0.4
      baz=39
D14A  Greenough         39.50  72  P       P          23 21 48.4 -0.6
      baz=39,SNR=17
J10A  Berg Farm, Mel    39.53  79 ⇓P       P          23 21 49.1 -0.2
      baz=39
O06A  Flanigan          39.56  85 ⇑P       P          23 21 49.8 +0.2
      baz=39
M08A  Happy Creek Ra    39.68  82  P       P          23 21 51.3 +0.7
      baz=40,SNR=5.5
F13A  Darby             39.69  74  P       P          23 21 50.7  0.0
      baz=40,SNR=7.1
N07B  Gerlach           39.72  84 ⇓P       P          23 21 50.7 -0.2
      baz=40
CHMT  Chamberlain Mo    39.73  72 eP       P          23 21 49.8 -1.1
L09A  Wilkinson Ranc    39.78  81 ⇑P       P          23 21 51.7 +0.3
      baz=40
K10A  MacKenzie Ranc    39.83  80  P       P          23 21 52.5 +0.6
      baz=40,SNR=5.5
E14A  Clinton           39.85  73  P       P          23 21 51.8 -0.2
      baz=40,SNR=7.6
LAVA  Lava Cap Winer    39.86  87 ⇓P       P          23 21 51.9 -0.1
      baz=40
H12A  Diamond D Ranc    40.05  76  P       P          23 21 53.3 -0.4
      baz=40,SNR=6.8
D15A  Lincoln           40.09  71  P       P          23 21 53.4 -0.6
      baz=40,SNR=8.8
MFID  Camas Ranch       40.10  78 ⇓P       P          23 21 53.7 -0.3
      baz=40
PAHR  Pah Rah Range     40.11  85 eP       P          23 21 54.0 -0.1
      comp=Z,15nm,1.1s,mb4.7
G13A  Cobalt            40.12  75  P       P          23 21 54.0 -0.2
      baz=40,SNR=9.6
WCN   Washoe City       40.12  86 ⇓P       P          23 21 54.1 -0.2
      baz=40
N08A  GE Springer Mi    40.23  83 ⇑P       P          23 21 55.3 +0.2
      baz=40
F14A  Wisdom            40.25  73 ⇓P       P          23 21 55.2  0.0
      baz=40
R05C  Kirkwood Meado    40.30  87 ⇑P       P          23 21 55.8 +0.1
      baz=40
H13A  Challis           40.40  76 ⇓P       P          23 21 56.8 +0.2
      baz=40
CMB   Columbia Colle    40.52  88 eP       P          23 21 57.3 -0.3
      comp=Z,4.3nm,0.6s,mb4.5
CMB   Columbia Colle    40.52  88 eP       P          23 21 57.3 -0.3
CMB                                pmax    pmax
      comp=Z,4.0nm,0.6s,mb4.4
CMB   Columbia Colle    40.52  88  P       P          23 21 57.7 +0.2
      baz=40,SNR=6.8
PACP  Pacheco Peak      40.62  90 ⇑P       P          23 21 58.1 -0.3
      baz=40
J12A  Stokes Ranch,     40.63  78 ⇑P       P          23 21 58.5 +0.1
      baz=40
F15A  Butte             40.75  73 ⇓P       P          23 21 58.9 -0.4
      baz=41
R06C  Coleville         40.79  87 ⇓P       P          23 22 00.4 +0.6
      baz=41
I13A  Wildhorse Cree    40.85  76  P       P          23 22 00.6 +0.5
      baz=41,SNR=6.8
HAST  UC Hastings Re    40.85  91 ⇓P       P          23 22 00.1 -0.2
      baz=41
L11A  Cat Creek Ranc    40.86  80  P       P          23 22 01.0 +0.7
      baz=41,SNR=6.2
HLID  Hailey            40.87  77 eP       P          23 22 00.1 -0.2
      comp=Z,21nm,1.2s,mb4.8
HLID  Hailey            40.87  77 ⇑P       P          23 22 00.7 +0.3
      baz=41
Q07A  Schurz            40.93  86 ⇑P       P          23 22 00.8 -0.1
      baz=41
S06C  San Francisco     40.95  88  P       P          23 22 01.4 +0.3
      baz=41,SNR=14
MCMT  McKenzie Canyo    41.09  74 eP       P          23 22 01.8 -0.4
K12A  Draper Farm, C    41.10  78  P       P          23 22 03.0 +0.7
      baz=41,SNR=6.0
J13A  Cove Ranch, Pi    41.10  77  P       P          23 22 02.9 +0.6
      baz=41,SNR=6.2
G15A  Dillon            41.12  74  P       P          23 22 01.8 -0.6
      baz=41,SNR=7.4
EGMT  Eagleton          41.18  69 eP       P          23 22 01.8 -1.1
      comp=Z,8.6nm,0.7s,mb4.7
M11A  Holland Ranch,    41.27  81 ⇑P       P          23 22 03.8 +0.1
      baz=41
L12A  House Creek Ra    41.32  79  P       P          23 22 04.8 +0.7
      baz=41,SNR=8.4
U04C  Hernandez Rese    41.34  90 ⇑P       P          23 22 04.0 -0.3
      baz=41
BOZ   Bozeman (W)       41.36  73  P       P          23 22 04.2 -0.2
      baz=41,SNR=13
Q08A  Gabbs             41.52  85 ⇑P       P          23 22 05.1 -0.7
      baz=41
O10A  Cortez Mining,    41.52  82 ⇓P       P          23 22 06.1 +0.4
      baz=41
KSRS  Korea Array       41.54 272  P       P          23 22 06.8 +0.8
      comp=Z,9.0nm,0.7s,mb4.6,baz=54,slow=7.7,SNR=16
NVAR  Mina Array Bea    41.55  86  P       P          23 22 06.4 +0.4
      comp=Z,5.1nm,0.7s,mb4.3,baz=305,slow=6.9,SNR=10.0
K13A  Stover Farm, H    41.59  78 ⇑P       P          23 22 06.6 +0.4
      baz=41
T06C  Millerton Lake    41.59  89  P       P          23 22 06.0 -0.4
      baz=41,SNR=5.5
KCC   Kaiser Creek      41.63  88 ⇓P       P          23 22 07.1 +0.5
      baz=41
N11A  Elko Archery C    41.67  81 ⇑P       P          23 22 07.6 +0.7
      baz=42
PKD   Parkfield         41.76  91 ⇑P       P          23 22 07.3 -0.5
      baz=42
QLMT  Earthquake Lak    41.93  74 eP       P          23 22 08.6 -0.5
Q09A  Carvers           41.99  85 ⇑P       P          23 22 10.1 +0.5
      baz=42
L13A  Double Diamond    42.00  79 ⇓P       P          23 22 10.6 +1.0
      baz=42
ELK   Elko              42.01  81 eP       P          23 22 10.0 +0.3
      comp=Z,12nm,0.8s,mb4.7
ELK   Elko              42.01  81 eP       P          23 22 10.0 +0.3
ELK                                pmax    pmax
      comp=Z,12nm,0.8s
N12A  Clover Valley,    42.07  81 ⇑P       P          23 22 10.9 +0.7
      baz=42
MTUM  Tungsten Hills    42.07  87 eP       P          23 22 10.5 +0.3
O11A  Cowboy Ranch,     42.13  82 ⇓P       P          23 22 11.3 +0.6
      baz=42
HELL  Mitchell Peak,    42.22  88  P       P          23 22 11.3 -0.2
      baz=42,SNR=8.7
S08C  White Mtn Res     42.22  87 ⇑P       P          23 22 11.7 +0.3
      baz=42
M13A  Montello          42.29  80  P       P          23 22 12.7 +0.6
      baz=42,SNR=5.6
YMR   Madison River     42.29  74 eP       P          23 22 11.9 -0.1
      comp=Z,7.6nm,0.7s,mb4.5
R09A  Tonopah           42.43  85  P       P          23 22 13.4 +0.3
      baz=42,SNR=5.4
YNR   Norris Junctio    42.44  73 eP       P          23 22 13.0 -0.1
TIN   Tinemaha          42.47  87 ⇓P       P          23 22 14.2 +0.7
      baz=42
N13A  Wendover, West    42.57  80 ⇑P       P          23 22 14.7 +0.5
      baz=42
JNU   Nakatsue          42.57 265  P       P          23 22 15.1 +0.7
      comp=Z,26nm,1.2s,mb4.8,baz=11,slow=5.2,SNR=4.1
O12A  Currie            42.60  81  P       P          23 22 14.9 +0.4
      baz=42,SNR=8.2
S09A  Goldfield         42.66  86 ⇓P       P          23 22 14.7 -0.3
      baz=42
LKWY  Lake              42.69  73 eP       P          23 22 16.1 +0.9
      comp=Z,6.0nm,0.7s,mb4.4
LKWY  Lake              42.69  73 eP       P          23 22 16.1 +1.0
LKWY                               pmax    pmax
      comp=Z,6.0nm,0.7s,mb4.4
VES   Vestal, Richgr    42.73  89 ⇓P       P          23 22 15.2 -0.4
      baz=42
IMW   Indian Meadow     42.75  74 eP       P          23 22 15.6  0.0
      comp=Z,11nm,1.0s,mb4.5
R10A  Warm Springs      42.87  85 ⇓P       P          23 22 17.0 +0.3
      baz=43
HVU   Hansel Valley     42.88  78 eP       P          23 22 16.4 -0.4
      comp=Z,14nm,0.5s,mb5.0
HVU   Hansel Valley     42.88  78 eP       P          23 22 16.4 -0.4
HVU                                pmax    pmax
      comp=Z,14nm,0.5s,mb5.0
Q11A  Duckwater         42.92  84 ⇑P       P          23 22 17.3 +0.2
      baz=43
S10A  Tonopah Range,    42.92  85 ⇓P       P          23 22 17.4 +0.3
      baz=43
CWC   Cottonwood Cre    42.95  88  P       P          23 22 17.6 +0.2
      baz=43,SNR=6.1
P12A  McGill            42.99  82 ⇑P       P          23 22 17.9 +0.2
      baz=43
GRAC  Grapevine Rang    43.03  87 ⇑P       P          23 22 18.1 +0.1
      baz=43
ISA   Isabella          43.22  89  P       P          23 22 18.8 -0.7
      baz=43,SNR=6.0
DAC   Darwin (Calif)    43.36  88 eP       P          23 22 20.4 -0.3
      comp=Z,1.8nm,0.5s,mb4.1
DAC   Darwin (Calif)    43.36  88 eP       P          23 22 20.4 -0.3
DAC                                pmax    pmax
      comp=Z,2.0nm,0.5s,mb4.1
MPMC  Manual Prospec    43.56  88  P       P          23 22 22.4 +0.1
      baz=43,SNR=6.9
FURC  Furnace Creek,    43.69  87 ⇓P       P          23 22 23.1 -0.1
      baz=44
HWUT  Hardware Ranch    43.72  78 eP       P          23 22 23.4  0.0
      comp=Z,4.9nm,0.7s,mb4.3
DUG   Dugway            43.82  80 eP       P          23 22 24.2 -0.1
DUG   Dugway            43.82  80  P       P          23 22 24.7 +0.4
      baz=44,SNR=8.8
R12A  Pony Springs,     43.88  83 ⇑P       P          23 22 24.7 -0.1
      baz=44
BLG   Laguna Peak       43.88  91 ⇓P       P          23 22 24.4 -0.5
      baz=44
EDW2  Edwards Air Fo    44.03  90 ⇓P       P          23 22 25.5 -0.6
      baz=44
JLU   Jordanelle        44.39  79 eP       P          23 22 28.1 -0.8
SHOC  Shoshone          44.41  87 ⇑P       P          23 22 29.0 -0.1
      baz=44
GSC   Goldstone         44.48  88  P       P          23 22 29.5 -0.1
      baz=44,SNR=11
DAU   Daniels Canyon    44.62  79 eP       P          23 22 30.3 -0.4
BFSC  Mount Baldy St    44.66  90  P       P          23 22 31.0 -0.1
      baz=44,SNR=7.0
T12A  Moapa             44.84  85 ⇑P       P          23 22 32.4  0.0
      baz=45
TUQ   Turquoise Mtn.    44.93  87 ⇓P       P          23 22 32.9 -0.3
      baz=45
V11A  Goodsprings       44.97  87 ⇑P       P          23 22 33.5  0.0
      baz=45
HEC   Hector,Ludlow     45.08  88 ⇓P       P          23 22 34.1 -0.4
      baz=45
U12A  Valley of Fire    45.13  85 ⇓P       P          23 22 35.0 +0.2
      baz=45
MSU   Marysvale         45.25  81 eP       P          23 22 35.8 +0.1
TMUT  Trail Mountain    45.34  80 eP       P          23 22 36.9 +0.4
MURC  Murrieta          45.37  90 ⇑P       P          23 22 36.2 -0.6
      baz=45
V12A  Nelson            45.40  86 ⇑P       P          23 22 36.8 -0.1
      baz=45
GMRC  Granite Mounta    45.53  88  P       P          23 22 37.6 -0.4
      baz=45,SNR=6.2
T14A  Hurricane         45.62  84  P       P          23 22 39.2 +0.6
      baz=45,SNR=5.6
W12A  Cal Nev Ari       45.67  87 ⇓P       P          23 22 38.7 -0.3
      baz=46
BELC  Belle Mtn.        45.84  89 ⇑P       P          23 22 39.6 -0.8
      baz=46
IRM   Iron Mountain     46.26  88 ⇑P       P          23 22 43.1 -0.5
      baz=46
MONP  Monument Peak     46.33  91 ⇑P       P          23 22 43.6 -0.7
      baz=46
W13A  Hualapai Mount    46.41  86  P       P          23 22 44.6 -0.2
      baz=46,SNR=5.7
BC3   Big Chuckw Mtn    46.41  89 ⇑P       P          23 22 44.1 -0.8
      baz=46
DVTC  Desert V Tower    46.69  90 ⇓P       P          23 22 46.5 -0.6
      baz=46
X13A  Yucca             46.78  87  P       P          23 22 47.2 -0.5
      baz=47,SNR=5.6
PDMCI Parker Dam,Lak    46.78  87 ⇑P       P          23 22 47.1 -0.7
      baz=47
W14A  Seligman          46.83  86  P       P          23 22 48.0  0.0
      baz=47,SNR=6.5
Y12C  Blythe            46.92  88 ⇓P       P          23 22 48.3 -0.5
      baz=47
Y13A  Salome            47.30  88 ⇓P       P          23 22 51.5 -0.3
      baz=47
W15A  Williams          47.35  85 ⇑P       P          23 22 52.5 +0.3
      baz=47
X14A  Yava              47.44  86  P       P          23 22 52.9  0.0
      baz=47,SNR=9.0
ULM   Lac du Bonnet     47.60  59  P       P          23 22 52.3 -1.6
ULM                                ScP     ScP        23 28 03.7 -2.2
ULM   Lac du Bonnet     47.60  59  P       P          23 22 52.3 -1.6
      comp=Z,0.5nm,0.4s,mb3.7,baz=292,slow=14,SNR=3.3
ULM                                ScP     ScP        23 28 03.7 -2.2
      comp=Z,2.3nm,0.7s,baz=309,slow=5.0,SNR=6.7
WUAZ  Wupatki           47.67  84  P       P          23 22 54.9 +0.3
      baz=48,SNR=7.9
Y14A  Wickenburg        47.72  87 ⇑P       P          23 22 54.6 -0.4
      baz=48
X15A  Humboldt          47.83  86  P       P          23 22 56.0 +0.1
      baz=48,SNR=6.5
SONM  Songino Array     47.97 298  P       P          23 22 56.7 -0.1
SONM                               pmax    pmax
      comp=Z,2.0nm,0.6s
SONM                               pmax    pmax
      comp=N,2.0nm,0.8s
SONM  Songino Array     47.97 298  P       P          23 22 56.7 -0.1
      comp=N,2.0nm,0.6s,mb4.1,baz=49,slow=8.5,SNR=20
SONM                               ScP     ScP        23 28 05.3 -2.2
      comp=N,1.8nm,0.8s,baz=64,slow=4.8,SNR=6.1
Z14A  Wintersburg       48.15  87 ⇓P       P          23 22 57.9 -0.4
      baz=48
ZAK   Zakamensk         48.15 302 eP       P          23 22 57.8 -0.3
ZAK                               e                   23 23 29.4
ZAK                               e                   23 24 23.5
ZAK                                pmax    pmax
      comp=Z,2.0nm,1.2s,mb3.8
ZAK                                pmax    pmax
      comp=Z,1.0nm,1.0s,mb3.6
ZAK                                pmax    pmax
      comp=Z,1.0nm,1.0s,mb3.6
MVCO  Mesa Verde        48.31  80 ⇑P       P          23 22 59.2 -0.4
      baz=48
115A  Sonoran Desert    49.04  87  P       P          23 23 05.2  0.0
      baz=49,SNR=5.7
HHC   Hu-ho-hao-te      49.29 287 eP       P          23 23 09.0 +2.0
HHC                                AP      pP         23 23 35.3 +3.0
HHC                                XP      sP         23 23 47.8 +3.4
HHC                                PCP     PcP        23 24 31.2 +3.1
HHC                                PP      PP         23 25 05.1 +3.5
HHC                                AMB     AMB
      comp=Z,8.0nm,0.8s,mb4.7
HHC                                AMB     AMB
      comp=Z,138nm,5.1s
HHC                                LR      LR
      comp=N,380nm,14.9s
HHC                                LR      LR
      comp=E,449nm,19.0s
HHC                                LR      LR
      comp=Z,501nm,19.0s
116A  Eloy              49.46  87 ⇑P       P          23 23 07.8 -0.5
      baz=49
SDCO  Great Sand Dun    49.78  78 eP       P          23 23 10.4 -0.3
      comp=Z,7.5nm,0.8s,mb4.7
NJ2   Nanjing           50.69 273 eP       P          23 23 18.0 +0.3
NJ2                                AMB     AMB
      comp=Z,20nm,0.8s,mb5.2
ANMO  Albuquerque       51.05  81 eP       P          23 23 19.7 -0.6
      comp=Z,3.6nm,1.1s,mb4.3
ANMO  Albuquerque       51.05  81 eP       P          23 23 19.7 -0.6
ANMO                               pmax    pmax
      comp=Z,4.0nm,1.1s
LTX   Lajitas           56.64  84 eP       P          23 23 60.0 -1.1
      comp=Z,16nm,0.9s,mb5.0
LTX   Lajitas           56.64  84 eP       P          23 24 00.0 -1.1
LTX                                pmax    pmax
      comp=Z,15nm,0.9s,mb5.0
TXAR  Lajitas Array     56.64  84  P       P          23 24 00.3 -0.8
TXAR                               pmax    pmax
      comp=Z,7.0nm,0.5s
TXAR  Lajitas Array     56.64  84  P       P          23 24 00.3 -0.8
      comp=Z,6.7nm,0.5s,mb4.9,baz=305,slow=5.7,SNR=89
GTA   Gaotai            57.02 293 eP       P          23 24 03.0 -0.6
GTA                                AP      pP         23 24 29.1 -0.5
GTA                                XP      sP         23 24 42.2 +0.7
GTA                                PP      PP         23 26 13.0 +2.0
GTA                                PPP                23 27 34.7
GTA                                AMB     AMB
      comp=Z,5.0nm,0.5s,mb4.8
GTA                                AMB     AMB
      comp=Z,246nm,4.9s
GTA                                LR      LR
      comp=N,287nm,16.7s
GTA                                LR      LR
      comp=E,322nm,18.3s
GTA                                LR      LR
      comp=Z,294nm,17.5s
ARCES ARCESS Array B    57.56 351  P       P          23 24 06.7 -0.3
ARCES                                                 23 24 58.5
ARCES                              pmax    pmax
      comp=Z,2.0nm,0.7s
ARCES                              pmax    pmax
      comp=Z,3.0nm,0.9s
ARCES ARCESS Array B    57.56 351  P       P          23 24 06.7 -0.3
      comp=Z,1.8nm,0.7s,mb4.2,baz=13,slow=7.6,SNR=12
ARCES                              PcP     PcP        23 24 58.5 -0.6
      comp=Z,3.2nm,0.9s,baz=56,slow=4.9,SNR=5.2
MIAR  Mount Ida         59.03  72 eP       P          23 24 16.2 -1.5
      comp=Z,26nm,1.0s,mb5.2
MIAR  Mount Ida         59.03  72 eP       P          23 24 16.2 -1.5
MIAR                               pmax    pmax
      comp=Z,26nm,1.0s,mb5.2
KURK  Kurchatov         59.81 315 i P      P          23 24 22.3 -0.5
WMQ   Urumqi            60.48 304 eP       P          23 24 31.0 +3.5
WMQ                                AP      pP         23 24 58.1 +4.4
WMQ                                XP      sP         23 25 10.6 +5.1
WMQ                                PCP     PcP        23 25 13.4 +2.3
WMQ                                AMB     AMB
      comp=Z,6.0nm,0.6s,mb4.8
WMQ                                LR      LR
      comp=N,191nm,16.8s
WMQ                                LR      LR
      comp=Z,229nm,17.2s
CD2   Chengdu           60.67 283 eP       P          23 24 29.8 +0.8
CD2                                AMB     AMB
      comp=Z,10.0nm,0.6s,mb5.0
CD2                                AMB     AMB
      comp=Z,30nm,5.8s
MK31  Makanchi Array    60.99 310 eP       P          23 24 29.3 -1.7
MKAR  Makanchi Array    60.99 310  P       P          23 24 29.3 -1.6
MKAR                               pmax    pmax
      comp=Z,1.0nm,0.5s
MKAR  Makanchi Array    60.99 310  P       P          23 24 29.3 -1.6
      comp=Z,1.3nm,0.5s,mb4.2,baz=51,slow=6.1,SNR=48
GYA   Guiyang           62.13 278  P       P          23 24 40.6 +1.7
GYA                                AP      pP         23 25 07.8 +2.6
GYA                                XP      sP         23 25 19.8 +2.8
GYA                                PP      PP         23 27 00.6 +4.1
GYA                                AMB     AMB
      comp=Z,10.0nm,0.8s,mb4.9
GYA                                AMB     AMB
      comp=Z,70nm,5.8s
FINES FINESS Array B    65.36 349 i P      P          23 25 00.0 +0.5
FINES                              pmax    pmax
      comp=Z,3.0nm,1.1s
FINES FINESS Array B    65.36 349  P       P          23 24 58.9 -0.6
      comp=Z,3.4nm,1.1s,mb4.1,baz=29,slow=4.4,SNR=3.9
KMI   Kunming           65.50 280  P       P          23 25 01.6 +0.6
KMI                                AMB     AMB
      comp=Z,5.0nm,1.2s,mb4.2
NOA   NORSAR Array B    66.95 356  P       P          23 25 08.8 -0.9
NOA                                pmax    pmax
      comp=Z,1.0nm,1.0s
NOA   NORSAR Array B    66.95 356  P       P          23 25 08.8 -0.9
      comp=Z,1.4nm,0.9s,mb3.8,baz=357,slow=7.7,SNR=3.1
AAK   Ala-Archa         67.77 311 i P      P          23 25 13.7 -1.5
AKTK  Aktyubinsk        68.08 326  P       P          23 25 15.8 -1.2
AKTO  Aktyubinsk        68.08 326  P       P          23 25 15.8 -1.1
AKTO                               pmax    pmax
      comp=Z,1.0nm,0.5s,mb3.9
AKTO  Aktyubinsk        68.08 326  P       P          23 25 15.8 -1.2
      comp=Z,1.1nm,0.5s,mb4.0,baz=47,slow=8.0,SNR=7.4
LSA   Lhasa             68.94 291  P       P          23 25 19.9 -2.8
TAPN  Taplejung         72.69 292 eP       P          23 25 45.2 -0.2
      comp=Z,14nm,0.7s,mb4.9
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ODAN	**Odare**	**73.25**	**292**	*e*P	**P**	**23 25 47.9**	**-0.8**
GUN	**Gumba**	**73.30**	**294**	*e*P	**P**	**23 25 48.8**	**-0.2**
	comp=Z,16nm,0.4s,mb5.2						
JIRN	**Jiri**	**73.31**	**294**	*e*P	**P**	**23 25 48.9**	**-0.2**
	comp=Z,24nm,0.7s,mb5.1						
KKN	**Kakani**	**73.73**	**294**	*e*P	**P**	**23 25 51.0**	**-0.5**
	comp=Z,7.1nm,0.7s,mb4.5						
PKI	**Pulchoki**	**73.82**	**294**	*e*P	**P**	**23 25 51.3**	**-0.7**
GKN	**Gorkha**	**73.92**	**295**	*e*P	**P**	**23 25 51.7**	**-0.9**
	comp=Z,12nm,0.7s,mb4.7						
DMN	**Daman**	**73.96**	**294**	*e*P	**P**	**23 25 52.2**	**-0.7**
KOLN	**Koldanda**	**74.68**	**295**	*e*P	**P**	**23 25 56.2**	**-0.8**
	comp=Z,6.7nm,0.8s,mb4.4						
AKASG	**Malin Array Be**	**75.30**	**344**	P	**P**	**23 25 58.9**	**-1.3**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	**Malin Array Be**	**75.30**	**344**	P	**P**	**23 25 58.9**	**-1.3**
	comp=Z,0.5nm,0.4s,mb3.6,baz=17,slow=5.7,SNR=4.0						
WRA	**Warramunga Arr**	**83.97**	**226**	P	**P**	**23 26 46.2**	**-1.1**
WRA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
WRA	**Warramunga Arr**	**83.97**	**226**	P	**P**	**23 26 46.2**	**-1.1**
	comp=Z,1.7nm,0.6s,mb4.1,baz=36,slow=5.9,SNR=6.1						
PSI	**Prapat**	**84.96**	**268**	P	**P**	**23 26 52.6**	**0.0**
PSI				pmax	pmax		
	comp=Z,29nm,0.6s,mb5.4						
PSI	**Prapat**	**84.96**	**268**	P	**P**	**23 26 52.6**	**0.0**
	comp=Z,29nm,0.6s,mb5.4,baz=19,slow=4.4,SNR=27						
FITZ	**Fitzroy Crossi**	**86.51**	**234**	P	**P**	**23 26 59.5**	**-0.5**
	comp=Z,1.6nm,0.8s,mb4.0,baz=14,slow=12,SNR=3.9						
STKA	**Stephens Creek**	**91.71**	**215**	P	**P**	**23 27 22.1**	**-2.1**
	comp=Z,1.1nm,0.7s,mb4.2,baz=0.0,slow=4.0,SNR=4.0						
TORD	**Torodi Ar. Bea**	**114.86**	**3**	PKP	PKiKP	23 32 55.6	-1.8
TORD				SKP		23 36 20.3	
TORD	**Torodi Ar. Bea**	**114.86**	**3**	PKP	PKiKP	23 32 55.6	-1.8
	comp=Z,0.3nm,0.4s,baz=352,slow=2.4,SNR=14						
TORD				SKP		23 36 20.3	
	comp=Z,0.7nm,0.6s,baz=23,slow=2.6,SNR=12						
BOSA	**Boshof**	**151.72**	**318**	PKPbc	PKPbc	23 34 10.2	-0.6
BOSA	**Boshof**	**151.72**	**318**	PKPbc	PKPbc	23 34 10.2	-0.6
	comp=Z,5.2nm,0.7s,baz=227,slow=0.9,SNR=21						

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*IDC **02** 23:18:37.6±1.9, 2.28N×128.90E, h0^{km}, mb3.7/4, mb1 3.9/4, mb1mx3.7/16, mbtmp3.8/4, Error ellipse: s-maj=103.4km s-min=23.7km az=70.0*

NEIC 02 23:18:42.7±1.2**, 2.23N×128.82E, h35**^{km}**, Error ellipse: s-maj=66.3km s-min=14.0km az=72.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**20.45**	**189**	P	P	23 23 17.2	-0.1
	2.6nm,1.0s,baz=15,slow=12,SNR=3.1						
WRA	**Warramunga Arr**	**22.69**	**166**	P	P	23 23 41.8	+0.5
	1.5nm,0.8s,baz=346,slow=11,SNR=3.7						
STKA	**Stephens Creek**	**36.02**	**161**	P	P	23 25 40.4	-0.3
	1.1nm,0.5s,baz=352,slow=7.1,SNR=2.6						
MK31	**Makanchi Array**	**59.97**	**325**	*e*P	P	23 28 45.4	-0.2
MKAR	**Makanchi Array**	**59.97**	**325**	P	P	23 28 46.0	+0.4
	1.1nm,0.7s,baz=118,slow=8.1,SNR=8.4						

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*NIED **02** 23:20:00, 46.50N×153.10E, h56^{km}, Mw5.1 Best double couple: M$_0$5.51000$\times10^{16}$ NP1:φ$_s$333.00000°, δ11.00000°, λ-16.00000°. NP2:φ$_s$80.00000°, δ87.00000°, λ-101.00000°.*

*BJI **02** 23:20:18.5, 46.43N×153.15E, h10^{km}, mB5.0, mb4.7, Ms4.6, Msz4.2*

*NEIC **02** 23:20:22.8±0.5, 46.57N×152.55E, h10^{km}, mb4.8/12, Error ellipse: s-maj=17.8km s-min=7.7km az=146.0*

*JMA **02** 23:20:23.5±0.7, 46.48N×153.07E, h30^{km}, M5.4*

*ISCJB **02** 23:20:24.0±0.3, 46.14N±0.05×152.93E±0.05, h40^{km}, mb4.6/47, MS4.2/22, Error ellipse: s-maj=7.8km s-min=2.6km az=146.7*

*MOS **02** 23:20:25.7±1.5, 46.42N×152.67E, h50^{km}, mb4.5/23, MS4.0/10, Error ellipse: s-maj=9.2km s-min=6.7km az=80.9*

*SKHL **02** 23:20:25.2±1.1, 46.27N×152.98E, h41^{km}±4^{km}, mb6.5/1, Ms4.6/3, msh5.9/1*

*IDC **02** 23:20:27.3±0.8, 46.48N×152.54E, h40^{km}±4^{km}, mb4.0/17, mb1 4.2/18, mb1mx4.1/24, mbtmp4.0/18, ML4.1/1, MS4.1/14, Ms1 4.1/14, ms1mx3.9/24, Error ellipse: s-maj=21.5km s-min=12.9km az=156.0*

ISC 02 23:20:26.5±0.3**, 46.19N**±0.05×**152.93E**±0.05**, h42**^{km}**, h42**^{km}±2.5^{km}**:pP-P, n170, σ1**^{s}**42**/201**, mb4.6**/47**, MS4.2**/22**, 7C-1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**3.67**	**257**	⇑*i*PN	**Pn**	**23 21 21.4**	**+0.7**
KUR				*i* S	**Sn**	**23 22 03.0**	**+0.3**
KUR				pmax	pmax		
	comp=Z,4µm,2.0s						
KUR				pmax	pmax		
	comp=Z,840µm,0.6s						
KUR				pmax	pmax		
	comp=N,420nm,0.6s						
KUR				pmax	pmax		
	comp=E,190nm,0.6s						
KUR				smax			
	comp=N,3µm,0.8s						
KUR				smax			
	comp=E,3µm,0.8s						
KUR				smax			
	comp=N,12µm,2.0s						
KUR				smax			
	comp=E,7µm,2.0s						
KUR				MLR	MLR		
	comp=N,8µm,14.0s						
KUR				MLR	MLR		
	comp=E,8µm,14.0s						
KUR				MLR	MLR		
	comp=Z,8µm,14.0s						
KUR	**Kuril'sk**	**3.67**	**257**	*i* P	**Pn**	**23 21 21.4**	**+0.7**
KUR				AMB	AMB	23 21 22.0	
	comp=Z,4µm,2.0s						
KUR				AMB	AMB	23 21 23.7	
	comp=Z,420nm,0.6s						
KUR				AMB	AMB	23 21 23.7	
	comp=Z,190nm,0.6s						
KUR				AMB	AMB	23 21 23.7	
	comp=Z,840nm,0.6s						
KUR				*i* S	**Sn**	**23 22 03.0**	**+0.3**
KUR				A		23 22 16.0	
	comp=Z,3µm,0.8s						
KUR				A		23 22 16.0	
	comp=Z,3µm,0.8s						
KUR				A		23 22 19.0	
	comp=Z,12µm,2.0s						
KUR				A		23 22 19.0	
	comp=Z,7µm,2.0s						
KUR				AMS	AMS	23 22 46.0	
	comp=Z,8µm,14.0s						
KUR				AMS	AMS	23 22 46.0	
	comp=Z,8µm,14.0s						
SKR	**Severo-Kuril's**	**4.97**	**24**	*e*PN	**Pn**	**23 21 35.2**	**-3.3**
SKR				pmax	pmax		
	comp=N,150nm,0.5s						
SKR				pmax	pmax		
	comp=E,110nm,0.5s						
SKR				pmax	pmax		
	comp=Z,390nm,0.5s						
YUK	**Yuzh-Kuril'sk**	**5.45**	**249**	⇓*i*PN	**Pn**	**23 21 46.0**	**+0.9**
YUK				*i* S	**Sn**	**23 22 47.7**	**+1.3**
YUK				pmax	pmax		
	comp=E,320nm,0.2s						
YUK				pmax	pmax		
	comp=Z,1µm,0.2s						
YUK				pmax	pmax		
	comp=Z,3µm,1.5s						
YUK				smax			
	comp=E,2µm,0.7s						
YUK				smax			
	comp=N,3µm,0.5s						
YUK				smax			
	comp=N,15µm,1.5s						
YUK				smax			
	comp=E,8µm,1.5s						
YUK	**Yuzh-Kuril'sk**	**5.45**	**249**	*i* P	**Pn**	**23 21 46.0**	**+0.9**
YUK				AMB	AMB	23 21 47.0	
	comp=E,320nm,0.2s						
YUK				AMB	AMB	23 21 47.0	
	comp=E,1µm,0.2s						
YUK				AMB	AMB	23 21 47.8	
	comp=E,3µm,1.5s						
YUK				*i* S	**Sn**	**23 22 47.7**	**+1.3**
YUK				A		23 23 14.5	
	comp=E,3µm,0.7s						
YUK				A		23 23 14.5	
	comp=E,2µm,0.7s						
YUK				A		23 23 16.0	
	comp=E,15µm,1.5s						
YUK				A		23 23 16.0	
	comp=E,8µm,1.5s						
NEM2	**Nemuro 2**	**5.84**	**244**	P	**Pn**	**23 21 50.1**	**-0.4**
NEM2				*e*S	**Sn**	**23 22 54.8**	**-1.3**
JRA	**Rausu**	**5.97**	**251**	P	**Pn**	**23 21 54.4**	**+2.2**
JNK	**Nakash**	**6.38**	**249**	P	**Pn**	**23 21 59.1**	**+1.1**
JNK				*e*S	**Sn**	**23 23 10.2**	**+0.7**
JAK	**Akkeshi**	**6.69**	**244**	P	**Pn**	**23 22 01.7**	**-0.4**
JAK				*e*S	**Sn**	**23 23 15.3**	**-1.6**
JTKR	**Abashiri--Toko**	**6.76**	**254**	P	**Pn**	**23 22 05.0**	**+1.9**
YSS	**Yuzh-Sakhalins**	**7.05**	**280**	*e*Pn	**Pn**	**23 22 08.1**	**+1.0**
YSS				*e*Sn	**Sn**	**23 23 25.6**	**-0.3**
YSS	**Yuzh-Sakhalins**	**7.05**	**280**	⇑*i*PN	**Pn**	**23 22 07.9**	**+0.8**
YSS				*e*S	**Sn**	**23 23 24.2**	**-1.7**
YSS				pmax	pmax		
	comp=Z,40nm,0.8s						
YSS				pmax	pmax		
	comp=E,40nm,0.9s						
YSS				smax			
	comp=E,60nm,0.9s						
YSS				MLR	MLR		
	comp=Z,2µm,19.0s						
YSS				MLR	MLR		
	comp=E,2µm,18.0s						
YSS	**Yuzh-Sakhalins**	**7.05**	**280**	*i* P	**Pn**	**23 22 07.9**	**+0.8**
YSS				AMB	AMB	23 22 08.8	
	comp=E,40nm,0.9s						
YSS				*e*S	**Sn**	**23 23 24.2**	**-1.7**
YSS				A		23 23 25.6	
	comp=E,60nm,0.9s						
YSS				AMS	AMS	23 24 22.0	
	comp=E,2µm,19.0s						
JMP	**Maruseppu**	**7.11**	**256**	P	**Pn**	**23 22 10.1**	**+2.2**
JAR	**Ashorobuto**	**7.13**	**249**	P	**Pn**	**23 22 09.7**	**+1.5**
JAR				*e*S	**Sn**	**23 23 29.2**	**+1.3**
JOB	**Onbets**	**7.28**	**246**	P	**Pn**	**23 22 10.8**	**+0.6**
JOB				*e*S	**Sn**	**23 23 30.7**	**-0.8**
JSE	**Soyaes**	**7.36**	**264**	P	**Pn**	**23 22 14.8**	**+3.5**
JKK2	**Kamakawa 2**	**7.57**	**256**	P	**Pn**	**23 22 16.7**	**+2.4**
JKK2				*e*S	**Sn**	**23 23 42.6**	**+3.9**
ASAJ	**Asahikawa**	**7.59**	**258**	P	**Pn**	**23 22 17.2**	**+2.7**
ASAJ	**Asahikawa**	**7.59**	**258**	PN	**Pn**	**23 22 17.3**	**+2.8**
ASAJ				pmax	pmax		
	comp=Z,10.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,1µm,19.0s						
ASAJ	**Asahikawa**	**7.59**	**258**	P	**Pn**	**23 22 17.2**	**+2.8**
	comp=Z,9.8nm,0.3s,baz=89,slow=15,SNR=45						
ASAJ				LR	LR	23 25 02.5	
	comp=Z,1µm,19.0s,baz=172,slow=37						
JCH	**Churui**	**7.72**	**246**	P	**Pn**	**23 22 16.7**	**+0.4**
JCH				*e*S	**Sn**	**23 23 40.3**	**-2.2**
JWK2	**Keihoku**	**7.76**	**267**	P	**Pn**	**23 22 22.3**	**+5.4**
PET	**Petropavlovsk**	**7.78**	**26**	*e*PN	**Pn**	**23 22 15.7**	**-1.4**
PET				pmax	pmax		
	comp=Z,38nm,1.3s						
PET				MLR	MLR		
	comp=Z,700nm,16.0s						
UGL	**Uglegorsk**	**7.88**	**295**	*e*PN	**Pn**	**23 22 19.0**	**+0.5**
UGL				pmax	pmax		
	comp=Z,72nm,0.8s						
UGL				MLR	MLR		
	comp=Z,2µm,16.0s						
UGL				MLR	MLR		
	comp=N,600nm,15.0s						
UGL				MLR	MLR		
	comp=E,1µm,16.0s						
JFR	**Furan**	**7.96**	**251**	P	**Pn**	**23 22 21.2**	**+1.6**
JFR				*e*S	**Sn**	**23 23 49.1**	**+0.8**
JAB	**Ashibetsu**	**8.07**	**254**	P	**Pn**	**23 22 23.8**	**+2.8**
JEM	**Erimo**	**8.17**	**243**	P	**Pn**	**23 22 24.2**	**+1.7**
JEM				*e*S	**Sn**	**23 23 53.5**	**0.0**
ERM	**Erimo**	**8.18**	**243**	*e*Pn	**Pn**	**23 22 22.7**	**+0.2**
	comp=E,137nm,0.6s						
ERM				*e*Sn	**Sn**	**23 23 55.7**	**+2.2**
ERM	**Erimo**	**8.18**	**243**	*e*PN	**Pn**	**23 22 22.7**	**+0.2**
ERM				pmax	pmax		
	comp=Z,137nm,0.6s						
JNBK	**Urakawa-nobuka**	**8.28**	**245**	P	**Pn**	**23 22 23.5**	**-0.5**
JNBK				*e*S	**Sn**	**23 23 52.9**	**-3.3**
JBT2	**Biratori 2**	**8.29**	**249**	P	**Pn**	**23 22 24.5**	**+0.5**
JBT2				*e*S	**Sn**	**23 23 55.3**	**-0.9**
JEW	**Eniwo**	**8.86**	**252**	P	**Pn**	**23 22 33.2**	**+1.4**
JNB	**Noboribetsu**	**9.30**	**251**	P	**Pn**	**23 22 37.7**	**-0.1**
JNB				*e*S	**Sn**	**23 24 18.7**	**-2.3**
JKB	**Kayabe**	**9.58**	**248**	P	**Pn**	**23 22 41.2**	**-0.6**
JKB				*e*S	**Sn**	**23 24 22.2**	**-5.9**
OKH	**Okha**	**9.78**	**322**	*e*P	**Pn**	**23 22 40.0**	**-4.5**
OKH				AMS	AMS	23 27 54.6	
	comp=Z,1µm,10.0s						
OKH				AMS	AMS	23 27 54.6	
	comp=Z,2µm,10.0s						
OKH				AMS	AMS	23 27 54.6	
	comp=Z,2µm,10.0s						
JSH	**Shimam**	**9.88**	**254**	P	**Pn**	**23 22 47.1**	**+1.3**
JYM2	**Yakumo 2**	**9.90**	**250**	P	**Pn**	**23 22 46.0**	**-0.1**
JANG	**Nango**	**10.15**	**239**	P	**Pn**	**23 22 47.2**	**-2.3**
JANG				*e*S	**Sn**	**23 24 33.8**	**-8.1**
JSR	**Shiriuchi**	**10.16**	**247**	P	**Pn**	**23 22 48.8**	**-0.9**
JTM	**Tenmabayashi**	**10.17**	**242**	P	**Pn**	**23 22 48.2**	**-1.6**
JTM				*e*S	**Sn**	**23 24 35.4**	**-6.9**
JTH	**Tanohata**	**10.22**	**236**	P	**Pn**	**23 22 48.0**	**-2.5**
JTH				*e*S	**Sn**	**23 24 35.6**	**-8.1**
JOSM	**Okushiri--Mats**	**10.50**	**252**	P	**Pn**	**23 22 54.1**	**-0.3**
OFUJ	**Ofunato**	**10.91**	**233**	P	**Pn**	**23 22 57.8**	**-2.2**
JRG	**Rokugo**	**11.29**	**237**	P	**Pn**	**23 23 03.1**	**-2.1**
JRG				*e*S	**Sn**	**23 25 00.8**	**-9.1**
JIO	**Ouri**	**11.53**	**232**	P	**Pn**	**23 23 06.1**	**-2.4**
JIO				*e*S	**Sn**	**23 25 06.5**	**-9.3**
HABR	**Khabarovsk**	**12.34**	**287**	⇑*e*PN	**Pn**	**23 23 23.0**	**+3.6**
HABR				*e*S	**Sn**	**23 25 45.6**	**+10**
HABR				pmax	pmax		
	comp=Z,79nm,1.8s						
JFK	**Kawauchi**	**12.58**	**230**	P	**Pn**	**23 23 20.8**	**-2.0**
JFK				*e*S	**Sn**	**23 25 32.0**	**-10**
JFY	**Yanaizu**	**13.19**	**233**	P	**Pn**	**23 23 29.7**	**-1.4**
MA2	**Magadan**	**13.47**	**355**	*e*Pn	**Pn**	**23 23 33.7**	**-1.0**
MA2	**Magadan**	**13.47**	**355**	*e*PN	**Pn**	**23 23 32.3**	**-2.5**
MA2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
KLR	**Kul'dur**	**14.57**	**290**	*e*P	**Pn**	**23 23 46.2**	**-3.6**
MAJO	**Matsushiro**	**14.64**	**234**	*e*Pn	**Pn**	**23 23 48.3**	**-2.5**
	comp=Z,74nm,1.2s						
MAJO	**Matsushiro**	**14.64**	**234**	*e*P	**Pn**	**23 23 48.3**	**-2.5**
MAJO				pmax	pmax		
	comp=Z,73nm,1.2s						
MAT	**Matsushiro**	**14.64**	**234**	P	**Pn**	**23 23 48.5**	**-2.3**
MAT				*e*S	**Sn**	**23 26 26.0**	**-5.7**
MJAR	**Matsushiro Arr**	**14.64**	**234**	P	**Pn**	**23 23 49.4**	**-1.4**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	**Matsushiro Arr**	**14.64**	**234**	P	**Pn**	**23 23 49.4**	**-1.4**
	comp=Z,0.8nm,0.3s,baz=28,slow=14,SNR=16						
MDJ	**Mudanjiang**	**16.45**	**273**	P	**Pn**	**23 24 13.2**	**-0.9**
MDJ				AP	pP	23 24 18.6	-7.9
MDJ				XP	sP	23 24 20.2	-12
MDJ				S	**S**	**23 27 14.5**	**-12**
MDJ				PCP	PcP	23 29 03.8	-0.2
MDJ				SCP	ScP	23 32 39.0	+4.0
MDJ				SCS	ScS	23 36 19.6	+5.6
MDJ				AMB	AMB		
	comp=Z,13nm,1.1s						
MDJ				AMB	AMB		
	comp=Z,119nm,4.4s						
MDJ				LR	LR		
	comp=N,511nm,10.1s						
MDJ				LR	LR		
	comp=E,575nm,14.8s						
MDJ				LR	LR		
	comp=Z,845nm,14.8s						
SEY	**Seymchan**	**16.78**	**359**	*i* P	**Pn**	**23 24 17.8**	**-0.3**
CLNS	**Chul'man**	**20.29**	**312**	*e*P	**P**	**23 25 06.2**	**+7.8**
CLNS				pmax	pmax		
	comp=Z,17nm,1.1s						
CLNS				pmax	pmax		
	comp=N,17nm,1.3s						
CLNS				pmax	pmax		
	comp=E,17nm,1.0s						
KSRS	**Korea Array**	**20.51**	**254**	P	**P**	**23 25 01.7**	**+0.8**
	comp=E,22nm,1.0s,baz=57,slow=10,SNR=16						
KSRS				LR	LR	23 31 52.7	
	comp=E,374nm,19.9s,MS3.8,baz=60,slow=34						
YAK	**Yakutsk**	**20.73**	**328**	*e*P	**P**	**23 25 04.3**	**+1.3**
	comp=E,46nm,0.9s						
YAK	**Yakutsk**	**20.73**	**328**	*e*P	**P**	**23 25 05.2**	**+2.2**
YAK				*e**PP		23 25 22.6	
YAK				*e*S	**S**	**23 28 48.8**	**-3.1**
YAK				*e**SS	sS	23 29 07.7	-0.7
YAK				*e*		23 36 23.2	
YAK				pmax	pmax		
	comp=Z,15nm,1.2s						
YAK				pmax	pmax		
	comp=N,9.0nm,1.4s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.2s						
YAK				smax			
	comp=E,98nm,2.0s						
YAK				smax			
	comp=N,80nm,1.5s						
CBIJ	**Chichi jima**	**20.88**	**208**	LR	LR	23 31 31.1	
	comp=N,392nm,20.9s,MS3.8,baz=329,slow=32						
JNU	**Nakatsue**	**21.33**	**240**	P	**P**	**23 25 11.0**	**+1.3**
	comp=N,16nm,0.9s,mb4.3,baz=55,slow=13,SNR=4.7						
JNU				LR	LR	23 35 00.4	
	comp=N,347nm,18.0s,MS3.8,baz=35,slow=41						
INCN	**Inchon**	**21.36**	**255**	*e*P	**P**	**23 25 11.4**	**+1.3**
BILL	**Bilibino**	**22.96**	**13**	*e*P	**P**	**23 25 26.9**	**0.0**
BILL				*e*		23 25 53.0	
BILL				*e*		23 29 33.7	
BILL				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.7						
TNA	**Tin City**	**28.57**	**33**	*e*P	**P**	**23 26 18.2**	**+0.2**
	comp=Z,18nm,1.0s,mb4.8						
NJ2	**Nanjing**	**29.71**	**254**	*e*P	**P**	**23 26 30.2**	**+1.7**
NJ2				AMB	AMB		
	comp=Z,20nm,0.5s,mb5.1						
HHC	**Hu-ho-hao-te**	**30.21**	**275**	*e*P	**P**	**23 26 34.6**	**+1.8**
HHC				AP	pP	23 26 39.0	-5.2
HHC				XP	sP	23 26 41.6	-7.6
HHC				PP	PP	23 27 33.7	-7.6
HHC				PCP	PcP	23 29 36.0	+3.2
HHC				S	**S**	**23 31 35.5**	**+6.3**
HHC				XS	sS	23 31 40.2	-8.0
HHC				SS	SS	23 33 10.9	-28
HHC				SCP	ScP	23 33 17.0	+5.5
HHC				SCS	ScS	23 37 11.3	+4.1
HHC				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.6						
HHC				AMB	AMB		
	comp=Z,126nm,7.9s						
HHC				LR	LR		
	comp=N,304nm,14.8s,MS4.3						
HHC				LR	LR		
	comp=E,453nm,19.0s,MS4.3						
HHC				LR	LR		
	comp=Z,521nm,20.5s,MS4.2						
ULN	**Ulaanbaatar**	**30.96**	**290**	*i* P	**P**	**23 26 42.1**	**+2.7**
SONM	**Songino Array**	**31.40**	**290**	P	**P**	**23 26 41.2**	**-2.0**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM				MLR	MLR		
	comp=Z,551nm,19.2s						
SONM	**Songino Array**	**31.40**	**290**	P	**P**	**23 26 41.2**	**-2.0**
	comp=Z,0.6nm,0.7s,baz=65,slow=10,SNR=3.7						
SONM				LR	LR	23 40 07.3	
	comp=Z,551nm,19.2s,MS4.2,baz=266,slow=38						
ZAK	**Zakamensk**	**32.80**	**296**	*e*P	**P**	**23 26 52.4**	**-3.1**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.0						
GUMO	**Guam**	**33.20**	**194**	LR	LR	23 37 50.7	
	comp=Z,223nm,20.5s,MS3.9,baz=330,slow=31						
WHN	**Wuhan**	**33.67**	**256**	P	**P**	**23 27 03.5**	**+0.2**
IMA2	**Indian Mountai**	**34.33**	**35**	*e*P	**P**	**23 27 09.9**	**+1.3**
KDAK	**Kodiak Island**	**34.56**	**50**	P	**P**	**23 27 10.4**	**-0.3**
	comp=Z,18nm,1.0s,mb5.0,baz=306,slow=12,SNR=3.6						
XAN	**Xi'an**	**35.34**	**266**	P	**P**	**23 27 17.4**	**-0.3**
XAN				AP	pP	23 27 28.8	-0.4
XAN				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.8						
MCK	**McKinley**	**36.16**	**40**	*e*P	**P**	**23 27 24.5**	**+0.2**
	comp=Z,12nm,1.3s,mb4.7						
MCK	**McKinley**	**36.16**	**40**	*e*P	**P**	**23 27 24.5**	**+0.1**
MCK				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
SML	**Sawmill**	**36.47**	**43**	*e*P	**P**	**23 27 27.1**	**+0.2**
COLA	**College**	**36.66**	**38**	⇑*e*P	**P**	**23 27 29.3**	**+0.7**
LZH	**Lanzhou**	**37.78**	**272**	*e*P	**P**	**23 27 39.4**	**+1.0**
LZH				AP	pP	23 27 42.4	-7.6
LZH				XP	sP	23 27 44.3	-11
LZH				PP	PP	23 29 08.1	+3.0
LZH				*e*S	**S**	**23 33 29.0**	**+2.8**
LZH				SS	SS	23 36 04.9	-8.0
LZH				AMB	AMB		
	comp=Z,41nm,1.4s,mb5.0						
LZH				AMB	AMB		
	comp=Z,240nm,5.7s						
LZH				LR	LR		
	comp=E,420nm,13.3s						
LZH				LR	LR		
	comp=Z,640nm,14.6s,MS4.6						
GTA	**Gaotai**	**38.93**	**280**	*e*P	**P**	**23 27 49.0**	**+0.9**
GTA				AP	pP	23 27 52.3	-7.4
GTA				XP	sP	23 27 54.6	-10
GTA				PP	PP	23 29 23.9	+6.2
GTA				PPP		23 29 46.7	
GTA				PCP	PcP	23 29 58.5	+0.5
GTA				SCP	ScP	23 33 45.2	+2.5
GTA				S	**S**	**23 33 48.5**	**+5.0**
GTA				XS	sS	23 33 55.7	-7.1
GTA				SS	SS	23 36 33.9	-2.1
GTA				SCS	ScS	23 37 55.4	+1.6
GTA				AMB	AMB		
	comp=Z,4.0nm,1.3s,mb4.0						
GTA				AMB	AMB		
	comp=Z,158nm,5.7s						
GTA				LR	LR		
	comp=N,287nm,18.3s,MS4.3						
GTA				LR	LR		
	comp=E,320nm,17.9s,MS4.3						
GTA				LR	LR		
	comp=Z,331nm,18.3s,MS4.2						
EGAK	**Eagle**	**39.52**	**38**	*e*P	**P**	**23 27 51.9**	**-0.7**
	comp=Z,6.9nm,1.0s,mb4.3						
CD2	**Chengdu**	**40.71**	**266**	*e*P	**P**	**23 28 03.4**	**+0.5**
CD2				AP	pP	23 28 07.9	-6.6
CD2				XP	sP	23 28 10.8	-8.7
CD2				PP	PP	23 29 41.0	+3.9
CD2				S	**S**	**23 34 13.4**	**+3.2**
CD2				XS	sS	23 34 21.1	-8.5
CD2				SS	SS	23 37 09.7	-2.0
CD2				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.8						
CD2				AMB	AMB		
	comp=Z,200nm,10.8s						
CD2				LR	LR		
	comp=N,350nm,18.0s,MS4.4						
CD2				LR	LR		
	comp=E,370nm,16.8s,MS4.4						
CD2				LR	LR		
	comp=Z,520nm,16.8s,MS4.5						
GYA	**Guiyang**	**41.47**	**258**	⇑*i*P	**P**	**23 28 09.6**	**+0.4**
GYA				AP	pP	23 28 13.8	-7.1
GYA				XP	sP	23 28 15.2	-11
GYA				PP	PP	23 29 49.9	+4.4
GYA				PCP	PcP	23 30 09.0	+2.6
GYA				SCP	ScP	23 33 57.9	+5.1
GYA				SS	SS	23 37 24.0	-2.9
GYA				SCS	ScS	23 38 12.7	+3.4
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.6						
GYA				AMB	AMB		
	comp=Z,210nm,6.0s						
GYA				LR	LR		
	comp=N,380nm,13.6s,MS4.6						
GYA				LR	LR		
	comp=E,370nm,14.0s,MS4.6						
GYA				LR	LR		
	comp=Z,410nm,13.7s,MS4.5						
INK	**Inuvik**	**42.19**	**32**	P	**P**	**23 28 15.2**	**+0.6**
INK				*PP	pP	23 28 26.9	+0.6

INK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
INK				pmax	pmax		
	comp=Z,9.0nm,0.9s						
INK	**Inuvik**	**42.19**	**32**	P	**P**	**23 28 15.2**	**+0.5**
	comp=Z,10.0nm,0.9s,mb4.4,baz=273,slow=7.5,SNR=18						
INK				pP	pP	23 28 26.9	+0.6
	comp=Z,8.7nm,0.9s,baz=304,slow=5.4,SNR=10						
ZALV	**Zalesovo Beam**	**42.84**	**306**	P	**P**	**23 28 16.6**	**-3.4**
ZALV				PcP	PcP	23 30 10.3	-0.1
ZALV				LR	LR	23 46 49.6	
ZALV	**Zalesovo Beam**	**42.84**	**306**	P	**P**	**23 28 16.6**	**-3.4**
	comp=Z,0.4nm,0.3s,mb3.6,baz=70,slow=6.2,SNR=3.7						
ZALV				PcP	PcP	23 30 10.3	-0.1
	comp=Z,0.3nm,0.3s,baz=57,slow=5.3,SNR=2.9						
ZALV				LR	LR	23 46 49.6	
	comp=Z,243nm,18.0s,MS4.1,baz=75,slow=37						
ZAL	**Zalesovo**	**42.85**	**306**	P	**P**	**23 28 16.6**	**-3.5**
ZAL						23 30 10.3	
QIZ	**Qiongzhong**	**44.51**	**247**	P	**P**	**23 28 31.6**	**-2.3**
QIZ				*e*S	**S**	**23 35 09.5**	**+3.2**
QIZ				AMB	AMB		
	comp=Z,49nm,2.1s,mb5.0						
QIZ				LR	LR		
	comp=Z,343nm,23.4s,MS4.2						
WMQ	**Urumqi**	**45.01**	**292**	*e*P	**P**	**23 28 40.2**	**+2.6**
WMQ				AP	pP	23 28 44.7	-4.7
WMQ				XP	sP	23 28 47.2	-7.1
WMQ				PCP	PcP	23 30 20.7	+2.7
WMQ				PP	PP	23 30 26.5	+3.4
WMQ				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.3						
WMQ				LR	LR		
	comp=N,190nm,17.2s,MS4.2						
WMQ				LR	LR		
	comp=E,169nm,17.6s,MS4.2						
WMQ				LR	LR		
	comp=Z,228nm,17.2s,MS4.2						
KMI	**Kunming**	**45.02**	**260**	P	**P**	**23 28 39.0**	**+1.1**
KMI				AP	pP	23 28 44.0	-5.6
KMI				XP	sP	23 28 46.5	-8.0
KMI				PP	PP	23 30 25.3	+1.8
KMI				PPP		23 31 04.2	
KMI				S	**S**	**23 35 13.9**	**+0.3**
KMI				SS	SS	23 38 31.2	-5.1
KMI				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.6						
KMI				LR	LR		
	comp=N,151nm,16.8s,MS4.3						
KMI				LR	LR		
	comp=E,268nm,19.8s,MS4.3						
KMI				LR	LR		
	comp=Z,295nm,15.3s,MS4.3						
MKAR	**Makanchi Array**	**47.09**	**298**	P	**P**	**23 28 51.6**	**-2.3**
MKAR				PcP	PcP	23 30 25.5	+0.3
MKAR				LR	LR	23 49 43.3	
MKAR	**Makanchi Array**	**47.09**	**298**	P	**P**	**23 28 51.6**	**-2.3**
MKAR						23 30 25.5	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR				MLR	MLR		
	comp=Z,344nm,19.3s						
MKAR	**Makanchi Array**	**47.09**	**298**	P	**P**	**23 28 51.6**	**-2.3**
	comp=Z,1.1nm,0.6s,mb4.0,baz=77,slow=7.5,SNR=10						
MKAR				PcP	PcP	23 30 25.5	+0.3
	comp=Z,1.2nm,0.8s,baz=74,slow=1.9,SNR=4.1						
MKAR				LR	LR	23 49 43.3	
	comp=Z,344nm,19.3s,MS4.3,baz=65,slow=38						
KURK	**Kurchatov**	**47.57**	**304**	*i* P	**P**	**23 28 57.9**	**+0.3**
LSA	**Lhasa**	**50.18**	**273**	P	**P**	**23 29 18.9**	**+1.0**
BRVK	**Borovoye**	**51.16**	**310**	*e*P	**P**	**23 29 23.0**	**-1.9**
YKW3	**Yellowknife Ar**	**51.41**	**36**	*e*P	**P**	**23 29 26.7**	**0.0**
YKA	**Yellowknife Ar**	**51.45**	**36**	P	**P**	**23 29 27.3**	**+0.3**
YKA				*PP	pP	23 29 39.6	+0.7
YKA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
YKA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
YKA				MLR	MLR		
	comp=Z,109nm,18.6s						
YKA	**Yellowknife Ar**	**51.45**	**36**	P	**P**	**23 29 27.3**	**+0.3**
	comp=Z,3.7nm,1.0s,mb4.3,baz=298,slow=7.5,SNR=28						
YKA				pP	pP	23 29 39.6	+0.7
	comp=Z,4.5nm,0.8s,baz=296,slow=7.1,SNR=20						
YKA				LR	LR	23 54 44.5	
	comp=Z,109nm,18.6s,MS3.9,baz=200,slow=40						
CHTO	**Chiang Mai**	**51.87**	**257**	⇑*e*P	**P**	**23 29 31.4**	**+0.7**
	comp=Z,17nm,0.9s,mb5.0						
CHTO	**Chiang Mai**	**51.87**	**257**	⇑*e*P	**P**	**23 29 31.4**	**+0.8**
CHTO				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
AAK	**Ala-Archa**	**53.97**	**297**	*i* P	**P**	**23 29 43.6**	**-2.3**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
AAK				MLR	MLR		
	comp=Z,400nm,25.0s,MS4.4						
TAPN	**Taplejung**	**54.00**	**273**	*e*P	**P**	**23 29 47.0**	**+0.7**
	comp=Z,30nm,1.0s,mb5.2						
ODAN	**Odare**	**54.53**	**273**	*e*P	**P**	**23 29 50.5**	**+0.3**
	comp=Z,16nm,0.8s,mb5.1						
JIRN	**Jiri**	**54.86**	**275**	*e*P	**P**	**23 29 53.2**	**+0.6**
	comp=Z,67nm,1.0s,mb5.6						
GUN	**Gumba**	**54.92**	**275**	*e*P	**P**	**23 29 53.5**	**+0.5**
	comp=Z,48nm,1.1s,mb5.5						
ARU	**Arti**	**55.34**	**318**	*e*P	**P**	**23 29 55.8**	**+0.2**
KKN	**Kakani**	**55.41**	**276**	*e*P	**P**	**23 29 56.8**	**+0.3**
	comp=Z,59nm,1.1s,mb5.5						
PKI	**Pulchoki**	**55.46**	**275**	*e*P	**P**	**23 29 57.2**	**+0.3**
DMN	**Daman**	**55.65**	**276**	*e*P	**P**	**23 29 58.7**	**+0.5**
	comp=Z,130nm,1.4s						
GKN	**Gorkha**	**55.72**	**276**	*e*P	**P**	**23 29 59.1**	**+0.3**
	comp=Z,79nm,1.0s,mb5.7						
KOLN	**Koldanda**	**56.58**	**277**	*e*P	**P**	**23 30 05.2**	**+0.3**
	comp=Z,52nm,1.0s,mb5.5						
ARCES	**ARCESS Array B**	**58.34**	**341**	P	**P**	**23 30 14.8**	**-1.9**
ARCES	**ARCESS Array B**	**58.34**	**341**	P	**P**	**23 30 14.8**	**-1.9**
ARCES				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ARCES	**ARCESS Array B**	**58.34**	**341**	P	**P**	**23 30 14.8**	**-1.9**
	comp=Z,5.9nm,1.0s,mb4.6,baz=39,slow=7.4,SNR=2.5						
LRM	**Limekiln Ridge**	**61.64**	**52**	*e*P	**P**	**23 30 40.5**	**+0.9**
FCC	**Fort Churchill**	**61.80**	**33**	*e*P	**P**	**23 30 39.5**	**-1.0**
KBL	**Kabul**	**62.15**	**292**	*e*P	**P**	**23 30 41.6**	**-1.7**
BOZ	**Bozeman (W)**	**62.20**	**52**	*e*P	**P**	**23 30 45.0**	**+1.6**
	comp=Z,9.8nm,1.4s,mb4.8						
BOZ	**Bozeman (W)**	**62.20**	**52**	*e*P	**P**	**23 30 45.0**	**+1.6**
BOZ				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.8						
NVAR	**Mina Array Bea**	**62.81**	**62**	P	**P**	**23 30 49.5**	**+1.9**
	comp=Z,1.9nm,0.8s,mb4.3,baz=297,slow=5.2,SNR=12						
FINES	**FINESS Array B**	**64.49**	**335**	P	**P**	**23 30 56.0**	**-2.3**
FINES				pP	pP	23 31 08.6	-2.0
FINES				LR	LR	00 04 59.9	
FINES	**FINESS Array B**	**64.49**	**335**	P	**P**	**23 30 56.0**	**-2.3**
FINES				*PP	pP	23 31 08.6	-1.9
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
FINES	**FINESS Array B**	**64.49**	**335**	P	**P**	**23 30 56.0**	**-2.3**
	comp=Z,2.2nm,0.9s,mb4.2,baz=36,slow=5.4,SNR=8.8						
FINES				pP	pP	23 31 08.6	-2.0
	comp=Z,2.2nm,0.5s,baz=39,slow=7.5,SNR=3.6						
FINES				LR	LR	00 04 59.9	
	comp=Z,278nm,18.4s,MS4.5,slow=42						
SRU	**San Rafael**	**67.03**	**57**	*e*P	**P**	**23 31 16.3**	**+1.3**
	comp=Z,4.2nm,0.7s,mb4.6						
SRU	**San Rafael**	**67.03**	**57**	*e*P	**P**	**23 31 16.3**	**+1.3**
SRU				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
ULM	**Lac du Bonnet**	**67.03**	**41**	LR	LR	00 02 33.1	
	comp=Z,167nm,19.1s,MS4.3,baz=350,slow=38						
WRA	**Warramunga Arr**	**67.94**	**199**	P	**P**	**23 31 22.2**	**+1.4**
WRA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
WRA				MLR	MLR		
	comp=Z,104nm,21.6s						
WRA	**Warramunga Arr**	**67.94**	**199**	P	**P**	**23 31 22.2**	**+1.4**
	comp=Z,2.9nm,0.8s,mb4.4,baz=15,slow=6.7,SNR=8.1						
WRA				LR	LR	23 57 47.8	
	comp=Z,104nm,21.6s,MS4.0,baz=40,slow=33						
NB2	**NORSAR Subarra**	**68.72**	**341**	P	**P**	**23 31 23.6**	**-1.6**
	comp=Z,16nm,1.4s,mb4.8,baz=30,slow=6.5						
NOA	**NORSAR Array B**	**68.72**	**341**	P	**P**	**23 31 24.1**	**-1.1**
NOA				*PP	pP	23 31 35.4	-2.2
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	**NORSAR Array B**	**68.72**	**341**	P	**P**	**23 31 24.1**	**-1.2**
	comp=Z,3.4nm,0.9s,mb4.3,baz=28,slow=6.2,SNR=4.5						
NOA				pP	pP	23 31 35.4	-2.2
	comp=Z,2.2nm,0.6s,baz=27,slow=6.3,SNR=4.8						
KIV	**Kislovodsk**	**71.10**	**314**	*e*P	**P**	**23 31 42.8**	**+2.6**
KIV				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
ECSD	**EROS,Sioux Fal**	**71.37**	**46**	*e*P	**P**	**23 31 41.2**	**-0.6**
	comp=Z,28nm,1.5s,mb5.0						
AKASG	**Malin Array Be**	**71.94**	**326**	P	**P**	**23 31 43.3**	**-1.8**
AKASG				pP	pP	23 31 54.9	-2.6
AKASG	**Malin Array Be**	**71.94**	**326**	P	**P**	**23 31 43.3**	**-1.8**
AKASG				*PP	pP	23 31 54.9	-2.6
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	**Malin Array Be**	**71.94**	**326**	P	**P**	**23 31 43.3**	**-1.8**
	comp=Z,0.8nm,0.4s,mb4.0,baz=36,slow=6.2,SNR=7.0						
AKASG				pP	pP	23 31 54.9	-2.6
	comp=Z,1.2nm,0.4s,baz=32,slow=6.1,SNR=7.7						
SCHQ	**Schefferville**	**73.88**	**23**	LR	LR	00 05 35.0	
	comp=Z,111nm,18.3s,MS4.2,baz=316,slow=37						
DPC	**Dobruska-Polom**	**76.77**	**333**	*e*P	**P**	**23 32 12.8**	**-0.4**
CLL	**Collm**	**76.92**	**335**	*e*P	**P**	**23 32 12.0**	**-2.0**
CLL				*e*(sP)	sP	23 32 20.0	-11
MLR	**Muntele Rosu**	**77.45**	**325**	P	**P**	**23 32 17.5**	**+0.4**
MLR				pmax	pmax		
	comp=Z,2.0nm,0.4s						
MLR	**Muntele Rosu**	**77.45**	**325**	P	**P**	**23 32 17.5**	**+0.4**
	comp=Z,2.0nm,0.4s,mb4.4,baz=189,slow=13,SNR=4.4						
TXAR	**Lajitas Array**	**77.88**	**60**	P	**P**	**23 32 21.1**	**+1.3**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	**Lajitas Array**	**77.88**	**60**	P	**P**	**23 32 21.1**	**+1.3**
	comp=Z,1.0nm,0.6s,mb3.9,baz=294,slow=4.4,SNR=7.9						
STKA	**Stephens Creek**	**78.38**	**190**	LR	LR	00 03 02.0	
	comp=Z,101nm,19.9s,MS4.2,baz=26,slow=32						
KHC	**Kasperske Hory**	**78.69**	**334**	*i* P	**P**	**23 32 24.2**	**+0.3**
KHC	**Kasperske Hory**	**78.69**	**334**	*e*P	**P**	**23 32 23.5**	**-0.4**
GERES	**GERESS Array B**	**78.90**	**334**	P	**P**	**23 32 24.6**	**-0.5**
GERES				*PP	pP	23 32 36.7	-0.9
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	**GERESS Array B**	**78.90**	**334**	P	**P**	**23 32 24.6**	**-0.5**
	comp=Z,0.9nm,0.6s,mb3.9,baz=32,slow=5.3,SNR=9.5						
GERES				pP	pP	23 32 36.7	-0.9
	comp=Z,1.1nm,0.6s,baz=32,slow=4.8,SNR=6.5						
LOR	**Lormes**	**83.06**	**339**	*e*P	**P**	**23 32 43.9**	**-3.3**
	comp=Z,6.4nm,0.9s,mb4.7						
LOR	**Lormes**	**83.06**	**339**	*e*P	**P**	**23 32 43.9**	**-3.3**
LOR				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
LOR	**Lormes**	**83.06**	**339**	*e*P	**P**	**23 32 43.9**	**-3.3**
	comp=Z,13nm,0.9s,mb4.7						
SSF	**Saint Saulge**	**83.33**	**340**	*e*P	**P**	**23 32 44.9**	**-3.8**
	comp=Z,5.3nm,1.0s,mb4.5						
SSF	**Saint Saulge**	**83.33**	**340**	*e*P	**P**	**23 32 44.9**	**-3.8**
SSF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
SSF	**Saint Saulge**	**83.33**	**340**	*e*P	**P**	**23 32 44.9**	**-3.8**
	comp=Z,11nm,1.0s,mb4.5						
LPL	**La Plagne**	**83.94**	**337**	*e*P	**P**	**23 32 48.7**	**-3.1**
LPG	**La Plagne**	**83.95**	**337**	*e*P	**P**	**23 32 48.5**	**-3.4**
MBDF	**Montbardon**	**84.65**	**336**	*e*P	**P**	**23 32 51.7**	**-3.7**
	comp=Z,3.7nm,0.9s,mb4.5						
MBDF	**Montbardon**	**84.65**	**336**	*e*P	**P**	**23 32 51.7**	**-3.7**
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
MBDF	**Montbardon**	**84.65**	**336**	*e*P	**P**	**23 32 51.7**	**-3.7**
	comp=Z,7.4nm,0.9s,mb4.5						
ORIF	**Oris-en-Rattie**	**84.72**	**337**	*e*P	**P**	**23 32 52.2**	**-3.6**
	comp=Z,4.4nm,0.7s,mb4.7						
ORIF	**Oris-en-Rattie**	**84.72**	**337**	*e*P	**P**	**23 32 52.2**	**-3.6**
ORIF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.7						
ORIF	**Oris-en-Rattie**	**84.72**	**337**	*e*P	**P**	**23 32 52.2**	**-3.6**
	comp=Z,8.9nm,0.7s,mb4.7						
TORD	**Torodi Ar. Bea**	**115.51**	**329**	pPKP	pPKPdf	23 39 16.7	-0.6
	comp=Z,0.2nm,0.5s,baz=352,slow=2.0,SNR=1.6						

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*NEIC **03** 00:19:32.7, 3782S×17426E, h12^{km}, ML3.8(WEL), After WEL.*

WEL 03 00:19:32.6±0.1**, 3782S×17426E, h12**^{km}**, ML3.8**/31**, Error ellipse: s-maj=1.5km s-min=0.5km az=90.0, Unusual location off the Waikato river, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HIZ	**Hauiti**	**0.84**	**146**	P	Pg	00 19 47.4	-1.4
HIZ				S	Sg	00 19 59.2	-0.6
HIZ	**Hauiti**	**0.84**	**146**	P*	Pb	00 19 47.3	-1.8
HIZ				S*	Sb	00 19 59.1	-1.3
WTAZ	**Waiatarua**	**0.92**	**16**	P	Pg	00 19 49.7	-0.6
WTAZ	**Waiatarua**	**0.92**	**16**	P*	Pb	00 19 49.6	-0.8
TOZ	**Tahuroa Road**	**0.99**	**85**	P	Pb	00 19 50.6	-1.1
TOZ				S	Sg	00 20 03.7	-0.9
TOZ	**Tahuroa Road**	**0.99**	**85**	P*	Pb	00 19 50.6	-1.0
TOZ				S*	Sb	00 20 03.7	-1.0
MKAZ	**Moumakai**	**1.01**	**46**	P	Pb	00 19 50.9	-1.1
MKAZ	**Moumakai**	**1.01**	**46**	P*	Pb	00 19 50.9	-1.1
OTAZ	**Otara**	**1.02**	**32**	P	Pb	00 19 51.2	-0.9
OTAZ	**Otara**	**1.02**	**32**	P*	Pb	00 19 51.0	-1.1
KAAZ	**Kauri Point**	**1.05**	**20**	P	Pb	00 19 52.1	-0.7
KAAZ	**Kauri Point**	**1.05**	**20**	P*	Pb	00 19 51.8	-1.0
VRZ	**Vera Road**	**1.36**	**163**	P	Pn	00 19 56.0	-1.4
VRZ	**Vera Road**	**1.36**	**163**	PN	Pn	00 19 55.9	-1.5
PKE	**Pukeiti**	**1.39**	**189**	P	Pn	00 19 56.7	-1.1
PKE	**Pukeiti**	**1.39**	**189**	PN	Pn	00 19 56.7	-1.1
NEZ	**North Egmont**	**1.46**	**185**	P	Pn	00 19 58.1	-0.6
NEZ	**North Egmont**	**1.46**	**185**	PN	Pn	00 19 57.6	-1.1
WATZ	**Wairara**	**1.46**	**128**	P	Pn	00 19 58.1	-0.7
WATZ	**Wairara**	**1.46**	**128**	PN	Pn	00 19 58.1	-0.7
RAEZ	**Rainy Point**	**1.47**	**176**	P	Pn	00 19 58.4	-0.5
RAEZ	**Rainy Point**	**1.47**	**176**	PN	Pn	00 19 58.4	-0.4
NWEZ	**Newall Road**	**1.48**	**192**	P	Pn	00 19 58.4	-0.7
NWEZ	**Newall Road**	**1.48**	**192**	PN	Pn	00 19 58.4	-0.7
TWVZ	**Taurewa**	**1.56**	**144**	P	Pn	00 19 59.0	-1.1
TWVZ	**Taurewa**	**1.56**	**144**	PN	Pn	00 19 59.0	-1.1
KUZ	**Kuaotunu**	**1.58**	**48**	*e*P	Pn	00 19 58.8	-1.6
KUZ	**Kuaotunu**	**1.58**	**48**	PN	Pn	00 19 58.8	-1.7
KARZ	**Kaharoa**	**1.58**	**98**	P	Pn	00 19 59.5	-1.0
KARZ	**Kaharoa**	**1.58**	**98**	PN	Pn	00 19 59.5	-0.9
WHTZ	**Whakaora**	**1.58**	**123**	*e*PN	Pn	00 19 59.9	-0.6
RATZ	**Rangitukua**	**1.59**	**132**	P	Pn	00 20 00.2	-0.3
RATZ	**Rangitukua**	**1.59**	**132**	PN	Pn	00 20 00.2	-0.3
TGRZ	**Tauranga**	**1.59**	**87**	P	Pn	00 19 59.4	-1.1
TGRZ	**Tauranga**	**1.59**	**87**	PN	Pn	00 19 59.4	-1.1
KATZ	**Kakaramea**	**1.62**	**136**	P	Pn	00 20 00.4	-0.5
KATZ	**Kakaramea**	**1.62**	**136**	PN	Pn	00 20 00.4	-0.5
WTVZ	**West Tongariro**	**1.67**	**141**	P	Pn	00 20 01.0	-0.6
WTVZ	**West Tongariro**	**1.67**	**141**	PN	Pn	00 20 01.0	-0.6
KRVZ	**Karewarewa**	**1.68**	**140**	PN	Pn	00 20 01.2	-0.5
PATZ	**Paeroa**	**1.68**	**110**	P	Pn	00 20 01.4	-0.3
PKVZ	**Pokaka**	**1.70**	**150**	PN	Pn	00 20 01.4	-0.7
RITZ	**Rihia Road**	**1.71**	**133**	P	Pn	00 20 02.4	+0.2
RITZ	**Rihia Road**	**1.71**	**133**	PN	Pn	00 20 02.4	+0.2
WPVZ	**Whakapapa**	**1.71**	**144**	P	Pn	00 20 01.8	-0.4
WPVZ	**Whakapapa**	**1.71**	**144**	PN	Pn	00 20 01.8	-0.4
NGZ	**Ngauruhoe**	**1.72**	**143**	P	Pn	00 20 01.7	-0.6
NGZ	**Ngauruhoe**	**1.72**	**143**	PN	Pn	00 20 01.7	-0.6
OTVZ	**Oturere**	**1.74**	**141**	PN	Pn	00 20 02.5	-0.1
FWVZ	**Far West T-bar**	**1.76**	**145**	P	Pn	00 20 02.4	-0.4
FWVZ	**Far West T-bar**	**1.76**	**145**	PN	Pn	00 20 02.4	-0.5
DRZ	**Dome Shelter**	**1.78**	**145**	P	Pn	00 20 03.9	+0.8
DRZ				P		00 20 04.1	
TRVZ	**Turoa**	**1.79**	**146**	PN	Pn	00 20 03.3	0.0
TUVZ	**Tukino**	**1.82**	**143**	P	Pn	00 20 03.8	+0.2
TUVZ	**Tukino**	**1.82**	**143**	PN	Pn	00 20 03.8	+0.1
MTVZ	**Mangateitei**	**1.83**	**149**	PN	Pn	00 20 03.4	-0.5
WNVZ	**Wahianoa**	**1.84**	**146**	P	Pn	00 20 03.7	-0.2
WNVZ	**Wahianoa**	**1.84**	**146**	PN	Pn	00 20 03.7	-0.2
WCZ	**Waipu Caves**	**1.88**	**2**	*e*P	Pn	00 20 03.2	-1.2
WCZ	**Waipu Caves**	**1.88**	**2**	PN	Pn	00 20 03.2	-1.2
MOVZ	**Moawhango**	**1.97**	**144**	P	Pn	00 20 05.8	0.0
MOVZ	**Moawhango**	**1.97**	**144**	PN	Pn	00 20 05.8	0.0
WAZ	**Wanganui**	**2.02**	**164**	P	Pn	00 20 06.3	-0.1
BKZ	**Black Stump Fm**	**2.21**	**128**	*e*P	Pn	00 20 08.6	-0.5
BKZ	**Black Stump Fm**	**2.21**	**128**	PN	Pn	00 20 08.6	-0.4
OUZ	**Omahuta**	**2.65**	**348**	*e*P	Pn	00 20 14.2	-0.8
DUWZ	**D'Urville Isla**	**2.99**	**185**	PN	Pn	00 20 19.5	-0.3
MRZ	**Mangatainoka R**	**3.02**	**161**	*e*P	Pn	00 20 21.3	+1.1
KIW	**Kapiti Island**	**3.08**	**171**	P	Pn	00 20 21.7	+0.7
KIW	**Kapiti Island**	**3.08**	**171**	*e*PN	Pn	00 20 20.6	-0.4
QRZ	**Quartz Range**	**3.29**	**203**	P	Pn	00 20 22.5	-1.4
QRZ	**Quartz Range**	**3.29**	**203**	PN	Pn	00 20 22.5	-1.4
CAW	**Cannon Point**	**3.34**	**169**	P	Pn	00 20 26.1	+1.4
TCW	**Tory Channel**	**3.39**	**180**	P	Pn	00 20 25.4	+0.1
MRW	**Makara Radio**	**3.42**	**174**	P	Pn	00 20 27.2	+1.5
NNZ	**Nelson**	**3.46**	**191**	P	Pn	00 20 26.0	-0.3
NNZ	**Nelson**	**3.46**	**191**	PN	Pn	00 20 26.0	-0.2
TUWZ	**Tuamarina**	**3.62**	**184**	PN	Pn	00 20 28.5	+0.2
BSWZ	**Blackbirch Sta**	**3.90**	**184**	P	Pn	00 20 33.0	+0.7
THZ	**Tophouse**	**4.08**	**194**	*e*P	Pn	00 20 34.7	0.0
THZ	**Tophouse**	**4.08**	**194**	PN	Pn	00 20 34.7	0.0
DSZ	**Denniston Nort**	**4.35**	**205**	P	Pn	00 20 37.5	-1.0
DSZ	**Denniston Nort**	**4.35**	**205**	PN	Pn	00 20 37.5	-1.0
KHZ	**Kahutara**	**4.63**	**187**	P	Pn	00 20 43.3	+1.0
KHZ	**Kahutara**	**4.63**	**187**	PN	Pn	00 20 43.3	+1.0
MQZ	**McQueen's Vall**	**6.01**	**191**	SN	Sn	00 22 03.4	-6.5

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*BJI **03** 00:47:55.9, 1361N×9359E, h30^{km}, mB4.1, mb4.3*

*NEIC **03** 00:47:59.8±0.2, 1395N×9386E, h30^{km}, mb4.8/15, Error ellipse: s-maj=7.0km s-min=5.0km az=50.0*

*ISCJB **03** 00:48:00.4±1.1, 1395N±0.05×9374E±0.04, h52^{km}±9^{km}, mb4.5/36, MS3.4/4, Error ellipse: s-maj=8.6km s-min=6.6km az=22.3*

*IDC **03** 00:48:04.3±0.7, 1390N×9381E, h68^{km}±5^{km}, mb4.1/20, mb1 4.1/21, mb1mx4.0/27, mbtmp4.1/21, MS3.5/5, Ms1 3.5/5, ms1mx3.2/28, Error ellipse: s-maj=16.1km s-min=10.2km az=54.0*

ISC 03 00:48:02.2±0.9**, 1396N**±0.05×**9371E**±0.04**, h49**^{km}±8^{km}**, h72**^{km}±2.3^{km}**:pP-P, n80, σ1**^{s}**20**/77**, mb4.5**/36**, MS3.4**/4**, 7C-3D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	**Nakhon Sawan**	**6.44**	**74**	⇑P	**Pn**	**00 49 36.5**	**+2.1**
	158nm,0.5s						
CM31	**Chiang Mai Arr**	**6.72**	**48**	*e*Pn	**Pn**	**00 49 40.8**	**+2.5**
	24nm,0.6s						
CM31				*e*Sn	**Sn**	**00 50 51.2**	**-2.4**
CHG	**Chiang Mai**	**6.96**	**45**	⇓P	**Pn**	**00 49 44.3**	**+2.7**
	50nm,0.8s						
CHTO	**Chiang Mai**	**6.96**	**45**	*e*Pn	**Pn**	**00 49 43.5**	**+1.9**
	45nm,0.8s						
CHTO				*e*Sn	**Sn**	**00 50 59.1**	**-0.4**
NANT	**Nan**	**8.25**	**53**	⇓P	**Pn**	**00 50 01.0**	**+1.7**
	169nm,0.7s						
CHRT	**Chiangrai**	**8.26**	**44**	⇑P	**Pn**	**00 50 03.0**	**+3.6**
	184nm,0.8s						
KKTK	**Khon Kaen**	**9.11**	**74**	P	**Pn**	**00 50 15.5**	**+4.5**
	802nm,0.6s						
PSI	**Prapat**	**12.23**	**155**	P	**Pn**	**00 50 57.7**	**+3.9**
PSI				LR	LR	00 55 43.7	
PSI	**Prapat**	**12.23**	**155**	P	**Pn**	**00 50 57.7**	**+3.9**
	0.8nm,0.3s,baz=331,slow=13,SNR=6.0						
PSI				LR	LR	00 55 43.7	
	comp=Z,250nm,21.1s,baz=295,slow=38						
ODAN	**Odare**	**14.13**	**336**	*e*P	**Pn**	**00 51 17.8**	**-1.8**
	51nm,0.3s						
PALK	**Pallekele**	**14.41**	**244**	*e*Pn	**Pn**	**00 51 23.8**	**+0.5**
	22nm,0.7s						
PALK				*e*Sn	**Sn**	**00 53 51.4**	**-10**
TAPN	**Taplejung**	**14.45**	**338**	*e*P	**Pn**	**00 51 21.5**	**-2.4**
	26nm,0.3s						
HYB	**Hyderabad**	**14.99**	**285**	*e*P	**Pn**	**00 51 31.0**	**-0.1**
	65nm,1.0s						
HYB				*e*		00 51 39.0	
HYB				*e*S	Sn	00 54 11.0	-5.1
HYB	**Hyderabad**	**14.99**	**285**	*i* P	**Pn**	**00 51 31.0**	**-0.1**
	65nm,1.0s						
HYB				*e*		00 51 39.0	
HYB				*e*S	**Sn**	**00 54 20.0**	**+3.9**
JIRN	**Jiri**	**15.33**	**334**	*e*P	**Pn**	**00 51 34.4**	**-0.9**
	45nm,0.4s						
PKI	**Pulchoki**	**15.60**	**332**	*e*P	**Pn**	**00 51 37.4**	**-1.4**
	50nm,0.3s						
GUN	**Gumba**	**15.68**	**333**	*e*P	**Pn**	**00 51 39.0**	**-0.9**
	88nm,0.7s						
DMN	**Daman**	**15.77**	**331**	*e*P	**Pn**	**00 51 40.6**	**-0.4**
LSA	**Lhasa**	**15.84**	**352**	P	**Pn**	**00 51 42.5**	**+0.6**
KKN	**Kakani**	**15.84**	**332**	*e*P	**Pn**	**00 51 41.4**	**-0.6**
	40nm,0.6s						
GKN	**Gorkha**	**16.33**	**330**	*e*P	**Pn**	**00 51 46.4**	**-1.7**
	62nm,0.4s						
KOLN	**Koldanda**	**16.66**	**327**	*e*P	**Pn**	**00 51 50.8**	**-1.5**
	89nm,0.6s						
GYA	**Guiyang**	**17.37**	**42**	P	**Pn**	**00 52 03.7**	**+2.6**
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s						
XAN	**Xi'an**	**24.28**	**32**	P	**P**	**00 53 14.3**	**-0.6**
XAN				AP		00 53 29.4	
XAN				AMB	AMB		
	comp=Z,16nm,0.9s,mb4.5						
GTA	**Gaotai**	**25.91**	**11**	*e*P	**P**	**00 53 32.6**	**+3.0**
GTA				AP	pP	00 53 36.7	-5.6
GTA				XP	sP	00 53 40.0	-8.2
GTA				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.0						
XMIS	**Christmas Isla**	**27.02**	**153**	*e*P	**P**	**00 53 46.8**	**+7.0**
XMIS				*e*S	**S**	**00 58 09.8**	**-4.4**
MK31	**Makanchi Array**	**34.10**	**346**	⇓Pn	**P**	**00 54 39.8**	**-2.2**
	comp=Z,4.0nm,0.8s,mb4.4						
MK31				⇑Lg		00 57 19.0	
	comp=Z,0.4nm,0.4s,baz=191,slow=2.3,SNR=2.5						
MK31	**Makanchi Array**	**34.10**	**346**	*e*P	**P**	**00 54 40.6**	**-1.4**
MK31				*e*PcP	PcP	00 57 19.0	+0.5
MKAR	**Makanchi Array**	**34.10**	**346**	P	**P**	**00 54 42.6**	**+0.6**
	comp=Z,3.2nm,0.7s,mb4.4,baz=145,slow=8.3,SNR=32						
MKAR				PcP	PcP	00 57 19.2	+0.7
	comp=Z,0.3nm,0.4s,baz=160,slow=5.4,SNR=4.7						
MKAR				ScP	ScP	01 00 58.9	-0.6
	comp=Z,0.6nm,0.7s,baz=155,slow=3.6,SNR=5.3						
MKAR				LR	LR	01 11 31.4	
	comp=Z,117nm,18.9s,MS3.6,baz=142,slow=41						
SONM	**Songino Array**	**35.38**	**15**	P	**P**	**00 54 52.6**	**-0.4**
	comp=Z,0.8nm,0.6s,mb3.8,baz=202,slow=8.7,SNR=6.7						
SONM				pP	pP	00 55 11.5	+5.6
	comp=Z,4.8nm,1.0s,baz=200,slow=9.6,SNR=13						
SONM				PcP	PcP	00 57 23.5	+1.3
	comp=Z,1.3nm,0.8s,baz=200,slow=3.3,SNR=3.7						
SONM				ScP	ScP	01 01 03.2	-0.9
	comp=Z,1.3nm,0.6s,baz=198,slow=3.1,SNR=8.8						
KSRS	**Korea Array**	**38.36**	**46**	P	**P**	**00 55 17.7**	**-0.8**
	comp=Z,2.9nm,0.7s,mb4.1,baz=242,slow=10,SNR=6.9						
KSRS				pP	pP	00 55 36.0	+4.4
	comp=Z,3.7nm,0.8s,baz=247,slow=7.4,SNR=5.0						
KSRS				LR	LR	01 12 41.4	
	comp=Z,52nm,18.7s,MS3.4,baz=335,slow=39						
KURK	**Kurchatov**	**38.65**	**345**	*e*P	**P**	**00 55 19.4**	**-1.3**
	comp=Z,5.3nm,0.8s,mb4.3						
JNU	**Nakatsue**	**38.77**	**54**	LR	LR	01 15 03.9	
	comp=Z,57nm,18.3s,MS3.4,baz=284,slow=42						
ZALV	**Zalesovo Beam**	**40.50**	**352**	P	**P**	**00 55 37.4**	**+1.2**
	comp=Z,6.2nm,0.6s,mb4.4,baz=178,slow=8.5,SNR=36						
ZALV				LR	LR	01 13 28.8	
	comp=Z,34nm,19.1s,MS3.2,baz=98,slow=38						
BRVK	**Borovoye**	**43.21**	**339**	*e*P	**P**	**00 56 00.4**	**+2.1**
	comp=Z,6.6nm,0.8s,mb4.4						
FITZ	**Fitzroy Crossi**	**44.79**	**134**	*e*P	**P**	**00 56 10.1**	**-1.3**
	comp=Z,35nm,0.5s,mb5.4						
FITZ	**Fitzroy Crossi**	**44.79**	**134**	P	**P**	**00 56 10.2**	**-1.1**
	comp=Z,17nm,0.5s,mb5.1,baz=324,slow=7.0,SNR=114						
MAJO	**Matsushiro**	**45.59**	**52**	*e*P	**P**	**00 56 15.7**	**-1.8**
	comp=Z,5.6nm,0.8s,mb4.5						
MJAR	**Matsushiro Arr**	**45.59**	**52**	P	**P**	**00 56 16.6**	**-0.9**
	comp=Z,1.4nm,0.7s,mb4.0,baz=265,slow=8.5,SNR=4.0						
MJAR				PcP	PcP	00 57 55.7	+0.3
	comp=Z,1.6nm,0.4s,baz=239,slow=2.9,SNR=7.2						
AKTK	**Aktyubinsk**	**46.49**	**329**	P	**P**	**00 56 24.6**	**+0.3**
AKTO	**Aktyubinsk**	**46.49**	**329**	P	**P**	**00 56 24.6**	**+0.3**
	comp=Z,2.7nm,0.5s,mb4.4,baz=132,slow=6.9,SNR=14						
ARU	**Arti**	**50.18**	**335**	*e*P	**P**	**00 56 52.9**	**+0.2**
	comp=Z,92nm,2.3s,mb5.4						
MUN	**Mundaring**	**50.51**	**155**	*e*P	**P**	**00 56 55.2**	**-0.3**
KLBR	**Kellerberrin**	**50.83**	**153**	*e*P	**P**	**00 56 56.9**	**-1.0**
	comp=Z,18nm,0.9s,mb5.0						

NWAO	Narrogin (SRO)	51.76	155	P	P	00 57 03.5	-1.4
	comp=Z,9.4nm,0.5s,mb5.0,baz=310,slow=8.9,SNR=8.4						
WRA	Warramunga Arr	52.27	129	P	P	00 57 07.8	-1.1
	comp=Z,8.6nm,0.5s,mb4.9,baz=311,slow=7.9,SNR=24						
WRA				pP	pP	00 57 25.4	+2.9
	comp=Z,5.8nm,0.8s,baz=312,slow=8.1,SNR=5.1						
WRA				PcP	PcP	00 58 19.2	-0.6
	comp=Z,3.9nm,0.5s,baz=320,slow=3.2,SNR=10						
WB2	Warramunga Arr	52.28	129	eP	P	00 57 07.9	-1.1
KIV	Kislovodsk	52.64	315	eP	P	00 57 13.2	+1.9
	comp=Z,12nm,0.8s,mb4.9						
MALT	Malatya	54.34	307	eP	P	00 57 25.0	+1.0
	comp=Z,3.0nm,1.0s,mb4.2						
ASF	Jabal al Asfar	54.71	300	P	P	00 57 28.1	+1.3
	comp=Z,1.8nm,0.7s,mb4.2,baz=160,slow=16,SNR=6.1						
FORT	Forrest	55.40	144	eP	P	00 57 31.2	-0.4
	comp=Z,17nm,0.5s,mb5.3						
EIL	Elat	56.20	296	P	P	00 57 37.9	+0.4
	comp=Z,4.7nm,0.8s,mb4.6,baz=6.8,slow=22,SNR=4.6						
BRTR	Keskin Array B	58.25	308	P	P	00 57 52.7	+0.9
	comp=Z,2.4nm,0.7s,mb4.3,baz=119,slow=7.7						
TIXI	Tiksi	61.39	12	eP	P	00 58 12.5	-0.3
	comp=Z,4.3nm,0.4s,mb4.9						
TIXI				epP	pP	00 58 29.6	+3.1
TIXI				esP	sP	00 58 39.5	+7.3
MA2	Magadan	61.63	29	eP	P	00 58 14.3	-0.3
	comp=Z,6.3nm,0.9s,mb4.8						
STKA	Stephens Creek	64.66	136	eP	P	00 58 34.4	-0.7
	comp=Z,3.1nm,0.6s,mb4.5						
STKA	Stephens Creek	64.66	136	P	P	00 58 34.2	-0.8
	comp=Z,2.9nm,0.6s,mb4.5,baz=316,slow=5.5,SNR=15						
JOF	Joensuu	65.23	333	ep	P	00 58 38.3	0.0
	comp=Z,2.8nm,0.5s,mb4.5						
FINES	FINESS Array B	67.18	331	P	P	00 58 51.1	+0.3
	comp=Z,1.8nm,0.5s,mb4.4,baz=95,slow=5.7,SNR=14						
ARCES	ARCESS Array B	69.44	340	P	P	00 59 06.1	+1.3
	comp=Z,1.6nm,0.5s,mb4.2,baz=96,slow=6.8,SNR=14						
HFS	Hagfors	73.03	329	P	P	00 59 26.6	-0.1
HFS	Hagfors	73.03	329	P	P	00 59 26.6	-0.1
	comp=Z,1.8nm,0.5s,mb4.3,baz=121,slow=5.5,SNR=12						
GERES	GERESS Array B	73.07	317	P	P	00 59 28.2	+1.1
	comp=Z,1.6nm,0.5s,mb4.2,baz=85,slow=6.7,SNR=22						
NB2	NORSAR Subarra	74.27	330	P	P	00 59 33.8	-0.1
	comp=Z,1.6nm,0.8s,mb4.0,baz=90,slow=5.9						
NOA	NORSAR Array B	74.27	330	P	P	00 59 34.1	+0.2
	comp=Z,1.0nm,0.6s,mb3.9,baz=89,slow=5.7,SNR=3.3						
LPG	La Plagne	78.08	314	⇑iP	P	00 59 56.9	+1.0
	comp=Z,6.0nm,0.8s,mb4.6						
LPG	La Plagne	78.08	314	⇑iP	P	00 59 56.9	+1.0
	comp=Z,12nm,0.8s,mb4.6						
LPL	La Plagne	78.09	314	⇑iP	P	00 59 56.9	+1.0
	comp=Z,4.8nm,0.7s,mb4.5						
LPL	La Plagne	78.09	314	⇑iP	P	00 59 56.9	+1.0
	comp=Z,9.7nm,0.7s,mb4.5						
BOSA	Boshof	78.51	237	P	P	00 59 59.2	+0.7
	comp=Z,1.5nm,0.4s,mb4.3,baz=83,slow=2.8,SNR=12						
IMA2	Indian Mountai	86.17	22	eP	P	01 00 38.4	+0.5
TORD	Torodi Ar. Bea	88.80	283	P	P	01 00 51.8	+0.3
	comp=Z,0.4nm,0.5s,mb4.0,baz=87,slow=3.7,SNR=7.1						
TORD				pP	pP	01 01 11.1	+5.1
	comp=Z,4.4nm,1.1s,baz=81,slow=4.7,SNR=11						
SLKM	Skilak Lake	90.16	26	eP	P	01 00 56.5	-0.4
ULM	Lac du Bonnet	115.51	7	PKP	PKPdf	01 06 38.5	-0.2
ULM	Lac du Bonnet	115.51	7	PKP	PKPdf	01 06 38.5	-0.2
	comp=Z,0.4nm,0.3s,baz=139,slow=2.2,SNR=2.9						
NVAR	Mina Array Bea	119.88	29	PKP	PKPdf	01 06 48.4	+0.9
NVAR	Mina Array Bea	119.88	29	PKP	PKPdf	01 06 48.4	+0.9
	comp=Z,0.4nm,0.4s,baz=223,slow=24,SNR=8.1						
ECSD	EROS,Sioux Fal	121.81	9	ePKPdf	PKPdf	01 06 50.9	-0.1
ECSD				epPKPdf	pPKPdf	01 07 11.2	+5.2
TXAR	Lajitas Array	133.80	21	PKP	PKPdf	01 07 15.4	+1.1
TXAR				SKPbc	SKPbc	01 10 38.7	-0.6
TXAR	Lajitas Array	133.80	21	PKP	PKPdf	01 07 15.4	+1.1
	comp=Z,0.9nm,0.4s,baz=293,slow=0.5,SNR=22						
TXAR				SKPbc	SKPbc	01 10 38.7	-0.6
	comp=Z,0.5nm,0.7s,baz=264,slow=1.6,SNR=5.7						

*IDC **03** 00:51:10.3±1.0, 32.04N×78.55E, h0^{km}, mb4.0/8, mb1 4.1/9, mb1mx3.9/20, mbtmp4.0/9, ML3.6/1, Error ellipse: s-maj=30.1km s-min=24.1km az=25.0*

*ISCJB **03** 00:51:11.6±2.7, 32.16N±0.06×78.64E±0.08, h17^{km}±21^{km}, mb4.0/11, Error ellipse: s-maj=11.9km s-min=10.2km az=174.9*

*MOS **03** 00:51:15.1±1.6, 32.30N×78.50E, h33^{km}, mb4.2/8, Error ellipse: s-maj=28.8km s-min=11.6km az=97.8*

*NEIC **03** 00:51:15.6±0.5, 32.10N×78.58E, h35^{km}, mb4.7/2, Error ellipse: s-maj=13.9km s-min=8.0km az=61.0*

*BJI **03** 00:51:16.5, 32.46N×78.97E, h22^{km}, mb4.5, ML3.7*

ISC 03 00:51:16.0±1.2, **32.10N**±0.07×**78.61E**±0.09, **h36**^{km}±12^{km}, **n44,** σ**0**^{s}**89**/43, **mb4.0**/11, **3C, Kashmir-Xizang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHCP	Chirah Chowk	4.76	291	P	Pn	00 52 26.9	+1.8
THW	Thamme Wali	5.84	279	P	Pn	00 52 40.3	+0.2
CEP	Cherat	5.89	289	P	Pn	00 52 41.0	+0.4
SBDP	Sheikh Budin	6.62	274	P	Pn	00 52 50.2	-0.5
KSH	Kashi	7.71	345	eP	Pn	00 53 05.8	+0.2
KSH				S	Sn	00 54 32.4	+0.8
KSH				Smax			
	comp=N,44nm,1.0s						
KSH				Smax			
	comp=E,33nm,0.7s						
KBL	Kabul	8.37	289	ePn	Pn	00 53 14.9	+0.3
UCH	Uchtor	10.62	343	ePn	Pn	00 53 45.9	+0.3
	comp=E,4.1nm,0.6s						
UCH				eSn	Sn	00 55 35.8	-7.4
AML	Almayashu	10.75	340	ePn	Pn	00 53 48.1	+0.8
	comp=E,4.9nm,0.7s						
AAK	Ala-Archa	11.01	344	ePn	Pn	00 53 50.9	0.0
	comp=E,2.6nm,0.6s						
AAK	Ala-Archa	11.01	344	eP	Pn	00 53 50.9	0.0
AAK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
TKM2	Tokmak 2	11.06	348	ePn	Pn	00 53 49.8	-1.8
	comp=Z,2.1nm,0.5s						
TKM2	Tokmak 2	11.06	348	eP	Pn	00 53 49.8	-1.8
TKM2				pmax	pmax		
	comp=Z,2.0nm,0.5s						
EKS2	Erkin-Say	11.22	341	ePn	Pn	00 53 52.5	-1.2
	comp=Z,4.6nm,1.0s						
KK31	Karatay Array	12.71	332	⇑Pn	Pn	00 54 12.4	-1.7
	comp=Z,1.0nm,0.3s,baz=166,slow=12,SNR=36						
KK31				⇑Lg		00 56 25.8	
	comp=Z,1.9nm,0.6s,baz=162,slow=20,SNR=4.3						
MKAR	Makanchi Array	14.95	10	Pn	Pn	00 54 40.6	-3.9
MKAR	Makanchi Array	14.95	10	Pn	Pn	00 54 40.6	-3.9
	comp=Z,0.3nm,0.3s,baz=182,slow=13,SNR=33						
KURK	Kurchatov	18.60	0	⇑eP	Pn	00 55 22.4	-8.0
BRVK	Borovoye	21.80	346	i P	P	00 56 04.2	-0.4
GYA	Guiyang	25.07	96	P	P	00 56 37.7	+0.6
GYA				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.3						
XAN	Xi’an	25.44	77	P	P	00 56 40.2	-0.1
XAN				AP	pP	00 56 50.2	-0.3
XAN				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.4						
SONM	Songino Array	26.28	45	P	P	00 56 49.1	+1.3
SONM				pmax	pmax		
	comp=Z,3.0nm,0.8s						
SONM	Songino Array	26.28	45	P	P	00 56 49.1	+1.3
	comp=Z,2.7nm,0.8s,mb3.8,baz=238,slow=8.7,SNR=12						
ULN	Ulaanbaatar	26.69	46	eP	P	00 56 54.9	+3.4
	comp=Z,2.1nm,0.8s,mb3.7						
ULN	Ulaanbaatar	26.69	46	eP	P	00 56 54.9	+3.4
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
AKASG	Malin Array Be	40.58	312	P	P	00 58 52.0	+0.2
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	40.58	312	P	P	00 58 52.0	+0.1
	comp=Z,0.7nm,0.5s,mb3.5,baz=105,slow=9.2,SNR=5.3						
FINES	FINESS Array B	44.61	327	P	P	00 59 24.7	+0.3
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	FINESS Array B	44.61	327	P	P	00 59 24.7	+0.3
	comp=Z,2.1nm,0.9s,mb4.0,baz=108,slow=8.9,SNR=3.8						
COCO	West Island	47.37	155	eP	P	00 59 45.3	-1.3
	comp=Z,38nm,0.6s						
ARCES	ARCESS Array B	47.60	338	P	P	00 59 47.9	+0.1
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ARCES	ARCESS Array B	47.60	338	P	P	00 59 47.9	0.0
	comp=Z,4.7nm,0.9s,mb4.5,baz=105,slow=7.9,SNR=3.9						
NB2	NORSAR Subarra	51.63	325	P	P	01 00 18.7	+0.1
	comp=Z,2.0nm,0.7s,mb4.2,baz=94,slow=7.4						
NOA	NORSAR Array B	51.63	325	P	P	01 00 18.3	-0.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	51.63	325	P	P	01 00 18.2	-0.3
	comp=Z,1.3nm,0.6s,mb4.0,baz=93,slow=7.4,SNR=3.9						
TORD	Torodi Ar. Bea	72.14	275	P	P	01 02 36.7	-0.5
	comp=Z,0.8nm,0.5s,mb3.9,baz=52,slow=5.1,SNR=11						
WRA	Warramunga Arr	74.32	126	P	P	01 02 49.9	+0.1
WRA	Warramunga Arr	74.32	126	P	P	01 02 49.9	0.0
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA	Warramunga Arr	74.32	126	P	P	01 02 49.9	+0.1
	comp=Z,0.8nm,0.4s,mb4.0,baz=323,slow=5.5,SNR=4.9						
WB2	Warramunga Arr	74.33	126	eP	P	01 02 50.5	+0.6
YKA	Yellowknife Ar	85.14	6	P	P	01 03 47.1	-0.8
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	85.14	6	P	P	01 03 47.1	-0.8
	comp=Z,0.6nm,0.6s,mb3.9,baz=341,slow=5.1,SNR=12						
LPAZ	La Paz	145.99	290	PKPbc	PKPbc	01 10 53.0	+0.6
LPAZ	La Paz	145.99	290	PKP2	PKPab	01 10 53.0	+0.1
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.6s						
LPAZ	La Paz	145.99	290	PKPbc	PKPbc	01 10 53.0	+0.6
	comp=Z,0.9nm,0.6s,baz=103,slow=7.4,SNR=4.9						

*IDC **03** 01:06:52.5±1.9, 2.10N×96.15E, h0^{km}, mb3.9/5, mb1 3.9/6, mb1mx3.6/21, mbtmp3.8/6, ML3.1/1, Error ellipse: s-maj=57.2km s-min=23.4km az=54.0*

*ISCJB **03** 01:06:55.3±1.3, 2.1N±0.2×96.2E±0.2, h33^{km}, mb3.9/5, Error ellipse: s-maj=31.6km s-min=16.7km az=43.8*

*NEIC **03** 01:06:57.1±1.1, 2.15N×96.21E, h30^{km}, Error ellipse: s-maj=27.6km s-min=13.5km az=45.0*

ISC 03 01:06:58.0±1.3, **2.2N**±0.2×**96.3E**±0.2, **h35**^{km}, **n9,** σ**0**^{s}**54**/9, **mb3.9**/5, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	2.75	77	Pn	Pn	01 07 39.5	-0.1
PSI	Prapat	2.75	77	Pn	Pn	01 07 39.5	-0.1
	3.1nm,0.3s,baz=276,slow=9.2,SNR=7.8						
WRA	Warramunga Arr	43.35	122	P	P	01 14 58.0	+0.9
WRA	Warramunga Arr	43.35	122	P	P	01 14 58.0	+0.9
	0.4nm,0.3s,mb3.6,baz=302,slow=8.8,SNR=2.1						
MK31	Makanchi Array	46.09	347	eP	P	01 15 18.1	-0.5
MKAR	Makanchi Array	46.09	347	P	P	01 15 18.8	+0.3
	1.1nm,0.7s,mb3.9,baz=165,slow=8.3,SNR=23						
SONM	Songino Array	46.33	9	P	P	01 15 20.3	-0.1
	0.7nm,0.6s,mb3.8,baz=189,slow=9.5,SNR=5.8						
ZALV	Zalesovo Beam	52.47	352	P	P	01 16 07.5	+0.4
	0.7nm,0.3s,mb4.0,baz=164,slow=7.7,SNR=5.2						
STKA	Stephens Creek	54.70	132	P	P	01 16 23.1	-0.9
	1.0nm,0.4s,mb4.2,baz=321,slow=13,SNR=3.1						

WEL 03 01:12:41.3±0.5, **38.73S**×**175.22E, h249**^{km}±3^{km}, **ML3.5**/16, **2C, Error ellipse: s-maj=5.0km s-min=4.8km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TWVZ	Taurewa	0.38	154	PN	Pn	01 13 13.4	-0.2
WTVZ	West Tongariro	0.48	144	PN	Pn	01 13 13.9	0.0
NGZ	Ngauruhoe	0.54	147	PN	Pn	01 13 14.1	+0.1
WPVZ	Whakapapa	0.54	152	⇑PN	Pn	01 13 14.1	0.0
PKVZ	Pokaka	0.57	170	PN	Pn	01 13 13.9	-0.2
FWVZ	Far West T-bar	0.59	154	PN	Pn	01 13 14.3	+0.1
TUVZ	Tukino	0.64	148	PN	Pn	01 13 14.6	+0.2
WNVZ	Wahianoa	0.67	154	PN	Pn	01 13 14.6	+0.1
MTVZ	Mangateitei	0.69	164	PN	Pn	01 13 14.5	-0.1
MOVZ	Moawhango	0.79	149	PN	Pn	01 13 14.7	-0.4
WAZ	Wanganui	1.04	190	PN	Pn	01 13 16.3	0.0
BKZ	Black Stump Fm	1.08	114	PN	Pn	01 13 16.6	0.0
URZ	Urewera	1.55	73	⇑PN	Pn	01 13 19.9	0.0
PXZ	Pawanui	1.82	136	PN	Pn	01 13 22.5	+0.5
MWZ	Matawai	1.85	78	PN	Pn	01 13 22.9	+0.6
KNZ	Kokohu	1.94	99	PN	Pn	01 13 23.8	+0.8
MRZ	Mangatainoka R	1.95	172	PN	Pn	01 13 23.0	-0.1
BFZ	Birch Farm	2.10	158	PN	Pn	01 13 24.5	0.0
KIW	Kapiti Island	2.15	186	PN	Pn	01 13 24.5	-0.4
DUWZ	D’Urville Isla	2.30	205	PN	Pn	01 13 26.1	-0.3
CAW	Cannon Point	2.38	183	PN	Pn	01 13 27.0	-0.2
MTW	Mount Morrison	2.44	175	PN	Pn	01 13 27.4	-0.3
PUZ	Puketiti	2.47	76	SN	S	01 14 00.3	-4.8
MRW	Makara Radio	2.53	189	PN	Pn	01 13 28.5	-0.1
TCW	Tory Channel	2.59	196	PN	Pn	01 13 29.2	0.0
SNZO	South Karori	2.61	189	PN	Pn	01 13 29.1	-0.3
PAWZ	Paruwai Farm	2.66	177	SN	S	01 14 02.7	-5.7
MXZ	Matakaoa Point	2.69	65	PN	Pn	01 13 31.7	+1.2
NNZ	Nelson	2.86	209	PN	Pn	01 13 31.6	-0.5
TUWZ	Tuamarina	2.87	200	PN	Pn	01 13 32.2	0.0
QRZ	Quartz Range	2.95	224	PN	Pn	01 13 32.1	-1.0
KHZ	Kahutara	3.90	199	PN	Pn	01 13 44.2	+0.5
MQZ	McQueen’s Vall	5.34	200	SN	S	01 14 57.6	-7.1

*MOS **03** 01:14:45.6±1.4, 44.07N×156.06E, h33^{km}, mb4.3/2, Error ellipse: s-maj=99.9km s-min=47.8km az=92.1*

*IDC **03** 01:14:58.7±3.3, 46.92N×155.45E, h0^{km}, mb3.6/5, mb1 3.9/5, mb1mx3.6/20, mbtmp3.6/5, MS3.2/1, Ms1 3.2/1, ms1mx2.5/35, Error ellipse: s-maj=107.7km s-min=28.6km az=7.0*

*ISCJB **03** 01:15:02.6±2.9, 47.1N±0.6×155.4E±0.3, h33^{km}, mb3.6/5, Error ellipse: s-maj=90.2km s-min=25.4km az=3.5*

ISC 03 01:15:04.6±2.9, **47.1N**±0.6×**155.4E**±0.3, **h35**^{km}, **n9,** σ**0**^{s}**18**/7, **mb3.6**/5, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril’s	3.66	7	eP	Px	01 16 23.0	
MJAR	Matsushiro Arr	16.55	237	LR	LR	01 26 20.1	
	comp=Z,71nm,18.2s,baz=335,slow=41						
MKAR	Makanchi Array	48.20	298	P	P	01 23 41.2	-0.1
	0.2nm,0.5s,mb3.4,baz=65,slow=8.4,SNR=6.3						
YKA	Yellowknife Ar	49.73	37	P	P	01 23 52.6	-0.2
	0.2nm,0.7s,mb3.3,baz=287,slow=6.4,SNR=2.9						
NVAR	Mina Array Bea	60.89	64	P	P	01 25 13.7	+0.2
	0.3nm,0.6s,mb3.6,baz=297,slow=6.0,SNR=3.4						
FINES	FINESS Array B	64.43	336	P	P	01 25 37.0	+0.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	FINESS Array B	64.43	336	P	P	01 25 37.0	+0.2
	comp=Z,1.4nm,0.7s,mb4.1,baz=33,slow=7.3,SNR=6.0						
TXAR	Lajitas Array	75.96	62	P	P	01 26 47.8	-0.1
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	75.96	62	P	P	01 26 47.8	0.0
	comp=Z,0.7nm,0.5s,mb3.9,baz=302,slow=4.6,SNR=14						

*IDC **03** 01:30:00.3±4.1, 45.13N×154.04E, h0^{km}, mb3.5/4, mb1 3.8/4, mb1mx3.5/19, mbtmp3.5/4, Error ellipse: s-maj=120.1km s-min=35.8km az=1.0*

*NEIC **03** 01:30:02.5±3.4, 45.34N×154.08E, h10^{km}, Error ellipse: s-maj=101.0km s-min=27.2km az=178.0*

*ISCJB **03** 01:30:05.0±3.7, 45.5N±0.7×154.0E±0.3, h33^{km}, mb3.7/5, Error ellipse: s-maj=107.9km s-min=29.3km az=177.1*

ISC 03 01:30:06.6±3.8, **45.4N**±0.8×**154.1E**±0.3, **h35**^{km}, **n5,** σ**1**^{s}**45**/5, **mb3.7**/5, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKAG	Skagway	43.12	45	eP	P	01 38 02.0	-1.1
	9.0nm,0.7s,mb4.6						
MKAR	Makanchi Array	48.15	299	P	P	01 38 42.0	-1.0
	0.3nm,0.6s,mb3.5,baz=61,slow=6.3,SNR=4.5						
YKA	Yellowknife Ar	51.59	36	P	P	01 39 08.8	-0.1
	0.1nm,0.5s,mb3.0,baz=295,slow=7.0,SNR=2.5						
FINES	FINESS Array B	65.52	335	P	P	01 40 47.5	+1.6
	3.1nm,1.1s,mb4.3,baz=46,slow=8.2,SNR=5.8						
TXAR	Lajitas Array	77.56	61	P	P	01 41 59.7	+0.7
	0.3nm,0.8s,mb3.3,baz=309,slow=4.5,SNR=3.5						

*NEIC **03** 01:34:57.9, 16.69N×99.20W, h10^{km}, MD3.5(MEX), After MEX.*

MEX 03 01:34:55.8±0.7, **16.60N**×**99.23W, h16**^{km}±16^{km}, **MD3.5, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	Acapulco	0.71	292	i P	Pg	01 35 06.8	-2.9
ACX				i S	Sg	01 35 16.2	-2.9
CAIG	El Cayaco	1.09	294	i P	Pb	01 35 15.7	-0.6
CAIG				i S	Sb	01 35 29.3	-0.9
CAIG	El Cayaco	1.09	294	i P	Pb	01 35 13.1	-3.1
CAIG				i S	Sb	01 35 25.2	-5.0
MEIG	Mezcala	1.37	344	eP	Pn	01 35 16.2	-4.0
MEIG				i S	Sn	01 35 31.8	-6.3
PLIG	Platanillo	1.80	352	i P	Pn	01 35 22.5	-3.8
PLIG				i S	Sn	01 35 46.0	-2.8
PLIG	Platanillo	1.80	352	i P	Pn	01 35 23.7	-2.5
PLIG				i S	Sn	01 35 44.2	-4.6
UTMO	Huajuapan	1.83	48	eP	Pn	01 35 23.1	-3.6
UTMO				i S	Sn	01 35 45.3	-4.2
IIO	Organos	3.02	9	i P	Pn	01 35 40.1	-2.8

*BJI **03** 02:22:37.3, 43.70N×127.80W, h10^{km}, mB5.1, mb5.0, Ms4.7, Msz4.3*

*ISCJB **03** 02:22:38.6±0.6, 43.71N±0.02×127.72W±0.03, h2^{km}±4^{km}, mb4.5/15, MS3.7/11, Error ellipse: s-maj=4.4km s-min=3.1km az=153.3*

*NEIC **03** 02:22:40.4±0.7, 43.65N×127.79W, h10^{km}, mb4.3/8, Error ellipse: s-maj=8.3km s-min=5.2km az=58.0*

*IDC **03** 02:22:40.1±1.7, 43.81N×127.69W, h0^{km}, mb3.6/5, mb1 3.9/9, mb1mx3.7/24, mbtmp3.7/9, ML3.5/4, MS3.6/13, Ms1 3.6/13, ms1mx3.4/29, Error ellipse: s-maj=30.8km s-min=16.5km az=55.0*

ISC 03 02:22:39.9±0.7, **43.67N**±0.02×**127.77W**±0.03, **h2**^{km}±5^{km}, **n165,** σ**1**^{s}**01**/198, **mb4.5**/15, **MS3.7**/11, **46C-58D, Off coast of Oregon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
K01A	Sixes	2.56	109	⇓P	Pn	02 23 19.7	-2.7
	baz=2.6						
K01A				⇓S	Sn	02 23 51.4	-2.8
	baz=2.6						
KEBM	Edson Butte	2.63	106	ePn	Pn	02 23 20.6	-2.8
KEBM				eSn	Sn	02 23 53.4	-2.5
I02A	Mapleton	2.87	82	⇑P	Pn	02 23 25.2	-1.5
	baz=2.9,SNR=50						
I02A				⇓S	Sn	02 24 01.3	-0.4
	baz=2.9						
H02A	Toledo	2.89	68	⇑P	Pn	02 23 25.6	-1.4
	baz=2.9,SNR=29						
H02A				⇑S	Sn	02 24 02.2	-0.2
	baz=2.9						
J02A	Umpqua	3.07	94	⇑P	Pn	02 23 27.6	-1.8
	baz=3.1,SNR=57						
J02A				⇑S	Sn	02 24 05.7	-0.9
	baz=3.1						
K02A	Glendale	3.26	105	⇓P	Pn	02 23 29.8	-2.2
	baz=3.3,SNR=28						
K02A				⇑S	Sn	02 24 10.7	-0.6
	baz=3.3						
HEBO	Mount Hebo	3.26	60	P	Pn	02 23 31.4	-0.6
I03A	Eugene	3.27	83	P	Pn	02 23 30.8	-1.3
	baz=3.3,SNR=224						
I03A				⇓S	Sn	02 24 11.1	-0.4
	baz=3.3						
COR	Corvallis	3.34	73	ePn	Pn	02 23 32.4	-0.8
COR				eSn	Sn	02 24 15.2	+1.8
DBO	Dodson Butte	3.34	98	P	Pn	02 23 31.7	-1.5
H03A	Soap Creek Ran	3.38	71	⇓P	Pn	02 23 32.4	-1.2
	baz=3.4,SNR=82						
H03A				⇑S	Sn	02 24 13.6	-0.6
	baz=3.4						
HSO	Harness Mounta	3.40	91	P	Pn	02 23 33.0	-1.0
L02A	Cave Junction	3.42	115	⇑S	Sn	02 24 13.2	-2.0
	baz=3.4						
J03A	Ideyld Park	3.51	93	⇓P	Pn	02 23 34.0	-1.4
	baz=3.5,SNR=56						
J03A				⇓S	Sn	02 24 16.9	-0.6
	baz=3.5						
G03A	Yamhill	3.61	61	⇑P	Pn	02 23 36.3	-0.6
	baz=3.6						
HUMO	Hull Mountain	3.68	105	ePn	Pn	02 23 36.1	-1.7
HUMO				eSn	Sn	02 24 21.4	-0.4
HUMO	Hull Mountain	3.68	105	⇓P	Pn	02 23 36.0	-1.8
	baz=3.7,SNR=22						
HUMO				⇓S	Sn	02 24 20.7	-1.1
	baz=3.7						
F03A	Seaside	3.75	52	P	Pn	02 23 38.4	-0.4
	baz=3.8,SNR=187						
F03A				⇓S	Sn	02 24 23.5	0.0
	baz=3.8						
BBOR	Butler Butte	3.80	100	P	Pn	02 23 38.8	-0.7
BROR	Big Rock Looko	3.88	79	P	Pn	02 23 40.4	-0.2
I04A	Tendick Farm,	3.89	86	⇓P	Pn	02 23 40.1	-0.6
	baz=3.9,SNR=20						
I04A				⇑S	Sn	02 24 26.8	0.0
	baz=3.9						
NLO	Nicolai Mounta	3.91	50	P	Pn	02 23 40.6	-0.3
IRO	Indian Ridge	4.00	83	P	Pn	02 23 41.8	-0.5
G04A	Mulino	4.09	66	⇓P	Pn	02 23 43.4	0.0
	baz=4.1,SNR=38						
FRIS	Frissel Point	4.13	81	P	Pn	02 23 43.9	-0.1
E03A	Lebam	4.14	45	⇓P	Pn	02 23 43.0	-1.1
	baz=4.1,SNR=40						
E03A				⇑S	Sn	02 24 31.4	-1.6
	baz=4.1						
H04A	Detroit Lake	4.14	74	⇓P	Pn	02 23 43.9	-0.3
	baz=4.1,SNR=104						
H04A				⇓S	Sn	02 24 33.8	+0.7
	baz=4.1						
J04A	Umpqua Nationa	4.14	94	⇑P	Pn	02 23 44.4	+0.2
	baz=4.2,SNR=20						
J04A				⇑S	Sn	02 24 33.3	+0.1
	baz=4.2						
YBH	Yreka Blue Hor	4.20	116	ePn	Pn	02 23 45.0	0.0
YBH				eSn	Sn	02 24 35.4	+0.8
YBH	Yreka Blue Hor	4.20	116	⇑S	Sn	02 24 34.4	-0.2
	baz=4.2						
BMW	Boistfort Moun	4.27	47	P	Pn	02 23 45.0	-0.9
BKCOR	Black Crater	4.43	80	P	Pn	02 23 48.1	0.0
F04A	Amboy	4.43	57	⇓P	Pn	02 23 48.2	+0.1
	baz=4.4,SNR=68						
F04A				⇓S	Sn	02 24 40.0	-0.2
	baz=4.4						
D03A	Wishkah Elem.	4.45	38	⇑S	Sn	02 24 40.9	+0.2
	baz=4.5						
VLMM	Larch Mountain	4.50	63	P	Pn	02 23 49.6	+0.6
LVP	Lakeview Peak	4.50	56	P	Pn	02 23 49.3	+0.2
K04A	Chilquin	4.54	101	⇑S	Sn	02 24 43.7	+0.7
	baz=4.5						
L04A	Klamath Falls	4.57	107	⇑S	Sn	02 24 43.6	0.0
	baz=4.6						
TDH	Tom, Dick, Har	4.58	67	P	Pn	02 23 50.6	+0.5
MTMW	Mount Mitchell	4.60	57	P	Pn	02 23 50.9	+0.5
FL2	Flat Top 2	4.60	55	P	Pn	02 23 51.1	+0.7
NLWA	Neilton Lookou	4.62	35	ePn	Pn	02 23 49.9	-0.8
NLWA				eSn	Sn	02 24 43.8	-1.1
NLWA	Neilton Lookou	4.62	35	⇓P	Pn	02 23 49.9	-0.8
	baz=4.6						
NLWA				⇑S	Sn	02 24 44.0	-0.9
	baz=4.6						
ERK	Elk Rock	4.67	54	P	Pn	02 23 51.1	-0.2
HOOD	Mount Hood Mea	4.68	67	ePn	Pn	02 23 52.3	+0.8
HOOD				eSn	Sn	02 24 52.3	+6.0
STD	Studebaker Rid	4.70	55	P	Pn	02 23 52.3	+0.5
CDFW	Cedar Flats	4.74	57	P	Pn	02 23 53.0	+0.6
J05A	Fort Rock	4.77	92	⇓P	Pn	02 23 52.4	-0.4
	baz=4.8						
J05A				⇓S	Sn	02 24 50.0	+1.3
	baz=4.8						
VFP	Flag Point	4.80	68	P	Pn	02 23 53.7	+0.4
H05A	Madras	4.81	76	⇓P	Pn	02 23 53.0	-0.3
	baz=4.8						
C03A	Quillayute Air	4.83	27	⇓S	Sn	02 24 49.0	-1.0
	baz=4.8						
WDC	Whiskeytown Da	4.97	127	ePn	Pn	02 23 58.8	+3.3
F05A	White Salmon	5.01	62	⇑P	Pn	02 23 56.3	+0.2
	baz=5.0,SNR=9.8						
F05A				⇑S	Sn	02 24 56.4	+2.0
	baz=5.0						
ASR	Mount Adams--S	5.04	58	P	Pn	02 23 57.5	+1.0
K05A	Summer Lake	5.12	98	⇓P	Pn	02 23 57.3	-0.2
	baz=5.1						
K05A				⇓S	Sn	02 24 57.3	+0.2

	baz=5.1						
E05A	Randle	5.14	54	⇓P	Pn	02 23 58.4	+0.5
	baz=5.1,SNR=122						
E05A				⇓S	Sn	02 24 59.8	+2.0
	baz=5.1						
GNW	Green Mountain	5.21	40	ePn	Pn	02 23 58.7	-0.2
GNW				eSn	Sn	02 24 59.0	-0.5
C04A	Brinnon	5.26	38	⇓P	Pn	02 23 59.3	-0.2
	baz=5.3						
C04A				⇓S	Sn	02 25 00.7	0.0
	baz=5.3						
B04A	Port Angeles	5.30	33	⇓P	Pn	02 23 59.6	-0.5
	baz=5.3						
B04A				⇑S	Sn	02 25 00.9	-0.9
	baz=5.3						
G06A	Carlson Farm,	5.34	71	⇑P	Pn	02 24 00.5	-0.1
	baz=5.3						
L05A	Lakeview	5.35	105	⇑P	Pn	02 24 00.4	-0.4
	baz=5.4,SNR=11						
L05A				⇓S	Sn	02 25 02.4	-0.5
	baz=5.4						
D05A	Enumclaw	5.38	47	⇑P	Pn	02 24 01.5	+0.4
	baz=5.4,SNR=37						
D05A				⇓S	Sn	02 25 04.5	+0.9
	baz=5.4						
M05C	Lookout	5.41	113	⇑P	Pn	02 24 00.8	-0.8
	baz=5.4						
H06A	Lindquist Farm	5.45	76	⇓S	Sn	02 25 05.9	+0.5
	baz=5.5						
J06A	Christmas Vall	5.56	92	⇓P	Pn	02 24 03.3	-0.4
	baz=5.6						
K06A	Valley Falls	5.56	96	⇑P	Pn	02 24 03.3	-0.4
	baz=5.6						
K06A				⇑S	Sn	02 25 09.1	+0.9
	baz=5.6						
E06A	Yakima	5.60	57	⇓P	Pn	02 24 04.5	+0.3
	baz=5.6,SNR=68						
PGC	Sidney	5.81	30	ePn	Pn	02 24 13.0	+5.9
PGC				eSn	Sn	02 25 12.0	-2.3
C05A	Tolt Reservoir	5.86	45	⇑P	Pn	02 24 08.1	+0.4
	baz=5.9,SNR=16						
C05A				⇓S	Sn	02 25 15.7	+0.3
	baz=5.9						
HOPS	Hopland	5.86	141	ePn	Pn	02 24 07.7	-0.1
M06C	Likely Place G	5.93	112	⇑S	Sn	02 25 17.4	+0.2
	baz=5.9						
I07A	Izee	5.99	83	⇑P	Pn	02 24 09.3	-0.2
	baz=6.0						
G07A	Ruggs Ranch, H	6.01	72	⇓P	Pn	02 24 10.1	+0.3
	baz=6.0						
B05A	Bryant	6.06	39	⇑P	Pn	02 24 10.5	0.0
	baz=6.1,SNR=11						
B05A				⇑S	Sn	02 25 20.8	+0.4
	baz=6.1						
A04A	Legoe Bay, Lum	6.15	33	⇓P	Pn	02 24 11.9	+0.2
	baz=6.2,SNR=17						
A04A				⇑S	Sn	02 25 22.4	-0.2
	baz=6.2						
K07A	Rock Creek Ran	6.31	96	⇓P	Pn	02 24 14.1	+0.2
	baz=6.3						
OHCM	Honcut	6.40	130	ePn	Pn	02 24 18.1	+2.8
L07A	Adell	6.41	102	⇓P	Pn	02 24 14.7	-0.6
	baz=6.4						
L07A				⇓S	Sn	02 25 29.5	+0.4
	baz=6.4						
C06A	Tall Timber Ra	6.42	46	⇓S	Sn	02 25 30.5	+1.4
	baz=6.4						
HAWA	Hanford	6.44	62	ePn	Pn	02 24 15.4	-0.3
B06A	Marblemount	6.53	40	⇑P	Pn	02 24 16.6	-0.3
	baz=6.5,SNR=6.2						
H08A	Prairie City	6.61	79	⇓P	Pn	02 24 17.8	-0.2
	baz=6.6						
A05A	Maple Falls	6.62	34	⇓P	Pn	02 24 18.8	+0.6
	baz=6.6,SNR=19						
A05A				⇑S	Sn	02 25 34.3	0.0
	baz=6.6						
C07A	Waterville	6.73	51	⇑P	Pn	02 24 19.9	+0.2
	baz=6.7						
C07A				⇓S	Sn	02 25 38.1	+1.2
	baz=6.7						
WVOR	Wild Horse Val	6.80	97	ePn	Pn	02 24 19.9	-0.8
D08A	Wollman Farm,	7.09	58	⇑P	Pn	02 24 24.6	-0.1
	baz=7.1						
B07A	Winthrop	7.16	45	⇓P	Pn	02 24 25.3	-0.3
	baz=7.2						
B07A				⇑S	Sn	02 25 48.1	+0.7
	baz=7.2						
H09A	Durkee	7.33	79	⇑P	Pn	02 24 27.6	-0.4
	baz=7.3						
C08A	Higginbotham F	7.36	53	⇓P	Pn	02 24 28.5	+0.2
	baz=7.4						
A07A	Ashnola River,	7.42	41	⇑P	Pn	02 24 28.7	-0.4
	baz=7.4						
D09A	Jones Farm, Ri	7.47	60	⇑P	Pn	02 24 29.9	0.0
	baz=7.5						
BMO	Blue Mountains	7.61	77	ePn	Pn	02 24 31.6	-0.1
C09A	Chrisman Ranch	7.82	55	⇓P	Pn	02 24 34.6	0.0
	baz=7.8						
F10A	Beach Ranch, E	7.84	69	⇓P	Pn	02 24 35.2	+0.3
	baz=7.8						
CMB	Columbia Colle	7.94	133	ePn	Pn	02 24 39.3	+3.1
CMB	Columbia Colle	7.94	133	⇓P	Pn	02 24 35.8	-0.5
	baz=7.9						
H10A	Noah's Angus R	7.98	80	⇓P	Pn	02 24 36.7	-0.2
	baz=8.0						
WAKR	Walker	8.14	127	ePn	Pn	02 24 42.7	+3.7
B09A	Rice	8.21	51	⇓P	Pn	02 24 39.9	0.0
	baz=8.2						
G11A	Walters Elk Ra	8.40	74	⇑P	Pn	02 24 42.7	+0.1
	baz=8.4						
C10A	Spilker Farm,	8.41	57	⇓P	Pn	02 24 42.7	0.0
	baz=8.4						
H11A	Donnelly	8.51	79	⇑P	Pn	02 24 44.3	+0.1
	baz=8.5						
BBB	Bella Bella	8.52	359	Pn	Pn	02 24 44.0	-0.3
BBB				LR	LR	02 27 26.3	
BBB	Bella Bella	8.52	359	Pn	Pn	02 24 44.0	-0.3
	0.3nm,0.3s,baz=184,slow=12,SNR=4.6						
BBB				LR	LR	02 27 26.3	
	comp=Z,375nm,18.9s,baz=190,slow=34						
E11A	Bogner Ranch,	8.62	68	⇓P	Pn	02 24 46.1	+0.5
	baz=8.6						
NEW	Newport	8.72	55	ePn	Pn	02 24 46.8	-0.2
NEW	Newport	8.72	55	Pn	Pn	02 24 47.0	0.0
	1.3nm,0.3s,baz=241,slow=12,SNR=16						
NEW				LR	LR	02 28 18.6	
	comp=Z,572nm,18.2s,baz=248,slow=39						
NVAR	Mina Array Bea	8.86	123	Pn	Pn	02 24 51.6	+2.7
NVAR	Mina Array Bea	8.86	123	Pn	Pn	02 24 51.6	+2.7
	0.1nm,0.3s,baz=298,slow=12,SNR=14						
A11A	Hall Mountain,	9.50	52	⇑P	Pn	02 24 58.1	+0.5
	baz=9.5						
HLID	Hailey	9.69	86	ePn	Pn	02 25 03.1	+2.8
F13A	Darby	9.80	73	⇓P	Pn	02 25 02.3	+0.5
	baz=9.8						
G13A	Cobalt	9.80	77	⇓P	Pn	02 25 02.9	+1.1
	baz=9.8						
A12A	Yaak River Ran	9.90	54	⇑P	Pn	02 25 03.7	+0.6
	baz=9.9						
BSMT	Bassoo Peak	9.99	61	ePn	Pn	02 25 06.6	+2.2
E13A	Victor	10.00	69	⇓P	Pn	02 25 04.8	+0.2
	baz=10.0						
C13A	Hot Springs	10.07	62	⇓P	Pn	02 25 05.6	+0.1
	baz=10						
MSO	Missoula	10.25	67	ePn	Pn	02 25 09.2	+1.3
A13A	Flathead Natio	10.63	56	⇑P	Pn	02 25 13.6	+0.5
	baz=11						
CHMT	Chamberlain Mo	10.73	67	ePn	Pn	02 25 14.7	+0.2
DAC	Darwin (Calif)	10.74	130	ePn	Pn	02 25 17.8	+3.1
WALA	Waterton Lakes	10.98	56	ePn	Pn	02 25 19.3	+1.4
BOZ	Bozeman (W)	11.67	75	ePn	Pn	02 25 30.0	+2.7
QLMT	Earthquake Lak	11.78	79	ePn	Pn	02 25 30.6	+1.7
SHPR	Sheep Range	12.01	122	ePn	Pn	02 25 35.0	+3.0
HWUT	Hardware Ranch	12.11	94	ePn	Pn	02 25 34.5	+1.1
TPAW	Teton Pass	12.20	85	ePn	Pn	02 25 37.8	+3.1
LOHW	Long Hollow	12.44	84	ePn	Pn	02 25 41.5	+3.6
PFO	Pinyon Flat Ob	13.37	135	LR	LR	02 30 56.5	
	comp=Z,339nm,19.6s,baz=140,slow=37						
EDM	Edmonton	13.50	40	ePn	Pn	02 25 52.6	+0.2
DLBC	Dease Lake	14.85	355	ePn	Pn	02 26 09.2	-1.5
WUAZ	Wupatki	15.02	117	ePn	Pn	02 26 20.0	+6.8
	21nm,1.5s						
DGMT	Dagmar	17.02	65	ePn	Pn	02 26 37.1	-1.9
	37nm,1.3s						
SDCO	Great Sand Dun	17.87	102	ePn	Pn	02 26 51.5	+1.9
	24nm,1.7s						
ANMO	Albuquerque	18.61	111	P	Pn	02 27 00.8	+2.1
ANMO	Albuquerque	18.61	111	P	Pn	02 27 00.8	+2.1
	0.1nm,0.3s,baz=328,slow=7.9,SNR=3.5						
BNM	Barren Site	18.96	113	eP	Pn	02 27 06.0	+3.1
YKA	Yellowknife Ar	20.37	18	P	P	02 27 17.0	-0.4
	0.7nm,0.6s,baz=206,slow=11,SNR=12						
YKA				LR	LR	02 34 11.6	
	comp=Z,71nm,18.9s,MS3.0,baz=150,slow=34						
MNTX	Cornudas Mount	21.30	117	eP	P	02 27 26.9	-0.9
	4.3nm,1.3s,mb3.6						
DAWY	Dawson	21.48	346	eP	P	02 27 27.9	-1.6
SML	Sawmill	21.85	333	eP	P	02 27 36.7	+3.3
ULM	Lac du Bonnet	22.62	62	eP	P	02 27 41.6	-0.2
	42nm,1.9s,mb4.5						
ULM	Lac du Bonnet	22.62	62	P	P	02 27 40.5	-1.3
	5.7nm,1.2s,mb3.9,baz=284,slow=12,SNR=4.0						
ULM				LR	LR	02 36 34.4	
	comp=Z,205nm,19.9s,MS3.6,baz=265,slow=37						
LTX	Lajitas	23.97	119	eP	P	02 27 56.2	+0.5
	7.5nm,1.3s,mb4.0						
TXAR	Lajitas Array	23.97	119	P	P	02 27 56.4	+0.6
	1.6nm,1.0s,mb3.4,baz=309,slow=7.9,SNR=5.8						
TXAR				LR	LR	02 37 34.2	
	comp=Z,67nm,20.3s,MS3.1,baz=5.0,slow=37						
WMOK	Wichita Mounta	24.07	102	eP	P	02 27 56.6	0.0
	9.7nm,1.1s,mb4.2						
LPIG	La Paz	24.22	138	LR	LR	02 36 09.7	
	comp=Z,98nm,19.9s,MS3.3,baz=295,slow=33						
INK	Inuvik	24.88	355	eP	P	02 28 01.9	-1.7
	262nm,1.3s,mb5.6						
INK	Inuvik	24.88	355	P	P	02 28 01.1	-2.5
	2.9nm,1.1s,mb3.7,baz=186,slow=12,SNR=3.8						
INK				LR	LR	02 37 21.5	
	comp=Z,238nm,18.2s,MS3.7,baz=171,slow=36						
FCC	Fort Churchill	25.59	42	eP	P	02 28 11.2	+1.0
	30nm,1.7s,mb4.5						
SCHQ	Schefferville	40.08	52	LR	LR	02 45 39.6	
	comp=Z,75nm,19.7s,MS3.5,baz=270,slow=34						
ROSC	El Rosal	60.75	113	LR	LR	03 02 38.5	
	comp=Z,37nm,20.9s,MS3.5,baz=63,slow=40						
MDJ	Mudanjiang	68.39	311	P	P	02 33 42.1	-0.8
MDJ				AMB	AMB		
	comp=Z,10.0nm,2.0s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,152nm,4.3s						
CN2	Changchun	71.16	313	eP	P	02 34 01.1	+1.2
SONM	Songino Array	77.16	326	P	P	02 34 35.6	+0.7
	comp=Z,0.6nm,0.8s,mb3.6,baz=42,slow=4.9,SNR=3.9						
BJI	Beijing	78.68	315	P	P	02 34 44.5	+1.0
BJI				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.5						
ZALV	Zalesovo Beam	78.84	341	LR	LR	03 10 49.0	
	comp=Z,33nm,18.3s,MS3.7,baz=54,slow=37						
HHC	Hu-ho-hao-te	80.35	319	eP	P	02 34 50.9	-1.7
HHC				AP		02 34 55.6	
HHC				PP	PP	02 37 53.9	-0.8
HHC				S	S	02 44 56.1	-3.1
HHC				XS	sS	02 45 01.8	+1.6
HHC				SKS		02 45 03.7	
HHC				AMB	AMB		
	comp=Z,17nm,1.2s,mb4.8						
HHC				AMB	AMB		
	comp=Z,81nm,5.3s						
HHC				LR	LR		
	comp=N,100nm,19.9s,MS4.5						
HHC				LR	LR		
	comp=E,188nm,18.0s,MS4.5						
HHC				LR	LR		
	comp=Z,134nm,18.0s,MS4.3						
AKASG	Malin Array Be	83.90	14	LR	LR	03 10 28.7	
	comp=Z,119nm,19.7s,MS4.3,baz=340,slow=34						
MKAR	Makanchi Array	86.08	340	LR	LR	03 14 46.4	
	comp=Z,60nm,18.3s,MS4.0,baz=355,slow=36						
WMQ	Urumqi	87.31	335	eP	P	02 35 28.3	+0.2
LZH	Lanzhou	87.79	321	eP	P	02 35 30.1	-0.5
LZH				AP		02 35 34.0	
LZH				XP	sP	02 35 37.0	+5.6
LZH				AMB	AMB		
	comp=Z,13nm,1.0s,mb5.1						
LZH				AMB	AMB		
	comp=Z,63nm,4.5s						
CD2	Chengdu	92.08	318	eP	P	02 35 50.9	+0.2
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb5.2						
GYA	Guiyang	94.21	313	P	P	02 36 01.8	+1.2
GYA				AP		02 36 06.2	
GYA				XP	sP	02 36 08.4	+6.9
GYA				PP	PP	02 39 49.4	+2.9
GYA				SKS		02 46 34.6	
GYA				S	S	02 47 08.3	-4.6
GYA				PS	PS	02 48 28.2	+1.3
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb5.3						
GYA				AMB	AMB		
	comp=Z,70nm,5.8s						
KMI	Kunming	97.34	315	P	P	02 36 15.7	+0.8
KMI				AP		02 36 18.4	
KMI				XP	sP	02 36 19.9	+4.2
KMI				AMB	AMB		
	comp=Z,11nm,0.5s,mb5.5						

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*TIF **03** 02:56:35.4, 41.25N×42.38E, h3km±1km*
*MOS **03** 02:56:35.0±0.1, 41.43N×41.65E, h157km, mb4.0/1, Error ellipse: s-maj=99.9km s-min=23.6km az=51.4*
*ISK **03** 02:56:35.4, 41.33N×42.46E, h6km, MD3.5*
*CSEM **03** 02:56:36.8±0.1, 41.16N×42.32E, h2km, MD3.5, Error ellipse: s-maj=5.0km s-min=3.1km az=126.0*
*ISCJB **03** 02:56:37.8±0.4, 41.17N±0.03×42.31E±0.04, h10km, Error ellipse: s-maj=4.5km s-min=3.5km az=136.5*
ISC 03 02:56:38.4±0.4**, 41.19N**±0.03×**42.32E**±0.04**, h10km, n18, σ1^{s}.08**/31**, Turkey-Georgia-Armenia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BCA	Borcka	0.58	296	i PG	Pg	02 56 48.3	-1.5
BCA				i SG	Sg	02 56 57.5	0.0
BCA	Borcka	0.58	296	i Pg	Pg	02 56 48.3	-1.5
BCA				i Sg	Sg	02 56 57.5	0.0
KARS	Kars	0.82	134	PG	Pg	02 56 52.1	-2.1
KARS				SG	Sg	02 57 04.7	-0.2
EZM	Erzurum	1.47	210	PN	Pn	02 57 05.6	+0.6
EZM				SN	Sg	02 57 27.6	+1.8
GOR	Gori	1.56	59	P	Pn	02 57 04.5	-1.8
GOR				S	Sn	02 57 25.5	-1.0
ONI	Oni	1.63	31	P	Pn	02 57 06.2	-1.0
ONI				S	Sn	02 57 28.6	+0.4
AGRB	Hanur-Agry	1.69	162	ePN	Pn	02 57 07.9	-0.1
AGRB	Hanur-Agry	1.69	162	ePn	Pn	02 57 07.9	-0.1
MTA	Mtatsminda	1.93	74	P	Pn	02 57 10.3	-1.0
MTA				S	Sn	02 57 36.5	+1.0
DIGR	Digorskoe uzhe	1.95	28	i P	Pn	02 57 11.6	0.0
DIGR				i S	Sn	02 57 38.2	+2.1
ZEI	Tsey	1.97	36	i P	Pn	02 57 12.7	+0.8
ZEI				i S	Sg	02 57 40.4	-1.4
LACR	Lac	2.20	41	i P	Pn	02 57 15.9	+0.9
LACR				i S	Sb	02 57 45.7	0.0
GUMT	Gumushane	2.27	252	ePN	Pn	02 57 17.0	+1.0
GUMT	Gumushane	2.27	252	ePn	Pn	02 57 17.0	+1.0
KORR	Kora	2.30	34	eP	Pn	02 57 16.2	-0.2
KORR				eS	Sn	02 57 46.3	+1.6
DGRG	David-gareji	2.31	82	P	Pn	02 57 17.9	+1.3
DGRG				S	Sb	02 57 49.5	+0.7
LSNR	Lesken	2.36	28	eP	Pn	02 57 16.3	-0.9
LSNR				eS	Sn	02 57 46.5	+0.2
EZC	Erzincan	2.39	234	ePN	Pg	02 57 23.0	-1.2

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*CSEM **03** 02:59:18.1, 41.41N×42.52E, h4km, MD3.3, After ISK*
*ISK **03** 02:59:18.1, 41.41N×42.52E, h4km, MD3.3*
*TIF **03** 02:59:19.3, 41.09N×42.34E, h24km±11km*
*ISCJB **03** 02:59:20.1±0.6, 41.27N±0.04×42.43E±0.04, h4km, Error ellipse: s-maj=5.2km s-min=4.0km az=163.1*
ISC 03 02:59:21.2±0.6**, 41.27N**±0.04×**42.41E**±0.04**, h6km**±10km**, n11, σ1^{s}.07**/18**, Turkey-Georgia-Armenia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BCA	Borcka	0.61	287	PG	Pg	02 59 31.9	-1.1
BCA				SG	Sg	02 59 41.4	+0.4
BCA	Borcka	0.61	287	ePg	Pg	02 59 31.9	-1.1
BCA				eSg	Sg	02 59 41.4	+0.4
KARS	Kars	0.84	142	PG	Pg	02 59 35.8	-1.5
KARS				SG	Sg	02 59 49.0	+0.8
ONI	Oni	1.52	30	P	Pg	02 59 50.1	-0.3
ONI				S	Sg	03 00 12.5	+2.4
EZM	Erzurum	1.58	211	PN	Pn	02 59 50.1	+0.4
EZM				SN	Sg	03 00 13.1	+1.2
AGRB	Hanur-Agry	1.75	165	ePN	Pn	02 59 51.6	-0.5
AGRB	Hanur-Agry	1.75	165	ePn	Pn	02 59 51.6	-0.5
MTA	Mtatsminda	1.84	76	P	Pg	02 59 52.5	-4.0
MTA				S	Sg	03 00 20.7	+0.4
DGRG	David-gareji	2.24	84	P	Pg	03 00 02.3	-1.8
DGRG				S	Sg	03 00 33.9	+0.7
GUMT	Gumushane	2.36	251	ePN	Pn	03 00 00.6	+0.1
GUMT	Gumushane	2.36	251	ePn	Pn	03 00 00.6	+0.1

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*PRU **03** 03:17:46.0, 50.27N×19.20E, h0km*
WAR 03 03:17:46.4, 50.17N×19.30E, ML2.5, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	Ostrava-Krasne	0.81	246	ePG	Pg	03 18 01.4	-0.6
OKC				eSG	Sg	03 18 12.8	+0.3
LIKS	Likavka	1.13	186	eSG	Sg	03 18 24.1	+1.5
STHS	Stebnicka Huta	1.47	120	ePN	Pn	03 18 14.6	+0.5
STHS				i SN	Sn	03 18 36.1	+2.1
VYHS	Vyhne	1.71	190	i PN	Pn	03 18 16.3	-1.0
VYHS				i SN	Sn	03 18 40.0	+0.2
KECS	Kecovo	1.86	155	i PN	Pn	03 18 18.8	-0.6
KECS				eSN	Sn	03 18 46.8	+3.2
DPC	Dobruska-Polom	1.92	277	ePG	Pg	03 18 19.4	-3.8
DPC				eSG	Sg	03 18 43.6	-4.4
	11nm,0.5s						
UPC	Upice	2.13	280	eSG	Sg	03 18 52.7	-2.2
MODS	Modra-Piesok	2.23	217	ePN	Pn	03 18 25.0	+0.4
PVCC	Panska Ves	3.05	279	eSG	Sg	03 19 21.0	-3.4
PRU	Pruhonice	3.07	268	eSG	Sg	03 19 20.3	-4.7
BRG	Berggiesshubel	3.49	284	SG	Sg	03 19 37.9	-0.6
	3.5nm,0.5s						
KHC	Kasperske Hory	3.86	257	eSG	Sg	03 19 48.2	-2.2
CLL	Collm	4.16	288	eSg	Sg	03 20 02.0	+2.1

IDC 03 03:20:54.7±4.6**, 20.81S**×**179.55W, h564km**±49km**, mb3.0**/4**, mb1 3.4**/5**, mb1mx3.2**/12**, mbtmp3.2**/5**, Error ellipse: s-maj=50.4km s-min=27.8km az=149.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	13.10	262	P	P	03 23 43.4	-1.1
	0.6nm,0.3s,baz=91,slow=18,SNR=6.8						
STKA	Stephens Creek	36.34	244	eP	P	03 27 11.0	-0.8
	2.2nm,0.4s						
STKA	Stephens Creek	36.34	244	P	P	03 27 10.9	-0.9
	2.8nm,0.5s,baz=92,slow=12,SNR=13						
WRA	Warramunga Arr	43.12	263	P	P	03 28 07.8	+1.7
	1.1nm,0.3s,baz=97,slow=6.3,SNR=6.3						
NVAR	Mina Array Bea	82.25	44	P	P	03 32 18.6	+1.1
	0.4nm,0.6s,baz=230,slow=9.8,SNR=4.8						
TXAR	Lajitas Array	88.45	58	P	P	03 32 47.2	-0.4
	0.1nm,0.5s,baz=227,slow=6.6,SNR=3.6						
AKASG	Malin Array Be	142.56	330	PKhKP		03 39 15.0	
	0.7nm,0.5s,baz=42,slow=4.4,SNR=6.3						
AKASG				PKP	PKPdf	03 39 22.6	-1.0
	0.3nm,0.3s,baz=41,slow=3.9,SNR=4.3						
BRTR	Keskin Array B	145.96	311	PKPbc	PKPbc	03 39 30.4	-1.4
	0.5nm,0.5s,baz=145,slow=4.4,SNR=5.0						
MMAI	Mount Meron Ar	146.69	299	PKPbc	PKPbc	03 39 33.2	-0.8
	1.7nm,0.5s,baz=48,slow=2.1,SNR=11						
TORD	Torodi Ar. Bea	172.29	189	PKPab	PKPab	03 41 28.2	+0.2
	0.3nm,0.6s,baz=164,slow=4.3,SNR=4.7						

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*TIF **03** 03:22:06.3, 41.26N×42.38E, h2km±1km*
*MOS **03** 03:22:06.5±0.4, 41.68N×41.33E, h135km, mb3.8/1, Error ellipse: s-maj=99.9km s-min=23.7km az=137.1*
*ISK **03** 03:22:06.0, 41.37N×42.48E, h6km, MD3.3*
*CSEM **03** 03:22:07.5±0.2, 41.17N×42.29E, h2km, MD3.3, Error ellipse: s-maj=5.6km s-min=4.9km az=120.0*
*ISCJB **03** 03:22:08.4±0.5, 41.21N±0.03×42.33E±0.04, h2km, Error ellipse: s-maj=4.8km s-min=3.6km az=34.4*
ISC 03 03:22:08.9±0.9**, 41.23N**±0.04×**42.33E**±0.05**, h0km**±9km**, n17, σ0^{s}.97**/28**, Turkey-Georgia-Armenia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BCA	Borcka	0.58	292	PG	Pg	03 22 19.0	-1.0
BCA				SG	Sg	03 22 28.4	+0.9
BCA	Borcka	0.58	292	ePg	Pg	03 22 19.0	-1.0
BCA				eSg	Sg	03 22 28.4	+0.9
KARS	Kars	0.84	137	PG	Pg	03 22 23.1	-1.9
KARS				SG	Sg	03 22 36.2	+0.3
EZM	Erzurum	1.51	210	PN	Pn	03 22 36.8	-0.3
EZM				SN	Sg	03 22 59.3	+1.8
GOR	Gori	1.53	60	P	Pn	03 22 26.6	-11
GOR				S	Sn	03 22 46.8	-11
ONI	Oni	1.59	31	P	Pn	03 22 37.8	-0.3
ONI				S	Sn	03 22 59.8	+0.4
AGRB	Hanur-Agry	1.72	163	ePN	Pn	03 22 39.1	-0.9
AGRB	Hanur-Agry	1.72	163	ePn	Pn	03 22 39.1	-0.9
MTA	Mtatsminda	1.91	75	S	Sn	03 23 08.1	+0.8
DIGR	Digorskoe uzhe	1.91	29	i P	Pn	03 22 41.9	-0.7
DIGR				i S	Sn	03 23 07.6	+0.2
ZEI	Tsey	1.93	37	i P	Pn	03 22 43.6	+0.7
ZEI				i S	Sb	03 23 10.7	+1.1
LACR	Lac	2.17	42	eP	Pn	03 22 47.1	+1.0
LACR				eS	Sb	03 23 16.7	+0.4
KORR	Kora	2.26	34	eP	Pn	03 22 46.9	-0.5
KORR				eS	Sn	03 23 16.4	+0.4
GUMT	Gumushane	2.30	251	ePN	Pn	03 22 47.6	-0.3
GUMT	Gumushane	2.30	251	ePn	Pn	03 22 47.6	-0.3
DGRG	David-gareji	2.30	83	P	Pn	03 22 48.9	+1.0
LSNR	Lesken	2.32	28	eP	Pn	03 22 46.6	-1.7
LSNR				eS	Sn	03 23 15.8	-1.7

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*ISK **03** 03:34:15.8, 39.41N×40.73E, h5km, MD3.7, ML3.8*
*ISCJB **03** 03:34:16.7±0.3, 39.42N±0.03×40.76E±0.04, h10km, mb3.3/5, Error ellipse: s-maj=5.2km s-min=3.4km az=140.7*
*CSEM **03** 03:34:16.3±0.1, 39.40N×40.73E, h10km, MD3.7, Error ellipse: s-maj=2.0km s-min=1.6km az=172.0*
*NEIC **03** 03:34:17.9±1.0, 39.38N×40.76E, h10km, MD3.4(ISK), Error ellipse: s-maj=19.6km s-min=10.5km az=155.0*
*IDC **03** 03:34:22.1±3.9, 39.42N×40.68E, h33km±35km, mb3.3/5, mb1 3.4/9, mb1mx3.3/22, mbtmp3.3/9, ML3.6/3, MS2.8/1, Ms1 2.8/1, ms1mx2.2/26, Error ellipse: s-maj=25.9km s-min=19.3km az=142.0*
ISC 03 03:34:17.7±0.3**, 39.40N**±0.03×**40.76E**±0.04**, h10km, n69, σ0^{s}.97**/74**, mb3.3**/5**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BINT	Bingol	0.57	202	i PG	Pg	03 34 27.1	-1.5
BINT				i SG	Sg	03 34 35.3	-0.8
BINT	Bingol	0.57	202	i Pg	Pg	03 34 27.1	-1.5
BINT				i Sg	Sg	03 34 35.3	-0.8
EZM	Erzurum	0.69	43	i PG	Pg	03 34 29.2	-1.7
EZC	Erzincan	0.80	296	i PN	Pg	03 34 37.6	+4.4
EZC				i SN	Sg	03 34 53.4	+10
PTK	Pertek	1.18	245	PN	Pn	03 34 38.3	-1.9
PTK				SN	Sn	03 34 55.0	-1.2
PTK	Pertek	1.18	245	ePn	Pn	03 34 38.3	-1.9
PTK				eSn	Sn	03 34 55.0	-1.2
BTMT	Batman	1.34	154	PN	Pn	03 34 41.7	-0.7
GUMT	Gumushane	1.44	317	PN	Pn	03 34 43.3	-0.5
GUMT	Gumushane	1.44	317	ePn	Pn	03 34 43.3	-0.5
DIY	Diyarbakir	1.56	196	PN	Pn	03 34 45.4	0.0
DIY	Diyarbakir	1.56	196	ePn	Pn	03 34 45.4	0.0
AGRB	Hanur-Agry	1.74	84	PN	Pn	03 34 47.6	-0.3
AGRB	Hanur-Agry	1.74	84	ePn	Pn	03 34 47.6	-0.3
MYA	Malataya	2.11	240	PN	Pn	03 34 52.9	-0.1
MYA	Malataya	2.11	240	ePn	Pn	03 34 52.9	-0.1
MALT	Malatya	2.12	240	PN	Pn	03 34 53.0	-0.1
MALT	Malatya	2.12	240	ePn	Pn	03 34 52.7	-0.4
MALT	Malatya	2.12	240	ePn	Pn	03 34 52.7	-0.4
BCA	Borcka	2.14	18	PN	Pn	03 34 53.6	+0.1
BCA	Borcka	2.14	18	ePn	Pn	03 34 53.6	+0.1
KARS	Kars	2.16	55	ePN	Pn	03 34 53.6	-0.1
KARS	Kars	2.16	55	ePn	Pn	03 34 53.6	-0.1
VANB	Van	2.21	111	ePN	Pn	03 34 54.3	0.0

VANB	**Van**	**2.21**	**111**	*e*Pn	**Pn**	**03 34 54.3**	**0.0**
VANT	**Van**	**2.27**	**114**	*e*PN	**Pn**	**03 34 54.6**	**-0.5**
SIRT	**Sirnak**	**2.31**	**145**	*e*PN	**Pn**	**03 34 56.3**	**+0.5**
SIRT	**Sirnak**	**2.31**	**145**	*e*Pn	**Pn**	**03 34 56.3**	**+0.5**
URFA	**Urfa**	**2.48**	**218**	*e*PN	**Pn**	**03 34 57.8**	**-0.3**
URFA	**Urfa**	**2.48**	**218**	*e*Pn	**Pn**	**03 34 57.8**	**-0.3**
SVSK	**Karacayir**	**2.94**	**281**	*e*PN	**Pn**	**03 35 04.6**	**+0.1**
SVSK	**Karacayir**	**2.94**	**281**	*e*Pn	**Pn**	**03 35 04.6**	**+0.1**
HKR	**Hakkari**	**2.97**	**127**	*e*PN	**Pn**	**03 35 05.4**	**+0.6**
HKR	**Hakkari**	**2.97**	**127**	*e*Pn	**Pn**	**03 35 05.4**	**+0.6**
CUKT	**Cukurca**	**3.11**	**133**	*e*PN	**Pn**	**03 35 07.7**	**+1.0**
CUKT	**Cukurca**	**3.11**	**133**	*e*Pn	**Pn**	**03 35 07.7**	**+1.0**
TOKT	**Tokat**	**3.37**	**287**	*e*PN	**Pn**	**03 35 10.3**	**0.0**
TOKT	**Tokat**	**3.37**	**287**	*e*Pn	**Pn**	**03 35 10.3**	**0.0**
GAZ	**Gaziantep**	**3.57**	**232**	*e*PN	**Pn**	**03 35 13.3**	**+0.2**
GAZ	**Gaziantep**	**3.57**	**232**	*e*Pn	**Pn**	**03 35 13.3**	**+0.2**
KMRS	**Kahramanmaras**	**3.57**	**239**	*e*PN	**Pn**	**03 35 13.3**	**+0.2**
KMRS	**Kahramanmaras**	**3.57**	**239**	*e*Pn	**Pn**	**03 35 13.3**	**+0.2**
MSL	**Mosul**	**3.62**	**149**	*e*Pn	x	03 35 25.0	
MSL				*e*Sn	x	03 36 14.5	
GOR	**Gori**	**3.63**	**44**	P	**Pg**	**03 35 27.0**	**-0.1**
GOR				S	**Sg**	**03 36 20.4**	**+6.3**
ONI	**Oni**	**3.77**	**32**	P	**Pg**	**03 35 28.0**	**-1.9**
ONI				S	**Sg**	**03 36 16.5**	**-2.3**
MTA	**Mtatsminda**	**3.83**	**52**	S	**Sg**	**03 36 21.5**	**+0.8**
BNN	**Bunyan**	**3.86**	**263**	*e*PN	**Pn**	**03 35 17.9**	**+0.9**
BNN	**Bunyan**	**3.86**	**263**	*e*Pn	**Pn**	**03 35 17.9**	**+0.9**
DGRG	**David-gareji**	**4.07**	**58**	P	**Pn**	**03 35 20.9**	**+0.9**
BR131	**Keskin Array S**	**5.51**	**276**	*e*Pn	**Pn**	**03 35 46.8**	**+7.1**
	4.2nm,0.5s						
BRTR	**Keskin Array B**	**5.51**	**276**	Pn	**Pn**	**03 35 40.6**	**+0.9**
BRTR	**Keskin Array B**	**5.51**	**276**	Pn	**Pn**	**03 35 40.6**	**+0.9**
	baz=101,slow=15,SNR=1.2						
BRTR	**Keskin Array B**	**5.51**	**276**	Pn	**Pn**	**03 35 40.6**	**+0.9**
ANTO	**Ankara**	**6.16**	**277**	*e*Pg	**Pg**	**03 36 10.9**	**-4.7**
	38nm,1.4s						
ANTO	**Ankara**	**6.16**	**277**	*e*Pg	**Pg**	**03 36 10.9**	**-4.8**
	38nm,1.4s						
MMAI	**Mount Meron Ar**	**7.70**	**216**	Pn	**Pn**	**03 36 12.7**	**+2.9**
	0.6nm,0.3s,baz=57,slow=15,SNR=5.3						
MMAI				Lg		03 38 23.5	
	0.5nm,0.3s,baz=15,slow=28,SNR=3.0						
ASF	**Jabal al Asfar**	**7.87**	**205**	Lg		03 38 30.5	
	0.3nm,0.3s,baz=287,slow=19,SNR=3.9						
ASF				LR	LR	03 39 05.9	
	comp=Z,58nm,19.1s,baz=174,slow=36						
AKASG	**Malin Array Be**	**13.91**	**328**	Pn	**Pn**	**03 37 34.4**	**-0.3**
AKASG	**Malin Array Be**	**13.91**	**328**	Pn	**Pn**	**03 37 34.4**	**-0.3**
	0.6nm,0.3s,baz=139,slow=10,SNR=6.9						
AKASG	**Malin Array Be**	**13.91**	**328**	Pn	**Pn**	**03 37 34.4**	**-0.3**
AKTK	**Aktyubinsk**	**16.42**	**42**	Pn	**Pn**	**03 38 08.9**	**+0.9**
AKTK	**Aktyubinsk**	**16.42**	**42**	Pn	**Pn**	**03 38 08.9**	**+0.9**
AKTO	**Aktyubinsk**	**16.42**	**42**	Pn	**Pn**	**03 38 08.9**	**+0.9**
	0.2nm,0.3s,baz=217,slow=18,SNR=5.5						
GERES	**GERESS Array B**	**21.49**	**305**	P	**P**	**03 39 08.3**	**+1.9**
	0.4nm,0.6s,mb3.0,baz=106,slow=7.1,SNR=4.9						
FINES	**FINESS Array B**	**23.85**	**342**	P	**P**	**03 39 30.6**	**-0.3**
	1.7nm,0.8s,mb3.6,baz=145,slow=14,SNR=4.5						
FINES	**FINESS Array B**	**23.85**	**342**	P	**P**	**03 39 30.5**	**-0.3**
KEST	**Kesra**	**25.10**	**272**	P	**P**	**03 39 44.1**	**+1.7**
	2.6nm,1.2s,mb3.6,baz=167,slow=14,SNR=2.0						
MKAR	**Makanchi Array**	**30.92**	**62**	P	**P**	**03 40 34.8**	**+0.4**
	0.3nm,0.7s,mb3.2,baz=284,slow=6.9,SNR=4.9						
YKA	**Yellowknife Ar**	**76.53**	**349**	P	**P**	**03 46 08.1**	**+0.6**
	0.1nm,0.3s,mb3.2,baz=17,slow=6.9,SNR=3.7						
YKA	**Yellowknife Ar**	**76.53**	**349**	P	**P**	**03 46 08.1**	**+0.6**

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*NIED **03** 03:40:00, 23.90N×143.70E, h11^{km}, Mw4.6 Best double couple: $M_0$9.41000×10^{15} NP1:ϕ_s302.00000°, δ24.00000°, λ42.00000°. NP2:ϕ_s173.00000°, δ74.00000°, λ108.00000°.*

*IDC **03** 03:40:31.8±0.7, 23.70N×143.09E, h0^{km}, mb4.0/13, mb1 4.2/16, mb1mx4.1/23, mbtmp4.1/16, ML4.0/3, MS3.9/11, Ms1 3.9/11, ms1mx3.5/38, Error ellipse: s-maj=27.8km s-min=16.6km az=76.0*

*ISCJB **03** 03:40:35.8±0.4, 23.78N±0.04×143.22E±0.08, h33^{km}, mb4.4/33, MS4.0/16, Error ellipse: s-maj=11.0km s-min=5.9km az=176.0*

*NEIC **03** 03:40:36.0±5.1, 23.72N×143.15E, h24^{km}±36^{km}, mb4.4/5, Error ellipse: s-maj=17.9km s-min=11.3km az=85.0*

*BJI **03** 03:40:35.0, 23.70N×143.20E, h18^{km}, mB5.0, mb4.7, Ms4.4, Msz3.9*

*JMA **03** 03:40:36.1±0.2, 23.94N×143.72E, h89^{km}, M4.4*

*MOS **03** 03:40:36.2±1.1, 23.80N×142.97E, h33^{km}, mb4.4/13, Error ellipse: s-maj=18.5km s-min=7.8km az=109.3*

ISC 03 03:40:32.8±2.3**, 23.78N**±0.05×**143.24E**±0.08**, h1**^{km}±14^{km}**, n85, σ1^{s}08**/78**, mb4.4**/33**, MS4.0**/16**, 5C-3D, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHHJ	**Haha-jima-NKT**	**3.00**	**342**	P	**Pn**	**03 41 22.9**	**+1.4**
JHHJ				*e*S	**Sn**	**03 41 58.0**	**-0.1**
CBIJ	**Chichi jima**	**3.44**	**344**	*e*S	**Sn**	**03 42 08.3**	**-0.7**
CBIJ	**Chichi jima**	**3.44**	**344**	Pn	**Pn**	**03 41 28.9**	**+1.3**
	30nm,0.3s,baz=253,slow=23,SNR=4.6						
CBIJ				Sn	**Sn**	**03 42 08.7**	**-0.3**
	98nm,0.3s,baz=116,slow=23,SNR=16						
GUMO	**Guam**	**10.25**	**171**	LR	LR	03 46 15.2	
	comp=Z,383nm,21.2s,baz=306,slow=34						
BSO3	**Boso 3**	**11.24**	**348**	P	**Pn**	**03 43 14.3**	**-0.4**
JHU	**Hanno**	**12.51**	**345**	P	**Pn**	**03 43 31.2**	**-0.9**
JRY	**Ryogami san**	**12.76**	**344**	P	**Pn**	**03 43 34.7**	**-0.8**
JAG	**Ashikaga**	**13.02**	**346**	P	**Pn**	**03 43 37.0**	**-2.0**
MJAR	**Matsushiro Arr**	**13.44**	**342**	Pn	**Pn**	**03 43 43.5**	**-1.2**
MJAR	**Matsushiro Arr**	**13.44**	**342**	Pn	**Pn**	**03 43 43.5**	**-1.2**
	0.8nm,0.3s,baz=155,slow=10,SNR=9.9						
MAJO	**Matsushiro**	**13.44**	**342**	*e*Pn	**Pn**	**03 43 46.1**	**+1.3**
JNU	**Nakatsue**	**14.30**	**313**	LR	LR	03 48 41.2	
	comp=Z,206nm,20.1s,baz=102,slow=34						
KSRS	**Korea Array**	**18.93**	**320**	P	**Pn**	**03 44 55.6**	**0.0**
	0.2nm,0.3s,baz=127,slow=11,SNR=8.6						
KSRS				LR	LR	03 51 49.1	
	comp=Z,241nm,18.4s,baz=146,slow=36						
KLR	**Kul'dur**	**26.97**	**343**	*e*P	**P**	**03 46 13.6**	**-2.3**
KLR				MLR	MLR		
	comp=Z,1µm,14.0s,MS4.5						
HHC	**Hu-ho-hao-te**	**31.50**	**310**	*e*P	**P**	**03 46 58.0**	**+1.7**
HHC				AP		03 47 02.4	
HHC				XP	sP	03 47 05.0	+8.4
HHC				PP	PP	03 48 02.5	-4.7
HHC				PCP	PcP	03 49 51.8	+2.5
HHC				S	**S**	**03 52 05.6**	**+0.3**
HHC				XS	sS	03 52 13.2	+7.5
HHC				SCP	ScP	03 53 32.1	-1.7
HHC				PCS	PcS	03 53 33.9	+0.3
HHC				SS	SS	03 53 54.7	-25
HHC				SCS	ScS	03 57 28.2	-3.2
HHC				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.5						
HHC				AMB	AMB		
	comp=Z,163nm,5.5s						
HHC				LR	LR		
	comp=N,229nm,17.1s,MS4.0						
HHC				LR	LR		
	comp=E,146nm,18.0s,MS4.0						
HHC				LR	LR		
	comp=Z,173nm,19.0s,MS3.8						
GYA	**Guiyang**	**33.15**	**282**	P	**P**	**03 47 12.1**	**+1.1**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
MA2	**Magadan**	**36.16**	**6**	⇑*e*P	**P**	**03 47 38.3**	**+1.7**
MA2				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
MA2				MLR	MLR		
	comp=Z,100nm,13.0s,MS3.8						
KMI	**Kunming**	**36.79**	**281**	P	**P**	**03 47 43.0**	**+0.6**
KMI				AP		03 47 48.8	
KMI				XP	sP	03 47 51.6	+8.9
KMI				AMB	AMB		
	comp=Z,12nm,1.3s,mb4.5						
KMI				AMB	AMB		
	comp=Z,112nm,5.3s						
KMI				LR	LR		
	comp=N,141nm,19.3s,MS3.9						
KMI				LR	LR		
	comp=E,166nm,21.7s,MS3.9						
KMI				LR	LR		
	comp=Z,149nm,16.9s,MS3.8						
ULN	**Ulaanbaatar**	**37.41**	**319**	⇑*e*P	**P**	**03 47 47.6**	**+0.2**
SONM	**Songino Array**	**37.79**	**319**	P	**P**	**03 47 48.9**	**-1.7**
	comp=Z,0.8nm,0.9s,mb3.5,baz=134,slow=11,SNR=4.6						
SONM				LR	LR	04 04 27.5	
	comp=Z,198nm,18.7s,MS4.0,baz=187,slow=38						
YAK	**Yakutsk**	**39.34**	**350**	⇓*e*P	**P**	**03 48 04.1**	**+0.7**
YAK				pmax	pmax		
	comp=Z,18nm,1.0s,mb4.7						
YAK				MLR	MLR		
	comp=Z,200nm,22.0s,MS3.9						
SEY	**Seymchan**	**39.62**	**7**	⇓*e*P	**P**	**03 48 07.4**	**+1.6**
BOD	**Bodaibo**	**39.96**	**336**	*e*P	**P**	**03 48 08.1**	**-0.5**
ZAK	**Zakamensk**	**40.75**	**321**	*e*P	**P**	**03 48 14.4**	**-0.9**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.7						
CHTO	**Chiang Mai**	**41.44**	**272**	*e*P	**P**	**03 48 21.4**	**+0.1**
	comp=Z,4.2nm,0.8s,mb4.2						
CHTO	**Chiang Mai**	**41.44**	**272**	*e*P	**P**	**03 48 21.4**	**0.0**
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
WB2	**Warramunga Arr**	**44.31**	**192**	*e*P	**P**	**03 48 44.0**	**-0.5**
WRA	**Warramunga Arr**	**44.31**	**192**	P	**P**	**03 48 43.2**	**-1.3**
	comp=Z,3.2nm,0.8s,mb4.1,baz=14,slow=8.1,SNR=5.5						
WRA				PcP	PcP	03 50 27.1	-1.8
	comp=Z,3.1nm,0.8s,baz=358,slow=3.5,SNR=5.7						
BILL	**Bilibino**	**46.48**	**12**	⇑*e*P	**P**	**03 49 02.9**	**+1.7**
BILL				pmax	pmax		
	comp=Z,9.0nm,2.2s,mb4.4						
BILL				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.8						
LSA	**Lhasa**	**46.58**	**289**	P	**P**	**03 49 04.8**	**+2.3**
PSI	**Prapat**	**47.61**	**251**	LR	LR	04 08 06.5	
	comp=Z,143nm,19.1s,MS4.0,baz=14,slow=35						
TIXI	**Tiksi**	**48.60**	**354**	⇑*e*P	**P**	**03 49 17.8**	**+0.2**
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.4						
TIXI				MLR	MLR		
	comp=Z,100nm,19.0s,MS3.8						
WMQ	**Urumqi**	**49.32**	**308**	*e*P	**P**	**03 49 24.0**	**+0.4**
TAPN	**Taplejung**	**49.88**	**286**	*e*P	**P**	**03 49 28.6**	**+0.5**
ODAN	**Odare**	**50.24**	**286**	*e*P	**P**	**03 49 31.6**	**+0.8**
	comp=Z,28nm,1.0s,mb5.2						
JIRN	**Jiri**	**51.16**	**287**	*e*P	**P**	**03 49 39.0**	**+1.2**
	comp=Z,23nm,0.8s,mb5.1						
GUN	**Gumba**	**51.39**	**288**	*e*P	**P**	**03 49 40.7**	**+1.2**
	comp=Z,17nm,0.8s,mb5.1						
PKI	**Pulchoki**	**51.86**	**287**	*e*P	**P**	**03 49 43.6**	**+0.6**
DMN	**Daman**	**52.12**	**287**	*e*P	**P**	**03 49 46.1**	**+1.1**
GKN	**Gorkha**	**52.46**	**288**	*e*P	**P**	**03 49 47.9**	**+0.4**
ZALV	**Zalesovo Beam**	**52.63**	**321**	P	**P**	**03 49 46.4**	**-2.0**
	comp=Z,0.5nm,0.3s,mb3.9,baz=101,slow=6.8,SNR=4.7						
ZALV				PcP	PcP	03 50 56.6	-1.7
	comp=Z,1.0nm,0.6s,baz=123,slow=5.5,SNR=4.8						
ZALV				LR	LR	04 11 55.1	
	comp=Z,75nm,18.2s,MS3.8,baz=40,slow=36						
ZAL	**Zalesovo**	**52.64**	**321**	P	**P**	**03 49 46.4**	**-2.0**
ZAL						03 50 56.7	
MKAR	**Makanchi Array**	**53.35**	**312**	P	**P**	**03 49 53.3**	**-0.5**
	comp=Z,0.6nm,0.6s,mb3.7,baz=91,slow=9.5,SNR=6.4						
MKAR				LR	LR	04 14 39.2	
	comp=Z,67nm,18.1s,MS3.7,baz=197,slow=38						
KOLN	**Koldanda**	**53.41**	**288**	*e*P	**P**	**03 49 55.0**	**+0.5**
	comp=Z,24nm,1.1s,mb5.0						
STKA	**Stephens Creek**	**55.36**	**182**	*e*P	**P**	**03 50 06.8**	**-1.7**
STKA	**Stephens Creek**	**55.36**	**182**	P	**P**	**03 50 06.8**	**-1.7**
	comp=Z,1.7nm,0.6s,mb4.2,baz=339,slow=10,SNR=6.5						
KURK	**Kurchatov**	**56.01**	**316**	*e*P	**P**	**03 50 12.7**	**-0.3**
	comp=Z,3.4nm,0.9s,mb4.4						
KURK	**Kurchatov**	**56.01**	**316**	*e*P	**P**	**03 50 12.7**	**-0.3**
KURK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
AFI	**Afiamalu**	**57.76**	**126**	LR	LR	04 12 36.6	
	comp=Z,156nm,18.4s,MS4.2,baz=75,slow=33						
AAK	**Ala-Archa**	**58.96**	**307**	*e*P	**P**	**03 50 33.6**	**-0.3**
	comp=Z,3.6nm,1.1s,mb4.3						
AAK	**Ala-Archa**	**58.96**	**307**	*e*P	**P**	**03 50 33.6**	**-0.4**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.4						
MCK	**McKinley**	**59.15**	**29**	*e*P	**P**	**03 50 35.5**	**+0.6**
	comp=Z,3.2nm,1.0s,mb4.3						
MCK	**McKinley**	**59.15**	**29**	*e*P	**P**	**03 50 35.5**	**+0.6**
MCK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
BRVK	**Borovoye**	**61.20**	**319**	*e*P	**P**	**03 50 48.9**	**-0.3**
	comp=Z,25nm,1.6s,mb5.1						
BRVK	**Borovoye**	**61.20**	**319**	*e*P	**P**	**03 50 48.9**	**-0.3**
BRVK				pmax	pmax		
	comp=Z,25nm,1.6s,mb5.1						
KBL	**Kabul**	**64.39**	**298**	*e*P	**P**	**03 51 11.5**	**+0.8**
INK	**Inuvik**	**65.66**	**24**	P	**P**	**03 51 17.4**	**-1.0**
	comp=Z,1.3nm,0.9s,mb4.2,baz=278,slow=5.7,SNR=3.6						
ARU	**Arti**	**67.63**	**323**	*e*P	**P**	**03 51 30.9**	**-0.3**
	comp=Z,24nm,1.2s,mb5.3						
ARU	**Arti**	**67.63**	**323**	⇓*e*P	**P**	**03 51 31.4**	**+0.2**
ARU				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.3						
ARU				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.4						
AKTK	**Aktyubinsk**	**69.08**	**317**	P	**P**	**03 51 39.0**	**-1.4**
AKTO	**Aktyubinsk**	**69.08**	**317**	P	**P**	**03 51 39.0**	**-1.4**
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb4.1						
AKTO	**Aktyubinsk**	**69.08**	**317**	P	**P**	**03 51 39.0**	**-1.4**
	comp=Z,1.3nm,0.8s,mb4.2,baz=73,slow=7.1,SNR=3.1						
RAR	**Rarotonga**	**71.25**	**124**	LR	LR	04 17 34.8	
	comp=Z,144nm,20.4s,MS4.2,baz=254,slow=31						
YKA	**Yellowknife Ar**	**74.61**	**28**	P	**P**	**03 52 13.6**	**+0.2**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	**Yellowknife Ar**	**74.61**	**28**	P	**P**	**03 52 13.6**	**+0.3**
	comp=Z,1.0nm,0.7s,mb3.9,baz=293,slow=5.5,SNR=17						
RES	**Resolute Bay**	**75.05**	**14**	*e*P	**P**	**03 52 16.8**	**+1.0**
	comp=Z,72nm,0.8s						
RES	**Resolute Bay**	**75.05**	**14**	*e*P	**P**	**03 52 16.8**	**+1.0**
RES				pmax	pmax		
	comp=Z,72nm,0.8s						
ARCES	**ARCESS Array B**	**76.98**	**341**	P	**P**	**03 52 27.1**	**+0.3**
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES	**ARCESS Array B**	**76.98**	**341**	P	**P**	**03 52 27.1**	**+0.2**
	comp=Z,3.9nm,0.8s,mb4.6,baz=46,slow=6.9,SNR=6.1						
FINES	**FINESS Array B**	**81.34**	**334**	P	**P**	**03 52 49.7**	**-1.1**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	**81.34**	**334**	P	**P**	**03 52 49.7**	**-1.1**
	comp=Z,1.2nm,0.6s,mb4.1,baz=73,slow=2.5,SNR=11						
NVAR	**Mina Array Bea**	**81.82**	**52**	P	**P**	**03 52 54.4**	**+0.6**
	comp=Z,0.7nm,0.8s,mb3.8,baz=268,slow=5.1,SNR=5.4						
KBD	**Kabd**	**83.28**	**299**	*e*P	**P**	**03 53 00.8**	**-0.8**
KBD				AMb	AMB	03 53 06.2	
	comp=Z,28nm,0.5s						
MIB	**Mutribah**	**83.31**	**299**	*e*P	**P**	**03 53 01.8**	**-0.1**
MIB				AMb	AMB	03 53 03.6	
	comp=Z,23nm,0.8s,mb5.5						
NAY	**Al-Naaiem**	**83.61**	**299**	*e*P	**P**	**03 53 03.4**	**0.0**
NAY				AMb	AMB	03 53 05.1	
	comp=Z,24nm,1.0s,mb5.4						
AKASG	**Malin Array Be**	**85.85**	**324**	P	**P**	**03 53 13.1**	**-1.1**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	**Malin Array Be**	**85.85**	**324**	P	**P**	**03 53 13.1**	**-1.1**
	comp=Z,0.8nm,0.5s,mb4.1,baz=46,slow=5.3,SNR=6.1						
PDAR	**Pinedale Array**	**85.89**	**45**	LR	LR	04 28 05.0	
	comp=Z,60nm,21.5s,MS4.0,baz=67,slow=33						
BRTR	**Keskin Array B**	**88.96**	**313**	P	**P**	**03 53 28.3**	**-1.2**
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BRTR	**Keskin Array B**	**88.96**	**313**	P	**P**	**03 53 28.2**	**-1.2**
	comp=Z,1.7nm,0.9s,mb4.3,baz=87,slow=5.4,SNR=5.9						
ANMO	**Albuquerque**	**91.86**	**50**	⇑*e*P	**P**	**03 53 45.3**	**+2.2**
GERES	**GERESS Array B**	**94.83**	**329**	LR	LR	04 39 46.0	
	comp=Z,125nm,19.4s,MS4.4,baz=343,slow=38						
LPAZ	**La Paz**	**149.65**	**82**	*e*PKPbc	PKPbc	04 00 26.0	+0.9
LPAZ	**La Paz**	**149.65**	**82**	*e*PKP2	PKPbc	04 00 26.0	+0.9
LPAZ	**La Paz**	**149.65**	**82**	PKPbc	PKPbc	04 00 24.9	-0.1
	comp=Z,1.8nm,0.9s,baz=48,slow=1.7,SNR=4.7						

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*MOS **03** 03:41:26.2±0.2, 41.39N×41.76E, h167^{km}, mb3.7/1, Error ellipse: s-maj=99.9km s-min=23.9km az=53.4*

*TIF **03** 03:41:27.5, 41.24N×42.36E, h5^{km}±1^{km}*

*CSEM **03** 03:41:27.1±0.8, 41.10N×42.26E, h0^{km}±5^{km}, mb3.7, Error ellipse: s-maj=4.7km s-min=3.2km az=39.0*

*ISK **03** 03:41:27.2, 41.19N×42.36E, h3^{km}, MD2.7*

*ISCJB **03** 03:41:28.4±0.9, 41.15N±0.05×42.31E±0.06, h1^{km}±11^{km}, Error ellipse: s-maj=9.7km s-min=5.5km az=37.1*

ISC 03 03:41:29.1±0.8**, 41.14N**±0.05×**42.29E**±0.06**, h6**^{km}±9^{km}**, n13, σ0^{s}86**/25**, Turkey-Georgia-Armenia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BCA	**Borcka**	**0.59**	**301**	*i* PG	**Pg**	**03 41 39.9**	**-0.6**
BCA				*i* SG	**Sg**	**03 41 48.9**	**+0.7**
BCA	**Borcka**	**0.59**	**301**	*i* Pg	**Pg**	**03 41 39.9**	**-0.6**
BCA				*i* Sg	**Sg**	**03 41 48.9**	**+0.7**
KARS	**Kars**	**0.80**	**131**	PG	**Pg**	**03 41 43.3**	**-1.2**
KARS				SG	**Sg**	**03 41 55.6**	**+0.8**
EZM	**Erzurum**	**1.42**	**210**	*e*PN	**Pn**	**03 41 55.8**	**+0.4**
GOR	**Gori**	**1.60**	**58**	P	**Pn**	**03 41 56.1**	**-1.8**
GOR				S	**Sn**	**03 42 17.6**	**-1.3**
ONI	**Oni**	**1.68**	**31**	P	**Pn**	**03 41 58.0**	**-1.0**
ONI				S	**Sn**	**03 42 20.2**	**-0.6**
MTA	**Mtatsminda**	**1.96**	**73**	P	**Pn**	**03 42 03.5**	**+0.7**
MTA				S	**Sn**	**03 42 27.5**	**-0.2**
DIGR	**Digorskoe uzhe**	**2.00**	**28**	*i* P	**Pn**	**03 42 03.4**	**0.0**
DIGR				*i* S	**Sn**	**03 42 30.5**	**+1.7**
ZEI	**Tsey**	**2.02**	**36**	*i* P	**Pn**	**03 42 04.4**	**+0.7**
ZEI				*i* S	**Sb**	**03 42 32.3**	**+0.7**
LACR	**Lac**	**2.25**	**41**	*i* P	**Pn**	**03 42 07.4**	**+0.6**
LACR				*i* S	**Sb**	**03 42 37.5**	**-0.7**
DGRG	**David-gareji**	**2.34**	**81**	P	**Pb**	**03 42 12.3**	**+0.7**
DGRG				S	**Sb**	**03 42 41.8**	**+1.0**
KORR	**Kora**	**2.35**	**34**	*e*P	**Pn**	**03 42 07.9**	**-0.3**
KORR				*e*S	**Sn**	**03 42 38.3**	**+0.9**
LSNR	**Lesken**	**2.42**	**27**	*e*P	**Pn**	**03 42 08.1**	**-1.0**
LSNR				*e*S	**Sn**	**03 42 38.7**	**-0.2**

IDC 03 03:44:44.2±4.2**, 4.87S×101.07E, h0**^{km}**, mb3.9**/4**, mb1 3.9**/4**, mb1mx3.7**/18**, mbtmp3.9**/4**, Error ellipse: s-maj=207.0km s-min=31.1km az=60.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**46.47**	**130**	P	P	03 53 13.1	-0.2
	1.5nm,0.6s,baz=317,slow=9.1,SNR=3.7						
SONM	**Songino Array**	**52.69**	**5**	P	P	03 54 00.4	+0.1
	0.6nm,0.8s,baz=175,slow=9.0,SNR=3.7						
MKAR	**Makanchi Array**	**54.06**	**344**	P	P	03 54 10.6	+0.1
	0.7nm,0.5s,baz=154,slow=8.1,SNR=2.1						
ZALV	**Zalesovo Beam**	**60.17**	**349**	P	P	03 54 53.5	-0.1
	0.8nm,0.3s,baz=159,slow=4.5,SNR=3.2						
TXAR	**Lajitas Array**	**146.24**	**41**	PKPbc	PKPbc	04 04 26.9	-0.6
	1.5nm,0.6s,baz=298,slow=0.6,SNR=41						

MOS 03 03:45:49.2±0.6**, 43.30N×42.43E, h8**^{km}**, mb3.5**/1**, 4C-2D, Error ellipse: s-maj=13.7km s-min=13.1km az=82.7, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHAR	**Shatzhatmas**	**0.47**	**21**	⇑*i*PG	Pg	03 45 59.0	+0.6
SHAR				*i* S	Sg	03 46 03.6	-1.1
KIV	**Kislovodsk**	**0.68**	**16**	⇑*i*PG	Pg	03 46 04.1	+1.8
KIV				*i* S	Sg	03 46 10.1	-1.1
BEYR	**Belyy Ugol+**	**0.77**	**21**	⇓*i*PG	Pg	03 46 04.5	+0.6
BEYR				*i* S	Sg	03 46 11.4	-2.5
DIGR	**Digorskoe uzhe**	**0.93**	**115**	⇑*i*PG	Pg	03 46 07.1	0.0
DIGR				*i* S	Sg	03 46 17.2	-2.0
LSNR	**Lesken**	**1.01**	**91**	*e*PG	Pg	03 46 08.5	-0.1
LSNR				*i* S	Sg	03 46 19.6	-2.2
ZEI	**Tsey**	**1.20**	**116**	⇓*i*PG	Pg	03 46 11.8	-0.4
ZEI				*i* S	Sg	03 46 25.2	-2.6
KMSR	**Komsomolskaya**	**1.36**	**86**	*e*PG	Pg	03 46 14.7	-0.6
KMSR				*e*S	Sb	03 46 30.3	-2.1
LACR	**Lac**	**1.45**	**108**	⇑*i*PG	Pg	03 46 16.1	-0.8
LACR				*i* S	Sn	03 46 32.7	-2.1
BTKR	**Batakoyurt**	**1.54**	**87**	*e*PG	Pg	03 46 17.6	-1.2

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*IDC **03** 03:53:04.5±13.0, 35.84N×71.71E, h63^{km}±112^{km}, mb3.5/7, mb1 3.6/8, mb1mx3.3/22, mbtmp3.5/8, ML3.9/1, MS3.2/1, Ms1 3.2/1, ms1mx2.7/24, Error ellipse: s-maj=72.3km s-min=37.2km az=154.0*

*ISCJB **03** 03:53:13.6±0.6, 36.49N±0.04×71.60E±0.06, h128^{km}±10^{km}, mb3.6/6, Error ellipse: s-maj=8.8km s-min=6.9km az=150.0*

*NEIC **03** 03:53:14.3±1.3, 36.35N×71.62E, h130^{km}±13^{km}, mb4.2/1, Error ellipse: s-maj=33.5km s-min=11.8km az=134.0*

ISC 03 03:53:14.8±0.6**, 36.47N**±0.04×**71.60E**±0.06**, h126**^{km}±9^{km}**, n24, σ0^{s}83**/27**, mb3.6**/6**, 2C-1D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.84**	**228**	*e*Pn	**Pn**	**03 53 58.8**	**-0.4**
KBL				*e*Sn	**Sn**	**03 54 34.4**	**+1.0**
AAK	**Ala-Archa**	**6.55**	**19**	*e*Pn	**Pn**	**03 54 48.4**	**-0.2**
	2.8nm,0.2s						
AAK				*e*Sn	**Sn**	**03 56 01.9**	**0.0**
KK31	**Karatay Array**	**6.68**	**353**	P	**Pn**	**03 54 49.4**	**-0.9**
	2.6nm,0.2s,baz=185,slow=13,SNR=228						
KK31				⇓S	**Sn**	**03 55 58.5**	**-6.5**
	4.8nm,0.3s,baz=189,slow=25,SNR=7.5						
MKAR	**Makanchi Array**	**13.04**	**34**	P	**Pn**	**03 56 16.5**	**+1.4**
	baz=205,slow=11,SNR=2.1						
KOLN	**Koldanda**	**13.35**	**127**	*e*P	**Pn**	**03 56 18.4**	**-0.9**
	5.8nm,0.3s						
GKN	**Gorkha**	**13.88**	**124**	*e*P	**Pn**	**03 56 25.3**	**-0.7**
	17nm,0.4s						
KKN	**Kakani**	**14.45**	**123**	*e*P	**Pn**	**03 56 33.2**	**-0.1**
DMN	**Daman**	**14.45**	**124**	*e*P	**Pn**	**03 56 33.5**	**+0.2**
PKI	**Pulchoki**	**14.68**	**123**	*e*P	**Pn**	**03 56 36.8**	**+0.6**
	11nm,0.4s						
GUN	**Gumba**	**14.78**	**121**	*e*P	**Pn**	**03 56 37.7**	**+0.2**
JIRN	**Jiri**	**15.15**	**121**	*e*P	**Pn**	**03 56 41.8**	**-0.3**
	8.3nm,0.3s						
AB31	**Akbulak array**	**15.35**	**330**	⇑Pn	**Pn**	**03 56 42.0**	**-2.4**
	0.4nm,0.4s,baz=168,slow=10,SNR=11						
AB31				⇑Sn	**Sn**	**03 59 18.4**	**-16**
	1.4nm,0.5s,baz=148,slow=22,SNR=7.3						
TAPN	**Taplejung**	**16.40**	**119**	*e*P	**Pn**	**03 56 57.8**	**+0.2**
	19nm,0.5s						
AKTK	**Aktyubinsk**	**17.05**	**329**	P	**Pn**	**03 57 05.7**	**+0.3**
AKTO	**Aktyubinsk**	**17.05**	**329**	P	**Pn**	**03 57 05.7**	**+0.3**
	0.4nm,0.3s,baz=130,slow=9.6,SNR=7.4						
ZALV	**Zalesovo Beam**	**19.75**	**24**	P	**P**	**03 57 35.0**	**+0.5**
	1.8nm,0.3s,baz=204,slow=9.8,SNR=6.5						
AKASG	**Malin Array Be**	**33.35**	**309**	P	**P**	**03 59 40.3**	**-0.2**
	0.1nm,0.2s,mb3.2,baz=80,slow=7.4,SNR=4.1						
IDI	**Anoyia**	**37.58**	**282**	LR	LR	04 20 01.7	
	comp=Z,38nm,20.3s,baz=169,slow=43						
FINES	**FINESS Array B**	**37.78**	**326**	P	**P**	**04 00 18.8**	**+0.5**
	2.0nm,1.0s,mb3.9,baz=118,slow=11,SNR=6.3						
HFS	**Hagfors**	**43.39**	**322**	P	**P**	**04 01 04.9**	**+0.6**
	2.7nm,0.5s,mb4.2,baz=99,slow=9.3,SNR=10.0						
NB2	**NORSAR Subarra**	**44.70**	**323**	P	**P**	**04 01 15.3**	**+0.6**
	comp=Z,2.2nm,0.6s,mb4.1,baz=96,slow=7.9						
NOA	**NORSAR Array B**	**44.70**	**323**	P	**P**	**04 01 15.4**	**+0.7**
	comp=Z,1.1nm,0.5s,mb3.8,baz=96,slow=7.8,SNR=3.8						
TORD	**Torodi Ar. Bea**	**66.20**	**269**	P	**P**	**04 03 46.5**	**-2.7**
	comp=Z,0.2nm,0.5s,mb3.2,baz=56,slow=5.8,SNR=9.1						
YKA	**Yellowknife Ar**	**81.26**	**3**	P	**P**	**04 05 16.6**	**+0.3**
	comp=Z,0.1nm,0.5s,mb2.9,baz=352,slow=5.3,SNR=3.4						

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*CSEM **03** 04:45:25.7±0.1, 35.17N×3.99W, h15^{km}, MD3.5, Error ellipse: s-maj=3.3km s-min=1.9km az=104.0*

*ISCJB **03** 04:45:26.2±0.8, 35.20N±0.02×4.04W±0.03, h15^{km}±5^{km}, Error ellipse: s-maj=4.1km s-min=2.6km az=18.1*

*MDD **03** 04:45:26.3±0.8, 35.16N×3.98W, h4^{km}±8^{km}, mb3.2/19, Error ellipse: s-maj=6.9km s-min=3.4km az=111.0, PRXIMO*

*CNRM **03** 04:45:28.0, 35.09N×3.96W, h0^{km}, MD3.5*

ISC 03 04:45:26.2±0.6**, 35.18N**±0.02×**4.00W**±0.04**, h12**^{km}±4^{km}**, n46, σ0^{s}97**/86**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MPAL	**Palemas**	**0.06**	**47**	*i* P	**Pg**	**04 45 29.5**	**+0.9**
TOU	**Touzarine**	**0.30**	**137**	P	**Pg**	**04 45 31.0**	**-1.2**
TOU				S	**Sg**	**04 45 34.0**	**-2.3**
TOU	**Touzarine**	**0.30**	**137**	*i* P	**Pg**	**04 45 31.0**	**-1.2**
EMEL	**Melilla**	**0.86**	**82**	P	**Pg**	**04 45 42.3**	**-0.6**
	143nm,0.1s,SNR=8.1						
EMEL				S	**Sg**	**04 45 54.1**	**0.0**
	320nm,0.2s,SNR=7.2						
EMLI	**Melilla**	**0.87**	**82**	P	**Pg**	**04 45 42.3**	**-0.6**

	143nm,0.1s,SNR=8.1						
EMLI				S	Sg	04 45 54.1	-0.1
	320nm,0.2s,SNR=7.2						
ZAI	**Zaio**	1.05	101	*i* P	Pb	04 45 46.5	+0.2
ZAI				*i* S	Sg	04 46 01.0	+0.9
EALB	**Alboran**	1.09	46	P	Pb	04 45 46.2	-0.9
	34nm,0.1s,SNR=7.9						
EALB				S	Sb	04 46 01.3	+0.1
	44nm,0.1s,SNR=7.9						
TZK	**Tazeka**	1.10	188	*i* P	Pb	04 45 46.5	-0.7
TZK				*i* S	Sb	04 46 01.0	-0.5
TGT	**Taghat**	1.41	218	*i* P	Pn	04 45 53.0	+1.3
TGT				*i* S	Sn	04 46 11.0	+0.8
EMIJ	**Mijas**	1.52	336	P	Pn	04 45 53.4	+0.2
	0.3nm,0.1s,SNR=10						
EMIJ				S	Sn	04 46 12.9	+0.1
	10nm,0.2s,SNR=6.7						
EMIJ	**Mijas**	1.52	336	P	Pn	04 45 53.4	+0.2
	0.3nm,0.1s,SNR=10						
EMIJ				S	Sn	04 46 12.0	-0.9
	10nm,0.2s,SNR=6.7						
EGUA	**Guajares**	1.69	12	P	Pn	04 45 54.8	-0.7
	1.5nm,0.2s,SNR=7.9						
EGUA				S	Sn	04 46 17.0	0.0
	7.3nm,0.3s,SNR=7.9						
EGUA	**Guajares**	1.69	12	P	Pn	04 45 54.6	-0.9
	1.5nm,0.2s,SNR=7.9						
EGUA				S	Sn	04 46 16.8	-0.2
	7.3nm,0.3s,SNR=7.9						
EJIF	**Jimena Fronter**	1.74	317	P	Pn	04 45 56.7	+0.5
	0.2nm,0.1s,SNR=7.9						
EJIF				S	Sn	04 46 18.3	-0.1
	5.5nm,0.4s,SNR=7.9						
EJIF	**Jimena Fronter**	1.74	317	P	Pn	04 45 56.7	+0.4
	0.2nm,0.1s,SNR=7.9						
EJIF				S	Sn	04 46 17.3	-1.1
	5.5nm,0.4s,SNR=7.9						
ERON	**Agron**	1.84	5	P	Pn	04 45 58.5	+0.8
	1.3nm,0.2s,SNR=4.0						
ERON				S	Sn	04 46 21.3	+0.5
	3.1nm,0.2s,SNR=7.9						
ERON	**Agron**	1.84	5	P	Pn	04 45 59.3	+1.7
	1.3nm,0.2s,SNR=4.0						
ERON				S	Sn	04 46 20.5	-0.3
	3.1nm,0.2s,SNR=7.9						
IFR	**Ifrane**	1.91	210	P	Pn	04 45 59.0	+0.5
IFR				S	Sn	04 46 25.0	+2.6
EBER	**Berja**	1.93	27	P	Pn	04 45 58.0	-0.9
	2.1nm,0.2s,SNR=7.9						
EBER				S	Sn	04 46 23.2	0.0
	5.0nm,0.2s,SNR=7.9						
EBER	**Berja**	1.93	27	P	Pn	04 45 57.8	-1.1
	2.1nm,0.2s,SNR=7.9						
EBER				S	Sn	04 46 23.0	-0.2
	5.0nm,0.2s,SNR=7.9						
ELOJ	**Sierra Loja**	1.97	356	P	Pn	04 45 59.6	+0.2
	0.8nm,0.3s,SNR=7.9						
ELOJ				S	Sn	04 46 24.5	+0.6
	2.5nm,0.3s,SNR=7.9						
MIF	**Mishlifen**	2.04	210	*i* P	Pn	04 46 00.0	-0.4
MIF				*i* S	Sn	04 46 26.0	+0.2
EQUE	**Quentar**	2.07	12	P	Pn	04 46 01.1	+0.3
	0.7nm,0.2s,SNR=13						
EQUE				S	Sn	04 46 26.7	+0.2
	2.4nm,0.2s,SNR=4.9						
ECOG	**Cogollos-Vega**	2.12	9	P	Pn	04 46 01.8	+0.3
	0.2nm,0.1s,SNR=7.9						
ECOG				S	Sn	04 46 28.0	+0.2
	6.4nm,0.4s,SNR=7.9						
CZD	**Col de Zad**	2.31	202	*i* P	Pn	04 46 06.0	+1.9
CZD				*i* S	Sn	04 46 32.0	-0.5
ELUQ	**Luque**	2.38	355	P	Pn	04 46 05.6	+0.5
	0.8nm,0.2s,SNR=7.9						
ELUQ				S	Sn	04 46 35.3	+1.0
	5.2nm,2.3s,SNR=7.9						
ELUQ	**Luque**	2.38	355	P	Pn	04 46 06.5	+1.4
	0.8nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.72	16	P	Pn	04 46 10.8	+1.1
	0.7nm,0.1s,SNR=19						
EQES				S	Sn	04 46 42.6	+0.1
	14nm,0.4s,SNR=6.0						
EQES	**Quesada**	2.72	16	P	Pn	04 46 10.8	+1.1
	0.7nm,0.1s,SNR=19						
EQES				S	Sn	04 46 44.5	+1.9
	14nm,0.4s,SNR=6.0						
EBAN	**Banos Encina**	2.98	3	P	Pn	04 46 13.4	+0.1
	3.5nm,1.1s,SNR=7.9						
EBAN				S	Sn	04 46 48.3	-0.7
	1.7nm,0.2s,SNR=7.9						
EBAN	**Banos Encina**	2.98	3	S	Sn	04 46 47.9	-1.1
	1.7nm,0.2s,SNR=7.9						
EADA	**Adamuz**	3.02	351	P	Pn	04 46 14.5	+0.8
	0.0nm,0.1s,SNR=8.4						
EADA				S	Sn	04 46 49.9	+0.1
	0.2nm,0.1s,SNR=5.0						
EADA	**Adamuz**	3.02	351	P	Pn	04 46 14.5	+0.7
	SNR=8.4						
EADA				S	Sn	04 46 50.4	+0.6
	0.2nm,0.1s,SNR=5.0						
KIB	**El Ksiba**	3.10	214	P	Pn	04 46 15.0	0.0
KIB				S	Sn	04 46 50.0	-2.0
KIB	**El Ksiba**	3.10	214	*e*P	Pn	04 46 15.0	0.0
ZFT	**Errachidia**	3.15	185	*i* P	Pn	04 46 18.0	+2.3
ZFT				*i* S	Sn	04 46 52.0	-1.2
EMIN	**Mina Concepcio**	3.36	321	P	Pn	04 46 19.0	+0.4
	0.1nm,0.1s,SNR=9.8						
EMIN				S	Sn	04 46 57.4	-0.9
	0.2nm,0.1s						
EMIN	**Mina Concepcio**	3.36	321	P	Pn	04 46 19.0	+0.5
	0.1nm,0.1s,SNR=9.8						
EMIN				S	Sn	04 46 56.8	-1.6
	0.2nm,0.1s						
EGRO	**El Granado**	3.66	311	P	Pn	04 46 23.0	+0.3
	0.2nm,0.1s,SNR=8.2						
EGRO				S	Sn	04 47 04.3	-1.5
	1.0nm,0.1s,SNR=7.9						
EGRO	**El Granado**	3.66	311	P	Pn	04 46 22.5	-0.2
	0.2nm,0.1s,SNR=8.2						
EGRO				S	Sn	04 47 03.5	-2.3
	1.0nm,0.1s,SNR=7.9						
TZC	**Tazercounte**	3.67	215	*e*P	Pn	04 46 24.0	+1.2
TZC				*i* S	Sn	04 47 05.0	-1.0
ETOB	**Tobarra**	3.98	29	P	Pn	04 46 27.6	+0.7
	0.3nm,0.2s,SNR=9.4						
ETOB				S	Sn	04 47 12.2	-1.3
	0.7nm,0.3s,SNR=7.9						
ETOB	**Tobarra**	3.98	29	P	Pn	04 46 27.6	+0.6
	0.3nm,0.2s,SNR=9.4						
ETOB				S	Sn	04 47 13.6	+0.1
	0.7nm,0.3s,SNR=7.9						
EBAD	**Badajoz**	4.31	327	P	Pn	04 46 31.5	0.0
	0.6nm,0.1s,SNR=4.9						
EBAD				S	Sn	04 47 19.9	-1.8
	2.8nm,0.3s,SNR=4.6						
EBAD	**Badajoz**	4.31	327	P	Pn	04 46 31.5	0.0
	0.6nm,0.1s,SNR=4.9						
ESDC	**Sonseca Array**	4.49	0	P	Pn	04 46 34.3	+0.3
	1.4nm,0.1s,baz=177,slow=12,SNR=15						
ESDC				S	Sn	04 47 24.2	-1.9
	3.0nm,6.5s,baz=186,slow=32,SNR=7.9						

*MOS **03** 04:46:39.6±1.2, 51.58N×16.05E, h10^{km}, mb4.0/1, Error ellipse: s-maj=6.5km s-min=3.5km az=79.2*

*ISCJB **03** 04:46:40.1±0.2, 51.41N±0.02×16.06E±0.02, h0^{km}, mb3.5/6, Error ellipse: s-maj=2.2km s-min=1.7km az=1.8*

*LDG **03** 04:46:40.6±0.3, 51.46N×16.28E, h1^{km}, Ml4.1/9, Error ellipse: s-maj=7.9km s-min=4.8km az=6.0, Suspected Mining induced.*

*NEIC **03** 04:46:41.2±0.3, 51.53N×16.08E, h5^{km}, ML3.6(FUR), ML3.4(SZGRF), ML3.2(BRA), Error ellipse: s-maj=4.1km s-min=3.2km az=181.0*

*IPEC **03** 04:46:41.8±0.3, 51.48N×16.18E, h8^{km}±1^{km}, ML3.2/4, Error ellipse: s-maj=1.8km s-min=0.7km az=32.0*

*IDC **03** 04:46:41.9±0.5, 51.46N×16.01E, h0^{km}, mb3.6/6, mb1 3.8/14, mb1mx3.7/24, mbtmp3.7/14, ML3.6/8, Error ellipse: s-maj=9.1km s-min=5.6km az=102.0*

*CSEM **03** 04:46:42.2±0.1, 51.45N×16.16E, h2^{km}, ML4.0/21, Error ellipse: s-maj=1.5km s-min=1.0km az=8.0*

*PRU **03** 04:46:42.2, 51.46N×16.11E, h0^{km}*

*WAR **03** 04:46:43, 51.46N×16.10E, ML3.3, Mining Induced*

*BGR **03** 04:46:43.1±0.5, 51.39N×16.09E, h1^{km}, ML3.4/9, Error ellipse: s-maj=6.7km s-min=2.2km az=19.0*

*VIE **03** 04:46:44.5±0.6, 51.22N×16.04E, h0^{km}, mb3.0/10, ML3.2/12, Suspected Mining induced.*

ISC 03 04:46:41.0±0.2, **51.48N**±0.01×**16.10E**±0.02, **h0^{km}, n273, σ1.13**/434, **mb3.5**/6, **20C-31D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	0.65	169	*e*Pg	Pg	04 46 54.2	+0.7
KSP				*e*Sg	Sg	04 47 02.1	+0.1
KSP	**Ksiaz**	0.65	169	*e*Pg	Pg	04 46 54.3	+0.8
KSP				*e*Sg	Sg	04 47 02.6	+0.6
KSP	**Ksiaz**	0.65	169	⇓*i*Pg	Pg	04 46 54.1	+0.6
KSP				*e*Sg	Sg	04 47 02.0	+0.1
KSP				*e*		04 47 06.8	
KSP	**Ksiaz**	0.65	169	⇓*i*P	Pg	04 46 54.1	+0.6
KSP				*e*		04 47 06.8	
KSP	**Ksiaz**	0.65	169	*e*Pg	Pg	04 46 54.1	+0.6
KSP				*e*Sg	Sg	04 47 01.7	-0.2
KSP				*e*S	Sg	04 47 06.8	+4.9
UPC	**Upice**	0.98	183	*e*Pg	Pg	04 46 59.8	+0.1
UPC	**Upice**	0.98	183	*e*PG	Pg	04 46 59.8	+0.1
UPC	**Upice**	0.98	183	*e*Pg	Pg	04 46 59.8	+0.1
DPC	**Dobruska-Polom**	1.14	173	*e*Pg	Pg	04 47 03.0	+0.1
DPC				*e*Sg	Sg	04 47 17.5	-0.2
DPC	**Dobruska-Polom**	1.14	173	*e*Pg	Pg	04 47 02.8	-0.1
DPC				*e*Sg	Sg	04 47 17.3	-0.4
DPC	**Dobruska-Polom**	1.14	173	*e*PG	Pg	04 47 02.8	-0.1
DPC				*e*SG	Sg	04 47 17.3	-0.4
	227nm,0.4s						
DPC	**Dobruska-Polom**	1.14	173	*e*Pg	Pg	04 47 02.7	-0.2
DPC				*e*Sg	Sg	04 47 17.1	-0.6
PVCC	**Panska Ves**	1.36	226	*e*Pg	Pg	04 47 07.3	+0.2
PVCC				*e*Sg	Sg	04 47 24.9	+0.2
PVCC	**Panska Ves**	1.36	226	*e*PG	Pg	04 47 07.3	+0.2
PVCC				*e*SG	Sg	04 47 24.9	+0.2
	771nm,0.4s						
PVCC	**Panska Ves**	1.36	226	*e*Pg	Pg	04 47 07.3	+0.2
PVCC				*e*Sg	Sg	04 47 25.9	+1.2
BRG	**Berggiesshubel**	1.49	247	*e*Pg	Pg	04 47 09.9	+0.4
BRG				*e*Sg	Sg	04 47 29.9	+1.1
BRG	**Berggiesshubel**	1.49	247	Pn	Pn	04 47 07.9	-1.1
BRG				Pg	Pg	04 47 09.9	+0.4
BRG				Sg	Sg	04 47 29.9	+1.1
BRG	**Berggiesshubel**	1.49	247	P	Pn	04 47 07.9	-1.1
BRG						04 47 29.9	
BRG				smax			
	comp=N,211nm,0.4s						
BRG	**Berggiesshubel**	1.49	247	Pg	Pg	04 47 09.9	+0.4
BRG				*e*Sg	Sg	04 47 29.6	+0.8
BRG	**Berggiesshubel**	1.49	247	PN	Pn	04 47 07.9	-1.1
BRG				PG	Pg	04 47 09.9	+0.4
BRG				SG	Sg	04 47 29.9	+1.1
	comp=N,352nm,0.4s						
PRA	**Prague**	1.77	217	PG	Pg	04 47 12.0	-2.8
PRA				SG	Sg	04 47 37.0	-0.7
PRU	**Pruhonice**	1.79	214	*e*Pn	Pn	04 47 12.9	-0.3
PRU				*e*Pg	Pg	04 47 14.6	-0.8
PRU				*e*Sg	Sg	04 47 37.5	-1.1
PRU	**Pruhonice**	1.79	214	*e*PN	Pn	04 47 12.9	-0.3
PRU				*e*PG	Pg	04 47 14.6	-0.8
PRU				*e*SG	Sg	04 47 37.5	-1.1
	comp=N,224nm,0.5s						
FBE	**Freiberg**	1.82	253	*e*Pn	Pn	04 47 13.4	-0.1
FBE				*e*Sg	Sg	04 47 39.5	+0.2
FBE	**Freiberg**	1.82	253	Pn	Pn	04 47 13.4	-0.1
FBE				Sg	Sg	04 47 39.5	+0.2
GKP	**Gorka Klasztor**	1.92	21	*e*Pn	Pg	04 47 23.7	+5.9
GKP				*e*Sn	Sg	04 47 47.6	+4.9
GKP	**Gorka Klasztor**	1.92	21	*e*Pn	Pg	04 47 23.7	+5.9
GKP				*e*Sn	Sg	04 47 47.6	+4.9
RAC	**Raciborz**	1.93	136	*e*Pg	Pg	04 47 17.5	-0.5
RAC				*e*Sg	Sg	04 47 42.4	-0.6
RAC	**Raciborz**	1.93	136	*e*Pg	Pg	04 47 17.5	-0.5
RAC				*e*Sg	Sg	04 47 42.4	-0.6
MORC	**Moravsky Berou**	1.94	151	*e*Pn	Pn	04 47 15.0	-0.2
MORC				*e*Sg	Sg	04 47 42.6	-0.7
MORC	**Moravsky Berou**	1.94	151	⇑*i*P	Pn	04 47 14.9	-0.3
MORC	**Moravsky Berou**	1.94	151	Pn	Pn	04 47 15.0	-0.2
MORC				Sg	Sg	04 47 42.6	-0.7
CLL	**Collm**	1.95	266	*e*Pn	Pn	04 47 15.1	-0.2
CLL	**Collm**	1.95	266	*i* Pn	Pn	04 47 14.9	-0.4
CLL				*i* Pg	Pg	04 47 17.8	-0.5
CLL				*i* Sg	Sg	04 47 44.0	+0.4
CLL	**Collm**	1.95	266	*i* Pn	Pn	04 47 14.9	-0.4
CLL				*i* Pg	Pg	04 47 17.8	-0.5
CLL				*e*x	x	04 47 22.0	
CLL				*i* x	x	04 47 32.9	
CLL				*i* Sg	Sg	04 47 44.0	+0.4
	comp=Z,119nm,0.8s						
CLL	**Collm**	1.95	266	*i* Pg	Pg	04 47 17.8	-0.5
CLL				*i* S	Sg	04 47 44.0	+0.4
OKC	**Ostrava-Krasne**	2.10	141	*e*Pg	Pg	04 47 20.7	-0.6
OKC				*e*Sg	Sg	04 47 46.7	-1.8
OKC	**Ostrava-Krasne**	2.10	141	*e*PG	Pg	04 47 20.7	-0.6
OKC				*e*SG	Sg	04 47 46.7	-1.8
	comp=Z,307nm,0.6s						
OKC	**Ostrava-Krasne**	2.10	141	*e*Pg	Pg	04 47 20.7	-0.6
OKC				*e*Sg	Sg	04 47 46.7	-1.8
VRAC	**Vranov**	2.20	172	Pn	Pn	04 47 18.6	-0.2
	comp=Z,8.7nm,0.3s,baz=338,slow=13,SNR=56						
VRAC				Lg		04 47 50.5	
	comp=Z,17nm,0.3s,baz=77,slow=22,SNR=14						
VRAC	**Vranov**	2.20	172	⇑*i*P	Pn	04 47 18.6	-0.2
VRAC	**Vranov**	2.20	172	*e*Pn	Pn	04 47 19.2	+0.4
VRAC				*e*Sg	Sg	04 47 50.5	-1.1
	comp=Z,69nm,0.5s						
TREC	**Trest**	2.23	190	*e*PN	Pn	04 47 19.7	+0.6
TREC	**Trest**	2.23	190	*e*Pn	Pn	04 47 19.7	+0.6
TREC				*e*Sg	Sg	04 47 51.8	-0.7
KRUC	**Moravsky**	2.43	175	*e*Pn	Pn	04 47 22.3	+0.4
KRUC				*e*Sg	Sg	04 47 57.9	-1.2
	comp=Z,151nm,0.6s						
TANN	**Tannenbergstha**	2.54	246	*e*Pn	Pn	04 47 24.1	+0.7
TANN				*e*Sg	Sg	04 48 03.3	+0.8
TANN	**Tannenbergstha**	2.54	246	Pn	Pn	04 47 24.1	+0.7
TANN				Sg	Sg	04 48 03.3	+0.8
WERD	**Werda**	2.61	248	*e*Pn	Pn	04 47 24.7	+0.3
WERD	**Werda**	2.61	248	Pn	Pn	04 47 24.7	+0.3
NKC	**Novy Kostel**	2.63	243	*e*Pn	Pn	04 47 25.2	+0.5
NKC				*e*Pg	Pg	04 47 31.4	0.0
NKC				*e*Sg	Sg	04 48 06.4	+0.9
NKC	**Novy Kostel**	2.63	243	*e*PN	Pn	04 47 25.2	+0.5
NKC				*e*PG	Pg	04 47 31.4	0.0
NKC				*e*SG	Sg	04 48 06.4	+0.9
	comp=Z,208nm,0.3s						
NKC	**Novy Kostel**	2.63	243	*e*Pn	Pn	04 47 25.1	+0.4
OJC	**Ojcow**	2.66	117	*e*Sg	Sg	04 48 08.4	+1.8
OJC	**Ojcow**	2.66	117	*e*Pn	Pn	04 47 25.0	-0.1
OJC				*e*Pg	Pg	04 47 33.7	+1.7
OJC				*e*Sn	Sn	04 47 54.9	-3.2
OJC				*e*Sg	Sg	04 48 07.8	+1.3
OJC	**Ojcow**	2.66	117	*e*P	Pn	04 47 25.0	-0.1
OJC				*e*		04 47 54.9	
OJC	**Ojcow**	2.66	117	*e*Pn	Pn	04 47 25.0	-0.1
OJC	**Ojcow**	2.66	117	*e*Pg	Pg	04 47 33.7	+1.7
OJC				*e*Sn	Sn	04 47 54.9	-3.2
OJC				*e*Sg	Sg	04 48 07.8	+1.3
JAVC	**Velka Javorina**	2.81	158	*e*Sg	Sg	04 48 11.3	-0.1
	comp=Z,180nm,1.0s						
KHC	**Kasperske Hory**	2.86	215	*e*Pn	Pn	04 47 27.6	-0.2
KHC				*e*Pg	Pg	04 47 34.1	-1.6
KHC				*e*Sn	Sn	04 48 02.2	-0.6
KHC				*e*Sg	Sg	04 48 12.2	-0.5
KHC	**Kasperske Hory**	2.86	215	*e*P	Pn	04 47 27.6	-0.2
KHC				*e*		04 48 02.2	
KHC	**Kasperske Hory**	2.86	215	*e*PN	Pn	04 47 27.6	-0.2
KHC				*e*PG	Pg	04 47 34.1	-1.6
KHC				*e*SN	Sn	04 48 02.2	-0.6
KHC				*e*SG	Sg	04 48 12.2	-0.5
	comp=Z,94nm,0.5s						
KHC	**Kasperske Hory**	2.86	215	*e*Pn	Pn	04 47 27.7	-0.1
KHC	**Kasperske Hory**	2.86	215	*e*Pg	Pg	04 47 34.3	-1.4
KHC				*e*Sn	Sn	04 48 02.2	-0.6
KHC				*e*Sg	Sg	04 48 13.2	+0.5
MANZ	**Manzenberg**	2.94	241	*e*Pn	Pn	04 47 29.7	+0.7
MANZ	**Manzenberg**	2.94	241	Pn	Pn	04 47 29.7	+0.7
MOX	**Moxa**	2.95	255	*e*Pn	Pn	04 47 29.4	+0.3
MOX				*e*Pg	Pg	04 47 37.8	+0.3
MOX				*e*Sg	Sg	04 48 17.8	+2.0
MOX	**Moxa**	2.95	255	*e*PN	Pn	04 47 29.4	+0.3
MOX				*e*PG	Pg	04 47 37.8	+0.3
MOX				*e*SG	Sg	04 48 17.8	+2.0
MOX	**Moxa**	2.95	255	*e*Pn	Pn	04 47 29.1	0.0
MOX	**Moxa**	2.95	255	*e*Pg	Pg	04 47 37.2	-0.3
MOX				*e*Sg	Sg	04 48 16.3	+0.5
ROTZ	**Rotzenmuhle**	3.02	237	*e*Pn	Pn	04 47 30.4	+0.4
ROTZ	**Rotzenmuhle**	3.02	237	Pn	Pn	04 47 30.4	+0.4
GEC2	**GERESS Array S**	3.06	211	*e*Pn	Pn	04 47 30.9	+0.3
GEC2				*e*Pg	Pg	04 47 39.2	-0.4
GEC2				*e*Sg	Sg	04 48 20.3	+1.1
GEC2	**GERESS Array S**	3.06	211	*e*Pn	Pn	04 47 30.9	+0.4
GEC2	**GERESS Array S**	3.06	211	*e*Pg	Pg	04 47 39.2	-0.4
GERES	**GERESS Array B**	3.06	211	Pn	Pn	04 47 30.9	+0.3
GERES				Pg	Pg	04 47 37.5	-2.1
GERES				Lg		04 48 17.5	
GERES	**GERESS Array B**	3.06	211	Pn	Pn	04 47 30.9	+0.3
	comp=Z,4.4nm,0.3s,baz=29,slow=12,SNR=117						
GERES				Pg	Pg	04 47 37.5	-2.1
	comp=Z,17nm,0.3s,baz=31,slow=17,SNR=87						
GERES				Lg		04 48 17.5	
	comp=Z,16nm,0.3s,baz=30,slow=27,SNR=11						
GERES	**GERESS Array B**	3.06	211	Pg	Pg	04 47 37.5	-2.1
SMOL	**Smolenice**	3.09	163	*i* Pn	Pn	04 47 32.5	+1.5
SMOL	**Smolenice**	3.09	163	*i* PN	Pn	04 47 32.5	+1.5
SMOL	**Smolenice**	3.09	163	*i* Pn	Pn	04 47 32.5	+1.5
LIKS	**Likavka**	3.11	140	*e*SG	Sg	04 48 21.6	+0.8
LIKS	**Likavka**	3.11	140	*e*Sg	Sg	04 48 21.6	+0.8
WET	**Wettzell**	3.12	223	*e*Pn	Pn	04 47 31.9	+0.4
WET				*e*Sg	Sg	04 48 21.9	+0.7
WET	**Wettzell**	3.12	223	*e*Pn	Pn	04 47 31.9	+0.5
WET				*e*Sg	Sg	04 48 21.9	+0.7
WET	**Wettzell**	3.12	223	*e*Pn	Pn	04 47 31.6	+0.2
WET				Sg	Sg	04 48 21.9	+0.7
MODS	**Modra-Piesok**	3.20	166	*e*Pn	Pn	04 47 33.8	+1.2
MODS				*e*Sg	Sg	04 48 27.0	+3.1
MODS	**Modra-Piesok**	3.20	166	*e*PN	Pn	04 47 33.8	+1.2
MODS				*e*SG	Sg	04 48 27.0	+3.1
MODS	**Modra-Piesok**	3.20	166	*e*Pn	Pn	04 47 33.8	+1.2
MODS				*e*Sg	Sg	04 48 27.0	+3.1
NIE	**Niedzica**	3.39	126	*e*Pn	Pn	04 47 35.4	+0.2
NIE				*e*Pg	Pg	04 47 44.5	-1.5
NIE				*e*Sn	Sn	04 48 14.9	-1.2
NIE				*e*Sg	Sg	04 48 29.0	-1.0
NIE	**Niedzica**	3.39	126	*e*P	Pn	04 47 35.4	+0.2
NIE				*e*		04 48 14.9	
NIE	**Niedzica**	3.39	126	*e*Pn	Pn	04 47 35.4	+0.2
NIE	**Niedzica**	3.39	126	*e*Pg	Pg	04 47 44.5	-1.5
NIE				*e*Sg	Sg	04 48 29.0	-1.0
VYHS	**Vyhne**	3.47	148	*i* Pn	Pn	04 47 36.0	-0.3
VYHS				*e*Sg	Sg	04 48 34.8	+2.2
VYHS	**Vyhne**	3.47	148	*i* PN	Pn	04 47 36.0	-0.3
VYHS				*e*SG	Sg	04 48 34.8	+2.2
VYHS	**Vyhne**	3.47	148	*i* Pn	Pn	04 47 36.0	-0.3
VYHS				*e*Sg	Sg	04 48 34.8	+2.2
CONA	**Conrad Observa**	3.56	183	⇓*i*Pn	Pn	04 47 38.4	+1.0
	SNR=14						
CONA				⇑*i*Sg	Sg	04 48 33.3	-2.1
	comp=Z,73nm,0.5s						
CONA	**Conrad Observa**	3.56	183	Pn	Pn	04 47 38.4	+0.9
	SNR=14						
CONA				Sg	Sg	04 48 33.3	-2.1
	comp=Z,73nm,0.5s						
CLZ	**Clausthal**	3.58	278	*e*Pn	Pn	04 47 38.8	+1.0
GRA1	**Grafenberg Arr**	3.59	242	*e*Pn	Pn	04 47 38.3	+0.5
GRA1				*e*Sg	Sg	04 48 36.0	-0.2
GRA1	**Grafenberg Arr**	3.59	242	Pn	Pn	04 47 38.3	+0.5
GRA1				Sg	Sg	04 48 36.0	-0.2
GRF	**Grafenberg Arr**	3.59	242	*e*Pn	Pn	04 47 38.3	+0.5
GRF				*e*Sg	Sg	04 48 36.0	-0.2
GRFO	**Grafenberg**	3.59	242	*e*Pn	Pn	04 47 38.1	+0.3
GRFO				*e*Pg	Pg	04 47 50.5	+0.7
GRFO				*e*Sb	Sb	04 48 27.3	-2.1
GRFO				*e*Sg	Sg	04 48 35.5	-0.7
GRFO	**Grafenberg**	3.59	242	*e*P	Pn	04 47 38.1	+0.2
GRFO				*e*		04 48 27.3	
GRFO	**Grafenberg**	3.59	242	*e*Pn	Pn	04 47 38.1	+0.2
GRFO	**Grafenberg**	3.59	242	*e*Pg	Pg	04 47 50.5	+0.7
GRFO				*e*S	Sb	04 48 27.3	-2.1
BSD	**Bornholm Skovb**	3.71	349	*i* P	Pn	04 47 38.6	-0.9
BSD				*i* S	Sn	04 48 21.5	-2.3
MOA	**Molln**	3.83	199	⇑*i*Pn	Pn	04 47 41.6	+0.5
	SNR=8.1						
MOA	**Molln**	3.83	199	⇑*i*Pn	Pn	04 47 41.6	+0.5
MOA				*i* Sg	Sg	04 48 44.4	+0.5
MOA	**Molln**	3.83	199	⇑*i*Pn	Pn	04 47 41.6	+0.5
	SNR=8.1						
MOA				⇓*i*Sg	Sg	04 48 44.4	+0.5
	comp=Z,110nm,0.6s						
MOA	**Molln**	3.83	199	Pn	Pn	04 47 41.6	+0.5
	SNR=8.1						
MOA				Sg	Sg	04 48 44.4	+0.5
	comp=Z,110nm,0.6s						
HROE	**Hohe Rhon--Fla**	3.87	258	⇓*i*Pn	Pn	04 47 41.9	+0.2
HROE	**Hohe Rhon--Fla**	3.87	258	⇓*i*Pn	Pn	04 47 41.9	+0.2
STHS	**Stebnicka Huta**	3.88	120	*i* Pn	Pn	04 47 42.5	+0.6
STHS	**Stebnicka Huta**	3.88	120	*i* PN	Pn	04 47 42.5	+0.6
STHS	**Stebnicka Huta**	3.88	120	*i* Pn	Pn	04 47 42.5	+0.6
KECS	**Kecovo**	4.13	135	*e*SG	Sg	04 48 50.7	-2.8
ARSA	**Arzberg**	4.25	185	⇓*i*Pn	Pn	04 47 48.0	+1.1
	SNR=15						
ARSA	**Arzberg**	4.25	185	⇓*i*Pn	Pn	04 47 48.0	+1.1
ARSA				*i* Sg	Sg	04 48 57.1	-0.4
ARSA	**Arzberg**	4.25	185	⇓*i*Pn	Pn	04 47 48.0	+1.1
	SNR=15						
ARSA				⇑*i*Sg	Sg	04 48 57.2	-0.4
	comp=Z,116nm,1.1s						
ARSA	**Arzberg**	4.25	185	Pn	Pn	04 47 48.0	+1.0
	SNR=15						
ARSA				Sg	Sg	04 48 57.2	-0.4
	comp=Z,116nm,1.1s						
PSZ	**Piszkesteto**	4.33	144	⇑P	Pn	04 47 48.7	+0.6
PSZ	**Piszkesteto**	4.33	144	⇑*i*P	Pn	04 47 48.7	+0.6
KWP	**Kalwaria**	4.60	111	*e*Pn	Pb	04 48 05.7	+3.1
KWP	**Kalwaria**	4.60	111	*e*Pn	Pb	04 48 05.7	+3.1
KOLS	**Kolonicke sedl**	4.71	120	*i* Pn	Pn	04 47 53.0	-0.3
KOLS	**Kolonicke sedl**	4.71	120	*i* PN	Pn	04 47 53.0	-0.3
KOLS	**Kolonicke sedl**	4.71	120	*i* Pn	Pn	04 47 53.0	-0.3
KBA	**Koelnbreinsper**	4.76	203	⇓*i*Pn	Pn	04 47 54.9	+0.9
KBA	**Koelnbreinsper**	4.76	203	⇓*i*Pn	Pn	04 47 54.9	+0.9
KBA				*i* Sg	Sg	04 49 12.3	-1.7
KBA	**Koelnbreinsper**	4.76	203	⇓*i*Pn	Pn	04 47 54.9	+0.9
KBA				⇓*i*Sg	Sg	04 49 12.3	-1.7
	comp=Z,50nm,0.7s						
KBA	**Koelnbreinsper**	4.76	203	Pn	Pn	04 47 54.9	+0.9
KBA				Sg	Sg	04 49 12.3	-1.6
	comp=Z,50nm,0.7s						
UZH	**Uzhgorod**	4.91	123	*e*P	Pn	04 47 52.2	-3.7
UZH				*e*S	Sn	04 48 45.8	-7.5
UZH				MLR	MLR		
	comp=Z,10.0nm,0.8s						
KOGS	**Kog**	5.04	179	*i* Pn	Pn	04 47 58.5	+0.8
KOGS	**Kog**	5.04	179	*i* Pn	Pn	04 47 58.5	+0.8
KOGS	**Kog**	5.04	179	*i* Pn	Pn	04 47 58.5	+0.7
WATA	**Walderalm**	5.09	217	⇓*i*Pn	Pn	04 47 59.2	+0.7
WATA	**Walderalm**	5.09	217	⇓*i*Pn	Pn	04 47 59.2	+0.7
WATA				*i* Sg	Sg	04 49 24.6	+0.1
WATA	**Walderalm**	5.09	217	⇓*i*Pn	Pn	04 47 59.2	+0.7
WATA				⇓*i*Sg	Sg	04 49 24.6	+0.1
	comp=Z,18nm,0.5s						
WATA	**Walderalm**	5.09	217	Pn	Pn	04 47 59.2	+0.7
WATA				Sg	Sg	04 49 24.6	+0.1
	comp=Z,18nm,0.5s						
WTTA	**Wattenberg**	5.13	216	⇓*i*Pn	Pn	04 48 00.1	+1.1
	SNR=6.6						
WTTA	**Wattenberg**	5.13	216	⇓*i*Pn	Pn	04 48 00.1	+1.1
WTTA				*i* Sg	Sg	04 49 26.2	+0.5
WTTA	**Wattenberg**	5.13	216	⇓*i*Pn	Pn	04 48 00.1	+1.1
	SNR=6.6						
WTTA				⇑*i*Sg	Sg	04 49 26.2	+0.5
	comp=Z,38nm,0.7s						
WTTA	**Wattenberg**	5.13	216	Pn	Pn	04 48 00.1	+1.1
	SNR=6.6						
WTTA				Sg	Sg	04 49 26.2	+0.5
	comp=Z,38nm,0.7s						
MOTA	**Moosalm**	5.27	220	⇓*i*Pn	Pn	04 48 01.6	+0.6
	SNR=6.9						
MOTA	**Moosalm**	5.27	220	⇓*i*Pn	Pn	04 48 01.6	+0.6
MOTA				*i* Sg	Sg	04 49 31.2	+0.9
MOTA	**Moosalm**	5.27	220	⇓*i*Pn	Pn	04 48 01.6	+0.6
	SNR=6.9						
MOTA				⇓*i*Sg	Sg	04 49 31.2	+0.9
	comp=Z,31nm,0.7s						
MOTA	**Moosalm**	5.27	220	Pn	Pn	04 48 01.6	+0.7
	SNR=6.9						

MOTA				Sg	Sg	04 49 31.2	+1.0
	comp=Z,31nm,0.7s						
ABTA	Abfaltersbach	5.29	208	⇓iPn	Pn	04 48 02.4	+1.1
	SNR=9.2						
ABTA				⇑iSg	Sg	04 49 30.0	-0.9
	comp=Z,34nm,0.8s						
ABTA	Abfaltersbach	5.29	208	Pn	Pn	04 48 02.4	+1.2
	SNR=9.2						
ABTA				Sg	Sg	04 49 30.0	-0.9
	comp=Z,34nm,0.8s						
RETA	Reutte	5.30	223	i Pn	Pn	04 48 01.5	+0.1
	SNR=9.9						
RETA				⇓iSg	Sg	04 49 32.4	+1.3
	comp=Z,18nm,0.6s						
RETA	Reutte	5.30	223	Pn	Pn	04 48 01.5	+0.2
	SNR=9.9						
RETA				Sg	Sg	04 49 32.4	+1.2
	comp=Z,18nm,0.6s						
SQTA	Sankt Quirin	5.33	219	⇑iPn	Pn	04 48 02.8	+1.1
	SNR=12						
SQTA	Sankt Quirin	5.33	219	⇑iPn	Pn	04 48 02.8	+1.1
SQTA				i Sg	Sg	04 49 33.6	+1.5
SQTA	Sankt Quirin	5.33	219	⇑iPn	Pn	04 48 02.8	+1.1
	SNR=12						
SQTA				⇑iSg	Sg	04 49 33.6	+1.5
	comp=Z,15nm,0.4s						
SQTA	Sankt Quirin	5.33	219	Pn	Pn	04 48 02.8	+1.0
	SNR=12						
SQTA				Sg	Sg	04 49 33.6	+1.5
	comp=Z,15nm,0.4s						
FVI	Forni Avoltri	5.36	205	Pn	Pn	04 48 03.3	+1.2
FVI	Forni Avoltri	5.36	205	Pn	Pn	04 48 03.3	+1.2
PTCC	Patocco-Chiusa	5.39	201	Pn	Pn	04 48 04.3	+1.7
PTCC	Patocco-Chiusa	5.39	201	Pn	Pn	04 48 04.3	+1.7
GOLS	Golise	5.49	183	i Pn	Pn	04 48 05.0	+1.1
GOLS	Golise	5.49	183	i Pn	Pn	04 48 05.0	+1.1
GOLS	Golise	5.49	183	i Pn	Pn	04 48 05.0	+1.1
PKSM	Moragy	5.54	161	⇑P	Pn	04 48 05.7	+1.1
PKSM	Moragy	5.54	161	⇑iP	Pn	04 48 05.7	+1.1
LJU	Ljubljana	5.54	191	i Pn	Pn	04 48 05.6	+1.0
LJU	Ljubljana	5.54	191	i Pn	Pn	04 48 05.6	+1.0
LJU	Ljubljana	5.54	191	i Pn	Pn	04 48 05.6	+0.9
VOY	Vojsko	5.65	196	ePn	Pg	04 48 27.2	-2.0
VOY				e		04 48 28.0	
VOY				eSn	Sg	04 49 46.7	+4.4
VOY	Vojsko	5.65	196	e	Pg	04 48 27.2	-2.0
VOY				e		04 48 28.0	
VOY				eSn	Sg	04 49 46.7	+4.4
DAVA	Damuels	5.84	226	⇑iPn	Pn	04 48 08.8	+0.1
DAVA	Damuels	5.84	226	⇑iPn	Pn	04 48 08.8	+0.1
DAVA	Damuels	5.84	226	⇑iPn	Pn	04 48 08.8	+0.1
BFO	Black Forest	5.93	241	ePn	Pn	04 48 09.8	-0.1
	comp=Z,10nm,0.8s						
BFO				ePg	Pg	04 48 34.4	-0.2
BFO				eSg	Sg	04 49 51.1	-0.2
BFO	Black Forest	5.93	241	eP	Pn	04 48 09.9	-0.1
BFO				pmax	pmax		
	comp=Z,11nm,0.8s						
BFO	Black Forest	5.93	241	ePn	Pn	04 48 09.9	-0.1
	comp=Z,10nm,0.8s						
BFO	Black Forest	5.93	241	ePg	Pg	04 48 34.4	-0.2
BOJS	Bojanci	6.01	186	ePn	Pn	04 48 12.1	+1.0
BOJS	Bojanci	6.01	186	ePn	Pn	04 48 12.1	+1.0
BOJS	Bojanci	6.01	186	ePn	Pn	04 48 12.1	+1.0
CTI	Castel Tesino	6.18	210	Pn	Pn	04 48 15.7	+2.2
	comp=Z,83nm,2.4s						
CTI	Castel Tesino	6.18	210	P	Pn	04 48 15.7	+2.2
CTI				pmax	pmax		
	comp=Z,83nm,2.4s						
CTI	Castel Tesino	6.18	210	Pn	Pn	04 48 15.7	+2.2
	comp=Z,83nm,2.4s						
DAVOX	Davos/Dischmat	6.23	223	Pn	Pn	04 48 13.8	-0.3
DAVOX				Sn	Sn	04 49 23.5	-2.4
DAVOX				Lg		04 49 58.7	
DAVOX	Davos/Dischmat	6.23	223	Pn	Pn	04 48 13.8	-0.3
	comp=Z,1.0nm,0.3s,baz=70,slow=16,SNR=11						
DAVOX				Sn	Sn	04 49 23.5	-2.4
	comp=Z,0.6nm,0.3s,baz=151,slow=21,SNR=2.4						
DAVOX				Lg		04 49 58.7	
	comp=Z,1.1nm,0.3s,baz=212,slow=20,SNR=3.5						
DAVOX	Davos/Dischmat	6.23	223	Pn	Pn	04 48 13.8	-0.3
DAVOX				Sn	Sn	04 49 23.5	-2.4
DRGR		6.39	135	⇓P	Pn	04 48 15.9	-0.4
DRGR		6.39	135	⇓iP	Pn	04 48 15.9	-0.4
MEM	Membach	6.43	266	P	Pn	04 48 18.0	+1.2
CDF	Champ du Feu	6.47	245	ePn	Pn	04 48 17.1	-0.3
CDF				eSg	Sg	04 50 05.7	-3.0
CDF	Champ du Feu	6.47	245	ePn	Pn	04 48 17.1	-0.3
CDF				eSg	Sg	04 50 05.7	-3.0
	comp=Z,75nm,0.9s						
CDF	Champ du Feu	6.47	245	ePn	Pn	04 48 17.1	-0.3
CDF				eSg	Sg	04 50 05.7	-3.0
	comp=Z,37nm,0.9s						
WLF	Walferdange	6.59	258	P	Pn	04 48 17.5	-1.6
BCLA	Clavier	6.91	265	P	Pn	04 48 24.8	+1.5
HINF	Hinteralfeld	7.03	242	ePn	Pn	04 48 24.5	-0.7
HINF				eSg	Sg	04 50 22.3	-4.5
HINF	Hinteralfeld	7.03	242	ePn	Pn	04 48 24.5	-0.7
HINF				eSg	Sg	04 50 22.3	-4.5
	comp=Z,23nm,0.7s						
HINF	Hinteralfeld	7.03	242	ePn	Pn	04 48 24.5	-0.7
HINF				eSg	Sg	04 50 22.3	-4.5
	comp=Z,12nm,0.7s						
BURAR	Bucovina Array	7.08	120	⇓P	Pn	04 48 26.1	+0.3
BURAR	Bucovina Array	7.08	120	⇓iP	Pn	04 48 26.1	+0.3
HAU	Haudompre	7.21	245	ePn	Pn	04 48 26.9	-0.7
HAU				eSg	Sg	04 50 28.5	-4.0
HAU	Haudompre	7.21	245	ePn	Pn	04 48 26.9	-0.7
HAU				eSg	Sg	04 50 28.5	-4.0
	comp=Z,26nm,0.7s						
HAU	Haudompre	7.21	245	ePn	Pn	04 48 26.9	-0.7
HAU				eSg	Sg	04 50 28.5	-4.0
	comp=Z,13nm,0.7s						
GIVF	Givet	7.28	263	ePn	Pn	04 48 28.3	-0.2
GIVF				eSg	Sg	04 50 31.6	-3.1
GIVF	Givet	7.28	263	ePn	Pn	04 48 28.3	-0.2
GIVF				eSg	Sg	04 50 31.6	-3.1
	comp=Z,66nm,1.0s						
GIVF	Givet	7.28	263	ePn	Pn	04 48 28.3	-0.2
GIVF				eSg	Sg	04 50 31.6	-3.1
	comp=Z,33nm,1.0s						
DOU	Dourbes	7.42	264	P	Pn	04 48 32.0	+1.5
SFTF	Sexfontaines	7.87	250	ePn	Pn	04 48 36.5	-0.1
SFTF				eSg	Sg	04 50 49.0	-4.5
SFTF	Sexfontaines	7.87	250	ePn	Pn	04 48 36.5	-0.1
	baz=70						
SFTF				eSg	Sg	04 50 49.0	-4.5
	comp=Z,80nm,1.3s						
SFTF	Sexfontaines	7.87	250	ePn	Pn	04 48 36.5	-0.1
SFTF				eSg	Sg	04 50 49.0	-4.5
	comp=Z,40nm,1.3s						
CABF	La Chapelle	8.18	237	eSg	Sg	04 50 59.4	-4.2
	comp=Z,166nm,1.6s						
CABF	La Chapelle	8.18	237	eSg	Sg	04 50 59.4	-4.2
	comp=Z,83nm,1.6s						
KIEV	Kiev	8.29	90	ePn	Pn	04 48 41.5	-0.9
	comp=Z,12nm,1.0s						
KIEV	Kiev	8.29	90	eP	Pn	04 48 41.5	-0.9
KIEV				pmax	pmax		
	comp=Z,12nm,1.0s						
KIEV	Kiev	8.29	90	ePn	Pn	04 48 41.5	-0.9
	comp=Z,12nm,1.0s						
AKASG	Malin Array Be	8.30	90	Pn	Pn	04 48 40.4	-2.2
AKASG				Sn	Sn	04 50 10.7	-6.3
AKASG				Lg		04 51 09.6	
AKASG	Malin Array Be	8.30	90	P	Pn	04 48 40.4	-2.1
AKASG						04 50 10.7	
AKASG	Malin Array Be	8.30	90	Pn	Pn	04 48 40.4	-2.2
	comp=Z,1.7nm,0.3s,baz=277,slow=12,SNR=16						
AKASG				Sn	Sn	04 50 10.7	-6.3
	comp=Z,1.8nm,0.3s,baz=263,slow=38,SNR=5.2						
AKASG				Lg		04 51 09.6	
	comp=Z,0.5nm,0.3s,baz=270,slow=30,SNR=3.3						
AKASG	Malin Array Be	8.30	90	Pn	Pn	04 48 40.3	-2.2
LPL	La Plagne	8.62	230	ePn	Pn	04 48 46.8	-0.1
LPL	La Plagne	8.62	230	ePn	Pn	04 48 46.8	-0.1
LPL	La Plagne	8.62	230	ePn	Pn	04 48 46.8	-0.1
LPG	La Plagne	8.62	230	ePn	Pn	04 48 46.4	-0.5
LPG				eSg	Sg	04 51 15.0	-2.7
LPG	La Plagne	8.62	230	ePn	Pn	04 48 46.4	-0.5
LPG				eSg	Sg	04 51 15.0	-2.7
	comp=Z,44nm,1.2s						
LPG	La Plagne	8.62	230	ePn	Pn	04 48 46.4	-0.5
LPG				eSg	Sg	04 51 15.0	-2.7
	comp=Z,22nm,1.2s						
HFS	Hagfors	8.78	352	Pn	Pn	04 48 47.4	-1.6
HFS				Sn	Sn	04 50 23.7	-4.8
HFS	Hagfors	8.78	352	Pn	Pn	04 48 47.4	-1.6
	comp=Z,0.5nm,0.3s,baz=161,slow=14,SNR=13						
HFS				Sn	Sn	04 50 23.7	-4.8
	comp=Z,0.5nm,0.3s,baz=162,slow=25,SNR=3.4						
HFS	Hagfors	8.78	352	Pn	Pn	04 48 47.4	-1.6
HFS				Sn	Sn	04 50 23.7	-4.8
FIN	Finale Ligure	9.00	219	Pn	Pn	04 48 54.1	+2.0
	comp=Z,16nm,0.7s						
FIN	Finale Ligure	9.00	219	P	Pn	04 48 54.1	+2.0
FIN				pmax	pmax		
	comp=Z,16nm,0.7s						
FIN	Finale Ligure	9.00	219	Pn	Pn	04 48 54.1	+2.0
	comp=Z,16nm,0.7s						
LOR	Lormes	9.03	247	ePn	Pn	04 48 50.9	-1.6
LOR				eSg	Sg	04 51 26.1	-4.6
LOR	Lormes	9.03	247	ePn	Pn	04 48 50.9	-1.6
	baz=67						
LOR				eSg	Sg	04 51 26.1	-4.6
	comp=Z,33nm,1.3s						
LOR	Lormes	9.03	247	ePn	Pn	04 48 50.9	-1.6
LOR				eSg	Sg	04 51 26.1	-4.6
	comp=Z,16nm,1.3s						
MBDF	Montbardon	9.19	226	ePn	Pn	04 48 54.5	-0.3
MBDF	Montbardon	9.19	226	ePn	Pn	04 48 54.5	-0.3
MBDF	Montbardon	9.19	226	ePn	Pn	04 48 54.5	-0.3
SMF	Signal de Mont	9.39	244	ePn	Pn	04 48 56.0	-1.4
SMF				eSg	Sn	04 51 36.5	+53
SMF	Signal de Mont	9.39	244	ePn	Pn	04 48 56.0	-1.4
SMF				eSg	Sn	04 51 36.5	+53
	comp=Z,19nm,1.0s						
SMF	Signal de Mont	9.39	244	ePn	Pn	04 48 56.0	-1.4
SMF				eSg	Sn	04 51 36.5	+53
	comp=Z,9.6nm,1.0s						
AVF	Avril sur Loir	9.58	246	ePn	Pn	04 48 58.5	-1.6
AVF	Avril sur Loir	9.58	246	ePn	Pn	04 48 58.5	-1.6
AVF	Avril sur Loir	9.58	246	ePn	Pn	04 48 58.5	-1.6
SBF	Sospel	9.60	221	ePn	Pn	04 48 59.3	-1.0
SBF	Sospel	9.60	221	ePn	Pn	04 48 59.3	-1.0
SBF	Sospel	9.60	221	ePn	Pn	04 48 59.3	-1.0
NOA	NORSAR Array B	9.96	346	Pn	Pn	04 49 02.8	-2.3
NOA				Sn	Sn	04 50 50.5	-6.8
NOA				Lg		04 52 00.9	
NOA	NORSAR Array B	9.96	346	P	Pn	04 49 02.8	-2.3
NOA						04 50 50.6	
NOA	NORSAR Array B	9.96	346	Pn	Pn	04 49 02.8	-2.3
	comp=Z,0.4nm,0.3s,baz=166,slow=12,SNR=3.1						
NOA				Sn	Sn	04 50 50.5	-6.8
	comp=Z,0.2nm,0.3s,baz=31,slow=20,SNR=2.4						
NOA				Lg		04 52 00.9	
	comp=Z,0.1nm,0.3s,baz=77,slow=4.3,SNR=2.7						
NOA	NORSAR Array B	9.96	346	Pn	Pn	04 49 02.8	-2.3
NOA				Sn	Sn	04 50 50.5	-6.9
FRF	La Foret Royal	10.18	223	ePn	Pn	04 49 07.4	-0.8
FRF	La Foret Royal	10.18	223	ePn	Pn	04 49 07.4	-0.8
FRF	La Foret Royal	10.18	223	ePn	Pn	04 49 07.4	-0.8
FINES	FINESS Array B	11.39	25	Pn	Pn	04 49 22.9	-1.9
FINES				Sn	Sn	04 51 24.6	-8.0
FINES	FINESS Array B	11.39	25	Pn	Pn	04 49 22.9	-1.9
	comp=Z,0.6nm,0.3s,baz=207,slow=11,SNR=28						
FINES				Sn	Sn	04 51 24.6	-8.0
	comp=Z,0.3nm,0.3s,baz=210,slow=18,SNR=4.7						
FINES	FINESS Array B	11.39	25	Pn	Pn	04 49 22.9	-1.9
FINES				Sn	Sn	04 51 24.5	-8.1
EKA	Eskdalemuir Ar	12.11	296	Pn	Pn	04 49 31.7	-3.0
EKA	Eskdalemuir Ar	12.11	296	Pn	Pn	04 49 31.7	-3.0
	comp=Z,0.4nm,0.3s,baz=104,slow=13,SNR=9.4						
OBN	Obninsk	12.76	65	⇓eP	Pn	04 49 40.1	-3.4
OBN				eS	Sn	04 51 59.8	-6.3
OBN				pmax	pmax		
	comp=Z,9.0nm,1.2s						
ARCES	ARCESS Array B	18.65	10	Pn	Pn	04 50 56.4	-3.8
ARCES	ARCESS Array B	18.65	10	Pn	Pn	04 50 56.4	-3.8
	comp=Z,1.0nm,0.3s,baz=196,slow=11,SNR=20						
ARU	Arti	25.16	62	eP	P	04 52 07.6	+0.1
ARU				e		04 52 39.7	
ARU				eS	S	04 56 32.5	-0.7
ARU				eSS		04 57 23.1	
ARU	Arti	25.16	62	eP	P	04 52 07.6	+0.1
ARU				eS	S	04 56 32.5	-0.7
AKTK	Aktyubinsk	26.17	76	P	P	04 52 18.2	+1.4
AKTK	Aktyubinsk	26.17	76	P	P	04 52 18.2	+1.4
AKTO	Aktyubinsk	26.17	76	P	P	04 52 18.2	+1.4
	comp=Z,0.6nm,0.5s,mb3.5,baz=297,slow=13,SNR=5.3						
TORD	Torodi Ar. Bea	39.97	202	P	P	04 54 17.7	+0.5
TORD	Torodi Ar. Bea	39.97	202	P	P	04 54 17.7	+0.5
	comp=Z,1.8nm,1.0s,mb3.6,baz=8.4,slow=8.7,SNR=9.2						
ZAL	Zalesovo	40.21	59	P	P	04 54 20.1	+1.3
ZALV	Zalesovo Beam	40.22	59	P	P	04 54 20.1	+1.2
	comp=Z,0.5nm,0.4s,mb3.5,baz=294,slow=7.7,SNR=3.0						
MKAR	Makanchi Array	42.23	69	i P	P	04 54 37.5	+2.0
MKAR	Makanchi Array	42.23	69	P	P	04 54 38.2	+2.7
	comp=Z,0.1nm,0.4s,mb2.9,baz=289,slow=8.0,SNR=5.1						
SONM	Songino Array	54.94	55	P	P	04 56 15.3	+2.0
	comp=Z,0.6nm,0.7s,mb3.7,baz=316,slow=6.0,SNR=4.1						
YKA	Yellowknife Ar	59.88	336	P	P	04 56 49.0	+1.1
YKA	Yellowknife Ar	59.88	336	P	P	04 56 49.0	+1.1
	comp=Z,0.9nm,0.5s,mb4.0,baz=30,slow=6.9,SNR=19						

*ISCJB **03** 04:47:00.1±0.6, 15.2S±0.1×70.09W±0.09, h226^{km}±7^{km}, mb3.7/14, Error ellipse: s-maj=24.6km s-min=8.8km az=27.3*

*IDC **03** 04:47:00.5±0.8, 15.03S×70.02W, h210^{km}±11^{km}, mb3.3/6, mb1 3.5/8, mb1mx3.4/18, mbtmp3.3/8, Error ellipse: s-maj=37.2km s-min=12.9km az=27.0*

*NEIC **03** 04:47:01.0±0.7, 15.12S×70.02W, h219^{km}±7^{km}, mb3.8/9, Error ellipse: s-maj=16.9km s-min=8.4km az=214.0*

ISC 03 04:47:01.0±0.6, **15.1S**±0.1×**70.09W**±0.09, **h215**^{km}±7^{km}, **n25**, σ**0^{s}.88**/23, **mb3.7**/14, **Southern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	2.22	122	P	Pn	04 47 44.0	+1.2
	124nm,0.3s,baz=307,slow=8.7,SNR=3461						
LPAZ				S	S	04 48 15.8	+0.3
	20nm,0.3s,baz=188,slow=25,SNR=11						
NNA	Nana	7.26	295	P	Pn	04 48 44.2	-0.6
	1.8nm,0.3s,baz=119,slow=10,SNR=4.1						
NNA				S	S	04 50 06.4	-1.2
	3.7nm,0.3s,baz=245,slow=9.4,SNR=4.7						
SIV	San Ignacio	8.74	97	P	Pn	04 49 02.7	-1.2
	0.2nm,0.3s,baz=279,slow=13,SNR=16						
CFAA	Coronel Fontan	16.49	174	P	P	04 50 39.4	0.0
	0.0nm,0.3s,baz=3.5,slow=16,SNR=7.4						
OTAV	Otavalo	17.36	331	eP	P	04 50 50.7	+1.7
	3.6nm,0.8s						
LTX	Lajitas	54.81	324	eP	P	04 56 09.3	+0.3
	1.0nm,0.5s,mb3.6						
TXAR	Lajitas Array	54.81	324	P	P	04 56 09.1	+0.2
	0.4nm,0.5s,mb3.2,baz=147,slow=9.4,SNR=9.2						
MNTX	Cornudas Mount	57.56	324	eP	P	04 56 27.7	-0.6
	1.1nm,0.9s,mb3.5						
TUC	Tucson	61.17	321	eP	P	04 56 53.6	+0.6
	1.1nm,0.7s,mb3.6						
SDCO	Great Sand Dun	62.23	329	eP	P	04 57 00.8	+0.8
	3.7nm,0.7s,mb4.1						
SMCO	Snowmass	64.06	329	eP	P	04 57 11.1	-1.0
	52nm,0.8s,mb5.2						
PDAR	Pinedale Array	68.06	330	P	P	04 57 37.4	+0.1
	0.5nm,0.4s,mb3.5,baz=124,slow=9.2,SNR=10.0						
ULM	Lac du Bonnet	68.93	343	eP	P	04 57 41.6	-0.9
	1.2nm,0.3s,mb4.0						
ULM	Lac du Bonnet	68.93	343	P	P	04 57 41.4	-1.1
	0.6nm,0.3s,mb3.6,baz=141,slow=7.5,SNR=4.6						
LOHW	Long Hollow	69.20	330	eP	P	04 57 45.1	+0.7
	1.6nm,0.5s,mb3.9						
NVAR	Mina Array Bea	69.82	321	P	P	04 57 49.5	+1.3
	0.3nm,0.5s,mb3.2,baz=152,slow=4.1,SNR=3.2						
NVAR				PcP	PcP	04 58 09.1	-0.3
	0.3nm,0.5s,baz=112,slow=4.0,SNR=3.8						
HLID	Hailey	71.08	328	eP	P	04 57 56.7	+0.9
	1.4nm,0.9s,mb3.6						
BOZ	Bozeman (W)	71.19	331	eP	P	04 57 56.8	+0.3
	0.7nm,0.6s,mb3.5						
TOA0	Torodi Ar. Sit	76.38	72	eP	P	04 58 26.2	-1.0
TORD	Torodi Ar. Bea	76.38	72	P	P	04 58 25.7	-1.5
	0.3nm,0.7s,mb3.0,baz=242,slow=4.9,SNR=6.0						
YKA	Yellowknife Ar	84.83	341	P	P	04 59 10.8	-0.1
	1.1nm,0.7s,mb3.7,baz=135,slow=4.8,SNR=26						
MJAR	Matsushiro Arr	146.98	316	PKPbc	PKPbc	05 06 18.3	-0.3
MJAR	Matsushiro Arr	146.98	316	PKPbc	PKPbc	05 06 18.3	-0.3
	3.3nm,0.7s,baz=91,slow=2.4,SNR=7.5						
SONM	Songino Array	147.25	4	PKPbc	PKPbc	05 06 18.6	-0.4
SONM	Songino Array	147.25	4	PKPbc	PKPbc	05 06 18.6	-0.4
	0.8nm,0.5s,baz=336,slow=1.6,SNR=6.1						

*NIED **03** 05:06:00, 27.70N×128.80E, h14^{km}, Mw3.5 Best double couple: M$_0$2.05000×10^{14} NP1:φ$_s$111.00000°, δ38.00000°, λ-71.00000°. NP2:φ$_s$267.00000°, δ55.00000°, λ-104.00000°.*

JMA 03 05:06:35.8±0.1, **27.72N**×**128.82E**, **h18**^{km}±1^{km}, **M3.6**, **Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTK	Tokunoshima	0.13	60	P	Pg	05 06 39.9	+0.1
JTK				S	Sg	05 06 42.6	+0.1
JAM	Amami Oshima	0.98	45	P	Pb	05 06 53.7	-0.5
JAM				S	Sb	05 07 06.9	+0.1
JOW	Kunigami	1.01	209	P	Pb	05 06 54.2	-0.5
JOW				eS	Sb	05 07 06.4	-1.3
JIH	Iheya	1.02	228	P	Pb	05 06 54.6	-0.3
JIH				eS	Sb	05 07 07.9	-0.1
JZK	Kikaishima	1.18	60	P	Pn	05 06 57.8	+0.4
JAGN	Aguni-jima	1.80	232	S	Sn	05 07 28.0	-0.3

*IDC **03** 05:25:05.6±0.6, 7.68S×107.96E, h0^{km}, mb4.2/12, mb1 4.3/12, mb1mx4.2/20, mbtmp4.2/12, MS3.3/2, Ms1 3.3/2, ms1mx3.0/27, Error ellipse: s-maj=29.2km s-min=18.5km az=52.0*

*NEIC **03** 05:25:07.1±0.3, 7.72S×107.91E, h10^{km}, mb4.7/2, Error ellipse: s-maj=12.0km s-min=10.0km az=64.0*

NEIC Felt [II] at Pangandaran.

*ISCJB **03** 05:25:08.8±0.5, 7.72S±0.09×108.0E±0.1, h33^{km}, mb4.4/14, MS3.3/1, Error ellipse: s-maj=15.7km s-min=12.3km az=151.4*

ISC 03 05:25:11.0±0.5, **7.76S**±0.09×**107.9E**±0.1, **h35**^{km}, **n37**, σ**0^{s}.97**/19, **mb4.4**/14, **MS3.3**/1, **Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XMIS	Christmas Isla	3.50	219	ePn	Pn	05 26 01.2	-1.8
XMIS				eSn	Sn	05 26 35.4	-7.9
PSI	Prapat	13.80	319	LR	LR	05 35 33.7	
	comp=Z,82nm,18.4s,baz=258,slow=46						
FITZ	Fitzroy Crossi	20.09	122	P	P	05 29 42.5	+0.8
	5.6nm,0.8s,baz=308,slow=13,SNR=5.9						
NWAO	Narrogin (SRO)	26.50	162	LR	LR	05 41 03.4	
	comp=Z,76nm,18.5s,MS3.3,baz=9.2,slow=36						
WRA	Warramunga Arr	28.32	118	P	P	05 31 01.1	-0.6
	0.9nm,0.5s,mb3.7,baz=285,slow=12,SNR=3.0						
STKA	Stephens Creek	39.47	132	eP	P	05 32 37.5	-0.6
STKA	Stephens Creek	39.47	132	P	P	05 32 37.7	-0.4
	4.0nm,0.5s,mb4.4,baz=312,slow=11,SNR=7.1						
SONM	Songino Array	55.37	359	P	P	05 34 41.7	+0.3
	1.2nm,0.4s,mb4.3,baz=179,slow=9.0,SNR=12						
SONM				PcP	PcP	05 35 41.8	+0.3
	2.3nm,0.4s,baz=175,slow=3.9,SNR=20						
MK31	Makanchi Array	58.90	340	eP	P	05 35 05.5	-0.9
MKAR	Makanchi Array	58.90	340	P	P	05 35 05.9	-0.6
	2.9nm,0.4s,mb4.6,baz=153,slow=6.9,SNR=64						
ZALV	Zalesovo Beam	64.49	345	P	P	05 35 44.0	+0.1
	1.0nm,0.3s,mb4.3,baz=134,slow=8.3,SNR=3.0						
BRVK	Borovoye	68.48	337	eP	P	05 36 09.8	+0.3
	2.3nm,0.4s,mb4.6						
MATP	Matopo	77.45	251	P	P	05 37 04.8	+1.4
	3.3nm,0.7s,mb4.4,baz=115,slow=6.4,SNR=10						
BOSA	Boshof	79.90	242	P	P	05 37 18.6	+1.8
	0.5nm,0.4s,mb3.8,baz=91,slow=4.5,SNR=3.6						
BRTR	Keskin Array B	83.00	312	P	P	05 37 32.5	-0.4
	1.4nm,0.7s,mb4.1,baz=108,slow=5.9,SNR=4.2						
TSUM	Tsumeb	87.79	251	eP	P	05 37 58.8	+1.6
	4.1nm,1.1s,mb4.6						
AKASG	Malin Array Be	88.84	321	P	P	05 38 00.6	-0.9
	0.6nm,0.5s,mb4.2,baz=85,slow=4.3,SNR=4.2						
JOF	Joensuu	90.81	334	ep	P	05 38 05.7	-4.6
	7.1nm,1.0s,mb5.0						
FINES	FINESS Array B	92.86	332	P	P	05 38 20.3	+0.4
	2.1nm,0.9s,mb4.6,baz=116,slow=6.5,SNR=7.0						
ARCES	ARCESS Array B	94.56	340	P	P	05 38 26.9	-0.6
	3.1nm,0.9s,mb4.7,baz=98,slow=4.6,SNR=5.2						
TORD	Torodi Ar. Bea	107.45	281	PKPdf	PKiKP	05 43 33.8	-1.2
TORD	Torodi Ar. Bea	107.45	281	PKiKP	PKiKP	05 43 33.8	-1.2
	0.4nm,0.7s,baz=28,slow=2.0,SNR=8.4						
YKA	Yellowknife Ar	117.25	21	PKP	PKPdf	05 43 51.6	-0.7
YKA	Yellowknife Ar	117.25	21	PKP	PKPdf	05 43 51.6	-0.7
	0.3nm,0.5s,baz=340,slow=1.5,SNR=13						
SCHQ	Schefferville	132.87	356	PKP	PKPdf	05 44 23.4	+1.0
SCHQ	Schefferville	132.87	356	PKP	PKPdf	05 44 23.4	+1.1
	2.2nm,1.0s,baz=104,slow=15,SNR=5.5						
TXAR	Lajitas Array	143.38	50	PKP	PKPdf	05 44 39.9	-2.6
TXAR	Lajitas Array	143.38	50	PKP	PKPdf	05 44 39.9	-2.6
	0.4nm,0.5s,baz=228,slow=0.6,SNR=14						
WMOK	Wichita Mounta	143.63	39	ePKPdf	PKPdf	05 44 40.0	-2.7
JCT	Junction City	145.60	45	ePKPbc	PKPbc	05 44 47.1	+0.6
MIAR	Mount Ida	146.81	34	ePKPbc	PKPbc	05 44 50.1	+0.2
WCI	Wyandotte Cave	147.06	21	ePKPbc	PKPbc	05 44 50.2	-0.4
WVT	Waverly	148.31	25	ePKPbc	PKPbc	05 44 53.9	-0.2
TKL	Tuckaleechee C	150.24	19	PKPbc	PKPbc	05 44 59.0	+0.1
TKL	Tuckaleechee C	150.24	19	PKPbc	PKPbc	05 44 59.0	+0.1
	4.7nm,0.6s,baz=130,slow=2.3,SNR=10						
SIV	San Ignacio	154.00	205	PKPbc	PKPbc	05 45 07.4	-0.5
SIV	San Ignacio	154.00	205	PKPbc	PKPbc	05 45 07.4	-0.5
	1.1nm,0.9s,baz=147,slow=5.4,SNR=4.0						

*CASC **03** 05:27:47.0±3.6, 8.03N×82.33W, h34^{km}±999^{km}, MD4.3, mb3.7(NEIC)*

*ISCJB **03** 05:27:52.9±0.8, 8.10N±0.08×83.04W±0.05, h59^{km}±9^{km}, mb3.6/7, Error ellipse: s-maj=13.7km s-min=7.3km az=27.9*

*IDC **03** 05:27:53.3±3.4, 8.23N×82.87W, h42^{km}±30^{km}, mb3.5/5, mb1 3.6/6, mb1mx3.5/17, mbtmp3.5/6, ML3.7/2, MS3.3/3, Ms1 3.3/3, ms1mx2.8/20, Error ellipse: s-maj=50.8km s-min=20.2km az=51.0*

*NEIC **03** 05:27:54.3±1.0, 8.10N×83.03W, h58^{km}±10^{km}, mb3.7/2, Error ellipse: s-maj=18.7km s-min=8.6km az=48.0*

ISC 03 05:27:54.4±0.8, **8.13N**±0.07×**83.04W**±0.06, **h54**^{km}±9^{km}, **n37**, σ**1^{s}.02**/34, **mb3.6**/7, **2C-2D**, **Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BAR1		1.14	347	⇑eP	Pn	05 28 10.1	-4.0
BAR1				eS	Sn	05 28 28.5	-0.1
BUS	Buena Vista	1.58	334	⇑eP	Pn	05 28 18.4	-1.7
QCR	Quepos	1.70	319	eP	Pn	05 28 21.0	-0.7
URSC	Urasca	1.84	337	⇓eP	Pn	05 28 22.0	-1.7
LCR2	La Lucha 2	1.86	329	eP	Pn	05 28 22.3	-1.6
LAJ	Bijagual	2.02	328	eP	Pn	05 28 27.4	+1.2
SJS	Escuela Geolog	2.05	331	eP	Pn	05 28 26.3	-0.3
PRS1	Puriscal	2.23	326	⇓eP	Pn	05 28 27.8	-1.1
CGA2	Cerro Gallo 2	2.34	323	eP	Pn	05 28 31.3	+0.9
CGA2				eS	Sn	05 29 03.1	+5.1
JCR	Jicaral	2.66	310	eP	Pn	05 28 35.7	+0.8
FORC	Fortuna	2.82	326	eP	Pn	05 28 38.8	+1.7
FORC				eS	Sn	05 29 19.3	+9.4
JTS	JuntasAbangare	2.85	319	P	Pn	05 28 36.9	-0.6
	22nm,0.3s,baz=216,slow=3.3,SNR=52						
JTS				S	Sn	05 29 11.1	+0.4
	24nm,0.3s,baz=296,slow=19,SNR=7.6						
JTS				LR	LR	05 29 54.2	
	comp=Z,347nm,19.2s,baz=163,slow=42						
VCR	Vista de Mar	3.23	308	eP	Pn	05 28 43.6	+0.9
CUI		3.28	320	i P	Pn	05 28 43.9	+0.5
BCIP	Isla Barro Col	3.33	72	ePn	Pn	05 28 43.5	-0.6
BCIP				eSn	Sn	05 29 23.8	+1.3
TGUH	Tegucigalpa,Un	7.20	325	ePn	Pn	05 29 38.8	+1.6
	52nm,1.1s						
OTAV	Otavalo	9.08	150	ePn	Pn	05 30 03.1	+0.1
	6.2nm,1.1s						
TEIG	Tepich	13.05	338	LR	LR	05 36 05.4	
	comp=Z,154nm,18.1s,baz=70,slow=38						
CMIG	Matias Romero	14.58	309	P	Pn	05 31 17.2	-0.5
	0.2nm,0.3s,baz=100,slow=13,SNR=4.1						
ATAH	Atahualpa	15.73	163	LR	LR	05 36 54.9	
	comp=Z,128nm,19.2s,baz=197,slow=34						
LPAZ	La Paz	28.40	149	eP	P	05 33 43.6	-0.4
	0.7nm,0.7s,mb3.4						
WCI	Wyandotte Cave	30.11	355	eP	P	05 33 59.0	+0.1
	2.2nm,0.6s,mb4.1						
SIV	San Ignacio	32.37	138	P	P	05 34 19.0	-0.1

	1.4nm,0.8s,mb3.9,baz=302,slow=9.8,SNR=7.6						
ULM	Lac du Bonnet	43.32	348	P	P	05 35 49.9	-1.1
ULM	Lac du Bonnet	43.32	348	P	P	05 35 49.9	-1.1
	0.9nm,0.5s,mb3.8,baz=162,slow=6.4,SNR=3.2						
NVAR	Mina Array Bea	43.78	319	P	P	05 35 57.2	+2.2
NVAR	Mina Array Bea	43.78	319	P	P	05 35 57.2	+2.2
	0.6nm,0.8s,mb3.4,baz=134,slow=7.7,SNR=5.0						
YKA	Yellowknife Ar	58.92	344	P	P	05 37 47.4	-0.4
YKA	Yellowknife Ar	58.92	344	P	P	05 37 47.4	-0.4
	0.2nm,0.5s,mb3.4,baz=136,slow=7.3,SNR=8.4						
TORD	Torodi Ar. Bea	83.10	78	P	P	05 40 14.8	-0.3
TORD	Torodi Ar. Bea	83.10	78	P	P	05 40 14.8	-0.3
	0.6nm,0.7s,mb3.7,baz=281,slow=5.7,SNR=4.4						
SONM	Songino Array	123.66	352	PKP	PKPdf	05 46 46.3	0.0
SONM	Songino Array	123.66	352	PKP	PKPdf	05 46 46.3	0.0
	0.4nm,0.6s,baz=8.0,slow=4.0,SNR=2.5						
WRA	Warramunga Arr	141.98	248	PKP	PKPdf	05 47 18.6	-2.7
WRA	Warramunga Arr	141.98	248	PKhKP		05 47 18.6	
	0.9nm,0.7s,baz=96,slow=3.1,SNR=3.5						
FITZ	Fitzroy Crossi	150.40	248	PKPbc	PKPbc	05 47 40.6	-0.3
FITZ	Fitzroy Crossi	150.40	248	PKPbc	PKPbc	05 47 40.6	-0.3
	1.5nm,0.7s,baz=0.0,slow=1.0,SNR=3.2						

SZGRF ***03*** *05:27:40.5, 2025S×17695W, h33^{km}, Fiji Islands region*
ISCJB ***03*** *05:28:03.5±1.0, 1983S±004×17662W±004, h221^{km}±9^{km}, mb4.7/83, Error ellipse: s-maj=7.2km s-min=4.0km az=44.9*
MOS ***03*** *05:28:03.2±2.7, 1958S×17651W, h198^{km}, mb4.8/24, Error ellipse: s-maj=9.3km s-min=7.4km az=53.7*
IDC ***03*** *05:28:07.9±1.2, 1976S×17650W, h252^{km}±10^{km}, mb4.4/18, mb1 4.5/19, mb1mx4.5/20, mbtmp4.4/19, Error ellipse: s-maj=12.5km s-min=10.3km az=134.0*
BGS ***03*** *05:28:09.5, 1987S×17656W, h266^{km}, mb4.7(NEIC)*
GCMT ***03*** *05:28:09.2±0.4, 2001S×17608W, h285^{km}±2^{km}, MW5.1/48, Moment Tensor Solution. s39,c47; s48,c56; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.30±.23; $M_{\theta\theta}$0.25±.28; $M_{\phi\phi}$0.05±.26; $M_{r\theta}$-4.30±.20; $M_{\theta\phi}$-1.37±.21; $M_{\phi r}$-3.29±.20; Best double couple: $M_0$5.45200×10^{16} NP1:ϕ_s345.00000°, δ6.00000°, λ20.00000°. NP2: ϕ_s235.00000°, δ88.00000°, λ96.00000°. Principal axes: T 4.7340, Plg47.0000°, Azm150.0000°; N 1.4350, Plg6.0000°, Azm54.0000°; P -6.1700, Plg43.0000°, Azm319.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
NEIC ***03*** *05:28:09.2±1.0, 1987S×17656W, h266^{km}±9^{km}, mb4.7/59 Error ellipse: s-maj=6.3km s-min=4.1km az=136.0*
BJI ***03*** *05:28:12.2, 1990S×17660W, h330^{km}, mB4.9, mb4.6*
ISC 03 05:28:03.5±0.9**, 1985S**±004×**17657W**±004**, h208**^{km}±9^{km}**, n922,** σ**0**^{s}**66**/499**, mb4.7**/82**, 113C-117D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	7.48	39	ePn	Pn	05 29 52.2	+2.1
	113nm,0.4s						
AFI	Afiamalu	7.48	39	P	Pn	05 29 49.8	-0.2
AFI				S	Sn	05 31 03.6	-11
AFI				pmax	pmax		
	comp=Z,12nm,0.3s						
AFI				smax			
	comp=N,6.0nm,0.3s						
AFI	Afiamalu	7.48	39	P	Pn	05 29 49.8	-0.3
	comp=N,12nm,0.3s,baz=205,slow=5.3,SNR=4.4						
AFI				S	Sn	05 31 03.6	-11
	comp=N,5.5nm,0.3s,baz=56,slow=23,SNR=4.0						
RAO	Raoul Island	9.45	187	P	Pn	05 30 14.4	-1.0
	comp=N,46nm,0.3s,baz=262,slow=24,SNR=2.0						
RAO				S	Sn	05 31 60.0	-1.3
	comp=N,71nm,0.3s,baz=86,slow=22,SNR=5.3						
FUNA	Funafuti	11.97	339	ePn	Pn	05 30 52.6	+4.7
	comp=N,218nm,1.0s						
RAR	Rarotonga	15.80	98	P	Pn	05 31 34.7	-0.4
	comp=N,5.2nm,0.3s,baz=254,slow=8.4,SNR=9.3						
RAR				S	S	05 34 27.6	-2.4
	comp=N,1.1nm,0.3s,baz=341,slow=20,SNR=2.0						
DZM	Mont Dzumac	16.02	259	P	P	05 31 44.4	+7.2
	comp=N,18nm,0.3s,baz=80,slow=16,SNR=134						
NOUC	Port Laguerre	16.15	259	eP	P	05 31 44.6	+6.0
MXZ	Matakaoa Point	18.21	193	P	P	05 32 03.2	+2.2
MXZ	Matakaoa Point	18.21	193	ePN	Pn	05 32 02.8	-0.6
PUZ	Puketiti	18.71	193	eP	P	05 32 08.5	+2.1
PUZ	Puketiti	18.71	193	ePN	P	05 32 07.9	+1.5
PUZ				SN	S	05 35 22.7	-5.6
URZ	Urewera	19.15	195	P	P	05 32 11.6	+0.5
URZ	Urewera	19.15	195	P	P	05 32 10.8	-0.4
	comp=N,17nm,0.3s,baz=307,slow=2.5,SNR=60						
URZ				S	S	05 35 31.4	-5.5
	comp=N,1.8nm,0.3s,baz=164,slow=13,SNR=5.9						
URZ	Urewera	19.15	195	ePN	P	05 32 10.6	-0.5
BKZ	Black Stump Fm	20.17	196	eP	P	05 32 21.5	-0.5
BKZ	Black Stump Fm	20.17	196	ePN	P	05 32 20.8	-1.2
BFZ	Birch Farm	21.66	195	eP	P	05 32 37.0	-0.7
BFZ	Birch Farm	21.66	195	PN	P	05 32 37.0	-0.7
BFZ				SN	S	05 36 22.7	-0.1
KIW	Kapiti Island	22.18	197	P	P	05 32 42.2	-0.3
KIW	Kapiti Island	22.18	197	ePN	P	05 32 40.9	-1.5
CAW	Cannon Point	22.36	197	P	P	05 32 44.0	-0.2
CAW	Cannon Point	22.36	197	ePN	P	05 32 44.0	-0.2
QRZ	Quartz Range	22.89	202	P	P	05 32 50.3	+1.3
QRZ	Quartz Range	22.89	202	ePN	P	05 32 49.4	+0.4
NNZ	Nelson	22.96	200	eP	P	05 32 49.9	+0.2
NNZ	Nelson	22.96	200	PN	P	05 32 49.4	-0.2
TUWZ	Tuamarina	22.98	199	PN	P	05 32 49.9	0.0
THZ	Tophouse	23.61	200	eP	P	05 32 56.2	+0.7
THZ	Tophouse	23.61	200	PN	P	05 32 56.0	+0.5
DSZ	Denniston Nort	23.96	202	eP	P	05 32 59.7	+1.0
DSZ	Denniston Nort	23.96	202	PN	P	05 32 59.7	+1.0
WVZ	Waitaha Valley	25.50	202	eP	P	05 33 12.8	+0.1
WVZ	Waitaha Valley	25.50	202	PN	P	05 33 11.8	-0.9
PAE	Paea	25.64	90	eP	P	05 33 13.6	-0.6
	comp=N,36nm,0.8s,mb5.1						
PPT	Papeete	25.66	89	eP	P	05 33 13.7	-0.7
	comp=N,52nm,1.1s,mb5.1						
PPT	Papeete	25.66	89	P	P	05 33 11.5	-2.9
	comp=N,27nm,0.7s,mb5.0,baz=297,slow=3.1,SNR=3.5						
TVO	Taravao	25.93	90	eP	P	05 33 16.2	-0.6
	comp=N,93nm,1.2s,mb5.3						
TVO				epP	pP	05 34 11.3	+13
	comp=N,91nm,1.1s						
RPZ	Rata Peaks	25.96	201	P	P	05 33 16.4	-0.4
RPZ				S	S	05 37 31.2	-0.2
RPZ	Rata Peaks	25.96	201	P	P	05 33 16.4	-0.4
	comp=N,19nm,0.4s,mb5.1,baz=11,slow=4.3,SNR=5.9						
RPZ				S	S	05 37 31.3	-0.2
	comp=N,4.1nm,0.7s,baz=41,slow=20,SNR=2.2						
LBZ	Lake Benmore	26.85	201	eP	P	05 33 24.0	-0.7
LBZ	Lake Benmore	26.85	201	PN	P	05 33 23.6	-1.1
JCZ	Jackson Bay	27.09	204	eP	P	05 33 23.0	-3.8
JCZ	Jackson Bay	27.09	204	PN	P	05 33 26.1	-0.8
PMOR	Pomariorio Ree	27.76	85	eP	P	05 33 32.3	-0.9
	comp=N,48nm,1.1s,mb5.0						
ARMA	Armidale	30.56	244	⇓iP	P	05 34 00.6	+2.9
CNB	Canberra Magne	33.70	236	eP	P	05 34 27.7	+2.7
	comp=N,16nm,0.9s,mb4.5						
CNB				e	pP	05 35 14.2	+6.4
CTA	Charters Tower	34.89	263	⇓iP	P	05 34 37.7	+2.2
	comp=N,72nm,0.5s,mb5.5						
CTA	Charters Tower	34.89	263	⇓iP	P	05 34 37.7	+2.2
CTA				pmax	pmax		
	comp=Z,72nm,0.5s						
CTA	Charters Tower	34.89	263	P	P	05 34 37.7	+2.3
	comp=Z,82nm,0.4s,mb5.6,baz=93,slow=10,SNR=104						
CTAO	Charters Tower	34.89	263	eP	P	05 34 37.8	+2.4
	comp=Z,167nm,0.8s,mb5.6						
CTAO	Charters Tower	34.89	263	eP	P	05 34 37.8	+2.3
CTAO				pmax	pmax		
	comp=Z,167nm,0.8s,mb5.6						
PMG	Port Moresby	36.52	281	eP	P	05 34 51.1	+1.8
	comp=Z,137nm,1.2s,mb5.4						
PMG	Port Moresby	36.52	281	eP	P	05 34 51.1	+1.8
PMG				pmax	pmax		
	comp=Z,137nm,1.2s						
PMG	Port Moresby	36.52	281	P	P	05 34 51.0	+1.7
	comp=Z,88nm,1.1s,mb5.2,baz=69,slow=3.6,SNR=11						
TOO	Toolangi	37.36	234	eP	P	05 34 58.1	+1.9
	comp=Z,4.6nm,0.5s,mb4.3						
TOO	Toolangi	37.36	234	eP	P	05 34 58.1	+1.9
TOO				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.3						
COEN	Coen	38.89	272	eP	P	05 35 10.9	+1.8
STKA	Stephens Creek	39.28	244	eP	P	05 35 13.3	+1.1
	comp=Z,4.4nm,0.4s,mb4.3						
STKA	Stephens Creek	39.28	244	P	P	05 35 13.5	+1.3
	comp=Z,5.4nm,0.4s,mb4.4,baz=86,slow=11,SNR=12						
WB2	Warramunga Arr	46.01	261	⇓iP	P	05 36 06.7	+0.2
WB2				esP	pP	05 36 50.2	-1.3
WB2				eS	S	05 42 29.2	-6.6
WRA	Warramunga Arr	46.02	261	P	P	05 36 06.8	+0.2
	comp=Z,10.0nm,0.3s,mb4.6,baz=96,slow=7.5,SNR=56						
WRA				pP	pP	05 36 51.4	-0.2
	comp=Z,13nm,0.7s,baz=96,slow=7.0,SNR=12						
WRA				PcP	PcP	05 37 38.7	-0.8
	comp=Z,4.8nm,0.8s,baz=96,slow=3.6,SNR=5.2						
WRA				S	S	05 42 30.1	-5.9
	comp=Z,4.8nm,1.0s,baz=97,slow=13,SNR=6.6						
KAKA	Kakadu	49.31	270	⇓iP	P	05 36 32.2	+0.4
	comp=Z,39nm,0.9s,mb4.7						
FORT	Forrest	50.78	246	eP	P	05 36 42.8	+0.1
	comp=Z,18nm,0.5s,mb4.8						
FITZ	Fitzroy Crossi	54.45	262	eP	P	05 37 10.2	+0.5
	comp=Z,20nm,0.6s,mb4.8						
FITZ	Fitzroy Crossi	54.45	262	P	P	05 37 10.2	+0.5
	comp=Z,14nm,0.8s,mb4.6,baz=153,slow=5.0,SNR=25						
VNDA	Vanda	58.68	185	eP	P	05 37 40.6	+2.0
	comp=Z,16nm,0.9s,mb4.7						
VNDA	Vanda	58.68	185	P	P	05 37 40.3	+1.7
VNDA				pmax	pmax		
	comp=Z,13nm,0.9s						
VNDA				pmax	pmax		
	comp=N,4.0nm,0.9s						
VNDA	Vanda	58.68	185	P	P	05 37 40.3	+1.6
	comp=N,13nm,0.9s,mb4.6,baz=6.6,slow=7.0,SNR=11						
VNDA				ScP	ScP	05 42 02.5	-4.2
	comp=N,4.2nm,0.9s,baz=32,slow=4.2,SNR=3.8						
KLBR	Kellerberrin	59.55	244	eP	P	05 37 45.1	-0.2
	comp=N,34nm,1.1s,mb4.9						
MUN	Mundaring	60.82	244	eP	P	05 37 54.3	+0.4
MJAR	Matsushiro Arr	70.49	323	P	P	05 38 54.4	-1.1
MJAR	Matsushiro Arr	70.49	323	P	P	05 38 54.4	-1.1
	comp=N,12nm,0.8s,mb4.6,baz=157,slow=5.8,SNR=24						
MAJO	Matsushiro	70.49	323	eP	P	05 38 54.4	-1.2
	comp=N,20nm,0.9s,mb4.8						
MAJO	Matsushiro	70.49	323	eP	P	05 38 54.4	-1.1
MAJO				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.8						
MAT	Matsushiro	70.49	323	P	P	05 38 54.5	-1.0
JOW	Kunigami	70.78	309	P	P	05 38 56.0	-1.5
	comp=Z,15nm,0.7s,mb4.8,baz=136,slow=7.7,SNR=4.5						
KKM	Kota Kinabalu	70.89	284	eP	P	05 38 58.3	-0.2
KSM	Kuching	74.65	277	eP	P	05 39 21.1	+0.4
PET	Petropavlovsk	75.68	345	eP	P	05 39 24.3	-1.2
	comp=Z,31nm,0.9s,mb4.9						
PET	Petropavlovsk	75.68	345	i P	P	05 39 24.7	-0.8
PET				pmax	pmax		
	comp=Z,89nm,1.7s,mb5.1						
YSS	Yuzh-Sakhalins	75.92	333	eP	P	05 39 27.2	+0.2
	comp=Z,37nm,1.0s,mb5.0						
YSS	Yuzh-Sakhalins	75.92	333	⇓eP	P	05 39 27.8	+0.8
YSS				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.0						
BSC	Santa Cruz Isl	76.18	46	⇓P	P	05 39 29.5	+0.7
	baz=76						
FARB	Farallon Islan	76.24	41	⇑P	P	05 39 29.4	+0.4
	baz=76						
V03C	Hunter Liggett	76.32	43	⇓P	P	05 39 30.5	+0.9
	baz=76						
V04C	Ramage Ranch,	76.33	44	⇓P	P	05 39 30.5	+0.9
	baz=76						
HAST	UC Hastings Re	76.34	43	P	P	05 39 30.1	+0.5
	baz=76,SNR=5.5						
JRSC	Jasper Ridge	76.53	42	⇑P	P	05 39 31.0	+0.4
	baz=77						
PKM	Peak Mountain	76.58	45	⇓P	P	05 39 31.9	+0.8
	baz=77						
BLG	Laguna Peak	76.63	46	⇓P	P	05 39 31.8	+0.4
	baz=77						
SAO	San Andreas Ge	76.64	43	eP	P	05 39 31.4	+0.1
	comp=Z,14nm,0.9s,mb4.6						
SAO	San Andreas Ge	76.64	43	eP	P	05 39 31.4	+0.1
SAO				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.6						
CIS	Catalina Islan	76.68	47	⇓P	P	05 39 31.9	+0.2
	baz=77						
SMMC	Simmler	76.71	45	⇓P	P	05 39 32.6	+0.9
	baz=77						
PKD	Parkfield	76.73	44	⇓P	P	05 39 32.0	+0.2
	baz=77						
U04C	Hernandez Rese	76.82	43	P	P	05 39 33.3	+0.9
	baz=77,SNR=7.1						
PACP	Pacheco Peak	76.89	43	P	P	05 39 33.1	+0.4
	baz=77,SNR=9.5						
WENL	Wente Brothers	76.96	42	⇑P	P	05 39 33.3	+0.2
	baz=77						
HOPS	Hopland	77.00	40	⇓P	P	05 39 33.8	+0.5
	baz=77						
P01C	Double 8 Ranch	77.14	39	⇑P	P	05 39 34.3	+0.2
	baz=77						
OSI	Osito Adit	77.15	46	⇑P	P	05 39 34.5	+0.3
	baz=77						
S04C	Ingram Canyon,	77.16	42	P	P	05 39 34.6	+0.4
	baz=77,SNR=5.4						
U05C	Westside ANR,	77.23	44	⇓P	P	05 39 35.4	+0.7
	baz=77						
O01C	Eel River Cons	77.29	39	⇓P	P	05 39 35.6	+0.8
	baz=77						
KSRS	Korea Array	77.30	318	P	P	05 39 35.1	+0.1
KSRS				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.4						
KSRS	Korea Array	77.30	318	P	P	05 39 35.1	+0.1
	comp=Z,11nm,1.1s,mb4.4,baz=116,slow=8.3,SNR=9.0						
MNRC	McLaughlin Nat	77.32	40	P	P	05 39 35.7	+0.7
	baz=77,SNR=11						
ARVC	Arvin	77.38	45	⇑P	P	05 39 35.9	+0.4
	baz=78						
Q03C	Winters	77.43	41	⇓P	P	05 39 36.3	+0.6
	baz=78						
MURC	Murrieta	77.62	47	⇓P	P	05 39 37.1	+0.3
	baz=78						
VES	Vestal, Richgr	77.62	45	P	P	05 39 36.4	-0.4
	baz=78,SNR=7.5						
GASB	Alder Springs	77.63	40	P	P	05 39 37.5	+0.7
	baz=78,SNR=7.4						
BFSC	Mount Baldy St	77.66	47	⇑P	P	05 39 36.8	-0.3
	baz=78						
S05C	Merced	77.70	43	⇓P	P	05 39 37.8	+0.6
	baz=78						
MONP	Monument Peak	77.77	48	⇑P	P	05 39 38.3	+0.6
	baz=78						
RCTC	Rector, Farmer	77.79	44	⇑P	P	05 39 37.6	-0.2
	baz=78						
EDW2	Edwards Air Fo	77.80	46	P	P	05 39 37.8	0.0
	baz=78,SNR=16						
KHMM	Horse Mountain	77.81	38	eP	P	05 39 38.8	+1.1
DVTC	Desert V Tower	77.87	49	⇑P	P	05 39 38.6	+0.3
	baz=78						
T06C	Millerton Lake	77.90	43	P	P	05 39 38.1	-0.2
	baz=78,SNR=8.2						
O02C	Red Bluff	77.92	39	P	P	05 39 38.9	+0.5
	baz=78,SNR=14						
ISA	Isabella	77.92	45	⇓P	P	05 39 38.7	+0.3
	baz=78,SNR=22						
SUTB	Sutter Butte	77.93	40	⇑P	P	05 39 38.2	-0.2
	baz=78						
CMB	Columbia Colle	78.08	42	eP	P	05 39 38.7	-0.6
	comp=Z,7.5nm,0.9s,mb4.3						
CMB	Columbia Colle	78.08	42	eP	P	05 39 38.7	-0.6
CMB				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.3						
CMB	Columbia Colle	78.08	42	P	P	05 39 39.2	0.0
	baz=78,SNR=8.5						
PFO	Pinyon Flat Ob	78.14	48	⇓P	P	05 39 39.7	-0.1
	baz=78						
HELL	Mitchell Peak,	78.15	44	P	P	05 39 39.1	-0.6
	baz=78,SNR=12						
OHCM	Honcut	78.18	41	eP	P	05 39 38.8	-1.1
M01C	Crescent City	78.21	37	⇓P	P	05 39 41.1	+1.2
	baz=78						
SWSC	Sam W. Stewart	78.24	49	⇓P	P	05 39 40.8	+0.5
	baz=78						
O03C	Acorn Hollow,	78.26	40	⇓P	P	05 39 40.1	-0.1
	baz=78						
LAVA	Lava Cap Winer	78.29	41	⇑P	P	05 39 40.6	+0.2
	baz=78						
ORV	Oroville	78.31	40	P	P	05 39 40.3	-0.2
	baz=78,SNR=6.8						
WDC	Whiskeytown Da	78.32	39	eP	P	05 39 40.7	+0.2
	comp=Z,12nm,1.1s,mb4.5						
WDC	Whiskeytown Da	78.32	39	eP	P	05 39 40.7	+0.2
WDC				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.4						
WDC	Whiskeytown Da	78.32	39	P	P	05 39 40.7	+0.2
	baz=78,SNR=10						
S06C	San Francisco	78.33	42	P	P	05 39 40.5	-0.1
	baz=78,SNR=6.0						
KCC	Kaiser Creek	78.33	43	⇑P	P	05 39 40.8	+0.1
	baz=78						
CWC	Cottonwood Cre	78.63	45	⇓P	P	05 39 42.7	+0.4
	baz=79						
M02C	Callahan	78.65	38	P	P	05 39 43.1	+0.8
	baz=79,SNR=9.5						
R05C	Kirkwood Meado	78.67	42	P	P	05 39 42.5	0.0
	baz=79,SNR=9.7						
BELC	Belle Mtn.	78.67	48	P	P	05 39 42.8	+0.1
	baz=79,SNR=6.7						
L02A	Cave Junction	78.70	37	⇑P	P	05 39 43.1	+0.5
	baz=79						
MPMC	Manual Prospec	78.81	45	P	P	05 39 43.5	+0.2
	baz=79,SNR=13						
MLAC	Mammoth Lakes	78.83	43	⇑P	P	05 39 44.0	+0.7
	baz=79						
GSC	Goldstone	78.84	46	P	P	05 39 43.5	-0.1
	baz=79,SNR=10						
MTUM	Tungsten Hills	78.84	44	eP	P	05 39 43.4	-0.1
DAC	Darwin (Calif)	78.86	45	eP	P	05 39 43.7	+0.1
BC3	Big Chuckw Mtn	78.87	48	⇑P	P	05 39 44.0	+0.3
	baz=79						
TIN	Tinemaha	78.89	44	⇓P	P	05 39 44.4	+0.6
	baz=79						
HEC	Hector,Ludlow	78.90	47	P	P	05 39 43.7	-0.1
	baz=79,SNR=13						
O05C	Quincy	78.91	40	⇑P	P	05 39 44.4	+0.6
	baz=79						
YBH	Yreka Blue Hor	78.95	38	eP	P	05 39 44.1	+0.2
	comp=Z,8.7nm,0.8s,mb4.4						
YBH	Yreka Blue Hor	78.95	38	eP	P	05 39 44.1	+0.2
YBH				pmax	pmax		
	comp=Z,9.0nm,0.8s						
YBH	Yreka Blue Hor	78.95	38	P	P	05 39 44.3	+0.3
	baz=79,SNR=11						
WAKR	Walker	78.96	42	eP	P	05 39 44.1	+0.1
R06C	Coleville	78.96	42	P	P	05 39 44.6	+0.5
	baz=79,SNR=16						
R07C	Lee Vining	78.96	43	P	P	05 39 44.7	+0.6
	baz=79,SNR=16						
M03C	McCloud	79.00	39	P	P	05 39 44.5	+0.3
	baz=79,SNR=5.3						
O04C	Chester	79.03	40	P	P	05 39 44.4	0.0
	baz=79,SNR=8.8						
HATC	Hat Creek Radi	79.11	39	P	P	05 39 45.3	+0.5
	baz=79,SNR=5.7						
K02A	Glendale	79.16	37	⇑P	P	05 39 46.3	+1.3
	baz=79						
S08C	White Mtn Res	79.18	44	P	P	05 39 45.9	+0.5
	baz=79,SNR=28						
BEKR	Beckwourth	79.20	41	P	P	05 39 45.3	0.0
	baz=79,SNR=12						
WCN	Washoe City	79.23	41	⇑P	P	05 39 46.1	+0.5
	baz=79,SNR=11						
GMRC	Granite Mounta	79.33	47	⇑P	P	05 39 46.4	+0.2
	baz=79,SNR=5.0						
IRM	Iron Mountain	79.35	48	P	P	05 39 46.6	+0.3
	baz=79,SNR=6.1						
HUMO	Hull Mountain	79.36	37	eP	P	05 39 46.1	-0.1
	comp=Z,8.0nm,1.0s,mb4.3						
HUMO	Hull Mountain	79.36	37	P	P	05 39 46.7	+0.6
	baz=79,SNR=5.8						
P06A	Stead Airport,	79.37	41	⇓P	P	05 39 46.9	+0.7
	baz=79						
GRAC	Grapevine Rang	79.42	44	⇑P	P	05 39 47.2	+0.6
	baz=80						
ELFS	Eagle Lake Fie	79.43	40	P	P	05 39 47.0	+0.4
	baz=80,SNR=8.6						
FURC	Furnace Creek,	79.46	45	P	P	05 39 46.6	-0.2
	baz=80,SNR=7.5						
M04C	Macdoel	79.48	38	P	P	05 39 46.8	0.0
	baz=80,SNR=8.8						
J02A	Umpqua	79.50	36	⇓P	P	05 39 47.2	+0.3
	baz=80						
TUQ	Turquoise Mtn.	79.51	46	P	P	05 39 47.5	+0.3
	baz=80,SNR=11						
LASM	Arnica Sink	79.53	39	P	P	05 39 47.3	+0.3
SHOC	Shoshone	79.53	46	⇓P	P	05 39 47.1	-0.1
	baz=80						
Y12C	Blythe	79.57	48	P	P	05 39 47.9	+0.4
	baz=80,SNR=6.3						
Q07A	Schurz	79.61	42	⇓P	P	05 39 48.0	+0.4
	baz=80						
M05C	Lookout	79.63	39	⇑P	P	05 39 47.8	+0.1
	baz=80,SNR=14						
NVAR	Mina Array Bea	79.63	43	P	P	05 39 47.8	0.0
	comp=Z,10nm,0.7s,mb4.6,baz=230,slow=11,SNR=95						
L04A	Klamath Falls	79.70	38	P	P	05 39 48.1	+0.1
	baz=80,SNR=6.8						
O06A	Flanigan	79.70	41	⇓P	P	05 39 48.3	+0.2
	baz=80,SNR=13						
PAHR	Pah Rah Range	79.70	41	eP	P	05 39 47.4	-0.6
	comp=Z,12nm,1.0s,mb4.5						
R08A	Mina	79.71	43	⇓P	P	05 39 48.6	+0.5
	baz=80						
I02A	Mapleton	79.77	36	⇓P	P	05 39 48.9	+0.6
	baz=80						
U10A	Ash Meadows, A	79.78	45	⇑P	P	05 39 49.2	+0.6
	baz=80						
J03A	Ideyld Park	79.84	37	⇓P	P	05 39 49.2	+0.4
	baz=80						
HOG	Hogback Mounta	79.85	38	P	P	05 39 49.1	+0.3
P07A	Fallon	79.91	42	⇑P	P	05 39 49.8	+0.6
	baz=80						
S09A	Goldfield	79.92	44	⇑P	P	05 39 49.5	+0.2
	baz=80						
M06C	Likely Place G	79.94	39	⇓P	P	05 39 49.7	+0.4
	baz=80,SNR=14						
N06A	Buffalo Meadow	80.05	40	P	P	05 39 49.8	-0.1
	baz=80,SNR=16						
K04A	Chilquin	80.07	38	⇓P	P	05 39 50.2	+0.3
	baz=80						
V11A	Goodsprings	80.07	46	⇑P	P	05 39 50.4	+0.3
	baz=80,SNR=8.4						
Y13A	Salome	80.10	49	P	P	05 39 50.8	+0.4
	baz=80,SNR=9.5						
Q08A	Gabbs	80.12	43	P	P	05 39 50.1	-0.3
	baz=80,SNR=8.9						
PDMCI	Parker Dam,Lak	80.13	48	P	P	05 39 50.5	0.0
	baz=80,SNR=9.0						
W12A	Cal Nev Ari	80.16	47	⇑P	P	05 39 51.5	+0.8
	baz=80						
L05A	Lakeview	80.24	39	P	P	05 39 51.3	+0.4
	baz=80,SNR=10						
J04A	Umpqua Nationa	80.24	37	P	P	05 39 51.5	+0.6
	baz=80,SNR=7.3						
O07A	Toulon	80.28	41	⇑P	P	05 39 51.1	-0.1
	baz=80,SNR=31						
R09A	Tonopah	80.32	43	⇑P	P	05 39 51.3	-0.1
	baz=80						
V12A	Nelson	80.40	47	P	P	05 39 52.2	+0.3
	baz=80,SNR=7.3						
I04A	Tendick Farm,	80.42	37	⇑P	P	05 39 51.8	0.0
	baz=80						
U11A	Corn Creek	80.42	46	⇓P	P	05 39 52.7	+0.7
	baz=80						
S10A	Tonopah Range,	80.45	44	P	P	05 39 52.0	-0.1
	baz=80,SNR=8.7						
MOD	Modoc	80.46	39	eP	P	05 39 51.4	-0.7
	comp=Z,6.4nm,0.8s,mb4.3						
MOD	Modoc	80.46	39	⇓P	P	05 39 52.2	+0.1
	baz=80						
Z14A	Wintersburg	80.49	49	⇓P	P	05 39 53.2	+0.8
	baz=81						
H03A	Soap Creek Ran	80.50	35	⇓P	P	05 39 52.5	+0.3
	baz=81						
X13A	Yucca	80.50	48	P	P	05 39 52.7	+0.2
	baz=81,SNR=7.3						
P08A	Dixie Valley	80.51	42	⇓P	P	05 39 52.8	+0.5
	baz=81						
HABR	Khabarovsk	80.55	330	eP	P	05 39 51.9	-0.5
HABR				e		05 49 42.4	
HABR				pmax	pmax		
	comp=Z,62nm,1.1s,mb5.2						
N07B	Gerlach	80.59	41	P	P	05 39 53.0	+0.2
	baz=81,SNR=5.4						
SHPR	Sheep Range	80.62	46	eP	P	05 39 53.6	+0.6
K05A	Summer Lake	80.62	38	P	P	05 39 53.3	+0.4
	baz=81,SNR=16						
115A	Sonoran Desert	80.67	50	⇑P	P	05 39 53.3	-0.1
	baz=81						

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W13A  Hualapai Mount   80.73  48 ⇑P     P      05 39 53.7  0.0
      baz=81
Y14A  Wickenburg       80.74  49 ⇓P     P      05 39 54.4 +0.6
      baz=81
MDJ   Mudanjiang       80.76 324  P     P      05 39 53.5 -0.1
MDJ                               AMB   AMB
      comp=Z,31nm,1.0s,mb4.9
MDJ                               AMB   AMB
      comp=Z,81nm,5.7s
J05A  Fort Rock        80.77  37  P     P      05 39 54.0 +0.3
      baz=81,SNR=30
M07A  Soldier Meadow   80.83  40 ⇑P     P      05 39 54.5 +0.5
      baz=81,SNR=13
R10A  Warm Springs     80.84  44  P     P      05 39 54.6 +0.4
      baz=81,SNR=12
G03A  Yamhill          80.92  35 ⇑P     P      05 39 54.9 +0.5
      baz=81
116A  Eloy             80.98  51 ⇑P     P      05 39 55.6 +0.6
      baz=81
U12A  Valley of Fire   81.00  46  P     P      05 39 55.5 +0.5
      baz=81,SNR=6.9
P09A  Austin           81.02  42 ⇑P     P      05 39 55.1  0.0
      baz=81
K06A  Valley Falls     81.04  38  P     P      05 39 55.2 +0.1
      baz=81,SNR=19
X14A  Yava             81.10  49  P     P      05 39 56.2 +0.6
      baz=81,SNR=7.3
L07A  Adell            81.11  39 ⇓P     P      05 39 56.1 +0.6
      baz=81,SNR=13
N08A  GE Springer Mi   81.11  41  P     P      05 39 55.5  0.0
      baz=81,SNR=7.0
H04A  Detroit Lake     81.11  36  P     P      05 39 55.0 -0.5
      baz=81,SNR=8.6
F03A  Seaside          81.16  34 ⇑P     P      05 39 56.0 +0.3
      baz=81
G04A  Mulino           81.28  35 ⇑P     P      05 39 56.6 +0.2
      baz=81
I05A  Bend             81.30  37  P     P      05 39 56.8 +0.4
      baz=81,SNR=5.2
O09A  Fish Creek Ran   81.34  42 ⇓P     P      05 39 56.7 -0.1
      baz=81
M08A  Happy Creek Ra   81.35  40 ⇑P     P      05 39 57.5 +0.7
      baz=81
W14A  Seligman         81.35  48  P     P      05 39 57.6 +0.7
      baz=81,SNR=8.1
J06A  Christmas Vall   81.37  38  P     P      05 39 56.5 -0.4
      baz=81,SNR=12
BMN   Battle Mountai   81.47  42 eP     P      05 39 57.7 +0.2
P10A  Eureka           81.49  43 ⇓P     P      05 39 57.7 +0.1
      baz=82
TUC   Tucson           81.52  51 eP     P      05 39 58.3 +0.4
      comp=Z,4.7nm,0.8s,mb4.2
TUC   Tucson           81.52  51 eP     P      05 39 58.3 +0.4
TUC                               pmax  pmax
      comp=Z,5.0nm,0.8s,mb4.2
N09A  Rock Creek Ran   81.53  41 ⇑P     P      05 39 58.0 +0.3
      baz=82
E03A  Lebam            81.56  34 ⇓P     P      05 39 57.9 +0.1
      baz=82
K07A  Rock Creek Ran   81.56  39 ⇑P     P      05 39 58.2 +0.3
      baz=82,SNR=14
X15A  Humboldt         81.57  49  P     P      05 39 59.0 +0.9
      baz=82,SNR=8.3
Q11A  Duckwater        81.58  44  P     P      05 39 58.3 +0.2
      baz=82,SNR=7.8
H05A  Madras           81.62  36 ⇑P     P      05 39 57.9 -0.2
      baz=82
T13A  Saint George     81.74  46 ⇓P     P      05 39 59.3 +0.4
      baz=82
I06A  Prineville       81.76  37  P     P      05 39 59.2 +0.3
      baz=82,SNR=20
WVOR  Wild Horse Val   81.77  39 eP     P      05 39 58.7 -0.3
      comp=Z,16nm,1.0s,mb4.6
WVOR  Wild Horse Val   81.77  39 eP     P      05 39 58.7 -0.3
WVOR                              pmax  pmax
      comp=Z,16nm,1.0s,mb4.6
F04A  Amboy            81.78  35 ⇑P     P      05 39 59.0 +0.1
      baz=82
L08A  Fields           81.80  40  P     P      05 39 59.2 +0.1
      baz=82,SNR=18
D03A  Wishkah Elem.    81.83  33 ⇓P     P      05 39 59.5 +0.4
      baz=82
O10A  Cortez Mining,   81.84  42 ⇓P     P      05 39 59.4  0.0
      baz=82
VIPM  Ingram Point     81.88  37  P     P      05 39 59.6 +0.1
M09A  Marrel Ranch,    81.90  41 ⇑P     P      05 40 00.1 +0.4
      baz=82
P11A  Circle Ranch,    81.91  43 ⇓P     P      05 40 00.4 +0.7
      baz=82
J07A  Hines            81.94  38  P     P      05 40 00.1 +0.3
      baz=82,SNR=8.9
NLWA  Neilton Lookou   81.95  33 eP     P      05 39 59.6 -0.1
      comp=Z,18nm,1.1s,mb4.6
NLWA  Neilton Lookou   81.95  33 ⇓P     P      05 39 59.8  0.0
      baz=82
C03A  Quillayute Air   81.97  32 ⇓P     P      05 39 60.0 +0.1
      baz=82
R12A  Pony Springs,    81.98  45  P     P      05 40 00.6 +0.5
      baz=82,SNR=8.3
E04A  Onalaska         82.04  34 ⇓P     P      05 40 01.0 +0.8
      baz=82
K08A  Mann Creek Ran   82.04  39  P     P      05 40 00.5 +0.2
      baz=82,SNR=19
N10A  Dunphy           82.08  42 ⇑P     P      05 40 00.9 +0.3
      baz=82
L09A  Wilkinson Ranc   82.11  40  P     P      05 40 01.1 +0.3
      baz=82,SNR=5.6
H06A  Lindquist Farm   82.17  37  P     P      05 40 00.6 -0.4
      baz=82,SNR=31
Q12A  Willow Creek R   82.22  44  P     P      05 40 01.3 -0.1
      baz=82,SNR=5.2
I07A  Izee             82.25  38  P     P      05 40 01.5 +0.1
      baz=82,SNR=26
F05A  White Salmon     82.26  35 ⇑P     P      05 40 01.6 +0.2
      baz=82
O11A  Cowboy Ranch,    82.29  43  P     P      05 40 02.1 +0.4
      baz=82,SNR=9.6
G06A  Carlson Farm,    82.31  36  P     P      05 40 01.4 -0.3
      baz=82,SNR=9.7
T14A  Hurricane        82.32  46  P     P      05 40 02.5 +0.6
      baz=82,SNR=5.7
CCUT  Cedar City       82.39  46 eP     P      05 40 02.6 +0.3
P12A  McGill           82.41  43 ⇓P     P      05 40 02.4 +0.1
      baz=82
J08A  Circle Bar Ran   82.42  39 ⇓P     P      05 40 02.4 +0.2
      baz=82,SNR=11
ARUT  Antelope Range   82.46  45 eP     P      05 40 03.0 +0.3
K09A  Rome             82.47  40  P     P      05 40 02.5 -0.1
      baz=82,SNR=29
M10A  I.L. Ranch, Tu   82.52  41  P     P      05 40 03.5 +0.6
      baz=83,SNR=11
E05A  Randle           82.53  35 ⇓P     P      05 40 02.7 -0.1
      baz=83
B04A  Port Angeles     82.58  33  P     P      05 40 03.4 +0.4
      baz=83,SNR=5.2
GNW   Green Mountain   82.61  33 eP     P      05 40 03.2  0.0
CN2   Changchun        82.61 322 eP     P      05 40 02.1 -1.2
CN2                               AMB   AMB
      comp=Z,30nm,1.0s,mb5.0
LON   Longmire         82.62  34 eP     P      05 40 02.9 -0.4
N11A  Elko Archery C   82.62  42 ⇓P     P      05 40 03.8 +0.4
      baz=83
C04A  Brinnon          82.63  33  P     P      05 40 03.5 +0.2
      baz=83,SNR=7.3
MAW   Mawson           82.63 199  P     P      05 40 03.2 +0.1
      comp=Z,6.5nm,0.7s,mb4.5,baz=105,slow=9.0,SNR=11
S14A  Cedar City       82.63  46 ⇓P     P      05 40 03.9 +0.3
      baz=83
KLR   Kul'dur          82.66 329 eP     P      05 40 00.0 -3.4
I08A  Drewsey          82.69  38  P     P      05 40 03.7  0.0
      baz=83,SNR=9.5
WUAZ  Wupatki          82.71  48 eP     P      05 40 04.8 +0.8
      comp=Z,9.2nm,1.0s,mb4.5
WUAZ  Wupatki          82.71  48 ⇓P     P      05 40 04.5 +0.6
      baz=83
D05A  Enumclaw         82.80  34  P     P      05 40 04.4 +0.2
      baz=83,SNR=8.2
J09A  Fry Pan Ranch,   82.83  39  P     P      05 40 04.5  0.0
      baz=83,SNR=21
SLKM  Skilak Lake      82.87  13 eP     P      05 40 02.7 -1.5
G07A  Ruggs Ranch, H   82.87  37  P     P      05 40 04.3 -0.3
      baz=83,SNR=14
L10A  Juniper Basin    82.88  41  P     P      05 40 04.6 -0.1
      baz=83,SNR=19
ELK   Elko             82.89  42 eP     P      05 40 04.9 +0.1
      comp=Z,7.3nm,0.8s,mb4.5
ELK   Elko             82.89  42 eP     P      05 40 04.9 +0.1
ELK                               pmax  pmax
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      comp=Z,7.0nm,0.8s
M11A  Holland Ranch,   82.93  41  P     P      05 40 05.7 +0.7
      baz=83,SNR=7.8
E06A  Yakima           82.94  35 ⇑P     P      05 40 04.8 -0.1
      baz=83,SNR=10
O12A  Currie           82.95  43  P     P      05 40 05.1  0.0
      baz=83,SNR=11
PGC   Sidney           82.99  32 eP     P      05 40 05.0 -0.1
H08A  Prairie City     82.99  38  P     P      05 40 05.0 -0.2
      baz=83,SNR=11
K10A  MacKenzie Ranc   83.03  40  P     P      05 40 05.5  0.0
      baz=83,SNR=20
N12A  Clover Valley,   83.08  42  P     P      05 40 06.1 +0.4
      baz=83,SNR=13
F07A  Phinny Hill Vi   83.11  36  P     P      05 40 05.7 -0.1
      baz=83,SNR=8.7
I09A  Lost Marbles R   83.21  38 ⇓P     P      05 40 06.3  0.0
      baz=83
C05A  Tolt Reservoir   83.28  34 ⇓P     P      05 40 06.7  0.0
      baz=83
G08A  Pilot Rock       83.29  37 ⇑P     P      05 40 07.0 +0.3
      baz=83,SNR=43
L11A  Cat Creek Ranc   83.37  41  P     P      05 40 07.3 +0.1
      baz=83,SNR=23
A04A  Legoe Bay, Lum   83.41  33  P     P      05 40 07.5 +0.3
      baz=84,SNR=13
D06A  Cle Elum         83.41  35 ⇓P     P      05 40 07.3  0.0
      baz=84
B05A  Bryant           83.43  33  P     P      05 40 07.1 -0.3
      baz=84,SNR=11
J10A  Berg Farm, Mel   83.47  39 ⇓P     P      05 40 07.8 +0.1
      baz=84
M12A  Wells            83.47  42  P     P      05 40 07.4 -0.3
      baz=84
MA2   Magadan          83.52 344 eP     P      05 40 05.8 -1.8
      comp=Z,27nm,1.0s,mb4.9
MA2   Magadan          83.52 344d iP    P      05 40 05.9 -1.6
MA2                               pmax  pmax
      comp=Z,43nm,1.2s,mb5.0
E07A  Sunnyside        83.56  35  P     P      05 40 08.0 -0.1
      baz=84,SNR=19
N13A  Wendover, West   83.61  43 ⇓P     P      05 40 08.7 +0.2
      baz=84
HAWA  Hanford          83.63  36 eP     P      05 40 08.2 -0.3
      comp=Z,24nm,0.9s,mb4.9
H09A  Durkee           83.66  38  P     P      05 40 08.5 -0.1
      baz=84,SNR=6.1
MSU   Marysvale        83.69  45 eP     P      05 40 09.3 +0.4
F08A  Pendleton        83.69  37  P     P      05 40 08.4 -0.3
      baz=84,SNR=19
L12A  House Creek Ra   83.81  41  P     P      05 40 09.6 +0.2
      baz=84,SNR=10
I10A  Payette          83.82  39  P     P      05 40 10.1 +0.6
      baz=84,SNR=6.5
C06A  Tall Timber Ra   83.84  34 ⇑P     P      05 40 09.3 -0.1
      baz=84
RPW   Rockport         83.85  33  P     P      05 40 08.9 -0.6
D07A  Quincy           83.88  35  P     P      05 40 09.6 -0.1
      baz=84,SNR=9.9
A05A  Maple Falls      83.90  33 ⇓P     P      05 40 09.5 -0.3
      baz=84
B06A  Marblemount      83.91  33 ⇓P     P      05 40 09.5 -0.3
      baz=84
M13A  Montello         83.91  42  P     P      05 40 10.0  0.0
      baz=84,SNR=16
E08A  Dider Farm, El   83.95  36  P     P      05 40 10.2 +0.1
      baz=84,SNR=9.1
BMO   Blue Mountains   83.97  38 eP     P      05 40 09.5 -0.7
      comp=Z,9.5nm,0.8s,mb4.6
BMO   Blue Mountains   83.97  38 eP     P      05 40 09.5 -0.7
BMO                               pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.6
MFID  Camas Ranch      84.02  40  P     P      05 40 10.4 -0.1
      baz=84,SNR=14
PMR   Palmer           84.08  13 eP     P      05 40 09.4 -0.9
      comp=Z,22nm,1.2s,mb4.8
PMR   Palmer           84.08  13 eP     P      05 40 09.4 -0.9
PMR                               pmax  pmax
      comp=Z,22nm,1.2s,mb4.8
F09A  S2 Ranch, Elgi   84.13  37 ⇓P     P      05 40 10.8 -0.2
      baz=84,SNR=12
C07A  Waterville       84.14  35 ⇓P     P      05 40 10.5 -0.4
      baz=84,SNR=15
H10A  Noah's Angus R   84.15  38 ⇑P     P      05 40 10.9 -0.2
      baz=84,SNR=32
K12A  Draper Farm, C   84.15  41  P     P      05 40 11.3 +0.2
      baz=84,SNR=10
DUG   Dugway           84.15  44 eP     P      05 40 10.8 -0.4
      comp=Z,5.4nm,1.0s,mb4.2
DUG   Dugway           84.15  44 eP     P      05 40 10.9 -0.3
DUG                               pmax  pmax
      comp=Z,5.0nm,1.0s,mb4.2
DUG   Dugway           84.15  44 ⇑P     P      05 40 11.4 +0.1
      baz=84
I11A  Placerville      84.23  39 ⇑P     P      05 40 11.6 +0.1
      baz=84,SNR=20
A06A  Chilliwack       84.28  33 ⇑P     P      05 40 11.6  0.0
      baz=84
D08A  Wollman Farm,    84.37  35  P     P      05 40 11.9 -0.2
      baz=84,SNR=22
J12A  Stokes Ranch,    84.37  40  P     P      05 40 12.3 +0.1
      baz=84,SNR=20
DIV   Divide           84.41  14 eP     P      05 40 10.7 -1.3
      comp=Z,91nm,0.8s,mb5.6
L13A  Double Diamond   84.44  42  P     P      05 40 13.0 +0.4
      baz=84,SNR=5.8
E09A  Wood Farm, Sta   84.47  36  P     P      05 40 12.1 -0.6
      baz=84,SNR=14
B07A  Winthrop         84.58  34  P     P      05 40 12.7 -0.5
      baz=85,SNR=8.7
H11A  Donnelly         84.64  39  P     P      05 40 13.2 -0.4
      baz=85,SNR=18
K13A  Stover Farm, H   84.66  41  P     P      05 40 13.9 +0.2
      baz=85,SNR=10
F10A  Beach Ranch, E   84.67  37 ⇑P     P      05 40 13.3 -0.3
      baz=85,SNR=44
OD2   Odessa Site #2   84.68  35  P     P      05 40 13.5 -0.2
D09A  Jones Farm, Ri   84.71  36  P     P      05 40 13.4 -0.4
      baz=85,SNR=15
C08A  Higginbotham F   84.74  35  P     P      05 40 13.5 -0.5
      baz=85,SNR=11
A07A  Ashnola River,   84.81  33  P     P      05 40 14.1 -0.2
      baz=85,SNR=5.8
MPU   Maple Canyon     84.83  44 eP     P      05 40 15.9 +1.3
G11A  Walters Elk Ra   84.89  38  P     P      05 40 14.3 -0.5
      baz=85,SNR=26
B08A  Colville Reser   84.93  34  P     P      05 40 14.3 -0.6
      baz=85,SNR=13
HLID  Hailey           84.96  40 eP     P      05 40 14.8 -0.4
      comp=Z,10nm,0.9s,mb4.5
HLID  Hailey           84.96  40  P     P      05 40 15.2  0.0
      baz=85,SNR=18
KULM  Kulim            85.01 277 eP     P      05 40 16.2  0.0
J13A  Cove Ranch, Pi   85.02  40  P     P      05 40 15.6 +0.2
      baz=85,SNR=21
E10A  Myers Farm, Un   85.03  37  P     P      05 40 15.3 -0.2
      baz=85,SNR=7.5
SRU   San Rafael       85.11  46 eP     P      05 40 15.7 -0.4
      comp=Z,6.6nm,0.7s,mb4.5
SRU   San Rafael       85.11  46 eP     P      05 40 15.7 -0.3
SRU                               pmax  pmax
      comp=Z,7.0nm,0.7s,mb4.5
K14A  Jones Ranch, D   85.17  42 ⇓P     P      05 40 16.5 +0.3
      baz=85
LAZ   Ladron           85.20  51 eP     P      05 40 16.8 +0.2
LENM  Lemitar          85.21  51 eP     P      05 40 20.1 +3.5
F11A  Grangeville      85.23  38  P     P      05 40 14.8 -1.7
      baz=85,SNR=10.0
H12A  Diamond D Ranc   85.24  39  P     P      05 40 16.3 -0.3
      baz=85,SNR=16
JLU   Jordanelle       85.25  44 eP     P      05 40 16.8 +0.1
D10A  Wagner Farm, O   85.27  36  P     P      05 40 15.7 -0.9
      baz=85,SNR=17
MNTX  Cornudas Mount   85.28  54 eP     P      05 40 16.8 -0.3
      comp=Z,6.7nm,0.7s,mb4.5
A08A  Turner Farm, O   85.33  34  P     P      05 40 16.5 -0.4
      baz=85,SNR=20
I13A  Wildhorse Cree   85.33  40  P     P      05 40 17.5 +0.4
      baz=85,SNR=7.4
TNA   Tin City         85.39   4 eP     P      05 40 15.9 -0.9
      comp=Z,16nm,0.7s,mb4.9
BNM   Barren Site      85.46  51 eP     P      05 40 17.9  0.0
E11A  Bogner Ranch,    85.47  37  P     P      05 40 16.4 -1.3
      baz=86,SNR=7.6
LPM   Los Pinos Moun   85.53  51 eP     P      05 40 18.0 -0.2
MVCO  Mesa Verde       85.56  48 ⇑P     P      05 40 18.1 -0.3
      baz=86
LTX   Lajitas          85.58  57 eP     P      05 40 18.9 +0.3
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      comp=Z,4.8nm,0.7s,mb4.3
LTX   Lajitas          85.58  57 eP     P      05 40 18.9 +0.3
LTX                               pmax  pmax
      comp=Z,5.0nm,0.7s,mb4.3
TXAR  Lajitas Array    85.58  57  P     P      05 40 18.6  0.0
      comp=Z,4.1nm,0.7s,mb4.3,baz=218,slow=8.1,SNR=62
B09A  Rice             85.60  35  P     P      05 40 17.6 -0.7
      baz=86,SNR=14
H13A  Challis          85.61  39 ⇑P     P      05 40 18.0 -0.4
      baz=86,SNR=6.6
HWUT  Hardware Ranch   85.70  43 eP     P      05 40 17.9 -1.0
      comp=Z,1.7nm,0.6s,mb4.0
A09A  Danville         85.70  34  P     P      05 40 18.6 -0.1
      baz=86,SNR=8.8
C10A  Spilker Farm,    85.70  36 ⇓P     P      05 40 18.5 -0.2
      baz=86
PSI   Prapat           85.77 274  P     P      05 40 19.1 -0.8
      comp=Z,15nm,0.9s,mb4.7,baz=205,slow=6.7,SNR=8.0
G13A  Cobalt           85.91  39  P     P      05 40 19.7 -0.2
      baz=86,SNR=7.8
ANMO  Albuquerque      85.95  51 eP     P      05 40 20.3  0.0
      comp=Z,4.0nm,0.8s,mb4.2
ANMO  Albuquerque      85.95  51 eP     P      05 40 20.3  0.0
ANMO                              pmax  pmax
      comp=Z,4.0nm,0.8s
PV01  Paradox Valley   85.95  47 eP     P      05 40 19.4 -0.8
B10A  Chitwood Farm,   86.03  35 ⇑P     P      05 40 20.0 -0.4
      baz=86
SEY   Seymchan         86.05 346⇓eP     P      05 40 18.9 -1.2
MCK   McKinley         86.05  12 eP     P      05 40 18.4 -1.7
      comp=Z,16nm,0.9s,mb4.8
MCK   McKinley         86.05  12 eP     P      05 40 18.4 -1.7
MCK                               pmax  pmax
      comp=Z,16nm,0.9s,mb4.8
NEW   Newport          86.06  35 eP     P      05 40 19.3 -1.2
      comp=Z,5.0nm,0.8s,mb4.3
NEW   Newport          86.06  35 eP     P      05 40 19.3 -1.2
NEW                               pmax  pmax
      comp=Z,5.0nm,0.8s
F13A  Darby            86.23  38  P     P      05 40 20.7 -0.7
      baz=86,SNR=11
A10A  Northport        86.25  34  P     P      05 40 20.9 -0.5
      baz=86,SNR=7.9
GDL2  Guadalupe Moun   86.28  54 eP     P      05 40 22.4 +0.4
BJI   Beijing          86.38 315  P     P      05 40 21.9 -0.3
BJI                               AMB   AMB
      comp=Z,18nm,1.4s,mb4.6
MENT  Mentasta         86.47  14 eP     P      05 40 21.4 -0.7
B11A  Sandpoint        86.57  35  P     P      05 40 22.5 -0.5
      baz=87,SNR=15
MCMT  McKenzie Canyo   86.59  40 eP     P      05 40 22.8 -0.4
E13A  Victor           86.68  38  P     P      05 40 22.5 -1.0
      baz=87,SNR=7.3
F14A  Wisdom           86.81  39 ⇓P     P      05 40 24.0 -0.2
      baz=87
A11A  Hall Mountain,   86.88  35  P     P      05 40 24.3 -0.1
      baz=87,SNR=11
D13A  Huson            86.88  37  P     P      05 40 23.4 -1.1
      baz=87,SNR=7.2
DLBC  Dease Lake       86.93  22 eP     P      05 40 24.5  0.0
G15A  Dillon           86.99  40  P     P      05 40 24.9 -0.2
      baz=87,SNR=15
B12A  Libby            87.02  36  P     P      05 40 24.9 -0.2
      baz=87,SNR=7.7
DLMT  Dillon           87.03  39 eP     P      05 40 27.4 +2.1
TPAW  Teton Pass       87.06  42 eP     P      05 40 25.6 +0.2
E14A  Clinton          87.06  38  P     P      05 40 24.9 -0.5
      baz=87,SNR=14
BSMT  Bassoo Peak      87.12  36 eP     P      05 40 24.8 -0.8
C13A  Hot Springs      87.14  37  P     P      05 40 24.9 -0.8
      baz=87,SNR=6.1
A12A  Yaak River Ran   87.25  35  P     P      05 40 25.9 -0.3
      baz=87,SNR=9.8
IMW   Indian Meadow    87.27  41 eP     P      05 40 26.8 +0.3
COLA  College          87.29  12 eP     P      05 40 24.6 -1.5
      comp=Z,22nm,0.9s,mb4.9
COLA  College          87.29  12 eP     P      05 40 24.6 -1.4
COLA                              pmax  pmax
      comp=Z,22nm,0.9s,mb4.9
MOOW  Moose Ponds      87.32  41 eP     P      05 40 27.0 +0.3
      comp=Z,1.2nm,0.7s,mb3.7
LOHW  Long Hollow      87.33  42 eP     P      05 40 26.5 -0.3
      comp=Z,2.4nm,0.6s,mb4.1
F15A  Butte            87.34  39  P     P      05 40 26.7 -0.1
      baz=87,SNR=5.2
LRM   Limekiln Ridge   87.36  39 eP     P      05 40 26.8 -0.1
IMA2  Indian Mountai   87.38   9 eP     P      05 40 25.3 -1.1
D14A  Greenough        87.42  38  P     P      05 40 26.0 -1.1
      baz=88,SNR=11
QLMT  Earthquake Lak   87.45  40 eP     P      05 40 28.1 +0.8
CHMT  Chamberlain Mo   87.47  38 eP     P      05 40 26.6 -0.8
GYA   Guiyang          87.50 299⇓iP     P      05 40 28.0  0.0
GYA                               AMB   AMB
      comp=Z,10.0nm,1.0s,mb4.5
E15A  Deer Lodge       87.57  38 ⇑P     P      05 40 27.3 -0.5
      baz=88
BW06  Boulder Array    87.57  43 eP     P      05 40 27.2 -0.7
B13A  Whitefish        87.58  36  P     P      05 40 26.8 -1.1
      baz=88,SNR=7.0
YMR   Madison River    87.65  41 eP     P      05 40 28.7 +0.4
      comp=Z,3.5nm,0.7s,mb4.3
SYO   Syowa Base       87.65 192⇓eP     P      05 40 27.3 -0.7
SYO   Syowa Base       87.65 192⇓ePcP   PcP    05 40 29.6 -0.1
C14A  Swan Lake        87.66  37 ⇓P     P      05 40 27.4 -0.8
      baz=88
BOZ   Bozeman (W)      87.76  39 eP     P      05 40 28.8  0.0
      comp=Z,6.4nm,0.9s,mb4.5
BOZ   Bozeman (W)      87.76  39 eP     P      05 40 28.8 +0.1
BOZ                               pmax  pmax
      comp=Z,6.0nm,0.9s,mb4.4
BOZ   Bozeman (W)      87.76  39 ⇑P     P      05 40 28.7  0.0
      baz=88
SDCO  Great Sand Dun   87.92  49 eP     P      05 40 29.4 -0.3
      comp=Z,3.8nm,0.8s,mb4.3
A13A  Flathead Natio   87.92  36  P     P      05 40 29.2 -0.2
      baz=88,SNR=6.4
LKWY  Lake             87.95  41 eP     P      05 40 30.6 +1.0
D15A  Lincoln          87.97  38  P     P      05 40 29.3 -0.3
      baz=88,SNR=12
CMIG  Matias Romero    88.19  71  P     P      05 40 30.4 -1.0
      comp=Z,3.0nm,0.7s,mb4.2,baz=267,slow=5.4,SNR=7.5
WALA  Waterton Lakes   88.27  36 eP     P      05 40 30.5 -0.6
      comp=Z,10.0nm,0.8s,mb4.7
DAWY  Dawson           88.47  15 eP     P      05 40 31.0 -0.6
BILL  Bilibino         88.53 354 eP     P      05 40 29.8 -2.1
      comp=Z,12nm,0.8s,mb4.8
BILL  Bilibino         88.53 354⇓eP     P      05 40 30.8 -1.0
BILL                             e             05 43 59.1
BILL                              pmax  pmax
      comp=Z,19nm,1.1s,mb4.8
EGAK  Eagle            88.64  14 eP     P      05 40 31.2 -1.2
      comp=Z,25nm,1.1s,mb5.0
VNA3  Neumayer Olymp   88.70 176 eP     P      05 40 32.0 -0.8
VNA3                             e             05 40 35.7
VNA3                             e             05 41 40.5
VNA3                             e             05 41 45.9
XAN   Xi'an            88.81 307  P     P      05 40 34.2 +0.2
XAN                               AMB   AMB
      comp=Z,26nm,1.3s,mb4.9
VNA2  Neumayer--Watz   89.16 176 eP     P      05 40 34.4 -0.6
      baz=199,slow=3.4
VNA2                             e             05 40 36.7
VNA2                             e             05 41 42.4
VNA2                             e             05 41 47.7
VNA1  Neumayer--Stat   89.38 176 eP     P      05 40 35.3 -0.7
VNA1                             e             05 40 37.8
VNA1                             e             05 41 44.1
NANT  Nan              89.72 290 ⇑P     P      05 40 37.0 -1.6
      comp=Z,115nm,0.8s,mb5.8
HHC   Hu-ho-hao-te     89.86 314 eP     P      05 40 37.4 -1.3
HHC                               AP    pP     05 41 53.1  +23
HHC                               XP    sP     05 42 25.5  +34
HHC                               PP    PP     05 44 17.7 +3.0
HHC                               SKS          05 50 37.8
HHC                               S     S      05 50 55.8  -17
HHC                               PS    PS     05 52 52.1 +5.2
HHC                               XS    sS     05 53 12.4  +30
HHC                               SS    SS     05 57 10.3 -5.9
HHC                               AMB   AMB
      comp=Z,6.0nm,0.9s,mb4.4
HHC                               AMB   AMB
      comp=Z,100nm,4.5s
EGMT  Eagleton         90.08  38 ⇓P     P      05 40 39.5  0.0
      baz=90
KMI   Kunming          90.25 297  P     P      05 40 41.5 +0.6
KMI                               AMB   AMB
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      comp=Z,21nm,0.9s,mb5.0
EDM   Edmonton           90.84  32  eP        P         05 40 41.7 -1.2
CHG   Chiang Mai         91.29 289 ⇓P         P         05 40 46.3 +0.5
      comp=Z,24nm,0.8s,mb5.2
CHTO  Chiang Mai         91.29 289  eP        P         05 40 46.1 +0.3
      comp=Z,18nm,0.9s,mb5.0
CHTO  Chiang Mai         91.29 289  eP        P         05 40 46.1 +0.3
CHTO                                 pmax     pmax
      comp=Z,18nm,0.9s,mb5.0
LAO   LASA Array         91.54  40  eP        P         05 40 46.7 +0.4
      comp=Z,20nm,0.9s,mb5.0
CD2   Chengdu            91.57 302  eP        P         05 40 45.9 -1.0
CD2                                  AP       pP        05 42 01.6  +23
CD2                                  XP       sP        05 42 34.3  +34
CD2                                  PP       PP        05 44 30.7 +2.3
CD2                                  SKS                05 50 45.8
CD2                                  S        S         05 51 14.6  -14
CD2                                  XS       sS        05 53 28.1  +29
CD2                                  SS       SS        05 57 32.1 -9.1
CD2                                  AMB      AMB
      comp=Z,10.0nm,0.8s,mb4.8
CD2                                  AMB      AMB
      comp=Z,30nm,8.6s
WMOK  Wichita Mounta     91.58  54  eP        P         05 40 46.6 -0.2
YAK   Yakutsk            92.01 338  eP        P         05 40 46.5 -1.7
      comp=Z,23nm,0.8s,mb5.2
YAK   Yakutsk            92.01 338  i P       P         05 40 46.4 -1.8
YAK                                  pmax     pmax
      comp=Z,17nm,0.7s,mb5.1
INK   Inuvik             93.30  15  eP        P         05 40 52.7 -1.3
LZH   Lanzhou            93.44 307  eP        P         05 40 56.0 +0.6
LZH                                  AP       pP        05 42 08.5  +22
LZH                                  XP       sP        05 42 41.6  +33
LZH                                  PP       PP        05 44 47.0 +4.0
LZH                                 eSKS                05 50 57.1
LZH                                 eS        S         05 51 31.0  -14
LZH                                  PS       PS        05 53 32.1 +5.5
LZH                                  XS       sS        05 53 42.8  +27
LZH                                  SS       SS        05 57 57.0  -11
LZH                                  AMB      AMB
      comp=Z,32nm,1.4s,mb5.2
LZH                                  AMB      AMB
      comp=Z,90nm,4.0s
DGMT  Dagmar             93.57  39  eP        P         05 40 55.8 +0.1
      comp=Z,29nm,1.0s,mb5.3
YKA   Yellowknife Ar     95.36  24   P        P         05 41 02.3 -1.2
      comp=Z,3.0nm,0.8s,mb4.5,baz=238,slow=4.4,SNR=58
YKA                                  PKKPbc   PKKPbc    05 57 54.3 -3.7
      comp=Z,0.2nm,0.6s,baz=40,slow=2.5,SNR=5.1
ULN   Ulaanbaatar        95.75 319  eP        P         05 41 04.8 -0.9
      comp=Z,8.3nm,1.2s,mb4.8
ULN   Ulaanbaatar        95.75 319  eP        P         05 41 04.8 -0.8
ULN                                  pmax     pmax
      comp=Z,8.0nm,1.2s,mb4.8
SONM  Songino Array      96.14 319   P        P         05 41 06.4 -1.1
      comp=Z,1.0nm,0.7s,mb4.2,baz=120,slow=4.1,SNR=7.3
TIXI  Tiksi              98.46 345  eP        P         05 41 15.2 -2.1
      comp=Z,5.6nm,0.6s,mb5.1
TIXI  Tiksi              98.46 345⇑eP         P         05 41 15.4 -1.9
TIXI                                 pmax     pmax
      comp=Z,5.0nm,0.8s,mb4.9
ULM   Lac du Bonnet      99.27  40   P        Pdif      05 41 19.6 -1.9
      comp=Z,1.0nm,0.6s,baz=157,slow=13,SNR=4.1
LPAZ  La Paz            101.07 112  ePdif     Pdif      05 41 32.3 +2.8
      comp=Z,7.0nm,1.4s
LPAZ  La Paz            101.07 112  eP        Pdif      05 41 32.3 +2.8
LPAZ                                 pmax     pmax
      comp=Z,7.0nm,1.4s
LPAZ  La Paz            101.07 112   P        Pdif      05 41 30.7 +1.2
      comp=Z,1.3nm,0.7s,baz=269,slow=2.2,SNR=6.2
ZALV  Zalesovo Beam     110.82 321   PKPdf    PKiKP     05 46 09.2 -2.2
ZALV                                 SKP                05 49 21.4
ZALV  Zalesovo Beam     110.82 321   PKiKP    PKiKP     05 46 09.2 -2.2
      comp=Z,3.3nm,0.6s,baz=104,slow=1.8,SNR=14
ZALV                                 SKP                05 49 21.4
      comp=Z,0.8nm,0.3s,baz=75,slow=1.6,SNR=3.9
ZAL   Zalesovo          110.83 321   PKIKP    PKiKP     05 46 09.2 -2.1
ZAL                                                     05 49 21.4
MK31  Makanchi Array    111.72 313  ePKPdf    PKiKP     05 46 11.2 -2.0
MK31  Makanchi Array    111.72 313  ePKIKP    PKiKP     05 46 11.3 -2.0
MKAR  Makanchi Array    111.72 313   PKPdf    PKiKP     05 46 11.3 -2.0
MKAR                                 SKP                05 49 22.8
MKAR                                 PKKPbc   PKKPbc    05 57 06.0 -2.5
MKAR                                 PKKPab   PKKPab    05 57 16.1 +0.3
MKAR  Makanchi Array    111.72 313   PKIKP    PKiKP     05 46 11.3 -2.0
MKAR                                                    05 49 22.8
MKAR  Makanchi Array    111.72 313   PKiKP    PKiKP     05 46 11.3 -2.0
      comp=Z,2.3nm,0.6s,baz=78,slow=1.5,SNR=28
MKAR                                 SKP                05 49 22.8
      comp=Z,1.0nm,0.9s,baz=75,slow=1.6,SNR=4.2
MKAR                                 PKKPbc   PKKPbc    05 57 06.0 -2.5
      comp=Z,0.8nm,0.7s,baz=279,slow=3.2,SNR=9.2
MKAR                                 PKKPab   PKKPab    05 57 16.1 +0.3
      comp=Z,0.4nm,0.7s,baz=302,slow=3.3,SNR=4.2
KURK  Kurchatov         114.42 318  ePKPdf    PKiKP     05 46 16.1 -2.2
KURK  Kurchatov         114.42 318  ePKIKP    PKiKP     05 46 16.1 -2.2
AAK   Ala-Archa         116.94 308  ePKPdf    PKPdf     05 46 20.8 -2.7
AAK   Ala-Archa         116.94 308  ePKIKP    PKPdf     05 46 20.8 -2.6
BRVK  Borovoye          119.50 320  ePKPdf    PKPdf     05 46 26.2 -1.8
BRVK  Borovoye          119.50 320  ePKIKP    PKPdf     05 46 26.2 -1.8
KBL   Kabul             120.75 299  ePKPdf    PKPdf     05 46 30.1 -0.9
OPO   Ambohidratompo    122.55 231   PKP      PKPdf     05 46 34.9 -0.1
OPO   Ambohidratompo    122.55 231   PKP      PKPdf     05 46 34.9 -0.1
      comp=Z,3.3nm,0.8s,baz=39,slow=3.5,SNR=3.4
SOKR  Solikamsk         125.20 330⇑iPKIKP     PKPdf     05 46 37.7 -1.0
SOKR                                 pmax     pmax
      comp=Z,30nm,1.0s
ARU   Arti              125.42 326  ePKPdf    PKPdf     05 46 37.9 -1.3
ARU   Arti              125.42 326  i PKIKP   PKPdf     05 46 38.0 -1.2
BOSA  Boshof            127.41 204  ePKPdf    PKPdf     05 46 44.3 +0.3
BOSA  Boshof            127.41 204  ePKIKP    PKPdf     05 46 44.3 +0.2
BOSA  Boshof            127.41 204   PKP      PKPdf     05 46 44.1  0.0
      comp=Z,1.5nm,0.6s,baz=126,slow=4.6,SNR=5.4
ARCES ARCESS Array B    128.51 350   PKP      PKPdf     05 46 43.2 -1.6
ARCES ARCESS Array B    128.51 350   PKIKP    PKPdf     05 46 43.3 -1.5
ARCES ARCESS Array B    128.51 350   PKP      PKPdf     05 46 43.2 -1.6
      comp=Z,12nm,0.8s,baz=293,slow=1.3,SNR=15
JOF   Joensuu           132.91 343  ep        PKPdf     05 46 49.6 -3.7
      comp=Z,17nm,0.7s
JOF   Joensuu           132.91 343  ePKIKP    PKPdf     05 46 49.6 -3.7
MATP  Matopo            133.05 213   PKP      PKPdf     05 46 53.6 -1.3
MATP                                 SKPbc    SKPbc     05 49 56.9 -6.3
MATP  Matopo            133.05 213   PKP      PKPdf     05 46 53.6 -1.3
      comp=Z,2.5nm,0.6s,baz=167,slow=1.4,SNR=9.2
MATP                                 SKPbc    SKPbc     05 49 56.9 -6.3
      comp=Z,24nm,1.0s,baz=148,slow=4.4,SNR=24
FINES FINESS Array B    135.51 345   PKP                05 46 44.0
FINES                                PKP      PKPdf     05 46 58.2  0.0
FINES                                SKPbc    SKPbc     05 50 04.8 -5.0
FINES FINESS Array B    135.51 345   PKHKP              05 46 44.0
FINES                                                   05 46 58.2
FINES FINESS Array B    135.51 345   PKhKP              05 46 44.0
      comp=Z,1.8nm,0.8s,baz=28,slow=6.3,SNR=3.3
FINES                                PKP      PKPdf     05 46 58.2  0.0
      comp=Z,7.6nm,0.9s,baz=118,slow=3.8,SNR=14
FINES                                SKPbc    SKPbc     05 50 04.8 -5.0
      comp=Z,1.8nm,0.7s,baz=316,slow=5.3,SNR=3.2
VRHR  Novokhopersk      136.75 325  ePKIKP    PKPdf     05 46 59.5 -1.3
VRHR                                 pmax     pmax
      comp=Z,20nm,0.6s
VRHR                                 pmax     pmax
      comp=N,10.0nm,0.5s
VRHR                                 pmax     pmax
      comp=E,10.0nm,0.7s
OBN   Obninsk           136.81 333⇓iPKIKP     PKPdf     05 47 01.2 +0.4
OBN                                 e                   05 48 14.9
OBN                                  pmax     pmax
      comp=Z,26nm,1.5s
LSZ   Lusaka            137.44 217  ePKPdf    PKPdf     05 47 04.3 +1.1
LSZ   Lusaka            137.44 217  ePKIKP    PKPdf     05 47 04.3 +1.1
NB2   NORSAR Subarra    138.48 354   PKPa               05 46 53.5
      comp=Z,5.1nm,1.1s,baz=17,slow=2.6
NOA   NORSAR Array B    138.48 354   PKP                05 46 50.0
NOA                                  PKP      PKPdf     05 47 04.0 +0.3
NOA   NORSAR Array B    138.48 354   PKHKP              05 46 50.0
NOA                                                     05 47 04.1
NOA   NORSAR Array B    138.48 354   PKhKP              05 46 50.0
      comp=Z,2.1nm,0.7s,baz=16,slow=4.5,SNR=6.0
NOA                                  PKP      PKPdf     05 47 04.0 +0.3
      comp=Z,3.7nm,0.8s,baz=14,slow=4.0,SNR=5.5
KIV   Kislovodsk        139.45 315⇓iPKIKP     PKPdf     05 47 07.6 +1.6
KIV                                 e                   05 48 03.8
KIV                                 e                   05 50 12.9
KIV                                  pmax     pmax
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      comp=Z,13nm,1.3s
KMBO  Kilima Mbogo      140.83 242   PKP      PKPdf     05 47 04.9 -4.6
KMBO                                 SKPbc    SKPbc     05 50 22.0 -4.5
KMBO  Kilima Mbogo      140.83 242⇑iPKIKP     PKPdf     05 47 11.8 +2.3
KMBO  Kilima Mbogo      140.83 242   PKhKP              05 47 04.9
      comp=Z,1.1nm,0.6s,baz=12,slow=21,SNR=3.5
KMBO                                 SKPbc    SKPbc     05 50 22.0 -4.4
      comp=Z,8.8nm,1.1s,baz=58,slow=23,SNR=8.1
SUW   Suwalki           142.68 341  ePKP      PKPdf     05 47 07.3 -4.2
SUW   Suwalki           142.68 341  ePKP      PKPdf     05 47 07.3 -4.2
AKASG Malin Array Be    143.07 333   PKP      PKPdf     05 47 07.1 -5.2
AKASG                                SKPbc    SKPbc     05 50 25.3 -5.5
AKASG Malin Array Be    143.07 333   PKHKP              05 47 07.1
AKASG                                                   05 50 25.3
AKASG Malin Array Be    143.07 333   PKhKP              05 47 07.1
      comp=Z,1.6nm,0.3s,baz=35,slow=4.1,SNR=24
AKASG                                SKPbc    SKPbc     05 50 25.3 -5.5
      comp=Z,3.2nm,0.8s,baz=37,slow=2.4,SNR=12
AKBB  Malin Array Si    143.07 333  ePKPdf    PKPdf     05 47 07.0 -5.3
KIEV  Kiev              143.08 333  ePKPdf    PKPdf     05 47 07.0 -5.3
MUD   Monsted U'grnd    143.19 355  i P       PKPdf     05 47 08.2 -4.1
EAB   Aberfoyle         143.25   7  eP        PKPdf     05 47 08.0 -4.5
PGBU  Glenifferbraes    143.60   8  eP        PKPdf     05 47 09.1 -3.9
PGBU                                 AMb      AMB       05 47 15.0
      comp=Z,77nm,1.7s
EAU   Auchinoon         143.69   7  eP        PKPdf     05 47 09.8 -3.4
BSD   Bornholm Skovb    143.73 349⇑iP         PKPdf     05 47 09.6 -3.7
      comp=Z,64nm,0.8s
GMK   Mull of Kintyr    143.91   9  eP        PKPdf     05 47 10.3 -3.3
GCL   Cushendall        144.09   9  eP        PKPdf     05 47 10.8 -3.1
XSO   Sourhope Farm     144.15   6  eP        PKPdf     05 47 10.9 -3.1
ESK   Eskdalemuir       144.23   6  eP        PKPdf     05 47 11.0 -3.2
ESK                                  AMb      AMB       05 47 17.7
      comp=Z,59nm,1.6s
ESK   Eskdalemuir       144.23   6  ePKPdf    PKPdf     05 47 11.2 -2.9
BWH   Wardlaw           144.32   7  eP        PKPdf     05 47 11.2 -3.1
SIM   Simferopol'       144.34 322dePKHKP     PKPdf     05 47 12.9 -1.8
SIM                                  pmax     pmax
      comp=Z,44nm,0.7s
BHH   Howats Hill       144.45   7  eP        PKPdf     05 47 12.0 -2.5
GAL1  Galloway          144.49   8  eP        PKPdf     05 47 11.8 -2.8
MALT  Malatya           144.58 309  ePKPdf    PKPdf     05 47 14.1 -1.3
MALT  Malatya           144.58 309  ePKIKP    PKPdf     05 47 14.1 -1.3
MALT  Malatya           144.58 309⇓iP         PKPdf     05 47 14.4 -1.0
GCD   Castle Douglas    144.59   7  eP        PKPdf     05 47 12.4 -2.4
XAL   Allendale         144.78   6  eP        PKPdf     05 47 13.2 -2.0
WAR   Warsaw            144.87 341  ePKP      PKPdf     05 47 14.7 -0.7
WAR   Warsaw            144.87 341  ePKP      PKPdf     05 47 14.7 -0.7
WAR   Warsaw            144.87 341  ePKIKP    PKPdf     05 47 14.7 -0.7
GMM   Mts of Mourne     144.92  10  eP        PKPdf     05 47 13.3 -2.2
CKE   Keswick           144.96   7  eP        PKPdf     05 47 13.4 -2.1
GKP   Gorka Klasztor    144.97 346  ePKP      PKPdf     05 47 14.5 -1.0
GKP   Gorka Klasztor    144.97 346  ePKP      PKPdf     05 47 14.5 -1.0
GKP   Gorka Klasztor    144.97 346  ePKIKP    PKPdf     05 47 14.5 -1.0
GIM   North Isle of     145.09   8  eP        PKPbc     05 47 13.7 -2.0
WIM   Isle of Man       145.20   8  eP        PKPdf     05 47 13.7 -2.2
DCN   Croghan           145.56  11⇑iP         PKPdf     05 47 16.1 -0.4
BSEG  Bad Segeberg      145.56 353  ePKPbc    PKPbc     05 47 15.9 -1.2
BSEG  Bad Segeberg      145.56 353  ePKIKP    PKPdf     05 47 15.9 -0.6
BSEG  Bad Segeberg      145.56 353  ePKPbc    PKPbc     05 47 15.9 -1.2
HPK   Haverah Park      145.73   5  eP        PKPdf     05 47 16.5 -0.3
HPK                                  AMb      AMB       05 47 18.3
      comp=Z,50nm,1.6s
DLF   Lyons Farm        145.74  11⇑iP         PKPdf     05 47 15.7 -1.1
LVV   L'vov             145.88 336  ePKHKP              05 47 09.7
LVV                                 i                   05 47 16.7
KIS   Kishinev          145.90 328  ePKHKP              05 47 16.0
KIS                                  pmax     pmax
      comp=Z,110nm,1.6s
WCB1  Church Bay        145.97   9  eP        PKPdf     05 47 16.5 -0.7
WLF1  Llynfaes          146.07   8  eP        PKPdf     05 47 17.0 -0.4
YRC   Rhoscolyn         146.09   9  eP        PKPdf     05 47 16.9 -0.5
LHO   Holmfirth         146.12   6  eP        PKPdf     05 47 17.2 -0.2
KBI1  Birley Grange     146.43   5  eP        PKPdf     05 47 17.8 -0.2
KWP   Kalwaria          146.53 337  ePKP      PKPdf     05 47 19.2 +0.9
KWP   Kalwaria          146.53 337  ePKP      PKPdf     05 47 19.2 +0.9
KWP   Kalwaria          146.53 337  ePKIKP    PKPdf     05 47 19.2 +0.9
SBD1  Bryn Du           146.60   7  eP        PKPdf     05 47 18.7 +0.4
KWE   Weaver Farm       146.64   6  eP        PKPdf     05 47 19.1 +0.7
NRDL  Niedersach Rie    147.00 352  ePKPbc    PKPbc     05 47 20.5 -0.8
OJC   Ojcow             147.01 341  ePKP      PKPdf     05 47 20.4 +1.3
OJC   Ojcow             147.01 341  ePKIKP    PKPdf     05 47 20.4 +1.3
HLM1  Long Mynd         147.02   7  eP        PKPdf     05 47 19.6 +0.6
STHS  Stebnicka Huta    147.23 338  ePKP      PKPdf     05 47 20.5 +1.0
STHS  Stebnicka Huta    147.23 338  ePKIKP    PKPdf     05 47 20.5 +1.0
STHS  Stebnicka Huta    147.23 338  ePKP      PKPdf     05 47 20.4 +0.9
KOLS  Kolonicke sedl    147.26 337  ePKP      PKPdf     05 47 19.0 -0.6
KOLS  Kolonicke sedl    147.26 337  ePKP      PKPdf     05 47 19.0 -0.6
BR131 Keskin Array S    147.37 314  ePKPbc    PKPbc     05 47 21.5 -1.3
BRTR  Keskin Array B    147.37 314   PKP      PKPdf     05 47 18.4 -1.7
BRTR                                 PKPbc    PKPbc     05 47 21.4 -1.3
BRTR                                 SKPbc    SKPbc     05 50 35.9 -5.2
BRTR  Keskin Array B    147.37 314   PKP      PKPdf     05 47 18.4 -1.7
      comp=Z,8.9nm,0.8s,baz=69,slow=3.7,SNR=31
BRTR                                 PKPbc    PKPbc     05 47 21.4 -1.3
      comp=Z,8.8nm,0.8s,baz=123,slow=4.3,SNR=32
BRTR                                 SKPbc    SKPbc     05 50 35.9 -5.2
      comp=Z,0.2nm,0.6s,baz=90,slow=2.9,SNR=3.7
HTR   Trewern Hill      147.41   8  eP        PKPdf     05 47 20.5 +0.8
IBBN  Ibbenburen        147.43 355  ePKPbc    PKPbc     05 47 21.6 -0.9
KSP   Ksiaz             147.44 345  ePKP      PKPdf     05 47 22.1 +2.3
KSP   Ksiaz             147.44 345  ePKP      PKPdf     05 47 22.0 +2.2
KSP   Ksiaz             147.44 345  ePKIKP    PKPdf     05 47 22.0 +2.2
UZH   Uzhgorod          147.51 336⇓iPKIKP     PKPdf     05 47 22.6 +2.6
UZH                                 i                   05 48 35.0
UZH                                  pmax     pmax
      comp=Z,238nm,1.0s
MCH1  Michaelchurch     147.52   7  eP        PKPdf     05 47 21.2 +1.3
MCH1                                 AMb      AMB       05 47 24.4
      comp=Z,44nm,1.9s
NIE   Niedzica          147.54 339  ePKP      PKPbc     05 47 23.0 +0.1
NIE   Niedzica          147.54 339  ePKIKP    PKPbc     05 47 23.0 +0.1
CLZ   Clausthal         147.61 352  ePKPbc    PKPbc     05 47 22.4 -0.6
CLZ   Clausthal         147.61 352  ePKIKP    PKPbc     05 47 22.4 -0.6
CLZ   Clausthal         147.61 352  ePKPbc    PKPbc     05 47 22.4 -0.6
SSW   Stow on the Wo    147.68   6  eP        PKPdf     05 47 21.5 +1.4
CLL   Collm             147.71 349⇓iPKP       PKPdf     05 47 22.3 +2.1
CLL                                 i PKP     PKPbc     05 47 24.8 +1.5
CLL                                 i                   05 48 01.8
CLL   Collm             147.71 349⇓iPKIKP     PKPdf     05 47 22.3 +2.1
CLL                                 i                   05 47 24.8
CLL   Collm             147.71 349  ePKPbc    PKPbc     05 47 22.3 -1.0
CLL   Collm             147.71 349⇓iPKPbc     PKPbc     05 47 22.3 -1.0
      comp=Z,75nm,0.9s
CLL                                 i PKiKP   PKiKP     05 47 24.8 -0.3
      comp=Z,86nm,1.0s
VRI   Vrincioaia        147.73 329   P        PKPbc     05 47 22.8 -0.7
VRI   Vrincioaia        147.73 329   PKIKP    PKPbc     05 47 22.8 -0.7
VRI   Vrincioaia        147.73 329⇓iP         PKPdf     05 47 21.5 +1.1
UPC   Upice             147.81 345  ePKP      PKPbc     05 47 23.0 -0.6
UPC   Upice             147.81 345  ePKIKP    PKPbc     05 47 23.0 -0.6
UPC   Upice             147.81 345⇑ePKPB      PKPbc     05 47 23.0 -0.6
WTSB  Winterswijk       147.83 356  ePKP      PKPdf     05 47 22.5 +2.1
      comp=Z,53nm,1.1s
TIRR  Tirgusor          147.84 325 ⇑P         PKPdf     05 47 22.8 +2.2
TIRR  Tirgusor          147.84 325 ⇑PKIKP     PKPdf     05 47 22.8 +2.1
TIRR  Tirgusor          147.84 325⇑iP         PKPdf     05 47 22.8 +2.1
OKC   Ostrava-Krasne    147.85 342  ePKP      PKPbc     05 47 23.1 -0.6
OKC                                 e                   05 47 26.2
OKC   Ostrava-Krasne    147.85 342  ePKIKP    PKPbc     05 47 23.1 -0.6
OKC                                 e                   05 47 26.2
OKC   Ostrava-Krasne    147.85 342⇑ePKPB      PKPbc     05 47 23.1 -0.6
OKC                                 ePKPAB    PKPab     05 47 26.2 -0.6
ANTO  Ankara            147.87 315 ⇑P         PKPdf     05 47 20.1 -0.7
ANTO  Ankara            147.87 315   PKIKP    PKPbc     05 47 23.4 -0.7
ANTO  Ankara            147.87 315⇑iP         PKPdf     05 47 20.1 -0.8
DPC   Dobruska-Polom    147.88 344  ePKP      PKPdf     05 47 19.9 -0.6
DPC                                 e                   05 47 23.5
DPC                                 e                   05 47 26.7
DPC   Dobruska-Polom    147.88 344  ePKPDF    PKPdf     05 47 19.9 -0.6
DPC                               ⇑ePKPB      PKPdf     05 47 23.5 +3.0
DPC                                 ePKPAB    PKPab     05 47 26.7 -0.2
BRG   Berggiesshubel    147.94 347  ePKP      PKPdf     05 47 20.2 -0.4
BRG                                 e                   05 47 23.2
BRG                                 i                   05 47 26.2
BRG                                 epPKP     pPKPdf    05 48 34.6  +20
BRG                                 e                   05 50 38.2
BRG   Berggiesshubel    147.94 347  ePKPbc    PKPbc     05 47 22.9 -1.0
BRG   Berggiesshubel    147.94 347  ePKP      PKPdf     05 47 20.2 -0.4
      comp=Z,2.5nm,0.6s
BRG                                 e                   05 47 23.2
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      comp=Z,33nm,0.8s
BRG                                 i                   05 47 26.2
      comp=Z,37nm,0.9s
BRG                                 epPKP     pPKPdf    05 48 34.6  +20
      comp=Z,6.0nm,1.0s
BRG                                 e                   05 50 38.2
      comp=Z,6.8nm,1.2s
MORC  Moravsky Berou    148.08 343  ePKPbc    PKPbc     05 47 22.9 -1.5
MORC                                ePKPab    PKPab     05 47 27.1 -0.6
MORC  Moravsky Berou    148.08 343  ePKIKP    PKPdf     05 47 22.9 +2.0
MORC                                e                   05 47 27.1
MORC  Moravsky Berou    148.08 343⇑iP         PKPbc     05 47 23.4 -0.9
PVCC  Panska Ves        148.13 346  ePKP      PKPbc     05 47 23.8 -0.6
PVCC                                e                   05 47 27.0
PVCC  Panska Ves        148.13 346  ePKIKP    PKPbc     05 47 23.8 -0.6
PVCC                                e                   05 47 27.0
PVCC  Panska Ves        148.13 346⇑ePKPB      PKPbc     05 47 23.8 -0.6
PVCC                                ePKPAB    PKPab     05 47 27.0 -0.9
KECS  Kecovo            148.29 338  i PKP     PKPbc     05 47 24.3 -0.6
KECS  Kecovo            148.29 338  i PKIKP   PKPbc     05 47 24.3 -0.6
KECS  Kecovo            148.29 338  i PKP     PKPbc     05 47 24.2 -0.7
MLR   Muntele Rosu      148.38 329   P        PKPbc     05 47 24.1 -1.2
MLR   Muntele Rosu      148.38 329   PKIKP    PKPbc     05 47 24.1 -1.1
MLR   Muntele Rosu      148.38 329⇓iP         PKPbc     05 47 23.9 -1.3
MOX   Moxa              148.59 350  ePKP      PKPbc     05 47 24.7 -0.9
MOX   Moxa              148.59 350  ePKP      PKPbc     05 47 24.7 -0.9
      comp=Z,45nm,1.4s
MOX   Moxa              148.59 350  ePKIKP    PKPbc     05 47 24.7 -0.9
MOX   Moxa              148.59 350  ePKPbc    PKPbc     05 47 24.6 -1.0
PRU   Pruhonice         148.65 346  ePKP      PKPdf     05 47 21.0 -0.8
PRU                                 e                   05 47 24.9
PRU                                 e                   05 47 28.9
PRU   Pruhonice         148.65 346  ePKPDF    PKPdf     05 47 21.0 -0.8
PRU                               ⇑ePKPB      PKPbc     05 47 24.9 -0.9
PRU                                 ePKPAB    PKPab     05 47 28.9 -1.1
TANN  Tannenbergstha    148.66 349  ePKPbc    PKPbc     05 47 24.8 -1.0
VRAC  Vranov            148.77 343   P        PKPbc     05 47 25.8 -0.3
VRAC  Vranov            148.77 343   PKIKP    PKPbc     05 47 25.8 -0.3
VYHS  Vyhne             148.83 340  i PKP     PKPbc     05 47 25.6 -0.7
VYHS  Vyhne             148.83 340  i PKIKP   PKPbc     05 47 25.6 -0.7
VYHS  Vyhne             148.83 340  i PKP     PKPbc     05 47 25.6 -0.7
DRGR                    148.84 334   P        PKPbc     05 47 25.4 -1.0
DRGR                    148.84 334 ⇓PKIKP     PKPbc     05 47 25.6 -0.7
DRGR                    148.84 334⇓iP         PKPbc     05 47 25.6 -0.7
NKC   Novy Kostel       148.84 349  ePKP      PKPbc     05 47 25.5 -0.7
NKC   Novy Kostel       148.84 349  ePKIKP    PKPbc     05 47 25.5 -0.7
NKC   Novy Kostel       148.84 349⇑ePKPB      PKPbc     05 47 25.5 -0.7
VOIR                    148.85 330 ⇑P         PKPbc     05 47 25.6 -0.9
VOIR                    148.85 330 ⇑PKIKP     PKPbc     05 47 25.6 -0.8
VOIR                    148.85 330⇑iP         PKPbc     05 47 25.6 -0.8
PSZ   Piszkesteto       148.97 338 ⇑PKIKP     PKPbc     05 47 25.3 -1.4
PSZ   Piszkesteto       148.97 338⇓iPKP/p     PKPbc     05 47 26.0 -0.7
PSZ   Piszkesteto       148.97 338⇑iP         PKPbc     05 47 25.3 -1.4
BEBN  Eben Emael        149.06 357   PKPbc    PKPbc     05 47 26.4 -0.4
TREC  Trest             149.07 345  ePKIKP    PKPbc     05 47 26.1 -0.7
TREC                                e                   05 47 30.9
TREC  Trest             149.07 345⇑ePKPB      PKPbc     05 47 26.1 -0.7
TREC                                ePKPAB    PKPab     05 47 30.9 -0.8
HGN   Heimansgroeve     149.08 357  ePKP      PKPdf     05 47 25.0 +2.5
      comp=Z,51nm,1.5s
UCC   Uccle             149.10 359   PKPbc    PKPbc     05 47 26.1 -0.8
MEM   Membach           149.23 357   PKPbc    PKPbc     05 47 26.1 -1.1
SMOL  Smolenice         149.25 342  i PKP     PKPbc     05 47 26.9 -0.4
SMOL  Smolenice         149.25 342  i PKHKP   PKPbc     05 47 26.9 -0.4
SMOL  Smolenice         149.25 342  i PKP     PKPbc     05 47 26.9 -0.4
ROTZ  Rotzenmuhle       149.33 349  ePKPbc    PKPbc     05 47 26.2 -1.3
SNF   Seneffe           149.40 359   PKPbc    PKPbc     05 47 26.8 -0.9
MODS  Modra-Piesok      149.42 342  i PKP     PKPbc     05 47 27.5 -0.2
MODS  Modra-Piesok      149.42 342  i PKHKP   PKPbc     05 47 27.5 -0.2
MODS  Modra-Piesok      149.42 342  i PKP     PKPbc     05 47 27.5 -0.2
TNS   Taunus Mts        149.43 354  ePKPbc    PKPbc     05 47 26.7 -1.0
TNS   Taunus Mts        149.43 354  ePKHKP    PKPbc     05 47 26.7 -1.0
TNS   Taunus Mts        149.43 354  ePKPbc    PKPbc     05 47 26.7 -1.0
BCLA  Clavier           149.46 358   PKPbc    PKPbc     05 47 26.8 -0.9
GRA1  Grafenberg Arr    149.57 350  ePKPbc    PKPbc     05 47 27.5 -0.6
GRA1                                ePKPab    PKPab     05 47 33.0 -0.8
GRF   Grafenberg Arr    149.57 350  ePKHKP    PKPbc     05 47 27.5 -0.6
GRF                                 e                   05 47 33.0
GRF   Grafenberg Arr    149.57 350  ePKPbc    PKPbc     05 47 27.5 -0.6
GRF                                 ePKPab    PKPab     05 47 33.0 -0.8
GRFO  Grafenberg        149.58 350  ePKPbc    PKPbc     05 47 27.3 -0.8
GRFO                                ePKPab    PKPab     05 47 33.4 -0.4
GRFO  Grafenberg        149.58 350  ePKHKP    PKPbc     05 47 27.3 -0.8
GRFO                                e                   05 47 33.4
ZST   Bratislava        149.63 342  i PKP     PKPbc     05 47 28.1 -0.2
ZST   Bratislava        149.63 342  i PKHKP   PKPbc     05 47 28.1 -0.2
ZST   Bratislava        149.63 342  i PKP     PKPbc     05 47 28.1 -0.2
BUD   Budapest          149.65 339⇑iPKP/p     PKPbc     05 47 27.9 -0.4
KHC   Kasperske Hory    149.66 347  ePKP      PKPdf     05 47 22.3 -1.2
KHC                                 e                   05 47 27.6
KHC   Kasperske Hory    149.66 347  ePKIKP    PKPdf     05 47 22.3 -1.2
KHC                                 e                   05 47 27.6
KHC   Kasperske Hory    149.66 347  ePKPDF    PKPdf     05 47 22.3 -1.2
KHC                               ⇑ePKPB      PKPbc     05 47 27.6 -0.7
GIVF  Givet             149.79 358  ePKP      PKPbc     05 47 27.2 -1.4
GIVF  Givet             149.79 358  ePKHKP    PKPbc     05 47 27.2 -1.4
GIVF  Givet             149.79 358  ePKP1     PKPbc     05 47 27.2 -1.4
      comp=Z,75nm,0.9s
WET   Wettzell          149.80 348  ePKPbc    PKPbc     05 47 28.0 -0.6
WET   Wettzell          149.80 348  ePKHKP    PKPbc     05 47 28.0 -0.6
WET   Wettzell          149.80 348  ePKPbc    PKPbc     05 47 28.0 -0.6
DOU                                  PKPbc    PKPbc     05 47 27.5 -1.1
DOU   Dourbes           149.80 359   PKP      PKPdf     05 47 25.2 +1.6
BAIF  Baives            149.85 359  ePKP      PKPbc     05 47 27.5 -1.2
BAIF  Baives            149.85 359  ePKHKP    PKPbc     05 47 27.5 -1.2
BAIF  Baives            149.85 359  ePKP1     PKPbc     05 47 27.5 -1.2
      comp=Z,72nm,1.1s
ABH   Alteburg          149.85 355   PKP      PKPbc     05 47 28.0 -0.7
GEC2  GERESS Array S    149.91 346  ePKPbc    PKPbc     05 47 28.0 -0.9
GEC2                                ePKPab    PKPab     05 47 34.5 -0.6
GEC2  GERESS Array S    149.91 346  ePKHKP    PKPbc     05 47 28.0 -0.9
GEC2                                e                   05 47 34.6
GEC2  GERESS Array S    149.91 346  ePKPbc    PKPbc     05 47 28.0 -0.9
GERES GERESS Array B    149.91 346   PKPbc    PKPbc     05 47 28.3 -0.6
GERES GERESS Array B    149.91 346   PKHKP    PKPbc     05 47 28.3 -0.6
GERES GERESS Array B    149.91 346   PKPbc    PKPbc     05 47 28.3 -0.6
      comp=Z,41nm,0.8s,baz=22,slow=3.2,SNR=93
GZR   Gura Zlata        149.91 332   P        PKPbc     05 47 28.0 -1.1
GZR   Gura Zlata        149.91 332   PKIKP    PKPbc     05 47 28.0 -1.0
GZR   Gura Zlata        149.91 332⇓iP         PKPbc     05 47 28.0 -1.0
TOD   Tromm             150.00 353   PKP      PKPbc     05 47 28.0 -1.1
TOD   Tromm             150.00 353   PKHKP    PKPbc     05 47 28.0 -1.1
RUP   Ruppelstein       150.07 355   PKP      PKPbc     05 47 28.9 -0.4
RUP   Ruppelstein       150.07 355   PKHKP    PKPbc     05 47 28.9 -0.4
WLF   Walferdange       150.17 356  ePKPbc    PKPbc     05 47 29.0 -0.5
WLF   Walferdange       150.17 356  ePKHKP    PKPbc     05 47 29.0 -0.5
WLF   Walferdange       150.17 356   PKPbc    PKPbc     05 47 29.5  0.0
WLF   Walferdange       150.17 356  ePKPbc    PKPbc     05 47 29.1 -0.4
WLF                                 ePKPab    PKPab     05 47 35.6 -0.6
CONA  Conrad Observa    150.22 343⇑iPKPdf     PKPdf     05 47 22.7 -1.7
      comp=Z,3.0nm,0.9s,SNR=32
CONA                              ⇓iPKiKP     PKiKP     05 47 29.3 -1.1
      comp=Z,51nm,0.9s
BZS   Buzias            150.23 334   P        PKPbc     05 47 29.0 -0.8
BZS   Buzias            150.23 334   PKIKP    PKPbc     05 47 29.0 -0.8
BZS   Buzias            150.23 334⇑iP         PKPbc     05 47 28.8 -1.0
SOP   Sopron            150.25 342⇓iPKP/p     PKPbc     05 47 29.2 -0.6
MOA   Molln             150.71 345⇑iP         PKPdf     05 47 23.7 -1.5
      comp=Z,5.4nm,1.4s,SNR=11
MOA   Molln             150.71 345⇓i          PKPbc     05 47 29.8 -1.1
      comp=Z,28nm,0.9s
MOA   Molln             150.71 345⇑iPKPdf     PKPdf     05 47 23.7 -1.5
      comp=Z,5.4nm,1.4s,SNR=11
MOA                               ⇓iPKPbc     PKPbc     05 47 29.8 -1.1
      comp=Z,28nm,0.9s
LANF  Langenberg        150.72 354   PKP      PKPbc     05 47 30.1 -0.7
LANF  Langenberg        150.72 354   PKP      PKPbc     05 47 30.1 -0.7
LANF  Langenberg        150.72 354   PKIKP    PKPbc     05 47 30.1 -0.7
STU   Stuttgart         150.77 352  ePKPbc    PKPbc     05 47 30.0 -0.9
PKSM  Moragy            150.88 338 ⇓P         PKPbc     05 47 30.0 -1.3
PKSM  Moragy            150.88 338 ⇓PKIKP     PKPbc     05 47 30.0 -1.3
PKSM  Moragy            150.88 338⇓iP         PKPbc     05 47 30.0 -1.3
ARSA  Arzberg           150.94 343⇑iP         PKPdf     05 47 25.0 -0.5
      comp=Z,1.9nm,0.8s,SNR=11
ARSA  Arzberg           150.94 343⇓i          PKPbc     05 47 30.2 -1.2
      comp=Z,22nm,1.0s
ARSA  Arzberg           150.94 343⇑iPKPdf     PKPdf     05 47 25.0 -0.5
      comp=Z,1.9nm,0.8s,SNR=11
ARSA                              ⇓iPKPbc     PKPbc     05 47 30.2 -1.2
      comp=Z,22nm,1.0s
FLN   La Foliniere      150.98   5  ePKP      PKPbc     05 47 29.6 -1.8
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FLN	La Foliniere	150.98	5	ePKIKP	PKPbc	05 47 29.6	-1.8
FLN	La Foliniere	150.98	5	ePKP1	PKPbc	05 47 29.6	-1.8
	comp=Z,40nm,0.6s						
FUR	Furstenfeldbru	151.04	349	ePKPbc	PKPbc	05 47 30.5	-1.1
FUR	Furstenfeldbru	151.04	349	ePKIKP	PKPbc	05 47 30.5	-1.1
FUR	Furstenfeldbru	151.04	349	ePKPbc	PKPbc	05 47 30.5	-1.1
ROSF	Rostrenen	151.06	9	ePKP	PKPbc	05 47 29.6	-2.1
ROSF	Rostrenen	151.06	9	ePKIKP	PKPbc	05 47 29.6	-2.1
ROSF	Rostrenen	151.06	9	ePKP1	PKPbc	05 47 29.6	-2.1
LDF	La Druitiere	151.18	5	ePKP	PKPbc	05 47 29.9	-2.0
LDF	La Druitiere	151.18	5	ePKIKP	PKPbc	05 47 29.9	-2.0
LDF	La Druitiere	151.18	5	ePKP1	PKPbc	05 47 29.9	-2.0
	comp=Z,27nm,0.7s						
BFO	Black Forest	151.31	353	ePKPbc	PKPbc	05 47 31.1	-1.1
BFO	Black Forest	151.31	353	ePKIKP	PKPbc	05 47 31.1	-1.1
BFO	Black Forest	151.31	353	ePKPbc	PKPbc	05 47 31.1	-1.1
GRR	Gorron	151.31	6	ePKP	PKPbc	05 47 30.4	-1.8
GRR	Gorron	151.31	6	ePKIKP	PKPbc	05 47 30.4	-1.8
GRR	Gorron	151.31	6	ePKP1	PKPbc	05 47 30.4	-1.8
	comp=Z,48nm,0.6s						
CDF	Champ du Feu	151.33	355	ePKP	PKPbc	05 47 30.8	-1.5
CDF	Champ du Feu	151.33	355	ePKIKP	PKPbc	05 47 30.8	-1.5
CDF	Champ du Feu	151.33	355	ePKP1	PKPbc	05 47 30.8	-1.5
	comp=Z,73nm,0.9s						
MEZF	Maizieres J'vi	151.38	358	ePKP	PKPbc	05 47 31.2	-1.2
MEZF	Maizieres J'vi	151.38	358	ePKP1	PKPbc	05 47 31.2	-1.2
	comp=Z,91nm,1.0s						
SPAK	Spaichingen-Ko	151.48	352	PKP	PKPbc	05 47 31.2	-1.4
QUIF	Quistinic	151.49	9	ePKP	PKPbc	05 47 30.5	-2.1
QUIF	Quistinic	151.49	9	ePKIKP	PKPbc	05 47 30.5	-2.1
QUIF	Quistinic	151.49	9	ePKP1	PKPbc	05 47 30.5	-2.1
ECH	Echery	151.54	355	PKP	PKPbc	05 47 31.2	-1.5
ECH	Echery	151.54	355	PKP	PKPbc	05 47 31.2	-1.5
ECH	Echery	151.54	355	PKIKP	PKPbc	05 47 31.2	-1.5
THEF	They Montfort	151.61	356	PKP	PKPbc	05 47 32.1	-0.8
THEF	They Montfort	151.61	356	PKP	PKPbc	05 47 32.1	-0.8
THEF	They Montfort	151.61	356	PKIKP	PKPbc	05 47 32.1	-0.8
PERS	Pernice	151.61	343	i PKPbc	PKPbc	05 47 31.4	-1.6
PERS				i PKPab	PKPab	05 47 41.7	-0.6
PERS	Pernice	151.61	343	i PKPbc	PKPbc	05 47 31.4	-1.6
PERS				i PKPab	PKPab	05 47 41.7	-0.6
KBA	Koelnbreinsper	151.65	346	⇑iP	PKPdf	05 47 23.7	-2.9
	comp=Z,4.4nm,0.6s,SNR=8.4						
KBA	Koelnbreinsper	151.65	346	⇑i	PKPbc	05 47 31.8	-1.2
	comp=Z,44nm,0.8s						
KBA	Koelnbreinsper	151.65	346	⇑iPKPdf	PKPdf	05 47 23.7	-2.9
	comp=Z,4.4nm,0.6s,SNR=8.4						
KBA				⇑iPKPbc	PKPbc	05 47 31.8	-1.2
	comp=Z,44nm,0.8s						
KBA	Koelnbreinsper	151.65	346	⇑iPKIKP	PKPdf	05 47 23.7	-2.9
KBA				i		05 47 31.8	
WATA	Walderalm	151.78	348	⇓i	PKPbc	05 47 32.2	-1.1
	SNR=10						
WATA	Walderalm	151.78	348	⇓iPKPbc	PKPbc	05 47 32.2	-1.1
	SNR=10						
WATA	Walderalm	151.78	348	i PKIKP	PKPbc	05 47 32.2	-1.1
FELD	Feldberg im Sc	151.79	353	PKP	PKPbc	05 47 32.1	-1.2
HAU	Haudompre	151.81	356	ePKP	PKPbc	05 47 31.8	-1.6
HAU	Haudompre	151.81	356	ePKIKP	PKPbc	05 47 31.8	-1.6
HAU	Haudompre	151.81	356	ePKP1	PKPbc	05 47 31.8	-1.6
	comp=Z,49nm,0.8s						
WTTA	Wattenberg	151.84	348	⇑iP	PKPdf	05 47 26.1	-0.8
	comp=Z,3.7nm,1.0s,SNR=39						
WTTA	Wattenberg	151.84	348	⇓i	PKPbc	05 47 32.7	-0.7
	comp=Z,83nm,0.7s						
WTTA	Wattenberg	151.84	348	⇑iPKPdf	PKPdf	05 47 26.1	-0.8
	comp=Z,3.7nm,1.0s,SNR=39						
WTTA				⇓iPKiKP	PKiKP	05 47 32.7	-1.0
	comp=Z,83nm,0.7s						
WTTA	Wattenberg	151.84	348	⇑iPKIKP	PKPdf	05 47 26.1	-0.8
WTTA				i		05 47 32.7	
VTS	Vitosha	151.84	328	P	PKPbc	05 47 32.8	-0.8
VTS	Vitosha	151.84	328	⇑PKIKP	PKPbc	05 47 32.9	-0.7
VTS	Vitosha	151.84	328	⇑iP	PKPbc	05 47 32.9	-0.7
MOTA	Moosalm	151.86	349	⇑iP	PKPdf	05 47 25.5	-1.4
	comp=Z,6.7nm,1.1s,SNR=20						
MOTA	Moosalm	151.86	349	⇓i	PKPbc	05 47 32.3	-1.2
	comp=Z,42nm,0.9s						
MOTA	Moosalm	151.86	349	⇑iPKPdf	PKPdf	05 47 25.5	-1.4
	comp=Z,6.7nm,1.1s,SNR=20						
MOTA				⇓iPKPbc	PKPbc	05 47 32.3	-1.2
	comp=Z,42nm,0.9s						
MOTA	Moosalm	151.86	349	⇑iPKIKP	PKPdf	05 47 25.5	-1.4
MOTA				i		05 47 32.3	
OBKA	Obir	151.88	344	⇑iP	PKPdf	05 47 27.9	+0.9
	comp=Z,3.3nm,0.9s,SNR=8.4						
OBKA	Obir	151.88	344	⇓i	PKPbc	05 47 32.1	-1.4
	comp=Z,16nm,0.8s						
OBKA	Obir	151.88	344	⇑iP	PKPdf	05 47 27.9	+0.9
OBKA				i		05 47 32.1	
OBKA	Obir	151.88	344	⇑ePKPdf	PKPdf	05 47 25.5	-1.5
	comp=Z,3.3nm,0.9s,SNR=8.4						
OBKA				⇓iPKPbc	PKPbc	05 47 32.1	-1.4
	comp=Z,16nm,0.8s						
MOF	Molkenrain	151.90	355	PKP	PKPbc	05 47 31.9	-1.7
MOF	Molkenrain	151.90	355	PKP	PKPbc	05 47 31.9	-1.7
MOF	Molkenrain	151.90	355	PKIKP	PKPbc	05 47 31.9	-1.7
HINF	Hinteralfeld	151.96	355	ePKP	PKPbc	05 47 31.9	-1.8
HINF	Hinteralfeld	151.96	355	ePKIKP	PKPbc	05 47 31.9	-1.8
HINF	Hinteralfeld	151.96	355	ePKP1	PKPbc	05 47 31.9	-1.8
	comp=Z,36nm,0.8s						
SQTA	Sankt Quirin	151.97	349	⇑iP	PKPdf	05 47 26.0	-1.0
	comp=Z,6.4nm,1.0s						
SQTA	Sankt Quirin	151.97	349	⇓i	PKPbc	05 47 32.8	-0.9
	comp=Z,39nm,0.7s						
SQTA	Sankt Quirin	151.97	349	⇑iPKPdf	PKPdf	05 47 26.0	-1.0
	comp=Z,6.4nm,1.0s						
SQTA				⇓iPKiKP	PKiKP	05 47 32.8	-1.2
	comp=Z,39nm,0.7s						
SQTA	Sankt Quirin	151.97	349	⇑iPKIKP	PKPdf	05 47 26.0	-1.1
SQTA				i		05 47 32.8	
DAVA	Damuels	152.13	351	⇑i	PKPbc	05 47 33.4	-0.7
	comp=Z,58nm,1.1s						
DAVA	Damuels	152.13	351		PKPbc	05 47 33.4	-0.7
	comp=Z,58nm,1.1s						
ABTA	Abfaltersbach	152.15	347	⇑iPKPdf	PKPdf	05 47 25.7	-1.7
	comp=Z,6.0nm,0.8s,SNR=23						
ABTA				⇓iPKPbc	PKPbc	05 47 32.6	-1.6
	comp=Z,67nm,0.8s						
SEST	Monte Rota	152.22	347	PKP	PKPbc	05 47 33.3	-1.0
FVI	Forni Avoltri	152.24	346	i PKPu	PKPbc	05 47 32.7	-1.7
FVI	Forni Avoltri	152.24	346	i PKIKP	PKPbc	05 47 32.7	-1.7
FETA	Feichten	152.24	349	⇓iPKPdf	PKPdf	05 47 27.1	-0.4
	comp=Z,9.3nm,1.1s,SNR=13						
FETA				⇓iPKiKP	PKiKP	05 47 33.6	-1.1
	comp=Z,47nm,0.9s						
BBS	Basel-Blauen	152.25	354	PKP	PKPbc	05 47 32.7	-1.7
BBS	Basel-Blauen	152.25	354	PKIKP	PKPbc	05 47 32.7	-1.7
LJU	Ljubljana	152.32	343	i PKPdf	PKPdf	05 47 26.7	-0.9
LJU				i PKPbc	PKPbc	05 47 33.4	-1.1
LJU	Ljubljana	152.32	343	i PKIKP	PKPdf	05 47 26.7	-0.9
LJU				i		05 47 33.4	
LJU	Ljubljana	152.32	343	i PKPdf	PKPdf	05 47 26.7	-0.9
LJU				i PKPbc	PKPbc	05 47 33.4	-1.1
LJU				ePKPab	PKPab	05 47 40.5	-4.8
VOJS	Vojsko	152.50	344	i PKPdf	PKPdf	05 47 26.2	-1.6
VOJS				i PKPbc	PKPbc	05 47 33.4	-1.6
VOJS				i PKPab	PKPab	05 47 44.4	-1.6
VOJS	Vojsko	152.50	344	i PKPdf	PKPdf	05 47 26.2	-1.6
VOJS				i PKPbc	PKPbc	05 47 33.4	-1.6
VOJS				i PKPab	PKPab	05 47 44.4	-1.6
BOJS	Bojanci	152.61	342	i PKPbc	PKPbc	05 47 34.4	-0.8
BOJS	Bojanci	152.61	342	i PKPbc	PKPbc	05 47 34.4	-0.8
CEY	Cerknica	152.63	343	i PKPdf	PKPdf	05 47 26.5	-1.6
CEY				i PKPbc	PKPbc	05 47 34.0	-1.2
CEY				i PKPab	PKPab	05 47 45.5	-1.1
CEY	Cerknica	152.63	343	i PKPdf	PKPdf	05 47 26.5	-1.6
CEY				i PKPbc	PKPbc	05 47 34.0	-1.2
CEY				i PKPab	PKPab	05 47 45.5	-1.1
HYF	Humbligny	152.64	1	ePKP	PKPbc	05 47 34.1	-1.1
HYF	Humbligny	152.64	1	ePKP1	PKPbc	05 47 34.1	-1.1
LOR	Lormes	152.64	359	ePKP	PKPbc	05 47 33.7	-1.6
LOR	Lormes	152.64	359	ePKIKP	PKPbc	05 47 33.7	-1.6
LOR	Lormes	152.64	359	ePKP1	PKPbc	05 47 33.7	-1.6
	comp=Z,45nm,1.0s						
BRMO	Bormio	152.83	349	i PKPu	PKPbc	05 47 35.1	-0.6
SSF	Saint Saulge	152.85	360	ePKP	PKPbc	05 47 34.3	-1.4
SSF	Saint Saulge	152.85	360	ePKIKP	PKPbc	05 47 34.3	-1.4
SSF	Saint Saulge	152.85	360	ePKP1	PKPbc	05 47 34.3	-1.4
	comp=Z,38nm,1.0s						
CTI	Castel Tesino	153.00	347	i PKPu	PKPbc	05 47 34.8	-1.3
CTI	Castel Tesino	153.00	347	i PKIKP	PKPbc	05 47 34.8	-1.3
STIP	Stip	153.02	328	ePKP	PKPdf	05 47 26.9	-1.9
AVF	Avril sur Loir	153.12	0	ePKP	PKPbc	05 47 34.5	-1.8
AVF	Avril sur Loir	153.12	0	ePKIKP	PKPbc	05 47 34.5	-1.8
AVF	Avril sur Loir	153.12	0	ePKP1	PKPbc	05 47 34.5	-1.8
	comp=Z,18nm,1.0s						
MFF	Saint Martin d	153.15	5	ePKP	PKPbc	05 47 34.5	-1.9
MFF	Saint Martin d	153.15	5	ePKIKP	PKPbc	05 47 34.5	-1.9
MFF	Saint Martin d	153.15	5	ePKP1	PKPbc	05 47 34.5	-1.9
	comp=Z,18nm,0.7s						
CABF	La Chapelle	153.21	356	ePKP	PKPbc	05 47 35.6	-0.9
CABF	La Chapelle	153.21	356	ePKIKP	PKPbc	05 47 35.6	-0.9
CABF	La Chapelle	153.21	356	ePKP1	PKPbc	05 47 35.6	-0.9
	comp=Z,58nm,1.0s						
SMF	Signal de Mont	153.27	359	ePKP	PKPbc	05 47 34.8	-1.8
SMF	Signal de Mont	153.27	359	ePKIKP	PKPbc	05 47 34.8	-1.8
SMF	Signal de Mont	153.27	359	ePKP1	PKPbc	05 47 34.8	-1.8
	comp=Z,23nm,1.2s						
BGF	Bois d'Agland	153.35	1	ePKP	PKPbc	05 47 35.2	-1.6
BGF	Bois d'Agland	153.35	1	ePKIKP	PKPbc	05 47 35.2	-1.6
BGF	Bois d'Agland	153.35	1	ePKP1	PKPbc	05 47 35.2	-1.6
	comp=Z,15nm,0.7s						
TCF	Toulx Ste Croi	153.61	2	ePKP	PKPbc	05 47 35.6	-1.8
TCF	Toulx Ste Croi	153.61	2	ePKIKP	PKPbc	05 47 35.6	-1.8
TCF	Toulx Ste Croi	153.61	2	ePKP1	PKPbc	05 47 35.6	-1.8
	comp=Z,14nm,0.7s						
VAI	Varese	153.68	352	i PKPu	PKPbc	05 47 36.3	-1.2
VAI	Varese	153.68	352	i PKIKP	PKPbc	05 47 36.3	-1.2
KRUS	Krusevo	153.73	329	ePKP	PKPdf	05 47 27.9	-1.9
KRUS				ePKP	PKPbc	05 47 34.9	-2.9
PLDF	La Plantade	153.94	360	PKP	PKPbc	05 47 36.2	-1.9
PLDF	La Plantade	153.94	360	PKP	PKPbc	05 47 36.2	-1.9
PLDF	La Plantade	153.94	360	PKIKP	PKPbc	05 47 36.2	-1.9
BIA	Bitola	153.95	328	ePKP	PKPdf	05 47 28.1	-2.1
BIA				ePKP	PKPbc	05 47 34.9	-3.4
ORO	Oropa	154.01	353	i PKPu	PKPbc	05 47 36.9	-1.4
ORO	Oropa	154.01	353	i PKIKP	PKPbc	05 47 36.9	-1.4
PYM	Petit Puy Mans	154.16	1	PKP	PKPbc	05 47 38.0	-0.6
PYM	Petit Puy Mans	154.16	1	PKP	PKPbc	05 47 38.0	-0.6
PYM	Petit Puy Mans	154.16	1	PKIKP	PKPbc	05 47 38.0	-0.6
LPL	La Plagne	154.25	355	ePKP	PKPbc	05 47 38.1	-0.7
LPL	La Plagne	154.25	355	ePKIKP	PKPbc	05 47 38.1	-0.7
LPL	La Plagne	154.25	355	ePKP1	PKPbc	05 47 38.1	-0.7
	comp=Z,15nm,1.0s						
LPG	La Plagne	154.27	355	ePKP	PKPbc	05 47 38.1	-0.7
LPG	La Plagne	154.27	355	ePKIKP	PKPbc	05 47 38.1	-0.7
LPG	La Plagne	154.27	355	ePKP1	PKPbc	05 47 38.1	-0.7
	comp=Z,33nm,1.2s						
BNI	Bardonecchia	154.72	355	ePKPbc	PKPbc	05 47 39.6	-0.2
BNI				ePKPab	PKPab	05 47 55.4	-0.1
BNI	Bardonecchia	154.72	355	ePKIKP	PKPbc	05 47 39.6	-0.2
BNI				e		05 47 55.4	
ORIF	Oris-en-Rattie	154.91	356	ePKP	PKPbc	05 47 38.9	-1.3
ORIF	Oris-en-Rattie	154.91	356	ePKIKP	PKPbc	05 47 38.9	-1.3
ORIF	Oris-en-Rattie	154.91	356	ePKP1	PKPbc	05 47 38.9	-1.3
	comp=Z,9.2nm,0.8s						
MBDF	Montbardon	155.03	354	ePKP	PKPdf	05 47 39.2	+7.7
MBDF	Montbardon	155.03	354	ePKIKP	PKPdf	05 47 39.2	+7.7
MBDF	Montbardon	155.03	354	ePKP1	PKPdf	05 47 39.2	+7.7
	comp=Z,14nm,0.7s						
VIVF	Saint-Julien-l	155.04	358	ePKP	PKPdf	05 47 39.2	+7.7
VIVF	Saint-Julien-l	155.04	358	ePKIKP	PKPdf	05 47 39.2	+7.7
VIVF	Saint-Julien-l	155.04	358	ePKP1	PKPdf	05 47 39.2	+7.7
	comp=Z,18nm,1.1s						
LASF	Ste Croix	155.84	359	ePKP	PKPdf	05 47 41.0	+8.4
LASF	Ste Croix	155.84	359	ePKP1	PKPdf	05 47 41.0	+8.4
	comp=Z,17nm,1.0s						
FRF	La Foret Royal	156.20	354	ePKP	PKPdf	05 47 39.8	+6.7
FRF	La Foret Royal	156.20	354	ePKIKP	PKPdf	05 47 39.8	+6.7
FRF	La Foret Royal	156.20	354	ePKP1	PKPdf	05 47 39.8	+6.7
LMR	La Mourre	156.44	354	ePKP	PKPdf	05 47 40.8	+7.4
LMR	La Mourre	156.44	354	ePKIKP	PKPdf	05 47 40.8	+7.4
LMR	La Mourre	156.44	354	ePKP1	PKPdf	05 47 40.8	+7.4
PBRG	Braganca	156.47	19	ePKPab	PKPab	05 48 02.0	-1.1
PVRL	Vila Real	156.62	22	ePKPab	PKPab	05 48 03.1	-0.7
MVO	Moncorvo	156.96	20	ePKPab	PKPab	05 48 04.6	-0.6
PVIS	Viseu	157.06	23	ePKPab	PKPab	05 48 04.9	-0.8
MTE	Manteigas	157.46	22	ePKPab	PKPab	05 48 06.8	-0.6
PTOM	Tomar	157.81	25	ePKPab	PKPab	05 48 07.8	-1.2
PCBR	Castelo Branco	157.98	23	ePKPab	PKPab	05 48 08.5	-1.2
PESTR	Estremoz	158.78	24	ePKPab	PKPab	05 48 12.2	-1.0
ESDC	Sonseca Array	159.24	16	PKPab	PKPab	05 48 14.3	-0.8
	comp=Z,3.4nm,0.8s,baz=337,slow=4.2,SNR=13						
KEST	Kesra	163.34	343	PKP	PKPdf	05 47 40.1	-1.3
	comp=Z,0.6nm,0.9s,baz=206,slow=13,SNR=3.5						
KEST				PKPab	PKPab	05 48 32.5	-0.6
	comp=Z,4.6nm,0.9s,baz=318,slow=2.9,SNR=10						
TORD	Torodi Ar. Bea	173.14	166	PKP	PKPdf	05 47 46.0	-2.5
TORD				PKPab	PKPab	05 49 16.1	-0.8
TORD				pPKPab	pPKPab	05 50 15.8	+7.3
TORD				PP	PP	05 53 02.0	-5.3
TORD	Torodi Ar. Bea	173.14	166	PKP	PKPdf	05 47 46.0	-2.5
	comp=Z,1.1nm,0.8s,baz=264,slow=1.9,SNR=7.9						
TORD				PKPab	PKPab	05 49 16.1	-0.8
	comp=Z,3.2nm,0.8s,baz=200,slow=4.2,SNR=17						
TORD				pPKPab	pPKPab	05 50 15.8	+7.3
	comp=Z,2.8nm,1.0s,baz=357,slow=3.8,SNR=8.5						
TORD				PP	PP	05 53 02.0	-5.3
	comp=Z,1.0nm,0.9s,baz=196,slow=1.6,SNR=4.1						

ISCJB ***03*** *05:31:05.2±0.6, 11.00N±0.03×61.78W±0.03, h74^{km}±6^{km}, Error ellipse: s-maj=5.8km s-min=4.3km az=20.8*
FUNV ***03*** *05:31:07.6, 10.98N×61.74W, h57^{km}, MW3.2*
NEIC ***03*** *05:31:08.0, 11.13N×61.62W, h24^{km}, MD3.0(TRN), After TRN.*
TRN ***03*** *05:31:08.0, 11.13N×61.62W, h24^{km}, MD3.0*
TRN Felt (II) in Cascade, Trinidad.
ISC 03 05:31:06.4±0.6**, 11.01N**±0.03×**61.78W**±0.03**, h65**^{km}±7^{km}**, n23, σ1**^{s}**10**/42**, 1C, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TCE	Chacachacare	0.32	175	eP	Pn	05 31 17.6	+0.4
TCE				eS	Sn	05 31 24.1	-0.9
TRN	Trinidad (W)	0.52	134	eP	Pn	05 31 18.9	-0.1
TRN				eS	Sn	05 31 27.1	-1.1
GUIV	Guiria	0.57	230	eP	Pn	05 31 19.6	+0.1
GUIV				eS	Sn	05 31 29.4	+0.3
TPP	Pointe-a-Pierr	0.76	155	eP	Pn	05 31 24.1	+2.4
TPP				eS	Sn	05 31 35.4	+2.4
TBH	Brigand Hill	0.88	127	eP	Pn	05 31 24.9	+1.8
TBH				eS	Sn	05 31 36.0	+0.6
TPR	Prospect	1.00	80	eP	Pn	05 31 23.8	-0.9
TPR				eS	Sn	05 31 36.0	-2.2
GRW	Mount Saint Ca	1.15	6	eP	Pn	05 31 27.0	+0.4
GRW				eS	Sn	05 31 41.5	-0.1
GRHS	Sauteurs	1.21	6	eP	Pn	05 31 27.8	+0.3
GRHS				eS	Sn	05 31 42.6	-0.5
GRIC	Isle de Caille	1.28	9	eP	Pn	05 31 28.4	+0.1
GRIC				eS	Sn	05 31 44.0	-0.7
GRIC				eS	Sn	05 31 44.3	-0.4
GRSS	Sisters	1.29	7	eP	Pn	05 31 29.1	+0.7
GRSS				eS	Sn	05 31 44.2	-0.7
ITEV	Isla Los Testi	1.37	285	eP	Pn	05 31 30.2	+0.8
ITEV				eS	Sn	05 31 47.5	+0.6
GUNV	Guanoco	1.42	234	eP	Pn	05 31 31.3	+1.1
GUNV				eS	Sn	05 31 48.7	+0.7
CRUV	Carupano	1.47	257	eP	Pn	05 31 31.5	+0.7
CRUV				eS	Sn	05 31 48.8	-0.4
IBAV	Isla La Blanqu	2.86	287	eP	Pn	05 31 49.9	+0.3
RIOV	Rio Grande	2.92	181	eP	Pn	05 31 51.1	+0.6
RIOV				eS	Sn	05 32 22.0	-2.5
PCRV	Puerto La Cruz	2.93	254	eP	Pn	05 31 51.3	+0.7
PCRV				eS	Sn	05 32 22.5	-2.2
GURV	El Guri	3.48	202	eP	Pn	05 31 58.0	-0.2
PRGV	PARIAGUAN	3.60	232	⇑iP	Pn	05 32 00.3	+0.5
PRGV				eS	Sn	05 32 38.5	-2.6
CUPV	Cœpira	4.05	257	eP	Pn	05 32 07.1	+1.2
CUPV				eS	Sn	05 32 49.6	-2.6
BIRV	Birongo	4.44	264	eP	Pn	05 32 11.6	+0.3
LUEV	Luepa	5.15	176	eP	Pn	05 32 19.3	-1.6
CAOV	Caicara del Or	5.79	231	eP	Pn	05 32 29.3	-0.4
CAOV				eS	Sn	05 33 29.3	-5.6
BAUV	El Baul	6.50	252	eP	Pn	05 32 39.8	+0.3

IDC 03 05:37:36.4±1.9**, 0.93N**×**126.09E, h0**^{km}**, mb3.9**/3**, mb1 4.1**/3**, mb1mx3.7**/15**, mbtmp4.0**/3**, Error ellipse: s-maj=217.3km s-min=24.6km az=63.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.27	159	P	P	05 42 35.3	+0.1
	2.6nm,0.4s,baz=338,slow=11,SNR=7.9						
STKA	Stephens Creek	35.78	157	P	P	05 44 37.2	-0.1
	0.7nm,0.3s,baz=337,slow=11,SNR=6.1						
MKAR	Makanchi Array	59.50	326	P	P	05 47 41.4	+0.1
	0.5nm,0.4s,baz=125,slow=7.1,SNR=10						

IDC ***03*** *06:19:52.6±1.0, 23.70N×143.13E, h0^{km}, mb3.9/6, mb1 4.0/9, mb1mx3.8/19, mbtmp3.9/9, ML3.9/3, MS3.0/1, Ms1 3.0/1, ms1mx2.1/33, Error ellipse: s-maj=44.4km s-min=18.6km az=79.0*
ISCJB ***03*** *06:19:55.1±5.0, 23.72N±0.08×143.0E±0.3, h28^{km}±35^{km}, mb4.0/7, Error ellipse: s-maj=44.1km s-min=12.0km az=173.3*
NEIC ***03*** *06:19:57.8±0.7, 23.76N×143.09E, h35^{km}, Error ellipse: s-maj=35.1km s-min=10.7km az=82.0*
ISC 03 06:19:56.9±4.9**, 23.73N**±0.08×**143.0E**±0.3**, h27**^{km}±34^{km}**, n14, σ0**^{s}**55**/14**, mb4.0**/7**, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	3.44	347	Pn	Pn	06 20 49.5	+0.9
	22nm,0.3s,baz=311,slow=20,SNR=4.6						
CBIJ				Sn	Sn	06 21 28.5	0.0
	56nm,0.3s,baz=298,slow=22,SNR=12						
MJAR	Matsushiro Arr	13.43	343	Pn	Pn	06 23 05.0	-0.7
MJAR	Matsushiro Arr	13.43	343	Pn	Pn	06 23 05.0	-0.7
	0.5nm,0.3s,baz=158,slow=12,SNR=4.5						
JNU	Nakatsue	14.20	314	LR	LR	06 27 41.3	
	comp=Z,57nm,18.3s,baz=222,slow=33						
KSRS	Korea Array	18.84	320	P	Pn	06 24 14.9	-0.5
	0.3nm,0.3s,baz=131,slow=11,SNR=2.8						
WB2	Warramunga Arr	44.23	192	eP	P	06 28 04.4	+0.5
WRA	Warramunga Arr	44.23	192	P	P	06 28 03.9	0.0
WRA				PcP	PcP	06 29 48.3	0.0
WRA	Warramunga Arr	44.23	192	P	P	06 28 03.9	0.0
	0.9nm,0.3s,mb4.0,baz=13,slow=8.5,SNR=3.4						
WRA				PcP	PcP	06 29 48.3	0.0
	0.9nm,0.3s,baz=3.4,slow=3.2,SNR=6.4						
ZALV	Zalesovo Beam	52.55	321	P	P	06 29 07.7	0.0
	0.4nm,0.3s,mb3.8,baz=95,slow=9.4,SNR=2.6						
MKAR	Makanchi Array	53.24	312	P	P	06 29 14.1	+1.1
	0.6nm,0.6s,mb3.7,baz=91,slow=8.9,SNR=13						
STKA	Stephens Creek	55.31	181	P	P	06 29 27.5	-0.6
	1.1nm,0.6s,mb4.1,baz=345,slow=10,SNR=4.3						
YKA	Yellowknife Ar	74.73	28	P	P	06 31 34.1	+0.2
	0.4nm,0.6s,mb3.5,baz=291,slow=5.7,SNR=7.1						
JOF	Joensuu	78.43	334	ep	P	06 31 54.2	-0.7
	3.5nm,0.6s,mb4.5						
FINES	FINESS Array B	81.30	334	P	P	06 32 10.4	-0.1
	2.9nm,1.0s,mb4.2,baz=68,slow=5.2,SNR=8.9						

ISCJB ***03*** *06:32:57.3±0.5, 51.50N±0.03×16.13E±0.03, h0^{km}, Error ellipse: s-maj=3.8km s-min=2.9km az=17.9*
NEIC ***03*** *06:32:60.0±1.1, 51.48N×16.12E, h5^{km}, MG2.6(WAR), Error ellipse: s-maj=13.0km s-min=4.7km az=190.0*
WAR ***03*** *06:33:01.2, 51.46N×16.10E, ML2.6, Mining Induced*
PRU ***03*** *06:33:01.8, 51.39N×16.08E, h0^{km}*
IDC ***03*** *06:33:01.1±1.2, 51.42N×16.13E, h0^{km}, mb1 4.0/2, mb1mx3.3/17, mbtmp3.9/2, ML2.4/3, Error ellipse: s-maj=21.0km s-min=10.5km az=109.0*
CSEM ***03*** *06:33:02.2±0.2, 51.41N×16.07E, h2^{km}, ML3.1/3, Error ellipse: s-maj=4.0km s-min=1.8km az=179.0*
ISC 03 06:32:59.0±0.5**, 51.50N**±0.02×**16.14E**±0.03**, h0**^{km}**, n53, σ1**^{s}**04**/92**, 2D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.66	171	ePg	Pg	06 33 12.6	+1.0
KSP				eSg	Sg	06 33 21.2	+1.0
KSP	Ksiaz	0.66	171	⇓iPg	Pg	06 33 12.6	+1.0
KSP				eSg	Sg	06 33 21.0	+0.8
KSP	Ksiaz	0.66	171	⇓iPg	Pg	06 33 12.6	+1.0
KSP				eSg	Sg	06 33 21.0	+0.8
UPC	Upice	0.99	185	ePg	Pg	06 33 18.5	+0.5
UPC	Upice	0.99	185	ePG	Pg	06 33 18.5	+0.5
UPC	Upice	0.99	185	ePg	Pg	06 33 18.5	+0.5
DPC	Dobruska-Polom	1.15	174	ePg	Pg	06 33 21.3	+0.2
DPC				eSg	Sg	06 33 35.7	-0.3
DPC	Dobruska-Polom	1.15	174	ePG	Pg	06 33 21.3	+0.2
DPC				eSG	Sg	06 33 35.7	-0.3
	17nm,0.4s						
DPC	Dobruska-Polom	1.15	174	ePg	Pg	06 33 21.3	+0.2
DPC				eSg	Sg	06 33 35.7	-0.3
PVCC	Panska Ves	1.39	226	ePg	Pg	06 33 26.0	+0.5
PVCC				eSg	Sg	06 33 44.1	+0.7
PVCC	Panska Ves	1.39	226	ePG	Pg	06 33 26.0	+0.5
PVCC				eSG	Sg	06 33 44.1	+0.7
	98nm,0.3s						
PVCC	Panska Ves	1.39	226	ePg	Pg	06 33 26.0	+0.5
PVCC				eSg	Sg	06 33 44.1	+0.7
BRG	Berggiesshubel	1.51	246	Pg	Pg	06 33 28.2	+0.2
BRG				Sg	Sg	06 33 48.5	+1.0
BRG	Berggiesshubel	1.51	246	Pg	Pg	06 33 28.2	+0.2
BRG				Sg	Sg	06 33 48.5	+0.9
PRU	Pruhonice	1.82	214	ePn	Pn	06 33 31.5	+0.1
PRU				ePg	Pg	06 33 32.8	-1.0
PRU				eSg	Sg	06 33 55.9	-1.4
PRU	Pruhonice	1.82	214	ePN	Pn	06 33 31.5	+0.1
PRU				ePG	Pg	06 33 32.8	-1.0
PRU				eSG	Sg	06 33 55.9	-1.4
	15nm,0.6s						
PRU	Pruhonice	1.82	214	ePn	Pn	06 33 31.5	+0.1
MORC	Moravsky Berou	1.94	152	ePn	Pn	06 33 33.5	+0.3
MORC				eSn	Sn	06 33 57.8	-0.4
MORC	Moravsky Berou	1.94	152	ePn	Pn	06 33 33.5	+0.4
CLL	Collm	1.97	266	i Pg	Pg	06 33 36.3	-0.4
CLL				i Sg	Sg	06 34 03.7	+1.5
CLL	Collm	1.97	266	i Pg	Pg	06 33 36.3	-0.4
CLL				LmV		06 10 00.0	
	comp=Z,1μm,19.3s						
CLL				i Sg	Sg	06 34 03.7	+1.5
	comp=Z,12nm,0.5s						
CLL	Collm	1.97	266	i Pg	Pg	06 33 36.3	-0.4
CLL				i Sg	Sg	06 34 03.7	+1.5
OKC	Ostrava-Krasne	2.10	142	ePg	Pg	06 33 38.9	-0.2
OKC				eSg	Sg	06 34 04.5	-1.8
OKC	Ostrava-Krasne	2.10	142	ePG	Pg	06 33 38.9	-0.2
OKC				eSG	Sg	06 34 04.5	-1.8
	comp=Z,20nm,0.6s						
OKC	Ostrava-Krasne	2.10	142	ePg	Pg	06 33 38.9	-0.2
OKC				eSg	Sg	06 34 04.5	-1.8
VRAC	Vranov	2.21	172	Pn	Pn	06 33 37.4	+0.6
VRAC				Lg		06 34 09.8	
VRAC	Vranov	2.21	172	Pn	Pn	06 33 37.4	+0.6
	comp=Z,1.2nm,0.3s,baz=342,slow=13,SNR=8.7						
VRAC				Lg		06 34 09.8	
	comp=Z,2.5nm,0.3s,baz=78,slow=21,SNR=9.2						
VRAC	Vranov	2.21	172	Pn	Pn	06 33 37.4	+0.6
VRAC				eSg	Sg	06 34 09.2	-0.7
OJC	Ojcow	2.65	117	ePg	Pg	06 33 52.0	+2.3
OJC				eSg	Sg	06 34 26.5	+2.4
OJC	Ojcow	2.65	117	ePg	Pg	06 33 52.0	+2.3
OJC				eSg	Sg	06 34 26.5	+2.4
NKC	Novy Kostel	2.66	243	ePn	Pn	06 33 43.7	+0.7
NKC				ePg	Pg	06 33 49.7	-0.1
NKC				eSg	Sg	06 34 24.5	+0.2
NKC	Novy Kostel	2.66	243	ePN	Pn	06 33 43.7	+0.7
NKC				ePG	Pg	06 33 49.7	-0.1
NKC				eSG	Sg	06 34 24.5	+0.2
	comp=Z,25nm,0.3s						
NKC	Novy Kostel	2.66	243	ePn	Pn	06 33 43.7	+0.7
KHC	Kasperske Hory	2.88	216	ePn	Pn	06 33 46.6	+0.6
KHC				ePg	Pg	06 33 52.5	-1.6
KHC				eSn	Sn	06 34 20.0	-1.4
KHC				eSg	Sg	06 34 29.9	-1.5
KHC	Kasperske Hory	2.88	216	ePN	Pn	06 33 46.6	+0.6
KHC				ePG	Pg	06 33 52.5	-1.6
KHC				eSN	Sn	06 34 20.0	-1.4
KHC				eSG	Sg	06 34 29.9	-1.5
	comp=Z,5.5nm,0.3s						
KHC	Kasperske Hory	2.88	216	ePn	Pn	06 33 46.6	+0.6
MOX	Moxa	2.98	255	ePG	Pg	06 33 56.1	+0.1
MOX				eSG	Sg	06 34 35.9	+1.4
GEC2	GERESS Array S	3.08	211	ePn	Pn	06 33 50.2	+1.4
GEC2	GERESS Array S	3.08	211	ePn	Pn	06 33 50.2	+1.4
GERES	GERESS Array B	3.08	211	Pn	Pn	06 33 50.3	+1.5

GERES				Pg	Pg	06 33 56.0	-2.0
GERES				Lg		06 34 36.6	
GERES	GERESS Array B	3.08	211	Pn	Pn	06 33 50.3	+1.5
	comp=Z,0.3nm,0.3s,baz=33,slow=14,SNR=8.0						
GERES				Pg	Pg	06 33 56.0	-2.0
	comp=Z,1.9nm,0.3s,baz=31,slow=17,SNR=35						
GERES				Lg		06 34 36.6	
	comp=Z,1.7nm,0.3s,baz=29,slow=25,SNR=6.9						
GERES	GERESS Array B	3.08	211	Pn	Pn	06 33 50.3	+1.5
GERES	GERESS Array B	3.08	211	Pg	Pg	06 33 56.0	-2.0
MODS	Modra-Piesok	3.21	166	eSG	Sg	06 34 41.9	-0.2
MODS	Modra-Piesok	3.21	166	eSg	Sg	06 34 41.9	-0.2
BSD	Bornholm Skovb	3.70	349	i P	Pn	06 33 57.5	+0.2
BSD				eS	Sn	06 34 40.4	-1.1
STHS	Stebnicka Huta	3.87	121	ePg	Pg	06 34 14.0	+0.9
STHS	Stebnicka Huta	3.87	121	ePG	Pg	06 34 14.0	+0.9
STHS	Stebnicka Huta	3.87	121	ePg	Pg	06 34 14.0	+0.9
KECS	Kecovo	4.12	135	ePg	Pg	06 34 17.9	0.0
KECS	Kecovo	4.12	135	ePG	Pg	06 34 17.9	0.0
FINES	FINESS Array B	11.37	25	Pn	Pn	06 35 40.8	-1.6
	comp=Z,0.1nm,0.3s,baz=216,slow=13,SNR=2.7						
ARCES	ARCESS Array B	18.63	10	Pn	Pn	06 37 16.5	-1.5
	comp=Z,0.4nm,0.3s,baz=194,slow=13,SNR=6.5						

MAN 03 07:00:06,12.71N×124.52E,h52^{km},mb4.3,ML3.2,MS3.0, 2D,Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNP	Catarman	0.24	145	eP	Pn	07 00 17.4	+2.6
BESP	Borongan	1.42	141	eP	Pn	07 00 30.9	+1.5
PLP	Palo	1.60	164	eP	Pn	07 00 33.4	+1.5
PLP				i S	Sn	07 00 53.5	+2.1
RCP	Roxas	2.08	237	⇓eP	Pn	07 00 41.5	+3.1
OTRP	Odiongan	2.47	262	eP	Pn	07 00 45.4	+1.7
GUIM	Jordan	2.81	223	eP	Pn	07 00 49.5	+1.1
SCPH	Surigao	3.06	162	⇓eP	Pn	07 00 53.9	+2.0
BUKP	Musuan	4.83	174	eP	Pn	07 01 19.4	+3.2

*NEIC **03** 07:03:00.0,36.95N×35.42E,h27^{km},ML3.6(ISK),After ISK.*
*IDC **03** 07:03:00.7±3.0,36.86N×35.33E,h15^{km}±23^{km},mb3.6/2, mb1 3.6/8,mb1mx3.4/24,mbtmp3.5/8,ML3.1/5,MS2.8/1, Ms1 2.8/1,ms1mx2.3/34,Error ellipse: s-maj=32.9km s-min=12.8km az=75.0*
*CSEM **03** 07:03:00.0±0.1,36.96N×35.45E,h25^{km},Mw2.9,Error ellipse: s-maj=1.5km s-min=1.1km az=90.0*
*ISK **03** 07:03:00.0,36.95N×35.45E,h24^{km},MD3.6*
*ISCJB **03** 07:03:00.3±0.3,36.90N±0.02×35.43E±0.03,h31^{km}±3^{km}, mb3.6/2,Error ellipse: s-maj=4.4km s-min=3.2km az=174.0*
*NSSC **03** 07:03:04.0,36.83N×35.70E,h26^{km}±4^{km}*
*GII **03** 07:03:04.0±15.0,36.57N×35.31E,h10^{km}±399^{km},ML3.0/5, Mw2.9/3*
*HLW **03** 07:03:20.3,35.09N×36.06E,h18^{km},Mb5.8*
ISC 03 07:03:01.0±0.4,**36.91N**±0.02×**35.46E**±0.03,**h25**^{km}±4^{km}, **n111,**σ**1^{s}01**/155,**mb3.6**/2,**10D,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEYT	Ceyhan	0.25	66	PG	Pb	07 03 06.9	-0.4
CEYT				SG	Sb	07 03 11.4	-0.2
CEYT	Ceyhan	0.25	66	ePg	Pb	07 03 06.9	-0.4
CEYT				eSg	Sb	07 03 11.4	-0.2
KRTS	Karatas	0.34	191	PG	Pb	07 03 08.7	+0.1
KRTS				SG	Sb	07 03 15.3	+1.5
KRTS	Karatas	0.34	191	ePg	Pb	07 03 08.7	+0.1
KRTS				eSg	Sb	07 03 15.3	+1.5
KARA	Karaisali	0.48	317	PG	Pb	07 03 10.0	-0.8
KARA				SG	Sb	07 03 17.0	-0.5
KARA	Karaisali	0.48	317	ePg	Pb	07 03 10.0	-0.8
KARA				eSg	Sb	07 03 17.0	-0.5
KOZT	Kozan	0.64	27	PG	Pb	07 03 12.2	-1.3
KOZT				SG	Sb	07 03 21.6	-0.5
MERS	Mersin	0.75	267	PG	Pb	07 03 15.1	-0.3
MERS	Mersin	0.75	267	ePg	Pb	07 03 15.1	-0.3
HTY	Hatay	0.96	145	PG	Pn	07 03 18.6	-0.2
HTY	Hatay	0.96	145	ePg	Pn	07 03 18.6	-0.2
DRWC	Darouich	1.01	106	⇑P	Pn	07 03 19.4	-0.2
DRWC				⇑S	Sb	07 03 31.2	-1.5
DRWC	Darouich	1.01	106	⇑iP	Pn	07 03 19.4	-0.1
DRWC				⇑iS	Sb	07 03 31.2	-1.4
ARNB	Al Arnab	1.12	158	⇓P	Pn	07 03 21.7	+0.6
ARNB				⇓S	Sn	07 03 36.2	+0.4
BTCH	Batrach	1.19	137	⇑P	Pn	07 03 22.1	+0.2
BTCH				⇑S	Sn	07 03 35.3	-2.0
BTCH	Batrach	1.19	137	⇑iP	Pn	07 03 22.1	+0.2
BTCH				⇑iS	Sn	07 03 35.3	-1.9
NIG	Nigde	1.38	331	PN	Pn	07 03 24.0	-0.5
NIG	Nigde	1.38	331	ePn	Pn	07 03 24.0	-0.5
GAZ	Gaziantep	1.43	79	PN	Pn	07 03 24.9	-0.3
GAZ	Gaziantep	1.43	79	ePn	Pn	07 03 24.9	-0.3
SLNF	Slenfeh	1.45	155	⇑P	Pn	07 03 26.5	+0.9
SLNF				⇑S	Sn	07 03 44.8	+1.0
SLNF	Slenfeh	1.45	155	⇑iP	Pn	07 03 26.5	+0.9
SLNF				⇑iS	Sn	07 03 44.8	+1.1
IKL	Isikli	1.58	245	PN	Pn	07 03 26.8	-0.5
IKL	Isikli	1.58	245	ePn	Pn	07 03 26.8	-0.5
WRDH	Warideh	1.60	151	⇑P	Pn	07 03 28.1	+0.5
WRDH				⇑S	Sn	07 03 47.9	+0.5
WRDH	Warideh	1.60	151	⇑iP	Pn	07 03 28.0	+0.4
WRDH				⇑iS	Sn	07 03 47.9	+0.5
BNN	Bunyan	1.96	9	ePN	Pn	07 03 31.8	-0.8
BNN	Bunyan	1.96	9	ePn	Pn	07 03 31.8	-0.8
KFRA	Kufra	2.01	147	⇓P	Pn	07 03 34.0	+0.7
KFRA				⇓S	Sn	07 03 57.3	-0.3
KFRA	Kufra	2.01	147	⇓iP	Pn	07 03 34.0	+0.7
KFRA				⇓iS	Sn	07 03 57.3	-0.3
BIDA	Albida	2.02	159	⇓P	Pn	07 03 34.0	+0.6
BIDA				⇑S	Sn	07 03 57.1	-0.7
BIDA	Albida	2.02	159	⇓iP	Pn	07 03 34.0	+0.6
BIDA				⇑iS	Sn	07 03 57.1	-0.7
SLMH	Al Salmeh	2.10	109	⇑P	Pn	07 03 34.6	0.0
SLMH				⇓S	Sn	07 03 58.0	-1.9
SLMH	Al Salmeh	2.10	109	⇑iP	Pn	07 03 34.6	0.0
SLMH				⇓iS	Sn	07 03 58.0	-1.9
CSS	Prodhromos	2.60	222	ePn	Pn	07 03 42.0	+0.6
CSS	Prodhromos	2.60	222	ePn	Pn	07 03 42.0	+0.6
HWQ	Hawqa	2.66	171	eP	Pn	07 03 43.5	+1.4
KONT	Konya--Tatoy	2.67	294	ePN	Pn	07 03 41.9	-0.5
KONT	Konya--Tatoy	2.67	294	ePn	Pn	07 03 41.9	-0.5
YOZ	Yozgat	2.73	358	ePN	Pn	07 03 43.3	+0.2
YOZ	Yozgat	2.73	358	ePn	Pn	07 03 43.3	+0.2
URFA	Urfa	2.74	78	ePN	Pn	07 03 43.6	+0.3
URFA	Urfa	2.74	78	ePn	Pn	07 03 43.6	+0.3
MALT	Malatya	2.74	58	ePN	Pn	07 03 43.8	+0.5
MALT	Malatya	2.74	58	ePn	Pn	07 03 44.1	+0.8
MALT				eSg	Sb	07 04 29.3	+6.9
MALT	Malatya	2.74	58	ePn	Pn	07 03 43.8	+0.5
MALT				eSg	Sb	07 04 29.3	+6.9
MYA	Malataya	2.75	58	ePN	Pn	07 03 43.5	+0.1
MYA	Malataya	2.75	58	ePn	Pn	07 03 43.5	+0.1
BHL	Bhannes	3.00	177	eP	Pn	07 03 47.7	+0.8
ROOS	tl_alroos	3.12	151	⇑P	Pn	07 03 49.4	+0.9
ROOS	tl_alroos	3.12	151	⇑iP	Pn	07 03 49.4	+0.9
BR131	Keskin Array S	3.15	334	ePn	Pn	07 03 51.8	+2.8
BR131				eSg	Sb	07 04 41.1	+6.8
BR131	Keskin Array S	3.15	334	ePn	Pn	07 03 51.8	+2.8
BR131				eSg	Sb	07 04 41.1	+6.8
BRTR	Keskin Array B	3.15	334	Pn	Pn	07 03 50.9	+1.9
BRTR				Pg	Pn	07 03 58.5	+9.4
BRTR				Lg		07 04 41.2	
BRTR	Keskin Array B	3.15	334	Pn	Pn	07 03 50.9	+1.9
	1.1nm,0.3s,baz=169,slow=14,SNR=20						
BRTR				Pg	Pn	07 03 58.5	+9.4
	4.0nm,0.3s,baz=162,slow=18,SNR=37						
BRTR				Lg		07 04 41.2	
	5.0nm,0.3s,baz=161,slow=29,SNR=10						
BRTR	Keskin Array B	3.15	334	Pn	Pn	07 03 50.8	+1.8
BRTR	Keskin Array B	3.15	334	Pg	Pn	07 03 58.5	+10
SVSK	Karacayir	3.24	21	ePN	Pn	07 03 50.8	+0.7
SVSK	Karacayir	3.24	21	ePn	Pn	07 03 50.8	+0.7
CORM	Corum	3.33	349	ePN	Pn	07 03 51.8	+0.4
CORM	Corum	3.33	349	ePn	Pn	07 03 51.8	+0.4
RCY	Rachaya	3.43	175	eP	Pn	07 03 53.2	+0.4
KIZT	Kizilcal	3.45	306	ePN	Pn	07 03 53.2	+0.2
KIZT	Kizilcal	3.45	306	ePn	Pn	07 03 53.2	+0.2
ANTO	Ankara	3.62	325	ePn	Pb	07 04 07.5	+3.2
KSDI	Kefar Szold	3.71	177	Pn	Pn	07 03 56.3	-0.4
KSDI	Kefar Szold	3.71	177	Pn	Pn	07 03 56.3	-0.4
HNTI	Hanita	3.83	184	Pn	Pn	07 03 58.6	+0.4
HNTI	Hanita	3.83	184	Pn	Pn	07 03 58.6	+0.4
MMC7	Mount Meron ar	3.88	181	Pn	Pn	07 03 59.1	+0.2
MMC7	Mount Meron ar	3.88	181	Pn	Pn	07 03 59.1	+0.1
MMA0B	Mount Meron ar	3.88	181	Pn	Pn	07 03 59.5	+0.5
MMA0B	Mount Meron ar	3.88	181	Pn	Pn	07 03 59.5	+0.4
MMAI	Mount Meron Ar	3.88	181	Pn	Pn	07 03 59.3	+0.3
	35nm,0.3s,baz=350,slow=12,SNR=209						
MMAI				Sn	Sn	07 04 42.2	-1.7
	66nm,0.3s,baz=353,slow=23,SNR=16						
MMA0	Mount Meron ar	3.89	181	Pn	Pn	07 03 59.3	+0.3
MMA0	Mount Meron ar	3.89	181	Pn	Pn	07 03 59.3	+0.2
MMC4	Mount Meron ar	3.89	181	Pn	Pn	07 03 59.4	+0.3
MMC4	Mount Meron ar	3.89	181	Pn	Pn	07 03 59.4	+0.2
OFRI	‘Ofer	4.30	185	Pn	Pn	07 04 04.6	-0.2
OFRI	‘Ofer	4.30	185	Pn	Pn	07 04 04.6	-0.1
EZC	Erzincan	4.45	49	ePN	Pn	07 04 03.5	-3.2
MMLI	Mount Malkishu	4.46	180	Pn	Pn	07 04 07.7	+0.7
MMLI				Sn	Sn	07 04 56.5	-1.6
MMLI	Mount Malkishu	4.46	180	Pn	Pn	07 04 07.7	+0.7
MMLI				Sn	Sn	07 04 56.5	-1.6
SLTI	Sal’it	4.67	184	Pn	Pn	07 04 10.1	+0.2
SLTI				Sn	Sn	07 05 01.7	-1.5
SLTI	Sal’it	4.67	184	Pn	Pn	07 04 10.1	+0.2
SLTI				Sn	Sn	07 05 01.7	-1.5
ASF	Jabal al Asfar	4.87	165	Pn	Pn	07 04 14.1	+1.5
ASF				Sn	Sn	07 05 10.5	+2.3
ASF				Lg		07 05 34.6	
ASF	Jabal al Asfar	4.87	165	Pn	Pn	07 04 14.1	+1.5
	0.4nm,0.3s,baz=221,slow=17,SNR=2.2						
ASF				Sn	Sn	07 05 10.5	+2.3
	1.4nm,0.3s,baz=246,slow=21,SNR=2.4						
ASF				Lg		07 05 34.6	
	2.9nm,0.3s,baz=308,slow=23,SNR=3.6						
DRGI	Dragot	5.30	181	Pn	Pn	07 04 19.1	+0.5
DRGI	Dragot	5.30	181	Pn	Pn	07 04 19.1	+0.5
SVTA	Shivta	6.00	187	Pn	Pn	07 04 28.8	+0.6
SVTA	Shivta	6.00	187	Pn	Pn	07 04 28.8	+0.6
AMAG	Maghara	6.53	197	P	Pn	07 04 34.2	-1.1
PRNI	Paran	6.55	183	Pn	Pn	07 04 36.9	+1.2
PRNI				Sn	Sn	07 05 49.1	-0.5
PRNI	Paran	6.55	183	Pn	Pn	07 04 36.9	+1.2
PRNI				Sn	Sn	07 05 49.1	-0.5
KRMI	Paran Flat	6.80	185	Pn	Pn	07 04 39.9	+0.7
KRMI				Sn	Sn	07 05 54.3	-1.5
KRMI	Paran Flat	6.80	185	Pn	Pn	07 04 39.8	+0.7
KRMI				Sn	Sn	07 05 54.3	-1.5
HNKL	Nakhl	7.07	190	P	Pn	07 04 39.9	-3.0
HNKL	Nakhl	7.07	190	P	Pn	07 04 39.8	-3.0
EIL	Elat	7.23	184	Pn	Pn	07 04 45.2	+0.1
EIL				Sn	Sn	07 06 04.1	-2.3
EIL				LR	LR	07 08 04.5	
EIL	Elat	7.23	184	Pn	Pn	07 04 45.2	+0.1
	0.3nm,0.3s,baz=263,slow=21,SNR=2.5						
EIL				Sn	Sn	07 06 04.1	-2.3
	0.8nm,0.3s,baz=2.4,slow=10,SNR=3.3						
EIL				LR	LR	07 08 04.5	
	comp=Z,73nm,18.1s,baz=230,slow=42						
EIL	Elat	7.23	184	Pn	Pn	07 04 45.2	+0.1
EIL				Sn	Sn	07 06 04.1	-2.3
SUZ		7.38	198	P	Pn	07 04 46.5	-0.7
IDI	Anoyia	8.71	262	Pn	Pn	07 05 03.3	-2.0
IDI				Sn	Sn	07 06 30.5	-12
IDI	Anoyia	8.71	262	Pn	Pn	07 05 03.3	-2.0
	0.6nm,0.3s,baz=43,slow=16,SNR=2.0						
IDI				Sn	Sn	07 06 30.5	-12
	0.3nm,0.3s,baz=281,slow=20,SNR=1.6						
IDI	Anoyia	8.71	262	Pn	Pn	07 05 03.3	-2.0
GERES	GERESS Array B	19.83	314	P	Pn	07 07 29.7	-1.7
	0.0nm,0.3s,baz=108,slow=9.4,SNR=3.3						
KHC	Kasperske Hory	20.04	314	eP	P	07 07 40.0	+8.0
AKTK	Aktyubinsk	21.08	43	P	P	07 07 44.3	+1.1
AKTK	Aktyubinsk	21.08	43	P	P	07 07 44.3	+1.1
AKTO	Aktyubinsk	21.08	43	P	P	07 07 44.3	+1.1
	0.7nm,0.4s,mb3.4,baz=232,slow=9.4,SNR=5.0						
FINES	FINESS Array B	25.26	349	P	P	07 08 26.9	+2.1
	3.2nm,1.0s,mb3.8,baz=160,slow=13,SNR=3.7						

*SOF **03** 07:11:18.8,39.67N×23.36E,h2^{km},MD3.3*
*ISCJB **03** 07:11:21.2±0.5,39.78N±0.02×24.15E±0.03,h6^{km}±4^{km}, Error ellipse: s-maj=4.2km s-min=3.7km az=24.9*
*ATH **03** 07:11:22.3,39.83N×24.06E,h33^{km}±4^{km},MD3.7/13,ML3.4*
*THE **03** 07:11:22.4,39.77N×24.16E,h1^{km},ML3.9*
*NEIC **03** 07:11:22.2,39.85N×24.06E,h28^{km},ML3.0(ATH), ML3.0(THE),After ATH.*
*CSEM **03** 07:11:22.3±0.1,39.77N×24.11E,h10^{km},ML3.9,Error ellipse: s-maj=2.2km s-min=1.7km az=125.0*
ISC 03 07:11:22.0±0.5,**39.78N**±0.02×**24.14E**±0.03,**h11**^{km}±4^{km}, **n102,**σ**0^{s}90**/117,**27C-19D,Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAIG	Paliouri	0.38	293	ePg	Pg	07 11 29.8	+0.2
PAIG				eSg	Sg	07 11 35.9	+1.2
PAIG	Paliouri	0.38	293	ePg	Pg	07 11 29.8	+0.2
PAIG				eSg	Sg	07 11 35.9	+1.2
OUR	Ouranopolis	0.57	348	ePg	Pg	07 11 33.1	0.0
OUR				eSg	Sg	07 11 41.2	+0.6
OUR	Ouranopolis	0.57	348	ePg	Pg	07 11 33.1	0.0
OUR				eSg	Sg	07 11 41.2	+0.6
AOS	Alonnisos	0.64	198	ePg	Pg	07 11 34.1	-0.2
AOS	Alonnisos	0.64	198	ePg	Pg	07 11 34.1	-0.3
LOS	Limnos	0.74	77	ePg	Pg	07 11 36.7	+0.4
LOS	Limnos	0.74	77	ePg	Pg	07 11 36.7	+0.3
PLG	Polygyros	0.80	319	⇓iPn	Pg	07 11 35.9	-1.5
PLG				eSn	Sg	07 11 46.4	-1.5
PLG	Polygyros	0.80	319	ePg	Pg	07 11 36.6	-0.9
PLG	Polygyros	0.80	319	⇓iPN	Pg	07 11 35.9	-1.5
PLG				eSN	Sg	07 11 46.4	-1.5
PLG	Polygyros	0.80	319	⇓iPn	Pg	07 11 35.9	-1.5
PLG	Polygyros	0.80	319	ePg	Pg	07 11 36.6	-0.8
PLG				eSn	Sg	07 11 46.4	-1.5
LIA	Limnos Island	0.81	81	⇑iPn	Pn	07 11 39.7	+0.2
LIA				eSn	Sn	07 11 51.1	-0.4
LIA	Limnos Island	0.81	81	⇑iPN	Pn	07 11 39.7	+0.2
LIA				eSN	Sn	07 11 51.1	-0.4
LIA	Limnos Island	0.81	81	⇑iPn	Pn	07 11 39.7	+0.2
LIA				eSn	Sn	07 11 51.1	-0.4
XOR	Xorichti	0.84	241	ePg	Pg	07 11 38.4	+0.2
XOR	Xorichti	0.84	241	ePg	Pg	07 11 38.4	+0.2
NEO	Neokhori	0.85	237	⇑iPn	Pg	07 11 38.4	0.0
NEO				eSn	Sg	07 11 50.6	+1.2
NEO	Neokhori	0.85	237	⇑iPN	Pg	07 11 38.4	0.0
NEO				eSN	Sg	07 11 50.6	+1.2
NEO	Neokhori	0.85	237	⇑iPn	Pg	07 11 38.4	0.0
NEO				eSn	Sg	07 11 50.6	+1.2
HORT	Hortiatis	1.14	316	ePg	Pg	07 11 43.8	-0.2
HORT	Hortiatis	1.14	316	ePg	Pg	07 11 43.8	-0.2
SOH	Sokhos	1.20	330	ePg	Pg	07 11 44.8	-0.4
SOH	Sokhos	1.20	330	ePg	Pg	07 11 44.8	-0.4
THE	Thessaloniki	1.24	314	ePg	Pg	07 11 46.5	+0.7
THE	Thessaloniki	1.24	314	ePg	Pg	07 11 46.5	+0.7
LIT	Litokhoron	1.31	285	ePg	Pg	07 11 46.5	-0.6
LIT	Litokhoron	1.31	285	ePg	Pg	07 11 46.5	-0.6
SRS	Serrai	1.40	343	ePg	Pn	07 11 47.3	-0.3
SRS	Serrai	1.40	343	ePg	Pn	07 11 47.3	-0.3
LKR	Lokris	1.43	219	⇑iPb	Pb	07 11 47.0	-1.7
LKR	Lokris	1.43	219	⇑iPB	Pb	07 11 47.0	-1.7
LKR	Lokris	1.43	219	⇑iPb	Pb	07 11 47.0	-1.7
NVR	Nevrokopi	1.59	352	⇑iPn	Pn	07 11 49.8	-0.3
NVR	Nevrokopi	1.59	352	⇑iPN	Pn	07 11 49.8	-0.3
NVR	Nevrokopi	1.59	352	⇑iPn	Pn	07 11 49.8	-0.3
AGG	Agios Georgios	1.59	242	ePg	Pn	07 11 50.2	+0.1
AGG	Agios Georgios	1.59	242	ePg	Pn	07 11 50.2	+0.1
THL	Klokotos Trika	1.65	263	⇓iPN	Pn	07 11 50.4	-0.6
THL	Klokotos Trika	1.65	263	⇓iPn	Pn	07 11 50.4	-0.6
KNT	Kendrikon	1.68	326	ePb	Pb	07 11 52.5	-0.4
KNT	Kendrikon	1.68	326	ePb	Pb	07 11 52.5	-0.4
PRK	Paraskevi	1.73	107	⇑iPn	Pg	07 11 55.0	-0.3
PRK	Paraskevi	1.73	107	⇑iPB	Pb	07 11 53.4	-0.5
PRK	Paraskevi	1.73	107	⇑iPn	Pg	07 11 55.0	-0.3
RDO	Rodhopi	1.73	38	⇓iPb	Pn	07 11 51.2	-0.9
RDO	Rodhopi	1.73	38	⇓iPN	Pn	07 11 51.2	-0.9
RDO	Rodhopi	1.73	38	⇓iPb	Pn	07 11 51.2	-0.9
GRG	Griva	1.77	312	ePb	Pb	07 11 54.3	-0.3
GRG	Griva	1.77	312	ePb	Pb	07 11 54.3	-0.3
ATH	Athens Observa	1.83	190	ePb	Pb	07 11 55.5	-0.1
ATH	Athens Observa	1.83	190	ePN	Pn	07 11 54.0	+0.5
ATH	Athens Observa	1.83	190	ePb	Pb	07 11 55.5	-0.1
MMB	Musomiste	1.84	350	i P	Pn	07 11 52.7	-0.8
ALN	Alexandroupoli	1.84	52	ePb	Pn	07 11 53.5	-0.1
ALN	Alexandroupoli	1.84	52	ePb	Pn	07 11 53.5	-0.1
KZN	Kozani	1.89	287	⇓iPn	Pn	07 11 54.6	+0.3
KZN	Kozani	1.89	287	⇓iPB	Pn	07 11 53.6	-0.7
KZN	Kozani	1.89	287	⇓iPn	Pn	07 11 54.6	+0.3
VAY	Valandovo	1.95	323	ePb	Pb	07 11 56.7	-0.9
VAY	Valandovo	1.95	323	i Pn	Pb	07 11 57.7	+0.1
VAY				ePg	Pg	07 12 00.3	+0.8
VAY	Valandovo	1.95	323	i Pn	Pb	07 11 57.7	+0.1
RZN	Rozhen	1.96	13	i P	Pn	07 11 56.2	+1.0
KVR	Kavouri	1.97	189	ePN	Pn	07 11 55.0	-0.3
KVR	Kavouri	1.97	189	ePn	Pn	07 11 55.0	-0.3
EVR	Evrytania	2.00	245	⇓iPn	Pn	07 11 55.7	-0.1
EVR	Evrytania	2.00	245	⇓iPB	Pn	07 11 55.7	-0.1
EVR	Evrytania	2.00	245	⇓iPn	Pn	07 11 55.7	-0.1
KDZ	Kurdzhali	2.11	27	i P	Pg	07 12 02.0	-0.4
KKB	Krupnik	2.24	339	i P	Pn	07 11 59.0	0.0
FNA	Florina	2.34	296	ePn	Pn	07 12 01.8	+1.3
FNA	Florina	2.34	296	ePn	Pn	07 12 01.8	+1.3
STIP	Stip	2.42	323	ePn	Pg	07 12 09.7	+1.2
BIA	Bitola	2.48	301	ePn	Pb	07 12 05.6	-1.0
BIA	Bitola	2.48	301	ePn	Pb	07 12 05.6	-1.0
DIM	Dimitrovgrad	2.50	25	i P	Pg	07 12 10.0	0.0
JAN	Janina	2.54	268	ePn	Pn	07 12 02.0	-1.2
JAN	Janina	2.54	268	ePN	Pn	07 12 02.0	-1.2
JAN	Janina	2.54	268	ePn	Pn	07 12 02.0	-1.2
RLS	Riolos of Patr	2.70	231	⇑iPb	Pb	07 12 08.1	-2.3
RLS	Riolos of Patr	2.70	231	⇑iPB	Pb	07 12 08.1	-2.3
RLS	Riolos of Patr	2.70	231	⇑iPb	Pb	07 12 08.1	-2.3
KRUS	Krusevo	2.71	307	i Pn	Pn	07 12 06.8	+1.2
KRUS				i Pg	Pb	07 12 09.4	-1.2
KRUS	Krusevo	2.71	307	i Pn	Pn	07 12 06.8	+1.2
VTS	Vitosha	2.90	346	⇓P	Pn	07 12 09.3	+1.2
VTS	Vitosha	2.90	346	i P	Pn	07 12 08.3	+0.2
VTS	Vitosha	2.90	346	⇓iP	Pn	07 12 09.3	+1.2
ITM	Ithomi	3.12	214	⇑iPn	Pn	07 12 13.2	+2.0
ITM	Ithomi	3.12	214	⇑iPN	Pn	07 12 11.9	+0.7
ITM	Ithomi	3.12	214	⇑iPn	Pn	07 12 13.2	+2.0
KARP	Karpathos	4.86	149	P	Pn	07 12 36.4	+1.4
VOIR		5.70	6	⇑P	Pn	07 12 47.1	+0.6
VOIR		5.70	6	⇑iP	Pn	07 12 47.2	+0.6
GZR	Gura Zlata	5.70	350	⇑P	Pn	07 12 52.0	+5.4
GZR	Gura Zlata	5.70	350	⇑iP	Pn	07 12 52.0	+5.4
TIP	Timpagrande	5.74	266	P	Pn	07 12 50.5	+3.3
MLR	Muntele Rosu	5.86	13	⇓P	Pn	07 12 52.6	+3.8
MLR	Muntele Rosu	5.86	13	⇓iP	Pn	07 12 52.7	+3.8
PLOR	Plostina	6.34	16	⇓iP	Pn	07 13 02.3	+6.8
BURAR	Bucovina Array	7.87	5	⇑P	Pn	07 13 19.7	+3.3
BURAR	Bucovina Array	7.87	5	⇑iP	Pn	07 13 19.7	+3.3

*ISCJB **03** 07:42:06.2±0.3,54.92N±0.02×111.65E±0.04,h10^{km}, mb3.0/1,Error ellipse: s-maj=3.6km s-min=2.2km az=40.4*
*IDC **03** 07:42:07.2±1.9,55.00N×111.85E,h0^{km},mb2.9/2, mb1 3.3/4,mb1mx3.2/21,mbtmp3.2/4,ML3.5/2,Error ellipse: s-maj=52.7km s-min=21.1km az=123.0*
*MOS **03** 07:42:08.7±1.2,55.01N×111.67E,h15^{km},mb4.5/1,Error ellipse: s-maj=14.5km s-min=7.3km az=71.7*
*BYKL **03** 07:42:09.5±0.2,55.01N×111.68E,h8^{km}±9^{km}*
*NEIC **03** 07:42:09.4±1.4,55.16N×111.65E,h10^{km},Error ellipse: s-maj=24.6km s-min=16.7km az=111.0*
ISC 03 07:42:08.6±0.3,**54.97N**±0.02×**111.66E**±0.04,**h10**^{km}**,n52,** σ**1^{s}62**/96,**mb3.0**/1,**9C-2D,Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMO	Kumora	0.96	344	ePG	Pg	07 42 26.1	-0.9
KMO				i		07 42 36.2	
KMO				pmax	pmax		
	comp=Z,113nm,0.5s						
KMO				smax			
	comp=E,721nm,1.1s						
KMO	Kumora	0.96	344	⇑iPg	Pg	07 42 26.1	-0.9
KMO				eSg	Sg	07 42 37.9	-1.6
KMO				Pmax			
	comp=E,189nm,0.3s						
KMO				Smax			
	comp=E,1µm,1.0s						
YOA	Uoyan	1.17	2	⇓iPG	Pg	07 42 30.6	-0.4
YOA				i		07 42 46.2	
YOA				pmax	pmax		
	comp=Z,419nm,0.2s						
YOA				smax			
	comp=N,4µm,0.4s						
YOA	Uoyan	1.17	2	ePg	Pg	07 42 30.3	-0.7
YOA				eSg	Sg	07 42 45.8	-0.4
YOA				Pmax			
	comp=N,415nm,0.3s						
YOA				Smax			
	comp=N,3µm,0.4s						
UKT	Uakit	1.24	64	⇑iPG	Pg	07 42 31.1	-1.3
UKT				e		07 42 47.3	
UKT				pmax	pmax		
	comp=Z,308nm,0.3s						
UKT				smax			
	comp=N,4µm,0.3s						
UKT	Uakit	1.24	64	⇑iPg	Pg	07 42 31.2	-1.2
UKT				e		07 42 33.6	
UKT				eSg	Sg	07 42 47.5	-1.1
UKT				eSb	Sb	07 42 51.2	+3.1
UKT				max			
	comp=N,309nm,0.3s						
UKT				max			
	comp=N,4µm,0.4s						
NIZ	Nizh Angarsk	1.46	305	ePN	Pn	07 42 35.9	+1.0
NIZ				e		07 42 55.8	
NIZ				pmax	pmax		
	comp=Z,212nm,0.4s						
NIZ				smax			
	comp=N,650nm,0.4s						
NIZ	Nizh Angarsk	1.46	305	⇑iPg	Pg	07 42 35.4	-1.1
NIZ				eSg	Sg	07 42 54.9	-0.4
NIZ				Pmax			
	comp=N,220nm,0.4s						
NIZ				Smax			
	comp=N,700nm,0.4s						
SVKR	Severomuysk	1.58	42	ePN	Pn	07 42 38.0	+1.4
SVKR				e		07 42 58.9	
SVKR				pmax	pmax		
	comp=Z,565nm,0.3s						
SVKR				smax			
	comp=N,7µm,0.7s						
SVKR	Severomuysk	1.58	42	⇑iPg	Pg	07 42 38.2	-0.7
SVKR				eSg	Sg	07 42 59.3	0.0
SVKR				Pmax			
	comp=N,382nm,0.3s						
SVKR				Smax			
	comp=N,7µm,0.8s						
SYVR	Suvo	1.63	217	ePN	Pn	07 42 39.9	+2.6
SYVR				e		07 43 02.7	
SYVR				pmax	pmax		
	comp=Z,386nm,0.6s						
SYVR				smax			
	comp=E,734nm,0.4s						
SYVR	Suvo	1.63	217	⇑iPg	Pg	07 42 39.6	-0.2
SYVR				e		07 42 43.6	
SYVR				eSg	Sg	07 43 02.0	+1.0
SYVR				max			
	comp=E,404nm,0.6s						
SYVR				Smax			
	comp=E,743nm,0.3s						
MXMB	Maximikha	2.42	226	ePn	Pn	07 42 50.7	+2.6
MXMB				ePg	Pg	07 42 53.2	-1.7
MXMB				eSg	Sg	07 43 27.0	+0.8
MXMB				Pmax			
	comp=E,106nm,0.6s						
MXMB				Smax			
	comp=E,1µm,0.7s						
OGRR	Ongureny	2.73	243	ePN	Pn	07 42 54.5	+2.2
OGRR				e		07 42 59.4	
OGRR				e		07 43 35.1	
OGRR				pmax	pmax		
	comp=Z,76nm,0.9s						
OGRR				smax			
	comp=N,277nm,0.6s						
OGRR	Ongureny	2.73	243	⇑iPn	Pn	07 42 54.6	+2.3
OGRR				ePg	Pg	07 42 58.3	-2.4
OGRR				e		07 43 28.5	

OGRR				eSg	Sg	07 43 35.2	-0.8
OGRR				Pmax			
	comp=N,69nm,0.4s						
OGRR				Smax			
	comp=N,279nm,0.5s						
NLYR	Nelyaty	2.75	55	ePn	Pn	07 42 54.0	+1.3
NLYR				ePg	Pg	07 42 58.0	-3.2
NLYR				eSg	Sg	07 43 33.7	-3.2
BOD	Bodaibo	3.14	24	ePN	Pn	07 42 58.1	+0.1
BOD				e		07 43 04.0	
BOD				e		07 43 43.3	
BOD				pmax	pmax		
	comp=Z,41nm,0.6s						
BOD				smax			
	comp=E,404nm,0.8s						
BOD	Bodaibo	3.14	24	ePn	Pn	07 42 58.8	+0.8
BOD				ePg	Pg	07 43 03.9	-4.8
BOD				eSn	Sn	07 43 36.1	+0.5
BOD				eSg	Sg	07 43 43.9	-5.5
BOD				Pmax			
	comp=E,37nm,0.5s						
BOD				Smax			
	comp=E,404nm,0.7s						
CIT	Chita	3.16	158	ePN	Pg	07 43 07.4	-1.7
CIT				e		07 43 48.3	
CIT				pmax	pmax		
	comp=Z,52nm,0.4s						
CIT				smax			
	comp=E,227nm,0.5s						
CIT	Chita	3.16	158	ePn	Pn	07 43 00.0	+1.7
CIT				ePg	Pg	07 43 07.3	-1.8
CIT				eSg	Sg	07 43 48.2	-1.8
CIT				Pmax			
	comp=E,53nm,0.4s						
CIT				Smax			
	comp=E,227nm,0.5s						
ZRHB	Zarechye	3.60	230	ePg	Pg	07 43 14.7	-2.9
ZRHB				eSg	Sg	07 44 03.3	-0.9
ZRHB				Pmax			
	comp=E,87nm,0.7s						
ZRHB				Smax			
	comp=E,511nm,1.1s						
TRTB	Turuntaevo	3.64	223	ePn	Pn	07 43 07.2	+2.3
TRTB				ePg	Pg	07 43 15.5	-2.8
TRTB				e		07 43 21.1	
TRTB				eSg	Sg	07 44 04.4	-1.1
TRTB				max			
	comp=E,60nm,0.9s						
TRTB				Smax			
	comp=E,179nm,1.4s						
TRG	Tyrgan	3.84	237	ePN	Pn	07 43 09.7	+2.0
TRG				e		07 43 19.2	
TRG				eS	Sn	07 43 54.6	+1.8
TRG				e		07 44 08.7	
TRG				pmax	pmax		
	comp=Z,17nm,0.4s						
TRG				smax			
	comp=N,118nm,0.4s						
TRG	Tyrgan	3.84	237	ePn	Pn	07 43 09.6	+1.9
TRG				ePg	Pg	07 43 18.2	-3.9
TRG				eSg	Sg	07 44 08.8	-3.1
TRG				Pmax			
	comp=N,18nm,0.4s						
TRG				Smax			
	comp=N,119nm,0.4s						
UUDB	Ulan-Yde	3.92	219	ePg	Pg	07 43 20.9	-2.7
UUDB				eSg	Sg	07 44 13.3	-1.0
UUDB				Pmax			
	comp=N,57nm,0.6s						
UUDB				Smax			
	comp=N,836nm,1.4s						
CRS	Chara	4.19	60	ePN	Pn	07 43 13.7	+1.2
CRS				e		07 43 24.0	
CRS				e		07 44 18.3	
CRS				pmax	pmax		
	comp=Z,63nm,1.1s						
CRS				smax			
	comp=E,740nm,1.4s						
CRS	Chara	4.19	60	ePn	Pn	07 43 14.1	+1.6
CRS				ePg	Pg	07 43 24.2	-4.6
CRS				eSg	Sg	07 44 18.3	-4.8
CRS				Pmax			
	comp=E,63nm,1.2s						
CRS				Smax			
	comp=E,738nm,1.5s						
TUP	Tupik	4.84	93	ePN	Pn	07 43 22.4	+1.0
TUP				e		07 43 35.7	
TUP				eS	Sn	07 44 16.9	-0.6
TUP				e		07 44 37.4	
TUP				pmax	pmax		
	comp=Z,50nm,0.7s						
TUP				smax			
	comp=N,300nm,1.0s						
TUP	Tupik	4.84	93	⇑iPn	Pn	07 43 22.7	+1.3
TUP				ePg	Pg	07 43 35.1	-6.2
TUP				eSg	Sg	07 44 38.7	-5.2
TUP				Pmax			
	comp=N,64nm,0.6s						
TUP				Smax			
	comp=N,298nm,0.6s						
KHNR	Khani	5.07	64	eSg	Sg	07 44 45.3	-5.9
LSTR	Listvyanka	5.13	236	ePn	Pn	07 43 27.5	+2.2
LSTR				ePg	Pg	07 43 41.6	-5.1
LSTR				eSg	Sg	07 44 49.0	-4.1
LSTR				Pmax			
	comp=N,20nm,1.0s						
LSTR				Smax			
	comp=N,97nm,1.3s						
IRK	Irkutsk	5.17	241	eSg	Sg	07 44 50.9	-3.7
IRK				Smax			
	comp=N,392nm,0.4s						
KPC	Khapcheranga	5.29	175	ePN	Pn	07 43 29.2	+1.7
KPC				e		07 43 46.8	
KPC				e		07 44 56.0	
KPC				pmax	pmax		
	comp=Z,7.0nm,0.2s						
KPC				smax			
	comp=E,95nm,1.0s						
KPC	Khapcheranga	5.29	175	ePn	Pn	07 43 30.0	+2.5
KPC				e		07 43 52.1	
KPC				eSg	Sg	07 44 54.9	-3.4
KPC				Smax			
	comp=E,95nm,0.9s						
TLY	Talaya	5.82	239	ePn	Pn	07 43 35.6	+0.8
	comp=E,9.8nm,0.4s						
TLY				eSg	Sg	07 45 10.9	-4.3
TLY	Talaya	5.82	239	ePN	Pn	07 43 35.6	+0.8
TLY				e		07 45 10.9	
TLY				pmax	pmax		
	comp=Z,10.0nm,0.4s						
TLY	Talaya	5.82	239	ePn	Pn	07 43 36.2	+1.4
TLY				ePg	Pg	07 43 54.5	-5.5
TLY				eSg	Sg	07 45 09.7	-5.6
TLY				Pmax			
	comp=Z,11nm,0.4s						
TLY				Smax			
	comp=Z,86nm,1.4s						
ARS	Arshan	6.30	245	ePn	Pn	07 43 44.0	+2.5
ARS				ePg	Pg	07 44 03.5	-5.7
ARS				eSg	Sg	07 45 23.6	-7.2
ARS				Pmax			
	comp=Z,32nm,0.5s						
ARS				Smax			
	comp=Z,174nm,0.7s						
ZAK	Zakamensk	6.86	231	ePG	Px	07 44 13.1	
ZAK				e		07 45 41.2	
ZAK				pmax	pmax		
	comp=Z,4.0nm,0.4s						
ZAK				smax			
	comp=N,59nm,1.7s						
ORL	Orlik	7.43	256	ePN	Pn	07 43 59.4	+2.5
ORL				eS	Sn	07 45 21.2	0.0
ORL				eS	Sn	07 45 59.6	+38
ORL				smax			
	comp=N,157nm,1.4s						
ORL	Orlik	7.43	256	⇓iPn	Pn	07 43 59.5	+2.5
ORL				⇑i		07 44 00.0	
ORL				eSn	Sn	07 45 19.3	-1.9
ORL				eSg	Sg	07 46 00.1	-6.8
ORL				Smax			
	comp=N,157nm,1.4s						
ULN	Ulaanbaatar	7.67	204	ePn	Pn	07 44 05.0	+4.8
	comp=N,3.1nm,0.4s						
ULN	Ulaanbaatar	7.67	204	ePN	Pn	07 44 05.0	+4.8
ULN				pmax	pmax		
	comp=Z,3.0nm,0.4s						
SONM	Songino Array	7.86	207	Pn	Pn	07 44 05.3	+2.5
SONM				Sn	Sn	07 45 33.7	+1.9
SONM				Lg		07 46 17.2	
SONM	Songino Array	7.86	207	PN	Pn	07 44 05.3	+2.5
SONM						07 45 33.7	
SONM						07 46 17.2	
SONM	Songino Array	7.86	207	Pn	Pn	07 44 05.3	+2.5
	comp=Z,0.4nm,0.3s,baz=19,slow=14,SNR=14						
SONM				Sn	Sn	07 45 33.7	+1.9
	comp=Z,0.6nm,0.3s,baz=17,slow=26,SNR=4.0						
SONM				Lg		07 46 17.2	
	comp=Z,2.2nm,0.3s,baz=20,slow=29,SNR=10						
ZALV	Zalesovo Beam	15.61	277	Pn	Pn	07 45 49.1	+0.8
ZALV				Lg		07 50 21.6	
ZALV	Zalesovo Beam	15.61	277	Pn	Pn	07 45 49.1	+0.8
	comp=Z,0.3nm,0.3s,baz=82,slow=12,SNR=5.6						
ZALV				Lg		07 50 21.6	
	comp=Z,0.4nm,0.3s,baz=40,slow=45,SNR=2.8						
ZAL	Zalesovo	15.62	277	P	Pn	07 45 49.1	+0.6
MKAR	Makanchi Array	20.13	258	P	P	07 46 44.7	+2.2
MKAR				S	S	07 50 24.6	-3.7
MKAR	Makanchi Array	20.13	258	P	P	07 46 44.6	+2.2
	comp=Z,0.3nm,0.6s,baz=49,slow=6.7,SNR=7.9						
MKAR				S	S	07 50 24.6	-3.7
	comp=Z,0.1nm,0.4s,baz=109,slow=28,SNR=2.8						
MKAR				Lg		07 52 50.5	
	comp=Z,0.1nm,0.5s,baz=121,slow=19,SNR=2.7						
YKA	Yellowknife Ar	57.42	23	P	P	07 51 56.0	-0.7
	comp=Z,0.1nm,0.6s,mb3.0,baz=333,slow=6.4,SNR=2.8						

CASC 03 07:52:29.1±2.2**,665N×8266W,h35**^{km}±999^{km}**,MD4.3,**
2C-3D,South of Panama

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BRU2	Volcan	2.13	359	⇑iP	Pn	07 53 02.9	+0.6
BRU2				eS	Sn	07 53 27.3	-0.3
BRU	Baru	2.15	3	eP	Pn	07 53 03.0	+0.5
CTCR	Cotoan	2.24	358	eP	Pn	07 53 04.3	+0.6
CTCR				eS	Sn	07 53 30.9	+0.8
AZU	Azuero	2.63	64	eP	Pn	07 53 09.4	+0.3
AZU				eS	Sn	07 53 40.1	+0.3
BAR1		2.66	346	eP	Pn	07 53 09.6	+0.1
BAR1				eP		07 53 10.2	
BAR1				eS	Sn	07 53 41.1	+0.6
CNI	Changuinola	2.76	3	eP	Pn	07 53 12.3	+1.4
QCR	Quepos	3.14	332	eP	Pn	07 53 15.8	-0.3
QCR				⇓eP		07 53 16.2	
QCR				eS	Sn	07 53 51.9	-0.4
LCR2	La Lucha 2	3.35	337	eP	Pn	07 53 19.1	+0.1
LCR2				eP		07 53 19.8	
LCR2				eS	Sn	07 53 58.5	+0.9
URSC	Urasca	3.36	341	eP	Pn	07 53 20.4	+1.4
URSC				eS	Sn	07 54 00.2	+2.5
LAJ	Bijagual	3.51	336	eP	Pn	07 53 21.5	+0.3
LAJ				⇑eP		07 53 22.3	
PRS1	Puriscal	3.70	334	eP	Pn	07 53 22.3	-1.5
PRS1				⇓eP		07 53 23.6	
CGA2	Cerro Gallo 2	3.79	332	eP	Pn	07 53 26.0	+0.9
CGA2				eP		07 53 26.0	
CGA2				eS	Sn	07 54 10.1	+1.6
JCR	Jicaral	4.00	323	⇓eP	Pn	07 53 28.0	+0.1

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*NEIC **03** 08:08:21.1,1622N×9766W,h20^{km},MD3.8(MEX),After MEX.*
MEX 03 08:08:20.1±0.9**,1618N×9763W,h31**^{km}±16^{km}**,MD3.8,**
Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.52	294	i P	Pb	08 08 29.0	-1.9
PNIG				i S	Sb	08 08 36.5	-1.9
VHO	Vista Hermosa	1.24	44	i P	Pn	08 08 39.7	-1.6
VHO				i S	Sn	08 08 55.1	-1.9
VHO	Vista Hermosa	1.24	44	i P	Pn	08 08 39.7	-1.6
VHO				i S	Sn	08 08 55.0	-2.0
OXX	Oaxaca	1.25	44	i P	Pn	08 08 37.3	-4.2
OXX				i S	Sn	08 08 52.8	-4.5
HUIG	Huatulco	1.52	105	eP	Pn	08 08 44.4	-0.8
HUIG				i S	Sn	08 09 03.6	-0.2
HUIG	Huatulco	1.52	105	eP	Pn	08 08 43.5	-1.7
HUIG				i S	Sn	08 09 01.0	-2.9
UTMO	Huajuapan	1.65	354	eP	Pn	08 08 45.6	-1.4
UTMO				i S	Sn	08 09 04.0	-3.2
TPIG	Tehuac#an	2.25	7	i P	Pn	08 08 54.1	-1.1
TPIG				i S	Sn	08 09 19.6	-2.3
MEIG	Mezcala	2.58	313	i P	Pn	08 08 58.5	-1.3
MEIG				i S	Sn	08 09 27.3	-2.8
CMIG	Matias Romero	2.79	71	eP	Pn	08 09 01.5	-1.1
CMIG				i S	Sn	08 09 33.7	-1.5
CMIG	Matias Romero	2.79	71	eP	Pn	08 09 01.6	-1.0
CMIG				i S	Sn	08 09 33.1	-2.1

IDC 03 08:24:57.1±11.0**,2238N×14325E,h0**^{km}**,mb3.5**/4**,**
mb1 3.6/4**,mb1mx3.4**/18**,mbtmp3.5**/4**,Error ellipse:**
s-maj=306.8km s-min=48.1km az=4.0,Volcano Islands
region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array	38.86	320	P	P	08 32 24.4	+0.4
	0.4nm,0.5s,baz=135,slow=7.5,SNR=4.4						
ZALV	Zalesovo Beam	53.72	321	P	P	08 34 20.3	-0.5
	0.4nm,0.3s,baz=115,slow=6.5,SNR=2.7						
MKAR	Makanchi Array	54.29	312	P	P	08 34 25.2	+0.1
	0.2nm,0.6s,baz=86,slow=9.8,SNR=3.6						
YKA	Yellowknife Ar	75.83	28	P	P	08 36 45.0	+0.1
	0.2nm,0.5s,baz=294,slow=5.8,SNR=5.0						

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*TEH **03** 08:29:21.0,3677N×5463E,h10^{km},ML4.2*
*IDC **03** 08:30:02.7±1.2,3660N×5469E,h0^{km},mb3.9/12, mb1 4.1/13,mb1mx4.0/22,mbtmp4.0/13,ML3.9/1,MS3.2/1, Ms1 3.2/1,ms1mx2.5/32,Error ellipse: s-maj=24.7km s-min=16.9km az=133.0*
*ISCJB **03** 08:30:05.0±0.2,3686N±003×5464E±003,h10^{km}, mb4.1/20,Error ellipse: s-maj=4.2km s-min=3.2km az=159.1*
*CSEM **03** 08:30:06.1±0.0,3682N×5461E,h20^{km},mb4.1/3,Error ellipse: s-maj=1.4km s-min=1.3km az=174.0*
*MOS **03** 08:30:07.8±2.2,3682N×5483E,h33^{km},mb4.2/6,Error ellipse: s-maj=11.8km s-min=8.6km az=103.3*
*NEIC **03** 08:30:08.0,3677N×5462E,h10^{km},mb4.0/5,MN4.2(TEH), After TEH.*
ISC 03 08:30:06.7±0.2**,3686N**±003×**5464E**±003**,h10**^{km}**,n126,**
σ**1**^{s}**22**/138**,mb4.1**/20**,8C-4D,Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IMIN	Minoodasht	0.56	59	Pg	Pg	08 30 19.0	+1.5
IMIN	Minoodasht	0.56	59	ePg	Pg	08 30 19.0	+1.5
IGLO	Galoogah	1.07	240	ePg	Pg	08 30 18.6	-8.6
IGLO				e	Sg	08 30 41.7	+0.7
	comp=Z,97µm,0.2s						
IANJ	Anjiloo	1.50	203	ePn	Sn	08 30 45.9	-7.4
IANJ				e		08 31 10.0	
	comp=Z,31µm,0.2s						
ISHM	Shahmirzad	1.51	226	ePn	Sn	08 30 46.7	-6.7
ISHM				e		08 31 17.4	
	comp=Z,38µm,0.2s						
IFIR	Firoozkooh	1.94	232	Pn	Pn	08 30 39.8	+0.1
IFIR	Firoozkooh	1.94	232	e	Sg	08 31 15.4	+6.2
	comp=Z,20µm,0.2s						
IFIR	Firoozkooh	1.94	232	Pn	Pn	08 30 39.8	+0.1
ILAS	Lasjerd	2.00	223	ePn	Sn	08 30 55.5	-10
ILAS				e		08 31 32.0	
	comp=Z,17µm,0.4s						
IPRN	Paran-Amol	2.02	253	Pn	Pn	08 30 39.3	-1.5
IPRN	Paran-Amol	2.02	253	ePn	Pn	08 30 39.6	-1.2
IPRN				e		08 31 12.9	
	comp=Z,97µm,0.3s						
IDMV	Damavand	2.46	240	Pn	Pn	08 30 48.7	+1.9
IDMV	Damavand	2.46	240	e	Sg	08 31 26.6	+0.9
	comp=Z,12µm,0.2s						
IDMV	Damavand	2.46	240	Pn	Pn	08 30 48.7	+1.9
ISHV	Shirvan	2.54	74	Pn	Pn	08 30 50.1	+2.3
ISHV	Shirvan	2.54	74	ePn	Pn	08 30 50.1	+2.3
ISHV	Shirvan	2.54	74	ePn	Pn	08 30 50.1	+2.3
ISFR	Esferayen	2.70	85	Pn	Pn	08 30 53.3	+3.2
ISFR	Esferayen	2.70	85	ePn	Pn	08 30 53.3	+3.2
ISFR	Esferayen	2.70	85	ePn	Pn	08 30 53.3	+3.2
IVRN	Varamin	3.00	233	Pn	Pn	08 30 54.2	0.0
IVRN				Sn	Sn	08 31 29.1	-1.2
IVRN	Varamin	3.00	233	ePn	Pn	08 30 54.3	+0.1
IVRN				eSn	Sn	08 31 29.2	-1.1
IVRN				e		08 31 41.0	
	comp=Z,7µm,0.3s						
IVRN	Varamin	3.00	233	ePn	Pn	08 30 54.3	+0.1
IVRN				eSn	Sn	08 31 29.2	-1.1
IQHU	Quchan	3.14	85	Pn	Pn	08 30 57.8	+1.7
IQHU	Quchan	3.14	85	ePn	Pn	08 30 57.8	+1.7
IQHU	Quchan	3.14	85	ePn	Pn	08 30 57.8	+1.7
ISFB	Sefidab	3.17	219	Pn	Pn	08 30 55.5	-1.1
ISFB				Sn	Sn	08 31 32.6	-1.8
ISFB	Sefidab	3.17	219	ePn	Pn	08 30 55.6	-1.0
ISFB				e		08 31 49.2	
	comp=Z,5µm,0.2s						
ISFB	Sefidab	3.17	219	ePn	Pn	08 30 55.6	-1.0
ISFB				Sn	Sn	08 31 32.6	-1.8
IEMG	Emamqoli	3.26	79	Pn	Pn	08 30 58.8	+1.0
IEMG	Emamqoli	3.26	79	ePn	Pn	08 30 58.8	+1.0
IEMG	Emamqoli	3.26	79	ePn	Pn	08 30 58.8	+1.0
IAKL	Akhlamad	3.29	94	Pn	Pn	08 30 59.0	+0.8
IAKL	Akhlamad	3.29	94	ePn	Pn	08 30 59.1	+0.9
IAKL	Akhlamad	3.29	94	ePn	Pn	08 30 59.1	+0.9
IRAZ	Razeghan	4.08	251	Pn	Pn	08 31 09.8	+0.8
IRAZ	Razeghan	4.08	251	ePn	Pn	08 31 09.8	+0.8
IRAZ				e		08 32 16.7	
	comp=Z,3µm,0.4s						
IRAZ	Razeghan	4.08	251	ePn	Pn	08 31 09.8	+0.8
IKLH	Kalahroud	4.33	216	Pn	Pn	08 31 14.0	+1.5
IKLH	Kalahroud	4.33	216	ePn	Pn	08 31 14.0	+1.5
IKLH				e		08 32 26.8	
	comp=Z,2µm,0.4s						
IKLH	Kalahroud	4.33	216	ePn	Pn	08 31 14.0	+1.5
IZEF	Zefreh	4.38	206	Pn	Pn	08 31 12.9	-0.3
IZEF	Zefreh	4.38	206	ePn	Pn	08 31 12.9	-0.3
IZEF				e		08 32 32.4	
	comp=Z,2µm,0.2s						
IZEF	Zefreh	4.38	206	ePn	Pn	08 31 12.9	-0.3
IMYA	Miamay	4.43	95	Pn	Pn	08 31 14.8	+0.9
IMYA	Miamay	4.43	95	Pn	Pn	08 31 14.8	+0.9
ICHK	Chekchek	4.60	182	Pn	Pn	08 31 16.2	-0.1
ICHK	Chekchek	4.60	182	ePn	Pn	08 31 16.2	-0.1
ICHK	Chekchek	4.60	182	ePn	Pn	08 31 16.2	-0.1
ISAD	Sadrabad	4.99	189	Pn	Pn	08 31 21.5	-0.1
ISAD	Sadrabad	4.99	189	ePn	Pn	08 31 21.5	-0.1
ISAD	Sadrabad	4.99	189	ePn	Pn	08 31 21.5	-0.1
IPIR	Pirpir	5.18	218	Pn	Pn	08 31 26.3	+2.1
IPIR	Pirpir	5.18	218	ePn	Pn	08 31 26.3	+2.1
IPIR				e		08 32 59.8	
	comp=Z,822nm,0.4s						
IPIR	Pirpir	5.18	218	ePn	Pn	08 31 26.3	+2.1
IBAF	Bafgh	5.31	171	Pn	Pn	08 31 25.9	-0.1
IBAF	Bafgh	5.31	171	ePn	Pn	08 31 25.9	-0.1
IBAF	Bafgh	5.31	171	ePn	Pn	08 31 25.9	-0.1
ALIB	li-Bayraml	5.40	307	S	Sn	08 32 30.7	+1.4
IKOO		5.70	140	ePn	Pn	08 31 31.3	-0.1
IDAH		5.95	132	ePn	Pn	08 31 34.9	+0.1
PQL	Pirkuli	6.14	312	P	Pn	08 31 36.8	-0.5
	SNR=7.1						
PQL				S	Sn	08 32 47.2	-0.4
SIZA	Siyzn	6.14	315	P	Pn	08 31 40.3	+2.9
	SNR=2.7						
SEKA	Sheki	7.24	309	P	Pn	08 31 53.8	+1.4
	SNR=3.6						
NAX	Nakhchivan	7.58	291	P	Pn	08 31 57.1	0.0
	SNR=4.5						
KIV	Kislovodsk	11.54	312	⇑eP	Pn	08 32 55.5	+4.2
KIV				eS	Sn	08 34 55.8	-4.4
KIV				pmax	pmax		
	comp=Z,6.0nm,0.7s						
AKTK	Aktyubinsk	13.79	9	Pn	Pn	08 33 19.5	-2.6
AKTK				Sn	Sn	08 35 48.1	-7.1
AKTK				LR	LR	08 40 03.5	
AKTK	Aktyubinsk	13.79	9	Pn	Pn	08 33 19.5	-2.6
AKTO	Aktyubinsk	13.79	9	P	Pn	08 33 19.5	-2.6
AKTO						08 35 48.1	
AKTO	Aktyubinsk	13.79	9	Pn	Pn	08 33 19.5	-2.6
	comp=Z,0.5nm,0.3s,baz=187,slow=16,SNR=12						
AKTO				Sn	Sn	08 35 48.1	-7.1
	comp=Z,0.6nm,0.3s,baz=26,slow=19,SNR=4.7						
AKTO				LR	LR	08 40 03.5	
	comp=Z,102nm,21.8s,baz=36,slow=43						
UCH	Uchtor	16.23	65	ePn	Pn	08 33 55.4	+0.7
	comp=Z,2.5nm,0.7s						
UCH	Uchtor	16.23	65	ePn	Pn	08 33 55.4	+0.7
	comp=Z,2.5nm,0.7s						
AAK	Ala-Archa	16.32	63	ePn	Pn	08 33 51.0	-4.7
	comp=Z,6.0nm,1.0s						
AAK	Ala-Archa	16.32	63	⇑eP	Pn	08 33 51.7	-4.0
AAK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BRVK	Borovoye	19.55	29	eP	Pn	08 34 37.7	+2.1
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BRVK	Borovoye	19.55	29	eP	Pn	08 34 37.7	+2.1
	comp=Z,4.0nm,0.9s						
ARU	Arti	19.76	6	eP	Pn	08 34 38.6	+0.5
	comp=Z,10nm,0.6s						
ARU	Arti	19.76	6	eP	Pn	08 34 37.8	-0.2
ARU				eS	Sn	08 38 07.9	-12
OBN	Obninsk	22.04	332	⇑eP	P	08 34 58.2	-3.0
OBN				eS	S	08 38 52.5	-12
OBN				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.1						
KURK	Kurchatov	22.05	44	eP	P	08 35 01.1	-0.2
	comp=Z,5.7nm,0.8s,mb4.0						
KURK	Kurchatov	22.05	44	eP	P	08 35 01.1	-0.2
KURK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.1						
KURK	Kurchatov	22.05	44	eP	P	08 35 01.1	-0.2
	comp=Z,6.0nm,0.8s,mb4.1						
PLOR	Plostina	22.75	302	⇓iP	P	08 35 13.4	+4.5
MK31	Makanchi Array	22.77	55	eP	P	08 35 08.6	-0.5
MK31	Makanchi Array	22.77	55	eP	P	08 35 08.6	-0.4
MKAR	Makanchi Array	22.77	55	P	P	08 35 08.3	-0.8
	comp=Z,1.0nm,0.6s,mb3.4,baz=246,slow=11,SNR=9.8						
MKAR	Makanchi Array	22.77	55	eP	P	08 35 08.6	-0.4
AKASG	Malin Array Be	22.84	315	P	P	08 35 08.1	-1.6
AKASG	Malin Array Be	22.84	315	P	P	08 35 08.1	-1.6
	comp=Z,1.7nm,0.5s,mb3.7,baz=120,slow=9.2,SNR=18						
AKBB	Malin Array Si	22.84	315	eP	P	08 35 10.1	+0.4
AKBB	Malin Array Si	22.84	315	eP	P	08 35 10.1	+0.4
KIEV	Kiev	22.84	315	eP	P	08 35 09.6	-0.1
KIEV				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.2						
KIEV	Kiev	22.84	315	eP	P	08 35 09.6	-0.1
	comp=Z,8.0nm,0.8s,mb4.2						
MLR	Muntele Rosu	23.16	301	P	P	08 35 13.9	+0.7
	comp=Z,7.7nm,0.7s,mb4.2,baz=77,slow=2.0,SNR=12						
MLR	Muntele Rosu	23.16	301	⇓iP	P	08 35 17.2	+4.1
BURAR	Bucovina Array	24.15	306	⇑P	P	08 35 24.4	+1.6
BURAR	Bucovina Array	24.15	306	⇑iP	P	08 35 24.4	+1.7
VTS	Vitosha	24.75	293	⇑P	P	08 35 29.4	+1.2
VTS	Vitosha	24.75	293	⇑iP	P	08 35 29.5	+1.2
DRGR		25.62	303	⇓P	P	08 35 36.5	+0.4
DRGR		25.62	303	⇓iP	P	08 35 36.5	+0.4
KOLN	Koldanda	26.02	102	eP	P	08 35 39.0	-0.9
	comp=Z,23nm,1.1s,mb4.6						
GKN	Gorkha	26.73	101	eP	P	08 35 45.5	-0.8
ZAL	Zalesovo	26.92	41	P	P	08 35 47.4	-0.3
ZALV	Zalesovo Beam	26.93	41	P	P	08 35 47.4	-0.4
ZALV	Zalesovo Beam	26.93	41	P	P	08 35 47.4	-0.4
	comp=Z,1.2nm,0.4s,mb3.8,baz=255,slow=9.1,SNR=7.2						
DMN	Daman	27.28	101	eP	P	08 35 50.6	-0.7
PKI	Pulchoki	27.54	101	eP	P	08 35 53.3	-0.3
	comp=Z,43nm,1.2s,mb5.0						
GUN	Gumba	27.75	100	eP	P	08 35 54.4	-1.1
JIRN	Jiri	28.11	100	eP	P	08 35 58.5	-0.2
	comp=Z,6.5nm,0.5s,mb4.5						
ODAN	Odare	29.43	100	eP	P	08 36 09.8	-0.6
	comp=Z,20nm,0.8s,mb4.9						
GERES	GERESS Array B	31.94	305	P	P	08 36 33.3	+1.0
	comp=Z,1.0nm,0.8s,mb3.7,baz=108,slow=8.8,SNR=4.6						
ARCES	ARCESS Array B	36.34	343	P	P	08 37 09.9	-0.4
	comp=Z,2.4nm,0.9s,mb4.1,baz=116,slow=2.8,SNR=4.5						
NOA	NORSAR Array B	36.37	326	P	P	08 37 11.0	+0.4
	comp=Z,0.4nm,0.5s,mb3.6,baz=109,slow=7.4,SNR=2.8						
ULN	Ulaanbaatar	39.56	57	eP	P	08 37 36.3	-1.4

ESDC	Sonseca Array	45.39	292	P	P	08 38 23.7	-1.6
	comp=Z,1.5nm,0.6s,mb4.0,baz=70,slow=7.9,SNR=6.4						
KBS	Kingsbay	45.58	349	⇑eP	P	08 38 34.0	+7.7
TIXI	Tiksi	50.54	23	eP	P	08 39 02.7	-2.0
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
TORD	Torodi Ar. Bea	52.71	258	P	P	08 39 18.8	-2.9
TORD	Torodi Ar. Bea	52.71	258	P	P	08 39 18.8	-2.9
	comp=Z,1.5nm,0.9s,mb3.9,baz=49,slow=6.1,SNR=7.9						
BOSA	Boshof	70.73	207	P	P	08 41 19.4	-3.4
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
BOSA	Boshof	70.73	207	P	P	08 41 19.4	-3.4
	comp=Z,2.0nm,0.9s,mb4.1,baz=327,slow=7.2,SNR=4.1						
SCHQ	Schefferville	75.83	329	P	P	08 41 51.2	-1.5
	comp=Z,3.8nm,1.0s,mb4.3,baz=6.4,slow=4.7,SNR=4.1						
YKA	Yellowknife Ar	80.61	355	i P	P	08 42 20.2	+1.1
YKA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
YKA	Yellowknife Ar	80.61	355	P	P	08 42 17.6	-1.5
	comp=Z,0.6nm,1.0s,mb3.5,baz=3.0,slow=6.2,SNR=7.1						
YKA	Yellowknife Ar	80.61	355	i P	P	08 42 20.2	+1.1
	comp=Z,1.0nm,1.0s,mb3.7						

*IDC **03** 08:41:33.3±3.4, 13.06S×166.99E, h167^{km}±27^{km}, mb3.8/8, mb1 3.9/8, mb1mx3.7/16, mbtmp3.8/8, Error ellipse: s-maj=26.8km s-min=20.4km az=73.0*

*NEIC **03** 08:41:40.2±2.3, 13.18S×166.94E, h230^{km}±20^{km}, mb4.5/5, Error ellipse: s-maj=15.6km s-min=15.4km az=53.0*

*ISCJB **03** 08:41:41.0±3.1, 13.3S±.02×166.9E±.02, h249^{km}±28^{km}, mb4.1/12, Error ellipse: s-maj=26.5km s-min=23.9km az=150.1*

ISC 03 08:41:40.5±3.2**, 13.2S**±.02×**166.9E**±.02**, h231**^{km}±29^{km}**, n26, σ0^{s}66**/14**, mb4.1**/12**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	8.84	183	P	Pn	08 43 44.7	+0.2
	0.9nm,0.3s,baz=206,slow=20,SNR=7.2						
URZ	Urewera	26.55	162	P	P	08 46 56.5	-0.6
	4.7nm,0.4s,mb4.5,baz=252,slow=7.8,SNR=9.4						
STKA	Stephens Creek	29.76	227	eP	P	08 47 26.3	+0.6
	5.6nm,0.5s,mb4.5						
STKA	Stephens Creek	29.76	227	P	P	08 47 26.1	+0.4
	7.3nm,0.6s,mb4.5,baz=40,slow=8.1,SNR=25						
STKA				PcP	PcP	08 50 24.1	+0.6
	0.8nm,0.4s,baz=93,slow=4.5,SNR=4.1						
RPZ	Rata Peaks	30.62	174	P	P	08 47 33.1	0.0
	6.6nm,0.5s,mb4.5,baz=200,slow=4.4,SNR=5.5						
TOO	Toolangi	30.90	214	eP	P	08 47 36.3	+0.6
	4.5nm,0.7s,mb4.2						
WRA	Warramunga Arr	31.91	253	P	P	08 47 42.9	-1.8
	0.7nm,0.5s,mb3.5,baz=85,slow=9.2,SNR=5.2						
FORT	Forrest	39.82	238	eP	P	08 48 52.0	+0.4
	23nm,0.6s,mb4.8						
KLBR	Kellerberrin	48.58	239	eP	P	08 50 00.7	-0.3
	7.3nm,0.7s,mb4.1						
VNDA	Vanda	64.38	181	P	P	08 51 51.5	+0.2
	1.3nm,0.6s,mb3.8,baz=332,slow=8.0,SNR=5.7						
CASY	Casey	64.82	202	eP	P	08 51 54.3	-0.1
	24nm,0.5s,mb5.1						
SONM	Songino Array	81.08	324	P	P	08 53 30.9	+1.1
	0.7nm,1.0s,mb3.3,baz=116,slow=6.6,SNR=2.8						
MKAR	Makanchi Array	95.88	317	P	P	08 54 40.8	0.0
	0.4nm,0.6s,mb3.8,baz=100,slow=6.6,SNR=4.0						
YKA	Yellowknife Ar	96.34	27	P	P	08 54 42.1	-0.4
	0.2nm,0.8s,mb3.4,baz=254,slow=4.3,SNR=3.0						
YKA				pP	pP	08 55 27.4	-12
	0.3nm,0.7s,baz=253,slow=4.3,SNR=5.3						
ARCES	ARCESS Array B	118.70	346	PKP	PKPdf	09 00 00.1	-0.3
ARCES	ARCESS Array B	118.70	346	PKP	PKPdf	09 00 00.1	-0.3
	3.4nm,0.6s,baz=43,slow=2.3,SNR=8.5						
FINES	FINESS Array B	124.19	338	PKP	PKPdf	09 00 10.7	-0.5
FINES	FINESS Array B	124.19	338	PKP	PKPdf	09 00 10.7	-0.5
	0.6nm,0.5s,baz=0.0,slow=1.9,SNR=4.3						
NOA	NORSAR Array B	129.07	345	PKP	PKPdf	09 00 19.4	-1.1
NOA	NORSAR Array B	129.07	345	PKP	PKPdf	09 00 19.4	-1.1
	2.9nm,1.0s,baz=31,slow=2.0,SNR=3.8						
GERES	GERESS Array B	138.14	334	PKP	PKPdf	09 00 38.8	+0.9
GERES				SKPbc	SKPbc	09 03 56.2	+6.0
GERES	GERESS Array B	138.14	334	PKP	PKPdf	09 00 38.8	+0.9
	0.3nm,0.2s,baz=51,slow=4.3,SNR=3.6						
GERES				SKPbc	SKPbc	09 03 56.2	+6.0
	0.2nm,0.3s,baz=66,slow=4.5,SNR=4.5						
ESDC	Sonseca Array	152.43	345	PKPbc	PKPbc	09 01 09.4	0.0
ESDC	Sonseca Array	152.43	345	PKPbc	PKPbc	09 01 09.4	0.0
	0.4nm,0.3s,baz=15,slow=4.0,SNR=3.7						
TORD	Torodi Ar. Bea	165.62	271	PKP	PKPdf	09 01 18.5	+0.1
TORD				PKPab	PKPab	09 02 18.4	-0.3
TORD	Torodi Ar. Bea	165.62	271	PKP	PKPdf	09 01 18.5	+0.1
	1.0nm,1.1s,baz=132,slow=2.1,SNR=3.3						
TORD				PKPab	PKPab	09 02 18.4	-0.3
	0.3nm,0.7s,baz=106,slow=4.6,SNR=2.7						

*IDC **03** 09:00:13.5±0.6, 45.32S×72.42W, h0^{km}, mb4.6/10, mb1 4.7/10, mb1mx4.6/16, mbtmp4.6/10, ML3.3/1, MS4.8/14, Ms1 4.8/14, ms1mx4.7/17, Error ellipse: s-maj=30.6km s-min=15.7km az=80.0*

*ISCJB **03** 09:00:14.2±0.3, 45.27S±0.05×72.5W±0.1, h10^{km}, mb4.9/36, MS5.0/16, Error ellipse: s-maj=13.3km s-min=6.3km az=164.4*

*BJI **03** 09:00:15.7, 45.20S×72.20W, h10^{km}, mB5.3, Ms5.3, Msz5.0*

*NEIC **03** 09:00:15.8±0.3, 45.24S×72.24W, h10^{km}, mb5.1/28, Error ellipse: s-maj=16.6km s-min=6.9km az=77.0*

*GCMT **03** 09:00:15.8±0.1, 45.51S×73.03W, h12^{km}, MW5.3/81, Moment Tensor Solution. s58,c99; s81,c138; Duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.34±.02; $M_{\theta\theta}$0.24±.02; $M_{\phi\phi}$0.10±.03; $M_{r\theta}$-0.07±.05; $M_{\theta\phi}$1.24±.02; $M_{\phi r}$0.08±.05; Best double couple: $M_0$1.25000×10^{17} NP1:ϕ_s91.00000°, δ84.00000°, λ-6.00000°. NP2: ϕ_s182.00000°, δ84.00000°, λ-174.00000°. Principal axes: T 1.4130, Plg0.0000°, Azm316.0000°; N -0.3260, Plg82.0000°, Azm225.0000°; P -1.0870, Plg8.0000°, Azm47.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **03** 09:00:18.7±1.4, 45.16S×72.30W, h33^{km}, mb5.2/17 Error ellipse: s-maj=36.4km s-min=11.4km az=100.6*

ISC 03 09:00:16.2±3.5**, 45.27S**±0.05×**72.4W**±0.1**, h12**^{km}±21^{km}**, n136, σ1^{s}13**/78**, mb4.9**/36**, MS5.0**/16**, 3C-1D, Southern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
USHA	Ushuaia	9.90	166	Pn	Pn	09 02 40.6	+2.3
USHA				Lg		09 05 33.4	
USHA				LR	LR	09 06 25.2	
USHA	Ushuaia	9.90	166	Pn	Pn	09 02 40.6	+2.3
	0.2nm,0.3s,baz=328,slow=13,SNR=3.4						
USHA				Lg		09 05 33.4	
	2.4nm,0.3s,baz=285,slow=16,SNR=2.8						
USHA				LR	LR	09 06 25.2	
	comp=Z,9µm,19.3s,baz=313,slow=38						
EFI	East Falkland	11.47	129	eP	Pn	09 02 56.9	-2.8
CFAA	Coronel Fontan	14.03	15	Pn	Pn	09 03 34.5	-0.2
CFAA				Lg		09 07 39.9	
CFAA				LR	LR	09 08 40.3	
CFAA	Coronel Fontan	14.03	15	Pn	Pn	09 03 34.5	-0.2
	0.1nm,0.3s,baz=203,slow=14,SNR=12						
CFAA				Lg		09 07 39.9	
	0.0nm,0.3s,baz=209,slow=19,SNR=3.1						
CFAA				LR	LR	09 08 40.3	
	comp=Z,2µm,19.7s,baz=186,slow=36						
LCO	Las Campanas	16.29	5	ePn	Pn	09 04 05.0	+0.2
	41nm,1.1s						
PMSA	Palmer Station	20.09	170	eP	P	09 04 48.7	-0.6
	65nm,1.1s						
PMSA	Palmer Station	20.09	170	P	P	09 04 48.6	-0.8
	48nm,1.2s,baz=11,slow=10,SNR=2.5						
PMSA				LR	LR	09 11 34.1	
	comp=Z,4µm,20.5s,MS4.8,baz=331,slow=34						
ARE	Arequipa	28.73	2	eP	P	09 06 14.0	+0.5
LPAZ	La Paz	29.12	8	eP	P	09 06 16.9	0.0
	54nm,1.4s,mb5.1						
LPAZ	La Paz	29.12	8	eP	P	09 06 16.9	0.0
LPAZ				pmax	pmax		
	comp=Z,54nm,1.4s						
LPAZ	La Paz	29.12	8	P	P	09 06 17.2	+0.3
	comp=Z,13nm,0.8s,mb4.7,baz=171,slow=8.9,SNR=29						
LPAZ				ScP	ScP	09 13 06.2	+0.4
	comp=Z,2.3nm,0.9s,baz=122,slow=3.5,SNR=4.2						
RPN	Rapa Nui	34.48	289	LR	LR	09 16 08.1	
	comp=Z,395nm,19.1s,MS4.2,baz=121,slow=28						
ATAH	Atahualpa	38.48	350	P	P	09 07 38.2	0.0
	comp=Z,22nm,1.0s,mb4.8,baz=171,slow=5.2,SNR=6.0						
VNA3	Neumayer Olymp	39.23	153	eP	P	09 07 43.3	-0.6
VNA3				e	pP	09 07 46.4	-1.2
VNA3				e	pP	09 07 48.4	+0.8
VNA3				e		09 09 53.2	
VNA3				e		09 09 54.8	
VNA2	Neumayer--Watz	39.94	152	eP	P	09 07 49.8	0.0
VNA2				e		09 07 55.8	
VNA2				e		09 08 16.9	
VNA2				e		09 09 55.2	
VNA2				e		09 09 56.5	
SNAA	Sanae	41.44	153	P	P	09 08 02.1	-0.1
	comp=Z,4.7nm,1.0s,mb4.1,baz=261,slow=9.4,SNR=11						
QSPA	South Pole Qui	44.98	180	eP	P	09 08 30.7	0.0
	comp=Z,41nm,1.3s,mb5.1						
OTAV	Otavalo	45.63	352	eP	P	09 08 37.5	+1.0
	comp=Z,31nm,1.4s,mb5.0						
NVL	N’lazarevskaya	46.25	153	eP	P	09 08 43.1	+2.3
NVL				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
NVL				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.0						
ROSC	El Rosal	49.93	358	eP	P	09 09 10.9	+1.0
ROSC	El Rosal	49.93	358	P	P	09 09 10.0	+0.1
	comp=Z,5.8nm,0.6s,mb4.8,baz=106,slow=20,SNR=3.6						
ROSC				LR	LR	09 29 59.8	
	comp=Z,2µm,18.8s,MS5.1,baz=188,slow=36						
VNDA	Vanda	53.03	193	eP	P	09 09 32.1	-0.3
VNDA	Vanda	53.03	193	P	P	09 09 31.1	-1.2
	comp=Z,6.2nm,1.1s,mb4.5,baz=195,slow=2.4,SNR=3.9						
VNDA				LR	LR	09 30 07.1	
	comp=Z,739nm,18.9s,MS4.8,baz=138,slow=34						
RKT	Rikitea	54.83	272	eS	S	09 17 26.9	-0.2
	comp=Z,188nm,26.8s						
RKT				eLR	LR	09 25 37.0	
	comp=Z,1µm,27.8s						
SYO	Syowa Base	55.59	156	⇓epP	pP	09 09 51.4	-3.4
JTS	JuntasAbangare	56.45	345	eP	P	09 09 56.4	-1.5
	comp=Z,21nm,1.0s,mb5.1						
JTS	JuntasAbangare	56.45	345	eP	P	09 09 56.4	-1.4
JTS				pmax	pmax		
	comp=Z,21nm,1.0s						
TGUH	Tegucigalpa,Un	60.56	343	eP	P	09 10 25.2	-1.2
	comp=Z,28nm,1.1s,mb5.3						
MAW	Mawson	62.50	162	LR	LR	09 38 08.9	
	comp=Z,1µm,18.6s,MS5.1,baz=211,slow=36						
SJG	San Juan	63.33	7	eP	P	09 10 44.4	-0.6
TAOE	Nuku Hiva Isla	68.12	280	eS	S	09 20 14.5	-1.5
	comp=Z,594nm,25.2s						
TAOE				eLR	LR	09 31 58.6	
	comp=Z,2µm,24.6s						
CASY	Casey	68.76	181	eP	P	09 11 18.4	-1.0
	comp=Z,12nm,1.0s,mb4.8						
PPT	Papeete	68.77	266	eS	S	09 20 23.7	0.0
	comp=Z,452nm,23.0s						
PPT				eLQ		09 29 21.9	
	comp=Z,604nm,24.5s						
PPT				eLR	LR	09 32 04.7	
	comp=Z,689nm,25.2s						
PPT	Papeete	68.77	266	LR	LR	09 35 51.5	
	comp=Z,554nm,19.7s,MS4.8,baz=176,slow=31						
SUR	Sutherland	69.90	116	eP	P	09 11 30.2	+3.2
	comp=Z,53nm,1.7s,mb5.2						
BOSA	Boshof	75.26	116	eP	P	09 11 58.3	-0.7
	comp=Z,16nm,1.2s,mb4.8						
BOSA	Boshof	75.26	116	eP	P	09 11 58.3	-0.7
BOSA				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
BOSA	Boshof	75.26	116	P	P	09 11 57.6	-1.5
	comp=Z,7.1nm,0.8s,mb4.6,baz=215,slow=6.4,SNR=14						
BOSA				LR	LR	09 41 57.4	
	comp=Z,787nm,19.3s,MS5.0,baz=227,slow=33						
TSUM	Tsumeb	76.62	104	eP	P	09 12 06.7	-0.2
	comp=Z,19nm,1.5s,mb4.8						
LBTB	Lobatse	77.97	113	eP	P	09 12 13.7	-0.7
	comp=Z,32nm,1.2s,mb5.1						
LBTB	Lobatse	77.97	113	eP	P	09 12 13.7	-0.7
LBTB				pmax	pmax		
	comp=Z,33nm,1.2s,mb5.1						
LIC	Lamto	78.83	69	eP	P	09 12 20.8	+1.5
	comp=Z,43nm,1.3s,mb5.2						
GOGA	Godfrey	78.95	351	P	P	09 12 19.0	-0.3
	comp=Z,13nm,1.0s,mb4.8						
GOGA	Godfrey	78.95	351	P	P	09 12 19.0	-0.4
GOGA				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
LRAL	Lakeview Retre	79.05	348	eP	P	09 12 19.4	-0.6
KIC	Kosan Boka	79.12	69	eP	P	09 12 23.0	+2.2
	comp=Z,63nm,1.2s,mb5.4						
TIC	Toumodi	79.15	69	eP	P	09 12 22.4	+1.4
	comp=Z,15nm,1.1s,mb4.8						
JCT	Junction City	79.40	336	eP	P	09 12 21.3	-0.6
	comp=Z,33nm,1.5s,mb5.0						
JCT	Junction City	79.40	336	eP	P	09 12 21.3	-0.6
JCT				pmax	pmax		
	comp=Z,33nm,1.5s,mb5.0						
LTX	Lajitas	79.51	333	eP	P	09 12 24.1	+1.5
TXAR	Lajitas Array	79.51	333	P	P	09 12 21.7	-0.8
	comp=Z,2.2nm,0.8s,mb4.2,baz=159,slow=6.4,SNR=13						
TXAR				LR	LR	09 41 11.0	
	comp=Z,915nm,21.8s,MS5.1,baz=255,slow=31						
OXF	Oxford	80.89	346	eP	P	09 12 30.1	+0.2
	comp=Z,27nm,1.0s,mb5.1						
OXF	Oxford	80.89	346	eP	P	09 12 30.1	+0.3
OXF				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.1						
SWET	Sewanee	81.04	349	eP	P	09 12 30.6	-0.1
CPCT	Cooper Cave	81.09	350	eP	P	09 12 30.2	-0.6
PLAL	Pickwick Lake	81.13	347	eP	P	09 12 29.8	-1.3
	comp=Z,26nm,1.3s,mb5.0						
MNTX	Cornudas Mount	82.25	332	eP	P	09 12 37.3	+0.2
	comp=Z,4.8nm,1.0s,mb4.4						
PARMO	Parma	83.05	346	eP	P	09 12 40.3	-0.8
WMOK	Wichita Mounta	83.14	338	eP	P	09 12 40.6	-1.1
	comp=Z,14nm,1.3s,mb4.8						
WMOK	Wichita Mounta	83.14	338	eP	P	09 12 40.6	-1.1
WMOK				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.8						
SIUC	Southern Illin	83.99	347	eP	P	09 12 43.4	-2.5
	comp=Z,17nm,0.9s,mb5.2						
USIN	University of	83.99	348	P	P	09 12 44.9	-1.0
	comp=Z,15nm,0.5s,mb5.4						
BNM	Barren Site	84.92	332	eP	P	09 12 52.0	+1.3
BLO	Bloomington	85.01	349	eP	P	09 12 50.9	-0.2
	comp=Z,7.1nm,0.5s,mb5.0						
BLO	Bloomington	85.01	349	eP	P	09 12 50.9	-0.2
BLO				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.0						
LAZ	Ladron	85.31	332	eP	P	09 12 52.8	+0.1
ANMO	Albuquerque	85.59	333	eP	P	09 12 54.8	+0.7
	comp=Z,13nm,1.2s,mb5.0						
ANMO	Albuquerque	85.59	333	eP	P	09 12 54.8	+0.7
ANMO				pmax	pmax		
	comp=Z,13nm,1.2s						
LSZ	Lusaka	86.56	108	eP	P	09 12 59.5	-0.1
	comp=Z,9.0nm,0.8s,mb5.0						
LSZ	Lusaka	86.56	108	eP	P	09 12 59.5	0.0
LSZ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb5.0						
WUAZ	Wupatki	87.80	329	eP	P	09 13 08.0	+3.1
	comp=Z,9.8nm,1.1s,mb5.0						
PFO	Pinyon Flat Ob	88.08	325	eP	P	09 13 06.3	+0.1
	comp=Z,12nm,1.0s,mb5.1						
PFO	Pinyon Flat Ob	88.08	325	eP	P	09 13 06.3	0.0
PFO				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.1						
TOA0	Torodi Ar. Sit	88.38	70	eP	P	09 13 07.4	-0.8
TORD	Torodi Ar. Bea	88.38	70	P	P	09 13 07.5	-0.6
	comp=Z,6.9nm,0.9s,mb4.9,baz=232,slow=4.7,SNR=18						
TORD				LR	LR	09 50 31.5	
	comp=Z,643nm,18.3s,MS5.1,baz=235,slow=34						
PV01	Paradox Valley	89.19	332	P	P	09 13 11.7	+0.3
SHPR	Sheep Range	90.09	327	eP	P	09 13 18.6	+2.9
MSU	Marysvale	90.76	330	eP	P	09 13 19.3	+0.6
DAC	Darwin (Calif)	90.85	325	eP	P	09 13 22.2	+3.0
	comp=Z,13nm,1.4s,mb5.1						
DAC	Darwin (Calif)	90.85	325	eP	P	09 13 22.2	+3.0
DAC				pmax	pmax		
	comp=Z,13nm,1.4s,mb5.1						
NVAR	Mina Array Bea	92.99	326	P	P	09 13 29.1	+0.1
	comp=Z,0.2nm,0.5s,baz=215,slow=18,SNR=3.3						
HWUT	Hardware Ranch	93.31	332	eP	P	09 13 29.0	-1.4
	comp=Z,13nm,1.3s,mb5.2						
PDAR	Pinedale Array	93.70	334	LR	LR	09 50 45.4	
	comp=Z,644nm,18.2s,MS5.1,baz=141,slow=32						
IMW	Indian Meadow	95.16	333	eP	P	09 13 41.3	+2.4
	comp=Z,6.6nm,1.3s,mb4.9						
STKA	Stephens Creek	97.23	209	LR	LR	09 54 00.2	
	comp=Z,456nm,18.6s,MS5.0,baz=198,slow=33						
SCHQ	Schefferville	99.84	3	LR	LR	09 59 12.6	
	comp=Z,382nm,21.4s,MS4.9,baz=200,slow=35						
YKA	Yellowknife Ar	112.59	340	PKPdf	PKiKP	09 18 50.6	-0.6
YKA	Yellowknife Ar	112.59	340	PKIKP	PKiKP	09 18 50.6	-0.6
YKA	Yellowknife Ar	112.59	340	PKiKP	PKiKP	09 18 50.6	-0.6
	comp=Z,0.3nm,0.6s,baz=162,slow=1.9,SNR=8.1						
GERES	GERESS Array B	120.00	50	PKP	PKPdf	09 19 03.2	-2.7
GERES	GERESS Array B	120.00	50	PKIKP	PKPdf	09 19 03.2	-2.7
GERES	GERESS Array B	120.00	50	PKP	PKPdf	09 19 03.2	-2.7
	comp=Z,0.6nm,0.7s,baz=119,slow=1.7,SNR=4.8						
COLA	College	124.36	330	i PKIKP	PKPdf	09 19 15.1	+1.3
LVV	L’vov	126.22	53	ePKIKP	PKPdf	09 19 11.1	-6.7
BRTR	Keskin Array B	126.97	68	PKP	PKPdf	09 19 20.2	+0.6
BRTR	Keskin Array B	126.97	68	PKIKP	PKPdf	09 19 20.2	+0.6
BRTR	Keskin Array B	126.97	68	PKP	PKPdf	09 19 20.2	+0.6
	comp=Z,1.2nm,0.8s,baz=336,slow=3.2,SNR=4.5						
IMA2	Indian Mountai	127.07	330	ePKPdf	PKPdf	09 19 18.4	-0.5
AKASG	Malin Array Be	129.57	54	PKP	PKPdf	09 19 24.8	+0.6
AKASG	Malin Array Be	129.57	54	PKIKP	PKPdf	09 19 24.8	+0.6
AKASG	Malin Array Be	129.57	54	PKP	PKPdf	09 19 24.8	+0.6
	comp=Z,0.5nm,0.4s,baz=254,slow=3.5,SNR=3.3						
FINES	FINESS Array B	132.15	40	PKP	PKPdf	09 19 28.4	-0.3
FINES	FINESS Array B	132.15	40	PKIKP	PKPdf	09 19 28.4	-0.3
FINES	FINESS Array B	132.15	40	PKP	PKPdf	09 19 28.4	-0.3
	comp=Z,2.5nm,1.0s,baz=72,slow=2.4,SNR=5.2						
KIV	Kislovodsk	134.92	67	⇑i PKIKP	PKPdf	09 19 36.6	+2.1
KIV				eSS	SS	09 40 05.4	+2.3
KIV				pmax	pmax		
	comp=Z,3.0nm,0.9s						
OBN	Obninsk	135.36	51	⇑i PKIKP	PKPdf	09 19 36.3	+1.4
OBN				pmax	pmax		
	comp=Z,4.0nm,0.5s						
OBN				MLR	MLR		
	comp=Z,800nm,20.0s,MS5.4						
BILL	Bilibino	142.57	328	⇑i PKIKP	PKPdf	09 19 46.0	-1.7
BILL				pmax	pmax		
	comp=Z,9.0nm,2.0s						
BILL				MLR	MLR		
	comp=Z,200nm,20.0s,MS4.9						
AKTO	Aktyubinsk	146.85	63	PKPbc	PKPbc	09 19 56.0	-1.5
	comp=Z,8.3nm,0.9s,baz=222,slow=4.0,SNR=12						
SKR	Severo-Kuril’s	147.54	297	ePKIKP	PKPdf	09 19 56.5	-0.3
ARU	Arti	147.78	52	ePKPdf	PKPdf	09 19 57.6	+0.6
ARU				ePKPbc	PKPbc	09 20 01.6	+1.7
ARU				ePKPab	PKPab	09 20 04.6	+2.2
ARU	Arti	147.78	52	ePKIKP	PKPdf	09 19 57.6	+0.6
ARU				e		09 20 01.7	
ARU				e		09 20 04.6	
MA2	Magadan	150.64	315	ePKPdf	PKPdf	09 20 02.3	+0.8
MA2				ePKPbc	PKPbc	09 20 08.7	+1.7
MA2	Magadan	150.64	315	ePKIKP	PKPdf	09 20 02.3	+0.8
MA2				e		09 20 08.7	
TIXI	Tiksi	151.65	346	ePKPdf	PKPdf	09 20 03.2	+0.5
TIXI				ePKPbc	PKPbc	09 20 10.2	+1.1
TIXI				ePKPab	PKPab	09 20 19.1	+1.2
TIXI	Tiksi	151.65	346	i PKIKP	PKPdf	09 20 02.0	-0.7
TIXI				pmax	pmax		
	comp=Z,8.0nm,0.9s						
MJAR	Matsushiro Arr	155.38	260	PKPab	PKPab	09 20 32.1	-2.6
	comp=Z,4.1nm,1.1s,baz=150,slow=4.7,SNR=4.1						
KMI	Kunming	159.52	167	PKP	PKPdf	09 20 13.5	-1.2
KMI				APKP		09 20 17.2	
KMI				XPKP		09 20 19.7	
KMI				PP	PP	09 24 37.0	+3.8
KMI				SS	SS	09 44 39.8	+0.8
KMI				SSS		09 50 48.5	
KMI				PP	PP		
	comp=Z,113nm,4.3s						
KMI				LR	LR		
	comp=N,234nm,24.1s,MS5.1						
KMI				LR	LR		
	comp=E,235nm,24.1s,MS5.1						
KMI				LR	LR		
	comp=Z,350nm,22.6s,MS5.2						
GYA	Guiyang	161.21	177	PKP	PKPdf	09 20 16.2	-0.4
GYA				PKP2	PKPab	09 21 02.3	+2.3
GYA				PKS		09 23 48.4	
GYA				LR	LR		
	comp=N,250nm,21.0s						
GYA				LR	LR		
	comp=E,240nm,22.6s						
GYA				LR	LR		
	comp=Z,260nm,21.4s						
MK31	Makanchi Array	162.39	76	ePKPdf	PKPdf	09 20 16.8	-0.3
MK31	Makanchi Array	162.39	76	ePKIKP	PKPdf	09 20 16.8	-0.3
MKAR	Makanchi Array	162.39	76	PKP	PKPdf	09 20 15.4	-1.7
MKAR				PKPab	PKPab	09 21 03.0	-1.8
MKAR	Makanchi Array	162.39	76	PKIKP	PKPdf	09 20 15.4	-1.7
MKAR						09 21 03.1	
MKAR	Makanchi Array	162.39	76	PKP	PKPdf	09 20 15.4	-1.7
	comp=Z,0.3nm,0.8s,baz=72,slow=4.7,SNR=3.2						
MKAR				PKPab	PKPab	09 21 03.0	-1.8
	comp=Z,1.7nm,0.7s,baz=272,slow=3.8,SNR=11						
ZAL	Zalesovo	162.94	51	PKIKP	PKPdf	09 20 16.3	-1.1
ZAL						09 21 06.4	
ZALV	Zalesovo Beam	162.94	51	PKP	PKPdf	09 20 16.3	-1.1
ZALV				PKPab	PKPab	09 21 06.4	-0.6
ZALV	Zalesovo Beam	162.94	51	PKP	PKPdf	09 20 16.3	-1.1
	comp=Z,0.4nm,0.3s,baz=293,slow=1.1,SNR=3.0						
ZALV				PKPab	PKPab	09 21 06.4	-0.6
	comp=Z,1.4nm,0.6s,baz=289,slow=5.8,SNR=2.6						
NJ2	Nanjing	164.16	217	ePKP	PKPdf	09 20 16.1	-3.2
MDJ	Mudanjiang	164.40	275	PKP	PKPdf	09 20 19.5	+0.4
MDJ				SS	SS	09 45 34.0	+1.8
MDJ				PP	PP		
	comp=Z,208nm,5.2s						
MDJ				LR	LR		
	comp=N,151nm,43.1s						
MDJ				LR	LR		
	comp=Z,246nm,24.7s						
CD2	Chengdu	165.35	167	ePKP	PKPdf	09 20 18.7	-1.7
CD2				APKP		09 20 22.5	
CD2				XPKP		09 20 25.6	
CD2				PKP2	PKPab	09 21 16.9	-1.2
CD2				PP	PP	09 25 06.1	+1.9
CD2				SKS	SKSdf	09 27 17.5	-6.8
CD2				SKKS	SKKSac	09 31 48.0	-4.2
CD2				PP	PP		
	comp=Z,180nm,10.8s						
CD2				LR	LR		
	comp=N,510nm,24.0s						
CD2				LR	LR		
	comp=Z,450nm,22.8s						
WMQ	Urumqi	165.74	89	ePKP	PKPdf	09 20 19.7	-0.5
WMQ				PKS		09 23 51.0	
WMQ				PP	PP	09 25 08.4	+0.9
WMQ				SKS	SKSdf	09 27 22.3	-1.6
WMQ				PPP		09 29 03.6	
WMQ				SKKS	SKKSac	09 31 54.4	+0.3
WMQ				SS	SS	09 45 44.4	-1.5
WMQ				LR	LR		
	comp=N,425nm,23.8s						
WMQ				LR	LR		
	comp=E,359nm,21.4s						
WMQ				LR	LR		
	comp=Z,451nm,24.0s						
CN2	Changchun	167.17	270	ePKP	PKPdf	09 20 23.6	+2.3
CN2				PP	PP	09 25 20.0	+5.1
CN2				PP	PP		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,200nm,17.0s						
CN2				LR	LR		
	comp=E,200nm,17.0s						
CN2				LR	LR		
	comp=Z,400nm,19.0s						
LZH	Lanzhou	170.40	162	ePKP	PKPdf	09 20 19.0	-4.7
LZH				APKP		09 20 23.0	
LZH				XPKP		09 20 26.3	
LZH				PP	PP	09 25 29.1	-0.9
LZH				PP	PP		
	comp=Z,170nm,5.3s						
LZH				LR	LR		
	comp=E,185nm,20.1s						
LZH				LR	LR		
	comp=Z,250nm,21.0s						
GTA	Gaotai	171.79	133	ePKP	PKPdf	09 20 28.1	+3.8
GTA				PKS		09 23 58.8	
GTA				SKS	SKSdf	09 27 26.9	-0.3

```
GTA                                      SKKS    SKKSac   09 32 23.8  -0.1
GTA                                      PP      PP
      comp=Z,140nm,8.4s
GTA                                      LR      LR
      comp=N,221nm,20.6s
GTA                                      LR      LR
      comp=E,248nm,26.0s
GTA                                      LR      LR
      comp=Z,310nm,26.8s
HHC   Hu-ho-hao-te       174.71 215   ePKP    PKPdf    09 20 24.0  -1.4
HHC                                      PKS              09 23 55.8
HHC                                      PP      PP       09 25 56.3  +4.7
HHC                                      SKS     SKSdf    09 27 26.1  -1.9
HHC                                      SKKS    SKKSac   09 32 39.5  +1.9
HHC                                      PP      PP
      comp=Z,128nm,5.5s
HHC                                      LR      LR
      comp=N,173nm,39.8s
HHC                                      LR      LR
      comp=E,265nm,38.9s
HHC                                      LR      LR
      comp=Z,285nm,41.7s
SONM  Songino Array      177.31  17   PKPab   PKPab    09 22 11.4  +0.7
      comp=Z,1.1nm,0.8s,baz=333,slow=4.2,SNR=6.6
```

IDC 03 09:23:21.7±1.1**, 21.83N**×**143.12E, h0^{km}, mb3.8**/8**, mb1 4.0**/8**, mb1mx3.9**/21**, mbtmp3.8**/8**, Error ellipse: s-maj=34.9km s-min=25.5km az=48.0, Mariana Islands region**

```
Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                      Op      ISC       h  m  s   ISC
KSRS  Korea Array         20.37 323   P       P        09 28 00.7 +0.8
      1.6nm,0.7s,baz=134,slow=10,SNR=2.4
SONM  Songino Array       39.20 320   P       P        09 30 51.8 +0.3
      0.9nm,0.6s,baz=128,slow=6.9,SNR=8.4
WRA   Warramunga Arr      42.40 192   P       P        09 31 18.2 +0.1
      0.9nm,0.6s,baz=17,slow=9.4,SNR=3.2
ZALV  Zalesovo Beam       54.07 322   P       P        09 32 47.5 -0.5
      1.1nm,0.5s,baz=101,slow=6.3,SNR=5.8
MKAR  Makanchi Array      54.56 313   P       P        09 32 51.9 +0.2
      0.5nm,0.6s,baz=94,slow=8.8,SNR=6.4
AKTO  Aktyubinsk          70.43 317   P       P        09 34 37.4 -0.4
      0.7nm,0.5s,baz=79,slow=10,SNR=3.4
YKA   Yellowknife Ar      76.36  28   P       P        09 35 12.5  0.0
      0.5nm,0.4s,baz=293,slow=5.9,SNR=12
NVAR  Mina Array Bea      83.11  51   P       P        09 35 50.4 +0.7
      0.5nm,0.7s,baz=276,slow=4.2,SNR=5.7
LPAZ  La Paz             149.99  85   PKPbc   PKPbc    09 43 15.2 +0.2
      0.8nm,0.7s,baz=239,slow=5.9,SNR=3.0
```

IDC 03 09:30:27.8±1.2**, 21.90N**×**143.08E, h0^{km}, mb3.6**/6**, mb1 3.8**/6**, mb1mx3.7**/19**, mbtmp3.6**/6**, MS4.3**/1**, Ms1 4.3**/1**, ms1mx2.6**/30**, Error ellipse: s-maj=37.6km s-min=27.6km az=78.0, Mariana Islands region**

```
Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                      Op      ISC       h  m  s   ISC
SONM  Songino Array       39.12 320   P       P        09 37 57.7 +0.8
      0.6nm,0.5s,baz=123,slow=7.3,SNR=6.2
CTA   Charters Tower      41.85 176   LR      LR       09 55 07.4
      comp=Z,345nm,18.9s,baz=226,slow=35
WRA   Warramunga Arr      42.46 192   P       P        09 38 24.6  0.0
      0.4nm,0.4s,baz=16,slow=9.2,SNR=3.0
ZALV  Zalesovo Beam       53.99 322   P       P        09 39 53.1 -0.3
      0.4nm,0.3s,baz=94,slow=7.6,SNR=3.6
MKAR  Makanchi Array      54.49 313   P       P        09 39 56.7 -0.5
      0.3nm,0.6s,baz=106,slow=8.8,SNR=2.1
YKA   Yellowknife Ar      76.32  28   P       P        09 42 18.3  0.0
      0.2nm,0.5s,baz=290,slow=5.5,SNR=5.9
NVAR  Mina Array Bea      83.09  51   P       P        09 42 56.0 +0.4
      0.3nm,0.6s,baz=289,slow=8.0,SNR=3.6
```

CASC 03 09:41:11.6±2.0**, 11.65N**×**86.39W, h152^{km}**±7^{km}**, MD3.8, ML3.2, 10C-6D, Near coast of Nicaragua**

```
Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                      Op      ISC       h  m  s   ISC
TICN  Ticuantepe           0.41  22⇑iP    Pn       09 41 32.8 -0.1
APON  Apoyo                0.41  50⇑eP    Pn       09 41 32.6 -0.3
XAVN  Gruta Xavier         0.50   7⇑iP    Pn       09 41 33.1 -0.2
XAVN                              eS      Sn       09 41 50.9 +1.1
TISN  Laguna Tiscapa       0.51  14⇓iP    Pn       09 41 33.0 -0.2
MGAN  Managua              0.52  16⇑iP    Pn       09 41 32.9 -0.4
MGAN                              eS      Sn       09 41 49.6 -0.3
MGAN                              i                09 42 00.0
      comp=N,350nm,0.2s
COPN  Copaltepe            0.56 340⇓eP    Pn       09 41 33.3 -0.3
COPN                              eS      Sn       09 41 50.3 -0.1
APYN  Apoyeque             0.58   4 eS    Sn       09 41 53.7 +3.1
HUEN                       0.72  17⇑iP    Pn       09 41 33.9 -0.6
HUEN                              eS      Sn       09 41 53.1 +1.1
CONN  Concepcion           0.75  96⇑iP    Pn       09 41 34.8 +0.1
MOMJ  Momotombo            0.77 349⇑iP    Pn       09 41 34.1 -0.8
MOMJ                              eS      Sn       09 41 53.0 +0.4
TEL3  Telica 3             1.02 334⇑iP    Pn       09 41 36.7 -0.1
TEL3                              eS      Sn       09 41 57.2 +1.1
TELN  Telica               1.04 336⇑eP    Pn       09 41 36.7 -0.3
TELN                              eS      Sn       09 41 57.2 +0.8
LIM1  Limonal              1.46 130⇓eP    Pn       09 41 40.9 -0.1
LIM1                              eS      Sn       09 42 04.6 +1.2
CUI                        1.54 129⇓iP    Pn       09 41 42.1 +0.3
CUI                               eS      Sn       09 42 05.9 +1.0
VCR   Vista de Mar         1.69 154⇓eP    Pn       09 41 44.4 +1.1
VCR                               eS      Sn       09 42 08.3 +0.6
JCR   Jicaral              2.18 145⇓eP    Pn       09 41 50.3 +1.2
JCR                               eS      Sn       09 42 18.8 +1.0
CGA2  Cerro Gallo 2        2.49 130 eP    Pn       09 41 53.4 +0.7
CGA2                              eS      Sn       09 42 25.7 +1.3
PRS1  Puriscal             2.63 129 eP    Pn       09 41 56.4 +2.0
LAJ   Bijagual             2.85 128 eP    Pn       09 41 55.5 -1.6
LAJ                               eS      Sn       09 42 30.1 -2.2
LCR2  La Lucha 2           3.02 129 eP    Pn       09 42 00.1 +0.8
LCR2                              eS      Sn       09 42 37.6 +1.5
QCR   Quepos               3.11 135 eP    Pn       09 42 02.5 +2.0
QCR                               eS      Sn       09 42 39.9 +1.6
URSC  Urasca               3.14 125 eP    Pn       09 42 02.3 +1.5
URSC                              eS      Sn       09 42 41.2 +2.3
LCBS  La Ceiba             3.22 309 eP    x        09 42 25.1
LCBS                              eS      x        09 43 03.6
SNET  Serv Nac Est T       3.44 306 eS    x        09 42 49.0
BAR1                       3.86 128⇑eP    Pn       09 42 11.5 +1.4
BAR1                              eS      Sn       09 42 57.0 +1.5
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*ISCJB **03** 10:05:45.5±0.7, 17.4S±0.1×178.9W±0.1, h550^{km}, mb4.0/12, Error ellipse: s-maj=21.6km s-min=13.8km az=147.3*

*IDC **03** 10:05:45.8±5.2, 17.43S×178.74W, h542^{km}±55^{km}, mb3.3/8, mb1 3.6/8, mb1mx3.4/13, mbtmp3.3/8, Error ellipse: s-maj=32.1km s-min=21.3km az=116.0*

*NEIC **03** 10:05:49.3±3.9, 17.40S×178.89W, h584^{km}±46^{km}, mb4.2/6, Error ellipse: s-maj=22.1km s-min=14.3km az=109.0*

ISC 03 10:05:46.6±0.7**, 17.4S**±0.1×**178.8W**±0.1**, h550^{km}, n26,** σ0.61/19**, mb4.0**/12**, 3D, Fiji Islands region**

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Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                      Op      ISC       h  m  s   ISC
HNR   Honiara             22.10 288   P       P        10 10 02.3 +0.6
      49nm,0.3s,baz=88,slow=13,SNR=5.1
ARMA  Armidale            29.86 239   eP      P        10 11 10.6 +0.7
STKA  Stephens Creek      38.54 240⇓  iP      P        10 12 23.2 +0.8
      3.4nm,0.5s,mb4.1
STKA  Stephens Creek      38.54 240   P       P        10 12 23.1 +0.6
      3.1nm,0.3s,mb4.3,baz=81,slow=9.7,SNR=32
WB2   Warramunga Arr      44.33 259⇓  iP      P        10 13 07.4 -1.0
WRA   Warramunga Arr      44.34 259   P       P        10 13 07.8 -0.6
      1.1nm,0.3s,mb3.9,baz=94,slow=7.6,SNR=23
WRA                                   PcP     PcP      10 14 41.5 +1.0
      1.3nm,0.7s,baz=92,slow=3.5,SNR=5.2
KAKA  Kakadu              47.20 269   eP      P        10 13 30.2 -0.1
      11nm,0.2s,mb5.0
FORT  Forrest             49.88 244   eP      P        10 13 49.6 -0.3
      18nm,0.6s,mb4.7
FITZ  Fitzroy Crossi      52.73 260⇓  iP      P        10 14 11.4 +0.7
      9.0nm,1.2s,mb4.0
KLBR  Kellerberrin        58.71 243   eP      P        10 14 51.5 -0.5
      5.7nm,0.6s,mb4.0
MUN   Mundaring           60.01 243   eP      P        10 15 00.4 -0.3
MJAR  Matsushiro Arr      67.26 323   P       P        10 15 47.1 +0.4
      2.4nm,0.6s,mb3.9,baz=158,slow=6.3,SNR=9.2
QSPA  South Pole Qui      72.66 180   eP      P        10 16 18.5 +0.4
      3.2nm,0.8s,mb3.8
NVAR  Mina Array Bea      79.33  44   P       P        10 16 55.6  0.0
      0.5nm,0.7s,baz=229,slow=12,SNR=5.2
MAW   Mawson              84.21 200   P       P        10 17 19.4 -0.5
      3.8nm,0.8s,mb4.0,baz=144,slow=4.6,SNR=3.3
TXAR  Lajitas Array       86.05  58   P       P        10 17 30.4 +0.8
      0.3nm,0.7s,mb3.0,baz=202,slow=6.5,SNR=3.5
SONM  Songino Array       92.91 319   P       P        10 18 01.1 +0.2
      0.5nm,0.7s,mb3.6,baz=160,slow=11,SNR=5.3
YKA   Yellowknife Ar      94.03  25   P       P        10 18 04.5 -1.2
YKA   Yellowknife Ar      94.03  25   P       P        10 18 04.5 -1.2
      0.5nm,0.8s,mb3.7,baz=244,slow=4.6,SNR=8.4
MKAR  Makanchi Array     108.50 314   PKiKP   PKiKP    10 23 11.9 -0.9
      0.4nm,0.8s,baz=213,slow=0.7,SNR=6.1
ARCES ARCESS Array B     125.74 350   PKP     PKPdf    10 23 44.2 -1.0
      4.0nm,0.9s,baz=347,slow=8.7,SNR=3.6
FINES FINESS Array B     132.59 344   PKP     PKPdf    10 23 57.6 -0.9
      2.3nm,0.9s,baz=129,slow=2.0,SNR=3.5
BRTR  Keskin Array B     144.15 315   PKP     PKPdf    10 24 20.5 +0.3
      1.1nm,0.4s,baz=98,slow=2.9,SNR=9.4
KHC   Kasperske Hory     146.78 345   ePKPbc  PKPbc    10 24 27.5 +0.4
GERES GERESS Array B     147.02 345   PKPbc   PKPbc    10 24 28.1 +0.4
      2.4nm,0.8s,baz=24,slow=3.3,SNR=11
TORD  Torodi Ar. Bea     175.75 187   PKPab   PKPab    10 26 35.5 -1.0
      0.2nm,0.5s,baz=199,slow=2.1,SNR=1.9
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*IDC **03** 10:06:33.3±3.9, 73.40N×9.25E, h0^{km}, mb3.7/1, mb1 3.7/3, mb1mx3.2/20, mbtmp3.7/3, ML2.7/2, Error ellipse: s-maj=71.1km s-min=23.7km az=8.0*

*HEL **03** 10:06:38.7±1.4, 73.84N×11.10E, h10^{km}, ML3.1*

ISC 03 10:06:38.4±1.8**, 73.7N**±0.2×**10.9E**±0.5**, h10^{km}, n16,** σ1.03/23**, mb3.9**/1**, Norwegian Sea**

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Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                      Op      ISC       h  m  s   ISC
KIF   Kilpisjarvi          5.64 141   eP      Pn       10 08 02.9 +0.9
KIF                                   MPN              10 08 05.6
      comp=Z,1.8nm,0.2s
KIF                                   eS      Sn       10 09 05.7 -1.0
KIF   Kilpisjarvi          5.64 141   P       Pn       10 08 02.9 +0.9
      comp=Z,1.8nm,0.2s
KIF                                   S       Sn       10 09 05.7 -1.0
ARCES ARCESS Array B       6.18 125   Pn      Pn       10 08 08.8 -0.7
      comp=Z,0.9nm,0.3s,baz=324,slow=11,SNR=23
ARCES                                 Sn      Sn       10 09 21.4 +1.3
      comp=Z,0.8nm,0.3s,baz=336,slow=24,SNR=5.8
KEV   Kevo                 6.38 120   eP      Pn       10 08 11.6 -0.7
KEV                                   MPN              10 08 16.6
      comp=Z,1.9nm,0.3s
KEV                                   eS      Sn       10 09 23.6 -1.3
KEV   Kevo                 6.38 120   P       Pn       10 08 11.5 -0.7
      comp=Z,1.9nm,0.3s
KEV                                   S       Sn       10 09 23.6 -1.4
HEF   Hetta                6.69 136   eP      Pn       10 08 17.8 +1.3
HEF                                   eS      Sn       10 09 33.5 +0.9
HEF   Hetta                6.69 136   P       Pn       10 08 17.7 +1.2
HEF                                   S       Sn       10 09 33.4 +0.8
SGF   Sodankyl             8.09 133   eP      Pn       10 08 36.1 +0.4
SGF                                   MPN              10 08 36.7
      comp=Z,1.5nm,0.3s
SGF   Sodankyl             8.09 133   P       Pn       10 08 36.0 +0.3
      comp=Z,1.5nm,0.3s
MSF   Maaselka             9.93 132   eP      Pn       10 09 01.5 +0.7
MSF                                   MPN              10 09 03.2
      comp=Z,0.7nm,0.3s
MSF   Maaselka             9.93 132   P       Pn       10 09 01.5 +0.7
      comp=Z,0.7nm,0.3s
KU6   Riekki              10.01 130   eP      Pn       10 09 02.1 +0.2
KU6                                   MPN              10 09 04.9
      comp=Z,0.3nm,0.2s
KU6   Riekki              10.01 130   P       Pn       10 09 02.0 +0.1
      comp=Z,0.3nm,0.2s
FINES FINESS Array B      13.48 147   Pn      Pn       10 09 46.5 -2.9
      comp=Z,0.0nm,0.3s,baz=326,slow=12,SNR=2.7
KIS   Kishinev            27.91 153   e       P        10 12 28.0 -0.1
KIS                                   LRM              10 16 34.0
      comp=Z,300nm,18.0s
TORD  Torodi Ar. Bea      60.72 190   P       P        10 16 43.6 -6.1
      comp=Z,0.8nm,0.8s,mb3.9,baz=350,slow=6.7,SNR=5.0
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*MOS **03** 10:06:52.3±1.8, 42.59N×156.76E, h33^{km}, mb4.5/1, Error ellipse: s-maj=99.9km s-min=48.3km az=93.9*

*IDC **03** 10:07:12.4±3.6, 46.71N×155.84E, h0^{km}, mb3.4/4, mb1 3.7/4, mb1mx3.4/20, mbtmp3.4/4, MS3.9/1, Ms1 3.9/1, ms1mx2.7/26, Error ellipse: s-maj=109.3km s-min=33.9km az=3.0*

*ISCJB **03** 10:07:18.0±1.4, 47.3N±0.1×155.8E±0.3, h33^{km}, mb3.6/4, Error ellipse: s-maj=30.3km s-min=16.0km az=5.6*

ISC 03 10:07:20.2±1.4**, 47.3N**±0.1×**155.8E**±0.3**, h35^{km}, n6,** σ0.96/6**, mb3.6**/4**, East of Kuril Islands**

```
Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                      Op      ISC       h  m  s   ISC
SKR   Severo-Kuril's       3.44   3   eP      Sn       10 08 50.5 -0.2
MKAR  Makanchi Array      48.34 298   P       P        10 15 57.3 -0.7
      0.4nm,0.7s,mb3.6,baz=66,slow=5.9,SNR=4.6
YKA   Yellowknife Ar      49.41  38   P       P        10 16 06.2 +0.3
      0.2nm,0.8s,mb3.2,baz=287,slow=6.4,SNR=3.2
FINES FINESS Array B      64.36 336   P       P        10 17 53.0 +1.2
FINES                                 pmax    pmax
      comp=Z,3.0nm,1.1s
FINES FINESS Array B      64.36 336   P       P        10 17 53.0 +1.2
      comp=Z,2.9nm,1.1s,mb4.2,baz=31,slow=7.8,SNR=6.2
TXAR  Lajitas Array       75.63  62   P       P        10 19 01.0 -0.5
      comp=Z,0.3nm,0.5s,mb3.5,baz=309,slow=4.9,SNR=6.7
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*CSEM **03** 10:21:33.1, 11.97N×43.83E, h6^{km}, ML3.9, After DHMR*

DHMR 03 10:21:33.1±1.4**, 11.97N**×**43.83E, h6^{km}**±12^{km}**, ML3.9, 3C-1D, Ethiopia**

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Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                      Op      ISC       h  m  s   ISC
TRBA  At Turbah            1.28  12 i P     Pn       10 21 57.6 +0.1
TRBA                                i S     Sg       10 22 14.9 +0.6
TRBA                                  AML   AML      10 22 23.4
      comp=Z,2µm,0.5s
ADEN  Aden                 1.38  55 eP      Pn       10 21 59.1 +0.3
ADEN                                i S     Sb       10 22 18.1 +1.0
ADEN                                  AML   AML      10 22 23.8
      comp=E,3µm,0.5s
ADEN  Aden                 1.38  55 eP      Pn       10 21 59.1 +0.3
ADEN                                i S     Sb       10 22 18.1 +1.0
      comp=E,2µm,0.5s
UDYN  Al 'Udayn            1.98   4⇓iP      Pn       10 22 08.8 +1.6
UDYN                                i S     Sn       10 22 36.4 +4.0
LBOS                       2.34  36⇑iP      Pn       10 22 13.5 +1.5
LBOS                                i S     Sn       10 22 46.6 +5.5
BDHA  Al Bayda'            2.61  40⇑iP      Pn       10 22 18.0 +2.2
BDHA                                i S     Sn       10 22 53.9 +6.1
BDHA                                  AML   AML      10 23 05.4
      comp=N,728nm,0.5s
BDHA  Al Bayda'            2.61  40⇑iP      Pn       10 22 18.0 +2.2
BDHA                                i S     Sn       10 22 53.9 +6.1
      comp=N,364nm,0.5s
DHBB  Dhamar BB            2.64  12 i P     Pn       10 22 18.4 +2.2
DHBB                                i S     Sn       10 22 54.9 +6.4
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*NEIC **03** 10:26:33.8±1.1, 46.64N×155.70E, h10^{km}, mb4.2/3, Error ellipse: s-maj=25.1km s-min=9.8km az=144.0*

*BJI **03** 10:26:33.2, 46.91N×155.54E, h4^{km}, mB4.8, mb4.2, Ms4.5, Msz4.2*

*IDC **03** 10:26:33.1±0.7, 46.67N×155.72E, h0^{km}, mb4.0/17, mb1 4.2/19, mb1mx4.2/25, mbtmp4.1/19, ML3.7/2, MS4.5/1, Ms1 4.5/1, ms1mx3.0/34, Error ellipse: s-maj=19.6km s-min=15.0km az=144.0*

*ISCJB **03** 10:26:36.5±0.5, 46.70N±0.07×155.52E±0.08, h33^{km}, mb4.2/33, MS4.4/2, Error ellipse: s-maj=11.3km s-min=6.6km az=151.7*

*MOS **03** 10:26:36.7±1.7, 46.85N×155.44E, h33^{km}, mb4.4/14, Error ellipse: s-maj=10.3km s-min=8.4km az=92.7*

ISC 03 10:26:38.6±0.5**, 46.72N**±0.07×**155.58E**±0.08**, h35^{km}, n71,** σ1.34/71**, mb4.2**/33**, MS4.4**/2**, 6C-1D, East of Kuril Islands**

```
Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                      Op      ISC       h  m  s   ISC
SKR   Severo-Kuril's       3.98   5   ePN     Pn       10 27 30.0 -7.1
SKR                                   pmax    pmax
      comp=Z,60nm,0.5s
KUR   Kuril'sk             5.58 257   PN      Pn       10 28 00.5 +1.5
KUR                                   pmax    pmax
      comp=N,130nm,0.7s
KUR                                   pmax    pmax
      comp=E,90nm,0.7s
KUR                                   pmax    pmax
      comp=Z,170nm,0.7s
PET   Petropavlovsk        6.61  16   ePN     Pn       10 28 15.9 +2.7
PET                                   pmax    pmax
      comp=Z,18nm,0.5s
PET                                   MLR     MLR
      comp=Z,100nm,17.0s
YUK   Yuzh-Kuril'sk        7.35 252   ePN     Pn       10 28 22.6 -0.7
YUK                                   pmax    pmax
      comp=Z,180nm,0.5s
YSS   Yuzh-Sakhalins       8.79 276   PN      Pn       10 28 41.0 -2.1
ASAJ  Asahikawa            9.49 259   PN      Pn       10 28 53.1 +0.4
ASAJ                                  pmax    pmax
      comp=Z,1.0nm,0.3s
ASAJ  Asahikawa            9.49 259   Pn      Pn       10 28 53.0 +0.3
      comp=Z,1.2nm,0.3s,baz=115,slow=22,SNR=10
ERM   Erimo               10.06 247   ePN     Pn       10 29 00.3 -0.2
MA2   Magadan             13.19 349⇑  ePN     Pn       10 29 37.8 -5.4
MA2                                   pmax    pmax
      comp=Z,7.0nm,1.5s
HABR  Khabarovsk          13.96 285   eP      Pn       10 29 49.2 -4.5
HABR                                  eS      Sn       10 32 25.8 -1.4
MJAR  Matsushiro Arr      16.46 238   Pn      Pn       10 30 25.0 -1.7
MJAR  Matsushiro Arr      16.46 238   Pn      Pn       10 30 25.0 -1.7
      comp=Z,0.1nm,0.3s,baz=26,slow=12,SNR=7.7
YAK   Yakutsk             21.28 325⇑  eP      P        10 31 18.3 -3.4
YAK                                   pmax    pmax
      comp=Z,9.0nm,0.8s,mb4.2
BILL  Bilibino            22.07  11   eP      P        10 31 28.9 -1.2
      comp=Z,5.4nm,0.8s,mb4.0
BILL  Bilibino            22.07  11⇑  eP      P        10 31 27.3 -2.8
BILL                                  pmax    pmax
      comp=Z,5.0nm,0.8s,mb4.0
KSRS  Korea Array         22.42 256   P       P        10 31 36.0 +2.0
      comp=Z,3.2nm,0.8s,mb3.8,baz=59,slow=8.4,SNR=7.2
BOD   Bodaibo             27.31 309   eP      P        10 32 19.2 -0.5
TIXI  Tiksi               27.99 342   eP      P        10 32 22.6 -3.0
TIXI                                  pmax    pmax
      comp=Z,2.0nm,0.8s,mb3.8
ULN   Ulaanbaatar         32.50 290   eP      P        10 33 07.0 +1.3
SONM  Songino Array       32.94 290   P       P        10 33 09.3 -0.2
      comp=Z,0.7nm,0.7s,mb3.7,baz=50,slow=8.6,SNR=6.4
ZAK   Zakamensk           34.22 296   eP      P        10 33 23.1 +2.5
ZAK                                   pmax    pmax
      comp=Z,2.0nm,1.7s,mb3.8
COLA  College             35.11  38   eP      P        10 33 26.5 -1.6
GTA   Gaotai              40.64 280   eP      P        10 34 17.3 +2.2
GTA                                   AP      pP       10 34 21.5 -3.9
GTA                                   XP      sP       10 34 24.8 -4.7
GTA                                   AMB     AMB
      comp=Z,2.0nm,0.5s,mb4.0
INK   Inuvik              40.77  33   P       P        10 34 14.8 -0.9
      comp=Z,2.9nm,0.8s,mb4.0,baz=281,slow=7.2,SNR=15
ZALV  Zalesovo Beam       43.99 307   P       P        10 34 41.8 -0.4
      comp=Z,1.6nm,0.4s,mb4.1,baz=64,slow=6.8,SNR=7.2
ZALV                                  PcP     PcP      10 36 27.5 +0.2
      comp=Z,0.4nm,0.3s,baz=66,slow=4.9,SNR=3.6
ZAL   Zalesovo            44.01 307   P       P        10 34 41.8 -0.5
ZAL                                                    10 36 27.5
KMI   Kunming             46.91 262   P       P        10 35 06.3 +0.7
KMI                                   AMB     AMB
      comp=Z,7.0nm,1.4s,mb4.4
MK31  Makanchi Array      48.45 298   eP      P        10 35 17.0 -0.3
MKAR  Makanchi Array      48.45 298   P       P        10 35 17.0 -0.3
      comp=Z,1.4nm,0.8s,mb4.0,baz=66,slow=7.4,SNR=10
KURK  Kurchatov           48.78 305   eP      P        10 35 19.7 -0.1
      comp=Z,1.5nm,0.6s,mb4.2
KURK  Kurchatov           48.78 305   eP      P        10 35 19.7 -0.1
KURK                                  pmax    pmax
      comp=Z,1.0nm,0.6s,mb4.0
YKA   Yellowknife Ar      49.93  37   P       P        10 35 27.2 -1.1
      comp=Z,0.4nm,0.5s,mb3.7,baz=294,slow=7.2,SNR=6.9
BRVK  Borovoye            52.22 310   eP      P        10 35 45.7 +0.1
      comp=Z,1.8nm,0.6s,mb4.2
BRVK  Borovoye            52.22 310   eP      P        10 35 45.7  0.0
BRVK                                  pmax    pmax
      comp=Z,2.0nm,0.6s,mb4.2
AAK   Ala-Archa           55.36 298⇑  eP      P        10 36 06.7 -2.1
AAK                                   pmax    pmax
      comp=Z,2.0nm,1.2s,mb4.0
ARU   Arti                56.17 318⇑  iP      P        10 36 13.8 -0.6
ARU                                   e                10 38 15.3
ARU                                   eS      S        10 44 04.3 +3.4
ARU                                   eSS     SS       10 47 49.4 +2.5
ARU                                   pmax    pmax
      comp=Z,8.0nm,0.7s,mb4.9
PRGR  Permogore           58.30 328   eP      P        10 36 32.0 +2.7
ARCES ARCESS Array B      58.42 342   P       P        10 36 30.8 +0.7
ARCES                                 pmax    pmax
      comp=Z,3.0nm,0.9s
ARCES                                 MLR     MLR
      comp=Z,351nm,18.9s
ARCES ARCESS Array B      58.42 342   P       P        10 36 30.8 +0.7
      comp=Z,2.7nm,0.9s,mb4.3,baz=38,slow=8.0,SNR=3.6
ARCES                                 LR      LR       11 06 23.4
      comp=Z,351nm,18.9s,MS4.5,baz=38,slow=41
NVAR  Mina Array Bea      60.94  64   P       P        10 36 47.8 -0.1
      comp=Z,0.8nm,0.6s,mb4.0,baz=296,slow=8.6,SNR=9.1
JOF   Joensuu             62.10 335   ep      P        10 36 48.1 -7.2
      comp=Z,4.5nm,0.7s,mb4.7
JOF   Joensuu             62.10 335   eP      P        10 36 48.1 -7.2
JOF                                   pmax    pmax
      comp=Z,5.0nm,0.7s,mb4.8
FINES FINESS Array B      64.77 336   i P     P        10 37 14.1 +1.1
FINES                                 pmax    pmax
      comp=Z,1.0nm,0.6s
FINES FINESS Array B      64.77 336   P       P        10 37 14.1 +1.1
      comp=Z,1.4nm,0.6s,mb4.2,baz=51,slow=6.1,SNR=13
OBN   Obninsk             66.28 327⇑  eP      P        10 37 26.5 +3.7
OBN                                   pmax    pmax
      comp=Z,29nm,1.8s,mb5.0
OBN                                   MLR     MLR
      comp=Z,100nm,13.0s,MS4.2
NOA   NORSAR Array B      68.79 342   P       P        10 37 41.1 +2.5
NOA                                   pmax    pmax
      comp=Z,1.0nm,0.8s
NOA   NORSAR Array B      68.79 342   P       P        10 37 41.0 +2.5
      comp=Z,1.4nm,0.8s,mb3.9,baz=24,slow=6.4,SNR=3.6
WRA   Warramunga Arr      69.07 201   P       P        10 37 40.3 -0.4
WRA                                   pmax    pmax
      comp=Z,4.0nm,0.7s
WRA   Warramunga Arr      69.07 201   P       P        10 37 40.3 -0.5
      comp=Z,3.6nm,0.7s,mb4.4,baz=20,slow=6.7,SNR=13
FITZ  Fitzroy Crossi      69.94 210   P       P        10 37 46.9 +0.7
      comp=Z,2.1nm,0.8s,mb4.1,baz=7.7,slow=12,SNR=5.1
KIV   Kislovodsk          72.02 316⇓  eP      P        10 38 03.7 +5.1
KIV                                   eS      S        10 47 14.6 -2.9
KIV                                   pmax    pmax
      comp=Z,16nm,1.5s,mb4.7
AKASG Malin Array Be      72.50 328   i P     P        10 38 02.5 +1.2
AKASG                                 pmax    pmax
      comp=Z,2.0nm,0.6s
AKASG Malin Array Be      72.50 328   P       P        10 38 01.6 +0.3
      comp=Z,1.6nm,0.6s,mb4.1,baz=32,slow=6.0,SNR=10
TXAR  Lajitas Array       76.02  62   P       P        10 38 22.2  0.0
TXAR                                  pmax    pmax
      comp=Z,2.0nm,0.6s
TXAR  Lajitas Array       76.02  62   P       P        10 38 22.2 -0.1
      comp=Z,1.5nm,0.6s,mb4.1,baz=303,slow=4.7,SNR=35
UPC   Upice               77.05 335   eP      P        10 38 32.9 +5.2
DPC   Dobruska-Polom      77.09 335   eP      P        10 38 33.1 +5.2
KHC   Kasperske Hory      78.98 336   eP      P        10 38 44.2 +5.8
GERES GERESS Array B      79.20 335   P       P        10 38 39.4 -0.2
      comp=Z,0.3nm,0.4s,mb3.5,baz=46,slow=7.0,SNR=2.7
STKA  Stephens Creek      79.25 192   P       P        10 38 38.8 -1.0
      comp=Z,0.7nm,0.3s,mb4.0,baz=107,slow=5.6,SNR=2.8
BRTR  Keskin Array B      79.55 318   P       P        10 38 42.6 +0.9
BRTR                                  pmax    pmax
      comp=Z,2.0nm,0.9s
BRTR  Keskin Array B      79.55 318   P       P        10 38 42.5 +0.8
      comp=Z,1.8nm,0.9s,mb4.0,baz=45,slow=4.2,SNR=6.4
HINF  Hinteralfeld        81.96 339   eP      P        10 38 54.3 -0.1
LDF   La Druitiere        82.74 344   eP      P        10 39 02.0 +3.5
      comp=Z,50nm,1.3s,mb5.1
LPL   La Plagne           84.14 339   eP      P        10 39 13.4 +7.6
LPG   La Plagne           84.15 339   eP      P        10 39 13.8 +8.0
      comp=Z,18nm,1.1s,mb4.8
MFF   Saint Martin d      84.65 343   eP      P        10 39 06.3 -2.0
      comp=Z,24nm,1.1s,mb5.0
MBDF  Montbardon          84.87 338   eP      P        10 39 14.5 +5.1
CAF   Calviac             85.79 341   eP      P        10 39 15.9 +1.8
VNA2  Neumayer--Watz     154.38 193   ePKPdf  PKPbc    10 46 36.5 +2.8
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VNA2				e		11 22 19.6	
VNA3	**Neumayer Olymp**	154.41	191	ePKPdf	PKPdf	10 46 22.8	-2.6
VNA3				e		11 22 19.2	

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*ISCJB **03** 10:30:22.9±0.5, 43.14N±0.04×45.86E±0.03, h10^{km}±4^{km}, Error ellipse: s-maj=7.9km s-min=3.1km az=19.1*

*CSEM **03** 10:30:23.7, 43.04N×45.82E, h10^{km}, mb4.2, After OBN*

*MOS **03** 10:30:23.7±1.8, 43.04N×45.82E, h10^{km}, mb4.2/1, Error ellipse: s-maj=19.6km s-min=6.9km az=16.5*

*TIF **03** 10:30:24.0, 43.22N×45.79E, h13^{km}±4^{km}*

ISC 03 10:30:23.8±0.5**, 43.15N**±0.05×**45.87E**±0.03**, h15**^{km}±3^{km}**, n37, σ0^{s}92**/71**, 6C-5D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBC	**Dubki**	0.72	100	ePG	Pg	10 30 37.0	-0.8
DBC				eS	Sg	10 30 51.0	+3.7
DBC	**Dubki**	0.72	100	ePg	Pg	10 30 37.0	-0.8
DBC				eSg	Sg	10 30 51.0	+3.7
SNJR	**Sundja**	0.78	265	⇑iPG	Pg	10 30 38.7	-0.2
SNJR				i S	Sg	10 30 50.1	+1.0
SNJR	**Sundja**	0.78	265	i Pg	Pg	10 30 38.7	-0.2
SNJR				i Sg	Sg	10 30 50.1	+1.0
KRNR	**Karanay**	0.83	112	ePG	Pg	10 30 38.8	-1.1
KRNR				i S	Sg	10 30 51.3	+0.6
KRNR				pmax	pmax		
	comp=Z,50nm,0.2s						
KRNR	**Karanay**	0.83	112	ePg	Pg	10 30 38.8	-1.1
	comp=Z,50nm,0.2s						
KRNR				i Sg	Sg	10 30 51.3	+0.6
VLKR	**Vladikavkaz**	0.88	264	⇑iPG	Pg	10 30 40.2	-0.6
VLKR				i S	Sg	10 30 53.4	+1.1
VLKR	**Vladikavkaz**	0.88	264	i Pg	Pg	10 30 40.2	-0.6
VLKR				i Sg	Sg	10 30 53.4	+1.1
BUJR	**Buynaksk**	0.97	109	ePG	Pg	10 30 45.2	+2.7
BUJR				i S	Sg	10 31 00.8	+5.7
BUJR				pmax	pmax		
	comp=Z,65nm,0.2s						
BUJR	**Buynaksk**	0.97	109	ePg	Pg	10 30 45.2	+2.7
	comp=Z,65nm,0.2s						
BUJR				i Sg	Sg	10 31 00.8	+5.7
BTKR	**Batakoyurt**	0.99	284	ePG	Pg	10 30 41.1	-1.9
BTKR				i S	Sg	10 30 56.1	+0.1
BTKR	**Batakoyurt**	0.99	284	ePg	Pg	10 30 41.1	-1.9
BTKR				i Sg	Sg	10 30 56.1	+0.1
TRKR	**Terskaya**	1.01	305	⇓iPG	Pg	10 30 42.8	-0.4
TRKR				eS	Sg	10 30 58.3	+1.9
TRKR	**Terskaya**	1.01	305	i Pg	Pg	10 30 42.8	-0.4
TRKR				eSg	Sg	10 30 58.3	+1.9
ARNR	**Ardon**	1.16	273	⇑iPG	Pg	10 30 45.1	-1.1
ARNR				i S	Sg	10 31 01.6	+0.3
ARNR	**Ardon**	1.16	273	i Pg	Pg	10 30 45.1	-1.1
ARNR				i Sg	Sg	10 31 01.6	+0.3
KMSR	**Komsomolskaya**	1.17	282	⇓iPG	Pg	10 30 45.4	-1.0
KMSR				i S	Sg	10 31 02.5	+0.9
KMSR	**Komsomolskaya**	1.17	282	i Pg	Pg	10 30 45.4	-1.0
KMSR				i Sg	Sg	10 31 02.5	+0.9
LACR	**Lac**	1.20	255	⇓iPG	Pg	10 30 45.1	-1.7
LACR				i S	Sb	10 31 00.5	-0.8
LACR	**Lac**	1.20	255	i Pg	Pg	10 30 45.1	-1.7
LACR				i Sg	Sb	10 31 00.5	-0.8
PRTR	**Priterechnaya**	1.30	298	⇑iPG	Pn	10 30 47.1	-0.2
PRTR				eS	Sb	10 31 04.1	-0.3
PRTR	**Priterechnaya**	1.30	298	i Pg	Pn	10 30 47.1	-0.2
PRTR				eSg	Sb	10 31 04.1	-0.3
KORR	**Kora**	1.32	268	⇓iPG	Pn	10 30 47.5	-0.1
KORR				i S	Sg	10 31 06.1	-0.2
KORR	**Kora**	1.32	268	i Pg	Pn	10 30 47.5	-0.1
KORR				i Sg	Sg	10 31 06.1	-0.2
KMKR	**Kumukh**	1.36	138	ePG	Pn	10 30 48.0	-0.2
KMKR				i S	Sg	10 31 08.0	+0.2
KMKR				pmax	pmax		
	comp=Z,32nm,0.2s						
KMKR	**Kumukh**	1.36	138	ePg	Pn	10 30 48.0	-0.2
	comp=Z,32nm,0.2s						
KMKR				i Sg	Sg	10 31 08.0	+0.2
ZEI	**Tsey**	1.49	256	⇑iPG	Pn	10 30 49.3	-0.7
ZEI				i S	Sn	10 31 08.8	-0.3
ZEI	**Tsey**	1.49	256	i Pg	Pn	10 30 49.3	-0.7
ZEI				i Sg	Sn	10 31 08.8	-0.3
LSNR	**Lesken**	1.50	276	ePG	Pn	10 30 49.8	-0.3
LSNR				eS	Sn	10 31 09.9	+0.5
LSNR	**Lesken**	1.50	276	ePg	Pn	10 30 49.8	-0.3
LSNR				eSg	Sn	10 31 09.9	+0.5
MTA	**Mtatsminda**	1.66	209	P	Pg	10 30 55.0	-0.6
DIGR	**Digorskoe uzhe**	1.69	262	⇑iPN	Pn	10 30 52.3	-0.4
DIGR				i S	Sn	10 31 13.9	-0.2
DIGR	**Digorskoe uzhe**	1.69	262	i Pn	Pn	10 30 52.3	-0.4
DIGR				i Sg	Sn	10 31 13.9	-0.2
DGRG	**David-gareji**	1.73	192	P	Pg	10 30 57.9	+0.8
ONI	**Oni**	1.86	253	P	Pn	10 30 55.9	+0.8
ONI				S	Sn	10 31 20.4	+2.1
KIV	**Kislovodsk**	2.45	290	dePN	Pg	10 31 10.9	+0.2
KIV				e		10 31 33.1	
KIV				pmax	pmax		
	comp=Z,14nm,0.7s						
KIV				smax			
	comp=N,27nm,0.8s						
KIV	**Kislovodsk**	2.45	290	ePn	Pg	10 31 10.9	+0.2
	comp=N,14nm,0.7s						
KIV				eSn	Sn	10 31 33.1	+0.4
	comp=N,27nm,0.8s						

IGQ 03 10:35:24.2, 1.34S×81.41W, h18^{km}±11^{km}, Mb4.0, Ms3.8, 1C-5D, Error ellipse: s-maj=13.8km s-min=10.4km az=8.7, Off coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHIS	**Cerro-Chispas-**	0.74	67	P	Pb	10 35 38.1	-0.6
CHIS				S	Sb	10 35 47.5	-1.0
ARRY	**Arrayan**	2.96	93	P	Pn	10 36 11.1	+0.7
RETU	**Refugio**	2.97	92	P	Pn	10 36 13.5	+3.0
CAMI	**Rancho Maria**	2.98	77	P	Pn	10 36 13.8	+3.1
RUN5	**Runtun**	2.99	92	⇓P	Pn	10 36 12.8	+2.0
ULBA	**Ulba**	3.00	92	⇓P	Pn	10 36 13.7	+2.7
TERV	**Terraza Guagua**	3.03	68	P	Pn	10 36 14.4	+2.9
PINO	**Pino**	3.04	67	⇓P	Pn	10 36 14.2	+2.7
GGP	**Refugio Guagua**	3.04	68	P	Pn	10 36 13.2	+1.7
VC1	**Cotopaxi 1**	3.08	77	⇓P	Pn	10 36 16.7	+4.5
YANA	**Yana**	3.09	67	⇑P	Pn	10 36 14.2	+2.1
TAMB	**Tambo**	3.11	78	⇓P	Pn	10 36 16.3	+3.9

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*IDC **03** 10:41:45.7±1.8, 46.75N×153.16E, h0^{km}, mb3.8/8, mb1 3.9/9, mb1mx3.8/21, mbtmp3.8/9, ML3.4/1, MS3.7/1, Ms1 3.7/1, ms1mx2.6/42, Error ellipse: s-maj=50.8km s-min=22.4km az=166.0*

*NEIC **03** 10:41:46.4±0.9, 46.54N×153.06E, h10^{km}, mb3.9/1, Error ellipse: s-maj=23.4km s-min=10.2km az=156.0*

*MOS **03** 10:41:49.6±1.1, 46.58N×152.94E, h48^{km}, mb4.1/1, Error ellipse: s-maj=18.2km s-min=14.6km az=142.7*

*ISCJB **03** 10:41:50.8±1.8, 46.7N±0.2×153.0E±0.2, h49^{km}±14^{km}, mb3.8/8, Error ellipse: s-maj=37.2km s-min=11.1km az=148.2*

ISC 03 10:41:52.6±1.6**, 46.7N**±0.2×**153.0E**±0.2**, h52**^{km}±12^{km}**, n23, σ0^{s}98**/23**, mb3.8**/8**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	3.84	250	ePN	Pn	10 42 48.8	-0.3
KUR				eS	Sn	10 43 34.0	+1.0
KUR				pmax	pmax		
	comp=Z,90nm,0.6s						
KUR				smax			
	comp=N,130nm,0.5s						
KUR				smax			
	comp=E,80nm,0.5s						
YSS	**Yuzh-Sakhalins**	7.03	276	ePn	Pn	10 43 30.3	-2.5
YSS	**Yuzh-Sakhalins**	7.03	276	ePN	Pn	10 43 30.3	-2.5
PET	**Petropavlovsk**	7.36	28	ePN	Pn	10 43 37.9	+0.6
ASAJ	**Asahikawa**	7.74	255	PN	Pn	10 43 43.7	+1.1
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	7.74	255	Pn	Pn	10 43 43.6	+1.1
	comp=Z,0.5nm,0.3s,baz=318,slow=20,SNR=5.0						
ERM	**Erimo**	8.43	240	ePn	Pn	10 43 48.6	-3.4
ERM	**Erimo**	8.43	240	ePN	Pn	10 43 48.6	-3.4
JHJ	**Hachijo jima 2**	16.86	221	LR	LR	10 50 27.4	
	comp=Z,308nm,21.6s,baz=49,slow=31						
KSRS	**Korea Array**	20.68	253	P	P	10 46 29.6	+1.5
	comp=Z,1.6nm,0.8s,baz=56,slow=10,SNR=4.1						
BILL	**Bilibino**	22.51	13	eP	P	10 46 51.5	+4.1
ULN	**Ulaanbaatar**	30.85	289	eP	P	10 48 03.0	-0.5
	comp=Z,0.6nm,0.4s,mb3.8						
ULN	**Ulaanbaatar**	30.85	289	eP	P	10 48 03.0	-0.5
ULN				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
ZALV	**Zalesovo Beam**	42.60	306	P	P	10 49 42.8	-0.4
	comp=Z,0.4nm,0.3s,mb3.6,baz=76,slow=12,SNR=2.4						
ZAL	**Zalesovo**	42.62	306	P	P	10 49 42.8	-0.5
MK31	**Makanchi Array**	46.91	297	eP	P	10 50 17.6	0.0
MKAR	**Makanchi Array**	46.91	297	P	P	10 50 16.9	-0.6
	comp=Z,1.0nm,0.8s,mb3.8,baz=80,slow=6.8,SNR=8.7						
YKA	**Yellowknife Ar**	51.06	37	P	P	10 50 49.1	0.0
YKA	**Yellowknife Ar**	51.06	37	P	P	10 50 49.1	+0.1
	comp=Z,0.2nm,0.6s,mb3.2,baz=297,slow=7.0,SNR=4.2						
FINES	**FINESS Array B**	64.10	335	P	P	10 52 21.6	+0.9
	comp=Z,2.2nm,0.9s,mb4.2,baz=33,slow=4.5,SNR=3.8						
NOA	**NORSAR Array B**	68.30	341	P	P	10 52 48.5	+0.9
	comp=Z,1.1nm,0.7s,mb4.0,baz=30,slow=6.9,SNR=2.8						
AKASG	**Malin Array Be**	71.58	326	P	P	10 53 07.8	-0.2
	comp=Z,1.5nm,0.5s,mb4.2,baz=36,slow=6.1,SNR=6.2						
TXAR	**Lajitas Array**	77.62	60	P	P	10 53 42.5	-0.8
	comp=Z,0.7nm,0.7s,mb3.7,baz=294,slow=4.0,SNR=10						

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*IDC **03** 10:49:10.3±0.7, 43.32N×17.44E, h0^{km}, mb3.9/12, mb1 4.1/24, mb1mx4.0/29, mbtmp3.9/24, ML4.0/11, MS3.4/10, Ms1 3.4/10, ms1mx3.2/34, Error ellipse: s-maj=14.1km s-min=9.2km az=64.0*

*ROM **03** 10:49:11.4±0.3, 43.32N×17.86E, h10^{km}, Ml4.2/66, Error ellipse: s-maj=5.0km s-min=1.7km az=117.0*

*ISCJB **03** 10:49:11.5±0.1, 43.366N±0.010×17.67E±0.01, h10^{km}, mb4.0/15, MS3.9/1, Error ellipse: s-maj=1.5km s-min=1.2km az=33.6*

*LDG **03** 10:49:12.8±0.1, 43.41N×17.76E, h10^{km}, Ml4.4/23, ms3.1/5, Error ellipse: s-maj=4.9km s-min=2.3km az=31.0*

*BEO **03** 10:49:12.8±0.9, 43.48N×17.48E, h18^{km}±4^{km}, ML4.3/8*

*IPEC **03** 10:49:12.6±0.1, 43.35N×17.77E, h0^{km}, ML3.3/3, Error ellipse: s-maj=1.7km s-min=1.2km az=62.0*

*TIR **03** 10:49:13.1±5.1, 43.37N×17.78E, h6^{km}±20^{km}, ML3.0*

*CSEM **03** 10:49:13.0±0.0, 43.33N×17.77E, h10^{km}, ML4.3/23, Error ellipse: s-maj=1.0km s-min=0.7km az=26.0*

*SZGRF **03** 10:49:13.2, 43.31N×17.91E, h10^{km}, mb4.3, Northwestern Balkan Peninsula*

*NEIC **03** 10:49:14.6, 43.52N×17.66E, h10^{km}, ML4.4(LDG), ML4.2(BUC), ML4.2(SZGRF), After BUC.*

*MOS **03** 10:49:14.0±0.8, 43.36N×17.60E, h42^{km}, mb4.4/4, Error ellipse: s-maj=4.2km s-min=2.8km az=111.3*

*PDG **03** 10:49:14.2±0.2, 43.26N×17.76E, h5^{km}, MD4.2/10, ML4.4/10, Error ellipse: s-maj=0.9km s-min=1.3km az=0.0*

*PRU **03** 10:49:15.5, 43.48N×17.73E, h4^{km}, M4.4*

*STR **03** 10:49:31.2±4.9, 43.91N×15.92E, h10^{km}, Ml4.4, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 03 10:49:13.6±0.3**, 43.34N**±0.01×**17.69E**±0.01**, h14**^{km}±2^{km}**, n745, σ1^{s}18**/942**, mb4.0**/15**, MS3.9**/1**, 91C-47D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRY	**Bratogost**	0.76	125	⇑iPg	Pg	10 49 26.9	-1.5
BRY				eSg	Sg	10 49 37.8	-0.6
BRY	**Bratogost**	0.76	125	⇑iPg	Pg	10 49 26.9	-1.5
BRY				eSg	Sg	10 49 37.8	-0.6
BRY	**Bratogost**	0.76	125	⇑iPg	Pg	10 49 26.9	-1.5
BRY				eSg	Sg	10 49 37.8	-0.6
UPM	**Unac-Piva**	0.90	98	⇑iPg	Pg	10 49 29.7	-1.3
UPM				eSg	Sg	10 49 43.0	+0.2
UPM	**Unac-Piva**	0.90	98	⇑iPg	Pg	10 49 29.7	-1.3
UPM				eSg	Sg	10 49 43.0	+0.2
UPM	**Unac-Piva**	0.90	98	⇑iPg	Pg	10 49 29.7	-1.3
UPM				eSg	Sg	10 49 43.0	+0.2
HCY	**Herceg Novi**	1.07	146	⇑iPg	Pg	10 49 32.4	-1.8
HCY				eSg	Sg	10 49 48.3	+0.2
HCY	**Herceg Novi**	1.07	146	⇑iPg	Pg	10 49 32.4	-1.8
HCY				eSg	Sg	10 49 48.3	+0.2
HCY	**Herceg Novi**	1.07	146	i PG	Pg	10 49 32.4	-1.8
HCY				i SG	Sg	10 49 48.3	+0.2
HCY	**Herceg Novi**	1.07	146	⇑iPg	Pg	10 49 32.4	-1.8
HCY				eSg	Sg	10 49 48.3	+0.2
NKY	**Niksic**	1.09	118	⇑iPg	Pg	10 49 32.8	-1.8
NKY				eSg	Sg	10 49 49.4	+0.5
NKY	**Niksic**	1.09	118	⇑iPg	Pg	10 49 32.8	-1.8
NKY				eSg	Sg	10 49 49.4	+0.5
NKY	**Niksic**	1.09	118	i PG	Pg	10 49 32.8	-1.8
NKY				i SG	Sg	10 49 49.4	+0.5
NKY	**Niksic**	1.09	118	⇑iPg	Pg	10 49 32.8	-1.8
NKY				eSg	Sg	10 49 49.4	+0.5
PLE	**Pljevlja**	1.24	90	⇑iPg	Pg	10 49 36.4	-1.1
PLE				eSg	Sg	10 49 54.8	+1.1
PLE	**Pljevlja**	1.24	90	⇑iPg	Pg	10 49 36.4	-1.1
PLE				eSg	Sg	10 49 54.8	+1.1
BBLS	**Bajina Basta -**	1.36	66	ePg	Pg	10 49 38.5	-1.2
BBLS				eSg	Sg	10 49 59.4	+2.0
BBLS	**Bajina Basta -**	1.36	66	Pg	Pg	10 49 39.0	-0.7
BUM	**Brajici-Budva**	1.36	139	⇑iPg	Pg	10 49 37.8	-2.0
BUM				eSg	Sg	10 49 58.6	+1.0
BUM	**Brajici-Budva**	1.36	139	⇑iPg	Pg	10 49 37.8	-2.0
BUM				eSg	Sg	10 49 58.6	+1.0
BUM	**Brajici-Budva**	1.36	139	i PG	Pg	10 49 37.8	-2.0
BUM				i SG	Sg	10 49 58.6	+1.0
BUM	**Brajici-Budva**	1.36	139	⇑iPg	Pg	10 49 37.8	-2.0
BUM				eSg	Sg	10 49 58.6	+1.0
PDG	**Podgorica**	1.47	128	i PG	Pg	10 49 39.4	-2.4
PDG				i SG	Sg	10 50 01.2	+0.3
PDG	**Podgorica**	1.47	128	⇓iPg	Pg	10 49 39.4	-2.4
PDG				eSg	Sg	10 50 01.2	+0.3
TTG	**Podgorica**	1.47	128	⇓iPg	Pg	10 49 39.4	-2.4
TTG				eSg	Sg	10 50 01.2	+0.3
TTG	**Podgorica**	1.47	128	⇓iPg	Pg	10 49 39.4	-2.4
TTG				eSg	Sg	10 50 01.2	+0.3
TTG	**Podgorica**	1.47	128	⇓iPg	Pg	10 49 39.4	-2.4
TTG				eSg	Sg	10 50 01.2	+0.3
SJES	**Sjenica**	1.65	92	ePn	Pn	10 49 43.9	+1.8
SJES				eSg	Sg	10 50 10.2	+3.7
SJES	**Sjenica**	1.65	92	Pg	Pg	10 49 44.3	-0.9
SJES				Sg	Sg	10 50 04.6	-1.9
BEY	**Berane**	1.68	105	i PG	Pn	10 49 44.2	+1.6
BEY				i SG	Sg	10 50 08.6	+0.9
BEY	**Berane**	1.68	105	⇓iPn	Pn	10 49 44.2	+1.6
BEY				eSn	Sg	10 50 08.6	+0.9
IVA	**Berane**	1.68	105	⇓iPn	Pn	10 49 44.2	+1.6
IVA				eSn	Sg	10 50 08.6	+0.9
IVA	**Berane**	1.68	105	⇓iPn	Pn	10 49 44.2	+1.6
IVA				eSn	Sg	10 50 08.6	+0.9
IVA	**Berane**	1.68	105	⇓iPn	Pn	10 49 44.2	+1.6
IVA				eSn	Sg	10 50 08.6	+0.9
ULC	**Ulcinj**	1.79	139	⇓iPn	Pn	10 49 44.9	+0.8
ULC				eSn	Sn	10 50 10.3	+3.7
ULC	**Ulcinj**	1.79	139	⇓iPn	Pn	10 49 44.9	+0.8
ULC				eSn	Sn	10 50 10.3	+3.7
PVY	**Plav**	1.83	113	⇓iPn	Pn	10 49 46.8	+2.1
PVY				eSn	Sn	10 50 11.8	+4.2
PVY	**Plav**	1.83	113	⇓iPn	Pn	10 49 46.8	+2.1
PVY				eSn	Sn	10 50 11.8	+4.2
PVY	**Plav**	1.83	113	⇓iPn	Pn	10 49 46.8	+2.1
PVY				eSn	Sn	10 50 11.8	+4.2
DIVS	**Divcibare**	1.83	65	eP	Pn	10 49 45.1	+0.4
DIVS				eS	Sn	10 50 12.9	+5.2
DIVS	**Divcibare**	1.83	65	i Pn	Pn	10 49 44.4	-0.3
DIVS				eSn	Sn	10 50 07.6	-0.1
DIVS	**Divcibare**	1.83	65	Pn	Pn	10 49 44.9	+0.2
DIVS				Sn	Sn	10 50 06.3	-1.4
FGMS	**Monte Sant'Ang**	2.07	219	Pn	Pn	10 49 46.9	-1.1
FGMS	**Monte Sant'Ang**	2.07	219	Pn	Pn	10 49 46.9	-1.1
	2µm,0.7s						
FGMS	**Monte Sant'Ang**	2.07	219	Pn	Pn	10 49 46.9	-1.1
	2µm,0.7s						
MSAG	**Monte S. Angel**	2.09	220	Pn	Pn	10 49 47.2	-1.0
	3µm,0.7s						
MSAG	**Monte S. Angel**	2.09	220	Pn	Pn	10 49 47.2	-1.0
	3µm,0.7s						
SGRT	**San Giovanni R**	2.14	223	Pn	Pn	10 49 47.7	-1.1
	1µm,0.5s						
SGRT	**San Giovanni R**	2.14	223	Pn	Pn	10 49 47.7	-1.1
	1µm,0.5s						
GRUS	**Gruza**	2.27	75	i Pn	Pn	10 49 51.4	+0.8
GRUS				eSn	Sn	10 50 20.3	+2.0
GRUS	**Gruza**	2.27	75	Pn	Pn	10 49 50.5	-0.1
GRUS				Sn	Sn	10 50 15.5	-2.8
RGNG	**Rignano Grg**	2.28	224	Pn	Pn	10 49 49.8	-0.9
RGNG	**Rignano Grg**	2.28	224	Pn	Pn	10 49 49.8	-0.9
RGNG	**Rignano Grg**	2.28	224	Pn	Pn	10 49 49.8	-0.9
FGSL	**Fruska Gora**	2.37	39	i Pn	Pn	10 49 50.9	-1.2
FGSL				eSn	Sn	10 50 19.9	-1.1
FGSL	**Fruska Gora**	2.37	39	Pn	Pn	10 49 51.0	-1.1
FGSL				Sn	Sn	10 50 19.8	-1.2
FG2	**Serracapriola**	2.42	232	Pn	Pn	10 49 52.6	-0.1
FG2	**Serracapriola**	2.42	232	Pn	Pn	10 49 52.6	-0.1
	7µm,1.2s						
FG2	**Serracapriola**	2.42	232	Pn	Pn	10 49 52.6	-0.1
	7µm,1.2s						
BEO	**Belgrade**	2.48	52	ePn	Pn	10 49 54.0	+0.4
BEO				eSn	Sn	10 50 22.5	-1.3
BEO	**Belgrade**	2.48	52	Pn	Pn	10 49 53.5	-0.1
BEO				Sn	Sn	10 50 22.6	-1.2
AMUR	**Altamura**	2.56	199	Pn	Pn	10 49 53.4	-1.2
	1µm,0.8s						
AMUR	**Altamura**	2.56	199	Pn	Pn	10 49 53.4	-1.2
	1µm,0.8s						
TIR	**Tirane**	2.56	140	eP	Pn	10 49 55.4	+0.8
TIR				eS	Sg	10 50 32.4	-3.4
TIR	**Tirane**	2.56	140	⇑iPn	Pn	10 49 55.6	+1.0
TIR	**Tirane**	2.56	140	i PN	Pg	10 50 01.2	-1.4
TIR				i SN	Sg	10 50 35.6	-0.2
TIR	**Tirane**	2.56	140	⇑iPn	Pn	10 49 55.6	+1.0
TIR				eS	Sg	10 50 32.4	-3.4
RHK3	**Tenkes**	2.58	9	ePn	Pn	10 49 54.5	-0.5
NOCI	**Noci**	2.59	191	Pn	Pn	10 49 53.8	-1.2
	934nm,0.4s						
NOCI	**Noci**	2.59	191	Pn	Pn	10 49 53.8	-1.2
	934nm,0.4s						
FRES	**Fresagrandinar**	2.61	240	Pn	Pn	10 49 55.6	+0.2
	2µm,0.6s						
FRES	**Fresagrandinar**	2.61	240	Pn	Pn	10 49 55.6	+0.2
	2µm,0.6s						
CAFR	**Castel Frentan**	2.70	247	Pn	Pn	10 49 59.0	+2.4
CAFR	**Castel Frentan**	2.70	247	Pn	Pn	10 49 59.0	+2.4
PALZ	**Palazzo San Ge**	2.71	209	Pn	Pn	10 49 56.0	-0.8
	7µm,1.2s						
PALZ	**Palazzo San Ge**	2.71	209	Pn	Pn	10 49 56.0	-0.8
	7µm,1.2s						
FG5	**Orsara di Pugl**	2.73	222	Pn	Pn	10 49 57.2	+0.2
FG5	**Orsara di Pugl**	2.73	222	Pn	Pn	10 49 57.2	+0.2
	494nm,0.5s						
FG5	**Orsara di Pugl**	2.73	222	Pn	Pn	10 49 57.2	+0.2
	494nm,0.5s						
FG4	**Candela**	2.73	217	Pn	Pn	10 49 56.7	-0.3
FG4	**Candela**	2.73	217	Pn	Pn	10 49 56.7	-0.3
	822nm,0.4s						
FG4	**Candela**	2.73	217	Pn	Pn	10 49 56.7	-0.3
	822nm,0.4s						
SVIS	**Svilajnac**	2.73	68	ePn	Pn	10 49 57.4	+0.4
SVIS				eSn	Sn	10 50 31.1	+1.3
SVIS	**Svilajnac**	2.73	68	Pn	Pn	10 49 56.9	-0.1
SVIS				Sn	Sn	10 50 26.9	-2.9
BOJS	**Bojanci**	2.78	322	i Pn	Pn	10 49 58.8	+1.1
BOJS	**Bojanci**	2.78	322	i Pn	Pn	10 49 58.8	+1.1
BOJS	**Bojanci**	2.78	322	i Pn	Pn	10 49 58.8	+1.1
SGTA	**Sant Agata di**	2.80	219	Pn	Pn	10 49 57.5	-0.4
	1µm,0.8s						
SGTA	**Sant Agata di**	2.80	219	Pn	Pn	10 49 57.5	-0.4
	1µm,0.8s						
TRIV	**Trivento**	2.80	237	Pn	Pn	10 49 58.4	+0.4
	1µm,0.8s						
TRIV	**Trivento**	2.80	237	Pn	Pn	10 49 58.4	+0.4
	1µm,0.8s						
VULT	**Monte Vulture**	2.83	214	Pn	Pn	10 49 58.6	+0.2
	2µm,0.7s						
VULT	**Monte Vulture**	2.83	214	Pn	Pn	10 49 58.6	+0.2
	2µm,0.7s						
MIGL	**Miglionico**	2.88	199	Pn	Pn	10 49 58.5	-0.6
	8µm,1.1s						
MIGL	**Miglionico**	2.88	199	Pn	Pn	10 49 58.5	-0.6
	8µm,1.1s						
BSSO	**Busso**	2.91	233	Pn	Pn	10 50 00.3	+0.9
	2µm,1.2s						
BSSO	**Busso**	2.91	233	Pn	Pn	10 50 00.3	+0.9
	2µm,1.2s						
GCIS	**Gornji Cirnik**	2.93	331	ePn	Pn	10 49 60.0	+0.3
GCIS				eSn	Sn	10 50 34.1	-0.6
GCIS	**Gornji Cirnik**	2.93	331	ePn	Pn	10 49 60.0	+0.3
GCIS				eSn	Sn	10 50 34.1	-0.6
GCIS	**Gornji Cirnik**	2.93	331	ePn	Pn	10 50 00.0	+0.3
GCIS				eSn	Sn	10 50 34.1	-0.6
CAFE	**Carife**	2.94	219	Pn	Pn	10 50 00.4	+0.5
	2µm,1.2s						
CAFE	**Carife**	2.94	219	Pn	Pn	10 50 00.4	+0.5
	2µm,1.2s						
SACR	**S. Croce Del S**	2.94	230	Pn	Pn	10 50 01.1	+1.2
	658nm,0.9s						
SACR	**S. Croce Del S**	2.94	230	Pn	Pn	10 50 01.1	+1.2
	658nm,0.9s						
PKSM	**Moragy**	2.95	13	⇓P	Pn	10 49 59.0	-1.1
PKSM	**Moragy**	2.95	13	⇓iP	Pn	10 49 59.0	-1.1
CRES	**Cresnjev**	2.96	328	i Pn	Pn	10 50 00.8	+0.7
CRES	**Cresnjev**	2.96	328	i Pn	Pn	10 50 00.8	+0.7
CRES							
	comp=Z,440nm,0.6s						
CRES	**Cresnjev**	2.96	328	i Pn	Pn	10 50 00.8	+0.7
	comp=Z,440nm,0.6s						
OFFI	**Offida**	2.96	264	Pn	Pn	10 50 01.4	+1.3
	comp=Z,3µm,0.6s						
OFFI	**Offida**	2.96	264	Pn	Pn	10 50 01.4	+1.3
	comp=Z,3µm,0.6s						
VCEL	**Villa Celiera**	2.98	253	Pn	Pn	10 50 00.9	+0.4
	comp=Z,828nm,0.5s						
VCEL	**Villa Celiera**	2.98	253	Pn	Pn	10 50 00.9	+0.4
	comp=Z,828nm,0.5s						
AOI	**Ancona**	2.98	276	Pn	Pn	10 50 01.0	+0.5
AOI	**Ancona**	2.98	276	Pn	Pn	10 50 01.0	+0.5
	comp=Z,527nm,0.6s						
AOI	**Ancona**	2.98	276	Pn	Pn	10 50 01.0	+0.5
	comp=Z,527nm,0.6s						
PSB1	**Pescosannita**	3.00	226	Pn	Pn	10 50 01.4	+0.6
PSB1	**Pescosannita**	3.00	226	Pn	Pn	10 50 01.4	+0.6
	comp=Z,664nm,0.9s						
PSB1	**Pescosannita**	3.00	226	Pn	Pn	10 50 01.4	+0.6
	comp=Z,664nm,0.9s						
LCI	**Lecce**	3.02	174	Pn	Pn	10 50 01.6	+0.7
LCI	**Lecce**	3.02	174	Pn	Pn	10 50 01.6	+0.7
	comp=Z,351nm,0.6s						
LCI	**Lecce**	3.02	174	Pn	Pn	10 50 01.6	+0.7
	comp=Z,351nm,0.6s						
SNAL	**S. Angelo Dei**	3.03	218	Pn	Pn	10 50 01.3	+0.1
	comp=Z,2µm,1.1s						
SNAL	**S. Angelo Dei**	3.03	218	Pn	Pn	10 50 01.3	+0.1
	comp=Z,2µm,1.1s						
MIDA	**Miranda**	3.05	237	Pn	Pn	10 50 01.3	-0.1
MIDA	**Miranda**	3.05	237	Pn	Pn	10 50 01.3	-0.1
	comp=Z,756nm,0.5s						
MIDA	**Miranda**	3.05	237	Pn	Pn	10 50 01.3	-0.1
	comp=Z,756nm,0.5s						
PTRJ	**Pietraroja**	3.06	231	Pn	Pn	10 50 02.2	+0.6
	comp=Z,483nm,0.6s						
PTRJ	**Pietraroja**	3.06	231	Pn	Pn	10 50 02.2	+0.6
	comp=Z,483nm,0.6s						
BARS	**Barje**	3.07	98	i Pn	Pn	10 50 03.2	+1.5
BARS				eSn	Sn	10 50 40.5	+2.2
BARS	**Barje**	3.07	98	Pn	Pn	10 50 01.2	-0.5
BARS				Sn	Sn	10 50 35.7	-2.6
TERO	**Teramo**	3.08	258	Pn	Pn	10 50 02.2	+0.4
TERO	**Teramo**	3.08	258	Pn	Pn	10 50 02.2	+0.4
	comp=Z,227nm,0.3s						
TERO	**Teramo**	3.08	258	Pn	Pn	10 50 02.2	+0.4
	comp=Z,227nm,0.3s						
RNI2	**Rionero Sannit**	3.08	239	Pn	Pn	10 50 02.7	+0.9
RNI2	**Rionero Sannit**	3.08	239	Pn	Pn	10 50 02.7	+0.9
	comp=Z,669nm,0.5s						
RNI2	**Rionero Sannit**	3.08	239	Pn	Pn	10 50 02.7	+0.9
	comp=Z,669nm,0.5s						
SKO	**Skopje**	3.08	115	eP	Pn	10 50 04.0	+2.2
SKO	**Skopje**	3.08	115	i Pn	Pn	10 50 04.1	+2.2
SKO				i Pg	Pg	10 50 09.7	-3.0
SKO	**Skopje**	3.08	115	i Pn	Pn	10 50 04.1	+2.2
INTR	**Introdacqua**	3.09	246	Pn	Pn	10 50 01.2	-0.7
INTR	**Introdacqua**	3.09	246	Pn	Pn	10 50 01.2	-0.7
	comp=Z,792nm,0.5s						
INTR	**Introdacqua**	3.09	246	Pn	Pn	10 50 01.2	-0.7
	comp=Z,792nm,0.5s						

CRAC	Craco	3.11	198	Pn	Pn	10 50 01.5	-0.8
	comp=Z,3µm,1.0s						
CRAC	Craco	3.11	198	Pn	Pn	10 50 01.5	-0.8
	comp=Z,3µm,1.0s						
BOLS	Boljevac	3.14	79	Pn	Pn	10 50 03.6	+1.0
BOLS				Sn	Sn	10 50 40.7	+0.8
MCRV	Calabrutti - M	3.17	217	Pn	Pn	10 50 02.6	-0.4
	comp=Z,475nm,0.5s						
MCRV	Calabrutti - M	3.17	217	Pn	Pn	10 50 02.6	-0.4
	comp=Z,475nm,0.5s						
CSSN	Cassano Irpino	3.17	220	⇑*i*Pn	Pn	10 50 02.9	-0.2
CSSN	Cassano Irpino	3.17	220	⇑*i*Pn	Pn	10 50 02.9	-0.2
	comp=Z,215nm,0.4s						
CSSN	Cassano Irpino	3.17	220	⇑*i*Pn	Pn	10 50 02.9	-0.2
	comp=Z,215nm,0.4s						
VISS	Visnje	3.20	321	*i* Pn	Pn	10 50 04.6	+1.1
VISS				*e*Sn	Sn	10 50 42.6	+1.2
VISS	Visnje	3.20	321	*i* Pn	Pn	10 50 04.6	+1.1
VISS				*e*Sn	Sn	10 50 42.6	+1.2
VISS	Visnje	3.20	321	*i* Pn	Pn	10 50 04.6	+1.2
VISS				*e*Sn	Sn	10 50 42.6	+1.2
VAGA	Valle Agricola	3.20	234	Pn	Pn	10 50 03.9	+0.4
	comp=Z,535nm,0.5s						
VAGA	Valle Agricola	3.20	234	Pn	Pn	10 50 03.9	+0.4
	comp=Z,535nm,0.5s						
FAGN	Fagnano	3.21	252	Pn	Pn	10 50 04.6	+1.1
	comp=Z,2µm,0.4s						
FAGN	Fagnano	3.21	252	Pn	Pn	10 50 04.6	+1.1
	comp=Z,2µm,0.4s						
OHR	Ohrid	3.21	133	*e*P	Pn	10 50 04.7	+1.2
OHR				*e*S	Sn	10 50 46.5	+5.0
OHR	Ohrid	3.21	133	*i* Pn	Pn	10 50 04.8	+1.2
OHR	Ohrid	3.21	133	*i* Pn	Pn	10 50 04.7	+1.2
OHR				*e*S	Sn	10 50 46.5	+5.0
CERA	Filignano	3.22	239	Pn	Pn	10 50 05.4	+1.6
	comp=Z,852nm,0.7s						
CERA	Filignano	3.22	239	Pn	Pn	10 50 05.4	+1.6
	comp=Z,852nm,0.7s						
KNDS	Knezji Dol	3.23	314	*e*Pn	Pn	10 50 05.0	+1.2
KNDS	Knezji Dol	3.23	314	*e*Pn	Pn	10 50 05.0	+1.2
KNDS	Knezji Dol	3.23	314	*e*Pn	Pn	10 50 05.0	+1.2
CAMP	Campotosto	3.24	257	Pn	Pn	10 50 04.9	+0.8
	comp=Z,87nm,0.6s						
CAMP	Campotosto	3.24	257	Pn	Pn	10 50 04.9	+0.8
	comp=Z,87nm,0.6s						
SENI	Senigallia	3.26	278	Pn	Pn	10 50 05.2	+0.9
	comp=Z,1µm,0.9s						
MOCO	Biccari - m.te	3.27	234	Pn	Pn	10 49 57.1	-7.4
CING	Cingoli	3.28	272	Pn	Pn	10 50 05.3	+0.8
CING	Cingoli	3.28	272	Pn	Pn	10 50 05.3	+0.8
	comp=Z,305nm,0.6s						
CING	Cingoli	3.28	272	Pn	Pn	10 50 05.3	+0.8
	comp=Z,305nm,0.6s						
KRUS	Krusevo	3.29	125	*i* Pn	Pn	10 50 07.0	+2.3
KRUS				*i* Pg	Pg	10 50 14.1	-2.5
KRUS	Krusevo	3.29	125	*i* Pn	Pn	10 50 07.0	+2.3
SGO	Sicignano	3.29	213	Pn	Pn	10 50 04.1	-0.7
SGO	Sicignano	3.29	213	Pn	Pn	10 50 04.1	-0.7
SGO	Sicignano	3.29	213	Pn	Pn	10 50 04.1	-0.7
SDI	San Donato	3.30	242	Pn	Pn	10 50 05.0	+0.2
SDI	San Donato	3.30	242	Pn	Pn	10 50 05.0	+0.2
	comp=Z,240nm,0.4s						
SDI	San Donato	3.30	242	Pn	Pn	10 50 05.0	+0.2
	comp=Z,240nm,0.4s						
AQU	L'Aquila	3.30	254	⇑P	Pn	10 50 06.8	+1.9
AQU	L'Aquila	3.30	254	⇑*i*P	Pn	10 50 06.8	+1.9
AQU	L'Aquila	3.30	254	*e*Pn	Pn	10 50 06.5	+1.6
SCTE	Santa Cesarea	3.31	170	Pn	Pn	10 50 03.7	-1.3
SCTE	Santa Cesarea	3.31	170	Pn	Pn	10 50 03.7	-1.3
MCEL	Monticello	3.32	206	Pn	Pn	10 50 04.3	-0.9
	comp=Z,603nm,0.7s						
MCEL	Monticello	3.32	206	Pn	Pn	10 50 04.3	-0.9
	comp=Z,603nm,0.7s						
VVLD	Villa Vallelon	3.34	245	Pn	Pn	10 50 05.8	+0.4
VVLD	Villa Vallelon	3.34	245	Pn	Pn	10 50 05.8	+0.4
	comp=Z,848nm,0.7s						
VVLD	Villa Vallelon	3.34	245	Pn	Pn	10 50 05.8	+0.4
	comp=Z,848nm,0.7s						
CDRU	Civita di Ruta	3.35	213	Pn	Pn	10 50 04.7	-0.9
	comp=Z,242nm,0.8s						
CDRU	Civita di Ruta	3.35	213	Pn	Pn	10 50 04.7	-0.9
	comp=Z,242nm,0.8s						
SCHR	S. Chirico Rap	3.36	202	Pn	Pn	10 50 04.6	-1.0
	comp=Z,357nm,0.9s						
SCHR	S. Chirico Rap	3.36	202	Pn	Pn	10 50 04.6	-1.0
	comp=Z,357nm,0.9s						
NRCA	Norcia	3.39	263	Pn	Pn	10 50 06.6	+0.5
NRCA	Norcia	3.39	263	Pn	Pn	10 50 06.6	+0.5
NRCA	Norcia	3.39	263	Pn	Pn	10 50 06.6	+0.5
MTSN	Montesano sull	3.39	206	Pn	Pn	10 50 05.5	-0.6
	comp=Z,767nm,0.9s						
MTSN	Montesano sull	3.39	206	Pn	Pn	10 50 05.5	-0.6
	comp=Z,767nm,0.9s						
ORI	Oriolo Calabro	3.40	196	Pn	Pn	10 50 06.0	-0.2
ORI	Oriolo Calabro	3.40	196	Pn	Pn	10 50 06.0	-0.2
	comp=Z,1µm,0.5s						
ORI	Oriolo Calabro	3.40	196	Pn	Pn	10 50 06.0	-0.2
	comp=Z,1µm,0.5s						
RFI	Roccamonfina	3.42	235	⇓*i*Pn	Pn	10 50 07.7	+1.2
RFI	Roccamonfina	3.42	235	⇓*i*Pn	Pn	10 50 07.7	+1.2
	comp=Z,41nm,0.6s						
RFI	Roccamonfina	3.42	235	⇓*i*Pn	Pn	10 50 07.7	+1.2
	comp=Z,41nm,0.6s						
PTQR	Pietraquaria	3.42	249	Pn	Pn	10 50 08.1	+1.6
PTQR	Pietraquaria	3.42	249	Pn	Pn	10 50 08.1	+1.6
	comp=Z,137nm,0.3s						
PTQR	Pietraquaria	3.42	249	Pn	Pn	10 50 08.1	+1.6
	comp=Z,137nm,0.3s						
SIRI	Monte Sirino -	3.43	204	Pn	Pn	10 50 05.8	-0.9
	comp=Z,231nm,0.5s						
SIRI	Monte Sirino -	3.43	204	Pn	Pn	10 50 05.8	-0.9
	comp=Z,231nm,0.5s						
SNTG	Esanatoglia	3.47	270	⇑*i*Pn	Pn	10 50 07.5	+0.4
SNTG	Esanatoglia	3.47	270	⇑*i*Pn	Pn	10 50 07.5	+0.4
	comp=Z,492nm,0.7s						
SNTG	Esanatoglia	3.47	270	⇑*i*Pn	Pn	10 50 07.5	+0.4
	comp=Z,492nm,0.7s						
LNSS	Leonessa	3.49	259	Pn	Pn	10 50 08.1	+0.7
	comp=Z,1µm,0.4s						
LNSS	Leonessa	3.49	259	Pn	Pn	10 50 08.1	+0.7
	comp=Z,1µm,0.4s						
CMPR	Campora	3.50	211	Pn	Pn	10 50 06.4	-1.2
	comp=Z,358nm,0.7s						
CMPR	Campora	3.50	211	Pn	Pn	10 50 06.4	-1.2
	comp=Z,358nm,0.7s						
CESI	CESI - Serrava	3.52	266	Pn	Pn	10 50 08.3	+0.5
	comp=Z,254nm,0.4s						
LJU	Ljubljana	3.52	321	⇑*e*Pn	Pn	10 50 09.3	+1.4
LJU				*e*		10 50 16.5	
LJU				*e*Pg	Pg	10 50 20.5	-0.6
LJU				*e*Sg	Sg	10 51 15.0	+8.3
FIAM	Fiamignano	3.53	254	Pn	Pn	10 50 09.2	+1.2
FIAM	Fiamignano	3.53	254	Pn	Pn	10 50 09.2	+1.2
	comp=Z,461nm,0.6s						
FIAM	Fiamignano	3.53	254	Pn	Pn	10 50 09.2	+1.2
	comp=Z,461nm,0.6s						
BIA	Bitola	3.56	129	*i* Pn	Pn	10 50 09.5	+1.1
BIA				*i* Pg	Pg	10 50 15.8	-5.9
BIA	Bitola	3.56	129	*i* Pn	Pn	10 50 09.4	+1.0
KBN	Korca	3.56	139	*i* PN	Pb	10 50 16.7	+0.4
PESA	Pesaro	3.57	281	Pn	Pn	10 50 08.9	+0.3
PESA	Pesaro	3.57	281	Pn	Pn	10 50 08.9	+0.3
	comp=Z,861nm,0.7s						
PESA	Pesaro	3.57	281	Pn	Pn	10 50 08.9	+0.3
	comp=Z,861nm,0.7s						
MGR	Morigerati	3.57	207	Pn	Pn	10 50 07.8	-0.8
MGR	Morigerati	3.57	207	Pn	Pn	10 50 07.8	-0.8
	comp=Z,3µm,1.9s						
MGR	Morigerati	3.57	207	Pn	Pn	10 50 07.8	-0.8
	comp=Z,3µm,1.9s						
GUAR	Guarcino	3.58	246	Pn	Pn	10 50 09.6	+0.9
GUAR	Guarcino	3.58	246	Pn	Pn	10 50 09.6	+0.9
	comp=Z,232nm,0.4s						
GUAR	Guarcino	3.58	246	Pn	Pn	10 50 09.6	+0.9
	comp=Z,232nm,0.4s						
FSSB	Fossombrone	3.59	277	Pn	Pn	10 50 09.1	+0.3
FSSB	Fossombrone	3.59	277	Pn	Pn	10 50 09.1	+0.3
	comp=Z,549nm,0.6s						
FSSB	Fossombrone	3.59	277	Pn	Pn	10 50 09.1	+0.3
	comp=Z,549nm,0.6s						
BZS	Buzias	3.62	50	⇑P	Pn	10 50 08.6	-0.6
BZS	Buzias	3.62	50	⇑*i*P	Pn	10 50 08.6	-0.6
BULG	Bulgheria - Ca	3.69	209	Pn	Pn	10 50 10.1	-0.1
	comp=Z,503nm,0.7s						
BULG	Bulgheria - Ca	3.69	209	Pn	Pn	10 50 10.1	-0.1
	comp=Z,503nm,0.7s						
ASS	Assisi	3.69	267	Pn	Pn	10 50 10.8	+0.6
ASS	Assisi	3.69	267	Pn	Pn	10 50 10.8	+0.6
	comp=Z,11nm,0.3s						
ASS	Assisi	3.69	267	Pn	Pn	10 50 10.8	+0.6
	comp=Z,11nm,0.3s						
STIP	Stip	3.71	115	*i* Pn	Pn	10 50 11.3	+0.9
STIP	Stip	3.71	115	*i* Pn	Pn	10 50 11.3	+0.9
DJES	Djerdap	3.72	68	*e*Pn	Pn	10 50 10.9	+0.3
DJES				*e*Sn	Sn	10 50 54.5	+0.2
DJES	Djerdap	3.72	68	Pn	Pn	10 50 08.1	-2.5
DJES				Sn	Sn	10 50 49.2	-5.1
GIUL	Giuliano Di Ro	3.73	243	Pn	Pn	10 50 10.7	-0.1
GIUL	Giuliano Di Ro	3.73	243	Pn	Pn	10 50 10.7	-0.1
CERT	Cerreto	3.74	250	Pn	Pn	10 50 11.6	+0.7
CERT	Cerreto	3.74	250	Pn	Pn	10 50 11.6	+0.7
	comp=Z,335nm,0.6s						
CERT	Cerreto	3.74	250	Pn	Pn	10 50 11.6	+0.7
	comp=Z,335nm,0.6s						
FNA	Florina	3.75	132	*e*P	Pn	10 50 12.7	+1.7
FNA				*e*S	Sb	10 51 04.7	0.0
FNA	Florina	3.75	132	*e*P	Pn	10 50 12.6	+1.6
MURB	Monte Urbino	3.77	271	Pn	Pn	10 50 12.0	+0.7
MURB	Monte Urbino	3.77	271	Pn	Pn	10 50 12.0	+0.7
	comp=Z,823nm,0.3s						
MURB	Monte Urbino	3.77	271	Pn	Pn	10 50 12.0	+0.7
	comp=Z,823nm,0.3s						
PERS	Pernice	3.77	332	*i* Pn	Pn	10 50 11.8	+0.5
PERS	Pernice	3.77	332	*i* Pn	Pn	10 50 11.8	+0.5
PERS	Pernice	3.77	332	*i* Pn	Pn	10 50 11.8	+0.5
MNS	Montasola	3.80	257	Pn	Pn	10 50 13.0	+1.3
MNS	Montasola	3.80	257	Pn	Pn	10 50 13.0	+1.3
	comp=Z,334nm,0.5s						
MNS	Montasola	3.80	257	Pn	Pn	10 50 13.0	+1.3
	comp=Z,334nm,0.5s						
TDS	Terranova Siba	3.81	196	Pn	Pn	10 50 11.7	-0.2
TDS	Terranova Siba	3.81	196	Pn	Pn	10 50 11.7	-0.2
	comp=Z,272nm,0.8s						
TDS	Terranova Siba	3.81	196	Pn	Pn	10 50 11.7	-0.2
	comp=Z,272nm,0.8s						
VOY	Vojsko	3.82	316	⇑*e*Pn	Pn	10 50 13.3	+1.3
VOY				*e*Sn	Sn	10 50 55.7	-1.0
VOY	Vojsko	3.82	316	⇑*e*Pn	Pn	10 50 13.3	+1.3
VOY				*e*Sn	Sn	10 50 55.7	-1.0
VOY	Vojsko	3.82	316	⇑*e*Pn	Pn	10 50 13.3	+1.3
VOY				*e*Sn	Sn	10 50 55.7	-1.0
RSM	Repubblica di	3.85	281	⇓*i*Pn	Pn	10 50 13.3	+0.9
RSM	Repubblica di	3.85	281	⇓*i*Pn	Pn	10 50 13.3	+0.9
	comp=Z,450nm,0.8s						
RSM	Repubblica di	3.85	281	⇓*i*Pn	Pn	10 50 13.3	+0.9
	comp=Z,450nm,0.8s						
MTCE	Montecelio	3.88	252	Pn	Pn	10 50 13.7	+0.9
MTCE	Montecelio	3.88	252	Pn	Pn	10 50 13.7	+0.9
	comp=Z,300nm,0.8s						
MTCE	Montecelio	3.88	252	Pn	Pn	10 50 13.7	+0.9
	comp=Z,300nm,0.8s						
OBKA	Obir	3.88	326	⇓*i*Pn	Pn	10 50 13.5	+0.8
OBKA	Obir	3.88	326	⇓*i*Pn	Pn	10 50 13.5	+0.8
OBKA				*i* Sn	Sn	10 51 00.1	+2.0
OBKA	Obir	3.88	326	⇓*i*Pn	Pn	10 50 13.5	+0.8
OBKA				⇑*i*Sn	Sn	10 51 00.1	+2.0
OBKA	Obir	3.88	326	Pn	Pn	10 50 13.5	+0.7
OBKA				Sn	Sn	10 51 00.1	+2.0
KEK	Kerkira	3.95	156	Pn	Pn	10 50 13.0	-0.8
	comp=Z,890nm,1.1s						
KEK	Kerkira	3.95	156	*e*Pn	Pn	10 50 12.9	-0.9
BADI	Badiali	3.97	274	Pn	Pn	10 50 15.4	+1.4
BADI	Badiali	3.97	274	Pn	Pn	10 50 15.4	+1.4
	comp=Z,402nm,0.6s						
BADI	Badiali	3.97	274	Pn	Pn	10 50 15.4	+1.4
	comp=Z,402nm,0.6s						
CDCA	Citt' di Caste	3.98	274	Pn	Pn	10 50 16.1	+1.9
CDCA	Citt' di Caste	3.98	274	Pn	Pn	10 50 16.1	+1.9
	comp=Z,108nm,0.7s						
CDCA	Citt' di Caste	3.98	274	Pn	Pn	10 50 16.1	+1.9
	comp=Z,108nm,0.7s						
CADS	Cadrg	4.04	317	*i* Pn	Pn	10 50 15.9	+0.9
CADS				*e*Sn	Sn	10 51 03.3	+1.4
CADS	Cadrg	4.04	317	*i* Pn	Pn	10 50 15.9	+0.9
CADS				*e*Sn	Sn	10 51 03.3	+1.4
CADS							
	comp=Z,575nm,0.5s						
CADS	Cadrg	4.04	317	*i* Pn	Pn	10 50 15.9	+1.0
CADS				*e*Sn	Sn	10 51 03.3	+1.3
DRE	Drenchia	4.04	316	⇑*i*Pn	Pn	10 50 16.1	+1.0
DRE	Drenchia	4.04	316	*i* Pn	Pn	10 50 16.1	+1.1
VTS	Vitosha	4.12	99	*i* P	Pn	10 50 19.0	+2.9
VTS	Vitosha	4.12	99	⇓*i*P	Pn	10 50 18.3	+2.2
VAY	Valandovo	4.14	117	*i* Pn	Pn	10 50 21.3	+4.9
VAY	Valandovo	4.14	117	*i* Pn	Pn	10 50 21.2	+4.8
COLI	Coloredo	4.15	314	⇑*i*Pn	Pn	10 50 17.3	+0.7
COLI	Coloredo	4.15	314	*i* Pn	Pn	10 50 17.3	+0.7
TLI	Talmassons	4.17	310	⇑*i*Pn	Pn	10 50 17.2	+0.4
TLI	Talmassons	4.17	310	*i* Pn	Pn	10 50 17.2	+0.4
CRE	Caprese Michel	4.19	276	Pn	Pn	10 50 18.3	+1.3
CRE	Caprese Michel	4.19	276	Pn	Pn	10 50 18.3	+1.3
	comp=Z,115nm,0.4s						
CRE	Caprese Michel	4.19	276	Pn	Pn	10 50 18.3	+1.3
	comp=Z,115nm,0.4s						
GZR	Gura Zlata	4.19	59	⇓P	Pn	10 50 17.3	+0.3
GZR	Gura Zlata	4.19	59	⇓*i*P	Pn	10 50 17.3	+0.3
ARSA	Arzberg	4.20	339	⇑*i*Pn	Pn	10 50 17.6	+0.4
ARSA	Arzberg	4.20	339	⇑*i*Pn	Pn	10 50 17.6	+0.4
ARSA				*i* Sn	Sn	10 51 06.4	+0.3
ARSA	Arzberg	4.20	339	⇑*i*Pn	Pn	10 50 17.6	+0.4
ARSA				⇑*i*Sn	Sn	10 51 06.4	+0.3
ARSA	Arzberg	4.20	339	Pn	Pn	10 50 17.6	+0.4
ARSA				*i* Sn	Sn	10 51 06.4	+0.3
TIP	Timpagrande	4.21	190	*e*Pn	Pn	10 50 17.0	-0.4
TIP	Timpagrande	4.21	190	Pn	Pn	10 50 16.9	-0.5
	comp=Z,422nm,1.3s						
TIP	Timpagrande	4.21	190	Pn	Pn	10 50 16.9	-0.5
	comp=Z,422nm,1.3s						
CARO	Carolei	4.23	196	Pn	Pn	10 50 17.5	-0.1
	comp=Z,431nm,0.9s						
CARO	Carolei	4.23	196	Pn	Pn	10 50 17.5	-0.1
	comp=Z,431nm,0.9s						
GRG	Griva	4.23	123	*e*P	Pn	10 50 18.8	+1.1
KKB	Krupnik	4.24	108	*i* P	Pn	10 50 24.7	+6.9
BUD	Budapest	4.25	12	⇓*e*Pn	Pn	10 50 15.7	-2.2
SACS	San Casciano d	4.26	265	Pn	Pn	10 50 18.2	+0.2
	comp=Z,402nm,1.1s						
SACS	San Casciano d	4.26	265	Pn	Pn	10 50 18.2	+0.2
	comp=Z,402nm,1.1s						
IESO	Jesolo	4.28	302	⇑*i*Pn	Pn	10 50 18.6	+0.3
IESO	Jesolo	4.28	302	*i* Pn	Pn	10 50 18.6	+0.3
SFI	Santa Sofia	4.28	280	Pn	Pn	10 50 19.1	+0.8
SFI	Santa Sofia	4.28	280	Pn	Pn	10 50 19.1	+0.8
	comp=Z,326nm,0.9s						
SFI	Santa Sofia	4.28	280	Pn	Pn	10 50 19.1	+0.8
	comp=Z,326nm,0.9s						
BAD	Bernadia	4.29	314	⇑*i*Pn	Pn	10 50 18.9	+0.4
BAD	Bernadia	4.29	314	*i* Pn	Pn	10 50 18.9	+0.4
KZN	Kozani	4.30	133	*e*P	Pn	10 50 19.7	+1.2
GMNA	Gemona	4.32	314	Pn	Pn	10 50 19.6	+0.7
GMNA	Gemona	4.32	314	Pn	Pn	10 50 19.6	+0.7
GMNA	Gemona	4.32	314	Pn	Pn	10 50 19.6	+0.7
BUA	Buia	4.34	313	⇑*i*Pn	Pn	10 50 19.7	+0.5
BUA	Buia	4.34	313	*i* Pn	Pn	10 50 19.7	+0.5
PTCC	Patocco-Chiusa	4.35	316	Pn	Pn	10 50 20.1	+0.9
PTCC	Patocco-Chiusa	4.35	316	Pn	Pn	10 50 20.1	+0.9
	comp=Z,272nm,0.8s						
PTCC	Patocco-Chiusa	4.35	316	Pn	Pn	10 50 20.1	+0.9
	comp=Z,272nm,0.8s						
SERS	Sersale	4.36	190	Pn	Pn	10 50 18.9	-0.5
	comp=Z,524nm,1.6s						
SERS	Sersale	4.36	190	Pn	Pn	10 50 18.9	-0.5
	comp=Z,524nm,1.6s						
MYKA	Terra Mystica	4.37	320	⇑*i*Pn	Pn	10 50 20.6	+1.0
MYKA	Terra Mystica	4.37	320	Pn	Pn	10 50 20.6	+1.1
JAN	Janina	4.38	146	*e*P	Pn	10 50 19.7	+0.1
LATE	Laterza	4.38	263	Pn	Pn	10 50 20.5	+0.8
	comp=Z,48nm,1.2s						
LATE	Laterza	4.38	263	Pn	Pn	10 50 20.5	+0.8
	comp=Z,48nm,1.2s						
TOLF	Tolfa	4.38	255	Pn	Pn	10 50 19.8	+0.1
TOLF	Tolfa	4.38	255	Pn	Pn	10 50 19.8	+0.1
	comp=Z,118nm,0.7s						
TOLF	Tolfa	4.38	255	Pn	Pn	10 50 19.8	+0.1
	comp=Z,118nm,0.7s						
SOP	Sopron	4.42	350	⇑*e*Pn	Pn	10 50 20.1	-0.1
BOO	Bordano	4.42	314	⇑*i*Pn	Pn	10 50 20.4	+0.2
BOO	Bordano	4.42	314	*i* Pn	Pn	10 50 20.4	+0.2
MPRI	Monte Prat	4.43	313	⇑*i*Pn	Pn	10 50 20.8	+0.5
MPRI	Monte Prat	4.43	313	*i* Pn	Pn	10 50 20.8	+0.4
VMG	Vicchio	4.50	280	Pn	Pn	10 50 22.7	+1.3
VMG	Vicchio	4.50	280	Pn	Pn	10 50 22.7	+1.3
	comp=Z,111nm,0.5s						
VMG	Vicchio	4.50	280	Pn	Pn	10 50 22.7	+1.3
	comp=Z,111nm,0.5s						
PLRO	Paularo	4.55	316	⇑*i*Pn	Pn	10 50 23.0	+1.0
PLRO	Paularo	4.55	316	*i* Pn	Pn	10 50 23.0	+1.0
MLNI	Malnisio	4.58	310	⇑*i*Pn	Pn	10 50 22.5	+0.1
MLNI	Malnisio	4.58	310	*i* Pn	Pn	10 50 22.5	0.0
PENC	Penc	4.59	14	*e*Pn	Pn	10 50 22.2	-0.4
PENC				*e*Sn	Sn	10 51 11.8	-3.9
CAE	Caneva	4.60	307	⇑*i*Pn	Pn	10 50 23.1	+0.4
CAE	Caneva	4.60	307	*i* Pn	Pn	10 50 23.1	+0.4
GRI	Girifalco	4.61	192	Pn	Pn	10 50 23.7	+0.8
GRI	Girifalco	4.61	192	Pn	Pn	10 50 23.7	+0.8
	comp=Z,5µm,5.6s						
GRI	Girifalco	4.61	192	Pn	Pn	10 50 23.7	+0.8
	comp=Z,5µm,5.6s						
ZOU	Zoufplan	4.64	316	⇑*i*Pn	Pn	10 50 24.1	+0.8
ZOU	Zoufplan	4.64	316	*i* Pn	Pn	10 50 24.1	+0.8
SEI	Scarperia	4.65	281	Pn	Pn	10 50 25.3	+1.9
SEI	Scarperia	4.65	281	Pn	Pn	10 50 25.3	+1.9
	comp=Z,332nm,0.4s						
SEI	Scarperia	4.65	281	Pn	Pn	10 50 25.3	+1.9
	comp=Z,332nm,0.4s						
CSNT	Castellina Chi	4.66	274	Pn	Pn	10 50 24.5	+0.9
CSNT	Castellina Chi	4.66	274	Pn	Pn	10 50 24.5	+0.9
	comp=Z,108nm,1.0s						
CSNT	Castellina Chi	4.66	274	Pn	Pn	10 50 24.5	+0.9
	comp=Z,108nm,1.0s						
MTLO	Montello	4.70	304	⇑*i*Pn	Pn	10 50 24.2	+0.2
MTLO	Montello	4.70	304	*i* Pn	Pn	10 50 24.2	+0.1
CONA	Conrad Observa	4.77	345	⇓*i*Pn	Pn	10 50 25.4	+0.4
CONA				⇑*i*Sn	Sn	10 51 19.2	-0.8
CONA	Conrad Observa	4.77	345	Pn	Pn	10 50 25.4	+0.4
CONA				Sn	Sn	10 51 19.2	-0.8
TEOL	Teolo	4.77	297	⇑*i*Pn	Pn	10 50 24.3	-0.7
TEOL	Teolo	4.77	297	*i* Pn	Pn	10 50 24.3	-0.7
FVI	Forni Avoltri	4.77	315	Pn	Pn	10 50 25.5	+0.5
FVI	Forni Avoltri	4.77	315	Pn	Pn	10 50 25.5	+0.5
	comp=Z,440nm,0.7s						
FVI	Forni Avoltri	4.77	315	Pn	Pn	10 50 25.5	+0.5
	comp=Z,440nm,0.7s						
CSMI	Casera Mimoias	4.78	313	⇑*i*Pn	Pn	10 50 25.6	+0.4
CSMI	Casera Mimoias	4.78	313	*i* Pn	Pn	10 50 25.6	+0.4
MMB	Musomiste	4.80	109	*i* P	Pn	10 50 27.2	+1.8
CSO	Casso	4.82	309	⇑*i*Pn	Pn	10 50 25.3	-0.4
CSO	Casso	4.82	309	*i* Pn	Pn	10 50 25.3	-0.4
PGB	Panagyurishte	4.82	97	*i* P	Pn	10 50 26.9	+1.2
FNVD	Fontana Vidola	4.83	282	Pn	Pn	10 50 27.8	+2.0
FNVD	Fontana Vidola	4.83	282	Pn	Pn	10 50 27.8	+2.0
	comp=Z,316nm,1.0s						
FNVD	Fontana Vidola	4.83	282	Pn	Pn	10 50 27.8	+2.0
	comp=Z,316nm,1.0s						
PSZ	Piszkesteto	4.84	18	⇑P	Pn	10 50 25.3	-0.6
PSZ	Piszkesteto	4.84	18	⇓*e*Pn	Pn	10 50 25.4	-0.5
PSZ	Piszkesteto	4.84	18	⇑*i*P	Pn	10 50 25.3	-0.6
PSZ	Piszkesteto	4.84	18	*e*Pn	Pn	10 50 25.3	-0.6
KBA	Koelnbreinsper	4.84	322	⇓*i*Pn	Pn	10 50 27.0	+1.0
KBA	Koelnbreinsper	4.84	322	⇓*i*Pn	Pn	10 50 27.0	+1.0
KBA				*i* Sn	Sn	10 51 23.0	+1.2
KBA	Koelnbreinsper	4.84	322	⇓*i*Pn	Pn	10 50 27.0	+1.0
KBA				⇓*i*Sn	Sn	10 51 23.0	+1.2
KBA	Koelnbreinsper	4.84	322	Pn	Pn	10 50 27.0	+1.0
KBA				*i* Sn	Sn	10 51 23.0	+1.2
ZST	Bratislava	4.88	355	*i* Pn	Pn	10 50 26.5	0.0
ZST				*i* Sn	Sn	10 51 19.6	-3.1
ZST	Bratislava	4.88	355	*i* PN	Pn	10 50 26.5	0.0
ZST				*i* SN	Sn	10 51 19.6	-3.1
ZST	Bratislava	4.88	355	*i* Pn	Pn	10 50 26.5	0.0
ZST				*i* Sn	Sn	10 51 19.6	-3.1
CRMI	Carmignano	4.91	278	Pn	Pn	10 50 27.3	+0.4
	comp=Z,71nm,1.3s						
CRMI	Carmignano	4.91	278	Pn	Pn	10 50 27.3	+0.4
	comp=Z,71nm,1.3s						
SRS	Serrai	4.91	115	*e*P	Pn	10 50 28.6	+1.6
CGRP	Cima Grappa	4.91	303	⇑*i*Pn	Pn	10 50 26.6	-0.4
CGRP	Cima Grappa	4.91	303	*i* Pn	Pn	10 50 26.6	-0.4
DRGR		4.96	44	⇑P	Pn	10 50 28.0	+0.4
DRGR		4.96	44	⇑*i*P	Pn	10 50 28.0	+0.4
PLAC	Placanica	4.97	191	Pn	Pn	10 50 27.6	-0.2
	comp=Z,106nm,1.1s						
PLAC	Placanica	4.97	191	Pn	Pn	10 50 27.6	-0.2
	comp=Z,106nm,1.1s						
THL	Klokotos Trika	4.97	138	*e*P	Pn	10 50 27.0	-0.9
NVR	Nevrokopi	4.99	111	*e*P	Pn	10 50 30.7	+2.7
ABTA	Abfaltersbach	5.01	315	⇑*i*Pn	Pn	10 50 29.1	+0.8
ABTA	Abfaltersbach	5.01	315	Pn	Pn	10 50 29.1	+0.8
PZZT	Monte Pizzetto	5.01	281	Pn	Pn	10 50 29.0	+0.7
	comp=Z,148nm,0.5s						
PZZT	Monte Pizzetto	5.01	281	Pn	Pn	10 50 29.0	+0.7
	comp=Z,148nm,0.5s						
MODS	Modra-Piesok	5.05	357	*i* Pn	Pn	10 50 28.8	0.0
MODS				*i* Sn	Sn	10 51 24.5	-2.4
MODS	Modra-Piesok	5.05	357	*i* PN	Pn	10 50 28.8	0.0
MODS				*i* SN	Sn	10 51 24.5	-2.4
MODS	Modra-Piesok	5.05	357	*i* Pn	Pn	10 50 28.8	0.0
MODS				*i* Sn	Sn	10 51 24.5	-2.4
AFL	Alpe Faloria	5.05	311	⇑*i*Pn	Pn	10 50 29.4	+0.5
AFL	Alpe Faloria	5.05	311	*i* Pn	Pn	10 50 29.4	+0.5
CTI	Castel Tesino	5.09	304	Pn	Pn	10 50 29.3	-0.1
CTI	Castel Tesino	5.09	304	Pn	Pn	10 50 29.3	-0.1
CTI	Castel Tesino	5.09	304	Pn	Pn	10 50 29.3	-0.1
MOA	Molln	5.11	333	⇑*i*Pn	Pn	10 50 30.7	+1.0
MOA	Molln	5.11	333	⇑*i*Pn	Pn	10 50 30.7	+1.0
MOA				*i* Sn	Sn	10 51 28.9	+0.4
MOA	Molln	5.11	333	⇑*i*Pn	Pn	10 50 30.7	+1.0
MOA				⇑*i*Sn	Sn	10 51 28.9	+0.4
MOA	Molln	5.11	333	Pn	Pn	10 50 30.7	+1.0
MOA				*i* Sn	Sn	10 51 28.9	+0.4
LKD	Levkas	5.14	153	*e*P	Pn	10 50 28.9	-1.2
SMOL	Smolenice	5.18	358	*e*Pn	Pn	10 50 30.9	+0.2
SMOL	Smolenice	5.18	358	*e*PN	Pn	10 50 30.9	+0.2
SMOL	Smolenice	5.18	358	*e*Pn	Pn	10 50 30.9	+0.2
BDI	Bagni Di Lucca	5.19	280	Pn	Pn	10 50 30.9	+0.1
BDI	Bagni Di Lucca	5.19	280	Pn	Pn	10 50 30.9	+0.1
	comp=Z,151nm,0.9s						
BDI	Bagni Di Lucca	5.19	280	Pn	Pn	10 50 30.9	+0.1
	comp=Z,151nm,0.9s						
PLG	Polygyros	5.22	123	*e*P	Pn	10 50 32.9	+1.7
VYHS	Vyhne	5.22	8	*i* Pn	Pn	10 50 30.4	-0.8
	comp=Z,70nm,0.7s						
VYHS				*i* Sn	Sn	10 51 28.9	-2.3
VYHS				*e*Sg	Sg	10 52 04.7	+3.6
VYHS	Vyhne	5.22	8	*i* P	Pn	10 50 30.4	-0.8
VYHS				*i*		10 51 28.9	
VYHS				pmax	pmax		
	comp=Z,70nm,0.7s						
VYHS	Vyhne	5.22	8	*i* PN	Pn	10 50 30.4	-0.8
VYHS				*i* SN	Sn	10 51 28.9	-2.3
VYHS	Vyhne	5.22	8	*e*SG	Sg	10 52 04.7	+3.6
VYHS	Vyhne	5.22	8	*i* Pn	Pn	10 50 30.4	-0.8
VYHS				*i* Sn	Sn	10 51 28.9	-2.3
MAIM		5.26	279	P	Pn	10 50 31.4	-0.3
SARO	Sassorosso	5.35	282	P	Pn	10 50 33.5	+0.6
VLC	Villacollemand	5.36	281	Pn	Pn	10 50 33.7	+0.6
	comp=Z,149nm,1.2s						
VLC	Villacollemand	5.36	281	Pn	Pn	10 50 33.7	+0.6
	comp=Z,149nm,1.2s						
VLC	Villacollemand	5.36	281	*e*Pn	Pn	10 50 33.6	+0.5
ERBM	Eremo	5.37	284	Pn	Pn	10 50 34.9	+1.6
	comp=Z,95nm,0.8s						
ERBM	Eremo	5.37	284	Pn	Pn	10 50 34.9	+1.6
	comp=Z,95nm,0.8s						
ERBM	Eremo	5.37	284	Pn	Pn	10 50 34.9	+1.6
	comp=Z,95nm,0.8s						
EVR	Evrytania	5.40	143	*e*P	Pn	10 50 34.0	+0.3
RZN	Rozhen	5.45	105	*i* P	Pb	10 50 45.0	-3.5
KECS	Kecovo	5.50	20	*i* Pn	Pn	10 50 35.5	+0.4
	comp=Z,18nm,0.7s						
KECS				*i* Sn	Sn	10 51 34.2	-4.0
KECS	Kecovo	5.50	20	*i* P	Pn	10 50 35.5	+0.4
KECS				*i*		10 51 34.2	
KECS				pmax	pmax		
	comp=Z,18nm,0.7s						
KECS	Kecovo	5.50	20	*i* PN	Pn	10 50 35.5	+0.4
KECS				*i* SN	Sn	10 51 34.2	-4.0
AGG	Agios Georgios	5.55	139	*e*P	Pn	10 50 36.5	+0.7
APPI	Appiano	5.56	307	Pn	Pn	10 50 36.2	+0.3
	comp=Z,282nm,0.3s						

APPI	Appiano	5.56	307	Pn	Pn	10 50 36.2	+0.3
	comp=Z,282nm,0.3s						
MAGA	Magasa	5.60	298	Pn	Pn	10 50 35.8	-0.7
	comp=Z,711nm,0.5s						
VLS	Valsamata	5.60	156	eP	Pn	10 50 34.8	-1.7
SALO	Salr	5.61	296	Pn	Pn	10 50 36.2	-0.4
	comp=Z,323nm,1.2s						
SCE	Schlegeis	5.62	313	⇑iPn	Pn	10 50 37.5	+0.8
VOIR		5.68	66	⇓P	Pn	10 50 39.1	+1.6
VOIR		5.68	66	⇓iP	Pn	10 50 39.1	+1.6
MMME	Mongiuffi-Meli	5.70	200	Pn	Pn	10 50 36.7	-1.2
	comp=Z,62nm,0.5s						
MABI	Malga Bissina	5.79	300	Pn	Pn	10 50 39.1	0.0
	comp=Z,24nm,0.3s						
MABI	Malga Bissina	5.79	300	Pn	Pn	10 50 39.1	0.0
	comp=Z,24nm,0.3s						
NEO	Neokhori	5.79	132	eP	Pn	10 50 38.6	-0.5
WTTA	Wattenberg	5.80	315	⇑iPn	Pn	10 50 40.3	+1.1
WTTA	Wattenberg	5.80	315	⇑iPn	Pn	10 50 40.3	+1.2
WTTA				i Sn	Sn	10 51 47.2	+1.7
WTTA	Wattenberg	5.80	315	⇑iPn	Pn	10 50 40.3	+1.1
WTTA				⇑iSn	Sn	10 51 47.2	+1.7
WTTA	Wattenberg	5.80	315	Pn	Pn	10 50 40.3	+1.1
WATA	Walderalm	5.88	315	⇓iPn	Pn	10 50 41.5	+1.3
WATA	Walderalm	5.88	315	⇓iPn	Pn	10 50 41.5	+1.3
WATA				i Sn	Sn	10 51 49.7	+2.3
WATA	Walderalm	5.88	315	⇓iPn	Pn	10 50 41.5	+1.3
WATA				⇑iSn	Sn	10 51 49.7	+2.3
WATA	Walderalm	5.88	315	Pn	Pn	10 50 41.5	+1.3
SQTA	Sankt Quirin	6.00	313	⇑iPn	Pn	10 50 43.1	+1.2
SQTA	Sankt Quirin	6.00	313	⇑iPn	Pn	10 50 43.1	+1.2
SQTA	Sankt Quirin	6.00	313	⇑iPn	Pn	10 50 43.1	+1.2
SQTA	Sankt Quirin	6.00	313	Pn	Pn	10 50 43.1	+1.2
RLS	Riolos of Patr	6.00	150	eP	Pn	10 50 41.4	-0.6
VRAC	Vranov	6.02	353	⇑P	Pn	10 50 41.2	-0.9
VRAC	Vranov	6.02	353	P	Pn	10 50 41.9	-0.3
VRAC						10 51 47.6	
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.3s						
VRAC				smax			
	comp=N,5.0nm,0.3s						
VRAC	Vranov	6.02	353	Pn	Pn	10 50 41.9	-0.3
	comp=N,1.5nm,0.3s,baz=185,slow=10,SNR=9.6						
VRAC				Sn	Sn	10 51 47.6	-3.3
	comp=N,4.6nm,0.3s,baz=218,slow=5.5,SNR=4.8						
VRAC	Vranov	6.02	353	⇑iP	Pn	10 50 41.3	-0.9
VRAC	Vranov	6.02	353	ePn	Pn	10 50 42.1	-0.1
GIB	Gibilmanna	6.02	209	Pn	Pn	10 50 42.1	-0.2
	comp=N,58nm,0.5s						
GIB	Gibilmanna	6.02	209	P	Pn	10 50 42.1	-0.2
GIB				pmax	pmax		
	comp=Z,58nm,0.5s						
GIB	Gibilmanna	6.02	209	Pn	Pn	10 50 42.1	-0.2
	comp=Z,58nm,0.5s						
BRMO	Bormio	6.07	304	Pn	Pn	10 50 43.3	+0.4
	comp=Z,57nm,0.8s						
BRMO	Bormio	6.07	304	Pn	Pn	10 50 43.3	+0.4
	comp=Z,57nm,0.8s						
BOB	Bobbio (Coli)	6.11	286	Pn	Pn	10 50 44.0	+0.6
	comp=Z,97nm,0.6s						
BOB	Bobbio (Coli)	6.11	286	P	Pn	10 50 44.0	+0.6
BOB				pmax	pmax		
	comp=Z,97nm,0.6s						
BOB	Bobbio (Coli)	6.11	286	Pn	Pn	10 50 44.0	+0.6
	comp=Z,97nm,0.6s						
MOTA	Moosalm	6.13	313	⇓iPn	Pn	10 50 45.1	+1.3
MOTA	Moosalm	6.13	313	⇓iPn	Pn	10 50 45.1	+1.4
MOTA				i Sn	Sn	10 51 56.8	+3.2
MOTA	Moosalm	6.13	313	⇓iPn	Pn	10 50 45.1	+1.3
MOTA				⇓iSn	Sn	10 51 56.8	+3.2
MOTA	Moosalm	6.13	313	Pn	Pn	10 50 45.1	+1.4
FETA	Feichten	6.15	309	⇓iPn	Pn	10 50 44.8	+0.9
LKR	Lokris	6.17	138	eP	Pn	10 50 44.0	-0.2
GEC2	GERESS Array S	6.17	335	ePn	Pn	10 50 45.1	+0.9
GEC2				eSn	Sn	10 51 53.9	-0.6
GEC2	GERESS Array S	6.17	335	ePn	Pn	10 50 45.1	+0.9
GEC2				eSn	Sn	10 51 53.9	-0.6
GERES	GERESS Array B	6.17	335	Pn	Pn	10 50 44.2	0.0
GERES				Sn	Sn	10 51 52.9	-1.6
GERES	GERESS Array B	6.17	335	Pn	Pn	10 50 44.2	0.0
	comp=Z,11nm,0.3s,baz=157,slow=13,SNR=182						
GERES				Sn	Sn	10 51 52.9	-1.6
	comp=Z,8.5nm,0.3s,baz=160,slow=24,SNR=8.0						
UZH	Uzhgorod	6.19	30	eP	Pn	10 50 37.0	-7.5
UZH				MLR	MLR		
	comp=Z,1µm,8.0s						
MDI	Monti di Nese	6.20	296	Pn	Pn	10 50 43.6	-1.1
	comp=Z,61nm,0.5s						
FUORN	Ofenpass-Fuorn	6.21	305	Pn	Pn	10 50 45.6	+0.9
RDO	Rodhopi	6.22	108	eP	Pn	10 50 47.4	+2.4
MLR	Muntele Rosu	6.29	67	Pn	Pn	10 50 50.3	+4.3
MLR				Lg		10 52 26.2	
MLR				LR	LR	10 53 10.2	
MLR	Muntele Rosu	6.29	67	Pn	Pn	10 50 50.3	+4.4
	comp=Z,0.6nm,0.3s,baz=153,slow=7.3,SNR=4.4						
MLR				Lg		10 52 26.2	
	comp=Z,1.0nm,0.3s,baz=256,slow=17,SNR=3.3						
MLR				LR	LR	10 53 10.2	
	comp=Z,162nm,19.6s,baz=290,slow=37						
MLR	Muntele Rosu	6.29	67	⇑iP	Pn	10 50 51.0	+5.1
VAE	Valguarnera	6.36	204	Pn	Pn	10 50 49.0	+2.1
VAE				LR	LR	10 53 37.7	
VAE	Valguarnera	6.36	204	Pn	Pn	10 50 49.0	+2.1
	comp=Z,1.9nm,0.3s,baz=94,slow=13,SNR=3.5						
VAE				LR	LR	10 53 37.7	
	comp=Z,286nm,20.6s,baz=134,slow=42						
CORF	Corte	6.36	264	P	Pn	10 50 49.4	+2.5
RETA	Reutte	6.40	313	⇑iPn	Pn	10 50 48.2	+0.8
PGF	Pioggiola	6.43	266	ePn	Pn	10 50 47.7	-0.1
PGF				eSn	Sn	10 51 55.7	-5.2
PGF	Pioggiola	6.43	266	ePn	Pn	10 50 47.7	-0.1
PGF				eSn	Sn	10 51 55.7	-5.2
	comp=Z,26nm,0.7s						
PGF	Pioggiola	6.43	266	ePn	Pn	10 50 47.7	-0.1
PGF				eSn	Sn	10 51 55.7	-5.2
	comp=Z,13nm,0.7s						
KOLS	Kolonicke sedl	6.44	28	i Pn	Pn	10 50 48.6	+0.7
KOLS	Kolonicke sedl	6.44	28	i PN	Pn	10 50 48.6	+0.7
KOLS	Kolonicke sedl	6.44	28	i Pn	Pn	10 50 48.6	+0.7
MORC	Moravsky Berou	6.44	359	⇑P	Pn	10 50 47.4	-0.6
MORC	Moravsky Berou	6.44	359	⇑iP	Pn	10 50 47.4	-0.6
MORC	Moravsky Berou	6.44	359	ePn	Pn	10 50 48.4	+0.4
MORC				eSn	Sn	10 51 58.3	-3.0
KHC	Kasperske Hory	6.46	335	ePn	Pn	10 50 49.0	+0.8
KHC				eSn	Sn	10 51 59.8	-1.8
KHC	Kasperske Hory	6.46	335	ePN	Pn	10 50 49.0	+0.8
KHC				ex	x	10 50 56.0	
KHC				eSN	Sn	10 51 59.8	-1.8
KHC	Kasperske Hory	6.46	335	ePn	Pn	10 50 49.0	+0.8
KHC				eSn	Sn	10 51 59.8	-1.8
OKC	Ostrava-Krasne	6.51	3	ePn	Pn	10 50 50.0	+1.1
OKC				eSn	Sn	10 52 00.0	-2.9
OKC	Ostrava-Krasne	6.51	3	ePN	Pn	10 50 50.0	+1.1
OKC				eSN	Sn	10 52 00.0	-2.9
DAVOX	Davos/Dischmat	6.51	305	Pn	Pn	10 50 49.6	+0.7
DAVOX				Sn	Sn	10 51 60.0	-3.1
DAVOX				Lg		10 52 30.0	
DAVOX				LR	LR	10 53 45.4	
DAVOX	Davos/Dischmat	6.51	305	Pn	Pn	10 50 49.6	+0.7
	baz=142,slow=16						
DAVOX				Sn	Sn	10 51 60.0	-3.1
	comp=Z,6.1nm,0.3s,baz=151,slow=17,SNR=2.2						
DAVOX				Lg		10 52 30.0	
	comp=Z,4.7nm,0.3s,baz=98,slow=21,SNR=4.2						
DAVOX				LR	LR	10 53 45.4	
	comp=Z,550nm,19.2s,baz=248,slow=43						
DAVOX	Davos/Dischmat	6.51	305	Pn	Pn	10 50 49.9	+0.9
STHS	Stebnicka Huta	6.56	21	i Pn	Pn	10 50 51.0	+1.4
STHS				i Sn	Sn	10 52 02.8	-1.3
STHS	Stebnicka Huta	6.56	21	i PN	Pn	10 50 51.0	+1.4
STHS				i SN	Sn	10 52 02.8	-1.3
FUR	Furstenfeldbru	6.59	319	ePn	Pn	10 50 50.5	+0.5
FUR	Furstenfeldbru	6.59	319	ePn	Pn	10 50 50.5	+0.5
MUGIO	Muggio	6.69	296	Pn	Pn	10 50 50.0	-1.4
WET	Wettzell	6.70	332	ePn	Pn	10 50 52.3	+0.8
WET	Wettzell	6.70	332	ePn	Pn	10 50 52.3	+0.8
TUE	Stuetta	6.70	301	Pn	Pn	10 50 52.8	+1.2
	comp=Z,35nm,0.5s						
TUE	Stuetta	6.70	301	Pn	Pn	10 50 52.8	+1.2
	comp=Z,35nm,0.5s						
PCP	Pian Castagno	6.71	283	Pn	Pn	10 50 51.0	-0.7
	comp=Z,21nm,0.6s						
PCP	Pian Castagno	6.71	283	P	Pn	10 50 51.0	-0.7
PCP				pmax	pmax		
	comp=Z,21nm,0.6s						
PCP	Pian Castagno	6.71	283	Pn	Pn	10 50 51.0	-0.7
	comp=Z,21nm,0.6s						
DAVA	Damuels	6.78	308	⇓iPn	Pn	10 50 53.7	+1.1
DAVA	Damuels	6.78	308	⇓iPn	Pn	10 50 53.7	+1.1
DAVA				i Sn	Sn	10 52 11.2	+1.7
DAVA	Damuels	6.78	308	⇓iPn	Pn	10 50 53.7	+1.1
DAVA				⇑iSn	Sn	10 52 11.2	+1.7
DAVA	Damuels	6.78	308	Pn	Pn	10 50 53.7	+1.1
BURAR	Bucovina Array	6.80	48	⇑P	Pn	10 50 53.5	+0.6
BURAR	Bucovina Array	6.80	48	⇑iP	Pn	10 50 53.5	+0.6
QLNO	Quiliano	6.83	282	Pn	Pn	10 50 52.1	-1.2
	comp=Z,54nm,0.8s						
QLNO	Quiliano	6.83	282	Pn	Pn	10 50 52.1	-1.2
	comp=Z,54nm,0.8s						
VAI	Varese	6.85	295	Pn	Pn	10 50 52.3	-1.3
	comp=Z,68nm,0.5s						
VAI	Varese	6.85	295	P	Pn	10 50 52.3	-1.3
VAI				pmax	pmax		
	comp=Z,68nm,0.5s						
VAI	Varese	6.85	295	Pn	Pn	10 50 52.3	-1.3
	comp=Z,68nm,0.5s						
OSKI	Oschiri	6.86	251	Pn	Pn	10 50 54.4	+0.6
	comp=Z,10.0nm,0.4s						
PLOR	Plostina	6.87	65	⇑iP	Pn	10 50 59.1	+5.2
FIN	Finale Ligure	6.92	280	Pn	Pn	10 50 53.4	-1.1
	comp=Z,19nm,0.4s						
FIN	Finale Ligure	6.92	280	P	Pn	10 50 53.4	-1.1
FIN				pmax	pmax		
	comp=Z,19nm,0.4s						
FIN	Finale Ligure	6.92	280	Pn	Pn	10 50 53.4	-1.1
	comp=Z,19nm,0.4s						
ITM	Ithomi	6.95	151	eP	Pn	10 50 54.2	-0.8
PRU	Pruhonice	7.00	343	ePn	Pn	10 50 56.4	+0.8
PRU				e		10 52 23.0	
PRU	Pruhonice	7.00	343	ePN	Pn	10 50 56.4	+0.8
PRU				ex	x	10 52 23.0	
OJC	Ojcow	7.04	11	eP	Pn	10 50 48.2	-7.9
DPC	Dobruska-Polom	7.08	353	ePn	Pn	10 50 57.8	+1.1
DPC				eSn	Sn	10 52 13.1	-3.8
DPC	Dobruska-Polom	7.08	353	ePN	Pn	10 50 57.8	+1.1
DPC				eSN	Sn	10 52 13.1	-3.8
MONC	Moncucco Torin	7.23	287	Pn	Pn	10 50 58.9	+0.1
	comp=Z,93nm,0.5s						
UPC	Upice	7.26	351	ePn	Pn	10 50 59.8	+0.5
UPC	Upice	7.26	351	ePN	Pn	10 50 59.8	+0.5
UPC	Upice	7.26	351	ePn	Pn	10 50 59.8	+0.5
VSL	Villasalto	7.33	241	ePn	Pn	10 51 00.7	+0.5
	comp=Z,14nm,0.6s						
SAOF	Saorge	7.38	279	P	Pn	10 50 59.8	-1.1
ROTZ	Rotzenmuhle	7.46	331	ePn	Pn	10 51 02.0	+0.1
SBF	Sospel	7.46	278	ePn	Pn	10 51 01.1	-0.9
SBF				eSn	Sn	10 52 19.0	-7.4
SBF	Sospel	7.46	278	ePn	Pn	10 51 01.1	-0.9
	SNR=1.0						
SBF				eSn	Sn	10 52 19.0	-7.4
	comp=Z,41nm,0.4s,SNR=1.0						
SBF	Sospel	7.46	278	ePn	Pn	10 51 01.1	-0.9
	SNR=1.0						
SBF				eSn	Sn	10 52 19.0	-7.4
	comp=Z,20nm,0.4s,SNR=1.0						
AUTN	L'Aution	7.47	279	P	Pn	10 51 01.7	-0.4
AUTN	L'Aution	7.47	279	P	Pn	10 51 02.1	0.0
LUCF	Luceram	7.53	278	P	Pn	10 51 02.3	-0.6
STV	Sta Anna Valdi	7.56	280	Pn	Pn	10 51 02.4	-0.9
	comp=Z,19nm,0.8s						
STV	Sta Anna Valdi	7.56	280	P	Pn	10 51 02.4	-0.9
STV				pmax	pmax		
	comp=Z,19nm,0.8s						
STV	Sta Anna Valdi	7.56	280	Pn	Pn	10 51 02.4	-0.9
	comp=Z,19nm,0.8s						
KSP	Ksiaz	7.57	353	ePn	Pn	10 51 05.1	+1.7
KSP				eSn	Sn	10 52 34.3	+5.3
TOUF	Mont Tournerai	7.60	279	P	Pn	10 51 03.9	0.0
MVIF	Mont Vial	7.67	278	P	Pn	10 51 04.8	0.0
GRA1	Grafenberg Arr	7.76	327	ePn	Pn	10 51 06.9	+0.8
GRF	Grafenberg Arr	7.76	327	eP	Pn	10 51 06.9	+0.8
GRF	Grafenberg Arr	7.76	327	ePn	Pn	10 51 06.9	+0.8
GRFO	Grafenberg	7.76	327	P	Pn	10 51 06.7	+0.6
	comp=Z,43nm,0.6s						
GRFO	Grafenberg	7.76	327	P	Pn	10 51 06.7	+0.6
GRFO				pmax	pmax		
	comp=Z,43nm,0.6s						
NKC	Novy Kostel	7.78	334	ePn	Pn	10 51 06.9	+0.6
NKC	Novy Kostel	7.78	334	ePN	Pn	10 51 06.9	+0.6
LVV	L'vov	7.82	32	i P	Pn	10 51 16.3	+9.5
LVV				MLR	MLR		
	comp=N,300nm,11.0s						
LVV				MLR	MLR		
	comp=Z,400nm,11.0s						
LVV				MLR	MLR		
	comp=E,100nm,12.0s						
SPAK	Spaichingen-Ko	7.84	311	P	Pn	10 51 06.4	-0.8
CALN	Calern	7.86	277	P	Pn	10 51 07.3	-0.1
OG22	Abries	7.88	285	P	Pn	10 51 05.2	-2.5
OG22	Abries	7.88	285	P	Pn	10 51 05.4	-2.3
TANN	Tannenbergstha	7.93	335	ePn	Pn	10 51 09.8	+1.4
SURF	Saint Ours	7.94	282	P	Pn	10 51 07.5	-1.0
BRG	Berggiesshubel	7.96	343	Pn	Pn	10 51 10.5	+1.7
	comp=E,10nm,1.0s						
BRG				i		10 51 18.9	
BRG				Sg	Sn	10 52 57.1	+18
BRG	Berggiesshubel	7.96	343	PN	Pn	10 51 10.5	+1.7
BRG				i		10 51 18.9	
BRG	Berggiesshubel	7.96	343	SG	Sn	10 52 57.1	+18
	comp=E,17nm,1.0s						
MBDF	Montbardon	7.99	284	ePn	Pn	10 51 07.3	-1.9
MBDF				eSn	Sn	10 52 31.9	-7.5
MBDF	Montbardon	7.99	284	ePn	Pn	10 51 07.3	-1.9
	SNR=1.0						
MBDF				eSn	Sn	10 52 31.9	-7.5
	comp=E,49nm,0.6s						
MBDF	Montbardon	7.99	284	ePn	Pn	10 51 07.3	-1.9
	SNR=1.0						
MBDF				eSn	Sn	10 52 31.9	-7.5
	comp=E,24nm,0.6s						
STU	Stuttgart	8.03	316	ePn	Pn	10 51 09.8	+0.1
STU	Stuttgart	8.03	316	ePn	Pn	10 51 09.8	+0.1
FRF	La Foret Royal	8.04	275	ePn	Pn	10 51 09.3	-0.6
FRF				eSn	Sn	10 52 32.5	-8.1
FRF	La Foret Royal	8.04	275	ePn	Pn	10 51 09.3	-0.6
	SNR=1.0						
FRF				eSn	Sn	10 52 32.5	-8.1
	comp=E,31nm,0.7s						
FRF	La Foret Royal	8.04	275	ePn	Pn	10 51 09.3	-0.6
	SNR=1.0						
FRF				eSn	Sn	10 52 32.5	-8.1
	comp=E,16nm,0.7s						
BNI	Bardonecchia	8.10	286	ePn	Pn	10 51 09.0	-1.7
	comp=E,9.4nm,0.4s						
BNI	Bardonecchia	8.10	286	eP	Pn	10 51 09.0	-1.7
BNI				pmax	pmax		
	comp=Z,9.0nm,0.4s						
LPG	La Plagne	8.12	289	ePn	Pn	10 51 08.6	-2.5
LPG				eSn	Sn	10 52 35.9	-6.7
LPG	La Plagne	8.12	289	ePn	Pn	10 51 08.6	-2.5
	SNR=1.0						
LPG				eSn	Sn	10 52 35.9	-6.7
	comp=Z,92nm,0.7s						
LPG	La Plagne	8.12	289	ePn	Pn	10 51 08.6	-2.5
	SNR=1.0						
LPG				eSn	Sn	10 52 35.9	-6.7
	comp=Z,46nm,0.7s						
LPL	La Plagne	8.14	289	ePn	Pn	10 51 09.2	-2.1
LPL				eSn	Sn	10 52 36.2	-6.9
LPL	La Plagne	8.14	289	ePn	Pn	10 51 09.2	-2.1
	SNR=1.0						
LPL				eSn	Sn	10 52 36.2	-6.9
	comp=Z,105nm,0.7s						
LPL	La Plagne	8.14	289	ePn	Pn	10 51 09.2	-2.1
	SNR=1.0						
LPL				eSn	Sn	10 52 36.2	-6.9
	comp=Z,52nm,0.7s						
LMR	La Mourre	8.15	274	ePn	Pn	10 51 10.8	-0.7
LMR				eSn	Sn	10 52 38.5	-4.8
LMR	La Mourre	8.15	274	ePn	Pn	10 51 10.8	-0.7
	SNR=1.0						
LMR				eSn	Sn	10 52 38.5	-4.8
	comp=Z,8.4nm,0.3s						
LMR	La Mourre	8.15	274	ePn	Pn	10 51 10.8	-0.7
	SNR=1.0						
LMR				eSn	Sn	10 52 38.5	-4.8
	comp=Z,4.2nm,0.3s						
FELD	Feldberg im Sc	8.17	307	P	Pn	10 51 10.5	-1.1
BFO	Black Forest	8.22	311	ePn	Pn	10 51 11.6	-0.8
BFO	Black Forest	8.22	311	ePn	Pn	10 51 11.6	-0.8
RSL	Roselend	8.25	290	P	Pn	10 51 12.4	-0.4
BBS	Basel-Blauen	8.27	303	P	Pn	10 51 12.1	-0.9
MOX	Moxa	8.40	333	ePn	Pn	10 51 15.1	+0.2
MOX	Moxa	8.40	333	ePN	Pn	10 51 15.1	+0.2
MOX							
	comp=Z,800nm,16.0s						
MOX	Moxa	8.40	333	ePn	Pn	10 51 15.4	+0.5
TAVF	Tavernes	8.47	276	P	Pn	10 51 15.3	-0.5
GDM	Grand'Maison	8.51	287	P	Pn	10 51 17.2	+0.8
CLL	Collm	8.59	340	i Pn	Pn	10 51 18.4	+1.0
CLL	Collm	8.59	340	i Pn	Pn	10 51 18.4	+1.0
CLL				eSn	Sn	10 52 44.0	-10
LOMF	Lomont	8.64	301	P	Pn	10 51 17.9	-0.2
ORIF	Oris-en-Rattie	8.64	285	ePn	Pn	10 51 17.3	-0.9
ORIF				eSn	Sn	10 52 48.9	-6.5
ORIF	Oris-en-Rattie	8.64	285	ePn	Pn	10 51 17.3	-0.9
	SNR=1.0						
ORIF				eSn	Sn	10 52 48.9	-6.5
	comp=Z,60nm,0.6s,SNR=1.0						
ORIF				eMLR	MLR		
	comp=Z,381nm,22.8s						
ORIF	Oris-en-Rattie	8.64	285	ePn	Pn	10 51 17.3	-0.9
	SNR=1.0						
ORIF				eSn	Sn	10 52 48.9	-6.5
	comp=Z,30nm,0.6s,SNR=1.0						
MOF	Molkenrain	8.67	305	P	Pn	10 51 18.0	-0.5
MOF	Molkenrain	8.67	305	P	Pn	10 51 18.5	0.0
GRN	Grenoble	8.78	287	P	Pn	10 51 20.2	+0.2
SMRF	Simiane la Rot	8.81	278	ePn	Pn	10 51 17.9	-2.6
SMRF				eSn	Sn	10 52 51.5	-8.0
SMRF	Simiane la Rot	8.81	278	ePn	Pn	10 51 17.9	-2.6
	SNR=1.0						
SMRF				eSn	Sn	10 52 51.5	-8.0
	comp=Z,12nm,0.6s						
SMRF	Simiane la Rot	8.81	278	ePn	Pn	10 51 17.9	-2.6
	SNR=1.0						
SMRF				eSn	Sn	10 52 51.5	-8.0
	comp=Z,6.2nm,0.6s						
HINF	Hinteralfeld	8.82	304	ePn	Pn	10 51 19.8	-0.8
HINF				eSn	Sn	10 52 53.3	-6.4
HINF	Hinteralfeld	8.82	304	ePn	Pn	10 51 19.8	-0.8
	SNR=1.0						
HINF				eSn	Sn	10 52 53.3	-6.4
	comp=Z,86nm,0.8s						
HINF	Hinteralfeld	8.82	304	ePn	Pn	10 51 19.8	-0.8
	SNR=1.0						
HINF				eSn	Sn	10 52 53.3	-6.4
	comp=Z,43nm,0.8s						
ECH	Echery	8.83	307	P	Pn	10 51 19.6	-1.1
CABF	La Chapelle	8.85	296	ePn	Pn	10 51 19.9	-1.1
CABF				eSn	Sn	10 52 50.9	-10
CABF	La Chapelle	8.85	296	ePn	Pn	10 51 19.9	-1.1
	SNR=1.0						
CABF				eSn	Sn	10 52 50.9	-10
	comp=Z,29nm,0.5s						
CABF	La Chapelle	8.85	296	ePn	Pn	10 51 19.9	-1.1
	SNR=1.0						
CABF				eSn	Sn	10 52 50.9	-10
	comp=Z,15nm,0.5s						
CDF	Champ du Feu	8.86	309	ePn	Pn	10 51 19.4	-1.7
CDF				eSn	Sn	10 52 51.1	-10
CDF	Champ du Feu	8.86	309	ePn	Pn	10 51 19.4	-1.7
	SNR=1.0						
CDF				eSn	Sn	10 52 51.1	-10
	comp=Z,49nm,0.8s						
CDF	Champ du Feu	8.86	309	ePn	Pn	10 51 19.4	-1.7
	SNR=1.0						
CDF				eSn	Sn	10 52 51.1	-10
	comp=Z,24nm,0.8s						
OG05	Jujurieux	9.12	291	P	Pn	10 51 23.2	-1.6
OG05	Jujurieux	9.12	291	P	Pn	10 51 23.4	-1.4
UBBA	Unterbreizbach	9.14	328	ePn	Pn	10 51 25.5	+0.6
HAU	Haudompre	9.21	304	ePn	Pn	10 51 24.9	-1.0
HAU				eSn	Sn	10 52 59.9	-9.4
HAU	Haudompre	9.21	304	ePn	Pn	10 51 24.9	-1.0
	SNR=1.0						
HAU				eSn	Sn	10 52 59.9	-9.4
	comp=Z,108nm,0.8s						
HAU				eMLR	MLR		
	comp=Z,498nm,17.5s						
HAU	Haudompre	9.21	304	ePn	Pn	10 51 24.9	-1.0
	SNR=1.0						
HAU				eSn	Sn	10 52 59.9	-9.4
	comp=Z,54nm,0.8s						
TNS	Taunus Mts	9.36	321	ePn	Pn	10 51 28.3	+0.4
TNS				eSn	Sn	10 53 10.0	-2.9
TNS	Taunus Mts	9.36	321	ePn	Pn	10 51 28.3	+0.4
TNS				eSn	Sn	10 53 10.0	-2.9
VIVF	Saint-Julien-l	9.49	284	ePn	Pn	10 51 27.6	-2.2
VIVF				eSn	Sn	10 53 08.6	-7.6
VIVF	Saint-Julien-l	9.49	284	ePn	Pn	10 51 27.6	-2.2
	SNR=1.0						
VIVF				eSn	Sn	10 53 08.6	-7.6
	comp=Z,20nm,0.7s						
VIVF	Saint-Julien-l	9.49	284	ePn	Pn	10 51 27.6	-2.2
	SNR=1.0						
VIVF				eSn	Sn	10 53 08.6	-7.6
	comp=Z,10nm,0.7s						
IDI	Anoyia	9.78	143	Pn	Pn	10 51 35.1	+1.4
IDI				Sn	Sn	10 53 20.9	-2.5
IDI	Anoyia	9.78	143	Pn	Pn	10 51 35.2	+1.4
	comp=Z,0.8nm,0.3s,baz=292,slow=16,SNR=3.1						
IDI				Sn	Sn	10 53 20.9	-2.5
	comp=Z,3.9nm,0.3s,baz=303,slow=20,SNR=6.3						
KEST	Kesra	9.96	223	Pn	Pn	10 51 38.7	+2.5
	comp=Z,0.5nm,0.3s,baz=327,slow=5.5,SNR=10						
KEST				LR	LR	10 55 23.4	
	comp=Z,60nm,20.3s,baz=180,slow=38						
LASF	Ste Croix	10.05	279	ePn	Pn	10 51 35.8	-1.6
LASF				eSn	Sn	10 53 20.4	-9.5
LASF	Ste Croix	10.05	279	ePn	Pn	10 51 35.8	-1.6
	SNR=1.0						
LASF				eSn	Sn	10 53 20.4	-9.5
	comp=Z,9.5nm,0.7s						
LASF	Ste Croix	10.05	279	ePn	Pn	10 51 35.8	-1.6
	SNR=1.0						
LASF				eSn	Sn	10 53 20.4	-9.5
	comp=Z,4.8nm,0.7s						
SFTF	Sexfontaines	10.09	303	ePn	Pn	10 51 36.6	-1.4
	baz=124						
SFTF				eSn	Sn	10 53 21.4	-9.4
	comp=Z,27nm,0.6s						
SFTF	Sexfontaines	10.09	303	ePn	Pn	10 51 36.6	-1.4
SFTF				eSn	Sn	10 53 21.4	-9.4
	comp=Z,13nm,0.6s						
MEZF	Maizieres J'vi	10.21	305	ePn	Pn	10 51 39.3	-0.3
	baz=126,SNR=1.0						
MEZF				eSn	Sn	10 53 24.5	-9.2
	comp=Z,25nm,0.6s						
MEZF	Maizieres J'vi	10.21	305	ePn	Pn	10 51 39.3	-0.3
	SNR=1.0						
MEZF				eSn	Sn	10 53 24.5	-9.2
	comp=Z,13nm,0.6s						
SMF	Signal de Mont	10.35	293	ePn	Pn	10 51 39.4	-2.2
	SNR=1.0						
SMF				eSn	Sn	10 53 28.7	-8.7
	comp=Z,36nm,0.5s						
SMF	Signal de Mont	10.35	293	ePn	Pn	10 51 39.4	-2.2
	SNR=1.0						
SMF				eSn	Sn	10 53 28.7	-8.7
	comp=Z,18nm,0.5s						
PLDF	La Plantade	10.37	290	P	Pn	10 51 38.9	-2.9
LOR	Lormes	10.51	297	ePn	Pn	10 51 41.8	-1.9
	baz=115,SNR=1.0						
LOR				eSn	Sn	10 53 32.0	-9.1
	comp=Z,19nm,0.3s						
LOR				eMLR	MLR		
	comp=Z,248nm,20.3s						
LOR	Lormes	10.51	297	ePn	Pn	10 51 41.8	-1.9
	SNR=1.0						
LOR				eSn	Sn	10 53 32.0	-9.1
	comp=Z,9.7nm,0.3s						
SSF	Saint Saulge	10.68	295	ePn	Pn	10 51 43.9	-2.2
	SNR=1.0						
SSF				eSn	Sn	10 53 36.8	-8.6
	comp=Z,18nm,0.6s						
SSF	Saint Saulge	10.68	295	ePn	Pn	10 51 43.9	-2.2
	SNR=1.0						
SSF				eSn	Sn	10 53 36.8	-8.6
	comp=Z,8.9nm,0.6s						
AVF	Avril sur Loir	10.71	294	ePn	Pn	10 51 44.6	-1.9
	SNR=1.0						
AVF				eSn	Sn	10 53 34.1	-12
	comp=Z,16nm,0.5s,SNR=1.0						

AVF	**Avril sur Loir**	**10.71**	**294**	*e*Pn	**Pn**	**10 51 44.6**	**-1.9**
	SNR=1.0						
AVF				*e*Sn	**Sn**	**10 53 34.1**	**-12**
	comp=Z,8.0nm,0.5s,SNR=1.0						
AGO	**Saint Agoulin**	**10.72**	**290**	P	**Pn**	**10 51 43.5**	**-3.1**
BUG	**Bochum--Univer**	**10.74**	**323**	*e*P	**Pn**	**10 51 48.4**	**+1.5**
BUG	**Bochum--Univer**	**10.74**	**323**	*e*Pn	**Pn**	**10 51 48.4**	**+1.5**
AKASG	**Malin Array Be**	**10.77**	**43**	Pn	**Pn**	**10 51 48.3**	**+1.0**
AKASG	**Malin Array Be**	**10.77**	**43**	*e*P	**Pn**	**10 51 54.7**	**+7.4**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.7s						
AKASG	**Malin Array Be**	**10.77**	**43**	Pn	**Pn**	**10 51 48.3**	**+1.0**
	baz=237,slow=13,SNR=2.1						
BGF	**Bois d'Agland**	**11.00**	**292**	*e*Pn	**Pn**	**10 51 48.3**	**-2.2**
	SNR=1.0						
BGF				*e*Sn	**Sn**	**10 53 43.9**	**-9.4**
	comp=Z,36nm,0.5s						
BGF	**Bois d'Agland**	**11.00**	**292**	*e*Pn	**Pn**	**10 51 48.3**	**-2.2**
	SNR=1.0						
BGF				*e*Sn	**Sn**	**10 53 43.9**	**-9.4**
	comp=Z,18nm,0.5s						
GIVF	**Givet**	**11.12**	**312**	*e*Pn	**Pn**	**10 51 51.4**	**-0.6**
GIVF	**Givet**	**11.12**	**312**	*e*Pn	**Pn**	**10 51 51.4**	**-0.6**
MTLF	**Montolieu**	**11.27**	**275**	*e*Pn	**Pn**	**10 51 53.9**	**-0.3**
MTLF	**Montolieu**	**11.27**	**275**	*e*Pn	**Pn**	**10 51 53.9**	**-0.3**
HYF	**Humbligny**	**11.30**	**296**	*e*Pn	**Pn**	**10 51 51.8**	**-2.8**
HYF	**Humbligny**	**11.30**	**296**	*e*Pn	**Pn**	**10 51 51.8**	**-2.8**
CAF	**Calviac**	**11.35**	**283**	*e*Pn	**Pn**	**10 51 53.9**	**-1.3**
	SNR=1.0						
CAF	**Calviac**	**11.35**	**283**	*e*Pn	**Pn**	**10 51 53.9**	**-1.3**
	SNR=1.0						
TCF	**Toulx Ste Croi**	**11.39**	**290**	*e*Pn	**Pn**	**10 51 53.8**	**-1.9**
	SNR=1.0						
TCF				*e*Sn	**Sn**	**10 53 53.2**	**-9.5**
	comp=Z,19nm,0.6s						
TCF	**Toulx Ste Croi**	**11.39**	**290**	*e*Pn	**Pn**	**10 51 53.8**	**-1.9**
	SNR=1.0						
TCF				*e*Sn	**Sn**	**10 53 53.2**	**-9.5**
	comp=Z,9.6nm,0.6s						
BAIF	**Baives**	**11.43**	**311**	*e*Pn	**Pn**	**10 51 56.7**	**+0.4**
BAIF	**Baives**	**11.43**	**311**	*e*Pn	**Pn**	**10 51 56.7**	**+0.4**
RJF	**Les Rejaudoux**	**11.75**	**285**	*e*Pn	**Pn**	**10 51 57.9**	**-2.9**
RJF				*e*MLR	MLR		
	comp=Z,229nm,20.0s						
RJF	**Les Rejaudoux**	**11.75**	**285**	*e*Pn	**Pn**	**10 51 57.9**	**-2.9**
BRTR	**Keskin Array B**	**12.48**	**101**	LR	LR	10 57 52.0	
	comp=Z,188nm,20.3s,baz=321,slow=41						
EPF	**Esparros**	**12.67**	**275**	*e*Pg	Px	10 52 55.6	
	SNR=1.0						
EPF	**Esparros**	**12.67**	**275**	*e*Pg	Px	10 52 55.6	
	SNR=1.0						
MFF	**Saint Martin d**	**13.04**	**291**	*e*Pn	**Pn**	**10 52 15.0**	**-3.4**
	SNR=1.0						
MFF	**Saint Martin d**	**13.04**	**291**	*e*Pn	**Pn**	**10 52 15.0**	**-3.4**
	SNR=1.0						
FLN	**La Foliniere**	**13.73**	**300**	*e*Pn	**Pn**	**10 52 24.8**	**-2.9**
FLN				*e*MLR	MLR		
	comp=Z,238nm,19.8s						
FLN	**La Foliniere**	**13.73**	**300**	*e*Pn	**Pn**	**10 52 24.8**	**-2.9**
QUIF	**Quistinic**	**15.28**	**295**	*e*Pn	**Pn**	**10 52 46.6**	**-2.1**
	SNR=1.0						
QUIF	**Quistinic**	**15.28**	**295**	*e*Pn	**Pn**	**10 52 46.6**	**-2.1**
	SNR=1.0						
VSU	**Vasula**	**16.16**	**17**	*e*P	**Pn**	**10 53 02.8**	**+2.7**
OBN	**Obninsk**	**16.99**	**40**	⇑*e*P	**Pn**	**10 53 10.9**	**+0.3**
OBN				*e*S	**Sn**	**10 56 09.2**	**-10**
OBN				pmax	pmax		
	comp=Z,11nm,0.8s						
OBN				MLR	MLR		
	comp=Z,200nm,17.0s						
HFS	**Hagfors**	**17.00**	**353**	Pn	**Pn**	**10 53 09.8**	**-0.9**
HFS				LR	LR	11 00 26.0	
HFS	**Hagfors**	**17.00**	**353**	Pn	**Pn**	**10 53 09.8**	**-0.8**
	comp=Z,0.3nm,0.3s,baz=160,slow=12,SNR=7.6						
HFS				LR	LR	11 00 26.0	
	comp=Z,295nm,20.1s,baz=73,slow=40						
MMAI	**Mount Meron Ar**	**17.29**	**121**	P	**Pn**	**10 53 15.8**	**+1.3**
	comp=Z,0.9nm,0.3s,baz=322,slow=11,SNR=4.2						
EKA	**Eskdalemuir Ar**	**18.04**	**319**	P	**Pn**	**10 53 21.6**	**-2.1**
	comp=Z,0.3nm,0.3s,baz=114,slow=11,SNR=7.1						
KIV	**Kislovodsk**	**18.09**	**79**	⇑*e*P	**Pn**	**10 53 31.1**	**+6.8**
KIV				*e*S	**Sn**	**10 56 49.4**	**+3.6**
KIV				pmax	pmax		
	comp=Z,8.0nm,1.2s						
KIV				MLR	MLR		
	comp=Z,100nm,17.0s						
NB2	**NORSAR Subarra**	**18.15**	**350**	P	**Pn**	**10 53 24.6**	**-0.4**
	comp=Z,8.2nm,0.7s,baz=165,slow=12						
NOA	**NORSAR Array B**	**18.15**	**350**	P	**Pn**	**10 53 23.6**	**-1.4**
	comp=Z,0.5nm,0.3s,baz=172,slow=12,SNR=5.1						
NOA				LR	LR	11 01 09.5	
	comp=Z,123nm,18.2s,baz=165,slow=40						
ASF	**Jabal al Asfar**	**18.79**	**120**	P	**Pn**	**10 53 32.9**	**-0.1**
	comp=Z,0.3nm,0.3s,baz=153,slow=2.3,SNR=2.7						
ASF				LR	LR	11 01 18.0	
	comp=Z,69nm,18.3s,baz=298,slow=38						
FINES	**FINESS Array B**	**18.82**	**13**	P	**Pn**	**10 53 32.3**	**-0.8**
	comp=Z,0.6nm,0.3s,baz=186,slow=10,SNR=23						
FINES				LR	LR	11 01 32.3	
	comp=Z,225nm,21.6s,slow=39						
EIL	**Elat**	**19.40**	**129**	P	**Pn**	**10 53 39.3**	**-1.1**
	comp=Z,0.3nm,0.3s,baz=342,slow=9.6,SNR=3.3						
JOF	**Joensuu**	**21.16**	**17**	*e*p	**P**	**10 53 56.2**	**-1.9**
	comp=Z,6.3nm,0.6s,mb4.1						
PRGR	**Permogore**	**24.68**	**32**	⇑*i*P	**P**	**10 54 40.6**	**+6.9**
PRGR				*e*SS		10 59 53.3	
PRGR				pmax	pmax		
	comp=Z,33nm,0.6s,mb5.0						
ARCES	**ARCESS Array B**	**26.57**	**6**	P	**P**	**10 54 48.6**	**-2.2**
	comp=Z,1.4nm,0.6s,mb3.7,baz=183,slow=6.1,SNR=13						
ARU	**Arti**	**28.94**	**49**	⇑*i*P	**P**	**10 55 16.8**	**+4.7**
ARU				*e*		10 56 10.0	
ARU				*e*S	**S**	**11 00 07.9**	**+5.7**
ARU				*e*SS	SS	11 01 34.2	-30
ARU				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.1						
TORD	**Torodi Ar. Bea**	**33.09**	**209**	P	**P**	**10 55 47.6**	**-1.5**
	comp=Z,1.1nm,0.6s,mb3.9,baz=16,slow=9.3,SNR=9.2						
ZAL	**Zalesovo**	**44.00**	**52**	P	**P**	**10 57 18.9**	**-1.4**
ZALV	**Zalesovo Beam**	**44.01**	**52**	P	**P**	**10 57 18.9**	**-1.4**
	comp=Z,1.7nm,0.6s,mb3.9,baz=284,slow=8.2,SNR=6.8						
MKAR	**Makanchi Array**	**44.61**	**62**	P	**P**	**10 57 23.5**	**-1.7**
	comp=Z,0.3nm,0.5s,mb3.4,baz=278,slow=8.0,SNR=3.6						
MKAR				PcP	PcP	10 59 06.2	-1.7
	comp=Z,0.5nm,0.6s,baz=292,slow=4.3,SNR=3.1						
SCHQ	**Schefferville**	**53.27**	**314**	P	**P**	**10 58 29.1**	**-2.5**
	comp=Z,1.4nm,0.7s,mb4.0,baz=34,slow=17,SNR=5.7						
SCHQ				LR	LR	11 17 49.1	
	comp=Z,116nm,19.6s,MS3.9,baz=290,slow=32						
SONM	**Songino Array**	**58.91**	**52**	P	**P**	**10 59 10.7**	**-1.3**
	comp=Z,0.6nm,0.7s,mb3.7,baz=285,slow=7.7,SNR=7.6						
YKA	**Yellowknife Ar**	**67.81**	**338**	*i* P	**P**	**11 00 09.1**	**-1.5**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	**Yellowknife Ar**	**67.81**	**338**	P	**P**	**11 00 08.7**	**-1.9**
	comp=Z,1.0nm,0.6s,mb4.0,baz=37,slow=5.6,SNR=22						
ULM	**Lac du Bonnet**	**70.30**	**321**	P	**P**	**11 00 24.6**	**-1.8**
	comp=Z,0.5nm,0.5s,mb3.8,baz=59,slow=16,SNR=3.3						
BOSA	**Boshof**	**71.93**	**173**	P	**P**	**11 00 35.0**	**-1.3**
BOSA				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
BOSA	**Boshof**	**71.93**	**173**	P	**P**	**11 00 35.0**	**-1.3**
	comp=Z,1.2nm,0.5s,mb4.1,baz=118,slow=22,SNR=8.6						
PDAR	**Pinedale Array**	**82.10**	**324**	P	**P**	**11 01 32.7**	**-0.8**
	comp=Z,0.5nm,0.8s,mb3.5,baz=38,slow=4.6,SNR=2.9						
NVAR	**Mina Array Bea**	**89.36**	**327**	P	**P**	**11 02 08.9**	**-0.7**
	comp=Z,0.3nm,0.6s,mb3.8,baz=51,slow=4.7,SNR=4.4						
TXAR	**Lajitas Array**	**89.90**	**312**	P	**P**	**11 02 11.4**	**-0.9**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
TXAR	**Lajitas Array**	**89.90**	**312**	P	**P**	**11 02 11.4**	**-0.9**
	comp=Z,1.1nm,0.8s,mb4.2,baz=78,slow=4.0,SNR=11						

BJI ***03*** *11:03:17.1, 14.87N×147.52E, h10^{km}, mB5.1, mb5.1, Ms4.7, Msz4.4*

ISCJB ***03*** *11:03:21.8±0.2, 15.07N±0.04×146.86E±0.02, h10^{km}, mb5.0/120, MS4.3/30, Error ellipse: s-maj=5.2km s-min=3.1km az=5.1*

GCMT ***03*** *11:03:23.0±0.5, 14.84N×147.25E, h19^{km}±1^{km}, MW4.9/52, Moment Tensor Solution. s14,c14; s52,c68; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.11±.20; $M_{\theta\theta}$-0.13±.11; $M_{\phi\phi}$-1.98±.13; $M_{r\theta}$1.07±.26; $M_{\theta\phi}$-0.69±.07; $M_{\phi r}$0.79±.23; Best double couple: $M_0$2.53800×10^{16} NP1: ϕ_s183.00000°, δ34.00000°, λ62.00000°. NP2: ϕ_s35.00000°, δ61.00000°, λ107.00000°. Principal axes: T 2.5920, Plg69.0000°, Azm342.0000°; N -0.1100, Plg15.0000°, Azm207.0000°; P -2.4840, Plg14.0000°, Azm113.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***03*** *11:03:23.7±2.9, 15.05N×146.89E, h18^{km}±17^{km}, mb4.6/21, mb1 4.7/21, mb1mx4.6/26, mbtmp4.6/21, MS4.1/13, Ms1 4.1/13, ms1mx3.9/26 Error ellipse: s-maj=21.5km s-min=13.7km az=82.0*

NEIC ***03*** *11:03:23.1±0.2, 15.07N×146.87E, h10^{km}, mb5.0/62, Error ellipse: s-maj=4.9km s-min=4.3km az=137.0*

NEIC Felt at Yigo, Guam.

MOS ***03*** *11:03:24.9±1.1, 15.14N×146.74E, h33^{km}, mb5.2/41, MS4.3/4, Error ellipse: s-maj=9.8km s-min=6.0km az=97.4*

ISC 03 11:03:23.4±1.2, **15.10N**±0.04×**146.92E**±0.02, **h10**^{km}±7^{km}, **h14**^{km}±1.9^{km}**:pP-P, n521,** σ**0^s.83**/524, **mb5.0**/120, **MS4.3**/30, **120C-97D, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	**Guam**	**2.49**	**233**	*e*Pn	**Pn**	**11 04 04.0**	**-0.1**
GUMO	**Guam**	**2.49**	**233**	Pn	**Pn**	**11 04 05.9**	**+1.9**
	109nm,0.3s,baz=132,slow=4.6,SNR=48						
GUMO				Sn	**Sn**	**11 04 37.2**	**+2.6**
	80nm,0.3s,baz=16,slow=18,SNR=5.2						
JOW	**Kunigami**	**20.93**	**307**	P	**P**	**11 08 08.3**	**+1.9**
	35nm,0.5s,baz=139,slow=8.8,SNR=12						
MJAR	**Matsushiro Arr**	**22.72**	**342**	P	**P**	**11 08 23.6**	**-1.9**
	5.0nm,0.6s,mb4.1,baz=160,slow=8.8,SNR=20						
MAJO	**Matsushiro**	**22.72**	**342**	*e*P	**P**	**11 08 24.0**	**-1.5**
	10nm,0.6s,mb4.4						
MAJO	**Matsushiro**	**22.72**	**342**	*e*P	**P**	**11 08 24.0**	**-1.5**
MAJO				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.4						
MAT	**Matsushiro**	**22.72**	**342**	P	**P**	**11 08 23.3**	**-2.2**
MAT				*e*S	**S**	**11 12 31.8**	**-2.7**
JNU	**Nakatsue**	**23.10**	**324**	P	**P**	**11 08 28.9**	**-0.6**
	comp=Z,28nm,0.7s,mb4.8,baz=119,slow=13,SNR=12						
JNU				LR	LR	11 16 09.7	
	comp=Z,290nm,19.8s,baz=14,slow=33						
PMG	**Port Moresby**	**24.35**	**179**	*e*P	**P**	**11 08 40.4**	**-1.3**
	comp=Z,61nm,0.9s,mb5.0						
PMG	**Port Moresby**	**24.35**	**179**	*e*P	**P**	**11 08 40.4**	**-1.3**
PMG				pmax	pmax		
	comp=Z,61nm,0.9s						
PMG	**Port Moresby**	**24.35**	**179**	P	**P**	**11 08 39.3**	**-2.4**
	comp=Z,38nm,0.7s,mb4.9,baz=355,slow=5.5,SNR=15						
NACB	**Ninganchiao**	**25.47**	**295**	*e*P	**P**	**11 08 51.5**	**-0.4**
TATO	**Taipei**	**25.79**	**296**	*e*P	**P**	**11 08 54.5**	**-0.3**
	comp=Z,35nm,0.7s,mb5.0						
YHNB	**Yeheng**	**25.80**	**296**	*e*P	**P**	**11 08 55.8**	**+0.9**
ERM	**Erimo**	**27.02**	**354**	*e*P	**P**	**11 09 05.1**	**-0.5**
	comp=Z,42nm,1.1s,mb4.9						
ERM	**Erimo**	**27.02**	**354**	*e*P	**P**	**11 09 05.1**	**-0.5**
ERM				pmax	pmax		
	comp=Z,42nm,1.1s,mb4.9						
KSRS	**Korea Array**	**27.92**	**326**	P	**P**	**11 09 13.6**	**-0.2**
	comp=Z,15nm,0.8s,mb4.7,baz=145,slow=9.0,SNR=27						
KSRS				LR	LR	11 18 58.1	
	comp=Z,316nm,20.1s,MS3.9,baz=240,slow=33						
KS15	**Wonju Array Si**	**27.93**	**326**	*e*P	**P**	**11 09 13.0**	**-0.9**
KS15				*e*P		11 09 13.6	
QZH	**Quanzhou**	**28.30**	**295**	⇓*i*P	**P**	**11 09 19.1**	**+1.7**
QZH				AMB	AMB		
	comp=Z,70nm,0.9s,mb5.3						
SSE	**Sheshan**	**28.42**	**309**	*e*P	**P**	**11 09 18.4**	**0.0**
SSE				S	**S**	**11 14 04.1**	**-1.6**
SSE				AMB	AMB		
	comp=Z,39nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,114nm,7.1s						
SSE				LR	LR		
	comp=N,335nm,22.3s,MS3.9						
SSE				LR	LR		
	comp=E,147nm,22.3s,MS3.9						
SSE				LR	LR		
	comp=Z,303nm,18.9s,MS3.9						
INCN	**Inchon**	**28.64**	**325**	*e*P	**P**	**11 09 19.2**	**-1.1**
	comp=Z,27nm,1.0s,mb4.9						
ASAJ	**Asahikawa**	**29.15**	**354**	P	**P**	**11 09 25.4**	**+0.8**
	comp=Z,39nm,0.7s,mb5.2,baz=192,slow=8.9,SNR=24						
NJ2	**Nanjing**	**30.63**	**308**	*e*P	**P**	**11 09 38.5**	**+0.6**
NJ2				AP	pP	11 09 43.1	+2.2
NJ2				XP	sP	11 09 45.4	+3.3
NJ2				PP	PP	11 10 38.2	-8.9
NJ2				S	**S**	**11 14 40.0**	**-0.3**
NJ2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,170nm,6.2s						
NJ2				LR	LR		
	comp=N,450nm,11.6s,MS4.4						
NJ2				LR	LR		
	comp=E,420nm,15.8s,MS4.4						
NJ2				LR	LR		
	comp=Z,340nm,12.4s,MS4.2						
KAKA	**Kakadu**	**31.13**	**208**	*e*P	**P**	**11 09 41.1**	**-1.4**
	comp=Z,34nm,1.0s,mb5.1						
YSS	**Yuzh-Sakhalins**	**31.95**	**355**	*e*P	**P**	**11 09 49.7**	**+0.4**
	comp=Z,23nm,0.8s,mb5.1						
YSS	**Yuzh-Sakhalins**	**31.95**	**355**	*e*P	**P**	**11 09 50.3**	**+1.0**
YSS				*e*		11 10 07.8	
YSS				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.4						
DL2	**Dalian**	**32.51**	**322**	P	**P**	**11 09 56.4**	**+2.0**
DL2				S	**S**	**11 15 13.1**	**+3.6**
DL2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
DL2				LR	LR		
	comp=N,230nm,15.7s,MS4.1						
DL2				LR	LR		
	comp=E,240nm,15.2s,MS4.1						
DL2				LR	LR		
	comp=Z,190nm,14.5s,MS3.9						
GZH	**Guangzhou**	**32.65**	**289**	P	**P**	**11 09 54.9**	**-0.9**
GZH				S	**S**	**11 15 07.9**	**-4.2**
GZH				LR	LR		
	comp=N,380nm,20.2s,MS4.2						
GZH				LR	LR		
	comp=E,383nm,19.9s,MS4.2						
GZH				LR	LR		
	comp=Z,702nm,18.1s,MS4.4						
MDJ	**Mudanjiang**	**32.89**	**337**	P	**P**	**11 10 00.6**	**+3.0**
MDJ				XP	sP	11 10 04.6	+2.8
MDJ				S	**S**	**11 15 14.1**	**-1.2**
MDJ				AMB	AMB		
	comp=Z,10.0nm,1.8s,mb4.4						
MDJ				AMB	AMB		
	comp=Z,79nm,3.6s						
MDJ				LR	LR		
	comp=E,250nm,27.1s						
MDJ				LR	LR		
	comp=Z,196nm,25.4s						
WHN	**Wuhan**	**33.57**	**303**	⇓P	**P**	**11 10 05.0**	**+1.2**
CN2	**Changchun**	**33.96**	**332**	*e*P	**P**	**11 10 09.3**	**+2.3**
CN2				*e*XP	sP	11 10 16.3	+5.1
CN2				*e*S	**S**	**11 15 33.0**	**+1.0**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,400nm,15.0s,MS4.4						
CN2				LR	LR		
	comp=E,400nm,15.0s,MS4.4						
CN2				LR	LR		
	comp=Z,500nm,15.0s,MS4.4						
HABR	**Khabarovsk**	**34.69**	**346**	*e*P	**P**	**11 10 10.7**	**-2.5**
HABR				*e*		11 11 24.3	
HABR				*e*		11 12 43.2	
HABR				*e*S	**S**	**11 15 41.7**	**-1.3**
HABR				*e*SS	SS	11 17 53.1	-20
HABR				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.1						
CTAO	**Charters Tower**	**34.98**	**181**	*e*P	**P**	**11 10 14.2**	**-1.8**
	comp=Z,43nm,1.7s,mb5.1						
CTAO	**Charters Tower**	**34.98**	**181**	*e*P	**P**	**11 10 14.2**	**-1.8**
CTAO				pmax	pmax		
	comp=Z,43nm,1.7s,mb5.1						
QIZ	**Qiongzhong**	**35.62**	**282**	P	**P**	**11 10 18.5**	**-3.1**
QIZ				PCP	PcP	11 12 48.7	-1.8
QIZ				S	**S**	**11 16 00.3**	**+2.2**
QIZ				SS	SS	11 18 28.2	-4.9
QIZ				SCS	ScS	11 20 39.5	-2.3
QIZ				LR	LR		
	comp=E,168nm,18.0s						
QIZ				LR	LR		
	comp=Z,372nm,16.9s,MS4.2						
KLR	**Kul'dur**	**36.23**	**343**	*e*P	**P**	**11 10 22.2**	**-4.3**
KLR				*e*		11 12 48.2	
KLR				MLR	MLR		
	comp=E,500nm,14.0s						
KLR				MLR	MLR		
	comp=Z,900nm,14.0s,MS4.7						
BJI	**Beijing**	**36.56**	**319**	P	**P**	**11 10 30.0**	**+0.5**
BJI				S	**S**	**11 16 14.2**	**+2.1**
BJI				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.9						
BJI				LR	LR		
	comp=N,251nm,19.7s,MS4.1						
BJI				LR	LR		
	comp=E,214nm,19.5s,MS4.1						
BJI				LR	LR		
	comp=Z,271nm,28.0s						
WB2	**Warramunga Arr**	**36.95**	**200**	*e*P	**P**	**11 10 32.1**	**-0.8**
WRA	**Warramunga Arr**	**36.96**	**200**	P	**P**	**11 10 32.4**	**-0.5**
	comp=Z,47nm,0.8s,mb5.4,baz=21,slow=9.2,SNR=115						
PET	**Petropavlovsk**	**38.96**	**11**	*e*P	**P**	**11 10 50.0**	**+0.5**
PET	**Petropavlovsk**	**38.96**	**11**	*e*P	**P**	**11 10 58.7**	**+9.2**
PET				*e*S	**S**	**11 16 53.3**	**+5.2**
PET				smax			
	comp=N,200nm,13.0s						
XAN	**Xi'an**	**39.08**	**306**	P	**P**	**11 10 51.3**	**+0.5**
XAN				AMB	AMB		
	comp=Z,24nm,1.3s,mb4.8						
FITZ	**Fitzroy Crossi**	**39.09**	**213**	⇑*i*P	**P**	**11 10 50.8**	**-0.3**
	comp=Z,20nm,0.9s,mb4.8						
GYA	**Guiyang**	**39.15**	**293**	⇑*i*P	**P**	**11 10 53.5**	**+2.0**
GYA				AP	pP	11 10 57.8	+3.3
GYA				XP	sP	11 11 01.2	+5.5
GYA				PP	PP	11 12 24.8	+3.5
GYA				PCP	PcP	11 13 02.0	+0.9
GYA				SCP	ScP	11 16 50.7	+0.8
GYA				S	**S**	**11 16 54.6**	**+3.0**
GYA				SCS	ScS	11 21 00.4	-1.1
GYA				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.1						
GYA				AMB	AMB		
	comp=Z,230nm,6.6s						
GYA				LR	LR		
	comp=N,420nm,11.0s,MS4.6						
GYA				LR	LR		
	comp=E,390nm,12.3s,MS4.6						
GYA				LR	LR		
	comp=Z,450nm,11.5s,MS4.5						
HHC	**Hu-ho-hao-te**	**39.98**	**317**	*e*P	**P**	**11 10 58.2**	**-0.1**
HHC				AP	pP	11 11 02.8	+1.6
HHC				XP	sP	11 11 05.3	+2.9
HHC				PP	PP	11 12 34.4	+4.3
HHC				PCP	PcP	11 13 04.4	+0.9
HHC				SCP	ScP	11 16 51.5	-1.3
HHC				PCS	PcS	11 16 53.6	0.0
HHC				S	**S**	**11 17 05.7**	**+2.0**
HHC				SCS	ScS	11 21 04.1	-1.7
HHC				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.5						
HHC				AMB	AMB		
	comp=Z,168nm,4.5s						
HHC				LR	LR		
	comp=N,308nm,15.2s,MS4.4						
HHC				LR	LR		
	comp=E,304nm,17.1s,MS4.4						
HHC				LR	LR		
	comp=Z,335nm,17.1s,MS4.2						
BTO	**Baotou**	**40.89**	**316**	*e*P	**P**	**11 11 05.8**	**0.0**
CD2	**Chengdu**	**42.45**	**299**	⇑*i*P	**P**	**11 11 19.2**	**+0.5**
CD2				AP	pP	11 11 23.7	+2.0
CD2				PP	PP	11 13 00.5	+3.4
CD2				S	**S**	**11 17 40.0**	**-0.7**
CD2				AMB	AMB		
	comp=Z,60nm,0.8s,mb5.3						
CD2				AMB	AMB		
	comp=Z,230nm,7.1s						
CD2				LR	LR		
	comp=N,360nm,15.6s,MS4.7						
CD2				LR	LR		
	comp=E,610nm,12.0s,MS4.7						
CD2				LR	LR		
	comp=Z,370nm,14.4s,MS4.4						
KMI	**Kunming**	**42.50**	**291**	P	**P**	**11 11 21.0**	**+1.7**
KMI				AP	pP	11 11 31.7	+9.4
KMI				PP	PP	11 12 58.3	+0.5
KMI				S	**S**	**11 17 37.0**	**-4.7**
KMI				XS	sS	11 17 57.5	+11
KMI				AMB	AMB		
	comp=Z,25nm,1.2s,mb4.8						
KMI				AMB	AMB		
	comp=Z,124nm,5.9s						
KMI				LR	LR		
	comp=N,166nm,18.3s,MS4.3						
KMI				LR	LR		
	comp=E,263nm,15.8s,MS4.3						
KMI				LR	LR		
	comp=Z,274nm,18.3s,MS4.2						
LZH	**Lanzhou**	**43.67**	**307**	⇑P	**P**	**11 11 30.0**	**+1.4**
LZH				AP	pP	11 11 33.0	+1.4
LZH				XP	sP	11 11 34.5	+1.8
LZH				PP	PP	11 13 13.9	+3.7
LZH				*e*S	**S**	**11 17 58.3**	**-0.3**
LZH				AMB	AMB		
	comp=Z,122nm,1.4s,mb5.4						
LZH				AMB	AMB		
	comp=Z,371nm,4.3s						
LZH				LR	LR		
	comp=E,530nm,15.0s						
LZH				LR	LR		
	comp=Z,775nm,16.0s,MS4.7						
NANT	**Nan**	**44.27**	**282**	⇓P	**P**	**11 11 32.0**	**-1.6**
	comp=Z,99nm,1.0s,mb5.5						
MA2	**Magadan**	**44.49**	**3**	*e*P	**P**	**11 11 35.3**	**+0.6**
	comp=Z,22nm,0.8s,mb4.9						
MA2	**Magadan**	**44.49**	**3**	*e*P	**P**	**11 11 35.3**	**+0.5**
MA2				*e*S	**S**	**11 18 08.9**	**-0.9**
MA2				*e*SS	SS	11 21 33.7	+4.6
MA2				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.2						
CLNS	**Chul'man**	**44.89**	**343**	*e*P	**P**	**11 11 34.9**	**-3.1**
CLNS				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.8						
CLNS				pmax	pmax		
	comp=N,11nm,1.1s						
CLNS				pmax	pmax		
	comp=E,7.0nm,0.9s						
NST	**Nakhon Sawan**	**45.04**	**277**	⇑P	**P**	**11 11 41.0**	**+1.2**
CIT	**Chita**	**45.41**	**331**	*e*P	**P**	**11 11 40.9**	**-1.3**
CIT				*e*		11 11 54.6	
ARMA	**Armidale**	**45.48**	**174**	*e*P	**P**	**11 11 42.5**	**-0.5**
CHTO	**Chiang Mai**	**45.93**	**282**	*e*P	**P**	**11 11 46.7**	**-0.1**
	comp=E,7.3nm,0.9s,mb4.6						
CHTO	**Chiang Mai**	**45.93**	**282**	*e*P	**P**	**11 11 46.7**	**-0.1**
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
CM31	**Chiang Mai Arr**	**45.95**	**281**	*e*P	**P**	**11 11 48.2**	**+1.2**
	comp=Z,26nm,1.0s,mb5.1						
ULN	**Ulaanbaatar**	**46.32**	**323**	*e*P	**P**	**11 11 49.3**	**-0.1**
	comp=Z,7.5nm,0.7s,mb4.7						
ULN	**Ulaanbaatar**	**46.32**	**323**	*e*P	**P**	**11 11 49.3**	**-0.2**
ULN				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
ULN	**Ulaanbaatar**	**46.32**	**323**	⇑P	**P**	**11 11 49.5**	**+0.1**
	SNR=6.4						
IPM	**Ipoh**	**46.34**	**262**	⇑P	**P**	**11 11 50.8**	**+0.7**
KULM	**Kulim**	**46.48**	**263**	⇑P	**P**	**11 11 51.5**	**+0.3**
SONM	**Songino Array**	**46.69**	**323**	P	**P**	**11 11 51.8**	**-0.5**
	comp=Z,5.8nm,0.8s,mb4.6,baz=137,slow=8.9,SNR=46						
SONM				ScP	ScP	11 17 17.6	-2.2
	comp=Z,1.8nm,1.1s,baz=142,slow=2.2,SNR=3.5						
SONM				LR	LR	11 29 42.5	
	comp=Z,244nm,21.4s,MS4.1,baz=355,slow=34						
STKA	**Stephens Creek**	**46.99**	**186**	⇑*i*P	**P**	**11 11 53.3**	**-1.5**
	comp=Z,3.6nm,0.6s,mb4.5						
STKA	**Stephens Creek**	**46.99**	**186**	P	**P**	**11 11 53.3**	**-1.5**
	comp=Z,3.8nm,0.6s,mb4.5,baz=25,slow=12,SNR=7.6						
STKA				LR	LR	11 32 20.6	
	comp=Z,151nm,18.5s,MS4.0,baz=19,slow=37						
GTA	**Gaotai**	**47.70**	**310**	P	**P**	**11 12 01.5**	**+1.1**
GTA				AP	pP	11 12 05.6	+2.2
GTA				XP	sP	11 12 09.0	+4.4

GTA				PCP	PcP	11 13 30.3	+0.6
GTA				PP	PP	11 13 53.0	+1.0
GTA				SCP	ScP	11 17 24.5	+0.2
GTA				S	S	11 18 57.2	+0.7
GTA				SCS	ScS	11 21 52.9	-1.5
GTA				SS	SS	11 22 22.8	-2.0
GTA				AMB	AMB		
	comp=Z,26nm,1.2s,mb5.1						
GTA				AMB	AMB		
	comp=Z,130nm,5.3s						
GTA				LR	LR		
	comp=N,265nm,14.9s,MS4.5						
GTA				LR	LR		
	comp=E,278nm,18.7s,MS4.5						
GTA				LR	LR		
	comp=Z,265nm,16.0s,MS4.3						
SEY	Seymchan	47.93	3	⇑*e*P	P	11 12 02.2	+0.5
XMIS	Christmas Isla	48.14	241	*e*P	P	11 12 02.6	-1.5
YAK	Yakutsk	48.45	349	*e*P	P	11 12 05.2	-0.6
	comp=Z,29nm,0.4s,mb5.7						
YAK	Yakutsk	48.45	349	*e*P	P	11 12 05.5	-0.3
YAK				*e*S	S	11 19 04.4	-2.1
YAK				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.5						
YAK				pmax	pmax		
	comp=N,18nm,1.2s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.5s						
YAK				smax			
	comp=E,202nm,3.9s						
YAK				smax			
	comp=Z,143nm,4.6s						
YAK				smax			
	comp=N,69nm,3.2s						
FORT	Forrest	49.09	202	*e*P	P	11 12 10.2	-0.9
	comp=N,25nm,0.9s,mb5.2						
BOD	Bodaibo	49.26	337	⇑*i*P	P	11 12 10.8	-1.3
BOD				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.6						
ZAK	Zakamensk	49.73	325	⇑*i*P	P	11 12 13.4	-2.4
ZAK				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
IRK	Irkutsk	50.13	327	⇑*i*P	P	11 12 18.2	-0.6
IRK				*e*		11 15 11.8	
IRK				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.5						
TLY	Talaya	50.17	326	P	P	11 12 19.5	+0.3
	comp=Z,98nm,1.3s,mb5.7,SNR=5.1						
TLY	Talaya	50.17	326	*e*P	P	11 12 19.6	+0.5
	comp=Z,10nm,0.8s,mb4.9						
TLY	Talaya	50.17	326	⇑*i*P	P	11 12 18.7	-0.5
TLY				*e*S	S	11 19 45.2	+14
TLY				*e*		11 21 57.8	
TLY				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.1						
TLY				MLR	MLR		
	comp=Z,206nm,18.0s,MS4.2						
TLY	Talaya	50.17	326	P	P	11 12 19.6	+0.5
	SNR=11						
MOY	Mondy	51.61	325	*e*P	P	11 12 29.7	-0.3
MOY				pmax	pmax		
	comp=Z,26nm,1.8s,mb4.9						
TOO	Toolangi	52.41	181	*e*P	P	11 12 36.4	+0.4
	comp=Z,9.0nm,0.7s,mb4.8						
TOO	Toolangi	52.41	181	*e*P	P	11 12 36.4	+0.4
TOO				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
LSA	Lhasa	53.10	296	P	P	11 12 43.7	+2.2
BILL	Bilibino	54.36	9	*e*P	P	11 12 50.1	+0.1
	comp=Z,22nm,1.0s,mb5.0						
BILL	Bilibino	54.36	9	⇑*e*P	P	11 12 48.5	-1.5
BILL				*e*		11 14 47.6	
BILL				*e*S	S	11 20 31.6	+3.7
BILL				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
BILL				MLR	MLR		
	comp=Z,100nm,18.0s,MS3.9						
POHA	Pohakuloa	54.89	76	*e*P	P	11 12 53.4	-1.3
	comp=Z,147nm,1.2s,mb5.9						
NWAO	Narrogin (SRO)	55.55	210	*e*P	P	11 12 56.7	-2.4
	comp=Z,7.1nm,0.9s,mb4.7						
NWAO	Narrogin (SRO)	55.55	210	*e*P	P	11 12 56.7	-2.4
NWAO				pmax	pmax		
	comp=Z,7.0nm,0.9s						
TAPN	Taplejung	56.07	293	*e*P	P	11 13 03.9	+0.8
	comp=Z,136nm,1.1s,mb5.9						
ODAN	Odare	56.36	292	*e*P	P	11 13 05.9	+0.7
	comp=Z,140nm,1.2s,mb5.9						
JIRN	Jiri	57.42	293	*e*P	P	11 13 13.7	+1.0
	comp=Z,63nm,0.7s,mb5.8						
TIXI	Tiksi	57.56	353	*e*P	P	11 13 10.8	-2.0
	comp=Z,18nm,0.4s,mb5.5						
TIXI	Tiksi	57.56	353	⇑*e*P	P	11 13 11.0	-1.9
TIXI				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.0						
WMQ	Urumqi	57.56	313	P	P	11 13 14.8	+1.4
WMQ				AP	pP	11 13 19.4	+3.0
WMQ				XP	sP	11 13 21.8	+4.2
WMQ				PCP	PcP	11 14 07.8	+1.1
WMQ				PP	PP	11 15 24.2	+3.2
WMQ				SCP	ScP	11 18 05.8	-1.2
WMQ				*e*S	S	11 21 10.0	-1.3
WMQ				SCS	ScS	11 23 00.2	-3.0
WMQ				SS	SS	11 25 02.0	+0.8
WMQ				AMB	AMB		
	comp=Z,51nm,1.0s,mb5.5						
WMQ				AMB	AMB		
	comp=Z,52nm,8.2s						
WMQ				LR	LR		
	comp=N,133nm,18.4s,MS4.2						
WMQ				LR	LR		
	comp=E,112nm,16.0s,MS4.2						
WMQ				LR	LR		
	comp=Z,113nm,17.6s,MS4.0						
GUN	Gumba	57.69	294	*e*P	P	11 13 15.6	+1.0
	comp=Z,60nm,0.6s,mb5.8						
PKI	Pulchoki	58.12	293	*e*P	P	11 13 17.8	+0.3
KKN	Kakani	58.23	294	*e*P	P	11 13 18.7	+0.4
	comp=Z,38nm,0.7s,mb5.5						
DMN	Daman	58.38	293	*e*P	P	11 13 19.9	+0.5
	comp=Z,48nm,0.7s,mb5.7						
GKN	Gorkha	58.79	294	*e*P	P	11 13 22.6	+0.3
	comp=Z,156nm,1.0s,mb6.0						
KOLN	Koldanda	59.71	294	*e*P	P	11 13 28.7	0.0
	comp=Z,66nm,0.9s,mb5.7						
SVW2	Sparrevohn	61.42	28	*e*P	P	11 13 40.4	+0.7
ZALV	Zalesovo Beam	61.58	324	P	P	11 13 40.0	-0.8
	comp=Z,21nm,1.0s,mb5.2,baz=101,slow=6.2,SNR=55						
ZALV				LR	LR	11 39 40.3	
	comp=Z,116nm,18.1s,MS4.1,baz=67,slow=35						
ZAL	Zalesovo	61.59	324	P	P	11 13 40.1	-0.8
KDAK	Kodiak Island	61.74	32	P	P	11 13 41.0	-0.9
	comp=Z,106nm,0.8s,mb6.0,SNR=5.0						
KDAK	Kodiak Island	61.74	32	P	P	11 13 41.4	-0.5
	comp=Z,9.4nm,0.7s,mb5.0,baz=308,slow=22,SNR=11						
MK31	Makanchi Array	61.80	315	*e*P	P	11 13 42.8	+0.2
MKAR	Makanchi Array	61.80	315	P	P	11 13 43.0	+0.4
	comp=Z,16nm,0.6s,mb5.3,baz=90,slow=8.8,SNR=170						
MKAR				LR	LR	11 39 13.7	
	comp=Z,135nm,19.4s,MS4.1,baz=211,slow=35						
SLKM	Skilak Lake	63.70	29	*e*P	P	11 13 54.4	-0.5
IMA2	Indian Mountai	64.09	23	*e*P	P	11 13 56.5	-0.9
PMR	Palmer	64.52	28	*e*P	P	11 13 59.4	-0.9
	comp=Z,17nm,1.1s,mb5.0						
PMR	Palmer	64.52	28	*e*P	P	11 13 59.4	-0.9
PMR				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.0						
KURK	Kurchatov	64.73	319	P	P	11 14 01.1	-0.8
	comp=Z,279nm,0.9s,SNR=25						
KURK	Kurchatov	64.73	319	*e*P	P	11 14 01.5	-0.3
	comp=Z,25nm,0.6s,mb5.4						
KURK	Kurchatov	64.73	319	*e*P	P	11 14 01.5	-0.4
KURK				pmax	pmax		
	comp=Z,25nm,0.6s,mb5.4						
KURK	Kurchatov	64.73	319	P	P	11 14 01.3	-0.6
	SNR=15						
SML	Sawmill	64.94	28	*e*P	P	11 14 02.9	-0.1
MCK	McKinley	65.21	26	P	P	11 14 03.2	-1.5
MCK				*e*P	pP	11 14 05.4	-2.5
PALK	Pallekele	65.23	271	*e*P	P	11 14 05.4	-0.4
	comp=Z,6.1nm,0.8s,mb4.7						
HYB	Hyderabad	65.35	282	*e*P	P	11 14 06.5	0.0
HYB	Hyderabad	65.35	282	*i* P	P	11 14 06.5	0.0
ULHL	Ulahol	65.75	310	P	P	11 14 09.6	+0.9
	SNR=7.7						
COLA	College	65.99	25	*e*P	P	11 14 09.9	+0.1
	comp=Z,6.6nm,0.8s,mb4.7						
COLA	College	65.99	25	*e*P	P	11 14 09.9	+0.1
COLA				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
TKM2	Tokmak 2	66.24	311	P	P	11 14 12.7	+0.9
	SNR=12						
TKM2	Tokmak 2	66.24	311	*e*P	P	11 14 12.4	+0.6
	comp=Z,8.7nm,0.7s,mb4.9						
TKM2	Tokmak 2	66.24	311	*e*P	P	11 14 12.5	+0.7
TKM2				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
KZA	Kyzart	66.48	310	P	P	11 14 15.3	+1.9
	SNR=21						
KBK	Karagaybulak	66.71	310	P	P	11 14 16.0	+1.1
	SNR=7.7						
FRU	Bishkek	66.96	310	*e*P	P	11 14 15.0	-1.4
UCH	Uchtor	67.03	310	P	P	11 14 18.5	+1.6
	SNR=18						
UCH	Uchtor	67.03	310	*e*P	P	11 14 17.7	+0.8
	comp=Z,33nm,1.4s,mb5.2						
AAK	Ala-Archa	67.05	310	P	P	11 14 16.8	-0.2
	comp=Z,47nm,1.3s,mb5.4,SNR=5.8						
AAK	Ala-Archa	67.05	310	P	P	11 14 17.5	+0.6
	SNR=6.4						
AAK	Ala-Archa	67.05	310	*e*P	P	11 14 16.5	-0.5
	comp=Z,2.8nm,0.4s,mb4.7						
AAK	Ala-Archa	67.05	310	*e*P	P	11 14 16.5	-0.5
AAK				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.7						
AAK	Ala-Archa	67.05	310	P	P	11 14 17.2	+0.2
	SNR=5.1						
USP	Ospenovka	67.05	311	P	P	11 14 17.3	+0.4
	SNR=9.2						
EKS2	Erkin-Say	67.58	310	P	P	11 14 20.9	+0.5
	SNR=7.2						
EKS2	Erkin-Say	67.58	310	*e*P	P	11 14 20.5	+0.2
	comp=Z,12nm,1.2s,mb4.8						
AML	Almayashu	67.64	310	P	P	11 14 22.1	+1.3
	SNR=14						
AML	Almayashu	67.64	310	*e*P	P	11 14 21.8	+1.1
	comp=Z,18nm,1.0s,mb5.0						
EGAK	Eagle	68.76	26	*e*P	P	11 14 27.5	+0.2
	comp=Z,8.5nm,0.8s,mb4.7						
DAWY	Dawson	69.40	27	*e*P	P	11 14 32.0	+0.6
BRVK	Borovoye	70.05	321	P	P	11 14 35.5	0.0
	comp=Z,147nm,0.8s,mb6.0,SNR=8.3						
BRVK	Borovoye	70.05	321	*e*P	P	11 14 34.8	-0.8
	comp=Z,24nm,0.9s,mb5.1						
BRVK	Borovoye	70.05	321	*e*P	P	11 14 34.8	-0.7
BRVK				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
BRVK	Borovoye	70.05	321	P	P	11 14 35.6	+0.1
	SNR=12						
PPT	Papeete	70.53	115	*e*LR	LR	11 35 39.1	
	comp=Z,321nm,23.5s,baz=302						
PPT	Papeete	70.53	115	LR	LR	11 37 29.8	
	comp=Z,292nm,21.3s,MS4.5,baz=188,slow=29						
KBL	Kabul	71.72	302	*e*P	P	11 14 46.1	0.0
INK	Inuvik	72.22	23	*e*P	P	11 14 48.3	-0.1
	comp=Z,327nm,0.8s						
INK	Inuvik	72.22	23	*e*P	P	11 14 48.3	-0.1
INK				pmax	pmax		
	comp=Z,327nm,0.8s						
INK	Inuvik	72.22	23	P	P	11 14 47.6	-0.8
	comp=Z,4.2nm,0.8s,mb4.4,baz=268,slow=5.4,SNR=28						
DLBC	Dease Lake	73.64	33	*e*P	P	11 14 57.3	+0.3
SVE	Sverdlovsk	75.48	325	*e*P	P	11 15 00.0	-7.7
TAOE	Nuku Hiva Isla	76.08	103	*e*LR	LR	11 38 13.0	
	comp=Z,951nm,25.1s						
ARU	Arti	76.66	325	P	P	11 15 13.9	-0.6
	comp=Z,156nm,1.2s,mb5.8,SNR=6.2						
ARU	Arti	76.66	325	*e*P	P	11 15 13.8	-0.7
	comp=Z,24nm,0.9s,mb5.1						
ARU	Arti	76.66	325	*e*P	P	11 15 13.4	-1.1
ARU				*e*		11 18 05.3	
ARU				*e*S	S	11 25 00.5	-0.6
ARU				*e*SS	SS	11 29 51.8	-4.3
SOKR	Solikamsk	77.19	329	⇑*i*P	P	11 15 17.4	0.0
SOKR				pmax	pmax		
	comp=Z,40nm,1.6s,mb5.1						
AKTK	Aktyubinsk	77.83	319	P	P	11 15 20.0	-1.1
AKTO	Aktyubinsk	77.83	319	P	P	11 15 20.0	-1.1
	comp=Z,3.8nm,0.9s,mb4.3,baz=103,slow=10,SNR=5.3						
B04A	Port Angeles	78.65	43	⇑P	P	11 15 26.1	+0.4
	baz=79						
E03A	Lebam	78.88	45	⇓P	P	11 15 27.7	+0.7
	baz=79						
F03A	Seaside	78.99	45	⇑P	P	11 15 28.0	+0.4
	baz=79						
C04A	Brinnon	79.06	43	P	P	11 15 28.7	+0.7
	baz=79,SNR=6.2						
GNW	Green Mountain	79.19	44	*e*P	P	11 15 29.3	+0.6
H03A	Soap Creek Ran	79.40	47	⇓P	P	11 15 30.6	+0.7
	baz=79						
A05A	Maple Falls	79.41	42	⇑P	P	11 15 30.6	+0.7
	baz=79						
E04A	Onalaska	79.44	45	⇑P	P	11 15 30.8	+0.7
	baz=79						
J02A	Umpqua	79.44	48	⇑P	P	11 15 30.2	0.0
	baz=79						
B05A	Bryant	79.54	43	⇑P	P	11 15 31.0	+0.4
	baz=80						
I03A	Eugene	79.54	47	⇑P	P	11 15 31.7	+1.0
	baz=80						
JCC	Jacoby Creek	79.59	50	⇑P	P	11 15 32.0	+0.9
	baz=80						
K02A	Glendale	79.62	48	⇓P	P	11 15 31.5	+0.3
	baz=80						
L02A	Cave Junction	79.65	49	⇑P	P	11 15 31.3	0.0
	baz=80						
F04A	Amboy	79.77	45	⇓P	P	11 15 31.9	0.0
	baz=80						
A06A	Chilliwack	79.78	42	⇑P	P	11 15 32.3	+0.4
	baz=80						
KHMM	Horse Mountain	79.80	50	*e*P	P	11 15 33.0	+0.8
D05A	Enumclaw	79.82	44	P	P	11 15 32.8	+0.7
	baz=80,SNR=5.4						
G04A	Mulino	79.87	46	⇑P	P	11 15 32.8	+0.3
	baz=80						
O01C	Eel River Cons	79.88	51	⇓P	P	11 15 32.6	0.0
	baz=80						
J03A	Ideyld Park	79.88	48	⇓P	P	11 15 31.6	-1.0
	baz=80						
B06A	Marblemount	79.89	42	⇓P	P	11 15 31.6	-0.9
	baz=80						
C05A	Tolt Reservoir	79.92	43	⇑P	P	11 15 32.7	0.0
	baz=80						
ABKT	Ailbek	79.95	307	P	P	11 15 33.1	0.0
	comp=Z,201nm,0.8s,mb6.1,SNR=5.3						
LON	Longmire	80.02	44	*e*P	P	11 15 34.8	+1.5
HUMO	Hull Mountain	80.03	49	*e*P	P	11 15 33.6	+0.2
	comp=Z,4.2nm,0.8s,mb4.4						
HUMO	Hull Mountain	80.03	49	⇓P	P	11 15 33.1	-0.3
	baz=80						
E05A	Randle	80.09	44	⇓P	P	11 15 33.4	-0.3
	baz=80						
KCPM	Cahto Peak	80.14	52	*e*P	P	11 15 34.4	+0.3
H04A	Detroit Lake	80.17	46	⇓P	P	11 15 33.2	-1.0
	baz=80						
I04A	Tendick Farm,	80.19	47	⇑P	P	11 15 33.9	-0.3
	baz=80						
KIPM	Iron Peak	80.20	51	*e*P	P	11 15 34.8	+0.4
M02C	Callahan	80.35	50	⇑P	P	11 15 35.1	0.0
	baz=80						
P01C	Double 8 Ranch	80.37	52	⇓P	P	11 15 35.3	-0.1
	baz=80						
YBH	Yreka Blue Hor	80.39	49	*e*P	P	11 15 35.7	+0.4
	comp=Z,18nm,1.4s,mb4.8						
YBH	Yreka Blue Hor	80.39	49	*e*P	P	11 15 35.7	+0.4
YBH				pmax	pmax		
	comp=Z,19nm,1.4s						
YBH	Yreka Blue Hor	80.39	49	P	P	11 15 35.8	+0.5
	baz=80,SNR=10						
C06A	Tall Timber Ra	80.40	43	⇓P	P	11 15 35.9	+0.7
	baz=80						
HOOD	Mount Hood Mea	80.42	46	*e*P	P	11 15 36.0	+0.6
F05A	White Salmon	80.44	45	⇑P	P	11 15 35.8	+0.3
	baz=80						
A07A	Ashnola River,	80.50	42	P	P	11 15 35.8	0.0
	baz=80,SNR=9.1						
J04A	Umpqua Nationa	80.52	48	⇓P	P	11 15 36.0	0.0
	baz=80						
D06A	Cle Elum	80.58	44	⇓P	P	11 15 36.6	+0.3
	baz=80						
YKA	Yellowknife Ar	80.61	28	P	P	11 15 35.1	-1.0
	comp=Z,2.8nm,0.8s,mb4.3,baz=285,slow=5.3,SNR=28						
YKA				LR	LR	11 51 34.4	
	comp=Z,79nm,18.9s,MS4.1,baz=215,slow=36						
E06A	Yakima	80.63	44	P	P	11 15 36.9	+0.4
	baz=81,SNR=6.4						
O02C	Red Bluff	80.64	51	P	P	11 15 37.4	+0.6
	baz=81,SNR=5.3						
HOPS	Hopland	80.67	52	*e*P	P	11 15 37.2	+0.2
	comp=Z,31nm,1.3s,mb5.1						
HOPS	Hopland	80.67	52	⇑P	P	11 15 36.9	-0.1
	baz=81						
WDC	Whiskeytown Da	80.75	51	*e*P	P	11 15 37.6	+0.3
WDC	Whiskeytown Da	80.75	51	⇓P	P	11 15 37.6	+0.3
	baz=81						
B07A	Winthrop	80.79	42	⇑P	P	11 15 37.7	+0.4
	baz=81						
GASB	Alder Springs	80.80	51	⇓P	P	11 15 38.2	+0.6
	baz=81						
H05A	Madras	80.85	46	P	P	11 15 37.7	-0.1
	baz=81,SNR=7.8						
L04A	Klamath Falls	80.89	49	⇓P	P	11 15 38.0	0.0
	baz=81						
M03C	McCloud	80.91	50	⇑P	P	11 15 38.4	+0.3
	baz=81						
K04A	Chilquin	80.92	48	⇑P	P	11 15 37.8	-0.4
	baz=81						
I05A	Bend	80.92	47	⇑P	P	11 15 38.1	0.0
	baz=81						
MCCM	Marconi Confer	80.99	53	⇓P	P	11 15 38.3	-0.4
	baz=81						
C07A	Waterville	81.00	43	⇓P	P	11 15 37.8	-0.6
	baz=81						
M04C	Macdoel	81.01	49	P	P	11 15 39.0	+0.3
	baz=81,SNR=7.2						
NSHM	Saint Helena R	81.12	53	*e*P	P	11 15 39.1	-0.3
J05A	Fort Rock	81.13	48	P	P	11 15 39.7	+0.4
	baz=81,SNR=11						
G06A	Carlson Farm,	81.14	46	⇓P	P	11 15 39.3	0.0
	baz=81						
D07A	Quincy	81.16	44	⇑P	P	11 15 39.4	0.0
	baz=81						
MNRC	McLaughlin Nat	81.17	52	P	P	11 15 40.0	+0.4
	baz=81,SNR=10						
A08A	Turner Farm, O	81.23	42	P	P	11 15 39.6	-0.1
	baz=81,SNR=12						
O03C	Acorn Hollow,	81.25	51	⇑P	P	11 15 40.2	+0.3
	baz=81						
CVS	Carmenet Viney	81.28	53	⇑P	P	11 15 39.8	-0.4
	baz=81						
B08A	Colville Reser	81.33	42	P	P	11 15 39.8	-0.4
	baz=81,SNR=12						
E07A	Sunnyside	81.38	44	⇑P	P	11 15 41.5	+1.0
	baz=81						
H06A	Lindquist Farm	81.45	46	P	P	11 15 40.8	-0.1
	baz=81,SNR=8.2						
F07A	Phinny Hill Vi	81.48	45	⇓P	P	11 15 41.4	+0.3
	baz=81						
HATC	Hat Creek Radi	81.50	50	⇓P	P	11 15 41.9	+0.6
	baz=82						
K05A	Summer Lake	81.50	48	P	P	11 15 41.8	+0.5
	baz=81,SNR=9.2						
Q03C	Winters	81.55	52	⇑P	P	11 15 42.2	+0.6
	baz=82						
SUTB	Sutter Butte	81.60	52	⇑P	P	11 15 42.1	+0.2
	baz=82						
M05C	Lookout	81.61	50	⇓P	P	11 15 42.1	+0.3
	baz=82						
HAWA	Hanford	81.64	44	*e*P	P	11 15 42.0	+0.1
C08A	Higginbotham F	81.64	43	P	P	11 15 41.4	-0.5
	baz=82,SNR=8.7						
A09A	Danville	81.67	42	⇓P	P	11 15 41.4	-0.6
	baz=82						
L05A	Lakeview	81.69	49	⇓P	P	11 15 41.9	-0.4
	baz=82						
I06A	Prineville	81.72	47	⇓P	P	11 15 42.0	-0.4
	baz=82,SNR=5.6						
ORV	Oroville	81.74	51	P	P	11 15 42.1	-0.6
	baz=82,SNR=12						
BNLO	Ben Lomond (Sa	81.76	54	⇓P	P	11 15 42.3	-0.4
	baz=82						
G07A	Ruggs Ranch, H	81.80	45	⇑P	P	11 15 42.4	-0.3
	baz=82						
OHCM	Honcut	81.80	52	*e*P	P	11 15 42.4	-0.6
O04C	Chester	81.89	51	P	P	11 15 43.2	-0.1
	baz=82,SNR=11						
D08A	Wollman Farm,	81.89	44	⇓P	P	11 15 42.6	-0.7
	baz=82						
J06A	Christmas Vall	81.91	47	⇓P	P	11 15 43.4	-0.1
	baz=82						
E08A	Dider Farm, El	81.93	44	⇑P	P	11 15 44.1	+0.6
	baz=82						
K06A	Valley Falls	81.94	48	P	P	11 15 43.4	-0.2
	baz=82,SNR=6.8						
WENL	Wente Brothers	81.97	53	⇓P	P	11 15 44.1	+0.2
	baz=82						
Q04C	Lincoln	82.00	52	⇓P	P	11 15 44.5	+0.6
	baz=82						
B09A	Rice	82.08	42	P	P	11 15 44.0	-0.2
	baz=82,SNR=5.5						
ELFS	Eagle Lake Fie	82.09	50	⇓P	P	11 15 44.0	-0.4
	baz=82						
O05C	Quincy	82.09	51	⇑P	P	11 15 44.4	-0.1
	baz=82						
MOD	Modoc	82.11	49	*e*P	P	11 15 44.4	-0.1
	comp=Z,1.5nm,0.5s,mb4.2						
MOD	Modoc	82.11	49	P	P	11 15 44.5	0.0
	baz=82,SNR=10						
PRGR	Permogore	82.12	332	⇓*i*P	P	11 15 43.5	-0.6
PRGR				*e*S	S	11 25 58.8	0.0
PRGR				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
M06C	Likely Place G	82.14	50	P	P	11 15 44.9	+0.3
	baz=82,SNR=6.2						
I07A	Izee	82.18	47	⇑P	P	11 15 45.1	+0.3
	baz=82						
G08A	Pilot Rock	82.28	45	⇓P	P	11 15 44.9	-0.4
	baz=82,SNR=5.9						
F08A	Pendleton	82.28	45	⇑P	P	11 15 45.9	+0.6
	baz=82,SNR=5.5						
D09A	Jones Farm, Ri	82.30	43	⇓P	P	11 15 45.0	-0.3
	baz=82						
A10A	Northport	82.33	41	⇑P	P	11 15 45.8	+0.3
	baz=82						
S04C	Ingram Canyon,	82.33	53	P	P	11 15 45.4	-0.3
	baz=82,SNR=13						
SAO	San Andreas Ge	82.41	54	*e*P	P	11 15 47.5	+1.4
	comp=Z,10nm,1.0s,mb4.7						
SAO	San Andreas Ge	82.41	54	*e*P	P	11 15 47.5	+1.3
SAO				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
HAST	UC Hastings Re	82.41	54	P	P	11 15 46.2	0.0
	baz=82,SNR=8.0						
PACP	Pacheco Peak	82.47	54	⇑P	P	11 15 46.4	-0.1
	baz=82						
J07A	Hines	82.48	47	⇑P	P	11 15 46.0	-0.4
	baz=82						
LAVA	Lava Cap Winer	82.50	52	P	P	11 15 46.4	-0.2
	baz=82,SNR=7.5						
BEKR	Beckwourth	82.53	51	P	P	11 15 46.6	-0.1
	baz=82,SNR=8.9						
E09A	Wood Farm, Sta	82.54	44	⇓P	P	11 15 46.0	-0.7
	baz=82						
RES	Resolute Bay	82.62	14	*e*P	P	11 15 46.8	+0.2
	comp=Z,150nm,1.0s,mb6.0						
RES	Resolute Bay	82.62	14	*e*P	P	11 15 46.8	+0.2
RES				pmax	pmax		
	comp=Z,150nm,1.0s,mb6.0						
H08A	Prairie City	82.66	46	⇓P	P	11 15 46.6	-0.7
	baz=83						
K07A	Rock Creek Ran	82.69	48	P	P	11 15 47.0	-0.5
	baz=83,SNR=9.1						
B10A	Chitwood Farm,	82.71	42	⇓P	P	11 15 48.1	+0.6
	baz=83						
N06A	Buffalo Meadow	82.72	50	P	P	11 15 47.8	+0.1
	baz=83,SNR=6.0						
V03C	Hunter Liggett	82.74	55	⇑P	P	11 15 48.4	+0.5
	baz=83						
C10A	Spilker Farm,	82.77	43	⇓P	P	11 15 48.8	+0.9
	baz=83						
L07A	Adell	82.78	49	P	P	11 15 48.2	+0.2
	baz=83,SNR=10						
NEW	Newport	82.78	42	*e*P	P	11 15 47.7	-0.2
	comp=Z,16nm,1.3s,mb4.9						
NEW	Newport	82.78	42	*e*P	P	11 15 47.7	-0.2
NEW				pmax	pmax		
	comp=Z,15nm,1.3s						
O06A	Flanigan	82.86	50	P	P	11 15 48.5	0.0
	baz=83,SNR=8.5						
I08A	Drewsey	82.88	47	⇓P	P	11 15 48.7	+0.3
	baz=83						

F09A	S2 Ranch, Elgi	82.89	45	⇓P	P	11 15 49.1	+0.6
	baz=83						
P06A	Stead Airport,	82.92	51	⇓P	P	11 15 49.6	+0.9
	baz=83						
CMB	Columbia Colle	82.94	53	eP	P	11 15 48.6	-0.3
	comp=Z,21nm,1.3s,mb5.0						
CMB	Columbia Colle	82.94	53	eP	P	11 15 48.6	-0.3
CMB				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.0						
CMB	Columbia Colle	82.94	53	P	P	11 15 48.4	-0.5
	baz=83,SNR=14						
T05C	Eagle Field, D	82.98	54	⇑P	P	11 15 49.7	+0.5
	baz=83						
D10A	Wagner Farm, O	82.99	43	⇑P	P	11 15 48.6	-0.4
	baz=83						
R05C	Kirkwood Meado	83.02	52	⇑P	P	11 15 50.5	+1.2
	baz=83						
U04C	Hernandez Rese	83.02	54	⇑P	P	11 15 49.2	-0.1
	baz=83,SNR=10						
M07A	Soldier Meadow	83.05	49	⇓P	P	11 15 49.0	-0.4
	baz=83						
J08A	Circle Bar Ran	83.08	47	⇑P	P	11 15 49.4	-0.1
	baz=83,SNR=7.8						
A11A	Hall Mountain,	83.09	41	⇓P	P	11 15 50.7	+1.3
	baz=83						
WCN	Washoe City	83.12	51	⇓P	P	11 15 49.4	-0.4
	baz=83						
S05C	Merced	83.14	53	⇑P	P	11 15 49.8	-0.1
	baz=83,SNR=6.3						
WVOR	Wild Horse Val	83.19	48	eP	P	11 15 49.5	-0.6
	comp=Z,8.8nm,1.0s,mb4.7						
WVOR	Wild Horse Val	83.19	48	eP	P	11 15 49.5	-0.6
WVOR				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
K08A	Mann Creek Ran	83.22	48	⇓P	P	11 15 49.9	-0.4
	baz=83						
B11A	Sandpoint	83.23	42	⇓P	P	11 15 50.8	+0.6
	baz=83						
E10A	Myers Farm, Un	83.24	44	⇑P	P	11 15 49.9	-0.4
	baz=83						
F10A	Beach Ranch, E	83.29	44	⇓P	P	11 15 50.8	+0.3
	baz=83						
PAHR	Pah Rah Range	83.30	51	eP	P	11 15 51.7	+1.0
	comp=Z,16nm,1.4s,mb4.9						
PKD	Parkfield	83.31	55	⇑P	P	11 15 50.4	-0.5
	baz=83,SNR=8.2						
N07B	Gerlach	83.35	50	P	P	11 15 50.9	0.0
	baz=83,SNR=16						
S06C	San Francisco	83.39	53	⇑P	P	11 15 51.1	-0.1
	baz=83,SNR=5.8						
I09A	Lost Marbles R	83.44	46	⇓P	P	11 15 51.3	-0.1
	baz=83						
L08A	Fields	83.46	48	P	P	11 15 51.4	-0.1
	baz=83,SNR=9.6						
BMO	Blue Mountains	83.52	45	eP	P	11 15 51.7	-0.1
	comp=Z,6.1nm,0.9s,mb4.7						
BMO	Blue Mountains	83.52	45	eP	P	11 15 51.7	-0.1
BMO				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
R06C	Coleville	83.53	52	⇓P	P	11 15 51.8	-0.1
	baz=84,SNR=6.1						
U05C	Westside ANR,	83.54	54	⇓P	P	11 15 52.6	+0.5
	baz=84						
WAKR	Walker	83.55	52	eP	P	11 15 53.4	+1.4
A12A	Yaak River Ran	83.55	41	⇓P	P	11 15 52.8	+0.9
	baz=84						
O07A	Toulon	83.57	50	⇓P	P	11 15 52.0	-0.1
	baz=84,SNR=8.0						
J09A	Fry Pan Ranch,	83.59	47	P	P	11 15 52.2	0.0
	baz=84,SNR=10						
M08A	Happy Creek Ra	83.62	49	⇓P	P	11 15 52.9	+0.5
	baz=84						
T06C	Millerton Lake	83.70	54	P	P	11 15 52.0	-0.9
	baz=84,SNR=13						
B12A	Libby	83.72	42	⇑P	P	11 15 52.3	-0.4
	baz=84						
HOQ	Hoqain	83.74	293	P	P	11 15 53.8	+0.4
	SNR=6.1						
EDM	Edmonton	83.76	37	eP	P	11 15 52.7	-0.1
K09A	Rome	83.77	48	P	P	11 15 53.4	+0.3
	baz=84,SNR=7.6						
E11A	Bogner Ranch,	83.88	44	⇓P	P	11 15 53.8	+0.3
	baz=84						
SMMC	Simmler	83.89	55	⇑P	P	11 15 54.0	+0.2
	baz=84						
KCC	Kaiser Creek	83.93	53	⇑P	P	11 15 53.9	-0.2
	baz=84						
R07C	Lee Vining	83.95	52	⇑P	P	11 15 54.3	+0.2
	baz=84,SNR=7.2						
H10A	Noah's Angus R	83.97	46	⇑P	P	11 15 53.4	-0.7
	baz=84,SNR=8.5						
L09A	Wilkinson Ranc	83.99	48	P	P	11 15 54.2	0.0
	baz=84,SNR=12						
F11A	Grangeville	84.04	44	⇑P	P	11 15 53.6	-0.7
	baz=84						
I10A	Payette	84.07	46	⇑P	P	11 15 53.5	-1.1
	baz=84						
BANOM	Banah	84.08	295	P	P	11 15 55.8	+0.8
	SNR=5.3						
G11A	Walters Elk Ra	84.09	45	P	P	11 15 53.9	-0.7
	baz=84,SNR=10						
PKM	Peak Mountain	84.13	56	⇑P	P	11 15 54.6	-0.5
	baz=84						
MLAC	Mammoth Lakes	84.22	53	⇑P	P	11 15 56.3	+0.8
	baz=84						
RCTC	Rector, Farmer	84.24	54	⇓P	P	11 15 56.1	+0.5
	baz=84						
J10A	Berg Farm, Mel	84.26	47	⇓P	P	11 15 55.5	-0.1
	baz=84						
M09A	Marrel Ranch,	84.30	49	⇑P	P	11 15 55.7	-0.1
	baz=84						
HELL	Mitchell Peak,	84.32	54	P	P	11 15 55.4	-0.6
	baz=84,SNR=7.0						
A13A	Flathead Natio	84.34	41	⇑P	P	11 15 55.8	-0.1
	baz=84						
K10A	MacKenzie Ranc	84.36	47	P	P	11 15 55.8	-0.3
	baz=84,SNR=10						
N09A	Rock Creek Ran	84.39	49	⇑P	P	11 15 56.5	+0.2
	baz=84						
BSMT	Bassoo Peak	84.40	42	eP	P	11 15 57.0	+0.8
NVAR	Mina Array Bea	84.43	52	P	P	11 15 56.6	+0.1
	comp=Z,3.7nm,0.7s,mb4.6,baz=261,slow=9.0,SNR=26						
NVAR				LR	LR	11 46 23.7	
	comp=Z,2.3nm,21.0s,baz=305,slow=30						
H11A	Donnelly	84.45	45	⇓P	P	11 15 56.1	-0.4
	baz=84,SNR=5.2						
B13A	Whitefish	84.46	41	⇓P	P	11 15 57.7	+1.2
	baz=84						
VES	Vestal, Richgr	84.48	55	P	P	11 15 57.7	+0.8
	baz=84,SNR=5.2						
BSC	Santa Cruz Isl	84.50	56	⇑P	P	11 15 57.1	+0.1
	baz=84						
MTUM	Tungsten Hills	84.50	53	eP	P	11 15 57.0	+0.1
ASHO	Ashiyiah	84.59	294	P	P	11 15 58.0	+0.4
	SNR=6.5						
C13A	Hot Springs	84.59	42	⇓P	P	11 15 57.4	+0.2
	baz=84						
R08A	Mina	84.60	52	⇓P	P	11 15 57.2	-0.2
	baz=84						
Q08A	Gabbs	84.60	51	⇑P	P	11 15 57.6	+0.2
	baz=84						
WALA	Waterton Lakes	84.62	41	eP	P	11 15 58.2	+1.0
	comp=Z,23nm,1.5s,mb5.1						
I11A	Placerville	84.70	46	P	P	11 15 58.9	+1.1
	baz=85,SNR=7.9						
APA	Apatity	84.77	339	⇑eP	P	11 15 57.0	-0.6
APA				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.2						
S08C	White Mtn Res	84.77	53	P	P	11 15 58.7	+0.4
	baz=85,SNR=8.0						
O09A	Fish Creek Ran	84.81	50	⇑P	P	11 15 58.9	+0.5
	baz=85						
D13A	Huson	84.83	43	⇑P	P	11 15 58.3	-0.1
	baz=85						
L10A	Juniper Basin	84.83	48	P	P	11 15 58.3	-0.2
	baz=85,SNR=6.4						
ARVC	Arvin	84.86	55	⇓P	P	11 15 58.3	-0.5
	baz=85						
MFID	Camas Ranch	84.93	47	⇑P	P	11 15 59.5	+0.5
	baz=85,SNR=6.7						
ISA	Isabella	85.00	55	⇑P	P	11 15 59.6	+0.1
	baz=85						
C14A	Swan Lake	85.10	42	⇑P	P	11 15 58.3	-1.4
	baz=85						
N10A	Dunphy	85.17	49	⇑P	P	11 15 59.1	-1.1
	baz=85						
E13A	Victor	85.20	43	⇑P	P	11 15 59.8	-0.4
	baz=85						
H12A	Diamond D Ranc	85.29	45	⇓P	P	11 16 00.3	-0.4
	baz=85						
RKT	Rikitea	85.29	115	eLR	LR	11 42 20.2	
	comp=Z,203nm,22.8s						
F13A	Darby	85.29	44	P	P	11 15 59.8	-0.9
	baz=85,SNR=9.8						
O10A	Cortez Mining,	85.29	50	⇓P	P	11 16 01.6	+0.8
	baz=85						
L11A	Cat Creek Ranc	85.32	48	⇑P	P	11 15 59.8	-1.1
	baz=85						
R09A	Tonopah	85.42	52	P	P	11 16 01.5	0.0
	baz=85,SNR=5.6						
S09A	Goldfield	85.44	52	⇓P	P	11 16 01.1	-0.5
	baz=85						
D14A	Greenough	85.46	43	⇑P	P	11 16 01.7	+0.2
	baz=85						
J12A	Stokes Ranch,	85.48	47	⇑P	P	11 16 01.3	-0.5
	baz=85,SNR=5.6						
M11A	Holland Ranch,	85.50	48	⇑P	P	11 16 02.3	+0.5
	baz=85						
P10A	Eureka	85.50	50	⇑P	P	11 16 02.0	+0.2
	baz=85						
G13A	Cobalt	85.56	45	P	P	11 16 01.8	-0.3
	baz=86,SNR=14						
EDW2	Edwards Air Fo	85.59	55	⇑P	P	11 16 01.9	-0.5
	baz=86,SNR=7.8						
MPMC	Manual Prospec	85.67	54	P	P	11 16 02.9	0.0
	baz=86,SNR=13						
H13A	Challis	85.69	45	⇑P	P	11 16 02.0	-0.8
	baz=86						
KEV	Kevo	85.70	342	ep	P	11 16 00.7	-1.6
	comp=Z,8.3nm,0.7s,mb5.1						
KEV	Kevo	85.70	342	eP	P	11 16 00.7	-1.6
KEV				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb5.1						
N11A	Elko Archery C	85.71	49	⇑P	P	11 16 03.1	+0.2
	baz=86						
K12A	Draper Farm, C	85.80	47	⇑P	P	11 16 02.5	-0.8
	baz=86						
L12A	House Creek Ra	85.85	48	⇑P	P	11 16 03.8	+0.2
	baz=86,SNR=8.4						
S10A	Tonopah Range,	85.86	52	P	P	11 16 03.5	-0.2
	baz=86,SNR=8.2						
HLID	Hailey	85.87	46	eP	P	11 16 03.6	0.0
	comp=Z,3.9nm,1.2s,mb4.5						
HLID	Hailey	85.87	46	P	P	11 16 03.8	+0.1
	baz=86,SNR=5.2						
O11A	Cowboy Ranch,	85.96	50	⇑P	P	11 16 03.3	-0.8
	baz=86						
I13A	Wildhorse Cree	85.98	46	⇓P	P	11 16 03.7	-0.5
	baz=86						
R10A	Warm Springs	85.98	52	⇑P	P	11 16 05.1	+0.8
	baz=86						
P11A	Circle Ranch,	86.05	50	⇑P	P	11 16 04.4	-0.2
	baz=86						
FURC	Furnace Creek,	86.05	53	⇓P	P	11 16 03.9	-0.9
	baz=86,SNR=6.8						
J13A	Cove Ranch, Pi	86.09	46	P	P	11 16 05.4	+0.7
	baz=86,SNR=6.5						
ELK	Elko	86.09	49	eP	P	11 16 04.4	-0.4
	comp=Z,14nm,1.3s,mb5.0						
ELK	Elko	86.09	49	eP	P	11 16 04.4	-0.4
ELK				pmax	pmax		
	comp=Z,14nm,1.3s						
M12A	Wells	86.13	48	⇑P	P	11 16 05.2	+0.2
	baz=86						
N12A	Clover Valley,	86.21	49	⇑P	P	11 16 05.8	+0.5
	baz=86,SNR=6.5						
E15A	Deer Lodge	86.22	43	⇓P	P	11 16 05.2	-0.1
	baz=86						
ARCES	ARCESS Array B	86.26	342	P	P	11 16 04.1	-0.9
	comp=Z,5.5nm,0.6s,mb4.9,baz=72,slow=7.8,SNR=17						
ARCES				LR	LR	11 58 53.0	
	comp=Z,176nm,18.9s,MS4.5,baz=22,slow=39						
Q11A	Duckwater	86.32	51	⇓P	P	11 16 06.4	+0.4
	baz=86						
K13A	Stover Farm, H	86.37	47	⇓P	P	11 16 07.3	+1.1
	baz=86						
GSC	Goldstone	86.41	55	⇑P	P	11 16 06.3	-0.2
	baz=86,SNR=5.9						
U10A	Ash Meadows, A	86.48	53	⇓P	P	11 16 06.6	-0.2
	baz=86,SNR=6.9						
F15A	Butte	86.50	44	P	P	11 16 06.4	-0.3
	baz=86,SNR=9.1						
LRM	Limekiln Ridge	86.53	44	eP	P	11 16 06.8	-0.1
O12A	Currie	86.59	49	P	P	11 16 08.5	+1.2
	baz=86,SNR=7.2						
L13A	Double Diamond	86.63	47	⇑P	P	11 16 07.3	-0.2
	baz=87						
SHOC	Shoshone	86.66	54	⇑P	P	11 16 06.9	-0.8
	baz=87						
HRY	Holter Researc	86.67	43	eP	P	11 16 09.0	+1.5
M13A	Montello	86.69	48	⇓P	P	11 16 07.2	-0.5
	baz=87,SNR=5.4						
P12A	McGill	86.70	50	⇓P	P	11 16 07.9	+0.1
	baz=87						
G15A	Dillon	86.71	44	⇓P	P	11 16 07.0	-0.8
	baz=87						
N13A	Wendover, West	86.81	49	⇓P	P	11 16 07.8	-0.5
	baz=87						
109C	Camp Elliot, M	86.83	57	⇑P	P	11 16 08.0	-0.6
	baz=87						
Q12A	Willow Creek R	86.88	51	⇑P	P	11 16 08.2	-0.5
	baz=87						
HEC	Hector,Ludlow	86.92	55	⇑P	P	11 16 09.1	+0.1
	baz=87						
K14A	Jones Ranch, D	87.04	47	⇓P	P	11 16 09.9	+0.5
	baz=87,SNR=7.4						
TUQ	Turquoise Mtn.	87.07	54	⇓P	P	11 16 09.5	-0.2
	baz=87						
BOZ	Bozeman (W)	87.14	44	eP	P	11 16 11.5	+1.7
	comp=Z,21nm,1.7s,mb5.1						
BOZ	Bozeman (W)	87.14	44	eP	P	11 16 11.5	+1.7
BOZ				pmax	pmax		
	comp=Z,21nm,1.7s,mb5.1						
BOZ	Bozeman (W)	87.14	44	⇓P	P	11 16 09.3	-0.5
	baz=87,SNR=8.1						
PFO	Pinyon Flat Ob	87.16	56	eP	P	11 16 10.4	+0.2
	comp=Z,15nm,1.4s,mb5.0						
PFO	Pinyon Flat Ob	87.16	56	eP	P	11 16 10.4	+0.2
PFO				pmax	pmax		
	comp=Z,15nm,1.4s,mb5.0						
PFO	Pinyon Flat Ob	87.16	56	⇓P	P	11 16 09.3	-0.9
	baz=87						
R12A	Pony Springs,	87.25	51	⇓P	P	11 16 10.3	-0.2
	baz=87,SNR=8.8						
V11A	Goodsprings	87.34	54	⇑P	P	11 16 10.5	-0.6
	baz=87						
SHPR	Sheep Range	87.36	53	eP	P	11 16 11.6	+0.5
GMRC	Granite Mounta	87.46	55	⇑P	P	11 16 11.1	-0.6
	baz=87						
T12A	Moapa	87.64	53	⇓P	P	11 16 13.2	+0.7
	baz=88						
JOF	Joensuu	87.76	336	ep	P	11 16 10.1	-2.3
	comp=Z,5.7nm,0.8s,mb4.8						
V12A	Nelson	87.82	54	⇑P	P	11 16 13.4	+0.1
	baz=88,SNR=9.0						
U12A	Valley of Fire	87.86	53	⇓P	P	11 16 13.9	+0.4
	baz=88						
DAG	Danmarks Havn	87.91	357	⇑eP	P	11 16 11.2	-1.8
DAG				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.4						
DAG	Danmarks Havn	87.91	357	⇑iP	P	11 16 11.2	-1.8
	comp=Z,2.2nm,0.8s,mb4.4						
W12A	Cal Nev Ari	87.93	54	⇓P	P	11 16 13.6	-0.3
	baz=88						
BC3	Big Chuckw Mtn	87.94	56	⇓P	P	11 16 13.7	-0.3
	baz=88						
DUG	Dugway	88.02	49	eP	P	11 16 14.3	+0.1
	comp=Z,6.3nm,0.8s,mb4.9						
DUG	Dugway	88.02	49	eP	P	11 16 14.3	+0.1
DUG				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.9						
DUG	Dugway	88.02	49	P	P	11 16 15.0	+0.8
	baz=88,SNR=11						
IRM	Iron Mountain	88.04	55	⇓P	P	11 16 14.5	+0.1
	baz=88						
YNR	Norris Junctio	88.07	44	eP	P	11 16 14.1	-0.3
IMW	Indian Meadow	88.17	45	eP	P	11 16 15.4	+0.6
	comp=Z,6.9nm,0.9s,mb4.9						
T13A	Saint George	88.17	52	⇓P	P	11 16 15.7	+0.7
	baz=88						
ARUT	Antelope Range	88.29	51	eP	P	11 16 16.8	+1.3
LKWY	Lake	88.31	44	eP	P	11 16 19.4	+3.9
HWUT	Hardware Ranch	88.47	47	eP	P	11 16 17.3	+1.0
S14A	Cedar City	88.51	51	⇓P	P	11 16 17.3	+0.7
	baz=88						
NLU	North Lily Min	88.63	49	eP	P	11 16 17.9	+0.8
Y12C	Blythe	88.66	56	⇓P	P	11 16 18.0	+0.7
	baz=89						
W13A	Hualapai Mount	88.76	54	⇑P	P	11 16 18.7	+0.8
	baz=89						
T14A	Hurricane	88.78	52	⇓P	P	11 16 18.7	+0.9
	baz=89,SNR=6.2						
PDMCI	Parker Dam,Lak	88.80	55	⇓P	P	11 16 18.6	+0.6
	baz=89,SNR=5.3						
LACR	Lac	88.85	314	eP	P	11 16 19.2	+1.1
LACR				eS	pP	11 16 26.4	+5.1
JLU	Jordanelle	88.88	48	eP	P	11 16 19.2	+1.0
RLMT	Red Lodge	88.88	43	eP	P	11 16 17.7	-0.5
	comp=Z,6.9nm,0.9s,mb5.0						
OBN	Obninsk	88.92	327	eP	P	11 16 16.8	-1.3
	comp=Z,31nm,1.3s,mb5.5						
OBN	Obninsk	88.92	327	⇓eP	P	11 16 16.4	-1.7
OBN				eS	S	11 26 56.3	-10
OBN				pmax	pmax		
	comp=Z,37nm,1.5s,mb5.5						
OBN				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.6						
ABTO	Aybut	88.94	288	P	P	11 16 19.0	0.0
	SNR=9.0						
X13A	Yucca	88.96	55	⇑P	P	11 16 19.4	+0.7
	baz=89						
MSU	Marysvale	89.02	50	eP	P	11 16 20.1	+1.2
ZEI	Tsey	89.14	314	eP	P	11 16 16.9	-2.5
ZEI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.9						
Y13A	Salome	89.19	55	⇑P	P	11 16 20.5	+0.7
	baz=89						
DIGR	Digorskoe uzhe	89.32	314	eP	P	11 16 19.4	-0.9
DIGR				eS	pP	11 16 26.6	+3.1
W14A	Seligman	89.35	54	⇑P	P	11 16 20.9	+0.3
	baz=89,SNR=5.4						
BW06	Boulder Array	89.49	46	eP	P	11 16 21.3	+0.2
	comp=Z,1.7nm,0.9s,mb4.4						
PDAR	Pinedale Array	89.50	46	LR	LR	11 49 02.1	
	comp=Z,97nm,20.5s,MS4.2,baz=129,slow=31						
KIV	Kislovodsk	89.57	316	eP	P	11 16 20.5	-0.9
	comp=Z,6.1nm,0.5s,mb5.2						
KIV	Kislovodsk	89.57	316	⇑eP	P	11 16 19.9	-1.5
KIV				e		11 19 51.5	
KIV				eS	S	11 27 00.8	-12
KIV				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.0						
X14A	Yava	89.73	54	⇑P	P	11 16 22.1	-0.3
	baz=90,SNR=5.8						
Y14A	Wickenburg	89.81	55	⇑P	P	11 16 23.1	+0.3
	baz=90,SNR=7.2						
W15A	Williams	90.00	54	⇑P	P	11 16 24.6	+1.0
	baz=90						
Z14A	Wintersburg	90.03	55	⇓P	P	11 16 24.5	+0.6
	baz=90						
SRU	San Rafael	90.04	49	eP	P	11 16 23.0	-0.7
SRU				eP	pP	11 16 24.5	-2.4
X15A	Humboldt	90.24	54	P	P	11 16 26.3	+1.6
	baz=90,SNR=8.3						
UMR	Umm Al-Rimmam	90.43	301	eP	P	11 16 24.4	-1.3
UMR				AMb	AMB	11 16 26.1	
	comp=Z,22nm,0.7s,mb5.6						
WUAZ	Wupatki	90.58	53	eP	P	11 16 26.6	+0.3
	comp=Z,18nm,1.2s,mb5.3						
WUAZ				eP	pP	11 16 28.1	-1.4
WUAZ	Wupatki	90.58	53	⇓P	P	11 16 27.0	+0.6
	baz=90						
FINES	FINESS Array B	90.62	336	P	P	11 16 23.4	-2.5
FINES	FINESS Array B	90.62	336	i P	P	11 16 23.3	-2.6
FINES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
FINES	FINESS Array B	90.62	336	P	P	11 16 23.4	-2.5
	comp=Z,3.0nm,0.6s,mb4.8,baz=66,slow=4.8,SNR=12						
MIB	Mutribah	90.67	301	eP	P	11 16 25.5	-1.3
MIB				AMb	AMB	11 16 26.8	
	comp=Z,29nm,0.8s,mb5.7						
RDF	Al-Radifah	90.76	300	eP	P	11 16 25.4	-1.9
RDF				AMb	AMB	11 16 28.1	
	comp=Z,15nm,0.6s,mb5.5						
NAY	Al-Naaiem	90.92	301	eP	P	11 16 26.3	-1.7
NAY				AMb	AMB	11 16 28.3	
	comp=Z,25nm,0.9s,mb5.5						
PV10	Paradox Valley	91.38	50	eP	P	11 16 29.3	-0.6
PV01	Paradox Valley	91.81	50	eP	P	11 16 32.5	+0.6
MVCO	Mesa Verde	92.19	51	⇓P	P	11 16 35.3	+1.6
	baz=92						
ISCO	Idaho Springs	93.34	47	eP	P	11 16 38.9	-0.1
	comp=Z,3.6nm,1.0s,mb4.8						
ISCO	Idaho Springs	93.34	47	eP	P	11 16 38.9	-0.1
ISCO				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.8						
ANMO	Albuquerque	94.55	52	eP	P	11 16 45.1	+0.4
	comp=Z,1.7nm,1.1s,mb4.4						
ANMO	Albuquerque	94.55	52	eP	P	11 16 45.1	+0.4
ANMO				pmax	pmax		
	comp=Z,2.0nm,1.1s						
MALT	Malatya	94.66	312	eP	P	11 16 44.9	-0.2
	comp=Z,10nm,1.5s,mb5.0						
MALT	Malatya	94.66	312	eP	P	11 16 44.9	-0.2
MALT				pmax	pmax		
	comp=Z,10.0nm,1.5s,mb5.0						
ULM	Lac du Bonnet	94.88	35	P	P	11 16 44.0	-1.8
	comp=Z,1.1nm,0.9s,mb4.3,baz=166,slow=19,SNR=3.0						
ULM				LR	LR	12 00 01.0	
	comp=Z,96nm,18.0s,MS4.3,baz=198,slow=36						
AKASG	Malin Array Be	94.91	326	LR	LR	12 02 59.5	
	comp=Z,115nm,18.5s,MS4.4,baz=320,slow=38						
HFS	Hagfors	96.14	338	P	P	11 16 49.4	-1.9
	comp=Z,1.6nm,0.6s,mb4.7,baz=132,slow=4.2,SNR=4.5						
BRTR	Keskin Array B	97.45	314	P	P	11 16 55.0	-2.8
	comp=Z,1.7nm,0.9s,mb4.5,baz=49,slow=4.1,SNR=6.5						
TXAR	Lajitas Array	98.87	56	P	P	11 17 03.4	-0.9
TXAR				LR	LR	11 56 18.4	
TXAR	Lajitas Array	98.87	56	P	P	11 17 03.4	-0.9
	comp=Z,0.2nm,0.9s,baz=323,slow=38,SNR=2.9						
TXAR				LR	LR	11 56 18.4	
	comp=Z,105nm,21.3s,MS4.3,baz=95,slow=32						
LSZ	Lusaka	121.06	261	ePKPdf	PKPdf	11 22 18.0	+0.7
LSZ				epPKPdf	pPKPdf	11 22 28.6	+8.1
LSZ	Lusaka	121.06	261	ePKIKP	PKPdf	11 22 18.0	+0.7
LSZ				e		11 22 28.7	
JTS	JuntasAbangare	122.75	67	ePKPdf	PKPdf	11 22 20.9	+0.2
JTS	JuntasAbangare	122.75	67	ePKIKP	PKPdf	11 22 20.9	+0.2
PMSA	Palmer Station	126.08	164	ePKPdf	PKPdf	11 22 25.4	-0.1
TORD	Torodi Ar. Bea	135.59	307	PKP	PKPdf	11 22 43.5	-1.5
TORD				SKPbc	SKPbc	11 26 13.8	-2.9
TORD	Torodi Ar. Bea	135.59	307	PKP	PKPdf	11 22 43.5	-1.5
	comp=Z,1.9nm,0.7s,baz=25,slow=2.7,SNR=11						
TORD				SKPbc	SKPbc	11 26 13.8	-2.9
	comp=Z,1.1nm,0.9s,baz=16,slow=4.2,SNR=4.8						
NNA	Nana	137.39	91	ePKPdf	PKPdf	11 22 47.8	-0.6
KIC	Kosan Boka	144.73	305	⇑iPKP1	PKPdf	11 22 59.7	-1.9
	comp=Z,187nm,0.7s						
TIC	Toumodi	144.78	306	⇑iPKP1	PKPdf	11 22 59.9	-1.8
	comp=Z,39nm,0.8s						
LIC	Lamto	145.04	305	⇑iPKP1	PKPbc	11 23 00.8	-0.7
	comp=Z,205nm,0.7s						
LPAZ	La Paz	146.26	97	ePKPbc	PKPbc	11 23 06.4	+1.2
LPAZ	La Paz	146.26	97	ePKP2	PKPab	11 23 06.4	+0.4
LPAZ	La Paz	146.26	97	PKPbc	PKPbc	11 23 05.1	-0.1
	comp=Z,3.8nm,0.7s,baz=216,slow=7.8,SNR=8.2						

CASC 03 11:37:28.5±0.7, 901N×8289W, h13^{km}±6^{km}, MD3.8, 3D,
Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BAR1		0.48	300	⇓eP	Pg	11 37 37.7	-0.2
BAR1				eS	Sg	11 37 44.8	+0.5
CNI	Changuinola	0.55	42	⇓iP	Pg	11 37 38.9	-0.4
URSC	Urasca	1.20	313	⇓eP	Pn	11 37 50.3	-0.7
URSC				eS	Sb	11 38 07.3	+0.7
LCR2	La Lucha 2	1.32	304	eP	Pn	11 37 51.9	-0.8
LCR2				eS	Sb	11 38 09.9	-0.1
LAJ	Bijagual	1.48	305	eP	Pn	11 37 59.4	+4.5
LAJ				eS	Sn	11 38 23.0	+8.8
PRS1	Puriscal	1.71	305	eP	Pn	11 37 57.6	-0.4
PRS1				eS	Sn	11 38 19.9	+0.2
CGA2	Cerro Gallo 2	1.85	303	eP	Pn	11 37 59.7	-0.3
CGA2				eS	Sn	11 38 24.4	+1.1

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*ISCJB **03** 11:45:24.3±1.0, 23.10S±006×667W±02, h202^{km}±11^{km},*
mb3.5/6, Error ellipse: s-maj=26.8km s-min=9.4km az=3.3
*IDC **03** 11:45:25.8±1.9, 2306S×6662W, h200^{km}±17^{km}, mb3.4/5,*

mb1 3.7/7, mb1mx3.6/16, mbtmp3.4/7, Error ellipse: s-maj=24.3km s-min=20.9km az=73.0

*NEIC **03** 11:45:26.1±0.8, 23.07S×66.56W, h208^{km}±9^{km}, mb3.9/1, Error ellipse: s-maj=18.2km s-min=10.2km az=99.0*

ISC 03 11:45:26.1±1.2**, 23.11S**±0.10×**66.6W**±0.2**, h207**^{km}±13^{km}**, n14, σ0^{s}.45**/13**, mb3.5**/6**, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	6.94	347	P	Pn	11 47 05.8	+0.1
	1.6nm,0.3s,baz=144,slow=6.2,SNR=32						
LPAZ				S	Sn	11 48 19.4	-5.5
	baz=233,slow=20,SNR=3.2						
CFAA	Coronel Fontan	8.60	190	P	Pn	11 47 27.4	+0.4
	0.1nm,0.3s,baz=0.8,slow=10,SNR=18						
CFAA				S	Sn	11 48 59.6	-4.2
	0.7nm,0.3s,baz=231,slow=13,SNR=17						
SIV	San Ignacio	8.76	37	P	Pn	11 47 29.1	-0.2
	3.5nm,0.3s,baz=218,slow=13,SNR=60						
TXAR	Lajitas Array	63.20	324	P	P	11 55 31.9	-0.4
TXAR	Lajitas Array	63.20	324	P	P	11 55 31.9	-0.4
	0.5nm,0.7s,mb3.2,baz=157,slow=8.2,SNR=7.3						
TORD	Torodi Ar. Bea	75.86	69	P	P	11 56 50.4	+0.3
	0.8nm,0.5s,mb3.6,baz=256,slow=5.7,SNR=10.0						
PDAR	Pinedale Array	76.59	329	P	P	11 56 53.8	+0.2
	0.7nm,0.8s,mb3.4,baz=132,slow=8.7,SNR=6.1						
NVAR	Mina Array Bea	78.10	321	P	P	11 57 02.9	+0.8
	0.7nm,0.9s,mb3.3,baz=188,slow=8.7,SNR=5.5						
HLID	Hailey	79.56	327	eP	P	11 57 09.8	-0.1
	1.3nm,0.5s,mb3.8						
EDM	Edmonton	86.14	334	eP	P	11 57 43.0	-0.5
YKA	Yellowknife Ar	93.43	340	P	P	11 58 17.0	-0.3
	0.5nm,0.6s,mb3.7,baz=132,slow=4.4,SNR=13						
ZALV	Zalesovo Beam	142.41	28	PKP	PKPdf	12 04 31.5	-2.2
	0.4nm,0.4s,baz=316,slow=6.0,SNR=2.9						
MKAR	Makanchi Array	145.58	39	PKPbc	PKPbc	12 04 40.9	+0.8
	1.8nm,0.6s,baz=313,slow=3.2,SNR=22						
SONM	Songino Array	154.69	11	PKPbc	PKPbc	12 05 03.5	+1.1
	0.4nm,0.7s,baz=276,slow=1.2,SNR=3.6						
SONM				PKPab	PKPab	12 05 19.1	+1.1
	0.5nm,0.6s,baz=312,slow=3.0,SNR=5.3						

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*TIF **03** 12:19:09.6, 44.10N×42.04E, h6^{km}±1^{km}*

*MOS **03** 12:19:12.1±1.9, 44.20N×42.11E, h10^{km}, mb4.4/1, Error ellipse: s-maj=15.6km s-min=6.3km az=36.4*

MOS Felt (III) at Cherkessk.

*ISCJB **03** 12:19:14.2±0.6, 44.17N±0.04×42.26E±0.04, h10^{km}, Error ellipse: s-maj=5.7km s-min=3.7km az=26.9*

ISC 03 12:19:13.7±0.7**, 44.18N**±0.04×**42.18E**±0.05**, h10**^{km}**, n20, σ1^{s}.17**/38**, 5C-6D, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIV	Kislovodsk	0.43	122	⇓iPG	Pg	12 19 20.0	-2.1
KIV				i S	Sg	12 19 27.2	-0.6
BEYR	Belyy Ugol+	0.49	110	⇓iPG	Pg	12 19 21.1	-2.2
BEYR				i S	Sg	12 19 29.3	-0.4
NAGR	Nagutskaya	0.49	57	ePG	Pg	12 19 22.5	-0.9
NAGR				eS	Sg	12 19 29.9	0.0
SHAR	Shatzhatmas	0.56	141	⇓iPG	Pg	12 19 22.1	-2.6
SHAR				i S	Sg	12 19 31.0	-1.1
PYA	Pyatigorsk	0.65	103	⇑iPG	Pg	12 19 24.0	-2.3
PYA				i S	Sg	12 19 34.4	-0.4
KUBR	Kubataba	0.97	113	⇑iPG	Pg	12 19 30.3	-2.0
KUBR				i S	Sg	12 19 45.4	+0.5
LSNR	Lesken	1.49	127	⇑iPG	Pn	12 19 41.0	+0.4
LSNR				i S	Sg	12 20 02.5	+0.7
PRTR	Priterechnaya	1.58	105	ePN	Pn	12 19 42.1	+0.4
PRTR				eS	Sg	12 20 05.9	+1.5
DIGR	Digorskoe uzhe	1.64	141	⇑iPN	Pn	12 19 41.2	-1.4
DIGR				i S	Sn	12 20 03.2	-0.5
KMSR	Komsomolskaya	1.73	117	⇓iPN	Pb	12 19 45.9	+0.3
KMSR				i S	Sg	12 20 11.4	+2.0
KORR	Kora	1.75	128	ePN	Pn	12 19 45.3	+1.1
KORR				eS	Sg	12 20 09.6	-0.5
ARNR	Ardon	1.82	122	⇓iPN	Pn	12 19 46.6	+1.6
ARNR				eS	Sg	12 20 12.1	0.0
ONI	Oni	1.85	150	P	Pn	12 19 45.5	+0.1
ONI				S	Sn	12 20 10.2	+1.3
SOC	Sochi	1.88	252	ePN	Pn	12 19 43.1	-2.8
SOC				e		12 19 48.3	
SOC				e		12 20 10.7	
SOC				pmax	pmax		
	comp=Z,42nm,0.4s						
SOC				smax			
	comp=N,59nm,0.3s						
ZEI	Tsey	1.89	138	⇑iPN	Pn	12 19 45.6	-0.4
BTKR	Batakoyurt	1.89	115	ePN	Pb	12 19 48.6	+0.3
BTKR				eS	Sg	12 20 15.3	+0.7
TRKR	Terskaya	1.90	103	ePN	Pn	12 19 47.2	+1.0
TRKR				eS	Sg	12 20 15.0	+0.2
LACR	Lac	2.05	131	⇓iPN	Pn	12 19 49.9	+1.6
LACR				i S	Sb	12 20 17.3	+0.7
SNJR	Sundja	2.21	119	ePN	Pb	12 19 54.2	+0.4
SNJR				eS	Sg	12 20 24.4	-0.4
ANN	Anapa	3.45	282	ePN	Pn	12 20 09.0	+1.5
ANN				eS	Sn	12 20 53.3	+4.9
ANN				pmax	pmax		
	comp=Z,38nm,1.4s						

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*ISCJB **03** 12:48:13.4±1.3, 33.64N±0.04×141.1E±0.1, h54^{km}±12^{km}, mb3.8/2, Error ellipse: s-maj=14.8km s-min=6.3km az=16.6*

*JMA **03** 12:48:13.5±0.1, 33.66N×141.10E, h42^{km}, M3.3*

*IDC **03** 12:48:14.7±3.9, 33.52N×141.09E, h60^{km}±31^{km}, mb4.1/1, mb1 4.3/2, mb1mx3.3/17, mbtmp4.0/2, ML3.4/1, MS2.7/1, Ms1 2.7/1, ms1mx2.3/26, Error ellipse: s-maj=40.4km s-min=12.8km az=90.0*

ISC 03 12:48:13.4±1.3**, 33.60N**±0.05×**141.2E**±0.1**, h45**^{km}±15^{km}**, n14, σ0^{s}.81**/22**, mb3.8**/2**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSO1	Boso 1	1.06	352	P	Pn	12 48 31.1	-0.7
BSO1				eS	Sn	12 48 44.6	-0.8
JHJ2	Mitsune	1.22	247	P	Pn	12 48 34.5	+0.5
JHJ2				eS	Sn	12 48 49.6	+0.2
JHJ	Hachijo jima 2	1.24	247	P	Pn	12 48 34.5	+0.2
	177nm,0.3s,baz=275,slow=23,SNR=43						
JHJ				S	Sn	12 48 49.5	-0.5
	277nm,0.3s,baz=249,slow=24,SNR=19						
BSO3	Boso 3	1.31	336	P	Pn	12 48 35.3	+0.1
BSO3				eS	Sn	12 48 51.2	-0.3
BSO4	Boso 4	1.54	334	P	Pn	12 48 38.9	+0.5
BSO4				eS	Sn	12 48 56.4	-0.7
JIM2	Oshima 3	1.81	308	P	Pn	12 48 41.6	-0.5
JIM2				eS	Sn	12 49 02.4	-1.4
JOD2	Odawara 2	2.38	315	P	Pn	12 48 49.7	-0.2
JHU	Hanno	2.72	326	P	Pn	12 48 54.8	+0.2
JHU				eS	Sn	12 49 25.8	-0.4
JYT	Yasato	2.73	344	eS	Sn	12 49 27.3	+0.8
MJAR	Matsushiro Arr	3.80	321	P	Pn	12 49 10.6	+1.2
	2.9nm,0.3s,baz=156,slow=13,SNR=34						
MJAR				S	Sn	12 49 54.1	+1.4
	2.0nm,0.3s,baz=194,slow=16,SNR=6.1						
MAT	Matsushiro	3.80	321	P	Pn	12 49 10.9	+1.5
MAT				S	Sn	12 49 52.3	-0.5
JNU	Nakatsue	8.61	270	LR	LR	12 53 27.8	
	comp=Z,52nm,20.6s,baz=330,slow=37						
MKAR	Makanchi Array	45.83	305	P	P	12 56 31.6	+0.8
	0.2nm,0.8s,mb3.1,baz=82,slow=8.7,SNR=3.2						
WRA	Warramunga Arr	53.64	188	P	P	12 57 28.8	-1.5
	2.7nm,0.5s,mb4.5,baz=3.5,slow=7.5,SNR=53						

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*NEIC **03** 12:54:52.8, 39.49N×20.60E, h18^{km}, MD3.4(ATH), After ATH.*

*ATH **03** 12:54:52.7, 39.49N×20.61E, h19^{km}±3^{km}, MD3.4/7*

*ISCJB **03** 12:54:53.8±0.9, 39.45N±0.03×20.7E±0.1, h9^{km}±11^{km}, Error ellipse: s-maj=14.8km s-min=5.3km az=6.9*

*CSEM **03** 12:54:53.3±0.2, 39.43N×20.60E, h2^{km}, MD3.4, Error ellipse: s-maj=5.9km s-min=4.6km az=79.0*

ISC 03 12:54:55.3±0.8**, 39.41N**±0.03×**20.9E**±0.1**, h7**^{km}±8^{km}**, n26, σ1^{s}.13**/35**, 12C-8D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAN	Janina	0.24	357	⇑iPb	Pg	12 54 57.8	-2.3
JAN				eSb	Sg	12 55 02.7	-0.7
JAN	Janina	0.24	357	⇑iPB	Pg	12 54 57.8	-2.3
JAN				eSB	Sg	12 55 02.7	-0.7
JAN	Janina	0.24	357	⇑iPb	Pg	12 54 57.8	-2.3
JAN				eSb	Sg	12 55 02.7	-0.7
KEK	Kerkira	0.88	290	⇑iPn	Pg	12 55 05.7	-6.4
KEK	Kerkira	0.88	290	⇑iPN	Pg	12 55 05.7	-6.4
KEK	Kerkira	0.88	290	⇑iPn	Pg	12 55 05.7	-6.4
EVR	Evrytania	0.89	124	⇑iPb	Pb	12 55 12.7	-0.2
EVR	Evrytania	0.89	124	⇑iPB	Pb	12 55 12.7	-0.2
EVR	Evrytania	0.89	124	⇑iPb	Pb	12 55 12.7	-0.2
THL	Klokotos Trika	0.90	80	⇓iPN	Pn	12 55 14.0	-0.3
THL	Klokotos Trika	0.90	80	⇓iPn	Pn	12 55 14.0	-0.3
KZN	Kozani	1.13	38	⇓iPn	Pn	12 55 18.0	+0.5
KZN	Kozani	1.13	38	⇓iPN	Pn	12 55 15.9	-1.6
KZN	Kozani	1.13	38	⇓iPn	Pn	12 55 18.0	+0.5
VLS	Valsamata	1.25	190	⇑iPn	Pn	12 55 17.3	-1.9
VLS				eSn	Sg	12 55 36.7	+1.1
VLS	Valsamata	1.25	190	⇑iPN	Pn	12 55 17.3	-1.9
VLS				eSN	Sg	12 55 36.7	+1.1
VLS	Valsamata	1.25	190	⇑iPn	Pn	12 55 17.3	-1.9
VLS				eSn	Sg	12 55 36.7	+1.1
RLS	Riolos of Patr	1.43	161	⇓iPn	Pn	12 55 22.0	+0.4
RLS	Riolos of Patr	1.43	161	⇓iPN	Pn	12 55 22.0	+0.4
RLS	Riolos of Patr	1.43	161	⇓iPn	Pn	12 55 22.0	+0.4
BIA	Bitola	1.64	12	ePn	Pn	12 55 23.7	-0.8
BIA				i Pg	Pg	12 55 28.2	+1.5
BIA	Bitola	1.64	12	ePn	Pn	12 55 23.6	-0.9
OHR	Ohrid	1.70	358	ePn	Pn	12 55 25.9	+0.6
OHR	Ohrid	1.70	358	ePn	Pn	12 55 25.8	+0.5
KRUS	Krusevo	1.97	8	ePn	Pn	12 55 30.6	+1.5
KRUS				eSg	Sg	12 55 59.6	+0.9
KRUS	Krusevo	1.97	8	ePn	Pn	12 55 30.6	+1.5
KRUS				eSg	Sg	12 55 59.5	+0.8

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*ISCJB **03** 13:00:05.7±0.6, 17.33N±0.06×94.90W±0.04, h135^{km}±5^{km}, mb3.3/3, Error ellipse: s-maj=10.7km s-min=5.7km az=0.1*

*IDC **03** 13:00:06.6±1.8, 17.35N×94.81W, h126^{km}±25^{km}, mb3.2/3, mb1 3.4/5, mb1mx3.2/19, mbtmp3.1/5, Error ellipse: s-maj=74.8km s-min=19.0km az=164.0*

*MEX **03** 13:00:08.4±0.8, 17.31N×94.92W, h134^{km}±8^{km}, MD3.9*

*NEIC **03** 13:00:08.0, 17.27N×94.92W, h139^{km}, MD3.9(MEX), After MEX.*

ISC 03 13:00:06.8±0.6**, 17.31N**±0.06×**94.90W**±0.04**, h130**^{km}±5^{km}**, n19, σ1^{s}.07**/32**, mb3.3**/3**, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMIG	Matias Romero	0.22	175	P	Pn	13 00 25.4	+0.6
CMIG				S	Sn	13 00 38.8	+0.5
CMIG	Matias Romero	0.22	175	P	Pn	13 00 25.4	+0.6
	baz=354,slow=2.5						
CMIG				S	Sn	13 00 38.8	+0.5
	94nm,0.3s,baz=157,slow=24,SNR=97						
CMIG	Matias Romero	0.22	175	i P	Pn	13 00 25.6	+0.8
CMIG				i S	Sn	13 00 38.9	+0.6
TUIG	Tuzandepetl	0.85	32	eP	Pn	13 00 28.6	+0.2
TUIG	Tuzandepetl	0.85	32	eP	Pn	13 00 29.1	+0.6
TUIG				i S	Sn	13 00 44.8	-0.1
OXX	Oaxaca	1.75	263	i P	Pn	13 00 36.2	-1.7
OXX				i S	Sn	13 01 00.3	-1.3
OXX	Oaxaca	1.75	263	i P	Pn	13 00 38.2	+0.3
OXX				i S	Sn	13 01 00.3	-1.3
VHO	Vista Hermosa	1.77	263	i P	Pn	13 00 39.0	+1.0
VHO				i S	Sn	13 01 03.4	+1.6
VHO	Vista Hermosa	1.77	263	i P	Pn	13 00 39.0	+1.0
VHO				i S	Sn	13 01 02.4	+0.6
HUIG	Huatulco	1.92	217	i P	Pn	13 00 38.6	-1.3
HUIG				i S	Sn	13 01 04.4	-0.8
TPIG	Tehuac#an	2.59	296	i P	Pn	13 00 49.4	+1.2
TPIG				i S	Sn	13 01 19.1	-0.9
UTMO	Huajuapan	2.81	281	i P	Pn	13 00 52.0	+0.9
UTMO				i S	Sn	13 01 24.1	-1.1
CCIG	Comitan	2.84	111	i P	Pn	13 00 52.7	+1.3
CCIG				i S	Sn	13 01 26.0	+0.2
TEIG	Tepich	6.91	64	P	Pn	13 01 45.0	-0.7
	0.8nm,0.3s,baz=226,slow=2.5,SNR=2.4						
TEIG				S	Sn	13 03 00.8	-2.2
	1.2nm,0.3s,baz=270,slow=20,SNR=4.3						
TXAR	Lajitas Array	14.41	328	P	Pn	13 03 26.1	+1.4
	0.1nm,0.3s,baz=149,slow=13,SNR=9.3						
NVAR	Mina Array Bea	29.35	320	P	P	13 05 59.0	+1.6
	0.5nm,0.7s,mb3.4,baz=144,slow=7.9,SNR=5.2						
YKA	Yellowknife Ar	47.20	348	P	P	13 08 24.7	-1.4
YKA	Yellowknife Ar	47.20	348	P	P	13 08 24.7	-1.4
	0.3nm,0.5s,mb3.2,baz=154,slow=7.3,SNR=6.2						
INK	Inuvik	56.49	344	P	P	13 09 34.7	-0.2
	0.6nm,0.8s,mb3.5,baz=121,slow=5.9,SNR=3.6						

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*ISCJB **03** 13:01:58.8±0.6, 60.08N±0.06×153.18W±0.10, h156^{km}±7^{km}, mb3.1/2, Error ellipse: s-maj=9.4km s-min=7.5km az=155.3*

*IDC **03** 13:01:59.4±2.7, 60.02N×153.27W, h143^{km}±47^{km}, mb3.1/2, mb1 3.2/5, mb1mx3.0/22, mbtmp3.1/5, Error ellipse: s-maj=52.7km s-min=24.0km az=140.0*

*NEIC **03** 13:02:00.5, 60.11N×153.25W, h156^{km}, MG3.0(AEIC), After AEIC.*

ISC 03 13:02:00.1±0.6**, 60.10N**±0.06×**153.20W**±0.10**, h148**^{km}±7^{km}**, n29, σ0^{s}.76**/34**, mb3.1**/2**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AUL	Augustine Lava	0.73	190	P	Pn	13 02 23.5	+1.0
AUL				S	Sn	13 02 40.9	+1.3
SLKM	Skilak Lake	1.54	73	P	Pn	13 02 30.4	+0.6
SVW2	Sparrevohn	1.55	311	eP	Pn	13 02 29.2	-0.7
FIB	Fire Island	1.83	53	P	Pn	13 02 34.3	+1.3
SEW	Seward	1.88	88	P	Pn	13 02 34.1	+0.6
SEW				S	Sn	13 02 59.2	0.0
RC01	Rabbit Creek A	1.98	58	P	Pn	13 02 34.8	+0.1
KDAK	Kodiak Island	2.34	172	P	Pn	13 02 38.6	-0.5
KDAK	Kodiak Island	2.34	172	P	Pn	13 02 38.0	-1.1
	1.2nm,0.3s,baz=74,slow=8.8,SNR=17						
KDAK				S	Sn	13 03 06.8	-2.3
	15nm,0.3s,baz=139,slow=23,SNR=75						
PMR	Palmer	2.49	51	eP	Pn	13 02 39.9	-1.0
KNK	Knik Glacier	2.67	58	P	Pn	13 02 42.6	-0.5
GHO	Glory Hole Cre	2.68	49	P	Pn	13 02 42.6	-0.5
SML	Sawmill	2.93	52	P	Pn	13 02 45.7	-0.6
TT01	Tatalina	3.13	336	P	Pn	13 02 48.3	-0.5
KTH	Kantishna Hill	3.63	16	P	Pn	13 02 54.8	-0.5
TRF	Thorofare Moun	3.64	21	P	Pn	13 02 55.3	-0.1
EYAK	Cordova Ski Ar	3.73	80	P	Pn	13 02 57.2	+0.6
EYAK				S	Sn	13 03 40.3	-0.2
DIV	Divide	3.80	71	P	Pn	13 02 57.7	+0.1
MCK	McKinley	4.17	27	P	Pn	13 03 02.1	-0.2
BMRM	Bremner River	4.33	75	P	Pn	13 03 05.2	+0.7
BMRM				S	Sn	13 03 53.7	-0.9
PAX	Paxson	4.69	49	P	Pn	13 03 09.6	+0.4
MENT	Mentasta	5.36	54	eP	Pn	13 03 18.4	+0.4
COLA	College	5.39	25	P	Pn	13 03 18.0	-0.5
IMA2	Indian Mountai	6.00	358	eP	Pn	13 03 26.8	+0.3
EGAK	Eagle	7.29	45	P	Pn	13 03 43.4	-0.3
DAWY	Dawson	7.60	53	ePn	Pn	13 03 48.2	+0.3
INK	Inuvik	11.82	38	P	Pn	13 04 43.4	-0.3
	0.2nm,0.3s,baz=241,slow=14,SNR=12						
YKA	Yellowknife Ar	18.50	66	P	P	13 06 05.7	+1.2
	0.1nm,0.3s,baz=278,slow=10,SNR=20						
SONM	Songino Array	54.66	306	P	P	13 11 14.2	+1.2
	0.2nm,0.7s,mb3.0,baz=60,slow=7.0,SNR=5.2						
MKAR	Makanchi Array	64.30	321	P	P	13 12 18.1	-1.0
	0.2nm,0.5s,mb3.2,baz=24,slow=6.2,SNR=5.2						

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*BJI **03** 13:07:31.9, 53.20N×164.80W, h10^{km}, mB5.3, mb4.7*

*ISCJB **03** 13:07:32.5±2.3, 52.94N±0.05×164.83W±0.07, h7^{km}±13^{km}, mb4.5/63, MS3.9/5, Error ellipse: s-maj=8.8km s-min=6.4km az=17.8*

*IDC **03** 13:07:34.1±1.1, 53.29N×164.90W, h0^{km}, mb4.2/20, mb1 4.3/21, mb1mx4.2/28, mbtmp4.2/21, MS3.6/3, Ms1 3.6/3, ms1mx3.0/34, Error ellipse: s-maj=29.5km s-min=13.7km az=8.0*

*NEIC **03** 13:07:35.9±0.5, 53.20N×164.77W, h10^{km}, mb4.1/2, ML3.7(AEIC), Error ellipse: s-maj=11.1km s-min=5.8km az=194.0*

*MOS **03** 13:07:43.4±0.8, 53.88N×165.54W, h50^{km}, mb4.7/22, Error ellipse: s-maj=22.4km s-min=7.5km az=100.3*

ISC 03 13:07:36.1±1.9**, 53.17N**±0.08×**164.93W**±0.07**, h13**^{km}±10^{km}**, n119, σ0^{s}.94**/122**, mb4.5**/63**, MS3.9**/5**, 19C-1D, Unimak Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKUT	Akutan	1.09	333	P	Pg	13 07 57.9	+0.7
AKUT				S	Sg	13 08 15.5	+4.2
UNV	Unalaska Valle	1.16	306	P	Pb	13 07 58.6	+0.7
UNV				S	Sg	13 08 16.7	+3.2
AKLV	Akutan Long Va	1.17	329	P	Pb	13 07 58.8	+0.7
AKGG	Akutan Green G	1.21	329	P	Pb	13 07 59.5	+0.7
AKGG				S	Sb	13 08 18.8	+4.5
FALS	False Pass	1.91	27	ePn	Pn	13 08 08.2	0.0
FALS				eSn	Sn	13 08 32.4	+0.2
SDPT	Sand Point	3.40	48	P	Pn	13 08 28.1	-0.6
KDAK	Kodiak Island	8.39	52	Pn	Pn	13 09 34.5	-2.8
KDAK				Sn	Sn	13 11 02.8	-8.9
KDAK	Kodiak Island	8.39	52	Pn	Pn	13 09 34.5	-2.8
	baz=288,slow=9.6						
KDAK				Sn	Sn	13 11 02.8	-8.9
	0.2nm,0.3s,baz=289,slow=14,SNR=5.6						
EGAK	Eagle	16.76	37	eP	Pn	13 11 29.7	-0.4
	5.7nm,0.8s						
DAWY	Dawson	17.06	40	eP	Pn	13 11 32.3	-1.6
DLBC	Dease Lake	20.15	61	P	P	13 12 10.5	+0.9
	baz=294,slow=9.9						
BILL	Bilibino	20.24	328	eP	P	13 12 08.4	-2.1
BILL				eS	S	13 15 47.0	-10
BILL				pmax	pmax		
	comp=Z,2.0nm,1.2s						
BILL				MLR	MLR		
	comp=Z,200nm,16.0s,MS3.6						
INK	Inuvik	21.21	32	eP	P	13 12 18.4	-2.6
INK	Inuvik	21.21	32	P	P	13 12 17.9	-3.1
INK				pmax	pmax		
	comp=Z,3.0nm,0.5s						
INK	Inuvik	21.21	32	P	P	13 12 17.9	-3.1
	comp=Z,3.3nm,0.5s,mb3.9,baz=238,slow=8.8,SNR=19						
SEY	Seymchan	24.15	311	⇑eP	P	13 12 49.8	-1.6
MA2	Magadan	24.96	303	eP	P	13 12 58.4	-0.3
	comp=Z,5.8nm,0.7s,mb4.2						
MA2	Magadan	24.96	303	⇑eP	P	13 12 58.8	0.0
MA2				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.2						
YKA	Yellowknife Ar	27.67	50	P	P	13 13 23.4	+0.2
	comp=Z,1.5nm,0.7s,mb3.7,baz=270,slow=7.4,SNR=32						
YSS	Yuzh-Sakhalins	33.51	281	eP	P	13 14 16.0	+1.1
YSS				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.7						
YAK	Yakutsk	34.68	311	⇑eP	P	13 14 22.1	-2.8
YAK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
NVAR	Mina Array Bea	35.02	96	P	P	13 14 29.1	+1.1
	comp=Z,0.5nm,0.8s,mb3.5,baz=296,slow=11,SNR=6.1						
NVAR				PcP	PcP	13 17 00.4	+0.5
	comp=Z,0.2nm,0.6s,baz=337,slow=1.4,SNR=3.0						
PDAR	Pinedale Array	37.61	83	P	P	13 14 50.4	+0.2
	comp=Z,0.7nm,0.8s,mb3.4,baz=274,slow=4.4,SNR=6.5						
ULM	Lac du Bonnet	41.38	65	P	P	13 15 19.6	-1.8
	comp=Z,2.7nm,0.8s,mb4.0,baz=291,slow=7.8,SNR=8.2						
ULM				LR	LR	13 31 44.6	
	comp=Z,69nm,18.1s,MS3.6,baz=332,slow=35						
MDJ	Mudanjiang	42.50	286	P	P	13 15 27.2	-3.4
MDJ				AMB	AMB		
	comp=Z,229nm,3.7s						
BOD	Bodaibo	43.57	310	eP	P	13 15 37.9	-1.3
BOD				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
KSRS	Korea Array	47.97	279	P	P	13 16 13.9	-0.3
KSRS				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
KSRS				MLR	MLR		
	comp=Z,26nm,18.3s,MS3.2						
KSRS	Korea Array	47.97	279	P	P	13 16 13.8	-0.3
	comp=Z,3.7nm,0.8s,mb4.5,baz=46,slow=6.6,SNR=7.2						
KSRS				LR	LR	13 36 51.1	
	comp=Z,26nm,18.2s,MS3.2,baz=305,slow=37						
TXAR	Lajitas Array	50.06	93	P	P	13 16 29.5	-0.8
	comp=Z,0.9nm,0.9s,mb3.8,baz=293,slow=4.9,SNR=6.5						
TLY	Talaya	52.02	308	eP	P	13 16 45.1	+0.4
TLY				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
ULN	Ulaanbaatar	52.82	302	⇑eP	P	13 16 49.7	-1.0
SCHQ	Schefferville	52.97	46	P	P	13 16 50.2	-1.5
	comp=Z,3.2nm,0.8s,mb4.3,baz=343,slow=8.4,SNR=5.1						
ZAK	Zakamensk	53.04	307	eP	P	13 16 51.6	-0.7
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.9						
SONM	Songino Array	53.17	303	P	P	13 16 52.6	-0.7
	comp=Z,1.6nm,0.9s,mb4.0,baz=54,slow=6.3,SNR=11						
KEV	Kevo	57.08	355	ep	P	13 17 19.3	-1.9
	comp=Z,5.9nm,0.5s,mb4.9						
KEV	Kevo	57.08	355	eP	P	13 17 19.3	-1.9
KEV				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.9						
ARCES	ARCESS Array B	57.37	356	P	P	13 17 22.5	-0.8
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ARCES	ARCESS Array B	57.37	356	P	P	13 17 22.5	-0.8
	comp=Z,3.3nm,0.6s,mb4.5,baz=8.0,slow=7.3,SNR=25						
ZALV	Zalesovo Beam	58.61	319	P	P	13 17 31.4	-0.7
	comp=Z,1.2nm,0.4s,mb4.3,baz=40,slow=5.5,SNR=6.5						
ZAL	Zalesovo	58.63	319	P	P	13 17 31.4	-0.9
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
GTA	Gaotai	62.48	300	eP	P	13 17 58.8	0.0
GTA				AP	pP	13 18 02.9	-0.2
GTA				XP	sP	13 18 06.6	+1.9
GTA				AMB	AMB		
	comp=Z,3.0nm,0.6s,mb4.6						
LZH	Lanzhou	62.76	294	eP	P	13 18 01.5	+0.8
LZH				AP	pP	13 18 06.3	+1.3
LZH				XP	sP	13 18 09.1	+2.4
LZH				AMB	AMB		
	comp=Z,19nm,1.2s,mb5.1						
KURK	Kurchatov	63.52	321	⇑eP	P	13 18 05.4	-0.1
JOF	Joensuu	63.55	352	ep	P	13 18 04.6	-1.0
	comp=Z,4.1nm,0.5s,mb4.7						
JOF	Joensuu	63.55	352	eP	P	13 18 04.6	-1.0
JOF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
ARU	Arti	65.09	335	⇑iP	P	13 18 14.5	-1.2
ARU				e		13 20 34.7	
ARU				eS	S	13 26 53.5	-3.8
ARU				eSS	SS	13 31 01.5	-6.9
ARU				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
MKAR	Makanchi Array	65.17	316	P	P	13 18 15.7	-0.7
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MKAR	Makanchi Array	65.17	316	P	P	13 18 15.7	-0.7
	comp=Z,2.6nm,0.9s,mb4.3,baz=48,slow=6.3,SNR=26						
FINES	FINESS Array B	65.40	354	P	P	13 18 17.3	-0.3
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES	FINESS Array B	65.40	354	P	P	13 18 17.3	-0.4
	comp=Z,3.3nm,0.7s,mb4.5,baz=15,slow=7.8,SNR=13						
NOA	NORSAR Array B	66.10	2	P	P	13 18 22.4	+0.2
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	NORSAR Array B	66.10	2	P	P	13 18 22.4	+0.2
	comp=Z,2.2nm,0.8s,mb4.2,baz=357,slow=6.8,SNR=3.4						
HFS	Hagfors	67.05	1	P	P	13 18 28.0	-0.2
HFS				pmax	pmax		
	comp=Z,3.0nm,0.6s						
HFS	Hagfors	67.05	1	P	P	13 18 28.0	-0.2
	comp=Z,2.5nm,0.6s,mb4.4,baz=14,slow=4.0,SNR=13						
GYA	Guiyang	68.36	285	eP	P	13 18 35.0	-2.0
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
AKTO	Aktyubinsk	70.61	332	P	P	13 18 50.7	+0.1
AKTO				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
AKTO	Aktyubinsk	70.61	332	P	P	13 18 50.7	+0.2
	comp=Z,8.1nm,0.7s,mb4.8,baz=38,slow=6.6,SNR=35						
OBN	Obninsk	70.63	347	⇓eP	P	13 18 48.8	-1.8
OBN				eS	S	13 27 48.8	-15
OBN				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.5						
EKA	Eskdalemuir Ar	70.82	11	P	P	13 18 51.9	+0.1
EKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
EKA	Eskdalemuir Ar	70.82	11	P	P	13 18 51.9	+0.1
	comp=Z,1.9nm,0.8s,mb4.1,baz=0.0,slow=5.8,SNR=5.3						
PPT	Papeete	71.68	165	LR	LR	13 45 32.4	
	comp=Z,105nm,21.2s,MS4.1,baz=0.1,slow=32						

AAK	Ala-Archa	71.77	318	⇑*e*P	P	13 18 56.9	-0.8
AAK				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
AKASG	Malin Array Be	75.82	351	P	P	13 19 20.1	-1.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	Malin Array Be	75.82	351	P	P	13 19 20.1	-1.2
	comp=Z,2.4nm,0.4s,mb4.5,baz=11,slow=5.6,SNR=16						
BAIF	Baives	76.74	7	*e*P	P	13 19 26.9	+0.4
	comp=Z,6.9nm,0.7s,mb4.4						
GIVF	Givet	76.74	7	*e*P	P	13 19 26.7	+0.1
DPC	Dobruska-Polom	76.85	359	*e*P	P	13 19 27.7	+0.5
NKC	Novy Kostel	76.95	2	*e*P	P	13 19 27.3	-0.4
FLN	La Foliniere	77.59	10	*e*P	P	13 19 31.6	+0.2
	comp=Z,24nm,1.0s,mb4.8						
ROSF	Rostrenen	77.68	12	*e*P	P	13 19 33.0	+1.2
	comp=Z,105nm,1.4s,mb5.3						
LDF	La Druitiere	77.80	10	*e*P	P	13 19 32.4	-0.1
	comp=Z,14nm,0.8s,mb4.6						
KHC	Kasperske Hory	78.07	1	*e*P	P	13 19 34.7	+0.7
TAPN	Taplejung	78.17	300	*e*P	P	13 19 34.9	0.0
	comp=Z,9.8nm,0.8s,mb4.8						
GERES	GERESS Array B	78.36	1	P	P	13 19 35.9	+0.3
	comp=Z,1.3nm,0.7s,mb4.0,baz=5.7,slow=5.4,SNR=8.5						
CDF	Champ du Feu	78.58	5	*e*P	P	13 19 37.1	+0.3
GUN	Gumba	78.66	302	*e*P	P	13 19 38.1	+0.5
	comp=Z,17nm,0.7s,mb5.1						
JIRN	Jiri	78.70	301	*e*P	P	13 19 38.3	+0.4
	comp=Z,12nm,0.5s,mb5.1						
ODAN	Odare	78.73	300	*e*P	P	13 19 37.1	-0.9
HAU	Haudompre	78.93	6	*e*P	P	13 19 39.0	+0.2
KKN	Kakani	79.07	302	*e*P	P	13 19 40.2	+0.3
	comp=Z,4.8nm,0.4s,mb4.8						
HINF	Hinteralfeld	79.15	6	*e*P	P	13 19 40.2	+0.2
	comp=Z,4.1nm,0.7s,mb4.2						
PKI	Pulchoki	79.18	302	*e*P	P	13 19 40.4	-0.1
GKN	Gorkha	79.22	302	*e*P	P	13 19 40.9	+0.2
	comp=Z,13nm,0.7s,mb5.0						
DMN	Daman	79.30	302	*e*P	P	13 19 41.5	+0.3
LOR	Lormes	79.49	8	*e*P	P	13 19 42.1	+0.3
LOR	Lormes	79.49	8	⇑*i*P	P	13 19 42.1	+0.3
	comp=Z,10nm,0.8s,mb4.5						
SSF	Saint Saulge	79.66	8	⇑*i*P	P	13 19 43.1	+0.3
	comp=Z,10nm,0.8s,mb4.5						
MFF	Saint Martin d	79.76	11	⇑*i*P	P	13 19 43.7	+0.4
	comp=Z,12nm,0.9s,mb4.5						
AVF	Avril sur Loir	79.92	8	⇑*i*P	P	13 19 44.3	+0.1
	comp=Z,13nm,0.8s,mb4.6						
KOLN	Koldanda	79.94	303	*e*P	P	13 19 44.8	+0.2
	comp=Z,11nm,0.9s,mb4.8						
SMF	Signal de Mont	80.10	8	⇑*i*P	P	13 19 45.4	+0.2
	comp=Z,17nm,0.9s,mb4.7						
BGF	Bois d'Agland	80.11	9	*e*P	P	13 19 45.4	+0.2
CABF	La Chapelle	80.30	6	*e*P	P	13 19 47.1	+0.8
	comp=Z,15nm,0.9s,mb4.6						
DAVOX	Davos/Dischmat	80.33	4	LR	LR	13 53 09.3	
	comp=Z,1μm,21.9s,MS5.2,baz=277,slow=34						
KIV	Kislovodsk	80.39	340	⇑*e*P	P	13 19 46.9	+0.1
KIV				*e*		13 22 44.6	
KIV				*e*S	S	13 29 34.8	-17
KIV				*e*SS	SS	13 35 00.7	-1.4
KIV				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
PERS	Pernice	80.58	360	*i* P	P	13 19 48.9	+1.1
GROS	Grobnik	80.75	360	*i* P	P	13 19 49.4	+0.7
ROBS	Robic	80.96	1	*i* P	P	13 19 50.0	+0.2
RJF	Les Rejaudoux	81.22	10	*e*P	P	13 19 51.2	0.0
	comp=Z,4.1nm,0.7s,mb4.2						
LPL	La Plagne	81.44	6	*e*P	P	13 19 54.6	+2.3
LPG	La Plagne	81.45	6	*e*P	P	13 19 54.8	+2.4
LFF	La Frestale	81.50	10	*e*P	P	13 19 53.1	+0.4
CAF	Calviac	81.65	9	*e*P	P	13 19 53.9	+0.4
VIVF	Saint-Julien-l	81.95	7	⇑*i*P	P	13 19 55.7	+0.7
	comp=Z,7.2nm,0.8s,mb4.3						
ORIF	Oris-en-Rattie	81.97	7	⇑*i*P	P	13 19 56.1	+0.9
	comp=Z,5.9nm,0.7s,mb4.3						
MBDF	Montbardon	82.22	6	⇑*i*P	P	13 19 58.2	+1.7
	comp=Z,17nm,0.7s,mb4.8						
LASF	Ste Croix	82.66	8	*e*P	P	13 19 59.8	+1.0
SMRF	Simiane la Rot	82.89	7	⇑*i*P	P	13 20 01.3	+1.3
	comp=Z,8.4nm,0.8s,mb4.5						
SBF	Sospel	83.12	6	*e*P	P	13 20 01.8	+0.6
	comp=Z,18nm,0.7s,mb4.9						
MTLF	Montolieu	83.23	9	⇑*i*P	P	13 20 02.3	+0.5
	comp=Z,8.5nm,0.9s,mb4.5						
EPF	Esparros	83.34	11	*e*P	P	13 20 02.2	-0.1
ETSF	Etsaut	83.37	11	*e*P	P	13 20 03.3	+0.8
	comp=Z,7.0nm,0.9s,mb4.4						
FRF	La Foret Royal	83.38	6	*e*P	P	13 20 03.1	+0.6
	comp=Z,3.7nm,0.6s,mb4.3						
LMR	La Mourre	83.59	6	*e*P	P	13 20 04.1	+0.5
	comp=Z,7.1nm,0.8s,mb4.5						
PGF	Pioggiola	84.52	5	⇑*i*P	P	13 20 09.1	+0.7
	comp=Z,30nm,1.0s,mb5.1						
BRTR	Keskin Array B	86.10	346	P	P	13 20 17.2	+0.9
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
BRTR	Keskin Array B	86.10	346	P	P	13 20 17.2	+0.9
	comp=Z,3.8nm,0.7s,mb4.7,baz=34,slow=2.9,SNR=20						
BOSA	Boshof	154.34	339	PKP2	PKPab	13 27 49.6	-0.1
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BOSA	Boshof	154.34	339	PKPab	PKPab	13 27 49.6	-0.1
	comp=Z,1.5nm,0.6s,baz=6.9,slow=6.1,SNR=4.0						

JMA 03 13:23:01.5±0.3**,4392N×14838E,h0^{km},M3.9,East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	1.99	255	P	Pn	13 23 36.7	+0.3
NEM2				*e*S	Sn	13 24 03.4	+1.4
JRA	Rausu	2.35	272	P	Pn	13 23 42.2	+0.8
JRA				*e*S	Sn	13 24 12.0	+1.1
JNK	Nakash	2.67	264	P	Pn	13 23 46.7	+0.9
JNK				*e*S	Sn	13 24 19.7	+0.9
JAK	Akkeshi	2.84	252	P	Pn	13 23 49.0	+1.0
JAK				*e*S	Sn	13 24 24.0	+1.1
JTKR	Abashiri--Toko	3.23	272	P	Pn	13 23 54.5	+1.1
JAR	Ashorobuto	3.41	261	P	Pn	13 23 57.5	+1.7
JAR				*e*S	Sn	13 24 39.2	+2.3
JCH	Churui	3.89	252	P	Pn	13 24 04.2	+1.7
JKB	Kayabe	5.77	252	P	Pn	13 24 29.5	+1.2
JKB				*e*S	Sn	13 25 35.4	+0.3
JOT	Ohata	5.97	247	P	Pn	13 24 31.9	+0.8

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*BJI **03** 13:43:18.4,3585N×2229E,h53^{km},mB5.2,mb5.5,Ms5.0, Msz4.6*

*CRAAG **03** 13:43:20.5,3580N×2254E,Mb5.3*

*ISCJB **03** 13:43:20.2±0.2,3580N±001×2248E±001,h45^{km}±1^{km}, mb5.4/216,MS4.3/43,Error ellipse: s-maj=2.4km s-min=1.4km az=8.7*

*BGS **03** 13:43:21.7,3596N×2251E,h40^{km},mb5.3*

*PDG **03** 13:43:21.4±0.2,3580N×2140E,h0^{km}±1^{km},MD5.9/10, ML5.9/9,Error ellipse: s-maj=261.2km s-min=78.5km az=90.0*

*CSEM **03** 13:43:22.4±0.1,3582N×2250E,h74^{km},mb5.2/99,Ms4.0, Mw4.9,Error ellipse: s-maj=1.2km s-min=0.7km az=13.0*

*MOS **03** 13:43:22.1±1.1,3589N×2248E,h66^{km},mb5.6/56, MS4.1/18,Error ellipse: s-maj=3.4km s-min=1.8km az=105.3*

*ATH **03** 13:43:22.3,3580N×2258E,h99^{km}±3^{km},ML5.0*

*PRU **03** 13:43:22.0,36.18N×2157E,h0^{km},M5.2*

*GCMT **03** 13:43:23.1±0.2,3567N×2239E,h54^{km}±1^{km},MW5.4/87, Moment Tensor Solution. s74,c114; s87,c162; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.01±.03; M$_{\theta\theta}$-0.25±.03; M$_{\phi\phi}$0.23±.03; M$_{r\theta}$0.20±.02; M$_{\theta\phi}$-1.45±.02; M$_{\phi r}$-0.65±.03; Best double couple: M$_0$1.61200×10^{17} NP1:ϕ_s93.00000°,δ68.00000°, λ173.00000°. NP2:ϕ_s186.00000°,δ83.00000°,λ22.00000°. Principal axes: T 1.6980, Plg21.0000°, Azm52.0000°; N -0.1710, Plg67.0000°, Azm202.0000°; P -1.5270, Plg11.0000°, Azm318.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **03** 13:43:23.1±0.3,3581N×2243E,h59^{km}±2^{km},mb5.2/156 Error ellipse: s-maj=3.5km s-min=2.0km az=182.0*

NEIC Felt at Athens, Chania, Nikaia, Palaion Faliron, Tripolis and Vair, Greece.

*BEO **03** 13:43:23.9±0.9,3609N×2175E,ML5.7/7*

*IDC **03** 13:43:24.3±0.8,3586N×2248E,h77^{km}±7^{km},mb4.9/25, mb1 5.0/31,mb1mx5.0/33,mbtmp4.9/31,MS4.3/23, Ms1 4.3/23,ms1mx4.1/34,Error ellipse: s-maj=7.6km s-min=6.7km az=17.0*

*SZGRF **03** 13:43:24.0,3606N×2222E,h10^{km},mb4.3,Southern Greece*

*IPEC **03** 13:43:24.1±0.2,3590N×2246E,h116^{km}±2^{km},Error ellipse: s-maj=2.9km s-min=1.5km az=34.0*

*THE **03** 13:43:24.9,3590N×2262E,h76^{km},ML5.9*

*NIC **03** 13:43:27.0±0.3,3590N×23.17E,h36^{km},mb5.3,ML4.8, MW4.5,Earthquake Central Mediterranean Sea 63 km SW Kithira.*

*GII **03** 13:43:30.2±0.0,35.18N×2371E,h0^{km},mb5.6/7,ML5.8/7, Mw4.7/3*

*UPP **03** 13:43:33.9,3568N×2191E,h21^{km}*

*HLW **03** 13:43:38.9,3523N×2402E,h33^{km},Mb5.1*

ISC 03 13:43:22.5±0.2**,3581N**±001×**2249E**±001**,h53**^{km}±1^{km}**, h51**^{km}±2.3^{km}**:pP-P,n1661,**σ**1^{s}21**/1892**,mb5.4**/216**, MS4.4**/42**,162C-167D,Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KYTH	Kithira	0.65	43	⇑*i*P	Pn	13 43 39.0	+3.3
VLI	Veliai	0.98	22	⇑*i*P	Pn	13 43 43.8	+3.8
VLI				*e*S	Sn	13 43 58.1	+5.2
KARN	Karanos	1.23	109	*e*Pg	Pn	13 43 45.5	+2.1
KARN				*e*Sg	Sn	13 44 01.9	+2.9
KARN	Karanos	1.23	109	*e*Pg	Pn	13 43 45.5	+2.1
KARN				*e*Sg	Sn	13 44 02.0	+3.0
ITM	Ithomi	1.44	342	⇓*i*P	Pn	13 43 48.8	+2.6
ITM	Ithomi	1.44	342	*e*Pn	Pn	13 43 48.9	+2.7
ITM				*e*Sg	Sn	13 44 07.2	+3.2
VAM	Vamos	1.45	106	⇓*i*P	Pn	13 43 48.1	+1.7
VAM				*e*S	Sn	13 44 07.0	+2.7
GVD	Gavdhos	1.63	126	*e*P	Pn	13 43 49.5	+0.7
IDI	Anoyia	2.03	104	P	Pn	13 43 55.4	+1.1
	198nm,0.3s,baz=271,slow=14,SNR=370						
IDI				S	Sn	13 44 20.0	+1.6
	9μm,0.3s,baz=320,slow=16,SNR=47						
MGER	Gerania Oros	2.26	16	*e*P	Pn	13 43 58.0	+0.6
MGER	Gerania Oros	2.26	16	*e*P	Pn	13 43 57.5	+0.1
KVR	Kavouri	2.26	27	*e*P	Pn	13 43 59.8	+2.4
ATH	Athens Observa	2.37	24	⇓*i*P	Pn	13 44 01.3	+2.3
ATH				*e*S	Sn	13 44 27.9	+1.1
RLS	Riolos of Patr	2.39	340	⇓*i*P	Pn	13 44 02.4	+3.2
RLS				*e*S	Sn	13 44 30.6	+3.4
SANT	Santorini	2.47	76	P	Pn	13 44 01.5	+1.2
SANT	Santorini	2.47	76	*e*Pn	Pn	13 44 01.5	+1.2
SANT	Santorini	2.47	76	*e*Pn	Pn	13 44 01.5	+1.2
PTL	Penteli	2.49	26	*e*P	Pn	13 44 02.5	+1.9
NPS	Neapolis	2.61	101	⇓*i*P	Pn	13 44 03.2	+1.1
NPS				*e*S	Sn	13 44 32.9	+0.3
APE	Apeiranthos	2.76	62	*e*Pn	Pn	13 44 05.6	+1.4
APE				*e*Sn	Sn	13 44 36.0	-0.3
APE	Apeiranthos	2.76	62	⇑*i*P	Pn	13 44 05.6	+1.4
APE				*e*S	Sn	13 44 36.3	0.0
APE	Apeiranthos	2.76	62	*e*Pn	Pn	13 44 05.6	+1.4
APE				*e*Sn	Sn	13 44 36.0	-0.3
XRY	Khrisi	2.78	109	*e*P	Pn	13 44 05.0	+0.4
VLS	Valsamata	2.81	328	⇓*i*P	Pn	13 44 06.6	+1.7
LKR	Lokris	2.87	8	⇑*i*P	Pn	13 44 07.9	+2.2
LKR				*e*S	Sn	13 44 39.7	+0.8
EVR	Evrytania	3.15	350	⇑*i*P	Pn	13 44 13.1	+3.5
AGG	Agios Georgios	3.21	358	*e*Pn	Pn	13 44 12.8	+2.4
AGG	Agios Georgios	3.21	358	*e*Pn	Pn	13 44 12.8	+2.4
LKD	Levkas	3.24	334	P	Pn	13 44 13.3	+2.4
LKD	Levkas	3.24	334	*e*Pn	Pn	13 44 13.3	+2.4
LKD	Levkas	3.24	334	*e*Pn	Pn	13 44 13.3	+2.5
AOS	Alonnisos	3.53	18	P	Pn	13 44 16.8	+2.0
AOS	Alonnisos	3.53	18	*e*Pn	Pn	13 44 16.8	+2.0
AOS	Alonnisos	3.53	18	*e*Pn	Pn	13 44 16.8	+2.0
NEO	Neokhori	3.54	9	⇑*i*P	Pn	13 44 17.0	+2.1
XOR	Xorichti	3.59	9	P	Pn	13 44 18.0	+2.3
XOR	Xorichti	3.59	9	*e*Pn	Pn	13 44 18.0	+2.3
XOR	Xorichti	3.59	9	*e*Pn	Pn	13 44 18.0	+2.3
THL	Klokotos Trika	3.77	354	⇓*i*P	Pn	13 44 20.6	+2.6
KARP	Karpathos	3.81	93	⇓*i*P	Pn	13 44 18.9	+0.2
CHOS	Chios island	3.84	47	*e*Pn	Pn	13 44 20.9	+1.8
CHOS	Chios island	3.84	47	*e*Pn	Pn	13 44 20.9	+1.8
LTBQ	Tobruq	3.93	162	S	Sn	13 45 00.3	-4.8
	9μm,0.5s,SNR=1.0						
SMG	Samos	3.97	60	⇑*i*P	Pn	13 44 22.6	+1.7
JAN	Janina	4.05	342	⇓*i*P	Pn	13 44 24.4	+2.4
JAN				*e*S	Sn	13 45 09.1	+1.0
BODT	Bodrum	4.08	71	*i* P	Pn	13 44 24.2	+1.8
MEV	Metsovon	4.09	346	P	Pn	13 44 25.6	+3.1
MEV	Metsovon	4.09	346	*e*Pn	Pn	13 44 25.6	+3.1
MEV	Metsovon	4.09	346	*e*Pn	Pn	13 44 25.6	+3.1
DAT	Datca	4.21	76	*i* P	Pn	13 44 25.4	+1.2
PAIG	Paliouri	4.22	13	*e*Pn	Pn	13 44 26.2	+2.0
PAIG	Paliouri	4.22	13	*e*Pn	Pn	13 44 26.2	+2.0
LIT	Litokhoron	4.28	0	*e*Pn	Pn	13 44 27.3	+2.2
LIT	Litokhoron	4.28	0	*e*Pn	Pn	13 44 27.3	+2.2
KEK	Kerkira	4.44	332	⇓*i*P	Pn	13 44 28.1	+0.8
KEK	Kerkira	4.44	332	*e*Pn	Pn	13 44 28.3	+1.0
BLCB	Balcova	4.46	53	*i* P	Pn	13 44 28.8	+1.3
BLCB	Balcova	4.46	53	*e*Pn	Pn	13 44 28.9	+1.4
BLCB	Balcova	4.46	53	*e*Pn	Pn	13 44 28.9	+1.4
MLSB	Milas	4.51	69	*i* P	Pn	13 44 30.1	+1.9
SRN	Sarande	4.51	335	*i* PN	Pn	13 44 29.2	+0.9
SRN				*i* SN	Sn	13 45 18.5	-1.0
KZN	Kozani	4.53	353	*i* P	Pn	13 44 30.7	+2.3
KZN				*e*S	Sn	13 45 19.8	+0.1
PRK	Paraskevi	4.56	40	⇑*i*P	Pn	13 44 30.1	+1.2
ARG	Arkhangelos	4.59	83	⇑*i*P	Pn	13 44 30.6	+1.3
ARG				*e*S	Sn	13 45 19.3	-2.0
ARG	Arkhangelos	4.59	83	*e*Pn	Pn	13 44 30.6	+1.3
ARG				*e*S	Sn	13 45 19.3	-2.0
LOS	Limnos	4.60	26	P	Pn	13 44 30.9	+1.5
LOS	Limnos	4.60	26	*e*Pn	Pn	13 44 30.9	+1.5
LOS	Limnos	4.60	26	*e*Pn	Pn	13 44 30.9	+1.4
LIA	Limnos Island	4.61	27	⇓*i*P	Pn	13 44 32.3	+2.8
IZM	Izmir	4.61	54	*i* P	Pn	13 44 32.1	+2.5
PLG	Polygyros	4.62	9	*e*Pn	Pn	13 44 31.5	+1.8
PLG	Polygyros	4.62	9	⇑*i*P	Pn	13 44 31.6	+1.9
PLG	Polygyros	4.62	9	*e*Pn	Pn	13 44 31.5	+1.8
HORT	Hortiatis	4.80	6	P	Pn	13 44 34.0	+1.7
HORT	Hortiatis	4.80	6	*e*Pn	Pn	13 44 34.0	+1.7
HORT	Hortiatis	4.80	6	*e*Pn	Pn	13 44 34.0	+1.7
THE	Thessaloniki	4.83	4	*e*Pn	Pn	13 44 34.0	+1.4
THE	Thessaloniki	4.83	4	*e*Pn	Pn	13 44 34.0	+1.4
YER	Yerkesik	4.86	72	*i* P	Pn	13 44 35.6	+2.7
KBN	Korca	4.99	345	*i* PN	Pn	13 44 37.4	+2.6
KBN				*i* SN	Sn	13 45 31.7	+0.6
EZN	Ezine	5.03	36	P	Pn	13 44 36.3	+0.9
FNA	Florina	5.04	350	*e*Pn	Pn	13 44 37.3	+1.8
FNA	Florina	5.04	350	*e*Pn	Pn	13 44 37.3	+1.8
SOH	Sokhos	5.05	7	*e*Pn	Pn	13 44 38.3	+2.7
SOH	Sokhos	5.05	7	*e*Pn	Pn	13 44 38.3	+2.7
DALT	Dalyan (Mudla)	5.06	77	P	Pn	13 44 37.7	+1.9
GADA	Gvkgeada	5.14	31	P	Pn	13 44 37.9	+1.1
GRG	Griva	5.14	359	*e*Pn	Pn	13 44 38.7	+1.9
GRG	Griva	5.14	359	*e*Pn	Pn	13 44 38.7	+1.9
AKS	Akhisar	5.23	53	P	Pn	13 44 39.8	+1.7
BIA	Bitola	5.28	350	P	Pn	13 44 40.5	+1.7
BIA	Bitola	5.28	350	*e*Pn	Pn	13 44 40.5	+1.7
BIA	Bitola	5.28	350	⇓*i*Pn	Pn	13 44 40.0	+1.3
BIA				*i* Sg	Sn	13 45 37.5	-0.8
BIA				*i* Sg	Sn	13 45 37.7	-0.6
BIA	Bitola	5.28	350	*e*Pn	Pn	13 44 40.5	+1.7
KNT	Kendrikon	5.35	3	*e*Pn	Pn	13 44 42.4	+2.7
KNT	Kendrikon	5.35	3	*e*Pn	Pn	13 44 42.4	+2.6
SRS	Serrai	5.37	9	*e*Pn	Pn	13 44 41.8	+1.8
SRS	Serrai	5.37	9	*e*Pn	Pn	13 44 41.8	+1.8
FETY	Fethiye	5.40	79	P	Pn	13 44 41.5	+1.1
OHR	Ohrid	5.46	346	*e*Pn	Pn	13 44 42.8	+1.6
OHR	Ohrid	5.46	346	⇓*i*Pn	Pn	13 44 42.2	+1.0
OHR				*i* Sg	Sn	13 45 41.1	-1.5
OHR				*i* Sg	Sn	13 45 41.1	-1.5
OHR	Ohrid	5.46	346	*e*Pn	Pn	13 44 42.8	+1.6
VAY	Valandovo	5.50	1	*e*Pn	Pn	13 44 43.3	+1.5
VAY	Valandovo	5.50	1	⇓*i*Pn	Pn	13 44 42.8	+1.0
VAY				*i* Sg	Sn	13 45 41.2	-2.6
VAY				*i* Sg	Sn	13 45 43.3	-0.5
VAY	Valandovo	5.50	1	*e*Pn	Pn	13 44 43.3	+1.5
DENT	Denizli	5.60	68	P	Pn	13 44 45.8	+2.6
SOI	Samo	5.62	296	*i* P	Pn	13 44 43.6	+0.1
SOI				pmax	pmax		
	comp=Z,1μm,0.7s						
SOI	Samo	5.62	296	*i* P	Pn	13 44 43.6	+0.1
	comp=Z,1μm,0.7s						
KRUS	Krusevo	5.63	350	⇓*i*Pn	Pn	13 44 45.3	+1.7
KRUS				*i* Sg	Sn	13 45 45.4	-1.6
NVR	Nevrokopi	5.64	11	⇑*i*P	Pn	13 44 45.2	+1.6
TIP	Timpagrande	5.66	308	*e*Pn	Pn	13 44 44.1	+0.1
TIP				*e*Sn	Sn	13 45 32.8	-15
TIP	Timpagrande	5.66	308	*e*Pn	Pn	13 44 44.1	+0.1
TIP				*e*Sn	Sn	13 45 32.8	-15
LCI	Lecce	5.68	324	*e*P	Pn	13 44 44.5	+0.2
GRI	Girifalco	5.69	304	Pn	Pn	13 44 44.6	+0.2
	comp=Z,1μm,0.5s						
GRI	Girifalco	5.69	304	P	Pn	13 44 44.6	+0.2
GRI				pmax	pmax		
	comp=Z,1μm,0.5s						
GRI	Girifalco	5.69	304	Pn	Pn	13 44 44.6	+0.2
	comp=Z,1μm,0.5s						
ENEZ	Enez	5.70	29	P	Pn	13 44 45.5	+0.9
ALN	Alexandroupoli	5.80	28	*e*Pn	Pn	13 44 47.3	+1.4
ALN	Alexandroupoli	5.80	28	*e*Pn	Pn	13 44 47.3	+1.4
RDO	Rodhopi	5.84	23	⇑*i*P	Pn	13 44 47.8	+1.3
RDO	Rodhopi	5.84	23	*e*Pn	Pn	13 44 47.8	+1.3
MTTG	Motta San Giov	5.87	294	*i* Pnr	Pn	13 44 46.9	+0.1
	comp=Z,2μm,0.5s						
STIP	Stip	5.88	358	*e*Pn	Pn	13 44 49.6	+2.6
STIP	Stip	5.88	358	⇓*i*Pn	Pn	13 44 48.7	+1.7
STIP				*i* Sg	Sn	13 45 52.3	-0.7
STIP				*i* Sg	Sn	13 45 53.1	+0.1
STIP	Stip	5.88	358	*e*Pn	Pn	13 44 49.6	+2.6
TIR	Tirane	5.90	340	*e*Pn	Pn	13 44 48.9	+1.7
TIR	Tirane	5.90	340	*i* PN	Pn	13 44 48.7	+1.5
TIR	Tirane	5.90	340	*e*Pn	Pn	13 44 48.9	+1.7
SCLL	Scilla	5.94	296	*i* Pnr	Pn	13 44 47.8	-0.1
AGST	Augusta-Monte	6.02	286	Pn	Pn	13 44 47.4	-1.5
AGST	Augusta-Monte	6.02	286	Pn	Pn	13 44 47.4	-1.5
MSI	Messina ING	6.04	295	Pn	Pn	13 44 49.5	+0.3
MSI	Messina ING	6.04	295	Pn	Pn	13 44 49.5	+0.3
HAVL	Avola	6.05	283	*e*Pnr	Pn	13 44 48.2	-1.1
	comp=Z,2μm,0.2s						
ELL	Elmali	6.07	79	P	Pn	13 44 50.8	+1.2
HMAT	Matruh	6.08	139	⇓P	Pn	13 44 49.0	-0.7
RKY	Sarkoy-Tekirda	6.11	36	P	Pn	13 44 51.6	+1.4
RZN	Rozhen	6.12	16	P	Pn	13 44 51.8	+1.5
SSY	Sortino	6.12	285	Pn	Pn	13 44 48.7	-1.6
	comp=Z,2μm,0.7s						
SSY	Sortino	6.12	285	Pn	Pn	13 44 48.7	-1.6
	comp=Z,2μm,0.7s						
KHL	Karahalli	6.16	64	P	Pn	13 44 54.0	+3.1
TDS	Terranova Siba	6.21	310	Pn	Pn	13 44 52.8	+1.3
TDS	Terranova Siba	6.21	310	Pn	Pn	13 44 52.8	+1.3
SKO	Skopje	6.21	353	*e*Pn	Pn	13 44 53.5	+2.0
SKO	Skopje	6.21	353	⇓*i*Pn	Pn	13 44 53.1	+1.6
SKO				*i* Sg	Sn	13 45 58.0	-3.1
SKO				*i* Sg	Sn	13 45 58.8	-2.3
SKO	Skopje	6.21	353	*e*Pn	Pn	13 44 53.5	+2.0
MFT	Murefte	6.24	36	P	Pn	13 44 53.1	+1.3
BNT	Bandirma	6.24	42	P	Pn	13 44 53.8	+1.9
MRMT	Marmara Adasi	6.25	39	P	Pn	13 44 53.0	+0.9
KDZ	Kurdzhali	6.26	21	P	Pn	13 44 52.6	+0.3
HMDC	Modica	6.32	283	*e*Pnr	Pn	13 44 52.0	-1.0
	comp=Z,33μm,0.9s						
ORI	Oriolo Calabro	6.39	313	*e*P	Pn	13 44 54.5	+0.6
ORI				pmax	pmax		
	comp=Z,5μm,0.4s						
ORI	Oriolo Calabro	6.39	313	*e*P	Pn	13 44 54.5	+0.6
	comp=Z,5μm,0.4s						
HVZN	Vizzini	6.41	285	*e*Pnr	Pn	13 44 53.0	-1.2
	comp=Z,2μm,0.6s						
KCT	Karacabey	6.42	44	P	Pn	13 44 57.2	+2.8
WDD	Wield Dalam	6.47	273	P	Pn	13 44 53.6	-1.5
PLD	Plovdiv	6.52	15	*e*Pn	Pn	13 44 57.7	+1.9
PLD	Plovdiv	6.52	15	*e*Pn	Pn	13 44 57.7	+2.0
ULC	Ulcinj	6.64	339	⇓*i*Pn	Pn	13 44 57.0	-0.4
ULC				*e*Sn	Sn	13 46 07.1	-4.6
ULC	Ulcinj	6.64	339	⇓*i*Pn	Pn	13 44 57.0	-0.4
ULC				*e*Sn	Sn	13 46 07.1	-4.6
ULC	Ulcinj	6.64	339	⇓*i*Pn	Pn	13 44 57.0	-0.4
ULC				*e*Sn	Sn	13 46 07.1	-4.6
DIM	Dimitrovgrad	6.67	20	P	Pn	13 44 58.9	+1.1
ANTB	Antalya	6.68	78	P	Pn	13 44 60.0	+2.0
VAE	Valguarnera	6.70	287	P	Pn	13 44 59.1	+0.8
	comp=Z,78nm,0.3s,baz=349,slow=2.5,SNR=85						
VAE				S	Sn	13 46 07.6	-5.7
	comp=Z,491nm,0.3s,baz=315,slow=3.9,SNR=12						
ISP	Isparta	6.75	70	*e*Pn	Pn	13 45 01.0	+2.1
	comp=Z,1μm,0.6s						
ISP	Isparta	6.75	70	*e*P	Pn	13 45 01.0	+2.1
ISP				pmax	pmax		
	comp=Z,1μm,0.6s						
ISP	Isparta	6.75	70	*e*Pn	Pn	13 45 01.0	+2.1
	comp=Z,1μm,0.6s						
VTS	Vitosha	6.80	5	*e*Pn	Pn	13 45 01.7	+2.1
VTS	Vitosha	6.80	5	⇓*i*P	Pn	13 45 01.6	+2.1
VTS	Vitosha	6.80	5	*e*Pn	Pn	13 45 01.7	+2.2
PGB	Panagyurishte	6.86	10	P	Pn	13 45 03.0	+2.6
ALT	Altintas	6.88	60	P	Pn	13 45 04.0	+3.4
EDRB	Edirne	6.88	28	P	Pn	13 45 01.7	+1.0
MGR	Morigerati	6.97	310	*e*Pnr	Pn	13 45 02.0	0.0
	comp=Z,3μm,0.5s						
SHUT	Suhut-Afyon	7.00	65	P	Pn	13 45 05.3	+3.0
GEMT	Gemlik	7.01	47	P	Pn	13 45 04.6	+2.0
BARS	Barje	7.02	356	*i* Pn	Pn	13 45 03.9	+1.3
BARS				*e*Sn	Sn	13 46 18.6	-2.4
BARS	Barje	7.02	356	P	Pn	13 45 04.8	+2.2
PVY	Plav	7.05	345	⇓*i*Pn	Pn	13 45 04.0	+1.0
PVY				*e*Sn	Sn	13 46 19.3	-2.5
PVY	Plav	7.05	345	⇓*i*Pn	Pn	13 45 04.0	+1.0
PVY				*e*Sn	Sn	13 46 19.3	-2.5
PVY	Plav	7.05	345	⇓*i*Pn	Pn	13 45 04.0	+1.0
PVY				*e*Sn	Sn	13 46 19.3	-2.5
BUM	Brajici-Budva	7.06	338	⇓*i*Pn	Pn	13 45 02.5	-0.6
BUM				*e*Sn	Sn	13 46 16.8	-5.1
BUM	Brajici-Budva	7.06	338	⇓*i*Pn	Pn	13 45 02.5	-0.6
BUM				*e*Sn	Sn	13 46 16.8	-5.1
BUM	Brajici-Budva	7.06	338	⇓*i*Pn	Pn	13 45 02.5	-0.6
BUM				*e*Sn	Sn	13 46 16.8	-5.1
PDG	Podgorica	7.07	340	⇓*i*Pn	Pn	13 45 02.7	-0.6
PDG				*e*Sn	Sn	13 46 18.4	-3.8
TTG	Podgorica	7.07	340	⇓*i*Pn	Pn	13 45 02.7	-0.6
TTG				*e*Sn	Sn	13 46 18.4	-3.8
TTG	Podgorica	7.07	340	⇓*i*Pn	Pn	13 45 02.7	-0.6
TTG				*e*Sn	Sn	13 46 18.4	-3.8
TTG	Podgorica	7.07	340	⇓*i*Pn	Pn	13 45 02.7	-0.6
TTG				*e*Sn	Sn	13 46 18.4	-3.8
CTT	Catalca	7.08	39	P	Pn	13 45 05.4	+2.0
CSLB	Castelbuono	7.08	290	Pn	Pn	13 45 03.6	+0.1
	comp=Z,2μm,0.8s						
CSLB	Castelbuono	7.08	290	Pn	Pn	13 45 03.6	+0.1
	comp=Z,2μm,0.8s						
GIB	Gibilmanna	7.12	290	Pn	Pn	13 45 04.3	+0.3
GIB	Gibilmanna	7.12	290	Pn	Pn	13 45 04.3	+0.3
IZI	Iznik	7.13	49	P	Pn	13 45 06.6	+2.5
YLV	Yalova	7.21	47	P	Pn	13 45 06.9	+1.7
FAVR	Favara	7.25	284	Pn	Pn	13 45 06.9	+1.1
	comp=Z,1μm,0.5s						
FAVR	Favara	7.25	284	Pn	Pn	13 45 06.9	+1.1
	comp=Z,1μm,0.5s						
HCY	Herceg Novi	7.32	336	⇓*i*Pn	Pn	13 45 05.3	-1.4
HCY				*e*Sn	Sn	13 46 22.6	-5.7
HCY	Herceg Novi	7.32	336	⇓*i*Pn	Pn	13 45 05.3	-1.4
HCY				*e*Sn	Sn	13 46 22.6	-5.7
HCY	Herceg Novi	7.32	336	⇓*i*Pn	Pn	13 45 05.3	-1.4
HCY				*e*Sn	Sn	13 46 22.6	-5.7
BEY	Berane	7.33	345	⇓*i*Pn	Pn	13 45 07.4	+0.5
BEY				*e*Sn	Sn	13 46 25.7	-2.9
IVA	Berane	7.33	345	⇓*i*Pn	Pn	13 45 07.4	+0.5
IVA				*e*Sn	Sn	13 46 25.7	-2.9
IVA	Berane	7.33	345	⇓*i*Pn	Pn	13 45 07.4	+0.5
IVA				*e*Sn	Sn	13 46 25.7	-2.9
IVA	Berane	7.33	345	⇓*i*Pn	Pn	13 45 07.4	+0.5
IVA				*e*Sn	Sn	13 46 25.7	-2.9
ADVT	Abdulvahap	7.35	49	P	Pn	13 45 09.6	+2.5
ISK	Istanbul-Kandi	7.36	43	P	Pn	13 45 07.9	+0.7
ISK	Istanbul-Kandi	7.36	43	*e*Pn	Pn	13 45 08.8	+1.5
ISK	Istanbul-Kandi	7.36	43	*e*Pn	Pn	13 45 08.8	+1.6
JMB	Yambol	7.37	24	*e*Pn	Pn	13 45 08.6	+1.2
JMB	Yambol	7.37	24	*e*Pn	Pn	13 45 08.6	+1.2
SGO	Sicignano	7.38	312	*e*P	Pn	13 45 07.8	+0.3
MRLC	Muro Lucano	7.39	314	*e*Pnr	Pn	13 45 08.2	+0.5
	comp=Z,1μm,0.4s						

KLYT	Kilyos	7.48	41	P	Pn	13 45 09.9	+1.1
NKY	Niksic	7.50	340	⇓iPn	Pn	13 45 08.4	-0.7
NKY				eSn	Sn	13 46 28.5	-4.2
NKY	Niksic	7.50	340	⇓iPn	Pn	13 45 08.4	-0.7
NKY				eSn	Sn	13 46 28.5	-4.2
NKY	Niksic	7.50	340	⇓iPn	Pn	13 45 08.4	-0.7
NKY				eSn	Sn	13 46 28.5	-4.2
HRT	Hereke	7.54	46	P	Pn	13 45 11.9	+2.2
ESKT	Eskisehir	7.60	58	P	Pn	13 45 13.7	+3.2
GPA	Golpazari	7.62	52	P	Pn	13 45 14.1	+3.2
FG4	Candela	7.62	316	Pn	Pn	13 45 11.1	+0.2
FG4	Candela	7.62	316	Pn	Pn	13 45 11.1	+0.2
CLTB	Caltabellotta	7.66	286	P	Pn	13 45 11.4	+0.1
SJES	Sjenica	7.70	346	i Pn	Pn	13 45 11.5	-0.5
SJES				eSn	Sn	13 46 31.8	-6.0
BRY	Bratogost	7.71	338	⇓iPn	Pn	13 45 10.9	-1.2
BRY				eSn	Sn	13 46 32.4	-5.5
BRY	Bratogost	7.71	338	⇓iPn	Pn	13 45 10.9	-1.2
BRY				eSn	Sn	13 46 32.4	-5.5
BRY	Bratogost	7.71	338	⇓iPn	Pn	13 45 10.9	-1.2
BRY				eSn	Sn	13 46 32.4	-5.5
CSSN	Cassano Irpino	7.73	313	i Pnr	Pn	13 45 12.9	+0.5
FGMS	Monte Sant'Ang	7.79	321	i Pnu	Pn	13 45 12.6	-0.6
GULT	Gulveren	7.83	51	P	Pn	13 45 16.7	+3.0
FG5	Orsara di Pugl	7.86	316	i P	Pn	13 45 14.9	+0.7
FG5				pmax	pmax		
	comp=Z,744nm,0.4s						
FG5	Orsara di Pugl	7.86	316	i P	Pn	13 45 14.9	+0.7
	comp=Z,744nm,0.4s						
PLE	Pljevlja	7.88	343	⇓iPn	Pn	13 45 14.6	+0.2
PLE				eSn	Sn	13 46 38.0	-4.1
PLE	Pljevlja	7.88	343	⇓iPn	Pn	13 45 14.6	+0.2
PLE				eSn	Sn	13 46 38.0	-4.1
PLE	Pljevlja	7.88	343	⇓iPn	Pn	13 45 14.6	+0.2
PLE				eSn	Sn	13 46 38.0	-4.1
UPM	Unac-Piva	7.88	341	⇓iPn	Pn	13 45 14.2	-0.2
UPM				eSn	Sn	13 46 37.9	-4.3
UPM	Unac-Piva	7.88	341	⇓iPn	Pn	13 45 14.2	-0.2
UPM				eSn	Sn	13 46 37.9	-4.3
UPM	Unac-Piva	7.88	341	⇓iPn	Pn	13 45 14.2	-0.2
UPM				eSn	Sn	13 46 37.9	-4.3
SZH	Strazhica	7.91	19	P	Pn	13 45 16.1	+1.3
RGNG	Rignano Grg	7.96	319	i Pnr	Pn	13 45 15.0	-0.5
USI	Ustica	7.96	294	i Pnr	Pn	13 45 14.5	-1.1
	comp=Z,1µm,0.5s						
STON	Ston	7.97	334	P	Pn	13 45 15.9	+0.3
KIZT	Kizilcal	8.08	65	P	Pn	13 45 20.8	+3.6
PSB1	Pescosannita	8.09	314	i Pnr	Pn	13 45 17.8	+0.6
	comp=Z,2µm,1.0s						
PPCY	Paphos	8.11	94	P	Pn	13 45 14.6	-3.0
GRUS	Gruza	8.18	351	i Pn	Pn	13 45 17.6	-0.9
GRUS				eSn	Sn	13 46 43.7	-5.8
KONT	Konya--Tatoy	8.20	72	P	Pn	13 45 20.0	+1.2
ERC	Erice	8.23	289	Pn	Pn	13 45 19.8	+0.5
	comp=Z,1µm,0.7s						
ERC	Erice	8.23	289	Pn	Pn	13 45 19.8	+0.5
	comp=Z,1µm,0.7s						
ALFC	Alevga	8.28	92	P	Pn	13 45 17.0	-2.8
	comp=Z,62nm,0.2s						
ALFC				S	Sn	13 46 43.6	-8.3
FG2	Serracapriola	8.28	319	Pn	Pn	13 45 19.8	0.0
	comp=Z,2µm,0.3s						
FG2	Serracapriola	8.28	319	Pn	Pn	13 45 19.8	0.0
	comp=Z,2µm,0.3s						
MDU	Mudurnu	8.30	53	P	Pn	13 45 22.6	+2.5
BBLS	Bajina Basta -	8.39	345	i Pn	Pn	13 45 21.0	-0.3
BBLS				eSn	Sn	13 46 48.7	-5.9
DIVS	Divcibare	8.50	348	ePn	Pn	13 45 22.0	-0.8
DIVS	Divcibare	8.50	348	i Pn	Pn	13 45 21.9	-0.9
DIVS				eSn	Sn	13 46 49.5	-7.7
DIVS	Divcibare	8.50	348	ePn	Pn	13 45 22.0	-0.8
PTS	Pantelleria	8.53	280	Pn	Pn	13 45 22.3	-1.0
	comp=Z,188nm,0.4s						
PTS	Pantelleria	8.53	280	P	Pn	13 45 22.3	-1.0
PTS				pmax	pmax		
	comp=Z,189nm,0.4s						
PTS	Pantelleria	8.53	280	Pn	Pn	13 45 22.3	-1.0
	comp=Z,188nm,0.4s						
SVIS	Svilajnac	8.53	354	i Pn	Pn	13 45 21.7	-1.6
SVIS				eSn	Sn	13 46 51.5	-6.6
SZAC	Souni-Zanaja	8.57	94	P	Pn	13 45 20.8	-3.0
SZAC				S	Sn	13 46 51.2	-7.8
RFI	Roccamonfina	8.62	312	Pn	Pn	13 45 24.8	+0.2
	comp=Z,9.4nm,0.3s						
RFI	Roccamonfina	8.62	312	Pn	Pn	13 45 24.8	+0.2
	comp=Z,9.4nm,0.3s						
MIDA	Miranda	8.68	315	ePnr	Pn	13 45 25.6	+0.3
	comp=Z,1µm,0.8s						
MAMC	Mammari	8.78	91	P	Pn	13 45 23.3	-3.4
DJES	Djerdap	8.81	0	i Pn	Pn	13 45 27.8	+0.6
DJES				eSn	Sn	13 47 01.9	-3.1
CSS	Prodhromos	8.90	92	P	Pn	13 45 25.1	-3.2
	comp=Z,32nm,0.5s						
CSS				S	Sn	13 46 59.4	-7.7
CSS	Prodhromos	8.90	92	ePn	Pn	13 45 25.3	-3.1
	comp=Z,153nm,0.6s						
CSS				eSn	Sn	13 46 50.6	-16
CSS	Prodhromos	8.90	92	ePn	Pn	13 45 25.3	-3.0
	comp=Z,153nm,0.6s						
CSS				eSn	Sn	13 46 50.6	-17
CSS				S	Sn	13 46 59.4	-7.7
KDZE	Karadeniz Ereo	8.91	49	P	Pn	13 45 29.7	+1.3
IKL	Isikli	9.08	84	P	Pn	13 45 29.6	-1.3
LOD	Lodumlu	9.09	60	P	Pn	13 45 34.2	+3.3
ANTO	Ankara	9.10	60	P	Pn	13 45 33.4	+2.3
ANTO	Ankara	9.10	60	ePn	Pn	13 45 34.5	+3.3
	comp=Z,161nm,0.6s						
ANTO	Ankara	9.10	60	eP	Pn	13 45 34.5	+3.4
ANTO				pmax	pmax		
	comp=Z,161nm,0.6s						
ANTO	Ankara	9.10	60	⇑iP	Pn	13 45 34.5	+3.4
ANTO	Ankara	9.10	60	ePn	Pn	13 45 34.5	+3.4
	comp=Z,161nm,0.6s						
ANTO	Ankara	9.10	60	P	Pn	13 45 35.0	+3.9
	SNR=47						
BEO	Belgrade	9.13	351	i Pn	Pn	13 45 29.3	-2.2
BEO				eSn	Sn	13 47 04.0	-8.8
GUAR	Guarcino	9.32	313	i Pnr	Pn	13 45 33.8	-0.3
	comp=Z,388nm,0.6s						
FYM	Al Fayyum	9.44	128	P	Pn	13 45 33.5	-2.3
PHNC	Paralimni	9.46	92	P	Pn	13 45 33.7	-2.4
PHNC				S	Sn	13 47 15.4	-5.5
AYT	Al 'Ayyat	9.50	127	P	Pn	13 45 34.0	-2.7
FGSL	Fruska Gora	9.56	349	i P	Pn	13 45 36.0	-1.3
GZR	Gura Zlata	9.58	1	P	Pn	13 45 38.0	+0.4
GZR	Gura Zlata	9.58	1	⇑iP	Pn	13 45 38.5	+0.9
AQU	L'Aquila	9.62	316	ePn	Pn	13 45 38.8	+0.6
AQU	L'Aquila	9.62	316	⇓iP	Pn	13 45 39.0	+0.8
AQU	L'Aquila	9.62	316	ePn	Pn	13 45 38.8	+0.6
BR131	Keskin Array S	9.65	63	ePn	Pn	13 45 41.7	+3.0
BR131	Keskin Array S	9.65	63	ePn	Pn	13 45 41.7	+3.0
BRTR	Keskin Array B	9.65	63	P	Pn	13 45 40.9	+2.2
	comp=Z,24nm,0.3s,baz=238,slow=11,SNR=403						
TIRR	Tirgusor	9.75	26	⇓P	Pn	13 45 40.5	+0.5
TIRR	Tirgusor	9.75	26	⇓iP	Pn	13 45 40.5	+0.5
VOIR		9.81	11	⇓P	Pn	13 45 42.1	+1.3
VOIR		9.81	11	⇓iP	Pn	13 45 42.1	+1.3
BZS	Buzias	9.82	356	P	Pn	13 45 40.9	0.0
BZS	Buzias	9.82	356	⇑iP	Pn	13 45 40.0	-0.9
BZS	Buzias	9.82	356	P	Pn	13 45 40.9	0.0
GLL	Jalalah	9.95	126	⇓P	Pn	13 45 39.6	-3.1
HHAG	Hagoal	9.97	123	P	Pn	13 45 40.3	-2.7
NIG	Nigde	9.97	73	P	Pn	13 45 44.4	+1.4
CANT	Cankiri	9.98	58	P	Pn	13 45 45.9	+2.8
MLR	Muntele Rosu	10.02	14	P	Pn	13 45 44.9	+1.3
MLR	Muntele Rosu	10.02	14	P	Pn	13 45 44.5	+0.9
MLR				S	Sn	13 47 38.5	+4.0
MLR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MLR	Muntele Rosu	10.02	14	P	Pn	13 45 44.5	+0.8
	comp=Z,1.3nm,0.3s,baz=208,slow=4.9,SNR=32						
MLR				S	Sn	13 47 38.5	+4.0
	baz=216,slow=8.9,SNR=2.1						
MLR	Muntele Rosu	10.02	14	⇓iP	Pn	13 45 45.0	+1.4
MLR	Muntele Rosu	10.02	14	P	Pn	13 45 44.9	+1.3
MLR				S	Sn	13 47 38.5	+4.0
HBNS	Bani Suwayf	10.05	130	⇓P	Pn	13 45 41.6	-2.6
KARA	Karaisali	10.22	78	P	Pn	13 45 46.4	0.0
AMAG	Maghara	10.35	117	⇓P	Pn	13 45 44.0	-4.2
TOS	Tosya	10.44	57	P	Pn	13 45 51.5	+2.1
KRTS	Karatas	10.45	82	P	Pn	13 45 47.1	-2.4
NVLJ	Novalja	10.50	329	ePn	Pn	13 45 48.3	-2.0
NVLJ				Sn	Sn	13 47 37.1	-9.2
CORM	Corum	10.53	62	P	Pn	13 45 48.2	-2.4
SUZ		10.54	121	P	Pn	13 45 47.6	-3.2
VRI	Vrincioaia	10.55	16	P	Pn	13 45 52.1	+1.3
VRI	Vrincioaia	10.55	16	⇑iP	Pn	13 45 52.4	+1.6
KEST	Kesra	10.68	273	P	Pn	13 45 52.0	-0.7
	comp=Z,2.2nm,0.3s,baz=54,slow=3.3,SNR=73						
KEST				S	Sn	13 47 41.3	-9.4
	comp=Z,3.8nm,0.3s,baz=39,slow=20,SNR=7.4						
KEST				LR	LR	13 50 33.2	
	comp=Z,501nm,19.8s,baz=23,slow=40						
ZAF		10.69	125	P	Pn	13 45 49.8	-3.2
SISC	Sisak	10.71	336	⇑iPn	Pn	13 45 49.3	-3.7
SISC				Sn	Sn	13 47 39.3	-12
CEYT	Ceyhan	10.76	80	P	Pn	13 45 51.5	-2.3
PKSM	Moragy	10.79	346	⇓iP	Pn	13 45 51.9	-2.2
PKSM	Moragy	10.79	346	P	Pn	13 45 51.7	-2.4
OFRI	'Ofer	10.82	103	Pn	Pn	13 45 51.4	-3.4
OFRI	'Ofer	10.82	103	P	Pn	13 45 50.5	-4.2
MATL	Matirih	10.83	99	eP	Pn	13 45 50.8	-4.0
KOZT	Kozan	10.85	77	P	Pn	13 45 55.0	0.0
ZNM		10.85	123	⇓P	Pn	13 45 52.1	-3.1
YOZ	Yozgat	10.86	66	P	Pn	13 45 56.1	+0.9
BZK	Bozkurt	10.87	52	P	Pn	13 45 57.5	+2.2
DRGR		10.97	1	P	Pn	13 45 57.6	+0.9
DRGR		10.97	1	⇓iP	Pn	13 45 57.8	+1.1
BHL	Bhannes	10.98	96	eP	Pn	13 45 53.5	-3.4
SLTI	Sal'it	11.01	105	P	Pn	13 45 52.8	-4.4
SLTI	Sal'it	11.01	105	Pn	Pn	13 45 52.7	-4.6
SLTI				Sn	Sn	13 47 47.0	-12
SLTI	Sal'it	11.01	105	Pn	Pn	13 45 52.7	-4.5
	SNR=1.0						
SLTI				Sn	Sn	13 47 47.0	-12
	SNR=1.0						
VSL	Villasalto	11.02	293	ePn	Pn	13 45 55.9	-1.5
VSL	Villasalto	11.02	293	ePn	Pn	13 45 55.9	-1.5
MMAI	Mount Meron Ar	11.03	101	P	Pn	13 45 53.5	-4.0
	comp=Z,36nm,0.3s,baz=299,slow=12,SNR=165						
MMAI				S	Sn	13 47 48.0	-11
	comp=Z,211nm,0.3s,baz=300,slow=18,SNR=5.5						
BNN	Bunyan	11.06	70	P	Pn	13 45 58.1	+0.2
HTY	Hatay	11.07	84	P	Pn	13 45 54.8	-3.3
KZIT	Kziot	11.09	113	Pn	Pn	13 45 54.5	-3.9
KZIT				Sn	Sn	13 47 47.4	-13
KZIT	Kziot	11.09	113	Pn	Pn	13 45 54.5	-3.9
KZIT	Kziot	11.09	113	P	Pn	13 45 56.1	-2.3
KZIT				Sn	Sn	13 47 47.4	-14
BOJS	Bojanci	11.13	333	ePn	Pn	13 45 57.2	-1.6
BOJS	Bojanci	11.13	333	ePn	Pn	13 45 57.2	-1.6
BOJS	Bojanci	11.13	333	ePn	Pn	13 45 57.2	-1.6
BYBT	Boyabat	11.14	56	P	Pn	13 46 00.8	+1.8
HWQ	Hawqa	11.14	94	eP	Pn	13 45 55.9	-3.1
KSDI	Kefar Szold	11.18	100	P	Pn	13 45 55.6	-4.0
KSDI	Kefar Szold	11.18	100	Pn	Pn	13 45 55.7	-3.9
KSDI	Kefar Szold	11.18	100	Pn	Pn	13 45 55.7	-3.9
	SNR=1.0						
RCY	Rachaya	11.22	98	eP	Pn	13 45 57.2	-3.0
MMLI	Mount Malkishu	11.23	104	P	Pn	13 45 55.9	-4.4
MMLI	Mount Malkishu	11.23	104	Pn	Pn	13 45 56.1	-4.2
MMLI				Sn	Sn	13 47 51.4	-13
MMLI	Mount Malkishu	11.23	104	Pn	Pn	13 45 56.1	-4.2
	SNR=1.0						
MMLI				Sn	Sn	13 47 51.4	-13
SVTA	Shivta	11.25	112	P	Pn	13 45 56.1	-4.4
SVTA	Shivta	11.25	112	Pn	Pn	13 45 56.3	-4.2
SVTA	Shivta	11.25	112	Pn	Pn	13 45 56.3	-4.2
HNKL	Nakhl	11.30	118	⇓P	Pn	13 45 58.0	-3.2
GCIS	Gornji Cirnik	11.30	335	i Pn	Pn	13 45 59.2	-2.0
GCIS	Gornji Cirnik	11.30	335	i Pn	Pn	13 45 59.2	-2.0
GCIS	Gornji Cirnik	11.30	335	i Pn	Pn	13 45 59.2	-2.0
MASH	Mash'abbe Sade	11.34	112	P	Pn	13 45 58.1	-3.7
MASH	Mash'abbe Sade	11.34	112	Pn	Pn	13 45 57.6	-4.2
MASH	Mash'abbe Sade	11.34	112	Pn	Pn	13 45 57.6	-4.2
	SNR=1.0						
ASUT		11.40	135	⇓P	Pn	13 46 00.3	-2.4
YTIR	Yattir	11.43	109	Pn	Pn	13 45 59.1	-3.8
YTIR	Yattir	11.43	109	Pn	Pn	13 45 59.1	-3.8
	SNR=1.0						
GOLS	Golise	11.43	335	ePn	Pn	13 46 01.0	-2.0
GOLS	Golise	11.43	335	ePn	Pn	13 46 01.0	-2.0
GOLS				eSn	Sn	13 47 58.6	-10
GOLS	Golise	11.43	335	ePn	Pn	13 46 01.0	-1.9
RMNI	Mount Ramon	11.52	113	Pn	Pn	13 46 00.4	-3.8
RMNI	Mount Ramon	11.52	113	Pn	Pn	13 46 00.4	-3.8
	SNR=1.0						
GRB	Gharib	11.52	128	P	Pn	13 46 01.0	-3.2
VISS	Visnje	11.54	332	ePn	Pn	13 46 02.8	-1.6
VISS	Visnje	11.54	332	ePn	Pn	13 46 02.8	-1.6
VISS	Visnje	11.54	332	ePn	Pn	13 46 02.8	-1.6
DRGI	Dragot	11.54	108	P	Pn	13 46 00.4	-4.1
DRGI	Dragot	11.54	108	Pn	Pn	13 46 00.5	-4.0
DRGI				Sn	Sn	13 47 59.5	-12
DRGI	Dragot	11.54	108	Pn	Pn	13 46 00.5	-4.0
	SNR=1.0						
DRGI				Sn	Sn	13 47 59.5	-12
DSI	Dead Sea	11.54	108	Pn	Pn	13 46 00.7	-3.8
DSI	Dead Sea	11.54	108	Pn	Pn	13 46 00.7	-3.8
	SNR=1.0						
HRDS	Abu Rudays	11.56	125	P	Pn	13 46 01.1	-3.7
MZDA	Masada	11.64	109	P	Pn	13 46 01.7	-4.2
MZDA	Masada	11.64	109	Pn	Pn	13 46 01.5	-4.3
MZDA				Sn	Sn	13 48 01.1	-13
MZDA	Masada	11.64	109	Pn	Pn	13 46 01.5	-4.3
	SNR=1.0						
MZDA				Sn	Sn	13 48 01.1	-13
PDKS	Podkum	11.70	333	i Pn	Pn	13 46 04.9	-1.6
PDKS	Podkum	11.70	333	i Pn	Pn	13 46 04.9	-1.6
KMRS	Kahramanmaras	11.70	77	P	Pn	13 46 06.1	-0.6
KRMI	Paran Flat	11.74	115	Pn	Pn	13 46 03.2	-4.0
KRMI	Paran Flat	11.74	115	Pn	Pn	13 46 03.2	-4.0
	SNR=1.0						
PRNI	Paran	11.82	114	P	Pn	13 46 04.6	-3.8
PRNI	Paran	11.82	114	Pn	Pn	13 46 04.2	-4.2
PRNI				Sn	Sn	13 48 05.1	-14
PRNI	Paran	11.82	114	Pn	Pn	13 46 04.2	-4.2
	SNR=1.0						
PRNI				Sn	Sn	13 48 05.1	-14
ZFRI	Zfri	11.85	113	P	Pn	13 46 04.5	-4.2
ZFRI	Zfri	11.85	113	Pn	Pn	13 46 04.3	-4.4
ZFRI	Zfri	11.85	113	Pn	Pn	13 46 04.3	-4.4
	SNR=1.0						
LJU	Ljubljana	11.86	332	ePn	Pn	13 46 06.8	-1.9
LJU				eSn	Sn	13 48 10.2	-9.2
LJU	Ljubljana	11.86	332	P	Pn	13 46 07.4	-1.3
KVT	Kavak	11.86	60	P	Pn	13 46 10.7	+1.9
OSPF	L'Ospedale	11.91	303	eP	Pn	13 46 07.8	-1.7
GAZ	Gaziantep	11.93	79	P	Pn	13 46 08.1	-1.7
BUD	Budapest	11.95	349	⇓iP	Pn	13 46 09.7	-0.2
BUD				e		13 48 12.1	
BUD	Budapest	11.95	349	P	Pn	13 46 08.4	-1.5
BURAR	Bucovina Array	11.97	9	P	Pn	13 46 11.5	+1.2
BURAR	Bucovina Array	11.97	9	⇓iP	Pn	13 46 11.7	+1.4
BURAR	Bucovina Array	11.97	9	P	Pn	13 46 11.5	+1.2
HRFI	Mount Harif	12.01	115	Pn	Pn	13 46 06.6	-4.3
HRFI	Mount Harif	12.01	115	Pn	Pn	13 46 06.6	-4.3
VOY	Vojsko	12.10	330	⇓ePn	Pn	13 46 10.3	-1.7
VOY				eSn	Sn	13 48 14.9	-10
VOY	Vojsko	12.10	330	⇓ePn	Pn	13 46 10.3	-1.7
VOY				eSn	Sn	13 48 14.9	-10
VOY	Vojsko	12.10	330	⇓ePn	Pn	13 46 10.3	-1.7
VOY				eSn	Sn	13 48 14.9	-10
KIS	Kishinev	12.14	21	⇓iP	Pn	13 46 12.0	-0.6
KIS				eS	Sn	13 48 25.0	-1.3
KIS				pmax	pmax		
	comp=N,800nm,2.5s						
KIS				pmax	pmax		
	comp=Z,580nm,2.5s						
KIS				pmax	pmax		
	comp=E,490nm,2.4s						
KIS				MLR	MLR		
	comp=Z,1µm,10.0s						
KIS				MLR	MLR		
	comp=N,1µm,12.0s						
KIS				MLR	MLR		
	comp=Z,1µm,10.0s						
KIS	Kishinev	12.14	21	i P	Pn	13 46 12.0	-0.6
KIS				eS	Sn	13 48 25.0	-1.3
	comp=Z,1µm,10.0s						
KIS	Kishinev	12.14	21	i P	Pn	13 46 12.0	-0.6
	comp=Z,800nm,2.5s						
KIS	Kishinev	12.14	21	i PP		13 46 20.0	
KIS				i pP		13 46 25.0	
KIS				eS	Sn	13 48 25.0	-1.3
KIS				i sS		13 48 50.0	
KIS				i Li		13 49 14.0	
KIS				eLg1		13 49 31.0	
KIS				eLg2		13 50 00.0	
KIS				eRg		13 50 31.0	
KIS	Kishinev	12.14	21	ePcP	PcP	13 51 50.0	-3.0
KIS				LRM		13 52 52.0	
	comp=Z,1µm,10.0s						
EIL	Elat	12.14	117	P	Pn	13 46 09.1	-3.6
	comp=Z,35nm,0.3s,baz=304,slow=7.1,SNR=338						
EIL				S	Sn	13 48 13.1	-14
	comp=Z,116nm,0.3s,baz=276,slow=18,SNR=10						
EIL	Elat	12.14	117	Pn	Pn	13 46 08.6	-4.2
EIL	Elat	12.14	117	Pn	Pn	13 46 08.6	-4.2
EIL	Elat	12.14	117	P	Pn	13 46 09.1	-3.7
EIL				S	Sn	13 48 13.1	-14
ABSA	Djebel Ababsia	12.16	277	P	Pn	13 46 14.0	+1.1
SVSK	Karacayir	12.18	66	P	Pn	13 46 13.6	+0.4
AQBJ	Aqaba	12.18	116	Pn	Pn	13 46 09.5	-3.8
CMAH	Djebel Manchou	12.20	278	P	Pn	13 46 14.0	+0.5
CGMA	Guelma	12.21	277	P	Pn	13 46 16.0	+2.4
CORF	Corte	12.22	306	eP	Pn	13 46 13.8	+0.1
OBKA	Obir	12.24	333	⇓iPn	Pn	13 46 12.1	-1.9
	SNR=58						
OBKA	Obir	12.24	333	⇓iPn	Pn	13 46 12.1	-1.9
OBKA				i Sn	Sn	13 48 19.2	-10
OBKA	Obir	12.24	333	⇓iPn	Pn	13 46 12.1	-1.9
	SNR=58						
OBKA				⇑iSn	Sn	13 48 19.2	-10
OBKA	Obir	12.24	333	⇓iPn	Pn	13 46 12.1	-1.9
OBKA				i Sn	Sn	13 48 19.2	-10
HBST	Basata	12.24	119	⇓P	Pn	13 46 10.8	-3.4
PSZ	Piszkesteto	12.25	352	ePn	Pn	13 46 13.1	-1.0
PSZ				eSn	Sn	13 48 25.4	-3.7
PSZ	Piszkesteto	12.25	352	⇓iP	Pn	13 46 13.8	-0.3
PSZ	Piszkesteto	12.25	352	⇑iP	Pn	13 46 13.2	-0.9
PSZ	Piszkesteto	12.25	352	ePn	Pn	13 46 13.2	-0.9
PSZ				eS	Sn	13 48 25.4	-3.6
DRE	Drenchia	12.31	330	⇑eP	Pn	13 46 13.0	-1.9
COLI	Coloredo	12.39	329	⇑eP	Pn	13 46 14.0	-2.0
HDHB	Dhahab	12.46	121	⇓P	Pn	13 46 13.3	-3.8
VLC	Villacollemand	12.46	316	ePn	Pn	13 46 16.7	-0.3
VLC	Villacollemand	12.46	316	ePn	Pn	13 46 17.6	+0.6
ASF	Jabal al Asfar	12.50	103	P	Pn	13 46 14.0	-3.6
	comp=Z,5.3nm,0.3s,baz=164,slow=8.6,SNR=33						
ASF				S	Sn	13 48 23.9	-11
	comp=Z,7.0nm,0.3s,baz=337,slow=14,SNR=3.5						
BAD	Bernadia	12.53	329	⇓eP	Pn	13 46 16.0	-1.9
ARSA	Arzberg	12.56	338	i Pn	Pn	13 46 16.1	-2.2
	SNR=104						
ARSA	Arzberg	12.56	338	i Pn	Pn	13 46 16.1	-2.2
ARSA				i Sn	Sn	13 48 25.2	-11
ARSA	Arzberg	12.56	338	i Pn	Pn	13 46 16.1	-2.2
	SNR=104						
ARSA				⇑iSn	Sn	13 48 25.2	-11
ARSA	Arzberg	12.56	338	ePn	Pn	13 46 16.3	-2.0
ARSA				i Sn	Sn	13 48 25.2	-11
BUA	Buia	12.56	329	⇓iP	Pn	13 46 18.0	-0.4
MPRI	Monte Prat	12.64	328	⇓eP	Pn	13 46 18.0	-1.4
CAEH	'Ain El Ouahch	12.66	279	P	Pn	13 46 20.0	+0.3
SOP	Sopron	12.66	341	i P	Pn	13 46 17.6	-2.0
SOP				eS	Sn	13 48 32.1	-6.8
SOP	Sopron	12.66	341	P	Pn	13 46 16.8	-2.8
MYKA	Terra Mystica	12.69	331	⇓iPn	Pn	13 46 18.5	-1.5
MYKA				⇓iSn	Sn	13 48 31.0	-8.6
SIM	Simferopol'	12.71	41	ceP	Pn	13 46 21.1	+0.7
SIM				eS	Sn	13 48 46.3	+6.0
SIM				pmax	pmax		
	comp=Z,165nm,0.9s						
SIM				MLR	MLR		
	comp=Z,490nm,17.0s						
SIM	Simferopol'	12.71	41	eP	Pn	13 46 21.1	+0.7
	comp=Z,165nm,0.9s						
SIM				eS	Sn	13 48 46.3	+6.0
	comp=Z,490nm,17.0s						
HHRG	Al Ghardaqah	12.75	129	⇑P	Pn	13 46 17.9	-3.1
KECS	Kecovo	12.75	354	i Pn	Pn	13 46 19.6	-1.3
KECS				eSn	Sn	13 48 33.3	-7.9
KECS	Kecovo	12.75	354	i PN	Pn	13 46 19.6	-1.3
KECS				eSN	Sn	13 48 33.3	-7.9
CKFL	Kef-Lekhel	12.77	277	P	Pn	13 46 22.0	+0.8
UZH	Uzhgorod	12.81	359	i P	Pn	13 46 21.2	-0.6
UZH	Uzhgorod	12.81	359	eP	Pn	13 46 21.0	-0.8
UZH				eS	Sn	13 48 42.2	-0.5
UZH				MLR	MLR		
	comp=Z,1µm,10.0s						
UZH	Uzhgorod	12.81	359	eP	Pn	13 46 21.0	-0.8
	comp=Z,1µm,10.0s						
UZH				eS	Sn	13 48 42.2	-0.5
PLRO	Paularo	12.82	330	⇑eP	Pn	13 46 20.0	-1.8
CASM	Ain Smara	12.96	277	P	Pn	13 46 25.0	+1.2
VYHS	Vyhne	12.96	349	i Pn	Pn	13 46 22.0	-1.7
VYHS	Vyhne	12.96	349	i PN	Pn	13 46 22.0	-1.7
VYHS	Vyhne	12.96	349	ePn	Pn	13 46 22.1	-1.6
MALT	Malatya	12.98	74	P	Pn	13 46 22.3	-1.8
MALT	Malatya	12.98	74	ePn	Pn	13 46 24.3	+0.2
MALT	Malatya	12.98	74	⇑iP	Pn	13 46 24.5	+0.4
MALT	Malatya	12.98	74	Pn	Pn	13 46 24.3	+0.2
	SNR=1.0						
MYA	Malataya	12.98	74	P	Pn	13 46 24.6	+0.5
CSMI	Casera Mimoias	13.00	328	⇓eP	Pn	13 46 25.0	+0.7
ZST	Bratislava	13.00	344	i Pn	Pn	13 46 22.7	-1.7
ZST				eSn	Sn	13 48 35.1	-12
ZST	Bratislava	13.00	344	i PN	Pn	13 46 22.7	-1.7
ZST				eSN	Sn	13 48 35.0	-12
ZST	Bratislava	13.00	344	i Pn	Pn	13 46 22.7	-1.7
ZST				eSn	Sn	13 48 35.1	-12
CTEI	Djebel Teioual	13.04	276	P	Pn	13 46 26.0	+1.1
CONA	Conrad Observa	13.07	340	⇑iPn	Pn	13 46 22.5	-2.8
	SNR=37						
CONA				⇑iSn	Sn	13 48 38.8	-10
KOLS	Kolonicke sedl	13.12	359	i Pn	Pn	13 46 26.4	+0.5
KOLS	Kolonicke sedl	13.12	359	i PN	Pn	13 46 26.4	+0.5
KOLS	Kolonicke sedl	13.12	359	i Pn	Pn	13 46 26.4	+0.5
MODS	Modra-Piesok	13.13	345	i Pn	Pn	13 46 24.6	-1.5
MODS				eSn	Sn	13 48 39.6	-11
MODS	Modra-Piesok	13.13	345	i PN	Pn	13 46 24.5	-1.6
MODS				eSN	Sn	13 48 39.6	-11
MODS	Modra-Piesok	13.13	345	i Pn	Pn	13 46 24.6	-1.5
MODS				eSn	Sn	13 48 39.6	-11
KBA	Koelnbreinsper	13.17	332	⇑iPn	Pn	13 46 25.6	-1.0
	SNR=16						
KBA	Koelnbreinsper	13.17	332	⇑iPn	Pn	13 46 25.6	-1.0
KBA				i Sn	Sn	13 48 41.8	-10
KBA	Koelnbreinsper	13.17	332	⇑iPn	Pn	13 46 25.6	-1.0
	SNR=16						
KBA				⇑iSn	Sn	13 48 41.8	-10
KBA	Koelnbreinsper	13.17	332	ePn	Pn	13 46 26.3	-0.3
KBA				i Sn	Sn	13 48 41.8	-10
URFA	Urfa	13.22	78	P	Pn	13 46 26.0	-1.5
SMOL	Smolenice	13.23	345	i Pn	Pn	13 46 25.6	-1.9
SMOL				eSn	Sn	13 48 42.3	-11
SMOL	Smolenice	13.23	345	i PN	Pn	13 46 25.6	-1.9
SMOL				eSN	Sn	13 48 42.3	-11
SMOL	Smolenice	13.23	345	i Pn	Pn	13 46 25.6	-1.9
SMOL				eSn	Sn	13 48 42.3	-11
ABTA	Abfaltersbach	13.24	329	⇓iPn	Pn	13 46 25.9	-1.7
	SNR=87						
ABTA				⇓iSn	Sn	13 48 44.8	-8.3
HSFG		13.44	130	⇓P	Pn	13 46 27.4	-3.0
DFRA	Djebel Bou Aff	13.44	278	P	Pn	13 46 28.0	-2.4
LIKS	Likavka	13.46	350	i Pn	Pn	13 46 32.8	+2.2
LIKS	Likavka	13.46	350	i PN	Pn	13 46 32.8	+2.2
LIKS	Likavka	13.46	350	i Pn	Pn	13 46 32.8	+2.2
MOA	Molln	13.49	336	i Pn	Pn	13 46 29.4	-1.6
	SNR=159						
MOA	Molln	13.49	336	i Pn	Pn	13 46 29.4	-1.6
MOA				i Sn	Sn	13 48 49.4	-10
MOA	Molln	13.49	336	i Pn	Pn	13 46 29.4	-1.6
	SNR=159						
MOA				⇑iSn	Sn	13 48 49.4	-10
MOA	Molln	13.49	336	i Pn	Pn	13 46 29.4	-1.6
MOA				i Sn	Sn	13 48 49.4	-10
JAVC	Velka Javorina	13.51	346	P	Pn	13 46 28.6	-2.7
STHS	Stebnicka Huta	13.63	357	ePn	Pn	13 46 34.1	+1.2
STHS	Stebnicka Huta	13.63	357	ePN	Pn	13 46 34.1	+1.2
STHS	Stebnicka Huta	13.63	357	ePn	Pn	13 46 34.1	+1.2
NIE	Niedzica	13.69	354	eP	Pn	13 46 33.8	0.0
NIE				ePP		13 46 43.9	
NIE				eS	Sn	13 49 04.6	+0.4
NIE				eSS		13 49 25.5	

NIE	Niedzica	13.69	354	*e*P	Pn	13 46 33.8	0.0
NIE				*e*S	Sn	13 49 04.6	+0.4
CKHR	Kef el Ahmar	13.76	276	P	Pn	13 46 36.0	+1.2
PTK	Pertek	13.80	72	P	Pn	13 46 35.5	+0.3
KWP	Kalwaria	13.81	1	*e*Pn	Pn	13 46 35.1	-0.3
	comp=Z,191nm,1.1s						
KWP	Kalwaria	13.81	1	*e*P	Pn	13 46 35.1	-0.3
KWP				pmax	pmax		
	comp=Z,191nm,1.1s						
KWP	Kalwaria	13.81	1	*e*Pn	Pn	13 46 35.1	-0.3
	comp=Z,191nm,1.1s						
SET	Setif	13.84	277	P	Pn	13 46 37.0	+1.1
KRUC	Moravsky	13.98	343	P	Pn	13 46 35.2	-2.4
KRUC	Moravsky	13.98	343	*e*Pn	Pn	13 46 35.0	-2.6
MON	Monaco	14.01	309	P	Pn	13 46 40.0	+1.9
WTTA	Wattenberg	14.02	328⇑	*i*Pn	Pn	13 46 36.4	-1.7
WTTA				*i*		13 49 02.9	
WTTA	Wattenberg	14.02	328⇑	*i*Pn	Pn	13 46 36.4	-1.7
	SNR=66						
WTTA	Wattenberg	14.02	328⇑	*i*P	Pn	13 46 36.4	-1.8
WTTA				*i*		13 49 02.9	
WTTA	Wattenberg	14.02	328	*e*Pn	Pn	13 46 38.0	-0.2
WTTA				*i* S	Sn	13 49 02.9	-9.2
LVV	L'vov	14.05	4	*i* P	Pn	13 46 43.7	+5.2
LVV				MLR	MLR		
	comp=N,400nm,10.0s						
LVV				MLR	MLR		
	comp=E,500nm,10.0s						
LVV				MLR	MLR		
	comp=Z,600nm,10.0s						
LVV	L'vov	14.05	4	*i* P	Pn	13 46 43.0	+4.5
REVF	Revere	14.05	309	*e*P	Pn	13 46 37.7	-1.0
SAOF	Saorge	14.06	310	*e*P	Pn	13 46 37.9	-0.8
WATA	Walderalm	14.10	328⇑	*i*Sn	Sn	13 49 06.0	-8.1
WATA	Walderalm	14.10	328	*i* Pn	Pn	13 46 39.0	-0.3
WATA				*i* Sn	Sn	13 49 06.0	-8.1
WATA	Walderalm	14.10	328	*i* Pn	Pn	13 46 39.0	-0.3
	SNR=60						
WATA	Walderalm	14.10	328	Sn	Sn	13 49 06.0	-8.1
WATA	Walderalm	14.10	328	*i* P	Pn	13 46 39.0	-0.2
WATA				*i*		13 49 06.0	
WATA	Walderalm	14.10	328	*i* Pn	Pn	13 46 39.0	-0.2
WATA				*i* S	Sn	13 49 06.0	-8.1
AUTN	L'Aution	14.14	310	*e*P	Pn	13 46 39.5	-0.3
LUCF	Luceram	14.14	309	*e*P	Pn	13 46 39.7	-0.1
GUMT	Gumushane	14.15	66	*e*P	Pn	13 46 41.1	+1.1
VRAC	Vranov	14.16	344	P	Pn	13 46 38.8	-1.3
VRAC	Vranov	14.16	344	P	Pn	13 46 38.6	-1.5
VRAC				S	Sn	13 49 07.9	-7.7
VRAC				pmax	pmax		
	comp=Z,3.0nm,0.3s						
VRAC				smax			
	comp=N,2.0nm,0.3s						
VRAC	Vranov	14.16	344	P	Pn	13 46 38.6	-1.5
	comp=N,2.6nm,0.3s,baz=173,slow=12,SNR=56						
VRAC				S	Sn	13 49 07.9	-7.8
	comp=N,1.5nm,0.3s,baz=92,slow=16,SNR=3.0						
VRAC	Vranov	14.16	344⇓	*i*P	Pn	13 46 38.1	-2.0
VRAC	Vranov	14.16	344	*e*Pn	Pn	13 46 37.6	-2.5
VRAC	Vranov	14.16	344	P	Pn	13 46 38.8	-1.3
VRAC				S	Sn	13 49 07.9	-7.7
	comp=N,2.0nm,0.3s						
SQTA	Sankt Quirin	14.17	327⇓	*i*Sn	Sn	13 49 07.9	-7.9
SQTA	Sankt Quirin	14.17	327		Pn	13 46 40.3	+0.1
	SNR=74						
SQTA				Sn	Sn	13 49 07.9	-7.9
SQTA	Sankt Quirin	14.17	327	*i* P	Pn	13 46 40.3	+0.1
SQTA				*i* S	Sn	13 49 07.9	-7.9
FETA	Feichten	14.24	325⇓	*i*Pn	Pn	13 46 40.6	-0.5
	SNR=80						
EZC	Erzincan	14.26	69	*e*P	Pn	13 46 37.0	-4.4
TOUF	Mont Tournerai	14.26	310	*e*P	Pn	13 46 40.7	-0.7
MVIF	Mont Vial	14.27	309	*e*P	Pn	13 46 40.5	-1.0
MOTA	Moosalm	14.31	327⇓	*i*Sn	Sn	13 49 11.1	-8.1
MOTA	Moosalm	14.31	327⇑	*i*Pn	Pn	13 46 42.1	+0.1
MOTA				*i* Sn	Sn	13 49 11.2	-8.1
MOTA	Moosalm	14.31	327⇑	*i*Pn	Pn	13 46 42.1	+0.1
	SNR=154						
MOTA	Moosalm	14.31	327	Sn	Sn	13 49 11.1	-8.1
MOTA	Moosalm	14.31	327	*i* P	Pn	13 46 42.1	0.0
MOTA				*i* S	Sn	13 49 11.2	-8.0
CALN	Calern	14.36	308	*e*P	Pn	13 46 42.6	-0.2
OKC	Ostrava-Krasne	14.37	349	*e*P	Pn	13 46 41.0	-1.8
OKC				*e*x	x	13 46 50.3	
OKC				*e*S	Sn	13 49 16.0	-4.7
MORC	Moravsky Berou	14.42	347	*e*Pn	Pn	13 46 41.5	-1.9
MORC				*e*P		13 46 50.7	
MORC	Moravsky Berou	14.42	347⇑	*i*P	Pn	13 46 41.5	-1.9
MORC	Moravsky Berou	14.42	347	*e*P	Pn	13 46 41.5	-1.9
LMR	La Mourre	14.42	306	*e*P	Pn	13 46 41.6	-1.9
LMR				pmax	pmax		
	comp=Z,32nm,0.6s						
LMR	La Mourre	14.42	306	*e*P	Pn	13 46 41.6	-1.9
	comp=Z,63nm,0.6s						
LMR	La Mourre	14.42	306	*e*P	Pn	13 46 41.6	-1.9
	comp=Z,32nm,0.6s						
TREC	Trest	14.42	341	*e*P	Pn	13 46 41.8	-1.6
TREC				*e*x	x	13 46 50.5	
FRF	La Foret Royal	14.43	307	*e*P	Pn	13 46 42.6	-1.0
FRF				pmax	pmax		
	comp=Z,55nm,0.5s						
FRF	La Foret Royal	14.43	307	*e*P	Pn	13 46 42.6	-1.0
	comp=Z,111nm,0.5s						
FRF	La Foret Royal	14.43	307	*e*P	Pn	13 46 42.6	-1.0
	comp=Z,55nm,0.5s						
DAVOX	Davos/Dischmat	14.47	323	P	Pn	13 46 44.2	+0.1
	comp=Z,7.4nm,0.3s,baz=133,slow=11,SNR=85						
DAVOX				S	Sn	13 49 14.2	-8.8
	comp=Z,17nm,0.3s,baz=289,slow=17,SNR=6.2						
ANN	Anapa	14.50	47	*i* P	Pn	13 46 42.8	-1.7
ANN	Anapa	14.50	47	*e*P	Pn	13 46 42.9	-1.6
ANN				*e*S	Sn	13 49 22.8	-0.9
ANN				pmax	pmax		
	comp=Z,297nm,0.8s						
ANN	Anapa	14.50	47	*e*P	Pn	13 46 42.9	-1.6
	comp=Z,297nm,0.8s						
ANN				*e*S	Sn	13 49 22.8	-0.9
TUE	Stuetta	14.52	321	P	Pn	13 46 44.2	-0.6
OJC	Ojcow	14.54	353	*e*P	Pn	13 46 42.2	-2.8
OJC				*e*PP		13 46 51.7	
GEC2	GERESS Array S	14.54	336	*e*Pn	Pn	13 46 42.9	-2.2
GEC2	GERESS Array S	14.54	336	*e*Pn	Pn	13 46 42.9	-2.2
GEC2	GERESS Array S	14.54	336	*e*Pn	Pn	13 46 42.8	-2.3
GERES	GERESS Array B	14.54	336	P	Pn	13 46 41.8	-3.3
	comp=Z,3.8nm,0.3s,baz=157,slow=12,SNR=19						
GERES				S	Sn	13 49 15.3	-9.5
	comp=Z,19nm,0.3s,baz=153,slow=24,SNR=11						
GERES				ScP	ScP	13 55 22.1	-3.1
	baz=160,slow=4.3,SNR=3.8						
GERES	GERESS Array B	14.54	336	P	Pn	13 46 41.8	-3.3
GERES				S	Sn	13 49 15.3	-9.5
RETA	Reutte	14.57	327⇓	*i*Pn	Pn	13 46 45.2	-0.2
	SNR=47						
RAC	Raciborz	14.60	349	*e*P	Pn	13 46 48.8	+2.9
RAC				*e*S	Sn	13 49 42.0	+16
BINT	Bingol	14.64	73	*e*P	Pn	13 46 46.9	+0.4
SURF	Saint Ours	14.77	311	*e*P	Pn	13 46 49.8	+1.7
DAVA	Damuels	14.83	325⇓	*i*Pn	Pn	13 46 49.4	+0.6
	SNR=117						
DAVA	Damuels	14.83	325⇓	*i*Pn	Pn	13 46 49.4	+0.6
DAVA				*i* Sn	Sn	13 49 24.2	-7.5
DAVA	Damuels	14.83	325⇓	*i*Pn	Pn	13 46 49.4	+0.6
	SNR=117						
DAVA	Damuels	14.83	325⇓	*i*Pn	Pn	13 46 49.4	+0.6
DAVA				*i* Sn	Sn	13 49 24.2	-7.6
KHC	Kasperske Hory	14.83	337	*e*P	Pn	13 46 46.8	-2.0
KHC				*e*		13 46 55.3	
KHC				*e*		13 47 07.0	
KHC				*e*		13 47 10.5	
KHC				*e*S	Sn	13 49 22.8	-9.0
KHC	Kasperske Hory	14.83	337	*e*P	Pn	13 46 46.8	-2.0
KHC				*e*x	x	13 46 55.3	
KHC				*e*pP	pP	13 47 07.0	+1.7
KHC				*e*x	x	13 47 10.5	
KHC				*e*S	Sn	13 49 22.8	-9.0
KHC				AMS	AMS	13 53 10.0	
	comp=Z,2µm,13.9s						
KHC	Kasperske Hory	14.83	337	*e*Pn	Pn	13 46 46.6	-2.2
KHC				*e*S	Sn	13 49 22.8	-9.0
TAVF	Tavernes	14.84	307	*e*P	Pn	13 46 47.2	-1.8
OG22	Abries	14.87	312	*e*P	Pn	13 46 49.3	0.0
FUR	Furstenfeldbru	14.88	330	*e*Pn	Pn	13 46 48.4	-1.0
FUR				*e*Sn	Sn	13 49 20.1	-13
FUR	Furstenfeldbru	14.88	330	*e*Pn	Pn	13 46 48.4	-1.0
FUR				*e*Sn	Sn	13 49 20.1	-13
MBDF	Montbardon	14.92	311	*e*P	Pn	13 46 51.1	+1.1
MBDF				pmax	pmax		
	comp=Z,1µm,1.3s						
MBDF	Montbardon	14.92	311	*e*P	Pn	13 46 51.1	+1.1
	comp=Z,2µm,1.3s						
MBDF	Montbardon	14.92	311	*e*P	Pn	13 46 51.1	+1.1
	comp=Z,1µm,1.3s						
AAHD	Abu Hadid	14.95	141	P	Pn	13 46 49.0	-1.5
MMK	Mattmark	14.98	317	P	Pn	13 46 50.0	-0.8
	SNR=1.0						
UBR	Ueberruh	15.01	326	P	Pn	13 46 51.7	+0.5
RRL	Cesana Torines	15.02	312	P	Pn	13 46 51.2	-0.1
	SNR=1.0						
WET	Wettzell	15.07	335	*e*Pn	Pn	13 46 49.8	-2.2
WET				*e*Sn	Sn	13 49 29.3	-8.4
WET	Wettzell	15.07	335	*e*Pn	Pn	13 46 49.8	-2.2
WET				*e*Sn	Sn	13 49 29.3	-8.4
STOF	St-Etienne Org	15.11	308	*e*P	Pn	13 46 54.1	+1.6
EMRS	Mersa Alam	15.13	132	P	Pn	13 46 51.1	-1.8
BNI	Bardonecchia	15.15	312	*e*Pn	Pn	13 46 54.4	+1.4
	comp=Z,202nm,1.2s						
BNI	Bardonecchia	15.15	312	*e*P	Pn	13 46 54.4	+1.4
BNI				pmax	pmax		
	comp=Z,202nm,1.2s						
BNI	Bardonecchia	15.15	312	*e*P	Pn	13 46 54.4	+1.4
	comp=Z,202nm,1.2s						
GELF	Grande-Etoile	15.15	305	*e*P	Pn	13 46 53.2	+0.1
OG25	Le Caire	15.18	309	*e*P	Pn	13 46 53.1	-0.2
DPC	Dobruska-Polom	15.21	345	*e*P	Pn	13 46 51.8	-1.9
DPC				*e*		13 46 58.8	
DPC				*e*S	S	13 49 30.8	-24
DPC	Dobruska-Polom	15.21	345	*e*P	Pn	13 46 51.8	-1.9
DPC				*e*x	x	13 46 58.8	
DPC				*e*S	S	13 49 30.8	-24
DPC				AMS	AMS	13 54 10.0	
	comp=Z,2µm,12.2s						
PRU	Pruhonice	15.31	340	*e*P	Pn	13 46 53.6	-1.4
SMRF	Simiane la Rot	15.31	307	*e*P	Pn	13 46 55.1	0.0
	comp=Z,294nm,1.0s						
SMRF	Simiane la Rot	15.31	307	*e*P	Pn	13 46 55.1	0.0
	comp=Z,294nm,1.0s						
MRGE	Morge	15.32	315	P	Pn	13 46 55.1	-0.1
	SNR=1.0						
LPG	La Plagne	15.35	314	*e*P	Pn	13 46 56.8	+1.2
LPG				pmax	pmax		
	comp=Z,130nm,0.9s						
LPG	La Plagne	15.35	314	*e*P	Pn	13 46 56.8	+1.2
	comp=Z,260nm,0.9s						
LPG	La Plagne	15.35	314	*e*P	Pn	13 46 56.8	+1.2
	comp=Z,130nm,0.9s						
SOC	Sochi	15.35	54*c*	*i*P	Pn	13 46 54.5	-1.1
SOC				*e*		13 49 44.4	
SOC				pmax	pmax		
	comp=Z,37nm,0.5s						
SOC				MLR	MLR		
	comp=Z,620nm,13.0s						
SOC	Sochi	15.35	54	*i* P	Pn	13 46 58.5	+2.9
SOC				*e*S	S	13 49 44.4	-14
	comp=Z,620nm,13.0s						
LPL	La Plagne	15.37	314	*e*P	Pn	13 46 56.7	+0.9
LPL				pmax	pmax		
	comp=Z,106nm,0.9s						
LPL	La Plagne	15.37	314	*e*P	Pn	13 46 56.7	+0.9
	comp=Z,211nm,0.9s						
LPL	La Plagne	15.37	314	*e*P	Pn	13 46 56.7	+0.9
	comp=Z,106nm,0.9s						
BTMT	Batman	15.37	75	*e*P	Pn	13 46 55.3	-0.6
PRA	Prague	15.41	340	P	Pn	13 46 55.0	-1.3
PRA				*e*x	x	13 47 02.0	
UPC	Upice	15.42	344	*e*P	Pn	13 46 55.0	-1.5
UPC				*e*x	x	13 47 01.7	
EZM	Erzurum	15.46	69	*e*P	Pn	13 46 57.8	+0.8
PRAF	Pradon	15.50	306	*e*P	Pn	13 46 56.7	-0.9
RSL	Roselend	15.53	314	*e*P	Pn	13 46 58.1	+0.2
SISB	Singen-Schiene	15.55	324	P	Pn	13 46 59.8	+1.7
ORIF	Oris-en-Rattie	15.56	311	*e*P	Pn	13 46 59.2	+0.8
ORIF				pmax	pmax		
	comp=Z,173nm,1.0s						
ORIF	Oris-en-Rattie	15.56	311	*e*P	Pn	13 46 59.2	+0.8
	comp=Z,346nm,1.0s						
ORIF				*e*MLR	MLR		
	comp=Z,2µm,22.2s						
ORIF	Oris-en-Rattie	15.56	311	*e*P	Pn	13 46 59.2	+0.8
	comp=Z,173nm,1.0s						
ORIF	Oris-en-Rattie	15.56	311	*e*P	Pn	13 46 59.2	+0.8
	comp=Z,173nm,1.0s						
GDM	Grand'Maison	15.57	312	*e*P	Pn	13 46 59.2	+0.8
HDH	Heidenheim-Cha	15.65	328	P	Pn	13 46 57.9	-1.5
KIEV	Kiev	15.65	16	*e*P	Pn	13 46 57.1	-2.4
	comp=Z,69nm,0.4s						
KIEV				*e*S	S	13 49 58.0	-6.4
KIEV	Kiev	15.65	16	*e*P	Pn	13 46 57.1	-2.3
KIEV				*e*S	S	13 49 58.0	-6.4
KIEV				pmax	pmax		
	comp=Z,69nm,0.4s						
KIEV	Kiev	15.65	16	*e*P	Pn	13 46 57.1	-2.3
	comp=Z,69nm,0.4s						
KIEV				*e*S	S	13 49 58.0	-6.4
AKASG	Malin Array Be	15.66	16	P	Pn	13 46 56.6	-3.0
	comp=Z,14nm,0.3s,baz=208,slow=12,SNR=47						
AKASG				S	S	13 49 55.5	-9.1
	comp=Z,3.3nm,0.3s,baz=203,slow=22,SNR=9.3						
AKBB	Malin Array Si	15.66	16	*e*P	Pn	13 46 57.0	-2.6
KSP	Ksiaz	15.68	345	*e*P	Pn	13 46 59.9	+0.1
KSP	Ksiaz	15.68	345	*e*P	Pn	13 46 59.0	-0.8
KSP				*e*pP	pP	13 47 04.4	-10
KSP				*e*S	S	13 49 58.3	-6.6
KSP	Ksiaz	15.68	345	*e*P	Pn	13 46 59.0	-0.8
KSP				*e*S	S	13 49 58.3	-6.6
ABA	Alger-Bouzarea	15.72	279	P	Pn	13 47 03.3	+2.9
GUT	Gutenstein	15.75	325	P	Pn	13 47 01.7	+1.0
PVCC	Panska Ves	15.79	341	*e*P	Pn	13 46 59.2	-2.0
PVCC				*e*		13 47 05.0	
PVCC	Panska Ves	15.79	341	*e*P	Pn	13 46 59.2	-2.0
PVCC				*e*x	x	13 47 05.0	
PVCC				AMS	AMS	13 53 40.0	
	comp=Z,2µm,12.5s						
GRN	Grenoble	15.81	312	*e*P	Pn	13 47 01.8	+0.3
ROTZ	Rotzenmuhle	15.84	335	*e*Pn	Pn	13 46 59.3	-2.5
OG01	Vacheresse	15.86	316	*e*P	Pn	13 47 01.8	-0.3
BUCH	Bad Urach	15.92	327	P	Pn	13 47 02.6	-0.3
SPAK	Spaichingen-Ko	15.93	325	*e*P	Pn	13 47 04.6	+1.6
BCA	Borcka	15.97	64	*e*P	Pn	13 47 01.4	-2.2
ETOS	Mallorca	16.04	290	P	Pn	13 47 05.7	+1.2
	comp=Z,59nm,0.9s						
ETOS	Mallorca	16.04	290	P	Pn	13 47 05.7	+1.2
	comp=Z,59nm,0.9s						
SIRT	Sirnak	16.10	78	*e*P	Pn	13 47 04.2	-1.1
BBS	Basel-Blauen	16.12	321	*e*P	Pn	13 47 06.1	+0.7
GRF	Grafenberg Arr	16.13	333	*e*L		13 54 46.5	
	comp=Z,2µm,23.8s						
GRFO	Grafenberg	16.13	333	*e*P	Pn	13 47 04.2	-1.2
	comp=Z,630nm,0.9s						
GRFO	Grafenberg	16.13	333	*e*P	Pn	13 47 04.3	-1.2
GRFO				pmax	pmax		
	comp=Z,630nm,0.9s						
GRFO	Grafenberg	16.13	333	*e*P	Pn	13 47 04.3	-1.2
	comp=Z,630nm,0.9s						
FELD	Feldberg im Sc	16.15	323	*e*P	Pn	13 47 06.6	+0.8
NKC	Novy Kostel	16.15	336	*e*P	Pn	13 47 04.4	-1.4
NKC				*e*		13 47 09.7	
NKC				*e*S	S	13 49 54.1	-21
NKC	Novy Kostel	16.15	336	*e*P	Pn	13 47 04.4	-1.4
NKC				*e*x	x	13 47 09.7	
NKC				*e*S	S	13 49 54.1	-21
NKC				AMS	AMS	13 54 00.0	
	comp=Z,1µm,11.0s						
STU	Stuttgart	16.23	327	*e*Pn	Pn	13 47 08.2	+1.4
STU	Stuttgart	16.23	327	*e*Pn	Pn	13 47 08.2	+1.4
KIZ	Kirchzarten	16.24	323	P	Pn	13 47 07.4	+0.4
BRG	Berggiesshubel	16.27	340	*i* P	Pn	13 47 06.2	-1.1
	comp=Z,33nm,1.2s						
BRG				*i*		13 47 10.6	
BRG				*i* PP		13 47 20.5	
BRG				S	S	13 50 13.0	-4.0
BRG				*e*		13 55 16.1	
BRG	Berggiesshubel	16.27	340	*e*Pn	Pn	13 47 06.2	-1.1
BRG	Berggiesshubel	16.27	340	*i* P	Pn	13 47 06.2	-1.1
	comp=Z,55nm,1.2s						
BRG				*i*		13 47 10.6	
	comp=Z,133nm,1.0s						
BRG				*i* PP		13 47 20.5	
	comp=Z,24nm,0.7s						
BRG				S	S	13 50 13.0	-4.0
BRG				*e*		13 55 16.1	
	comp=Z,3.2nm,0.7s						
BRG							
	comp=N,1µm,13.9s						
BRG							
	comp=E,2µm,11.2s						
BRG							
	comp=Z,832nm,9.5s						
VIVF	Saint-Julien-l	16.29	309	*e*P	Pn	13 47 07.3	-0.2
VIVF				pmax	pmax		
	comp=Z,329nm,1.4s						
VIVF	Saint-Julien-l	16.29	309	*e*P	Pn	13 47 07.3	-0.2
	comp=Z,659nm,1.4s						
VIVF	Saint-Julien-l	16.29	309	*e*P	Pn	13 47 07.3	-0.2
	comp=Z,329nm,1.4s						
BFO	Black Forest	16.31	324	Pn	Pn	13 47 08.4	+0.7
	comp=Z,1µm,0.9s,SNR=55						
BFO	Black Forest	16.31	324	*e*Pn	Pn	13 47 08.4	+0.7
BFO				*e*Sn	Sn	13 49 55.6	-12
BFO	Black Forest	16.31	324	*e*Pn	Pn	13 47 08.4	+0.7
BFO				*e*Sn	Sn	13 49 55.6	-12
BFO	Black Forest	16.31	324	*e*P	Pn	13 47 08.4	+0.7
BFO				*e*S	Sn	13 49 55.6	-12
TANN	Tannenbergstha	16.31	337	*e*Pn	Pn	13 47 08.4	+0.7
LBG	Lerchenberg	16.33	326	P	Pn	13 47 08.3	+0.3
CABF	La Chapelle	16.36	316	*e*P	Pn	13 47 07.3	-1.1
CABF				pmax	pmax		
	comp=Z,116nm,0.7s						
CABF	La Chapelle	16.36	316	*e*P	Pn	13 47 07.3	-1.1
	comp=Z,233nm,0.7s						
CABF	La Chapelle	16.36	316	*e*P	Pn	13 47 07.3	-1.1
	comp=Z,116nm,0.7s						
OG05	Jujurieux	16.40	314	*e*P	Pn	13 47 08.0	-1.0
LOMF	Lomont	16.40	319	*e*P	Pn	13 47 09.4	+0.4
LASF	Ste Croix	16.48	306	*e*P	Pn	13 47 09.1	-0.8
	comp=Z,882nm,1.5s						
SIND	Sindeldorf	16.49	329	P	Pn	13 47 10.1	0.0
MOF	Molkenrain	16.57	321	*e*P	Pn	13 47 11.5	+0.5
SSB	Saint Sauveur	16.57	310	P	Pn	13 47 09.7	-1.4
EJON	La Jonquera	16.57	299	P	Pn	13 47 13.2	+2.0
	comp=Z,21nm,0.6s						
EJON	La Jonquera	16.57	299	P	Pn	13 47 13.1	+2.0
	comp=Z,21nm,0.6s						
AGRB	Hanur-Agry	16.66	71	*e*P	Pn	13 47 12.9	+0.7
MSL	Mosul	16.67	82	*e*P	x	13 47 17.0	
MSL				*e*S	x	13 50 21.0	
HINF	Hinteralfeld	16.69	321	*e*P	Pn	13 47 11.8	-0.7
HINF				pmax	pmax		
	comp=Z,361nm,1.4s						
HINF	Hinteralfeld	16.69	321	*e*P	Pn	13 47 11.8	-0.7
	comp=Z,721nm,1.4s						
HINF	Hinteralfeld	16.69	321	*e*P	Pn	13 47 11.8	-0.7
	comp=Z,361nm,1.4s						
STR	Strasbourg	16.75	324	*e*P	Pn	13 47 14.6	+1.3
MOX	Moxa	16.78	335	*e*P	Pn	13 47 13.0	-0.7
	comp=Z,142nm,1.1s						
MOX				*e*		13 50 07.9	
MOX							
	comp=Z,700nm,20.0s						
MOX	Moxa	16.78	335	*e*Pn	Pn	13 47 13.1	-0.6
MOX	Moxa	16.78	335	*e*P	Pn	13 47 13.0	-0.7
	comp=Z,142nm,1.1s						
MOX				*e*S	S	13 50 07.9	-20
ECH	Echery	16.80	322	*e*P	Pn	13 47 14.6	+0.7
FILF	Fillols	16.84	300	*e*P	Pn	13 47 14.5	+0.1
CDF	Champ du Feu	16.87	323	*e*P	Pn	13 47 14.9	+0.1
CDF				pmax	pmax		
	comp=Z,167nm,0.8s						
CDF	Champ du Feu	16.87	323	*e*P	Pn	13 47 14.9	+0.1
	comp=Z,334nm,0.8s						
CDF	Champ du Feu	16.87	323	*e*P	Pn	13 47 14.9	+0.1
	comp=Z,167nm,0.8s						
KARS	Kars	16.88	67	*e*P	Pn	13 47 14.1	-0.9
VANB	Van	16.88	74	*e*P	Pn	13 47 15.2	+0.2
CLL	Collm	16.92	339	*i* P	Pn	13 47 15.9	+0.5
	comp=Z,105nm,1.5s						
CLL				*i*		13 47 18.2	
CLL				*e*S	S	13 50 28.0	-2.3
CLL	Collm	16.92	339	*i* P	Pn	13 47 15.9	+0.5
CLL				*e*S	S	13 50 28.0	-2.3
CLL				pmax	pmax		
	comp=Z,105nm,1.5s						
CLL	Collm	16.92	339	*e*Pn	Pn	13 47 15.2	-0.2
CLL				*e*L		13 54 39.0	
	comp=Z,2µm,14.9s						
CLL	Collm	16.92	339	*i* P	Pn	13 47 15.9	+0.5
	comp=Z,105nm,1.5s						
CLL				*i* x	x	13 47 18.2	
	comp=Z,227nm,1.0s						
CLL				*e*pP	pP	13 47 24.0	-4.5
CLL				*e*S	S	13 50 28.0	-2.3
CLL				*e*sS	sS	13 50 47.0	-2.2
LRDF	Laroque-de-Fa	16.97	301	*e*P	Pn	13 47 14.5	-1.5
LANF	Langenberg	17.01	325	*e*P	Pn	13 47 18.2	+1.6
TOD	Tromm	17.03	328	*e*P	Pn	13 47 17.8	+1.1
CUKT	Cukurca	17.04	79	*e*P	Pn	13 47 17.6	+0.6
HAU	Haudompre	17.07	321	*e*P	Pn	13 47 16.8	-0.5
HAU				pmax	pmax		
	comp=Z,218nm,0.9s						
HAU	Haudompre	17.07	321	*e*P	Pn	13 47 16.8	-0.5
	comp=Z,437nm,0.9s						
HAU				*e*MLR	MLR		
	comp=Z,381nm,19.0s						
HAU	Haudompre	17.07	321	*e*P	Pn	13 47 16.8	-0.5
	comp=Z,218nm,0.9s						
EIBI	Ibiza	17.10	287	P	Pn	13 47 19.3	+1.6
	comp=Z,38nm,0.7s						
EIBI	Ibiza	17.10	287	P	Pn	13 47 19.3	+1.6
	comp=Z,38nm,0.7s						
KTD	Kalmit	17.13	326	*e*P	Pn	13 47 20.8	+2.8
HKR	Hakkari	17.14	78	*e*P	Pn	13 47 18.9	+0.7
VALF	Valcebollere	17.18	299	*e*P	Pn	13 47 18.2	-0.5
CARF	Carcanieres	17.20	300	*e*P	Pn	13 47 18.0	-1.0
COLF	Collangettes	17.21	310	*e*P	Pn	13 47 18.4	-0.6
MTLF	Montolieu	17.32	302	*e*P	Pn	13 47 19.4	-1.0
MTLF				pmax	pmax		
	comp=Z,71nm,1.0s						
MTLF	Montolieu	17.32	302	*e*P	Pn	13 47 19.4	-1.0
	comp=Z,142nm,1.0s						
MTLF	Montolieu	17.32	302	*e*P	Pn	13 47 19.4	-1.0
	comp=Z,71nm,1.0s						
LBL	Lubilhac	17.36	309	*e*P	Pn	13 47 20.4	-0.5
THEF	They Montfort	17.40	321	*e*P	Pn	13 47 21.9	+0.6
EMIR	Miracle	17.41	297	P	Pn	13 47 20.3	-1.2
	comp=Z,179nm,0.7s						
EMIR	Miracle	17.41	297	P	Pn	13 47 20.3	-1.2
	comp=Z,179nm,0.7s						
PLDF	La Plantade	17.47	311	*e*P	Pn	13 47 21.3	-0.9
KIV	Kislovodsk	17.48	56	P	Pn	13 47 23.7	+1.3
	comp=Z,1µm,0.8s,SNR=26						
KIV	Kislovodsk	17.48	56	*e*P	Pn	13 47 22.8	+0.5
	comp=Z,475nm,1.4s						
KIV	Kislovodsk	17.48	56⇑	*e*P	Pn	13 47 22.2	-0.2
KIV				*i* S	S	13 50 35.0	-6.7
KIV				pmax	pmax		
	comp=Z,254nm,1.2s						
KIV				MLR	MLR		
	comp=Z,500nm,18.0s						
KIV	Kislovodsk	17.48	56	⇓P	Pn	13 47 22.7	+0.3
	SNR=31						
KIV	Kislovodsk	17.48	56	*e*P	Pn	13 47 22.8	+0.4
	comp=Z,475nm,1.4s						
KIV				*i* S	S	13 50 35.0	-6.7
	comp=Z,500nm,18.0s						
UBBA	Unterbreizbach	17.50	333	*e*L		13 55 23.5	
	comp=Z,2µm,21.5s						
ONI	Oni	17.58	61	P	Pn	13 47 22.9	-0.7
ONI				S	S	13 50 38.8	-4.9
EPOB	Poblet	17.61	295	P	Pn	13 47 25.3	+1.2
	comp=Z,62nm,0.7s						
TNS	Taunus Mts	17.64	329	*e*Pn	Pn	13 47 26.5	+2.2
TNS				*e*Sn	Sn	13 50 27.4	-13
TNS	Taunus Mts	17.64	329	*e*Pn	Pn	13 47 26.5	+2.2
TNS				*e*Sn	Sn	13 50 27.4	-13
OJGS	Djebel Guires	17.67	275	P	Pn	13 47 26.0	+1.2
SMF	Signal de Mont	17.67	313	*e*P	Pn	13 47 22.7	-2.0
SMF				pmax	pmax		
	comp=Z,78nm,0.6s						
SMF	Signal de Mont	17.67	313	*e*P	Pn	13 47 22.7	-2.0
	comp=Z,156nm,0.6s						
SMF	Signal de Mont	17.67	313	*e*P	Pn	13 47 22.7	-2.0
	comp=Z,78nm,0.6s						
OKGL	Djebel Kef Gue	17.69	277	P	Pn	13 47 24.0	-1.1

PYM	**Petit Puy Mans**	**17.74**	**310**	*e*P	**Pn**	**13 47 25.0**	**-0.6**
ABH	**Alteburg**	**17.78**	**327**	*e*P	**Pn**	**13 47 27.8**	**+1.8**
AGO	**Saint Agoulin**	**17.81**	**311**	*e*P	**Pn**	**13 47 24.8**	**-1.6**
GKP	**Gorka Klasztor**	**17.84**	**350**	*e*P	**Pn**	**13 47 28.6**	**+1.8**
FRNF	**Fournols**	**17.86**	**308**	*e*P	**Pn**	**13 47 27.4**	**+0.4**
SALF	**Salau**	**17.86**	**299**	*e*P	**Pn**	**13 47 28.5**	**+1.4**
RUP	**Ruppelstein**	**17.87**	**326**	*e*P	**Pn**	**13 47 28.3**	**+1.2**
GOR	**Gori**	**17.91**	**63**	P	**Pn**	**13 47 37.3**	**+10**
GOR				S	S	13 51 12.2	+22
ZEI	**Tsey**	**17.95**	**61**	*e*P	**Pn**	**13 47 28.8**	**+0.7**
ZEI				*e*S	**S**	**13 50 49.9**	**-1.4**
MLS	**Moulis**	**17.98**	**300**	*e*P	**Pn**	**13 47 28.5**	**-0.1**
CAF	**Calviac**	**17.99**	**307**	*e*P	**Pn**	**13 47 28.5**	**-0.1**
CAF				pmax	pmax		
	comp=Z,189nm,1.1s						
CAF	**Calviac**	**17.99**	**307**	*e*P	**Pn**	**13 47 28.5**	**-0.1**
	comp=Z,377nm,1.1s						
CAF	**Calviac**	**17.99**	**307**	*e*P	**Pn**	**13 47 28.5**	**-0.1**
	comp=Z,189nm,1.1s						
LOR	**Lormes**	**17.99**	**315**	*e*P	**Pn**	**13 47 27.7**	**-0.9**
LOR				pmax	pmax		
	comp=Z,145nm,1.0s						
LOR	**Lormes**	**17.99**	**315**	*e*P	**Pn**	**13 47 27.7**	**-0.9**
	comp=Z,289nm,1.0s						
LOR				*e*MLR	MLR		
	comp=Z,665nm,21.0s						
LOR	**Lormes**	**17.99**	**315**	*e*P	**Pn**	**13 47 27.7**	**-0.9**
	comp=Z,145nm,1.0s						
AVF	**Avril sur Loir**	**18.04**	**313**	*e*P	**Pn**	**13 47 27.6**	**-1.6**
AVF				pmax	pmax		
	comp=Z,127nm,0.8s						
AVF	**Avril sur Loir**	**18.04**	**313**	*e*P	**Pn**	**13 47 27.6**	**-1.6**
	comp=Z,254nm,0.8s						
AVF	**Avril sur Loir**	**18.04**	**313**	*e*P	**Pn**	**13 47 27.6**	**-1.6**
	comp=Z,127nm,0.8s						
MEZF	**Maizieres J'vi**	**18.05**	**320**	*e*P	**Pn**	**13 47 29.6**	**+0.2**
	comp=Z,812nm,1.0s						
MEZF	**Maizieres J'vi**	**18.05**	**320**	*e*P	**Pn**	**13 47 29.6**	**+0.2**
	comp=Z,812nm,1.0s						
SSF	**Saint Saulge**	**18.09**	**314**	*e*P	**Pn**	**13 47 28.9**	**-0.9**
SSF				pmax	pmax		
	comp=Z,166nm,0.9s						
SSF	**Saint Saulge**	**18.09**	**314**	*e*P	**Pn**	**13 47 28.9**	**-0.9**
	comp=Z,333nm,0.9s						
SSF	**Saint Saulge**	**18.09**	**314**	*e*P	**Pn**	**13 47 28.9**	**-0.9**
	comp=Z,166nm,0.9s						
ERTA	**Horta de San J**	**18.10**	**293**	P	**Pn**	**13 47 30.6**	**+0.7**
	comp=Z,109nm,1.1s						
ERTA	**Horta de San J**	**18.10**	**293**	P	**Pn**	**13 47 30.6**	**+0.6**
	comp=Z,109nm,1.1s						
MELF	**Melles**	**18.20**	**299**	*e*P	**Pn**	**13 47 32.8**	**+1.6**
SUW	**Suwalki**	**18.21**	**1**	*e*P	**Pn**	**13 47 31.2**	**0.0**
BHD	**Baghdad**	**18.21**	**92**	*i* P	x	13 47 28.0	
BHD				*i* S	x	13 50 51.0	
CLZ	**Clausthal**	**18.21**	**335**	*e*Pn	**Pn**	**13 47 31.9**	**+0.6**
CLZ	**Clausthal**	**18.21**	**335**	*e*Pn	**Pn**	**13 47 31.9**	**+0.6**
BGF	**Bois d'Agland**	**18.22**	**312**	*e*P	**Pn**	**13 47 31.2**	**-0.2**
BGF				pmax	pmax		
	comp=Z,152nm,0.7s						
BGF	**Bois d'Agland**	**18.22**	**312**	*e*P	**Pn**	**13 47 31.2**	**-0.2**
	comp=Z,304nm,0.7s						
BGF	**Bois d'Agland**	**18.22**	**312**	*e*P	**Pn**	**13 47 31.2**	**-0.2**
	comp=Z,152nm,0.7s						
WLF	**Walferdange**	**18.27**	**324**	*e*P	**Pn**	**13 47 33.2**	**+1.2**
	comp=Z,310nm,1.0s						
WLF	**Walferdange**	**18.27**	**324**	*e*P	**Pn**	**13 47 33.2**	**+1.3**
WLF				pmax	pmax		
	comp=Z,310nm,1.0s						
WLF	**Walferdange**	**18.27**	**324**	P	**Pn**	**13 47 33.4**	**+1.4**
	comp=Z,185nm,1.1s						
WLF	**Walferdange**	**18.27**	**324**	*e*Pn	**Pn**	**13 47 33.5**	**+1.6**
WLF	**Walferdange**	**18.27**	**324**	*e*P	**Pn**	**13 47 33.2**	**+1.3**
	comp=Z,310nm,1.0s						
EBEN	**Beniarda**	**18.30**	**286**	P	**Pn**	**13 47 34.4**	**+1.9**
	comp=Z,42nm,0.9s						
EBEN	**Beniarda**	**18.30**	**286**	P	**Pn**	**13 47 34.4**	**+1.9**
	comp=Z,42nm,0.9s						
MTA	**Mtatsminda**	**18.34**	**65**	P	**Pn**	**13 47 32.3**	**-0.6**
MTA				S	**S**	**13 50 57.4**	**-1.9**
ODJA	**Bouhanifia**	**18.42**	**275**	P	**Pn**	**13 47 36.0**	**+2.1**
TCF	**Toulx Ste Croi**	**18.48**	**311**	*e*P	**Pn**	**13 47 33.2**	**-1.4**
RJF	**Les Rejaudoux**	**18.50**	**307**	*e*P	**Pn**	**13 47 34.5**	**-0.3**
RJF				*e*MLR	MLR		
	comp=Z,691nm,21.8s						
EPF	**Esparros**	**18.54**	**300**	*e*P	**Pn**	**13 47 33.7**	**-1.6**
EPF				pmax	pmax		
	comp=Z,38nm,0.7s						
EPF	**Esparros**	**18.54**	**300**	*e*P	**Pn**	**13 47 33.7**	**-1.6**
	comp=Z,77nm,0.7s						
EPF	**Esparros**	**18.54**	**300**	*e*P	**Pn**	**13 47 33.7**	**-1.6**
	comp=Z,38nm,0.7s						
NAX	**Nakhchivan**	**18.55**	**73**	P	**Pn**	**13 47 34.8**	**-0.7**
	SNR=91						
NAX				S	**S**	**13 51 01.6**	**-1.5**
EBIE	**Bielsa**	**18.59**	**298**	P	**Pn**	**13 47 36.5**	**+0.5**
	comp=Z,56nm,0.6s						
EBIE	**Bielsa**	**18.59**	**298**	P	**Pn**	**13 47 36.5**	**+0.6**
	comp=Z,56nm,0.6s						
EMOS	**Mosqueruela**	**18.62**	**291**	P	**Pn**	**13 47 37.3**	**+1.0**
	comp=Z,182nm,1.3s						
USTO	**Oran**	**18.69**	**277**	P	**Pn**	**13 47 42.0**	**+4.8**
HYF	**Humbligny**	**18.70**	**314**	*e*P	**Pn**	**13 47 36.7**	**-0.5**
VIEF	**Viey**	**18.72**	**299**	*e*P	**Pn**	**13 47 37.9**	**+0.4**
LABF	**Labassere**	**18.73**	**299**	*e*P	**Pn**	**13 47 37.3**	**-0.3**
ESAC	**San Caprasio**	**18.82**	**295**	P	**Pn**	**13 47 38.0**	**-0.8**
	comp=Z,113nm,0.7s						
ESAC	**San Caprasio**	**18.82**	**295**	P	**Pn**	**13 47 38.0**	**-0.8**
	comp=Z,113nm,0.7s						
NRDL	**Niedersach Rie**	**18.85**	**336**	*e*Pn	**Pn**	**13 47 39.3**	**+0.3**
LFF	**La Frestale**	**18.87**	**306**	*e*P	**Pn**	**13 47 39.1**	**-0.1**
LFF				pmax	pmax		
	comp=Z,81nm,0.6s						
LFF	**La Frestale**	**18.87**	**306**	*e*P	**Pn**	**13 47 39.1**	**-0.1**
	comp=Z,162nm,0.6s						
LFF	**La Frestale**	**18.87**	**306**	*e*P	**Pn**	**13 47 39.1**	**-0.1**
	comp=Z,81nm,0.6s						
CART	**Cartagena**	**18.91**	**282**	*e*P	**Pn**	**13 47 38.6**	**-1.2**
	comp=Z,109nm,1.2s						
CART	**Cartagena**	**18.91**	**282**	*e*P	**Pn**	**13 47 38.6**	**-1.2**
	comp=Z,109nm,1.2s						
ECHE	**Chera**	**18.93**	**289**	P	**Pn**	**13 47 40.0**	**0.0**
ECHE	**Chera**	**18.93**	**289**	P	**Pn**	**13 47 40.0**	**0.0**
MEM	**Membach**	**18.99**	**326**	P	**Pn**	**13 47 41.2**	**+0.6**
	comp=Z,116nm,0.9s						
BUG	**Bochum--Univer**	**19.06**	**330**	*e*Pn	**Pn**	**13 47 41.6**	**+0.2**
BUG	**Bochum--Univer**	**19.06**	**330**	*e*Pn	**Pn**	**13 47 41.6**	**+0.2**
MNK	**Minsk**	**19.06**	**10**	⇓*i*P	**Pn**	**13 47 34.0**	**-7.4**
MNK				*e*S	**S**	**13 51 03.0**	**-10**
MNK				pmax	pmax		
	comp=Z,670nm,1.0s						
MNK				pmax	pmax		
	comp=N,1µm,1.0s						
MNK				smax			
	comp=E,2µm,2.0s						
MNK	**Minsk**	**19.06**	**10**	*i* P	**Pn**	**13 47 34.0**	**-7.4**
	comp=E,1µm,1.0s						
MNK				*e*S	**S**	**13 51 03.0**	**-10**
HGN	**Heimansgroeve**	**19.13**	**326**	⇓*i*P	**Pn**	**13 47 42.8**	**+0.5**
ETSF	**Etsaut**	**19.14**	**299**	*e*P	**Pn**	**13 47 42.1**	**-0.4**
ETSF				pmax	pmax		
	comp=Z,111nm,0.6s						
ETSF	**Etsaut**	**19.14**	**299**	*e*P	**Pn**	**13 47 42.1**	**-0.4**
	comp=Z,222nm,0.7s						
ETSF	**Etsaut**	**19.14**	**299**	*e*P	**Pn**	**13 47 42.1**	**-0.4**
	comp=Z,111nm,0.6s						
BCLA	**Clavier**	**19.18**	**325**	P	**Pn**	**13 47 42.9**	**0.0**
	comp=Z,86nm,1.5s						
GIVF	**Givet**	**19.20**	**324**	*e*P	**Pn**	**13 47 42.6**	**-0.5**
GIVF				pmax	pmax		
	comp=Z,282nm,1.0s						
GIVF	**Givet**	**19.20**	**324**	*e*P	**Pn**	**13 47 42.6**	**-0.5**
	comp=Z,563nm,1.0s						
GIVF	**Givet**	**19.20**	**324**	*e*P	**Pn**	**13 47 42.6**	**-0.5**
	comp=Z,282nm,1.0s						
BEBN	**Eben Emael**	**19.27**	**326**	P	**Pn**	**13 47 44.5**	**+0.5**
	comp=Z,38nm,1.3s						
BEBN				E		13 47 58.7	
ATE	**Arette**	**19.29**	**299**	*e*P	**Pn**	**13 47 43.4**	**-0.9**
DOU	**Dourbes**	**19.30**	**323**	P	**Pn**	**13 47 43.8**	**-0.6**
	comp=Z,108nm,0.8s						
GANJ	**Ganja**	**19.32**	**68**	P	**Pn**	**13 47 42.8**	**-1.8**
	SNR=97						
GANJ				S	**S**	**13 51 16.1**	**-2.8**
ETOB	**Tobarra**	**19.34**	**286**	P	**Pn**	**13 47 43.5**	**-1.4**
	comp=Z,13nm,0.7s						
ETOB	**Tobarra**	**19.34**	**286**	P	**Pn**	**13 47 43.5**	**-1.4**
	comp=Z,13nm,0.7s						
VORD	**Divnogorie**	**19.39**	**33**	*e*P	**Pn**	**13 47 42.7**	**-2.7**
VORD				*e*S	**S**	**13 51 14.0**	**-6.1**
VORD				pmax	pmax		
	comp=Z,140nm,0.6s						
VORD				pmax	pmax		
	comp=N,190nm,0.7s						
VORD				pmax	pmax		
	comp=E,210nm,0.7s						
VORD				smax			
	comp=Z,440nm,7.8s						
VORD				smax			
	comp=N,1µm,9.0s						
VORD				smax			
	comp=E,690nm,8.3s						
VORD				MLR	MLR		
	comp=Z,270nm,6.0s						
VORD				MLR	MLR		
	comp=N,290nm,7.0s						
VORD				MLR	MLR		
	comp=E,510nm,7.0s						
VORD	**Divnogorie**	**19.39**	**33**	*e*P	**Pn**	**13 47 42.7**	**-2.7**
	comp=E,140nm,0.6s						
VORD				*e*S	**S**	**13 51 14.0**	**-6.1**
	comp=E,270nm,6.0s						
BAIF	**Baives**	**19.47**	**323**	*e*P	**Pn**	**13 47 45.4**	**-0.9**
BAIF				pmax	pmax		
	comp=Z,201nm,0.8s						
BAIF	**Baives**	**19.47**	**323**	*e*P	**Pn**	**13 47 45.4**	**-0.9**
	comp=Z,403nm,0.8s						
BAIF	**Baives**	**19.47**	**323**	*e*P	**Pn**	**13 47 45.4**	**-0.9**
	comp=Z,201nm,0.8s						
LARF	**Larrau**	**19.48**	**299**	*e*P	**Pn**	**13 47 45.5**	**-1.1**
ORDF	**Ordiarp**	**19.49**	**299**	*e*P	**Pn**	**13 47 44.9**	**-1.7**
VRSR	**Storozhevoye**	**19.52**	**33**	*e*P	**Pn**	**13 47 44.3**	**-2.6**
VRSR				*e*S	**S**	**13 51 20.5**	**-2.3**
VRSR				pmax	pmax		
	comp=E,70nm,0.8s						
VRSR				pmax	pmax		
	comp=Z,40nm,0.8s						
VRSR				pmax	pmax		
	comp=N,70nm,0.9s						
VRSR				smax			
	comp=N,40nm,0.9s						
VRSR				smax			
	comp=Z,10.0nm,1.0s						
VRSR				smax			
	comp=E,20nm,0.7s						
VRSR				MLR	MLR		
	comp=Z,110nm,19.0s						
VRSR	**Storozhevoye**	**19.52**	**33**	*e*P	**Pn**	**13 47 44.3**	**-2.6**
	comp=Z,70nm,0.9s						
VRSR				*e*S	**S**	**13 51 20.5**	**-2.3**
	comp=Z,110nm,19.0s						
WTSB	**Winterswijk**	**19.64**	**330**	⇓*i*P	**Pn**	**13 47 48.2**	**-0.2**
	comp=Z,222nm,1.4s						
WTSB	**Winterswijk**	**19.64**	**330**	⇓*i*P	**Pn**	**13 47 48.2**	**-0.2**
	comp=Z,222nm,1.4s						
SJPF	**Ste Jean**	**19.67**	**299**	*e*P	**Pn**	**13 47 47.7**	**-1.1**
	comp=Z,636nm,1.0s						
SJPF	**Ste Jean**	**19.67**	**299**	P	**Pn**	**13 47 47.7**	**-1.1**
	comp=Z,318nm,1.0s,SNR=1.0						
IIGN	**Ignalina**	**19.71**	**6**	*e*P	**Pn**	**13 47 46.1**	**-3.0**
IIGN				AMb	AMB	13 47 49.0	
	comp=Z,143nm,1.2s						
IIGN	**Ignalina**	**19.71**	**6**	*e*P	**Pn**	**13 47 46.1**	**-3.1**
	comp=Z,143nm,1.2s,SNR=35						
SNF	**Seneffe**	**19.73**	**324**	P	**Pn**	**13 47 48.6**	**-0.8**
	comp=Z,188nm,1.1s						
SNF	**Seneffe**	**19.73**	**324**	P	**Pn**	**13 47 48.5**	**-0.9**
	comp=Z,188nm,1.1s,SNR=1.0						
IDID	**Didziasalis**	**19.73**	**7**	*e*P	**Pn**	**13 47 46.1**	**-3.2**
IDID				AMb	AMB	13 47 48.9	
	comp=Z,73nm,0.8s						
IDID	**Didziasalis**	**19.73**	**7**	*e*P	**Pn**	**13 47 46.1**	**-3.2**
	comp=Z,73nm,0.8s,SNR=35						
OSSF	**Osses**	**19.73**	**299**	*e*P	**Pn**	**13 47 47.1**	**-2.4**
RGN	**Rugen**	**19.79**	**344**	*e*P	**Pn**	**13 47 48.9**	**-1.2**
	comp=Z,515nm,0.9s						
RGN	**Rugen**	**19.79**	**344**	P	**Pn**	**13 47 48.9**	**-1.2**
	comp=Z,515nm,0.9s,SNR=1.0						
UCC	**Uccle**	**19.88**	**325**	P	**Pn**	**13 47 50.3**	**-0.9**
	comp=Z,30nm,1.2s						
EALK	**Alkurruntz**	**19.89**	**299**	P	**Pn**	**13 47 50.5**	**-0.9**
	comp=Z,136nm,0.5s						
EALK	**Alkurruntz**	**19.89**	**299**	P	**Pn**	**13 47 50.5**	**-0.9**
	comp=Z,136nm,0.5s,SNR=1.0						
ELIZ	**Elizondo**	**19.90**	**299**	P	**Pn**	**13 47 50.7**	**-0.8**
	comp=Z,106nm,0.5s						
ELIZ	**Elizondo**	**19.90**	**299**	P	**Pn**	**13 47 50.7**	**-0.8**
ELIZ				pmax	pmax		
	comp=Z,106nm,0.5s						
ELIZ	**Elizondo**	**19.90**	**299**	P	**Pn**	**13 47 50.7**	**-0.8**
	comp=Z,106nm,0.5s						
ENIJ	**Nijar**	**19.90**	**281**	P	**Pn**	**13 47 50.8**	**-0.8**
ENIJ				pmax	pmax		
	comp=Z,89nm,1.0s						
ENIJ	**Nijar**	**19.90**	**281**	P	**Pn**	**13 47 50.8**	**-0.8**
	comp=Z,89nm,1.0s						
BRDA	**Brd**	**19.93**	**70**	P	**Pn**	**13 47 50.6**	**-1.3**
	SNR=103						
BRDA				S	**S**	**13 51 32.7**	**+1.6**
BSD	**Bornholm Skovb**	**20.00**	**347**	⇓*i*P	**Pn**	**13 47 49.5**	**-3.1**
BSD				*i* S	**S**	**13 51 25.7**	**-6.5**
BSD				pmax	pmax		
	comp=Z,390nm,0.9s						
BSD				MLR	MLR		
	comp=Z,690nm,19.0s						
BSD	**Bornholm Skovb**	**20.00**	**347**	⇓*i*P	**Pn**	**13 47 49.5**	**-3.1**
	comp=Z,387nm,0.9s						
BSD				*i* S	**S**	**13 51 25.7**	**-6.5**
BSD							
	comp=Z,680nm,19.0s						
BSD	**Bornholm Skovb**	**20.00**	**347**	*i* P	**Pn**	**13 47 49.5**	**-3.1**
	comp=Z,390nm,0.9s						
BSD				*i* S	**S**	**13 51 25.7**	**-6.5**
	comp=Z,690nm,19.0s						
SEKA	**Sheki**	**20.05**	**67**	P	**P**	**13 47 50.3**	**-0.8**
	SNR=148						
SEKA				S	**S**	**13 51 30.2**	**-3.2**
EVIA	**Vianos**	**20.08**	**286**	P	**P**	**13 47 51.9**	**+0.4**
	comp=Z,13nm,0.5s						
EVIA	**Vianos**	**20.08**	**286**	P	**P**	**13 47 51.9**	**+0.4**
EVIA				pmax	pmax		
	comp=Z,13nm,0.5s						
EVIA	**Vianos**	**20.08**	**286**	P	**P**	**13 47 51.9**	**+0.4**
	comp=Z,13nm,0.5s						
MFF	**Saint Martin d**	**20.09**	**309**	*e*P	**P**	**13 47 52.2**	**+0.7**
MFF				pmax	pmax		
	comp=Z,139nm,0.5s						
MFF	**Saint Martin d**	**20.09**	**309**	*e*P	**P**	**13 47 52.2**	**+0.7**
	comp=Z,277nm,0.5s						
MFF	**Saint Martin d**	**20.09**	**309**	*e*P	**P**	**13 47 52.2**	**+0.7**
	comp=Z,139nm,0.5s						
IZAR	**Zarasai**	**20.11**	**6**	*e*P	**P**	**13 47 50.6**	**-1.0**
IZAR				AMb	AMB	13 47 53.2	
	comp=Z,196nm,1.2s						
IZAR	**Zarasai**	**20.11**	**6**	*e*P	**P**	**13 47 50.6**	**-1.0**
	comp=Z,196nm,1.2s,SNR=35						
WIT	**Witteveen**	**20.34**	**332**	*e*P	**P**	**13 47 56.0**	**+1.8**
	comp=Z,616nm,1.5s						
EBER	**Berja**	**20.45**	**281**	P	**P**	**13 47 56.2**	**+0.6**
	comp=Z,225nm,3.1s						
ECRI	**Cripan**	**20.48**	**297**	P	**P**	**13 47 56.0**	**+0.2**
ECRI	**Cripan**	**20.48**	**297**	P	**P**	**13 47 56.0**	**+0.2**
LCHF	**La Chataignera**	**20.49**	**309**	*e*P	**P**	**13 47 55.8**	**0.0**
EQES	**Quesada**	**20.55**	**283**	P	**P**	**13 47 56.7**	**+0.2**
	comp=Z,132nm,1.0s						
EQES	**Quesada**	**20.55**	**283**	P	**P**	**13 47 56.7**	**+0.2**
	comp=Z,132nm,1.0s						
VRHR	**Novokhopersk**	**20.56**	**36**	*e*P	**P**	**13 47 55.8**	**-0.7**
VRHR				*e*S	**S**	**13 51 38.5**	**-4.9**
VRHR				pmax	pmax		
	comp=N,200nm,1.0s						
VRHR				pmax	pmax		
	comp=Z,490nm,1.0s						
VRHR				pmax	pmax		
	comp=E,220nm,0.8s						
VRHR				smax			
	comp=N,290nm,1.0s						
VRHR				smax			
	comp=E,480nm,1.0s						
VRHR				smax			
	comp=Z,50nm,1.0s						
VRHR	**Novokhopersk**	**20.56**	**36**	*e*P	**P**	**13 47 55.8**	**-0.7**
VRHR				*e*S	**S**	**13 51 38.5**	**-4.9**
MAK	**Makhachkala**	**20.57**	**62**	*e*P	**P**	**13 47 57.0**	**+0.3**
ECOG	**Cogollos-Vega**	**20.97**	**282**	P	**P**	**13 48 02.0**	**+0.9**
ECOG	**Cogollos-Vega**	**20.97**	**282**	P	**P**	**13 48 02.0**	**+0.9**
LDF	**La Druitiere**	**20.97**	**315**	*e*P	**P**	**13 48 01.4**	**+0.4**
LDF				pmax	pmax		
	comp=Z,721nm,0.9s						
LDF	**La Druitiere**	**20.97**	**315**	*e*P	**P**	**13 48 01.4**	**+0.4**
	comp=Z,1µm,0.9s						
LDF	**La Druitiere**	**20.97**	**315**	*e*P	**P**	**13 48 01.4**	**+0.4**
	comp=Z,721nm,0.9s						
EGUA	**Guajares**	**21.00**	**281**	P	**P**	**13 48 01.6**	**+0.1**
EGUA	**Guajares**	**21.00**	**281**	P	**P**	**13 48 01.6**	**+0.2**
COP	**Copenhagen**	**21.04**	**344**	⇓*i*P	**P**	**13 48 01.9**	**+0.2**
COP				*i* S	**S**	**13 51 50.4**	**-2.3**
COP				pmax	pmax		
	comp=Z,260nm,0.9s,mb5.6						
COP				MLR	MLR		
	comp=Z,360nm,17.0s						
COP	**Copenhagen**	**21.04**	**344**	⇓*i*P	**P**	**13 48 01.9**	**+0.2**
	comp=Z,256nm,0.9s,mb5.5						
COP				*i* S	**S**	**13 51 50.4**	**-2.3**
COP							
	comp=Z,360nm,17.0s						
COP	**Copenhagen**	**21.04**	**344**	*i* P	**P**	**13 48 01.9**	**+0.2**
	comp=Z,260nm,0.9s,mb5.6						
COP				*i* S	**S**	**13 51 50.4**	**-2.3**
	comp=Z,360nm,17.0s						
PQL	**Pirkuli**	**21.05**	**68**	P	**P**	**13 48 02.6**	**+0.7**
	SNR=37						
PQL				S	**S**	**13 51 50.7**	**-2.6**
EBAN	**Banos Encina**	**21.10**	**284**	P	**P**	**13 48 02.7**	**+0.2**
	comp=Z,58nm,0.8s,mb5.0						
EBAN	**Banos Encina**	**21.10**	**284**	P	**P**	**13 48 02.7**	**+0.2**
EBAN				pmax	pmax		
	comp=Z,58nm,0.8s,mb5.0						
EBAN	**Banos Encina**	**21.10**	**284**	P	**P**	**13 48 02.7**	**+0.2**
	comp=Z,58nm,0.8s,mb5.0						
ERON	**Agron**	**21.18**	**281**	P	**P**	**13 48 04.3**	**+0.9**
	comp=Z,94nm,1.0s,mb5.1						
ERON	**Agron**	**21.18**	**281**	P	**P**	**13 48 04.3**	**+1.0**
	comp=Z,94nm,1.0s,mb5.1						
ESDC	**Sonseca Array**	**21.24**	**288**	P	**P**	**13 48 03.0**	**-1.0**
	comp=Z,6.9nm,0.8s,mb4.0						
ESDC	**Sonseca Array**	**21.24**	**288**	P	**P**	**13 48 03.7**	**-0.3**
	comp=Z,33nm,0.6s,mb4.8,baz=90,slow=11,SNR=77						
ESDC	**Sonseca Array**	**21.24**	**288**	P	**P**	**13 48 03.0**	**-1.0**
	comp=Z,6.9nm,0.8s,mb4.0						
ESLA	**Sonseca Array**	**21.24**	**288**	*e*P	**P**	**13 48 03.7**	**-0.3**
	comp=Z,22nm,1.0s,mb4.5						
ESLA	**Sonseca Array**	**21.24**	**288**	*e*P	**P**	**13 48 03.7**	**-0.3**
	comp=Z,22nm,1.0s,mb4.5						
FLN	**La Foliniere**	**21.26**	**315**	*e*P	**P**	**13 48 04.4**	**+0.3**
	comp=Z,1µm,0.8s,mb6.2						
FLN				LR	LR		
	comp=Z,690nm,20.0s,MS4.0						
FLN	**La Foliniere**	**21.26**	**315**	*e*P	**P**	**13 48 04.4**	**+0.3**
FLN				pmax	pmax		
	comp=Z,1µm,0.8s,mb6.2						
FLN				MLR	MLR		
	comp=Z,690nm,20.0s,MS4.0						
FLN	**La Foliniere**	**21.26**	**315**	*e*P	**P**	**13 48 04.4**	**+0.3**
	comp=Z,2µm,0.8s,mb6.2						
FLN				*e*MLR	MLR		
	comp=Z,691nm,20.0s						
FLN	**La Foliniere**	**21.26**	**315**	P	**P**	**13 48 04.4**	**+0.3**
	comp=Z,1µm,0.8s,mb6.2,SNR=1.0						
ELAN	**Lanestosa**	**21.27**	**298**	P	**P**	**13 48 04.4**	**+0.1**
	comp=Z,144nm,0.8s,mb5.4						
ELAN	**Lanestosa**	**21.27**	**298**	P	**P**	**13 48 04.4**	**+0.1**
	comp=Z,144nm,0.8s,mb5.4						
GRR	**Gorron**	**21.30**	**313**	*e*P	**P**	**13 48 04.5**	**-0.1**
GRR				pmax	pmax		
	comp=Z,304nm,1.0s,mb5.6						
GRR	**Gorron**	**21.30**	**313**	*e*P	**P**	**13 48 04.5**	**-0.1**
	comp=Z,608nm,1.0s,mb5.6						
GRR	**Gorron**	**21.30**	**313**	*e*P	**P**	**13 48 04.5**	**-0.1**
	comp=Z,304nm,1.0s,mb5.6						
ALIB	**Ii-Bayraml**	**21.31**	**71**	P	**P**	**13 48 04.8**	**+0.1**
	SNR=2.8						
ALIB				S	**S**	**13 51 58.7**	**+0.4**
SIZA	**Siyzn**	**21.31**	**68**	P	**P**	**13 48 04.2**	**-0.5**
	SNR=17						
SIZA				S	**S**	**13 51 56.6**	**-1.7**
GUD	**Guadarrama**	**21.44**	**291**	P	**P**	**13 48 05.4**	**-0.7**
GUD	**Guadarrama**	**21.44**	**291**	P	**P**	**13 48 05.4**	**-0.8**
ELOJ	**Sierra Loja**	**21.44**	**281**	P	**P**	**13 48 05.5**	**-0.7**
ELOJ	**Sierra Loja**	**21.44**	**281**	P	**P**	**13 48 05.5**	**-0.7**
ELUQ	**Luque**	**21.50**	**283**	P	**P**	**13 48 06.8**	**-0.1**
	comp=Z,108nm,0.8s,mb5.3						
ELUQ	**Luque**	**21.50**	**283**	P	**P**	**13 48 06.8**	**-0.1**
ELUQ				pmax	pmax		
	comp=Z,108nm,0.8s,mb5.3						
ELUQ	**Luque**	**21.50**	**283**	P	**P**	**13 48 06.8**	**-0.1**
	comp=Z,108nm,0.8s,mb5.3						
PAB	**San Pablo**	**21.53**	**288**	*e*P	**P**	**13 48 06.9**	**-0.3**
	comp=Z,220nm,1.3s,mb5.4						
PAB	**San Pablo**	**21.53**	**288**	*e*P	**P**	**13 48 06.9**	**-0.3**
PAB				pmax	pmax		
	comp=Z,220nm,1.3s,mb5.4						
PAB	**San Pablo**	**21.53**	**288**	*e*P	**P**	**13 48 06.9**	**-0.3**
	comp=Z,220nm,1.3s,mb5.4						
OBN	**Obninsk**	**21.61**	**22**	P	**P**	**13 48 06.0**	**-1.8**
	comp=Z,5µm,0.4s,SNR=16						
OBN	**Obninsk**	**21.61**	**22**	*e*P	**P**	**13 48 05.9**	**-1.8**
OBN	**Obninsk**	**21.61**	**22**	⇑*i*P	**P**	**13 48 05.8**	**-2.0**
OBN				*i* S	**S**	**13 52 02.1**	**-1.8**
OBN				pmax	pmax		
	comp=Z,422nm,1.4s,mb5.7						
OBN				MLR	MLR		
	comp=Z,700nm,17.0s,MS4.1						
OBN	**Obninsk**	**21.61**	**22**	*e*P	**P**	**13 48 05.9**	**-1.9**
OBN				*i* S	**S**	**13 52 02.1**	**-1.8**
	comp=Z,700nm,17.0s						
TFO1	**Folkestone**	**21.66**	**322**	*e*P	**P**	**13 48 06.9**	**-1.5**
MIB	**Mutribah**	**21.70**	**99**	*e*P	**P**	**13 48 08.3**	**-0.8**
MIB				AMb	AMB	13 48 10.1	
	comp=Z,2µm,0.7s,mb6.5						
EADA	**Adamuz**	**21.72**	**284**	P	**P**	**13 48 08.6**	**-0.6**
	comp=Z,50nm,1.1s,mb4.8						
EADA	**Adamuz**	**21.72**	**284**	P	**P**	**13 48 08.6**	**-0.6**
	comp=Z,50nm,1.1s,mb4.8						
NAY	**Al-Naaiem**	**21.84**	**100**	*e*P	**P**	**13 48 09.6**	**-0.9**
NAY				AMb	AMB	13 48 11.1	
	comp=Z,392nm,0.6s,mb6.0						
GOBA	**Gobu**	**21.89**	**70**	P	**P**	**13 48 13.2**	**+2.3**
	SNR=5.4						
GOBA				S	**S**	**13 52 08.3**	**-1.3**
MRKH	**Merkhyat**	**21.89**	**154**	⇓*i*P	**P**	**13 48 11.4**	**+0.4**
MRKH				*e*		13 48 13.0	
	baz=311,slow=10						
MRKH				AMb	AMB	13 48 13.3	
	comp=Z,432nm,0.9s,mb5.9						
MRKH				*i* S	**S**	**13 52 12.2**	**+2.4**
EMIJ	**Mijas**	**21.99**	**280**	P	**P**	**13 48 11.3**	**-0.7**
	comp=Z,95nm,1.1s,mb5.1						
EMIJ	**Mijas**	**21.99**	**280**	P	**P**	**13 48 11.3**	**-0.8**
	comp=Z,95nm,1.1s,mb5.1						
GOTU	**Gotland**	**22.04**	**354**	P	**P**	**13 48 12.3**	**-0.1**
	SNR=1.0						
UMR	**Umm Al-Rimmam**	**22.10**	**99**	*e*P	**P**	**13 48 12.2**	**-1.1**
UMR				AMb	AMB	13 48 15.5	
	comp=Z,961nm,0.5s,mb6.5						
RDF	**Al-Radifah**	**22.22**	**101**	*e*P	**P**	**13 48 13.4**	**-1.1**
RDF				AMb	AMB	13 48 20.4	
	comp=Z,634nm,0.9s,mb6.0						
KBD	**Kabd**	**22.23**	**100**	*e*P	**P**	**13 48 14.0**	**-0.7**
KBD				AMb	AMB	13 48 20.6	
	comp=Z,2µm,1.0s,mb6.5						
JRS	**Jersey**	**22.40**	**314**	⇑*e*P	**P**	**13 48 15.9**	**-0.4**
JSA	**Saint Aubin**	**22.44**	**314**	*e*P	**P**	**13 48 16.4**	**-0.4**
MOS	**Moscow**	**22.46**	**23**	*e*P	**P**	**13 48 15.6**	**-1.2**
MOS				*e**PP		13 48 29.8	
MOS				*e*		13 48 38.5	
MOS				*i* S	**S**	**13 52 15.0**	**-5.0**
MOS				*e*SS		13 52 45.0	
MOS				*i*		13 59 23.9	
MOS				pmax	pmax		
	comp=N,177nm,0.6s						
MOS				pmax	pmax		
	comp=E,135nm,0.6s						
MOS				pmax	pmax		
	comp=Z,426nm,0.6s,mb6.0						
MOS				smax			
	comp=N,1µm,3.0s						
MOS				smax			
	comp=E,3µm,3.0s						

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MOS   Moscow            22.46  23 eP     P      13 48 15.6 -1.2
MOS                               i S    S      13 52 15.0 -5.0
MOS                               i ScS  ScS    13 59 23.9 -3.4
QUIF  Quistinic         22.50 310 eP     P      13 48 16.9 -0.4
QUIF                               pmax  pmax
      comp=Z,51nm,0.6s,mb5.1
QUIF  Quistinic         22.50 310 eP     P      13 48 16.9 -0.4
      comp=Z,102nm,0.6s,mb5.2
QUIF  Quistinic         22.50 310 eP     P      13 48 16.9 -0.4
      comp=Z,51nm,0.6s,mb5.1
MUD   Monsted U’grnd    22.54 341 i P    P      13 48 17.3 -0.3
MUD                               i             13 48 43.4
MUD                               e             13 52 27.7
MUD                                pmax  pmax
      comp=Z,120nm,1.1s,mb5.2
MUD                                MLR   MLR
      comp=Z,600nm,20.0s,MS4.0
MUD   Monsted U’grnd    22.54 341 i P    P      13 48 17.3 -0.3
      comp=Z,120nm,1.1s,mb5.2
MUD                               i             13 48 43.4
MUD                               e             13 52 27.7
MUD
      comp=Z,590nm,20.0s
MUD   Monsted U’grnd    22.54 341 i P    P      13 48 17.3 -0.3
      comp=Z,120nm,1.1s,mb5.2
MUD                               eS     S      13 52 27.7 +6.4
AEU   East Anglia Un    22.55 325⇑eP     P      13 48 16.9 -0.8
MDT   Midelt            22.56 270  P     P      13 48 18.0 -0.1
      comp=Z,37nm,0.8s,mb4.8,baz=81,slow=11,SNR=58
MDT                                S     S      13 52 19.3 -2.8
      comp=Z,3.5nm,0.9s,baz=150,slow=12,SNR=1.8
EARI  Arriondas         22.56 298  P     P      13 48 17.7 -0.3
      comp=Z,37nm,0.9s,mb4.8
EARI  Arriondas         22.56 298  P     P      13 48 17.7 -0.3
      comp=Z,37nm,0.9s,mb4.8
EJIF  Jimena Fronter    22.56 280  P     P      13 48 17.4 -0.7
QRN   Al-Qurain         22.59 101 eP     P      13 48 17.6 -0.9
QRN                                AMb   AMB    13 48 19.9
      comp=Z,365nm,0.9s,mb5.8
TGT   Taghat            22.62 274  P     P      13 48 18.0 -0.8
      SNR=1.0
ROSF  Rostrenen         22.73 311 eP     P      13 48 19.4 -0.4
ROSF                               pmax  pmax
      comp=Z,344nm,1.2s,mb5.7
ROSF  Rostrenen         22.73 311 eP     P      13 48 19.4 -0.4
      comp=Z,688nm,1.2s,mb5.7
ROSF  Rostrenen         22.73 311 eP     P      13 48 19.4 -0.4
      comp=Z,344nm,1.2s,mb5.7
ESPR  Espera            22.83 281  P     P      13 48 19.6 -1.3
      comp=Z,25nm,0.5s,mb4.9
ESPR  Espera            22.83 281  P     P      13 48 19.6 -1.3
      comp=Z,25nm,0.5s,mb4.9
VSU   Vasula            22.84   6 i Pr   P      13 48 19.4 -1.4
VSU   Vasula            22.84   6d iP    P      13 48 19.3 -1.5
VSU   Vasula            22.84   6 i P    P      13 48 19.3 -1.5
SKP1  Kophill           23.00 321 eP     P      13 48 21.6 -1.0
EMIN  Mina Concepcio    23.40 283  P     P      13 48 26.3 -0.4
      comp=Z,36nm,0.8s,mb4.8
EMIN  Mina Concepcio    23.40 283  P     P      13 48 26.3 -0.3
      comp=Z,36nm,0.8s,mb4.8
SWN1  Swindon           23.40 320 eP     P      13 48 25.6 -1.0
PBRG  Braganca          23.48 294 eP     P      13 48 26.3 -1.1
      comp=Z,52nm,1.1s,mb4.9
ECAL  Calabor           23.49 294  P     P      13 48 26.5 -1.0
      comp=Z,42nm,0.5s,mb5.1
ECAL  Calabor           23.49 294  P     P      13 48 26.5 -1.0
      comp=Z,42nm,0.5s,mb5.1
EBAD  Badajoz           23.61 286  P     P      13 48 27.2 -1.4
      comp=Z,42nm,0.9s,mb4.9
EBAD  Badajoz           23.61 286  P     P      13 48 27.2 -1.4
      comp=Z,42nm,0.9s,mb4.9
MVO   Moncorvo          23.65 292 eP     P      13 48 28.1 -0.8
      comp=Z,65nm,1.2s,mb4.9
MVO                               eS     S      13 52 41.6 +1.9
MVO   Moncorvo          23.65 292 eP     P      13 48 27.6 -1.3
SSW   Stow on the Wo    23.68 321⇑eP     P      13 48 28.6 -0.5
ERUA  La Rua            23.84 295  P     P      13 48 30.2 -0.5
      comp=Z,6.9nm,0.5s,mb4.3
ERUA  La Rua            23.84 295  P     P      13 48 30.2 -0.4
ERUA                               pmax  pmax
      comp=Z,7.0nm,0.5s,mb4.3
ERUA  La Rua            23.84 295  P     P      13 48 30.2 -0.4
      comp=Z,7.0nm,0.5s,mb4.3
PCBR  Castelo Branco    23.95 289 eP     P      13 48 30.8 -0.9
      comp=Z,80nm,2.1s,mb4.8
EPON  Pontenova         23.96 297  P     P      13 48 30.9 -0.8
EPON  Pontenova         23.96 297  P     P      13 48 30.9 -0.8
HGH   Gray Hill         24.00 319 eP     P      13 48 30.8 -1.3
HGH   Gray Hill         24.00 319  P     P      13 48 30.8 -1.2
      comp=Z,202nm,1.7s,mb5.3,SNR=1.0
MTE   Manteigas         24.01 290 eP     P      13 48 31.7 -0.5
      comp=Z,71nm,1.0s,mb5.0
MTE                               eS     S      13 52 51.5 +6.0
MTE   Manteigas         24.01 290 eP     P      13 48 31.7 -0.5
      comp=Z,37nm,0.9s,mb4.8
DYA   Yadsworthy        24.03 316 eP     P      13 48 32.0 -0.3
DYA                                AMb   AMB    13 48 37.4
      comp=Z,202nm,1.7s,mb5.3
EGRO  El Granado        24.06 283  P     P      13 48 31.4 -1.3
EGRO  El Granado        24.06 283  P     P      13 48 31.4 -1.3
PESTR Estremoz          24.06 286 eP     P      13 48 31.9 -0.8
      comp=Z,78nm,1.1s,mb5.0
PESTR                             eS     S      13 52 44.7 -1.6
HAE   Alders End        24.08 320 eP     P      13 48 31.6 -1.1
PVRL  Vila Real         24.18 292 eP     P      13 48 32.7 -1.0
      comp=Z,68nm,1.9s,mb4.8
KBI1  Birley Grange     24.25 323 eP     P      13 48 33.8 -0.5
PVAQ  Vaqueiros         24.25 283 eP     P      13 48 33.5 -1.0
      comp=Z,134nm,1.7s,mb5.1
PVAQ                              eS     S      13 52 53.4 +3.9
HEX   Exmoor            24.25 317 eP     P      13 48 34.0 -0.3
KWE   Weaver Farm       24.27 323 eP     P      13 48 33.4 -1.0
KWE   Weaver Farm       24.27 323  P     P      13 48 33.4 -1.0
      comp=Z,154nm,2.0s,mb5.1,SNR=1.0
PVIS  Viseu             24.29 291 eP     P      13 48 34.3 -0.4
      comp=Z,124nm,2.0s,mb5.0
MCH1  Michaelchurch     24.29 320 eP     P      13 48 34.2 -0.5
MCH1                               AMb   AMB    13 48 37.7
      comp=Z,154nm,2.0s,mb5.1
PBEJ  Beja              24.32 284 eP     P      13 48 34.5 -0.6
      comp=Z,122nm,1.8s,mb5.0
EVO   Evora             24.40 286 eP     P      13 48 35.7 -0.1
      comp=Z,38nm,0.7s,mb4.6
PCAB  Cabril            24.43 293 eP     P      13 48 35.3 -0.8
      comp=Z,126nm,0.9s,mb5.3
PBDV  Barranco-do-Ve    24.44 282 eP     P      13 48 35.8 -0.4
      comp=Z,235nm,1.8s,mb5.3
PBDV                              eS     S      13 52 51.5 -1.0
ELOB  Lobios            24.47 294  P     P      13 48 36.5  0.0
ELOB  Lobios            24.47 294  P     P      13 48 36.5 +0.1
HTR   Trewern Hill      24.48 320 eP     P      13 48 36.2 -0.1
EVOP  Sao Brissos       24.49 286  P     P      13 48 35.7 -0.9
      comp=Z,19nm,0.7s,mb4.6,SNR=1.0
PUL   Pulkovo           24.51  10⇑eP     P      13 48 36.9 +0.4
HLM1  Long Mynd         24.51 321 eP     P      13 48 35.6 -1.0
CSA1  St Austell        24.54 315 eP     P      13 48 36.7 -0.3
LHO   Holmfirth         24.58 324 eP     P      13 48 36.0 -1.3
HTL   Hartland          24.60 316 eP     P      13 48 37.6 +0.1
HTL                                AMb   AMB    13 48 42.6
      comp=Z,171nm,1.5s,mb5.4
CRQ2  Rosemanowes 2     24.62 314 eP     P      13 48 37.2 -0.4
CRQ2  Rosemanowes 2     24.62 314  P     P      13 48 37.2 -0.5
      SNR=1.0
CCA1  Carnmenellis      24.66 314 eP     P      13 48 36.9 -1.2
MOE   Montemor          24.67 286 eP     P      13 48 38.4 +0.2
PTOM  Tomar             24.67 288 eP     P      13 48 37.6 -0.7
      comp=Z,75nm,1.0s,mb5.2
HPK   Haverah Park      24.72 325⇑eP     P      13 48 38.0 -0.5
HPK                                AMb   AMB    13 48 40.1
      comp=Z,61nm,1.1s,mb5.0
PTO   Porto             24.84 292 eP     P      13 48 40.3 +0.5
      comp=Z,151nm,1.6s,mb5.3
CPZ   Penzance          24.86 314 eP     P      13 48 39.0 -0.9
SBD1  Bryn Du           24.91 321⇑eP     P      13 48 40.4 +0.1
STS   Santiago          24.92 296  P     P      13 48 40.6 +0.1
STS                                pmax  pmax
      comp=Z,22nm,0.8s,mb4.7
STS   Santiago          24.92 296  P     P      13 48 40.6 +0.1
      comp=Z,22nm,0.8s,mb4.7,SNR=1.0
EZAM  Zamans            24.96 294  P     P      13 48 40.7 -0.2
EZAM  Zamans            24.96 294  P     P      13 48 40.7 -0.2
HFS   Hagfors           25.00 350  P     P      13 48 40.2 -0.8
      comp=Z,61nm,0.4s,mb5.5,baz=158,slow=11,SNR=290
HFS                                S     S      13 53 03.3 +2.4
      comp=Z,18nm,0.8s,baz=150,slow=15,SNR=4.5
HFS                                LR    LR     14 00 28.5
      comp=Z,672nm,18.4s,MS4.2,baz=165,slow=41
HFS   Hagfors           25.00 350  P     P      13 48 40.2 -0.8
HFS                                S     S      13 53 03.3 +2.4
MORF  Marmelete         25.00 283 eP     P      13 48 42.1 +0.8
      comp=Z,116nm,2.0s,mb5.1
MORF                              eS     S      13 53 03.8 +2.3
HFA0  Hagfors New Ar    25.01 350  P     P      13 48 39.9 -1.2
PTEO  Sao Teotonio      25.04 283 eP     P      13 48 41.6  0.0
      comp=Z,228nm,1.5s,mb5.5
PFVI  Vila Bisbo        25.16 282 eP     P      13 48 42.4 -0.4
      comp=Z,110nm,1.4s,mb5.2
PFVI                              eS     S      13 53 07.9 +3.9
PFVI  Vila Bisbo        25.16 282 eP     P      13 48 43.7 +0.9
PFVI                              eS     S      13 53 07.9 +3.9
EMAZ  Mazaricos         25.24 296  P     P      13 48 42.8 -0.6
EMAZ  Mazaricos         25.24 296  P     P      13 48 42.8 -0.6
KONO  Kongsberg         25.29 345 eP     P      13 48 43.9 +0.2
      comp=Z,85nm,0.8s,mb5.3
KONO  Kongsberg         25.29 345 eP     P      13 48 43.9 +0.3
KONO                               pmax  pmax
      comp=Z,85nm,0.8s,mb5.3
KONO  Kongsberg         25.29 345 eP     P      13 48 43.9 +0.3
      comp=Z,85nm,0.8s,mb5.3
OSL   Oslo              25.32 346 eP     P      13 48 43.1 -0.9
      comp=Z,170nm,0.7s,mb5.7
OSL   Oslo              25.32 346 eP     P      13 48 43.3 -0.6
OSL                                AMb   AMB    13 48 45.3
      comp=Z,170nm,0.7s,mb5.7
OSL   Oslo              25.32 346 eP     P      13 48 43.1 -0.8
      comp=Z,170nm,0.7s,mb5.7
PMAFR Mafra             25.37 287 eP     P      13 48 44.9 +0.3
      comp=Z,89nm,0.8s,mb5.3
XAL   Allendale         25.55 326⇑eP     P      13 48 44.6 -1.5
YRE   Yr Eifl           25.55 321⇑eP     P      13 48 46.1  0.0
WLF1  Llynfaes          25.70 321 eP     P      13 48 47.0 -0.5
FINES FINESS Array B    25.76   4  P     P      13 48 47.1 -0.8
FINES                              S     S      13 53 08.3 -4.7
FINES                              ScP   ScP    13 55 49.7 -1.6
FINES                              LR    LR     13 59 45.8
FINES FINESS Array B    25.76   4  P     P      13 48 47.1 -0.8
      comp=Z,25nm,0.4s,mb5.1,baz=169,slow=10,SNR=200
FINES                              S     S      13 53 08.3 -4.6
      comp=Z,13nm,0.9s,baz=179,slow=15,SNR=3.7
FINES                              ScP   ScP    13 55 49.7 -1.6
      comp=Z,4.4nm,0.9s,baz=35,slow=3.4,SNR=2.9
FINES                              LR    LR     13 59 45.8
      comp=Z,771nm,18.9s,MS4.2,slow=38
FINES FINESS Array B    25.76   4  P     P      13 48 47.1 -0.8
FINES                              S     S      13 53 08.3 -4.6
FIA1  FINESS Array S    25.76   4 eP     P      13 48 46.8 -1.1
FIA1  FINESS Array S    25.76   4 eP     P      13 48 46.8 -1.1
YRC   Rhoscolyn         25.77 321 eP     P      13 48 47.0 -1.1
CKE   Keswick           25.80 325⇑eP     P      13 48 47.5 -0.8
WCB1  Church Bay        25.82 321 eP     P      13 48 48.2 -0.3
BLS5  Blasjo            25.84 341 eP     P      13 48 51.5 +2.8
      comp=Z,143nm,0.7s,mb5.6
BLS5  Blasjo            25.84 341 eP     P      13 48 50.5 +1.8
BLS5                               AMb   AMB    13 48 52.9
      comp=Z,143nm,0.7s,mb5.6
BLS5  Blasjo            25.84 341 eP     P      13 48 51.5 +2.9
      comp=Z,143nm,0.7s,mb5.6
BBO1  Bothel            25.95 325 eP     P      13 48 49.7  0.0
XSO   Sourhope Farm     25.96 327⇑eP     P      13 48 49.7  0.0
NAO01 NORSAR Array S    26.13 347 eP     P      13 48 50.8 -0.4
      comp=Z,37nm,0.5s,mb5.2
NAO01 NORSAR Array S    26.13 347 eP     P      13 48 50.8 -0.5
      comp=Z,37nm,0.5s,mb5.2
BHH   Howats Hill       26.15 326 eP     P      13 48 50.7 -0.8
ECK   Cauldkaine Hil    26.16 326 eP     P      13 48 50.9 -0.7
NB2   NORSAR Subarra    26.26 348  P     P      13 48 52.0 -0.4
      comp=Z,38nm,0.5s,mb5.2,baz=158,slow=10
NB2   NORSAR Subarra    26.26 348  P     P      13 48 52.2 -0.2
NOA   NORSAR Array B    26.26 348  P     P      13 48 51.8 -0.5
      comp=Z,55nm,0.8s,mb5.1,baz=159,slow=9.9,SNR=74
NOA                                LR    LR     14 00 16.6
      comp=Z,457nm,21.4s,MS4.0,baz=160,slow=39
EKA   Eskdalemuir Ar    26.27 326  P     P      13 48 52.3 -0.2
      comp=Z,171nm,0.8s,mb5.7,baz=128,slow=7.6,SNR=194
GIM   North Isle of     26.28 323⇑eP     P      13 48 51.8 -0.9
ESK   Eskdalemuir       26.28 326  P     P      13 48 52.0 -0.6
      comp=Z,1µm,0.7s,mb6.6,SNR=42
ESK   Eskdalemuir       26.28 326⇑eP     P      13 48 52.6  0.0
ESK                                AMb   AMB    13 48 55.2
      comp=Z,186nm,0.8s,mb5.7
ESK   Eskdalemuir       26.28 326 eP     P      13 48 52.6  0.0
      comp=Z,156nm,0.8s,mb5.6
ESK   Eskdalemuir       26.28 326 eP     P      13 48 52.6  0.0
      comp=Z,156nm,0.8s,mb5.6
WIM   Isle of Man       26.30 323 eP     P      13 48 51.9 -0.9
GCD   Castle Douglas    26.35 325⇑eP     P      13 48 53.1 -0.2
ESY   Stoneypath        26.39 327 eP     P      13 48 53.0 -0.6
DSB   Dublin            26.70 320 eP     P      13 48 55.6 -0.9
      comp=Z,43nm,0.9s,mb5.0
DSB   Dublin            26.70 320 eP     P      13 48 55.6 -0.9
      comp=Z,43nm,0.9s,mb5.0
EAU   Auchinoon         26.71 327 eP     P      13 48 56.2 -0.4
GAL1  Galloway          26.72 324⇑eP     P      13 48 56.4 -0.2
DLF   Lyons Farm        26.80 320⇑iP     P      13 48 57.6 +0.2
GMM   Mts of Mourne     26.98 322⇑eP     P      13 48 59.1 +0.1
DCN   Croghan           27.22 319 eP     P      13 48 59.3 -1.8
EAB   Aberfoyle         27.32 327 eP     P      13 49 01.8 -0.2
GCL   Cushendall        27.52 323⇑eP     P      13 49 03.1 -0.7
DOMB  Dombas            27.58 346 eP     P      13 49 04.6 +0.3
      comp=Z,136nm,1.0s,mb5.5
DOMB  Dombas            27.58 346 eP     P      13 49 04.6 +0.3
DOMB                               AMb   AMB    13 49 09.2
      comp=Z,136nm,1.0s,mb5.5
DOMB  Dombas            27.58 346 eP     P      13 49 04.6 +0.3
      comp=Z,136nm,1.0s,mb5.5
JOF   Joensuu           27.68   9 ep     P      13 49 03.3 -1.9
      comp=Z,16nm,0.5s,mb4.9
MCD   Coleburn Disti    27.73 330⇑eP     P      13 49 05.1 -0.5
MDO   Dochfour          28.10 329 eP     P      13 49 07.8 -1.2
MLA1  Latheron          28.25 331⇑eP     P      13 49 10.1 -0.2
VAL   Valentia          28.27 315⇓iP     P      13 49 10.0 -0.5
KAR1  Arisaig           28.42 327 eP     P      13 49 10.5 -1.3
VAN   Vannovskaya       28.47  75 eP     P      13 49 12.0 -0.5
ABKT  Ailbek            28.48  75  P     P      13 49 11.6 -1.0
      comp=Z,294nm,0.5s,mb6.2,SNR=8.8
KPL   Plockton          28.59 328⇑eP     P      13 49 12.3 -1.0
KPL                                AMb   AMB    13 49 17.1
      comp=Z,99nm,2.1s,mb5.2
LRW   Lerwick           28.73 335 eP     P      13 49 13.7 -0.9
LRW                                AMb   AMB    13 49 15.2
      comp=Z,227nm,1.2s,mb5.8
TOA0  Torodi Ar. Sit    29.32 225 eP     P      13 49 19.5 -0.7
TOA0  Torodi Ar. Sit    29.32 225  P     P      13 49 19.5 -0.7
      SNR=1.0
TORD  Torodi Ar. Bea    29.32 225  P     P      13 49 19.7 -0.5
TORD                               ScP   ScP    13 56 00.3 -2.6
TORD                               LR    LR     14 01 49.8
TORD  Torodi Ar. Bea    29.32 225  P     P      13 49 19.7 -0.5
      comp=Z,16nm,0.7s,mb4.9,baz=33,slow=9.2,SNR=124
TORD                               ScP   ScP    13 56 00.3 -2.6
      comp=Z,3.9nm,1.1s,baz=9.6,slow=2.7,SNR=5.9
TORD                               LR    LR     14 01 49.8
      comp=Z,618nm,20.3s,MS4.2,baz=40,slow=38
RRH   Rhenigidale       29.38 328 eP     P      13 49 19.4 -0.9
AKTK  Aktyubinsk        29.44  49  P     P      13 49 19.7 -1.3
AKTK                               LR    LR     14 05 09.5
AKTO  Aktyubinsk        29.44  49  P     P      13 49 19.7 -1.3
      comp=Z,47nm,0.8s,mb5.2,baz=255,slow=8.6,SNR=145
AKTO                               LR    LR     14 05 09.5
      comp=Z,367nm,19.9s,MS4.0,baz=73,slow=44
NSS   Namsos            29.45 351 eP     P      13 49 19.5 -1.3
      comp=Z,145nm,1.8s,mb5.4
NSS   Namsos            29.45 351 eP     P      13 49 19.5 -1.3
NSS                                AMb   AMB    13 49 22.2
      comp=Z,145nm,1.8s,mb5.4
NSS   Namsos            29.45 351 eP     P      13 49 19.5 -1.3
      comp=Z,145nm,1.8s,mb5.4
PRGR  Permogore         29.69  22⇓iP     P      13 49 21.4 -1.6
PRGR                              eS     S      13 54 09.4 -5.4
PRGR                               pmax  pmax
      comp=Z,106nm,0.6s,mb5.8
PRGR  Permogore         29.69  22 i P    P      13 49 21.4 -1.6
      comp=Z,106nm,0.6s,mb5.8
PRGR                              eS     S      13 54 09.4 -5.4
ATD   Arta Tunnel       30.40 138  P     P      13 49 29.8 +0.1
ATD                                LR    LR     14 01 48.4
ATD   Arta Tunnel       30.40 138  P     P      13 49 29.8 +0.1
      comp=Z,9.5nm,0.7s,mb4.6,baz=283,slow=22,SNR=7.8
ATD                                LR    LR     14 01 48.4
      comp=Z,252nm,21.9s,baz=333,slow=36
BANOM Banah             30.52  99  P     P      13 49 30.6 -0.2
      SNR=12
MOR8  Moi Rana          30.77 354 eP     P      13 49 33.2 +0.7
      comp=Z,94nm,1.1s,mb5.5
MOR8  Moi Rana          30.77 354 eP     P      13 49 33.2 +0.7
MOR8                               AMb   AMB    13 49 34.3
      comp=Z,94nm,1.1s,mb5.5
MOR8  Moi Rana          30.77 354 eP     P      13 49 33.2 +0.7
      comp=Z,94nm,1.1s,mb5.5
ASHO  Ashiyiah          30.91 102  P     P      13 49 34.0 -0.2
      SNR=21
STOK  Stokkvaagen       31.07 353 eP     P      13 49 35.3 +0.2
      comp=Z,150nm,1.0s,mb5.8
STOK  Stokkvaagen       31.07 353 eP     P      13 49 35.3 +0.2
STOK                               AMb   AMB    13 49 36.3
      comp=Z,150nm,1.0s,mb5.8
STOK  Stokkvaagen       31.07 353 eP     P      13 49 35.3 +0.2
      comp=Z,150nm,1.0s,mb5.8
ARU   Arti              31.86  38  P     P      13 49 40.2 -2.0
      comp=Z,865nm,1.0s,mb6.5,SNR=32
ARU   Arti              31.86  38 eP     P      13 49 40.2 -2.0
      comp=Z,114nm,0.9s,mb5.7
ARU                               eS     S      13 54 45.5 -3.5
ARU   Arti              31.86  38⇑iP     P      13 49 40.4 -1.8
ARU                               e             13 52 28.8
ARU                               eS     S      13 54 43.9 -5.1
ARU                               eSS    SS     13 56 33.8  -33
ARU                                pmax  pmax
      comp=Z,157nm,1.1s,mb5.8
ARU   Arti              31.86  38 i P    P      13 49 40.4 -1.8
      comp=Z,157nm,1.1s,mb5.8
ARU   Arti              31.86  38 ePcP   PcP    13 52 28.8 -2.9
ARU                               eS     S      13 54 45.5 -3.5
ARQ   Araqi             31.94 104 ⇑P     P      13 49 43.4 +0.1
      SNR=55
APA   Apatity           32.41   8⇑iP     P      13 49 46.0 -0.9
APA                               i             13 50 11.4
APA                               eS     S      13 54 52.0 -5.3
APA                                pmax  pmax
      comp=Z,40nm,0.8s,mb5.3
APA                                MLR   MLR
      comp=Z,2µm,16.0s,MS4.8
APA   Apatity           32.41   8 i P    P      13 49 46.0 -0.9
      comp=Z,40nm,0.8s,mb5.3
APA                               eS     S      13 54 52.0 -5.3
HOQ   Hoqain            32.44 102  P     P      13 49 47.2 -0.5
      SNR=32
SOKR  Solikamsk         32.52  32c iP    P      13 49 46.4 -1.6
SOKR                               pmax  pmax
      comp=Z,210nm,1.7s,mb5.8
SOKR                               MLR   MLR
      comp=Z,450nm,15.0s,MS4.3
SOKR  Solikamsk         32.52  32 i P    P      13 49 46.4 -1.6
      comp=Z,450nm,15.0s
PMAR  Madeira           32.56 276 eP     P      13 49 50.0 +1.4
      comp=Z,104nm,1.1s,mb5.7
LOF   Lofoten           32.77 354 eP     P      13 49 51.5 +1.5
BSY   Bisya             32.78 104  P     P      13 49 50.2 -0.4
      SNR=39
BSYO  Bisya             32.82 104  P     P      13 49 50.2 -0.8
      SNR=39
LVZ   Lovozero          32.87   8⇑eP     P      13 49 48.5 -2.4
LVZ                                pmax  pmax
      comp=Z,30nm,1.1s,mb5.1
LVZ   Lovozero          32.87   8⇑eP     P      13 49 48.6 -2.3
WHFO  Wadi Hawf         32.91 115  P     P      13 49 51.5 -0.3
      SNR=20
ABTO  Aybut             32.92 116  P     P      13 49 52.0 +0.1
      SNR=42
SVE   Sverdlovsk        33.07  38⇑eP     P      13 49 52.0 -0.8
SVE                                pmax  pmax
      comp=Z,580nm,2.0s,mb6.2
SVE   Sverdlovsk        33.07  38 eP     P      13 49 52.0 -0.8
      comp=Z,580nm,2.0s,mb6.2
BIDO  Bidbid            33.12 102  P     P      13 49 53.4 -0.3
      SNR=8.7
KTK1  Kautokeino        33.26   0 eP     P      13 49 54.2 -0.1
KTK1                               AMb   AMB    13 49 55.9
      comp=Z,276nm,1.3s,mb6.0
KTK1  Kautokeino        33.26   0 eP     P      13 49 54.2 -0.1
      comp=Z,276nm,1.3s,mb6.0
SMDO  Samad             33.29 103  P     P      13 49 54.8 -0.4
      SNR=56
RBK   Rabkut            33.49 115  P     P      13 49 56.8 -0.1
      SNR=84
JMDO  Jabal Madar       33.69 104  P     P      13 49 57.9 -0.6
      SNR=22
ARCES ARCESS Array B    33.82   2  P     P      13 49 58.8 -0.4
      comp=Z,32nm,0.5s,mb5.5,baz=188,slow=9.2,SNR=266
ARCES                              S     S      13 55 16.4 -2.7
      comp=Z,10nm,0.9s,baz=194,slow=14,SNR=4.8
ARCES                              LR    LR     14 05 44.7
      comp=Z,750nm,19.6s,MS4.4,baz=182,slow=40
ARCES ARCESS Array B    33.82   2  P     P      13 49 58.8 -0.4
ARCES                              S     S      13 55 16.5 -2.6
TRO   Tromso            33.94 358 eP     P      13 49 59.0 -1.1
      comp=Z,216nm,1.3s,mb5.9
TRO   Tromso            33.94 358 eP     P      13 49 59.0 -1.1
TRO                                AMb   AMB    13 50 01.5
      comp=Z,216nm,1.3s,mb5.9
TRO   Tromso            33.94 358 eP     P      13 49 59.0 -1.2
      comp=Z,216nm,1.3s,mb5.9
KEV   Kevo              34.09   3 ep     P      13 50 00.8 -0.7
      comp=Z,31nm,0.7s,mb5.3
KEV   Kevo              34.09   3 eP     P      13 50 00.8 -0.7
KEV                                pmax  pmax
      comp=Z,31nm,0.7s,mb5.3
SHAO  Shalim            34.23 112 ⇑P     P      13 50 03.2 -0.1
      SNR=13
WBK   Wadi Bani Khal    34.25 103  P     P      13 50 03.7 +0.3
      SNR=97
BRVK  Borovoye          37.44  47  P     P      13 50 29.5 -0.9
      comp=Z,450nm,1.1s,mb6.2,SNR=22
BRVK  Borovoye          37.44  47 eP     P      13 50 29.9 -0.4
      comp=Z,53nm,0.8s,mb5.4
BRVK  Borovoye          37.44  47 eP     P      13 50 30.0 -0.4
BRVK                               pmax  pmax
      comp=Z,53nm,0.8s,mb5.4
BRVK  Borovoye          37.44  47 ⇑P     P      13 50 29.4 -0.9
      SNR=58
BRVK  Borovoye          37.44  47 eP     P      13 50 30.0 -0.4
      comp=Z,53nm,0.8s,mb5.4
KBL   Kabul             37.80  78 eP     P      13 50 33.5 -0.2
KBL   Kabul             37.80  78 eP     P      13 50 33.5 -0.2
TIC   Toumodi           38.45 228 eP     P      13 50 39.0 -0.3
      comp=Z,12nm,0.7s,mb4.8
KIC   Kosan Boka        38.51 227 eP     P      13 50 39.6 -0.2
      comp=Z,128nm,0.8s,mb5.7
LIC   Lamto             38.79 227 eP     P      13 50 42.0 -0.2
      comp=Z,71nm,0.6s,mb5.6
LIC   Lamto             38.79 227 eP     P      13 50 41.0 -1.2
      comp=Z,20nm,0.6s,mb5.0
LIC                                LR    LR
      comp=Z,230nm,21.5s,MS4.0
LIC   Lamto             38.79 227 eP     P      13 50 41.0 -1.2
      comp=Z,41nm,0.6s,mb5.1,baz=46
LIC                               eMLR   MLR
      comp=Z,460nm,21.5s,MS4.0
BORG  Borgarnes         38.94 332  P     P      13 50 44.1 +1.3
      comp=Z,22nm,0.7s,mb5.0,baz=148,slow=13,SNR=4.2
KMBO  Kilima Mbogo      39.24 156 eP     P      13 50 47.0 +1.0
      comp=Z,28nm,1.4s,mb4.8
KMBO  Kilima Mbogo      39.24 156  P     P      13 50 46.8 +0.9
KMBO                                            13 56 35.9
KMBO                               pmax  pmax
      comp=Z,7.0nm,0.8s
KMBO                               MLR   MLR
      comp=Z,422nm,18.9s
KMBO  Kilima Mbogo      39.24 156  P     P      13 50 46.8 +0.8
      comp=Z,7.4nm,0.8s,mb4.4,baz=354,slow=8.7,SNR=17
KMBO                               ScP   ScP    13 56 35.9 -2.3
      comp=Z,1.7nm,0.7s,baz=27,slow=9.0,SNR=3.7
KMBO                               LR    LR     14 08 44.7
      comp=Z,422nm,18.9s,MS4.3,baz=278,slow=39
KMBO  Kilima Mbogo      39.24 156 eP     P      13 50 47.0 +1.1
      comp=Z,28nm,1.4s,mb4.8
KMBO                               S     S      13 56 35.9 -6.9
      comp=Z,422nm,18.9s
EKS2  Erkin-Say         39.80  64  P     P      13 50 50.4  0.0
      SNR=113
EKS2  Erkin-Say         39.80  64 eP     P      13 50 50.0 -0.3
      comp=Z,79nm,0.8s,mb5.5
EKS2  Erkin-Say         39.80  64 eP     P      13 50 50.0 -0.3
      comp=Z,79nm,0.8s,mb5.5
AML   Almayashu         39.82  65  P     P      13 50 50.3 -0.1
      SNR=29
AML   Almayashu         39.82  65 eP     P      13 50 50.1 -0.3
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           comp=Z,19nm,0.6s,mb5.0
USP   Ospenovka        40.25  63   P      P      13 50 52.8 -1.2
           SNR=52
AAK   Ala-Archa        40.33  64   P      P      13 50 53.8 -0.9
           comp=Z,277nm,0.9s,mb6.0,SNR=60
AAK   Ala-Archa        40.33  64   P      P      13 50 54.8 +0.1
           SNR=57
AAK   Ala-Archa        40.33  64  eP      P      13 50 53.7 -1.0
           comp=Z,49nm,0.8s,mb5.3
AAK   Ala-Archa        40.33  64⇑eP      P      13 50 53.6 -1.1
AAK                                pmax   pmax
           comp=Z,75nm,1.6s,mb5.2
AAK                                MLR    MLR
           comp=Z,300nm,19.0s,MS4.2
AAK   Ala-Archa        40.33  64   P      P      13 50 53.8 -0.9
           SNR=83
AAK   Ala-Archa        40.33  64  eP      P      13 50 53.7 -1.0
           comp=Z,49nm,0.8s,mb5.3
FRU   Bishkek          40.39  64⇑iP      P      13 50 54.0 -1.2
FRU                               e       pP     13 51 10.0 +1.0
FRU                               e              13 56 49.0
FRU                                pmax   pmax
           comp=Z,370nm,1.8s,mb5.8
FRU   Bishkek          40.39  64  i P     P      13 50 54.0 -1.2
           comp=Z,370nm,1.8s,mb5.8
FRU                               eS      S      13 56 49.0  -11
UCH   Uchtor           40.40  65   P      P      13 50 55.6 +0.3
           SNR=38
UCH   Uchtor           40.40  65  eP      P      13 50 55.2 -0.1
           comp=Z,31nm,0.8s,mb5.1
UCH   Uchtor           40.40  65  eP      P      13 50 55.2 -0.1
           comp=Z,31nm,0.8s,mb5.1
CHMS  Chumysh          40.47  63   P      P      13 50 55.3 -0.5
           SNR=43
KBK   Karagaybulak     40.66  64   P      P      13 50 57.3 -0.1
           SNR=33
KZA   Kyzart           40.97  65   P      P      13 51 00.9 +0.9
           SNR=92
TKM2  Tokmak 2         41.09  63   P      P      13 51 00.7 -0.3
           SNR=23
TKM2  Tokmak 2         41.09  63  eP      P      13 51 00.2 -0.8
           comp=Z,29nm,0.8s,mb5.0
TKM2  Tokmak 2         41.09  63  eP      P      13 51 00.2 -0.8
TKM2                               pmax   pmax
           comp=Z,29nm,0.8s,mb5.0
TKM2  Tokmak 2         41.09  63  eP      P      13 51 00.2 -0.8
           comp=Z,29nm,0.8s,mb5.0
ULHL  Ulahol           41.67  64   P      P      13 51 06.1 +0.4
           SNR=58
KSH   Kashi            41.99  68⇑iP      P      13 51 09.0 +0.6
KSH                               eAP     pP     13 51 21.1 -1.1
KSH                               eXP     sP     13 51 26.0 -2.4
KSH                               ePCP    PcP    13 53 05.0 +2.3
KSH                               ePPP           13 53 21.1
KSH                               eSCP    ScP    13 56 50.0 +1.4
KSH                               ePCS    PcS    13 56 55.2 +0.8
KSH                               eS      S      13 57 22.2 -1.1
KSH                               eXS     sS     13 57 43.1 -3.6
KSH                               eSS     SS     14 00 24.2 -7.4
KSH                               eSCS    ScS    14 01 05.0 -1.0
KSH                                AMB    AMB
           comp=Z,439nm,0.7s,mb6.2
KSH                                LR     LR
           comp=N,595nm,7.4s
KSH                                LR     LR
           comp=E,739nm,5.4s
KSH                                LR     LR
           comp=Z,595nm,6.8s
KURK  Kurchatov        42.47  51   P      P      13 51 10.7 -1.4
           comp=Z,587nm,0.5s,mb6.5,SNR=57
KURK  Kurchatov        42.47  51  eP      P      13 51 10.8 -1.4
           comp=Z,101nm,0.9s,mb5.5
KURK                              ePP     PP     13 52 45.2 -6.0
KURK                              eS      S      13 57 27.4 -2.8
KURK  Kurchatov        42.47  51  eP      P      13 51 10.8 -1.3
KURK                              eS      S      13 57 27.4 -2.8
KURK                               pmax   pmax
           comp=Z,101nm,0.9s,mb5.5
KURK  Kurchatov        42.47  51   P      P      13 51 11.0 -1.2
           SNR=39
KURK                               P             13 51 11.7
           SNR=24
KURK  Kurchatov        42.47  51   P      P      13 51 11.7 -0.4
           SNR=24
KURK  Kurchatov        42.47  51  ePP     PP     13 52 45.2 -6.0
KURK                              eS      S      13 57 27.4 -2.8
SPB4  Spitsbergen Ar   42.56 358  eP      P      13 51 13.1 +0.6
SPB4  Spitsbergen Ar   42.56 358  eP      P      13 51 13.1 +0.6
KBS   Kingsbay         43.45 357⇑eP      P      13 51 20.2 +0.5
DAG   Danmarks Havn    44.94 348⇓iP      P      13 51 32.2 +0.5
DAG                                pmax   pmax
           comp=Z,16nm,0.8s,mb4.9
DAG   Danmarks Havn    44.94 348⇓iP      P      13 51 32.2 +0.5
           comp=Z,16nm,0.8s,mb4.9
MK31  Makanchi Array   45.24  57  eP      P      13 51 33.4 -1.0
MK31                              eS      S      13 58 07.7 -2.9
MK31  Makanchi Array   45.24  57   P      P      13 51 33.4 -1.0
           SNR=1.0
MK31                              eS      S      13 58 07.7 -2.9
MKAR  Makanchi Array   45.24  57   P      P      13 51 33.4 -1.0
MKAR                               S      S      13 58 07.2 -3.4
MKAR                               LR     LR     14 12 13.6
MKAR  Makanchi Array   45.24  57   P      P      13 51 33.4 -1.0
           comp=Z,96nm,0.7s,mb5.8,baz=281,slow=6.6,SNR=1040
MKAR                               S      S      13 58 07.2 -3.4
           comp=Z,10nm,1.0s,baz=275,slow=13,SNR=9.6
MKAR                               LR     LR     14 12 13.6
           comp=Z,243nm,21.6s,MS4.1,baz=49,slow=38
MKAR  Makanchi Array   45.24  57   P      P      13 51 33.4 -1.0
MKAR                               S      S      13 58 07.2 -3.4
ZAL   Zalesovo         46.12  47   P      P      13 51 39.8 -1.5
ZAL                                              13 53 28.5
ZAL                                S      S      13 58 18.9 -4.2
ZALV  Zalesovo Beam    46.14  47   P      P      13 51 39.8 -1.6
ZALV                               PP     PP     13 53 28.5 -1.6
ZALV                               S      S      13 58 18.9 -4.4
ZALV  Zalesovo Beam    46.14  47   P      P      13 51 39.8 -1.6
           comp=Z,78nm,0.4s,mb6.0,baz=271,slow=7.7,SNR=154
ZALV                               PP     PP     13 53 28.5 -1.6
           comp=Z,12nm,0.6s,baz=278,slow=10,SNR=4.0
ZALV                               S      S      13 58 18.9 -4.4
           comp=Z,4.9nm,1.0s,baz=265,slow=15,SNR=5.7
ZALV  Zalesovo Beam    46.14  47   PP     PP     13 53 28.5 -1.6
WMQ   Urumqi           49.56  60   P      P      13 52 07.7 -0.3
WMQ                                AP     pP     13 52 20.1 -2.1
WMQ                                XP     sP     13 52 25.4 -2.9
WMQ                                PCP    PcP    13 53 29.0 -0.1
WMQ                                PP     PP     13 54 03.0 +0.5
WMQ                                SCP    ScP    13 57 19.2 -0.8
WMQ                                PCS    PcS    13 57 24.3 -1.4
WMQ                                S      S      13 59 10.8 -1.3
WMQ                                SCS    ScS    14 01 52.3 -2.6
WMQ                                SS     SS     14 02 40.1 -4.2
WMQ                                AMB    AMB
           comp=Z,92nm,0.8s,mb5.9
WMQ                                AMB    AMB
           comp=Z,78nm,9.6s
WMQ                                LR     LR
           comp=N,493nm,22.8s,MS4.5
WMQ                                LR     LR
           comp=E,344nm,24.1s,MS4.5
WMQ                                LR     LR
           comp=Z,378nm,22.8s,MS4.3
MSEY  Mahe Island      50.77 136  eP      P      13 52 17.8 +0.3
MSEY  Mahe Island      50.77 136  eP      P      13 52 17.8 +0.3
SFJD  Kangerlussuaq    51.06 331  eP      P      13 52 19.0 -0.1
           comp=Z,11nm,0.6s,mb5.0
SFJD  Kangerlussuaq    51.06 331  i P     P      13 52 19.2 +0.2
SFJD                               pmax   pmax
           comp=Z,20nm,0.9s,mb5.0
SFJD  Kangerlussuaq    51.06 331  i P     P      13 52 19.2 +0.2
           comp=Z,20nm,0.9s,mb5.0
LSZ   Lusaka           51.09 173  eP      P      13 52 19.7  0.0
           comp=Z,16nm,0.8s,mb5.0
LSZ                               e       pP     13 52 33.4 -0.6
LSZ   Lusaka           51.09 173  eP      P      13 52 19.7  0.0
LSZ                               e       pP     13 52 33.4 -0.6
LSZ                                pmax   pmax
           comp=Z,16nm,0.8s,mb5.0
LSZ   Lusaka           51.09 173   P      P      13 52 20.1 +0.4
           SNR=19
LSZ   Lusaka           51.09 173   P      P      13 52 20.0 +0.3
           comp=Z,17nm,0.8s,mb5.0,baz=4.0,slow=8.2,SNR=33
KOLN  Koldanda         51.84  81  eP      P      13 52 24.5 -0.9
           comp=Z,162nm,0.8s,mb6.0
GKN   Gorkha           52.57  80  eP      P      13 52 29.8 -1.0
           comp=Z,332nm,0.7s,mb6.4
HYB   Hyderabad        52.66  95  eP      P      13 52 30.0 -1.6
HYB                                pmax   pmax
           comp=Z,40nm,1.0s,mb5.3
HYB   Hyderabad        52.66  95  i P     P      13 52 30.0 -1.6
           comp=Z,40nm,1.0s,mb5.3
HYB                               eS      S      13 59 52.0 -3.5
HYB                               eScS    ScS    14 02 08.0 -9.0
HYB   Hyderabad        52.66  95  eP      P      13 52 30.0 -1.6
           comp=Z,40nm,1.0s,mb5.3
DMN   Daman            53.11  80  eP      P      13 52 34.3 -0.5
           comp=Z,421nm,0.7s,mb6.5
KKN   Kakani           53.17  80  eP      P      13 52 34.3 -1.0
           comp=Z,152nm,0.7s,mb6.0
PKI   Pulchoki         53.37  80  eP      P      13 52 35.8 -0.9
           comp=Z,330nm,0.9s,mb6.2
GUN   Gumba            53.60  79  eP      P      13 52 37.7 -0.7
           comp=Z,313nm,0.8s,mb6.3
JIRN  Jiri             53.96  80  eP      P      13 52 40.3 -0.7
           comp=Z,133nm,0.6s,mb6.0
ALE   Alert            54.05 351   P      P      13 52 41.9 +0.9
           comp=Z,122nm,0.7s,mb5.9,SNR=8.6
TSUM  Tsumeb           54.91 186  eP      P      13 52 47.0 -0.8
           comp=Z,24nm,1.1s,mb5.1
TSUM                              e       pP     13 53 02.0 -0.2
TSUM  Tsumeb           54.91 186   P      P      13 52 47.2 -0.6
           comp=Z,5.3nm,0.7s,mb4.7,baz=353,slow=9.4,SNR=12
TSUM  Tsumeb           54.91 186   P      P      13 52 47.0 -0.8
           SNR=1.0
ODAN  Odare            55.27  80  eP      P      13 52 49.1 -1.4
           comp=Z,48nm,0.6s,mb5.7
TAPN  Taplejung        55.31  79  eP      P      13 52 49.9 -0.9
           comp=Z,108nm,0.8s,mb6.0
MOY   Mondy            56.18  47  eP      P      13 52 56.7  0.0
MOY                                pmax   pmax
           comp=Z,86nm,2.1s,mb5.4
MOY   Mondy            56.18  47  eP      P      13 52 56.7  0.0
           comp=Z,86nm,2.1s,mb5.4
MATP  Matopo           56.22 173   P      P      13 52 57.5 +0.3
MATP  Matopo           56.22 173   P      P      13 52 57.5 +0.3
           comp=Z,6.6nm,0.7s,mb4.8,baz=7.5,slow=10,SNR=19
LSA   Lhasa            57.01  75   P      P      13 53 03.2 +0.3
LSA                                AP     pP     13 53 13.1 -4.3
LSA                                S      S      14 00 47.4 -6.2
LSA                                AMB    AMB
           comp=Z,60nm,0.8s,mb5.7
LSA                                LR     LR
           comp=N,410nm,51.4s
LSA                                LR     LR
           comp=E,370nm,31.9s
LSA                                LR     LR
           comp=Z,470nm,27.4s
TLY   Talaya           57.75  47   P      P      13 53 07.1 -0.7
           comp=Z,334nm,1.0s,mb6.3,SNR=9.0
TLY   Talaya           57.75  47⇑iP      P      13 53 07.8  0.0
TLY                               ePS            14 01 16.7
TLY                               e              14 02 50.5
TLY                               eSSS           14 04 57.9
TLY                                pmax   pmax
           comp=Z,81nm,1.1s,mb5.7
TLY                                MLR    MLR
           comp=Z,238nm,19.0s,MS4.3
TLY   Talaya           57.75  47   P      P      13 53 08.0 +0.2
           SNR=15
TLY   Talaya           57.75  47  eP      P      13 53 07.9 +0.1
           comp=Z,51nm,0.9s,mb5.5
IRK   Irkutsk          57.94  46  eP      P      13 53 07.8 -1.3
IRK                                pmax   pmax
           comp=Z,142nm,1.1s,mb5.9
IRK   Irkutsk          57.94  46  eP      P      13 53 07.8 -1.3
           comp=Z,142nm,1.1s,mb5.9
ZAK   Zakamensk        57.95  48⇓iP      P      13 53 08.8 -0.4
ZAK                               e       pP     13 53 24.9 +1.3
ZAK                               e              14 01 05.6
ZAK                                pmax   pmax
           comp=Z,48nm,1.0s,mb5.5
ZAK   Zakamensk        57.95  48  i P     P      13 53 08.8 -0.4
           comp=Z,48nm,1.0s,mb5.5
GTA   Gaotai           59.57  61   P      P      13 53 20.1 -0.6
GTA                                AP     pP     13 53 33.1 -2.1
GTA                                XP     sP     13 53 38.9 -2.3
GTA                                PCP    PcP    13 54 08.3 +0.8
GTA                                PP     PP     13 55 32.4 +0.1
GTA                                S      S      14 01 25.2 -1.5
GTA                                SCS    ScS    14 03 05.9 -0.4
GTA                                AMB    AMB
           comp=Z,89nm,1.0s,mb5.8
GTA                                AMB    AMB
           comp=Z,277nm,8.8s
GTA                                LR     LR
           comp=N,246nm,27.5s
GTA                                LR     LR
           comp=E,176nm,19.5s
GTA                                LR     LR
           comp=Z,331nm,33.3s
PALK  Pallekele        60.13 103  eP      P      13 53 24.7 -0.1
           comp=Z,15nm,0.7s,mb5.1
PALK  Pallekele        60.13 103  eP      P      13 53 24.7 -0.1
           comp=Z,15nm,0.7s,mb5.1
LBTB  Lobatse          60.56 177  eP      P      13 53 27.4  0.0
           comp=Z,34nm,1.0s,mb5.4
LBTB  Lobatse          60.56 177  eP      P      13 53 27.5 +0.1
LBTB                               pmax   pmax
           comp=Z,34nm,1.0s,mb5.4
LBTB  Lobatse          60.56 177  eP      P      13 53 27.5 +0.1
           comp=Z,34nm,1.0s,mb5.4
SONM  Songino Array    60.76  50   P      P      13 53 28.0 -0.6
           comp=Z,57nm,0.9s,mb5.7,baz=284,slow=7.6,SNR=374
SONM                               S      S      14 01 40.2 -1.4
           comp=Z,1.5nm,1.0s,baz=286,slow=17,SNR=5.4
ULN   Ulaanbaatar      61.15  50  eP      P      13 53 30.9 -0.4
           comp=Z,80nm,0.9s,mb5.8
ULN                               ePP     PP     13 55 42.9 -3.2
ULN   Ulaanbaatar      61.15  50  eP      P      13 53 30.9 -0.4
ULN                               e              13 55 42.9
ULN                                pmax   pmax
           comp=Z,80nm,0.9s,mb5.8
ULN   Ulaanbaatar      61.15  50   P      P      13 53 30.9 -0.4
           SNR=82
ULN   Ulaanbaatar      61.15  50  eP      P      13 53 30.9 -0.4
           comp=Z,80nm,0.9s,mb5.8
ULN   Ulaanbaatar      61.15  50  ePP     PP     13 55 42.9 -3.2
SCHQ  Schefferville    61.27 319  eP      P      13 53 32.0 +0.1
           comp=Z,30nm,0.8s,mb5.5
SCHQ  Schefferville    61.27 319   P      P      13 53 31.4 -0.5
           comp=Z,25nm,0.8s,mb5.4,baz=67,slow=6.1,SNR=50
SCHQ                               LR     LR     14 21 32.2
           comp=Z,173nm,18.4s,MS4.2,baz=35,slow=37
SCHQ  Schefferville    61.27 319  eP      P      13 53 32.0  0.0
           comp=Z,30nm,0.8s,mb5.5
BOD   Bodaibo          61.28  38⇑iP      P      13 53 30.6 -1.4
BOD                                pmax   pmax
           comp=Z,106nm,0.9s,mb6.0
BOD   Bodaibo          61.28  38  i P     P      13 53 30.6 -1.4
           comp=Z,106nm,0.9s,mb6.0
TIXI  Tiksi            61.32  20  eP      P      13 53 31.2 -0.8
           comp=Z,47nm,0.8s,mb5.7
TIXI  Tiksi            61.32  20  eP      P      13 53 29.0 -3.1
TIXI                              eS      S      14 01 45.4 -2.7
TIXI                              e              14 01 54.1
TIXI                              e              14 03 14.4
TIXI                               pmax   pmax
           comp=Z,47nm,0.9s,mb5.6
TIXI  Tiksi            61.32  20  eP      P      13 53 31.2 -0.9
           comp=Z,47nm,0.8s,mb5.7
RES   Resolute Bay     62.47 345  eP      P      13 53 40.5 +0.8
           comp=Z,490nm,0.8s,mb6.7
RES   Resolute Bay     62.47 345  eP      P      13 53 40.5 +0.8
CIT   Chita            63.34  44  eP      P      13 53 45.1 -0.8
CIT                               e              13 54 10.4
CIT                               e              13 54 20.6
CIT                                pmax   pmax
           comp=Z,121nm,1.6s,mb5.8
CIT   Chita            63.34  44  eP      P      13 53 45.1 -0.8
           comp=Z,121nm,1.6s,mb5.8
CIT   Chita            63.34  44  ePcP    PcP    13 54 20.6 -1.9
LZH   Lanzhou          63.86  63 ⇑P      P      13 53 49.5 -0.1
LZH                                AP     pP     13 54 03.2 -1.0
LZH                                XP     sP     13 54 07.6 -2.6
LZH                                PCP    PcP    13 54 26.1 +1.1
LZH                                PP     PP     13 56 11.3 +1.1
LZH                               eS      S      14 02 19.0 -2.1
LZH                                XS     sS     14 02 44.0 -1.7
LZH                                SS     SS     14 06 29.0 -0.6
LZH                                AMB    AMB
           comp=Z,154nm,1.1s,mb6.0
LZH                                AMB    AMB
           comp=Z,300nm,4.0s
LZH                                LR     LR
           comp=E,756nm,16.5s
LZH                                LR     LR
           comp=Z,986nm,17.5s,MS5.0
BOSA  Boshof           64.13 177  eP      P      13 53 50.7 -0.5
           comp=Z,23nm,1.1s,mb5.1
BOSA  Boshof           64.13 177   P      P      13 53 50.8 -0.4
BOSA                               pmax   pmax
           comp=Z,8.0nm,0.6s,mb4.9
BOSA                               MLR    MLR
           comp=Z,313nm,20.5s,MS4.5
BOSA  Boshof           64.13 177   P      P      13 53 50.8 -0.4
           comp=Z,7.6nm,0.6s,mb4.9,baz=3.4,slow=7.9,SNR=28
BOSA                               LR     LR     14 24 01.5
           comp=Z,313nm,20.5s,MS4.5,baz=359,slow=38
BOSA  Boshof           64.13 177  eP      P      13 53 50.7 -0.5
           comp=Z,23nm,1.1s,mb5.1
BTO   Baotou           66.16  56  eP      P      13 54 03.0 -1.4
CD2   Chengdu          66.19  68⇑iP      P      13 54 04.0 -0.8
CD2                                AP     pP     13 54 17.2 -2.3
CD2                                XP     sP     13 54 22.5 -2.9
CD2                                PCP    PcP    13 54 34.8 +0.1
CD2                                PP     PP     13 56 31.8 +1.1
CD2                                S      S      14 02 45.2 -4.5
CD2                                XS     sS     14 03 08.8 -5.7
CD2                                SCS    ScS    14 03 51.7 -5.1
CD2                                SS     SS     14 07 03.9 -2.1
CD2                                AMB    AMB
           comp=Z,80nm,0.8s,mb5.8
CD2                                AMB    AMB
           comp=Z,350nm,5.5s
CD2                                LR     LR
           comp=N,230nm,21.6s,MS4.6
CD2                                LR     LR
           comp=E,300nm,19.2s,MS4.6
CD2                                LR     LR
           comp=Z,210nm,20.4s,MS4.3
YAK   Yakutsk          66.40  29  eP      P      13 54 04.0 -1.6
           comp=Z,188nm,0.8s,mb6.2
YAK   Yakutsk          66.40  29c iP      P      13 54 04.4 -1.1
YAK                               i *PP   pP     13 54 28.2 +7.9
YAK                               i              13 54 31.3
YAK                               eS      S      14 02 45.4 -5.9
YAK                               i *SS   sS     14 03 12.1 -3.9
YAK                                pmax   pmax
           comp=Z,173nm,0.8s,mb6.1
YAK                                pmax   pmax
           comp=N,35nm,1.3s
YAK                                pmax   pmax
           comp=E,81nm,1.6s
YAK                                smax
           comp=E,192nm,3.4s
YAK                                smax
           comp=Z,217nm,4.9s
YAK                                smax
           comp=N,263nm,5.8s
YAK   Yakutsk          66.40  29  i P     P      13 54 04.4 -1.1
           comp=N,35nm,1.3s,mb5.2
YAK   Yakutsk          66.40  29  i PcP   PcP    13 54 31.3 -3.6
CLNS  Chul'man         67.00  36  eP      P      13 54 07.3 -2.2
CLNS                              e*PP    pP     13 54 23.1 -1.1
CLNS                              e              13 54 31.7
CLNS                              ePPP           13 58 11.9
CLNS                              eS      S      14 02 55.9 -2.9
CLNS                              ePS            14 03 27.1
CLNS                              e*SS    sS     14 03 37.3  +14
CLNS                              e              14 03 54.5
CLNS                               pmax   pmax
           comp=N,27nm,0.9s
CLNS                               pmax   pmax
           comp=Z,62nm,0.9s,mb5.6
CLNS                               pmax   pmax
           comp=E,18nm,0.8s
CLNS                               smax
           comp=N,11nm,0.9s
CLNS                               smax
           comp=Z,5.0nm,0.6s
CLNS                               smax
           comp=E,13nm,1.1s
CLNS  Chul'man         67.00  36  ePcP    PcP    13 54 31.7 -5.9
HHC   Hu-ho-hao-te     67.08  55  eP      P      13 54 10.1 -0.2
HHC                                AP     pP     13 54 23.2 -1.8
HHC                                XP     sP     13 54 28.4 -2.6
HHC                                PCP    PcP    13 54 38.8 +0.6
HHC                                PP     PP     13 56 40.4 +2.2
HHC                                SCP           13 58 37.2
HHC                                PCS           13 58 42.5
HHC                                S      S      14 02 59.1 -1.1
HHC                                XS     sS     14 03 19.3 -5.7
HHC                                PS            14 03 26.5
HHC                                SS     SS     14 07 18.5 -0.8
HHC                                AMB    AMB
           comp=Z,120nm,0.9s,mb5.9
HHC                                AMB    AMB
           comp=Z,225nm,2.6s,mb5.7
HHC                                LR     LR
           comp=N,193nm,24.7s,MS4.3
HHC                                LR     LR
           comp=E,159nm,23.7s,MS4.3
HHC                                LR     LR
           comp=Z,235nm,27.5s,MS4.3
KMI   Kunming          68.24  74   P      P      13 54 17.0 -0.9
KMI                                AP     pP     13 54 29.2 -3.4
KMI                                XP     sP     13 54 34.7 -3.9
KMI                                PCP    PcP    13 54 42.7 -0.6
KMI                                PP     PP     13 56 45.2 -3.5
KMI                                PPP           13 58 27.0
KMI                                S      S      14 03 11.5 -3.1
KMI                                SS     SS     14 07 36.1 -2.0
KMI                                SSS           14 10 33.9
KMI                                AMB    AMB
           comp=Z,33nm,0.8s,mb5.4
KMI                                AMB    AMB
           comp=Z,184nm,5.2s
KMI                                LR     LR
           comp=N,158nm,31.2s,MS4.2
KMI                                LR     LR
           comp=E,168nm,30.3s,MS4.2
KMI                                LR     LR
           comp=Z,305nm,29.5s,MS4.4
CHG   Chiang Mai       68.47  82 ⇑P      P      13 54 18.1 -1.2
           comp=Z,25nm,0.8s,mb5.3
CHTO  Chiang Mai       68.47  82  eP      P      13 54 17.8 -1.5
           comp=Z,13nm,0.8s,mb5.0
CHTO  Chiang Mai       68.47  82  eP      P      13 54 17.8 -1.5
CHTO                               pmax   pmax
           comp=Z,13nm,0.8s,mb5.0
CHTO  Chiang Mai       68.47  82   P      P      13 54 18.4 -0.9
           SNR=7.1
XAN   Xi'an            68.50  63   P      P      13 54 18.6 -0.7
XAN                                AMB    AMB
           comp=Z,48nm,1.6s,mb5.3
CHRT  Chiangrai        68.59  80 ⇑P      P      13 54 20.0 -0.1
           comp=Z,105nm,0.8s,mb5.8
CM31  Chiang Mai Arr   68.66  82  eP      P      13 54 19.4 -1.1
           comp=Z,20nm,0.7s,mb5.2
CM31  Chiang Mai Arr   68.66  82   P      P      13 54 19.5 -1.0
           comp=Z,20nm,0.7s,mb5.2,SNR=1.0
BDT   Bhumibol Dam     69.34  83   P      P      13 54 24.0 -0.8
FRNY  Flat Rock        69.63 311  eP      P      13 54 26.5 +0.4
NANT  Nan              69.89  81 ⇑P      P      13 54 24.0 -4.1
           comp=Z,199nm,0.9s,mb6.0
BJI   Beijing          70.54  54   P      P      13 54 31.2 -0.6
BJI                                PP     PP     13 57 07.3 -0.9
BJI                                S      S      14 03 39.8 -1.5
BJI                                SS     SS     14 08 07.6 -5.1
BJI                                AMB    AMB
           comp=Z,6.0nm,0.8s,mb4.6
BJI                                LR     LR
           comp=N,283nm,30.8s,MS4.4
BJI                                LR     LR
           comp=E,216nm,31.6s,MS4.4
BJI                                LR     LR
           comp=Z,422nm,37.1s
GYA   Guiyang          70.61  71⇑iP      P      13 54 31.4 -1.0
GYA                                AP     pP     13 54 46.9 -0.4
GYA                                XP     sP     13 54 52.2 -1.0
GYA                                PCP    PcP    13 54 54.9 +1.6
GYA                                PP     PP     13 57 11.5 +2.4
GYA                                PPP           13 58 52.2
GYA                                S      S      14 03 39.5 -2.9
GYA                                PS            14 04 15.2
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GYA                                 SKS            14 04 26.4
GYA                                 SS      SS     14 08 14.3 -0.1
GYA                                 AMB     AMB
      comp=Z,30nm,1.1s,mb5.1
GYA                                 AMB     AMB
      comp=Z,290nm,5.1s
GYA                                 LR      LR
      comp=N,650nm,21.0s,MS5.1
GYA                                 LR      LR
      comp=E,840nm,22.6s,MS5.1
GYA                                 LR      LR
      comp=Z,660nm,21.4s,MS4.9
NST   Nakhon Sawan      71.10  84   P       P      13 54 34.0 -1.6
FCC   Fort Churchill    72.08 331  eP       P      13 54 41.2 +0.5
      comp=Z,34nm,0.8s,mb5.3
FCC   Fort Churchill    72.08 331  eP       P      13 54 41.2 +0.4
FCC                                 pmax    pmax
      comp=Z,34nm,0.8s,mb5.3
FCC   Fort Churchill    72.08 331  eP       P      13 54 41.2 +0.4
      comp=Z,34nm,0.8s,mb5.3
KKTK  Khon Kaen         72.91  82   P       P      13 54 45.6 -0.8
      comp=Z,370nm,0.7s,mb6.4
BILL  Bilibino          72.96  13  eP       P      13 54 45.1 -0.7
      comp=Z,60nm,1.4s,mb5.3
BILL  Bilibino          72.96  13⇑eP       P      13 54 44.9 -0.9
BILL                               e               13 57 24.6
BILL                               eS       S      14 03 54.9  -13
BILL                                pmax    pmax
      comp=Z,47nm,1.2s,mb5.3
BILL                                MLR     MLR
      comp=Z,200nm,20.0s,MS4.4
BILL  Bilibino          72.96  13  eP       P      13 54 45.1 -0.7
      comp=Z,60nm,1.4s,mb5.3
TIA   Tai'an            73.17  57  eP       P      13 54 44.3 -3.4
TIA                                 AMB     AMB
      comp=Z,27nm,1.0s,mb5.1
SEY   Seymchan          73.77  21⇑iP       P      13 54 50.7  0.0
WHN   Wuhan             74.23  64 ⇑P       P      13 54 54.5 +0.5
SNY   Shenyang          74.33  50 ⇑P       P      13 54 53.3 -1.0
SNY                                 AMB     AMB
      comp=Z,45nm,1.7s,mb5.1
CN2   Changchun         74.35  47  eP       P      13 54 53.7 -0.7
CN2                                eXP      sP     13 55 12.1 -3.2
CN2                                eS       S      14 04 22.5 -2.1
CN2                                 AMB     AMB
      comp=Z,90nm,1.1s,mb5.6
CN2                                 AMB     AMB
      comp=Z,200nm,7.0s
INK   Inuvik            74.65 351  eP       P      13 54 55.5 -0.2
      comp=Z,612nm,0.9s,mb6.5
INK   Inuvik            74.65 351   LR      LR     14 28 31.7
      comp=Z,198nm,19.6s,MS4.4,baz=208,slow=36
INK   Inuvik            74.65 351  eP       P      13 54 55.5 -0.2
      comp=Z,612nm,0.9s,mb6.5
KLR   Kul'dur           74.69  40⇓iP       P      13 54 52.0 -4.3
KLR                                 pmax    pmax
      comp=E,50nm,1.6s
KLR                                 pmax    pmax
      comp=Z,100nm,1.6s,mb5.5
KLR                                 MLR     MLR
      comp=E,500nm,13.0s
DL2   Dalian            74.72  53   P       P      13 54 55.6 -1.0
DL2                                 AP      pP     13 55 06.6 -5.0
DL2                                 XP      sP     13 55 12.0 -5.5
DL2                                eS       S      14 04 27.2 -1.7
DL2                                 AMB     AMB
      comp=Z,20nm,0.8s,mb5.1
DL2                                 AMB     AMB
      comp=Z,130nm,5.5s
DL2                                 LR      LR
      comp=N,230nm,20.4s,MS4.5
DL2                                 LR      LR
      comp=E,190nm,23.2s,MS4.5
DL2                                 LR      LR
      comp=Z,170nm,27.0s,MS4.2
MA2   Magadan           75.81  24  eP       P      13 55 02.4 -0.1
      comp=Z,63nm,0.8s,mb5.6
MA2   Magadan           75.81  24c iP       P      13 55 02.5  0.0
MA2                                eS       S      14 04 39.4 -0.9
MA2                                 pmax    pmax
      comp=Z,70nm,0.8s,mb5.6
MA2   Magadan           75.81  24  i P      P      13 55 02.5  0.0
      comp=Z,70nm,0.8s,mb5.6
YKA   Yellowknife Ar    76.14 341  i P      P      13 55 04.4  0.0
YKA                                 pmax    pmax
      comp=Z,14nm,0.6s
YKA   Yellowknife Ar    76.14 341   P       P      13 55 04.4 +0.1
      comp=Z,14nm,0.6s,mb5.1,baz=34,slow=5.6,SNR=253
YKA                                 LR      LR     14 30 22.5
      comp=Z,131nm,20.9s,MS4.2,baz=160,slow=37
YKA   Yellowknife Ar    76.14 341  i P      P      13 55 04.4  0.0
      comp=Z,14nm,0.6s,mb5.1
MDJ   Mudanjiang        76.29  45   P       P      13 55 05.4 -0.2
MDJ                                 AP      pP     13 55 16.9 -3.7
MDJ                                 XP      sP     13 55 21.8 -4.7
MDJ                                 S       S      14 04 45.7 -0.4
MDJ                                 XS      sS     14 05 06.2 -5.1
MDJ                                 SS      SS     14 09 40.1 +0.1
MDJ                                 AMB     AMB
      comp=Z,14nm,1.5s,mb4.7
MDJ                                 AMB     AMB
      comp=Z,211nm,4.5s
MDJ                                 LR      LR
      comp=N,138nm,33.4s,MS4.2
MDJ                                 LR      LR
      comp=E,87nm,28.4s,MS4.2
MDJ                                 LR      LR
      comp=Z,125nm,27.2s,MS4.1
MCWV  Mont Chateau      76.33 309  eP       P      13 55 06.9 +1.0
      comp=Z,28nm,0.8s,mb5.2
MCWV  Mont Chateau      76.33 309  eP       P      13 55 06.9 +1.0
      comp=Z,28nm,0.8s,mb5.2
NJ2   Nanjing           76.64  60  eP       P      13 55 06.4 -1.4
NJ2                                 AMB     AMB
      comp=Z,10.0nm,1.0s,mb4.7
HABR  Khabarovsk        76.87  39  eP       P      13 55 06.6 -2.1
HABR                               e*PP     pP     13 55 23.2 -0.5
HABR                               eS       S      14 04 49.4 -2.8
HABR                               e*SS     sS     14 05 11.1 -6.4
HABR                               eSS      SS     14 09 43.6 -4.8
HABR  Khabarovsk        76.87  39  ePcP     PcP    13 55 23.2 +3.5
COWI  Conover           77.88 319  eP       P      13 55 14.9 +0.5
      comp=Z,59nm,0.8s,mb5.6
COWI  Conover           77.88 319  eP       P      13 55 14.9 +0.5
      comp=Z,59nm,0.8s,mb5.6
ACSO  Alum Creek Sta    77.95 311  eP       P      13 55 15.3 +0.4
      comp=Z,12nm,0.8s,mb4.9
ACSO  Alum Creek Sta    77.95 311  eP       P      13 55 15.3 +0.4
      comp=Z,12nm,0.8s,mb4.9
FFC   Flin Flon         78.02 331   P       P      13 55 15.3 +0.3
      comp=Z,355nm,0.9s,mb6.3,SNR=23
IMA2  Indian Mountai    78.41 358  eP       P      13 55 18.1 +1.1
ULM   Lac du Bonnet     78.54 325  eP       P      13 55 17.7 -0.3
      comp=Z,38nm,0.8s,mb5.4
ULM   Lac du Bonnet     78.54 325   P       P      13 55 17.7 -0.3
      comp=Z,33nm,0.8s,mb5.3,baz=44,slow=5.0,SNR=83
ULM                                 LR      LR     14 28 38.6
      comp=Z,281nm,18.1s,MS4.6,baz=36,slow=35
ULM   Lac du Bonnet     78.54 325  eP       P      13 55 17.7 -0.3
      comp=Z,38nm,0.8s,mb5.4
SSE   Sheshan           78.82  60  eP       P      13 55 19.1 -0.8
SSE                                 PCP     PcP    13 55 27.4 -1.1
SSE                                 XP      sP     13 55 38.6 -2.3
SSE                                 S       S      14 05 14.8 +0.9
SSE                                 XS      sS     14 05 40.3 +1.0
SSE                                 AMB     AMB
      comp=Z,29nm,0.7s,mb5.3
SSE                                 AMB     AMB
      comp=Z,127nm,4.9s
SSE                                 LR      LR
      comp=N,114nm,27.3s,MS4.1
SSE                                 LR      LR
      comp=E,61nm,27.5s,MS4.1
SSE                                 LR      LR
      comp=Z,162nm,32.1s,MS4.2
EGAK  Eagle             78.92 353  eP       P      13 55 20.4 +0.5
      comp=Z,11nm,0.8s,mb4.8
EGAK  Eagle             78.92 353  eP       P      13 55 20.4 +0.6
      comp=Z,11nm,0.8s,mb4.8
COLA  College           79.36 356  eP       P      13 55 23.2 +1.0
      comp=Z,27nm,1.1s,mb5.1
COLA  College           79.36 356  eP       P      13 55 23.2 +1.0
COLA                                pmax    pmax
      comp=Z,27nm,1.1s,mb5.1
COLA  College           79.36 356  eP       P      13 55 23.2 +1.0
      comp=Z,27nm,1.1s,mb5.1
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DAWY  Dawson            79.43 352  eP       P      13 55 23.3 +0.7
DAWY  Dawson            79.43 352  eP       P      13 55 23.3 +0.7
KSRS  Korea Array       79.60  51   P       P      13 55 23.4 -0.6
      comp=Z,12nm,0.5s,mb5.1,baz=308,slow=4.3,SNR=73
KSRS                                LR      LR     14 36 45.0
      comp=Z,189nm,18.4s,MS4.5,baz=156,slow=40
QZH   Quanzhou          80.46  66⇑iP       P      13 55 28.6 -0.3
MCK   McKinley          80.56 356  eP       P      13 55 29.1 +0.3
      comp=Z,34nm,1.1s,mb5.2
MCK   McKinley          80.56 356  eP       P      13 55 29.1 +0.4
MCK                                 pmax    pmax
      comp=Z,33nm,1.1s,mb5.2
MCK   McKinley          80.56 356  eP       P      13 55 29.1 +0.4
      comp=Z,33nm,1.1s,mb5.2
BLO   Bloomington       80.76 312  eP       P      13 55 30.7 +0.5
BLO                                 pmax    pmax
      comp=Z,28nm,0.9s,mb5.2
BLO   Bloomington       80.76 312  eP       P      13 55 30.7 +0.5
      comp=Z,28nm,0.9s,mb5.2
MENT  Mentasta          80.97 354  eP       P      13 55 31.9 +1.0
WCI   Wyandotte Cave    81.21 311  eP       P      13 55 32.9 +0.2
      comp=Z,14nm,0.8s,mb5.0
WCI   Wyandotte Cave    81.21 311  eP       P      13 55 32.9 +0.2
WCI                                 pmax    pmax
      comp=Z,14nm,0.8s,mb4.9
WCI   Wyandotte Cave    81.21 311  eP       P      13 55 32.9 +0.2
      comp=Z,14nm,0.8s,mb4.9
YSS   Yuzh-Sakhalins    81.74  37  eP       P      13 55 34.9 -0.5
      comp=Z,56nm,1.0s,mb5.4
YSS   Yuzh-Sakhalins    81.74  37⇑iP       P      13 55 34.7 -0.6
YSS                                e        pP     13 55 53.3 +2.9
YSS                                 pmax    pmax
      comp=Z,70nm,1.0s,mb5.5
YSS                                 MLR     MLR
      comp=E,300nm,17.0s
YSS                                 MLR     MLR
      comp=Z,300nm,17.0s,MS4.7
YSS   Yuzh-Sakhalins    81.74  37  eP       P      13 55 34.8 -0.5
      comp=Z,56nm,1.0s,mb5.4
CPCT  Cooper Cave       81.83 308  eP       P      13 55 37.0 +1.1
CPCT  Cooper Cave       81.83 308  eP       P      13 55 37.0 +1.0
SML   Sawmill           82.44 356  eP       P      13 55 39.1 +0.4
SML   Sawmill           82.44 356  eP       P      13 55 39.1 +0.4
YHNB  Yeheng            82.67  65  eP       P      13 55 40.4 -0.2
PMR   Palmer            82.70 356  eP       P      13 55 40.9 +0.8
PMR                                 pmax    pmax
      comp=Z,65nm,1.3s,mb5.5
PMR   Palmer            82.70 356  eP       P      13 55 40.9 +0.8
      comp=Z,65nm,1.3s,mb5.5
SCIA  State Center      82.85 317  eP       P      13 55 41.2  0.0
      comp=Z,15nm,0.7s,mb5.1
SCIA  State Center      82.85 317  eP       P      13 55 41.2  0.0
      comp=Z,15nm,0.7s,mb5.1
SKAG  Skagway           83.31 349  eP       P      13 55 44.5 +1.3
      comp=Z,75nm,1.9s,mb5.4
SKAG                                LR      LR
      comp=Z,500nm,18.0s,MS4.9
SIUC  Southern Illin    83.31 312  eP       P      13 55 44.0 +0.3
      comp=Z,23nm,0.8s,mb5.3
SIUC  Southern Illin    83.31 312  eP       P      13 55 44.0 +0.3
      comp=Z,23nm,0.8s,mb5.3
DLBC  Dease Lake        83.33 346  eP       P      13 55 44.9 +1.6
DLBC  Dease Lake        83.33 346  eP       P      13 55 44.9 +1.5
EDM   Edmonton          83.41 335  eP       P      13 55 44.3 +0.5
EDM   Edmonton          83.41 335  eP       P      13 55 44.3 +0.4
SVW2  Sparrevohn        83.43 359  eP       P      13 55 44.8 +1.0
WVT   Waverly           83.48 310  eP       P      13 55 44.5 -0.1
WVT                                 pmax    pmax
      comp=Z,8.0nm,0.7s,mb4.9
WVT   Waverly           83.48 310  eP       P      13 55 44.5 -0.1
      comp=Z,8.0nm,0.7s,mb4.9
DGMT  Dagmar            83.59 328  eP       P      13 55 45.9 +1.0
      comp=Z,18nm,0.8s,mb5.2
DGMT  Dagmar            83.59 328  eP       P      13 55 45.9 +1.0
      comp=Z,18nm,0.8s,mb5.2
ASAJ  Asahikawa         83.66  39   LR      LR     14 32 09.5
      comp=Z,93nm,21.9s,MS4.1,baz=340,slow=35
SLKM  Skilak Lake       83.84 356  eP       P      13 55 46.4 +0.4
SLKM  Skilak Lake       83.84 356  eP       P      13 55 46.4 +0.5
FVM   French Village    83.86 313  eP       P      13 55 46.9 +0.4
      comp=Z,19nm,0.6s,mb5.4
FVM   French Village    83.86 313  eP       P      13 55 46.9 +0.4
FVM                                 pmax    pmax
      comp=Z,19nm,0.6s,mb5.4
FVM   French Village    83.86 313  eP       P      13 55 46.9 +0.4
      comp=Z,19nm,0.6s,mb5.4
PLAL  Pickwick Lake     84.38 309  eP       P      13 55 49.0 -0.1
      comp=Z,7.5nm,0.8s,mb4.9
PLAL  Pickwick Lake     84.38 309  eP       P      13 55 49.0 -0.2
      comp=Z,7.5nm,0.8s,mb4.9
SKR   Severo-Kuril's    84.69  28  eP       P      13 55 48.2 -2.2
LRAL  Lakeview Retre    84.94 307  eP       P      13 55 51.8 -0.2
      comp=Z,90nm,0.9s,mb5.9
LRAL  Lakeview Retre    84.94 307  eP       P      13 55 51.8 -0.2
      comp=Z,90nm,0.9s,mb5.9
SIT   Sitka             85.61 348  eP       P      13 55 57.0 +2.1
SIT                                 pmax    pmax
      comp=Z,108nm,1.2s,mb6.0
SIT   Sitka             85.61 348  eP       P      13 55 57.0 +2.1
      comp=Z,108nm,1.2s,mb6.0
WRAK  Wrangell Islan    85.67 346  eP       P      13 55 55.3 +0.1
      comp=Z,36nm,0.9s,mb5.6
LAO   LASA Array        85.84 327  eP       P      13 55 57.3 +1.0
      comp=Z,45nm,0.8s,mb5.8
LAO   LASA Array        85.84 327  eP       P      13 55 57.3 +1.0
      comp=Z,45nm,0.8s,mb5.8
EGMT  Eagleton          86.28 330  eP       P      13 55 59.2 +0.9
      comp=Z,94nm,0.8s,mb6.1
EGMT  Eagleton          86.28 330 ⇓P       P      13 55 59.2 +0.8
      baz=86
EGMT  Eagleton          86.28 330  eP       P      13 55 59.2 +0.8
      comp=Z,94nm,0.8s,mb6.1
MAJO  Matsushiro        86.49  47  eP       P      13 55 58.4 -1.3
MAJO  Matsushiro        86.49  47  eP       P      13 55 58.4 -1.3
MAT   Matsushiro        86.49  47   P       P      13 55 59.1 -0.6
MAT                                 S       S      14 06 28.8 -3.1
MJAR  Matsushiro Arr    86.49  47   P       P      13 55 58.6 -1.0
      comp=Z,10.0nm,0.8s,mb5.1,baz=318,slow=5.3,SNR=21
MJAR                                LR      LR     14 38 59.5
      comp=Z,135nm,19.6s,MS4.3,baz=270,slow=39
KSU1  Kansas State U    86.66 317  eP       P      13 56 00.9 +0.5
      comp=Z,27nm,0.9s,mb5.5
KSU1  Kansas State U    86.66 317  eP       P      13 56 00.9 +0.5
      comp=Z,27nm,0.9s,mb5.5
KDAK  Kodiak Island     86.67 357   P       P      13 56 01.0 +0.9
      comp=Z,255nm,1.1s,mb6.4,SNR=7.5
KDAK  Kodiak Island     86.67 357  eP       P      13 56 00.9 +0.7
      comp=Z,46nm,1.2s,mb5.6
KDAK  Kodiak Island     86.67 357   LR      LR     14 35 14.8
      comp=Z,126nm,19.1s,MS4.3,baz=18,slow=36
KDAK  Kodiak Island     86.67 357  eP       P      13 56 00.9 +0.8
      comp=Z,46nm,1.2s,mb5.6
WALA  Waterton Lakes    87.05 333  eP       P      13 56 02.2 +0.1
      comp=Z,17nm,0.8s,mb5.3
WALA  Waterton Lakes    87.05 333  eP       P      13 56 02.2 +0.1
      comp=Z,17nm,0.8s,mb5.3
A13A  Flathead Natio    87.33 333 ⇓P       P      13 56 04.2 +0.7
      baz=87
A12A  Yaak River Ran    87.78 334 ⇓P       P      13 56 06.2 +0.5
      baz=88,SNR=13
B13A  Whitefish         87.82 333 ⇓P       P      13 56 06.3 +0.4
      baz=88,SNR=13
A11A  Hall Mountain,    88.02 334 ⇑P       P      13 56 07.4 +0.6
      baz=88,SNR=13
MIAR  Mount Ida         88.05 312  eP       P      13 56 07.8 +0.5
      comp=Z,9.9nm,0.8s,mb5.1
MIAR  Mount Ida         88.05 312  eP       P      13 56 07.8 +0.6
MIAR                                pmax    pmax
      comp=Z,10.0nm,0.8s,mb5.1
MIAR  Mount Ida         88.05 312  eP       P      13 56 07.8 +0.6
      comp=Z,10.0nm,0.8s,mb5.1
C14A  Swan Lake         88.05 332 ⇑P       P      13 56 07.8 +0.8
      baz=88
B12A  Libby             88.15 334   P       P      13 56 08.3 +0.9
      baz=88,SNR=7.2
D15A  Lincoln           88.18 331   P       P      13 56 08.0 +0.4
      baz=88,SNR=11
BSMT  Bassoo Peak       88.37 333   P       P      13 56 09.4 +1.0
BSMT  Bassoo Peak       88.37 333   P       P      13 56 09.4 +0.9
RLMT  Red Lodge         88.39 328  eP       P      13 56 09.6 +1.0
      comp=Z,31nm,1.3s,mb5.4
RLMT  Red Lodge         88.39 328  eP       P      13 56 09.6 +1.0
      comp=Z,31nm,1.3s,mb5.4
A10A  Northport         88.41 335 ⇑P       P      13 56 09.4 +0.8
      baz=88,SNR=5.6
C13A  Hot Springs       88.44 333 ⇑P       P      13 56 09.7 +0.9
      baz=88,SNR=9.7
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B11A  Sandpoint         88.46 334 ⇑P       P      13 56 09.8 +0.9
      baz=88,SNR=5.4
D14A  Greenough         88.53 332 ⇑P       P      13 56 09.5 +0.3
      baz=88,SNR=16
CHMT  Chamberlain Mo    88.57 331   P       P      13 56 10.4 +0.9
CHMT  Chamberlain Mo    88.57 331   P       P      13 56 10.4 +1.0
CBKS  Cedar Bluff       88.57 319  eP       P      13 56 09.5 -0.1
CBKS                                pmax    pmax
      comp=Z,19nm,0.8s,mb5.5
CBKS  Cedar Bluff       88.57 319  eP       P      13 56 09.5 -0.1
      comp=Z,19nm,0.8s,mb5.5
BBB   Bella Bella       88.68 342   LR      LR     14 37 15.5
      comp=Z,179nm,18.4s,MS4.5,baz=218,slow=36
E15A  Deer Lodge        88.73 331 ⇓P       P      13 56 10.8 +0.6
      baz=88,SNR=13
A09A  Danville          88.77 336 ⇓P       P      13 56 11.1 +0.8
      baz=88,SNR=24
NEW   Newport           88.87 334  eP       P      13 56 11.4 +0.6
      comp=Z,22nm,0.9s,mb5.5
NEW   Newport           88.87 334  eP       P      13 56 11.4 +0.6
NEW                                 pmax    pmax
      comp=Z,22nm,0.9s
NEW   Newport           88.87 334  eP       P      13 56 11.4 +0.6
      comp=Z,22nm,0.9s,mb5.5
B10A  Chitwood Farm,    88.88 334 ⇑P       P      13 56 12.0 +1.1
      baz=88,SNR=5.9
D13A  Huson             88.88 332 ⇓P       P      13 56 11.2 +0.3
      baz=89,SNR=16
BOZ   Bozeman (W)       88.96 330  eP       P      13 56 12.4 +1.1
      comp=Z,7.2nm,0.8s,mb5.0
BOZ   Bozeman (W)       88.96 330  eP       P      13 56 12.4 +1.1
BOZ                                 pmax    pmax
      comp=Z,7.0nm,0.8s,mb5.0
BOZ   Bozeman (W)       88.96 330 ⇓P       P      13 56 12.0 +0.7
      baz=89
BOZ   Bozeman (W)       88.96 330  eP       P      13 56 12.4 +1.1
      comp=Z,7.0nm,0.8s,mb5.0
A08A  Turner Farm, O    89.02 336 ⇓P       P      13 56 12.4 +1.0
      baz=89
E14A  Clinton           89.07 331 ⇑P       P      13 56 12.5 +0.7
      baz=89,SNR=14
B09A  Rice              89.09 335 ⇓P       P      13 56 12.6 +0.8
      baz=89,SNR=19
F15A  Butte             89.15 330 ⇑P       P      13 56 12.8 +0.6
      baz=89,SNR=26
A07A  Ashnola River,    89.30 337 ⇑P       P      13 56 13.2 +0.4
      baz=89
C10A  Spilker Farm,     89.32 334 ⇑P       P      13 56 13.0 +0.1
      baz=89
LKWY  Lake              89.32 328  eP       P      13 56 15.4 +2.4
      comp=Z,7.8nm,0.9s,mb5.0
LKWY  Lake              89.32 328  eP       P      13 56 15.4 +2.4
LKWY                                pmax    pmax
      comp=Z,8.0nm,0.9s,mb5.0
LKWY  Lake              89.32 328  eP       P      13 56 15.4 +2.4
      comp=Z,7.8nm,0.9s,mb5.0
E13A  Victor            89.32 332 ⇑P       P      13 56 13.1 +0.2
      baz=89,SNR=20
YMR   Madison River     89.47 329  eP       P      13 56 15.4 +1.7
      comp=Z,8.0nm,0.4s,mb5.4
YMR   Madison River     89.47 329  eP       P      13 56 15.4 +1.7
      comp=Z,8.0nm,0.4s,mb5.4
F14A  Wisdom            89.52 331 ⇓P       P      13 56 14.5 +0.5
      baz=89
QLMT  Earthquake Lak    89.54 329  eP       P      13 56 15.2 +1.2
QLMT  Earthquake Lak    89.54 329  eP       P      13 56 15.2 +1.2
B08A  Colville Reser    89.55 336 ⇓P       P      13 56 14.2 +0.2
      baz=89,SNR=8.8
A06A  Chilliwack        89.60 337 ⇓P       P      13 56 14.5 +0.3
      baz=89
G15A  Dillon            89.70 330 ⇓P       P      13 56 15.6 +0.8
      baz=89,SNR=8.7
B07A  Winthrop          89.72 336 ⇓P       P      13 56 15.4 +0.6
      baz=89,SNR=9.7
F13A  Darby             89.92 331 ⇑P       P      13 56 16.2 +0.4
      baz=90,SNR=22
C08A  Higginbotham F    89.95 335 ⇑P       P      13 56 16.2 +0.3
      baz=90,SNR=16
D10A  Wagner Farm, O    89.95 334 ⇑P       P      13 56 16.2 +0.3
      baz=90
IMW   Indian Meadow     90.08 328  eP       P      13 56 18.1 +1.5
      comp=Z,9.8nm,0.8s,mb5.2
IMW   Indian Meadow     90.08 328  eP       P      13 56 18.1 +1.5
      comp=Z,9.8nm,0.8s,mb5.2
E11A  Bogner Ranch,     90.16 333   P       P      13 56 16.9  0.0
      baz=90,SNR=8.2
D09A  Jones Farm, Ri    90.32 334 ⇑P       P      13 56 17.8 +0.2
      baz=90
C07A  Waterville        90.37 336 ⇓P       P      13 56 18.4 +0.6
      baz=90
E10A  Myers Farm, Un    90.38 333 ⇑P       P      13 56 18.8 +0.8
      baz=90
BW06  Boulder Array     90.39 327  eP       P      13 56 17.4 -0.6
      comp=Z,12nm,1.3s,mb5.1
PDAR  Pinedale Array    90.39 327   P       P      13 56 16.4 -1.7
      comp=Z,3.5nm,0.8s,mb4.7,baz=37,slow=6.2,SNR=26
PDAR                                LR      LR     14 37 27.2
      comp=Z,238nm,19.6s,MS4.6,baz=43,slow=36
TPAW  Teton Pass        90.42 328  eP       P      13 56 18.0 -0.2
      comp=Z,11nm,0.8s,mb5.2
TPAW  Teton Pass        90.42 328  eP       P      13 56 18.0 -0.2
      comp=Z,11nm,0.8s,mb5.2
DCID1 Drake Creek       90.43 328  eP       P      13 56 19.8 +1.5
DCID1 Drake Creek       90.43 328  eP       P      13 56 19.8 +1.6
C06A  Tall Timber Ra    90.44 336 ⇑P       P      13 56 18.4 +0.2
      baz=90
G13A  Cobalt            90.46 331 ⇑P       P      13 56 19.0 +0.7
      baz=90,SNR=12
B05A  Bryant            90.53 337 ⇓P       P      13 56 18.7 +0.1
      baz=90
F11A  Grangeville       90.53 333   P       P      13 56 18.4 -0.2
      baz=90,SNR=11
D08A  Wollman Farm,     90.53 335 ⇑P       P      13 56 18.9 +0.3
      baz=90
E09A  Wood Farm, Sta    90.73 334 ⇓P       P      13 56 19.7 +0.2
      baz=90
D07A  Quincy            90.78 335 ⇓P       P      13 56 20.3 +0.6
      baz=90
F10A  Beach Ranch, E    90.86 333   P       P      13 56 20.9 +0.7
      baz=90,SNR=8.4
C05A  Tolt Reservoir    90.90 337 ⇑P       P      13 56 20.4 +0.1
      baz=91
H13A  Challis           90.91 331 ⇓P       P      13 56 21.5 +1.1
      baz=91,SNR=11
WMOK  Wichita Mounta    90.98 315  eP       P      13 56 20.8 -0.1
      comp=Z,10.0nm,1.1s,mb5.1
WMOK  Wichita Mounta    90.98 315  eP       P      13 56 20.8 -0.1
WMOK                                pmax    pmax
      comp=Z,10.0nm,1.1s,mb5.1
WMOK  Wichita Mounta    90.98 315  eP       P      13 56 20.8 -0.1
      comp=Z,10.0nm,1.1s,mb5.1
D06A  Cle Elum          91.07 336 ⇓P       P      13 56 21.6 +0.6
      baz=91
E08A  Dider Farm, El    91.07 335 ⇓P       P      13 56 22.3 +1.2
      baz=91
H12A  Diamond D Ranc    91.16 331   P       P      13 56 22.9 +1.3
      baz=91,SNR=6.5
E07A  Sunnyside         91.29 335 ⇑P       P      13 56 23.2 +1.1
      baz=91
C04A  Brinnon           91.29 337 ⇑P       P      13 56 22.8 +0.7
      baz=91
F09A  S2 Ranch, Elgi    91.33 333   P       P      13 56 23.1 +0.7
      baz=91,SNR=8.9
I13A  Wildhorse Cree    91.39 330 ⇑P       P      13 56 23.6 +0.9
      baz=91,SNR=9.9
H11A  Donnelly          91.48 332 ⇑P       P      13 56 22.5 -0.6
      baz=91
F08A  Pendleton         91.57 334 ⇑P       P      13 56 24.4 +1.0
      baz=91
E06A  Yakima            91.68 336 ⇑P       P      13 56 24.3 +0.4
      baz=91
WPW   White Pass        91.73 336   P       P      13 56 25.3 +1.1
WPW   White Pass        91.73 336   P       P      13 56 25.3 +1.1
HLID  Hailey            91.80 330  eP       P      13 56 26.0 +1.4
      comp=Z,2.2nm,0.8s,mb4.5
HLID  Hailey            91.80 330 ⇑P       P      13 56 25.5 +0.9
      baz=92
HLID  Hailey            91.80 330  eP       P      13 56 26.0 +1.4
      comp=Z,2.2nm,0.8s,mb4.5
BMO   Blue Mountains    91.84 333  eP       P      13 56 24.3 -0.4
      comp=Z,6.2nm,0.8s,mb5.0
BMO   Blue Mountains    91.84 333   P       P      13 56 24.3 -0.4
      comp=Z,6.2nm,0.8s,mb5.0,SNR=1.0
J13A  Cove Ranch, Pi    91.84 330 ⇑P       P      13 56 25.8 +1.0
      baz=92,SNR=5.7
H10A  Noah's Angus R    91.86 332   P       P      13 56 24.6 -0.2
      baz=92,SNR=9.3
G08A  Pilot Rock        92.07 334 ⇑P       P      13 56 25.7 -0.1
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	baz=92						
I11A	Placerville	92.12	331	P	P	13 56 26.4	+0.3
	baz=92,SNR=9.4						
K14A	Jones Ranch, D	92.13	329	⇑P	P	13 56 27.1	+1.0
	baz=92						
H09A	Durkee	92.13	333	⇓P	P	13 56 26.2	+0.1
	baz=92						
HWUT	Hardware Ranch	92.21	327	eP	P	13 56 26.4	-0.1
	comp=Z,6.5nm,0.8s,mb5.0						
HWUT	Hardware Ranch	92.21	327	P	P	13 56 26.4	-0.1
	comp=Z,6.5nm,0.8s,mb5.0,SNR=1.0						
I10A	Payette	92.30	332	⇑P	P	13 56 27.2	+0.3
	baz=92						
J12A	Stokes Ranch,	92.34	330	⇓P	P	13 56 27.7	+0.6
	baz=92						
G07A	Ruggs Ranch, H	92.34	334	⇑P	P	13 56 27.7	+0.7
	baz=92						
SDCO	Great Sand Dun	92.38	321	eP	P	13 56 27.2	-0.1
	comp=Z,3.3nm,0.8s,mb4.7						
SDCO	Great Sand Dun	92.38	321	P	P	13 56 27.2	-0.2
	comp=Z,3.3nm,0.8s,mb4.7,SNR=1.0						
F05A	White Salmon	92.42	336	⇑P	P	13 56 28.5	+1.1
	baz=92						
K13A	Stover Farm, H	92.42	329	⇓P	P	13 56 29.0	+1.5
	baz=92						
MFID	Camas Ranch	92.49	331	P	P	13 56 28.8	+1.1
	baz=92,SNR=10						
H08A	Prairie City	92.63	333	⇓P	P	13 56 29.8	+1.4
	baz=92						
G06A	Carlson Farm,	92.71	335	⇓P	P	13 56 30.2	+1.5
	baz=92						
I09A	Lost Marbles R	92.75	332	⇑P	P	13 56 29.5	+0.5
	baz=92						
K12A	Draper Farm, C	92.77	330	⇑P	P	13 56 30.0	+0.9
	baz=92						
L13A	Double Diamond	92.83	329	P	P	13 56 30.9	+1.6
	baz=92,SNR=11						
J10A	Berg Farm, Mel	92.85	332	⇓P	P	13 56 30.3	+0.9
	baz=92						
JLU	Jordanelle	92.97	327	eP	P	13 56 30.2	+0.2
JLU	Jordanelle	92.97	327	P	P	13 56 30.2	+0.2
	SNR=1.0						
L12A	House Creek Ra	93.23	330	⇑P	P	13 56 32.3	+1.2
	baz=93						
J09A	Fry Pan Ranch,	93.29	332	P	P	13 56 32.6	+1.1
	baz=93,SNR=15						
I07A	Izee	93.31	334	⇑P	P	13 56 32.4	+0.9
	baz=93						
G04A	Mulino	93.36	336	⇑P	P	13 56 32.7	+1.0
	baz=93						
K10A	MacKenzie Ranc	93.44	331	⇑P	P	13 56 33.5	+1.3
	baz=93						
L11A	Cat Creek Ranc	93.51	330	P	P	13 56 33.6	+1.1
	baz=93,SNR=5.5						
G03A	Yamhill	93.52	337	⇓P	P	13 56 33.7	+1.2
	baz=93						
M13A	Montello	93.53	329	⇓P	P	13 56 33.6	+1.0
	baz=93						
J08A	Circle Bar Ran	93.56	333	⇓P	P	13 56 33.4	+0.8
	baz=93						
PV01	Paradox Valley	93.60	323	eP	P	13 56 33.1	+0.1
PV01	Paradox Valley	93.60	323	P	P	13 56 33.1	+0.1
	SNR=1.0						
I06A	Prineville	93.68	334	⇓P	P	13 56 35.3	+2.0
	baz=93						
H04A	Detroit Lake	93.72	336	⇓P	P	13 56 34.1	+0.7
	baz=93						
SRU	San Rafael	93.75	325	eP	P	13 56 33.2	-0.4
	comp=Z,6.3nm,0.7s,mb5.2						
SRU	San Rafael	93.75	325	eP	P	13 56 33.3	-0.4
SRU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb5.1						
SRU	San Rafael	93.75	325	P	P	13 56 33.2	-0.5
	comp=Z,6.3nm,0.7s,mb5.2,SNR=1.0						
M12A	Wells	93.79	329	⇑P	P	13 56 35.0	+1.2
	baz=94						
K09A	Rome	93.83	332	P	P	13 56 35.1	+1.1
	baz=94,SNR=13						
J07A	Hines	93.85	333	⇑P	P	13 56 35.7	+1.7
	baz=94						
I05A	Bend	93.86	335	⇑P	P	13 56 35.8	+1.7
	baz=94						
L10A	Juniper Basin	93.87	331	P	P	13 56 35.5	+1.3
	baz=94,SNR=5.1						
DUG	Dugway	93.91	327	eP	P	13 56 34.5	+0.1
	comp=Z,2.4nm,0.8s,mb4.7						
DUG	Dugway	93.91	327	eP	P	13 56 34.5	+0.2
DUG				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.6						
DUG	Dugway	93.91	327	⇑P	P	13 56 35.2	+0.9
	baz=94						
DUG	Dugway	93.91	327	eP	P	13 56 34.5	+0.2
	comp=Z,2.0nm,0.8s,mb4.6						
K08A	Mann Creek Ran	94.10	332	⇓P	P	13 56 36.4	+1.2
	baz=94						
M11A	Holland Ranch,	94.14	330	⇑P	P	13 56 36.7	+1.3
	baz=94						
J06A	Christmas Vall	94.26	334	P	P	13 56 37.8	+1.9
	baz=94,SNR=5.3						
MVCO	Mesa Verde	94.29	323	⇑P	P	13 56 36.8	+0.6
	baz=94						
N12A	Clover Valley,	94.31	329	⇑P	P	13 56 37.8	+1.6
	baz=94						
M10A	I.L. Ranch, Tu	94.37	330	⇓P	P	13 56 37.9	+1.5
	baz=94						
L09A	Wilkinson Ranc	94.39	331	P	P	13 56 38.1	+1.6
	baz=94,SNR=7.9						
WVOR	Wild Horse Val	94.41	332	eP	P	13 56 37.1	+0.5
	comp=Z,5.2nm,0.8s,mb5.0						
WVOR	Wild Horse Val	94.41	332	eP	P	13 56 37.2	+0.6
WVOR				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb5.0						
WVOR	Wild Horse Val	94.41	332	eP	P	13 56 37.2	+0.6
	comp=Z,5.0nm,0.8s,mb5.0						
K07A	Rock Creek Ran	94.42	333	P	P	13 56 37.9	+1.2
	baz=94,SNR=6.5						
L08A	Fields	94.51	332	P	P	13 56 38.5	+1.4
	baz=94,SNR=8.4						
I04A	Tendick Farm,	94.58	335	⇓P	P	13 56 38.4	+1.0
	baz=94						
J05A	Fort Rock	94.62	334	P	P	13 56 39.8	+2.2
	baz=94,SNR=5.2						
N11A	Elko Archery C	94.63	330	⇑P	P	13 56 39.2	+1.5
	baz=94						
K06A	Valley Falls	94.69	333	⇓P	P	13 56 39.3	+1.4
	baz=94						
M09A	Marrel Ranch,	94.81	331	⇓P	P	13 56 40.2	+1.7
	baz=94						
I02A	Mapleton	94.87	336	⇑P	P	13 56 40.5	+1.8
	baz=94						
K05A	Summer Lake	94.99	334	⇓P	P	13 56 41.1	+1.9
	baz=95						
MSU	Marysvale	94.99	326	eP	P	13 56 39.6	+0.2
L07A	Adell	95.03	332	P	P	13 56 41.0	+1.6
	baz=95,SNR=7.5						
M08A	Happy Creek Ra	95.16	332	P	P	13 56 41.3	+1.2
	baz=95,SNR=5.2						
O11A	Cowboy Ranch,	95.18	329	⇑P	P	13 56 41.3	+1.1
	baz=95						
N09A	Rock Creek Ran	95.33	331	⇑P	P	13 56 42.1	+1.3
	baz=95						
P12A	McGill	95.41	328	⇓P	P	13 56 42.7	+1.5
	baz=95						
MOD	Modoc	95.49	333	⇑P	P	13 56 43.1	+1.5
	baz=95						
MOD	Modoc	95.49	333	eP	P	13 56 42.8	+1.2
	comp=Z,2.8nm,0.8s,mb4.7						
M07A	Soldier Meadow	95.51	332	⇑P	P	13 56 42.9	+1.3
	baz=95						
L05A	Lakeview	95.56	333	⇓P	P	13 56 43.7	+1.9
	baz=95						
Q12A	Willow Creek R	95.74	328	⇑P	P	13 56 44.1	+1.4
	baz=95						
O09A	Fish Creek Ran	95.77	330	⇓P	P	13 56 43.9	+1.0
	baz=96						
HUMO	Hull Mountain	95.82	335	⇑P	P	13 56 43.9	+0.9
	baz=96						
P10A	Eureka	95.94	329	⇓P	P	13 56 44.2	+0.5
	baz=96						
S14A	Cedar City	96.06	326	⇓P	P	13 56 45.2	+1.0
	baz=96						
M04C	Macdoel	96.15	334	⇑P	P	13 56 46.0	+1.4
	baz=96						
M06C	Likely Place G	96.16	333	⇓P	P	13 56 46.3	+1.7
	baz=96						
Q11A	Duckwater	96.25	328	⇓P	P	13 56 46.4	+1.3
	baz=96						
M05C	Lookout	96.27	333	⇑P	P	13 56 46.3	+1.2
	baz=96						
N06A	Buffalo Meadow	96.32	332	P	P	13 56 46.8	+1.5
	baz=96,SNR=5.6						
O07A	Toulon	96.45	331	P	P	13 56 47.4	+1.4
	baz=96,SNR=6.5						
M03C	McCloud	96.70	334	⇑P	P	13 56 47.9	+0.8
	baz=96						
LBCM	Butte Creek Ri	96.81	333	P	P	13 56 48.6	+1.1
LBCM	Butte Creek Ri	96.81	333	P	P	13 56 48.6	+1.0
O06A	Flanigan	96.82	332	P	P	13 56 48.7	+1.1
	baz=96,SNR=5.2						
HATC	Hat Creek Radi	96.86	333	⇑P	P	13 56 49.1	+1.3
	baz=96						
R10A	Warm Springs	96.99	329	⇑P	P	13 56 49.4	+1.0
	baz=97						
T13A	Saint George	97.00	326	⇑P	P	13 56 49.9	+1.3
	baz=97						
O04C	Chester	97.16	333	⇑P	P	13 56 50.1	+0.9
	baz=97						
BEKR	Beckwourth	97.28	332	P	P	13 56 50.8	+1.0
	baz=97,SNR=5.0						
R09A	Tonopah	97.36	329	⇑P	P	13 56 51.1	+0.9
	baz=97						
O05C	Quincy	97.41	332	⇓P	P	13 56 51.3	+1.0
	baz=97						
S10A	Tonopah Range,	97.43	329	⇓P	P	13 56 51.1	+0.7
	baz=97						
WDC	Whiskeytown Da	97.46	334	⇓P	P	13 56 50.5	0.0
	baz=97						
R08A	Mina	97.70	330	⇓P	P	13 56 52.5	+0.8
	baz=97						
NVAR	Mina Array Bea	97.71	330	P	P	13 56 51.7	0.0
NVAR				PP	PP	14 00 40.0	-9.1
NVAR				PKKPbc	PKKPbc	14 13 27.2	+0.9
NVAR	Mina Array Bea	97.71	330	P	P	13 56 51.7	0.0
	comp=Z,1.6nm,0.8s,mb4.6,baz=52,slow=4.7,SNR=11						
NVAR				PP	PP	14 00 40.0	-9.1
	comp=Z,0.2nm,0.5s,baz=54,slow=2.4,SNR=3.7						
NVAR				PKKPbc	PKKPbc	14 13 27.2	+0.9
	comp=Z,0.7nm,0.8s,baz=203,slow=6.7,SNR=6.7						
NVAR	Mina Array Bea	97.71	330	PP	PP	14 00 40.0	-9.1
LTX	Lajitas	97.75	315	eP	P	13 56 51.6	-0.4
	comp=Z,10nm,0.8s,mb5.4						
LTX	Lajitas	97.75	315	eP	P	13 56 51.6	-0.4
LTX				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.4						
LTX	Lajitas	97.75	315	eP	P	13 56 51.6	-0.4
	comp=Z,10.0nm,0.8s,mb5.4						
TXAR	Lajitas Array	97.75	315	PP	PP	14 00 45.0	-4.9
	comp=Z,1.1nm,0.9s,baz=77,slow=7.8,SNR=4.3						
TXAR				LR	LR	14 37 57.8	
	comp=Z,168nm,19.1s,MS4.5,baz=185,slow=34						
ORV	Oroville	97.98	333	⇑P	P	13 56 53.2	+0.3
	baz=98						
R06C	Coleville	98.09	331	⇑P	P	13 56 54.5	+1.1
	baz=98						
W14A	Seligman	98.10	325	⇑P	P	13 56 54.7	+1.2
	baz=98						
R05C	Kirkwood Meado	98.18	331	P	P	13 56 55.0	+1.2
	baz=98,SNR=9.7						
X15A	Humboldt	98.29	324	⇑P	P	13 56 55.8	+1.4
	baz=98						
R07C	Lee Vining	98.30	330	⇑P	P	13 56 55.6	+1.2
	baz=98						
SUTB	Sutter Butte	98.37	333	⇑P	P	13 56 55.8	+1.1
	baz=98						
LAVA	Lava Cap Winer	98.39	332	⇑P	P	13 56 55.5	+0.8
	baz=98						
S08C	White Mtn Res	98.45	329	⇓P	P	13 56 56.3	+1.3
	baz=98						
U10A	Ash Meadows, A	98.58	328	⇑P	P	13 56 57.1	+1.5
	baz=98						
S06C	San Francisco	98.80	331	⇓P	P	13 56 58.0	+1.4
	baz=98						
CMB	Columbia Colle	98.88	331	⇓P	P	13 56 58.5	+1.6
	baz=99						
LPAZ	La Paz	99.83	257	LR	LR	14 42 04.4	
	comp=Z,98nm,21.9s,MS4.3,baz=238,slow=35						
ISA	Isabella	100.14	329	⇑P	Pdif	13 57 03.5	+1.1
	baz=100						
BC3	Big Chuckw Mtn	100.49	325	⇓P	Pdif	13 57 05.0	+0.9
	baz=100						
WRA	Warramunga Arr	118.82	95	PKP	PKPdf	14 02 03.7	-1.5
WRA				PP	PP	14 03 19.7	-4.9
WRA	Warramunga Arr	118.82	95	PKIKP	PKPdf	14 02 03.7	-1.5
WRA	Warramunga Arr	118.82	95	PKP	PKPdf	14 02 03.7	-1.5
	comp=Z,2.9nm,0.6s,baz=306,slow=1.8,SNR=14						
WRA				PP	PP	14 03 19.7	-4.9
	comp=Z,0.4nm,0.3s,baz=354,slow=23,SNR=3.4						
WRA	Warramunga Arr	118.82	95	PKIKP	PKPdf	14 02 03.7	-1.5
WRA	Warramunga Arr	118.82	95	PP	PP	14 03 19.7	-4.9
QSPA	South Pole Qui	125.67	180	ePKPdf	PKPdf	14 02 16.7	+0.1
QSPA	South Pole Qui	125.67	180	ePKIKP	PKPdf	14 02 16.7	+0.1
STKA	Stephens Creek	129.98	104	ePDIF	PKPdf	14 02 26.0	-0.3
	comp=Z,3.6nm,0.8s						
STKA	Stephens Creek	129.98	104	PKP	PKPdf	14 02 25.9	-0.4
STKA				SKPbc		14 05 42.0	
STKA	Stephens Creek	129.98	104	PKP	PKPdf	14 02 25.9	-0.4
	comp=Z,3.7nm,0.7s,baz=337,slow=3.4,SNR=7.7						
STKA				SKPbc		14 05 42.0	
	comp=Z,3.3nm,0.7s,baz=281,slow=6.4,SNR=4.3						
STKA	Stephens Creek	129.98	104	PKIKP	PKPdf	14 02 25.9	-0.4
NOUC	Port Laguerre	145.72	76	eP	PKPdf	14 02 52.1	-3.2

IDC 03 14:03:04.1±2.3**, 15.01N×147.08E, h0^{km}, mb3.8**/3**, mb1 4.0**/4**, mb1mx3.7**/18**, mbtmp3.8**/4**, ML3.9**/1**, Error ellipse: s-maj=54.2km s-min=25.4km az=102.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.57	237	Pn	Pn	14 03 47.4	+0.3
	22nm,0.3s,baz=270,slow=18,SNR=13						
GUMO				Sn	Sn	14 04 20.0	+0.9
	33nm,0.3s,baz=15,slow=22,SNR=7.6						
WRA	Warramunga Arr	36.93	200	P	P	14 10 14.8	-0.1
	1.8nm,0.6s,baz=22,slow=9.3,SNR=6.1						
SONM	Songino Array	46.85	323	P	P	14 11 36.2	+0.3
	0.3nm,0.6s,baz=124,slow=9.4,SNR=2.8						
MKAR	Makanchi Array	61.98	315	P	P	14 13 25.9	-0.1
	0.8nm,0.5s,baz=90,slow=8.2,SNR=25						

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*SKO **03** 14:26:05.7, 39.40N×20.23E, h0^{km}*
*ISCJB **03** 14:26:08.2±0.9, 39.50N±0.04×20.61E±0.08, h9^{km}±10^{km}, Error ellipse: s-maj=10.9km s-min=7.3km az=176.6*
*NEIC **03** 14:26:08.8, 39.44N×20.62E, h4^{km}, MD3.3(ATH), After ATH.*
*ATH **03** 14:26:08.8, 39.44N×20.62E, h4^{km}, MD3.3/4*
*CSEM **03** 14:26:09.1±0.3, 39.54N×20.66E, h14^{km}±3^{km}, MD3.3, Error ellipse: s-maj=8.0km s-min=6.9km az=85.0*
ISC 03 14:26:08.6±0.9**, 39.47N**±0.04×**20.61E**±0.08**, h10**^{km}±10^{km}**, n18, σ0**^{s}**.85**/25**, 14C, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAN	Janina	0.27	45	⇑iPg	Pg	14 26 13.5	-0.6
JAN				eSg	Sg	14 26 18.1	+0.4
JAN	Janina	0.27	45	⇑iPG	Pg	14 26 13.5	-0.6
JAN				eSG	Sg	14 26 18.1	+0.4
JAN	Janina	0.27	45	⇑iPg	Pg	14 26 13.5	-0.6
JAN				eSg	Sg	14 26 18.1	+0.4
KEK	Kerkira	0.67	292	⇑iPg	Pg	14 26 22.1	+0.5
KEK	Kerkira	0.67	292	⇑iPG	Pg	14 26 22.1	+0.5
KEK	Kerkira	0.67	292	⇑iPg	Pg	14 26 22.1	+0.5
EVR	Evrytania	1.08	120	⇑iPg	Pg	14 26 29.3	-0.1
EVR	Evrytania	1.08	120	⇑iPG	Pg	14 26 29.3	-0.1
EVR	Evrytania	1.08	120	⇑iPg	Pg	14 26 29.3	-0.1
THL	Klokotos Trika	1.09	84	⇑iPG	Pg	14 26 29.7	+0.1
THL	Klokotos Trika	1.09	84	⇑iPg	Pg	14 26 29.7	+0.1
VLS	Valsamata	1.29	181	⇑iPb	Pb	14 26 32.8	-0.1
VLS	Valsamata	1.29	181	⇑iPB	Pb	14 26 32.8	-0.1
VLS	Valsamata	1.29	181	⇑iPb	Pb	14 26 32.8	-0.1
OHR	Ohrid	1.65	5	ePn	Pn	14 26 36.5	-1.0
OHR				eSg	Sg	14 27 00.1	-1.6
OHR	Ohrid	1.65	5	ePn	Pn	14 26 36.5	-1.1
OHR				eSg	Sg	14 27 00.1	-1.6
KRUS	Krusevo	1.96	14	ePn	Pn	14 26 43.1	+1.2
KRUS				eSg	Sg	14 27 13.1	+1.4
KRUS	Krusevo	1.96	14	ePn	Pn	14 26 43.0	+1.1
KRUS				eSg	Sg	14 27 13.0	+1.3

IDC 03 14:31:20.2±2.8**, 8.85S×108.12E, h0**^{km}**, mb3.9**/4**, mb1 4.0**/4**, mb1mx3.7**/16**, mbtmp3.9**/4**, Error ellipse: s-maj=125.0km s-min=22.7km az=53.0, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	27.64	116	P	P	14 37 09.7	-0.1
	0.5nm,0.4s,baz=289,slow=10,SNR=3.0						
STKA	Stephens Creek	38.59	131	P	P	14 38 45.1	0.0
	1.4nm,0.6s,baz=328,slow=9.8,SNR=4.8						
SONM	Songino Array	56.45	359	P	P	14 41 04.2	+0.5
	1.1nm,0.5s,baz=176,slow=8.1,SNR=13						
MKAR	Makanchi Array	59.99	340	P	P	14 41 28.2	-0.2
	0.8nm,0.5s,baz=153,slow=8.1,SNR=19						

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*ISCJB **03** 14:43:04.7±0.6, 44.85N±0.02×22.35E±0.04, h6^{km}±4^{km}, Error ellipse: s-maj=4.7km s-min=3.8km az=42.7*
*BEO **03** 14:43:05.6±0.5, 44.83N×22.40E, h8^{km}±2^{km}, ML2.4/6*
*BUC **03** 14:43:07.6±0.6, 45.06N×22.40E, h10^{km}, MD2.7/3, Error ellipse: s-maj=5.8km s-min=3.0km az=16.0*
ISC 03 14:43:05.2±0.6**, 44.86N**±0.03×**22.38E**±0.04**, h8**^{km}±4^{km}**, n14, σ1**^{s}**.15**/26**, 2C-2D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DJES	Djerdap	0.25	156	i Pg	Pg	14 43 10.2	+0.1
DJES				i Sg	Sg	14 43 13.6	+0.2
GZR	Gura Zlata	0.60	27	⇑iP	Pg	14 43 16.5	-0.3
GZR				i S	Sg	14 43 23.3	-1.4
BZS	Buzias	0.93	325	⇓iP	Pg	14 43 23.5	+0.4
BZS				i S	Sg	14 43 35.3	+0.1
BZS	Buzias	0.93	325	i Pg	Pg	14 43 23.7	+0.6
BZS				i Sg	Sg	14 43 35.7	+0.5
SVIS	Svilajnac	1.00	236	ePg	Pg	14 43 23.2	-1.3
SVIS				eSg	Sg	14 43 38.2	+0.7
BEO	Belgrade	1.37	269	ePg	Pn	14 43 29.3	-1.4
BEO				eSn	Sg	14 43 50.8	+1.5
GRUS	Gruza	1.54	232	ePg	Pg	14 43 33.7	-1.0
GRUS				eSg	Sg	14 43 54.4	-0.3
DIVS	Divcibare	1.87	247	ePn	Pn	14 43 38.0	+0.4
DIVS				eSn	Sn	14 44 00.1	-1.3
DRGR		1.95	7	⇓iP	Pn	14 43 40.7	+2.1
DRGR				i S	Sn	14 44 01.6	-1.6
VOIR		1.97	72	⇑iP	Pn	14 43 41.3	+2.4
VOIR				i S	Sn	14 44 06.9	+3.0
BARS	Barje	2.08	191	ePn	Pn	14 43 41.1	+0.7
BARS				eSn	Sn	14 44 05.4	-1.1
BBLS	Bajina Basta -	2.35	246	ePn	Pn	14 43 44.7	+0.5
BBLS				eSn	Sn	14 44 13.8	+0.6
MLR	Muntele Rosu	2.60	75	i S	Sb	14 44 23.1	-1.0
MLR	Muntele Rosu	2.60	75	S	Sb	14 44 23.1	-1.0

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*ISCJB **03** 14:50:33.9±0.5, 44.90N±0.03×22.43E±0.04, h10^{km}, Error ellipse: s-maj=5.0km s-min=3.3km az=42.0*
*BUC **03** 14:50:36.4±0.6, 45.04N×22.41E, h4^{km}±4^{km}, MD2.6/3, Error ellipse: s-maj=4.9km s-min=1.3km az=359.0*
*BEO **03** 14:50:37.3±0.8, 44.73N×22.46E, h6^{km}±3^{km}, ML2.2/5*
ISC 03 14:50:34.3±0.6**, 44.89N**±0.03×**22.47E**±0.04**, h2**^{km}±8^{km}**, n12, σ0**^{s}**.62**/20**, 1C-3D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DJES	Djerdap	0.26	172	ePg	Pg	14 50 39.8	+0.6
DJES				eSg	Sg	14 50 42.5	-0.1
GZR	Gura Zlata	0.55	23	⇑iP	Pg	14 50 45.5	+0.7
GZR				i S	Sg	14 50 51.9	0.0
BZS	Buzias	0.95	320	⇓iP	Pg	14 50 52.6	+0.2
BZS				i S	Sg	14 51 04.5	-0.2
SVIS	Svilajnac	1.07	237	ePg	Pg	14 50 55.1	+0.2
SVIS				eSg	Sg	14 51 08.5	-0.3
GRUS	Gruza	1.61	232	ePn	Pn	14 51 04.4	+0.7
GRUS				eSg	Sg	14 51 24.9	-1.1
VOIR		1.90	72	⇓iP	Pg	14 51 10.8	+0.1
DRGR		1.91	5	⇓iP	Pg	14 51 10.1	-0.8
DIVS	Divcibare	1.94	247	ePn	Pn	14 51 09.3	+1.0
DIVS				eSg	Sg	14 51 37.0	+0.3
BARS	Barje	2.12	193	ePn	Pn	14 51 11.2	+0.4
BARS				eSg	Sb	14 51 39.9	-0.3
BBLS	Bajina Basta -	2.42	246	ePn	Pb	14 51 17.1	-1.5
BBLS				eSg	Sg	14 51 52.7	+0.6
MLR	Muntele Rosu	2.53	75	i S	Sb	14 51 51.3	-0.6
MLR	Muntele Rosu	2.53	75	S	Sb	14 51 51.3	-0.6

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*ISCJB **03** 14:56:34.2±0.3, 35.70N±0.03×22.39E±0.03, h85^{km}±5^{km}, mb3.5/9, Error ellipse: s-maj=5.0km s-min=3.2km az=28.0*
*NEIC **03** 14:56:34.7, 35.72N×22.49E, h86^{km}, MG3.8(ATH), After ATH.*
*IDC **03** 14:56:34.4±2.0, 35.70N×22.58E, h56^{km}±22^{km}, mb3.5/9, mb1 3.8/15, mb1mx3.6/28, mbtmp3.7/15, ML3.9/6, Error ellipse: s-maj=22.9km s-min=16.8km az=11.0*
*ATH **03** 14:56:34.7, 35.72N×22.49E, h87^{km}±2^{km}, ML3.8*
*CSEM **03** 14:56:34.3±0.1, 35.70N×22.44E, h80^{km}, mb3.8/5, Error ellipse: s-maj=2.0km s-min=1.1km az=16.0*
*MOS **03** 14:56:34.9±1.2, 35.77N×22.44E, h73^{km}, mb4.0/5, Error ellipse: s-maj=10.1km s-min=7.1km az=99.1*
*THE **03** 14:56:36.7, 35.84N×22.57E, h78^{km}, ML4.3*
*HLW **03** 14:56:39.4, 35.89N×23.45E, h33^{km}, Mb2.2*
ISC 03 14:56:35.6±0.3**, 35.69N**±0.03×**22.42E**±0.03**, h74**^{km}±5^{km}**, n134, σ0**^{s}**.87**/157**, mb3.5**/9**, 8C-8D, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	Kithira	0.77	40	eP	Pn	14 56 51.5	-0.1
KYTH				eS	Sn	14 57 03.5	0.0
VLI	Veliai	1.11	22	⇑iP	Pn	14 56 56.7	+1.0
VLI				eS	Sn	14 57 11.4	+0.8
KARN	Karanos	1.25	103	ePg	Pn	14 56 58.1	+0.6
KARN				eSg	Sn	14 57 15.0	+1.0
KARN	Karanos	1.25	103	ePg	Pn	14 56 58.1	+0.6
KARN				eSg	Sn	14 57 15.0	+1.1
VAM	Vamos	1.48	101	⇑iP	Pn	14 57 00.8	+0.4
VAM				eS	Sn	14 57 19.5	+0.4
ITM	Ithomi	1.54	345	eP	Pn	14 57 01.9	+0.7
GVD	Gavdhos	1.61	121	ePg	Pn	14 57 02.6	+0.5
GVD				eSg	Sn	14 57 23.0	+0.8
GVD	Gavdhos	1.61	121	eP	Pn	14 57 02.0	-0.1
GVD	Gavdhos	1.61	121	ePg	Pn	14 57 02.6	+0.5
GVD				eSg	Sn	14 57 23.0	+0.9
IDI	Anoyia	2.06	101	P	Pn	14 57 08.3	+0.2
	16nm,0.3s,baz=287,slow=13,SNR=46						
IDI				S	Sn	14 57 32.9	+0.1
	36nm,0.3s,baz=2.8,slow=22,SNR=15						
KVR	Kavouri	2.39	27	eP	Pn	14 57 12.0	-0.6
RLS	Riolos of Patr	2.48	342	⇑iP	Pn	14 57 15.4	+1.5
RLS				eS	Sn	14 57 43.9	+0.7
ATH	Athens Observa	2.50	24	⇑iP	Pn	14 57 14.4	+0.3
SANT	Santorini	2.56	74	ePn	Pn	14 57 14.2	-0.6
SANT	Santorini	2.56	74	ePn	Pn	14 57 14.2	-0.6
PTL	Penteli	2.62	26	eP	Pn	14 57 15.5	-0.2
NPS	Neapolis	2.64	98	eP	Pn	14 57 16.2	+0.2
NPS	Neapolis	2.64	98	eP	Pn	14 57 17.4	+1.4
APE	Apeiranthos	2.86	60	i P	Pn	14 57 18.9	-0.1
VLS	Valsamata	2.88	330	⇑iP	Pn	14 57 19.7	+0.4
LKR	Lokris	2.99	9	⇑iP	Pn	14 57 20.7	0.0
EVR	Evrytania	3.26	352	eP	Pn	14 57 25.9	+1.6
LKD	Levkas	3.33	335	ePn	Pn	14 57 26.6	+1.4
LKD				eSn	Sn	14 58 03.1	-0.5
LKD	Levkas	3.33	335	ePn	Pn	14 57 26.6	+1.3
LKD				eSn	Sn	14 58 03.1	-0.5
AGG	Agios Georgios	3.33	359	ePn	Pn	14 57 25.5	+0.3
AGG				eSn	Sn	14 58 02.2	-1.4
AGG	Agios Georgios	3.33	359	ePn	Pn	14 57 25.5	+0.2
AGG				eSn	Sn	14 58 02.2	-1.4
NEO	Neokhori	3.67	10	eP	Pn	14 57 30.2	+0.3
KARP	Karpathos	3.87	91	eP	Pn	14 57 32.5	-0.1
THL	Klokotos Trika	3.88	355	⇓iP	Pn	14 57 33.5	+0.7
JAN	Janina	4.15	343	⇓iP	Pn	14 57 37.4	+0.9
PAIG	Paliouri	4.35	13	ePn	Pn	14 57 38.8	-0.4
PAIG	Paliouri	4.35	13	ePn	Pn	14 57 38.8	-0.4
LIT	Litokhoron	4.40	1	ePn	Pn	14 57 40.1	+0.1
LIT				eSn	Sn	14 58 28.1	-1.8
LIT	Litokhoron	4.40	1	ePn	Pn	14 57 40.1	+0.2
LIT				eSn	Sn	14 58 28.1	-1.8
KEK	Kerkira	4.52	333	eP	Pn	14 57 41.6	0.0
KEK	Kerkira	4.52	333	eP	Pn	14 57 41.5	-0.1

KZN	Kozani	4.64	354	⇑iP	Pn	14 57 43.6	+0.5
KZN				eS	Sn	14 58 33.7	-1.9
ARG	Arkhangelos	4.66	82	⇓iP	Pn	14 57 43.4	0.0
LOS	Limnos	4.73	26	ePn	Pn	14 57 43.8	-0.7
LOS	Limnos	4.73	26	ePn	Pn	14 57 43.8	-0.6
LIA	Limnos Island	4.74	27	P	Pn	14 57 46.4	+1.9
PLG	Polygyros	4.75	10	⇑iP	Pn	14 57 44.2	-0.4
OUR	Ouranopolis	4.80	14	ePn	Pn	14 57 44.9	-0.4
OUR	Ouranopolis	4.80	14	ePn	Pn	14 57 44.9	-0.4
HORT	Hortiatis	4.93	6	ePn	Pn	14 57 46.8	-0.3
HORT	Hortiatis	4.93	6	ePn	Pn	14 57 46.8	-0.3
FNA	Florina	5.15	351	ePn	Pn	14 57 50.0	-0.1
FNA	Florina	5.15	351	ePn	Pn	14 57 50.0	-0.1
SOH	Sokhos	5.18	8	ePn	Pn	14 57 50.8	+0.3
SOH	Sokhos	5.18	8	ePn	Pn	14 57 50.8	+0.3
GRG	Griva	5.26	360	ePn	Pn	14 57 51.2	-0.4
GRG	Griva	5.26	360	ePn	Pn	14 57 51.2	-0.4
BIA	Bitola	5.39	351	ePn	Pn	14 57 52.9	-0.5
KNT	Kendrikon	5.48	4	ePn	Pn	14 57 54.1	-0.4
KNT	Kendrikon	5.48	4	ePn	Pn	14 57 54.1	-0.5
OHR	Ohrid	5.56	347	ePn	Pn	14 57 55.2	-0.5
MPAZ	Palizzi	5.62	296	Pn	Pn	14 57 56.5	0.0
	93nm,0.7s						
VAY	Valandovo	5.62	1	ePn	Pn	14 57 55.7	-0.9
SOI	Samo	5.63	297	i P	Pn	14 57 56.8	+0.1
SOI				pmax	pmax		
	comp=Z,23nm,0.4s						
SOI	Samo	5.63	297	i P	Pn	14 57 56.8	+0.1
	comp=Z,23nm,0.4s						
SERS	Sersale	5.66	308	Pn	Pn	14 57 56.5	-0.5
	comp=Z,57nm,0.3s						
TIP	Timpagrande	5.69	309	P	Pn	14 57 58.0	+0.4
KRUS	Krusevo	5.74	351	ePn	Pn	14 57 58.5	+0.2
KRUS				eSg	Sn	14 58 57.8	-4.9
LCI	Lecce	5.75	325	i P	Pn	14 57 58.0	-0.3
LCI				pmax	pmax		
	comp=Z,53nm,0.2s						
LCI	Lecce	5.75	325	i P	Pn	14 57 58.0	-0.3
	comp=Z,53nm,0.2s						
NVR	Nevrokopi	5.76	11	⇓iP	Pn	14 57 58.4	-0.1
MTTG	Motta San Giov	5.87	295	Pn	Pn	14 57 59.9	0.0
MTTG	Motta San Giov	5.87	295	Pn	Pn	14 57 59.9	0.0
RDO	Rodhopi	5.97	23	⇓iP	Pn	14 58 00.9	-0.4
JOPP	Joppolo	5.98	301	Pn	Pn	14 58 01.5	+0.1
	comp=Z,36nm,0.7s						
AGST	Augusta-Monte	6.00	287	Pn	Pn	14 58 00.1	-1.7
	comp=Z,18nm,0.2s						
AGST	Augusta-Monte	6.00	287	Pn	Pn	14 58 00.1	-1.7
	comp=Z,18nm,0.2s						
HAVL	Avola	6.03	284	Pn	Pn	14 58 01.0	-1.1
	comp=Z,181nm,0.3s						
HAVL	Avola	6.03	284	Pn	Pn	14 58 01.0	-1.1
	comp=Z,181nm,0.3s						
HMAT	Matruh	6.03	138	⇓P	Pn	14 58 01.7	-0.4
CARO	Carolei	6.08	308	Pn	Pn	14 58 03.4	+0.6
	comp=Z,77nm,0.3s						
SSY	Sortino	6.10	286	Pn	Pn	14 58 02.6	-0.6
	comp=Z,357nm,1.5s						
MMME	Mongiuffi-Meli	6.17	293	Pn	Pn	14 58 03.5	-0.6
	comp=Z,27nm,0.3s						
HMDC	Modica	6.29	284	Pn	Pn	14 58 04.9	-0.9
	comp=Z,104nm,0.6s						
HMDC	Modica	6.29	284	Pn	Pn	14 58 04.9	-0.9
	comp=Z,104nm,0.6s						
HVZN	Vizzini	6.39	286	Pn	Pn	14 58 06.3	-0.7
	comp=Z,78nm,0.4s						
HVZN	Vizzini	6.39	286	Pn	Pn	14 58 06.3	-0.7
	comp=Z,78nm,0.4s						
WDD	Wield Dalam	6.42	274	P	Pn	14 58 07.6	+0.1
WDD	Wield Dalam	6.42	274	Pn	Pn	14 58 07.3	-0.2
	comp=Z,280nm,1.5s						
ORI	Oriolo Calabro	6.43	315	Pn	Pn	14 58 08.3	+0.7
	comp=Z,97nm,0.4s						
ORI	Oriolo Calabro	6.43	315	P	Pn	14 58 08.3	+0.7
ORI				pmax	pmax		
	comp=Z,97nm,0.4s						
ORI	Oriolo Calabro	6.43	315	Pn	Pn	14 58 08.3	+0.7
	comp=Z,97nm,0.4s						
PE1	Pezze di Greco	6.44	324	ePn	Pn	14 58 07.2	-0.6
VPL	Vulcano Piano	6.53	296	Pn	Pn	14 58 08.6	-0.3
	comp=Z,106nm,0.8s						
GALF	Gagliano Caste	6.62	290	Pn	Pn	14 58 10.1	-0.2
	comp=Z,68nm,0.4s						
CRAC	Craco	6.64	316	Pn	Pn	14 58 11.2	+0.7
	comp=Z,87nm,1.0s						
RAFF	Raffo Rosso	6.67	286	Pn	Pn	14 58 10.7	-0.2
	comp=Z,50nm,0.6s						
RAFF	Raffo Rosso	6.67	286	Pn	Pn	14 58 10.7	-0.2
	comp=Z,50nm,0.6s						
VAE	Valguarnera	6.69	288	P	Pn	14 58 12.4	+1.3
	comp=Z,4.2nm,0.3s,baz=87,slow=9.7,SNR=8.1						
VAE				S	Sn	14 59 24.7	-1.1
	comp=Z,1.9nm,0.3s,baz=13,slow=6.5,SNR=2.8						
SCHR	S. Chirico Rap	6.74	314	Pn	Pn	14 58 12.9	+1.1
	comp=Z,23nm,0.5s						
SG1	Sgolgore (BA)	6.84	320	ePn	Pn	14 58 13.0	-0.2
SIRI	Monte Sirino -	6.85	313	Pn	Pn	14 58 14.3	+1.0
	comp=Z,68nm,0.3s						
MTSN	Montesano sull	6.97	313	Pn	Pn	14 58 15.7	+0.7
	comp=Z,34nm,0.3s						
MCEL	Monticello	6.98	314	Pn	Pn	14 58 15.6	+0.5
	comp=Z,53nm,0.5s						
MGR	Morigerati	7.01	311	Pn	Pn	14 58 15.4	-0.1
	comp=Z,388nm,2.1s						
BULG	Bulgheria - Ca	7.08	310	Pn	Pn	14 58 16.4	-0.1
	comp=Z,38nm,0.4s						
CMPR	Campora	7.27	312	Pn	Pn	14 58 18.6	-0.5
	comp=Z,24nm,0.3s						
HNAT	Natroun	9.17	129	P	Pn	14 58 43.8	-1.4
BRTR	Keskin Array B	9.76	62	P	Pn	14 58 55.0	+2.0
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
BRTR	Keskin Array B	9.76	62	P	Pn	14 58 55.0	+2.0
	comp=Z,0.5nm,0.3s,baz=235,slow=12,SNR=17						
GLL	Jalalah	9.92	125	P	Pn	14 58 52.3	-3.0
GLL				S	Sn	15 00 31.7	-13
MLR	Muntele Rosu	10.15	14	P	Pn	14 58 57.7	-0.6
	comp=Z,0.2nm,0.3s,baz=207,slow=9.0,SNR=2.7						
AMAG	Maghara	10.35	116	⇓P	Pn	14 58 57.5	-3.6
SUZ		10.53	121	⇓P	Pn	14 59 00.8	-2.7
NVLJ	Novalja	10.57	329	Sn	Sn	15 00 50.9	-10
KEST	Kesra	10.63	274	P	Pn	14 59 06.0	+1.0
	comp=Z,0.3nm,0.3s,baz=38,slow=3.8,SNR=4.0						
MMAI	Mount Meron Ar	11.06	100	P	Pn	14 59 07.1	-3.7
	comp=Z,2.5nm,0.3s,baz=295,slow=11,SNR=21						
MMAI				S	Sn	15 01 01.7	-11
	comp=Z,1.7nm,0.3s,baz=250,slow=12,SNR=4.4						
EIL	Elat	12.14	116	P	Pn	14 59 22.0	-3.6
	comp=Z,1.4nm,0.3s,baz=333,slow=7.9,SNR=17						
EIL				S	Sn	15 01 27.6	-12
	comp=Z,0.7nm,0.3s,baz=60,slow=19,SNR=5.9						
ASF	Jabal al Asfar	12.52	102	P	Pn	14 59 29.2	-1.6
ASF				S	Sn	15 01 42.7	-5.7
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF	Jabal al Asfar	12.52	102	P	Pn	14 59 29.2	-1.6
	comp=Z,0.7nm,0.3s,baz=209,slow=19,SNR=5.1						
ASF				S	Sn	15 01 42.7	-5.8
	comp=Z,0.4nm,0.3s,baz=183,slow=14,SNR=2.5						
DAVOX	Davos/Dischmat	14.53	324	S	Sn	15 02 26.1	-11
	comp=Z,0.5nm,0.3s,baz=303,slow=16,SNR=3.9						
GERES	GERESS Array B	14.63	337	S	Sn	15 02 27.7	-12
	comp=Z,0.3nm,0.3s,baz=146,slow=22,SNR=5.3						
AKASG	Malin Array Be	15.79	16	P	Pn	15 00 10.1	-3.2
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	15.79	16	P	Pn	15 00 10.1	-3.2
	comp=Z,0.6nm,0.3s,baz=208,slow=11,SNR=4.1						
HFS	Hagfors	25.10	350	P	P	15 01 52.9	-0.2
HFS				pmax	pmax		
	comp=Z,2.0nm,0.3s						
HFS	Hagfors	25.10	350	P	P	15 01 52.9	-0.2
	comp=Z,1.6nm,0.3s,mb3.9,baz=158,slow=10,SNR=15						
FINES	FINESS Array B	25.88	4	P	P	15 02 00.5	+0.4
FINES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
FINES	FINESS Array B	25.88	4	P	P	15 02 00.5	+0.4
	comp=Z,0.6nm,0.3s,mb3.5,baz=171,slow=11,SNR=16						
EKA	Eskdalemuir Ar	26.34	326	P	P	15 02 06.5	+2.2
EKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
EKA	Eskdalemuir Ar	26.34	326	P	P	15 02 06.5	+2.2
	comp=Z,1.2nm,0.7s,mb3.5,baz=134,slow=9.6,SNR=4.2						
NB2	NORSAR Subarra	26.36	348	P	P	15 02 04.2	-0.2
	comp=Z,1.5nm,0.8s,mb3.5,baz=164,slow=9.3						
NOA	NORSAR Array B	26.36	348	P	P	15 02 04.6	+0.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	26.36	348	P	P	15 02 04.6	+0.1
	comp=Z,1.1nm,0.8s,mb3.4,baz=112,slow=15,SNR=3.5						
TORD	Torodi Ar. Bea	29.20	225	P	P	15 02 31.7	+1.5
	comp=Z,0.1nm,0.4s,mb2.8,baz=274,slow=2.2,SNR=2.6						
ARCES	ARCESS Array B	33.94	2	P	P	15 03 11.7	+0.4
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	33.94	2	P	P	15 03 11.7	+0.4
	comp=Z,2.6nm,0.9s,mb4.1,baz=191,slow=10.0,SNR=18						
MKAR	Makanchi Array	45.35	57	P	P	15 04 46.6	+0.4
	comp=Z,0.4nm,0.3s,mb3.6,baz=269,slow=8.2,SNR=15						
ZALV	Zalesovo Beam	46.26	46	P	P	15 04 53.1	-0.1
	comp=Z,0.8nm,0.3s,mb3.9,baz=266,slow=12,SNR=4.0						
YKA	Yellowknife Ar	76.24	341	P	P	15 08 16.4	+0.8
	comp=Z,0.3nm,0.5s,mb3.3,baz=32,slow=5.3,SNR=5.9						

WEL 03 14:57:27.9±0.3, 3751S×17716E, h150^{km}±2^{km}, ML3.5/4, Error ellipse: s-maj=2.4km s-min=2.3km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARZ	Manawahe	0.62	219	PN	Pn	14 57 49.9	+0.2
URZ	Urewera	0.76	183	PN	Pn	14 57 50.7	0.0
MWZ	Matawai	0.88	161	PN	Pn	14 57 51.7	+0.2
MWZ				SN	Sn	14 58 09.7	0.0
MXZ	Matakaoa Point	0.91	94	PN	Pn	14 57 51.8	0.0
PUZ	Puketiti	1.03	124	PN	Pn	14 57 53.0	+0.1
KNZ	Kokohu	1.57	165	PN	Pn	14 57 58.3	+0.3
BKZ	Black Stump Fm	1.74	197	PN	Pn	14 58 00.0	+0.1
FWVZ	Far West T-bar	2.16	215	PN	Pn	14 58 05.5	+0.7
WNVZ	Wahianoa	2.20	214	PN	Pn	14 58 06.2	+1.0
MOVZ	Moawhango	2.20	210	PN	Pn	14 58 05.5	+0.3
MOVZ				SN	Sn	14 58 33.4	-0.7
MTVZ	Mangateitei	2.30	215	PN	Pn	14 58 07.2	+0.8
MTVZ				SN	Sn	14 58 37.6	+1.4
PXZ	Pawanui	2.53	185	PN	Pn	14 58 08.9	-0.4
PXZ				SN	Sn	14 58 40.0	-1.3
BFZ	Birch Farm	3.25	192	PN	Pn	14 58 17.1	-1.2
BFZ				SN	Sn	14 58 56.0	-1.5
MRZ	Mangatainoka R	3.38	201	PN	Pn	14 58 18.6	-1.4
MRZ				SN	Sn	14 58 57.7	-2.8
TIWZ	Tintock	3.42	197	PN	Pn	14 58 19.3	-1.2
KIW	Kapiti Island	3.78	207	PN	Pn	14 58 23.4	-1.7
KIW				SN	Sn	14 59 06.6	-3.1
MTW	Mount Morrison	3.87	199	PN	Pn	14 58 24.1	-2.2
CAW	Cannon Point	3.95	204	PN	Pn	14 58 25.2	-2.1
PAWZ	Paruwai Farm	4.10	199	SN	Sn	14 59 13.1	-4.0
TCW	Tory Channel	4.33	210	PN	Pn	14 58 30.1	-2.1
TCW				SN	Sn	14 59 18.8	-3.7
TUWZ	Tuamarina	4.64	211	SN	Sn	14 59 26.0	-4.0
NNZ	Nelson	4.73	217	ePN	Pn	14 58 35.8	-1.7
NNZ				SN	Sn	14 59 28.8	-3.1
QRZ	Quartz Range	4.90	226	ePN	Pn	14 58 36.9	-2.8
QRZ				SN	Sn	14 59 32.7	-3.2
THZ	Tophouse	5.38	216	ePN	Pn	14 58 44.2	-1.9
THZ				SN	Sn	14 59 43.5	-3.8
KHZ	Kahutara	5.64	208	ePN	Pn	14 58 47.7	-1.9
LTZ	Lake Taylor	6.47	214	ePN	Pn	14 58 58.1	-2.6
MQZ	McQueen's Vall	7.08	208	SN	Sn	15 00 19.6	-8.4

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*ISCJB **03** 15:11:15.4±0.2, 1609S±003×2874E±006, h10^{km}, mb4.4/38, Error ellipse: s-maj=7.7km s-min=4.1km az=180.0*

*IDC **03** 15:11:16.2±0.6, 1601S×2880E, h0^{km}, mb4.2/15, mb1 4.3/21, mb1mx4.3/27, mbtmp4.2/21, ML4.3/6, MS3.0/4, Ms1 3.0/4, ms1mx2.8/34, Error ellipse: s-maj=18.5km s-min=9.5km az=61.0*

*NEIC **03** 15:11:17.8±0.2, 1604S×2874E, h10^{km}, mb4.5/19, Error ellipse: s-maj=7.1km s-min=4.3km az=90.0*

ISC 03 15:11:17.6±0.2, 1607S±003×2874E±006, h10^{km}, n93, σ1^{s}05/110, mb4.4/38, 3D, Zambia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSZ	Lusaka	0.96	326	ePg	Pg	15 11 35.2	-0.8
LSZ				eSg	Sg	15 11 46.2	-2.3
LSZ	Lusaka	0.96	326	Pg	Pg	15 11 34.8	-1.2
	577nm,0.3s,baz=136,slow=15,SNR=3555						
LSZ				Lg		15 11 47.2	
	3µm,0.3s,baz=227,slow=22,SNR=50						
MATP	Matopo	4.33	183	Pn	Pn	15 12 25.4	+1.8
MATP				Pg	Pg	15 12 37.6	-3.1
MATP				Sn	Sn	15 13 14.5	+0.3
MATP				Lg		15 13 31.9	
MATP				LR	LR	15 14 21.7	
MATP	Matopo	4.33	183	Pn	Pn	15 12 25.4	+1.8
	9.0nm,0.3s,baz=11,slow=15,SNR=104						
MATP				Pg	Pg	15 12 37.6	-3.1
	42nm,0.3s,baz=1.9,slow=17,SNR=36						
MATP				Sn	Sn	15 13 14.5	+0.3
	38nm,0.3s,baz=221,slow=22,SNR=6.5						
MATP				Lg		15 13 31.9	
	121nm,0.3s,baz=94,slow=22,SNR=10						
MATP				LR	LR	15 14 21.7	
	comp=Z,263nm,19.8s,baz=6.5,slow=42						
LBTB	Lobatse	9.37	198	eP	Pn	15 13 30.9	-1.8
LBTB				eS	Sn	15 15 05.5	-13
LBTB				AML	AML	15 16 22.5	
	comp=Z,138nm,0.6s						
LBTB	Lobatse	9.37	198	ePn	Pn	15 13 33.9	+1.2
	comp=Z,31nm,1.1s						
LBTB				eSn	Sn	15 15 13.1	-5.1
LBTB	Lobatse	9.37	198	Pn	Pn	15 13 34.2	+1.4
	comp=Z,13nm,0.3s,baz=24,slow=14,SNR=85						
LBTB				Sn	Sn	15 15 13.4	-4.8
	comp=Z,11nm,0.3s,baz=98,slow=13,SNR=7.5						
LBTB				Lg		15 16 10.1	
	comp=Z,10nm,0.3s,baz=302,slow=20,SNR=11						
LBTB				LR	LR	15 17 32.6	
	comp=Z,101nm,18.2s,baz=219,slow=40						
SLR	Silverton	9.62	182	eP	Pn	15 13 39.2	+3.0
SLR				eS	Sn	15 15 16.7	-7.7
SLR				AML	AML	15 16 27.8	
	comp=Z,226nm,0.6s						
KSR	Koster	9.88	190	eP	Pn	15 13 40.1	+0.3
KSR				eS	Sn	15 15 21.6	-9.2
KSR				AML	AML	15 16 34.5	
	comp=Z,142nm,0.6s						
TSUM	Tsumeb	11.08	252	ePn	Pn	15 13 56.3	0.0
	comp=Z,41nm,1.5s						
SEK	Senekal	12.23	185	eP	Pn	15 14 12.2	+0.2
SEK				eS	Sn	15 16 22.3	-6.2
SEK				AML	AML	15 17 59.9	
	comp=Z,141nm,0.6s						
BOSA	Boshof	12.89	194	eP	Pn	15 14 21.0	+0.1
BOSA				eS	Sn	15 16 31.9	-13
BOSA				AML	AML	15 18 17.9	
	comp=Z,106nm,0.8s						
BOSA	Boshof	12.89	194	ePn	Pn	15 14 20.2	-0.8
	comp=Z,102nm,0.4s						
BOSA				eSn	Sn	15 16 38.3	-6.2
BOSA	Boshof	12.89	194	Pn	Pn	15 14 20.5	-0.4
	comp=Z,3.7nm,0.3s,baz=20,slow=13,SNR=49						
BOSA				Sn	Sn	15 16 36.5	-8.0
	comp=Z,10nm,0.3s,baz=113,slow=9.3,SNR=14						
BOSA				Lg		15 17 58.9	
	comp=Z,7.0nm,0.3s,baz=102,slow=21,SNR=5.1						
BOSA				LR	LR	15 19 50.0	
	comp=Z,40nm,21.2s,baz=18,slow=40						
KSD	Kokstad	14.41	178	eP	Pn	15 14 44.0	+2.2
KSD				eS	Sn	15 17 17.1	-4.7
KSD				AML	AML	15 19 01.1	
	comp=Z,97nm,0.7s						
PKA	Prieska	14.61	201	eP	Pn	15 14 43.1	-1.3
PKA				eS	Sn	15 17 12.5	-14
PKA				AML	AML	15 19 13.3	
	comp=Z,18nm,0.6s						
KMBO	Kilima Mbogo	17.06	30	eP	Pn	15 15 15.3	-1.1
	comp=Z,4.9nm,0.9s						
KMBO	Kilima Mbogo	17.06	30	Pn	Pn	15 15 14.0	-2.4
	comp=Z,0.7nm,0.3s,baz=211,slow=19,SNR=5.7						
KMBO				Sn	Sn	15 18 28.8	+2.5
	comp=Z,0.2nm,0.3s,baz=158,slow=23,SNR=2.9						
KMBO				Lg		15 20 03.1	
	comp=Z,0.9nm,0.3s,baz=83,slow=23,SNR=5.3						
GRM	Grahamstown	17.28	186	eP	Pn	15 15 23.5	+4.4
GRM				eS	Sn	15 18 21.1	-10
GRM				AML	AML	15 20 34.8	
	comp=Z,28nm,0.9s						
CVNA	Calvinia	17.39	207	eP	Pn	15 15 17.6	-2.8
CVNA				eS	Sn	15 18 17.9	-16
CVNA				AML	AML	15 20 40.4	
	comp=Z,36nm,0.7s						
SUR	Sutherland	17.76	203	eP	Pn	15 15 27.9	+2.9
SUR				eS	Sn	15 18 27.5	-15
SUR	Sutherland	17.76	203	eP	Pn	15 15 24.6	-0.4
	comp=Z,25nm,1.0s						
SUR	Sutherland	17.76	203	Pn	Pn	15 15 24.1	-0.9
	comp=Z,0.4nm,0.3s,baz=30,slow=14,SNR=8.5						
SUR				Sn	Sn	15 18 33.8	-9.2
	comp=Z,1.7nm,0.3s,baz=358,slow=22,SNR=3.5						
SUR				Lg		15 20 32.3	
	comp=Z,1.6nm,0.3s,baz=121,slow=19,SNR=5.2						
SUR				LR	LR	15 21 40.2	
	comp=Z,64nm,21.9s,baz=194,slow=35						
OPO	Ambohidratompo	17.79	101	P	Pn	15 15 26.0	+0.5
	comp=Z,0.6nm,0.3s,baz=304,slow=7.3,SNR=3.3						
ELIM	Elim	20.14	202	eP	P	15 15 52.4	+0.5
TOA0	Torodi Ar. Sit	39.48	316	eP	P	15 18 48.4	-0.1
TORD	Torodi Ar. Bea	39.48	316	P	P	15 18 48.5	0.0
	comp=Z,3.8nm,0.6s,mb4.3,baz=133,slow=7.5,SNR=27						
MMAI	Mount Meron Ar	49.22	7	P	P	15 20 07.0	+0.8
	comp=Z,5.2nm,0.9s,mb4.5,baz=212,slow=5.1,SNR=2.6						
SYO	Syowa Base	53.35	175	⇓epP	pP	15 20 38.8	-1.2
BRTR	Keskin Array B	55.70	5	P	P	15 20 54.5	+0.4
	comp=Z,0.7nm,0.7s,mb3.8,baz=174,slow=8.3,SNR=4.0						
MAW	Mawson	56.01	165	P	P	15 20 57.0	+0.9
	comp=Z,4.6nm,0.6s,mb4.7,baz=313,slow=9.0,SNR=8.1						
VNA2	Neumayer--Watz	58.99	193	e	P	15 21 19.2	+2.1
	baz=24,slow=6.6						
VNA2				e	pP	15 21 21.9	+1.6
VNA2				e		15 21 47.2	
VNA3	Neumayer Olymp	59.73	193	e	P	15 21 24.1	+1.9
VNA3				e	pP	15 21 27.1	+1.7
VNA3				e		15 21 51.8	
MLR	Muntele Rosu	61.32	358	P	P	15 21 33.0	-0.3
	comp=Z,1.7nm,0.5s,mb4.4,baz=190,slow=9.2,SNR=4.3						
ESDC	Sonseca Array	63.30	332	P	P	15 21 47.0	+0.3
	comp=Z,0.6nm,0.5s,mb4.0,baz=149,slow=6.3,SNR=4.5						
MBDF	Montbardon	63.73	343	eP	P	15 21 50.5	+1.1
	comp=Z,1.9nm,0.7s,mb4.2						
MBDF	Montbardon	63.73	343	eP	P	15 21 50.5	+1.1
	comp=Z,3.7nm,0.7s,mb4.2						
ORIF	Oris-en-Rattie	64.17	342	eP	P	15 21 53.1	+0.8
	comp=Z,2.8nm,0.9s,mb4.3						
ORIF	Oris-en-Rattie	64.17	342	eP	P	15 21 53.1	+0.8
	comp=Z,5.6nm,0.9s,mb4.3						
EPF	Esparros	64.34	337	eP	P	15 21 54.6	+1.1
	comp=Z,4.8nm,0.8s,mb4.6						
EPF	Esparros	64.34	337	eP	P	15 21 54.6	+1.1
	comp=Z,9.7nm,0.8s,mb4.6						
LPG	La Plagne	64.44	343	eP	P	15 21 54.5	+0.4
ETSF	Etsaut	64.57	337	eP	P	15 21 56.1	+1.2
	comp=Z,5.5nm,0.9s,mb4.6						
ETSF	Etsaut	64.57	337	eP	P	15 21 56.1	+1.2
	comp=Z,11nm,0.9s,mb4.6						
SJPF	Ste Jean	65.01	336	eP	P	15 21 58.4	+0.6
	comp=Z,5.7nm,0.8s,mb4.7						
SJPF	Ste Jean	65.01	336	eP	P	15 21 58.4	+0.6
	comp=Z,11nm,0.8s,mb4.7						
CABF	La Chapelle	65.65	343	eP	P	15 22 02.4	+0.5
	comp=Z,4.1nm,0.6s,mb4.6						
CABF	La Chapelle	65.65	343	eP	P	15 22 02.4	+0.5
	comp=Z,8.1nm,0.6s,mb4.7						
GERES	GERESS Array B	66.00	349	P	P	15 22 03.9	-0.1
	comp=Z,1.6nm,0.7s,mb4.2,baz=151,slow=5.8,SNR=12						
KHC	Kasperske Hory	66.30	349	eP	P	15 22 06.0	0.0
SMF	Signal de Mont	66.34	342	eP	P	15 22 06.4	+0.1
AKASG	Malin Array Be	66.48	0	P	P	15 22 07.1	-0.1
	comp=Z,0.3nm,0.3s,mb3.8,baz=182,slow=5.7,SNR=3.8						
TCF	Toulx Ste Croi	66.53	340	eP	P	15 22 08.2	+0.6
	comp=Z,2.5nm,0.8s,mb4.3						
TCF	Toulx Ste Croi	66.53	340	eP	P	15 22 08.2	+0.6
	comp=Z,5.1nm,0.8s,mb4.3						
HINF	Hinteralfeld	66.55	344	eP	P	15 22 07.6	0.0
	comp=Z,1.3nm,0.5s,mb4.2						
HINF	Hinteralfeld	66.55	344	eP	P	15 22 07.6	0.0
	comp=Z,2.6nm,0.5s,mb4.2						
BGF	Bois d'Agland	66.57	341	eP	P	15 22 08.9	+1.1
	comp=Z,3.0nm,0.7s,mb4.4						
BGF	Bois d'Agland	66.57	341	eP	P	15 22 08.9	+1.1
	comp=Z,6.1nm,0.7s,mb4.5						
AVF	Avril sur Loir	66.62	341	eP	P	15 22 08.4	+0.3
	comp=Z,2.3nm,0.5s,mb4.5						
AVF	Avril sur Loir	66.62	341	eP	P	15 22 08.4	+0.3
	comp=Z,4.7nm,0.5s,mb4.5						
SSF	Saint Saulge	66.81	342	eP	P	15 22 09.3	-0.1
	comp=Z,1.9nm,0.8s,mb4.2						
SSF	Saint Saulge	66.81	342	eP	P	15 22 09.3	-0.1
	comp=Z,3.7nm,0.8s,mb4.2						
HAU	Haudompre	66.86	344	eP	P	15 22 09.8	+0.2
	comp=Z,2.5nm,0.6s,mb4.4						
HAU	Haudompre	66.86	344	eP	P	15 22 09.8	+0.2
	comp=Z,4.9nm,0.6s,mb4.4						
LOR	Lormes	66.89	342	eP	P	15 22 09.7	-0.2
	comp=Z,1.8nm,0.5s,mb4.4						
LOR	Lormes	66.89	342	eP	P	15 22 09.7	-0.2
	comp=Z,3.6nm,0.5s,mb4.3						
KOLN	Koldanda	68.72	51	eP	P	15 22 20.6	-1.3
	comp=Z,6.4nm,0.4s,mb5.0						
BAIF	Baives	69.31	343	eP	P	15 22 25.1	+0.1
	comp=Z,5.5nm,0.9s,mb4.5						
BAIF	Baives	69.31	343	eP	P	15 22 25.1	+0.1
	comp=Z,11nm,0.9s,mb4.5						
GKN	Gorkha	69.63	51	eP	P	15 22 26.2	-1.2
DMN	Daman	69.77	52	eP	P	15 22 27.7	-0.7
PKI	Pulchoki	69.98	52	eP	P	15 22 28.4	-1.3
	comp=Z,8.3nm,0.5s,mb4.9						
KKN	Kakani	70.00	52	eP	P	15 22 28.5	-1.3
	comp=Z,8.8nm,0.5s,mb4.9						
KK31	Karatay Array	70.25	31	⇓Pn	P	15 22 28.4	-2.6
	comp=Z,4.2nm,0.7s,mb4.5,baz=186,slow=13,SNR=27						
KK31				⇓Lg		15 23 18.3	
	comp=Z,2.2nm,0.4s,baz=186,slow=28,SNR=8.4						
GUN	Gumba	70.52	52	eP	P	15 22 32.0	-0.9
	comp=Z,22nm,0.8s,mb5.1						
JIRN	Jiri	70.62	52	eP	P	15 22 32.4	-1.2
AKTK	Aktyubinsk	71.05	19	P	P	15 22 35.4	-0.2
AKTO	Aktyubinsk	71.05	19	P	P	15 22 35.4	-0.2
	comp=Z,0.9nm,0.6s,mb3.9,baz=226,slow=17,SNR=3.6						
ODAN	Odare	71.14	54	eP	P	15 22 36.0	-0.8
	comp=Z,9.6nm,0.7s,mb4.8						
AML	Almayashu	71.20	34	eP	P	15 22 36.7	-0.1
	comp=Z,2.8nm,0.4s,mb4.5						
UCH	Uchtor	71.71	34	eP	P	15 22 40.1	+0.3
	comp=Z,1.8nm,0.6s,mb4.2						
QSPA	South Pole Qui	74.06	180	eP	P	15 22 55.1	+1.8
	comp=Z,3.9nm,0.8s,mb4.4						
HFS	Hagfors	76.91	352	P	P	15 23 10.2	+0.5
	comp=Z,2.0nm,0.9s,mb4.0,baz=147,slow=6.5,SNR=2.5						
FINES	FINESS Array B	77.28	359	P	P	15 23 11.2	-0.6
	comp=Z,3.4nm,1.0s,mb4.2,baz=222,slow=7.7,SNR=3.8						
NB2	NORSAR Subarra	78.12	351	P	P	15 23 17.2	+0.7
	comp=Z,1.8nm,0.8s,mb4.0,baz=158,slow=6.2						
NOA	NORSAR Array B	78.12	351	P	P	15 23 17.0	+0.5
	comp=Z,0.9nm,0.7s,mb3.8,baz=135,slow=4.5,SNR=3.4						
MK31	Makanchi Array	78.90	34	eP	P	15 23 20.8	-0.3
MKAR	Makanchi Array	78.90	34	P	P	15 23 20.6	-0.5
	comp=Z,2.2nm,0.8s,mb4.1,baz=232,slow=5.9,SNR=19						
ZALV	Zalesovo Beam	84.54	30	P	P	15 23 50.1	-0.6
	comp=Z,0.6nm,0.4s,mb4.1,baz=242,slow=4.8,SNR=4.0						
ARCES	ARCESS Array B	85.41	359	P	P	15 23 54.9	+0.2
	comp=Z,3.7nm,0.9s,mb4.5,baz=190,slow=6.0,SNR=3.9						
YKA	Yellowknife Ar	127.00	340	PKP	PKPdf	15 30 21.0	-0.5
	comp=Z,0.4nm,0.6s,baz=48,slow=2.1,SNR=6.6						
TXAR	Lajitas Array	134.45	295	PKP	PKPdf	15 30 37.2	+0.5
	comp=Z,0.3nm,0.7s,baz=134,slow=5.4,SNR=3.8						
NVAR	Mina Array Bea	143.51	314	PKP	PKPdf	15 30 52.0	-0.8
	comp=Z,3.0nm,0.5s,baz=62,slow=5.1,SNR=28						

IDC 03 15:42:42.1±2.1, 3458N×2678E, h0^{km}, mb3.9/5, mb1 3.8/9, mb1mx3.6/22, mbtmp3.7/9, ML3.7/4, Error ellipse: s-maj=43.1km s-min=16.9km az=24.0, Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IDI	Anoyia	1.70	295	Pn	Pn	15 43 13.8	+0.8
	2.1nm,0.3s,baz=74,slow=20,SNR=9.1						
IDI				Sn	Sn	15 43 38.0	+2.5
	6.6nm,0.3s,baz=27,slow=22,SNR=6.4						
MMAI	Mount Meron Ar	7.35	100	Pn	Pn	15 44 30.6	-0.1
	1.7nm,0.3s,baz=258,slow=12,SNR=12						
MMAI				Sn	Sn	15 45 54.2	-0.6
	1.5nm,0.3s,baz=305,slow=11,SNR=4.5						

EIL	Elat	8.49	123	Pn	Pn	15 44 45.3	-1.0
	0.5nm,0.3s,baz=224,slow=22,SNR=5.3						
EIL				Sn	Sn	15 46 17.9	-4.8
	0.8nm,0.3s,baz=63,slow=21,SNR=4.4						
AKASG	Malin Array Be	16.21	6	Pn	Pn	15 46 31.9	+0.8
	0.8nm,0.3s,baz=191,slow=12,SNR=5.2						
GERES	GERESS Array B	17.24	330	P	Pn	15 46 45.4	+1.4
	0.1nm,0.3s,baz=139,slow=12,SNR=4.3						
FINES	FINESS Array B	26.88	359	P	P	15 48 22.8	-1.5
	2.6nm,1.0s,baz=161,slow=12,SNR=4.9						
HFS	Hagfors	26.95	346	P	P	15 48 24.3	-0.7
	4.0nm,1.0s,baz=125,slow=12,SNR=3.1						
ARCES	ARCESS Array B	35.01	359	P	P	15 49 34.4	-1.5
	2.6nm,0.8s,baz=183,slow=7.4,SNR=8.8						
MKAR	Makanchi Array	42.99	56	P	P	15 50 44.3	+1.4
	0.2nm,0.5s,baz=270,slow=7.4,SNR=7.5						
ZALV	Zalesovo Beam	44.45	46	P	P	15 50 55.7	+1.1
	0.7nm,0.4s,baz=243,slow=9.5,SNR=2.4						

IDC ***03*** *15:59:23.7±0.8, 17.56N×145.86E, h177^{km}±8^{km}, mb3.4/11, mb1 3.6/12, mb1mx3.5/22, mbtmp3.5/12, MS2.9/1, Ms1 2.9/1, ms1mx2.2/25, Error ellipse: s-maj=21.9km s-min=10.9km az=77.0*

NEIC ***03*** *15:59:24.2±0.5, 17.65N×146.02E, mb4.9/4, Error ellipse: s-maj=21.0km s-min=9.4km az=92.0*

ISCJB ***03*** *15:59:26.1±1.2, 17.64N±0.06×145.8E±0.2, h215^{km}±12^{km}, mb3.6/11, Error ellipse: s-maj=28.4km s-min=9.6km az=174.5*

ISC 03 15:59:26.7±1.2**, 17.64N**±0.06×**145.9E**±0.2**, h205**^{km}±12^{km}**, h184**^{km}±5.8^{km}**:pP-P, n27, σ0^s.84**/25**, mb3.6**/11**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	4.15	194	P	Pn	16 00 30.0	-0.5
	baz=21,slow=8.6						
GUMO				S	Sn	16 01 21.7	+0.9
	36nm,0.3s,baz=173,slow=22,SNR=6.6						
CBIJ	Chichi jima	10.01	341	P	Pn	16 01 45.2	-0.7
	9.0nm,0.3s,baz=301,slow=21,SNR=3.0						
CBIJ				S	Sn	16 03 28.8	-9.1
	11nm,0.3s,baz=277,slow=23,SNR=4.0						
CBIJ				LR	LR	16 04 37.0	
	comp=Z,72nm,19.0s,baz=184,slow=31						
MJAR	Matsushiro Arr	20.01	342	P	P	16 03 44.1	+0.3
	1.3nm,0.6s,baz=153,slow=11,SNR=5.8						
KSRS	Korea Array	25.27	325	P	P	16 04 33.3	-0.8
	0.4nm,0.5s,mb3.3,baz=137,slow=10,SNR=3.8						
PMG	Port Moresby	26.91	177	*e*P	P	16 04 48.5	-0.5
	9.5nm,0.6s,mb4.6						
PMG	Port Moresby	26.91	177	P	P	16 04 46.7	-2.3
	13nm,0.9s,mb4.5,baz=344,slow=4.5,SNR=6.3						
WB2	Warramunga Arr	39.03	197	*e*P	P	16 06 34.2	+0.5
WB2	Warramunga Arr	39.03	197	*e*P	P	16 06 34.4	+0.7
WRA	Warramunga Arr	39.03	197	P	P	16 06 31.7	-2.0
	2.4nm,0.7s,mb3.8,baz=19,slow=9.3,SNR=9.8						
FITZ	Fitzroy Crossi	40.72	210	*e*P	P	16 06 48.3	+0.6
	8.2nm,1.0s,mb4.1						
SONM	Songino Array	44.07	322	P	P	16 07 15.8	+1.5
	0.3nm,0.5s,mb2.9,baz=135,slow=11,SNR=3.2						
DZM	Mont Dzumac	44.31	152	P	P	16 07 17.1	+0.6
	5.1nm,0.4s,mb4.2,baz=132,slow=23,SNR=13						
ARMA	Armidale	48.10	173	*e*P	P	16 07 46.0	+0.1
STKA	Stephens Creek	49.41	185	*e*P	P	16 07 55.5	-0.3
	2.0nm,0.5s,mb3.7						
STKA	Stephens Creek	49.41	185	*e*P	P	16 07 55.1	-0.7
STKA	Stephens Creek	49.41	185	P	P	16 07 55.1	-0.7
	2.3nm,0.5s,mb3.8,baz=305,slow=14,SNR=14						
MKAR	Makanchi Array	59.32	314	P	P	16 09 07.4	+0.3
	0.2nm,0.5s,mb3.0,baz=91,slow=6.9,SNR=6.8						
INK	Inuvik	70.27	23	*e*P	P	16 10 17.5	+0.2
	35nm,0.7s						
INK				*e*pP	pP	16 11 00.8	-4.7
INK	Inuvik	70.27	23	P	P	16 10 16.6	-0.8
	0.3nm,0.3s,mb3.4,baz=272,slow=8.5,SNR=5.8						
INK				pP	pP	16 11 00.1	-5.4
	1.0nm,0.7s,baz=207,slow=2.4,SNR=2.6						
YKA	Yellowknife Ar	78.83	28	P	P	16 11 06.8	+0.1
YKA				pP	pP	16 11 49.9	-6.0
YKA	Yellowknife Ar	78.83	28	P	P	16 11 06.8	+0.1
	0.5nm,0.5s,mb3.4,baz=289,slow=5.3,SNR=7.6						
YKA				pP	pP	16 11 49.9	-6.0
	0.7nm,0.8s,baz=289,slow=5.4,SNR=4.3						
RES	Resolute Bay	80.40	14	*e*P	P	16 11 15.1	+0.1
	53nm,0.6s						
RES				*e*pP	pP	16 12 04.3	0.0
NVAR	Mina Array Bea	83.65	52	P	P	16 11 33.2	+0.7
	0.6nm,0.8s,mb3.4,baz=264,slow=7.7,SNR=5.1						
NVAR				pP	pP	16 12 17.0	-5.3
	0.4nm,0.6s,baz=260,slow=5.3,SNR=2.4						
CFAA	Coronel Fontan	146.17	121	PKPbc	PKPbc	16 18 42.6	-0.7
CFAA	Coronel Fontan	146.17	121	PKPbc	PKPbc	16 18 42.6	-0.7
	0.9nm,0.6s,baz=241,slow=2.9,SNR=21						
LPAZ	La Paz	147.46	93	*e*PKPbc	PKPbc	16 18 48.8	+1.5
LPAZ	La Paz	147.46	93	PKPbc	PKPbc	16 18 48.8	+1.4
	2.5nm,0.8s,baz=289,slow=3.4,SNR=7.0						

BJI ***03*** *16:11:52.1, 52.72N×169.85W, h56^{km}, mB5.0, mb4.8, Ms4.7, Msz4.1*

MOS ***03*** *16:11:54.6±1.0, 52.63N×170.16W, h61^{km}, mb4.9/27, Error ellipse: s-maj=9.2km s-min=8.2km az=67.7*

IDC ***03*** *16:11:54.1±2.1, 52.67N×170.18W, h36^{km}±15^{km}, mb4.1/23, mb1 4.3/23, mb1mx4.2/29, mbtmp4.1/23, MS3.9/16, Ms1 3.9/16, ms1mx3.7/44, Error ellipse: s-maj=20.7km s-min=10.0km az=178.0*

ISCJB ***03*** *16:11:55.5±0.6, 52.73N±0.05×170.20W±0.03, h62^{km}±5^{km}, mb4.6/80, Error ellipse: s-maj=7.6km s-min=3.0km az=5.4*

NEIC ***03*** *16:11:56.0±0.5, 52.68N×170.18W, h56^{km}±4^{km}, mb4.8/44, ML4.5(AEIC), ML4.2(PMR), Error ellipse: s-maj=7.0km s-min=3.6km az=178.0*

ISC 03 16:11:56.8±0.6**, 52.69N**±0.05×**170.20W**±0.03**, h58**^{km}±5^{km}**, h41**^{km}±1.9^{km}**:pP-P, n418, σ0^s.76**/424**, mb4.6**/80**, MS4.0**/25**, 57C-54D, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATKA	Atka Island	2.49	260	P	Pn	16 12 34.0	-0.8
UNV	Unalaska Valle	2.51	61	P	Pn	16 12 33.0	-2.0
UNV				S	Sn	16 13 02.6	-1.8
AKGG	Akutan Green G	2.94	57	P	Pn	16 12 40.3	-0.7
AKGG				S	Sn	16 13 17.1	+2.1
AKLV	Akutan Long Va	2.94	58	P	Pn	16 12 38.9	-2.0
AKUT	Akutan	3.02	60	*e*P	Pn	16 12 42.4	+0.3
ADK	Adak	4.06	261	P	Pn	16 12 55.7	-0.7
ADK				S	Sn	16 13 44.3	+1.7
ADK	Adak	4.06	261	P	Pn	16 12 55.6	-0.7
ADK				S	Sn	16 13 44.2	+1.6
SPIA	Saint Paul Isl	4.50	360	P	Pn	16 13 05.3	+3.0
SDPT	Sand Point	6.32	61	P	Pn	16 13 25.9	-1.3
KDAK	Kodiak Island	11.26	56	*e*Pn	Pn	16 14 30.6	-4.2
	14nm,0.5s						
KDAK	Kodiak Island	11.26	56	Pn	Pn	16 14 30.9	-3.8
	2.6nm,0.3s,baz=248,slow=11,SNR=25						
KDAK				Sn	Sn	16 16 31.0	-7.9
	0.4nm,0.3s,baz=310,slow=1.8,SNR=2.6						
SVW2	Sparrevohn	11.59	38	*e*P	Pn	16 14 41.8	+2.6
TNA	Tin City	12.96	4	*e*Pn	Pn	16 14 59.0	+1.2
	30nm,1.3s						
SLKM	Skilak Lake	13.46	47	*e*Pn	Pn	16 15 02.4	-2.3
PMR	Palmer	14.44	44	*e*P	Pn	16 15 17.3	-0.4
	2.4nm,0.5s						
PMR	Palmer	14.44	44	*e*P	Pn	16 15 17.3	-0.4
PMR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
SML	Sawmill	14.88	44	*e*Pn	Pn	16 15 18.1	-5.3
SML				*e*S	Sn	16 18 09.8	+3.1
MCK	McKinley	15.65	37	*e*Pn	Pn	16 15 33.4	0.0
	comp=Z,18nm,1.0s						
MCK	McKinley	15.65	37	*e*P	Pn	16 15 33.4	+0.1
MCK				pmax	pmax		
	comp=Z,18nm,1.0s						
IMA2	Indian Mountai	15.75	25	*e*P	Pn	16 15 38.6	+4.0
COLA	College	16.70	34	*e*Pn	Pn	16 15 44.6	-1.9
	comp=Z,36nm,1.0s						
COLA				*e*		16 15 55.3	
COLA	College	16.70	34	*e*P	Pn	16 15 44.6	-2.0
COLA				pmax	pmax		
	comp=Z,36nm,1.0s						
MENT	Mentasta	17.30	43	*e*P	Pn	16 15 54.5	+0.5
PET	Petropavlovsk	18.74	283	*e*P	Pn	16 16 12.4	+0.8
PET				MLR	MLR		
	comp=Z,200nm,19.0s						
BILL	Bilibino	19.08	333	*e*P	Pn	16 16 17.1	+1.6
	comp=Z,18nm,1.3s						
BILL	Bilibino	19.08	333	*e*P	Pn	16 16 16.2	+0.7
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s						
BILL				MLR	MLR		
	comp=Z,100nm,17.0s						
EGAK	Eagle	19.11	39	*e*Pn	Pn	16 16 13.8	-2.1
	comp=Z,17nm,0.6s						
DAWY	Dawson	19.53	42	*e*P	Pn	16 16 17.8	-3.1
SIT	Sitka	20.39	64	*e*P	P	16 16 28.9	+0.4
	comp=Z,30nm,0.8s						
SIT	Sitka	20.39	64	*e*P	P	16 16 28.9	+0.4
SIT				pmax	pmax		
	comp=Z,30nm,0.8s						
SKAG	Skagway	20.42	57	*e*P	P	16 16 29.1	+0.3
	comp=Z,155nm,1.0s						
SEY	Seymchan	22.08	312	⇑*e*P	P	16 16 47.4	+0.8
MA2	Magadan	22.54	303	*e*P	P	16 16 54.4	+2.9
	comp=Z,14nm,1.0s,mb4.4						
MA2	Magadan	22.54	303	*e*P	P	16 16 51.7	+0.2
MA2				*e*S	S	16 20 47.6	-7.0
MA2				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.5						
MA2				MLR	MLR		
	comp=N,700nm,18.4s						
DLBC	Dease Lake	23.16	60	P	P	16 16 58.9	+0.9
DLBC	Dease Lake	23.16	60	P	P	16 16 58.9	+0.9
	baz=262,slow=9.8						
INK	Inuvik	23.36	34	*e*P	P	16 16 58.2	-1.6
INK	Inuvik	23.36	34	P	P	16 16 58.1	-1.7
INK				pmax	pmax		
	comp=Z,8.0nm,0.7s						
INK				pmax	pmax		
	comp=N,1.0nm,0.9s						
INK				MLR	MLR		
	comp=Z,334nm,20.7s						
INK	Inuvik	23.36	34	P	P	16 16 58.1	-1.7
	comp=Z,7.8nm,0.7s,mb4.3,baz=235,slow=9.0,SNR=45						
INK				ScP	ScP	16 24 18.8	+1.6
	comp=Z,1.0nm,0.9s,baz=208,slow=0.6,SNR=2.8						
INK				LR	LR	16 26 54.0	
	comp=Z,334nm,20.7s,MS3.8,baz=82,slow=38						
BBB	Bella Bella	25.40	74	P	P	16 17 19.0	+0.5
	comp=Z,11nm,0.7s,mb4.5,baz=275,slow=12,SNR=4.2						
BBB				LR	LR	16 25 21.1	
	comp=Z,256nm,18.7s,MS3.8,baz=143,slow=32						
A05A	Maple Falls	30.16	77	⇑P	P	16 18 01.4	+0.4
	baz=30						
C04A	Brinnon	30.20	80	⇑P	P	16 18 02.5	+1.1
	baz=30						
E03A	Lebam	30.39	83	⇓P	P	16 18 04.0	+0.9
	baz=30						
YKA	Yellowknife Ar	30.42	49	P	P	16 18 02.7	-0.4
YKA				ScP	ScP	16 24 40.4	+2.0
YKA				LR	LR	16 31 28.9	
YKA	Yellowknife Ar	30.42	49	P	P	16 18 02.7	-0.4
YKA						16 24 40.4	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA				MLR	MLR		
	comp=Z,211nm,18.9s						
YKA	Yellowknife Ar	30.42	49	P	P	16 18 02.7	-0.4
	comp=Z,1.4nm,0.5s,mb4.0,baz=272,slow=7.7,SNR=27						
YKA				ScP	ScP	16 24 40.4	+2.0
	comp=Z,0.4nm,0.8s,baz=286,slow=3.1,SNR=4.6						
YKA				LR	LR	16 31 28.9	
	comp=Z,211nm,18.9s,MS3.8,baz=220,slow=39						
B05A	Bryant	30.47	79	P	P	16 18 04.6	+0.8
	baz=30,SNR=10						
JCW	Jim Creek	30.60	79	P	P	16 18 05.7	+0.7
B06A	Marblemount	30.72	78	⇓P	P	16 18 06.3	+0.3
	baz=30						
E04A	Onalaska	30.88	82	⇑P	P	16 18 07.9	+0.5
	baz=31						
C05A	Tolt Reservoir	30.98	80	P	P	16 18 08.9	+0.6
	baz=31,SNR=7.4						
D05A	Enumclaw	31.03	81	P	P	16 18 10.2	+1.5
	baz=31,SNR=9.7						
A07A	Ashnola River,	31.14	76	P	P	16 18 10.4	+0.7
	baz=31,SNR=9.4						
C06A	Tall Timber Ra	31.34	79	⇓P	P	16 18 12.0	+0.6
	baz=31						
RCM	Mount Rainier-	31.36	81	P	P	16 18 13.5	+1.9
F04A	Amboy	31.39	83	⇑P	P	16 18 12.3	+0.5
	baz=31						
E05A	Randle	31.47	81	P	P	16 18 13.0	+0.4
	baz=31,SNR=6.1						
B07A	Winthrop	31.56	77	P	P	16 18 14.0	+0.7
	baz=31,SNR=5.6						
NLW	Nelson Butte	31.61	78	P	P	16 18 14.4	+0.6
D06A	Cle Elum	31.72	80	P	P	16 18 15.5	+0.7
	baz=32,SNR=6.2						
G04A	Mulino	31.72	84	⇓P	P	16 18 15.4	+0.6
	baz=32						
ETW	Entiat	31.83	79	P	P	16 18 16.3	+0.5
A08A	Turner Farm, O	31.84	76	P	P	16 18 16.3	+0.5
	baz=32,SNR=13						
C07A	Waterville	31.95	79	P	P	16 18 17.0	+0.2
	baz=32,SNR=9.8						
E06A	Yakima	31.95	81	P	P	16 18 17.7	+0.9
	baz=32,SNR=9.8						
ASAJ	Asahikawa	31.98	274	LR	LR	16 29 09.0	
	comp=Z,180nm,21.8s,MS3.7,baz=134,slow=32						
F05A	White Salmon	31.99	82	⇓P	P	16 18 17.7	+0.5
	baz=32						
WTV	Waterville	32.01	78	P	P	16 18 17.3	0.0
EBG	Ellensburg	32.02	80	P	P	16 18 18.1	+0.7
B08A	Colville Reser	32.07	77	P	P	16 18 18.4	+0.5
	baz=32,SNR=13						
H04A	Detroit Lake	32.17	85	P	P	16 18 19.3	+0.6
	baz=32,SNR=9.3						
TIXI	Tiksi	32.20	329	*e*P	P	16 18 20.8	+2.1
TIXI				pmax	pmax		
	comp=Z,1.0nm,1.3s,mb3.5						
A09A	Danville	32.24	76	P	P	16 18 20.0	+0.7
	baz=32,SNR=10						
D07A	Quincy	32.24	79	P	P	16 18 19.7	+0.3
	baz=32,SNR=7.2						
I04A	Tendick Farm,	32.51	86	P	P	16 18 22.8	+1.1
	baz=32,SNR=6.5						
C08A	Higginbotham F	32.51	78	P	P	16 18 21.8	+0.1
	baz=32,SNR=8.9						
YAK	Yakutsk	32.58	311	⇑*e*P	P	16 18 23.3	+1.2
YAK				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
E07A	Sunnyside	32.62	80	P	P	16 18 23.2	+0.6
	baz=32,SNR=5.4						
CROR	Criterion Ridg	32.74	84	P	P	16 18 24.1	+0.4
B09A	Rice	32.74	76	P	P	16 18 24.2	+0.5
	baz=33,SNR=7.3						
H05A	Madras	32.77	84	⇑P	P	16 18 24.2	+0.2
	baz=33						
G06A	Carlson Farm,	32.82	83	⇑P	P	16 18 23.7	-0.7
	baz=33						
A10A	Northport	32.84	75	P	P	16 18 25.0	+0.4
	baz=33,SNR=7.3						
VTHM	Trough	32.89	83	P	P	16 18 25.6	+0.5
HAWA	Hanford	32.90	80	*e*P	P	16 18 24.5	-0.5
	comp=Z,34nm,1.1s,mb5.2						
F07A	Phinny Hill Vi	32.91	81	⇑P	P	16 18 25.7	+0.5
	baz=33						
D08A	Wollman Farm,	32.93	79	P	P	16 18 25.4	0.0
	baz=33,SNR=8.0						
J04A	Umpqua Nationa	33.00	87	⇓P	P	16 18 26.8	+0.8
	baz=33						
I05A	Bend	33.00	85	⇑P	P	16 18 26.8	+0.7
	baz=33						
E08A	Dider Farm, El	33.13	80	P	P	16 18 27.3	+0.2
	baz=33,SNR=9.6						
VIPM	Ingram Point	33.21	84	P	P	16 18 28.4	+0.6
JCC	Jacoby Creek	33.23	92	⇑P	P	16 18 27.4	-0.6
	baz=33						
H06A	Lindquist Farm	33.26	83	P	P	16 18 28.8	+0.4
	baz=33,SNR=8.0						
D09A	Jones Farm, Ri	33.30	78	P	P	16 18 28.2	-0.4
	baz=33,SNR=8.3						
B10A	Chitwood Farm,	33.35	76	⇑P	P	16 18 29.2	+0.2
	baz=33						
G07A	Ruggs Ranch, H	33.39	82	⇓P	P	16 18 29.3	-0.1
	baz=33						
NEW	Newport	33.42	76	*e*P	P	16 18 29.4	-0.3
	comp=Z,21nm,0.8s,mb5.1						
NEW	Newport	33.42	76	P	P	16 18 29.8	+0.1
NEW				pmax	pmax		
	comp=Z,19nm,0.7s						
NEW	Newport	33.42	76	P	P	16 18 29.8	+0.1
	comp=Z,19nm,0.7s,mb5.1,baz=296,slow=7.5,SNR=38						
EDM	Edmonton	33.48	66	*e*P	P	16 18 29.8	-0.3
YBH	Yreka Blue Hor	33.49	90	⇓P	P	16 18 30.7	+0.4
	baz=33						
J05A	Fort Rock	33.50	86	P	P	16 18 31.5	+1.1
	baz=33,SNR=6.6						
C10A	Spilker Farm,	33.53	77	⇓P	P	16 18 30.4	-0.2
	baz=33						
A11A	Hall Mountain,	33.55	74	P	P	16 18 31.5	+0.8
	baz=33,SNR=32						
M02C	Callahan	33.60	90	⇓P	P	16 18 31.5	+0.2
	baz=33						
F08A	Pendleton	33.65	81	P	P	16 18 32.0	+0.3
	baz=34,SNR=10.0						
E09A	Wood Farm, Sta	33.66	79	P	P	16 18 31.4	-0.4
	baz=34,SNR=18						
L04A	Klamath Falls	33.73	88	⇓P	P	16 18 33.4	+1.0
	baz=34						
O01C	Eel River Cons	33.76	93	⇑P	P	16 18 32.8	+0.1
	baz=34						
I06A	Prineville	33.76	85	P	P	16 18 33.3	+0.6
	baz=34,SNR=5.2						
B11A	Sandpoint	33.79	75	P	P	16 18 32.9	+0.1
	baz=34,SNR=9.8						
G08A	Pilot Rock	33.80	82	P	P	16 18 33.2	+0.2
	baz=34,SNR=9.5						
D10A	Wagner Farm, O	33.92	78	P	P	16 18 33.5	-0.4
	baz=34,SNR=13						
A12A	Yaak River Ran	33.98	74	⇓P	P	16 18 34.6	+0.1
	baz=34,SNR=17						
K05A	Summer Lake	34.02	87	⇓P	P	16 18 36.1	+1.2
	baz=34,SNR=7.7						
M03C	McCloud	34.12	90	⇓P	P	16 18 35.6	-0.2
	baz=34						
I07A	Izee	34.12	84	⇑P	P	16 18 36.1	+0.3
	baz=34,SNR=17						
J06A	Christmas Vall	34.18	86	P	P	16 18 37.1	+0.8
	baz=34,SNR=25						
F09A	S2 Ranch, Elgi	34.22	80	P	P	16 18 37.1	+0.5
	baz=34,SNR=9.6						
WDC	Whiskeytown Da	34.27	91	⇓P	P	16 18 37.8	+0.7
	baz=34						
E10A	Myers Farm, Un	34.30	79	P	P	16 18 37.3	0.0
	baz=34,SNR=7.9						
HABR	Khabarovsk	34.31	285	*e*P	P	16 18 36.0	-1.3
HABR				*e*		16 19 48.9	
HABR				*e*S	S	16 24 00.1	-0.2
HABR				*e*		16 28 53.2	
HABR				pmax	pmax		
	comp=Z,39nm,1.9s,mb5.0						
O02C	Red Bluff	34.37	92	⇓P	P	16 18 38.3	+0.3
	baz=34						
K06A	Valley Falls	34.37	86	⇑P	P	16 18 38.7	+0.7
	baz=34						
H08A	Prairie City	34.38	83	P	P	16 18 37.9	-0.1
	baz=34,SNR=9.1						
L05A	Lakeview	34.45	88	⇑P	P	16 18 39.5	+0.9
	baz=34						
P01C	Double 8 Ranch	34.47	93	⇑P	P	16 18 37.4	-1.3
	baz=34						
F10A	Beach Ranch, E	34.49	80	⇑P	P	16 18 39.2	+0.3
	baz=34						
J07A	Hines	34.62	85	⇓P	P	16 18 40.4	+0.3
	baz=34						
M05C	Lookout	34.66	89	⇓P	P	16 18 40.6	+0.2
	baz=34						
A13A	Flathead Natio	34.70	73	⇑P	P	16 18 41.2	+0.4
	baz=34						
GASB	Alder Springs	34.73	93	⇑P	P	16 18 42.6	+1.6
	baz=35						
I08A	Drewsey	34.77	83	P	P	16 18 42.1	+0.7
	baz=35,SNR=5.6						
HATC	Hat Creek Radi	34.79	90	⇓P	P	16 18 42.5	+1.0
	baz=35						
MOD	Modoc	34.85	88	⇓P	P	16 18 43.0	+0.9
	baz=35						
E11A	Bogner Ranch,	34.90	78	P	P	16 18 41.8	-0.7
	baz=35,SNR=6.3						
H09A	Durkee	34.91	82	⇑P	P	16 18 42.7	+0.2
	baz=35						
B13A	Whitefish	34.94	74	P	P	16 18 43.0	+0.2
	baz=35,SNR=9.0						
WALA	Waterton Lakes	34.94	73	*e*P	P	16 18 42.2	-0.5
	comp=Z,36nm,1.3s,mb5.1						
BSMT	Bassoo Peak	35.00	75	P	P	16 18 43.5	+0.2
K07A	Rock Creek Ran	35.04	86	P	P	16 18 44.6	+0.9
	baz=35,SNR=6.6						
J08A	Circle Bar Ran	35.14	84	⇑P	P	16 18 44.7	+0.2
	baz=35						
M06C	Likely Place G	35.16	89	⇑P	P	16 18 45.3	+0.5
	baz=35						
F11A	Grangeville	35.17	79	P	P	16 18 44.4	-0.4
	baz=35,SNR=6.3						
C13A	Hot Springs	35.21	75	P	P	16 18 45.3	+0.2
	baz=35,SNR=20						
I09A	Lost Marbles R	35.24	83	P	P	16 18 45.4	0.0
	baz=35,SNR=5.8						
O04C	Chester	35.31	90	⇑P	P	16 18 46.5	+0.4
	baz=35						
G11A	Walters Elk Ra	35.36	80	⇑P	P	16 18 46.2	-0.2
	baz=35						
L07A	Adell	35.37	87	⇓P	P	16 18 46.7	+0.1
	baz=35						
K08A	Mann Creek Ran	35.48	85	P	P	16 18 48.2	+0.7
	baz=35,SNR=20						
H10A	Noah’s Angus R	35.51	81	P	P	16 18 47.5	-0.1
	baz=35,SNR=34						
WVOR	Wild Horse Val	35.56	86	*e*P	P	16 18 47.9	-0.3
	comp=Z,18nm,1.0s,mb5.0						
WVOR				*e*	pP	16 18 58.4	-4.3
WVOR	Wild Horse Val	35.56	86	*e*P	P	16 18 47.9	-0.3
WVOR				*e*	pP	16 18 58.4	-4.3
WVOR				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
D13A	Huson	35.57	76	P	P	16 18 47.8	-0.4
	baz=35,SNR=7.8						
J09A	Fry Pan Ranch,	35.58	84	P	P	16 18 48.9	+0.6
	baz=35,SNR=20						
O05C	Quincy	35.63	91	⇓P	P	16 18 48.9	+0.1
	baz=36						
C14A	Swan Lake	35.65	75	⇓P	P	16 18 48.7	-0.2
	baz=36						
I10A	Payette	35.75	82	⇑P	P	16 18 50.2	+0.4
	baz=36						
N06A	Buffalo Meadow	35.82	89	⇓P	P	16 18 50.6	+0.2
	baz=36						
M07A	Soldier Meadow	35.84	88	P	P	16 18 51.4	+0.8
	baz=36,SNR=11						
L08A	Fields	35.88	86	P	P	16 18 51.4	+0.5
	baz=36,SNR=13						
H11A	Donnelly	35.89	81	P	P	16 18 51.0	0.0
	baz=36,SNR=6.7						
K09A	Rome	35.96	85	P	P	16 18 51.5	-0.1
	baz=36,SNR=8.6						
MSO	Missoula	36.01	76	*e*P	P	16 18 51.0	-1.0
	comp=Z,14nm,1.2s,mb4.8						
BEKR	Beckwourth	36.03	91	⇑P	P	16 18 51.9	-0.3
	baz=36						
E13A	Victor	36.06	77	P	P	16 18 52.2	-0.2
	baz=36,SNR=6.9						
J10A	Berg Farm, Mel	36.13	83	⇓P	P	16 18 52.7	-0.4
	baz=36						
D14A	Greenough	36.14	76	P	P	16 18 52.4	-0.6
	baz=36,SNR=23						
O06A	Flanigan	36.17	90	⇓P	P	16 18 53.2	-0.3
	baz=36						
M08A	Happy Creek Ra	36.29	87	P	P	16 18 55.1	+0.7
	baz=36,SNR=7.3						
F13A	Darby	36.31	78	P	P	16 18 54.2	-0.4
	baz=36,SNR=11						
N07B	Gerlach	36.33	88	P	P	16 18 55.3	+0.6
	baz=36,SNR=8.0						
I11A	Placerville	36.35	82	P	P	16 18 54.9	0.0
	baz=36,SNR=14						
CHMT	Chamberlain Mo	36.37	76	*e*P	P	16 18 54.4	-0.7
L09A	Wilkinson Ranc	36.39	86	⇓P	P	16 18 55.6	+0.3
	baz=36,SNR=8.0						
K10A	MacKenzie Ranc	36.44	84	P	P	16 18 55.8	+0.1
	baz=36,SNR=17						
E14A	Clinton	36.48	77	P	P	16 18 56.1	+0.1
	baz=36,SNR=12						
LAVA	Lava Cap Winer	36.49	92	⇓P	P	16 18 55.2	-1.0
	baz=36						
H12A	Diamond D Ranc	36.66	80	⇓P	P	16 18 57.2	-0.4
	baz=36						
MFID	Camas Ranch	36.71	82	P	P	16 18 57.7	-0.3
	baz=36,SNR=9.5						

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D15A  Lincoln          36.74  75  P     P      16 18 58.0 -0.1
      baz=36,SNR=26
G13A  Cobalt           36.74  79  P     P      16 18 58.2 -0.1
      baz=36,SNR=14
O07A  Toulon           36.76  89  P     P      16 18 59.0 +0.6
      baz=37,SNR=6.5
M09A  Marrel Ranch,    36.87  86 ⇓P     P      16 18 59.7 +0.4
      baz=37
F14A  Wisdom           36.87  77  P     P      16 18 59.7 +0.4
      baz=37,SNR=10
R05C  Kirkwood Meado   36.93  92  P     P      16 19 00.3 +0.4
      baz=37,SNR=5.2
E15A  Deer Lodge       36.98  76  P     P      16 19 00.2 -0.1
      baz=37,SNR=13
H13A  Challis          37.02  80  P     P      16 19 00.3 -0.3
      baz=37,SNR=7.9
L10A  Juniper Basin    37.08  85  P     P      16 19 01.3 +0.1
      baz=37,SNR=14
CMB   Columbia Colle   37.16  93 ⇓P     P      16 19 01.8  0.0
      baz=37
N09A  Rock Creek Ran   37.16  87 ⇑P     P      16 19 02.2 +0.3
      baz=37
J12A  Stokes Ranch,    37.24  82  P     P      16 19 02.6 +0.2
      baz=37,SNR=9.5
M10A  I.L. Ranch, Tu   37.36  85  P     P      16 19 04.2 +0.7
      baz=37,SNR=6.8
F15A  Butte            37.38  77  P     P      16 19 03.1 -0.5
      baz=37,SNR=6.0
R06C  Coleville        37.42  92 ⇓P     P      16 19 04.5 +0.5
      baz=37,SNR=5.2
I13A  Wildhorse Cree   37.46  80  P     P      16 19 04.4 +0.1
      baz=37,SNR=9.7
L11A  Cat Creek Ranc   37.46  84  P     P      16 19 04.9 +0.5
      baz=37,SNR=28
HLID  Hailey           37.48  81 eP     P      16 19 04.0 -0.5
      comp=Z,23nm,1.5s,mb4.8
HLID  Hailey           37.48  81  P     P      16 19 04.4 -0.1
      baz=37,SNR=10
Q07A  Schurz           37.55  90 ⇑P     P      16 19 05.2  0.0
      baz=37
S06C  San Francisco    37.59  93  P     P      16 19 06.2 +0.7
      baz=37,SNR=7.7
K12A  Draper Farm, C   37.71  83  P     P      16 19 06.9 +0.4
      baz=38,SNR=11
J13A  Cove Ranch, Pi   37.71  81  P     P      16 19 06.8 +0.4
      baz=38,SNR=18
G15A  Dillon           37.74  78  P     P      16 19 06.0 -0.7
      baz=38,SNR=12
O09A  Fish Creek Ran   37.78  88 ⇑P     P      16 19 07.1 +0.1
      baz=38
EGMT  Eagleton         37.85  72 eP     P      16 19 06.6 -1.0
      comp=Z,52nm,1.0s,mb5.2
EGMT                             e      pP     16 19 17.1 -5.1
EGMT  Eagleton         37.85  72 ⇓P     P      16 19 07.9 +0.3
      baz=38
M11A  Holland Ranch,   37.87  85  P     P      16 19 08.4 +0.6
      baz=38,SNR=5.5
L12A  House Creek Ra   37.92  83  P     P      16 19 09.0 +0.7
      baz=38,SNR=5.0
BOZ   Bozeman (W)      37.99  77 eP     P      16 19 08.1 -0.7
      comp=Z,11nm,0.9s,mb4.6
BOZ   Bozeman (W)      37.99  77 eP     P      16 19 08.1 -0.7
BOZ                               pmax  pmax
      comp=Z,11nm,0.9s,mb4.6
BOZ   Bozeman (W)      37.99  77 ⇓P     P      16 19 08.8  0.0
      baz=38
O10A  Cortez Mining,   38.12  87 ⇑P     P      16 19 10.3 +0.3
      baz=38
Q08A  Gabbs            38.13  90 ⇑P     P      16 19 10.1  0.0
      baz=38
NVAR  Mina Array Bea   38.18  91  P     P      16 19 10.7 +0.3
      comp=Z,4.1nm,0.8s,mb4.2,baz=302,slow=6.9,SNR=39
NVAR                              ScP   ScP    16 25 08.1 +1.6
      comp=Z,1.4nm,0.9s,baz=314,slow=2.2,SNR=8.9
P09A  Austin           38.19  88 ⇑P     P      16 19 10.6 +0.1
      baz=38
K13A  Stover Farm, H   38.19  82 ⇓P     P      16 19 11.2 +0.6
      baz=38
T06C  Millerton Lake   38.23  94 ⇑P     P      16 19 10.6 -0.4
      baz=38
KCC   Kaiser Creek     38.27  93 ⇓P     P      16 19 11.1 -0.1
      baz=38
N11A  Elko Archery C   38.27  86 ⇑P     P      16 19 11.7 +0.5
      baz=38
R08A  Mina             38.35  91 ⇓P     P      16 19 12.1 +0.2
      baz=38
M12A  Wells            38.41  84  P     P      16 19 13.0 +0.6
      baz=38,SNR=6.9
P10A  Eureka           38.55  88 ⇑P     P      16 19 13.7 +0.1
      baz=38
QLMT  Earthquake Lak   38.55  77 eP     P      16 19 12.6 -0.9
L13A  Double Diamond   38.60  83  P     P      16 19 14.6 +0.6
      baz=38,SNR=13
Q09A  Carvers          38.61  89 ⇓P     P      16 19 14.4 +0.4
      baz=38
N12A  Clover Valley,   38.67  85  P     P      16 19 15.1 +0.5
      baz=38,SNR=15
MTUM  Tungsten Hills   38.70  92 eP     P      16 19 15.4 +0.5
MTUM                             e      pP     16 19 25.2 -4.3
O11A  Cowboy Ranch,    38.73  87  P     P      16 19 15.4 +0.4
      baz=38,SNR=5.0
S08C  White Mtn Res    38.85  92  P     P      16 19 16.9 +0.9
      baz=39,SNR=7.5
HELL  Mitchell Peak,   38.86  93  P     P      16 19 16.0 -0.2
      baz=39,SNR=8.2
M13A  Montello         38.90  84 ⇓P     P      16 19 16.8 +0.3
      baz=39
YMR   Madison River    38.92  77 eP     P      16 19 16.3 -0.3
      comp=Z,14nm,0.9s,mb4.7
R09A  Tonopah          39.05  90  P     P      16 19 17.8 +0.1
      baz=39,SNR=14
YNR   Norris Junctio   39.06  77 eP     P      16 19 18.2 +0.4
GCMT  Greycliff        39.07  75 eP     P      16 19 17.2 -0.6
TIN   Tinemaha         39.10  92 ⇓P     P      16 19 18.8 +0.5
      baz=39
N13A  Wendover, West   39.18  85 ⇓P     P      16 19 19.0 +0.3
      baz=39
SMMC  Simmler          39.18  96 ⇑P     P      16 19 18.3 -0.6
      baz=39
O12A  Currie           39.20  86  P     P      16 19 19.2 +0.2
      baz=39,SNR=16
MJAR  Matsushiro Arr   39.20 267  P     P      16 19 19.0 -0.1
MJAR                                           16 21 26.5
MJAR                              pmax  pmax
      comp=Z,16nm,1.0s
MJAR                              pmax  pmax
      comp=Z,3.0nm,0.9s
MJAR                              MLR   MLR
      comp=Z,241nm,20.0s
MJAR  Matsushiro Arr   39.20 267  P     P      16 19 19.0  0.0
      comp=Z,16nm,1.0s,mb4.7,baz=38,slow=6.7,SNR=26
MJAR                              PcP   PcP    16 21 26.4 -0.7
      comp=Z,3.3nm,0.9s,baz=51,slow=2.3,SNR=4.6
MJAR                              LR    LR     16 33 14.1
      comp=Z,241nm,19.9s,MS4.0,baz=75,slow=33
MAJO  Matsushiro       39.20 267 eP     P      16 19 18.8 -0.3
      comp=Z,34nm,0.9s,mb5.1
MAJO  Matsushiro       39.20 267 eP     P      16 19 18.8 -0.3
MAJO                              pmax  pmax
      comp=Z,34nm,0.9s,mb5.1
MAT   Matsushiro       39.20 267  P     P      16 19 18.9 -0.2
MAT                              eS     S      16 25 29.0  +14
S09A  Goldfield        39.28  91  P     P      16 19 19.8 +0.1
      baz=39,SNR=6.0
LKWY  Lake             39.31  77 eP     P      16 19 20.6 +0.7
      comp=Z,14nm,0.8s,mb4.7
LKWY  Lake             39.31  77 eP     P      16 19 20.6 +0.7
LKWY                              pmax  pmax
      comp=Z,14nm,0.8s,mb4.7
IMW   Indian Meadow    39.37  78 eP     P      16 19 20.2 -0.1
      comp=Z,16nm,0.9s,mb4.7
VES   Vestal, Richgr   39.38  94 ⇑P     P      16 19 20.2 -0.3
      baz=39
R10A  Warm Springs     39.48  89  P     P      16 19 21.5 +0.1
      baz=39,SNR=5.9
HVU   Hansel Valley    39.49  82 eP     P      16 19 21.4 +0.1
      comp=Z,7.5nm,0.8s,mb4.5
HVU   Hansel Valley    39.49  82 eP     P      16 19 21.4  0.0
HVU                               pmax  pmax
      comp=Z,8.0nm,0.8s,mb4.5
MDJ   Mudanjiang       39.53 283  P     P      16 19 21.5 -0.1
MDJ                               AP    pP     16 19 33.3 -3.0
MDJ                               XP    sP     16 19 40.4 -2.6
MDJ                               PP    PP     16 20 52.7 -0.4
MDJ                               S     S      16 25 11.7 -8.0
MDJ                               AMB   AMB
      comp=Z,208nm,4.2s
MDJ                               LR    LR
      comp=Z,103nm,33.1s,MS3.4
Q11A  Duckwater        39.53  88  P     P      16 19 21.9 +0.2
      baz=39,SNR=7.6
S10A  Tonopah Range,   39.54  90  P     P      16 19 21.9  0.0
      baz=39,SNR=14
PKM   Peak Mountain    39.57  96 ⇑P     P      16 19 22.3 +0.2
      baz=39
P12A  McGill           39.59  87  P     P      16 19 22.4 +0.1
      baz=39,SNR=16
CWC   Cottonwood Cre   39.59  93  P     P      16 19 22.6 +0.3
      baz=39,SNR=5.3
GRAC  Grapevine Rang   39.66  92 ⇓P     P      16 19 22.6 -0.2
      baz=40
RLMT  Red Lodge        39.67  76 eP     P      16 19 22.8 -0.1
      comp=Z,32nm,1.0s,mb5.0
RLMT                             e      pP     16 19 33.0 -4.6
REDW  Red Top Meadow   39.72  79 eP     P      16 19 23.3  0.0
      comp=Z,10nm,1.1s,mb4.5
LOHW  Long Hollow      39.73  79 eP     P      16 19 23.2 -0.1
      comp=Z,4.3nm,0.8s,mb4.2
BGU   Big Grassy Mou   39.84  84 eP     P      16 19 24.0 -0.3
ISA   Isabella         39.87  94 ⇑P     P      16 19 23.7 -0.9
      baz=40
Q12A  Willow Creek R   39.91  87  P     P      16 19 25.2 +0.3
      baz=40,SNR=8.6
DAC   Darwin (Calif)   40.00  93 eP     P      16 19 25.4 -0.3
      comp=Z,1.6nm,0.6s,mb3.9
DAC                              e      pP     16 19 35.9 -4.4
DAC   Darwin (Calif)   40.00  93 eP     P      16 19 25.4 -0.2
DAC                               pmax  pmax
      comp=Z,2.0nm,0.6s,mb4.0
MPMC  Manual Prospec   40.20  93 ⇑P     P      16 19 27.2 -0.2
      baz=40
FURC  Furnace Creek,   40.32  92 ⇓P     P      16 19 28.4 +0.1
      baz=40
HWUT  Hardware Ranch   40.32  82 eP     P      16 19 27.7 -0.6
      comp=Z,2.3nm,0.6s,mb4.1
DUG   Dugway           40.42  84 eP     P      16 19 28.6 -0.5
      comp=Z,21nm,1.0s,mb4.8
DUG                              e      pP     16 19 39.0 -4.8
DUG   Dugway           40.42  84 eP     P      16 19 28.6 -0.5
DUG                               pmax  pmax
      comp=Z,21nm,1.0s,mb4.8
DUG   Dugway           40.42  84 ⇑P     P      16 19 29.3 +0.2
      baz=40
R12A  Pony Springs,    40.49  88  P     P      16 19 29.7  0.0
      baz=40,SNR=6.8
U10A  Ash Meadows, A   40.67  92 ⇓P     P      16 19 31.5 +0.3
      baz=40
EDW2  Edwards Air Fo   40.69  95 ⇑P     P      16 19 30.8 -0.5
      baz=40
PDAR  Pinedale Array   40.84  79  P     P      16 19 31.9 -0.7
      comp=Z,16nm,0.8s,mb4.7,baz=300,slow=3.8,SNR=97
PDAR                              LR    LR     16 34 33.0
      comp=Z,112nm,20.3s,MS3.7,baz=149,slow=33
NLU   North Lily Min   41.01  84 eP     P      16 19 33.4 -0.6
SHOC  Shoshone         41.04  92 ⇑P     P      16 19 34.2 -0.1
      baz=41
GSC   Goldstone        41.12  93  P     P      16 19 34.8 -0.1
      baz=41,SNR=13
DAU   Daniels Canyon   41.23  83 eP     P      16 19 35.5 -0.2
MPU   Maple Canyon     41.24  84 eP     P      16 19 35.4 -0.5
      comp=Z,12nm,0.8s,mb4.6
BFSC  Mount Baldy St   41.32  95 ⇑P     P      16 19 36.4 -0.2
      baz=41
BOD   Bodaibo          41.40 308 eP     P      16 19 36.1 -0.8
BOD                              e      pP     16 19 48.7 -3.0
BOD                               pmax  pmax
      comp=Z,5.0nm,1.0s,mb4.1
BOD                               pmax  pmax
      comp=Z,6.0nm,0.9s,mb4.2
ARUT  Antelope Range   41.54  88 eP     P      16 19 38.0 -0.4
ARUT                             e      pP     16 19 47.7 -5.4
TUQ   Turquoise Mtn.   41.57  92 ⇓P     P      16 19 38.6  0.0
      baz=41
V11A  Goodsprings      41.60  91  P     P      16 19 39.1 +0.2
      baz=41,SNR=6.4
S14A  Cedar City       41.73  88 ⇑P     P      16 19 39.7 -0.2
      baz=42
CCUT  Cedar City       41.74  88 eP     P      16 19 39.8 -0.2
CCUT                             e      pP     16 19 49.6 -5.1
U12A  Valley of Fire   41.75  90 ⇓P     P      16 19 40.1  0.0
      baz=42
T13A  Saint George     41.76  89 ⇑P     P      16 19 40.3 +0.2
      baz=42
MSU   Marysvale        41.85  86 eP     P      16 19 40.8 -0.1
MSU                              e      pP     16 19 50.7 -4.9
TMUT  Trail Mountain   41.95  84 eP     P      16 19 39.9 -1.7
V12A  Nelson           42.03  91  P     P      16 19 42.5 +0.2
      baz=42,SNR=5.5
GMRC  Granite Mounta   42.17  93  P     P      16 19 43.3 -0.2
      baz=42,SNR=8.7
T14A  Hurricane        42.23  88  P     P      16 19 44.3 +0.3
      baz=42,SNR=7.7
W12A  Cal Nev Ari      42.30  92 ⇑P     P      16 19 44.5 -0.1
      baz=42
CN2   Changchun        42.44 285 eP     P      16 19 47.2 +1.6
SRU   San Rafael       42.48  84 eP     P      16 19 45.5 -0.5
      comp=Z,19nm,0.9s,mb4.7
SRU   San Rafael       42.48  84 eP     P      16 19 45.5 -0.5
SRU                               pmax  pmax
      comp=Z,19nm,0.9s,mb4.7
PFO   Pinyon Flat Ob   42.48  95  P     P      16 19 44.8 -1.2
PFO                               pmax  pmax
      comp=Z,3.0nm,0.8s,mb4.0
PFO   Pinyon Flat Ob   42.48  95  P     P      16 19 44.8 -1.3
      comp=Z,3.2nm,0.8s,mb4.0,baz=338,slow=7.3,SNR=4.8
PFO   Pinyon Flat Ob   42.48  95 ⇑P     P      16 19 45.1 -0.9
      baz=42
BELC  Belle Mtn.       42.49  94  P     P      16 19 45.4 -0.7
      baz=42,SNR=5.3
IRM   Iron Mountain    42.90  93 ⇓P     P      16 19 49.0 -0.4
      baz=43
MONP  Monument Peak    43.00  96 ⇑P     P      16 19 49.7 -0.5
      baz=43
W13A  Hualapai Mount   43.03  91 ⇓P     P      16 19 50.1 -0.4
      baz=43
BC3   Big Chuckw Mtn   43.06  94 ⇑P     P      16 19 49.7 -1.0
      baz=43
DVTC  Desert V Tower   43.35  95 ⇓P     P      16 19 52.7 -0.4
      baz=43
X13A  Yucca            43.41  92 ⇓P     P      16 19 52.7 -0.8
      baz=43
PDMCI Parker Dam,Lak   43.42  92  P     P      16 19 53.2 -0.4
      baz=43,SNR=5.2
W14A  Seligman         43.45  90  P     P      16 19 53.9 +0.1
      baz=43,SNR=5.0
CBIJ  Chichi jima      43.51 253  LR    LR     16 34 16.8
      comp=Z,160nm,21.0s,MS3.9,baz=15,slow=31
Y12C  Blythe           43.56  93 ⇓P     P      16 19 53.9 -0.9
      baz=43
PV10  Paradox Valley   43.84  84 eP     P      16 19 56.4 -0.6
Y13A  Salome           43.94  92 ⇓P     P      16 19 57.4 -0.4
      baz=44
W15A  Williams         43.97  90  P     P      16 19 58.5 +0.5
      baz=44,SNR=5.2
X14A  Yava             44.06  91  P     P      16 19 58.9 +0.1
      baz=44,SNR=14
PV01  Paradox Valley   44.28  84 eP     P      16 19 59.5 -1.0
WUAZ  Wupatki          44.28  89 eP     P      16 20 00.0 -0.5
      comp=Z,12nm,0.8s,mb4.7
WUAZ                             e      pP     16 20 10.2 -5.2
WUAZ  Wupatki          44.28  89 ⇑P     P      16 20 00.6  0.0
      baz=44
Y14A  Wickenburg       44.35  92  P     P      16 20 00.8 -0.3
      baz=44,SNR=6.0
X15A  Humboldt         44.45  90  P     P      16 20 02.0 +0.2
      baz=44,SNR=8.0
ULM   Lac du Bonnet    44.45  62 eP     P      16 20 00.5 -1.1
      comp=Z,9.0nm,0.8s,mb4.5
ULM   Lac du Bonnet    44.45  62  P     P      16 20 00.9 -0.7
      comp=Z,8.6nm,0.9s,mb4.5,baz=298,slow=7.9,SNR=17
ULM                               LR    LR     16 40 46.5
      comp=Z,146nm,18.9s,MS3.9,baz=305,slow=39
Z14A  Wintersburg      44.78  92 ⇓P     P      16 20 03.7 -0.8
      baz=45
KSRS  Korea Array      44.87 276  P     P      16 20 05.2 +0.1
      comp=Z,3.1nm,0.6s,mb4.3,baz=56,slow=7.6,SNR=15
KSRS                              LR    LR     16 38 23.8
      comp=Z,66nm,19.8s,MS3.6,baz=72,slow=35
MVCO  Mesa Verde       44.92  85 eP     P      16 20 04.2 -1.4
      comp=Z,6.4nm,0.9s,mb4.5
MVCO  Mesa Verde       44.92  85 ⇑P     P      16 20 05.1 -0.5
      baz=45
115A  Sonoran Desert   45.67  92 ⇑P     P      16 20 11.4 -0.2
      baz=46
JNU   Nakatsue         45.96 269  P     P      16 20 14.0 +0.1
      comp=Z,26nm,0.9s,mb5.2,baz=51,slow=4.3,SNR=7.0
116A  Eloy             46.09  92 ⇓P     P      16 20 14.5 -0.3
      baz=46
SDCO  Great Sand Dun   46.38  82 eP     P      16 20 16.6 -0.5
      comp=Z,8.2nm,0.8s,mb4.7
TUC   Tucson           46.82  91 eP     P      16 20 19.8 -0.8
      comp=Z,6.6nm,0.9s,mb4.6
TUC                              e      pP     16 20 30.4 -5.2
TUC   Tucson           46.82  91 eP     P      16 20 19.8 -0.8
TUC                               pmax  pmax
      comp=Z,7.0nm,0.9s,mb4.6
ANMO  Albuquerque      47.65  85  P     P      16 20 26.7 -0.4
ANMO  Albuquerque      47.65  85  P     P      16 20 26.7 -0.3
ANMO                              pmax  pmax
      comp=Z,1.0nm,0.5s
ANMO  Albuquerque      47.65  85  P     P      16 20 26.7 -0.4
      comp=Z,1.4nm,0.5s,mb4.3,baz=315,slow=9.5,SNR=5.4
LENM  Lemitar          47.87  87 eP     P      16 20 28.7  0.0
LPM   Los Pinos Moun   47.98  86 eP     P      16 20 29.3 -0.3
LPM                              e      pP     16 20 39.3 -5.3
BNM   Barren Site      48.09  86 eP     P      16 20 30.2 -0.2
BNM                              e      pP     16 20 40.6 -4.8
CBKS  Cedar Bluff      49.13  77 eP     P      16 20 37.4 -1.0
      comp=Z,20nm,0.9s,mb5.2
CBKS                             e      pP     16 20 47.3 -6.2
CBKS  Cedar Bluff      49.13  77 eP     P      16 20 37.4 -1.0
CBKS                              pmax  pmax
      comp=Z,20nm,0.9s,mb5.2
BJI   Beijing          50.20 287  P     P      16 20 45.4 -1.1
BJI                               AMB   AMB
      comp=Z,5.0nm,0.4s,mb4.9
BJI                               LR    LR
      comp=Z,105nm,23.2s,MS3.8
ULN   Ulaanbaatar      50.33 300 eP     P      16 20 47.1 -0.3
MNTX  Cornudas Mount   50.53  88 eP     P      16 20 48.1 -1.0
      comp=Z,6.1nm,0.8s,mb4.6
COWI  Conover          50.53  63 eP     P      16 20 47.4 -1.5
      comp=Z,11nm,0.3s,mb5.3
SONM  Songino Array    50.70 300  P     P      16 20 50.9 +0.8
SONM                                           16 22 07.1
SONM                              pmax  pmax
      comp=Z,3.0nm,0.6s
SONM                              pmax  pmax
      comp=N,3.0nm,0.7s
SONM  Songino Array    50.70 300  P     P      16 20 50.9 +0.7
      comp=N,0.4nm,0.5s,mb3.6,baz=45,slow=6.7,SNR=4.4
SONM                              PcP   PcP    16 22 07.1 +0.5
      comp=N,3.1nm,0.6s,baz=62,slow=3.0,SNR=18
SONM                              ScP   ScP    16 26 01.0 +3.5
      comp=N,2.5nm,0.7s,baz=45,slow=3.7,SNR=15
ZAK   Zakamensk        50.72 304 eP     P      16 20 50.1 -0.1
ZAK                               pmax  pmax
      comp=Z,2.0nm,1.3s,mb3.9
HHC   Hu-ho-hao-te     52.33 290 eP     P      16 21 02.8 +0.4
HHC                               AP    pP     16 21 18.5 +0.9
HHC                               PCP   PcP    16 22 13.8 +1.0
HHC                               PP    PP     16 23 03.2 +2.0
HHC                               SCP   ScP    16 26 04.4 -0.3
HHC                               PCS   PcS    16 26 11.0 -0.2
HHC                               S     S      16 28 24.8 +1.3
HHC                               XS    sS     16 28 49.4 +0.3
HHC                               PS           16 29 51.4
HHC                               SCS   ScS    16 30 44.5 -2.3
HHC                               SS    SS     16 31 56.8 -4.4
HHC                               AMB   AMB
      comp=Z,13nm,0.7s,mb5.0
HHC                               AMB   AMB
      comp=Z,72nm,4.1s
HHC                               LR    LR
      comp=N,129nm,18.0s,MS4.2
HHC                               LR    LR
      comp=E,156nm,18.0s,MS4.2
HHC                               LR    LR
      comp=Z,166nm,19.9s,MS4.1
WMOK  Wichita Mounta   52.43  80 eP     P      16 21 02.0 -1.3
      comp=Z,14nm,0.8s,mb5.0
WMOK                             e      pP     16 21 11.9 -6.5
WMOK  Wichita Mounta   52.43  80 eP     P      16 21 02.0 -1.2
WMOK                              pmax  pmax
      comp=Z,14nm,0.8s,mb4.9
LPIG  La Paz           53.04  98  LR    LR     16 37 22.4
      comp=Z,111nm,21.8s,MS3.9,baz=335,slow=29
LTX   Lajitas          53.25  89 eP     P      16 21 07.7 -1.6
      comp=Z,11nm,0.9s,mb4.8
LTX                              e      pP     16 21 19.0 -5.6
LTX   Lajitas          53.25  89 eP     P      16 21 07.7 -1.6
LTX                              e      pP     16 21 19.0 -5.6
LTX                               pmax  pmax
      comp=Z,11nm,0.9s,mb4.8
TXAR  Lajitas Array    53.25  89  P     P      16 21 08.7 -0.6
TXAR                              pmax  pmax
      comp=Z,8.0nm,0.8s
TXAR                              MLR   MLR
      comp=Z,92nm,19.5s
TXAR  Lajitas Array    53.25  89  P     P      16 21 08.7 -0.7
      comp=Z,7.8nm,0.8s,mb4.7,baz=297,slow=5.3,SNR=90
TXAR                              LR    LR     16 41 44.5
      comp=Z,92nm,19.5s,MS3.8,baz=5.0,slow=34
NJ2   Nanjing          54.00 277 eP     P      16 21 17.6 +2.8
NJ2                               AMB   AMB
      comp=Z,20nm,0.6s,mb5.2
JCT   Junction City    54.78  85 eP     P      16 21 19.0 -1.5
      comp=Z,9.9nm,0.9s,mb4.8
JCT   Junction City    54.78  85 eP     P      16 21 19.0 -1.5
JCT                               pmax  pmax
      comp=Z,10.0nm,0.9s,mb4.8
FVM   French Village   55.14  71 eP     P      16 21 20.8 -2.2
      comp=Z,6.5nm,0.8s,mb4.7
FVM   French Village   55.14  71 eP     P      16 21 20.8 -2.2
FVM                               pmax  pmax
      comp=Z,7.0nm,0.8s,mb4.7
SCHQ  Schefferville    55.55  43  P     P      16 21 24.2 -1.5
SCHQ                              LR    LR     16 47 19.5
SCHQ  Schefferville    55.55  43  P     P      16 21 24.2 -1.5
      comp=Z,4.4nm,0.8s,mb4.5,baz=338,slow=8.9,SNR=6.4
SCHQ                              LR    LR     16 47 19.5
      comp=Z,145nm,19.3s,MS4.1,baz=291,slow=38
MIAR  Mount Ida        55.66  77 eP     P      16 21 25.1 -1.7
      comp=Z,20nm,1.4s,mb5.0
MIAR                             e      pP     16 21 35.2 -6.9
MIAR  Mount Ida        55.66  77 eP     P      16 21 25.1 -1.7
MIAR                              pmax  pmax
      comp=Z,20nm,1.4s,mb5.0
SADO  Sadowa           56.71  58  P     P      16 21 33.1 -1.0
      baz=330,slow=6.7
USIN  University of    56.73  70 eP     P      16 21 32.2 -2.2
      comp=Z,35nm,0.9s,mb5.4
USIN                             e      pP     16 21 42.8 -7.0
ZALV  Zalesovo Beam    56.84 317  P     P      16 21 35.3 +0.4
      comp=Z,0.5nm,0.3s,mb4.0,baz=60,slow=6.8,SNR=3.5
ZALV                              PcP   PcP    16 22 30.3 +0.4
      comp=Z,2.5nm,0.5s,baz=40,slow=3.1,SNR=9.9
ZAL   Zalesovo         56.86 317  P     P      16 21 35.3 +0.3
ZAL                                            16 22 30.3
ARCES ARCESS Array B   57.55 354  P     P      16 21 40.0 +0.3
ARCES                             LR    LR     16 49 38.1
ARCES ARCESS Array B   57.55 354  P     P      16 21 40.0 +0.3
ARCES                             pmax  pmax
      comp=Z,3.0nm,0.8s
ARCES                             MLR   MLR
      comp=Z,137nm,19.5s
ARCES ARCESS Array B   57.55 354  P     P      16 21 40.0 +0.3
      comp=Z,3.2nm,0.8s,mb4.4,baz=21,slow=7.0,SNR=9.1
ARCES                             LR    LR     16 49 38.1
      comp=Z,137nm,19.5s,MS4.1,baz=5.5,slow=39
ALLY  Alegheny Colle   58.34  62 eP     P      16 21 44.8 -0.8
PLAL  Pickwick Lake    58.58  72 eP     P      16 21 45.0 -2.4
      comp=Z,9.7nm,0.9s,mb4.8
PLAL                             e      pP     16 21 55.6 -7.2
GTA   Gaotai           59.88 296 eP     P      16 21 53.7 -2.6
GTA                               AP    pP     16 22 10.5 -1.3
GTA                               XP    sP     16 22 17.3 -1.0
GTA                               PCP   PcP    16 22 42.1 -0.1
GTA                               PP    PP     16 24 07.9 -0.6
GTA                               SCP   ScP    16 26 35.3 -2.6
GTA                               S     S      16 29 57.6 -6.0
GTA                               XS    sS     16 30 23.9 -5.8
GTA                               AMB   AMB
      comp=Z,2.0nm,0.7s,mb4.3
GTA                               AMB   AMB
      comp=Z,68nm,6.5s
GTA                               LR    LR
      comp=N,173nm,14.9s,MS4.6
GTA                               LR    LR
```

	comp=E,283nm,16.1s,MS4.6						
GTA				LR	LR		
	comp=Z,149nm,20.6s,MS4.1						
LZH	**Lanzhou**	**60.00**	**291**	*e*P	**P**	**16 21 56.8**	**-0.4**
LZH				AP	pP	16 22 12.1	-0.6
LZH				XP	sP	16 22 22.5	+3.3
LZH				PP	PP	16 24 11.1	+1.5
LZH				*e*S	**S**	**16 30 01.8**	**-3.4**
LZH				XS	sS	16 30 28.2	-3.1
LZH				SS	SS	16 33 58.8	-3.1
LZH				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.9						
LZH				AMB	AMB		
	comp=Z,80nm,4.5s						
LZH				LR	LR		
	comp=E,430nm,14.0s						
LZH				LR	LR		
	comp=Z,630nm,14.9s,MS4.9						
KURK	**Kurchatov**	**61.80**	**318**	*e*P	**P**	**16 22 08.8**	**-0.3**
	comp=Z,2.7nm,0.7s,mb4.5						
KURK	**Kurchatov**	**61.80**	**318**	*e*P	**P**	**16 22 08.8**	**-0.3**
KURK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.5						
WMQ	**Urumqi**	**62.93**	**307**	*e*P	**P**	**16 22 18.2**	**+1.4**
WMQ				XP	sP	16 22 41.2	+2.3
WMQ				PCP	PcP	16 22 55.4	+0.9
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.6s,mb4.8						
WMQ				LR	LR		
	comp=N,71nm,18.0s,MS4.0						
WMQ				LR	LR		
	comp=E,69nm,21.5s,MS4.0						
WMQ				LR	LR		
	comp=Z,58nm,18.3s,MS3.8						
MK31	**Makanchi Array**	**63.22**	**313**	*e*P	**P**	**16 22 17.6**	**-1.0**
MKAR	**Makanchi Array**	**63.22**	**313**	P	**P**	**16 22 17.6**	**-1.1**
MKAR				PcP	PcP	16 22 55.2	-0.3
MKAR				LR	LR	16 53 42.5	
MKAR	**Makanchi Array**	**63.22**	**313**	P	**P**	**16 22 17.6**	**-1.0**
MKAR						16 22 55.2	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR				MLR	MLR		
	comp=Z,76nm,18.5s						
MKAR	**Makanchi Array**	**63.22**	**313**	P	**P**	**16 22 17.6**	**-1.1**
	comp=Z,0.3nm,0.4s,mb3.8,baz=49,slow=3.9,SNR=8.3						
MKAR				PcP	PcP	16 22 55.2	-0.3
	comp=Z,0.7nm,0.6s,baz=46,slow=4.8,SNR=6.0						
MKAR				LR	LR	16 53 42.5	
	comp=Z,76nm,18.5s,MS3.9,baz=1.6,slow=40						
JOF	**Joensuu**	**63.50**	**349**	*e*p	**P**	**16 22 19.4**	**-0.9**
	comp=Z,2.0nm,0.6s,mb4.3						
CD2	**Chengdu**	**63.79**	**287**	*e*P	**P**	**16 22 22.3**	**-0.4**
CD2				AP	pP	16 22 38.5	+0.2
CD2				XP	sP	16 22 45.5	+0.7
CD2				PP	PP	16 24 44.5	+1.3
CD2				S	**S**	**16 30 49.5**	**-3.7**
CD2				XS	sS	16 31 17.6	-1.9
CD2				SS	SS	16 34 59.8	-1.6
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
CD2				AMB	AMB		
	comp=Z,30nm,6.8s						
CD2				LR	LR		
	comp=N,170nm,15.6s,MS4.5						
CD2				LR	LR		
	comp=E,170nm,15.6s,MS4.5						
CD2				LR	LR		
	comp=Z,70nm,15.6s,MS4.0						
ARU	**Arti**	**64.10**	**332**⇑	*i*P	**P**	**16 22 24.2**	**-0.1**
ARU				*e*		16 24 47.2	
ARU				*e*PPP		16 26 16.7	
ARU				*e*S	**S**	**16 30 58.1**	**+1.8**
ARU				*e*SS	SS	16 35 02.2	-2.8
ARU				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
GYA	**Guiyang**	**65.37**	**282**	P	**P**	**16 22 32.7**	**-0.3**
GYA				AP	pP	16 22 50.9	+2.2
GYA				XP	sP	16 22 57.5	+2.3
GYA				PCP	PcP	16 23 06.7	+2.0
GYA				PP	PP	16 25 00.4	+3.3
GYA				SCP		16 27 02.3	
GYA				S	S	16 31 11.6	-1.1
GYA				XS	sS	16 31 39.5	+0.4
GYA				PS		16 31 40.3	
GYA				SKS		16 32 20.3	
GYA				SS	SS	16 35 26.5	+0.3
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
GYA				AMB	AMB		
	comp=Z,130nm,5.9s						
GYA				LR	LR		
	comp=N,420nm,19.0s,MS4.8						
GYA				LR	LR		
	comp=E,390nm,18.3s,MS4.8						
GYA				LR	LR		
	comp=Z,450nm,20.5s,MS4.7						
FINES	**FINESS Array B**	**65.48**	**351**	P	**P**	**16 22 33.0**	**-0.2**
FINES				pmax	pmax		
	comp=Z,4.0nm,1.1s						
FINES				MLR	MLR		
	comp=Z,114nm,18.1s						
FINES	**FINESS Array B**	**65.48**	**351**	P	**P**	**16 22 33.0**	**-0.2**
	comp=Z,3.9nm,1.1s,mb4.4,baz=0.1,slow=7.2,SNR=9.9						
FINES				LR	LR	16 52 08.1	
	comp=Z,114nm,18.1s,MS4.1,slow=37						
NOA	**NORSAR Array B**	**66.62**	**359**	P	**P**	**16 22 40.3**	**-0.2**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	**NORSAR Array B**	**66.62**	**359**	P	**P**	**16 22 40.3**	**-0.2**
	comp=Z,1.1nm,0.8s,mb3.9,baz=1.4,slow=6.6,SNR=3.4						
KMI	**Kunming**	**68.70**	**284**	P	**P**	**16 22 54.2**	**0.0**
KMI				AP	pP	16 23 10.6	+0.6
KMI				XP	sP	16 23 17.8	+1.4
KMI				PP	PP	16 25 29.3	+3.2
KMI				S	S	16 31 49.5	-3.3
KMI				SS	SS	16 36 19.0	+1.2
KMI				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.6						
KMI				AMB	AMB		
	comp=Z,72nm,4.0s						
KMI				LR	LR		
	comp=N,102nm,27.5s						
KMI				LR	LR		
	comp=E,84nm,20.9s						
KMI				LR	LR		
	comp=Z,84nm,26.6s,MS3.9						
AAK	**Ala-Archa**	**69.92**	**315**⇑	*e*P	**P**	**16 23 00.9**	**-0.5**
AAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
PMG	**Port Moresby**	**71.76**	**225**⇑	*e*P	**P**	**16 23 10.0**	**-2.9**
LSA	**Lhasa**	**71.85**	**295**	P	**P**	**16 23 14.9**	**+1.5**
TAPN	**Taplejung**	**75.57**	**296**	*e*P	**P**	**16 23 35.2**	**0.0**
AKASG	**Malin Array Be**	**75.69**	**347**	P	**P**	**16 23 34.5**	**-1.0**
AKASG	**Malin Array Be**	**75.69**	**347**	P	**P**	**16 23 34.5**	**-1.0**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	**Malin Array Be**	**75.69**	**347**	P	**P**	**16 23 34.5**	**-1.0**
	comp=Z,0.7nm,0.4s,mb3.9,baz=14,slow=5.8,SNR=7.1						
GUN	**Gumba**	**76.12**	**298**	*e*P	**P**	**16 23 38.9**	**+0.6**
	comp=Z,9.4nm,0.4s,mb5.0						
ODAN	**Odare**	**76.13**	**296**	*e*P	**P**	**16 23 38.0**	**-0.4**
JIRN	**Jiri**	**76.15**	**297**	*e*P	**P**	**16 23 38.4**	**-0.1**
	comp=Z,11nm,0.4s,mb5.2						
KKN	**Kakani**	**76.54**	**298**	*e*P	**P**	**16 23 40.8**	**+0.1**
PKI	**Pulchoki**	**76.65**	**298**	*e*P	**P**	**16 23 41.5**	**+0.2**
GKN	**Gorkha**	**76.72**	**299**	*e*P	**P**	**16 23 41.3**	**-0.4**
	comp=Z,7.6nm,0.7s,mb4.7						
KOLN	**Koldanda**	**77.45**	**299**	*e*P	**P**	**16 23 45.7**	**-0.1**
	comp=Z,10nm,1.1s,mb4.7						
GERES	**GERESS Array B**	**78.79**	**357**	P	**P**	**16 23 52.5**	**-0.4**
	comp=Z,0.3nm,0.5s,mb3.5,baz=10,slow=7.2,SNR=3.9						
CTA	**Charters Tower**	**81.73**	**221**	LR	LR	16 55 48.9	
	comp=Z,72nm,19.2s,MS4.0,baz=238,slow=32						
WRA	**Warramunga Arr**	**86.81**	**231**	P	**P**	**16 24 32.8**	**-1.8**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	**Warramunga Arr**	**86.81**	**231**	P	**P**	**16 24 32.8**	**-1.8**
	comp=Z,1.1nm,0.6s,mb4.3,baz=34,slow=5.8,SNR=5.9						
MATP	**Matopo**	**144.69**	**329**	PKP	PKPdf	16 31 26.0	-0.8
	comp=Z,8.1nm,0.8s,baz=32,slow=4.5,SNR=18						
MAW	**Mawson**	**150.81**	**219**	PKIKP	PKPbc	16 31 40.6	-0.4
MAW				pmax	pmax		
	comp=Z,6.0nm,0.9s						
MAW	**Mawson**	**150.81**	**219**	PKPbc	PKPbc	16 31 40.6	-0.5
	comp=Z,5.8nm,0.9s,baz=121,slow=5.9,SNR=4.7						
BOSA	**Boshof**	**153.36**	**328**	PKIKP	PKPbc	16 31 48.6	+0.6
BOSA						16 31 59.3	
BOSA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BOSA	**Boshof**	**153.36**	**328**	PKPbc	PKPbc	16 31 48.5	+0.5
	comp=Z,0.9nm,0.4s,baz=88,slow=4.5,SNR=4.1						
BOSA				PKPab	PKPab	16 31 59.3	-0.9
	comp=Z,1.5nm,0.5s,baz=321,slow=2.1,SNR=5.0						

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*ISCJB **03** 16:16:37.9±4.5, 11.4S±0.1×163.5E±0.1, h22^{km}±31^{km}, mb4.1/7, MS3.6/4, Error ellipse: s-maj=22.6km s-min=11.2km az=135.5*

*NEIC **03** 16:16:39.7±5.0, 11.29S×163.45E, h22^{km}±35^{km}, mb4.4/6, Error ellipse: s-maj=20.8km s-min=13.9km az=62.0*

*IDC **03** 16:16:41.3±6.9, 11.36S×163.45E, h33^{km}±51^{km}, mb4.1/5, mb1 4.3/9, mb1mx4.0/18, mbtmp4.2/9, ML4.0/4, MS3.5/7, Ms1 3.5/7, ms1mx3.3/20, Error ellipse: s-maj=34.3km s-min=26.0km az=72.0*

ISC 03 16:16:39.0±5.3**, 11.3S**±0.1×**163.48E**±0.09**, h17**^{km}±33^{km}**, n21,** σ**0**^{s}**99**/23**, mb4.1**/7**, MS3.6**/4**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	**Honiara**	**3.96**	**298**	Pn	**Pn**	**16 17 39.7**	**+0.7**
HNR				*e*Sn	**Sn**	**16 18 25.0**	**-0.1**
HNR				Sn	**Sn**	**16 18 26.0**	**+0.9**
HNR				LR	LR	16 19 10.9	
HNR	**Honiara**	**3.96**	**298**	Pn	**Pn**	**16 17 39.7**	**+0.7**
	18nm,0.3s,baz=83,slow=14,SNR=6.7						
HNR				Sn	**Sn**	**16 18 26.0**	**+0.9**
	69nm,0.3s,baz=78,slow=23,SNR=13						
HNR				LR	LR	16 19 10.9	
	comp=Z,385nm,20.9s,baz=176,slow=38						
DZM	**Mont Dzumac**	**11.04**	**166**	Pn	**Pn**	**16 19 16.0**	**-0.2**
DZM				LR	LR	16 22 43.6	
DZM	**Mont Dzumac**	**11.04**	**166**	Pn	**Pn**	**16 19 16.0**	**-0.2**
	2.7nm,0.3s,baz=325,slow=12,SNR=19						
DZM				LR	LR	16 22 43.6	
	comp=Z,366nm,20.2s,baz=46,slow=33						
PMG	**Port Moresby**	**16.17**	**275**	*e*Pn	**Pn**	**16 20 24.1**	**-1.5**
	25nm,1.1s						
PMG	**Port Moresby**	**16.17**	**275**	Pn	**Pn**	**16 20 26.2**	**+0.6**
	0.2nm,0.3s,baz=94,slow=15,SNR=2.6						
CTA	**Charters Tower**	**18.71**	**240**	*e*P	**Pn**	**16 20 58.1**	**+0.8**
	14nm,0.8s						
CTA	**Charters Tower**	**18.71**	**240**	P	**Pn**	**16 20 57.7**	**+0.4**
	1.1nm,0.3s,baz=74,slow=13,SNR=13						
CTA				LR	LR	16 26 51.3	
	comp=Z,126nm,18.3s,baz=48,slow=33						
CTAO	**Charters Tower**	**18.71**	**240**	*e*P	**Pn**	**16 20 57.6**	**+0.3**
	21nm,0.8s						
ARMA	**Armidale**	**21.95**	**208**	*e*P	**P**	**16 21 35.0**	**+3.1**
STKA	**Stephens Creek**	**28.73**	**221**	*e*P	**P**	**16 22 35.1**	**-0.5**
	9.3nm,0.7s,mb4.6						
STKA	**Stephens Creek**	**28.73**	**221**	P	**P**	**16 22 36.1**	**+0.4**
	12nm,0.8s,mb4.7,baz=31,slow=9.8,SNR=22						
STKA				LR	LR	16 32 17.9	
	comp=Z,92nm,18.6s,MS3.4,baz=25,slow=33						
WB2	**Warramunga Arr**	**29.29**	**249**	*e*P	**P**	**16 22 39.1**	**-1.6**
WRA	**Warramunga Arr**	**29.30**	**249**	P	**P**	**16 22 39.5**	**-1.3**
	4.7nm,0.7s,mb4.4,baz=80,slow=9.1,SNR=17						
WRA				LR	LR	16 33 40.2	
	comp=Z,74nm,21.2s,MS3.3,baz=340,slow=35						
KSRS	**Korea Array**	**58.89**	**327**	LR	LR	16 47 05.3	
	comp=Z,57nm,20.1s,MS3.7,baz=132,slow=31						
SONM	**Songino Array**	**77.60**	**325**	P	**P**	**16 28 34.2**	**0.0**
	0.7nm,0.7s,mb3.7,baz=140,slow=5.6,SNR=4.6						
SONM				LR	LR	17 00 42.0	
	comp=Z,53nm,18.2s,MS3.9,baz=181,slow=34						
QSPA	**South Pole Qui**	**78.67**	**180**	*e*P	**P**	**16 28 41.0**	**+1.3**
	7.0nm,1.2s,mb4.5						
BILL	**Bilibino**	**79.19**	**1**	*e*P	**P**	**16 28 42.2**	**-0.4**
	3.1nm,0.9s,mb4.2						
MKAR	**Makanchi Array**	**92.22**	**317**	P	**P**	**16 29 47.2**	**-0.7**
MKAR	**Makanchi Array**	**92.22**	**317**	P	**P**	**16 29 47.2**	**-0.7**
	0.6nm,0.8s,mb4.0,baz=98,slow=6.0,SNR=5.8						
YKA	**Yellowknife Ar**	**96.25**	**28**	P	**P**	**16 30 06.6**	**+0.5**
	0.1nm,0.5s,mb3.5,baz=273,slow=4.1,SNR=3.4						

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*IDC **03** 16:47:36.7±0.9, 15.18S×174.82W, h0^{km}, mb4.0/8, mb1 4.3/8, mb1mx4.1/14, mbtmp4.0/8, MS4.0/15, Ms1 4.0/15, ms1mx3.8/25, Error ellipse: s-maj=41.8km s-min=22.2km az=138.0*

*GCMT **03** 16:47:37.2±0.4, 14.77S×174.31W, h27^{km}±1^{km}, MW5.0/64, Moment Tensor Solution. s17,c25; s64,c76; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.05±.19; M$_{\theta\theta}$2.22±.25; M$_{\phi\phi}$-1.18±.20; M$_{r\theta}$-1.46±.32; M$_{\theta\phi}$3.03±.12; M$_{\phi r}$0.10±.25; Best double couple: M$_0$3.78200×10^{16} NP1:ϕ_s195.00000°,δ65.00000°,λ-173.00000°. NP2: ϕ_s102.00000°,δ84.00000°,λ-25.00000°. Principal axes: T 4.2730, Plg13.0000°, Azm151.0000°; N -0.9920, Plg64.0000°, Azm269.0000°; P -3.2910, Plg22.0000°, Azm56.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **03** 16:47:37.2±0.6, 15.13S×174.36W, h10^{km}, mb4.6/7 Error ellipse: s-maj=27.0km s-min=14.0km az=138.0*

*ISCJB **03** 16:47:40.0±0.6, 15.0S±0.1×174.8W±0.1, h33^{km}, mb4.1/14, MS4.1/12, Error ellipse: s-maj=24.6km s-min=12.4km az=39.0*

ISC 03 16:47:41.9±0.6**, 15.0S**±0.1×**174.8W**±0.1**, h35**^{km}**, n62,** σ**1**^{s}**20**/23**, mb4.1**/14**, MS4.1**/12**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**3.13**	**69**	Pn	**Pn**	**16 48 19.2**	**-10**
AFI				Sn	**Sn**	**16 48 52.3**	**-13**
AFI				LR	LR	16 49 22.8	
AFI	**Afiamalu**	**3.13**	**69**	Pn	**Pn**	**16 48 19.2**	**-10**
	109nm,0.3s,baz=106,slow=1.0,SNR=99						
AFI				Sn	**Sn**	**16 48 52.3**	**-13**
	186nm,0.3s,baz=107,slow=22,SNR=9.3						
AFI				LR	LR	16 49 22.8	
	comp=Z,2μm,19.6s,baz=265,slow=33						
RAR	**Rarotonga**	**15.54**	**115**	LR	LR	16 55 54.2	
	comp=Z,473nm,19.6s,baz=43,slow=32						
DZM	**Mont Dzumac**	**19.11**	**246**	P	**Pn**	**16 52 05.7**	**+2.9**
	0.2nm,0.3s,baz=94,slow=15,SNR=2.4						
DZM				LR	LR	16 56 49.9	
	comp=Z,107nm,19.0s,baz=29,slow=29						
URZ	**Urewera**	**24.21**	**196**	P	**P**	**16 52 53.5**	**-1.8**
	11nm,0.9s,mb4.2,baz=6.2,slow=10,SNR=3.5						
URZ				LR	LR	17 01 12.8	
	comp=Z,227nm,20.6s,MS3.6,baz=217,slow=34						
PPT	**Papeete**	**24.33**	**99**	*e*LR	LR	16 59 01.9	
	101nm,22.8s						
PAE	**Paea**	**24.33**	**100**	*e*T		17 17 47.5	
	24nm,0.2s						
TVO	**Taravao**	**24.65**	**100**	*e*T		17 18 11.1	
	18nm,0.4s						
HNR	**Honiara**	**25.30**	**280**	LR	LR	17 01 25.0	
	comp=Z,377nm,21.7s,MS3.9,baz=177,slow=33						
RPZ	**Rata Peaks**	**31.04**	**200**	LR	LR	17 03 18.9	
	comp=Z,120nm,19.3s,MS3.6,baz=19,slow=30						
TAOE	**Nuku Hiva Isla**	**34.42**	**84**	*e*LR	LR	17 03 32.9	
	924nm,25.1s						
PMG	**Port Moresby**	**37.57**	**274**	LR	LR	17 08 07.9	
	comp=Z,245nm,18.9s,MS4.0,baz=51,slow=33						
RKT	**Rikitea**	**38.38**	**108**	*e*LR	LR	17 05 33.0	
	129nm,25.8s						
RKT	**Rikitea**	**38.38**	**108**	*e*T		17 35 13.6	
	10nm,0.4s						
STKA	**Stephens Creek**	**43.06**	**239**	P	**P**	**16 55 37.3**	**-1.3**
	2.6nm,0.9s,mb4.0,baz=63,slow=14,SNR=4.1						
STKA				LR	LR	17 11 49.4	
	comp=Z,214nm,18.3s,MS4.1,baz=27,slow=34						
WRA	**Warramunga Arr**	**48.62**	**257**	P	**P**	**16 56 22.4**	**-0.2**
	1.0nm,0.9s,mb3.8,baz=94,slow=6.7,SNR=2.8						
CBIJ	**Chichi jima**	**59.14**	**315**	LR	LR	17 19 24.4	
	comp=Z,225nm,18.1s,MS4.3,baz=183,slow=32						
VNDA	**Vanda**	**63.60**	**186**	LR	LR	17 23 45.5	
	comp=Z,93nm,18.2s,MS4.0,baz=120,slow=34						
MJAR	**Matsushiro Arr**	**67.80**	**320**	P	**P**	**16 58 36.7**	**+0.3**
	2.3nm,0.9s,mb4.2,baz=149,slow=7.9,SNR=3.9						
CMB	**Columbia Colle**	**73.39**	**42**	P	**P**	**16 59 11.0**	**+0.6**
	7.3nm,1.3s,mb4.5						
NVAR	**Mina Array Bea**	**74.97**	**43**	P	**P**	**16 59 21.0**	**+1.4**
	1.6nm,0.8s,mb4.0,baz=228,slow=9.5,SNR=11						
QSPA	**South Pole Qui**	**75.00**	**180**	*e*P	**P**	**16 59 20.0**	**+0.7**
	7.8nm,1.2s,mb4.5						
SLKM	**Skilak Lake**	**77.83**	**12**	*e*P	**P**	**16 59 33.2**	**-2.1**
MCK	**McKinley**	**81.02**	**11**	*e*P	**P**	**16 59 52.4**	**-0.2**
	3.8nm,1.0s,mb4.3						
TXAR	**Lajitas Array**	**81.53**	**57**	P	**P**	**16 59 58.4**	**+2.2**
	0.8nm,0.9s,mb3.6,baz=233,slow=4.5,SNR=5.7						
TXAR				LR	LR	17 29 02.5	
	comp=Z,134nm,18.7s,MS4.3,baz=245,slow=30						
ANMO	**Albuquerque**	**81.60**	**51**	P	**P**	**17 00 00.3**	**+3.9**
	5.7nm,1.4s,mb4.3						
COLA	**College**	**82.26**	**11**	*e*P	**P**	**16 59 58.4**	**-0.8**
	3.5nm,0.7s,mb4.4						
PDAR	**Pinedale Array**	**82.90**	**42**	P	**P**	**17 00 02.9**	**-0.1**
	0.4nm,0.8s,mb3.5,baz=217,slow=5.7,SNR=2.7						
PDAR				LR	LR	17 29 58.8	
	comp=Z,102nm,19.1s,MS4.2,baz=241,slow=31						
BILL	**Bilibino**	**83.98**	**353**	*e*P	**P**	**17 00 07.2**	**-0.8**
	4.2nm,0.9s,mb4.6						
PMSA	**Palmer Station**	**85.05**	**156**	*e*P	**P**	**17 00 19.3**	**+5.6**
	34nm,0.9s						
MAW	**Mawson**	**87.70**	**199**	LR	LR	17 36 23.8	
	comp=Z,187nm,18.5s,MS4.5,baz=253,slow=33						
INK	**Inuvik**	**88.24**	**14**	P	**P**	**17 00 29.6**	**+0.6**
	81nm,1.2s						
YKA	**Yellowknife Ar**	**90.30**	**24**	P	**P**	**17 00 38.3**	**-0.5**
YKA				LR	LR	17 31 35.2	
YKA	**Yellowknife Ar**	**90.30**	**24**	P	**P**	**17 00 38.3**	**-0.5**
	0.5nm,0.9s,mb3.9,baz=242,slow=4.8,SNR=3.7						
YKA				LR	LR	17 31 35.2	
	comp=Z,75nm,21.0s,MS4.1,baz=170,slow=29						
ULM	**Lac du Bonnet**	**94.50**	**39**	LR	LR	17 35 04.5	
	comp=Z,116nm,19.6s,MS4.3,baz=313,slow=30						
VYHS	**Vyhne**	**144.80**	**344**	*e*P	PKPdf	17 07 12.4	-2.7
VYHS	**Vyhne**	**144.80**	**344**	*e*PKP	PKPdf	17 07 12.4	-2.7
MLR	**Muntele Rosu**	**144.97**	**334**	PKPbc	PKPdf	17 07 15.4	-0.1
MLR	**Muntele Rosu**	**144.97**	**334**	PKPbc	PKPdf	17 07 15.4	-0.1
	1.9nm,0.6s,baz=33,slow=9.4,SNR=3.3						
BR131	**Keskin Array S**	**145.02**	**320**	*e*PKPdf	PKPdf	17 07 16.3	+0.5
BRTR	**Keskin Array B**	**145.02**	**320**	PKPbc	PKPbc	17 07 16.2	+1.1
BRTR	**Keskin Array B**	**145.02**	**320**	PKPbc	PKPbc	17 07 16.2	+1.1
	3.6nm,1.0s,baz=68,slow=3.1,SNR=11						
GIVF	**Givet**	**145.03**	**0**	*e*PKP1	PKPbc	17 07 13.0	-1.8
BAIF	**Baives**	**145.06**	**1**	*e*PKP1	PKPbc	17 07 13.1	-1.8
	41nm,1.5s						
GRA1	**Grafenberg Arr**	**145.09**	**353**	*e*PKPbc	PKPbc	17 07 15.5	+0.5
MODS	**Modra-Piesok**	**145.30**	**346**	*e*P	PKPbc	17 07 17.6	+1.9
MODS	**Modra-Piesok**	**145.30**	**346**	*e*PKP	PKPdf	17 07 17.6	+1.6
KHC	**Kasperske Hory**	**145.31**	**350**	*e*PKP	PKPdf	17 07 16.7	+0.7
KHC				*e*x	x	17 07 24.0	
GERES	**GERESS Array B**	**145.57**	**350**	PKPbc	PKPbc	17 07 17.2	+0.6
GERES	**GERESS Array B**	**145.57**	**350**	PKPbc	PKPbc	17 07 17.2	+0.6
	2.3nm,0.9s,baz=2.9,slow=2.0,SNR=10						
MEZF	**Maizieres J'vi**	**146.63**	**0**	*e*PKP1	PKPbc	17 07 21.7	+1.9
	66nm,1.5s						
CDF	**Champ du Feu**	**146.68**	**357**	*e*PKP1	PKPbc	17 07 20.3	+0.4
	12nm,1.0s						
HAU	**Haudompre**	**147.11**	**359**	*e*PKP1	PKPbc	17 07 21.4	+0.2
	15nm,1.0s						
SSF	**Saint Saulge**	**148.04**	**2**	*e*PKP1	PKPbc	17 07 23.3	-0.5
	53nm,1.6s						
DAVOX	**Davos/Dischmat**	**148.11**	**354**	PKPbc	PKPbc	17 07 24.9	+0.9
DAVOX	**Davos/Dischmat**	**148.11**	**354**	PKPbc	PKPbc	17 07 24.9	+0.9
	2.8nm,0.8s,baz=303,slow=4.6,SNR=4.2						
AVF	**Avril sur Loir**	**148.30**	**2**	*e*PKP1	PKPbc	17 07 24.2	-0.3
	15nm,1.3s						
SMF	**Signal de Mont**	**148.47**	**2**	*e*PKP1	PKPbc	17 07 24.7	-0.2
CABF	**La Chapelle**	**148.51**	**359**	*e*PKP1	PKPbc	17 07 25.0	0.0
	29nm,1.2s						
TCF	**Toulx Ste Croi**	**148.74**	**4**	*e*PKP1	PKPbc	17 07 24.2	-1.4
	45nm,1.4s						
LPG	**La Plagne**	**149.61**	**358**	*e*PKP1	PKPbc	17 07 27.8	0.0
	12nm,1.0s						
LFF	**La Frestale**	**149.95**	**6**	*e*PKP1	PKPbc	17 07 26.4	-2.3

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*NIED **03** 17:35:00, 22.00N×122.00E, h35^{km}, Mw4.8 Best double couple: M$_0$1.91000×10^{16} NP1:ϕ_s91.00000°,δ16.00000°, λ-117.00000°. NP2:ϕ_s299.00000°,δ76.00000°, λ-83.00000°.*

*IDC **03** 17:35:16.6±0.6, 21.95N×121.77E, h0^{km}, mb4.3/16, mb1 4.4/18, mb1mx4.4/22, mbtmp4.3/18, ML4.1/2, MS4.2/21, Ms1 4.2/21, ms1mx4.0/35, Error ellipse: s-maj=22.5km s-min=14.0km az=78.0*

*NEIC **03** 17:35:18.3±0.4, 21.90N×121.76E, h10^{km}, mb4.7/27, Error ellipse: s-maj=9.3km s-min=7.1km az=100.0*

*BJI **03** 17:35:18.4, 22.08N×121.75E, h5^{km}, mB4.7, mb4.3, ML4.0, Ms4.5, Msz4.3*

*JMA **03** 17:35:18.9±0.2, 22.02N×122.00E, h0^{km}, M4.7*

*GCMT **03** 17:35:18.3±0.4, 21.93N×121.69E, h12^{km}±1^{km}, MW4.8/69, Moment Tensor Solution. s14,c15; s69,c98; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.82±.14; M$_{\theta\theta}$1.24±.08; M$_{\phi\phi}$0.58±.08; M$_{r\theta}$0.40±.20; M$_{\theta\phi}$-0.67±.04; M$_{\phi r}$-0.86±.24; Best double couple: M$_0$1.97100×10^{16} NP1:ϕ_s111.00000°,δ34.00000°,λ-111.00000°. NP2: ϕ_s316.00000°,δ59.00000°,λ-77.00000°. Principal axes: T 1.8370, Plg13.0000°, Azm36.0000°; N 0.2690, Plg11.0000°, Azm129.0000°; P -2.1040, Plg73.0000°, Azm259.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*ISCJB **03** 17:35:19.7±1.0, 21.92N±0.02×121.88E±0.03, h31^{km}±8^{km}, mb4.5/53, MS4.2/22 Error ellipse: s-maj=5.4km s-min=3.1km az=37.6*

*MOS **03** 17:35:20.6±1.5, 21.90N×121.62E, h33^{km}, mb4.9/17, Error ellipse: s-maj=11.3km s-min=7.2km az=94.6*

*MAN **03** 17:35:22, 21.65N×122.45E, h95^{km}, mb5.3, ML4.3, MS4.6*

ISC 03 17:35:22.0±1.1**, 21.92N**±0.03×**121.90E**±0.03**, h33**^{km}±8^{km}**, n146,** σ**1**^{s}**15**/165**, mb4.5**/53**, MS4.2**/22**, 7C-2D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NACB	**Ninganchiao**	**2.26**	**353**	*e*Pn	**Pn**	**17 35 53.2**	**-3.9**
YOJ	**Yonaguni jima**	**2.73**	**22**	P	**Pn**	**17 36 03.4**	**-0.1**
YOJ				S	**Sn**	**17 36 35.8**	**+0.5**
HATJ	**Hateruma jima**	**2.76**	**39**	P	**Pn**	**17 36 03.7**	**-0.2**
HATJ				S	**Sn**	**17 36 36.5**	**+0.4**
YHNB	**Yeheng**	**2.78**	**350**	*e*Pn	**Pn**	**17 36 01.8**	**-2.3**
IRIF	**Iriomote-Funau**	**2.94**	**35**	P	**Pn**	**17 36 06.1**	**-0.2**
IRIF				S	**Sn**	**17 36 41.0**	**+0.6**
JKRS	**Kuro-shima**	**3.02**	**40**	P	**Pn**	**17 36 07.5**	**0.0**
JKRS				S	**Sn**	**17 36 43.1**	**+0.7**
TATO	**Taipei**	**3.06**	**353**	*e*Pn	**Pn**	**17 36 06.5**	**-1.6**
JIJ	**Ishigaki jima**	**3.19**	**40**	P	**Pn**	**17 36 09.5**	**-0.4**
JIJ				S	**Sn**	**17 36 46.4**	**-0.4**
SGCP	**Mt. Cagua**	**3.66**	**178**	*e*P	**Pn**	**17 36 16.1**	**-0.3**
JTJ	**Tarama**	**3.74**	**43**	P	**Pn**	**17 36 17.6**	**+0.2**
JTJ				S	**Sn**	**17 37 01.1**	**+0.8**
APYP	**Conner**	**4.09**	**189**	*e*P	**Pn**	**17 36 22.7**	**+0.5**
CVP	**Callao Caves**	**4.20**	**181**⇓	*e*P	**Pn**	**17 36 23.4**	**-0.3**
CVP				*i* S	**Sn**	**17 37 13.0**	**+1.4**
JMJ	**Miyako jima 2**	**4.25**	**47**	P	**Pn**	**17 36 24.9**	**+0.5**
JMJ				S	**Sn**	**17 37 14.2**	**+1.4**
QZH	**Quanzhou**	**4.27**	**315**	P	**Pn**	**17 36 23.7**	**-1.0**
QZH				S	**Sn**	**17 37 08.1**	**-5.3**
QZH				Smax			
	comp=N,290nm,0.6s						
QZH				Smax			
	comp=E,250nm,0.6s						
QZH				LR	LR		
	comp=N,3μm,16.4s						
QZH				LR	LR		
	comp=E,2μm,6.8s						
QZH				LR	LR		
	comp=Z,3μm,13.6s						
JOGS	**Gusukube**	**4.29**	**48**	P	**Pn**	**17 36 25.3**	**+0.4**
JOGS				S	**Sn**	**17 37 15.6**	**+1.8**
ABRA	**Dolores**	**4.39**	**195**	*e*P	**Pn**	**17 36 26.0**	**-0.4**
ABRA				*e*S	**Sn**	**17 37 07.8**	**-8.7**
CAUP	**Cauayan**	**4.95**	**181**	*e*P	**Pn**	**17 36 32.7**	**-1.4**
BOLP	**Bolinao**	**5.82**	**199**	*e*P	**Pn**	**17 36 47.0**	**+1.0**
BALP	**Baler**	**6.16**	**183**	*e*P	**Pn**	**17 36 52.7**	**+2.0**
JKE	**Kume jima 2**	**6.26**	**45**	P	**Pn**	**17 36 51.4**	**-0.6**
JKE				*e*S	**Sn**	**17 38 01.1**	**-1.3**
JAGN	**Aguni-jima**	**6.74**	**45**	P	**Pn**	**17 36 58.0**	**-0.6**
JAGN				*e*S	**Sn**	**17 38 13.7**	**-0.5**
JIH	**Iheya**	**7.51**	**46**	P	**Pn**	**17 37 09.2**	**-0.1**
JIH				*e*S	**Sn**	**17 38 32.9**	**-0.4**
JOW	**Kunigami**	**7.60**	**49**	Pn	**Pn**	**17 37 09.6**	**-0.8**
JOW				Sn	**Sn**	**17 38 33.9**	**-1.4**

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JOW   Kunigami          7.60  49  P      Pn      17 37 11.7 +1.3
JOW                               S      Sn      17 38 33.4 -1.9
JOW   Kunigami          7.60  49  Pn     Pn      17 37 09.6 -0.8
      comp=Z,6.3nm,0.3s,baz=241,slow=9.0,SNR=24
JOW                               Sn     Sn      17 38 33.9 -1.4
      comp=Z,1.4nm,0.3s,baz=108,slow=26,SNR=2.8
JTK   Tokunoshima       8.67  46  P      Pn      17 37 23.4 -1.7
JTK                               S      Sn      17 38 57.6 -4.0
JMZ   Minamidaito 2     9.37  64  P      Pn      17 37 33.9 -0.9
JMZ                              eS      Sn      17 39 13.0 -6.1
JAM   Amami Oshima      9.51  46  P      Pn      17 37 33.5 -3.2
JAM                              eS      Sn      17 39 18.5 -3.9
NJ2   Nanjing          10.45 346 eP      Pn      17 37 49.6 +0.2
NJ2                               AMB    AMB
      comp=Z,30nm,1.1s
NJ2                               AMB    AMB
      comp=Z,140nm,5.7s
NJ2                               LR     LR
      comp=N,3µm,10.3s
NJ2                               LR     LR
      comp=E,2µm,11.0s
NJ2                               LR     LR
      comp=Z,2µm,11.0s
QIZ   Qiongzhong       11.66 258  P      Pn      17 38 07.0 +0.9
QIZ                               S      Sn      17 40 08.4 -6.7
QIZ                               LR     LR
      comp=N,844nm,13.0s
QIZ                               LR     LR
      comp=E,2µm,16.0s
QIZ                               LR     LR
      comp=Z,2µm,17.0s
JNU   Nakatsue         13.70  34  LR     LR      17 43 58.3
      comp=Z,677nm,20.5s,baz=184,slow=38
GYA   Guiyang          14.61 291  P      Pn      17 38 48.3 +1.9
GYA                               AMB    AMB
      comp=Z,10.0nm,0.8s
KSRS  Korea Array      16.33  17  P      Pn      17 39 08.3 -0.5
KSRS                              MLR    MLR
      comp=Z,848nm,18.9s
KSRS  Korea Array      16.33  17  Pn     Pn      17 39 08.3 -0.5
      comp=Z,0.9nm,0.3s,baz=198,slow=11,SNR=32
KSRS                              LR     LR      17 46 14.2
      comp=Z,848nm,18.9s,baz=178,slow=40
XAN   Xi'an            16.62 319  P      Pn      17 39 14.7 +2.2
XAN                               AMB    AMB
      comp=Z,8.0nm,1.2s
TIY   Taiyuan          17.73 335 eP      Pn      17 39 26.6 +0.3
TIY                               PP             17 39 43.1
TIY                               LR     LR
      comp=N,2µm,12.8s
TIY                               LR     LR
      comp=E,617nm,9.4s
KMI   Kunming          17.85 284  P      Pn      17 39 31.0 +3.1
KMI                               AMB    AMB
      comp=Z,7.0nm,0.9s
CBIJ  Chichi jima      19.16  70  LR     LR      17 45 39.0
      comp=Z,487nm,18.6s,baz=298,slow=32
MAJO  Matsushiro       20.32  41  P      P       17 39 57.8 +2.5
      comp=Z,90nm,1.5s
MAJO  Matsushiro       20.32  41  P      P       17 39 57.8 +2.5
MAJO                              pmax   pmax
      comp=Z,89nm,1.5s
MAT   Matsushiro       20.32  41  P      P       17 40 01.0 +5.7
MJAR  Matsushiro Arr   20.32  41  P      P       17 39 55.8 +0.5
      comp=Z,6.7nm,0.9s,baz=225,slow=9.1,SNR=14
MJAR                              LR     LR      17 48 10.9
      comp=Z,403nm,20.1s,MS3.8,baz=220,slow=38
HHC   Hu-ho-hao-te     20.80 337 eP      P       17 40 02.3 +1.9
HHC                               AP             17 40 06.3
HHC                               XP     sP      17 40 09.3 -4.2
HHC                               PP             17 40 24.4
HHC                               S      S       17 43 54.6 +3.9
HHC                               PCP    PcP     17 44 11.3 +2.8
HHC                               SS             17 44 21.1
HHC                               SCS    ScS     17 51 28.3 +2.2
HHC                               AMB    AMB
      comp=Z,9.0nm,0.7s
HHC                               AMB    AMB
      comp=Z,157nm,5.0s
HHC                               LR     LR
      comp=N,969nm,17.2s,MS4.4
HHC                               LR     LR
      comp=E,805nm,13.3s,MS4.4
HHC                               LR     LR
      comp=Z,1µm,17.3s,MS4.3
LZH   Lanzhou          21.12 316 eP      P       17 40 05.5 +1.5
LZH                               AP             17 40 13.9
LZH                               XP     sP      17 40 18.0 +0.9
LZH                               PP             17 40 24.5
LZH                              eS      S       17 43 52.2 -5.0
LZH                               XS     sS      17 44 05.2 -6.2
LZH                               SS             17 44 24.0
LZH                               AMB    AMB
      comp=Z,63nm,1.6s,mb4.7
LZH                               AMB    AMB
      comp=Z,200nm,4.5s
LZH                               LR     LR
      comp=N,552nm,13.4s
LZH                               LR     LR
      comp=Z,799nm,15.5s,MS4.2
BTO   Baotou           21.17 334 eP      P       17 40 05.0 +0.6
CHTO  Chiang Mai       21.73 266 eP      P       17 40 09.8 -0.9
      comp=Z,49nm,1.5s,mb4.7
CHTO  Chiang Mai       21.73 266 eP      P       17 40 09.8 -0.9
CHTO                              pmax   pmax
      comp=Z,49nm,1.5s,mb4.7
CM31  Chiang Mai Arr   21.81 265 eP      P       17 40 10.9 -0.6
      comp=Z,6.0nm,0.8s,mb4.1
CN2   Changchun        22.02   7 eP      P       17 40 14.6 +1.2
CN2                               AMB    AMB
      comp=Z,10.0nm,0.7s,mb4.3
KSM   Kuching          23.25 211 eP      P       17 40 20.7 -6.0
GUMO  Guam             23.37 107  LR     LR      17 49 13.4
      comp=Z,230nm,19.4s,MS3.6,baz=43,slow=36
MDJ   Mudanjiang       23.51  14  P      P       17 40 30.5 +1.4
MDJ                               S      S       17 44 47.4 +7.1
MDJ                               AMB    AMB
      comp=Z,17nm,2.3s,mb4.1
MDJ                               AMB    AMB
      comp=Z,243nm,4.3s
MDJ                               LR     LR
      comp=N,705nm,16.6s
MDJ                               LR     LR
      comp=Z,860nm,16.6s,MS4.3
GTA   Gaotai           25.67 318 eP      P       17 40 50.4 +1.6
GTA                               AP     pP      17 40 55.0 -3.4
GTA                               XP     sP      17 40 58.2 -4.2
GTA                               AMB    AMB
      comp=Z,4.0nm,2.0s,mb3.6
KULM  Kulim            26.39 234  P      P       17 40 52.0 -3.6
ASAJ  Asahikawa        27.98  33  P      P       17 41 13.7 +4.2
ASAJ                              pmax   pmax
      comp=Z,19nm,0.6s
ASAJ                              MLR    MLR
      comp=Z,468nm,20.0s
ASAJ  Asahikawa        27.98  33  P      P       17 41 13.7 +4.2
      comp=Z,19nm,0.6s,mb4.9,baz=214,slow=13,SNR=17
ASAJ                              LR     LR      17 52 14.4
      comp=Z,468nm,20.0s,MS4.1,baz=283,slow=36
ULN   Ulaanbaatar      28.50 339 eP      P       17 41 12.5 -1.6
      comp=Z,3.0nm,0.7s,mb4.0
ULN   Ulaanbaatar      28.50 339 eP      P       17 41 12.5 -1.6
ULN                               pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.0
HABR  Khabarovsk       28.50  19 eP      P       17 41 17.4 +3.2
HABR                             eS      S       17 45 57.9 -1.7
LSA   Lhasa            28.68 292  P      P       17 41 17.2 +1.2
SONM  Songino Array    28.70 338  P      P       17 41 14.6 -1.3
SONM                                             17 44 27.8
SONM  Songino Array    28.70 338  P      P       17 41 14.6 -1.3
      comp=Z,2.0nm,0.7s,mb3.9,baz=155,slow=9.5,SNR=23
SONM                              PcP    PcP     17 44 27.8 +2.0
      comp=Z,0.3nm,0.4s,baz=125,slow=1.9,SNR=6.6
SONM                              LR     LR      17 53 49.3
      comp=Z,1µm,18.1s,MS4.6,baz=161,slow=39
PSI   Prapat           29.32 233  P      P       17 41 22.2 +0.5
      comp=Z,7.4nm,0.8s,mb4.5,baz=72,slow=6.4,SNR=7.7
PSI                               LR     LR      17 52 58.5
      comp=Z,253nm,18.3s,MS3.9,baz=224,slow=36
YSS   Yuzh-Sakhalins   30.14  29 eP      P       17 41 30.3 +1.6
      comp=Z,28nm,0.9s,mb5.0
YSS   Yuzh-Sakhalins   30.14  29⇑eP      P       17 41 33.4 +4.7
YSS                               pmax   pmax
      comp=Z,23nm,1.0s,mb4.9
TAPN  Taplejung        31.48 287 eP      P       17 41 41.1 +0.4
      comp=Z,12nm,0.8s,mb4.8
ODAN  Odare            31.75 286 eP      P       17 41 42.3 -0.8
ZAK   Zakamensk        31.95 337 eP      P       17 41 39.7 -4.9
ZAK                              e               17 48 47.0
ZAK                               pmax   pmax
      comp=Z,2.0nm,1.5s,mb3.7
GUN   Gumba            33.12 288 eP      P       17 41 55.5 +0.3
      comp=Z,14nm,0.5s,mb5.2
PKI   Pulchoki         33.53 287 eP      P       17 41 58.7  0.0
KKN   Kakani           33.65 288 eP      P       17 41 59.5 -0.3
      comp=Z,8.0nm,0.7s,mb4.8
DMN   Daman            33.80 287 eP      P       17 42 01.0 -0.1
      comp=Z,24nm,0.9s,mb5.2
GKN   Gorkha           34.22 288 eP      P       17 42 04.4 -0.4
      comp=Z,10nm,0.5s,mb5.0
KOLN  Koldanda         35.13 287 eP      P       17 42 12.5 -0.1
      comp=Z,18nm,0.8s,mb5.0
FITZ  Fitzroy Crossi   39.95 174 eP      P       17 42 51.9 -1.4
      comp=Z,12nm,1.5s,mb4.4
FITZ  Fitzroy Crossi   39.95 174  P      P       17 42 54.0 +0.7
      comp=Z,2.8nm,0.6s,mb4.2,baz=6.6,slow=13,SNR=7.8
MK31  Makanchi Array   40.42 318 eP      P       17 42 56.4 -0.7
MK31                             ePcP    PcP     17 45 02.1 +2.5
MKAR  Makanchi Array   40.42 318  P      P       17 42 56.5 -0.5
MKAR                              PcP    PcP     17 44 58.9 -0.7
MKAR                              ScP    ScP     17 48 47.7 +1.2
MKAR                              LR     LR      18 02 52.1
MKAR  Makanchi Array   40.42 318  P      P       17 42 56.5 -0.6
MKAR                                             17 44 58.9
MKAR  Makanchi Array   40.42 318  P      P       17 42 56.5 -0.5
      comp=Z,4.1nm,0.5s,mb4.4,baz=106,slow=9.1,SNR=37
MKAR                              PcP    PcP     17 44 58.9 -0.7
      comp=Z,1.1nm,0.8s,baz=98,slow=6.3,SNR=3.9
MKAR                              ScP    ScP     17 48 47.7 +1.2
      comp=Z,0.4nm,0.8s,baz=106,slow=5.1,SNR=3.2
MKAR                              LR     LR      18 02 52.1
      comp=Z,104nm,18.2s,MS3.7,baz=197,slow=41
PET   Petropavlovsk    41.82  33  P      P       17 43 12.3 +3.8
      comp=Z,62nm,1.4s,mb5.0
PET   Petropavlovsk    41.82  33  P      P       17 43 12.3 +3.8
PET                               pmax   pmax
      comp=Z,62nm,1.4s,mb5.0
ZALV  Zalesovo Beam    42.50 328  P      P       17 43 12.1 -1.8
      comp=Z,5.2nm,0.5s,mb4.5,baz=107,slow=8.0,SNR=18
ZALV                              LR     LR      18 02 09.2
      comp=Z,233nm,19.2s,MS4.1,baz=113,slow=38
ZAL   Zalesovo         42.50 328  P      P       17 43 12.1 -1.9
MA2   Magadan          42.83  21 eP      P       17 43 17.5 +1.0
      comp=Z,3.4nm,0.8s,mb4.1
MA2   Magadan          42.83  21⇑eP      P       17 43 17.1 +0.5
MA2                               pmax   pmax
      comp=Z,3.0nm,1.1s,mb3.9
WRA   Warramunga Arr   43.35 163  P      P       17 43 19.7 -1.5
      comp=Z,3.3nm,0.6s,mb4.2,baz=344,slow=8.8,SNR=12
WB2   Warramunga Arr   43.35 163 eP      P       17 43 19.5 -1.7
TKM2  Tokmak 2         43.69 310 eP      P       17 43 24.0 +0.3
      comp=Z,5.1nm,0.6s,mb4.4
TKM2  Tokmak 2         43.69 310 eP      P       17 43 24.0 +0.3
TKM2                              pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.4
KURK  Kurchatov        44.25 321 eP      P       17 43 26.9 -1.3
      comp=Z,6.2nm,0.6s,mb4.5
KURK  Kurchatov        44.25 321 eP      P       17 43 26.9 -1.2
KURK                              pmax   pmax
      comp=Z,6.0nm,0.6s,mb4.5
UCH   Uchtor           44.31 309 eP      P       17 43 29.6 +0.8
AAK   Ala-Archa        44.41 309 eP      P       17 43 28.4 -1.2
      comp=Z,2.5nm,0.9s,mb3.9
AAK   Ala-Archa        44.41 309⇑eP      P       17 43 29.0 -0.6
AAK                               pmax   pmax
      comp=Z,2.0nm,1.2s,mb3.7
AML   Almayashu        44.89 308 eP      P       17 43 32.8 -0.6
      comp=Z,5.1nm,0.8s,mb4.4
EKS2  Erkin-Say        44.94 309 eP      P       17 43 33.6 -0.1
      comp=Z,1.8nm,0.6s,mb4.1
SEY   Seymchan         45.88  19⇑eP      P       17 43 42.7 +1.8
KBL   Kabul            47.75 297 eP      P       17 43 55.8 -0.1
CTAO  Charters Tower   48.06 149  P      P       17 44 01.8 +3.3
      comp=Z,35nm,1.3s,mb5.2
CTAO  Charters Tower   48.06 149  P      P       17 44 01.8 +3.4
CTAO                              pmax   pmax
      comp=Z,35nm,1.3s,mb5.2
TIXI  Tiksi            49.91   3 eP      P       17 44 13.3 +1.4
      comp=Z,2.7nm,0.6s,mb4.5
TIXI  Tiksi            49.91   3⇑eP      P       17 44 13.7 +1.7
TIXI                              pmax   pmax
      comp=Z,11nm,0.9s,mb4.9
BRVK  Borovoye         49.91 322 eP      P       17 44 11.4 -0.8
      comp=Z,5.2nm,0.6s,mb4.7
BRVK  Borovoye         49.91 322 eP      P       17 44 11.5 -0.8
BRVK                              pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.7
FORT  Forrest          52.73 173 eP      P       17 44 35.1 +1.5
      comp=Z,8.2nm,0.6s,mb4.8
KLBR  Kellerberrin     53.36 184 eP      P       17 44 36.7 -1.5
      comp=Z,60nm,1.9s,mb5.2
BILL  Bilibino         53.59  19 eP      P       17 44 39.6 +0.2
      comp=Z,2.9nm,0.8s,mb4.3
BILL  Bilibino         53.59  19 eP      P       17 44 43.0 +3.5
BILL                              pmax   pmax
      comp=Z,2.0nm,1.0s,mb4.0
NWAO  Narrogin (SRO)   54.72 185  P      P       17 44 46.8 -1.3
STKA  Stephens Creek   56.72 160 eP      P       17 45 03.2 +0.7
      comp=Z,3.6nm,0.6s,mb4.6
STKA  Stephens Creek   56.72 160  P      P       17 45 02.8 +0.3
      comp=Z,4.7nm,0.6s,mb4.7,baz=334,slow=5.6,SNR=14
STKA                              LR     LR      18 08 43.7
      comp=Z,100nm,19.1s,MS3.9,baz=25,slow=35
ARU   Arti             57.30 324 eP      P       17 45 04.3 -2.1
      comp=Z,6.5nm,0.4s,mb5.0
ARU   Arti             57.30 324⇑iP      P       17 45 05.4 -1.0
ARU                              e               17 45 59.2
ARU                              eS      S       17 52 51.5 -8.7
ARU                               pmax   pmax
      comp=Z,5.0nm,0.7s,mb4.7
KIV   Kislovodsk       67.52 310 eP      P       17 46 14.6 -0.4
      comp=Z,15nm,0.8s,mb5.1
KIV   Kislovodsk       67.52 310⇓eP      P       17 46 15.1 +0.1
KIV                               pmax   pmax
      comp=Z,7.0nm,0.9s,mb4.7
OBN   Obninsk          69.68 322⇑eP      P       17 46 29.1 +0.9
OBN                               pmax   pmax
      comp=Z,6.0nm,1.2s,mb4.4
OBN                               MLR    MLR
      comp=Z,100nm,17.0s,MS4.1
MCK   McKinley         70.22  28  P      P       17 46 32.4 +1.1
      comp=Z,5.4nm,1.3s,mb4.3
MCK   McKinley         70.22  28  P      P       17 46 32.4 +1.1
MCK                               pmax   pmax
      comp=Z,5.0nm,1.3s,mb4.3
SML   Sawmill          70.83  30  P      P       17 46 38.1 +3.0
JOF   Joensuu          70.99 331 ep      P       17 46 33.2 -2.9
      comp=Z,3.4nm,0.5s,mb4.5
KEV   Kevo             71.31 339 ep      P       17 46 38.3 +0.4
      comp=Z,5.1nm,0.6s,mb4.6
KEV   Kevo             71.31 339 eP      P       17 46 38.3 +0.4
KEV                               pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.6
MALT  Malatya          71.80 305 eP      P       17 46 42.0 +0.5
      comp=Z,9.8nm,1.1s,mb4.7
MALT  Malatya          71.80 305 eP      P       17 46 42.0 +0.5
MALT                              pmax   pmax
      comp=Z,10.0nm,1.1s,mb4.7
ARCES ARCESS Array B   71.87 338  P      P       17 46 42.4 +1.1
      comp=Z,1.7nm,0.7s,mb4.1,baz=65,slow=6.8,SNR=8.0
ARCES                             LR     LR      18 22 38.2
      comp=Z,140nm,20.4s,MS4.2,baz=32,slow=40
FINES FINESS Array B   73.72 330  P      P       17 46 51.3 -1.0
      comp=Z,2.5nm,0.5s,mb4.4,baz=68,slow=6.2,SNR=22
FINES                             LR     LR      18 20 45.4
      comp=Z,154nm,20.3s,MS4.3,slow=37
AKASG Malin Array Be   74.99 319  P      P       17 46 58.6 -1.3
      comp=Z,1.8nm,0.5s,mb4.2,baz=58,slow=5.7,SNR=10
BRTR  Keskin Array B   75.04 307  P      P       17 46 59.8 -0.8
      comp=Z,1.3nm,0.7s,mb4.0,baz=105,slow=6.8,SNR=7.6
INK   Inuvik           75.07  22  P      P       17 47 00.4 +0.3
      comp=Z,82nm,0.6s
KWP   Kalwaria         79.30 319 eP      P       17 47 24.5 +0.3
      comp=Z,13nm,0.8s,mb4.9
KWP   Kalwaria         79.30 319 eP      P       17 47 24.5 +0.3
KWP                               pmax   pmax
      comp=Z,13nm,0.8s,mb4.9
HFS   Hagfors          79.85 331  LR     LR      18 26 16.4
      comp=Z,481nm,19.5s,MS4.8,baz=69,slow=38
NB2   NORSAR Subarra   80.52 333  P      P       17 47 31.8 +1.2
      comp=Z,2.4nm,0.8s,mb4.2,baz=62,slow=5.6
NOA   NORSAR Array B   80.52 333  P      P       17 47 29.1 -1.5
      comp=Z,1.7nm,0.5s,mb4.2,baz=62,slow=5.4,SNR=7.4
NOA                               LR     LR      18 27 02.9
      comp=Z,436nm,19.1s,MS4.8,baz=50,slow=39
RES   Resolute Bay     80.78   9 eP      P       17 47 31.3 -0.4
      comp=Z,56nm,0.7s,mb5.6
OJC   Ojcow            80.82 320 eP      P       17 47 34.2 +1.8
VRAC  Vranov           83.09 321  LR     LR      18 30 52.3
      comp=Z,164nm,18.1s,MS4.4,baz=83,slow=40
YKA   Yellowknife Ar   84.79  23  P      P       17 47 52.4 -0.3
YKA                               LR     LR      18 31 13.7
YKA   Yellowknife Ar   84.79  23  P      P       17 47 52.4 -0.3
      comp=Z,1.5nm,0.8s,mb4.2,baz=314,slow=4.7,SNR=24
YKA                               LR     LR      18 31 13.7
      comp=Z,66nm,18.2s,MS4.1,baz=185,slow=40
GERES GERESS Array B   85.00 321  P      P       17 47 53.7 -0.4
GERES                             LR     LR      18 30 43.4
GERES GERESS Array B   85.00 321  P      P       17 47 53.7 -0.4
      comp=Z,1.4nm,0.7s,mb4.2,baz=66,slow=4.5,SNR=12
GERES                             LR     LR      18 30 43.4
      comp=Z,172nm,20.4s,MS4.4,baz=274,slow=39
KMBO  Kilima Mbogo     85.44 267  P      P       17 47 55.9 -1.0
KMBO                              LR     LR      18 24 22.8
KMBO  Kilima Mbogo     85.44 267  P      P       17 47 55.9 -1.0
      comp=Z,1.0nm,0.3s,mb4.4,baz=27,slow=2.3,SNR=4.8
KMBO                              LR     LR      18 24 22.8
      comp=Z,77nm,19.5s,MS4.1,baz=85,slow=34
DAVOX Davos/Dischmat   88.26 320  LR     LR      18 33 29.2
      comp=Z,178nm,18.8s,MS4.5,baz=74,slow=40
PPT   Papeete          95.08 107  LR     LR      18 26 39.5
      comp=Z,149nm,20.7s,MS4.4,baz=180,slow=32
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BJI ***03*** *17:55:43.3, 50.38N×87.64E, h9km, mB4.7, mb4.2, ML4.6, Ms4.3, Msz4.1*

MOS ***03*** *17:55:45.3±1.7, 50.16N×87.64E, h10km, mb4.3/12, Error ellipse: s-maj=9.1km s-min=7.0km az=72.4*

ISCJB ***03*** *17:55:45.2±0.2, 50.23N±0.02×87.63E±0.03, h10km, mb4.2/31, MS3.7/4, Error ellipse: s-maj=3.3km s-min=3.0km az=32.6*

IDC ***03*** *17:55:45.9±0.7, 50.27N×87.81E, h0km, mb3.9/13, mb1 4.1/17, mb1mx4.1/24, mbtmp4.0/17, ML4.5/3, MS3.6/2, Ms1 3.6/2, ms1mx3.0/32, Error ellipse: s-maj=13.9km s-min=10.5km az=137.0*

NEIC ***03*** *17:55:46.8±0.6, 50.19N×87.67E, h10km, mb4.3/5, Error ellipse: s-maj=11.1km s-min=8.0km az=144.0*

ASRS ***03*** *17:55:46.5±1.2, 50.22N×87.70E, h15km, Ms3.8*

NNC ***03*** *17:55:50.0±4.2, 50.23N×86.89E, h0km, mpv4.7, Error ellipse: s-maj=35.3km s-min=27.0km az=89.0*

ISC 03 17:55:47.1±0.2**, 50.25N**±0.02×**87.71E**±0.04**, h10km, n108, σ1.43**/142**, mb4.2**/31**, MS3.7**/4**, 8C-10D, Southwestern Siberia**

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Code  Station Name      Δ°   AZ°   Phase ID         Time      Res
                                   Op     ISC      h  m  s    ISC
AKAR  Aktash            0.09 323 i PG     Pg     17 55 48.8 -0.8
AKAR  Aktash            0.09 323 i Pg     Pg     17 55 48.8 -0.8
AKAR                             eSg      Sg     17 55 51.4  0.0
ARTR  Artybash          1.58 350 ePg      Pg     17 56 15.5 -1.8
ARTR                             eSg      Sg     17 56 36.9 -0.9
UKR   Ust'-Kan          2.00 291 ePN      Pn     17 56 22.4 +1.6
UKR                              e               17 56 50.1
UKR   Ust'-Kan          2.00 291 ePg      Pn     17 56 22.4 +1.6
UKR                              eSg      Sg     17 56 50.1 -1.0
ELT   Yel'tsovka        3.16 344 ePN      Pn     17 56 40.1 +3.4
ELT                              e               17 56 45.4
ELT                              e               17 57 25.3
ELT   Yel'tsovka        3.16 344 ePn      Pn     17 56 40.1 +3.4
ELT                              ePg      Pg     17 56 45.4 -2.1
ELT                              eSg      Sg     17 57 25.3 -3.1
CERR  Cheremushki       3.49  40 ePN      Pn     17 56 44.5 +3.2
CERR                             e               17 56 50.7
CERR                             e               17 57 36.0
CERR  Cheremushki       3.49  40 ePn      Pn     17 56 44.5 +3.2
CERR                             ePg      Pg     17 56 50.7 -3.2
CERR                             eSg      Sg     17 57 36.0 -3.1
ZAL   Zalesovo          4.11 335  PN      Pn     17 56 51.8 +2.0
ZAL                                              17 57 39.6
ZAL                                              17 57 55.3
ZALV  Zalesovo Beam     4.11 335  Pn      Pn     17 56 51.8 +1.8
ZALV                              Sn      Sn     17 57 39.6 +1.6
ZALV                              Lg             17 57 55.2
ZALV  Zalesovo Beam     4.11 335  Pn      Pn     17 56 51.8 +1.8
      22nm,0.3s,baz=159,slow=13,SNR=206
ZALV                              Sn      Sn     17 57 39.6 +1.6
      17nm,0.3s,baz=161,slow=18,SNR=4.0
ZALV                              Lg             17 57 55.2
      55nm,0.3s,baz=156,slow=26,SNR=16
MK31  Makanchi Array    4.99 228  Pn      Pn     17 57 04.5 +2.6
      130nm,0.7s,baz=57,slow=12,SNR=2187
MK31                             ⇑Pg      Pg     17 57 18.7 -3.8
      116nm,0.6s,baz=52,slow=16,SNR=5.4
MK31                             ⇑Sn      Sn     17 58 01.2 +1.6
      100nm,0.5s
MK31                             ⇓Lg             17 58 16.6
      396nm,0.8s
MK31  Makanchi Array    4.99 228 ePn      Pn     17 57 04.2 +2.3
MK31                             eSn      Sn     17 57 59.1 -0.4
MK31                             eSg      Sg     17 58 22.1 -5.0
MK31  Makanchi Array    4.99 228 ePN      Pn     17 57 04.2 +2.3
MK31                             e               17 57 59.1
MKAR  Makanchi Array    4.99 228  Pn      Pn     17 57 04.3 +2.4
MKAR                              Sn      Sn     17 58 03.1 +3.5
MKAR                              Lg             17 58 24.3
MKAR  Makanchi Array    4.99 228  PN      Pn     17 57 04.4 +2.5
MKAR                                             17 58 03.1
MKAR                              pmax    pmax
      comp=Z,26nm,0.3s
MKAR                              smax
      comp=N,21nm,0.3s
MKAR  Makanchi Array    4.99 228  Pn      Pn     17 57 04.3 +2.4
      comp=N,26nm,0.3s,baz=53,slow=12,SNR=506
MKAR                              Sn      Sn     17 58 03.1 +3.5
      comp=N,21nm,0.3s,baz=57,slow=27,SNR=9.9
MKAR                              Lg             17 58 24.3
      comp=N,32nm,0.3s,baz=53,slow=30,SNR=12
KURK  Kurchatov         5.82 278 ⇑Pn      Pn     17 57 13.6 +0.2
      comp=N,50nm,0.8s
KURK                             ⇓Sn      Sn     17 58 24.9 +4.8
      comp=N,61nm,0.8s
KURK                             ⇓Lg             17 58 40.4
      comp=N,367nm,0.8s
KURK  Kurchatov         5.82 278 ePn      Pn     17 57 13.8 +0.4
      comp=N,156nm,1.0s
KURK                             eSg      Sg     17 58 48.5 -5.4
KURK  Kurchatov         5.82 278 ePN      Pn     17 57 13.8 +0.4
KURK                              pmax    pmax
      comp=Z,156nm,1.0s
WMQ   Urumqi            6.43 180 eP       Pn     17 57 23.0 +1.3
WMQ                               SG      Sg     17 59 06.0 -7.3
WMQ                               Smax
      comp=N,265nm,1.0s
WMQ                               Smax
      comp=E,407nm,1.0s
WMQ                               LR      LR
      comp=N,287nm,21.0s
WMQ                               LR      LR
      comp=E,385nm,18.4s
WMQ                               LR      LR
      comp=Z,467nm,17.8s
TLY   Talaya           10.16  76 eP       Pn     17 58 15.1 +2.3
TKM2  Tokmak 2         11.09 233  P       Pn     17 58 25.3 -0.2
      SNR=18
TKM2  Tokmak 2         11.09 233 ⇓Pn      Pn     17 58 24.8 -0.7
      comp=Z,0.7nm,0.5s
TKM2                             ⇓Sn      Sn     18 00 44.7  +15
      comp=Z,18nm,1.8s
TKM2                             ⇓Lg             18 01 25.8
      comp=Z,26nm,1.5s
TKM2  Tokmak 2         11.09 233 ePn      Pn     17 58 24.8 -0.7
      comp=Z,12nm,0.6s
TKM2                             eSg      Sn     18 01 32.8  +63
TKM2  Tokmak 2         11.09 233 eP       Pn     17 58 24.8 -0.7
TKM2                              pmax    pmax
      comp=Z,12nm,0.6s
BRVK  Borovoye         11.19 291 ⇑Pn      Pn     17 58 25.7 -1.1
      comp=Z,2.6nm,0.5s
BRVK                             ⇓Pg      Pn     17 58 37.6  +11
      comp=Z,8.1nm,0.7s
BRVK                             ⇓Sn      Sn     18 00 26.5 -5.3
      comp=Z,11nm,0.7s
BRVK  Borovoye         11.19 291 ePn      Pn     17 58 25.6 -1.3
      comp=Z,28nm,0.8s
```

BRVK				e		17 58 37.5	
BRVK				eSn	Sn	18 00 25.4	-6.4
BRVK	Borovoye	11.19	291	eP	Pn	17 58 25.6	-1.2
BRVK				e		18 00 25.4	
BRVK				pmax	pmax		
	comp=Z,28nm,0.8s						
ULHL	Ulahol	11.26	229	P	Pn	17 58 30.5	+2.6
	SNR=12						
USP	Ospenovka	11.43	237	P	Pn	17 58 29.3	-0.9
	SNR=24						
KBK	Karagaybulak	11.61	234	P	Pn	17 58 31.8	-0.9
	SNR=11						
FRU	Bishkek	11.66	236	eP	Pn	17 58 32.0	-1.4
FRU				pmax	pmax		
	comp=E,370nm,1.4s						
AAK	Ala-Archa	11.86	235	P	Pn	17 58 38.8	+2.6
	SNR=8.5						
AAK	Ala-Archa	11.86	235	ePn	Pn	17 58 33.9	-2.3
	comp=E,10nm,0.8s						
AAK				eSg		18 02 00.4	
AAK	Ala-Archa	11.86	235	eP	Pn	17 58 33.9	-2.3
AAK				pmax	pmax		
	comp=Z,10.0nm,0.8s						
KZA	Kyzart	11.88	231	P	Pn	17 58 38.0	+1.7
	SNR=15						
UCH	Uchtor	12.14	234	ePn	Pn	17 58 40.4	+0.4
	comp=Z,7.3nm,0.6s						
UCH				eSg		18 02 07.9	
EKS2	Erkin-Say	12.23	237	P	Pn	17 58 40.4	-0.7
	SNR=9.4						
EKS2	Erkin-Say	12.23	237	ePn	Pn	17 58 40.0	-1.1
	comp=Z,9.4nm,0.7s						
SONM	Songino Array	12.50	94	Pn	Pn	17 58 44.1	-0.7
SONM				Sn	Sn	18 01 07.3	+3.4
SONM				Lg		18 02 19.9	
SONM				LR	LR	18 03 36.5	
SONM	Songino Array	12.50	94	P	Pn	17 58 44.1	-0.7
SONM						18 01 07.3	
SONM				MLR	MLR		
	comp=Z,244nm,19.1s						
SONM	Songino Array	12.50	94	Pn	Pn	17 58 44.1	-0.7
	comp=Z,0.0nm,0.3s,baz=279,slow=11,SNR=10						
SONM				Sn	Sn	18 01 07.3	+3.4
	comp=Z,0.1nm,0.3s,baz=278,slow=22,SNR=3.6						
SONM				Lg		18 02 19.9	
	comp=Z,0.2nm,0.3s,baz=272,slow=30,SNR=5.4						
SONM				LR	LR	18 03 36.5	
	comp=Z,244nm,19.1s,baz=312,slow=38						
AML	Almayashu	12.64	235	ePn	Pn	17 58 47.1	+0.4
	comp=Z,9.3nm,0.6s						
ULN	Ulaanbaatar	12.91	93	eP	Pn	17 58 52.5	+2.1
KK31	Karatay Array	13.78	245	⇑Pn	Pn	17 58 59.2	-3.2
	comp=Z,9.2nm,0.8s,baz=47,slow=14,SNR=62						
KK31				⇓Sn	Sn	18 01 34.7	-0.6
	comp=Z,7.4nm,0.7s,baz=53,slow=22,SNR=6.7						
KK31				⇑Lg		18 02 49.5	
	comp=Z,127nm,1.4s,baz=49,slow=26,SNR=5.1						
BOD	Bodaibo	17.12	54	eP	Pn	17 59 44.7	-1.5
BOD				pmax	pmax		
	comp=Z,6.0nm,0.8s						
AB31	Akbulak array	17.93	278	Pn	Pn	17 59 53.4	-2.9
	comp=Z,5.1nm,0.7s,baz=80,slow=12,SNR=40						
AB31				⇑Sn	Sn	18 03 09.3	-6.9
	comp=Z,1.4nm,0.6s						
LZH	Lanzhou	18.35	134	eP	Pn	18 00 00.9	-0.6
LZH				AP	pP	18 00 04.0	-0.4
LZH				XP	sP	18 00 05.3	-0.4
LZH				PP		18 00 16.3	
LZH				eS	Sn	18 03 23.0	-3.3
LZH				SS		18 03 46.0	
LZH				AMB	AMB		
	comp=Z,22nm,1.1s						
LZH				AMB	AMB		
	comp=Z,140nm,4.0s						
LZH				LR	LR		
	comp=E,749nm,8.9s						
LZH				LR	LR		
	comp=Z,1µm,10.8s						
ARU	Arti	18.38	301	ePn	Pn	17 59 58.7	-3.0
	comp=Z,13nm,0.9s						
ARU				eS	Sn	18 03 18.9	-7.8
ARU	Arti	18.38	301	⇓iP	Pn	18 00 02.4	+0.7
ARU				eS	Sn	18 03 27.5	+0.7
ARU				pmax	pmax		
	comp=Z,7.0nm,0.7s						
AKTK	Aktyubinsk	18.90	282	P	Pn	18 00 07.4	-0.7
AKTO	Aktyubinsk	18.90	282	P	Pn	18 00 07.4	-0.7
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO	Aktyubinsk	18.90	282	P	Pn	18 00 07.4	-0.7
	comp=Z,1.2nm,0.3s,baz=86,slow=11,SNR=77						
HHC	Hu-ho-hao-te	19.10	110	eP	Pn	18 00 09.4	-1.1
HHC				AP	pP	18 00 12.9	+0.3
HHC				XP	sP	18 00 16.4	+2.5
HHC				PP		18 00 25.9	
HHC				S	Sn	18 03 41.5	-2.8
HHC				XS	sS	18 03 44.4	-6.3
HHC				SS		18 04 03.2	
HHC				PCP	PcP	18 04 35.1	+1.3
HHC				SCS	ScS	18 11 48.5	-2.4
HHC				AMB	AMB		
	comp=Z,7.0nm,0.9s						
HHC				AMB	AMB		
	comp=Z,97nm,3.2s						
HHC				LR	LR		
	comp=N,314nm,8.7s						
HHC				LR	LR		
	comp=E,383nm,9.7s						
HHC				LR	LR		
	comp=Z,336nm,11.5s						
LSA	Lhasa	20.68	171	P	P	18 00 25.6	-1.5
KBL	Kabul	20.80	228	eP	P	18 00 26.9	-1.4
GKN	Gorkha	22.34	187	eP	P	18 00 45.4	+0.6
	comp=Z,12nm,0.9s,mb4.3						
GUN	Gumba	22.35	184	eP	P	18 00 45.8	+0.8
	comp=Z,17nm,0.5s,mb4.8						
KKN	Kakani	22.50	186	eP	P	18 00 46.3	-0.3
	comp=Z,9.9nm,0.5s,mb4.5						
JIRN	Jiri	22.58	184	eP	P	18 00 47.2	-0.3
	comp=Z,10nm,0.6s,mb4.5						
KOLN	Koldanda	22.66	189	eP	P	18 00 47.2	-1.1
	comp=Z,15nm,0.9s,mb4.4						
DMN	Daman	22.69	186	eP	P	18 00 47.8	-0.8
PKI	Pulchoki	22.71	185	eP	P	18 00 48.9	+0.1
	comp=Z,15nm,0.6s,mb4.6						
CD2	Chengdu	22.75	142	eP	P	18 00 48.3	-0.9
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
TAPN	Taplejung	22.86	180	eP	P	18 00 49.8	-0.6
ODAN	Odare	23.35	181	eP	P	18 00 54.4	-1.2
	comp=Z,9.5nm,0.7s,mb4.4						
YAK	Yakutsk	25.69	47	P	P	18 01 12.8	-4.0
	comp=Z,12nm,0.8s,mb4.5						
YAK	Yakutsk	25.69	47	eP	P	18 01 17.7	+0.8
YAK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.3						
CN2	Changchun	26.31	90	eP	P	18 01 21.9	-0.8
KMI	Kunming	27.65	150	P	P	18 01 35.7	+0.9
KMI				AP	pP	18 01 39.2	+1.3
KMI				XP	sP	18 01 40.3	+1.2
KMI				PP		18 02 24.5	
KMI				S	S	18 06 17.4	+0.8
KMI				SS		18 07 32.7	
KMI				AMB	AMB		
	comp=Z,3.0nm,0.9s,mb3.9						
KMI				AMB	AMB		
	comp=Z,79nm,4.0s						
KMI				LR	LR		
	comp=N,202nm,14.8s,MS4.2						
KMI				LR	LR		
	comp=E,420nm,14.8s,MS4.2						
KMI				LR	LR		
	comp=Z,167nm,12.4s,MS3.8						
GYA	Guiyang	27.86	141	P	P	18 01 38.2	+1.5
GYA				PP		18 02 27.4	
GYA				PCP	PcP	18 04 54.2	+1.8
GYA				S	S	18 06 20.0	+0.1
GYA				SCP	ScP	18 08 33.6	+0.6
GYA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.5						
GYA				AMB	AMB		
	comp=Z,60nm,4.8s						
TIXI	Tiksi	28.32	26	eP	P	18 01 40.2	-0.2
	comp=Z,2.7nm,0.4s,mb4.2						
TIXI	Tiksi	28.32	26	eP	P	18 01 41.3	+0.9
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.8						
MDJ	Mudanjiang	28.60	85	P	P	18 01 41.0	-2.2
MDJ				S	S	18 06 29.4	-1.8
MDJ				XS	sS	18 06 34.6	-1.7
MDJ				PCS	PcS	18 08 35.1	-1.2
MDJ				SCS	ScS	18 12 30.0	+1.9
MDJ				AMB	AMB		
	comp=Z,11nm,2.3s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,104nm,3.5s						
MDJ				LR	LR		
	comp=N,172nm,19.9s,MS3.7						
MDJ				LR	LR		
	comp=E,93nm,21.3s,MS3.7						
MDJ				LR	LR		
	comp=Z,103nm,19.9s,MS3.4						
KSRS	Korea Array	31.30	99	P	P	18 02 06.0	-1.1
	comp=Z,2.0nm,0.6s,mb4.1,baz=307,slow=7.8,SNR=10						
KSRS				LR	LR	18 15 41.4	
	comp=Z,123nm,18.4s,MS3.6,baz=121,slow=38						
FINES	FINESS Array B	35.02	313	P	P	18 02 39.4	+0.1
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	35.02	313	P	P	18 02 39.4	+0.1
	comp=Z,1.2nm,0.6s,mb4.0,baz=66,slow=9.3,SNR=11						
MA2	Magadan	36.10	50	eP	P	18 02 51.3	+2.7
MA2				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
AKASG	Malin Array Be	36.38	294	P	P	18 02 51.2	+0.1
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	Malin Array Be	36.38	294	P	P	18 02 51.2	+0.1
	comp=Z,1.6nm,0.5s,mb4.2,baz=56,slow=8.7,SNR=12						
MALT	Malatya	36.60	270	eP	P	18 02 53.8	+0.6
	comp=Z,2.7nm,0.6s,mb4.2						
MALT	Malatya	36.60	270	eP	P	18 02 53.8	+0.7
MALT				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
BRTR	Keskin Array B	38.87	276	P	P	18 03 13.8	+1.5
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BRTR	Keskin Array B	38.87	276	P	P	18 03 13.8	+1.5
	comp=Z,2.3nm,0.5s,mb4.2,baz=77,slow=4.7,SNR=12						
BILL	Bilibino	40.69	34	⇑eP	P	18 03 29.6	+2.5
BILL				eS	S	18 09 36.5	-0.3
BILL				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb3.8						
BILL				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.7						
NB2	NORSAR Subarra	42.04	315	P	P	18 03 38.0	-0.2
	comp=Z,2.4nm,0.7s,mb3.9,baz=65,slow=7.9						
NOA	NORSAR Array B	42.04	315	P	P	18 03 38.1	-0.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	NORSAR Array B	42.04	315	P	P	18 03 38.1	-0.1
	comp=Z,1.7nm,0.6s,mb3.8,baz=65,slow=7.8,SNR=7.2						
CLL	Collm	45.32	302	eP	P	18 04 03.0	-1.8
CLL				i pP	pP	18 04 05.7	-2.2
CLL				i PcP	PcP	18 05 45.2	+1.0
CLL	Collm	45.32	302	i P	P	18 04 05.7	+0.9
	comp=Z,6.0nm,1.0s,mb4.4						
CLL				epP	pP	18 04 08.0	+0.1
CLL				i PcP	PcP	18 05 45.2	+1.0
CLL				ePP	PP	18 05 50.0	-0.5
GERES	GERESS Array B	46.18	298	P	P	18 04 13.6	+2.0
	comp=Z,0.4nm,0.6s,mb3.5,baz=60,slow=6.3,SNR=3.9						
MBDF	Montbardon	52.43	297	eP	P	18 04 57.2	-2.2
	comp=Z,3.8nm,0.7s,mb4.4						
MBDF	Montbardon	52.43	297	eP	P	18 04 57.2	-2.2
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
MBDF	Montbardon	52.43	297	eP	P	18 04 57.2	-2.2
	comp=Z,7.5nm,0.7s,mb4.4						
KEST	Kesra	56.56	287	P	P	18 05 32.1	+2.6
	comp=Z,0.6nm,0.7s,mb3.7,baz=326,slow=7.3,SNR=3.3						
INK	Inuvik	57.85	17	P	P	18 05 38.3	+0.1
	comp=Z,49nm,0.6s						
INK	Inuvik	57.85	17	P	P	18 05 38.3	+0.1
INK				pmax	pmax		
	comp=Z,49nm,0.6s						
ESDC	Sonseca Array	61.77	299	P	P	18 06 05.9	+0.3
	comp=Z,0.5nm,0.6s,mb3.8,baz=46,slow=7.3,SNR=3.4						
YKA	Yellowknife Ar	66.22	11	P	P	18 06 34.6	+0.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	66.22	11	P	P	18 06 34.6	+0.1
	comp=Z,1.3nm,0.8s,mb4.0,baz=341,slow=6.9,SNR=13						
SCHQ	Schefferville	73.15	345	P	P	18 07 18.1	+0.7
	comp=Z,2.5nm,1.1s,mb4.0,baz=64,slow=16,SNR=5.6						
TORD	Torodi Ar. Bea	77.48	275	P	P	18 07 42.5	-0.4
	comp=Z,1.1nm,0.7s,mb3.9,baz=37,slow=4.7,SNR=3.2						
WRA	Warramunga Arr	81.09	136	P	P	18 08 02.5	+0.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	81.09	136	P	P	18 08 02.5	+0.2
	comp=Z,0.7nm,0.6s,mb3.8,baz=338,slow=6.0,SNR=3.8						
NVAR	Mina Array Bea	88.78	20	P	P	18 08 42.7	+1.8
NVAR	Mina Array Bea	88.78	20	P	P	18 08 42.7	+1.8
	comp=Z,0.9nm,0.8s,mb4.2,baz=354,slow=3.7,SNR=6.3						

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*NEIC **03** 18:22:27.0, 3805N×3876E, h5^{km}, mb4.0/2, ML3.8(ISK), After ISK.*

*ISK **03** 18:22:27.9, 3806N×3875E, h4^{km}, MD3.9, ML4.0*

*CSEM **03** 18:22:27.7±0.0, 3804N×3877E, h5^{km}, mb3.8/3, Error ellipse: s-maj=1.3km s-min=1.2km az=142.0*

*IDC **03** 18:22:28.9±0.9, 3805N×3881E, h0^{km}, mb3.3/7, mb1 3.5/13, mb1mx3.5/24, mbtmp3.4/13, ML3.4/6, Error ellipse: s-maj=16.3km s-min=13.3km az=119.0*

*MOS **03** 18:22:28.6±1.1, 3808N×3872E, h10^{km}, mb4.0/3, Error ellipse: s-maj=14.5km s-min=10.9km az=100.3*

*ISCJB **03** 18:22:28.3±0.7, 3802N±002×3877E±003, h9^{km}±5^{km}, mb3.5/9, Error ellipse: s-maj=4.2km s-min=3.4km az=138.4*

*NSSC **03** 18:22:29.6, 3800N×3877E, h9^{km}±3^{km}*

ISC 03 18:22:28.7±0.8**, 3800N**±002×**3877E**±003**, h3**^{km}±6^{km}**, n115, σ0^{s}95**/136**, mb3.5**/9**, 14D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MALT	Malatya	0.41	319	i PG	Pg	18 22 35.1	-1.5
MALT				i SG	Sg	18 22 40.9	-1.1
MALT	Malatya	0.41	319	ePg	Pg	18 22 35.8	-0.8
MALT				eSg	Sg	18 22 41.2	-0.8
MALT	Malatya	0.41	319	ePg	Pg	18 22 35.8	-0.8
MALT				eSg	Sg	18 22 41.2	-0.8
MYA	Malataya	0.42	320	i PG	Pg	18 22 36.2	-0.6
MYA	Malataya	0.42	320	i Pg	Pg	18 22 36.2	-0.6
URFA	Urfa	0.56	176	PG	Pg	18 22 40.6	+1.2
URFA	Urfa	0.56	176	ePg	Pg	18 22 40.6	+1.2
PTK	Pertek	1.01	29	PG	Pg	18 22 46.2	-1.9
PTK	Pertek	1.01	29	ePg	Pg	18 22 46.2	-1.9
DIY	Diyarbakir	1.16	95	PN	Pn	18 22 50.4	-1.3
DIY	Diyarbakir	1.16	95	ePn	Pn	18 22 50.4	-1.3
GAZ	Gaziantep	1.49	237	PN	Pn	18 22 56.2	-0.2
GAZ	Gaziantep	1.49	237	ePn	Pn	18 22 56.2	-0.2
KMRS	Kahramanmaras	1.56	252	PN	Pn	18 22 56.7	-0.7
KMRS	Kahramanmaras	1.56	252	ePn	Pn	18 22 56.7	-0.7
BINT	Bingol	1.61	57	PN	Pn	18 22 57.7	-0.3
BINT	Bingol	1.61	57	ePn	Pn	18 22 57.7	-0.3
KBSD	Kabsdagh	1.73	125	⇑P	Pn	18 22 59.6	0.0
KBSD				⇑S	Sn	18 23 21.3	-0.9
KBSD	Kabsdagh	1.73	125	⇑iP	Pn	18 22 59.6	0.0
KBSD				⇑iS	Sn	18 23 21.3	-0.9
SLMH	Al Salmeh	1.91	201	⇑P	Pn	18 23 01.9	-0.2
SLMH				⇑S	Sn	18 23 25.3	-1.3
SLMH	Al Salmeh	1.91	201	⇑iP	Pn	18 23 01.9	-0.2
SLMH				⇑iS	Sn	18 23 25.3	-1.3
SFNV	Sufian	1.91	146	⇓P	Pn	18 23 02.2	+0.1
SFNV				⇓S	Sn	18 23 25.4	-1.3
SFNV	Sufian	1.91	146	⇓iP	Pn	18 23 02.2	+0.1
SFNV				⇓iS	Sn	18 23 25.4	-1.3
EZC	Erzincan	1.93	25	PN	Pn	18 23 00.1	-2.2
BTMT	Batman	2.15	84	PN	Pn	18 23 03.9	-1.6
DRWC	Darouich	2.17	231	⇑P	Pn	18 23 05.3	-0.4
DRWC				⇑S	Sn	18 23 31.9	-1.2
DRWC	Darouich	2.17	231	⇑iP	Pn	18 23 05.3	-0.4
DRWC				⇑iS	Sn	18 23 31.9	-1.2
JHLN	Al Jahlan	2.34	187	⇓P	Pn	18 23 08.4	+0.4
JHLN				⇓S	Sn	18 23 36.2	-1.1
JHLN	Al Jahlan	2.34	187	⇓iP	Pn	18 23 08.4	+0.4
JHLN				⇓iS	Sn	18 23 36.2	-1.1
SVSK	Karacayir	2.36	325	PN	Pn	18 23 08.7	+0.4
SVSK	Karacayir	2.36	325	ePn	Pn	18 23 08.7	+0.4
KOZT	Kozan	2.39	258	PN	Pn	18 23 08.7	-0.1
BNN	Bunyan	2.45	291	PN	Pn	18 23 09.7	+0.1
BNN	Bunyan	2.45	291	ePn	Pn	18 23 09.7	+0.1
GUMT	Gumushane	2.52	12	PN	Pn	18 23 10.3	-0.2
GUMT	Gumushane	2.52	12	ePn	Pn	18 23 10.3	-0.2
CEYT	Ceyhan	2.60	249	ePN	Pn	18 23 11.5	-0.1
CEYT	Ceyhan	2.60	249	ePn	Pn	18 23 11.5	-0.1
MZRK	Al-Mazaregh	2.64	145	⇓P	Pn	18 23 12.1	-0.1
MZRK	Al-Mazaregh	2.64	145	⇓iP	Pn	18 23 12.1	-0.1
BTCH	Batrach	2.70	224	⇓P	Pn	18 23 12.6	-0.3
BTCH				⇓S	Sn	18 23 45.0	-1.1
BTCH	Batrach	2.70	224	⇓iP	Pn	18 23 12.6	-0.3
BTCH				⇓iS	Sn	18 23 45.0	-1.1
EZM	Erzurum	2.77	46	ePN	Pn	18 23 14.7	+0.7
HTY	Hatay	2.82	229	ePN	Pn	18 23 15.2	+0.5
HTY	Hatay	2.82	229	ePn	Pn	18 23 15.2	+0.5
TOKT	Tokat	2.89	324	ePN	Pn	18 23 15.8	+0.2
TOKT	Tokat	2.89	324	ePn	Pn	18 23 15.8	+0.2
SIRT	Sirnak	2.95	99	ePN	Pn	18 23 17.2	+0.8
SIRT	Sirnak	2.95	99	ePn	Pn	18 23 17.2	+0.8
SLNF	Slenfeh	3.15	221	⇑P	Pn	18 23 19.5	+0.2
SLNF				⇑S	Sn	18 23 56.4	-1.0
SLNF	Slenfeh	3.15	221	⇑iP	Pn	18 23 19.5	+0.3
SLNF				⇑iS	Sn	18 23 56.4	-1.0
YOZ	Yozgat	3.15	302	ePN	Pn	18 23 20.0	+0.8
YOZ	Yozgat	3.15	302	ePn	Pn	18 23 20.0	+0.8
NIG	Nigde	3.29	273	ePN	Pn	18 23 21.6	+0.5
NIG	Nigde	3.29	273	ePn	Pn	18 23 21.6	+0.5
AGRB	Hanur-Agry	3.65	63	ePN	Pn	18 23 26.8	+0.7
AGRB	Hanur-Agry	3.65	63	ePn	Pn	18 23 26.8	+0.7
VANB	Van	3.68	79	ePN	Pn	18 23 27.2	+0.7
VANB	Van	3.68	79	ePn	Pn	18 23 27.2	+0.7
KVT	Kavak	3.73	326	ePN	Pn	18 23 27.2	+0.1
KVT	Kavak	3.73	326	ePn	Pn	18 23 27.2	+0.1
MSL	Mosul	3.85	115	ePn	x	18 23 35.0	
MSL				ePb	x	18 23 43.5	
MSL				i Sn	x	18 24 32.0	
MSL				i Sb	x	18 24 47.0	
CUKT	Cukurca	3.91	100	ePN	Pn	18 23 30.0	+0.3
CUKT	Cukurca	3.91	100	ePn	Pn	18 23 30.0	+0.3
HKR	Hakkari	3.96	95	ePN	Pn	18 23 31.2	+0.9
HKR	Hakkari	3.96	95	ePn	Pn	18 23 31.2	+0.9
ROOS	tl_alroos	4.01	198	⇑P	Pn	18 23 31.7	+0.7
ROOS				⇑S	Sn	18 24 15.8	-2.7
ROOS	tl_alroos	4.01	198	⇑iP	Pn	18 23 31.7	+0.7
ROOS				⇑iS	Sn	18 24 15.8	-2.7
BCA	Borcka	4.08	32	ePN	Pn	18 23 32.0	0.0
BCA	Borcka	4.08	32	ePn	Pn	18 23 32.0	0.0
BR131	Keskin Array S	4.36	295	ePn	Pn	18 23 37.4	+1.6
BR131				ePg	Pg	18 23 49.1	-3.1
BR131	Keskin Array S	4.36	295	ePn	Pn	18 23 37.4	+1.6
BR131	Keskin Array S	4.36	295	ePg	Pg	18 23 49.1	-3.1
BRTR	Keskin Array B	4.36	295	P	Pn	18 23 36.9	+1.1
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
BRTR	Keskin Array B	4.36	295	Pn	Pn	18 23 36.9	+1.1
	comp=Z,2.2nm,0.3s,baz=118,slow=15,SNR=56						
BRTR				Pg	Pg	18 23 47.6	-4.5
	comp=Z,2.0nm,0.3s,baz=119,slow=19,SNR=35						
BRTR				Lg		18 24 48.7	
	comp=Z,0.3nm,0.3s,baz=115,slow=27,SNR=2.7						
BRTR	Keskin Array B	4.36	295	Pg	Pg	18 23 47.7	-4.5
HWQ	Hawqa	4.36	212	eP	Pn	18 23 37.1	+1.2
MARH	Ras Al Marh	4.38	206	⇑P	Pn	18 23 36.0	0.0
MARH	Ras Al Marh	4.38	206	⇑iP	Pn	18 23 36.0	-0.1
BHL	Bhannes	4.81	213	eP	Pn	18 23 43.6	+1.6
ANTO	Ankara	5.02	294	ePn	Pn	18 23 44.2	-0.7
ANTO				ePg	Pg	18 24 00.5	-4.3
ANTO	Ankara	5.02	294	ePn	Pn	18 23 44.2	-0.7
ANTO	Ankara	5.02	294	ePg	Pg	18 24 00.5	-4.3
MATL	Matirih	5.30	213	eP	Pn	18 23 39.2	-10
CSS	Prodhromos	5.33	237	ePn	Pn	18 23 50.0	+0.9
CSS	Prodhromos	5.33	237	ePn	Pn	18 23 50.0	+0.8
MMAI	Mount Meron Ar	5.68	210	Pn	Pn	18 23 55.9	+1.9
	comp=Z,3.8nm,0.3s,baz=38,slow=15,SNR=22						
MMAI				Lg		18 25 31.9	
	comp=Z,7.2nm,0.3s,baz=13,slow=27,SNR=3.8						
ASF	Jabal al Asfar	6.01	195	Pn	Pn	18 24 00.3	+1.7
ASF				Lg		18 25 42.3	
ASF	Jabal al Asfar	6.01	195	Pn	Pn	18 24 00.3	+1.7
	comp=Z,0.4nm,0.3s,baz=79,slow=13,SNR=5.5						
ASF				Lg		18 25 42.3	
	comp=Z,4.2nm,0.3s,baz=91,slow=21,SNR=6.4						
EIL	Elat	8.89	202	Pn	Pn	18 24 38.9	+0.7
EIL				Lg		18 27 18.7	
EIL	Elat	8.89	202	Pn	Pn	18 24 38.9	+0.7
	comp=Z,0.2nm,0.3s,baz=34,slow=11,SNR=2.2						
EIL				Lg		18 27 18.7	
	comp=Z,0.3nm,0.3s,baz=70,slow=18,SNR=2.7						
EIL	Elat	8.89	202	Pn	Pn	18 24 38.8	+0.7
AKASG	Malin Array Be	14.40	335	Pn	Pn	18 25 51.9	-1.4
AKASG	Malin Array Be	14.40	335	Pn	Pn	18 25 51.8	-1.4
	comp=Z,0.2nm,0.3s,baz=147,slow=13,SNR=6.3						
TIP	Timpagrande	17.25	281	Pn	Pn	18 26 32.6	+2.1
TIP	Timpagrande	17.25	281	Pn	Pn	18 26 32.6	+2.1
AKTK	Aktyubinsk	18.50	42	P	Pn	18 26 45.9	0.0
AKTO	Aktyubinsk	18.50	42	P	Pn	18 26 45.9	0.0
	comp=Z,0.1nm,0.3s,baz=221,slow=12,SNR=5.5						
GERES	GERESS Array B	21.09	309	P	P	18 27 14.5	+0.4
	comp=Z,0.7nm,0.7s,mb3.1,baz=119,slow=10,SNR=4.2						
ARU	Arti	22.67	29	eP	P	18 27 29.9	-1.0
	comp=Z,3.1nm,0.6s,mb3.9						
ARU	Arti	22.67	29	eP	P	18 27 31.0	+0.1
FINES	FINESS Array B	24.77	345	P	P	18 27 52.5	+1.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	FINESS Array B	24.77	345	P	P	18 27 52.5	+1.2
	comp=Z,1.1nm,0.8s,mb3.5,baz=134,slow=8.2,SNR=5.6						
KURK	Kurchatov	30.81	53	eP	P	18 28 46.2	+0.7
	comp=Z,2.4nm,0.8s,mb4.1						
KURK	Kurchatov	30.81	53	eP	P	18 28 46.3	+0.7
KURK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
KURK	Kurchatov	30.81	53	eP	P	18 28 46.3	+0.7
	comp=Z,2.0nm,0.8s,mb4.0						
MK31	Makanchi Array	32.96	60	eP	P	18 29 04.6	+0.2
MK31	Makanchi Array	32.96	60	eP	P	18 29 04.6	+0.2
MKAR	Makanchi Array	32.96	60	P	P	18 29 04.6	+0.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	Makanchi Array	32.96	60	P	P	18 29 04.6	+0.2
	comp=Z,1.0nm,0.8s,mb3.8,baz=273,slow=7.5,SNR=10						
ZAL	Zalesovo	35.04	48	P	P	18 29 22.2	-0.2
ZALV	Zalesovo Beam	35.05	48	P	P	18 29 22.2	-0.3
	comp=Z,0.4nm,0.4s,mb3.7,baz=267,slow=13,SNR=2.3						
TORD	Torodi Ar. Bea	41.19	243	P	P	18 30 14.5	-0.2
	comp=Z,0.4nm,0.8s,mb3.1,baz=40,slow=7.7,SNR=3.1						
SONM	Songino Array	49.03	56	P	P	18 31 16.9	+0.2
	comp=Z,0.1nm,0.6s,mb3.0,baz=268,slow=6.2,SNR=2.4						
YKA	Yellowknife Ar	77.58	348	P	P	18 34 27.6	+2.0
	comp=Z,0.1nm,0.5s,mb3.0,baz=22,slow=5.1,SNR=3.3						

IDC 03 18:37:30.7±4.5**, 4581N**×**15425E, h0**^{km}**, mb3.7**/4**, mb1 3.9**/4**, mb1mx3.5**/19**, mbtmp3.7**/4**, Error ellipse: s-maj=156.2km s-min=38.3km az=9.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	48.08	299	P	P	18 46 11.8	+0.1
	0.4nm,0.6s,baz=72,slow=7.1,SNR=6.4						
FINES	FINESS Array B	65.23	335	P	P	18 48 13.6	+0.1
	0.8nm,0.8s,baz=45,slow=8.1,SNR=5.7						
AKASG	Malin Array Be	72.77	327	P	P	18 49 00.3	-0.2
	0.4nm,0.5s,baz=38,slow=5.4,SNR=4.1						
TXAR	Lajitas Array	77.26	61	P	P	18 49 27.1	+0.2
	0.5nm,0.8s,baz=305,slow=4.4,SNR=5.0						

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*NEIC **03** 19:01:08.9, 1651N×9457W, h89^{km}, MD3.9(MEX), After MEX.*

MEX 03 19:01:07.9±1.3**, 1657N**×**9460W, h102**^{km}±16^{km}**, MD3.9, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.59	332	i P	Pn	19 01 23.6	-1.0

CMIG				*i* S	Sn	19 01 35.1	-1.9
HUIG	**Huatulco**	**1.66**	**242**	*i* P	Pn	19 01 34.6	-1.6
HUIG				*i* S	Sn	19 01 56.5	-1.2
OXX	**Oaxaca**	**2.10**	**284**	*i* P	Pn	19 01 39.8	-2.0
OXX				*i* S	Sn	19 02 04.3	-3.5
VHO	**Vista Hermosa**	**2.11**	**284**	*i* P	Pn	19 01 42.5	+0.6
VHO				*i* S	Sn	19 02 07.6	-0.3
CCIG	**Comitan**	**2.38**	**96**	*i* P	Pn	19 01 46.3	+0.9
CCIG				*i* S	Sn	19 02 12.8	-1.5
CCIG	**Comitan**	**2.38**	**96**	*i* P	Pn	19 01 44.3	-1.1
CCIG				*i* S	Sn	19 02 12.8	-1.5
UTMO	**Huajuapan**	**3.31**	**293**	*i* P	Pn	19 01 57.9	0.0
UTMO				*i* S	Sn	19 02 34.9	-1.6

BJI ***03*** *19:31:18.1, 13.67N×145.61E, h97^{km}, mB5.2, mb5.3*

MOS ***03*** *19:31:21.4±1.1, 13.90N×145.18E, h103^{km}, mb5.2/40, Error ellipse: s-maj=9.5km s-min=6.0km az=94.9*

ISCJB ***03*** *19:31:21.9±0.1, 13.85N±0.03×145.18E±0.02, h99^{km}, mb5.2/140, Error ellipse: s-maj=3.8km s-min=2.6km az=172.4*

GCMT ***03*** *19:31:22.3±0.2, 13.63N×145.38E, h106^{km}±1^{km}, MW5.3/80, Moment Tensor Solution. s73,c124; s80,c166; Duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.46±.02; M$_{\theta\theta}$-0.29±.02; M$_{\phi\phi}$0.74±.02; M$_{r\theta}$0.48±.01; M$_{\theta\phi}$-0.01±.02; M$_{\phi r}$0.68±.01; Best double couple: M$_{0}$1.06000×10^{17} NP1:φ$_{s}$327.00000°,δ29.00000°, λ-148.00000°. NP2:φ$_{s}$209.00000°,δ75.00000°, λ-65.00000°. Principal axes: T 1.0820, Plg26.0000°, Azm279.0000°; N -0.0460, Plg24.0000°, Azm22.0000°; P -1.0370, Plg53.0000°, Azm149.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***03*** *19:31:22.2±0.4, 13.87N×145.29E, h96^{km}±2^{km}, mb4.8/24, mb1 4.9/24, mb1mx4.9/26, mbtmp4.8/24, MS4.1/17, Ms1 4.1/17, ms1mx3.9/28 Error ellipse: s-maj=10.7km s-min=8.3km az=85.0*

NEIC ***03*** *19:31:22.3±0.1, 13.87N×145.21E, mb5.3/79, Error ellipse: s-maj=4.7km s-min=3.6km az=118.0*

NEIC Felt [IV] at Barrigada and Santa Rita, [III] at Yigo and [II] at Tamuning, Guam. Felt [III] on Saipan. Felt on Rota. Also felt at Agana and Merizo, Guam.

ISC 03 19:31:23.5±0.1, **13.86N**±0.03×**145.21E**±0.02, **h101**^{km}, **h101**^{km}±1.0^{km}**:pP-P, n697,** σ**0**^{s}**82**/681, **mb5.2**/139, **105C-60D, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**0.43**	**231**	⇓*e*Pn	**Pn**	**19 31 38.8**	**0.0**
GUMO				*e*Sn	**Sn**	**19 31 48.5**	**-1.8**
GUMO	**Guam**	**0.43**	**231**	P	**Pn**	**19 31 39.6**	**+0.8**
	19µm,0.3s,baz=120,slow=4.0,SNR=6215						
GUMO				S	**Sn**	**19 31 50.8**	**+0.5**
	19µm,0.3s,baz=314,slow=18,SNR=25						
SCPH	**Surigao**	**19.72**	**260**	⇑*e*P	**P**	**19 35 46.8**	**+1.6**
MSLP	**Maasin**	**20.25**	**262**	*e*P	**P**	**19 35 53.3**	**+2.4**
OCLP	**Ormoc**	**20.31**	**264**	*e*P	**P**	**19 35 53.2**	**+1.6**
JOW	**Kunigami**	**20.43**	**312**	P	**P**	**19 35 53.4**	**+0.6**
	151nm,0.7s,baz=144,slow=10,SNR=39						
JOW				LR	LR	19 43 19.4	
	comp=Z,614nm,18.2s,baz=180,slow=35						
DAV	**Davao City (W)**	**20.44**	**253**	*e*P	**P**	**19 35 54.0**	**+1.0**
	168nm,0.8s						
DAV	**Davao City (W)**	**20.44**	**253**	P	**P**	**19 35 55.3**	**+2.3**
	SNR=9.3						
DAV	**Davao City (W)**	**20.44**	**253**	P	**P**	**19 35 55.3**	**+2.3**
	SNR=9.3						
DAV	**Davao City (W)**	**20.44**	**253**	P	**P**	**19 35 55.3**	**+2.3**
	SNR=9.3						
BUKP	**Musuan**	**20.65**	**255**	*e*P	**P**	**19 35 56.5**	**+1.2**
LLP	**Lapu-Lapu**	**21.07**	**263**	⇑*e*P	**P**	**19 36 00.8**	**+1.0**
RCP	**Roxas**	**22.03**	**267**	⇓*e*P	**P**	**19 36 10.6**	**+0.5**
PAGZ	**Pagadian**	**22.25**	**257**	*e*P	**P**	**19 36 13.0**	**+0.8**
GUIM	**Jordan**	**22.34**	**264**	*e*P	**P**	**19 36 12.9**	**-0.3**
OTRP	**Odiongan**	**22.64**	**269**	*e*P	**P**	**19 36 16.9**	**+0.5**
BOAC	**Boac**	**22.71**	**272**	*e*P	**P**	**19 36 17.0**	**-0.1**
CAUP	**Cauayan**	**22.75**	**281**	*e*P	**P**	**19 36 17.0**	**-0.6**
PMG	**Port Moresby**	**23.19**	**175**	*e*P	**P**	**19 36 18.4**	**-3.2**
	138nm,0.9s,mb5.3						
PMG	**Port Moresby**	**23.19**	**175**	*e*P	**P**	**19 36 18.4**	**-3.2**
PMG				pmax	pmax		
	comp=Z,137nm,0.9s						
PMG	**Port Moresby**	**23.19**	**175**	P	**P**	**19 36 19.5**	**-2.0**
	comp=Z,122nm,0.9s,mb5.2,baz=351,slow=5.8,SNR=25						
JNU	**Nakatsue**	**23.20**	**328**	P	**P**	**19 36 22.4**	**+0.9**
	comp=Z,33nm,0.8s,mb4.7,baz=93,slow=9.9,SNR=12						
JNU				pP		19 36 41.2	
	comp=Z,106nm,0.9s,baz=115,slow=12,SNR=9.7						
JNU				LR	LR	19 44 44.5	
	comp=Z,153nm,20.3s,baz=133,slow=34						
MJAR	**Matsushiro Arr**	**23.44**	**346**	P	**P**	**19 36 22.7**	**-1.0**
MJAR						19 40 06.3	
MJAR				S	**S**	**19 40 32.0**	**+2.5**
MJAR	**Matsushiro Arr**	**23.44**	**346**	P	**P**	**19 36 22.7**	**-1.0**
	comp=Z,27nm,0.8s,mb4.6,baz=181,slow=12,SNR=41						
MJAR				PcP	PcP	19 40 06.3	-0.8
	comp=Z,5.6nm,0.8s,baz=158,slow=3.1,SNR=4.5						
MJAR				S	**S**	**19 40 32.0**	**+2.5**
	comp=Z,4.1nm,0.9s,baz=161,slow=16,SNR=4.2						
MJAR				LR	LR	19 42 56.6	
	comp=Z,311nm,20.9s,baz=165,slow=30						
MJAR				ScP	ScP	19 43 35.9	-0.4
	comp=Z,3.5nm,0.8s,baz=178,slow=2.9,SNR=5.9						
MAJO	**Matsushiro**	**23.45**	**346**	*e*P	**P**	**19 36 22.7**	**-1.0**
	comp=Z,56nm,0.8s,mb4.9						
MAJO	**Matsushiro**	**23.45**	**346**	*e*P	**P**	**19 36 22.7**	**-1.0**
MAJO				pmax	pmax		
	comp=Z,56nm,0.8s,mb5.0						
TGY	**Tagaytay City**	**23.56**	**274**	P	**P**	**19 36 25.7**	**+0.7**
	comp=Z,137nm,0.4s,mb5.6,baz=168,slow=8.8,SNR=5.7						
CUYO	**Cuyo Island**	**23.82**	**266**	*e*P	**P**	**19 36 28.1**	**+0.7**
ABRA	**Dolores**	**23.87**	**282**	*e*P	**P**	**19 36 25.6**	**-2.3**
LUBP	**Lubang**	**24.24**	**273**	*e*P	**P**	**19 36 30.8**	**-0.5**
YHNB	**Yeheng**	**24.90**	**299**	*e*P	**P**	**19 36 37.1**	**0.0**
QZH	**Quanzhou**	**27.37**	**298**	⇑*i*P	**P**	**19 37 01.5**	**+2.1**
QZH				S	**S**	**19 41 32.2**	**0.0**
QZH				AMB	AMB		
	comp=Z,100nm,1.0s,mb5.3						
QZH				LR	LR		
	comp=Z,2µm,26.7s						
HNR	**Honiara**	**27.37**	**147**	LR	LR	19 46 28.4	
	comp=Z,372nm,18.9s,baz=358,slow=33						
MYLDM	**Lahad Datu**	**27.69**	**254**	⇓P	**P**	**19 37 04.5**	**+2.1**
COEN	**Coen**	**27.71**	**184**	*e*P	**P**	**19 37 00.4**	**-2.0**
SSE	**Sheshan**	**27.95**	**312**	*e*P	**P**	**19 37 05.3**	**+0.8**
SSE				AP	pP	19 37 26.3	-0.6
SSE				XP	sP	19 37 38.3	-0.4
SSE				PCP	PcP	19 40 20.9	+3.4
SSE				S	**S**	**19 41 40.5**	**-0.8**
SSE				XS	sS	19 42 19.5	-0.8
SSE				SCS	ScS	19 47 41.2	-0.8
SSE				AMB	AMB		
	comp=Z,41nm,0.8s,mb5.0						
SSE				AMB	AMB		
	comp=Z,155nm,8.8s						
SSE				LR	LR		
	comp=N,250nm,18.1s						
SSE				LR	LR		
	comp=E,341nm,18.1s						
SSE				LR	LR		
	comp=Z,485nm,21.5s						
KSRS	**Korea Array**	**28.10**	**330**	P	**P**	**19 37 05.1**	**-0.6**
	comp=Z,11nm,0.7s,mb4.5,baz=143,slow=9.5,SNR=24						
KSRS				pP	pP	19 37 26.6	-1.6
	comp=Z,31nm,0.7s,baz=141,slow=10,SNR=4.9						
KSRS				PcP	PcP	19 40 17.5	-0.3
	comp=Z,6.2nm,1.0s,baz=144,slow=3.2,SNR=6.8						
KSRS				ScP	ScP	19 43 49.7	0.0
	comp=Z,3.1nm,0.9s,baz=140,slow=3.1,SNR=6.7						
KDM	**Kudat**	**28.73**	**259**	⇑P	**P**	**19 37 12.4**	**+0.7**
SDKM	**Sandakan**	**28.77**	**256**	⇑P	**P**	**19 37 12.4**	**+0.5**
KAKA	**Kakadu**	**29.27**	**206**	*e*P	**P**	**19 37 15.2**	**-1.2**
	comp=Z,42nm,0.7s,mb5.2						
KKM	**Kota Kinabalu**	**29.57**	**258**	*e*P	**P**	**19 37 18.6**	**-0.5**
KKM	**Kota Kinabalu**	**29.57**	**258**	⇓P	**P**	**19 37 19.5**	**+0.5**
NJ2	**Nanjing**	**30.15**	**311**	*e*P	**P**	**19 37 25.1**	**+1.1**
NJ2				AP	pP	19 37 46.8	+0.3
NJ2				XP	sP	19 37 58.9	+0.7
NJ2				PP	PP	19 38 29.0	-4.9
NJ2				S	**S**	**19 42 18.0**	**+2.3**
NJ2				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,220nm,5.2s						
NJ2				LR	LR		
	comp=N,380nm,25.1s						
NJ2				LR	LR		
	comp=E,400nm,22.4s						
NJ2				LR	LR		
	comp=Z,410nm,22.3s						
ASAJ	**Asahikawa**	**30.24**	**356**	P	**P**	**19 37 24.4**	**-0.2**
	comp=Z,27nm,1.1s,mb4.8,baz=180,slow=15,SNR=5.6						
ASAJ				LR	LR	19 48 50.7	
	comp=Z,316nm,21.5s,baz=222,slow=35						
VLA	**Vladivostok**	**31.34**	**341**	*e*P	**P**	**19 37 35.0**	**+0.7**
GZH	**Guangzhou**	**31.53**	**292**	P	**P**	**19 37 34.6**	**-1.7**
GZH				S	**S**	**19 42 31.4**	**-6.1**
GZH				LR	LR		
	comp=Z,900nm,34.9s						
DL2	**Dalian**	**32.50**	**324**	P	**P**	**19 37 46.2**	**+1.6**
DL2				S	**S**	**19 42 53.2**	**+0.9**
DL2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.1						
DL2				LR	LR		
	comp=N,310nm,13.4s						
DL2				LR	LR		
	comp=E,210nm,13.7s						
DL2				LR	LR		
	comp=Z,200nm,15.2s						
WHN	**Wuhan**	**32.90**	**305**	*e*P	**P**	**19 37 49.5**	**+1.4**
MDJ	**Mudanjiang**	**33.42**	**340**	P	**P**	**19 37 52.5**	**0.0**
MDJ				S	**S**	**19 43 08.1**	**+1.7**
MDJ				SCP	ScP	19 44 07.1	-0.1
MDJ				AMB	AMB		
	comp=Z,28nm,1.4s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,211nm,5.2s						
MDJ				LR	LR		
	comp=N,364nm,36.6s						
MDJ				LR	LR		
	comp=Z,480nm,37.3s						
BTM	**Bintulu**	**33.44**	**254**	⇑P	**P**	**19 37 53.6**	**+0.5**
SNY	**Shenyang**	**33.60**	**330**	*e*P	**P**	**19 37 58.0**	**+3.9**
SNY				S	**S**	**19 43 07.3**	**-2.0**
SNY				LR	LR		
	comp=N,532nm,17.1s						
SNY				LR	LR		
	comp=E,543nm,13.8s						
SNY				LR	LR		
	comp=Z,589nm,27.9s						
CTA	**Charters Tower**	**33.75**	**178**	*e*P	**P**	**19 37 54.7**	**-0.8**
	comp=Z,23nm,1.4s,mb4.8						
CTA	**Charters Tower**	**33.75**	**178**	*e*P	**P**	**19 37 54.7**	**-0.8**
CTA				pmax	pmax		
	comp=Z,23nm,1.4s						
CTAO	**Charters Tower**	**33.75**	**178**	*e*P	**P**	**19 37 54.3**	**-1.2**
	comp=Z,79nm,1.3s,mb5.4						
CTAO	**Charters Tower**	**33.75**	**178**	*e*P	**P**	**19 37 54.3**	**-1.2**
CTAO				pmax	pmax		
	comp=Z,79nm,1.3s,mb5.4						
QIZ	**Qiongzhong**	**34.27**	**283**	P	**P**	**19 37 59.4**	**-0.8**
QIZ				PP	PP	19 39 18.6	-1.1
QIZ				S	**S**	**19 43 19.9**	**-0.2**
QIZ				XS	sS	19 43 56.8	-2.8
QIZ				AMB	AMB		
	comp=Z,18nm,1.5s,mb4.7						
QIZ				AMB	AMB		
	comp=Z,212nm,5.5s						
CN2	**Changchun**	**34.31**	**334**	*e*P	**P**	**19 38 00.8**	**+0.6**
CN2				*e*AP	pP	19 38 24.1	+1.1
CN2				*e*XP	sP	19 38 35.7	+1.1
CN2				*e*S	**S**	**19 43 21.7**	**+1.6**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.6						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,500nm,16.0s						
CN2				LR	LR		
	comp=E,600nm,16.0s						
CN2				LR	LR		
	comp=Z,400nm,16.0s						
SBUM	**Sibu**	**34.51**	**254**	⇑P	**P**	**19 38 02.3**	**0.0**
WB2	**Warramunga Arr**	**35.25**	**198**	*e*P	**P**	**19 38 07.3**	**-1.2**
WB2				*e*		19 38 16.6	
WB2				*e*sP	sP	19 38 32.0	-11
WB2				*e*PCP	PcP	19 40 37.6	+0.3
WB2				*e*S	**S**	**19 43 36.3**	**+1.4**
WB2				*e*SCP	ScP	19 44 14.7	+0.7
WB2				*e*		19 45 33.7	
WRA	**Warramunga Arr**	**35.25**	**198**	P	**P**	**19 38 07.3**	**-1.2**
WRA				pP	pP	19 38 31.5	+0.1
WRA				PcP	PcP	19 40 37.6	+0.3
WRA				pPcP		19 41 06.5	
WRA				ScP	ScP	19 44 12.2	-1.8
WRA				LR	LR	19 51 44.5	
WRA	**Warramunga Arr**	**35.25**	**198**	P	**P**	**19 38 07.3**	**-1.2**
WRA				*PP	pP	19 38 31.5	+0.1
WRA						19 40 37.6	
WRA	**Warramunga Arr**	**35.25**	**198**	P	**P**	**19 38 07.3**	**-1.2**
	comp=Z,30nm,0.7s,mb5.2,baz=22,slow=9.6,SNR=46						
WRA				pP	pP	19 38 31.5	+0.1
	comp=Z,36nm,0.9s,baz=22,slow=10.0,SNR=5.5						
WRA				PcP	PcP	19 40 37.6	+0.3
	comp=Z,17nm,0.8s,baz=9.1,slow=3.3,SNR=8.5						
WRA				pPcP		19 41 06.5	
	comp=Z,12nm,0.8s,baz=11,slow=2.9,SNR=5.2						
WRA				ScP	ScP	19 44 12.2	-1.8
	comp=Z,12nm,1.0s,baz=15,slow=3.8,SNR=9.0						
WRA				LR	LR	19 51 44.4	
	comp=Z,190nm,18.0s,baz=30,slow=35						
HABR	**Khabarovsk**	**35.52**	**348**	*e*P	**P**	**19 38 10.9**	**+0.3**
HABR				*e*S	**S**	**19 43 36.4**	**-2.2**
HABR				*e*		19 48 12.8	
BJI	**Beijing**	**36.44**	**321**	P	**P**	**19 38 18.4**	**-0.1**
BJI				AP	pP	19 38 43.3	+1.8
BJI				PP	PP	19 39 41.4	-2.0
BJI				S	**S**	**19 43 50.7**	**-2.2**
BJI				AMB	AMB		
	comp=Z,22µm,3.3s						
BJI				LR	LR		
	comp=N,542nm,21.4s						
BJI				LR	LR		
	comp=E,357nm,20.6s						
BJI				LR	LR		
	comp=Z,654nm,33.8s						
KSM	**Kuching**	**36.64**	**253**	⇑*e*P	**P**	**19 38 19.6**	**-1.0**
KSM				*e*PcP	PcP	19 40 41.4	-0.3
KSM	**Kuching**	**36.64**	**253**	⇓P	**P**	**19 38 20.4**	**-0.2**
KLR	**Kul'dur**	**36.97**	**345**	*e*P	**P**	**19 38 18.8**	**-4.1**
FITZ	**Fitzroy Crossi**	**37.16**	**212**	*e*P	**P**	**19 38 24.2**	**-0.6**
	comp=Z,46nm,0.8s,mb5.5						
FITZ				*e*		19 38 33.7	
FITZ				*e*PCP	PcP	19 40 44.0	+0.9
FITZ				*e*S	**S**	**19 44 02.4**	**-1.8**
TIY	**Taiyuan**	**37.57**	**315**	⇑*e*P	**P**	**19 38 26.3**	**-1.8**
TIY				AP	pP	19 38 52.5	+1.3
TIY				PP	PP	19 40 01.7	+5.9
TIY				S	**S**	**19 44 05.6**	**-4.5**
TIY				XS	sS	19 44 55.2	+5.3
TIY				LR	LR		
	comp=N,333nm,13.8s						
TIY				LR	LR		
	comp=E,362nm,12.0s						
GYA	**Guiyang**	**38.15**	**295**	⇑*i*P	**P**	**19 38 34.7**	**+1.5**
GYA				AP	pP	19 38 56.5	+0.3
GYA				XP	sP	19 39 08.2	+0.4
GYA				PP	PP	19 40 06.0	+3.7
GYA				PCP	PcP	19 40 46.7	+0.6
GYA				S	**S**	**19 44 22.8**	**+3.7**
GYA				SCP	ScP	19 44 24.3	-0.6
GYA				PCS	PcS	19 44 34.6	-0.7
GYA				XS	sS	19 44 59.0	0.0
GYA				SS	SS	19 47 01.8	-9.0
GYA				SCS	ScS	19 48 34.7	-0.1
GYA				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.3						
GYA				AMB	AMB		
	comp=Z,220nm,6.1s						
GYA				LR	LR		
	comp=N,630nm,13.0s						
GYA				LR	LR		
	comp=E,460nm,13.7s						
GYA				LR	LR		
	comp=Z,650nm,13.2s						
XAN	**Xi'an**	**38.49**	**308**	P	**P**	**19 38 36.1**	**+0.2**
XAN				AMB	AMB		
	comp=Z,37nm,0.6s,mb5.4						
EIDS	**Eidsvold**	**39.41**	**172**	*e*P	**P**	**19 38 41.7**	**-1.8**
HHC	**Hu-ho-hao-te**	**39.79**	**319**	*e*P	**P**	**19 38 48.0**	**+1.4**
HHC				AP	pP	19 39 10.8	+1.0
HHC				XP	sP	19 39 22.3	+1.0
HHC				PP	PP	19 40 25.9	+6.0
HHC				PCP	PcP	19 40 53.1	+2.1
HHC				SCP	ScP	19 44 32.8	+1.9
HHC				PCS	PcS	19 44 42.3	+1.2
HHC				S	**S**	**19 44 45.9**	**+2.5**
HHC				XS	sS	19 45 24.1	+0.7
HHC				SS	SS	19 47 39.5	-3.7
HHC				SCS	ScS	19 48 43.4	-0.4
HHC				AMB	AMB		
	comp=Z,27nm,1.2s,mb5.0						
HHC				AMB	AMB		
	comp=Z,102nm,3.7s						
HHC				LR	LR		
	comp=N,364nm,18.0s						
HHC				LR	LR		
	comp=E,301nm,18.4s						
HHC				LR	LR		
	comp=Z,642nm,35.7s						
PET	**Petropavlovsk**	**40.51**	**12**	*e*P	**P**	**19 38 50.3**	**-2.1**
PET				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.8						
BTO	**Baotou**	**40.66**	**318**	*e*P	**P**	**19 38 51.2**	**-2.6**
KKTK	**Khon Kaen**	**40.95**	**279**	PN	**P**	**19 38 55.6**	**-0.9**
KKTK				SG	PcP	19 40 56.5	+1.3
NOUC	**Port Laguerre**	**41.29**	**150**	*e*P	**P**	**19 38 58.9**	**-0.3**
DZM	**Mont Dzumac**	**41.33**	**149**	*e*P	**P**	**19 38 59.3**	**-0.2**
DZM	**Mont Dzumac**	**41.33**	**149**	P	**P**	**19 38 59.6**	**+0.1**
	comp=Z,41nm,1.1s,mb5.2,baz=2.1,slow=9.5,SNR=10						
DZM				PcP	PcP	19 40 56.9	+0.7
	comp=Z,17nm,0.7s,baz=331,slow=3.4,SNR=4.1						
DZM				pPcP		19 41 26.5	
	comp=Z,24nm,0.8s,baz=308,slow=1.3,SNR=6.3						
KMI	**Kunming**	**41.42**	**292**	P	**P**	**19 39 01.4**	**+1.1**
KMI				AP	pP	19 39 26.5	+2.9
KMI				XP	sP	19 39 38.8	+3.7
KMI				PP	PP	19 40 40.9	+3.0
KMI				PCP	PcP	19 40 57.6	+1.0
KMI				PPP		19 41 13.6	
KMI				SCP	ScP	19 44 37.9	+0.3
KMI				S	**S**	**19 45 06.9**	**-1.1**
KMI				XS	sS	19 45 51.9	+3.6
KMI				SS	SS	19 48 18.0	+2.0
KMI				AMB	AMB		
	comp=Z,33nm,0.6s,mb5.3						
KMI				AMB	AMB		
	comp=Z,234nm,5.3s						
KMI				LR	LR		
	comp=N,325nm,18.1s						
KMI				LR	LR		
	comp=E,227nm,24.5s						
KMI				LR	LR		
	comp=Z,421nm,38.0s						
CD2	**Chengdu**	**41.64**	**301**	⇓*i*P	**P**	**19 39 02.5**	**+0.5**
CD2				AP	pP	19 39 25.3	-0.1
CD2				XP	sP	19 39 36.8	-0.1
CD2				PP	PP	19 40 43.8	+3.6
CD2				PCP	PcP	19 40 57.6	+0.4
CD2				PCS	PcS	19 44 47.9	-0.9
CD2				S	**S**	**19 45 10.4**	**-0.8**
CD2				XS	sS	19 45 50.8	-0.7
CD2				SS	SS	19 48 18.7	-1.6
CD2				SCS	ScS	19 48 53.3	-2.1
CD2				AMB	AMB		
	comp=Z,100nm,0.9s,mb5.5						
CD2				AMB	AMB		
	comp=Z,210nm,8.4s						
CD2				LR	LR		
	comp=N,420nm,18.0s						
CD2				LR	LR		
	comp=E,570nm,16.8s						
CD2				LR	LR		
	comp=Z,450nm,12.0s						
KTGM	**Kuala Trenggan**	**42.29**	**263**	⇑P	**P**	**19 39 08.3**	**+0.8**
MYKOM	**Kota Tinggi**	**42.61**	**257**	⇑P	**P**	**19 39 10.1**	**0.0**
KGM	**Kluang**	**43.04**	**258**	⇑P	**P**	**19 39 13.6**	**0.0**
LZH	**Lanzhou**	**43.11**	**308**	*e*P	**P**	**19 39 15.1**	**+1.2**
LZH				AP	pP	19 39 39.0	+1.6
LZH				XP	sP	19 39 49.5	+0.7
LZH				PP	PP	19 40 59.0	+3.1
LZH				*e*S	**S**	**19 45 33.9**	**+1.2**
LZH				SS	SS	19 48 43.2	-5.8
LZH				AMB	AMB		
	comp=Z,94nm,1.5s,mb5.3						
LZH				AMB	AMB		
	comp=Z,331nm,4.0s						
LZH				LR	LR		
	comp=E,419nm,13.7s						
LZH				LR	LR		
	comp=Z,728nm,14.1s						
FRIM	**Kepong**	**44.30**	**260**	⇓P	**P**	**19 39 24.1**	**+0.4**
ARMA	**Armidale**	**44.45**	**172**	*e*P	**P**	**19 39 23.5**	**-1.0**
ARMA				*e*	pP	19 39 49.7	+1.6
IPM	**Ipoh**	**44.53**	**262**	⇓P	**P**	**19 39 25.9**	**+0.3**
CHTO	**Chiang Mai**	**44.58**	**283**	*e*P	**P**	**19 39 25.1**	**-0.7**
	comp=Z,6.7nm,0.7s,mb4.5						
CHTO				*e*PcP	PcP	19 41 07.5	+0.2
CHTO	**Chiang Mai**	**44.58**	**283**	*e*P	**P**	**19 39 25.1**	**-0.8**
CHTO				*e*		19 41 07.5	
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
CHTO	**Chiang Mai**	**44.58**	**283**	P	**P**	**19 39 26.2**	**+0.4**
	SNR=7.8						
CHTO	**Chiang Mai**	**44.58**	**283**	P	**P**	**19 39 26.2**	**+0.4**
	SNR=7.8						
KULM	**Kulim**	**44.69**	**263**	*e*P	**P**	**19 39 27.0**	**+0.2**
KULM				*e*PcP	PcP	19 41 08.6	+0.8
KULM	**Kulim**	**44.69**	**263**	⇓P	**P**	**19 39 27.2**	**+0.4**
STKA	**Stephens Creek**	**45.60**	**184**	*e*P	**P**	**19 39 32.1**	**-1.6**
	comp=Z,35nm,0.6s,mb5.3						
STKA	**Stephens Creek**	**45.60**	**184**	P	**P**	**19 39 32.0**	**-1.6**
	comp=Z,60nm,0.8s,mb5.3,baz=356,slow=7.8,SNR=108						
STKA				LR	LR	20 00 17.9	
	comp=Z,222nm,19.3s,baz=11,slow=38						
CLNS	**Chul'man**	**45.62**	**345**	*e*P	**P**	**19 39 31.4**	**-2.1**
CLNS				pmax	pmax		
	comp=Z,22nm,1.4s,mb4.7						
CLNS				pmax	pmax		
	comp=N,11nm,1.1s						
CLNS				pmax	pmax		
	comp=E,7.0nm,0.9s						
CIT	**Chita**	**45.73**	**333**	*e*P	**P**	**19 39 35.0**	**+0.5**
CIT				*e*	pP	19 40 00.7	+2.5
MA2	**Magadan**	**45.82**	**4**	*e*P	**P**	**19 39 33.1**	**-2.0**
	comp=E,37nm,1.0s,mb5.1						
MA2	**Magadan**	**45.82**	**4**	*e*P	**P**	**19 39 33.7**	**-1.3**
MA2				*e**SP	sP	19 40 06.0	-4.2
MA2				*e*S	**S**	**19 46 09.8**	**-1.4**
MA2				*e*		19 49 18.2	
MA2				pmax	pmax		
	comp=N,20nm,1.0s						
MA2				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.2						
XMIS	**Christmas Isla**	**46.09**	**240**	⇑*i*P	**P**	**19 39 34.6**	**-3.2**
ULN	**Ulaanbaatar**	**46.35**	**325**	*e*P	**P**	**19 39 39.0**	**-0.4**
	comp=Z,44nm,1.1s,mb5.1						
ULN				*e*pP	pP	19 40 04.7	+1.5
ULN	**Ulaanbaatar**	**46.35**	**325**	*e*P	**P**	**19 39 39.0**	**-0.4**
ULN				*e**PP	pP	19 40 04.7	+1.5
ULN				pmax	pmax		
	comp=Z,44nm,1.1s,mb5.1						
ULN	**Ulaanbaatar**	**46.35**	**325**	P	**P**	**19 39 40.2**	**+0.8**
	SNR=13						
ULN	**Ulaanbaatar**	**46.35**	**325**	P	pP	19 40 06.1	+2.9
	SNR=5.8						
ULN	**Ulaanbaatar**	**46.35**	**325**	P	pP	19 40 06.1	+2.9
	SNR=5.8						
SONM	**Songino Array**	**46.71**	**325**	P	**P**	**19 39 42.7**	**+0.5**
SONM				*PP	pP	19 40 07.1	+1.1
SONM	**Songino Array**	**46.71**	**325**	P	**P**	**19 39 42.7**	**+0.5**
	comp=Z,7.0nm,0.7s,mb4.5,baz=139,slow=7.5,SNR=48						
SONM				pP	pP	19 40 07.1	+1.1
	comp=Z,21nm,0.9s,baz=142,slow=8.6,SNR=9.8						
SONM				ScP	ScP	19 44 56.9	-1.9
	comp=Z,4.2nm,0.9s,baz=142,slow=4.3,SNR=7.8						
SONM				LR	LR	19 58 32.6	
	comp=Z,261nm,19.0s,baz=1.4,slow=35						

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GTA   Gaotai           47.25 311    P       P       19 39 47.1 +0.6
GTA                                 AP      pP      19 40 10.8 +0.4
GTA                                 XP      sP      19 40 21.5 -0.2
GTA                                 PCP     PcP     19 41 20.1 +3.8
GTA                                 SCP     ScP     19 45 01.7 +0.5
GTA                                 PCS     PcS     19 45 14.2 +2.7
GTA                                 S       S       19 46 33.3 +1.1
GTA                                 XS      sS      19 47 14.2 +1.1
GTA                                 SCS     ScS     19 49 29.7 -1.0
GTA                                 SS      SS      19 49 55.2 -5.6
GTA                                 AMB     AMB
      comp=Z,17nm,1.0s,mb4.7
GTA                                 AMB     AMB
      comp=Z,215nm,5.7s
GTA                                 LR      LR
      comp=N,305nm,18.0s
GTA                                 LR      LR
      comp=E,293nm,19.9s
GTA                                 LR      LR
      comp=Z,413nm,19.1s
FORT  Forrest          47.35 200   eP       P       19 39 46.8 -0.5
      comp=Z,110nm,0.8s,mb5.6
FORT                               e                19 39 57.0
CNB   Canberra Magne   49.06 176   eP       P       19 39 59.5 -0.9
      comp=Z,28nm,0.8s,mb5.2
CNB                                e                19 40 11.2
SEY   Seymchan         49.27   4⇑eP       P       19 40 00.5 -1.2
YAK   Yakutsk          49.38 350⇑eP       P       19 39 59.8 -2.6
      comp=Z,47nm,0.7s,mb5.5
YAK                                 pP      pP      19 40 25.9 -0.6
YAK   Yakutsk          49.38 350   eP       P       19 40 01.1 -1.4
YAK                                eS       S       19 46 58.5 -3.0
YAK                                 pmax    pmax
      comp=N,9.0nm,0.9s
YAK                                 pmax    pmax
      comp=Z,40nm,0.9s,mb5.3
YAK                                 pmax    pmax
      comp=E,3.0nm,0.8s
YAK                                 smax
      comp=N,56nm,2.6s
YAK                                 smax
      comp=E,250nm,4.6s
BOD   Bodaibo          49.79 339   eP       P       19 40 04.7 -1.0
BOD                                 pmax    pmax
      comp=Z,11nm,0.9s,mb4.8
ZAK   Zakamensk        49.80 326   eP       P       19 40 05.5 -0.4
ZAK                                e        pP      19 40 25.3 -4.7
ZAK                                 pmax    pmax
      comp=Z,4.0nm,1.0s,mb4.3
ZAK                                 pmax    pmax
      comp=Z,14nm,1.2s,mb4.8
TLY   Talaya           50.31 328   eP       P       19 40 09.5 -0.2
      comp=Z,15nm,0.7s,mb5.0
TLY                                epP      pP      19 40 34.2 +0.4
TLY                                eScP     ScP     19 45 14.0  0.0
TLY   Talaya           50.31 328   eP       P       19 40 09.1 -0.6
TLY                                eS       S       19 47 20.8 +6.1
TLY                                e                19 48 06.6
TLY                                 pmax    pmax
      comp=Z,7.0nm,0.9s,mb4.6
TLY                                 MLR     MLR
      comp=Z,107nm,15.0s
TLY   Talaya           50.31 328    P       pP      19 40 36.3 +2.5
      SNR=5.4
TLY   Talaya           50.31 328    P       pP      19 40 36.3 +2.5
      SNR=5.4
AFI   Afiamalu         50.74 121    P       P       19 40 12.1 -1.4
      comp=Z,48nm,0.9s,mb5.5,baz=217,slow=2.8,SNR=3.6
TOO   Toolangi         51.15 180   eP       P       19 40 16.6 +0.4
      comp=Z,80nm,0.8s,mb5.8
TOO                                e                19 40 27.7
TOO   Toolangi         51.15 180   eP       P       19 40 16.6 +0.4
TOO                                 pmax    pmax
      comp=Z,80nm,0.8s,mb5.8
KLBR  Kellerberrin     52.31 210   eP       P       19 40 23.9 -1.0
      comp=Z,30nm,0.7s,mb5.4
MUN   Mundaring        53.38 211   eP       P       19 40 31.8 -1.0
NWAO  Narrogin (SRO)   53.66 209   eP       P       19 40 34.1 -0.6
      comp=Z,13nm,0.8s,mb5.0
NWAO                               epP      pP      19 41 02.7 +3.6
NWAO  Narrogin (SRO)   53.66 209   eP       P       19 40 34.1 -0.7
NWAO                               e*PP     pP      19 41 02.7 +3.6
NWAO                                pmax    pmax
      comp=Z,13nm,0.8s
UNV   Unalaska Valle   54.92  33   eP       P       19 40 42.1 -1.6
      comp=Z,181nm,0.8s,mb6.2
UNV                                 pP      pP      19 41 06.5 -1.6
TAPN  Taplejung        55.05 294   eP       P       19 40 45.2 +0.1
      comp=Z,79nm,0.6s,mb5.9
ODAN  Odare            55.32 293   eP       P       19 40 47.0  0.0
      comp=Z,67nm,0.8s,mb5.7
BILL  Bilibino         55.84   9⇑eP       P       19 40 47.5 -2.5
      comp=Z,42nm,1.3s,mb5.3
BILL  Bilibino         55.84   9⇓eP       P       19 40 48.4 -1.7
BILL                               e*PP     pP      19 41 12.0 -2.6
BILL                               e                19 42 52.8
BILL                               eS       S       19 48 26.9 -2.5
BILL                                pmax    pmax
      comp=Z,23nm,1.0s,mb5.2
JIRN  Jiri             56.41 294   eP       P       19 40 55.1 +0.3
      comp=Z,114nm,0.6s,mb6.1
TAU   Tasmania Unive   56.52 178    P       P       19 40 55.1  0.0
      comp=Z,256nm,1.0s,mb6.2,SNR=8.1
TAU   Tasmania Unive   56.52 178⇓iP       P       19 40 55.0 -0.2
      comp=Z,73nm,1.3s,mb5.5
TAU   Tasmania Unive   56.52 178⇓iP       P       19 40 55.0 -0.1
TAU                                 pmax    pmax
      comp=Z,73nm,1.3s,mb5.5
GUN   Gumba            56.69 294   eP       P       19 40 57.0 +0.2
      comp=Z,215nm,0.7s,mb6.3
PKI   Pulchoki         57.10 294   eP       P       19 40 59.4 -0.3
      comp=Z,60nm,0.6s,mb5.8
WMQ   Urumqi           57.20 313    P       P       19 41 01.3 +1.2
WMQ                                 AP      pP      19 41 25.2 +0.5
WMQ                                 XP      sP      19 41 36.3 +0.4
WMQ                                 PCP     PcP     19 41 54.5 +1.0
WMQ                                 PP      PP      19 43 11.1 +3.0
WMQ                                 S       S       19 48 47.4 -0.6
WMQ                                 SCS     ScS     19 50 37.4 -2.5
WMQ                                 SS      SS      19 52 39.2 +0.8
WMQ                                 AMB     AMB
      comp=Z,41nm,1.0s,mb5.4
WMQ                                 AMB     AMB
      comp=Z,64nm,11.2s
WMQ                                 LR      LR
      comp=N,301nm,19.4s
WMQ                                 LR      LR
      comp=E,187nm,20.6s
WMQ                                 LR      LR
      comp=Z,226nm,24.2s
KKN   Kakani           57.21 294   eP       P       19 41 00.2 -0.3
      comp=Z,80nm,0.7s,mb5.8
DMN   Daman            57.37 294   eP       P       19 41 01.4 -0.2
      comp=Z,103nm,0.6s,mb6.0
GKN   Gorkha           57.79 294   eP       P       19 41 04.1 -0.4
      comp=Z,167nm,0.7s,mb6.2
TIXI  Tiksi            58.60 354⇑eP       P       19 41 08.2 -1.2
TIXI                                pmax    pmax
      comp=Z,4.0nm,1.0s,mb4.4
KOLN  Koldanda         58.70 294   eP       P       19 41 10.6 -0.3
      comp=Z,107nm,0.7s,mb6.0
SDPT  Sand Point       58.74  33   eP       P       19 41 09.0 -1.6
SDPT                               epP      pP      19 41 35.7 +0.3
TNA   Tin City         60.48  20   eP       P       19 41 20.9 -1.5
      comp=Z,5.1nm,0.8s,mb4.6
MK31  Makanchi Array   61.53 316⇑iP       P       19 41 29.7 -0.2
MK31                               epP      pP      19 41 56.8 +2.1
MK31                               eScP     ScP     19 46 03.0 -0.3
MK31                               eS       S       19 49 44.9 +1.2
MK31  Makanchi Array   61.53 316⇑iP       P       19 41 29.7 -0.2
MK31                               e*PP     pP      19 41 56.8 +2.0
MK31                               eS       S       19 49 44.9 +1.2
MKAR  Makanchi Array   61.53 316    P       P       19 41 29.7 -0.1
MKAR                                ScP     ScP     19 46 03.2 -0.2
MKAR                                S       S       19 49 45.1 +1.4
MKAR                              ⇑e                20 10 47.0
MKAR  Makanchi Array   61.53 316    P       P       19 41 29.7 -0.2
MKAR                                S       S       19 49 45.2 +1.5
MKAR  Makanchi Array   61.53 316    P       P       19 41 29.7 -0.1
      comp=Z,21nm,0.6s,mb5.3,baz=92,slow=7.9,SNR=209
MKAR                                ScP     ScP     19 46 03.2 -0.2
      comp=Z,1.9nm,0.8s,baz=106,slow=4.7,SNR=4.6
MKAR                                S       S       19 49 45.1 +1.4
      comp=Z,0.7nm,1.0s,baz=94,slow=4.3,SNR=4.0
MKAR                                PKP2bc          20 10 47.0
      comp=Z,5.1nm,1.2s,baz=329,slow=1.4,SNR=9.5
ZALV  Zalesovo Beam    61.60 324    P       P       19 41 29.3 -0.9
ZALV                                S       S       19 49 43.8 -0.6
ZALV                                LR      LR      20 08 48.2
ZALV                              ⇑e                20 10 44.6
ZALV  Zalesovo Beam    61.60 324    P       P       19 41 29.3 -0.9
      comp=Z,2.4nm,0.4s,mb4.6,baz=103,slow=7.3,SNR=17
ZALV                                S       S       19 49 43.8 -0.6
      comp=Z,1.1nm,0.8s,baz=84,slow=7.6,SNR=4.0
ZALV                                LR      LR      20 08 48.2
      comp=Z,97nm,19.2s,baz=127,slow=36
ZALV                                PKP2bc          20 10 44.6
      comp=Z,1.0nm,0.7s,baz=302,slow=3.3,SNR=6.0
ZAL   Zalesovo         61.61 324    P       P       19 41 29.3 -1.0
ZAL                                 S       S       19 49 43.8 -0.7
SVW2  Sparrevohn       63.28  28   eP       P       19 41 41.1 -0.2
KDAK  Kodiak Island    63.67  32    P       P       19 41 43.0 -0.9
      comp=Z,381nm,1.1s,mb6.1,SNR=25
KDAK  Kodiak Island    63.67  32   eP       P       19 41 42.6 -1.2
      comp=Z,74nm,1.1s,mb5.4
KDAK                               epP      pP      19 42 05.8 -3.1
KDAK  Kodiak Island    63.67  32    P       P       19 41 43.5 -0.4
      comp=Z,53nm,1.0s,mb5.3,baz=232,slow=2.1,SNR=58
HYB   Hyderabad        64.01 283   eP       P       19 41 47.0 +0.2
HYB   Hyderabad        64.01 283   i P      P       19 41 47.0 +0.2
HYB                                epP      pP      19 42 12.5 +0.6
HYB                                ePcP     PcP     19 42 20.0 -1.5
HYB                                eS       S       19 50 16.0 +0.3
KURK  Kurchatov        64.59 320    P       P       19 41 49.8 -0.3
      comp=Z,161nm,1.4s,mb5.7,SNR=12
KURK  Kurchatov        64.59 320⇑eP       P       19 41 49.1 -1.0
      comp=Z,56nm,0.9s,mb5.4
KURK                               epP      pP      19 42 15.3 +0.1
KURK  Kurchatov        64.59 320⇑eP       P       19 41 49.1 -1.0
KURK                               e*PP     pP      19 42 15.3 +0.1
KURK                                pmax    pmax
      comp=Z,56nm,0.9s,mb5.4
KURK  Kurchatov        64.59 320    P       P       19 41 49.5 -0.6
      SNR=13
KURK  Kurchatov        64.59 320    P       P       19 41 49.5 -0.6
      SNR=13
KURK  Kurchatov        64.59 320    P       P       19 41 49.5 -0.6
      SNR=13
KURK  Kurchatov        64.59 320    P       P       19 41 49.5 -0.6
      SNR=13
ULHL  Ulahol           65.28 310    P       P       19 41 56.6 +1.9
      SNR=13
KSH   Kashi            65.35 307   eP       P       19 41 57.1 +1.9
KSH                                eAP      pP      19 42 21.5 +1.2
KSH                                eXP      sP      19 42 32.5 +1.2
KSH                                ePP      PP      19 44 25.1 +5.1
KSH                                ePPP             19 46 00.7
KSH                                eSCP             19 46 20.6
KSH                                ePCS             19 46 31.0
KSH                                eS       S       19 50 30.5 -0.9
KSH                                ePS              19 51 09.6
KSH                                eXS      sS      19 51 15.4 +0.9
KSH                                eSCS     ScS     19 51 40.1 -1.3
KSH                                eSS      SS      19 54 50.3 +4.2
KSH                                 AMB     AMB
      comp=Z,350nm,6.1s
KSH                                 LR      LR
      comp=N,446nm,5.4s
KSH                                 LR      LR
      comp=E,451nm,5.3s
KSH                                 LR      LR
      comp=Z,629nm,5.4s
SLKM  Skilak Lake      65.59  29   eP       P       19 41 55.2 -1.2
SLKM                               epP      pP      19 42 18.2 -3.3
TKM2  Tokmak 2         65.80 311    P       P       19 41 58.6 +0.6
      SNR=14
TKM2  Tokmak 2         65.80 311⇑eP       P       19 41 57.6 -0.4
      comp=Z,14nm,0.8s,mb4.8
TKM2                               epP      pP      19 42 24.1 +1.0
TKM2  Tokmak 2         65.80 311⇑eP       P       19 41 57.6 -0.4
TKM2                               e*PP     pP      19 42 24.1 +0.9
TKM2                                pmax    pmax
      comp=Z,14nm,0.8s,mb4.8
IMA2  Indian Mountai   65.87  23   eP       P       19 41 57.2 -0.8
KZA   Kyzart           66.00 310    P       P       19 42 00.6 +1.2
      SNR=31
KBK   Karagaybulak     66.26 311    P       P       19 42 01.1 +0.1
      SNR=20
PMR   Palmer           66.39  28   eP       P       19 41 59.6 -1.8
      comp=Z,19nm,0.9s,mb4.9
PMR   Palmer           66.39  28   eP       P       19 41 59.6 -1.8
PMR                                 pmax    pmax
      comp=Z,19nm,0.9s,mb4.9
CHMS  Chumysh          66.42 311    P       P       19 42 02.0  0.0
      SNR=6.7
UCH   Uchtor           66.56 310    P       P       19 42 03.9 +1.0
      SNR=26
UCH   Uchtor           66.56 310⇑iP       P       19 42 03.6 +0.7
      comp=Z,19nm,0.9s,mb4.9
UCH                                e        pP      19 42 27.8 -0.4
AAK   Ala-Archa        66.59 311    P       P       19 42 02.7 -0.4
      comp=Z,65nm,0.5s,mb5.7,SNR=8.5
AAK   Ala-Archa        66.59 311    P       P       19 42 03.4 +0.3
      SNR=8.8
AAK   Ala-Archa        66.59 311⇑iP       P       19 42 01.6 -1.5
      comp=Z,8.6nm,0.8s,mb4.6
AAK                                epP      pP      19 42 27.1 -1.2
AAK   Ala-Archa        66.59 311⇑iP       P       19 42 01.6 -1.5
AAK                                e*PP     pP      19 42 27.1 -1.2
AAK                                 pmax    pmax
      comp=Z,9.0nm,0.8s,mb4.7
AAK   Ala-Archa        66.59 311    P       P       19 42 02.0 -1.1
      SNR=15
AAK   Ala-Archa        66.59 311    P       P       19 42 02.0 -1.1
      SNR=15
AAK   Ala-Archa        66.59 311    P       P       19 42 02.0 -1.1
      SNR=15
USP   Ospenovka        66.62 311    P       P       19 42 02.7 -0.5
      SNR=14
SML   Sawmill          66.81  28⇑iP       P       19 42 02.8 -1.4
MCK   McKinley         67.05  26   eP       P       19 42 03.2 -2.3
      comp=Z,26nm,1.4s,mb4.9
MCK   McKinley         67.05  26   eP       P       19 42 03.3 -2.3
MCK                                 pmax    pmax
      comp=Z,26nm,1.4s,mb4.9
EKS2  Erkin-Say        67.12 311    P       P       19 42 08.0 +1.6
      SNR=12
EKS2  Erkin-Say        67.12 311   eP       P       19 42 06.0 -0.4
      comp=Z,9.0nm,0.9s,mb4.6
EKS2                               epP      pP      19 42 32.4 +0.7
AML   Almayashu        67.16 310    P       P       19 42 07.3 +0.6
      SNR=16
AML   Almayashu        67.16 310⇑iP       P       19 42 07.1 +0.4
      comp=Z,19nm,0.8s,mb5.0
AML                                epP      pP      19 42 33.3 +1.3
EYAK  Cordova Ski Ar   67.75  30   eP       P       19 42 09.2 -0.9
EYAK                               epP      pP      19 42 40.5 +5.1
COLA  College          67.81  25   eP       P       19 42 08.4 -1.9
      comp=Z,12nm,0.7s,mb4.8
COLA  College          67.81  25   eP       P       19 42 08.4 -1.9
COLA                                pmax    pmax
      comp=Z,12nm,0.7s,mb4.8
DIV   Divide           67.86  29   eP       P       19 42 09.7 -1.0
      comp=Z,259nm,1.3s,mb5.9
MENT  Mentasta         69.16  28   eP       P       19 42 18.0 -0.8
BRVK  Borovoye         69.99 322    P       P       19 42 23.9 -0.2
      comp=Z,137nm,0.7s,mb5.9,SNR=13
BRVK  Borovoye         69.99 322⇑iP       P       19 42 22.8 -1.3
      comp=Z,18nm,0.8s,mb5.0
BRVK                               ePcP     PcP     19 42 44.9 -0.8
BRVK                               epP      pP      19 42 49.0 -0.5
BRVK  Borovoye         69.99 322⇑iP       P       19 42 22.8 -1.3
BRVK                               e        pP      19 42 44.9 -4.6
BRVK                               e*PP     pP      19 42 49.0 -0.5
BRVK                                pmax    pmax
      comp=Z,18nm,0.8s,mb5.0
BRVK  Borovoye         69.99 322    P       P       19 42 23.4 -0.6
      SNR=5.9
BRVK  Borovoye         69.99 322    P       P       19 42 23.4 -0.6
      SNR=5.9
BRVK  Borovoye         69.99 322    P       P       19 42 23.4 -0.6
      SNR=5.9
BRVK  Borovoye         69.99 322    P       P       19 42 23.4 -0.6
      SNR=5.9
EGAK  Eagle            70.59  26⇑eP       P       19 42 25.7 -1.8
      comp=Z,30nm,0.9s,mb5.1
EGAK                               epP      pP      19 42 55.8 +2.8
KBL   Kabul            70.97 302⇑iP       P       19 42 29.6 -0.9
KBL                                epP      pP      19 42 55.0 -1.0
DAWY  Dawson           71.25  27   eP       P       19 42 30.6 -0.9
DAWY                               epP      pP      19 42 56.3 -0.8
PPT   Papeete          71.51 114   eS       S       19 51 40.3 -4.9
      comp=Z,112nm,26.0s
PPT                                eLR      LR      20 03 42.6
      comp=Z,1µm,33.2s,baz=291
PPT   Papeete          71.51 114    LR      LR      20 09 30.8
      comp=Z,74nm,20.2s,baz=269,slow=32
TVO   Taravao          71.88 114   eP       P       19 42 37.4 +1.3
      comp=Z,142nm,1.2s,mb5.7
TVO   Taravao          71.88 114   eP       P       19 42 37.4 +1.3
TVO                                 pmax    pmax
      comp=Z,142nm,1.2s,mb5.7
PMOR  Pomariorio Ree   72.11 111   eP       P       19 42 38.1 +0.6
      comp=Z,94nm,1.1s,mb5.5
SKAG  Skagway          72.82  32   eP       P       19 42 40.7 -0.3
      comp=Z,53nm,1.0s,mb5.3
INK   Inuvik           73.99  22⇑iP       P       19 42 45.8 -1.9
      comp=Z,611nm,0.9s,mb6.3
INK   Inuvik           73.99  22⇑iP       P       19 42 45.8 -1.9
INK                                 pmax    pmax
      comp=Z,611nm,0.9s
WRAK  Wrangell Islan   74.40  35   eP       P       19 42 50.1 -0.2
      comp=Z,76nm,1.0s,mb5.4
DLBC  Dease Lake       75.58  33⇑eP       P       19 42 56.9 -0.1
DLBC                               epP      pP      19 43 19.8 -3.0
ARU   Arti             76.74 325   eP       P       19 43 01.7 -1.9
      comp=Z,40nm,1.4s,mb5.0
ARU                                epP      pP      19 43 28.3 -1.2
ARU   Arti             76.74 325⇑iP       P       19 43 02.4 -1.2
ARU                                e                19 43 12.5
ARU                                e                19 43 40.8
ARU                                e                19 45 57.3
ARU                                eS       S       19 52 37.4 -5.0
ARU                                eSS      SS      19 57 33.4 -6.4
ARU                                 pmax    pmax
      comp=Z,10.0nm,1.1s,mb4.5
TAOE  Nuku Hiva Isla   77.42 102   eLR      LR      20 06 31.3
      comp=Z,2µm,35.7s
ABKT  Ailbek           79.36 307    P       P       19 43 18.6 +0.1
      comp=Z,162nm,0.8s,mb5.9,SNR=11
B04A  Port Angeles     80.68  43  ⇓P        P       19 43 26.2 +0.7
      baz=81,SNR=6.3
E03A  Lebam            80.92  44  ⇑P        P       19 43 27.2 +0.5
      baz=81,SNR=7.9
F03A  Seaside          81.03  45  ⇓P        P       19 43 28.0 +0.6
      baz=81
C04A  Brinnon          81.10  43    P       P       19 43 28.4 +0.7
      baz=81,SNR=8.6
I02A  Mapleton         81.20  47  ⇑P        P       19 43 29.4 +1.1
      baz=81
G03A  Yamhill          81.34  46  ⇓P        P       19 43 30.1 +1.1
      baz=81
M01C  Crescent City    81.39  49  ⇑P        P       19 43 30.1 +0.8
      baz=81
A05A  Maple Falls      81.44  42  ⇓P        P       19 43 29.7 +0.3
      baz=81,SNR=5.5
H03A  Soap Creek Ran   81.45  46    P       P       19 43 30.4 +0.9
      baz=81,SNR=11
COR   Corvallis        81.46  46    P       P       19 43 28.2 -1.4
      comp=Z,32nm,0.9s,mb5.2
COR   Corvallis        81.46  46    P       P       19 43 28.2 -1.4
COR                                 pmax    pmax
      comp=Z,32nm,0.9s,mb5.2
E04A  Onalaska         81.48  44  ⇑P        P       19 43 29.3 -0.4
      baz=81
J02A  Umpqua           81.50  47  ⇑P        P       19 43 30.0 +0.2
      baz=81
B05A  Bryant           81.57  42    P       P       19 43 30.5 +0.3
      baz=82,SNR=8.3
I03A  Eugene           81.59  47    P       P       19 43 31.0 +0.6
      baz=82,SNR=5.3
MBW   Mount Baker      81.60  42    P       P       19 43 30.4 +0.2
JCC   Jacoby Creek     81.65  50  ⇑P        P       19 43 31.5 +0.7
      baz=82
K02A  Glendale         81.67  48  ⇑P        P       19 43 31.2 +0.4
      baz=82,SNR=6.2
JCW   Jim Creek        81.69  42    P       P       19 43 31.1 +0.3
L02A  Cave Junction    81.71  49    P       P       19 43 31.8 +0.8
      baz=82,SNR=6.9
A06A  Chilliwack       81.81  42    P       P       19 43 31.3  0.0
      baz=82,SNR=12
F04A  Amboy            81.81  45    P       P       19 43 31.7 +0.2
      baz=82,SNR=6.8
D05A  Enumclaw         81.85  43  ⇓P        P       19 43 31.9 +0.3
      baz=82
KHMM  Horse Mountain   81.86  50   eP       P       19 43 31.8 -0.1
KHMM                               epP      pP      19 44 03.1 +5.1
G04A  Mulino           81.92  46  ⇑P        P       19 43 32.3 +0.2
      baz=82,SNR=6.0
B06A  Marblemount      81.92  42    P       P       19 43 32.1 +0.1
      baz=82,SNR=5.1
J03A  Ideyld Park      81.93  47    P       P       19 43 32.8 +0.7
      baz=82,SNR=7.0
O01C  Eel River Cons   81.94  51  ⇑P        P       19 43 33.1 +0.9
      baz=82,SNR=6.7
C05A  Tolt Reservoir   81.95  43    P       P       19 43 32.4 +0.2
      baz=82,SNR=9.0
BIDO  Bidbid           81.97 292    P       P       19 43 33.4 +0.7
      SNR=7.0
BIDO  Bidbid           81.97 292    P       P       19 43 33.4 +0.7
      SNR=7.0
BIDO  Bidbid           81.97 292    P       P       19 43 33.4 +0.7
      SNR=7.0
HUMO  Hull Mountain    82.09  48   eP       P       19 43 32.6 -0.3
      comp=Z,51nm,1.3s,mb5.2
HUMO                               epP      pP      19 43 57.6 -1.5
HUMO  Hull Mountain    82.09  48    P       P       19 43 33.6 +0.6
      baz=82,SNR=21
SMDO  Samad            82.13 292    P       P       19 43 35.6 +2.1
      SNR=6.7
SMDO  Samad            82.13 292    P       P       19 43 35.6 +2.1
      SNR=6.7
SMDO  Samad            82.13 292    P       P       19 43 35.6 +2.1
      SNR=6.7
E05A  Randle           82.13  44    P       P       19 43 33.0 -0.1
      baz=82,SNR=7.2
KCPM  Cahto Peak       82.21  51   eP       P       19 43 33.6  0.0
H04A  Detroit Lake     82.22  46    P       P       19 43 33.5 -0.1
      baz=82,SNR=18
I04A  Tendick Farm,    82.24  47    P       P       19 43 33.8  0.0
      baz=82,SNR=16
KIPM  Iron Peak        82.26  51   eP       P       19 43 34.2 +0.3
KIPM                               epP      pP      19 44 00.1 +0.1
IRO   Indian Ridge     82.31  47    P       P       19 43 34.1  0.0
M02C  Callahan         82.41  49    P       P       19 43 35.5 +0.9
      baz=82,SNR=17
PRGR  Permogore        82.42 332⇑iP       P       19 43 33.4 -0.9
PRGR                               eS       S       19 53 38.9 -3.3
PRGR                                pmax    pmax
      comp=Z,10.0nm,0.5s,mb4.9
PRGR                                smax
      comp=N,41nm,1.6s
C06A  Tall Timber Ra   82.43  43  ⇓P        P       19 43 34.6  0.0
      baz=82
P01C  Double 8 Ranch   82.44  51    P       P       19 43 35.2 +0.4
      baz=82,SNR=13
YBH   Yreka Blue Hor   82.45  49   eP       P       19 43 34.9 +0.1
      comp=N,37nm,1.1s,mb5.1
YBH                                epP      pP      19 43 60.0 -1.0
YBH   Yreka Blue Hor   82.45  49   eP       P       19 43 34.9  0.0
YBH                                e*PP     pP      19 44 00.0 -1.0
YBH                                 pmax    pmax
      comp=Z,37nm,1.1s
YBH   Yreka Blue Hor   82.45  49    P       P       19 43 35.6 +0.7
      baz=82,SNR=29
YKA   Yellowknife Ar   82.47  27    P       P       19 43 33.0 -1.5
YKA                                 pP      pP      19 43 57.5 -3.2
YKA                                 PKKPbc  PKKPbc  20 01 59.3 -2.9
YKA                                 LR      LR      20 23 03.0
YKA   Yellowknife Ar   82.47  27    P       P       19 43 33.0 -1.5
YKA                                 *PP     pP      19 43 57.5 -3.2
YKA   Yellowknife Ar   82.47  27    P       P       19 43 33.0 -1.5
      comp=Z,11nm,0.8s,mb4.8,baz=287,slow=5.3,SNR=145
YKA                                 pP      pP      19 43 57.5 -3.2
      comp=Z,5.1nm,0.6s,baz=288,slow=5.6,SNR=4.4
YKA                                 PKKPbc  PKKPbc  20 01 59.3 -2.9
      comp=Z,0.4nm,0.8s,baz=96,slow=3.0,SNR=6.2
YKA                                 LR      LR      20 23 03.0
      comp=Z,40nm,19.3s,baz=230,slow=38
F05A  White Salmon     82.48  45  ⇓P        P       19 43 35.1 +0.2
      baz=82
A07A  Ashnola River,   82.52  41  ⇑P        P       19 43 35.3 +0.2
      baz=82,SNR=41
J04A  Umpqua Nationa   82.57  47    P       P       19 43 35.9 +0.4
      baz=82,SNR=15
D06A  Cle Elum         82.62  43  ⇑P        P       19 43 35.7 +0.1
      baz=82
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E06A  Yakima             82.67  44  P      P      19 43 36.2 +0.3
      baz=83,SNR=16
BUOR  Burton Butte       82.67  48  P      P      19 43 36.2 +0.2
HOQ   Hoqain             82.69 292  P      P      19 43 37.1 +0.6
      SNR=14
HOQ   Hoqain             82.69 292  P      P      19 43 37.1 +0.6
      SNR=14
HOQ   Hoqain             82.69 292  P      P      19 43 37.1 +0.6
      SNR=14
O02C  Red Bluff          82.71  51  P      P      19 43 37.2 +0.9
      baz=83,SNR=25
G05A  Wamic              82.71  45 ⇑P      P      19 43 36.3 +0.2
      baz=83
HOPS  Hopland            82.73  52 eP      P      19 43 35.8 -0.7
      comp=Z,51nm,1.3s,mb5.2
HOPS  Hopland            82.73  52  P      P      19 43 36.7 +0.3
      baz=83,SNR=11
WDC   Whiskeytown Da     82.81  50 eP      P      19 43 36.3 -0.4
      comp=Z,42nm,1.4s,mb5.1
WDC                                epP     pP     19 44 04.1 +1.2
WDC   Whiskeytown Da     82.81  50 eP      P      19 43 36.3 -0.5
WDC                                e*PP    pP     19 44 04.1 +1.2
WDC                                 pmax   pmax
      comp=Z,42nm,1.4s,mb5.1
WDC   Whiskeytown Da     82.81  50  P      P      19 43 37.1 +0.3
      baz=83,SNR=16
B07A  Winthrop           82.82  42  P      P      19 43 36.7 +0.1
      baz=83,SNR=27
GASB  Alder Springs      82.87  51 ⇓P      P      19 43 38.1 +1.0
      baz=83,SNR=26
H05A  Madras             82.90  46  P      P      19 43 37.4 +0.2
      baz=83,SNR=8.2
L04A  Klamath Falls      82.95  48  P      P      19 43 38.0 +0.5
      baz=83,SNR=13
BSY   Bisya              82.96 292  P      P      19 43 38.6 +0.7
      SNR=5.6
BSY   Bisya              82.96 292  P      P      19 43 38.6 +0.7
      SNR=5.6
BSY   Bisya              82.96 292  P      P      19 43 38.6 +0.7
      SNR=5.6
M03C  McCloud            82.97  49  P      P      19 43 38.0 +0.4
      baz=83,SNR=21
I05A  Bend               82.97  46  P      P      19 43 38.0 +0.5
      baz=83,SNR=9.1
K04A  Chilquin           82.97  48  P      P      19 43 38.1 +0.6
      baz=83,SNR=7.8
C07A  Waterville         83.03  43  P      P      19 43 37.4 -0.4
      baz=83,SNR=14
FARB  Farallon Islan     83.06  53 ⇑P      P      19 43 37.9 -0.2
      baz=83
MCCM  Marconi Confer     83.06  53 ⇑P      P      19 43 38.0 -0.1
      baz=83
M04C  Macdoel            83.07  49  P      P      19 43 38.6 +0.5
      baz=83,SNR=28
WTV   Waterville         83.10  43  P      P      19 43 37.7 -0.4
BANOM Banah              83.10 295  P      P      19 43 39.3 +0.7
      SNR=11
BANOM Banah              83.10 295  P      P      19 43 39.3 +0.7
      SNR=11
BANOM Banah              83.10 295  P      P      19 43 39.3 +0.7
      SNR=11
G06A  Carlson Farm,      83.18  45  P      P      19 43 38.6 +0.1
      baz=83,SNR=6.0
J05A  Fort Rock          83.19  47 ⇑P      P      19 43 39.2 +0.5
      baz=83,SNR=34
NSHM  Saint Helena R     83.19  52 eP      P      19 43 38.1 -0.6
D07A  Quincy             83.20  43  P      P      19 43 38.6  0.0
      baz=83,SNR=7.6
MNRC  McLaughlin Nat     83.24  52  P      P      19 43 39.8 +0.8
      baz=83,SNR=20
A08A  Turner Farm, O     83.26  41  P      P      19 43 39.0 +0.1
      baz=83,SNR=47
O03C  Acorn Hollow,      83.31  51 ⇑P      P      19 43 39.3 -0.1
      baz=83
CVS   Carmenet Viney     83.34  52  P      P      19 43 39.7 +0.2
      baz=83,SNR=9.3
B08A  Colville Reser     83.35  42 ⇑P      P      19 43 39.3 -0.1
      baz=83,SNR=69
E07A  Sunnyside          83.42  44  P      P      19 43 39.9 +0.2
      baz=83,SNR=15
ARQ   Araqi              83.44 292  P      P      19 43 40.8 +0.5
      SNR=11
ARQ   Araqi              83.44 292  P      P      19 43 40.8 +0.5
      SNR=11
ARQ   Araqi              83.44 292  P      P      19 43 40.8 +0.5
      SNR=11
MDW   Midway             83.47  44  P      P      19 43 40.1  0.0
H06A  Lindquist Farm     83.50  46  P      P      19 43 40.2  0.0
      baz=83,SNR=18
F07A  Phinny Hill Vi     83.52  44 ⇑P      P      19 43 40.5 +0.2
      baz=83
K05A  Summer Lake        83.55  48  P      P      19 43 41.2 +0.7
      baz=84,SNR=23
HATC  Hat Creek Radi     83.56  50  P      P      19 43 41.1 +0.5
      baz=84,SNR=11
LBCM  Butte Creek Ri     83.64  50  P      P      19 43 41.1 +0.1
SUTB  Sutter Butte       83.66  51 ⇓P      P      19 43 41.0 -0.2
      baz=84
M05C  Lookout            83.67  49  P      P      19 43 41.5 +0.3
      baz=84,SNR=14
C08A  Higginbotham F     83.67  42 ⇑P      P      19 43 40.7 -0.3
      baz=84,SNR=38
HAWA  Hanford            83.67  44 eP      P      19 43 40.6 -0.4
      comp=Z,15nm,0.8s,mb4.9
HAWA                                pP     pP     19 44 08.2 +0.9
A09A  Danville           83.69  41  P      P      19 43 41.3 +0.2
      baz=84,SNR=18
JRSC  Jasper Ridge       83.71  53 ⇑P      P      19 43 41.3 -0.2
      baz=84
L05A  Lakeview           83.75  48  P      P      19 43 42.2 +0.7
      baz=84,SNR=14
I06A  Prineville         83.77  46  P      P      19 43 42.0 +0.4
      baz=84,SNR=20
ORV   Oroville           83.81  51  P      P      19 43 41.8 -0.2
      baz=84,SNR=20
G07A  Ruggs Ranch, H     83.84  45  P      P      19 43 41.9 -0.1
      baz=84,SNR=16
OHCM  Honcut             83.87  51 eP      P      19 43 41.2 -1.0
D08A  Wollman Farm,      83.93  43  P      P      19 43 42.2 -0.2
      baz=84,SNR=13
CASY  Casey              83.94 193 eP      P      19 43 41.9  0.0
      comp=Z,86nm,1.8s,mb5.3
O04C  Chester            83.95  50  P      P      19 43 43.1 +0.5
      baz=84,SNR=12
J06A  Christmas Vall     83.97  47  P      P      19 43 42.6  0.0
      baz=84,SNR=20
E08A  Dider Farm, El     83.97  44  P      P      19 43 42.5  0.0
      baz=84,SNR=7.2
OD2   Odessa Site #2     83.99  43  P      P      19 43 42.2 -0.5
K06A  Valley Falls       84.00  48  P      P      19 43 43.0 +0.2
      baz=84,SNR=12
WENL  Wente Brothers     84.04  53 ⇑P      P      19 43 43.6 +0.5
      baz=84,SNR=6.1
Q04C  Lincoln            84.06  52 ⇓P      P      19 43 43.6 +0.4
      baz=84
B09A  Rice               84.11  42  P      P      19 43 43.3 +0.1
      baz=84,SNR=21
ELFS  Eagle Lake Fie     84.15  50  P      P      19 43 44.3 +0.7
      baz=84,SNR=14
O05C  Quincy             84.15  50  P      P      19 43 43.7 +0.1
      baz=84,SNR=10
MOD   Modoc              84.17  48 eP      P      19 43 43.3 -0.4
      comp=Z,26nm,1.2s,mb4.9
MOD                                epP     pP     19 44 11.1 +1.1
MOD   Modoc              84.17  48  P      P      19 43 43.9 +0.2
      baz=84,SNR=24
M06C  Likely Place G     84.20  49  P      P      19 43 44.4 +0.5
      baz=84,SNR=20
RES   Resolute Bay       84.21  13 eP      P      19 43 41.3 -2.0
      comp=Z,209nm,0.7s,mb6.1
RES                                epP     pP     19 44 03.9 -5.7
RES   Resolute Bay       84.21  13 eP      P      19 43 41.3 -2.0
RES                                e*PP    pP     19 44 03.9 -5.6
RES                                 pmax   pmax
      comp=Z,209nm,0.7s,mb6.1
I07A  Izee               84.23  46  P      P      19 43 44.1 +0.1
      baz=84,SNR=16
G08A  Pilot Rock         84.32  45  P      P      19 43 44.4  0.0
      baz=84,SNR=21
F08A  Pendleton          84.33  44  P      P      19 43 44.7 +0.3
      baz=84,SNR=21
D09A  Jones Farm, Ri     84.33  43  P      P      19 43 44.5  0.0
      baz=84,SNR=16
A10A  Northport          84.35  41  P      P      19 43 44.6 +0.2
      baz=84,SNR=16
S04C  Ingram Canyon,     84.40  53  P      P      19 43 45.3 +0.4
      baz=84,SNR=17
HAST  UC Hastings Re     84.47  54  P      P      19 43 45.7 +0.4
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      baz=84,SNR=20
J07A  Hines              84.53  47  P      P      19 43 46.0 +0.5
      baz=84,SNR=14
PACP  Pacheco Peak       84.54  53  P      P      19 43 46.1 +0.5
      baz=84,SNR=11
LAVA  Lava Cap Winer     84.56  52  P      P      19 43 45.8 +0.1
      baz=84,SNR=11
E09A  Wood Farm, Sta     84.58  44  P      P      19 43 45.4 -0.3
      baz=84,SNR=25
BEKR  Beckwourth         84.59  50  P      P      19 43 45.5 -0.3
      baz=84,SNR=41
H08A  Prairie City       84.71  46  P      P      19 43 46.4  0.0
      baz=85,SNR=9.4
B10A  Chitwood Farm,     84.73  42 ⇓P      P      19 43 46.5 +0.1
      baz=85,SNR=6.4
K07A  Rock Creek Ran     84.74  47  P      P      19 43 46.5 -0.1
      baz=85,SNR=23
N06A  Buffalo Meadow     84.78  49  P      P      19 43 47.0 +0.2
      baz=85,SNR=25
C10A  Spilker Farm,      84.80  42 ⇓P      P      19 43 46.9 +0.2
      baz=85,SNR=8.7
V03C  Hunter Liggett     84.81  54  P      P      19 43 48.0 +0.9
      baz=85,SNR=11
NEW   Newport            84.81  42⇑eP      P      19 43 46.0 -0.7
      comp=Z,72nm,1.0s,mb5.5
NEW   Newport            84.81  42⇑eP      P      19 43 46.1 -0.7
NEW                                 pmax   pmax
      comp=Z,72nm,1.0s
L07A  Adell              84.84  48  P      P      19 43 47.8 +0.7
      baz=85,SNR=19
LRV   Little Rabbit      84.88  54 eP      P      19 43 47.8 +0.4
O06A  Flanigan           84.92  50  P      P      19 43 47.8 +0.2
      baz=85,SNR=32
I08A  Drewsey            84.93  46 ⇓P      P      19 43 47.4 -0.1
      baz=85
F09A  S2 Ranch, Elgi     84.94  44  P      P      19 43 47.5  0.0
      baz=85,SNR=6.1
P06A  Stead Airport,     84.98  51 ⇑P      P      19 43 48.0 +0.1
      baz=85
CMB   Columbia Colle     85.00  52 eP      P      19 43 47.4 -0.5
      comp=Z,22nm,1.0s,mb5.0
CMB                                e              19 43 56.4
CMB                                epP     pP     19 44 17.2 +3.0
CMB   Columbia Colle     85.00  52 eP      P      19 43 47.4 -0.6
CMB                                e*PP    pP     19 44 17.2 +3.0
CMB                                 pmax   pmax
      comp=Z,22nm,1.0s,mb5.0
CMB   Columbia Colle     85.00  52  P      P      19 43 48.0  0.0
      baz=85,SNR=23
D10A  Wagner Farm, O     85.02  43  P      P      19 43 47.5 -0.3
      baz=85,SNR=17
T05C  Eagle Field, D     85.04  53 ⇓P      P      19 43 48.7 +0.5
      baz=85
R05C  Kirkwood Meado     85.08  52  P      P      19 43 48.7 +0.3
      baz=85,SNR=12
U04C  Hernandez Rese     85.08  54  P      P      19 43 49.3 +0.9
      baz=85,SNR=16
M07A  Soldier Meadow     85.11  49 ⇓P      P      19 43 48.7 +0.3
      baz=85,SNR=5.2
A11A  Hall Mountain,     85.11  41  P      P      19 43 49.2 +0.9
      baz=85,SNR=47
J08A  Circle Bar Ran     85.13  47  P      P      19 43 48.8 +0.2
      baz=85,SNR=18
WCN   Washoe City        85.18  51  P      P      19 43 49.3 +0.4
      baz=85,SNR=6.9
V04C  Ramage Ranch,      85.18  55 ⇑P      P      19 43 49.2 +0.3
      baz=85
S05C  Merced             85.20  53 ⇑P      P      19 43 48.9 -0.1
      baz=85,SNR=7.2
WVOR  Wild Horse Val     85.24  48 eP      P      19 43 47.5 -1.6
      comp=Z,40nm,1.3s,mb5.2
WVOR                               epP     pP     19 44 16.7 +1.3
WVOR  Wild Horse Val     85.24  48 eP      P      19 43 47.5 -1.6
WVOR                               e*PP    pP     19 44 16.7 +1.3
WVOR                                pmax   pmax
      comp=Z,39nm,1.3s,mb5.2
B11A  Sandpoint          85.25  41  P      P      19 43 49.3 +0.3
      baz=85,SNR=52
E10A  Myers Farm, Un     85.28  43  P      P      19 43 49.0 -0.2
      baz=85,SNR=11
K08A  Mann Creek Ran     85.28  47  P      P      19 43 49.2  0.0
      baz=85,SNR=20
F10A  Beach Ranch, E     85.33  44  P      P      19 43 49.3 -0.1
      baz=85,SNR=9.3
APA   Apatity            85.34 339⇑eP      P      19 43 57.0 +8.0
APA                                 pmax   pmax
      comp=Z,29nm,1.2s,mb5.1
PAHR  Pah Rah Range      85.36  50 eP      P      19 43 48.8 -1.0
      comp=Z,38nm,1.3s,mb5.2
PAHR                               e              19 43 55.9
PAHR                               epP     pP     19 44 15.9 -0.1
H09A  Durkee             85.37  45  P      P      19 43 49.9 +0.2
      baz=85,SNR=9.2
PKD   Parkfield          85.37  54  P      P      19 43 50.2 +0.3
      baz=85,SNR=19
N07B  Gerlach            85.41  49 ⇓P      P      19 43 50.4 +0.5
      baz=85,SNR=9.8
S06C  San Francisco      85.45  52  P      P      19 43 50.2  0.0
      baz=85,SNR=12
I09A  Lost Marbles R     85.49  46 ⇓P      P      19 43 49.9 -0.4
      baz=85
L08A  Fields             85.51  48  P      P      19 43 50.9 +0.5
      baz=85,SNR=17
BMO   Blue Mountains     85.56  45⇑eP      P      19 43 49.7 -1.0
      comp=Z,47nm,1.1s,mb5.3
BMO                                epP     pP     19 44 15.0 -1.9
BMO   Blue Mountains     85.56  45⇑eP      P      19 43 49.7 -0.9
BMO                                e*PP    pP     19 44 15.0 -1.9
BMO                                 pmax   pmax
      comp=Z,47nm,1.1s,mb5.3
A12A  Yaak River Ran     85.57  41  P      P      19 43 51.5 +0.9
      baz=86,SNR=23
R06C  Coleville          85.60  52  P      P      19 43 51.5 +0.6
      baz=86,SNR=15
U05C  Westside ANR,      85.61  54 ⇓P      P      19 43 52.1 +1.0
      baz=86
O07A  Toulon             85.63  50  P      P      19 43 51.4 +0.3
      baz=86,SNR=12
J09A  Fry Pan Ranch,     85.64  47  P      P      19 43 51.2 +0.2
      baz=86,SNR=38
M08A  Happy Creek Ra     85.67  49  P      P      19 43 51.6 +0.4
      baz=86,SNR=13
EDM   Edmonton           85.74  36⇑iP      P      19 43 50.4 -0.9
EDM                                epP     pP     19 44 13.5 -4.1
B12A  Libby              85.74  41 ⇓P      P      19 43 51.7 +0.3
      baz=86,SNR=29
T06C  Millerton Lake     85.77  53  P      P      19 43 51.8 -0.1
      baz=86,SNR=22
P07A  Fallon             85.77  50 ⇓P      P      19 43 52.3 +0.5
      baz=86
K09A  Rome               85.83  47  P      P      19 43 52.0  0.0
      baz=86,SNR=17
V05C  Boulder Hill,      85.89  54 ⇑P      P      19 43 52.8 +0.3
      baz=86
E11A  Bogner Ranch,      85.91  43  P      P      19 43 51.6 -0.7
      baz=86,SNR=26
SMMC  Simmler            85.95  55 ⇓P      P      19 43 53.1 +0.4
      baz=86,SNR=5.5
KCC   Kaiser Creek       85.99  53  P      P      19 43 53.0 +0.1
      baz=86,SNR=8.2
R07C  Lee Vining         86.01  52  P      P      19 43 53.7 +0.7
      baz=86,SNR=12
H10A  Noah’s Angus R     86.02  45 ⇑P      P      19 43 52.5 -0.4
      baz=86,SNR=53
L09A  Wilkinson Ranc     86.04  48 ⇓P      P      19 43 53.6 +0.5
      baz=86
F11A  Grangeville        86.07  44  P      P      19 43 52.1 -1.0
      baz=86,SNR=30
I10A  Payette            86.11  46 ⇑P      P      19 43 53.5 +0.1
      baz=86,SNR=7.7
G11A  Walters Elk Ra     86.13  44  P      P      19 43 52.8 -0.7
      baz=86,SNR=50
O08A  Rochester Mine     86.13  50 ⇓P      P      19 43 52.8 -0.8
      baz=86
PKM   Peak Mountain      86.19  55  P      P      19 43 54.8 +0.8
      baz=86,SNR=24
RKT   Rikitea            86.26 115 eLR     LR     20 10 33.5
      comp=Z,451nm,34.8s
MLAC  Mammoth Lakes      86.29  52 ⇓P      P      19 43 54.7 +0.3
      baz=86
RCTC  Rector, Farmer     86.30  54 ⇑P      P      19 43 53.6 -0.8
      baz=86
J10A  Berg Farm, Mel     86.31  46 ⇓P      P      19 43 54.0 -0.4
      baz=86
P08A  Dixie Valley       86.34  50 ⇑P      P      19 43 55.3 +0.7
      baz=86
A13A  Flathead Natio     86.36  41 ⇓P      P      19 43 55.0 +0.5
      baz=86,SNR=114
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M09A  Marrel Ranch,      86.36  48 ⇑P      P      19 43 55.1 +0.4
      baz=86,SNR=8.3
KEV   Kevo               86.37 342 ep      P      19 43 52.3 -1.8
      comp=Z,9.7nm,0.5s,mb5.0
KEV   Kevo               86.37 342 eP      P      19 43 52.3 -1.8
KEV                                 pmax   pmax
      comp=Z,10.0nm,0.5s,mb5.0
HELL  Mitchell Peak,     86.38  53  P      P      19 43 54.6 -0.2
      baz=86,SNR=18
SBC   Santa Barbara      86.39  56 ⇑P      P      19 43 55.3 +0.4
      baz=86
K10A  MacKenzie Ranc     86.41  47  P      P      19 43 54.9 +0.1
      baz=86,SNR=26
N09A  Rock Creek Ran     86.45  49  P      P      19 43 55.7 +0.6
      baz=86,SNR=22
B13A  Whitefish          86.48  41 ⇑P      P      19 43 55.5 +0.4
      baz=86,SNR=80
H11A  Donnelly           86.49  45 ⇓P      P      19 43 54.9 -0.3
      baz=86,SNR=36
NVAR  Mina Array Bea     86.49  51  P      P      19 43 55.7 +0.3
NVAR                                pP     pP     19 44 19.2 -2.5
NVAR  Mina Array Bea     86.49  51  P      P      19 43 55.7 +0.3
      comp=Z,7.1nm,0.6s,mb4.8,baz=270,slow=4.3,SNR=51
NVAR                                pP     pP     19 44 19.2 -2.5
      comp=Z,7.6nm,0.7s,baz=270,slow=6.9,SNR=3.1
VES   Vestal, Richgr     86.55  54  P      P      19 43 55.6 -0.1
      baz=86,SNR=7.4
BSC   Santa Cruz Isl     86.56  56 ⇑P      P      19 43 55.2 -0.5
      baz=86
MTUM  Tungsten Hills     86.57  53 eP      P      19 43 55.6 -0.1
C13A  Hot Springs        86.62  42  P      P      19 43 55.6 -0.1
      baz=86,SNR=31
WALA  Waterton Lakes     86.64  40 eP      P      19 43 55.7 -0.1
      comp=Z,65nm,0.9s,mb5.6
WALA                               epP     pP     19 44 19.4 -2.7
R08A  Mina               86.66  51  P      P      19 43 56.7 +0.5
      baz=87,SNR=9.4
Q08A  Gabbs              86.67  51  P      P      19 43 56.4 +0.2
      baz=87,SNR=6.7
I11A  Placerville        86.75  46  P      P      19 43 56.4 -0.1
      baz=87,SNR=15
BMN   Battle Mountai     86.78  49 eP      P      19 43 56.1 -0.6
      comp=Z,29nm,1.3s,mb5.0
BMN                                epP     pP     19 44 22.8 -0.2
BMN   Battle Mountai     86.78  49 eP      P      19 43 56.1 -0.6
BMN                                e*PP    pP     19 44 22.8 -0.3
BMN                                 pmax   pmax
      comp=Z,29nm,1.3s,mb5.0
S08C  White Mtn Res      86.83  52  P      P      19 43 57.8 +0.8
      baz=87,SNR=20
SNCC  San Nicolas Is     86.84  57 ⇓P      P      19 43 57.2 +0.1
      baz=87
RBK   Rabkut             86.86 287  P      P      19 43 57.1 -0.4
      SNR=6.9
RBK   Rabkut             86.86 287  P      P      19 43 57.1 -0.4
      SNR=6.9
RBK   Rabkut             86.86 287  P      P      19 43 57.1 -0.4
      SNR=6.9
D13A  Huson              86.86  42  P      P      19 43 56.3 -0.7
      baz=87,SNR=24
O09A  Fish Creek Ran     86.88  50  P      P      19 43 57.7 +0.5
      baz=87,SNR=18
L10A  Juniper Basin      86.89  48  P      P      19 43 57.5 +0.3
      baz=87,SNR=33
TIN   Tinemaha           86.90  53 ⇓P      P      19 43 57.8 +0.4
      baz=87
ARVC  Arvin              86.92  55 ⇑P      P      19 43 57.6 +0.1
      baz=87
ARCES ARCESS Array B     86.93 342  P      P      19 43 55.3 -1.5
ARCES                               *PP    pP     19 44 20.5 -2.7
ARCES ARCESS Array B     86.93 342  P      P      19 43 55.2 -1.6
      comp=Z,11nm,0.6s,mb5.0,baz=72,slow=7.8,SNR=46
ARCES                               pP     pP     19 44 20.5 -2.7
      comp=Z,5.5nm,0.7s,baz=60,slow=7.4,SNR=3.3
ARCES                               LR     LR     20 23 55.3
      comp=Z,207nm,21.9s,baz=28,slow=36
MFID  Camas Ranch        86.98  46  P      P      19 43 57.6  0.0
      baz=87,SNR=52
M10A  I.L. Ranch, Tu     86.99  48 ⇓P      P      19 43 57.6 -0.1
      baz=87
BLG   Laguna Peak        86.99  56 ⇑P      P      19 43 57.3 -0.6
      baz=87
ISA   Isabella           87.07  54  P      P      19 43 57.7 -0.5
      baz=87,SNR=14
P09A  Austin             87.08  50 ⇑P      P      19 43 58.6 +0.5
      baz=87
C14A  Swan Lake          87.12  42 ⇑P      P      19 43 58.0 -0.2
      baz=87
OSI   Osito Adit         87.14  55 ⇑P      P      19 43 58.6 +0.1
      baz=87
WHFO  Wadi Hawf          87.16 288  P      P      19 43 58.4 -0.6
      SNR=11
WHFO  Wadi Hawf          87.16 288  P      P      19 43 58.4 -0.6
      SNR=11
WHFO  Wadi Hawf          87.16 288  P      P      19 43 58.4 -0.6
      SNR=11
CWC   Cottonwood Cre     87.18  53 ⇓P      P      19 43 58.8 +0.1
      baz=87
E13A  Victor             87.23  43  P      P      19 43 57.8 -1.0
      baz=87,SNR=13
N10A  Dunphy             87.23  49 ⇓P      P      19 43 59.4 +0.5
      baz=87
Q09A  Carvers            87.24  51 ⇑P      P      19 43 59.1 +0.2
      baz=87
MSO   Missoula           87.28  42 eP      P      19 43 58.0 -0.9
      comp=Z,9.2nm,1.1s,mb4.6
MSO                                ePP     PP     19 47 22.8 -1.2
F13A  Darby              87.32  44 ⇑P      P      19 43 58.6 -0.6
      baz=87,SNR=41
H12A  Diamond D Ranc     87.33  45  P      P      19 43 58.9 -0.4
      baz=87,SNR=20
O10A  Cortez Mining,     87.35  49 ⇑P      P      19 43 59.7 +0.2
      baz=87,SNR=6.7
L11A  Cat Creek Ranc     87.38  47  P      P      19 43 59.8 +0.2
      baz=87,SNR=26
TPH   Tonopah            87.41  52 eP      P      19 43 59.6 -0.2
      comp=Z,34nm,1.2s,mb5.2
TPH   Tonopah            87.41  52 eP      P      19 43 59.6 -0.2
TPH                                 pmax   pmax
      comp=Z,34nm,1.2s,mb5.2
R09A  Tonopah            87.48  51  P      P      19 44 00.5 +0.3
      baz=87,SNR=27
D14A  Greenough          87.48  42  P      P      19 43 59.7 -0.3
      baz=87,SNR=14
S09A  Goldfield          87.50  52  P      P      19 44 00.2 -0.1
      baz=87,SNR=18
J12A  Stokes Ranch,      87.53  46  P      P      19 44 00.6 +0.3
      baz=87,SNR=19
DECC  Green Verdugo      87.55  55 ⇓P      P      19 44 00.6 +0.1
      baz=87
M11A  Holland Ranch,     87.55  48  P      P      19 44 01.1 +0.7
      baz=87,SNR=9.8
P10A  Eureka             87.56  50 ⇑P      P      19 44 01.1 +0.6
      baz=88
GRAC  Grapevine Rang     87.58  53 ⇓P      P      19 44 00.8 +0.2
      baz=88
G13A  Cobalt             87.59  44  P      P      19 44 00.0 -0.5
      baz=88,SNR=99
DAC   Darwin (Calif)     87.60  53⇓iP      P      19 44 00.7 -0.1
      comp=Z,32nm,1.3s,mb5.2
DAC                                epP     pP     19 44 28.7 +1.6
DAC   Darwin (Calif)     87.60  53⇓iP      P      19 44 00.7  0.0
DAC                                e*PP    pP     19 44 28.7 +1.5
DAC                                 pmax   pmax
      comp=Z,32nm,1.3s,mb5.2
EDW2  Edwards Air Fo     87.65  55  P      P      19 44 01.3 +0.3
      baz=88,SNR=22
E14A  Clinton            87.69  43 ⇓P      P      19 44 00.4 -0.5
      baz=88
CHMT  Chamberlain Mo     87.70  42 eP      P      19 44 00.1 -0.8
CHMT                               epP     pP     19 44 28.5 +1.1
CHMT                               esP     sP     19 44 38.8 +0.7
CIS   Catalina Islan     87.70  56 ⇑P      P      19 44 01.0 -0.3
      baz=88
ABTO  Aybut              87.73 287  P      P      19 44 01.6 -0.1
      SNR=6.5
ABTO  Aybut              87.73 287  P      P      19 44 01.6 -0.1
      SNR=6.5
ABTO  Aybut              87.73 287  P      P      19 44 01.7  0.0
      SNR=22
H13A  Challis            87.74  45  P      P      19 44 01.1 -0.1
      baz=88,SNR=35
MPMC  Manual Prospec     87.74  54  P      P      19 44 01.8 +0.4
      baz=88,SNR=27
N11A  Elko Archery C     87.77  49 ⇓P      P      19 44 01.6 +0.2
      baz=88
K12A  Draper Farm, C     87.85  47 ⇓P      P      19 44 02.1 +0.3
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	baz=88,SNR=27						
L12A	House Creek Ra	87.91	47	⇑P	P	19 44 02.6	+0.6
	baz=88,SNR=30						
HLID	Hailey	87.92	46	⇑eP	P	19 44 01.2	-0.9
	comp=Z,35nm,1.0s,mb5.3						
HLID				epP	pP	19 44 25.2	-3.4
HLID				ePP	PP	19 47 28.4	-0.9
HLID	Hailey	87.92	46	P	P	19 44 02.2	+0.1
	baz=88,SNR=46						
S10A	Tonopah Range,	87.93	52	P	P	19 44 02.3	+0.1
	baz=88,SNR=35						
F14A	Wisdom	87.96	43	⇑P	P	19 44 01.9	-0.3
	baz=88						
O11A	Cowboy Ranch,	88.02	49	⇓P	P	19 44 02.9	+0.2
	baz=88						
I13A	Wildhorse Cree	88.02	45	P	P	19 44 02.7	+0.1
	baz=88,SNR=32						
R10A	Warm Springs	88.05	51	P	P	19 44 03.5	+0.7
	baz=88,SNR=9.4						
BFSC	Mount Baldy St	88.08	55	P	P	19 44 03.3	+0.2
	baz=88,SNR=6.7						
P11A	Circle Ranch,	88.11	50	P	P	19 44 03.7	+0.6
	baz=88,SNR=6.9						
FURC	Furnace Creek,	88.12	53	P	P	19 44 03.6	+0.4
	baz=88,SNR=5.6						
J13A	Cove Ranch, Pi	88.14	46	⇓P	P	19 44 03.4	+0.3
	baz=88,SNR=30						
D15A	Lincoln	88.14	42	P	P	19 44 02.7	-0.4
	baz=88,SNR=11						
ELK	Elko	88.15	49	eP	P	19 44 03.1	-0.2
	comp=Z,42nm,0.9s,mb5.5						
ELK				epP	pP	19 44 28.8	-0.9
ELK	Elko	88.15	49	eP	P	19 44 03.1	-0.2
ELK				e*PP	pP	19 44 28.8	-0.9
ELK				pmax	pmax		
	comp=Z,43nm,0.9s						
M12A	Wells	88.19	48	P	P	19 44 04.2	+0.8
	baz=88,SNR=7.3						
JOF	Joensuu	88.19	335	ep	P	19 43 59.8	-3.2
	comp=Z,9.3nm,0.6s,mb5.0						
E15A	Deer Lodge	88.25	43	P	P	19 44 03.6	0.0
	baz=88,SNR=42						
N12A	Clover Valley,	88.26	48	P	P	19 44 04.1	+0.3
	baz=88,SNR=11						
Q11A	Duckwater	88.38	50	P	P	19 44 04.7	+0.3
	baz=88,SNR=20						
K13A	Stover Farm, H	88.42	46	P	P	19 44 05.2	+0.8
	baz=88,SNR=9.3						
RRX	Edison Barstow	88.44	55	⇑P	P	19 44 05.2	+0.5
	baz=88						
GSC	Goldstone	88.48	54	P	P	19 44 05.3	+0.3
	baz=88,SNR=23						
F15A	Butte	88.53	43	P	P	19 44 04.9	-0.1
	baz=88,SNR=23						
U10A	Ash Meadows, A	88.54	53	P	P	19 44 05.9	+0.7
	baz=88,SNR=18						
TRCR	Troy Canyon	88.57	51	eP	P	19 44 04.9	-0.4
TRCR				epP	pP	19 44 30.6	-1.2
MURC	Murrieta	88.62	56	⇑P	P	19 44 05.5	-0.2
	baz=88						
O12A	Currie	88.65	49	P	P	19 44 05.7	+0.1
	baz=88,SNR=31						
L13A	Double Diamond	88.69	47	P	P	19 44 06.6	+0.8
	baz=89,SNR=14						
SHOC	Shoshone	88.72	53	P	P	19 44 06.4	+0.3
	baz=89,SNR=5.5						
M13A	Montello	88.75	48	P	P	19 44 06.5	+0.4
	baz=89,SNR=19						
G15A	Dillon	88.75	44	P	P	19 44 06.0	0.0
	baz=89,SNR=16						
P12A	McGill	88.76	50	P	P	19 44 06.7	+0.6
	baz=89,SNR=16						
ZEI	Tsey	88.81	314	eP	P	19 44 04.6	-1.7
ZEI				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
MIR	Mirnyy	88.84	198c	iP	P	19 44 07.0	+1.2
MIR				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.1						
N13A	Wendover, West	88.87	48	P	P	19 44 07.0	+0.4
	baz=89,SNR=6.3						
109C	Camp Elliot, M	88.89	57	⇑P	P	19 44 06.7	-0.2
	baz=89						
Q12A	Willow Creek R	88.94	50	P	P	19 44 07.7	+0.6
	baz=89,SNR=17						
HEC	Hector,Ludlow	88.98	54	P	P	19 44 07.5	+0.2
	baz=89,SNR=13						
OBN	Obninsk	89.06	327	⇑eP	P	19 44 05.6	-1.6
OBN				eS	SKSac	19 54 17.4	-10
OBN				pmax	pmax		
	comp=Z,37nm,2.1s,mb5.0						
VRSR	Storozhevoye	89.06	323	eP	P	19 44 04.6	-2.7
VRSR				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
VRSR				pmax	pmax		
	comp=N,2.0nm,1.2s						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.9s						
K14A	Jones Ranch, D	89.09	46	P	P	19 44 08.3	+0.7
	baz=89,SNR=17						
TUQ	Turquoise Mtn.	89.13	54	P	P	19 44 08.3	+0.3
	baz=89,SNR=18						
BOZ	Bozeman (W)	89.17	43	eP	P	19 44 07.2	-0.7
	comp=E,29nm,1.4s,mb5.1						
BOZ				epP	pP	19 44 34.0	-0.4
BOZ	Bozeman (W)	89.17	43	eP	P	19 44 07.2	-0.7
BOZ				e*PP	pP	19 44 34.0	-0.4
BOZ				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.1						
BOZ	Bozeman (W)	89.17	43	P	P	19 44 08.1	+0.2
	baz=89,SNR=15						
PFO	Pinyon Flat Ob	89.22	56	P	P	19 44 08.6	+0.2
	comp=Z,142nm,1.3s,mb5.8,SNR=8.4						
PFO	Pinyon Flat Ob	89.22	56	eP	P	19 44 08.0	-0.4
	comp=Z,42nm,1.3s,mb5.3						
PFO				epP	pP	19 44 32.6	-2.3
PFO	Pinyon Flat Ob	89.22	56	eP	P	19 44 08.0	-0.4
PFO				e*PP	pP	19 44 32.6	-2.3
PFO				pmax	pmax		
	comp=Z,42nm,1.3s,mb5.3						
PFO	Pinyon Flat Ob	89.22	56	P	P	19 44 08.6	+0.2
	baz=89,SNR=13						
U11A	Corn Creek	89.27	53	⇑P	P	19 44 09.4	+0.8
	baz=89						
KIV	Kislovodsk	89.28	315	eP	P	19 44 06.9	-1.6
	comp=Z,10.0nm,0.8s,mb4.9						
KIV	Kislovodsk	89.28	315	⇑eP	P	19 44 07.3	-1.2
KIV				e*PP	pP	19 44 34.5	-0.5
KIV				e		19 47 37.6	
KIV				eS	S	19 54 32.6	-17
KIV				ePS	PS	19 55 55.2	-12
KIV				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.8						
R12A	Pony Springs,	89.31	51	P	P	19 44 09.4	+0.6
	baz=89,SNR=24						
V11A	Goodsprings	89.40	53	P	P	19 44 09.8	+0.5
	baz=89,SNR=14						
MONP	Monument Peak	89.44	56	P	P	19 44 09.6	0.0
	baz=89,SNR=18						
BELC	Belle Mtn.	89.47	55	P	P	19 44 09.5	-0.2
	baz=89,SNR=21						
GMRC	Granite Mounta	89.52	54	P	P	19 44 10.0	+0.1
	baz=89,SNR=22						
QLMT	Earthquake Lak	89.57	44	eP	P	19 44 10.4	+0.5
QLMT				epP	pP	19 44 33.7	-2.7
EGMT	Eagleton	89.58	40	⇑P	P	19 44 09.5	-0.3
	baz=89						
HVU	Hansel Valley	89.61	47	eP	P	19 44 09.7	-0.4
	comp=Z,38nm,1.4s,mb5.3						
HVU				epP	pP	19 44 33.9	-2.6
HVU	Hansel Valley	89.61	47	eP	P	19 44 09.7	-0.4
HVU				e*PP	pP	19 44 33.9	-2.7
HVU				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.3						
QRN	Al-Qurain	89.68	299	eP	P	19 44 09.1	-1.7
QRN				AMb	AMB	19 44 14.7	
	comp=Z,62nm,1.1s,mb5.6						
T12A	Moapa	89.70	52	⇑P	P	19 44 11.4	+0.8
	baz=90						
DVTC	Desert V Tower	89.77	56	P	P	19 44 11.3	+0.2
	baz=90,SNR=11						
MIB	Mutribah	89.88	301	eP	P	19 44 09.1	-2.6
MIB				AMb	AMB	19 44 11.4	
	comp=Z,31nm,0.5s,mb5.7						
V12A	Nelson	89.89	53	P	P	19 44 12.2	+0.7
	baz=90,SNR=19						
U12A	Valley of Fire	89.92	53	⇓P	P	19 44 12.1	+0.4
	baz=90						
YMR	Madison River	89.93	44	eP	P	19 44 12.4	+0.9
	comp=Z,41nm,0.4s,mb5.9						
SWSC	Sam W. Stewart	89.94	56	P	P	19 44 11.7	-0.1
	baz=90,SNR=6.5						
RDF	Al-Radifah	89.94	300	eP	P	19 44 08.2	-3.7
RDF				AMb	AMB	19 44 18.7	
	comp=Z,42nm,1.1s,mb5.5						
SPUT	South Promonto	89.99	47	eP	P	19 44 11.4	-0.5
SPUT				epP	pP	19 44 37.3	-1.0
W12A	Cal Nev Ari	90.00	54	⇑P	P	19 44 12.5	+0.4
	baz=90						
BC3	Big Chuckw Mtn	90.01	55	P	P	19 44 12.5	+0.4
	baz=90,SNR=23						
DUG	Dugway	90.08	49	⇑iP	P	19 44 11.7	-0.6
	comp=Z,24nm,0.9s,mb5.3						
DUG				epP	pP	19 44 36.6	-2.2
DUG	Dugway	90.08	49	⇑iP	P	19 44 11.7	-0.6
DUG				e*PP	pP	19 44 36.6	-2.2
DUG				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.3						
DUG	Dugway	90.08	49	P	P	19 44 12.6	+0.2
	baz=90,SNR=37						
YFT	Old Faithful	90.09	44	eP	P	19 44 13.7	+1.4
YFT				epP	pP	19 44 43.2	+4.4
IRM	Iron Mountain	90.11	55	P	P	19 44 12.8	+0.3
	baz=90,SNR=23						
YNR	Norris Junctio	90.11	44	eP	P	19 44 13.9	+1.5
YNR				epP	pP	19 44 41.2	+2.3
NAY	Al-Naaiem	90.11	300	eP	P	19 44 08.4	-4.3
NAY				AMb	AMB	19 44 12.9	
	comp=Z,26nm,0.9s,mb5.4						
IMW	Indian Meadow	90.21	45	eP	P	19 44 12.7	-0.2
	comp=Z,16nm,0.9s,mb5.2						
IMW				epP	pP	19 44 37.9	-1.5
T13A	Saint George	90.23	52	⇓P	P	19 44 13.6	+0.5
	baz=90						
TPAW	Teton Pass	90.33	45	eP	P	19 44 13.1	-0.4
	comp=Z,17nm,1.1s,mb5.1						
LKWY	Lake	90.35	44	eP	P	19 44 15.4	+2.0
	comp=Z,32nm,1.3s,mb5.3						
LKWY	Lake	90.35	44	eP	P	19 44 15.5	+2.0
LKWY				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.3						
ARUT	Antelope Range	90.36	51	eP	P	19 44 13.9	+0.2
ARUT				epP	pP	19 44 40.7	+0.6
MOOW	Moose Ponds	90.39	45	eP	P	19 44 13.6	-0.1
	comp=Z,8.9nm,0.9s,mb4.9						
MOOW				epP	pP	19 44 37.7	-2.5
REDW	Red Top Meadow	90.45	45	eP	P	19 44 12.8	-1.1
	comp=Z,70nm,1.8s,mb5.5						
CCUT	Cedar City	90.49	51	eP	P	19 44 14.3	0.0
CCUT				epP	pP	19 44 40.1	-0.7
HWUT	Hardware Ranch	90.53	47	eP	P	19 44 14.0	-0.4
	comp=Z,11nm,0.7s,mb5.1						
HWUT				epP	pP	19 44 38.3	-2.6
S14A	Cedar City	90.57	51	⇓P	P	19 44 14.8	+0.1
	baz=90						
NLU	North Lily Min	90.69	49	eP	P	19 44 15.2	+0.1
NLU				epP	pP	19 44 40.2	-1.5
Y12C	Blythe	90.72	55	P	P	19 44 15.8	+0.4
	baz=91,SNR=12						
W13A	Hualapai Mount	90.83	54	P	P	19 44 16.6	+0.7
	baz=91,SNR=16						
T14A	Hurricane	90.85	52	⇓P	P	19 44 16.7	+0.8
	baz=91						
PDMCI	Parker Dam,Lak	90.86	54	P	P	19 44 16.5	+0.4
	baz=91,SNR=11						
RLMT	Red Lodge	90.91	43	eP	P	19 44 16.6	+0.5
	comp=Z,26nm,1.1s,mb5.3						
RLMT				epP	pP	19 44 42.3	-0.3
JLU	Jordanelle	90.94	48	eP	P	19 44 16.0	-0.3
JLU				epP	pP	19 44 41.3	-1.5
X13A	Yucca	91.02	54	P	P	19 44 17.3	+0.5
	baz=91,SNR=22						
FINES	FINESS Array B	91.06	335	P	P	19 44 14.3	-2.1
FINES				pP	pP	19 44 40.9	-2.1
FINES				LR	LR	20 26 51.7	
FINES	FINESS Array B	91.06	335	P	P	19 44 14.3	-2.1
FINES				*PP	pP	19 44 40.9	-2.0
FINES	FINESS Array B	91.06	335	P	P	19 44 14.3	-2.1
	comp=Z,4.2nm,0.5s,mb4.9,baz=71,slow=5.0,SNR=68						
FINES				pP	pP	19 44 40.9	-2.1
	comp=Z,4.2nm,0.6s,baz=71,slow=4.9,SNR=4.0						
FINES				LR	LR	20 26 51.7	
	comp=Z,143nm,19.1s,slow=37						
MSU	Marysvale	91.08	50	eP	P	19 44 17.1	+0.1
MSU				epP	pP	19 44 44.9	+1.4
DAU	Daniels Canyon	91.14	48	eP	P	19 44 17.5	+0.3
DAU				epP	pP	19 44 44.4	+0.7
Y13A	Salome	91.25	55	⇓P	P	19 44 18.3	+0.4
	baz=91						
FFC	Flin Flon	91.41	32	P	P	19 44 17.8	-0.4
	comp=Z,129nm,1.0s,mb6.0,SNR=7.7						
W14A	Seligman	91.42	53	P	P	19 44 19.6	+0.9
	baz=91,SNR=16						
PDAR	Pinedale Array	91.54	45	LR	LR	20 17 20.2	
	comp=Z,114nm,20.6s,baz=134,slow=30						
VNDA	Vanda	91.71	176	P	P	19 44 18.1	-0.9
	comp=Z,9.2nm,1.0s,mb5.0,baz=319,slow=5.0,SNR=4.5						
VNDA				LR	LR	20 26 48.2	
	comp=Z,124nm,18.6s,baz=334,slow=36						
X14A	Yava	91.80	54	P	P	19 44 21.5	+1.1
	baz=92,SNR=17						
Y14A	Wickenburg	91.87	55	P	P	19 44 21.2	+0.5
	baz=92,SNR=21						
W15A	Williams	92.06	53	P	P	19 44 23.1	+1.5
	baz=92,SNR=10.0						
Z14A	Wintersburg	92.09	55	⇓P	P	19 44 22.4	+0.5
	baz=92,SNR=8.6						
SRU	San Rafael	92.10	49	eP	P	19 44 21.1	-0.6
	comp=Z,10nm,1.0s,mb5.0						
SRU				epP	pP	19 44 45.4	-2.8
SRU	San Rafael	92.10	49	eP	P	19 44 21.1	-0.6
SRU				e*PP	pP	19 44 45.4	-2.8
SRU				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.0						
X15A	Humboldt	92.31	54	P	P	19 44 23.8	+1.0
	baz=92,SNR=18						
LAO	LASA Array	92.31	41	eP	P	19 44 22.4	-0.1
	comp=Z,104nm,1.0s,mb6.0						
LAO				epP	pP	19 44 46.9	-2.1
WUAZ	Wupatki	92.65	53	eP	P	19 44 24.3	-0.1
	comp=Z,27nm,0.9s,mb5.6						
WUAZ				epP	pP	19 44 49.9	-0.9
WUAZ	Wupatki	92.65	53	P	P	19 44 25.1	+0.7
	baz=92,SNR=11						
DGMT	Dagmar	92.85	39	eP	P	19 44 23.9	-1.1
	comp=Z,32nm,1.1s,mb5.6						
115A	Sonoran Desert	92.87	55	P	P	19 44 26.1	+0.6
	baz=93,SNR=5.6						
116A	Eloy	93.34	55	⇓P	P	19 44 27.9	+0.4
	baz=93						
PV10	Paradox Valley	93.44	49	eP	P	19 44 27.2	-0.7
PV01	Paradox Valley	93.87	49	eP	P	19 44 29.3	-0.6
PV01				epP	pP	19 44 55.2	-1.2
MVCO	Mesa Verde	94.25	50	⇑P	P	19 44 31.8	+0.1
	baz=94						
AKASG	Malin Array Be	94.99	325	i P	P	19 44 34.2	-0.5
AKASG	Malin Array Be	94.99	325	P	P	19 44 32.4	-2.4
	comp=Z,0.2nm,0.4s,baz=47,slow=4.9,SNR=5.7						
AKASG				PKKPbc	PKKPbc	20 01 27.8	-3.3
	comp=Z,1.3nm,0.8s,baz=259,slow=2.6,SNR=5.2						
AKASG				LR	LR	20 28 08.1	
	comp=Z,125nm,18.4s,baz=70,slow=36						
ANMO	Albuquerque	96.61	52	⇑eP	P	19 44 39.4	-3.1
ULM	Lac du Bonnet	96.83	34	P	P	19 44 41.3	-1.9
	comp=Z,5.6nm,0.9s,mb5.0,baz=311,slow=7.1,SNR=10						
NB2	NORSAR Subarra	96.92	339	P	P	19 44 40.6	-2.7
	comp=Z,1.4nm,0.6s,mb4.6,baz=55,slow=5.1						
NOA	NORSAR Array B	96.92	339	P	P	19 44 40.7	-2.6
NOA				*PP	pP	19 45 05.9	-4.0
NOA	NORSAR Array B	96.92	339	P	P	19 44 40.7	-2.6
	comp=Z,1.7nm,0.8s,mb4.5,baz=45,slow=5.6,SNR=7.4						
NOA				pP	pP	19 45 05.9	-4.0
	comp=Z,1.8nm,0.7s,baz=52,slow=4.3,SNR=3.5						
NOA				LR	LR	20 30 18.1	
	comp=Z,135nm,21.0s,baz=50,slow=36						
BRTR	Keskin Array B	97.12	314	P	P	19 44 42.5	-2.2
	comp=Z,2.7nm,0.9s,mb4.7,baz=62,slow=5.5,SNR=9.4						
BRTR				PKKPbc	PKKPbc	20 01 23.8	-1.2
	comp=Z,0.9nm,0.7s,baz=182,slow=7.2,SNR=4.8						
MAW	Mawson	99.80	203	P	Pdif	19 44 55.3	-1.1
	comp=Z,8.7nm,1.0s,baz=58,slow=9.5,SNR=4.0						
TXAR	Lajitas Array	100.93	56	P	Pdif	19 45 02.1	+0.8
TXAR				PKKPbc	PKKPbc	20 01 14.5	+0.5
TXAR	Lajitas Array	100.93	56	P	Pdif	19 45 02.1	+0.8
	comp=Z,0.5nm,0.7s,baz=258,slow=4.7,SNR=6.7						
TXAR				PKKPbc	PKKPbc	20 01 14.5	+0.5
	comp=Z,0.3nm,0.6s,baz=128,slow=5.2,SNR=4.1						
GERES	GERESS Array B	104.28	329	PKiKP	PKiKP	19 49 32.7	+0.2
	comp=Z,0.4nm,0.7s,baz=58,slow=2.4,SNR=2.7						
GERES				PKKPbc	PKKPbc	20 01 03.4	-1.5
	comp=Z,0.6nm,0.9s,baz=208,slow=5.4,SNR=4.1						
KEST	Kesra	115.39	321	PKP	PKPdf	19 49 53.6	-0.3
	comp=Z,0.5nm,0.7s,baz=90,slow=6.1,SNR=3.1						
SNAA	Sanae	119.11	191	PKP	PKPdf	19 49 59.4	-0.5
SNAA				pPKP	pPKPdf	19 50 24.7	-2.9
SNAA	Sanae	119.11	191	PKIKP	PKPdf	19 49 59.4	-0.5
SNAA						19 50 24.7	
SNAA	Sanae	119.11	191	PKP	PKPdf	19 49 59.4	-0.5
	comp=Z,1.1nm,0.6s,baz=123,slow=6.6,SNR=9.5						
SNAA				pPKP	pPKPdf	19 50 24.7	-2.9
	comp=Z,2.0nm,0.7s,baz=249,slow=2.3,SNR=4.4						
LSZ	Lusaka	119.22	260	ePKPdf	PKPdf	19 50 02.2	+0.5
LSZ				epPKPdf	pPKPdf	19 50 26.9	-2.5
LSZ	Lusaka	119.22	260	ePKIKP	PKPdf	19 50 02.2	+0.5
LSZ				e		19 50 26.9	
ESDC	Sonseca Array	119.50	333	PKP	PKPdf	19 50 01.2	-0.5
ESDC	Sonseca Array	119.50	333	PKP	PKPdf	19 50 01.2	-0.5
	comp=Z,0.7nm,0.6s,baz=346,slow=2.3,SNR=5.3						
MVO	Moncorvo	119.53	336	ePKPdf	PKPdf	19 50 01.5	-0.2
PVRL	Vila Real	119.70	337	ePKPdf	PKPdf	19 50 02.2	+0.2
MTE	Manteigas	120.39	336	ePKPdf	PKPdf	19 50 03.9	+0.5
VNA2	Neumayer--Watz	120.55	190	ePKPdf	PKPdf	19 50 02.7	0.0
	baz=270,slow=0.3						
VNA2				e		19 50 10.5	
VNA2				e		19 50 18.4	
VNA2				e		19 50 29.7	
VNA3	Neumayer Olymp	120.64	189	ePKPdf	PKPdf	19 50 02.7	-0.2
VNA3				e		19 50 17.1	
VNA3				e		19 50 28.9	
PCBR	Castelo Branco	120.84	336	ePKPdf	PKPdf	19 50 04.2	-0.1
VNA1	Neumayer--Stat	120.93	190	ePKPdf	PKPdf	19 50 03.7	+0.3
VNA1				e		19 50 11.4	
VNA1				e		19 50 18.0	
VNA1				e		19 50 30.0	
PTOM	Tomar	121.40	336	ePKPdf	PKPdf	19 50 05.5	+0.2
LBTB	Lobatse	122.38	249	ePKPdf	PKPdf	19 50 07.2	-0.4
LBTB				epPKPdf	pPKPdf	19 50 32.2	-3.0
LBTB	Lobatse	122.38	249	ePKIKP	PKPdf	19 50 07.2	-0.4
LBTB				e		19 50 32.2	
BOSA	Boshof	122.67	245	PKP	PKPdf	19 50 07.7	-0.3
BOSA				pPKP	pPKPdf	19 50 34.2	-1.4
BOSA	Boshof	122.67	245	PKIKP	PKPdf	19 50 07.7	-0.3
BOSA						19 50 34.2	
BOSA	Boshof	122.67	245	PKP	PKPdf	19 50 07.7	-0.3
	comp=Z,3.8nm,0.8s,baz=118,slow=3.3,SNR=6.6						
BOSA				pPKP	pPKPdf	19 50 34.2	-1.4
	comp=Z,4.6nm,0.8s,baz=126,slow=4.1,SNR=4.7						
MORF	Marmelete	123.48	335	ePKPdf	PKPdf	19 50 09.7	+0.3
TSUM	Tsumeb	129.66	256	SKPbc		19 53 34.4	
	comp=Z,2.7nm,0.7s,baz=86,slow=5.7,SNR=6.0						
USHA	Ushuaia	131.45	155	PKP	PKPdf	19 50 24.1	+0.1
USHA	Ushuaia	131.45	155	PKP	PKPdf	19 50 24.1	+0.1
	comp=Z,22nm,1.1s,baz=172,slow=2.7,SNR=3.7						
TOA0	Torodi Ar. Sit	134.99	305	ePKPpre		19 50 20.2	
TOA0				ePKPdf	PKPdf	19 50 28.8	-3.0
TORD	Torodi Ar. Bea	134.99	305	PKP		19 50 16.5	
TORD				PKP	PKPdf	19 50 32.8	+0.9
TORD				SKPbc	SKPbc	19 53 51.9	-1.5
TORD	Torodi Ar. Bea	134.99	305	PKhKP		19 50 16.5	
	comp=Z,1.1nm,0.9s,baz=60,slow=2.5,SNR=4.8						
TORD				PKP	PKPdf	19 50 32.8	+0.9
	comp=Z,4.1nm,0.7s,baz=27,slow=2.4,SNR=15						
TORD				SKPbc	SKPbc	19 53 51.9	-1.5
	comp=Z,14nm,1.0s,baz=44,slow=3.8,SNR=14						
ROSC	El Rosal	136.58	67	PKP	PKPdf	19 50 35.5	+0.7
ROSC	El Rosal	136.58	67	PKP	PKPdf	19 50 35.5	+0.7
	comp=Z,4.0nm,0.3s,baz=243,slow=2.2,SNR=3.7						
LCO	Las Campanas	143.50	120	ePKPpre		19 50 43.0	
LCO				epPKPdf	pPKPdf	19 51 13.1	-1.5
KIC	Kosan Boka	144.04	302	ePKP1	PKPdf	19 50 45.6	-2.7
	comp=Z,297nm,0.5s						
TIC	Toumodi	144.11	303	ePKP1	PKPdf	19 50 45.6	-2.9
	comp=Z,54nm,0.6s						
LIC	Lamto	144.35	302	ePKP1	PKPdf	19 50 46.5	-2.4
	comp=Z,502nm,0.6s						
ARE	Arequipa	144.51	99	eP	PKPdf	19 50 49.0	0.0
ARE				e		19 51 17.0	
ARE	Arequipa	144.51	99	ePKIKP	PKPdf	19 50 49.0	0.0
ARE				e		19 51 17.0	
CFAA	Coronel Fontan	144.65	126	pPKP	pPKPdf	19 51 15.8	-0.8
	baz=248,slow=2.8						
LPAZ	La Paz	147.73	99	ePKPbc	PKPbc	19 50 55.1	-2.3
LPAZ				epPKPdf	pPKPdf	19 51 24.7	+2.5
LPAZ	La Paz	147.73	99	ePKIKP	PKPdf	19 50 55.1	+0.6
LPAZ				e		19 51 24.7	
LPAZ	La Paz	147.73	99	PKPbc	PKPbc	19 50 55.5	-1.9
	comp=Z,28nm,1.0s,baz=336,slow=2.5,SNR=40						
LPAZ				pPKPbc	pPKPbc	19 51 22.5	-2.3
	comp=Z,22nm,1.0s,baz=319,slow=4.6,SNR=3.6						

TRN 03 19:31:48.5, 18.08N×62.33W, h35^{km}, MD3.1, M3.8(FDF)**,**
Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STMA	St. Maarten, A	0.74	268	eP	Pn	19 32 04.2	+1.7
STMA				eS	Sn	19 32 14.7	+2.2
DEG	La Desirade	2.13	145	eP	Pn	19 32 22.4	+0.8
DEG				eS	Sn	19 32 48.3	+1.4
TBG	Guadaloupe-3	2.31	163	eP	Pn	19 32 27.0	+2.9
MGG	Marie-Galante	2.35	155	eP	Pn	19 32 27.2	+2.5

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*ISCJB **03** 19:49:32.9±0.8, 55.7S±0.1×27.0W±0.3, h10^{km}, mb4.1/6,*
Error ellipse: s-maj=23.3km s-min=15.9km az=154.2
*IDC **03** 19:49:33.1±0.8, 55.62S×26.98W, h0^{km}, mb4.0/5, mb1 4.0/6,*
mb1mx3.9/14, mbtmp3.9/6, ML3.2/1, Error ellipse:
s-maj=28.8km s-min=23.5km az=46.0
*NEIC **03** 19:49:37.1±8.7, 55.68S×27.06W, h29^{km}±61^{km}, mb4.5/2,*
Error ellipse: s-maj=22.1km s-min=16.5km az=47.0
ISC 03 19:49:34.8±0.8**, 55.7S**±0.1×**27.0W**±0.3**, h10^{km}, n15,** σ1^{s}.00/8,
mb4.1/6**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNAA	Sanae	19.00	157	P	Pn	19 53 55.6	-1.2
	0.1nm,0.3s,baz=312,slow=15,SNR=4.2						
QSPA	South Pole Qui	34.53	180	eP	P	19 56 22.6	0.0
	2.9nm,0.4s,mb4.6						
CFAA	Coronel Fontan	37.53	293	P	P	19 56 47.5	-1.3
	0.5nm,0.6s,mb3.4,baz=139,slow=8.2,SNR=7.1						
VNDA	Vanda	46.91	183	P	P	19 58 06.2	+1.6
	5.7nm,1.0s,mb4.5,baz=191,slow=6.3,SNR=8.5						
LBTB	Lobatse	48.81	73	P	P	19 58 20.5	+0.5
	0.7nm,0.6s,mb3.9,baz=225,slow=10,SNR=3.2						
LPAZ	La Paz	50.27	305	eP	P	19 58 31.8	+0.6
	3.0nm,0.6s,mb4.5						
LPAZ	La Paz	50.27	305	P	P	19 58 32.5	+1.3
	2.8nm,0.7s,mb4.4,baz=166,slow=5.9,SNR=12						
TORD	Torodi Ar. Bea	72.72	29	P	P	20 01 02.3	-0.5
	0.5nm,0.5s,mb3.8,baz=200,slow=6.2,SNR=9.8						
FINES	FINESS Array B	124.04	28	PKP	PKPdf	20 08 30.6	-1.1
FINES	FINESS Array B	124.04	28	PKP	PKPdf	20 08 30.6	-1.1
	3.4nm,1.1s,baz=181,slow=7.0,SNR=3.3						
YKA	Yellowknife Ar	136.00	318	PKP	PKPdf	20 08 52.4	-2.0
YKA	Yellowknife Ar	136.00	318	PKP	PKPdf	20 08 52.3	-2.0
	0.2nm,0.4s,baz=121,slow=2.4,SNR=6.2						
INK	Inuvik	145.61	321	ePKPdf	PKPdf	20 09 10.8	-0.8
SONM	Songino Array	150.60	86	PKPbc	PKPbc	20 09 25.2	-0.6
SONM	Songino Array	150.60	86	PKPbc	PKPbc	20 09 25.2	-0.6
	1.1nm,0.6s,baz=221,slow=4.3,SNR=11						

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*ISCJB **03** 19:56:11.4±0.9, 39.47N±0.05×20.6E±0.2, h15^{km}±19^{km},*
Error ellipse: s-maj=21.9km s-min=7.4km az=12.2
*NEIC **03** 19:56:11.8, 39.54N×20.62E, h24^{km}, MD3.2(ATH), After*
ATH.
*ATH **03** 19:56:11.8, 39.54N×20.62E, h24^{km}±7^{km}, MD3.2/4*
*CSEM **03** 19:56:12.0±0.2, 39.48N×20.67E, h2^{km}, MD3.2, Error*
ellipse: s-maj=4.4km s-min=3.8km az=75.0
*SKO **03** 19:56:12.7, 39.35N×20.60E, h6^{km}*
ISC 03 19:56:12.0±0.9**, 39.50N**±0.06×**20.60E**±0.08**, h16^{km}**±9^{km}**, n18,**
σ**0^{s}.71**/25**, 14C, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

JAN	**Janina**	**0.25**	**50**	⇑*i*Pb	**Pg**	**19 56 16.5**	**-1.1**
JAN				*e*Sb	**Sg**	**19 56 21.9**	**+0.5**
JAN	**Janina**	**0.25**	**50**	⇑*i*PB	**Pg**	**19 56 16.5**	**-1.1**
JAN				*e*SB	**Sg**	**19 56 21.9**	**+0.5**
JAN	**Janina**	**0.25**	**50**	⇑*i*Pb	**Pg**	**19 56 16.5**	**-1.1**
JAN				*e*Sb	**Sg**	**19 56 21.9**	**+0.5**
KEK	**Kerkira**	**0.66**	**290**	⇑*i*Pn	**Pg**	**19 56 24.9**	**0.0**
KEK	**Kerkira**	**0.66**	**290**	⇑*i*PN	**Pg**	**19 56 24.9**	**0.0**
KEK	**Kerkira**	**0.66**	**290**	⇑*i*Pn	**Pg**	**19 56 24.9**	**0.0**
THL	**Klokotos Trika**	**1.10**	**86**	⇑*i*PN	**Pn**	**19 56 32.5**	**-0.2**
THL	**Klokotos Trika**	**1.10**	**86**	⇑*i*Pn	**Pn**	**19 56 32.5**	**-0.2**
EVR	**Evrytania**	**1.10**	**121**	⇑*i*Pn	**Pn**	**19 56 33.0**	**+0.3**
EVR	**Evrytania**	**1.10**	**121**	⇑*i*PN	**Pn**	**19 56 33.0**	**+0.3**
EVR	**Evrytania**	**1.10**	**121**	⇑*i*Pn	**Pn**	**19 56 33.0**	**+0.3**
VLS	**Valsamata**	**1.32**	**180**	⇑*i*Pn	**Pg**	**19 56 37.7**	**+0.4**
VLS	**Valsamata**	**1.32**	**180**	⇑*i*PN	**Pg**	**19 56 37.7**	**+0.4**
VLS	**Valsamata**	**1.32**	**180**	⇑*i*Pn	**Pg**	**19 56 37.7**	**+0.4**
OHR	**Ohrid**	**1.62**	**5**	*e*Pn	**Pg**	**19 56 43.5**	**+0.4**
OHR				*e*Sg	**Sg**	**19 57 09.3**	**+5.1**
OHR	**Ohrid**	**1.62**	**5**	*e*Pn	**Pg**	**19 56 43.5**	**+0.3**
OHR				*e*Sg	**Sg**	**19 57 09.3**	**+5.0**
KRUS	**Krusevo**	**1.94**	**15**	*e*Pn	**Pg**	**19 56 47.9**	**-1.2**
KRUS				*e*Sg	**Sg**	**19 57 18.3**	**+4.0**
KRUS	**Krusevo**	**1.94**	**15**	*e*Pn	**Pg**	**19 56 47.9**	**-1.3**
KRUS				*e*Sg	**Sg**	**19 57 18.3**	**+4.0**

IDC ***03*** *20:30:34.1±2.4, 38.68N×71.49E, h0^{km}, mb3.7/4, mb1 3.8/7, mb1mx3.5/23, mbtmp3.7/7, ML3.5/3, Error ellipse: s-maj=44.7km s-min=24.3km az=159.0*

ISCJB ***03*** *20:30:42.7±0.5, 39.00N±0.03×71.48E±0.08, h100^{km}±10^{km}, mb3.7/4, Error ellipse: s-maj=10.6km s-min=5.1km az=11.6*

NEIC ***03*** *20:30:43.3±1.1, 39.18N×71.14E, h47^{km}±15^{km}, mb3.6/1, Error ellipse: s-maj=20.2km s-min=11.1km az=120.0*

MOS ***03*** *20:30:51.4±0.5, 39.96N×71.28E, h84^{km}, mb4.1/2, Error ellipse: s-maj=24.5km s-min=12.1km az=80.6*

ISC 03 20:30:43.6±0.5**, 39.15N**±0.03×**71.09E**±0.09**, h53**^{km}±11^{km}**, n49, σ1^{s}31**/59**, mb3.7**/4**, 1C-2D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AML	**Almayashu**	**3.58**	**33**	P	**Pn**	**20 31 37.4**	**+0.9**
	SNR=32						
AML	**Almayashu**	**3.58**	**33**	*e*Pn	**Pn**	**20 31 36.5**	**0.0**
AML				*e*Sn	**Sn**	**20 32 10.1**	**-7.3**
KK31	**Karatay Array**	**3.97**	**354**	⇑Pn	**Pn**	**20 31 43.2**	**+1.3**
	18nm,0.4s,baz=178,slow=13,SNR=685						
KK31				Sn	**Sn**	**20 32 35.7**	**+8.6**
	7.9nm,0.3s,baz=171,slow=16,SNR=5.5						
KK31				⇓Lg		20 32 45.7	
	36nm,0.5s,baz=157,slow=29,SNR=6.6						
UCH	**Uchtor**	**4.03**	**39**	P	**Pn**	**20 31 43.5**	**+0.8**
	SNR=44						
UCH	**Uchtor**	**4.03**	**39**	*e*Pn	**Pn**	**20 31 43.1**	**+0.4**
EKS2	**Erkin-Say**	**4.05**	**29**	P	**Pn**	**20 31 43.8**	**+0.8**
	SNR=31						
EKS2	**Erkin-Say**	**4.05**	**29**	*e*Pn	**Pn**	**20 31 43.6**	**+0.6**
EKS2				*e*Sn	**Sn**	**20 32 27.4**	**-1.8**
KZA	**Kyzart**	**4.31**	**46**	P	**Pn**	**20 31 47.3**	**+0.8**
	SNR=101						
AAK	**Ala-Archa**	**4.33**	**36**	P	**Pn**	**20 31 47.8**	**+1.0**
	SNR=31						
AAK	**Ala-Archa**	**4.33**	**36**	*e*Pn	**Pn**	**20 31 46.5**	**-0.3**
AAK	**Ala-Archa**	**4.33**	**36**	*e*PN	**Pn**	**20 31 46.5**	**-0.3**
KBK	**Karagaybulak**	**4.56**	**39**	P	**Pn**	**20 31 51.4**	**+1.4**
	SNR=38						
CHMS	**Chumysh**	**4.74**	**35**	P	**Pn**	**20 31 53.5**	**+1.2**
	SNR=7.9						
USP	**Ospenovka**	**4.85**	**31**	P	**Pn**	**20 31 54.7**	**+0.8**
	SNR=46						
KBL	**Kabul**	**4.89**	**200**	*e*Pn	**Pn**	**20 31 54.9**	**+0.4**
KBL				*e*Sn	**Sn**	**20 32 49.7**	**0.0**
ULHL	**Ulahol**	**4.99**	**50**	P	**Pn**	**20 31 56.4**	**+0.6**
	SNR=5.8						
TKM2	**Tokmak 2**	**5.08**	**41**	P	**Pn**	**20 31 58.3**	**+1.3**
	SNR=18						
TKM2	**Tokmak 2**	**5.08**	**41**	*e*Pn	**Pn**	**20 31 57.1**	**+0.1**
	12nm,0.5s						
TKM2				*e*Sn	**Sn**	**20 32 39.5**	**-15**
TKM2	**Tokmak 2**	**5.08**	**41**	*e*PN	**Pn**	**20 31 57.1**	**+0.1**
TKM2				pmax	pmax		
	comp=Z,12nm,0.5s						
CEP	**Cherat**	**5.36**	**173**	P	**Pn**	**20 32 00.6**	**-0.4**
CEP				S	**Sn**	**20 33 09.0**	**+7.6**
CHCP	**Chirah Chowk**	**5.76**	**162**	P	**Pn**	**20 32 05.6**	**-0.8**
THW	**Thamme Wali**	**6.37**	**175**	P	**Pn**	**20 32 13.6**	**-1.2**
THW				S	**Sn**	**20 33 28.0**	**+1.9**
DRP	**Derazinda**	**7.43**	**186**	P	**Pn**	**20 32 27.3**	**-2.0**
MKAR	**Makanchi Array**	**11.20**	**43**	Pn	**Pn**	**20 33 18.8**	**-2.1**
MKAR				Lg		20 36 40.5	
MKAR	**Makanchi Array**	**11.20**	**43**	Pn	**Pn**	**20 33 18.7**	**-2.1**
	comp=Z,0.1nm,0.3s,baz=231,slow=13,SNR=4.9						
MKAR				Lg		20 36 40.5	
	comp=Z,0.1nm,0.3s,baz=235,slow=24,SNR=3.0						
AB31	**Akbulak array**	**12.87**	**325**	Pn	**Pn**	**20 33 41.2**	**-2.3**
	comp=Z,0.7nm,0.3s,baz=138,slow=13,SNR=31						
AB31				⇓Sn	**Sn**	**20 36 02.8**	**-2.2**
	comp=Z,2.2nm,0.7s,baz=325,slow=12,SNR=5.8						
BRVK	**Borovoye**	**13.92**	**358**	*e*Pn	**Pn**	**20 33 55.1**	**-2.7**
AKTK	**Aktyubinsk**	**14.58**	**325**	Pn	**Pn**	**20 34 07.7**	**+1.1**
AKTK				Sn	**Sn**	**20 36 42.4**	**-4.3**
AKTO	**Aktyubinsk**	**14.58**	**325**	P	**Pn**	**20 34 07.7**	**+1.1**
AKTO						20 36 42.4	
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO	**Aktyubinsk**	**14.58**	**325**	Pn	**Pn**	**20 34 07.7**	**+1.1**
	comp=Z,0.5nm,0.3s,baz=127,slow=16,SNR=8.8						
AKTO				Sn	**Sn**	**20 36 42.4**	**-4.3**
	comp=Z,0.1nm,0.3s,baz=80,slow=9.8,SNR=2.7						
KOLN	**Koldanda**	**15.41**	**134**	*e*P	**Pn**	**20 34 09.9**	**-7.6**
GKN	**Gorkha**	**15.83**	**131**	*e*P	**Pn**	**20 34 13.7**	**-9.2**
	comp=Z,5.7nm,0.4s						
KKN	**Kakani**	**16.37**	**130**	*e*P	**Pn**	**20 34 21.0**	**-8.7**
	comp=Z,4.5nm,0.5s						
PKI	**Pulchoki**	**16.61**	**130**	*e*P	**Pn**	**20 34 24.3**	**-8.4**
JIRN	**Jiri**	**17.01**	**128**	*e*P	**Pn**	**20 34 28.0**	**-10**
	comp=Z,4.8nm,0.3s						
ZAL	**Zalesovo**	**17.49**	**28**	P	**Pn**	**20 34 41.5**	**-1.9**
ZALV	**Zalesovo Beam**	**17.50**	**28**	P	**Pn**	**20 34 41.5**	**-2.2**
	comp=Z,0.3nm,0.3s,baz=220,slow=12,SNR=3.8						
TAPN	**Taplejung**	**18.18**	**125**	*e*P	**Pn**	**20 34 43.9**	**-8.2**
ODAN	**Odare**	**18.33**	**127**	*e*P	**Pn**	**20 34 46.5**	**-7.4**
ARU	**Arti**	**19.17**	**338**	*e*P	**Pn**	**20 35 02.9**	**-0.9**
	comp=Z,3.0nm,0.7s						
ARU	**Arti**	**19.17**	**338**	*e*P	**Pn**	**20 35 02.9**	**-0.9**
ARU				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES	**FINESS Array B**	**35.35**	**324**	P	**P**	**20 37 34.6**	**+1.1**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	**FINESS Array B**	**35.35**	**324**	P	**P**	**20 37 34.6**	**+1.1**
	comp=Z,1.1nm,0.7s,mb3.9,baz=120,slow=13,SNR=4.1						
SANT	**Santorini**	**35.89**	**280**	P	**P**	**20 37 46.9**	**+8.4**
ARCES	**ARCESS Array B**	**38.73**	**336**	P	**P**	**20 38 02.5**	**+0.4**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ARCES	**ARCESS Array B**	**38.73**	**336**	P	**P**	**20 38 02.5**	**+0.4**
	comp=Z,2.2nm,0.9s,mb3.9,baz=101,slow=6.4,SNR=6.0						
TORD	**Torodi Ar. Bea**	**65.88**	**267**	P	**P**	**20 41 23.8**	**-0.2**
	comp=Z,0.4nm,0.5s,mb3.7,baz=44,slow=5.7,SNR=3.0						
YKA	**Yellowknife Ar**	**78.60**	**3**	P	**P**	**20 42 40.8**	**+1.7**
YKA	**Yellowknife Ar**	**78.60**	**3**	P	**P**	**20 42 40.8**	**+1.7**
	comp=Z,0.3nm,0.6s,mb3.4,baz=357,slow=5.5,SNR=7.5						

BJI ***03*** *20:31:44.9, 9.94N×91.69E, h27^{km}, mB4.9, mb4.7, Ms4.3, Msz3.8*

IDC ***03*** *20:31:45.0±0.5, 10.24N×91.52E, h0^{km}, mb4.4/18, mb1 4.5/18, mb1mx4.5/21, mbtmp4.4/18, MS3.9/15, Ms1 3.9/15, ms1mx3.7/29, Error ellipse: s-maj=20.8km s-min=12.5km az=58.0*

ISCJB ***03*** *20:31:45.2±1.8, 10.21N±0.04×91.60E±0.04, h14^{km}±11^{km}, mb4.6/57, MS4.0/21, Error ellipse: s-maj=6.9km s-min=5.8km az=143.9*

MOS ***03*** *20:31:48.0±0.8, 10.29N×91.62E, h33^{km}, mb4.8/22, Error ellipse: s-maj=11.4km s-min=6.7km az=109.1*

NEIC ***03*** *20:31:48.1±0.2, 10.22N×91.60E, mb4.7/25, Error ellipse: s-maj=6.0km s-min=4.1km az=45.0*

ISC 03 20:31:48.6±1.6**, 10.21N**±0.04×**91.56E**±0.04**, h24**^{km}±11^{km}**, h24**^{km}±.9^{km}**:pP-P, n153, σ0^{s}82**/149**, mb4.6**/57**, MS4.0**/21**, 5C-2D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KULM	**Kulim**	**10.25**	**118**	*e*Pn	**Pn**	**20 34 14.4**	**+0.1**
KULM				*e*		20 34 20.9	
PSI	**Prapat**	**10.38**	**135**	Pn	**Pn**	**20 34 14.4**	**-1.6**
PSI				LR	LR	20 38 30.8	
PSI	**Prapat**	**10.38**	**135**	Pn	**Pn**	**20 34 14.4**	**-1.6**
	0.5nm,0.3s,baz=308,slow=17,SNR=3.9						
PSI				LR	LR	20 38 30.8	
	comp=Z,566nm,21.9s,baz=300,slow=39						
CM31	**Chiang Mai Arr**	**10.88**	**40**	*e*Pn	**Pn**	**20 34 23.1**	**+0.2**
PALK	**Pallekele**	**11.12**	**256**	*e*Pn	**Pn**	**20 34 27.1**	**+0.9**
	34nm,1.1s						
PALK				*e*Sn	**Sn**	**20 36 17.0**	**-13**
CHTO	**Chiang Mai**	**11.14**	**39**	*e*Pn	**Pn**	**20 34 26.1**	**-0.5**
	13nm,1.0s						
CHTO				*e*Sn	**Sn**	**20 36 32.9**	**+2.5**
CHTO	**Chiang Mai**	**11.14**	**39**	*e*P	**Pn**	**20 34 26.1**	**-0.5**
CHTO				*e*		20 36 32.9	
CHTO				pmax	pmax		
	comp=Z,13nm,1.0s						
HYB	**Hyderabad**	**14.51**	**301**	*e*P	**Pn**	**20 35 13.5**	**+0.9**
	comp=Z,45nm,1.0s						
HYB				*e*S	**Sn**	**20 37 50.0**	**-2.9**
HYB	**Hyderabad**	**14.51**	**301**	*e*P	**Pn**	**20 35 13.5**	**+0.9**
HYB				*e*S	**Sn**	**20 37 50.0**	**-2.9**
HYB				pmax	pmax		
	comp=Z,45nm,1.0s						
HYB	**Hyderabad**	**14.51**	**301**	*i* P	**Pn**	**20 35 13.5**	**+0.9**
	comp=Z,45nm,1.0s						
HYB				*e*S	**Sn**	**20 37 50.0**	**-2.9**
ODAN	**Odare**	**17.02**	**347**	*e*P	**Pn**	**20 35 44.3**	**-0.9**
	comp=Z,60nm,0.7s						
TAPN	**Taplejung**	**17.43**	**349**	*e*P	**Pn**	**20 35 49.5**	**-0.8**
	comp=Z,95nm,1.0s						
JIRN	**Jiri**	**18.08**	**344**	*e*P	**Pn**	**20 35 57.7**	**-0.6**
	comp=Z,34nm,0.5s						
PKI	**Pulchoki**	**18.21**	**342**	*e*P	**Pn**	**20 35 59.3**	**-0.6**
	comp=Z,50nm,0.6s						
KMI	**Kunming**	**18.24**	**34**	P	**Pn**	**20 36 01.1**	**+0.8**
KMI				AP	pP	20 36 08.1	+1.2
KMI				XP	sP	20 36 11.5	+1.4
KMI				PP		20 36 17.4	
KMI				AMB	AMB		
	comp=Z,30nm,0.9s						
KMI				AMB	AMB		
	comp=Z,53nm,3.5s						
KMI				LR	LR		
	comp=N,301nm,15.2s						
KMI				LR	LR		
	comp=E,281nm,12.8s						
KMI				LR	LR		
	comp=Z,222nm,20.4s						
DMN	**Daman**	**18.34**	**342**	*e*P	**Pn**	**20 36 00.9**	**-0.6**
	comp=Z,74nm,0.6s						
GUN	**Gumba**	**18.40**	**344**	*e*P	**Pn**	**20 36 01.9**	**-0.3**
	comp=Z,66nm,0.6s						
KKN	**Kakani**	**18.46**	**342**	*e*P	**Pn**	**20 36 02.3**	**-0.6**
	comp=Z,47nm,0.8s						
GKN	**Gorkha**	**18.86**	**341**	*e*P	**Pn**	**20 36 07.0**	**-0.8**
	comp=Z,102nm,0.6s						
KOLN	**Koldanda**	**19.01**	**338**	*e*P	**Pn**	**20 36 08.8**	**-0.7**
	comp=Z,56nm,0.6s						
LSA	**Lhasa**	**19.39**	**359**	P	**Pn**	**20 36 14.6**	**+0.4**
LSA				XP	sP	20 36 25.2	+2.5
LSA				S	**Sn**	**20 39 51.5**	**+0.4**
LSA				LR	LR		
	comp=E,430nm,13.4s						
LSA				LR	LR		
	comp=Z,300nm,14.9s						
QIZ	**Qiongzhong**	**19.73**	**62**	P	**Pn**	**20 36 11.5**	**-6.8**
QIZ				XP	sP	20 36 24.0	-2.5
QIZ				S	**Sn**	**20 39 49.3**	**-10**
QIZ				XS	sS	20 40 05.6	-3.1
QIZ				AMB	AMB		
	comp=Z,15nm,1.3s						
QIZ				AMB	AMB		
	comp=Z,250nm,5.0s						
QIZ				LR	LR		
	comp=N,405nm,16.8s						
QIZ				LR	LR		
	comp=Z,496nm,16.6s						
KSM	**Kuching**	**20.56**	**114**	*e*Pn	**P**	**20 36 25.4**	**-0.3**
GYA	**Guiyang**	**21.57**	**39**	⇑*i*P	**P**	**20 36 37.0**	**+0.4**
GYA				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.5						
GYA				AMB	AMB		
	comp=Z,130nm,4.2s						
KKM	**Kota Kinabalu**	**24.75**	**98**	*e*Pn	**P**	**20 37 09.1**	**+0.5**
LZH	**Lanzhou**	**28.07**	**21**	*e*P	**P**	**20 37 39.0**	**+0.7**
LZH				AP	pP	20 37 48.5	+3.0
LZH				XP	sP	20 37 52.5	+4.0
LZH				AMB	AMB		
	comp=Z,31nm,1.2s,mb4.8						
LZH				AMB	AMB		
	comp=Z,135nm,4.4s						
LZH				LR	LR		
	comp=E,360nm,12.0s						
LZH				LR	LR		
	comp=Z,618nm,13.3s,MS4.4						
XAN	**Xi’an**	**28.56**	**31**	P	**P**	**20 37 41.6**	**-1.1**
XAN				AP	pP	20 37 47.8	-2.1
XAN				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.7						
WHN	**Wuhan**	**29.31**	**43**	*e*P	**P**	**20 37 49.5**	**+0.1**
GTA	**Gaotai**	**30.00**	**13**	P	**P**	**20 37 56.5**	**+1.1**
GTA				AP	pP	20 38 01.1	-1.5
GTA				XP	sP	20 38 03.7	-1.9
GTA				AMB	AMB		
	comp=Z,13nm,1.4s,mb4.5						
GTA				AMB	AMB		
	comp=Z,92nm,7.6s						
GTA				LR	LR		
	comp=N,191nm,13.4s,MS4.0						
GTA				LR	LR		
	comp=E,177nm,14.5s,MS4.0						
GTA				LR	LR		
	comp=Z,115nm,13.8s,MS3.7						
KBL	**Kabul**	**31.78**	**323**	*e*P	**P**	**20 38 11.6**	**+0.3**
KBL				*e*pP	pP	20 38 17.4	-1.0
WMQ	**Urumqi**	**33.65**	**355**	*e*P	**P**	**20 38 28.0**	**+0.6**
WMQ				AP	pP	20 38 38.0	+3.3
WMQ				XP	sP	20 38 42.0	+4.4
WMQ				AMB	AMB		
	comp=Z,11nm,1.2s,mb4.7						
WMQ				LR	LR		
	comp=N,97nm,18.1s,MS3.7						
WMQ				LR	LR		
	comp=E,83nm,16.0s,MS3.7						
WMQ				LR	LR		
	comp=Z,54nm,18.1s,MS3.3						
KZA	**Kyzart**	**34.82**	**339**	P	**P**	**20 38 39.1**	**+1.5**
	SNR=8.4						
UCH	**Uchtor**	**35.22**	**338**	P	**P**	**20 38 42.8**	**+1.7**
	SNR=5.8						
UCH	**Uchtor**	**35.22**	**338**	*e*P	**P**	**20 38 42.1**	**+1.0**
	comp=Z,6.5nm,1.0s,mb4.5						
UCH				*e*pP	pP	20 38 48.6	+0.3
KBK	**Karagaybulak**	**35.44**	**339**	P	**P**	**20 38 44.8**	**+1.9**
	SNR=7.3						
TKM2	**Tokmak 2**	**35.44**	**340**	*e*P	**P**	**20 38 44.1**	**+1.1**
	comp=Z,4.3nm,0.9s,mb4.4						
TKM2				*e*pP	pP	20 38 50.9	+0.7
TKM2	**Tokmak 2**	**35.44**	**340**	*e*P	**P**	**20 38 44.1**	**+1.2**
TKM2				*e**PP	pP	20 38 50.9	+0.7
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
AML	**Almayashu**	**35.45**	**337**	P	**P**	**20 38 44.8**	**+1.8**
	SNR=17						
AML	**Almayashu**	**35.45**	**337**	*e*P	**P**	**20 38 44.4**	**+1.4**
	comp=Z,23nm,1.0s,mb5.1						
AML				*e*pP	pP	20 38 50.7	+0.4
AAK	**Ala-Archa**	**35.58**	**338**	P	**P**	**20 38 46.3**	**+2.2**
	SNR=9.4						
AAK	**Ala-Archa**	**35.58**	**338**	*e*P	**P**	**20 38 44.1**	**-0.1**
	comp=Z,12nm,1.0s,mb4.8						
AAK				*e*pP	pP	20 38 50.6	-0.8
AAK	**Ala-Archa**	**35.58**	**338**	*e*P	**P**	**20 38 44.1**	**0.0**
AAK				*e**PP	pP	20 38 50.6	-0.8
AAK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
FRU	**Bishkek**	**35.71**	**338**	*e*P	**P**	**20 38 46.0**	**+0.8**
FRU				*e*	pP	20 38 53.0	+0.5
FRU				pmax	pmax		
	comp=Z,40nm,1.6s,mb5.1						
EKS2	**Erkin-Say**	**35.87**	**337**	P	**P**	**20 38 48.6**	**+1.9**
	SNR=13						
EKS2	**Erkin-Say**	**35.87**	**337**	*e*P	**P**	**20 38 48.0**	**+1.3**
	comp=Z,11nm,0.9s,mb4.8						
EKS2				*e*pP	pP	20 38 54.0	+0.1
USP	**Ospenovka**	**36.13**	**339**	P	**P**	**20 38 50.0**	**+1.1**
	SNR=14						
BJI	**Beijing**	**36.88**	**32**	P	**P**	**20 38 55.6**	**+0.3**
BJI				AMB	AMB		
	comp=Z,25nm,0.9s,mb5.0						
BJI				LR	LR		
	comp=N,368nm,15.7s,MS4.3						
BJI				LR	LR		
	comp=E,264nm,18.0s,MS4.3						
BJI				LR	LR		
	comp=Z,174nm,25.4s						
MK31	**Makanchi Array**	**37.30**	**349**	*e*P	**P**	**20 38 59.0**	**+0.2**
MK31				*e*pP	pP	20 39 05.3	-0.8
MK31				*e*PcP	PcP	20 41 18.2	+0.3
MK31				*e*pPcP		20 41 24.4	
MK31	**Makanchi Array**	**37.30**	**349**	*e*P	**P**	**20 38 59.0**	**+0.2**
MK31				*e**PP	pP	20 39 05.3	-0.7
MK31				*e*		20 41 18.2	
MKAR	**Makanchi Array**	**37.30**	**349**	P	**P**	**20 38 59.1**	**+0.4**
	comp=Z,5.0nm,0.7s,mb4.4,baz=167,slow=8.3,SNR=40						
MKAR				PcP	PcP	20 41 18.1	+0.3
	comp=Z,2.0nm,0.6s,baz=206,slow=3.2,SNR=7.1						
MKAR				LR	LR	20 57 30.1	
	comp=Z,80nm,19.3s,MS3.5,baz=348,slow=42						
DL2	**Dalian**	**39.21**	**38**	P	**P**	**20 39 14.6**	**-0.4**
DL2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
SONM	**Songino Array**	**39.53**	**16**	P	**P**	**20 39 18.0**	**+0.5**
SONM						20 41 25.6	
SONM	**Songino Array**	**39.53**	**16**	P	**P**	**20 39 18.0**	**+0.5**
	comp=Z,6.7nm,0.8s,mb4.4,baz=200,slow=8.9,SNR=54						
SONM				PcP	PcP	20 41 25.6	+0.8
	comp=Z,2.4nm,0.9s,baz=203,slow=3.8,SNR=5.0						
SONM				LR	LR	20 58 43.4	
	comp=Z,96nm,19.1s,MS3.6,baz=141,slow=41						
ULN	**Ulaanbaatar**	**39.74**	**16**	*e*P	**P**	**20 39 19.4**	**+0.2**
	comp=Z,2.5nm,0.6s,mb4.1						
ULN	**Ulaanbaatar**	**39.74**	**16**	*e*P	**P**	**20 39 19.4**	**+0.1**
ULN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
ZAK	**Zakamensk**	**41.20**	**11**	*e*P	**P**	**20 39 26.0**	**-5.3**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.6						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.8s,mb3.5						
KURK	**Kurchatov**	**41.77**	**348**	*e*P	**P**	**20 39 35.6**	**-0.4**
	comp=Z,8.0nm,0.9s,mb4.3						
KURK				*e*pP	pP	20 39 42.4	-0.8
KURK				*e*PcP	PcP	20 41 31.9	-0.1
KURK	**Kurchatov**	**41.77**	**348**	*e*P	**P**	**20 39 35.6**	**-0.3**
KURK				*e**PP	pP	20 39 42.4	-0.9
KURK				*e*		20 41 31.9	
KURK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.3						
KSRS	**Korea Array**	**42.48**	**44**	P	**P**	**20 39 41.5**	**-0.5**
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.8						
KSRS				MLR	MLR		
	comp=Z,124nm,18.3s,MS3.8						
KSRS	**Korea Array**	**42.48**	**44**	P	**P**	**20 39 41.5**	**-0.5**
	comp=Z,1.6nm,0.8s,mb3.7,baz=230,slow=8.8,SNR=6.3						
KSRS				LR	LR	21 00 16.4	
	comp=Z,124nm,18.3s,MS3.8,baz=12,slow=40						
FITZ	**Fitzroy Crossi**	**43.86**	**130**	*e*P	**P**	**20 39 52.7**	**-0.6**
	comp=Z,8.9nm,0.6s,mb4.7						
FITZ	**Fitzroy Crossi**	**43.86**	**130**	P	**P**	**20 39 52.9**	**-0.4**
	comp=Z,5.2nm,0.8s,mb4.3,baz=190,slow=2.6,SNR=11						
ZAL	**Zalesovo**	**43.94**	**354**	P	**P**	**20 39 53.6**	**+0.1**
ZALV	**Zalesovo Beam**	**43.95**	**354**	P	**P**	**20 39 53.6**	**0.0**
	comp=Z,4.7nm,0.8s,mb4.3,baz=171,slow=10,SNR=24						
CN2	**Changchun**	**44.51**	**35**	*e*P	**P**	**20 39 57.8**	**-0.4**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.9						
BRVK	**Borovoye**	**46.05**	**342**	*e*P	**P**	**20 40 10.1**	**-0.2**
	comp=Z,6.4nm,0.9s,mb4.5						
BRVK				*e*pP	pP	20 40 15.9	-1.7
BRVK	**Borovoye**	**46.05**	**342**	*e*P	**P**	**20 40 10.1**	**-0.2**
BRVK				*e**PP	pP	20 40 15.9	-1.8
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
MUN	**Mundaring**	**48.12**	**152**	*e*P	**P**	**20 40 27.2**	**+0.4**
KLBR	**Kellerberrin**	**48.55**	**150**	*e*P	**P**	**20 40 29.8**	**-0.3**
	comp=Z,9.0nm,0.6s,mb5.0						
AKTK	**Aktyubinsk**	**48.69**	**332**	P	**P**	**20 40 30.6**	**-0.3**
AKTO	**Aktyubinsk**	**48.69**	**332**	P	**P**	**20 40 30.7**	**-0.2**
AKTO				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
AKTO	**Aktyubinsk**	**48.69**	**332**	P	**P**	**20 40 30.6**	**-0.3**
	comp=Z,3.6nm,0.7s,mb4.5,baz=115,slow=7.2,SNR=7.2						
NWAO	**Narrogin (SRO)**	**49.39**	**151**	P	**P**	**20 40 36.7**	**+0.2**
NWAO	**Narrogin (SRO)**	**49.39**	**151**	P	**P**	**20 40 36.7**	**+0.2**
	comp=Z,13nm,0.6s,mb5.2,baz=314,slow=8.3,SNR=15						
MJAR	**Matsushiro Arr**	**49.56**	**50**	LR	LR	21 04 28.2	
	comp=Z,190nm,18.3s,MS4.1,baz=255,slow=40						
BOD	**Bodaibo**	**50.53**	**15**	*e*P	**P**	**20 40 44.2**	**-0.6**
BOD				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.3						
WRA	**Warramunga Arr**	**51.69**	**125**	P	**P**	**20 40 54.0**	**-0.1**
	comp=Z,17nm,0.7s,mb5.1,baz=306,slow=8.5,SNR=65						
WRA				LR	LR	21 07 07.4	
	comp=Z,86nm,19.0s,MS3.8,baz=310,slow=41						
WB2	**Warramunga Arr**	**51.70**	**125**	⇑*i*P	**P**	**20 40 54.1**	**0.0**
WB2	**Warramunga Arr**	**51.70**	**125**	*e*P	**P**	**20 40 53.9**	**-0.2**
GUMO	**Guam**	**52.19**	**81**	LR	LR	21 01 19.9	
	comp=Z,92nm,20.8s,MS3.8,baz=138,slow=34						
SVE	**Sverdlovsk**	**52.31**	**339**	*e*P	**P**	**20 40 59.0**	**+0.8**
ZEI	**Tsey**	**52.60**	**317**	*e*P	**P**	**20 41 02.4**	**+1.8**
ZEI				*i*	pP	20 41 10.4	+2.3
ZEI				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
ARU	**Arti**	**52.76**	**338**	*e*P	**P**	**20 41 01.5**	**0.0**
	comp=Z,9.1nm,0.9s,mb4.7						
ARU				*e*pP	pP	20 41 07.7	-1.3
ARU	**Arti**	**52.76**	**338**	⇓*i*P	**P**	**20 41 01.6**	**+0.1**
ARU				*e*		20 43 01.1	
ARU				*e*PPP		20 44 06.8	
ARU				*e*S	**S**	**20 48 27.9**	**-0.3**
ARU				*e*SS	SS	20 52 05.2	-1.8
ARU				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
KIV	**Kislovodsk**	**53.88**	**318**	*e*P	**P**	**20 41 10.1**	**+0.1**
	comp=Z,22nm,0.8s,mb5.1						
KIV				*e*pP	pP	20 41 16.6	-0.9
KIV	**Kislovodsk**	**53.88**	**318**	⇑*e*P	**P**	**20 41 10.0**	**0.0**
KIV				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
KIV				MLR	MLR		
	comp=Z,100nm,22.0s,MS3.8						
ASF	**Jabal al Asfar**	**54.82**	**302**	LR	LR	21 07 39.9	
	comp=Z,101nm,20.0s,MS3.9,baz=89,slow=39						
MALT	**Malatya**	**55.02**	**310**	*e*P	**P**	**20 41 17.9**	**-0.4**
	comp=Z,8.9nm,1.1s,mb4.7						
MALT	**Malatya**	**55.02**	**310**	*e*P	**P**	**20 41 17.9**	**-0.4**
MALT				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
KMBO	**Kilima Mbogo**	**55.20**	**261**	LR	LR	21 02 53.2	
	comp=Z,142nm,18.5s,MS4.1,baz=96,slow=34						
MMAI	**Mount Meron Ar**	**56.21**	**303**	LR	LR	21 08 54.1	
	comp=Z,79nm,19.1s,MS3.8,baz=160,slow=40						
YSS	**Yuzh-Sakhalins**	**56.57**	**40**	*e*P	**P**	**20 41 29.5**	**+0.2**
	comp=Z,34nm,1.0s,mb5.3						
YSS	**Yuzh-Sakhalins**	**56.57**	**40**	*e*P	**P**	**20 41 29.5**	**+0.2**
YSS				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.3						
YAK	**Yakutsk**	**58.64**	**20**	*e*P	**P**	**20 41 41.7**	**-1.9**
	comp=Z,7.7nm,0.5s,mb5.0						
YAK	**Yakutsk**	**58.64**	**20**	*e*P	**P**	**20 41 42.4**	**-1.2**
YAK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
YAK				pmax	pmax		
	comp=N,7.0nm,1.4s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.4s						
BRTR	**Keskin Array B**	**58.98**	**310**	P	**P**	**20 41 45.4**	**-1.0**
	comp=E,2.9nm,0.8s,mb4.3,baz=121,slow=7.3,SNR=16						
PRGR	**Permogore**	**61.20**	**337**	⇑*i*P	**P**	**20 42 01.3**	**+0.1**
PRGR				*e*S	**S**	**20 50 26.5**	**+7.1**
CTA	**Charters Tower**	**61.67**	**119**	LR	LR	21 10 17.2	
	comp=E,119nm,18.1s,MS4.1,baz=229,slow=38						

CTAO	Charters Tower	61.67	119	eP	P	20 42 05.6	+0.5
	comp=E,52nm,1.3s,mb5.5						
CTAO	Charters Tower	61.67	119	eP	P	20 42 05.6	+0.5
CTAO				pmax	pmax		
	comp=Z,52nm,1.3s,mb5.5						
MOS	Moscow	61.77	329	eP	P	20 42 03.9	-1.3
MOS				e	pP	20 42 11.0	-1.8
MOS				MLR	MLR		
	comp=Z,1µm,23.0s,MS5.0						
OBN	Obninsk	62.05	328⇑	eP	P	20 42 06.2	-0.9
OBN				eS	S	20 50 26.3	-4.1
OBN				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
OBN				MLR	MLR		
	comp=Z,100nm,15.0s,MS4.1						
STKA	Stephens Creek	63.55	133	eP	P	20 42 17.9	+0.5
	comp=Z,5.4nm,0.6s,mb4.8						
STKA	Stephens Creek	63.55	133	eP	P	20 42 17.8	+0.4
STKA	Stephens Creek	63.55	133	P	P	20 42 17.9	+0.5
	comp=Z,7.4nm,0.6s,mb4.9,baz=288,slow=9.2,SNR=30						
STKA				LR	LR	21 12 58.8	
	comp=Z,84nm,18.4s,MS4.0,baz=204,slow=39						
AKASG	Malin Array Be	64.75	321	P	P	20 42 23.8	-1.3
	comp=Z,0.4nm,0.5s,mb3.7,baz=86,slow=5.4,SNR=7.5						
TIXI	Tiksi	65.48	12	eP	P	20 42 28.3	-1.1
	comp=Z,16nm,1.1s,mb5.0						
TIXI				epP	pP	20 42 34.7	-2.3
TIXI	Tiksi	65.48	12	eP	P	20 42 28.5	-0.9
TIXI				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
MA2	Magadan	65.92	29	eP	P	20 42 32.2	-0.2
	comp=Z,9.8nm,1.1s,mb4.8						
MA2	Magadan	65.92	29	eP	P	20 42 32.0	-0.4
MA2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
JOF	Joensuu	67.66	335	ep	P	20 42 43.0	-0.4
	comp=Z,4.2nm,0.5s,mb4.7						
LSZ	Lusaka	67.68	249	P	P	20 42 45.5	+1.0
	comp=Z,7.1nm,1.1s,mb4.6						
LSZ				epP	pP	20 42 52.0	-0.1
LSZ	Lusaka	67.68	249	P	P	20 42 45.5	+1.1
LSZ				e*PP	pP	20 42 52.0	-0.1
LSZ				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
SEY	Seymchan	67.91	26	eP	P	20 42 43.2	-1.8
FINES	FINESS Array B	69.47	332	P	P	20 42 54.1	-0.7
	comp=Z,2.1nm,0.8s,mb4.1,baz=107,slow=6.4,SNR=6.2						
ARCES	ARCESS Array B	72.22	340	LR	LR	21 21 09.1	
	comp=Z,235nm,18.2s,MS4.5,baz=26,slow=41						
LBTB	Lobatse	73.16	240	eP	P	20 43 18.8	+1.1
	comp=Z,9.2nm,1.2s,mb4.6						
LBTB	Lobatse	73.16	240	eP	P	20 43 18.8	+1.1
LBTB				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
GERES	GERESS Array B	74.39	318	P	P	20 43 24.6	0.0
	comp=Z,1.2nm,0.9s,mb3.8,baz=90,slow=4.1,SNR=10.0						
BOSA	Boshof	74.70	237	eP	P	20 43 27.3	+0.6
	comp=Z,6.8nm,0.9s,mb4.6						
BOSA				epP	pP	20 43 34.1	-0.3
BOSA				LR	LR	21 11 38.2	
BOSA	Boshof	74.70	237	eP	P	20 43 27.3	+0.6
BOSA				e*PP	pP	20 43 34.2	-0.2
BOSA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
BOSA	Boshof	74.70	237	P	P	20 43 27.6	+1.0
	comp=Z,4.4nm,1.0s,mb4.3,baz=88,slow=11,SNR=6.8						
BOSA				LR	LR	21 11 38.2	
	comp=Z,95nm,18.0s,MS4.1,baz=235,slow=32						
BILL	Bilibino	74.88	22⇓	eP	P	20 43 26.1	-0.9
BILL				eS	S	20 53 06.2	+3.7
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
NB2	NORSAR Subarra	76.45	330	P	P	20 43 35.0	-1.2
	comp=Z,4.6nm,1.1s,mb4.3,baz=93,slow=5.9						
NOA	NORSAR Array B	76.45	330	P	P	20 43 35.8	-0.4
	comp=Z,0.9nm,0.8s,mb3.7,baz=253,slow=16,SNR=3.0						
KEST	Kesra	77.82	304	P	P	20 43 44.7	+0.3
	comp=Z,2.4nm,0.8s,mb4.2,baz=302,slow=1.9,SNR=9.2						
LPG	La Plagne	79.17	315	eP	P	20 43 51.6	0.0
	comp=Z,4.4nm,0.8s,mb4.4						
LPG	La Plagne	79.17	315	eP	P	20 43 51.6	0.0
LPG				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
LPG	La Plagne	79.17	315	eP	P	20 43 51.6	0.0
	comp=Z,8.8nm,0.8s,mb4.4						
LPL	La Plagne	79.18	315	eP	P	20 43 51.6	-0.1
	comp=Z,11nm,1.3s,mb4.6						
LPL	La Plagne	79.18	315	eP	P	20 43 51.6	-0.1
LPL				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
LPL	La Plagne	79.18	315	eP	P	20 43 51.6	-0.1
	comp=Z,22nm,1.2s,mb4.6						
HAU	Haudompre	79.30	317	eP	P	20 43 51.6	-0.7
MAW	Mawson	80.31	191	P	P	20 43 58.1	+0.8
	comp=Z,3.6nm,0.8s,mb4.4,baz=6.6,slow=6.2,SNR=3.6						
BAIF	Baives	80.56	319	eP	P	20 43 58.8	-0.3
VIVF	Saint-Julien-l	80.69	314	eP	P	20 43 59.7	-0.1
	comp=Z,3.8nm,0.7s,mb4.4						
VIVF	Saint-Julien-l	80.69	314	eP	P	20 43 59.7	-0.1
VIVF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
VIVF	Saint-Julien-l	80.69	314	eP	P	20 43 59.7	-0.1
	comp=Z,7.5nm,0.7s,mb4.4						
LOR	Lormes	81.03	316	eP	P	20 44 01.0	-0.6
	comp=Z,5.7nm,0.9s,mb4.5						
LOR	Lormes	81.03	316	eP	P	20 44 01.0	-0.6
LOR				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
LOR	Lormes	81.03	316	eP	P	20 44 01.0	-0.6
	comp=Z,11nm,0.9s,mb4.5						
SSF	Saint Saulge	81.29	316	eP	P	20 44 02.5	-0.5
AVF	Avril sur Loir	81.42	316	eP	P	20 44 03.1	-0.6
TORD	Torodi Ar. Bea	87.59	283	P	P	20 44 36.2	+0.7
	comp=Z,2.6nm,1.0s,mb4.4,baz=86,slow=5.0,SNR=10						
TORD				LR	LR	21 25 23.5	
	comp=Z,74nm,18.2s,MS4.1,baz=130,slow=37						
ESDC	Sonseca Array	87.77	310	P	P	20 44 35.8	-0.2
	comp=Z,1.2nm,0.8s,mb4.2,baz=65,slow=4.0,SNR=5.7						
IMA2	Indian Mountai	90.42	22	P	P	20 44 47.1	-0.8
NVAR	Mina Array Bea	124.16	28	PKP	PKPdf	20 50 47.3	+1.6
NVAR	Mina Array Bea	124.16	28	PKP	PKPdf	20 50 47.3	+1.6
	comp=Z,1.1nm,0.7s,baz=356,slow=2.9,SNR=9.2						
TXAR	Lajitas Array	138.03	20	PKP	PKPdf	20 51 12.0	-0.1
TXAR	Lajitas Array	138.03	20	PKIKP	PKPdf	20 51 12.0	-0.1
TXAR	Lajitas Array	138.03	20	PKP	PKPdf	20 51 12.0	-0.1
	comp=Z,0.5nm,0.6s,baz=146,slow=2.4,SNR=3.9						
LPAZ	La Paz	159.34	251	PKP2	PKPab	20 52 24.7	+1.1
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.9s						
LPAZ	La Paz	159.34	251	PKPab	PKPab	20 52 24.7	+1.1
	comp=Z,1.0nm,0.9s,baz=63,slow=2.3,SNR=3.2						

*IDC **03** 21:07:47.6±1.1, 34.16N×86.61E, h0km, mb3.8/10, mb1 4.1/12, mb1mx3.9/21, mbtmp3.9/12, ML3.9/2, MS3.6/6, Ms1 3.6/6, ms1mx3.3/32, Error ellipse: s-maj=28.6km s-min=23.3km az=29.0*
*BJI **03** 21:07:49.4, 34.21N×86.52E, h15km, mB4.7, mb4.3, Ms4.1, Msz4.0*
*MOS **03** 21:07:50.8±1.1, 34.27N×86.56E, h33km, mb4.2/14, Error ellipse: s-maj=13.5km s-min=7.0km az=95.2*
*ISCJB **03** 21:07:52.0±0.6, 34.33N±0.03×86.60E±0.05, h40km±8km, mb4.1/20, MS3.5/6, Error ellipse: s-maj=7.1km s-min=4.9km az=146.4*
*NEIC **03** 21:07:51.1±2.3, 34.19N×86.54E, h21km±16km, mb4.2/7, Error ellipse: s-maj=9.5km s-min=7.2km az=142.0*
*DMN **03** 21:08:11.6±8.5, 32.71N×86.34E, h292km±71km, Mb4.5/6, Error ellipse: s-maj=275.5km s-min=23.7km az=8.0*
ISC 03 21:07:54.7±0.4, **34.33N**±0.03×**86.58E**±0.05, **h47**km±6km, **n91**, σ**1.18**/95, **mb4.1**/20, **MS3.5**/6, **4C-2D, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	6.03	139	P	Pn	21 09 22.0	+0.7
LSA				SG	Sn	21 11 02.9	+34
LSA				LR	LR		
	comp=N,930nm,12.3s						
LSA				LR	LR		
	comp=E,2µm,14.2s						
LSA				LR	LR		
	comp=Z,2µm,9.8s						
GUN	Gumba	6.43	186	eP	Pn	21 09 27.1	+0.4
	comp=Z,123nm,0.7s						
GKN	Gorkha	6.52	195	eP	Pn	21 09 28.7	+0.6
	comp=Z,40nm,0.4s						
KKN	Kakani	6.61	190	eP	Pn	21 09 29.1	-0.2
	comp=Z,48nm,0.6s						
JIRN	Jiri	6.66	183	eP	Pn	21 09 30.7	+0.8
	comp=Z,56nm,0.5s						
PKI	Pulchoki	6.81	189	eP	Pn	21 09 32.0	0.0
	comp=Z,95nm,0.6s						
DMN	Daman	6.82	191	eP	Pn	21 09 32.1	0.0
	comp=Z,67nm,0.5s						
KOLN	Koldanda	7.02	202	eP	Pn	21 09 35.1	+0.2
	comp=Z,44nm,0.8s						
TAPN	Taplejung	7.02	172	eP	Pn	21 09 35.4	+0.5
	comp=Z,122nm,0.4s						
ODAN	Odare	7.48	174	eP	Pn	21 09 40.2	-1.0
	comp=Z,130nm,0.8s						
WMQ	Urumqi	9.52	5	P	Pn	21 10 08.6	-0.4
WMQ				AP		21 10 18.6	
WMQ				XP		21 10 22.6	
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.9s						
WMQ				LR	LR		
	comp=N,294nm,19.4s						
WMQ				LR	LR		
	comp=E,354nm,20.0s						
WMQ				LR	LR		
	comp=Z,245nm,17.6s						
KSH	Kashi	9.95	304	P	Pn	21 10 17.4	+2.5
ULHL	Ulahol	11.33	317	P	Pn	21 10 35.0	+1.2
	SNR=6.0						
GTA	Gaotai	11.74	61	eP	Pn	21 10 38.2	-1.3
GTA				AP		21 10 42.5	
GTA				XP		21 10 46.1	
GTA				AMB	AMB		
	comp=Z,2.0nm,1.6s						
TKM2	Tokmak 2	12.13	318	P	Pn	21 10 44.8	0.0
	SNR=8.2						
TKM2	Tokmak 2	12.13	318	ePn	Pn	21 10 44.6	-0.1
	comp=Z,12nm,1.0s						
TKM2	Tokmak 2	12.13	318	eP	Pn	21 10 44.6	-0.2
TKM2				pmax	pmax		
	comp=Z,12nm,1.0s						
UCH	Uchtor	12.32	313	P	Pn	21 10 48.5	+1.1
	SNR=7.1						
UCH	Uchtor	12.32	313	eP	Pn	21 10 47.7	+0.3
	comp=Z,3.6nm,0.7s						
UCH				e		21 11 00.7	
KBK	Karagaybulak	12.33	316	P	Pn	21 10 48.1	+0.7
	SNR=6.7						
AAK	Ala-Archa	12.58	315	eP	Pn	21 10 50.2	-0.6
	comp=Z,3.5nm,0.8s						
AAK	Ala-Archa	12.58	315	eP	Pn	21 10 50.2	-0.6
AAK				pmax	pmax		
	comp=Z,4.0nm,0.8s						
AML	Almayashu	12.77	311	P	Pn	21 10 53.8	+0.3
	SNR=7.0						
AML	Almayashu	12.77	311	eP	Pn	21 10 53.5	0.0
	comp=Z,11nm,1.1s						
MK31	Makanchi Array	12.87	347	eP	Pn	21 10 53.4	-1.4
MKAR	Makanchi Array	12.87	347	P	Pn	21 10 53.6	-1.2
MKAR				MLR	MLR		
	comp=Z,318nm,18.4s						
MKAR	Makanchi Array	12.87	347	Pn	Pn	21 10 53.6	-1.2
	comp=Z,0.4nm,0.3s,baz=160,slow=14,SNR=100						
MKAR				LR	LR	21 17 06.5	
	comp=Z,318nm,18.4s,baz=168,slow=43						
EKS2	Erkin-Say	13.02	313	P	Pn	21 10 57.7	+0.8
	SNR=8.3						
EKS2	Erkin-Say	13.02	313	eP	Pn	21 10 55.5	-1.4
	comp=Z,4.4nm,0.7s						
LZH	Lanzhou	14.22	78	eP	Pn	21 11 14.9	+1.6
LZH				AP		21 11 19.0	
LZH				XP		21 11 22.1	
LZH				AMB	AMB		
	comp=Z,18nm,1.0s						
KBL	Kabul	14.48	276	eP	Pn	21 11 14.0	-2.7
CD2	Chengdu	14.87	99	eP	Pn	21 11 25.4	+3.5
CD2				XP	sP	21 11 32.4	-11
CD2				PP		21 11 37.5	
CD2				S	Sn	21 14 10.2	+4.8
CD2				AMB	AMB		
	comp=Z,20nm,0.8s						
CD2				AMB	AMB		
	comp=Z,40nm,4.2s						
CD2				LR	LR		
	comp=N,660nm,10.8s						
CD2				LR	LR		
	comp=E,780nm,8.4s						
CD2				LR	LR		
	comp=Z,510nm,7.2s						
KMI	Kunming	16.75	119	P	Pn	21 11 43.8	-2.2
KMI				AP	pP	21 11 46.8	-12
KMI				PP		21 11 56.0	
KMI				PPP		21 12 06.2	
KMI				S	S	21 14 48.6	-12
KMI				SS		21 15 08.6	
KMI				SSS		21 15 20.9	
KMI				AMB	AMB		
	comp=Z,6.0nm,1.1s						
KMI				AMB	AMB		
	comp=Z,97nm,3.7s						
KMI				LR	LR		
	comp=N,433nm,15.8s						
KMI				LR	LR		
	comp=E,291nm,16.0s						
KMI				LR	LR		
	comp=Z,318nm,12.3s						
KURK	Kurchatov	17.38	343	eP	Pn	21 11 51.9	-1.7
	comp=Z,13nm,1.0s						
KURK	Kurchatov	17.38	343	eP	Pn	21 11 51.9	-1.7
KURK				pmax	pmax		
	comp=Z,13nm,1.0s						
HYB	Hyderabad	18.31	205	eP	Pn	21 12 02.0	-3.3
HYB	Hyderabad	18.31	205	i P	Pn	21 12 02.0	-3.3
GYA	Guiyang	19.00	109⇓	iP	Pn	21 12 10.5	-3.0
GYA				AMB	AMB		
	comp=Z,20nm,1.1s						
ZAL	Zalesovo	19.64	357	P	Pn	21 12 19.8	-1.2
ZALV	Zalesovo Beam	19.66	357	P	Pn	21 12 19.8	-1.3
ZALV				LR	LR	21 21 17.5	
ZALV	Zalesovo Beam	19.66	357	P	Pn	21 12 19.8	-1.3
	comp=Z,0.5nm,0.3s,baz=180,slow=10,SNR=33						
ZALV				LR	LR	21 21 17.5	
	comp=Z,199nm,19.2s,baz=141,slow=41						
SONM	Songino Array	20.05	42	P	P	21 12 24.7	+1.0
SONM				pmax	pmax		
	comp=Z,3.0nm,1.0s						
SONM	Songino Array	20.05	42	P	P	21 12 24.7	+1.0
	comp=Z,3.2nm,1.0s,baz=233,slow=11,SNR=21						
ZAK	Zakamensk	20.16	32⇓	iP	P	21 12 26.1	+1.2
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.1s						
MOY	Mondy	20.22	27	eP	P	21 12 26.9	+1.4
ULN	Ulaanbaatar	20.43	42	eP	P	21 12 29.4	+1.5
	comp=Z,8.8nm,0.9s						
ULN	Ulaanbaatar	20.43	42	eP	P	21 12 29.4	+1.5
ULN				pmax	pmax		
	comp=Z,9.0nm,0.9s						
TLY	Talaya	21.27	30	eP	P	21 12 38.7	+1.8
	comp=Z,2.5nm,0.8s,mb3.6						
TLY	Talaya	21.27	30	eP	P	21 12 38.6	+1.7
TLY				eS	S	21 16 22.5	-8.0
TLY				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb3.8						
TLY				MLR	MLR		
	comp=Z,91nm,14.0s,MS3.3						
BRVK	Borovoye	22.03	333	eP	P	21 12 45.7	+0.8
	comp=Z,8.6nm,0.8s,mb4.2						
BRVK	Borovoye	22.03	333	eP	P	21 12 45.7	+0.7
BRVK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.2						
QIZ	Qiongzhong	25.68	120	⇑P	P	21 13 19.0	-1.4
QIZ				S	S	21 17 48.4	+2.6
QIZ				AMB	AMB		
	comp=Z,39nm,1.9s,mb4.6						
QIZ				AMB	AMB		
	comp=Z,206nm,5.7s						
QIZ				LR	LR		
	comp=N,112nm,25.8s,MS3.5						
QIZ				LR	LR		
	comp=E,118nm,24.2s,MS3.5						
QIZ				LR	LR		
	comp=Z,349nm,11.1s						
AKTK	Aktyubinsk	26.32	316	P	P	21 13 26.5	+0.7
AKTK				LR	LR	21 25 05.1	
AKTO	Aktyubinsk	26.32	316	P	P	21 13 26.5	+0.7
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
AKTO				MLR	MLR		
	comp=Z,83nm,18.3s,MS3.3						
AKTO	Aktyubinsk	26.32	316	P	P	21 13 26.5	+0.7
	comp=Z,1.7nm,0.8s,mb3.6,baz=98,slow=13,SNR=5.9						
AKTO				LR	LR	21 25 05.1	
	comp=Z,82nm,18.3s,MS3.3,baz=299,slow=39						
NJ2	Nanjing	27.04	86	eP	P	21 13 29.3	-3.3
NJ2				AMB	AMB		
	comp=Z,20nm,0.5s,mb4.9						
ARU	Arti	29.24	328	eP	P	21 13 51.2	-0.6
ARU				e		21 14 44.1	
ARU				eS	S	21 18 38.0	-3.1
KSRS	Korea Array	33.45	73	P	P	21 14 31.5	+2.4
	comp=Z,1.8nm,0.8s,mb4.0,baz=286,slow=9.4,SNR=4.2						
KSRS				LR	LR	21 29 37.0	
	comp=Z,59nm,20.1s,MS3.3,baz=285,slow=39						
YAK	Yakutsk	38.74	31	P	P	21 15 14.5	+0.4
YAK	Yakutsk	38.74	31⇑	eP	P	21 15 13.3	-0.8
YAK				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.2						
BRTR	Keskin Array B	42.10	293	P	P	21 15 43.0	+0.9
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
BRTR	Keskin Array B	42.10	293	P	P	21 15 43.0	+0.9
	comp=Z,1.3nm,0.9s,mb3.5,baz=98,slow=6.0,SNR=4.8						
TIXI	Tiksi	43.42	18	eP	P	21 15 52.0	-0.3
	comp=Z,4.3nm,0.9s,mb4.2						
TIXI	Tiksi	43.42	18	eP	P	21 15 50.7	-1.6
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
AKASG	Malin Array Be	44.19	310	P	P	21 15 58.1	-0.6
	comp=Z,0.2nm,0.3s,mb3.3,baz=73,slow=6.5,SNR=6.1						
FINES	FINESS Array B	46.52	325	P	P	21 16 17.4	+0.3
FINES	FINESS Array B	46.52	325	P	P	21 16 17.4	+0.3
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	FINESS Array B	46.52	325	P	P	21 16 17.4	+0.3
	comp=Z,2.1nm,0.9s,mb4.0,baz=111,slow=10,SNR=4.8						
MA2	Magadan	48.19	38⇑	eP	P	21 16 28.4	-1.7
MA2				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
SEY	Seymchan	49.13	33	eP	P	21 16 35.9	-1.4
NOA	NORSAR Array B	53.69	324	P	P	21 17 11.5	+0.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,77nm,18.9s						
NOA	NORSAR Array B	53.69	324	P	P	21 17 11.5	+0.1
	comp=Z,1.2nm,0.8s,mb3.9,baz=83,slow=7.1,SNR=3.3						
NOA				LR	LR	21 39 32.3	
	comp=Z,77nm,18.9s,MS3.8,baz=35,slow=35						
BRG	Berggiesshubel	53.79	311	eP	P	21 17 13.1	+0.8
BRG				pmax	pmax		
	comp=Z,11nm,1.8s,mb4.5						
BRG	Berggiesshubel	53.79	311	eP	P	21 17 13.1	+0.8
	comp=Z,18nm,1.8s,mb4.7						
GERES	GERESS Array B	54.38	309	P	P	21 17 18.0	+1.3
GERES				pmax	pmax		
	comp=Z,2.0nm,1.0s						
GERES	GERESS Array B	54.38	309	P	P	21 17 18.0	+1.4
	comp=Z,2.4nm,1.0s,mb4.1,baz=77,slow=6.0,SNR=12						
BILL	Bilibino	54.84	27	eP	P	21 17 21.0	+1.3
	comp=Z,14nm,1.4s,mb4.8						
BILL	Bilibino	54.84	27⇑	eP	P	21 17 20.6	+0.9
BILL				e		21 19 22.1	
BILL				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
KMBO	Kilima Mbogo	58.11	243	LR	LR	21 42 37.3	
	comp=Z,50nm,20.5s,MS3.6,baz=102,slow=36						
WRA	Warramunga Arr	70.54	132	P	P	21 19 04.1	-0.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRA	Warramunga Arr	70.54	132	P	P	21 19 04.1	-0.8
	comp=Z,0.6nm,0.5s,mb3.8,baz=326,slow=6.4,SNR=4.7						
RES	Resolute Bay	71.26	0	P	P	21 19 03.5	-5.0
COLA	College	72.42	21	eP	P	21 19 15.7	+0.1
	comp=Z,10nm,1.4s,mb4.6						
COLA	College	72.42	21	eP	P	21 19 15.7	+0.1
COLA				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.5						
INK	Inuvik	73.39	14	P	P	21 19 21.7	+0.4
TOA0	Torodi Ar. Sit	78.54	278	eP	P	21 19 51.1	-0.4
TORD	Torodi Ar. Bea	78.54	278	P	P	21 19 51.3	-0.2
	comp=Z,0.8nm,0.5s,mb3.9,baz=52,slow=4.9,SNR=14						
YKA	Yellowknife Ar	82.02	10	P	P	21 20 09.2	-0.2
YKA	Yellowknife Ar	82.02	10	P	P	21 20 09.2	-0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	82.02	10	P	P	21 20 09.2	-0.2
	comp=Z,0.6nm,0.8s,mb3.6,baz=340,slow=5.1,SNR=14						
STKA	Stephens Creek	83.76	135	P	P	21 20 13.5	-5.2

*ISCJB **03** 21:12:52.7±0.3, 49.42N±0.02×6.51E±0.03, h0km, Error ellipse: s-maj=3.0km s-min=2.2km az=28.2*
*LDG **03** 21:12:54.8±0.1, 49.45N×6.53E, h3km, Md2.4/1, Ml2.5/13, Error ellipse: s-maj=1.5km s-min=1.0km az=117.0*
*BGR **03** 21:12:55.3, 49.44N×6.67E, h2km, ML1.8/2, Suspected Mining explosion.*
*NEIC **03** 21:12:55.0, 49.47N×6.58E, h5km, ML2.5(LDG), ML1.7(STR), After STR.*
*BNS **03** 21:12:57.0±0.9, 49.54N×6.70E, h1km, ML1.3*
ISC 03 21:12:53.9±0.3, **49.43N**±0.02×**6.53E**±0.03, **h0**km, **n37**, σ**0.95**/68, **Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WLF	Walferdange	0.34	314	ePg	Pg	21 13 03.4	+3.0
	SNR=3.7						
WLF				eSg	Sg	21 13 07.8	+3.1
	SNR=12						
WLF	Walferdange	0.34	314	P	Pg	21 13 03.1	+2.7
RUP	Ruppelstein	0.44	52	Pg	Pg	21 13 03.2	+1.0
RUP				Sg	Sg	21 13 08.2	+0.3
ABH	Alteburg	0.80	55	Pg	Pg	21 13 09.7	+0.5
ABH				Sg	Sg	21 13 19.1	-0.4
HILG	Hillesheim	0.87	6	ePg	Pg	21 13 11.6	+1.2
BGG	Burgeitz	0.94	34	ePg	Pg	21 13 12.2	+0.4
BGG				eSg	Sg	21 13 22.6	-1.3
	15nm,0.2s						
LANF	Langenberg	0.95	118	Pg	Pg	21 13 13.0	+1.0
RFYF	Reffroy	1.06	221	ePg	Pg	21 13 14.9	+0.7
RFYF				eSg	Sg	21 13 28.6	+0.7
RFYF	Reffroy	1.06	221	ePg	Pg	21 13 14.9	+0.7
RFYF				eSg	Sg	21 13 28.6	+0.7
	17nm,0.2s						
CDF	Champ du Feu	1.13	154	ePg	Pg	21 13 16.3	+0.8
CDF				eSg	Sg	21 13 31.0	+0.8
CDF	Champ du Feu	1.13	154	ePg	Pg	21 13 16.3	+0.8
CDF				eSg	Sg	21 13 31.0	+0.8
	4.4nm,0.3s						
STB	Steinbach	1.18	10	ePg	Pg	21 13 16.5	0.0
STB				eSg	Sg	21 13 31.8	0.0
	9.3nm,0.5s						
MEM	Membach	1.23	344	P	Pg	21 13 16.2	-1.2
DREG	Dreilaegerbach	1.25	351	ePg	Pg	21 13 18.0	+0.2
THEF	They Montfort	1.26	197	Pg	Pg	21 13 19.1	+1.2
BCLA	Clavier	1.27	322	P	Pg	21 13 18.9	+0.8
GIVF	Givet	1.29	302	ePg	Pg	21 13 18.7	0.0
GIVF				eSg	Sg	21 13 35.5	+0.1
GIVF	Givet	1.29	302	ePg	Pg	21 13 18.7	0.0
GIVF				eSg	Sg	21 13 35.5	+0.1
	12nm,0.3s						
MEZF	Maizieres J'vi	1.35	227	ePg	Pg	21 13 20.1	+0.4
MEZF				eSg	Sg	21 13 38.1	+1.0
MEZF	Maizieres J'vi	1.35	227	ePg	Pg	21 13 20.1	+0.4
	baz=45						
MEZF				eSg	Sg	21 13 38.1	+1.0
	10nm,0.5s						
DOU	Dourbes	1.42	299	P	Pn	21 13 20.7	-0.2
HAU	Haudompre	1.43	185	ePg	Pg	21 13 22.3	+1.0
HAU				eSg	Sg	21 13 40.5	+0.7
HAU	Haudompre	1.43	185	ePg	Pg	21 13 22.3	+1.0
HAU				eSg	Sg	21 13 40.5	+0.7
	7.7nm,0.2s						
TNS	Taunus Mts	1.47	57	ePg	Pg	21 13 21.6	-0.4
	SNR=8.5						
TNS				eSg	Sg	21 13 39.5	-1.6
	SNR=3.2						
SFTF	Sexfontaines	1.57	219	ePn	Pn	21 13 22.2	-0.8
SFTF				ePg	Pg	21 13 24.2	+0.2
SFTF				eSg	Sg	21 13 44.9	+0.5
SFTF	Sexfontaines	1.57	219	ePn	Pn	21 13 22.2	-0.8

SFTF	**Sexfontaines**	1.57	219	*e*Pg	Pg	21 13 24.2	+0.2
SFTF				*e*Sg	Sg	21 13 44.9	+0.5
	4.3nm,0.2s						
BFO	**Black Forest**	1.62	132	*e*Sg	Sg	21 13 44.8	-1.1
	SNR=1.9						
HINF	**Hinteralfeld**	1.63	172	*e*Pg	Pg	21 13 25.3	+0.2
HINF				*e*Sg	Sg	21 13 46.6	+0.4
HINF	**Hinteralfeld**	1.63	172	*e*Pg	Pg	21 13 25.3	+0.2
HINF				*e*Sg	Sg	21 13 46.6	+0.4
	3.9nm,0.2s						
BAIF	**Baives**	1.63	294	*e*Pg	Pg	21 13 24.3	-0.8
BAIF				*e*Sg	Sg	21 13 45.9	-0.4
BAIF	**Baives**	1.63	294	*e*Pg	Pg	21 13 24.3	-0.8
BAIF				*e*Sg	Sg	21 13 45.9	-0.4
	6.3nm,0.3s						
LOR	**Lormes**	2.80	220	*e*Pn	Pn	21 13 38.8	-1.1
LOR				*e*Pg	Pg	21 13 46.9	-0.7
LOR				*e*Sn	Sn	21 14 11.3	-3.1
LOR				*e*Sg	Sg	21 14 23.3	-0.6
LOR	**Lormes**	2.80	220	*e*Pn	Pn	21 13 38.8	-1.1
LOR	**Lormes**	2.80	220	*e*Pg	Pg	21 13 46.9	-0.7
	baz=50						
LOR				*e*Sn	Sn	21 14 11.3	-3.1
LOR				*e*Sg	Sg	21 14 23.3	-0.6
	2.0nm,0.3s						
SSF	**Saint Saulge**	3.12	222	*e*Pg	Pg	21 13 52.7	-0.8
SSF				*e*Sn	Sn	21 14 18.8	-3.3
SSF				*e*Sg	Sg	21 14 32.9	-1.0
	1.4nm,0.3s						
SMF	**Signal de Mont**	3.32	214	*e*Pg	Pg	21 13 56.5	-1.0
SMF				*e*Sg	Sg	21 14 39.3	-1.2
	2.0nm,0.3s						

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*ISCJB **03** 21:13:39.2±0.9, 10.84N±0.03×69.50W±0.02, h9^{km}±6^{km}, mb4.0/10, MS3.2/2, Error ellipse: s-maj=5.3km s-min=3.9km az=174.2*

*IDC **03** 21:13:40.6±0.9, 11.11N×69.34W, h0^{km}, mb3.9/8, mb1 4.2/11, mb1mx4.0/19, mbtmp4.0/11, ML3.8/1, MS3.3/2, Ms1 3.4/2, ms1mx2.8/31, Error ellipse: s-maj=21.2km s-min=15.8km az=4.0*

*FUNV **03** 21:13:40.7, 10.78N×69.53W, h5^{km}, MW3.7*

*NEIC **03** 21:13:42.5±3.6, 11.08N×69.33W, h13^{km}±24^{km}, mb4.5/2, Error ellipse: s-maj=10.7km s-min=9.7km az=145.0*

ISC 03 21:13:40.4±0.6**, 10.79N**±0.03×**69.53W**±0.02**, h10**^{km}±4^{km}**, n39,** σ**1$\overset{s}{.}$00**/58**, mb4.0**/10**, MS3.2**/2**, 2C-1D, Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIQV	**Siquisique**	0.31	244	⇑*i*P	Pg	21 13 45.7	-0.9
SIQV				*e*S	Sg	21 13 50.7	0.0
JACV	**Jacura**	0.75	66	⇑*i*P	Pg	21 13 55.0	0.0
JACV				*e*S	Sg	21 14 05.6	+0.9
CURV	**Curarigua**	0.88	209	*e*P	Pg	21 13 56.1	-1.3
CURV				*e*S	Sg	21 14 09.4	+0.6
TEPV	**Terepaima**	0.88	158	⇓*i*P	Pg	21 13 56.5	-0.9
TEPV				*e*S	Sg	21 14 09.3	+0.4
DABV	**Dabajuro**	1.10	277	*e*P	Pg	21 14 01.3	-0.2
DABV				*e*S	Sg	21 14 16.2	+0.4
QARV	**Quebrada Arrib**	1.14	240	*e*P	Pb	21 14 02.0	-0.2
QARV				*e*S	Sg	21 14 17.8	+0.8
SANV	**Sanarito**	1.28	180	*e*P	Pn	21 14 03.5	-0.8
SANV				*e*S	Sb	21 14 22.2	+1.2
TURV	**Turiamo**	1.69	101	*e*S	Sn	21 14 32.7	+0.9
BAUV	**El Baul**	2.34	141	*e*P	Pn	21 14 19.8	+0.8
BAUV				*e*S	Sn	21 14 47.7	-0.2
VIGV	**El Vigia**	2.65	223	*e*P	Pn	21 14 24.2	+1.0
SOCV	**Socops**	2.81	208	*e*P	Pn	21 14 26.1	+0.7
VIRV	**Villa del Rosa**	2.84	265	*e*P	Pn	21 14 25.2	-0.7
VIRV				*e*S	Sn	21 14 59.8	-0.4
BIRV	**Birongo**	3.22	95	*e*P	Pn	21 14 30.0	-1.1
BIRV				*e*S	Sn	21 15 08.2	-1.3
CAPV	**Capacho**	4.00	224	*e*P	Pn	21 14 41.8	+0.1
CAPV				*e*S	Sn	21 15 26.6	-2.1
CAOV	**Caicara del Or**	4.67	137	*e*P	Pn	21 14 50.4	-0.7
CAOV				*e*S	Sn	21 15 41.9	-3.5
PCRV	**Puerto La Cruz**	4.85	97	Pn	Pn	21 14 53.9	+0.4
PCRV				Sn	Sn	21 15 50.3	+0.5
PCRV				Lg		21 16 14.2	
PCRV	**Puerto La Cruz**	4.85	97	Pn	Pn	21 14 53.9	+0.4
	3.7nm,0.3s,baz=230,slow=2.3,SNR=26						
PCRV				Sn	Sn	21 15 50.3	+0.5
	5.2nm,0.3s,baz=170,slow=22,SNR=3.5						
PCRV				Lg		21 16 14.2	
	4.6nm,0.3s,baz=73,slow=18,SNR=3.7						
ROSC	**El Rosal**	7.57	219	*e*Pn	Pn	21 15 29.5	-1.4
ROSC				Pn	Pn	21 15 39.4	+8.5
ROSC				Sn	Sn	21 17 10.8	+14
ROSC				Lg		21 17 51.3	
ROSC	**El Rosal**	7.57	219	Pn	Pn	21 15 39.4	+8.5
	2.9nm,0.3s,baz=104,slow=19,SNR=4.2						
ROSC				Sn	Sn	21 17 10.8	+14
	0.8nm,0.3s,baz=260,slow=23,SNR=3.1						
ROSC				Lg		21 17 51.3	
	1.2nm,0.3s,baz=86,slow=23,SNR=3.5						
GRGR	**Grenville**	7.83	79	*e*Pn	Pn	21 15 27.7	-6.8
SJG	**San Juan**	7.98	24	Pn	Pn	21 15 33.1	-3.5
SJG				*e*Pn	Pn	21 15 34.5	-2.1
SJG				*e*Sn	Sn	21 16 51.0	-16
SJG				Sn	Sn	21 16 55.7	-11
SJG	**San Juan**	7.98	24	Pn	Pn	21 15 33.1	-3.5
	9.5nm,0.3s,baz=197,slow=12,SNR=8.9						
SJG				Sn	Sn	21 16 55.7	-11
	3.4nm,0.3s,baz=1.1,slow=14,SNR=6.7						
MTP	**Monte Pirata**	8.23	27	*e*Pn	Pn	21 15 36.5	-3.4
OTAV	**Otavalo**	13.73	221	*e*Pn	Pn	21 17 01.9	+6.7
	11nm,1.3s						
LPAZ	**La Paz**	26.93	177	LR	LR	21 30 47.7	
	comp=Z,73nm,21.1s,MS3.2,baz=285,slow=38						
TKL	**Tuckaleechee C**	27.94	335	LR	LR	21 30 47.1	
	comp=Z,62nm,18.5s,MS3.2,baz=282,slow=37						
TXAR	**Lajitas Array**	36.80	305	P	P	21 20 50.8	+2.1
	0.6nm,0.6s,mb3.6,baz=117,slow=10,SNR=5.5						
RCBR	**Riachuelo**	37.32	115	P	P	21 20 54.2	+1.0
	17nm,1.3s,mb4.7						
SCHQ	**Schefferville**	43.99	2	P	P	21 21 48.1	+0.4
	3.9nm,1.1s,mb4.1,baz=196,slow=10,SNR=8.0						
ULM	**Lac du Bonnet**	44.94	336	P	P	21 21 54.9	-0.6
	0.9nm,0.5s,mb3.9,baz=144,slow=7.0,SNR=5.6						
HWUT	**Hardware Ranch**	47.91	317	*e*P	P	21 22 20.8	+1.8
	1.5nm,0.6s,mb4.2						
NVAR	**Mina Array Bea**	51.42	311	P	P	21 22 47.8	+2.1
	0.5nm,0.7s,mb3.5,baz=149,slow=4.9,SNR=4.2						
YKA	**Yellowknife Ar**	60.87	338	P	P	21 23 51.9	-1.0
YKA	**Yellowknife Ar**	60.87	338	P	P	21 23 51.9	-1.0
	1.7nm,0.7s,mb4.3,baz=118,slow=6.9,SNR=17						
TORD	**Torodi Ar. Bea**	69.51	80	P	P	21 24 49.2	-0.7
TORD	**Torodi Ar. Bea**	69.51	80	P	P	21 24 49.2	-0.7
	0.4nm,0.5s,mb3.6,baz=288,slow=6.7,SNR=7.6						
KHC	**Kasperske Hory**	77.43	42	*e*P	P	21 25 36.0	+0.1
GERES	**GERESS Array B**	77.52	42	P	P	21 25 36.7	+0.3
	0.9nm,0.8s,mb3.8,baz=258,slow=4.0,SNR=5.9						
FINES	**FINESS Array B**	83.29	29	P	P	21 26 07.2	0.0
	2.6nm,0.9s,mb4.3,baz=286,slow=9.7,SNR=5.6						

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*ISCJB **03** 21:40:17.8±1.2, 34.9N±0.1×73.65E±0.08, h68^{km}±20^{km}, mb3.3/2, Error ellipse: s-maj=17.3km s-min=10.2km az=13.1*

*IDC **03** 21:40:21.4±11.0, 36.28N×71.80E, h0^{km}, mb3.5/2, mb1 3.5/4, mb1mx3.2/21, mbtmp3.4/4, ML2.5/1, Error ellipse: s-maj=408.7km s-min=31.6km az=139.0*

ISC 03 21:40:19.1±1.0**, 34.9N**±0.1×**73.62E**±0.07**, h60**^{km}±20^{km}**, n18,** σ**0$\overset{s}{.}$70**/18**, mb3.5**/2**, 1C, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHCP	**Chirah Chowk**	1.25	194	P	Pn	21 40 40.3	-0.2
CEP	**Cherat**	1.76	234	⇑P	Pn	21 40 45.7	-1.6
THW	**Thamme Wali**	2.60	217	P	Pn	21 40 59.2	+0.5
SBDP	**Sheikh Budin**	3.48	223	P	Pn	21 41 11.0	+0.2
DRP	**Derazinda**	4.24	223	P	Pn	21 41 21.9	+0.8
KOLN	**Koldanda**	11.09	127	*e*P	Pn	21 42 56.3	+1.4
	3.0nm,0.4s						
GKN	**Gorkha**	11.63	123	*e*P	Pn	21 43 02.6	+0.3
DMN	**Daman**	12.20	123	*e*P	Pn	21 43 10.3	+0.2
KKN	**Kakani**	12.21	122	*e*P	Pn	21 43 09.8	-0.4
	5.4nm,0.5s						
PKI	**Pulchoki**	12.44	123	*e*P	Pn	21 43 13.8	+0.5
GUN	**Gumba**	12.56	120	*e*P	Pn	21 43 15.0	0.0
	7.1nm,0.4s						
JIRN	**Jiri**	12.93	120	*e*P	Pn	21 43 19.5	-0.5
	10.0nm,0.4s						
MKAR	**Makanchi Array**	13.58	26	Pn	Pn	21 43 29.2	+0.5
	0.0nm,0.3s,baz=213,slow=13,SNR=3.6						
TAPN	**Taplejung**	14.20	118	*e*P	Pn	21 43 36.5	-0.6
ODAN	**Odare**	14.26	120	*e*P	Pn	21 43 36.7	-1.2
	19nm,1.2s						
ZALV	**Zalesovo Beam**	20.63	19	P	P	21 44 53.0	-0.3
	0.3nm,0.3s,baz=214,slow=10,SNR=7.7						
TORD	**Torodi Ar. Bea**	67.84	271	P	P	21 51 11.6	+0.3
	0.3nm,0.7s,mb3.5,baz=38,slow=7.3,SNR=3.4						
YKA	**Yellowknife Ar**	82.74	4	P	P	21 52 41.3	+5.3
	0.3nm,0.6s,mb3.5,baz=348,slow=5.3,SNR=7.5						

IDC 03 21:50:47.8±4.6**, 9.63S×159.71E, h22**^{km}±33^{km}**, mb4.0**/5**, mb1 4.1**/6**, mb1mx3.9**/13**, mbtmp4.0**/6**, ML3.6**/1**, MS3.3**/3**, Ms1 3.3**/3**, ms1mx3.0**/27**, Error ellipse: s-maj=42.1km s-min=10.9km az=149.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	0.30	50	Pn	Pb	21 50 56.8	+2.1
	3µm,0.3s,baz=245,slow=1.6,SNR=521						
HNR				Sn	Sb	21 51 03.1	+3.7
	5µm,0.3s,baz=95,slow=5.5,SNR=88						
PMG	**Port Moresby**	12.38	270	LR	LR	21 58 09.8	
	comp=Z,172nm,19.8s,baz=232,slow=36						
DZM	**Mont Dzumac**	13.96	153	Pn	Pn	21 54 04.9	+0.5
	0.3nm,0.3s,baz=330,slow=21,SNR=2.5						
CTA	**Charters Tower**	16.64	230	LR	LR	21 59 42.1	
	comp=Z,62nm,18.7s,baz=231,slow=32						
WRA	**Warramunga Arr**	26.55	244	P	P	21 56 24.0	-0.3
	2.9nm,0.8s,baz=71,slow=8.8,SNR=11						
FITZ	**Fitzroy Crossi**	34.09	252	LR	LR	22 09 54.0	
	comp=Z,74nm,19.0s,baz=1.6,slow=34						
SONM	**Songino Array**	74.09	326	P	P	22 02 23.4	+1.3
	0.8nm,0.6s,baz=143,slow=5.8,SNR=7.1						
MKAR	**Makanchi Array**	88.46	318	P	P	22 03 38.3	-0.1
	1.8nm,0.6s,baz=100,slow=6.0,SNR=28						
ZALV	**Zalesovo Beam**	88.97	325	P	P	22 03 39.7	-1.0
	0.6nm,0.6s,baz=123,slow=5.3,SNR=3.2						
YKA	**Yellowknife Ar**	96.47	28	P	P	22 04 15.0	-0.1
	0.2nm,0.7s,baz=261,slow=5.0,SNR=4.3						
TXAR	**Lajitas Array**	100.39	62	P	Pdif	22 04 34.1	+1.2
	0.5nm,1.0s,baz=224,slow=5.2,SNR=3.7						

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*IDC **03** 21:56:53.7±0.9, 0.11S×125.35E, h0^{km}, mb3.9/6, mb1 4.1/6, mb1mx3.9/16, mbtmp3.9/6, MS3.8/4, Ms1 3.8/4, ms1mx3.1/25, Error ellipse: s-maj=81.4km s-min=19.2km az=70.0*

*NEIC **03** 21:56:55.4±0.6, 0.01N×125.66E, h10^{km}, mb4.6/9, Error ellipse: s-maj=29.7km s-min=11.7km az=72.0*

*ISCJB **03** 21:56:56.9±0.6, 0.0N±0.1×125.7E±0.2, h33^{km}, mb4.4/15, MS3.9/4, Error ellipse: s-maj=29.0km s-min=12.2km az=163.1*

ISC 03 21:56:59.4±0.6**, 0.02N**±0.10×**125.8E**±0.2**, h35**^{km}**, n23,** σ**1$\overset{s}{.}$08**/18**, mb4.4**/15**, MS3.9**/4**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	21.55	158	P	P	22 01 44.2	-1.6
	9.7nm,1.0s,mb4.2,baz=337,slow=11,SNR=14						
GUMO	**Guam**	23.24	54	LR	LR	22 10 19.1	
	comp=Z,104nm,18.4s,MS3.3,baz=177,slow=34						
STKA	**Stephens Creek**	35.09	156	*e*P	P	22 03 49.3	0.0
STKA				*e*	pP	22 03 56.0	-3.4
STKA	**Stephens Creek**	35.09	156	P	P	22 03 50.0	+0.6
	4.8nm,0.9s,mb4.4,baz=321,slow=8.5,SNR=6.3						
KSRS	**Korea Array**	37.30	3	P	P	22 04 08.1	-0.1
	1.9nm,0.7s,mb4.0,baz=184,slow=8.8,SNR=5.9						
MAJO	**Matsushiro**	38.13	16	P	P	22 04 14.9	-0.3
	14nm,1.0s,mb4.6						
ULN	**Ulaanbaatar**	50.35	344	P	P	22 05 54.0	+1.2
	1.3nm,0.8s,mb4.0						
SONM	**Songino Array**	50.51	343	P	P	22 05 53.7	-0.3
	0.9nm,0.8s,mb3.8,baz=156,slow=6.2,SNR=6.1						
SONM				PcP	PcP	22 07 12.8	+1.1
	0.7nm,0.8s,baz=164,slow=4.8,SNR=3.7						
SONM				ScP	ScP	22 11 10.0	+4.8
	0.6nm,1.0s,baz=92,slow=2.3,SNR=3.7						
MK31	**Makanchi Array**	60.07	327	*e*P	P	22 07 00.9	-2.0
MKAR	**Makanchi Array**	60.07	327	P	P	22 07 01.4	-1.5
	0.9nm,0.4s,mb4.1,baz=125,slow=8.0,SNR=13						
MKAR				LR	LR	22 32 09.3	
	comp=Z,30nm,19.4s,MS3.4,baz=144,slow=35						
YAK	**Yakutsk**	61.92	2	P	P	22 07 14.9	-0.3
	10nm,0.6s,mb5.1						
UCH	**Uchtor**	62.28	319	P	P	22 07 17.9	-0.1
	3.0nm,1.1s,mb4.3						
AAK	**Ala-Archa**	62.48	320	*e*P	P	22 07 18.7	-0.6
	1.8nm,1.0s,mb4.2						
MA2	**Magadan**	62.51	14	P	P	22 07 20.1	+0.9
	4.6nm,0.9s,mb4.6						
KBL	**Kabul**	63.05	309	*e*P	P	22 07 23.5	+0.2
ZALV	**Zalesovo Beam**	63.46	334	P	P	22 07 25.5	-0.1
	0.6nm,0.5s,mb4.0,baz=138,slow=6.9,SNR=3.8						
KURK	**Kurchatov**	64.36	329	*e*P	P	22 07 32.3	+0.7
	7.9nm,1.1s,mb4.7						
CASY	**Casey**	67.05	187	P	P	22 07 50.3	+1.7
	36nm,1.4s,mb5.2						
ARU	**Arti**	77.55	328	*e*P	P	22 08 54.2	+2.7
	6.0nm,1.0s,mb4.5						
MAW	**Mawson**	79.97	200	LR	LR	22 41 36.3	
	comp=Z,185nm,18.9s,MS4.5,baz=247,slow=34						
BOSA	**Boshof**	99.23	241	LR	LR	22 54 31.0	
	comp=Z,73nm,18.2s,MS4.2,baz=300,slow=35						
TORD	**Torodi Ar. Bea**	123.06	286	PKP	PKPdf	22 15 51.8	-1.4
TORD	**Torodi Ar. Bea**	123.06	286	PKP	PKPdf	22 15 51.8	-1.5
	0.6nm,0.8s,baz=95,slow=1.0,SNR=3.4						

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*ISCJB **03** 22:42:29.9±0.8, 55.2S±0.2×129.1W±0.4, h10^{km}, mb4.2/5, MS3.8/4, Error ellipse: s-maj=38.0km s-min=23.2km az=44.5*

*IDC **03** 22:42:30.1±0.9, 55.18S×129.34W, h0^{km}, mb4.1/3, mb1 4.5/3, mb1mx4.2/10, mbtmp4.1/3, MS3.8/4, Ms1 3.8/4, ms1mx3.6/10, Error ellipse: s-maj=77.6km s-min=28.0km az=165.0*

*NEIC **03** 22:42:31.7±0.6, 55.07S×129.30W, h10^{km}, mb4.4/3, Error ellipse: s-maj=29.5km s-min=18.7km az=141.0*

ISC 03 22:42:31.7±0.8**, 55.1S**±0.2×**129.3W**±0.4**, h10**^{km}**, n25,** σ**0$\overset{s}{.}$69**/8**, mb4.2**/5**, MS3.8**/4**, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RKT	**Rikitea**	32.21	350	*e*LR	LR	22 57 40.6	
	249nm,28.5s						
RKT	**Rikitea**	32.21	350	*e*T		23 22 37.2	
	6.1nm,0.3s						
VNDA	**Vanda**	32.46	202	LR	LR	22 59 28.9	
	comp=Z,123nm,18.3s,MS3.6,baz=175,slow=32						
PPT	**Papeete**	40.54	329	*e*LR	LR	23 01 18.3	
	135nm,26.5s						
PPT	**Papeete**	40.54	329	LR	LR	23 01 34.9	
	comp=Z,52nm,19.4s,MS3.4,baz=91,slow=28						
VAH	**Vaihoa**	42.23	333	*e*T		23 35 10.9	
	28nm,0.3s						
MAW	**Mawson**	57.29	186	P	P	22 52 19.4	+0.5
MAW	**Mawson**	57.29	186	LR	LR	23 16 59.8	
	comp=Z,140nm,18.1s,MS4.1,baz=243,slow=36						
NNA	**Nana**	59.23	65	P	P	22 52 32.0	-1.1
	2.2nm,0.4s,mb4.5						
LPAZ	**La Paz**	60.38	75	*e*P	P	22 52 41.3	+0.3
	2.8nm,1.0s,mb4.2						
LPAZ	**La Paz**	60.38	75	P	P	22 52 41.0	0.0
	2.8nm,1.1s,mb4.2,baz=182,slow=3.6,SNR=5.9						
WRA	**Warramunga Arr**	77.43	253	P	P	22 54 26.3	-0.8
	2.4nm,0.8s,mb4.2,baz=137,slow=5.0,SNR=9.3						
TXAR	**Lajitas Array**	86.92	22	P	P	22 55 17.0	+0.7
TXAR	**Lajitas Array**	86.92	22	P	P	22 55 17.0	+0.7
	1.1nm,0.9s,mb4.1,baz=194,slow=9.8,SNR=6.5						
CMB	**Columbia Colle**	93.07	7	P	P	22 55 45.4	+0.5
	0.4nm,0.4s,mb4.2						
BOSA	**Boshof**	93.82	158	LR	LR	23 38 18.1	
	comp=Z,82nm,18.8s,MS4.2,baz=349,slow=36						
ESDC	**Sonseca Array**	140.98	90	PKP	PKPdf	23 02 02.0	+0.8
ESDC	**Sonseca Array**	140.98	90	PKP	PKPdf	23 02 02.0	+0.8
	0.5nm,0.7s,baz=226,slow=1.2,SNR=4.7						
SONM	**Songino Array**	145.38	282	PKPbc	PKPbc	23 02 08.6	-0.1
SONM	**Songino Array**	145.38	282	PKPbc	PKPbc	23 02 08.6	-0.1
	1.4nm,0.7s,baz=130,slow=3.4,SNR=13						
KEST	**Kesra**	145.78	107	PKPbc	PKPbc	23 02 10.4	+0.1
	1.9nm,0.9s,baz=212,slow=5.7,SNR=6.6						
GERES	**GERESS Array B**	156.58	90	PKP	PKPdf	23 02 26.2	+0.4
GERES	**GERESS Array B**	156.58	90	PKP	PKPdf	23 02 26.2	+0.4
	0.6nm,0.9s,baz=149,slow=3.1,SNR=4.0						
MKAR	**Makanchi Array**	158.58	260	PKPab	PKPab	23 03 03.2	-0.5
	0.9nm,0.8s,baz=116,slow=5.5,SNR=10						
ZALV	**Zalesovo Beam**	160.27	281	PKPab	PKPab	23 03 10.5	-0.3
	0.2nm,0.3s,baz=132,slow=6.2,SNR=4.2						

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*ISCJB **03** 23:24:38.1±7.3, 1.18N±0.09×97.1E±0.1, h6^{km}±50^{km}, mb4.4/11, Error ellipse: s-maj=20.7km s-min=15.2km az=169.4*

*IDC **03** 23:24:39.6±2.9, 1.33N×97.20E, h0^{km}, mb4.0/5, mb1 4.1/5, mb1mx3.7/20, mbtmp4.0/5, Error ellipse: s-maj=86.6km s-min=30.3km az=55.0*

*NEIC **03** 23:24:43.1±0.7, 1.20N×97.07E, h30^{km}, Error ellipse: s-maj=16.8km s-min=10.7km az=89.0*

ISC 03 23:24:41.6±7.5**, 1.19N**±0.09×**97.2E**±0.1**, h16**^{km}±51^{km}**, n18,** σ**0$\overset{s}{.}$45**/16**, mb4.4**/11**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KULM	**Kulim**	5.35	40	*e*Pn	Pn	23 26 00.8	-0.1
COCO	**West Island**	13.30	181	*e*Pn	Pn	23 27 49.5	-0.4
	66nm,0.6s						
KKM	**Kota Kinabalu**	19.60	75	*e*P	Pn	23 29 11.0	+0.2
ODAN	**Odare**	27.20	341	*e*P	P	23 30 25.3	+0.6
	13nm,0.7s,mb4.6						
TAPN	**Taplejung**	27.55	342	*e*P	P	23 30 28.3	+0.4
	22nm,0.9s,mb4.8						
JIRN	**Jiri**	28.35	339	*e*P	P	23 30 35.5	+0.5
	18nm,1.0s,mb4.7						
GUN	**Gumba**	28.69	339	*e*P	P	23 30 38.4	+0.4
	12nm,0.7s,mb4.8						
KKN	**Kakani**	28.80	338	*e*P	P	23 30 38.9	-0.1
GKN	**Gorkha**	29.24	337	*e*P	P	23 30 42.7	-0.2
	10nm,0.8s,mb4.6						
KOLN	**Koldanda**	29.45	335	*e*P	P	23 30 45.3	+0.5
	11nm,0.7s,mb4.7						
WRA	**Warramunga Arr**	42.05	122	P	P	23 32 33.6	+0.7
	0.7nm,0.5s,mb3.6,baz=302,slow=9.1,SNR=3.3						
KSRS	**Korea Array**	45.87	35	P	P	23 33 02.8	-0.5
	1.6nm,0.6s,mb4.2,baz=217,slow=9.2,SNR=4.6						
SONM	**Songino Array**	47.15	8	P	P	23 33 12.8	-0.4
	1.5nm,0.7s,mb4.0,baz=189,slow=9.3,SNR=15						
MK31	**Makanchi Array**	47.24	346	*e*P	P	23 33 13.3	-0.6
MKAR	**Makanchi Array**	47.24	346	P	P	23 33 13.4	-0.5
	1.2nm,0.7s,mb3.9,baz=159,slow=8.6,SNR=25						
ZALV	**Zalesovo Beam**	53.56	351	P	P	23 34 01.0	-0.6
	2.2nm,0.4s,mb4.5,baz=171,slow=6.5,SNR=18						
HLID	**Hailey**	127.23	29	*e*Pdif	Pdif	23 40 25.6	-1.4
PAHR	**Pah Rah Range**	127.33	35	*e*Pdif	Pdif	23 40 25.8	-1.7

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*ISCJB **03** 23:29:00.6±0.7, 18.33S±0.06×69.76W±0.06, h127^{km}±7^{km}, mb4.4/11, Error ellipse: s-maj=10.5km s-min=8.6km az=149.8*

*NEIC **03** 23:29:01.8±1.1, 18.29S×69.74W, h119^{km}±10^{km}, mb4.7/4, Error ellipse: s-maj=18.1km s-min=12.4km az=213.0*

NEIC Felt [II] at Arequipa, Peru.

*IDC **03** 23:29:02.9±0.8, 18.25S×69.59W, h124^{km}±5^{km}, mb3.9/7, mb1 4.1/10, mb1mx3.9/18, mbtmp3.9/10, Error ellipse: s-maj=18.4km s-min=13.4km az=154.0*

ISC 03 23:29:01.2±0.7**, 18.38S**±0.05×**69.77W**±0.06**, h116**^{km}±7^{km}**, h125**^{km}±2.9^{km}**:pP-P, n31,** σ**1$\overset{s}{.}$23**/32**, mb4.4**/11**, 1C-1D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARE	**Arequipa**	2.52	319	⇑*i*P	Pn	23 29 42.5	+1.4
ARE				*i* S	Sn	23 30 11.0	-0.7
LPAZ	**La Paz**	2.60	37	⇓*i*Pn	Pn	23 29 44.0	+1.8
LPAZ				*e*Sn	Sn	23 30 14.5	+0.9
LPAZ	**La Paz**	2.60	37	P	Pn	23 29 44.1	+1.9
	37nm,0.3s,baz=218,slow=9.5,SNR=1359						
LPAZ				S	Sn	23 30 13.2	-0.4
	9.5nm,0.3s,baz=296,slow=20,SNR=2.9						
SIV	**San Ignacio**	8.64	75	P	Pn	23 31 01.5	-1.9
	6.8nm,0.3s,baz=277,slow=9.2,SNR=69						
SIV				S	Sn	23 32 33.6	-5.6
	1.7nm,0.3s,baz=2.4,slow=23,SNR=7.6						
NNA	**Nana**	9.32	312	*e*Pn	Pn	23 31 10.8	-1.9
	26nm,0.5s						
NNA	**Nana**	9.32	312	P	Pn	23 31 10.9	-1.8
	7.5nm,0.3s,baz=135,slow=10,SNR=15						
NNA				S	Sn	23 32 47.0	-8.8
CFAA	**Coronel Fontan**	13.24	174	P	Pn	23 32 06.5	+1.9
CFAA				S	Sn	23 34 29.5	-1.1
CFAA	**Coronel Fontan**	13.24	174	P	Pn	23 32 06.5	+1.9
	0.4nm,0.3s,baz=356,slow=14,SNR=16						
CFAA				S	Sn	23 34 29.5	-1.1
	0.1nm,0.3s,baz=224,slow=14,SNR=3.8						
OTAV	**Otavalo**	20.37	334	*e*P	P	23 33 29.5	+0.8
	4.3nm,0.7s						
RCBR	**Riachuelo**	35.30	74	*e*P	P	23 35 45.4	+0.1
	9.5nm,1.0s,mb4.6						
TEIG	**Tepich**	42.44	334	*e*P	P	23 36 43.9	-0.7
	23nm,1.0s,mb4.9						
TEIG	**Tepich**	42.44	334	P	P	23 36 42.2	-2.5
	18nm,1.0s,mb4.8,baz=19,slow=4.8,SNR=3.9						
TXAR	**Lajitas Array**	57.62	325	P	P	23 38 39.4	+0.2
TXAR				PcP	PcP	23 39 32.0	+0.9
TXAR	**Lajitas Array**	57.62	325	P	P	23 38 39.4	+0.2
	0.2nm,0.3s,mb3.6,baz=133,slow=8.7,SNR=4.3						
TXAR				PcP	PcP	23 39 32.0	+0.9
	0.4nm,0.7s,baz=144,slow=7.4,SNR=4.0						
LIC	**Lamto**	68.34	75	*e*PKP2	P	23 39 50.2	-0.3
	32nm,1.0s,mb5.1						
TIC	**Toumodi**	68.50	75	*e*PKP2	P	23 39 51.5	0.0
	18nm,0.9s,mb4.9						
KIC	**Kosan Boka**	68.65	75	*e*PKP2	P	23 39 51.4	-1.1
	109nm,0.6s						
ULM	**Lac du Bonnet**	72.11	343	P	P	23 40 11.6	-1.1
	1.7nm,0.6s,mb4.1,baz=150,slow=4.6,SNR=4.6						
ULM				pP	pP	23 40 42.3	+0.5
	3.4nm,0.8s,baz=162,slow=7.6,SNR=4.4						
NVAR	**Mina Array Bea**	72.55	322	P	P	23 40 17.8	+2.2
	1.3nm,0.8s,mb3.8,baz=135,slow=7.3,SNR=10						
NVAR				pP	pP	23 40 46.5	+1.8
	1.3nm,0.8s,baz=139,slow=8.4,SNR=5.3						
TORD	**Torodi Ar. Bea**	77.10	71	P	P	23 40 41.4	-0.9
	12nm,0.8s,mb4.7,baz=249,slow=5.7,SNR=64						
TORD				pP	pP	23 41 13.9	+2.2
	6.6nm,1.1s,baz=252,slow=5.2,SNR=2.7						
ESDC	**Sonseca Array**	84.19	45	P	P	23 41 19.7	+0.1
	3.9nm,1.1s,mb4.1,baz=242,slow=5.0,SNR=9.5						
BOSA	**Boshof**	85.63	119	P	P	23 41 29.3	+2.1
BOSA	**Boshof**	85.63	119	P	P	23 41 29.3	+2.1
	2.0nm,0.9s,mb4.0,baz=244,slow=9.0,SNR=3.7						
YKA	**Yellowknife Ar**	87.99	341	P	P	23 41 37.8	+0.2
YKA				pP	pP	23 42 10.2	+2.4
YKA	**Yellowknife Ar**	87.99	341	P	P	23 41 37.8	+0.2
	2.0nm,0.7s,mb4.2,baz=134,slow=4.8,SNR=39						
YKA				pP	pP	23 42 10.2	+2.4
	4.0nm,1.0s,baz=135,slow=4.9,SNR=7.8						
ZALV	**Zalesovo Beam**	139.44	23	PKP	PKPdf	23 48 16.1	+1.5
ZALV				pPKP	pPKPdf	23 48 48.8	+2.7
ZALV	**Zalesovo Beam**	139.44	23	PKP	PKPdf	23 48 16.1	+1.5
	0.5nm,0.4s,baz=270,slow=2.8,SNR=5.2						
ZALV				pPKP	pPKPdf	23 48 48.8	+2.7
	1.3nm,0.8s,baz=236,slow=1.6,SNR=2.8						
MKAR	**Makanchi Array**	143.52	33	PKP	PKPdf	23 48 19.8	-2.3
MKAR				pPKP	pPKPdf	23 48 55.0	+1.3
MKAR	**Makanchi Array**	143.52	33	PKP	PKPdf	23 48 19.8	-2.3
	0.4nm,0.9s,baz=355,slow=3.3,SNR=6.0						
MKAR				pPKP	pPKPdf	23 48 55.0	+1.3
	0.3nm,0.7s,baz=46,slow=6.2,SNR=2.4						
SONM	**Songino Array**	150.45	5	PKPbc	PKPbc	23 48 40.6	+1.5
SONM				pPKPbc	pPKPbc	23 49 13.2	+2.8
SONM	**Songino Array**	150.45	5	PKPbc	PKPbc	23 48 40.6	+1.5
	1.1nm,0.6s,baz=306,slow=2.2,SNR=14						
SONM				pPKPbc	pPKPbc	23 49 13.2	+2.8
	1.2nm,0.8s,baz=356,slow=2.0,SNR=4.3						

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*NEIC **03** 23:34:55.4, 19.58N×69.01W, h56^{km}, MD3.5(RSPR), After RSPR.*

RSPR 03 23:34:55.4, 19.58N×69.01W, h56^{km}±31^{km}**, MD3.5**/4**, MD3.5**/4**, 5C, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGPR	**Aguadilla, PR**	2.11	121	⇑*e*P	Pn	23 35 26.9	-1.5
AGPR				*e*S	Sn	23 35 51.9	-1.5

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
LSP	Las Mesas	2.29	127	⇑*e*P	Pn	23 35 30.8	-0.1
LSP				*e*S	Sn	23 35 57.1	-0.8
CRPR	Cabo Rojo, PR	2.38	131	⇑*e*P	Pn	23 35 31.4	-0.7
CRPR				*e*S	Sn	23 35 59.2	-0.9
AOPR	Arecibo Observ	2.46	120	*e*S	Sn	23 36 01.8	-0.3
CELP	Cerrillos	2.75	123	*e*S	Sn	23 36 09.1	+0.1
CBYP	Canovanas	3.25	113	⇑*e*P	Pn	23 35 43.0	-1.0
CBYP				*e*S	Sn	23 36 20.7	-0.8
MTP	Monte Pirata	3.59	114	⇑*e*P	Pn	23 35 48.7	+0.1
MTP				*e*S	Sn	23 36 29.8	+0.1

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*NEIC **03** 23:39:17.9, 18.61N×101.48W, h72^{km}, MD4.3(MEX), After MEX.*

MEX 03 23:39:17.7±0.8**, 18.61N×101.49W, h74^{km}**±11^{km}**, MD4.2, 1C, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIIG	Zihuatanejo	0.99	178	*i*P	Pn	23 39 34.6	-1.7
ZIIG				*i*S	Sn	23 39 48.8	-1.3
MOIG	Morelia	1.10	15	*i*P	Pn	23 39 36.0	-1.7
MOIG				*i*S	Sn	23 39 51.4	-1.3
MMIG	Aquila	1.79	260	*e*P	Pn	23 39 45.9	-0.7
MMIG				*i*S	Sn	23 40 07.3	-1.2
PLIG	Platanillo	1.90	96	*e*P	Pn	23 39 47.6	-0.5
PLIG				*i*S	Sn	23 40 08.4	-2.8
PLIG	Platanillo	1.90	96	*e*P	Pn	23 39 47.5	-0.5
PLIG				*i*S	Sn	23 40 10.2	-1.0
MEIG	Mezcala	1.90	110	*e*P	Pn	23 39 47.5	-0.6
MEIG				*i*S	Sn	23 40 09.2	-2.1
CAIG	El Cayaco	1.94	143	*i*P	Pn	23 39 46.8	-1.8
CAIG				*i*S	Sn	23 40 10.1	-2.0
SZVM	Salazar	2.12	70	*i*P	Pn	23 39 50.5	-0.6
SZVM				*i*S	Sn	23 40 14.8	-1.7
ACX	Acapulco	2.29	139	*e*P	Pn	23 39 50.5	-2.8
UNM	Universidad Na	2.31	71	*i*P	Pn	23 39 53.2	-0.3
UNM				*i*S	Sn	23 40 18.1	-2.9
UNM	Universidad Na	2.31	71	*i*P	Pn	23 39 53.2	-0.3
UNM				*i*S	Sn	23 40 19.6	-1.4
YAIG	Yautepec	2.31	83	⇑*i*P	Pn	23 39 53.6	-0.1
YAIG				*i*S	Sn	23 40 20.2	-0.9
SFJM	Santa Fe	2.37	322	*i*P	Pn	23 39 52.3	-2.2
SFJM				*i*S	Sn	23 40 22.8	+0.2
SFJM	Santa Fe	2.37	322	*i*P	Pn	23 39 52.3	-2.2
SFJM				*i*S	Sn	23 40 22.0	-0.6
PTVM	Pico Tres Padr	2.46	66	*i*P	Pn	23 39 52.6	-2.9
PTVM				*i*S	Sn	23 40 26.4	+1.9
PTVM	Pico Tres Padr	2.46	66	*i*P	Pn	23 39 54.7	-0.8
PTVM				*i*S	Sn	23 40 26.4	+1.9
PPM	Popocatepetl	2.75	80	*i*P	Pn	23 39 58.8	-0.8
PPM				*i*S	Sn	23 40 31.2	-0.6
IIO	Organos	2.80	69	*e*P	Pn	23 40 00.7	+0.5
IIO				*i*S	Sn	23 40 33.3	+0.4
UTMO	Huajuapan	3.59	102	*i*P	Pn	23 40 11.6	+0.6
UTMO				*i*S	Sn	23 40 51.3	-0.9
TPIG	Tehuac#an	3.92	92	*i*P	Pn	23 40 13.9	-1.7
TPIG				*i*S	Sn	23 40 59.9	-0.5
ZAIG	Zacatecas	4.26	347	*i*P	Pn	23 40 21.0	+0.8
ZAIG				*i*S	Sn	23 41 09.7	+1.0
VHO	Vista Hermosa	4.78	108	*i*P	Pn	23 40 28.6	+1.3
VHO				*i*S	Sn	23 41 19.4	-2.0
VHO	Vista Hermosa	4.78	108	*i*P	Pn	23 40 27.9	+0.6
VHO				*i*S	Sn	23 41 20.6	-0.8
TEIG	Tepich	12.57	80	P	Pn	23 42 15.1	+1.4
	28nm,1.1s						

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*ISCJB **03** 23:57:00.8±0.5, 9.33S±0.08×71.38W±0.04, h561^{km}±8^{km}, mb4.2/57, Error ellipse: s-maj=12.9km s-min=4.9km az=23.1*

*NEIC **03** 23:57:01.4±0.5, 9.32S×71.39W, h556^{km}±7^{km}, mb4.3/31, Error ellipse: s-maj=10.0km s-min=5.7km az=219.0*

*BJI **03** 23:57:01.4, 9.30S×71.40W, h540^{km}, mB5.0*

*IDC **03** 23:57:01.5±0.6, 9.42S×71.48W, h560^{km}±6^{km}, mb3.6/12, mb1 3.7/17, mb1mx3.7/22, mbtmp3.6/17, Error ellipse: s-maj=13.7km s-min=10.3km az=47.0*

ISC 03 23:57:01.5±0.5**, 9.36S**±0.07×**71.32W**±0.04**, h553^{km}**±7^{km}**, n369, σ0^{s}66**/335**, mb4.2**/57**, 77C-90D, Peru-Brazil border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	Nana	6.02	244	*e*P	P	23 58 39.2	-1.3
	37nm,0.8s						
NNA	Nana	6.02	244	P	P	23 58 39.6	-0.9
	7.7nm,0.3s,baz=41,slow=9.0,SNR=12						
NNA				S	S	23 59 58.1	-3.3
	1.0nm,0.3s,baz=260,slow=18,SNR=5.1						
ARE	Arequipa	7.06	181	*e*P	P	23 58 51.0	+0.9
ARE				*e*		00 00 19.0	
ATAH	Atahualpa	7.39	288	P	P	23 58 53.7	+0.3
	1.8nm,0.3s,baz=130,slow=8.5,SNR=29						
ATAH				S	S	00 00 23.3	-1.7
	1.5nm,0.3s,baz=141,slow=23,SNR=6.0						
LPAZ	La Paz	7.55	156	⇑*e*P	P	23 58 56.2	+1.3
	6.4nm,0.6s						
LPAZ	La Paz	7.55	156	P	P	23 58 56.3	+1.4
	1.1nm,0.3s,baz=338,slow=7.2,SNR=30						
LPAZ				S	S	00 00 27.3	-0.6
	0.5nm,0.3s,baz=210,slow=22,SNR=3.6						
SIV	San Ignacio	11.97	124	P	P	23 59 41.8	+2.0
	1.4nm,0.3s,baz=296,slow=10.0,SNR=29						
ROSC	El Rosal	14.44	348	P	P	00 00 05.8	+0.5
	1.7nm,0.3s,baz=274,slow=21,SNR=3.4						
ROSC				S	S	00 02 39.3	+2.7
	0.6nm,0.3s,baz=105,slow=20,SNR=2.2						
PCRV	Puerto La Cruz	20.52	19	P	P	00 01 03.7	+1.4
	6.4nm,0.4s,baz=23,slow=2.4,SNR=6.6						
CFAA	Coronel Fontan	22.32	173	P	P	00 01 17.8	-0.4
CFAA	Coronel Fontan	22.32	173	P	P	00 01 17.8	-0.4
	0.5nm,0.5s,mb3.4,baz=355,slow=11,SNR=14						
TEIG	Tepich	33.81	331	*e*P	P	00 02 57.1	-1.2
	3.7nm,0.4s,mb4.3						
CMIG	Matias Romero	35.12	318	P	P	00 03 08.8	-0.5
CMIG	Matias Romero	35.12	318	P	P	00 03 08.8	-0.5
	5.5nm,0.7s,mb4.2,baz=128,slow=6.3,SNR=7.1						
ELN	Prospectdale	47.18	350	*e*P	P	00 04 44.0	-0.5
UALR	University of	48.20	337	*e*P	P	00 04 50.5	-1.6
	18nm,0.9s,mb4.6						
UTMT	University of	48.37	341	*e*P	P	00 04 53.3	0.0
USIN	University of	49.50	343	*e*P	P	00 04 59.9	-1.7
TXAR	Lajitas Array	49.52	322	P	P	00 05 01.1	-0.8
	2.3nm,0.7s,mb3.7,baz=155,slow=8.6,SNR=28						
TXAR				PcP	PcP	00 06 13.1	-0.6
	1.2nm,0.6s,baz=140,slow=6.5,SNR=10						
SIUC	Southern Illin	49.74	341	*e*P	P	00 05 01.9	-1.5
FVM	French Village	50.37	340	*e*P	P	00 05 06.9	-1.2
WMOK	Wichita Mounta	50.99	331	*e*P	P	00 05 11.4	-1.2
KSU1	Kansas State U	53.65	336	*e*P	P	00 05 30.1	-1.4
LAZ	Ladron	55.20	324	*e*P	P	00 05 42.2	-0.3
ANMO	Albuquerque	55.20	325	*e*P	P	00 05 42.0	-0.5
SDCO	Great Sand Dun	56.73	328	*e*P	P	00 05 53.0	0.0
	8.3nm,0.7s,mb4.1						
116A	Eloy	56.76	319	⇑P	P	00 05 52.9	-0.4
	baz=57						
115A	Sonoran Desert	57.19	319	⇓P	P	00 05 56.2	-0.1
	baz=57						
ECSD	EROS,Sioux Fal	57.63	338	*e*P	P	00 05 57.1	-1.9
	2.3nm,0.4s,mb3.8						
ECSD				*e*PP	PP	00 08 13.2	-2.5
MVCO	Mesa Verde	57.97	325	⇓P	P	00 06 01.7	+0.2
	baz=58						
Z14A	Wintersburg	58.07	319	⇓P	P	00 06 02.4	+0.1
	baz=58						
X15A	Humboldt	58.34	321	⇓P	P	00 06 04.2	+0.2
	baz=58						
Y14A	Wickenburg	58.47	320	⇓P	P	00 06 05.1	+0.2
	baz=58						
WUAZ	Wupatki	58.48	322	*e*P	P	00 06 05.2	+0.2
	6.7nm,0.8s,mb3.9						
WUAZ	Wupatki	58.48	322	⇑P	P	00 06 05.3	+0.3
	baz=58						
PV01	Paradox Valley	58.66	326	*e*P	P	00 06 05.9	-0.3
X14A	Yava	58.74	320	⇑P	P	00 06 06.8	+0.1
	baz=59						
W15A	Williams	58.81	321	⇓P	P	00 06 07.6	+0.4
	baz=59						
Y13A	Salome	58.93	319	⇑P	P	00 06 08.2	+0.2
	baz=59						
W14A	Seligman	59.34	321	⇑P	P	00 06 11.1	+0.3
	baz=59						
Y12C	Blythe	59.34	318	⇓P	P	00 06 10.9	+0.2
	baz=59						
DVTC	Desert V Tower	59.73	317	⇓P	P	00 06 13.7	+0.2
	baz=60						
W13A	Hualapai Mount	59.77	320	⇓P	P	00 06 13.8	+0.2
	baz=60						
EYMN	Ely	59.79	344	*e*P	P	00 06 11.9	-1.6
BC3	Big Chuckw Mtn	59.89	318	⇑P	P	00 06 14.6	+0.2
	baz=60						
IRM	Iron Mountain	60.00	318	P	P	00 06 14.9	-0.3
	baz=60,SNR=5.1						
SRU	San Rafael	60.44	326	*e*P	P	00 06 17.8	-0.2
BELC	Belle Mtn.	60.46	318	⇓P	P	00 06 18.4	+0.2
	baz=60						
T14A	Hurricane	60.54	322	⇓P	P	00 06 18.7	0.0
	baz=61						
GMRC	Granite Mounta	60.71	319	⇓P	P	00 06 20.1	+0.2
	baz=61						
V12A	Nelson	60.78	320	⇑P	P	00 06 20.1	-0.2
	baz=61						
MSU	Marysvale	60.97	324	*e*P	P	00 06 21.8	+0.4
T13A	Saint George	61.01	322	⇑P	P	00 06 22.1	+0.4
	baz=61						
U12A	Valley of Fire	61.03	321	⇑P	P	00 06 22.3	+0.4
	baz=61						
S14A	Cedar City	61.05	323	⇓P	P	00 06 22.2	+0.2
	baz=61						
HEC	Hector,Ludlow	61.18	318	⇑P	P	00 06 23.5	+0.5
	baz=61						
V11A	Goodsprings	61.22	320	⇓P	P	00 06 23.4	+0.2
	baz=61						
ARUT	Antelope Range	61.23	323	*e*P	P	00 06 23.0	-0.2
TUQ	Turquoise Mtn.	61.28	319	⇑P	P	00 06 24.1	+0.5
	baz=61						
AGMN	Agassiz Refuge	61.37	342	*e*P	P	00 06 22.2	-1.6
	22nm,0.7s,mb4.6						
U11A	Corn Creek	61.55	320	⇓P	P	00 06 25.6	+0.2
	baz=62						
GSC	Goldstone	61.78	319	⇓P	P	00 06 26.9	+0.1
	baz=62						
SHOC	Shoshone	61.80	319	⇑P	P	00 06 27.1	+0.2
	baz=62						
JLU	Jordanelle	61.98	326	*e*P	P	00 06 28.3	+0.2
U10A	Ash Meadows, A	62.15	320	⇓P	P	00 06 29.3	+0.1
	baz=62						
R12A	Pony Springs,	62.28	322	⇑P	P	00 06 30.7	+0.7
	baz=62						
EDW2	Edwards Air Fo	62.31	318	⇓P	P	00 06 30.0	-0.3
	baz=62						
DUG	Dugway	62.47	325	*e*P	P	00 06 31.0	-0.2
	14nm,1.2s,mb4.3						
DUG	Dugway	62.47	325	⇓P	P	00 06 31.6	+0.4
	baz=62						
FURC	Furnace Creek,	62.52	320	⇓P	P	00 06 31.9	+0.3
	baz=63						
BW06	Boulder Array	62.52	329	*e*P	P	00 06 30.8	-0.6
	2.2nm,0.5s,mb3.8						
PDAR	Pinedale Array	62.52	329	P	P	00 06 30.4	-1.0
	2.4nm,0.5s,mb3.9,baz=119,slow=9.4,SNR=28						
PDAR				PcP	PcP	00 07 02.9	-1.5
	1.1nm,0.6s,baz=123,slow=6.6,SNR=4.2						
MPMC	Manual Prospec	62.68	319	⇓P	P	00 06 32.6	0.0
	baz=63						
HWUT	Hardware Ranch	62.74	327	*e*P	P	00 06 32.3	-0.6
	4.4nm,0.6s,mb4.1						
Q12A	Willow Creek R	62.87	323	⇓P	P	00 06 34.2	+0.4
	baz=63						
DAC	Darwin (Calif)	62.87	319	*e*P	P	00 06 33.9	+0.1
	5.3nm,1.1s,mb3.9						
ISA	Isabella	63.09	318	P	P	00 06 35.4	+0.1
	baz=63,SNR=6.3						
ULM	Lac du Bonnet	63.11	343	*e*P	P	00 06 33.1	-1.9
	28nm,0.9s,mb4.7						
ULM				*e*PcP	PcP	00 07 05.1	-1.5
ULM	Lac du Bonnet	63.11	343	P	P	00 06 33.5	-1.6
	15nm,0.5s,mb4.7,baz=154,slow=5.7,SNR=49						
GRAC	Grapevine Rang	63.16	320	⇓P	P	00 06 36.0	+0.2
	baz=63						
P12A	McGill	63.20	323	⇑P	P	00 06 36.2	+0.3
	baz=63						
S10A	Tonopah Range,	63.24	321	P	P	00 06 36.6	+0.4
	baz=63,SNR=7.8						
Q11A	Duckwater	63.24	322	⇓P	P	00 06 36.5	+0.3
	baz=63						
CWC	Cottonwood Cre	63.28	319	⇑P	P	00 06 36.6	0.0
	baz=63						
R10A	Warm Springs	63.28	321	⇑P	P	00 06 36.7	+0.2
	baz=63						
S09A	Goldfield	63.51	320	⇓P	P	00 06 37.9	-0.1
	baz=64						
PKM	Peak Mountain	63.55	317	⇓P	P	00 06 38.4	+0.2
	baz=64						
VES	Vestal, Richgr	63.59	318	⇓P	P	00 06 38.6	+0.1
	baz=64						
O12A	Currie	63.62	324	⇓P	P	00 06 38.6	0.0
	baz=64						
LOHW	Long Hollow	63.66	329	*e*P	P	00 06 38.6	-0.1
	3.5nm,0.5s,mb4.0						
R09A	Tonopah	63.73	321	P	P	00 06 39.6	+0.2
	baz=64,SNR=5.2						
TIN	Tinemaha	63.74	319	⇓P	P	00 06 39.8	+0.4
	baz=64						
LAO	LASA Array	63.90	334	*e*P	P	00 06 40.0	-0.2
	6.1nm,0.6s,mb4.2						
SMMC	Simmler	63.90	317	⇓P	P	00 06 40.7	+0.2
	baz=64						
RCTC	Rector, Farmer	63.97	318	⇓P	P	00 06 40.9	0.0
	baz=64						
S08C	White Mtn Res	63.97	320	⇓P	P	00 06 41.3	+0.4
	baz=64						
M13A	Montello	64.01	325	⇑P	P	00 06 40.8	-0.2
	baz=64						
IMW	Indian Meadow	64.03	329	*e*P	P	00 06 41.3	+0.1
	6.1nm,0.7s,mb4.1						
HELL	Mitchell Peak,	64.04	319	P	P	00 06 41.1	-0.3
	baz=64,SNR=8.5						
SCHQ	Schefferville	64.06	3	P	P	00 06 40.0	-1.0
	2.5nm,0.6s,mb3.8,baz=218,slow=7.7,SNR=8.0						
SCHQ				PcP	PcP	00 07 09.7	-0.8
	1.7nm,0.5s,baz=186,slow=11,SNR=6.0						
O11A	Cowboy Ranch,	64.06	323	⇓P	P	00 06 41.4	0.0
	baz=64						
Q09A	Carvers	64.16	321	⇓P	P	00 06 42.5	+0.4
	baz=64						
K14A	Jones Ranch, D	64.26	327	⇓P	P	00 06 42.4	-0.2
	baz=64						
L13A	Double Diamond	64.37	326	P	P	00 06 43.9	+0.5
	baz=64,SNR=6.1						
M12A	Wells	64.47	325	⇑P	P	00 06 43.8	-0.2
	baz=64						
DGMT	Dagmar	64.47	336	*e*P	P	00 06 43.8	0.0
KCC	Kaiser Creek	64.61	319	⇑P	P	00 06 45.0	0.0
	baz=65						
NVAR	Mina Array Bea	64.61	321	P	P	00 06 45.1	+0.1
	0.8nm,0.6s,mb3.3,baz=155,slow=7.0,SNR=9.7						
NVAR				PcP	PcP	00 07 12.5	-0.7
	1.2nm,0.6s,baz=120,slow=5.7,SNR=9.2						
PKD	Parkfield	64.62	317	⇓P	P	00 06 44.9	-0.2
	baz=65						
Q08A	Gabbs	64.64	321	⇑P	P	00 06 44.9	-0.2
	baz=65						
O10A	Cortez Mining,	64.66	323	⇑P	P	00 06 45.3	+0.1
	baz=65						
GCMT	Greycliff	64.78	331	*e*P	P	00 06 45.6	-0.2
R07C	Lee Vining	64.88	320	P	P	00 06 47.2	+0.5
	baz=65,SNR=6.9						
O09A	Fish Creek Ran	65.00	323	⇑P	P	00 06 47.5	+0.2
	baz=65						
L12A	House Creek Ra	65.00	325	⇑P	P	00 06 47.7	+0.4
	baz=65						
U04C	Hernandez Rese	65.02	317	P	P	00 06 47.7	+0.1
	baz=65,SNR=5.3						
V03C	Hunter Liggett	65.13	317	⇑P	P	00 06 48.7	+0.4
	baz=65						
LRV	Little Rabbit	65.21	317	*e*P	P	00 06 49.1	+0.4
P08A	Dixie Valley	65.24	322	⇑P	P	00 06 49.1	+0.2
	baz=65						
K12A	Draper Farm, C	65.27	326	⇓P	P	00 06 49.3	+0.4
	baz=65						
S06C	San Francisco	65.27	319	P	P	00 06 49.1	0.0
	baz=65,SNR=8.8						
S05C	Merced	65.28	319	⇓P	P	00 06 49.6	+0.5
	baz=65						
J13A	Cove Ranch, Pi	65.38	327	P	P	00 06 49.5	-0.1
	baz=65,SNR=7.6						
R06C	Coleville	65.39	320	⇓P	P	00 06 50.2	+0.4
	baz=65						
L11A	Cat Creek Ranc	65.43	325	⇓P	P	00 06 50.4	+0.4
	baz=66						
M10A	I.L. Ranch, Tu	65.47	324	⇓P	P	00 06 50.8	+0.6
	baz=66						
HAST	UC Hastings Re	65.55	317	P	P	00 06 50.8	0.0
	baz=66,SNR=5.8						
HLID	Hailey	65.62	327	*e*P	P	00 06 51.1	0.0
HLID	Hailey	65.62	327	P	P	00 06 51.3	+0.2
	baz=66,SNR=6.0						
N09A	Rock Creek Ran	65.62	323	⇑P	P	00 06 50.9	-0.3
	baz=66						
BOZ	Bozeman (W)	65.63	330	⇓P	P	00 06 51.2	+0.1
	baz=66						
I13A	Wildhorse Cree	65.69	327	P	P	00 06 51.8	+0.2
	baz=66,SNR=9.8						
CMB	Columbia Colle	65.71	319	⇑P	P	00 06 51.6	-0.3
	baz=66						
G15A	Dillon	65.71	329	⇓P	P	00 06 51.6	-0.1
	baz=66						
PACP	Pacheco Peak	65.72	318	⇓P	P	00 06 52.0	+0.1
	baz=66						
J12A	Stokes Ranch,	65.78	326	⇓P	P	00 06 52.3	+0.2
	baz=66						
L10A	Juniper Basin	65.78	325	P	P	00 06 52.2	0.0
	baz=66,SNR=5.4						
R05C	Kirkwood Meado	65.90	320	⇑P	P	00 06 53.3	+0.3
	baz=66						
M09A	Marrel Ranch,	65.93	324	⇑P	P	00 06 53.7	+0.6
	baz=66						
O07A	Toulon	66.01	322	⇓P	P	00 06 53.9	+0.2
	baz=66						
S04C	Ingram Canyon,	66.02	318	⇓P	P	00 06 54.3	+0.5
	baz=66						
WCN	Washoe City	66.04	321	⇑P	P	00 06 54.3	+0.4
	baz=66						
PAHR	Pah Rah Range	66.05	321	*e*P	P	00 06 54.5	+0.6
	6.0nm,0.9s,mb4.1						
F15A	Butte	66.19	330	⇑P	P	00 06 54.6	0.0
	baz=66						
H13A	Challis	66.21	328	⇓P	P	00 06 55.3	+0.5
	baz=66						
G14A	Jackson	66.26	329	⇓P	P	00 06 55.2	+0.1
	baz=66						
MFID	Camas Ranch	66.29	326	P	P	00 06 55.5	+0.2
	baz=66,SNR=10						
LAVA	Lava Cap Winer	66.35	320	⇓P	P	00 06 55.5	-0.2
	baz=66						
L09A	Wilkinson Ranc	66.43	324	P	P	00 06 56.5	+0.3
	baz=66,SNR=5.8						
K10A	MacKenzie Ranc	66.46	325	⇓P	P	00 06 56.6	+0.3
	baz=66						
EGMT	Eagleton	66.48	333	*e*P	P	00 06 55.9	-0.4
	10nm,0.6s,mb4.5						
EGMT	Eagleton	66.48	333	⇑P	P	00 06 56.3	0.0
	baz=66						
M08A	Happy Creek Ra	66.50	323	⇓P	P	00 06 57.0	+0.4
	baz=66						
H12A	Diamond D Ranc	66.52	328	P	P	00 06 56.7	0.0
	baz=67,SNR=5.6						
G13A	Cobalt	66.56	328	P	P	00 06 57.5	+0.5
	baz=67,SNR=5.6						
O06A	Flanigan	66.60	321	⇓P	P	00 06 57.8	+0.5
	baz=67						
E15A	Deer Lodge	66.67	330	⇑P	P	00 06 57.9	+0.2
	baz=67						
I11A	Placerville	66.69	326	⇓P	P	00 06 57.7	0.0
	baz=67						
BEKR	Beckwourth	66.75	321	P	P	00 06 58.6	+0.4
	baz=67,SNR=5.3						
Q04C	Lincoln	66.81	319	⇓P	P	00 06 59.2	+0.6
	baz=67						
K09A	Rome	66.89	325	P	P	00 06 59.0	0.0
	baz=67,SNR=9.2						
M07A	Soldier Meadow	66.93	323	⇑P	P	00 06 58.9	-0.4
	baz=67						
L08A	Fields	66.93	324	P	P	00 06 59.0	-0.3
	baz=67,SNR=7.2						
N06A	Buffalo Meadow	66.95	322	P	P	00 06 59.4	-0.1
	baz=67,SNR=13						
D15A	Lincoln	67.05	331	⇑P	P	00 07 01.5	+1.5
	baz=67						
F13A	Darby	67.08	329	⇓P	P	00 07 00.5	+0.3
	baz=67						
E14A	Clinton	67.09	330	⇑P	P	00 07 00.4	+0.2
	baz=67						
Q03C	Winters	67.10	319	⇑P	P	00 07 00.9	+0.5
	baz=67						
O05C	Quincy	67.16	321	⇓P	P	00 07 00.6	-0.1
	baz=67						
CVS	Carmenet Viney	67.23	318	⇑P	P	00 07 01.0	-0.3
	baz=67						
SUTB	Sutter Butte	67.29	320	⇑P	P	00 07 01.5	0.0
	baz=67						
ORV	Oroville	67.29	320	P	P	00 07 01.7	+0.2
	baz=67,SNR=9.5						
J09A	Fry Pan Ranch,	67.32	325	⇓P	P	00 07 01.8	+0.2
	baz=67						
K08A	Mann Creek Ran	67.35	324	⇓P	P	00 07 01.9	+0.1
	baz=67						
MCCM	Marconi Confer	67.40	318	⇓P	P	00 07 02.2	0.0
	baz=68						
L07A	Adell	67.41	323	⇓P	P	00 07 02.2	-0.1
	baz=68						
ELFS	Eagle Lake Fie	67.42	321	⇓P	P	00 07 02.7	+0.3
	baz=68						
E13A	Victor	67.45	329	P	P	00 07 02.9	+0.5
	baz=68,SNR=7.5						
O04C	Chester	67.47	321	P	P	00 07 02.7	0.0
	baz=68,SNR=6.9						
D14A	Greenough	67.56	330	⇓P	P	00 07 03.1	0.0
	baz=68						
MSO	Missoula	67.60	330	*e*P	P	00 07 03.6	+0.3
M06C	Likely Place G	67.61	322	⇑P	P	00 07 03.3	-0.2
	baz=68						
I09A	Lost Marbles R	67.71	326	⇓P	P	00 07 03.8	-0.2
	baz=68						
J08A	Circle Bar Ran	67.73	325	⇑P	P	00 07 04.1	0.0
	baz=68						
K07A	Rock Creek Ran	67.77	324	⇑P	P	00 07 04.4	-0.1
	baz=68						
G11A	Walters Elk Ra	67.83	327	⇑P	P	00 07 04.5	-0.2
	baz=68						
LIC	Lamto	67.84	79	*e*P	P	00 07 05.5	0.0
	15nm,0.3s,mb5.0						
LIC	Lamto	67.84	79	*e*P	P	00 07 05.4	-0.1
	4.2nm,0.3s,mb4.5						
LIC	Lamto	67.84	79	*e*P	P	00 07 05.4	-0.1
	8.3nm,0.3s,mb4.4						
MOD	Modoc	67.92	323	*e*P	P	00 07 05.3	-0.1
	5.5nm,0.7s,mb4.2						
MOD	Modoc	67.92	323	P	P	00 07 05.4	0.0
	baz=68,SNR=11						
TIC	Toumodi	67.94	79	*e*P	P	00 07 05.5	-0.6
	4.8nm,0.3s,mb4.5						
HATC	Hat Creek Radi	67.99	321	⇓P	P	00 07 05.7	-0.1
	baz=68						
HOPS	Hopland	67.99	319	⇑P	P	00 07 05.8	0.0
	baz=68						
BMO	Blue Mountains	68.03	327	*e*P	P	00 07 05.2	-0.8
D13A	Huson	68.04	330	⇑P	P	00 07 05.9	-0.1
	baz=68						
F11A	Grangeville	68.09	328	⇑P	P	00 07 06.1	-0.2
	baz=68						
H09A	Durkee	68.11	326	⇑P	P	00 07 06.6	+0.2
	baz=68						
M05C	Lookout	68.11	322	P	P	00 07 06.4	-0.1
	baz=68,SNR=12						
GASB	Alder Springs	68.12	319	P	P	00 07 07.2	+0.6
	baz=68,SNR=5.2						
I08A	Drewsey	68.13	325	⇓P	P	00 07 07.4	+0.8
	baz=68						
KIC	Kosan Boka	68.15	79	*e*P	P	00 07 07.6	+0.2
	59nm,0.4s						
C14A	Swan Lake	68.16	331	⇑P	P	00 07 07.0	+0.4
	baz=68						
J07A	Hines	68.22	324	⇓P	P	00 07 07.8	+0.6
	baz=68						
P01C	Double 8 Ranch	68.42	319	⇑P	P	00 07 09.0	+0.5
	baz=68						
K06A	Valley Falls	68.42	323	P	P	00 07 09.0	+0.6
	baz=68,SNR=9.0						
E11A	Bogner Ranch,	68.43	328	⇑P	P	00 07 07.7	-0.6
	baz=68						
O02C	Red Bluff	68.46	320	⇑P	P	00 07 07.5	-1.2
	baz=68						
C13A	Hot Springs	68.50	330	⇓P	P	00 07 09.3	+0.6
	baz=68						
WDC	Whiskeytown Da	68.53	320	*e*P	P	00 07 07.2	-1.9
	3.8nm,0.7s,mb4.0						
WDC	Whiskeytown Da	68.53	320	⇓P	P	00 07 07.4	-1.7

	baz=69						
H08A	Prairie City	68.57	326	P	P	00 07 09.5	+0.2
	baz=69,SNR=7.9						
J06A	Christmas Vall	68.64	324	⇓P	P	00 07 09.7	+0.1
	baz=69,SNR=16						
F10A	Beach Ranch, E	68.71	327	P	P	00 07 10.7	+0.7
	baz=69,SNR=5.9						
K05A	Summer Lake	68.76	323	⇑P	P	00 07 10.5	+0.1
	baz=69						
I07A	Izee	68.77	325	P	P	00 07 10.9	+0.4
	baz=69,SNR=6.9						
M04C	Macdoel	68.78	322	P	P	00 07 10.7	+0.1
	baz=69,SNR=7.4						
F09A	S2 Ranch, Elgi	68.91	327	⇑P	P	00 07 11.4	+0.2
	baz=69						
B13A	Whitefish	68.92	331	⇓P	P	00 07 11.5	+0.3
	baz=69						
E10A	Myers Farm, Un	68.98	328	⇓P	P	00 07 11.4	-0.3
	baz=69						
L04A	Klamath Falls	69.04	322	⇓P	P	00 07 12.2	+0.1
	baz=69						
I06A	Prineville	69.09	324	P	P	00 07 13.1	+0.7
	baz=69,SNR=6.9						
O01C	Eel River Cons	69.10	319	⇑P	P	00 07 13.4	+0.8
	baz=69						
M02C	Callahan	69.18	321	⇓P	P	00 07 12.3	-0.7
	baz=69						
K04A	Chilquin	69.19	323	⇓P	P	00 07 13.2	+0.2
	baz=69						
G08A	Pilot Rock	69.21	326	P	P	00 07 13.1	0.0
	baz=69,SNR=6.0						
A13A	Flathead Natio	69.28	331	P	P	00 07 13.6	+0.2
	baz=69,SNR=13						
YBH	Yreka Blue Hor	69.28	321	⇑P	P	00 07 12.6	-1.0
	baz=69						
J05A	Fort Rock	69.29	323	⇓P	P	00 07 13.9	+0.3
	baz=69						
F08A	Pendleton	69.43	327	⇑P	P	00 07 13.8	-0.5
	baz=70						
D10A	Wagner Farm, O	69.44	328	⇑P	P	00 07 14.3	-0.1
	baz=70						
KHMM	Horse Mountain	69.44	320	*e*P	P	00 07 15.4	+0.9
B12A	Libby	69.53	330	⇑P	P	00 07 15.2	+0.3
	baz=70						
E09A	Wood Farm, Sta	69.55	327	⇑P	P	00 07 14.9	-0.2
	baz=70						
G07A	Ruggs Ranch, H	69.59	326	⇑P	P	00 07 16.5	+1.2
	baz=70						
JCC	Jacoby Creek	69.60	320	⇑P	P	00 07 15.7	+0.2
	baz=70						
H06A	Lindquist Farm	69.64	325	P	P	00 07 16.5	+0.8
	baz=70,SNR=9.4						
J04A	Umpqua Nationa	69.78	323	⇑P	P	00 07 16.6	+0.1
	baz=70						
I05A	Bend	69.83	324	⇑P	P	00 07 17.5	+0.7
	baz=70						
A12A	Yaak River Ran	69.88	331	P	P	00 07 17.2	+0.2
	baz=70,SNR=12						
B11A	Sandpoint	69.89	330	⇓P	P	00 07 17.0	0.0
	baz=70						
D09A	Jones Farm, Ri	69.99	328	⇓P	P	00 07 17.6	-0.1
	baz=70						
L02A	Cave Junction	70.07	321	⇓P	P	00 07 18.3	0.0
	baz=70						
H05A	Madras	70.09	324	⇑P	P	00 07 18.6	+0.3
	baz=70						
G06A	Carlson Farm,	70.11	325	⇑P	P	00 07 18.7	+0.3
	baz=70						
F07A	Phinny Hill Vi	70.12	326	⇑P	P	00 07 19.1	+0.6
	baz=70						
A11A	Hall Mountain,	70.24	330	⇓P	P	00 07 19.4	+0.3
	baz=70						
I04A	Tendick Farm,	70.28	323	⇓P	P	00 07 19.0	-0.5
	baz=70						
D08A	Wollman Farm,	70.31	328	⇑P	P	00 07 19.9	+0.3
	baz=70						
K02A	Glendale	70.35	322	⇓P	P	00 07 19.9	0.0
	baz=70						
FCC	Fort Churchill	70.35	348	*e*P	P	00 07 18.6	-0.9
E07A	Sunnyside	70.49	327	⇑P	P	00 07 20.9	+0.2
	baz=70						
G05A	Wamic	70.50	325	⇑P	P	00 07 21.2	+0.4
	baz=70						
H04A	Detroit Lake	70.67	324	⇓P	P	00 07 21.4	-0.3
	baz=71						
J02A	Umpqua	70.73	322	⇑P	P	00 07 22.3	+0.2
	baz=71						
B09A	Rice	70.78	329	P	P	00 07 21.8	-0.5
	baz=71,SNR=6.3						
D07A	Quincy	70.95	327	⇑P	P	00 07 23.9	+0.6
	baz=71						
E06A	Yakima	71.10	326	⇓P	P	00 07 24.8	+0.5
	baz=71						
C07A	Waterville	71.31	328	P	P	00 07 25.4	0.0
	baz=71,SNR=6.3						
H03A	Soap Creek Ran	71.31	324	⇓P	P	00 07 25.8	+0.3
	baz=71						
B08A	Colville Reser	71.34	328	⇑P	P	00 07 25.2	-0.4
	baz=71						
A09A	Danville	71.36	329	⇓P	P	00 07 25.3	-0.4
	baz=71						
G03A	Yamhill	71.67	324	⇑P	P	00 07 28.3	+0.7
	baz=72						
A08A	Turner Farm, O	71.69	329	⇓P	P	00 07 27.9	+0.3
	baz=72						
B07A	Winthrop	71.82	328	⇑P	P	00 07 28.5	+0.2
	baz=72						
EDM	Edmonton	71.84	335	*e*P	P	00 07 27.2	-1.2
D05A	Enumclaw	72.04	326	⇓P	P	00 07 30.2	+0.6
	baz=72						
A07A	Ashnola River,	72.32	329	⇓P	P	00 07 31.9	+0.6
	baz=72						
B06A	Marblemount	72.57	328	⇑P	P	00 07 32.0	-0.7
	baz=73						
B05A	Bryant	72.74	327	⇓P	P	00 07 33.2	-0.5
	baz=73						
A05A	Maple Falls	73.17	328	⇑P	P	00 07 35.8	-0.4
	baz=73						
MORF	Marmelete	74.71	47	*e*P	P	00 07 47.0	+1.9
	24nm,0.9s,mb4.6						
PVAQ	Vaqueiros	75.42	47	*e*P	P	00 07 51.0	+1.9
	31nm,1.8s,mb4.4						
EGRO	El Granado	75.65	47	P	P	00 07 51.9	+1.5
	5.4nm,0.4s,mb4.3						
EVO	Evora	75.67	46	*e*P	P	00 07 51.0	+0.5
	12nm,0.9s,mb4.0						
TOA0	Torodi Ar. Sit	75.86	74	*e*P	P	00 07 51.8	-0.2
TORD	Torodi Ar. Bea	75.86	74	P	P	00 07 52.0	0.0
	9.2nm,0.7s,mb4.3,baz=236,slow=4.7,SNR=171						
TORD				pP	pP	00 09 50.5	+2.2
	1.2nm,0.6s,baz=270,slow=5.1,SNR=7.4						
EMIN	Mina Concepcio	76.33	47	P	P	00 07 55.1	+1.0
PCBR	Castelo Branco	76.59	45	*e*P	P	00 07 56.5	+1.0
	12nm,1.9s,mb4.0						
PVIS	Viseu	76.67	44	*e*P	P	00 07 56.8	+0.9
	25nm,1.7s,mb4.4						
MTE	Manteigas	76.78	45	*e*P	P	00 07 57.8	+1.3
PVRL	Vila Real	77.03	44	*e*P	P	00 07 58.3	+0.4
	15nm,1.0s,mb4.4						
MVO	Moncorvo	77.45	44	*e*P	P	00 08 01.2	+1.0
	22nm,1.7s,mb4.3						
PBRG	Braganca	77.91	44	*e*P	P	00 08 03.6	+1.0
	12nm,1.0s,mb4.2						
EPON	Pontenova	78.27	42	P	P	00 08 05.7	+1.2
	7.5nm,0.6s,mb4.2						
EQES	Quesada	78.98	49	P	P	00 08 09.2	+0.7
	0.1nm,0.4s						
ESDC	Sonseca Array	79.02	47	P	P	00 08 09.9	+1.3
	2.5nm,0.6s,mb3.7						
ESDC	Sonseca Array	79.02	47	P	P	00 08 09.9	+1.3
	1.2nm,0.6s,mb3.4,baz=256,slow=5.3,SNR=24						
ESLA	Sonseca Array	79.02	47	*e*P	P	00 08 07.6	-1.0
YKA	Yellowknife Ar	79.02	341	P	P	00 08 06.9	-1.1
	6.2nm,0.7s,mb4.0,baz=137,slow=5.8,SNR=125						
YKA				pP	pP	00 10 07.8	+2.2
	0.2nm,0.6s,baz=137,slow=6.2,SNR=2.8						
YKW3	Yellowknife Ar	79.08	341	*e*P	P	00 08 07.2	-1.1
GUD	Guadarrama	79.25	46	P	P	00 08 11.0	+1.2
	2.6nm,0.8s,mb3.6						
ECRI	Cripan	81.12	44	P	P	00 08 20.9	+1.4
	9.4nm,0.6s,mb4.4						
SJPF	Ste Jean	82.18	44	*e*P	P	00 08 25.2	+0.3
	5.0nm,0.6s,mb3.8						
ETSF	Etsaut	82.57	44	*e*P	P	00 08 27.2	+0.3
QUIF	Quistinic	82.68	39	*e*P	P	00 08 27.1	-0.2
ROSF	Rostrenen	82.77	39	*e*P	P	00 08 27.7	0.0
MFF	Saint Martin d	84.11	41	*e*P	P	00 08 33.8	-0.7
LFF	La Frestale	84.14	43	*e*P	P	00 08 32.9	-1.7
LFF				*e*pP	pP	00 10 50.5	+16
GRR	Gorron	84.29	39	*e*P	P	00 08 34.4	-0.9
	16nm,0.7s,mb4.4						
MTLF	Montolieu	84.63	45	*e*P	P	00 08 36.1	-1.0
FLN	La Foliniere	84.65	39	*e*P	P	00 08 36.4	-0.7
	14nm,0.7s,mb4.3						
LDF	La Druitiere	84.82	39	*e*P	P	00 08 37.1	-0.8
	16nm,0.8s,mb4.3						
CAF	Calviac	85.02	43	*e*P	P	00 08 38.1	-0.9
	4.2nm,0.6s,mb3.8						
RES	Resolute Bay	85.15	354	*e*P	P	00 08 38.7	-0.3
	132nm,0.8s						
TCF	Toulx Ste Croi	85.55	42	*e*P	P	00 08 40.2	-1.3
TCF				*e*pP	pP	00 10 58.1	+17
BGF	Bois d'Agland	86.05	42	*e*P	P	00 08 42.7	-1.1
	20nm,0.9s,mb4.4						
AVF	Avril sur Loir	86.45	42	*e*P	P	00 08 44.4	-1.3
SMF	Signal de Mont	86.73	42	*e*P	P	00 08 46.0	-1.0
VIVF	Saint-Julien-l	86.77	44	*e*P	P	00 08 46.0	-1.3
LOR	Lormes	86.93	41	*e*P	P	00 08 46.6	-1.4
SMRF	Simiane la Rot	87.15	45	*e*P	P	00 08 48.3	-0.8
ORIF	Oris-en-Rattie	87.61	44	*e*P	P	00 08 51.2	0.0
	5.2nm,0.8s,mb4.3						
ORIF	Oris-en-Rattie	87.61	44	*e*P	P	00 08 51.2	0.0
	10nm,0.8s,mb4.3						
LMR	La Mourre	87.63	46	*e*P	P	00 08 50.0	-1.4
FRF	La Foret Royal	87.79	45	*e*P	P	00 08 51.2	-0.9
	5.4nm,0.9s,mb4.3						
FRF	La Foret Royal	87.79	45	*e*P	P	00 08 51.2	-0.9
	11nm,0.9s,mb4.3						
KEST	Kesra	87.92	53	P	P	00 08 52.0	-0.9
	0.9nm,0.7s,mb3.6,baz=198,slow=2.7,SNR=6.8						
BAIF	Baives	87.97	39	*e*P	P	00 08 51.7	-1.1
	4.8nm,0.9s,mb4.2						
BAIF	Baives	87.97	39	*e*P	P	00 08 51.7	-1.1
	9.6nm,0.9s,mb4.2						
MBDF	Montbardon	88.17	44	*e*P	P	00 08 53.5	-0.4
CABF	La Chapelle	88.21	42	*e*P	P	00 08 53.1	-0.9
	5.0nm,0.7s,mb4.1						
LPL	La Plagne	88.35	43	*e*P	P	00 08 54.8	+0.1
	8.1nm,0.9s,mb4.2						
LPG	La Plagne	88.36	44	*e*P	P	00 08 54.9	+0.2
	6.4nm,0.7s,mb4.2						
GIVF	Givet	88.36	39	*e*P	P	00 08 53.9	-0.7
	11nm,0.7s,mb4.7						
GIVF	Givet	88.36	39	*e*P	P	00 08 53.9	-0.7
	22nm,0.7s,mb4.7						
INK	Inuvik	88.79	341	*e*P	P	00 08 55.4	-0.8
	323nm,0.9s						
PGF	Pioggiola	89.21	47	*e*P	P	00 08 57.8	-0.9
	7.2nm,0.9s,mb4.5						
PGF	Pioggiola	89.21	47	*e*P	P	00 08 57.8	-0.9
	14nm,0.9s,mb4.5						
CDF	Champ du Feu	89.45	41	*e*P	P	00 08 58.6	-1.1
GERES	GERESS Array B	93.71	41	P	P	00 09 18.8	-0.5
	0.8nm,0.6s,mb4.0,baz=250,slow=2.7,SNR=10						
STKA	Stephens Creek	128.31	216	*e*PKP	PKPdf	00 15 04.6	-1.4
	2.5nm,0.7s						
STKA	Stephens Creek	128.31	216	*e*PKP	PKPdf	00 15 04.6	-1.4
STKA	Stephens Creek	128.31	216	PKP	PKPdf	00 15 05.3	-0.7
	3.1nm,0.7s,baz=121,slow=2.2,SNR=6.2						
ZALV	Zalesovo Beam	131.59	19	PKP	PKPdf	00 15 11.1	-0.4
ZALV				pPKP	pPKPdf	00 17 20.7	-0.2
ZALV				SKPbc	SKPbc	00 17 44.2	-1.5
ZALV	Zalesovo Beam	131.59	19	PKP	PKPdf	00 15 11.1	-0.4
	3.4nm,0.6s,baz=285,slow=3.1,SNR=22						
ZALV				pPKP	pPKPdf	00 17 20.7	-0.2
	1.5nm,0.8s,baz=304,slow=3.2,SNR=5.3						
ZALV				SKPbc	SKPbc	00 17 44.2	-1.5
	2.6nm,0.8s,baz=349,slow=4.6,SNR=8.0						
CTA	Charters Tower	132.84	231	*e*PKP		00 15 03.1	
	7.8nm,1.0s						
CTA	Charters Tower	132.84	231	*e*PKP		00 15 03.1	
AML	Almayashu	135.19	37	*e*PKPdf	PKPdf	00 15 19.4	+0.8
MK31	Makanchi Array	136.45	26	*e*PKPdf	PKPdf	00 15 20.1	-0.7
MKAR	Makanchi Array	136.45	26	PKP		00 15 10.0	
MKAR				PKP	PKPdf	00 15 20.1	-0.7
MKAR				SKPbc	SKPbc	00 17 59.7	-1.9
MKAR	Makanchi Array	136.45	26	PKhKP		00 15 10.0	
	0.2nm,0.6s,baz=299,slow=2.8,SNR=4.8						
MKAR				PKP	PKPdf	00 15 20.1	-0.7
	1.6nm,0.6s,baz=333,slow=1.5,SNR=19						
MKAR				SKPbc	SKPbc	00 17 59.7	-1.9
	0.7nm,0.7s,baz=329,slow=3.0,SNR=7.2						
WMQ	Urumqi	141.12	24	PKP	PKPdf	00 15 28.2	-1.2
WB2	Warramunga Arr	141.44	221	*e*PKP	PKPdf	00 15 31.5	+0.8
WB2	Warramunga Arr	141.44	221	*e*PKPdf	PKPdf	00 15 31.9	+1.3
WRA	Warramunga Arr	141.45	221	PKP	PKPdf	00 15 26.8	-3.9
WRA				PKP	PKPdf	00 15 32.3	+1.6
WRA				SKPbc	SKPbc	00 18 13.2	-2.9
WRA	Warramunga Arr	141.45	221	PKhKP		00 15 26.8	
	2.1nm,0.5s,baz=134,slow=1.7,SNR=7.9						
WRA				PKP	PKPdf	00 15 32.3	+1.6
	3.0nm,0.8s,baz=135,slow=1.7,SNR=7.0						
WRA				SKPbc	SKPbc	00 18 13.2	-2.9
	0.7nm,0.3s,baz=134,slow=2.5,SNR=4.1						
SONM	Songino Array	141.61	2	PKP	PKPdf	00 15 25.7	-4.5
SONM	Songino Array	141.61	2	PKhKP		00 15 25.7	
	1.2nm,0.5s,baz=324,slow=2.5,SNR=14						
MJAR	Matsushiro Arr	141.94	320	PKP	PKPdf	00 15 25.7	-5.4
MJAR	Matsushiro Arr	141.94	320	PKhKP		00 15 25.7	
	1.5nm,0.8s,baz=121,slow=1.8,SNR=4.2						
KSRS	Korea Array	147.07	331	PKP	PKPdf	00 15 39.8	-0.1
	13nm,0.7s,baz=37,slow=2.5,SNR=38						
KSRS				PKPbc	PKPbc	00 15 42.5	-0.4
	13nm,0.7s,baz=31,slow=2.4,SNR=37						
KAKA	Kakadu	147.78	228	*e*PKP	PKPdf	00 15 43.5	+1.8
	13nm,0.6s						
KAKA	Kakadu	147.78	228	*e*PKP	PKPdf	00 15 43.5	+1.8
FITZ	Fitzroy Crossi	147.98	212	*e*PKP	PKPdf	00 15 44.6	+2.7
	14nm,0.6s						
FITZ	Fitzroy Crossi	147.98	212	*e*PKP	PKPdf	00 15 44.6	+2.7
HHC	Hu-ho-hao-te	148.54	356	*e*PKP	PKPdf	00 15 41.1	-1.1
HHC				APKP		00 17 48.6	
HHC				XPKP		00 18 40.1	
HHC				PKS		00 19 14.7	
HHC				PP	PP	00 19 23.5	+2.8
HHC				SKS	SKSdf	00 21 56.6	-1.7
HHC				SKKS	SKKSac	00 25 18.3	+0.8
HHC				SS	SS	00 37 45.4	+1.0
HHC				PP	PP		
	comp=Z,73nm,4.7s						
GTA	Gaotai	149.05	13	*e*PKP	PKPdf	00 15 47.5	+4.5
KOLN	Koldanda	150.10	49	*e*P	PKPdf	00 15 44.6	-0.4
GKN	Gorkha	150.74	47	*e*P	PKPdf	00 15 45.6	-0.4
	comp=Z,62nm,0.4s						
DMN	Daman	151.30	48	*e*P	PKPdf	00 15 47.0	+0.1
	comp=Z,19nm,0.5s						
KKN	Kakani	151.32	47	*e*P	PKPdf	00 15 46.9	0.0
	comp=Z,31nm,0.6s						
PKI	Pulchoki	151.54	47	*e*P	PKPdf	00 15 48.8	+1.6
	comp=Z,19nm,0.7s						
GUN	Gumba	151.68	46	*e*P	PKPdf	00 15 47.5	+0.1
	comp=Z,28nm,0.8s						
JIRN	Jiri	152.05	46	*e*P	PKPdf	00 15 50.6	+2.6
LZH	Lanzhou	153.04	9	*e*PKP	PKPdf	00 15 44.5	-4.7
LZH				APKP		00 17 53.2	
LZH				XPKP		00 18 44.0	
TAPN	Taplejung	153.31	45	*e*P	PKPdf	00 15 49.7	-0.1
	comp=Z,11nm,0.5s						
CD2	Chengdu	158.08	11	*e*PKP	PKPdf	00 15 53.5	-2.5
GYA	Guiyang	162.89	6	PKP	PKPdf	00 15 59.7	-1.6
GYA				PKP2	PKPab	00 16 53.8	-0.3
GYA				APKP		00 18 07.0	
GYA				XPKP		00 18 57.9	
GYA				PKS		00 19 31.5	
GYA				PP	PP	00 20 40.7	+1.5
GYA				SKS	SKSdf	00 22 12.2	-1.9
GYA				PP	PP		
	comp=Z,90nm,7.8s						

IDC ***04*** *00:28:05.5±0.9, 9.03N×126.37E, h0^{km}, mb4.1/8, mb1 4.2/8, mb1mx4.0/19, mbtmp4.1/8, Error ellipse: s-maj=71.9km s-min=17.8km az=73.0*

ISCJB ***04*** *00:28:12.9±1.2, 9.01N±0.06×126.5E±0.1, h70^{km}±9^{km}, mb4.3/14, Error ellipse: s-maj=18.6km s-min=7.1km az=154.5*

MAN ***04*** *00:28:13, 9.03N×126.46E, h42^{km}, mb4.4, ML3.2, MS3.1*

MAN INTENSITY I - TANDAG, SURIGAO DEL SUR.

NEIC ***04*** *00:28:15.9±3.2, 8.98N×126.45E, h87^{km}±28^{km}, mb4.5/3, Error ellipse: s-maj=52.4km s-min=12.5km az=69.0*

NEIC Felt [I PIVS] at Tandag.

ISC 04 00:28:14.0±1.2**, 9.01N**±0.06×**126.5E**±0.1**, h63**^{km}±9^{km}**, n38, σ0.90**/41**, mb4.3**/14**, 1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	Surigao	1.24	308	*e*P	Pn	00 28 33.5	-1.8
SCPH				*e*S	Sn	00 28 48.5	-2.8
BUKP	Musuan	1.79	231	*e*P	Pn	00 28 42.1	-0.6
MSLP	Maasin	1.95	305	*e*P	Pn	00 28 44.8	0.0
MSLP				*e*S	Sn	00 29 12.1	+3.8
MATI	Mati	2.06	186	*e*P	Pn	00 28 45.9	-0.4
DAV	Davao City (W)	2.12	205	*e*Pn	Pn	00 28 49.0	+1.9
DAV				*e*Sn	Sn	00 29 23.1	+11
PLP	Palo	2.60	326	*e*P	Pn	00 29 03.1	+9.4
PLP				*e*S	Sn	00 29 26.2	+2.0
TBP	Tagbilaran	2.67	285	*e*P	Pn	00 28 54.2	-0.4
TBP				*e*S	Sn	00 29 25.5	-0.3
LLP	Lapu-Lapu	2.80	298	*e*P	Pn	00 28 56.2	-0.1
LLP				*e*S	Sn	00 29 28.4	-0.5
SNPH	Sibulan	3.22	276	*e*P	Pn	00 29 02.5	+0.4
PAGZ	Pagadian	3.27	250	*e*P	Pn	00 29 03.4	+0.5
GUIM	Jordan	4.16	293	*e*P	Pn	00 29 14.9	-0.1
RCP	Roxas	4.46	305	⇓*e*P	Pn	00 29 20.7	+1.6
FITZ	Fitzroy Crossi	26.95	182	*e*P	P	00 33 49.6	0.0
	4.5nm,0.3s,mb4.5						
FITZ	Fitzroy Crossi	26.95	182	P	P	00 33 49.8	+0.2
	2.0nm,0.3s,mb4.1,baz=359,slow=12,SNR=20						
WRA	Warramunga Arr	29.79	165	P	P	00 34 13.8	-1.1
	0.5nm,0.4s,mb3.6,baz=351,slow=9.4,SNR=3.5						
FORT	Forrest	39.59	178	*e*P	P	00 35 39.4	+0.2
	14nm,1.0s,mb4.7						
TAPN	Taplejung	40.87	302	*e*P	P	00 35 50.1	+0.1
	5.3nm,0.4s,mb4.5						
ODAN	Odare	40.99	301	*e*P	P	00 35 50.8	-0.1
	26nm,0.7s,mb5.0						
GUN	Gumba	42.59	302	*e*P	P	00 36 04.3	+0.3
	12nm,0.7s,mb4.8						
PKI	Pulchoki	42.88	301	*e*P	P	00 36 07.1	+0.7
KKN	Kakani	43.06	301	*e*P	P	00 36 08.9	+1.1
STKA	Stephens Creek	43.15	161	*e*P	P	00 36 08.4	0.0
	1.1nm,0.3s,mb4.1						
STKA	Stephens Creek	43.15	161	*e*P	P	00 36 07.9	-0.5
STKA	Stephens Creek	43.15	161	P	P	00 36 08.5	+0.1
	1.5nm,0.3s,mb4.1,baz=327,slow=9.6,SNR=5.1						
GKN	Gorkha	43.66	301	*e*P	P	00 36 12.9	+0.2
KOLN	Koldanda	44.48	301	*e*P	P	00 36 19.1	-0.1
	14nm,0.8s,mb4.8						
MK31	Makanchi Array	53.15	323	*e*P	P	00 37 25.0	-0.4
MK31				*e*PcP	PcP	00 38 32.1	-0.7
MKAR	Makanchi Array	53.15	323	P	P	00 37 25.1	-0.2
	1.9nm,0.5s,mb4.3,baz=124,slow=7.9,SNR=29						
ZALV	Zalesovo Beam	55.83	332	P	P	00 37 43.4	-1.2
ZALV	Zalesovo Beam	55.83	332	P	P	00 37 43.4	-1.2
	0.7nm,0.4s,mb4.0,baz=116,slow=6.9,SNR=4.3						
KURK	Kurchatov	57.22	326	*e*P	P	00 37 53.8	-0.8
	2.9nm,0.8s,mb4.4						
JOF	Joensuu	84.40	333	*e*p	P	00 40 35.1	-4.1
ARCES	ARCESS Array B	85.44	340	P	P	00 40 44.6	+0.2
	1.4nm,0.6s,mb4.2,baz=84,slow=7.1,SNR=6.2						
FINES	FINESS Array B	87.09	332	P	P	00 40 52.0	-0.7
	0.4nm,0.4s,mb4.0,baz=99,slow=7.2,SNR=5.7						
YKA	Yellowknife Ar	94.82	24	P	P	00 41 29.7	+1.1
	0.3nm,0.6s,mb3.9,baz=299,slow=4.2,SNR=6.0						
WUAZ	Wupatki	109.81	47	PKPdf	PKiKP	00 46 35.4	-3.0
TORD	Torodi Ar. Bea	120.92	291	PKP	PKPdf	00 46 59.7	-0.5
TORD	Torodi Ar. Bea	120.92	291	PKP	PKPdf	00 46 59.7	-0.5
	0.3nm,0.4s,baz=67,slow=2.1,SNR=7.7						

ISCJB ***04*** *00:30:16.0±2.8, 17.7S±0.2×174.8W±0.2, h188^{km}±40^{km}, mb4.2/6, Error ellipse: s-maj=35.4km s-min=33.0km az=42.0*

NEIC ***04*** *00:30:16.8±1.3, 17.90S×174.85W, h175^{km}±15^{km}, mb4.2/2, Error ellipse: s-maj=18.8km s-min=13.7km az=125.0*

IDC ***04*** *00:30:16.6±2.5, 17.93S×174.84W, h171^{km}±29^{km}, mb4.0/5, mb1 4.1/6, mb1mx3.7/17, mbtmp4.0/6, Error ellipse: s-maj=41.1km s-min=21.4km az=124.0*

ISC 04 00:30:16.0±2.5**, 17.9S**±0.2×**174.9W**±0.2**, h162**^{km}±36^{km}**, n14, σ0.53**/11**, mb4.2**/6**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	4.97	37	P	Pn	00 31 30.1	+0.9
	33nm,0.3s,baz=198,slow=1.0,SNR=17						
AFI				S	Sn	00 32 22.6	-3.9
	60nm,0.3s,baz=235,slow=22,SNR=14						
URZ	Urewera	21.45	197	P	P	00 34 51.0	-0.3
	7.1nm,0.4s,mb4.3,baz=354,slow=11,SNR=9.9						
CTA	Charters Tower	36.76	260	P	P	00 37 08.1	0.0
	9.5nm,1.0s,mb4.4,baz=75,slow=13,SNR=4.6						
CTAO	Charters Tower	36.76	260	*e*P	P	00 37 08.5	+0.5
	12nm,0.8s,mb4.6						
STKA	Stephens Creek	41.58	242	*e*P	P	00 37 47.4	-0.5
STKA	Stephens Creek	41.58	242	P	P	00 37 48.2	+0.3
	2.3nm,0.5s,mb4.1,baz=53,slow=7.5,SNR=6.1						
WRA	Warramunga Arr	47.93	259	P	P	00 38 38.1	-0.2
	2.2nm,0.4s,mb4.2,baz=94,slow=6.8,SNR=17						
FITZ	Fitzroy Crossi	56.34	260	P	P	00 39 40.3	-0.1
	1.5nm,0.4s,mb4.2,baz=88,slow=10,SNR=12						
QSPA	South Pole Qui	72.15	180	*e*P	P	00 41 22.2	-0.1
	2.0nm,0.8s,mb3.9						
MAW	Mawson	84.97	199	*e*P	P	00 42 33.0	+0.4
BRTR	Keskin Array B	147.12	317	PKPbc	PKPbc	00 49 39.5	-0.6
BRTR	Keskin Array B	147.12	317	PKPbc	PKPbc	00 49 39.5	-0.6
	0.8nm,0.8s,baz=114,slow=4.5,SNR=4.9						
GERES	GERESS Array B	148.37	349	PKPbc	PKPbc	00 49 42.1	-1.0
GERES	GERESS Array B	148.37	349	PKPbc	PKPbc	00 49 42.1	-1.0
	0.5nm,0.6s,baz=42,slow=1.6,SNR=5.2						

IDC 04 00:55:03.0±2.3**, 5.86S**×**99.69E, h0**^{km}**, mb3.9**/6**, mb1 4.0**/6**, mb1mx3.7**/19**, mbtmp3.9**/6**, MS3.5**/1**, Ms1 3.5**/1**, ms1mx2.6**/32**, Error ellipse: s-maj=83.2km s-min=22.9km az=58.0, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	36.45	116	P	P	01 02 08.3	-1.6
	0.7nm,0.4s,baz=298,slow=9.3,SNR=4.9						
STKA	Stephens Creek	46.90	129	P	P	01 03 37.1	+1.8
	1.8nm,0.6s,baz=295,slow=8.1,SNR=6.4						
KSRS	Korea Array	50.50	29	P	P	01 04 04.1	+1.2
	2.4nm,0.7s,baz=224,slow=7.5,SNR=9.1						
SONM	Songino Array	53.79	6	P	P	01 04 25.7	-1.5
	1.0nm,0.8s,baz=177,slow=10,SNR=6.0						
MKAR	Makanchi Array	54.66	345	P	P	01 04 34.7	+1.1
	0.4nm,0.6s,baz=157,slow=10,SNR=7.8						
ATD	Arta Tunnel	59.13	287	LR	LR	01 24 22.3	
	comp=Z,37nm,18.9s,baz=115,slow=30						
ZALV	Zalesovo Beam	60.89	350	P	P	01 05 17.2	0.0
	1.1nm,0.9s,baz=174,slow=5.5,SNR=4.6						
TXAR	Lajitas Array	147.88	41	PKPbc	PKPbc	01 14 48.6	-2.2
	0.4nm,0.8s,baz=297,slow=6.0,SNR=3.0						

BJI ***04*** *01:19:15.4, 1.33S×127.90E, h30^{km}, mB5.3, mb5.1, Ms4.7, Msz4.3*

IDC ***04*** *01:19:19.0±0.5, 0.51S×127.45E, h0^{km}, mb4.9/21, mb1 4.9/22, mb1mx4.9/24, mbtmp4.9/22, ML4.6/1, MS4.3/24, Ms1 4.3/24, ms1mx4.2/31, Error ellipse: s-maj=19.7km s-min=11.6km az=70.0*

ISCJB ***04*** *01:19:20.3±1.1, 0.59S±0.03×127.55E±0.04, h21^{km}±7^{km}, mb5.2/80, MS4.3/42, Error ellipse: s-maj=7.0km s-min=5.0km az=157.9*

MOS ***04*** *01:19:22.6±1.0, 0.44S×127.35E, h33^{km}, mb5.2/23, Error ellipse: s-maj=14.2km s-min=7.2km az=114.1*

GCMT ***04*** *01:19:23.4±0.2, 0.59S×127.56E, h12^{km}, MW5.2/87, Moment Tensor Solution. s49,c66; s87,c148; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-6.44±.15; $M_{\theta\theta}$3.38±.11; $M_{\phi\phi}$3.06±.17; $M_{r\theta}$-1.71±.40; $M_{\theta\phi}$3.33±.11; $M_{\phi r}$-0.42±.45; Best double couple: $M_0$6.73200×10^{16} NP1:ϕ_s219.00000°,δ39.00000°,λ-102.00000°. NP2: ϕ_s54.00000°,δ52.00000°,λ-81.00000°. Principal axes: T 6.7320, Plg7.0000°, Azm137.0000°; N 0.0000, Plg7.0000°, Azm228.0000°; P -6.7320, Plg80.0000°, Azm5.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***04*** *01:19:23.4±0.2, 0.57S×127.47E, h30^{km}, mb5.2/22 Error ellipse: s-maj=8.6km s-min=5.4km az=66.0*

NEIC Felt [V] at Labuha.

ISC 04 01:19:24.5±0.8**, 0.61S**±0.04×**127.53E**±0.04**, h37**^{km}±7^{km}**,**

h33km±1.5km:pP-P,n282,σ1§10/278,mb5.2/80,MS4.3/42, 15C-5D,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	Ambon	3.12	168	P	Pn	01 20 12.1	+0.8
	2µm,0.6s						
PCI	Palu	7.69	268	P	Pn	01 21 11.9	-2.2
	334nm,0.6s						
BAKI	Biak	8.60	94	P	Pn	01 21 32.0	+5.4
	292nm,1.1s						
KAKA	Kakadu	12.97	158	*e*P	Pn	01 22 23.0	-3.4
	109nm,0.6s						
KAKA				*e*S	Sn	01 24 43.9	-5.6
KKM	Kota Kinabalu	13.09	301	*e*Pn	Pn	01 22 28.3	+0.3
TGY	Tagaytay City	16.01	336	Pn	Pn	01 23 10.8	+3.7
TGY	Tagaytay City	16.01	336	Pn	Pn	01 23 10.8	+3.7
	48nm,0.3s,baz=200,slow=14,SNR=3.1						
KRKI	Karangkates	16.78	243	P	Pn	01 23 16.2	-0.7
	379nm,0.7s						
KSM	Kuching	17.34	277	*e*Pn	Pn	01 23 21.9	-2.0
FITZ	Fitzroy Crossi	17.48	186	*e*P	Pn	01 23 26.1	+0.6
	45nm,0.6s						
FITZ				*e*S	S	01 26 40.4	-5.8
FITZ	Fitzroy Crossi	17.48	186	P	Pn	01 23 23.9	-1.6
	1.7nm,0.3s,baz=21,slow=9.9,SNR=28						
FITZ				LR	LR	01 31 06.8	
	comp=Z,872nm,18.9s,baz=10,slow=40						
BJII	Banjamegara	18.98	249	P	Pn	01 23 45.4	+1.6
	309nm,1.6s						
TPI	Tanjungpandan	19.98	264	P	Pn	01 23 53.7	-2.1
	150nm,1.0s						
WRA	Warramunga Arr	20.33	161	P	P	01 23 56.5	-1.2
WRA				S	S	01 27 39.1	-4.6
WRA	Warramunga Arr	20.33	161	P	P	01 23 56.5	-1.2
	24nm,0.8s,baz=338,slow=11,SNR=24						
WRA				S	S	01 27 39.1	-4.6
	14nm,1.1s,baz=342,slow=20,SNR=5.3						
WRA				LR	LR	01 32 46.3	
	comp=Z,2µm,18.3s,MS4.5,baz=335,slow=40						
WB2	Warramunga Arr	20.34	161	⇑*i*P	P	01 23 56.6	-1.1
WB2				*e*S	S	01 27 36.4	-7.4
COEN	Coen	20.39	131	⇑*i*P	P	01 23 59.5	+1.2
COEN				*e*S	S	01 27 40.0	-4.8
LEM	Lembang	20.79	252	P	P	01 24 04.0	+1.3
	130nm,1.3s						
PMG	Port Moresby	21.40	115	*e*P	P	01 24 13.4	+4.1
	84nm,1.1s,mb5.0						
PMG	Port Moresby	21.40	115	*e*P	P	01 24 13.4	+4.1
PMG				pmax	pmax		
	comp=Z,84nm,1.1s						
PMG	Port Moresby	21.40	115	P	P	01 24 09.0	-0.3
	comp=Z,9.1nm,0.7s,mb4.2,baz=307,slow=15,SNR=2.0						
CBJI	Citeko	21.42	254	P	P	01 24 11.5	+2.0
	comp=Z,725nm,1.1s,mb5.9						
SBJI	Serang	22.04	255	P	P	01 24 17.9	+1.8
	comp=Z,330nm,1.4s,mb5.6						
XMIS	Christmas Isla	23.85	245	*e*P	P	01 24 35.9	+1.3
NACB	Ninganchiao	25.30	347	*e*P	P	01 24 48.3	+0.6
YHNB	Yeheng	25.83	347	*e*P	P	01 24 51.9	-0.6
QIZ	Qiongzhong	26.13	319	*e*P	P	01 24 55.0	-0.2
QIZ				XP	sP	01 25 07.9	-2.3
QIZ				S	S	01 29 24.8	+0.3
QIZ				AMB	AMB		
	comp=Z,29nm,1.2s,mb4.7						
QIZ				AMB	AMB		
	comp=Z,624nm,4.9s						
QIZ				LR	LR		
	comp=E,467nm,23.9s						
QIZ				LR	LR		
	comp=Z,730nm,32.8s						
CTA	Charters Tower	26.66	138	*e*P	P	01 25 03.5	+3.5
	comp=Z,14nm,0.6s,mb4.7						
CTA				*e*S	S	01 29 40.0	+7.2
CTA	Charters Tower	26.66	138	*e*P	P	01 25 03.5	+3.5
CTA				*e*S	S	01 29 40.0	+7.2
CTA				pmax	pmax		
	comp=Z,15nm,0.6s						
CTA	Charters Tower	26.66	138	P	P	01 25 02.0	+2.0
	comp=Z,18nm,0.8s,mb4.7,baz=322,slow=11,SNR=11						
CTAO	Charters Tower	26.66	138	*e*P	P	01 25 01.1	+1.1
	comp=Z,96nm,1.4s,mb5.1						
CTAO	Charters Tower	26.66	138	*e*P	P	01 25 01.1	+1.1
CTAO				pmax	pmax		
	comp=Z,97nm,1.4s,mb5.1						
QZH	Quanzhou	26.84	342	⇑*i*P	P	01 25 05.1	+3.5
QZH				S	S	01 29 36.0	+0.4
QZH				AMB	AMB		
	comp=Z,1µm,5.6s						
QZH				LR	LR		
	comp=Z,2µm,29.1s,MS4.6						
PPI	Padang Panjang	27.13	270	P	P	01 25 05.0	+0.6
	comp=Z,126nm,1.4s,mb5.2						
JOW	Kunigami	27.30	1	P	P	01 25 05.5	-0.2
	comp=Z,55nm,0.9s,mb5.1,baz=202,slow=7.9,SNR=14						
JOW				LR	LR	01 34 34.6	
	comp=Z,569nm,20.7s,MS4.1,baz=273,slow=34						
GZH	Guangzhou	27.30	331	P	P	01 25 09.5	+3.7
GZH				S	S	01 29 47.6	+4.6
GZH				LR	LR		
	comp=N,486nm,21.8s,MS4.3						
GZH				LR	LR		
	comp=E,688nm,21.8s,MS4.3						
GZH				LR	LR		
	comp=Z,761nm,24.3s,MS4.2						
KULM	Kulim	27.47	283	*e*P	P	01 25 06.4	-1.1
PSI	Prapat	28.79	277	P	P	01 25 19.1	-0.2
	comp=Z,25nm,0.7s,mb5.1,baz=105,slow=8.9,SNR=25						
FORT	Forrest	30.00	179	*e*P	P	01 25 31.5	+1.8
	comp=Z,65nm,0.5s,mb5.6						
CBIJ	Chichi jima	30.95	26	LR	LR	01 37 26.6	
	comp=Z,236nm,20.3s,MS3.8,baz=268,slow=35						
SSE	Sheshan	32.10	350	P	P	01 25 49.1	+0.8
SSE				AP	pP	01 25 58.0	-0.8
SSE				XP	sP	01 26 01.9	-1.4
SSE				S	S	01 30 58.9	+0.7
SSE				XS	sS	01 31 14.6	-1.1
SSE				AMB	AMB		
	comp=Z,22nm,0.9s,mb5.0						
SSE				AMB	AMB		
	comp=Z,119nm,5.4s						
SSE				LR	LR		
	comp=N,256nm,17.7s,MS4.0						
SSE				LR	LR		
	comp=E,138nm,17.7s,MS4.0						
SSE				LR	LR		
	comp=Z,325nm,17.4s,MS4.1						
KLBR	Kellerberrin	32.17	196	*e*P	P	01 25 49.8	+1.0
	comp=Z,24nm,1.0s,mb5.0						
NANT	Nan	32.66	308	⇓P	P	01 25 53.0	-0.3
	comp=Z,129nm,1.0s,mb5.8						
MUN	Mundaring	32.98	198	*e*P	P	01 25 55.5	-0.4
NJ2	Nanjing	33.51	347	*e*P	P	01 26 01.7	+1.2
NJ2				AP	pP	01 26 11.5	+0.4
NJ2				XP	sP	01 26 15.4	-0.2
NJ2				PP	PP	01 27 13.9	-3.0
NJ2				S	S	01 31 20.0	0.0
NJ2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,230nm,5.2s						
NJ2				LR	LR		
	comp=N,220nm,23.6s,MS4.2						
NJ2				LR	LR		
	comp=E,580nm,24.6s,MS4.2						
NJ2				LR	LR		
	comp=Z,580nm,24.6s,MS4.2						
NWAO	Narrogin (SRO)	33.57	196	*e*P	P	01 25 59.5	-1.5
	comp=Z,17nm,1.0s,mb4.9						
NWAO	Narrogin (SRO)	33.57	196	*e*P	P	01 25 59.5	-1.6
NWAO				pmax	pmax		
	comp=Z,17nm,1.0s						
NWAO	Narrogin (SRO)	33.57	196	P	P	01 26 02.4	+1.4
	comp=Z,14nm,0.9s,mb4.9,baz=20,slow=9.1,SNR=7.1						
NWAO				LR	LR	01 40 43.2	
	comp=Z,474nm,20.1s,MS4.2,baz=20,slow=38						
GYA	Guiyang	33.60	325	⇑*i*P	P	01 26 01.9	+0.5
GYA				AP	pP	01 26 12.9	+0.9
GYA				XP	sP	01 26 16.5	0.0
GYA				PP	PP	01 27 17.5	-0.5
GYA				PPP		01 27 34.8	
GYA				S	S	01 31 23.9	+2.3
GYA				XS	sS	01 31 39.0	-0.1
GYA				SCS	ScS	01 36 25.0	+0.4
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
GYA				AMB	AMB		
	comp=Z,280nm,6.3s						
GYA				LR	LR		
	comp=N,630nm,18.0s,MS4.6						
GYA				LR	LR		
	comp=E,760nm,17.7s,MS4.6						
GYA				LR	LR		
	comp=Z,850nm,17.2s,MS4.5						
JNU	Nakatsue	33.70	5	LR	LR	01 38 13.4	
	comp=Z,489nm,19.5s,MS4.2,baz=337,slow=34						
STKA	Stephens Creek	33.82	158	*e*P	P	01 26 01.4	-1.8
	comp=Z,31nm,0.8s,mb5.3						
STKA				*e*PCP	PcP	01 28 46.5	+4.7
STKA	Stephens Creek	33.82	158	P	P	01 26 04.1	+0.9
	comp=Z,36nm,0.7s,mb5.4,baz=329,slow=7.9,SNR=54						
STKA				LR	LR	01 40 49.2	
	comp=Z,2µm,21.7s,MS4.7,baz=350,slow=38						
CHG	Chiang Mai	34.07	306	⇑P	P	01 26 05.4	-0.2
	comp=Z,13nm,0.8s,mb4.9						
CHTO	Chiang Mai	34.07	306	*e*P	P	01 26 04.7	-1.0
	comp=Z,52nm,1.8s,mb5.2						
CHTO	Chiang Mai	34.07	306	*e*P	P	01 26 04.7	-0.9
CHTO				pmax	pmax		
	comp=Z,52nm,1.8s,mb5.2						
CHTO	Chiang Mai	34.07	306	P	P	01 26 04.9	-0.7
	SNR=9.0						
CHTO	Chiang Mai	34.07	306	P	P	01 26 04.9	-0.7
	SNR=9.0						
CHTO	Chiang Mai	34.07	306	P	P	01 26 04.9	-0.7
	SNR=9.0						
CHTO	Chiang Mai	34.07	306	P	P	01 26 04.9	-0.7
	SNR=9.0						
KMI	Kunming	35.07	319	⇓P	P	01 26 15.9	+1.7
KMI				AP	pP	01 26 25.1	+0.3
KMI				XP	sP	01 26 29.2	-0.1
KMI				PP	PP	01 27 33.8	-0.4
KMI				PPP		01 27 54.7	
KMI				S	S	01 31 45.6	+1.3
KMI				XS	sS	01 32 01.8	-0.1
KMI				PCS	PcS	01 32 32.7	+0.2
KMI				SSS		01 34 30.9	
KMI				SCS	ScS	01 36 32.9	+0.4
KMI				AMB	AMB		
	comp=Z,19nm,1.0s,mb5.0						
KMI				LR	LR		
	comp=N,351nm,15.2s,MS4.4						
KMI				LR	LR		
	comp=E,341nm,16.1s,MS4.4						
KMI				LR	LR		
	comp=Z,570nm,18.0s,MS4.4						
JHJ	Hachijo jima 2	35.49	18	LR	LR	01 41 01.8	
	comp=Z,374nm,18.0s,MS4.2,baz=101,slow=37						
ARMA	Armidale	37.45	145	*e*P	P	01 26 36.3	+1.8
KSRS	Korea Array	37.88	1	P	P	01 26 38.0	0.0
	comp=Z,8.1nm,0.7s,mb4.6,baz=177,slow=9.6,SNR=26						
KSRS				LR	LR	01 40 48.1	
	comp=Z,324nm,19.6s,MS4.1,baz=183,slow=34						
TIA	Tai’an	37.90	346	*e*P	P	01 26 37.5	-0.6
MJAR	Matsushiro Arr	38.28	14	P	P	01 26 40.0	-1.3
	comp=Z,15nm,1.0s,mb4.7,baz=183,slow=9.0,SNR=12						
MJAR				LR	LR	01 40 25.2	
	comp=Z,483nm,21.1s,MS4.3,baz=195,slow=33						
MAT	Matsushiro	38.28	14	P	P	01 26 39.8	-1.5
CD2	Chengdu	38.64	326	⇓*i*P	P	01 26 44.5	+0.1
CD2				AP	pP	01 26 54.3	-0.8
CD2				XP	sP	01 26 58.3	-1.3
CD2				PP	PP	01 28 17.5	+4.1
CD2				PCP	PcP	01 28 56.0	-0.2
CD2				S	S	01 32 35.2	-3.4
CD2				SCS	ScS	01 36 49.5	-2.7
CD2				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.0						
CD2				AMB	AMB		
	comp=Z,400nm,4.7s						
CD2				LR	LR		
	comp=N,1µm,21.6s,MS4.8						
CD2				LR	LR		
	comp=E,890nm,21.6s,MS4.8						
CD2				LR	LR		
	comp=Z,470nm,25.2s,MS4.2						
CNB	Canberra Magne	40.07	152	*e*P	P	01 27 01.4	+5.0
	comp=Z,56nm,1.9s,mb5.0						
TOO	Toolangi	40.34	158	*e*P	P	01 27 02.6	+4.1
	comp=Z,12nm,0.9s,mb4.6						
TOO	Toolangi	40.34	158	*e*P	P	01 27 02.6	+4.1
TOO				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.7						
BJI	Beijing	41.77	347	P	P	01 27 09.8	-0.4
BJI				S	S	01 33 28.1	+3.0
BJI				AMB	AMB		
	comp=Z,19nm,0.6s,mb4.9						
BJI				LR	LR		
	comp=N,296nm,13.1s,MS4.5						
BJI				LR	LR		
	comp=E,356nm,14.0s,MS4.5						
BJI				LR	LR		
	comp=Z,392nm,33.4s						
SNY	Shenyang	42.40	356	⇓P	P	01 27 14.8	-0.5
SNY				AP	pP	01 27 24.3	-1.8
SNY				XP	sP	01 27 28.4	-2.2
SNY				PP	PP	01 28 56.2	+2.1
SNY				S	S	01 33 41.2	+6.9
SNY				XS	sS	01 33 53.7	+1.6
SNY				SS	SS	01 36 42.2	-2.2
SNY				AMB	AMB		
	comp=Z,16nm,0.6s,mb4.8						
SNY				AMB	AMB		
	comp=Z,117nm,3.5s						
SNY				LR	LR		
	comp=N,373nm,18.0s,MS4.5						
SNY				LR	LR		
	comp=E,527nm,21.6s,MS4.5						
SNY				LR	LR		
	comp=Z,383nm,22.8s,MS4.2						
LZH	Lanzhou	42.65	331	*e*P	P	01 27 18.5	+1.0
LZH				AP	pP	01 27 27.5	-0.8
LZH				XP	sP	01 27 31.0	-1.7
LZH				PP	PP	01 29 00.9	+4.0
LZH				*e*S	S	01 33 38.0	-0.2
LZH				AMB	AMB		
	comp=Z,76nm,1.0s,mb5.4						
LZH				AMB	AMB		
	comp=Z,320nm,4.3s						
LZH				LR	LR		
	comp=E,516nm,14.7s						
LZH				LR	LR		
	comp=Z,626nm,15.9s,MS4.6						
DZM	Mont Dzumac	43.48	122	P	P	01 27 26.8	+2.3
	comp=Z,7.4nm,0.7s,mb4.5,baz=157,slow=20,SNR=5.7						
HHC	Hu-ho-hao-te	43.75	342	*e*P	P	01 27 28.7	+2.4
HHC				AP	pP	01 27 38.6	+1.5
HHC				XP	sP	01 27 42.6	+1.1
HHC				PP	PP	01 29 13.5	+4.8
HHC				SCP	ScP	01 33 03.4	+1.8
HHC				PCS	PcS	01 33 06.2	+0.7
HHC				S	S	01 33 59.7	+5.5
HHC				XS	sS	01 34 15.2	+3.2
HHC				SS	SS	01 37 07.3	-3.6
HHC				SCS	ScS	01 37 22.7	0.0
HHC				AMB	AMB		
	comp=Z,13nm,0.7s,mb4.8						
HHC				AMB	AMB		
	comp=Z,175nm,3.6s						
HHC				LR	LR		
	comp=N,343nm,26.9s,MS4.2						
HHC				LR	LR		
	comp=E,211nm,23.8s,MS4.2						
HHC				LR	LR		
	comp=Z,608nm,27.8s,MS4.4						
CN2	Changchun	44.26	358	*e*P	P	01 27 33.2	+2.9
CN2				*e*AP	pP	01 27 43.1	+2.0
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,700nm,22.0s,MS4.6						
CN2				LR	LR		
	comp=E,500nm,22.0s,MS4.6						
MDJ	Mudanjiang	45.07	2	P	P	01 27 37.2	+0.4
MDJ				AP	pP	01 27 45.5	-2.1
MDJ				XP	sP	01 27 49.8	-2.3
MDJ				PP	PP	01 29 22.5	-0.2
MDJ				SCP	ScP	01 33 08.3	+1.3
MDJ				PCS	PcS	01 33 12.0	+1.3
MDJ				S	S	01 34 15.5	+2.2
MDJ				AMB	AMB		
	comp=Z,17nm,0.9s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,201nm,4.3s						
MDJ				LR	LR		
	comp=N,328nm,25.8s						
MDJ				LR	LR		
	comp=E,111nm,19.3s						
MDJ				LR	LR		
	comp=Z,401nm,30.0s,MS4.2						
LSA	Lhasa	45.95	314	P	P	01 27 45.8	+1.7
GTA	Gaotai	47.23	331	*e*P	P	01 27 54.4	+0.5
GTA				AP	pP	01 28 00.0	-4.8
GTA				XP	sP	01 28 02.6	-6.6
GTA				PP	PP	01 29 44.8	-0.4
GTA				PPP		01 30 32.3	
GTA				SCP	ScP	01 33 16.1	0.0
GTA				PCS	PcS	01 33 19.9	-0.1
GTA				S	S	01 34 44.1	-0.3
GTA				XS	sS	01 35 01.5	-0.9
GTA				SCS	ScS	01 37 44.1	-1.1
GTA				AMB	AMB		
	comp=Z,32nm,1.0s,mb5.2						
GTA				AMB	AMB		
	comp=Z,276nm,6.5s						
GTA				LR	LR		
	comp=N,301nm,14.1s,MS4.5						
GTA				LR	LR		
	comp=E,236nm,15.2s,MS4.5						
GTA				LR	LR		
	comp=Z,393nm,20.6s						
TAPN	Taplejung	47.29	309	*e*P	P	01 27 55.1	+0.5
	comp=Z,133nm,1.0s,mb5.8						
ODAN	Odare	47.30	308	*e*P	P	01 27 54.9	+0.2
	comp=Z,93nm,0.7s,mb5.8						
PALK	Pallekele	47.36	280	*e*P	P	01 27 55.0	-0.3
	comp=Z,19nm,1.2s,mb4.9						
JIRN	Jiri	48.62	309	*e*P	P	01 28 05.4	+0.5
GUN	Gumba	48.98	309	*e*P	P	01 28 08.1	+0.5
	comp=Z,252nm,1.0s,mb6.2						
PKI	Pulchoki	49.19	308	*e*P	P	01 28 09.4	+0.2
	comp=Z,23nm,0.4s,mb5.5						
HABR	Khabarovsk	49.33	7	*e*P	P	01 28 09.8	-0.1
HABR				*e*		01 29 59.8	
HABR				*e*S	S	01 35 14.6	+0.9
HABR				*e*		01 37 56.2	
HABR				*e*SS	SS	01 38 42.2	-3.7
KKN	Kakani	49.39	308	*e*P	P	01 28 11.0	+0.2
	comp=Z,114nm,1.0s,mb5.9						
DMN	Daman	49.45	308	*e*P	P	01 28 11.6	+0.4
	comp=Z,209nm,1.1s,mb6.1						
KLR	Kul’dur	49.78	4	*e*P	P	01 28 09.8	-3.5
GKN	Gorkha	49.99	308	*e*P	P	01 28 15.5	+0.1
	comp=Z,224nm,1.1s,mb6.1						
KOLN	Koldanda	50.71	307	*e*P	P	01 28 21.4	+0.6
	comp=Z,168nm,0.7s,mb6.1						
HYB	Hyderabad	51.43	293	⇑*e*P	P	01 28 26.0	-0.3
	comp=Z,115nm,1.0s,mb5.8						
HYB	Hyderabad	51.43	293	⇑*e*P	P	01 28 26.0	-0.3
HYB				pmax	pmax		
	comp=Z,115nm,1.0s,mb5.8						
HYB	Hyderabad	51.43	293	⇑*i*P	P	01 28 26.0	-0.3
	comp=Z,115nm,1.0s,mb5.8						
HYB				*e*S	S	01 35 44.0	0.0
ULN	Ulaanbaatar	51.47	342	⇑*e*P	P	01 28 25.3	-0.8
ULN	Ulaanbaatar	51.47	342	P	P	01 28 26.8	+0.7
	SNR=13						
SONM	Songino Array	51.64	342	P	P	01 28 27.4	0.0
SONM				LR	LR	01 51 04.7	
SONM	Songino Array	51.64	342	P	P	01 28 27.4	0.0
	comp=Z,5.3nm,0.6s,mb4.7,baz=160,slow=8.0,SNR=34						
SONM				LR	LR	01 51 04.7	
	comp=Z,172nm,19.1s,MS4.1,baz=168,slow=37						
CIT	Chita	53.75	349	*e*P	P	01 28 43.2	+0.3
CIT				*e*	pP	01 28 53.7	-0.3
CIT				pmax	pmax		
	comp=Z,48nm,1.7s,mb5.2						
ZAK	Zakamensk	54.86	341	*e*P	P	01 28 49.9	-1.1
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.3						
TLY	Talaya	55.88	342	*e*P	P	01 28 59.1	+0.8
TLY	Talaya	55.88	342	*e*P	P	01 28 58.8	+0.5
TLY				*e*S	S	01 36 53.3	+10
TLY				pmax	pmax		
	comp=Z,27nm,1.6s,mb5.0						
IRK	Irkutsk	56.19	343	*e*P	P	01 28 59.3	-1.2
IRK				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.2						
MOY	Mondy	56.71	341	*e*P	P	01 29 04.7	+0.4
MOY				pmax	pmax		
	comp=Z,37nm,1.5s,mb5.2						
WMQ	Urumqi	56.74	326	P	P	01 29 05.6	+1.0
WMQ				AP	pP	01 29 15.7	0.0
WMQ				XP	sP	01 29 19.6	-0.5
WMQ				PCP	PcP	01 30 01.6	+1.3
WMQ				PP	PP	01 31 13.1	+2.0
WMQ				S	S	01 36 54.1	-0.8
WMQ				SCS	ScS	01 38 48.6	-2.4
WMQ				AMB	AMB		
	comp=Z,71nm,1.0s,mb5.7						
WMQ				AMB	AMB		
	comp=Z,44nm,11.4s						
WMQ				LR	LR		
	comp=N,193nm,24.8s,MS4.5						
WMQ				LR	LR		
	comp=E,467nm,25.6s,MS4.5						
WMQ				LR	LR		
	comp=Z,231nm,22.3s,MS4.2						
BOD	Bodaibo	59.25	352	*e*P	P	01 29 20.9	-1.0
BOD				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.8						
PET	Petropavlovsk	59.43	21	*e*P	P	01 29 25.2	+1.9
PET				*e*S	S	01 37 37.2	+7.5
PET				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
PET				pmax	pmax		
	comp=Z,100nm,9.6s						
PET				smax			
	comp=N,100nm,21.7s						
PET				MLR	MLR		
	comp=Z,100nm,18.0s,MS4.0						
AFI	Afiamalu	61.46	105	LR	LR	01 51 48.5	
	comp=Z,899nm,20.7s,MS4.9,baz=235,slow=32						
MK31	Makanchi Array	61.57	326	⇑*i*P	P	01 29 37.6	-0.4
MKAR	Makanchi Array	61.57	326	P	P	01 29 37.7	-0.3
	comp=Z,15nm,0.7s,mb5.2,baz=119,slow=8.2,SNR=178						
MKAR				LR	LR	01 58 16.1	
	comp=Z,223nm,19.8s,MS4.3,baz=116,slow=38						
KSH	Kashi	61.69	317	*e*P	P	01 29 40.1	+1.1
KSH				*e*AP	pP	01 29 50.0	-0.2
KSH				*e*XP	sP	01 29 54.1	-0.5
KSH				*e*PCP	PcP	01 30 21.3	+1.2
KSH				*e*PP	PP	01 31 57.1	+1.9
KSH				*e*PPP		01 33 27.0	
KSH				*e*SCP	ScP	01 34 18.1	-1.1
KSH				*e*PCS	PcS	01 34 22.0	-1.1
KSH				*e*S	S	01 37 56.9	-2.3
KSH				*e*XS	sS	01 38 15.0	-2.7
KSH				*e*PS		01 38 18.2	
KSH				*e*SCS	ScS	01 39 25.2	-2.7
KSH				AMB	AMB		
	comp=Z,141nm,2.1s,mb5.7						
KSH				LR	LR		
	comp=N,398nm,4.9s						
KSH				LR	LR		
	comp=E,496nm,4.8s						
KSH				LR	LR		
	comp=Z,586nm,5.6s						
YAK	Yakutsk	62.50	1	*e*P	P	01 29 43.8	-0.1
YAK	Yakutsk	62.50	1	*e*P	P	01 29 44.4	+0.4
YAK				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.6						
YAK				pmax	pmax		
	comp=N,14nm,1.1s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.0s						
MA2	Magadan	62.71	13	*e*P	P	01 29 46.4	+1.0
	comp=E,17nm,0.8s,mb5.2						
MA2	Magadan	62.71	13	*e*P	P	01 29 46.5	+1.1
MA2				*e*S	S	01 38 10.6	-0.7
MA2				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
MA2				MLR	MLR		
	comp=Z,200nm,21.0s,MS4.3						

KZA	**Kyzart**	63.36	319	P	P	01 29 51.3	+1.2
	SNR=22						
TKM2	**Tokmak 2**	63.53	320	P	P	01 29 51.6	+0.4
	SNR=15						
TKM2	**Tokmak 2**	63.53	320	*e*P	P	01 29 51.3	+0.1
	comp=Z,26nm,0.9s,mb5.3						
TKM2	**Tokmak 2**	63.53	320	*e*P	P	01 29 51.3	+0.1
TKM2				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.3						
UCH	**Uchtor**	63.91	319	P	P	01 29 54.8	+1.1
	SNR=22						
UCH	**Uchtor**	63.91	319	*e*P	P	01 29 54.7	+0.9
	comp=Z,36nm,1.0s,mb5.3						
AAK	**Ala-Archa**	64.11	319	P	P	01 29 54.8	-0.2
	comp=Z,71nm,1.1s,mb5.6,SNR=12						
AAK	**Ala-Archa**	64.11	319	P	P	01 29 55.6	+0.5
	SNR=10.0						
AAK	**Ala-Archa**	64.11	319	*e*P	P	01 29 54.5	-0.6
AAK	**Ala-Archa**	64.11	319	⇑*e*P	P	01 29 54.4	-0.6
AAK				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
AAK	**Ala-Archa**	64.11	319	P	P	01 29 55.3	+0.3
	SNR=9.3						
AAK	**Ala-Archa**	64.11	319	P	P	01 29 55.3	+0.3
	SNR=9.3						
AAK	**Ala-Archa**	64.11	319	P	P	01 29 55.3	+0.3
	SNR=9.3						
AAK	**Ala-Archa**	64.11	319	P	P	01 29 55.3	+0.3
	SNR=9.3						
AAK	**Ala-Archa**	64.11	319	P	P	01 29 55.3	+0.3
	SNR=9.3						
AAK	**Ala-Archa**	64.11	319	P	P	01 29 55.3	+0.3
	SNR=9.3						
AAK	**Ala-Archa**	64.11	319	P	P	01 29 55.3	+0.3
	SNR=9.3						
FRU	**Bishkek**	64.12	319	*e*P	P	01 29 55.0	-0.1
FRU				*e*		01 30 02.0	
FRU				*e*		01 30 25.0	
USP	**Ospenovka**	64.40	320	P	P	01 29 56.9	0.0
	SNR=17						
AML	**Almayashu**	64.41	318	P	P	01 29 57.9	+0.8
	SNR=26						
AML	**Almayashu**	64.41	318	*e*P	P	01 29 57.8	+0.8
	comp=Z,40nm,0.9s,mb5.5						
EKS2	**Erkin-Say**	64.60	319	P	P	01 29 58.5	+0.3
	SNR=23						
EKS2	**Erkin-Say**	64.60	319	*e*P	P	01 29 58.4	+0.2
	comp=Z,14nm,0.8s,mb5.0						
ZALV	**Zalesovo Beam**	64.80	334	P	P	01 29 57.6	-1.7
	comp=Z,8.1nm,0.9s,mb4.8,baz=114,slow=5.5,SNR=34						
ZALV				LR	LR	01 59 19.6	
	comp=Z,90nm,20.3s,MS4.0,baz=135,slow=37						
ZAL	**Zalesovo**	64.80	334	P	P	01 29 57.6	-1.7
KBL	**Kabul**	64.82	309	*e*P	P	01 29 59.1	-0.7
KURK	**Kurchatov**	65.82	328	P	P	01 30 05.3	-0.6
	comp=Z,315nm,0.6s,SNR=23						
KURK	**Kurchatov**	65.82	328	*e*P	P	01 30 05.3	-0.6
KURK	**Kurchatov**	65.82	328	P	P	01 30 05.5	-0.4
	SNR=18						
KURK	**Kurchatov**	65.82	328	P	P	01 30 05.5	-0.4
	SNR=18						
KURK	**Kurchatov**	65.82	328	P	P	01 30 05.5	-0.4
	SNR=18						
KURK	**Kurchatov**	65.82	328	P	P	01 30 05.5	-0.4
	SNR=18						
KURK	**Kurchatov**	65.82	328	P	P	01 30 05.5	-0.4
	SNR=18						
KURK	**Kurchatov**	65.82	328	P	P	01 30 05.5	-0.4
	SNR=18						
KURK	**Kurchatov**	65.82	328	P	P	01 30 05.5	-0.4
	SNR=18						
SEY	**Seymchan**	66.07	12	⇑*e*P	P	01 30 07.1	-0.2
DRV	**Dumont d'Urvil**	66.50	175	PP	PP	01 32 38.0	+1.2
DRV				S	S	01 39 21.0	+23
DRV				SS	SS	01 43 20.0	+4.7
DRV				R		01 51 00.0	
CASY	**Casey**	66.63	187	*e*P	P	01 30 11.0	+0.1
WBK	**Wadi Bani Khal**	70.50	294	P	P	01 30 36.0	+0.1
	SNR=13						
WBK	**Wadi Bani Khal**	70.50	294	P	P	01 30 36.0	+0.1
	SNR=13						
WBK	**Wadi Bani Khal**	70.50	294	P	P	01 30 36.0	+0.1
	SNR=13						
WBK	**Wadi Bani Khal**	70.50	294	P	P	01 30 36.0	+0.1
	SNR=13						
WBK	**Wadi Bani Khal**	70.50	294	P	P	01 30 36.0	+0.1
	SNR=13						
WBK	**Wadi Bani Khal**	70.50	294	P	P	01 30 36.0	+0.1
	SNR=13						
JMDO	**Jabal Madar**	71.26	294	P	P	01 30 40.4	-0.1
	SNR=24						
JMDO	**Jabal Madar**	71.26	294	P	P	01 30 40.4	-0.1
	SNR=24						
JMDO	**Jabal Madar**	71.26	294	P	P	01 30 40.4	-0.1
	SNR=24						
JMDO	**Jabal Madar**	71.26	294	P	P	01 30 40.4	-0.1
	SNR=24						
JMDO	**Jabal Madar**	71.26	294	P	P	01 30 40.4	-0.1
	SNR=24						
JMDO	**Jabal Madar**	71.26	294	P	P	01 30 40.3	-0.2
	SNR=33						
SMDO	**Samad**	71.41	294	P	P	01 30 41.3	-0.2
	SNR=15						
SMDO	**Samad**	71.41	294	P	P	01 30 41.3	-0.2
	SNR=15						
SMDO	**Samad**	71.41	294	P	P	01 30 41.3	-0.2
	SNR=15						
SMDO	**Samad**	71.41	294	P	P	01 30 41.3	-0.2
	SNR=15						
SMDO	**Samad**	71.41	294	P	P	01 30 41.3	-0.2
	SNR=15						
SMDO	**Samad**	71.41	294	P	P	01 30 41.3	-0.2
	SNR=15						
BIDO	**Bidbid**	71.41	295	P	P	01 30 41.5	+0.1
	SNR=20						
BIDO	**Bidbid**	71.41	295	P	P	01 30 41.5	+0.1
	SNR=20						
BIDO	**Bidbid**	71.41	295	P	P	01 30 41.5	+0.1
	SNR=20						
BIDO	**Bidbid**	71.41	295	P	P	01 30 41.5	+0.1
	SNR=20						
BIDO	**Bidbid**	71.41	295	P	P	01 30 41.5	+0.1
	SNR=20						
BIDO	**Bidbid**	71.41	295	P	P	01 30 41.6	+0.2
	SNR=19						
BRVK	**Borovoye**	71.45	328	P	P	01 30 40.7	-0.3
	comp=Z,175nm,1.0s,mb5.9,SNR=10						
BRVK	**Borovoye**	71.45	328	*e*P	P	01 30 40.5	-0.6
	comp=Z,62nm,1.3s,mb5.4						
BRVK	**Borovoye**	71.45	328	*e*P	P	01 30 40.5	-0.5
BRVK				pmax	pmax		
	comp=Z,62nm,1.3s,mb5.4						
BRVK	**Borovoye**	71.45	328	P	P	01 30 40.4	-0.7
	SNR=12						
BRVK	**Borovoye**	71.45	328	P	P	01 30 40.4	-0.7
	SNR=12						
BRVK	**Borovoye**	71.45	328	P	P	01 30 40.4	-0.7
	SNR=12						
BSY	**Bisya**	72.14	294	P	P	01 30 45.5	-0.3
	SNR=32						
BSY	**Bisya**	72.14	294	P	P	01 30 45.5	-0.3
	SNR=32						
BSY	**Bisya**	72.14	294	P	P	01 30 45.5	-0.3
	SNR=32						
BSY	**Bisya**	72.14	294	P	P	01 30 45.5	-0.3
	SNR=32						
BSY	**Bisya**	72.14	294	P	P	01 30 45.5	-0.3
	SNR=32						
BSY	**Bisya**	72.14	294	P	P	01 30 45.7	-0.1
	SNR=68						
TIXI	**Tiksi**	72.15	0	*e*P	P	01 30 43.6	-1.3
TIXI	**Tiksi**	72.15	0	*e*P	P	01 30 42.7	-2.2
TIXI				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,111nm,15.0s,MS4.2						
HOQ	**Hoqain**	72.16	295	P	P	01 30 46.4	+0.4
	SNR=23						
HOQ	**Hoqain**	72.16	295	P	P	01 30 46.4	+0.4
	SNR=23						
HOQ	**Hoqain**	72.16	295	P	P	01 30 46.1	+0.2
	SNR=13						
HOQ	**Hoqain**	72.16	295	P	P	01 30 46.4	+0.4
	SNR=23						
HOQ	**Hoqain**	72.16	295	P	P	01 30 46.4	+0.4
	SNR=23						
HOQ	**Hoqain**	72.16	295	P	P	01 30 46.1	+0.2
	SNR=13						
ARQ	**Araqi**	72.84	295	P	P	01 30 50.2	+0.2
	SNR=22						
ARQ	**Araqi**	72.84	295	P	P	01 30 50.2	+0.2
	SNR=22						
ARQ	**Araqi**	72.84	295	P	P	01 30 50.0	0.0
	SNR=37						
ARQ	**Araqi**	72.84	295	P	P	01 30 50.0	0.0
	SNR=37						
ARQ	**Araqi**	72.84	295	P	P	01 30 50.2	+0.2
	SNR=22						
ARQ	**Araqi**	72.84	295	P	P	01 30 50.0	0.0
	SNR=37						
BANOM	**Banah**	73.43	297	P	P	01 30 53.6	+0.2
	SNR=13						
BANOM	**Banah**	73.43	297	P	P	01 30 53.6	+0.2
	SNR=13						
BANOM	**Banah**	73.43	297	P	P	01 30 53.6	+0.2
	SNR=13						
BANOM	**Banah**	73.43	297	P	P	01 30 53.6	+0.2
	SNR=13						
BANOM	**Banah**	73.43	297	P	P	01 30 53.6	+0.2
	SNR=13						
ASHO	**Ashiyiah**	73.46	296	P	P	01 30 53.8	+0.2
	SNR=20						
ASHO	**Ashiyiah**	73.46	296	P	P	01 30 53.8	+0.2
	SNR=20						
ASHO	**Ashiyiah**	73.46	296	P	P	01 30 53.6	0.0
	SNR=33						
ASHO	**Ashiyiah**	73.46	296	P	P	01 30 53.6	0.0
	SNR=33						
ASHO	**Ashiyiah**	73.46	296	P	P	01 30 53.8	+0.2
	SNR=20						
BILL	**Bilibino**	73.53	14	*e*P	P	01 30 51.5	-1.6
BILL				*e*		01 31 09.0	
BILL				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.3						
BILL				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.2						
RBK	**Rabkut**	74.30	288	P	P	01 30 58.1	-0.6
	SNR=7.6						
RBK	**Rabkut**	74.30	288	P	P	01 30 57.9	-0.7
	SNR=30						
RBK	**Rabkut**	74.30	288	P	P	01 30 58.1	-0.6
	SNR=7.6						
RBK	**Rabkut**	74.30	288	P	P	01 30 58.1	-0.6
	SNR=7.6						
WHFO	**Wadi Hawf**	74.75	289	P	P	01 31 00.2	-1.1
	SNR=14						
WHFO	**Wadi Hawf**	74.75	289	P	P	01 31 00.0	-1.2
	SNR=15						
ABTO	**Aybut**	75.14	288	P	P	01 31 03.0	-0.6
	SNR=14						
ABTO	**Aybut**	75.14	288	P	P	01 31 02.9	-0.7
	SNR=24						
ABTO	**Aybut**	75.14	288	P	P	01 31 03.0	-0.6
	SNR=14						
ABTO	**Aybut**	75.14	288	P	P	01 31 03.0	-0.6
	SNR=14						
SVE	**Sverdlovsk**	78.06	329	*e*P	P	01 31 19.0	-0.2
ARU	**Arti**	79.01	328	P	P	01 31 23.2	-1.3
	comp=Z,119nm,0.9s,mb5.8,SNR=5.0						
ARU	**Arti**	79.01	328	*e*P	P	01 31 22.8	-1.6
ARU	**Arti**	79.01	328	⇑*i*P	P	01 31 22.2	-2.3
ARU				*e*		01 34 20.1	
ARU				*e*S	S	01 41 17.4	-3.3
ARU				*e*SS	SS	01 46 21.5	-5.3
ARU				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.0						
VNDA	**Vanda**	79.05	173	*e*P	P	01 31 24.4	+0.1
	comp=Z,12nm,0.8s,mb4.9						
VNDA	**Vanda**	79.05	173	*e*P	P	01 31 24.4	+0.1
VNDA				pmax	pmax		
	comp=Z,12nm,0.8s						
VNDA	**Vanda**	79.05	173	P	P	01 31 24.9	+0.6
	comp=Z,12nm,0.8s,mb4.9,baz=314,slow=5.9,SNR=15						
VNDA				LR	LR	02 06 51.3	
	comp=Z,366nm,18.5s,MS4.8,baz=333,slow=36						
MAW	**Mawson**	79.99	201	LR	LR	02 02 58.4	
	comp=Z,212nm,20.8s,MS4.5,baz=177,slow=33						
OPO	**Ambohidratompo**	80.64	251	P	P	01 31 34.5	+0.4
	comp=Z,11nm,0.7s,mb4.9,baz=91,slow=5.8,SNR=9.6						
SOKR	**Solikamsk**	80.86	331	⇑*i*P	P	01 31 37.8	+3.4
SOKR				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.1						
PPT	**Papeete**	83.04	108	*e*SS	SS	01 47 30.3	+1.7
	comp=Z,131nm,27.0s						
PPT				*e*LR	LR	01 57 54.6	
	comp=Z,450nm,31.8s						
PPT	**Papeete**	83.04	108	LR	LR	02 06 15.7	
	comp=Z,189nm,20.4s,MS4.5,baz=180,slow=34						
SVW2	**Sparrevohn**	84.21	28	*e*P	P	01 31 52.9	+1.1
ATD	**Arta Tunnel**	84.91	282	P	P	01 31 57.2	+0.8
	comp=Z,9.7nm,0.7s,mb5.0,baz=264,slow=20,SNR=3.7						
KDAK	**Kodiak Island**	85.12	32	*e*P	P	01 31 55.8	-0.7
	comp=Z,6.8nm,0.6s,mb5.0						
ZEI	**Tsey**	85.73	313	*e*P	P	01 31 59.5	-0.4
ZEI				*e*		01 35 14.4	
ZEI				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.3						
IMA2	**Indian Mountai**	86.01	24	*e*P	P	01 31 59.9	-0.8
PRGR	**Permogore**	86.68	332	*i* P	P	01 32 03.4	-0.7
PRGR				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.2						
KIV	**Kislovodsk**	86.70	314	*e*P	P	01 32 02.2	-2.4
KIV				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.8						
SLKM	**Skilak Lake**	86.71	29	*e*P	P	01 32 03.9	-0.4
SML	**Sawmill**	87.76	28	*e*P	P	01 32 09.8	+0.4
SYO	**Syowa Base**	88.69	201	⇑*e*P	P	01 32 12.2	-1.4
SYO	**Syowa Base**	88.69	201	⇓*e*PcP	PcP	01 32 16.8	+1.6
QSPA	**South Pole Qui**	89.32	180	*e*P	P	01 32 15.2	-1.2
	comp=Z,20nm,0.6s,mb5.6						
KMBO	**Kilima Mbogo**	90.26	269	P	P	01 32 23.1	+0.9
	comp=Z,10nm,1.1s,mb5.1,baz=51,slow=5.8,SNR=16						
KMBO				LR	LR	02 09 38.1	
	comp=Z,103nm,22.0s,MS4.2,baz=277,slow=34						
ANN	**Anapa**	90.49	315	*e*P	P	01 32 27.3	+4.7
ANN				*e*		01 43 11.7	
ANN				pmax	pmax		
	comp=Z,48nm,1.4s,mb5.6						
ASF	**Jabal al Asfar**	90.86	302	LR	LR	02 16 54.7	
	comp=Z,57nm,21.7s,MS4.0,baz=320,slow=38						
OBN	**Obninsk**	91.05	325	⇑*e*P	P	01 32 22.0	-2.9
OBN				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
MMAI	**Mount Meron Ar**	92.11	303	LR	LR	02 20 33.2	
	comp=Z,73nm,18.8s,MS4.2,baz=275,slow=40						
EIL	**Elat**	92.54	300	LR	LR	02 16 10.1	
	comp=Z,124nm,18.1s,MS4.4,baz=285,slow=37						
JOF	**Joensuu**	93.38	333	*e*p	P	01 32 33.9	-1.6
BRTR	**Keskin Array B**	93.39	310	P	P	01 32 36.2	+0.1
	comp=Z,1.7nm,1.0s,mb4.4,baz=131,slow=3.4,SNR=3.8						
INK	**Inuvik**	93.89	22	*e*P	P	01 32 37.2	-0.6
ARCES	**ARCESS Array B**	94.77	340	P	P	01 32 39.6	-2.2
	comp=Z,2.0nm,0.7s,mb4.7,baz=66,slow=7.0,SNR=6.6						
ARCES				LR	LR	02 21 07.5	
	comp=Z,196nm,21.4s,MS4.5,baz=20,slow=39						
AKASG	**Malin Array Be**	95.74	321	P	P	01 32 45.6	-1.0
	comp=Z,0.4nm,0.4s,mb4.2,baz=66,slow=26,SNR=3.0						
AKASG				LR	LR	02 19 16.9	
	comp=Z,95nm,20.0s,MS4.3,baz=290,slow=38						
FINES	**FINESS Array B**	96.01	332	P	P	01 32 45.4	-2.2
FINES	**FINESS Array B**	96.01	332	P	P	01 32 45.4	-2.2
	comp=Z,2.1nm,0.9s,mb4.6,baz=108,slow=6.2,SNR=6.9						
RKT	**Rikitea**	96.66	113	*e*SS	SS	01 50 49.3	+3.5
	comp=Z,167nm,38.0s						
RKT				*e*LR	LR	02 04 13.3	
	comp=Z,175nm,30.5s						
MLR	**Muntele Rosu**	98.56	316	LR	LR	02 18 33.4	
	comp=Z,106nm,21.2s,MS4.3,baz=94,slow=36						
BOSA	**Boshof**	100.47	241	P	Pdif	01 33 08.8	+1.0
	comp=Z,1.4nm,0.7s,baz=76,slow=6.8,SNR=4.0						
UZH	**Uzhgorod**	100.50	319	*e*P	Pdif	01 33 08.0	+0.1
YKA	**Yellowknife Ar**	103.09	25	PKKPbc	PKKPbc	01 49 13.2	-4.7
	comp=Z,0.5nm,0.6s,baz=110,slow=2.9,SNR=8.6						
GERES	**GERESS Array B**	105.95	321	PKPdf	PKiKP	01 37 44.4	-0.1
GERES	**GERESS Array B**	105.95	321	PKiKP	PKiKP	01 37 44.4	-0.1
	comp=Z,0.2nm,0.4s,baz=42,slow=3.1,SNR=3.1						
KEST	**Kesra**	112.98	309	PP	PP	01 38 46.4	-0.6
	comp=Z,1.2nm,0.9s,baz=302,slow=4.8,SNR=5.5						
ESDC	**Sonseca Array**	121.20	317	PP	PP	01 39 45.8	+1.8
	comp=Z,1.6nm,1.1s,baz=39,slow=7.3,SNR=6.6						
TXAR	**Lajitas Array**	123.53	55	PKP	PKPdf	01 38 18.3	-0.3
TXAR				PKKPbc	PKKPbc	01 48 15.6	+8.0
TXAR	**Lajitas Array**	123.53	55	PKIKP	PKPdf	01 38 18.3	-0.3
TXAR	**Lajitas Array**	123.53	55	PKP	PKPdf	01 38 18.3	-0.3
	comp=Z,0.2nm,0.8s,baz=303,slow=5.3,SNR=2.6						
TXAR				PKKPbc	PKKPbc	01 48 15.6	+8.0
	comp=Z,0.3nm,0.7s,baz=126,slow=6.4,SNR=3.7						
SCHQ	**Schefferville**	124.69	10	PKP	PKPdf	01 38 19.9	-0.1
SCHQ	**Schefferville**	124.69	10	PKP	PKPdf	01 38 19.9	-0.1
	comp=Z,0.7nm,0.3s,baz=69,slow=17,SNR=6.5						
TOA0	**Torodi Ar. Sit**	124.93	286	*e*PKPdf	PKPdf	01 38 20.8	-0.8
TORD	**Torodi Ar. Bea**	124.93	286	PKP	PKPdf	01 38 21.3	-0.4
TORD				PP	PP	01 40 08.6	-1.8
TORD				PKKPbc		01 48 07.8	
TORD	**Torodi Ar. Bea**	124.93	286	PKP	PKPdf	01 38 21.3	-0.4
	comp=Z,4.2nm,0.7s,baz=69,slow=1.5,SNR=15						
TORD				PP	PP	01 40 08.6	-1.8
	comp=Z,2.0nm,1.0s,baz=74,slow=4.5,SNR=4.3						
TORD				PKKPbc		01 48 07.8	
	comp=Z,0.5nm,0.7s,baz=242,slow=3.0,SNR=4.2						
LCO	**Las Campanas**	145.77	151	*e*PKPdf	PKPdf	01 39 01.5	+1.6
LPAZ	**La Paz**	157.18	138	PKP	PKPdf	01 39 21.7	+4.3
LPAZ	**La Paz**	157.18	138	PKIKP	PKPdf	01 39 21.7	+4.3
LPAZ	**La Paz**	157.18	138	PKP	PKPdf	01 39 21.7	+4.3
	comp=Z,4.1nm,1.1s,baz=4.7,slow=5.2,SNR=8.5						

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*ISCJB **04** 01:27:39.5±3.0, 1.1N±0.1×1240E±02, h279^{km}±31^{km}, mb4.0/10, Error ellipse: s-maj=28.6km s-min=12.1km az=147.9*

*NEIC **04** 01:27:42.2±3.0, 1.11N×12393E, h291^{km}±32^{km}, mb4.4/5, Error ellipse: s-maj=19.7km s-min=11.1km az=54.0*

*IDC **04** 01:27:44.0±2.6, 103N×12389E, h310^{km}±26^{km}, mb3.7/8, mb1 3.8/9, mb1mx3.6/20, mbtmp3.7/9, Error ellipse: s-maj=28.5km s-min=9.6km az=63.0*

ISC 04 01:27:43.4±2.7**, 11N**±01×**1240E**±02**, h304**^{km}±28^{km}**, n21, σ0^{s}75**/20**, mb4.0**/10**, 1C-2D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
KAKA	**Kakadu**	16.07	149	*e*P	P	01 31 11.9	-0.2
	11nm,0.3s						
FITZ	**Fitzroy Crossi**	19.12	175	⇓*i*P	P	01 31 43.9	-1.0
	8.3nm,0.3s						
FITZ	**Fitzroy Crossi**	19.12	175	P	P	01 31 43.6	-1.3
	1.0nm,0.3s,baz=360,slow=11,SNR=17						
WRA	**Warramunga Arr**	23.23	155	P	P	01 32 24.8	+0.4
	15nm,0.4s,mb4.7,baz=337,slow=10.0,SNR=35						
WRA				S	S	01 36 12.5	-1.0
	3.4nm,0.8s,baz=334,slow=16,SNR=5.6						
WB2	**Warramunga Arr**	23.24	155	⇓*i*P	P	01 32 24.7	+0.3
PSI	**Prapat**	25.08	274	P	P	01 32 41.0	-0.2
	6.1nm,0.6s,mb4.2,baz=93,slow=17,SNR=6.6						
FORT	**Forrest**	31.91	173	*e*P	P	01 33 41.4	+0.2
	4.4nm,0.4s,mb4.3						
STKA	**Stephens Creek**	36.78	155	⇑*i*P	P	01 34 23.9	+1.1
	4.5nm,0.3s,mb4.4						
STKA	**Stephens Creek**	36.78	155	P	P	01 34 23.8	+1.0
	5.5nm,0.3s,mb4.4,baz=332,slow=7.7,SNR=20						
HYB	**Hyderabad**	47.49	293	*e*P	P	01 35 49.0	+0.1
HYB	**Hyderabad**	47.49	293	*i* P	P	01 35 49.0	+0.1
SONM	**Songino Array**	49.01	344	P	P	01 36 01.1	+1.2
	0.4nm,0.5s,mb3.0,baz=160,slow=8.4,SNR=3.5						
MKAR	**Makanchi Array**	58.22	327	P	P	01 37 05.8	-0.6
MKAR				PcP	PcP	01 37 53.9	-0.1
MKAR	**Makanchi Array**	58.22	327	P	P	01 37 05.8	-0.6
	2.1nm,0.4s,mb3.9,baz=123,slow=8.0,SNR=39						
MKAR				PcP	PcP	01 37 53.9	-0.1
	1.0nm,0.6s,baz=166,slow=3.1,SNR=8.1						
ZALV	**Zalesovo Beam**	61.75	335	P	P	01 37 28.4	-1.6
ZALV	**Zalesovo Beam**	61.75	335	P	P	01 37 28.4	-1.6
	0.7nm,0.3s,mb3.7,baz=137,slow=5.2,SNR=5.4						
OPO	**Ambohidratompo**	77.81	251	P	P	01 39 08.6	+0.5
	3.3nm,0.6s,mb4.2,baz=111,slow=4.6,SNR=4.6						
KMBO	**Kilima Mbogo**	86.73	269	P	P	01 39 54.8	+0.6
	1.1nm,0.6s,mb3.9,baz=46,slow=9.2,SNR=5.5						
EGAK	**Eagle**	91.13	25	*e*P	P	01 40 13.4	-0.2
	1.0nm,0.6s,mb3.8						
TORD	**Torodi Ar. Bea**	121.05	286	PKP	PKPdf	01 46 01.3	+0.2
TORD	**Torodi Ar. Bea**	121.05	286	PKP	PKPdf	01 46 01.3	+0.2
	0.8nm,0.7s,baz=104,slow=1.7,SNR=12						

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*MOS **04** 01:48:02.4±1.9, 5661N×116.18E, h10^{km}, mb4.2/1, Error ellipse: s-maj=24.6km s-min=21.8km az=45.1*

BYKL 04 01:48:03.7±0.2**, 5655N**×**11611E, h16**^{km}±3^{km}**, 2C-2D, East of Lake Baykal**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
NLYR	**Nelyaty**	0.23	255	*e*Pg	Pg	01 48 08.1	-0.8
NLYR				*e*Sg	Sg	01 48 11.8	-0.7
CRS	**Chara**	1.24	73	⇓*i*Pg	Pg	01 48 26.3	-1.3
CRS				*e*Sg	Sg	01 48 42.5	-1.3
CRS				Pmax			
	51nm,0.1s						
CRS				Smax			
	155nm,0.3s						
SVKR	**Severomuysk**	1.49	254	*e*PG	Pg	01 48 30.1	-2.1
SVKR				*e*		01 48 49.8	
SVKR				pmax	pmax		
	comp=Z,298nm,0.2s						
SVKR				smax			
	comp=E,760nm,0.4s						
SVKR	**Severomuysk**	1.49	254	*e*Pg	Pg	01 48 30.3	-1.9
SVKR				*e*Sg	Sg	01 48 50.2	-1.4
SVKR				Pmax			
	comp=E,332nm,0.3s						
SVKR				Smax			
	comp=E,781nm,0.2s						
BOD	**Bodaibo**	1.71	319	⇑*i*PN	Pn	01 48 32.7	-0.1
BOD				*e*		01 48 54.2	
BOD				pmax	pmax		
	comp=Z,315nm,0.3s						
BOD				smax			
	comp=N,557nm,0.2s						
BOD	**Bodaibo**	1.71	319	*e*Pn	Pn	01 48 33.2	+0.4
BOD				*e*Pg	Pg	01 48 33.9	-2.7
BOD				*e*Sg	Sg	01 48 55.8	-3.0
BOD				*e*Sb	Sb	01 48 57.2	+1.2
BOD				Pmax			
	comp=N,317nm,0.3s						
BOD				max			
	comp=N,557nm,0.3s						
UKT	**Uakit**	1.75	234	*e*PN	Pn	01 48 33.6	+0.2
UKT				*e*		01 48 57.6	
UKT				pmax	pmax		
	comp=Z,37nm,0.2s						
UKT				smax			
	comp=N,226nm,0.3s						
UKT	**Uakit**	1.75	234	⇓*i*Pn	Pn	01 48 33.8	+0.4
UKT				*e*Pg	Pg	01 48 35.4	-1.9
UKT				*e*Sg	Sg	01 48 58.1	-2.0
UKT				Pmax			
	comp=N,37nm,0.2s						
UKT				Smax			
	comp=N,226nm,0.3s						
KHNR	**Khani**	2.16	78	*e*Pg	Pg	01 48 42.8	-2.4
KHNR				*e*Sn	Sn	01 49 04.7	-0.8
KHNR				*e*Sg	Sg	01 49 10.6	-2.6
YOA	**Uoyan**	2.48	262	⇑*i*PN	Pn	01 48 49.3	+6.0
YOA				*e*		01 49 21.9	
YOA				pmax	pmax		
	comp=Z,62nm,0.3s						
YOA				smax			
	comp=E,573nm,0.4s						
YOA	**Uoyan**	2.48	262	*e*Sg	Sg	01 49 20.0	-3.2
YOA				Smax			
	comp=E,572nm,1.0s						
KMO	**Kumora**	2.82	258	*e*PN	Pn	01 48 48.1	+0.1
KMO				*e*		01 48 53.4	
KMO				*e*S	Sn	01 49 22.7	+1.0
KMO				*e*		01 49 30.5	
KMO				pmax	pmax		
	comp=Z,25nm,0.4s						
KMO				smax			
	comp=N,202nm,1.1s						
KMO	**Kumora**	2.82	258	*e*Pn	Pn	01 48 48.8	+0.8
KMO				*e*Pg	Pg	01 48 54.2	-3.5
KMO				*e*Sg	Sg	01 49 31.5	-2.8
KMO				Pmax			
	comp=N,25nm,0.4s						
KMO				Smax			
	comp=N,200nm,1.0s						
TUP	**Tupik**	3.05	133	*e*PN	Pn	01 48 51.4	+0.2
TUP				*e*		01 48 57.5	
TUP				*e*S	Sn	01 49 27.9	+0.5

TUP				e		01 49 37.3	
TUP				pmax	pmax		
	comp=Z,26nm,0.6s						
TUP				smax			
	comp=N,94nm,0.8s						
TUP	Tupik	3.05	133	ePn	Pn	01 48 51.6	+0.4
TUP				ePg	Pg	01 48 57.5	-4.6
TUP				eSg	Sg	01 49 37.9	-3.8
TUP				Pmax			
	comp=N,22nm,0.2s						
TUP				Smax			
	comp=N,94nm,0.3s						
NIZ	Nizh Angarsk	3.75	261	ePN	Pn	01 49 01.9	+1.0
NIZ				e		01 49 11.2	
NIZ				eS	Sn	01 49 44.0	-0.7
NIZ				e		01 50 00.9	
NIZ				pmax	pmax		
	comp=Z,10.0nm,0.5s						
NIZ				smax			
	comp=N,66nm,0.5s						
NIZ	Nizh Angarsk	3.75	261	ePn	Pn	01 49 02.2	+1.3
NIZ				e		01 49 13.0	
NIZ				eSg	Sg	01 49 59.6	-4.5
NIZ				Smax			
	comp=N,66nm,0.4s						
SYVR	Suvo	4.55	233	eSg	Sg	01 50 24.7	-5.0
SYVR				Smax			
	comp=N,47nm,0.4s						
CIT	Chita	4.78	199	eSg	Sg	01 50 30.6	-6.4
CIT				Smax			
	comp=N,80nm,0.6s						
MXMB	Maximikha	5.38	235	eSg	Sg	01 50 50.3	-5.8
MXMB				Smax			
	comp=N,110nm,0.6s						
OGRR	Ongureny	5.69	243	ePn	Pn	01 49 27.9	+0.5
OGRR				eSg	Sg	01 50 59.8	-6.3
OGRR				Smax			
	comp=N,14nm,0.4s						
TRTB	Turuntaevo	6.58	232	eSg	Sn	01 51 26.6	+32
TRTB				Smax			
	comp=N,32nm,1.1s						

IDC ***04*** *02:18:28.9±3.0, 47.10N×152.84E, h0^{km}, mb3.6/5, mb1 3.8/5, mb1mx3.5/21, mbtmp3.6/5, Error ellipse: s-maj=92.1km s-min=33.5km az=4.0*
MOS ***04*** *02:18:39.6±0.3, 46.87N×152.64E, h113^{km}, mb4.4/2, Error ellipse: s-maj=60.3km s-min=29.7km az=77.7*
ISCJB ***04*** *02:18:43.0±8.2, 47.2N±0.7×152.8E±0.3, h130^{km}±46^{km}, mb3.4/5, Error ellipse: s-maj=122.5km s-min=32.3km az=178.5*

ISC 04 02:18:42.4±8.2**, 47.0N**±0.7×**152.8E**±0.3**, h116**^{km}±46^{km}**, n9, σ0^{s}16**/8**, mb3.6**/5**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	4.32	30	ePN	Pn	02 19 46.0	0.0
MKAR	Makanchi Array	46.63	297	P	P	02 26 58.8	+0.1
	0.2nm,0.7s,mb3.0,baz=73,slow=6.9,SNR=3.1						
YKA	Yellowknife Ar	50.89	37	P	P	02 27 31.1	+0.2
	0.3nm,0.6s,mb3.5,baz=296,slow=7.1,SNR=4.3						
FINES	FINESS Array B	63.74	335	P	P	02 29 01.1	-0.1
FINES				pmax	pmax		
	comp=Z,6.0nm,1.3s						
FINES	FINESS Array B	63.74	335	P	P	02 29 01.1	-0.1
	comp=Z,6.4nm,1.3s,mb4.3,baz=47,slow=6.5,SNR=9.2						
AKASG	Malin Array Be	71.23	326	P	P	02 29 48.3	-0.2
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	71.23	326	P	P	02 29 48.3	-0.2
	comp=Z,0.9nm,0.4s,mb4.0,baz=34,slow=6.2,SNR=5.3						
TXAR	Lajitas Array	77.59	60	P	P	02 30 25.5	-0.1
	comp=Z,0.2nm,0.5s,mb3.1,baz=300,slow=4.9,SNR=5.7						
TORD	Torodi Ar. Bea	114.78	329	PKiKP	PKiKP	02 37 12.9	+3.4
	comp=Z,0.4nm,0.6s,baz=63,slow=3.1,SNR=6.4						

IDC ***04*** *02:20:34.7±2.8, 46.95N×155.55E, h0^{km}, mb3.6/10, mb1 3.9/10, mb1mx3.7/21, mbtmp3.6/10, MS3.7/1, Ms1 3.7/1, ms1mx2.6/29, Error ellipse: s-maj=91.6km s-min=21.8km az=4.0*
NEIC ***04*** *02:20:36.4±1.2, 46.96N×155.55E, h10^{km}, mb4.2/6, Error ellipse: s-maj=34.6km s-min=8.0km az=174.0*
ISCJB ***04*** *02:20:37.8±6.0, 47.2N±0.1×155.5E±0.1, h24^{km}±41^{km}, mb3.8/18, Error ellipse: s-maj=19.3km s-min=13.3km az=152.0*
MOS ***04*** *02:20:38.5±0.8, 47.20N×155.41E, h28^{km}, mb4.1/11, Error ellipse: s-maj=22.3km s-min=11.7km az=99.8*

ISC 04 02:20:39.3±6.0**, 47.2N**±0.1×**155.5E**±0.1**, h21**^{km}±41^{km}**, n36, σ0^{s}60**/36**, mb3.8**/18**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	3.51	7	ePN	Pn	02 21 32.5	-0.1
SKR				eS	Sn	02 22 13.2	-0.2
SKR				smax			
	comp=N,80nm,0.4s						
SKR				smax			
	comp=E,70nm,0.4s						
JHJ	Hachijo jima 2	18.44	226	LR	LR	02 30 53.1	
	comp=E,288nm,21.8s,baz=66,slow=34						
YAK	Yakutsk	20.85	325	eP	P	02 25 25.5	+6.1
YAK				pmax	pmax		
	comp=Z,4.0nm,0.8s						
BILL	Bilibino	21.61	11	eP	P	02 25 28.6	+1.1
BILL				e		02 25 47.1	
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.5						
TIXI	Tiksi	27.51	342	eP	P	02 26 22.4	-1.5
TIXI				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.4						
SONM	Songino Array	32.71	290	P	P	02 27 09.8	-0.2
	comp=Z,0.3nm,0.6s,mb3.4,baz=76,slow=8.7,SNR=2.6						
COLA	College	34.77	39	eP	P	02 27 27.8	0.0
	comp=Z,3.7nm,0.8s,mb4.4						
COLA	College	34.77	39	eP	P	02 27 27.8	0.0
COLA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
EGAK	Eagle	37.63	39	eP	P	02 27 51.5	-0.7
	comp=Z,2.2nm,0.7s,mb4.0						
INK	Inuvik	40.40	33	eP	P	02 28 16.3	+1.1
ZALV	Zalesovo Beam	43.66	306	P	P	02 28 41.7	-0.4
	comp=Z,0.7nm,0.7s,mb3.5,baz=84,slow=6.1,SNR=4.1						
ZAL	Zalesovo	43.68	306	P	P	02 28 41.7	-0.5
MK31	Makanchi Array	48.17	298	eP	P	02 29 18.4	+0.7
MKAR	Makanchi Array	48.17	298	P	P	02 29 17.9	+0.2
	comp=Z,0.2nm,0.7s,mb3.3,baz=78,slow=8.5,SNR=3.4						
KURK	Kurchatov	48.46	304	eP	P	02 29 19.8	-0.1
	comp=Z,2.0nm,0.7s,mb4.3						
KURK	Kurchatov	48.46	304	eP	P	02 29 19.8	-0.1
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
YKA	Yellowknife Ar	49.58	38	P	P	02 29 28.4	+0.1
YKA	Yellowknife Ar	49.58	38	P	P	02 29 28.4	+0.1
	comp=Z,0.3nm,0.5s,mb3.6,baz=295,slow=7.0,SNR=5.7						
BRVK	Borovoye	51.86	310	eP	P	02 29 46.0	+0.4
	comp=Z,1.4nm,0.6s,mb4.1						
BRVK	Borovoye	51.86	310	eP	P	02 29 46.0	+0.4
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
AAK	Ala-Archa	55.08	297	eP	P	02 30 09.1	-0.3
	comp=Z,0.6nm,0.4s,mb4.0						
AAK	Ala-Archa	55.08	297	eP	P	02 30 09.1	-0.3
AAK				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
ARU	Arti	55.77	318	eP	P	02 30 14.5	+0.4
	comp=Z,2.7nm,0.5s,mb4.5						
ARU	Arti	55.77	318	eP	P	02 30 13.7	-0.5
NVAR	Mina Array Bea	60.78	64	P	P	02 30 49.2	-0.3
NVAR	Mina Array Bea	60.78	64	P	P	02 30 49.2	-0.3
	comp=Z,0.4nm,0.7s,mb3.7,baz=277,slow=10,SNR=4.8						
FINES	FINESS Array B	64.31	336	P	P	02 31 13.1	+0.4
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	64.31	336	P	P	02 31 13.1	+0.5
	comp=Z,0.8nm,0.6s,mb3.9,baz=38,slow=8.9,SNR=4.7						
AKASG	Malin Array Be	72.06	327	P	P	02 32 01.1	-0.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	72.06	327	P	P	02 32 01.1	-0.4
	comp=Z,0.5nm,0.5s,mb3.8,baz=33,slow=6.0,SNR=3.1						
TXAR	Lajitas Array	75.85	62	P	P	02 32 23.3	-0.7
TXAR	Lajitas Array	75.85	62	P	P	02 32 23.3	-0.7
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	75.85	62	P	P	02 32 23.3	-0.7
	comp=Z,1.0nm,0.6s,mb3.9,baz=307,slow=4.4,SNR=18						
GERES	GERESS Array B	78.74	335	P	P	02 32 40.3	+0.5
	comp=Z,0.2nm,0.5s,mb3.3,baz=29,slow=4.5,SNR=3.4						
BRTR	Keskin Array B	79.16	318	P	P	02 32 43.2	+0.9
BRTR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
BRTR	Keskin Array B	79.16	318	P	P	02 32 43.2	+0.9
	comp=Z,1.1nm,0.9s,mb3.8,baz=54,slow=6.3,SNR=4.7						

KRSC 04 02:54:37.7±0.8**, 52.05N**×**158.77E, h44**^{km}±23^{km}**, ML3.5, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUS	Russkaya	0.41	338	i P	Pn	02 54 47.9	+0.4
RUS				i S	Sn	02 54 55.7	+1.2
GRL	Gorelyy	0.66	320	i P	Pn	02 54 51.5	+0.8
GRL				eS	Sn	02 55 02.3	+2.3
PET	Petropavlovsk	0.98	356	i P	Pn	02 54 55.2	+0.2
PET				i S	Sn	02 55 08.5	+0.9
NLC	Nalytchevo	1.18	17	i P	Pn	02 54 56.6	-1.1
NLC				i S	Sn	02 55 11.0	-1.5
AVH	Avacha	1.22	359	i P	Pn	02 54 58.9	+0.7
AVH				i S	Sn	02 55 14.3	+0.8
MIPR	Malaya Ipel'ka	1.26	281	eP	Pn	02 54 59.2	+0.4
MIPR				eS	Sn	02 55 14.3	-0.2
SPN	Mys Shipunski	1.30	36	i P	Pn	02 54 59.9	+0.6
SPN				i S	Sn	02 55 16.2	+0.7
GNL	Ganaly	1.72	343	eP	Pn	02 55 06.1	+1.0
GNL				i S	Sn	02 55 27.0	+1.1
ALID	Alaid	2.34	241	eP	Pn	02 55 13.1	-0.4
ALID				eS	Sn	02 55 39.4	-1.6
MKZ	Mys Kozlova	3.08	34	P	Pn	02 55 25.7	+2.0
MKZ				i S	Sn	02 56 01.5	+2.3
TUMR	Tumrok	3.34	14	P	Pn	02 55 30.1	+2.8
KMNR	Kamenistaya	3.81	13	P	Pn	02 55 37.1	+3.3
KBTR	Krutoberegovo	4.80	28	P	Pn	02 55 49.1	+1.8

IDC ***04*** *03:33:15.3±0.7, 35.21N×36.03W, h0^{km}, mb4.1/19, mb1 4.3/19, mb1mx4.3/23, mbtmp4.1/19, MS4.8/24, Ms1 4.8/24, ms1mx4.6/31, Error ellipse: s-maj=21.8km s-min=13.4km az=178.0*
SZGRF ***04*** *03:33:17.7, 35.45N×37.11W, h33^{km}, mb5.0, MS5.2, Northern Mid-Atlantic Ridge*
ISCJB ***04*** *03:33:17.1±0.2, 35.37N±0.06×36.13W±0.02, h10^{km}, mb4.6/159, MS4.8/186, Error ellipse: s-maj=8.3km s-min=2.0km az=178.2*
MOS ***04*** *03:33:17.3±1.2, 35.37N×35.97W, h10^{km}, mb5.0/61, MS4.8/45, Error ellipse: s-maj=8.3km s-min=4.2km az=138.8*
IGIL ***04*** *03:33:19.0, 35.24N×35.97W, h10^{km}, MS5.0*
PDA ***04*** *03:33:19.3, 35.34N×35.94W, h10^{km}, mb4.8*
GCMT ***04*** *03:33:19.4±0.1, 35.34N×36.06W, h15^{km}, MW5.6/97, Moment Tensor Solution. s81,c143; s97,c257; Duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.37±.03; $M_{\theta\theta}$1.31±.03; $M_{\phi\phi}$-0.94±.03; $M_{r\theta}$-0.09±.11; $M_{\theta\phi}$2.55±.04; $M_{\phi r}$-0.41±.10; Best double couple: $M_0$2.82000×10^{17} NP1:ϕ_s282.00000°, δ81.00000°, λ-2.00000°. NP2:ϕ_s12.00000°, δ88.00000°, λ-171.00000°. Principal axes: T 2.9980, Plg5.0000°, Azm147.0000°; N -0.3560, Plg81.0000°, Azm23.0000°; P -2.6420, Plg7.0000°, Azm237.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
NEIC ***04*** *03:33:19.4±0.4, 35.34N×35.94W, h10^{km}, mb4.8/97, MS4.8/155, MW5.6 Error ellipse: s-maj=11.9km s-min=3.3km az=177.0, Moment Tensor Solution. s10 Moment tensor: Scale 10^{17}Nm; M_{rr}0.03; $M_{\theta\theta}$0.11; $M_{\phi\phi}$-0.14; $M_{r\theta}$0.06; $M_{\theta\phi}$2.81; $M_{\phi r}$0.80; Best double couple: $M_0$2.90000×10^{17} NP1:ϕ_s91.00000°, δ74.00000°, λ1.00000°. NP2:ϕ_s1.00000°, δ89.00000°, λ164.00000°. Principal axes: T 2.9200, Plg12.0000°, Azm315.0000°; N 0.0000, Plg74.0000°, Azm178.0000°; P -2.9200, Plg11.0000°, Azm47.0000°;*
BJI ***04*** *03:33:20.0, 35.28N×35.93W, h27^{km}, mB5.7, mb5.3, Ms5.5, Msz5.2*
CSEM ***04*** *03:33:20.7±0.1, 35.85N×36.00W, h20^{km}, mb4.8/99, Ms4.7, Mw5.6, Error ellipse: s-maj=7.0km s-min=1.5km az=177.0*

ISC 04 03:33:19.2±0.2**, 35.38N**±0.06×**36.10W**±0.02**, h10**^{km}**, (h15**^{km}±1.2^{km}**:pP-P), n771, σ1^{s}12**/711**, mb4.6**/159**, MS4.8**/186**, 94C-75D, Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FAC	Faja de Cima	8.74	71	eP	Pn	03 35 28.3	+2.7
CML	Cha da Macela	8.82	71	eP	Pn	03 35 27.1	+0.4
PRCH	Ribeira Ch	8.86	72	eP	Pn	03 35 28.5	+1.3
	109nm,1.0s						
LFA	Lagoa do Fogo	8.87	71	eP	Pn	03 35 28.8	+1.5
PMAT	Coroa da Mata	8.88	71	eP	Pn	03 35 28.7	+1.1
	200nm,1.0s						
VIF	Vila Franca	8.89	72	eP	Pn	03 35 29.7	+2.0
	153nm,1.1s						
FRA1	Furnas	8.96	72	eP	Pn	03 35 28.4	-0.2
PFAD	Fenais da Ajud	9.01	71	eP	Pn	03 35 28.7	-0.5
MIRA	Miradouro	9.03	71	eP	Pn	03 35 28.7	-0.8
PSMN	Pico do Norte,	9.06	77	eP	Pn	03 35 26.1	-4.0
PMAR	Madeira	16.12	94	e-	Sn	03 40 20.6	+16
PMPS	Porto Santo	16.51	92	eP	Pn	03 37 14.3	+3.4
PMPS				e-		03 40 23.9	
CFTV	Fuerteventura	19.92	104	P	Pn	03 37 57.2	+4.5
	50nm,1.3s						
CFTV	Fuerteventura	19.92	104	P	Pn	03 37 57.2	+4.5
	50nm,1.3s						
PMAFR	Mafra	21.64	73	eP	P	03 38 10.7	+1.1
	49nm,1.6s,mb4.7						
PMAFR				eS	S	03 42 11.9	+2.8
LIS	Lisbon	21.74	73	eP	P	03 38 09.0	-1.6
LIS				eS	S	03 42 09.8	-1.2
LIS				eS	S	03 42 10.3	-0.8
LIS				AMS	AMS	03 43 52.0	
	comp=N,6µm,21.9s						
LIS	Lisbon	21.74	73	eP	P	03 38 09.0	-1.6
LIS				eS	S	03 42 09.8	-1.2
PFVI	Vila Bisbo	22.04	77	eP	P	03 38 14.0	+0.1
	comp=N,60nm,1.7s,mb4.8						
PFVI				eS	S	03 42 20.9	+4.0
PTEO	Sao Teotonio	22.10	76	eP	P	03 38 14.0	-0.5
	comp=N,52nm,1.4s,mb4.8						
MORF	Marmelete	22.17	77	eP	P	03 38 15.8	+0.5
	comp=N,44nm,1.6s,mb4.6						
MORF				eS	S	03 42 21.1	+1.7
EMAZ	Mazaricos	22.28	62	P	P	03 38 15.6	-0.8
	comp=N,3.2nm,0.6s,mb3.9						
EMAZ	Mazaricos	22.28	62	P	P	03 38 15.6	-0.8
	comp=N,3.2nm,0.6s,mb3.9						
PTO	Porto	22.29	67	eP	P	03 38 16.8	+0.2
	comp=N,28nm,1.6s,mb4.5						
STS	Santiago	22.58	62	P	P	03 38 18.2	-1.4
STS	Santiago	22.58	62	P	P	03 38 18.2	-1.4
PBDV	Barranco-do-Ve	22.74	77	eP	P	03 38 24.0	+2.6
	comp=N,35nm,1.0s,mb4.7						
PBDV				eS	S	03 42 33.4	+3.0
PBEJ	Beja	22.75	75	eP	P	03 38 22.9	+1.4
	comp=N,22nm,1.8s,mb4.3						
ELOB	Lobios	22.78	65	P	P	03 38 20.9	-0.9
	comp=N,1.6nm,0.8s,mb3.5						
ELOB	Lobios	22.78	65	P	P	03 38 20.9	-0.8
	comp=N,1.6nm,0.8s,mb3.5						
PCAB	Cabril	22.79	65	eP	P	03 38 22.4	+0.6
	comp=N,26nm,1.9s,mb4.3						
PVIS	Viseu	22.79	68	eP	P	03 38 24.7	+2.9
	comp=N,46nm,1.4s,mb4.7						
PVAQ	Vaqueiros	22.90	77	eS	S	03 42 35.7	+2.7
PESTR	Estremoz	22.96	73	eP	P	03 38 24.9	+1.3
	comp=N,20nm,1.7s,mb4.3						
PESTR				eS	S	03 42 30.2	-3.6
PVRL	Vila Real	22.97	67	eP	P	03 38 23.3	-0.5
	comp=N,58nm,2.0s,mb4.7						
MTE	Manteigas	23.03	69	eP	P	03 38 24.7	+0.3
	comp=N,36nm,1.2s,mb4.7						
MTE				eS	S	03 42 33.4	-1.7
MTE	Manteigas	23.03	69	eP	P	03 38 24.7	+0.3
	comp=N,60nm,1.6s,mb4.8						
PCBR	Castelo Branco	23.06	70	eP	P	03 38 24.0	-0.7
	comp=N,24nm,2.4s,mb4.2						
EGRO	El Granado	23.08	76	P	P	03 38 25.0	0.0
	comp=N,11nm,1.5s,mb4.1						
EGRO	El Granado	23.08	76	P	P	03 38 25.0	0.0
	comp=N,11nm,1.5s,mb4.1						
EBAD	Badajoz	23.41	73	P	P	03 38 27.3	-1.1
	comp=N,2.8nm,0.5s,mb4.0						
EBAD	Badajoz	23.41	73	P	P	03 38 27.3	-1.1
	comp=N,2.8nm,0.5s,mb4.0						
MVO	Moncorvo	23.48	67	eP	P	03 38 28.4	-0.7
	comp=N,54nm,1.6s,mb4.7						
MVO				eS	S	03 42 42.8	+0.5
ERUA	La Rua	23.53	64	P	P	03 38 28.4	-1.2
	comp=N,6.4nm,0.6s,mb4.2						
ERUA	La Rua	23.53	64	P	P	03 38 28.4	-1.2
ERUA				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.2						
ERUA	La Rua	23.53	64	P	P	03 38 28.4	-1.2
	comp=Z,6.4nm,0.6s,mb4.2						
EMIN	Mina Concepcio	23.71	76	P	P	03 38 32.4	+1.1
	comp=Z,1.4nm,0.6s,mb3.6						
EMIN	Mina Concepcio	23.71	76	P	P	03 38 32.4	+1.1
	comp=Z,1.4nm,0.6s,mb3.6						
PBRG	Braganca	23.75	65	eP	P	03 38 31.8	+0.1
	comp=Z,27nm,1.4s,mb4.5						
ECAL	Calabor	23.77	65	P	P	03 38 31.8	0.0
	comp=Z,2.4nm,0.5s,mb3.9						
ECAL	Calabor	23.77	65	P	P	03 38 31.8	-0.1
	comp=Z,2.4nm,0.5s,mb3.9						
ESPR	Espera	24.43	78	P	P	03 38 39.7	+1.8
	comp=Z,12nm,1.2s,mb4.2						
ESPR	Espera	24.43	78	P	P	03 38 39.7	+1.8
	comp=Z,12nm,1.2s,mb4.2						
EJIF	Jimena Fronter	24.78	79	P	P	03 38 43.5	+2.4
	comp=Z,5.6nm,0.6s,mb4.3						
EJIF	Jimena Fronter	24.78	79	P	P	03 38 43.5	+2.4
EJIF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.3						
EJIF	Jimena Fronter	24.78	79	P	P	03 38 43.5	+2.4
	comp=Z,5.6nm,0.6s,mb4.3						
TZC	Tazercounte	24.78	89	i P	P	03 38 42.0	+0.8
KIB	El Ksiba	25.04	88	i P	P	03 38 44.5	+1.0
EARI	Arriondas	25.06	62	P	P	03 38 45.8	+2.2
	comp=Z,2.2nm,0.8s,mb3.7						
EARI	Arriondas	25.06	62	P	P	03 38 45.8	+2.2
	comp=Z,2.2nm,0.8s,mb3.7						
EMIJ	Mijas	25.33	78	P	P	03 38 48.9	+2.8
	comp=Z,11nm,1.1s,mb4.3						
EMIJ	Mijas	25.33	78	P	P	03 38 48.9	+2.8
	comp=Z,11nm,1.1s,mb4.3						
EADA	Adamuz	25.34	74	P	P	03 38 47.3	+1.1
	comp=Z,1.2nm,0.6s,mb3.6						
EADA	Adamuz	25.34	74	P	P	03 38 47.3	+1.1
	comp=Z,1.2nm,0.6s,mb3.6						
PAB	San Pablo	25.47	71	eP	P	03 38 48.1	+0.7
	comp=Z,25nm,1.3s,mb4.6						
PAB				LR	LR		
	comp=Z,3µm,19.0s,MS4.8						
PAB	San Pablo	25.47	71	eP	P	03 38 48.1	+0.7
PAB				pmax	pmax		
	comp=Z,25nm,1.3s,mb4.6						
PAB				MLR	MLR		
	comp=Z,3µm,19.0s,MS4.8						
GUD	Guadarrama	25.63	69	P	P	03 38 49.9	+1.2
	comp=Z,2.3nm,0.8s,mb3.8						
GUD	Guadarrama	25.63	69	P	P	03 38 49.9	+1.1
GUD				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
GUD	Guadarrama	25.63	69	P	P	03 38 49.9	+1.1
	comp=Z,2.3nm,0.8s,mb3.8						
ELOJ	Sierra Loja	25.76	77	P	P	03 38 50.9	+0.9
	comp=Z,0.7nm,0.5s,mb3.5						
ELOJ	Sierra Loja	25.76	77	P	P	03 38 50.9	+0.9
ELOJ				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.6						
ELOJ	Sierra Loja	25.76	77	P	P	03 38 50.9	+0.9
	comp=Z,1.0nm,0.5s,mb3.6						
ESDC	Sonseca Array	25.77	71	P	P	03 38 49.4	-0.6
	comp=Z,5.5nm,0.9s,mb4.1						
ESDC	Sonseca Array	25.77	71	P	P	03 38 48.7	-1.4
	comp=Z,8.2nm,1.1s,mb4.2,baz=269,slow=8.5,SNR=21						
ESDC				LR	LR	03 46 44.6	
	comp=Z,3µm,18.0s,MS4.8,baz=275,slow=31						
ESDC	Sonseca Array	25.77	71	P	P	03 38 49.4	-0.6
	comp=Z,5.5nm,0.9s,mb4.1						
ESLA	Sonseca Array	25.77	71	eP	P	03 38 50.5	+0.5
	comp=Z,14nm,1.5s,mb4.3						
ESLA				LR	LR		
	comp=Z,15µm,20.0s,MS5.5						
ESLA	Sonseca Array	25.77	71	eP	P	03 38 50.5	+0.5
	comp=Z,14nm,1.5s,mb4.3						
MDT	Midelt	26.14	87	P	P	03 38 51.0	-2.6
	comp=Z,4.8nm,1.1s,mb3.9,baz=260,slow=7.8,SNR=5.4						
MDT				LR	LR	03 47 15.8	
	comp=Z,3µm,18.7s,MS4.8,baz=292,slow=32						
EVIA	Vianos	26.94	73	P	P	03 39 03.5	+2.8
	comp=Z,5.8nm,0.7s,mb4.2						
EVIA	Vianos	26.94	73	P	P	03 39 03.5	+2.8
EVIA				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.2						
EVIA	Vianos	26.94	73	P	P	03 39 03.5	+2.8
	comp=Z,5.8nm,0.7s,mb4.2						
PKME	Peaks-Kenny Pk	27.00	302	PFAKE		03 39 10.0	+8.9
PKME				LR	LR		
	comp=Z,2µm,22.0s,MS4.6						
QUIF	Quistinic	27.39	53	eP	P	03 39 03.7	-0.9
ROSF	Rostrenen	27.44	52	eP	P	03 39 04.0	-1.0
SJPF	Ste Jean	27.94	63	eP	P	03 39 08.1	-1.4
WES	Weston	28.15	295	PFAKE		03 39 20.0	+8.5
WES				LR	LR		
	comp=Z,874nm,22.0s,MS4.3						
HRV	Harvard--Oak R	28.33	295	PFAKE		03 39 30.0	+17
HRV				LR	LR		
	comp=Z,989nm,20.0s,MS4.4						
ETSF	Etsaut	28.41	64	eP	P	03 39 12.2	-1.6
ETSF				pmax	pmax		
	comp=Z,33nm,1.6s,mb4.7						
ETSF	Etsaut	28.41	64	eP	P	03 39 12.2	-1.6
	comp=Z,65nm,1.6s,mb4.7						
ETSF	Etsaut	28.41	64	eP	P	03 39 12.2	-1.6
	comp=Z,33nm,1.6s,mb4.7						
LBNH	Lisbon	28.72	299	PFAKE		03 39 30.0	+13
LBNH				LR	LR		
	comp=Z,848nm,19.0s,MS4.4						
SCHQ	Schefferville	28.77	322	P	P	03 39 17.8	+0.9
	comp=Z,3.6nm,0.8s,mb4.1,baz=118,slow=13,SNR=4.0						
SCHQ				LR	LR	03 50 48.5	
	comp=Z,1µm,18.0s,MS4.5,baz=130,slow=36						
EBIE	Bielsa	28.91	64	P	P	03 39 25.7	+7.4
	comp=Z,7.1nm,1.1s,mb4.3						
EBIE	Bielsa	28.91	64	P	P	03 39 25.7	+7.4
	comp=Z,7.1nm,1.1s,mb4.3						
GRR	Gorron	29.01	52	eP	P	03 39 18.5	-0.5
GRR				pmax	pmax		
	comp=Z,56nm,1.4s,mb5.1						
GRR	Gorron	29.01	52	eP	P	03 39 18.5	-0.5
	comp=Z,112nm,1.4s,mb5.1						
GRR	Gorron	29.01	52	eP	P	03 39 18.5	-0.5
	comp=Z,56nm,1.4s,mb5.1						
EPF	Esparros	29.08	64	eP	P	03 39 18.5	-1.2
EPF				pmax	pmax		
	comp=Z,30nm,1.4s,mb4.8						
EPF	Esparros	29.08	64	eP	P	03 39 18.5	-1.2
	comp=Z,59nm,1.4s,mb4.8						
EPF	Esparros	29.08	64	eP	P	03 39 18.5	-1.2
	comp=Z,30nm,1.4s,mb4.8						
MFF	Saint Martin d	29.12	56	eP	P	03 39 19.2	-0.9
MFF				pmax	pmax		
	comp=Z,64nm,1.5s,mb5.1						
MFF	Saint Martin d	29.12	56	eP	P	03 39 19.2	-0.9
	comp=Z,127nm,1.5s,mb5.1						
MFF	Saint Martin d	29.12	56	eP	P	03 39 19.2	-0.9
	comp=Z,64nm,1.5s,mb5.1						
FLN	La Foliniere	29.34	52	eP	P	03 39 21.2	-0.8
FLN				LR	LR		
	comp=Z,5µm,21.3s,MS5.1						
FLN	La Foliniere	29.34	52	eP	P	03 39 21.2	-0.8
FLN				eMLR	MLR		
	comp=Z,5µm,21.2s,MS4.8						
LFF	La Frestale	29.51	60	eP	P	03 39 21.7	-1.8
LDF	La Druitiere	29.53	52	eP	P	03 39 22.7	-1.0
RJF	Les Rejaudoux	30.09	59	eP	P	03 39 27.4	-1.3
RJF				LR	LR		
	comp=Z,3µm,21.8s,MS5.0						
RJF	Les Rejaudoux	30.09	59	eP	P	03 39 27.4	-1.3
RJF				eMLR	MLR		

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      comp=Z,3µm,21.8s,MS4.7
ESK   Eskdalemuir     30.10  38   PFAKE          03 39 40.0 +11
ESK                               LR     LR
      comp=Z,5µm,19.0s,MS5.2
NCB   Newcomb         30.35 298   PFAKE          03 39 40.0 +9.0
NCB                               LR     LR
      comp=Z,906nm,22.0s,MS4.4
CAF   Calviac         30.45  60  eP      P       03 39 30.7 -1.1
CAF                               pmax   pmax
      comp=Z,52nm,1.9s,mb4.9
CAF   Calviac         30.45  60  eP      P       03 39 30.7 -1.1
      comp=Z,104nm,1.9s,mb4.9
CAF   Calviac         30.45  60  eP      P       03 39 30.7 -1.1
      comp=Z,52nm,1.9s,mb4.9
MTLF  Montolieu       30.46  63  eP      P       03 39 30.8 -1.2
MTLF                              pmax   pmax
      comp=Z,19nm,1.3s,mb4.7
MTLF  Montolieu       30.46  63  eP      P       03 39 30.8 -1.2
      comp=Z,38nm,1.3s,mb4.7
MTLF  Montolieu       30.46  63  eP      P       03 39 30.8 -1.2
      comp=Z,19nm,1.3s,mb4.7
BBGH  Gun Hill        30.63 230   PFAKE          03 39 50.0 +16
BBGH                              LR     LR
      comp=Z,3µm,19.0s,MS5.0
LONY  Lake Ozonia     30.65 299   PFAKE          03 39 50.0 +16
LONY                              LR     LR
      comp=Z,865nm,19.0s,MS4.4
TCF   Toulx Ste Croi  30.69  57  eP      P       03 39 33.2 -0.7
TCF                               pmax   pmax
      comp=Z,26nm,1.0s,mb5.0
TCF   Toulx Ste Croi  30.69  57  eP      P       03 39 33.2 -0.7
      comp=Z,52nm,1.0s,mb5.0
TCF   Toulx Ste Croi  30.69  57  eP      P       03 39 33.2 -0.7
      comp=Z,26nm,1.0s,mb5.0
BGF   Bois d'Agland   31.16  57  eP      P       03 39 37.3 -0.8
BGF                               pmax   pmax
      comp=Z,8.0nm,0.8s,mb4.6
BGF   Bois d'Agland   31.16  57  eP      P       03 39 37.3 -0.8
      comp=Z,16nm,0.8s,mb4.6
BGF   Bois d'Agland   31.16  57  eP      P       03 39 37.3 -0.8
      comp=Z,8.2nm,0.8s,mb4.6
AVF   Avril sur Loir  31.53  57  eP      P       03 39 40.0 -1.4
AVF                               pmax   pmax
      comp=Z,19nm,1.5s,mb4.7
AVF   Avril sur Loir  31.53  57  eP      P       03 39 40.0 -1.4
      comp=Z,39nm,1.5s,mb4.7
AVF   Avril sur Loir  31.53  57  eP      P       03 39 40.0 -1.4
      comp=Z,19nm,1.5s,mb4.7
BINY  Binghamton      31.61 295   PFAKE          03 40 00.0 +18
BINY                              LR     LR
      comp=Z,1µm,19.0s,MS4.5
SSF   Saint Saulge    31.67  56  eP      P       03 39 41.9 -0.7
SSF                               pmax   pmax
      comp=Z,9.0nm,1.3s,mb4.4
SSF   Saint Saulge    31.67  56  eP      P       03 39 41.9 -0.7
      comp=Z,18nm,1.3s,mb4.4
SSF   Saint Saulge    31.67  56  eP      P       03 39 41.9 -0.7
      comp=Z,9.0nm,1.3s,mb4.4
LASF  Ste Croix       31.68  62  eP      P       03 39 41.2 -1.5
      comp=Z,46nm,1.3s,mb4.9
LASF  Ste Croix       31.68  62  eP      P       03 39 41.2 -1.5
      comp=Z,23nm,1.3s,mb4.9
SJG   San Juan        31.70 245   PFAKE          03 40 00.0 +17
SJG                               LR     LR
      comp=Z,586nm,20.0s,MS4.3
SMF   Signal de Mont  31.85  57  eP      P       03 39 43.2 -0.9
SMF                               pmax   pmax
      comp=Z,25nm,1.3s,mb4.9
SMF   Signal de Mont  31.85  57  eP      P       03 39 43.2 -0.9
      comp=Z,49nm,1.3s,mb4.9
SMF   Signal de Mont  31.85  57  eP      P       03 39 43.2 -0.9
      comp=Z,25nm,1.3s,mb4.9
LOR   Lormes          31.93  56  eP      P       03 39 44.0 -0.9
      comp=Z,9.8nm,1.3s,mb4.5
LOR                               LR     LR
      comp=Z,2µm,21.8s,MS4.8
LOR   Lormes          31.93  56  eP      P       03 39 44.0 -0.9
LOR                               pmax   pmax
      comp=Z,10.0nm,1.3s,mb4.5
LOR                               MLR    MLR
      comp=Z,2µm,21.8s,MS4.8
LOR   Lormes          31.93  56  eP      P       03 39 44.0 -0.9
      comp=Z,20nm,1.3s,mb4.5
LOR                              eMLR    MLR
      comp=Z,2µm,21.8s,MS4.5
VIVF  Saint-Julien-l  32.29  60  eP      P       03 39 47.1 -1.0
VIVF                              pmax   pmax
      comp=Z,15nm,1.3s,mb4.7
VIVF  Saint-Julien-l  32.29  60  eP      P       03 39 47.1 -1.0
      comp=Z,29nm,1.3s,mb4.6
VIVF  Saint-Julien-l  32.29  60  eP      P       03 39 47.1 -1.0
      comp=Z,15nm,1.3s,mb4.6
BAIF  Baives          32.61  51  eP      P       03 39 50.1 -0.7
BAIF                              pmax   pmax
      comp=Z,17nm,1.3s,mb4.8
BAIF  Baives          32.61  51  eP      P       03 39 50.1 -0.7
      comp=Z,33nm,1.3s,mb4.8
BAIF  Baives          32.61  51  eP      P       03 39 50.1 -0.7
      comp=Z,17nm,1.3s,mb4.8
SFJD  Kangerlussuaq   32.76 350   PFAKE          03 40 00.0 +8.1
SFJD                              LR     LR
      comp=Z,5µm,19.0s,MS5.2
SFJD  Kangerlussuaq   32.76 350  eP      P       03 40 01.1 +9.2
SFJD                             i S     S       03 45 06.6 -1.7
SFJD                              MLR    MLR
      comp=Z,4µm,18.0s,MS5.2
SFJD  Kangerlussuaq   32.76 350   LR     LR      03 50 26.7
      comp=Z,5µm,18.4s,MS5.2,baz=148,slow=31
SFJD  Kangerlussuaq   32.76 350  i P     P       03 40 01.1 +9.2
SFJD                             i S     S       03 45 06.6 -1.7
SFJD
      comp=Z,4µm,18.0s
SFJD  Kangerlussuaq   32.76 350   P      P       03 40 00.0 +8.1
MEZF  Maizieres J'vi  32.89  54  eP      P       03 39 52.5 -0.8
      comp=Z,76nm,1.4s,mb5.2
MEZF  Maizieres J'vi  32.89  54  eP      P       03 39 52.5 -0.8
      comp=Z,38nm,1.4s,mb5.2
SMRF  Simiane la Rot  32.91  62  eP      P       03 39 52.2 -1.3
CBN   Corbin          32.98 287   PFAKE          03 40 10.0 +16
CBN                               LR     LR
      comp=Z,915nm,19.0s,MS4.5
SSPA  Standing Stone  33.11 292   PFAKE          03 40 10.0 +15
SSPA                              LR     LR
      comp=Z,794nm,20.0s,MS4.4
ORIF  Oris-en-Rattie  33.15  60  eP      P       03 39 54.5 -1.1
ORIF                             eMLR    MLR
      comp=Z,3µm,23.0s,MS4.7
CABF  La Chapelle     33.39  57  eP      P       03 39 56.4 -1.2
CABF                              pmax   pmax
      comp=Z,29nm,1.4s,mb5.0
CABF  La Chapelle     33.39  57  eP      P       03 39 56.4 -1.2
      comp=Z,57nm,1.4s,mb5.0
CABF  La Chapelle     33.39  57  eP      P       03 39 56.4 -1.2
      comp=Z,29nm,1.4s,mb5.0
LMR   La Mourre       33.59  63  eP      P       03 39 57.9 -1.5
FRF   La Foret Royal  33.69  63  eP      P       03 39 58.9 -1.4
FRF                               pmax   pmax
      comp=Z,15nm,1.2s,mb4.8
FRF   La Foret Royal  33.69  63  eP      P       03 39 58.9 -1.4
      comp=Z,31nm,1.2s,mb4.8
FRF   La Foret Royal  33.69  63  eP      P       03 39 58.9 -1.4
      comp=Z,15nm,1.2s,mb4.8
HAU   Haudompre       33.69  55  eP      P       03 39 59.3 -1.0
HAU                               LR     LR
      comp=Z,3µm,22.5s,MS4.9
HAU   Haudompre       33.69  55  eP      P       03 39 59.3 -1.0
HAU                              eMLR    MLR
      comp=Z,3µm,22.5s,MS4.6
BNI   Bardonecchia    33.72  60  eP      P       03 40 02.0 +1.4
BNI                               pmax   pmax
      comp=Z,16nm,1.2s,mb4.8
BNI   Bardonecchia    33.72  60  eP      P       03 40 02.0 +1.4
      comp=Z,16nm,1.2s,mb4.8
LPL   La Plagne       33.77  59  eP      P       03 40 00.1 -0.9
LPL                               pmax   pmax
      comp=Z,9.0nm,1.2s,mb4.6
LPL   La Plagne       33.77  59  eP      P       03 40 00.1 -0.9
      comp=Z,17nm,1.2s,mb4.6
LPL   La Plagne       33.77  59  eP      P       03 40 00.1 -0.9
      comp=Z,8.6nm,1.2s,mb4.6
WLF   Walferdange     33.78  52  eP      P       03 39 60.0 -1.0
      comp=Z,31nm,1.4s,mb5.0
WLF   Walferdange     33.78  52  eP      P       03 40 00.0 -1.0
WLF                               pmax   pmax
      comp=Z,31nm,1.4s,mb5.0
WLF   Walferdange     33.78  52  eP      P       03 39 59.4 -1.6
      comp=Z,65nm,1.7s,mb5.3
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WLF                              eS      S       03 45 28.0 +3.5
WLF   Walferdange     33.78  52  eP      P       03 40 00.0 -1.0
      comp=Z,31nm,1.4s,mb5.0
MBDF  Montbardon      33.78  61  eP      P       03 39 59.8 -1.3
MBDF                              pmax   pmax
      comp=Z,6.0nm,0.9s,mb4.5
MBDF  Montbardon      33.78  61  eP      P       03 39 59.8 -1.3
      comp=Z,12nm,0.9s,mb4.5
MBDF  Montbardon      33.78  61  eP      P       03 39 59.8 -1.3
      comp=Z,5.8nm,0.9s,mb4.5
LPG   La Plagne       33.79  59  eP      P       03 40 00.2 -0.9
CNNC  Cliffs of the   33.92 282   PFAKE          03 40 20.0 +18
CNNC                              LR     LR
      comp=Z,1µm,22.0s,MS4.6
HINF  Hinteralfeld    34.01  55  eP      P       03 40 02.1 -0.9
SBF   Sospel          34.26  62  eP      P       03 40 03.5 -1.7
CDF   Champ du Feu    34.35  54  eP      P       03 40 05.1 -0.9
CDF                               pmax   pmax
      comp=Z,22nm,1.4s,mb4.9
CDF   Champ du Feu    34.35  54  eP      P       03 40 05.1 -0.9
      comp=Z,43nm,1.4s,mb4.9
CDF   Champ du Feu    34.35  54  eP      P       03 40 05.1 -0.9
      comp=Z,22nm,1.4s,mb4.9
WTSB  Winterswijk     34.59  48  eP      P       03 40 07.5 -0.6
      comp=Z,18nm,2.2s,mb4.6
MCWV  Mont Chateau    34.70 290  eP      P       03 40 11.1 +2.0
MCWV                              LR     LR
      comp=Z,930nm,19.0s,MS4.5
MCWV  Mont Chateau    34.70 290  eP      P       03 40 11.1 +2.0
BUG   Bochum--Univer  34.78  49  eP      P       03 40 10.9 +1.3
BFO   Black Forest    35.04  54  eP      P       03 40 13.4 +1.4
BFO                              eS      S       03 45 48.8 +4.7
BFO                               LR     LR
      comp=Z,2µm,21.0s,MS4.8
BFO   Black Forest    35.04  54  eP      P       03 40 13.4 +1.4
      comp=Z,2µm,21.0s
BFO                              eS      S       03 45 48.8 +4.7
SDDR  Presa de Saban  35.08 252   PFAKE          03 40 30.0 +17
SDDR                              LR     LR
      comp=Z,902nm,20.0s,MS4.5
IBBN  Ibbenburen      35.24  48  eP      P       03 40 13.1 -0.5
TNS   Taunus Mts      35.33  51  eS      S       03 45 54.0 +5.6
TNS                              eL              03 51 24.9
      comp=Z,4µm,18.8s
PGF   Pioggiola       35.45  64  eP      P       03 40 13.9 -1.6
BLA   Blacksburg      35.53 286   PFAKE          03 40 30.0 +14
BLA                               LR     LR
      comp=Z,543nm,19.0s,MS4.3
STU   Stuttgart       35.65  54  eS      S       03 45 57.0 +3.6
DAVA  Damuels         36.02  56⇑iP      P       03 40 21.7 +1.3
      comp=Z,11nm,1.2s,mb4.7
DAVA  Damuels         36.02  56⇑iP      P       03 40 21.7 +1.3
      comp=Z,11nm,1.2s,mb4.7
DAVA  Damuels         36.02  56⇑ipP     pP      03 40 21.7 -1.8
      comp=Z,11nm,1.2s
NHSC  New Hope        36.29 279   PFAKE          03 40 40.0 +17
NHSC                              LR     LR
      comp=Z,715nm,21.0s,MS4.4
NRDL  Niedersach Rie  36.69  48  eP      P       03 40 28.8 +2.8
KEST  Kesra           36.72  76   P      P       03 40 25.2 -1.3
      comp=Z,0.5nm,0.7s,mb3.5,baz=86,slow=21,SNR=2.2
KEST                              LR     LR      03 54 03.7
      comp=Z,485nm,18.8s,MS4.3,baz=241,slow=34
CLZ   Clausthal       36.75  49  eP      P       03 40 29.4 +2.8
CLZ                               pmax   pmax
      comp=Z,65nm,1.8s,mb5.2
CLZ                               MLR    MLR
      comp=Z,4µm,18.2s,MS5.3
CLZ   Clausthal       36.75  49  eP      P       03 40 29.4 +2.8
      comp=Z,65nm,1.8s,mb5.2
CLZ                              eL              03 52 32.3
      comp=Z,4µm,18.2s
FUR   Furstenfeldbru  37.00  55  eS      S       03 46 17.0 +3.0
ACSO  Alum Creek Sta  37.02 292  eP      P       03 40 31.0 +2.0
ACSO                              LR     LR
      comp=Z,447nm,19.0s,MS4.3
ACSO  Alum Creek Sta  37.02 292  eP      P       03 40 31.0 +2.0
GRFO  Grafenberg      37.05  52  eP      P       03 40 29.6 +0.5
      comp=Z,9.8nm,1.1s,mb4.5
GRFO                              LR     LR
      comp=Z,2µm,22.0s,MS4.9
GRFO  Grafenberg      37.05  52  eP      P       03 40 29.7 +0.6
GRFO                              pmax   pmax
      comp=Z,10.0nm,1.1s,mb4.6
GRFO                              MLR    MLR
      comp=Z,2µm,22.0s,MS4.9
GRFO  Grafenberg      37.05  52  eP      P       03 40 29.6 +0.5
      comp=Z,9.8nm,1.1s,mb4.5
GRA1  Grafenberg Arr  37.05  52  eP      P       03 40 30.0 +0.8
      comp=Z,75nm,1.9s,mb5.2
GRA1                              LR     LR
      comp=Z,2µm,18.5s,MS5.0
GRF   Grafenberg Arr  37.05  52  eP      P       03 40 30.0 +0.8
GRF                               pmax   pmax
      comp=Z,75nm,1.9s,mb5.2
GRF                               MLR    MLR
      comp=Z,2µm,18.5s,MS5.0
GRF   Grafenberg Arr  37.05  52  eP      P       03 40 30.0 +0.8
      comp=Z,75nm,1.9s,mb5.2
GRF                              eL              03 52 10.3
      comp=Z,2µm,18.5s
BSEG  Bad Segeberg    37.06  45  eP      P       03 40 28.8 -0.4
      comp=Z,162nm,2.0s,mb5.5
BSEG                             eS      S       03 46 17.0 +2.2
BSEG                             eL              03 54 04.5
      comp=Z,3µm,19.9s
BSEG  Bad Segeberg    37.06  45  eP      P       03 40 28.8 -0.4
BSEG                             eS      S       03 46 17.0 +2.2
AAM   Ann Arbor       37.29 295   PFAKE          03 40 40.0 +8.8
AAM                               LR     LR
      comp=Z,860nm,19.0s,MS4.6
MOX   Moxa            37.39  51  eP      P       03 40 33.9 +1.9
      comp=Z,23nm,1.6s,mb4.8
MOX                              ePP     PP      03 42 03.0 +5.9
MOX                              eS      S       03 46 25.0 +5.1
MOX                               LR     LR
      comp=Z,2µm,22.0s,MS5.0
MOX   Moxa            37.39  51  eP      P       03 40 33.9 +1.9
MOX                              e               03 42 03.0
MOX                              eS      S       03 46 25.0 +5.1
MOX                               pmax   pmax
      comp=Z,23nm,1.6s,mb4.8
MOX                               MLR    MLR
      comp=Z,2µm,22.0s,MS5.0
MOX   Moxa            37.39  51  eP      P       03 40 34.7 +2.7
      comp=Z,27nm,1.6s,mb4.8
MOX                              eS      S       03 46 27.0 +7.1
MOX                              eL              03 52 35.9
      comp=Z,4µm,20.5s
MOX   Moxa            37.39  51  ePP     PP      03 42 03.0 +5.9
NKC   Novy Kostel     37.88  52  eP      P       03 40 36.9 +0.7
NKC                              eS      S       03 46 37.3  +10
NKC                               AMS    AMS     03 52 50.0
      comp=Z,3µm,21.0s
NKC   Novy Kostel     37.88  52  eP      P       03 40 36.9 +0.7
NKC                              eS      S       03 46 37.3  +10
TANN  Tannenbergstha  37.91  51  eP      P       03 40 37.2 +0.8
TANN                             eS      S       03 46 34.0 +6.3
WET   Wettzell        38.10  53  eP      P       03 40 39.1 +1.1
TZTN  Tazewell        38.12 286   PFAKE          03 40 50.0 +12
TZTN                              LR     LR
      comp=Z,991nm,22.0s,MS4.6
KONO  Kongsberg       38.15  36   PFAKE          03 40 50.0 +12
KONO                              LR     LR
      comp=Z,1µm,22.0s,MS4.7
CLL   Collm           38.32  50  eP      P       03 40 39.0 -0.9
      comp=Z,13nm,1.6s,mb4.4
CLL                              e       pP      03 40 43.0 +0.1
CLL                              eS      S       03 46 35.0 +1.0
CLL                               LR     LR
      comp=Z,3µm,24.6s,MS5.1
CLL   Collm           38.32  50  eP      P       03 40 39.1 -0.8
      comp=Z,12nm,1.3s,mb4.5
CLL                              eL              03 53 28.3
      comp=Z,3µm,18.4s
CLL   Collm           38.32  50  eP      P       03 40 39.0 -0.9
      comp=Z,13nm,1.6s,mb4.4
CLL                              ex      x       03 40 43.0
CLL                              ex      x       03 40 51.0
CLL                              eS      S       03 46 35.0 +1.0
CLL                              eSS     SS      03 49 33.0  +11
LGHD  Ghdames         38.44  85  i P     P       03 40 41.1  0.0
      comp=Z,41nm,1.5s,mb4.9,SNR=26
KHC   Kasperske Hory  38.56  53  eP      P       03 40 41.2 -0.7
KHC                              eS      S       03 46 42.1 +4.4
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KHC                               AMS    AMS     03 52 00.0
      comp=Z,2µm,25.0s
KHC   Kasperske Hory  38.56  53  eP      P       03 40 41.2 -0.7
      comp=Z,2µm,25.0s
KHC                              eS      S       03 46 42.1 +4.4
GEC2  GERESS Array S  38.63  54  eP      P       03 40 45.5 +3.0
GEC2                             eS      S       03 46 42.7 +3.9
GERES GERESS Array B  38.63  54   P      P       03 40 40.0 -2.5
      comp=Z,0.5nm,0.7s,mb3.4,baz=257,slow=7.9,SNR=2.5
GERES                             LR     LR      03 53 54.3
      comp=Z,1µm,18.0s,MS4.8,baz=265,slow=32
AQU   L'Aquila        38.71  64  eP      P       03 40 40.7 -2.6
      comp=Z,23nm,1.0s,mb4.9
AQU   L'Aquila        38.71  64  eP      P       03 40 40.7 -2.6
AQU                               pmax   pmax
      comp=Z,23nm,1.0s,mb4.9
AQU   L'Aquila        38.71  64  eP      P       03 40 40.7 -2.6
      comp=Z,23nm,1.0s,mb4.9
GOGA  Godfrey         38.84 281   PFAKE          03 41 00.0 +16
GOGA                              LR     LR
      comp=Z,817nm,19.0s,MS4.6
BRG   Berggiesshubel  38.88  51  eP      P       03 40 45.3 +0.7
      comp=Z,4.1nm,1.4s,mb4.0
BRG                              e               03 40 51.5
BRG                               S      S       03 46 46.0 +3.6
BRG                               SS     SS      03 49 39.0 +5.5
BRG                               LR     LR
      comp=Z,2µm,18.6s,MS5.0
BRG   Berggiesshubel  38.88  51  eP      P       03 40 45.3 +0.8
BRG                              e               03 40 51.5
BRG                               S      S       03 46 46.0 +3.6
BRG                               pmax   pmax
      comp=Z,4.0nm,1.4s,mb4.0
BRG                               MLR    MLR
      comp=Z,2µm,18.6s,MS5.0
BRG   Berggiesshubel  38.88  51  eP      P       03 40 44.6 +0.1
BRG                              eS      S       03 46 43.0 +0.6
BRG                              eL              03 53 32.0
      comp=Z,3µm,18.6s
BRG   Berggiesshubel  38.88  51  eP      P       03 40 45.3 +0.7
      comp=Z,6.8nm,1.4s,mb4.2
BRG                              e               03 40 51.5
      comp=Z,25nm,1.7s
BRG                               S      S       03 46 46.0 +3.6
BRG                               SS     SS      03 49 39.0 +5.5
BRG
      comp=N,1µm,14.9s
BRG
      comp=E,2µm,19.7s
BRG
      comp=Z,3µm,18.6s
DWPF  Disney          38.96 272   PFAKE          03 41 00.0 +15
DWPF                              LR     LR
      comp=Z,934nm,20.0s,MS4.6
PRU   Pruhonice       39.22  52  eP      P       03 40 48.8 +1.4
OBKA  Obir            39.22  58⇓iP      P       03 40 47.1 -0.4
      comp=Z,19nm,1.5s,mb4.6
PVCC  Panska Ves      39.26  51  eP      P       03 40 49.5 +1.8
PVCC                             eS      S       03 46 53.3 +5.2
PVCC                              AMS    AMS     03 53 30.0
      comp=Z,3µm,21.2s
PVCC  Panska Ves      39.26  51  eP      P       03 40 49.5 +1.8
PVCC                             eS      S       03 46 53.3 +5.2
ALAS  Alassa          39.29  80  i P     P       03 40 53.7 +5.5
      comp=Z,96nm,1.2s,mb5.4,SNR=26
ALAS                             eS      S       03 46 50.4 +1.4
      SNR=27
NB2   NORSAR Subarra  39.36  34   P      P       03 40 45.3 -3.1
      comp=Z,13nm,1.0s,mb4.6,baz=252,slow=8.6
NOA   NORSAR Array B  39.36  34   P      P       03 40 46.8 -1.6
      comp=Z,3.0nm,0.7s,mb4.1,baz=252,slow=8.6,SNR=7.8
NOA                               LR     LR      03 53 36.4
      comp=Z,726nm,21.1s,MS4.5,baz=245,slow=31
TREC  Trest           39.81  53  eP      P       03 40 51.5 -0.9
TREC                             eS      S       03 47 01.6 +5.1
TREC                              AMS    AMS     03 52 40.0
      comp=Z,2µm,33.3s
WCI   Wyandotte Cave  39.90 289   PFAKE          03 41 10.0 +17
WCI                               LR     LR
      comp=Z,350nm,21.0s,MS4.2
UPC   Upice           40.18  51  eP      P       03 40 55.8 +0.4
KSP   Ksiaz           40.37  51  eP      P       03 40 56.7 -0.2
KSP                              eS      S       03 47 07.5 +2.8
KSP                               LR     LR
      comp=Z,6µm,30.0s,MS5.3
KSP   Ksiaz           40.37  51  eP      P       03 40 56.7 -0.2
KSP                              eS      S       03 47 07.5 +2.8
DPC   Dobruska-Polom  40.37  52  eP      P       03 40 57.6 +0.6
DPC                              eS      S       03 47 08.7 +3.9
DPC                               AMS    AMS     03 53 50.0
      comp=Z,2µm,19.0s
DPC   Dobruska-Polom  40.37  52  eP      P       03 40 57.6 +0.6
DPC                              eS      S       03 47 08.7 +3.9
TIC   Toumodi         40.41 128  eP      P       03 40 54.3 -3.3
      comp=Z,19nm,1.3s,mb4.7
TOA0  Torodi Ar. Sit  40.60 113  eP      P       03 40 56.4 -2.8
TOA0  Torodi Ar. Sit  40.60 113  eP      P       03 40 56.4 -2.8
TORD  Torodi Ar. Bea  40.60 113   P      P       03 40 55.8 -3.5
      comp=Z,6.0nm,0.8s,mb4.2,baz=307,slow=6.9,SNR=45
TORD                              LR     LR      03 56 15.9
      comp=Z,2µm,18.3s,MS4.9,baz=285,slow=34
LIC   Lamto           40.72 128  eP      P       03 40 57.0 -3.2
      comp=Z,94nm,1.5s,mb5.2
LIC   Lamto           40.72 128  eP      P       03 40 55.5 -4.7
      comp=Z,17nm,0.9s,mb4.7
LIC                               LR     LR
      comp=Z,1µm,19.5s,MS4.7
LIC   Lamto           40.72 128  eP      P       03 40 55.5 -4.7
      comp=Z,34nm,0.9s,mb4.7
LIC                              eMLR    MLR
      comp=Z,2µm,19.5s,MS4.7
KIC   Kosan Boka      40.80 128  eP      P       03 40 57.7 -3.2
      comp=Z,61nm,0.8s,mb5.3
COWI  Conover         40.90 302   PFAKE          03 41 10.0 +8.6
COWI                              LR     LR
      comp=Z,961nm,19.0s,MS4.7
RCBR  Riachuelo       40.99 180   PFAKE          03 41 10.0 +7.6
RCBR                              LR     LR
      comp=Z,1µm,21.0s,MS4.7
USIN  University of   41.01 289  eP      P       03 41 04.0 +1.6
USIN  University of   41.01 289  eP      P       03 41 04.0 +1.6
MORC  Moravsky Berou  41.15  52  eP      P       03 41 02.5 -0.9
OKC   Ostrava-Krasne  41.55  52  eP      P       03 41 07.5 +0.8
OKC                              eS      S       03 47 24.6 +2.3
OKC                               AMS    AMS     03 56 00.0
      comp=Z,1µm,15.0s
OKC   Ostrava-Krasne  41.55  52  eP      P       03 41 07.5 +0.8
OKC                              eS      S       03 47 24.6 +2.3
WVT   Waverly         41.57 287  eP      P       03 41 08.2 +1.1
      comp=Z,14nm,1.3s,mb4.4
WVT                               LR     LR
      comp=Z,314nm,20.0s,MS4.2
WVT   Waverly         41.57 287  eP      P       03 41 08.2 +1.1
WVT                               pmax   pmax
      comp=Z,14nm,1.3s,mb4.4
WVT                               MLR    MLR
      comp=Z,314nm,20.0s,MS4.2
WVT   Waverly         41.57 287  eP      P       03 41 08.2 +1.1
      comp=Z,14nm,1.3s,mb4.4
HDIL  Hopedale        41.73 294   PFAKE          03 41 20.0 +12
HDIL                              LR     LR
      comp=Z,409nm,21.0s,MS4.3
LRAL  Lakeview Retre  41.78 282   PFAKE          03 41 20.0 +11
LRAL                              LR     LR
      comp=Z,821nm,21.0s,MS4.6
PLAL  Pickwick Lake   42.07 285   PFAKE          03 41 20.0 +8.8
PLAL                              LR     LR
      comp=Z,776nm,21.0s,MS4.6
DAG   Danmarks Havn   42.23   6  eP      P       03 41 12.0 +0.1
DAG   Danmarks Havn   42.23   6  i P     P       03 41 12.0 +0.1
SIUC  Southern Illin  42.26 289  eP      P       03 41 14.2 +1.5
      comp=Z,28nm,0.9s,mb4.9
SIUC  Southern Illin  42.26 289  eP      P       03 41 14.2 +1.5
      comp=Z,28nm,0.9s,mb4.9
LSHF  Shwairf         42.35  83  i P     P       03 41 15.4 +1.9
      comp=Z,59nm,1.8s,mb4.9,SNR=25
EYMN  Ely             42.38 305   PFAKE          03 41 30.0 +16
EYMN                              LR     LR
      comp=Z,2µm,20.0s,MS5.0
BRAL  Brewton         42.49 279   PFAKE          03 41 30.0 +15
BRAL                              LR     LR
      comp=Z,918nm,22.0s,MS4.6
OJC   Ojcow           42.60  52  eP      P       03 41 14.9 -0.4
PSZ   Piszkesteto     42.78  55  eP      P       03 41 17.3 +0.6
PSZ   Piszkesteto     42.78  55  eP      P       03 41 17.3 +0.5
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FVM   French Village   43.13 290 eP      P       03 41 20.4 +0.7
      comp=Z,12nm,1.1s,mb4.5
FVM   French Village   43.13 290 eP      P       03 41 20.4 +0.7
FVM                              pmax    pmax
      comp=Z,12nm,1.1s,mb4.5
FVM   French Village   43.13 290 eP      P       03 41 20.4 +0.7
      comp=Z,12nm,1.1s,mb4.5
OXF   Oxford           43.26 285 eP      P       03 41 21.6 +0.8
OXF                              LR      LR
      comp=Z,790nm,21.0s,MS4.6
OXF   Oxford           43.26 285 eP      P       03 41 21.6 +0.8
LJFR  Jufra            43.94  83 i P     P       03 41 28.0 +1.6
      comp=Z,41nm,1.3s,mb5.0,SNR=25
FCC   Fort Churchill   44.13 321 eP      P       03 41 27.3 -0.2
      comp=Z,11nm,0.8s,mb4.6
FCC   Fort Churchill   44.13 321 eP      P       03 41 27.3 -0.2
FCC                              pmax    pmax
      comp=Z,11nm,0.8s,mb4.6
FCC   Fort Churchill   44.13 321 eP      P       03 41 27.3 -0.2
      comp=Z,11nm,0.8s,mb4.6
UZH   Uzhgorod         44.32  54 eP      P       03 41 25.4 -3.8
UZH                              i S     S       03 47 56.0 -7.1
KWP   Kalwaria         44.51  53 eP      P       03 41 30.9 +0.2
      comp=Z,74nm,1.5s,mb5.3
KWP   Kalwaria         44.51  53 eP      P       03 41 30.9 +0.2
KWP                              pmax    pmax
      comp=Z,74nm,1.5s,mb5.3
KWP   Kalwaria         44.51  53 eP      P       03 41 30.9 +0.2
      comp=Z,74nm,1.5s,mb5.3
ULM   Lac du Bonnet    45.09 308 eP      P       03 41 35.4 +0.1
      comp=Z,16nm,1.1s,mb4.8
ULM                              LR      LR
      comp=Z,1µm,21.0s,MS4.8
ULM   Lac du Bonnet    45.09 308 P       P       03 41 33.8 -1.4
      comp=Z,8.3nm,0.8s,mb4.6,baz=92,slow=7.1,SNR=9.7
ULM                              LR      LR      03 59 44.3
      comp=Z,542nm,21.0s,MS4.5,baz=260,slow=35
ULM   Lac du Bonnet    45.09 308 eP      P       03 41 35.4 +0.1
      comp=Z,16nm,1.1s,mb4.8
AGMN  Agassiz Refuge   45.26 306 eP      P       03 41 38.1 +1.4
      comp=Z,17nm,0.8s,mb4.9
AGMN                             LR      LR
      comp=Z,2µm,19.0s,MS5.0
AGMN  Agassiz Refuge   45.26 306 eP      P       03 41 38.1 +1.4
      comp=Z,17nm,0.8s,mb4.9
LZLA  Zalla            45.57  83 i P     P       03 41 41.5 +2.1
      comp=Z,61nm,1.2s,mb5.4,SNR=25
FINES FINESS Array B   46.47  36 P       P       03 41 43.9 -2.1
FINES                            LR      LR      03 58 08.8
FINES FINESS Array B   46.47  36 P       P       03 41 43.9 -2.1
      comp=Z,5.1nm,1.0s,mb4.4,baz=235,slow=3.0,SNR=6.4
FINES                            LR      LR      03 58 08.8
      comp=Z,1µm,21.6s,MS4.8,slow=32
ECSD  EROS,Sioux Fal   46.48 300 eP      P       03 41 46.1 -0.2
      comp=Z,16nm,1.0s,mb4.9
MIAR  Mount Ida        46.52 286 eP      P       03 41 48.0 +1.2
      comp=Z,17nm,1.0s,mb4.9
MIAR                             LR      LR
      comp=Z,707nm,21.0s,MS4.6
MIAR  Mount Ida        46.52 286 eP      P       03 41 48.0 +1.2
MIAR                             pmax    pmax
      comp=Z,17nm,1.0s,mb4.9
MIAR                             MLR     MLR
      comp=Z,707nm,21.0s,MS4.6
MIAR  Mount Ida        46.52 286 eP      P       03 41 48.0 +1.2
      comp=Z,17nm,1.0s,mb4.9
ARCES ARCESS Array B   47.45  25 P       P       03 41 51.0 -2.5
      comp=Z,5.8nm,0.8s,mb4.5,baz=255,slow=7.4,SNR=5.5
ARCES                            LR      LR      03 58 28.9
      comp=Z,696nm,19.9s,MS4.6,baz=261,slow=32
KSU1  Kansas State U   47.54 293 eP      P       03 41 54.1 -0.6
      comp=Z,12nm,0.9s,mb4.9
KSU1                             LR      LR
      comp=Z,794nm,21.0s,MS4.7
KSU1  Kansas State U   47.54 293 eP      P       03 41 54.1 -0.6
      comp=Z,12nm,0.9s,mb4.9
ASCN  Ascension        47.71 150 PFAKE           03 42 10.0  +14
ASCN                             LR      LR
      comp=Z,2µm,19.0s,MS5.1
KEV   Kevo             48.01  25 PFAKE           03 42 10.0  +12
KEV                              LR      LR
      comp=Z,807nm,20.0s,MS4.7
TEIG  Tepich           48.03 266 PFAKE           03 42 10.0  +11
TEIG                             LR      LR
      comp=Z,913nm,20.0s,MS4.8
RES   Resolute Bay     48.07 342 eP      P       03 41 57.8 -0.6
      comp=Z,265nm,0.9s
RES   Resolute Bay     48.07 342 eP      P       03 41 57.8 -0.5
RES                              pmax    pmax
      comp=Z,265nm,0.9s
RES   Resolute Bay     48.07 342 eP      P       03 41 57.8 -0.5
      comp=Z,265nm,0.9s
NATX  Nacogdoches      48.32 283 PFAKE           03 42 10.0 +9.2
NATX                             LR      LR
      comp=Z,627nm,19.0s,MS4.6
FFC   Flin Flon        48.45 315 eP      P       03 42 03.0 +1.5
      comp=Z,14nm,1.1s,mb4.9
FFC                              LR      LR
      comp=Z,2µm,19.0s,MS5.0
FFC   Flin Flon        48.45 315 eP      P       03 42 03.0 +1.5
FFC                              pmax    pmax
      comp=Z,14nm,1.1s,mb4.9
FFC                              MLR     MLR
      comp=Z,2µm,19.0s,MS5.0
FFC   Flin Flon        48.45 315 eP      P       03 42 03.0 +1.5
      comp=Z,14nm,1.1s,mb4.9
KIEV  Kiev             48.55  50 eP      P       03 42 01.0 -1.4
      comp=Z,29nm,1.4s,mb5.1
KIEV                             LR      LR
      comp=Z,2µm,20.0s,MS5.0
KIEV  Kiev             48.55  50 eP      P       03 42 01.0 -1.4
KIEV                             pmax    pmax
      comp=Z,29nm,1.4s,mb5.1
KIEV                             MLR     MLR
      comp=Z,2µm,20.0s,MS5.0
KIEV  Kiev             48.55  50 eP      P       03 42 01.0 -1.4
      comp=Z,29nm,1.4s,mb5.1
AKASG Malin Array Be   48.56  50 P       P       03 41 59.3 -3.1
AKASG                            LR      LR      03 59 59.3
AKASG Malin Array Be   48.56  50 P       P       03 41 59.3 -3.1
      comp=Z,4.7nm,0.6s,mb4.7,baz=275,slow=7.4,SNR=17
AKASG                            LR      LR      03 59 59.3
      comp=Z,1µm,19.9s,MS5.0,baz=270,slow=33
AKBB  Malin Array Si   48.56  50 eP      P       03 42 01.4 -1.1
AKBB  Malin Array Si   48.56  50 eP      P       03 42 01.4 -1.0
KIS   Kishinev         48.90  55 eP      P       03 42 04.0 -1.1
KIS                              e       pP      03 42 07.0 -1.3
KIS                              eS      S       03 49 04.0 -4.7
KIS                              MLR     MLR
      comp=Z,1µm,13.0s,MS5.1
KIS                              MLR     MLR
      comp=N,1µm,14.0s
KIS                              MLR     MLR
      comp=Z,1µm,14.0s
KIS   Kishinev         48.90  55 eP      P       03 42 04.0 -1.1
KIS                              eS      S       03 49 04.0 -4.7
KIS   Kishinev         48.90  55 eP      P       03 42 04.0 -1.1
KIS                              eS      S       03 49 04.0 -4.7
KIS                              LRM             04 04 58.0
      comp=Z,1µm,14.0s
JOF   Joensuu          48.99  34 ep      P       03 42 03.2 -2.4
CBKS  Cedar Bluff      49.96 294 PFAKE           03 42 30.0  +17
CBKS                             LR      LR
      comp=Z,918nm,20.0s,MS4.8
APA   Apatity          50.05  28⇑eP      P       03 42 15.0 +1.4
APA                              i       pP      03 42 19.0 +2.3
APA                              pmax    pmax
      comp=Z,36nm,1.2s,mb5.3
TGUH  Tegucigalpa,Un   50.48 259 PFAKE           03 42 30.0  +12
TGUH                             LR      LR
      comp=Z,634nm,20.0s,MS4.6
WMOK  Wichita Mounta   50.52 289 eP      P       03 42 18.9 +1.3
WMOK                             LR      LR
      comp=Z,763nm,22.0s,MS4.7
WMOK  Wichita Mounta   50.52 289 eP      P       03 42 18.9 +1.3
LVZ   Lovozero         50.54  28 PFAKE           03 42 30.0  +13
LVZ                              LR      LR
      comp=Z,1µm,20.0s,MS4.9
DGMT  Dagmar           50.72 307 eP      P       03 42 19.5 +0.6
DGMT                             LR      LR
      comp=Z,951nm,20.0s,MS4.8
DGMT  Dagmar           50.72 307 eP      P       03 42 19.5 +0.6
JTS   JuntasAbangare   50.84 253 PFAKE           03 42 30.0  +10
JTS                              LR      LR
      comp=Z,1µm,22.0s,MS4.8
RSSD  Black Hills      51.61 302 PFAKE           03 42 40.0  +14
RSSD                             LR      LR
      comp=Z,101nm,20.0s,MS3.9
LKFR  Kufra            52.01  85 i P     P       03 42 29.0 +0.1
      comp=Z,93nm,1.8s,mb5.4,SNR=23
OBN   Obninsk          52.29  44 eP      P       03 42 31.8 +1.2
OBN                              LR      LR
      comp=Z,2µm,20.0s,MS5.2
OBN   Obninsk          52.29  44⇑eP      P       03 42 28.2 -2.4
OBN                              i S     S       03 50 04.8 +9.2
OBN                              pmax    pmax
      comp=Z,10.0nm,1.5s,mb4.5
OBN   Obninsk          52.29  44 eP      P       03 42 31.8 +1.2
LAO   LASA Array       52.46 305 eP      P       03 42 32.0 +0.1
LAO                              LR      LR
      comp=Z,1µm,22.0s,MS4.9
KVTX  Kingsville       52.55 280 PFAKE           03 42 50.0  +17
KVTX                             LR      LR
      comp=Z,951nm,20.0s,MS4.8
OTAV  Otavalo          52.68 238 eP      P       03 42 33.3 -0.7
      comp=Z,16nm,1.4s,mb4.8
OTAV                             LR      LR
      comp=Z,254nm,21.0s,MS4.2
OTAV  Otavalo          52.68 238 eP      P       03 42 33.3 -0.7
      comp=Z,16nm,1.4s,mb4.8
AMTX  Amarillo         52.71 290 PFAKE           03 42 50.0  +16
AMTX                             LR      LR
      comp=Z,646nm,21.0s,MS4.7
MOS   Moscow           52.78  43 eP      P       03 42 39.6 +5.4
JCT   Junction City    52.88 284 eP      P       03 42 36.6 +1.2
      comp=Z,12nm,0.9s,mb4.8
JCT                              LR      LR
      comp=Z,653nm,21.0s,MS4.7
JCT   Junction City    52.88 284 eP      P       03 42 36.6 +1.3
JCT                              pmax    pmax
      comp=Z,12nm,0.9s,mb4.8
JCT                              MLR     MLR
      comp=Z,653nm,21.0s,MS4.7
JCT   Junction City    52.88 284 eP      P       03 42 36.6 +1.3
      comp=Z,12nm,0.9s,mb4.8
ANTO  Ankara           53.52  63 PFAKE           03 42 50.0  +10
ANTO                             LR      LR
      comp=Z,877nm,21.0s,MS4.8
ISCO  Idaho Springs    54.00 297 PFAKE           03 43 00.0  +17
ISCO                             LR      LR
      comp=Z,784nm,20.0s,MS4.8
YKW3  Yellowknife Ar   54.11 326 eP      P       03 42 44.6 +0.8
YKW3  Yellowknife Ar   54.11 326 eP      P       03 42 44.6 +0.7
YKA   Yellowknife Ar   54.12 326 P       P       03 42 41.3 -2.6
YKA                              LR      LR      04 05 21.8
YKA   Yellowknife Ar   54.12 326 P       P       03 42 41.3 -2.6
      comp=Z,4.0nm,0.9s,mb4.3,baz=82,slow=7.2,SNR=24
YKA                              LR      LR      04 05 21.8
      comp=Z,436nm,18.1s,MS4.6,baz=185,slow=36
BR131 Keskin Array S   54.19  63 PFAKE           03 43 00.0  +15
BR131                            LR      LR
      comp=Z,715nm,21.0s,MS4.7
BRTR  Keskin Array B   54.19  63 P       P       03 42 43.0 -1.8
      comp=Z,5.1nm,1.1s,mb4.4,baz=306,slow=7.9,SNR=10
BRTR                             LR      LR      04 05 00.1
      comp=Z,786nm,18.9s,MS4.8,baz=318,slow=35
EGMT  Eagleton         54.44 308 eP      P       03 42 49.0 +2.6
      comp=Z,14nm,1.1s,mb4.8
EGMT                             LR      LR
      comp=Z,1µm,22.0s,MS4.9
EGMT  Eagleton         54.44 308 ⇑P      P       03 42 45.5 -0.9
      baz=54
EGMT  Eagleton         54.44 308 eP      P       03 42 49.0 +2.5
      comp=Z,14nm,1.1s,mb4.8
SDCO  Great Sand Dun   54.60 294 eP      P       03 42 49.4 +1.6
      comp=Z,3.7nm,1.0s,mb4.4
SDCO                             LR      LR
      comp=Z,711nm,19.0s,MS4.8
SDCO  Great Sand Dun   54.60 294 eP      P       03 42 49.4 +1.6
      comp=Z,3.7nm,1.0s,mb4.4
VORD  Divnogorie       54.77  49 eP      P       03 42 47.3 -1.5
VORD                             pmax    pmax
      comp=Z,7.0nm,0.9s,mb4.7
VORD                             pmax    pmax
      comp=N,3.0nm,0.6s
VORD                             pmax    pmax
      comp=E,10.0nm,0.9s
VORD                             MLR     MLR
      comp=Z,690nm,9.0s
VORD                             MLR     MLR
      comp=N,220nm,7.0s
VORD                             MLR     MLR
      comp=E,660nm,13.0s
RLMT  Red Lodge        54.93 304 PFAKE           03 43 00.0  +10
RLMT                             LR      LR
      comp=Z,1µm,20.0s,MS5.0
GCMT  Greycliff        55.00 305 eP      P       03 42 50.3 -0.3
GCMT  Greycliff        55.00 305 eP      P       03 42 50.3 -0.3
SMCO  Snowmass         55.20 297 eP      P       03 42 55.0 +2.9
      comp=Z,6.9nm,0.7s,mb4.8
SMCO  Snowmass         55.20 297 eP      P       03 42 55.0 +2.9
      comp=Z,6.9nm,0.7s,mb4.8
ANN   Anapa            55.27  56 eP      P       03 42 49.6 -3.0
ANN                              eS      S       03 50 30.3 -5.9
ANN                              pmax    pmax
      comp=Z,16nm,0.9s,mb5.0
ANN                              MLR     MLR
      comp=E,365nm,18.0s
ANN                              MLR     MLR
      comp=Z,1µm,18.0s,MS5.0
EDM   Edmonton         55.32 315 eP      P       03 42 53.0 +0.2
EDM   Edmonton         55.32 315 eP      P       03 42 53.0 +0.2
PRGR  Permogore        55.76  35 eP      P       03 42 58.1 +2.3
PRGR                             eS      S       03 50 43.4 +1.1
PRGR                             pmax    pmax
      comp=Z,9.0nm,0.8s,mb4.8
BW06  Boulder Array    55.85 301 eP      P       03 42 55.4 -1.4
      comp=Z,13nm,1.1s,mb4.9
BW06                             LR      LR
      comp=Z,1µm,20.0s,MS5.0
BW06  Boulder Array    55.85 301 eP      P       03 42 55.4 -1.4
      comp=Z,13nm,1.1s,mb4.9
PDAR  Pinedale Array   55.85 301 LR      LR      04 06 53.1
      comp=Z,720nm,20.0s,MS4.8,baz=76,slow=36
LKWY  Lake             55.87 304 PFAKE           03 43 10.0  +13
LKWY                             LR      LR
      comp=Z,2µm,20.0s,MS5.3
VRHR  Novokhopersk     56.16  48 eP      P       03 42 59.4 +0.6
VRHR                             pmax    pmax
      comp=Z,10.0nm,0.6s,mb5.0
VRHR                             pmax    pmax
      comp=N,10.0nm,0.8s
VRHR                             pmax    pmax
      comp=E,9.0nm,0.5s
YMR   Madison River    56.22 304 eP      P       03 42 57.8 -1.5
      comp=E,33nm,1.1s,mb5.3
YMR                              LR      LR
      comp=Z,1µm,20.0s,MS5.0
YMR   Madison River    56.22 304 eP      P       03 42 57.8 -1.5
      comp=Z,33nm,1.1s,mb5.3
LOHW  Long Hollow      56.31 303 eP      P       03 43 02.7 +2.7
      comp=Z,15nm,1.4s,mb4.8
LOHW  Long Hollow      56.31 303 eP      P       03 43 02.7 +2.7
      comp=Z,15nm,1.4s,mb4.8
SIV   San Ignacio      56.31 209 LR      LR      04 02 20.2
      comp=Z,33nm,21.8s,MS3.4,baz=240,slow=31
ANMO  Albuquerque      56.34 292 eP      P       03 43 03.7 +3.4
      comp=Z,27nm,2.0s,mb4.9
ANMO                             LR      LR
      comp=Z,581nm,22.0s,MS4.6
ANMO  Albuquerque      56.34 292 eP      P       03 43 03.7 +3.3
ANMO                             pmax    pmax
      comp=Z,27nm,2.0s
ANMO                             MLR     MLR
      comp=Z,581nm,22.0s
ANMO  Albuquerque      56.34 292 eP      P       03 43 03.7 +3.3
      comp=Z,27nm,2.0s,mb4.9
BOZ   Bozeman (W)      56.36 305 eP      P       03 42 59.6 -0.7
BOZ                              LR      LR
      comp=Z,1µm,20.0s,MS5.0
BOZ   Bozeman (W)      56.36 305 ⇑P      P       03 42 59.7 -0.6
      baz=56,SNR=9.7
BOZ   Bozeman (W)      56.36 305 eP      P       03 42 59.6 -0.7
MOOW  Moose Ponds      56.36 303 eP      P       03 43 02.5 +2.2
      comp=Z,7.1nm,1.4s,mb4.5
MOOW  Moose Ponds      56.36 303 eP      P       03 43 02.5 +2.1
      comp=Z,7.1nm,1.4s,mb4.5
LTX   Lajitas          56.41 284 eP      P       03 43 02.5 +1.5
LTX                              LR      LR
      comp=Z,805nm,22.0s,MS4.8
LTX   Lajitas          56.41 284 eP      P       03 43 02.5 +1.5
TXAR  Lajitas Array    56.41 284 P       P       03 42 59.8 -1.2
      comp=Z,6.6nm,1.0s,mb4.6,baz=90,slow=6.9,SNR=21
TXAR                             LR      LR      04 04 40.7
      comp=Z,370nm,19.6s,MS4.5,baz=0.0,slow=33
IMW   Indian Meadow    56.44 303 eP      P       03 43 02.8 +1.8
IMW   Indian Meadow    56.44 303 eP      P       03 43 02.8 +1.8
D15A  Lincoln          56.51 307 ⇓P      P       03 43 00.8 -0.6
      baz=56
REDW  Red Top Meadow   56.56 303 eP      P       03 43 04.5 +2.7
      comp=Z,21nm,1.3s,mb5.0
REDW  Red Top Meadow   56.56 303 eP      P       03 43 04.6 +2.8
      comp=Z,21nm,1.3s,mb5.0
TPAW  Teton Pass       56.58 303 eP      P       03 43 04.9 +2.9
TPAW  Teton Pass       56.58 303 eP      P       03 43 04.9 +2.9
E15A  Deer Lodge       56.78 306 ⇓P      P       03 43 01.8 -1.5
      baz=57
MNTX  Cornudas Mount   56.78 288 eP      P       03 43 05.1 +1.5
MNTX                             LR      LR
      comp=Z,629nm,22.0s,MS4.7
MNTX  Cornudas Mount   56.78 288 eP      P       03 43 05.1 +1.5
WALA  Waterton Lakes   56.80 310 eP      P       03 43 04.8 +1.4
      comp=Z,14nm,1.1s,mb4.9
LRM   Limekiln Ridge   56.85 306 eP      P       03 43 06.6 +2.8
LRM   Limekiln Ridge   56.85 306 eP      P       03 43 06.6 +2.8
F15A  Butte            56.87 306 ⇑P      P       03 43 02.6 -1.3
      baz=57
AHID  Auburn Hatcher   56.93 302 PFAKE           03 43 20.0  +16
AHID                             LR      LR
      comp=Z,966nm,22.0s,MS4.9
MVCO  Mesa Verde       57.02 295 eP      P       03 43 05.7 +0.5
      comp=Z,20nm,1.2s,mb5.0
MVCO                             LR      LR
      comp=Z,731nm,19.0s,MS4.8
MVCO  Mesa Verde       57.02 295 ⇓P      P       03 43 05.3 +0.2
      baz=57,SNR=8.7
MVCO  Mesa Verde       57.02 295 eP      P       03 43 05.7 +0.5
      comp=Z,20nm,1.2s,mb5.0
CHMT  Chamberlain Mo   57.03 307 eP      P       03 43 08.3 +3.3
CHMT  Chamberlain Mo   57.03 307 eP      P       03 43 08.4 +3.3
G15A  Dillon           57.08 305 P       P       03 43 05.4 -0.1
      baz=57,SNR=7.0
C14A  Swan Lake        57.08 308 ⇑P      P       03 43 04.8 -0.6
      baz=57
DLMT  Dillon           57.09 305 eP      P       03 43 07.8 +2.2
DLMT  Dillon           57.09 305 eP      P       03 43 07.8 +2.2
D14A  Greenough        57.14 307 ⇑P      P       03 43 05.4 -0.4
      baz=57
A13A  Flathead Natio   57.15 310 ⇑P      P       03 43 05.6 -0.2
      baz=57
SOC   Sochi            57.22  57 eP      P       03 43 00.5 -6.0
SOC                              ePPP            03 46 33.1
SOC                              eS      S       03 50 55.5 -6.6
SOC                              e*SS    sS      03 51 19.9  +13
SOC                              MLR     MLR
      comp=Z,373nm,11.0s,MS4.8
E14A  Clinton          57.34 307 ⇓P      P       03 43 06.3 -1.0
      baz=57
B13A  Whitefish        57.35 309 ⇓P      P       03 43 06.4 -1.0
      baz=57
F14A  Wisdom           57.46 306 ⇑P      P       03 43 07.5 -0.6
      baz=57
MSO   Missoula         57.51 307 eP      P       03 43 11.1 +2.6
      comp=Z,5.2nm,1.1s,mb4.5
MSO                              LR      LR
      comp=Z,720nm,21.0s,MS4.8
MSO   Missoula         57.51 307 eP      P       03 43 11.1 +2.7
      comp=Z,5.2nm,1.1s,mb4.5
C13A  Hot Springs      57.64 308 ⇓P      P       03 43 09.1 -0.3
      baz=58,SNR=6.4
HWUT  Hardware Ranch   57.65 301 eP      P       03 43 10.4 +0.9
HWUT                             LR      LR
      comp=Z,1µm,21.0s,MS4.9
HWUT  Hardware Ranch   57.65 301 eP      P       03 43 10.4 +0.8
G14A  Jackson          57.71 305 ⇑P      P       03 43 09.9 +0.1
      baz=58
BSMT  Bassoo Peak      57.72 309 eP      P       03 43 10.5 +0.5
BSMT  Bassoo Peak      57.72 309 eP      P       03 43 10.5 +0.5
D13A  Huson            57.76 308 ⇓P      P       03 43 10.3 +0.1
      baz=58
DAU   Daniels Canyon   57.85 299 eP      P       03 43 13.0 +2.0
DAU   Daniels Canyon   57.85 299 eP      P       03 43 13.0 +2.0
A12A  Yaak River Ran   57.92 310 ⇓P      P       03 43 11.3 -0.1
      baz=58
JLU   Jordanelle       57.92 300 eP      P       03 43 12.8 +1.3
JLU   Jordanelle       57.92 300 eP      P       03 43 12.8 +1.3
B12A  Libby            58.03 310 ⇑P      P       03 43 11.5 -0.6
      baz=58
F13A  Darby            58.10 306 ⇓P      P       03 43 11.7 -1.0
      baz=58,SNR=5.8
MALT  Malatya          58.17  63 eP      P       03 43 13.7 +0.4
      comp=Z,16nm,1.3s,mb4.9
MALT  Malatya          58.17  63 eP      P       03 43 13.7 +0.4
MALT                             pmax    pmax
      comp=Z,16nm,1.3s,mb4.9
MALT  Malatya          58.17  63 eP      P       03 43 13.7 +0.4
      comp=Z,16nm,1.3s,mb4.9
MPU   Maple Canyon     58.27 299 PFAKE           03 43 30.0  +16
MPU                              LR      LR
      comp=Z,1µm,19.0s,MS5.0
G13A  Cobalt           58.27 305 ⇓P      P       03 43 13.6 -0.3
      baz=58,SNR=5.0
A11A  Hall Mountain,   58.36 310 ⇑P      P       03 43 14.3 -0.1
      baz=58
K14A  Jones Ranch, D   58.44 302 ⇑P      P       03 43 14.8 -0.3
      baz=58,SNR=8.1
H13A  Challis          58.47 305 ⇓P      P       03 43 15.6 +0.4
      baz=58
I13A  Wildhorse Cree   58.60 304 ⇑P      P       03 43 16.4 +0.2
      baz=59,SNR=9.8
NLU   North Lily Min   58.61 299 eP      P       03 43 19.4 +3.1
J13A  Cove Ranch, Pi   58.82 304 ⇑P      P       03 43 17.4 -0.3
      baz=59
H12A  Diamond D Ranc   58.88 305 ⇑P      P       03 43 17.8 -0.3
      baz=59,SNR=9.2
BGU   Big Grassy Mou   58.92 300 eP      P       03 43 17.2 -1.2
BGU   Big Grassy Mou   58.92 300 eP      P       03 43 17.2 -1.3
HLID  Hailey           58.93 304 eP      P       03 43 21.3 +2.9
      comp=Z,8.9nm,1.3s,mb4.6
HLID                             LR      LR
      comp=Z,1µm,19.0s,MS5.0
HLID  Hailey           58.93 304 ⇑P      P       03 43 18.1 -0.3
      baz=59,SNR=5.8
HLID  Hailey           58.93 304 eP      P       03 43 21.3 +2.8
      comp=Z,8.9nm,1.3s,mb4.6
D11A  Klaveano Farm,   58.98 308 ⇓P      P       03 43 19.0 +0.2
      baz=59
K13A  Stover Farm, H   59.03 303 ⇑P      P       03 43 19.0 -0.2
      baz=59
DUG   Dugway           59.04 300 eP      P       03 43 20.7 +1.4
      comp=Z,13nm,1.1s,mb4.9
DUG                              LR      LR
      comp=Z,678nm,19.0s,MS4.8
DUG   Dugway           59.04 300 eP      P       03 43 20.7 +1.4
DUG                              pmax    pmax
      comp=Z,13nm,1.1s,mb4.9
DUG                              MLR     MLR
      comp=Z,678nm,19.0s,MS4.8
DUG   Dugway           59.04 300 ⇑P      P       03 43 19.0 -0.4
      baz=59,SNR=8.6
DUG   Dugway           59.04 300 eP      P       03 43 20.7 +1.4
      comp=Z,13nm,1.1s,mb4.9
NEW   Newport          59.07 310 eP      P       03 43 18.1 -1.2
      comp=Z,20nm,1.1s,mb5.1
NEW                              LR      LR
      comp=Z,1µm,19.0s,MS5.1
NEW   Newport          59.07 310 eP      P       03 43 18.1 -1.2
NEW                              pmax    pmax
      comp=Z,20nm,1.1s
NEW                              MLR     MLR
      comp=Z,1µm,19.0s
NEW   Newport          59.07 310 eP      P       03 43 18.1 -1.2
      comp=Z,20nm,1.1s,mb5.1
A10A  Northport        59.10 311 ⇑P      P       03 43 19.8 +0.2
      baz=59
KIV   Kislovodsk       59.10  56 PFAKE           03 43 30.0  +10
KIV                              LR      LR
      comp=Z,371nm,20.0s,MS4.5
KIV   Kislovodsk       59.10  56 eP      P       03 43 23.3 +3.6
KIV                              eS      S       03 51 29.4 +2.6
KIV                              pmax    pmax
      comp=Z,9.0nm,1.0s,mb4.8
KIV                              MLR     MLR
      comp=Z,354nm,17.0s,MS4.6
KIV   Kislovodsk       59.10  56 P       pP      03 43 30.0 +7.1
B10A  Chitwood Farm,   59.12 310 ⇓P      P       03 43 19.9 +0.2
      baz=59
E11A  Bogner Ranch,    59.14 307 ⇓P      P       03 43 18.9 -1.0
      baz=59,SNR=6.5
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L13A	Double Diamond	59.14	302	P	P	03 43 20.0	0.0
	baz=59,SNR=8.3						
MSU	Marysvale	59.22	298	eP	P	03 43 22.9	+2.2
MSU	Marysvale	59.22	298	eP	P	03 43 22.9	+2.3
F11A	Grangeville	59.27	307	⇑P	P	03 43 21.0	+0.2
	baz=59						
J12A	Stokes Ranch,	59.50	304	⇓P	P	03 43 21.6	-0.9
	baz=60,SNR=5.3						
G11A	Walters Elk Ra	59.51	306	⇑P	P	03 43 22.2	-0.3
	baz=60,SNR=9.1						
M13A	Montello	59.56	301	⇑P	P	03 43 21.8	-1.1
	baz=60						
D10A	Wagner Farm, O	59.58	308	⇓P	P	03 43 22.1	-0.8
	baz=60						
H11A	Donnelly	59.59	306	⇑P	P	03 43 21.8	-1.2
	baz=60,SNR=6.4						
K12A	Draper Farm, C	59.60	303	⇑P	P	03 43 22.4	-0.7
	baz=60,SNR=15						
B09A	Rice	59.66	310	⇓P	P	03 43 21.5	-1.9
	baz=60,SNR=6.6						
E10A	Myers Farm, Un	59.67	308	⇓P	P	03 43 23.3	-0.3
	baz=60						
LPAZ	La Paz	59.69	216	eP	P	03 43 23.3	-0.7
	comp=Z,13nm,0.9s,mb5.0						
LPAZ				LR	LR		
	comp=Z,464nm,22.0s,MS4.6						
LPAZ	La Paz	59.69	216	eP	P	03 43 23.3	-0.7
LPAZ				pmax	pmax		
	comp=Z,13nm,0.9s						
LPAZ				MLR	MLR		
	comp=Z,464nm,22.0s						
LPAZ	La Paz	59.69	216	P	P	03 43 21.0	-3.0
	comp=Z,6.7nm,0.9s,mb4.7,baz=32,slow=5.1,SNR=16						
LPAZ				LR	LR	04 07 32.9	
	comp=Z,310nm,21.8s,MS4.4,baz=33,slow=34						
LPAZ	La Paz	59.69	216	eP	P	03 43 23.3	-0.7
	comp=Z,13nm,0.9s,mb5.0						
A09A	Danville	59.73	311	⇓P	P	03 43 23.3	-0.6
	baz=60,SNR=7.8						
N13A	Wendover, West	59.78	301	⇓P	P	03 43 24.0	-0.4
	baz=60						
WUAZ	Wupatki	59.81	294	eP	P	03 43 27.1	+2.3
WUAZ				LR	LR		
	comp=Z,602nm,20.0s,MS4.7						
WUAZ	Wupatki	59.81	294	⇑P	P	03 43 24.7	0.0
	baz=60						
WUAZ	Wupatki	59.81	294	eP	P	03 43 27.1	+2.4
L12A	House Creek Ra	59.86	302	⇓P	P	03 43 24.4	-0.5
	baz=60,SNR=8.3						
F10A	Beach Ranch, E	59.93	307	⇑P	P	03 43 24.5	-0.9
	baz=60						
MFID	Camas Ranch	59.94	304	⇑P	P	03 43 25.3	-0.2
	baz=60						
M12A	Wells	60.06	302	⇑P	P	03 43 26.5	+0.2
	baz=60,SNR=11						
H10A	Noah’s Angus R	60.12	306	⇑P	P	03 43 26.5	-0.2
	baz=60						
A08A	Turner Farm, O	60.17	311	⇑P	P	03 43 27.5	+0.6
	baz=60						
S14A	Cedar City	60.24	297	⇓P	P	03 43 27.6	0.0
	baz=60						
D09A	Jones Farm, Ri	60.24	309	⇓P	P	03 43 27.8	+0.4
	baz=60						
INK	Inuvik	60.27	335	eP	P	03 43 25.9	-1.4
	comp=Z,446nm,1.1s						
INK	Inuvik	60.27	335	eP	P	03 43 25.9	-1.4
INK				pmax	pmax		
	comp=Z,446nm,1.1s						
INK	Inuvik	60.27	335	eP	P	03 43 25.9	-1.4
	comp=Z,446nm,1.1s						
E09A	Wood Farm, Sta	60.33	308	P	P	03 43 28.0	-0.1
	baz=60,SNR=9.1						
L11A	Cat Creek Ranc	60.36	303	⇓P	P	03 43 28.7	+0.3
	baz=60,SNR=9.1						
ZEI	Tsey	60.36	57	eP	P	03 43 28.0	-0.4
ZEI				e		03 44 11.2	
ZEI				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
N12A	Clover Valley,	60.36	301	⇑P	P	03 43 28.7	+0.3
	baz=60						
O12A	Currie	60.38	300	⇓P	P	03 43 28.4	-0.2
	baz=60						
BMO	Blue Mountains	60.40	306	eP	P	03 43 29.2	+0.7
	comp=Z,8.2nm,1.3s,mb4.6						
BMO				LR	LR		
	comp=Z,776nm,21.0s,MS4.8						
BMO	Blue Mountains	60.40	306	eP	P	03 43 29.2	+0.6
	comp=Z,8.2nm,1.3s,mb4.6						
ARUT	Antelope Range	60.42	297	eP	P	03 43 30.7	+1.8
C08A	Higginbotham F	60.44	310	⇑P	P	03 43 28.5	-0.3
	baz=60,SNR=5.2						
T14A	Hurricane	60.45	296	⇑P	P	03 43 28.9	-0.2
	baz=60						
F09A	S2 Ranch, Elgi	60.48	307	⇓P	P	03 43 29.1	0.0
	baz=60						
ELK	Elko	60.55	301	PFAKE		03 43 40.0	+10
ELK				LR	LR		
	comp=Z,971nm,21.0s,MS4.9						
J10A	Berg Farm, Mel	60.57	304	⇓P	P	03 43 30.3	+0.5
	baz=60						
W15A	Williams	60.62	294	⇑P	P	03 43 30.0	-0.2
	baz=61						
D08A	Wollman Farm,	60.63	309	⇑P	P	03 43 30.0	-0.1
	baz=61						
M11A	Holland Ranch,	60.66	302	⇑P	P	03 43 30.3	-0.2
	baz=61,SNR=14						
TUC	Tucson	60.70	291	PFAKE		03 43 40.0	+9.2
TUC				LR	LR		
	comp=Z,568nm,20.0s,MS4.7						
H09A	Durkee	60.70	306	⇓P	P	03 43 30.5	-0.2
	baz=61						
P12A	McGill	60.81	300	⇑P	P	03 43 31.8	+0.3
	baz=61						
A07A	Ashnola River,	60.81	311	⇓P	P	03 43 31.4	0.0
	baz=61,SNR=5.8						
NNA	Nana	60.87	227	PFAKE		03 43 50.0	+18
NNA				LR	LR		
	comp=Z,323nm,22.0s,MS4.4						
X15A	Humboldt	60.88	293	⇓P	P	03 43 31.5	-0.6
	baz=61						
L10A	Juniper Basin	60.88	303	⇓P	P	03 43 31.9	0.0
	baz=61,SNR=8.2						
K10A	MacKenzie Ranc	60.89	304	⇑P	P	03 43 31.4	-0.5
	baz=61						
Q12A	Willow Creek R	60.92	299	⇑P	P	03 43 32.1	-0.2
	baz=61						
E08A	Dider Farm, El	60.93	308	⇓P	P	03 43 31.8	-0.3
	baz=61,SNR=5.4						
F08A	Pendleton	61.01	308	⇓P	P	03 43 32.2	-0.5
	baz=61						
I09A	Lost Marbles R	61.02	305	⇓P	P	03 43 32.6	-0.2
	baz=61,SNR=5.1						
R12A	Pony Springs,	61.05	298	⇓P	P	03 43 33.3	+0.1
	baz=61						
T13A	Saint George	61.07	297	⇓P	P	03 43 33.1	-0.2
	baz=61						
O11A	Cowboy Ranch,	61.08	301	⇑P	P	03 43 33.3	0.0
	baz=61,SNR=6.6						
C07A	Waterville	61.12	310	⇓P	P	03 43 31.9	-1.6
	baz=61						
W14A	Seligman	61.21	294	⇑P	P	03 43 33.7	-0.6
	baz=61						
J09A	Fry Pan Ranch,	61.26	305	⇑P	P	03 43 34.1	-0.4
	baz=61,SNR=11						
HAWA	Hanford	61.27	308	eP	P	03 43 36.9	+2.4
	comp=Z,17nm,1.3s,mb5.0						
HAWA				LR	LR		
	comp=Z,850nm,20.0s,MS4.9						
HAWA	Hanford	61.27	308	eP	P	03 43 36.9	+2.4
	comp=Z,17nm,1.3s,mb5.0						
X14A	Yava	61.38	294	⇓P	P	03 43 35.7	+0.3
	baz=61						
H08A	Prairie City	61.42	306	⇑P	P	03 43 35.9	+0.3
	baz=61,SNR=7.2						
N10A	Dunphy	61.44	301	⇑P	P	03 43 36.2	+0.5
	baz=61						
A06A	Chilliwack	61.47	312	⇑P	P	03 43 36.1	+0.4
	baz=61						
K09A	Rome	61.50	304	⇑P	P	03 43 36.6	+0.5
	baz=62						
I08A	Drewsey	61.59	305	⇑P	P	03 43 36.7	0.0
	baz=62						
Q11A	Duckwater	61.59	299	⇓P	P	03 43 37.3	+0.5
	baz=62						
O10A	Cortez Mining,	61.61	301	⇑P	P	03 43 37.5	+0.7
	baz=62						
F07A	Phinny Hill Vi	61.71	308	⇓P	P	03 43 37.7	+0.2
	baz=62						
L09A	Wilkinson Ranc	61.73	303	⇓P	P	03 43 37.3	-0.4
	baz=62,SNR=7.4						
J08A	Circle Bar Ran	61.74	305	⇑P	P	03 43 37.9	+0.2
	baz=62						
U12A	Valley of Fire	61.78	296	⇓P	P	03 43 38.0	-0.1
	baz=62						
G07A	Ruggs Ranch, H	61.79	307	⇓P	P	03 43 38.0	0.0
	baz=62						
D06A	Cle Elum	61.80	310	⇑P	P	03 43 38.0	0.0
	baz=62						
M09A	Marrel Ranch,	61.81	302	⇓P	P	03 43 38.4	+0.1
	baz=62,SNR=5.9						
P10A	Eureka	61.85	300	⇑P	P	03 43 39.2	+0.7
	baz=62						
W13A	Hualapai Mount	61.86	295	⇑P	P	03 43 38.6	-0.1
	baz=62						
PAYG	Puerto Ayora	61.88	247	PFAKE		03 43 50.0	+11
PAYG				LR	LR		
	comp=Z,288nm,20.0s,MS4.4						
K08A	Mann Creek Ran	62.00	304	⇓P	P	03 43 38.9	-0.6
	baz=62,SNR=6.8						
X13A	Yucca	62.03	294	⇓P	P	03 43 39.2	-0.6
	baz=62						
BMN	Battle Mountai	62.05	301	eP	P	03 43 42.8	+2.9
	comp=Z,12nm,1.1s,mb4.9						
BMN				LR	LR		
	comp=Z,525nm,22.0s,MS4.7						
BMN	Battle Mountai	62.05	301	eP	P	03 43 42.8	+2.9
BMN				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.9						
BMN				MLR	MLR		
	comp=Z,525nm,22.0s,MS4.7						
BMN	Battle Mountai	62.05	301	eP	P	03 43 42.8	+2.9
	comp=Z,12nm,1.1s,mb4.9						
N09A	Rock Creek Ran	62.09	302	⇓P	P	03 43 39.4	-0.7
	baz=62						
L08A	Fields	62.12	304	P	P	03 43 39.2	-1.0
	baz=62,SNR=24						
E06A	Yakima	62.13	309	⇑P	P	03 43 39.4	-0.9
	baz=62						
O09A	Fish Creek Ran	62.14	301	⇓P	P	03 43 40.2	-0.2
	baz=62,SNR=5.6						
I07A	Izee	62.14	306	⇑P	P	03 43 40.2	-0.2
	baz=62						
B05A	Bryant	62.16	311	⇑P	P	03 43 39.2	-1.2
	baz=62						
SHPR	Sheep Range	62.20	297	eP	P	03 43 44.8	+3.9
SHPR	Sheep Range	62.20	297	eP	P	03 43 44.8	+3.9
WVOR	Wild Horse Val	62.22	304	eP	P	03 43 42.0	+1.0
	comp=Z,24nm,1.4s,mb5.1						
WVOR				LR	LR		
	comp=Z,961nm,20.0s,MS5.0						
WVOR	Wild Horse Val	62.22	304	eP	P	03 43 42.0	+1.0
WVOR				pmax	pmax		
	comp=Z,24nm,1.4s,mb5.1						
WVOR				MLR	MLR		
	comp=Z,961nm,20.0s,MS5.0						
WVOR	Wild Horse Val	62.22	304	eP	P	03 43 42.0	+1.0
	comp=Z,24nm,1.4s,mb5.1						
R10A	Warm Springs	62.28	299	⇑P	P	03 43 40.2	-1.3
	baz=62						
V12A	Nelson	62.30	296	⇑P	P	03 43 41.6	-0.1
	baz=62,SNR=5.9						
F06A	Goldendale	62.31	308	⇓P	P	03 43 41.0	-0.5
	baz=62						
P09A	Austin	62.36	300	⇓P	P	03 43 42.2	+0.3
	baz=62						
PDMCI	Parker Dam,Lak	62.39	294	⇓P	P	03 43 41.4	-0.8
	baz=62						
G06A	Carlson Farm,	62.43	307	⇑P	P	03 43 41.9	-0.4
	baz=62						
H06A	Lindquist Farm	62.43	307	⇓P	P	03 43 42.8	+0.5
	baz=62						
M08A	Happy Creek Ra	62.44	303	⇑P	P	03 43 42.8	+0.3
	baz=62						
K07A	Rock Creek Ran	62.53	304	⇓P	P	03 43 43.2	+0.1
	baz=62,SNR=5.8						
N08A	GE Springer Mi	62.55	302	⇓P	P	03 43 42.4	-0.7
	baz=62						
S10A	Tonopah Range,	62.65	299	⇓P	P	03 43 42.6	-1.3
	baz=63,SNR=7.7						
V11A	Goodsprings	62.68	296	⇑P	P	03 43 43.9	-0.2
	baz=63						
F05A	White Salmon	62.70	308	⇑P	P	03 43 42.9	-1.2
	baz=63						
R09A	Tonopah	62.85	299	⇑P	P	03 43 44.7	-0.6
	baz=63,SNR=5.5						
L07A	Adell	62.87	304	⇓P	P	03 43 44.7	-0.6
	baz=63,SNR=7.9						
J06A	Christmas Vall	62.91	305	⇑P	P	03 43 45.5	0.0
	baz=63						
Y12C	Blythe	62.91	294	⇓P	P	03 43 45.3	-0.4
	baz=63						
P08A	Dixie Valley	62.96	301	⇑P	P	03 43 46.4	+0.5
	baz=63						
M07A	Soldier Meadow	63.01	303	⇑P	P	03 43 46.2	0.0
	baz=63						
TPH	Tonopah	63.03	299	PFAKE		03 44 00.0	+14
TPH				LR	LR		
	comp=Z,618nm,20.0s,MS4.8						
HOOD	Mount Hood Mea	63.05	308	eP	P	03 43 49.6	+3.2
HOOD	Mount Hood Mea	63.05	308	eP	P	03 43 49.6	+3.2
U10A	Ash Meadows, A	63.09	297	⇓P	P	03 43 46.5	-0.4
	baz=63						
N07B	Gerlach	63.13	302	⇓P	P	03 43 46.6	-0.4
	baz=63,SNR=7.7						
K06A	Valley Falls	63.16	305	⇓P	P	03 43 46.7	-0.6
	baz=63						
S09A	Goldfield	63.18	299	⇑P	P	03 43 47.6	+0.1
	baz=63						
IRM	Iron Mountain	63.20	294	⇓P	P	03 43 47.4	-0.3
	baz=63						
Q08A	Gabbs	63.20	300	⇑P	P	03 43 46.8	-0.8
	baz=63,SNR=5.2						
I05A	Bend	63.27	307	⇓P	P	03 43 48.4	+0.5
	baz=63						
GMRC	Granite Mounta	63.31	295	⇑P	P	03 43 48.6	+0.3
	baz=63						
O07A	Toulon	63.32	302	⇓P	P	03 43 48.3	-0.1
	baz=63						
FURC	Furnace Creek,	63.46	297	⇑P	P	03 43 49.6	+0.3
	baz=63						
R08A	Mina	63.55	300	⇓P	P	03 43 50.0	+0.1
	baz=64						
MOD	Modoc	63.57	304	eP	P	03 43 51.4	+1.4
	comp=Z,6.7nm,1.1s,mb4.6						
MOD				LR	LR		
	comp=Z,591nm,20.0s,MS4.8						
MOD	Modoc	63.57	304	⇓P	P	03 43 49.0	-0.9
	baz=64,SNR=6.2						
MOD	Modoc	63.57	304	eP	P	03 43 51.4	+1.5
	comp=Z,6.7nm,1.1s,mb4.6						
J05A	Fort Rock	63.62	306	⇑P	P	03 43 49.1	-1.1
	baz=64,SNR=8.9						
K05A	Summer Lake	63.62	305	P	P	03 43 49.3	-1.0
	baz=64,SNR=15						
NVAR	Mina Array Bea	63.65	300	P	P	03 43 50.2	-0.4
NVAR	Mina Array Bea	63.65	300	P	P	03 43 50.2	-0.4
	comp=Z,2.9nm,0.9s,mb4.3,baz=75,slow=6.8,SNR=15						
N06A	Buffalo Meadow	63.73	303	⇓P	P	03 43 50.5	-0.6
	baz=64,SNR=6.4						
ARU	Arti	63.74	38	eP	P	03 43 51.1	+0.3
	comp=Z,9.8nm,0.8s,mb4.9						
ARU				LR	LR		
	comp=Z,1μm,20.0s,MS5.2						
ARU	Arti	63.74	38	⇓iP	P	03 43 49.6	-1.2
ARU				e		03 44 23.9	
ARU				e		03 46 08.7	
ARU				ePPP		03 47 42.8	
ARU				eS	S	03 52 21.9	-3.4
ARU				eSS	SS	03 56 29.7	-2.7
ARU				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
ARU	Arti	63.74	38	eP	P	03 43 51.1	+0.3
	comp=Z,9.8nm,0.8s,mb4.9						
PAHR	Pah Rah Range	63.87	301	eP	P	03 43 55.0	+3.1
PAHR	Pah Rah Range	63.87	301	eP	P	03 43 55.0	+3.1
L05A	Lakeview	63.87	304	P	P	03 43 52.8	+0.9
	baz=64,SNR=7.7						
BELC	Belle Mtn.	63.90	294	⇑P	P	03 43 52.6	+0.3
	baz=64						
GSC	Goldstone	63.92	296	⇓P	P	03 43 51.3	-1.1
	baz=64						
S08C	White Mtn Res	63.96	299	⇑P	P	03 43 52.0	-0.6
	baz=64						
O06A	Flanigan	63.98	302	⇑P	P	03 43 52.3	-0.4
	baz=64						
M06C	Likely Place G	63.98	303	⇓P	P	03 43 52.6	-0.1
	baz=64,SNR=7.5						
DAC	Darwin (Calif)	64.07	297	eP	P	03 43 54.4	+1.1
	comp=Z,7.3nm,1.0s,mb4.7						
DAC				LR	LR		
	comp=Z,788nm,19.0s,MS4.9						
DAC	Darwin (Calif)	64.07	297	eP	P	03 43 54.4	+1.0
DAC				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
DAC				MLR	MLR		
	comp=Z,788nm,19.0s,MS4.9						
DAC	Darwin (Calif)	64.07	297	eP	P	03 43 54.4	+1.0
	comp=Z,7.3nm,1.0s,mb4.7						
MPMC	Manual Prospec	64.09	297	⇓P	P	03 43 53.1	-0.4
	baz=64,SNR=7.2						
DAWY	Dawson	64.21	332	eP	P	03 43 54.1	+0.3
DAWY	Dawson	64.21	332	eP	P	03 43 54.1	+0.3
J04A	Umpqua Nationa	64.21	306	⇑P	P	03 43 53.1	-1.1
	baz=64						
R07C	Lee Vining	64.33	300	⇑P	P	03 43 54.0	-1.0
	baz=64,SNR=7.6						
ELFS	Eagle Lake Fie	64.40	303	P	P	03 43 54.3	-1.2
	baz=64,SNR=25						
PFO	Pinyon Flat Ob	64.42	294	PFAKE		03 44 10.0	+14
PFO				LR	LR		
	comp=Z,482nm,21.0s,MS4.7						
PFO	Pinyon Flat Ob	64.42	294	⇓P	P	03 43 54.7	-0.9
	baz=64						
R06C	Coleville	64.42	300	⇑P	P	03 43 55.0	-0.6
	baz=64						
COR	Corvallis	64.42	308	PFAKE		03 44 10.0	+14
COR				LR	LR		
	comp=Z,654nm,19.0s,MS4.8						
BEKR	Beckwourth	64.47	302	⇑P	P	03 43 55.3	-0.6
	baz=64,SNR=5.1						
EGAK	Eagle	64.54	333	eP	P	03 43 56.9	+0.9
	comp=Z,8.6nm,1.0s,mb4.7						
EGAK				LR	LR		
	comp=Z,1μm,20.0s,MS5.0						
EGAK	Eagle	64.54	333	eP	P	03 43 56.9	+1.0
	comp=Z,8.6nm,1.0s,mb4.7						
WRAK	Wrangell Islan	64.55	322	PFAKE		03 44 10.0	+14
WRAK				LR	LR		
	comp=Z,2μm,19.0s,MS5.3						
SVE	Sverdlovsk	64.61	37	eP	P	03 43 58.0	+1.5
M04C	Macdoel	64.66	304	⇓P	P	03 43 56.2	-0.9
	baz=65						
O04C	Chester	64.78	303	⇑P	P	03 43 57.7	-0.2
	baz=65,SNR=7.7						
HATC	Hat Creek Radi	64.82	303	⇑P	P	03 43 57.2	-0.9
	baz=65						
HELL	Mitchell Peak,	64.93	298	⇑P	P	03 43 58.0	-1.0
	baz=65,SNR=6.5						
EDW2	Edwards Air Fo	64.98	296	⇑P	P	03 43 59.6	+0.3
	baz=65						
ISA	Isabella	64.98	297	⇑P	P	03 43 59.3	-0.1
	baz=65						
S06C	San Francisco	64.98	300	⇓P	P	03 43 58.9	-0.4
	baz=65,SNR=6.2						
BFSC	Mount Baldy St	65.03	295	⇑P	P	03 43 58.8	-0.8
	baz=65						
HUMO	Hull Mountain	65.05	306	PFAKE		03 44 10.0	+10
HUMO				LR	LR		
	comp=Z,937nm,21.0s,MS5.0						
M03C	McCloud	65.07	304	⇑P	P	03 43 59.2	-0.6
	baz=65						
YBH	Yreka Blue Hor	65.27	305	PFAKE		03 44 10.0	+8.9
YBH				LR	LR		
	comp=Z,898nm,22.0s,MS4.9						
CMB	Columbia Colle	65.30	300	PFAKE		03 44 10.0	+8.7
CMB				LR	LR		
	comp=Z,654nm,21.0s,MS4.8						
CMB	Columbia Colle	65.30	300	⇓P	P	03 44 02.1	+0.8
	baz=65						
CMB	Columbia Colle	65.30	300	P	P	03 44 10.0	+8.7
ORV	Oroville	65.40	302	⇑P	P	03 44 01.7	-0.3
	baz=65						
OHCM	Honcut	65.49	302	eP	P	03 44 03.0	+0.5
OHCM	Honcut	65.49	302	eP	P	03 44 03.0	+0.5
WDC	Whiskeytown Da	65.66	303	PFAKE		03 44 20.0	+16
WDC				LR	LR		
	comp=Z,806nm,19.0s,MS4.9						
SIT	Sitka	65.72	324	PFAKE		03 44 20.0	+16
SIT				LR	LR		
	comp=Z,2μm,19.0s,MS5.3						
U04C	Hernandez Rese	66.34	299	⇑P	P	03 44 08.1	+0.1
	baz=66						
SAO	San Andreas Ge	66.63	299	PFAKE		03 44 20.0	+10
SAO				LR	LR		
	comp=Z,640nm,20.0s,MS4.8						
KIPM	Iron Peak	66.65	303	eP	P	03 44 16.4	+6.4
KIPM	Iron Peak	66.65	303	eP	P	03 44 16.5	+6.5
O01C	Eel River Cons	66.73	304	⇑P	P	03 44 11.0	+0.4
	baz=67						
HOPS	Hopland	66.74	302	eP	P	03 44 10.4	-0.2
	comp=Z,38nm,1.3s,mb5.3						
HOPS				LR	LR		
	comp=Z,944nm,21.0s,MS5.0						
HOPS	Hopland	66.74	302	eP	P	03 44 10.4	-0.2
	comp=Z,38nm,1.3s,mb5.3						
COLA	College	66.92	334	eP	P	03 44 12.2	+0.9
	comp=Z,2.7nm,0.8s,mb4.3						
COLA				LR	LR		
	comp=Z,555nm,20.0s,MS4.8						
COLA	College	66.92	334	eP	P	03 44 12.2	+0.9
COLA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
COLA				MLR	MLR		
	comp=Z,555nm,20.0s,MS4.8						
COLA	College	66.92	334	eP	P	03 44 12.2	+0.9
	comp=Z,2.7nm,0.8s,mb4.3						
MCCM	Marconi Confer	67.00	301	PFAKE		03 44 30.0	+18
MCCM				LR	LR		
	comp=Z,669nm,19.0s,MS4.9						
MCK	McKinley	67.97	334	eP	P	03 44 20.1	+2.2
MCK				LR	LR		
	comp=Z,337nm,19.0s,MS4.6						
MCK	McKinley	67.97	334	eP	P	03 44 20.1	+2.2
IMA2	Indian Mountai	68.17	337	eP	P	03 44 19.8	+0.7
IMA2	Indian Mountai	68.17	337	eP	P	03 44 19.8	+0.7
DIV	Divide	68.25	331	PFAKE		03 44 30.0	+10
DIV				LR	LR		
	comp=Z,2μm,20.0s,MS5.4						
PMR	Palmer	69.31	332	eP	P	03 44 27.1	+0.8
	comp=Z,8.2nm,0.9s,mb4.7						
PMR				LR	LR		
	comp=Z,577nm,20.0s,MS4.8						
PMR	Palmer	69.31	332	eP	P	03 44 27.1	+0.8
PMR				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
PMR				MLR	MLR		
	comp=Z,577nm,20.0s,MS4.8						
PMR	Palmer	69.31	332	eP	P	03 44 27.1	+0.8
	comp=Z,8.2nm,0.9s,mb4.7						
BRVK	Borovoye	71.31	38	eP	P	03 44 39.7	+1.0
	comp=Z,38nm,1.6s,mb5.1						
BRVK				LR	LR		
	comp=Z,1μm,20.0s,MS5.1						
BRVK	Borovoye	71.31	38	eP	P	03 44 39.7	+1.0
BRVK				pmax	pmax		
	comp=Z,38nm,1.6s,mb5.1						
BRVK				MLR	MLR		
	comp=Z,1μm,20.0s,MS5.1						
LCO	Las Campanas	71.88	212	PFAKE		03 45 00.0	+18
LCO				LR	LR		
	comp=Z,427nm,20.0s,MS4.7						
TNA	Tin City	72.69	341	PFAKE		03 45 00.0	+13
TNA				LR	LR		
	comp=Z,327nm,21.0s,MS4.6						
TIXI	Tiksi	72.74	5	PFAKE		03 45 00.0	+13
TIXI				LR	LR		
	comp=Z,255nm,19.0s,MS4.5						
TIXI	Tiksi	72.74	5	eP	P	03 44 45.7	-1.3
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
KDAK	Kodiak Island	73.05	330	PFAKE		03 45 00.0	+11
KDAK				LR	LR		
	comp=Z,205nm,21.0s,MS4.4						
TSUM	Tsumeb	74.40	128	eP	P	03 44 59.0	+1.6
	comp=Z,5.7nm,1.1s,mb4.4						
TSUM				LR	LR		
	comp=Z,963nm,20.0s,MS5.1						
TSUM	Tsumeb	74.40	128	eP	P	03 44 59.0	+1.5
	comp=Z,5.7nm,1.1s,mb4.4						
ATD	Arta Tunnel	74.45	87	LR	LR	04 14 31.0	
	comp=Z,501nm,18.6s,MS4.8,baz=292,slow=33						
BILL	Bilibino	75.53	351	PFAKE		03 45 20.0	+17

BILL				LR	LR		
	comp=Z,884nm,21.0s,MS5.0						
BILL	**Bilibino**	**75.53**	**351**	*e*P	**P**	**03 45 04.1**	**+0.8**
BILL				*e*		03 45 12.4	
BILL				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.1						
KURK	**Kurchatov**	**76.84**	**36**	*e*P	**P**	**03 45 12.6**	**+1.5**
	comp=Z,24nm,1.4s,mb4.9						
KURK				LR	LR		
	comp=Z,636nm,22.0s,MS4.9						
KURK	**Kurchatov**	**76.84**	**36**	*e*P	**P**	**03 45 12.6**	**+1.5**
KURK				pmax	pmax		
	comp=Z,24nm,1.4s,mb4.9						
KURK				MLR	MLR		
	comp=Z,636nm,22.0s,MS4.9						
KURK	**Kurchatov**	**76.84**	**36**	*e*P	**P**	**03 45 12.6**	**+1.5**
	comp=Z,24nm,1.4s,mb4.9						
KMBO	**Kilima Mbogo**	**77.13**	**101**	*e*P	**P**	**03 45 12.6**	**-0.6**
	comp=Z,15nm,1.8s,mb4.6						
KMBO				LR	LR		
	comp=Z,637nm,20.0s,MS4.9						
KMBO	**Kilima Mbogo**	**77.13**	**101**	*e*P	**P**	**03 45 12.6**	**-0.7**
KMBO				pmax	pmax		
	comp=Z,15nm,1.8s						
KMBO				MLR	MLR		
	comp=Z,637nm,20.0s						
KMBO	**Kilima Mbogo**	**77.13**	**101**	*e*P	**P**	**03 45 12.6**	**-0.7**
	comp=Z,15nm,1.8s,mb4.6						
ZAL	**Zalesovo**	**77.48**	**31**	P	**P**	**03 45 14.3**	**-0.3**
ZALV	**Zalesovo Beam**	**77.48**	**31**	P	**P**	**03 45 14.3**	**-0.3**
ZALV	**Zalesovo Beam**	**77.48**	**31**	P	**P**	**03 45 14.3**	**-0.3**
	comp=Z,0.7nm,0.7s,mb3.7,baz=320,slow=6.0,SNR=4.8						
LSZ	**Lusaka**	**78.97**	**118**	*e*P	**P**	**03 45 23.6**	**+0.2**
	comp=Z,15nm,1.3s,mb4.8						
LSZ				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
LSZ	**Lusaka**	**78.97**	**118**	*e*P	**P**	**03 45 23.6**	**+0.2**
LSZ				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.8						
LSZ				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.3						
LSZ	**Lusaka**	**78.97**	**118**	LR	LR	04 18 56.7	
	comp=Z,1µm,18.6s,MS5.3,baz=316,slow=35						
LSZ	**Lusaka**	**78.97**	**118**	*e*P	**P**	**03 45 23.6**	**+0.2**
	comp=Z,15nm,1.3s,mb4.8						
FRU	**Bishkek**	**79.76**	**44**	*e*P	**P**	**03 45 30.0**	**+2.6**
FRU				*e*		03 45 42.0	
AAK	**Ala-Archa**	**79.81**	**45**	*e*P	**P**	**03 45 29.1**	**+1.4**
	comp=Z,30nm,1.9s,mb4.9						
AAK				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
AAK	**Ala-Archa**	**79.81**	**45**	*e*P	**P**	**03 45 28.2**	**+0.5**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.2						
AAK	**Ala-Archa**	**79.81**	**45**	*e*P	**P**	**03 45 29.1**	**+1.4**
	comp=Z,30nm,1.9s,mb4.9						
MK31	**Makanchi Array**	**81.27**	**38**	*e*P	**P**	**03 45 35.6**	**+0.2**
MK31	**Makanchi Array**	**81.27**	**38**	*e*P	**P**	**03 45 35.6**	**+0.2**
MKAR	**Makanchi Array**	**81.27**	**38**	⇑*e*P	**P**	**03 45 37.0**	**+1.6**
MKAR	**Makanchi Array**	**81.27**	**38**	P	**P**	**03 45 33.6**	**-1.8**
	comp=Z,3.4nm,1.0s,mb4.2,baz=325,slow=4.3,SNR=13						
MKAR				LR	LR	04 21 56.9	
	comp=Z,1µm,18.3s,MS5.3,baz=311,slow=36						
SEY	**Seymchan**	**81.79**	**356**	⇑*e*P	**P**	**03 45 37.4**	**-0.5**
YAK	**Yakutsk**	**82.25**	**7**	PFAKE		03 45 50.0	+10
YAK				LR	LR		
	comp=Z,336nm,20.0s,MS4.7						
YAK	**Yakutsk**	**82.25**	**7**	*e*P	**P**	**03 45 39.7**	**-0.6**
YAK				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
LBTB	**Lobatse**	**83.73**	**127**	PFAKE		03 46 00.0	+12
LBTB				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
LBTB	**Lobatse**	**83.73**	**127**	LR	LR	04 22 38.4	
	comp=Z,472nm,20.2s,MS4.9,baz=326,slow=35						
BOD	**Bodaibo**	**83.81**	**16**	*e*P	**P**	**03 45 56.5**	**+8.0**
BOD				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.8						
MA2	**Magadan**	**85.22**	**356**	PFAKE		03 46 10.0	+14
MA2				LR	LR		
	comp=Z,535nm,20.0s,MS4.9						
SUR	**Sutherland**	**85.97**	**135**	PFAKE		03 46 10.0	+10
SUR				LR	LR		
	comp=Z,640nm,21.0s,MS5.0						
SUR	**Sutherland**	**85.97**	**135**	LR	LR	04 20 43.4	
	comp=Z,376nm,21.5s,MS4.8,baz=308,slow=33						
BOSA	**Boshof**	**86.00**	**129**	PFAKE		03 46 10.0	+10
BOSA				LR	LR		
	comp=Z,661nm,20.0s,MS5.0						
BOSA	**Boshof**	**86.00**	**129**	LR	LR	04 20 53.4	
	comp=Z,522nm,19.9s,MS4.9,baz=326,slow=33						
WMQ	**Urumqi**	**86.06**	**37**	*e*P	**P**	**03 46 01.4**	**+1.4**
WMQ				AP	pP	03 46 06.2	+2.8
WMQ				XP	sP	03 46 08.4	+3.8
WMQ				PP	PP	03 49 23.0	+3.5
WMQ				SKS		03 56 23.7	
WMQ				S	S	03 56 33.8	-0.4
WMQ				AMB	AMB		
	comp=Z,8.0nm,0.6s,mb5.1						
WMQ				LR	LR		
	comp=N,705nm,19.6s,MS5.2						
WMQ				LR	LR		
	comp=E,708nm,19.6s,MS5.2						
WMQ				LR	LR		
	comp=Z,811nm,18.8s,MS5.2						
TLY	**Talaya**	**86.40**	**24**	PFAKE		03 46 10.0	+8.4
TLY				LR	LR		
	comp=Z,460nm,19.0s,MS4.9						
EFI	**East Falkland**	**88.80**	**193**	PFAKE		03 46 20.0	+7.3
EFI				LR	LR		
	comp=Z,777nm,21.0s,MS5.1						
SONM	**Songino Array**	**90.62**	**24**	P	**P**	**03 46 22.1**	**+0.5**
	comp=Z,0.4nm,0.9s,mb3.8,baz=292,slow=5.5,SNR=2.9						
SONM				LR	LR	04 29 06.9	
	comp=Z,689nm,19.1s,MS5.1,baz=173,slow=37						
ULN	**Ulaanbaatar**	**90.81**	**24**	PFAKE		03 46 30.0	+7.4
ULN				LR	LR		
	comp=Z,576nm,19.0s,MS5.0						
ULN	**Ulaanbaatar**	**90.81**	**24**	⇑*e*P	**P**	**03 46 22.4**	**-0.2**
PET	**Petropavlovsk**	**91.03**	**351**	PFAKE		03 46 40.0	+17
PET				LR	LR		
	comp=Z,410nm,21.0s,MS4.8						
PET	**Petropavlovsk**	**91.03**	**351**	*e*P	**P**	**03 46 20.3**	**-3.2**
PET				MLR	MLR		
	comp=Z,400nm,17.0s,MS4.9						
MSEY	**Mahe Island**	**93.96**	**93**	PFAKE		03 46 50.0	+12
MSEY				LR	LR		
	comp=Z,793nm,19.0s,MS5.2						
GTA	**Gaotai**	**95.18**	**33**	*e*P	**P**	**03 46 43.1**	**+0.2**
GTA				AP	pP	03 46 49.0	+2.8
GTA				XP	sP	03 46 52.8	+5.4
GTA				PPP		03 52 47.9	
GTA				SKS		03 57 17.3	
GTA				S	S	03 58 00.7	+2.5
GTA				XS	sS	03 58 13.6	+10
GTA				AMB	AMB		
	comp=Z,2.0nm,0.9s,mb4.5						
GTA				AMB	AMB		
	comp=Z,123nm,4.6s						
GTA				LR	LR		
	comp=N,629nm,15.2s,MS5.3						
GTA				LR	LR		
	comp=E,591nm,19.4s,MS5.3						
GTA				LR	LR		
	comp=Z,475nm,17.1s,MS5.0						
YSS	**Yuzh-Sakhalins**	**98.03**	**1**	PFAKE		03 47 10.0	+14
YSS				LR	LR		
	comp=Z,625nm,20.0s,MS5.1						
HHC	**Hu-ho-hao-te**	**98.52**	**24**	*e*P	**P**	**03 46 58.4**	**+0.4**
HHC				AP	pP	03 47 03.2	+1.9
HHC				PP	PP	03 51 00.4	+3.0
HHC				SKS		03 57 35.1	
HHC				S	S	03 58 23.3	-3.6
HHC				PS	PS	03 59 52.5	+0.8
HHC				SS	SS	04 05 08.9	-0.7
HHC				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb5.2						
HHC				AMB	AMB		
	comp=Z,195nm,5.9s						
HHC				LR	LR		
	comp=N,773nm,17.1s,MS5.3						
HHC				LR	LR		
	comp=E,604nm,18.6s,MS5.3						
HHC				LR	LR		
	comp=Z,595nm,17.0s,MS5.2						
MDJ	**Mudanjiang**	**99.33**	**10**	P	**P**	**03 46 59.8**	**-1.7**
MDJ				S	S	03 58 30.8	-2.7
MDJ				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,118nm,4.0s						
MDJ				LR	LR		
	comp=N,268nm,31.6s,MS5.0						
MDJ				LR	LR		
	comp=E,773nm,34.5s,MS5.0						
MDJ				LR	LR		
	comp=Z,167nm,20.1s						
CN2	**Changchun**	**99.42**	**13**	*e*P	**P**	**03 47 01.3**	**-0.6**
CN2				*e*S	S	03 58 28.6	-5.7
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb5.5						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
LZH	**Lanzhou**	**99.71**	**32**	*e*P	Pdif	03 47 06.5	+3.2
LZH				AP		03 47 10.2	
LZH				PP	PP	03 51 12.0	+5.4
LZH				*e*SKS		03 57 43.0	
LZH				*e*S	S	03 58 35.2	-1.8
LZH				*e*SS	SS	04 05 27.0	+0.4
LZH				AMB	AMB		
	comp=Z,13nm,1.0s,mb5.3						
LZH				AMB	AMB		
	comp=Z,80nm,5.3s						
LZH				LR	LR		
	comp=E,599nm,15.1s						
LZH				LR	LR		
	comp=Z,626nm,16.7s,MS5.2						
INCN	**Inchon**	**105.75**	**14**	PFAKE		03 51 50.0	+7.0
INCN				LR	LR		
	comp=Z,359nm,19.0s,MS4.9						
MIDW	**Midway**	**106.95**	**325**	PFAKE		03 52 00.0	+15
MIDW				LR	LR		
	comp=Z,237nm,19.0s,MS4.8						
PALK	**Pallekele**	**107.04**	**68**	PFAKE		03 52 00.0	+14
PALK				LR	LR		
	comp=Z,390nm,21.0s,MS4.9						
KMI	**Kunming**	**108.32**	**39**	PKP	PKiKP	03 51 46.8	-1.3
KMI				PP	PP	03 52 14.2	+3.2
KMI				PKS		03 55 22.3	
KMI				S	Sdif	03 59 44.0	-4.6
KMI				SS	SS	04 07 23.3	-2.1
KMI				PP	PP		
	comp=Z,76nm,5.5s						
KMI				LR	LR		
	comp=N,327nm,21.7s,MS5.0						
KMI				LR	LR		
	comp=E,388nm,22.7s,MS5.0						
KMI				LR	LR		
	comp=Z,443nm,24.6s,MS4.9						
WHN	**Wuhan**	**108.77**	**27**	*e*PDIF	Pdif	03 47 46.4	+2.8
WHN				LR	LR		
	comp=Z,1µm,17.9s,MS5.4						
NJ2	**Nanjing**	**108.92**	**22**	*e*PDIF	Pdif	03 47 41.6	-2.6
NJ2				PP	PP	03 52 19.0	+4.0
NJ2				SS	SS	04 07 31.0	-1.7
NJ2				PP	PP		
	comp=Z,230nm,8.0s						
NJ2				LR	LR		
	comp=N,1µm,34.9s						
NJ2				LR	LR		
	comp=E,1µm,29.1s						
NJ2				LR	LR		
	comp=Z,1µm,29.1s						
GYA	**Guiyang**	**109.13**	**35**	*e*PDIF	Pdif	03 47 45.8	+0.6
GYA				PKP	PKiKP	03 51 48.4	-1.2
GYA				PP	PP	03 52 20.3	+3.4
GYA				PKS		03 55 23.8	
GYA				S	Sdif	03 59 50.9	-4.5
GYA				SS	SS	04 07 35.4	-0.8
GYA				PP	PP		
	comp=Z,110nm,7.9s						
GYA				LR	LR		
	comp=N,220nm,21.0s,MS4.9						
GYA				LR	LR		
	comp=E,290nm,21.3s,MS4.9						
GYA				LR	LR		
	comp=Z,250nm,20.5s,MS4.8						
RKT	**Rikitea**	**109.94**	**255**	*e*SS	SS	04 07 57.7	+8.2
	comp=Z,641nm,33.0s						
RKT				*e*LR	LR	04 24 22.7	
	comp=Z,173nm,28.8s						
CHTO	**Chiang Mai**	**111.28**	**46**	PFAKE		03 52 10.0	+16
CHTO				LR	LR		
	comp=Z,402nm,19.0s,MS5.0						
CM31	**Chiang Mai Arr**	**111.56**	**46**	PFAKE		03 52 10.0	+16
CM31				LR	LR		
	comp=Z,455nm,19.0s,MS5.1						
TATO	**Taipei**	**116.33**	**23**	PFAKE		03 52 20.0	+17
TATO				LR	LR		
	comp=Z,515nm,21.0s,MS5.1						
QIZ	**Qiongzhong**	**116.98**	**36**	PKP	PKPdf	03 52 06.1	+1.4
QIZ				PP	PP	03 53 16.3	+3.5
QIZ				LR	LR		
	comp=E,490nm,21.1s						
QIZ				LR	LR		
	comp=Z,472nm,16.2s,MS5.2						
PPT	**Papeete**	**118.91**	**268**	*e*SS	SS	04 09 45.1	-2.6
	comp=Z,220nm,38.5s						
PPT				*e*LR	LR	04 28 30.1	
	comp=Z,110nm,21.8s						
DAV	**Davao City (W)**	**134.38**	**26**	PFAKE		03 52 50.0	+12
DAV				LR	LR		
	comp=Z,510nm,19.0s,MS5.3						
FUNA	**Funafuti**	**138.12**	**301**	PFAKE		03 53 00.0	+15
FUNA				LR	LR		
	comp=Z,9µm,20.0s						
CASY	**Casey**	**143.44**	**158**	PFAKE		03 53 00.0	+7.1
CASY				LR	LR		
	comp=Z,797nm,21.0s,MS5.5						
HNR	**Honiara**	**150.31**	**327**	PFAKE		03 53 20.0	+14
HNR				LR	LR		
	comp=Z,660nm,20.0s,MS5.4						
PMG	**Port Moresby**	**153.97**	**353**	PFAKE		03 53 20.0	+8.5
PMG				LR	LR		
	comp=Z,269nm,20.0s,MS5.1						
CTAO	**Charters Tower**	**164.62**	**352**	PFAKE		03 53 30.0	+6.4
CTAO				LR	LR		
	comp=Z,660nm,19.0s						

IDC 04 03:39:37.4±1.5**, 1289S**×**17312E, h0**^{km}**, mb3.9**/4**, mb1 4.2**/4**, mb1mx3.9**/13**, mbtmp3.9**/4**, Error ellipse: s-maj=117.3km s-min=27.6km az=147.0, North of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**34.55**	**232**	P	P	03 46 27.6	-0.2
	1.6nm,0.4s,baz=50,slow=6.6,SNR=8.2						
WRA	**Warramunga Arr**	**37.79**	**254**	P	P	03 46 55.7	+0.1
	0.6nm,0.3s,baz=85,slow=7.5,SNR=6.2						
TXAR	**Lajitas Array**	**90.42**	**60**	P	P	03 52 41.6	+0.4
	0.2nm,0.7s,baz=240,slow=4.7,SNR=3.3						
YKA	**Yellowknife Ar**	**93.35**	**26**	P	P	03 52 53.6	-0.4
	0.4nm,0.6s,baz=252,slow=4.6,SNR=6.3						

IDC 04 04:06:20.0±1.6**, 3176S**×**5732E, h0**^{km}**, mb3.9**/6**, mb1 4.0**/6**, mb1mx3.8**/19**, mbtmp3.9**/6**, Error ellipse: s-maj=74.4km s-min=29.1km az=20.0, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSZ	**Lusaka**	**31.20**	**295**	P	P	04 12 41.2	0.0
	0.3nm,0.3s,baz=119,slow=13,SNR=3.5						
WRA	**Warramunga Arr**	**69.05**	**101**	P	P	04 17 28.3	+0.3
	2.1nm,1.0s,baz=243,slow=4.9,SNR=5.2						
TORD	**Torodi Ar. Bea**	**69.50**	**301**	P	P	04 17 30.3	-0.3
	1.1nm,0.9s,baz=131,slow=5.0,SNR=5.9						
BRTR	**Keskin Array B**	**74.44**	**341**	P	P	04 18 00.5	+0.8
	2.9nm,1.0s,baz=159,slow=5.8						
MKAR	**Makanchi Array**	**81.37**	**17**	P	P	04 18 37.1	-1.0
	0.4nm,0.8s,baz=218,slow=2.3,SNR=3.7						
ESDC	**Sonseca Array**	**90.98**	**317**	P	P	04 19 27.2	+1.4
	0.2nm,0.5s,baz=133,slow=3.0,SNR=4.7						
YKA	**Yellowknife Ar**	**148.81**	**353**	PKPbc	PKPbc	04 26 08.9	+0.3
	0.8nm,0.8s,baz=1.5,slow=2.6,SNR=15						
ULM	**Lac du Bonnet**	**152.83**	**321**	PKPbc	PKPbc	04 26 16.8	-1.7
	1.9nm,0.9s,baz=207,slow=8.9,SNR=3.5						

*ISCJB **04** 04:19:55.7±0.6, 4570N±003×2673E±005, h85^{km}±6^{km}, Error ellipse: s-maj=5.6km s-min=5.0km az=139.3*

*CSEM **04** 04:19:56.0±0.1, 4563N×2670E, h67^{km}±1^{km}, MD3.0, Error ellipse: s-maj=2.9km s-min=2.2km az=55.0*

*BUC **04** 04:19:56.0±0.9, 4571N×2673E, h82^{km}±11^{km}, MD2.9/4, Error ellipse: s-maj=6.7km s-min=5.8km az=101.0*

*NEIC **04** 04:19:56.6, 4566N×2674E, h75^{km}, MG2.7(BUC), After BUC.*

*SOF **04** 04:19:57.2, 4535N×2664E, h11^{km}, MD3.0*

ISC 04 04:19:56.7±0.7**, 4571N**±003×**2674E**±005**, h80**^{km}±6^{km}**, n41, σ0.^{s}86**/62**, 17C-7D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRI	**Vrincioaia**	**0.16**	**356**	⇑P	**Pn**	**04 20 08.3**	**0.0**
VRI				S	**Sn**	**04 20 16.6**	**-0.2**
VRI	**Vrincioaia**	**0.16**	**356**	⇑*i*P	**Pn**	**04 20 08.3**	**+0.1**
VRI				*i* S	**Sn**	**04 20 16.4**	**-0.4**
VRI	**Vrincioaia**	**0.16**	**356**	S	**Sn**	**04 20 16.4**	**-0.4**
VRI	**Vrincioaia**	**0.16**	**356**	⇑*i*P	**Pn**	**04 20 08.3**	**+0.1**
VRI	**Vrincioaia**	**0.16**	**356**	⇑P	**Pn**	**04 20 08.3**	**+0.1**
VRI				S	**Sn**	**04 20 16.6**	**-0.2**
GHRR		**0.58**	**52**	⇓*i*P	**Pn**	**04 20 11.5**	**+0.4**
GHRR				*i* S	**Sn**	**04 20 22.5**	**+0.7**
MLR	**Muntele Rosu**	**0.60**	**249**	⇑P	**Pn**	**04 20 11.3**	**+0.1**
MLR				S	**Sn**	**04 20 21.8**	**-0.2**
MLR	**Muntele Rosu**	**0.60**	**249**	⇑*i*P	**Pn**	**04 20 11.3**	**+0.1**
MLR				*i* S	**Sn**	**04 20 21.8**	**-0.2**
OZUR		**0.77**	**301**	⇑*i*P	**Pn**	**04 20 12.4**	**-0.6**
OZUR				*i* S	**Sn**	**04 20 23.5**	**-1.7**
SECR		**0.82**	**216**	⇓*i*P	**Pn**	**04 20 14.3**	**+0.7**
SECR				*i* S	**Sn**	**04 20 27.5**	**+1.4**
ONCR	**Oncesti**	**0.84**	**25**	⇓*i*P	**Pn**	**04 20 13.7**	**-0.1**
ONCR				*i* S	**Sn**	**04 20 26.2**	**-0.4**
FULR		**0.84**	**195**	⇑*i*P	**Pn**	**04 20 14.3**	**+0.5**
FULR				*i* S	**Sn**	**04 20 28.3**	**+1.7**
DOPR	**Dopca**	**0.98**	**286**	⇑*i*P	**Pn**	**04 20 14.9**	**-0.5**
DOPR				*i* S	**Sn**	**04 20 28.6**	**-0.9**
SULR		**1.08**	**199**	⇓*i*P	**Pn**	**04 20 17.0**	**+0.4**
SULR				*i* S	**Sn**	**04 20 32.7**	**+1.1**
VOIR		**1.22**	**258**	⇑P	**Pn**	**04 20 17.8**	**-0.5**
VOIR				S	**Sn**	**04 20 33.7**	**-0.9**
VOIR		**1.22**	**258**	⇑*i*P	**Pn**	**04 20 17.8**	**-0.5**
VOIR				*i* S	**Sn**	**04 20 33.7**	**-0.9**
BUC1	**Bucharest**	**1.45**	**201**	⇑P	**Pn**	**04 20 21.2**	**-0.1**
BUC1				S	**Sn**	**04 20 39.4**	**-0.4**
BUC1	**Bucharest**	**1.45**	**201**	⇑*i*P	**Pn**	**04 20 21.2**	**-0.1**
BUC1				*i* S	**Sn**	**04 20 39.4**	**-0.4**
TIRR	**Tirgusor**	**1.72**	**136**	⇑P	**Pn**	**04 20 24.7**	**0.0**
TIRR				S	**Sn**	**04 20 44.6**	**-1.5**
TIRR	**Tirgusor**	**1.72**	**136**	⇓*i*P	**Pn**	**04 20 24.7**	**-0.1**
TIRR				*i* S	**Sn**	**04 20 44.6**	**-1.5**
TIRR	**Tirgusor**	**1.72**	**136**	⇑P	**Pn**	**04 20 24.7**	**-0.1**
TIRR				S	**Sn**	**04 20 44.6**	**-1.5**
BURAR	**Bucovina Array**	**2.18**	**332**	⇓P	**Pn**	**04 20 31.7**	**+0.8**
BURAR	**Bucovina Array**	**2.18**	**332**	⇓*i*P	**Pn**	**04 20 31.7**	**+0.8**
PSN	**Preselentsi**	**2.27**	**153**	*i* P	**Pn**	**04 20 32.8**	**+0.7**
ZIMR		**2.27**	**206**	⇑*i*P	**Pn**	**04 20 31.4**	**-0.7**
ZIMR				*i* S	**Sn**	**04 20 56.9**	**-2.3**
SZH	**Strazhica**	**2.51**	**194**	*i* P	**Pn**	**04 20 34.3**	**-1.0**
PRD	**Provadia**	**2.55**	**169**	*i* P	**Pn**	**04 20 36.3**	**+0.5**
PVL	**Pavlikeni**	**2.69**	**203**	*i* P	**Pn**	**04 20 38.7**	**+1.0**
GZR	**Gura Zlata**	**2.80**	**265**	*i* S	**Sn**	**04 21 13.2**	**+1.1**
GZR	**Gura Zlata**	**2.80**	**265**	S	**Sn**	**04 21 13.2**	**+1.1**
GZR	**Gura Zlata**	**2.80**	**265**	S	**Sn**	**04 21 13.2**	**+1.1**
DRGR		**3.00**	**293**	⇑*i*P	**Pn**	**04 20 42.7**	**+0.8**
DRGR				*i* S	**Sn**	**04 21 18.0**	**+1.2**
JMB	**Yambol**	**3.24**	**182**	*i* P	**Pn**	**04 20 45.1**	**-0.1**
BZS	**Buzias**	**3.60**	**270**	*i* S	**Sn**	**04 21 31.7**	**+0.4**
BZS	**Buzias**	**3.60**	**270**	S	**Sn**	**04 21 31.7**	**+0.4**
BZS	**Buzias**	**3.60**	**270**	S	**Sn**	**04 21 31.7**	**+0.4**
PGB	**Panagyurishte**	**3.66**	**211**	*i* P	**Pn**	**04 20 50.5**	**-0.4**
VTS	**Vitosha**	**4.02**	**221**	*i* P	**Pn**	**04 20 54.4**	**-1.4**
VTS	**Vitosha**	**4.02**	**221**	*i* S	**Sn**	**04 21 37.2**	**-4.4**
VTS	**Vitosha**	**4.02**	**221**	S	**Sn**	**04 21 37.2**	**-4.4**
RZN	**Rozhen**	**4.28**	**201**	*i* P	**Pn**	**04 20 59.3**	**0.0**

KRSC 04 05:04:32.9±1.0**, 5084N**×**15786E, h42**^{km}±41^{km}**, ML3.9, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALID	**Alaid**	**1.46**	**272**	*i* P	Pn	05 04 55.7	-1.1
ALID				*i* S	Sn	05 05 12.2	-2.5
MIPR	**Malaya Ipel'ka**	**1.59**	**335**	*e*P	Pn	05 04 59.3	+0.7
MIPR				*i* S	Sn	05 05 18.6	+0.7
RUS	**Russkaya**	**1.65**	**14**	*i* P	Pn	05 05 00.3	+1.0
RUS				*i* S	Sn	05 05 20.3	+1.1
GRL	**Gorelyy**	**1.72**	**4**	*i* P	Pn	05 05 02.2	+1.9
GRL				*i* S	Sn	05 05 23.5	+2.5
PET	**Petropavlovsk**	**2.24**	**12**	P	Pn	05 05 09.2	+1.8
PET				*i* S	Sn	05 05 35.3	+1.5
AVH	**Avacha**	**2.49**	**12**	*e*P	Pn	05 05 14.1	+3.3
AVH				*i* S	Sn	05 05 44.6	+4.7
NLC	**Nalytchevo**	**2.51**	**21**	P	Pn	05 05 12.0	+0.9
NLC				*i* S	Sn	05 05 40.7	+0.3
SPN	**Mys Shipunski**	**2.63**	**30**	*e*P	Pn	05 05 14.9	+2.2
SPN				*i* S	Sn	05 05 45.4	+2.1
GNL	**Ganaly**	**2.86**	**1**	*e*P	Pn	05 05 18.1	+2.2
GNL				*i* S	Sn	05 05 51.3	+2.2
MKZ	**Mys Kozlova**	**4.40**	**31**	*e*P	Pn	05 05 38.1	+1.0
MKZ				*i* S	Sn	05 06 25.1	-2.0
TUMR	**Tumrok**	**4.66**	**16**	P	Pn	05 05 44.8	+4.2
KMNR	**Kamenistaya**	**5.13**	**15**	P	Pn	05 05 51.0	+4.0
KBTR	**Krutoberegovo**	**6.14**	**27**	P	Pn	05 06 02.6	+1.7

*IDC **04** 05:38:39.9±2.4, 584S×15312E, h0^{km}, mb3.9/5, mb1 4.1/6, mb1mx3.9/14, mbtmp4.0/6, ML3.7/1, Error ellipse: s-maj=79.4km s-min=23.9km az=124.0*

*NEIC **04** 05:38:47.0±3.9, 586S×15296E, h47^{km}±26^{km}, mb4.3/4, Error ellipse: s-maj=48.5km s-min=17.3km az=110.0*

ISC 04 05:38:45.6±4.9**, 59S**±03×**1531E**±03**, h39**^{km}±36^{km}**, n17, σ0.^{s}37**/15**, mb4.1**/8**, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**6.84**	**239**	Pn	**Pn**	**05 40 23.4**	**-0.1**
PMG				Sn	**Sn**	**05 41 40.3**	**+0.1**
PMG	**Port Moresby**	**6.84**	**239**	Pn	**Pn**	**05 40 23.4**	**-0.1**
	7.8nm,0.3s,baz=75,slow=7.6,SNR=14						
PMG				Sn	**Sn**	**05 41 40.3**	**+0.1**
	2.0nm,0.3s,baz=117,slow=18,SNR=4.6						
KAKA	**Kakadu**	**21.47**	**250**	*e*P	**P**	**05 43 30.6**	**-0.4**
	23nm,0.3s,mb5.0						
WB2	**Warramunga Arr**	**22.96**	**231**	*e*P	**P**	**05 43 46.9**	**+0.2**
WRA	**Warramunga Arr**	**22.96**	**231**	P	**P**	**05 43 47.2**	**+0.3**
	0.8nm,0.4s,mb3.5,baz=53,slow=9.7,SNR=3.8						
FITZ	**Fitzroy Crossi**	**29.42**	**243**	*e*P	**P**	**05 44 45.3**	**-0.4**
	5.7nm,0.8s,mb4.3						
FITZ	**Fitzroy Crossi**	**29.42**	**243**	P	**P**	**05 44 45.6**	**-0.1**
	2.0nm,0.3s,mb4.3,baz=133,slow=4.1,SNR=15						
SONM	**Songino Array**	**67.41**	**328**	P	**P**	**05 49 37.9**	**+0.8**
	0.4nm,0.6s,mb3.6,baz=152,slow=4.5,SNR=3.1						
MK31	**Makanchi Array**	**81.35**	**319**	*e*P	**P**	**05 50 58.3**	**+0.2**
MKAR	**Makanchi Array**	**81.35**	**319**	P	**P**	**05 50 58.2**	**+0.1**
	0.5nm,0.7s,mb3.6,baz=95,slow=6.3,SNR=7.0						
ZALV	**Zalesovo Beam**	**82.23**	**326**	P	**P**	**05 51 01.9**	**-0.7**
	0.7nm,0.4s,mb3.9,baz=130,slow=6.0,SNR=5.7						
KURK	**Kurchatov**	**84.82**	**322**	*e*P	**P**	**05 51 15.8**	**-0.2**
	2.5nm,0.9s,mb4.3						
AAK	**Ala-Archa**	**85.64**	**313**	*e*P	**P**	**05 51 20.3**	**0.0**
	1.1nm,0.7s,mb4.2						
GERES	**GERESS Array B**	**125.15**	**328**	PKP	PKPdf	05 57 42.4	+0.5
GERES	**GERESS Array B**	**125.15**	**328**	PKP	PKPdf	05 57 42.4	+0.5
	0.3nm,0.5s,baz=40,slow=2.3,SNR=3.8						
TORD	**Torodi Ar. Bea**	**150.92**	**286**	PKPbc	PKPbc	05 58 35.2	+0.1
TORD				PKPab	PKPab	05 58 42.8	+0.3
TORD	**Torodi Ar. Bea**	**150.92**	**286**	PKPbc	PKPbc	05 58 35.2	+0.1
	2.3nm,0.8s,baz=63,slow=2.2,SNR=15						
TORD				PKPab	PKPab	05 58 42.8	+0.3
	0.6nm,0.6s,baz=274,slow=0.6,SNR=3.9						

*ISCJB **04** 06:11:23.3±0.6, 6720N±003×2089E±010, h0^{km}, Error ellipse: s-maj=5.6km s-min=4.3km az=16.9*

*CSEM **04** 06:11:23.2±0.5, 6711N×2035E, h1^{km}, ML2.1/2, Error ellipse: s-maj=15.7km s-min=9.8km az=86.0, Mining explosion.*

*UPP **04** 06:11:24.4, 6718N×2067E, h4^{km}, ML2.7, Suspected*

Mining explosion.

*HEL **04** 06:11:24.8±0.0, 67.17N×20.64E, h0^{km}, ML1.1, ML2.7(UPP), Explosion*

ISC 04 06:11:24.0±0.6**, 67.17N**±0.03×**20.77E**±0.09**, h0^{km}, n19, σ0^{s}58**/22**, 1D, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DUNU	Dundret	0.09	239	⇓*i*P	Pg	06 11 25.8	+0.1
KUA	Kurravaara	0.81	348	*i* P	Pg	06 11 39.0	-0.5
ERTU	Ertsjaerv	0.83	137	*i* P	Pg	06 11 40.3	+0.3
PAJU	Pajala	0.93	98	*e*P	Pg	06 11 42.4	+0.6
NIKU	Nikkaluokta	0.97	317	*e*P	Pg	06 11 41.6	-1.0
LANU	Lannavaara	1.00	27	*e*P	Pg	06 11 43.1	-0.1
HARU	Harads	1.01	175	*e*P	Pg	06 11 43.1	-0.3
HEF	Hetta	1.66	40	*e*P	Pn	06 11 54.8	+0.5
	baz=222						
HEF				*e*SG	Sg	06 12 17.0	-0.3
SJUU	Sjulsmark	1.70	168	*e*P	Pn	06 11 55.3	+0.4
SJUU	Sjulsmark	1.70	168	P	Pn	06 11 55.2	+0.3
KIF	Kilpisjarvi	1.85	0	*e*PG	Pg	06 11 58.6	-0.7
	baz=179						
KIF				*e*SG	Sg	06 12 24.4	+1.1
KIF				MSG		06 12 24.4	
	comp=Z,0.4nm,0.1s						
KIF	Kilpisjarvi	1.85	0	Pg	Pg	06 11 58.6	-0.8
KIF				Sg	Sg	06 12 24.4	+1.1
	comp=Z,0.4nm,0.1s						
LILU	Lilltraesk	1.93	192	*e*P	Pn	06 11 58.5	+0.5
SGF	Sodankyl	2.25	80	*e*SG	Sg	06 12 36.0	-0.2
SGF				MSG		06 12 36.0	
	comp=Z,0.3nm,0.1s						
SGF	Sodankyl	2.25	80	Sg	Sg	06 12 36.0	-0.2
	comp=Z,0.3nm,0.1s						
KEV	Kevo	3.47	39	*e*SG	Sg	06 13 15.9	+0.5
KEV				MSG		06 13 15.9	
	comp=Z,1.2nm,0.4s						
KEV	Kevo	3.47	39	Sg	Sg	06 13 15.9	+0.5
	comp=Z,1.2nm,0.4s						
MSF	Maaselka	3.54	107	*e*SG	Sg	06 13 16.8	-0.8
MSF				MSG		06 13 16.8	
	comp=Z,0.2nm,0.4s						
MSF	Maaselka	3.54	107	Sg	Sg	06 13 16.8	-0.8
	comp=Z,0.2nm,0.4s						

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*IDC **04** 06:11:28.4±0.8, 1.13N×126.08E, h0^{km}, mb4.3/10, mb1 4.2/11, mb1mx4.2/18, mbtmp4.2/11, ML4.0/1, MS3.4/1, Ms1 3.4/1, ms1mx2.3/22, Error ellipse: s-maj=35.3km s-min=14.3km az=79.0*

*NEIC **04** 06:11:30.0±0.6, 1.16N×126.13E, h10^{km}, mb4.7/6, Error ellipse: s-maj=26.9km s-min=9.0km az=75.0*

*ISCJB **04** 06:11:31.3±0.5, 1.14N±0.07×126.1E±0.2, h33^{km}, mb4.4/15, Error ellipse: s-maj=25.1km s-min=9.0km az=167.7*

ISC 04 06:11:33.6±0.5**, 1.13N**±0.07×**126.1E**±0.2**, h35^{km}, n21, σ0^{s}97**/21**, mb4.4**/15**, 1C, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	15.11	156	*e*P	Pn	06 15 09.7	+5.2
	37nm,1.3s						
FITZ	Fitzroy Crossi	19.11	181	*e*P	Pn	06 15 53.8	-0.8
	13nm,1.8s						
FITZ	Fitzroy Crossi	19.11	181	P	Pn	06 15 53.8	-0.8
	0.4nm,0.3s,baz=235,slow=23,SNR=7.6						
WRA	Warramunga Arr	22.44	159	P	P	06 16 29.0	-0.5
	8.3nm,0.6s,mb4.3,baz=339,slow=11,SNR=24						
WB2	Warramunga Arr	22.44	159	⇑*i*P	P	06 16 29.0	-0.5
JOW	Kunigami	25.64	4	P	P	06 17 00.6	+0.6
	13nm,0.8s,mb4.5,baz=301,slow=2.9,SNR=4.1						
PSI	Prapat	27.23	274	P	P	06 17 14.3	-0.3
	6.0nm,0.8s,mb4.2,baz=197,slow=1.1,SNR=5.3						
FORT	Forrest	31.78	177	*e*P	P	06 17 56.0	+1.3
	13nm,0.9s,mb4.8						
KLBR	Kellerberrin	33.49	193	*e*P	P	06 18 10.7	+1.0
	25nm,1.4s,mb4.9						
NWAO	Narrogin (SRO)	34.90	193	P	P	06 18 22.4	+0.5
	3.3nm,0.7s,mb4.4,baz=34,slow=7.3,SNR=2.8						
STKA	Stephens Creek	35.95	157	*e*P	P	06 18 30.1	-0.8
	3.3nm,0.6s,mb4.4						
STKA	Stephens Creek	35.95	157	P	P	06 18 30.2	-0.7
	3.9nm,0.6s,mb4.5,baz=327,slow=8.3,SNR=14						
KSRS	Korea Array	36.19	2	P	P	06 18 33.3	+0.5
	1.0nm,0.7s,mb3.9,baz=178,slow=9.4,SNR=3.8						
SONM	Songino Array	49.57	343	P	P	06 20 20.9	-0.1
	1.2nm,0.9s,mb3.9,baz=159,slow=8.4,SNR=8.6						
MK31	Makanchi Array	59.35	326	*e*P	P	06 21 31.4	-0.8
MKAR	Makanchi Array	59.35	326	P	P	06 21 31.5	-0.7
	2.2nm,0.5s,mb4.5,baz=121,slow=7.9,SNR=56						
ZALV	Zalesovo Beam	62.63	334	P	P	06 21 53.0	-1.2
	1.1nm,0.4s,mb4.3,baz=128,slow=9.6,SNR=5.9						
KURK	Kurchatov	63.61	328	*e*P	P	06 21 59.8	-1.1
	8.0nm,0.6s,mb4.9						
JOF	Joensuu	91.20	333	*e*p	P	06 24 35.0	+0.2
	2.3nm,0.6s,mb4.7						
AKASG	Malin Array Be	93.51	321	P	P	06 24 47.6	+1.9
	0.1nm,0.3s,mb3.7,baz=67,slow=4.2,SNR=4.9						
FINES	FINESS Array B	93.82	332	P	P	06 24 50.0	+3.0
	1.3nm,0.6s,mb4.6,baz=64,slow=6.3,SNR=16						

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*CSEM **04** 06:46:05.0±0.1, 36.00N×28.18E, h80^{km}, MD3.4, Error ellipse: s-maj=2.3km s-min=1.8km az=58.0*

*ISCJB **04** 06:46:05.8±0.5, 35.97N±0.04×28.05E±0.04, h86^{km}±8^{km}, Error ellipse: s-maj=6.7km s-min=5.5km az=4.0*

*ATH **04** 06:46:06.3, 36.06N×28.00E, h80^{km}±1^{km}*

*ISK **04** 06:46:06.9, 35.98N×28.03E, h23^{km}, MD3.4*

*NEIC **04** 06:46:10.0, 36.16N×27.65E, h10^{km}, ML3.0(ATH), After ATH.*

*HLW **04** 06:46:12.3, 35.55N×28.30E, h33^{km}, Mb3.8*

ISC 04 06:46:07.1±0.5**, 35.99N**±0.04×**28.03E**±0.04**, h78^{km}**±8^{km}**, n34, σ0^{s}74**/43**, 2C-2D, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARG	Arkhangelos	0.23	19	*e*P	Pn	06 46 19.0	+0.2
ARG				*e*S	Sn	06 46 27.6	+0.2
DAT	Datca	0.82	334	*i* PG	Pn	06 46 23.9	0.0
DAT				*i* SG	Sn	06 46 35.8	-0.6
DAT	Datca	0.82	334	*i* Pg	Pn	06 46 23.9	0.0
DAT				*i* Sg	Sn	06 46 35.8	-0.6
KARP	Karpathos	0.83	238	*e*P	Pn	06 46 24.7	+0.6
KARP				*e*S	Sn	06 46 36.9	+0.2
DALT	Dalyan (Mudla)	0.92	32	*i* PG	Pn	06 46 25.2	+0.2
DALT				*i* SG	Sn	06 46 37.8	-0.6
DALT	Dalyan (Mudla)	0.92	32	*i* Pg	Pn	06 46 25.2	+0.2
DALT				*i* Sg	Sn	06 46 37.8	-0.6
FETY	Fethiye	1.06	53	PG	Pn	06 46 26.8	0.0
FETY	Fethiye	1.06	53	*e*Pg	Pn	06 46 26.8	0.0
YER	Yerkesik	1.16	10	*i* PN	Pn	06 46 28.4	+0.4
YER	Yerkesik	1.16	10	*i* Pn	Pn	06 46 28.4	+0.4
BODT	Bodrum	1.21	332	PN	Pn	06 46 28.4	-0.3
BODT	Bodrum	1.21	332	*e*Pn	Pn	06 46 28.4	-0.3
KSL	Kastellorizon	1.27	82	*e*P	Pn	06 46 29.7	+0.4
MLSB	Milas	1.31	351	PN	Pn	06 46 29.9	-0.1
MLSB	Milas	1.31	351	*e*Pn	Pn	06 46 29.9	-0.1
ELL	Elmali	1.69	63	PN	Pn	06 46 35.9	+1.1
ELL	Elmali	1.69	63	*e*Pn	Pn	06 46 35.9	+1.1
SMG	Samos	1.96	331	*e*P	Pn	06 46 38.0	-0.4
SMG				*e*S	Sn	06 47 00.7	-1.5
NPS	Neapolis	2.10	250	*e*P	Pn	06 46 40.7	+0.4
NPS				*e*S	Sn	06 47 04.5	-1.1
XRY	Khrisi	2.21	240	*e*P	Pn	06 46 42.5	+0.8
APE	Apeiranthos	2.28	299	*e*P	Pn	06 46 43.0	+0.3
APE				*e*S	Sn	06 47 09.1	-0.8
ANTB	Antalya	2.30	66	PN	Pn	06 46 44.6	+1.7
ANTB	Antalya	2.30	66	*e*Pn	Pn	06 46 44.6	+1.7
VAM	Vamos	3.17	260	*e*P	Pn	06 46 56.4	+1.7
GVD	Gavdhos	3.42	251	*e*P	Pn	06 46 58.7	+0.6
VLI	Veliai	4.17	281	*e*P	Pn	06 47 09.4	+1.1
HMAT	Matruh	4.95	189	⇓P	Pn	06 47 19.0	+0.1
HNAT	Natroun	6.71	160	⇑P	Pn	06 47 42.1	-0.8
AYT	Al ‘Ayyat	6.80	156	P	Pn	06 47 43.9	-0.3
AMAG	Maghara	6.87	139	P	Pn	06 47 43.9	-1.3
HHAG	Hagoal	6.92	149	P	Pn	06 47 46.0	+0.1
GLL	Jalalah	7.11	153	⇓P	Pn	06 47 47.7	-0.8
SUZ		7.34	145	P	Pn	06 47 51.1	-0.5
HBNS	Bani Suwayf	7.52	158	⇑P	Pn	06 47 53.3	-0.7

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*ISCJB **04** 07:02:38.4±1.5, 36.79N±0.07×28.10E±0.07, h67^{km}±15^{km}, Error ellipse: s-maj=12.4km s-min=9.4km az=19.8*

*CSEM **04** 07:02:38.1±0.3, 36.78N×28.10E, h51^{km}±2^{km}, MD2.9, Error ellipse: s-maj=3.2km s-min=2.8km az=30.0*

*ATH **04** 07:02:38.2, 36.77N×28.01E, h68^{km}*

*ISK **04** 07:02:40.2, 36.78N×28.13E, h31^{km}, MD2.9*

ISC 04 07:02:38.9±1.4**, 36.80N**±0.07×**28.10E**±0.07**, h65^{km}**±15^{km}**, n15, σ0^{s}28**/20**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YER	Yerkesik	0.37	24	PG	Pn	07 02 50.1	+0.1
YER	Yerkesik	0.37	24	*e*Pg	Pn	07 02 50.1	+0.1
DAT	Datca	0.42	261	PG	Pn	07 02 50.4	-0.1
DAT				SG	Sn	07 02 58.5	-0.4
DAT	Datca	0.42	261	*e*Pg	Pn	07 02 50.4	-0.1
DAT				*e*Sg	Sn	07 02 58.5	-0.4
DALT	Dalyan (Mudla)	0.43	94	PG	Pn	07 02 50.3	-0.3
DALT	Dalyan (Mudla)	0.43	94	*e*Pg	Pn	07 02 50.3	-0.3
MLSB	Milas	0.56	333	PG	Pn	07 02 52.2	+0.4
MLSB	Milas	0.56	333	*e*Pg	Pn	07 02 52.2	+0.4
ARG	Arkhangelos	0.58	178	*e*P	Pn	07 02 52.1	0.0
ARG				*e*S	Sn	07 03 02.3	+0.6
BODT	Bodrum	0.69	293	PG	Pn	07 02 53.4	+0.2
BODT	Bodrum	0.69	293	*e*Pg	Pn	07 02 53.4	+0.2
FETY	Fethiye	0.81	101	PG	Pn	07 02 54.7	0.0
FETY				SG	Sn	07 03 06.1	-0.2
FETY	Fethiye	0.81	101	*e*Pg	Pn	07 02 54.7	0.0
FETY				*e*Sg	Sn	07 03 06.1	-0.2
SMG	Samos	1.36	312	*e*P	Pn	07 03 01.8	+0.1
KARP	Karpathos	1.46	212	*e*P	Pn	07 03 02.8	-0.3

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*IDC **04** 07:04:30.2±0.7, 17.95S×173.81W, h0^{km}, mb4.1/8, mb1 4.3/9, mb1mx4.2/17, mbtmp4.1/9, ML2.1/1, MS3.1/1, Ms1 3.1/1, ms1mx2.6/25, Error ellipse: s-maj=40.2km s-min=17.7km az=128.0*

*NEIC **04** 07:04:31.6±0.5, 18.07S×173.63W, h10^{km}, mb4.2/1, Error ellipse: s-maj=14.9km s-min=10.5km az=144.0*

*ISCJB **04** 07:04:33.8±0.6, 18.0S±0.1×173.8W±0.1, h33^{km}, mb4.3/11, Error ellipse: s-maj=22.8km s-min=11.5km az=40.0*

ISC 04 07:04:35.5±0.6**, 18.1S**±0.1×**173.7W**±0.1**, h35^{km}, n28, σ1^{s}06**/20**, mb4.3**/11**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	4.52	24	Pn	Pn	07 05 39.7	-1.9
AFI				*e*Pn	Pn	07 05 42.2	+0.7
AFI				Sn	Sn	07 06 26.4	-6.5
AFI				LR	LR	07 06 29.2	
AFI	Afiamalu	4.52	24	Pn	Pn	07 05 39.7	-1.9
	5.3nm,0.3s,baz=143,slow=20,SNR=4.2						
AFI				Sn	Sn	07 06 26.4	-6.5
	25nm,0.3s,baz=30,slow=20,SNR=5.9						
AFI				LR	LR	07 06 29.2	
	comp=Z,216nm,21.6s,baz=214,slow=27						
RAR	Rarotonga	13.47	106	Pn	Pn	07 07 40.9	-3.3
RAR	Rarotonga	13.47	106	Pn	Pn	07 07 40.9	-3.3
	3.7nm,0.3s,baz=284,slow=4.5,SNR=5.8						
URZ	Urewera	21.67	200	P	P	07 09 22.9	-0.2
	13nm,0.4s,mb4.7,baz=350,slow=10,SNR=16						
PAE	Paea	22.94	93	*e*T		07 33 43.4	
	38nm,0.3s						
PPT	Papeete	22.95	92	*e*LR	LR	07 14 46.5	
	120nm,29.2s						
TVO	Taravao	23.24	93	*e*T		07 34 06.4	
	6.9nm,0.3s						
HNR	Honiara	26.99	285	*e*P	P	07 10 09.3	-5.0
	137nm,1.1s,mb5.4						
RPZ	Rata Peaks	28.63	203	P	P	07 10 30.2	+1.6
	6.9nm,0.5s,mb4.7,baz=25,slow=4.7,SNR=7.7						
PMG	Port Moresby	38.94	277	*e*P	P	07 11 59.1	+0.8
	3.8nm,0.7s,mb4.2						
STKA	Stephens Creek	42.52	242	P	P	07 12 26.9	-0.9
	0.4nm,0.3s,mb3.6,baz=36,slow=8.7,SNR=3.1						
WB2	Warramunga Arr	49.02	259	*e*P	P	07 13 18.4	-0.8
WRA	Warramunga Arr	49.03	259	P	P	07 13 17.8	-1.5
	0.7nm,0.3s,mb4.1,baz=96,slow=8.4,SNR=4.8						
GUMO	Guam	51.59	305	*e*P	P	07 13 39.1	+0.4
	34nm,0.6s,mb5.5						
NVAR	Mina Array Bea	76.48	42	P	P	07 16 22.5	+0.6
	1.5nm,0.7s,mb4.0,baz=216,slow=7.6,SNR=14						
TXAR	Lajitas Array	82.32	56	P	P	07 16 54.9	+1.0
	0.7nm,0.9s,mb3.6,baz=205,slow=5.5,SNR=4.6						
PDAR	Pinedale Array	84.42	42	P	P	07 17 05.1	+0.7
	0.8nm,0.8s,mb3.9,baz=227,slow=3.6,SNR=6.8						
YKA	Yellowknife Ar	92.64	23	P	P	07 17 43.4	+0.3
YKA	Yellowknife Ar	92.64	23	P	P	07 17 43.4	+0.3
	0.5nm,0.9s,mb3.9,baz=235,slow=4.4,SNR=5.8						
CLL	Collm	146.41	352	*i* P	PKPdf	07 24 13.1	+1.8
CLL				pmax	pmax		
	comp=Z,13nm,1.1s						
CLL	Collm	146.41	352	*i* PKPbc	PKPbc	07 24 13.1	+0.5
	comp=Z,13nm,1.1s						
BRG	Berggiesshubel	146.71	351	*i* P	PKPdf	07 24 12.5	+0.7
BRG				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BRG	Berggiesshubel	146.71	351	*i* P	PKPdf	07 24 12.5	+0.6
	comp=Z,4.5nm,1.0s						
PRU	Pruhonice	147.48	350	*e*PKPbc	PKPdf	07 24 09.5	-3.7
BRTR	Keskin Array B	148.01	318	PKPbc	PKPbc	07 24 17.6	+0.1
	comp=Z,1.2nm,0.8s,baz=69,slow=4.1,SNR=4.6						
KHC	Kasperske Hory	148.46	351	*e*PKPbc	PKPbc	07 24 19.0	+0.6
TORD	Torodi Ar. Bea	173.38	137	PKP	PKPdf	07 24 40.4	-1.6
	comp=Z,1.0nm,0.9s,baz=270,slow=1.4,SNR=4.7						
TORD				PKPab	PKPab	07 26 10.3	-0.1
	comp=Z,0.5nm,0.8s,baz=255,slow=5.7,SNR=3.3						

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*ISCJB **04** 07:14:06.9±1.4, 38.21N±0.03×98.15E±0.03, h9^{km}±9^{km}, mb4.3/31, MS4.0/17, Error ellipse: s-maj=5.1km s-min=4.5km az=178.2*

*BJI **04** 07:14:07.5, 38.31N×98.11E, h11^{km}, mB4.7, mb4.3, ML4.6, Ms4.6, Msz4.2*

*IDC **04** 07:14:07.2±0.7, 38.17N×98.15E, h0^{km}, mb3.9/14, mb1 4.2/17, mb1mx4.1/23, mbtmp4.0/17, ML4.6/3, MS3.9/13, Ms1 3.9/13, ms1mx3.7/31, Error ellipse: s-maj=23.8km s-min=14.9km az=31.0*

*MOS **04** 07:14:09.6±1.0, 38.25N×98.12E, h26^{km}, mb4.4/13, MS4.0/7, Error ellipse: s-maj=11.5km s-min=6.7km az=96.1*

*NEIC **04** 07:14:10.1±0.6, 38.34N×98.00E, h10^{km}, mb4.3/4, Error ellipse: s-maj=12.7km s-min=10.7km az=35.0*

ISC 04 07:14:08.4±1.4**, 38.20N**±0.03×**98.14E**±0.04**, h5^{km}**±9^{km}**, n102, σ0^{s}88**/109**, mb4.3**/31**, MS4.0**/17**, 4C-3D, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GTA	Gaotai	1.78	47	PG	Pn	07 14 38.6	-1.1
GTA				SG	Sn	07 15 00.1	-2.6
GTA				Smax			
	comp=N,2µm,0.6s						
GTA				Smax			
	comp=E,2µm,0.7s						
LZH	Lanzhou	5.03	113	⇑P	Pn	07 15 25.6	+1.3
LZH				PG	Pg	07 15 41.3	-3.3
LZH				S	Sn	07 16 23.3	+0.6
LZH				SG	Sg	07 16 45.5	-4.2
LZH				Smax			
	comp=N,590nm,0.9s						
LZH				Smax			
	comp=E,421nm,0.9s						
LZH				LR	LR		
	comp=N,7µm,10.3s						
LZH				LR	LR		
	comp=Z,4µm,12.4s						
CD2	Chengdu	8.62	146	*e*P	Pn	07 16 21.1	+7.3
CD2				XP		07 16 27.8	
CD2				S	Sn	07 18 00.1	+8.7
CD2				XS		07 18 05.8	
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s						
CD2				AMB	AMB		
	comp=Z,30nm,3.8s						
CD2				LR	LR		
	comp=N,3µm,9.6s						
CD2				LR	LR		
	comp=E,3µm,13.2s						
CD2				LR	LR		
	comp=Z,3µm,8.4s						
BTO	Baotou	9.51	72	*e*P	Pn	07 16 25.2	-0.6
WMQ	Urumqi	9.68	309	*e*P	Pn	07 16 28.6	+0.4
WMQ				Smax			
	comp=N,455nm,1.2s						
WMQ				Smax			
	comp=E,472nm,1.2s						
WMQ				LR	LR		
	comp=N,941nm,16.0s						
WMQ				LR	LR		
	comp=E,565nm,13.2s						
WMQ				LR	LR		
	comp=Z,726nm,23.0s						
LSA	Lhasa	10.27	216	P	Pn	07 16 41.6	+5.3
LSA				LR	LR		
	comp=N,880nm,15.3s						
LSA				LR	LR		
	comp=E,1µm,15.9s						
LSA				LR	LR		
	comp=Z,1µm,13.1s						
SONM	Songino Array	11.36	29	P	Pn	07 16 51.9	+0.8
SONM				pmax	pmax		
	comp=Z,9.0nm,0.3s						
SONM				MLR	MLR		
	comp=Z,1µm,18.2s						
SONM	Songino Array	11.36	29	Pn	Pn	07 16 51.9	+0.8
	comp=Z,9.0nm,0.3s,baz=212,slow=15,SNR=384						
SONM				Lg		07 20 01.8	
	comp=Z,2.0nm,0.3s,baz=220,slow=27,SNR=4.2						
SONM				LR	LR	07 21 28.3	
	comp=Z,1µm,18.2s,baz=23,slow=39						
ULN	Ulaanbaatar	11.64	31	*de*P	Pn	07 16 55.5	+0.5
ZAK	Zakamensk	12.71	15	*e*P	Pn	07 17 10.9	+1.2
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.3s						
MOY	Mondy	13.61	8	*e*P	Pn	07 17 23.8	+1.9
MOY				pmax	pmax		
	comp=Z,36nm,1.6s						
GYA	Guiyang	13.74	146	P	Pn	07 17 24.5	+0.7
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s						
TAPN	Taplejung	13.92	222	*e*P	Pn	07 17 26.1	-0.1
	comp=Z,7.8nm,0.4s						
TLY	Talaya	14.02	14	⇑*e*P	Pn	07 17 28.0	+0.5
BJI	Beijing	14.13	77	P	Pn	07 17 33.1	+4.1
BJI				AMB	AMB		
	comp=Z,6.0nm,1.0s						
BJI				LR	LR		
	comp=N,2µm,9.8s						
BJI				LR	LR		
	comp=E,1µm,10.9s						
BJI				LR	LR		
	comp=Z,735nm,22.1s						
ODAN	Odare	14.48	222	*e*P	Pn	07 17 33.7	-0.2
	comp=Z,64nm,0.8s						
MK31	Makanchi Array	14.48	311	*e*Pn	Pn	07 17 32.2	-1.6
MK31				Sn	Sn	07 20 09.8	-4.9
MKAR	Makanchi Array	14.48	311	Pn	Pn	07 17 30.5	-3.3
MKAR				Sn	Sn	07 20 07.2	-7.4
MKAR				Lg		07 21 48.2	
MKAR				LR	LR	07 22 44.5	
MKAR	Makanchi Array	14.48	311	P	Pn	07 17 30.5	-3.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MKAR				MLR	MLR		
	comp=Z,55nm,20.3s						
MKAR	Makanchi Array	14.48	311	Pn	Pn	07 17 30.5	-3.3
	comp=Z,1.1nm,0.3s,baz=120,slow=14,SNR=66						
MKAR				Sn	Sn	07 20 07.2	-7.4
	baz=124,slow=25,SNR=3.7						
MKAR				Lg		07 21 48.2	
	baz=134,slow=26,SNR=2.9						
MKAR				LR	LR	07 22 44.6	
	comp=Z,55nm,20.3s,baz=128,slow=36						
GUN	Gumba	14.51	229	*e*P	Pn	07 17 35.0	+0.7
	comp=Z,59nm,0.4s						
JIRN	Jiri	14.52	227	*e*P	Pn	07 17 34.8	+0.4
	comp=Z,44nm,0.4s						
IRK	Irkutsk	14.68	15	*e*P	Pn	07 17 37.5	+1.1
IRK				pmax	pmax		
	comp=Z,107nm,0.1s						
KKN	Kakani	14.96	230	*e*P	Pn	07 17 40.1	-0.3
	comp=Z,94nm,0.9s						
PKI	Pulchoki	15.04	229	*e*P	Pn	07 17 40.7	-0.8
DMN	Daman	15.20	230	*e*P	Pn	07 17 43.5	-0.1
GKN	Gorkha	15.20	232	*e*P	Pn	07 17 42.9	-0.7
	comp=Z,22nm,0.5s						
WHN	Wuhan	15.40	115	*e*P	Pn	07 17 44.9	-1.4
KOLN	Koldanda	16.01	234	*e*P	Pn	07 17 53.6	-0.6
	comp=Z,60nm,0.9s						
CIT	Chita	17.53	33	*e*P	Pn	07 18 14.6	+1.3
NJ2	Nanjing	18.01	104	*e*P	Pn	07 18 19.8	+0.5
NJ2				AP	pP	07 18 25.7	+4.3
NJ2				XP	sP	07 18 29.9	+7.8
NJ2				PP		07 18 34.7	
NJ2				S	Sn	07 21 36.0	-4.5
NJ2				XS	sS	07 21 46.0	-3.2
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s						
NJ2				AMB	AMB		
	comp=Z,160nm,5.6s						
NJ2				LR	LR		
	comp=N,5µm,13.3s						
NJ2				LR	LR		
	comp=E,1µm,22.4s						
NJ2				LR	LR		
	comp=Z,1µm,22.3s						
ZAL	Zalesovo	18.20	334	P	Pn	07 18 20.5	-1.1
ZALV	Zalesovo Beam	18.21	334	P	Pn	07 18 20.5	-1.1
	comp=Z,1.8nm,0.3s,baz=147,slow=11,SNR=51						
ZALV				Lg		07 23 43.0	
	comp=Z,0.1nm,0.3s,baz=151,slow=25,SNR=8.1						
ZALV				LR	LR	07 25 33.6	
	comp=Z,380nm,20.8s,baz=329,slow=38						
FRU	Bishkek	18.45	292	*e*P	Pn	07 18 25.5	+0.8
FRU				*e*		07 21 52.0	
FRU				pmax	pmax		
	comp=Z,20nm,2.0s						
AAK	Ala-Archa	18.52	291	*e*P	Pn	07 18 24.8	-0.7
	comp=Z,15nm,1.2s						
AAK	Ala-Archa	18.52	291	⇓*e*P	Pn	07 18 25.3	-0.2
AAK				pmax	pmax		
	comp=Z,4.0nm,1.3s						
KURK	Kurchatov	18.65	318	*e*P	Pn	07 18 26.1	-1.0
	comp=Z,34nm,1.0s						
KURK	Kurchatov	18.65	318	*e*P	Pn	07 18 26.1	-0.9
KURK				pmax	pmax		
	comp=Z,34nm,1.0s						
CHG	Chiang Mai	19.33	178	⇓P	Pn	07 18 36.2	+0.7
	comp=Z,18nm,0.8s						
CHTO	Chiang Mai	19.33	178	*e*P	Pn	07 18 36.1	+0.7
	comp=Z,8.6nm,0.8s						
CHTO	Chiang Mai	19.33	178	*e*P	Pn	07 18 36.1	+0.6
CHTO				pmax	pmax		
	comp=Z,9.0nm,0.8s						
NANT	Nan	19.46	173	P	Pn	07 18 37.2	+0.2
SSE	Sheshan	20.22	104	P	P	07 18 42.5	-1.6
SSE				AP		07 18 50.5	
SSE				XP	sP	07 18 54.7	+8.4
SSE				S	S	07 22 23.2	-8.1
SSE				XS	sS	07 22 37.2	+3.5
SSE				AMB	AMB		
	comp=Z,29nm,0.7s						
SSE				AMB	AMB		
	comp=Z,31nm,3.6s						
SSE				LR	LR		
	comp=N,1µm,14.4s,MS4.5						
SSE				LR	LR		
	comp=E,606nm,14.4s,MS4.5						
SSE				LR	LR		
	comp=Z,428nm,14.5s,MS3.9						
QIZ	Qiongzhong	21.66	149	P	P	07 19 00.6	+0.9
QIZ				S	S	07 22 59.6	-0.2
QIZ				XS	sS	07 23 09.8	+7.5
QIZ				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.2						
QIZ				LR	LR		
	comp=N,379nm,14.0s,MS4.3						
QIZ				LR	LR		
	comp=E,790nm,15.7s,MS4.3						
QIZ				LR	LR		
	comp=Z,592nm,11.1s,MS4.2						
BOD	Bodaibo	22.21	23	*e*P	P	07 19 05.3	0.0
KSRS	Korea Array	23.50	83	P	P	07 19 18.7	-0.4
	comp=Z,4.2nm,0.6s,mb4.0,baz=278,slow=8.0,SNR=20						
KSRS				LR	LR	07 28 48.6	
	comp=Z,122nm,18.7s,MS3.4,baz=281,slow=38						
KBL	Kabul	23.66	270	*e*P	P	07 19 21.2	+0.4
BRVK	Borovoye	24.29	317	*e*P	P	07 19 26.0	-0.3
	comp=Z,23nm,1.2s,mb4.5						
BRVK	Borovoye	24.29	317	*e*P	P	07 19 26.0	-0.3

BRVK				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.5						
HYB	**Hyderabad**	**26.89**	**225**	*i* P	**P**	**07 19 50.0**	**-0.2**
JNU	**Nakatsue**	**27.00**	**91**	LR	LR	07 29 58.2	
	comp=Z,301nm,20.5s,MS3.8,baz=288,slow=35						
AKTO	**Aktyubinsk**	**30.82**	**306**	LR	LR	07 34 07.9	
	comp=Z,197nm,20.1s,MS3.8,baz=280,slow=39						
MJAR	**Matsushiro Arr**	**31.72**	**80**	P	**P**	**07 20 34.4**	**+1.4**
MJAR				LR	LR	07 33 54.0	
MJAR	**Matsushiro Arr**	**31.72**	**80**	P	**P**	**07 20 34.4**	**+1.4**
MJAR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
MJAR				MLR	MLR		
	comp=Z,265nm,18.3s						
MJAR	**Matsushiro Arr**	**31.72**	**80**	P	**P**	**07 20 34.4**	**+1.5**
	comp=Z,3.0nm,1.1s,mb4.0,baz=271,slow=8.5,SNR=4.5						
MJAR				LR	LR	07 33 54.0	
	comp=Z,265nm,18.3s,MS4.0,baz=260,slow=37						
ARU	**Arti**	**31.85**	**318**	*e*P	**P**	**07 20 33.7**	**-0.1**
ARU				*e*PPP		07 21 44.3	
ARU				*e*S	**S**	**07 25 44.2**	**-0.4**
ARU				*e*SS	SS	07 27 30.8	-30
TIXI	**Tiksi**	**36.99**	**16**	*e*P	**P**	**07 21 13.1**	**-5.1**
TIXI				*e*		07 21 20.6	
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.9						
TIXI				MLR	MLR		
	comp=Z,155nm,10.0s,MS4.1						
SEY	**Seymchan**	**40.69**	**35**	⇑*e*P	**P**	**07 21 49.6**	**+0.3**
KIV	**Kislovodsk**	**41.52**	**296**	*e*P	**P**	**07 22 00.7**	**+4.3**
KIV				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
KIV				MLR	MLR		
	comp=Z,188nm,19.0s,MS4.0						
OBN	**Obninsk**	**43.98**	**313**	⇑*e*P	**P**	**07 22 15.6**	**-0.6**
OBN				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.5						
ANN	**Anapa**	**45.01**	**299**	*e*P	**P**	**07 22 26.0**	**+1.4**
ANN				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.2						
JOF	**Joensuu**	**46.41**	**324**	*e*p	**P**	**07 22 33.9**	**-1.5**
	comp=Z,3.3nm,0.5s,mb4.5						
BILL	**Bilibino**	**47.08**	**28**	*e*P	**P**	**07 22 39.2**	**-1.3**
BILL				*e*		07 24 09.7	
BILL				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
BILL				MLR	MLR		
	comp=Z,200nm,19.0s,MS4.1						
ARCES	**ARCESS Array B**	**48.76**	**333**	P	**P**	**07 22 53.1**	**-0.4**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ARCES	**ARCESS Array B**	**48.76**	**333**	P	**P**	**07 22 53.1**	**-0.5**
	comp=Z,1.6nm,0.5s,mb4.3,baz=83,slow=7.8,SNR=24						
FINES	**FINESS Array B**	**48.95**	**323**	P	**P**	**07 22 54.8**	**-0.3**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
FINES	**FINESS Array B**	**48.95**	**323**	P	**P**	**07 22 54.8**	**-0.3**
	comp=Z,1.8nm,0.5s,mb4.4,baz=88,slow=8.2,SNR=40						
AKASG	**Malin Array Be**	**49.04**	**308**	P	**P**	**07 22 55.7**	**-0.2**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKASG	**Malin Array Be**	**49.04**	**308**	P	**P**	**07 22 55.7**	**-0.2**
	comp=Z,2.1nm,0.6s,mb4.3,baz=70,slow=8.1,SNR=7.8						
BRTR	**Keskin Array B**	**49.18**	**293**	P	**P**	**07 22 59.1**	**+1.8**
	comp=Z,0.4nm,0.4s,mb3.9,baz=59,slow=3.7,SNR=4.0						
OJC	**Ojcow**	**54.95**	**310**	*e*P	**P**	**07 23 41.2**	**+1.2**
NB2	**NORSAR Subarra**	**56.04**	**324**	P	**P**	**07 23 46.7**	**-1.0**
	comp=Z,1.1nm,0.5s,mb4.1,baz=66,slow=7.4						
NOA	**NORSAR Array B**	**56.04**	**324**	P	**P**	**07 23 46.9**	**-0.8**
	comp=Z,0.8nm,0.5s,mb4.0,baz=68,slow=6.9,SNR=3.2						
NOA				LR	LR	07 46 53.2	
	comp=Z,93nm,18.1s,MS3.9,baz=300,slow=35						
GERES	**GERESS Array B**	**59.15**	**310**	P	**P**	**07 24 11.2**	**+1.4**
	comp=Z,0.2nm,0.4s,mb3.5,baz=86,slow=6.3,SNR=3.0						
GERES				LR	LR	07 50 45.1	
	comp=Z,251nm,18.9s,MS4.4,baz=197,slow=37						
CDF	**Champ du Feu**	**63.17**	**312**	*e*P	**P**	**07 24 37.6**	**+0.6**
HINF	**Hinteralfeld**	**63.70**	**311**	*e*P	**P**	**07 24 40.7**	**+0.1**
	comp=Z,2.3nm,0.6s,mb4.0						
LPG	**La Plagne**	**64.89**	**309**	*e*P	**P**	**07 24 48.9**	**+0.5**
	comp=Z,14nm,0.8s,mb4.8						
LPL	**La Plagne**	**64.89**	**309**	*e*P	**P**	**07 24 49.1**	**+0.7**
	comp=Z,9.5nm,0.8s,mb4.6						
MBDF	**Montbardon**	**65.26**	**308**	*e*P	**P**	**07 24 50.8**	**0.0**
	comp=Z,12nm,1.0s,mb4.6						
SBF	**Sospel**	**65.27**	**307**	*e*P	**P**	**07 24 51.1**	**+0.2**
	comp=Z,32nm,0.9s,mb5.0						
ORIF	**Oris-en-Rattie**	**65.71**	**309**	*e*P	**P**	**07 24 54.1**	**+0.4**
	comp=Z,7.5nm,0.8s,mb4.5						
ORIF				*e*MLR	MLR		
	comp=Z,346nm,18.2s,MS4.3						
LOR	**Lormes**	**65.73**	**312**	*e*P	**P**	**07 24 54.2**	**+0.3**
LOR				*e*MLR	MLR		
	comp=Z,164nm,20.5s,MS3.9						
FRF	**La Foret Royal**	**65.92**	**307**	*e*P	**P**	**07 24 55.0**	**-0.1**
	comp=Z,18nm,1.1s,mb4.7						
SMF	**Signal de Mont**	**66.06**	**311**	*e*P	**P**	**07 24 56.3**	**+0.3**
LMR	**La Mourre**	**66.12**	**307**	*e*P	**P**	**07 24 56.3**	**-0.1**
SMRF	**Simiane la Rot**	**66.38**	**308**	*e*P	**P**	**07 24 58.2**	**+0.2**
VIVF	**Saint-Julien-l**	**66.48**	**309**	*e*P	**P**	**07 24 58.9**	**+0.2**
INK	**Inuvik**	**67.04**	**18**	LR	LR	07 59 33.3	
	comp=Z,91nm,18.9s,MS4.0,baz=348,slow=41						
WRA	**Warramunga Arr**	**67.09**	**143**	P	**P**	**07 25 01.9**	**-0.8**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	**Warramunga Arr**	**67.09**	**143**	P	**P**	**07 25 01.9**	**-0.9**
	comp=Z,1.3nm,0.7s,mb4.1,baz=341,slow=6.1,SNR=4.4						
LASF	**Ste Croix**	**67.38**	**309**	*e*P	**P**	**07 25 04.5**	**0.0**
	comp=Z,38nm,1.4s,mb4.9						
GRR	**Gorron**	**67.85**	**315**	*e*P	**P**	**07 25 07.4**	**+0.1**
KMBO	**Kilima Mbogo**	**68.21**	**250**	P	**P**	**07 25 09.8**	**-0.3**
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KMBO	**Kilima Mbogo**	**68.21**	**250**	P	**P**	**07 25 09.8**	**-0.2**
	comp=Z,0.5nm,0.3s,mb4.0,baz=33,slow=12,SNR=4.6						
ETSF	**Etsaut**	**70.72**	**310**	*e*P	**P**	**07 25 25.3**	**+0.1**
	comp=Z,1.9nm,0.6s,mb3.9						
NWAO	**Narrogin (SRO)**	**72.97**	**163**	LR	LR	07 58 46.0	
	comp=Z,131nm,19.7s,MS4.2,baz=209,slow=37						
ESDC	**Sonseca Array**	**74.68**	**309**	P	**P**	**07 25 49.1**	**+0.3**
	comp=Z,0.8nm,0.5s,mb3.9,baz=44,slow=6.0,SNR=15						
YKA	**Yellowknife Ar**	**76.24**	**15**	P	**P**	**07 25 56.6**	**-0.8**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA				MLR	MLR		
	comp=Z,67nm,18.6s						
YKA	**Yellowknife Ar**	**76.24**	**15**	P	**P**	**07 25 56.6**	**-0.8**
	comp=Z,0.7nm,0.9s,mb3.6,baz=335,slow=5.5,SNR=8.1						
YKA				LR	LR	08 01 50.6	
	comp=Z,67nm,18.6s,MS4.0,baz=40,slow=38						
STKA	**Stephens Creek**	**80.63**	**144**	P	**P**	**07 26 20.7**	**-1.2**
	comp=Z,1.2nm,0.7s,mb3.9,baz=350,slow=12,SNR=3.1						
TORD	**Torodi Ar. Bea**	**86.96**	**284**	P	**P**	**07 26 54.2**	**-0.6**
	comp=Z,0.4nm,0.5s,mb3.9,baz=36,slow=5.1,SNR=3.6						
ULM	**Lac du Bonnet**	**91.06**	**9**	LR	LR	08 07 27.5	
	comp=Z,119nm,18.3s,MS4.4,baz=340,slow=35						

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*IDC **04** 07:40:14.9±0.9, 57.62S×141.09W, h0^{km}, mb3.8/2, mb1 4.1/2, mb1mx3.8/10, mbtmp3.8/2, MS4.3/10, Ms1 4.3/10, ms1mx4.0/19, Error ellipse: s-maj=229.7km s-min=30.2km az=178.0*

*ISCJB **04** 07:40:15.8±1.4, 57.4S±0.3×141.2W±0.4, h10^{km}, mb3.7/2, MS4.2/11, Error ellipse: s-maj=38.6km s-min=29.9km az=17.4*

ISC 04 07:40:17.9±1.4**, 57.4S**±0.3×**141.2W**±0.4**, h10**^{km}**, n22,** σ**2**^{s}**02**/4**,**
mb3.7/2**, MS4.2**/11**, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	**Vanda**	**27.79**	**203**	LR	LR	07 55 01.8	
	comp=Z,409nm,18.6s,MS4.0,baz=91,slow=32						
RPZ	**Rata Peaks**	**32.56**	**274**	LR	LR	07 56 41.5	
	comp=Z,641nm,21.2s,MS4.3,baz=190,slow=30						
URZ	**Urewera**	**33.21**	**287**	LR	LR	07 57 07.0	
	comp=Z,638nm,21.7s,MS4.3,baz=354,slow=30						
RKT	**Rikitea**	**34.52**	**10**	*e*LR	LR	07 55 57.8	
	759nm,28.0s						
RKT	**Rikitea**	**34.52**	**10**	*e*T		08 22 34.6	
	2.8nm,0.3s						
TVO	**Taravao**	**39.99**	**348**	*e*T		08 29 39.0	
	7.2nm,0.4s						
PPT	**Papeete**	**40.24**	**348**	*e*LR	LR	07 58 41.6	
	528nm,25.0s						
PPT	**Papeete**	**40.24**	**348**	LR	LR	08 00 24.3	
	comp=Z,402nm,18.6s,MS4.3,baz=180,slow=30						
VAH	**Vaihoa**	**42.34**	**351**	*e*T		08 32 34.9	
	16nm,0.3s						
VNA3	**Neumayer Olymp**	**47.22**	**161**	*e*	**P**	**07 48 48.7**	**-1.4**
VNA3				*e*	pP	07 48 53.2	-0.1
VNA3				*e*		07 48 55.8	
VNA3				*e*		07 48 58.8	
VNA2	**Neumayer--Watz**	**47.89**	**161**	*e*	**P**	**07 48 56.8**	**+1.5**
	baz=208,slow=6.4						
VNA2				*e*	pP	07 49 01.4	+2.9
VNA2				*e*		07 49 04.3	
VNA2				*e*		07 49 08.2	
TAOE	**Nuku Hiva Isla**	**48.41**	**1**	*e*LR	LR	08 02 17.7	
	1µm,25.5s						
MAW	**Mawson**	**54.07**	**191**	LR	LR	08 10 32.0	
	comp=Z,247nm,21.9s,MS4.2,baz=245,slow=34						
CFAA	**Coronel Fontan**	**54.97**	**95**	LR	LR	08 07 52.9	
	comp=Z,17nm,19.7s,MS3.1,baz=158,slow=30						
STKA	**Stephens Creek**	**57.07**	**261**	LR	LR	08 09 39.2	
	comp=Z,272nm,21.8s,MS4.3,baz=206,slow=31						
LPAZ	**La Paz**	**67.30**	**85**	P	**P**	**07 51 12.7**	**0.0**
	0.6nm,0.8s,mb3.7,baz=216,slow=7.5,SNR=3.2						
LPAZ				LR	LR	08 13 03.8	
	comp=Z,170nm,19.9s,MS4.3,baz=267,slow=29						
ATAH	**Atahualpa**	**69.65**	**70**	LR	LR	08 13 47.3	
	comp=Z,167nm,20.9s,MS4.3,baz=348,slow=29						
WRA	**Warramunga Arr**	**70.49**	**263**	P	**P**	**07 51 32.5**	**0.0**
	0.9nm,0.8s,mb3.8,baz=144,slow=6.4,SNR=5.7						
WRA				LR	LR	08 19 43.0	
	comp=Z,140nm,18.3s,MS4.2,baz=155,slow=34						
PCRV	**Puerto La Cruz**	**91.34**	**73**	LR	LR	08 29 20.7	
	comp=Z,265nm,18.1s,MS4.7,baz=227,slow=32						
ESDC	**Sonseca Array**	**147.28**	**104**	PKPbc	PKPbc	07 59 57.4	-3.3
	1.3nm,0.7s,baz=247,slow=2.4,SNR=8.5						
MKAR	**Makanchi Array**	**151.75**	**267**	PKPbc	PKPbc	08 00 08.7	-2.9
	3.6nm,0.9s,baz=121,slow=2.7,SNR=24						
ZALV	**Zalesovo Beam**	**154.22**	**282**	PKPbc	PKPbc	08 00 17.3	+0.6
	0.2nm,0.4s,baz=90,slow=0.1,SNR=2.2						
ZALV				PKPab	PKPab	08 00 28.5	-2.3
	0.6nm,0.5s,baz=103,slow=3.1,SNR=4.3						

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*NEIC **04** 07:40:45.0, 30.99S×71.73W, h5^{km}, ML2.7(GUC), After GUC.*

GUC 04 07:40:45.0±0.8**, 30.99S**×**71.73W, h5**^{km}±3^{km}**, MD3.7, ML2.7,**
5C-2D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OVCH	**Ovalle**	**0.59**	**50**	⇓*i*P	Pg	07 40 57.1	+0.7
OVCH				*i* S	Sg	07 41 06.3	+2.2
OVCH	**Ovalle**	**0.59**	**50**	⇓*i*P	Pg	07 40 57.1	+0.7
OVCH				*i* S	Sg	07 41 06.3	+2.2
OVCH				AML	AML	07 41 06.6	
	comp=N,1µm,0.2s						
CMCH	**Combarbala**	**0.65**	**107**	⇑*i*P	Pg	07 40 58.4	+0.8
CMCH				*i* S	Sg	07 41 08.8	+2.7
CMCH	**Combarbala**	**0.65**	**107**	⇑*i*P	Pg	07 40 58.4	+0.8
CMCH				*i* S	Sg	07 41 08.8	+2.7
CMCH				AML	AML	07 41 08.9	
	comp=E,865nm,0.4s						
CHNG	**Los Chungos**	**0.91**	**168**	*e*P	Pg	07 40 52.0	-11
CHNG				*i* S	Sg	07 41 04.5	-10
CHNG				AML	AML	07 41 06.5	
	comp=E,153nm,0.9s						
TLL	**Tololo Astrono**	**1.14**	**45**	*e*P	Pg	07 41 06.4	-0.6
TLL				*i* S	Sg	07 41 23.3	+1.5
TLL	**Tololo Astrono**	**1.14**	**45**	*e*P	Pg	07 41 06.4	-0.6
TLL				*i* S	Sg	07 41 23.3	+1.5
TLL				AML	AML	07 41 26.0	
	comp=E,174nm,0.4s						
PTCH	**Petorca**	**1.44**	**152**	⇑*i*P	Pn	07 41 10.8	-1.0
PTCH				*i* S	Sb	07 41 30.2	-0.9
PTCH	**Petorca**	**1.44**	**152**	⇑*i*P	Pn	07 41 10.8	-1.0
PTCH				*i* S	Sb	07 41 30.2	-0.9
PTCH				AML	AML	07 41 33.5	
	comp=N,535nm,0.3s						
PEL	**Peldehue**	**2.33**	**158**	⇑*i*P	Pn	07 41 25.0	+1.1
PEL				*i* S	Sn	07 41 55.5	+2.6
PEL				AML	AML	07 41 58.9	
	comp=E,158nm,0.4s						

IDC 04 08:03:47.1±2.4**, 59.46S**×**25.57W, h0**^{km}**, mb4.4**/1**,**
mb1 4.5/2**, mb1mx4.0**/12**, mbtmp4.5**/2**, ML4.5**/1**, MS4.1**/3**,**
Ms1 4.0/3**, ms1mx3.4**/20**, Error ellipse: s-maj=129.4km**
s-min=46.7km az=82.0, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	**13.32**	**155**	*e*	Pn	08 06 58.6	+1.5
VNA1				*e*		08 07 02.0	
VNA1				*e*		08 07 06.3	
VNA1				*e*		08 07 10.4	
VNA1				*e*		08 07 13.9	
VNA1				*e*		08 07 18.1	
VNA3	**Neumayer Olymp**	**13.49**	**158**	*e*	Pn	08 07 00.5	+1.1
VNA3				*e*		08 07 03.9	
VNA3				*e*		08 07 07.1	
VNA3				*e*		08 07 11.9	
VNA3				*e*		08 07 16.1	
VNA3				*e*		08 07 20.5	
VNA3				*e*		08 09 20.7	
VNA3				*e*		08 09 25.6	
VNA3				*e*		08 09 28.7	
VNA3				*e*		08 09 33.2	
VNA3				*e*		08 09 37.1	
VNA2	**Neumayer--Watz**	**13.72**	**154**	*e*	Pn	08 07 03.0	+0.5
VNA2				*e*		08 07 05.8	
VNA2				*e*		08 07 09.6	
VNA2				*e*		08 07 14.3	
VNA2				*e*		08 07 17.2	
VNA2				*e*		08 07 21.5	
VNA2				*e*		08 09 25.5	
VNA2				*e*		08 09 30.2	
VNA2				*e*		08 09 33.2	
VNA2				*e*		08 09 36.8	
VNA2				*e*		08 09 40.7	
SNAA	**Sanae**	**15.29**	**152**	Pn	Pn	08 07 24.6	+0.7
	2.1nm,0.3s,baz=313,slow=15,SNR=127						
BOSA	**Boshof**	**46.11**	**71**	LR	LR	08 28 57.2	
	comp=Z,153nm,19.6s,baz=145,slow=33						
KMBO	**Kilima Mbogo**	**75.52**	**67**	LR	LR	08 47 32.1	
	comp=Z,144nm,18.2s,baz=89,slow=35						
TORD	**Torodi Ar. Bea**	**75.64**	**27**	P	P	08 15 33.9	+0.2
	2.7nm,0.7s,baz=195,slow=6.2,SNR=15						
NWAO	**Narrogin (SRO)**	**82.94**	**149**	LR	LR	08 48 46.1	
	comp=Z,90nm,18.2s,baz=196,slow=32						
FINES	**FINESS Array B**	**126.99**	**28**	PKP	PKPdf	08 22 51.1	-0.2
	1.1nm,0.9s,baz=204,slow=3.0,SNR=4.5						
ARCES	**ARCESS Array B**	**133.78**	**22**	PKP	PKPdf	08 23 04.5	+0.6
	3.4nm,0.8s,baz=240,slow=2.9,SNR=4.6						
YKA	**Yellowknife Ar**	**139.24**	**315**	PKP	PKPdf	08 23 12.9	-1.3
	1.3nm,0.7s,baz=128,slow=2.3,SNR=30						
SONM	**Songino Array**	**149.93**	**91**	PKPbc	PKPbc	08 23 37.4	-0.6
	2.0nm,0.9s,baz=216,slow=3.3,SNR=14						

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*IDC **04** 08:05:10.2±0.9, 15.08S×75.54W, h0^{km}, mb4.0/6, mb1 4.1/9, mb1mx4.0/17, mbtmp3.9/9, ML3.3/3, MS3.5/2, Ms1 3.5/2, ms1mx2.8/23, Error ellipse: s-maj=44.8km s-min=16.0km az=60.0*

*ISCJB **04** 08:05:14.7±1.8, 15.1S±0.1×75.7W±0.2, h47^{km}±15^{km}, mb4.1/9, Error ellipse: s-maj=32.5km s-min=9.6km az=149.1*

*NEIC **04** 08:05:15.8±1.6, 15.02S×75.54W, h39^{km}±14^{km}, mb4.2/4, Error ellipse: s-maj=25.2km s-min=10.1km az=51.0*

ISC 04 08:05:18.6±1.7**, 15.2S**±0.1×**75.6W**±0.2**, h65**^{km}±15^{km}**, n26,**
σ**0**^{s}**86**/25**, mb4.0**/9**, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**3.37**	**339**	Pn	**Pn**	**08 06 04.8**	**-4.0**
NNA	**Nana**	**3.37**	**339**	Pn	**Pn**	**08 06 04.8**	**-4.0**
	4.1nm,0.3s,baz=180,slow=13,SNR=11						
NNA				Sn	**Sn**	**08 06 48.7**	**+1.1**
	26nm,0.3s,baz=160,slow=23,SNR=5.3						
NNA				Lg		08 06 56.4	
	72nm,0.3s,baz=251,slow=18,SNR=9.4						
NNA				LR	LR	08 07 37.2	
	comp=Z,395nm,18.6s,baz=137,slow=44						
LPAZ	**La Paz**	**7.30**	**100**	Pn	**Pn**	**08 07 02.0**	**-0.6**
LPAZ	**La Paz**	**7.30**	**100**	Pn	**Pn**	**08 07 02.0**	**-0.6**
	1.2nm,0.3s,baz=278,slow=9.9,SNR=48						
ATAH	**Atahualpa**	**8.55**	**341**	Pn	**Pn**	**08 07 23.6**	**+3.9**
	1.4nm,0.3s,baz=145,slow=8.0,SNR=10						
ATAH				Sn	**Sn**	**08 08 54.1**	**-0.6**
	0.7nm,0.3s,baz=270,slow=20,SNR=1.7						
SIV	**San Ignacio**	**14.04**	**95**	Pn	**Pn**	**08 08 29.0**	**-5.3**
SIV	**San Ignacio**	**14.04**	**95**	Pn	**Pn**	**08 08 29.0**	**-5.3**
	0.2nm,0.3s,baz=280,slow=11,SNR=10						
OTAV	**Otavalo**	**15.55**	**349**	Pn	**Pn**	**08 08 53.9**	**-0.1**
	3.2nm,0.8s						
CFAA	**Coronel Fontan**	**17.71**	**159**	P	**Pn**	**08 09 20.4**	**-0.3**
CFAA	**Coronel Fontan**	**17.71**	**159**	P	**Pn**	**08 09 20.4**	**-0.3**
	0.0nm,0.3s,baz=335,slow=12,SNR=4.0						
ROSC	**El Rosal**	**19.92**	**4**	P	**Pn**	**08 09 50.7**	**+3.4**
	0.1nm,0.3s,baz=157,slow=7.7,SNR=2.7						
JTS	**JuntasAbangare**	**26.92**	**339**	LR	LR	08 20 25.3	
	comp=Z,165nm,21.1s,baz=348,slow=34						
TXAR	**Lajitas Array**	**51.86**	**329**	P	**P**	**08 14 20.4**	**0.0**
	1.1nm,0.7s,mb4.0,baz=150,slow=8.9,SNR=20						
SDCO	**Great Sand Dun**	**59.65**	**333**	*e*P	**P**	**08 15 15.3**	**-0.6**
	2.4nm,0.9s,mb4.2						
ECSD	**EROS,Sioux Fal**	**61.67**	**343**	*e*P	**P**	**08 15 28.6**	**-1.0**
	0.8nm,0.6s,mb3.9						
NVAR	**Mina Array Bea**	**66.63**	**325**	P	**P**	**08 16 03.0**	**+0.8**
	0.3nm,0.6s,mb3.3,baz=166,slow=7.1,SNR=5.4						
ULM	**Lac du Bonnet**	**67.52**	**346**	P	**P**	**08 16 06.7**	**-0.9**
ULM	**Lac du Bonnet**	**67.52**	**346**	P	**P**	**08 16 06.7**	**-0.9**
	1.4nm,0.6s,mb4.0,baz=136,slow=4.8,SNR=5.1						
MCMT	**McKenzie Canyo**	**68.62**	**332**	*e*P	**P**	**08 16 14.4**	**-0.2**
SNAA	**Sanae**	**70.31**	**161**	P	**P**	**08 16 25.3**	**+0.6**
	0.8nm,0.6s,mb3.7,baz=295,slow=5.8,SNR=5.9						
TORD	**Torodi Ar. Bea**	**81.50**	**74**	P	**P**	**08 17 30.0**	**+0.5**
	3.8nm,0.8s,mb4.3,baz=260,slow=4.4,SNR=15						
YKA	**Yellowknife Ar**	**83.20**	**343**	P	**P**	**08 17 36.7**	**-0.5**
YKA	**Yellowknife Ar**	**83.20**	**343**	P	**P**	**08 17 36.7**	**-0.5**
	0.7nm,0.7s,mb3.6,baz=141,slow=5.5,SNR=18						
BOSA	**Boshof**	**92.08**	**120**	P	**P**	**08 18 22.3**	**+1.2**
	8.0nm,0.8s,mb5.0						
ZALV	**Zalesovo Beam**	**138.37**	**17**	PKP	PKPdf	08 24 37.3	+0.9
	0.6nm,0.6s,baz=292,slow=4.0,SNR=3.8						
SONM	**Songino Array**	**147.37**	**357**	PKPbc	PKPbc	08 24 56.0	+1.1
	2.7nm,0.7s,baz=325,slow=1.7,SNR=13						

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*NEIC **04** 08:09:16.7, 31.53S×69.25W, h177^{km}, MG3.5(GUC), After GUC.*

GUC 04 08:09:16.7±0.8**, 31.53S**×**69.25W, h177**^{km}±17^{km}**, MD3.4,**
ML3.5, 1C-8D, San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	**Combarbala**	**1.54**	**283**	⇓*i*P	Pn	08 09 49.4	+0.6
CMCH				*i* S	Sn	08 10 14.2	+0.7
CMCH	**Combarbala**	**1.54**	**283**	⇓*i*P	Pn	08 09 49.4	+0.6
CMCH				*i* S	Sn	08 10 14.2	+0.7
CMCH				AML	AML	08 10 16.8	
	comp=N,699nm,0.5s						
PTCH	**Petorca**	**1.61**	**243**	*e*P	Pn	08 09 49.8	+0.5
PTCH				*i* S	Sn	08 10 15.1	+0.4
PTCH	**Petorca**	**1.61**	**243**	*e*P	Pn	08 09 49.8	+0.5
PTCH				*i* S	Sn	08 10 15.1	+0.4
PTCH				AML	AML	08 10 15.2	
	comp=N,576nm,0.5s						
TLL	**Tololo Astrono**	**1.91**	**315**	⇓*i*P	Pn	08 09 54.3	+1.7
TLL				*i* S	Sn	08 10 21.5	+1.2
TLL	**Tololo Astrono**	**1.91**	**315**	⇓*i*P	Pn	08 09 54.3	+1.7
TLL				*i* S	Sn	08 10 21.5	+1.2
TLL				AML	AML	08 10 23.3	
	comp=N,91nm,0.6s						
CHNG	**Los Chungos**	**1.95**	**259**	*e*P	Pn	08 09 43.9	-9.1
CHNG				*i* S	Sn	08 10 11.4	-10
CHNG				AML	AML	08 10 19.1	
	comp=E,117nm,0.4s						
FCH	**Farellones**	**2.00**	**206**	⇓*i*P	Pn	08 09 54.6	+1.2
FCH				*i* S	Sn	08 10 23.6	+1.6
PEL	**Peldehue**	**2.02**	**217**	⇓*i*P	Pn	08 09 54.2	+0.5
PEL				*i* S	Sn	08 10 22.6	+0.2
PEL				AML	AML	08 10 24.6	
	comp=E,172nm,0.3s						
PCH	**Pirque**	**2.34**	**207**	⇓*i*P	Pn	08 09 58.2	+0.9
ANTU	**Antumapu**	**2.34**	**210**	*e*P	Pn	08 09 57.9	+0.6
ANTU				*i* S	Sn	08 10 30.0	+1.0
ANTU	**Antumapu**	**2.34**	**210**	*e*P	Pn	08 09 57.9	+0.6
ANTU				*i* S	Sn	08 10 30.0	+1.0
ANTU				AML	AML	08 10 32.0	
	comp=E,74nm,0.3s						
RCDM	**Rinconada Maip**	**2.35**	**214**	*e*P	Pn	08 09 58.4	+1.0
RCDM				*i* S	Sn	08 10 29.8	+0.6
RCDM	**Rinconada Maip**	**2.35**	**214**	*e*P	Pn	08 09 58.4	+1.0
RCDM				*i* S	Sn	08 10 29.8	+0.6
RCDM				AML	AML	08 10 30.4	
	comp=E,123nm,0.3s						
TACH	**Talagante**	**2.55**	**214**	⇑*i*P	Pn	08 10 00.7	+0.9
TACH				*i* S	Sn	08 10 34.1	+0.9
CHCH	**Chadas Angostu**	**2.67**	**206**	⇓*i*P	Pn	08 10 02.0	+0.9
CHCH				*i* S	Sn	08 10 36.8	+1.0
LCO	**Las Campanas**	**2.81**	**333**	*e*Pn	Pn	08 10 03.3	+0.4
LNV	**Longovilo**	**3.03**	**216**	*e*P	Pn	08 10 05.4	0.0
VACH	**Vallenar**	**3.23**	**336**	AML	AML	08 10 48.9	
	comp=N,410nm,0.2s						

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*NEIC **04** 08:11:45.7, 33.14S×72.13W, h3^{km}, ML2.5(GUC), After GUC.*

GUC 04 08:11:45.7±0.6**, 33.14S**×**72.13W, h3**^{km}±10^{km}**, MD3.5,**
ML2.5, 2C-3D, Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LNV	**Longovilo**	**1.01**	**144**	⇓*i*P	Pg	08 12 04.8	-0.4
LNV				*i* S	Sg	08 12 19.2	+0.9
TACH	**Talagante**	**1.12**	**118**	⇓*i*P	Pg	08 12 06.5	-0.7
TACH				*i* S	Sg	08 12 22.1	+0.4
RCDM	**Rinconada Maip**	**1.16**	**108**	*e*P	Pg	08 12 07.3	-0.6
RCDM				*i* S	Sg	08 12 23.9	+0.9
RCDM	**Rinconada Maip**	**1.16**	**108**	*e*P	Pg	08 12 07.3	-0.6
RCDM				*i* S	Sg	08 12 23.9	+0.9
RCDM				AML	AML	08 12 26.9	
	comp=E,71nm,0.3s						
PEL	**Peldehue**	**1.21**	**91**	⇑*i*P	Pg	08 12 08.1	-0.8
PEL				*i* S	Sg	08 12 25.0	+0.4
PEL				AML	AML	08 12 30.6	
	comp=E,165nm,0.5s						
PCH	**Pirque**	**1.44**	**110**	*i* P	Pn	08 12 11.8	-0.8
PCH				*i* S	Sb	08 12 31.8	+0.1
CHCH	**Chadas Angostu**	**1.47**	**123**	⇑*i*P	Pn	08 12 12.3	-0.7
CHCH				*e*S	Sb	08 12 32.7	0.0
FCH	**Farellones**	**1.55**	**98**	⇓*i*P	Pn	08 12 13.7	-0.5
FCH				*i* S	Sn	08 12 35.5	+0.8
CACH	**El Canelo**	**1.61**	**128**	*e*P	Pn	08 12 15.0	0.0
CICH	**Cipreses**	**1.85**	**130**	*e*P	Pn	08 12 18.7	+0.5
CMCH	**Combarbala**	**2.18**	**26**	*e*P	Pn	08 12 23.6	+0.9
CMCH				AML	AML	08 13 00.2	
	comp=E,122nm,0.8s						

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*ISCJB **04** 08:31:08.8±1.5, 32.0S±0.3×57.1E±0.3, h10^{km}, mb3.8/7, MS3.8/8, Error ellipse: s-maj=58.1km s-min=21.4km az=34.4*

*IDC **04** 08:31:08.6±1.5, 31.96S×57.16E, h0^{km}, mb3.9/6, mb1 4.0/7, mb1mx3.8/19, mbtmp3.9/7, ML4.0/1, MS3.8/8, Ms1 3.8/8, ms1mx3.6/23, Error ellipse: s-maj=69.2km s-min=30.4km az=28.0*

*NEIC **04** 08:31:10.5±1.4, 32.01S×57.07E, h10^{km}, mb4.2/1, Error ellipse: s-maj=54.3km s-min=20.3km az=214.0*

ISC 04 08:31:10.7±1.5**, 32.0S**±0.3×**57.1E**±0.3**, h10**^{km}**, n19,** σ**0**^{s}**81**/10**,**
mb3.8/7**, MS3.8**/8**, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OPO	**Ambohidratompo**	**16.08**	**324**	Pn	**Pn**	**08 34 56.8**	**-0.1**
OPO	**Ambohidratompo**	**16.08**	**324**	Pn	**Pn**	**08 34 56.8**	**-0.1**
	0.5nm,0.3s,baz=156,slow=12,SNR=2.7						
BOSA	**Boshof**	**27.66**	**269**	LR	LR	08 46 19.0	
	comp=Z,73nm,21.0s,MS3.2,baz=118,slow=33						
LBTB	**Lobatse**	**28.48**	**276**	LR	LR	08 46 32.8	
	comp=Z,136nm,18.8s,MS3.6,baz=311,slow=32						
SUR	**Sutherland**	**30.63**	**259**	LR	LR	08 46 23.7	
	comp=Z,96nm,21.8s,MS3.4,baz=212,slow=30						
MAW	**Mawson**	**35.81**	**176**	LR	LR	08 48 45.2	
	comp=Z,169nm,21.9s,MS3.8,baz=70,slow=30						
VNDA	**Vanda**	**62.13**	**166**	LR	LR	09 05 26.3	
	comp=Z,102nm,18.8s,MS4.0,baz=80,slow=33						
WRA	**Warramunga Arr**	**69.18**	**101**	P	**P**	**08 42 17.4**	**-0.3**

	1.0nm,0.9s,mb3.8,baz=241,slow=5.0,SNR=5.1						
TORD	Torodi Ar. Bea	69.47	301	P	P	08 42 19.3	-0.2
TORD				LR	LR	09 13 40.7	
TORD	Torodi Ar. Bea	69.47	301	P	P	08 42 19.3	-0.2
	1.3nm,0.8s,mb3.9,baz=125,slow=5.2,SNR=10.0						
TORD				LR	LR	09 13 40.7	
	comp=Z,87nm,18.0s,MS4.0,baz=155,slow=37						
STKA	Stephens Creek	69.72	115	LR	LR	09 07 14.8	
	comp=Z,95nm,18.7s,MS4.1,baz=26,slow=31						
BRTR	Keskin Array B	74.60	341	P	P	08 42 49.2	-0.4
	2.0nm,0.8s,mb4.1,baz=156,slow=6.9,SNR=14						
MKAR	Makanchi Array	81.64	17	P	P	08 43 28.1	-0.5
	0.3nm,0.7s,mb3.3,baz=224,slow=6.6,SNR=4.8						
KURK	Kurchatov	84.51	14	*e*P	P	08 43 45.0	+1.7
	0.8nm,0.6s,mb4.0						
AKASG	Malin Array Be	85.94	343	P	P	08 43 49.6	-0.9
	0.5nm,0.5s,mb4.0,baz=165,slow=4.6,SNR=6.4						
ESDC	Sonseca Array	91.03	317	P	P	08 44 16.1	+1.1
	0.1nm,0.4s,mb3.5,baz=132,slow=4.4,SNR=5.0						
NOA	NORSAR Array B	99.94	339	LR	LR	09 28 54.1	
	comp=Z,70nm,19.4s,MS4.2,baz=245,slow=35						
YKA	Yellowknife Ar	149.02	353	PKPbc	PKPbc	08 50 57.7	-0.4
	1.1nm,0.7s,baz=5.0,slow=2.7,SNR=25						
ULM	Lac du Bonnet	152.90	320	PKPbc	PKPbc	08 51 05.5	-2.1
	2.6nm,0.8s,baz=38,slow=6.3,SNR=5.0						

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*IDC **04** 08:51:28.0±1.1, 15.06S×75.52W, h0^{km}, mb4.0/4, mb1 4.1/7, mb1mx4.0/16, mbtmp3.9/7, ML3.6/3, MS3.0/4, Ms1 3.0/4, ms1mx2.9/19, Error ellipse: s-maj=47.3km s-min=18.0km az=55.0*

*ISCJB **04** 08:51:30.6±3.3, 15.15S±0.08×75.8W±0.1, h29^{km}±25^{km}, mb4.1/5, Error ellipse: s-maj=24.9km s-min=9.6km az=152.7*

*NEIC **04** 08:51:32.1±2.8, 15.05S×75.52W, h29^{km}±20^{km}, mb4.7/1, Error ellipse: s-maj=18.2km s-min=10.0km az=56.0*

ISC 04 08:51:34.9±1.3,**1521S**±009×**756W**±02,**h50**^{km}±12^{km},**n27**, σ**1^{s}20**/21,**mb4.1**/5,**Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	Nana	3.42	339	Pn	Pn	08 52 21.8	-4.0
NNA				Sn	Sn	08 53 06.6	+1.4
NNA				Lg		08 53 13.5	
NNA				LR	LR	08 53 55.9	
NNA	Nana	3.42	339	Pn	Pn	08 52 21.8	-4.0
	9.2nm,0.3s,baz=124,slow=12,SNR=11						
NNA				Sn	Sn	08 53 06.6	+1.4
	24nm,0.3s,baz=206,slow=9.5,SNR=5.6						
NNA				Lg		08 53 13.5	
	46nm,0.3s,baz=242,slow=19,SNR=8.0						
NNA				LR	LR	08 53 55.9	
	comp=Z,438nm,19.7s,baz=46,slow=45						
ARE	Arequipa	4.14	108	*e*P	Pn	08 52 35.0	-0.6
LPAZ	La Paz	7.27	99	Pn	Pn	08 53 22.1	+3.5
LPAZ				LR	LR	08 55 36.7	
LPAZ	La Paz	7.27	99	Pn	Pn	08 53 22.1	+3.5
	4.1nm,0.3s,baz=278,slow=10,SNR=124						
LPAZ				LR	LR	08 55 36.7	
	comp=Z,56nm,22.0s,baz=78,slow=34						
ATAH	Atahualpa	8.61	341	Pn	Pn	08 53 40.9	+4.0
	1.2nm,0.3s,baz=150,slow=8.8,SNR=7.5						
ATAH				Sn	Sn	08 55 10.5	-2.2
	0.6nm,0.3s,baz=252,slow=20,SNR=3.0						
SIV	San Ignacio	14.02	95	Pn	Pn	08 54 46.7	-4.1
SIV	San Ignacio	14.02	95	Pn	Pn	08 54 46.7	-4.1
	0.3nm,0.3s,baz=281,slow=12,SNR=15						
LCO	Las Campanas	14.46	163	*e*Pn	Pn	08 54 56.7	0.0
	5.7nm,1.1s						
CFAA	Coronel Fontan	17.65	159	P	Pn	08 55 37.5	+0.3
	0.1nm,0.3s,baz=337,slow=11,SNR=18						
CFAA				LR	LR	09 00 59.9	
	comp=Z,15nm,18.8s,baz=334,slow=32						
ROSC	El Rosal	19.98	4	P	Pn	08 56 08.0	+2.7
	0.5nm,0.3s,baz=101,slow=19,SNR=2.3						
PCRV	Puerto La Cruz	27.46	24	LR	LR	09 08 43.9	
	comp=Z,128nm,21.1s,baz=61,slow=38						
TXAR	Lajitas Array	51.92	329	P	P	09 00 38.0	-0.7
	0.9nm,0.6s,mb3.9,baz=150,slow=8.8,SNR=16						
NVAR	Mina Array Bea	66.68	325	P	P	09 02 21.2	+0.6
NVAR	Mina Array Bea	66.68	325	P	P	09 02 21.2	+0.6
	0.5nm,0.8s,mb3.6,baz=138,slow=7.2,SNR=5.2						
TOA0	Torodi Ar. Sit	81.49	74	*e*P	P	09 03 47.5	0.0
TORD	Torodi Ar. Bea	81.49	74	P	P	09 03 47.6	+0.1
	5.7nm,0.8s,mb4.6,baz=256,slow=4.9,SNR=26						
YKA	Yellowknife Ar	83.26	343	P	P	09 03 54.6	-1.1
	0.9nm,0.7s,mb3.9,baz=140,slow=5.6,SNR=19						
KDAK	Kodiak Island	95.95	328	*e*P	P	09 04 56.6	+0.4
	1.6nm,0.5s,mb4.7						
WRA	Warramunga Arr	134.32	221	PKP	PKPdf	09 10 48.2	0.0
WRA	Warramunga Arr	134.32	221	PKP	PKPdf	09 10 48.2	0.0
	0.4nm,0.6s,baz=133,slow=1.8,SNR=2.5						
ZALV	Zalesovo Beam	138.41	17	PKP	PKPdf	09 10 54.5	-0.1
ZALV	Zalesovo Beam	138.41	17	PKP	PKPdf	09 10 54.5	-0.1
	0.6nm,0.4s,baz=349,slow=1.5,SNR=6.4						
MKAR	Makanchi Array	143.51	26	PKP	PKPdf	09 11 01.8	-2.3
MKAR	Makanchi Array	143.51	26	PKP	PKPdf	09 11 01.8	-2.3
	0.7nm,0.9s,baz=318,slow=1.6,SNR=5.5						
SONM	Songino Array	147.43	358	PKPbc	PKPbc	09 11 13.5	+0.2
SONM	Songino Array	147.43	358	PKPbc	PKPbc	09 11 13.5	+0.2
	3.0nm,0.7s,baz=323,slow=1.5,SNR=27						

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*FUNV **04** 09:10:44.8, 10.38N×60.14W, h32^{km}, MW3.2*

*ISCJB **04** 09:10:45.4±1.0, 10.18N±0.05×60.34W±0.06, h33^{km}, Error ellipse: s-maj=9.5km s-min=6.1km az=159.7*

*TRN **04** 09:10:46.7, 10.28N×60.33W, h63^{km}, MD3.6*

*NEIC **04** 09:10:46.7, 10.28N×60.33W, h62^{km}, MD3.5(TRN), After TRN.*

ISC 04 09:10:46.8±1.0,**1023N**±005×**6035W**±006,**h35**^{km},**n18**, σ**1^{s}10**/32,**1C-1D**,**Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TBH	Brigand Hill	0.75	290	*e*P	Pn	09 11 02.5	+1.6
TBH				*e*S	Sn	09 11 13.2	+2.1
TPR	Prospect	1.04	336	*e*P	Pn	09 11 04.9	0.0
TPR				*e*S	Sn	09 11 18.1	-0.1
TPP	Pointe-a-Pierr	1.09	275	*e*P	Pn	09 11 05.8	+0.2
TPP				*e*S	Sn	09 11 20.1	+0.8
TRN	Trinidad (W)	1.12	292	*e*P	Pn	09 11 06.8	+0.8
TRN				*e*S	Sn	09 11 21.8	+1.7
TCE	Chacachacare	1.46	289	*e*P	Pn	09 11 11.5	+0.9
TCE				*e*S	Sn	09 11 29.1	+0.6
GUIV	Guiria	1.89	283	*e*P	Pn	09 11 16.2	-0.4
GUIV				*e*S	Sn	09 11 39.8	+0.6
GUNV	Guanoco	2.55	269	⇓*i*P	Pn	09 11 26.9	+1.2
GUNV				*e*S	Sn	09 11 56.3	+0.7
RIOV	Rio Grande	2.59	214	*e*P	Pn	09 11 27.0	+0.8
RIOV				*e*S	Sn	09 11 58.0	+1.6
CRUV	Carupano	2.87	279	*e*P	Pn	09 11 28.8	-1.4
CRUV				*e*S	Sn	09 12 02.2	-1.3
ITEV	Isla Los Testi	2.95	293	*e*P	Pn	09 11 30.3	-0.9
ITEV				*e*S	Sn	09 12 04.4	-1.1
GURV	El Guri	3.65	228	*e*P	Pn	09 11 41.3	+0.5
PCRV	Puerto La Cruz	4.22	270	*e*P	Pn	09 11 47.5	-1.1
PCRV				*e*S	Sn	09 12 34.3	-2.4
PRGV	PARIAGUAN	4.48	251	*e*P	Pn	09 11 52.3	0.0
LUEV	Luepa	4.49	194	*e*P	Pn	09 11 52.0	-0.4
CUPV	Cœpira	5.36	269	*e*P	Pn	09 12 03.7	-0.6
BIRV	Birongo	5.83	273	*e*P	Pn	09 12 09.8	-1.0
BIRV				*e*S	Sn	09 13 12.7	-3.8
CAOV	Caicara del Or	6.57	244	*e*P	Pn	09 12 20.4	-0.6
CAOV				*e*S	Sn	09 13 31.0	-3.7
BAUV	El Baul	7.69	261	⇑*e*P	Pn	09 12 35.1	-1.3
BAUV				*e*S	Sn	09 13 56.8	-5.6

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*ISCJB **04** 09:14:49.9±1.0, 41.1S±0.3×80.7E±0.2, h10^{km}, mb4.1/5, MS4.0/5, Error ellipse: s-maj=48.2km s-min=18.6km az=5.1*

*IDC **04** 09:14:50.5±1.5, 40.95S×80.59E, h0^{km}, mb3.9/4, mb1 4.0/4, mb1mx3.8/13, mbtmp3.9/4, MS4.0/5, Ms1 4.0/5, ms1mx3.8/12, Error ellipse: s-maj=77.8km s-min=29.2km az=4.0*

*NEIC **04** 09:14:51.7±0.8, 41.01S×80.63E, h10^{km}, mb4.7/1, Error ellipse: s-maj=39.2km s-min=15.3km az=185.0*

ISC 04 09:14:51.8±1.0,**410S**±03×**806E**±02,**h10**^{km},**n13**,σ**0^{s}54**/10, **mb4.1**/5,**MS4.0**/5,**Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAW	Mawson	28.38	194	LR	LR	09 29 18.0	
	comp=Z,279nm,19.4s,MS3.9,baz=174,slow=30						
FITZ	Fitzroy Crossi	44.69	73	*e*P	P	09 23 04.1	-0.9
BOSA	Boshof	46.42	267	P	P	09 23 18.5	-0.1
BOSA				LR	LR	09 38 52.1	
BOSA	Boshof	46.42	267	P	P	09 23 18.5	-0.1
	1.5nm,0.8s,mb4.0,baz=90,slow=6.1,SNR=3.1						
BOSA				LR	LR	09 38 52.1	
	comp=Z,154nm,18.3s,MS4.0,baz=146,slow=31						
VNDA	Vanda	48.47	163	LR	LR	09 41 55.8	
	comp=Z,325nm,18.9s,MS4.3,baz=263,slow=34						
STKA	Stephens Creek	48.99	100	P	P	09 23 39.0	+0.4
	1.2nm,0.7s,mb4.0,baz=263,slow=8.1,SNR=2.6						
STKA				LR	LR	09 41 16.0	
	comp=Z,90nm,18.2s,MS3.8,baz=206,slow=32						
WRA	Warramunga Arr	49.97	82	P	P	09 23 46.8	+0.6
	2.4nm,0.9s,mb4.2,baz=233,slow=8.0,SNR=8.0						
WB2	Warramunga Arr	49.98	82	*e*P	P	09 23 46.7	+0.5
CTAO	Charters Tower	58.88	90	*e*P	P	09 24 50.1	-0.8
	6.3nm,1.0s,mb4.6						
MK31	Makanchi Array	87.42	1	*e*P	P	09 27 38.8	0.0
MKAR	Makanchi Array	87.42	1	P	P	09 27 39.0	+0.2
MKAR	Makanchi Array	87.42	1	P	P	09 27 39.0	+0.2
	0.4nm,0.7s,mb3.7,baz=164,slow=5.6,SNR=3.7						
TORD	Torodi Ar. Bea	90.37	287	LR	LR	10 05 21.1	
	comp=Z,102nm,21.9s,MS4.2,baz=125,slow=34						

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*MOS **04** 09:30:29.9±0.6, 43.10N×148.85E, h39^{km}, mb4.2/1, Error ellipse: s-maj=35.0km s-min=30.0km az=87.7*

*NEIC **04** 09:30:29.2±1.1, 43.03N×148.94E, h10^{km}, mb4.0/1, Error ellipse: s-maj=26.9km s-min=14.5km az=159.0*

*JMA **04** 09:30:30.7±0.6, 43.36N×148.96E, h30^{km}, M4.1*

*ISCJB **04** 09:30:33.2±1.1, 42.90N±0.07×148.58E±0.07, h58^{km}±16^{km}, mb5.5/1, Error ellipse: s-maj=11.6km s-min=8.2km az=154.7*

ISC 04 09:30:34.2±1.1,**4299N**±006×**14864E**±008,**h47**^{km}±16^{km}, **n32**,σ**0^{s}98**/47,**mb5.5**/1,**Off southeast coast of Hokkaido**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	2.15	281	P	Pn	09 31 06.5	-1.1
NEM2				*e*S	Sn	09 31 33.2	+0.1
YUK	Yuzh-Kuril'sk	2.28	298	*e*PN	Pn	09 31 07.4	-1.9
YUK				*i* S	Sn	09 31 35.0	-1.2
YUK				pmax	pmax		
	comp=Z,250nm,0.3s						
YUK				smax			
	comp=E,380nm,0.3s						
YUK				smax			
	comp=N,850nm,0.4s						
KUR	Kuril'sk	2.31	346	PN	Pn	09 31 05.2	-4.6
KUR				S	Sn	09 31 31.6	-5.5
KUR				pmax	pmax		
	comp=Z,20nm,0.5s						
KUR				smax			
	comp=N,300nm,0.5s						
KUR				smax			
	comp=E,260nm,0.5s						
JRA	Rausu	2.73	292	P	Pn	09 31 14.4	-1.2
JRA				*e*S	Sn	09 31 47.1	-0.3
JAK	Akkeshi	2.90	272	P	Pn	09 31 17.3	-0.5
JAK				*e*S	Sn	09 31 51.5	+0.2
JOB	Onbets	3.53	270	P	Pn	09 31 26.3	-0.2
JOB				*e*S	Sn	09 32 07.1	+0.1
JAR	Ashorobuto	3.58	277	P	Pn	09 31 27.0	-0.2
JAR				*e*S	Sn	09 32 08.9	+0.7
JTKR	Abashiri--Toko	3.58	288	P	Pn	09 31 27.3	+0.1
JCH	Churui	3.90	266	P	Pn	09 31 31.6	0.0
JCH				*e*S	Sn	09 32 16.5	+0.4
JMP	Maruseppu	3.98	287	P	Pn	09 31 33.0	+0.4
ERM	Erimo	4.17	258	Pn	Pn	09 31 35.5	+0.2
ERM				*e*Sn	Sn	09 32 24.8	+2.1
ERM	Erimo	4.17	258	PN	Pn	09 31 35.5	+0.2
ERM				*e*		09 32 24.8	
JEM	Erimo	4.17	258	P	Pn	09 31 35.8	+0.5
JEM				*e*S	Sn	09 32 23.3	+0.6
JKK2	Kamakawa 2	4.38	284	P	Pn	09 31 39.0	+0.8
JNBK	Urakawa-nobuka	4.40	263	P	Pn	09 31 38.4	-0.1
JNBK				*e*S	Sn	09 32 25.2	-3.2
JFR	Furan	4.43	274	P	Pn	09 31 39.6	+0.7
JFR				*e*S	Sn	09 32 30.1	+0.9
ASAJ	Asahikawa	4.54	286	P	Pn	09 31 42.0	+1.7
JBT2	Biratori 2	4.62	270	P	Pn	09 31 41.3	-0.1
JAB	Ashibetsu	4.72	278	P	Pn	09 31 44.6	+1.8
JWK2	Keihoku	5.38	298	P	Pn	09 31 53.4	+1.5
JNB	Noboribetsu	5.62	267	P	Pn	09 31 55.9	+0.7
JNB				*e*S	Sn	09 32 58.4	-0.1
JKB	Kayabe	5.74	262	*e*S	Sn	09 33 00.1	-1.2
JTH	Tanohata	5.93	241	*e*S	Sn	09 33 03.3	-2.8
JANG	Nango	5.94	246	P	Pn	09 31 58.3	-1.3
JTM	Tenmabayashi	6.07	251	P	Pn	09 32 00.9	-0.4
JTM				*e*S	Sn	09 33 08.1	-1.2
JSR	Shiriuchi	6.27	259	*e*S	Sn	09 33 13.2	-1.3
JRG	Rokugo	7.02	242	P	Pn	09 32 14.6	+0.2
JRG				*e*S	Sn	09 33 32.2	-0.7
MAJO	Matsushiro	10.29	235	*e*Pn	Pn	09 32 59.9	+0.8
MAJO	Matsushiro	10.29	235	*e*PN	Pn	09 32 59.9	+0.8
INCN	Inchon	17.66	259	*e*Pn	Pn	09 34 38.1	+1.4
	comp=E,15nm,1.3s						
GUMO	Guam	29.47	187	*e*P	P	09 36 33.8	+0.1
	comp=E,133nm,1.2s,mb5.5						
GCMT	Greycliff	67.58	48	*e*P	P	09 41 24.8	-0.8

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*BJI **04** 09:46:09.9, 52.18N×175.85W, h56^{km}, mB5.3, mb5.0, Ms4.9, Msz4.6*

*ISCJB **04** 09:46:10.7±0.1, 51.85N±0.04×176.19W±0.02, h46^{km}, mb4.9/106, MS4.0/26, Error ellipse: s-maj=5.7km s-min=2.2km az=2.8*

*MOS **04** 09:46:11.5±0.9, 51.86N×176.17W, h55^{km}, mb5.0/31, MS4.0/5, Error ellipse: s-maj=8.3km s-min=6.4km az=63.1*

*NEIC **04** 09:46:11.8±0.1, 51.85N×176.26W, mb5.0/66, ML4.9(AEIC), Error ellipse: s-maj=5.3km s-min=2.7km az=175.0*

*IDC **04** 09:46:12.4±0.6, 51.89N×176.11W, h48^{km}±5^{km}, mb4.2/23, mb1 4.4/24, mb1mx4.4/26, mbtmp4.3/24, MS3.8/17, Ms1 3.8/17, ms1mx3.7/32, Error ellipse: s-maj=17.3km s-min=9.3km az=172.0*

ISC 04 09:46:12.6±0.1,**5185N**±004×**17620W**±003,**h48**^{km}, **h48**^{km}±.7^{km}**:pP-P**,**n580**,σ**0^{s}76**/562,**mb4.9**/106,**MS4.0**/26, **73C-61D**,**Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ADK	Adak	0.30	277	P	Pn	09 46 22.1	+0.4
ADK				S	Sn	09 46 30.8	+2.8
SMY	Shemya	6.02	282	P	Pn	09 47 41.7	+2.7
UNV	Unalaska Valle	6.21	67	P	Pn	09 47 42.4	+0.8
UNV				S	Sn	09 48 53.0	+2.0
SPIA	Saint Paul Isl	6.37	31	P	Pn	09 47 47.3	+3.6
AKGG	Akutan Green G	6.59	65	P	Pn	09 47 47.8	+1.0
SDPT	Sand Point	9.98	63	P	Pn	09 48 33.1	-0.1
SDPT				*e*P		09 48 33.2	
TNA	Tin City	14.39	14	*e*Pn	Pn	09 49 36.5	+3.3
SVW2	Sparrevohn	14.62	43	*e*P	Pn	09 49 39.8	+3.6
KDAK	Kodiak Island	14.81	57	Pn	Pn	09 49 36.0	-2.7
	601nm,0.5s,SNR=13						
KDAK	Kodiak Island	14.81	57	*e*Pn	Pn	09 49 36.9	-1.8
KDAK	Kodiak Island	14.81	57	P	Pn	09 49 36.6	-2.1
	2.7nm,0.3s,baz=230,slow=7.6,SNR=29						
KDAK				S	Sn	09 52 23.8	+2.5
	0.2nm,0.3s,baz=15,slow=20,SNR=2.0						
PET	Petropavlovsk	15.37	284	⇓*e*P	Pn	09 49 51.1	+5.1
PET				pmax	pmax		
	comp=Z,54nm,2.5s						
SLKM	Skilak Lake	16.76	49	*e*Pn	Pn	09 50 03.5	-0.1
PMR	Palmer	17.64	46	*e*Pn	Pn	09 50 15.4	+0.9
SML	Sawmill	18.07	46	*e*Pn	Pn	09 50 20.7	+1.0
IMA2	Indian Mountai	18.22	30	*e*P	Pn	09 50 23.5	+2.0
BILL	Bilibino	18.34	339	*e*P	Pn	09 50 25.3	+2.3
	comp=Z,37nm,0.8s						
BILL	Bilibino	18.34	339	*c i*P	Pn	09 50 26.0	+3.0
BILL				pmax	pmax		
	comp=Z,67nm,1.0s						
BILL				MLR	MLR		
	comp=Z,100nm,15.0s						
MID	Middleton Isla	18.36	54	*e*P	Pn	09 50 23.5	+0.3
MCK	McKinley	18.60	40	*e*Pn	Pn	09 50 26.4	+0.2
	comp=Z,31nm,0.6s						
MCK	McKinley	18.60	40	*e*P	Pn	09 50 26.4	+0.3
MCK				pmax	pmax		
	comp=Z,31nm,0.6s						
EYAK	Cordova Ski Ar	18.89	51	*e*P	Pn	09 50 29.5	-0.2
DIV	Divide	19.02	49	*e*P	Pn	09 50 30.1	-1.1
	comp=Z,46nm,0.6s						
COLA	College	19.55	37	*e*P	Pn	09 50 35.7	-1.8
	comp=Z,50nm,0.9s						
COLA	College	19.55	37	*e*P	Pn	09 50 35.7	-1.8
COLA				pmax	pmax		
	comp=Z,50nm,0.9s						
MA2	Magadan	19.98	306	*e*P	Pn	09 50 43.0	+0.4
	comp=Z,47nm,0.8s						
MA2	Magadan	19.98	306	*e*P	Pn	09 50 42.6	0.0
MA2				S	S	09 54 16.7	-5.6
MA2				pmax	pmax		
	comp=Z,20nm,0.8s						
MA2				pmax	pmax		
	comp=E,10.0nm,0.7s						
SEY	Seymchan	20.01	316	⇑*e*P	P	09 50 43.5	+2.6
SEY				*e**PP		09 51 01.3	
MENT	Mentasta	20.47	45	*e*P	P	09 50 46.4	+0.5
EGAK	Eagle	22.13	41	*e*P	P	09 51 03.6	0.0
	comp=E,38nm,0.6s,mb5.0						
DAWY	Dawson	22.66	43	*e*P	P	09 51 09.1	-0.2
INK	Inuvik	26.15	35	*e*P	P	09 51 43.1	+1.3
INK				*e*PcP	PcP	09 55 07.7	+0.2
INK	Inuvik	26.15	35	P	P	09 51 41.1	-0.6
	comp=E,6.4nm,0.6s,mb4.3,baz=240,slow=9.3,SNR=28						
INK				PcP	PcP	09 55 07.3	-0.3
	comp=E,15nm,0.7s,baz=271,slow=2.6,SNR=18						
INK				ScP	ScP	09 58 42.0	-1.0
	comp=E,2.4nm,1.1s,baz=317,slow=3.1,SNR=8.8						
INK				LR	LR	10 03 17.7	
	comp=E,171nm,18.6s,MS3.6,baz=304,slow=39						
DLBC	Dease Lake	26.74	57	P	P	09 51 47.7	+0.5
DLBC				PcP	PcP	09 55 09.8	+0.7
DLBC	Dease Lake	26.74	57	P	P	09 51 47.7	+0.5
	baz=262,slow=8.9						
DLBC				PcP	PcP	09 55 09.8	+0.7
	baz=284,slow=4.2						
YSS	Yuzh-Sakhalins	26.89	276	⇑*e*P	P	09 51 49.3	+0.6
YSS				pmax	pmax		
	comp=Z,23nm,0.8s,mb4.8						
ASAJ	Asahikawa	28.33	271	P	P	09 52 03.3	+1.7
ASAJ				*PP	pP	09 52 15.0	+0.9
ASAJ				pmax	pmax		
	comp=Z,22nm,0.7s						
ASAJ				pmax	pmax		
	comp=Z,13nm,0.8s						
ASAJ				MLR	MLR		
	comp=Z,79nm,20.0s						
ASAJ	Asahikawa	28.33	271	P	P	09 52 03.3	+1.7
	comp=Z,22nm,0.7s,mb4.9,baz=39,slow=7.6,SNR=15						
ASAJ				pP	pP	09 52 14.9	+0.8
	comp=Z,13nm,0.8s,baz=72,slow=20,SNR=2.8						
ASAJ				LR	LR	10 02 21.3	
	comp=Z,79nm,20.0s,MS3.3,baz=178,slow=34						
BBB	Bella Bella	29.17	70	LR	LR	10 01 05.9	
	comp=Z,174nm,20.3s,MS3.7,baz=85,slow=31						
HABR	Khabarovsk	30.95	283	*e*P	P	09 52 27.0	+2.3
HABR				*e*S	S	09 57 27.2	+1.6
TIXI	Tiksi	31.04	330	*e*PcP	PcP	09 55 18.9	-0.8
TIXI	Tiksi	31.04	330	⇑*e*P	P	09 52 27.5	+2.2
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.9						
KLR	Kul'dur	32.61	286	*e*P	P	09 52 36.9	-2.4
YKW3	Yellowknife Ar	33.71	47	*e*P	P	09 52 49.0	+0.2
YKW3				*e*PcP	PcP	09 55 27.0	-0.1
YKA	Yellowknife Ar	33.73	47	P	P	09 52 48.9	0.0
YKA				PcP	PcP	09 55 27.3	+0.1
YKA				ScP	ScP	09 59 06.3	-1.3
YKA	Yellowknife Ar	33.73	47	P	P	09 52 48.8	-0.1
YKA						09 55 27.3	
YKA				pmax	pmax		
	comp=Z,7.0nm,0.5s						
YKA				pmax	pmax		
	comp=Z,14nm,0.7s						
YKA				pmax	pmax		
	comp=N,1.0nm,0.8s						
YKA	Yellowknife Ar	33.73	47	P	P	09 52 48.8	0.0
	comp=N,7.0nm,0.5s,mb4.8,baz=284,slow=8.2,SNR=132						
YKA				PcP	PcP	09 55 27.3	+0.1
	comp=N,14nm,0.7s,baz=288,slow=3.0,SNR=69						
YKA				ScP	ScP	09 59 06.3	-1.3
	comp=N,0.6nm,0.8s,baz=292,slow=3.2,SNR=4.9						
YKA				PKiKP	PKiKP	10 02 49.1	-2.2
	comp=N,0.1nm,0.4s,baz=259,slow=0.8,SNR=5.7						
YKA				LR	LR	10 08 07.4	
	comp=N,109nm,18.2s,MS3.6,baz=200,slow=39						
A05A	Maple Falls	33.93	73	P	P	09 52 51.4	+0.6
	baz=34,SNR=6.1						
C04A	Brinnon	33.97	75	⇓P	P	09 52 51.3	+0.1
	baz=34						
CMW	Cultus Mountai	34.16	74	P	P	09 52 54.2	+1.4
E03A	Lebam	34.17	78	⇓P	P	09 52 53.0	+0.2
	baz=34						
A06A	Chilliwack	34.25	72	⇑P	P	09 52 54.0	+0.5
	baz=34						
B05A	Bryant	34.25	74	⇓P	P	09 52 54.2	+0.6
	baz=34,SNR=9.5						
B06A	Marblemount	34.50	73	⇑P	P	09 52 56.4	+0.7
	baz=34						
E04A	Onalaska	34.65	77	⇓P	P	09 52 57.6	+0.5
	baz=34						
C05A	Tolt Reservoir	34.75	75	⇑P	P	09 52 57.9	-0.1
	baz=35						
D05A	Enumclaw	34.81	76	⇓P	P	09 52 58.2	-0.2
	baz=35						
A07A	Ashnola River,	34.92	72	⇓P	P	09 52 59.6	+0.3
	baz=35,SNR=9.0						
G03A	Yamhill	34.94	79	⇑P	P	09 52 58.4	-1.2
	baz=35						
C06A	Tall Timber Ra	35.12	74	⇓P	P	09 53 01.6	+0.5
	baz=35						
F04A	Amboy	35.16	78	⇓P	P	09 53 02.0	+0.5
	baz=35,SNR=7.9						
E05A	Randle	35.25	77	⇑P	P	09 53 01.3	-0.8
	baz=35						
I02A	Mapleton	35.28	82	⇓P	P	09 53 02.2	-0.3
	baz=35						
WPW	White Pass	35.31	76	P	P	09 53 03.5	+0.8
B07A	Winthrop	35.34	73	⇓P	P	09 53 02.9	0.0
	baz=35,SNR=9.0						
MAJO	Matsushiro	35.46	263	*e*P	P	09 53 04.8	+0.7
	comp=N,14nm,0.8s,mb4.9						
MAJO	Matsushiro	35.46	263	*e*P	P	09 53 04.8	+0.7
MAJO				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
MAT	Matsushiro	35.46	263	P	P	09 53 04.5	+0.4
MJAR	Matsushiro Arr	35.46	263	P	P	09 53 04.7	+0.6
MJAR						09 55 32.1	
MJAR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MJAR	Matsushiro Arr	35.46	263	P	P	09 53 04.7	+0.5
	comp=Z,6.6nm,0.6s,mb4.7,baz=40,slow=6.6,SNR=21						
MJAR				PcP	PcP	09 55 32.1	-0.6
	comp=Z,1.4nm,0.7s,baz=54,slow=1.6,SNR=4.1						
MJAR				LR	LR	10 05 10.3	
	comp=Z,211nm,21.4s,MS3.9,baz=40,slow=32						
VLA	Vladivostok	35.47	277	⇑*e*P	P	09 53 03.8	-0.4
VLA				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
G04A	Mulino	35.49	79	⇓P	P	09 53 03.6	-0.7
	baz=35						
D06A	Cle Elum	35.49	75	⇑P	P	09 53 04.1	-0.2
	baz=35,SNR=7.2						
A08A	Turner Farm, O	35.61	72	P	P	09 53 05.8	+0.5
	baz=36,SNR=12						
I03A	Eugene	35.64	81	⇑P	P	09 53 05.2	-0.3
	baz=36						
TBM	Table Mountain	35.66	75	P	P	09 53 06.1	+0.4
C07A	Waterville	35.73	74	P	P	09 53 06.5	+0.2
	baz=36,SNR=8.0						
E06A	Yakima	35.73	76	⇓P	P	09 53 05.8	-0.5
	baz=36						
F05A	White Salmon	35.77	77	⇓P	P	09 53 05.6	-1.0
	baz=36						
J02A	Umpqua	35.78	82	⇓P	P	09 53 05.9	-0.9
	baz=36						
B08A	Colville Reser	35.85	72	P	P	09 53 07.8	+0.5
	baz=36,SNR=15						
H04A	Detroit Lake	35.93	80	⇑P	P	09 53 08.3	+0.2
	baz=36,SNR=11						
BROR	Big Rock Looko	35.99	80	P	P	09 53 09.2	+0.6
A09A	Danville	36.01	71	⇑P	P	09 53 09.1	+0.4

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      baz=36,SNR=10
D07A  Quincy           36.02  75  P     P     09 53 09.3 +0.6
      baz=36,SNR=6.1
MDJ   Mudanjiang       36.09 280  P     P     09 53 09.2 -0.2
MDJ                               AP    pP    09 53 20.0 -2.2
MDJ                               XP    sP    09 53 25.2 -2.7
MDJ                               PP    PP    09 54 31.5 -0.5
MDJ                               PCP   PcP   09 55 34.7 +0.3
MDJ                               S     S     09 58 46.0 +0.8
MDJ                               SCP   ScP   09 59 17.4 +1.0
MDJ                               PCS   PcS   09 59 22.0 +0.1
MDJ                               SCS   ScS   10 03 23.2 +1.1
MDJ                               AMB   AMB
      comp=Z,6.0nm,0.9s,mb4.5
MDJ                               AMB   AMB
      comp=Z,141nm,5.3s
MDJ                               LR    LR
      comp=Z,170nm,24.8s,MS3.7
J03A  Ideyld Park      36.15  82 ⇓P     P     09 53 08.9 -1.0
      baz=36
K02A  Glendale         36.16  83 ⇓P     P     09 53 09.2 -0.8
      baz=36
EPH   Ephrata          36.17  74  P     P     09 53 10.0  0.0
G05A  Wamic            36.17  78 ⇑P     P     09 53 11.0 +0.9
      baz=36
F06A  Goldendale       36.23  77 ⇑P     P     09 53 11.1 +0.5
      baz=36
I04A  Tendick Farm,    36.26  81  P     P     09 53 11.3 +0.4
      baz=36,SNR=6.3
C08A  Higginbotham F   36.29  73  P     P     09 53 10.9 -0.2
      baz=36,SNR=7.1
E07A  Sunnyside        36.40  75  P     P     09 53 12.4 +0.4
      baz=36,SNR=6.2
L02A  Cave Junction    36.42  84 ⇑P     P     09 53 11.6 -0.7
      baz=36
MDW   Midway           36.43  75  P     P     09 53 12.8 +0.5
B09A  Rice             36.52  72  P     P     09 53 13.5 +0.5
      baz=36,SNR=9.4
H05A  Madras           36.54  79 ⇓P     P     09 53 13.3 +0.1
      baz=36
SNIWA Snively Ranch    36.56  75  P     P     09 53 14.1 +0.7
HUMO  Hull Mountain    36.57  83 ⇓P     P     09 53 13.7 +0.2
      baz=36
G06A  Carlson Farm,    36.59  78 ⇓P     P     09 53 14.1 +0.4
      baz=36
A10A  Northport        36.61  71  P     P     09 53 14.2 +0.4
      baz=36,SNR=11
PRW   Prosser          36.67  76  P     P     09 53 15.2 +0.9
HAWA  Hanford          36.67  76 eP     P     09 53 14.7 +0.3
OD2   Odessa Site #2   36.67  74  P     P     09 53 14.3 -0.1
F07A  Phinny Hill Vi   36.68  76  P     P     09 53 15.2 +0.8
      baz=37,SNR=6.8
WRD   Warden           36.70  75  P     P     09 53 14.1 -0.5
D08A  Wollman Farm,    36.71  74  P     P     09 53 14.7  0.0
      baz=37,SNR=9.1
J04A  Umpqua Nationa   36.74  82 ⇓P     P     09 53 14.7 -0.3
      baz=37,SNR=5.2
I05A  Bend             36.77  80  P     P     09 53 16.2 +1.0
      baz=37,SNR=5.2
E08A  Dider Farm, El   36.91  75  P     P     09 53 16.2 -0.1
      baz=37,SNR=5.3
VIPM  Ingram Point     36.98  79  P     P     09 53 17.5 +0.5
H06A  Lindquist Farm   37.03  78  P     P     09 53 17.9 +0.4
      baz=37,SNR=6.5
D09A  Jones Farm, Ri   37.08  74  P     P     09 53 17.5 -0.2
      baz=37,SNR=5.9
B10A  Chitwood Farm,   37.12  71  P     P     09 53 18.8 +0.6
      baz=37,SNR=8.7
G07A  Ruggs Ranch, H   37.16  77 ⇓P     P     09 53 18.2 -0.3
      baz=37
EDM   Edmonton         37.16  62 eP     P     09 53 18.2 -0.2
NEW   Newport          37.20  71 eP     P     09 53 18.7 -0.1
      comp=Z,16nm,0.7s,mb5.0
NEW                              epP    pP    09 53 31.0 -0.5
NEW                              esP    sP    09 53 36.6 -0.6
NEW   Newport          37.20  71 eP     P     09 53 18.7 -0.1
NEW                              e*PP   pP    09 53 31.0 -0.6
NEW                              e*SP   sP    09 53 36.7 -0.6
NEW                               pmax  pmax
      comp=Z,16nm,0.7s
YBH   Yreka Blue Hor   37.21  84 eP     P     09 53 20.2 +1.2
      comp=Z,12nm,1.2s,mb4.6
YBH   Yreka Blue Hor   37.21  84 eP     P     09 53 20.2 +1.2
YBH                               pmax  pmax
      comp=Z,11nm,1.2s
YBH   Yreka Blue Hor   37.21  84 ⇑P     P     09 53 20.0 +1.0
      baz=37
J05A  Fort Rock        37.26  81  P     P     09 53 20.5 +1.1
      baz=37,SNR=7.8
C10A  Spilker Farm,    37.30  72  P     P     09 53 20.1 +0.4
      baz=37,SNR=15
A11A  Hall Mountain,   37.31  70  P     P     09 53 20.7 +0.9
      baz=37,SNR=37
M02C  Callahan         37.32  85 ⇓P     P     09 53 19.9  0.0
      baz=37
K04A  Chilquin         37.32  82 ⇓P     P     09 53 20.7 +0.7
      baz=37
F08A  Pendleton        37.43  76 ⇓P     P     09 53 20.8  0.0
      baz=37
E09A  Wood Farm, Sta   37.44  75  P     P     09 53 21.2 +0.3
      baz=37,SNR=8.4
O01C  Eel River Cons   37.44  87 ⇑P     P     09 53 21.3 +0.3
      baz=37
L04A  Klamath Falls    37.47  83 ⇓P     P     09 53 21.1 -0.1
      baz=37
I06A  Prineville       37.53  79 ⇓P     P     09 53 21.6 -0.1
      baz=37
B11A  Sandpoint        37.56  71  P     P     09 53 22.1 +0.3
      baz=37,SNR=16
G08A  Pilot Rock       37.58  77  P     P     09 53 22.1 +0.1
      baz=37,SNR=6.9
D10A  Wagner Farm, O   37.69  73  P     P     09 53 22.8 -0.2
      baz=38,SNR=13
M04C  Macdoel          37.72  83  P     P     09 53 24.1 +0.8
      baz=38,SNR=6.9
A12A  Yaak River Ran   37.74  70  P     P     09 53 23.9 +0.5
      baz=38,SNR=9.9
K05A  Summer Lake      37.77  82  P     P     09 53 24.9 +1.2
      baz=38,SNR=9.6
M03C  McCloud          37.84  84 ⇓P     P     09 53 24.7 +0.4
      baz=38
I07A  Izee             37.88  79  P     P     09 53 25.2 +0.5
      baz=38,SNR=26
J06A  Christmas Vall   37.94  80  P     P     09 53 25.9 +0.7
      baz=38,SNR=18
WDC   Whiskeytown Da   37.98  86 eP     P     09 53 26.1 +0.6
WDC   Whiskeytown Da   37.98  86 ⇑P     P     09 53 25.3 -0.2
      baz=38
F09A  S2 Ranch, Elgi   37.99  76  P     P     09 53 26.1 +0.5
      baz=38,SNR=9.2
B12A  Libby            38.00  70 ⇑P     P     09 53 26.3 +0.8
      baz=38
O02C  Red Bluff        38.06  86  P     P     09 53 27.3 +1.1
      baz=38,SNR=5.8
E10A  Myers Farm, Un   38.08  74  P     P     09 53 26.1 -0.1
      baz=38,SNR=16
K06A  Valley Falls     38.13  81  P     P     09 53 27.4 +0.7
      baz=38,SNR=12
P01C  Double 8 Ranch   38.14  88 ⇑P     P     09 53 26.7 -0.1
      baz=38
H08A  Prairie City     38.16  78  P     P     09 53 27.2 +0.3
      baz=38,SNR=6.9
L05A  Lakeview         38.19  82  P     P     09 53 28.3 +1.1
      baz=38,SNR=6.9
F10A  Beach Ranch, E   38.27  75 ⇑P     P     09 53 27.7 -0.1
      baz=38
J07A  Hines            38.39  80 ⇑P     P     09 53 29.4 +0.6
      baz=38,SNR=6.2
M05C  Lookout          38.39  84  P     P     09 53 29.6 +0.6
      baz=38,SNR=11
GASB  Alder Springs    38.41  87 ⇑P     P     09 53 29.7 +0.5
      baz=38
A13A  Flathead Natio   38.46  69  P     P     09 53 29.5 +0.1
      baz=38,SNR=14
HATC  Hat Creek Radi   38.51  84 ⇑P     P     09 53 30.4 +0.5
      baz=38
I08A  Drewsey          38.55  78  P     P     09 53 30.8 +0.5
      baz=38,SNR=24
HOPS  Hopland          38.59  88 ⇑P     P     09 53 31.1 +0.4
      baz=38
MOD   Modoc            38.60  82 eP     P     09 53 31.5 +0.8
      comp=Z,7.4nm,0.7s,mb4.5
MOD                              epP    pP    09 53 43.8 +0.3
MOD                              esP    sP    09 53 50.4 +1.2
MOD   Modoc            38.60  82  P     P     09 53 31.2 +0.6
      baz=38,SNR=11
E11A  Bogner Ranch,    38.68  74 ⇑P     P     09 53 30.6 -0.7
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      baz=38
H09A  Durkee           38.69  77 ⇑P     P     09 53 31.9 +0.5
      baz=39
WALA  Waterton Lakes   38.69  69 eP     P     09 53 31.4 +0.1
B13A  Whitefish        38.70  70  P     P     09 53 31.6 +0.2
      baz=39,SNR=9.6
BSMT  Bassoo Peak      38.77  71  P     P     09 53 32.2 +0.1
K07A  Rock Creek Ran   38.80  80  P     P     09 53 33.1 +0.8
      baz=39,SNR=14
BMO   Blue Mountains   38.80  76 eP     P     09 53 32.6 +0.2
      comp=Z,17nm,0.9s,mb4.8
BMO                              epP    pP    09 53 44.8 -0.4
BMO                              esP    sP    09 53 50.5 -0.3
M06C  Likely Place G   38.89  83 ⇑P     P     09 53 32.9 -0.3
      baz=39
J08A  Circle Bar Ran   38.90  79  P     P     09 53 33.6 +0.4
      baz=39,SNR=22
F11A  Grangeville      38.95  74  P     P     09 53 33.4 -0.2
      baz=39,SNR=6.1
C13A  Hot Springs      38.98  71  P     P     09 53 33.9 +0.1
      baz=39,SNR=18
BOD   Bodaibo          39.00 307 eP     P     09 53 33.4 -0.4
BOD                              e      pP    09 53 50.4 +3.8
BOD                               pmax  pmax
      comp=Z,3.0nm,0.7s,mb4.1
BOD                               pmax  pmax
      comp=Z,5.0nm,0.7s,mb4.3
I09A  Lost Marbles R   39.01  78 ⇑P     P     09 53 34.6 +0.5
      baz=39
O04C  Chester          39.03  85  P     P     09 53 35.0 +0.6
      baz=39,SNR=8.4
CN2   Changchun        39.05 282 eP     P     09 53 35.7 +1.3
CN2                              eS     S     09 59 31.2 +1.2
CN2                               AMB   AMB
      comp=Z,10.0nm,0.6s,mb4.7
CN2                               AMB   AMB
      comp=Z,200nm,3.0s
ELFS  Eagle Lake Fie   39.08  84 ⇓P     P     09 53 35.3 +0.6
      baz=39
L07A  Adell            39.12  81  P     P     09 53 35.9 +0.9
      baz=39,SNR=13
G11A  Walters Elk Ra   39.14  75  P     P     09 53 35.1  0.0
      baz=39,SNR=7.3
ORV   Oroville         39.23  86 ⇑P     P     09 53 35.1 -0.9
      baz=39
K08A  Mann Creek Ran   39.24  80  P     P     09 53 36.7 +0.6
      baz=39,SNR=15
H10A  Noah's Angus R   39.28  76  P     P     09 53 36.5 +0.1
      baz=39,SNR=19
WVOR  Wild Horse Val   39.32  80 eP     P     09 53 36.9 +0.2
      comp=Z,17nm,0.7s,mb4.9
WVOR  Wild Horse Val   39.32  80  P     P     09 53 37.1 +0.4
WVOR                              pmax  pmax
      comp=Z,17nm,0.7s,mb4.9
D13A  Huson            39.34  72  P     P     09 53 36.6 -0.2
      baz=39,SNR=5.5
O05C  Quincy           39.34  85  P     P     09 53 37.2 +0.2
      baz=39,SNR=6.2
J09A  Fry Pan Ranch,   39.35  79 ⇑P     P     09 53 36.6 -0.4
      baz=39,SNR=13
OHCM  Honcut           39.37  86 eP     P     09 53 36.6 -0.5
OHCM                             epP    pP    09 53 49.4 -0.6
OHCM                             esP    sP    09 53 54.4 -1.3
C14A  Swan Lake        39.42  70 ⇓P     P     09 53 37.4 -0.1
      baz=39
I10A  Payette          39.52  77  P     P     09 53 39.4 +1.0
      baz=39,SNR=9.9
N06A  Buffalo Meadow   39.55  83  P     P     09 53 39.1 +0.4
      baz=39,SNR=10
M07A  Soldier Meadow   39.59  82 ⇑P     P     09 53 39.8 +0.9
      baz=39
L08A  Fields           39.64  81  P     P     09 53 39.9 +0.6
      baz=40,SNR=20
H11A  Donnelly         39.66  76  P     P     09 53 39.5  0.0
      baz=40,SNR=9.0
K09A  Rome             39.73  79  P     P     09 53 40.3 +0.2
      baz=40,SNR=7.7
BEKR  Beckwourth       39.75  85 ⇑P     P     09 53 39.9 -0.4
      baz=40
MSO   Missoula         39.78  72 eP     P     09 53 40.1 -0.4
      comp=Z,20nm,1.1s,mb4.8
MSO                              epP    pP    09 53 52.7 -0.6
MSO                              esP    sP    09 53 58.0 -1.0
E13A  Victor           39.83  72  P     P     09 53 41.0 +0.1
      baz=40,SNR=14
O06A  Flanigan         39.90  84 ⇑P     P     09 53 41.6  0.0
      baz=40,SNR=7.6
J10A  Berg Farm, Mel   39.90  78 ⇓P     P     09 53 41.6  0.0
      baz=40
D14A  Greenough        39.91  71  P     P     09 53 41.2 -0.3
      baz=40,SNR=20
M08A  Happy Creek Ra   40.04  82 ⇓P     P     09 53 42.7 +0.1
      baz=40,SNR=8.5
N07B  Gerlach          40.06  83  P     P     09 53 43.4 +0.5
      baz=40,SNR=16
F13A  Darby            40.09  73  P     P     09 53 43.3 +0.3
      baz=40,SNR=20
I11A  Placerville      40.13  77  P     P     09 53 42.9 -0.5
      baz=40,SNR=14
CHMT  Chamberlain Mo   40.14  71 eP     P     09 53 43.3 -0.1
CHMT                             epP    pP    09 53 54.9 -1.4
CHMT                             esP    sP    09 54 00.5 -1.5
P06A  Stead Airport,   40.14  85 ⇑P     P     09 53 43.5 -0.1
      baz=40
L09A  Wilkinson Ranc   40.15  80  P     P     09 53 44.2 +0.6
      baz=40,SNR=10
LAVA  Lava Cap Winer   40.18  87 ⇓P     P     09 53 43.2 -0.7
      baz=40
K10A  MacKenzie Ranc   40.20  79  P     P     09 53 44.4 +0.3
      baz=40,SNR=23
E14A  Clinton          40.26  72  P     P     09 53 44.2 -0.2
      baz=40,SNR=12
BNLO  Ben Lomond (Sa   40.30  90 ⇓P     P     09 53 42.5 -2.4
      baz=40
H12A  Diamond D Ranc   40.44  75  P     P     09 53 45.9 -0.1
      baz=40,SNR=8.3
PAHR  Pah Rah Range    40.45  84 eP     P     09 53 46.5 +0.5
      comp=Z,13nm,0.7s,mb4.8
PAHR                             epP    pP    09 53 59.0 +0.1
PAHR                             esP    sP    09 54 04.9 +0.3
WCN   Washoe City      40.46  85  P     P     09 53 46.6 +0.4
      baz=40,SNR=8.1
MFID  Camas Ranch      40.48  77  P     P     09 53 46.3  0.0
      baz=40,SNR=8.8
O07A  Toulon           40.49  83  P     P     09 53 46.7 +0.3
      baz=40,SNR=11
D15A  Lincoln          40.51  71  P     P     09 53 46.6 +0.1
      baz=40,SNR=7.9
G13A  Cobalt           40.52  74  P     P     09 53 46.5 -0.1
      baz=40,SNR=13
N08A  GE Springer Mi   40.58  82  P     P     09 53 47.5 +0.3
      baz=40,SNR=9.1
M09A  Marrel Ranch,    40.62  81  P     P     09 53 48.3 +0.8
      baz=40,SNR=6.1
R05C  Kirkwood Meado   40.62  86 ⇑P     P     09 53 47.6  0.0
      baz=40
F14A  Wisdom           40.65  73  P     P     09 53 48.2 +0.5
      baz=40,SNR=6.8
E15A  Deer Lodge       40.76  72  P     P     09 53 48.3 -0.2
      baz=41,SNR=11
H13A  Challis          40.79  75  P     P     09 53 48.9  0.0
      baz=41,SNR=7.0
CMB   Columbia Colle   40.84  87 eP     P     09 53 49.6 +0.2
CMB   Columbia Colle   40.84  87 ⇑P     P     09 53 48.9 -0.5
      baz=41
L10A  Juniper Basin    40.84  79  P     P     09 53 49.6 +0.2
      baz=41,SNR=16
P07A  Fallon           40.85  84 ⇑P     P     09 53 49.9 +0.4
      baz=41
G14A  Jackson          40.90  74 ⇓P     P     09 53 50.0 +0.3
      baz=41
N09A  Rock Creek Ran   40.91  82  P     P     09 53 50.4 +0.5
      baz=41,SNR=8.4
J12A  Stokes Ranch,    41.01  77  P     P     09 53 51.1 +0.4
      baz=41,SNR=9.1
R06C  Coleville        41.12  86  P     P     09 53 51.9 +0.2
      baz=41,SNR=6.9
M10A  I.L. Ranch, Tu   41.12  80  P     P     09 53 52.4 +0.7
      baz=41,SNR=8.2
WAKR  Walker           41.14  86 eP     P     09 53 52.3 +0.5
F15A  Butte            41.15  72 ⇓P     P     09 53 51.7 -0.1
      baz=41
HAST  UC Hastings Re   41.16  90 ⇓P     P     09 53 50.6 -1.3
      baz=41
L11A  Cat Creek Ranc   41.23  79  P     P     09 53 52.8 +0.3
      baz=41,SNR=26
I13A  Wildhorse Cree   41.23  76  P     P     09 53 52.7 +0.2
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      baz=41,SNR=15
KSRS  Korea Array      41.25 272  P     P     09 53 53.8 +1.0
      comp=Z,14nm,0.7s,mb4.7,baz=55,slow=7.9,SNR=54
KSRS                              PcP   PcP   09 55 50.6 -0.1
      comp=Z,2.4nm,0.8s,baz=66,slow=3.7,SNR=4.9
KSRS                              LR    LR    10 08 19.9
      comp=Z,85nm,21.6s,MS3.6,baz=243,slow=32
HLID  Hailey           41.25  76 eP     P     09 53 52.8 +0.1
      comp=Z,23nm,0.9s,mb4.8
HLID                             epP    pP    09 54 05.0 -0.5
HLID  Hailey           41.25  76  P     P     09 53 53.0 +0.3
      baz=41,SNR=14
P08A  Dixie Valley     41.26  83 ⇑P     P     09 53 53.4 +0.7
      baz=41
Q07A  Schurz           41.27  85 ⇓P     P     09 53 53.1 +0.3
      baz=41
S06C  San Francisco    41.27  87  P     P     09 53 53.0 +0.1
      baz=41,SNR=11
KS15  Wonju Array Si   41.28 272 eP     P     09 53 54.1 +1.1
SNY   Shenyang         41.30 281 ⇑P     P     09 53 53.9 +0.9
SNY                               AMB   AMB
      comp=Z,27nm,1.0s,mb4.8
S05C  Merced           41.31  88 ⇑P     P     09 53 51.9 -1.3
      baz=41
K12A  Draper Farm, C   41.48  78  P     P     09 53 55.1 +0.6
      baz=41,SNR=18
J13A  Cove Ranch, Pi   41.49  76  P     P     09 53 55.0 +0.4
      baz=41,SNR=36
MCMT  McKenzie Canyo   41.49  74 eP     P     09 53 54.3 -0.3
MCMT                             epP    pP    09 54 06.9 -0.6
MCMT                             esP    sP    09 54 12.3 -0.9
G15A  Dillon           41.52  73  P     P     09 53 54.5 -0.4
      baz=41,SNR=11
O09A  Fish Creek Ran   41.52  82  P     P     09 53 55.4 +0.5
      baz=41,SNR=5.4
EGMT  Eagleton         41.60  68 eP     P     09 53 55.1 -0.4
      comp=Z,30nm,0.9s,mb4.9
EGMT  Eagleton         41.60  68  P     P     09 53 55.0 -0.4
      baz=42,SNR=15
M11A  Holland Ranch,   41.63  80 ⇑P     P     09 53 56.6 +0.8
      baz=42,SNR=12
R07C  Lee Vining       41.64  86 ⇓P     P     09 53 55.5 -0.4
      baz=42
L12A  House Creek Ra   41.69  78  P     P     09 53 56.8 +0.5
      baz=42,SNR=25
BOZ   Bozeman (W)      41.77  72 eP     P     09 53 57.2 +0.3
      comp=Z,28nm,1.0s,mb4.8
BOZ   Bozeman (W)      41.77  72 eP     P     09 53 57.2 +0.3
BOZ                               pmax  pmax
      comp=Z,28nm,1.0s,mb4.8
BOZ   Bozeman (W)      41.77  72  P     P     09 53 56.9 +0.1
      baz=42,SNR=9.4
Q08A  Gabbs            41.85  84  P     P     09 53 57.9 +0.2
      baz=42,SNR=7.5
O10A  Cortez Mining,   41.87  82  P     P     09 53 58.7 +0.9
      baz=42,SNR=7.0
NVAR  Mina Array Bea   41.89  85  P     P     09 53 58.0  0.0
NVAR                              pP    pP    09 54 10.4 -0.5
NVAR                              PcP   PcP   09 55 53.3 +0.5
NVAR                              pScP        09 59 48.5
NVAR  Mina Array Bea   41.89  85  P     P     09 53 58.0  0.0
      comp=Z,3.4nm,0.8s,mb4.0,baz=303,slow=6.2,SNR=28
NVAR                              pP    pP    09 54 10.4 -0.5
      comp=Z,3.7nm,0.7s,baz=304,slow=6.4,SNR=11
NVAR                              PcP   PcP   09 55 53.3 +0.5
      comp=Z,4.2nm,0.7s,baz=310,slow=1.6,SNR=12
NVAR                              pScP        09 59 48.5
      comp=Z,0.5nm,0.6s,baz=312,slow=4.7,SNR=5.0
T06C  Millerton Lake   41.91  88  P     P     09 53 58.0 -0.1
      baz=42,SNR=7.2
P09A  Austin           41.92  83 ⇓P     P     09 53 59.2 +1.0
      baz=42
KCC   Kaiser Creek     41.95  87 ⇑P     P     09 53 57.7 -0.8
      baz=42
K13A  Stover Farm, H   41.97  77  P     P     09 53 59.5 +0.9
      baz=42,SNR=5.7
N11A  Elko Archery C   42.03  81  P     P     09 53 59.6 +0.6
      baz=42,SNR=6.4
INCN  Inchon           42.03 273 eP     P     09 53 60.0 +0.9
R08A  Mina             42.06  85 ⇑P     P     09 53 59.4  0.0
      baz=42
U05C  Westside ANR,    42.08  89 ⇑P     P     09 54 00.2 +0.7
      baz=42
M12A  Wells            42.18  79  P     P     09 54 00.8 +0.6
      baz=42,SNR=9.9
P10A  Eureka           42.30  82 ⇓P     P     09 54 01.1 -0.1
      baz=42
QLMT  Earthquake Lak   42.33  73 eP     P     09 54 01.7 +0.2
Q09A  Carvers          42.33  84 ⇓P     P     09 54 02.3 +0.7
      baz=42
ELK   Elko             42.37  80 eP     P     09 54 02.5 +0.6
L13A  Double Diamond   42.38  78  P     P     09 54 02.5 +0.6
      baz=42,SNR=18
MTUM  Tungsten Hills   42.40  87 eP     P     09 54 02.8 +0.7
MTUM                             ePcP   PcP   09 55 55.1 +0.6
N12A  Clover Valley,   42.43  80  P     P     09 54 02.8 +0.5
      baz=42,SNR=18
O11A  Cowboy Ranch,    42.48  81  P     P     09 54 03.1 +0.4
      baz=42,SNR=7.2
V05C  Boulder Hill,    42.51  89 ⇑P     P     09 54 03.3 +0.2
      baz=42
HELL  Mitchell Peak,   42.54  88  P     P     09 54 03.1 -0.1
      baz=42,SNR=7.2
FFC   Flin Flon        42.55  56 eP     P     09 54 01.8 -1.3
S08C  White Mtn Res    42.55  86  P     P     09 54 04.2 +0.9
      baz=42,SNR=5.2
RCTC  Rector, Farmer   42.64  88 ⇑P     P     09 54 04.3 +0.2
      baz=42
M13A  Montello         42.66  79  P     P     09 54 04.6 +0.4
      baz=42,SNR=10
YMR   Madison River    42.70  73 eP     P     09 54 04.4  0.0
      comp=Z,43nm,0.9s,mb5.2
YMR                              epP    pP    09 54 17.2 -0.2
YMR                              esP    sP    09 54 22.6 -0.4
R09A  Tonopah          42.77  84  P     P     09 54 05.1  0.0
      baz=43,SNR=17
P11A  Circle Ranch,    42.77  82 ⇑P     P     09 54 06.0 +0.9
      baz=43
TIN   Tinemaha         42.79  87 ⇑P     P     09 54 06.2 +0.9
      baz=43
YNR   Norris Junctio   42.84  73 eP     P     09 54 06.7 +1.1
YFT   Old Faithful     42.89  73 eP     P     09 54 06.8 +0.8
N13A  Wendover, West   42.94  79  P     P     09 54 06.8 +0.3
      baz=43,SNR=7.0
O12A  Currie           42.96  80  P     P     09 54 06.9 +0.3
      baz=43,SNR=20
S09A  Goldfield        42.99  85  P     P     09 54 07.0  0.0
      baz=43,SNR=5.5
VES   Vestal, Richgr   43.04  89 ⇓P     P     09 54 06.5 -0.8
      baz=43
LKWY  Lake             43.09  73 eP     P     09 54 09.1 +1.4
IMW   Indian Meadow    43.15  74 eP     P     09 54 08.8 +0.8
      comp=Z,24nm,0.9s,mb4.9
IMW                              epP    pP    09 54 21.8 +0.8
IMW                              esP    sP    09 54 26.8 +0.1
DCID1 Drake Creek      43.17  74 eP     P     09 54 07.9 -0.3
DCID1                            epP    pP    09 54 22.4 +1.2
DCID1                            esP    sP    09 54 27.7 +0.8
PKM   Peak Mountain    43.20  90 ⇑P     P     09 54 08.5 -0.1
      baz=43
S10A  Tonopah Range,   43.26  84  P     P     09 54 09.0 -0.1
      baz=43,SNR=13
HVU   Hansel Valley    43.26  77 eP     P     09 54 09.6 +0.6
Q11A  Duckwater        43.27  83  P     P     09 54 09.1  0.0
      baz=43,SNR=14
CWC   Cottonwood Cre   43.27  87 ⇓P     P     09 54 09.2  0.0
      baz=43
MOOW  Moose Ponds      43.34  74 eP     P     09 54 10.2 +0.5
GRAC  Grapevine Rang   43.36  86 ⇓P     P     09 54 10.0 +0.2
      baz=43
TPAW  Teton Pass       43.37  74 eP     P     09 54 10.1 +0.2
RLMT  Red Lodge        43.45  71 eP     P     09 54 10.0 -0.5
      comp=Z,39nm,0.9s,mb5.1
RLMT                             epP    pP    09 54 22.9 -0.5
RLMT                             esP    sP    09 54 28.2 -0.9
REDW  Red Top Meadow   43.50  74 eP     P     09 54 11.7 +0.7
      comp=Z,15nm,1.0s,mb4.7
LOHW  Long Hollow      43.51  74 eP     P     09 54 11.5 +0.5
      comp=Z,14nm,1.0s,mb4.7
ISA   Isabella         43.53  88 ⇓P     P     09 54 10.2 -1.1
      baz=43
BGU   Big Grassy Mou   43.61  79 eP     P     09 54 11.8 -0.1
TRCR  Troy Canyon      43.62  83 eP     P     09 54 11.7 -0.2
TRCR                             epP    pP    09 54 24.6 -0.3
TRCR                             esP    sP    09 54 30.1 -0.4
Q12A  Willow Creek R   43.65  82 ⇑P     P     09 54 12.9 +0.7
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	baz=44						
DAC	**Darwin (Calif)**	43.68	87	eP	P	09 54 12.5	+0.1
DAC				ePcP	PcP	09 55 59.1	+0.3
AHID	**Auburn Hatcher**	43.70	75	eP	P	09 54 13.2	+0.6
	comp=Z,23nm,1.0s,mb4.9						
SPUT	**South Promonto**	43.74	78	eP	P	09 54 13.4	+0.5
SPUT				epP	pP	09 54 25.5	-0.4
SPUT				esP	sP	09 54 32.0	+0.5
MPMC	**Manual Prospec**	43.88	87	⇑P	P	09 54 14.0	-0.1
	baz=44						
FURC	**Furnace Creek,**	44.01	86	P	P	09 54 15.1	0.0
	baz=44,SNR=5.3						
OSI	**Osito Adit**	44.06	90	⇑P	P	09 54 14.7	-0.8
	baz=44						
HWUT	**Hardware Ranch**	44.10	77	eP	P	09 54 16.1	+0.3
	comp=Z,22nm,1.0s,mb4.8						
HWUT				epP	pP	09 54 28.6	-0.2
HWUT				esP	sP	09 54 34.1	-0.3
BLG	**Laguna Peak**	44.18	91	⇑P	P	09 54 16.1	-0.4
	baz=44						
DUG	**Dugway**	44.18	79	eP	P	09 54 16.6	+0.1
	comp=Z,15nm,0.9s,mb4.7						
DUG				epP	pP	09 54 30.0	+0.5
DUG				esP	sP	09 54 35.3	+0.2
DUG	**Dugway**	44.18	79	eP	P	09 54 16.6	+0.1
DUG				e*PP	pP	09 54 30.0	+0.5
DUG				e*SP	sP	09 54 35.3	+0.2
DUG				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.7						
DUG	**Dugway**	44.18	79	⇑P	P	09 54 16.9	+0.4
	baz=44						
R12A	**Pony Springs,**	44.23	83	P	P	09 54 16.9	+0.1
	baz=44,SNR=6.7						
NOQ	**North Oquirrh**	44.33	78	eP	P	09 54 18.1	+0.5
NOQ				epP	pP	09 54 30.4	-0.2
NOQ				esP	sP	09 54 35.9	-0.3
EDW2	**Edwards Air Fo**	44.34	89	⇑P	P	09 54 16.5	-1.3
	baz=44						
LAO	**LASA Array**	44.34	68	eP	P	09 54 17.8	+0.1
	comp=Z,42nm,0.9s,mb5.2						
LAO				epP	pP	09 54 30.1	-0.6
LAO				esP	sP	09 54 34.8	-1.5
U10A	**Ash Meadows, A**	44.37	86	⇓P	P	09 54 17.6	-0.5
	baz=44						
FCC	**Fort Churchill**	44.46	47	eP	P	09 54 17.4	-1.0
	comp=Z,11nm,0.6s,mb4.8						
FCC	**Fort Churchill**	44.46	47	eP	P	09 54 17.4	-1.0
FCC				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.8						
DGMT	**Dagmar**	44.52	65	eP	P	09 54 18.8	-0.3
CTU	**Camp Tracy**	44.53	78	eP	P	09 54 18.6	-0.6
	comp=Z,20nm,0.9s,mb5.0						
CTU				epP	pP	09 54 32.2	0.0
DECC	**Green Verdugo**	44.54	90	⇓P	P	09 54 18.2	-1.3
	baz=44						
BW06	**Boulder Array**	44.62	74	eP	P	09 54 19.8	-0.2
PDAR	**Pinedale Array**	44.62	74	P	P	09 54 19.6	-0.3
PDAR				pP	pP	09 54 32.3	-0.7
PDAR				PcP	PcP	09 56 01.9	-0.1
PDAR				LR	LR	10 10 51.8	
PDAR	**Pinedale Array**	44.62	74	P	P	09 54 19.6	-0.3
	comp=Z,22nm,0.7s,mb5.1,baz=302,slow=3.9,SNR=223						
PDAR				pP	pP	09 54 32.3	-0.6
	comp=Z,37nm,0.7s,baz=301,slow=4.0,SNR=24						
PDAR				PcP	PcP	09 56 01.8	-0.1
	comp=Z,1.7nm,0.5s,baz=299,slow=0.9,SNR=3.6						
PDAR				LR	LR	10 10 51.8	
	comp=Z,101nm,19.6s,MS3.8,baz=328,slow=33						
SHOC	**Shoshone**	44.74	87	P	P	09 54 20.9	0.0
	baz=45,SNR=6.1						
JLU	**Jordanelle**	44.77	78	eP	P	09 54 21.2	+0.1
JLU				epP	pP	09 54 34.4	+0.3
JLU				esP	sP	09 54 39.8	+0.1
NLU	**North Lily Min**	44.78	79	eP	P	09 54 21.3	0.0
NLU				epP	pP	09 54 34.2	0.0
NLU				esP	sP	09 54 39.8	-0.1
GSC	**Goldstone**	44.80	88	P	P	09 54 21.3	-0.2
	baz=45,SNR=10.0						
BFSC	**Mount Baldy St**	44.97	89	P	P	09 54 22.8	0.0
	baz=45,SNR=5.9						
DAU	**Daniels Canyon**	45.00	78	eP	P	09 54 23.9	+0.9
DAU				epP	pP	09 54 35.6	-0.4
DAU				esP	sP	09 54 41.8	+0.2
MPU	**Maple Canyon**	45.01	79	eP	P	09 54 23.5	+0.4
	comp=Z,7.8nm,0.6s,mb4.7						
MPU				epP	pP	09 54 36.1	0.0
MPU				esP	sP	09 54 41.4	-0.3
T12A	**Moapa**	45.17	84	⇓P	P	09 54 24.8	+0.4
	baz=45						
TUQ	**Turquoise Mtn.**	45.26	87	⇑P	P	09 54 24.8	-0.3
	baz=45						
ARUT	**Antelope Range**	45.29	82	eP	P	09 54 24.6	-0.7
ARUT	**Antelope Range**	45.29	82	P	P	09 54 25.4	+0.1
V11A	**Goodsprings**	45.30	86	P	P	09 54 25.4	0.0
	baz=45,SNR=5.3						
HEC	**Hector,Ludlow**	45.40	88	P	P	09 54 26.0	-0.2
	baz=45,SNR=6.4						
BBRC	**Big Bear Sol-O**	45.41	89	⇓P	P	09 54 26.0	-0.3
	baz=45						
S14A	**Cedar City**	45.47	82	⇑P	P	09 54 26.9	+0.1
	baz=45						
U12A	**Valley of Fire**	45.47	85	P	P	09 54 26.7	-0.1
	baz=45,SNR=6.4						
CCUT	**Cedar City**	45.48	83	eP	P	09 54 26.6	-0.3
CCUT				epP	pP	09 54 39.5	-0.4
T13A	**Saint George**	45.48	84	⇑P	P	09 54 27.0	+0.1
	baz=45						
MSU	**Marysvale**	45.61	81	eP	P	09 54 28.1	+0.3
MURC	**Murrieta**	45.68	90	⇓P	P	09 54 27.1	-1.3
	baz=46						
TMUT	**Trail Mountain**	45.71	79	eP	P	09 54 29.3	+0.7
V12A	**Nelson**	45.73	86	P	P	09 54 28.7	-0.1
	baz=46,SNR=5.1						
GMRC	**Granite Mounta**	45.85	87	P	P	09 54 29.6	-0.2
	baz=46,SNR=5.8						
T14A	**Hurricane**	45.97	83	P	P	09 54 30.8	+0.1
	baz=46,SNR=9.4						
W12A	**Cal Nev Ari**	46.00	86	⇑P	P	09 54 30.8	-0.1
	baz=46						
PFO	**Pinyon Flat Ob**	46.13	89	⇓P	P	09 54 30.9	-1.1
	baz=46						
BELC	**Belle Mtn.**	46.16	88	⇑P	P	09 54 31.1	-1.1
	baz=46						
109C	**Camp Elliot, M**	46.21	90	⇓P	P	09 54 31.7	-0.9
	baz=46						
SRU	**San Rafael**	46.24	79	eP	P	09 54 33.1	+0.3
IRM	**Iron Mountain**	46.58	87	⇓P	P	09 54 35.0	-0.5
	baz=46						
BC3	**Big Chuckw Mtn**	46.72	88	⇑P	P	09 54 36.0	-0.6
	baz=47						
W13A	**Hualapai Mount**	46.74	86	P	P	09 54 36.7	-0.1
	baz=47,SNR=8.1						
BJI	**Beijing**	46.86	283	P	P	09 54 38.8	+1.2
BJI				S	S	10 01 25.0	+0.5
BJI				LR	LR		
	comp=N,240nm,13.7s,MS4.5						
BJI				LR	LR		
	comp=E,211nm,12.2s,MS4.5						
BJI				LR	LR		
	comp=Z,210nm,21.8s						
X13A	**Yucca**	47.11	86	P	P	09 54 39.1	-0.5
	baz=47,SNR=6.9						
PDMCI	**Parker Dam,Lak**	47.11	87	P	P	09 54 38.9	-0.7
	baz=47,SNR=8.0						
W14A	**Seligman**	47.16	85	P	P	09 54 39.9	-0.1
	baz=47,SNR=6.5						
TLY	**Talaya**	47.18	303	⇑eP	P	09 54 41.1	+1.2
TLY				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
Y12C	**Blythe**	47.23	87	P	P	09 54 40.0	-0.7
	baz=47,SNR=5.3						
PV10	**Paradox Valley**	47.61	79	eP	P	09 54 43.7	+0.3
Y13A	**Salome**	47.62	87	⇓P	P	09 54 43.5	-0.2
	baz=48						
W15A	**Williams**	47.69	84	P	P	09 54 44.7	+0.6
	baz=48,SNR=5.5						
X14A	**Yava**	47.77	85	P	P	09 54 44.6	-0.1
	baz=48,SNR=14						
SONM	**Songino Array**	47.88	298	P	P	09 54 45.9	+0.5
SONM				*PP	pP	09 54 58.6	0.0
SONM						09 56 13.2	
SONM				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM				pmax	pmax		
	comp=Z,6.0nm,0.6s						
SONM				pmax	pmax		
	comp=N,2.0nm,0.7s						
SONM	**Songino Array**	47.88	298	P	P	09 54 45.9	+0.4
	comp=N,2.4nm,0.7s,mb4.3,baz=54,slow=8.8,SNR=18						
SONM				pP	pP	09 54 58.6	0.0
	comp=N,1.4nm,0.6s,baz=52,slow=7.1,SNR=5.1						
SONM				PcP	PcP	09 56 13.2	-0.1
	comp=N,5.7nm,0.6s,baz=74,slow=2.8,SNR=14						
SONM				ScP	ScP	10 00 03.3	0.0
	comp=N,1.5nm,0.7s,baz=46,slow=3.5,SNR=8.8						
SONM				LR	LR	10 13 41.0	
	comp=N,126nm,18.4s,MS3.9,baz=104,slow=34						
WUAZ	**Wupatki**	48.02	83	eP	P	09 54 46.7	+0.1
WUAZ	**Wupatki**	48.02	83	P	P	09 54 46.8	+0.2
	baz=48,SNR=12						
PV01	**Paradox Valley**	48.05	79	eP	P	09 54 46.5	-0.4
Y14A	**Wickenburg**	48.05	86	P	P	09 54 46.3	-0.6
	baz=48,SNR=8.0						
ULM	**Lac du Bonnet**	48.06	58	P	P	09 54 45.5	-1.3
ULM				PcP	PcP	09 56 12.9	-1.0
ULM				LR	LR	10 14 39.7	
ULM	**Lac du Bonnet**	48.06	58	P	P	09 54 45.5	-1.3
	comp=N,3.5nm,0.5s,mb4.7,baz=294,slow=9.9,SNR=19						
ULM				PcP	PcP	09 56 12.9	-1.0
	comp=N,2.5nm,0.6s,baz=296,slow=5.4,SNR=5.4						
ULM				LR	LR	10 14 39.7	
	comp=N,91nm,18.9s,MS3.8,baz=314,slow=36						
ZAK	**Zakamensk**	48.09	302	eP	P	09 54 47.0	-0.1
ZAK				e		09 56 14.1	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
X15A	**Humboldt**	48.16	85	P	P	09 54 47.8	0.0
	baz=48,SNR=7.5						
SMCO	**Snowmass**	48.35	77	eP	P	09 54 49.1	-0.1
	comp=Z,11nm,0.6s,mb5.1						
Z14A	**Wintersburg**	48.47	87	⇓P	P	09 54 49.6	-0.5
	baz=48						
MVCO	**Mesa Verde**	48.68	80	eP	P	09 54 51.2	-0.6
	comp=Z,9.2nm,0.5s,mb5.1						
MVCO	**Mesa Verde**	48.68	80	P	P	09 54 51.5	-0.3
	baz=48,SNR=6.2						
TIA	**Tai'an**	48.71	279	eP	P	09 54 52.4	+0.4
TIA				AMB	AMB		
	comp=Z,43nm,0.7s,mb5.6						
ISCO	**Idaho Springs**	48.78	75	eP	P	09 54 52.7	+0.2
	comp=Z,7.2nm,0.8s,mb4.8						
ISCO	**Idaho Springs**	48.78	75	eP	P	09 54 53.6	+1.1
ISCO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
HHC	**Hu-ho-hao-te**	49.11	287	eP	P	09 54 55.2	+0.2
HHC				AP	pP	09 55 07.6	-0.6
HHC				XP	sP	09 55 12.8	-1.0
HHC				PCP	PcP	09 56 19.0	+1.1
HHC				PP	PP	09 56 49.9	+1.2
HHC				SCP	ScP	10 00 08.5	-0.2
HHC				PCS	PcS	10 00 14.6	+0.4
HHC				S	S	10 01 55.7	-0.7
HHC				XS	sS	10 02 16.5	-2.0
HHC				SCS	ScS	10 04 40.3	-2.2
HHC				SS	SS	10 05 22.7	-4.8
HHC				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb5.0						
HHC				LR	LR		
	comp=N,154nm,25.0s,MS4.1						
HHC				LR	LR		
	comp=E,165nm,23.8s,MS4.1						
HHC				LR	LR		
	comp=Z,129nm,25.0s,MS3.8						
AGMN	**Agassiz Refuge**	49.20	60	eP	P	09 54 54.2	-1.4
	comp=Z,5.5nm,0.6s,mb4.8						
115A	**Sonoran Desert**	49.36	87	⇓P	P	09 54 56.6	-0.5
	baz=49						
116A	**Eloy**	49.78	86	⇑P	P	09 54 59.8	-0.5
	baz=50						
SDCO	**Great Sand Dun**	50.16	77	eP	P	09 55 03.1	+0.1
NJ2	**Nanjing**	50.41	273	eP	P	09 55 06.5	+1.5
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.3						
TUC	**Tucson**	50.52	86	eP	P	09 55 05.4	-0.4
	comp=Z,9.3nm,0.8s,mb4.8						
TUC	**Tucson**	50.52	86	P	P	09 55 05.7	-0.1
TUC				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
ANMO	**Albuquerque**	51.41	80	eP	P	09 55 11.9	-0.6
	comp=Z,2.6nm,0.8s,mb4.2						
ANMO	**Albuquerque**	51.41	80	eP	P	09 55 11.9	-0.5
ANMO				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ECSD	**EROS,Sioux Fal**	51.57	66	eP	P	09 55 11.8	-1.7
	comp=Z,20nm,0.7s,mb5.2						
Y22C	**IRIS PASSCAL I**	51.71	82	⇓P	P	09 55 15.6	+0.9
	baz=52						
CBKS	**Cedar Bluff**	52.91	72	eP	P	09 55 23.1	-0.4
WHN	**Wuhan**	54.24	275	⇓P	P	09 55 33.5	+0.1
WHN				AMB	AMB		
	comp=Z,38nm,0.7s,mb5.4						
MNTX	**Cornudas Mount**	54.27	83	eP	P	09 55 33.2	-0.4
AMTX	**Amarillo**	54.36	77	eP	P	09 55 33.4	-0.8
	comp=Z,18nm,0.7s,mb5.1						
AMTX				epP	pP	09 55 46.5	-1.1
KSU1	**Kansas State U**	54.56	70	eP	P	09 55 34.5	-1.1
SCIA	**State Center**	54.66	65	eP	P	09 55 35.3	-1.0
	comp=Z,43nm,0.5s,mb5.7						
ZALV	**Zalesovo Beam**	54.88	314	P	P	09 55 37.4	-0.3
	comp=Z,1.3nm,0.4s,mb4.3,baz=47,slow=6.4,SNR=9.5						
ZALV				PcP	PcP	09 56 38.5	-0.8
	comp=Z,2.6nm,0.6s,baz=46,slow=3.6,SNR=8.8						
ZALV				LR	LR	10 21 02.3	
	comp=Z,109nm,20.0s,MS3.9,baz=172,slow=38						
ZAL	**Zalesovo**	54.89	314	P	P	09 55 37.4	-0.4
ZAL						09 56 38.5	
XAN	**Xi'an**	55.16	282	P	P	09 55 40.1	+0.1
LPIG	**La Paz**	56.63	93	LR	LR	10 13 20.5	
	comp=Z,56nm,21.8s,MS3.6,baz=1.1,slow=29						
LZH	**Lanzhou**	56.80	288	eP	P	09 55 52.2	+0.5
LZH				AP	pP	09 56 04.1	-1.0
LZH				XP	sP	09 56 09.5	-1.2
LZH				PCP	PcP	09 56 47.5	+0.5
LZH				PP	PP	09 58 00.2	+2.1
LZH				eS	S	10 03 39.9	-1.3
LZH				XS	sS	10 04 01.0	-2.6
LZH				SS	SS	10 07 28.9	-0.3
LZH				AMB	AMB		
	comp=Z,28nm,1.0s,mb5.2						
LZH				AMB	AMB		
	comp=Z,88nm,4.0s						
LZH				LR	LR		
	comp=E,485nm,15.6s						
LZH				LR	LR		
	comp=Z,796nm,16.7s,MS4.9						
LTX	**Lajitas**	56.98	83	eP	P	09 55 52.4	-0.7
	comp=Z,29nm,1.0s,mb5.3						
LTX				epP	pP	09 56 05.4	-1.1
LTX	**Lajitas**	56.98	83	eP	P	09 55 52.4	-0.7
LTX				e*PP	pP	09 56 05.4	-1.1
LTX				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.3						
TXAR	**Lajitas Array**	56.98	83	P	P	09 55 52.3	-0.8
TXAR				*PP	pP	09 56 05.5	-1.0
TXAR						09 56 47.4	
TXAR				pmax	pmax		
	comp=Z,13nm,0.7s						
TXAR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
TXAR	**Lajitas Array**	56.98	83	P	P	09 55 52.3	-0.8
	comp=Z,13nm,0.7s,mb5.1,baz=298,slow=4.8,SNR=170						
TXAR				pP	pP	09 56 05.5	-1.0
	comp=Z,8.7nm,0.8s,baz=297,slow=5.2,SNR=13						
TXAR				PcP	PcP	09 56 47.4	-0.4
	comp=Z,2.1nm,0.5s,baz=270,slow=1.7,SNR=4.6						
HDIL	**Hopedale**	57.76	64	eP	P	09 55 57.1	-1.3
	comp=Z,54nm,0.8s,mb5.6						
ARCES	**ARCESS Array B**	57.89	351	P	P	09 55 59.4	+0.5
ARCES				PcP	PcP	09 56 49.4	-1.3
ARCES	**ARCESS Array B**	57.89	351	P	P	09 55 59.4	+0.5
ARCES						09 56 49.4	
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ARCES	**ARCESS Array B**	57.89	351	P	P	09 55 59.4	+0.5
	comp=Z,2.3nm,0.6s,mb4.4,baz=26,slow=8.7,SNR=9.4						
ARCES				PcP	PcP	09 56 49.4	-1.3
	comp=Z,3.6nm,0.7s,baz=28,slow=5.5,SNR=7.0						
SLM	**Saint Louis**	58.54	66	eP	P	09 56 02.5	-1.4
SLM				eP		09 56 02.6	
JCT	**Junction City**	58.55	80	eP	P	09 56 02.5	-1.6
SCHQ	**Schefferville**	58.62	40	P	P	09 56 02.9	-1.3
SCHQ	**Schefferville**	58.62	40	P	P	09 56 02.9	-1.2
	comp=Z,5.7nm,1.0s,mb4.6,baz=302,slow=10,SNR=6.6						
FVM	**French Village**	58.88	67	eP	P	09 56 04.5	-1.7
	comp=Z,43nm,0.6s,mb5.7						
FVM	**French Village**	58.88	67	eP	P	09 56 04.6	-1.6
FVM				pmax	pmax		
	comp=Z,43nm,0.6s,mb5.7						
MIAR	**Mount Ida**	59.44	72	eP	P	09 56 09.5	-0.6
SIUC	**Southern Illin**	59.76	66	eP	P	09 56 11.1	-1.2
KURK	**Kurchatov**	59.86	315	P	P	09 56 12.2	-0.6
	comp=Z,153nm,0.4s,SNR=12						
KURK	**Kurchatov**	59.86	315	eP	P	09 56 12.4	-0.4
	comp=Z,12nm,0.5s,mb5.2						
KURK	**Kurchatov**	59.86	315	eP	P	09 56 12.4	-0.4
KURK				pmax	pmax		
	comp=Z,12nm,0.5s,mb5.2						
UALR	**University of**	60.00	71	eP	P	09 56 12.9	-1.2
	comp=Z,7.2nm,0.6s,mb4.9						
PARMO	**Parma**	60.18	68	eP	P	09 56 13.7	-1.5
BLO	**Bloomington**	60.25	64	eP	P	09 56 14.3	-1.3
	comp=Z,22nm,0.4s,mb5.5						
BLO	**Bloomington**	60.25	64	P	P	09 56 14.5	-1.2
BLO				pmax	pmax		
	comp=Z,22nm,0.5s,mb5.4						
WMQ	**Urumqi**	60.44	304	P	P	09 56 19.5	+2.6
WMQ				AP	pP	09 56 32.3	+1.9
WMQ				XP	sP	09 56 37.6	+1.7
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.9						
WMQ				LR	LR		
	comp=N,96nm,21.4s,MS4.1						
WMQ				LR	LR		
	comp=E,111nm,19.2s,MS4.1						
WMQ				LR	LR		
	comp=Z,62nm,15.8s,MS3.9						
CD2	**Chengdu**	60.46	283	⇓iP	P	09 56 18.0	+0.8
CD2				PP	PP	09 58 33.4	+2.8
CD2				S	S	10 04 22.4	-6.4
CD2				SS	SS	10 08 23.1	-3.7
CD2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.6						
CD2				AMB	AMB		
	comp=Z,120nm,5.2s						
CD2				LR	LR		
	comp=E,200nm,19.2s						
CD2				LR	LR		
	comp=Z,180nm,15.6s,MS4.3						
USIN	**University of**	60.46	65	eP	P	09 56 16.0	-1.1
GLAT	**Glass**	60.73	68	P	P	09 56 14.9	-4.0
UTMT	**University of**	60.92	67	eP	P	09 56 19.0	-1.3
	comp=Z,97nm,1.1s,mb5.8						
MK31	**Makanchi Array**	61.00	310	eP	P	09 56 19.8	-0.9
MK31	**Makanchi Array**	61.00	310	P	P	09 56 20.0	-0.7
MKAR	**Makanchi Array**	61.00	310	P	P	09 56 19.9	-0.8
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
MKAR				MLR	MLR		
	comp=Z,75nm,19.0s						
MKAR	**Makanchi Array**	61.00	310	P	P	09 56 19.9	-0.8
	comp=Z,3.8nm,0.5s,mb4.8,baz=47,slow=5.7,SNR=71						
MKAR				LR	LR	10 22 52.4	
	comp=Z,75nm,19.0s,MS3.9,baz=33,slow=36						
WCI	**Wyandotte Cave**	61.04	64	eP	P	09 56 19.8	-1.2
	comp=Z,36nm,0.9s,mb5.5						
WCI	**Wyandotte Cave**	61.04	64	P	P	09 56 19.9	-1.2
WCI				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.5						
WVT	**Waverly**	61.66	67	eP	P	09 56 23.9	-1.4
	comp=Z,9.3nm,0.7s,mb5.0						
WVT	**Waverly**	61.66	67	eP	P	09 56 23.9	-1.4
WVT				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.0						
GYA	**Guiyang**	61.88	278	P	P	09 56 28.6	+1.7
GYA				AP	pP	09 56 41.8	+1.4
GYA				XP	sP	09 56 47.2	+1.3
GYA				PCP	PcP	09 57 08.0	+0.6
GYA				PP	PP	09 58 46.7	+3.5
GYA				SCP	ScP	10 01 05.0	+0.1
GYA				PCS	PcS	10 01 10.8	+0.2
GYA				S	S	10 04 46.2	-0.8
GYA				PS		10 05 09.3	
GYA				SCS	ScS	10 06 11.6	-2.9
GYA				SS	SS	10 08 50.0	+0.7
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.2						
GYA				AMB	AMB		
	comp=Z,130nm,6.9s						
GYA				LR	LR		
	comp=N,450nm,19.0s,MS4.8						
GYA				LR	LR		
	comp=E,440nm,20.6s,MS4.8						
GYA				LR	LR		
	comp=Z,480nm,20.4s,MS4.7						
OXF	**Oxford**	61.90	69	eP	P	09 56 25.9	-1.0
	comp=Z,85nm,0.9s,mb5.9						
OXF				epP	pP	09 56 38.3	-2.2
OXF				esP	sP	09 56 43.9	-2.0
OXF	**Oxford**	61.90	69	eP	P	09 56 25.9	-1.0
OXF				e*PP	pP	09 56 38.3	-2.2
OXF				e*SP	sP	09 56 43.9	-2.1
OXF				pmax	pmax		
	comp=Z,85nm,0.9s,mb5.9						
PLAL	**Pickwick Lake**	62.33	68	eP	P	09 56 28.2	-1.6
	comp=Z,25nm,0.6s,mb5.5						
PLAL				epP	pP	09 56 41.1	-2.3
PLAL				esP	sP	09 56 47.1	-1.8
ARU	**Arti**	63.05	329	eP	P	09 56 34.8	+0.6
ARU				e	pP	09 56 52.5	+4.7
ARU				e		09 58 54.4	
ARU				ePPP		10 00 22.7	
ARU				eS	S	10 05 00.8	0.0
ARU				eSS	SS	10 09 07.4	+1.4
SWET	**Sewanee**	63.39	66	eP	P	09 56 35.5	-1.4
JOF	**Joensuu**	63.55	346	ep	P	09 56 36.8	-0.6
	comp=Z,2.6nm,0.4s,mb4.6						
SSPA	**Standing Stone**	63.86	57	eP	P	09 56 38.9	-0.9
	comp=Z,9.4nm,0.6s,mb5.0						
CPCT	**Cooper Cave**	64.02	65	eP	P	09 56 39.5	-1.5
TKL	**Tuckaleechee C**	64.29	65	LR	LR	10 23 02.2	
	comp=Z,99nm,18.5s,MS4.0,baz=329,slow=34						
LRAL	**Lakeview Retre**	64.35	69	eP	P	09 56 41.6	-1.6
	comp=Z,6.6nm,0.6s,mb4.8						
ELN	**Prospectdale**	64.82	61	eP	P	09 56 45.0	-1.1
BLA	**Blacksburg**	65.01	61	eP	P	09 56 47.2	-0.2
	comp=Z,22nm,0.6s,mb5.4						
BLA	**Blacksburg**	65.01	61	P	P	09 56 47.3	-0.1
BLA				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.4						
KMI	**Kunming**	65.26	280	⇓P	P	09 56 50.2	+1.0
KMI				AP	pP	09 57 02.1	-0.8
KMI				XP	sP	09 57 08.9	+0.6
KMI				PP	PP	09 59 16.1	+3.2
KMI				S	S	10 05 27.6	-1.5
KMI				XS	sS	10 05 48.4	-3.5
KMI				SKS		10 06 37.3	
KMI				SS	SS	10 09 43.1	+1.1
KMI				AMB	AMB		
	comp=Z,55nm,0.7s,mb5.7						
KMI				AMB	AMB		
	comp=Z,113nm,3.1s						
KMI				LR	LR		
	comp=Z,70nm,22.9s,MS3.8						
FINES	**FINESS Array B**	65.67	348	P	P	09 56 51.3	0.0
	comp=Z,0.8nm,0.6s,mb4.0,baz=30,slow=7.6,SNR=7.1						
FINES				LR	LR	10 31 09.8	
	comp=Z,150nm,19.0s,MS4.2,slow=41						
JSC	**Jenkinsville**	66.70	64	eP	P	09 56 58.0	-0.3
JSC	**Jenkinsville**	66.70	64	P	P	09 56 58.1	-0.2
LHS	**Liberty Hill**	66.81	63	eP	P	09 56 58.5	-0.5
NOA	**NORSAR Array B**	67.31	356	P	P	09 57 00.9	-0.8
NOA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NOA				MLR	MLR		
	comp=Z,87nm,18.3s						
NOA	**NORSAR Array B**	67.31	356	P	P	09 57 00.9	-0.8
	comp=Z,1.4nm,0.9s,mb4.0,baz=6.6,slow=6.6,SNR=3.2						
NOA				LR	LR	10 27 39.5	
	comp=Z,86nm,18.3s,MS4.0,baz=0.0,slow=37						

COW	Cow Castle Cre	67.68	64	eP	P	09 57 04.3	-0.2
AAK	Ala-Archa	67.80	311	P	P	09 57 04.3	-0.8
	comp=Z,127nm,0.5s,SNR=13						
AAK	Ala-Archa	67.80	311	eP	P	09 57 04.1	-1.0
	comp=Z,12nm,0.6s,mb5.1						
AAK	Ala-Archa	67.80	311	P	P	09 57 04.6	-0.5
AAK				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.1						
CNNC	Cliffs of the	67.84	61	eP	P	09 57 04.9	-0.6
	comp=Z,24nm,0.6s,mb5.4						
TAOE	Nuku Hiva Isla	67.93	141	eT		11 10 55.7	
	comp=Z,107nm,0.2s						
NHSC	New Hope	68.17	64	eP	P	09 57 07.0	-0.7
	comp=Z,127nm,1.0s,mb5.9						
OBN	Obninsk	69.99	341	eP	P	09 57 19.0	+0.5
OBN				e		09 57 38.6	
OBN				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
PMOR	Pomariorio Ree	70.97	151	eT		11 14 46.4	
	comp=Z,17nm,0.2s						
NANT	Nan	71.23	277	P	P	09 57 26.0	-0.6
KKTK	Khon Kaen	71.78	273	P	P	09 57 30.0	0.0
CHG	Chiang Mai	72.30	278	P	P	09 57 32.8	-0.3
	comp=Z,13nm,0.7s,mb5.0						
CHTO	Chiang Mai	72.30	278	eP	P	09 57 33.0	-0.1
	comp=Z,11nm,0.9s,mb4.8						
CHTO	Chiang Mai	72.30	278	eP	P	09 57 33.0	-0.1
CHTO				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
TAPN	Taplejung	72.55	292	eP	P	09 57 34.6	+0.1
	comp=Z,29nm,0.8s,mb5.3						
PPT	Papeete	72.92	153	eLR	LR	10 19 47.3	
	comp=Z,101nm,22.2s						
PPT	Papeete	72.92	153	eT		11 17 14.0	
	comp=Z,12nm,0.2s						
PAE	Paea	73.00	153	eT		11 17 20.4	
	comp=Z,15nm,0.3s						
GUN	Gumba	73.17	294	eP	P	09 57 38.5	+0.4
	comp=Z,82nm,0.3s,mb6.1						
JIRN	Jiri	73.19	293	eP	P	09 57 38.6	+0.4
	comp=Z,28nm,0.4s,mb5.6						
TVO	Taravao	73.21	153	eT		11 17 35.7	
	comp=Z,5.4nm,0.3s						
KKN	Kakani	73.60	294	eP	P	09 57 41.3	+0.6
	comp=Z,18nm,0.4s,mb5.3						
PKI	Pulchoki	73.70	294	eP	P	09 57 41.3	+0.1
GKN	Gorkha	73.80	295	eP	P	09 57 41.6	-0.3
DMN	Daman	73.84	294	eP	P	09 57 42.3	+0.2
KOLN	Koldanda	74.57	295	eP	P	09 57 46.1	-0.2
	comp=Z,9.8nm,0.5s,mb5.0						
AKASG	Malin Array Be	75.58	344	P	P	09 57 50.1	-1.6
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG				MLR	MLR		
	comp=Z,105nm,20.3s						
AKASG	Malin Array Be	75.58	344	P	P	09 57 50.1	-1.6
	comp=Z,0.7nm,0.3s,mb4.0,baz=19,slow=6.1,SNR=6.0						
AKASG				LR	LR	10 34 34.4	
	comp=Z,105nm,20.2s,MS4.1,baz=300,slow=38						
KBL	Kabul	76.81	310	eP	P	09 57 58.0	-1.0
CLL	Collm	76.93	354	eP	P	09 57 58.0	-1.4
CLL				esP	sP	09 58 39.0	+20
KAKA	Kakadu	78.08	231	eP	P	09 58 05.1	-1.1
	comp=Z,25nm,0.6s,mb5.3						
TGUH	Tegucigalpa,Un	78.43	82	eP	P	09 58 07.6	-0.7
	comp=Z,23nm,0.8s,mb5.2						
BAIF	Baives	78.47	360	eP	P	09 58 07.3	-0.7
CTA	Charters Tower	78.78	216	⇑iP	P	09 58 08.8	-1.1
	comp=Z,10nm,0.9s,mb4.8						
CTA	Charters Tower	78.78	216	⇑iP	P	09 58 08.8	-1.1
CTA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
GERES	GERESS Array B	79.33	353	P	P	09 58 11.6	-1.1
GERES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
GERES				MLR	MLR		
	comp=Z,107nm,20.5s						
GERES	GERESS Array B	79.33	353	P	P	09 58 11.6	-1.1
	comp=Z,0.6nm,0.8s,baz=29,slow=6.4,SNR=5.4						
GERES				LR	LR	10 36 13.9	
	comp=Z,107nm,20.5s,MS4.2,baz=268,slow=38						
LDF	La Druitiere	79.88	3	eP	P	09 58 15.1	-0.6
CDF	Champ du Feu	80.08	358	eP	P	09 58 16.0	-0.8
HINF	Hinteralfeld	80.68	358	eP	P	09 58 19.3	-0.7
	comp=Z,2.2nm,0.6s,mb4.3						
HINF	Hinteralfeld	80.68	358	eP	P	09 58 19.3	-0.7
HINF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
HINF	Hinteralfeld	80.68	358	eP	P	09 58 19.3	-0.7
	comp=Z,4.3nm,0.6s,mb4.2						
LOR	Lormes	81.27	360	eP	P	09 58 22.0	-1.2
LOR				LR	LR		
	comp=Z,120nm,20.5s,MS4.2						
LOR	Lormes	81.27	360	eP	P	09 58 22.0	-1.2
LOR				eMLR	MLR		
	comp=Z,116nm,20.5s,MS3.9						
SSF	Saint Saulge	81.47	0	eP	P	09 58 23.1	-1.2
	comp=Z,4.4nm,0.7s,mb4.5						
SSF	Saint Saulge	81.47	0	eP	P	09 58 23.1	-1.2
SSF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
SSF	Saint Saulge	81.47	0	eP	P	09 58 23.1	-1.2
	comp=Z,8.9nm,0.7s,mb4.5						
AVF	Avril sur Loir	81.74	0	eP	P	09 58 24.3	-1.4
	comp=Z,3.4nm,0.8s,mb4.3						
AVF	Avril sur Loir	81.74	0	eP	P	09 58 24.3	-1.4
AVF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
AVF	Avril sur Loir	81.74	0	eP	P	09 58 24.3	-1.4
	comp=Z,6.8nm,0.8s,mb4.3						
SMF	Signal de Mont	81.89	360	eP	P	09 58 25.2	-1.3
	comp=Z,8.6nm,0.9s,mb4.7						
SMF	Signal de Mont	81.89	360	eP	P	09 58 25.2	-1.3
SMF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
SMF	Signal de Mont	81.89	360	eP	P	09 58 25.2	-1.3
	comp=Z,17nm,0.9s,mb4.7						
TCF	Toulx Ste Croi	82.24	1	eP	P	09 58 27.5	-0.8
RKT	Rikitea	82.91	142	eLR	LR	10 24 24.9	
	comp=Z,140nm,28.0s						
RKT	Rikitea	82.91	142	eT		11 29 38.6	
	comp=Z,10nm,0.4s						
LPL	La Plagne	82.99	358	eP	P	09 58 31.6	-0.6
LPG	La Plagne	83.00	358	eP	P	09 58 31.5	-0.8
WB2	Warramunga Arr	83.48	226	⇑iP	P	09 58 33.5	-1.4
WRA	Warramunga Arr	83.49	226	P	P	09 58 33.7	-1.3
	comp=Z,8.5nm,0.6s,mb5.0,baz=32,slow=5.8,SNR=41						
WRA				PKKPbc	PKKPbc	10 16 51.1	-0.9
	comp=Z,0.4nm,0.6s,baz=224,slow=2.1,SNR=5.9						
CAF	Calviac	83.60	1	eP	P	09 58 34.5	-0.9
MBDF	Montbardon	83.78	358	eP	P	09 58 35.3	-1.0
SDDR	Presa de Saban	84.11	67	eP	P	09 58 38.0	-0.4
SBF	Sospel	84.62	357	eP	P	09 58 39.5	-1.1
FRF	La Foret Royal	84.94	358	eP	P	09 58 41.2	-1.0
	comp=Z,7.5nm,1.0s,mb4.8						
FRF	La Foret Royal	84.94	358	eP	P	09 58 41.2	-1.0
FRF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.8						
FRF	La Foret Royal	84.94	358	eP	P	09 58 41.2	-1.0
	comp=Z,15nm,1.0s,mb4.8						
BRTR	Keskin Array B	85.17	337	P	P	09 58 42.4	-1.0
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BRTR	Keskin Array B	85.17	337	P	P	09 58 42.4	-1.0
	comp=Z,0.9nm,0.6s,mb4.1,baz=32,slow=3.1,SNR=5.6						
LMR	La Mourre	85.17	358	eP	P	09 58 41.7	-1.7
MTLF	Montolieu	85.18	1	eP	P	09 58 42.2	-1.2
SJPF	Ste Jean	85.32	4	eP	P	09 58 42.8	-1.3
HYB	Hyderabad	85.55	292	eP	P	09 58 44.5	-1.1
HYB	Hyderabad	85.55	292	i P	P	09 58 44.5	-1.1
ETSF	Etsaut	85.56	3	eP	P	09 58 44.1	-1.2
FITZ	Fitzroy Crossi	86.04	234	eP	P	09 58 47.8	0.0
	comp=Z,29nm,0.8s,mb5.6						
ARMA	Armidale	86.65	207	⇑iP	P	09 58 50.7	+0.2
ESDC	Sonseca Array	88.61	6	P	P	09 58 59.2	-0.9
	comp=Z,0.1nm,0.3s,baz=350,slow=3.9,SNR=4.1						
RIV	Riverview	89.99	207	⇑iP	P	09 59 06.4	+0.1
STKA	Stephens Creek	91.22	215	⇑iP	P	09 59 11.7	-0.4
	comp=Z,13nm,0.6s,mb5.4						
STKA	Stephens Creek	91.22	215	P	P	09 59 11.8	-0.3
	comp=Z,14nm,0.6s,mb5.5,baz=1.0,slow=5.1,SNR=45						
KEST	Kesra	92.66	355	P	P	09 59 18.9	-0.2
	comp=Z,0.4nm,0.2s,mb4.4,baz=280,slow=6.1,SNR=12						
TOA0	Torodi Ar. Sit	115.25	2	ePKP	PKPdf	10 04 47.6	-1.1
TORD	Torodi Ar. Bea	115.25	2	PKP	PKPdf	10 04 47.7	-1.1
TORD				PKKPbc	PKKPbc	10 15 20.9	-0.4
TORD				PKKPab	PKKPab	10 15 26.7	-5.0
TORD				PKKP	PKKPbc	10 15 40.9	+20
TORD	Torodi Ar. Bea	115.25	2	PKP	PKPdf	10 04 47.7	-1.1
	comp=Z,3.1nm,0.7s,baz=348,slow=2.4,SNR=30						
TORD				PKKPbc	PKKPbc	10 15 20.9	-0.4
	comp=Z,0.8nm,0.6s,baz=172,slow=2.1,SNR=9.6						
TORD				PKKPab	PKKPab	10 15 26.7	-5.0
	comp=Z,1.8nm,0.6s,baz=176,slow=3.7,SNR=10.0						
TORD				PKKP	PKKPbc	10 15 40.9	+20
	comp=Z,1.0nm,0.6s,baz=170,slow=0.9,SNR=4.8						
LIC	Lamto	121.67	10	ePKPdf	PKPdf	10 04 59.8	-1.4
LIC	Lamto	121.67	10	ePKIKP	PKPdf	10 04 59.8	-1.4
	comp=Z,12nm,0.7s						
KMBO	Kilima Mbogo	122.20	319	ePKPdf	PKPdf	10 05 02.6	+0.5
KMBO	Kilima Mbogo	122.20	319	PKIKP	PKPdf	10 05 02.4	+0.2
KMBO				pmax	pmax		
	comp=Z,4.0nm,0.7s						
KMBO	Kilima Mbogo	122.20	319	PKP	PKPdf	10 05 02.4	+0.2
	comp=Z,4.0nm,0.7s,baz=20,slow=4.7,SNR=12						
TSUM	Tsumeb	145.67	336	ePKPdf	PKPdf	10 05 45.1	-0.4
MAW	Mawson	147.85	218	ePKPbc	PKPbc	10 05 50.0	-0.6
MAW	Mawson	147.85	218	PKP2	PKPab	10 05 50.1	-3.3
MAW				pmax	pmax		
	comp=Z,15nm,0.8s						
MAW	Mawson	147.85	218	PKPbc	PKPbc	10 05 50.1	-0.6
	comp=Z,15nm,0.8s,baz=75,slow=4.0,SNR=15						
LBTB	Lobatse	148.48	320	ePKPbc	PKPbc	10 05 53.7	+0.1
LBTB	Lobatse	148.48	320	ePKP2	PKPab	10 05 53.7	-3.4
BOSA	Boshof	151.80	317	ePKPbc	PKPbc	10 06 01.3	-0.3
BOSA	Boshof	151.80	317	PKIKP	PKPbc	10 06 01.3	-0.3
BOSA				pmax	pmax		
	comp=Z,38nm,0.6s						
BOSA	Boshof	151.80	317	PKPbc	PKPbc	10 06 01.2	-0.3
	comp=Z,38nm,0.6s,baz=26,slow=2.0,SNR=117						
SYO	Syowa Base	155.92	211	⇑ePKPab	PKPab	10 06 25.0	-2.0
VNA2	Neumayer--Watz	160.19	169	ePKPdf	pPKPdf	10 06 22.6	+3.0
	baz=352,slow=1.6						
VNA2				e		10 06 34.0	
VNA2				e		10 06 44.0	
VNA2				e		10 06 47.7	

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*NEIC **04** 10:07:40.2, 3959S×17430E, h222^{km}, MG3.9(WEL), After WEL.*

WEL 04 10:07:40.6±0.5**, 3960S×17433E, h219**^{km}±3^{km}**, ML3.8**/21**, 5C-2D, Error ellipse: s-maj=3.2km s-min=1.8km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAEZ	Rainy Point	0.32	9	P	Pn	10 08 09.8	+0.4
RAEZ	Rainy Point	0.32	9	PN	Pn	10 08 09.7	+0.3
NEZ	North Egmont	0.37	331	P	Pn	10 08 09.7	+0.1
NEZ	North Egmont	0.37	331	PN	Pn	10 08 09.6	0.0
NWEZ	Newall Road	0.48	312	P	Pn	10 08 09.8	-0.1
NWEZ	Newall Road	0.48	312	PN	Pn	10 08 09.7	-0.2
PKE	Pukeiti	0.48	327	PN	Pn	10 08 10.0	+0.1
WAZ	Wanganui	0.53	107	P	Pn	10 08 10.6	+0.6
WAZ				S	S	10 08 32.6	-0.2
WAZ	Wanganui	0.53	107	PN	Pn	10 08 10.6	+0.6
WAZ				SN	S	10 08 32.6	-0.2
VRZ	Vera Road	0.58	35	P	Pn	10 08 09.4	-0.8
VRZ				S	S	10 08 29.5	-3.7
VRZ	Vera Road	0.58	35	PN	Pn	10 08 09.3	-0.9
VRZ				SN	S	10 08 31.1	-2.1
MTVZ	Mangateitei	0.91	77	PN	Pn	10 08 11.8	0.0
MTVZ				SN	S	10 08 34.0	-2.0
TRVZ	Turoa	0.99	73	PN	Pn	10 08 12.3	0.0
FWVZ	Far West T-bar	1.01	71	PN	Pn	10 08 12.4	0.0
WNVZ	Wahianoa	1.02	75	P	Pn	10 08 12.7	+0.3
WNVZ	Wahianoa	1.02	75	PN	Pn	10 08 12.7	+0.3
WNVZ				SN	S	10 08 35.7	-1.4
WPVZ	Whakapapa	1.02	68	P	Pn	10 08 12.4	-0.1
WPVZ	Whakapapa	1.02	68	PN	Pn	10 08 12.3	-0.2
TUVZ	Tukino	1.08	73	P	Pn	10 08 13.1	+0.3
TUVZ	Tukino	1.08	73	PN	Pn	10 08 13.0	+0.1
MOVZ	Moawhango	1.12	81	P	Pn	10 08 12.8	-0.3
MOVZ	Moawhango	1.12	81	PN	Pn	10 08 12.8	-0.3
HIZ	Hauiti	1.16	21	P	Pn	10 08 12.3	-1.1
HIZ	Hauiti	1.16	21	⇓PN	Pn	10 08 12.2	-1.2
DUWZ	D'Urville Isla	1.24	194	⇑PN	Pn	10 08 13.8	-0.1
KIW	Kapiti Island	1.34	161	P	Pn	10 08 14.6	0.0
KIW	Kapiti Island	1.34	161	PN	Pn	10 08 14.6	0.0
RATZ	Rangitukua	1.34	57	P	Pn	10 08 14.4	-0.3
RATZ	Rangitukua	1.34	57	PN	Pn	10 08 14.4	-0.4
TSZ	Takapari Road	1.34	111	P	Pn	10 08 15.0	+0.3
TSZ	Takapari Road	1.34	111	PN	Pn	10 08 15.0	+0.3
WATZ	Wairara	1.41	51	P	Pn	10 08 14.9	-0.4
WATZ	Wairara	1.41	51	PN	Pn	10 08 14.9	-0.4
MRZ	Mangatainoka R	1.43	138	P	Pn	10 08 15.4	0.0
MRZ	Mangatainoka R	1.43	138	PN	Pn	10 08 15.4	0.0
CAW	Cannon Point	1.61	160	P	Pn	10 08 16.8	-0.1
CAW	Cannon Point	1.61	160	PN	Pn	10 08 16.8	0.0
TCW	Tory Channel	1.61	181	P	Pn	10 08 16.9	0.0
TCW	Tory Channel	1.61	181	PN	Pn	10 08 16.9	0.0
MRW	Makara Radio	1.65	170	P	Pn	10 08 17.1	-0.1
MRW	Makara Radio	1.65	170	PN	Pn	10 08 17.1	-0.1
TIWZ	Tintock	1.68	135	PN	Pn	10 08 17.6	+0.2
WEL	Wellington	1.72	169	P	Pn	10 08 17.7	-0.1
WEL	Wellington	1.72	169	PN	Pn	10 08 17.7	-0.1
BKZ	Black Stump Fm	1.73	76	eP	Pn	10 08 17.7	-0.3
BKZ	Black Stump Fm	1.73	76	⇓PN	Pn	10 08 17.7	-0.4
SNZO	South Karori	1.73	171	P	Pn	10 08 17.7	-0.3
SNZO	South Karori	1.73	171	PN	Pn	10 08 17.7	-0.2
NNZ	Nelson	1.77	204	P	Pn	10 08 18.0	-0.3
NNZ	Nelson	1.77	204	⇑PN	Pn	10 08 17.9	-0.4
MTW	Mount Morrison	1.80	150	P	Pn	10 08 18.4	-0.2
MTW	Mount Morrison	1.80	150	⇑PN	Pn	10 08 18.4	-0.1
BFZ	Birch Farm	1.83	127	P	Pn	10 08 18.9	+0.1
BFZ	Birch Farm	1.83	127	PN	Pn	10 08 18.9	+0.1
QRZ	Quartz Range	1.84	228	P	Pn	10 08 17.7	-1.3
QRZ	Quartz Range	1.84	228	⇑PN	Pn	10 08 17.7	-1.3
TUWZ	Tuamarina	1.85	189	PN	Pn	10 08 18.8	-0.3
BHW	Baring Head	1.85	167	P	Pn	10 08 18.7	-0.4
BHW	Baring Head	1.85	167	PN	Pn	10 08 18.7	-0.4
MSWZ	Moikau Station	1.95	159	P	Pn	10 08 19.7	-0.3
MSWZ	Moikau Station	1.95	159	PN	Pn	10 08 19.7	-0.3
PAWZ	Paruwai Farm	1.97	155	P	Pn	10 08 20.0	-0.2
PAWZ	Paruwai Farm	1.97	155	PN	Pn	10 08 20.0	-0.2
PXZ	Pawanui	2.00	103	PN	Pn	10 08 20.9	+0.4
TRWZ	Traveller	2.08	150	PN	Pn	10 08 21.1	-0.1
BSWZ	Blackbirch Sta	2.14	189	P	Pn	10 08 21.5	-0.4
BSWZ	Blackbirch Sta	2.14	189	PN	Pn	10 08 21.5	-0.4
CMWZ	Cape Campbell	2.15	182	P	Pn	10 08 22.1	+0.1
CMWZ	Cape Campbell	2.15	182	PN	Pn	10 08 22.1	+0.1
THZ	Tophouse	2.42	206	P	Pn	10 08 24.1	-0.6
THZ	Tophouse	2.42	206	⇑PN	Pn	10 08 24.1	-0.7
URZ	Urewera	2.55	59	P	Pn	10 08 24.6	-1.6
URZ	Urewera	2.55	59	PN	Pn	10 08 24.6	-1.7
KNZ	Kokohu	2.66	79	P	Pn	10 08 27.0	-0.4
KNZ	Kokohu	2.66	79	PN	Pn	10 08 27.0	-0.4
MWZ	Matawai	2.80	64	P	Pn	10 08 27.7	-1.3
MWZ	Matawai	2.80	64	PN	Pn	10 08 27.7	-1.2
DSZ	Denniston Nort	2.88	221	P	Pn	10 08 28.6	-1.2
DSZ	Denniston Nort	2.88	221	PN	Pn	10 08 28.6	-1.2
KHZ	Kahutara	2.88	192	eP	Pn	10 08 28.8	-1.0
KHZ	Kahutara	2.88	192	PN	Pn	10 08 28.8	-1.0
PUZ	Puketiti	3.43	65	P	Pn	10 08 34.9	-1.3
PUZ	Puketiti	3.43	65	PN	Pn	10 08 34.9	-1.4
LTZ	Lake Taylor	3.54	205	P	Pn	10 08 36.3	-1.1
LTZ	Lake Taylor	3.54	205	PN	Pn	10 08 36.3	-1.2
MXZ	Matakaoa Point	3.72	58	P	Pn	10 08 38.1	-1.6
MXZ	Matakaoa Point	3.72	58	PN	Pn	10 08 38.1	-1.6
CRLZ	Canterbury Las	4.17	197	P	Pn	10 08 43.6	-1.5
CRLZ	Canterbury Las	4.17	197	PN	Pn	10 08 43.6	-1.6
MQZ	McQueen's Vall	4.29	196	P	Pn	10 08 44.1	-2.5
MQZ	McQueen's Vall	4.29	196	PN	Pn	10 08 44.1	-2.4
WVZ	Waitaha Valley	4.40	217	eP	Pn	10 08 46.5	-1.4
WVZ	Waitaha Valley	4.40	217	ePN	Pn	10 08 45.5	-2.5
RPZ	Rata Peaks	4.79	210	eP	Pn	10 08 50.9	-1.8
RPZ	Rata Peaks	4.79	210	PN	Pn	10 08 50.3	-2.4
FOZ	Fox Glacier	5.27	220	eP	Pn	10 08 55.1	-3.7
FOZ	Fox Glacier	5.27	220	PN	Pn	10 08 54.9	-3.9
ODZ	Otahua Downs	6.09	205	eP	Pn	10 09 07.5	-1.6
ODZ	Otahua Downs	6.09	205	PN	Pn	10 09 07.5	-1.6
WKZ	Wanaka	6.54	215	ePN	Pn	10 09 11.9	-3.1
TUZ	Tuapeka	7.23	207	eP	Pn	10 09 23.0	-0.8
TUZ	Tuapeka	7.23	207	ePN	Pn	10 09 22.5	-1.3

CASC 04 10:12:26.9±1.6**, 1110N×8684W, h36**^{km}±999^{km}**, MD4.0, ML3.2, 4C-3D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COPN	Copaltepe	1.10	13	⇓eP	Pn	10 12 45.9	+0.1
TICN	Ticuantepe	1.10	33	eP	Pn	10 12 45.9	0.0
APON	Apoyo	1.11	43	⇑eP	Pn	10 12 45.4	-0.6
XAVN	Gruta Xavier	1.16	26	⇓eP	Pn	10 12 46.5	-0.1
TISN	Laguna Tiscapa	1.18	28	⇓eP	Pn	10 12 46.8	-0.1
MGAN	Managua	1.19	29	⇑eP	Pn	10 12 47.0	-0.1
MGAN				eS	Sn	10 13 03.2	+1.2
MGAN				i		10 13 10.1	
	comp=E,420nm,0.3s						
CONN	Concepcion	1.28	69	eP	Pn	10 12 47.7	-0.5
MOMJ	Momotombo	1.33	13	eP	Pn	10 12 49.0	0.0
HUEN		1.39	28	⇑eP	Pn	10 12 49.6	-0.3
TEL3	Telica 3	1.46	360	eP	Pn	10 12 50.8	0.0
JCR	Jicaral	2.11	126	eP	Pn	10 12 57.2	-2.5
CNCH	Conchagua	2.37	336	eP	x	10 13 04.2	
CNCH				eS	x	10 13 33.3	
PRS1	Puriscal	2.73	114	eP	Pn	10 13 09.3	+1.2
LAJ	Bijagual	2.94	114	eP	Pn	10 13 07.1	-4.1
CAHU	Cacacuatique	2.97	333	eP	x	10 13 12.5	
LCR2	La Lucha 2	3.10	116	eP	Pn	10 13 13.7	+0.3
URSC	Urasca	3.27	112	⇑iP	Pn	10 13 17.3	+1.7
LCBS	La Ceiba	3.29	321	eS	x	10 13 53.8	
BAR1		3.94	118	eP	Pn	10 13 23.9	-0.9

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*ISCJB **04** 10:13:50.8±0.2, 1726S±005×69.17W±004, h173^{km}, mb4.8/92, Error ellipse: s-maj=7.9km s-min=4.7km az=17.8*

*MOS **04** 10:13:51.3±1.1, 17.14S×69.48W, h171^{km}, mb4.8/19, Error ellipse: s-maj=17.8km s-min=7.7km az=115.7*

*BJI **04** 10:13:51.7, 1684S×6853W, h165^{km}, mB5.2*

*IDC **04** 10:13:51.5±0.5, 1732S×6930W, h169^{km}±3^{km}, mb4.4/22, mb1 4.5/22, mb1mx4.5/24, mbtmp4.4/22, MS4.2/5, Ms1 4.2/5, ms1mx3.5/25, Error ellipse: s-maj=10.7km s-min=9.0km az=91.0*

*NEIC **04** 10:13:52.0±0.2, 1723S×69.10W, mb4.8/60, Error ellipse: s-maj=8.6km s-min=5.8km az=48.0*

NEIC Felt [II] at Arequipa, Peru.

*GCMT **04** 10:13:52.0±0.3, 1754S×6940W, h183^{km}±2^{km}, MW5.1/67, Moment Tensor Solution. s34,c36; s67,c91; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.76±.17; $M_{\theta\theta}$-0.18±.17; $M_{\phi\phi}$2.94±.19; $M_{r\theta}$1.94±.14; $M_{\theta\phi}$1.13±.23; $M_{\phi r}$-4.37±.17; Best double couple: $M_0$5.65100×10^{16} NP1:ϕ_s221.00000°, δ24.00000°, λ-37.00000°. NP2: ϕ_s345.00000°, δ76.00000°, λ-109.00000°. Principal axes: T 5.3080, Plg28.0000°, Azm91.0000°; N 0.6880, Plg19.0000°, Azm350.0000°; P -5.9930, Plg55.0000°, Azm231.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 04 10:13:52.6±0.2**, 1727S**±005×**6911W**±004**, h175**^{km}**, h175**^{km}±1.2^{km}**:pP-P, n512,** σ**0^{s}64**/472**, mb4.8**/92**, 113C-116D, Peru-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	1.35	44	⇓iPn	Pn	10 14 23.7	+0.9
LPAZ				eSn	Sn	10 14 47.5	+1.5
LPAZ	La Paz	1.35	44	P	Pn	10 14 23.6	+0.8
	2μm,0.3s,baz=248,slow=6.1						
LPAZ				S	Sn	10 14 48.1	+2.1
	86nm,0.3s,baz=204,slow=22,SNR=12						
LPAZ				LR	LR	10 15 04.3	
	comp=Z,4μm,18.1s,baz=145,slow=48						
ARE	Arequipa	2.42	289	⇑iP	Pn	10 14 28.2	-5.9
ARE				i S	Sn	10 14 58.0	-8.1
SIV	San Ignacio	7.81	82	P	Pn	10 15 42.0	-1.4
	214nm,0.3s,baz=273,slow=12,SNR=258						
SIV				S	Sn	10 17 09.5	-1.5
	11nm,0.3s,baz=355,slow=20,SNR=6.0						
NNA	Nana	9.14	304	⇓iPn	Pn	10 15 55.1	-5.9
NNA				eSn	Sn	10 17 29.9	-13
NNA	Nana	9.14	304	P	Pn	10 15 54.4	-6.6
	13nm,0.3s,baz=131,slow=12,SNR=23						
NNA				S	Sn	10 17 30.9	-12
	18nm,0.3s,baz=216,slow=23,SNR=7.7						
ATAH	Atahualpa	13.65	317	P	Pn	10 16 53.6	-5.6
	0.3nm,0.3s,baz=95,slow=11,SNR=5.5						
CFAA	Coronel Fontan	14.29	177	P	Pn	10 16 60.0	-7.2
CFAA				S	Sn	10 19 27.2	-19
CFAA	Coronel Fontan	14.29	177	P	Pn	10 16 60.0	-7.2
	0.4nm,0.3s,baz=352,slow=12,SNR=47						
CFAA				S	Sn	10 19 27.2	-19
	0.1nm,0.3s,baz=217,slow=18,SNR=4.4						
OTAV	Otavalo	19.68	331	eP	P	10 18 08.7	+0.2
	8.1nm,0.6s						
PCRV	Puerto La Cruz	27.63	10	P	P	10 19 23.2	-0.8
	8.8nm,0.9s,mb4.5,baz=270,slow=4.0,SNR=3.8						
JTS	JuntasAbangare	31.55	329	P	P	10 19 56.5	-2.1
JTS	JuntasAbangare	31.55	329	⇓eP	P	10 19 58.4	-0.2
JTS	JuntasAbangare	31.55	329	P	P	10 19 56.5	-2.1
	6.8nm,0.7s,mb4.5,baz=204,slow=10.0,SNR=5.4						
RCBR	Riachuelo	34.40	75	eP	P	10 20 23.5	0.0
	21nm,0.9s,mb4.9						
SJG	San Juan	35.28	5	eP	P	10 20 30.1	-0.8
	30nm,0.9s,mb4.9						
SJG				epP	pP	10 21 07.8	0.0
SJG	San Juan	35.28	5	P	P	10 20 30.6	-0.2
SJG				*PP	pP	10 21 07.3	-0.5
SJG				pmax	pmax		
	comp=Z,21nm,0.8s						
SJG				pmax	pmax		
	comp=Z,40nm,1.0s						
SJG	San Juan	35.28	5	P	P	10 20 30.6	-0.3
	comp=Z,21nm,0.8s,mb4.8,baz=188,slow=6.1,SNR=3.9						
SJG				pP	pP	10 21 07.3	-0.5
	comp=Z,40nm,1.0s,baz=212,slow=2.1,SNR=4.7						
MTP	Monte Pirata	35.32	6	eP	P	10 20 29.0	-2.2
EFI	East Falkland	35.43	168	eP	P	10 20 32.4	+0.6
	comp=Z,33nm,0.8s,mb5.0						
EFI	East Falkland	35.43	168	eP	P	10 20 32.4	+0.6
EFI				pmax	pmax		
	comp=Z,33nm,0.8s,mb5.0						
CBYP	Canovanas	35.46	5	eP	P	10 20 30.9	-1.5
CBYP				epP	pP	10 21 09.4	0.0
TGUH	Tegucigalpa,Un	35.92	329	eP	P	10 20 35.7	-0.6
	comp=Z,39nm,1.3s,mb4.9						
USHA	Ushuaia	37.49	179	P	P	10 20 46.7	-2.5
	comp=Z,12nm,0.7s,mb4.7,baz=340,slow=9.5,SNR=10						
TEIG	Tepich	41.74	332	eP	P	10 21 24.2	-0.5
	comp=Z,39nm,0.6s,mb5.2						
TEIG	Tepich	41.74	332	P	P	10 21 24.3	-0.4
	comp=Z,40nm,0.7s,mb5.2,baz=301,slow=22,SNR=50						
CMIG	Matias Romero	42.55	322	P	P	10 21 30.6	-0.7
	comp=Z,13nm,0.8s,mb4.6,baz=123,slow=7.6,SNR=12						
PMSA	Palmer Station	47.59	177	P	P	10 22 09.2	-1.1
	comp=Z,13nm,0.7s,mb4.7,baz=334,slow=19,SNR=11						
TKL	Tuckaleechee C	54.44	345	P	P	10 22 59.8	-2.0
	comp=Z,8.1nm,0.7s,mb4.5,baz=156,slow=9.5,SNR=9.2						
NATX	Nacogdoches	54.57	333	eP	P	10 23 03.1	+0.3
	comp=Z,81nm,0.8s,mb5.5						
SWET	Sewanee	54.59	343	eP	P	10 23 00.7	-2.2
OXF	Oxford	55.00	340	eP	P	10 23 03.5	-2.3
	comp=Z,19nm,0.8s,mb4.9						
OXF	Oxford	55.00	340	eP	P	10 23 03.5	-2.3
OXF				pmax	pmax		
	comp=Z,19nm,0.8s,mb4.9						
ELN	Prospectdale	55.30	349	eP	P	10 23 06.9	-1.0
JCT	Junction City	55.92	328	eP	P	10 23 11.6	-0.9
WVT	Waverly	55.99	342	eP	P	10 23 10.0	-2.8
	comp=Z,4.9nm,0.6s,mb4.5						
WVT	Waverly	55.99	342	eP	P	10 23 10.0	-2.9
WVT				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.5						
UALR	University of	56.27	337	eP	P	10 23 13.4	-1.5
	comp=Z,22nm,0.6s,mb5.2						
HBAR	Harrisburg	56.37	339	eP	P	10 23 14.5	-1.1
GNAR	Gosnell	56.52	340	eP	P	10 23 14.6	-2.0
	comp=Z,396nm,0.6s						
MIAR	Mount Ida	56.54	336	eP	P	10 23 15.7	-1.1
	comp=Z,21nm,0.6s,mb5.1						
MIAR	Mount Ida	56.54	336	eP	P	10 23 15.7	-1.1
MIAR				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.1						
PARMO	Parma	57.08	340	eP	P	10 23 19.6	-0.9
LTX	Lajitas	57.09	324	eP	P	10 23 19.4	-1.4
	comp=Z,13nm,1.2s,mb4.6						
LTX	Lajitas	57.09	324	eP	P	10 23 19.4	-1.4

LTX				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.6						
TXAR	Lajitas Array	57.09	324	P	P	10 23 19.4	-1.4
	comp=Z,4.3nm,0.8s,mb4.3,baz=148,slow=7.5,SNR=41						
TXAR				pP	pP	10 23 59.1	-1.9
	comp=Z,1.0nm,0.6s,baz=137,slow=7.7,SNR=2.3						
WCI	Wyandotte Cave	57.52	344	*e*P	P	10 23 21.3	-2.3
	comp=Z,9.7nm,0.4s,mb5.0						
WCI				*e*pP	pP	10 24 04.9	+1.1
WCI	Wyandotte Cave	57.52	344	*e*P	P	10 23 21.3	-2.3
WCI				e*PP	pP	10 24 04.9	+1.1
WCI				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.0						
SIUC	Southern Illin	57.87	341	*e*P	P	10 23 24.5	-1.5
	comp=Z,22nm,0.6s,mb5.2						
SIUC				*e*pP	pP	10 24 06.6	+0.2
FVM	French Village	58.50	340	*e*P	P	10 23 28.6	-1.8
	comp=Z,47nm,0.6s,mb5.5						
FVM	French Village	58.50	340	*e*P	P	10 23 28.6	-1.8
FVM				pmax	pmax		
	comp=Z,47nm,0.6s,mb5.5						
WMOK	Wichita Mounta	58.91	332	*e*P	P	10 23 32.1	-1.2
	comp=Z,6.5nm,0.6s,mb4.6						
WMOK	Wichita Mounta	58.91	332	*e*P	P	10 23 32.1	-1.3
WMOK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.6						
MNTX	Cornudas Mount	59.84	324	*e*P	P	10 23 38.1	-1.7
	comp=Z,22nm,1.1s,mb4.9						
MNTX				*e*pP	pP	10 24 19.3	-1.0
AMTX	Amarillo	60.40	329	*e*P	P	10 23 42.6	-0.9
KSU1	Kansas State U	61.70	336	*e*P	P	10 23 51.2	-1.0
	comp=Z,109nm,0.9s,mb5.7						
SADO	Sadowa	62.41	352	P	P	10 23 55.5	-1.3
	baz=180,slow=13						
Y22C	IRIS PASSCAL I	62.48	325	⇓P	P	10 23 57.4	-0.1
	baz=62						
CBKS	Cedar Bluff	62.73	333	*e*P	P	10 23 58.8	-0.3
	comp=Z,40nm,0.8s,mb5.3						
CBKS	Cedar Bluff	62.73	333	*e*P	P	10 23 58.8	-0.3
CBKS				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.3						
ANMO	Albuquerque	62.89	326	*e*P	P	10 23 59.5	-0.7
	comp=Z,9.4nm,1.1s,mb4.5						
ANMO				*e*pP	pP	10 24 40.1	-1.0
ANMO	Albuquerque	62.89	326	P	P	10 23 59.9	-0.3
ANMO				*PP	pP	10 24 40.4	-0.7
ANMO				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ANMO				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ANMO	Albuquerque	62.89	326	P	P	10 23 59.9	-0.3
	comp=Z,3.9nm,0.6s,mb4.5,baz=139,slow=8.4,SNR=24						
ANMO				pP	pP	10 24 40.4	-0.7
	comp=Z,1.6nm,0.8s,baz=117,slow=8.2,SNR=1.9						
SCIA	State Center	62.95	340	*e*P	P	10 23 59.3	-1.2
	comp=Z,18nm,0.6s,mb5.1						
TUC	Tucson	63.42	321	*e*P	P	10 24 03.0	-0.8
	comp=Z,6.8nm,1.1s,mb4.4						
TUC	Tucson	63.42	321	*e*P	P	10 24 03.0	-0.8
TUC				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.4						
VNA3	Neumayer Olymp	64.13	162	*e*P	P	10 24 06.3	-1.5
VNA3				*e*		10 24 12.3	
VNA3				*e*		10 24 16.6	
VNA3				*e*		10 24 21.6	
VNA3				*e*		10 24 23.9	
116A	Eloy	64.16	321	⇓P	P	10 24 08.2	-0.3
	baz=64,SNR=7.1						
SDCO	Great Sand Dun	64.54	329	*e*P	P	10 24 10.8	-0.1
	comp=Z,22nm,0.8s,mb5.0						
SDCO				*e*pP	pP	10 24 52.0	0.0
115A	Sonoran Desert	64.57	320	⇓P	P	10 24 11.1	-0.1
	baz=65						
VNA2	Neumayer--Watz	64.69	161	*e*P	P	10 24 10.1	-1.3
	baz=303,slow=9.5						
VNA2				*e*		10 24 16.4	
VNA2				*e*		10 24 19.6	
VNA2				*e*		10 24 24.5	
VNA2				*e*		10 24 27.2	
VNA2				*e*		10 24 30.7	
Z14A	Wintersburg	65.46	320	⇓P	P	10 24 16.8	-0.2
	baz=66						
MVCO	Mesa Verde	65.68	326	*e*P	P	10 24 18.1	-0.1
	comp=Z,45nm,1.3s,mb5.1						
MVCO	Mesa Verde	65.68	326	⇑P	P	10 24 18.0	-0.2
	baz=66,SNR=9.7						
X15A	Humboldt	65.81	322	⇓P	P	10 24 19.2	0.0
	baz=66,SNR=6.0						
Y14A	Wickenburg	65.89	321	P	P	10 24 19.5	-0.2
	baz=66,SNR=6.7						
WUAZ	Wupatki	66.03	323	*e*P	P	10 24 20.9	+0.3
	comp=Z,24nm,1.0s,mb5.0						
WUAZ	Wupatki	66.03	323	⇑P	P	10 24 20.5	-0.1
	baz=66,SNR=8.3						
X14A	Yava	66.19	321	⇓P	P	10 24 21.5	-0.1
	baz=66,SNR=6.2						
ISCO	Idaho Springs	66.20	330	*e*P	P	10 24 20.8	-0.8
	comp=Z,20nm,1.0s,mb4.9						
ISCO	Idaho Springs	66.20	330	*e*P	P	10 24 20.8	-0.7
ISCO				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.9						
Y13A	Salome	66.31	320	P	P	10 24 22.2	-0.2
	baz=66,SNR=7.4						
W15A	Williams	66.31	322	⇓P	P	10 24 22.5	+0.1
	baz=66						
SMCO	Snowmass	66.38	329	*e*P	P	10 24 23.1	+0.4
	comp=Z,21nm,0.8s,mb5.0						
SMCO				*e*pP	pP	10 25 04.4	+0.3
PV01	Paradox Valley	66.40	327	*e*P	P	10 24 22.7	-0.2
PV01				*e*pP	pP	10 25 04.2	0.0
Y12C	Blythe	66.69	320	⇑P	P	10 24 24.5	-0.3
	baz=67						
W14A	Seligman	66.82	322	⇓P	P	10 24 25.8	+0.3
	baz=67						
PDMCI	Parker Dam,Lak	66.83	320	⇑P	P	10 24 25.6	0.0
	baz=67						
PV10	Paradox Valley	66.83	327	*e*P	P	10 24 24.6	-1.0
X13A	Yucca	66.84	321	⇓P	P	10 24 25.5	-0.2
	baz=67						
SWSC	Sam W. Stewart	66.95	318	⇑P	P	10 24 26.5	0.0
	baz=67						
DVTC	Desert V Tower	66.96	318	⇓P	P	10 24 26.6	0.0
	baz=67,SNR=5.2						
BC3	Big Chuckw Mtn	67.21	319	⇑P	P	10 24 27.8	-0.3
	baz=67,SNR=6.1						
W13A	Hualapai Mount	67.22	321	⇑P	P	10 24 28.3	+0.3
	baz=67						
PHWY	Pilot Hill	67.31	331	*e*P	P	10 24 28.4	-0.1
MONP	Monument Peak	67.32	318	⇓P	P	10 24 28.7	0.0
	baz=67						
IRM	Iron Mountain	67.35	320	⇑P	P	10 24 28.7	-0.2
	baz=67,SNR=8.0						
NEE2	Needles Airpor	67.43	321	⇓P	P	10 24 28.7	-0.7
	baz=68						
LIC	Lamto	67.45	76	⇑*i*P	P	10 24 29.7	-0.4
	comp=Z,198nm,0.9s,mb5.9						
TIC	Toumodi	67.61	75	⇑*i*P	P	10 24 30.8	-0.3
	comp=Z,51nm,0.7s,mb5.3						
109C	Camp Elliot, M	67.76	318	⇓P	P	10 24 31.1	-0.4
	baz=68						
KIC	Kosan Boka	67.77	75	⇑*i*P	P	10 24 32.0	0.0
	comp=Z,326nm,0.5s,mb6.3						
BELC	Belle Mtn.	67.77	319	⇓P	P	10 24 31.5	-0.1
	baz=68						
PFO	Pinyon Flat Ob	67.81	318	*e*P	P	10 24 32.1	+0.3
	comp=Z,14nm,1.0s,mb4.7						
PFO	Pinyon Flat Ob	67.81	318	*e*P	P	10 24 32.1	+0.3
PFO				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.7						
PFO	Pinyon Flat Ob	67.81	318	⇑P	P	10 24 31.7	-0.1
	baz=68						
EYMN	Ely	67.94	344	*e*P	P	10 24 30.9	-1.4
	comp=Z,7.1nm,0.5s,mb4.7						
W12A	Cal Nev Ari	67.94	321	⇑P	P	10 24 32.4	-0.3
	baz=68						
GMRC	Granite Mounta	68.08	320	⇓P	P	10 24 33.5	+0.1
	baz=68,SNR=11						
T14A	Hurricane	68.10	323	⇑P	P	10 24 33.8	+0.2
	baz=68						
SRU	San Rafael	68.15	326	*e*P	P	10 24 33.5	-0.3
	comp=Z,6.4nm,0.7s,mb4.5						
SRU	San Rafael	68.15	326	*e*P	P	10 24 33.5	-0.4
SRU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
V12A	Nelson	68.22	321	⇓P	P	10 24 34.3	0.0
	baz=68,SNR=6.1						
MURC	Murrieta	68.28	318	⇓P	P	10 24 34.6	-0.1
	baz=68						
U12A	Valley of Fire	68.51	322	⇓P	P	10 24 36.2	0.0
	baz=69						
BBRC	Big Bear Sol-O	68.52	319	⇓P	P	10 24 36.5	+0.2
	baz=69						
HEC	Hector,Ludlow	68.53	320	⇑P	P	10 24 36.4	+0.1
	baz=69,SNR=9.0						
T13A	Saint George	68.55	323	⇑P	P	10 24 36.6	+0.2
	baz=69						
MSU	Marysvale	68.61	325	*e*P	P	10 24 37.0	+0.3
S14A	Cedar City	68.64	324	⇓P	P	10 24 37.3	+0.4
	baz=69						
V11A	Goodsprings	68.64	321	⇑P	P	10 24 37.0	+0.1
	baz=69						
TUQ	Turquoise Mtn.	68.67	320	⇓P	P	10 24 37.2	0.0
	baz=69						
SCI	San Clemente I	68.75	317	⇑P	P	10 24 37.8	+0.1
	baz=69						
T12A	Moapa	68.81	322	⇓P	P	10 24 37.9	-0.1
	baz=69						
CIS	Catalina Islan	68.93	317	⇓P	P	10 24 38.8	0.0
	baz=69						
RRX	Edison Barstow	68.97	319	⇓P	P	10 24 39.0	0.0
	baz=69						
BFSC	Mount Baldy St	68.98	318	P	P	10 24 39.0	-0.1
	baz=69,SNR=7.0						
U11A	Corn Creek	69.01	321	⇓P	P	10 24 39.3	+0.1
	baz=69						
FMP	Fort Macarthur	69.05	318	⇑P	P	10 24 39.5	0.0
	baz=69						
GSC	Goldstone	69.13	320	⇑P	P	10 24 40.0	0.0
	baz=69,SNR=8.0						
SHOC	Shoshone	69.20	320	⇓P	P	10 24 40.4	0.0
	baz=69						
MPU	Maple Canyon	69.40	326	*e*P	P	10 24 41.4	-0.1
	comp=Z,16nm,1.0s,mb4.7						
DECC	Green Verdugo	69.41	318	⇓P	P	10 24 41.7	0.0
	baz=70						
DAU	Daniels Canyon	69.49	327	*e*P	P	10 24 42.2	+0.2
AGMN	Agassiz Refuge	69.51	341	*e*P	P	10 24 41.1	-0.9
	comp=Z,40nm,0.8s,mb5.2						
U10A	Ash Meadows, A	69.57	321	⇑P	P	10 24 43.0	+0.3
	baz=70						
NLU	North Lily Min	69.59	326	*e*P	P	10 24 42.9	+0.2
NLU				*e*pP	pP	10 25 24.6	+0.2
EDW2	Edwards Air Fo	69.60	319	⇑P	P	10 24 42.4	-0.5
	baz=70,SNR=8.7						
JLU	Jordanelle	69.73	327	*e*P	P	10 24 43.6	+0.1
JLU				*e*pP	pP	10 25 26.1	+0.8
R12A	Pony Springs,	69.85	323	⇑P	P	10 24 44.7	+0.4
	baz=70,SNR=8.2						
OSI	Osito Adit	69.89	318	⇓P	P	10 24 44.5	-0.2
	baz=70						
FURC	Furnace Creek,	69.93	321	⇑P	P	10 24 45.2	+0.3
	baz=70,SNR=6.3						
MPMC	Manual Prospec	70.04	320	P	P	10 24 45.4	-0.2
	baz=70,SNR=6.7						
BSC	Santa Cruz Isl	70.09	317	⇓P	P	10 24 45.7	-0.2
	baz=70						
DUG	Dugway	70.16	326	⇓P	P	10 24 46.4	+0.2
	baz=70						
DAC	Darwin (Calif)	70.25	320	*e*P	P	10 24 47.2	+0.4
	comp=Z,16nm,1.0s,mb4.7						
DAC	Darwin (Calif)	70.25	320	*e*P	P	10 24 47.2	+0.4
DAC				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.7						
ARVC	Arvin	70.28	318	⇑P	P	10 24 47.2	+0.1
	baz=70						
PDAR	Pinedale Array	70.38	330	P	P	10 24 46.4	-1.0
	comp=Z,3.5nm,0.5s,mb4.3,baz=125,slow=7.8,SNR=62						
PDAR				pP	pP	10 25 29.0	-0.3
	comp=Z,1.9nm,0.9s,baz=124,slow=7.9,SNR=2.6						
BW06	Boulder Array	70.38	330	*e*P	P	10 24 46.6	-0.8
	comp=Z,11nm,1.0s,mb4.5						
ISA	Isabella	70.40	319	⇑P	P	10 24 47.9	+0.2
	baz=70,SNR=12						
Q12A	Willow Creek R	70.46	324	⇓P	P	10 24 48.4	+0.4
	baz=70						
HWUT	Hardware Ranch	70.52	328	*e*P	P	10 24 48.0	-0.3
	comp=Z,14nm,0.9s,mb4.7						
GRAC	Grapevine Rang	70.58	321	⇓P	P	10 24 48.9	0.0
	baz=71						
CWC	Cottonwood Cre	70.65	320	⇑P	P	10 24 49.4	+0.2
	baz=71						
S10A	Tonopah Range,	70.73	322	⇓P	P	10 24 49.9	+0.2
	baz=71,SNR=7.5						
SPUT	South Promonto	70.76	327	*e*P	P	10 24 49.8	0.0
PKM	Peak Mountain	70.77	318	P	P	10 24 50.2	+0.2
	baz=71,SNR=11						
Q11A	Duckwater	70.80	323	⇑P	P	10 24 50.4	+0.3
	baz=71,SNR=8.2						
VES	Vestal, Richgr	70.89	319	⇑P	P	10 24 50.7	0.0
	baz=71,SNR=8.5						
S09A	Goldfield	70.97	321	P	P	10 24 51.3	+0.1
	baz=71,SNR=5.9						
TIN	Tinemaha	71.14	320	⇓P	P	10 24 52.4	+0.2
	baz=71						
SMMC	Simmler	71.14	318	⇓P	P	10 24 52.4	+0.1
	baz=71,SNR=7.3						
R09A	Tonopah	71.22	322	P	P	10 24 52.8	+0.2
	baz=71,SNR=8.1						
ULM	Lac du Bonnet	71.25	342	*e*P	P	10 24 51.1	-1.4
	comp=Z,60nm,0.5s,mb5.6						
ULM	Lac du Bonnet	71.25	342	P	P	10 24 51.5	-1.1
	comp=Z,54nm,0.5s,mb5.5,baz=151,slow=6.0,SNR=219						
O12A	Currie	71.26	325	⇑P	P	10 24 53.0	+0.2
	baz=71,SNR=8.2						
N13A	Wendover, West	71.38	325	⇑P	P	10 24 53.3	-0.2
	baz=71						
HELL	Mitchell Peak,	71.39	320	P	P	10 24 53.4	-0.3
	baz=71,SNR=16						
S08C	White Mtn Res	71.39	321	⇑P	P	10 24 53.8	+0.1
	baz=71						
V05C	Boulder Hill,	71.43	318	⇓P	P	10 24 54.1	+0.1
	baz=72						
REDW	Red Top Meadow	71.45	329	*e*P	P	10 24 53.7	-0.2
	comp=Z,8.5nm,0.8s,mb4.5						
LOHW	Long Hollow	71.52	330	*e*P	P	10 24 54.0	-0.3
	comp=Z,5.4nm,0.7s,mb4.4						
MTUM	Tungsten Hills	71.54	320	*e*P	P	10 24 55.3	+0.7
TPAW	Teton Pass	71.60	329	*e*P	P	10 24 55.1	+0.4
	comp=Z,12nm,0.9s,mb4.6						
RRI2	Red Ridge	71.67	329	*e*P	P	10 24 55.2	0.0
	comp=Z,40nm,1.4s,mb5.0						
O11A	Cowboy Ranch,	71.68	324	⇑P	P	10 24 55.7	+0.4
	baz=72						
Q09A	Carvers	71.68	322	⇑P	P	10 24 55.8	+0.4
	baz=72						
MOOW	Moose Ponds	71.69	330	*e*P	P	10 24 55.0	-0.3
	comp=Z,11nm,1.1s,mb4.5						
MOOW				*e*pP	pP	10 25 36.3	-1.0
DCID1	Drake Creek	71.79	329	*e*P	P	10 24 56.2	+0.3
N12A	Clover Valley,	71.83	325	⇓P	P	10 24 56.8	+0.6
	baz=72						
SCHQ	Schefferville	71.84	1	P	P	10 24 55.2	-0.8
SCHQ	Schefferville	71.84	1	P	P	10 24 55.2	-0.8
	comp=Z,4.6nm,0.6s,mb4.4,baz=242,slow=5.1,SNR=9.0						
MLAC	Mammoth Lakes	71.88	320	⇑P	P	10 24 57.1	+0.5
	baz=72						
PKD	Parkfield	71.89	318	⇓P	P	10 24 56.6	-0.1
	baz=72						
IMW	Indian Meadow	71.89	330	*e*P	P	10 24 56.6	+0.1
	comp=Z,14nm,0.6s,mb4.8						
IMW				*e*pP	pP	10 25 38.3	-0.2
R08A	Mina	71.91	321	⇓P	P	10 24 57.0	+0.3
	baz=72						
V04C	Ramage Ranch,	71.91	318	⇓P	P	10 24 56.9	+0.2
	baz=72						
LAO	LASA Array	71.91	334	*e*P	P	10 24 56.8	+0.2
	comp=Z,11nm,0.6s,mb4.8						
LAO				*e*pP	pP	10 25 38.8	+0.2
KCC	Kaiser Creek	71.98	320	⇑P	P	10 24 57.5	+0.3
	baz=72						
RLMT	Red Lodge	72.02	331	*e*P	P	10 24 57.1	-0.2
	comp=Z,9.7nm,0.6s,mb4.7						
RLMT				*e*pP	pP	10 25 38.2	-1.1
NVAR	Mina Array Bea	72.08	321	P	P	10 24 58.1	+0.4
	comp=Z,4.6nm,0.7s,mb4.3,baz=120,slow=5.3,SNR=9.2						
L13A	Double Diamond	72.10	327	⇑P	P	10 24 58.2	+0.3
	baz=72						
P09A	Austin	72.13	323	⇑P	P	10 24 58.2	+0.1
	baz=72						
LKWY	Lake	72.13	330	*e*P	P	10 24 59.4	+1.5
	comp=Z,19nm,1.0s,mb4.8						
LKWY	Lake	72.13	330	*e*P	P	10 24 59.4	+1.5
LKWY				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.8						
Q08A	Gabbs	72.14	322	P	P	10 24 58.0	-0.1
	baz=72,SNR=5.5						
M12A	Wells	72.15	325	⇑P	P	10 24 58.1	0.0
	baz=72						
N11A	Elko Archery C	72.19	325	⇓P	P	10 24 58.1	-0.3
	baz=72						
YFT	Old Faithful	72.25	330	*e*P	P	10 25 01.1	+2.5
O10A	Cortez Mining,	72.26	324	⇓P	P	10 24 58.9	+0.1
	baz=72						
R07C	Lee Vining	72.30	321	⇓P	P	10 24 59.7	+0.6
	baz=72,SNR=10						
V03C	Hunter Liggett	72.38	318	⇓P	P	10 25 00.0	+0.4
	baz=72						
YNR	Norris Junctio	72.38	330	*e*P	P	10 25 01.2	+1.8
YMR	Madison River	72.48	330	*e*P	P	10 25 00.6	+0.7
	comp=Z,54nm,1.3s,mb5.1						
LRV	Little Rabbit	72.48	318	*e*P	P	10 25 00.8	+0.5
DGMT	Dagmar	72.54	336	*e*P	P	10 25 00.6	+0.4
	comp=Z,42nm,1.1s,mb5.1						
T05C	Eagle Field, D	72.56	319	⇓P	P	10 25 00.9	+0.3
	baz=73						
O09A	Fish Creek Ran	72.57	323	⇑P	P	10 25 00.8	+0.2
	baz=73						
K13A	Stover Farm, H	72.57	327	⇑P	P	10 25 00.7	+0.1
	baz=73						
S05C	Merced	72.62	319	⇑P	P	10 25 01.1	+0.1
	baz=73,SNR=9.2						
M11A	Holland Ranch,	72.64	325	⇑P	P	10 25 01.0	0.0
	baz=73,SNR=7.7						
S06C	San Francisco	72.66	320	P	P	10 25 01.4	+0.2
	baz=73,SNR=14						
Q07A	Schurz	72.70	321	⇓P	P	10 25 01.7	+0.3
	baz=73						
L12A	House Creek Ra	72.71	326	⇓P	P	10 25 01.6	+0.2
	baz=73,SNR=6.4						
P08A	Dixie Valley	72.77	322	⇑P	P	10 25 02.1	+0.3
	baz=73						
HAST	UC Hastings Re	72.80	318	P	P	10 25 02.3	+0.2
	baz=73,SNR=6.4						
QLMT	Earthquake Lak	72.82	330	*e*P	P	10 25 02.8	+0.8
R06C	Coleville	72.82	321	⇑P	P	10 25 02.7	+0.5
	baz=73,SNR=7.2						
K12A	Draper Farm, C	72.99	326	⇓P	P	10 25 03.4	+0.3
	baz=73,SNR=7.5						
PACP	Pacheco Peak	73.01	319	⇓P	P	10 25 03.9	+0.6
	baz=73						
CMB	Columbia Colle	73.09	320	*e*P	P	10 25 03.0	-0.7
	comp=Z,3.4nm,0.7s,mb4.2						
CMB	Columbia Colle	73.09	320	*e*P	P	10 25 03.0	-0.7
CMB				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
CMB	Columbia Colle	73.09	320	⇓P	P	10 25 03.8	+0.1
	baz=73						
M10A	I.L. Ranch, Tu	73.11	325	⇓P	P	10 25 03.9	+0.1
	baz=73						
L11A	Cat Creek Ranc	73.12	326	⇓P	P	10 25 04.1	+0.3
	baz=73,SNR=5.6						
P07A	Fallon	73.14	322	⇑P	P	10 25 04.3	+0.3
	baz=73						
J13A	Cove Ranch, Pi	73.15	327	⇓P	P	10 25 04.4	+0.5
	baz=73						
N09A	Rock Creek Ran	73.21	324	⇑P	P	10 25 04.8	+0.4
	baz=73						
R05C	Kirkwood Meado	73.32	321	P	P	10 25 05.7	+0.6
	baz=73,SNR=6.5						
S04C	Ingram Canyon,	73.34	319	⇑P	P	10 25 05.6	+0.4
	baz=73						
HLID	Hailey	73.39	327	⇓P	P	10 25 05.7	+0.4
	baz=73						
L10A	Juniper Basin	73.45	325	P	P	10 25 06.2	+0.4
	baz=74,SNR=8.1						
I13A	Wildhorse Cree	73.48	328	⇓P	P	10 25 06.4	+0.5
	baz=74						
WCN	Washoe City	73.50	321	⇑P	P	10 25 06.6	+0.5
	baz=74						
MCMT	McKenzie Canyo	73.50	329	*e*P	P	10 25 06.5	+0.5
N08A	GE Springer Mi	73.51	323	⇑P	P	10 25 06.6	+0.4
	baz=74						
BOZ	Bozeman (W)	73.52	330	⇓P	P	10 25 06.6	+0.5
	baz=74						
J12A	Stokes Ranch,	73.52	327	⇑P	P	10 25 06.6	+0.5
	baz=74						
O07A	Toulon	73.54	322	⇑P	P	10 25 06.3	0.0
	baz=74						
PAHR	Pah Rah Range	73.54	322	*e*P	P	10 25 07.2	+0.9
M09A	Marrel Ranch,	73.55	324	⇑P	P	10 25 06.3	-0.1
	baz=74						
G15A	Dillon	73.58	330	⇓P	P	10 25 06.7	+0.3
	baz=74,SNR=7.5						
BNLO	Ben Lomond (Sa	73.65	318	⇓P	P	10 25 07.1	+0.1
	baz=74						
WENL	Wente Brothers	73.68	319	⇓P	P	10 25 07.9	+0.7
	baz=74						
LAVA	Lava Cap Winer	73.75	320	⇑P	P	10 25 07.7	+0.1
	baz=74						
P06A	Stead Airport,	73.83	321	⇑P	P	10 25 08.5	+0.5
	baz=74						
BDM	Black Diamond	73.95	319	⇑P	P	10 25 09.3	+0.6
	baz=74						
N07B	Gerlach	73.99	323	⇑P	P	10 25 08.8	-0.1
	baz=74						
H13A	Challis	74.02	328	P	P	10 25 09.4	+0.4
	baz=74,SNR=12						
MFID	Camas Ranch	74.02	327	⇓P	P	10 25 09.3	+0.3
	baz=74,SNR=8.8						
F15A	Butte	74.07	330	⇑P	P	10 25 09.2	-0.1
	baz=74,SNR=8.9						
L09A	Wilkinson Ranc	74.07	324	⇑P	P	10 25 09.6	+0.2
	baz=74						
M08A	Happy Creek Ra	74.09	324	⇓P	P	10 25 09.4	-0.1
	baz=74						
O06A	Flanigan	74.10	322	⇓P	P	10 25 09.9	+0.3
	baz=74						
G14A	Jackson	74.11	329	⇑P	P	10 25 09.7	+0.2
	baz=74						
K10A	MacKenzie Ranc	74.14	325	⇑P	P	10 25 10.1	+0.4
	baz=74,SNR=6.8						
Q04C	Lincoln	74.19	320	⇑P	P	10 25 10.5	+0.3
	baz=74,SNR=8.7						
BEKR	Beckwourth	74.22	321	P	P	10 25 10.6	+0.3
	baz=74,SNR=10						
H12A	Diamond D Ranc	74.31	328	⇓P	P	10 25 11.0	+0.3
	baz=74						
G13A	Cobalt	74.38	329	P	P	10 25 11.5	+0.4
	baz=74,SNR=20						
I11A	Placerville	74.43	327	⇓P	P	10 25 11.3	-0.1
	baz=74						
EGMT	Eagleton	74.45	333	*e*P	P	10 25 10.9	-0.5
	comp=Z,37nm,1.1s,mb5.0						
EGMT				*e*pP	pP	10 25 51.6	-2.1
EGMT	Eagleton	74.45	333	P	P	10 25 11.1	-0.4
	baz=74,SNR=12						
Q03C	Winters	74.46	320	⇑P	P	10 25 12.4	+0.7
	baz=74						
F14A	Wisdom	74.47	330	⇓P	P	10 25 11.7	+0.1
	baz=74,SNR=6.8						
N06A	Buffalo Meadow	74.47	322	P	P	10 25 11.9	+0.2
	baz=74,SNR=15						
M07A	Soldier Meadow	74.50	323	⇑P	P	10 25 11.9	0.0
	baz=75						
FARB	Farallon Islan	74.52	318	⇑P	P	10 25 12.1	+0.1
	baz=75						
J10A	Berg Farm, Mel	74.53	326	⇓P	P	10 25 11.5	-0.4
	baz=75						
K09A	Rome	74.56	325	⇓P	P	10 25 12.0	-0.2
	baz=75,SNR=7.2						
L08A	Fields	74.56	324	⇓P	P	10 25 11.8	-0.4
	baz=75						
CVS	Carmenet Viney	74.56	319	⇑P	P	10 25 12.0	-0.3
	baz=75,SNR=6.2						
E15A	Deer Lodge	74.57	330	⇓P	P	10 25 12.1	0.0
	baz=75,SNR=13						
OHCM	Honcut	74.57	320	*e*P	P	10 25 12.1	-0.2
O05C	Quincy	74.61	321	P	P	10 25 12.9	+0.4
	baz=75,SNR=12						
ORV	Oroville	74.71	321	P	P	10 25 13.4	+0.3
	baz=75,SNR=24						
NSHM	Saint Helena R	74.76	319	*e*P	P	10 25 13.0	-0.4
MNRC	McLaughlin Nat	74.88	320	⇓P	P	10 25 14.0	-0.1
	baz=75						
ELFS	Eagle Lake Fie	74.92	322	P	P	10 25 14.7	+0.5
	baz=75,SNR=14						
F13A	Darby	74.92	329	P	P	10 25 14.4	+0.3
	baz=75,SNR=20						
O04C	Chester	74.94	321	⇑P	P	10 25 14.4	0.0
	baz=75,SNR=8.3						
D15A	Lincoln	74.96	331	⇑P	P	10 25 14.6	+0.2
	baz=75,SNR=8.5						
E14A	Clinton	74.97	330	P	P	10 25 15.0	+0.6

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           baz=75,SNR=13
K08A  Mann Creek Ran   75.00 325 ⇑P     P        10 25 14.8 +0.1
           baz=75
J09A  Fry Pan Ranch,   75.00 325 ⇓P     P        10 25 15.0 +0.3
           baz=75
H11A  Donnelly         75.01 327 ⇑P     P        10 25 14.5  -0.2
           baz=75
L07A  Adell            75.01 324 ⇓P     P        10 25 15.2 +0.5
           baz=75
M06C  Likely Place G   75.14 322  P     P        10 25 15.8 +0.3
           baz=75,SNR=9.5
CHMT  Chamberlain Mo   75.21 330 eP     P        10 25 16.7 +0.9
O03C  Acorn Hollow,    75.31 321 ⇑P     P        10 25 16.5  -0.1
           baz=75
H10A  Noah’s Angus R   75.31 327 ⇓P     P        10 25 16.3  -0.1
           baz=75
E13A  Victor           75.32 330  P     P        10 25 16.8 +0.4
           baz=75,SNR=19
HOPS  Hopland          75.34 319 ⇑P     P        10 25 16.6  -0.2
           baz=75
K07A  Rock Creek Ran   75.39 324 ⇓P     P        10 25 17.2 +0.3
           baz=75
J08A  Circle Bar Ran   75.40 325 ⇑P     P        10 25 17.0   0.0
           baz=76
I09A  Lost Marbles R   75.42 326 ⇑P     P        10 25 17.2 +0.1
           baz=76
LBCM  Butte Creek Ri   75.42 322  P     P        10 25 17.0  -0.2
D14A  Greenough        75.45 330 ⇓P     P        10 25 17.4 +0.2
           baz=76
HATC  Hat Creek Radi   75.47 322 ⇑P     P        10 25 17.2  -0.2
           baz=76,SNR=6.6
MSO   Missoula         75.48 330 eP     P        10 25 17.5 +0.2
           comp=Z,12nm,1.3s,mb4.4
MSO                              epP    pP       10 25 59.5  -0.2
MOD   Modoc            75.48 323 eP     P        10 25 17.8 +0.4
MOD                              epP    pP       10 25 59.6  -0.2
MOD   Modoc            75.48 323 ⇑P     P        10 25 17.4   0.0
           baz=76,SNR=10
GASB  Alder Springs    75.52 320 ⇑P     P        10 25 18.2 +0.5
           baz=76,SNR=9.8
G11A  Walters Elk Ra   75.62 328 ⇑P     P        10 25 18.1  -0.1
           baz=76,SNR=16
M05C  Lookout          75.63 322  P     P        10 25 18.4   0.0
           baz=76,SNR=15
BMO   Blue Mountains   75.78 327 eP     P        10 25 19.3 +0.2
           comp=Z,43nm,1.3s,mb4.9
BMO                              epP    pP       10 26 01.1  -0.4
P01C  Double 8 Ranch   75.79 320  P     P        10 25 19.7 +0.4
           baz=76,SNR=7.3
I08A  Drewsey          75.82 325 ⇓P     P        10 25 19.7 +0.4
           baz=76,SNR=7.5
H09A  Durkee           75.84 327 ⇑P     P        10 25 19.4   0.0
           baz=76
J07A  Hines            75.87 325 ⇓P     P        10 25 20.0 +0.3
           baz=76,SNR=6.5
O02C  Red Bluff        75.88 320  P     P        10 25 19.4  -0.4
           baz=76,SNR=5.9
L05A  Lakeview         75.88 323 ⇑P     P        10 25 20.2 +0.5
           baz=76,SNR=7.1
F11A  Grangeville      75.90 328  P     P        10 25 19.4  -0.4
           baz=76,SNR=16
D13A  Huson            75.92 330 ⇑P     P        10 25 19.9 +0.1
           baz=76,SNR=8.8
WDC   Whiskeytown Da   75.97 321 eP     P        10 25 18.2  -2.0
WDC   Whiskeytown Da   75.97 321  P     P        10 25 18.6  -1.7
           baz=76,SNR=10
K06A  Valley Falls     76.03 324 ⇓P     P        10 25 21.1 +0.5
           baz=76,SNR=13
C14A  Swan Lake        76.06 331 ⇑P     P        10 25 20.9 +0.3
           baz=76
M03C  McCloud          76.15 322  P     P        10 25 20.7  -0.6
           baz=76,SNR=6.3
TOA0  Torodi Ar. Sit   76.15  71 eP     P        10 25 21.5  -0.3
TOA0                             epP    pP       10 26 02.2  -2.1
TORD  Torodi Ar. Bea   76.15  71  P     P        10 25 21.6  -0.2
           comp=Z,48nm,0.5s,mb5.4,baz=255,slow=5.6,SNR=716
TORD                              pP    pP       10 26 02.9  -1.4
           comp=Z,23nm,1.1s,baz=258,slow=5.4,SNR=2.2
TORD                              LR    LR       10 58 49.6
           comp=Z,256nm,18.8s,baz=300,slow=35
E11A  Bogner Ranch,    76.25 329  P     P        10 25 21.2  -0.5
           baz=76,SNR=5.8
J06A  Christmas Vall   76.26 324 ⇑P     P        10 25 22.0 +0.1
           baz=76,SNR=12
H08A  Prairie City     76.28 326 ⇓P     P        10 25 22.4 +0.4
           baz=76,SNR=8.5
M04C  Macdoel          76.30 322  P     P        10 25 22.1   0.0
           baz=76,SNR=14
K05A  Summer Lake      76.34 323 ⇓P     P        10 25 22.9 +0.6
           baz=76,SNR=8.9
C13A  Hot Springs      76.39 330  P     P        10 25 22.7 +0.2
           baz=76,SNR=9.6
I07A  Izee             76.44 325  P     P        10 25 23.4 +0.5
           baz=76,SNR=11
O01C  Eel River Cons   76.48 320 ⇑P     P        10 25 23.7 +0.5
           baz=76
F10A  Beach Ranch, E   76.50 328 ⇑P     P        10 25 23.4 +0.3
           baz=77,SNR=11
L04A  Klamath Falls    76.57 323 ⇑P     P        10 25 23.3  -0.3
           baz=77,SNR=7.8
BSMT  Bassoo Peak      76.61 330 eP     P        10 25 24.3 +0.6
M02C  Callahan         76.66 321 ⇑P     P        10 25 23.4  -0.7
           baz=77,SNR=5.6
F09A  S2 Ranch, Elgi   76.67 327  P     P        10 25 24.2 +0.1
           baz=77,SNR=18
I06A  Prineville       76.74 325 ⇑P     P        10 25 25.1 +0.6
           baz=77,SNR=17
K04A  Chilquin         76.75 323 ⇑P     P        10 25 24.4  -0.2
           baz=77
YBH   Yreka Blue Hor   76.78 322 eP     P        10 25 23.4  -1.4
YBH   Yreka Blue Hor   76.78 322  P     P        10 25 23.5  -1.3
           baz=77,SNR=8.2
E10A  Myers Farm, Un   76.79 328  P     P        10 25 24.8   0.0
           baz=77,SNR=14
B13A  Whitefish        76.83 331  P     P        10 25 25.1 +0.1
           baz=77,SNR=7.6
KHMM  Horse Mountain   76.87 321 eP     P        10 25 26.0 +0.7
J05A  Fort Rock        76.89 324 ⇓P     P        10 25 25.4   0.0
           baz=77,SNR=8.3
G08A  Pilot Rock       76.94 326  P     P        10 25 26.1 +0.5
           baz=77,SNR=8.2
FFC   Flin Flon        76.99 341 eP     P        10 25 24.6  -1.1
JCC   Jacoby Creek     77.02 320 ⇓P     P        10 25 26.2   0.0
           baz=77
WALA  Waterton Lakes   77.07 332 eP     P        10 25 25.9  -0.4
           comp=Z,9.6nm,0.9s,mb4.4
F08A  Pendleton        77.18 327  P     P        10 25 26.6  -0.3
           baz=77,SNR=5.6
A13A  Flathead Natio   77.21 331  P     P        10 25 27.3 +0.2
           baz=77,SNR=16
D10A  Wagner Farm, O   77.27 329  P     P        10 25 26.9  -0.5
           baz=77,SNR=11
G07A  Ruggs Ranch, H   77.31 326 ⇑P     P        10 25 28.3 +0.7
           baz=77,SNR=9.1
H06A  Lindquist Farm   77.32 325 ⇓P     P        10 25 28.5 +0.7
           baz=77,SNR=18
E09A  Wood Farm, Sta   77.34 328  P     P        10 25 27.9   0.0
           baz=77,SNR=12
J04A  Umpqua Nationa   77.36 323 ⇓P     P        10 25 28.0   0.0
           baz=77,SNR=6.4
B12A  Libby            77.43 330  P     P        10 25 28.3 +0.1
           baz=78,SNR=9.7
HUMO  Hull Mountain    77.46 322 ⇓P     P        10 25 28.3  -0.3
           baz=78
I05A  Bend             77.47 324 ⇓P     P        10 25 29.4 +0.8
           baz=78
L02A  Cave Junction    77.56 322 ⇑P     P        10 25 29.5 +0.3
           baz=78
H05A  Madras           77.75 325 ⇓P     P        10 25 30.4 +0.2
           baz=78
B11A  Sandpoint        77.78 330  P     P        10 25 30.2   0.0
           baz=78,SNR=5.8
A12A  Yaak River Ran   77.79 331  P     P        10 25 30.5 +0.3
           baz=78,SNR=14
D09A  Jones Farm, Ri   77.79 328 ⇑P     P        10 25 30.4 +0.1
           baz=78,SNR=8.0
E08A  Dider Farm, El   77.79 327 ⇑P     P        10 25 30.6 +0.3
           baz=78
C10A  Spilker Farm,    77.81 329 ⇓P     P        10 25 30.4   0.0
           baz=78,SNR=5.8
G06A  Carlson Farm,    77.81 326 ⇑P     P        10 25 31.0 +0.5
           baz=78,SNR=5.4
CROR  Criterion Ridg   77.83 325  P     P        10 25 31.3 +0.7
F07A  Phinny Hill Vi   77.85 326 ⇓P     P        10 25 31.2 +0.5
           baz=78,SNR=6.0
K02A  Glendale         77.87 322  P     P        10 25 31.2 +0.3
           baz=78,SNR=8.2
I04A  Tendick Farm,    77.88 324 ⇑P     P        10 25 30.7  -0.2
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           baz=78,SNR=6.8
J03A  Ideyld Park      77.93 323 ⇑P     P        10 25 30.6  -0.6
           baz=78
HAWA  Hanford          77.97 327 eP     P        10 25 31.8 +0.5
           comp=Z,7.8nm,0.6s,mb4.5
NEW   Newport          78.02 329 eP     P        10 25 30.9  -0.6
           comp=Z,18nm,1.6s,mb4.5
NEW   Newport          78.02 329 eP     P        10 25 30.9  -0.6
NEW                               pmax  pmax
           comp=Z,18nm,1.6s
B10A  Chitwood Farm,   78.09 329 ⇓P     P        10 25 32.4 +0.5
           baz=78
D08A  Wollman Farm,    78.10 328 ⇑P     P        10 25 32.4 +0.4
           baz=78,SNR=7.4
A11A  Hall Mountain,   78.14 330  P     P        10 25 32.5 +0.3
           baz=78,SNR=10.0
G05A  Wamic            78.18 325  P     P        10 25 33.0 +0.5
           baz=78,SNR=11
BROR  Big Rock Looko   78.19 324  P     P        10 25 32.3  -0.3
F06A  Goldendale       78.22 326 ⇓P     P        10 25 33.2 +0.4
           baz=78,SNR=6.2
E07A  Sunnyside        78.25 327 ⇑P     P        10 25 33.2 +0.3
           baz=78,SNR=7.3
J02A  Umpqua           78.28 323 ⇑P     P        10 25 33.3 +0.2
           baz=78
H04A  Detroit Lake     78.31 324  P     P        10 25 32.8  -0.4
           baz=78,SNR=7.7
VFP   Flag Point       78.31 325  P     P        10 25 33.9 +0.7
PFVI  Vila Bisbo       78.39  45 eP     P        10 25 34.9 +1.0
           comp=Z,24nm,1.2s,mb4.7
HOOD  Mount Hood Mea   78.41 325 eP     P        10 25 34.7 +0.9
KEBM  Edson Butte      78.43 322 eP     P        10 25 35.8 +1.9
K01A  Sixes            78.47 322 ⇓P     P        10 25 34.3 +0.2
           baz=78
I03A  Eugene           78.48 323 ⇑P     P        10 25 34.2   0.0
           baz=78
FCC   Fort Churchill   78.49 347 eP     P        10 25 33.8  -0.1
           comp=Z,20nm,0.9s,mb4.7
FCC   Fort Churchill   78.49 347 eP     P        10 25 33.8  -0.1
FCC                               pmax  pmax
           comp=Z,20nm,0.9s,mb4.8
MORF  Marmelete        78.61  45 eP     P        10 25 36.3 +1.3
           comp=Z,30nm,0.9s,mb4.9
B09A  Rice             78.63 329  P     P        10 25 34.6  -0.3
           baz=79,SNR=9.1
C08A  Higginbotham F   78.64 328 ⇓P     P        10 25 34.8  -0.2
           baz=79
F05A  White Salmon     78.66 326 ⇓P     P        10 25 35.5 +0.4
           baz=79
PTEO  Sao Teotonio     78.68  45 eP     P        10 25 37.2 +1.8
           comp=Z,46nm,1.4s,mb4.9
A10A  Northport        78.72 330 ⇑P     P        10 25 34.7  -0.7
           baz=79
D07A  Quincy           78.73 327 ⇑P     P        10 25 35.6 +0.1
           baz=79,SNR=8.1
G04A  Mulino           78.79 325 ⇓P     P        10 25 36.7 +0.8
           baz=79
I02A  Mapleton         78.81 323 ⇑P     P        10 25 36.1 +0.1
           baz=79
E06A  Yakima           78.83 326  P     P        10 25 36.4 +0.4
           baz=79,SNR=7.1
H03A  Soap Creek Ran   78.92 324 ⇑P     P        10 25 36.9 +0.3
           baz=79
PBDV  Barranco-do-Ve   79.06  45 eP     P        10 25 38.9 +1.4
           comp=Z,20nm,1.2s,mb4.6
C07A  Waterville       79.10 328  P     P        10 25 37.5 +0.1
           baz=79,SNR=34
B08A  Colville Reser   79.17 329 ⇓P     P        10 25 37.4  -0.5
           baz=79,SNR=8.3
D06A  Cle Elum         79.18 327 ⇓P     P        10 25 37.4  -0.5
           baz=79,SNR=11
MDT   Midelt           79.21  51  LR    LR       11 01 10.1
           comp=Z,86nm,18.0s,baz=61,slow=36
A09A  Danville         79.22 329  P     P        10 25 37.7  -0.3
           baz=79,SNR=7.6
F04A  Amboy            79.22 325 ⇓P     P        10 25 37.7  -0.4
           baz=79,SNR=7.8
E05A  Randle           79.26 326 ⇑P     P        10 25 38.0  -0.3
           baz=79
PVAQ  Vaqueiros        79.29  45 eP     P        10 25 39.8 +1.1
           comp=Z,19nm,1.8s,mb4.4
G03A  Yamhill          79.31 324 ⇓P     P        10 25 38.8 +0.2
           baz=79
PBEJ  Beja             79.51  45 eP     P        10 25 41.0 +1.1
           comp=Z,12nm,1.0s,mb4.5
A08A  Turner Farm, O   79.54 329 ⇑P     P        10 25 39.6  -0.2
           baz=80,SNR=21
B07A  Winthrop         79.63 328 ⇑P     P        10 25 39.8  -0.5
           baz=80,SNR=12
C06A  Tall Timber Ra   79.68 328 ⇓P     P        10 25 40.8 +0.2
           baz=80
D05A  Enumclaw         79.78 326  P     P        10 25 41.0  -0.1
           baz=80,SNR=9.3
E04A  Onalaska         79.79 326 ⇓P     P        10 25 41.6 +0.4
           baz=80
F03A  Seaside          79.84 325 ⇓P     P        10 25 41.8 +0.3
           baz=80
EDM   Edmonton         79.87 335 eP     P        10 25 40.5  -1.0
EDM                              epP    pP       10 26 22.8  -1.5
C05A  Tolt Reservoir   79.94 327 ⇓P     P        10 25 41.7  -0.3
           baz=80
BMW   Boistfort Moun   79.99 325  P     P        10 25 42.9 +0.5
PESTR Estremoz         80.14  44 eP     P        10 25 44.2 +0.9
           comp=Z,24nm,1.1s,mb4.7
A07A  Ashnola River,   80.15 329  P     P        10 25 43.5 +0.4
           baz=80,SNR=14
D04A  Dobbs Creek Ra   80.16 326 ⇓P     P        10 25 43.6 +0.4
           baz=80
E03A  Lebam            80.22 325 ⇓P     P        10 25 43.5   0.0
           baz=80
RPW   Rockport         80.33 328  P     P        10 25 43.3  -0.8
B06A  Marblemount      80.36 328  P     P        10 25 43.6  -0.6
           baz=80,SNR=10
JCW   Jim Creek        80.38 327  P     P        10 25 43.5  -0.8
SYO   Syowa Base       80.51 160⇑eP     P        10 25 43.5  -1.3
SYO   Syowa Base       80.51 160⇓ePcP   PcP      10 25 49.9  -1.3
SYO   Syowa Base       80.51 160⇓epP    pP       10 26 27.0  -0.7
B05A  Bryant           80.51 327  P     P        10 25 44.4  -0.7
           baz=81,SNR=15
C04A  Brinnon          80.63 326 ⇓P     P        10 25 46.1 +0.4
           baz=81,SNR=7.0
D03A  Wishkah Elem.    80.68 326 ⇓P     P        10 25 46.1 +0.1
           baz=81
PCBR  Castelo Branco   80.72  43 eP     P        10 25 47.1 +0.7
           comp=Z,15nm,1.1s,mb4.5
A06A  Chilliwack       80.73 328 ⇓P     P        10 25 45.6  -0.6
           baz=81,SNR=6.5
NLWA  Neilton Lookou   80.90 326  P     P        10 25 47.2 +0.1
           baz=81
PVIS  Viseu            80.91  42 eP     P        10 25 47.7 +0.4
           comp=Z,14nm,1.0s,mb4.6
VNDA  Vanda            80.96 190  P     P        10 25 46.6  -0.5
           comp=Z,3.3nm,0.6s,mb4.2,baz=156,slow=6.6,SNR=14
MTE   Manteigas        80.97  43 eP     P        10 25 48.8 +1.1
           comp=Z,18nm,1.2s,mb4.6
MTE   Manteigas        80.97  43 eP     P        10 25 47.3  -0.4
           comp=Z,14nm,0.9s,mb4.6
A05A  Maple Falls      80.97 328  P     P        10 25 47.1  -0.3
           baz=81,SNR=7.3
A04A  Legoe Bay, Lum   81.12 327 ⇓P     P        10 25 48.8 +0.5
           baz=81
B04A  Port Angeles     81.12 326 ⇓P     P        10 25 49.3 +1.1
           baz=81
PVRL  Vila Real        81.32  42 eP     P        10 25 50.1 +0.6
           comp=Z,24nm,1.5s,mb4.6
PCAB  Cabril           81.35  42 eP     P        10 25 50.1 +0.4
           comp=Z,13nm,0.8s,mb4.6
PGC   Sidney           81.46 327 eP     P        10 25 50.5 +0.4
           comp=Z,146nm,1.1s,mb5.5
PGC                              epP    pP       10 26 33.0 +0.1
MVO   Moncorvo         81.70  42 eP     P        10 25 52.1 +0.6
           comp=Z,23nm,0.7s,mb4.9
PBRG  Braganca         82.22  42 eP     P        10 25 55.1 +0.9
           comp=Z,17nm,1.4s,mb4.5
PAB   San Pablo        82.65  45 eP     P        10 25 57.2 +0.7
           comp=Z,4.0nm,0.5s,mb4.4
PAB                              epP    pP       10 26 39.1  -0.4
PAB   San Pablo        82.65  45 eP     P        10 25 57.2 +0.7
PAB                              e*PP   pP       10 26 39.2  -0.3
PAB                               pmax  pmax
           comp=Z,4.0nm,0.5s,mb4.4
ESDC  Sonseca Array    82.97  45  P     P        10 25 58.9 +0.8
           comp=Z,2.6nm,0.6s,mb4.1,baz=252,slow=5.2,SNR=29
ESLA  Sonseca Array    82.97  45 eP     P        10 25 59.0 +0.9
           comp=Z,2.8nm,1.0s,mb4.0
BOSA  Boshof           85.61 118 eP     P        10 26 12.9 +1.1
           comp=Z,5.0nm,0.4s,mb4.6
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BOSA  Boshof           85.61 118  P     P        10 26 13.3 +1.5
BOSA                              *PP   pP       10 26 54.6  -0.5
BOSA                              pmax  pmax
           comp=Z,5.0nm,0.7s,mb4.3
BOSA                              pmax  pmax
           comp=Z,12nm,1.2s,mb4.5
BOSA  Boshof           85.61 118  P     P        10 26 13.3 +1.5
           comp=Z,4.5nm,0.7s,mb4.3,baz=254,slow=5.8,SNR=5.7
BOSA                              pP    pP       10 26 54.6  -0.5
           comp=Z,12nm,1.2s,baz=233,slow=1.6,SNR=4.0
BOSA                              LR    LR       11 00 42.6
           comp=Z,86nm,19.8s,baz=219,slow=33
YKA   Yellowknife Ar   87.16 341  P     P        10 26 18.1  -0.3
YKA                               pP    pP       10 27 00.6  -1.2
YKA   Yellowknife Ar   87.16 341  P     P        10 26 18.0  -0.3
           comp=Z,24nm,0.5s,mb5.3,baz=133,slow=4.8,SNR=786
YKA                               pP    pP       10 27 00.6  -1.2
           comp=Z,3.4nm,0.8s,baz=134,slow=4.8,SNR=1.9
YKW3  Yellowknife Ar   87.21 341 eP     P        10 26 18.0  -0.6
MAW   Mawson           88.42 163  P     P        10 26 24.0  -0.5
           comp=Z,11nm,0.6s,mb4.8,baz=178,slow=5.2,SNR=24
MAW                               LR    LR       11 07 46.4
           comp=Z,147nm,21.0s,baz=65,slow=37
DLBC  Dease Lake       90.38 333 eP     P        10 26 33.6   0.0
KEST  Kesra            90.92  53  P     P        10 26 37.5 +0.8
           comp=Z,1.7nm,0.7s,mb4.2,baz=228,slow=3.1,SNR=3.8
RES   Resolute Bay     93.20 353 eP     P        10 26 46.6 +0.2
           comp=Z,104nm,0.7s
RES   Resolute Bay     93.20 353 eP     P        10 26 46.6 +0.2
RES                               pmax  pmax
           comp=Z,104nm,0.7s
DAVOX Davos/Dischmat   95.10  43  LR    LR       11 08 59.0
           comp=Z,127nm,18.2s,baz=76,slow=35
INK   Inuvik           96.92 340 eP     P        10 27 02.2  -1.2
           comp=Z,83nm,0.8s
INK   Inuvik           96.92 340 eP     P        10 27 02.2  -1.2
INK                               pmax  pmax
           comp=Z,83nm,0.8s
GERES GERESS Array B   98.19  41  P     P        10 27 09.8 +0.1
           comp=Z,0.4nm,0.6s,mb4.0,baz=258,slow=4.9,SNR=3.5
STKA  Stephens Creek  122.95 211  PKP   PKPdf    10 32 27.1  -1.5
STKA  Stephens Creek  122.95 211  PKP   PKPdf    10 32 27.1  -1.5
           comp=Z,1.6nm,0.5s,baz=38,slow=2.1,SNR=7.0
TIXI  Tiksi           124.59 353⇓iPKIKP PKPdf    10 32 29.6  -0.9
ARU   Arti            124.73  32 i PKIKP PKPdf   10 32 30.8  -0.3
ARU                              e               10 39 18.7
ARU                              eSS    SS       10 51 07.2 +6.3
SEY   Seymchan        126.14 338⇑iPKIKP PKPdf    10 32 33.6   0.0
YAK   Yakutsk         133.37 348 i PKIKP PKPdf   10 32 47.4   0.0
PMG   Port Moresby    135.42 236⇑iPKIKP PKPdf    10 32 51.4  -1.3
WRA   Warramunga Arr  136.44 213  PKP   PKPdf    10 32 53.2  -1.3
WRA                               pPKP  pPKPdf   10 33 37.7  -2.6
WRA                               SKPbc SKPbc    10 36 09.8  -0.7
WRA   Warramunga Arr  136.44 213  PKIKP PKPdf    10 32 53.2  -1.2
WRA                                              10 33 37.7
WRA   Warramunga Arr  136.44 213  PKhKP          10 32 38.8
           comp=Z,0.6nm,0.7s,baz=155,slow=2.5,SNR=9.7
WRA                               PKP   PKPdf    10 32 53.2  -1.3
           comp=Z,1.3nm,0.7s,baz=134,slow=1.5,SNR=6.5
WRA                               pPKP  pPKPdf   10 33 37.7  -2.6
           comp=Z,1.7nm,1.1s,baz=152,slow=1.8,SNR=1.9
WRA                               SKPbc SKPbc    10 36 09.8  -0.7
           comp=Z,1.5nm,0.7s,baz=141,slow=2.7,SNR=6.8
KURK  Kurchatov       137.85  30⇑iPKIKP PKPdf    10 32 56.4 +0.3
ZALV  Zalesovo Beam   138.19  23  PKP   PKPdf    10 32 54.9  -1.7
ZALV                              PKP   PKPdf    10 32 57.0 +0.4
ZALV                              pPKP  pPKPdf   10 33 39.4  -3.1
ZALV                              SKPbc SKPbc    10 36 16.7 +2.2
ZALV                              SKPab          10 36 25.8
ZALV  Zalesovo Beam   138.19  23  PKhKP          10 32 54.9
           comp=Z,5.8nm,0.8s,baz=289,slow=2.8,SNR=26
ZALV                              PKP   PKPdf    10 32 57.0 +0.4
           comp=Z,6.4nm,0.8s,baz=20,slow=1.7,SNR=26
ZALV                              pPKP  pPKPdf   10 33 39.4  -3.1
           comp=Z,6.3nm,0.9s,baz=305,slow=3.1,SNR=4.8
ZALV                              SKPbc SKPbc    10 36 16.7 +2.2
           comp=Z,5.7nm,0.8s,baz=298,slow=3.2,SNR=16
ZALV                              SKPab          10 36 25.8
           comp=Z,6.6nm,0.8s,baz=336,slow=3.3,SNR=8.1
ZAL   Zalesovo        138.19  23  PKIKP PKPdf    10 32 54.9  -1.7
ZAL                                              10 33 39.4
AAK   Ala-Archa       140.06  43⇑iPKIKP PKPdf    10 33 01.2 +0.8
FITZ  Fitzroy Crossi  141.97 203 eP     PKPdf    10 32 57.5  -7.1
           comp=Z,7.5nm,0.6s
MK31  Makanchi Array  142.26  33 ePKPdf PKPdf    10 32 59.9  -4.3
MK31  Makanchi Array  142.26  33 ePKHKP          10 32 59.9
MKAR  Makanchi Array  142.26  33  PKP   PKPdf    10 32 59.7  -4.5
MKAR  Makanchi Array  142.26  33  PKHKP          10 32 59.7
MKAR  Makanchi Array  142.26  33  PKhKP          10 32 59.7
           comp=Z,1.2nm,0.6s,baz=298,slow=3.1,SNR=17
MKAR                              PKP   PKPdf    10 33 04.6 +0.4
           comp=Z,1.1nm,0.6s,baz=317,slow=2.5,SNR=10
MKAR                              pPKP  pPKPdf   10 33 47.5  -2.5
           comp=Z,1.9nm,1.1s,baz=95,slow=1.5,SNR=2.1
MKAR                              SKPbc SKPbc    10 36 28.0 +2.5
           comp=Z,2.1nm,0.7s,baz=323,slow=2.4,SNR=10
KLR   Kul’dur         143.91 337 ePKHKP          10 33 01.7
MOY   Mondy           144.79  11 ePKIKP PKPdf    10 33 09.6 +1.1
TLY   Talaya          145.19   8 ePKPdf PKPdf    10 33 09.8 +0.7
TLY   Talaya          145.19   8 ePKIKP PKPdf    10 33 09.8 +0.7
CIT   Chita           145.26 357 ePKIKP PKPdf    10 33 09.8 +0.5
CIT                              e               10 33 53.0
CIT                               pmax  pmax
           comp=Z,63nm,1.7s
ZAK   Zakamensk       146.41   9 ePKP2  PKPab    10 33 12.1  -1.9
ZAK                               pmax  pmax
           comp=Z,8.0nm,1.0s
ZAK                               pmax  pmax
           comp=Z,6.0nm,1.4s
WMQ   Urumqi          147.06  32  PKP   PKPdf    10 33 14.0 +1.4
MJAR  Matsushiro Arr  149.16 314  PKP2  PKPbc    10 33 20.0  -0.6
MJAR                              pmax  pmax
           comp=Z,4.0nm,0.5s
MJAR  Matsushiro Arr  149.16 314  PKPbc PKPbc    10 33 19.9  -0.7
           comp=Z,4.3nm,0.5s,baz=104,slow=1.5,SNR=17
MAT   Matsushiro      149.16 314  PKP2  PKPbc    10 33 19.5  -1.1
SONM  Songino Array   149.30   6  PKHKP          10 33 16.5
SONM                              pmax  pmax
           comp=Z,7.0nm,0.5s
SONM                              pmax  pmax
           comp=Z,8.0nm,0.5s
SONM                              pmax  pmax
           comp=Z,7.0nm,0.8s
SONM  Songino Array   149.30   6  PKP   PKPdf    10 33 16.5 +0.4
           comp=Z,7.4nm,0.5s,baz=283,slow=1.3,SNR=6.0
SONM                              PKPbc PKPbc    10 33 21.0 +0.4
           comp=Z,7.5nm,0.5s,baz=309,slow=1.6,SNR=51
SONM                              pPKPbc pPKPbc  10 34 05.1  -1.0
           comp=Z,7.4nm,0.8s,baz=332,slow=1.8,SNR=5.7
ULN   Ulaanbaatar     149.33   5 ePKPbc PKPbc    10 33 21.6 +0.9
ULN                              ePKPab PKPab    10 33 26.8 +1.0
ULN   Ulaanbaatar     149.33   5 ePKP2  PKPab    10 33 21.6  -4.2
KSRS  Korea Array     154.92 327  PKIKP PKPdf    10 33 25.3 +0.5
KSRS                              pmax  pmax
           comp=Z,2.0nm,1.0s
KSRS                              pmax  pmax
           comp=Z,3.0nm,1.1s
KSRS  Korea Array     154.92 327  PKP   PKPdf    10 33 25.2 +0.4
           comp=Z,1.5nm,1.0s,baz=62,slow=2.9,SNR=6.1
KSRS                              PKPbc PKPbc    10 33 33.5  -0.1
           comp=Z,2.7nm,1.1s,baz=2.1,slow=1.8,SNR=6.9
HHC   Hu-ho-hao-te    156.50 359 ePKP   PKPdf    10 33 25.7  -1.1
HHC                               APKP           10 34 07.8
HHC                               PKS            10 36 58.3
HHC                               PP    PP       10 37 37.7 +4.1
HHC                               SKS   SKSdf    10 40 14.0  -2.5
HHC                               SKKS  SKKSac   10 44 07.2 +0.3
HHC                               SS    SS       10 57 11.8 +2.5
HHC                               PP    PP
           comp=Z,77nm,6.0s
HHC                               LR    LR
           comp=N,120nm,30.0s
HHC                               LR    LR
           comp=E,217nm,32.4s
HHC                               LR    LR
           comp=Z,112nm,34.8s
LZH   Lanzhou         160.24  17 ePKP   PKPdf    10 33 32.7 +1.3
LZH                               APKP           10 34 16.0
LZH                               XPKP           10 34 33.3
LZH                               LR    LR
           comp=N,25nm,19.6s
LZH                               LR    LR
           comp=Z,65nm,20.4s
NJ2   Nanjing         163.61 335 ePKP   PKPdf    10 33 37.1 +2.1
CD2   Chengdu         164.95  24 ePKP   PKPdf    10 33 36.6 +0.4
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CD2				SKS	SKSdf	10 40 23.1	-1.2
CD2				SKKS	SKKSac	10 44 51.5	+0.5
CD2				PP	PP		
	comp=Z,150nm,11.2s						
WHN	Wuhan	166.41	347	*e*PKP	PKPdf	10 33 37.5	+0.1
KMI	Kunming	169.10	43	PKP	PKPdf	10 33 40.2	+0.7
GYA	Guiyang	170.05	22	*i* PKP	PKPdf	10 33 40.2	+0.2
GYA				APKP		10 34 26.3	
GYA				XPKP		10 34 44.0	
GYA				PKP2	PKPab	10 34 57.0	+1.0
GYA				PKS		10 37 11.1	
GYA				PP	PP	10 38 47.9	+2.6
GYA				SKS	SKSdf	10 40 24.6	-2.7
GYA				SKKS	SKKSac	10 45 15.5	-0.9
GYA				SS	SS	10 59 27.5	-2.0
GYA				PP	PP		
	comp=Z,120nm,8.4s						

MAN 04 10:53:52, 1531N×11965E, h23^{km}, mb4.0, ML2.8, MS2.4, 2C-1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCZP	Santa Cruz	0.53	29	*e*P	Pb	10 54 04.1	+1.5
SCZP				*e*S	Sb	10 54 11.1	+1.2
BOLP	Bolinao	1.09	13	*e*P	Pn	10 54 11.9	0.0
BCPH	Baguio City Da	1.39	40⇓	*e*P	Pn	10 54 16.4	+0.4
BCPH				*i* S	Sn	10 54 35.8	+2.2
PCPH	Palayan	1.42	80⇑	*e*P	Pn	10 54 16.1	-0.3
PCPH				*e*S	Sn	10 54 32.3	-2.0
LUBP	Lubang	1.67	160	*e*P	Pn	10 54 21.0	+1.1
TGY	Tagaytay City	1.73	134⇑	*e*P	Pn	10 54 26.9	+6.2
TGY				*i* S	Sn	10 54 46.8	+4.7
BALP	Baler	1.91	77	*e*P	Pn	10 54 23.6	+0.5
POLP	Polilio Island	2.29	104	*e*P	Pn	10 54 30.8	+2.5
CAUP	Cauayan	2.65	52	*e*P	Pn	10 54 35.6	+2.4
APYP	Conner	2.96	31	*e*P	Pn	10 54 40.0	+2.3
BUSP	Coron	3.33	171	*e*P	Pn	10 54 44.5	+1.7
ENPP	El Nido	4.09	183	*e*P	Pn	10 54 54.4	+1.3

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*IDC **04** 10:55:45.5±2.6, 4731N×15634E, h0^{km}, mb3.5/5, mb1 3.8/5, mb1mx3.5/21, mbtmp3.5/5, Error ellipse: s-maj=93.8km s-min=24.0km az=177.0*

*ISCJB **04** 10:55:50.6±1.0, 4791N±008×1564E±02, h33^{km}, mb3.5/5, Error ellipse: s-maj=18.6km s-min=10.8km az=10.6*

*MOS **04** 10:55:51.2±2.1, 4798N×15623E, h38^{km}, mb3.9/2, Error ellipse: s-maj=54.9km s-min=22.5km az=85.9*

ISC 04 10:55:48.6±4.9, **4791N**±009×**1563E**±02, **h5**^{km}±32^{km}, **n9**, σ**0^{s}86**/11, **mb3.5**/5, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	2.78	357	*e*PN	Pn	10 56 34.5	+0.9
SKR				*e*S	Sn	10 57 07.5	0.0
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=E,80nm,0.5s						
SKR				smax			
	comp=N,100nm,0.6s						
SKR				smax			
	comp=Z,80nm,0.5s						
PET	Petropavlovsk	5.33	15	*e*PN	Pn	10 57 07.4	-1.3
PET				*e*S	Sn	10 58 10.2	-0.2
PET				pmax	pmax		
	comp=Z,11nm,0.5s						
PET				smax			
	comp=E,20nm,0.6s						
PET				smax			
	comp=N,19nm,0.5s						
SONM	Songino Array	33.02	289	P	P	11 02 24.2	-0.1
	comp=N,0.3nm,0.8s,mb3.3,baz=77,slow=7.6,SNR=2.3						
INK	Inuvik	39.49	33	P	P	11 03 21.1	+1.7
INK				pmax	pmax		
	comp=Z,1.0nm,1.1s						
INK	Inuvik	39.49	33	P	P	11 03 21.1	+1.6
	comp=Z,1.1nm,1.1s,mb3.5,baz=297,slow=6.8,SNR=2.5						
MKAR	Makanchi Array	48.34	298	P	P	11 04 30.6	-0.2
	comp=Z,0.4nm,0.6s,mb3.6,baz=74,slow=6.0,SNR=6.4						
NVAR	Mina Array Bea	59.96	65	P	P	11 05 56.1	+0.5
	comp=Z,0.3nm,0.7s,mb3.4,baz=303,slow=8.4,SNR=3.4						
TXAR	Lajitas Array	75.02	63	P	P	11 07 29.8	-1.2
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	75.02	63	P	P	11 07 29.8	-1.2
	comp=Z,0.5nm,0.7s,mb3.6,baz=290,slow=4.2,SNR=6.6						

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*IDC **04** 10:56:06.1±1.6, 3271S×7148W, h0^{km}, mb3.6/3, mb1 4.0/3, mb1mx3.8/11, mbtmp3.6/3, Error ellipse: s-maj=71.9km s-min=46.2km az=30.0*

*ISCJB **04** 10:56:14.5±0.5, 3231S±002×7142W±008, h58^{km}±6^{km}, mb3.6/3, Error ellipse: s-maj=11.6km s-min=3.9km az=176.0*

*GUC **04** 10:56:14.0±1.1, 3229S×7140W, h54^{km}±9^{km}, MD4.1, ML3.7*

*NEIC **04** 10:56:14.0, 3229S×7140W, h54^{km}, MD4.1(GUC), After GUC.*

NEIC Felt [III] at La Ligua.

ISC 04 10:56:15.2±0.5, **3231S**±002×**7143W**±008, **h52**^{km}±7^{km}, **n40**, σ**0^{s}76**/57, **mb3.6**/3, **12C-10D**, **Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTCH	Petorca	0.42	84⇑	*i*P	Pn	10 56 24.9	-0.8
PTCH				*i* S	Sn	10 56 32.9	-0.3
PTCH	Petorca	0.42	84⇑	*i*P	Pn	10 56 24.9	-0.8
PTCH				*i* S	Sn	10 56 32.9	-0.3
PTCH				AML	AML	10 56 35.8	
	comp=N,18µm,0.5s						
CHNG	Los Chungos	0.43	352⇑	*i*P	Pn	10 56 14.7	-11
CHNG				*i* S	Sn	10 56 22.2	-11
CHNG				AML	AML	10 56 22.3	
	comp=E,3µm,0.3s						
IHA	Instituto Hidr	0.74	194⇓	*i*P	Pn	10 56 28.9	-0.7
IHA				*i* S	Sn	10 56 39.9	-0.1
ROCH	El Roble	0.75	152⇓	*i*P	Pn	10 56 29.1	-0.5
ROCH				*i* S	Sn	10 56 40.2	+0.1
JACH	Jahuel	0.80	118⇓	*i*P	Pn	10 56 29.5	-0.8
PEL	Peldehue	1.04	143⇓	*i*P	Pn	10 56 33.2	-0.3
PEL				*i* S	Sn	10 56 47.0	0.0
PEL				AML	AML	10 56 47.9	
	comp=E,4µm,0.2s						
LCCH	Las Cruces	1.17	186	*e*P	Pn	10 56 35.1	-0.2
CMCH	Combarbala	1.19	18⇑	*i*P	Pn	10 56 34.5	-1.0
CMCH				*i* S	Sn	10 56 50.2	-0.4
CMCH	Combarbala	1.19	18⇑	*i*P	Pn	10 56 34.5	-1.0
CMCH				*i* S	Sn	10 56 50.2	-0.4
CMCH				AML	AML	10 56 53.0	
	comp=E,18µm,0.8s						
RCDM	Rinconada Maip	1.29	156⇓	*i*P	Pn	10 56 36.6	-0.3
RCDM				*i* S	Sn	10 56 53.2	+0.2
RCDM	Rinconada Maip	1.29	156⇓	*i*P	Pn	10 56 36.6	-0.3
RCDM				*i* S	Sn	10 56 53.2	+0.2
RCDM				AML	AML	10 56 56.0	
	comp=E,2µm,0.1s						
DSCH	Colegio Aleman	1.30	147⇓	*i*P	Pn	10 56 36.2	-0.9
DSCH				*i* S	Sn	10 56 53.2	-0.2
DSCH	Colegio Aleman	1.30	147⇓	*i*P	Pn	10 56 36.2	-0.9
DSCH				*i* S	Sn	10 56 53.2	-0.2
DSCH				AML	AML	10 56 54.0	
	comp=E,541nm,0.4s						
SAN	Santiago	1.31	151	*i* S	Sn	10 56 53.5	0.0
CLCH	Cerro Calan	1.32	146	AML	AML	10 56 56.0	
	comp=E,3µm,0.5s						
FSR	Penalolen	1.39	147	*e*P	Pn	10 56 38.4	+0.2
FSR				*i* S	Sn	10 56 56.8	+1.3
FSR	Penalolen	1.39	147	*e*P	Pn	10 56 38.4	+0.2
FSR				*i* S	Sn	10 56 56.8	+1.3
FSR				AML	AML	10 57 00.8	
	comp=E,1µm,0.4s						
TACH	Talagante	1.40	163	*e*P	Pn	10 56 38.4	0.0
TACH				*i* S	Sn	10 56 56.4	+0.6
ANTU	Antumapu	1.42	152⇑	*i*P	Pn	10 56 39.0	+0.3
ANTU				*i* S	Sn	10 56 57.7	+1.4
ANTU	Antumapu	1.42	152⇑	*i*P	Pn	10 56 39.0	+0.3
ANTU				*i* S	Sn	10 56 57.7	+1.4
ANTU				AML	AML	10 57 01.0	
	comp=N,1µm,0.3s						
PCH	Pirque	1.52	150⇓	*i*P	Pn	10 56 40.0	+0.1
SJCH	San Jose de Ma	1.60	146⇑	*i*P	Pn	10 56 40.4	-0.7
SJCH				*i* S	Sn	10 57 00.6	-0.1
SJCH	San Jose de Ma	1.60	146⇑	*i*P	Pn	10 56 40.4	-0.7
SJCH				*i* S	Sn	10 57 00.6	-0.1
SJCH				AML	AML	10 57 05.2	
	comp=N,657nm,0.4s						
LNV	Longovilo	1.64	180	*i* P	Pn	10 56 41.1	-0.6
OVCH	Ovalle	1.71	7	*i* P	Pn	10 56 43.0	+0.5
OVCH				*i* S	Sn	10 57 04.8	+1.6
OVCH	Ovalle	1.71	7	*i* P	Pn	10 56 43.0	+0.5
OVCH				*i* S	Sn	10 57 04.8	+1.6
OVCH				AML	AML	10 57 09.1	
	comp=N,3µm,0.3s						
CHCH	Chadas Angostu	1.75	158⇑	*i*P	Pn	10 56 43.4	+0.4
CACH	El Canelo	1.93	159⇑	*i*P	Pn	10 56 46.8	+1.1
TLL	Tololo Astrono	2.20	14⇓	*i*P	Pn	10 56 49.7	+0.4
TLL				AML	AML	10 57 22.1	
	comp=E,1µm,0.3s						
SFDO	San Fernando	2.33	172⇑	*i*P	Pn	10 56 51.6	+0.6
LCO	Las Campanas	3.34	11	*e*Pn	Pn	10 57 03.8	-1.2
LCO				*e*Sn	Sn	10 57 46.1	+2.7
TXAR	Lajitas Array	68.52	330	P	P	11 07 12.0	-0.2
	comp=E,0.2nm,0.6s,mb3.3,baz=156,slow=9.4,SNR=5.7						
NVAR	Mina Array Bea	82.80	325	P	P	11 08 34.3	+0.7
	comp=E,0.8nm,1.0s,mb3.7,baz=150,slow=4.2,SNR=4.8						
TORD	Torodi Ar. Bea	83.15	70	P	P	11 08 34.4	-1.5
TORD	Torodi Ar. Bea	83.15	70	P	P	11 08 34.4	-1.5
	comp=E,0.6nm,0.7s,mb3.7,baz=251,slow=4.7,SNR=3.7						
WRA	Warramunga Arr	122.49	209	PKP	PKPdf	11 15 03.5	-1.8
WRA	Warramunga Arr	122.49	209	PKP	PKPdf	11 15 03.5	-1.8
	comp=E,0.9nm,1.1s,baz=157,slow=1.6,SNR=5.5						
ZALV	Zalesovo Beam	152.52	31	PKPbc	PKPbc	11 16 03.9	-1.3
ZALV				PKPab	PKPab	11 16 17.3	+1.6
ZALV	Zalesovo Beam	152.52	31	PKPbc	PKPbc	11 16 03.9	-1.3
	comp=E,1.1nm,0.4s,baz=299,slow=3.0,SNR=7.6						
ZALV				PKPab	PKPab	11 16 17.3	+1.6
	comp=E,1.4nm,0.6s,baz=304,slow=3.5,SNR=6.6						

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*NIED **04** 11:59:00, 3560N×140.10E, h59^{km}, Mw4.4 Best double couple: M$_0$5.17000×10^{15} NP1:ϕ_s182.00000°, δ39.00000°, λ94.00000°. NP2:ϕ_s357.00000°, δ51.00000°, λ87.00000°.*

*BJI **04** 11:59:15.0, 3550N×140.10E, h61^{km}, mB5.0, mb4.5, Ms4.3, Msz4.1*

*IDC **04** 11:59:15.8±1.5, 3551N×140.14E, h56^{km}±14^{km}, mb4.0/19, mb1 4.2/23, mb1mx4.2/26, mbtmp4.1/23, MS3.1/6, Ms1 3.1/6, ms1mx2.9/24, Error ellipse: s-maj=15.6km s-min=9.8km az=79.0*

*ISCJB **04** 11:59:17.0±0.3, 3550N±003×14000E±003, h72^{km}±3^{km}, mb4.3/59, Error ellipse: s-maj=5.2km s-min=4.7km az=11.6*

*JMA **04** 11:59:16.5±0.2, 3559N×140.15E, h67^{km}±2^{km}, M4.3 Broadband fault plane solution: P waves. NP1: ϕ_s241.00000°, δ37.00000°, λ138.00000°. NP2:ϕ_s7.00000°, δ66.00000°, λ60.00000°. Principal axes: T Plg58.0000°, Azm235.0000°; N Plg27.0000°, Azm20.0000°; P Plg16.0000°, Azm118.0000°;*

JMA Felt III J1.

*NEIC **04** 11:59:17.0±0.2, 3552N×14008E, mb4.4/23 Error ellipse: s-maj=6.1km s-min=5.0km az=155.0*

NEIC Felt [III] at Tokyo, Yokosuka and Zushi. Also felt at Chiba, Ebina, Hachioji, Machida, Midaka, Ome, Tachikawa, Toride, Yamato, Yokohama and Zama. Recorded [3 JMA] in Kanagawa; [2 JMA] in Chiba, Ibaraki, Saitama, Shizuoka and Tokyo; [1 JMA] in Tochigi and Yamanashi Prefectures.

*MOS **04** 11:59:19.4±1.0, 3603N×13998E, h77^{km}, mb4.6/32, Error ellipse: s-maj=11.9km s-min=7.0km az=104.1*

ISC 04 11:59:17.7±0.3, **3550N**±003×**14003E**±004, **h64**^{km}±3^{km}, **h63**^{km}±2.5^{km}**:pP-P**, **n333**, σ**0^{s}74**/339, **mb4.5**/59, **97C-85D**, **Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JCN	Nagara	0.16	122	⇑P	Pn	11 59 27.2	-0.2
TOK	Tokyo	0.29	309	P	Pn	11 59 28.3	+0.1
BSO3	Boso 3	0.80	151	⇑P	Pn	11 59 32.6	-0.9
JOD2	Odawara 2	0.81	253	⇓P	Pn	11 59 33.8	+0.3
JOD2				S	Sn	11 59 46.4	+1.3
JIM2	Oshima 3	0.93	212	P	Pn	11 59 34.6	-0.4
JIM2				*e*S	Sn	11 59 48.6	+0.9
JAG	Ashikaga	1.03	333	⇓P	Pn	11 59 35.3	-1.0
JAG				*e*S	Sn	11 59 49.0	-1.1
JRY	Ryogami san	1.05	299	⇓P	Pn	11 59 36.9	+0.3
BSO1	Boso 1	1.15	137	P	Pn	11 59 36.1	-1.8
JYN	Shimob	1.21	270	⇓P	Pn	11 59 39.2	+0.5
JYN				S	Sn	11 59 56.3	+2.0
JKT	Katashina	1.41	334	P	Pn	11 59 40.2	-1.1
MJAR	Matsushiro Arr	1.80	306	P	Pn	11 59 45.6	-1.0
	133nm,0.3s,baz=142,slow=15,SNR=1012						
MJAR				LR	LR	12 00 40.5	
	comp=Z,845nm,21.5s,baz=340,slow=46						
MAJO	Matsushiro	1.81	306	*e*Pn	Pn	11 59 47.1	+0.5
MAT	Matsushiro	1.81	306	P	Pn	11 59 47.0	+0.4
MAT				S	Sn	12 00 11.0	+2.5
JHJ	Hachijo jima 2	2.39	185	P	Pn	11 59 54.0	-0.5
	256nm,0.3s,baz=255,slow=9.2,SNR=56						
JHJ				S	Sn	12 00 21.3	-1.4
	404nm,0.3s,baz=159,slow=23,SNR=13						
JHJ				LR	LR	12 00 23.5	
	comp=Z,577nm,20.2s,baz=186,slow=28						
JNU	Nakatsue	7.94	255	P	Pn	12 01 12.3	+1.9
	4.4nm,0.3s,baz=69,slow=7.8,SNR=36						
CBIJ	Chichi jima	8.58	167	P	Pn	12 01 15.8	-3.5
	44nm,0.3s,baz=338,slow=7.9,SNR=17						
CBIJ				S	Sn	12 02 44.4	-10
	8.6nm,0.3s,baz=320,slow=16,SNR=3.3						
ASAJ	Asahikawa	8.82	12	P	Pn	12 01 18.4	-4.0
ASAJ				S	Sn	12 02 53.2	-7.1
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,72nm,18.1s						
ASAJ	Asahikawa	8.82	12	P	Pn	12 01 18.4	-4.0
	comp=Z,1.5nm,0.3s,baz=195,slow=9.6,SNR=15						
ASAJ				S	Sn	12 02 53.2	-7.1
	comp=Z,0.3nm,0.3s,baz=278,slow=15,SNR=4.5						
ASAJ				LR	LR	12 05 08.6	
	comp=Z,72nm,18.1s,baz=355,slow=40						
VLA	Vladivostok	9.87	323	*e*P	Pn	12 01 38.0	+1.2
VLA				pmax	pmax		
	comp=Z,75nm,2.1s						
KSRS	Korea Array	9.94	285	P	Pn	12 01 41.3	+3.5
	comp=Z,0.5nm,0.3s,baz=102,slow=14,SNR=31						
KSRS				LR	LR	12 05 21.9	
	comp=Z,265nm,20.7s,baz=148,slow=36						
YSS	Yuzh-Sakhalins	11.62	9⇑	*e*P	Pn	12 01 56.6	-4.0
YSS				pmax	pmax		
	comp=Z,37nm,1.4s						
MDJ	Mudanjiang	12.11	322	P	Pn	12 02 11.8	+4.6
MDJ				AMB	AMB		
	comp=Z,25nm,1.0s						
MDJ				AMB	AMB		
	comp=Z,130nm,4.6s						
JOW	Kunigami	13.26	233	P	Pn	12 02 23.8	+0.7
	comp=Z,1.3nm,0.3s,baz=29,slow=7.4,SNR=7.6						
HABR	Khabarovsk	13.47	346	*e*P	Pn	12 02 20.4	-5.4
HABR				*e*S	Sn	12 04 41.2	-12
CN2	Changchun	13.95	311	*e*P	Pn	12 02 36.8	+4.7
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s						
SNY	Shenyang	14.31	301	⇑P	Pn	12 02 41.5	+4.6
SNY				AMB	AMB		
	comp=Z,16nm,0.8s						
BJI	Beijing	19.38	291	P	Pn	12 03 42.8	+2.9
BJI				AMB	AMB		
	comp=Z,13nm,0.9s						
WHN	Wuhan	22.07	264	⇑P	P	12 04 03.2	-4.1
GUMO	Guam	22.25	167	LR	LR	12 12 54.1	
	comp=Z,6.0nm,18.7s,baz=90,slow=37						
CLNS	Chul'man	23.67	339	*e*P	P	12 04 14.4	-8.7
CLNS				pmax	pmax		
	comp=N,10.0nm,1.2s						
CLNS				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.4						
CLNS				pmax	pmax		
	comp=E,21nm,1.0s						
MA2	Magadan	25.09	13	*e*P	P	12 04 35.1	-0.9
	comp=E,8.3nm,0.6s,mb4.4						
MA2	Magadan	25.09	13	*e*P	P	12 04 35.2	-0.8
MA2				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.6						
MA2				pmax	pmax		
	comp=N,10.0nm,0.9s						
ULN	Ulaanbaatar	27.34	307	*e*P	P	12 04 56.4	-0.1
	comp=N,2.5nm,0.8s,mb3.8						
ULN	Ulaanbaatar	27.34	307	*e*P	P	12 04 56.4	0.0
ULN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.9						
YAK	Yakutsk	27.34	349⇑	*e*P	P	12 04 54.5	-1.8
YAK				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.5						
SONM	Songino Array	27.76	307	P	P	12 04 59.5	-0.7
SONM						12 08 14.5	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	27.76	307	P	P	12 04 59.5	-0.7
	comp=Z,0.7nm,0.5s,mb3.6,baz=107,slow=9.1,SNR=8.5						
SONM				PcP	PcP	12 08 14.5	-0.8
	comp=Z,0.5nm,0.7s,baz=102,slow=2.2,SNR=3.3						
BOD	Bodaibo	28.26	330	*e*P	P	12 05 03.3	-1.3
BOD				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.3						
SEY	Seymchan	28.51	12⇑	*e*P	P	12 05 06.2	-0.5
GYA	Guiyang	29.88	262	P	P	12 05 18.1	-1.2
GYA				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.4						
BILL	Bilibino	35.81	17	*e*P	P	12 06 08.4	-2.1
BILL				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.2						
TIXI	Tiksi	36.68	354⇑	*e*P	P	12 06 16.1	-1.8
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
WMQ	Urumqi	40.55	298	*e*P	P	12 06 52.5	+1.8
WMQ				AP	pP	12 07 02.5	-4.2
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.4						
ZALV	Zalesovo Beam	42.14	314	P	P	12 07 02.8	-0.8
	comp=Z,2.2nm,0.5s,mb4.1,baz=98,slow=7.6,SNR=19						
ZALV				PcP	PcP	12 08 56.0	-0.8
	comp=Z,2.4nm,0.5s,baz=107,slow=2.9,SNR=7.8						
ZALV				LR	LR	12 23 55.1	
	comp=Z,32nm,18.6s,baz=79,slow=35						
ZAL	Zalesovo	42.15	314	P	P	12 07 02.8	-0.8
ZAL						12 08 56.0	
MK31	Makanchi Array	44.00	303	*e*P	P	12 07 18.4	-0.2
MKAR	Makanchi Array	44.00	303	P	P	12 07 18.6	-0.1
MKAR						12 09 02.9	
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR				MLR	MLR		
	comp=Z,58nm,18.7s						
MKAR	Makanchi Array	44.00	303	P	P	12 07 18.6	-0.1
	comp=Z,3.3nm,0.6s,mb4.2,baz=91,slow=10.0,SNR=40						
MKAR				PcP	PcP	12 09 02.9	-0.4
	comp=Z,1.1nm,0.9s,baz=80,slow=3.2,SNR=2.4						
MKAR				LR	LR	12 25 41.6	
	comp=Z,58nm,18.7s,baz=251,slow=36						
TAPN	Taplejung	44.94	275	*e*P	P	12 07 25.9	-0.5
	comp=Z,4.4nm,0.4s,mb4.7						
ODAN	Odare	45.40	274	*e*P	P	12 07 30.0	-0.1
	comp=Z,11nm,0.8s,mb4.8						
KURK	Kurchatov	46.01	309	*e*P	P	12 07 33.8	-0.7
	comp=Z,9.8nm,0.6s,mb4.9						
KURK	Kurchatov	46.01	309	*e*P	P	12 07 33.8	-0.7
KURK				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
JIRN	Jiri	46.05	276	*e*P	P	12 07 35.7	+0.5
GUN	Gumba	46.20	276	*e*P	P	12 07 36.4	0.0
	comp=Z,24nm,0.8s,mb5.2						
PKI	Pulchoki	46.72	276	*e*P	P	12 07 40.2	-0.2
KKN	Kakani	46.74	277	*e*P	P	12 07 40.3	-0.3
DMN	Daman	46.95	276	*e*P	P	12 07 42.6	+0.4
GKN	Gorkha	47.17	277	*e*P	P	12 07 43.8	-0.2
	comp=Z,39nm,0.9s,mb5.3						
KOLN	Koldanda	48.11	277	*e*P	P	12 07 51.2	0.0
KAKA	Kakadu	48.49	190	*e*P	P	12 07 53.3	-0.8
	comp=Z,25nm,1.0s,mb5.2						
KDAK	Kodiak Island	48.98	41	P	P	12 07 56.5	-0.9
	comp=Z,11nm,0.8s,mb4.9,baz=216,slow=5.2,SNR=8.8						
AAK	Ala-Archa	50.24	299	*e*P	P	12 08 06.1	-1.2
	comp=Z,3.7nm,1.0s,mb4.4						
AAK	Ala-Archa	50.24	299⇑	*e*P	P	12 08 05.4	-1.9
AAK				*i* *PP	pP	12 08 30.8	+7.0
AAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.4						
MCK	McKinley	50.52	33	P	P	12 08 07.9	-1.1
	comp=Z,2.2nm,0.9s,mb4.1						
MCK	McKinley	50.52	33	P	P	12 08 07.9	-1.2
MCK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
COLA	College	50.97	32	*e*P	P	12 08 12.1	-0.3
	comp=Z,3.6nm,0.8s,mb4.3						
COLA	College	50.97	32	*e*P	P	12 08 12.1	-0.3
COLA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
FITZ	Fitzroy Crossi	55.03	197	*e*P	P	12 08 42.2	-0.6
	comp=Z,15nm,0.5s,mb5.3						
WB2	Warramunga Arr	55.40	186⇓	*i*P	P	12 08 44.2	-1.2
WRA	Warramunga Arr	55.41	187	P	P	12 08 44.0	-1.4
WRA				pmax	pmax		
	comp=Z,5.0nm,0.5s						
WRA	Warramunga Arr	55.41	187	P	P	12 08 44.0	-1.4
	comp=Z,5.4nm,0.5s,mb4.9,baz=0.9,slow=7.5,SNR=168						
INK	Inuvik	56.25	27	*e*P	P	12 08 50.1	-0.9
	comp=Z,94nm,0.6s						
INK	Inuvik	56.25	27	P	P	12 08 48.1	-2.9
INK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
INK	Inuvik	56.25	27	P	P	12 08 48.1	-2.9
	comp=Z,2.4nm,0.7s,mb4.4,baz=286,slow=6.3,SNR=12						
ARU	Arti	56.77	319	*e*P	P	12 08 53.8	-1.1
	comp=Z,7.9nm,0.6s,mb4.9						
ARU	Arti	56.77	319⇑	*i*P	P	12 08 53.8	-1.0
ARU				*e*		12 10 59.6	
ARU				*e*PPP		12 12 15.0	
ARU				*e*S	S	12 16 38.2	-4.6
ARU				*e*SS	SS	12 20 25.0	-6.0
ARU				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
HYB	Hyderabad	57.05	269	*e*P	P	12 08 57.5	+0.1
HYB	Hyderabad	57.05	269	*i* P	P	12 08 57.5	+0.1
ARCES	ARCESS Array B	65.03	339	P	P	12 09 49.9	-0.7
ARCES	ARCESS Array B	65.03	339	P	P	12 09 49.9	-0.8
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES	ARCESS Array B	65.03	339	P	P	12 09 49.9	-0.7
	comp=Z,1.9nm,0.7s,mb4.2,baz=51,slow=6.9,SNR=6.4						
YKA	Yellowknife Ar	65.69	29	P	P	12 09 53.7	-1.3
YKA	Yellowknife Ar	65.69	29	P	P	12 09 53.7	-1.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	65.69	29	P	P	12 09 53.7	-1.3
	comp=Z,1.4nm,0.7s,mb4.1,baz=301,slow=6.6,SNR=28						
JOF	Joensuu	66.78	332	*e*p	P	12 09 58.0	-4.0
	comp=Z,4.6nm,0.5s,mb4.8						
FORT	Forrest	66.89	191	*e*P	P	12 10 02.3	-0.6
	comp=Z,19nm,0.6s,mb5.3						
STKA	Stephens Creek	67.04	179	*e*P	P	12 10 03.1	-0.8
	comp=Z,1.8nm,0.8s,mb4.2						
STKA	Stephens Creek	67.04	179	P	P	12 10 03.1	-0.8
	comp=Z,2.1nm,0.7s,mb4.3,baz=352,slow=8.0,SNR=6.2						
OBN	Obninsk	68.65	323⇑	*e*P	P	12 10 12.8	-1.1
OBN				*e*		12 10 36.9	
OBN				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
FINES	FINESS Array B	69.64	332	P	P	12 10 19.1	-0.8
FINES				pmax	pmax		
	comp=Z,4.0nm,0.7s						
FINES	FINESS Array B	69.64	332	P	P	12 10 19.1	-0.8
	comp=Z,3.9nm,0.7s,mb4.5,baz=78,slow=6.4,SNR=17						
C05A	Tolt Reservoir	69.70	45	⇑P	P	12 10 20.5	0.0
	baz=70						
B07A	Winthrop	70.21	44	⇓P	P	12 10 23.1	-0.5
	baz=70						
A08A	Turner Farm, O	70.43	43	⇓P	P	12 10 24.2	-0.8
	baz=70						
D06A	Cle Elum	70.45	46	⇑P	P	12 10 25.3	+0.1
	baz=70						
C07A	Waterville	70.65	45	⇑P	P	12 10 25.5	-0.8
	baz=70						
B08A	Colville Reser	70.71	44	⇑P	P	12 10 25.6	-1.1

	baz=70						
E06A	Yakima	70.71	46	⇓P	P	12 10 26.6	-0.2
	baz=70						
A09A	Danville	70.80	43	⇓P	P	12 10 26.9	-0.4
	baz=71						
H04A	Detroit Lake	70.95	48	⇓P	P	12 10 27.7	-0.5
	baz=71						
D07A	Quincy	70.96	45	⇓P	P	12 10 27.5	-0.7
	baz=71						
KIV	Kislovodsk	71.06	311*c*	*i*P	P	12 10 29.3	+0.4
KIV				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
K02A	Glendale	71.13	51	⇑P	P	12 10 28.6	-0.8
	baz=71						
C08A	Higginbotham F	71.18	44	⇓P	P	12 10 28.5	-1.0
	baz=71						
G05A	Wamic	71.19	48	⇑P	P	12 10 29.8	+0.2
	baz=71						
I04A	Tendick Farm,	71.28	49	⇓P	P	12 10 30.1	-0.1
	baz=71						
B09A	Rice	71.34	43	⇓P	P	12 10 29.0	-1.6
	baz=71						
E07A	Sunnyside	71.36	46	⇑P	P	12 10 31.3	+0.6
	baz=71						
A10A	Northport	71.37	43	⇑P	P	12 10 29.8	-0.9
	baz=71						
L02A	Cave Junction	71.38	51	⇓P	P	12 10 31.4	+0.5
	baz=71						
H05A	Madras	71.56	48	⇑P	P	12 10 31.8	-0.1
	baz=71						
G06A	Carlson Farm,	71.60	47	⇑P	P	12 10 31.8	-0.4
	baz=71						
D08A	Wollman Farm,	71.64	45	⇑P	P	12 10 31.7	-0.6
	baz=72						
F07A	Phinny Hill Vi	71.67	46	⇑P	P	12 10 32.5	0.0
	baz=72						
J04A	Umpqua Nationa	71.75	50	⇑P	P	12 10 33.0	0.0
	baz=72						
E08A	Dider Farm, El	71.86	46	⇑P	P	12 10 32.5	-1.2
	baz=72						
D09A	Jones Farm, Ri	71.99	45	⇑P	P	12 10 33.9	-0.5
	baz=72						
NEW	Newport	72.00	43	*e*P	P	12 10 33.3	-1.2
	comp=Z,2.4nm,0.6s,mb4.3						
NEW	Newport	72.00	43	*e*P	P	12 10 33.3	-1.2
NEW				pmax	pmax		
	comp=Z,2.0nm,0.6s						
A11A	Hall Mountain,	72.04	42	⇓P	P	12 10 34.9	+0.2
	baz=72						
H06A	Lindquist Farm	72.05	48	⇑P	P	12 10 33.3	-1.6
	baz=72						
C10A	Spilker Farm,	72.14	44	⇑P	P	12 10 34.9	-0.5
	baz=72						
G07A	Ruggs Ranch, H	72.16	47	⇓P	P	12 10 35.2	-0.2
	baz=72						
YBH	Yreka Blue Hor	72.17	51	⇓P	P	12 10 36.6	+1.0
	baz=72						
M02C	Callahan	72.25	52	⇑P	P	12 10 36.2	0.0
	baz=72						
J05A	Fort Rock	72.27	49	⇓P	P	12 10 36.5	+0.4
	baz=72						
K04A	Chilquin	72.32	50	⇑P	P	12 10 36.2	-0.3
	baz=72						
B11A	Sandpoint	72.33	43	⇑P	P	12 10 37.3	+0.9
	baz=72						
E09A	Wood Farm, Sta	72.38	45	P	P	12 10 37.1	+0.3
	baz=72,SNR=6.1						
F08A	Pendleton	72.40	46	⇑P	P	12 10 36.7	-0.2
	baz=72						
A12A	Yaak River Ran	72.45	42	⇑P	P	12 10 37.7	+0.6
	baz=72						
I06A	Prineville	72.55	48	⇑P	P	12 10 37.6	-0.2
	baz=72						
G08A	Pilot Rock	72.57	47	⇓P	P	12 10 38.1	+0.1
	baz=72						
D10A	Wagner Farm, O	72.58	44	⇓P	P	12 10 37.2	-0.7
	baz=72						
M04C	Macdoel	72.69	51	⇓P	P	12 10 38.8	+0.1
	baz=72,SNR=6.0						
B12A	Libby	72.74	42	⇑P	P	12 10 38.7	-0.2
	baz=72						
K05A	Summer Lake	72.78	50	⇑P	P	12 10 40.0	+0.8
	baz=73						
M03C	McCloud	72.78	51	⇑P	P	12 10 40.4	+1.1
	baz=73						
WDC	Whiskeytown Da	72.89	52	⇑P	P	12 10 40.7	+0.8
	baz=73						
I07A	Izee	72.90	48	⇓P	P	12 10 40.4	+0.5
	baz=73						
J06A	Christmas Vall	72.96	49	⇑P	P	12 10 40.1	-0.1
	baz=73						
P01C	Double 8 Ranch	72.96	54	⇑P	P	12 10 40.8	+0.5
	baz=73						
F09A	S2 Ranch, Elgi	72.96	46	⇑P	P	12 10 39.5	-0.7
	baz=73						
E10A	Myers Farm, Un	72.99	45	⇓P	P	12 10 40.7	+0.3
	baz=73						
A13A	Flathead Natio	73.12	42	⇓P	P	12 10 41.2	+0.1
	baz=73						
K06A	Valley Falls	73.14	49	⇑P	P	12 10 40.3	-1.1
	baz=73						
H08A	Prairie City	73.16	47	⇑P	P	12 10 41.7	+0.2
	baz=73						
L05A	Lakeview	73.18	50	⇓P	P	12 10 41.5	-0.1
	baz=73						
F10A	Beach Ranch, E	73.21	45	⇑P	P	12 10 41.7	0.0
	baz=73						
GASB	Alder Springs	73.26	53	⇑P	P	12 10 42.7	+0.6
	baz=73						
M05C	Lookout	73.36	51	⇓P	P	12 10 42.9	+0.2
	baz=73						
J07A	Hines	73.41	48	P	P	12 10 43.5	+0.7
	baz=73,SNR=7.2						
B13A	Whitefish	73.41	42	P	P	12 10 43.4	+0.6
	baz=73,SNR=6.3						
I08A	Drewsey	73.56	48	⇑P	P	12 10 43.5	-0.3
	baz=73						
E11A	Bogner Ranch,	73.58	45	⇓P	P	12 10 43.6	-0.2
	baz=73						
MOD	Modoc	73.59	50	⇓P	P	12 10 43.7	-0.4
	baz=73						
H09A	Durkee	73.68	47	⇑P	P	12 10 44.0	-0.5
	baz=74						
C13A	Hot Springs	73.75	43	P	P	12 10 45.2	+0.4
	baz=74,SNR=8.0						
K07A	Rock Creek Ran	73.82	49	⇓P	P	12 10 45.7	+0.3
	baz=74						
MNRC	McLaughlin Nat	73.86	54	⇓P	P	12 10 46.6	+1.0
	baz=74						
M06C	Likely Place G	73.87	51	⇓P	P	12 10 45.6	0.0
	baz=74						
F11A	Grangeville	73.88	45	⇑P	P	12 10 45.7	+0.1
	baz=74						
J08A	Circle Bar Ran	73.92	48	P	P	12 10 46.7	+0.8
	baz=74,SNR=5.5						
O04C	Chester	73.96	52	P	P	12 10 46.9	+0.7
	baz=74,SNR=5.5						
I09A	Lost Marbles R	74.02	47	⇑P	P	12 10 46.6	+0.1
	baz=74						
G11A	Walters Elk Ra	74.09	45	P	P	12 10 46.6	-0.3
	baz=74,SNR=14						
ORV	Oroville	74.11	53	⇓P	P	12 10 47.2	+0.1
	baz=74						
L07A	Adell	74.13	50	P	P	12 10 47.9	+0.7
	baz=74,SNR=8.3						
D13A	Huson	74.15	43	⇑P	P	12 10 47.4	+0.2
	baz=74						
C14A	Swan Lake	74.16	42	⇓P	P	12 10 47.1	-0.1
	baz=74						
O05C	Quincy	74.26	52	⇓P	P	12 10 47.4	-0.6
	baz=74						
K08A	Mann Creek Ran	74.26	49	P	P	12 10 48.6	+0.7
	baz=74,SNR=6.1						
H10A	Noah’s Angus R	74.27	46	P	P	12 10 47.6	-0.3
	baz=74,SNR=6.2						
Q03C	Winters	74.27	54	⇑P	P	12 10 48.8	+0.7
	baz=74						
WVOR	Wild Horse Val	74.34	49	*e*P	P	12 10 48.5	+0.1
	comp=Z,8.2nm,1.5s,mb4.4						
WVOR	Wild Horse Val	74.34	49	*e*P	P	12 10 48.5	+0.1
WVOR				pmax	pmax		
	comp=Z,8.0nm,1.5s,mb4.4						
J09A	Fry Pan Ranch,	74.36	48	P	P	12 10 49.1	+0.6
	baz=74,SNR=6.2						
N06A	Buffalo Meadow	74.52	51	⇑P	P	12 10 49.9	+0.5
	baz=74						
M07A	Soldier Meadow	74.59	50	⇓P	P	12 10 50.3	+0.5
	baz=74						
H11A	Donnelly	74.63	46	⇓P	P	12 10 49.6	-0.4
	baz=74						
L08A	Fields	74.65	49	P	P	12 10 51.0	+0.8
	baz=74,SNR=6.0						
BEKR	Beckwourth	74.67	52	⇓P	P	12 10 51.2	+0.8
	baz=74						
E13A	Victor	74.68	44	⇑P	P	12 10 49.7	-0.5
	baz=74						
D14A	Greenough	74.69	43	P	P	12 10 50.1	-0.2
	baz=74,SNR=6.3						
K09A	Rome	74.75	48	⇓P	P	12 10 50.3	-0.4
	baz=75						
JRSC	Jasper Ridge	74.79	55	⇑P	P	12 10 50.0	-1.0
	baz=75						
AKASG	Malin Array Be	74.82	322	P	P	12 10 49.9	-1.1
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
AKASG	Malin Array Be	74.82	322	P	P	12 10 49.9	-1.1
	comp=Z,3.8nm,0.6s,mb4.5,baz=47,slow=5.9,SNR=25						
O06A	Flanigan	74.85	51	P	P	12 10 51.9	+0.5
	baz=75,SNR=5.8						
J10A	Berg Farm, Mel	74.91	47	⇑P	P	12 10 51.9	+0.2
	baz=75						
F13A	Darby	74.98	44	⇑P	P	12 10 51.7	-0.3
	baz=75						
LAVA	Lava Cap Winer	75.04	53	⇑P	P	12 10 52.4	-0.1
	baz=75						
N07B	Gerlach	75.05	50	⇑P	P	12 10 51.8	-0.7
	baz=75						
E14A	Clinton	75.09	43	⇓P	P	12 10 52.0	-0.6
	baz=75						
I11A	Placerville	75.12	47	⇓P	P	12 10 52.6	-0.2
	baz=75						
NB2	NORSAR Subarra	75.16	337	P	P	12 10 51.6	-1.1
	comp=Z,2.3nm,0.8s,mb4.2,baz=42,slow=5.9						
NOA	NORSAR Array B	75.16	337	P	P	12 10 51.9	-0.8
NOA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
NOA	NORSAR Array B	75.16	337	P	P	12 10 51.9	-0.8
	comp=Z,3.9nm,0.8s,mb4.4,baz=40,slow=5.8,SNR=7.9						
L09A	Wilkinson Ranc	75.17	49	⇓P	P	12 10 54.1	+0.9
	baz=75						
K10A	MacKenzie Ranc	75.22	48	⇓P	P	12 10 53.4	0.0
	baz=75						
D15A	Lincoln	75.26	42	⇓P	P	12 10 53.0	-0.5
	baz=75						
S04C	Ingram Canyon,	75.34	54	⇓P	P	12 10 54.6	+0.3
	baz=75						
H12A	Diamond D Ranc	75.40	46	P	P	12 10 54.5	0.0
	baz=75,SNR=5.3						
G13A	Cobalt	75.44	45	⇓P	P	12 10 54.1	-0.6
	baz=75						
O07A	Toulon	75.46	51	⇑P	P	12 10 55.5	+0.6
	baz=75						
MFID	Camas Ranch	75.48	47	⇓P	P	12 10 54.3	-0.6
	baz=75						
R05C	Kirkwood Meado	75.50	53	⇓P	P	12 10 55.8	+0.6
	baz=75						
F14A	Wisdom	75.51	44	⇓P	P	12 10 55.2	+0.1
	baz=75						
E15A	Deer Lodge	75.56	43	P	P	12 10 55.4	0.0
	baz=75,SNR=6.5						
N08A	GE Springer Mi	75.58	50	⇓P	P	12 10 55.9	+0.3
	baz=75						
M09A	Marrel Ranch,	75.64	49	⇑P	P	12 10 55.9	0.0
	baz=76						
PACP	Pacheco Peak	75.64	55	⇑P	P	12 10 55.7	-0.3
	baz=76						
CMB	Columbia Colle	75.67	53	*e*P	P	12 10 55.6	-0.5
	comp=Z,3.1nm,1.0s,mb4.2						
CMB				*e*	pP	12 11 13.1	-0.5
CMB	Columbia Colle	75.67	53	*e*P	P	12 10 55.6	-0.5
CMB				*e*	pP	12 11 13.1	-0.5
CMB				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
CMB	Columbia Colle	75.67	53	⇓P	P	12 10 55.9	-0.3
	baz=76						
H13A	Challis	75.74	45	P	P	12 10 56.6	+0.2
	baz=76,SNR=8.8						
HAST	UC Hastings Re	75.81	55	⇑P	P	12 10 56.8	-0.2
	baz=76						
L10A	Juniper Basin	75.86	48	⇓P	P	12 10 58.2	+1.0
	baz=76						
N09A	Rock Creek Ran	75.92	50	⇑P	P	12 10 57.9	+0.4
	baz=76						
F15A	Butte	75.99	43	P	P	12 10 57.8	0.0
	baz=76,SNR=16						
R06C	Coleville	76.01	53	⇓P	P	12 10 58.5	+0.4
	baz=76						
J12A	Stokes Ranch,	76.01	47	⇓P	P	12 10 57.8	-0.2
	baz=76						
S06C	San Francisco	76.11	53	⇑P	P	12 10 59.4	+0.8
	baz=76						
M10A	I.L. Ranch, Tu	76.14	49	⇑P	P	12 10 59.8	+1.1
	baz=76						
EGMT	Eagleton	76.16	40	⇓P	P	12 10 58.8	+0.1
	baz=76						
Q07A	Schurz	76.19	52	⇓P	P	12 10 59.2	+0.1
	baz=76						
I13A	Wildhorse Cree	76.20	46	⇓P	P	12 10 59.5	+0.5
	baz=76						
HLID	Hailey	76.23	46	*e*P	P	12 10 59.0	-0.3
	comp=Z,1.3nm,0.6s,mb4.0						
HLID				*e*	pP	12 11 16.6	-0.1
HLID	Hailey	76.23	46	⇑P	P	12 10 59.7	+0.5
	baz=76						
L11A	Cat Creek Ranc	76.25	48	P	P	12 10 59.8	+0.5
	baz=76,SNR=6.7						
G15A	Dillon	76.39	44	P	P	12 11 00.4	+0.3
	baz=76,SNR=8.1						
J13A	Cove Ranch, Pi	76.47	46	⇓P	P	12 11 01.1	+0.5
	baz=76						
K12A	Draper Farm, C	76.49	47	⇓P	P	12 11 01.5	+0.8
	baz=76						
O09A	Fish Creek Ran	76.52	50	⇓P	P	12 11 00.7	-0.1
	baz=76						
R07C	Lee Vining	76.52	53	P	P	12 11 01.6	+0.7
	baz=76,SNR=5.2						
BOZ	Bozeman (W)	76.59	43	⇑P	P	12 11 01.5	+0.3
	baz=76						
M11A	Holland Ranch,	76.65	49	⇑P	P	12 11 01.9	+0.2
	baz=76						
T06C	Millerton Lake	76.69	54	⇑P	P	12 11 01.6	-0.4
	baz=76						
L12A	House Creek Ra	76.70	48	⇓P	P	12 11 02.5	+0.6
	baz=76						
KCC	Kaiser Creek	76.77	54	⇓P	P	12 11 02.1	-0.2
	baz=77						
Q08A	Gabbs	76.80	52	⇓P	P	12 11 02.7	+0.2
	baz=77						
NVAR	Mina Array Bea	76.80	52	P	P	12 11 02.8	+0.3
	comp=Z,2.1nm,0.7s,mb4.2,baz=279,slow=7.1,SNR=22						
O10A	Cortez Mining,	76.88	50	⇓P	P	12 11 04.4	+1.5
	baz=77						
K13A	Stover Farm, H	76.97	47	⇑P	P	12 11 04.3	+0.9
	baz=77						
R08A	Mina	76.98	52	⇓P	P	12 11 03.5	0.0
	baz=77						
M12A	Wells	77.19	48	P	P	12 11 05.7	+1.0
	baz=77,SNR=6.4						
P10A	Eureka	77.29	50	⇑P	P	12 11 06.5	+1.3
	baz=77						
HELL	Mitchell Peak,	77.33	54	⇓P	P	12 11 05.9	+0.4
	baz=77						
L13A	Double Diamond	77.38	47	⇓P	P	12 11 06.4	+0.7
	baz=77						
S08C	White Mtn Res	77.42	53	⇑P	P	12 11 06.1	0.0
	baz=77						
N12A	Clover Valley,	77.45	49	P	P	12 11 07.1	+1.0
	baz=77,SNR=5.2						
O11A	Cowboy Ranch,	77.49	50	⇑P	P	12 11 07.1	+0.7
	baz=77						
K14A	Jones Ranch, D	77.57	46	⇑P	P	12 11 07.5	+0.7
	baz=77						
M13A	Montello	77.68	48	⇓P	P	12 11 08.1	+0.7
	baz=78						
R09A	Tonopah	77.70	52	P	P	12 11 07.7	+0.1
	baz=78,SNR=5.4						
VES	Vestal, Richgr	77.77	55	⇑P	P	12 11 07.8	-0.2
	baz=78						
PKM	Peak Mountain	77.81	56	⇑P	P	12 11 08.8	+0.5
	baz=78						
S09A	Goldfield	77.91	52	⇑P	P	12 11 08.8	+0.1
	baz=78						
N13A	Wendover, West	77.96	48	⇑P	P	12 11 10.1	+1.1
	baz=78						
O12A	Currie	77.98	49	P	P	12 11 09.9	+0.8
	baz=78,SNR=8.5						
CWC	Cottonwood Cre	78.09	54	⇓P	P	12 11 10.9	+1.1
	baz=78						
S10A	Tonopah Range,	78.19	52	P	P	12 11 10.9	+0.6
	baz=78,SNR=6.2						
GRAC	Grapevine Rang	78.23	53	⇓P	P	12 11 10.8	+0.2
	baz=78						
Q12A	Willow Creek R	78.65	50	⇑P	P	12 11 13.4	+0.6
	baz=78						
MPMC	Manual Prospec	78.70	54	⇑P	P	12 11 13.8	+0.6
	baz=78						
FURC	Furnace Creek,	78.87	53	⇑P	P	12 11 15.0	+1.0
	baz=79						
S11A	Rachel	78.90	52	⇓P	P	12 11 13.9	-0.3
	baz=79						
BRTR	Keskin Array B	79.02	311	P	P	12 11 14.9	+0.1
BRTR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
BRTR	Keskin Array B	79.02	311	P	P	12 11 14.8	0.0
	comp=Z,2.0nm,1.0s,mb4.0,baz=146,slow=5.5,SNR=7.5						
EDW2	Edwards Air Fo	79.05	55	⇓P	P	12 11 15.1	0.0
	baz=79						
HWUT	Hardware Ranch	79.09	46	*e*P	P	12 11 15.7	+0.6
	comp=Z,2.1nm,0.8s,mb4.1						
DUG	Dugway	79.20	48	*e*P	P	12 11 16.1	+0.3
	comp=Z,3.6nm,0.8s,mb4.3						
DUG				*e*	pP	12 11 32.7	-0.7
DUG	Dugway	79.20	48	*e*P	P	12 11 16.1	+0.3
DUG				*e*	pP	12 11 32.7	-0.7
DUG				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
DUG	Dugway	79.20	48	⇑P	P	12 11 16.2	+0.4
	baz=79						
R12A	Pony Springs,	79.22	51	P	P	12 11 16.5	+0.6
	baz=79,SNR=5.1						
U10A	Ash Meadows, A	79.25	53	⇑P	P	12 11 17.1	+1.0
	baz=79						
BW06	Boulder Array	79.54	45	*e*P	P	12 11 17.0	-0.6
	comp=Z,2.3nm,0.6s,mb4.3						
BW06				*e*	pP	12 11 32.3	-2.9
PDAR	Pinedale Array	79.54	45	P	P	12 11 17.1	-0.5
	comp=Z,2.2nm,0.6s,mb4.3,baz=270,slow=2.4,SNR=27						
STHS	Stebnicka Huta	79.56	324	*i* P	P	12 11 18.6	+1.0
STHS				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
GSC	Goldstone	79.59	54	⇑P	P	12 11 17.9	-0.2
	baz=79						
OJC	Ojcow	79.68	326	*e*P	P	12 11 17.4	-0.8
TUQ	Turquoise Mtn.	80.09	54	⇓P	P	12 11 21.6	+0.9
	baz=80						
BBRC	Big Bear Sol-O	80.13	55	⇓P	P	12 11 21.5	+0.6
	baz=80						
V11A	Goodsprings	80.18	53	⇑P	P	12 11 22.1	+0.9
	baz=80						
T13A	Saint George	80.45	51	⇓P	P	12 11 23.2	+0.6
	baz=80						
S14A	Cedar City	80.47	50	⇑P	P	12 11 22.6	-0.1
	baz=80						
V12A	Nelson	80.62	53	⇑P	P	12 11 23.6	0.0
	baz=80						
GMRC	Granite Mounta	80.66	54	P	P	12 11 23.9	+0.1
	baz=80,SNR=6.0						
109C	Camp Elliot, M	80.81	56	⇓P	P	12 11 24.8	+0.1
	baz=81						
LIKS	Likavka	80.82	325	*e*P	P	12 11 21.9	-2.5
LIKS				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.5						
PFO	Pinyon Flat Ob	80.83	55	⇑P	P	12 11 24.8	+0.1
	baz=81						
W12A	Cal Nev Ari	80.86	53	⇑P	P	12 11 25.6	+0.7
	baz=81						
BELC	Belle Mtn.	80.90	55	⇓P	P	12 11 24.8	-0.2
	baz=81						
T14A	Hurricane	80.94	51	⇓P	P	12 11 25.9	+0.7
	baz=81						
DPC	Dobruska-Polom	81.15	327	*e*P	P	12 11 26.0	-0.1
SRU	San Rafael	81.26	48	*e*P	P	12 11 26.7	-0.2
	comp=Z,6.5nm,0.8s,mb4.6						
SRU	San Rafael	81.26	48	*e*P	P	12 11 26.7	-0.2
SRU				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
MONP	Monument Peak	81.28	56	⇑P	P	12 11 27.6	+0.5
	baz=81						
VYHS	Vyhne	81.34	325	*i* P	P	12 11 27.1	0.0
VYHS				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.0						
IRM	Iron Mountain	81.37	54	⇓P	P	12 11 27.4	-0.1
	baz=81						
ULM	Lac du Bonnet	81.39	33	P	P	12 11 26.1	-1.3
	comp=Z,2.3nm,0.8s,mb4.2,baz=358,slow=19,SNR=5.7						
BC3	Big Chuckw Mtn	81.47	55	⇑P	P	12 11 27.7	-0.5
	baz=81						
W13A	Hualapai Mount	81.63	53	⇓P	P	12 11 29.1	+0.2
	baz=81						
CLL	Collm	81.86	330	⇓*i*P	P	12 11 29.2	-0.6
	comp=Z,8.0nm,0.9s,mb4.7						
PDMCI	Parker Dam,Lak	81.95	54	⇑P	P	12 11 30.5	-0.1
	baz=82						
X13A	Yucca	81.97	53	P	P	12 11 31.0	+0.2
	baz=82,SNR=6.4						
Y12C	Blythe	82.03	54	⇑P	P	12 11 31.0	0.0
	baz=82						
W14A	Seligman	82.08	52	P	P	12 11 31.8	+0.5
	baz=82,SNR=6.0						
Y13A	Salome	82.45	54	⇑P	P	12 11 33.6	+0.4
	baz=82						
PV10	Paradox Valley	82.62	48	*e*P	P	12 11 34.8	+0.7
W15A	Williams	82.62	52	⇑P	P	12 11 34.8	+0.7
	baz=82						
X14A	Yava	82.66	53	⇑P	P	12 11 34.7	+0.4
	baz=82						
Y14A	Wickenburg	82.91	53	⇓P	P	12 11 36.4	+0.8
	baz=83						
WUAZ	Wupatki	82.98	51	*e*P	P	12 11 36.4	+0.4
	comp=Z,4.5nm,0.9s,mb4.5						
WUAZ	Wupatki	82.98	51	⇓P	P	12 11 36.4	+0.4
	baz=83						
PV01	Paradox Valley	83.06	48	*e*P	P	12 11 36.4	+0.1
X15A	Humboldt	83.07	52	P	P	12 11 37.3	+0.8
	baz=83,SNR=6.8						
KHC	Kasperske Hory	83.25	328	*e*P	P	12 11 36.7	-0.4
GERES	GERESS Array B	83.41	328	P	P	12 11 37.2	-0.7
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	83.41	328	P	P	12 11 37.2	-0.7
	comp=Z,0.6nm,0.6s,mb3.8,baz=43,slow=6.0,SNR=7.0						
MVCO	Mesa Verde	83.70	48	*e*P	P	12 11 39.8	+0.1
	comp=Z,16nm,1.6s,mb4.9						
MVCO	Mesa Verde	83.70	48	⇓P	P	12 11 39.9	+0.2
	baz=84						
115A	Sonoran Desert	84.19	54	⇓P	P	12 11 42.9	+0.7
	baz=84						
SDCO	Great Sand Dun	85.15	46	*e*P	P	12 11 47.1	+0.2
	comp=Z,5.6nm,1.3s,mb4.5						
SDCO				*e*	pP	12 12 05.2	+0.4
ANMO	Albuquerque	86.42	49	*e*P	P	12 11 53.6	+0.2
	comp=Z,4.0nm,1.3s,mb4.5						
ANMO				*e*	pP	12 12 11.7	+0.5
ANMO	Albuquerque	86.42	49	*e*P	P	12 11 53.6	+0.3
ANMO				*e*	pP	12 12 11.7	+0.6
ANMO				pmax	pmax		
	comp=Z,4.0nm,1.3s						
SCHQ	Schefferville	87.11	15	P	P	12 11 55.5	-0.7
	comp=Z,2.4nm,0.6s,mb4.6,baz=352,slow=7.1,SNR=3.0						
TXAR	Lajitas Array	91.94	52	P	P	12 12 19.3	-0.1
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	91.94	52	P	P	12 12 19.3	-0.2
	comp=Z,0.6nm,0.6s,mb4.1,baz=308,slow=2.6,SNR=7.4						
TORD	Torodi Ar. Bea	117.59	313	PKP	PKPdf	12 17 55.5	-1.4
	comp=Z,0.4nm,0.8s,baz=47,slow=0.9,SNR=7.9						
LPAZ	La Paz	148.43	60	*e*PKPdf	PKPdf	12 18 54.8	+0.9
LPAZ				*e*PKPbc	PKPbc	12 18 57.5	0.0
LPAZ	La Paz	148.43	60	*e*PKIKP	PKPdf	12 18 54.8	+0.9
LPAZ				*e*		12 18 57.5	
LPAZ	La Paz	148.43	60	PKPbc	PKPbc	12 18 55.0	-2.4
	comp=Z,2.0nm,0.7s,baz=339,slow=2.2,SNR=9.2						

KRSC 04 13:05:31.0±0.8, 5266N×15932E, h96^{km}±36^{km}, ML3.7, Off east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NLC	Nalytchevo	0.51	2	*i* P	Pn	13 05 47.0	+0.6
NLC				*i* S	Sn	13 05 59.0	+1.1
RUS	Russkaya	0.54	246	*i* P	Pn	13 05 46.4	-0.2
RUS				*i* S	Sn	13 05 57.9	-0.4

PET	Petropavlovsk	0.55	312	iP	Pn	13 05 47.0	+0.4
PET				iS	Sn	13 05 58.8	+0.4
SPN	Mys Shipunski	0.61	44	iP	Pn	13 05 47.8	+0.6
SPN				iS	Sn	13 06 00.1	+0.8
AVH	Avacha	0.70	330	eP	Pn	13 05 49.1	+1.1
AVH				iS	Sn	13 06 02.7	+2.0
GRL	Gorelyy	0.77	262	eP	Pn	13 05 49.3	+0.7
GRL				iS	Sn	13 06 02.9	+1.0
GNL	Ganaly	1.33	322	iP	Pn	13 05 54.9	0.0
GNL				iS	Sn	13 06 12.7	-0.2
KII	Karymskiy	1.38	3	eP	Pn	13 05 56.6	+1.1
KII				iS	Sn	13 06 15.7	+1.7
MIPR	Malaya Ipel'ka	1.61	257	iP	Pn	13 05 58.5	+0.1
MIPR				iS	Sn	13 06 18.2	-1.0
MKZ	Mys Kozlova	2.38	36	eP	Pn	13 06 08.7	+0.4
MKZ				iS	Sn	13 06 35.9	-1.0
TUMR	Tumrok	2.67	10	eP	Pn	13 06 14.1	+1.9
TUMR				iS	Sn	13 06 45.4	+1.5
ALID	Alaid	2.95	234	eP	Pn	13 06 15.5	-0.4
KMNR	Kamenistaya	3.15	9	P	Pn	13 06 20.1	+1.6
KMNR				iS	Sn	13 06 56.3	+1.1
KPT	Kopyto	3.35	9	P	Pn	13 06 22.4	+1.1
KOZ	Kozyrevsk	3.42	5	P	Pn	13 06 23.6	+1.4
SRDR	Sredinnyy	3.67	3	P	Pn	13 06 26.3	+0.7
KBTR	Krutoberegovo	4.10	28	eP	Pn	13 06 32.2	+0.9
KBTR				iS	Sn	13 07 16.3	-1.9

CSEM ***04*** *13:07:32.5±0.5, 2990N×3633E, h1^{km}, ML1.9, Error ellipse: s-maj=11.5km s-min=3.8km az=57.0, Mining explosion.*
ISCJB ***04*** *13:07:34.3±1.3, 2984N±006×3626E±009, h0^{km}, Error ellipse: s-maj=12.7km s-min=6.9km az=151.2*
GII ***04*** *13:07:35.0±1.0, 2991N×3621E, h0^{km}±30^{km}, ML1.9/3*
SGS ***04*** *13:07:37.2, 2984N×3610E, h3^{km}*
HLW ***04*** *13:07:38.3, 2945N×3638E, h14^{km}, Mb3.3*
ISC 04 13:07:34.8±1.3**, 2983N**±006×**3627E**±008**, h0**^{km}**, n25, σ0**^{s}**88**/29**, 2C-2D, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AQBJ	Aqaba	1.06	265	Pg	Pg	13 07 54.8	-0.4
HRFI	Mount Harif	1.09	281	Pg	Pg	13 07 55.1	-0.6
HRFI	Mount Harif	1.09	281	Pg	Pg	13 07 55.1	-0.5
EIL	Elat	1.16	263	Pg	Pg	13 07 57.4	+0.5
EIL	Elat	1.16	263	Pg	Pg	13 07 57.4	+0.5
HQLS		1.17	244	P	Pg	13 07 57.0	-0.3
HQLS				S	Sg	13 08 11.8	-0.7
HQLS		1.17	244	P	Pg	13 07 57.0	-0.3
MBH	Mount Berech	1.18	269	Pg	Pg	13 07 58.1	+0.8
MBH	Mount Berech	1.18	269	Pg	Pg	13 07 58.2	+0.9
ZFRI	Zfri	1.19	308	Pg	Pg	13 07 56.6	-1.0
ZFRI	Zfri	1.19	308	Pg	Pg	13 07 56.6	-1.0
PRNI	Paran	1.21	296	Pg	Pg	13 07 56.9	-1.2
PRNI				Sg	Sg	13 08 15.1	+1.3
PRNI	Paran	1.21	296	Pg	Pg	13 07 56.9	-1.1
PRNI				Sg	Sg	13 08 15.1	+1.3
JLOS		1.28	212	P	Pg	13 07 58.8	-0.5
KRMI	Paran Flat	1.37	283	Pn	Pn	13 08 00.3	-0.8
KRMI	Paran Flat	1.37	283	Pn	Pn	13 08 00.4	-0.7
HBST	Basata	1.47	246	⇑P	Pn	13 08 03.5	+1.0
SVTA	Shivta	1.80	308	Pn	Pn	13 08 06.9	-0.2
SVTA	Shivta	1.80	308	Pn	Pn	13 08 06.9	-0.2
HDHB	Dhahab	1.81	233	⇓P	Pn	13 08 07.7	+0.5
RSHS		1.99	221	P	Pn	13 08 08.9	-0.8
HKAT	Jabal Katrina	2.38	237	⇑P	Pn	13 08 15.0	+0.1
AMAG	Maghara	2.77	288	⇓P	Pn	13 08 24.8	+4.4
AMAG				S	Sn	13 08 58.8	+4.3
SUZ		2.98	271	P	Pn	13 08 26.4	+3.1
WJHS		3.08	178	P	Pn	13 08 25.4	+0.7

BEO ***04*** *13:54:56.3±0.9, 4298N×1718E, ML2.8/3*
PDG ***04*** *13:54:58.3±0.3, 4279N×1750E, h11^{km}, ML2.6/10, Error ellipse: s-maj=1.0km s-min=1.7km az=0.0*
ISC 04 13:54:55.9±1.1**, 4276N**±004×**1729E**±006**, h10**^{km}**, n26, σ1**^{s}**12**/50**, 12C, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRY	Bratogost	0.94	81	⇑iPg	Pg	13 55 12.5	-1.3
BRY				eSg	Sg	13 55 24.9	-1.1
BRY	Bratogost	0.94	81	⇑iPg	Pg	13 55 12.5	-1.3
BRY				eSg	Sg	13 55 24.9	-1.1
HCY	Herceg Novi	0.95	109	ePg	Pg	13 55 13.7	-0.4
HCY				eSg	Sg	13 55 26.7	+0.3
HCY	Herceg Novi	0.95	109	ePg	Pg	13 55 13.7	-0.4
HCY				eSg	Sg	13 55 26.7	+0.3
NKY	Niksic	1.26	87	⇑iPg	Pg	13 55 19.2	-0.9
NKY				eSg	Sg	13 55 36.1	-0.3
NKY	Niksic	1.26	87	⇑iPg	Pg	13 55 19.2	-0.9
NKY				eSg	Sg	13 55 36.1	-0.3
UPM	Unac-Piva	1.27	69	⇑iPg	Pg	13 55 18.6	-1.6
UPM				eSg	Sg	13 55 36.8	+0.1
UPM	Unac-Piva	1.27	69	⇑iPg	Pg	13 55 18.6	-1.6
UPM				eSg	Sg	13 55 36.8	+0.1
BUM	Brajici-Budva	1.28	111	⇑iPg	Pg	13 55 19.3	-1.1
BUM				eSg	Sg	13 55 37.3	+0.3
BUM	Brajici-Budva	1.28	111	⇑iPg	Pg	13 55 19.3	-1.1
BUM				eSg	Sg	13 55 37.3	+0.3
PDG	Podgorica	1.50	102	⇑iPg	Pg	13 55 23.6	-0.9
PDG				eSg	Sg	13 55 44.4	+0.5
TTG	Podgorica	1.50	102	⇑iPg	Pg	13 55 23.6	-0.9
TTG				eSg	Sg	13 55 44.4	+0.5
PLE	Pljevlja	1.65	69	⇑iPg	Pg	13 55 26.1	-1.3
PLE				eSg	Sg	13 55 47.9	-0.9
PLE	Pljevlja	1.65	69	⇑iPg	Pg	13 55 26.1	-1.3
PLE				eSg	Sg	13 55 47.9	-0.9
ULC	Ulcinj	1.66	118	ePg	Pg	13 55 26.5	-1.2
ULC				eSg	Sg	13 55 49.1	-0.1
ULC	Ulcinj	1.66	118	ePg	Pg	13 55 26.5	-1.2
ULC				eSg	Sg	13 55 49.1	-0.1
BBLS	Bajina Basta -	1.90	54	iPn	Pn	13 55 29.8	+1.5
BBLS				eSg	Sg	13 55 54.5	-2.5
BEY	Berane	1.93	86	ePn	Pn	13 55 30.5	+1.9
BEY				eSn	Sn	13 55 54.9	+2.0
IVA	Berane	1.93	86	ePn	Pn	13 55 30.5	+1.9
IVA				eSn	Sn	13 55 54.9	+2.0
PVY	Plav	1.99	94	ePn	Pn	13 55 30.5	+1.0
PVY				eSn	Sn	13 55 56.0	+1.6
PVY	Plav	1.99	94	ePn	Pn	13 55 30.5	+1.0
PVY				eSn	Sn	13 55 56.0	+1.6
SJES	Sjenica	2.01	75	ePn	Pb	13 55 32.4	-0.1
SJES				eSg	Sg	13 56 01.7	+1.2
DIVS	Divcibare	2.38	55	iPn	Pn	13 55 35.2	+0.3
DIVS				iSn	Sn	13 56 05.9	+1.8
GRUS	Gruza	2.74	65	ePn	Pn	13 55 40.3	+0.4
GRUS				iSn	Sn	13 56 14.7	+1.6
FGSL	Fruska Gora	3.01	36	iPn	Pn	13 55 43.1	-0.4
PKSM	Moragy	3.58	15	iPn	Pn	13 55 51.1	-0.3

CASC 04 14:18:06.2±1.5**, 870N×8328W, h8**^{km}±8^{km}**, MD3.8, 3C-3D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BAR1		0.54	357	⇑iP	Pg	14 18 16.9	+0.3
BAR1				eS	Sg	14 18 24.9	+1.2
CTCR	Cotoan	0.55	69	⇓iP	Pg	14 18 17.5	+0.7
BRU2	Volcan	0.59	81	⇓iP	Pg	14 18 18.0	+0.4
BRU	Baru	0.72	82	⇑iP	Pg	14 18 20.7	+0.6
CNI	Changuinola	1.03	47	⇓iP	Pg	14 18 25.4	-0.7
URSC	Urasca	1.23	336	eP	Pn	14 18 27.9	-1.8
URSC				eS	Sb	14 18 45.4	-0.3
LCR2	La Lucha 2	1.26	325	⇑eP	Pn	14 18 28.3	-1.8
LCR2				eS	Sb	14 18 46.7	+0.3
LAJ	Bijagual	1.42	324	eP	Pn	14 18 35.0	+2.7
PRS1	Puriscal	1.63	321	eP	Pn	14 18 33.8	-1.3
PRS1				eS	Sn	14 18 56.8	+0.5
CGA2	Cerro Gallo 2	1.75	318	eP	Pn	14 18 36.5	-0.3
CGA2				eS	Sn	14 18 59.7	+0.3
JCR	Jicaral	2.14	302	eP	Pn	14 18 45.2	+3.1
JCR				eS	Sn	14 19 10.9	+2.0

IDC ***04*** *14:33:10.1±2.6, 4571N×15035E, h0^{km}, mb3.3/3, mb1 3.6/4, mb1mx3.4/20, mbtmp3.4/4, ML3.4/1, Error ellipse: s-maj=97.7km s-min=27.8km az=168.0*
MOS ***04*** *14:33:12.3±0.2, 4329N×15063E, h147^{km}, mb3.9/1, Error ellipse: s-maj=45.5km s-min=35.2km az=133.2*
JMA ***04*** *14:33:14.1±0.6, 4536N×15029E, h30^{km}, M4.2*
SKHL ***04*** *14:33:15.9±0.7, 4429N×15057E, h33^{km}*
ISCJB ***04*** *14:33:18.2±1.2, 4449N±010×1502E±01, h123^{km}±13^{km}, mb3.2/3, Error ellipse: s-maj=20.0km s-min=9.0km az=140.0*
ISC 04 14:33:18.8±1.1**, 4451N**±010×**1503E**±01**, h114**^{km}±14^{km}**, n28, σ0**^{s}**91**/41**, mb3.2**/3**, 1D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YUK	Yuzh-Kuril'sk	3.20	263	eP	Pn	14 34 07.7	+0.2
YUK				eS	Sn	14 34 46.0	+0.8
YUK				A		14 35 01.5	
	360nm,0.4s						
YUK				A		14 35 01.5	
	390nm,0.4s						
NEM2	Nemuro 2	3.46	252	P	Pn	14 34 09.6	-1.4
NEM2				eS	Sn	14 34 50.4	-1.0
JNK	Nakash	4.11	259	P	Pn	14 34 19.6	0.0
JAK	Akkeshi	4.31	251	P	Pn	14 34 21.5	-0.9
JAK				eS	Sn	14 35 11.5	-0.2
JTKR	Abashiri--Toko	4.60	265	P	Pn	14 34 26.0	-0.3
JAR	Ashorobuto	4.85	258	P	Pn	14 34 30.2	+0.6
JAR				eS	Sn	14 35 26.6	+1.9
JOB	Onbets	4.93	253	P	Pn	14 34 30.8	+0.1
JOB				eS	Sn	14 35 27.1	+0.4
JMP	Maruseppu	4.99	267	P	Pn	14 34 30.6	-0.9
JCH	Churui	5.37	252	P	Pn	14 34 36.5	-0.1
JCH				eS	Sn	14 35 37.9	+0.8
JKK2	Kamakawa 2	5.45	266	P	Pn	14 34 37.7	+0.1
ASAJ	Asahikawa	5.52	269	PN	Pn	14 34 37.9	-0.7
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	5.52	269	Pn	Pn	14 34 37.9	-0.8
	comp=Z,1.0nm,0.3s,baz=72,slow=6.4,SNR=8.0						
JFR	Furan	5.71	259	P	Pn	14 34 42.6	+1.4
JNBK	Urakawa-nobuka	5.91	250	P	Pn	14 34 43.8	-0.2
JNBK				eS	Sn	14 35 50.5	+0.1
JBT2	Biratori 2	5.99	256	P	Pn	14 34 45.6	+0.6
JNB	Noboribetsu	7.02	256	P	Pn	14 34 58.7	-0.2
JNB				eS	Sn	14 36 18.6	+1.5
JKB	Kayabe	7.24	252	P	Pn	14 35 01.5	-0.4
JKB				eS	Sn	14 36 20.9	-1.6
JYM2	Yakumo 2	7.61	255	P	Pn	14 35 06.7	-0.2
JANG	Nango	7.68	240	P	Pn	14 35 07.5	-0.4
JANG				eS	Sn	14 36 32.1	-1.1
JTH	Tanohata	7.73	237	eS	Sn	14 36 33.1	-1.4
JTM	Tenmabayashi	7.74	244	P	Pn	14 35 09.2	+0.5
JTM				eS	Sn	14 36 33.5	-1.1
OFUJ	Ofunato	8.41	233	P	Pn	14 35 18.6	+0.8
OFUJ				eS	Sn	14 36 51.8	+0.9
JIO	Ouri	9.02	231	P	Pn	14 35 27.6	+1.5
JIO				eS	Sn	14 37 05.9	+0.1
MA2	Magadan	15.09	1	⇓eP	Pn	14 36 53.8	+8.1
MA2				pmax	pmax		
	comp=Z,7.0nm,1.4s						
MKAR	Makanchi Array	46.22	298	P	P	14 41 31.8	-0.3
	comp=Z,0.1nm,0.3s,mb3.0,baz=75,slow=6.9,SNR=2.6						
YKA	Yellowknife Ar	53.91	35	iP	P	14 42 28.2	-1.7
YKA	Yellowknife Ar	53.91	35	P	P	14 42 28.3	-1.6
	comp=Z,0.3nm,0.8s,mb3.4,baz=298,slow=7.1,SNR=3.5						
TXAR	Lajitas Array	80.35	58	P	P	14 45 19.2	+1.9
	comp=Z,0.2nm,0.4s,mb3.3,baz=300,slow=3.8,SNR=8.4						

IDC 04 14:42:33.9±2.4**, 4719N×15261E, h0**^{km}**, mb3.6**/5**, mb1 3.8**/6**, mb1mx3.5**/22**, mbtmp3.7**/6**, ML3.4**/1**, Error ellipse: s-maj=66.0km s-min=33.9km az=168.0, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAJ	Asahikawa	7.66	250	Pn	Pn	14 44 27.2	+0.7
	0.5nm,0.3s,baz=90,slow=11,SNR=5.2						
MKAR	Makanchi Array	46.43	297	P	P	14 51 01.3	-0.8
	0.2nm,0.7s,baz=72,slow=9.5,SNR=2.6						
FINES	FINESS Array B	63.50	334	P	P	14 53 04.9	-0.3
	0.7nm,0.6s,baz=36,slow=7.4,SNR=3.8						
NOA	NORSAR Array B	67.70	341	P	P	14 53 33.6	+1.2
	0.7nm,0.5s,baz=27,slow=6.4,SNR=2.7						
AKASG	Malin Array Be	70.99	326	P	P	14 53 52.9	-0.1
	0.7nm,0.4s,baz=36,slow=6.1,SNR=7.5						
TXAR	Lajitas Array	77.58	60	P	P	14 54 31.8	+0.1
	0.1nm,0.5s,baz=298,slow=3.9,SNR=4.0						

NEIC ***04*** *15:35:34.9±2.9, 3634N×14098E, h97^{km}±24^{km}, Error ellipse: s-maj=38.4km s-min=25.2km az=95.0*
ISCJB ***04*** *15:35:42.7±0.7, 3582N±006×13958E±009, h139^{km}±5^{km}, mb3.2/2, Error ellipse: s-maj=13.7km s-min=8.4km az=142.3*
IDC ***04*** *15:35:43.5±1.9, 3580N×13958E, h132^{km}±16^{km}, mb2.9/2, mb1 3.2/3, mb1mx2.9/20, mbtmp3.1/3, Error ellipse: s-maj=30.9km s-min=25.7km az=102.0*
JMA ***04*** *15:35:44.7±0.1, 3579N×13960E, h128^{km}±1^{km}, M2.5*
ISC 04 15:35:43.7±0.7**, 3583N**±006×**13959E**±008**, h136**^{km}±5^{km}**, n14, σ0**^{s}**65**/24**, mb3.2**/2**, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHU	Hanno	0.25	276	P	Pn	15 36 03.1	+0.7
JHU				S	Sn	15 36 16.5	-0.1
JRY	Ryogami san	0.59	289	P	Pn	15 36 04.8	+0.8
JRY				eS	Sn	15 36 20.0	+0.6
JAG	Ashikaga	0.61	350	P	Pn	15 36 04.3	+0.2
JAG				S	Sn	15 36 19.3	-0.4
JOD2	Odawara 2	0.69	216	P	Pn	15 36 04.4	-0.3
JOD2				S	Sn	15 36 19.4	-1.2
JYN	Shimob	0.91	249	P	Pn	15 36 06.6	+0.2
JYN				S	Sn	15 36 23.6	0.0
JKT	Katashina	0.98	344	P	Pn	15 36 07.7	+0.7
JKT				S	Sn	15 36 25.4	+0.7
MJAR	Matsushiro Arr	1.32	303	P	Pn	15 36 10.3	0.0
	5.6nm,0.3s,baz=139,slow=9.8,SNR=98						
MJAR				S	Sn	15 36 29.4	-1.2
	2.5nm,0.3s,baz=127,slow=18,SNR=11						
MAJO	Matsushiro	1.33	303	eP	Pn	15 36 10.7	+0.4
MAT	Matsushiro	1.33	303	P	Pn	15 36 10.6	+0.2
MAT				S	Sn	15 36 30.5	-0.2
MAT	Matsushiro	1.33	303	P	Pn	15 36 10.7	+0.3
MAT				S	Sn	15 36 30.3	-0.4
BSO1	Boso 1	1.63	135	P	Pn	15 36 13.5	-0.2
BSO1				eS	Sn	15 36 36.8	+0.2
ASAJ	Asahikawa	8.60	15	P	Pn	15 37 43.2	-1.8
	0.1nm,0.3s,baz=198,slow=13,SNR=4.7						
MKAR	Makanchi Array	43.52	303	P	P	15 43 34.1	+0.5
	0.5nm,1.0s,mb3.1,baz=80,slow=7.5,SNR=3.5						
WRA	Warramunga Arr	55.68	186	P	P	15 45 05.7	-0.1
	0.4nm,0.7s,mb3.3,baz=2.3,slow=7.3,SNR=5.5						

IDC ***04*** *15:43:00.3±1.5, 5159N×17702W, h0^{km}, mb3.6/10, mb1 3.9/11, mb1mx3.7/27, mbtmp3.6/11, ML3.9/1, Error ellipse: s-maj=50.9km s-min=17.9km az=4.0*
ISCJB ***04*** *15:43:06.5±2.0, 516N±03×1770W±01, h59^{km}±10^{km}, mb3.6/11, Error ellipse: s-maj=43.9km s-min=12.4km az=3.8*
NEIC ***04*** *15:43:07.4±1.5, 5170N×17691W, h48^{km}±8^{km}, mb3.9/1, ML3.8(AEIC), Error ellipse: s-maj=32.2km s-min=10.7km az=185.0*
ISC 04 15:43:06.3±3.0**, 515N**±02×**1770W**±01**, h44**^{km}±19^{km}**, n20, σ0**^{s}**89**/20**, mb3.6**/11**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADK	Adak	0.45	24	P	Pn	15 43 15.9	-0.6
ADK				S	Sn	15 43 24.7	+0.9
ATKA	Atka Island	1.87	66	P	Pn	15 43 35.2	-0.5
ATKA				S	Sn	15 43 58.7	+0.5
SVW2	Sparrevohn	15.22	42	eP	Pn	15 46 42.2	+4.4
KDAK	Kodiak Island	15.42	56	Pn	Pn	15 46 38.0	-2.4
KDAK	Kodiak Island	15.42	56	Pn	Pn	15 46 38.0	-2.4
	0.4nm,0.3s,baz=115,slow=11,SNR=14						
INK	Inuvik	26.73	35	P	P	15 48 41.0	-0.1
INK	Inuvik	26.73	35	P	P	15 48 40.2	-0.8
	0.9nm,0.8s,mb3.4,baz=230,slow=7.9,SNR=4.5						
YKA	Yellowknife Ar	34.33	47	P	P	15 49 46.8	-1.4
	0.2nm,0.5s,mb3.3,baz=281,slow=8.5,SNR=3.4						
YKA				PcP	PcP	15 52 23.9	+0.8
	0.2nm,0.5s,baz=283,slow=3.1,SNR=4.9						
NEW	Newport	37.78	71	P	P	15 50 18.4	+0.7
	1.2nm,0.5s,mb3.9,baz=329,slow=6.7,SNR=6.7						
NVAR	Mina Array Bea	42.41	84	P	P	15 50 56.3	+0.1
	0.5nm,0.8s,mb3.2,baz=289,slow=6.9,SNR=3.6						
BW06	Boulder Array	45.19	73	eP	P	15 51 19.3	+0.8
	0.8nm,0.4s,mb3.9						
PDAR	Pinedale Array	45.19	73	P	P	15 51 19.4	+0.9
	0.9nm,0.6s,mb3.8,baz=318,slow=3.9,SNR=12						
SONM	Songino Array	47.62	297	P	P	15 51 38.6	+1.1
	0.2nm,0.4s,mb3.5,baz=56,slow=7.1,SNR=4.1						
TXAR	Lajitas Array	57.51	83	P	P	15 52 50.9	0.0
	0.3nm,0.5s,mb3.5,baz=294,slow=5.3,SNR=5.4						
MKAR	Makanchi Array	60.86	309	P	P	15 53 12.6	-1.2
	0.1nm,0.3s,mb3.5,baz=45,slow=7.1,SNR=7.0						
AKTK	Aktyubinsk	68.26	326	P	P	15 54 02.1	+0.1
AKTO	Aktyubinsk	68.26	326	P	P	15 54 02.1	+0.1
	0.7nm,0.4s,mb4.0,baz=63,slow=6.8,SNR=4.3						
BRTR	Keskin Array B	85.32	337	P	P	15 55 38.6	+0.3
	0.3nm,0.5s,mb3.7,baz=24,slow=6.0,SNR=2.9						
BOSA	Boshof	151.73	315	PKPbc	PKPbc	16 02 55.5	0.0
BOSA	Boshof	151.73	315	PKPbc	PKPbc	16 02 55.5	0.0
	1.6nm,0.6s,baz=14,slow=4.2,SNR=6.8						

ISCJB ***04*** *16:05:58.3±0.7, 2765N±005×1418E±01, h42^{km}±7^{km}, mb4.0/15, Error ellipse: s-maj=21.8km s-min=6.3km az=163.5*
IDC ***04*** *16:05:59.5±2.2, 2758N×14179E, h38^{km}±22^{km}, mb3.7/12, mb1 4.0/14, mb1mx3.9/21, mbtmp3.8/14, ML3.8/1, Error ellipse: s-maj=25.2km s-min=16.0km az=66.0*
NIED ***04*** *16:06:00, 2750N×14210E, h47^{km}, Mw4.5 Best double couple: M$_0$5.91000×10^{15} NP1:φ$_s$211.00000°, δ44.00000°, λ-33.00000°. NP2:φ$_s$326.00000°, δ68.00000°, λ-129.00000°.*
NEIC ***04*** *16:06:01.5±1.6, 2765N×14174E, h55^{km}±13^{km}, mb4.7/1, MW4.4(NIED), Error ellipse: s-maj=17.2km s-min=10.4km az=92.0*
NEIC Recorded [1 JMA] in Tokyo Prefecture, Honshu.
JMA ***04*** *16:06:01.3, 2754N×14207E, h44^{km}±1^{km}, M4.5*
JMA Felt I J1.
ISC 04 16:06:00.0±0.6**, 2759N**±005×**1419E**±01**, h43**^{km}±6^{km}**, n35, σ0**^{s}**99**/37**, mb4.0**/15**, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	0.56	152	P	Pn	16 06 11.6	0.0
CBIJ				S	Sn	16 06 19.0	-0.9
CBIJ	Chichi jima	0.56	152	Pn	Pn	16 06 11.8	+0.1
	1µm,0.3s,baz=280,slow=22,SNR=713						
CBIJ				Sn	Sn	16 06 18.8	-1.1
	4µm,0.3s,baz=300,slow=22,SNR=127						
JHHJ	Haha-jima-NKT	0.99	165	P	Pn	16 06 17.8	+0.3
JHJ2	Mitsune	5.79	342	P	Pn	16 07 26.1	+2.8
BSO3	Boso 3	7.29	351	P	Pn	16 07 43.1	-0.8
BSO4	Boso 4	7.50	350	P	Pn	16 07 48.2	+1.4
JOD2	Odawara 2	8.02	343	P	Pn	16 07 55.5	+1.6
JHU	Hanno	8.53	346	P	Pn	16 08 01.0	+0.1
JYT	Yasato	8.73	351	P	Pn	16 08 03.1	-0.6
JRY	Ryogami san	8.78	344	P	Pn	16 08 04.9	+0.6
JAG	Ashikaga	9.05	347	P	Pn	16 08 06.0	-2.0
JHO	Hitachi	9.06	353	P	Pn	16 08 06.8	-1.4
MJAR	Matsushiro Arr	9.46	342	Pn	Pn	16 08 12.7	-0.9
MJAR	Matsushiro Arr	9.46	342	Pn	Pn	16 08 12.7	-0.9
	1.5nm,0.3s,baz=156,slow=13,SNR=23						
MAJO	Matsushiro	9.46	342	eP	Pn	16 08 14.5	+0.8
MAT	Matsushiro	9.46	342	P	Pn	16 08 14.6	+1.0
ASAJ	Asahikawa	16.50	2	Pn	Pn	16 09 47.6	-0.7
	0.6nm,0.3s,baz=238,slow=12,SNR=6.1						
SONM	Songino Array	34.18	316	P	P	16 12 41.5	+0.4
	0.6nm,1.0s,mb3.5,baz=116,slow=9.8,SNR=3.1						
WB2	Warramunga Arr	47.81	190	eP	P	16 14 33.9	+0.6
WB2	Warramunga Arr	47.81	190	eP	P	16 14 33.9	+0.5
WRA	Warramunga Arr	47.81	190	P	P	16 14 33.4	+0.1
	1.6nm,0.5s,mb4.3,baz=12,slow=8.5,SNR=12						
FITZ	Fitzroy Crossi	48.07	201	eP	P	16 14 36.7	+1.3
	9.2nm,1.1s,mb4.7						
ZALV	Zalesovo Beam	48.95	319	P	P	16 14 41.4	-0.4
	0.2nm,0.3s,mb3.6,baz=145,slow=5.4,SNR=3.6						
ZALV				PcP	PcP	16 16 04.9	-0.6
	0.3nm,0.4s,baz=66,slow=3.5,SNR=3.1						
MKAR	Makanchi Array	49.96	309	P	P	16 14 47.9	-1.8
	0.1nm,0.6s,mb3.0,baz=91,slow=7.2,SNR=4.3						
MKAR				PcP	PcP	16 16 09.6	+0.3
	0.1nm,0.4s,baz=108,slow=2.7,SNR=4.9						
KDAK	Kodiak Island	54.13	37	P	P	16 15 20.9	+0.5
	18nm,1.3s,mb4.8,baz=326,slow=13,SNR=4.0						
INK	Inuvik	62.69	25	eP	P	16 16 20.3	+0.3
INK	Inuvik	62.69	25	P	P	16 16 20.6	+0.6
	0.5nm,0.5s,mb3.9,baz=306,slow=2.6,SNR=5.3						
YKA	Yellowknife Ar	71.83	28	P	P	16 17 18.0	+0.1
	0.4nm,0.5s,mb3.6,baz=296,slow=5.9,SNR=9.2						
ARCES	ARCESS Array B	72.99	341	P	P	16 17 25.4	+0.7
	2.1nm,0.8s,mb4.1,baz=62,slow=6.6,SNR=7.2						
JOF	Joensuu	74.53	334	ep	P	16 17 32.3	-1.5
	6.2nm,0.4s,mb4.9						
FINES	FINESS Array B	77.39	334	P	P	16 17 50.4	+0.2
	2.0nm,0.4s,mb4.4,baz=72,slow=5.0,SNR=50						
NVAR	Mina Array Bea	80.42	52	P	P	16 18 08.4	+1.1
	0.2nm,0.4s,mb3.4,baz=343,slow=1.9,SNR=3.3						
AKASG	Malin Array Be	82.07	324	P	P	16 18 15.2	-0.5
	0.3nm,0.4s,mb3.6,baz=52,slow=5.4,SNR=3.3						
NOA	NORSAR Array B	83.06	338	P	P	16 18 20.0	-0.7
	1.8nm,0.9s,mb4.1,baz=43,slow=4.8,SNR=3.3						
GERES	GERESS Array B	90.95	329	P	P	16 18 58.5	-0.9
	0.5nm,0.7s,mb3.9,baz=62,slow=2.7,SNR=3.1						

IDC ***04*** *16:20:48.4±1.2, 3853N×2045E, h0^{km}, mb3.6/7, mb1 3.7/11, mb1mx3.6/25, mbtmp3.6/11, ML3.9/3, Error ellipse: s-maj=23.1km s-min=19.7km az=51.0*
NEIC ***04*** *16:20:49.9, 3831N×2037E, h6^{km}, ML3.7(ATH), After ATH.*
ISCJB ***04*** *16:20:50.0±0.7, 3835N±003×2040E±004, h5^{km}±5^{km}, mb3.6/7, Error ellipse: s-maj=5.3km s-min=4.5km az=24.8*
ATH ***04*** *16:20:49.9, 3831N×2037E, h6^{km}±1^{km}, MD3.7/11, ML3.9*
THE ***04*** *16:20:51.4, 3845N×2032E, h3^{km}, ML4.0*
CSEM ***04*** *16:20:51.5±0.1, 3834N×2046E, h2^{km}, ML3.9, Error ellipse: s-maj=2.8km s-min=2.5km az=39.0*
SKO ***04*** *16:20:59.1, 3896N×2051E, h0^{km}*
ISC 04 16:20:50.7±0.7**, 3834N**±003×**2043E**±004**, h5**^{km}±5^{km}**, n95, σ1**^{s}**36**/114**, mb3.6**/7**, 2C, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.21	142	⇑iPg	Pg	16 20 54.9	+0.2
VLS				eSg	Sg	16 20 58.3	+0.9
VLS	Valsamata	0.21	142	⇑iPG	Pg	16 20 54.9	+0.2
VLS				eSG	Sg	16 20 58.3	+0.9
VLS	Valsamata	0.21	142	iPg	Pg	16 20 54.9	+0.2
VLS				eSg	Sg	16 20 58.3	+0.9
LKD	Levkas	0.41	25	ePg	Pg	16 20 58.0	-0.6
LKD				eSg	Sg	16 21 03.7	-0.1
LKD	Levkas	0.41	25	ePg	Pg	16 20 58.0	-0.5
LKD				eSg	Sg	16 21 03.7	-0.1
RLS	Riolos of Patr	0.86	109	ePb	Pg	16 21 06.1	-1.2
RLS	Riolos of Patr	0.86	109	ePB	Pg	16 21 06.1	-1.2
RLS	Riolos of Patr	0.86	109	ePb	Pg	16 21 06.1	-1.2
EVR	Evrytania	1.23	62	ePb	Pb	16 21 14.0	-0.3
EVR	Evrytania	1.23	62	ePB	Pb	16 21 14.0	-0.3
EVR	Evrytania	1.23	62	ePb	Pb	16 21 14.0	-0.3
JAN	Janina	1.35	14	ePb	Pb	16 21 16.1	-0.5
JAN				eSb	Sb	16 21 34.9	+0.7
JAN	Janina	1.35	14	ePB	Pb	16 21 16.1	-0.5
JAN				eSB	Sb	16 21 34.9	+0.7
JAN	Janina	1.35	14	ePb	Pb	16 21 16.1	-0.5
JAN				eSb	Sb	16 21 34.9	+0.7
KEK	Kerkira	1.46	341	ePb	Pb	16 21 17.4	-0.9
KEK	Kerkira	1.46	341	ePB	Pb	16 21 17.4	-0.9
KEK	Kerkira	1.46	341	ePb	Pb	16 21 17.4	-0.9
AGG	Agios Georgios	1.64	65	ePb	Pn	16 21 19.9	-0.3
AGG				eSb	Sg	16 21 45.4	+2.1
AGG	Agios Georgios	1.64	65	ePb	Pn	16 21 19.9	-0.3
AGG				eSb	Sg	16 21 45.4	+2.1
ITM	Ithomi	1.66	134	ePg	Pn	16 21 21.1	+0.6
ITM	Ithomi	1.66	134	ePG	Pn	16 21 21.1	+0.6
ITM	Ithomi	1.66	134	ePg	Pn	16 21 21.1	+0.6
THL	Klokotos Trika	1.74	45	ePN	Pg	16 21 23.8	-0.2
THL				eSN	Sg	16 21 48.0	+1.4
THL	Klokotos Trika	1.74	45	ePn	Pg	16 21 23.8	-0.2

LKR	**Lokris**	**2.04**	**80**	*e*Pn	**Pg**	**16 21 27.8**	**-2.0**
LKR	**Lokris**	**2.04**	**80**	*e*PN	**Pg**	**16 21 27.8**	**-2.0**
LKR	**Lokris**	**2.04**	**80**	*e*Pn	**Pg**	**16 21 27.8**	**-2.0**
KZN	**Kozani**	**2.22**	**28**	*e*Pn	**Pg**	**16 21 30.2**	**-3.1**
KZN	**Kozani**	**2.22**	**28**	*e*PN	**Pg**	**16 21 30.2**	**-3.1**
KZN	**Kozani**	**2.22**	**28**	*e*Pn	**Pg**	**16 21 30.2**	**-3.1**
MGER	**Gerania Oros**	**2.26**	**98**	*e*Pn	**Pg**	**16 21 31.0**	**-3.0**
MGER	**Gerania Oros**	**2.26**	**98**	*e*PN	**Pg**	**16 21 31.0**	**-3.0**
MGER	**Gerania Oros**	**2.26**	**98**	*e*Pn	**Pg**	**16 21 31.0**	**-3.0**
LIT	**Litokhoron**	**2.38**	**42**	*e*Pn	**Pn**	**16 21 31.4**	**+1.0**
LIT	**Litokhoron**	**2.38**	**42**	*e*Pn	**Pn**	**16 21 31.4**	**+1.0**
FNA	**Florina**	**2.55**	**16**	*e*Pn	**Pn**	**16 21 33.0**	**+0.3**
FNA				*e*Sn	**Sn**	**16 22 04.1**	**0.0**
FNA	**Florina**	**2.55**	**16**	*e*Pn	**Pn**	**16 21 33.0**	**+0.3**
FNA				*e*Sn	**Sn**	**16 22 04.1**	**0.0**
VLI	**Veliai**	**2.57**	**128**	*e*Pn	**Pg**	**16 21 35.4**	**-4.5**
VLI	**Veliai**	**2.57**	**128**	*e*PN	**Pg**	**16 21 35.4**	**-4.5**
VLI	**Veliai**	**2.57**	**128**	*e*Pn	**Pg**	**16 21 35.4**	**-4.5**
ATH	**Athens Observa**	**2.62**	**97**	*e*Pn	**Pg**	**16 21 35.4**	**-5.5**
ATH	**Athens Observa**	**2.62**	**97**	*e*PN	**Pg**	**16 21 35.4**	**-5.5**
ATH	**Athens Observa**	**2.62**	**97**	*e*Pn	**Pg**	**16 21 35.4**	**-5.5**
KVR	**Kavouri**	**2.69**	**100**	*e*PN	**Pg**	**16 21 36.5**	**-5.7**
KVR	**Kavouri**	**2.69**	**100**	*e*Pn	**Pg**	**16 21 36.5**	**-5.7**
PTL	**Penteli**	**2.72**	**95**	*e*Pb	**Pn**	**16 21 36.2**	**+1.1**
PTL	**Penteli**	**2.72**	**95**	*e*PB	**Pn**	**16 21 36.2**	**+1.1**
PTL	**Penteli**	**2.72**	**95**	*e*Pb	**Pn**	**16 21 36.2**	**+1.1**
BIA	**Bitola**	**2.76**	**14**	*e*Pn	**Pn**	**16 21 37.4**	**+1.7**
BIA	**Bitola**	**2.76**	**14**	*e*Pn	**Pn**	**16 21 37.3**	**+1.6**
OHR	**Ohrid**	**2.78**	**6**	*e*Pn	**Pn**	**16 21 35.8**	**-0.2**
OHR	**Ohrid**	**2.78**	**6**	*e*Pn	**Pn**	**16 21 35.7**	**-0.2**
KYTH	**Kithira**	**2.92**	**134**	*e*Pb	**Pn**	**16 21 39.0**	**+1.1**
KYTH	**Kithira**	**2.92**	**134**	*e*PB	**Pn**	**16 21 39.0**	**+1.1**
KYTH	**Kithira**	**2.92**	**134**	*e*Pb	**Pn**	**16 21 39.0**	**+1.1**
TIP	**Timpagrande**	**2.99**	**287**	P	**Pn**	**16 21 39.6**	**+0.9**
SERS	**Sersale**	**3.01**	**285**	Pn	**Pn**	**16 21 39.4**	**+0.4**
SERS				Sn	**Sn**	**16 22 15.7**	**+0.3**
KRUS	**Krusevo**	**3.09**	**12**	*e*Pn	**Pn**	**16 21 40.6**	**+0.4**
KRUS				*e*Sg	**Sn**	**16 22 17.6**	**+0.2**
KRUS	**Krusevo**	**3.09**	**12**	*e*Pn	**Pn**	**16 21 40.5**	**+0.4**
KRUS				*e*Sg	**Sn**	**16 22 17.6**	**+0.1**
PLG	**Polygyros**	**3.10**	**48**	*e*Pn	**Pn**	**16 21 41.4**	**+1.2**
PLG	**Polygyros**	**3.10**	**48**	*e*PN	**Pn**	**16 21 41.4**	**+1.2**
PLG	**Polygyros**	**3.10**	**48**	*e*Pn	**Pn**	**16 21 41.4**	**+1.2**
GRI	**Girifalco**	**3.18**	**280**	Pn	**Pn**	**16 21 42.6**	**+1.3**
GRI	**Girifalco**	**3.18**	**280**	Pn	**Pn**	**16 21 42.6**	**+1.3**
VAY	**Valandovo**	**3.40**	**28**	*e*Pn	**Pn**	**16 21 44.7**	**+0.2**
VAY	**Valandovo**	**3.40**	**28**	*e*Pn	**Pn**	**16 21 44.6**	**+0.2**
MGR	**Morigerati**	**4.19**	**297**	Pn	**Pn**	**16 21 55.9**	**+0.7**
MGR	**Morigerati**	**4.19**	**297**	Pn	**Pn**	**16 21 55.9**	**+0.7**
SGO	**Sicignano**	**4.54**	**301**	Pn	**Pn**	**16 22 01.5**	**+1.4**
SGO	**Sicignano**	**4.54**	**301**	Pn	**Pn**	**16 22 01.5**	**+1.4**
IDI	**Anoyia**	**4.70**	**129**	Pn	**Pn**	**16 22 04.3**	**+2.0**
IDI				Sn	**Sn**	**16 22 54.2**	**-3.0**
IDI	**Anoyia**	**4.70**	**129**	Pn	**Pn**	**16 22 04.3**	**+2.0**
	0.3nm,0.3s,baz=31,slow=14,SNR=2.6						
IDI				Sn	**Sn**	**16 22 54.2**	**-3.0**
	1.3nm,0.3s,baz=99,slow=19,SNR=3.5						
IDI	**Anoyia**	**4.70**	**129**	Pn	**Pn**	**16 22 04.3**	**+2.0**
IDI				Sn	**Sn**	**16 22 54.2**	**-3.0**
MCRV	**Calabrutti - M**	**4.74**	**303**	Pn	**Pn**	**16 22 04.5**	**+1.7**
	31nm,0.2s						
CSSN	**Cassano Irpino**	**4.87**	**303**	Pn	**Pn**	**16 22 06.4**	**+1.7**
CSSN	**Cassano Irpino**	**4.87**	**303**	Pn	**Pn**	**16 22 06.4**	**+1.7**
RGNG	**Rignano Grg**	**4.99**	**313**	*i* Pnu	**Pn**	**16 22 06.1**	**-0.1**
BRTR	**Keskin Array B**	**10.37**	**78**	Pn	**Pn**	**16 23 23.1**	**+3.1**
BRTR	**Keskin Array B**	**10.37**	**78**	Pn	**Pn**	**16 23 23.1**	**+3.1**
	0.1nm,0.3s,baz=270,slow=12,SNR=4.7						
DAVOX	**Davos/Dischmat**	**11.46**	**321**	Pn	**Pn**	**16 23 33.4**	**-1.6**
DAVOX	**Davos/Dischmat**	**11.46**	**321**	Pn	**Pn**	**16 23 33.4**	**-1.6**
	0.2nm,0.3s,baz=135,slow=19,SNR=3.1						
DAVOX	**Davos/Dischmat**	**11.46**	**321**	Pn	**Pn**	**16 23 33.4**	**-1.6**
GERES	**GERESS Array B**	**11.57**	**337**	Pn	**Pn**	**16 23 33.1**	**-3.3**
GERES	**GERESS Array B**	**11.57**	**337**	Pn	**Pn**	**16 23 33.1**	**-3.3**
	0.2nm,0.3s,baz=153,slow=12,SNR=4.5						
GERES	**GERESS Array B**	**11.57**	**337**	Pn	**Pn**	**16 23 33.1**	**-3.4**
ESDC	**Sonseca Array**	**18.99**	**282**	P	**Pn**	**16 25 12.1**	**-1.7**
	0.4nm,0.3s,baz=79,slow=11,SNR=4.4						
HFS	**Hagfors**	**22.23**	**351**	P	**P**	**16 25 45.0**	**-2.9**
	2.0nm,0.6s,mb3.8,baz=161,slow=14,SNR=6.7						
EKA	**Eskdalemuir Ar**	**23.25**	**325**	P	**P**	**16 25 56.1**	**-2.7**
	1.8nm,0.9s,mb3.5,baz=125,slow=11,SNR=4.3						
FINES	**FINESS Array B**	**23.39**	**7**	P	**P**	**16 25 56.4**	**-3.9**
	1.6nm,0.8s,mb3.5,baz=182,slow=13,SNR=6.7						
NOA	**NORSAR Array B**	**23.45**	**349**	P	**P**	**16 25 57.4**	**-3.3**
	1.0nm,0.7s,mb3.4,baz=163,slow=9.6,SNR=3.3						
TORD	**Torodi Ar. Bea**	**30.11**	**219**	P	**P**	**16 27 00.3**	**-1.0**
	0.6nm,0.8s,mb3.4,baz=24,slow=8.0,SNR=4.5						
MKAR	**Makanchi Array**	**45.28**	**59**	P	**P**	**16 29 06.2**	**-2.9**
MKAR	**Makanchi Array**	**45.28**	**59**	P	**P**	**16 29 06.2**	**-2.9**
	0.4nm,0.5s,mb3.5,baz=275,slow=7.3,SNR=15						
ZALV	**Zalesovo Beam**	**45.64**	**48**	P	**P**	**16 29 09.2**	**-2.7**
	1.1nm,0.4s,mb4.1,baz=283,slow=8.0,SNR=6.3						
ZALV	**Zalesovo Beam**	**45.64**	**48**	P	**P**	**16 29 09.1**	**-2.8**

ISCJB ***04*** *17:08:07.4±0.4, 5.11N±0.05×76.32W±0.04, h115^{km}±4^{km}, mb4.1/45, Error ellipse: s-maj=8.9km s-min=5.6km az=26.1*

NEIC ***04*** *17:08:07.6±0.2, 5.01N×76.46W, mb4.2/31, Error ellipse: s-maj=7.2km s-min=5.6km az=52.0*

IDC ***04*** *17:08:08.2±0.7, 5.09N×76.28W, h110^{km}±6^{km}, mb3.6/13, mb1 3.8/15, mb1mx3.8/20, mbtmp3.6/15, MS2.9/2, Ms1 2.9/2, ms1mx2.6/24, Error ellipse: s-maj=14.9km s-min=7.8km az=28.0*

CASC ***04*** *17:08:17.8±2.9, 5.79N×76.80W, h36^{km}±999^{km}, MD4.6, mb4.2(NEIC)*

ISC 04 17:08:08.4±0.4, **5.09N**±0.05×**76.31W**±0.04, **h110**^{km}±4^{km}, **h113**^{km}±2.7^{km}**:pP-P, n129,** σ**0.86**/127, **mb4.1**/45, **2C-1D, Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MALC	**Bahia Malaga**	**1.48**	**224**	*e*P	**Pn**	**17 08 34.3**	**-0.8**
MALC				*e*S	**Sn**	**17 08 55.0**	**-0.3**
ROSC	**El Rosal**	**1.98**	**97**	*e*P	**Pn**	**17 08 42.1**	**+1.0**
ROSC				S	**Sn**	**17 09 06.6**	**+0.4**
ROSC	**El Rosal**	**1.98**	**97**	P	**Pn**	**17 08 42.3**	**+1.1**
	63nm,0.3s,baz=65,slow=2.0,SNR=86						
ROSC				S	**Sn**	**17 09 06.6**	**+0.4**
	84nm,0.3s,baz=104,slow=23,SNR=33						
ROSC	**El Rosal**	**1.98**	**97**	*e*P	**Pn**	**17 08 42.2**	**+1.0**
ROSC				*e*S	**Sn**	**17 09 07.9**	**+1.7**
UPD1	**Univ de Panama**	**3.83**	**334**	*e*P	**Pn**	**17 09 03.0**	**-2.6**
AZU	**Azuero**	**4.77**	**304**	*e*P	**Pn**	**17 09 16.1**	**-2.1**
AZU				*e*S	**Sn**	**17 10 02.6**	**-10**
BCIP	**Isla Barro Col**	**5.35**	**319**	*e*P	**Pn**	**17 09 23.3**	**-2.8**
BCIP				S	**Sn**	**17 10 13.5**	**-13**
BCIP	**Isla Barro Col**	**5.35**	**319**	⇓*i*P	**Pn**	**17 09 23.6**	**-2.5**
DVD	**David**	**6.95**	**299**	*e*P	**Pn**	**17 09 48.3**	**+0.6**
BRU	**Baru**	**7.22**	**301**	*e*P	**Pn**	**17 09 52.2**	**+0.7**
CTCR	**Cotoan**	**7.44**	**301**	*e*P	**Pn**	**17 09 57.3**	**+2.9**
CNI	**Changuinola**	**7.51**	**305**	*e*P	**Pn**	**17 09 58.2**	**+2.9**
BAR1		**8.08**	**301**	*e*P	**Pn**	**17 10 02.9**	**-0.2**
LCR2	**La Lucha 2**	**8.92**	**302**	*e*P	**Pn**	**17 10 15.5**	**+1.0**
PRS1	**Puriscal**	**9.30**	**302**	*e*P	**Pn**	**17 10 20.4**	**+0.7**
JTS	**JuntasAbangare**	**10.00**	**302**	*e*P	**Pn**	**17 10 24.7**	**-4.5**
	15nm,0.8s						
JTS				S	**Sn**	**17 12 19.3**	**-0.2**
JTS	**JuntasAbangare**	**10.00**	**302**	P	**Pn**	**17 10 23.9**	**-5.4**
	0.1nm,0.3s,baz=218,slow=19,SNR=2.4						
JTS				S	**Sn**	**17 12 19.3**	**-0.2**
	0.5nm,0.3s,baz=102,slow=22,SNR=2.6						
ATAH	**Atahualpa**	**12.19**	**190**	P	**Pn**	**17 11 01.5**	**+3.0**
	0.7nm,0.3s,baz=56,slow=7.2,SNR=6.5						
PCRV	**Puerto La Cruz**	**12.62**	**66**	P	**Pn**	**17 11 01.7**	**-2.4**
	1.7nm,0.3s,baz=190,slow=13,SNR=7.1						
PCRV				S	**Sn**	**17 13 15.3**	**-7.7**
	0.9nm,0.3s,baz=355,slow=17,SNR=2.5						
SDDR	**Presa de Saban**	**14.65**	**19**	*e*P	**Pn**	**17 11 31.1**	**+0.8**
	29nm,0.9s						
CCCC	**Cccc**	**16.07**	**355**	*e*P	**Pn**	**17 11 54.4**	**+6.2**
GRGR	**Grenville**	**16.08**	**63**	*e*P	**Pn**	**17 11 41.0**	**-7.3**
SJG	**San Juan**	**16.31**	**37**	P	**Pn**	**17 11 46.0**	**-5.1**
	1.7nm,0.3s,baz=347,slow=6.3,SNR=3.6						
NNA	**Nana**	**16.98**	**182**	P	**Pn**	**17 11 55.9**	**-3.5**
	1.0nm,0.3s,baz=174,slow=17,SNR=2.0						
TEIG	**Tepich**	**19.02**	**323**	*e*P	**P**	**17 12 22.8**	**+0.9**
TEIG	**Tepich**	**19.02**	**323**	P	**P**	**17 12 22.7**	**+0.9**
	1.4nm,0.3s,baz=319,slow=13,SNR=8.1						
CMIG	**Matias Romero**	**21.75**	**305**	LR	LR	17 21 47.6	
	comp=Z,57nm,21.4s,baz=197,slow=38						
LPAZ	**La Paz**	**22.73**	**159**	P	**P**	**17 13 00.3**	**-1.2**
	1.5nm,0.6s,mb3.5,baz=8.6,slow=6.4,SNR=9.4						
LPAZ				LR	LR	17 22 38.6	
	comp=Z,20nm,21.2s,baz=290,slow=38						
SIV	**San Ignacio**	**25.81**	**145**	P	**P**	**17 13 28.5**	**-1.1**
	4.2nm,0.6s,mb4.1,baz=324,slow=8.9,SNR=23						
LCO	**Las Campanas**	**34.33**	**171**	*e*P	**P**	**17 14 45.4**	**+0.8**
TXAR	**Lajitas Array**	**35.37**	**316**	P	**P**	**17 14 53.2**	**-0.4**
	0.1nm,0.5s,baz=130,slow=15,SNR=3.3						
TXAR				PcP	PcP	17 17 22.6	+1.1
	0.6nm,1.0s,baz=137,slow=6.4,SNR=4.2						
CFAA	**Coronel Fontan**	**37.29**	**169**	P	**P**	**17 15 10.7**	**+0.8**
	0.4nm,0.8s,mb3.4,baz=340,slow=9.0,SNR=13						
MNTX	**Cornudas Mount**	**37.98**	**318**	P	**P**	**17 15 15.9**	**+0.1**
	1.7nm,0.8s,mb3.9						
PDAR	**Pinedale Array**	**47.69**	**327**	P	**P**	**17 16 35.0**	**+1.0**
	0.3nm,0.7s,mb3.2,baz=174,slow=9.7,SNR=2.8						
PDAR				pP	pP	17 17 00.2	+0.4
	0.8nm,0.9s,baz=110,slow=13,SNR=4.3						
SCHQ	**Schefferville**	**50.18**	**7**	P	**P**	**17 16 52.1**	**-0.6**
	3.1nm,0.7s,mb4.3,baz=231,slow=11,SNR=3.7						
NVAR	**Mina Array Bea**	**50.51**	**317**	P	**P**	**17 16 54.2**	**-1.3**
	0.4nm,0.7s,mb3.6,baz=151,slow=3.9,SNR=3.4						
NVAR				pP	pP	17 17 21.7	+0.3
	0.6nm,0.7s,baz=128,slow=8.0,SNR=3.3						
NVAR				PcP	PcP	17 18 13.1	+1.1
	0.4nm,0.6s,baz=143,slow=4.0,SNR=4.9						
CML	**Cha da Macela**	**56.42**	**47**	*e*P	**P**	**17 17 45.4**	**+6.7**
PRCH	**Ribeira Ch**	**56.45**	**48**	*e*P	**P**	**17 17 45.4**	**+6.4**
PRCH							
	86nm,0.2s						
LFA	**Lagoa do Fogo**	**56.47**	**47**	*e*P	**P**	**17 17 45.9**	**+6.8**
YKA	**Yellowknife Ar**	**63.83**	**341**	P	**P**	**17 18 27.8**	**-1.0**
YKA				pP	pP	17 18 55.0	-0.8
YKA	**Yellowknife Ar**	**63.83**	**341**	P	**P**	**17 18 27.8**	**-1.0**
	0.9nm,0.6s,mb3.8,baz=134,slow=6.4,SNR=16						
YKA				pP	pP	17 18 55.0	-0.8
	0.8nm,0.6s,baz=132,slow=6.6,SNR=5.8						
MORF	**Marmelete**	**69.19**	**52**	*e*P	**P**	**17 19 04.3**	**+0.8**
PBEJ	**Beja**	**69.93**	**51**	*e*P	**P**	**17 19 08.3**	**+0.3**
PVAQ	**Vaqueiros**	**69.94**	**52**	*e*P	**P**	**17 19 08.4**	**+0.3**
	10nm,1.7s,mb4.4						
EGRO	**El Granado**	**70.15**	**52**	P	**P**	**17 19 09.3**	**-0.1**
	2.7nm,0.8s,mb4.1						
PESTR	**Estremoz**	**70.28**	**51**	*e*P	**P**	**17 19 10.1**	**0.0**
	5.0nm,0.6s,mb4.5						
PVIS	**Viseu**	**70.37**	**49**	*e*P	**P**	**17 19 10.4**	**-0.3**
	7.7nm,0.8s,mb4.6						
TIC	**Toumodi**	**70.88**	**85**	*e*P	**P**	**17 19 12.8**	**-1.4**
	1.3nm,0.2s,mb4.4						
LIC	**Lamto**	**70.89**	**85**	*e*P	**P**	**17 19 12.9**	**-1.4**
	21nm,0.6s,mb5.2						
LIC	**Lamto**	**70.89**	**85**	⇑*i*P	**P**	**17 19 13.1**	**-1.2**
	5.9nm,0.6s,mb4.6						
LIC	**Lamto**	**70.89**	**85**	⇑*i*P	**P**	**17 19 13.1**	**-1.2**
	12nm,0.6s,mb4.6						
MVO	**Moncorvo**	**71.10**	**48**	*e*P	**P**	**17 19 15.2**	**+0.2**
	7.0nm,0.8s,mb4.5						
KIC	**Kosan Boka**	**71.17**	**85**	*e*P	**P**	**17 19 14.6**	**-1.4**
	38nm,0.6s						
EADA	**Adamuz**	**72.52**	**52**	P	**P**	**17 19 23.3**	**-0.3**
	1.0nm,0.4s,mb4.0						
GUD	**Guadarrama**	**73.17**	**49**	P	**P**	**17 19 27.5**	**+0.1**
	0.7nm,0.5s,mb3.8						
ESDC	**Sonseca Array**	**73.19**	**50**	P	**P**	**17 19 27.7**	**+0.2**
	0.6nm,0.3s,mb3.9						
ESDC	**Sonseca Array**	**73.19**	**50**	P	**P**	**17 19 27.6**	**+0.1**
	1.3nm,0.6s,mb4.0,baz=270,slow=5.5,SNR=15						
EQES	**Quesada**	**73.65**	**52**	P	**P**	**17 19 30.8**	**+0.5**
	1.3nm,0.5s,mb3.9						
EBER	**Berja**	**73.70**	**53**	P	**P**	**17 19 31.2**	**+0.6**
	1.0nm,0.4s,mb3.9						
ETOB	**Tobarra**	**74.94**	**51**	P	**P**	**17 19 38.4**	**+0.6**
	1.8nm,0.5s,mb4.1						
ROSF	**Rostrenen**	**74.95**	**41**	*e*P	**P**	**17 19 37.7**	**+0.1**
QUIF	**Quistinic**	**74.95**	**42**	*e*P	**P**	**17 19 38.0**	**+0.4**
SGMF	**Saint Gilles**	**75.41**	**42**	*e*P	**P**	**17 19 40.2**	**0.0**
ELIZ	**Elizondo**	**75.43**	**47**	P	**P**	**17 19 40.8**	**+0.4**
SJPF	**Ste Jean**	**75.65**	**47**	*e*P	**P**	**17 19 42.3**	**+0.6**
	7.6nm,0.6s,mb4.6						
SJPF	**Ste Jean**	**75.65**	**47**	*e*P	**P**	**17 19 42.3**	**+0.6**
	15nm,0.6s,mb4.6						
EMOS	**Mosqueruela**	**75.93**	**50**	P	**P**	**17 19 44.2**	**+0.8**
	1.2nm,0.6s,mb3.8						
EBEN	**Beniarda**	**75.97**	**52**	P	**P**	**17 19 43.8**	**+0.2**
	1.1nm,0.6s,mb3.8						
ETSF	**Etsaut**	**76.11**	**47**	*e*P	**P**	**17 19 44.5**	**+0.2**
	2.2nm,0.8s,mb3.9						
ETSF	**Etsaut**	**76.11**	**47**	*e*P	**P**	**17 19 44.5**	**+0.2**
	4.4nm,0.8s,mb3.9						
GRR	**Gorron**	**76.55**	**42**	*e*P	**P**	**17 19 46.8**	**+0.1**
	4.0nm,0.5s,mb4.4						
GRR	**Gorron**	**76.55**	**42**	*e*P	**P**	**17 19 46.8**	**+0.1**
	7.9nm,0.5s,mb4.4						
ERTA	**Horta de San J**	**76.59**	**49**	P	**P**	**17 19 47.5**	**+0.4**
	0.7nm,0.4s,mb3.7						
EBIE	**Bielsa**	**76.60**	**47**	P	**P**	**17 19 47.9**	**+0.8**
	1.0nm,0.4s,mb3.9						
EPF	**Esparros**	**76.78**	**47**	*e*P	**P**	**17 19 48.6**	**+0.5**
	5.9nm,0.7s,mb4.4						
EPF	**Esparros**	**76.78**	**47**	*e*P	**P**	**17 19 48.6**	**+0.5**
	12nm,0.7s,mb4.4						
MFF	**Saint Martin d**	**76.81**	**43**	*e*P	**P**	**17 19 48.0**	**-0.2**
	11nm,0.8s,mb4.7						
MFF	**Saint Martin d**	**76.81**	**43**	*e*P	**P**	**17 19 48.0**	**-0.2**
	22nm,0.8s,mb4.7						
FLN	**La Foliniere**	**76.85**	**41**	*e*P	**P**	**17 19 48.4**	**0.0**
LDF	**La Druitiere**	**77.06**	**41**	*e*P	**P**	**17 19 49.7**	**+0.1**
EPOB	**Poblet**	**77.18**	**49**	P	**P**	**17 19 50.4**	**0.0**
	0.6nm,0.4s,mb3.7						
TOA0	**Torodi Ar. Sit**	**77.19**	**78**	*e*P	**P**	**17 19 49.9**	**-1.0**
TORD	**Torodi Ar. Bea**	**77.19**	**78**	P	**P**	**17 19 50.1**	**-0.8**
	4.7nm,0.5s,mb4.4,baz=282,slow=6.2,SNR=49						
LFF	**La Frestale**	**77.25**	**45**	*e*P	**P**	**17 19 50.8**	**+0.1**
RJF	**Les Rejaudoux**	**77.83**	**45**	*e*P	**P**	**17 19 53.6**	**-0.3**
	4.0nm,0.7s,mb4.3						
RJF	**Les Rejaudoux**	**77.83**	**45**	*e*P	**P**	**17 19 53.6**	**-0.3**
	7.9nm,0.7s,mb4.3						
MTLF	**Montolieu**	**78.17**	**47**	*e*P	**P**	**17 19 55.8**	**-0.1**
CAF	**Calviac**	**78.19**	**45**	*e*P	**P**	**17 19 56.0**	**+0.1**
	13nm,1.2s,mb4.5						
CAF	**Calviac**	**78.19**	**45**	*e*P	**P**	**17 19 56.0**	**+0.1**
	27nm,1.2s,mb4.6						
TCF	**Toulx Ste Croi**	**78.40**	**44**	*e*P	**P**	**17 19 56.9**	**-0.2**
BGF	**Bois d'Agland**	**78.86**	**44**	*e*P	**P**	**17 19 59.2**	**-0.4**
	4.0nm,0.6s,mb4.4						
BGF	**Bois d'Agland**	**78.86**	**44**	*e*P	**P**	**17 19 59.2**	**-0.4**
	7.9nm,0.6s,mb4.4						
AVF	**Avril sur Loir**	**79.22**	**43**	*e*P	**P**	**17 20 01.1**	**-0.5**
	6.8nm,1.1s,mb4.4						
AVF	**Avril sur Loir**	**79.22**	**43**	*e*P	**P**	**17 20 01.1**	**-0.5**
	14nm,1.1s,mb4.4						
SSF	**Saint Saulge**	**79.35**	**43**	*e*P	**P**	**17 20 01.6**	**-0.6**
	3.3nm,0.8s,mb4.2						
SSF	**Saint Saulge**	**79.35**	**43**	*e*P	**P**	**17 20 01.6**	**-0.6**
	6.6nm,0.8s,mb4.2						
LASF	**Ste Croix**	**79.41**	**46**	*e*P	**P**	**17 20 02.5**	**-0.1**
SMF	**Signal de Mont**	**79.55**	**44**	*e*P	**P**	**17 20 02.7**	**-0.6**
	2.1nm,0.6s,mb4.1						
SMF	**Signal de Mont**	**79.55**	**44**	*e*P	**P**	**17 20 02.7**	**-0.6**
	4.2nm,0.6s,mb4.2						
LOR	**Lormes**	**79.60**	**43**	*e*P	**P**	**17 20 02.9**	**-0.7**
	2.7nm,0.6s,mb4.2						
LOR	**Lormes**	**79.60**	**43**	*e*P	**P**	**17 20 02.9**	**-0.7**
	5.3nm,0.6s,mb4.2						
BAIF	**Baives**	**80.02**	**40**	*e*P	**P**	**17 20 05.9**	**+0.1**
VIVF	**Saint-Julien-l**	**80.03**	**45**	*e*P	**P**	**17 20 06.5**	**+0.5**
	3.8nm,0.8s,mb4.3						
VIVF	**Saint-Julien-l**	**80.03**	**45**	*e*P	**P**	**17 20 06.5**	**+0.5**
	7.7nm,0.8s,mb4.3						
ORIF	**Oris-en-Rattie**	**80.89**	**45**	*e*P	**P**	**17 20 11.4**	**+0.8**
	7.3nm,1.0s,mb4.5						
ORIF	**Oris-en-Rattie**	**80.89**	**45**	*e*P	**P**	**17 20 11.4**	**+0.8**
	15nm,1.0s,mb4.5						
CABF	**La Chapelle**	**81.09**	**44**	*e*P	**P**	**17 20 11.4**	**-0.2**
	16nm,1.3s,mb4.7						
CABF	**La Chapelle**	**81.09**	**44**	*e*P	**P**	**17 20 11.4**	**-0.2**
	32nm,1.3s,mb4.7						
LMR	**La Mourre**	**81.30**	**47**	*e*P	**P**	**17 20 12.6**	**-0.2**
LPL	**La Plagne**	**81.51**	**45**	*e*P	**P**	**17 20 14.7**	**+0.9**
MBDF	**Montbardon**	**81.52**	**46**	*e*P	**P**	**17 20 13.9**	**0.0**
LPG	**La Plagne**	**81.53**	**45**	*e*P	**P**	**17 20 14.1**	**+0.2**
HINF	**Hinteralfeld**	**81.66**	**43**	*e*P	**P**	**17 20 13.7**	**-0.8**
SBF	**Sospel**	**81.98**	**47**	*e*P	**P**	**17 20 16.2**	**-0.2**
PGF	**Pioggiola**	**83.13**	**48**	*e*P	**P**	**17 20 22.1**	**-0.2**
KEST	**Kesra**	**83.53**	**55**	P	**P**	**17 20 25.6**	**+1.1**
	1.6nm,0.8s,mb3.9,baz=276,slow=9.5,SNR=3.6						
NOA	**NORSAR Array B**	**84.38**	**29**	P	**P**	**17 20 29.1**	**+0.8**
	1.4nm,1.0s,mb3.8,baz=232,slow=6.8,SNR=3.2						
KHC	**Kasperske Hory**	**86.11**	**41**	*e*P	**P**	**17 20 37.5**	**+0.3**
GERES	**GERESS Array B**	**86.21**	**41**	P	**P**	**17 20 38.3**	**+0.6**
	1.5nm,0.7s,mb4.0,baz=270,slow=4.0,SNR=8.2						
ZALV	**Zalesovo Beam**	**119.08**	**13**	PKP	PKPdf	17 26 43.0	-1.3
ZALV	**Zalesovo Beam**	**119.08**	**13**	PKP	PKPdf	17 26 43.0	-1.4
	0.3nm,0.3s,baz=321,slow=1.8,SNR=3.0						
MK31	**Makanchi Array**	**124.97**	**18**	*e*PKPdf	PKPdf	17 26 54.5	-1.4
MKAR	**Makanchi Array**	**124.97**	**18**	PKP	PKPdf	17 26 54.6	-1.2
MKAR	**Makanchi Array**	**124.97**	**18**	PKP	PKPdf	17 26 54.6	-1.2
	0.4nm,0.4s,baz=324,slow=2.0,SNR=15						
SONM	**Songino Array**	**127.25**	**358**	PKP	PKPdf	17 26 59.9	-0.3
SONM	**Songino Array**	**127.25**	**358**	PKP	PKPdf	17 26 59.9	-0.3
	0.3nm,0.5s,baz=60,slow=0.4,SNR=4.0						
KSRS	**Korea Array**	**132.03**	**334**	PKP	PKPdf	17 27 09.6	0.0
	0.9nm,0.6s,baz=354,slow=1.7,SNR=6.3						
WRA	**Warramunga Arr**	**146.73**	**241**	PKPbc	PKPbc	17 27 37.3	-1.3
WRA	**Warramunga Arr**	**146.73**	**241**	PKPbc	PKPbc	17 27 37.3	-1.3
	0.8nm,0.8s,baz=109,slow=2.9,SNR=3.2						

IDC ***04*** *17:31:06.9±2.0, 6.22S×132.30E, h0^{km}, mb4.1/3, mb1 4.1/5, mb1mx3.9/12, mbtmp4.0/5, ML3.8/2, Error ellipse: s-maj=77.6km s-min=30.4km az=94.0*

ISCJB ***04*** *17:31:18.0±2.7, 6.59S±0.10×131.8E±0.2, h113^{km}±30^{km}, mb3.9/3, Error ellipse: s-maj=27.3km s-min=16.3km az=3.2*

ISC 04 17:31:11.1±5.3, **6.27S**±0.09×**132.2E**±0.3, **h27**^{km}±40^{km}**, n8,** σ**0.60**/13, **mb4.0**/3**, Tanimbar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**6.40**	**177**	*e*P	**Pn**	**17 32 49.1**	**+5.4**
	18nm,0.6s						
KAKA				*e*S	**Sn**	**17 34 02.8**	**+6.9**
FITZ	**Fitzroy Crossi**	**13.36**	**208**	*e*P	**Pn**	**17 34 18.6**	**-0.5**
	21nm,1.9s						
FITZ				*e*S	**Sn**	**17 36 39.7**	**-7.1**
FITZ	**Fitzroy Crossi**	**13.36**	**208**	Pn	**Pn**	**17 34 18.4**	**-0.7**
	0.4nm,0.3s,baz=28,slow=12,SNR=17						
FITZ				Sn	**Sn**	**17 36 37.4**	**-9.4**
	0.1nm,0.3s,baz=40,slow=21,SNR=2.1						
WRA	**Warramunga Arr**	**13.75**	**171**	Pn	**Pn**	**17 34 24.6**	**+0.2**
	0.4nm,0.3s,baz=352,slow=13,SNR=34						
WRA				Sn	**Sn**	**17 36 50.5**	**-5.8**
	baz=56,slow=24,SNR=3.2						
WB2	**Warramunga Arr**	**13.76**	**171**	*e*P	**Pn**	**17 34 25.0**	**+0.6**
WB2				*e*S	**Sn**	**17 36 56.1**	**-0.2**
MJAR	**Matsushiro Arr**	**42.97**	**7**	P	**P**	**17 39 06.9**	**-1.0**
	1.0nm,0.5s,mb3.8,baz=185,slow=7.9,SNR=4.9						
MKAR	**Makanchi Array**	**68.81**	**326**	P	**P**	**17 42 13.7**	**+0.8**
	1.4nm,0.4s,mb4.2,baz=110,slow=7.9,SNR=48						
ZALV	**Zalesovo Beam**	**71.90**	**333**	P	**P**	**17 42 31.8**	**+0.2**
	1.2nm,0.7s,mb4.0,baz=120,slow=5.2,SNR=6.7						

NEIC ***04*** *17:42:01.3±0.8, 21.89N×143.01E, h100^{km}, Error ellipse: s-maj=24.5km s-min=19.7km az=66.0*

MOS ***04*** *17:42:03.8±1.1, 21.85N×143.15E, h144^{km}, mb4.0/5, Error ellipse: s-maj=32.7km s-min=12.2km az=119.9*

IDC ***04*** *17:42:07.6±8.8, 21.79N×142.95E, h154^{km}±80^{km}, mb3.4/8, mb1 3.6/8, mb1mx3.5/19, mbtmp3.4/8, MS3.2/2, Ms1 3.2/2, ms1mx2.7/17, Error ellipse: s-maj=35.6km s-min=22.1km az=75.0*

ISCJB ***04*** *17:42:09.7±6.4, 21.8N±0.1×142.9E±0.2, h193^{km}±59^{km}, mb3.6/11, Error ellipse: s-maj=32.0km s-min=22.4km az=161.1*

ISC 04 17:42:09.8±6.1, **21.8N**±0.1×**143.0E**±0.2, **h181**^{km}±55^{km}**, n28,** σ**0.99**/23, **mb3.7**/11**, 8C-2D, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**8.39**	**167**	LR	LR	17 46 45.1	
	comp=Z,49nm,20.2s,baz=162,slow=33						
KSRS	**Korea Array**	**20.31**	**323**	P	**P**	**17 46 32.4**	**+0.6**
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KSRS	**Korea Array**	**20.31**	**323**	P	**P**	**17 46 32.4**	**+0.6**
	comp=Z,2.6nm,0.8s,baz=144,slow=8.8,SNR=7.4						
ULN	**Ulaanbaatar**	**38.76**	**321**	⇑*e*P	**P**	**17 49 17.0**	**+0.5**
SONM	**Songino Array**	**39.13**	**320**	P	**P**	**17 49 19.8**	**+0.2**
	comp=Z,1.4nm,0.7s,mb3.7,baz=129,slow=8.2,SNR=12						
YAK	**Yakutsk**	**41.21**	**351**	⇑*e*P	**P**	**17 49 34.9**	**-1.5**
ZAK	**Zakamensk**	**42.14**	**322**	*e*P	**P**	**17 49 44.0**	**-0.2**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb3.8						
WRA	**Warramunga Arr**	**42.37**	**192**	P	**P**	**17 49 46.1**	**-0.3**
	comp=Z,1.4nm,0.9s,mb3.6,baz=19,slow=8.4,SNR=4.8						
BILL	**Bilibino**	**48.42**	**11**	⇑*e*P	**P**	**17 50 30.9**	**-2.4**
BILL	**Bilibino**	**48.42**	**11**	*e*P	**P**	**17 50 30.8**	**-2.5**
BILL				*e*		17 51 51.8	
BILL				pmax	pmax		
	comp=Z,5.0nm,1.8s,mb3.8						
ZALV	**Zalesovo Beam**	**54.00**	**322**	P	**P**	**17 51 15.3**	**+0.3**
	comp=Z,3.5nm,1.0s,mb4.1,baz=100,slow=6.2,SNR=11						
ZAL	**Zalesovo**	**54.01**	**322**	P	**P**	**17 51 15.4**	**+0.3**
MKAR	**Makanchi Array**	**54.49**	**313**	*i* P	**P**	**17 51 19.6**	**+1.0**
MKAR	**Makanchi Array**	**54.49**	**313**	P	**P**	**17 51 19.6**	**+1.0**
	comp=Z,0.5nm,0.7s,mb3.3,baz=90,slow=9.1,SNR=6.7						
KURK	**Kurchatov**	**57.27**	**317**	⇑*e*P	**P**	**17 51 38.3**	**0.0**
NWAO	**Narrogin (SRO)**	**59.76**	**205**	LR	LR	18 20 13.0	
	comp=Z,53nm,18.1s,baz=14,slow=38						
AAK	**Ala-Archa**	**59.96**	**308**	⇑*e*P	**P**	**17 51 55.5**	**-1.5**
BRVK	**Borovoye**	**62.53**	**319**	⇑*e*P	**P**	**17 52 15.3**	**+1.2**
ARU	**Arti**	**69.06**	**324**	⇑*e*P	**P**	**17 52 56.0**	**+0.2**
ARU	**Arti**	**69.06**	**324**	⇑*i*P	**P**	**17 52 55.9**	**+0.1**
ARU				*e*		17 55 29.8	
ARU				*e*S	S	18 02 09.4	+23
ARU				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.2						
YKA	**Yellowknife Ar**	**76.41**	**28**	P	**P**	**17 53 40.1**	**+1.1**
	comp=Z,0.9nm,0.7s,mb3.5,baz=290,slow=5.7,SNR=10						
KIV	**Kislovodsk**	**82.21**	**314**	⇓*e*P	**P**	**17 54 09.1**	**-1.6**
KIV	**Kislovodsk**	**82.21**	**314**	⇓*e*P	**P**	**17 54 09.0**	**-1.7**
KIV				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.1						
NVAR	**Mina Array Bea**	**83.19**	**51**	P	**P**	**17 54 17.0**	**+1.1**
	comp=Z,0.9nm,0.8s,mb3.5,baz=268,slow=4.1,SNR=6.2						
AKASG	**Malin Array Be**	**87.30**	**324**	P	**P**	**17 54 36.3**	**+0.2**
	comp=Z,0.1nm,0.3s,mb3.1,baz=39,slow=6.5,SNR=3.3						
LPAZ	**La Paz**	**150.09**	**85**	PKPbc	PKPbc	18 01 43.0	+3.1
LPAZ	**La Paz**	**150.09**	**85**	PKP2	PKPab	18 01 43.0	-3.4
LPAZ	**La Paz**	**150.09**	**85**	PKPbc	PKPbc	18 01 43.0	+3.1
	comp=Z,1.4nm,0.9s,baz=232,slow=3.2,SNR=4.9						

WEL 04 17:42:47.8±0.3, **39.74S**×**174.37E, h129**^{km}±3^{km}**, ML3.5**/8**, Error ellipse: s-maj=2.0km s-min=1.1km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAEZ	**Rainy Point**	**0.45**	**2**	SN	Sn	17 43 20.3	-0.2
WAZ	**Wanganui**	**0.47**	**93**	PN	Pn	17 43 07.1	+0.6
NEZ	**North Egmont**	**0.51**	**335**	PN	Pn	17 43 07.0	+0.2
VRZ	**Vera Road**	**0.68**	**26**	PN	Pn	17 43 07.4	-0.5
VRZ				SN	Sn	17 43 22.4	-0.7
PKVZ	**Pokaka**	**0.87**	**60**	PN	Pn	17 43 09.3	-0.1
PKVZ				SN	Sn	17 43 25.4	-0.4
TRVZ	**Turoa**	**1.01**	**65**	PN	Pn	17 43 10.8	+0.2
FWVZ	**Far West T-bar**	**1.03**	**63**	PN	Pn	17 43 10.6	-0.3
FWVZ				SN	Sn	17 43 27.7	-0.6
WNVZ	**Wahianoa**	**1.03**	**67**	PN	Pn	17 43 10.9	0.0
TUVZ	**Tukino**	**1.09**	**65**	PN	Pn	17 43 11.7	+0.2
MOVZ	**Moawhango**	**1.11**	**73**	PN	Pn	17 43 11.4	-0.3
DUWZ	**D'Urville Isla**	**1.12**	**198**	PN	Pn	17 43 11.7	0.0
WTVZ	**West Tongariro**	**1.13**	**57**	PN	Pn	17 43 11.1	-0.7
OTVZ	**Oturere**	**1.15**	**61**	PN	Pn	17 43 12.2	+0.2
KIW	**Kapiti Island**	**1.20**	**160**	PN	Pn	17 43 12.5	-0.1
TSZ	**Takapari Road**	**1.26**	**105**	PN	Pn	17 43 13.6	+0.4
HIZ	**Hauiti**	**1.27**	**17**	PN	Pn	17 43 13.1	-0.3
HIZ				SN	Sn	17 43 31.4	-1.4
MRZ	**Mangatainoka R**	**1.31**	**135**	PN	Pn	17 43 13.8	+0.1
MRZ				SN	Sn	17 43 31.4	-2.0
CAW	**Cannon Point**	**1.47**	**159**	PN	Pn	17 43 15.6	+0.1
TCW	**Tory Channel**	**1.48**	**183**	PN	Pn	17 43 15.4	-0.1
MRW	**Makara Radio**	**1.51**	**171**	PN	Pn	17 43 16.0	+0.1
TIWZ	**Tintock**	**1.56**	**132**	PN	Pn	17 43 16.5	+0.1
SNZO	**South Karori**	**1.59**	**171**	PN	Pn	17 43 16.7	-0.2
MTW	**Mount Morrison**	**1.66**	**149**	PN	Pn	17 43 17.4	-0.2
NNZ	**Nelson**	**1.67**	**207**	PN	Pn	17 43 17.3	-0.4

BHW	**Baring Head**	**1.71**	**167**	PN	Pn	17 43 17.9	-0.3
BFZ	**Birch Farm**	**1.72**	**124**	PN	Pn	17 43 18.1	-0.2
BKZ	**Black Stump Fm**	**1.74**	**72**	PN	Pn	17 43 17.9	-0.6
QRZ	**Quartz Range**	**1.78**	**232**	PN	Pn	17 43 18.1	-0.9
MSWZ	**Moikau Station**	**1.81**	**159**	PN	Pn	17 43 19.1	-0.2
MSWZ				SN	Sn	17 43 40.3	-3.2
PAWZ	**Paruwai Farm**	**1.83**	**154**	PN	Pn	17 43 19.4	-0.2
PXZ	**Pawanui**	**1.94**	**100**	PN	Pn	17 43 20.8	-0.1
TRWZ	**Traveller**	**1.94**	**149**	PN	Pn	17 43 20.6	-0.4
BSWZ	**Blackbirch Sta**	**2.01**	**191**	PN	Pn	17 43 21.7	-0.2
THZ	**Tophouse**	**2.31**	**208**	PN	Pn	17 43 24.8	-0.7
KHZ	**Kahutara**	**2.75**	**193**	PN	Pn	17 43 30.4	-0.7
DSZ	**Denniston Nort**	**2.80**	**223**	PN	Pn	17 43 30.3	-1.4
LTZ	**Lake Taylor**	**3.43**	**207**	PN	Pn	17 43 38.1	-1.8
MQZ	**McQueen's Vall**	**4.17**	**197**	PN	Pn	17 43 46.5	-3.2
WVZ	**Waitaha Valley**	**4.32**	**218**	SN	Sn	17 44 35.2	-6.0
ODZ	**Otahua Downs**	**5.98**	**206**	PN	Pn	17 44 11.8	-2.2

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*NEIC **04** 17:49:03.0, 32.56S×71.67W, h11^{km}, ML2.5(GUC), After GUC.*

GUC 04 17:49:03.0±0.7**, 32.56S×71.67W, h11**^{km}±5^{km}**, MD3.5, ML2.5, 3C-6D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CHNG	**Los Chungos**	**0.69**	**12**	⇑*i*P	Pg	17 49 06.3	-10
CHNG				*i* S	Sg	17 49 16.1	-9.3
CHNG				AML	AML	17 49 16.3	
	comp=E,169nm,0.4s						
PEL	**Peldehue**	**1.01**	**125**	⇑*i*P	Pg	17 49 21.6	-1.0
PEL				*i* S	Sg	17 49 35.8	+0.1
PEL				AML	AML	17 49 37.5	
	comp=N,403nm,0.3s						
RCDM	**Rinconada Maip**	**1.18**	**142**	⇓*i*P	Pb	17 49 24.0	-1.3
RCDM				*i* S	Sb	17 49 40.1	-0.5
RCDM	**Rinconada Maip**	**1.18**	**142**	⇓*i*P	Pb	17 49 24.0	-1.3
RCDM				*i* S	Sb	17 49 40.1	-0.5
RCDM				AML	AML	17 49 41.3	
	comp=N,171nm,0.1s						
TACH	**Talagante**	**1.25**	**151**	⇓*i*P	Pn	17 49 25.0	-1.4
FCH	**Farellones**	**1.39**	**124**	*i* P	Pn	17 49 27.7	-0.6
FCH				*i* S	Sn	17 49 46.4	-0.3
LNV	**Longovilo**	**1.41**	**171**	⇓*i*P	Pn	17 49 27.8	-0.8
LNV				*i* S	Sn	17 49 46.0	-1.2
PCH	**Pirque**	**1.44**	**138**	⇑*i*P	Pn	17 49 28.1	-0.8
PCH				*i* S	Sn	17 49 47.1	-0.6
CMCH	**Combarbala**	**1.49**	**23**	⇓*i*P	Pn	17 49 29.1	-0.6
CMCH				*i* S	Sn	17 49 49.1	-0.1
CMCH	**Combarbala**	**1.49**	**23**	⇓*i*P	Pn	17 49 29.1	-0.6
CMCH				*i* S	Sn	17 49 49.1	-0.1
CMCH				AML	AML	17 49 51.5	
	comp=E,258nm,0.5s						
SFDO	**San Fernando**	**2.12**	**165**	*e*P	Pn	17 49 38.7	+0.4
SFDO				*e*S	Sn	17 50 06.7	+2.0

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*IDC **04** 18:07:33.2±1.1, 1.19N×126.17E, h0^{km}, mb3.9/5, mb1 4.1/5, mb1mx3.8/15, mbtmp4.0/5, Error ellipse: s-maj=138.9km s-min=19.9km az=66.0*

*NEIC **04** 18:07:34.2±0.8, 1.56N×126.95E, h10^{km}, mb4.7/1, Error ellipse: s-maj=32.1km s-min=10.6km az=64.0*

*ISCJB **04** 18:07:35.8±0.8, 1.5N±0.1×126.7E±0.2, h33^{km}, mb4.2/6, Error ellipse: s-maj=32.4km s-min=10.9km az=153.5*

ISC 04 18:07:38.0±0.8**, 1.5N**±0.1×**126.8E**±0.2**, h35**^{km}**, n17, σ0^{s}94**/17**, mb4.2**/6**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KKM	**Kota Kinabalu**	**11.49**	**294**	*e*P	**Pn**	**18 10 20.3**	**+0.6**
KAKA	**Kakadu**	**15.15**	**158**	P	**Pn**	**18 11 17.7**	**+8.2**
FITZ	**Fitzroy Crossi**	**19.46**	**183**	*e*P	**Pn**	**18 12 02.7**	**-0.6**
	10nm,1.6s						
FITZ	**Fitzroy Crossi**	**19.46**	**183**	*e*P	**Pn**	**18 12 02.7**	**-0.6**
WRA	**Warramunga Arr**	**22.52**	**161**	P	**P**	**18 12 35.8**	**+1.0**
	5.1nm,0.5s,mb4.2,baz=338,slow=11,SNR=82						
WB2	**Warramunga Arr**	**22.52**	**161**	*e*P	**P**	**18 12 36.0**	**+1.1**
WB2	**Warramunga Arr**	**22.52**	**161**	*e*P	**P**	**18 12 35.6**	**+0.7**
STKA	**Stephens Creek**	**36.00**	**158**	*e*P	**P**	**18 14 34.8**	**-1.0**
	1.9nm,0.9s,mb4.0						
STKA	**Stephens Creek**	**36.00**	**158**	*e*P	**P**	**18 14 34.1**	**-1.7**
STKA	**Stephens Creek**	**36.00**	**158**	P	**P**	**18 14 34.5**	**-1.3**
	5.9nm,1.2s,mb4.4,baz=347,slow=14,SNR=4.9						
SONM	**Songino Array**	**49.46**	**342**	P	**P**	**18 16 26.0**	**+1.3**
	1.2nm,1.0s,mb3.9,baz=164,slow=8.7,SNR=5.3						
MK31	**Makanchi Array**	**59.45**	**326**	*e*P	**P**	**18 17 36.9**	**-0.5**
MKAR	**Makanchi Array**	**59.45**	**326**	P	**P**	**18 17 36.7**	**-0.6**
MKAR	**Makanchi Array**	**59.45**	**326**	P	**P**	**18 17 36.7**	**-0.6**
	1.3nm,0.6s,mb4.2,baz=120,slow=7.7,SNR=34						
ZALV	**Zalesovo Beam**	**62.63**	**334**	P	**P**	**18 17 59.3**	**+0.5**
ZALV	**Zalesovo Beam**	**62.63**	**334**	P	**P**	**18 17 59.3**	**+0.5**
	0.6nm,0.5s,mb4.0,baz=145,slow=4.4,SNR=4.1						
KURK	**Kurchatov**	**63.68**	**328**	*e*P	**P**	**18 18 04.5**	**-1.3**
	2.5nm,0.4s,mb4.6						

MAN 04 18:33:22, 18.87N×120.84E, h1^{km}**, mb4.5, ML3.3, MS3.2, Luzon**

IDC 04 18:34:12.5±5.5**, 30.32S×178.32W, h60**^{km}±38^{km}**, mb3.6**/2**, mb1 3.8**/2**, mb1mx3.5**/10**, mbtmp3.6**/2**, Error ellipse: s-maj=86.7km s-min=31.7km az=141.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**1.12**	**18**	P	Pn	18 34 31.6	-0.6
	107nm,0.3s,baz=271,slow=23,SNR=2.8						
RAO				S	Sn	18 34 46.9	+0.3
	269nm,0.3s,baz=103,slow=23,SNR=5.4						
STKA	**Stephens Creek**	**34.23**	**257**	P	P	18 40 53.6	+1.1
	1.6nm,0.7s,baz=97,slow=19,SNR=3.4						
WRA	**Warramunga Arr**	**43.82**	**272**	P	P	18 42 11.9	-0.9
	0.6nm,0.5s,baz=110,slow=8.1,SNR=10						
FINES	**FINESS Array B**	**144.97**	**340**	PKP	PKPdf	18 53 39.8	-2.3
	0.7nm,0.4s,baz=38,slow=4.3,SNR=12						
AKASG	**Malin Array Be**	**151.06**	**323**	PKPbc	PKPbc	18 53 59.1	+0.8
	0.3nm,0.5s,baz=47,slow=2.2,SNR=3.6						

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*NEIC **04** 18:36:15.8, 38.53S×175.86E, h152^{km}, MG4.5(WEL), After WEL.*

WEL 04 18:36:15.7±0.2**, 38.53S×175.86E, h153**^{km}±2^{km}**, ML4.5**/23**, 26C-4D, Error ellipse: s-maj=1.4km s-min=1.1km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WHTZ	**Whakaora**	**0.16**	**153**	P	Pn	18 36 36.7	+0.5
WHTZ	**Whakaora**	**0.16**	**153**	PN	Pn	18 36 36.6	+0.4
WATZ	**Wairara**	**0.21**	**209**	P	Pn	18 36 36.5	+0.2
WATZ	**Wairara**	**0.21**	**209**	⇑PN	Pn	18 36 36.5	+0.2
WATZ				SN	Sn	18 36 52.6	+0.5
RATZ	**Rangitukua**	**0.35**	**192**	P	Pn	18 36 36.8	+0.1
RATZ	**Rangitukua**	**0.35**	**192**	⇑PN	Pn	18 36 36.8	+0.1
HATZ	**Hinemaiaia**	**0.41**	**154**	P	Pn	18 36 37.0	+0.1
HATZ				S	Sn	18 36 52.4	-0.8
HATZ	**Hinemaiaia**	**0.41**	**154**	PN	Pn	18 36 37.0	+0.1
HATZ				SN	Sn	18 36 52.4	-0.8
UTU	**Utuhina**	**0.43**	**37**	P	Pn	18 36 37.4	+0.3
UTU	**Utuhina**	**0.43**	**37**	PN	Pn	18 36 37.3	+0.2
RITZ	**Rihia Road**	**0.45**	**181**	P	Pn	18 36 37.5	+0.4
RITZ	**Rihia Road**	**0.45**	**181**	PN	Pn	18 36 37.5	+0.4
KATZ	**Kakaramea**	**0.47**	**196**	P	Pn	18 36 37.4	+0.2
KATZ	**Kakaramea**	**0.47**	**196**	⇑PN	Pn	18 36 37.4	+0.2
KARZ	**Kaharoa**	**0.58**	**31**	P	Pn	18 36 38.0	+0.2
KARZ	**Kaharoa**	**0.58**	**31**	⇓PN	Pn	18 36 38.0	+0.2
KRVZ	**Karewarewa**	**0.60**	**197**	PN	Pn	18 36 37.9	0.0
WTVZ	**West Tongariro**	**0.63**	**200**	P	Pn	18 36 38.1	+0.1
WTVZ	**West Tongariro**	**0.63**	**200**	⇑PN	Pn	18 36 38.1	+0.1
TWVZ	**Taurewa**	**0.64**	**211**	P	Pn	18 36 38.2	+0.1
TWVZ	**Taurewa**	**0.64**	**211**	⇑PN	Pn	18 36 38.2	+0.1
OTVZ	**Oturere**	**0.66**	**194**	⇑PN	Pn	18 36 38.3	+0.1
OTVZ				SN	Sn	18 36 55.8	+0.3
NGZ	**Ngauruhoe**	**0.68**	**197**	P	Pn	18 36 38.5	+0.2
NGZ	**Ngauruhoe**	**0.68**	**197**	PN	Pn	18 36 38.3	-0.1
WPVZ	**Whakapapa**	**0.72**	**200**	P	Pn	18 36 38.6	0.0
WPVZ	**Whakapapa**	**0.72**	**200**	PN	Pn	18 36 38.5	-0.1
TUVZ	**Tukino**	**0.76**	**192**	P	Pn	18 36 39.1	+0.2
TUVZ	**Tukino**	**0.76**	**192**	PN	Pn	18 36 39.0	+0.2
FWVZ	**Far West T-bar**	**0.77**	**198**	P	Pn	18 36 39.0	+0.1
FWVZ	**Far West T-bar**	**0.77**	**198**	PN	Pn	18 36 39.0	0.0
DRZ	**Dome Shelter**	**0.79**	**197**	P	Pn	18 36 39.7	+0.7
HIZ	**Hauiti**	**0.79**	**270**	P	Pn	18 36 38.9	-0.2
HIZ	**Hauiti**	**0.79**	**270**	PN	Pn	18 36 38.8	-0.3
BKZ	**Black Stump Fm**	**0.81**	**143**	P	Pn	18 36 39.5	+0.3
BKZ	**Black Stump Fm**	**0.81**	**143**	⇑PN	Pn	18 36 39.5	+0.3
TRVZ	**Turoa**	**0.81**	**198**	PN	Pn	18 36 39.4	+0.2
WNVZ	**Wahianoa**	**0.83**	**194**	P	Pn	18 36 39.6	+0.3
WNVZ	**Wahianoa**	**0.83**	**194**	⇑PN	Pn	18 36 39.6	+0.2
TOZ	**Tahuroa Road**	**0.84**	**340**	P	Pn	18 36 39.6	+0.1
TOZ	**Tahuroa Road**	**0.84**	**340**	PN	Pn	18 36 39.5	0.0
TOZ				SN	Sn	18 36 57.5	-0.1
TGRZ	**Tauranga**	**0.85**	**22**	P	Pn	18 36 39.6	0.0
TGRZ	**Tauranga**	**0.85**	**22**	PN	Pn	18 36 39.6	0.0
PKVZ	**Pokaka**	**0.86**	**208**	⇑PN	Pn	18 36 39.6	0.0
MOVZ	**Moawhango**	**0.89**	**186**	P	Pn	18 36 39.7	-0.1
MOVZ	**Moawhango**	**0.89**	**186**	⇑PN	Pn	18 36 39.7	-0.1
MTVZ	**Mangateitei**	**0.91**	**199**	⇑PN	Pn	18 36 40.0	0.0
URZ	**Urewera**	**1.01**	**75**	P	Pn	18 36 40.5	-0.3
URZ	**Urewera**	**1.01**	**75**	⇓PN	Pn	18 36 40.5	-0.3
URZ				SN	Sn	18 36 58.7	-1.3
VRZ	**Vera Road**	**1.05**	**235**	P	Pn	18 36 39.5	-1.6
VRZ	**Vera Road**	**1.05**	**235**	⇑PN	Pn	18 36 41.0	-0.2
MWZ	**Matawai**	**1.32**	**82**	P	Pn	18 36 43.7	+0.1
MWZ	**Matawai**	**1.32**	**82**	⇓PN	Pn	18 36 43.7	+0.1
RAEZ	**Rainy Point**	**1.38**	**236**	P	Pn	18 36 44.2	0.0
RAEZ	**Rainy Point**	**1.38**	**236**	PN	Pn	18 36 44.2	0.0
WAZ	**Wanganui**	**1.41**	**209**	P	Pn	18 36 44.2	-0.3
WAZ	**Wanganui**	**1.41**	**209**	⇑PN	Pn	18 36 44.2	-0.3
KNZ	**Kokohu**	**1.50**	**110**	P	Pn	18 36 45.8	+0.4
KNZ	**Kokohu**	**1.50**	**110**	PN	Pn	18 36 45.8	+0.4
TSZ	**Takapari Road**	**1.54**	**177**	P	Pn	18 36 45.7	-0.1
TSZ	**Takapari Road**	**1.54**	**177**	⇑PN	Pn	18 36 45.6	-0.2
NEZ	**North Egmont**	**1.57**	**241**	P	Pn	18 36 46.3	+0.2
NEZ	**North Egmont**	**1.57**	**241**	PN	Pn	18 36 46.2	+0.1
PKE	**Pukeiti**	**1.61**	**245**	P	Pn	18 36 46.4	-0.2
PKE	**Pukeiti**	**1.61**	**245**	PN	Pn	18 36 46.4	-0.2
PXZ	**Pawanui**	**1.69**	**153**	PN	Pn	18 36 47.5	0.0
NWEZ	**Newall Road**	**1.73**	**244**	P	Pn	18 36 47.5	-0.4
NWEZ	**Newall Road**	**1.73**	**244**	PN	Pn	18 36 47.3	-0.5
PUZ	**Puketiti**	**1.94**	**77**	P	Pn	18 36 50.1	-0.1
PUZ	**Puketiti**	**1.94**	**77**	⇓PN	Pn	18 36 50.1	-0.1
MRZ	**Mangatainoka R**	**2.15**	**186**	P	Pn	18 36 51.5	-1.1
MRZ	**Mangatainoka R**	**2.15**	**186**	⇑PN	Pn	18 36 51.4	-1.2
MXZ	**Matakaoa Point**	**2.15**	**64**	P	Pn	18 36 53.0	+0.2
MXZ	**Matakaoa Point**	**2.15**	**64**	PN	Pn	18 36 52.9	+0.1
TIWZ	**Tintock**	**2.25**	**180**	⇑PN	Pn	18 36 52.7	-1.1
KIW	**Kapiti Island**	**2.45**	**197**	P	Pn	18 36 54.4	-1.9
KIW	**Kapiti Island**	**2.45**	**197**	⇑PN	Pn	18 36 54.4	-1.9
MTW	**Mount Morrison**	**2.65**	**186**	P	Pn	18 36 56.7	-2.0
MTW	**Mount Morrison**	**2.65**	**186**	⇑PN	Pn	18 36 56.7	-2.0
CAW	**Cannon Point**	**2.65**	**193**	P	Pn	18 36 56.8	-2.0
CAW	**Cannon Point**	**2.65**	**193**	⇑PN	Pn	18 36 56.8	-1.9
DUWZ	**D'Urville Isla**	**2.73**	**213**	PN	Pn	18 36 57.2	-2.5
MRW	**Makara Radio**	**2.85**	**198**	P	Pn	18 36 58.9	-2.3
MRW	**Makara Radio**	**2.85**	**198**	⇑PN	Pn	18 36 58.9	-2.3
PAWZ	**Paruwai Farm**	**2.87**	**187**	P	Pn	18 36 59.3	-2.2
PAWZ	**Paruwai Farm**	**2.87**	**187**	⇑PN	Pn	18 36 59.3	-2.2
TRWZ	**Traveller**	**2.87**	**183**	⇑PN	Pn	18 36 59.5	-2.0
WEL	**Wellington**	**2.88**	**197**	P	Pn	18 36 59.3	-2.3
WEL	**Wellington**	**2.88**	**197**	PN	Pn	18 36 59.3	-2.4
SNZO	**South Karori**	**2.92**	**197**	P	Pn	18 36 59.7	-2.4
SNZO	**South Karori**	**2.92**	**197**	⇑PN	Pn	18 36 59.6	-2.5
MSWZ	**Moikau Station**	**2.92**	**189**	P	Pn	18 36 59.9	-2.3
MSWZ	**Moikau Station**	**2.92**	**189**	⇑PN	Pn	18 36 59.9	-2.3
TCW	**Tory Channel**	**2.95**	**204**	P	Pn	18 37 00.0	-2.5
TCW	**Tory Channel**	**2.95**	**204**	⇑PN	Pn	18 36 60.0	-2.5
BHW	**Baring Head**	**2.98**	**195**	P	Pn	18 37 00.4	-2.4
BHW	**Baring Head**	**2.98**	**195**	⇑PN	Pn	18 37 00.4	-2.5
TUWZ	**Tuamarina**	**3.26**	**206**	PN	Pn	18 37 03.3	-3.0
NNZ	**Nelson**	**3.30**	**215**	P	Pn	18 37 03.9	-3.0
NNZ	**Nelson**	**3.30**	**215**	PN	Pn	18 37 03.8	-3.1
QRZ	**Quartz Range**	**3.45**	**227**	P	Pn	18 37 05.5	-3.3
QRZ	**Quartz Range**	**3.45**	**227**	PN	Pn	18 37 05.5	-3.4
BSWZ	**Blackbirch Sta**	**3.53**	**205**	P	Pn	18 37 07.0	-2.9
BSWZ	**Blackbirch Sta**	**3.53**	**205**	PN	Pn	18 37 06.9	-3.0
THZ	**Tophouse**	**3.95**	**214**	P	Pn	18 37 11.8	-3.5
THZ	**Tophouse**	**3.95**	**214**	PN	Pn	18 37 11.6	-3.7
KHZ	**Kahutara**	**4.27**	**204**	P	Pn	18 37 16.4	-3.1
KHZ	**Kahutara**	**4.27**	**204**	PN	Pn	18 37 16.3	-3.3
DSZ	**Denniston Nort**	**4.48**	**223**	P	Pn	18 37 18.1	-4.1
DSZ	**Denniston Nort**	**4.48**	**223**	PN	Pn	18 37 18.0	-4.2
LTZ	**Lake Taylor**	**5.05**	**212**	*e*P	Pn	18 37 25.2	-4.6
LTZ	**Lake Taylor**	**5.05**	**212**	*e*PN	Pn	18 37 25.2	-4.6
MQZ	**McQueen's Vall**	**5.72**	**204**	P	Pn	18 37 33.2	-5.4
MQZ	**McQueen's Vall**	**5.72**	**204**	PN	Pn	18 37 33.1	-5.4
WVZ	**Waitaha Valley**	**5.98**	**219**	*e*P	Pn	18 37 36.7	-5.4
WVZ	**Waitaha Valley**	**5.98**	**219**	*e*PN	Pn	18 37 36.5	-5.6
RPZ	**Rata Peaks**	**6.33**	**213**	*e*P	Pn	18 37 42.2	-4.5
RPZ	**Rata Peaks**	**6.33**	**213**	*e*PN	Pn	18 37 41.2	-5.5
FOZ	**Fox Glacier**	**6.86**	**221**	*e*P	Pn	18 37 47.3	-6.5
FOZ	**Fox Glacier**	**6.86**	**221**	*e*PN	Pn	18 37 47.2	-6.7
LBZ	**Lake Benmore**	**7.24**	**214**	*e*P	Pn	18 37 53.8	-5.1
LBZ	**Lake Benmore**	**7.24**	**214**	*e*PN	Pn	18 37 53.5	-5.3
ODZ	**Otahua Downs**	**7.59**	**209**	*e*P	Pn	18 37 58.7	-4.8
ODZ	**Otahua Downs**	**7.59**	**209**	*e*PN	Pn	18 37 57.9	-5.6
JCZ	**Jackson Bay**	**7.70**	**222**	*e*P	Pn	18 37 58.6	-6.4
JCZ	**Jackson Bay**	**7.70**	**222**	*e*PN	Pn	18 37 58.5	-6.5
JCZ				SN	Sn	18 39 19.5	-11
WKZ	**Wanaka**	**8.12**	**217**	*e*P	Pn	18 38 04.7	-5.8
WKZ	**Wanaka**	**8.12**	**217**	*e*PN	Pn	18 38 03.6	-6.9
EAZ	**Earnscleugh**	**8.29**	**214**	P	Pn	18 38 07.1	-5.8
EAZ	**Earnscleugh**	**8.29**	**214**	*e*PN	Pn	18 38 05.5	-7.4
TUZ	**Tuapeka**	**8.74**	**210**	*e*P	Pn	18 38 14.6	-4.2
TUZ	**Tuapeka**	**8.74**	**210**	*e*PN	Pn	18 38 14.5	-4.3
MLZ	**Mavora Lakes**	**8.90**	**218**	*e*PN	Pn	18 38 16.7	-4.2
DCZ	**Deep Cove**	**9.50**	**220**	SN	Sn	18 40 01.9	-12
APZ	**The Paps**	**10.12**	**212**	SN	Sn	18 40 17.6	-11

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*IDC **04** 19:14:23.4±1.5, 39.33S×176.44E, h53^{km}±11^{km}, mb4.3/4, mb1 4.4/6, mb1mx4.2/10, mbtmp4.2/6, MS3.5/2, Ms1 3.5/2, ms1mx2.8/14, Error ellipse: s-maj=28.2km s-min=10.1km az=128.0*

*ISCJB **04** 19:14:24.8±0.3, 39.20S±0.02×176.32E±0.04, h71^{km}±2^{km}, mb4.6/12, Error ellipse: s-maj=6.0km s-min=3.5km az=22.5*

*NEIC **04** 19:14:25.4±0.2, 39.21S×176.36E, h66^{km}±2^{km}, mb5.1/7, ML5.3(WEL), Error ellipse: s-maj=5.1km s-min=2.8km az=111.0*

NEIC Felt in Hawke's Bay and at Taupo.

*WEL **04** 19:14:26.9±0.1, 39.10S×176.30E, h56^{km}±1^{km}, ML5.4/24, Error ellipse: s-maj=0.7km s-min=0.5km az=90.0*

WEL Felt from Nelson to Gisborne, maximum reported intensity MM 5.

ISC 04 19:14:25.5±0.3**, 39.21S**±0.02×**176.33E**±0.04**, h63**^{km}±3^{km}**, n199, σ1^{s}04**/183**, mb4.7**/12**, 20C-15D, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BKZ	**Black Stump Fm**	**0.13**	**71**	P	**Pn**	**19 14 35.7**	**+0.7**
BKZ	**Black Stump Fm**	**0.13**	**71**	⇓P*	**Pn**	**19 14 35.7**	**+0.7**
BKZ				S*	**Sn**	**19 14 42.1**	**+0.2**
HATZ	**Hinemaiaia**	**0.37**	**330**	P	**Pn**	**19 14 36.1**	**-0.4**
HATZ				S	**Sn**	**19 14 42.7**	**-1.7**
HATZ	**Hinemaiaia**	**0.37**	**330**	⇓P*	**Pn**	**19 14 36.0**	**-0.4**
HATZ				S*	**Sn**	**19 14 42.6**	**-1.8**
RITZ	**Rihia Road**	**0.43**	**302**	P	**Pn**	**19 14 37.3**	**+0.2**
RITZ				S	**Sn**	**19 14 44.8**	**-0.7**
RITZ	**Rihia Road**	**0.43**	**302**	⇑P*	**Pn**	**19 14 37.3**	**+0.2**
RITZ				S*	**Sn**	**19 14 44.8**	**-0.7**
MOVZ	**Moawhango**	**0.49**	**246**	P	**Pn**	**19 14 38.4**	**+0.8**
MOVZ	**Moawhango**	**0.49**	**246**	⇑P*	**Pn**	**19 14 38.4**	**+0.8**
OTVZ	**Oturere**	**0.52**	**275**	⇑P*	**Pn**	**19 14 38.4**	**+0.5**
TUVZ	**Tukino**	**0.53**	**263**	P	**Pn**	**19 14 38.8**	**+0.8**
TUVZ				S	**Sn**	**19 14 47.7**	**+0.6**
TUVZ	**Tukino**	**0.53**	**263**	⇑P*	**Pn**	**19 14 38.8**	**+0.8**
TUVZ				S*	**Sn**	**19 14 47.7**	**+0.6**
KATZ	**Kakaramea**	**0.55**	**295**	P	**Pn**	**19 14 38.4**	**+0.2**
KATZ	**Kakaramea**	**0.55**	**295**	⇑P*	**Pn**	**19 14 38.4**	**+0.2**
KRVZ	**Karewarewa**	**0.55**	**282**	P*	**Pn**	**19 14 38.5**	**+0.3**
RATZ	**Rangitukua**	**0.55**	**308**	P	**Pn**	**19 14 38.1**	**-0.2**
RATZ	**Rangitukua**	**0.55**	**308**	P*	**Pn**	**19 14 38.0**	**-0.2**
NGZ	**Ngauruhoe**	**0.57**	**273**	P	**Pn**	**19 14 39.0**	**+0.6**
NGZ	**Ngauruhoe**	**0.57**	**273**	⇑P*	**Pn**	**19 14 39.0**	**+0.6**
WNVZ	**Wahianoa**	**0.58**	**258**	P	**Pn**	**19 14 39.3**	**+0.7**
WNVZ	**Wahianoa**	**0.58**	**258**	⇑P*	**Pn**	**19 14 39.3**	**+0.8**
WTVZ	**West Tongariro**	**0.58**	**279**	P	**Pn**	**19 14 39.0**	**+0.4**
WTVZ	**West Tongariro**	**0.58**	**279**	⇑P*	**Pn**	**19 14 39.0**	**+0.4**
DRZ	**Dome Shelter**	**0.60**	**263**	P	**Pn**	**19 14 39.6**	**+0.8**
DRZ	**Dome Shelter**	**0.60**	**263**	⇓P*	**Pn**	**19 14 39.6**	**+0.8**
FWVZ	**Far West T-bar**	**0.60**	**265**	P	**Pn**	**19 14 39.5**	**+0.7**
FWVZ	**Far West T-bar**	**0.60**	**265**	⇓P*	**Pn**	**19 14 39.5**	**+0.7**
WPVZ	**Whakapapa**	**0.61**	**270**	P	**Pn**	**19 14 39.5**	**+0.6**
WPVZ	**Whakapapa**	**0.61**	**270**	⇑P*	**Pn**	**19 14 39.5**	**+0.6**
TRVZ	**Turoa**	**0.61**	**261**	⇑P*	**Pn**	**19 14 39.7**	**+0.8**
WHTZ	**Whakaora**	**0.61**	**332**	P	**Pn**	**19 14 38.8**	**-0.2**
WHTZ	**Whakaora**	**0.61**	**332**	P*	**Pn**	**19 14 38.7**	**-0.3**
WATZ	**Wairara**	**0.68**	**317**	P	**Pn**	**19 14 39.2**	**-0.5**
WATZ	**Wairara**	**0.68**	**317**	⇓P*	**Pn**	**19 14 39.2**	**-0.6**
MTVZ	**Mangateitei**	**0.69**	**255**	P*	**Pn**	**19 14 40.6**	**+0.8**
TWVZ	**Taurewa**	**0.71**	**281**	P	**Pn**	**19 14 40.0**	**0.0**
TWVZ	**Taurewa**	**0.71**	**281**	⇑P*	**Pn**	**19 14 40.0**	**0.0**
PKVZ	**Pokaka**	**0.77**	**264**	⇑P*	**Pn**	**19 14 41.5**	**+0.7**
PATZ	**Paeroa**	**0.83**	**356**	P	**Pn**	**19 14 41.4**	**-0.1**
PATZ	**Paeroa**	**0.83**	**356**	⇓P*	**Pn**	**19 14 41.3**	**-0.2**
TSZ	**Takapari Road**	**0.89**	**198**	P	**Pn**	**19 14 44.3**	**+2.0**
TSZ	**Takapari Road**	**0.89**	**198**	PN	**Pn**	**19 14 44.6**	**+2.2**
PXZ	**Pawanui**	**0.92**	**154**	⇑PN	**Pn**	**19 14 44.8**	**+2.2**
TAZ	**Tarawera**	**0.99**	**8**	P	**Pn**	**19 14 41.4**	**-2.1**
TAZ	**Tarawera**	**0.99**	**8**	⇓P*	**Pn**	**19 14 41.3**	**-2.2**
UTU	**Utuhina**	**1.04**	**354**	P	**Pn**	**19 14 43.8**	**-0.4**
UTU	**Utuhina**	**1.04**	**354**	⇑P*	**Pn**	**19 14 43.8**	**-0.3**
KNZ	**Kokohu**	**1.06**	**80**	P	**Pn**	**19 14 45.5**	**+1.0**
KNZ	**Kokohu**	**1.06**	**80**	⇓PN	**Pn**	**19 14 45.5**	**+1.0**
MKRZ	**Makatiti**	**1.07**	**6**	P	**Pn**	**19 14 44.6**	**0.0**
MKRZ	**Makatiti**	**1.07**	**6**	P*	**Pn**	**19 14 44.6**	**0.0**
URZ	**Urewera**	**1.13**	**33**	P	**Pn**	**19 14 45.2**	**-0.1**
URZ	**Urewera**	**1.13**	**33**	P	**Pn**	**19 14 45.2**	**-0.1**
	1µm,0.3s,baz=236,slow=8.0,SNR=4980						
URZ				S	**Sn**	**19 14 58.8**	**-1.3**
	5µm,0.3s,baz=96,slow=16,SNR=81						
URZ				LR	LR	19 15 16.8	
	comp=Z,2µm,19.8s,baz=221,slow=45						
URZ	**Urewera**	**1.13**	**33**	⇓P*	**Pn**	**19 14 45.2**	**-0.1**
EDRZ	**Edgecumbe**	**1.15**	**16**	P	**Pn**	**19 14 45.2**	**-0.4**
EDRZ	**Edgecumbe**	**1.15**	**16**	P*	**Pn**	**19 14 45.0**	**-0.6**
WAZ	**Wanganui**	**1.17**	**242**	P	**Pn**	**19 14 47.8**	**+1.9**
WAZ	**Wanganui**	**1.17**	**242**	PN	**Pn**	**19 14 47.7**	**+1.8**
KARZ	**Kaharoa**	**1.19**	**357**	P	**Pn**	**19 14 44.9**	**-1.2**
KARZ	**Kaharoa**	**1.19**	**357**	⇑P*	**Pn**	**19 14 45.7**	**-0.5**
VRZ	**Vera Road**	**1.22**	**273**	P	**Pn**	**19 14 47.0**	**+0.4**
VRZ	**Vera Road**	**1.22**	**273**	P*	**Pn**	**19 14 46.8**	**+0.3**
MARZ	**Manawahe**	**1.25**	**13**	P	**Pn**	**19 14 46.5**	**-0.5**
MARZ	**Manawahe**	**1.25**	**13**	P*	**Pn**	**19 14 46.3**	**-0.7**
MWZ	**Matawai**	**1.28**	**47**	P	**Pn**	**19 14 47.8**	**+0.5**
MWZ	**Matawai**	**1.28**	**47**	⇓P*	**Pn**	**19 14 47.8**	**+0.5**
HIZ	**Hauiti**	**1.34**	**301**	P	**Pn**	**19 14 48.1**	**-0.1**
HIZ	**Hauiti**	**1.34**	**301**	⇓PN	**Pn**	**19 14 48.1**	**0.0**
BFZ	**Birch Farm**	**1.47**	**182**	P	**Pn**	**19 14 51.1**	**+1.2**
BFZ	**Birch Farm**	**1.47**	**182**	PN	**Pn**	**19 14 51.1**	**+1.3**
TGRZ	**Tauranga**	**1.48**	**358**	P	**Pn**	**19 14 49.6**	**-0.4**
TGRZ	**Tauranga**	**1.48**	**358**	⇑P*	**Pn**	**19 14 49.6**	**-0.4**
RAEZ	**Rainy Point**	**1.50**	**266**	P	**Pn**	**19 14 51.8**	**+1.5**
RAEZ	**Rainy Point**	**1.50**	**266**	⇓PN	**Pn**	**19 14 51.8**	**+1.5**
MRZ	**Mangatainoka R**	**1.56**	**201**	P	**Pn**	**19 14 52.2**	**+1.1**
MRZ	**Mangatainoka R**	**1.56**	**201**	⇓PN	**Pn**	**19 14 52.2**	**+1.1**
TIWZ	**Tintock**	**1.60**	**192**	⇑PN	**Pn**	**19 14 52.9**	**+1.3**
TOZ	**Tahuroa Road**	**1.61**	**336**	P	**Pn**	**19 14 51.4**	**-0.4**
TOZ	**Tahuroa Road**	**1.61**	**336**	P*	**Pn**	**19 14 51.3**	**-0.4**
NEZ	**North Egmont**	**1.73**	**267**	P	**Pn**	**19 14 55.2**	**+1.8**
NEZ	**North Egmont**	**1.73**	**267**	⇑PN	**Pn**	**19 14 55.1**	**+1.7**
WIZ	**White Island**	**1.81**	**22**	P	**Pn**	**19 14 54.7**	**+0.3**
WIZ	**White Island**	**1.81**	**22**	P*	**Pn**	**19 14 54.2**	**-0.2**
PKE	**Pukeiti**	**1.82**	**270**	P	**Pn**	**19 14 56.0**	**+1.5**
PKE	**Pukeiti**	**1.82**	**270**	⇓PN	**Pn**	**19 14 56.0**	**+1.5**
NRZ	**Ngariki Road**	**1.86**	**265**	P	**Pn**	**19 14 53.0**	**-2.1**
PUZ	**Puketiti**	**1.89**	**54**	P	**Pn**	**19 14 59.6**	**+4.1**
PUZ	**Puketiti**	**1.89**	**54**	PN	**Pn**	**19 14 55.6**	**+0.1**
NWEZ	**Newall Road**	**1.91**	**267**	P	**Pn**	**19 14 57.4**	**+1.6**
NWEZ	**Newall Road**	**1.91**	**267**	PN	**Pn**	**19 14 57.4**	**+1.6**
MYRZ	**Mayor Island**	**1.93**	**358**	P*	**Pn**	**19 14 55.8**	**-0.2**
KIW	**Kapiti Island**	**1.98**	**213**	P	**Pn**	**19 14 57.4**	**+0.7**
KIW	**Kapiti Island**	**1.98**	**213**	PN	**Pn**	**19 14 57.4**	**+0.7**
MTW	**Mount Morrison**	**2.05**	**198**	P	**Pn**	**19 14 57.8**	**+0.2**
MTW	**Mount Morrison**	**2.05**	**198**	PN	**Pn**	**19 14 57.8**	**+0.2**
CAW	**Cannon Point**	**2.13**	**207**	P	**Pn**	**19 14 58.9**	**+0.2**
CAW	**Cannon Point**	**2.13**	**207**	PN	**Pn**	**19 14 58.9**	**+0.2**
TRWZ	**Traveller**	**2.24**	**192**	PN	**Pn**	**19 15 00.5**	**+0.2**
MXZ	**Matakaoa Point**	**2.26**	**44**	P	**Pn**	**19 15 01.5**	**+0.9**
MXZ	**Matakaoa Point**	**2.26**	**44**	P*	**Pn**	**19 15 01.5**	**+0.9**
PAWZ	**Paruwai Farm**	**2.28**	**197**	P	**Pn**	**19 15 00.6**	**-0.1**
PAWZ	**Paruwai Farm**	**2.28**	**197**	PN	**Pn**	**19 15 00.6**	**-0.1**
MSWZ	**Moikau Station**	**2.35**	**200**	P	**Pn**	**19 15 01.7**	**-0.1**
MSWZ	**Moikau Station**	**2.35**	**200**	PN	**Pn**	**19 15 01.7**	**-0.1**
MRW	**Makara Radio**	**2.37**	**211**	P	**Pn**	**19 15 02.0**	**0.0**
MRW	**Makara Radio**	**2.37**	**211**	PN	**Pn**	**19 15 02.0**	**-0.1**
WEL	**Wellington**	**2.39**	**209**	P	**Pn**	**19 15 02.2**	**-0.1**
WEL	**Wellington**	**2.39**	**209**	PN	**Pn**	**19 15 02.2**	**-0.1**
SNZO	**South Karori**	**2.44**	**210**	P	**Pn**	**19 15 02.6**	**-0.3**
SNZO	**South Karori**	**2.44**	**210**	PN	**Pn**	**19 15 02.6**	**-0.3**
DUWZ	**D'Urville Isla**	**2.44**	**229**	PN	**Pn**	**19 15 03.0**	**+0.1**
BHW	**Baring Head**	**2.46**	**206**	P	**Pn**	**19 15 02.8**	**-0.5**
BHW	**Baring Head**	**2.46**	**206**	PN	**Pn**	**19 15 02.8**	**-0.5**
KUZ	**Kuaotunu**	**2.51**	**349**	P	**Pn**	**19 15 03.4**	**-0.5**
KUZ	**Kuaotunu**	**2.51**	**349**	⇑PN	**Pn**	**19 15 03.4**	**-0.5**
TCW	**Tory Channel**	**2.54**	**218**	P	**Pn**	**19 15 04.1**	**-0.3**
TCW	**Tory Channel**	**2.54**	**218**	PN	**Pn**	**19 15 04.1**	**-0.3**
WTAZ	**Waiatarua**	**2.66**	**328**	P	**Pn**	**19 15 06.3**	**+0.3**
WTAZ	**Waiatarua**	**2.66**	**328**	⇓PN	**Pn**	**19 15 06.3**	**+0.3**
KAAZ	**Kauri Point**	**2.71**	**331**	P	**Pn**	**19 15 06.7**	**+0.1**
KAAZ	**Kauri Point**	**2.71**	**331**	PN	**Pn**	**19 15 06.3**	**-0.3**
TUWZ	**Tuamarina**	**2.87**	**219**	PN	**Pn**	**19 15 08.4**	**-0.5**
NNZ	**Nelson**	**3.02**	**227**	P	**Pn**	**19 15 10.5**	**-0.4**
NNZ	**Nelson**	**3.02**	**227**	PN	**Pn**	**19 15 10.5**	**-0.3**
BSWZ	**Blackbirch Sta**	**3.12**	**216**	P	**Pn**	**19 15 11.7**	**-0.6**
BSWZ	**Blackbirch Sta**	**3.12**	**216**	PN	**Pn**	**19 15 11.7**	**-0.5**
QRZ	**Quartz Range**	**3.33**	**240**	*e*P	**Pn**	**19 15 14.4**	**-0.8**
WCZ	**Waipu Caves**	**3.62**	**334**	P	**Pn**	**19 15 19.3**	**+0.1**
WCZ	**Waipu Caves**	**3.62**	**334**	⇑PN	**Pn**	**19 15 19.3**	**+0.1**
THZ	**Tophouse**	**3.65**	**225**	P	**Pn**	**19 15 18.6**	**-0.9**
THZ	**Tophouse**	**3.65**	**225**	PN	**Pn**	**19 15 18.0**	**-1.5**
KHZ	**Kahutara**	**3.84**	**213**	P	**Pn**	**19 15 20.5**	**-1.6**
KHZ	**Kahutara**	**3.84**	**213**	PN	**Pn**	**19 15 20.5**	**-1.5**
DSZ	**Denniston Nort**	**4.28**	**232**	PN	**Pn**	**19 15 26.4**	**-1.7**
OUZ	**Omahuta**	**4.54**	**330**	P	**Pn**	**19 15 32.0**	**+0.3**
OUZ	**Omahuta**	**4.54**	**330**	PN	**Pn**	**19 15 32.1**	**+0.4**
LTZ	**Lake Taylor**	**4.71**	**219**	*e*P	**Pn**	**19 15 31.9**	**-2.0**
LTZ	**Lake Taylor**	**4.71**	**219**	PN	**Pn**	**19 15 31.8**	**-2.1**
CRLZ	**Canterbury Las**	**5.18**	**211**	*e*P	**Pn**	**19 15 38.1**	**-2.2**
MQZ	**McQueen's Vall**	**5.27**	**210**	P	**Pn**	**19 15 38.4**	**-3.3**
WVZ	**Waitaha Valley**	**5.72**	**226**	*e*P	**Pn**	**19 15 46.8**	**-1.0**
RPZ	**Rata Peaks**	**6.00**	**220**	P	**Pn**	**19 15 50.4**	**-1.1**
RPZ	**Rata Peaks**	**6.00**	**220**	P	**Pn**	**19 15 50.2**	**-1.4**
	3.8nm,0.3s,baz=346,slow=1.2,SNR=20						
RPZ				S	**Sn**	**19 16 53.6**	**-5.2**
	45nm,0.3s,baz=276,slow=3.3,SNR=4.9						
RPZ	**Rata Peaks**	**6.00**	**220**	PN	**Pn**	**19 15 50.2**	**-1.3**
FOZ	**Fox Glacier**	**6.62**	**227**	*e*P	**Pn**	**19 15 57.7**	**-2.4**
LBZ	**Lake Benmore**	**6.91**	**220**	*e*P	**Pn**	**19 16 01.7**	**-2.4**
LBZ	**Lake Benmore**	**6.91**	**220**	PN	**Pn**	**19 16 01.7**	**-2.4**
ODZ	**Otahua Downs**	**7.20**	**214**	*e*P	**Pn**	**19 16 04.8**	**-3.2**
ODZ	**Otahua Downs**	**7.20**	**214**	PN	**Pn**	**19 16 04.8**	**-3.2**
JCZ	**Jackson Bay**	**7.46**	**227**	*e*P	**Pn**	**19 16 09.4**	**-2.2**
WKZ	**Wanaka**	**7.82**	**222**	*e*P	**Pn**	**19 16 19.9**	**+3.5**
EAZ	**Earnscleugh**	**7.96**	**219**	*e*P	**Pn**	**19 16 16.9**	**-1.5**
TUZ	**Tuapeka**	**8.35**	**214**	*e*P	**Pn**	**19 16 21.6**	**-2.2**
TUZ	**Tuapeka**	**8.35**	**214**	PN	**Pn**	**19 16 21.6**	**-2.2**
DZM	**Mont Dzumac**	**19.06**	**331**	P	**Pn**	**19 18 43.3**	**-0.7**
DZM				LR	LR	19 25 00.7	
DZM	**Mont Dzumac**	**19.06**	**331**	P	**Pn**	**19 18 43.3**	**-0.7**
	0.8nm,0.3s,baz=307,slow=20,SNR=7.3						
DZM				LR	LR	19 25 00.7	
	comp=Z,130nm,20.3s,baz=184,slow=33						
TOO	**Toolangi**	**24.17**	**264**	*e*P	**P**	**19 19 37.5**	**+1.7**
	8.2nm,0.6s,mb4.3						
STKA	**Stephens Creek**	**29.06**	**274**	*e*P	**P**	**19 20 21.5**	**+1.7**
	4.3nm,0.6s,mb4.4						
STKA	**Stephens Creek**	**29.06**	**274**	*e*P	**P**	**19 20 21.0**	**+1.2**
STKA	**Stephens Creek**	**29.06**	**274**	P	**P**	**19 20 21.2**	**+1.4**
	8.0nm,0.9s,mb4.5,baz=116,slow=11,SNR=11						
STKA				LR	LR	19 29 50.3	
	comp=Z,107nm,19.2s,baz=124,slow=32						
CTA	**Charters Tower**	**32.13**	**298**	*e*P	**P**	**19 20 48.6**	**+1.7**
	15nm,1.7s,mb4.5						
CTAO	**Charters Tower**	**32.13**	**298**	*e*P	**P**	**19 20 48.5**	**+1.6**
	88nm,1.7s,mb5.3						
VNDA	**Vanda**	**38.91**	**185**	P	**P**	**19 21 51.6**	**+7.2**

	3.5nm,0.9s,mb4.1,baz=12,slow=7.6,SNR=6.6						
FORT	Forrest	40.03	267	*e*P	P	19 21 54.8	+0.4
	17nm,0.6s,mb5.0						
FORT	Forrest	40.03	267	*e*P	P	19 21 54.3	-0.1
WB2	Warramunga Arr	40.82	286	*e*P	P	19 22 01.1	+0.2
WRA	Warramunga Arr	40.83	286	P	P	19 22 01.1	+0.2
	5.4nm,0.5s,mb4.5,baz=125,slow=7.9,SNR=97						
RKT	Rikitea	44.12	83	*e*S	Sx	19 29 32.1	
	62nm,25.2s						
RKT				*e*LR	LR	19 33 08.7	
	600nm,28.0s,baz=168						
CASY	Casey	45.20	211	*e*P	P	19 22 37.1	+1.4
	25nm,0.8s,mb5.1						
NWAO	Narrogin (SRO)	47.45	258	*e*P	P	19 22 53.0	-0.9
	35nm,1.3s,mb5.1						
KLBR	Kellerberrin	47.63	260	*e*P	P	19 22 54.8	-0.5
	23nm,0.9s,mb5.2						
FITZ	Fitzroy Crossi	48.50	281	*e*P	P	19 23 02.5	+0.4
	18nm,0.6s,mb5.3						
MUN	Mundaring	48.64	259	*e*P	P	19 23 03.0	-0.1
VNA3	Neumayer Olymp	69.77	178	*e*	P	19 25 33.0	+4.6
VNA3				*e*		19 25 40.5	
VNA3				*e*		19 25 59.1	
MJAR	Matsushiro Arr	83.17	330	P	P	19 26 43.9	-0.5
	1.4nm,0.6s,mb4.2,baz=167,slow=6.7,SNR=7.2						
KSRS	Korea Array	88.33	323	P	P	19 27 11.4	+1.5
	3.8nm,0.9s,mb4.6,baz=133,slow=5.4,SNR=10						
YKA	Yellowknife Ar	115.39	29	PKP	PKPdf	19 32 57.9	-1.0
YKA	Yellowknife Ar	115.39	29	PKP	PKPdf	19 32 57.9	-0.9
	0.3nm,0.5s,baz=252,slow=1.7,SNR=11						
MKAR	Makanchi Array	119.67	308	PKP	PKPdf	19 33 05.6	-2.1
MKAR	Makanchi Array	119.67	308	PKP	PKPdf	19 33 05.6	-2.1
	0.3nm,0.4s,baz=224,slow=3.1,SNR=2.4						
SADO	Sadowa	125.50	58	PKP	PKPdf	19 33 18.5	-0.4
SADO	Sadowa	125.50	58	PKP	PKPdf	19 33 18.5	-0.4
	baz=263,slow=3.7						
KEV	Kevo	145.37	342	*e*p	PKPdf	19 33 53.3	-1.6
	7.3nm,0.4s						
ARCES	ARCESS Array B	145.89	342	PKPbc	PKPbc	19 33 55.7	-0.9
ARCES	ARCESS Array B	145.89	342	PKPbc	PKPbc	19 33 55.7	-0.9
	10nm,0.6s,baz=61,slow=3.8,SNR=70						
LIC	Lamto	147.14	178	*e*P	PKPbc	19 34 04.8	+3.0
	24nm,0.6s						
KIC	Kosan Boka	147.28	178	*e*P	PKPdf	19 34 03.1	+3.2
	26nm,0.5s						
TIC	Toumodi	147.56	178	*e*P	PKPbc	19 34 05.5	+2.5
	3.8nm,0.4s						
JOF	Joensuu	148.34	330	*e*p	PKPdf	19 34 01.5	+1.5
	2.7nm,0.3s						
FINES	FINESS Array B	151.20	330	PKPbc	PKPbc	19 34 09.3	-1.3
FINES				PKPab	PKPab	19 34 17.1	-1.7
FINES	FINESS Array B	151.20	330	PKPbc	PKPbc	19 34 09.3	-1.3
	1.2nm,0.3s,baz=54,slow=2.8,SNR=24						
FINES				PKPab	PKPab	19 34 17.1	-1.7
	6.5nm,0.6s,baz=71,slow=4.7,SNR=30						
BRTR	Keskin Array B	151.32	283	PKPbc	PKPbc	19 34 10.7	-0.9
BRTR				PKPab	PKPab	19 34 20.1	+0.2
BRTR	Keskin Array B	151.32	283	PKPbc	PKPbc	19 34 10.7	-0.9
	1.2nm,0.7s,baz=138,slow=5.1,SNR=8.1						
BRTR				PKPab	PKPab	19 34 20.1	+0.2
	1.5nm,0.8s,baz=131,slow=5.0,SNR=6.2						
TOA0	Torodi Ar. Sit	153.61	192	*e*PKPbc	PKPbc	19 34 17.7	+0.2
TORD	Torodi Ar. Bea	153.61	192	PKP	PKPdf	19 34 08.4	-1.2
TORD				PKPbc	PKPbc	19 34 18.2	+0.8
TORD	Torodi Ar. Bea	153.61	192	PKP	PKPdf	19 34 08.4	-1.2
	0.5nm,0.8s,baz=169,slow=1.2,SNR=7.6						
TORD				PKPbc	PKPbc	19 34 18.2	+0.8
	2.3nm,0.4s,baz=156,slow=3.3,SNR=76						
AKASG	Malin Array Be	154.26	307	PKPbc	PKPbc	19 34 15.9	-1.8
AKASG				PKPab	PKPab	19 34 29.9	-2.0
AKASG	Malin Array Be	154.26	307	PKPbc	PKPbc	19 34 15.9	-1.8
	0.2nm,0.3s,baz=54,slow=3.1,SNR=3.8						
AKASG				PKPab	PKPab	19 34 29.9	-2.0
	0.5nm,0.5s,baz=65,slow=4.4,SNR=6.2						
EKA	Eskdalemuir Ar	163.87	359	PKPab	PKPab	19 35 11.5	-1.9
	1.0nm,0.6s,baz=328,slow=2.5,SNR=5.6						
GERES	GERESS Array B	164.26	313	PKPab	PKPab	19 35 15.0	-0.5
	0.4nm,0.7s,baz=114,slow=3.3,SNR=3.6						

ISCJB ***04*** *19:17:27.4±0.8, 582S±02×1213W±03, h10^{km}, mb4.0/5, MS4.1/7, Error ellipse: s-maj=31.2km s-min=22.5km az=152.1*

IDC ***04*** *19:17:28.1±0.7, 5824S×12127W, h0^{km}, mb4.0/5, mb1 4.2/5, mb1mx4.1/11, mbtmp4.0/5, MS4.0/7, Ms1 4.0/7, ms1mx3.9/10, Error ellipse: s-maj=38.7km s-min=25.2km az=158.0*

NEIC ***04*** *19:17:29.6±0.6, 5824S×12145W, h10^{km}, mb4.6/1, Error ellipse: s-maj=30.5km s-min=20.2km az=154.0*

ISC 04 19:17:29.2±0.8**, 582S**±02×**1213W**±03**, h10**^{km}**, n41, σ0**^{s}**74**/9**, mb4.0**/5**, MS4.1**/7**, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMSA	Palmer Station	27.22	128	LR	LR	19 31 49.1	
	comp=Z,548nm,21.0s,MS4.1,baz=280,slow=32						
VNA2	Neumayer--Watz	43.05	154	*e*	P	19 25 33.5	+5.2
	baz=182,slow=7.1						
VNA2				*e*		19 25 41.3	
VNA2				*e*		19 25 59.3	
SNAA	Sanae	43.52	156	P	P	19 25 31.7	-0.5
	0.5nm,0.5s,mb3.5,baz=221,slow=9.4,SNR=7.5						
PPT	Papeete	45.64	321	LR	LR	19 39 03.7	
	comp=Z,299nm,20.1s,MS4.2,baz=90,slow=28						
RAR	Rarotonga	46.22	307	LR	LR	19 38 40.1	
	comp=Z,122nm,20.7s,MS3.8,baz=165,slow=28						
LPAZ	La Paz	57.26	66	*e*P	P	19 27 18.4	+1.7
	8.2nm,1.4s,mb4.6						
LPAZ				LR	LR	19 45 47.2	
LPAZ	La Paz	57.26	66	P	P	19 27 17.1	+0.4
	1.8nm,1.0s,mb4.1,baz=127,slow=4.0,SNR=4.8						
LPAZ				LR	LR	19 45 47.2	
	comp=Z,97nm,20.1s,MS3.9,baz=188,slow=30						
STKA	Stephens Creek	67.01	247	P	P	19 28 22.5	+0.5
	1.7nm,0.8s,mb4.1,baz=179,slow=23,SNR=2.4						
STKA				LR	LR	19 50 31.7	
	comp=Z,157nm,21.2s,MS4.2,baz=204,slow=30						
ROSC	El Rosal	73.25	50	LR	LR	19 53 05.6	
	comp=Z,58nm,18.0s,MS3.9,baz=48,slow=29						
WB2	Warramunga Arr	80.52	248	P	P	19 29 41.3	-0.1
WRA	Warramunga Arr	80.53	248	P	P	19 29 41.7	+0.2
WRA	Warramunga Arr	80.53	248	P	P	19 29 41.7	+0.2
	4.1nm,0.9s,mb4.3,baz=144,slow=4.9,SNR=14						
TXAR	Lajitas Array	88.48	15	P	P	19 30 20.0	-1.1
	0.4nm,0.8s,mb3.7,baz=192,slow=9.1,SNR=4.2						
BOSA	Boshof	89.08	151	LR	LR	20 06 10.0	
	comp=Z,111nm,18.4s,MS4.3,baz=163,slow=33						
ODAN	Odare	142.73	225	*e*P	PKPdf	19 37 04.0	+1.8
JIRN	Jiri	143.90	224	*e*P	PKPdf	19 37 06.3	+2.1
GUN	Gumba	144.24	224	*e*P	PKPdf	19 37 07.4	+2.6
	38nm,1.1s						
DMN	Daman	144.25	223	*e*P	PKPdf	19 37 07.8	+3.0
	27nm,0.9s						
KKN	Kakani	144.35	223	*e*P	PKPdf	19 37 07.7	+2.7
	17nm,0.9s						
SMRF	Simiane la Rot	144.74	90	*e*PKIKP	PKPdf	19 37 10.3	+5.2
GKN	Gorkha	144.78	222	*e*P	PKPdf	19 37 08.4	+2.7
	11nm,1.0s						
VIVF	Saint-Julien-l	144.86	88	*e*PKIKP	PKPdf	19 37 09.6	+4.3
KOLN	Koldanda	144.93	221	*e*P	PKPdf	19 37 10.2	+4.2
	21nm,1.2s						
BGF	Bois d'Agland	145.01	85	*e*PKIKP	PKPdf	19 37 09.7	+4.2
	12nm,0.9s						
FRF	La Foret Royal	145.02	92	*e*PKIKP	PKPdf	19 37 10.8	+5.2
	7.5nm,0.8s						
ORIF	Oris-en-Rattie	145.54	89	*e*PKIKP	PKPdf	19 37 11.8	+5.4
	7.4nm,0.9s						
PGF	Pioggiola	145.56	95	*e*PKIKP	PKPdf	19 37 11.9	+5.3
	7.0nm,0.8s						
SBF	Sospel	145.65	92	*e*PKIKP	PKPab	19 37 11.9	+4.6
	32nm,1.2s						
SSF	Saint Saulge	145.68	84	*e*PKIKP	PKPab	19 37 11.0	+3.6
LOR	Lormes	146.00	84	*e*PKIKP	PKPab	19 37 10.9	+2.3
	6.5nm,0.9s						
LPG	La Plagne	146.38	89	*e*PKIKP	PKPab	19 37 12.9	+2.8
LPL	La Plagne	146.38	89	*e*PKIKP	PKPab	19 37 13.3	+3.2
EKA	Eskdalemuir Ar	147.05	68	PKPbc	PKPbc	19 37 11.6	+0.8
EKA	Eskdalemuir Ar	147.05	68	PKPbc	PKPbc	19 37 11.6	+0.8
	1.0nm,0.8s,baz=214,slow=2.4,SNR=4.2						
DAVOX	Davos/Dischmat	148.87	90	PKPbc	PKPbc	19 37 18.2	+2.3
DAVOX	Davos/Dischmat	148.87	90	PKPbc	PKPbc	19 37 18.2	+2.3
	1.4nm,0.7s,baz=148,slow=5.4,SNR=2.8						
SONM	Songino Array	150.09	271	PKP	PKPdf	19 37 14.4	+0.5
SONM				PKPbc	PKPbc	19 37 20.4	+1.5
SONM	Songino Array	150.09	271	PKP	PKPdf	19 37 14.4	+0.5
	0.2nm,0.7s,baz=110,slow=3.0,SNR=2.7						
SONM				PKPbc	PKPbc	19 37 20.4	+1.5
	0.8nm,0.8s,baz=141,slow=5.2,SNR=5.8						
GERES	GERESS Array B	152.17	90	PKPbc	PKPbc	19 37 25.5	+1.8
GERES				PKPab	PKPab	19 37 32.7	-0.8
GERES	GERESS Array B	152.17	90	PKPbc	PKPbc	19 37 25.5	+1.8
	1.2nm,1.0s,baz=197,slow=4.2,SNR=5.1						
GERES				PKPab	PKPab	19 37 32.7	-0.8
	0.5nm,0.7s,baz=256,slow=1.1,SNR=3.9						
MKAR	Makanchi Array	161.73	241	PKPab	PKPab	19 38 15.3	+0.6
	0.7nm,0.8s,baz=116,slow=5.5,SNR=6.1						

IDC ***04*** *19:41:09.2±1.0, 4685N×15621E, h0^{km}, mb3.7/10, mb1 3.9/10, mb1mx3.8/21, mbtmp3.7/10, Error ellipse: s-maj=28.6km s-min=19.6km az=168.0*

NEIC ***04*** *19:41:10.8±0.7, 4688N×15620E, h10^{km}, mb4.2/2, Error ellipse: s-maj=16.3km s-min=11.7km az=172.0*

ISCJB ***04*** *19:41:12.8±0.8, 470N±01×1562E±01, h33^{km}, mb3.8/12, Error ellipse: s-maj=18.2km s-min=14.3km az=163.3*

MOS ***04*** *19:41:12.5±1.3, 4690N×15608E, h33^{km}, mb4.3/6, Error ellipse: s-maj=27.4km s-min=12.1km az=92.0*

ISC 04 19:41:15.1±0.8**, 470N**±01×**1562E**±01**, h35**^{km}**, n23, σ0**^{s}**86**/24**, mb3.8**/12**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	3.67	359	*e*P	Pn	19 42 07.5	-1.8
SKR				*e*S	Sn	19 42 44.3	-6.9
SKR				pmax	pmax		
	comp=Z,30nm,0.5s						
SKR				smax			
	comp=N,430nm,0.3s						
SKR				smax			
	comp=E,240nm,0.2s						
SKR				smax			
	comp=Z,60nm,0.5s						
PET	Petropavlovsk	6.21	14	*e*P	Pn	19 42 49.0	+4.8
YAK	Yakutsk	21.29	325	P	P	19 45 57.7	-0.5
	comp=Z,9.7nm,0.6s,mb4.3						
YAK	Yakutsk	21.29	325	P	P	19 45 57.7	-0.5
YAK				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.3						
BILL	Bilibino	21.70	10	*e*P	P	19 46 03.5	+0.9
	comp=Z,2.8nm,0.4s,mb4.0						
BILL	Bilibino	21.70	10	*e*P	P	19 46 02.9	+0.3
BILL				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb3.9						
SONM	Songino Array	33.24	290	P	P	19 47 49.0	+0.4
	comp=Z,0.2nm,0.6s,mb3.2,baz=87,slow=7.4,SNR=2.5						
INK	Inuvik	40.28	33	*e*P	P	19 48 48.8	+0.5
INK	Inuvik	40.28	33	P	P	19 48 48.9	+0.7
INK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
INK	Inuvik	40.28	33	P	P	19 48 48.9	+0.7
	comp=Z,3.6nm,0.6s,mb4.3,baz=290,slow=7.1,SNR=18						
ZALV	Zalesovo Beam	44.17	306	P	P	19 49 21.4	+1.3
	comp=Z,0.4nm,0.5s,mb3.4,baz=60,slow=8.5,SNR=2.8						
ZAL	Zalesovo	44.18	306	P	P	19 49 21.4	+1.2
MK31	Makanchi Array	48.69	298	*e*P	P	19 49 55.6	0.0
MKAR	Makanchi Array	48.69	298	P	P	19 49 55.6	0.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	Makanchi Array	48.69	298	P	P	19 49 55.6	-0.1
	comp=Z,1.0nm,0.8s,mb3.9,baz=65,slow=7.3,SNR=9.6						
YKA	Yellowknife Ar	49.43	38	P	P	19 50 01.2	+0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	49.43	38	P	P	19 50 01.2	+0.2
	comp=Z,1.4nm,0.6s,mb4.2,baz=294,slow=7.1,SNR=16						
NVAR	Mina Array Bea	60.42	64	P	P	19 51 21.3	+0.4
	comp=Z,0.2nm,0.5s,mb3.4,baz=289,slow=5.6,SNR=2.7						
FINES	FINESS Array B	64.68	336	P	P	19 51 48.4	-0.5
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	FINESS Array B	64.68	336	P	P	19 51 48.4	-0.5
	comp=Z,2.0nm,0.9s,mb4.2,baz=14,slow=7.6,SNR=3.4						
WRA	Warramunga Arr	69.50	202	P	P	19 52 18.4	-1.5
	comp=Z,0.4nm,0.7s,mb3.4,baz=19,slow=6.9,SNR=3.0						
AKASG	Malin Array Be	72.48	328	P	P	19 52 36.8	-0.9
	comp=Z,0.3nm,0.5s,mb3.5,baz=33,slow=6.7,SNR=2.3						
TXAR	Lajitas Array	75.50	63	P	P	19 52 56.0	+0.2
	comp=Z,0.4nm,0.5s,mb3.6,baz=256,slow=3.7,SNR=3.7						

CASC ***04*** *20:56:35.7±2.7, 2062N×7725W, h0^{km}, mb5.7(NEIC)*

JSN ***04*** *20:56:53.5±0.6, 1987N×7847W, h34^{km}±13^{km}, MD5.2*

IDC ***04*** *20:56:56.7±0.5, 1946N×7834W, h0^{km}, mb4.9/23, mb1 5.1/28, mb1mx5.1/29, mbtmp5.0/28, ML5.0/3, MS5.8/24, Ms1 5.8/24, ms1mx5.6/30, Error ellipse: s-maj=13.8km s-min=10.6km az=29.0*

SSNC ***04*** *20:56:56.6, 1915N×7814W, h7^{km}, MD5.5, ML4.5*

ISCJB ***04*** *20:56:57.2±0.1, 1934N±001×7840W±001, h10^{km}, mb5.5/306, MS6.0/187, Error ellipse: s-maj=2.1km s-min=1.3km az=24.4*

MOS ***04*** *20:56:57.8±1.3, 1942N×7852W, h10^{km}, mb5.7/124, MS5.8/68, Error ellipse: s-maj=4.9km s-min=3.7km az=67.3*

CRAAG ***04*** *20:56:57.4, 1955N×7847W, Mw6.2*

BJI ***04*** *20:56:57.1, 1940N×7850W, h10^{km}, mB5.8, Ms6.7, Msz6.3*

GCMT ***04*** *20:56:59.1±0.1, 1949N×7834W, h13^{km}, MW6.2/104, Moment Tensor Solution. s92,c206; s104,c372; Duration: 3^{s}0 Moment tensor: Scale 10^{18}Nm; M_{rr}-0.26±.02; $M_{\theta\theta}$-0.81±.02; $M_{\phi\phi}$1.07±.02; $M_{r\theta}$0.41±.04; $M_{\theta\phi}$2.12±.02; $M_{\phi r}$-0.46±.05; Best double couple: $M_0$2.40900×10^{18} NP1:ϕ_s257.00000°,δ76.00000°, λ-9.00000°. NP2:ϕ_s349.00000°,δ81.00000°, λ-166.00000°. Principal axes: T 2.4570, Plg3.0000°, Azm123.0000°; N -0.1000, Plg74.0000°, Azm21.0000°; P -2.3610, Plg16.0000°, Azm214.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

NEIC ***04*** *20:56:59.1±0.1, 1937N×7852W, h10^{km}, mb5.7/239, MS5.9/140, MW6.2 Error ellipse: s-maj=3.7km s-min=2.5km az=200.0, Moment Tensor Solution. s38 Moment tensor: Scale 10^{18}Nm; M_{rr}0.05; $M_{\theta\theta}$-1.07; $M_{\phi\phi}$1.01; $M_{r\theta}$0.02; $M_{\theta\phi}$2.10; $M_{\phi r}$0.43; Best double couple: $M_0$2.40000×10^{18} NP1:ϕ_s77.00000°,δ80.00000°, λ3.00000°. NP2:ϕ_s347.00000°,δ87.00000°,λ170.00000°. Principal axes: T 2.3700, Plg9.0000°, Azm301.0000°; N 0.0100, Plg80.0000°, Azm150.0000°; P -2.3800, Plg5.0000°, Azm32.0000°;*

NEIC Felt [IV] at Black River, Falmouth, Montego Bay and Savanna-la-Mar; [III] at Half Way Tree, Kingston and Mandeville, Jamaica. Felt [III] at George Town and [II] at West Bay, Cayman Islands. Also felt [III] at Guantanamo, Cuba. Felt at Discovery Bay, May Pen and Saint Ann's Bay, Jamaica and at Bodden Town, Cayman Islands.

IGIL ***04*** *20:56:59.1, 1948N×7830W, h10^{km}, MS6.2*

SZGRF ***04*** *20:57:10.2, 1960N×7702W, h33^{km}, mb5.7, MS5.9, Cuba region*

BGS ***04*** *20:57:11.4, 2037N×7786W, h47^{km}, mb5.3*

ISC 04 20:56:59.3±0.1**, 1940N**±001×**7841W**±001**, h10**^{km}**, (h11**^{km}±1.8^{km}**:pP-P), n1351, σ1**^{s}**26**/1628**, mb5.5**/306**, MS6.0**/187**, 467C-308D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBJ	Montego Bay	1.12	153	⇑*i*P	Pb	20 57 18.0	-2.8
MBJ				*e*S	Sg	20 57 36.9	+1.5
MBJ	Montego Bay	1.12	153	⇑*i*P	Pb	20 57 17.9	-2.8
CVJ	Coleyville	1.43	145	⇑*i*P	Pn	20 57 22.4	-2.9
CVJ	Coleyville	1.43	145	*i* P	Pn	20 57 22.5	-2.8
LMGC	Las Mercedes	1.48	63	*e*P	Pn	20 57 21.9	-4.0
LMGC				*e*S	Sn	20 57 37.6	-7.7
	comp=N,7μm,0.3s						
LMGC				*e*			
	comp=E,6μm,0.4s						
LMGC	Las Mercedes	1.48	63	*e*PG	Pn	20 57 21.9	-4.0
LMGC				*e*SG	Sn	20 57 37.6	-7.7
	comp=N,7μm,0.3s						
LMGC				*e*			
	comp=E,6μm,0.4s						
BBJ	Bamboo Saint A	1.48	133	⇑*i*P	Pn	20 57 22.8	-3.2
BBJ	Bamboo Saint A	1.48	133	*i* P	Pn	20 57 22.8	-3.2
MCJ	Malvern	1.62	155	⇑*i*P	Pn	20 57 25.7	-2.2
MCJ	Malvern	1.62	155	⇑P	Pn	20 57 25.7	-2.2
BNJ	Bonny Gate	1.75	128	⇑*i*P	Pn	20 57 26.2	-3.5
BNJ	Bonny Gate	1.75	128	*i* P	Pn	20 57 26.1	-3.6
STH	Stony Hill	2.00	131	⇑*i*P	Pn	20 57 29.6	-3.6
STH	Stony Hill	2.00	131	*i* P	Pn	20 57 29.6	-3.6
STH				S	Sn	20 57 52.6	-5.8
PCJ	Portland Cotta	2.03	144	⇑*i*P	Pn	20 57 31.5	-2.1
PCJ	Portland Cotta	2.03	144	*i* P	Pn	20 57 31.5	-2.1
GWJ	Greenwich	2.07	129	*i* P	Pn	20 57 30.3	-3.8
HOJ	Hope	2.10	131	⇑*i*P	Pn	20 57 31.1	-3.3
CMJ	Castle Mountai	2.30	123	*i* P	Pn	20 57 33.5	-3.8
CMJ	Castle Mountai	2.30	123	*i* P	Pn	20 57 33.5	-3.8
RCC	Rio Carpintero	2.62	77	*e*P	Pn	20 57 36.9	-4.8
RCC				*e*S	Sn	20 58 04.5	-9.1
RCC				*e*			
RCC	Rio Carpintero	2.62	77	*e*PG	Pn	20 57 36.9	-4.8
RCC				*e*SG	Sn	20 58 04.5	-9.1
RCC				*e*			
MGV	Manicaragua	3.07	332	*e*P	Pn	20 57 46.7	-1.2
GTMO	Guantanamo	3.15	77	*i* P	Pn	20 57 42.8	-6.2
GTMO				*i* S	Sn	20 58 15.6	-11
SABC	Sabc	3.18	72	*i* P	Pn	20 57 43.3	-6.1
SABC				*i* S	Sn	20 58 18.9	-8.5
MOAC	Moa	3.47	68	*e*P	Pn	20 57 51.6	-1.8
MOAC				*e*S	Sn	20 58 32.1	-2.5
MOAC	Moa	3.47	68	*e*PG	Pn	20 57 51.6	-1.8
MOAC				*e*SG	Sn	20 58 32.1	-2.5
MASC	Masc	4.00	78	*e*P	Pn	20 57 57.8	-3.0
MASC				*e*S	Sn	20 58 45.0	-2.8
	comp=N,477nm,0.2s						
MASC				*e*			
	comp=E,531nm,0.4s						
MASC	Masc	4.00	78	*e*PG	Pn	20 57 57.8	-3.0
MASC				*e*SG	Sn	20 58 45.0	-2.8
	comp=N,477nm,0.2s						
MASC				*e*			
	comp=E,531nm,0.4s						
SOR	Soroa	5.46	309	*e*P	Pn	20 58 18.5	-2.3
SOR				*e*S	Sn	20 59 27.7	+4.0
	comp=N,42nm,0.2s						
SOR				*e*			
	comp=E,70nm,0.9s						
SDDR	Presa de Saban	6.74	92	⇑*e*Pn	Pn	20 58 33.9	-4.5
	comp=E,22nm,1.1s						
SDDR				*e*Sn	Sn	20 59 49.0	-6.3
DWPF	Disney	9.10	343	⇑*e*Pn	Pn	20 59 07.6	-3.2
	comp=E,1μm,1.0s						
TEIG	Tepich	9.33	277	⇑*e*Pn	Pn	20 59 12.3	-1.7
	comp=E,10nm,1.7s						
TEIG				*e*S	Sn	21 00 51.7	-7.3
TEIG	Tepich	9.33	277	Pn	Pn	20 59 11.8	-2.1
	comp=E,1μm,0.3s,baz=91,slow=10,SNR=612						
TEIG				Sn	Sn	21 00 50.2	-8.7
	comp=E,423nm,0.3s,baz=15,slow=22,SNR=9.9						
TEIG				LR	LR	21 02 36.2	
	comp=E,30μm,21.3s,baz=89,slow=36						
BOAB	BOACO BROADBAN	9.82	226	*e*P	Pn	20 59 21.1	+0.4
BOAB				⇓*e*P		20 59 21.1	
TGUH	Tegucigalpa,Un	10.02	239	⇑*e*Pn	Pn	20 59 23.4	0.0
TGUH				Sn	Sn	21 01 23.1	+7.1
HUEN		10.25	228	*e*P	Pn	20 59 26.9	+0.3
BCIP	Isla Barro Col	10.27	188	⇓*e*Pn	Pn	20 59 24.0	-2.8
BCIP				*e*Sn	Sn	21 01 15.8	-6.2
MGAN	Managua	10.44	227	⇓*e*P	Pn	20 59 30.8	+1.6
CONN	Concepcion	10.44	223	*e*P	Pn	20 59 32.3	+3.0
TISN	Laguna Tiscapa	10.46	228	⇓*e*P	Pn	20 59 30.4	+1.0
TISN				*e*P		20 59 32.3	
MOMJ	Momotombo	10.46	230	*e*P	Pn	20 59 30.1	+0.6
MOMN	Momotombo	10.46	230	⇓*e*P	Pn	20 59 30.8	+1.3
APON	Apoyo	10.48	226	*e*P	Pn	20 59 31.0	+1.3
MASN	Masaya	10.48	226	⇓*e*P	Pn	20 59 31.1	+1.4
XAVN	Gruta Xavier	10.49	228	*e*P	Pn	20 59 30.1	+0.2
CNGN	Cerro Negro	10.52	231	⇓*e*P	Pn	20 59 31.1	+0.9
TELN	Telica	10.55	231	*e*P	Pn	20 59 32.2	+1.6
TEL3	Telica 3	10.58	231	⇑*e*P	Pn	20 59 32.6	+1.6
CRIN	San Cristobal	10.65	233	⇓*e*P	Pn	20 59 33.9	+1.9
COPN	Copaltepe	10.66	229	⇓*e*P	Pn	20 59 33.4	+1.3
CNI	Changuinola	10.69	202	*e*P	Pn	20 59 32.0	-0.7
LEON	Leon	10.71	231	⇓*e*P	Pn	20 59 34.8	+1.9
URSC	Urasca	10.84	209	*e*P	Pn	20 59 35.9	+1.3
CNCH	Conchagua	10.90	237	⇓*e*P	x	20 59 41.9	
CAHU	Cacacuatique	10.94	241	*e*P	x	20 59 41.5	
PRS1	Puriscal	10.96	212	*e*P	Pn	20 59 39.7	+3.4
LAJ	Bijagual	10.97	211	*e*P	Pn	20 59 44.0	+7.5
LCR2	La Lucha 2	11.02	210	*e*P	Pn	20 59 38.9	+1.7
JTS	JuntasAbangare	11.05	216	⇓*e*Pn	Pn	20 59 36.0	-1.4
JTS				Sn	Sn	21 01 53.7	+13
JTS	JuntasAbangare	11.05	216	Pn	Pn	20 59 37.5	0.0
	comp=E,25nm,0.3s,baz=42,slow=10,SNR=52						
JTS				LR	LR	21 03 44.0	
	comp=E,52μm,20.5s,baz=35,slow=37						
BUS	Buena Vista	11.07	209	*e*P	Pn	20 59 40.1	+2.2
BAR1		11.16	206	*e*P	Pn	20 59 38.9	-0.1
VSM	San Miguel	11.17	239	*e*P	x	20 59 44.3	
BRU	Baru	11.27	201	*e*P	Pn	20 59 41.0	+0.4
QCR	Quepos	11.38	210	*e*P	Pn	20 59 44.8	+2.8
JCR	Jicaral	11.50	215	*e*P	Pn	20 59 46.1	+2.4
VCR	Vista de Mar	11.56	218	*e*P	Pn	20 59 48.9	+4.3
DVD	David	11.58	200	*e*P	Pn	20 59 45.1	+0.3
MTO2	Montecristo 2	11.60	246	⇓*e*P	x	20 59 50.0	
LCBS	La Ceiba	11.63	242	⇓*e*P	x	20 59 50.8	
LBRS	Las Brisas	11.65	243	⇑*e*P	x	20 59 51.4	
SJG	San Juan	11.68	94	Pn	Pn	20 59 42.3	-3.8
SJG				Sn	Sn	21 01 46.8	-10
SJG	San Juan	11.68	94	P	Pn	20 59 42.3	-3.8
SJG				pmax	pmax		
	comp=Z,15nm,0.3s						
SJG	San Juan	11.68	94	Pn	Pn	20 59 42.3	-3.8
	comp=Z,15nm,0.3s,baz=294,slow=8.5,SNR=34						
SJG				Sn	Sn	21 01 46.8	-10
	comp=Z,64nm,0.3s,baz=165,slow=22,SNR=10						
AZU	Azuero	11.68	189	*e*P	Pn	20 59 44.7	-1.5
LFRS	El Faro	11.72	242	⇓*e*P	x	20 59 52.0	
SNET	Serv Nac Est T	11.83	243	⇓*e*P	x	20 59 44.8	
BOQS	Boqueron	11.85	243	*e*P	x	20 59 49.7	
CPD	Cerro la Pandu	11.91	95	*e*Pn	Pn	20 59 45.3	-4.0
CPD				*e*Sn	Sn	21 01 50.7	-12
RBDL	Robledal	12.01	246	⇓*e*P	x	20 59 55.7	
SNJE	San Jose	12.06	245	⇓*e*P	x	20 59 56.0	
RTR	El Retiro	12.08	245	⇓*e*P	x	20 59 56.6	
SBLS	San Blas	12.09	244	*e*P	x	20 59 53.4	
PTP	Ponta Puerca	12.16	93	*e*P	Pn	20 59 50.9	-1.9
MTP	Monte Pirata	12.24	94	⇑*e*Pn	Pn	20 59 50.2	-3.7
MTP				*e*Sn	Sn	21 02 09.3	-1.2
NHSC	New Hope	13.74	354	*e*Pn	Pn	21 00 08.5	-5.7
	comp=Z,708nm,1.4s						
SCX	San Cristobal	13.79	261	*i* P	Pn	21 00 12.2	-2.8
BRAL	Brewton	13.95	328	⇑*e*Pn	Pn	21 00 14.4	-2.8
	comp=Z,34nm,1.1s						
BRAL				*e*Sn	Sn	21 02 53.9	+1.7
GOGA	Godfrey	14.67	343	*e*Pn	Pn	21 00 21.9	-5.0
	comp=Z,3.6nm,1.4s						
GOGA				*e*Sn	Sn	21 02 58.8	-11
GOGA	Godfrey	14.67	343	*e*P	Pn	21 00 21.9	-5.0
GOGA				pmax	pmax		
	comp=Z,4.0nm,1.4s						
ROSC	El Rosal	14.99	164	Pn	Pn	21 00 31.9	+0.5
ROSC				*e*Sn	Sn	21 03 16.3	-1.4
ROSC	El Rosal	14.99	164	Pn	Pn	21 00 32.9	+1.5
	comp=Z,3.4nm,0.3s,baz=83,slow=3.4,SNR=27						
ROSC				Sn	Sn	21 03 15.6	-2.1
	comp=Z,4.3nm,0.3s,baz=278,slow=21,SNR=3.2						
JSC	Jenkinsville	15.04	351	*e*Pn	Pn	21 00 24.7	-7.2
JSC				*e*Sn	Sn	21 02 56.0	-23
LRAL	Lakeview Retre	15.60	332	*e*Pn	Pn	21 00 34.6	-4.8
	comp=Z,151nm,1.8s						
LRAL				*e*Sn	Sn	21 03 31.8	-0.5
LRAL				*e*PcP	PcP	21 05 44.6	+3.5
CNNC	Cliffs of the	15.78	2	⇓*e*Pn	Pn	21 00 43.6	+1.9
	comp=Z,369nm,1.2s						
CNNC				*e*Sn	Sn	21 03 37.9	+1.1
CMIG	Matias Romero	15.82	264	Pn	Pn	21 00 43.0	+0.7
CMIG				Sn	Sn	21 03 26.2	-12
CMIG	Matias Romero	15.82	264	Pn	Pn	21 00 43.0	+0.7
	comp=Z,6.5nm,0.3s,baz=60,slow=12,SNR=38						
CMIG				Sn	Sn	21 03 26.2	-12
	comp=Z,2.3nm,0.3s,baz=28,slow=5.9,SNR=4.6						
PCRV	Puerto La Cruz	16.16	123	Pn	Pn	21 00 43.1	-3.5
PCRV				Sn	Sn	21 03 36.5	-9.5
PCRV				LR	LR	21 06 30.2	
PCRV	Puerto La Cruz	16.16	123	Pn	Pn	21 00 43.1	-3.5
	comp=Z,43nm,0.3s,baz=245,slow=4.4,SNR=116						
PCRV				Sn	Sn	21 03 36.5	-9.5

	comp=Z,4.6nm,0.3s,baz=352,slow=20,SNR=3.9						
PCRV				LR	LR	21 06 30.2	
	comp=Z,36µm,21.6s,baz=142,slow=35						
LZG	Guadaloupe-1	16.17	99	eP	Pn	21 00 41.5	-5.3
HMG	Houelmont	16.28	99	eP	Pn	21 00 45.5	-2.7
SCG	Saint Claude	16.28	99	eP	Pn	21 00 45.8	-2.5
TBG	Guadaloupe-3	16.36	100	eP	Pn	21 00 46.4	-2.8
BBL	Barber's Block	16.61	101	eP	Pn	21 00 51.1	-1.3
MGG	Marie-Galante	16.65	99	eP	Pn	21 00 50.5	-2.4
TKL	Tuckaleechee C	16.87	345	P	Pn	21 00 51.4	-4.2
TKL				pmax	pmax		
	comp=Z,3.0nm,0.3s						
TKL				MLR	MLR		
	comp=Z,54µm,20.2s						
TKL	Tuckaleechee C	16.87	345	Pn	Pn	21 00 51.4	-4.2
	comp=Z,2.6nm,0.3s,baz=158,slow=13,SNR=38						
TKL				Sn	Sn	21 03 50.0	-13
	comp=Z,3.1nm,0.3s,baz=114,slow=1.4,SNR=2.8						
TKL				LR	LR	21 07 44.6	
	comp=Z,54µm,20.2s,baz=163,slow=38						
CPCT	Cooper Cave	16.88	343	⇓ePn	Pn	21 00 53.5	-2.2
CPCT				Sn	Sn	21 04 03.7	+0.5
SWET	Sewanee	17.10	339	⇓ePn	Pn	21 00 55.7	-2.8
SWET				eSn	Sn	21 04 12.3	+3.6
SWET				ePcP	PcP	21 05 42.2	-1.1
FDF	Fort de France	17.13	103	eP	Pn	21 00 54.5	-4.5
BIM	Bigot	17.27	104	eP	Pn	21 00 57.0	-3.8
SVB	Belmont	17.55	108	eP	Pn	21 01 01.3	-2.9
OXX	Oaxaca	17.55	265	i P	Pn	21 01 01.5	-2.7
SVV	Soufriere Volc	17.56	108	eP	Pn	21 01 01.1	-3.2
SSV	Crater Summit	17.58	107	eP	Pn	21 00 59.1	-5.5
FCV	Fort Charlotte	17.60	108	eP	Pn	21 01 02.0	-2.8
GRW	Mount Saint Ca	17.64	112	eP	Pn	21 01 02.4	-2.9
GRGR	Grenville	17.66	112	⇑ePn	Pn	21 01 02.4	-3.2
GRGR				eSn	Sn	21 04 23.4	+0.9
PLAL	Pickwick Lake	17.73	333	ePn	Pn	21 01 03.5	-2.8
	comp=Z,118nm,0.8s						
PLAL				eSn	Sn	21 04 27.0	+3.2
PLAL				ePcP	PcP	21 05 58.4	+14
BLA	Blacksburg	17.83	355	⇑ePn	Pn	21 01 03.2	-4.4
	comp=Z,79nm,0.6s						
BLA				eSn	Sn	21 04 31.3	+4.9
BLA				ePcP	PcP	21 05 48.4	+3.9
BLA	Blacksburg	17.83	355	⇑eP	Pn	21 01 03.2	-4.4
BLA				e		21 04 31.3	
BLA				pmax	pmax		
	comp=Z,79nm,0.6s						
ELN	Prospectdale	17.88	354	ePn	Pn	21 01 04.7	-3.5
ELN				eSn	Sn	21 04 27.3	-0.2
ELN				ePcP	PcP	21 05 46.5	+1.9
OXF	Oxford	17.94	329	⇑ePn	Pn	21 01 06.1	-2.9
	comp=Z,71nm,1.6s						
OXF				eSn	Sn	21 04 29.6	+0.5
OXF	Oxford	17.94	329	⇑eP	Pn	21 01 06.1	-2.9
OXF				e		21 04 29.6	
OXF				pmax	pmax		
	comp=Z,71nm,1.6s						
TCE	Chacachacare	18.25	116	eP	Pn	21 01 13.1	+0.3
TRN	Trinidad (W)	18.57	116	eP	Pn	21 01 14.5	-2.2
WVT	Waverly	18.62	335	⇑eP	Pn	21 01 14.3	-2.9
	comp=Z,141nm,1.0s						
WVT				eSn	Sn	21 04 49.0	+3.6
WVT				ePcP	PcP	21 05 43.4	-2.4
WVT	Waverly	18.62	335	⇑eP	Pn	21 01 14.3	-2.9
WVT				e		21 04 49.0	
WVT				pmax	pmax		
	comp=Z,141nm,1.0s						
MET	Memphis--Engin	18.69	329	⇑eP	Pn	21 01 15.8	-2.3
MET				eS	Sn	21 04 51.5	+4.3
MET				PcP	PcP	21 05 37.2	-8.7
TPP	Pointe-a-Pierr	18.70	116	eP	Pn	21 01 17.8	-0.6
CBN	Corbin	18.76	3	⇑eP	Pn	21 01 18.5	-0.4
	comp=Z,276nm,1.0s						
CBN				eS	Sn	21 04 53.2	+4.4
TPR	Prospect	18.85	113	eP	Pn	21 01 17.8	-2.4
TBH	Brigand Hill	18.94	115	eP	Pn	21 01 17.6	-3.7
PNIG	Pinotepa	19.00	264	i P	Pn	21 01 17.9	-4.1
OTAV	Otavalo	19.04	180	⇓eP	Pn	21 01 23.5	+0.9
	comp=Z,549nm,1.3s						
OTAV				eS	Sn	21 04 54.2	-1.7
OTAV	Otavalo	19.04	180	eP	Pn	21 01 24.6	+2.1
HALT	Halls	19.06	332	⇑eP	Pn	21 01 19.8	-2.8
HALT				eS	Sn	21 04 59.8	+3.6
HALT				PcP	PcP	21 05 42.7	-3.9
NATX	Nacogdoches	19.11	313	⇑eP	Pn	21 01 21.7	-1.5
	comp=Z,502nm,1.0s						
NATX				eS	Sn	21 04 52.0	-5.5
BBGH	Gun Hill	19.12	106	⇓eP	Pn	21 01 22.1	-1.4
	comp=Z,5µm,1.6s						
BBGH				eS	Sn	21 05 06.7	+8.7
BBGH				ePcP	PcP	21 05 44.4	-2.6
UTMT	University of	19.22	334	⇓eP	Pn	21 01 23.0	-1.5
	comp=Z,1µm,1.2s						
UTMT				eS	Sn	21 05 01.3	+1.4
UTMT				ePcP	PcP	21 05 52.5	+5.7
GLAT	Glass	19.34	333	⇑eP	Pn	21 01 24.1	-1.9
GLAT				eS	Sn	21 05 01.4	-1.4
GLAT				ePcP	PcP	21 05 47.9	+0.8
HBAR	Harrisburg	19.39	329	⇑eP	Pn	21 01 24.9	-1.6
HBAR				eS	Sn	21 04 56.4	-7.7
HBAR				PcP	PcP	21 05 45.6	-1.6
GNAR	Gosnell	19.41	331	⇑eP	Pn	21 01 24.8	-2.1
	comp=Z,10µm,1.1s						
GNAR				eS	Sn	21 05 02.8	-1.9
GNAR				ePcP	PcP	21 05 44.5	-2.7
KVTX	Kingsville	19.61	298	eP	Pn	21 01 28.9	-0.3
	comp=Z,1µm,1.3s						
KVTX				eS	Sn	21 05 11.3	+1.8
PVMO	Portageville	19.64	332	⇑eP	Pn	21 01 27.0	-2.5
	comp=Z,797nm,0.9s						
PVMO				eS	Sn	21 05 09.2	-0.9
UALR	University of	19.68	324	⇑eP	Pn	21 01 28.0	-2.0
	comp=Z,694nm,1.4s						
UALR				eS	Sn	21 05 09.2	-1.7
UALR				ePcP	PcP	21 05 53.4	+5.7
PARMO	Parma	19.87	332	eP	Pn	21 01 29.9	-2.4
PARMO				eS	Sn	21 05 12.6	-3.1
PARMO				ePcP	PcP	21 05 47.9	-0.1
WCI	Wyandotte Cave	19.98	342	⇑eP	Pn	21 01 32.2	-1.3
	comp=Z,287nm,1.0s						
WCI				eS	Sn	21 05 20.0	+1.8
WCI	Wyandotte Cave	19.98	342	⇑eP	Pn	21 01 32.2	-1.3
WCI				eS	Sn	21 05 20.0	+1.8
WCI				pmax	pmax		
	comp=Z,287nm,1.0s						
SDMD	Soldier's Deli	19.99	4	eP	Pn	21 01 31.0	-2.6
SDMD				eS	Sn	21 05 15.6	-2.8
SDMD				ePcP	PcP	21 05 50.1	+2.0
USIN	University of	20.18	338	eP	P	21 01 32.9	-1.1
	comp=Z,157nm,1.9s						
USIN				eS	S	21 05 21.6	+1.0
USIN				ePcP	PcP	21 05 59.4	+11
MIAR	Mount Ida	20.22	321	⇑eP	P	21 01 34.1	-0.4
	comp=Z,580nm,1.5s						
MIAR				eS	S	21 05 23.5	+2.2
MIAR				LR	LR		
	comp=Z,22µm,21.0s,MS5.5						
MIAR	Mount Ida	20.22	321	⇑eP	P	21 01 34.1	-0.4
MIAR				eS	S	21 05 23.5	+2.2
MIAR				pmax	pmax		
	comp=Z,580nm,1.5s						
MIAR				MLR	MLR		
	comp=Z,22µm,21.0s,MS5.5						
MCWV	Mont Chateau	20.23	357	⇑eP	P	21 01 35.0	+0.5
	comp=Z,207nm,1.9s						
MCWV				eS	S	21 05 21.0	-0.4
MCWV				ePcP	PcP	21 05 49.5	+0.9
MCWV				LR	LR		
	comp=Z,89µm,20.0s,MS6.1						
SIUC	Southern Illin	20.54	335	⇑eP	P	21 01 37.0	-0.9
	comp=Z,156nm,1.9s						
SIUC				eS	S	21 05 25.6	-2.1
ACX	Acapulco	20.60	266	i P	P	21 01 34.2	-4.5
MVL	Millersville	20.61	4	⇓eP	P	21 01 38.8	+0.2
MVL				eS	S	21 05 32.0	+3.0
BLO	Bloomington	20.92	342	⇑eP	P	21 01 41.4	-0.6
	comp=Z,211nm,1.0s						
BLO				eS	S	21 05 38.1	+2.9
BLO	Bloomington	20.92	342	⇑eP	P	21 01 41.4	-0.6
BLO				eS	S	21 05 38.1	+3.0
BLO				pmax	pmax		
	comp=Z,211nm,1.0s						
ACSO	Alum Creek Sta	21.13	350	P	P	21 01 44.2	-0.1
	comp=Z,2µm,1.3s,mb6.2						
ACSO				eS	S	21 05 39.5	+0.2
ACSO				LR	LR		
	comp=Z,24µm,19.0s,MS5.6						
SSPA	Standing Stone	21.17	1	⇑eP	P	21 01 45.7	+1.0
	comp=Z,1µm,1.7s,mb5.9						
SSPA				eS	S	21 05 43.6	+3.5
SSPA				LR	LR		
	comp=Z,8µm,20.0s,MS5.1						
FVM	French Village	21.27	333	eP	P	21 01 44.9	-0.9
	comp=Z,736nm,1.4s,mb5.8						
FVM				eS	S	21 05 44.5	+2.4
FVM	French Village	21.27	333	eP	P	21 01 44.9	-0.9
FVM				eS	S	21 05 44.5	+2.3
FVM				pmax	pmax		
	comp=Z,736nm,1.4s,mb5.8						
BRNJ	Basking Ridge	21.47	8	⇓eP	P	21 01 47.7	-0.2
BRNJ				eS	S	21 05 46.9	+0.9
CPNY	Central Park	21.66	9	⇑eP	P	21 01 50.4	+0.4
CPNY				eS	S	21 05 52.3	+2.6
SLM	Saint Louis	21.74	334	eP	P	21 01 49.9	-1.0
	comp=Z,446nm,1.0s,mb5.8						
SLM				eS	S	21 05 58.4	+7.0
SLM	Saint Louis	21.74	334	eP	P	21 01 49.9	-1.0
SLM				eS	S	21 05 58.4	+7.0
SLM				pmax	pmax		
	comp=Z,447nm,1.0s,mb5.8						
PAL	Palisades	21.88	9	⇑eP	P	21 01 53.0	+0.7
	comp=Z,101nm,0.9s,mb5.2						
PAL				eS	S	21 05 57.1	+3.2
PAL	Palisades	21.88	9	⇑eP	P	21 01 53.0	+0.7
PAL				eS	S	21 05 57.1	+3.2
PAL				pmax	pmax		
	comp=Z,101nm,0.9s,mb5.2						
ZIIG	Zihuatanejo	21.94	269	eP	P	21 01 51.9	-1.3
ALLY	Alegheny Colle	22.23	357	⇓eP	P	21 01 54.9	-1.1
ALLY				eS	S	21 06 01.5	+0.7
JCT	Junction City	22.28	304	⇑iP	P	21 01 56.5	-0.2
	comp=Z,1µm,1.3s,mb6.2						
JCT				ePcP	PcP	21 05 49.8	-2.9
JCT				eS	S	21 06 02.9	+0.8
JCT				LR	LR		
	comp=Z,6µm,22.0s,MS5.0						
JCT	Junction City	22.28	304	⇑iP	P	21 01 56.6	-0.1
JCT				e		21 05 49.8	
JCT				eS	S	21 06 02.9	+0.9
JCT				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.2						
JCT				MLR	MLR		
	comp=Z,6µm,22.0s,MS5.0						
ZAIG	Zacatecas	22.79	283	i P	P	21 02 00.4	-1.7
BINY	Binghamton	22.82	5	⇓eP	P	21 02 01.3	-1.0
	comp=Z,620nm,1.4s,mb5.8						
BINY				PcP	PcP	21 05 48.6	-5.0
BINY				eS	S	21 06 26.6	+15
BINY				LR	LR		
	comp=Z,23µm,20.0s,MS5.6						
HDIL	Hopedale	23.06	338	⇑eP	P	21 02 05.0	+0.1
	comp=Z,90nm,1.3s,mb5.0						
HDIL				PcP	PcP	21 05 47.3	-6.8
HDIL				eS	S	21 06 14.5	-1.3
HDIL				LR	LR		
	comp=Z,71µm,22.0s,MS6.1						
PAYG	Puerto Ayora	23.11	212	⇓eP	P	21 02 06.7	+1.1
	comp=Z,324nm,1.1s,mb5.7						
PAYG				eS	S	21 06 19.3	+2.4
AAM	Ann Arbor	23.26	350	eP	P	21 02 07.0	+0.1
	comp=Z,711nm,1.6s,mb5.8						
AAM				ePcP	PcP	21 05 48.8	-5.7
AAM				eS	S	21 06 18.2	-0.7
AAM				LR	LR		
	comp=Z,27µm,22.0s,MS5.7						
AAM	Ann Arbor	23.26	350	eP	P	21 02 07.0	0.0
AAM				e		21 05 48.8	
AAM				eS	S	21 06 18.2	-0.8
AAM				pmax	pmax		
	comp=Z,711nm,1.6s,mb5.8						
AAM				MLR	MLR		
	comp=Z,27µm,22.0s,MS5.7						
QUA2	Belchertown	23.38	11	⇑eP	P	21 02 08.9	+0.7
	comp=Z,1µm,1.8s,mb6.0						
QUA2				PcP	PcP	21 05 56.1	+1.3
WMOK	Wichita Mounta	23.65	314	⇑eP	P	21 02 09.6	-1.4
	comp=Z,447nm,1.8s,mb5.6						
WMOK				eS	S	21 06 27.8	+2.3
WMOK				LR	LR		
	comp=Z,8µm,20.0s,MS5.2						
WMOK	Wichita Mounta	23.65	314	⇑eP	P	21 02 09.6	-1.4
WMOK				eS	S	21 06 27.8	+2.3
WMOK				pmax	pmax		
	comp=Z,447nm,1.8s,mb5.6						
WMOK				MLR	MLR		
	comp=Z,8µm,20.0s,MS5.2						
WES	Weston	23.69	13	⇑eP	P	21 02 10.9	-0.3
	comp=Z,860nm,1.7s,mb5.9						
WES				ePcP	PcP	21 05 52.5	-2.8
WES				LR	LR		
	comp=Z,8µm,19.0s,MS5.2						
WES	Weston	23.69	13	⇑eP	P	21 02 10.9	-0.4
WES				e		21 05 52.5	
WES				pmax	pmax		
	comp=Z,860nm,1.7s,mb5.9						
WES				MLR	MLR		
	comp=Z,8µm,19.0s,MS5.2						
HRV	Harvard--Oak R	23.75	13	eP	P	21 02 12.2	+0.3
	comp=Z,463nm,1.8s,mb5.6						
HRV				LR	LR		
	comp=Z,16µm,22.0s,MS5.4						
HRV	Harvard--Oak R	23.75	13	eP	P	21 02 12.2	+0.3
HRV				pmax	pmax		
	comp=Z,463nm,1.8s,mb5.6						
HRV				MLR	MLR		
	comp=Z,16µm,22.0s,MS5.4						
ACCN	Adirondack Com	24.24	8	⇑eP	P	21 02 16.5	+0.2
ACCN				eS	S	21 06 33.7	-1.2
FFD	Franklin Falls	24.66	12	⇑eP	P	21 02 22.5	+2.3
	comp=Z,135nm,1.1s,mb5.4						
NCB	Newcomb	24.75	7	⇑eP	P	21 02 20.6	-0.3
	comp=Z,279nm,1.3s,mb5.6						
NCB				ePcP	PcP	21 05 49.2	-8.4
NCB				eS	S	21 06 56.3	+13
NCB				LR	LR		
	comp=Z,18µm,20.0s,MS5.6						
HNH	Hanover	24.77	11	⇓eP	P	21 02 21.2	+0.1
	comp=Z,37nm,1.4s,mb4.7						
HNH				ePcP	PcP	21 05 50.8	-6.9
HNH				eS	S	21 06 39.3	-4.1
LTX	Lajitas	25.00	298	⇑eP	P	21 02 23.0	-0.4
	comp=Z,529nm,1.4s,mb5.9						
LTX				ePcP	PcP	21 05 55.7	-2.8
LTX				eS	S	21 06 54.4	+6.9
LTX				LR	LR		
	comp=Z,11µm,19.0s,MS5.4						
LTX	Lajitas	25.00	298	⇑eP	P	21 02 23.0	-0.4
LTX				e		21 05 55.7	
LTX				pmax	pmax		
	comp=Z,529nm,1.4s,mb5.9						
LTX				MLR	MLR		
	comp=Z,11µm,19.0s,MS5.4						
TXAR	Lajitas Array	25.00	298	P	P	21 02 23.2	-0.2
TXAR				pmax	pmax		
	comp=Z,76nm,0.9s						
TXAR				MLR	MLR		
	comp=Z,5µm,18.5s						
TXAR	Lajitas Array	25.00	298	P	P	21 02 23.2	-0.2
	comp=Z,76nm,0.9s,mb5.2,baz=116,slow=8.2,SNR=107						
TXAR				LR	LR	21 14 23.3	
	comp=Z,5µm,18.5s,MS5.0,baz=335,slow=42						
KSU1	Kansas State U	25.16	325	⇑eP	P	21 02 23.4	-1.3
	comp=Z,478nm,1.0s,mb6.0						
KSU1				ePcP	PcP	21 05 47.0	-12
KSU1				eS	S	21 06 53.5	+3.7
KSU1				LR	LR		
	comp=Z,45µm,20.0s,MS6.0						
SADO	Sadowa	25.30	359	P	P	21 02 25.0	-1.0
	baz=203,slow=11						
LONY	Lake Ozonia	25.35	6	⇑eP	P	21 02 25.5	-0.9
	comp=Z,281nm,1.4s,mb5.6						
LONY				eS	S	21 07 04.7	+12
LONY				LR	LR		
	comp=Z,24µm,20.0s,MS5.7						
LBNH	Lisbon	25.35	11	eP	P	21 02 26.7	+0.2
	comp=Z,334nm,1.5s,mb5.7						
LBNH				eS	S	21 07 00.5	+7.8
LBNH				LR	LR		
	comp=Z,18µm,20.0s,MS5.6						
LBNH	Lisbon	25.35	11	eP	P	21 02 26.7	+0.3
LBNH				pmax	pmax		
	comp=Z,334nm,1.5s,mb5.7						
LBNH				MLR	MLR		
	comp=Z,18µm,20.0s,MS5.6						
FRNY	Flat Rock	25.68	8	⇑eP	P	21 02 28.6	-0.8
FRNY				ePcP	PcP	21 05 54.3	-5.4
FRNY				eS	S	21 06 58.5	+0.7
MSNY	Massena	25.70	6	eP	P	21 02 28.6	-0.9
SCIA	State Center	25.72	334	⇑eP	P	21 02 29.9	+0.1
	comp=Z,339nm,0.9s,mb5.9						
SCIA				eS	S	21 07 13.7	+15
AMTX	Amarillo	25.73	312	⇑eP	P	21 02 29.1	-0.9
	comp=Z,1.4nm,0.4s						
AMTX				eS	S	21 07 00.5	+1.5
ATAH	Atahualpa	26.23	180	P	P	21 02 37.7	+3.0
	comp=Z,39nm,0.8s,mb5.0,baz=359,slow=6.1,SNR=24						
CBKS	Cedar Bluff	26.75	321	eP	P	21 02 36.7	-2.4
	comp=Z,718nm,1.4s,mb6.0						
CBKS				PcP	PcP	21 05 57.8	-4.5
CBKS				eS	S	21 07 02.8	-12
CBKS				LR	LR		
	comp=Z,25µm,19.0s,MS5.8						
CBKS	Cedar Bluff	26.75	321	eP	P	21 02 36.7	-2.4
CBKS						21 05 57.8	
CBKS				eS	S	21 07 02.8	-12
CBKS				pmax	pmax		
	comp=Z,718nm,1.4s,mb6.0						
CBKS				MLR	MLR		
	comp=Z,25µm,19.0s,MS5.8						
PKME	Peaks-Kenny Pk	26.88	14	⇓eP	P	21 02 41.1	+0.8
	comp=Z,447nm,1.8s,mb5.7						
PKME				ePcP	PcP	21 06 09.8	+7.3
PKME				eS	S	21 07 39.4	+23
PKME				LR	LR		
	comp=Z,13µm,20.0s,MS5.5						
MNTX	Cornudas Mount	27.16	302	⇑eP	P	21 02 42.6	-0.4
	comp=Z,57nm,1.6s,mb4.8						
MNTX				ePcP	PcP	21 05 57.5	-5.9
MNTX				eS	S	21 07 27.2	+5.6
MNTX				LR	LR		
	comp=Z,10µm,22.0s,MS5.3						
COWI	Conover	28.06	344	eP	P	21 02 49.7	-1.1
	comp=Z,354nm,1.6s,mb5.7						
COWI				eS	S	21 07 41.6	+6.2
COWI				LR	LR		
	comp=Z,41µm,19.0s,MS6.0						
ECSD	EROS,Sioux Fal	28.67	332	⇑eP	P	21 02 57.3	+1.1
	comp=Z,0.7nm,0.4s						
ECSD				ePcP	PcP	21 06 32.8	+26
ECSD				eS	S	21 07 58.0	+13
Y22C	IRIS PASSCAL I	29.24	306	⇓P	P	21 03 01.2	-0.3
	baz=29						
Y22C				⇑S	S	21 07 54.5	+0.2
	baz=29						
ANMO	Albuquerque	29.24	308	⇑eP	P	21 03 02.0	+0.6
	comp=Z,37nm,1.0s,mb5.1						
ANMO				ePcP	PcP	21 06 02.1	-6.4
ANMO				eS	S	21 07 46.5	-7.8
ANMO				LR	LR		
	comp=Z,14µm,21.0s,MS5.6						
ANMO	Albuquerque	29.24	308	P	P	21 03 02.3	+0.8
ANMO				S	S	21 07 53.7	-0.6
ANMO				pmax	pmax		
	comp=Z,7.0nm,0.7s						
ANMO				smax			
	comp=N,3.0nm,0.8s						
ANMO				MLR	MLR		
	comp=Z,14µm,18.7s						
ANMO	Albuquerque	29.24	308	P	P	21 03 02.3	+0.8
	comp=Z,6.7nm,0.7s,mb4.5,baz=121,slow=9.6,SNR=20						
ANMO				S	S	21 07 53.7	-0.6
	comp=Z,3.4nm,0.8s,baz=249,slow=23,SNR=1.5						
ANMO				LR	LR	21 16 44.4	
	comp=Z,14µm,18.7s,MS5.6,baz=132,slow=41						
SDCO	Great Sand Dun	29.84	313	⇑eP	P	21 03 06.6	-0.2
	comp=Z,442nm,1.4s,mb6.0						
SDCO				ePcP	PcP	21 06 04.9	-5.1
SDCO				eS	S	21 07 54.2	-9.4
SDCO				LR	LR		
	comp=Z,16µm,21.0s,MS5.6						
LPIG	La Paz	29.96	285	P	P	21 03 06.7	-1.3
	comp=Z,26nm,0.6s,mb5.2,baz=138,slow=5.3,SNR=3.1						
LPIG				LR	LR	21 17 45.5	
	comp=Z,11µm,18.4s,MS5.5,baz=98,slow=42						
EYMN	Ely	30.40	342	eP	P	21 03 10.3	-1.2
	comp=Z,87nm,1.1s,mb5.4						
EYMN				ePP	PP	21 04 20.2	0.0
EYMN				ePcP	PcP	21 06 09.9	-1.3
EYMN				LR	LR		
	comp=Z,59µm,19.0s,MS6.2						
ISCO	Idaho Springs	30.99	317	⇑eP	P	21 03 18.3	+1.4
	comp=Z,50nm,1.0s,mb5.3						
ISCO				eS	S	21 08 27.0	+5.3
ISCO				LR	LR		
	comp=Z,13µm,19.0s,MS5.6						
ISCO	Idaho Springs	30.99	317	⇑eP	P	21 03 18.3	+1.4
ISCO				eS	S	21 08 27.0	+5.4
ISCO				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.3						
ISCO				MLR	MLR		
	comp=Z,13µm,19.0s,MS5.6						
NNA	Nana	31.23	177	⇑eP	P	21 03 18.7	-0.4
	comp=Z,73nm,1.0s,mb5.5						
NNA				ePP	PP	21 04 29.6	-0.2
NNA				LR	LR		
	comp=Z,9µm,20.0s,MS5.5						
SMCO	Snowmass	31.56	315	eP	P	21 03 21.6	-0.3
	comp=Z,114nm,1.2s,mb5.6						
SMCO				ePcP	PcP	21 06 04.9	-10
SMCO				eS	S	21 08 24.0	-6.5
MVCO	Mesa Verde	31.70	310	⇑eP	P	21 03 23.4	+0.2
	comp=Z,133nm,1.2s,mb5.6						
MVCO				ePcP	PcP	21 06 22.1	+7.2
MVCO				eS	S	21 08 29.2	-3.6
MVCO				eScP	ScP	21 09 55.2	-3.2
MVCO				LR	LR		
	comp=Z,14µm,19.0s,MS5.7						
MVCO	Mesa Verde	31.70	310	P	P	21 03 23.7	+0.5
	baz=32,SNR=31						
MVCO				⇓S	S	21 08 35.8	+3.1
	baz=32						
TUC	Tucson	31.72	300	⇑eP	P	21 03 24.0	+0.6
	comp=Z,41nm,1.1s,mb5.2						
TUC				PcP	PcP	21 06 32.3	+17
TUC				eS	S	21 08 37.5	+4.3
TUC				eScP	ScP	21 09 59.7	+1.1
TUC				LR	LR		
	comp=Z,11µm,21.0s,MS5.5						
TUC	Tucson	31.72	300	⇑eP	P	21 03 24.0	+0.6
TUC				eS	S	21 08 37.5	+4.3
TUC				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.2						
TUC				MLR	MLR		
	comp=Z,11µm,21.0s,MS5.5						
AGMN	Agassiz Refuge	32.11	338	P	P	21 03 25.1	-1.5
	comp=Z,180nm,1.2s,mb5.8						
AGMN				LR	LR		
	comp=Z,56µm,21.0s,MS6.2						
PV01	Paradox Valley	32.16	312	eP	P	21 03 27.8	+0.6
PV01				PcP	PcP	21 06 11.8	-4.3
116A	Eloy	32.53	300	P	P	21 03 31.1	+0.5
	baz=33,SNR=43						
116A				⇓S	S	21 08 47.5	+1.6
	baz=33						
PV10	Paradox Valley	32.59	312	eP	P	21 03 31.5	+0.4
PV10				PP	PP	21 04 43.0	-1.7
PV10				ePcP	PcP	21 06 17.4	+0.1
RSSD	Black Hills	32.65	325	PFAKE		21 03 40.0	+8.6
RSSD				LR	LR		
	comp=Z,9µm,19.0s,MS5.5						
RSSD	Black Hills	32.65	325	P	P	21 03 25.4	-6.0
RSSD				pmax	pmax		
	comp=Z,14nm,0.4s,mb5.2						
115A	Sonoran Desert	33.00	300	⇓P	P	21 03 35.1	+0.5
	baz=33,SNR=24						
115A				⇑S	S	21 09 00.0	+6.9
	baz=33						
RWWY	Rawlins	33.04	319	eP	P	21 03 35.1	+0.2
	comp=Z,102nm,1.1s,mb5.7						
WUAZ	Wupatki	33.18	306	⇑eP	P	21 03 36.8	+0.7
	comp=Z,178nm,1.0s,mb6.0						
WUAZ				PP	PP	21 04 44.8	-6.3
WUAZ				PcP	PcP	21 05 59.1	-20
WUAZ				eS	S	21 08 51.2	-4.6

WUAZ				LR	LR		
	comp=Z,12µm,22.0s,MS5.6						
WUAZ	**Wupatki**	**33.18**	**306**	⇓P	**P**	**21 03 36.9**	**+0.8**
	baz=33						
WUAZ				⇑S	**S**	**21 09 00.1**	**+4.3**
	baz=33						
X15A	**Humboldt**	**33.51**	**304**	P	**P**	**21 03 40.1**	**+1.1**
	baz=34,SNR=88						
X15A				⇑S	**S**	**21 09 04.4**	**+3.4**
	baz=34						
W15A	**Williams**	**33.75**	**305**	P	**P**	**21 03 42.9**	**+1.7**
	baz=34,SNR=34						
W15A				⇓S	**S**	**21 09 10.7**	**+6.0**
	baz=34						
Z14A	**Wintersburg**	**33.75**	**301**	⇑P	**P**	**21 03 42.0**	**+0.7**
	baz=34,SNR=16						
Z14A				⇑S	**S**	**21 09 10.8**	**+6.0**
	baz=34						
ULM	**Lac du Bonnet**	**33.78**	**340**	P	**P**	**21 03 38.6**	**-2.6**
	comp=Z,15nm,1.0s,mb4.9,baz=145,slow=9.3,SNR=16						
ULM				LR	LR	21 17 49.3	
	comp=Z,54µm,19.2s,MS6.3,baz=147,slow=37						
Y14A	**Wickenburg**	**33.96**	**302**	P	**P**	**21 03 43.8**	**+0.8**
	baz=34,SNR=46						
Y14A				⇓S	**S**	**21 09 14.0**	**+6.0**
	baz=34						
SRU	**San Rafael**	**33.96**	**312**	⇓*e*P	**P**	**21 03 43.6**	**+0.7**
	comp=Z,174nm,1.2s,mb5.9						
SRU				*e*PP	PP	21 04 59.1	-0.8
SRU				*e*S	**S**	**21 09 06.0**	**-1.9**
SRU	**San Rafael**	**33.96**	**312**	⇓*e*P	**P**	**21 03 43.6**	**+0.6**
SRU				*e*		21 04 59.1	
SRU				*e*S	**S**	**21 09 06.0**	**-1.9**
SRU				pmax	pmax		
	comp=Z,174nm,1.2s,mb5.9						
X14A	**Yava**	**34.02**	**303**	P	**P**	**21 03 44.5**	**+1.0**
	baz=34,SNR=66						
X14A				⇓S	**S**	**21 09 14.5**	**+5.5**
	baz=34						
W14A	**Seligman**	**34.40**	**304**	⇓P	**P**	**21 03 47.6**	**+0.8**
	baz=34,SNR=42						
W14A				⇓S	**S**	**21 09 19.1**	**+4.4**
	baz=34						
TMUT	**Trail Mountain**	**34.52**	**312**	⇓*e*P	**P**	**21 03 48.9**	**+1.1**
TMUT				*e*PP	PP	21 05 05.2	-0.8
Y13A	**Salome**	**34.58**	**302**	⇑P	**P**	**21 03 49.1**	**+0.7**
	baz=35,SNR=29						
Y13A				⇓S	**S**	**21 09 26.4**	**+8.8**
	baz=35						
X13A	**Yucca**	**34.80**	**303**	P	**P**	**21 03 51.0**	**+0.7**
	baz=35,SNR=37						
X13A				⇑S	**S**	**21 09 22.6**	**+1.6**
	baz=35						
MSU	**Marysvale**	**34.88**	**310**	*e*P	**P**	**21 03 51.3**	**+0.4**
MSU				*e*PP	PP	21 05 14.0	+4.0
PDMCI	**Parker Dam,Lak**	**34.96**	**302**	⇓P	**P**	**21 03 52.2**	**+0.5**
	baz=35,SNR=25						
PDMCI				⇓S	**S**	**21 09 24.1**	**+0.5**
	baz=35						
W13A	**Hualapai Mount**	**34.99**	**304**	⇑P	**P**	**21 03 53.2**	**+1.3**
	baz=35,SNR=25						
W13A				⇓S	**S**	**21 09 28.5**	**+4.6**
	baz=35						
T14A	**Hurricane**	**35.01**	**307**	P	**P**	**21 03 53.0**	**+1.0**
	baz=35,SNR=60						
T14A				⇓S	**S**	**21 09 28.6**	**+4.5**
	baz=35						
DAU	**Daniels Canyon**	**35.05**	**314**	*e*P	**P**	**21 03 52.4**	**0.0**
DAU				*e*PP	PP	21 05 16.8	+5.0
PDAR	**Pinedale Array**	**35.09**	**318**	P	**P**	**21 03 51.3**	**-1.3**
	comp=Z,5.1nm,0.6s,mb4.6,baz=120,slow=11,SNR=27						
PDAR				LR	LR	21 18 56.0	
	comp=Z,17µm,20.6s,MS5.8,baz=122,slow=38						
BW06	**Boulder Array**	**35.09**	**318**	*e*P	**P**	**21 03 51.3**	**-1.4**
	comp=Z,13nm,1.3s,mb4.7						
BW06				*e*PP	PP	21 05 10.3	-1.9
BW06				LR	LR		
	comp=Z,20µm,20.0s,MS5.9						
Y12C	**Blythe**	**35.13**	**301**	P	**P**	**21 03 53.8**	**+0.7**
	baz=35,SNR=42						
Y12C				⇑S	**S**	**21 09 29.7**	**+3.7**
	baz=35						
MPU	**Maple Canyon**	**35.13**	**313**	⇑*e*P	**P**	**21 03 52.7**	**-0.3**
	comp=Z,127nm,1.3s,mb5.7						
MPU				PcP	PcP	21 06 22.9	-1.6
MPU				LR	LR		
	comp=Z,22µm,19.0s,MS5.9						
JLU	**Jordanelle**	**35.26**	**314**	*e*P	**P**	**21 03 54.1**	**-0.1**
JLU				*e*PP	PP	21 05 13.2	-1.1
JLU				*e*PcP	PcP	21 06 26.5	+1.6
S14A	**Cedar City**	**35.32**	**309**	⇓P	**P**	**21 03 55.3**	**+0.6**
	baz=35,SNR=12						
S14A				⇓S	**S**	**21 09 31.3**	**+2.4**
	baz=35						
CCUT	**Cedar City**	**35.39**	**308**	*e*P	**P**	**21 03 55.5**	**+0.2**
CCUT				*e*PP	PP	21 05 12.5	-3.2
CCUT				*e*PcP	PcP	21 06 27.4	+2.1
NLU	**North Lily Min**	**35.41**	**313**	⇑*e*P	**P**	**21 03 57.1**	**+1.7**
NLU				*e*PP	PP	21 05 18.3	+2.5
NLU				*e*PcP	PcP	21 06 29.9	+4.6
NLU				*e*S	**S**	**21 09 32.6**	**+2.3**
NEE2	**Needles Airpor**	**35.47**	**303**	⇑P	**P**	**21 03 56.6**	**+0.5**
	baz=36						
NEE2				⇓S	**S**	**21 09 36.9**	**+5.5**
	baz=36						
LAO	**LASA Array**	**35.49**	**326**	*e*P	**P**	**21 03 53.9**	**-2.1**
	comp=Z,135nm,1.4s,mb5.7						
LAO				*e*PcP	PcP	21 06 29.9	+4.5
LAO				LR	LR		
	comp=Z,34µm,22.0s,MS6.1						
CTU	**Camp Tracy**	**35.51**	**314**	⇓*e*P	**P**	**21 03 56.7**	**+0.4**
	comp=Z,116nm,1.6s,mb5.6						
CTU				*e*PP	PP	21 05 18.8	+1.9
CTU				*e*PcP	PcP	21 06 23.6	-2.0
ARUT	**Antelope Range**	**35.53**	**308**	*e*P	**P**	**21 03 56.9**	**+0.3**
ARUT				*e*PP	PP	21 05 24.1	+6.9
ARUT				*e*PcP	PcP	21 06 21.8	-3.9
T13A	**Saint George**	**35.61**	**307**	⇓P	**P**	**21 03 58.3**	**+1.0**
	baz=36						
T13A				⇓S	**S**	**21 09 36.6**	**+3.2**
	baz=36						
DGMT	**Dagmar**	**35.70**	**330**	⇑*e*P	**P**	**21 03 57.2**	**-0.6**
	comp=Z,206nm,1.3s,mb5.9						
DGMT				*e*PP	PP	21 05 20.8	+1.8
DGMT				*e*S	S	21 09 09.1	-25
DGMT				*e*ScP	ScP	21 10 15.2	+2.9
DGMT				LR	LR		
	comp=Z,42µm,19.0s,MS6.2						
IRM	**Iron Mountain**	**35.73**	**302**	⇓P	**P**	**21 03 59.3**	**+0.9**
	baz=36,SNR=88						
IRM				⇑S	**S**	**21 09 39.1**	**+3.7**
	baz=36						
NOQ	**North Oquirrh**	**35.74**	**314**	*e*P	**P**	**21 03 58.3**	**0.0**
	comp=Z,245nm,1.4s,mb5.9						
NOQ				*e*PcP	PcP	21 06 25.3	-0.9
NOQ				*e*S	**S**	**21 09 37.1**	**+1.7**
HWUT	**Hardware Ranch**	**35.80**	**315**	*e*P	**P**	**21 03 58.0**	**-0.9**
	comp=Z,98nm,1.1s,mb5.7						
HWUT				LR	LR		
	comp=Z,17µm,19.0s,MS5.8						
W12A	**Cal Nev Ari**	**35.82**	**304**	⇑P	**P**	**21 03 59.8**	**+0.8**
	baz=36						
W12A				⇑S	**S**	**21 09 42.7**	**+6.0**
	baz=36						
BC3	**Big Chuckw Mtn**	**35.85**	**301**	P	**P**	**21 04 00.2**	**+0.8**
	baz=36,SNR=32						
BC3				⇓S	**S**	**21 09 43.0**	**+5.8**
	baz=36						
U12A	**Valley of Fire**	**35.90**	**306**	⇑P	**P**	**21 04 00.5**	**+0.8**
	baz=36,SNR=10						
U12A				⇓S	**S**	**21 09 40.5**	**+2.6**
	baz=36						
V12A	**Nelson**	**35.93**	**305**	P	**P**	**21 04 00.9**	**+0.9**
	baz=36,SNR=57						
V12A				⇓S	**S**	**21 09 42.2**	**+3.9**
	baz=36						
SWSC	**Sam W. Stewart**	**35.97**	**300**	⇑P	**P**	**21 04 01.2**	**+0.8**
	baz=36,SNR=22						
SWSC				⇓S	**S**	**21 09 44.0**	**+5.0**
	baz=36						
DUG	**Dugway**	**36.02**	**313**	⇑*e*P	**P**	**21 04 00.9**	**+0.1**
	comp=Z,264nm,1.3s,mb6.0						
DUG				*e*PP	PP	21 05 18.8	-3.8
DUG				*e*S	**S**	**21 09 33.9**	**-5.7**
DUG				*e*ScP	ScP	21 10 11.4	-2.2
DUG				LR	LR		
	comp=Z,8µm,22.0s,MS5.5						
DUG	**Dugway**	**36.02**	**313**	⇑*e*P	**P**	**21 04 00.9**	**+0.2**
DUG				*e*		21 05 18.8	
DUG				*e*S	**S**	**21 09 33.9**	**-5.7**
DUG				pmax	pmax		
	comp=Z,264nm,1.3s,mb6.0						
DUG				MLR	MLR		
	comp=Z,8µm,22.0s,MS5.5						
DUG	**Dugway**	**36.02**	**313**	⇓P	**P**	**21 04 01.2**	**+0.4**
	baz=36						
DUG				⇑S	**S**	**21 09 45.7**	**+6.1**
	baz=36						
AHID	**Auburn Hatcher**	**36.06**	**317**	⇓*e*P	**P**	**21 04 01.9**	**+0.8**
	comp=Z,192nm,1.6s,mb5.8						
AHID				*e*PP	PP	21 05 26.5	+3.5
AHID				*e*S	**S**	**21 09 41.8**	**+1.6**
AHID				*e*ScP	ScP	21 10 07.9	-5.8
AHID				LR	LR		
	comp=Z,15µm,21.0s,MS5.8						
T12A	**Moapa**	**36.13**	**306**	⇑P	**P**	**21 04 02.7**	**+1.0**
	baz=36						
T12A				⇑S	**S**	**21 09 45.3**	**+3.9**
	baz=36						
DVTC	**Desert V Tower**	**36.16**	**299**	⇑P	**P**	**21 04 03.3**	**+1.3**
	baz=36						
DVTC				⇓S	**S**	**21 09 47.0**	**+5.1**
	baz=36						
LOHW	**Long Hollow**	**36.19**	**319**	⇓*e*P	**P**	**21 04 01.8**	**-0.3**
	comp=Z,43nm,1.6s,mb5.1						
LOHW				*e*PP	PP	21 05 33.0	+8.6
LOHW				*e*PcP	PcP	21 06 26.9	-0.7
REDW	**Red Top Meadow**	**36.21**	**319**	*e*P	**P**	**21 04 01.6**	**-0.7**
	comp=Z,437nm,1.4s,mb6.2						
REDW				*e*PP	PP	21 05 25.7	+1.1
REDW				*e*PcP	PcP	21 06 24.5	-3.1
RLMT	**Red Lodge**	**36.21**	**322**	*e*P	**P**	**21 04 01.4**	**-0.8**
	comp=Z,52nm,1.1s,mb5.4						
RLMT				*e*PP	PP	21 05 21.7	-2.9
RLMT				*e*PcP	PcP	21 06 27.0	-0.5
RLMT				LR	LR		
	comp=Z,21µm,21.0s,MS5.9						
SPUT	**South Promonto**	**36.26**	**315**	⇑*e*P	**P**	**21 04 02.1**	**-0.7**
SPUT				*e*PP	PP	21 05 27.4	+2.2
SPUT				*e*S	**S**	**21 09 36.2**	**-7.0**
SPUT				*e*ScP	ScP	21 10 13.8	-0.6
ARE	**Arequipa**	**36.28**	**169**	*e*P	**P**	**21 04 02.0**	**-1.1**
ARE				*e*		21 27 20.0	
GMRC	**Granite Mounta**	**36.30**	**303**	⇑P	**P**	**21 04 03.9**	**+0.7**
	baz=36,SNR=19						
GMRC				⇓S	**S**	**21 09 51.0**	**+7.0**
	baz=36						
TPAW	**Teton Pass**	**36.34**	**319**	*e*P	**P**	**21 04 02.9**	**-0.5**
	comp=Z,276nm,1.4s,mb6.0						
TPAW				*e*PP	PP	21 05 23.5	-2.5
TPAW				*e*PcP	PcP	21 06 39.2	+11
TPAW				*e*S	**S**	**21 09 49.1**	**+4.7**
TPAW				*e*ScP	ScP	21 10 22.0	+7.3
MOOW	**Moose Ponds**	**36.34**	**319**	*e*P	**P**	**21 04 01.6**	**-1.8**
	comp=Z,82nm,1.0s,mb5.6						
MOOW				*e*PP	PP	21 05 23.2	-2.9
MOOW				*e*PcP	PcP	21 06 23.7	-4.3
BELC	**Belle Mtn.**	**36.38**	**301**	⇓P	**P**	**21 04 04.5**	**+0.7**
	baz=36,SNR=31						
BELC				⇑S	**S**	**21 09 51.7**	**+6.5**
	baz=36						
V11A	**Goodsprings**	**36.41**	**304**	⇑P	**P**	**21 04 05.1**	**+0.9**
	baz=36,SNR=15						
V11A				⇓S	**S**	**21 09 49.1**	**+3.4**
	baz=36						
SCHQ	**Schefferville**	**36.45**	**11**	*e*P	**P**	**21 04 03.4**	**-0.8**
	comp=Z,123nm,1.2s,mb5.7						
SCHQ				*e*PcP	PcP	21 06 31.9	+3.9
SCHQ	**Schefferville**	**36.45**	**11**	P	**P**	**21 04 02.0**	**-2.1**
	comp=Z,41nm,0.9s,mb5.4,baz=189,slow=6.4,SNR=21						
SCHQ				LR	LR	21 17 46.3	
	comp=Z,13µm,21.5s,MS5.7,baz=203,slow=34						
MONP	**Monument Peak**	**36.47**	**299**	⇑P	**P**	**21 04 05.9**	**+1.2**
	baz=36,SNR=41						
MONP				⇓S	**S**	**21 09 49.7**	**+3.0**
	baz=36						
BGU	**Big Grassy Mou**	**36.48**	**314**	*e*P	**P**	**21 04 04.8**	**+0.1**
BGU				*e*PP	PP	21 05 25.8	-1.9
DCID1	**Drake Creek**	**36.54**	**319**	*e*P	**P**	**21 04 04.3**	**-0.7**
DCID1				*e*PP	PP	21 05 25.6	-2.6
IMW	**Indian Meadow**	**36.54**	**319**	*e*P	**P**	**21 04 04.2**	**-0.9**
	comp=Z,84nm,1.0s,mb5.5						
IMW				*e*PP	PP	21 05 23.8	-4.5
IMW				S	**S**	**21 09 46.9**	**-0.6**
U11A	**Corn Creek**	**36.55**	**305**	⇑P	**P**	**21 04 06.3**	**+1.1**
	baz=37						
U11A				⇑S	**S**	**21 09 54.5**	**+6.7**
	baz=37						
LKWY	**Lake**	**36.57**	**321**	*e*P	**P**	**21 04 07.0**	**+1.7**
	comp=Z,77nm,1.1s,mb5.5						
LKWY				LR	LR		
	comp=Z,22µm,21.0s,MS5.9						
LKWY	**Lake**	**36.57**	**321**	P	**P**	**21 04 07.9**	**+2.6**
LKWY				pmax	pmax		
	comp=Z,77nm,1.1s,mb5.5						
R12A	**Pony Springs,**	**36.58**	**309**	⇓P	**P**	**21 04 06.7**	**+1.2**
	baz=37,SNR=52						
R12A				⇓S	**S**	**21 09 54.8**	**+6.5**
	baz=37						
PFO	**Pinyon Flat Ob**	**36.66**	**301**	P	**P**	**21 04 07.5**	**+1.3**
PFO				pmax	pmax		
	comp=Z,220nm,1.7s,mb5.7						
PFO	**Pinyon Flat Ob**	**36.66**	**301**	P	**P**	**21 04 05.6**	**-0.6**
	comp=Z,16nm,1.0s,mb4.8,baz=106,slow=9.1,SNR=22						
PFO	**Pinyon Flat Ob**	**36.66**	**301**	⇑P	**P**	**21 04 07.0**	**+0.7**
	baz=37,SNR=19						
PFO				⇑S	**S**	**21 09 52.7**	**+3.2**
	baz=37						
TUQ	**Turquoise Mtn.**	**36.68**	**304**	P	**P**	**21 04 07.1**	**+0.7**
	baz=37,SNR=32						
TUQ				⇑S	**S**	**21 09 54.3**	**+4.4**
	baz=37						
HVU	**Hansel Valley**	**36.69**	**315**	*e*P	**P**	**21 04 05.7**	**-0.7**
	comp=Z,39nm,1.0s,mb5.2						
HVU				*e*PP	PP	21 05 24.7	-5.2
HVU				*e*PcP	PcP	21 06 29.6	+0.5
HVU				S	**S**	**21 09 49.7**	**-0.1**
HVU	**Hansel Valley**	**36.69**	**315**	*e*P	**P**	**21 04 05.7**	**-0.7**
HVU				*e*		21 05 24.7	
HVU				*e*		21 06 29.6	
HVU				S	**S**	**21 09 49.7**	**-0.1**
HVU				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.2						
YFT	**Old Faithful**	**36.77**	**320**	*e*P	**P**	**21 04 07.2**	**+0.1**
HEC	**Hector,Ludlow**	**36.85**	**303**	⇑P	**P**	**21 04 08.6**	**+0.8**
	baz=37,SNR=21						
HEC				⇓S	**S**	**21 09 57.1**	**+4.7**
	baz=37						
LPAZ	**La Paz**	**36.88**	**163**	⇑*e*P	**P**	**21 04 06.6**	**-1.6**
	comp=Z,76nm,1.4s,mb5.3						
LPAZ				*e*PP	PP	21 05 33.6	+1.3
LPAZ				LR	LR		
	comp=Z,23µm,21.0s,MS5.9						
LPAZ	**La Paz**	**36.88**	**163**	⇑*e*P	**P**	**21 04 06.6**	**-1.6**
LPAZ				*e*		21 05 33.7	
LPAZ				pmax	pmax		
	comp=Z,77nm,1.4s						
LPAZ				MLR	MLR		
	comp=Z,23µm,21.0s						
LPAZ	**La Paz**	**36.88**	**163**	P	**P**	**21 04 06.8**	**-1.3**
	comp=Z,5.4nm,0.7s,mb4.5,baz=354,slow=8.3,SNR=24						
LPAZ				LR	LR	21 20 48.2	
	comp=Z,23µm,21.6s,MS5.9,baz=333,slow=39						
YMR	**Madison River**	**36.97**	**320**	*e*P	**P**	**21 04 08.8**	**+0.1**
	comp=Z,93nm,1.3s,mb5.5						
YMR				LR	LR		
	comp=Z,26µm,20.0s,MS6.0						
Q12A	**Willow Creek R**	**37.00**	**310**	⇑P	**P**	**21 04 10.2**	**+1.0**
	baz=37,SNR=35						
Q12A				⇑S	**S**	**21 09 58.3**	**+3.7**
	baz=37						
109C	**Camp Elliot, M**	**37.04**	**299**	⇓P	**P**	**21 04 10.0**	**+0.6**
	baz=37,SNR=12						
109C				⇑S	**S**	**21 09 58.7**	**+3.4**
	baz=37						
SHOC	**Shoshone**	**37.09**	**304**	⇑P	**P**	**21 04 10.5**	**+0.6**
	baz=37,SNR=30						
SHOC				⇓S	**S**	**21 10 03.3**	**+7.3**
	baz=37						
BBRC	**Big Bear Sol-O**	**37.18**	**301**	⇑P	**P**	**21 04 11.4**	**+0.7**
	baz=37						
BBRC				⇑S	**S**	**21 10 02.8**	**+5.2**
	baz=37						
MURC	**Murrieta**	**37.26**	**300**	⇓P	**P**	**21 04 11.8**	**+0.4**
	baz=37,SNR=14						
MURC				⇑S	**S**	**21 10 03.4**	**+4.7**
	baz=37						
N13A	**Wendover, West**	**37.26**	**313**	P	**P**	**21 04 11.7**	**+0.4**
	baz=37,SNR=15						
N13A				⇑S	**S**	**21 10 04.7**	**+6.2**
	baz=37						
U10A	**Ash Meadows, A**	**37.27**	**305**	⇑P	**P**	**21 04 11.7**	**+0.3**
	baz=37,SNR=50						
U10A				⇑S	**S**	**21 10 07.7**	**+8.9**
	baz=37						
K14A	**Jones Ranch, D**	**37.30**	**316**	⇓P	**P**	**21 04 10.7**	**-0.9**
	baz=37,SNR=28						
K14A				⇓S	**S**	**21 10 02.2**	**+3.1**
	baz=37						
TRCR	**Troy Canyon**	**37.31**	**308**	*e*P	**P**	**21 04 12.8**	**+1.0**
TRCR				*e*PP	PP	21 05 35.8	-1.0
TRCR				*e*PcP	PcP	21 06 32.5	+1.4
QLMT	**Earthquake Lak**	**37.33**	**320**	P	**P**	**21 04 12.0**	**+0.2**
GSC	**Goldstone**	**37.34**	**303**	⇓P	**P**	**21 04 12.2**	**+0.2**
	baz=37,SNR=32						
GSC				⇓S	**S**	**21 10 05.5**	**+5.6**
	baz=37						
RRX	**Edison Barstow**	**37.39**	**302**	⇑P	**P**	**21 04 13.1**	**+0.6**
	baz=37						
RRX				⇑S	**S**	**21 10 05.9**	**+5.2**
	baz=37						
O12A	**Currie**	**37.40**	**312**	P	**P**	**21 04 13.1**	**+0.6**
	baz=37,SNR=56						
O12A				⇓S	**S**	**21 10 04.5**	**+3.8**
	baz=37						
M13A	**Montello**	**37.44**	**314**	⇓P	**P**	**21 04 13.3**	**+0.5**
	baz=38						
Q11A	**Duckwater**	**37.53**	**309**	⇓P	**P**	**21 04 13.8**	**+0.2**
	baz=38,SNR=63						
Q11A				⇓S	**S**	**21 10 05.6**	**+2.9**
	baz=38						
L13A	**Double Diamond**	**37.61**	**315**	P	**P**	**21 04 13.6**	**-0.6**
	baz=38,SNR=14						
L13A				⇓S	**S**	**21 10 09.0**	**+5.3**
	baz=38						
FURC	**Furnace Creek,**	**37.70**	**305**	⇓P	**P**	**21 04 15.3**	**+0.2**
	baz=38,SNR=8.5						
FURC				⇑S	**S**	**21 10 11.3**	**+6.0**
	baz=38						
BFSC	**Mount Baldy St**	**37.77**	**301**	⇑P	**P**	**21 04 16.1**	**+0.4**
	baz=38						
N12A	**Clover Valley,**	**37.84**	**312**	P	**P**	**21 04 16.4**	**+0.2**
	baz=38,SNR=69						
N12A				⇓S	**S**	**21 10 13.8**	**+6.5**
	baz=38						
P11A	**Circle Ranch,**	**37.86**	**310**	⇑P	**P**	**21 04 16.5**	**+0.2**
	baz=38,SNR=29						
P11A				⇓S	**S**	**21 10 11.2**	**+3.6**
	baz=38						
BOZ	**Bozeman (W)**	**37.89**	**321**	*e*P	**P**	**21 04 13.1**	**-3.4**
	comp=Z,94nm,1.4s,mb5.3						
BOZ				PP	PP	21 05 46.0	+2.9
BOZ				LR	LR		
	comp=Z,15µm,22.0s,MS5.8						
BOZ	**Bozeman (W)**	**37.89**	**321**	*e*P	**P**	**21 04 13.1**	**-3.4**
BOZ						21 05 46.0	
BOZ				pmax	pmax		
	comp=Z,94nm,1.4s,mb5.3						
BOZ				MLR	MLR		
	comp=Z,15µm,22.0s,MS5.8						
BOZ	**Bozeman (W)**	**37.89**	**321**	⇑P	**P**	**21 04 16.8**	**+0.3**
	baz=38						
BOZ				⇑S	**S**	**21 10 08.5**	**+0.6**
	baz=38						
S10A	**Tonopah Range,**	**37.93**	**307**	⇑P	**P**	**21 04 17.5**	**+0.5**
	baz=38,SNR=72						
S10A				⇑S	**S**	**21 10 13.2**	**+4.5**
	baz=38						
ELK	**Elko**	**37.94**	**312**	*e*P	**P**	**21 04 17.1**	**+0.1**
	comp=Z,106nm,1.2s,mb5.5						
ELK				PP	PP	21 05 43.8	+0.2
ELK				LR	LR		
	comp=Z,15µm,19.0s,MS5.8						
ELK	**Elko**	**37.94**	**312**	*e*P	**P**	**21 04 17.1**	**+0.1**
ELK						21 05 43.8	
ELK				pmax	pmax		
	comp=Z,106nm,1.2s						
ELK				MLR	MLR		
	comp=Z,15µm,19.0s						
K13A	**Stover Farm, H**	**37.95**	**316**	⇑P	**P**	**21 04 16.7**	**-0.4**
	baz=38						
K13A				⇑S	**S**	**21 10 10.5**	**+1.6**
	baz=38						
M12A	**Wells**	**37.98**	**313**	P	**P**	**21 04 16.9**	**-0.4**
	baz=38,SNR=26						
M12A				⇑S	**S**	**21 10 10.8**	**+1.3**
	baz=38						
O11A	**Cowboy Ranch,**	**38.00**	**311**	P	**P**	**21 04 18.0**	**+0.5**
	baz=38,SNR=87						
O11A				⇑S	**S**	**21 10 15.2**	**+5.4**
	baz=38						
MPMC	**Manual Prospec**	**38.08**	**304**	⇑P	**P**	**21 04 18.7**	**+0.4**
	baz=38,SNR=16						
MPMC				⇓S	**S**	**21 10 15.9**	**+4.9**
	baz=38						
G15A	**Dillon**	**38.15**	**320**	P	**P**	**21 04 18.3**	**-0.4**
	baz=38,SNR=27						
G15A				⇑S	**S**	**21 10 13.5**	**+1.7**
	baz=38						
FMP	**Fort Macarthur**	**38.17**	**300**	⇓P	**P**	**21 04 19.1**	**0.0**
	baz=38						
FMP				⇓S	**S**	**21 10 15.4**	**+2.8**
	baz=38						
EDW2	**Edwards Air Fo**	**38.18**	**302**	⇑P	**P**	**21 04 19.5**	**+0.3**
	baz=38,SNR=28						
EDW2				⇓S	**S**	**21 10 15.4**	**+2.8**
	baz=38						
MCMT	**McKenzie Canyo**	**38.20**	**319**	*e*P	**P**	**21 04 18.9**	**-0.2**
EGMT	**Eagleton**	**38.20**	**326**	*e*P	**P**	**21 04 18.2**	**-0.9**
	comp=Z,209nm,1.3s,mb5.7						
EGMT				*e*PP	PP	21 05 44.8	-1.6
EGMT				*e*PcP	PcP	21 06 25.6	-7.9
EGMT				LR	LR		
	comp=Z,34µm,19.0s,MS6.2						
EGMT	**Eagleton**	**38.20**	**326**	⇓P	**P**	**21 04 18.6**	**-0.5**
	baz=38						
CIS	**Catalina Islan**	**38.20**	**300**	⇓P	**P**	**21 04 19.9**	**+0.5**
	baz=38,SNR=10.0						
CIS				⇑S	**S**	**21 10 15.7**	**+2.6**
	baz=38						
DAC	**Darwin (Calif)**	**38.22**	**304**	*e*P	**P**	**21 04 19.9**	**+0.5**
	comp=Z,117nm,1.5s,mb5.4						
DAC				*e*PP	PP	21 05 44.7	-2.1
DAC				PcP	PcP	21 06 38.0	+4.1
DAC				*e*S	**S**	**21 10 11.1**	**-2.1**
DAC				LR	LR		
	comp=Z,15µm,21.0s,MS5.8						
DAC	**Darwin (Calif)**	**38.22**	**304**	*e*P	**P**	**21 04 19.9**	**+0.5**
DAC				*e*		21 05 44.7	
DAC						21 06 38.0	
DAC				*e*S	**S**	**21 10 11.1**	**-2.0**
DAC				pmax	pmax		
	comp=Z,117nm,1.5s,mb5.4						
DAC				MLR	MLR		
	comp=Z,15µm,21.0s,MS5.8						
GRAC	**Grapevine Rang**	**38.24**	**306**	⇑P	**P**	**21 04 19.9**	**+0.3**
	baz=38,SNR=6.5						
GRAC				⇑S	**S**	**21 10 18.7**	**+5.2**
	baz=38						
SCI	**San Clemente I**	**38.24**	**299**	⇑P	**P**	**21 04 20.4**	**+0.6**
	baz=38						
SCI				⇓S	**S**	**21 10 11.7**	**-1.9**
	baz=38						
N11A	**Elko Archery C**	**38.31**	**312**	⇑P	**P**	**21 04 20.7**	**+0.5**
	baz=38,SNR=8.7						
N11A				⇑S	**S**	**21 10 16.4**	**+1.9**
	baz=38						
DLMT	**Dillon**	**38.31**	**320**	*e*P	**P**	**21 04 18.9**	**-1.3**
	comp=Z,168nm,1.3s,mb5.6						
DECC	**Green Verdugo**	**38.32**	**301**	⇓P	**P**	**21 04 20.0**	**-0.3**
	baz=38						
DECC				⇓S	**S**	**21 10 16.6**	**+1.9**
	baz=38						
S09A	**Goldfield**	**38.34**	**307**	⇓P	**P**	**21 04 20.7**	**+0.2**
	baz=38,SNR=61						
S09A				⇑S	**S**	**21 10 16.7**	**+1.7**
	baz=38						
J13A	**Cove Ranch, Pi**	**38.34**	**317**	P	**P**	**21 04 19.9**	**-0.5**
	baz=38,SNR=51						

J13A				⇑S	S	21 10 19.5	+4.6
	baz=38						
L12A	**House Creek Ra**	**38.35**	**314**	P	**P**	**21 04 20.2**	**-0.2**
	baz=38,SNR=22						
L12A				⇑S	**S**	**21 10 19.5**	**+4.5**
	baz=38						
R09A	**Tonopah**	**38.38**	**308**	P	**P**	**21 04 21.8**	**+1.0**
	baz=38,SNR=48						
R09A				⇑S	**S**	**21 10 19.9**	**+4.2**
	baz=38						
P10A	**Eureka**	**38.39**	**310**	⇑P	**P**	**21 04 21.4**	**+0.5**
	baz=38,SNR=36						
P10A				⇓S	**S**	**21 10 19.9**	**+4.2**
	baz=38						
TPH	**Tonopah**	**38.45**	**307**	⇑*e*P	**P**	**21 04 22.0**	**+0.7**
	comp=Z,76nm,1.1s,mb5.3						
TPH				*e*PP	PP	21 05 54.8	+5.5
TPH				*e*PcP	PcP	21 06 29.4	-5.2
TPH				*e*S	**S**	**21 10 19.0**	**+2.4**
TPH				LR	LR		
	comp=Z,21µm,21.0s,MS5.9						
TPH	**Tonopah**	**38.45**	**307**	⇑*e*P	**P**	**21 04 22.0**	**+0.7**
TPH				*e*		21 05 54.8	
TPH				*e*		21 06 29.4	
TPH				*e*S	**S**	**21 10 19.0**	**+2.4**
TPH				pmax	pmax		
	comp=Z,76nm,1.1s,mb5.3						
TPH				MLR	MLR		
	comp=Z,21µm,21.0s,MS5.9						
K12A	**Draper Farm, C**	**38.48**	**315**	P	**P**	**21 04 22.3**	**+0.7**
	baz=38,SNR=8.7						
K12A				⇑S	**S**	**21 10 17.8**	**+0.8**
	baz=38						
F15A	**Butte**	**38.50**	**321**	P	**P**	**21 04 20.9**	**-0.8**
	baz=38,SNR=14						
F15A				⇑S	**S**	**21 10 19.3**	**+2.1**
	baz=38						
I13A	**Wildhorse Cree**	**38.55**	**317**	P	**P**	**21 04 21.7**	**-0.4**
	baz=39,SNR=38						
I13A				⇓S	**S**	**21 10 18.3**	**+0.4**
	baz=39						
HLID	**Hailey**	**38.57**	**317**	⇓*e*P	**P**	**21 04 22.2**	**-0.1**
	comp=Z,107nm,1.3s,mb5.4						
HLID				*e*PP	PP	21 05 51.7	+1.1
HLID				*e*PcP	PcP	21 06 36.2	+1.4
HLID	**Hailey**	**38.57**	**317**	P	**P**	**21 04 21.8**	**-0.5**
	baz=39,SNR=85						
HLID				⇑S	**S**	**21 10 20.0**	**+1.6**
	baz=39						
M11A	**Holland Ranch,**	**38.59**	**313**	P	**P**	**21 04 22.2**	**-0.3**
	baz=39,SNR=80						
M11A				⇑S	**S**	**21 10 21.5**	**+2.9**
	baz=39						
CWC	**Cottonwood Cre**	**38.64**	**304**	⇑P	**P**	**21 04 23.6**	**+0.6**
	baz=39,SNR=8.9						
CWC				⇑S	**S**	**21 10 27.7**	**+8.2**
	baz=39						
Q09A	**Carvers**	**38.65**	**308**	⇑P	**P**	**21 04 23.8**	**+0.7**
	baz=39						
Q09A				⇓S	**S**	**21 10 22.1**	**+2.4**
	baz=39						
O10A	**Cortez Mining,**	**38.66**	**311**	⇑P	**P**	**21 04 23.5**	**+0.4**
	baz=39						
O10A				⇓S	**S**	**21 10 19.3**	**-0.4**
	baz=39						
OSI	**Osito Adit**	**38.71**	**301**	⇓P	**P**	**21 04 24.4**	**+0.7**
	baz=39						
OSI				⇑S	**S**	**21 10 25.5**	**+4.8**
	baz=39						
ISA	**Isabella**	**38.75**	**303**	⇓P	**P**	**21 04 24.7**	**+0.8**
	baz=39,SNR=16						
ISA				⇑S	**S**	**21 10 24.4**	**+3.1**
	baz=39						
G14A	**Jackson**	**38.78**	**320**	⇓P	**P**	**21 04 23.6**	**-0.4**
	baz=39						
G14A				⇑S	**S**	**21 10 23.1**	**+1.7**
	baz=39						
N10A	**Dunphy**	**38.82**	**312**	⇑P	**P**	**21 04 24.3**	**-0.2**
	baz=39						
N10A				⇑S	**S**	**21 10 23.5**	**+1.3**
	baz=39						
P09A	**Austin**	**38.86**	**310**	⇓P	**P**	**21 04 24.9**	**+0.1**
	baz=39,SNR=14						
P09A				⇑S	**S**	**21 10 25.2**	**+2.5**
	baz=39						
L11A	**Cat Creek Ranc**	**38.86**	**314**	⇑P	**P**	**21 04 23.8**	**-1.0**
	baz=39,SNR=46						
L11A				⇑S	**S**	**21 10 25.2**	**+2.5**
	baz=39						
J12A	**Stokes Ranch,**	**38.88**	**316**	P	**P**	**21 04 23.9**	**-1.0**
	baz=39,SNR=35						
J12A				⇑S	**S**	**21 10 23.9**	**+0.9**
	baz=39						
BLG	**Laguna Peak**	**38.88**	**301**	⇑P	**P**	**21 04 25.4**	**+0.3**
	baz=39						
BLG				⇓S	**S**	**21 10 27.0**	**+3.7**
	baz=39						
E15A	**Deer Lodge**	**38.90**	**322**	⇑P	**P**	**21 04 24.5**	**-0.5**
	baz=39						
E15A				⇓S	**S**	**21 10 22.6**	**-0.6**
	baz=39						
ARVC	**Arvin**	**38.91**	**302**	⇓P	**P**	**21 04 25.6**	**+0.4**
	baz=39,SNR=10						
ARVC				⇑S	**S**	**21 10 28.6**	**+4.9**
	baz=39						
TIN	**Tinemaha**	**38.91**	**305**	⇑P	**P**	**21 04 25.5**	**+0.2**
	baz=39						
TIN				⇑S	**S**	**21 10 25.8**	**+2.1**
	baz=39						
H13A	**Challis**	**38.94**	**318**	⇓P	**P**	**21 04 25.0**	**-0.4**
	baz=39,SNR=7.5						
H13A				⇓S	**S**	**21 10 25.8**	**+2.0**
	baz=39						
S08C	**White Mtn Res**	**38.99**	**306**	⇑P	**P**	**21 04 26.2**	**+0.2**
	baz=39,SNR=84						
S08C				⇓S	**S**	**21 10 27.8**	**+2.9**
	baz=39						
F14A	**Wisdom**	**39.01**	**320**	⇑P	**P**	**21 04 25.0**	**-1.0**
	baz=39,SNR=18						
F14A				⇓S	**S**	**21 10 25.0**	**+0.1**
	baz=39						
SNCC	**San Nicolas Is**	**39.10**	**299**	⇑P	**P**	**21 04 26.9**	**0.0**
	baz=39						
SNCC				⇑S	**S**	**21 10 24.5**	**-2.0**
	baz=39						
O09A	**Fish Creek Ran**	**39.11**	**310**	P	**P**	**21 04 27.2**	**+0.3**
	baz=39,SNR=48						
O09A				⇓S	**S**	**21 10 27.3**	**+0.8**
	baz=39						
M10A	**I.L. Ranch, Tu**	**39.14**	**313**	⇓P	**P**	**21 04 27.0**	**-0.2**
	baz=39,SNR=15						
M10A				⇓S	**S**	**21 10 31.8**	**+4.8**
	baz=39						
D15A	**Lincoln**	**39.16**	**323**	P	**P**	**21 04 26.3**	**-0.9**
	baz=39,SNR=13						
D15A				⇓S	**S**	**21 10 30.5**	**+3.3**
	baz=39						
G13A	**Cobalt**	**39.18**	**319**	P	**P**	**21 04 26.2**	**-1.2**
	baz=39,SNR=9.8						
G13A				⇓S	**S**	**21 10 33.5**	**+6.0**
	baz=39						
R08A	**Mina**	**39.19**	**307**	⇑P	**P**	**21 04 27.9**	**+0.3**
	baz=39						
R08A				⇑S	**S**	**21 10 30.9**	**+3.0**
	baz=39						
Q08A	**Gabbs**	**39.22**	**308**	P	**P**	**21 04 28.4**	**+0.5**
	baz=39,SNR=43						
Q08A				⇑S	**S**	**21 10 32.5**	**+4.3**
	baz=39						
BMN	**Battle Mountai**	**39.22**	**311**	*e*P	**P**	**21 04 27.6**	**-0.2**
	comp=Z,92nm,1.3s,mb5.3						
BMN				*e*PP	PP	21 05 54.2	-3.6
BMN				*e*ScP	ScP	21 10 33.7	+8.0
BMN				LR	LR		
	comp=Z,13µm,20.0s,MS5.8						
BMN	**Battle Mountai**	**39.22**	**311**	*e*P	**P**	**21 04 27.6**	**-0.2**
BMN				*e*		21 05 54.2	
BMN				*e*		21 10 33.7	
BMN				pmax	pmax		
	comp=Z,92nm,1.3s,mb5.3						
BMN				MLR	MLR		
	comp=Z,13µm,20.0s,MS5.8						
MTUM	**Tungsten Hills**	**39.26**	**306**	*e*P	**P**	**21 04 28.8**	**+0.7**
MTUM				*e*PP	PP	21 05 57.9	-0.2
VES	**Vestal, Richgr**	**39.27**	**303**	⇓P	**P**	**21 04 28.8**	**+0.5**
	baz=39,SNR=22						
VES				⇓S	**S**	**21 10 33.0**	**+3.9**
	baz=39						
H12A	**Diamond D Ranc**	**39.31**	**318**	⇑P	**P**	**21 04 28.0**	**-0.5**
	baz=39,SNR=12						
H12A				⇑S	**S**	**21 10 31.8**	**+2.3**
	baz=39						
L10A	**Juniper Basin**	**39.31**	**314**	P	**P**	**21 04 28.4**	**-0.2**
	baz=39,SNR=62						
L10A				⇑S	**S**	**21 10 33.2**	**+3.7**
	baz=39						
BSC	**Santa Cruz Isl**	**39.32**	**300**	⇓P	**P**	**21 04 28.5**	**-0.3**
	baz=39,SNR=9.9						
BSC				⇑S	**S**	**21 10 30.6**	**+0.7**
	baz=39						
NVAR	**Mina Array Bea**	**39.36**	**307**	P	**P**	**21 04 29.6**	**+0.6**
	comp=Z,20nm,0.9s,mb4.9,baz=113,slow=9.2,SNR=34						
NVAR				PcP	PcP	21 06 36.3	-1.1
	baz=80,slow=7.7						
E14A	**Clinton**	**39.40**	**321**	⇑P	**P**	**21 04 28.7**	**-0.4**
	baz=39						
E14A				⇑S	**S**	**21 10 32.4**	**+1.8**
	baz=39						
HELL	**Mitchell Peak,**	**39.43**	**305**	⇑P	**P**	**21 04 29.9**	**+0.3**
	baz=39,SNR=38						
HELL				⇓S	**S**	**21 10 32.9**	**+1.4**
	baz=39						
MFID	**Camas Ranch**	**39.43**	**316**	P	**P**	**21 04 29.1**	**-0.4**
	baz=39,SNR=26						
MFID				⇑S	**S**	**21 10 32.8**	**+1.5**
	baz=39						
SBC	**Santa Barbara**	**39.48**	**301**	⇑S	**S**	**21 10 33.3**	**+1.1**
	baz=40						
RCTC	**Rector, Farmer**	**39.51**	**304**	⇑P	**P**	**21 04 30.9**	**+0.6**
	baz=40						
RCTC				⇓S	**S**	**21 10 33.6**	**+0.9**
	baz=40						
CHMT	**Chamberlain Mo**	**39.52**	**322**	⇑*e*P	**P**	**21 04 28.7**	**-1.5**
CHMT				*e*PP	PP	21 06 03.0	+2.2
CHMT				*e*PcP	PcP	21 06 34.5	-3.2
MLAC	**Mammoth Lakes**	**39.54**	**306**	⇓S	**S**	**21 10 35.2**	**+2.1**
	baz=40						
FFC	**Flin Flon**	**39.57**	**339**	*e*P	**P**	**21 04 29.4**	**-1.2**
	comp=Z,9.2nm,2.5s						
FFC				*e*PP	PP	21 06 01.0	-0.3
FFC				LR	LR		
	comp=Z,50µm,20.0s,MS6.3						
FFC	**Flin Flon**	**39.57**	**339**	*e*P	**P**	**21 04 29.4**	**-1.1**
FFC				*e*		21 06 01.0	
FFC				pmax	pmax		
	comp=Z,9.0nm,2.5s						
FFC				MLR	MLR		
	comp=Z,50µm,20.0s,MS6.3						
F13A	**Darby**	**39.58**	**320**	⇓P	**P**	**21 04 30.1**	**-0.6**
	baz=40						
F13A				⇑S	**S**	**21 10 36.8**	**+3.3**
	baz=40						
N09A	**Rock Creek Ran**	**39.59**	**311**	⇑P	**P**	**21 04 30.4**	**-0.5**
	baz=40,SNR=52						
N09A				⇑S	**S**	**21 10 32.7**	**-1.0**
	baz=40						
P08A	**Dixie Valley**	**39.59**	**309**	⇓P	**P**	**21 04 30.7**	**-0.2**
	baz=40,SNR=11						
PKM	**Peak Mountain**	**39.65**	**302**	⇓P	**P**	**21 04 32.1**	**+0.6**
	baz=40,SNR=10						
PKM				⇑S	**S**	**21 10 39.0**	**+4.1**
	baz=40						
I11A	**Placerville**	**39.73**	**316**	P	**P**	**21 04 31.0**	**-1.0**
	baz=40,SNR=15						
I11A				⇓S	**S**	**21 10 36.7**	**+0.9**
	baz=40						
M09A	**Marrel Ranch,**	**39.74**	**312**	⇑P	**P**	**21 04 32.0**	**-0.1**
	baz=40,SNR=17						
M09A				⇓S	**S**	**21 10 36.8**	**+0.8**
	baz=40						
D14A	**Greenough**	**39.75**	**322**	P	**P**	**21 04 30.8**	**-1.4**
	baz=40,SNR=11						
D14A				⇓S	**S**	**21 10 35.4**	**-0.6**
	baz=40						
E13A	**Victor**	**39.82**	**321**	⇑P	**P**	**21 04 31.8**	**-0.9**
	baz=40						
E13A				⇑S	**S**	**21 10 38.8**	**+1.7**
	baz=40						
KCC	**Kaiser Creek**	**39.83**	**305**	⇑P	**P**	**21 04 33.0**	**+0.1**
	baz=40,SNR=13						
KCC				⇑S	**S**	**21 10 41.8**	**+4.4**
	baz=40						
R07C	**Lee Vining**	**39.83**	**307**	⇑P	**P**	**21 04 33.3**	**+0.4**
	baz=40,SNR=30						
R07C				⇓S	**S**	**21 10 40.4**	**+3.0**
	baz=40						
O08A	**Rochester Mine**	**39.84**	**310**	⇑P	**P**	**21 04 33.0**	**0.0**
	baz=40						
O08A				⇑S	**S**	**21 10 39.1**	**+1.5**
	baz=40						
K10A	**MacKenzie Ranc**	**39.86**	**314**	P	**P**	**21 04 32.6**	**-0.5**
	baz=40,SNR=33						
K10A				⇓S	**S**	**21 10 36.4**	**-1.4**
	baz=40						
MSO	**Missoula**	**39.87**	**322**	*e*P	**P**	**21 04 32.3**	**-0.9**
	comp=Z,39nm,1.4s,mb5.0						
MSO				*e*PP	PP	21 06 04.0	-0.7
MSO				*e*PcP	PcP	21 06 29.4	-9.4
MSO				LR	LR		
	comp=Z,10µm,19.0s,MS5.7						
SMMC	**Simmler**	**39.88**	**302**	⇓P	**P**	**21 04 33.5**	**0.0**
	baz=40						
SMMC				⇓S	**S**	**21 10 40.9**	**+2.6**
	baz=40						
Q07A	**Schurz**	**39.89**	**308**	⇓P	**P**	**21 04 33.3**	**-0.1**
	baz=40						
V05C	**Boulder Hill,**	**39.93**	**303**	⇓P	**P**	**21 04 33.7**	**-0.1**
	baz=40						
V05C				⇓S	**S**	**21 10 42.7**	**+3.7**
	baz=40						
N08A	**GE Springer Mi**	**39.99**	**311**	P	**P**	**21 04 34.1**	**-0.2**
	baz=40,SNR=39						
N08A				⇑S	**S**	**21 10 43.1**	**+3.3**
	baz=40						
T06C	**Millerton Lake**	**40.05**	**305**	⇓P	**P**	**21 04 34.0**	**-0.7**
	baz=40,SNR=18						
T06C				⇓S	**S**	**21 10 43.6**	**+2.9**
	baz=40						
J10A	**Berg Farm, Mel**	**40.06**	**315**	⇑P	**P**	**21 04 34.6**	**-0.1**
	baz=40						
J10A				⇑S	**S**	**21 10 42.2**	**+1.5**
	baz=40						
L09A	**Wilkinson Ranc**	**40.11**	**313**	⇑P	**P**	**21 04 34.9**	**-0.3**
	baz=40,SNR=12						
L09A				⇑S	**S**	**21 10 44.1**	**+2.6**
	baz=40						
H11A	**Donnelly**	**40.12**	**318**	⇑P	**P**	**21 04 34.2**	**-1.0**
	baz=40,SNR=27						
H11A				⇓S	**S**	**21 10 44.1**	**+2.6**
	baz=40						
P07A	**Fallon**	**40.14**	**309**	⇑P	**P**	**21 04 34.8**	**-0.6**
	baz=40						
P07A				⇓S	**S**	**21 10 47.2**	**+5.2**
	baz=40						
U05C	**Westside ANR,**	**40.21**	**304**	⇓P	**P**	**21 04 35.6**	**-0.5**
	baz=40						
U05C				⇑S	**S**	**21 10 47.8**	**+4.7**
	baz=40						
R06C	**Coleville**	**40.25**	**307**	⇓P	**P**	**21 04 36.9**	**+0.4**
	baz=40,SNR=31						
R06C				⇓S	**S**	**21 10 49.6**	**+5.8**
	baz=40						
C14A	**Swan Lake**	**40.26**	**323**	⇑P	**P**	**21 04 36.0**	**-0.3**
	baz=40						
D13A	**Huson**	**40.31**	**322**	⇑P	**P**	**21 04 36.3**	**-0.5**
	baz=40						
D13A				⇓S	**S**	**21 10 45.7**	**+1.3**
	baz=40						
O07A	**Toulon**	**40.32**	**310**	⇑P	**P**	**21 04 36.7**	**-0.3**
	baz=40,SNR=25						
O07A				⇓S	**S**	**21 10 45.9**	**+1.1**
	baz=40						
I10A	**Payette**	**40.36**	**316**	⇓P	**P**	**21 04 36.5**	**-0.7**
	baz=40						
S06C	**San Francisco**	**40.38**	**306**	⇑P	**P**	**21 04 37.5**	**0.0**
	baz=40,SNR=47						
S06C				⇓S	**S**	**21 10 50.6**	**+5.0**
	baz=40						
M08A	**Happy Creek Ra**	**40.40**	**312**	⇓P	**P**	**21 04 37.1**	**-0.5**
	baz=40,SNR=53						
M08A				⇓S	**S**	**21 10 50.7**	**+4.9**
	baz=40						
K09A	**Rome**	**40.41**	**314**	⇑P	**P**	**21 04 37.0**	**-0.7**
	baz=40,SNR=80						
K09A				⇓S	**S**	**21 10 43.7**	**-2.3**
	baz=40						
PKD	**Parkfield**	**40.45**	**303**	⇓P	**P**	**21 04 38.0**	**-0.1**
	baz=40,SNR=7.6						
PKD				⇓S	**S**	**21 10 45.6**	**-1.2**
	baz=40						
H10A	**Noah's Angus R**	**40.54**	**317**	⇑P	**P**	**21 04 38.2**	**-0.5**
	baz=40,SNR=21						
H10A				⇑S	**S**	**21 10 50.4**	**+2.6**
	baz=40						
PAHR	**Pah Rah Range**	**40.55**	**309**	*e*P	**P**	**21 04 38.7**	**-0.2**
	comp=Z,81nm,1.4s,mb5.2						
PAHR				*e*PP	PP	21 06 12.8	+0.6
G11A	**Walters Elk Ra**	**40.59**	**318**	⇑P	**P**	**21 04 39.2**	**+0.1**
	baz=41,SNR=29						
G11A				⇓S	**S**	**21 10 48.0**	**-0.6**
	baz=41						
N07B	**Gerlach**	**40.59**	**311**	P	**P**	**21 04 38.5**	**-0.7**
	baz=41,SNR=40						
N07B				⇓S	**S**	**21 10 52.3**	**+3.6**
	baz=41						
S05C	**Merced**	**40.61**	**305**	⇓P	**P**	**21 04 38.9**	**-0.5**
	baz=41						
S05C				⇑S	**S**	**21 10 52.5**	**+3.4**
	baz=41						
L08A	**Fields**	**40.64**	**313**	P	**P**	**21 04 39.6**	**0.0**
	baz=41,SNR=122						
L08A				⇓S	**S**	**21 10 49.9**	**+0.4**
	baz=41						
V04C	**Ramage Ranch,**	**40.65**	**302**	⇑P	**P**	**21 04 39.3**	**-0.4**
	baz=41						
V04C				⇑S	**S**	**21 10 54.3**	**+4.6**
	baz=41						
J09A	**Fry Pan Ranch,**	**40.68**	**315**	⇓P	**P**	**21 04 38.9**	**-1.0**
	baz=41						
J09A				⇓S	**S**	**21 10 51.6**	**+1.6**
	baz=41						
C13A	**Hot Springs**	**40.68**	**322**	P	**P**	**21 04 38.6**	**-1.2**
	baz=41,SNR=14						
C13A				⇑S	**S**	**21 10 54.4**	**+4.5**
	baz=41						
WCN	**Washoe City**	**40.70**	**308**	⇓P	**P**	**21 04 40.1**	**-0.1**
	baz=41,SNR=21						
WCN				⇑S	**S**	**21 10 51.9**	**+1.4**
	baz=41						
F11A	**Grangeville**	**40.75**	**319**	⇑P	**P**	**21 04 39.5**	**-0.9**
	baz=41,SNR=21						
F11A				⇓S	**S**	**21 10 52.1**	**+1.2**
	baz=41						
T05C	**Eagle Field, D**	**40.77**	**304**	⇓P	**P**	**21 04 40.2**	**-0.5**
	baz=41						
R05C	**Kirkwood Meado**	**40.77**	**307**	P	**P**	**21 04 41.6**	**+0.9**
	baz=41,SNR=57						
R05C				⇑S	**S**	**21 10 53.8**	**+2.3**
	baz=41						
CMB	**Columbia Colle**	**40.83**	**306**	⇑*e*P	**P**	**21 04 40.8**	**-0.4**
	comp=Z,43nm,1.1s,mb5.0						
CMB				*e*PP	PP	21 06 13.7	-1.6
CMB				*e*PcP	PcP	21 06 45.9	+3.8
CMB				*e*S	**S**	**21 10 50.1**	**-2.2**
CMB				LR	LR		
	comp=Z,10µm,22.0s,MS5.6						
CMB	**Columbia Colle**	**40.83**	**306**	⇑*e*P	**P**	**21 04 40.8**	**-0.4**
CMB				*e*		21 06 13.7	
CMB				*e*		21 06 45.9	
CMB				*e*S	**S**	**21 10 50.1**	**-2.3**
CMB				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.0						
CMB				MLR	MLR		
	comp=Z,10µm,22.0s,MS5.6						
CMB	**Columbia Colle**	**40.83**	**306**	⇓P	**P**	**21 04 40.4**	**-0.8**
	baz=41,SNR=21						
CMB				⇑S	**S**	**21 10 57.1**	**+4.8**
	baz=41						
BSMT	**Bassoo Peak**	**40.90**	**322**	P	**P**	**21 04 40.5**	**-1.1**
P06A	**Stead Airport,**	**40.92**	**309**	⇓P	**P**	**21 04 41.7**	**-0.2**
	baz=41						
P06A				⇑S	**S**	**21 10 56.4**	**+2.8**
	baz=41						
I09A	**Lost Marbles R**	**40.93**	**316**	⇓P	**P**	**21 04 41.1**	**-0.8**
	baz=41						
I09A				⇓S	**S**	**21 10 57.8**	**+4.2**
	baz=41						
LRV	**Little Rabbit**	**40.93**	**304**	P	**P**	**21 04 42.3**	**+0.2**
WVOR	**Wild Horse Val**	**40.94**	**313**	⇑*e*P	**P**	**21 04 41.6**	**-0.4**
	comp=Z,166nm,1.2s,mb5.5						
WVOR				*e*PP	PP	21 06 17.4	+1.1
WVOR				*e*PcP	PcP	21 06 55.0	+13
WVOR				*e*ScP	ScP	21 10 28.3	-4.0
WVOR				*e*S	**S**	**21 11 02.1**	**+8.3**
WVOR				LR	LR		
	comp=Z,16µm,19.0s,MS5.9						
WVOR	**Wild Horse Val**	**40.94**	**313**	⇑*e*P	**P**	**21 04 41.6**	**-0.4**
WVOR				*e*		21 06 17.4	
WVOR				*e*S	**S**	**21 11 02.1**	**+8.3**
WVOR				pmax	pmax		
	comp=Z,166nm,1.2s,mb5.5						
WVOR				MLR	MLR		
	comp=Z,16µm,19.0s,MS5.9						
FCC	**Fort Churchill**	**40.94**	**348**	*e*P	**P**	**21 04 39.9**	**-1.8**
	comp=Z,1.8nm,1.4s						
FCC				*e*PP	PP	21 06 13.9	-2.3
FCC	**Fort Churchill**	**40.94**	**348**	*e*P	**P**	**21 04 39.9**	**-1.9**
FCC				*e*		21 06 13.9	
FCC				pmax	pmax		
	comp=Z,2.0nm,1.4s						
M07A	**Soldier Meadow**	**40.94**	**311**	P	**P**	**21 04 41.7**	**-0.4**
	baz=41,SNR=77						
M07A				⇓S	**S**	**21 10 50.9**	**-3.0**
	baz=41						
K08A	**Mann Creek Ran**	**40.94**	**314**	P	**P**	**21 04 41.8**	**-0.3**
	baz=41,SNR=41						
K08A				⇑S	**S**	**21 10 55.2**	**+1.3**
	baz=41						
B13A	**Whitefish**	**40.99**	**323**	P	**P**	**21 04 42.2**	**-0.1**
	baz=41,SNR=21						
B13A				⇑S	**S**	**21 10 52.6**	**-1.8**
	baz=41						
E11A	**Bogner Ranch,**	**41.00**	**320**	⇓P	**P**	**21 04 41.4**	**-1.0**
	baz=41,SNR=19						
E11A				⇓S	**S**	**21 10 54.2**	**-0.5**
	baz=41						
BMO	**Blue Mountains**	**41.01**	**317**	*e*P	**P**	**21 04 40.1**	**-2.4**
	comp=Z,86nm,1.5s,mb5.2						
BMO				*e*PP	PP	21 06 19.5	+2.4
BMO				*e*S	**S**	**21 10 57.9**	**+3.0**
BMO				LR	LR		
	comp=Z,11µm,21.0s,MS5.7						
O06A	**Flanigan**	**41.02**	**309**	⇓P	**P**	**21 04 41.8**	**-0.9**
	baz=41,SNR=6.2						
O06A				⇓S	**S**	**21 10 55.8**	**+0.7**
	baz=41						
V03C	**Hunter Liggett**	**41.02**	**303**	⇑P	**P**	**21 04 41.6**	**-1.2**
	baz=41						
V03C				⇓S	**S**	**21 10 54.5**	**-0.7**
	baz=41						
H09A	**Durkee**	**41.16**	**317**	⇑P	**P**	**21 04 42.4**	**-1.5**
	baz=41						
H09A				⇑S	**S**	**21 10 58.3**	**+1.2**
	baz=41						
J08A	**Circle Bar Ran**	**41.17**	**315**	P	**P**	**21 04 43.1**	**-0.8**
	baz=41,SNR=20						
J08A				⇓S	**S**	**21 10 58.4**	**+1.1**
	baz=41						
N06A	**Buffalo Meadow**	**41.20**	**310**	P	**P**	**21 04 43.3**	**-0.9**
	baz=41,SNR=43						
N06A				⇓S	**S**	**21 10 54.5**	**-3.3**
	baz=41						
A13A	**Flathead Natio**	**41.26**	**324**	P	**P**	**21 04 43.2**	**-1.4**
	baz=41,SNR=14						
A13A				⇑S	**S**	**21 11 00.5**	**+2.1**
	baz=41						
L07A	**Adell**	**41.27**	**312**	⇑P	**P**	**21 04 43.9**	**-0.9**
	baz=41,SNR=101						
L07A				⇑S	**S**	**21 11 03.5**	**+4.7**
	baz=41						
PACP	**Pacheco Peak**	**41.27**	**304**	⇓P	**P**	**21 04 44.4**	**-0.5**
	baz=41,SNR=22						
PACP				⇓S	**S**	**21 11 05.0**	**+6.0**
	baz=41						
LAVA	**Lava Cap Winer**	**41.29**	**307**	⇑P	**P**	**21 04 44.3**	**-0.6**
	baz=41,SNR=21						
LAVA				⇓S	**S**	**21 10 59.5**	**+0.3**
	baz=41						
BEKR	**Beckwourth**	**41.31**	**309**	⇑P	**P**	**21 04 43.9**	**-1.3**
	baz=41						
BEKR				⇑S	**S**	**21 10 54.0**	**-5.5**
	baz=41						
SAO	**San Andreas Ge**	**41.34**	**304**	*e*P	**P**	**21 04 45.3**	**-0.2**

```
      comp=Z,47nm,0.9s,mb5.1
SAO                                ePP    PP     21 06 23.1 +2.2
SAO                                 LR    LR
      comp=Z,10µm,20.0s,MS5.7
SAO   San Andreas Ge     41.34 304 eP     P      21 04 45.3 -0.2
SAO                                e             21 06 23.2
SAO                                 pmax  pmax
      comp=Z,47nm,0.9s,mb5.1
SAO                                 MLR   MLR
      comp=Z,10µm,20.0s,MS5.7
HAST  UC Hastings Re     41.34 303 ⇓P     P      21 04 44.6 -0.9
      baz=41
HAST                               ⇓S     S      21 11 02.8 +2.7
      baz=41
S04C  Ingram Canyon,     41.42 305 ⇓P     P      21 04 45.0 -1.1
      baz=41
S04C                               ⇑S     S      21 11 06.2 +5.1
      baz=41
K07A  Rock Creek Ran     41.45 313  P     P      21 04 45.6 -0.6
      baz=42,SNR=22
K07A                               ⇓S     S      21 11 00.7 -0.7
      baz=42
I08A  Drewsey            41.45 315 ⇑P     P      21 04 44.7 -1.5
      baz=42
I08A                               ⇑S     S      21 11 02.1 +0.7
      baz=42
F10A  Beach Ranch, E     41.45 319 ⇓P     P      21 04 44.9 -1.3
      baz=42
F10A                               ⇑S     S      21 10 59.3 -2.1
      baz=42
E10A  Myers Farm, Un     41.61 319 ⇑P     P      21 04 46.0 -1.5
      baz=42
E10A                               ⇑S     S      21 11 04.8 +1.1
      baz=42
B12A  Libby              41.67 323 ⇓P     P      21 04 46.8 -1.2
      baz=42
B12A                               ⇑S     S      21 11 05.3 +0.7
      baz=42
J07A  Hines              41.74 314 ⇑P     P      21 04 47.4 -1.2
      baz=42
J07A                               ⇓S     S      21 11 04.5 -1.2
      baz=42
O05C  Quincy             41.75 309 ⇓P     P      21 04 47.6 -1.2
      baz=42
O05C                               ⇓S     S      21 11 08.9 +2.9
      baz=42
H08A  Prairie City       41.76 316 ⇓P     P      21 04 47.4 -1.3
      baz=42
H08A                               ⇓S     S      21 11 06.0 +0.1
      baz=42
F09A  S2 Ranch, Elgi     41.76 318 ⇓P     P      21 04 47.1 -1.6
      baz=42
F09A                               ⇑S     S      21 11 06.1 +0.1
      baz=42
WENL  Wente Brothers     41.78 305 ⇓P     P      21 04 47.8 -1.2
      baz=42
WENL                               ⇑S     S      21 11 12.0 +5.5
      baz=42
Q04C  Lincoln            41.79 307 ⇓P     P      21 04 47.7 -1.3
      baz=42
Q04C                               ⇑S     S      21 11 07.8 +1.2
      baz=42
ELFS  Eagle Lake Fie     41.81 310  P     P      21 04 48.6 -0.6
      baz=42,SNR=32
ELFS                               ⇑S     S      21 11 07.9 +1.1
      baz=42
M06C  Likely Place G     41.81 311 ⇓P     P      21 04 48.0 -1.2
      baz=42,SNR=40
M06C                               ⇑S     S      21 11 07.9 +1.1
      baz=42
MOD   Modoc              41.91 312 eP     P      21 04 49.0 -1.0
      comp=Z,51nm,1.0s,mb5.1
MOD                                ePP    PP     21 06 26.7 -0.3
MOD                                 LR    LR
      comp=Z,6µm,19.0s,MS5.5
MOD   Modoc              41.91 312  P     P      21 04 48.9 -1.1
      baz=42,SNR=49
MOD                                ⇑S     S      21 11 11.6 +3.3
      baz=42
BDM   Black Diamond      41.94 306 ⇓P     P      21 04 50.4  0.0
      baz=42
BDM                                ⇑S     S      21 11 11.9 +3.0
      baz=42
A12A  Yaak River Ran     41.95 323 ⇓P     P      21 04 49.3 -0.9
      baz=42
A12A                               ⇓S     S      21 11 11.2 +2.5
      baz=42
D10A  Wagner Farm, O     41.98 320  P     P      21 04 48.9 -1.6
      baz=42,SNR=19
D10A                               ⇓S     S      21 11 09.2 +0.1
      baz=42
O04C  Chester            41.98 309 ⇓P     P      21 04 49.8 -0.8
      baz=42,SNR=26
O04C                               ⇑S     S      21 11 10.8 +1.4
      baz=42
BNLO  Ben Lomond (Sa     41.99 304 ⇓P     P      21 04 50.4 -0.4
      baz=42
BNLO                               ⇑S     S      21 11 12.3 +2.7
      baz=42
OHCM  Honcut             42.00 308⇑eP     P      21 04 50.9 +0.1
ORV   Oroville           42.07 308 ⇓P     P      21 04 50.6 -0.8
      baz=42,SNR=59
ORV                                ⇓S     S      21 11 12.9 +2.2
      baz=42
JRSC  Jasper Ridge       42.10 305 ⇓P     P      21 04 50.7 -0.9
      baz=42
JRSC                               ⇓S     S      21 11 16.0 +4.8
      baz=42
B11A  Sandpoint          42.10 322  P     P      21 04 50.5 -1.1
      baz=42,SNR=11
B11A                               ⇓S     S      21 11 08.8 -2.2
      baz=42
I07A  Izee               42.14 315 ⇑P     P      21 04 51.4 -0.4
      baz=42,SNR=9.3
I07A                               ⇑S     S      21 11 10.6 -1.0
      baz=42
K06A  Valley Falls       42.18 313 ⇑P     P      21 04 51.7 -0.5
      baz=42,SNR=10.0
K06A                               ⇑S     S      21 11 18.0 +5.7
      baz=42
SUTB  Sutter Butte       42.20 307 ⇑P     P      21 04 51.8 -0.7
      baz=42
SUTB                               ⇑S     S      21 11 16.8 +4.2
      baz=42
Q03C  Winters            42.22 306 ⇓P     P      21 04 52.1 -0.5
      baz=42
Q03C                               ⇓S     S      21 11 14.1 +1.2
      baz=42
G08A  Pilot Rock         42.26 317 ⇓P     P      21 04 51.9 -1.0
      baz=42,SNR=15
G08A                               ⇓S     S      21 11 12.9 -0.4
      baz=42
E09A  Wood Farm, Sta     42.26 319 ⇓P     P      21 04 51.5 -1.4
      baz=42,SNR=15
E09A                               ⇑S     S      21 11 14.4 +1.0
      baz=42
J06A  Christmas Vall     42.27 314  P     P      21 04 51.2 -1.7
      baz=42,SNR=24
J06A                               ⇑S     S      21 11 14.5 +0.9
      baz=42
LBCM  Butte Creek Ri     42.33 310  P     P      21 04 51.9 -1.6
L05A  Lakeview           42.33 312 ⇑P     P      21 04 52.4 -1.1
      baz=42,SNR=23
L05A                               ⇑S     S      21 11 16.4 +1.9
      baz=42
M05C  Lookout            42.34 311  P     P      21 04 52.4 -1.1
      baz=42,SNR=58
M05C                               ⇓S     S      21 11 16.5 +1.9
      baz=42
F08A  Pendleton          42.35 318  P     P      21 04 51.9 -1.7
      baz=42,SNR=13
F08A                               ⇑S     S      21 11 15.1 +0.4
      baz=42
C10A  Spilker Farm,      42.35 321 ⇓P     P      21 04 52.2 -1.4
      baz=42
C10A                               ⇑S     S      21 11 13.7 -1.0
      baz=42
A11A  Hall Mountain,     42.37 323 ⇑P     P      21 04 52.3 -1.4
      baz=42,SNR=39
A11A                               ⇑S     S      21 11 15.2 +0.3
      baz=42
HATC  Hat Creek Radi     42.40 310 ⇓P     P      21 04 52.8 -1.2
      baz=42,SNR=10
HATC                               ⇑S     S      21 11 19.8 +4.2
      baz=42
NEW   Newport            42.46 322  P     P      21 04 52.7 -1.7
NEW                                 pmax  pmax
      comp=Z,7.0nm,0.8s
NEW                                 MLR   MLR
      comp=Z,20µm,20.5s
NEW   Newport            42.46 322  P     P      21 04 52.7 -1.7
      comp=Z,6.9nm,0.8s,baz=138,slow=7.4,SNR=15
NEW                                 LR    LR     21 22 27.3
      comp=Z,20µm,20.5s,MS6.0,baz=109,slow=36
CVS   Carmenet Viney     42.49 306 ⇓P     P      21 04 54.0 -0.8
      baz=42
CVS                                ⇓S     S      21 11 22.0 +5.0
      baz=42
LTIM  Timbered Crate     42.53 310  P     P      21 04 53.9 -1.2
B10A  Chitwood Farm,     42.54 322 ⇓P     P      21 04 53.7 -1.4
      baz=42
B10A                               ⇑S     S      21 11 16.5 -0.8
      baz=42
I06A  Prineville         42.56 315 ⇓P     P      21 04 54.1 -1.2
      baz=43
I06A                               ⇑S     S      21 11 16.8 -1.0
      baz=43
O03C  Acorn Hollow,      42.59 308 ⇑P     P      21 04 53.2 -2.3
      baz=43
O03C                               ⇑S     S      21 11 21.3 +3.0
      baz=43
K05A  Summer Lake        42.60 313  P     P      21 04 55.0 -0.6
      baz=43,SNR=8.3
K05A                               ⇑S     S      21 11 15.7 -2.7
      baz=43
MNRC  McLaughlin Nat     42.60 307 ⇓P     P      21 04 55.0 -0.7
      baz=43,SNR=15
MNRC                               ⇑S     S      21 11 22.9 +4.3
      baz=43
D09A  Jones Farm, Ri     42.61 320 ⇓P     P      21 04 54.3 -1.4
      baz=43
D09A                               ⇑S     S      21 11 17.1 -1.3
      baz=43
NSHM  Saint Helena R     42.64 306 eP     P      21 04 55.8 -0.2
NSHM                               ePcP   PcP    21 06 45.2 -2.9
G07A  Ruggs Ranch, H     42.71 317 ⇑P     P      21 04 55.1 -1.4
      baz=43
G07A                               ⇑S     S      21 11 18.0 -2.0
      baz=43
MCCM  Marconi Confer     42.76 306 eP     P      21 05 01.3 +4.2
MCCM                               e             21 06 46.5
MCCM                               eS     S      21 11 31.4  +10
MCCM                                LR    LR
      comp=Z,12µm,20.0s,MS5.8
MCCM  Marconi Confer     42.76 306 ⇑S     S      21 11 21.4 +0.4
      baz=43
E08A  Dider Farm, El     42.82 319 ⇑P     P      21 04 56.0 -1.4
      baz=43
E08A                               ⇑S     S      21 11 23.1 +1.5
      baz=43
H06A  Lindquist Farm     42.94 316 ⇑P     P      21 04 57.1 -1.2
      baz=43
H06A                               ⇑S     S      21 11 22.7 -0.7
      baz=43
M04C  Macdoel            42.96 311 ⇑P     P      21 04 57.6 -1.0
      baz=43,SNR=22
M04C                               ⇑S     S      21 11 27.2 +3.4
      baz=43
D08A  Wollman Farm,      42.98 319 ⇑S     S      21 11 25.8 +1.9
      baz=43
OD2   Odessa Site #2     43.00 320  P     P      21 04 57.4 -1.4
GASB  Alder Springs      43.01 308 ⇓P     P      21 04 58.7 -0.3
      baz=43,SNR=6.9
GASB                               ⇑S     S      21 11 26.1 +1.6
      baz=43
M03C  McCloud            43.01 310 ⇓P     P      21 04 58.2 -0.8
      baz=43,SNR=8.9
M03C                               ⇓S     S      21 11 24.8 +0.2
      baz=43
J05A  Fort Rock          43.02 313  P     P      21 04 57.9 -1.2
      baz=43,SNR=19
J05A                               ⇑S     S      21 11 26.2 +1.6
      baz=43
A10A  Northport          43.06 322 ⇓P     P      21 04 57.6 -1.7
      baz=43
A10A                               ⇑S     S      21 11 25.0  0.0
      baz=43
HAWA  Hanford            43.08 318 eP     P      21 04 57.7 -1.7
      comp=Z,34nm,1.1s,mb5.0
HAWA                               ePcP   PcP    21 06 45.0 -4.4
HAWA                               eScP   ScP    21 10 40.0 -0.7
HAWA                                LR    LR
      comp=Z,13µm,21.0s,MS5.8
HOPS  Hopland            43.11 307 eP     P      21 05 00.2 +0.4
      comp=Z,120nm,1.4s,mb5.4
HOPS                               e             21 06 45.1
HOPS                               eScP   ScP    21 10 32.2 -8.9
HOPS                                LR    LR
      comp=Z,14µm,19.0s,MS5.9
HOPS  Hopland            43.11 307 ⇑P     P      21 04 57.9 -1.9
      baz=43
HOPS                               ⇓S     S      21 11 28.4 +2.4
      baz=43
GBL   Gable Mountain     43.12 319  P     P      21 04 58.5 -1.2
L04A  Klamath Falls      43.12 312  P     P      21 04 58.6 -1.2
      baz=43,SNR=15
L04A                               ⇓S     S      21 11 24.2 -1.9
      baz=43
WDC   Whiskeytown Da     43.12 309 eP     P      21 04 57.1 -2.7
      comp=Z,90nm,1.4s,mb5.3
WDC                                ePcP   PcP    21 06 53.0 +3.4
WDC                                 LR    LR
      comp=Z,13µm,20.0s,MS5.8
WDC   Whiskeytown Da     43.12 309 eP     P      21 04 57.2 -2.7
WDC                                e             21 06 53.1
WDC                                 pmax  pmax
      comp=Z,90nm,1.4s,mb5.3
WDC                                 MLR   MLR
      comp=Z,13µm,20.0s,MS5.8
WDC   Whiskeytown Da     43.12 309  P     P      21 04 57.1 -2.8
      baz=43,SNR=24
WDC                                ⇑S     S      21 11 25.6 -0.5
      baz=43
F07A  Phinny Hill Vi     43.12 317 ⇓P     P      21 04 58.9 -1.0
      baz=43
F07A                               ⇓S     S      21 11 24.2 -1.9
      baz=43
B09A  Rice               43.14 321 ⇓P     P      21 04 58.1 -1.8
      baz=43
B09A                               ⇓S     S      21 11 25.6 -0.5
      baz=43
K04A  Chilquin           43.14 312 ⇑S     S      21 11 25.8 -0.7
      baz=43
EDM   Edmonton           43.19 330 eP     P      21 04 58.8 -1.5
EDM                                ePP    PP     21 06 39.7 -0.9
EDM                                ePcP   PcP    21 06 50.8 +1.2
O02C  Red Bluff          43.19 308  P     P      21 04 58.1 -2.3
      baz=43,SNR=19
O02C                               ⇓S     S      21 11 26.2 -1.0
      baz=43
G06A  Carlson Farm,      43.32 316 ⇑P     P      21 04 59.7 -1.8
      baz=43
G06A                               ⇓S     S      21 11 28.6 -0.4
      baz=43
I05A  Bend               43.35 315 ⇓P     P      21 05 00.0 -1.7
      baz=43
I05A                               ⇑S     S      21 11 27.4 -2.0
      baz=43
E07A  Sunnyside          43.35 318 ⇓P     P      21 04 59.8 -1.8
      baz=43
E07A                               ⇑S     S      21 11 31.6 +2.3
      baz=43
C08A  Higginbotham F     43.38 320  P     P      21 05 00.1 -1.8
      baz=43,SNR=11
C08A                               ⇑S     S      21 11 31.8 +2.1
      baz=43
P01C  Double 8 Ranch     43.42 307 ⇓P     P      21 05 01.2 -1.1
      baz=43,SNR=26
P01C                               ⇑S     S      21 11 30.9 +0.3
      baz=43
H05A  Madras             43.49 315 ⇑P     P      21 05 00.8 -2.1
      baz=44
H05A                               ⇓S     S      21 11 34.2 +2.7
      baz=44
YBH   Yreka Blue Hor     43.57 311 eP     P      21 05 01.3 -2.2
      comp=Z,29nm,1.1s,mb4.9
YBH                                ePcP   PcP    21 06 55.8 +4.7
YBH                                 LR    LR
      comp=Z,8µm,21.0s,MS5.6
YBH   Yreka Blue Hor     43.57 311 eP     P      21 05 01.3 -2.2
YBH                                e             21 06 55.8
YBH                                 pmax  pmax
      comp=Z,29nm,1.1s
YBH                                 MLR   MLR
      comp=Z,8µm,21.0s
YBH   Yreka Blue Hor     43.57 311  P     P      21 05 01.1 -2.4
      baz=44,SNR=23
YBH                                ⇓S     S      21 11 34.9 +2.2
      baz=44
M02C  Callahan           43.57 310  P     P      21 05 02.1 -1.5
      baz=44,SNR=9.4
M02C                               ⇓S     S      21 11 34.9 +2.1
      baz=44
J04A  Umpqua Nationa     43.61 313  P     P      21 05 03.3 -0.5
      baz=44,SNR=17
J04A                               ⇑S     S      21 11 32.4 -0.9
      baz=44
KIPM  Iron Peak          43.61 308 eP     P      21 05 02.9 -1.0
F06A  Goldendale         43.62 317 ⇓P     P      21 05 02.3 -1.5
      baz=44
F06A                               ⇓S     S      21 11 31.0 -2.4
      baz=44
A09A  Danville           43.65 322  P     P      21 05 02.5 -1.5
      baz=44,SNR=13
A09A                               ⇓S     S      21 11 29.8 -3.9
      baz=44
KCPM  Cahto Peak         43.66 308 eP     P      21 05 03.9 -0.4
KCPM                               ePcP   PcP    21 06 52.3 +0.8
D07A  Quincy             43.69 319  P     P      21 05 03.7 -0.7
      baz=44,SNR=16
D07A                               ⇓S     S      21 11 31.5 -2.8
      baz=44
G05A  Wamic              43.77 316 ⇑P     P      21 05 03.4 -1.7
      baz=44
G05A                               ⇓S     S      21 11 29.4 -6.2
      baz=44
B08A  Colville Reser     43.81 321  P     P      21 05 03.6 -1.7
      baz=44,SNR=23
B08A                               ⇑S     S      21 11 32.4 -3.5
      baz=44
O01C  Eel River Cons     43.95 308 ⇓P     P      21 05 06.1 -0.5
      baz=44,SNR=20
O01C                               ⇓S     S      21 11 40.8 +2.5
      baz=44
C07A  Waterville         43.95 320 ⇓P     P      21 05 04.1 -2.4
      baz=44
C07A                               ⇑S     S      21 11 35.0 -3.1
      baz=44
IRO   Indian Ridge       43.96 314  P     P      21 05 05.3 -1.3
I04A  Tendick Farm,      44.00 314  P     P      21 05 05.6 -1.3
      baz=44,SNR=21
I04A                               ⇑S     S      21 11 38.3 -0.6
      baz=44
HUMO  Hull Mountain      44.00 312 eP     P      21 05 05.2 -1.8
      comp=Z,17nm,0.7s,mb4.9
HUMO                               ePcP   PcP    21 06 52.7 +0.1
HUMO                                LR    LR
      comp=Z,7µm,22.0s,MS5.6
HUMO  Hull Mountain      44.00 312  P     P      21 05 05.2 -1.8
      baz=44,SNR=9.0
HUMO                               ⇑S     S      21 11 39.8 +0.7
      baz=44
A08A  Turner Farm, O     44.04 322 ⇓P     P      21 05 05.5 -1.7
      baz=44
A08A                               ⇑S     S      21 11 42.8 +3.4
      baz=44
E06A  Yakima             44.05 318 ⇑P     P      21 05 05.5 -1.8
      baz=44
E06A                               ⇓S     S      21 11 33.0 -6.6
      baz=44
KHMM  Horse Mountain     44.07 309 eP     P      21 05 07.3 -0.2
KHMM                               ePP    PP     21 06 49.7 -0.5
F05A  White Salmon       44.10 317 ⇑P     P      21 05 06.0 -1.7
      baz=44
F05A                               ⇑S     S      21 11 41.9 +1.5
      baz=44
H04A  Detroit Lake       44.15 315  P     P      21 05 07.3 -0.8
      baz=44,SNR=19
H04A                               ⇓S     S      21 11 42.3 +1.2
      baz=44
BROR  Big Rock Looko     44.18 314  P     P      21 05 07.0 -1.4
D06A  Cle Elum           44.23 319 ⇓P     P      21 05 07.4 -1.3
      baz=44
D06A                               ⇓S     S      21 11 44.3 +2.1
      baz=44
J03A  Ideyld Park        44.24 313 ⇓P     P      21 05 08.2 -0.7
      baz=44,SNR=7.2
J03A                               ⇓S     S      21 11 43.1 +0.6
      baz=44
JCC   Jacoby Creek       44.27 309 ⇑P     P      21 05 07.9 -1.3
      baz=44
JCC                                ⇓S     S      21 11 46.2 +3.2
      baz=44
B07A  Winthrop           44.32 321 ⇓P     P      21 05 07.6 -1.8
      baz=44
B07A                               ⇓S     S      21 11 45.0 +1.5
      baz=44
L02A  Cave Junction      44.33 311 ⇓P     P      21 05 08.0 -1.6
      baz=44
L02A                               ⇑S     S      21 11 46.6 +2.8
      baz=44
KRMB  Red Mountain       44.37 310 eP     P      21 05 09.6 -0.4
KRMB                               e             21 06 52.8
K02A  Glendale           44.42 312 ⇑P     P      21 05 10.3 -0.1
      baz=44,SNR=13
K02A                               ⇓S     S      21 11 47.4 +2.2
      baz=44
G04A  Mulino             44.52 315 ⇑P     P      21 05 09.7 -1.4
      baz=44
G04A                               ⇓S     S      21 11 49.5 +3.0
      baz=44
E05A  Randle             44.56 318 ⇑P     P      21 05 10.2 -1.2
      baz=44
E05A                               ⇑S     S      21 11 49.8 +2.8
      baz=44
M01C  Crescent City      44.61 310 ⇓P     P      21 05 10.2 -1.7
      baz=45
M01C                               ⇑S     S      21 11 48.9 +1.0
      baz=45
I03A  Eugene             44.65 314 ⇓P     P      21 05 11.0 -1.2
      baz=45,SNR=8.0
I03A                               ⇓S     S      21 11 50.5 +2.2
      baz=45
J02A  Umpqua             44.66 313 ⇑P     P      21 05 10.6 -1.7
      baz=45,SNR=12
J02A                               ⇓S     S      21 11 50.7 +2.0
      baz=45
A07A  Ashnola River,     44.74 321 ⇓P     P      21 05 11.0 -1.7
      baz=45
A07A                               ⇓S     S      21 11 49.8 +0.2
      baz=45
F04A  Amboy              44.74 316 ⇑P     P      21 05 10.9 -2.0
      baz=45
F04A                               ⇑S     S      21 11 51.3 +1.6
      baz=45
KBO   Bosley Butte       44.79 311 eP     P      21 05 13.3 +0.1
KBO                                e             21 06 58.2
COR   Corvallis          44.87 314 eP     P      21 05 16.2 +2.3
      comp=Z,194nm,1.4s,mb5.7
COR                                e             21 06 49.4
COR                                 LR    LR
      comp=Z,2µm,22.0s,MS5.0
COR   Corvallis          44.87 314 eP     P      21 05 16.2 +2.4
COR                                e             21 06 49.4
COR                                 pmax  pmax
      comp=Z,194nm,1.4s,mb5.7
COR                                 MLR   MLR
      comp=Z,2µm,22.0s,MS5.0
H03A  Soap Creek Ran     44.89 314 ⇑P     P      21 05 13.4 -0.6
      baz=45
H03A                               ⇑S     S      21 11 55.3 +3.4
      baz=45
D05A  Enumclaw           44.94 318 ⇓P     P      21 05 13.0 -1.4
      baz=45
D05A                               ⇑S     S      21 11 55.7 +3.1
      baz=45
C05A  Tolt Reservoir     44.96 319 ⇓P     P      21 05 12.8 -1.7
      baz=45
C05A                               ⇓S     S      21 11 53.7 +1.0
      baz=45
I02A  Mapleton           45.04 313 ⇑P     P      21 05 13.9 -1.3
      baz=45
I02A                               ⇑S     S      21 11 53.1 -0.9
      baz=45
KEBM  Edson Butte        45.05 312 eP     P      21 05 15.6 +0.2
KEBM                               e             21 06 59.5
G03A  Yamhill            45.09 315 ⇓P     P      21 05 14.5 -1.2
      baz=45
G03A                               ⇑S     S      21 11 54.9 +0.1
      baz=45
K01A  Sixes              45.13 312 ⇓P     P      21 05 15.1 -0.9
      baz=45,SNR=11
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K01A				⇓S	S	21 11 57.3	+2.0
	baz=45						
RPW	Rockport	45.16	320	P	P	21 05 16.6	+0.5
B06A	Marblemount	45.17	320	⇓S	S	21 11 56.3	+0.5
	baz=45						
E04A	Onalaska	45.18	317	⇓S	S	21 11 54.7	-1.3
	baz=45						
H02A	Toledo	45.37	314	⇑S	S	21 12 03.3	+4.5
	baz=45						
A06A	Chilliwack	45.41	321	⇑P	P	21 05 17.1	-1.0
	baz=45						
A06A				⇑S	S	21 11 59.0	-0.2
	baz=45						
B05A	Bryant	45.44	320	⇓P	P	21 05 17.3	-1.0
	baz=45						
B05A				⇑S	S	21 11 59.3	-0.4
	baz=45						
F03A	Seaside	45.49	316	⇓S	S	21 12 01.5	+1.0
	baz=46						
E03A	Lebam	45.71	317	⇑P	P	21 05 19.8	-0.6
	baz=46						
E03A				⇓S	S	21 12 04.0	+0.4
	baz=46						
A05A	Maple Falls	45.73	321	⇓P	P	21 05 20.1	-0.5
	baz=46						
A05A				⇓S	S	21 12 02.0	-1.9
	baz=46						
C04A	Brinnon	45.76	319	⇓P	P	21 05 19.0	-1.9
	baz=46						
C04A				⇓S	S	21 12 02.7	-1.7
	baz=46						
A04A	Legoe Bay, Lum	45.99	320	⇑S	S	21 12 07.1	-0.5
	baz=46						
D03A	Wishkah Elem.	46.04	318	⇑S	S	21 12 08.4	0.0
	baz=46						
NLWA	Neilton Lookou	46.20	318	eP	P	21 05 22.9	-1.5
	comp=Z,66nm,1.3s,mb5.4						
NLWA				LR	LR		
	comp=Z,14µm,22.0s,MS5.8						
NLWA	Neilton Lookou	46.20	318	⇓P	P	21 05 23.8	-0.7
	baz=46						
NLWA				⇑S	S	21 12 08.4	-2.4
	baz=46						
B04A	Port Angeles	46.22	319	⇑S	S	21 12 12.9	+1.9
	baz=46						
C03A	Quillayute Air	46.84	318	⇓S	S	21 12 21.7	+1.8
	baz=47						
LCO	Las Campanas	48.70	171	eP	P	21 05 42.9	-1.0
	comp=Z,70nm,1.3s,mb5.5						
LCO				ePcP	PcP	21 07 07.9	-1.2
LCO				LR	LR		
	comp=Z,9µm,22.0s,MS5.7						
RCBR	Riachuelo	48.77	117	eP	P	21 05 43.9	-1.0
	comp=Z,371nm,1.3s,mb6.3						
RCBR				ePcP	PcP	21 07 13.6	+3.8
RCBR				ePP	PP	21 07 41.1	+2.9
RCBR				eScP	ScP	21 11 02.4	-2.6
PDA	Ponta Delgada	49.13	57	eS	S	21 13 09.0	+16
PDA				eSS	SS	21 16 34.0	+10
PDA				i LR	LR	21 19 44.0	
FAC	Faja de Cima	49.15	57	eP	P	21 05 53.0	+5.6
CML	Cha da Macela	49.23	57	eP	P	21 05 50.9	+2.8
PVER	Pico Vermelho	49.26	56	eP	P	21 05 49.8	+1.5
	comp=Z,106nm,1.1s,mb5.8						
PRCH	Ribeira Ch	49.28	57	eP	P	21 05 49.2	+0.8
	comp=Z,116nm,1.6s,mb5.7						
LFA	Lagoa do Fogo	49.28	57	eP	P	21 05 49.3	+0.9
PMAT	Coroa da Mata	49.29	56	eP	P	21 05 49.4	+0.8
	comp=Z,104nm,1.0s,mb5.8						
VIF	Vila Franca	49.31	57	eP	P	21 05 44.5	-4.2
	comp=Z,112nm,1.2s,mb5.8						
MESC	Monte Escuro	49.31	57	eP	P	21 05 44.3	-4.4
PCNG	Congro	49.35	57	eP	P	21 05 50.1	+1.1
	comp=Z,157nm,1.2s,mb5.9						
FRA1	Furnas	49.38	57	eP	P	21 05 49.0	-0.2
PFAD	Fenais da Ajud	49.41	56	eP	P	21 05 49.0	-0.5
YKA	Yellowknife Ar	49.75	339	P	P	21 05 49.7	-1.9
YKA				LR	LR	21 26 44.5	
YKA	Yellowknife Ar	49.75	339	P	P	21 05 49.7	-1.9
YKA				pmax	pmax		
	comp=Z,8.0nm,0.6s						
YKA				MLR	MLR		
	comp=Z,24µm,20.3s						
YKA	Yellowknife Ar	49.75	339	P	P	21 05 49.7	-1.9
	comp=Z,8.0nm,0.6s,mb4.9,baz=130,slow=8.6,SNR=49						
YKA				LR	LR	21 26 44.5	
	comp=Z,24µm,20.3s,MS6.2,baz=145,slow=36						
BBB	Bella Bella	50.51	323	LR	LR	21 26 57.3	
	comp=Z,19µm,20.0s,MS6.1,baz=116,slow=36						
SFJD	Kangerlussuaq	50.81	14	eP	P	21 06 01.6	+2.0
SFJD				i		21 06 10.1	
SFJD				i S	S	21 13 27.4	+12
SFJD				pmax	pmax		
	comp=Z,81nm,1.1s,mb5.6						
SFJD				MLR	MLR		
	comp=Z,13µm,16.0s,MS6.0						
SFJD	Kangerlussuaq	50.81	14	P	P	21 05 59.5	-0.1
	comp=Z,30nm,1.1s,mb5.1,baz=190,slow=10,SNR=5.5						
SFJD	Kangerlussuaq	50.81	14	i P	P	21 06 01.6	+2.0
	comp=Z,81nm,1.1s,mb5.6						
SFJD				i		21 06 10.1	
SFJD				i S	S	21 13 27.4	+12
SFJD							
	comp=Z,13µm,16.0s						
DLBC	Dease Lake	53.91	329	eP	P	21 06 22.5	-0.2
DLBC	Dease Lake	53.91	329	P	P	21 06 22.3	-0.4
	baz=127,slow=5.1						
WRAK	Wrangell Islan	54.32	326	eP	P	21 06 25.4	-0.4
	comp=Z,47nm,0.9s,mb5.4						
WRAK				LR	LR		
	comp=Z,25µm,20.0s,MS6.3						
RES	Resolute Bay	56.02	355	eP	P	21 06 35.5	-2.3
	comp=Z,717nm,0.8s,mb6.8						
RES	Resolute Bay	56.02	355	P	P	21 06 35.7	-2.1
RES				pmax	pmax		
	comp=Z,720nm,0.8s,mb6.8						
PMAR	Madeira	56.12	63	eP	P	21 06 37.0	-2.2
EGOM	La Gomera	56.18	69	P	P	21 06 40.5	+0.8
	comp=Z,997nm,3.7s						
PMPS	Porto Santo	56.60	63	eP	P	21 06 47.7	+5.1
	comp=Z,178nm,1.5s,mb5.9						
CCAN	Las Canadas	56.71	68	P	P	21 06 45.9	+2.4
	comp=Z,58nm,1.2s,mb5.5						
SKAG	Skagway	56.84	329	eP	P	21 06 45.1	+1.3
	comp=Z,22nm,0.9s,mb5.2						
EBAJ	Bajamar	56.91	68	P	P	21 06 48.4	+3.5
	comp=Z,810nm,3.5s						
LPA	La Plata	57.41	160	ceP	P	21 06 46.0	-2.1
LPA				ePP	PP	21 08 51.0	-4.8
LPA				eS	S	21 14 43.0	-2.0
LPA							
	comp=Z,25µm,18.0s						
EOSO	Osorio	57.65	69	P	P	21 06 48.4	-1.7
	comp=Z,929nm,4.1s						
BORG	Borgarnes	58.78	25	P	P	21 06 56.1	-1.3
	comp=Z,11nm,0.9s,mb4.9,baz=256,slow=8.3,SNR=2.4						
BORG				LR	LR	21 29 46.3	
	comp=Z,5µm,21.2s,MS5.6,baz=243,slow=34						
CFTV	Fuerteventura	58.90	68	P	P	21 07 04.9	+6.1
	comp=Z,87nm,1.6s,mb5.5						
INK	Inuvik	59.52	339	eP	P	21 07 00.7	-1.8
INK	Inuvik	59.52	339	P	P	21 07 00.6	-1.8
INK				pmax	pmax		
	comp=Z,14nm,1.1s						
INK	Inuvik	59.52	339	P	P	21 07 00.6	-1.8
	comp=Z,14nm,1.1s,mb4.9,baz=114,slow=6.2,SNR=8.7						
DAWY	Dawson	60.14	334	eP	P	21 07 05.1	-1.6
EGAK	Eagle	61.09	334	eP	P	21 07 14.4	+1.2
	comp=Z,48nm,1.4s,mb5.4						
EGAK				ePP	PP	21 09 27.3	-0.2
EGAK				LR	LR		
	comp=Z,35µm,21.0s,MS6.5						
VAL	Valentia	61.53	41	eP	P	21 07 18.4	+1.9
PMAFR	Mafra	62.03	56	eP	P	21 07 18.7	-1.4
	comp=Z,71nm,1.3s,mb5.6						
PMAFR	Mafra	62.03	56	eLQ		21 22 56.6	
EMAZ	Mazaricos	62.12	51	P	P	21 07 21.1	+0.5
	comp=Z,743nm,2.4s,mb6.4						
LIS	Lisbon	62.15	56	eP	P	21 07 21.3	+0.5
LIS				eS	S	21 15 44.1	-2.3
LIS				eS	S	21 15 44.7	-1.6
LIS				AMS	AMS	21 25 04.3	
	comp=N,17µm,21.6s						
LIS	Lisbon	62.15	56	eP	P	21 07 21.3	+0.4
LIS				eS	S	21 15 44.7	-1.6
EYAK	Cordova Ski Ar	62.18	329	eP	P	21 07 20.4	-0.3
EYAK				ePcP	PcP	21 07 54.3	-6.4
DIV	Divide	62.29	330	eP	P	21 07 22.6	+1.2
	comp=N,158nm,0.9s,mb6.2						
DIV				ePcP	PcP	21 08 03.4	+2.3
DIV				ePP	PP	21 09 38.3	+0.1
DIV				LR	LR		
	comp=Z,63µm,20.0s,MS6.8						
EZAM	Zamans	62.34	52	P	P	21 07 22.7	+0.6
	comp=Z,34nm,0.6s,mb5.7						
EZAM	Zamans	62.34	52	P	P	21 07 22.7	+0.6
EZAM				pmax	pmax		
	comp=Z,34nm,0.6s,mb5.7						
PACT	Alcochete	62.39	56	eP	P	21 07 22.4	-0.1
	comp=Z,118nm,1.2s,mb5.9						
STS	Santiago	62.43	51	P	P	21 07 23.1	+0.4
	comp=Z,36nm,0.7s,mb5.6						
STS	Santiago	62.43	51	P	P	21 07 23.1	+0.4
STS				pmax	pmax		
	comp=Z,36nm,0.7s,mb5.6						
PTO	Porto	62.45	53	eP	P	21 07 23.9	+1.1
PFVI	Vila Bisbo	62.50	58	eP	P	21 07 24.8	+1.5
	comp=Z,38nm,1.7s,mb5.2						
PFVI	Vila Bisbo	62.50	58	ePcP	PcP	21 08 02.2	-0.3
PFVI	Vila Bisbo	62.50	58	ePP	PP	21 09 41.0	+0.3
PFVI	Vila Bisbo	62.50	58	eLQ		21 22 56.6	
PFVI				A		21 26 45.3	
	comp=Z,6µm,18.0s						
PTEO	Sao Teotonio	62.56	57	eP	P	21 07 22.9	-0.7
	comp=Z,45nm,1.2s,mb5.5						
MORF	Marmelete	62.63	57	eP	P	21 07 23.2	-0.9
	comp=Z,68nm,1.2s,mb5.7						
MORF				eS	S	21 15 52.7	+0.2
MORF				eLQ		21 23 12.8	
PTOM	Tomar	62.67	55	eP	P	21 07 24.3	0.0
	comp=Z,60nm,1.0s,mb5.7						
MOE	Montemor	62.78	56	epP	pP	21 07 26.9	-1.4
ELOB	Lobios	62.83	52	P	P	21 07 26.0	+0.7
	comp=Z,645nm,2.4s,mb6.3						
PCAB	Cabril	62.86	52	eP	P	21 07 24.6	-1.0
	comp=Z,57nm,1.1s,mb5.6						
PVIS	Viseu	63.00	54	eP	P	21 07 25.7	-0.8
PVRL	Vila Real	63.11	53	eP	P	21 07 26.5	-0.7
	comp=Z,46nm,0.9s,mb5.6						
PBEJ	Beja	63.20	57	eP	P	21 07 27.4	-0.5
	comp=Z,28nm,0.9s,mb5.4						
PBDV	Barranco-do-Ve	63.21	57	eP	P	21 07 27.3	-0.7
	comp=Z,149nm,1.3s,mb6.0						
PBDV	Barranco-do-Ve	63.21	57	eLQ		21 23 10.4	
MTE	Manteigas	63.29	54	eP	P	21 07 27.9	-0.5
	comp=Z,67nm,1.6s,mb5.5						
MTE				eS	S	21 16 00.6	0.0
MTE				eLQ		21 23 18.1	
MTE	Manteigas	63.29	54	eP	P	21 07 27.8	-0.6
	comp=Z,50nm,0.8s,mb5.7						
MTE				ePcP	PcP	21 08 05.9	+0.3
MTE				eScP	ScP	21 12 05.8	-2.4
PESTR	Estremoz	63.35	56	eP	P	21 07 27.6	-1.3
	comp=Z,89nm,1.1s,mb5.8						
PESTR	Estremoz	63.35	56	ePcP	PcP	21 08 06.5	+0.6
PESTR	Estremoz	63.35	56	ePP	PP	21 09 47.8	-0.3
PESTR	Estremoz	63.35	56	eLQ		21 23 13.7	
PESTR				A		21 29 17.8	
	comp=Z,6µm,22.0s						
PVAQ	Vaqueiros	63.37	57	eP	P	21 07 28.1	-0.9
	comp=Z,75nm,1.2s,mb5.7						
PVAQ	Vaqueiros	63.37	57	eLQ		21 23 17.0	
PVAQ				eLR	LR	21 25 52.3	
PCBR	Castelo Branco	63.37	54	eP	P	21 07 28.1	-0.9
	comp=Z,60nm,1.0s,mb5.7						
DCN	Croghan	63.43	39	eP	P	21 07 29.3	+0.2
EPON	Pontenova	63.44	51	P	P	21 07 30.1	+0.7
	comp=Z,744nm,2.1s,mb6.5						
ERUA	La Rua	63.49	52	P	P	21 07 29.2	-0.5
	comp=Z,15nm,0.9s,mb5.1						
ERUA	La Rua	63.49	52	P	P	21 07 29.2	-0.5
ERUA				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.1						
EGRO	El Granado	63.54	57	P	P	21 07 30.5	+0.3
	comp=Z,551nm,2.2s,mb6.2						
SML	Sawmill	63.61	330	eP	P	21 07 30.2	+0.1
SML				PcP	PcP	21 08 06.4	-0.1
MVO	Moncorvo	63.63	53	eP	P	21 07 30.1	-0.6
	comp=Z,54nm,1.0s,mb5.5						
MVO	Moncorvo	63.63	53	ePcP	PcP	21 08 07.4	+0.4
MVO				A		21 32 09.8	
	comp=Z,5µm,20.0s						
EBAD	Badajoz	63.81	56	P	P	21 07 32.5	+0.6
	comp=Z,556nm,2.5s,mb6.2						
ECAL	Calabor	63.81	52	P	P	21 07 31.3	-0.6
	comp=Z,570nm,2.3s,mb6.2						
PBRG	Braganca	63.81	52	eP	P	21 07 31.2	-0.7
	comp=Z,52nm,1.1s,mb5.5						
DLF	Lyons Farm	63.87	39	eP	P	21 07 32.0	-0.1
COLA	College	63.89	334	⇑eP	P	21 07 33.0	+1.0
COLA				LR	LR		
	comp=Z,24µm,20.0s,MS6.4						
PMR	Palmer	63.96	330	eP	P	21 07 31.4	-1.1
	comp=Z,4.6nm,0.7s,mb4.6						
PMR				LR	LR		
	comp=Z,33µm,22.0s,MS6.5						
PMR	Palmer	63.96	330	eP	P	21 07 31.4	-1.1
PMR				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
PMR				MLR	MLR		
	comp=Z,33µm,22.0s,MS6.5						
EMIN	Mina Concepcio	64.16	57	P	P	21 07 33.0	-1.3
	comp=Z,496nm,2.4s,mb6.1						
MCK	McKinley	64.17	332	eP	P	21 07 32.9	-0.9
	comp=Z,634nm,1.0s,mb6.6						
MCK				LR	LR		
	comp=Z,13µm,20.0s,MS6.1						
MCK	McKinley	64.17	332	eP	P	21 07 32.9	-0.9
MCK				pmax	pmax		
	comp=Z,634nm,1.0s,mb6.6						
MCK				MLR	MLR		
	comp=Z,13µm,20.0s,MS6.1						
GCL	Cushendall	64.19	37	eP	P	21 07 34.6	+0.5
SLKM	Skilak Lake	64.36	329	eP	P	21 07 34.0	-1.2
SLKM				ePcP	PcP	21 08 06.7	-2.9
DAG	Danmarks Havn	64.48	13	⇓iP	P	21 07 34.7	-1.0
DAG				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.0						
DAG	Danmarks Havn	64.48	13	⇓iP	P	21 07 34.7	-1.0
	comp=Z,12nm,0.7s,mb5.0						
SFS	San Fernando	64.66	58	eP	P	21 07 39.6	+2.0
	comp=Z,379nm,1.4s,mb6.2						
SFS				ePP	PP	21 10 04.5	+4.9
SFS	San Fernando	64.66	58	eP	P	21 07 39.6	+2.1
SFS				e		21 10 04.5	
SFS				pmax	pmax		
	comp=Z,379nm,1.4s,mb6.2						
KAC	Achnashellach	64.78	35	eP	P	21 07 36.6	-1.3
EARI	Arriondas	64.86	51	P	P	21 07 39.7	+1.0
	comp=Z,651nm,2.6s,mb6.2						
ESPR	Espera	64.90	58	P	P	21 07 38.9	-0.2
	comp=Z,493nm,2.0s,mb6.2						
GAL1	Galloway	65.00	38	eP	P	21 07 39.3	-0.1
WIM	Isle of Man	65.00	39	eP	P	21 07 38.9	-0.6
YRC	Rhoscolyn	65.05	40	eP	P	21 07 39.0	-0.8
HTL	Hartland	65.09	42	eP	P	21 07 41.1	+1.0
HTL				AMb	AMB	21 07 45.5	
	comp=Z,109nm,1.3s,mb5.7						
GIM	North Isle of	65.13	38	eP	P	21 07 40.2	0.0
PGBU	Glenifferbraes	65.16	37	eP	P	21 07 40.6	+0.2
PGBU				AMb	AMB	21 07 46.7	
	comp=Z,186nm,1.6s,mb5.9						
EAB	Aberfoyle	65.25	36	eP	P	21 07 41.6	+0.6
EJIF	Jimena Fronter	65.25	58	P	P	21 07 41.8	+0.4
	comp=Z,218nm,1.5s,mb6.0						
EJIF	Jimena Fronter	65.25	58	P	P	21 07 41.8	+0.4
EJIF				pmax	pmax		
	comp=Z,218nm,1.5s,mb6.0						
JMIC	Jan Mayen	65.27	20	eS	S	21 16 28.9	+4.7
JMIC				eSS	SS	21 20 39.1	+2.6
JMIC				AMS	AMS	21 34 49.9	
	comp=Z,5µm,19.6s,MS5.7						
KDAK	Kodiak Island	65.38	325	P	P	21 07 40.8	-1.0
	comp=Z,289nm,1.0s,mb6.3,SNR=5.7						
KDAK	Kodiak Island	65.38	325	eP	P	21 07 41.0	-0.8
	comp=Z,68nm,1.1s,mb5.6						
KDAK				LR	LR		
	comp=Z,4µm,22.0s,MS5.6						
GCD	Castle Douglas	65.44	38	eP	P	21 07 43.1	+0.8
EADA	Adamuz	65.77	56	P	P	21 07 44.2	-0.5
	comp=Z,396nm,1.8s,mb6.1						
EMIJ	Mijas	65.80	58	P	P	21 07 43.7	-1.3
	comp=Z,289nm,2.0s,mb6.0						
PAB	San Pablo	65.80	55	eP	P	21 07 44.1	-0.8
	comp=Z,101nm,1.3s,mb5.7						
PAB				LR	LR		
	comp=Z,6µm,20.0s,MS5.8						
PAB	San Pablo	65.80	55	eP	P	21 07 44.1	-0.8
PAB				pmax	pmax		
	comp=Z,101nm,1.3s,mb5.7						
PAB				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.8						
HTR	Trewern Hill	65.84	41	eP	P	21 07 43.9	-1.0
GUD	Guadarrama	65.85	53	P	P	21 07 44.0	-1.1
	comp=Z,48nm,1.0s,mb5.5						
GUD	Guadarrama	65.85	53	P	P	21 07 44.0	-1.2
GUD				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.5						
ESK	Eskdalemuir	65.87	37	eP	P	21 07 44.6	-0.5
ESK				AMb	AMB	21 07 52.0	
	comp=Z,104nm,1.9s,mb5.5						
ESK	Eskdalemuir	65.87	37	eP	P	21 07 44.5	-0.5
	comp=Z,25nm,0.6s,mb5.4						
ESK				ePcP	PcP	21 08 17.5	+1.5
ESK				LR	LR		
	comp=Z,5µm,22.0s,MS5.7						
ESK	Eskdalemuir	65.87	37	eP	P	21 07 44.5	-0.5
ESK				e		21 08 17.5	
ESK				pmax	pmax		
	comp=Z,25nm,0.6s,mb5.4						
ESK				MLR	MLR		
	comp=Z,5µm,22.0s,MS5.7						
MCD	Coleburn Disti	65.89	35	eP	P	21 07 45.5	+0.4
ECK	Cauldkaine Hil	65.92	37	eP	P	21 07 46.4	+1.1
ROSF	Rostrenen	65.95	45	eP	P	21 07 46.2	+0.5
	comp=Z,54nm,1.1s,mb5.5						
ROSF	Rostrenen	65.95	45	eP	P	21 07 46.2	+0.5
ROSF				pmax	pmax		
	comp=Z,55nm,1.1s,mb5.5						
ROSF	Rostrenen	65.95	45	eP	P	21 07 46.2	+0.5
	comp=Z,109nm,1.1s,mb5.5						
MCH1	Michaelchurch	66.01	41	eP	P	21 07 45.8	-0.2
MCH1				AMb	AMB	21 07 51.5	
	comp=Z,58nm,1.5s,mb5.4						
QUIF	Quistinic	66.04	45	⇑iP	P	21 07 46.9	+0.6
	comp=Z,66nm,1.1s,mb5.6						
QUIF	Quistinic	66.04	45	⇑iP	P	21 07 46.9	+0.6
QUIF				pmax	pmax		
	comp=Z,66nm,1.1s,mb5.6						
QUIF	Quistinic	66.04	45	⇑iP	P	21 07 46.9	+0.6
	comp=Z,132nm,1.1s,mb5.6						
HLM1	Long Mynd	66.08	40	⇑eP	P	21 07 46.2	-0.1
ELUQ	Luque	66.08	57	P	P	21 07 47.5	+0.8
	comp=Z,39nm,1.0s,mb5.4						
ELUQ	Luque	66.08	57	P	P	21 07 47.5	+0.8
ELUQ				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.4						
ESDC	Sonseca Array	66.09	54	P	P	21 07 46.1	-0.6
	comp=Z,22nm,0.8s,mb5.2						
ESDC	Sonseca Array	66.09	54	P	P	21 07 45.2	-1.6
	comp=Z,21nm,0.8s,mb5.2,baz=285,slow=5.8,SNR=47						
ESDC				LR	LR	21 33 10.0	
	comp=Z,5µm,18.3s,MS5.7,baz=270,slow=33						
ESLA	Sonseca Array	66.09	54	eP	P	21 07 46.0	-0.7
	comp=Z,103nm,1.6s,mb5.6						
ESLA				ePP	PP	21 10 09.6	-2.5
ESLA				LR	LR		
	comp=Z,29µm,19.0s,MS6.5						
ELAN	Lanestosa	66.16	51	P	P	21 07 47.1	0.0
	comp=Z,534nm,2.6s,mb6.1						
ESY	Stoneypath	66.21	37	eP	P	21 07 47.0	-0.2
ELOJ	Sierra Loja	66.22	57	P	P	21 07 46.8	-0.8
	comp=Z,73nm,1.2s,mb5.6						
ELOJ	Sierra Loja	66.22	57	P	P	21 07 46.8	-0.8
ELOJ				pmax	pmax		
	comp=Z,73nm,1.2s,mb5.6						
EBAN	Banos Encina	66.39	56	P	P	21 07 47.7	-1.0
	comp=Z,28nm,0.8s,mb5.3						
EBAN	Banos Encina	66.39	56	P	P	21 07 47.7	-1.0
EBAN				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.3						
SGMF	Saint Gilles	66.43	45	⇑iP	P	21 07 49.2	+0.4
	comp=Z,77nm,1.1s,mb5.6						
SGMF	Saint Gilles	66.43	45	⇑iP	P	21 07 49.2	+0.4
SGMF				pmax	pmax		
	comp=Z,77nm,1.1s,mb5.7						
SGMF	Saint Gilles	66.43	45	⇑iP	P	21 07 49.2	+0.4
	comp=Z,153nm,1.1s,mb5.6						
IMA2	Indian Mountai	66.47	335	eP	P	21 07 47.3	-1.3
ERON	Agron	66.51	57	P	P	21 07 49.4	-0.1
	comp=Z,49nm,1.0s,mb5.5						
ECOG	Cogollos-Vega	66.67	57	P	P	21 07 49.6	-0.9
	comp=Z,28nm,0.8s,mb5.3						
ECOG	Cogollos-Vega	66.67	57	P	P	21 07 49.6	-0.9
ECOG				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.4						
LHO	Holmfirth	66.67	39	eP	P	21 07 50.1	-0.1
KWE	Weaver Farm	66.69	40	eP	P	21 07 51.0	+0.7
SSW	Stow on the Wo	66.72	41	eP	P	21 07 51.2	+0.6
EGUA	Guajares	66.72	57	P	P	21 07 53.2	+2.3
	comp=Z,1.8nm,0.4s,mb4.5						
EGUA	Guajares	66.72	57	P	P	21 07 53.2	+2.3
EGUA				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
KBI1	Birley Grange	66.88	40	eP	P	21 07 51.4	-0.1
ECRI	Cripan	66.89	51	P	P	21 07 53.1	+1.3
	comp=Z,25nm,0.8s,mb5.3						
ECRI	Cripan	66.89	51	P	P	21 07 53.1	+1.3
ECRI				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.3						
TAOE	Nuku Hiva Isla	66.97	251	eS	S	21 16 41.9	-4.7
	comp=Z,3µm,25.5s						
TAOE				eLQ		21 25 20.9	
	comp=Z,13µm,26.2s						
TAOE				eLR	LR	21 28 00.2	
	comp=Z,12µm,27.0s						
EQES	Quesada	66.99	56	P	P	21 07 54.5	+1.9
	comp=Z,482nm,2.4s,mb6.1						
SVW2	Sparrevohn	67.02	329	eP	P	21 07 50.6	-1.6
EBER	Berja	67.25	57	P	P	21 07 56.9	+2.7
	comp=Z,1µm,2.7s,mb6.4						
EALB	Alboran	67.27	58	P	P	21 07 52.4	-2.0
	comp=Z,736nm,2.1s,mb6.3						
EVIA	Vianos	67.33	55	P	P	21 07 54.2	-0.5
	comp=Z,74nm,0.9s,mb5.7						
EVIA	Vianos	67.33	55	P	P	21 07 54.2	-0.5
EVIA				pmax	pmax		
	comp=Z,74nm,0.9s,mb5.7						
ELIZ	Elizondo	67.55	50	P	P	21 07 57.0	+1.0
	comp=Z,33nm,1.2s,mb5.2						
ELIZ	Elizondo	67.55	50	P	P	21 07 57.0	+1.0
ELIZ				pmax	pmax		
	comp=Z,33nm,1.2s,mb5.2						
GRR	Gorron	67.55	45	⇑iP	P	21 07 56.4	+0.5
	comp=Z,127nm,1.4s,mb5.8						
GRR	Gorron	67.55	45	⇑iP	P	21 07 56.4	+0.5
GRR				pmax	pmax		
	comp=Z,127nm,1.4s,mb5.8						
GRR	Gorron	67.55	45	⇑iP	P	21 07 56.4	+0.5
	comp=Z,253nm,1.4s,mb5.8						
EALK	Alkurruntz	67.56	50	P	P	21 07 57.0	+1.0
	comp=Z,428nm,2.1s,mb6.1						
OSSF	Osses	67.73	50	eP	P	21 08 00.4	+3.2
LCHF	La Chataignera	67.77	47	eP	P	21 07 58.1	+0.8
FLN	La Foliniere	67.78	44	⇑iP	P	21 07 57.9	+0.6
	comp=Z,192nm,1.6s,mb5.9						
FLN				LR	LR		
	comp=Z,6µm,19.5s,MS5.8						
FLN	La Foliniere	67.78	44	⇑iP	P	21 07 57.9	+0.6
FLN				pmax	pmax		
	comp=Z,192nm,1.6s,mb5.9						
FLN				MLR	MLR		
	comp=Z,6µm,19.5s,MS5.8						
FLN	La Foliniere	67.78	44	⇑iP	P	21 07 57.9	+0.6
	comp=Z,384nm,1.6s,mb5.9						
FLN				eMLR	MLR		
	comp=Z,6µm,19.5s,MS5.5						
SJPF	Ste Jean	67.78	50	⇑iP	P	21 07 58.4	+1.0
	comp=Z,130nm,1.4s,mb5.8						
SJPF	Ste Jean	67.78	50	⇑iP	P	21 07 58.4	+1.0
SJPF				pmax	pmax		
	comp=Z,130nm,1.4s,mb5.8						
SJPF	Ste Jean	67.78	50	⇑iP	P	21 07 58.4	+1.0
	comp=Z,260nm,1.4s,mb5.8						
ENIJ	Nijar	67.79	57	P	P	21 07 58.6	+1.0
	comp=Z,81nm,1.2s,mb5.6						
ENIJ	Nijar	67.79	57	P	P	21 07 58.6	+1.0

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ENIJ                               pmax    pmax
      comp=Z,81nm,1.2s,mb5.6
LARF  Larrau            67.96  51  eP      P          21 07 59.1 +0.5
ORDF  Ordiarp           67.98  50  eP      P          21 08 00.5 +1.8
LDF   La Druitiere      68.03  45⇑iP       P          21 07 59.6 +0.7
      comp=Z,147nm,1.3s,mb5.8
LDF   La Druitiere      68.03  45⇑iP       P          21 07 59.6 +0.7
LDF                                pmax    pmax
      comp=Z,147nm,1.3s,mb5.8
LDF   La Druitiere      68.03  45⇑iP       P          21 07 59.6 +0.7
      comp=Z,295nm,1.3s,mb5.8
ETOB  Tobarra           68.07  55   P      P          21 08 01.2 +1.8
      comp=Z,838nm,3.1s
ATE   Arette            68.16  50  eP      P          21 08 00.0 +0.2
MFF   Saint Martin d    68.19  47  eP      P          21 08 00.5 +0.6
      comp=Z,81nm,1.3s,mb5.6
MFF   Saint Martin d    68.19  47  eP      P          21 08 00.5 +0.6
MFF                                pmax    pmax
      comp=Z,81nm,1.3s,mb5.6
MFF   Saint Martin d    68.19  47  eP      P          21 08 00.5 +0.6
      comp=Z,161nm,1.3s,mb5.6
ETSF  Etsaut            68.29  51⇑iP       P          21 08 01.6 +1.0
      comp=Z,108nm,1.5s,mb5.7
ETSF  Etsaut            68.29  51⇑iP       P          21 08 01.6 +1.0
ETSF                               pmax    pmax
      comp=Z,108nm,1.5s,mb5.7
ETSF  Etsaut            68.29  51⇑iP       P          21 08 01.6 +1.0
      comp=Z,215nm,1.5s,mb5.7
ECHE  Chera             68.39  54   P      P          21 08 00.5  -0.9
      comp=Z,35nm,0.7s,mb5.5
ECHE  Chera             68.39  54   P      P          21 08 00.5  -0.9
ECHE                               pmax    pmax
      comp=Z,35nm,0.7s,mb5.5
EMUR  La Murta          68.42  56   P      P          21 07 59.1  -2.5
      comp=Z,470nm,2.1s,mb6.2
ESAC  San Caprasio      68.49  52   P      P          21 08 03.5 +1.5
      comp=Z,908nm,2.4s,mb6.4
ASCN  Ascension         68.66 107  eP      P          21 08 05.5 +2.1
ASCN                              eS       S          21 16 52.3   -14
ASCN                               LR      LR
      comp=Z,3µm,20.0s,MS5.5
EMOS  Mosqueruela       68.67  53   P      P          21 08 03.4 +0.3
      comp=Z,986nm,3.2s
LABF  Labassere         68.73  50  eP      P          21 08 03.9 +0.5
EBIE  Bielsa            68.82  51   P      P          21 08 05.3 +1.3
      comp=Z,272nm,1.8s,mb5.9
EPF   Esparros          68.92  50  eP      P          21 08 05.6 +1.0
      comp=Z,310nm,1.7s,mb6.0
EPF   Esparros          68.92  50  eP      P          21 08 05.6 +1.0
EPF                                pmax    pmax
      comp=Z,310nm,1.7s,mb6.0
EPF   Esparros          68.92  50  eP      P          21 08 05.6 +1.0
      comp=Z,619nm,1.7s,mb6.0
RESF  Ens               68.95  51  eP      P          21 08 05.0 +0.2
LFF   La Frestale       68.98  48⇑iP       P          21 08 05.5 +0.6
      comp=Z,72nm,0.9s,mb5.6
LFF   La Frestale       68.98  48⇑iP       P          21 08 05.5 +0.6
LFF                                pmax    pmax
      comp=Z,72nm,0.9s,mb5.6
LFF   La Frestale       68.98  48⇑iP       P          21 08 05.5 +0.6
      comp=Z,145nm,0.9s,mb5.6
EBEN  Beniarda          69.09  55   P      P          21 08 05.3  -0.4
      comp=Z,910nm,2.2s,mb6.3
ERTA  Horta de San J    69.19  53   P      P          21 08 06.0  -0.3
      comp=Z,593nm,2.3s,mb6.1
MENF  Mencas            69.33  42  eP      P          21 08 10.7 +3.7
RJF   Les Rejaudoux     69.48  48⇑iP       P          21 08 08.5 +0.5
      comp=Z,223nm,1.7s,mb5.8
RJF                                LR      LR
      comp=Z,6µm,20.3s,MS5.9
RJF   Les Rejaudoux     69.48  48⇑iP       P          21 08 08.5 +0.5
RJF                                pmax    pmax
      comp=Z,223nm,1.7s,mb5.8
RJF                                MLR     MLR
      comp=Z,6µm,20.3s,MS5.9
RJF   Les Rejaudoux     69.48  48⇑iP       P          21 08 08.5 +0.5
      comp=Z,446nm,1.7s,mb5.8
RJF                               eMLR     MLR
      comp=Z,6µm,20.2s,MS5.6
MLS   Moulis            69.48  50  eP      P          21 08 06.8  -1.3
RKT   Rikitea           69.52 235  eS      S          21 17 10.9  -5.7
      comp=Z,3µm,31.5s
RKT                               eSS      SS         21 21 44.5  -0.2
      comp=Z,2µm,28.8s
RKT                               eLR      LR         21 29 19.8
      comp=Z,6µm,27.5s
EPOB  Poblet            69.69  52   P      P          21 08 10.1 +0.7
      comp=Z,346nm,2.5s,mb5.8
TCF   Toulx Ste Croi    69.84  47⇑iP       P          21 08 10.5 +0.3
      comp=Z,140nm,1.5s,mb5.7
TCF   Toulx Ste Croi    69.84  47⇑iP       P          21 08 10.5 +0.3
TCF                                pmax    pmax
      comp=Z,140nm,1.5s,mb5.7
TCF   Toulx Ste Croi    69.84  47⇑iP       P          21 08 10.5 +0.3
      comp=Z,280nm,1.5s,mb5.7
CAF   Calviac           69.92  48⇑iP       P          21 08 11.2 +0.5
      comp=Z,59nm,1.0s,mb5.5
CAF   Calviac           69.92  48⇑iP       P          21 08 11.2 +0.5
CAF                                pmax    pmax
      comp=Z,59nm,1.0s,mb5.5
CAF   Calviac           69.92  48⇑iP       P          21 08 11.2 +0.5
      comp=Z,118nm,1.0s,mb5.5
EMIR  Miracle           69.94  51   P      P          21 08 12.8 +1.8
      comp=Z,607nm,2.4s,mb6.1
HYF   Humbligny         70.01  46  eP      P          21 08 11.8 +0.6
FRNF  Fournols          70.20  48  eP      P          21 08 13.4 +0.9
VALF  Valcebollere      70.23  51  eP      P          21 08 12.8 +0.1
BGF   Bois d'Agland     70.24  46⇑iP       P          21 08 12.9 +0.2
      comp=Z,155nm,1.7s,mb5.7
BGF   Bois d'Agland     70.24  46⇑iP       P          21 08 12.9 +0.2
BGF                                pmax    pmax
      comp=Z,155nm,1.7s,mb5.7
BGF   Bois d'Agland     70.24  46⇑iP       P          21 08 12.9 +0.2
      comp=Z,310nm,1.7s,mb5.7
MTLF  Montolieu         70.24  50  eP      P          21 08 13.3 +0.5
      comp=Z,143nm,1.5s,mb5.7
MTLF  Montolieu         70.24  50  eP      P          21 08 13.3 +0.5
MTLF                               pmax    pmax
      comp=Z,143nm,1.5s,mb5.7
MTLF  Montolieu         70.24  50  eP      P          21 08 13.3 +0.5
      comp=Z,286nm,1.5s,mb5.7
EIBI  Ibiza             70.25  55   P      P          21 08 14.5 +1.6
      comp=Z,447nm,2.4s,mb6.0
CARF  Carcanieres       70.25  51  eP      P          21 08 11.5  -1.3
BER   Bergen            70.26  32  eS      S          21 17 25.6 +1.4
BER                               eSS      SS         21 21 57.4 +3.4
BER                               i                   21 25 07.6
BER                                AMS     AMS        21 37 40.4
      comp=Z,6µm,18.8s,MS5.9
PYM   Petit Puy Mans    70.46  47  eP      P          21 08 15.1 +1.1
AGO   Saint Agoulin     70.51  47  eP      P          21 08 15.5 +1.2
LRDF  Laroque-de-Fa     70.54  50  eP      P          21 08 13.5  -1.0
AVF   Avril sur Loir    70.56  46⇑iP       P          21 08 14.6   0.0
      comp=Z,145nm,1.6s,mb5.7
AVF   Avril sur Loir    70.56  46⇑iP       P          21 08 14.6   0.0
AVF                                pmax    pmax
      comp=Z,145nm,1.6s,mb5.7
AVF   Avril sur Loir    70.56  46⇑iP       P          21 08 14.6   0.0
      comp=Z,291nm,1.6s,mb5.7
EANR  'Ain N'Sour       70.58  58   P      P          21 08 16.0 +1.0
FILF  Fillols           70.61  51  eP      P          21 08 11.5  -3.5
SSF   Saint Saulge      70.62  46⇑iP       P          21 08 15.0   0.0
      comp=Z,42nm,0.9s,mb5.4
SSF   Saint Saulge      70.62  46⇑iP       P          21 08 15.0   0.0
SSF                                pmax    pmax
      comp=Z,43nm,0.9s,mb5.4
SSF   Saint Saulge      70.62  46⇑iP       P          21 08 15.0   0.0
      comp=Z,85nm,0.9s,mb5.4
SNF   Seneffe           70.68  42   P      P          21 08 15.9 +0.6
      comp=Z,50nm,2.0s,mb5.1
BAIF  Baives            70.69  43⇑iP       P          21 08 15.5 +0.2
      comp=Z,67nm,1.6s,mb5.3
BAIF  Baives            70.69  43⇑iP       P          21 08 15.5 +0.2
BAIF                               pmax    pmax
      comp=Z,67nm,1.6s,mb5.3
BAIF  Baives            70.69  43⇑iP       P          21 08 15.5 +0.2
      comp=Z,134nm,1.6s,mb5.3
UCC   Uccle             70.69  42   P      P          21 08 17.8 +2.5
      comp=Z,65nm,1.7s,mb5.3
LBL   Lubilhac          70.70  48  eP      P          21 08 16.2 +0.7
ECHA  Ech Chlef         70.76  58   P      P          21 08 17.0 +1.0
LOR   Lormes            70.83  46⇑iP       P          21 08 16.4 +0.1
      comp=Z,173nm,1.6s,mb5.7
LOR                                LR      LR
      comp=Z,6µm,19.5s,MS5.9
LOR   Lormes            70.83  46⇑iP       P          21 08 16.4 +0.1
LOR                                pmax    pmax
      comp=Z,173nm,1.6s,mb5.7
LOR                                MLR     MLR
      comp=Z,6µm,19.5s,MS5.9
LOR   Lormes            70.83  46⇑iP       P          21 08 16.4 +0.1
      comp=Z,345nm,1.6s,mb5.7
LOR                               eMLR     MLR
      comp=Z,6µm,19.5s,MS5.6
ETRT  Tiaret            70.84  58   P      P          21 08 18.0 +1.4
PLDF  La Plantade       70.86  47  eP      P          21 08 16.9 +0.5
EBNR  Beni Rached       70.86  57   P      P          21 08 19.0 +2.3
EJON  La Jonquera       70.87  51   P      P          21 08 18.1 +1.6
      comp=Z,366nm,2.0s,mb6.0
SMF   Signal de Mont    70.91  46⇑iP       P          21 08 16.8   0.0
      comp=Z,72nm,1.0s,mb5.6
SMF   Signal de Mont    70.91  46⇑iP       P          21 08 16.8   0.0
SMF                                pmax    pmax
      comp=Z,72nm,1.0s,mb5.6
SMF   Signal de Mont    70.91  46⇑iP       P          21 08 16.8   0.0
      comp=Z,143nm,1.0s,mb5.5
DOU   Dourbes           70.93  43   P      P          21 08 17.3 +0.4
      comp=Z,34nm,1.8s,mb5.0
COLF  Collangettes      70.97  47  eP      P          21 08 17.4 +0.2
GIVF  Givet             71.08  43⇑iP       P          21 08 17.9 +0.2
      comp=Z,141nm,1.5s,mb5.7
GIVF  Givet             71.08  43⇑iP       P          21 08 17.9 +0.2
GIVF                               pmax    pmax
      comp=Z,141nm,1.5s,mb5.7
GIVF  Givet             71.08  43⇑iP       P          21 08 17.9 +0.2
      comp=Z,282nm,1.5s,mb5.7
MOL   Molde             71.13  29   AMS    AMS        21 32 48.1
      comp=Z,13µm,22.7s,MS6.1
KBS   Kingsbay          71.17  12⇑eP       P          21 08 18.0 +0.2
KBS                                LR      LR
      comp=Z,13µm,20.0s,MS6.2
KBS   Kingsbay          71.17  12  eS      S          21 17 33.8  -0.5
KBS                               eSS      SS         21 22 10.4 +3.1
KBS                                AMS     AMS        21 40 43.6
      comp=Z,7µm,17.0s,MS6.0
ETOS  Mallorca          71.25  54   P      P          21 08 20.3 +1.4
      comp=Z,498nm,2.6s,mb6.0
LASF  Ste Croix         71.31  49⇑iP       P          21 08 20.1 +0.9
      comp=Z,128nm,1.2s,mb5.4
BCLA  Clavier           71.34  42   P      P          21 08 19.6 +0.4
      comp=Z,44nm,1.7s,mb5.1
MEZF  Maizieres J'vi    71.45  44⇑iP       P          21 08 20.5 +0.5
      comp=Z,442nm,1.5s,mb6.2
MEZF  Maizieres J'vi    71.45  44⇑iP       P          21 08 20.5 +0.5
      comp=Z,442nm,1.5s,mb5.9
BEBN  Eben Emael        71.52  42   P      P          21 08 22.9 +2.6
HGN   Heimansgroeve     71.69  42⇑iP       P          21 08 21.8 +0.5
      comp=Z,66nm,2.2s,mb5.2
HGN                               eS       S          21 17 42.5 +1.4
HGN                               eSS      SS         21 22 21.1 +4.8
HGN                               eSSS                21 25 52.7
MEM   Membach           71.76  42   P      P          21 08 21.8   0.0
      comp=Z,44nm,1.9s,mb5.1
VIVF  Saint-Julien-l    71.76  48  eP      P          21 08 21.6  -0.3
      comp=Z,227nm,1.6s,mb5.8
VIVF  Saint-Julien-l    71.76  48  eP      P          21 08 21.6  -0.3
VIVF                               pmax    pmax
      comp=Z,227nm,1.6s,mb5.8
VIVF  Saint-Julien-l    71.76  48  eP      P          21 08 21.6  -0.3
      comp=Z,454nm,1.6s,mb5.9
ABA   Alger-Bouzarea    71.96  57   P      P          21 08 32.0 +8.7
WLF   Walferdange       71.99  43  eP      P          21 08 23.9 +0.7
      comp=Z,80nm,1.4s,mb5.5
WLF   Walferdange       71.99  43  eP      P          21 08 24.0 +0.8
WLF                                pmax    pmax
      comp=Z,80nm,1.4s,mb5.5
WLF   Walferdange       71.99  43   P      P          21 08 23.4 +0.2
      comp=Z,56nm,2.0s,mb5.2
WLF   Walferdange       71.99  43  eP      P          21 08 23.8 +0.6
      comp=Z,96nm,1.5s,mb5.5
POHA  Pohakuloa         72.00 285  eP      P          21 08 23.2  -0.6
      comp=Z,289nm,1.1s,mb6.1
POHA                              ePcP     PcP        21 08 42.2  -0.2
POHA                               LR      LR
      comp=Z,5µm,22.0s,MS5.7
EMHD  Djebel Mahouad    72.01  57   P      P          21 08 29.0 +5.4
OG05  Jujurieux         72.11  47  eP      P          21 08 25.2 +1.2
THEF  They Montfort     72.11  44  eP      P          21 08 24.2 +0.2
SPB4  Spitsbergen Ar    72.12  12  eP      P          21 08 23.1  -0.4
SPB4                              ePcP     PcP        21 08 42.0 +0.1
SPB4                              ePP      PP         21 11 02.9  -0.5
TIC   Toumodi           72.18  89  eP      P          21 08 23.2  -1.8
      comp=Z,52nm,1.4s,mb5.3
PRAF  Pradon            72.29  49  eP      P          21 08 26.4 +1.3
LIC   Lamto             72.30  90  eP      P          21 08 22.8  -2.9
      comp=Z,170nm,1.1s,mb5.9
LIC   Lamto             72.30  90⇑iP       P          21 08 22.9  -2.8
      comp=Z,73nm,1.1s,mb5.5
LIC                                LR      LR
      comp=Z,2µm,18.5s,MS5.5
LIC   Lamto             72.30  90⇑iP       P          21 08 22.9  -2.8
      comp=Z,147nm,1.1s,mb5.5,baz=293
LIC                               eMLR     MLR
      comp=Z,5µm,18.5s,MS5.5
TNA   Tin City          72.33 334  eP      P          21 08 24.2  -0.7
      comp=Z,40nm,1.4s,mb5.2
TNA                               ePP      PP         21 11 04.9  -0.5
TNA                                LR      LR
      comp=Z,12µm,19.0s,MS6.2
HAU   Haudompre         72.39  45⇑iP       P          21 08 25.7 +0.1
      comp=Z,127nm,1.6s,mb5.6
HAU                                LR      LR
      comp=Z,7µm,20.0s,MS5.9
HAU   Haudompre         72.39  45⇑iP       P          21 08 25.7 +0.1
HAU                                pmax    pmax
      comp=Z,127nm,1.6s,mb5.6
HAU                                MLR     MLR
      comp=Z,7µm,20.0s,MS5.9
HAU   Haudompre         72.39  45⇑iP       P          21 08 25.7 +0.1
      comp=Z,254nm,1.6s,mb5.6
HAU                               eMLR     MLR
      comp=Z,7µm,20.0s,MS5.6
BUG   Bochum--Univer    72.42  41  eP      P          21 08 26.7 +1.0
      comp=Z,143nm,1.5s,mb5.7
CABF  La Chapelle       72.44  46⇑iP       P          21 08 26.4 +0.4
      comp=Z,44nm,1.1s,mb5.3
CABF  La Chapelle       72.44  46⇑iP       P          21 08 26.4 +0.4
CABF                               pmax    pmax
      comp=Z,44nm,1.1s,mb5.3
CABF  La Chapelle       72.44  46⇑iP       P          21 08 26.4 +0.4
      comp=Z,89nm,1.1s,mb5.3
KONO  Kongsberg         72.47  32⇑eP       P          21 08 26.8 +0.9
KONO                               LR      LR
      comp=Z,7µm,19.0s,MS6.0
KONO  Kongsberg         72.47  32  eS      S          21 17 49.5  -0.4
KONO                              eSS      SS         21 22 29.4 +1.5
KIC   Kosan Boka        72.53  89  eP      P          21 08 25.7  -1.4
      comp=Z,326nm,1.2s,mb6.2
GELF  Grande-Etoile     72.55  49  eP      P          21 08 27.1 +0.4
SMRF  Simiane la Rot    72.55  49⇑iP       P          21 08 28.0 +1.3
      comp=Z,76nm,1.0s,mb5.6
SMRF  Simiane la Rot    72.55  49⇑iP       P          21 08 28.0 +1.3
      comp=Z,76nm,1.0s,mb5.3
RUP   Ruppelstein       72.57  43  eP      P          21 08 27.6 +0.9
IBBN  Ibbenburen        72.58  40  eP      P          21 08 27.4 +0.7
      comp=Z,220nm,1.5s,mb5.9
ORIF  Oris-en-Rattie    72.59  48⇑iP       P          21 08 28.0 +1.1
      comp=Z,75nm,1.2s,mb5.5
ORIF  Oris-en-Rattie    72.59  48⇑iP       P          21 08 28.0 +1.1
ORIF                               pmax    pmax
      comp=Z,75nm,1.2s,mb5.5
ORIF  Oris-en-Rattie    72.59  48⇑iP       P          21 08 28.0 +1.1
      comp=Z,150nm,1.2s,mb5.5
ORIF                              eMLR     MLR
      comp=Z,5µm,20.5s,MS5.5
MUD   Monsted U'grnd    72.74  36  eP      P          21 08 32.3 +4.8
MUD                                pmax    pmax
      comp=Z,120nm,1.4s,mb5.6
MUD                                MLR     MLR
      comp=Z,5µm,20.0s,MS5.8
MUD   Monsted U'grnd    72.74  36  i P     P          21 08 32.3 +4.8
      comp=Z,125nm,1.4s,mb5.7
MUD                               i S      S          21 18 03.5   +11
MUD
      comp=Z,5µm,20.0s
HINF  Hinteralfeld      72.75  45⇑iP       P          21 08 27.8   0.0
      comp=Z,47nm,1.3s,mb5.3
HINF  Hinteralfeld      72.75  45⇑iP       P          21 08 27.8   0.0
HINF                               pmax    pmax
      comp=Z,47nm,1.3s,mb5.3
HINF  Hinteralfeld      72.75  45⇑iP       P          21 08 27.8   0.0
      comp=Z,94nm,1.3s,mb5.2
STOF  St-Etienne Org    72.78  49  eP      P          21 08 27.5  -0.5
LOMF  Lomont            72.82  45  eP      P          21 08 28.7 +0.5
OG25  Le Caire          72.83  48  eP      P          21 08 28.0  -0.3
NSS   Namsos            72.84  27  eS      S          21 17 55.4 +1.5
NSS                                AMS     AMS        21 36 57.6
      comp=Z,6µm,19.8s,MS5.9
ABH   Alteburg          72.85  42  eP      P          21 08 28.9 +0.6
ECH   Echery            72.88  44  eP      P          21 08 28.9 +0.3
NAO01 NORSAR Array S    72.93  31  eP      P          21 08 28.9 +0.4
      comp=Z,49nm,1.0s,mb5.4
NAO01                             ePcP     PcP        21 08 45.7 +0.2
NAO01                              LR      LR
      comp=Z,8µm,19.0s,MS6.0
CDF   Champ du Feu      72.93  44⇑iP       P          21 08 29.0 +0.2
      comp=Z,91nm,1.6s,mb5.5
CDF   Champ du Feu      72.93  44⇑iP       P          21 08 29.0 +0.2
CDF                                pmax    pmax
      comp=Z,91nm,1.6s,mb5.5
CDF   Champ du Feu      72.93  44⇑iP       P          21 08 29.0 +0.2
      comp=Z,182nm,1.6s,mb5.5
MOF   Molkenrain        72.93  45  eP      P          21 08 29.1 +0.2
TAVF  Tavernes          72.96  49  eP      P          21 08 31.0 +1.9
RSL   Roselend          72.97  47  eP      P          21 08 29.1  -0.1
EFI   East Falkland     72.98 167  eP      P          21 08 29.3 +0.5
EFI                               eS       S          21 18 22.2   +27
EFI                                LR      LR
      comp=Z,51µm,22.0s,MS6.8
NB2   NORSAR Subarra    73.05  31   P      P          21 08 29.0  -0.3
      comp=Z,185nm,1.7s,mb5.7,baz=281,slow=6.2
NOA   NORSAR Array B    73.05  31   P      P          21 08 28.1  -1.2
NOA                                pmax    pmax
      comp=Z,5.0nm,0.9s
NOA                                MLR     MLR
      comp=Z,5µm,22.0s
NOA   NORSAR Array B    73.05  31   P      P          21 08 28.1  -1.3
      comp=Z,4.7nm,0.9s,baz=282,slow=5.9,SNR=3.4
NOA                                LR      LR         21 34 53.5
      comp=Z,5µm,22.0s,MS5.8,baz=280,slow=31
LPL   La Plagne         73.08  47  eP      P          21 08 30.9 +1.1
      comp=Z,83nm,1.3s,mb5.5
LPL   La Plagne         73.08  47  eP      P          21 08 30.9 +1.1
LPL                                pmax    pmax
      comp=Z,83nm,1.3s,mb5.5
LPL   La Plagne         73.08  47  eP      P          21 08 30.9 +1.1
      comp=Z,165nm,1.3s,mb5.5
LPG   La Plagne         73.10  47  eP      P          21 08 31.1 +1.2
      comp=Z,122nm,1.5s,mb5.6
LPG   La Plagne         73.10  47  eP      P          21 08 31.1 +1.2
LPG                                pmax    pmax
      comp=Z,122nm,1.5s,mb5.6
LPG   La Plagne         73.10  47  eP      P          21 08 31.1 +1.2
      comp=Z,244nm,1.5s,mb5.6
BNI   Bardonecchia      73.13  48  eP      P          21 08 31.6 +1.5
      comp=Z,40nm,1.0s,mb5.3
BNI                               ePcP     PcP        21 08 48.1 +1.3
BNI   Bardonecchia      73.13  48  eP      P          21 08 31.6 +1.5
BNI                               e                   21 08 48.1
BNI                                pmax    pmax
      comp=Z,40nm,1.0s,mb5.3
LANF  Langenberg        73.17  43  eP      P          21 08 30.9 +0.6
BBS   Basel-Blauen      73.25  45  eP      P          21 08 30.9 +0.1
MBDF  Montbardon        73.25  48⇑iP       P          21 08 31.9 +1.1
      comp=Z,63nm,1.4s,mb5.3
MBDF  Montbardon        73.25  48⇑iP       P          21 08 31.9 +1.1
MBDF                               pmax    pmax
      comp=Z,63nm,1.4s,mb5.3
MBDF  Montbardon        73.25  48⇑iP       P          21 08 31.9 +1.1
      comp=Z,126nm,1.4s,mb5.3
LMR   La Mourre         73.33  49⇑iP       P          21 08 31.7 +0.4
      comp=Z,135nm,1.7s,mb5.6
LMR   La Mourre         73.33  49⇑iP       P          21 08 31.7 +0.4
LMR                                pmax    pmax
      comp=Z,135nm,1.7s,mb5.6
LMR   La Mourre         73.33  49⇑iP       P          21 08 31.7 +0.4
      comp=Z,270nm,1.7s,mb5.6
TNS   Taunus Mts        73.36  42  eP      P          21 08 32.3 +0.9
TNS                                pmax    pmax
      comp=Z,186nm,1.8s,mb5.7
TNS   Taunus Mts        73.36  42  eP      P          21 08 32.3 +0.9
      comp=Z,186nm,1.8s,mb5.7
FRF   La Foret Royal    73.39  49  eP      P          21 08 32.0 +0.4
      comp=Z,87nm,1.4s,mb5.5
FRF   La Foret Royal    73.39  49  eP      P          21 08 32.0 +0.4
FRF                                pmax    pmax
      comp=Z,87nm,1.4s,mb5.5
FRF   La Foret Royal    73.39  49  eP      P          21 08 32.0 +0.4
      comp=Z,174nm,1.4s,mb5.5
UNV   Unalaska Valle    73.47 322   P      P          21 08 41.5   +10
UNV                               eS       S          21 18 09.2 +7.8
UNV                                LR      LR
      comp=Z,34µm,19.0s,MS6.7
BJO   Bjornoya          73.47  16  eS      S          21 17 59.0  -1.8
BJO                               eSS      SS         21 22 44.3 +1.7
BJO                                AMS     AMS        21 40 12.7
      comp=Z,9µm,18.6s,MS6.1
FELD  Feldberg im Sc    73.50  44  eP      P          21 08 32.4 +0.1
RSP   Reno Superiore    73.51  47   P      P          21 08 34.2 +1.8
CALN  Calern            73.52  49  eP      P          21 08 34.8 +2.4
BFO   Black Forest      73.63  44  eP      P          21 08 33.0   0.0
      comp=Z,134nm,2.2s,mb5.5
BFO                                LR      LR
      comp=Z,7µm,19.0s,MS6.0
BFO   Black Forest      73.63  44  eP      P          21 08 33.0   0.0
BFO                                pmax    pmax
      comp=Z,134nm,2.2s,mb5.5
BFO                                MLR     MLR
      comp=Z,7µm,19.0s,MS6.0
MVIF  Mont Vial         73.68  49  eP      P          21 08 34.0 +0.6
TOD   Tromm             73.70  43  eP      P          21 08 33.7 +0.3
TOUF  Mont Tournerai    73.73  49  eP      P          21 08 34.5 +0.9
STV   Sta Anna Valdi    73.73  48   P      P          21 08 37.3 +3.6
BSEG  Bad Segeberg      73.82  38  eP      P          21 08 34.6 +0.6
BSEG  Bad Segeberg      73.82  38  eP      P          21 08 34.5 +0.5
      comp=Z,114nm,1.8s,mb5.5
LUCF  Luceram           73.82  49  eP      P          21 08 35.3 +1.1
KIP   Kipapa            73.83 287   P      P          21 08 43.6 +9.0
KIP                               eS       S          21 18 02.7  -3.9
KIP                                LR      LR
      comp=Z,3µm,22.0s,MS5.5
AUTN  L'Aution          73.86  49  eP      P          21 08 32.7  -1.7
REVF  Revere            73.86  49  eP      P          21 08 35.2 +0.7
SBF   Sospel            73.89  49⇑iP       P          21 08 35.1 +0.5
      comp=Z,104nm,1.1s,mb5.7
SBF   Sospel            73.89  49⇑iP       P          21 08 35.1 +0.5
SBF                                pmax    pmax
      comp=Z,104nm,1.1s,mb5.7
SBF   Sospel            73.89  49⇑iP       P          21 08 35.1 +0.5
      comp=Z,208nm,1.1s,mb5.7
ORO   Oropa             73.92  47   P      P          21 08 37.6 +2.9
      comp=Z,71nm,1.3s,mb5.4
ORO   Oropa             73.92  47   P      P          21 08 37.6 +2.9
ORO                                pmax    pmax
      comp=Z,71nm,1.3s,mb5.4
SET   Setif             73.95  57   P      P          21 08 36.0 +0.9
SAOF  Saorge            73.95  49  eP      P          21 08 35.8 +0.9
NRDL  Niedersach Rie    73.96  39  eP      P          21 08 35.7 +0.9
      comp=Z,114nm,1.5s,mb5.6
SPAK  Spaichingen-Ko    73.98  44  eP      P          21 08 34.8  -0.2
STU   Stuttgart         74.11  43  eP      P          21 08 36.5 +0.7
      comp=Z,223nm,2.2s,mb5.7
IMI   Imperia           74.20  49   P      P          21 08 39.3 +2.9
      comp=Z,58nm,1.2s,mb5.4
DFRA  Djebel Bou Aff    74.25  56   P      P          21 08 46.0 +9.2
CLZ   Clausthal         74.25  40  eP      P          21 08 37.8 +1.3
CLZ                                pmax    pmax
      comp=Z,139nm,1.5s,mb5.7
CLZ   Clausthal         74.25  40  eP      P          21 08 37.8 +1.3
      comp=Z,139nm,1.5s,mb5.7
QLNO  Quiliano          74.44  48   P      P          21 08 41.7 +3.9
CMER  Merouana          74.47  57   P      P          21 08 37.0  -1.2
TRO   Tromso            74.51  21  eS      S          21 18 09.6  -3.0
TRO                                AMS     AMS        21 37 03.6
      comp=Z,4µm,21.9s,MS5.7
TUE   Stuetta           74.68  46   P      P          21 08 43.0 +3.8
CTEI  Djebel Teioual    74.77  57   P      P          21 08 43.0 +3.1
CASM  Ain Smara         74.79  57   P      P          21 08 43.0 +3.0
DAVA  Damuels           74.87  45⇑iP       P          21 08 40.8 +0.6
      comp=Z,42nm,0.9s,mb5.4
CKFL  Kef-Lekhel        74.94  56   P      P          21 08 43.0 +2.1
CAEH  'Ain El Ouahch    74.96  56   P      P          21 08 44.0 +3.0
GRA1  Grafenberg Arr    75.22  42  eP      P          21 08 43.4 +1.2
      comp=Z,33nm,1.3s,mb5.1
GRA1                              eS       S          21 18 20.3  -0.9
GRA1                               LR      LR
      comp=Z,7µm,21.4s,MS6.0
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GRF	**Grafenberg Arr**	**75.22**	**42**	*e*P	**P**	**21 08 43.4**	**+1.2**
GRF				*e*S	S	21 18 20.3	-0.9
GRF				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.1						
GRF				MLR	MLR		
	comp=Z,7µm,21.4s,MS6.0						
GRF	**Grafenberg Arr**	**75.22**	**42**	*e*P	**P**	**21 08 43.4**	**+1.2**
	comp=Z,33nm,1.3s,mb5.1						
GRF				*e*S	S	21 18 20.3	-0.9
GRF				*e*L		21 35 06.7	
	comp=Z,7µm,21.4s						
GRFO	**Grafenberg**	**75.22**	**42**	*e*P	**P**	**21 08 43.2**	**+1.0**
	comp=Z,54nm,1.3s,mb5.3						
GRFO				*e*PcP	PcP	21 08 55.5	-0.1
GRFO				*e*PP	PP	21 11 31.5	+1.2
GRFO				LR	LR		
	comp=Z,6µm,21.0s,MS5.9						
GRFO	**Grafenberg**	**75.22**	**42**	*e*P	**P**	**21 08 43.2**	**+1.0**
GRFO				*e*		21 08 55.5	
GRFO				*e*		21 11 31.5	
GRFO				pmax	pmax		
	comp=Z,53nm,1.3s,mb5.3						
GRFO				MLR	MLR		
	comp=Z,6µm,21.0s,MS5.9						
MOX	**Moxa**	**75.26**	**41**	*e*P	**P**	**21 08 43.3**	**+0.9**
	comp=Z,73nm,1.6s,mb5.4						
MOX				*e*S	S	21 18 24.0	+2.4
MOX	**Moxa**	**75.26**	**41**	*e*P	**P**	**21 08 43.3**	**+0.9**
	comp=Z,73nm,1.6s,mb5.4						
MOX							
	comp=Z,5µm,20.0s						
MOX	**Moxa**	**75.26**	**41**	*e*P	**P**	**21 08 43.3**	**+0.9**
MOX				*e*S	S	21 18 24.0	+2.4
MOX				pmax	pmax		
	comp=Z,73nm,1.6s,mb5.4						
MOX	**Moxa**	**75.26**	**41**	*e*P	**P**	**21 08 43.1**	**+0.7**
	comp=Z,84nm,1.7s,mb5.4						
PGF	**Pioggiola**	**75.28**	**50**	⇑*i*P	**P**	**21 08 42.9**	**+0.2**
	comp=Z,50nm,0.9s,mb5.5						
PGF	**Pioggiola**	**75.28**	**50**	⇑*i*P	**P**	**21 08 42.9**	**+0.2**
PGF				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.4						
PGF	**Pioggiola**	**75.28**	**50**	⇑*i*P	**P**	**21 08 42.9**	**+0.2**
	comp=Z,100nm,0.9s,mb5.4						
RETA	**Reutte**	**75.41**	**44**	⇑*i*P	**P**	**21 08 43.8**	**+0.4**
	comp=Z,106nm,1.9s,mb5.5,SNR=20						
CMAH	**Djebel Manchou**	**75.44**	**56**	P	**P**	**21 08 39.0**	**-4.7**
CORF	**Corte**	**75.45**	**50**	*e*P	**P**	**21 08 45.4**	**+1.7**
FETA	**Feichten**	**75.49**	**45**	*i* P	**P**	**21 08 44.8**	**+0.9**
	comp=Z,72nm,1.1s,mb5.5,SNR=12						
ABSA	**Djebel Ababsia**	**75.57**	**56**	P	**P**	**21 08 41.0**	**-3.5**
MOTA	**Moosalm**	**75.67**	**45**	⇓*i*P	**P**	**21 08 45.2**	**+0.4**
	comp=Z,118nm,1.4s,mb5.6,SNR=15						
MOTA	**Moosalm**	**75.67**	**45**	⇓*i*P	**P**	**21 08 45.2**	**+0.4**
MOTA				pmax	pmax		
	comp=Z,118nm,1.4s,mb5.6						
SQTA	**Sankt Quirin**	**75.76**	**45**	⇑*i*P	**P**	**21 08 46.3**	**+0.9**
	comp=Z,45nm,1.1s,mb5.3,SNR=15						
SQTA	**Sankt Quirin**	**75.76**	**45**	⇑*i*P	**P**	**21 08 46.3**	**+0.9**
SQTA				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.3						
ROTZ	**Rotzenmuhle**	**75.83**	**42**	*e*P	**P**	**21 08 46.2**	**+0.5**
	comp=Z,77nm,1.5s,mb5.4						
TANN	**Tannenbergstha**	**75.84**	**41**	*e*P	**P**	**21 08 46.4**	**+0.7**
	comp=Z,65nm,1.5s,mb5.3						
NKC	**Novy Kostel**	**75.87**	**41**	*e*P	**P**	**21 08 47.0**	**+1.1**
NKC				*e*S	S	21 18 28.9	+0.5
NKC				*e*SS	SS	21 23 34.5	+14
NKC	**Novy Kostel**	**75.87**	**41**	*e*P	**P**	**21 08 47.0**	**+1.1**
NKC				*e*S	S	21 18 28.9	+0.5
NKC	**Novy Kostel**	**75.87**	**41**	*e*P	**P**	**21 08 47.0**	**+1.1**
NKC				*e*S	S	21 18 28.9	+0.5
NKC				*e*x	x	21 23 34.5	
NKC				AMS	AMS	21 32 30.0	
	comp=Z,9µm,22.7s						
VLC	**Villacollemand**	**75.90**	**48**	P	**P**	**21 08 48.4**	**+2.2**
APPI	**Appiano**	**75.95**	**45**	P	**P**	**21 08 49.3**	**+2.9**
CLL	**Collm**	**75.97**	**40**	*i* P	**P**	**21 08 46.9**	**+0.4**
	comp=Z,111nm,1.8s,mb5.5						
CLL				*i*		21 08 57.4	
CLL				*e*S	S	21 18 28.0	-1.4
CLL				LR	LR		
	comp=Z,6µm,16.5s,MS5.9						
CLL	**Collm**	**75.97**	**40**	*i* P	**P**	**21 08 46.9**	**+0.4**
CLL				*i*		21 08 57.4	
CLL				*e*S	S	21 18 28.0	-1.4
CLL				pmax	pmax		
	comp=Z,111nm,1.8s,mb5.5						
CLL				MLR	MLR		
	comp=Z,6µm,16.5s,MS5.9						
CLL	**Collm**	**75.97**	**40**	*e*P	**P**	**21 08 46.8**	**+0.3**
	comp=Z,114nm,1.8s,mb5.5						
CLL				*e*S	S	21 18 31.9	+2.5
CLL				*e*SS	SS	21 23 21.8	+0.3
CLL				*e*SSS		21 26 48.2	
CLL				*e*LR	LR	21 32 22.8	
CLL				*e*L		21 39 41.4	
	comp=Z,3µm,22.0s						
CLL	**Collm**	**75.97**	**40**	*i* P	**P**	**21 08 46.9**	**+0.4**
	comp=Z,111nm,1.8s,mb5.5						
CLL				*i* x	x	21 08 57.4	
CLL				*i* x	x	21 09 15.9	
CLL				*e*PPPP		21 14 30.0	
CLL				*e*S	S	21 18 28.0	-1.4
CLL				*e*PS		21 19 06.0	
CLL				*e*SS	SS	21 23 24.0	+2.5
CLL				*e*SSS		21 26 54.0	
WATA	**Walderalm**	**75.98**	**45**	⇑*i*P	**P**	**21 08 47.3**	**+0.7**
	comp=Z,35nm,1.2s,mb5.2,SNR=7.2						
WATA	**Walderalm**	**75.98**	**45**	⇑*i*P	**P**	**21 08 47.3**	**+0.7**
WATA				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.2						
GSCL	**Gusciola**	**76.00**	**48**	P	**P**	**21 08 49.6**	**+2.8**
	comp=Z,172nm,1.6s,mb5.7						
WTTA	**Wattenberg**	**76.04**	**45**	⇓*i*P	**P**	**21 08 48.0**	**+1.1**
	comp=Z,36nm,1.1s,mb5.2,SNR=15						
WTTA	**Wattenberg**	**76.04**	**45**	⇓*i*P	**P**	**21 08 48.0**	**+1.1**
WTTA				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.2						
BDI	**Bagni Di Lucca**	**76.07**	**48**	P	**P**	**21 08 49.7**	**+2.5**
BSD	**Bornholm Skovb**	**76.18**	**36**	*e*P	**P**	**21 08 45.4**	**-2.2**
BSD				*i* S	S	21 18 37.1	+5.5
BSD				pmax	pmax		
	comp=Z,56nm,1.0s,mb5.5						
BSD				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.7						
BSD	**Bornholm Skovb**	**76.18**	**36**	*i* P	**P**	**21 08 45.4**	**-2.2**
	comp=Z,56nm,1.0s,mb5.5						
BSD				*i* S	S	21 18 37.1	+5.5
BSD							
	comp=Z,3µm,18.0s						
VSL	**Villasalto**	**76.27**	**53**	*e*P	**P**	**21 08 49.7**	**+1.3**
	comp=Z,340nm,1.8s,mb6.0						
VSL				*e*PP	PP	21 11 34.7	-4.7
VAH	**Vaihoa**	**76.29**	**248**	*e*P	**P**	**21 08 50.4**	**+1.5**
	comp=Z,97nm,1.1s,mb5.6						
CTI	**Castel Tesino**	**76.33**	**46**	P	**P**	**21 08 52.6**	**+4.0**
WET	**Wettzell**	**76.40**	**42**	*e*P	**P**	**21 08 49.8**	**+0.8**
WET				pmax	pmax		
	comp=Z,124nm,1.7s,mb5.6						
WET	**Wettzell**	**76.40**	**42**	*e*P	**P**	**21 08 49.8**	**+0.8**
	comp=Z,124nm,1.7s,mb5.6						
FNVD	**Fontana Vidola**	**76.42**	**48**	P	**P**	**21 08 50.6**	**+1.4**
PMOR	**Pomariorio Ree**	**76.43**	**249**	*e*P	**P**	**21 08 51.4**	**+1.8**
	comp=Z,52nm,1.1s,mb5.4						
TOA0	**Torodi Ar. Sit**	**76.54**	**81**	*e*P	**P**	**21 08 47.7**	**-2.7**
TOA0				*e*PcP	PcP	21 09 01.4	-0.6
TOA0				*e*PP	PP	21 11 42.6	+0.2
TORD	**Torodi Ar. Bea**	**76.54**	**81**	P	**P**	**21 08 47.3**	**-3.1**
	comp=Z,9.6nm,1.0s,mb4.7,baz=301,slow=3.2,SNR=22						
TORD				LR	LR	21 39 10.3	
	comp=Z,12µm,20.1s,MS6.2,baz=285,slow=33						
SEST	**Monte Rota**	**76.55**	**45**	P	**P**	**21 08 53.2**	**+3.4**
GRFL	**Gerfalco**	**76.56**	**49**	P	**P**	**21 08 51.8**	**+1.8**
	comp=Z,544nm,2.6s,mb6.0						
FIU	**Minerbio Fiu**	**76.56**	**47**	P	**P**	**21 08 53.4**	**+3.4**
SEI	**Scarperia**	**76.61**	**48**	P	**P**	**21 08 52.8**	**+2.6**
	comp=Z,120nm,1.0s,mb5.8						
BRG	**Berggiesshubel**	**76.65**	**41**	*i* P	**P**	**21 08 50.9**	**+0.6**
	comp=Z,55nm,1.8s,mb5.2						
BRG				*i*		21 09 02.0	
BRG				*i*		21 09 23.9	
BRG				*e*PP	PP	21 11 41.8	-0.6
BRG				*e*		21 14 16.4	
BRG				S	S	21 18 40.0	+3.1
BRG				SS	SS	21 23 30.0	-1.8
BRG				*e*		21 27 19.9	
BRG				*e*P’P’		21 37 44.4	
BRG				LR	LR		
	comp=Z,2µm,16.5s,MS5.5						
BRG	**Berggiesshubel**	**76.65**	**41**	*i* P	**P**	**21 08 50.9**	**+0.6**
BRG				*i*		21 09 02.0	
BRG				*e*		21 11 41.8	
BRG				S	S	21 18 40.0	+3.1
BRG				SS	SS	21 23 30.0	-1.8
BRG				pmax	pmax		
	comp=Z,55nm,1.8s,mb5.2						
BRG				pmax	pmax		
	comp=Z,20nm,1.8s,mb4.8						
BRG				MLR	MLR		
	comp=N,2µm,16.7s,MS5.8						
BRG				MLR	MLR		
	comp=E,3µm,16.5s,MS5.8						
BRG				MLR	MLR		
	comp=Z,2µm,16.5s,MS5.5						
BRG	**Berggiesshubel**	**76.65**	**41**	*e*P	**P**	**21 08 51.1**	**+0.8**
	comp=Z,57nm,1.3s,mb5.3						
BRG	**Berggiesshubel**	**76.65**	**41**	*i* P	**P**	**21 08 50.9**	**+0.6**
	comp=Z,92nm,1.8s,mb5.4						
BRG				*i*		21 09 02.0	
	comp=Z,29nm,1.1s						
BRG				*i*		21 09 23.9	
	comp=Z,51nm,1.7s						
BRG				*e*PP	PP	21 11 41.8	-0.6
	comp=Z,33nm,1.8s						
BRG				*e*		21 14 16.4	
	comp=Z,17nm,1.6s						
BRG				S	S	21 18 40.0	+3.1
BRG				SS	SS	21 23 30.0	-1.8
BRG				*e*		21 27 19.9	
	comp=Z,16nm,1.8s						
BRG				*e*PKPPKP		21 37 44.4	
	comp=Z,79nm,2.1s						
BRG							
	comp=N,4µm,16.7s						
BRG							
	comp=E,6µm,16.5s						
BRG							
	comp=Z,3µm,16.5s						
ABTA	**Abfaltersbach**	**76.74**	**45**	⇑*i*P	**P**	**21 08 49.5**	**-1.5**
	comp=Z,49nm,1.2s,mb5.3,SNR=6.5						
ARCES	**ARCESS Array B**	**76.75**	**21**	P	**P**	**21 08 48.7**	**-1.9**
ARCES				LR	LR	21 42 41.9	
ARCES	**ARCESS Array B**	**76.75**	**21**	P	**P**	**21 08 48.7**	**-1.8**
ARCES				pmax	pmax		
	comp=Z,16nm,0.9s						
ARCES				MLR	MLR		
	comp=Z,4µm,19.6s						
ARCES	**ARCESS Array B**	**76.75**	**21**	P	**P**	**21 08 48.7**	**-1.9**
	comp=Z,16nm,0.9s,mb5.0,baz=284,slow=3.9,SNR=23						
ARCES				LR	LR	21 42 41.9	
	comp=Z,4µm,19.6s,MS5.7,baz=302,slow=36						
VMG	**Vicchio**	**76.76**	**48**	P	**P**	**21 08 52.5**	**+1.4**
	comp=Z,106nm,1.4s,mb5.6						
KHC	**Kasperske Hory**	**76.85**	**42**	*e*P	**P**	**21 08 52.1**	**+0.6**
KHC				*e*		21 09 26.0	
KHC				*e*S	S	21 18 39.3	+0.1
KHC				*e*SS	SS	21 23 46.8	+12
KHC				LR	LR		
	comp=Z,8µm,20.3s,MS6.0						
KHC	**Kasperske Hory**	**76.85**	**42**	*e*P	**P**	**21 08 52.1**	**+0.6**
KHC				*e*S	S	21 18 39.3	+0.1
KHC				MLR	MLR		
	comp=Z,8µm,20.3s,MS6.0						
KHC	**Kasperske Hory**	**76.85**	**42**	*e*P	**P**	**21 08 52.1**	**+0.6**
KHC				*e*x	x	21 09 26.0	
KHC				*e*S	S	21 18 39.3	+0.1
KHC				*e*x	x	21 23 46.8	
KHC				AMS	AMS	21 35 40.0	
	comp=Z,8µm,20.3s						
FVI	**Forni Avoltri**	**76.96**	**45**	P	**P**	**21 08 54.1**	**+1.9**
	comp=Z,20nm,0.8s,mb5.1						
FVI	**Forni Avoltri**	**76.96**	**45**	P	**P**	**21 08 54.1**	**+1.9**
FVI				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
GEC2	**GERESS Array S**	**77.00**	**43**	*e*P	**P**	**21 08 53.2**	**+0.8**
GEC2				pmax	pmax		
	comp=Z,84nm,1.6s,mb5.4						
GEC2	**GERESS Array S**	**77.00**	**43**	*e*P	**P**	**21 08 53.2**	**+0.8**
	comp=Z,84nm,1.6s,mb5.4						
GERES	**GERESS Array B**	**77.00**	**43**	P	**P**	**21 08 52.7**	**+0.3**
GERES				pmax	pmax		
	comp=Z,6.0nm,0.9s						
GERES				MLR	MLR		
	comp=Z,8µm,21.0s						
GERES	**GERESS Array B**	**77.00**	**43**	P	**P**	**21 08 52.7**	**+0.3**
	comp=Z,5.6nm,0.9s,mb4.5,baz=270,slow=4.0,SNR=22						
GERES				LR	LR	21 36 19.3	
	comp=Z,8µm,21.0s,MS6.0,baz=276,slow=31						
PVCC	**Panska Ves**	**77.12**	**41**	*e*P	**P**	**21 08 54.2**	**+1.2**
PVCC				*e*S	S	21 18 44.1	+2.0
PVCC				AMS	AMS	21 33 20.0	
	comp=Z,9µm,25.6s						
CRE	**Caprese Michel**	**77.13**	**48**	P	**P**	**21 08 55.3**	**+2.1**
	comp=Z,22nm,0.8s,mb5.1						
CRE	**Caprese Michel**	**77.13**	**48**	P	**P**	**21 08 55.3**	**+2.1**
CRE				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.1						
KEV	**Kevo**	**77.16**	**20**	*e*P	**P**	**21 08 55.1**	**+2.2**
KEV				*e*S	S	21 18 40.2	-1.6
KEV				LR	LR		
	comp=Z,5µm,22.0s,MS5.8						
KEST	**Kesra**	**77.17**	**56**	P	**P**	**21 08 53.9**	**+0.3**
	comp=Z,7.1nm,0.8s,mb4.7,baz=293,slow=1.2,SNR=12						
KEST				LR	LR	21 35 00.5	
	comp=Z,1µm,19.7s,MS5.3,baz=357,slow=30						
KBA	**Koelnbreinsper**	**77.21**	**44**	⇓*i*P	**P**	**21 08 54.7**	**+1.2**
	comp=Z,84nm,1.2s,mb5.5,SNR=12						
KBA	**Koelnbreinsper**	**77.21**	**44**	⇓*i*P	**P**	**21 08 54.8**	**+1.2**
KBA				pmax	pmax		
	comp=Z,84nm,1.2s,mb5.5						
PRU	**Pruhonice**	**77.24**	**41**	*e*P	**P**	**21 08 54.0**	**+0.3**
GMNA	**Gemona**	**77.34**	**45**	P	**P**	**21 08 55.3**	**+0.9**
	comp=Z,297nm,0.9s,mb6.2						
RSM	**Repubblica di**	**77.40**	**48**	P	**P**	**21 08 58.0**	**+3.3**
	comp=Z,297nm,1.7s,mb5.9						
RSM	**Repubblica di**	**77.40**	**48**	P	**P**	**21 08 58.0**	**+3.3**
RSM				pmax	pmax		
	comp=Z,297nm,1.7s,mb5.9						
MYKA	**Terra Mystica**	**77.52**	**45**	⇓*i*P	**P**	**21 08 55.8**	**+0.5**
	comp=Z,176nm,1.4s,mb5.8						
TOLF	**Tolfa**	**77.56**	**50**	P	**P**	**21 08 57.9**	**+2.2**
MOA	**Molln**	**77.62**	**44**	⇓*i*P	**P**	**21 08 56.5**	**+0.6**
	comp=Z,52nm,1.1s,mb5.4,SNR=10						
VOJS	**Vojsko**	**77.84**	**45**	*e*P	**P**	**21 09 02.4**	**+5.3**
VOY	**Vojsko**	**77.85**	**45**	*e*P	**P**	**21 08 58.4**	**+1.2**
VOY				*e*	pP	21 09 01.2	+0.7
VOY				*e*		21 09 05.3	
MNS	**Montasola**	**77.97**	**49**	P	**P**	**21 09 02.1**	**+4.2**
GKP	**Gorka Klasztor**	**77.98**	**38**	*e*P	**P**	**21 09 00.8**	**+3.0**
GKP				LMZ		21 35 34.1	
	comp=Z,8µm,22.0s						
JAVS	**Javornik**	**78.00**	**46**	*i* P	**P**	**21 09 01.3**	**+3.3**
UPC	**Upice**	**78.01**	**41**	*e*P	**P**	**21 08 58.9**	**+0.9**
TREC	**Trest**	**78.02**	**42**	*e*P	**P**	**21 08 59.4**	**+1.4**
TREC				*e*S	S	21 18 42.6	-9.2
TREC	**Trest**	**78.02**	**42**	*e*P	**P**	**21 08 59.4**	**+1.4**
TREC				*e*x	x	21 18 42.6	
TREC				*e*x	x	21 24 07.1	
KSP	**Ksiaz**	**78.09**	**40**	*e*P	**P**	**21 09 04.8**	**+6.4**
KSP				LMZ		21 34 23.2	
	comp=Z,15µm,26.9s						
KSP	**Ksiaz**	**78.09**	**40**	*e*P	**P**	**21 08 59.4**	**+1.0**
KSP				*e*pP	pP	21 09 01.9	+0.2
KSP				*e*S	S	21 18 49.0	-3.6
KSP				*e*SS	SS	21 23 43.0	-11
KSP				LR	LR		
	comp=Z,17µm,26.9s,MS6.2						
KSP	**Ksiaz**	**78.09**	**40**	*e*P	**P**	**21 08 59.4**	**+1.0**
KSP				e*PP	pP	21 09 01.9	+0.2
KSP				*e*S	S	21 18 49.0	-3.6
KSP				MLR	MLR		
	comp=Z,17µm,26.9s,MS6.2						
DPC	**Dobruska-Polom**	**78.25**	**41**	*e*P	**P**	**21 09 00.3**	**+1.0**
DPC				*e*S	S	21 18 52.9	-1.4
DPC				*e*SS	SS	21 23 52.2	-3.7
DPC				AMS	AMS	21 34 00.0	
	comp=Z,7µm,24.7s						
CEY	**Cerknica**	**78.29**	**46**	*i* P	**P**	**21 08 59.6**	**0.0**
CEY				*e*		21 09 05.0	
AQU	**L’Aquila**	**78.49**	**49**	*e*P	**P**	**21 09 01.9**	**+1.1**
	comp=Z,54nm,1.0s,mb5.4						
AQU	**L’Aquila**	**78.49**	**49**	*e*P	**P**	**21 09 01.9**	**+1.1**
AQU				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.4						
AQU	**L’Aquila**	**78.49**	**49**	⇑*i*P	**P**	**21 09 06.3**	**+5.5**
PERS	**Pernice**	**78.50**	**45**	*i* P	**P**	**21 09 01.3**	**+0.5**
PTQR	**Pietraquaria**	**78.58**	**49**	P	**P**	**21 09 05.0**	**+3.7**
	comp=Z,93nm,1.3s,mb5.6						
CONA	**Conrad Observa**	**78.63**	**43**	⇓*i*pP	pP	21 09 02.7	-2.0
	comp=Z,24nm,0.8s						
VRAC	**Vranov**	**78.71**	**42**	⇑*i*P	**P**	**21 09 02.6**	**+0.7**
DOBS	**Dobrina**	**78.87**	**45**	*e*P	**P**	**21 09 08.3**	**+5.4**
PPT	**Papeete**	**78.96**	**247**	*e*S	S	21 18 57.3	-5.5
	comp=Z,4µm,26.2s						
PPT				*e*SS	SS	21 24 05.4	-3.2
	comp=Z,5µm,26.5s						
PPT				*e*LR	LR	21 33 34.2	
	comp=Z,4µm,28.5s						
PPT	**Papeete**	**78.96**	**247**	*e*P	**P**	**21 09 04.9**	**+1.2**
	comp=Z,54nm,1.3s,mb5.3						
PPT				*e*S	S	21 18 57.3	-5.5
PPT				*e*SS	SS	21 24 05.4	-3.2
PPT	**Papeete**	**78.96**	**247**	*e*P	**P**	**21 09 04.9**	**+1.2**
PPT				*e*S	S	21 18 57.3	-5.5
PPT				*e*SS	SS	21 24 05.4	-3.2
PPT				pmax	pmax		
	comp=Z,54nm,1.3s						
PAE	**Paea**	**79.00**	**247**	*e*P	**P**	**21 09 05.3**	**+1.4**
	comp=Z,116nm,1.2s,mb5.7						
PAE	**Paea**	**79.00**	**247**	*e*P	**P**	**21 09 05.3**	**+1.4**
PAE				pmax	pmax		
	comp=Z,116nm,1.2s,mb5.7						
SOP	**Sopron**	**79.15**	**43**	*e*P	**P**	**21 09 05.4**	**+1.1**
MORC	**Moravsky Berou**	**79.17**	**41**	⇑P	**P**	**21 09 05.2**	**+0.9**
MORC	**Moravsky Berou**	**79.17**	**41**	⇑*i*P	**P**	**21 09 05.2**	**+0.8**
RFI	**Roccamonfina**	**79.20**	**50**	P	**P**	**21 09 07.8**	**+3.1**
	comp=Z,37nm,1.4s,mb5.1						
ZST	**Bratislava**	**79.35**	**43**	*e*P	**P**	**21 09 08.0**	**+2.6**
	comp=Z,30nm,1.2s,mb5.1						
ZST	**Bratislava**	**79.35**	**43**	*e*P	**P**	**21 09 08.0**	**+2.6**
ZST				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.1						
MODS	**Modra-Piesok**	**79.41**	**42**	*e*P	**P**	**21 09 06.4**	**+0.7**
MODS				*e*S	S	21 19 05.0	-1.8
MODS				*e*SS	SS	21 24 10.2	-3.3
RAC	**Raciborz**	**79.48**	**41**	*e*P	**P**	**21 09 10.5**	**+4.4**
RAC				LR	LR		
	comp=Z,6µm,18.7s,MS6.0						
OKC	**Ostrava-Krasne**	**79.52**	**41**	*e*P	**P**	**21 09 07.3**	**+1.0**
OKC				*e*S	S	21 19 12.3	+4.4
OKC				*e*SS	SS	21 24 25.6	+11
OKC	**Ostrava-Krasne**	**79.52**	**41**	*e*P	**P**	**21 09 07.3**	**+1.0**
OKC				*e*S	S	21 19 12.3	+4.4
OKC	**Ostrava-Krasne**	**79.52**	**41**	*e*P	**P**	**21 09 07.3**	**+1.0**
OKC				*e*S	S	21 19 12.3	+4.4
OKC				*e*SS	SS	21 24 25.6	+11
OKC				AMS	AMS	21 36 00.0	
	comp=Z,6µm,22.9s						
FINES	**FINESS Array B**	**79.86**	**28**	P	**P**	**21 09 06.6**	**-1.3**
FINES				pmax	pmax		
	comp=Z,9.0nm,0.8s						
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES				MLR	MLR		
	comp=Z,5µm,21.9s						
FINES	**FINESS Array B**	**79.86**	**28**	P	**P**	**21 09 06.6**	**-1.3**
	comp=Z,8.6nm,0.8s,mb4.7,baz=256,slow=3.2,SNR=24						
FINES				PKKPbc	PKKPbc	21 27 56.6	+1.2
	comp=Z,0.8nm,0.7s,baz=270,slow=11,SNR=3.1						
FINES				LR	LR	21 39 43.6	
	comp=Z,5µm,21.9s,MS5.8,slow=32						
FIA1	**FINESS Array S**	**79.86**	**28**	*e*P	**P**	**21 09 08.4**	**+0.5**
FIA1				*e*PcP	PcP	21 09 15.1	-0.4
ADK	**Adak**	**79.93**	**321**	PFAKE		21 09 20.0	+12
ADK				LR	LR		
	comp=Z,15µm,21.0s,MS6.3						
APA	**Apatity**	**80.19**	**21**	⇑*i*P	**P**	**21 09 12.0**	**+2.4**
APA				*e*S	S	21 19 10.0	-4.4
APA				*e*PS		21 20 00.0	
APA				*e*SS	SS	21 24 33.0	+8.8
APA				pmax	pmax		
	comp=Z,230nm,2.0s,mb5.8						
APA				MLR	MLR		
	comp=Z,8µm,19.0s,MS6.1						
VYHS	**Vyhne**	**80.36**	**42**	*i* P	**P**	**21 09 11.4**	**+0.5**
	comp=Z,30nm,1.6s,mb5.0						
VYHS				*i* S	S	21 19 16.9	+0.1
VYHS				*e*SS	SS	21 24 28.0	+0.3
VYHS	**Vyhne**	**80.36**	**42**	*i* P	**P**	**21 09 11.4**	**+0.5**
VYHS				*i* S	S	21 19 16.9	+0.1
VYHS				*e*SS	SS	21 24 28.0	+0.3
VYHS				pmax	pmax		
	comp=Z,30nm,1.6s,mb5.0						
OJC	**Ojcow**	**80.41**	**40**	*e*P	**P**	**21 09 12.0**	**+0.9**
OJC				*e*S	S	21 19 16.4	-0.9
OJC				LR	LR		
	comp=Z,34µm,18.1s,MS6.7						
LVZ	**Lovozero**	**80.46**	**21**	⇓*e*P	**P**	**21 09 11.6**	**+0.6**
LVZ				LR	LR		
	comp=Z,5µm,20.0s,MS5.9						
LVZ	**Lovozero**	**80.46**	**21**	⇓*e*P	**P**	**21 09 11.5**	**+0.5**
LVZ				pmax	pmax		
	comp=Z,70nm,1.9s,mb5.3						
BUD	**Budapest**	**80.80**	**43**	*e*P	**P**	**21 09 14.7**	**+1.4**
PKSM	**Moragy**	**80.96**	**44**	⇓P	**P**	**21 09 14.8**	**+0.6**
PKSM	**Moragy**	**80.96**	**44**	⇓*i*P	**P**	**21 09 14.8**	**+0.7**
NIE	**Niedzica**	**80.99**	**41**	*e*P	**P**	**21 09 14.2**	**0.0**
SUW	**Suwalki**	**81.10**	**36**	*e*P	**P**	**21 09 17.4**	**+2.6**
SUW				LMZ		21 37 14.3	
	comp=Z,8µm,29.5s						
BILL	**Bilibino**	**81.14**	**340**	⇑*i*P	**P**	**21 09 13.2**	**-1.5**
BILL				LR	LR		
	comp=Z,16µm,20.0s,MS6.4						
BILL	**Bilibino**	**81.14**	**340**	*c i*P	**P**	**21 09 13.1**	**-1.6**
BILL				*i* S	S	21 19 27.8	+3.6
BILL				*i* SS	SS	21 24 33.1	-5.2
BILL				pmax	pmax		
	comp=Z,36nm,1.2s,mb5.2						
BILL				MLR	MLR		
	comp=Z,14µm,16.0s,MS6.4						
PSZ	**Piszkesteto**	**81.22**	**42**	⇑P	**P**	**21 09 16.8**	**+1.4**
PSZ	**Piszkesteto**	**81.22**	**42**	*e*PcP	PcP	21 09 19.7	-2.0
PSZ	**Piszkesteto**	**81.22**	**42**	⇑*i*P	**P**	**21 09 16.8**	**+1.3**
VSU	**Vasula**	**81.30**	**31**	⇓*e*P	**P**	**21 09 15.0**	**-0.7**
KECS	**Kecovo**	**81.41**	**42**	*e*P	**P**	**21 09 18.2**	**+1.7**
	comp=Z,8.7nm,1.1s,mb4.6						
KECS	**Kecovo**	**81.41**	**42**	*e*P	**P**	**21 09 18.2**	**+1.7**
KECS				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
JOF	**Joensuu**	**81.50**	**26**	*e*p	**P**	**21 09 16.6**	**-0.1**
	comp=Z,8.1nm,0.6s,mb4.8						
STHS	**Stebnicka Huta**	**81.56**	**41**	*e*P	**P**	**21 09 19.4**	**+2.1**
	comp=Z,12nm,1.0s,mb4.8						
STHS	**Stebnicka Huta**	**81.56**	**41**	*e*P	**P**	**21 09 19.4**	**+2.1**
STHS				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
TIP	**Timpagrande**	**81.85**	**51**	P	**P**	**21 09 23.9**	**+4.9**
KOLS	**Kolonicke sedl**	**82.36**	**41**	*e*P	**P**	**21 09 25.1**	**+3.6**
KOLS				*e*SS	SS	21 24 56.3	-1.2
KWP	**Kalwaria**	**82.38**	**40**	*e*P	**P**	**21 09 24.4**	**+2.8**
KWP				LMZ		21 36 38.1	
	comp=Z,6µm,31.9s						
PUL	**Pulkovo**	**82.45**	**29**	⇑*e*P	**P**	**21 09 23.3**	**+1.6**
UZH	**Uzhgorod**	**82.48**	**41**	*e*P	**P**	**21 09 22.0**	**-0.1**
UZH				*e*S	S	21 19 39.0	+0.2
UZH				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.5						
BZS	**Buzias**	**83.11**	**44**	P	**P**	**21 09 26.2**	**+0.7**
BZS	**Buzias**	**83.11**	**44**	⇓*i*P	**P**	**21 09 26.2**	**+0.7**
LVV	**L’vov**	**83.11**	**40**	*e*P	**P**	**21 09 26.9**	**+1.5**
LVV				*e*		21 12 36.7	
LVV				*i* S	S	21 19 45.1	-0.1
LVV				*i*		21 21 01.5	
LVV				*e*		21 28 37.5	
LVV				MLR	MLR		
	comp=E,2µm,19.0s						
LVV				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
DRGR		**83.41**	**43**	P	**P**	**21 09 28.6**	**+1.7**
DRGR		**83.41**	**43**	⇑*i*P	**P**	**21 09 28.3**	**+1.3**
MNK	**Minsk**	**83.44**	**34**	*e*P	**P**	**21 09 28.0**	**+1.0**
TRIS	**Tristan da Cun**	**83.81**	**133**	P	**P**	**21 09 19.5**	**-10**
TRIS				*e*S	S	21 19 43.6	-8.8

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TRIS                                 LR       LR
      comp=Z,8µm,20.0s,MS6.1
GZR   Gura Zlata        83.95  44    P        P        21 09 30.6 +0.8
OHR   Ohrid             84.14  49   eP        P        21 09 29.1  -1.7
SKO   Skopje            84.28  48   eP        P        21 09 29.3  -2.2
KRUS  Krusevo           84.36  48   eP        P        21 09 30.5  -1.5
BIA   Bitola            84.54  49   eP        P        21 09 30.9  -1.9
PMSA  Palmer Station    84.63 174    PFAKE             21 09 40.0 +7.4
PMSA                                 LR       LR
      comp=Z,16µm,19.0s,MS6.4
BURAR Bucovina Array    84.68  41  ⇑P         P        21 09 35.9 +2.4
BURAR Bucovina Array    84.68  41⇑iP          P        21 09 35.8 +2.4
SMY   Shemya            84.86 324    PFAKE             21 09 50.0  +16
SMY                                  LR       LR
      comp=Z,10µm,19.0s,MS6.2
CRAR  CRAIOVA           85.03  45    P        P        21 09 38.2 +2.9
VTS   Vitosha           85.28  47    P        P        21 09 36.7 +0.2
VTS                                ⇓P         pP       21 09 39.8  -0.1
VTS   Vitosha           85.28  47    P        P        21 09 36.7 +0.1
VTS                                 e         pP       21 09 39.8  -0.1
VTS   Vitosha           85.28  47⇓iP          P        21 09 39.8 +3.2
VAY   Valandovo         85.31  48   eP        P        21 09 34.9  -1.8
VOIR                    85.42  43  ⇓P         P        21 09 39.2 +2.0
VOIR                    85.42  43⇓iP          P        21 09 39.2 +2.0
KIEV  Kiev              85.81  37   eP        P        21 09 36.8  -2.2
      comp=Z,35nm,1.3s,mb5.4
KIEV                                ePP       PP       21 12 56.2  -1.7
KIEV                                 LR       LR
      comp=Z,7µm,19.0s,MS6.1
KIEV  Kiev              85.81  37   eP        P        21 09 36.8  -2.2
KIEV                                e                  21 12 56.3
KIEV                                 pmax     pmax
      comp=Z,35nm,1.3s,mb5.4
KIEV                                 MLR      MLR
      comp=Z,7µm,19.0s,MS6.1
AKASG Malin Array Be    85.81  37    P        P        21 09 37.8  -1.2
AKASG                                pmax     pmax
      comp=Z,4.0nm,0.8s
AKASG                                MLR      MLR
      comp=Z,6µm,18.6s
AKASG Malin Array Be    85.81  37    P        P        21 09 37.8  -1.2
      comp=Z,4.2nm,0.8s,mb4.7,baz=294,slow=3.7,SNR=16
AKASG                                LR       LR       21 49 01.6
      comp=Z,6µm,18.6s,MS6.0,baz=305,slow=36
AKBB  Malin Array Si    85.81  37   eP        P        21 09 39.1 +0.1
AKBB                                ePP       PP       21 12 56.2  -1.8
MLR   Muntele Rosu      85.98  43    P        P        21 09 40.5 +0.5
MLR   Muntele Rosu      85.98  43⇑iP          P        21 09 42.6 +2.6
VRI   Vrincioaia        86.33  43  ⇓P         P        21 09 44.8 +3.1
VRI   Vrincioaia        86.33  43⇓iP          P        21 09 44.8 +3.1
KIS   Kishinev          87.17  41   eP        P        21 09 48.0 +2.2
KIS                                 eS        S        21 20 24.0  -1.5
KIS                                 eSS       SS       21 26 08.0  -0.3
KIS                                 eSSS               21 29 43.0
KIS                                  pmax     pmax
      comp=Z,250nm,1.5s,mb6.2
KIS   Kishinev          87.17  41   eP        P        21 09 48.0 +2.2
      comp=Z,300nm,1.5s,mb6.3
KIS                                 eS        S        21 20 24.0  -1.5
TIXI  Tiksi             87.28 352⇓eP          P        21 09 45.8   0.0
TIXI                                 LR       LR
      comp=Z,14µm,20.0s,MS6.4
TIXI  Tiksi             87.28 352   eP        P        21 09 43.3  -2.5
TIXI                                eS        S        21 20 11.7   -14
TIXI                                 pmax     pmax
      comp=Z,24nm,1.2s,mb5.3
TIXI                                 MLR      MLR
      comp=Z,13µm,20.0s,MS6.3
TIXI                                 MLR      MLR
      comp=N,12µm,19.0s,MS6.4
TIXI                                 MLR      MLR
      comp=E,6µm,18.0s,MS6.4
OBN   Obninsk           87.63  31⇓eP          P        21 09 49.5 +1.6
OBN                                  LR       LR
      comp=Z,5µm,17.0s,MS6.0
OBN   Obninsk           87.63  31⇑iP          P        21 09 49.5 +1.6
OBN                                 i                  21 13 11.5
OBN                                 i S       S        21 20 21.7  -7.9
OBN                                 i SS      SS       21 26 21.0 +6.4
OBN                                  pmax     pmax
      comp=Z,107nm,1.5s,mb5.8
OBN                                  MLR      MLR
      comp=Z,5µm,17.0s,MS6.0
MOS   Moscow            87.82  31   eP        P        21 09 50.7 +2.0
MOS                                 e                  21 13 18.6
MOS                                 e                  21 20 12.7
MOS                                 eS        S        21 20 34.4 +3.0
MOS                                 eSSS               21 29 54.6
MOS                                  pmax     pmax
      comp=Z,77nm,1.6s,mb5.7
MOS                                  MLR      MLR
      comp=E,4µm,17.0s
PRGR  Permogore         87.83  23   eP        P        21 09 52.5 +3.8
PRGR                                 pmax     pmax
      comp=Z,13nm,0.8s,mb5.2
TIRR  Tirgusor          88.00  43  ⇓P         P        21 09 52.0 +2.2
TIRR  Tirgusor          88.00  43⇓iP          P        21 09 52.0 +2.2
SEY   Seymchan          88.82 339⇑eP          P        21 09 52.2  -1.1
VRSR  Storozhevoye      91.05  34   eP        P        21 10 05.0 +1.0
VRSR                                 pmax     pmax
      comp=Z,5.0nm,1.4s,mb4.7
VRSR                                 pmax     pmax
      comp=N,2.0nm,1.1s
VRSR                                 pmax     pmax
      comp=E,3.0nm,0.9s
SIM   Simferopol'       91.39  41    P        P        21 10 11.0 +5.3
SIM                                 e                  21 20 37.0
SIM                                 eS        S        21 21 08.0 +2.9
SIM                                 eSS       SS       21 27 19.0 +9.4
SIM                                  MLR      MLR
      comp=Z,5µm,17.5s,MS6.0
MA2   Magadan           91.71 337⇓eP          P        21 10 05.9  -1.0
MA2                                  LR       LR
      comp=Z,11µm,20.0s,MS6.3
MA2   Magadan           91.71 337c iP         P        21 10 05.9  -1.0
MA2                                 e                  21 13 46.7
MA2                                 eS        S        21 21 02.9  -4.5
MA2                                 eSS       SS       21 27 08.3  -5.0
MA2                                  pmax     pmax
      comp=Z,20nm,0.8s,mb5.5
MA2                                  MLR      MLR
      comp=Z,33µm,21.4s,MS6.8
ISP   Isparta           92.32  49    P        P        21 10 11.0 +0.8
      comp=Z,56nm,1.6s,mb5.6
ISP                                 ePP       PP       21 13 51.3 +0.9
ISP   Isparta           92.32  49    P        P        21 10 11.0 +0.8
ISP                                 e                  21 13 51.3
ISP                                  pmax     pmax
      comp=Z,55nm,1.6s,mb5.6
VRHR  Novokhopersk      92.39  33   eP        P        21 10 08.7  -1.5
VRHR                                 pmax     pmax
      comp=Z,10.0nm,0.4s,mb5.5
VRHR                                 pmax     pmax
      comp=N,20nm,0.5s
VRHR                                 pmax     pmax
      comp=E,20nm,0.6s
PET   Petropavlovsk     92.69 330   eP        P        21 10 08.0  -3.6
PET                                 ePP       PP       21 13 52.8 +0.2
PET                                 eS        SP       21 22 23.4  -3.4
PET                                  LR       LR
      comp=Z,8µm,21.0s,MS6.1
ANTO  Ankara            92.97  46   eP        P        21 10 18.7 +5.5
ANTO                                ePP       PP       21 13 54.3  -1.1
ANTO                                eS        S        21 21 00.1   -19
ANTO                                 LR       LR
      comp=Z,3µm,22.0s,MS5.7
ANTO  Ankara            92.97  46   eP        P        21 10 18.7 +5.6
ANTO                                e                  21 13 54.3
ANTO                                 MLR      MLR
      comp=Z,3µm,22.0s,MS5.7
ANN   Anapa             93.50  40   eP        P        21 10 12.7  -2.7
ANN                                 e*PP      pP       21 10 17.6  -1.2
ANN                                 ePS       PS       21 22 39.4 +1.7
ANN                                  pmax     pmax
      comp=Z,55nm,1.6s,mb5.7
ANN                                  MLR      MLR
      comp=N,3µm,18.0s,MS5.9
ANN                                  MLR      MLR
      comp=E,3µm,18.0s,MS5.9
ANN                                  MLR      MLR
      comp=Z,5µm,18.0s,MS6.0
BR131 Keskin Array S    93.61  46   eP        P        21 10 12.2  -3.9
BR131                               ePP       PP       21 13 53.4  -7.0
BR131                               eS        SP       21 22 33.2  -4.6
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BR131                                LR       LR
      comp=Z,3µm,22.0s,MS5.7
BRTR  Keskin Array B    93.61  46    P        P        21 10 17.9 +1.8
BRTR                                 pmax     pmax
      comp=Z,3.0nm,1.0s
BRTR                                 MLR      MLR
      comp=Z,2µm,20.6s
BRTR  Keskin Array B    93.61  46    P        P        21 10 17.9 +1.8
      comp=Z,3.1nm,1.0s,mb4.7,baz=289,slow=2.3,SNR=11
BRTR                                 LR       LR       21 45 43.6
      comp=Z,2µm,20.6s,MS5.6,baz=139,slow=31
SOC   Sochi             95.54  40   eP        P        21 10 21.6  -3.2
SOC                                 ePPP               21 16 26.6
SOC                                 eS        SKSac    21 20 57.0  -4.2
SOC                                 e                  21 21 41.0
SOC                                 e                  21 23 02.4
SOC                                  MLR      MLR
      comp=Z,3µm,20.0s,MS5.8
YAK   Yakutsk           95.82 347⇑eP          P        21 10 26.8 +1.1
YAK                                  LR       LR
      comp=Z,9µm,19.0s,MS6.3
YAK   Yakutsk           95.82 347   eP        P        21 10 32.3 +6.6
YAK                                 eS        S        21 21 43.4  -0.1
YAK                                  pmax     pmax
      comp=Z,10.0nm,1.2s,mb5.1
YAK                                  pmax     pmax
      comp=N,5.0nm,1.5s
YAK                                  pmax     pmax
      comp=E,4.0nm,1.2s
YAK                                  smax
      comp=E,858nm,18.8s
YAK                                  smax
      comp=N,507nm,15.5s
YAK                                  MLR      MLR
      comp=Z,9µm,19.0s,MS6.3
YAK                                  MLR      MLR
      comp=N,9µm,20.0s,MS6.4
YAK                                  MLR      MLR
      comp=E,7µm,18.0s,MS6.4
ARU   Arti              96.24  22⇓eP          P        21 10 27.0  -0.7
ARU                                  LR       LR
      comp=Z,9µm,22.0s,MS6.2
ARU   Arti              96.24  22⇑iP          P        21 10 27.3  -0.4
ARU                                 e                  21 14 20.6
ARU                                 eS        SKSac    21 21 03.6  -0.8
ARU                                 ePS       PS       21 23 09.0 +1.7
ARU                                  pmax     pmax
      comp=Z,11nm,1.4s,mb5.1
KIV   Kislovodsk        97.10  39⇑eP          P        21 10 33.8 +1.9
KIV                                  LR       LR
      comp=Z,3µm,19.0s,MS5.8
KIV   Kislovodsk        97.10  39⇑eP          P        21 10 33.7 +1.8
KIV                                  pmax     pmax
      comp=Z,13nm,1.3s,mb5.2
KIV                                  MLR      MLR
      comp=Z,4µm,21.0s,MS5.8
MALT  Malatya           97.55  45  ⇑P         P        21 10 39.3 +5.3
MALT  Malatya           97.55  45⇑iP          P        21 10 39.3 +5.3
TSUM  Tsumeb           101.60 106    PFAKE             21 11 00.0 +8.2
TSUM                                 LR       LR
      comp=Z,8µm,21.0s,MS6.2
BOD   Bodaibo          102.38 353   eP        Pdif     21 10 55.4 +0.1
BRVK  Borovoye         102.92  19    PFAKE             21 11 10.0  +12
BRVK                                 LR       LR
      comp=Z,7µm,20.0s,MS6.2
YSS   Yuzh-Sakhalins   104.26 332    PFAKE             21 11 10.0 +6.4
YSS                                  LR       LR
      comp=Z,10µm,19.0s,MS6.4
ZALV  Zalesovo Beam    105.54  10    PKPdf    PKiKP    21 15 19.2  -3.4
ZALV                                 PP       PP       21 15 28.7  -1.5
ZALV  Zalesovo Beam    105.54  10    PKiKP    PKiKP    21 15 19.2  -3.4
      comp=Z,0.6nm,0.6s,baz=336,slow=3.2,SNR=3.1
ZALV                                 PP       PP       21 15 28.7  -1.5
      comp=Z,0.7nm,0.6s,baz=338,slow=6.2,SNR=4.3
HABR  Khabarovsk       106.12 338   eP        Pdif     21 11 10.4  -1.5
HABR                                eSS       SS       21 30 36.8 +1.7
RAO   Raoul Island     107.27 244    PFAKE             21 15 40.0  +14
RAO                                  LR       LR
      comp=Z,2µm,19.0s,MS5.7
KURK  Kurchatov        107.31  15    PFAKE             21 15 40.0  +14
KURK                                 LR       LR
      comp=Z,7µm,19.0s,MS6.3
SUR   Sutherland       107.69 119    PFAKE             21 15 40.0  +13
SUR                                  LR       LR
      comp=Z,9µm,20.0s,MS6.3
ERM   Erimo            107.83 329    PFAKE             21 15 40.0  +13
ERM                                  LR       LR
      comp=Z,7µm,19.0s,MS6.2
LBTB  Lobatse          110.25 110    PFAKE             21 15 40.0 +7.8
LBTB                                 LR       LR
      comp=Z,10µm,20.0s,MS6.4
LSZ   Lusaka           110.28 100    PFAKE             21 15 40.0 +7.6
LSZ                                  LR       LR
      comp=Z,14µm,19.0s,MS6.6
BOSA  Boshof           110.69 114    PFAKE             21 15 40.0 +7.1
BOSA                                 LR       LR
      comp=Z,13µm,20.0s,MS6.5
BOSA  Boshof           110.69 114    PP       PP       21 16 05.4  -4.4
      comp=Z,5.2nm,0.9s,baz=274,slow=1.7,SNR=5.1
BOSA                                 PKKPbc   PKKPbc   21 26 30.9  -0.9
      comp=Z,1.7nm,0.7s,baz=101,slow=5.2,SNR=2.8
MDJ   Mudanjiang       111.35 339    PDIF     Pdif     21 11 32.8  -2.4
MDJ                                  SS       SS       21 31 43.8  -1.9
MDJ                                  LR       LR
      comp=N,9µm,28.1s,MS6.6
MDJ                                  LR       LR
      comp=E,18µm,26.1s,MS6.6
MDJ                                  LR       LR
      comp=Z,11µm,18.1s
MKAR  Makanchi Array   111.85  14    PKPdf    PKiKP    21 15 32.7  -2.0
MKAR                                 PP       PP       21 16 13.9  -2.3
MKAR                                 PKKPbc   PKKPbc   21 26 29.1 +0.6
MKAR  Makanchi Array   111.85  14  i PKIKP    PKiKP    21 15 32.7  -2.0
MKAR                                                   21 16 14.0
MKAR                                 pmax     pmax
      comp=Z,1.0nm,1.0s
MKAR                                 pmax     pmax
      comp=Z,1.0nm,0.7s
MKAR                                 pmax     pmax
      comp=Z,1.0nm,0.9s
MKAR  Makanchi Array   111.85  14    PKiKP    PKiKP    21 15 32.7  -2.0
      comp=Z,0.7nm,1.0s,baz=338,slow=3.4,SNR=3.4
MKAR                                 PP       PP       21 16 13.9  -2.3
      comp=Z,0.6nm,0.7s,baz=323,slow=3.6,SNR=3.3
MKAR                                 PKKPbc   PKKPbc   21 26 29.1 +0.6
      comp=Z,0.6nm,0.9s,baz=188,slow=2.2,SNR=2.6
ULN   Ulaanbaatar      112.87 356    PFAKE             21 15 50.0  +13
ULN                                  LR       LR
      comp=Z,7µm,20.0s,MS6.3
SONM  Songino Array    112.94 356    PKPdf    PKiKP    21 15 35.6  -1.1
SONM                                 PP       PP       21 16 21.0  -2.9
SONM                                 PKKPbc   PKKPbc   21 26 24.8  -0.2
SONM  Songino Array    112.94 356  i PKIKP    PKiKP    21 15 35.6  -1.1
SONM                                 pmax     pmax
      comp=Z,1.0nm,0.7s
SONM                                 pmax     pmax
      comp=Z,2.0nm,1.0s
SONM                                 pmax     pmax
      comp=Z,2.0nm,0.9s
SONM  Songino Array    112.94 356    PKiKP    PKiKP    21 15 35.6  -1.1
      comp=Z,0.5nm,0.7s,baz=321,slow=1.8,SNR=3.4
SONM                                 PP       PP       21 16 21.0  -2.9
      comp=Z,1.9nm,1.0s,baz=341,slow=3.1,SNR=2.8
SONM                                 PKKPbc   PKKPbc   21 26 24.8  -0.2
      comp=Z,1.5nm,0.9s,baz=185,slow=3.2,SNR=9.4
AAK   Ala-Archa        113.41  21⇑ePKP        PKiKP    21 15 39.1 +1.3
AAK                                  LR       LR
      comp=Z,8µm,20.0s,MS6.3
AAK   Ala-Archa        113.41  21⇑iPKIKP      PKiKP    21 15 39.0 +1.2
CN2   Changchun        113.41 341   ePKP      PKiKP    21 15 38.5 +0.8
CN2                                  PP       PP       21 16 33.4 +5.9
CN2                                  SS       SS       21 32 15.7 +2.8
CN2                                  PP       PP
      comp=Z,200nm,4.0s
CN2                                  LR       LR
      comp=N,4µm,18.0s,MS6.4
CN2                                  LR       LR
      comp=E,7µm,18.0s,MS6.4
CN2                                  LR       LR
      comp=Z,8µm,21.0s,MS6.3
SBA   Scott Base       114.00 192    PFAKE             21 15 50.0  +12
SBA                                  LR       LR
      comp=Z,3µm,19.0s,MS5.8
MJAR  Matsushiro Arr   114.48 328    PKPdf    PKiKP    21 15 40.7 +0.7
MJAR                                 PP       PP       21 16 29.8  -5.6
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MJAR  Matsushiro Arr   114.48 328  i PKIKP    PKiKP    21 15 40.7 +0.7
MJAR                                 pmax     pmax
      comp=Z,1.0nm,0.6s
MJAR  Matsushiro Arr   114.48 328    PKiKP    PKiKP    21 15 40.7 +0.7
      comp=Z,0.5nm,0.6s,baz=21,slow=4.9,SNR=3.1
MJAR                                 PP       PP       21 16 29.8  -5.6
      comp=Z,0.2nm,0.3s,baz=286,slow=4.7,SNR=4.1
MAJO  Matsushiro       114.48 328    PFAKE             21 15 50.0  +10
MAJO                                 LR       LR
      comp=Z,7µm,19.0s,MS6.3
MAT   Matsushiro       114.48 328    PKKP     PKKPbc   21 26 23.0 +3.6
KMBO  Kilima Mbogo     114.52  82    PFAKE             21 15 50.0 +9.3
KMBO                                 LR       LR
      comp=Z,8µm,19.0s,MS6.3
KMBO  Kilima Mbogo     114.52  82    PP       PP       21 16 33.2  -4.1
      comp=Z,0.8nm,0.7s,baz=41,slow=20,SNR=3.1
SNZO  South Karori     115.07 233    PFAKE             21 15 50.0 +9.2
SNZO                                 LR       LR
      comp=Z,3µm,19.0s,MS5.9
VNDA  Vanda            115.10 192    PFAKE             21 15 50.0  +10
VNDA                                 LR       LR
      comp=Z,3µm,20.0s,MS5.9
WMQ   Urumqi           115.81  11   ePKP      PKPdf    21 15 40.8  -1.6
WMQ                                  PP       PP       21 16 48.3 +4.0
WMQ                                  SKS      SKSdf    21 22 51.8  -2.9
WMQ                                  SKKS     SKKSac   21 23 41.8  -5.3
WMQ                                  SS       SS       21 32 44.8 +0.5
WMQ                                  PP       PP
      comp=Z,82nm,9.9s
WMQ                                  LR       LR
      comp=N,6µm,20.0s,MS6.3
WMQ                                  LR       LR
      comp=E,5µm,18.4s,MS6.3
WMQ                                  LR       LR
      comp=Z,6µm,25.0s
KSH   Kashi            116.69  22   ePKP      PKPdf    21 15 47.1 +2.9
KSH                                 ePKS               21 19 22.0
KSH                                 ePPP               21 19 55.0
KSH                                 eSKS      SKSdf    21 22 54.0  -2.6
KSH                                  PP       PP
      comp=Z,597nm,6.0s
KSH                                  LR       LR
      comp=N,6µm,18.9s,MS6.4
KSH                                  LR       LR
      comp=E,6µm,18.0s,MS6.4
KSH                                  LR       LR
      comp=Z,10µm,20.0s,MS6.4
KSRS  Korea Array      118.25 336    PKP      PKPdf    21 15 45.4  -1.9
      comp=Z,2.1nm,0.8s,baz=6.3,slow=1.9,SNR=7.3
INCN  Inchon           118.70 337    PFAKE             21 16 00.0  +12
INCN                                 LR       LR
      comp=Z,8µm,21.0s,MS6.3
HHC   Hu-ho-hao-te     119.35 351   ePKP      PKPdf    21 15 46.8  -2.5
HHC                                  PP       PP       21 17 10.8 +1.9
HHC                                  PKS               21 19 21.8
HHC                                  SKS      SKSdf    21 22 57.9  -3.7
HHC                                  SKKS     SKKSac   21 24 03.5  -7.2
HHC                                  SS       SS       21 33 33.2 +3.0
HHC                                  PP       PP
      comp=Z,193nm,5.5s
HHC                                  LR       LR
      comp=N,4µm,22.8s,MS6.2
HHC                                  LR       LR
      comp=E,5µm,19.8s,MS6.2
HHC                                  LR       LR
      comp=Z,5µm,24.7s,MS6.1
GTA   Gaotai           121.47   2    PKP      PKPdf    21 15 50.1  -3.3
GTA                                  XPKP              21 15 56.5
GTA                                  PP       PP       21 17 23.9 +0.5
GTA                                  PKS               21 19 25.2
GTA                                  PPP               21 19 55.3
GTA                                  SKS      SKSdf    21 22 57.4  -8.3
GTA                                  SS       SS       21 33 57.8 +0.4
GTA                                  PP       PP
      comp=Z,289nm,8.4s
GTA                                  LR       LR
      comp=N,2µm,19.0s,MS6.1
GTA                                  LR       LR
      comp=E,3µm,19.4s,MS6.1
GTA                                  LR       LR
      comp=Z,2µm,20.9s,MS5.7
HNR   Honiara          122.85 271    PFAKE             21 16 10.0  +13
HNR                                  LR       LR
      comp=Z,16µm,20.0s,MS6.7
NJ2   Nanjing          126.23 342   ePKP      PKPdf    21 15 58.1  -4.6
NJ2                                  PP       PP       21 17 57.0 +1.3
NJ2                                  SKS      SKSdf    21 23 06.0  -8.9
NJ2                                  SKKS     SKKSac   21 24 46.0  -9.5
NJ2                                  PP       PP
      comp=Z,180nm,7.3s
NJ2                                  LR       LR
      comp=N,4µm,30.6s
NJ2                                  LR       LR
      comp=E,11µm,36.4s
NJ2                                  LR       LR
      comp=Z,11µm,36.4s
SSE   Sheshan          126.38 339    PKP      PKPdf    21 16 02.5  -0.5
SSE                                  PP       PP       21 18 00.7 +4.0
SSE                                  SS       SS       21 35 00.3 +0.3
SSE                                  PP       PP
      comp=Z,78nm,6.5s
SSE                                  LR       LR
      comp=N,4µm,18.2s,MS6.6
SSE                                  LR       LR
      comp=E,11µm,18.1s,MS6.6
SSE                                  LR       LR
      comp=Z,7µm,15.2s,MS6.4
XAN   Xi'an            126.40 352    PKP      PKPdf    21 16 02.9  -0.1
XAN                                  LR       LR
      comp=N,6µm,24.6s
XAN                                  LR       LR
      comp=E,11µm,19.1s
XAN                                  LR       LR
      comp=Z,8µm,20.6s,MS6.4
WHN   Wuhan            128.85 346   ePKP      PKPdf    21 16 05.2  -2.6
WHN                                  PP       PP       21 18 16.8 +3.9
WHN                                  LR       LR
      comp=Z,14µm,20.2s,MS6.6
CD2   Chengdu          129.94 358   ePKP      PKPdf    21 16 06.0  -3.8
CD2                                  XPKP              21 16 12.2
CD2                                  PP       PP       21 18 20.8 +1.0
CD2                                  PKS               21 19 41.0
CD2                                  SKS      SKSdf    21 23 12.3   -10
CD2                                  PP       PP
      comp=Z,330nm,10.8s
CD2                                  LR       LR
      comp=N,12µm,21.6s,MS6.7
CD2                                  LR       LR
      comp=E,12µm,20.4s,MS6.7
CD2                                  LR       LR
      comp=Z,9µm,22.8s,MS6.4
KOLN  Koldanda         129.98  21   eP        PKPdf    21 16 08.3  -1.7
      comp=Z,75nm,1.3s
GKN   Gorkha           130.10  20   eP        PKPdf    21 16 08.3  -1.9
      comp=Z,162nm,1.5s
LSA   Lhasa            130.16  12    PKP      PKPdf    21 16 09.8  -0.5
KKN   Kakani           130.50  19   eP        PKPdf    21 16 09.1  -1.9
      comp=Z,41nm,1.2s
GUN   Gumba            130.57  18   eP        PKPdf    21 16 09.4  -1.7
DMN   Daman            130.62  19   eP        PKPdf    21 16 10.2  -1.0
      comp=Z,65nm,1.3s
PKI   Pulchoki         130.75  19   eP        PKPdf    21 16 09.2  -2.2
JIRN  Jiri             130.90  18   eP        PKPdf    21 16 11.3  -0.4
      comp=Z,35nm,1.2s
TAPN  Taplejung        131.62  17   eP        PKPdf    21 16 12.4  -0.7
      comp=Z,112nm,1.5s
TATO  Taipei           131.83 336    PFAKE             21 16 20.0 +6.4
TATO                                 LR       LR
      comp=Z,6µm,20.0s,MS6.3
ODAN  Odare            132.00  17   eP        PKPdf    21 16 12.9  -0.9
      comp=Z,52nm,1.2s
MSEY  Mahe Island      132.76  78    PFAKE             21 16 30.0  +14
MSEY                                 LR       LR
      comp=Z,6µm,21.0s,MS6.3
CASY  Casey            132.78 185    PFAKE             21 16 30.0  +16
CASY                                 LR       LR
      comp=Z,6µm,20.0s,MS6.3
PMG   Port Moresby     134.88 276    PFAKE             21 16 30.0  +10
PMG                                  LR       LR
      comp=Z,3µm,22.0s,MS5.9
TAU   Tasmania Unive   135.08 228    PFAKE             21 16 30.0  +11
TAU                                  LR       LR
      comp=Z,3µm,20.0s,MS6.0
KMI   Kunming          135.73 359    PKP      PKPdf    21 16 22.4 +1.5
KMI                                  XPKP              21 16 26.6
```

KMI				PP	PP	21 19 02.3	+5.3
KMI				PKS		21 19 55.7	
KMI				PPP		21 21 56.9	
KMI				SKS	SKSdf	21 23 30.5	-1.9
KMI				SKKS	SKKSac	21 25 50.8	-3.3
KMI				SS	SS	21 36 55.6	+1.6
KMI				PP	PP		
	comp=Z,159nm,4.8s						
KMI				LR	LR		
	comp=N,6μm,19.5s,MS6.5						
KMI				LR	LR		
	comp=E,6μm,22.0s,MS6.5						
KMI				LR	LR		
	comp=Z,5μm,17.6s,MS6.3						
HYB	**Hyderabad**	**136.97**	**33**	*e*PKIKP	PKPdf	21 16 24.5	+1.2
HYB	**Hyderabad**	**136.97**	**33**	*i* PKP	PKPdf	21 16 24.5	+1.2
HYB				*e*PP	PP	21 19 10.0	+4.5
HYB				*e*SKP		21 19 56.0	
HYB				*e*SS	SS	21 37 10.0	-0.1
CTAO	**Charters Tower**	**138.06**	**261**	PFAKE		21 16 40.0	+15
CTAO				LR	LR		
	comp=Z,2μm,20.0s,MS5.8						
QIZ	**Qiongzhong**	**140.96**	**348**	*e*PKP	PKPdf	21 16 30.8	+0.2
QIZ				*e*PP	PP	21 19 37.0	+7.5
QIZ				PKS		21 20 05.0	
QIZ				LR	LR		
	comp=E,9μm,25.7s						
QIZ				LR	LR		
	comp=Z,7μm,23.0s,MS6.4						
CHTO	**Chiang Mai**	**141.94**	**4**	*e*PKPdf	PKPdf	21 16 32.4	+0.1
CHTO				LR	LR		
	comp=Z,6μm,22.0s,MS6.3						
CHTO	**Chiang Mai**	**141.94**	**4**	*e*PKIKP	PKPdf	21 16 32.4	0.0
CHTO				MLR	MLR		
	comp=Z,6μm,22.0s,MS6.3						
STKA	**Stephens Creek**	**142.06**	**243**	*e*PKP	PKPdf	21 16 28.7	-3.5
	comp=Z,17nm,1.1s						
STKA	**Stephens Creek**	**142.06**	**243**	*e*PKP	PKPdf	21 16 28.7	-3.5
STKA				*e*PKPdf	PKPdf	21 16 30.8	-1.4
STKA	**Stephens Creek**	**142.06**	**243**	PKP	PKPdf	21 16 29.9	-2.3
	comp=Z,3.7nm,0.6s,baz=154,slow=1.0,SNR=7.3						
CM31	**Chiang Mai Arr**	**142.29**	**4**	PFAKE		21 16 40.0	+7.0
CM31				LR	LR		
	comp=Z,4μm,20.0s,MS6.2						
BDT	**Bhumibol Dam**	**143.50**	**4**	P	PKPdf	21 16 38.0	+2.8
KKTK	**Khon Kaen**	**144.47**	**358**	PN	PKPdf	21 16 36.0	-0.9
KKTK				PG	PKPdf	21 16 38.0	+1.1
DAV	**Davao City (W)**	**144.64**	**316**	PFAKE		21 16 50.0	+13
DAV				LR	LR		
	comp=Z,4μm,21.0s,MS6.2						
NST	**Nakhon Sawan**	**145.12**	**2**	P	PKPbc	21 16 36.0	-1.4
PALK	**Pallekele**	**146.44**	**40**	PFAKE		21 16 50.0	+10
PALK				LR	LR		
	comp=Z,6μm,22.0s,MS6.3						
NNT	**Nongplab**	**148.16**	**3**	P	PKPbc	21 16 50.5	+4.1
WB2	**Warramunga Arr**	**149.18**	**263**	*e*PKP	PKPdf	21 16 46.8	+2.2
WB2	**Warramunga Arr**	**149.18**	**263**	*e*PKP	PKPdf	21 16 46.8	+2.2
WRA	**Warramunga Arr**	**149.19**	**263**	PKPbc	PKPbc	21 16 46.9	-1.9
WRA	**Warramunga Arr**	**149.19**	**263**	PKP2	PKPbc	21 16 46.9	-2.0
WRA				pmax	pmax		
	comp=Z,28nm,0.8s						
WRA	**Warramunga Arr**	**149.19**	**263**	PKPbc	PKPbc	21 16 46.9	-1.9
	comp=Z,28nm,0.8s,baz=86,slow=3.1,SNR=48						
KAKA	**Kakadu**	**149.65**	**278**	*e*PKP	PKPdf	21 16 48.6	+3.1
	comp=Z,45nm,0.8s						
KAKA	**Kakadu**	**149.65**	**278**	*e*PKP	PKPdf	21 16 48.6	+3.1
KKM	**Kota Kinabalu**	**150.90**	**329**	*e*PKPdf	PKPdf	21 16 48.4	+0.8
FORT	**Forrest**	**153.56**	**239**	*e*PKP	PKPdf	21 16 50.8	-0.2
	comp=Z,24nm,0.8s						
FORT	**Forrest**	**153.56**	**239**	*e*PKP	PKPdf	21 16 50.8	-0.2
FITZ	**Fitzroy Crossi**	**157.20**	**269**	*e*PKP	PKPdf	21 17 11.2	+15
	comp=Z,16nm,0.9s						
FITZ	**Fitzroy Crossi**	**157.20**	**269**	*e*PKP	PKPdf	21 17 11.2	+15
NWAO	**Narrogin (SRO)**	**160.58**	**223**	PFAKE		21 17 10.0	+10
NWAO				LR	LR		
	comp=Z,2μm,20.0s						
COCO	**West Island**	**171.49**	**33**	PFAKE		21 17 20.0	+11
COCO				LR	LR		
	comp=Z,4μm,22.0s						

IDC ***04*** *21:17:42.6±0.5, 55.67S×123.52W, h0^{km}, mb4.7/11, mb1 4.8/11, mb1mx4.7/13, mbtmp4.7/11, MS5.9/11, Ms1 5.9/11, ms1mx5.6/13, Error ellipse: s-maj=21.5km s-min=16.8km az=167.0*

ISCJB ***04*** *21:17:45.6±0.3, 55.92S±0.06×122.8W±0.1, h10^{km}, mb5.1/28, MS6.0/186, Error ellipse: s-maj=9.5km s-min=8.6km az=14.2*

NEIC ***04*** *21:17:46.8±0.2, 55.88S×122.72W, h10^{km}, mb5.2/22, MS5.9/159, Error ellipse: s-maj=14.5km s-min=11.9km az=175.0*

GCMT ***04*** *21:17:46.8±0.1, 56.11S×123.10W, h12^{km}, MW6.2/104, Moment Tensor Solution. s96,c190; s104,c378; Duration: 3^{s}0 Moment tensor: Scale 10^{18}Nm; M_{rr}-0.02±.02; $M_{\theta\theta}$1.23±.02; $M_{\phi\phi}$-1.20±.02; $M_{r\theta}$0.01±.05; $M_{\theta\phi}$1.87±.01; $M_{\phi r}$-0.28±.05; Best double couple: $M_0$2.24700×10^{18} NP1:ϕ_s286.00000°, δ83.00000°, λ-2.00000°. NP2:ϕ_s17.00000°, δ88.00000°, λ-173.00000°. Principal axes: T 2.2510, Plg3.0000°, Azm151.0000°; N -0.0010, Plg83.0000°, Azm36.0000°; P -2.2430, Plg6.0000°, Azm242.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

BJI ***04*** *21:17:47.7, 55.90S×122.70W, h10^{km}, mB5.8, Ms6.5, Msz6.3*

MOS ***04*** *21:17:47.4±2.9, 56.01S×122.56W, h10^{km}, mb5.3/14, MS5.9/44, Error ellipse: s-maj=19.4km s-min=10.2km az=87.0*

ISC 04 21:17:47.1±0.3**, 55.95S**±0.06×**123.0W**±0.1**, h10**^{km}**, n558,** σ**1^{s}58**/91**, mb5.1**/28**, MS6.0**/186**, 18C-15D, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMSA	**Palmer Station**	**29.39**	**132**	*e*P	**P**	**21 23 49.5**	**-0.4**
	39nm,0.9s,mb5.1						
PMSA				LR	LR		
	comp=Z,38μm,20.0s,MS6.0						
PMSA	**Palmer Station**	**29.39**	**132**	P	**P**	**21 23 50.6**	**+0.6**
	comp=Z,30nm,0.9s,mb5.0,baz=252,slow=14,SNR=4.0						
PMSA				LR	LR	21 32 23.1	
	comp=Z,36μm,20.0s,MS6.0,baz=265,slow=30						
USHA	**Ushuaia**	**30.34**	**111**	P	**P**	**21 23 59.8**	**+1.2**
	comp=Z,25nm,1.0s,mb4.9,baz=218,slow=11,SNR=5.4						
USHA				LR	LR	21 33 01.3	
	comp=Z,52μm,18.0s,MS6.2,baz=217,slow=30						
SBA	**Scott Base**	**31.97**	**202**	PFAKE		21 24 30.0	+17
SBA				LR	LR		
	comp=Z,4μm,19.0s,MS5.2						
SBA	**Scott Base**	**31.97**	**202**	P	**P**	**21 24 17.0**	**+4.4**
SBA				MLR	MLR		
	comp=Z,4μm,19.0s,MS5.2						
VNDA	**Vanda**	**33.03**	**203**	*e*P	**P**	**21 24 25.3**	**+3.4**
	comp=Z,27nm,1.1s,mb5.1						
VNDA				*e*PP	PP	21 25 31.0	-5.3
VNDA				LR	LR		
	comp=Z,7μm,22.0s,MS5.3						
VNDA	**Vanda**	**33.03**	**203**	*e*P	**P**	**21 24 25.3**	**+3.4**
VNDA				*e*		21 25 31.0	
VNDA				pmax	pmax		
	comp=Z,27nm,1.1s						
VNDA				MLR	MLR		
	comp=Z,7μm,22.0s						
VNDA	**Vanda**	**33.03**	**203**	P	**P**	**21 24 23.2**	**+1.3**
	comp=Z,7.7nm,1.1s,mb4.6,baz=95,slow=7.5,SNR=4.1						
VNDA				LR	LR	21 37 01.8	
	comp=Z,6μm,18.0s,MS5.3,baz=92,slow=35						
RKT	**Rikitea**	**33.97**	**340**	*e*LR	LR	21 33 30.8	
	comp=Z,49μm,30.5s,baz=172						
RKT	**Rikitea**	**33.97**	**340**	*e*T		21 59 52.3	
	comp=Z,21nm,0.3s						
EFI	**East Falkland**	**37.32**	**111**	*e*P	**P**	**21 24 59.9**	**+0.8**
	comp=Z,325nm,1.6s,mb5.9						
EFI				LR	LR		
	comp=Z,51μm,22.0s,MS6.3						
EFI	**East Falkland**	**37.32**	**111**	*e*P	**P**	**21 24 59.9**	**+0.8**
EFI				pmax	pmax		
	comp=Z,325nm,1.6s,mb5.9						
EFI				MLR	MLR		
	comp=Z,51μm,22.0s,MS6.3						
SNZO	**South Karori**	**42.20**	**263**	P	**P**	**21 25 45.1**	**+5.3**
SNZO				LR	LR		
	comp=Z,4μm,21.0s,MS5.3						
RPZ	**Rata Peaks**	**42.63**	**258**	P	**P**	**21 25 44.0**	**+0.7**
	comp=Z,7.3nm,0.9s,baz=215,slow=18,SNR=4.4						
TVO	**Taravao**	**42.97**	**322**	*e*T		22 11 06.7	
	comp=Z,10nm,0.3s						
DRV	**Dumont d'Urvil**	**43.02**	**215**	P	**P**	**21 25 44.0**	**-2.1**
DRV				S	**S**	**21 32 10.0**	**-1.1**
DRV				L		21 35 00.0	
DRV				R		21 37 00.0	
PAE	**Paea**	**43.20**	**321**	*e*T		22 11 23.4	
	comp=Z,15nm,0.3s						
PPT	**Papeete**	**43.28**	**322**	*e*LQ		21 35 37.7	
	comp=Z,47μm,29.8s						
PPT				*e*LR	LR	21 37 39.5	
	comp=Z,38μm,29.0s,baz=164						
PPT	**Papeete**	**43.28**	**322**	*e*T		22 11 29.8	
	comp=Z,7.0nm,0.3s						
PPT	**Papeete**	**43.28**	**322**	LR	LR	21 38 48.3	
	comp=Z,7μm,20.3s,MS5.5,baz=269,slow=30						
RAR	**Rarotonga**	**44.12**	**307**	P	**P**	**21 26 01.7**	**+6.2**
RAR				MLR	MLR		
	comp=Z,1.0nm,19.0s						
VNA3	**Neumayer Olymp**	**44.74**	**155**	*e*P	**P**	**21 25 59.5**	**-0.4**
VNA3				*e*		21 26 04.6	
VNA3				*e*		21 26 22.6	
VNA3				*e*		21 27 59.4	
VAH	**Vaihoa**	**44.80**	**325**	*e*T		22 13 23.6	
	comp=Z,250nm,0.3s						
CFAA	**Coronel Fontan**	**44.93**	**81**	P	**P**	**21 25 59.1**	**-2.7**
	comp=Z,0.7nm,0.8s,baz=219,slow=7.9,SNR=11						
PMOR	**Pomariorio Ree**	**45.11**	**325**	*e*T		22 13 46.7	
	comp=Z,24nm,0.3s						
VNA1	**Neumayer--Stat**	**45.49**	**155**	*e*P	**P**	**21 26 06.0**	**+0.1**
VNA1				*e*		21 26 11.1	
VNA1				*e*		21 26 30.2	
VNA1				*e*		21 28 04.1	
VNA2	**Neumayer--Watz**	**45.50**	**155**	*e*P	**P**	**21 26 05.9**	**-0.1**
	baz=216,slow=9.0						
VNA2				*e*		21 26 11.0	
VNA2				*e*		21 26 28.2	
VNA2				*e*		21 28 03.9	
LCO	**Las Campanas**	**45.56**	**76**⇓	*e*P	**P**	**21 26 04.2**	**-2.8**
	comp=Z,38nm,1.1s,mb5.2						
LCO				*e*PP	PP	21 27 56.2	+2.7
LCO				LR	LR		
	comp=Z,8μm,19.0s,MS5.7						
SNAA	**Sanae**	**45.98**	**158**	P	**P**	**21 26 09.7**	**0.0**
	comp=Z,3.5nm,0.8s,baz=215,slow=8.1,SNR=12						
RAO	**Raoul Island**	**46.80**	**281**	P	**P**	**21 26 20.5**	**+3.8**
RAO				*e*S	**S**	**21 33 02.9**	**-3.8**
RAO				LR	LR		
	comp=Z,3μm,20.0s,MS5.2						
TAOE	**Nuku Hiva Isla**	**48.88**	**337**	*e*S	**S**	**21 33 34.0**	**-2.4**
	comp=Z,27μm,25.9s						
TAOE				*e*LR	LR	21 40 23.6	
	comp=Z,78μm,29.2s,baz=184						
MAIT	**Maitri**	**49.53**	**162**	*e*P	**P**	**21 26 36.2**	**-1.1**
NVL	**N'lazarevskaya**	**49.56**	**162**⇓	*i*P	**P**	**21 26 38.7**	**+1.2**
NVL				*e*		21 28 38.9	
NVL				pmax	pmax		
	comp=Z,54nm,1.8s,mb5.3						
NVL				MLR	MLR		
	comp=Z,33μm,21.0s,MS6.3						
CASY	**Casey**	**51.61**	**205**	*e*P	**P**	**21 26 59.2**	**+6.2**
TAU	**Tasmania Unive**	**55.72**	**243**	PFAKE		21 27 40.0	+17
TAU				LR	LR		
	comp=Z,4μm,19.0s,MS5.5						
AFI	**Afiamalu**	**56.12**	**298**	P	**P**	**21 27 26.3**	**-0.3**
AFI				LR	LR		
	comp=Z,3μm,20.0s,MS5.4						
NNA	**Nana**	**56.51**	**58**	*e*P	**P**	**21 27 30.7**	**+1.3**
	comp=Z,8.8nm,0.7s,mb4.9						
NNA				LR	LR		
	comp=Z,20μm,22.0s,MS6.2						
MAW	**Mawson**	**56.68**	**183**	*e*P	**P**	**21 27 29.7**	**-0.2**
	comp=Z,20nm,0.9s,mb5.2						
MAW	**Mawson**	**56.68**	**183**	*e*P	**P**	**21 27 30.1**	**+0.2**
MAW				pmax	pmax		
	comp=Z,52nm,1.1s						
MAW				MLR	MLR		
	comp=Z,36μm,21.0s						
MAW	**Mawson**	**56.68**	**183**	P	**P**	**21 27 28.8**	**-1.1**
	comp=Z,13nm,1.0s,mb4.9,baz=189,slow=8.1,SNR=6.1						
MAW				LR	LR	21 50 17.6	
	comp=Z,22μm,20.7s,MS6.2,baz=170,slow=34						
LPAZ	**La Paz**	**57.23**	**69**	P	**P**	**21 27 33.5**	**-1.0**
LPAZ				pmax	pmax		
	comp=Z,54nm,1.2s						
LPAZ				MLR	MLR		
	comp=Z,15μm,21.0s						
LPAZ	**La Paz**	**57.23**	**69**	P	**P**	**21 27 33.1**	**-1.4**
	comp=Z,19nm,1.1s,mb5.0,baz=182,slow=5.3,SNR=34						
LPAZ				LR	LR	21 46 12.2	
	comp=Z,12μm,18.3s,MS6.0,baz=208,slow=30						
CNB	**Canberra Magne**	**60.34**	**250**	*e*P	**P**	**21 28 01.9**	**+6.0**
	comp=Z,14nm,0.8s,mb5.0						
TOO	**Toolangi**	**60.64**	**246**	*e*P	**P**	**21 27 57.6**	**-0.3**
	comp=Z,8.6nm,1.0s,mb4.8						
TOO				*e*S	**S**	**21 36 23.7**	**+10**
TOO	**Toolangi**	**60.64**	**246**	*e*P	**P**	**21 27 57.6**	**-0.3**
TOO				*e*S	**S**	**21 36 23.7**	**+10**
TOO				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
PAYG	**Puerto Ayora**	**61.13**	**38**	PFAKE		21 28 10.0	+8.5
PAYG				LR	LR		
	comp=Z,21μm,22.0s,MS6.2						
ARMA	**Armidale**	**62.88**	**255**	*e*P	**P**	**21 28 12.7**	**-0.4**
ARMA				*e*S	**S**	**21 36 50.3**	**+7.7**
FUNA	**Funafuti**	**65.27**	**293**	PFAKE		21 28 40.0	+11
FUNA				LR	LR		
	comp=Z,11μm,19.0s,MS6.1						
OTAV	**Otavalo**	**66.59**	**50**	*e*P	**P**	**21 28 36.5**	**-0.9**
	comp=Z,46nm,1.4s,mb5.3						
OTAV				LR	LR		
	comp=Z,8μm,22.0s,MS5.9						
STKA	**Stephens Creek**	**67.07**	**247**	*e*P	**P**	**21 28 35.8**	**-4.6**
	comp=Z,9.5nm,1.6s,mb4.6						
STKA				*e*S	S	21 37 34.3	+0.2
STKA	**Stephens Creek**	**67.07**	**247**	*e*P	**P**	**21 28 36.0**	**-4.4**
STKA				*e*PcP	PcP	21 29 12.8	+4.2
STKA				*e*S	S	21 37 34.3	+0.2
STKA	**Stephens Creek**	**67.07**	**247**	P	**P**	**21 28 36.4**	**-4.0**
	comp=Z,3.3nm,0.8s,baz=119,slow=9.5,SNR=4.6						
STKA				LR	LR	21 51 28.0	
	comp=Z,6μm,21.8s,MS5.8,baz=115,slow=30						
TRIS	**Tristan da Cun**	**70.29**	**127**	PFAKE		21 29 10.0	+10
TRIS				LR	LR		
	comp=Z,8μm,20.0s,MS6.0						
ROSC	**El Rosal**	**72.51**	**52**	P	**P**	**21 29 11.9**	**-2.1**
	comp=Z,14nm,1.0s,mb4.9,baz=117,slow=18,SNR=9.6						
ROSC				LR	LR	21 55 50.0	
	comp=Z,8μm,19.7s,MS6.0,baz=186,slow=32						
JTS	**JuntasAbangare**	**73.20**	**39**	*e*P	**P**	**21 29 15.7**	**-2.3**
	comp=Z,36nm,1.1s,mb5.2						
JTS				LR	LR		
	comp=Z,16μm,22.0s,MS6.3						
JTS	**JuntasAbangare**	**73.20**	**39**	*e*P	**P**	**21 29 15.7**	**-2.3**
JTS				pmax	pmax		
	comp=Z,36nm,1.1s						
JTS				MLR	MLR		
	comp=Z,16μm,22.0s						
CTA	**Charters Tower**	**74.01**	**258**	*e*P	**P**	**21 29 20.4**	**-2.5**
	comp=Z,16nm,0.9s,mb5.0						
CTA	**Charters Tower**	**74.01**	**258**	*e*P	**P**	**21 29 20.4**	**-2.5**
CTA				pmax	pmax		
	comp=Z,16nm,0.9s						
CTAO	**Charters Tower**	**74.01**	**258**	P	**P**	**21 29 24.2**	**+1.4**
	comp=Z,17nm,0.8s,mb5.0						
CTAO				LR	LR		
	comp=Z,2μm,22.0s,MS5.3						
CTAO	**Charters Tower**	**74.01**	**258**	P	**P**	**21 29 24.2**	**+1.3**
CTAO				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
CTAO				MLR	MLR		
	comp=Z,2μm,22.0s,MS5.3						
HNR	**Honiara**	**74.99**	**275**	PFAKE		21 29 40.0	+11
HNR				LR	LR		
	comp=Z,16μm,20.0s,MS6.3						
HNR	**Honiara**	**74.99**	**275**	P	**P**	**21 29 34.1**	**+5.5**
HNR				MLR	MLR		
	comp=Z,16μm,20.0s,MS6.3						
TGUH	**Tegucigalpa,Un**	**75.91**	**36**	PFAKE		21 29 40.0	+6.3
TGUH				LR	LR		
	comp=Z,9μm,21.0s,MS6.1						
NWAO	**Narrogin (SRO)**	**77.73**	**228**	PFAKE		21 30 00.0	+16
NWAO				LR	LR		
	comp=Z,4μm,22.0s,MS5.7						
NWAO	**Narrogin (SRO)**	**77.73**	**228**	P	**P**	**21 29 49.0**	**+5.0**
NWAO				MLR	MLR		
	comp=Z,4μm,22.0s						
MUN	**Mundaring**	**78.98**	**228**	*e*P	**P**	**21 29 49.6**	**-1.3**
MUN				*e*S	S	21 39 49.9	+0.5
POHA	**Pohakuloa**	**80.28**	**329**	PFAKE		21 30 10.0	+12
POHA				LR	LR		
	comp=Z,6μm,22.0s,MS5.9						
WB2	**Warramunga Arr**	**80.53**	**249**	*e*P	**P**	**21 29 56.8**	**-2.6**
WRA	**Warramunga Arr**	**80.53**	**249**	P	**P**	**21 29 54.2**	**-5.3**
	comp=Z,12nm,0.8s,mb4.9,baz=143,slow=4.8,SNR=38						
WRA				LR	LR	22 00 44.9	
	comp=Z,4μm,21.6s,MS5.7,baz=110,slow=32						
TEIG	**Tepich**	**81.38**	**33**	PFAKE		21 30 10.0	+6.3
TEIG				LR	LR		
	comp=Z,5μm,19.0s,MS5.9						
PMG	**Port Moresby**	**82.19**	**265**	*e*P	**P**	**21 30 10.5**	**+2.2**
	comp=Z,42nm,1.1s,mb5.3						
PMG				LR	LR		
	comp=Z,3μm,22.0s,MS5.6						
PMG	**Port Moresby**	**82.19**	**265**	*e*P	**P**	**21 30 10.5**	**+2.2**
PMG				pmax	pmax		
	comp=Z,42nm,1.1s						
PMG				MLR	MLR		
	comp=Z,3μm,22.0s						
KIP	**Kipapa**	**82.59**	**327**	PFAKE		21 30 20.0	+10
KIP				LR	LR		
	comp=Z,7μm,20.0s,MS6.0						
RCBR	**Riachuelo**	**83.59**	**91**	PFAKE		21 30 30.0	+14
RCBR				LR	LR		
	comp=Z,10μm,21.0s,MS6.2						
KVTX	**Kingsville**	**85.88**	**22**	PFAKE		21 30 40.0	+13
KVTX				LR	LR		
	comp=Z,4μm,20.0s,MS5.8						
SDDR	**Presa de Saban**	**86.42**	**48**	PFAKE		21 30 40.0	+10
SDDR				LR	LR		
	comp=Z,5μm,21.0s,MS5.9						
FITZ	**Fitzroy Crossi**	**86.53**	**243**	*e*P	**P**	**21 30 29.2**	**-1.1**
	comp=Z,29nm,1.5s,mb5.3						
FITZ				*e*S	S	21 41 03.9	-2.8
FITZ				*e*SS	SS	21 47 02.4	+16
LTX	**Lajitas**	**86.54**	**17**	*e*P	**P**	**21 30 28.9**	**-1.0**
	comp=Z,17nm,1.3s,mb5.1						
LTX				LR	LR		
	comp=Z,3μm,20.0s,MS5.7						
LTX	**Lajitas**	**86.54**	**17**	*e*P	**P**	**21 30 28.9**	**-0.9**
LTX				pmax	pmax		
	comp=Z,17nm,1.3s,mb5.1						
LTX				MLR	MLR		
	comp=Z,3μm,20.0s,MS5.7						
TXAR	**Lajitas Array**	**86.54**	**17**	P	**P**	**21 30 26.5**	**-3.3**
TXAR				PP	PP	21 33 49.0	-3.1
TXAR	**Lajitas Array**	**86.54**	**17**	P	**P**	**21 30 26.5**	**-3.3**
	comp=Z,0.9nm,0.6s,baz=192,slow=7.5,SNR=10						
TXAR				PP	PP	21 33 49.0	-3.1
	comp=Z,0.9nm,1.0s,baz=185,slow=7.6,SNR=3.7						
BBGH	**Gun Hill**	**86.67**	**61**	PFAKE		21 30 40.0	+9.1
BBGH				LR	LR		
	comp=Z,8μm,22.0s,MS6.0						
SUR	**Sutherland**	**86.76**	**150**	*e*P	**P**	**21 30 33.8**	**+2.6**
	comp=Z,24nm,0.9s,mb5.4						
SUR				LR	LR		
	comp=Z,9μm,20.0s,MS6.2						
SJG	**San Juan**	**87.88**	**53**	PFAKE		21 30 50.0	+13
SJG				LR	LR		
	comp=Z,5μm,20.0s,MS6.0						
JCT	**Junction City**	**88.34**	**20**	PFAKE		21 30 50.0	+11
JCT				LR	LR		
	comp=Z,3μm,20.0s,MS5.7						
TUC	**Tucson**	**88.53**	**10**	PFAKE		21 30 50.0	+11
TUC				LR	LR		
	comp=Z,4μm,19.0s,MS5.8						
MNTX	**Cornudas Mount**	**88.59**	**15**	PFAKE		21 30 50.0	+10
MNTX				LR	LR		
	comp=Z,4μm,22.0s,MS5.8						
PFO	**Pinyon Flat Ob**	**89.38**	**5**	PFAKE		21 30 50.0	+6.7
PFO				LR	LR		
	comp=Z,3μm,20.0s,MS5.8						
NATX	**Nacogdoches**	**90.66**	**24**	PFAKE		21 31 00.0	+11
NATX				LR	LR		
	comp=Z,3μm,19.0s,MS5.8						
DWPF	**Disney**	**90.91**	**36**	PFAKE		21 31 00.0	+9.4
DWPF				LR	LR		
	comp=Z,5μm,21.0s,MS5.9						
BOSA	**Boshof**	**91.53**	**152**	P	**P**	**21 30 53.6**	**-0.2**
	comp=Z,4.6nm,0.9s,mb4.8,baz=206,slow=4.5,SNR=5.3						
BOSA				LR	LR	22 06 57.3	
	comp=Z,12μm,20.3s,MS6.3,baz=214,slow=32						
ANMO	**Albuquerque**	**91.64**	**14**	*e*P	**P**	**21 30 52.0**	**-1.8**
	comp=Z,12nm,1.2s,mb5.1						
ANMO				LR	LR		
	comp=Z,3μm,22.0s,MS5.6						
ANMO	**Albuquerque**	**91.64**	**14**	*e*P	**P**	**21 30 52.0**	**-1.8**
ANMO				pmax	pmax		
	comp=Z,12nm,1.2s						
ANMO				MLR	MLR		
	comp=Z,3μm,22.0s						
WUAZ	**Wupatki**	**91.65**	**9**	*e*P	**P**	**21 30 52.6**	**-1.3**
	comp=Z,42nm,1.5s,mb5.5						
WUAZ				LR	LR		
	comp=Z,3μm,19.0s,MS5.8						
BRAL	**Brewton**	**91.89**	**30**	PFAKE		21 31 10.0	+15
BRAL				LR	LR		
	comp=Z,5μm,20.0s,MS5.9						
DAC	**Darwin (Calif)**	**91.98**	**4**	PFAKE		21 31 10.0	+15
DAC				LR	LR		
	comp=Z,4μm,20.0s,MS5.9						
SAO	**San Andreas Ge**	**92.36**	**1**	PFAKE		21 31 10.0	+13
SAO				LR	LR		
	comp=Z,4μm,21.0s,MS5.8						
WMOK	**Wichita Mounta**	**92.67**	**20**	*e*P	**P**	**21 30 56.6**	**-2.0**
	comp=Z,14nm,1.5s,mb5.2						
WMOK				LR	LR		
	comp=Z,3μm,19.0s,MS5.8						
WMOK	**Wichita Mounta**	**92.67**	**20**	*e*P	**P**	**21 30 56.6**	**-2.0**
WMOK				pmax	pmax		
	comp=Z,14nm,1.5s,mb5.2						
WMOK				MLR	MLR		
	comp=Z,3μm,19.0s,MS5.8						
MIAR	**Mount Ida**	**93.58**	**24**	P	**P**	**21 31 05.2**	**+2.4**
MIAR				LR	LR		
	comp=Z,2μm,19.0s,MS5.6						
MVCO	**Mesa Verde**	**93.62**	**12**	*e*P	**P**	**21 31 02.8**	**-0.1**
	comp=Z,35nm,1.4s,mb5.6						
MVCO				LR	LR		
	comp=Z,4μm,21.0s,MS5.8						
CMB	**Columbia Colle**	**93.65**	**2**	P	**P**	**21 31 01.2**	**-1.8**
CMB				LR	LR		
	comp=Z,5μm,19.0s,MS6.0						
ASCN	**Ascension**	**93.72**	**110**	PFAKE		21 31 10.0	+5.9
ASCN				LR	LR		
	comp=Z,5μm,21.0s,MS5.9						
ARUT	**Antelope Range**	**93.73**	**8**	P	**P**	**21 31 05.2**	**+1.8**
ARUT	**Antelope Range**	**93.73**	**8**	P	**P**	**21 31 05.4**	**+2.0**
MCCM	**Marconi Confer**	**93.73**	**0**	PFAKE		21 31 10.0	+6.6
MCCM				LR	LR		
	comp=Z,4μm,20.0s,MS5.9						
TPH	**Tonopah**	**93.79**	**5**	PFAKE		21 31 10.0	+6.3
TPH				LR	LR		
	comp=Z,3μm,20.0s,MS5.7						
TPH	**Tonopah**	**93.79**	**5**	P	**P**	**21 31 10.3**	**+6.6**
TPH				MLR	MLR		
	comp=Z,3μm,20.0s,MS5.7						
LRAL	**Lakeview Retre**	**93.81**	**30**	PFAKE		21 31 10.0	+6.1
LRAL				LR	LR		
	comp=Z,5μm,21.0s,MS6.0						
NVAR	**Mina Array Bea**	**94.10**	**4**	P	**P**	**21 31 01.6**	**-3.4**
	comp=Z,0.9nm,0.8s,baz=178,slow=6.6,SNR=6.7						
SDCO	**Great Sand Dun**	**94.52**	**14**	P	**P**	**21 31 12.3**	**+5.3**
SDCO				LR	LR		
	comp=Z,4μm,19.0s,MS5.8						
MSU	**Marysvale**	**94.55**	**9**	*e*P	**P**	**21 31 08.0**	**+0.9**
OXF	**Oxford**	**94.56**	**27**	P	**P**	**21 31 11.8**	**+4.5**
OXF				LR	LR		
	comp=Z,3μm,19.0s,MS5.7						
HOPS	**Hopland**	**94.58**	**360**	PFAKE		21 31 20.0	+13
HOPS				LR	LR		
	comp=Z,6μm,20.0s,MS6.0						
PV10	**Paradox Valley**	**94.72**	**11**	*e*P	**P**	**21 31 10.8**	**+2.9**
LBTB	**Lobatse**	**95.04**	**152**	*e*P	**P**	**21 31 10.9**	**+0.8**
	comp=Z,4.3nm,0.8s,mb4.9						
LBTB				LR	LR		
	comp=Z,10μm,20.0s,MS6.3						
LBTB	**Lobatse**	**95.04**	**152**	*e*P	**P**	**21 31 10.9**	**+0.9**

LBTB				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.9						
LBTB				MLR	MLR		
	comp=Z,10µm,20.0s,MS6.3						
GOGA	**Godfrey**	**95.19**	**32**	PFAKE		21 31 20.0	+10
GOGA				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
PLAL	**Pickwick Lake**	**95.35**	**28**	PFAKE		21 31 20.0	+9.1
PLAL				LR	LR		
	comp=Z,5µm,22.0s,MS5.9						
NHSC	**New Hope**	**95.93**	**35**	PFAKE		21 31 20.0	+6.4
NHSC				LR	LR		
	comp=Z,4µm,19.0s,MS5.9						
MPU	**Maple Canyon**	**96.09**	**9**	PFAKE		21 31 20.0	+5.9
MPU				LR	LR		
	comp=Z,6µm,19.0s,MS6.1						
BMN	**Battle Mountai**	**96.14**	**4**	PFAKE		21 31 30.0	+16
BMN				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
SWET	**Sewanee**	**96.16**	**30**	P	**P**	**21 31 16.9**	**+2.3**
WDC	**Whiskeytown Da**	**96.16**	**0**	PFAKE		21 31 20.0	+5.5
WDC				LR	LR		
	comp=Z,7µm,22.0s,MS6.1						
DUG	**Dugway**	**96.17**	**8**	*e*P	**P**	**21 31 20.4**	**+5.9**
	comp=Z,4.4nm,1.1s,mb4.8						
DUG				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
DUG	**Dugway**	**96.17**	**8**	*e*P	**P**	**21 31 20.5**	**+6.0**
DUG				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.8						
DUG				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.8						
CBKS	**Cedar Bluff**	**96.46**	**18**	PFAKE		21 31 30.0	+14
CBKS				LR	LR		
	comp=Z,3µm,22.0s,MS5.7						
WVT	**Waverly**	**96.50**	**28**	PFAKE		21 31 30.0	+14
WVT				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
WVT	**Waverly**	**96.50**	**28**	P	**P**	**21 31 22.4**	**+6.3**
WVT				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.8						
ISCO	**Idaho Springs**	**96.53**	**13**	P	**P**	**21 31 19.3**	**+3.2**
ISCO				LR	LR		
	comp=Z,4µm,19.0s,MS5.9						
ELK	**Elko**	**96.56**	**6**	P	**P**	**21 31 19.8**	**+3.6**
ELK				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
YBH	**Yreka Blue Hor**	**97.31**	**0**	PFAKE		21 31 30.0	+10
YBH				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
KSU1	**Kansas State U**	**97.32**	**20**	PFAKE		21 31 30.0	+10
KSU1				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
MOD	**Modoc**	**97.51**	**2**	PFAKE		21 31 30.0	+9.5
MOD				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
SIUC	**Southern Illin**	**97.64**	**26**	P	**P**	**21 31 23.6**	**+2.4**
HWUT	**Hardware Ranch**	**97.67**	**9**	PFAKE		21 31 30.0	+8.7
HWUT				LR	LR		
	comp=Z,5µm,20.0s,MS6.0						
TSUM	**Tsumeb**	**98.07**	**143**	PFAKE		21 31 30.0	+6.2
TSUM				LR	LR		
	comp=Z,8µm,21.0s,MS6.2						
TZTN	**Tazewell**	**98.08**	**31**	PFAKE		21 31 30.0	+6.8
TZTN				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
WVOR	**Wild Horse Val**	**98.09**	**3**	PFAKE		21 31 30.0	+6.9
WVOR				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
HUMO	**Hull Mountain**	**98.19**	**0**	PFAKE		21 31 30.0	+6.4
HUMO				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
CNNC	**Cliffs of the**	**98.63**	**36**	PFAKE		21 31 40.0	+14
CNNC				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
AHID	**Auburn Hatcher**	**98.86**	**9**	PFAKE		21 31 40.0	+13
AHID				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
WCI	**Wyandotte Cave**	**98.88**	**28**	PFAKE		21 31 40.0	+13
WCI				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
BW06	**Boulder Array**	**99.01**	**10**	PFAKE		21 31 40.0	+13
BW06				LR	LR		
	comp=Z,6µm,21.0s,MS6.0						
PDAR	**Pinedale Array**	**99.01**	**10**	LR	LR	22 07 16.2	
	comp=Z,5µm,21.7s,MS6.0,baz=190,slow=30						
HLID	**Hailey**	**99.41**	**6**	P	**P**	**21 31 33.5**	**+4.5**
HLID				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
BLA	**Blacksburg**	**99.63**	**33**	PFAKE		21 31 40.0	+9.1
BLA				LR	LR		
	comp=Z,5µm,19.0s,MS6.0						
COR	**Corvallis**	**100.17**	**360**	PFAKE		21 31 40.0	+6.7
COR				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
HDIL	**Hopedale**	**100.31**	**25**	PFAKE		21 31 40.0	+6.1
HDIL				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
BMO	**Blue Mountains**	**100.55**	**4**	PFAKE		21 31 40.0	+5.0
BMO				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
SCIA	**State Center**	**100.71**	**22**	PFAKE		21 31 50.0	+14
SCIA				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
LKWY	**Lake**	**100.71**	**9**	PFAKE		21 31 50.0	+14
LKWY				LR	LR		
	comp=Z,5µm,21.0s,MS6.0						
YMR	**Madison River**	**100.77**	**9**	PFAKE		21 31 50.0	+14
YMR				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
RSSD	**Black Hills**	**100.98**	**14**	*e*P	Pdif	21 31 35.3	-1.6
RSSD				pmax	pmax		
	comp=Z,8.0nm,0.8s						
RSSD				MLR	MLR		
	comp=Z,750nm,21.0s,MS5.2						
RLMT	**Red Lodge**	**101.37**	**10**	PFAKE		21 31 50.0	+11
RLMT				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
CBN	**Corbin**	**101.50**	**35**	PFAKE		21 31 50.0	+11
CBN				LR	LR		
	comp=Z,6µm,19.0s,MS6.1						
ACSO	**Alum Creek Sta**	**101.67**	**30**	PFAKE		21 31 50.0	+10
ACSO				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
BOZ	**Bozeman (W)**	**101.68**	**8**	PFAKE		21 31 50.0	+10
BOZ				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
ECSD	**EROS,Sioux Fal**	**101.79**	**19**	PFAKE		21 31 50.0	+10
ECSD				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
HAWA	**Hanford**	**102.02**	**2**	PFAKE		21 31 50.0	+8.5
HAWA				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
MCWV	**Mont Chateau**	**102.06**	**33**	PFAKE		21 31 50.0	+8.3
MCWV				LR	LR		
	comp=Z,6µm,21.0s,MS6.1						
GUMO	**Guam**	**102.31**	**276**	PFAKE		21 31 50.0	+7.2
GUMO				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
GUMO	**Guam**	**102.31**	**276**	P	Pdif	21 31 48.2	+5.4
GUMO				MLR	MLR		
	comp=Z,4µm,22.0s,MS5.9						
MSO	**Missoula**	**102.69**	**6**	PFAKE		21 31 50.0	+5.5
MSO				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
NLWA	**Neilton Lookou**	**102.98**	**359**	PFAKE		21 32 00.0	+14
NLWA				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
LAO	**LASA Array**	**103.24**	**12**	PFAKE		21 32 00.0	+13
LAO				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
AAM	**Ann Arbor**	**103.40**	**29**	PFAKE		21 32 00.0	+12
AAM				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
SSPA	**Standing Stone**	**103.55**	**34**	PFAKE		21 32 00.0	+12
SSPA				LR	LR		
	comp=Z,5µm,20.0s,MS6.0						
NEW	**Newport**	**103.96**	**4**	PFAKE		21 32 00.0	+10
NEW				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
NEW	**Newport**	**103.96**	**4**	P	Pdif	21 31 55.5	+5.4
NEW				MLR	MLR		
	comp=Z,4µm,21.0s						
EGMT	**Eagleton**	**104.20**	**9**	PFAKE		21 32 00.0	+8.8
EGMT				LR	LR		
	comp=Z,4µm,21.0s,MS5.9						
COCO	**West Island**	**104.40**	**220**	PFAKE		21 32 00.0	+7.9
COCO				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
LSZ	**Lusaka**	**105.02**	**151**	Pdif	Pdif	21 31 59.5	+4.7
LSZ				LR	LR		
	comp=Z,14µm,19.0s,MS6.5						
LSZ	**Lusaka**	**105.02**	**151**	P	Pdif	21 32 00.1	+5.3
LSZ				MLR	MLR		
	comp=Z,14µm,19.0s,MS6.5						
DGMT	**Dagmar**	**105.24**	**13**	PFAKE		21 36 20.0	+11
DGMT				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
GLMI	**Grayling**	**105.50**	**27**	PFAKE		21 36 30.0	+21
GLMI				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
BINY	**Binghamton**	**105.57**	**34**	PFAKE		21 36 20.0	+10
BINY				LR	LR		
	comp=Z,6µm,22.0s,MS6.1						
COWI	**Conover**	**105.60**	**24**	PFAKE		21 36 20.0	+11
COWI				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
AGMN	**Agassiz Refuge**	**106.34**	**19**	PFAKE		21 36 20.0	+9.2
AGMN				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
EYMN	**Ely**	**106.84**	**22**	PFAKE		21 36 20.0	+8.3
EYMN				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
WES	**Weston**	**107.28**	**38**	PFAKE		21 36 20.0	+7.3
WES				LR	LR		
	comp=Z,5µm,21.0s,MS6.0						
HRV	**Harvard--Oak R**	**107.30**	**37**	PFAKE		21 36 20.0	+7.2
HRV				LR	LR		
	comp=Z,7µm,20.0s,MS6.2						
NCB	**Newcomb**	**107.73**	**35**	PFAKE		21 36 20.0	+6.5
NCB				LR	LR		
	comp=Z,6µm,21.0s,MS6.1						
DAV	**Davao City (W)**	**107.75**	**256**	PFAKE		21 36 30.0	+15
DAV				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
LONY	**Lake Ozonia**	**108.19**	**34**	PFAKE		21 36 30.0	+16
LONY				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
ULM	**Lac du Bonnet**	**108.22**	**18**	PFAKE		21 36 30.0	+16
ULM				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
LBNH	**Lisbon**	**108.72**	**36**	PFAKE		21 36 30.0	+15
LBNH				LR	LR		
	comp=Z,7µm,19.0s,MS6.3						
PKME	**Peaks-Kenny Pk**	**110.51**	**37**	PFAKE		21 36 30.0	+11
PKME				LR	LR		
	comp=Z,7µm,20.0s,MS6.3						
FFC	**Flin Flon**	**111.65**	**13**	PFAKE		21 36 30.0	+9.5
FFC				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
WRAK	**Wrangell Islan**	**112.27**	**354**	PFAKE		21 36 30.0	+8.4
WRAK				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
SIT	**Sitka**	**113.09**	**353**	PFAKE		21 36 30.0	+6.8
SIT				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
KDAK	**Kodiak Island**	**115.86**	**343**	PFAKE		21 36 40.0	+12
KDAK				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
ADK	**Adak**	**116.25**	**326**	PFAKE		21 36 40.0	+11
ADK				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
FCC	**Fort Churchill**	**116.69**	**16**	PKIKP	PKPdf	21 36 35.9	+5.9
DIV	**Divide**	**118.11**	**348**	PFAKE		21 36 40.0	+7.3
DIV				LR	LR		
	comp=Z,11µm,22.0s,MS6.5						
YKA	**Yellowknife Ar**	**118.29**	**4**	PKP	PKPdf	21 36 29.8	-3.3
YKA	**Yellowknife Ar**	**118.29**	**4**	PKIKP	PKPdf	21 36 29.8	-3.2
YKA	**Yellowknife Ar**	**118.29**	**4**	PKP	PKPdf	21 36 29.7	-3.3
	comp=Z,0.6nm,0.7s,baz=181,slow=2.5,SNR=12						
PMR	**Palmer**	**118.99**	**346**	PFAKE		21 36 50.0	+16
PMR				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
SCHQ	**Schefferville**	**119.56**	**34**	*e*PKPdf	PKPdf	21 36 38.3	+2.7
SCHQ				LR	LR		
	comp=Z,8µm,21.0s,MS6.3						
MSEY	**Mahe Island**	**119.57**	**178**	PFAKE		21 36 50.0	+13
MSEY				LR	LR		
	comp=Z,6µm,21.0s,MS6.2						
TORD	**Torodi Ar. Bea**	**119.92**	**112**	PKP	PKPdf	21 36 34.0	-3.7
TORD				PKKPab	PKKPab	21 46 46.0	-2.8
TORD	**Torodi Ar. Bea**	**119.92**	**112**	PKP	PKPdf	21 36 34.0	-3.7
	comp=Z,0.7nm,0.7s,baz=200,slow=1.0,SNR=5.7						
TORD				PKKPab	PKKPab	21 46 46.0	-2.8
	comp=Z,0.6nm,0.8s,baz=29,slow=3.4,SNR=3.3						
SMY	**Shemya**	**120.03**	**321**	PFAKE		21 36 50.0	+13
SMY				LR	LR		
	comp=Z,4µm,22.0s,MS6.0						
KMBO	**Kilima Mbogo**	**120.88**	**157**	PKPdf	PKPdf	21 36 41.5	+1.8
KMBO				LR	LR		
	comp=Z,8µm,19.0s,MS6.4						
KMBO	**Kilima Mbogo**	**120.88**	**157**	PKIKP	PKPdf	21 36 41.5	+1.8
KMBO				MLR	MLR		
	comp=Z,8µm,19.0s						
MCK	**McKinley**	**121.02**	**347**	*e*PKPdf	PKPdf	21 36 42.6	+4.3
MCK				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
MCK	**McKinley**	**121.02**	**347**	*e*PKIKP	PKPdf	21 36 42.6	+4.4
MCK				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.7						
EGAK	**Eagle**	**121.20**	**351**	PFAKE		21 36 50.0	+11
EGAK				LR	LR		
	comp=Z,5µm,19.0s,MS6.1						
COLA	**College**	**121.99**	**348**	*e*PKPdf	PKPdf	21 36 39.3	-0.8
COLA				LR	LR		
	comp=Z,4µm,22.0s,MS6.0						
COLA	**College**	**121.99**	**348**	*e*PKIKP	PKPdf	21 36 39.3	-0.8
COLA				MLR	MLR		
	comp=Z,4µm,22.0s,MS6.0						
IMA2	**Indian Mountai**	**123.89**	**345**	PKPdf	PKPdf	21 36 44.9	+1.2
MJAR	**Matsushiro Arr**	**124.01**	**286**	PKP	PKPdf	21 36 41.6	-3.2
MJAR	**Matsushiro Arr**	**124.01**	**286**	PKIKP	PKPdf	21 36 41.7	-3.2
MJAR	**Matsushiro Arr**	**124.01**	**286**	PKP	PKPdf	21 36 41.6	-3.2
	comp=Z,1.9nm,0.8s,baz=142,slow=2.8,SNR=6.3						
MAJO	**Matsushiro**	**124.01**	**286**	*e*PKPdf	PKPdf	21 36 50.3	+5.4
MAJO				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
MAJO	**Matsushiro**	**124.01**	**286**	*e*PKIKP	PKPdf	21 36 50.3	+5.4
MAJO				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.8						
INK	**Inuvik**	**124.19**	**355**	PKIKP	PKPdf	21 36 50.1	+5.9
TATO	**Taipei**	**124.54**	**264**	PFAKE		21 37 00.0	+14
TATO				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
ERM	**Erimo**	**125.41**	**294**	PFAKE		21 37 00.0	+13
ERM				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
TNA	**Tin City**	**125.88**	**339**	PFAKE		21 37 00.0	+12
TNA				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
QIZ	**Qiongzhong**	**126.11**	**249**	PKP	PKPdf	21 36 54.3	+4.9
QIZ				PP	PP	21 38 54.8	+11
QIZ				SS	SS	21 55 49.9	+4.3
QIZ				LR	LR		
	comp=E,6µm,19.8s						
QIZ				LR	LR		
	comp=Z,6µm,19.4s,MS6.3						
PET	**Petropavlovsk**	**126.17**	**313**	*e*PKPdf	PKPdf	21 36 50.9	+2.4
PET				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
PET	**Petropavlovsk**	**126.17**	**313**	PKIKP	PKPdf	21 36 54.2	+5.8
PET				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.7						
PALK	**Pallekele**	**127.94**	**210**	PFAKE		21 37 00.0	+6.9
PALK				LR	LR		
	comp=Z,6µm,22.0s,MS6.2						
YSS	**Yuzh-Sakhalins**	**129.11**	**298**	PFAKE		21 37 10.0	+16
YSS				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
YSS	**Yuzh-Sakhalins**	**129.11**	**298**	PKIKP	PKPdf	21 37 00.0	+5.7
YSS				MLR	MLR		
	comp=Z,4µm,19.0s,MS6.1						
INCN	**Inchon**	**131.04**	**279**	PFAKE		21 37 10.0	+12
INCN				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
CM31	**Chiang Mai Arr**	**131.09**	**237**	*e*PKPdf	PKPdf	21 36 58.5	-0.4
CM31				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
CHTO	**Chiang Mai**	**131.40**	**238**	PFAKE		21 37 10.0	+11
CHTO				LR	LR		
	comp=Z,6µm,22.0s,MS6.2						
NJ2	**Nanjing**	**131.44**	**267**	*e*PKP	PKPdf	21 37 02.4	+3.2
NJ2				PP	PP	21 39 26.0	+7.5
NJ2				SKS	SKSdf	21 44 08.0	-2.4
NJ2				SKKS	SKKSac	21 46 12.0	-2.3
NJ2				SS	SS	21 56 53.0	+1.1
NJ2				PP	PP		
	comp=Z,230nm,7.6s						
NJ2				LR	LR		
	comp=N,7µm,28.6s,MS6.4						
NJ2				LR	LR		
	comp=E,8µm,28.3s,MS6.4						
NJ2				LR	LR		
	comp=Z,8µm,28.2s,MS6.3						
RES	**Resolute Bay**	**131.70**	**10**	*e*PKPdf	PKPdf	21 37 02.4	+4.0
RES	**Resolute Bay**	**131.70**	**10**	*e*PKIKP	PKPdf	21 37 02.4	+4.0
MA2	**Magadan**	**133.86**	**315**	*e*PKPdf	PKPdf	21 37 04.2	+1.4
MA2				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
MA2	**Magadan**	**133.86**	**315**	⇑*i*PKIKP	PKPdf	21 36 59.3	-3.5
MA2				MLR	MLR		
	comp=Z,600nm,17.0s,MS5.4						
SFJD	**Kangerlussuaq**	**133.90**	**31**	PFAKE		21 37 10.0	+7.3
SFJD				LR	LR		
	comp=Z,7µm,22.0s,MS6.3						
BILL	**Bilibino**	**134.13**	**330**	PFAKE		21 37 10.0	+6.9
BILL				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
BILL	**Bilibino**	**134.13**	**330**	*i* PKIKP	PKPdf	21 37 02.9	-0.2
BILL				pmax	pmax		
	comp=Z,6.0nm,1.8s						
KMI	**Kunming**	**134.82**	**246**	PKP	PKPdf	21 37 11.6	+5.8
SEY	**Seymchan**	**135.32**	**320**	⇑*i*PKIKP	PKPdf	21 37 05.7	+0.2
CN2	**Changchun**	**136.04**	**284**	*e*PKP	PKPdf	21 37 11.8	+4.4
CN2				PP	PP		
	comp=Z,200nm,5.0s						
KLR	**Kul'dur**	**136.16**	**294**	*e*PKHKP		21 36 58.3	
PAB	**San Pablo**	**137.13**	**86**	PFAKE		21 37 20.0	+10
PAB				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
ESDC	**Sonseca Array**	**137.44**	**86**	PKP	PKPdf	21 37 09.4	-0.8
ESDC				PP	PP	21 39 54.8	-1.7
ESDC	**Sonseca Array**	**137.44**	**86**	PKP	PKPdf	21 37 09.4	-0.8
	comp=Z,1.1nm,0.8s,baz=274,slow=1.4,SNR=5.6						
ESDC				PP	PP	21 39 54.8	-1.7
	comp=Z,0.1nm,0.4s,baz=346,slow=23,SNR=2.8						
ESLA	**Sonseca Array**	**137.44**	**86**	PKPdf	PKPdf	21 37 10.6	+0.5
ESLA				LR	LR		
	comp=Z,29µm,21.0s,MS7.0						
CD2	**Chengdu**	**138.91**	**252**	*e*PKP	PKPdf	21 37 18.2	+5.0
CD2				PP	PP	21 40 14.2	+8.6
CD2				PKS		21 40 52.8	
CD2				SKS	SKSdf	21 44 23.2	-0.3
CD2				SKKS	SKKSac	21 47 00.8	+1.5
CD2				SS	SS	21 58 25.0	+3.7
CD2				PP	PP		
	comp=Z,500nm,8.4s						
CD2				LR	LR		
	comp=N,1µm,20.4s,MS5.8						
CD2				LR	LR		
	comp=E,1µm,24.0s,MS5.8						
CD2				LR	LR		
	comp=Z,1µm,20.4s,MS5.6						
SJPF	**Ste Jean**	**141.26**	**84**	*e*PKPdf	PKPdf	21 37 15.0	-2.0
SJPF	**Ste Jean**	**141.26**	**84**	*e*PKIKP	PKPdf	21 37 15.0	-2.0
SJPF	**Ste Jean**	**141.26**	**84**	*e*PKIKP	PKPdf	21 37 15.0	-2.0
HHC	**Hu-ho-hao-te**	**141.82**	**270**	*e*PKP	PKPdf	21 37 24.6	+6.5
HHC				PP	PP	21 40 33.6	+10
HHC				PKS		21 40 59.2	
HHC				PP	PP		
	comp=Z,177nm,5.1s						
HHC				LR	LR		
	comp=N,6µm,19.4s,MS6.5						
HHC				LR	LR		
	comp=E,5µm,18.2s,MS6.5						
HHC				LR	LR		
	comp=Z,8µm,20.0s,MS6.5						
EPF	**Esparros**	**142.09**	**85**	*e*PKPdf	PKPdf	21 37 16.6	-1.9
EPF	**Esparros**	**142.09**	**85**	*e*PKIKP	PKPdf	21 37 16.6	-1.9
EPF	**Esparros**	**142.09**	**85**	*e*PKIKP	PKPdf	21 37 16.6	-1.9
HIA	**Hailar**	**142.50**	**287**	PKIKP	PKPdf	21 37 24.8	+5.8
LZH	**Lanzhou**	**142.79**	**258**	*e*PKP	PKPdf	21 37 18.5	-1.5
LZH				APKP		21 37 21.5	
LZH				XPKP		21 37 23.3	
LZH				PP	PP	21 40 31.2	+1.9
LZH				PP	PP		
	comp=Z,400nm,5.0s						
LZH				LR	LR		
	comp=E,1µm,18.2s						
LZH				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
MTLF	**Montolieu**	**143.34**	**86**	*e*PKPdf	PKPdf	21 37 18.5	-2.2
MTLF	**Montolieu**	**143.34**	**86**	*e*PKIKP	PKPdf	21 37 18.5	-2.2
MTLF	**Montolieu**	**143.34**	**86**	*e*PKIKP	PKPdf	21 37 18.5	-2.2
ODAN	**Odare**	**143.60**	**230**	*e*P	PKPdf	21 37 17.8	-3.9
CLNS	**Chul'man**	**143.81**	**300**	*e*PKHKP		21 37 15.7	
CLNS				pmax	pmax		
	comp=Z,27nm,1.1s						
CLNS				pmax	pmax		
	comp=N,13nm,0.9s						
CLNS				pmax	pmax		
	comp=E,14nm,0.9s						
TAPN	**Taplejung**	**143.89**	**230**	*e*P	PKPdf	21 37 18.2	-4.0
	comp=E,53nm,1.0s						
YAK	**Yakutsk**	**143.91**	**310**	*e*PKPdf	PKPdf	21 37 21.4	+0.3
YAK				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
YAK	**Yakutsk**	**143.91**	**310**	PKIKP	PKPdf	21 37 26.8	+5.7
YAK				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.6						
MFF	**Saint Martin d**	**144.03**	**80**	*e*PKPdf	PKPdf	21 37 17.3	-4.5
MFF	**Saint Martin d**	**144.03**	**80**	*e*PKIKP	PKPdf	21 37 17.3	-4.5
RJF	**Les Rejaudoux**	**144.17**	**83**	*e*PKPdf	PKPdf	21 37 17.5	-4.6
RJF				LR	LR		
	comp=Z,7µm,22.3s,MS6.3						
RJF	**Les Rejaudoux**	**144.17**	**83**	*e*PKIKP	PKPdf	21 37 17.5	-4.6
RJF				*e*MLR	MLR		
	comp=Z,7µm,22.2s,MS6.0						
CAF	**Calviac**	**144.25**	**84**	*e*PKPdf	PKPdf	21 37 18.2	-4.1
CAF	**Calviac**	**144.25**	**84**	*e*PKIKP	PKPdf	21 37 18.2	-4.1
	comp=Z,28nm,0.9s						
GRR	**Gorron**	**144.67**	**77**	*e*PKPdf	PKPdf	21 37 21.8	-1.1
GRR	**Gorron**	**144.67**	**77**	*e*PKIKP	PKPdf	21 37 21.8	-1.1
GRR	**Gorron**	**144.67**	**77**	*e*PKIKP	PKPdf	21 37 21.8	-1.1
LASF	**Ste Croix**	**144.72**	**87**	*e*PKPdf	PKPdf	21 37 21.4	-1.7
LASF	**Ste Croix**	**144.72**	**87**	*e*PKIKP	PKPdf	21 37 21.4	-1.7
	comp=Z,37nm,1.0s						
JIRN	**Jiri**	**144.81**	**229**	*e*P	PKPdf	21 37 18.1	-5.7
	comp=Z,133nm,1.0s						
PKI	**Pulchoki**	**145.06**	**228**	*e*P	PKPbc	21 37 19.8	-3.9
	comp=Z,136nm,1.0s						
FLN	**La Foliniere**	**145.09**	**77**	*e*PKPdf	PKPdf	21 37 22.4	-1.2
FLN				LR	LR		
	comp=Z,4µm,22.8s,MS6.2						
FLN	**La Foliniere**	**145.09**	**77**	*e*PKIKP	PKPdf	21 37 22.4	-1.2
FLN				MLR	MLR		
	comp=Z,4µm,22.8s,MS6.2						
FLN	**La Foliniere**	**145.09**	**77**	*e*PKIKP	PKPdf	21 37 22.4	-1.2
	comp=Z,28nm,0.8s						
FLN				*e*MLR	MLR		
	comp=Z,4µm,22.8s,MS5.8						
LBL	**Lubilhac**	**145.10**	**85**	PKP	PKPdf	21 37 21.3	-2.4
LBL	**Lubilhac**	**145.10**	**85**	PKP	PKPdf	21 37 21.3	-2.4
LBL	**Lubilhac**	**145.10**	**85**	PKIKP	PKPdf	21 37 21.3	-2.4
TCF	**Toulx Ste Croi**	**145.15**	**83**	*e*PKPdf	PKPdf	21 37 20.8	-3.0
TCF	**Toulx Ste Croi**	**145.15**	**83**	*e*PKIKP	PKPdf	21 37 20.8	-3.0
	comp=Z,86nm,1.5s						
GUN	**Gumba**	**145.16**	**228**	*e*P	PKPbc	21 37 19.9	-4.1
	comp=Z,458nm,1.4s						
LDF	**La Druitiere**	**145.19**	**78**	*e*PKPdf	PKPdf	21 37 22.4	-1.4
LDF	**La Druitiere**	**145.19**	**78**	*e*PKIKP	PKPdf	21 37 22.4	-1.4
LDF	**La Druitiere**	**145.19**	**78**	*e*PKIKP	PKPdf	21 37 22.4	-1.4
	comp=Z,70nm,1.2s						
DMN	**Daman**	**145.22**	**227**	*e*P	PKPbc	21 37 19.2	-5.0
	comp=Z,274nm,1.1s						
PYM	**Petit Puy Mans**	**145.28**	**84**	PKP	PKPdf	21 37 20.8	-3.2
PYM	**Petit Puy Mans**	**145.28**	**84**	PKP	PKPdf	21 37 20.8	-3.2
PRAF	**Pradon**	**145.29**	**88**	PKP	PKPdf	21 37 16.8	-7.3
PRAF	**Pradon**	**145.29**	**88**	PKP	PKPdf	21 37 16.8	-7.3
KKN	**Kakani**	**145.31**	**228**	*e*P	PKPbc	21 37 19.3	-5.2
	comp=Z,200nm,1.0s						
COLF	**Collangettes**	**145.52**	**85**	PKP	PKPdf	21 37 23.2	-1.2
COLF	**Collangettes**	**145.52**	**85**	PKP	PKPdf	21 37 23.2	-1.2
SMRF	**Simiane la Rot**	**145.63**	**88**	*e*PKPdf	PKPdf	21 37 23.2	-1.5

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SMRF  Simiane la Rot    145.63  88 ePKIKP   PKPdf    21 37 23.2 -1.5
      comp=Z,103nm,1.4s
VIVF  Saint-Julien-l    145.67  86 ePKPdf   PKPdf    21 37 22.9 -1.8
VIVF  Saint-Julien-l    145.67  86 ePKP2    PKPab    21 37 22.9 -2.5
VIVF  Saint-Julien-l    145.67  86 ePKIKP   PKPdf    21 37 22.9 -1.8
BGF   Bois d'Agland     145.67  83 ePKPdf   PKPdf    21 37 22.6 -2.0
BGF   Bois d'Agland     145.67  83 ePKP2    PKPab    21 37 22.6 -2.8
BGF   Bois d'Agland     145.67  83 ePKIKP   PKPdf    21 37 22.6 -2.0
      comp=Z,61nm,1.0s
TAVF  Tavernes          145.67  89  PKP     PKPdf    21 37 17.9 -6.9
TAVF  Tavernes          145.67  89  PKP     PKPdf    21 37 17.9 -6.9
LMR   La Mourre         145.75  90 ePKPdf   PKPdf    21 37 23.1 -1.8
LMR   La Mourre         145.75  90 ePKP2    PKPab    21 37 23.1 -2.7
LMR   La Mourre         145.75  90 ePKIKP   PKPdf    21 37 23.1 -1.8
      comp=Z,136nm,1.4s
PLDF  La Plantade       145.75  84  PKP     PKPdf    21 37 23.1 -1.7
PLDF  La Plantade       145.75  84  PKP     PKPdf    21 37 23.1 -1.7
PLDF  La Plantade       145.75  84  PKP2    PKPab    21 37 23.1 -2.6
GKN   Gorkha            145.76 227 eP       PKPdf    21 37 20.3 -5.1
      comp=Z,157nm,1.1s
STOF  St-Etienne Org    145.83  89  PKP     PKPdf    21 37 17.3 -7.7
STOF  St-Etienne Org    145.83  89  PKP     PKPdf    21 37 17.3 -7.7
FRF   La Foret Royal    145.97  90 ePKPdf   PKPdf    21 37 23.7 -1.6
FRF   La Foret Royal    145.97  90 ePKIKP   PKPdf    21 37 23.7 -1.6
FRF   La Foret Royal    145.97  90 ePKIKP   PKPdf    21 37 23.7 -1.6
KOLN  Koldanda          145.98 225 eP       PKPdf    21 37 20.8 -5.0
      comp=Z,190nm,1.2s
AVF   Avril sur Loir    146.09  83 ePKPdf   PKPdf    21 37 23.7 -1.7
AVF   Avril sur Loir    146.09  83 ePKIKP   PKPdf    21 37 23.7 -1.7
AVF   Avril sur Loir    146.09  83 ePKIKP   PKPdf    21 37 23.7 -1.7
      comp=Z,34nm,1.1s
SMF   Signal de Mont    146.27  83 ePKPdf   PKPdf    21 37 24.3 -1.4
SMF   Signal de Mont    146.27  83 ePKIKP   PKPdf    21 37 24.3 -1.4
SMF   Signal de Mont    146.27  83 ePKIKP   PKPdf    21 37 24.3 -1.4
      comp=Z,54nm,1.1s
SSF   Saint Saulge      146.33  82 ePKPdf   PKPdf    21 37 24.1 -1.7
SSF   Saint Saulge      146.33  82 ePKIKP   PKPdf    21 37 24.1 -1.7
SSF   Saint Saulge      146.33  82 ePKIKP   PKPdf    21 37 24.1 -1.7
      comp=Z,36nm,1.2s
ORIF  Oris-en-Rattie    146.38  87 ePKPdf   PKPdf    21 37 25.3 -0.6
ORIF  Oris-en-Rattie    146.38  87 ePKIKP   PKPdf    21 37 25.3 -0.6
ORIF  Oris-en-Rattie    146.38  87 ePKIKP   PKPdf    21 37 25.3 -0.6
      comp=Z,54nm,0.9s
ORIF                               eMLR     MLR
      comp=Z,5µm,20.8s,MS6.0
LUCF  Luceram           146.57  90  PKP     PKPdf    21 37 27.2 +0.9
TOUF  Mont Tournerai    146.59  90  PKP     PKPdf    21 37 27.4 +1.1
TOUF  Mont Tournerai    146.59  90  PKP     PKPdf    21 37 27.4 +1.1
TOUF  Mont Tournerai    146.59  90  PKP2    PKPab    21 37 27.4 -1.6
SBF   Sospel            146.60  90 ePKPdf   PKPdf    21 37 24.4 -1.9
SBF   Sospel            146.60  90 ePKIKP   PKPdf    21 37 24.4 -1.9
      comp=Z,105nm,1.0s
PGF   Pioggiola         146.64  93 ePKPdf   PKPdf    21 37 24.9 -1.5
PGF   Pioggiola         146.64  93 ePKIKP   PKPdf    21 37 24.9 -1.5
PGF   Pioggiola         146.64  93 ePKIKP   PKPdf    21 37 24.9 -1.5
      comp=Z,75nm,1.1s
LOR   Lormes            146.65  82 ePKPdf   PKPdf    21 37 25.3 -1.0
LOR                                 LR      LR
      comp=Z,4µm,21.8s,MS6.2
LOR   Lormes            146.65  82 ePKIKP   PKPdf    21 37 25.3 -1.0
LOR                                 MLR     MLR
      comp=Z,4µm,21.8s,MS6.2
LOR   Lormes            146.65  82 ePKIKP   PKPdf    21 37 25.3 -1.0
      comp=Z,57nm,1.1s
LOR                                eMLR     MLR
      comp=Z,4µm,21.8s,MS5.9
AUTN  L'Aution          146.68  90  PKP     PKPdf    21 37 27.1 +0.6
AUTN  L'Aution          146.68  90  PKP     PKPdf    21 37 27.1 +0.6
AUTN  L'Aution          146.68  90  PKIKP   PKPdf    21 37 27.1 +0.6
SAOF  Saorge            146.75  90  PKP     PKPdf    21 37 25.8 -0.8
SAOF  Saorge            146.75  90  PKP     PKPdf    21 37 25.8 -0.8
SAOF  Saorge            146.75  90  PKIKP   PKPdf    21 37 25.8 -0.8
MBDF  Montbardon        146.76  88 ePKPdf   PKPdf    21 37 24.2 -2.4
MBDF  Montbardon        146.76  88 ePKIKP   PKPdf    21 37 24.2 -2.4
DAG   Danmarks Havn     146.80  24 i P      PKPdf    21 37 24.0 -1.7
OG05  Jujurieux         146.82  85  PKP     PKPdf    21 37 28.1 +1.5
OG05  Jujurieux         146.82  85  PKP     PKPdf    21 37 28.1 +1.5
BNI   Bardonecchia      146.91  88 ePKPdf   PKPab    21 37 29.3 -0.9
BNI   Bardonecchia      146.91  88 ePKP2    PKPab    21 37 29.3 -0.9
ESK   Eskdalemuir       146.96  65 ePKPdf   PKPdf    21 37 27.0 +0.5
ESK                                 LR      LR
      comp=Z,4µm,21.0s,MS6.2
ESK   Eskdalemuir       146.96  65 ePKIKP   PKPdf    21 37 27.0 +0.5
ESK                                 MLR     MLR
      comp=Z,4µm,21.0s,MS6.2
TIXI  Tiksi             147.10 326 ePKPdf   PKPdf    21 37 24.9 -1.4
TIXI                                LR      LR
      comp=Z,2µm,22.0s,MS5.8
LPG   La Plagne         147.22  87 ePKPdf   PKPdf    21 37 26.1 -1.2
LPG   La Plagne         147.22  87 ePKHKP            21 37 26.1
LPG   La Plagne         147.22  87 ePKIKP   PKPdf    21 37 26.1 -1.2
      comp=Z,13nm,1.1s
LPL   La Plagne         147.22  87 ePKPdf   PKPdf    21 37 26.1 -1.2
LPL   La Plagne         147.22  87 ePKIKP   PKPdf    21 37 26.1 -1.2
RSL   Roselend          147.27  87  PKP     PKPdf    21 37 29.3 +1.9
RSL   Roselend          147.27  87  PKP     PKPdf    21 37 29.3 +1.9
RSL   Roselend          147.27  87  PKP2    PKPab    21 37 29.3 -2.3
CIT   Chita             147.31 287 ePKIKP   PKPdf    21 37 27.6 +0.4
CIT                                 pmax    pmax
      comp=Z,118nm,1.9s
GTA   Gaotai            147.39 258  PKP     PKPdf    21 37 28.4 +0.6
GTA                                 APKP             21 37 32.6
GTA                                 XPKP             21 37 35.4
GTA                                 PP      PP       21 41 01.5 +4.8
GTA                                 PKS              21 41 03.0
GTA                                 PPP              21 44 21.9
GTA                                 SKS     SKSdf    21 44 31.0 -5.1
GTA                                 SKKS    SKKSac   21 47 44.9 -2.8
GTA                                 SS      SS       22 00 03.0 +3.7
GTA                                 PP      PP
      comp=Z,363nm,9.5s
GTA                                 LR      LR
      comp=N,5µm,16.7s,MS6.4
GTA                                 LR      LR
      comp=E,4µm,19.0s,MS6.4
GTA                                 LR      LR
      comp=Z,5µm,18.2s,MS6.3
CABF  La Chapelle       147.51  85 ePKPdf   PKPdf    21 37 25.9 -1.9
CABF  La Chapelle       147.51  85 ePKIKP   PKPdf    21 37 25.9 -1.9
      comp=Z,20nm,1.2s
MEZF  Maizieres J'vi    148.00  81 ePKPdf   PKPdf    21 37 27.2 -1.3
MEZF  Maizieres J'vi    148.00  81 ePKIKP   PKPdf    21 37 27.2 -1.3
BAIF  Baives            148.37  78 ePKPdf   PKPdf    21 37 28.1 -1.0
BAIF  Baives            148.37  78 ePKIKP   PKPdf    21 37 28.1 -1.0
HAU   Haudompre         148.45  83 ePKPdf   PKPdf    21 37 28.0 -1.3
HAU                                 LR      LR
      comp=Z,3µm,20.3s,MS6.1
HAU   Haudompre         148.45  83 ePKIKP   PKPdf    21 37 28.0 -1.3
HAU                                eMLR     MLR
      comp=Z,3µm,20.2s,MS5.8
DOU   Dourbes           148.60  78  PKhKP            21 37 26.3
DOU                                 PKPbc   PKPbc    21 37 32.5 -0.6
DOU                                 PKPab   PKPab    21 37 36.0 -0.8
HINF  Hinteralfeld      148.63  84 ePKPdf   PKPdf    21 37 28.6 -0.9
HINF  Hinteralfeld      148.63  84 ePKIKP   PKPdf    21 37 28.6 -0.9
SNF   Seneffe           148.64  77  PKPbc   PKPbc    21 37 33.2  0.0
SNF                                 PKPab   PKPab    21 37 37.1 +0.2
TIP   Timpagrande       148.65 105 ePKPdf   PKPbc    21 37 33.1 -0.5
ULN   Ulaanbaatar       148.69 276 ePKPdf   PKPdf    21 37 30.4 +0.7
ULN                                 LR      LR
      comp=Z,2µm,22.0s,MS5.9
ULN   Ulaanbaatar       148.69 276 ePKIKP   PKPdf    21 37 30.4 +0.7
ULN                                 MLR     MLR
      comp=Z,2µm,22.0s,MS5.9
GIVF  Givet             148.73  78 ePKPdf   PKPdf    21 37 27.7 -1.9
GIVF  Givet             148.73  78 ePKIKP   PKPdf    21 37 27.7 -1.9
BBS   Basel-Blauen      148.80  85  PKP     PKPbc    21 37 33.5 -0.2
BBS   Basel-Blauen      148.80  85  PKP2    PKPbc    21 37 33.5 -0.2
MOF   Molkenrain        148.80  84  PKP     PKPbc    21 37 32.2 -1.5
MOF   Molkenrain        148.80  84  PKP     PKPbc    21 37 32.2 -1.5
MOF   Molkenrain        148.80  84  PKIKP   PKPbc    21 37 32.2 -1.5
UCC   Uccle             148.83  77  PKPbc   PKPbc    21 37 33.7  0.0
AQU   L'Aquila          148.98  97 ePKPbc   PKPbc    21 37 35.2 +0.9
AQU   L'Aquila          148.98  97 ePKP2    PKPbc    21 37 35.3 +0.9
ECH   Echery            149.02  83  PKP     PKPbc    21 37 32.4 -1.9
ECH   Echery            149.02  83  PKP     PKPbc    21 37 32.4 -1.9
ECH   Echery            149.02  83  PKIKP   PKPbc    21 37 32.4 -1.9
SONM  Songino Array     149.04 276  PKPbc   PKPdf    21 37 31.3 +1.1
SONM  Songino Array     149.04 276  PKIKP   PKPdf    21 37 31.3 +1.1
SONM  Songino Array     149.04 276  PKPbc   PKPdf    21 37 31.3 +1.1
      comp=Z,3.4nm,0.9s,baz=119,slow=2.6,SNR=21
BCLA  Clavier           149.16  78  PKPab   PKPab    21 37 38.7 -0.3
CDF   Champ du Feu      149.19  83 ePKPdf   PKPdf    21 37 28.8 -1.6
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CDF   Champ du Feu      149.19  83 ePKIKP   PKPdf    21 37 28.8 -1.6
WLF   Walferdange       149.24  80 ePKPdf   PKPbc    21 37 32.9 -1.9
WLF   Walferdange       149.24  80 ePKIKP   PKPbc    21 37 32.9 -1.9
WLF   Walferdange       149.24  80  PKPbc   PKPbc    21 37 33.6 -1.2
WLF                                 PKPab   PKPab    21 37 39.5 +0.1
FELD  Feldberg im Sc    149.30  84  PKP     PKPbc    21 37 32.6 -2.4
BEBN  Eben Emael        149.56  78  PKPbc   PKPbc    21 37 36.3 +0.8
BOD   Bodaibo           149.58 298 ePKIKP   PKPdf    21 37 28.9 -1.8
BOD                                 pmax    pmax
      comp=Z,16nm,0.9s
MEM   Membach           149.64  78  PKPbc   PKPbc    21 37 34.1 -1.7
MEM                                 PKPab   PKPab    21 37 41.4 +0.3
BFO   Black Forest      149.74  84 ePKPdf   PKPbc    21 37 34.9 -1.1
BFO                                 LR      LR
      comp=Z,3µm,19.0s,MS6.1
BFO   Black Forest      149.74  84  PKHKP   PKPbc    21 37 35.3 -0.7
BFO                                 MLR     MLR
      comp=Z,3µm,19.0s,MS6.1
RUP   Ruppelstein       149.76  81  PKP     PKPbc    21 37 35.4 -0.7
RUP   Ruppelstein       149.76  81  PKHKP   PKPbc    21 37 35.4 -0.7
DAVA  Damuels           150.03  87⇓iP       PKPbc    21 37 35.3 -1.5
      comp=Z,52nm,1.1s
DAVA  Damuels           150.03  87⇓ipPKPdf  PKPbc    21 37 35.3 -1.5
      comp=Z,52nm,1.1s
FETA  Feichten          150.35  88⇑iPKPdf   PKPdf    21 37 33.7 +1.4
      comp=Z,43nm,0.9s,SNR=13
RETA  Reutte            150.63  87⇓iPKPbc   PKPbc    21 37 37.4 -0.8
      comp=Z,66nm,1.2s,SNR=6.3
SQTA  Sankt Quirin      150.74  88⇑iP       PKPbc    21 37 37.7 -0.8
      comp=Z,60nm,1.3s
SQTA  Sankt Quirin      150.74  88⇑iPKPbc   PKPbc    21 37 37.7 -0.8
      comp=Z,60nm,1.3s
SQTA  Sankt Quirin      150.74  88⇑iPKIKP   PKPbc    21 37 37.7 -0.8
MOTA  Moosalm           150.75  88⇓iP       PKPbc    21 37 36.4 -2.1
      comp=Z,48nm,1.1s,SNR=14
MOTA  Moosalm           150.75  88⇓ipPKPdf  PKPbc    21 37 36.4 -2.1
      comp=Z,48nm,1.1s,SNR=14
MOTA  Moosalm           150.75  88⇓iPKIKP   PKPbc    21 37 36.4 -2.1
WTTA  Wattenberg        151.00  88 i P      PKPbc    21 37 38.0 -1.1
      comp=Z,93nm,1.2s,SNR=13
WTTA  Wattenberg        151.00  88 i pPKPdf PKPbc    21 37 38.0 -1.1
      comp=Z,93nm,1.2s,SNR=13
WTTA  Wattenberg        151.00  88 i PKIKP  PKPbc    21 37 38.0 -1.1
WATA  Walderalm         151.01  88⇓iP       PKPbc    21 37 38.1 -1.0
      comp=Z,40nm,1.3s
WATA  Walderalm         151.01  88⇓iPKPbc   PKPbc    21 37 38.1 -1.0
      comp=Z,40nm,1.3s
WATA  Walderalm         151.01  88⇓iPKIKP   PKPbc    21 37 38.1 -1.0
SANT  Santorini         151.06 119 ePKPdf   PKPdf    21 37 35.7 +1.9
ABTA  Abfaltersbach     151.20  90 i pPKPdf PKPbc    21 37 37.9 -1.6
      comp=Z,41nm,1.2s,SNR=6.1
FUR   Furstenfeldbru    151.30  86 ePKPbc   PKPbc    21 37 38.5 -1.3
FUR   Furstenfeldbru    151.30  86 ePKIKP   PKPbc    21 37 38.5 -1.3
GRFO  Grafenberg        152.07  83  PFAKE            21 37 50.0  +15
GRFO                                LR      LR
      comp=Z,2µm,20.0s,MS5.9
GRA1  Grafenberg Arr    152.07  83 ePKPbc   PKPbc    21 37 40.9 -0.6
GRF   Grafenberg Arr    152.07  83 ePKIKP   PKPbc    21 37 40.9 -0.6
ZAK   Zakamensk         152.13 278 ePKIKP   PKPdf    21 37 36.3 +1.4
ZAK                                 pmax    pmax
      comp=Z,10.0nm,2.3s
OHR   Ohrid             152.20 107 ePKP     PKPdf    21 37 36.4 +1.0
BIA   Bitola            152.42 108 ePKP     PKPdf    21 37 37.4 +1.7
IRK   Irkutsk           152.46 282 ePKIKP   PKPab    21 37 51.0 -1.7
IRK                                 pmax    pmax
      comp=Z,38nm,1.6s
TLY   Talaya            152.55 281 ePKPdf   PKPdf    21 37 38.2 +2.7
TLY                                 LR      LR
      comp=Z,3µm,20.0s,MS6.1
TLY   Talaya            152.55 281 ePKIKP   PKPbc    21 37 40.8 -1.7
TLY                                 pmax    pmax
      comp=Z,15nm,0.8s
KRUS  Krusevo           152.62 107 ePKP     PKPdf    21 37 37.4 +1.4
KBS   Kingsbay          152.63  17  PFAKE            21 37 50.0  +15
KBS                                 LR      LR
      comp=Z,3µm,21.0s,MS6.0
MOX   Moxa              152.77  82 ePKP     PKPbc    21 37 42.7 -0.3
MOX   Moxa              152.77  82 ePKP     PKPbc    21 37 42.7 -0.3
      comp=Z,58nm,1.6s
MOX
      comp=Z,2µm,21.0s
MOX   Moxa              152.77  82 ePKIKP   PKPbc    21 37 42.7 -0.3
MOA   Molln             152.81  89⇑iP       PKPbc    21 37 42.5 -0.6
      comp=Z,26nm,1.2s
MOA   Molln             152.81  89⇑iPKPbc   PKPbc    21 37 42.5 -0.6
      comp=Z,26nm,1.2s
GERES GERESS Array B    153.02  87  PKPbc   PKPbc    21 37 39.9 -3.8
GERES                               PKPab   PKPab    21 37 53.9 -1.3
GERES GERESS Array B    153.02  87  PKIKP   PKPbc    21 37 39.9 -3.7
GERES                                                21 37 53.9
GERES GERESS Array B    153.02  87  PKPbc   PKPbc    21 37 39.9 -3.8
      comp=Z,2.7nm,0.7s,baz=135,slow=0.8,SNR=8.0
GERES                               PKPab   PKPab    21 37 53.9 -1.3
      comp=Z,8.5nm,0.9s,baz=222,slow=1.8,SNR=11
NKC   Novy Kostel       153.03  83 ePKP     PKPbc    21 37 45.7 +2.1
NKC   Novy Kostel       153.03  83 ePKIKP   PKPbc    21 37 45.7 +2.1
NKC   Novy Kostel       153.03  83⇑ePKPB    PKPbc    21 37 45.7 +2.1
NKC                                 AMS     AMS      22 33 50.0
      comp=Z,4µm,34.9s
KHC   Kasperske Hory    153.10  86 ePKP     PKPdf    21 37 40.7 +4.3
KHC                                e                 21 37 55.8
KHC                                e                 21 38 04.0
KHC                                 LR      LR
      comp=Z,3µm,20.0s,MS6.1
KHC   Kasperske Hory    153.10  86 ePKIKP   PKPdf    21 37 40.7 +4.3
KHC                                e                 21 37 55.8
KHC                                 MLR     MLR
      comp=Z,3µm,20.0s,MS6.1
KHC   Kasperske Hory    153.10  86⇑ePKPB    PKPdf    21 37 40.7 +4.3
KHC                                ePKPAB   PKPab    21 37 55.8 +0.3
KHC                                epPKP    pPKPdf   21 38 04.0  +24
KHC                                 AMS     AMS      22 39 00.0
      comp=Z,3µm,20.0s
SKO   Skopje            153.14 106 ePKP     PKPdf    21 37 38.5 +1.8
VAY   Valandovo         153.30 109 ePKP     PKPdf    21 37 38.8 +1.8
STIP  Stip              153.35 108 ePKP     PKPdf    21 37 38.9 +1.8
CSS   Prodhromos        153.48 132 ePKPdf   PKPdf    21 37 35.5 -2.0
CLL   Collm             153.85  82 ePKP     PKPdf    21 37 41.0 +3.6
CLL                                i PKP    PKPbc    21 37 47.8 +2.4
CLL                                ePKP     PKPab    21 38 01.0 +2.4
CLL                                 LR      LR
      comp=Z,4µm,20.0s,MS6.3
CLL   Collm             153.85  82 ePKIKP   PKPdf    21 37 41.0 +3.6
CLL                                i                 21 37 47.8
CLL                                e                 21 38 01.0
CLL                                 MLR     MLR
      comp=Z,4µm,20.0s,MS6.3
CLL   Collm             153.85  82 ePKPdf   PKPdf    21 37 41.0 +3.6
CLL                                i PKPbc  PKPbc    21 37 47.8 +2.4
      comp=Z,10.0nm,1.0s
CLL                                ePKPab   PKPab    21 38 01.0 +2.4
CLL                                i x      x        21 38 09.3
CLL                                 Lm               22 39 00.0
      comp=N,2µm,20.1s
CLL                                 Lm               22 39 00.0
      comp=E,3µm,19.2s
CLL                                 Lm               22 39 00.0
      comp=Z,4µm,20.0s
MOY   Mondy             154.01 279 ePKIKP   PKPbc    21 37 44.4 -1.3
PRU   Pruhonice         154.08  85 ePKP     PKPab    21 38 01.5 +1.9
PRU   Pruhonice         154.08  85 ePKP2    PKPab    21 38 01.5 +1.9
PRU   Pruhonice         154.08  85 ePKPAB   PKPab    21 38 01.5 +1.9
BRG   Berggiesshubel    154.18  83 ePKP     PKPbc    21 37 45.7 -0.4
BRG   Berggiesshubel    154.18  83 ePKIKP   PKPbc    21 37 45.7 -0.4
BRG                                 pmax    pmax
      comp=Z,47nm,1.2s
BRG   Berggiesshubel    154.18  83 ePKP     PKPbc    21 37 45.7 -0.4
      comp=Z,78nm,1.2s
TREC  Trest             154.26  87 ePKIKP   PKPbc    21 37 47.7 +1.4
TREC                                MLR     MLR
      comp=Z,2µm,20.0s,MS6.0
TREC  Trest             154.26  87⇑ePKPB    PKPbc    21 37 47.7 +1.4
TREC                               ePKPAB   PKPab    21 38 04.4 +4.0
TREC                                AMS     AMS      22 43 00.0
      comp=Z,2µm,20.0s
PKSM  Moragy            154.33  96⇑iP       PKPdf    21 37 39.7 +1.4
PVCC  Panska Ves        154.36  84 ePKP     PKPbc    21 37 49.3 +2.8
PVCC                               e                 21 38 03.7
PVCC                                LR      LR
      comp=Z,3µm,26.5s,MS6.0
PVCC  Panska Ves        154.36  84 ePKIKP   PKPbc    21 37 49.3 +2.8
PVCC                               e                 21 38 03.7
PVCC                                MLR     MLR
      comp=Z,3µm,26.5s,MS6.0
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PVCC  Panska Ves        154.36  84⇑ePKPB    PKPbc    21 37 49.3 +2.8
PVCC                               ePKPAB   PKPab    21 38 03.7 +2.9
PVCC                                AMS     AMS      22 34 40.0
      comp=Z,3µm,26.5s
MODS  Modra-Piesok      154.78  91 ePKP     PKPdf    21 37 42.2 +3.4
MODS  Modra-Piesok      154.78  91 ePKIKP   PKPdf    21 37 42.2 +3.4
MODS  Modra-Piesok      154.78  91 ePKP     PKPdf    21 37 42.2 +3.4
KONO  Kongsberg         154.91  62  PFAKE            21 37 50.0  +11
KONO                                LR      LR
      comp=Z,4µm,20.0s,MS6.2
UPC   Upice             155.16  85 ePKP     PKPdf    21 37 51.7  +12
UPC   Upice             155.16  85 ePKIKP   PKPdf    21 37 51.7  +12
UPC   Upice             155.16  85⇑ePKPB    PKPdf    21 37 51.7  +12
DPC   Dobruska-Polom    155.26  86 ePKP     PKPdf    21 37 49.5  +10
DPC                                e                 21 38 07.4
DPC                                 LR      LR
      comp=Z,3µm,22.1s,MS6.1
DPC   Dobruska-Polom    155.26  86 ePKIKP   PKPdf    21 37 49.5  +10
DPC                                e                 21 38 07.4
DPC                                 MLR     MLR
      comp=Z,3µm,22.1s,MS6.1
DPC   Dobruska-Polom    155.26  86⇑ePKPB    PKPdf    21 37 49.5  +10
DPC                                ePKPAB   PKPab    21 38 07.4 +2.8
DPC                                 AMS     AMS      22 41 40.0
      comp=Z,3µm,22.1s
KSP   Ksiaz             155.47  85 ePKP     PKPdf    21 37 48.9 +9.2
KSP                                 LR      LR
      comp=Z,9µm,31.6s,MS6.4
KSP   Ksiaz             155.47  85 ePKIKP   PKPdf    21 37 48.9 +9.2
KSP                                 MLR     MLR
      comp=Z,9µm,31.6s,MS6.4
BZS   Buzias            155.62 100⇑iP       PKPdf    21 37 39.3 -0.8
MORC  Moravsky Berou    155.66  88 ePKPdf   PKPdf    21 37 41.2 +1.3
MORC  Moravsky Berou    155.66  88 ePKIKP   PKPdf    21 37 41.2 +1.2
VYHS  Vyhne             155.72  92 ePKP     PKPdf    21 37 39.0 -1.1
VYHS  Vyhne             155.72  92 ePKIKP   PKPdf    21 37 39.0 -1.1
VYHS  Vyhne             155.72  92 ePKP     PKPdf    21 37 39.0 -1.1
NAO01 NORSAR Array S    155.77  59  PFAKE            21 37 50.0  +10
NAO01                               LR      LR
      comp=Z,5µm,19.0s,MS6.4
NOA   NORSAR Array B    155.96  59  PKPab   PKPab    21 38 05.2 -2.1
NOA   NORSAR Array B    155.96  59  PKP2    PKPab    21 38 05.2 -2.1
NOA   NORSAR Array B    155.96  59  PKPab   PKPab    21 38 05.2 -2.1
      comp=Z,5.4nm,1.2s,baz=256,slow=4.3,SNR=2.9
PSZ   Piszkesteto       156.01  94 ePKPab   PKPab    21 38 05.2 -2.7
PSZ   Piszkesteto       156.01  94 ePKP2    PKPab    21 38 05.3 -2.6
PSZ   Piszkesteto       156.01  94⇓ePKP/p   PKPab    21 38 05.7 -2.2
OKC   Ostrava-Krasne    156.03  88 ePKP     PKPdf    21 37 41.7 +1.3
OKC                                e                 21 37 59.2
OKC   Ostrava-Krasne    156.03  88 ePKIKP   PKPdf    21 37 41.7 +1.3
OKC   Ostrava-Krasne    156.03  88 ePKPDF   PKPdf    21 37 41.7 +1.3
OKC                                ePKPAB   PKPab    21 37 59.2 -8.8
OKC                                 AMS     AMS      22 40 00.0
      comp=Z,2µm,20.5s
KECS  Kecovo            156.65  93 ePKP     PKPab    21 38 11.0 +0.4
DRGR                    156.94  99⇑iP       PKPdf    21 37 41.3 -0.4
WMQ   Urumqi            157.00 251 ePKP     PKPdf    21 37 47.4 +5.5
WMQ                                 LR      LR
      comp=N,2µm,25.6s,MS6.1
WMQ                                 LR      LR
      comp=E,2µm,21.4s,MS6.1
WMQ                                 LR      LR
      comp=Z,3µm,23.0s,MS6.0
KBL   Kabul             157.03 206 ePKPab   PKPab    21 38 11.9 -0.7
NIE   Niedzica          157.04  91 ePKP     PKPab    21 38 13.4 +1.1
NIE   Niedzica          157.04  91 ePKP2    PKPab    21 38 13.4 +1.1
OJC   Ojcow             157.15  89 eP       pPKPdf   21 37 57.2  +12
OJC   Ojcow             157.15  89 ePKIKP   pPKPdf   21 37 57.2  +12
ANTO  Ankara            157.34 125  PFAKE            21 37 50.0 +7.5
ANTO                                LR      LR
      comp=Z,2µm,21.0s,MS6.0
BR131 Keskin Array S    157.60 127  PFAKE            21 37 50.0 +7.2
BR131                               LR      LR
      comp=Z,1µm,19.0s,MS5.8
BRTR  Keskin Array B    157.60 127  PKP     PKPdf    21 37 40.0 -2.8
BRTR                                PKPab   PKPab    21 38 14.6 -0.4
BRTR  Keskin Array B    157.60 127  PKIKP   PKPdf    21 37 40.1 -2.7
BRTR                                                 21 38 14.6
BRTR  Keskin Array B    157.60 127  PKP     PKPdf    21 37 40.0 -2.8
      comp=Z,1.7nm,1.1s,baz=207,slow=1.6,SNR=4.6
BRTR                                PKPab   PKPab    21 38 14.5 -0.4
      comp=Z,5.4nm,1.0s,baz=188,slow=6.2,SNR=5.2
UZH   Uzhgorod          157.74  95 ePKP2    PKPab    21 38 12.8 -2.6
MLR   Muntele Rosu      157.92 105⇓iP       PKPdf    21 37 47.2 +4.2
MALT  Malatya           158.42 137 ePKPab   PKPab    21 38 17.4 -1.2
MALT  Malatya           158.42 137 ePKP2    PKPab    21 38 17.4 -1.1
KWP   Kalwaria          158.49  93 ePKPdf   PKPdf    21 37 42.9 -0.6
KWP   Kalwaria          158.49  93 ePKIKP   PKPdf    21 37 42.9 -0.7
VRI   Vrincioaia        158.58 105⇓iP       PKPdf    21 37 44.1 +0.3
BURAR Bucovina Array    158.81 100⇓iP       PKPdf    21 37 40.7 -3.3
KSH   Kashi             159.29 225 ePKP     PKPdf    21 37 51.0 +6.1
KSH                                ePKS              21 41 22.4
KSH                                ePP      PP       21 42 10.9 +7.3
KSH                                eSKS     SKSdf    21 44 50.2 +0.2
KSH                                 PP      PP
      comp=Z,418nm,5.3s
KSH                                 LR      LR
      comp=N,3µm,14.5s
KSH                                 LR      LR
      comp=E,3µm,9.5s
KSH                                 LR      LR
      comp=Z,5µm,14.9s,MS6.5
KEV   Kevo              160.86  32  PFAKE            21 38 00.0  +14
KEV                                 LR      LR
      comp=Z,3µm,20.0s
MK31  Makanchi Array    161.83 250 ePKPdf   PKPdf    21 37 47.1 -0.3
MK31  Makanchi Array    161.83 250 ePKIKP   PKPdf    21 37 47.1 -0.3
MKAR  Makanchi Array    161.83 250  PKP     PKPdf    21 37 42.8 -4.6
MKAR                                PKPab   PKPab    21 38 30.0 -3.2
MKAR                                PP      PP       21 42 15.3 -2.2
MKAR  Makanchi Array    161.83 250  PKIKP   PKPdf    21 37 42.8 -4.6
MKAR                                                 21 38 30.0
MKAR  Makanchi Array    161.83 250  PKP     PKPdf    21 37 42.8 -4.6
      comp=Z,0.8nm,0.9s,baz=95,slow=3.3,SNR=3.2
MKAR                                PKPab   PKPab    21 38 30.0 -3.2
      comp=Z,5.0nm,0.8s,baz=116,slow=5.5,SNR=16
MKAR                                PP      PP       21 42 15.3 -2.2
      comp=Z,2.1nm,0.9s,baz=112,slow=8.4,SNR=5.8
AAK   Ala-Archa         162.52 228 ePKPdf   PKPdf    21 37 47.1 -1.2
AAK                                 LR      LR
      comp=Z,3µm,20.0s
AAK   Ala-Archa         162.52 228 ePKIKP   PKPdf    21 37 47.1 -1.1
AAK                                 MLR     MLR
      comp=Z,3µm,20.0s
FRU   Bishkek           162.63 228 ePKP2    PKPab    21 38 35.0 -1.8
FRU                                e                 21 42 29.0
FRU                                 MLR     MLR
      comp=Z,8µm,21.0s
KIEV  Kiev              162.66  96  PFAKE            21 38 00.0  +12
KIEV                                LR      LR
      comp=Z,3µm,21.0s
AKASG Malin Array Be    162.67  96  PKP     PKPdf    21 37 46.3 -1.8
AKASG                               PKPab   PKPab    21 38 35.2 -1.6
AKASG Malin Array Be    162.67  96  PKIKP   PKPdf    21 37 46.3 -1.8
AKASG                                                21 38 35.2
AKASG Malin Array Be    162.67  96  PKP     PKPdf    21 37 46.3 -1.8
      comp=Z,0.1nm,0.3s,baz=260,slow=2.1,SNR=8.3
AKASG                               PKPab   PKPab    21 38 35.2 -1.6
      comp=Z,4.8nm,0.8s,baz=252,slow=4.1,SNR=7.7
ANN   Anapa             163.33 124 ePKIKP   PKPdf    21 37 42.2 -6.7
ANN                                 pmax    pmax
      comp=Z,70nm,1.6s
ZALV  Zalesovo Beam     163.93 274  PKP     PKPdf    21 37 45.2 -4.0
ZALV                                PKPab   PKPab    21 38 38.3 -4.0
ZALV  Zalesovo Beam     163.93 274  PKP     PKPdf    21 37 45.2 -4.0
      comp=Z,1.3nm,0.9s,baz=207,slow=1.0,SNR=5.3
ZALV                                PKPab   PKPab    21 38 38.3 -4.0
      comp=Z,3.2nm,1.0s,baz=108,slow=4.8,SNR=5.5
ZAL   Zalesovo          163.94 274  PKIKP   PKPdf    21 37 45.2 -4.0
ZAL                                                  21 38 38.3
LVZ   Lovozero          164.20  32  PFAKE            21 38 00.0  +11
LVZ                                 LR      LR
      comp=Z,3µm,20.0s
ZEI   Tsey              164.33 142 ePKIKP   PKPdf    21 37 52.0 +2.1
KIV   Kislovodsk        164.91 137  PFAKE            21 38 00.0  +10
KIV                                 LR      LR
      comp=Z,3µm,21.0s
KIV   Kislovodsk        164.91 137 ePKIKP   PKPdf    21 37 48.6 -1.8
KIV                                 pmax    pmax
      comp=Z,8.0nm,1.2s
KURK  Kurchatov         166.08 257 ePKPdf   PKPdf    21 37 53.2 +2.1
KURK                                LR      LR
      comp=Z,3µm,20.0s
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KURK	Kurchatov	166.08	257	ePKIKP	PKPdf	21 37 53.3	+2.2
KURK				MLR	MLR		
	comp=Z,3µm,20.0s						
OBN	Obninsk	168.40	86	PKPdf	PKPdf	21 37 54.4	+1.7
OBN				LR	LR		
	comp=Z,3µm,21.0s						
OBN	Obninsk	168.40	86⇑	ePKIKP	PKPdf	21 37 52.5	-0.2
OBN				pmax	pmax		
	comp=Z,27nm,1.5s						
BRVK	Borovoye	171.74	255	ePKPdf	PKPdf	21 37 57.8	+3.2
BRVK				LR	LR		
	comp=Z,4µm,22.0s						
BRVK	Borovoye	171.74	255	ePKIKP	PKPdf	21 37 57.8	+3.2
BRVK				MLR	MLR		
	comp=Z,4µm,22.0s						
ARU	Arti	179.00	299	PFAKE		21 38 10.0	+14
ARU				LR	LR		
	comp=Z,3µm,22.0s						

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*ISCJB **04** 21:33:48.2±0.8, 19.48N±0.03×78.15W±0.06, h10^{km}, Error ellipse: s-maj=7.8km s-min=4.5km az=7.9*

*JSN **04** 21:33:51.8±0.6, 19.36N×78.21W, h11^{km}±4^{km}, MD4.0*

*SSNC **04** 21:33:56.7, 19.75N×78.22W, h25^{km}, MD3.1, ML2.9*

ISC 04 21:33:49.0±0.8**, 19.45N**±0.03×**78.13W**±0.06**, h10^{km}, n11, σ1ˢ.02**/20**, 6C, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBJ	Montego Bay	1.07	166⇑	eP	Pb	21 34 09.4	-0.1
MBJ				eS	Sg	21 34 22.5	-0.9
LMGC	Las Mercedes	1.22	60	ePG	Pg	21 34 14.1	+1.6
LMGC				eSG	Sg	21 34 30.1	+1.7
	comp=N,476nm,0.1s						
LMGC				e			
	comp=E,325nm,0.1s						
BBJ	Bamboo Saint A	1.33	142⇑	eP	Pn	21 34 14.6	+0.9
CVJ	Coleyville	1.34	155⇑	iP	Pn	21 34 14.1	+0.4
MCJ	Malvern	1.57	165⇑	eP	Pn	21 34 17.2	+0.3
MCJ				eS	Sn	21 34 36.2	-1.0
CCCC	Cccc	1.78	11	eP	Pg	21 34 22.8	-0.3
CCCC				eS	Sn	21 34 38.5	-3.9
	comp=N,39nm,0.1s						
CCCC				e			
	comp=E,42nm,0.1s						
STH	Stony Hill	1.85	137⇑	eP	Pn	21 34 21.4	+0.7
STH				i S	Sn	21 34 44.4	+0.2
PCJ	Portland Cotta	1.93	151⇑	eP	Pn	21 34 23.2	+1.3
PCJ				eS	Sn	21 34 46.1	-0.1
RCC	Rio Carpintero	2.35	76	ePG	Pg	21 34 29.4	-4.7
RCC				eSG	Sg	21 34 57.4	-7.3
	comp=N,65nm,0.4s						
RCC				e			
	comp=E,54nm,0.4s						
MGV	Manicaragua	3.17	327	eP	Pn	21 34 39.0	+0.1
MGV				eS	Sn	21 35 11.9	-4.8
	comp=N,32nm,0.3s						
MGV				e			
	comp=E,41nm,0.5s						
MASC	Masc	3.74	78	eP	Pb	21 34 53.1	-2.0
MASC				eS	Sb	21 35 39.3	-1.2
	comp=N,2µm,0.3s						
MASC				e			
	comp=E,2µm,0.3s						

MOS 04 21:37:47.9±0.1**, 42.93N×45.15E, h64^{km}, mb3.6**/1**, 2C-3D, Error ellipse: s-maj=31.6km s-min=14.6km az=27.3, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNJR	Sundja	0.29	300⇑	iP	Pn	21 38 00.3	+2.0
SNJR				i S	Sn	21 38 11.1	+5.2
VLKR	Vladikavkaz	0.37	289	eP	Pn	21 38 00.8	+1.9
VLKR				eS	Sn	21 38 11.9	+4.9
BTKR	Batakoyurt	0.63	315	eP	Pn	21 38 03.3	+1.7
BTKR				eS	Sn	21 38 15.3	+3.7
LACR	Lac	0.64	261⇓	iP	Pn	21 38 03.4	+1.8
LACR				i S	Sn	21 38 15.3	+3.6
ARNR	Ardon	0.69	293	eP	Pn	21 38 03.9	+1.7
ARNR				eS	Sn	21 38 16.1	+3.3
KMSR	Komsomolskaya	0.77	306	eP	Pn	21 38 04.7	+1.5
KMSR				eS	Sn	21 38 17.5	+3.1
KORR	Kora	0.81	282	eP	Pn	21 38 05.1	+1.4
KORR				eS	Sn	21 38 18.2	+2.9
TRKR	Terskaya	0.85	339	eP	Pn	21 38 05.6	+1.4
TRKR				i S	Sn	21 38 18.3	+2.0
ZEI	Tsey	0.93	261⇓	iP	Pn	21 38 06.4	+1.2
ZEI				i S	Sn	21 38 20.6	+2.5
LSNR	Lesken	1.04	290⇑	iP	Pn	21 38 07.5	+1.0
LSNR				i S	Sn	21 38 22.5	+2.1
DIGR	Digorskoe uzhe	1.15	269⇓	iP	Pn	21 38 09.0	+1.0
DIGR				i S	Sn	21 38 25.0	+1.9

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*SSNC **04** 21:46:58.4, 19.05N×79.19W, h25^{km}, MD3.2, ML2.0*

*ISCJB **04** 21:47:22.0±1.5, 19.38N±0.03×77.75W±0.08, h9^{km}±9^{km}, Error ellipse: s-maj=13.4km s-min=5.4km az=10.4*

*JSN **04** 21:47:23.5±1.1, 19.33N×77.92W, h9^{km}±9^{km}, MD3.3*

ISC 04 21:47:22.2±1.4**, 19.36N**±0.04×**77.78W**±0.09**, h11^{km}**±7^{km}**, n8, σ0ˢ.59**/14**, 5D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LMGC	Las Mercedes	1.01	46	ePG	Pg	21 47 41.1	-0.5
LMGC				eSG	Sg	21 47 54.9	+0.2
	comp=N,157nm,0.1s						
LMGC				e			
	comp=E,165nm,0.1s						
BBJ	Bamboo Saint A	1.09	154⇓	eP	Pg	21 47 43.7	+0.6
CVJ	Coleyville	1.15	169⇓	eP	Pb	21 47 44.1	0.0
CVJ				eS	Sb	21 47 58.5	-0.6
MCJ	Malvern	1.43	177⇓	eP	Pn	21 47 47.3	-0.9
MCJ				eS	Sn	21 48 06.2	-0.8
STH	Stony Hill	1.57	144⇓	eP	Pn	21 47 50.4	+0.3
STH				eS	Sn	21 48 11.0	+0.6
PCJ	Portland Cotta	1.72	160⇓	eP	Pn	21 47 53.0	+0.9
PCJ				eS	Sn	21 48 14.8	+0.8
CCCC	Cccc	1.83	0	eS	Sn	21 48 17.3	+0.5
	comp=N,0.0nm,0.1s						
CCCC				e			
	comp=E,0.0nm,0.1s						
RCC	Rio Carpintero	2.06	72	eP	Pn	21 47 56.2	-0.6
RCC				eS	Sn	21 48 22.0	-0.5
	comp=N,14nm,0.2s						
RCC				e			
	comp=E,19nm,0.3s						

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*IDC **04** 22:38:38.0±1.3, 2.52N×128.14E, h0^{km}, mb3.8/4, mb1 4.1/4, mb1mx3.7/15, mbtmp3.9/4, MS4.7/1, Ms1 4.7/1, ms1mx3.5/29, Error ellipse: s-maj=74.4km s-min=22.8km az=77.0*

*ISCJB **04** 22:38:41.5±1.0, 2.7N±0.1×128.2E±0.4, h33^{km}, mb3.8/4, Error ellipse: s-maj=64.7km s-min=16.9km az=168.5*

ISC 04 22:38:43.6±1.0**, 2.6N**±0.1×**128.3E**±0.4**, h35^{km}, n8, σ0ˢ.90**/7**, mb3.8**/4**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	15.77	165	eP	Pn	22 42 32.7	+10
	6.0nm,0.4s						
WRA	Warramunga Arr	23.18	165	P	P	22 43 46.7	-0.7
	1.7nm,0.3s,mb4.0,baz=342,slow=11,SNR=7.5						
WB2	Warramunga Arr	23.19	165	eP	P	22 43 49.1	+1.6
CTA	Charters Tower	28.63	143	LR	LR	22 55 12.0	
	comp=Z,1µm,18.7s,baz=270,slow=35						
MJAR	Matsushiro Arr	34.99	14	P	P	22 45 32.8	+0.1
	0.9nm,0.6s,mb3.9,baz=191,slow=9.8,SNR=4.0						
STKA	Stephens Creek	36.55	161	eP	P	22 45 45.6	-0.5
	0.8nm,0.3s,mb4.0						
STKA	Stephens Creek	36.55	161	P	P	22 45 44.7	-1.4
	1.2nm,0.3s,mb4.2,baz=342,slow=9.5,SNR=5.1						
MKAR	Makanchi Array	59.36	325	P	P	22 48 42.3	0.0
	0.2nm,0.4s,mb3.5,baz=115,slow=7.4,SNR=4.3						

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*ISCJB **04** 22:47:12.0±1.4, 19.35N±0.04×78.01W±0.08, h6^{km}±11^{km}, Error ellipse: s-maj=13.4km s-min=7.0km az=13.1*

*JSN **04** 22:47:12.9±1.0, 19.43N×78.27W, h30^{km}±403^{km}, MD3.2*

*SSNC **04** 22:47:13.2, 19.14N×78.07W, h7^{km}, MD3.0, ML2.0*

ISC 04 22:47:12.5±1.2**, 19.32N**±0.04×**78.03W**±0.08**, h7^{km}**±7^{km}**, n8, σ0ˢ.55**/13**, 4C, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBJ	Bamboo Saint A	1.18	142⇑	eP	Pg	22 47 35.5	+0.3
CVJ	Coleyville	1.19	157⇑	eP	Pg	22 47 35.0	-0.3
LMGC	Las Mercedes	1.21	52	ePG	Pg	22 47 35.9	+0.1
LMGC				eSG	Sg	22 47 51.1	-0.4
	comp=N,174nm,0.1s						
LMGC				e			
	comp=E,140nm,0.2s						
MCJ	Malvern	1.43	167⇑	eP	Pn	22 47 38.1	-0.7
MCJ				eS	Sn	22 47 56.7	-1.1
STH	Stony Hill	1.70	137	eS	Sn	22 48 04.8	+0.4
PCJ	Portland Cotta	1.78	152⇑	eP	Pn	22 47 44.0	+0.4
PCJ				eS	Sn	22 48 07.5	+1.1
CCCC	Cccc	1.88	7	eP	Pn	22 47 45.0	0.0
CCCC				eS	Sg	22 48 13.4	+0.4
	comp=N,0.4nm,0.1s						
CCCC				e			
	comp=E,0.4nm,0.3s						
RCC	Rio Carpintero	2.30	73	eP	Pn	22 47 51.0	+0.3
RCC				eS	Sn	22 48 18.8	-0.5
	comp=N,17nm,0.2s						
RCC				e			
	comp=E,21nm,0.4s						

JMA 04 22:47:54.7±0.5**, 31.22N×142.01E, h0^{km}, M4.0, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	2.65	316	P	Pn	22 48 39.8	+1.1
BSO1	Boso 1	3.53	346	P	Pn	22 48 53.3	+2.5
JOD2	Odawara 2	4.72	330	P	Pn	22 49 10.0	+2.9
JHU	Hanno	5.15	334	P	Pn	22 49 15.8	+2.8
JHU				eS	Sn	22 50 14.2	+1.0
JRY	Ryogami san	5.44	332	P	Pn	22 49 19.9	+2.9
JRY				eS	Sn	22 50 23.6	+3.2
JHO	Hitachi	5.51	348	P	Pn	22 49 19.3	+1.3
JHO				eS	Sn	22 50 21.6	-0.4
JAG	Ashikaga	5.61	338	P	Pn	22 49 20.8	+1.4
JAG				eS	Sn	22 50 26.0	+1.5
MAT	Matsushiro	6.18	330	P	Pn	22 49 30.1	+2.9
MAT				eS	Sn	22 50 43.5	+5.0
JMK	Ichinoseki	7.74	355	eS	Sn	22 51 13.2	-3.8

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*ISCJB **04** 22:52:52.1±0.3, 55.92S±0.07×123.3W±0.1, h10^{km}, mb4.8/21, MS5.3/51, Error ellipse: s-maj=12.1km s-min=9.5km az=37.3*

*IDC **04** 22:52:52.1±0.5, 55.78S×123.38W, h0^{km}, mb4.6/11, mb1 4.7/11, mb1mx4.6/14, mbtmp4.5/11, MS5.2/15, Ms1 5.2/15, ms1mx5.0/22, Error ellipse: s-maj=24.2km s-min=17.0km az=159.0*

*MOS **04** 22:52:54.4±2.0, 56.03S×123.59W, h10^{km}, mb5.3/6, MS5.3/10, Error ellipse: s-maj=26.1km s-min=15.8km az=80.3*

*GCMT **04** 22:52:54.4±0.2, 56.09S×123.41W, h15^{km}±1^{km}, MW5.6/84, Moment Tensor Solution. s61,c92; s84,c148; Duration: 1ˢ.6 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.29±.07; $M_{\theta\theta}$2.01±.08; $M_{\phi\phi}$-1.72±.07; $M_{r\theta}$-0.21±.23; $M_{\theta\phi}$2.76±.06; $M_{\phi r}$-0.09±.22; Best double couple: $M_0$3.33800×10^{17} NP1:ϕ_s197.00000°,δ87.00000°,λ178.00000°. NP2: ϕ_s287.00000°,δ88.00000°,λ3.00000°. Principal axes: T 3.4900, Plg3.0000°, Azm152.0000°; N -0.3070, Plg86.0000°, Azm325.0000°; P -3.1860, Plg0.0000°, Azm62.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **04** 22:52:54.4±0.2, 55.79S×123.45W, h10^{km}, mb5.2/12, MS5.3/34 Error ellipse: s-maj=14.1km s-min=10.0km az=147.0*

ISC 04 22:52:53.9±0.3**, 55.88S**±0.07×**123.4W**±0.1**, h10^{km}, n286, σ0ˢ.91**/47**, mb4.8**/21**, MS5.3**/51**, 17C-2D, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMSA	Palmer Station	29.59	132	eP	P	22 58 58.1	-0.4
	69nm,1.2s,mb5.3						
PMSA				LR	LR	23 07 43.6	
PMSA	Palmer Station	29.59	132	P	P	22 59 00.5	+2.0
	25nm,0.9s,mb5.0,baz=262,slow=14,SNR=3.8						
PMSA				LR	LR	23 07 43.6	
	comp=Z,5µm,19.6s,MS5.2,baz=269,slow=30						
USHA	Ushuaia	30.56	111	LR	LR	23 08 23.1	
	comp=Z,4µm,22.0s,MS5.1,baz=238,slow=30						
SBA	Scott Base	31.95	202	P	P	22 59 15.0	-4.2
SBA				LR	LR		
	comp=Z,2µm,20.0s,MS4.7						
VNDA	Vanda	33.01	203	PFAKE		22 59 40.0	+11
VNDA				LR	LR		
	comp=Z,2µm,19.0s,MS4.8						
RKT	Rikitea	33.83	341	eLR	LR	23 08 31.6	
	comp=Z,12µm,27.5s,baz=169						
RKT	Rikitea	33.83	341	eT		23 34 50.6	
	comp=Z,8.3nm,0.3s						
QSPA	South Pole Qui	34.30	180	eP	P	22 59 41.8	+2.1
	comp=Z,92nm,1.7s,mb5.4						
EFI	East Falkland	37.54	112	PFAKE		23 00 20.0	+12
EFI				LR	LR		
	comp=Z,6µm,21.0s,MS5.4						
SNZO	South Karori	42.00	263	PFAKE		23 01 00.0	+15
SNZO				LR	LR		
	comp=Z,3µm,21.0s,MS5.1						
TVO	Taravao	42.79	322	eT		23 46 05.0	
	comp=Z,4.7nm,0.3s						
PAE	Paea	43.02	322	eT		23 46 21.6	
	comp=Z,7.5nm,0.3s						
PPT	Papeete	43.10	322	eS	S	23 07 27.3	+7.3
	comp=Z,1µm,26.5s						
PPT				eLQ		23 10 41.9	
	comp=Z,9µm,27.2s						
PPT				eLR	LR	23 12 56.5	
	comp=Z,9µm,25.5s,baz=160						
PPT	Papeete	43.10	322	LR	LR	23 14 17.7	
	comp=Z,3µm,19.8s,MS5.2,baz=90,slow=30						
VAH	Vaihoa	44.63	326	eT		23 48 22.0	
	comp=Z,86nm,0.3s						
PMOR	Pomariorio Ree	44.93	325	eT		23 48 45.1	
	comp=Z,13nm,0.3s						
CFAA	Coronel Fontan	45.12	81	P	P	23 01 08.3	-1.9
	comp=Z,0.8nm,1.0s,mb3.5,baz=236,slow=7.3,SNR=12						
CFAA				LR	LR	23 15 22.1	
	comp=Z,377nm,21.8s,MS4.3,baz=229,slow=30						
LCO	Las Campanas	45.75	77	eP	P	23 01 15.4	+0.2
	comp=Z,27nm,1.1s,mb5.1						
SNAA	Sanae	46.12	158	P	P	23 01 17.7	+0.1
	comp=Z,1.6nm,0.8s,mb4.0,baz=230,slow=3.6,SNR=4.9						
RAO	Raoul Island	46.58	282	P	P	23 01 21.3	-0.4
TAOE	Nuku Hiva Isla	48.74	338	eS	S	23 08 51.2	+10
	comp=Z,3µm,24.1s						
TAOE				eLR	LR	23 15 41.4	
	comp=Z,16µm,24.6s						
MAIT	Maitri	49.66	162	eP	P	23 01 44.3	-0.7
NVL	N'lazarevskaya	49.69	162	eP	P	23 01 44.3	-0.9
NVL				e		23 03 12.9	
NVL				eSS	ScS	23 11 40.2	+4.1
NVL				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.1						
NVL				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.4						
CASY	Casey	51.59	205	eP	P	23 02 00.4	+0.8
CASY				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
SYO	Syowa Base	54.80	173⇑	eP	P	23 02 22.8	-0.3
ARE	Arequipa	55.51	66	eP	P	23 02 30.0	+1.1
TAU	Tasmania Unive	55.56	243	P	P	23 02 28.1	-0.9
TAU				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
NNA	Nana	56.65	58	P	P	23 02 36.6	-0.5
MAW	Mawson	56.74	183	P	P	23 02 37.9	+0.8
	comp=Z,2.3nm,0.4s,mb4.6,baz=200,slow=6.1,SNR=2.9						
MAW				LR	LR	23 25 24.5	
	comp=Z,4µm,20.2s,MS5.5,baz=166,slow=34						
LPAZ	La Paz	57.40	69	eP	P	23 02 43.1	+0.7
LPAZ				LR	LR	23 21 32.6	
LPAZ	La Paz	57.40	69	P	P	23 02 43.0	+0.6
	comp=Z,8.5nm,0.9s,mb4.8,baz=197,slow=5.5,SNR=22						
LPAZ				LR	LR	23 21 32.7	
	comp=Z,2µm,19.2s,MS5.2,baz=174,slow=30						
ATAH	Atahualpa	60.29	54	LR	LR	23 23 10.5	
	comp=Z,3µm,18.7s,MS5.5,baz=147,slow=30						
OTAV	Otavalo	66.70	50	eP	P	23 03 45.4	+0.4
	comp=Z,24nm,1.3s,mb5.1						
STKA	Stephens Creek	66.91	247	eP	P	23 03 45.8	-0.3
	comp=Z,4.8nm,1.0s,mb4.5						
STKA	Stephens Creek	66.91	247	P	P	23 03 46.0	-0.1
	comp=Z,1.9nm,0.7s,mb4.2,baz=184,slow=9.5,SNR=3.4						
STKA				LR	LR	23 26 17.8	
	comp=Z,3µm,21.8s,MS5.4,baz=118,slow=30						
ROSC	El Rosal	72.63	52	P	P	23 04 22.1	+0.7
	comp=Z,3.5nm,0.3s,mb4.7,baz=313,slow=4.7,SNR=13						
ROSC				LR	LR	23 30 59.3	
	comp=Z,1µm,18.8s,MS5.2,baz=182,slow=32						
JTS	JuntasAbangare	73.28	40	eP	P	23 04 24.0	-1.2
	comp=Z,39nm,1.3s,mb5.2						
JTS	JuntasAbangare	73.28	40⇓	eP	P	23 04 31.2	+6.0
JTS	JuntasAbangare	73.28	40	LR	LR	23 29 35.4	
	comp=Z,1µm,20.0s,MS5.2,baz=328,slow=30						
CTA	Charters Tower	73.82	258	eP	P	23 04 30.2	+1.7
	comp=Z,16nm,1.2s,mb4.8						
CTA	Charters Tower	73.82	258	eP	P	23 04 30.2	+1.7
CTA				pmax	pmax		
	comp=Z,16nm,1.2s						
CTA	Charters Tower	73.82	258	P	P	23 04 30.1	+1.6
	comp=Z,9.8nm,0.9s,mb4.7,baz=255,slow=8.2,SNR=3.2						
CTAO	Charters Tower	73.82	258	eP	P	23 04 28.6	+0.1
	comp=Z,41nm,1.3s,mb5.2						
CTAO				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
CTAO	Charters Tower	73.82	258	eP	P	23 04 28.6	+0.1
CTAO				pmax	pmax		
	comp=Z,41nm,1.3s,mb5.2						
CTAO				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
NWAO	Narrogin (SRO)	77.62	229	PFAKE		23 05 00.0	+10
NWAO				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
WB2	Warramunga Arr	80.36	249	eP	P	23 05 05.6	+0.3
WB2	Warramunga Arr	80.36	249	eP	P	23 05 05.7	+0.4
WRA	Warramunga Arr	80.36	249	P	P	23 05 04.7	-0.7
	comp=Z,6.7nm,0.9s,mb4.6,baz=146,slow=4.8,SNR=20						
WRA				LR	LR	23 35 46.3	
	comp=Z,2µm,20.5s,MS5.5,baz=150,slow=32						
TEIG	Tepich	81.43	33	LR	LR	23 34 46.3	
	comp=Z,926nm,19.0s,MS5.2,baz=171,slow=31						
PCRV	Puerto La Cruz	81.79	58	LR	LR	23 37 43.7	
	comp=Z,2µm,20.3s,MS5.5,baz=19,slow=33						
PMG	Port Moresby	81.99	265	PFAKE		23 05 30.0	+16
PMG				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
FITZ	Fitzroy Crossi	86.37	243	eP	P	23 05 36.2	-0.1
	comp=Z,20nm,1.1s,mb5.2						
TXAR	Lajitas Array	86.53	17	P	P	23 05 36.1	-0.4
	comp=Z,2.6nm,1.0s,mb4.4,baz=182,slow=7.8,SNR=14						
JCT	Junction City	88.34	20	eP	P	23 05 45.6	+0.3
	comp=Z,25nm,1.3s,mb5.3						
JCT	Junction City	88.34	20	eP	P	23 05 45.6	+0.3
JCT				pmax	pmax		
	comp=Z,25nm,1.3s,mb5.3						
ANMO	Albuquerque	91.62	14	eP	P	23 06 00.3	-0.1
	comp=Z,5.9nm,1.0s,mb4.9						
ANMO				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
ANMO	Albuquerque	91.62	14	eP	P	23 06 00.4	-0.1
ANMO				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ANMO				MLR	MLR		
	comp=Z,1µm,21.0s						
ANMO	Albuquerque	91.62	14	P	P	23 06 00.4	-0.1
	comp=Z,2.7nm,0.8s,mb4.6,baz=184,slow=4.3,SNR=6.8						
BOSA	Boshof	91.69	153	P	P	23 05 59.1	-2.2
	comp=Z,2.7nm,1.0s,mb4.5,baz=206,slow=9.7,SNR=3.9						
BOSA				LR	LR	23 45 01.7	
	comp=Z,2µm,18.2s,MS5.5,baz=284,slow=34						
CMB	Columbia Colle	93.59	2	eP	P	23 06 09.7	+0.2
	comp=Z,9.0nm,1.4s,mb5.0						
CMB				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
CMB	Columbia Colle	93.59	2	eP	P	23 06 09.7	+0.2
CMB				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb5.0						
CMB				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
ARUT	Antelope Range	93.69	8	P	P	23 06 11.4	+1.4
TPH	Tonopah	93.74	5	PFAKE		23 06 20.0	+10
TPH				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
NVAR	Mina Array Bea	94.05	4	P	P	23 06 11.2	-0.4
	comp=Z,0.5nm,0.6s,mb4.1,baz=179,slow=4.2,SNR=3.8						
SDCO	Great Sand Dun	94.50	14	P	P	23 06 13.3	-0.4
SDCO				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
HWUT	Hardware Ranch	97.64	9	PFAKE		23 06 40.0	+12
HWUT				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
PDAR	Pinedale Array	98.97	10	LR	LR	23 43 31.5	
	comp=Z,1µm,19.3s,MS5.5,baz=326,slow=31						
RSSD	Black Hills	100.97	14	PFAKE		23 06 50.0	+6.5
RSSD				LR	LR		
	comp=Z,309nm,22.0s,MS4.8						
NEW	Newport	103.91	4	PFAKE		23 07 10.0	+13
NEW				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
COCO	West Island	104.32	221	PFAKE		23 07 10.0	+12
COCO				LR	LR		
	comp=Z,909nm,20.0s,MS5.3						
YKA	Yellowknife Ar	118.24	5	PKP	PKPdf	23 11 39.3	-0.3
YKA	Yellowknife Ar	118.24	5	PKIKP	PKPdf	23 11 39.3	-0.4
YKA	Yellowknife Ar	118.24	5	PKP	PKPdf	23 11 39.3	-0.3
	comp=Z,0.3nm,0.8s,baz=188,slow=1.2,SNR=3.0						
PMR	Palmer	118.87	346	PKPdf	PKPdf	23 11 39.3	-1.6
PMR				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
PMR	Palmer	118.87	346	PKIKP	PKPdf	23 11 39.3	-1.6
PMR				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.5						
TORD	Torodi Ar. Bea	120.14	113	PKP	PKPdf	23 11 44.0	-0.8
TORD	Torodi Ar. Bea	120.14	113	PKP	PKPdf	23 11 44.0	-0.8
	comp=Z,0.5nm,0.9s,baz=190,slow=1.2,SNR=2.7						
MCK	McKinley	120.91	347	PFAKE		23 12 00.0	+15
MCK				LR	LR		
	comp=Z,710nm,21.0s,MS5.3						
COLA	College	121.88	348	ePKPdf	PKPdf	23 11 45.9	-0.7
COLA				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
COLA	College	121.88	348⇑	iPKIKP	PKPdf	23 11 51.4	+4.8
MAJO	Matsushiro	123.79	287	PFAKE		23 12 00.0	+8.8
MAJO				LR	LR		
	comp=Z,594nm,20.0s,MS5.2						
TATO	Taipei	124.34	264	PFAKE		23 12 00.0	+7.4
TATO				LR	LR		
	comp=Z,811nm,20.0s,MS5.4						
YSS	Yuzh-Sakhalins	128.89	299	PFAKE		23 12 10.0	+9.4
YSS				LR	LR		
	comp=Z,586nm,20.0s,MS5.3						
MA2	Magadan	133.66	315	PFAKE		23 12 20.0	+11
MA2				LR	LR		
	comp=Z,564nm,20.0s,MS5.3						
BILL	Bilibino	133.96	331	PFAKE		23 12 20.0	+10
BILL				LR	LR		
	comp=Z,900nm,20.0s,MS5.5						
MDJ	Mudanjiang	134.12	288	PFAKE		23 12 20.0	+9.5
MDJ				LR	LR		
	comp=Z,287nm,19.0s,MS5.0						
SEY	Seymchan	135.13	320⇓	iPKIKP	PKPdf	23 12 07.4	-4.5
BJT	Baijiatuau	138.46	273	PFAKE		23 12 30.0	+11
BJT				LR	LR		
	comp=Z,266nm,20.0s,MS5.0						
SJPF	Ste Jean	141.46	84	ePKPdf	PKPdf	23 12 25.1	+1.0
SJPF	Ste Jean	141.46	84	ePKIKP	PKPdf	23 12 25.1	+1.0
SJPF	Ste Jean	141.46	84	ePKIKP	PKPdf	23 12 25.1	+1.0
HIA	Hailar	142.29	287	PFAKE		23 12 40.0	+15
HIA				LR	LR		
	comp=Z,482nm,20.0s,MS5.3						
EPF	Esparros	142.29	86	ePKPdf	PKPdf	23 12 26.3	+0.7
EPF	Esparros	142.29	86	ePKIKP	PKPdf	23 12 26.3	+0.7
EPF	Esparros	142.29	86	ePKIKP	PKPdf	23 12 26.3	+0.7
ODAN	Odare	143.49	230	eP	PKPdf	23 12 28.9	+0.6
MTLF	Montolieu	143.54	87	ePKPdf	PKPdf	23 12 28.3	+0.5
MTLF	Montolieu	143.54	87	ePKIKP	PKPdf	23 12 28.3	+0.5
MTLF	Montolieu	143.54	87	ePKIKP	PKPdf	23 12 28.3	+0.5
YAK	Yakutsk	143.70	310	PFAKE		23 12 40.0	+13
YAK				LR	LR		
	comp=Z,560nm,20.0s,MS5.3						
TAPN	Taplejung	143.78	231	eP	PKPdf	23 12 27.9	-0.9

LSA	**Lhasa**	**144.21**	**237**	PFAKE		23 12 40.0	+11
LSA				LR	LR		
	comp=Z,372nm,19.0s,MS5.2						
MFF	**Saint Martin d**	**144.22**	**81**	*e*PKPdf	PKPdf	23 12 27.3	-1.6
MFF	**Saint Martin d**	**144.22**	**81**	*e*PKIKP	PKPdf	23 12 27.3	-1.6
MFF	**Saint Martin d**	**144.22**	**81**	*e*PKIKP	PKPdf	23 12 27.3	-1.6
	comp=Z,84nm,1.6s						
RJF	**Les Rejaudoux**	**144.37**	**84**	*e*PKPdf	PKPdf	23 12 27.4	-1.8
RJF				LR	LR		
	comp=Z,960nm,22.0s,MS5.5						
RJF	**Les Rejaudoux**	**144.37**	**84**	*e*PKIKP	PKPdf	23 12 27.4	-1.8
	comp=Z,20nm,1.0s						
RJF				*e*MLR	MLR		
	comp=Z,958nm,22.0s,MS5.2						
CAF	**Calviac**	**144.45**	**84**	*e*PKPdf	PKPdf	23 12 28.2	-1.1
CAF	**Calviac**	**144.45**	**84**	*e*PKIKP	PKPdf	23 12 28.2	-1.1
CAF	**Calviac**	**144.45**	**84**	*e*PKIKP	PKPdf	23 12 28.2	-1.1
	comp=Z,67nm,1.4s						
JIRN	**Jiri**	**144.70**	**229**	*e*P	PKPdf	23 12 30.2	-0.2
	comp=Z,361nm,1.5s						
GRR	**Gorron**	**144.86**	**78**	*e*PKPdf	PKPdf	23 12 30.8	+0.9
GRR	**Gorron**	**144.86**	**78**	*e*PKIKP	PKPdf	23 12 30.8	+0.9
GRR	**Gorron**	**144.86**	**78**	*e*PKIKP	PKPdf	23 12 30.8	+0.9
	comp=Z,149nm,1.8s						
LASF	**Ste Croix**	**144.93**	**87**	*e*PKPdf	PKPdf	23 12 31.0	+0.8
LASF	**Ste Croix**	**144.93**	**87**	*e*PKIKP	PKPdf	23 12 31.0	+0.8
	comp=Z,85nm,1.5s						
PKI	**Pulchoki**	**144.96**	**228**	*e*P	PKPdf	23 12 30.7	-0.1
	comp=Z,129nm,1.1s						
GUN	**Gumba**	**145.06**	**229**	*e*P	PKPbc	23 12 30.8	+0.4
	comp=Z,128nm,0.9s						
DMN	**Daman**	**145.12**	**228**	*e*P	PKPbc	23 12 31.4	+0.8
	comp=Z,204nm,1.0s						
KKN	**Kakani**	**145.20**	**228**	*e*P	PKPbc	23 12 31.4	+0.5
	comp=Z,244nm,1.1s						
FLN	**La Foliniere**	**145.28**	**77**	*e*PKPdf	PKPdf	23 12 31.2	+0.6
FLN				LR	LR		
	comp=Z,590nm,21.3s,MS5.3						
FLN	**La Foliniere**	**145.28**	**77**	*e*PKP2	PKPab	23 12 31.2	+0.6
FLN				MLR	MLR		
	comp=Z,590nm,21.3s,MS5.3						
FLN	**La Foliniere**	**145.28**	**77**	*e*PKIKP	PKPdf	23 12 31.2	+0.6
	comp=Z,176nm,1.6s						
FLN				*e*MLR	MLR		
	comp=Z,590nm,21.2s,MS5.0						
LBL	**Lubilhac**	**145.30**	**85**	*e*P	PKPbc	23 12 32.9	+2.2
LBL	**Lubilhac**	**145.30**	**85**	*e*PKIKP	PKPdf	23 12 32.9	+2.1
TCF	**Toulx Ste Croi**	**145.35**	**83**	*e*PKPdf	PKPdf	23 12 31.0	+0.1
TCF	**Toulx Ste Croi**	**145.35**	**83**	*e*PKP2	PKPab	23 12 31.0	+0.1
TCF	**Toulx Ste Croi**	**145.35**	**83**	*e*PKIKP	PKPdf	23 12 31.0	+0.1
	comp=Z,67nm,1.3s						
LDF	**La Druitiere**	**145.38**	**78**	*e*PKPdf	PKPdf	23 12 31.5	+0.7
LDF	**La Druitiere**	**145.38**	**78**	*e*PKP2	PKPab	23 12 31.5	+0.5
LDF	**La Druitiere**	**145.38**	**78**	*e*PKIKP	PKPdf	23 12 31.5	+0.7
	comp=Z,155nm,1.6s						
PYM	**Petit Puy Mans**	**145.48**	**84**	*e*P	PKPdf	23 12 33.6	+2.5
PYM	**Petit Puy Mans**	**145.48**	**84**	*e*PKIKP	PKPdf	23 12 33.6	+2.5
PRAF	**Pradon**	**145.50**	**88**	*e*P	PKPdf	23 12 31.1	-0.1
GKN	**Gorkha**	**145.66**	**227**	*e*P	PKPdf	23 12 32.3	+0.3
	comp=Z,219nm,1.5s						
AGO	**Saint Agoulin**	**145.72**	**84**	*e*P	PKPdf	23 12 33.3	+1.8
SMRF	**Simiane la Rot**	**145.83**	**88**	*e*PKPdf	PKPdf	23 12 33.5	+1.7
SMRF	**Simiane la Rot**	**145.83**	**88**	*e*PKIKP	PKPdf	23 12 33.5	+1.7
	comp=Z,117nm,1.5s						
BGF	**Bois d’Agland**	**145.87**	**83**	*e*PKPdf	PKPdf	23 12 32.7	+1.0
BGF	**Bois d’Agland**	**145.87**	**83**	*e*PKIKP	PKPdf	23 12 32.7	+1.0
BGF	**Bois d’Agland**	**145.87**	**83**	*e*PKIKP	PKPdf	23 12 32.7	+1.0
	comp=Z,129nm,1.3s						
VIVF	**Saint-Julien-l**	**145.87**	**87**	*e*PKPdf	PKPdf	23 12 33.1	+1.3
VIVF	**Saint-Julien-l**	**145.87**	**87**	*e*PKP2	PKPab	23 12 33.1	+0.2
VIVF	**Saint-Julien-l**	**145.87**	**87**	*e*PKIKP	PKPdf	23 12 33.1	+1.3
	comp=Z,73nm,1.4s						
KOLN	**Koldanda**	**145.88**	**226**	*e*P	PKPdf	23 12 33.1	+0.7
	comp=Z,328nm,1.6s						
TAVF	**Tavernes**	**145.88**	**89**	*e*P	PKPdf	23 12 33.3	+1.4
PLDF	**La Plantade**	**145.95**	**84**	*e*P	PKPdf	23 12 34.8	+2.9
PLDF	**La Plantade**	**145.95**	**84**	*e*PKP2	PKPab	23 12 34.8	+1.6
LMR	**La Mourre**	**145.95**	**90**	*e*PKPdf	PKPdf	23 12 33.0	+1.0
LMR	**La Mourre**	**145.95**	**90**	*e*PKIKP	PKPdf	23 12 33.0	+1.0
LMR	**La Mourre**	**145.95**	**90**	*e*PKIKP	PKPdf	23 12 33.0	+1.0
	comp=Z,153nm,1.4s						
STOF	**St-Etienne Org**	**146.03**	**89**	*e*P	PKPdf	23 12 32.2	+0.1
FRF	**La Foret Royal**	**146.18**	**90**	*e*PKPdf	PKPdf	23 12 33.6	+1.2
FRF	**La Foret Royal**	**146.18**	**90**	*e*PKIKP	PKPdf	23 12 33.6	+1.2
FRF	**La Foret Royal**	**146.18**	**90**	*e*PKIKP	PKPdf	23 12 33.6	+1.2
AVF	**Avril sur Loir**	**146.28**	**83**	*e*PKPdf	PKPdf	23 12 33.6	+1.2
AVF	**Avril sur Loir**	**146.28**	**83**	*e*PKIKP	PKPdf	23 12 33.6	+1.2
AVF	**Avril sur Loir**	**146.28**	**83**	*e*PKIKP	PKPdf	23 12 33.6	+1.2
	comp=Z,34nm,1.1s						
CALN	**Calern**	**146.43**	**90**	*e*P	PKPab	23 12 40.2	+5.1
CALN	**Calern**	**146.43**	**90**	*e*PKP2	PKPab	23 12 40.2	+5.1
SMF	**Signal de Mont**	**146.47**	**83**	*e*PKPdf	PKPdf	23 12 34.3	+1.5
SMF	**Signal de Mont**	**146.47**	**83**	*e*PKIKP	PKPdf	23 12 34.3	+1.5
SMF	**Signal de Mont**	**146.47**	**83**	*e*PKIKP	PKPdf	23 12 34.3	+1.5
	comp=Z,53nm,1.1s						
SSF	**Saint Saulge**	**146.53**	**82**	*e*PKPdf	PKPdf	23 12 34.1	+1.3
SSF	**Saint Saulge**	**146.53**	**82**	*e*PKIKP	PKPdf	23 12 34.1	+1.3
SSF	**Saint Saulge**	**146.53**	**82**	*e*PKIKP	PKPdf	23 12 34.1	+1.3
	comp=Z,20nm,1.2s						
ORIF	**Oris-en-Rattie**	**146.59**	**87**	*e*PKPdf	PKPdf	23 12 35.6	+2.6
ORIF	**Oris-en-Rattie**	**146.59**	**87**	*e*PKP2	PKPab	23 12 35.6	-0.1
ORIF	**Oris-en-Rattie**	**146.59**	**87**	*e*PKIKP	PKPdf	23 12 35.6	+2.6
	comp=Z,53nm,1.1s						
ORIF				*e*MLR	MLR		
	comp=Z,733nm,19.8s,MS5.2						
TOUF	**Mont Tournerai**	**146.80**	**90**	*e*P	PKPab	23 12 39.1	+2.6
TOUF	**Mont Tournerai**	**146.80**	**90**	*e*PKP2	PKPab	23 12 39.1	+2.6
SBF	**Sospel**	**146.81**	**90**	*e*PKPdf	PKPdf	23 12 34.8	+1.4
SBF	**Sospel**	**146.81**	**90**	*e*PKIKP	PKPdf	23 12 34.8	+1.4
SBF	**Sospel**	**146.81**	**90**	*e*PKIKP	PKPdf	23 12 34.8	+1.4
	comp=Z,116nm,1.2s						
DAG	**Danmarks Havn**	**146.82**	**24**	*e*PKIKP	PKPdf	23 12 33.0	+0.5
DAG	**Danmarks Havn**	**146.82**	**24**	*i* P	PKPdf	23 12 33.0	+0.5
LOR	**Lormes**	**146.84**	**82**	*e*PKPdf	PKPdf	23 12 35.2	+1.8
LOR				LR	LR		
	comp=Z,760nm,20.3s,MS5.5						
LOR	**Lormes**	**146.84**	**82**	*e*PKIKP	PKPdf	23 12 35.2	+1.8
LOR				MLR	MLR		
	comp=Z,760nm,20.3s,MS5.5						
LOR	**Lormes**	**146.84**	**82**	*e*PKIKP	PKPdf	23 12 35.2	+1.8
	comp=Z,80nm,1.2s						
LOR				*e*MLR	MLR		
	comp=Z,764nm,20.2s,MS5.2						
PGF	**Pioggiola**	**146.85**	**93**	*e*PKPdf	PKPdf	23 12 34.9	+1.4
PGF	**Pioggiola**	**146.85**	**93**	*e*PKIKP	PKPdf	23 12 34.9	+1.4
PGF	**Pioggiola**	**146.85**	**93**	*e*PKIKP	PKPdf	23 12 34.9	+1.4
	comp=Z,135nm,1.4s						
AUTN	**L’Aution**	**146.89**	**90**	*e*P	PKPab	23 12 38.1	+1.2
AUTN	**L’Aution**	**146.89**	**90**	*e*PKP2	PKPab	23 12 38.1	+1.2
TIXI	**Tiksi**	**146.93**	**326**	*e*PKP	PKPdf	23 12 33.7	+0.9
TIXI	**Tiksi**	**146.93**	**326**	*e*PKIKP	PKPdf	23 12 33.3	+0.5
TIXI				pmax	pmax		
	comp=Z,49nm,1.4s						
SAOF	**Saorge**	**146.96**	**90**	*e*P	PKPab	23 12 37.8	+0.7
SAOF	**Saorge**	**146.96**	**90**	*e*PKP2	PKPab	23 12 37.8	+0.7
MBDF	**Montbardon**	**146.97**	**88**	*e*PKPdf	PKPdf	23 12 34.7	+1.0
MBDF	**Montbardon**	**146.97**	**88**	*e*PKIKP	PKPdf	23 12 34.7	+1.0
MBDF	**Montbardon**	**146.97**	**88**	*e*PKIKP	PKPdf	23 12 34.7	+1.0
	comp=Z,81nm,1.3s						
CIT	**Chita**	**147.09**	**288**	*e*PKP2	PKPab	23 12 36.9	-0.5
CIT				pmax	pmax		
	comp=Z,100nm,1.9s						
BNI	**Bardonecchia**	**147.12**	**88**	*e*PKP	PKPbc	23 12 36.2	+0.1
BNI	**Bardonecchia**	**147.12**	**88**	*e*PKIKP	PKPbc	23 12 36.2	+0.1
EKA	**Eskdalemuir Ar**	**147.15**	**66**	PKPbc	PKPbc	23 12 34.2	-1.6
EKA	**Eskdalemuir Ar**	**147.15**	**66**	PKIKP	PKPdf	23 12 34.2	+0.6
EKA	**Eskdalemuir Ar**	**147.15**	**66**	PKPbc	PKPbc	23 12 34.2	-1.6
	comp=Z,11nm,0.9s,baz=248,slow=3.0,SNR=13						
LPG	**La Plagne**	**147.43**	**87**	*e*PKPdf	PKPbc	23 12 36.4	-0.5
LPG	**La Plagne**	**147.43**	**87**	*e*PKIKP	PKPbc	23 12 36.4	-0.5
LPG	**La Plagne**	**147.43**	**87**	*e*PKIKP	PKPbc	23 12 36.4	-0.5
	comp=Z,97nm,1.3s						
CABF	**La Chapelle**	**147.71**	**85**	*e*PKPdf	PKPdf	23 12 36.0	+1.2
CABF	**La Chapelle**	**147.71**	**85**	*e*PKIKP	PKPdf	23 12 36.0	+1.2
CABF	**La Chapelle**	**147.71**	**85**	*e*PKIKP	PKPdf	23 12 36.0	+1.2
	comp=Z,45nm,1.1s						
MEZF	**Maizieres J’vi**	**148.20**	**81**	*e*PKPdf	PKPbc	23 12 38.1	-0.8
MEZF	**Maizieres J’vi**	**148.20**	**81**	*e*PKIKP	PKPbc	23 12 38.1	-0.8
	comp=Z,128nm,1.5s						
ULN	**Ulaanbaatar**	**148.48**	**277**	⇑*i*PKP2	PKPbc	23 12 40.4	+0.7
BAIF	**Baives**	**148.56**	**78**	*e*PKPdf	PKPbc	23 12 38.9	-0.9
BAIF	**Baives**	**148.56**	**78**	*e*PKIKP	PKPbc	23 12 38.9	-0.9
BAIF	**Baives**	**148.56**	**78**	*e*PKIKP	PKPbc	23 12 38.9	-0.9
	comp=Z,59nm,1.2s						
HAU	**Haudompre**	**148.65**	**83**	*e*PKPdf	PKPbc	23 12 38.9	-1.2
HAU				LR	LR		
	comp=Z,610nm,20.5s,MS5.4						
HAU	**Haudompre**	**148.65**	**83**	*e*PKIKP	PKPbc	23 12 38.9	-1.2
HAU				MLR	MLR		
	comp=Z,610nm,20.5s,MS5.4						
HAU	**Haudompre**	**148.65**	**83**	*e*PKIKP	PKPbc	23 12 38.9	-1.2
	comp=Z,26nm,1.1s						
HAU				*e*MLR	MLR		
	comp=Z,610nm,20.5s,MS5.1						
HINF	**Hinteralfeld**	**148.83**	**84**	*e*PKPdf	PKPbc	23 12 39.5	-1.0
HINF	**Hinteralfeld**	**148.83**	**84**	*e*PKIKP	PKPbc	23 12 39.5	-1.0
HINF	**Hinteralfeld**	**148.83**	**84**	*e*PKIKP	PKPbc	23 12 39.5	-1.0
	comp=Z,32nm,1.2s						
SONM	**Songino Array**	**148.83**	**276**	PKPbc	PKPbc	23 12 40.1	-0.4
SONM	**Songino Array**	**148.83**	**276**	PKIKP	PKPbc	23 12 40.1	-0.5
SONM	**Songino Array**	**148.83**	**276**	PKPbc	PKPbc	23 12 40.1	-0.4
	comp=Z,5.0nm,1.1s,baz=158,slow=3.1,SNR=14						
GIVF	**Givet**	**148.92**	**79**	*e*PKPdf	PKPbc	23 12 40.0	-0.7
GIVF	**Givet**	**148.92**	**79**	*e*PKIKP	PKPbc	23 12 40.0	-0.7
GIVF	**Givet**	**148.92**	**79**	*e*PKIKP	PKPbc	23 12 40.0	-0.7
	comp=Z,106nm,1.2s						
BBS	**Basel-Blauen**	**149.00**	**85**	*e*P	PKPbc	23 12 43.0	+2.0
BBS	**Basel-Blauen**	**149.00**	**85**	*e*PKP2	PKPab	23 12 43.0	-2.2
MOF	**Molkenrain**	**149.00**	**84**	*e*P	PKPab	23 12 46.4	+1.2
MOF	**Molkenrain**	**149.00**	**84**	*e*PKP2	PKPab	23 12 46.4	+1.2
ECH	**Echery**	**149.22**	**83**	*e*P	PKPbc	23 12 43.0	+1.5
ECH	**Echery**	**149.22**	**83**	*e*PKP2	PKPbc	23 12 43.0	+1.5
BOD	**Bodaibo**	**149.36**	**298**	*e*PKIKP	PKPdf	23 12 39.4	+2.3
BOD				pmax	pmax		
	comp=Z,10.0nm,1.8s						
CDF	**Champ du Feu**	**149.39**	**83**	*e*PKPdf	PKPdf	23 12 39.5	+2.0
CDF	**Champ du Feu**	**149.39**	**83**	*e*PKHKP		23 12 39.5	
CDF	**Champ du Feu**	**149.39**	**83**	*e*PKIKP	PKPdf	23 12 39.5	+2.0
	comp=Z,33nm,1.2s						
WLF	**Walferdange**	**149.43**	**80**	PKP	PKPab	23 12 48.0	+1.1
WLF	**Walferdange**	**149.43**	**80**	PKP2	PKPab	23 12 48.0	+1.1
FELD	**Feldberg im Sc**	**149.50**	**84**	*e*P	PKPbc	23 12 43.6	+1.4
BFO	**Black Forest**	**149.94**	**84**	*e*PKP	PKPbc	23 12 43.2	-0.1
BFO	**Black Forest**	**149.94**	**84**	*e*PKIKP	PKPbc	23 12 43.2	-0.1
RUP	**Ruppelstein**	**149.95**	**81**	*e*P	PKPbc	23 12 45.6	+2.3
RUP	**Ruppelstein**	**149.95**	**81**	*e*PKIKP	PKPbc	23 12 45.6	+2.3
DAVA	**Damuels**	**150.23**	**87**	⇑*i*P	PKPbc	23 12 44.6	+0.6
	comp=Z,60nm,1.5s						
DAVA	**Damuels**	**150.23**	**87**	⇑*i*PKPbc	PKPbc	23 12 44.6	+0.6
	comp=Z,60nm,1.5s						
FETA	**Feichten**	**150.56**	**88**	⇑*i*pPKPdf	pPKPdf	23 12 44.6	+1.8
	comp=Z,52nm,1.1s						
RETA	**Reutte**	**150.84**	**87**	⇑*i*PKPbc	PKPbc	23 12 46.8	+1.4
	SNR=7.1						
SQTA	**Sankt Quirin**	**150.94**	**88**	⇑*i*P	pPKPdf	23 12 45.6	+2.2
	comp=Z,45nm,1.3s,SNR=7.0						
SQTA	**Sankt Quirin**	**150.94**	**88**	⇑*i*pPKPdf	pPKPdf	23 12 45.6	+2.2
	comp=Z,45nm,1.3s,SNR=7.0						
SQTA	**Sankt Quirin**	**150.94**	**88**	⇑*i*PKIKP	pPKPdf	23 12 45.6	+2.2
MOTA	**Moosalm**	**150.95**	**88**	⇑*i*P	pPKPdf	23 12 44.5	+1.1
	comp=Z,29nm,1.2s,SNR=5.8						
MOTA	**Moosalm**	**150.95**	**88**	⇑*i*pPKPdf	pPKPdf	23 12 44.5	+1.1
	comp=Z,29nm,1.2s,SNR=5.8						
MOTA	**Moosalm**	**150.95**	**88**	⇑*i*PKIKP	pPKPdf	23 12 44.6	+1.2
WTTA	**Wattenberg**	**151.21**	**88**	⇑*i*P	pPKPdf	23 12 46.3	+2.5
	comp=Z,53nm,1.3s,SNR=6.6						
WTTA	**Wattenberg**	**151.21**	**88**	⇑*i*pPKPdf	pPKPdf	23 12 46.3	+2.5
	comp=Z,53nm,1.3s,SNR=6.6						
WTTA	**Wattenberg**	**151.21**	**88**	⇑*i*PKIKP	pPKPdf	23 12 46.3	+2.5
ZAK	**Zakamensk**	**151.91**	**279**	*e*PKIKP	PKPbc	23 12 48.0	+0.2
ZAK				pmax	pmax		
	comp=Z,7.0nm,2.0s						
IRK	**Irkutsk**	**152.24**	**283**	*e*PKIKP	PKPbc	23 12 48.8	+0.3
IRK				pmax	pmax		
	comp=Z,36nm,1.7s						
GRA1	**Grafenberg Arr**	**152.27**	**84**	*e*PKPbc	PKPbc	23 12 50.6	+1.9
GRF	**Grafenberg Arr**	**152.27**	**84**	*e*PKIKP	PKPbc	23 12 50.6	+1.9
TLY	**Talaya**	**152.33**	**281**	*e*PKIKP	PKPbc	23 12 50.7	+2.0
TLY				pmax	pmax		
	comp=Z,17nm,1.2s						
MOX	**Moxa**	**152.96**	**82**	*e*PKP	PKPbc	23 12 52.2	+2.0
MOX	**Moxa**	**152.96**	**82**	*e*PKP	PKPbc	23 12 52.2	+2.0
MOX							
	comp=Z,600nm,20.0s						
MOX	**Moxa**	**152.96**	**82**	*e*PKIKP	PKPbc	23 12 52.2	+2.0
GERES	**GERESS Array B**	**153.23**	**87**	PKP	PKPdf	23 12 40.8	-2.6
GERES				PKPbc	PKPbc	23 12 50.3	-0.5
GERES				PKPab	PKPab	23 13 02.7	-0.1
GERES	**GERESS Array B**	**153.23**	**87**	PKIKP	PKPdf	23 12 40.8	-2.5
GERES						23 12 50.3	
GERES						23 13 02.7	
GERES	**GERESS Array B**	**153.23**	**87**	PKP	PKPdf	23 12 40.8	-2.6
	comp=Z,0.2nm,0.3s,baz=335,slow=12,SNR=2.5						
GERES				PKPbc	PKPbc	23 12 50.3	-0.5
	comp=Z,3.2nm,0.9s,baz=201,slow=2.3,SNR=9.2						
GERES				PKPab	PKPab	23 13 02.7	-0.1
	comp=Z,3.5nm,0.8s,baz=202,slow=2.9,SNR=9.1						
NKC	**Novy Kostel**	**153.23**	**83**	*e*PKP	PKPab	23 13 02.2	-0.5
KHC	**Kasperske Hory**	**153.31**	**86**	*e*PKP	PKPbc	23 12 56.4	+5.4
CLL	**Collm**	**154.05**	**82**	P	PKPab	23 13 04.4	-1.8
CLL	**Collm**	**154.05**	**82**	⇑*i*(P)	PKPab	23 13 04.4	-1.8
	comp=Z,16nm,1.2s						
PRU	**Pruhonice**	**154.28**	**85**	*e*PKP	PKPab	23 13 07.0	-0.2
DPC	**Dobruska-Polom**	**155.46**	**86**	*e*PKP	PKPdf	23 12 59.5	+13
VYHS	**Vyhne**	**155.94**	**92**	*i* PKP	PKPdf	23 12 49.0	+1.9
STHS	**Stebnicka Huta**	**157.77**	**92**	*e*PKP	PKPdf	23 12 56.3	+6.9
UZH	**Uzhgorod**	**157.95**	**95**	*e*PKP2	PKPab	23 13 24.6	+1.6
KOLS	**Kolonicke sedl**	**158.10**	**94**	*e*PKP	PKPdf	23 12 53.4	+3.5
MKAR	**Makanchi Array**	**161.66**	**251**	PKP	PKPdf	23 12 55.1	+1.1
MKAR				PKPab	PKPab	23 13 38.4	-0.8
MKAR	**Makanchi Array**	**161.66**	**251**	PKIKP	PKPdf	23 12 55.1	+1.2
MKAR						23 13 38.4	
MKAR	**Makanchi Array**	**161.66**	**251**	PKP	PKPdf	23 12 55.1	+1.1
	comp=Z,1.6nm,1.2s,baz=67,slow=3.9,SNR=3.7						
MKAR				PKPab	PKPab	23 13 38.4	-0.8
	comp=Z,2.3nm,1.1s,baz=129,slow=4.8,SNR=4.8						
AKASG	**Malin Array Be**	**162.88**	**96**	PKP	PKPdf	23 12 55.0	-0.1
AKASG				PKPab	PKPab	23 13 45.8	+1.2
AKASG	**Malin Array Be**	**162.88**	**96**	PKIKP	PKPdf	23 12 55.0	0.0
AKASG						23 13 45.8	
AKASG	**Malin Array Be**	**162.88**	**96**	PKP	PKPdf	23 12 55.0	-0.1
	comp=Z,0.5nm,0.5s,baz=309,slow=0.7,SNR=7.5						
AKASG				PKPab	PKPab	23 13 45.8	+1.2
	comp=Z,1.4nm,0.7s,baz=255,slow=4.8,SNR=3.0						
ZALV	**Zalesovo Beam**	**163.72**	**275**	PKP	PKPdf	23 12 55.5	-0.3
ZALV				PKPab	PKPab	23 13 48.1	+0.1
ZALV	**Zalesovo Beam**	**163.72**	**275**	PKP	PKPdf	23 12 55.5	-0.2
	comp=Z,0.2nm,0.3s,baz=48,slow=2.2,SNR=3.2						
ZALV				PKPab	PKPab	23 13 48.1	+0.1
	comp=Z,2.0nm,1.0s,baz=120,slow=5.3,SNR=5.2						
ZAL	**Zalesovo**	**163.73**	**275**	PKIKP	PKPdf	23 12 55.5	-0.2
ZAL						23 13 48.2	
KIV	**Kislovodsk**	**165.10**	**137**	PFAKE		23 13 10.0	+13
KIV				LR	LR		
	comp=Z,778nm,20.0s						
KURK	**Kurchatov**	**165.89**	**258**	*e*PKPdf	PKPdf	23 12 57.7	0.0
KURK	**Kurchatov**	**165.89**	**258**	*e*PKIKP	PKPdf	23 12 57.7	0.0
OBN	**Obninsk**	**168.60**	**86**	PFAKE		23 13 10.0	+10
OBN				LR	LR		
	comp=Z,1µm,20.0s						
ARU	**Arti**	**178.78**	**298**	PFAKE		23 13 10.0	+6.8
ARU				LR	LR		
	comp=Z,944nm,21.0s						

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*ISCJB **04** 22:54:33.4±1.6, 41.8N±0.1×77.7E±0.1, h10^{km}, mb2.9/1, Error ellipse: s-maj=16.2km s-min=10.8km az=13.5*

*NNC **04** 22:54:39.5±2.6, 42.26N×78.04E, h0^{km}, mb3.5, mpv3.3, Error ellipse: s-maj=28.4km s-min=10.8km az=26.0*

*IDC **04** 22:54:42.5±5.0, 42.39N×78.40E, h0^{km}, mb2.8/1, mb1 3.2/3, mb1mx3.0/23, mbtmp3.2/3, ML3.3/2, Error ellipse: s-maj=74.3km s-min=42.3km az=101.0*

ISC 04 22:54:37.8±1.6**, 42.0N**±0.1×**77.7E**±0.1**, h10**^{km}**, n7,** σ1.00/9**, mb2.9**/1**, 5C-3D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KNDC	**Almaty**	**1.33**	**335**	⇓P	**Pn**	**22 55 03.2**	**+0.6**
	8.3nm,0.4s						
KNDC				⇓S	**Sb**	**22 55 20.1**	**0.0**
	73nm,0.4s						
KK31	**Karatay Array**	**5.45**	**284**	⇓Pg	**Pg**	**22 56 22.0**	**-0.2**
	1.0nm,0.3s,baz=93,slow=16,SNR=42						
KK31				⇑Lg		22 57 32.1	
	3.4nm,0.5s,baz=91,slow=28,SNR=8.2						
MK31	**Makanchi Array**	**5.78**	**33**	⇑Pn	**Pn**	**22 56 05.0**	**+1.4**
	1.3nm,0.2s,baz=209,slow=15,SNR=29						
MK31				⇑Lg		22 57 30.2	
	1.2nm,0.5s,baz=210,slow=30						
MKAR	**Makanchi Array**	**5.78**	**33**	Pn	**Pn**	**22 56 04.2**	**+0.5**
	0.9nm,0.3s,baz=211,slow=16,SNR=30						
MKAR				Pg	**Pb**	**22 56 14.9**	**-3.8**
	0.5nm,0.3s,baz=212,slow=16,SNR=8.0						
MKAR				Lg		22 57 29.3	
	0.8nm,0.3s,baz=213,slow=30,SNR=4.9						
KURK	**Kurchatov**	**8.73**	**4**	⇑Pn	**Pn**	**22 56 43.9**	**-0.1**
	1.6nm,1.1s						
KURK				⇑Lg		22 59 07.6	
	2.8nm,0.7s						
ZALV	**Zalesovo Beam**	**12.84**	**19**	Pn	**Pn**	**22 57 37.3**	**-3.0**
	0.2nm,0.3s,baz=181,slow=7.8,SNR=4.5						
SONM	**Songino Array**	**21.04**	**64**	P	**P**	**22 59 21.3**	**-0.3**
	0.4nm,0.7s,mb2.9,baz=250,slow=11,SNR=3.2						

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*ISCJB **04** 22:55:20.6±1.1, 19.34N±0.03×78.18W±0.07, h22^{km}±9^{km}, Error ellipse: s-maj=10.7km s-min=5.3km az=179.9*

*JSN **04** 22:55:22.3±1.4, 19.36N×78.23W, h32^{km}±318^{km}, MD4.2*

*SSNC **04** 22:55:25.0, 19.67N×78.05W, h5^{km}, MD3.2, ML2.5*

ISC 04 22:55:19.9±1.4**, 19.32N**±0.03×**78.23W**±0.06**, h15**^{km}±9^{km}**, n12,** σ1.24/22**, 3C-1D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MBJ	**Montego Bay**	**0.98**	**159**	⇑*e*P	**Pb**	**22 55 39.1**	**+0.6**
MBJ				*e*S	**Sb**	**22 55 52.0**	**+0.8**
CVJ	**Coleyville**	**1.27**	**149**	⇓*i*P	**Pn**	**22 55 43.7**	**+0.5**
BBJ	**Bamboo Saint A**	**1.31**	**135**	*e*S	**Sb**	**22 56 00.1**	**-0.6**
LMGC	**Las Mercedes**	**1.37**	**57**	*e*PG	**Pg**	**22 55 44.2**	**-2.1**
LMGC				*e*SG	**Sg**	**22 55 59.6**	**-4.6**
	comp=N,752nm,0.1s						
LMGC				*e*			
	comp=E,740nm,0.1s						
MCJ	**Malvern**	**1.48**	**159**	⇑*e*P	**Pn**	**22 55 46.1**	**+0.1**
MCJ				*e*S	**Sn**	**22 56 03.8**	**-1.3**
STH	**Stony Hill**	**1.83**	**132**	*e*P	**Pn**	**22 55 50.5**	**-0.3**
STH				*e*S	**Sn**	**22 56 12.5**	**-1.2**
PCJ	**Portland Cotta**	**1.87**	**147**	⇑*e*P	**Pn**	**22 55 52.9**	**+1.5**
PCJ				*e*S	**Sn**	**22 56 15.2**	**+0.4**
CCCC	**Cccc**	**1.92**	**13**	*e*P	**Pn**	**22 55 53.0**	**+1.0**
CCCC				*e*S	**Sn**	**22 56 16.6**	**+0.7**
	comp=N,1.5nm,0.3s						
CCCC				*e*			
	comp=E,1.6nm,0.3s						
RCC	**Rio Carpintero**	**2.48**	**74**	*e*PG	**Pg**	**22 56 13.6**	**+6.1**
RCC				*e*SG	**Sg**	**22 56 41.8**	**+2.1**
	comp=N,153nm,0.3s						
RCC				*e*			
	comp=E,123nm,0.3s						
GTMO	**Guantanamo**	**3.01**	**75**	*e*P	**Pn**	**22 56 06.3**	**-0.7**
GTMO				*e*S	**Sn**	**22 56 39.6**	**-3.3**
MGV	**Manicaragua**	**3.22**	**330**	*e*P	**Pn**	**22 56 08.6**	**-1.3**
MGV				*e*S	**Sn**	**22 56 42.3**	**-5.8**
	comp=N,26nm,0.2s						
MGV				*e*			
	comp=E,29nm,0.4s						
MASC	**Masc**	**3.86**	**77**	*e*P	**Pn**	**22 56 21.7**	**+2.9**
MASC				*e*S	**Sn**	**22 57 05.2**	**+1.3**
	comp=N,3.7nm,0.4s						
MASC				*e*			
	comp=E,3.4nm,0.3s						

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*BJI **04** 22:58:53.5, 47.60N×153.53E, h60^{km}, mB5.2, mb4.6, Ms4.9, Msz4.7*

*SZGRF **04** 22:58:54.7, 47.55N×154.49E, h33^{km}, mb5.2, Kuril Islands, Russia*

*ISCJB **04** 22:58:55.9±0.1, 47.30N±0.03×153.14E±0.03, h59^{km}, mb4.7/121, MS4.7/9, Error ellipse: s-maj=5.0km s-min=1.9km az=158.9*

*SKHL **04** 22:58:56.6±0.5, 47.13N×153.62E, h68^{km}±11^{km}, mb5.3/3, Ms4.0/1*

*NEIC **04** 22:58:57.8±0.3, 47.35N×153.01E, h60^{km}±2^{km}, mb4.9/76, Error ellipse: s-maj=5.7km s-min=3.3km az=165.0*

*MOS **04** 22:58:57.5±0.9, 47.25N×153.15E, h76^{km}, mb5.0/58, Error ellipse: s-maj=7.5km s-min=4.8km az=88.9*

*IDC **04** 22:58:57.4±0.5, 47.40N×153.02E, h63^{km}±3^{km}, mb4.1/27, mb1 4.2/28, mb1mx4.2/31, mbtmp4.1/28, MS3.8/1, Ms1 3.8/1, ms1mx3.0/35, Error ellipse: s-maj=15.2km s-min=9.2km az=156.0*

ISC 04 22:58:58.4±0.1**, 47.40N**±0.03×**153.05E**±0.03**, h61**^{km}**, h61**^{km}±.8^{km}**:pP-P, n632,** σ**0.82**/637**, mb4.7**/121**, 166C-112D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril’s**	**3.86**	**30**	*e*PN	**Pn**	**22 59 53.6**	**-1.5**
SKR				*e*S	**Sn**	**23 00 36.5**	**-2.6**
SKR				pmax	pmax		
	comp=Z,200nm,0.5s						
SKR				pmax	pmax		
	comp=N,200nm,0.3s						
SKR				pmax	pmax		
	comp=E,120nm,0.3s						
SKR				smax			
	comp=E,1µm,0.5s						
SKR				smax			
	comp=N,720nm,0.3s						
SKR	**Severo-Kuril’s**	**3.86**	**30**	*e*P	**Pn**	**22 59 53.6**	**-1.5**
SKR				AMB	AMB	22 59 57.5	
	comp=N,120nm,0.5s						
SKR				AMB	AMB	22 59 57.5	
	comp=N,200nm,0.5s						
SKR				*e*S	**Sn**	**23 00 36.5**	**-2.6**
SKR				A		23 00 45.0	
	comp=N,720nm,0.5s						
SKR				A		23 00 45.0	
	comp=N,1µm,0.5s						
KUR	**Kuril’sk**	**4.20**	**241**	*e*PN	**Pn**	**23 00 02.5**	**+2.8**
KUR				*i* S	**Sn**	**23 00 51.5**	**+4.1**
KUR				pmax	pmax		
	comp=N,150nm,0.6s						
KUR				pmax	pmax		
	comp=E,120nm,0.6s						
KUR				pmax	pmax		
	comp=Z,610nm,0.6s						
KUR				smax			
	comp=N,470nm,0.6s						
KUR				smax			
	comp=E,680nm,0.6s						
KUR	**Kuril’sk**	**4.20**	**241**	*e*P	**Pn**	**23 00 02.5**	**+2.8**
KUR				AMB	AMB	23 00 03.5	
	comp=E,150nm,0.6s						
KUR				AMB	AMB	23 00 03.5	
	comp=E,120nm,0.6s						
KUR				AMB	AMB	23 00 03.5	
	comp=E,610nm,0.6s						
KUR				*i* S	**Sn**	**23 00 51.5**	**+4.1**
KUR				A		23 01 16.2	
	comp=E,470nm,0.6s						
KUR				A		23 01 16.2	
	comp=E,680nm,0.6s						
YUK	**Yuzh-Kuril’sk**	**6.05**	**239**	*e*PN	**Pn**	**23 00 26.4**	**+1.2**
NEM2	**Nemuro 2**	**6.54**	**235**	P	**Pn**	**23 00 30.7**	**-1.1**
NEM2				*e*S	**Sn**	**23 01 42.4**	**-2.5**
PET	**Petropavlovsk**	**6.68**	**30**	*e*Pn	**Pn**	**23 00 35.4**	**+1.7**
PET				*e*Sn	**Sn**	**23 01 41.5**	**-6.8**
PET	**Petropavlovsk**	**6.68**	**30**	*e*PN	**Pn**	**23 00 36.3**	**+2.6**
PET				pmax	pmax		
	comp=Z,90nm,0.6s						
PET	**Petropavlovsk**	**6.68**	**30**	*e*P	**Pn**	**23 00 34.9**	**+1.2**
JNK	**Nakash**	**6.99**	**240**	P	**Pn**	**23 00 39.2**	**+1.2**
JNK				*e*S	**Sn**	**23 01 59.6**	**+3.7**
YSS	**Yuzh-Sakhalins**	**7.03**	**270**	*e*Pn	**Pn**	**23 00 43.2**	**+4.6**
YSS	**Yuzh-Sakhalins**	**7.03**	**270**	⇑*i*PN	**Pn**	**23 00 43.0**	**+4.4**
YSS				*e*S	**Sn**	**23 02 03.0**	**+5.9**
YSS				pmax	pmax		
	comp=Z,220nm,0.9s						
YSS				smax			
	comp=E,90nm,1.0s						
YSS				MLR	MLR		
	comp=E,700nm,15.0s						
YSS				MLR	MLR		
	comp=Z,900nm,15.0s						
YSS	**Yuzh-Sakhalins**	**7.03**	**270**	*i* P	**Pn**	**23 00 43.0**	**+4.4**
YSS				AMB	AMB	23 00 44.2	
	comp=Z,220nm,0.9s						
YSS				*e*S	**Sn**	**23 02 03.0**	**+5.9**
YSS				A		23 02 07.5	
	comp=Z,90nm,1.0s						

YSS			AMS	AMS	23 03 34.0
	comp=Z,700nm,15.0s				
YSS			AMS	AMS	23 03 34.0
	comp=Z,900nm,15.0s				
JTKR	**Abashiri--Toko**	**7.26 245**	P	**Pn**	**23 00 44.2 +2.5**
JAK	**Akkeshi**	**7.36 236**	P	**Pn**	**23 00 42.3 -0.8**
JAK			*e*S	**Sn**	**23 02 03.1 -2.0**
UGL	**Uglegorsk**	**7.53 287**	*e*PN	**Pn**	**23 00 50.0 +4.7**
UGL			pmax	pmax	
	comp=Z,112nm,1.0s				
UGL			MLR	MLR	
	comp=N,1µm,17.0s				
UGL			MLR	MLR	
	comp=E,1µm,17.0s				
UGL			MLR	MLR	
	comp=Z,2µm,17.0s				
JMP	**Maruseppu**	**7.58 247**	P	**Pn**	**23 00 49.0 +2.9**
JAR	**Ashorobuto**	**7.72 241**	P	**Pn**	**23 00 49.5 +1.5**
JAR			*e*S	**Sn**	**23 02 19.6 +5.8**
JOB	**Onbets**	**7.91 239**	P	**Pn**	**23 00 51.3 +0.7**
JOB			*e*S	**Sn**	**23 02 17.9 -0.7**
JWK2	**Keihoku**	**7.99 259**	P	**Pn**	**23 00 58.7 +7.0**
ASAJ	**Asahikawa**	**8.01 250**	P	**Pn**	**23 00 56.1 +4.1**
ASAJ	**Asahikawa**	**8.01 250**	PN	**Pn**	**23 00 54.1 +2.1**
ASAJ			pmax	pmax	
	comp=Z,3.0nm,0.3s				
ASAJ			MLR	MLR	
	comp=Z,757nm,22.0s				
ASAJ	**Asahikawa**	**8.01 250**	P	**Pn**	**23 00 54.1 +2.1**
	comp=Z,2.6nm,0.3s,baz=76,slow=7.1,SNR=13				
ASAJ			LR	LR	23 03 48.5
	comp=Z,757nm,22.0s,baz=24,slow=36				
JKK2	**Kamakawa 2**	**8.04 248**	P	**Pn**	**23 00 54.5 +2.2**
JCH	**Churui**	**8.37 239**	P	**Pn**	**23 00 56.7 -0.1**
JCH			*e*S	**Sn**	**23 02 28.4 -1.3**
JBT2	**Biratori 2**	**8.86 242**	P	**Pn**	**23 01 05.0 +1.4**
ERM	**Erimo**	**8.86 236**	Pn	**Pn**	**23 01 06.9 +3.3**
	comp=Z,431nm,0.4s,SNR=6.6				
ERM	**Erimo**	**8.86 236**	*e*Pn	**Pn**	**23 01 03.8 +0.1**
	comp=Z,59nm,0.6s				
ERM			*e*Sn	**Sn**	**23 02 38.9 -3.0**
ERM	**Erimo**	**8.86 236**	*e*PN	**Pn**	**23 01 03.8 +0.2**
ERM			pmax	pmax	
	comp=Z,59nm,0.6s				
JNBK	**Urakawa-nobuka**	**8.93 239**	P	**Pn**	**23 01 03.4 -1.1**
JNBK			*e*S	**Sn**	**23 02 43.2 -0.3**
JNB	**Noboribetsu**	**9.84 244**	P	**Pn**	**23 01 16.9 -0.1**
JKB	**Kayabe**	**10.18 242**	P	**Pn**	**23 01 20.0 -1.6**
JKB			*e*S	**Sn**	**23 03 09.7 -4.4**
JYM2	**Yakumo 2**	**10.45 244**	P	**Pn**	**23 01 25.2 -0.1**
JSR	**Shiriuchi**	**10.76 242**	P	**Pn**	**23 01 28.1 -1.5**
JTM	**Tenmabayashi**	**10.85 237**	P	**Pn**	**23 01 28.0 -2.8**
JANG	**Nango**	**10.88 234**	P	**Pn**	**23 01 27.5 -3.7**
JANG			*e*S	**Sn**	**23 03 23.3 -8.0**
OFUJ	**Ofunato**	**11.74 229**	P	**Pn**	**23 01 38.7 -4.2**
OFUJ			*e*S	**Sn**	**23 03 41.8 -10**
JRG	**Rokugo**	**12.05 233**	P	**Pn**	**23 01 43.7 -3.5**
MA2	**Magadan**	**12.28 355**	*e*Pn	**Pn**	**23 01 51.9 +1.8**
MA2	**Magadan**	**12.28 355**	*d i*PN	**Pn**	**23 01 51.7 +1.6**
MA2			pmax	pmax	
	comp=Z,40nm,0.6s				
MA2			pmax	pmax	
	comp=N,40nm,0.8s				
KLR	**Kul'dur**	**14.29 285**	*e*P	**Pn**	**23 02 19.8 +2.5**
KLR			MLR	MLR	
	comp=E,900nm,13.0s				
KLR			MLR	MLR	
	comp=Z,2µm,13.0s				
MAJO	**Matsushiro**	**15.45 231**	*e*Pn	**Pn**	**23 02 29.3 -3.1**
MAT	**Matsushiro**	**15.45 231**	P	**Pn**	**23 02 29.0 -3.4**
MJAR	**Matsushiro Arr**	**15.45 231**	P	**Pn**	**23 02 29.8 -2.6**
MJAR			pmax	pmax	
	comp=Z,1.0nm,0.3s				
MJAR	**Matsushiro Arr**	**15.45 231**	P	**Pn**	**23 02 29.8 -2.6**
	comp=Z,0.5nm,0.3s,baz=27,slow=12,SNR=15				
SEY	**Seymchan**	**15.58 359**	⇑*e*P	**Pn**	**23 02 36.7 +2.9**
MDJ	**Mudanjiang**	**16.52 269**	P	**Pn**	**23 02 51.1 +5.2**
MDJ			AMB	AMB	
	comp=Z,30nm,0.9s				
MDJ			AMB	AMB	
	comp=Z,295nm,7.6s				
CN2	**Changchun**	**19.60 270**	*e*P	**Pn**	**23 03 20.7 -2.6**
CN2			*e*AP	pP	23 03 33.2 -1.3
CN2			*e*S	**S**	**23 06 53.1 -6.2**
CN2			AMB	AMB	
	comp=Z,10.0nm,0.7s				
CN2			AMB	AMB	
	comp=Z,200nm,4.0s				
CN2			LR	LR	
	comp=N,600nm,17.0s				
CN2			LR	LR	
	comp=E,300nm,17.0s				
CN2			LR	LR	
	comp=Z,900nm,19.0s				
YAK	**Yakutsk**	**19.76 326**	*e*P	**Pn**	**23 03 24.3 -0.6**
	comp=Z,55nm,0.8s				
YAK	**Yakutsk**	**19.76 326**	*e*P	**Pn**	**23 03 27.2 +2.3**
YAK			pmax	pmax	
	comp=Z,48nm,1.0s				
YAK			pmax	pmax	
	comp=N,31nm,1.2s				
YAK			pmax	pmax	
	comp=E,39nm,1.3s				
KSRS	**Korea Array**	**20.96 251**	P	**P**	**23 03 37.0 +0.8**
	comp=E,14nm,0.9s,baz=54,slow=10,SNR=17				
KSRS			pP		23 03 49.9
	comp=E,4.8nm,0.8s,baz=59,slow=9.7,SNR=3.7				
KS15	**Wonju Array Si**	**20.99 251**	*e*P	**P**	**23 03 41.0 +4.4**
SNY	**Shenyang**	**21.63 266**	⇓P	**P**	**23 03 42.9 -0.5**
SNY			AMB	AMB	
	comp=Z,9.0nm,1.3s,mb4.0				
BILL	**Bilibino**	**21.77 13**	*e*P	**P**	**23 03 44.1 -0.5**
	comp=Z,8.8nm,0.7s,mb4.3				
BILL	**Bilibino**	**21.77 13**	*e*P	**P**	**23 03 47.6 +3.0**
BILL			pmax	pmax	
	comp=Z,10.0nm,1.0s,mb4.2				
JNU	**Nakatsue**	**22.02 238**	P	**P**	**23 03 46.3 -1.3**
	comp=Z,19nm,1.0s,mb4.5,baz=32,slow=18,SNR=6.0				
BOD	**Bodaibo**	**25.55 309**	*e*P	**P**	**23 04 22.8 +1.7**
BOD			pmax	pmax	
	comp=Z,7.0nm,0.9s,mb4.2				
TIXI	**Tiksi**	**26.84 343**	*e*P	**P**	**23 04 34.3 +1.7**
TIXI			*e*	pP	23 04 47.4 0.0
TIXI	**Tiksi**	**26.84 343**	*e*P	**P**	**23 04 33.2 +0.6**
TIXI			*e*	pP	23 04 48.7 +1.3
TIXI			pmax	pmax	
	comp=Z,2.0nm,0.7s,mb3.8				
BJI	**Beijing**	**27.45 268**	P	**P**	**23 04 41.7 +3.3**
BJI			AMB	AMB	
	comp=Z,6.0nm,1.2s,mb4.0				
BJI			LR	LR	
	comp=N,2µm,19.7s				
BJI			LR	LR	
	comp=E,1µm,19.7s				
BJI			LR	LR	
	comp=Z,2µm,20.4s				
TNA	**Tin City**	**27.52 35**	*e*P	**P**	**23 04 39.5 +0.7**
TNA			*e*	pP	23 04 51.4 -2.1
JOW	**Kunigami**	**28.28 232**	P	**P**	**23 04 45.1 -0.8**
	comp=Z,15nm,0.9s,mb4.6,baz=179,slow=29,SNR=4.3				
NJ2	**Nanjing**	**30.15 252**	*e*P	**P**	**23 05 04.9 +2.4**
NJ2			AP	pP	23 05 19.6 +2.2
NJ2			XP	sP	23 05 27.1 +2.6
NJ2			PP	PP	23 06 05.2 -6.1
NJ2			S	**S**	**23 09 58.0 +0.9**
NJ2			AMB	AMB	
	comp=Z,10.0nm,0.6s,mb4.7				
NJ2			AMB	AMB	
	comp=Z,360nm,5.7s				
NJ2			LR	LR	
	comp=N,4µm,25.7s				
NJ2			LR	LR	
	comp=E,2µm,26.9s				
NJ2			LR	LR	
	comp=Z,2µm,22.1s				
HHC	**Hu-ho-hao-te**	**30.21 273**	*e*P	**P**	**23 05 04.0 +1.1**
HHC			AP	pP	23 05 18.8 +1.0
HHC			XP	sP	23 05 26.2 +1.2
HHC			PP	PP	23 06 03.6 -8.3
HHC			PCP	PcP	23 08 04.5 +2.1
HHC			S	**S**	**23 09 59.2 +1.3**
HHC			XS	sS	23 10 23.6 +0.3
HHC			SS	SS	23 11 39.4 -29
HHC			PCS	PcS	23 11 45.2 -0.7
HHC			SCS	ScS	23 15 34.6 -0.4
HHC			AMB	AMB	
	comp=Z,9.0nm,0.7s,mb4.6				
HHC			AMB	AMB	
	comp=Z,586nm,4.4s				
HHC			LR	LR	
	comp=N,1µm,21.8s				
HHC			LR	LR	
	comp=E,1µm,19.1s				
HHC			LR	LR	
	comp=Z,2µm,21.2s				
ULN	**Ulaanbaatar**	**30.65 288**	*e*P	**P**	**23 05 07.9 +1.2**
	comp=Z,2.5nm,1.0s,mb4.0				
ULN	**Ulaanbaatar**	**30.65 288**	*e*P	**P**	**23 05 07.9 +1.2**
ULN			pmax	pmax	
	comp=Z,3.0nm,1.0s,mb4.1				
SONM	**Songino Array**	**31.09 288**	P	**P**	**23 05 10.0 -0.5**
	comp=Z,0.8nm,0.9s,mb3.6,baz=66,slow=8.4,SNR=5.3				
SONM			PcP	PcP	23 08 01.8 -2.8
	comp=Z,0.9nm,0.9s,baz=116,slow=1.4,SNR=4.4				
ZAK	**Zakamensk**	**32.37 294**	*e*P	**P**	**23 05 21.0 -0.8**
IMA2	**Indian Mountai**	**33.31 37**	*e*P	**P**	**23 05 29.3 -0.5**
KDAK	**Kodiak Island**	**33.73 52**	P	**P**	**23 05 31.4 -2.2**
KDAK			*e*pP	pP	23 05 42.0 -6.6
KDAK	**Kodiak Island**	**33.73 52**	P	**P**	**23 05 31.4 -2.2**
	comp=Z,19nm,1.1s,mb4.9,baz=321,slow=4.9,SNR=5.9				
GUMO	**Guam**	**34.39 194**	P	**P**	**23 05 43.6 +4.0**
SLKM	**Skilak Lake**	**34.70 47**	P	**P**	**23 05 50.8 +8.9**
MCK	**McKinley**	**35.19 41**	*e*P	**P**	**23 05 46.3 +0.3**
SML	**Sawmill**	**35.53 44**	*e*P	**P**	**23 05 48.7 -0.3**
XAN	**Xi'an**	**35.53 264**	P	**P**	**23 05 49.6 +0.2**
XAN			AMB	AMB	
	comp=Z,5.0nm,1.4s,mb4.2				
COLA	**College**	**35.66 39**	*e*P	**P**	**23 05 50.1 +0.1**
	comp=Z,6.8nm,0.5s,mb4.8				
COLA	**College**	**35.66 39**	*e*P	**P**	**23 05 50.1 0.0**
COLA			pmax	pmax	
	comp=Z,7.0nm,0.5s,mb4.8				
LZH	**Lanzhou**	**37.83 271**	*e*P	**P**	**23 06 11.7 +2.8**
LZH			AP	pP	23 06 27.3 +3.2
LZH			XP	sP	23 06 33.0 +1.8
LZH			PP	PP	23 07 42.0 +5.9
LZH			*e*S	**S**	**23 11 57.0 +1.5**
LZH			XS	sS	23 12 23.0 +1.7
LZH			AMB	AMB	
	comp=Z,20nm,1.0s,mb4.8				
LZH			AMB	AMB	
	comp=Z,79nm,4.0s				
LZH			LR	LR	
	comp=E,1µm,16.0s				
LZH			LR	LR	
	comp=Z,1µm,17.9s				
EGAK	**Eagle**	**38.52 39**	*e*P	**P**	**23 06 13.9 -0.4**
	comp=Z,12nm,0.6s,mb4.8				
EGAK			*e*	pP	23 06 28.8 -0.8
GTA	**Gaotai**	**38.83 278**	*e*P	**P**	**23 06 18.3 +1.0**
GTA			AP	pP	23 06 34.3 +1.8
GTA			XP	sP	23 06 41.3 +1.7
GTA			PP	PP	23 07 52.1 +5.1
GTA			PPP		23 08 17.2
GTA			PCP	PcP	23 08 27.7 +0.4
GTA			S	**S**	**23 12 11.3 +0.8**
GTA			PCS	PcS	23 12 18.2 +1.5
GTA			AMB	AMB	
	comp=Z,4.0nm,1.1s,mb4.1				
GTA			AMB	AMB	
	comp=Z,363nm,9.5s				
GTA			LR	LR	
	comp=N,561nm,16.7s				
GTA			LR	LR	
	comp=E,838nm,18.6s				
GTA			LR	LR	
	comp=Z,923nm,17.9s				
DAWY	**Dawson**	**39.37 40**	*e*pP	pP	23 06 34.3 -2.4
CD2	**Chengdu**	**40.90 264**	*e*P	**P**	**23 06 34.5 0.0**
CD2			AP	pP	23 06 49.8 0.0
CD2			XP	sP	23 06 57.0 +0.2
CD2			PP	PP	23 08 12.8 +3.2
CD2			S	**S**	**23 12 40.8 -0.8**
CD2			XS	sS	23 13 07.0 -0.6
CD2			AMB	AMB	
	comp=Z,30nm,0.8s,mb5.0				
CD2			AMB	AMB	
	comp=Z,60nm,5.2s				
CD2			LR	LR	
	comp=N,670nm,18.5s				
CD2			LR	LR	
	comp=E,560nm,16.8s				
CD2			LR	LR	
	comp=Z,450nm,17.4s				
INK	**Inuvik**	**41.13 33**	*e*P	**P**	**23 06 36.3 +0.4**
	comp=Z,307nm,0.6s,mb6.1				
INK	**Inuvik**	**41.13 33**	P	**P**	**23 06 35.8 -0.1**
INK			*PP	pP	23 06 50.1 -1.2
INK			pmax	pmax	
	comp=Z,10.0nm,0.8s				
INK	**Inuvik**	**41.13 33**	P	**P**	**23 06 35.8 -0.1**
	comp=Z,10nm,0.8s,mb4.5,baz=286,slow=7.2,SNR=29				
INK			pP	pP	23 06 50.1 -1.1
	comp=Z,8.5nm,0.5s,baz=283,slow=5.3,SNR=11				
GYA	**Guiyang**	**41.82 257**	⇑*i*P	**P**	**23 06 43.0 +0.9**
GYA			AP	pP	23 06 58.5 +1.1
GYA			XP	sP	23 07 05.2 +0.7
GYA			PP	PP	23 08 23.4 +3.8
GYA			PCP	PcP	23 08 39.2 +2.1
GYA			SCP	ScP	23 12 22.9 +1.0
GYA			PCS	PcS	23 12 29.7 +0.9
GYA			S	**S**	**23 12 55.9 +0.6**
GYA			XS	sS	23 13 22.2 +0.9
GYA			SCS	ScS	23 16 38.3 -0.9
GYA			AMB	AMB	
	comp=Z,30nm,0.8s,mb5.0				
GYA			AMB	AMB	
	comp=Z,140nm,5.4s				
GYA			LR	LR	
	comp=N,450nm,18.0s				
GYA			LR	LR	
	comp=E,440nm,18.6s				
GYA			LR	LR	
	comp=Z,480nm,17.4s				
ZALV	**Zalesovo Beam**	**42.20 305**	P	**P**	**23 06 42.5 -2.3**
	comp=Z,0.7nm,0.5s,mb3.6,baz=69,slow=8.1,SNR=5.8				
ZALV			pP	pP	23 06 58.2 -2.1
	comp=Z,1.1nm,0.5s,baz=61,slow=6.7,SNR=4.5				
ZALV			PcP	PcP	23 08 34.6 -3.3
	comp=Z,2.7nm,0.8s,baz=74,slow=2.2,SNR=7.8				
ZAL	**Zalesovo**	**42.22 305**	P	**P**	**23 06 42.6 -2.4**
ZAL			*PP	pP	23 06 58.2 -2.2
ZAL					23 08 34.6
WMQ	**Urumqi**	**44.66 291**	*e*P	**P**	**23 07 06.8 +2.1**
DLBC	**Dease Lake**	**45.17 46**	*e*P	**P**	**23 07 09.7 +1.0**
DLBC			*e*	pP	23 07 25.2 +1.0
KMI	**Kunming**	**45.32 259**	⇑P	**P**	**23 07 10.8 +0.6**
KMI			AP	pP	23 07 26.1 +0.3
KMI			XP	sP	23 07 32.2 -0.6
KMI			PP	PP	23 09 00.0 +2.9
KMI			PPP		23 09 39.9
KMI			S	**S**	**23 13 47.9 +1.4**
KMI			XS	sS	23 14 12.6 -0.2
KMI			SS	SS	23 17 01.5 -9.0
KMI			SSS		23 18 04.3
KMI			AMB	AMB	
	comp=Z,14nm,1.0s,mb4.8				
KMI			LR	LR	
	comp=N,841nm,16.7s				
KMI			LR	LR	
	comp=E,370nm,23.4s				
KMI			LR	LR	
	comp=Z,1µm,20.8s				
MK31	**Makanchi Array**	**46.61 297**	*e*P	**P**	**23 07 19.8 -0.3**
MK31			*e*	pP	23 07 34.4 -1.3
MK31			*e*PcP	PcP	23 08 53.0 -0.1
MK31			*e*S	**S**	**23 13 51.7 -13**
MK31	**Makanchi Array**	**46.61 297**	*e*P	**P**	**23 07 19.8 -0.3**
MK31			*e*	pP	23 07 34.4 -1.3
MK31			*e*		23 08 53.0
MKAR	**Makanchi Array**	**46.61 297**	*i* P	**P**	**23 07 19.6 -0.5**
MKAR			pmax	pmax	
	comp=Z,1.0nm,0.8s				
MKAR	**Makanchi Array**	**46.61 297**	P	**P**	**23 07 18.7 -1.4**
	comp=Z,1.4nm,0.8s,mb4.0,baz=64,slow=8.2,SNR=12				
KURK	**Kurchatov**	**46.97 303**	P	**P**	**23 07 21.8 -1.1**
	comp=Z,40nm,1.2s,mb5.2,SNR=5.2				
KURK	**Kurchatov**	**46.97 303**	*e*P	**P**	**23 07 21.8 -1.1**
	comp=Z,4.7nm,0.8s,mb4.5				
KURK			*e*		23 07 55.9
KURK	**Kurchatov**	**46.97 303**	*e*P	**P**	**23 07 21.8 -1.1**
KURK			pmax	pmax	
	comp=Z,5.0nm,0.8s,mb4.5				
LSA	**Lhasa**	**50.20 273**	P	**P**	**23 07 50.2 +2.2**
RES	**Resolute Bay**	**50.24 19**	*e*P	**P**	**23 07 47.8 +0.1**
	comp=Z,264nm,1.0s,mb6.2				
YKW3	**Yellowknife Ar**	**50.40 37**	*e*P	**P**	**23 07 49.2 +0.3**
YKW3			*e*pP	pP	23 08 02.4 -2.3
YKA	**Yellowknife Ar**	**50.43 37**	P	**P**	**23 07 49.2 0.0**
YKA			pP	pP	23 08 04.2 -0.8
YKA			PcP	PcP	23 09 05.0 -1.6
YKA	**Yellowknife Ar**	**50.43 37**	P	**P**	**23 07 49.2 0.0**
YKA			*PP	pP	23 08 04.2 -0.8
YKA					23 09 05.0
YKA			pmax	pmax	
	comp=Z,14nm,0.8s				
YKA	**Yellowknife Ar**	**50.43 37**	P	**P**	**23 07 49.2 0.0**
	comp=Z,14nm,0.8s,mb5.0,baz=298,slow=7.3,SNR=105				
YKA			pP	pP	23 08 04.2 -0.8
	comp=Z,3.5nm,0.6s,baz=298,slow=7.0,SNR=6.3				
YKA			PcP	PcP	23 09 05.0 -1.6
	comp=Z,2.7nm,0.9s,baz=302,slow=4.0,SNR=5.4				
BRVK	**Borovoye**	**50.46 309**	*e*P	**P**	**23 07 48.6 -0.9**
	comp=Z,1.6nm,0.6s,mb4.2				
BRVK	**Borovoye**	**50.46 309**	*e*P	**P**	**23 07 48.7 -0.9**
BRVK			pmax	pmax	
	comp=Z,2.0nm,0.6s,mb4.3				
CHTO	**Chiang Mai**	**52.23 256**	*e*P	**P**	**23 08 04.3 +1.0**
	comp=Z,18nm,0.9s,mb5.0				
CHTO	**Chiang Mai**	**52.23 256**	*e*P	**P**	**23 08 04.3 +1.1**
CHTO			pmax	pmax	
	comp=Z,18nm,0.9s,mb5.0				
CM31	**Chiang Mai Arr**	**52.49 256**	*e*P	**P**	**23 08 06.5 +1.3**
CM31			*e*	pP	23 08 23.0 +2.0
AAK	**Ala-Archa**	**53.51 296**	*e*P	**P**	**23 08 11.2 -1.2**
	comp=Z,1.4nm,0.9s,mb3.9				
AAK			*e*	pP	23 08 30.7 +2.3
AAK	**Ala-Archa**	**53.51 296**	*e*P	**P**	**23 08 11.2 -1.2**
AAK			*e*	pP	23 08 30.7 +2.4
AAK			pmax	pmax	
	comp=Z,1.0nm,0.9s,mb3.8				
NLWA	**Neilton Lookou**	**53.56 57**	⇑P	**P**	**23 08 12.6 -0.1**
	baz=53				
A05A	**Maple Falls**	**53.68 54**	⇓P	**P**	**23 08 13.1 -0.4**
	baz=53				
A06A	**Chilliwack**	**53.96 54**	⇓P	**P**	**23 08 14.7 -0.9**
	baz=54				
TAPN	**Taplejung**	**54.02 273**	*e*P	**P**	**23 08 17.6 +1.2**
B05A	**Bryant**	**54.08 55**	⇓P	**P**	**23 08 16.2 -0.3**
	baz=54				
KSH	**Kashi**	**54.37 292**	*e*P	**P**	**23 08 18.0 -0.7**
KSH			*e*AP	pP	23 08 33.2 -1.5
KSH			*e*XP	sP	23 08 40.1 -1.5
KSH			*e*PCP	PcP	23 09 22.1 +0.2
KSH			*e*PP	PP	23 10 21.1 +0.2
KSH			*e*PPP		23 11 32.2
KSH			*e*SCP	ScP	23 13 13.0 -1.7
KSH			*e*PCS	PcS	23 13 20.5 -0.9
KSH			*e*S	**S**	**23 15 47.2 -5.1**
KSH			*e*PS		23 16 06.3
KSH			*e*SCS	ScS	23 17 58.0 -4.3
KSH			AMB	AMB	
	comp=Z,360nm,6.2s				
KSH			LR	LR	
	comp=N,686nm,5.8s				
KSH			LR	LR	
	comp=E,893nm,7.2s				
KSH			LR	LR	
	comp=Z,712nm,11.6s				
ARU	**Arti**	**54.51 317**	*e*P	**P**	**23 08 18.8 -0.7**
	comp=Z,3.3nm,0.5s,mb4.6				
ARU			*e*	pP	23 08 35.0 -0.3
ARU	**Arti**	**54.51 317**	⇑*i*P	**P**	**23 08 18.7 -0.8**
ARU			*e*	pP	23 08 35.3 -0.1
ARU			*e*		23 10 18.7
ARU			*e*PPP		23 11 32.3
ARU			*e*S	**S**	**23 15 53.2 -0.4**
ARU			*e*SS	SS	23 19 32.8 -3.3
ARU			*e*SSS		23 21 42.9
ARU			pmax	pmax	
	comp=Z,5.0nm,0.9s,mb4.5				
ODAN	**Odare**	**54.56 272**	*e*P	**P**	**23 08 21.4 +1.1**
A07A	**Ashnola River,**	**54.59 54**	⇑P	**P**	**23 08 19.8 -0.4**
	baz=54				
C05A	**Tolt Reservoir**	**54.62 56**	⇑P	**P**	**23 08 19.3 -1.1**
	baz=54				
D05A	**Enumclaw**	**54.74 56**	⇑P	**P**	**23 08 20.7 -0.6**
	baz=54				
JIRN	**Jiri**	**54.86 274**	*e*P	**P**	**23 08 23.3 +0.9**
GUN	**Gumba**	**54.91 275**	*e*P	**P**	**23 08 23.8 +1.0**
C06A	**Tall Timber Ra**	**54.94 55**	⇓P	**P**	**23 08 22.6 -0.1**
	baz=54				
B07A	**Winthrop**	**55.07 54**	⇑P	**P**	**23 08 22.9 -0.8**
	baz=55				
F04A	**Amboy**	**55.20 58**	⇑P	**P**	**23 08 23.8 -0.8**
	baz=55				
E05A	**Randle**	**55.22 57**	⇓P	**P**	**23 08 24.3 -0.4**
	baz=55				
A08A	**Turner Farm, O**	**55.25 53**	⇓P	**P**	**23 08 24.0 -0.9**
	baz=55				
D06A	**Cle Elum**	**55.38 56**	⇑P	**P**	**23 08 25.1 -0.8**
	baz=55				
KKN	**Kakani**	**55.39 275**	*e*P	**P**	**23 08 27.4 +1.2**
PKI	**Pulchoki**	**55.44 275**	*e*P	**P**	**23 08 27.5 +0.9**
C07A	**Waterville**	**55.53 55**	⇓P	**P**	**23 08 25.8 -1.2**
	baz=55				
B08A	**Colville Reser**	**55.56 54**	⇓P	**P**	**23 08 26.1 -1.1**
	baz=55				
A09A	**Danville**	**55.61 53**	P	**P**	**23 08 27.5 0.0**
	baz=55,SNR=7.3				
DMN	**Daman**	**55.62 275**	*e*P	**P**	**23 08 28.9 +1.0**
E06A	**Yakima**	**55.67 56**	⇑P	**P**	**23 08 27.4 -0.6**
	baz=55				
GKN	**Gorkha**	**55.69 275**	*e*P	**P**	**23 08 29.1 +0.7**
	comp=Z,7.9nm,0.4s,mb5.0				
EBG	**Ellensburg**	**55.70 56**	P	pP	23 08 44.2 0.0
D07A	**Quincy**	**55.87 55**	⇑P	**P**	**23 08 28.9 -0.4**
	baz=55				
EDM	**Edmonton**	**55.90 46**	*e*P	**P**	**23 08 29.6 +0.1**
EDM			*e*	pP	23 08 44.9 -0.6
HOOD	**Mount Hood Mea**	**55.99 58**	*e*pP	pP	23 08 46.7 +0.4
J02A	**Umpqua**	**56.00 61**	⇑P	**P**	**23 08 30.7 +0.3**
	baz=56,SNR=5.8				
C08A	**Higginbotham F**	**56.04 54**	⇓P	**P**	**23 08 30.3 -0.3**
	baz=56				
H04A	**Detroit Lake**	**56.05 59**	⇓P	**P**	**23 08 29.5 -1.2**
	baz=56				
BROR	**Big Rock Looko**	**56.13 59**	P	pP	23 08 47.7 +0.4
A10A	**Northport**	**56.16 52**	⇓P	**P**	**23 08 31.0 -0.4**
	baz=56				
B09A	**Rice**	**56.17 53**	⇓P	**P**	**23 08 31.1 -0.4**
	baz=56				
G05A	**Wamic**	**56.23 58**	⇓P	**P**	**23 08 32.8 +0.8**
	baz=56				
F06A	**Goldendale**	**56.23 57**	⇓P	**P**	**23 08 32.0 0.0**
	baz=56				
E07A	**Sunnyside**	**56.30 56**	⇓P	**P**	**23 08 32.5 0.0**
	baz=56				
J03A	**Ideyld Park**	**56.35 61**	⇑P	**P**	**23 08 32.8 -0.1**
	baz=56				
K02A	**Glendale**	**56.40 61**	⇑P	**P**	**23 08 32.8 -0.5**
	baz=56				
I04A	**Tendick Farm,**	**56.44 60**	⇑P	**P**	**23 08 33.7 +0.2**
	baz=56				
OD2	**Odessa Site #2**	**56.45 55**	P	pP	23 08 48.8 -0.8
HBO	**Huckleberry Mo**	**56.46 60**	P	pP	23 08 50.2 +0.5
D08A	**Wollman Farm,**	**56.53 55**	⇑P	**P**	**23 08 33.5 -0.6**
	baz=56				
KOLN	**Koldanda**	**56.54 276**	*e*P	**P**	**23 08 35.4 +1.0**
M01C	**Crescent City**	**56.56 63**	⇑P	**P**	**23 08 34.3 -0.1**
	baz=56				
HAWA	**Hanford**	**56.58 56**	*e*P	**P**	**23 08 34.5 +0.1**
G06A	**Carlson Farm,**	**56.62 58**	⇓P	**P**	**23 08 34.4 -0.5**
	baz=56				
F07A	**Phinny Hill Vi**	**56.64 57**	⇓P	**P**	**23 08 35.1 +0.2**
	baz=56				
B10A	**Chitwood Farm,**	**56.74 53**	⇓P	**P**	**23 08 35.6 0.0**
	baz=56				
E08A	**Dider Farm, El**	**56.78 56**	⇓P	**P**	**23 08 36.1 +0.2**
	baz=56				
HUMO	**Hull Mountain**	**56.81 61**	⇑P	**P**	**23 08 36.7 +0.5**
	baz=56				
NEW	**Newport**	**56.82 53**	P	**P**	**23 08 35.2 -1.0**

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NEW                                   pP     pP       23 08 52.3 +0.1
NEW    Newport            56.82  53   P      P        23 08 35.2 -0.9
NEW                                   *PP    pP       23 08 52.3 +0.1
NEW                                   pmax   pmax
       comp=Z,5.0nm,1.0s
NEW    Newport            56.82  53   P      P        23 08 35.2 -0.9
       comp=Z,4.5nm,1.0s,mb4.4,baz=293,slow=6.7,SNR=8.0
NEW                                   pP     pP       23 08 52.3 +0.1
       comp=Z,4.5nm,1.0s,baz=326,slow=4.6,SNR=5.0
A11A   Hall Mountain,     56.82  52  ⇓P      P        23 08 36.6 +0.5
       baz=56
D09A   Jones Farm, Ri     56.87  55  ⇑P      P        23 08 36.1 -0.4
       baz=56
I05A   Bend               56.89  59  ⇓P      P        23 08 36.4 -0.3
       baz=56
J04A   Umpqua Nationa     56.94  60  ⇑P      P        23 08 36.9 -0.1
       baz=56,SNR=7.0
C10A   Spilker Farm,      56.98  53  ⇑P      P        23 08 37.6 +0.3
       baz=56,SNR=46
VIPM   Ingram Point       57.06  58   P      pP       23 08 54.4 +0.4
H06A   Lindquist Farm     57.09  58  ⇑P      P        23 08 38.3 +0.2
       baz=57,SNR=5.5
B11A   Sandpoint          57.12  52  ⇑P      P        23 08 38.3  0.0
       baz=57
G07A   Ruggs Ranch, H     57.16  57  ⇓P      P        23 08 38.0 -0.6
       baz=57
A12A   Yaak River Ran     57.21  52  ⇑P      P        23 08 39.1 +0.2
       baz=57
JCC    Jacoby Creek       57.22  64  ⇑P      P        23 08 38.5 -0.6
       baz=57
ARCES  ARCESS Array B     57.23 341   P      P        23 08 36.8 -1.9
ARCES                                 pmax   pmax
       comp=Z,2.0nm,0.7s
ARCES  ARCESS Array B     57.23 341   P      P        23 08 36.8 -2.0
       comp=Z,1.5nm,0.7s,mb4.1,baz=19,slow=7.4,SNR=7.8
E09A   Wood Farm, Sta     57.28  55  ⇓P      P        23 08 39.5  0.0
       baz=57
F08A   Pendleton          57.35  56  ⇓P      P        23 08 40.3 +0.3
       baz=57
J05A   Fort Rock          57.43  60  ⇓P      P        23 08 41.0 +0.5
       baz=57,SNR=7.8
D10A   Wagner Farm, O     57.45  54  ⇑P      P        23 08 40.1 -0.4
       baz=57
YBH    Yreka Blue Hor     57.48  62  ⇓P      P        23 08 40.9  0.0
       baz=57,SNR=5.4
B12A   Libby              57.52  52  ⇓P      P        23 08 40.7 -0.4
       baz=57
G08A   Pilot Rock         57.55  57  ⇑P      P        23 08 40.6 -0.8
       baz=57
M02C   Callahan           57.59  62  ⇑P      P        23 08 41.7  0.0
       baz=57,SNR=5.0
I06A   Prineville         57.63  59   P      P        23 08 42.8 +0.9
       baz=57,SNR=5.3
L04A   Klamath Falls      57.70  61  ⇑P      P        23 08 43.1 +0.7
       baz=57
A13A   Flathead Natio     57.87  51   P      P        23 08 43.5  0.0
       baz=57,SNR=8.6
E10A   Myers Farm, Un     57.88  55  ⇓P      P        23 08 42.8 -0.8
       baz=57
F09A   S2 Ranch, Elgi     57.89  56  ⇑P      P        23 08 44.2 +0.5
       baz=58
I07A   Izee               57.96  58  ⇓P      P        23 08 43.8 -0.5
       baz=58
K05A   Summer Lake        57.96  60  ⇓P      P        23 08 44.4 +0.2
       baz=58
D11A   Klaveano Farm,     57.97  54  ⇑P      P        23 08 43.5 -0.8
       baz=58
M04C   Macdoel            57.97  62  ⇑P      P        23 08 44.3  0.0
       baz=58
WALA   Waterton Lakes     58.06  51  eP      P        23 08 44.9  0.0
       comp=Z,10nm,0.8s,mb4.9
J06A   Christmas Vall     58.08  59  ⇓P      P        23 08 45.6 +0.5
       baz=58
M03C   McCloud            58.10  62  ⇑P      P        23 08 46.3 +1.0
       baz=58
F10A   Beach Ranch, E     58.12  55  ⇓P      P        23 08 45.3  0.0
       baz=58
H08A   Prairie City       58.17  57  ⇑P      P        23 08 46.1 +0.3
       baz=58
B13A   Whitefish          58.18  52   P      P        23 08 46.3 +0.6
       baz=58,SNR=11
AKTK   Aktyubinsk         58.27 311   P      P        23 08 44.9 -1.3
AKTO   Aktyubinsk         58.27 311   P      P        23 08 44.9 -1.4
AKTO                                  pmax   pmax
       comp=Z,1.0nm,0.5s,mb4.1
AKTO   Aktyubinsk         58.27 311   P      P        23 08 44.9 -1.3
       comp=Z,0.7nm,0.5s,mb3.9,baz=48,slow=12,SNR=2.4
WDC    Whiskeytown Da     58.27  63  e       pP       23 09 03.0 +0.4
WDC    Whiskeytown Da     58.27  63  ⇓P      P        23 08 46.5  0.0
       baz=58
K06A   Valley Falls       58.29  60  ⇑P      P        23 08 47.2 +0.7
       baz=58
BSMT   Bassoo Peak        58.32  52  eP      P        23 08 47.4 +0.7
O02C   Red Bluff          58.37  64  ⇑P      P        23 08 47.2  0.0
       baz=58
L05A   Lakeview           58.41  61  ⇓P      P        23 08 47.7 +0.3
       baz=58
E11A   Bogner Ranch,      58.45  54  ⇓P      P        23 08 47.3 -0.3
       baz=58
J07A   Hines              58.50  59  ⇓P      P        23 08 48.6 +0.7
       baz=58
C13A   Hot Springs        58.54  52  ⇓P      P        23 08 48.6 +0.3
       baz=58
I08A   Drewsey            58.60  58  ⇑P      P        23 08 48.6 -0.1
       baz=58
M05C   Lookout            58.64  62  ⇑P      P        23 08 48.9 -0.1
       baz=58
H09A   Durkee             58.66  57  ⇓P      P        23 08 49.6 +0.5
       baz=58
BMO    Blue Mountains     58.75  56  eP      P        23 08 50.1 +0.4
       comp=Z,10nm,0.8s,mb4.9
F11A   Grangeville        58.76  55  ⇓P      P        23 08 49.7 -0.1
       baz=58
HATC   Hat Creek Radi     58.78  62  ⇑P      P        23 08 50.2 +0.2
       baz=58
MOD    Modoc              58.81  61  eP      P        23 08 50.3 +0.1
MOD                                  e       pP       23 09 06.4 +0.1
MOD    Modoc              58.81  61  ⇓P      P        23 08 50.7 +0.5
       baz=58
C14A   Swan Lake          58.93  52  ⇓P      P        23 08 51.4 +0.5
       baz=58
K07A   Rock Creek Ran     58.95  59  ⇑P      P        23 08 51.2  0.0
       baz=58
D13A   Huson              58.96  53  ⇑P      P        23 08 51.0 -0.1
       baz=58
J08A   Circle Bar Ran     58.99  58  ⇑P      P        23 08 51.3 -0.1
       baz=59
G11A   Walters Elk Ra     59.00  55   P      P        23 08 51.5 +0.1
       baz=59,SNR=5.2
I09A   Lost Marbles R     59.04  57  ⇑P      P        23 08 51.8  0.0
       baz=59
M06C   Likely Place G     59.13  61  ⇑P      P        23 08 52.3 -0.1
       baz=59
H10A   Noah’s Angus R     59.23  56   P      P        23 08 53.4 +0.3
       baz=59,SNR=7.9
L07A   Adell              59.30  60  ⇓P      P        23 08 53.0 -0.6
       baz=59
O04C   Chester            59.31  62  ⇑P      P        23 08 53.5 -0.1
       baz=59
ELFS   Eagle Lake Fie     59.34  62  ⇑P      P        23 08 54.2 +0.3
       baz=59
K08A   Mann Creek Ran     59.37  59  ⇓P      P        23 08 54.1  0.0
       baz=59
MNRC   McLaughlin Nat     59.37  65  ⇑P      P        23 08 53.8 -0.3
       baz=59
MSO    Missoula           59.40  53  eP      P        23 08 54.4 +0.2
       comp=Z,13nm,1.1s,mb4.9
J09A   Fry Pan Ranch,     59.41  58  ⇑P      P        23 08 54.4  0.0
       baz=59
WVOR   Wild Horse Val     59.46  59  eP      P        23 08 55.0 +0.4
       comp=Z,1.9nm,0.7s,mb4.2
WVOR                                 e       pP       23 09 10.8 -0.1
WVOR   Wild Horse Val     59.46  59  eP      P        23 08 55.1 +0.4
WVOR                                 e       pP       23 09 10.8  0.0
WVOR                                  pmax   pmax
       comp=Z,2.0nm,0.7s,mb4.3
D14A   Greenough          59.48  52   P      P        23 08 55.0 +0.3
       baz=59,SNR=15
I10A   Payette            59.50  57  ⇓P      P        23 08 54.8 -0.1
       baz=59
E13A   Victor             59.51  53  ⇓P      P        23 08 54.8 -0.1
       baz=59
ORV    Oroville           59.53  63  ⇓P      P        23 08 54.8 -0.4
       baz=59
H11A   Donnelly           59.57  56   P      P        23 08 55.6 +0.2
       baz=59,SNR=6.9
CHMT   Chamberlain Mo     59.72  52  eP      P        23 08 56.8 +0.4
L08A   Fields             59.78  59  ⇑P      P        23 08 56.9  0.0
       baz=59
M07A   Soldier Meadow     59.79  60   P      P        23 08 57.4 +0.4
       baz=59,SNR=9.7
N06A   Buffalo Meadow     59.79  61  ⇑P      P        23 08 56.9 -0.1
       baz=59
K09A   Rome               59.83  59  ⇓P      P        23 08 57.1 -0.1
       baz=59
F13A   Darby              59.83  54   P      P        23 08 57.2 +0.1
       baz=59,SNR=5.8
E14A   Clinton            59.90  53   P      P        23 08 57.5 -0.1
       baz=59,SNR=8.1
J10A   Berg Farm, Mel     59.93  57  ⇑P      P        23 08 57.8 -0.1
       baz=60
D15A   Lincoln            60.03  52  ⇑P      P        23 08 58.3 -0.3
       baz=60
I11A   Placerville        60.09  56  ⇓P      P        23 08 59.0  0.0
       baz=60
O06A   Flanigan           60.16  62  ⇑P      P        23 08 59.6  0.0
       baz=60
M08A   Happy Creek Ra     60.22  60  ⇑P      P        23 09 00.6 +0.7
       baz=60
FFC    Flin Flon          60.27  40  eP      P        23 08 59.8 -0.2
K10A   MacKenzie Ranc     60.27  58  ⇑P      P        23 09 00.9 +0.7
       baz=60
H12A   Diamond D Ranc     60.31  55  ⇓P      P        23 09 00.4 -0.1
       baz=60
G13A   Cobalt             60.32  55   P      P        23 09 00.4 -0.1
       baz=60,SNR=12
F14A   Wisdom             60.34  53  ⇑P      P        23 09 00.6 -0.1
       baz=60
E15A   Deer Lodge         60.36  53   P      P        23 09 01.1 +0.3
       baz=60,SNR=9.2
MFID   Camas Ranch        60.47  57  ⇓P      P        23 09 01.8 +0.2
       baz=60
H13A   Challis            60.64  55   P      P        23 09 03.0 +0.3
       baz=60,SNR=9.1
G14A   Jackson            60.65  54  ⇓P      P        23 09 02.7 -0.1
       baz=60
PAHR   Pah Rah Range      60.71  62  eP      P        23 09 03.3  0.0
PAHR                                 e       pP       23 09 18.0 -1.5
O07A   Toulon             60.73  61  ⇓P      P        23 09 03.3 -0.1
       baz=60
JOF    Joensuu            60.74 334  ep      P        23 08 56.8 -6.3
WCN    Washoe City        60.74  63  ⇑P      P        23 09 03.9 +0.4
       baz=60
FCC    Fort Churchill     60.74  33  eP      P        23 09 02.6 -0.6
FCC                                  e       pP       23 09 18.5 -0.9
M09A   Marrel Ranch,      60.78  60  ⇓P      P        23 09 04.3 +0.5
       baz=60
N08A   GE Springer Mi     60.78  60  ⇑P      P        23 09 04.3 +0.5
       baz=60
F15A   Butte              60.80  53   P      P        23 09 04.4 +0.6
       baz=60,SNR=12
LRM    Limekiln Ridge     60.84  53  eP      P        23 09 04.5 +0.5
EGMT   Eagleton           60.87  50   P      P        23 09 04.6 +0.4
       baz=60,SNR=5.6
L10A   Juniper Basin      60.94  58  ⇑P      P        23 09 05.2 +0.3
       baz=60
J12A   Stokes Ranch,      60.99  57  ⇑P      P        23 09 05.3 +0.2
       baz=61
DLMT   Dillon             61.05  53  epP     pP       23 09 15.8 -5.8
N09A   Rock Creek Ran     61.10  60  ⇓P      P        23 09 05.6 -0.3
       baz=61
I13A   Wildhorse Cree     61.12  56   P      P        23 09 06.4 +0.4
       baz=61,SNR=7.5
CMB    Columbia Colle     61.16  64  eP      P        23 09 05.9 -0.5
       comp=Z,7.4nm,1.1s,mb4.7
CMB                                  e       pP       23 09 21.5 -1.1
CMB    Columbia Colle     61.16  64  eP      P        23 09 05.9 -0.4
CMB                                  e       pP       23 09 21.5 -1.0
CMB                                   pmax   pmax
       comp=Z,7.0nm,1.1s,mb4.7
CMB    Columbia Colle     61.16  64  ⇓P      P        23 09 06.4 +0.1
       baz=61
HLID   Hailey             61.18  56  eP      P        23 09 06.9 +0.5
       comp=Z,9.7nm,1.0s,mb4.9
HLID   Hailey             61.18  56  ⇑P      P        23 09 06.3 -0.1
       baz=61,SNR=5.6
G15A   Dillon             61.23  54   P      P        23 09 07.7 +1.0
       baz=61,SNR=7.5
MCMT   McKenzie Canyo     61.25  54  eP      P        23 09 06.5 -0.3
MCMT                                 e       pP       23 09 22.9 -0.1
M10A   I.L. Ranch, Tu     61.25  59  ⇓P      P        23 09 07.3 +0.4
       baz=61
PACP   Pacheco Peak       61.25  66  ⇓P      P        23 09 06.9 -0.1
       baz=61
L11A   Cat Creek Ranc     61.30  58   P      P        23 09 08.0 +0.8
       baz=61,SNR=7.8
BOZ    Bozeman (W)        61.39  53  eP      P        23 09 08.7 +0.8
       comp=Z,14nm,0.9s,mb5.1
BOZ    Bozeman (W)        61.39  53  eP      P        23 09 08.7 +0.9
BOZ                                   pmax   pmax
       comp=Z,14nm,0.9s,mb5.1
BOZ    Bozeman (W)        61.39  53   P      P        23 09 08.3 +0.5
       baz=61,SNR=9.6
R06C   Coleville          61.42  63  ⇓P      P        23 09 08.0 -0.1
       baz=61
J13A   Cove Ranch, Pi     61.42  56   P      P        23 09 08.7 +0.7
       baz=61,SNR=5.3
WAKR   Walker             61.44  63  eP      P        23 09 08.4 +0.2
K12A   Draper Farm, C     61.49  57  ⇓P      P        23 09 09.0 +0.5
       baz=61
BMN    Battle Mountai     61.54  60  eP      P        23 09 08.4 -0.5
S06C   San Francisco      61.58  64  ⇓P      P        23 09 08.8 -0.4
       baz=61
O09A   Fish Creek Ran     61.73  60  ⇑P      P        23 09 10.0 -0.1
       baz=61
L12A   House Creek Ra     61.74  58  ⇑P      P        23 09 10.0 -0.1
       baz=61
M11A   Holland Ranch,     61.74  59  ⇓P      P        23 09 10.6 +0.4
       baz=61
R07C   Lee Vining         61.94  63  ⇑P      P        23 09 11.7 +0.1
       baz=62
U04C   Hernandez Rese     61.98  66  ⇓P      P        23 09 12.3 +0.4
       baz=62
QLMT   Earthquake Lak     62.02  53  eP      P        23 09 12.9 +0.8
O10A   Cortez Mining,     62.06  60  ⇓P      P        23 09 13.3 +1.0
       baz=62
Q08A   Gabbs              62.12  62  ⇑P      P        23 09 13.2 +0.4
       baz=62
NVAR   Mina Array Bea     62.17  63   P      P        23 09 12.4 -0.7
       comp=Z,1.4nm,0.8s,mb4.2,baz=305,slow=5.3,SNR=11
NVAR                                  pP     pP       23 09 29.3 -0.1
       comp=Z,6.4nm,0.7s,baz=307,slow=5.4,SNR=25
T06C   Millerton Lake     62.23  65  ⇓P      P        23 09 13.1 -0.4
       baz=62
M12A   Wells              62.26  58  ⇓P      P        23 09 14.4 +0.7
       baz=62
L13A   Double Diamond     62.39  57  ⇓P      P        23 09 15.7 +1.1
       baz=62
YNR    Norris Junctio     62.51  53  eP      P        23 09 17.3 +2.0
YNR                                  epP     pP       23 09 33.4 +1.8
P10A   Eureka             62.51  61  ⇑P      P        23 09 16.2 +0.8
       baz=62
K14A   Jones Ranch, D     62.53  56  ⇑P      P        23 09 16.4 +1.0
       baz=62
N12A   Clover Valley,     62.55  59  ⇑P      P        23 09 16.3 +0.7
       baz=62
YFT    Old Faithful       62.59  53  eP      P        23 09 19.0 +3.1
O11A   Cowboy Ranch,      62.65  60  ⇑P      P        23 09 16.7 +0.4
       baz=62
M13A   Montello           62.73  58  ⇑P      P        23 09 17.0 +0.2
       baz=62
LKWY   Lake               62.76  53  eP      P        23 09 19.2 +2.3
       comp=Z,11nm,0.9s,mb5.0
LKWY   Lake               62.76  53  eP      P        23 09 19.2 +2.2
LKWY                                  pmax   pmax
       comp=Z,11nm,0.9s,mb5.0
S08C   White Mtn Res      62.85  63  ⇑P      P        23 09 18.1 +0.4
       baz=62
HELL   Mitchell Peak,     62.86  65  ⇓P      P        23 09 17.2 -0.6
       baz=62
DCID1  Drake Creek        62.96  54  eP      P        23 09 18.9 +0.6
N13A   Wendover, West     63.03  58  ⇓P      P        23 09 18.7 -0.1
       baz=63
R09A   Tonopah            63.03  62  ⇑P      P        23 09 18.8 -0.1
       baz=63
O12A   Currie             63.10  59   P      P        23 09 19.8 +0.5
       baz=63,SNR=7.0
MOOW   Moose Ponds        63.10  54  eP      P        23 09 19.9 +0.6
       comp=Z,17nm,1.1s,mb5.1
SMMC   Simmler            63.14  66  ⇑P      P        23 09 19.6 -0.1
       baz=63
TPAW   Teton Pass         63.16  54  eP      P        23 09 21.0 +1.4
HVU    Hansel Valley      63.25  57  epP     pP       23 09 37.0 +0.5
LOHW   Long Hollow        63.27  54  eP      P        23 09 21.5 +1.1
       comp=Z,22nm,1.2s,mb5.2
LOHW                                 epP     pP       23 09 37.7 +1.1
S09A   Goldfield          63.28  63  ⇑P      P        23 09 20.3 -0.3
       baz=63
VES    Vestal, Richgr     63.37  65  ⇓P      P        23 09 20.6 -0.6
       baz=63
DGMT   Dagmar             63.39  47  eP      P        23 09 21.3 +0.2
FINES  FINESS Array B     63.44 335   P      P        23 09 19.8 -1.4
FINES                                 pP     pP       23 09 37.5  0.0
FINES  FINESS Array B     63.44 335   P      P        23 09 19.8 -1.4
FINES                                 *PP    pP       23 09 37.5  0.0
FINES                                 pmax   pmax
       comp=Z,2.0nm,0.3s
FINES  FINESS Array B     63.44 335   P      P        23 09 19.8 -1.4
       comp=Z,1.8nm,0.3s,mb4.6,baz=30,slow=8.2,SNR=20
FINES                                 pP     pP       23 09 37.5  0.0
       comp=Z,2.7nm,0.4s,baz=33,slow=6.4,SNR=3.8
R10A   Warm Springs       63.46  62  ⇓P      P        23 09 21.6 -0.1
       baz=63
Q11A   Duckwater          63.49  61  ⇓P      P        23 09 21.5 -0.4
       baz=63
P12A   McGill             63.52  60  ⇓P      P        23 09 21.7 -0.4
       baz=63
PKM    Peak Mountain      63.52  67  ⇓P      P        23 09 22.3 +0.1
       baz=63
S10A   Tonopah Range,     63.53  62  ⇑P      P        23 09 22.1 -0.1
       baz=63
LAO    LASA Array         63.56  49  eP      P        23 09 23.0 +0.8
CWC    Cottonwood Cre     63.59  64  ⇓P      P        23 09 22.2 -0.4
       baz=63
GRAC   Grapevine Rang     63.66  63  ⇓P      P        23 09 23.5 +0.4
       baz=63,SNR=6.8
SPUT   South Promonto     63.74  57  eP      P        23 09 24.6 +1.1
SPUT                                 e       pP       23 09 39.6 -0.2
Q12A   Willow Creek R     63.85  60  ⇑P      P        23 09 24.8 +0.5
       baz=63,SNR=5.4
ARVC   Arvin              63.99  66  ⇓P      P        23 09 26.3 +1.0
       baz=64
DAC    Darwin (Calif)     63.99  64  eP      P        23 09 23.8 -1.5
DAC                                  epP     pP       23 09 41.2 -0.4
HWUT   Hardware Ranch     64.05  56  eP      pP       23 09 41.8 -0.1
MPMC   Manual Prospec     64.20  64  ⇑P      P        23 09 26.9 +0.3
       baz=64
DUG    Dugway             64.27  58  eP      P        23 09 27.4 +0.4
       comp=Z,19nm,0.9s,mb5.1
DUG    Dugway             64.27  58  eP      P        23 09 27.4 +0.4
DUG                                   pmax   pmax
       comp=Z,19nm,0.9s,mb5.1
DUG    Dugway             64.27  58   P      P        23 09 27.5 +0.5
       baz=64,SNR=8.3
FURC   Furnace Creek,     64.31  63  ⇓P      P        23 09 27.6 +0.2
       baz=64
PSI    Prapat             64.33 244   P      P        23 09 28.1 +0.4
PSI                                   pmax   pmax
       comp=Z,7.0nm,0.8s,mb4.7
PSI    Prapat             64.33 244   P      P        23 09 28.1 +0.4
       comp=Z,6.5nm,0.8s,mb4.7,baz=1.0,slow=3.5,SNR=6.4
NOQ    North Oquirrh      64.36  57  epP     pP       23 09 44.8 +0.8
OSI    Osito Adit         64.39  66  ⇓P      P        23 09 27.8 -0.1
       baz=64
BW06   Boulder Array      64.40  54  eP      P        23 09 28.0 +0.2
       comp=Z,21nm,0.9s,mb5.2
PDAR   Pinedale Array     64.40  54   P      P        23 09 27.7 -0.1
       comp=Z,5.5nm,0.9s,mb4.6,baz=300,slow=2.0,SNR=40
PDAR                                  pP     pP       23 09 44.1  0.0
       comp=Z,16nm,0.8s,baz=274,slow=3.6,SNR=32
R12A   Pony Springs,      64.45  61  ⇓P      P        23 09 28.4 +0.2
       baz=64
CTU    Camp Tracy         64.55  57  eP      P        23 09 29.0 +0.2
CTU                                  epP     pP       23 09 45.3 +0.2
EDW2   Edwards Air Fo     64.67  65  ⇑P      P        23 09 29.4 -0.2
       baz=64
U10A   Ash Meadows, A     64.67  63  ⇑P      P        23 09 29.8 +0.1
       baz=64
OBN    Obninsk            64.75 325⇑eP       P        23 09 30.1 +0.2
OBN                                  i                23 10 01.4
OBN                                   pmax   pmax
       comp=Z,4.0nm,0.9s,mb4.5
JLU    Jordanelle         64.78  57  eP      P        23 09 30.7 +0.4
JLU                                  e       pP       23 09 46.8 +0.1
NLU    North Lily Min     64.85  58  eP      P        23 09 31.8 +1.0
NLU                                  e       pP       23 09 46.6 -0.5
MPU    Maple Canyon       65.06  57  eP      P        23 09 32.6 +0.5
MPU                                  e       pP       23 09 48.0 -0.5
GSC    Goldstone          65.12  64  ⇑P      P        23 09 32.2 -0.4
       baz=65
SHPR   Sheep Range        65.32  62  eP      P        23 09 35.2 +1.3
SHPR                                 epP     pP       23 09 50.3 +0.1
T12A   Moapa              65.44  62  ⇓P      P        23 09 35.2 +0.6
       baz=65
ARUT   Antelope Range     65.49  60  eP      P        23 09 35.1 +0.1
TUQ    Turquoise Mtn.     65.57  64  ⇑P      P        23 09 35.3 -0.2
       baz=65
V11A   Goodsprings        65.60  63  ⇑P      P        23 09 36.0 +0.2
       baz=65
S14A   Cedar City         65.67  60  ⇓P      P        23 09 36.4 +0.2
       baz=65
CCUT   Cedar City         65.70  61  eP      P        23 09 36.9 +0.6
CCUT                                 e       pP       23 09 51.9 -0.8
T13A   Saint George       65.73  61  ⇑P      P        23 09 36.9 +0.4
       baz=65
U12A   Valley of Fire     65.74  62  ⇓P      P        23 09 36.5 -0.1
       baz=65
MSU    Marysvale          65.75  59  eP      P        23 09 37.3 +0.6
MSU                                  e       pP       23 09 53.1 +0.1
TMUT   Trail Mountain     65.79  58  eP      P        23 09 38.6 +1.7
TMUT                                 e       pP       23 09 52.9 -0.3
MURC   Murrieta           66.00  66  ⇓P      P        23 09 38.3  0.0
       baz=66
V12A   Nelson             66.03  63  ⇓P      P        23 09 38.5 +0.1
       baz=66
ULM    Lac du Bonnet      66.06  41   P      P        23 09 36.2 -2.2
       comp=Z,3.3nm,0.8s,mb4.4,baz=309,slow=7.8,SNR=7.0
GMRC   Granite Mounta     66.17  64  ⇓P      P        23 09 38.8 -0.6
       baz=66
T14A   Hurricane          66.19  61  ⇓P      P        23 09 39.9 +0.4
       baz=66
SRU    San Rafael         66.31  58  eP      P        23 09 40.4 +0.2
BELC   Belle Mtn.         66.48  65  ⇓P      P        23 09 41.2 -0.2
       baz=66
IRM    Iron Mountain      66.89  64  ⇑P      P        23 09 43.8 -0.2
       baz=66
HYB    Hyderabad          66.94 271  eP      P        23 09 44.5  0.0
HYB    Hyderabad          66.94 271  i P     P        23 09 44.5  0.0
W13A   Hualapai Mount     67.03  63  ⇑P      P        23 09 44.5 -0.4
       baz=67
X13A   Yucca              67.40  63  ⇓P      P        23 09 46.9 -0.4
       baz=67
PDMCI  Parker Dam,Lak     67.42  64  ⇑P      P        23 09 46.8 -0.5
       baz=67
W14A   Seligman           67.44  62  ⇓P      P        23 09 47.4 -0.1
       baz=67
Y12C   Blythe             67.55  64  ⇓P      P        23 09 47.8 -0.4
       baz=67
NB2    NORSAR Subarra     67.60 341   P      P        23 09 47.4 -0.6
       comp=Z,0.5nm,0.6s,mb3.7,baz=30,slow=6.5
NOA    NORSAR Array B     67.60 341   P      P        23 09 47.4 -0.6
NOA                                   pmax   pmax
       comp=Z,8.0nm,0.9s
NOA    NORSAR Array B     67.60 341   P      P        23 09 47.4 -0.6
       comp=Z,8.0nm,0.9s,mb4.8,baz=27,slow=6.3,SNR=13
PV10   Paradox Valley     67.65  57  eP      P        23 09 49.4 +0.6
PV10                                 e       pP       23 10 05.5 +0.3
W15A   Williams           67.95  62  ⇓P      P        23 09 51.1 +0.4
       baz=68
X14A   Yava               68.06  63  ⇑P      P        23 09 51.1 -0.2
       baz=68
PV01   Paradox Valley     68.09  57   P      P        23 09 51.7 +0.2
PV01                                 e       pP       23 10 07.7 -0.3
WUAZ   Wupatki            68.25  61  eP      P        23 09 52.3 -0.3
       comp=Z,12nm,0.9s,mb4.9
WUAZ                                 e       pP       23 10 08.8 -0.2
WUAZ   Wupatki            68.25  61  ⇓P      P        23 09 52.3 -0.2
       baz=68
SMCO   Snowmass           68.27  55  eP      P        23 09 53.0 +0.3
       comp=Z,18nm,0.8s,mb5.1
Y14A   Wickenburg         68.35  63  ⇓P      P        23 09 53.2  0.0
       baz=68
X15A   Humboldt           68.44  62  ⇓P      P        23 09 53.7  0.0
       baz=68
ISCO   Idaho Springs      68.59  54  eP      P        23 09 54.6  0.0
       comp=Z,14nm,0.8s,mb5.0
ISCO   Idaho Springs      68.59  54  eP      P        23 09 54.6  0.0
ISCO                                  pmax   pmax
       comp=Z,14nm,0.8s,mb4.9
MVCO   Mesa Verde         68.77  58  eP      P        23 09 55.9 +0.1
       comp=Z,16nm,1.6s,mb4.7
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MVCO				e	pP	23 10 11.5	-0.7
MVCO	Mesa Verde	68.77	58	⇑P	P	23 09 55.5	-0.2
	baz=68						
Z14A	Wintersburg	68.78	64	⇓P	P	23 09 55.7	-0.2
	baz=68						
WRA	Warramunga Arr	69.11	199	P	P	23 09 56.1	-1.8
WRA				*PP	pP	23 10 13.6	-0.8
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
WRA	Warramunga Arr	69.11	199	P	P	23 09 56.1	-1.8
	comp=Z,2.4nm,0.9s,mb4.1,baz=19,slow=6.9,SNR=5.9						
WRA				pP	pP	23 10 13.6	-0.8
	comp=Z,4.4nm,0.9s,baz=18,slow=6.6,SNR=5.3						
115A	Sonoran Desert	69.67	64	⇑P	P	23 10 00.9	-0.5
	baz=69						
FITZ	Fitzroy Crossi	69.70	208	eP	P	23 10 01.3	-0.2
	comp=Z,13nm,0.9s,mb4.8						
FITZ				ePCP	PcP	23 10 18.0	-6.0
SDCO	Great Sand Dun	70.10	56	eP	P	23 10 04.3	+0.3
KIV	Kislovodsk	70.32	314	eP	P	23 10 07.1	+1.9
KIV	Kislovodsk	70.32	314	eP	P	23 10 07.2	+2.0
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
ECSD	EROS,Sioux Fal	70.47	46	eP	P	23 10 05.1	-1.0
	comp=Z,27nm,0.9s,mb5.2						
ECSD				e	pP	23 10 21.3	-1.3
AKASG	Malin Array Be	70.99	326	P	P	23 10 07.5	-1.6
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	70.99	326	P	P	23 10 07.5	-1.6
	comp=Z,1.1nm,0.3s,mb4.2,baz=36,slow=6.1,SNR=11						
ANMO	Albuquerque	71.53	58	P	P	23 10 12.3	-0.4
ANMO				pP	pP	23 10 29.0	-0.2
ANMO	Albuquerque	71.53	58	eP	P	23 10 12.8	+0.1
ANMO				e*PP	pP	23 10 28.9	-0.3
ANMO				pmax	pmax		
	comp=Z,9.0nm,0.8s						
ANMO	Albuquerque	71.53	58	P	P	23 10 12.3	-0.4
	comp=Z,2.3nm,1.0s,mb4.1,baz=313,slow=8.0,SNR=5.5						
ANMO				pP	pP	23 10 29.0	-0.2
	comp=Z,9.7nm,0.8s,baz=323,slow=7.3,SNR=19						
SCHQ	Schefferville	72.73	23	eP	P	23 10 19.2	-0.2
SCHQ				pP	pP	23 10 35.6	-0.5
SCHQ	Schefferville	72.73	23	P	P	23 10 18.8	-0.7
	comp=Z,8.7nm,0.9s,mb4.7,baz=25,slow=6.3,SNR=5.4						
SCHQ				pP	pP	23 10 35.6	-0.5
	comp=Z,20nm,0.9s,baz=326,slow=6.2,SNR=7.4						
SCIA	State Center	73.49	45	eP	P	23 10 23.6	-0.6
	comp=Z,48nm,0.8s,mb5.5						
SCIA				ePcP	PcP	23 10 39.6	-0.5
KSU1	Kansas State U	73.91	49	eP	P	23 10 24.1	-2.6
KSU1				e	pP	23 10 40.9	-2.4
KWP	Kalwaria	74.25	329	eP	P	23 10 28.3	-0.2
	comp=Z,22nm,1.2s,mb5.0						
KWP	Kalwaria	74.25	329	P	P	23 10 28.6	+0.1
KWP				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
MNTX	Cornudas Mount	74.48	60	eP	P	23 10 29.9	-0.3
MNTX				epP	pP	23 10 46.9	+0.1
GDL2	Guadalupe Moun	74.71	59	eP	P	23 10 31.3	-0.2
GDL2				epP	pP	23 10 47.9	-0.3
STHS	Stebnicka Huta	74.94	330	i P	P	23 10 33.2	+0.7
	comp=Z,4.1nm,1.0s,mb4.3						
STHS	Stebnicka Huta	74.94	330	i P	P	23 10 33.2	+0.7
STHS				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
STHS	Stebnicka Huta	74.94	330	i P	P	23 10 33.2	+0.7
STHS				e		06 32 25.7	
KOLS	Kolonicke sedl	74.99	329	i P	P	23 10 32.7	-0.1
EKA	Eskdalemuir Ar	75.70	346	P	P	23 10 35.0	-1.8
EKA				*PP	pP	23 10 52.7	-0.8
EKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
EKA	Eskdalemuir Ar	75.70	346	P	P	23 10 35.0	-1.8
	comp=Z,2.9nm,0.9s,mb4.2,baz=19,slow=6.5,SNR=4.8						
EKA				pP	pP	23 10 52.6	-0.8
	comp=Z,2.0nm,0.5s,baz=19,slow=4.9,SNR=4.7						
DPC	Dobruska-Polom	75.73	333	eP	P	23 10 37.4	+0.4
MORC	Moravsky Berou	75.85	332	eP	P	23 10 37.9	+0.2
CLL	Collm	75.86	335	⇓iP	P	23 10 37.1	-0.6
	comp=Z,22nm,1.1s,mb5.0						
CLL	Collm	75.86	335	⇓iP	P	23 10 37.1	-0.6
CLL				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
CLL	Collm	75.86	335	⇓iP	P	23 10 37.1	-0.6
	comp=Z,22nm,1.1s,mb5.0						
PLOR	Plostina	75.94	325	⇑iP	P	23 10 43.1	+4.8
BRG	Berggiesshubel	75.98	335	eP	P	23 10 37.3	-1.1
BRG				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.6						
BRG	Berggiesshubel	75.98	335	eP	P	23 10 37.3	-1.1
	comp=Z,18nm,1.4s,mb4.8						
KECS	Kecovo	75.99	330	i P	P	23 10 38.6	0.0
	comp=Z,3.1nm,1.1s,mb4.2						
KECS	Kecovo	75.99	330	i P	P	23 10 38.6	0.0
KECS				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
WMOK	Wichita Mounta	76.01	54	eP	P	23 10 38.3	-0.6
	comp=Z,14nm,0.9s,mb4.9						
WMOK	Wichita Mounta	76.01	54	eP	P	23 10 38.3	-0.6
WMOK				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
HDIL	Hopedale	76.41	44	eP	P	23 10 39.7	-1.3
	comp=Z,24nm,0.9s,mb5.1						
HDIL				e	pP	23 10 56.4	-1.4
MLR	Muntele Rosu	76.51	325	⇑P	P	23 10 42.4	+0.8
MLR	Muntele Rosu	76.51	325	⇑iP	P	23 10 42.4	+0.8
VYHS	Vyhne	76.54	331	i P	P	23 10 41.8	+0.1
	comp=Z,6.1nm,1.3s,mb4.4						
VYHS	Vyhne	76.54	331	i P	P	23 10 41.8	+0.1
VYHS				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
VRAC	Vranov	76.56	332	⇑P	P	23 10 41.5	-0.2
VRAC	Vranov	76.56	332	⇑iP	P	23 10 41.5	-0.2
PRU	Pruhonice	76.59	334	eP	P	23 10 41.8	-0.1
DRGR		76.65	327	⇑P	P	23 10 41.5	-0.8
DRGR		76.65	327	⇑iP	P	23 10 41.5	-0.8
PSZ	Piszkesteto	76.68	330	⇑iP	P	23 10 37.8	-4.7
MALT	Malatya	76.68	313	⇑P	P	23 10 44.3	+1.6
MALT	Malatya	76.68	313	P	P	23 10 44.4	+1.7
MALT				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
MALT	Malatya	76.68	313	⇑iP	P	23 10 44.3	+1.6
MOX	Moxa	76.84	336	eP	P	23 10 43.2	-0.1
	comp=Z,13nm,1.3s,mb4.7						
MOX	Moxa	76.84	336	eP	P	23 10 43.2	-0.1
MOX				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
VOIR		76.91	325	⇑P	P	23 10 44.3	+0.5
VOIR		76.91	325	⇑iP	P	23 10 44.3	+0.5
NKC	Novy Kostel	76.98	335	eP	P	23 10 44.2	+0.1
MODS	Modra-Piesok	77.16	332	eP	P	23 10 45.1	0.0
MODS	Modra-Piesok	77.16	332	eP	P	23 10 45.0	-0.1
LTX	Lajitas	77.21	61	eP	P	23 10 45.7	-0.1
TXAR	Lajitas Array	77.21	61	P	P	23 10 45.5	-0.3
TXAR				pP	pP	23 11 01.7	-0.8
TXAR	Lajitas Array	77.21	61	P	P	23 10 45.5	-0.3
TXAR				*PP	pP	23 11 01.7	-0.8
TXAR				pmax	pmax		
	comp=Z,6.0nm,1.0s						
TXAR	Lajitas Array	77.21	61	P	P	23 10 45.5	-0.3
	comp=Z,6.4nm,1.0s,mb4.5,baz=298,slow=4.2,SNR=32						
TXAR				pP	pP	23 11 01.7	-0.8
	comp=Z,27nm,0.6s,baz=301,slow=4.5,SNR=54						
ZST	Bratislava	77.37	332	i P	P	23 10 46.8	+0.5
	comp=Z,9.6nm,1.3s,mb4.6						
ZST	Bratislava	77.37	332	i P	P	23 10 46.8	+0.5
ZST				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
ARMA	Armidale	77.47	181	eP	P	23 10 47.2	+0.4
ARMA				ePCP	PcP	23 11 03.5	+6.5
KHC	Kasperske Hory	77.64	334	eP	P	23 10 47.8	0.0
KHC				e	pP	23 11 06.0	+1.4
KHC	Kasperske Hory	77.64	334	eP	P	23 10 47.8	0.0
KHC				epP	pP	23 11 06.0	+1.4
GZR	Gura Zlata	77.81	327	⇑P	P	23 10 48.6	-0.2
GZR	Gura Zlata	77.81	327	⇑iP	P	23 10 48.7	-0.1
GRA1	Grafenberg Arr	77.81	336	eP	P	23 10 48.6	-0.2
	comp=Z,26nm,1.2s,mb5.0						
GRF	Grafenberg Arr	77.81	336	eP	P	23 10 48.6	-0.2
GRF				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.0						
GRF	Grafenberg Arr	77.81	336	eP	P	23 10 48.6	-0.2
	comp=Z,26nm,1.2s,mb5.0						
GRFO	Grafenberg	77.81	336	eP	P	23 10 49.0	+0.2
	comp=Z,13nm,1.0s,mb4.8						
GRFO				ePcP	PcP	23 11 00.3	+1.8
GRFO	Grafenberg	77.81	336	eP	P	23 10 49.0	+0.2
GRFO				e		23 11 00.3	
GRFO				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
GERES	GERESS Array B	77.86	334	P	P	23 10 48.9	-0.1
GERES				*PP	pP	23 11 05.9	+0.1
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	GERESS Array B	77.86	334	P	P	23 10 48.9	-0.2
	comp=Z,1.1nm,0.7s,mb3.9,baz=42,slow=4.2,SNR=9.9						
GERES				pP	pP	23 11 05.9	+0.1
	comp=Z,0.8nm,0.5s,baz=33,slow=6.0,SNR=3.8						
FVM	French Village	77.88	46	eP	P	23 10 48.2	-1.1
	comp=Z,6.7nm,0.6s,mb4.8						
FVM	French Village	77.88	46	eP	P	23 10 48.3	-1.1
FVM				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
BRTR	Keskin Array B	77.89	317	P	P	23 10 48.9	-0.5
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BRTR	Keskin Array B	77.89	317	P	P	23 10 48.9	-0.5
	comp=Z,1.8nm,0.9s,mb4.0,baz=79,slow=6.4,SNR=8.0						
BZS	Buzias	78.05	327	⇓P	P	23 10 49.6	-0.5
BZS	Buzias	78.05	327	⇓iP	P	23 10 49.6	-0.5
MEM	Membach	78.33	339	P	P	23 10 50.1	-1.5
	comp=Z,11nm,1.3s,mb4.6						
PKSM	Moragy	78.59	330	⇑P	P	23 10 52.2	-0.9
PKSM	Moragy	78.59	330	⇑iP	P	23 10 52.2	-0.9
JCT	Junction City	78.61	57	eP	P	23 10 53.0	-0.5
JCT				e	pP	23 11 09.1	-1.2
BCLA	Clavier	78.67	340	P	P	23 10 53.4	-0.1
	comp=Z,9.0nm,1.4s,mb4.5						
SNF	Seneffe	78.83	340	P	P	23 10 54.1	-0.2
MIAR	Mount Ida	78.95	51	eP	P	23 10 54.6	-0.7
	comp=Z,13nm,0.8s,mb4.9						
MIAR	Mount Ida	78.95	51	eP	P	23 10 54.6	-0.7
MIAR				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
GIVF	Givet	79.08	340	⇑iP	P	23 10 55.1	-0.6
DOU	Dourbes	79.14	340	P	P	23 10 55.5	-0.6
BAIF	Baives	79.26	340	eP	P	23 10 56.1	-0.6
	comp=Z,31nm,1.6s,mb5.0						
BAIF	Baives	79.26	340	eP	P	23 10 56.1	-0.6
BAIF				pmax	pmax		
	comp=Z,31nm,1.6s,mb5.0						
BAIF	Baives	79.26	340	eP	P	23 10 56.1	-0.6
	comp=Z,62nm,1.6s,mb5.0						
KBA	Koelnbreinsper	79.54	333	⇓iP	P	23 10 59.0	+0.7
	comp=Z,24nm,1.1s,mb5.0						
KBA	Koelnbreinsper	79.54	333	⇓iP	P	23 10 59.0	+0.7
KBA				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
STKA	Stephens Creek	79.58	190	eP	P	23 10 58.1	-0.4
	comp=Z,2.5nm,1.0s,mb4.1						
STKA				ePCP	PcP	23 11 14.5	+8.4
STKA	Stephens Creek	79.58	190	P	P	23 10 59.5	+1.0
STKA				ePcP	PcP	23 11 14.5	+8.4
STKA				epP	pP	23 11 14.7	-0.6
WATA	Walderalm	79.84	335	⇓iP	P	23 11 00.1	+0.1
	comp=Z,13nm,1.1s,mb4.8						
WATA	Walderalm	79.84	335	⇓iP	P	23 11 00.1	+0.2
WATA				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
BFO	Black Forest	79.84	337	eP	P	23 10 58.7	-1.2
	comp=Z,13nm,1.1s,mb4.8						
BFO	Black Forest	79.84	337	P	P	23 10 59.5	-0.4
BFO				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
WTTA	Wattenberg	79.89	334	⇓iP	P	23 11 00.4	+0.2
	comp=Z,22nm,1.1s,mb5.0						
WTTA	Wattenberg	79.89	334	⇓iP	P	23 11 00.4	+0.2
WTTA				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
MOTA	Moosalm	79.97	335	⇑iP	P	23 11 00.7	0.0
	comp=Z,19nm,1.2s,mb4.9						
MOTA	Moosalm	79.97	335	⇑iP	P	23 11 00.7	+0.1
MOTA				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
VTS	Vitosha	80.02	325	⇓P	P	23 11 00.4	-0.6
VTS	Vitosha	80.02	325	⇓iP	P	23 11 00.4	-0.6
CDF	Champ du Feu	80.04	338	⇑iP	P	23 11 00.5	-0.5
	comp=Z,18nm,1.1s,mb4.9						
CDF	Champ du Feu	80.04	338	⇑iP	P	23 11 00.5	-0.5
CDF				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
CDF	Champ du Feu	80.04	338	⇑iP	P	23 11 00.5	-0.5
	comp=Z,35nm,1.1s,mb4.9						
SQTA	Sankt Quirin	80.05	335	⇓iP	P	23 11 01.2	+0.1
	comp=Z,14nm,1.2s,mb4.8						
SQTA	Sankt Quirin	80.05	335	⇓iP	P	23 11 01.2	+0.1
SQTA				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
ECH	Echery	80.25	338	eP	P	23 11 02.1	0.0
NATX	Nacogdoches	80.51	53	eP	P	23 11 03.9	+0.1
MEZF	Maizieres J'vi	80.52	339	eP	P	23 11 03.2	-0.3
	comp=Z,34nm,1.0s,mb5.2						
MEZF	Maizieres J'vi	80.52	339	eP	P	23 11 03.2	-0.3
	comp=Z,34nm,1.0s,mb4.9						
THEF	They Montfort	80.54	338	eP	P	23 11 03.6	-0.1
MOF	Molkenrain	80.60	338	eP	P	23 11 03.8	-0.2
HAU	Haudompre	80.66	338	⇑iP	P	23 11 03.6	-0.7
	comp=Z,8.7nm,1.1s,mb4.6						
HAU	Haudompre	80.66	338	⇑iP	P	23 11 03.6	-0.7
HAU				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
HAU	Haudompre	80.66	338	⇑iP	P	23 11 03.6	-0.7
	comp=Z,17nm,1.1s,mb4.6						
HINF	Hinteralfeld	80.70	338	⇑iP	P	23 11 03.7	-0.8
	comp=Z,6.2nm,1.1s,mb4.5						
HINF	Hinteralfeld	80.70	338	⇑iP	P	23 11 03.7	-0.8
HINF				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
HINF	Hinteralfeld	80.70	338	⇑iP	P	23 11 03.7	-0.8
	comp=Z,12nm,1.1s,mb4.5						
FORT	Forrest	81.01	202	ePCP	PcP	23 11 20.4	+8.0
	comp=Z,31nm,0.8s						
OXF	Oxford	81.11	48	eP	P	23 11 06.2	-0.8
OXF				epP	pP	23 11 22.6	-1.2
PLAL	Pickwick Lake	81.41	47	epP	pP	23 11 24.1	-1.3
FLN	La Foliniere	81.50	343	⇑iP	P	23 11 08.0	-0.8
	comp=Z,28nm,1.3s,mb5.0						
FLN	La Foliniere	81.50	343	⇑iP	P	23 11 08.0	-0.8
FLN				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.0						
FLN	La Foliniere	81.50	343	⇑iP	P	23 11 08.0	-0.8
	comp=Z,56nm,1.3s,mb5.0						
LDF	La Druitiere	81.59	342	⇑iP	P	23 11 08.4	-0.9
	comp=Z,35nm,1.6s,mb5.0						
LDF	La Druitiere	81.59	342	⇑iP	P	23 11 08.4	-0.9
LDF				pmax	pmax		
	comp=Z,35nm,1.6s,mb5.0						
LDF	La Druitiere	81.59	342	⇑iP	P	23 11 08.4	-0.9
	comp=Z,70nm,1.6s,mb5.0						
GRR	Gorron	81.94	343	⇑iP	P	23 11 10.6	-0.5
	comp=Z,35nm,1.4s,mb5.1						
GRR	Gorron	81.94	343	⇑iP	P	23 11 10.6	-0.5
GRR				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.1						
GRR	Gorron	81.94	343	⇑iP	P	23 11 10.6	-0.5
	comp=Z,70nm,1.4s,mb5.1						
LOR	Lormes	81.96	339	eP	P	23 11 10.5	-0.7
	comp=Z,25nm,1.4s,mb5.0						
LOR	Lormes	81.96	339	eP	P	23 11 10.5	-0.7
LOR				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
LOR	Lormes	81.96	339	eP	P	23 11 10.5	-0.7
	comp=Z,51nm,1.4s,mb5.0						
CABF	La Chapelle	82.02	338	eP	P	23 11 11.2	-0.3
	comp=Z,7.5nm,1.1s,mb4.5						
CABF	La Chapelle	82.02	338	eP	P	23 11 11.2	-0.3
CABF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
CABF	La Chapelle	82.02	338	eP	P	23 11 11.2	-0.3
	comp=Z,15nm,1.1s,mb4.5						
SSF	Saint Saulge	82.23	340	⇑iP	P	23 11 12.0	-0.7
	comp=Z,4.8nm,0.9s,mb4.4						
SSF	Saint Saulge	82.23	340	⇑iP	P	23 11 12.0	-0.7
SSF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
SSF	Saint Saulge	82.23	340	⇑iP	P	23 11 12.0	-0.7
	comp=Z,9.5nm,0.9s,mb4.4						
HYF	Humbligny	82.24	340	⇑iP	P	23 11 12.5	-0.2
SWET	Sewanee	82.26	45	eP	P	23 11 12.0	-1.0
SWET				e	pP	23 11 25.3	-4.7
ROSF	Rostrenen	82.45	344	⇑iP	P	23 11 13.4	-0.4
MVL	Millersville	82.52	36	epP	pP	23 11 30.9	-0.3
AVF	Avril sur Loir	82.53	340	⇑iP	P	23 11 13.8	-0.4
	comp=Z,26nm,1.5s,mb5.0						
AVF	Avril sur Loir	82.53	340	⇑iP	P	23 11 13.8	-0.4
AVF				pmax	pmax		
	comp=Z,26nm,1.5s,mb5.0						
AVF	Avril sur Loir	82.53	340	⇑iP	P	23 11 13.8	-0.4
	comp=Z,52nm,1.5s,mb5.0						
SMF	Signal de Mont	82.55	339	eP	P	23 11 13.9	-0.4
	comp=Z,36nm,1.3s,mb5.2						
SMF	Signal de Mont	82.55	339	eP	P	23 11 13.9	-0.4
SMF				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.2						
SMF	Signal de Mont	82.55	339	eP	P	23 11 13.9	-0.4
	comp=Z,72nm,1.3s,mb5.2						
CPCT	Cooper Cave	82.75	44	eP	P	23 11 14.8	-0.8
QUIF	Quistinic	82.83	344	eP	P	23 11 16.0	+0.2
	comp=Z,43nm,1.7s,mb5.2						
QUIF	Quistinic	82.83	344	eP	P	23 11 16.0	+0.2
QUIF				pmax	pmax		
	comp=Z,43nm,1.7s,mb5.2						
QUIF	Quistinic	82.83	344	eP	P	23 11 16.0	+0.2
	comp=Z,86nm,1.7s,mb5.2						
LPL	La Plagne	82.86	337	⇑iP	P	23 11 16.3	+0.4
	comp=Z,6.3nm,1.0s,mb4.6						
LPL	La Plagne	82.86	337	⇑iP	P	23 11 16.3	+0.4
LPL				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
LPL	La Plagne	82.86	337	⇑iP	P	23 11 16.3	+0.4
	comp=Z,13nm,1.0s,mb4.6						
BGF	Bois d'Agland	82.86	340	⇑iP	P	23 11 16.8	+0.9
	comp=Z,17nm,1.5s,mb4.9						
BGF	Bois d'Agland	82.86	340	⇑iP	P	23 11 16.8	+0.9
BGF				pmax	pmax		
	comp=Z,17nm,1.5s,mb4.8						
BGF	Bois d'Agland	82.86	340	⇑iP	P	23 11 16.8	+0.9
	comp=Z,35nm,1.5s,mb4.9						
LPG	La Plagne	82.87	337	eP	P	23 11 16.5	+0.5
	comp=Z,16nm,1.3s,mb4.9						
LPG	La Plagne	82.87	337	eP	P	23 11 16.5	+0.5
LPG				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.9						
LPG	La Plagne	82.87	337	eP	P	23 11 16.5	+0.5
	comp=Z,32nm,1.3s,mb4.9						
PLDF	La Plantade	83.23	339	eP	P	23 11 18.4	+0.5
TCF	Toulx Ste Croi	83.27	340	⇑iP	P	23 11 17.7	-0.3
	comp=Z,4.4nm,0.9s,mb4.5						
TCF	Toulx Ste Croi	83.27	340	⇑iP	P	23 11 17.7	-0.3
TCF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
TCF	Toulx Ste Croi	83.27	340	⇑iP	P	23 11 17.7	-0.3
	comp=Z,8.9nm,0.9s,mb4.5						
AGO	Saint Agoulin	83.27	339	eP	P	23 11 18.4	+0.3
MBDF	Montbardon	83.58	337	eP	P	23 11 19.6	-0.1
ORIF	Oris-en-Rattie	83.64	337	⇑iP	P	23 11 20.1	+0.1
	comp=Z,9.7nm,1.0s,mb4.9						
ORIF	Oris-en-Rattie	83.64	337	⇑iP	P	23 11 20.1	+0.1
ORIF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
ORIF	Oris-en-Rattie	83.64	337	⇑iP	P	23 11 20.1	+0.1
	comp=Z,19nm,1.0s,mb4.9						
VIVF	Saint-Julien-l	84.01	338	⇑iP	P	23 11 21.8	-0.1
	comp=Z,13nm,1.2s,mb4.9						
VIVF	Saint-Julien-l	84.01	338	⇑iP	P	23 11 21.8	-0.1
VIVF				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.9						
VIVF	Saint-Julien-l	84.01	338	⇑iP	P	23 11 21.8	-0.1
	comp=Z,25nm,1.2s,mb4.9						
SBF	Sospel	84.20	336	⇑iP	P	23 11 21.9	-0.9
	comp=Z,21nm,1.2s,mb5.1						
SBF	Sospel	84.20	336	⇑iP	P	23 11 21.9	-0.9
SBF				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.1						
SBF	Sospel	84.20	336	⇑iP	P	23 11 21.9	-0.9
	comp=Z,42nm,1.2s,mb5.2						
RJF	Les Rejaudoux	84.36	340	⇑iP	P	23 11 22.9	-0.7
	comp=Z,16nm,1.4s,mb5.0						
RJF	Les Rejaudoux	84.36	340	⇑iP	P	23 11 22.9	-0.7
RJF				pmax	pmax		
	comp=Z,16nm,1.4s,mb5.0						
RJF	Les Rejaudoux	84.36	340	⇑iP	P	23 11 22.9	-0.7
	comp=Z,33nm,1.4s,mb5.0						
CAF	Calviac	84.58	340	⇑iP	P	23 11 24.7	-0.1
	comp=Z,5.3nm,1.0s,mb4.6						
CAF	Calviac	84.58	340	⇑iP	P	23 11 24.7	-0.1
CAF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
CAF	Calviac	84.58	340	⇑iP	P	23 11 24.7	-0.1
	comp=Z,11nm,1.0s,mb4.6						
SMRF	Simiane la Rot	84.60	337	eP	P	23 11 25.1	+0.2
	comp=Z,33nm,1.4s,mb5.3						
SMRF	Simiane la Rot	84.60	337	eP	P	23 11 25.1	+0.2
	comp=Z,33nm,1.4s,mb5.0						
FRF	La Foret Royal	84.69	336	eP	P	23 11 24.8	-0.5
	comp=Z,14nm,1.3s,mb4.9						
FRF	La Foret Royal	84.69	336	eP	P	23 11 24.8	-0.5
FRF				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.9						
FRF	La Foret Royal	84.69	336	eP	P	23 11 24.8	-0.5
	comp=Z,28nm,1.3s,mb4.9						
TOO	Toolangi	84.86	186	ePCP	pP	23 11 39.4	-3.5
	comp=Z,4.9nm,0.7s						
LMR	La Mourre	84.94	336	eP	P	23 11 26.1	-0.5
	comp=Z,28nm,1.3s,mb5.2						
LMR	La Mourre	84.94	336	eP	P	23 11 26.1	-0.5
LMR				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.2						
LMR	La Mourre	84.94	336	eP	P	23 11 26.1	-0.5
	comp=Z,55nm,1.3s,mb5.2						
LASF	Ste Croix	84.95	338	⇑iP	P	23 11 26.7	+0.1
MTLF	Montolieu	86.04	339	⇑iP	P	23 11 32.3	+0.2
	comp=Z,6.3nm,1.1s,mb4.8						
MTLF	Montolieu	86.04	339	⇑iP	P	23 11 32.3	+0.2
MTLF				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.7						
MTLF	Montolieu	86.04	339	⇑iP	P	23 11 32.3	+0.2
	comp=Z,12nm,1.1s,mb4.8						
ESDC	Sonseca Array	90.92	342	P	P	23 11 53.6	-1.7
	comp=Z,0.2nm,0.3s,mb3.9,baz=12,slow=4.6,SNR=10.0						
ESDC				pP	pP	23 12 11.3	-1.1
	comp=Z,0.2nm,0.5s,baz=359,slow=4.2,SNR=2.7						
TORD	Torodi Ar. Bea	114.52	329	PKP	PKiKP	23 17 29.8	-1.9
TORD	Torodi Ar. Bea	114.52	329	PKP	PKiKP	23 17 29.8	-1.9
	comp=Z,0.1nm,0.3s,baz=27,slow=3.9,SNR=4.6						
CFAA	Coronel Fontan	144.91	78	PKP	PKPdf	23 18 26.2	-2.0
CFAA				pPKP	pPKPdf	23 18 43.4	-2.6
CFAA	Coronel Fontan	144.91	78	PKP	PKPdf	23 18 26.2	-2.0
	comp=Z,0.5nm,0.5s,baz=251,slow=4.4,SNR=13						
CFAA				pPKP	pPKPdf	23 18 43.4	-2.6
	comp=Z,1.5nm,0.6s,baz=264,slow=2.5,SNR=9.7						
MAIT	Maitri	150.23	205	ePKPdf	PKPdf	23 18 39.0	+3.2
VNA2	Neumayer--Watz	154.62	195	ePKPdf	PKPbc	23 18 50.4	-0.4
VNA2				e		23 19 06.3	
VNA2				e		23 19 22.7	
VNA3	Neumayer Olymp	154.72	193	ePKPdf	PKPbc	23 18 50.2	-0.8
VNA3				e		23 19 05.7	
VNA3				e		23 19 22.8	
VNA1	Neumayer--Stat	155.00	195	ePKPdf	PKPdf	23 18 52.8	+10
VNA1				e		23 19 07.6	
VNA1				e		23 19 24.6	

NEIC **04** 23:11:03.2, 38.09S×176.28E, h156km, MG4.1(WEL), After WEL.

WEL 04 23:11:03.0±0.2**, 3809S×17628E, h158**km±2km**, ML4.0**/22, **2C, Error ellipse: s-maj=2.8km s-min=2.4km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	Urewera	0.68	105	P	Pn	23 11 26.2	0.0
URZ	Urewera	0.68	105	⇑PN	Pn	23 11 26.2	0.0
URZ				SN	Sn	23 11 43.9	0.0
MWZ	Matawai	1.01	104	P	Pn	23 11 29.0	+0.4
MWZ				S	Sn	23 11 48.6	+0.4
MWZ	Matawai	1.01	104	PN	Pn	23 11 29.0	+0.4
MWZ				SN	Sn	23 11 48.6	+0.4
BKZ	Black Stump Fm	1.09	171	P	Pn	23 11 29.5	+0.3
BKZ	Black Stump Fm	1.09	171	⇑PN	Pn	23 11 29.5	+0.2
BKZ				SN	Sn	23 11 49.4	0.0
OTVZ	Oturere	1.18	204	PN	Pn	23 11 30.6	+0.6
NGZ	Ngauruhoe	1.21	206	P	Pn	23 11 31.0	+0.7
NGZ				S	Sn	23 11 44.9	-6.4

NGZ	**Ngauruhoe**	**1.21**	**206**	PN	Pn	23 11 31.0	+0.7
WPVZ	**Whakapapa**	**1.25**	**207**	P	Pn	23 11 31.0	+0.3
WPVZ	**Whakapapa**	**1.25**	**207**	PN	Pn	23 11 31.0	+0.3
TUVZ	**Tukino**	**1.27**	**202**	P	Pn	23 11 31.3	+0.4
TUVZ	**Tukino**	**1.27**	**202**	PN	Pn	23 11 31.3	+0.4
FWVZ	**Far West T-bar**	**1.30**	**206**	P	Pn	23 11 31.3	+0.2
FWVZ	**Far West T-bar**	**1.30**	**206**	PN	Pn	23 11 31.3	+0.1
WNVZ	**Wahianoa**	**1.35**	**203**	P	Pn	23 11 31.9	+0.3
WNVZ	**Wahianoa**	**1.35**	**203**	PN	Pn	23 11 31.9	+0.3
MOVZ	**Moawhango**	**1.38**	**197**	P	Pn	23 11 31.7	-0.2
MOVZ	**Moawhango**	**1.38**	**197**	PN	Pn	23 11 31.7	-0.3
PKVZ	**Pokaka**	**1.40**	**211**	PN	Pn	23 11 32.2	+0.1
KNZ	**Kokohu**	**1.43**	**131**	P	Pn	23 11 32.7	+0.2
KNZ	**Kokohu**	**1.43**	**131**	PN	Pn	23 11 32.7	+0.3
MTVZ	**Mangateitei**	**1.44**	**206**	PN	Pn	23 11 32.7	+0.1
PUZ	**Puketiti**	**1.56**	**90**	P	Pn	23 11 33.7	-0.1
PUZ	**Puketiti**	**1.56**	**90**	PN	Pn	23 11 33.7	-0.1
VRZ	**Vera Road**	**1.58**	**229**	P	Pn	23 11 34.3	+0.4
VRZ	**Vera Road**	**1.58**	**229**	PN	Pn	23 11 34.3	+0.3
MXZ	**Matakaoa Point**	**1.69**	**72**	P	Pn	23 11 35.1	0.0
MXZ	**Matakaoa Point**	**1.69**	**72**	PN	Pn	23 11 35.1	0.0
WAZ	**Wanganui**	**1.95**	**211**	P	Pn	23 11 37.6	-0.3
WAZ	**Wanganui**	**1.95**	**211**	PN	Pn	23 11 37.6	-0.4
TSZ	**Takapari Road**	**1.98**	**187**	P	Pn	23 11 37.7	-0.7
TSZ	**Takapari Road**	**1.98**	**187**	PN	Pn	23 11 37.7	-0.7
PXZ	**Pawanui**	**1.99**	**167**	PN	Pn	23 11 38.2	-0.3
BFZ	**Birch Farm**	**2.59**	**181**	P	Pn	23 11 44.0	-1.5
BFZ	**Birch Farm**	**2.59**	**181**	PN	Pn	23 11 44.0	-1.5
MRZ	**Mangatainoka R**	**2.62**	**192**	P	Pn	23 11 44.2	-1.8
MRZ	**Mangatainoka R**	**2.62**	**192**	PN	Pn	23 11 44.2	-1.8
MRZ				SN	Sn	23 12 15.5	-3.8
TIWZ	**Tintock**	**2.70**	**186**	PN	Pn	23 11 45.2	-1.7
KIW	**Kapiti Island**	**2.96**	**201**	P	Pn	23 11 47.7	-2.5
KIW	**Kapiti Island**	**2.96**	**201**	PN	Pn	23 11 47.7	-2.5
MTW	**Mount Morrison**	**3.12**	**191**	P	Pn	23 11 49.5	-2.6
MTW	**Mount Morrison**	**3.12**	**191**	PN	Pn	23 11 49.5	-2.7
CAW	**Cannon Point**	**3.16**	**197**	P	Pn	23 11 50.1	-2.5
CAW	**Cannon Point**	**3.16**	**197**	PN	Pn	23 11 50.1	-2.5
TRWZ	**Traveller**	**3.34**	**188**	PN	Pn	23 11 52.2	-2.6
PAWZ	**Paruwai Farm**	**3.35**	**191**	P	Pn	23 11 52.1	-2.9
PAWZ	**Paruwai Farm**	**3.35**	**191**	PN	Pn	23 11 52.1	-2.9
MRW	**Makara Radio**	**3.36**	**201**	P	Pn	23 11 52.4	-2.8
MRW	**Makara Radio**	**3.36**	**201**	PN	Pn	23 11 52.4	-2.8
MSWZ	**Moikau Station**	**3.41**	**193**	P	Pn	23 11 52.8	-3.0
MSWZ	**Moikau Station**	**3.41**	**193**	PN	Pn	23 11 52.8	-3.0
SNZO	**South Karori**	**3.44**	**200**	P	Pn	23 11 53.1	-3.0
SNZO	**South Karori**	**3.44**	**200**	PN	Pn	23 11 53.1	-3.1
TCW	**Tory Channel**	**3.48**	**206**	P	Pn	23 11 54.0	-2.7
TCW	**Tory Channel**	**3.48**	**206**	PN	Pn	23 11 54.0	-2.7
BHW	**Baring Head**	**3.49**	**198**	P	Pn	23 11 53.6	-3.2
BHW	**Baring Head**	**3.49**	**198**	PN	Pn	23 11 53.6	-3.1
OUZ	**Omahuta**	**3.59**	**322**	*e*P	Pn	23 12 00.0	+1.9
TUWZ	**Tuamarina**	**3.79**	**208**	PN	Pn	23 11 57.4	-3.3
NNZ	**Nelson**	**3.84**	**215**	P	Pn	23 11 57.8	-3.5
NNZ	**Nelson**	**3.84**	**215**	PN	Pn	23 11 57.6	-3.7
BSWZ	**Blackbirch Sta**	**4.06**	**206**	P	Pn	23 12 01.9	-2.3
THZ	**Tophouse**	**4.49**	**214**	P	Pn	23 12 07.1	-2.7
THZ	**Tophouse**	**4.49**	**214**	PN	Pn	23 12 07.1	-2.7
KHZ	**Kahutara**	**4.80**	**205**	*e*P	Pn	23 12 10.1	-3.7
MQZ	**McQueen's Vall**	**6.25**	**205**	SN	Sn	23 13 33.1	-10
JCZ	**Jackson Bay**	**8.24**	**221**	*e*P	Pn	23 12 51.2	-8.2

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*NEIC **04** 23:22:04.0±1.1, 19.27N×78.21W, h10km, Error ellipse: s-maj=38.2km s-min=12.2km az=182.0*
*ISCJB **04** 23:22:06.2±0.7, 19.35N±0.03×78.14W±0.05, h37km±13km, mb3.2/3, Error ellipse: s-maj=8.0km s-min=5.1km az=3.8*
*SSNC **04** 23:22:06.4, 19.29N×78.25W, h25km, MD3.8, ML3.1*
*JSN **04** 23:22:07.9±0.7, 19.32N×78.00W, h13km±3km, MD4.5*
*IDC **04** 23:22:13.6±1.9, 20.39N×79.07W, h0km, mb3.3/4, mb1 3.8/5, mb1mx3.6/17, mbtmp3.5/5, ML4.4/2, Error ellipse: s-maj=56.1km s-min=23.5km az=174.0*
ISC 04 23:22:06.0±1.3, **19.35N**±0.03×**78.13W**±0.04, **h26**km±12km, **n26**, σ**1.22**/39, **mb3.2**/3, **5C-1D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBJ	**Montego Bay**	**0.97**	**165**	⇑*e*P	**Pn**	**23 22 23.9**	**-0.1**
MBJ				*e*S	**Sb**	**23 22 35.8**	**-0.8**
CVJ	**Coleyville**	**1.25**	**153**	⇑*e*P	**Pn**	**23 22 28.1**	**+0.3**
BBJ	**Bamboo Saint A**	**1.26**	**140**	⇓*e*P	**Pn**	**23 22 28.4**	**+0.5**
BBJ				*e*S	**Sn**	**23 22 43.9**	**-0.1**
LMGC	**Las Mercedes**	**1.27**	**56**	*e*PG	**Pn**	**23 22 27.8**	**-0.3**
LMGC				*e*SG	**Sn**	**23 22 43.3**	**-1.1**
	comp=N,2μm,0.1s						
LMGC				*e*			
	comp=E,2μm,0.3s						
MCJ	**Malvern**	**1.48**	**164**	⇑*e*P	**Pn**	**23 22 32.0**	**+1.1**
MCJ				*e*S	**Sn**	**23 22 49.9**	**+0.5**
STH	**Stony Hill**	**1.78**	**135**	⇑*e*P	**Pn**	**23 22 35.4**	**+0.4**
STH				*e*S	**Sn**	**23 22 55.6**	**-1.2**
PCJ	**Portland Cotta**	**1.84**	**150**	⇑*e*P	**Pn**	**23 22 37.1**	**+1.1**
PCJ				*e*S	**Sn**	**23 22 58.2**	**-0.2**
CCCC	**Cccc**	**1.87**	**10**	*e*P	**Pn**	**23 22 37.3**	**+0.9**
CCCC				*e*S	**Sn**	**23 23 00.7**	**+1.5**
	comp=N,6.2nm,0.3s						
CCCC				*e*			
	comp=E,9.2nm,0.7s						
CMJ	**Castle Mountai**	**2.05**	**126**	*e*P	**Pn**	**23 22 39.0**	**+0.1**
RCC	**Rio Carpintero**	**2.38**	**74**	*e*PG	**Pn**	**23 22 42.9**	**-0.4**
RCC				*e*SG	**Sn**	**23 23 10.0**	**-1.7**
	comp=N,220nm,0.7s						
RCC				*e*			
	comp=E,224nm,0.4s						
GTMO	**Guantanamo**	**2.91**	**75**	*e*P	**Pn**	**23 22 49.8**	**-0.8**
GTMO				*e*S	**Sn**	**23 23 21.8**	**-2.9**
	comp=N,12nm,0.2s						
GTMO				*e*			
	comp=E,15nm,0.3s						
MGV	**Manicaragua**	**3.25**	**328**	*e*P	**Pn**	**23 22 54.0**	**-1.3**
MGV				*e*S	**Sn**	**23 23 29.8**	**-3.4**
	comp=N,117nm,0.5s						
MGV				*e*			
	comp=E,140nm,0.9s						
MOAC	**Moa**	**3.25**	**66**	*e*P	**Pn**	**23 22 57.5**	**+2.2**
MOAC				*e*S	**Sn**	**23 23 37.9**	**+4.7**
	comp=N,110nm,0.7s						
MOAC				*e*			
	comp=E,102nm,0.7s						
MASC	**Masc**	**3.76**	**77**	*e*P	**Pn**	**23 23 05.2**	**+2.9**
MASC				*e*S	**Sn**	**23 23 49.4**	**+3.6**
	comp=N,2.9nm,0.2s						
MASC				*e*			
	comp=E,3.3nm,0.2s						
SDDR	**Presa de Saban**	**6.47**	**92**	*e*Pn	**Pn**	**23 23 40.2**	**+0.6**
	comp=E,50nm,0.6s						
SDDR				*e*Sn	**Sn**	**23 24 50.6**	**-2.1**
TEIG	**Tepich**	**9.60**	**277**	Pn	**Pn**	**23 24 19.9**	**-2.6**
TEIG				Sn	**Sn**	**23 26 00.1**	**-9.5**
TEIG	**Tepich**	**9.60**	**277**	Pn	**Pn**	**23 24 19.9**	**-2.6**
	comp=E,40nm,0.3s,baz=96,slow=7.0,SNR=134						
TEIG				Sn	**Sn**	**23 26 00.1**	**-9.5**
	comp=E,14nm,0.3s,baz=15,slow=21,SNR=13						
CMIG	**Matias Romero**	**16.08**	**265**	Pn	**Pn**	**23 25 49.9**	**-0.5**
CMIG	**Matias Romero**	**16.08**	**265**	Pn	**Pn**	**23 25 49.9**	**-0.6**
	comp=E,0.2nm,0.3s,baz=54,slow=14,SNR=3.0						
TXAR	**Lajitas Array**	**25.25**	**298**	P	**P**	**23 27 30.9**	**+0.8**
TXAR	**Lajitas Array**	**25.25**	**298**	P	**P**	**23 27 30.9**	**+0.8**
	comp=E,0.8nm,0.7s,mb3.3,baz=127,slow=8.0,SNR=9.9						
NVAR	**Mina Array Bea**	**39.60**	**307**	P	**P**	**23 29 36.7**	**+1.3**
NVAR	**Mina Array Bea**	**39.60**	**307**	P	**P**	**23 29 36.7**	**+1.3**
	comp=E,0.3nm,0.6s,mb3.2,baz=116,slow=8.1,SNR=3.1						
YKA	**Yellowknife Ar**	**49.90**	**339**	P	**P**	**23 30 57.3**	**+0.3**
	comp=E,0.1nm,0.6s,mb3.0,baz=129,slow=8.6,SNR=3.5						
ESDC	**Sonseca Array**	**65.90**	**54**	P	sP	23 33 02.7	+1.7
	comp=E,0.4nm,0.7s,baz=274,slow=6.0,SNR=4.0						
WRA	**Warramunga Arr**	**149.44**	**263**	PKPbc	PKPab	23 42 02.5	+4.1
	comp=E,1.1nm,0.6s,baz=81,slow=2.7,SNR=5.3						

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*ISCJB **04** 23:57:08.3±1.5, 19.36N±0.03×77.96W±0.07, h3km±9km, Error ellipse: s-maj=12.0km s-min=5.1km az=8.5*
*JSN **04** 23:57:08.5±1.0, 19.40N×78.16W, h6km±8km, MD3.5*
*SSNC **04** 23:57:09.5, 19.25N×78.08W, h7km, MD3.2, ML2.2*
ISC 04 23:57:08.7±1.2, **19.35N**±0.03×**77.99W**±0.08, **h5**km±6km, **n9**, σ**0.63**/16, **6D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBJ	**Montego Bay**	**0.95**	**173**	⇓*e*P	**Pg**	**23 57 26.6**	**-0.3**
MBJ				*e*S	**Sg**	**23 57 40.2**	**+0.9**
LMGC	**Las Mercedes**	**1.17**	**52**	*e*PG	**Pg**	**23 57 30.8**	**-0.3**
LMGC				*e*SG	**Sg**	**23 57 46.8**	**+0.6**
	comp=N,157nm,0.1s						
LMGC				*e*			
	comp=E,140nm,0.1s						
BBJ	**Bamboo Saint A**	**1.18**	**145**	⇓*i*P	**Pg**	**23 57 31.6**	**+0.3**
CVJ	**Coleyville**	**1.20**	**159**	⇓*e*P	**Pg**	**23 57 31.2**	**-0.5**
MCJ	**Malvern**	**1.45**	**169**	⇓*e*P	**Pn**	**23 57 35.1**	**-0.4**
MCJ				*e*S	**Sb**	**23 57 53.8**	**-1.1**
STH	**Stony Hill**	**1.69**	**138**	⇓*e*P	**Pn**	**23 57 38.5**	**-0.4**
STH				*e*S	**Sn**	**23 58 01.7**	**+0.8**
PCJ	**Portland Cotta**	**1.78**	**154**	⇓*e*P	**Pn**	**23 57 40.2**	**0.0**
PCJ				*e*S	**Sn**	**23 58 04.3**	**+1.0**
CCCC	**Cccc**	**1.85**	**6**	*e*P	**Pn**	**23 57 41.5**	**+0.3**
CCCC				*e*S	**Sn**	**23 58 05.5**	**+0.5**
	comp=N,2.3nm,0.4s						
CCCC				*e*			
	comp=E,2.6nm,0.5s						
RCC	**Rio Carpintero**	**2.25**	**73**	*e*P	**Pn**	**23 57 46.1**	**-0.6**
RCC				*e*S	**Sn**	**23 58 14.0**	**-0.8**
	comp=N,20nm,0.5s						
RCC				*e*			
	comp=E,17nm,0.4s						

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*IDC **04** 23:59:43.1±0.8, 38.69N×25.22E, h0km, mb3.8/11, mb1 3.9/17, mb1mx3.8/27, mbtmp3.8/17, ML3.9/6, Error ellipse: s-maj=15.4km s-min=12.1km az=98.0*
*ISCJB **04** 23:59:43.8±0.6, 38.69N±0.02×25.33E±0.02, h12km±4km, mb3.7/11, Error ellipse: s-maj=3.1km s-min=2.8km az=21.7*
*CSEM **04** 23:59:44.9±0.1, 38.69N×25.38E, h20km, ML4.0, Error ellipse: s-maj=1.6km s-min=1.4km az=33.0*
*DDA **04** 23:59:44.0, 38.68N×25.19E, h18km±2km, Md3.7*
*NEIC **04** 23:59:45.0, 38.67N×25.36E, h10km, mb3.8/11, ML4.0(ATH), After ATH.*
*THE **04** 23:59:45.7, 38.69N×25.34E, h19km, ML4.0*
ISC 04 23:59:44.3±0.6, **38.68N**±0.02×**25.33E**±0.02, **h7**km±4km, **n241**, σ**1.11**/268, **mb3.7**/11, **11C-6D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHOS	**Chios island**	**0.64**	**117**	*e*Pg	**Pg**	**23 59 57.8**	**+1.1**
CHOS				*e*Sg	**Sg**	**00 00 07.0**	**+1.9**
CHOS	**Chios island**	**0.64**	**117**	*e*Pg	**Pg**	**23 59 57.8**	**+1.1**
CHOS				*e*Sg	**Sg**	**00 00 07.0**	**+2.0**
PRK	**Paraskevi**	**0.93**	**52**	P	**Pg**	**00 00 02.4**	**+0.3**
PRK	**Paraskevi**	**0.93**	**52**	⇑*i*Pn	**Pg**	**00 00 02.4**	**+0.3**
PRK				*e*Sn	**Sg**	**00 00 14.6**	**+0.5**
PRK	**Paraskevi**	**0.93**	**52**	⇑*i*PN	**Pg**	**00 00 02.4**	**+0.3**
PRK				*e*SN	**Sg**	**00 00 14.6**	**+0.5**
PRK	**Paraskevi**	**0.93**	**52**	P	**Pg**	**00 00 02.4**	**+0.3**
PRK	**Paraskevi**	**0.93**	**52**	⇑*i*Pn	**Pg**	**00 00 02.4**	**+0.3**
PRK				*e*Sn	**Sg**	**00 00 14.6**	**+0.5**
LIA	**Limnos Island**	**1.22**	**355**	P	**Pb**	**00 00 08.7**	**+1.0**
LIA	**Limnos Island**	**1.22**	**355**	P	**Pb**	**00 00 08.7**	**+1.0**
LOS	**Limnos**	**1.26**	**351**	*e*Pg	**Pg**	**00 00 08.0**	**-0.6**
LOS	**Limnos**	**1.26**	**351**	*e*Pg	**Pg**	**00 00 08.0**	**-0.6**
BOZC	**Bozcaada**	**1.29**	**26**	*i* P	**Pn**	**00 00 07.3**	**-1.3**
BOZC				*i* S	**Sb**	**00 00 24.7**	**-0.8**
PTL	**Penteli**	**1.31**	**242**	*e*Pb	**Pb**	**00 00 07.3**	**-2.0**
PTL	**Penteli**	**1.31**	**242**	*e*PB	**Pb**	**00 00 07.3**	**-2.0**
PTL	**Penteli**	**1.31**	**242**	*e*Pb	**Pb**	**00 00 07.3**	**-2.0**
BLCB	**Balcova**	**1.38**	**102**	*e*Pg	**Pg**	**00 00 09.6**	**-1.1**
BLCB	**Balcova**	**1.38**	**102**	*e*Pg	**Pg**	**00 00 09.6**	**-1.1**
ATH	**Athens Observa**	**1.45**	**241**	P	**Pn**	**00 00 11.6**	**+0.7**
ATH	**Athens Observa**	**1.45**	**241**	*e*Pn	**Pn**	**00 00 10.1**	**-0.8**
ATH				*e*Sn	**Sn**	**00 00 29.7**	**-0.5**
ATH	**Athens Observa**	**1.45**	**241**	*e*PN	**Pn**	**00 00 10.1**	**-0.8**
ATH				*e*SN	**Sn**	**00 00 29.7**	**-0.5**
ATH	**Athens Observa**	**1.45**	**241**	P	**Pn**	**00 00 11.6**	**+0.7**
ATH	**Athens Observa**	**1.45**	**241**	*e*Pn	**Pn**	**00 00 10.1**	**-0.8**
ATH				*e*Sn	**Sn**	**00 00 29.7**	**-0.5**
KVR	**Kavouri**	**1.50**	**236**	*e*PB	**Pn**	**00 00 10.1**	**-1.4**
KVR	**Kavouri**	**1.50**	**236**	*e*Pb	**Pn**	**00 00 10.1**	**-1.4**
SMG	**Samos**	**1.54**	**129**	P	**Pn**	**00 00 11.6**	**-0.5**
SMG	**Samos**	**1.54**	**129**	*e*Pb	**Pn**	**00 00 11.4**	**-0.7**
SMG	**Samos**	**1.54**	**129**	*e*PB	**Pn**	**00 00 11.4**	**-0.7**
SMG	**Samos**	**1.54**	**129**	P	**Pn**	**00 00 11.6**	**-0.5**
SMG	**Samos**	**1.54**	**129**	*e*Pb	**Pn**	**00 00 11.4**	**-0.7**
KDAG	**Bornova**	**1.54**	**100**	*i* P	**Pn**	**00 00 12.0**	**-0.2**
KDAG				*i* S	**Sn**	**00 00 34.4**	**+1.9**
KDAG	**Bornova**	**1.54**	**100**	*i* P	**Pn**	**00 00 12.0**	**-0.2**
KDAG				*i* S	**Sn**	**00 00 34.3**	**+1.8**
APE	**Apeiranthos**	**1.62**	**174**	P	**Pn**	**00 00 12.5**	**-0.7**
APE	**Apeiranthos**	**1.62**	**174**	*e*Pn	**Pn**	**00 00 12.5**	**-0.7**
APE				*e*Sn	**Sn**	**00 00 33.3**	**-1.0**
APE	**Apeiranthos**	**1.62**	**174**	*e*Pb	**Pn**	**00 00 12.4**	**-0.9**
APE	**Apeiranthos**	**1.62**	**174**	*e*PN	**Pn**	**00 00 12.5**	**-0.7**
APE				*e*SN	**Sn**	**00 00 33.3**	**-1.0**
APE	**Apeiranthos**	**1.62**	**174**	P	**Pn**	**00 00 12.5**	**-0.7**
APE	**Apeiranthos**	**1.62**	**174**	*e*Pb	**Pn**	**00 00 12.4**	**-0.8**
APE	**Apeiranthos**	**1.62**	**174**	*e*Pn	**Pn**	**00 00 12.5**	**-0.7**
APE				*e*Sn	**Sn**	**00 00 33.3**	**-1.0**
NAIG	**Nisos Aigina**	**1.72**	**238**	*e*Pn	**Pn**	**00 00 14.3**	**-0.3**
NAIG	**Nisos Aigina**	**1.72**	**238**	*e*PN	**Pn**	**00 00 14.3**	**-0.3**
NAIG	**Nisos Aigina**	**1.72**	**238**	*e*Pn	**Pn**	**00 00 14.3**	**-0.3**
NEO	**Neokhori**	**1.75**	**291**	P	**Pn**	**00 00 19.5**	**+4.4**
MGER	**Gerania Oros**	**1.77**	**247**	*e*Pn	**Pn**	**00 00 14.5**	**-0.8**
MGER	**Gerania Oros**	**1.77**	**247**	*e*PN	**Pn**	**00 00 14.5**	**-0.8**
MGER	**Gerania Oros**	**1.77**	**247**	*e*Pn	**Pn**	**00 00 14.5**	**-0.8**
PAIG	**Paliouri**	**1.78**	**315**	*e*Pb	**Pn**	**00 00 14.2**	**-1.3**
PAIG	**Paliouri**	**1.78**	**315**	*e*Pb	**Pn**	**00 00 14.2**	**-1.3**
LKR	**Lokris**	**1.82**	**270**	P	**Pn**	**00 00 15.1**	**-1.0**
LKR	**Lokris**	**1.82**	**270**	*e*Pn	**Pn**	**00 00 15.1**	**-1.0**
LKR	**Lokris**	**1.82**	**270**	*e*PN	**Pn**	**00 00 15.1**	**-1.0**
LKR	**Lokris**	**1.82**	**270**	P	**Pn**	**00 00 15.1**	**-1.0**
LKR	**Lokris**	**1.82**	**270**	*e*Pn	**Pn**	**00 00 15.1**	**-1.0**
OUR	**Ouranopolis**	**1.95**	**328**	*e*Pb	**Pn**	**00 00 16.7**	**-1.1**
PLG	**Polygyros**	**2.23**	**320**	P	**Pn**	**00 00 21.0**	**-0.6**
PLG	**Polygyros**	**2.23**	**320**	*e*Pn	**Pn**	**00 00 20.7**	**-0.9**
PLG	**Polygyros**	**2.23**	**320**	*e*PN	**Pn**	**00 00 20.7**	**-0.9**
PLG	**Polygyros**	**2.23**	**320**	P	**Pn**	**00 00 21.0**	**-0.6**
PLG	**Polygyros**	**2.23**	**320**	*e*Pn	**Pn**	**00 00 20.7**	**-0.9**
ALN	**Alexandroupoli**	**2.28**	**14**	*e*Pn	**Pn**	**00 00 21.2**	**-1.2**
ALN	**Alexandroupoli**	**2.28**	**14**	*e*Pn	**Pn**	**00 00 21.2**	**-1.1**
BDRM	**Kayabasi**	**2.33**	**133**	*i* P	**Pn**	**00 00 22.6**	**-0.3**
BDRM				*i* S	**Sg**	**00 01 00.2**	**+1.1**
BTOK	**Tokmak**	**2.36**	**62**	*i* P	**Pn**	**00 00 23.2**	**-0.2**
BTOK				*i* S	**Sn**	**00 00 52.0**	**-0.5**
BTOK	**Tokmak**	**2.36**	**62**	*i* P	**Pn**	**00 00 23.2**	**-0.2**
BTOK				*i* S	**Sn**	**00 00 52.0**	**-0.6**
AGG	**Agios Georgios**	**2.37**	**279**	*e*Pn	**Pn**	**00 00 23.4**	**-0.1**
AGG	**Agios Georgios**	**2.37**	**279**	*e*Pn	**Pn**	**00 00 23.4**	**-0.1**
SART	**Tekirdag**	**2.46**	**35**	*i* P	**Pn**	**00 00 24.0**	**-0.8**
SART				*i* S	**Sn**	**00 00 53.5**	**-1.6**
RDO	**Rodhopi**	**2.46**	**4**	P	**Pn**	**00 00 24.1**	**-0.8**
RDO	**Rodhopi**	**2.46**	**4**	⇑*i*Pn	**Pn**	**00 00 24.1**	**-0.8**
RDO	**Rodhopi**	**2.46**	**4**	⇑*i*PN	**Pn**	**00 00 24.1**	**-0.8**
RDO	**Rodhopi**	**2.46**	**4**	P	**Pn**	**00 00 24.1**	**-0.8**
RDO	**Rodhopi**	**2.46**	**4**	⇑*i*Pn	**Pn**	**00 00 24.1**	**-0.8**
LIT	**Litokhoron**	**2.62**	**304**	*e*Pn	**Pn**	**00 00 26.4**	**-0.5**
LIT	**Litokhoron**	**2.62**	**304**	*e*Pn	**Pn**	**00 00 26.4**	**-0.5**
THE	**Thessaloniki**	**2.67**	**318**	*e*Pn	**Pn**	**00 00 27.2**	**-0.4**
THE	**Thessaloniki**	**2.67**	**318**	*e*Pn	**Pn**	**00 00 27.2**	**-0.5**
THL	**Klokotos Trika**	**2.72**	**290**	*e*PN	**Pn**	**00 00 28.1**	**-0.3**
THL	**Klokotos Trika**	**2.72**	**290**	*e*Pn	**Pn**	**00 00 28.1**	**-0.3**
VLI	**Veliai**	**2.73**	**225**	P	**Pn**	**00 00 27.6**	**-0.9**
VLI	**Veliai**	**2.73**	**225**	*e*Pn	**Pn**	**00 00 27.6**	**-0.9**
VLI	**Veliai**	**2.73**	**225**	*e*PN	**Pn**	**00 00 27.6**	**-0.9**
VLI	**Veliai**	**2.73**	**225**	P	**Pn**	**00 00 27.6**	**-0.9**
VLI	**Veliai**	**2.73**	**225**	*e*Pn	**Pn**	**00 00 27.6**	**-0.9**
EVR	**Evrytania**	**2.76**	**276**	P	**Pn**	**00 00 29.6**	**+0.7**
EVR	**Evrytania**	**2.76**	**276**	*e*Pn	**Pn**	**00 00 29.4**	**+0.5**
EVR	**Evrytania**	**2.76**	**276**	*e*PN	**Pn**	**00 00 29.4**	**+0.5**
EVR	**Evrytania**	**2.76**	**276**	P	**Pn**	**00 00 29.6**	**+0.7**
EVR	**Evrytania**	**2.76**	**276**	*e*Pn	**Pn**	**00 00 29.4**	**+0.5**
SRS	**Serrai**	**2.77**	**332**	*e*Pn	**Pn**	**00 00 28.5**	**-0.6**
SRS	**Serrai**	**2.77**	**332**	*e*Pn	**Pn**	**00 00 28.5**	**-0.6**
NVR	**Nevrokopi**	**2.89**	**338**	P	**Pn**	**00 00 30.6**	**-0.1**
NVR	**Nevrokopi**	**2.89**	**338**	*e*Pn	**Pn**	**00 00 30.1**	**-0.6**
NVR	**Nevrokopi**	**2.89**	**338**	*e*PN	**Pn**	**00 00 30.1**	**-0.6**
NVR	**Nevrokopi**	**2.89**	**338**	P	**Pn**	**00 00 30.6**	**-0.1**
NVR	**Nevrokopi**	**2.89**	**338**	*e*Pn	**Pn**	**00 00 30.1**	**-0.6**
KYTH	**Kithira**	**3.01**	**218**	*e*Pn	**Pn**	**00 00 32.0**	**-0.4**
KYTH	**Kithira**	**3.01**	**218**	*e*PN	**Pn**	**00 00 32.0**	**-0.4**
KYTH	**Kithira**	**3.01**	**218**	*e*Pn	**Pn**	**00 00 32.0**	**-0.4**
ITM	**Ithomi**	**3.08**	**242**	P	**Pn**	**00 00 35.2**	**+1.9**
ITM	**Ithomi**	**3.08**	**242**	*e*Pn	**Pn**	**00 00 33.8**	**+0.5**
ITM	**Ithomi**	**3.08**	**242**	*e*PN	**Pn**	**00 00 33.8**	**+0.5**
ITM	**Ithomi**	**3.08**	**242**	P	**Pn**	**00 00 35.2**	**+1.9**
ITM	**Ithomi**	**3.08**	**242**	*e*Pn	**Pn**	**00 00 33.8**	**+0.5**
RLS	**Riolos of Patr**	**3.10**	**260**	P	**Pn**	**00 00 34.8**	**+1.2**
RLS	**Riolos of Patr**	**3.10**	**260**	*e*Pn	**Pn**	**00 00 34.1**	**+0.5**
RLS	**Riolos of Patr**	**3.10**	**260**	*e*PN	**Pn**	**00 00 34.1**	**+0.5**
RLS	**Riolos of Patr**	**3.10**	**260**	P	**Pn**	**00 00 34.8**	**+1.2**
RLS	**Riolos of Patr**	**3.10**	**260**	*e*Pn	**Pn**	**00 00 34.1**	**+0.5**
KNT	**Kendrikon**	**3.10**	**324**	*e*Pn	**Pn**	**00 00 33.5**	**-0.2**
KNT	**Kendrikon**	**3.10**	**324**	*e*Pn	**Pn**	**00 00 33.5**	**-0.1**
KZN	**Kozani**	**3.19**	**302**	P	**Pn**	**00 00 36.8**	**+1.9**
KZN	**Kozani**	**3.19**	**302**	*e*Pn	**Pn**	**00 00 35.0**	**+0.1**
KZN	**Kozani**	**3.19**	**302**	*e*PN	**Pn**	**00 00 35.0**	**+0.1**
KZN	**Kozani**	**3.19**	**302**	P	**Pn**	**00 00 36.8**	**+1.9**
KZN	**Kozani**	**3.19**	**302**	*e*Pn	**Pn**	**00 00 35.0**	**+0.1**
GDZ	**Gediz**	**3.27**	**82**	*i* P	**Pn**	**00 00 35.9**	**0.0**
GDZ				*i* S	**Sg**	**00 01 28.1**	**-1.0**
ULDT	**Uludag**	**3.29**	**63**	*i* P	**Pn**	**00 00 36.2**	**0.0**
ULDT				*i* S	**Sb**	**00 01 24.2**	**+1.0**
ARG	**Arkhangelos**	**3.32**	**137**	P	**Pn**	**00 00 37.2**	**+0.6**
ARG	**Arkhangelos**	**3.32**	**137**	*e*Pn	**Pn**	**00 00 36.9**	**+0.3**
ARG				*e*Sn	**Sn**	**00 01 14.4**	**-1.9**
ARG	**Arkhangelos**	**3.32**	**137**	*e*PN	**Pn**	**00 00 36.9**	**+0.3**
ARG				*e*SN	**Sn**	**00 01 14.4**	**-1.9**
ARG	**Arkhangelos**	**3.32**	**137**	P	**Pn**	**00 00 37.2**	**+0.6**
ARG	**Arkhangelos**	**3.32**	**137**	*e*Pn	**Pn**	**00 00 36.9**	**+0.3**
ARG				*e*Sn	**Sn**	**00 01 14.4**	**-1.9**
VAY	**Valandovo**	**3.38**	**322**	*e*Pn	**Pn**	**00 00 37.1**	**-0.3**
VAY	**Valandovo**	**3.38**	**322**	*e*Pn	**Pn**	**00 00 37.1**	**-0.4**
VAM	**Vamos**	**3.39**	**196**	*e*Pn	**Pn**	**00 00 38.0**	**+0.4**
VAM	**Vamos**	**3.39**	**196**	*e*PN	**Pn**	**00 00 38.0**	**+0.4**
VAM	**Vamos**	**3.39**	**196**	*e*Pn	**Pn**	**00 00 38.0**	**+0.4**
IDI	**Anoyia**	**3.41**	**186**	Pn	**Pn**	**00 00 37.0**	**-0.8**
IDI				Lg		00 01 32.8	
IDI	**Anoyia**	**3.41**	**186**	Pn	**Pn**	**00 00 37.1**	**-0.8**
	6.0nm,0.3s,baz=28,slow=12,SNR=30						
IDI				Lg		00 01 32.8	
	17nm,0.3s,baz=303,slow=16,SNR=5.8						
IDI	**Anoyia**	**3.41**	**186**	Pn	**Pn**	**00 00 37.0**	**-0.8**
NPS	**Neapolis**	**3.42**	**176**	P	**Pn**	**00 00 38.7**	**+0.7**
NPS	**Neapolis**	**3.42**	**176**	*e*Pn	**Pn**	**00 00 37.9**	**-0.1**
NPS	**Neapolis**	**3.42**	**176**	*e*PN	**Pn**	**00 00 37.9**	**-0.1**
NPS	**Neapolis**	**3.42**	**176**	P	**Pn**	**00 00 38.7**	**+0.7**
NPS	**Neapolis**	**3.42**	**176**	*e*Pn	**Pn**	**00 00 37.9**	**-0.1**
PLD	**Plovdiv**	**3.45**	**352**	*e*Pn	**Pn**	**00 00 38.5**	**+0.1**
PLD	**Plovdiv**	**3.45**	**352**	*e*Pn	**Pn**	**00 00 38.5**	**+0.1**
KARP	**Karpathos**	**3.46**	**154**	*e*Pn	**Pn**	**00 00 38.0**	**-0.5**
KARP	**Karpathos**	**3.46**	**154**	*e*PN	**Pn**	**00 00 38.0**	**-0.5**
KARP	**Karpathos**	**3.46**	**154**	*e*Pn	**Pn**	**00 00 38.0**	**-0.5**
JAN	**Janina**	**3.61**	**287**	P	**Pn**	**00 00 44.9**	**+4.2**
JAN	**Janina**	**3.61**	**287**	*e*Pn	**Pn**	**00 00 40.2**	**-0.5**
JAN	**Janina**	**3.61**	**287**	*e*PN	**Pn**	**00 00 40.2**	**-0.5**
JAN	**Janina**	**3.61**	**287**	P	**Pn**	**00 00 44.9**	**+4.2**
JAN	**Janina**	**3.61**	**287**	*e*Pn	**Pn**	**00 00 40.2**	**-0.5**
GOLH	**Golhisar**	**3.64**	**112**	*i* P	**Pn**	**00 00 42.6**	**+1.6**
GOLH				*i* S	**Sg**	**00 01 45.3**	**+4.0**
FNA	**Florina**	**3.70**	**306**	*e*Pn	**Pn**	**00 00 42.2**	**+0.3**
FNA	**Florina**	**3.70**	**306**	*e*Pn	**Pn**	**00 00 42.2**	**+0.4**
VLS	**Valsamata**	**3.76**	**264**	*e*Pn	**Pn**	**00 00 43.3**	**+0.7**
VLS	**Valsamata**	**3.76**	**264**	*e*PN	**Pn**	**00 00 43.3**	**+0.7**
VLS	**Valsamata**	**3.76**	**264**	*e*Pn	**Pn**	**00 00 43.3**	**+0.7**
STIP	**Stip**	**3.85**	**322**	*e*Pn	**Pn**	**00 00 44.5**	**+0.5**
STIP	**Stip**	**3.85**	**322**	*e*Pn	**Pn**	**00 00 44.4**	**+0.5**
JMB	**Yambol**	**3.90**	**14**	*e*Pn	**Pn**	**00 00 43.5**	**-1.1**
KRUS	**Krusevo**	**4.12**	**312**	*e*Pn	**Pn**	**00 00 48.6**	**+0.9**
KRUS	**Krusevo**	**4.12**	**312**	*e*Pn	**Pn**	**00 00 48.5**	**+0.8**
ISP	**Isparta**	**4.16**	**100**	P	**Pn**	**00 00 50.1**	**+1.9**
VTS	**Vitosha**	**4.22**	**338**	⇑*i*P	**Pn**	**00 00 49.9**	**+0.9**
ESKT	**Eskisehir**	**4.38**	**77**	*i* P	**Pn**	**00 00 52.3**	**+1.2**
ESKT				*i* S	**Sg**	**00 02 04.2**	**-0.6**
SEYT	**Eskypehyr**	**4.38**	**77**	*i* P	**Pn**	**00 00 52.3**	**+1.2**
HENT	**Hendek**	**4.79**	**62**	*i* P	**Pn**	**00 00 57.1**	**+0.2**
HENT				*i* S	**Sg**	**00 02 16.4**	**-1.9**
KDHN	**Kadinhani**	**5.32**	**90**	*i* P	**Pn**	**00 01 05.8**	**+1.7**
KDHN				*i* S	**Sg**	**00 02 31.7**	**-3.4**
ANTO	**Ankara**	**5.91**	**76**	⇑*i*P	**Pg**	**00 01 35.4**	**-2.1**
TIRR	**Tirgusor**	**6.22**	**21**	⇓*i*P	**Pn**	**00 01 15.8**	**-0.6**
BRTR	**Keskin Array B**	**6.54**	**78**	Pn	**Pn**	**00 01 22.4**	**+1.5**
BRTR				Lg		00 03 15.1	
BRTR	**Keskin Array B**	**6.54**	**78**	Pn	**Pn**	**00 01 22.4**	**+1.5**
	0.5nm,0.3s,baz=254,slow=13,SNR=20						
BRTR				Lg		00 03 15.1	
	baz=90,slow=33,SNR=3.2						
BRTR	**Keskin Array B**	**6.54**	**78**	Pn	**Pn**	**00 01 22.4**	**+1.6**
VOIR		**6.75**	**358**	⇓*i*P	**Pn**	**00 01 23.7**	**-0.1**
MLR	**Muntele Rosu**	**6.82**	**4**	Pn	**Pn**	**00 01 25.0**	**+0.3**
MLR				Lg		00 03 26.8	
MLR	**Muntele Rosu**	**6.82**	**4**	Pn	**Pn**	**00 01 25.0**	**+0.3**
	2.9nm,0.3s,baz=214,slow=3.8,SNR=15						
MLR				Lg		00 03 26.8	
	0.7nm,0.3s,baz=252,slow=11,SNR=2.3						
MLR	**Muntele Rosu**	**6.82**	**4**	Pn	**Pn**	**00 01 25.0**	**+0.3**
MLR	**Muntele Rosu**	**6.82**	**4**	⇑*i*P	**Pn**	**00 01 25.5**	**+0.8**
GZR	**Gura Zlata**	**6.97**	**345**	⇓*i*P	**Pn**	**00 01 26.3**	**-0.4**
PLOR	**Plostina**	**7.23**	**7**	⇓*i*P	**Pn**	**00 01 31.6**	**+1.3**
VRI	**Vrincioaia**	**7.25**	**8**	⇑*i*P	**Pn**	**00 01 31.9**	**+1.3**
BZS	**Buzias**	**7.46**	**340**	⇓*i*P	**Pn**	**00 01 32.9**	**-0.5**
DRGR		**8.33**	**347**	⇑*i*P	**Pn**	**00 01 45.6**	**+0.2**
VAE	**Valguarnera**	**8.69**	**265**	Pn	**Pn**	**00 01 53.9**	**+3.5**
VAE	**Valguarnera**	**8.69**	**265**	Pn	**Pn**	**00 01 53.9**	**+3.5**
	0.5nm,0.3s,baz=249,slow=7.5,SNR=2.3						
PKSM	**Moragy**	**9.00**	**329**	⇓*i*P	**Pn**	**00 01 54.3**	**-0.3**
MMAI	**Mount Meron Ar**	**9.94**	**122**	Pn	**Pn**	**00 02 06.6**	**-0.9**
	2.6nm,0.3s,baz=310,slow=12,SNR=14						
KECS	**Kecovo**	**10.40**	**342**	*e*PN	**Pn**	**00 02 14.4**	**+0.6**
KOLS	**Kolonicke sedl**	**10.48**	**349**	*e*PN	**Pn**	**00 02 17.7**	**+2.8**
VYHS	**Vyhne**	**10.87**	**336**	*i* PN	**Pn**	**00 02 21.1**	**+0.9**
EIL	**Elat**	**12.01**	**136**	Pn	**Pn**	**00 02 36.7**	**+0.9**
EIL	**Elat**	**12.01**	**136**	Pn	**Pn**	**00 02 36.7**	**+0.9**
	0.3nm,0.3s,baz=345,slow=20,SNR=2.9						
EIL	**Elat**	**12.01**	**136**	Pn	**Pn**	**00 02 36.7**	**+0.9**
AKASG	**Malin Array Be**	**12.33**	**12**	Pn	**Pn**	**00 02 38.0**	**-2.1**
AKASG	**Malin Array Be**	**12.33**	**12**	Pn	**Pn**	**00 02 38.0**	**-2.1**
	0.5nm,0.3s,baz=204,slow=11,SNR=4.3						
AKASG	**Malin Array Be**	**12.33**	**12**	Pn	**Pn**	**00 02 38.0**	**-2.1**
KHC	**Kasperske Hory**	**13.43**	**325**	*e*P	**Pn**	**00 03 02.0**	**+6.8**
FRF	**La Foret Royal**	**14.89**	**295**	*e*P	**Pn**	**00 03 17.5**	**+2.3**
	21nm,1.1s						
FRF	**La Foret Royal**	**14.89**	**295**	*e*P	**Pn**	**00 03 17.5**	**+2.3**
	11nm,1.1s						
MBDF	**Montbardon**	**15.11**	**299**	*e*P	**Pn**	**00 03 21.1**	**+3.1**
	8.4nm,0.8s						
MBDF	**Montbardon**	**15.11**	**299**	*e*P	**Pn**	**00 03 21.1**	**+3.1**
	4.2nm,0.8s						
LPG	**La Plagne**	**15.36**	**302**	*e*P	**Pn**	**00 03 26.5**	**+5.1**
	6.1nm,0.9s						
LPG	**La Plagne**	**15.36**	**302**	*e*P	**Pn**	**00 03 26.5**	**+5.1**
	12nm,0.9s						
LPL	**La Plagne**	**15.38**	**302**	*e*P	**Pn**	**00 03 26.3**	**+4.6**
	9.0nm,1.2s						
LPL	**La Plagne**	**15.38**	**302**	*e*P	**Pn**	**00 03 26.3**	**+4.6**
	18nm,1.2s						
CABF	**La Chapelle**	**16.20**	**305**	*e*P	**Pn**	**00 03 35.7**	**+3.5**
	24nm,1.0s						
CABF	**La Chapelle**	**16.20**	**305**	*e*P	**Pn**	**00 03 35.7**	**+3.5**
	12nm,1.0s						
HINF	**Hinteralfeld**	**16.23**	**310**	*e*P	**Pn**	**00 03 36.6**	**+4.0**
CDF	**Champ du Feu**	**16.27**	**313**	*e*P	**Pn**	**00 03 37.0**	**+3.9**
	4.2nm,0.9s						
CDF	**Champ du Feu**	**16.27**	**313**	*e*P	**Pn**	**00 03 37.0**	**+3.9**
	8.3nm,0.9s						
VIVF	**Saint-Julien-l**	**16.58**	**298**	*e*P	**Pn**	**00 03 39.8**	**+2.7**
HAU	**Haudompre**	**16.62**	**310**	*e*P	**Pn**	**00 03 41.4**	**+3.8**
LASF	**Ste Croix**	**16.98**	**295**	*e*P	**Pn**	**00 03 44.4**	**+2.3**
	11nm,1.1s						
LASF	**Ste Croix**	**16.98**	**295**	*e*P	**Pn**	**00 03 44.4**	**+2.3**
	5.4nm,1.1s						
MEZF	**Maizieres J'vi**	**17.62**	**310**	*e*P	**Pn**	**00 03 51.2**	**+1.1**
SMF	**Signal de Mont**	**17.66**	**304**	*e*P	**Pn**	**00 03 52.1**	**+1.5**
LOR	**Lormes**	**17.86**	**306**	*e*P	**Pn**	**00 03 54.8**	**+1.7**
	8.2nm,1.0s						
LOR	**Lormes**	**17.86**	**306**	*e*P	**Pn**	**00 03 54.8**	**+1.7**
	4.1nm,1.0s						
SSF	**Saint Saulge**	**18.01**	**305**	*e*P	**Pn**	**00 03 56.2**	**+1.2**
	5.4nm,0.8s						
SSF	**Saint Saulge**	**18.01**	**305**	*e*P	**Pn**	**00 03 56.2**	**+1.2**
	2.7nm,0.8s						
AVF	**Avril sur Loir**	**18.02**	**304**	*e*P	**Pn**	**00 03 55.4**	**+0.3**
	3.1nm,0.6s						
AVF	**Avril sur Loir**	**18.02**	**304**	*e*P	**Pn**	**00 03 55.4**	**+0.3**
	1.5nm,0.6s						
MTLF	**Montolieu**	**18.03**	**292**	*e*P	**Pn**	**00 03 54.7**	**-0.6**
	15nm,1.2s						

MTLF	Montolieu	18.03	292	eP	Pn	00 03 54.7	-0.6
	7.3nm,1.2s						
BGF	Bois d'Agland	18.28	303	eP	Pn	00 03 56.5	-1.8
TCF	Toulx Ste Croi	18.62	302	eP	Pn	00 04 03.5	+1.0
MFF	Saint Martin d	20.28	301	eP	P	00 04 17.9	-2.4
	4.6nm,0.9s						
MFF	Saint Martin d	20.28	301	eP	P	00 04 17.9	-2.4
	9.1nm,0.9s						
SJPF	Ste Jean	20.52	291	eP	P	00 04 20.5	-2.5
LDF	La Druitiere	20.83	307	eP	P	00 04 25.6	-0.6
	5.6nm,0.6s						
LDF	La Druitiere	20.83	307	eP	P	00 04 25.6	-0.6
	11nm,0.7s						
FLN	La Foliniere	21.11	307	eP	P	00 04 28.7	-0.6
ESDC	Sonseca Array	22.69	282	P	P	00 04 45.2	-1.1
	2.2nm,0.7s,mb3.7,baz=75,slow=10,SNR=24						
HFS	Hagfors	22.70	345	P	P	00 04 46.7	+0.6
	3.8nm,0.9s,mb3.8,baz=119,slow=8.6,SNR=4.4						
FINES	FINESS Array B	22.79	1	P	P	00 04 48.0	+0.9
	2.3nm,0.7s,mb3.7,baz=163,slow=9.3,SNR=8.8						
NOA	NORSAR Array B	24.05	343	P	P	00 04 59.3	-0.5
	1.1nm,0.6s,mb3.5,baz=156,slow=10,SNR=3.0						
EKA	Eskdalemuir Ar	25.33	320	P	P	00 05 11.2	-0.3
	1.7nm,0.7s,mb3.7,baz=131,slow=9.5,SNR=4.8						
EKA	Eskdalemuir Ar	25.33	320	P	P	00 05 11.1	-0.3
AKTK	Aktyubinsk	25.87	52	P	P	00 05 17.2	+0.8
AKTO	Aktyubinsk	25.87	52	P	P	00 05 17.2	+0.8
	0.5nm,0.5s,mb3.4,baz=284,slow=1.2,SNR=2.0						
ARCES	ARCESS Array B	30.91	0	P	P	00 06 01.7	+0.5
	6.7nm,1.0s,mb4.4,baz=341,slow=11,SNR=3.2						
TORD	Torodi Ar. Bea	32.95	226	P	P	00 06 19.2	-0.4
TORD	Torodi Ar. Bea	32.95	226	P	P	00 06 19.2	-0.4
	1.5nm,0.7s,mb4.0,baz=35,slow=9.1,SNR=12						
MKAR	Makanchi Array	41.80	60	P	P	00 07 34.9	+0.5
	0.8nm,0.6s,mb3.5,baz=279,slow=6.0,SNR=8.7						
ZALV	Zalesovo Beam	42.53	49	P	P	00 07 40.2	0.0
	0.7nm,0.6s,mb3.6,baz=265,slow=10,SNR=4.0						
YKA	Yellowknife Ar	74.15	342	P	P	00 11 19.9	-1.0
YKA	Yellowknife Ar	74.15	342	P	P	00 11 19.9	-1.0
	0.3nm,0.6s,mb3.4,baz=33,slow=5.3,SNR=6.0						
YKA	Yellowknife Ar	74.15	342	P	P	00 11 19.9	-1.0

*ISK **05** 00:10:38.4, 3881N×2534E, h27^{km}, MD3.5*
*SKO **05** 00:11:37.2, 3873N×2561E, h0^{km}*
*ISCJB **05** 00:11:38.7±0.6, 3885N±002×2555E±002, h8^{km}±4^{km},*
Error ellipse: s-maj=3.3km s-min=2.7km az=33.0
*ATH **05** 00:11:39.7, 3885N×2560E, h37^{km}±2^{km}, MD3.6/11, ML3.5*
*NEIC **05** 00:11:40.0, 3882N×2559E, h10^{km}, ML3.7(THE),*
ML3.4(ISK), ML3.3(ATH), After ATH.
*DDA **05** 00:11:41.0, 3892N×2563E, h4^{km}±3^{km}, Md3.5*
*CSEM **05** 00:11:41.6±0.0, 3885N×2558E, h40^{km}, ML3.7, Error*
ellipse: s-maj=1.4km s-min=1.0km az=38.0
*THE **05** 00:11:41.0, 3881N×2556E, h21^{km}, ML3.7*
ISC 05 00:11:40.1±0.5**, 3884N**±002×**2556E**±002**, h13**^{km}±4^{km}**,**
n152, σ0^{s}87/184**, 3C-2D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHOS	Chios island	0.60	139	ePg	Pg	00 11 52.0	+0.2
CHOS				eSg	Sg	00 12 00.4	+0.6
CHOS	Chios island	0.60	139	ePg	Pg	00 11 52.0	+0.2
PRK	Paraskevi	0.69	54	P	Pg	00 11 53.4	-0.1
PRK	Paraskevi	0.69	54	⇑iPN	Pg	00 11 53.3	-0.2
PRK				eSN	Sg	00 12 03.1	+0.5
PRK	Paraskevi	0.69	54	i Pn	Pg	00 11 53.3	-0.2
PRK				eSn	Sg	00 12 03.1	+0.5
BOZC	Bozcaada	1.07	21	i P	Pb	00 11 59.7	-0.8
BOZC				i S	Sb	00 12 14.1	-0.3
LIA	Limnos Island	1.09	345	P	Pb	00 12 02.3	+1.5
EZN	Ezine	1.15	31	PN	Pn	00 12 00.9	-1.0
EZN				SN	Sn	00 12 17.0	-0.4
EZN	Ezine	1.15	31	ePn	Pn	00 12 00.9	-1.0
EZN				eSn	Sn	00 12 17.0	-0.4
BLCB	Balcova	1.25	111	PN	Pn	00 12 02.6	-0.7
BLCB				SN	Sn	00 12 21.0	+1.0
BLCB	Balcova	1.25	111	ePg	Pg	00 12 03.0	-1.2
BLCB				eSg	Sg	00 12 19.7	-0.7
BLCB	Balcova	1.25	111	ePn	Pn	00 12 02.6	-0.7
BLCB				eSn	Sn	00 12 21.0	+1.0
BLCB	Balcova	1.25	111	ePg	Pg	00 12 03.0	-1.2
BLCB				eSg	Sg	00 12 19.7	-0.8
GADA	Gvkgeada	1.37	11	PN	Pn	00 12 03.4	-1.5
GADA				SN	Sn	00 12 21.7	-1.3
GADA	Gvkgeada	1.37	11	ePn	Pn	00 12 03.4	-1.5
GADA				eSn	Sn	00 12 21.7	-1.3
IZM	Izmir	1.41	108	PN	Pn	00 12 04.5	-0.9
KDAG	Bornova	1.41	108	i P	Pn	00 12 05.2	-0.2
KDAG				i S	Sn	00 12 24.7	+0.8
KDAG	Bornova	1.41	108	i P	Pn	00 12 05.2	-0.3
KDAG				i S	Sn	00 12 24.7	+0.8
SMG	Samos	1.52	138	ePN	Pn	00 12 06.3	-0.6
SMG	Samos	1.52	138	ePn	Pn	00 12 06.3	-0.6
PTL	Penteli	1.55	240	ePb	Pn	00 12 07.0	-0.3
PTL	Penteli	1.55	240	ePB	Pn	00 12 07.0	-0.3
PTL	Penteli	1.55	240	ePb	Pn	00 12 07.0	-0.3
ATH	Athens Observa	1.69	240	ePn	Pn	00 12 09.0	-0.2
ATH	Athens Observa	1.69	240	ePN	Pn	00 12 09.0	-0.2
ATH	Athens Observa	1.69	240	ePn	Pn	00 12 09.0	-0.2
KVR	Kavouri	1.73	235	ePN	Pn	00 12 09.5	-0.4
KVR	Kavouri	1.73	235	ePn	Pn	00 12 09.5	-0.4
AKS	Akhisar	1.76	88	PN	Pn	00 12 10.4	+0.1
AKS	Akhisar	1.76	88	ePn	Pn	00 12 10.4	+0.1
APE	Apeiranthos	1.77	181	P	Pn	00 12 09.8	-0.6
APE	Apeiranthos	1.77	181	ePb	Pn	00 12 08.9	-1.5
APE				eSb	Sn	00 12 30.5	-2.3
APE	Apeiranthos	1.77	181	ePN	Pn	00 12 09.9	-0.5
APE				eSN	Sn	00 12 32.0	-0.8
APE	Apeiranthos	1.77	181	ePb	Pn	00 12 08.9	-1.5
APE	Apeiranthos	1.77	181	ePn	Pn	00 12 09.9	-0.5
APE				eSb	Sn	00 12 30.5	-2.3
APE				eSn	Sn	00 12 32.0	-0.8
PAIG	Paliouri	1.81	307	ePb	Pn	00 12 10.2	-0.8
PAIG	Paliouri	1.81	307	ePb	Pn	00 12 10.2	-0.8
OUR	Ouranopolis	1.92	321	ePb	Pn	00 12 11.6	-0.9
OUR	Ouranopolis	1.92	321	ePb	Pn	00 12 11.6	-0.9
ENEZ	Enez	1.95	14	PN	Pn	00 12 12.0	-0.8
ENEZ	Enez	1.95	14	ePn	Pn	00 12 12.0	-0.8
MGER	Gerania Oros	2.00	245	ePn	Pn	00 12 13.5	0.0
MGER	Gerania Oros	2.00	245	ePN	Pn	00 12 13.5	0.0
MGER	Gerania Oros	2.00	245	ePn	Pn	00 12 13.5	0.0
LKR	Lokris	2.01	265	P	Pn	00 12 13.8	+0.1
LKR	Lokris	2.01	265	ePN	Pn	00 12 13.5	-0.2
LKR	Lokris	2.01	265	ePn	Pn	00 12 13.5	-0.2
ALN	Alexandroupoli	2.09	10	ePn	Pn	00 12 14.3	-0.4
ALN				eSn	Sn	00 12 39.2	-1.3
ALN	Alexandroupoli	2.09	10	ePn	Pn	00 12 14.4	-0.3
ALN				eSn	Sn	00 12 39.2	-1.4
BTOK	Tokmak	2.13	64	i P	Pn	00 12 15.3	0.0
BTOK				i S	Sg	00 12 48.0	-0.6
RKY	Sarkoy-Tekirda	2.23	34	ePN	Pn	00 12 16.8	+0.1
RKY	Sarkoy-Tekirda	2.23	34	ePn	Pn	00 12 16.8	+0.1
SART	Tekirdag	2.23	34	i P	Pn	00 12 17.1	+0.4
SART				i S	Sn	00 12 43.2	-0.8
SART	Tekirdag	2.23	34	i P	Pn	00 12 17.1	+0.4
SART				i S	Sn	00 12 43.2	-0.9
PLG	Polygyros	2.23	314	ePn	Pn	00 12 16.2	-0.6
PLG	Polygyros	2.23	314	ePN	Pn	00 12 15.9	-0.9
PLG	Polygyros	2.23	314	ePn	Pn	00 12 16.2	-0.6
PLG	Polygyros	2.23	314	P	Pn	00 12 17.1	+0.3
BODT	Bodrum	2.25	141	ePN	Pn	00 12 16.2	-0.9
BODT	Bodrum	2.25	141	ePn	Pn	00 12 16.2	-0.9
RDO	Rodhopi	2.30	360	P	Pn	00 12 17.3	-0.4
RDO	Rodhopi	2.30	360	ePN	Pn	00 12 17.1	-0.6
RDO	Rodhopi	2.30	360	ePn	Pn	00 12 17.1	-0.6
BDRM	Kayabasi	2.32	139	i P	Pn	00 12 17.8	-0.1
BDRM				i S	Sn	00 12 42.1	-4.2
EDC	Edincik	2.33	49	ePN	Pn	00 12 18.5	+0.4
EDC	Edincik	2.33	49	ePn	Pn	00 12 18.5	+0.4
MLSB	Milas	2.34	131	ePN	Pn	00 12 17.5	-0.7
MLSB	Milas	2.34	131	ePn	Pn	00 12 17.5	-0.7
BNT	Bandirma	2.37	50	ePN	Pn	00 12 18.5	-0.2
AGG	Agios Georgios	2.52	275	ePn	Pn	00 12 20.6	-0.1
AGG	Agios Georgios	2.52	275	ePn	Pn	00 12 20.6	-0.1
HORT	Hortiatis	2.58	314	ePn	Pn	00 12 21.7	+0.1
HORT	Hortiatis	2.58	314	ePn	Pn	00 12 21.7	+0.2
KCT	Karacabey	2.59	56	ePN	Pn	00 12 21.9	+0.2
KCT	Karacabey	2.59	56	ePn	Pn	00 12 21.9	+0.2
SOH	Sokhos	2.60	320	ePn	Pn	00 12 22.0	+0.2
SOH	Sokhos	2.60	320	ePn	Pn	00 12 22.0	+0.1
DAT	Datca	2.65	142	ePN	Pn	00 12 22.0	-0.5
DAT	Datca	2.65	142	ePn	Pn	00 12 22.0	-0.5
THE	Thessaloniki	2.68	313	ePn	Pn	00 12 23.1	+0.2
THE	Thessaloniki	2.68	313	ePn	Pn	00 12 23.1	+0.2
LIT	Litokhoron	2.68	299	ePn	Pn	00 12 22.6	-0.3
LIT	Litokhoron	2.68	299	ePn	Pn	00 12 22.6	-0.4
SRS	Serrai	2.73	327	ePn	Pn	00 12 23.3	-0.2
SRS	Serrai	2.73	327	ePn	Pn	00 12 23.3	-0.2
YER	Yerkesik	2.75	128	ePN	Pn	00 12 23.3	-0.6
YER	Yerkesik	2.75	128	ePn	Pn	00 12 23.3	-0.6
NVR	Nevrokopi	2.82	333	P	Pn	00 12 25.0	+0.2
NVR	Nevrokopi	2.82	333	ePN	Pn	00 12 24.7	-0.1
NVR	Nevrokopi	2.82	333	ePn	Pn	00 12 24.7	-0.1
THL	Klokotos Trika	2.84	286	ePN	Pn	00 12 25.6	+0.4
THL	Klokotos Trika	2.84	286	ePn	Pn	00 12 25.6	+0.4
DENT	Denizli	2.94	111	ePN	Pn	00 12 26.0	-0.5
DENT	Denizli	2.94	111	ePn	Pn	00 12 26.0	-0.5
VLI	Veliai	2.97	225	P	Pn	00 12 26.9	0.0
VLI	Veliai	2.97	225	ePN	Pn	00 12 26.5	-0.4
VLI	Veliai	2.97	225	ePn	Pn	00 12 26.5	-0.4
ULDT	Uludag	3.06	64	i P	Pn	00 12 29.6	+1.5
ULDT				i S	Sg	00 13 15.6	-2.8
GDZ	Gediz	3.07	84	i P	Pn	00 12 28.8	+0.5
GDZ				i S	Sg	00 13 17.9	-0.8
KNT	Kendrikon	3.09	319	ePn	Pn	00 12 28.9	+0.5
KNT	Kendrikon	3.09	319	ePn	Pn	00 12 29.0	+0.5
EDRB	Edirne	3.13	16	ePN	Pn	00 12 28.8	-0.4
EDRB	Edirne	3.13	16	ePn	Pn	00 12 28.8	-0.4
KHL	Karahalli	3.15	98	ePN	Pn	00 12 30.2	+0.8
KHL	Karahalli	3.15	98	ePn	Pn	00 12 30.2	+0.8
CTT	Catalca	3.19	43	ePN	Pn	00 12 30.3	+0.4
CTT	Catalca	3.19	43	ePn	Pn	00 12 30.3	+0.4
DALT	Dalyan (Mudla)	3.20	129	ePN	Pn	00 12 30.2	+0.1
DALT	Dalyan (Mudla)	3.20	129	ePn	Pn	00 12 30.2	+0.1
GRG	Griva	3.21	312	ePn	Pn	00 12 31.2	+0.9
GRG	Griva	3.21	312	ePn	Pn	00 12 31.2	+0.9
GEMT	Gemlik	3.23	59	ePN	Pn	00 12 31.3	+0.9
GEMT	Gemlik	3.23	59	ePn	Pn	00 12 31.3	+0.9
RLS	Riolos of Patr	3.30	258	P	Pn	00 12 35.2	+3.7
ARG	Arkhangelos	3.33	141	ePN	Pn	00 12 31.5	-0.3
ARG	Arkhangelos	3.33	141	ePn	Pn	00 12 31.5	-0.3
ARG	Arkhangelos	3.33	141	P	Pn	00 12 32.6	+0.8
VAY	Valandovo	3.37	318	ePn	Pn	00 12 32.7	+0.3
VAY				eSg	Sg	00 13 28.8	+0.4
VAY	Valandovo	3.37	318	ePn	Pn	00 12 32.6	+0.2
VAY				eSg	Sg	00 13 28.8	+0.4
IZI	Iznik	3.38	63	ePN	Pn	00 12 33.0	+0.5
IZI	Iznik	3.38	63	ePn	Pn	00 12 33.0	+0.5
YLV	Yalova	3.41	58	ePN	Pn	00 12 34.5	+1.5
YLV	Yalova	3.41	58	ePn	Pn	00 12 34.5	+1.5
ISK	Istanbul-Kandi	3.49	49	ePN	Pn	00 12 35.0	+1.0
ISK	Istanbul-Kandi	3.49	49	ePn	Pn	00 12 35.0	+1.0
KARP	Karpathos	3.53	158	P	Pn	00 12 34.5	-0.1
KARP	Karpathos	3.53	158	ePN	Pn	00 12 34.0	-0.6
KARP	Karpathos	3.53	158	ePn	Pn	00 12 34.0	-0.6
GOLH	Golhisar	3.55	116	i P	Pn	00 12 36.4	+1.6
GOLH				i S	Sg	00 13 36.4	+2.4
FETY	Fethiye	3.56	127	ePN	Pn	00 12 35.0	0.0
FETY	Fethiye	3.56	127	ePn	Pn	00 12 35.0	0.0
ADVT	Abdulvahap	3.60	63	ePN	Pn	00 12 36.4	+0.9
ADVT	Abdulvahap	3.60	63	ePn	Pn	00 12 36.4	+0.9
KLYT	Kilyos	3.60	47	ePN	Pn	00 12 36.8	+1.3
KLYT	Kilyos	3.60	47	ePn	Pn	00 12 36.8	+1.3
JMB	Yambol	3.70	12	ePn	Pn	00 12 36.0	-0.9
JMB	Yambol	3.70	12	ePn	Pn	00 12 36.0	-1.0
HRT	Hereke	3.73	57	ePN	Pn	00 12 38.5	+1.1
HRT	Hereke	3.73	57	ePn	Pn	00 12 38.5	+1.1
FNA	Florina	3.76	302	ePn	Pn	00 12 38.4	+0.6
FNA	Florina	3.76	302	ePn	Pn	00 12 38.3	+0.6
STIP	Stip	3.84	319	ePn	Pn	00 12 39.5	+0.6
STIP				eSg	Sg	00 13 42.7	-0.7
STIP	Stip	3.84	319	ePn	Pn	00 12 39.4	+0.5
STIP				eSg	Sg	00 13 42.6	-0.8
GULT	Gulveren	4.14	66	ePN	Pn	00 12 44.7	+1.7
GULT	Gulveren	4.14	66	ePn	Pn	00 12 44.7	+1.7
VTS	Vitosha	4.15	335	P	Pn	00 12 45.0	+1.9
ESKT	Eskisehir	4.17	79	i P	Pn	00 12 44.5	+1.1
ESKT				i S	Sb	00 13 41.7	-1.8
SEYT	Eskypehyr	4.17	79	i P	Pn	00 12 44.5	+1.1
MLR	Muntele Rosu	6.65	2	⇑iP	Pn	00 13 18.4	+1.0
GZR	Gura Zlata	6.86	343	⇓iP	Pn	00 13 20.4	0.0
PLOR	Plostina	7.05	6	⇑iP	Pn	00 13 25.6	+2.7
BZS	Buzias	7.37	338	⇓iP	Pn	00 13 26.9	-0.4

*NEIC **05** 01:02:28.5±2.2, 2932S×6697W, h98^{km}±30^{km}, mb4.1/2,*
Error ellipse: s-maj=32.0km s-min=19.7km az=82.0
*ISCJB **05** 01:02:38.1±2.3, 29.18S±0.06×68.2W±0.3, h171^{km}±23^{km},*
mb3.9/2, Error ellipse: s-maj=39.9km s-min=9.4km az=3.8
*GUC **05** 01:02:38.6±0.8, 29.14S×68.05W, h130^{km}, ML4.1*
ISC 05 01:02:38.4±2.2**, 2918S**±006×**681W**±03**, h152**^{km}±24^{km}**, n13,**
σ0^{s}85/22**, mb3.9**/2**, 2C-1D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCO	Las Campanas	2.29	274	⇓ePn	Pn	01 03 17.8	+0.8
LCO				eSn	Sn	01 03 47.0	+0.3
VACH	Vallenar	2.41	284	i P	Pn	01 03 19.6	+1.1
VACH				i S	Sn	01 03 50.3	+0.9
VACH	Vallenar	2.41	284	i P	Pn	01 03 19.6	+1.1
VACH				i S	Sn	01 03 50.3	+0.9
VACH				AML	AML	01 03 54.7	
	comp=E,676nm,0.1s						
TLL	Tololo Astrono	2.55	247	i S	Sn	01 03 53.5	+1.0
TLL				AML	AML	01 03 55.8	
	comp=N,276nm,0.4s						
CPCH	Copiapo	2.70	312	⇑iP	Pn	01 03 22.1	+0.1
CPCH				i S	Sn	01 03 54.8	-0.8
CPCH	Copiapo	2.70	312	⇑iP	Pn	01 03 22.1	+0.1
CPCH				i S	Sn	01 03 54.8	-0.8
CPCH				AML	AML	01 03 57.2	
	comp=E,3µm,0.2s						
CDCH	Caldera	3.20	310	eP	Pn	01 03 28.7	+0.3
CDCH				i S	Sn	01 04 05.6	-1.5
CDCH	Caldera	3.20	310	eP	Pn	01 03 28.7	+0.3
CDCH				i S	Sn	01 04 05.6	-1.5
CDCH				AML	AML	01 04 07.3	
	comp=N,103nm,0.5s						
CMCH	Combarbala	3.21	231	eP	Pn	01 03 27.2	-1.2
CMCH				i S	Sn	01 04 05.8	-1.3
CMCH	Combarbala	3.21	231	eP	Pn	01 03 27.2	-1.2
CMCH				i S	Sn	01 04 05.8	-1.3
CMCH				AML	AML	01 04 07.3	
	comp=E,538nm,0.5s						
CPN1	Cerro Paranal	4.98	335	eS	Sn	01 04 48.8	0.0
OTAV	Otavalo	30.88	340	P	P	01 08 40.7	+0.2
	comp=E,1.4nm,0.7s,mb3.8						
RCBR	Riachuelo	38.26	59	eP	P	01 09 33.1	-11
	comp=E,3.7nm,0.8s,mb4.1						

IDC 05 01:15:07.0±4.0**, 2064N**×**14669E, h0**^{km}**, mb3.7**/6**,**
mb1 3.8/7**, mb1mx3.6**/22**, mbtmp3.7**/7**, ML4.1**/1**, Error**
ellipse: s-maj=99.5km s-min=45.1km az=7.0, Mariana
Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	Matsushiro Arr	17.50	337	P	Pn	01 19 14.2	+1.8
	0.6nm,0.3s,baz=316,slow=17,SNR=3.6						
KSRS	Korea Array	23.38	320	P	P	01 20 16.1	-1.4
	0.8nm,0.5s,baz=152,slow=31,SNR=4.3						
SONM	Songino Array	42.25	320	P	P	01 23 01.9	0.0
	0.1nm,0.3s,baz=141,slow=9.3,SNR=3.7						
ZALV	Zalesovo Beam	57.07	322	P	P	01 24 55.2	+0.4
	0.8nm,0.6s,baz=105,slow=7.9,SNR=5.4						
MKAR	Makanchi Array	57.82	313	P	P	01 25 00.3	+0.1
	0.2nm,0.4s,baz=96,slow=8.1,SNR=4.9						
INK	Inuvik	67.23	23	P	P	01 26 02.5	-0.4
	1.1nm,0.9s,baz=220,slow=15,SNR=5.9						
FINES	FINESS Array B	85.52	335	P	P	01 27 47.4	+0.6
	2.3nm,1.0s,baz=66,slow=4.8,SNR=4.7						

*ISK **05** 01:30:43.5, 39.01N×26.08E, h5^{km}, MD3.3*
*ATH **05** 01:31:40.4, 39.35N×26.94E, h10^{km}, MD3.4/3*
*ISCJB **05** 01:31:44.9±0.9, 39.03N±0.03×26.12E±0.08, h12^{km}±5^{km},*
Error ellipse: s-maj=10.7km s-min=4.1km az=157.8
*CSEM **05** 01:31:44.5±0.2, 39.11N×26.02E, h25^{km}, MD3.1, Error*
ellipse: s-maj=4.8km s-min=2.9km az=75.0
*DDA **05** 01:31:47.3, 39.12N×26.26E, h6^{km}±3^{km}, Md3.1*
ISC 05 01:31:45.0±0.9**, 3902N**±003×**2606E**±008**, h14**^{km}±4^{km}**, n41,**
σ0^{s}95/53**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PRK	Paraskevi	0.28	35	ePB	Pg	01 31 50.7	-0.2
PRK	Paraskevi	0.28	35	ePb	Pg	01 31 50.7	-0.2
BOZC	Bozcaada	0.82	359	i P	Pg	01 32 00.6	-0.4
BOZC				i S	Sg	01 32 11.8	0.0
EZN	Ezine	0.83	14	PG	Pg	01 32 00.8	-0.3
EZN				SG	Sg	01 32 12.5	+0.4
EZN	Ezine	0.83	14	ePg	Pg	01 32 00.8	-0.3
EZN				eSg	Sg	01 32 12.5	+0.4
BLCB	Balcova	0.99	129	PG	Pg	01 32 03.4	-0.7
BLCB				SG	Sg	01 32 16.7	-0.4
BLCB	Balcova	0.99	129	ePg	Pg	01 32 03.4	-0.7
BLCB				eSg	Sg	01 32 16.7	-0.4
IZM	Izmir	1.12	123	PN	Pn	01 32 04.6	-1.6
IZM				SN	Sn	01 32 20.6	-0.8
IZM	Izmir	1.12	123	ePn	Pn	01 32 04.6	-1.6
IZM				eSn	Sn	01 32 20.6	-0.8
KDAG	Bornova	1.12	123	i P	Pb	01 32 06.0	-0.2
KDAG				i S	Sb	01 32 21.8	+1.2
GADA	Gvkgeada	1.18	354	PN	Pn	01 32 05.8	-1.2
GADA				SN	Sn	01 32 22.5	-0.4
GADA	Gvkgeada	1.18	354	ePn	Pn	01 32 05.8	-1.2
GADA				eSn	Sn	01 32 22.5	-0.4
AKS	Akhisar	1.37	95	PN	Pn	01 32 09.5	-0.1
AKS	Akhisar	1.37	95	ePn	Pn	01 32 09.5	-0.1
SMG	Samos	1.44	155	ePB	Pb	01 32 11.2	-0.3
SMG	Samos	1.44	155	ePb	Pb	01 32 11.2	-0.3
BTOK	Tokmak	1.70	63	i P	Pn	01 32 14.0	-0.1
BTOK				i S	Sn	01 32 33.8	-1.8
ENEZ	Enez	1.72	2	ePN	Pn	01 32 14.5	+0.1
ENEZ	Enez	1.72	2	ePn	Pn	01 32 14.5	+0.1
RKY	Sarkoy-Tekirda	1.88	27	ePN	Pn	01 32 17.5	+0.9
RKY	Sarkoy-Tekirda	1.88	27	ePn	Pn	01 32 17.5	+0.9
EDC	Edincik	1.92	46	ePN	Pn	01 32 17.4	+0.2
EDC	Edincik	1.92	46	ePn	Pn	01 32 17.4	+0.2
BNT	Bandirma	1.96	46	ePN	Pn	01 32 17.4	-0.3
RDO	Rodhopi	2.17	349	ePN	Pn	01 32 17.8	-2.8
RDO	Rodhopi	2.17	349	ePn	Pn	01 32 17.8	-2.8
KCT	Karacabey	2.17	54	ePN	Pn	01 32 20.6	0.0
KCT	Karacabey	2.17	54	ePn	Pn	01 32 20.6	0.0
MLSB	Milas	2.19	141	ePN	Pn	01 32 21.6	+0.8
MLSB	Milas	2.19	141	ePn	Pn	01 32 21.6	+0.8
YER	Yerkesik	2.57	136	ePN	Pn	01 32 26.8	+0.7
YER	Yerkesik	2.57	136	ePn	Pn	01 32 26.8	+0.7
ULDT	Uludag	2.63	64	i P	Pn	01 32 28.3	+1.4
ULDT				i S	Sn	01 32 57.6	-1.0
EDRB	Edirne	2.88	10	ePN	Pn	01 32 31.9	+1.6
EDRB	Edirne	2.88	10	ePn	Pn	01 32 31.9	+1.6
IZI	Iznik	2.94	62	ePN	Pn	01 32 32.6	+1.4
IZI	Iznik	2.94	62	ePn	Pn	01 32 32.6	+1.4
YLV	Yalova	2.98	58	ePN	Pn	01 32 33.5	+1.7
YLV	Yalova	2.98	58	ePn	Pn	01 32 33.5	+1.7
ADVT	Abdulvahap	3.17	62	ePN	Pn	01 32 35.4	+1.1
ADVT	Abdulvahap	3.17	62	ePn	Pn	01 32 35.4	+1.1

*ISCJB **05** 01:38:02.1±1.2, 19.41N±0.04×77.99W±0.07, h8^{km}±9^{km},*
Error ellipse: s-maj=12.1km s-min=6.1km az=15.6
*SSNC **05** 01:38:02.6, 19.11N×78.14W, h25^{km}, MD3.3, ML2.2*
*JSN **05** 01:38:02.7±1.1, 19.55N×78.11W, h31^{km}±999^{km}, MD3.8,*
MW4.0
ISC 05 01:38:02.6±1.4**, 1938N**±004×**7801W**±007**, h9**^{km}±10^{km}**, n9,**
σ0^{s}45/16**, 3D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LMGC	Las Mercedes	1.17	54	ePG	Pg	01 38 25.1	0.0
LMGC				eSG	Sg	01 38 40.0	-0.3
	comp=N,233nm,0.1s						
LMGC				e			
	comp=E,393nm,0.1s						
BBJ	Bamboo Saint A	1.21	144	eS	Sb	01 38 41.9	+0.4
CVJ	Coleyville	1.23	158	⇓iP	Pn	01 38 25.3	-0.6
MCJ	Malvern	1.47	168	eP	Pn	01 38 28.5	-0.8
MCJ				eS	Sn	01 38 48.7	-0.1
STH	Stony Hill	1.72	138	⇓eP	Pn	01 38 32.7	0.0
STH				eS	Sn	01 38 54.6	-0.3
PCJ	Portland Cotta	1.81	153	⇓eP	Pn	01 38 34.4	+0.3
PCJ				eS	Sn	01 38 58.2	+1.0
CCCC	Cccc	1.83	7	eP	Pn	01 38 34.3	0.0
CCCC				eS	Sg	01 39 01.9	+0.4
	comp=N,0.5nm,0.5s						
CCCC				e			
	comp=E,0.6nm,0.5s						
RCC	Rio Carpintero	2.27	74	ePG	Pn	01 38 40.4	+0.1
RCC				eSG	Sn	01 39 08.7	+0.4
	comp=N,40nm,0.3s						
RCC				e			
	comp=E,44nm,0.3s						
GTMO	Guantanamo	2.79	75	eP	Pn	01 38 47.6	+0.1
GTMO				eS	Sn	01 39 20.7	-0.7
	comp=N,2.9nm,0.2s						
GTMO				e			
	comp=E,3.0nm,0.1s						

*SSNC **05** 02:01:11.5, 19.08N×78.23W, h20^{km}, MD3.0, ML1.5*
*ISCJB **05** 02:01:13.6±0.8, 19.42N±0.04×77.71W±0.06, h10^{km}, Error*
ellipse: s-maj=8.7km s-min=5.9km az=11.2
*JSN **05** 02:01:13.8±0.7, 19.41N×78.25W, h24^{km}±263^{km}, MD3.7*
ISC 05 02:01:14.4±0.7**, 1937N**±004×**7774W**±006**, h10**^{km}**, n7,**
σ1^{s}36/12**, 4C, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CVJ	Coleyville	1.16	170	⇑iP	Pb	02 01 36.0	-0.5
MCJ	Malvern	1.44	178	⇑eP	Pn	02 01 39.2	-1.3
MCJ				eS	Sn	02 01 57.9	-1.6
STH	Stony Hill	1.56	146	⇑eP	Pn	02 01 43.5	+1.3
STH				eS	Sn	02 02 06.1	+3.6
PCJ	Portland Cotta	1.71	161	⇑eP	Pn	02 01 45.1	+0.8
PCJ				eS	Sn	02 02 08.2	+1.9
CCCC	Cccc	1.82	359	eP	Pn	02 01 44.7	-1.0
CCCC				eS	Sn	02 02 11.0	+2.2
	comp=N,0.2nm,0.1s						
CCCC				e			
	comp=E,0.2nm,0.1s						
RCC	Rio Carpintero	2.02	72	ePG	Pg	02 01 51.2	-2.0
	baz=254						
RCC				eSG	Sg	02 02 19.3	-0.1
	comp=N,19nm,0.1s						
RCC				e			
	comp=E,31nm,0.2s						
MGV	Manicaragua	3.44	323	eP	Pn	02 02 07.9	-0.1

*ISCJB **05** 02:32:54.4±1.2, 19.42N±0.03×78.07W±0.06, h7^{km}±7^{km},*
Error ellipse: s-maj=9.1km s-min=5.0km az=9.1
*JSN **05** 02:32:55.6±1.3, 19.38N×78.19W, h4^{km}±14^{km}, MD4.3*
*SSNC **05** 02:32:56.9, 19.37N×78.25W, h25^{km}, MD3.2, ML2.1*
ISC 05 02:32:54.9±1.2**, 1940N**±003×**7808W**±006**, h9**^{km}±7^{km}**, n13,**
σ0^{s}86/21**, 6D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBJ	Montego Bay	1.02	168	eS	Sg	02 33 27.4	-0.2
LMGC	Las Mercedes	1.21	57	ePG	Pg	02 33 18.1	+0.1
LMGC				eSG	Sg	02 33 33.8	+0.1
	comp=N,207nm,0.2s						
LMGC				e			
	comp=E,270nm,0.2s						
BBJ	Bamboo Saint A	1.27	143	⇓iP	Pn	02 33 18.9	0.0
CVJ	Coleyville	1.28	156	⇓iP	Pn	02 33 18.5	-0.5
MCJ	Malvern	1.52	166	⇓eP	Pn	02 33 21.7	-0.5
MCJ				eS	Sn	02 33 41.5	-0.6
STH	Stony Hill	1.79	137	⇓eP	Pn	02 33 25.8	-0.2
STH				eS	Sn	02 33 48.7	-0.1
CCCC	Cccc	1.81	9	eP	Pn	02 33 27.0	+0.7
CCCC				eS	Sn	02 33 50.0	+0.6
	comp=N,0.9nm,0.3s						
CCCC				e			
	comp=E,1.3nm,0.6s						
PCJ	Portland Cotta	1.87	152	⇓iP	Pn	02 33 27.5	+0.4
PCJ				eS	Sn	02 33 52.0	+1.2
CMJ	Castle Mountai	2.05	128	⇓eP	Pn	02 33 31.5	+1.9
RCC	Rio Carpintero	2.32	75	ePG	Pn	02 33 33.3	0.0
RCC				eSG	Sn	02 34 01.3	-0.7

	comp=N,46nm,0.6s						
RCC				*e*			
	comp=E,45nm,0.5s						
GTMO	**Guantanamo**	**2.85**	**76**	*e*P	**Pn**	**02 33 39.9**	**-0.7**
GTMO				*e*S	**Sn**	**02 34 13.5**	**-1.6**
	comp=N,3.2nm,0.4s						
GTMO				*e*			
	comp=E,2.2nm,0.1s						
MGV	**Manicaragua**	**3.23**	**327**	*e*P	**Pn**	**02 33 44.9**	**-0.9**
MASC	**Masc**	**3.71**	**77**	*e*P	**Pn**	**02 33 56.3**	**+4.0**
MASC				*e*S	**Sn**	**02 34 39.5**	**+3.3**
	comp=N,0.4nm,0.2s						
MASC				*e*			
	comp=E,1.2nm,0.2s						

MAN 05 02:55:30, 1251N×12349E, h1^{km}, mb4.3, ML3.1, MS2.9, 2C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNP	**Catarman**	**1.15**	**90**	*e*P	Pg	02 55 52.8	+0.7
CNP				*e*S	Sg	02 56 10.1	+3.2
RCP	**Roxas**	**1.19**	**218**	⇑*e*P	Pg	02 55 54.9	+2.1
RCP				*e*S	Sg	02 56 12.3	+4.1
OTRP	**Odiongan**	**1.44**	**264**	*e*P	Pn	02 55 57.7	+0.5
GQP	**Guinayangan**	**1.72**	**324**	⇑*e*P	Pn	02 56 01.3	+0.2
GQP				*e*S	Sn	02 56 26.0	+2.2
BOAC	**Boac**	**1.86**	**301**	*e*P	Pn	02 56 02.8	-0.2
BOAC				*e*S	Sn	02 56 32.0	+4.8
PLP	**Palo**	**1.98**	**132**	*e*P	Pn	02 56 05.2	+0.6
GUIM	**Jordan**	**2.06**	**205**	*e*P	Pn	02 56 09.8	+4.0
GUIM				*e*S	Sn	02 56 39.5	+7.3
POLP	**Polilio Island**	**2.67**	**326**	*e*P	Pn	02 56 18.7	+4.5
TBP	**Tagbilaran**	**2.82**	**172**	*e*P	Pn	02 56 18.5	+2.3
ENPP	**El Nido**	**4.18**	**252**	*e*P	Pn	02 56 36.6	+1.7

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*NEIC **05** 03:05:08.4, 1979N×6898W, h25^{km}, MD3.7(RSPR), After RSPR.*

RSPR 05 03:05:08.4, 1979N×6898W, h25$^{km}\pm$36^{km}, MD3.7/6, **MD3.7**/6, **10C, North Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGPR	**Aguadilla, PR**	**2.21**	**126**	⇑*e*P	Pn	03 05 41.9	-1.5
AGPR				*e*S	Sn	03 06 06.8	-3.1
LSP	**Las Mesas**	**2.41**	**132**	⇑*e*P	Pn	03 05 44.9	-1.3
LSP				*e*S	Sn	03 06 13.5	-1.5
CRPR	**Cabo Rojo, PR**	**2.51**	**135**	⇑*e*P	Pn	03 05 45.3	-2.3
CRPR				*e*S	Sn	03 06 14.8	-2.6
LRS	**Lares**	**2.51**	**126**	⇑*e*P	Pn	03 05 46.1	-1.6
LRS				*e*S	Sn	03 06 14.8	-2.8
AOPR	**Arecibo Observ**	**2.55**	**124**	*e*S	Sn	03 06 16.4	-2.1
AOPR	**Arecibo Observ**	**2.55**	**124**	⇑*e*P	Pn	03 05 47.0	-1.2
AOPR				*e*S	Sn	03 06 16.4	-2.1
SJG	**San Juan**	**3.16**	**121**	⇑*e*P	Pn	03 05 54.3	-2.2
SJG				*e*S	Sn	03 06 31.1	-2.4
CBYP	**Canovanas**	**3.32**	**117**	*e*S	Sn	03 06 35.7	-1.8
CBYP	**Canovanas**	**3.32**	**117**	⇑*e*P	Pn	03 05 57.2	-1.6
CBYP				*e*S	Sn	03 06 35.7	-1.8
CPD	**Cerro la Pandu**	**3.39**	**120**	*e*S	Sn	03 06 37.5	-1.6
CPD	**Cerro la Pandu**	**3.39**	**120**	⇑*e*P	Pn	03 05 58.9	-0.8
CPD				*e*S	Sn	03 06 37.5	-1.6
HUMP	**Col San Antoni**	**3.39**	**118**	⇑*e*P	Pn	03 05 58.0	-1.7
HUMP				*e*S	Sn	03 06 37.3	-1.8
MTP	**Monte Pirata**	**3.66**	**117**	⇑*e*P	Pn	03 06 01.7	-1.7
MTP				*e*S	Sn	03 06 44.0	-1.7

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*ISCJB **05** 03:06:34.7±1.9, 1938N±006×781W±01, h9^{km}, Error ellipse: s-maj=18.8km s-min=4.9km az=21.9*

*SSNC **05** 03:06:36.6, 2091N×7810W, h20^{km}, MD3.0, ML3.5*

*JSN **05** 03:06:36.2±1.1, 1936N×7819W, h9$^{km}\pm$7^{km}, MD4.2*

ISC 05 03:06:36.2±1.9, **1935N**±006×**780W**±02, **h9$^{km}\pm$9^{km}, n13,** σ**0^{s}75**/20, **8D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBJ	**Montego Bay**	**0.95**	**174**	⇓*i*P	**Pg**	**03 06 54.0**	**-0.4**
MBJ				*i* S	**Sg**	**03 07 06.5**	**-0.3**
LMGC	**Las Mercedes**	**1.15**	**52**	*e*P	**Pb**	**03 06 58.1**	**-0.2**
LMGC				*e*S	**Sb**	**03 07 13.8**	**+0.5**
	comp=N,3µm,0.2s						
LMGC				*e*			
	comp=E,2µm,0.1s						
BBJ	**Bamboo Saint A**	**1.17**	**145**	⇓*i*P	**Pb**	**03 06 59.0**	**+0.5**
CVJ	**Coleyville**	**1.19**	**160**	⇓*i*P	**Pb**	**03 06 58.6**	**-0.3**
BNJ	**Bonny Gate**	**1.40**	**137**	⇓*i*P	**Pn**	**03 07 02.2**	**+0.3**
MCJ	**Malvern**	**1.44**	**169**	⇓*e*P	**Pn**	**03 07 01.8**	**-0.7**
MCJ				*i* S	**Sn**	**03 07 20.3**	**-1.2**
STH	**Stony Hill**	**1.67**	**139**	⇓*i*P	**Pn**	**03 07 05.8**	**+0.2**
PCJ	**Portland Cotta**	**1.77**	**154**	⇓*i*P	**Pn**	**03 07 07.6**	**+0.6**
PCJ				*i* S	**Sn**	**03 07 31.1**	**+1.4**
CMJ	**Castle Mountai**	**1.93**	**128**	⇓*e*P	**Pn**	**03 07 09.9**	**+0.7**
RCC	**Rio Carpintero**	**2.23**	**73**	*e*PG	**Pn**	**03 07 13.2**	**-0.2**
RCC				*e*SG	**Sn**	**03 07 40.4**	**-0.7**
	comp=N,320nm,0.3s						
RCC				*e*			
	comp=E,366nm,0.5s						
GTMO	**Guantanamo**	**2.76**	**74**	*e*P	**Pn**	**03 07 20.1**	**-0.5**
GTMO				*e*S	**Sn**	**03 07 52.8**	**-1.3**
	comp=N,21nm,0.2s						
GTMO				*e*			
	comp=E,38nm,0.1s						
MGV	**Manicaragua**	**3.33**	**326**	*e*S	**Sn**	**03 07 55.4**	**-13**
	comp=N,69nm,0.4s						
MGV				*e*			
	comp=E,44nm,0.3s						
MASC	**Masc**	**3.61**	**76**	*e*P	**Pn**	**03 07 33.8**	**+1.5**
MASC				*e*S	**Sn**	**03 08 19.6**	**+4.5**
	comp=N,5.4nm,0.2s						
MASC				*e*			
	comp=E,6.1nm,0.2s						

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*NEIC **05** 03:11:51.8, 2702S×2680E, h2^{km}, mb4.5/4, ML4.2(PRE), After PRE.*

*ISCJB **05** 03:11:52.1±0.3, 2701S±003×2671E±004, h10^{km}, mb4.1/16, Error ellipse: s-maj=5.0km s-min=3.4km az=18.3*

*PRE **05** 03:11:52.1±1.2, 2699S×2678E, h2^{km}, ML4.4*

*IDC **05** 03:11:52.5±0.8, 2699S×2659E, h0^{km}, mb4.1/8, mb1 4.4/12, mb1mx4.1/23, mbtmp4.3/12, ML4.5/3, Error ellipse: s-maj=18.8km s-min=10.6km az=104.0*

ISC 05 03:11:52.4±1.0, **2700S**±003×**2675E**±004, **h1$^{km}\pm$6^{km}, n60,** σ**0^{s}90**/73, **mb4.3**/16, **South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KLOF	**Kloof**	**1.01**	**50**	*e*P	**Pg**	**03 12 11.1**	**-0.6**
KLOF				*e*S	**Sg**	**03 12 23.9**	**-0.9**
KLOF				AML	AML	03 12 29.2	
	comp=Z,17µm,0.2s						
KSR	**Koster**	**1.16**	**7**	*e*P	**Pg**	**03 12 14.3**	**-0.3**
KSR				*e*S	**Sg**	**03 12 29.8**	**+0.3**
KSR				AML	AML	03 12 33.1	
	comp=Z,4µm,0.2s						
SEK	**Senekal**	**1.53**	**150**	*e*P	**Pn**	**03 12 21.4**	**+0.6**
SEK				*e*S	**Sn**	**03 12 41.8**	**+0.5**
SEK				AML	AML	03 12 43.4	
	comp=Z,3µm,0.5s						
SLR	**Silverton**	**1.87**	**48**	*e*P	**Pn**	**03 12 25.0**	**-0.5**
SLR				*e*S	**Sn**	**03 12 49.6**	**-0.1**
SLR				AML	AML	03 12 52.1	
	comp=Z,2µm,0.3s						
BOSA	**Boshof**	**2.08**	**219**	Pg	**Pn**	**03 12 28.7**	**+0.3**
BOSA				Lg		03 12 56.5	
BOSA				Rg		03 13 05.0	
BOSA	**Boshof**	**2.08**	**219**	Pg	**Pn**	**03 12 28.7**	**+0.3**
	comp=Z,78nm,0.3s,baz=42,slow=16,SNR=535						
BOSA				Lg		03 12 56.5	
	comp=Z,120nm,0.3s,baz=121,slow=21,SNR=8.3						
BOSA				Rg		03 13 05.0	
	comp=Z,252nm,0.4s,baz=298,slow=18,SNR=5.5						
LBTB	**Lobatse**	**2.24**	**332**	*e*P	**Pn**	**03 12 31.0**	**+0.4**
LBTB				*e*S	**Sn**	**03 12 59.0**	**+0.1**
LBTB				AML	AML	03 13 02.5	
	comp=Z,1µm,0.5s						
LBTB	**Lobatse**	**2.24**	**332**	Pn	**Pn**	**03 12 31.5**	**+0.9**
LBTB				Lg		03 13 01.6	
LBTB				Rg		03 13 09.7	
LBTB	**Lobatse**	**2.24**	**332**	Pn	**Pn**	**03 12 31.5**	**+0.9**
	comp=Z,212nm,0.3s,baz=166,slow=13,SNR=666						
LBTB				Lg		03 13 01.6	
	comp=Z,540nm,0.3s,baz=66,slow=15,SNR=39						
LBTB				Rg		03 13 09.7	
	comp=Z,1µm,0.9s,baz=44,slow=9.2,SNR=13						
KSD	**Kokstad**	**4.23**	**147**	*e*P	**Pn**	**03 12 58.8**	**+0.7**
KSD				*e*S	**Sn**	**03 13 46.5**	**-1.6**
KSD				AML	AML	03 14 04.4	
	comp=Z,249nm,0.6s						
PKA	**Prieska**	**4.41**	**232**	*e*P	**Pn**	**03 13 01.2**	**+0.7**
PKA				*e*S	**Sn**	**03 13 52.2**	**-0.3**
PKA				AML	AML	03 14 11.9	
	comp=Z,246nm,0.4s						
MSNA	**Messina**	**5.51**	**33**	*e*P	**Pn**	**03 13 14.9**	**-0.7**
MSNA				*e*S	**Sn**	**03 14 13.7**	**-5.9**
MSNA				AML	AML	03 14 48.1	
	comp=Z,360nm,0.7s						
GRM	**Grahamstown**	**6.29**	**182**	*e*P	**Pn**	**03 13 27.7**	**+1.4**
GRM				*e*S	**Sn**	**03 14 36.6**	**-2.3**
GRM				AML	AML	03 15 16.9	
	comp=Z,70nm,0.6s						
MATP	**Matopo**	**6.74**	**14**	Pn	**Pn**	**03 13 32.2**	**-0.3**
MATP				Sn	**Sn**	**03 14 45.0**	**-5.0**
MATP				Lg		03 15 19.0	
MATP	**Matopo**	**6.74**	**14**	Pn	**Pn**	**03 13 32.2**	**-0.3**
	comp=Z,9.8nm,0.3s,baz=195,slow=13,SNR=186						
MATP				Sn	**Sn**	**03 14 45.0**	**-5.0**
	comp=Z,8.2nm,0.3s,baz=264,slow=21,SNR=7.1						
MATP				Lg		03 15 19.0	
	comp=Z,32nm,0.3s,baz=108,slow=19,SNR=13						
SUR	**Sutherland**	**7.44**	**223**	*e*P	**Pn**	**03 13 42.9**	**+0.7**
SUR				*e*S	**Sn**	**03 15 04.4**	**-2.7**
SUR	**Sutherland**	**7.44**	**223**	Pn	**Pn**	**03 13 42.3**	**+0.1**
SUR				Sn	**Sn**	**03 15 03.7**	**-3.5**
SUR				Lg		03 15 43.6	
SUR	**Sutherland**	**7.44**	**223**	Pn	**Pn**	**03 13 42.3**	**+0.1**
	comp=Z,7.3nm,0.3s,baz=63,slow=14,SNR=47						
SUR				Sn	**Sn**	**03 15 03.7**	**-3.5**
	comp=Z,6.2nm,0.3s,baz=54,slow=19,SNR=6.4						
SUR				Lg		03 15 43.6	
	comp=Z,22nm,0.3s,baz=126,slow=22,SNR=5.8						
CVNA	**Calvinia**	**7.56**	**232**	*e*P	**Pn**	**03 13 44.6**	**+0.9**
CVNA				*e*S	**Sn**	**03 15 07.2**	**-3.0**
CVNA				AML	AML	03 15 49.6	
	comp=Z,170nm,0.5s						
CER	**Ceres**	**9.04**	**224**	*e*P	**Pn**	**03 14 04.6**	**+0.5**
CER				*e*S	**Sn**	**03 15 42.5**	**-4.0**
CER				AML	AML	03 16 47.5	
	comp=Z,28nm,0.5s						
ELIM	**Elim**	**9.67**	**217**	*e*P	**Pn**	**03 14 13.1**	**+0.5**
ELIM				*e*S	**Sn**	**03 15 56.9**	**-5.0**
ELIM				AML	AML	03 17 14.4	
	comp=Z,45nm,0.6s						
TSUM	**Tsumeb**	**11.46**	**311**	Pn	**Pn**	**03 14 36.0**	**-1.3**
TSUM				Sn	**Sn**	**03 16 40.0**	**-6.1**
TSUM				Lg		03 17 50.9	
TSUM	**Tsumeb**	**11.46**	**311**	Pn	**Pn**	**03 14 36.0**	**-1.3**
	comp=Z,1.9nm,0.3s,baz=143,slow=13,SNR=34						
TSUM				Sn	**Sn**	**03 16 40.0**	**-6.1**
	comp=Z,1.3nm,0.3s,baz=73,slow=20,SNR=3.6						
TSUM				Lg		03 17 50.8	
	comp=Z,1.3nm,0.3s,baz=204,slow=20,SNR=10.0						
LSZ	**Lusaka**	**11.75**	**7**	Pn	**Pn**	**03 14 39.2**	**-1.9**
LSZ				Sn	**Sn**	**03 16 45.2**	**-7.8**
LSZ				Lg		03 17 54.5	
LSZ	**Lusaka**	**11.75**	**7**	Pn	**Pn**	**03 14 39.2**	**-1.9**
	comp=Z,3.1nm,0.3s,baz=188,slow=12,SNR=66						
LSZ				Sn	**Sn**	**03 16 45.2**	**-7.8**
	comp=Z,1.5nm,0.3s,baz=221,slow=6.8,SNR=5.6						
LSZ				Lg		03 17 54.5	
	comp=Z,1.5nm,0.3s,baz=275,slow=18,SNR=6.1						
OPO	**Ambohidratompo**	**20.61**	**70**	P	**P**	**03 16 35.0**	**+1.8**
	comp=Z,2.9nm,0.7s,baz=331,slow=11,SNR=3.1						
TOA0	**Torodi Ar. Sit**	**46.74**	**325**	*e*P	**P**	**03 20 22.0**	**-1.4**
TORD	**Torodi Ar. Bea**	**46.74**	**325**	P	**P**	**03 20 22.4**	**-1.0**
TORD	**Torodi Ar. Bea**	**46.74**	**325**	P	**P**	**03 20 22.4**	**-1.0**
	comp=Z,3.0nm,0.8s,mb4.5,baz=121,slow=5.9,SNR=39						
MALT	**Malatya**	**65.89**	**10**	*e*P	**P**	**03 22 40.9**	**+1.2**
	comp=Z,3.9nm,1.1s,mb4.5						
ESDC	**Sonseca Array**	**72.25**	**336**	P	**P**	**03 23 18.9**	**-0.3**
	comp=Z,0.6nm,0.4s,mb4.1,baz=153,slow=6.0,SNR=22						
ESLA	**Sonseca Array**	**72.25**	**336**	*e*P	**P**	**03 23 19.1**	**-0.1**
	comp=Z,0.5nm,0.8s,mb3.7						
VNDA	**Vanda**	**72.34**	**171**	P	**P**	**03 23 19.8**	**+0.4**
VNDA	**Vanda**	**72.34**	**171**	P	**P**	**03 23 19.8**	**+0.4**
	comp=Z,2.8nm,1.0s,mb4.3,baz=233,slow=10,SNR=2.3						
LASF	**Ste Croix**	**73.78**	**343**	*e*P	**P**	**03 23 28.5**	**+0.4**
	comp=Z,11nm,1.0s,mb4.5						
EPF	**Esparros**	**73.81**	**340**	*e*P	**P**	**03 23 28.5**	**+0.2**
	comp=Z,3.7nm,0.9s,mb4.4						
EPF	**Esparros**	**73.81**	**340**	*e*P	**P**	**03 23 28.5**	**+0.2**
	comp=Z,7.3nm,0.9s,mb4.4						
LPG	**La Plagne**	**74.42**	**346**	*e*P	**P**	**03 23 33.2**	**+1.4**
LPL	**La Plagne**	**74.44**	**346**	*e*P	**P**	**03 23 33.2**	**+1.2**
DAVOX	**Davos/Dischmat**	**75.01**	**348**	P	**P**	**03 23 34.8**	**-0.4**
	comp=Z,0.7nm,0.4s,mb4.1,baz=270,slow=6.1,SNR=3.2						
CABF	**La Chapelle**	**75.62**	**345**	*e*P	**P**	**03 23 38.9**	**+0.1**
	comp=Z,4.7nm,1.0s,mb4.6						
CABF	**La Chapelle**	**75.62**	**345**	*e*P	**P**	**03 23 38.9**	**+0.1**
	comp=Z,9.4nm,1.0s,mb4.6						
SMF	**Signal de Mont**	**76.18**	**344**	*e*P	**P**	**03 23 42.0**	**0.0**
	comp=Z,3.4nm,0.5s,mb4.4						
GERES	**GERESS Array B**	**76.40**	**351**	P	**P**	**03 23 43.9**	**+0.7**
	comp=Z,0.7nm,0.7s,mb3.9,baz=172,slow=5.1,SNR=6.1						
AVF	**Avril sur Loir**	**76.44**	**344**	*e*P	**P**	**03 23 43.6**	**+0.2**
	comp=Z,5.1nm,0.6s,mb4.5						
HINF	**Hinteralfeld**	**76.60**	**346**	*e*P	**P**	**03 23 44.2**	**-0.1**
SSF	**Saint Saulge**	**76.65**	**344**	*e*P	**P**	**03 23 44.5**	**-0.1**
	comp=Z,2.0nm,0.5s,mb4.2						
LOR	**Lormes**	**76.76**	**344**	*e*P	**P**	**03 23 45.1**	**-0.1**
	comp=Z,3.7nm,0.5s,mb4.4						
CDF	**Champ du Feu**	**77.08**	**347**	*e*P	**P**	**03 23 47.5**	**+0.5**
AKASG	**Malin Array Be**	**77.39**	**2**	P	**P**	**03 23 48.6**	**-0.1**
	comp=Z,0.8nm,0.4s,mb4.2,baz=184,slow=5.4,SNR=12						
BAIF	**Baives**	**79.29**	**345**	*e*P	**P**	**03 23 59.6**	**+0.4**
FINES	**FINESS Array B**	**88.13**	**360**	P	**P**	**03 24 44.0**	**-0.2**
	comp=Z,3.4nm,1.2s,mb4.6,baz=148,slow=4.3,SNR=7.4						
FVM	**French Village**	**126.78**	**299**	*e*P	Pdif	03 27 37.0	-1.3
TXAR	**Lajitas Array**	**136.49**	**285**	PKP	PKPdf	03 31 16.9	+0.4
TXAR	**Lajitas Array**	**136.49**	**285**	PKP	PKPdf	03 31 16.9	+0.4
	comp=Z,0.4nm,0.8s,baz=165,slow=5.2,SNR=4.4						
PDAR	**Pinedale Array**	**141.32**	**306**	PKP	PKPdf	03 31 22.8	-2.1
PDAR	**Pinedale Array**	**141.32**	**306**	PKP	PKPdf	03 31 22.8	-2.1
	comp=Z,0.3nm,0.4s,baz=72,slow=2.9,SNR=4.0						
NVAR	**Mina Array Bea**	**148.64**	**300**	PKPbc	PKPbc	03 31 43.2	+1.8
NVAR	**Mina Array Bea**	**148.64**	**300**	PKPbc	PKPbc	03 31 43.2	+1.8
	comp=Z,1.9nm,0.5s,baz=74,slow=5.4,SNR=21						
POHA	**Pohakuloa**	**172.49**	**163**	*e*PKPdf	PKPdf	03 32 03.2	-0.6

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*NEIC **05** 03:17:01.4±0.3, 1983S×6864W, h35^{km}, mb4.7/11, Error ellipse: s-maj=13.2km s-min=7.6km az=69.0*

*BJI **05** 03:17:01.3, 1980S×6860W, h35^{km}, mB4.9, Ms5.2, Msz4.9*

*ISCJB **05** 03:17:08.1±0.4, 2007S±006×6886W±007, h108^{km}, mb4.4/22, Error ellipse: s-maj=9.9km s-min=8.3km az=0.7*

*IDC **05** 03:17:09.8±0.6, 1995S×6896W, h110$^{km}\pm$3^{km}, mb4.0/11, mb1 4.2/14, mb1mx4.1/19, mbtmp4.1/14, Error ellipse: s-maj=17.3km s-min=12.4km az=76.0*

ISC 05 03:17:10.0±0.4, **2005S**±006×**6879W**±007, **h110^{km}, h110$^{km}\pm$**1.1^{km}**:pP-P, n304,** σ**0^{s}62**/289, **mb4.4**/22, **93C-96D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	**La Paz**	**3.79**	**10**	⇑*i*Pn	**Pn**	**03 18 08.5**	**+1.9**
LPAZ	**La Paz**	**3.79**	**10**	P	**Pn**	**03 18 07.8**	**+1.3**
	47nm,0.3s,baz=202,slow=6.0,SNR=732						
LPAZ				S	**Sn**	**03 18 51.6**	**+1.3**
	7.3nm,0.3s,baz=96,slow=21,SNR=1.5						
ARE	**Arequipa**	**4.39**	**324**	*e*P	**Pn**	**03 18 09.0**	**-5.7**
ARE				*i* S	**Sn**	**03 18 57.0**	**-7.9**
SIV	**San Ignacio**	**8.38**	**62**	P	**Pn**	**03 19 08.6**	**0.0**
	7.2nm,0.3s,baz=256,slow=12,SNR=275						
LCO	**Las Campanas**	**9.09**	**191**	*e*Pn	**Pn**	**03 19 13.4**	**-4.9**
	108nm,0.8s						
LCO				*e*Sn	**Sn**	**03 20 52.0**	**-6.8**
NNA	**Nana**	**11.14**	**315**	*e*Pn	**Pn**	**03 19 39.1**	**-7.0**
NNA				*e*Sn	**Sn**	**03 21 33.8**	**-15**
NNA	**Nana**	**11.14**	**315**	P	**Pn**	**03 19 39.7**	**-6.3**
	1.6nm,0.3s,baz=148,slow=14,SNR=6.5						
NNA				S	**Sn**	**03 21 35.0**	**-14**
	2.2nm,0.3s,baz=212,slow=11,SNR=4.2						
CFAA	**Coronel Fontan**	**11.52**	**178**	P	**Pn**	**03 19 48.0**	**-3.0**
CFAA				S	**Sn**	**03 21 50.5**	**-7.2**
CFAA	**Coronel Fontan**	**11.52**	**178**	P	**Pn**	**03 19 48.0**	**-3.0**
	0.2nm,0.3s,baz=354,slow=14,SNR=15						
CFAA				S	**Sn**	**03 21 50.5**	**-7.2**
	0.1nm,0.3s,baz=296,slow=11,SNR=3.6						
ATAH	**Atahualpa**	**15.97**	**323**	P	**Pn**	**03 20 46.2**	**-2.2**
	0.1nm,0.3s,baz=142,slow=15,SNR=2.4						
OTAV	**Otavalo**	**22.27**	**334**	*e*P	**P**	**03 21 58.7**	**+0.4**
	10nm,0.8s,mb4.2						
PCRV	**Puerto La Cruz**	**30.31**	**8**	P	**P**	**03 23 09.4**	**-1.7**
	9.4nm,0.9s,mb4.4,baz=135,slow=1.4,SNR=3.1						
RCBR	**Riachuelo**	**34.93**	**71**	*e*P	**P**	**03 23 46.8**	**-4.8**
	6.8nm,0.8s,mb4.5						
SJG	**San Juan**	**38.01**	**4**	P	**P**	**03 24 16.1**	**-1.4**
	6.7nm,0.3s,mb4.9,baz=198,slow=13,SNR=3.0						
TEIG	**Tepich**	**44.34**	**333**	*e*P	**P**	**03 25 07.2**	**-2.2**
	7.9nm,0.5s,mb4.7						
TEIG	**Tepich**	**44.34**	**333**	P	**P**	**03 25 07.6**	**-1.7**
	10.0nm,0.7s,mb4.7,baz=245,slow=21,SNR=3.3						
SWET	**Sewanee**	**57.32**	**343**	*e*P	**P**	**03 26 44.6**	**-1.8**
OXF	**Oxford**	**57.69**	**340**	*e*P	**P**	**03 26 46.7**	**-2.4**
MIAR	**Mount Ida**	**59.19**	**336**	*e*P	**P**	**03 26 55.6**	**-3.8**
	7.3nm,0.8s,mb4.8						
TXAR	**Lajitas Array**	**59.51**	**325**	P	**P**	**03 27 00.2**	**-1.6**
	1.4nm,0.9s,mb4.0,baz=154,slow=8.4,SNR=12						
PARMO	**Parma**	**59.78**	**341**	*e*P	**P**	**03 27 01.9**	**-1.6**
SIUC	**Southern Illin**	**60.59**	**341**	*e*P	**P**	**03 27 07.6**	**-1.4**
FVM	**French Village**	**61.20**	**341**	*e*P	**P**	**03 27 10.8**	**-2.3**
MNTX	**Cornudas Mount**	**62.27**	**325**	*e*P	**P**	**03 27 18.5**	**-2.0**
	8.1nm,1.3s,mb4.6						
SNAA	**Sanae**	**63.61**	**161**	P	**P**	**03 27 30.3**	**+1.5**
	0.8nm,0.6s,mb3.7,baz=280,slow=9.8,SNR=7.5						
Y22C	**IRIS PASSCAL I**	**64.92**	**326**	⇓P	**P**	**03 27 38.2**	**+0.4**
	baz=65						
CBKS	**Cedar Bluff**	**65.34**	**334**	*e*P	**P**	**03 27 38.4**	**-2.1**
	20nm,1.0s,mb4.9						
ANMO	**Albuquerque**	**65.36**	**326**	*e*P	**P**	**03 27 40.1**	**-0.5**
116A	**Eloy**	**66.49**	**321**	⇓P	**P**	**03 27 47.8**	**-0.1**
	baz=67						
115A	**Sonoran Desert**	**66.90**	**321**	⇑P	**P**	**03 27 50.8**	**+0.3**
	baz=67						
SDCO	**Great Sand Dun**	**67.06**	**329**	*e*P	**P**	**03 27 51.0**	**-0.5**
	7.5nm,1.0s,mb4.5						
Z14A	**Wintersburg**	**67.79**	**321**	⇓P	**P**	**03 27 55.7**	**-0.5**
	baz=68						
MVCO	**Mesa Verde**	**68.14**	**327**	⇓P	**P**	**03 27 58.0**	**-0.3**
	baz=68						
X15A	**Humboldt**	**68.18**	**322**	⇑P	**P**	**03 27 58.3**	**-0.3**
	baz=68						
Y14A	**Wickenburg**	**68.23**	**321**	⇑P	**P**	**03 27 58.9**	**0.0**
	baz=68						
ECSD	**EROS,Sioux Fal**	**68.41**	**339**	*e*P	**P**	**03 27 57.2**	**-2.6**
	238nm,1.1s						
WUAZ	**Wupatki**	**68.43**	**324**	*e*P	**P**	**03 28 00.5**	**+0.4**
	8.0nm,0.9s,mb4.5						
WUAZ	**Wupatki**	**68.43**	**324**	⇓P	**P**	**03 28 00.7**	**+0.6**
	baz=69						
X14A	**Yava**	**68.54**	**322**	⇑P	**P**	**03 28 01.2**	**+0.4**
	baz=69						
Y13A	**Salome**	**68.63**	**321**	P	**P**	**03 28 01.4**	**0.0**
	baz=69,SNR=5.1						
W15A	**Williams**	**68.69**	**323**	⇑P	**P**	**03 28 02.3**	**+0.6**
	baz=69						
PV01	**Paradox Valley**	**68.89**	**327**	*e*P	**P**	**03 28 02.8**	**-0.1**
Y12C	**Blythe**	**69.00**	**320**	⇓P	**P**	**03 28 03.7**	**0.0**
	baz=69						
PDMCI	**Parker Dam,Lak**	**69.16**	**321**	⇓P	**P**	**03 28 04.4**	**-0.2**
	baz=69						
X13A	**Yucca**	**69.18**	**321**	⇓P	**P**	**03 28 04.7**	**0.0**
	baz=69						
W14A	**Seligman**	**69.18**	**322**	⇓P	**P**	**03 28 04.8**	**+0.1**
	baz=69						
DVTC	**Desert V Tower**	**69.22**	**318**	⇓P	**P**	**03 28 05.3**	**+0.2**
	baz=69						
BC3	**Big Chuckw Mtn**	**69.50**	**320**	P	**P**	**03 28 06.9**	**+0.1**
	baz=70,SNR=5.2						
W13A	**Hualapai Mount**	**69.56**	**322**	⇑P	**P**	**03 28 07.4**	**+0.2**
	baz=70						
MONP	**Monument Peak**	**69.58**	**318**	⇑P	**P**	**03 28 07.3**	**+0.1**
	baz=70						
IRM	**Iron Mountain**	**69.66**	**320**	P	**P**	**03 28 07.8**	**0.0**
	baz=70,SNR=6.7						
NEE2	**Needles Airpor**	**69.76**	**321**	⇑P	**P**	**03 28 08.4**	**+0.1**
	baz=70						
PHWY	**Pilot Hill**	**69.87**	**331**	*e*P	**P**	**03 28 07.6**	**-1.3**
109C	**Camp Elliot, M**	**70.01**	**318**	⇓P	**P**	**03 28 09.6**	**-0.3**
	baz=70						
BELC	**Belle Mtn.**	**70.07**	**320**	⇓P	**P**	**03 28 10.2**	**-0.1**
	baz=70						
PFO	**Pinyon Flat Ob**	**70.08**	**319**	⇑P	**P**	**03 28 10.4**	**0.0**
	baz=70						
W12A	**Cal Nev Ari**	**70.28**	**321**	⇑P	**P**	**03 28 11.9**	**+0.4**
	baz=70						
GMRC	**Granite Mounta**	**70.39**	**320**	P	**P**	**03 28 12.8**	**+0.6**
	baz=71,SNR=6.2						
T14A	**Hurricane**	**70.50**	**324**	P	**P**	**03 28 12.8**	**-0.1**
	baz=71,SNR=6.1						
MURC	**Murrieta**	**70.54**	**319**	⇓P	**P**	**03 28 12.9**	**-0.2**
	baz=71						
V12A	**Nelson**	**70.57**	**322**	P	**P**	**03 28 13.2**	**0.0**
	baz=71,SNR=5.6						
SRU	**San Rafael**	**70.62**	**327**	*e*P	**P**	**03 28 13.4**	**-0.2**
BBRC	**Big Bear Sol-O**	**70.81**	**319**	⇑P	**P**	**03 28 15.2**	**+0.5**
	baz=71						
HEC	**Hector,Ludlow**	**70.83**	**320**	⇑P	**P**	**03 28 15.0**	**+0.1**
	baz=71						
U12A	**Valley of Fire**	**70.88**	**322**	P	**P**	**03 28 15.5**	**+0.4**
	baz=71,SNR=6.9						
T13A	**Saint George**	**70.93**	**323**	⇓P	**P**	**03 28 15.7**	**+0.3**
	baz=71						
V11A	**Goodsprings**	**70.98**	**321**	⇑P	**P**	**03 28 16.0**	**+0.3**
	baz=71						
TUQ	**Turquoise Mtn.**	**71.00**	**321**	⇑P	**P**	**03 28 16.1**	**+0.2**
	baz=71						
S14A	**Cedar City**	**71.05**	**324**	⇓P	**P**	**03 28 16.7**	**+0.5**
	baz=71						
MSU	**Marysvale**	**71.05**	**325**	*e*P	**P**	**03 28 16.4**	**+0.3**
BFSC	**Mount Baldy St**	**71.25**	**319**	⇑P	**P**	**03 28 17.6**	**+0.2**
	baz=71						
SHPR	**Sheep Range**	**71.29**	**322**	*e*P	**P**	**03 28 17.7**	**+0.1**
GSC	**Goldstone**	**71.44**	**320**	⇓P	**P**	**03 28 18.8**	**+0.3**
	baz=72						
SHOC	**Shoshone**	**71.53**	**321**	⇓P	**P**	**03 28 19.7**	**+0.7**
	baz=72						
DECC	**Green Verdugo**	**71.67**	**318**	⇑P	**P**	**03 28 20.6**	**+0.7**
	baz=72						
EDW2	**Edwards Air Fo**	**71.88**	**319**	⇓P	**P**	**03 28 21.0**	**-0.2**
	baz=72,SNR=6.2						
U10A	**Ash Meadows, A**	**71.91**	**321**	⇓P	**P**	**03 28 21.3**	**0.0**
	baz=72						
R12A	**Pony Springs,**	**72.25**	**324**	P	**P**	**03 28 24.3**	**+1.0**
	baz=72,SNR=6.3						
FURC	**Furnace Creek,**	**72.26**	**321**	P	**P**	**03 28 23.6**	**+0.2**
	baz=72,SNR=7.8						
MPMC	**Manual Prospec**	**72.36**	**320**	P	**P**	**03 28 24.0**	**0.0**
	baz=72,SNR=5.0						
DAC	**Darwin (Calif)**	**72.56**	**320**	*e*P	**P**	**03 28 25.2**	**0.0**
	5.1nm,0.8s,mb4.4						
DUG	**Dugway**	**72.62**	**326**	*e*P	**P**	**03 28 25.4**	**-0.1**
	6.3nm,1.1s,mb4.4						
DUG	**Dugway**	**72.62**	**326**	⇑P	**P**	**03 28 25.7**	**+0.3**
	baz=73						
ISA	**Isabella**	**72.69**	**319**	P	**P**	**03 28 26.3**	**+0.3**
	baz=73,SNR=13						
Q12A	**Willow Creek R**	**72.87**	**324**	⇑P	**P**	**03 28 27.2**	**+0.2**
	baz=73						
PDAR	**Pinedale Array**	**72.91**	**330**	P	**P**	**03 28 26.2**	**-0.9**
	0.9nm,0.7s,mb3.7,baz=120,slow=8.6,SNR=8.9						
GRAC	**Grapevine Rang**	**72.92**	**321**	⇑P	**P**	**03 28 27.6**	**+0.3**
	baz=73						
CWC	**Cottonwood Cre**	**72.97**	**320**	⇓P	**P**	**03 28 27.9**	**+0.3**
	baz=73						
HWUT	**Hardware Ranch**	**73.02**	**328**	*e*P	**P**	**03 28 27.1**	**-0.7**
PKM	**Peak Mountain**	**73.02**	**318**	P	**P**	**03 28 28.4**	**+0.4**
	baz=73,SNR=8.6						
S10A	**Tonopah Range,**	**73.09**	**322**	P	**P**	**03 28 28.4**	**0.0**
	baz=73,SNR=6.0						
R10A	**Warm Springs**	**73.17**	**323**	⇓P	**P**	**03 28 29.6**	**+0.8**
	baz=73						
VES	**Vestal, Richgr**	**73.18**	**319**	P	**P**	**03 28 29.0**	**+0.1**
	baz=73,SNR=7.1						
Q11A	**Duckwater**	**73.19**	**323**	⇑P	**P**	**03 28 29.3**	**+0.4**
	baz=73						
P12A	**McGill**	**73.22**	**324**	⇓P	**P**	**03 28 29.5**	**+0.4**
	baz=73						
SPUT	**South Promonto**	**73.24**	**327**	*e*P	**P**	**03 28 28.4**	**-0.7**
S09A	**Goldfield**	**73.32**	**322**	⇑P	**P**	**03 28 29.9**	**+0.3**
	baz=74						

SMMC	**Simmler** baz=74	**73.40**	**318**	⇓P	**P**	**03 28 30.7**	**+0.5**
TIN	**Tinemaha** baz=74	**73.46**	**321**	⇓P	**P**	**03 28 30.8**	**+0.3**
RCTC	**Rector, Farmer** baz=74	**73.58**	**320**	⇑P	**P**	**03 28 30.9**	**-0.3**
R09A	**Tonopah** baz=74	**73.58**	**322**	⇓P	**P**	**03 28 31.2**	**0.0**
HELL	**Mitchell Peak,** baz=74,SNR=11	**73.69**	**320**	P	**P**	**03 28 31.6**	**-0.2**
O12A	**Currie** baz=74,SNR=5.2	**73.70**	**325**	P	**P**	**03 28 32.2**	**+0.4**
S08C	**White Mtn Res** baz=74	**73.72**	**321**	⇑P	**P**	**03 28 32.5**	**+0.4**
HVU	**Hansel Valley**	**73.75**	**327**	*e*P	**P**	**03 28 32.3**	**+0.2**
ULM	**Lac du Bonnet** 4.8nm,0.6s,mb4.4,baz=148,slow=7.2,SNR=12	**73.97**	**342**	P	**P**	**03 28 31.1**	**-2.0**
ULM	2.3nm,0.5s,baz=141,slow=8.2,SNR=3.4			pP	pP	03 28 59.0	-1.8
O11A	**Cowboy Ranch,** baz=74	**74.09**	**324**	⇓P	**P**	**03 28 34.3**	**+0.1**
U05C	**Westside ANR,** baz=74	**74.14**	**319**	⇑P	**P**	**03 28 34.3**	**-0.2**
PKD	**Parkfield** baz=74	**74.15**	**319**	⇑P	**P**	**03 28 34.6**	**+0.1**
P10A	**Eureka** baz=74	**74.19**	**324**	⇑P	**P**	**03 28 35.4**	**+0.7**
KCC	**Kaiser Creek** baz=74	**74.29**	**320**	⇑P	**P**	**03 28 35.4**	**0.0**
NVAR	**Mina Array Bea**	**74.42**	**322**	P	**P**	**03 28 35.9**	**-0.2**
NVAR				pP	pP	03 29 03.2	-0.6
NVAR				sP	sP	03 29 14.8	-0.9
NVAR	**Mina Array Bea** 2.0nm,0.8s,mb3.9,baz=140,slow=6.9,SNR=22	**74.42**	**322**	P	**P**	**03 28 35.9**	**-0.2**
NVAR	0.8nm,0.9s,baz=163,slow=6.6,SNR=2.3			pP	pP	03 29 03.2	-0.6
NVAR	1.0nm,0.7s,baz=136,slow=6.9,SNR=3.5			sP	sP	03 29 14.8	-0.9
IMW	**Indian Meadow**	**74.43**	**330**	*e*P	**P**	**03 28 36.1**	**+0.1**
Q08A	**Gabbs** baz=75	**74.50**	**322**	⇑P	**P**	**03 28 36.6**	**+0.1**
P09A	**Austin** baz=75	**74.52**	**323**	⇑P	**P**	**03 28 37.0**	**+0.5**
K14A	**Jones Ranch, D** baz=75	**74.52**	**328**	⇓P	**P**	**03 28 36.2**	**-0.3**
U04C	**Hernandez Rese** baz=75	**74.56**	**319**	⇓P	**P**	**03 28 37.3**	**+0.3**
L13A	**Double Diamond** baz=75,SNR=7.8	**74.58**	**327**	P	**P**	**03 28 37.0**	**+0.1**
SCHQ	**Schefferville** 5.2nm,0.9s,mb4.3,baz=161,slow=6.5,SNR=3.5	**74.59**	**1**	P	**P**	**03 28 35.4**	**-1.2**
M12A	**Wells** baz=75	**74.60**	**326**	⇓P	**P**	**03 28 37.0**	**0.0**
V03C	**Hunter Liggett** baz=75	**74.63**	**318**	⇓P	**P**	**03 28 37.6**	**+0.2**
R07C	**Lee Vining** baz=75,SNR=5.7	**74.64**	**321**	P	**P**	**03 28 38.2**	**+0.9**
O10A	**Cortez Mining,** baz=75	**74.67**	**324**	⇑P	**P**	**03 28 37.8**	**+0.4**
LRV	**Little Rabbit**	**74.75**	**319**	*e*P	**P**	**03 28 38.3**	**+0.3**
T05C	**Eagle Field, D** baz=75	**74.84**	**319**	⇑P	**P**	**03 28 39.2**	**+0.7**
S05C	**Merced** baz=75,SNR=9.5	**74.92**	**320**	P	**P**	**03 28 39.3**	**+0.3**
O09A	**Fish Creek Ran** baz=75	**74.97**	**324**	⇓P	**P**	**03 28 39.8**	**+0.6**
N10A	**Dunphy** baz=75	**74.97**	**324**	⇓P	**P**	**03 28 39.4**	**+0.2**
S06C	**San Francisco** baz=75,SNR=9.4	**74.98**	**320**	P	**P**	**03 28 39.4**	**+0.1**
K13A	**Stover Farm, H** baz=75	**75.05**	**327**	⇓P	**P**	**03 28 39.5**	**-0.1**
HAST	**UC Hastings Re** baz=75	**75.06**	**318**	⇑P	**P**	**03 28 40.0**	**+0.2**
M11A	**Holland Ranch,** baz=75	**75.08**	**325**	⇑P	**P**	**03 28 40.3**	**+0.5**
P08A	**Dixie Valley** baz=75	**75.15**	**323**	⇓P	**P**	**03 28 40.6**	**+0.4**
R06C	**Coleville** baz=75	**75.16**	**321**	⇑P	**P**	**03 28 40.8**	**+0.5**
L12A	**House Creek Ra** baz=75	**75.17**	**326**	⇓P	**P**	**03 28 40.4**	**+0.1**
PACP	**Pacheco Peak** baz=76	**75.29**	**319**	⇓P	**P**	**03 28 41.3**	**+0.2**
CMB	**Columbia Colle** baz=76	**75.40**	**320**	⇓P	**P**	**03 28 41.6**	**-0.1**
K12A	**Draper Farm, C** baz=76,SNR=8.2	**75.46**	**327**	P	**P**	**03 28 42.4**	**+0.5**
L11A	**Cat Creek Ranc** baz=76	**75.58**	**326**	⇑P	**P**	**03 28 43.2**	**+0.6**
S04C	**Ingram Canyon,** baz=76	**75.63**	**319**	⇓P	**P**	**03 28 43.1**	**+0.1**
J13A	**Cove Ranch, Pi** baz=76	**75.64**	**328**	⇑P	**P**	**03 28 43.1**	**+0.2**
R05C	**Kirkwood Meado** baz=76	**75.65**	**321**	⇓P	**P**	**03 28 43.6**	**+0.5**
WCN	**Washoe City** baz=76	**75.85**	**322**	⇑P	**P**	**03 28 44.9**	**+0.6**
HLID	**Hailey** baz=76,SNR=9.1	**75.88**	**328**	P	**P**	**03 28 44.8**	**+0.5**
L10A	**Juniper Basin** baz=76,SNR=6.9	**75.89**	**325**	P	**P**	**03 28 44.6**	**+0.2**
PAHR	**Pah Rah Range** 9.6nm,0.8s,mb4.6	**75.90**	**322**	*e*P	**P**	**03 28 44.6**	**+0.1**
N08A	**GE Springer Mi** baz=76	**75.91**	**324**	⇓P	**P**	**03 28 44.6**	**+0.1**
O07A	**Toulon** baz=76	**75.91**	**323**	⇓P	**P**	**03 28 44.7**	**+0.2**
BNLO	**Ben Lomond (Sa** baz=76	**75.92**	**319**	⇑P	**P**	**03 28 45.1**	**+0.4**
M09A	**Marrel Ranch,** baz=76	**75.97**	**324**	⇑P	**P**	**03 28 45.2**	**+0.3**
I13A	**Wildhorse Cree** baz=76	**75.98**	**328**	⇑P	**P**	**03 28 45.6**	**+0.7**
J12A	**Stokes Ranch,** baz=76	**76.00**	**327**	⇑P	**P**	**03 28 45.2**	**+0.2**
BOZ	**Bozeman (W)** baz=76	**76.07**	**331**	⇓P	**P**	**03 28 45.1**	**-0.2**
LAVA	**Lava Cap Winer** baz=76	**76.08**	**321**	⇑P	**P**	**03 28 45.3**	**-0.3**
G15A	**Dillon** baz=76	**76.11**	**330**	⇓P	**P**	**03 28 45.9**	**+0.3**
MFID	**Camas Ranch** baz=77	**76.49**	**327**	⇑P	**P**	**03 28 48.2**	**+0.5**
L09A	**Wilkinson Ranc** baz=77	**76.50**	**325**	⇑P	**P**	**03 28 48.1**	**+0.3**
H13A	**Challis** baz=77,SNR=6.1	**76.52**	**328**	P	**P**	**03 28 48.3**	**+0.4**
BEKR	**Beckwourth** baz=77	**76.57**	**322**	⇑P	**P**	**03 28 48.5**	**+0.2**
K10A	**MacKenzie Ranc** baz=77	**76.59**	**326**	⇓P	**P**	**03 28 48.4**	**0.0**
F15A	**Butte** baz=77	**76.62**	**330**	⇓P	**P**	**03 28 48.5**	**+0.1**
G14A	**Jackson** baz=77	**76.63**	**329**	⇓P	**P**	**03 28 48.7**	**+0.2**
Q03C	**Winters** baz=77	**76.76**	**320**	⇑P	**P**	**03 28 49.5**	**+0.1**
TOA0	**Torodi Ar. Sit**	**76.77**	**71**	*e*P	**P**	**03 28 49.9**	**-0.1**
TORD	**Torodi Ar. Bea** 2.6nm,0.5s,mb4.2,baz=254,slow=5.4,SNR=100	**76.77**	**71**	P	**P**	**03 28 49.8**	**-0.2**
TORD	5.1nm,0.7s,baz=250,slow=5.4,SNR=9.6			pP	pP	03 29 18.6	+0.7
TORD	2.5nm,0.6s,baz=247,slow=5.5,SNR=3.5			sP	sP	03 29 29.9	+0.3
H12A	**Diamond D Ranc** baz=77	**76.81**	**328**	⇓P	**P**	**03 28 49.6**	**+0.1**
N06A	**Buffalo Meadow** baz=77	**76.85**	**323**	⇑P	**P**	**03 28 49.9**	**+0.1**
G13A	**Cobalt** baz=77,SNR=13	**76.90**	**329**	P	**P**	**03 28 50.5**	**+0.5**
M07A	**Soldier Meadow** baz=77	**76.90**	**323**	⇓P	**P**	**03 28 50.2**	**+0.1**
I11A	**Placerville** baz=77	**76.91**	**327**	⇓P	**P**	**03 28 50.1**	**0.0**
O05C	**Quincy** baz=77	**76.96**	**321**	⇓P	**P**	**03 28 50.5**	**0.0**
L08A	**Fields** baz=77	**76.98**	**325**	⇑P	**P**	**03 28 50.7**	**+0.1**
K09A	**Rome** baz=77	**76.99**	**325**	⇓P	**P**	**03 28 50.7**	**+0.1**
F14A	**Wisdom** baz=77	**77.01**	**330**	⇑P	**P**	**03 28 51.1**	**+0.5**
ORV	**Oroville** baz=77	**77.04**	**321**	⇑P	**P**	**03 28 51.2**	**+0.2**
EGMT	**Eagleton** baz=77	**77.06**	**333**	⇓P	**P**	**03 28 50.8**	**-0.1**
E15A	**Deer Lodge** baz=77,SNR=5.0	**77.12**	**331**	P	**P**	**03 28 51.4**	**+0.2**
ELFS	**Eagle Lake Fie** baz=77,SNR=5.6	**77.28**	**322**	P	**P**	**03 28 52.8**	**+0.5**
O04C	**Chester** baz=78	**77.29**	**322**	⇓P	**P**	**03 28 52.3**	**0.0**
L07A	**Adell** baz=78	**77.41**	**324**	⇓P	**P**	**03 28 53.1**	**+0.1**
K08A	**Mann Creek Ran** baz=78	**77.43**	**325**	⇑P	**P**	**03 28 53.2**	**+0.1**
F13A	**Darby** baz=78,SNR=10	**77.45**	**329**	P	**P**	**03 28 53.3**	**+0.2**
H11A	**Donnelly** baz=78	**77.50**	**328**	⇑P	**P**	**03 28 53.4**	**0.0**
E14A	**Clinton** baz=78	**77.51**	**330**	⇑P	**P**	**03 28 53.6**	**+0.3**
M06C	**Likely Place G** baz=78	**77.52**	**323**	⇑P	**P**	**03 28 53.4**	**-0.2**
D15A	**Lincoln** baz=78	**77.52**	**331**	⇓P	**P**	**03 28 53.7**	**+0.3**
GASB	**Alder Springs** baz=78	**77.83**	**320**	⇓P	**P**	**03 28 56.2**	**+0.8**
J08A	**Circle Bar Ran** baz=78	**77.84**	**325**	⇑P	**P**	**03 28 55.6**	**+0.2**
E13A	**Victor** baz=78,SNR=6.6	**77.86**	**330**	P	**P**	**03 28 55.7**	**+0.4**
MOD	**Modoc** baz=78	**77.87**	**323**	⇑P	**P**	**03 28 55.4**	**-0.1**
I09A	**Lost Marbles R** baz=78	**77.88**	**326**	⇓P	**P**	**03 28 55.6**	**+0.1**
M05C	**Lookout** baz=78	**78.00**	**322**	⇓P	**P**	**03 28 56.4**	**+0.1**
D14A	**Greenough** baz=78	**78.01**	**331**	⇑P	**P**	**03 28 56.3**	**+0.2**
P01C	**Double 8 Ranch** baz=78	**78.09**	**320**	⇓P	**P**	**03 28 57.0**	**+0.2**
G11A	**Walters Elk Ra** baz=78	**78.12**	**328**	⇑P	**P**	**03 28 57.1**	**+0.3**
O02C	**Red Bluff** baz=78	**78.20**	**321**	⇑P	**P**	**03 28 56.9**	**-0.5**
L05A	**Lakeview** baz=78	**78.27**	**323**	⇑P	**P**	**03 28 58.7**	**+1.0**
I08A	**Drewsey** baz=78,SNR=5.4	**78.27**	**326**	P	**P**	**03 28 58.2**	**+0.6**
J07A	**Hines** baz=78	**78.31**	**325**	⇓P	**P**	**03 28 58.6**	**+0.7**
WDC	**Whiskeytown Da** baz=78	**78.31**	**321**	⇓P	**P**	**03 28 56.3**	**-1.7**
F11A	**Grangeville** baz=79,SNR=5.2	**78.41**	**328**	P	**P**	**03 28 58.2**	**-0.2**
K06A	**Valley Falls** baz=79	**78.44**	**324**	⇓P	**P**	**03 28 58.8**	**+0.2**
D13A	**Huson** baz=79,SNR=5.3	**78.46**	**330**	⇓P	**P**	**03 28 58.7**	**0.0**
M03C	**McCloud** baz=79	**78.51**	**322**	⇓P	**P**	**03 28 58.7**	**-0.4**
C14A	**Swan Lake** baz=79	**78.62**	**331**	⇑P	**P**	**03 28 59.6**	**+0.1**
M04C	**Macdoel** baz=79	**78.67**	**322**	⇓P	**P**	**03 29 00.0**	**+0.1**
J06A	**Christmas Vall** baz=79	**78.68**	**324**	⇓P	**P**	**03 29 00.3**	**+0.4**
H08A	**Prairie City** baz=79	**78.74**	**326**	⇓P	**P**	**03 29 00.5**	**+0.3**
K05A	**Summer Lake** baz=79	**78.75**	**324**	⇑P	**P**	**03 29 00.9**	**+0.6**
E11A	**Bogner Ranch,** baz=79	**78.77**	**329**	⇑P	**P**	**03 29 00.0**	**-0.3**
I07A	**Izee** baz=79	**78.89**	**325**	⇓P	**P**	**03 29 01.3**	**+0.2**
C13A	**Hot Springs** baz=79,SNR=6.0	**78.94**	**330**	P	**P**	**03 29 01.6**	**+0.3**
F10A	**Beach Ranch, E** baz=79	**79.00**	**328**	⇑P	**P**	**03 29 01.6**	**0.0**
M02C	**Callahan** baz=79	**79.01**	**322**	⇑P	**P**	**03 29 00.2**	**-1.6**
YBH	**Yreka Blue Hor** baz=79	**79.14**	**322**	⇓P	**P**	**03 29 01.4**	**-1.1**
F09A	**S2 Ranch, Elgi** baz=79	**79.16**	**327**	⇑P	**P**	**03 29 02.7**	**+0.2**
I06A	**Prineville** baz=79	**79.17**	**325**	⇓P	**P**	**03 29 03.0**	**+0.4**
E10A	**Myers Farm, Un** baz=80	**79.30**	**328**	⇑P	**P**	**03 29 03.4**	**+0.2**
J05A	**Fort Rock** baz=80	**79.30**	**324**	⇑P	**P**	**03 29 03.1**	**-0.3**
D11A	**Klaveano Farm,** baz=80	**79.32**	**329**	⇑P	**P**	**03 29 03.2**	**-0.1**
B13A	**Whitefish** baz=80	**79.39**	**331**	⇑P	**P**	**03 29 03.8**	**0.0**
G08A	**Pilot Rock** baz=80	**79.41**	**327**	⇓P	**P**	**03 29 03.8**	**-0.1**
F08A	**Pendleton** baz=80	**79.66**	**327**	⇑P	**P**	**03 29 05.0**	**-0.2**
J04A	**Umpqua Nationa** baz=80	**79.76**	**323**	⇓P	**P**	**03 29 06.0**	**+0.1**
H06A	**Lindquist Farm** baz=80	**79.76**	**325**	⇓P	**P**	**03 29 06.0**	**+0.2**
G07A	**Ruggs Ranch, H** baz=80	**79.77**	**326**	⇑P	**P**	**03 29 06.1**	**+0.2**
A13A	**Flathead Natio** baz=80,SNR=11	**79.78**	**331**	P	**P**	**03 29 06.1**	**+0.3**
D10A	**Wagner Farm, O** baz=80	**79.78**	**329**	⇑P	**P**	**03 29 05.3**	**-0.5**
HUMO	**Hull Mountain** baz=80	**79.83**	**323**	⇓P	**P**	**03 29 05.9**	**-0.3**
E09A	**Wood Farm, Sta** baz=80	**79.83**	**328**	⇓P	**P**	**03 29 05.8**	**-0.3**
I05A	**Bend** baz=80	**79.89**	**325**	⇑P	**P**	**03 29 07.0**	**+0.5**
L02A	**Cave Junction** baz=80	**79.92**	**322**	⇓P	**P**	**03 29 06.8**	**0.0**
B12A	**Libby** baz=80	**79.98**	**330**	⇓P	**P**	**03 29 07.1**	**+0.2**
K02A	**Glendale** baz=80	**80.24**	**322**	⇓P	**P**	**03 29 08.4**	**0.0**
G06A	**Carlson Farm,** baz=80	**80.25**	**326**	⇑P	**P**	**03 29 08.9**	**+0.5**
E08A	**Dider Farm, El** baz=80	**80.28**	**327**	⇓P	**P**	**03 29 08.2**	**-0.3**
I04A	**Tendick Farm,** baz=80	**80.28**	**324**	⇓P	**P**	**03 29 08.4**	**-0.2**
D09A	**Jones Farm, Ri** baz=80	**80.29**	**328**	⇓P	**P**	**03 29 08.5**	**-0.1**
B11A	**Sandpoint** baz=80	**80.32**	**330**	⇑P	**P**	**03 29 08.4**	**-0.3**
J03A	**Ideyld Park** baz=80	**80.32**	**323**	⇓P	**P**	**03 29 09.9**	**+1.1**
F07A	**Phinny Hill Vi** baz=80	**80.32**	**327**	⇑P	**P**	**03 29 09.9**	**+1.1**
C10A	**Spilker Farm,** baz=80	**80.33**	**329**	⇑P	**P**	**03 29 09.1**	**+0.4**
A12A	**Yaak River Ran** baz=80,SNR=5.4	**80.34**	**331**	P	**P**	**03 29 08.9**	**+0.1**
D08A	**Wollman Farm,** baz=81	**80.60**	**328**	⇑P	**P**	**03 29 10.6**	**+0.3**
G05A	**Wamic** baz=81	**80.62**	**325**	⇑P	**P**	**03 29 10.7**	**+0.3**
J02A	**Umpqua** baz=81	**80.66**	**323**	⇑P	**P**	**03 29 10.9**	**+0.2**
F06A	**Goldendale** baz=81	**80.68**	**326**	⇓P	**P**	**03 29 10.5**	**-0.2**
A11A	**Hall Mountain,** baz=81,SNR=6.0	**80.69**	**330**	P	**P**	**03 29 10.7**	**0.0**
H04A	**Detroit Lake** baz=81	**80.73**	**325**	⇓P	**P**	**03 29 10.6**	**-0.4**
E07A	**Sunnyside** baz=81	**80.73**	**327**	⇑P	**P**	**03 29 11.0**	**+0.1**
I03A	**Eugene** baz=81	**80.88**	**323**	⇓P	**P**	**03 29 11.5**	**-0.3**
F05A	**White Salmon** baz=81	**81.12**	**326**	⇓P	**P**	**03 29 12.4**	**-0.6**
C08A	**Higginbotham F** baz=81	**81.15**	**328**	⇑P	**P**	**03 29 12.6**	**-0.5**
B09A	**Rice** baz=81	**81.16**	**329**	⇑P	**P**	**03 29 13.0**	**-0.2**
I02A	**Mapleton** baz=81	**81.21**	**323**	⇓P	**P**	**03 29 13.6**	**+0.1**
D07A	**Quincy** baz=81	**81.22**	**327**	⇑P	**P**	**03 29 13.5**	**-0.1**
A10A	**Northport** baz=81	**81.26**	**330**	⇓P	**P**	**03 29 13.1**	**-0.6**
E06A	**Yakima** baz=82	**81.30**	**327**	⇑P	**P**	**03 29 14.1**	**+0.1**
H03A	**Soap Creek Ran** baz=82	**81.33**	**324**	⇓P	**P**	**03 29 14.4**	**+0.2**
C07A	**Waterville** baz=82,SNR=11	**81.59**	**328**	⇓P	**P**	**03 29 15.5**	**0.0**
F04A	**Amboy** baz=82	**81.66**	**325**	⇑P	**P**	**03 29 15.6**	**-0.2**
D06A	**Cle Elum** baz=82	**81.66**	**327**	⇑P	**P**	**03 29 15.7**	**-0.1**
A09A	**Danville** baz=82,SNR=5.1	**81.75**	**329**	P	**P**	**03 29 15.7**	**-0.6**
A08A	**Turner Farm, O** baz=82,SNR=7.5	**82.06**	**329**	P	**P**	**03 29 17.8**	**-0.2**
B07A	**Winthrop** baz=82,SNR=5.4	**82.14**	**328**	P	**P**	**03 29 17.8**	**-0.5**
C06A	**Tall Timber Ra** baz=82	**82.17**	**328**	⇑P	**P**	**03 29 17.8**	**-0.7**
E04A	**Onalaska** baz=82	**82.24**	**326**	⇑P	**P**	**03 29 18.8**	**-0.1**
D05A	**Enumclaw** baz=82	**82.25**	**327**	⇑P	**P**	**03 29 18.5**	**-0.4**
C05A	**Tolt Reservoir** baz=83	**82.42**	**327**	⇓P	**P**	**03 29 18.9**	**-0.9**
EDM	**Edmonton**	**82.50**	**335**	*e*P	**P**	**03 29 18.2**	**-1.9**
A07A	**Ashnola River,** baz=83,SNR=8.5	**82.67**	**329**	P	**P**	**03 29 21.1**	**+0.1**
B06A	**Marblemount** baz=83	**82.86**	**328**	⇓P	**P**	**03 29 21.5**	**-0.5**
B05A	**Bryant** baz=83	**83.00**	**327**	⇓P	**P**	**03 29 21.9**	**-0.9**
C04A	**Brinnon** baz=83	**83.10**	**327**	⇓P	**P**	**03 29 23.0**	**-0.3**
A06A	**Chilliwack** baz=83	**83.24**	**328**	⇑P	**P**	**03 29 23.6**	**-0.4**
NLWA	**Neilton Lookou** baz=84	**83.36**	**326**	⇓P	**P**	**03 29 24.4**	**-0.2**
A05A	**Maple Falls** baz=84	**83.47**	**328**	⇓P	**P**	**03 29 24.8**	**-0.4**
BOSA	**Boshof** 1.4nm,0.8s,mb3.9,baz=276,slow=9.2,SNR=3.0	**84.03**	**118**	P	**P**	**03 29 30.3**	**+1.6**
BOSA	1.8nm,0.7s,baz=260,slow=2.9,SNR=2.1			pP	pP	03 29 57.8	+0.8
ESDC	**Sonseca Array** 0.1nm,0.3s,baz=289,slow=4.5,SNR=2.7	**84.72**	**45**	P	**P**	**03 29 32.9**	**+1.1**
ESDC	1.0nm,0.8s,baz=264,slow=3.9,SNR=3.5			pP	pP	03 30 01.1	+0.9
YKA	**Yellowknife Ar**	**89.86**	**341**	P	**P**	**03 29 55.1**	**-0.8**
YKA				pP	pP	03 30 23.3	-1.3
YKA				sP	sP	03 30 35.3	-0.9
YKA	**Yellowknife Ar** 9.9nm,0.7s,mb5.1,baz=134,slow=4.6,SNR=199	**89.86**	**341**	P	**P**	**03 29 55.1**	**-0.8**
YKA	4.2nm,0.6s,baz=133,slow=4.7,SNR=9.0			pP	pP	03 30 23.3	-1.3
YKA	2.2nm,0.6s,baz=133,slow=4.8,SNR=2.9			sP	sP	03 30 35.3	-0.9
WRA	**Warramunga Arr**	**134.25**	**211**	PKP	PKPdf	03 36 14.7	-1.0
WRA				pPKP	pPKPdf	03 36 45.6	+0.1
WRA	**Warramunga Arr** 1.6nm,0.7s,baz=156,slow=1.9,SNR=8.2	**134.25**	**211**	PKP	PKPdf	03 36 14.7	-1.0
WRA	0.6nm,0.3s,baz=140,slow=1.6,SNR=3.0			pPKP	pPKPdf	03 36 45.6	+0.1
FITZ	**Fitzroy Crossi**	**139.53**	**201**	PKP	PKPdf	03 36 25.9	+0.5
FITZ	**Fitzroy Crossi** 4.7nm,1.1s,baz=72,slow=19,SNR=3.1	**139.53**	**201**	PKP	PKPdf	03 36 25.9	+0.5
ZALV	**Zalesovo Beam**	**140.59**	**24**	PKP	PKPdf	03 36 25.2	-1.0
ZALV	**Zalesovo Beam** 1.8nm,0.7s,baz=178,slow=2.6,SNR=9.2	**140.59**	**24**	PKP	PKPdf	03 36 25.2	-1.0
MK31	**Makanchi Array**	**144.39**	**35**	*e*PKPdf	PKPdf	03 36 31.8	-1.4
MK31				*e*		03 36 44.6	
MKAR	**Makanchi Array**	**144.39**	**35**	PKP	PKPdf	03 36 31.9	-1.3
MKAR				pPKP	pPKPdf	03 37 01.6	-1.5
MKAR	**Makanchi Array** 1.0nm,0.6s,baz=322,slow=2.8,SNR=10	**144.39**	**35**	PKP	PKPdf	03 36 31.9	-1.3
MKAR	1.0nm,0.6s,baz=284,slow=1.3,SNR=4.3			pPKP	pPKPdf	03 37 01.6	-1.5
WMQ	**Urumqi**	**149.22**	**34**	*e*PKP	PKPdf	03 36 41.2	-0.2
MJAR	**Matsushiro Arr**	**151.24**	**311**	PKP	PKPdf	03 36 45.1	+0.3
MJAR				PKPbc	PKPbc	03 36 50.4	-0.4
MJAR	**Matsushiro Arr** 0.5nm,0.4s,baz=210,slow=37,SNR=3.6	**151.24**	**311**	PKP	PKPdf	03 36 45.1	+0.3
MJAR	4.7nm,0.9s,baz=85,slow=1.6,SNR=12			PKPbc	PKPbc	03 36 50.4	-0.4
SONM	**Songino Array**	**152.01**	**7**	PKP	PKPdf	03 36 45.0	-0.6
SONM				PKPbc	PKPbc	03 36 52.5	+0.3
SONM				pPKPbc	pPKPbc	03 37 22.3	+0.3
SONM	**Songino Array** 1.0nm,0.9s,baz=328,slow=1.5,SNR=7.1	**152.01**	**7**	PKP	PKPdf	03 36 45.0	-0.6
SONM	4.1nm,0.5s,baz=298,slow=1.3,SNR=47			PKPbc	PKPbc	03 36 52.5	+0.3
SONM	2.0nm,0.7s,baz=331,slow=2.1,SNR=5.0			pPKPbc	pPKPbc	03 37 22.3	+0.3
ULN	**Ulaanbaatar**	**152.05**	**6**	*e*PKPbc	PKPbc	03 36 52.3	0.0
GTA	**Gaotai**	**158.35**	**25**	PKP	PKPdf	03 36 55.1	+0.6
GTA				APKP		03 37 00.3	
HHC	**Hu-ho-hao-te**	**159.26**	**359**	*e*PKP	PKPdf	03 36 55.4	-0.1
HHC				PKS		03 40 27.5	
HHC				PP	PP	03 41 17.0	+3.5
HHC	comp=Z,107nm,5.3s			PP	PP		
HHC	comp=N,104nm,28.6s			LR	LR		
HHC	comp=E,278nm,29.7s			LR	LR		
HHC	comp=Z,187nm,29.7s			LR	LR		
LZH	**Lanzhou**	**162.76**	**21**	*e*PKP	PKPdf	03 36 59.4	0.0
LZH	comp=E,35nm,19.3s			LR	LR		
LZH	comp=Z,46nm,20.2s			LR	LR		
NJ2	**Nanjing**	**166.22**	**332**	*e*PKP	PKPdf	03 36 59.7	-2.9
CD2	**Chengdu**	**167.27**	**30**	*e*PKP	PKPdf	03 37 04.3	+0.9
CD2				PP	PP	03 42 02.3	+6.1
CD2				SKS	SKSdf	03 44 02.3	+4.8
CD2	comp=Z,80nm,8.4s			PP	PP		
KMI	**Kunming**	**170.69**	**56**	PKP	PKPdf	03 37 03.0	-2.7
GYA	**Guiyang**	**172.37**	**32**	*e*PKP	PKPdf	03 37 05.6	-0.9
GYA				PKP2	PKPab	03 38 31.0	-0.3
GYA				PKS		03 40 36.7	
GYA				PP	PP	03 42 22.7	+0.8
GYA				SKS	SKSdf	03 44 03.5	+3.5
GYA	comp=Z,110nm,8.7s			PP	PP		
GYA	comp=N,280nm,21.6s			LR	LR		
GYA	comp=E,170nm,21.0s			LR	LR		
GYA	comp=Z,210nm,20.7s			LR	LR		

IDC 05 03:26:59.3±2.4, 064N×9695E, h0km, mb3.5/3, mb1 3.6/4, mb1mx3.4/21, mbtmp3.4/4, Error ellipse: s-maj=58.2km s-min=31.8km az=59.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PSI	**Prapat** 2.8nm,0.3s,baz=320,slow=11,SNR=14	**2.92**	**43**	Pn	Pn	03 27 46.8	-0.2
WRA	**Warramunga Arr** 0.6nm,0.5s,baz=303,slow=9.1,SNR=4.5	**41.95**	**121**	P	P	03 34 52.0	-0.2
SONM	**Songino Array** 0.2nm,0.5s,baz=191,slow=6.6,SNR=2.7	**47.72**	**9**	P	P	03 35 37.6	-0.2
MKAR	**Makanchi Array** 0.4nm,0.5s,baz=164,slow=9.0,SNR=8.7	**47.73**	**346**	P	P	03 35 37.9	0.0

CASC 05 03:38:13.9±1.6, 1190N×8798W, h34km±24km, MD3.6, ML2.1, 1C-2D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
TEL3	**Telica 3**	**1.30**	**59**	*e*P	Pn	03 38 35.8	+0.2
TEL3				*e*S	Sn	03 38 51.6	-0.1
CNCH	**Conchagua**	**1.38**	**6**	*e*P	x	03 38 46.0	
CNCH				*e*S	x	03 39 04.7	
COPN	**Copaltepe**	**1.39**	**78**	⇓*i*P	Pn	03 38 37.0	+0.2
MOMJ	**Momotombo**	**1.50**	**70**	*e*P	Pn	03 38 38.5	+0.2
MOMJ				*e*S	Sn	03 38 57.5	+0.8
MOMJ	comp=Z,19nm,0.2s			*i*		03 38 57.8	
APYN	**Apoyeque**	**1.63**	**78**	*e*P	Pn	03 38 40.4	+0.3
APYN				*e*S	Sn	03 39 01.5	+1.6
XAVN	**Gruta Xavier**	**1.64**	**81**	⇓*e*P	Pn	03 38 40.4	+0.2
TISN	**Laguna Tiscapa**	**1.69**	**82**	*e*P	Pn	03 38 41.1	+0.2
TISN				*e*S	Sn	03 39 01.8	+0.3
MGAN	**Managua**	**1.71**	**82**	*e*P	Pn	03 38 41.6	+0.3
MGAN				*e*S	Sn	03 39 01.9	-0.1
TICN	**Ticuantepe**	**1.72**	**85**	⇑*e*P	Pn	03 38 41.6	+0.2
HUEN		**1.82**	**76**	*e*P	Pn	03 38 43.1	+0.3

LCBS	**La Ceiba**	2.00	331	*e*P	x	03 38 55.3	
LCBS				*e*S	x	03 39 19.2	
LFRS	**El Faro**	2.01	329	*e*P	x	03 38 56.0	
LFRS				*e*S	x	03 39 21.1	
SNET	**Serv Nac Est T**	2.16	326	*e*S	x	03 39 13.5	

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*MAN **05** 03:52:11,3.87N×126.17E,h124^{km},mb4.3,ML3.2,MS3.0*

*ISCJB **05** 03:52:15.4±0.8,4.06N±0.06×125.59E±0.08,h130^{km}±9^{km},mb4.2/9,Error ellipse: s-maj=13.9km s-min=9.0km az=172.3*

*NEIC **05** 03:52:17.6±1.0,4.09N×125.45E,h133^{km}±10^{km},mb4.8/3,Error ellipse: s-maj=11.7km s-min=7.8km az=86.0*

*IDC **05** 03:52:19.0±3.2,4.18N×125.48E,h136^{km}±30^{km},mb3.7/7,mb1 3.8/7,mb1mx3.5/20,mbtmp3.7/7,Error ellipse: s-maj=50.3km s-min=14.4km az=84.0*

ISC 05 03:52:17.2±0.8,**4.10N**±0.06×**125.53E**±0.09,**h127**^{km}±9^{km},**n21**,σ**1^s.11**/23,**mb4.2**/9,**Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	**General Santos**	2.06	344	*e*P	Pn	03 52 52.0	+0.3
GSPH				*e*S	Sn	03 53 18.4	+0.3
MATI	**Mati**	2.91	14	*e*P	Pn	03 52 59.4	-3.2
MATI				*e*S	Sn	03 53 36.2	-1.4
DAV	**Davao City (W)**	2.95	1	*e*Pn	Pn	03 53 04.0	+0.9
DAV				*e*Sn	Sn	03 53 35.1	-3.4
BUKP	**Musuan**	3.78	353	*e*P	Pn	03 53 14.7	+0.7
PAGZ	**Pagadian**	4.29	330	*e*P	Pn	03 53 22.9	+2.1
KKM	**Kota Kinabalu**	9.48	282	Pn	Pn	03 54 30.6	-0.1
KSM	**Kuching**	15.43	261	Pn	Pn	03 55 46.8	-1.4
KAKA	**Kakadu**	18.06	158	*e*P	P	03 56 17.7	-1.2
KAKA				S	S	03 59 31.2	-8.3
FITZ	**Fitzroy Crossi**	22.06	180	*e*P	P	03 57 02.2	+0.2
	8.5nm,0.3s,mb4.5						
FITZ	**Fitzroy Crossi**	22.06	180	P	P	03 57 04.2	+2.2
	6.1nm,0.5s,mb4.2,baz=30,slow=9.0,SNR=32						
JOW	**Kunigami**	22.75	6	P	P	03 57 09.3	+0.5
	11nm,0.6s,mb4.3,baz=195,slow=8.3,SNR=7.8						
WRA	**Warramunga Arr**	25.41	160	P	P	03 57 34.7	+1.5
	3.6nm,0.5s,mb4.1,baz=339,slow=10,SNR=11						
WRA				sP	sP	03 58 15.1	+0.2
	3.3nm,0.7s,baz=340,slow=10,SNR=3.4						
WB2	**Warramunga Arr**	25.42	160	*e*P	P	03 57 33.0	-0.2
JNU	**Nakatsue**	29.30	9	P	P	03 58 07.5	-0.1
	5.3nm,0.7s,mb4.3,baz=194,slow=4.2,SNR=3.6						
COCO	**West Island**	32.80	240	*e*P	P	03 58 37.5	-1.2
	17nm,0.4s,mb5.2						
KSRS	**Korea Array**	33.26	3	P	P	03 58 43.3	+0.9
	3.2nm,0.7s,mb4.2,baz=179,slow=9.7,SNR=10						
SONM	**Songino Array**	46.57	342	P	P	04 00 31.7	-0.4
	0.3nm,0.6s,mb3.2,baz=148,slow=8.4,SNR=3.2						
SONM				PcP	PcP	04 02 05.4	+1.1
	0.9nm,0.7s,baz=164,slow=3.9,SNR=8.1						
MKAR	**Makanchi Array**	56.57	326	P	P	04 01 47.0	+0.4
	0.2nm,0.5s,mb3.4,baz=129,slow=5.7,SNR=8.1						
MKAR				sP	sP	04 02 24.7	-5.9
	0.5nm,0.5s,baz=118,slow=7.3,SNR=6.0						
MKAR				PcP	PcP	04 02 42.1	+0.5
	0.6nm,0.6s,baz=135,slow=4.7,SNR=4.6						
MKAR				ScP	ScP	04 06 28.5	-0.9
	0.6nm,0.8s,baz=133,slow=5.1,SNR=5.8						
TIXI	**Tiksi**	67.49	1	*e*P	P	04 02 58.5	-0.6
	5.0nm,0.3s,mb4.8						
TORD	**Torodi Ar. Bea**	121.67	288	PKP	PKPdf	04 10 56.9	-0.2
TORD	**Torodi Ar. Bea**	121.67	288	PKP	PKPdf	04 10 56.9	-0.2
	0.5nm,0.8s,baz=105,slow=1.8,SNR=3.1						

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*IDC **05** 04:12:16.7±0.6,54.29S×146.10E,h0^{km},mb4.4/6,mb1 4.6/7,mb1mx4.4/12,mbtmp4.4/7,MS4.1/11,Ms1 4.1/11,ms1mx3.9/18,Error ellipse: s-maj=25.9km s-min=19.0km az=99.0*

*ISCJB **05** 04:12:17.1±0.6,54.28S±0.08×146.4E±0.2,h10^{km},mb4.4/8,MS4.1/10,Error ellipse: s-maj=17.3km s-min=11.5km az=2.8*

*NEIC **05** 04:12:18.9±0.5,54.30S×146.29E,h10^{km},mb4.6/5,Error ellipse: s-maj=19.8km s-min=13.0km az=93.0*

ISC 05 04:12:18.7±0.6,**54.30S**±0.08×**146.4E**±0.2,**h10**^{km},**n47**,σ**0^s.81**/14,**mb4.4**/8,**MS4.1**/10,**West of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TOO	**Toolangi**	16.74	358	*e*P	Pn	04 16 14.2	+1.1
	15nm,1.0s						
RPZ	**Rata Peaks**	19.24	67	P	Pn	04 16 43.7	-0.1
	baz=168,slow=9.6,SNR=5.1						
RPZ				LR	LR	04 22 50.4	
	comp=Z,2µm,18.8s,baz=235,slow=33						
STKA	**Stephens Creek**	22.67	349	*e*P	P	04 17 21.5	+1.6
	20nm,1.0s,mb4.5						
STKA	**Stephens Creek**	22.67	349	P	P	04 17 20.0	+0.1
	26nm,1.0s,mb4.6,baz=162,slow=11,SNR=16						
STKA				LR	LR	04 24 24.7	
	comp=Z,228nm,19.5s,MS3.6,baz=194,slow=32						
VNDA	**Vanda**	23.98	172	P	P	04 17 32.7	0.0
VNDA				LR	LR	04 25 46.4	
VNDA	**Vanda**	23.98	172	P	P	04 17 32.7	0.0
	2.4nm,0.8s,mb3.7,baz=330,slow=13,SNR=4.1						
VNDA				LR	LR	04 25 46.4	
	comp=Z,484nm,21.1s,MS4.0,baz=348,slow=34						
URZ	**Urewera**	26.33	65	P	P	04 17 54.3	-0.1
	22nm,0.8s,mb4.7,baz=255,slow=3.1,SNR=6.2						
URZ				LR	LR	04 27 30.9	
	comp=Z,806nm,20.1s,MS4.3,baz=29,slow=34						
NWAO	**Narrogin (SRO)**	29.67	304	LR	LR	04 27 20.9	
	comp=Z,360nm,18.5s,MS4.0,baz=205,slow=31						
WB2	**Warramunga Arr**	35.51	340	*e*P	P	04 19 14.2	-1.2
WRA	**Warramunga Arr**	35.51	340	P	P	04 19 14.4	-1.0
	22nm,0.7s,mb5.2,baz=167,slow=7.5,SNR=50						
WRA				LR	LR	04 32 03.6	
	comp=Z,235nm,20.0s,MS3.9,baz=180,slow=34						
MAW	**Mawson**	39.31	217	LR	LR	04 35 57.1	
	comp=Z,237nm,18.6s,MS4.0,baz=247,slow=36						
KAKA	**Kakadu**	42.92	340	*e*P	P	04 20 17.5	+0.1
	30nm,1.0s,mb5.0						
SNAA	**Sanae**	52.46	192	P	P	04 21 31.1	+0.3
	0.5nm,0.7s,mb3.6,baz=162,slow=17,SNR=4.3						
PPT	**Papeete**	60.81	79	LR	LR	04 43 58.7	
	comp=Z,181nm,20.2s,MS4.2,baz=270,slow=31						
SUR	**Sutherland**	81.76	224	*e*P	P	04 24 38.5	+1.2
	3.5nm,0.8s,mb4.3						
BOSA	**Boshof**	83.13	229	*e*P	P	04 24 44.2	-0.4
	9.9nm,1.3s,mb4.7						
BOSA				LR	LR	04 53 49.3	
BOSA	**Boshof**	83.13	229	P	P	04 24 43.4	-1.2
	2.4nm,0.7s,mb4.3,baz=127,slow=2.4,SNR=4.9						
BOSA				LR	LR	04 53 49.3	
	comp=Z,117nm,20.1s,MS4.2,baz=198,slow=30						
KSRS	**Korea Array**	92.76	345	LR	LR	05 09 55.1	
	comp=Z,74nm,18.5s,MS4.2,baz=143,slow=37						
KMBO	**Kilima Mbogo**	100.14	254	LR	LR	05 04 57.7	
	comp=Z,76nm,18.6s,MS4.2,baz=327,slow=32						
NVAR	**Mina Array Bea**	122.97	69	PKP	PKPdf	04 31 15.2	+0.8
NVAR	**Mina Array Bea**	122.97	69	PKP	PKPdf	04 31 15.2	+0.8
	0.2nm,0.5s,baz=242,slow=1.9,SNR=3.5						
TXAR	**Lajitas Array**	124.72	87	PKP	PKPdf	04 31 19.5	+1.5
TXAR	**Lajitas Array**	124.72	87	PKP	PKPdf	04 31 19.5	+1.5
	0.8nm,1.0s,baz=247,slow=2.6,SNR=3.6						
TORD	**Torodi Ar. Bea**	130.47	228	PKP	PKPdf	04 31 28.1	-1.3
TORD	**Torodi Ar. Bea**	130.47	228	PKP	PKPdf	04 31 28.1	-1.3
	0.2nm,0.5s,baz=148,slow=1.5,SNR=9.1						
YKA	**Yellowknife Ar**	139.49	45	PKP	PKPdf	04 31 44.1	-0.6
YKA	**Yellowknife Ar**	139.49	45	PKhKP		04 31 36.4	
	0.4nm,0.8s,baz=247,slow=3.1,SNR=5.2						
YKA				PKP	PKPdf	04 31 44.1	-0.6
	0.6nm,0.8s,baz=243,slow=2.5,SNR=6.1						
AKASG	**Malin Array Be**	142.69	291	PKP	PKPdf	04 31 48.4	-2.5
AKASG	**Malin Array Be**	142.69	291	PKP	PKPdf	04 31 48.4	-2.5
	0.1nm,0.4s,baz=107,slow=2.9,SNR=2.6						
KEST	**Kesra**	145.08	256	PKP	PKPdf	04 31 55.5	0.0
	5.7nm,0.9s,baz=11,slow=1.2,SNR=9.8						
FINES	**FINESS Array B**	148.50	307	PKPbc	PKPbc	04 32 03.0	-1.1
FINES	**FINESS Array B**	148.50	307	PKPbc	PKPbc	04 32 03.0	-1.1
	5.2nm,0.9s,baz=106,slow=6.2,SNR=7.2						
ARCES	**ARCESS Array B**	149.79	323	PKPbc	PKPbc	04 32 06.3	-0.8
ARCES	**ARCESS Array B**	149.79	323	PKPbc	PKPbc	04 32 06.3	-0.8
	4.8nm,0.9s,baz=217,slow=0.6,SNR=6.4						
PGF	**Pioggiola**	149.83	265	*e*PKP	PKPbc	04 32 07.1	-0.9
GERES	**GERESS Array B**	150.54	279	PKPbc	PKPbc	04 32 08.3	-1.2
GERES	**GERESS Array B**	150.54	279	PKPbc	PKPbc	04 32 08.3	-1.2
	1.4nm,0.9s,baz=132,slow=2.0,SNR=8.8						
DAVOX	**Davos/Dischmat**	151.73	273	PKPbc	PKPbc	04 32 10.4	-2.0
DAVOX				PKPab	PKPab	04 32 20.1	-1.3
DAVOX	**Davos/Dischmat**	151.73	273	PKPbc	PKPbc	04 32 10.4	-2.0
	2.6nm,1.0s,baz=153,slow=9.0,SNR=3.4						
DAVOX				PKPab	PKPab	04 32 20.1	-1.3
	4.1nm,1.0s,baz=86,slow=12,SNR=4.2						
FRF	**La Foret Royal**	151.82	264	*e*PKP	PKPbc	04 32 11.5	-1.2
MBDF	**Montbardon**	152.43	266	*e*PKP	PKPdf	04 32 11.2	+4.1
LPG	**La Plagne**	152.87	268	*e*PKP	PKPdf	04 32 11.2	+3.4
LPL	**La Plagne**	152.89	268	*e*PKP	PKPdf	04 32 11.3	+3.5
ESDC	**Sonseca Array**	155.27	246	PKPbc	PKPdf	04 32 19.9	+8.5
ESDC				PKPab	PKPab	04 32 35.4	-1.1
ESDC	**Sonseca Array**	155.27	246	PKPbc	PKPdf	04 32 19.9	+8.5
	0.1nm,0.2s,baz=76,slow=0.8,SNR=5.8						
ESDC				PKPab	PKPab	04 32 35.4	-1.1
	0.3nm,0.5s,baz=118,slow=2.5,SNR=6.2						
LOR	**Lormes**	155.51	269	*e*PKP	PKPdf	04 32 17.3	+5.9
SSF	**Saint Saulge**	155.61	268	*e*PKP	PKPdf	04 32 18.8	+7.3

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*ISCJB **05** 04:14:45.3±1.0,38.57N±0.04×38.42E±0.05,h1^{km}±8^{km},Error ellipse: s-maj=8.3km s-min=5.3km az=44.6*

*ISK **05** 04:14:45.5,38.53N×38.48E,h13^{km},MD2.9*

*CSEM **05** 04:14:45.3±0.1,38.55N×38.48E,h10^{km},MD2.9,Error ellipse: s-maj=4.0km s-min=2.5km az=126.0*

*DDA **05** 04:14:47.3,38.50N×38.48E,h5^{km}±3^{km},Md3.3*

ISC 05 04:14:45.6±0.9,**38.57N**±0.04×**38.40E**±0.05,**h1**^{km}±7^{km},**n20**,σ**0^s.63**/27,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MYA	**Malataya**	0.24	175	PG	Pg	04 14 50.7	+0.5
MYA	**Malataya**	0.24	175	*e*Pg	Pg	04 14 50.7	+0.5
MALT	**Malatya**	0.26	175	PG	Pg	04 14 50.9	+0.4
MALT				SG	Sg	04 14 53.6	-0.2
MALT	**Malatya**	0.26	175	*e*Pg	Pg	04 14 50.9	+0.4
MALT				*e*Sg	Sg	04 14 53.6	-0.2
ELZG	**Elazig**	0.47	99	*i* P	Pg	04 14 54.9	+0.4
ELZG				*i* S	Sg	04 14 59.4	-1.1
PTK	**Pertek**	0.84	67	PG	Pg	04 15 01.1	-0.6
PTK				SG	Sg	04 15 13.4	+0.8
PTK	**Pertek**	0.84	67	*e*Pg	Pg	04 15 01.1	-0.6
PTK				*e*Sg	Sg	04 15 13.4	+0.8
URFA	**Urfa**	1.18	163	PN	Pn	04 15 08.0	-1.2
URFA	**Urfa**	1.18	163	*e*Pn	Pn	04 15 08.0	-1.2
GZT	**Gaziantep**	1.38	209	*i* P	Pg	04 15 12.3	+0.3
GZT				*i* S	Sg	04 15 29.9	0.0
KMRS	**Kahramanmaras**	1.59	228	*e*PN	Pn	04 15 14.4	-0.5
KMRS	**Kahramanmaras**	1.59	228	*e*Pn	Pn	04 15 14.4	-0.5
EZC	**Erzincan**	1.61	43	PN	Pn	04 15 10.8	-4.4
GAZ	**Gaziantep**	1.68	214	*e*PN	Pn	04 15 16.2	+0.1
GAZ	**Gaziantep**	1.68	214	*e*Pn	Pn	04 15 16.2	+0.1
SVSK	**Karacayir**	1.73	321	*e*PN	Pn	04 15 17.4	+0.6
SVSK	**Karacayir**	1.73	321	*e*Pn	Pn	04 15 17.4	+0.6
GUMT	**Gumushane**	2.06	24	*e*PN	Pn	04 15 20.8	-0.6
GUMT	**Gumushane**	2.06	24	*e*Pn	Pn	04 15 20.8	-0.6
MARD	**Mardin**	2.26	123	*i* P	Pn	04 15 24.3	+0.2
MARD				*i* S	Sn	04 15 53.6	+0.9

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*NIED **05** 04:29:00,41.10N×143.10E,h23^{km},Mw4.4 Best double couple: M$_0$3.83000×10^{15} NP1:φ$_s$260.00000°,δ36.00000°,λ169.00000°. NP2:φ$_s$360.00000°,δ83.00000°,λ54.00000°.*

*BJI **05** 04:29:32.0,41.16N×143.20E,h35^{km},mB4.9,mb4.6,Ms4.1,Msz3.9*

*JMA **05** 04:29:34.1±0.1,41.13N×143.09E,h24^{km},M4.3 Broadband fault plane solution: P waves. NP1: φ$_s$160.00000°,δ30.00000°,λ99.00000°. NP2: φ$_s$329.00000°,δ60.00000°,λ85.00000°. Principal axes: T Plg74.0000°, Azm226.0000°; N Plg4.0000°, Azm332.0000°; P Plg15.0000°, Azm63.0000°;*

JMA Felt I J1.

*MOS **05** 04:29:34.4±1.1,41.22N×142.93E,h39^{km},mb4.3/12 Error ellipse: s-maj=12.1km s-min=7.0km az=90.3*

*ISCJB **05** 04:29:34.6±0.6,41.15N±0.03×143.15E±0.06,h45^{km}±4^{km},mb4.2/25,MS3.9/6,Error ellipse: s-maj=8.1km s-min=3.8km az=35.1*

*NEIC **05** 04:29:36.7±0.7,41.28N×142.89E,h35^{km},mb3.7/1,Error ellipse: s-maj=17.9km s-min=7.3km az=128.0*

NEIC Recorded [1 JMA] in Aomori Prefecture, Honshu.

*IDC **05** 04:29:37.9±2.3,41.13N×142.89E,h52^{km}±18^{km},mb3.8/14,mb1 3.9/17,mb1mx3.8/25,mbtmp3.8/17,ML3.5/3,MS3.6/7,Ms1 3.6/7,ms1mx3.3/38,Error ellipse: s-maj=19.8km s-min=13.9km az=116.0*

ISC 05 04:29:35.9±0.5,**41.20N**±0.04×**143.11E**±0.05,**h37**^{km}±4^{km},**n68**,σ**1^s.15**/83,**mb4.2**/25,**MS3.9**/6,**6C-9D**,**Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ERM	**Erimo**	0.82	2	*e*P	Pn	04 29 50.5	-0.5
ERM				*e*S	Sn	04 30 01.5	-0.3
JEM	**Erimo**	0.82	2	P	Pn	04 29 50.4	-0.6
JEM				*e*S	Sn	04 30 02.8	+0.9
JNBK	**Urakawa-nobuka**	1.12	346	⇓P	Pn	04 29 55.2	+0.2
JNBK				*e*S	Sn	04 30 11.4	+2.2
JCH	**Churui**	1.43	7	P	Pn	04 29 59.4	0.0
JCH				S	Sn	04 30 17.5	+0.6
JANG	**Nango**	1.46	236	⇓P	Pn	04 29 58.5	-1.3
JOT	**Ohata**	1.57	277	⇓P	Pn	04 30 00.5	-0.7
JTM	**Tenmabayashi**	1.60	256	⇓P	Pn	04 30 01.3	-0.4
JTM				*e*S	Sn	04 30 21.1	0.0
JKB	**Kayabe**	1.71	295	P	Pn	04 30 03.5	+0.3
JKB				*e*S	Sn	04 30 25.7	+2.0
JAK	**Akkeshi**	2.15	33	⇓P	Pn	04 30 08.5	-0.8
JAK				S	Sn	04 30 33.2	-1.5
JAR	**Ashorobuto**	2.16	13	P	Pn	04 30 09.1	-0.2
JAR				S	Sn	04 30 34.6	-0.2
JOM	**Ohasama**	2.21	220	⇑P	Pn	04 30 10.2	+0.1
ASAJ	**Asahikawa**	2.94	353	P	Pn	04 30 21.7	+1.6
ASAJ				S	Sn	04 30 58.4	+4.2
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.3s						
ASAJ				smax			
	comp=N,14nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,279nm,19.0s						
ASAJ	**Asahikawa**	2.94	353	P	Pn	04 30 21.7	+1.6
	comp=Z,5.8nm,0.3s,baz=221,slow=13,SNR=15						
ASAJ				S	Sn	04 30 58.4	+4.1
	comp=Z,14nm,0.3s,baz=151,slow=18,SNR=4.4						
ASAJ				LR	LR	04 32 11.1	
	comp=Z,279nm,19.0s,baz=358,slow=51						
YUK	**Yuzh-Kuril'sk**	3.49	35	⇑*i*P	Pn	04 30 26.8	-0.8
YUK				*i* S	Sn	04 31 04.9	-2.7
YUK				pmax	pmax		
	comp=N,360nm,0.5s						
YUK				pmax	pmax		
	comp=E,220nm,0.5s						
YUK				pmax	pmax		
	comp=Z,440nm,0.5s						
YUK				smax			
	comp=E,2µm,0.7s						
YUK				smax			
	comp=N,1µm,0.5s						
YUK				smax			
	comp=N,3µm,0.6s						
YUK				smax			
	comp=E,3µm,0.8s						
KUR	**Kuril'sk**	5.33	39	⇑*i*P	Pn	04 30 53.5	+0.7
KUR				*e*S	Sn	04 31 52.0	-0.9
KUR				pmax	pmax		
	comp=N,60nm,0.6s						
KUR				pmax	pmax		
	comp=E,110nm,0.6s						
KUR				pmax	pmax		
	comp=Z,320nm,0.6s						
KUR				smax			
	comp=N,170nm,0.5s						
KUR				smax			
	comp=E,90nm,0.5s						
YSS	**Yuzh-Sakhalins**	5.76	358	P	Pn	04 31 01.3	+2.5
YSS				S	Sn	04 32 07.8	+4.1
YSS				MLR	MLR		
	comp=Z,400nm,16.0s						
MAJO	**Matsushiro**	6.02	221	*e*Pn	Pn	04 31 03.1	+0.7
	comp=Z,23nm,0.7s						
MAJO	**Matsushiro**	6.02	221	*e*P	Pn	04 31 03.1	+0.7
MAJO				pmax	pmax		
	comp=Z,23nm,0.7s						
MAT	**Matsushiro**	6.02	221	P	Pn	04 31 03.4	+1.0
MAT				*e*S	Sn	04 32 13.4	+3.4
MJAR	**Matsushiro Arr**	6.02	221	P	Pn	04 31 02.0	-0.4
	comp=Z,0.7nm,0.3s,baz=31,slow=13,SNR=15						
MJAR				LR	LR	04 33 45.8	
	comp=Z,518nm,20.3s,baz=40,slow=42						
HABR	**Khabarovsk**	9.25	325	P	Pn	04 31 40.8	-5.9
HABR				*e*		04 33 22.0	
KLR	**Kul'dur**	11.34	319	*e*P	Pn	04 32 14.2	-1.0
KSRS	**Korea Array**	12.34	257	P	Pn	04 32 29.4	+0.4
	comp=Z,0.2nm,0.3s,baz=69,slow=13,SNR=5.9						
KSRS				LR	LR	04 36 45.7	
	comp=Z,329nm,20.6s,baz=94,slow=35						
JNU	**Nakatsue**	12.64	234	LR	LR	04 37 34.5	
	comp=Z,211nm,19.3s,baz=48,slow=38						
PET	**Petropavlovsk**	15.83	36	Pn	Pn	04 33 16.9	+1.1
	comp=Z,2.5nm,0.4s						
PET	**Petropavlovsk**	15.83	36	P	Pn	04 33 16.9	+1.1
PET				pmax	pmax		
	comp=Z,3.0nm,0.4s						
CLNS	**Chul'man**	19.59	329	*e*P	Pn	04 33 59.4	-2.7
CLNS				*e*S	S	04 37 27.4	-12
CLNS				pmax	pmax		
	comp=Z,11nm,0.9s						
CLNS				pmax	pmax		
	comp=N,8.0nm,1.2s						
CLNS				pmax	pmax		
	comp=E,6.0nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,9.0nm,0.8s						
CLNS				smax			
	comp=N,44nm,11.7s						
CLNS				smax			
	comp=Z,41nm,12.1s						
CLNS				smax			
	comp=E,95nm,13.0s						
CLNS				MLR	MLR		
	comp=Z,100nm,14.0s						
CLNS				MLR	MLR		
	comp=N,100nm,12.0s						
CLNS				MLR	MLR		
	comp=E,100nm,14.0s						
NJ2	**Nanjing**	21.45	253	*e*P	P	04 34 18.3	-2.6
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.6						
YAK	**Yakutsk**	22.38	343	⇓*i*P	P	04 34 26.4	-4.1
YAK				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.5						
SEY	**Seymchan**	22.46	11	⇑*e*P	P	04 34 29.4	-2.0
BOD	**Bodaibo**	24.89	322	*e*P	P	04 34 53.3	-1.6
BOD				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb3.8						
WHN	**Wuhan**	25.51	255	*e*P	P	04 35 00.1	-0.7
WHN				LR	LR		
	comp=Z,780nm,17.7s,MS4.3						
ULN	**Ulaanbaatar**	26.38	297	*d* *i*P	P	04 35 09.1	+0.6
SONM	**Songino Array**	26.82	297	P	P	04 35 12.3	-0.2
	comp=Z,2.7nm,0.7s,mb3.9,baz=82,slow=8.3,SNR=18						
SONM				LR	LR	04 46 47.5	
	comp=Z,274nm,18.2s,MS3.9,baz=82,slow=39						
ZAK	**Zakamensk**	28.95	302	*e*P	P	04 35 30.8	-0.7
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.7						
GTA	**Gaotai**	32.82	281	*e*P	P	04 36 05.5	-0.2
GTA				AP	pP	04 36 15.9	-0.3
GTA				XP	sP	04 36 20.6	-0.1
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.2						
GTA				AMB	AMB		
	comp=Z,74nm,5.3s						
GTA				LR	LR		
	comp=N,127nm,12.6s						
GTA				LR	LR		
	comp=E,212nm,19.4s						
GTA				LR	LR		
	comp=Z,223nm,20.2s						
ZALV	**Zalesovo Beam**	40.21	309	P	P	04 37 08.2	-0.3
	comp=Z,6.9nm,0.6s,mb4.5,baz=86,slow=8.3,SNR=14						
ZALV				LR	LR	04 55 02.9	
	comp=Z,100nm,18.6s,MS3.7,baz=175,slow=38						
ZAL	**Zalesovo**	40.22	309	P	P	04 37 08.2	-0.4
WMQ	**Urumqi**	40.29	293	*e*P	P	04 37 09.7	+0.4
WMQ				AP	pP	04 37 19.7	-0.3
WMQ				XP	sP	04 37 23.7	-0.7
WMQ				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.6						
WMQ				LR	LR		
	comp=N,105nm,17.0s,MS3.9						
WMQ				LR	LR		
	comp=E,112nm,20.2s,MS3.9						
WMQ				LR	LR		
	comp=Z,144nm,19.4s,MS3.8						
IMA2	**Indian Mountai**	42.45	33	*e*P	P	04 37 27.9	+1.2
MK31	**Makanchi Array**	43.15	299	*e*P	P	04 37 31.7	-0.9
MKAR	**Makanchi Array**	43.15	299	P	P	04 37 32.2	-0.4
MKAR				LR	LR	04 56 42.4	
MKAR	**Makanchi Array**	43.15	299	P	P	04 37 32.2	-0.4
	comp=Z,4.1nm,0.8s,mb4.2,baz=83,slow=9.5,SNR=24						
MKAR				LR	LR	04 56 42.4	
	comp=Z,138nm,19.2s,MS3.9,baz=355,slow=38						
KURK	**Kurchatov**	44.52	305	⇑*e*P	P	04 37 41.9	-1.6
COLA	**College**	44.88	34	⇓*e*P	P	04 37 47.6	+1.4
AAK	**Ala-Archa**	49.77	296	⇑*e*P	P	04 38 23.2	-1.4
AAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.1						
INK	**Inuvik**	50.10	29	P	P	04 38 28.4	+1.7
	comp=Z,1.5nm,0.6s,mb4.2,baz=272,slow=7.8,SNR=6.8						
ARU	**Arti**	54.17	317	⇓*i*P	P	04 38 55.5	-1.6
ARU				*e*S	S	04 46 30.9	-0.3
ARU				*e*SS	SS	04 50 11.9	-0.7
ARU				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
AKTO	**Aktyubinsk**	56.93	311	P	P	04 39 16.7	-0.3
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
AKTO	**Aktyubinsk**	56.93	311	P	P	04 39 16.6	-0.4
	comp=Z,1.1nm,0.7s,mb4.0,baz=54,slow=15,SNR=4.3						
YKA	**Yellowknife Ar**	59.56	32	P	P	04 39 36.8	+1.6
YKA	**Yellowknife Ar**	59.56	32	P	P	04 39 36.8	+1.6
	comp=Z,0.1nm,0.5s,mb3.1,baz=303,slow=7.4,SNR=3.7						
WRA	**Warramunga Arr**	61.37	189	*i* P	P	04 39 48.0	0.0
WRA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
WRA	**Warramunga Arr**	61.37	189	P	P	04 39 47.6	-0.4
	comp=Z,2.4nm,1.0s,mb4.3,baz=12,slow=7.8,SNR=5.5						
JOF	**Joensuu**	62.93	331	*e*P	P	04 40 01.1	+3.1
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.3						
FINES	**FINESS Array B**	65.76	332	P	P	04 40 16.0	-0.5
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES	**FINESS Array B**	65.76	332	P	P	04 40 16.0	-0.6
	comp=Z,2.1nm,0.6s,mb4.3,baz=54,slow=6.8,SNR=14						
VORD	**Divnogorie**	66.78	318	*e*P	P	04 40 24.3	+1.1
VORD				pmax	pmax		
	comp=N,7.0nm,0.3s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.3s						
VORD				pmax	pmax		
	comp=Z,8.0nm,0.3s,mb5.2						
KIV	**Kislovodsk**	69.19	311	*e*P	P	04 40 39.7	+1.1
KIV				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
KIV				MLR	MLR		
	comp=Z,86nm,17.0s,MS4.1						
NOA	**NORSAR Array B**	70.86	337	P	P	04 40 47.9	-0.6
NOA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
NOA	**NORSAR Array B**	70.86	337	P	P	04 40 47.9	-0.5
	comp=Z,1.8nm,0.8s,mb4.0,baz=37,slow=6.2,SNR=3.9						
NVAR	**Mina Array Bea**	71.48	55	P	P	04 40 54.6	+2.0
	comp=Z,0.4nm,0.7s,mb3.5,baz=300,slow=5.1,SNR=4.9						
AKASG	**Malin Array Be**	71.82	322	P	P	04 40 53.9	-0.5
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.7s						
AKASG	**Malin Array Be**	71.82	322	P	P	04 40 53.9	-0.5
	comp=Z,3.0nm,0.7s,mb4.3,baz=44,slow=6.0,SNR=24						
BRTR	**Keskin Array B**	77.08	312	P	P	04 41 25.8	+0.6
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	**Keskin Array B**	77.08	312	P	P	04 41 25.8	+0.6
	comp=Z,1.1nm,0.8s,mb3.9,baz=63,slow=4.3,SNR=5.9						
MMAI	**Mount Meron Ar**	80.62	306	P	P	04 41 46.1	+1.4
	comp=Z,3.8nm,0.8s,mb4.4,baz=43,slow=11,SNR=3.4						
TXAR	**Lajitas Array**	86.56	54	P	P	04 42 16.4	+1.1
	comp=Z,0.3nm,0.7s,mb3.6,baz=316,slow=3.5,SNR=4.7						

ISCJB ***05*** *05:04:54.3±1.0, 16.0S±0.3×177.5W±0.2, h420^{km}±16^{km}, mb3.8/7, Error ellipse: s-maj=54.3km s-min=12.3km az=147.1*

NEIC ***05*** *05:04:54.7±1.1, 16.08S×177.36W, h415^{km}±15^{km}, mb4.3/3, Error ellipse: s-maj=43.7km s-min=10.5km az=148.0*

IDC ***05*** *05:04:54.7±2.3, 15.70S×177.64W, h405^{km}±31^{km}, mb3.3/5, mb1 3.6/7, mb1mx3.4/14, mbtmp3.3/7, Error ellipse: s-maj=93.4km s-min=14.8km az=152.0*

ISC 05 05:04:54.9±1.0**, 16.1S**±0.3×**177.4W**±0.2**, h414**^{km}±17^{km}**, n22, σ0^{s}.93**/15**, mb3.8**/7**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**5.83**	**69**	*e*P	**P**	**05 06 24.9**	**-1.3**
	23nm,0.7s						
AFI	**Afiamalu**	**5.83**	**69**	P	**P**	**05 06 26.3**	**+0.1**
	3.0nm,0.3s,baz=300,slow=6.0,SNR=4.2						
AFI				S	**S**	**05 07 40.6**	**-0.1**
	1.7nm,0.3s,baz=99,slow=19,SNR=2.4						
DZM	**Mont Dzumac**	**16.41**	**246**	P	**P**	**05 08 23.4**	**+1.4**
	0.3nm,0.3s,baz=30,slow=20,SNR=3.3						
CTAO	**Charters Tower**	**34.76**	**258**	*e*P	**P**	**05 11 09.2**	**+0.6**
	13nm,1.0s,mb4.2						
TAU	**Tasmania Unive**	**40.25**	**221**	P	**P**	**05 11 53.5**	**-0.2**
	15nm,1.1s,mb4.2						
STKA	**Stephens Creek**	**40.38**	**240**	P	**P**	**05 11 54.9**	**-0.1**
STKA	**Stephens Creek**	**40.38**	**240**	P	**P**	**05 11 54.9**	**-0.1**
	1.2nm,0.3s,mb3.7,baz=71,slow=6.7,SNR=6.3						
HON	**Honolulu**	**41.76**	**28**	P	**P**	**05 12 07.2**	**+1.2**
WB2	**Warramunga Arr**	**45.95**	**258**	*e*P	**P**	**05 12 38.2**	**-0.9**
WRA	**Warramunga Arr**	**45.96**	**258**	P	**P**	**05 12 38.1**	**-1.0**
	2.6nm,0.9s,mb3.5,baz=90,slow=6.5,SNR=25						
NVAR	**Mina Array Bea**	**77.43**	**44**	P	**P**	**05 16 06.3**	**+0.4**
	0.9nm,0.6s,mb3.6,baz=216,slow=6.7,SNR=10						
TXAR	**Lajitas Array**	**84.19**	**57**	P	**P**	**05 16 43.1**	**+1.7**
	1.1nm,0.8s,mb3.6,baz=222,slow=7.5,SNR=13						
DAWY	**Dawson**	**85.08**	**16**	*e*P	**P**	**05 16 44.1**	**-0.9**
YKA	**Yellowknife Ar**	**92.27**	**24**	P	**P**	**05 17 17.6**	**-1.2**
	0.3nm,0.6s,mb3.4,baz=243,slow=4.3,SNR=7.4						
ARCES	**ARCESS Array B**	**124.70**	**350**	PKP	PKPdf	05 23 04.4	-1.1
ARCES	**ARCESS Array B**	**124.70**	**350**	PKP	PKPdf	05 23 04.4	-1.1
	2.8nm,1.0s,baz=338,slow=2.6,SNR=5.1						
BRTR	**Keskin Array B**	**144.17**	**317**	PKP	PKPdf	05 23 41.0	-1.6
BRTR	**Keskin Array B**	**144.17**	**317**	PKP	PKPdf	05 23 41.0	-1.6
	1.6nm,0.8s,baz=82,slow=3.3,SNR=8.8						
GERES	**GERESS Array B**	**146.10**	**347**	PKPbc	PKPbc	05 23 46.6	-0.6
GERES	**GERESS Array B**	**146.10**	**347**	PKPbc	PKPbc	05 23 46.6	-0.6
	0.4nm,0.5s,baz=20,slow=4.3,SNR=6.2						
DAVOX	**Davos/Dischmat**	**148.81**	**350**	PKPbc	PKPbc	05 23 54.4	-0.1
DAVOX	**Davos/Dischmat**	**148.81**	**350**	PKPbc	PKPbc	05 23 54.4	-0.1
	1.8nm,0.6s,baz=9.9,slow=1.7,SNR=6.1						

MDD ***05*** *05:10:11.4±1.8, 36.88N×10.71W, h16^{km}±70^{km}, mb3.5/5, Error ellipse: s-maj=79.5km s-min=11.6km az=53.0, PRXIMO*

INMG 05 05:10:12.2±0.9**, 36.89N×10.65W, h10**^{km}**, ML1.7, 2C, Error ellipse: s-maj=6.0km s-min=3.4km az=76.0, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PFVI	**Vila Bisbo**	**1.48**	**80**	*i* P	Pn	05 10 36.8	-2.0
PFVI				*e*S	Sn	05 10 55.3	-2.9
PFVI				A		05 10 56.5	
	8.9nm,0.2s						
PFVI	**Vila Bisbo**	**1.48**	**80**	⇑P	Pn	05 10 36.8	-2.0
PFVI				S	Sn	05 10 55.3	-2.9
	4.4nm,0.2s						
MORF	**Marmelete**	**1.65**	**75**	*e*Pn	Pn	05 10 39.3	-1.9
MORF				*e*Sn	Sn	05 10 59.7	-2.7
MORF				A		05 11 00.3	
	9.9nm,0.1s						
MORF	**Marmelete**	**1.65**	**75**	P	Pn	05 10 39.3	-1.9
MORF				S	Sn	05 10 59.7	-2.7
	9.9nm,0.1s						
PTEO	**Sao Teotonio**	**1.67**	**66**	*e*Pn	Pn	05 10 39.7	-1.8
PTEO				*e*Sn	Sn	05 11 00.5	-2.4
PTEO				A		05 11 02.3	
	4.9nm,0.2s						
PTEO	**Sao Teotonio**	**1.67**	**66**	P	Pn	05 10 39.7	-1.8
PTEO				S	Sn	05 11 00.5	-2.4
	2.5nm,0.2s						
PBDV	**Barranco-do-Ve**	**2.20**	**80**	*e*Pn	Pn	05 10 47.1	-1.7
PBDV				*e*Sn	Sn	05 11 13.3	-2.7
PBDV				A		05 11 17.2	
	2.2nm,0.1s						
PBDV	**Barranco-do-Ve**	**2.20**	**80**	P	Pn	05 10 47.1	-1.7
PBDV				S	Sn	05 11 13.3	-2.7
	1.1nm,0.1s						
PMAFR	**Mafra**	**2.33**	**27**	*e*Pn	Pn	05 10 48.0	-2.5
PMAFR				*e*Sn	Sn	05 11 16.1	-3.1
PMAFR				A		05 11 17.1	
	6.5nm,0.1s						
PMAFR	**Mafra**	**2.33**	**27**	P	Pn	05 10 48.0	-2.5
PMAFR				S	Sn	05 11 16.1	-3.1
	3.2nm,0.1s						
PVAQ	**Vaqueiros**	**2.40**	**77**	*e*Pn	Pn	05 10 49.8	-1.7
PVAQ				*e*Sn	Sn	05 11 17.9	-2.9
PVAQ				A		05 11 20.4	
	2.7nm,0.1s						
PVAQ	**Vaqueiros**	**2.40**	**77**	⇑P	Pn	05 10 49.8	-1.7
PVAQ				S	Sn	05 11 17.9	-2.9
	1.4nm,0.1s						
MOE	**Montemor**	**2.44**	**47**	*e*Sn	Sn	05 11 18.9	-3.1
MOE	**Montemor**	**2.44**	**47**	S	Sn	05 11 18.9	-3.1
PBEJ	**Beja**	**2.48**	**62**	*e*Sn	Sn	05 11 19.8	-3.3
PBEJ				A		05 11 21.6	
	1.8nm,0.3s						
PBEJ	**Beja**	**2.48**	**62**	S	Sn	05 11 19.8	-3.3
	0.9nm,0.3s						
EGRO	**El Granado**	**2.60**	**75**	P	Pn	05 10 52.5	-1.9
	1.0nm,0.1s,SNR=8.0						
EGRO				S	Sn	05 11 23.0	-3.0
	1.3nm,0.1s						
PESTR	**Estremoz**	**3.12**	**50**	*e*Sn	Sn	05 11 35.3	-3.5
PESTR				A		05 11 37.8	
	1.1nm,0.2s						
PTOM	**Tomar**	**3.24**	**32**	*e*Sn	Sn	05 11 38.9	-2.9
PTOM				A		05 11 40.4	
	4.8nm,0.1s						
PTOM	**Tomar**	**3.24**	**32**	S	Sn	05 11 38.9	-2.9
	2.4nm,0.1s						
EMIN	**Mina Concepcio**	**3.29**	**73**	P	Pn	05 11 01.6	-2.1
	0.5nm,0.1s,SNR=9.3						
EMIN				S	Sn	05 11 39.2	-3.6
	0.4nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	**3.43**	**56**	P	Pn	05 11 04.1	-1.6
	0.2nm,0.1s,SNR=7.9						
EBAD				S	Sn	05 11 42.1	-4.2
	1.1nm,0.1s,SNR=7.3						
ESPR	**Espera**	**3.84**	**89**	P	Pn	05 11 09.5	-1.8
	2.9nm,0.1s,SNR=8.6						
ESPR				S	Sn	05 11 52.8	-3.6
	2.4nm,0.2s						
PCBR	**Castelo Branco**	**3.86**	**39**	*e*Sn	Sn	05 11 52.5	-4.4
PCBR				A		05 11 53.7	
	1.0nm,0.3s						
PCBR	**Castelo Branco**	**3.86**	**39**	S	Sn	05 11 52.5	-4.4
	0.5nm,0.3s						
MTE	**Manteigas**	**4.26**	**34**	*e*Sn	Sn	05 12 02.8	-4.1
MTE				A		05 12 07.7	
	1.0nm,0.3s						
MTE	**Manteigas**	**4.26**	**34**	S	Sn	05 12 02.8	-4.1
	0.5nm,0.3s						
PVIS	**Viseu**	**4.38**	**29**	*e*Pn	Pn	05 11 16.8	-2.0
PVIS				*e*Sn	Sn	05 12 04.8	-5.1
PVIS				A		05 12 07.2	
	1.6nm,0.1s						
PVIS	**Viseu**	**4.38**	**29**	P	Pn	05 11 16.8	-2.0
PVIS				S	Sn	05 12 04.8	-5.1
	0.8nm,0.1s						
MVO	**Moncorvo**	**5.11**	**32**	*e*Sn	Sn	05 12 22.1	-5.8
MVO				A		05 12 24.8	
	1.0nm,0.2s						
MVO	**Moncorvo**	**5.11**	**32**	S	Sn	05 12 22.1	-5.8
	0.5nm,0.2s						
ELOB	**Lobios**	**5.36**	**21**	P	Pn	05 11 29.2	-2.9
	0.1nm,0.1s,SNR=7.9						
ELOB				S	Sn	05 12 28.1	-5.9
	0.2nm,0.1s,SNR=7.9						

ISCJB ***05*** *05:18:29.3±1.1, 29.55N±0.07×141.2E±0.2, h35^{km}±12^{km}, mb3.6/10, Error ellipse: s-maj=24.4km s-min=8.7km az=162.1*

NEIC ***05*** *05:18:30.6±0.5, 29.48N×141.32E, h35^{km}, Error ellipse: s-maj=14.9km s-min=10.1km az=74.0*

IDC ***05*** *05:18:33.0±0.6, 29.42N×141.28E, h58^{km}±6^{km}, mb3.4/10, mb1 3.7/12, mb1mx3.5/21, mbtmp3.4/12, MS3.0/2, Ms1 3.0/2, ms1mx2.5/17, Error ellipse: s-maj=24.7km s-min=8.1km az=72.0*

ISC 05 05:18:31.6±0.9**, 29.52N**±0.07×**141.3E**±0.2**, h41**^{km}±10^{km}**, h59**^{km}±.8^{km}**:pP-P, n18, σ0^{s}.53**/19**, mb3.6**/10**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**2.54**	**162**	P	**Pn**	**05 19 10.9**	**+0.6**
	34nm,0.3s,baz=294,slow=13,SNR=12						
CBIJ				S	**Sn**	**05 19 39.6**	**-0.3**
	96nm,0.3s,baz=295,slow=22,SNR=16						
CBIJ				LR	LR	05 19 46.6	
	comp=Z,358nm,19.4s,baz=242,slow=30						
MJAR	**Matsushiro Arr**	**7.47**	**340**	P	**Pn**	**05 20 18.6**	**+0.8**
	1.1nm,0.3s,baz=164,slow=12,SNR=5.8						
MJAR				LR	LR	05 21 59.3	
	comp=Z,94nm,22.0s,baz=110,slow=27						
MAJO	**Matsushiro**	**7.47**	**340**	Pn	**Pn**	**05 20 17.3**	**-0.6**
	3.0nm,0.3s						
ERM	**Erimo**	**12.56**	**6**	P	**Pn**	**05 21 27.1**	**-0.4**
	2.5nm,0.4s						
SONM	**Songino Array**	**32.45**	**314**	P	**P**	**05 24 58.2**	**+0.4**
	0.2nm,0.5s,mb3.2,baz=101,slow=7.5,SNR=2.4						
MKAR	**Makanchi Array**	**48.35**	**308**	P	**P**	**05 27 08.7**	**-0.4**
MKAR	**Makanchi Array**	**48.35**	**308**	P	**P**	**05 27 08.7**	**-0.4**
	0.1nm,0.6s,mb3.0,baz=101,slow=7.8,SNR=2.7						
WRA	**Warramunga Arr**	**49.63**	**189**	P	**P**	**05 27 18.5**	**-0.6**
	0.7nm,0.3s,mb4.1,baz=7.4,slow=7.8,SNR=3.8						
AKTK	**Aktyubinsk**	**63.76**	**315**	P	**P**	**05 28 59.0**	**-0.2**
AKTO	**Aktyubinsk**	**63.76**	**315**	P	**P**	**05 28 59.0**	**-0.2**
	0.3nm,0.3s,mb3.8,baz=21,slow=14,SNR=1.8						
YKA	**Yellowknife Ar**	**70.39**	**29**	P	**P**	**05 29 40.0**	**-1.0**
	0.2nm,0.8s,mb3.1,baz=297,slow=5.8,SNR=3.7						
FINES	**FINESS Array B**	**75.44**	**333**	P	**P**	**05 30 10.7**	**-0.2**
	0.6nm,0.5s,mb3.8,baz=186,slow=36,SNR=2.8						
FINES				pP	pP	05 30 26.1	+3.1
	1.5nm,0.9s,baz=64,slow=8.7,SNR=1.5						
NVAR	**Mina Array Bea**	**79.64**	**52**	P	**P**	**05 30 35.3**	**+0.5**
	0.5nm,0.6s,mb3.6,baz=286,slow=6.6,SNR=5.3						
NVAR				pP	pP	05 30 51.9	+4.8
	0.9nm,0.6s,baz=284,slow=5.5,SNR=7.8						
PDAR	**Pinedale Array**	**83.04**	**44**	P	**P**	**05 30 53.0**	**+0.2**
	0.2nm,0.6s,mb3.3,baz=305,slow=3.2,SNR=3.8						
PDAR				pP	pP	05 31 09.6	+4.5
	0.4nm,0.7s,baz=300,slow=4.1,SNR=3.5						
BRTR	**Keskin Array B**	**83.79**	**312**	P	**P**	**05 30 57.5**	**+0.8**
BRTR				pP	pP	05 31 13.6	+4.6
BRTR	**Keskin Array B**	**83.79**	**312**	P	**P**	**05 30 57.5**	**+0.8**
	1.4nm,0.8s,mb4.2,baz=78,slow=4.2,SNR=7.9						
BRTR				pP	pP	05 31 13.6	+4.6
	0.8nm,0.7s,baz=85,slow=5.2,SNR=3.0						
TXAR	**Lajitas Array**	**94.77**	**53**	P	**P**	**05 31 49.5**	**+0.4**
TXAR				pP	pP	05 32 06.1	+4.5
TXAR	**Lajitas Array**	**94.77**	**53**	P	**P**	**05 31 49.5**	**+0.4**
	0.3nm,0.7s,mb3.9,baz=272,slow=2.1,SNR=4.0						
TXAR				pP	pP	05 32 06.1	+4.5
	0.2nm,0.7s,baz=280,slow=2.7,SNR=2.6						

IDC ***05*** *05:25:31.8±2.9, 45.80N×152.58E, h0^{km}, mb3.6/4, mb1 3.9/4, mb1mx3.5/21, mbtmp3.6/4, Error ellipse: s-maj=88.3km s-min=47.1km az=11.0*

MOS ***05*** *05:25:48.7±0.4, 46.97N×152.81E, h102^{km}, mb3.9/2, Error ellipse: s-maj=99.9km s-min=34.8km az=74.6*

ISC 05 05:25:39.4±2.1**, 46.2N**±0.3×**152.7E**±0.4**, h35**^{km}**, n9, σ0^{s}.54**/8**, mb3.5**/4**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**5.06**	**25**	*e*PN	**Pn**	**05 26 53.0**	**+0.3**
SKR				*e*		05 27 36.1	
YKA	**Yellowknife Ar**	**51.56**	**36**	P	**P**	**05 34 40.5**	**-1.0**
YKA	**Yellowknife Ar**	**51.56**	**36**	P	**P**	**05 34 40.5**	**-0.9**
	0.1nm,0.4s,mb3.1,baz=296,slow=7.2,SNR=3.9						
FINES	**FINESS Array B**	**64.46**	**335**	P	**P**	**05 36 11.5**	**-0.3**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FINES	**FINESS Array B**	**64.46**	**335**	P	**P**	**05 36 11.5**	**-0.3**
	comp=Z,1.2nm,0.9s,mb3.9,baz=51,slow=10.0,SNR=4.3						
NOA	**NORSAR Array B**	**68.70**	**341**	P	**P**	**05 36 39.2**	**+0.4**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	**NORSAR Array B**	**68.70**	**341**	P	**P**	**05 36 39.2**	**+0.4**
	comp=Z,0.8nm,0.6s,mb3.8,baz=27,slow=6.4,SNR=2.4						
TXAR	**Lajitas Array**	**78.03**	**60**	P	**P**	**05 37 34.9**	**+0.5**
	comp=Z,0.2nm,0.6s,mb3.2,baz=299,slow=5.0,SNR=4.5						
TORD	**Torodi Ar. Bea**	**115.46**	**328**	PKP	PKPdf	05 44 15.4	-2.3
	comp=Z,0.4nm,0.6s,baz=91,slow=1.9,SNR=7.3						

CSEM ***05*** *05:45:16.9±0.1, 40.48N×37.01E, h2^{km}, MD3.2, Error ellipse: s-maj=3.0km s-min=1.8km az=15.0*

ISCJB ***05*** *05:45:17.5±0.4, 40.47N±0.03×37.08E±0.03, h2^{km}, Error ellipse: s-maj=4.9km s-min=3.5km az=178.6*

ISK ***05*** *05:45:17.3, 40.44N×37.01E, h4^{km}, MD3.2*

DDA ***05*** *05:45:18.7, 40.52N×37.10E, h7^{km}±5^{km}, Md3.4*

ISC 05 05:45:18.1±0.4**, 40.48N**±0.03×**37.08E**±0.03**, h2**^{km}**, n32, σ0^{s}.88**/43**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TOKT	**Tokat**	**0.43**	**249**	*i* PG	**Pg**	**05 45 25.8**	**-0.6**
TOKT				*i* SG	**Sg**	**05 45 31.5**	**-0.5**
TOKT	**Tokat**	**0.43**	**249**	*i* Pg	**Pg**	**05 45 25.8**	**-0.6**
TOKT				*i* Sg	**Sg**	**05 45 31.5**	**-0.5**
SVSK	**Karacayir**	**0.56**	**186**	*i* PG	**Pg**	**05 45 27.7**	**-1.2**
SVSK				*i* SG	**Sg**	**05 45 35.8**	**-0.4**
SVSK	**Karacayir**	**0.56**	**186**	*i* Pg	**Pg**	**05 45 27.7**	**-1.2**
SVSK				*i* Sg	**Sg**	**05 45 35.8**	**-0.4**
KVT	**Kavak**	**0.98**	**308**	PG	**Pg**	**05 45 36.2**	**-0.7**
KVT	**Kavak**	**0.98**	**308**	*e*Pg	**Pg**	**05 45 36.2**	**-0.7**
GRSN	**GIRESUNGRSN**	**1.01**	**64**	*i* P	**Pg**	**05 45 36.6**	**-0.8**
GRSN				*i* S	**Sg**	**05 45 48.9**	**-1.6**
YOZ	**Yozgat**	**1.59**	**239**	PN	**Pn**	**05 45 46.3**	**-0.8**
YOZ	**Yozgat**	**1.59**	**239**	*e*Pn	**Pn**	**05 45 46.3**	**-0.8**
CTKT	**Corum**	**1.75**	**275**	*i* P	**Pn**	**05 45 49.7**	**+0.3**
CTKT				*i* S	**Sn**	**05 46 13.4**	**+1.2**
DIKM	**Dikmen**	**1.80**	**311**	PN	**Pn**	**05 45 49.8**	**-0.3**
DIKM	**Dikmen**	**1.80**	**311**	*e*Pn	**Pn**	**05 45 49.8**	**-0.3**
GUMT	**Gumushane**	**1.83**	**90**	PN	**Pn**	**05 45 51.0**	**+0.4**
GUMT	**Gumushane**	**1.83**	**90**	*e*Pn	**Pn**	**05 45 51.0**	**+0.4**
BNN	**Bunyan**	**1.88**	**211**	PN	**Pn**	**05 45 50.9**	**-0.3**
BNN	**Bunyan**	**1.88**	**211**	*e*Pn	**Pn**	**05 45 50.9**	**-0.3**
CORM	**Corum**	**1.89**	**262**	PN	**Pn**	**05 45 50.5**	**-0.9**
CORM	**Corum**	**1.89**	**262**	*e*Pn	**Pn**	**05 45 50.5**	**-0.9**
BOYT	**Boyabat**	**1.89**	**300**	*i* P	**Pn**	**05 45 51.7**	**+0.3**
BOYT				*i* S	**Sn**	**05 46 18.6**	**+2.8**
MACK	**Trabzon**	**2.10**	**76**	*i* P	**Pn**	**05 45 55.1**	**+0.9**
MACK				*i* S	**Sn**	**05 46 21.5**	**+0.6**
EZC	**Erzincan**	**2.23**	**108**	*e*PN	**Pn**	**05 45 52.3**	**-3.6**
CDAG	**Cicekdag**	**2.24**	**248**	*i* P	**Pn**	**05 45 55.6**	**-0.6**
CDAG				*i* S	**Sn**	**05 46 25.2**	**+0.8**
TOS	**Tosya**	**2.38**	**284**	*e*PN	**Pn**	**05 45 57.6**	**-0.5**
TOS	**Tosya**	**2.38**	**284**	*e*Pn	**Pn**	**05 45 57.6**	**-0.5**
PTK	**Pertek**	**2.39**	**131**	*e*PN	**Pn**	**05 45 59.2**	**+1.0**
PTK	**Pertek**	**2.39**	**131**	*e*Pn	**Pn**	**05 45 59.2**	**+1.0**
MYA	**Malataya**	**2.39**	**154**	*e*PN	**Pn**	**05 45 58.8**	**+0.6**
MYA	**Malataya**	**2.39**	**154**	*e*Pn	**Pn**	**05 45 58.8**	**+0.6**
MALT	**Malatya**	**2.40**	**154**	*e*PN	**Pn**	**05 45 59.3**	**+0.9**
MALT	**Malatya**	**2.40**	**154**	*e*Pn	**Pn**	**05 45 59.3**	**+0.9**
AVNT	**Avonos**	**2.41**	**226**	*i* P	**Pn**	**05 45 58.4**	**-0.1**
AVNT				*i* S	**Sn**	**05 46 33.2**	**+4.6**
ELZG	**Elazig**	**2.47**	**143**	*i* P	**Pn**	**05 46 00.3**	**+1.0**
ELZG				*i* S	**Sn**	**05 46 30.2**	**+0.2**

BJI ***05*** *06:42:53.1, 49.28N×155.91E, h10^{km}, mB4.9, mb4.8, Ms4.7, Msz4.5*

IDC ***05*** *06:42:56.1±0.6, 49.49N×155.38E, h0^{km}, mb4.5/23, mb1 4.7/24, mb1mx4.7/25, mbtmp4.5/24, ML4.7/1, MS4.5/27, Ms1 4.5/27, ms1mx4.3/34, Error ellipse: s-maj=18.2km s-min=11.9km az=153.0*

ISCJB ***05*** *06:42:56.7±0.1, 49.27N±0.02×155.52E±0.02, h15^{km}, mb4.9/174, MS4.5/54, Error ellipse: s-maj=3.5km s-min=2.0km az=162.5*

NEIC ***05*** *06:42:58.0±0.2, 49.43N×155.41E, h10^{km}, mb5.0/110, MS4.9/9, Error ellipse: s-maj=5.8km s-min=3.1km az=167.0*

GCMT ***05*** *06:42:58.0±0.2, 49.14N×156.02E, h46^{km}, MW5.2/79, Moment Tensor Solution. s72,c129; s79,c150; Duration: 1^{s}.0 Moment tensor: Scale 10^{17}Nm; M_{rr}0.81±.02; $M_{\theta\theta}$-0.32±.01; $M_{\phi\phi}$-0.49±.01; $M_{r\theta}$0.08±.01; $M_{\theta\phi}$-0.44±.01; $M_{\phi r}$0.21±.01; Best double couple: $M_0$0.86200×10^{17} NP1:ϕ_s224.00000°, δ38.00000°, λ98.00000°. NP2:ϕ_s34.00000°, δ53.00000°, λ84.00000°. Principal axes: T 0.8440, Plg81.0000°, Azm275.0000°; N 0.0360, Plg5.0000°, Azm38.0000°; P -0.8800, Plg7.0000°, Azm129.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SKHL ***05*** *06:42:58.5±3.0, 48.95N×156.34E, h55^{km}±18^{km}, mb5.9, Ms4.8, msh6.3*

SZGRF ***05*** *06:42:58.8, 48.76N×155.83E, h33^{km}, mb4.9, MS4.8, Kuril Islands, Russia*

MOS ***05*** *06:43:01.0±0.9, 49.34N×155.53E, h47^{km}, mb5.1/69, MS4.6/21, Error ellipse: s-maj=7.4km s-min=3.9km az=85.2*

KRSC ***05*** *06:43:02.1±1.2, 49.37N×156.52E, h4^{km}±5^{km}, ML5.5*

ISC 05 06:42:58.8±0.1**, 49.33N**±0.02×**155.42E**±0.02**, h16**^{km}**, h16**^{km}±1.4^{km}**:pP-P, n727, σ0^{s}.83**/750**, mb4.9**/174**, MS4.5**/54**, 175C-110D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.42**	**18**	⇓*i*PN	**Pn**	**06 43 24.5**	**+0.5**
SKR				*i* S	**Sn**	**06 43 44.0**	**+1.6**
SKR				pmax	pmax		
	comp=N,1μm,0.5s						
SKR				pmax	pmax		
	comp=Z,3μm,0.5s						
SKR				pmax	pmax		
	comp=E,890nm,0.2s						
SKR				pmax	pmax		
	comp=N,8μm,4.0s						
SKR				pmax	pmax		
	comp=E,8μm,4.0s						
SKR				pmax	pmax		
	comp=Z,6μm,4.0s						
SKR				smax			
	comp=N,23μm,2.0s						
SKR				smax			
	comp=E,57μm,2.0s						
ALID	**Alaid**	**1.54**	**3**	*i* P	**Pn**	**06 43 28.8**	**+3.2**
ALID				*e*S	**Sn**	**06 43 48.2**	**+3.0**
MIPR	**Malaya Ipel'ka**	**3.07**	**16**	*e*P	**Pn**	**06 43 48.9**	**+2.4**
MIPR				*i* S	**Sn**	**06 44 22.7**	**-0.2**
GRL	**Gorelyy**	**3.63**	**26**	*e*P	**Pn**	**06 43 57.3**	**+3.0**
GRL				*i* S	**Sn**	**06 44 38.2**	**+1.4**
RUS	**Russkaya**	**3.67**	**31**	*e*P	**Pn**	**06 43 55.9**	**+1.1**
RUS				*i* S	**Sn**	**06 44 35.1**	**-2.6**
PET	**Petropavlovsk**	**4.22**	**28**	*e*Pn	**Pn**	**06 44 05.1**	**+2.7**
PET				*e*Sn	**Sn**	**06 44 52.7**	**+1.5**
PET	**Petropavlovsk**	**4.22**	**28**	PN	**Pn**	**06 44 05.3**	**+3.0**
PET				S	**Sn**	**06 44 50.8**	**-0.4**
PET	**Petropavlovsk**	**4.22**	**28**	*e*P	**Pn**	**06 44 05.3**	**+3.0**
PET				*i* S	**Sn**	**06 44 50.8**	**-0.4**
INSR	**Institute**	**4.24**	**27**	P	**Pn**	**06 44 05.4**	**+2.7**
INSR				*i* S	**Sn**	**06 44 50.9**	**-0.9**
SDLR	**Sedlovina**	**4.51**	**27**	*e*P	**Pn**	**06 44 09.1**	**+2.8**
SDLR				*i* S	**Sn**	**06 44 58.7**	**+0.3**
NLC	**Nalytchevo**	**4.56**	**31**	*e*P	**Pn**	**06 44 07.8**	**+0.7**
NLC				*i* S	**Sn**	**06 44 56.2**	**-3.6**
GNL	**Ganaly**	**4.64**	**19**	*e*P	**Pn**	**06 44 12.5**	**+4.3**
GNL				*i* S	**Sn**	**06 45 03.3**	**+1.6**
SPN	**Mys Shipunski**	**4.75**	**36**	*e*P	**Pn**	**06 44 11.1**	**+1.4**
SPN				*i* S	**Sn**	**06 45 01.3**	**-3.0**
KII	**Karymskiy**	**5.33**	**26**	P	**Pn**	**06 44 18.7**	**+1.0**
KII				*i* S	**Sn**	**06 45 15.6**	**-3.1**
MKZ	**Mys Kozlova**	**6.52**	**34**	*e*P	**Pn**	**06 44 34.3**	**+0.3**
MKZ				*i* S	**Sn**	**06 45 41.4**	**-6.6**
KUR	**Kuril'sk**	**6.58**	**234**	*e*PN	**Pn**	**06 44 39.5**	**+4.8**
KUR				*e*S	**Sn**	**06 45 57.0**	**+7.7**
KUR				pmax	pmax		
	comp=Z,360nm,0.6s						
KUR				smax			
	comp=N,7μm,2.0s						
KUR				smax			
	comp=E,5μm,2.0s						
KUR				smax			
	comp=N,560nm,0.7s						
KUR				smax			
	comp=E,260nm,0.7s						
KUR				MLR	MLR		
	comp=Z,3μm,13.0s						
TUMR	**Tumrok**	**6.62**	**24**	*e*P	**Pn**	**06 44 39.9**	**+4.5**
KMNR	**Kamenistaya**	**7.07**	**23**	*e*P	**Pn**	**06 44 46.3**	**+4.8**
KMNR				*e*S	**Sn**	**06 46 03.1**	**+1.7**
KPT	**Kopyto**	**7.25**	**22**	P	**Pn**	**06 44 47.3**	**+3.3**
KOZ	**Kozyrevsk**	**7.26**	**20**	P	**Pn**	**06 44 47.7**	**+3.6**
KOZR	**Kozyr**	**7.27**	**20**	PN	**Pn**	**06 44 47.7**	**+3.5**
SRDR	**Sredinnyy**	**7.46**	**19**	*e*P	**Pn**	**06 44 51.2**	**+4.3**
KRSR	**Krestovskiy**	**7.57**	**22**	P	**Pn**	**06 44 52.0**	**+3.7**
KLY	**Klyuchi**	**7.67**	**22**	*e*P	**Pn**	**06 44 53.8**	**+4.0**
SRKR	**Sorokina**	**8.11**	**23**	*e*P	**Pn**	**06 44 58.6**	**+2.9**
KBTR	**Krutoberegovo**	**8.21**	**30**	*e*P	**Pn**	**06 44 58.2**	**+1.0**
YUK	**Yuzh-Kuril'sk**	**8.44**	**235**	*e*PN	**Pn**	**06 45 03.4**	**+3.1**
YUK				pmax	pmax		
	comp=Z,6μm,0.8s						
YUK				pmax	pmax		
	comp=Z,910nm,0.5s						
YUK				pmax	pmax		
	comp=N,350nm,0.4s						
YUK				pmax	pmax		
	comp=E,760nm,0.4s						
YUK				MLR	MLR		
	comp=E,6μm,16.0s						
YUK				MLR	MLR		
	comp=Z,6μm,16.0s						
YUK				MLR	MLR		
	comp=N,6μm,18.0s						
UGL	**Uglegorsk**	**8.75**	**273**	*e*PN	**Pn**	**06 45 12.0**	**+7.4**
UGL				pmax	pmax		
	comp=Z,123nm,0.9s						
UGL				MLR	MLR		
	comp=E,2μm,20.0s						
UGL				MLR	MLR		
	comp=Z,6μm,20.0s						
UGL				MLR	MLR		
	comp=N,2μm,14.0s						
YSS	**Yuzh-Sakhalins**	**8.80**	**259**	*e*Pn	**Pn**	**06 45 12.2**	**+7.0**
	comp=N,78nm,0.6s						
YSS				*e*Sn	**Sn**	**06 46 48.1**	**+4.1**
YSS	**Yuzh-Sakhalins**	**8.80**	**259**	⇑*e*PN	**Pn**	**06 45 12.0**	**+6.7**
YSS				pmax	pmax		
	comp=N,70nm,0.7s						
YSS				pmax	pmax		
	comp=E,90nm,0.7s						
YSS				pmax	pmax		
	comp=Z,70nm,0.7s						
YSS				MLR	MLR		
	comp=Z,2μm,17.0s						
YSS				MLR	MLR		
	comp=E,2.0nm,16.0s						
OKH	**Okha**	**8.87**	**303**	⇑*i*PN	**Pn**	**06 45 07.0**	**+0.8**
OKH				pmax	pmax		
	comp=Z,2μm,4.0s						
ASAJ	**Asahikawa**	**10.23**	**244**	PN	**Pn**	**06 45 30.8**	**+5.9**
ASAJ				pmax	pmax		
	comp=Z,18nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,2μm,18.6s						
ASAJ	**Asahikawa**	**10.23**	**244**	Pn	**Pn**	**06 45 30.8**	**+5.9**
	comp=Z,18nm,0.3s,baz=76,slow=14,SNR=64						
ASAJ				LR	LR	06 49 07.2	
	comp=Z,2μm,18.6s,baz=7.9,slow=36						
MA2	**Magadan**	**10.61**	**347**	*e*Pn	**Pn**	**06 45 33.3**	**+3.3**
MA2	**Magadan**	**10.61**	**347**	*d i*PN	**Pn**	**06 45 33.6**	**+3.6**
MA2				*e*S	**Sn**	**06 47 35.8**	**+7.5**
MA2				MLR	MLR		
	comp=Z,2μm,14.0s						
ERM	**Erimo**	**11.27**	**234**	Pn	**Pn**	**06 45 41.6**	**+2.5**
	comp=Z,1μm,0.5s,SNR=25						
ERM	**Erimo**	**11.27**	**234**	*e*Pn	**Pn**	**06 45 41.6**	**+2.5**
	comp=Z,86nm,0.5s						
ERM				*e*Sn	**Sn**	**06 47 42.9**	**-1.7**
ERM	**Erimo**	**11.27**	**234**	*e*PN	**Pn**	**06 45 41.6**	**+2.5**
ERM				pmax	pmax		

	comp=Z,86nm,0.5s						
SMY	**Shemya**	**12.23**	**67**	*e*Pn	**Pn**	**06 45 50.4**	**-1.8**
	comp=Z,192nm,0.6s						
SMY				*e*Sn	**Sn**	**06 47 55.5**	**-13**
SMY	**Shemya**	**12.23**	**67**	*e*PN	**Pn**	**06 45 50.4**	**-1.8**
SMY				pmax	pmax		
	comp=Z,192nm,0.6s						
HABR	**Khabarovsk**	**13.43**	**274**	*e*P	**Pn**	**06 46 15.9**	**+7.3**
HABR				*e*		06 48 49.5	
SEY	**Seymchan**	**13.74**	**354**	*e*P	**Pn**	**06 46 17.1**	**+4.5**
KLR	**Kul'dur**	**15.44**	**279**	*e*P	**Pn**	**06 46 39.2**	**+3.5**
KLR				pmax	pmax		
	comp=Z,80nm,2.0s						
KLR				MLR	MLR		
	comp=E,1µm,12.0s						
KLR				MLR	MLR		
	comp=Z,4µm,12.0s						
VLA	**Vladivostok**	**17.39**	**258**	*e*P	**Pn**	**06 46 59.3**	**-1.3**
VLA				pmax	pmax		
	comp=Z,42nm,0.7s						
VLA				MLR	MLR		
	comp=Z,1µm,19.0s						
MAJO	**Matsushiro**	**17.90**	**231**	*e*P	**Pn**	**06 47 06.6**	**-0.3**
	comp=Z,52nm,0.8s						
MAJO	**Matsushiro**	**17.90**	**231**	*e*P	**Pn**	**06 47 06.6**	**-0.3**
MAJO				pmax	pmax		
	comp=Z,52nm,0.8s						
MJAR	**Matsushiro Arr**	**17.90**	**231**	P	**Pn**	**06 47 07.0**	**0.0**
MJAR				LR	LR	06 54 47.2	
MJAR	**Matsushiro Arr**	**17.90**	**231**	P	**Pn**	**06 47 07.0**	**0.0**
	comp=Z,2.5nm,0.3s,baz=20,slow=11,SNR=27						
MJAR				LR	LR	06 54 47.2	
	comp=Z,1µm,19.8s,baz=50,slow=40						
MDJ	**Mudanjiang**	**18.21**	**265**	P	**Pn**	**06 47 10.6**	**-0.1**
MDJ				AP	pP	06 47 13.8	-1.6
MDJ				XP	sP	06 47 15.1	-2.3
MDJ				S	**Sn**	**06 50 34.3**	**+0.8**
MDJ				XS	sS	06 50 44.7	-1.1
MDJ				SCP	ScP	06 55 18.5	+1.1
MDJ				SCS	ScS	06 58 59.4	+1.4
MDJ				AMB	AMB		
	comp=Z,9.0nm,1.2s						
MDJ				AMB	AMB		
	comp=Z,206nm,4.9s						
MDJ				LR	LR		
	comp=N,659nm,17.6s						
MDJ				LR	LR		
	comp=E,1µm,20.7s						
MDJ				LR	LR		
	comp=Z,2µm,19.6s						
MDJ	**Mudanjiang**	**18.21**	**265**	*e*P	**Pn**	**06 47 12.8**	**+2.1**
	comp=Z,26nm,1.0s						
YAK	**Yakutsk**	**19.12**	**321**	*e*P	**Pn**	**06 47 22.6**	**+1.0**
	comp=Z,86nm,0.8s						
YAK	**Yakutsk**	**19.12**	**321**	*e*P	**Pn**	**06 47 26.2**	**+4.5**
YAK				*e*S	**Sn**	**06 51 00.0**	**+4.7**
YAK				pmax	pmax		
	comp=Z,43nm,0.8s						
YAK				pmax	pmax		
	comp=N,12nm,1.0s						
YAK				pmax	pmax		
	comp=E,21nm,1.1s						
YAK				pmax	pmax		
	comp=Z,45nm,1.0s						
YAK				pmax	pmax		
	comp=N,102nm,1.5s						
YAK				pmax	pmax		
	comp=E,142nm,1.6s						
YAK				smax			
	comp=N,105nm,1.7s						
YAK				smax			
	comp=Z,59nm,1.8s						
YAK				smax			
	comp=E,118nm,2.0s						
YAK				MLR	MLR		
	comp=Z,2µm,21.0s						
YAK				MLR	MLR		
	comp=N,918nm,20.0s						
YAK				MLR	MLR		
	comp=E,856nm,17.0s						
BILL	**Bilibino**	**19.53**	**12**	*e*P	**Pn**	**06 47 24.5**	**-2.0**
	comp=E,20nm,0.4s						
BILL	**Bilibino**	**19.53**	**12**	*be*P	**Pn**	**06 47 24.7**	**-1.8**
BILL				pmax	pmax		
	comp=Z,22nm,0.7s						
BILL				MLR	MLR		
	comp=Z,2µm,19.0s						
CLNS	**Chul'man**	**19.69**	**304**	*d i*P	**Pn**	**06 47 32.5**	**+4.1**
CLNS				*e*S	**Sn**	**06 51 11.0**	**+2.1**
CLNS				pmax	pmax		
	comp=Z,51nm,0.8s						
CLNS				pmax	pmax		
	comp=N,19nm,1.0s						
CLNS				pmax	pmax		
	comp=E,31nm,0.9s						
CLNS				smax			
	comp=E,109nm,10.1s						
CLNS				smax			
	comp=Z,500nm,12.7s						
CLNS				smax			
	comp=N,168nm,12.8s						
CLNS				MLR	MLR		
	comp=Z,2µm,17.0s						
CLNS				MLR	MLR		
	comp=N,300nm,14.0s						
CLNS				MLR	MLR		
	comp=E,2µm,16.0s						
NRGR	**Nerungri**	**19.75**	**303**	*e*P	**Pn**	**06 47 34.0**	**+4.8**
CN2	**Changchun**	**21.25**	**266**	⇑P	**P**	**06 47 44.1**	**0.0**
CN2				*e*S	**S**	**06 51 34.7**	**-4.9**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.1						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,1µm,18.0s,MS4.4						
CN2				LR	LR		
	comp=E,1µm,18.0s,MS4.4						
CN2				LR	LR		
	comp=Z,1µm,21.0s,MS4.3						
KSRS	**Korea Array**	**23.11**	**249**	P	**P**	**06 48 04.5**	**+0.6**
	comp=Z,14nm,0.8s,mb4.5,baz=48,slow=9.4,SNR=40						
KSRS				PcP	PcP	06 51 52.5	+0.2
	comp=Z,2.4nm,0.7s,baz=22,slow=1.1,SNR=4.3						
KSRS				LR	LR	06 56 31.3	
	comp=Z,940nm,20.1s,MS4.2,baz=52,slow=35						
HIA	**Hailar**	**23.14**	**284**	*e*P	**P**	**06 48 06.0**	**+1.9**
	comp=Z,13nm,0.8s,mb4.4						
HIA	**Hailar**	**23.14**	**284**	*e*P	**P**	**06 48 06.0**	**+1.9**
HIA				pmax	pmax		
	comp=Z,13nm,0.8s						
SNY	**Shenyang**	**23.39**	**263**	⇑P	**P**	**06 48 06.3**	**-0.5**
SNY				S	**S**	**06 52 22.0**	**+3.2**
SNY				AMB	AMB		
	comp=Z,12nm,2.1s,mb4.0						
SNY				AMB	AMB		
	comp=Z,328nm,6.0s						
SNY				LR	LR		
	comp=N,999nm,18.3s						
SNY				LR	LR		
	comp=Z,708nm,28.2s						
JNU	**Nakatsue**	**24.40**	**238**	P	**P**	**06 48 17.4**	**+1.2**
	comp=Z,25nm,0.8s,mb4.7,baz=68,slow=14,SNR=12						
JNU				LR	LR	06 58 53.3	
	comp=Z,265nm,19.5s,MS3.7,baz=31,slow=39						
CBIJ	**Chichi jima**	**24.45**	**210**	LR	LR	06 56 24.4	
	comp=Z,438nm,20.5s,MS3.9,baz=130,slow=33						
TNA	**Tin City**	**25.02**	**36**	*e*P	**P**	**06 48 21.5**	**-0.2**
	comp=Z,38nm,1.0s,mb4.9						
TIXI	**Tiksi**	**25.48**	**341**	*e*P	**P**	**06 48 24.3**	**-1.4**
	comp=Z,25nm,0.9s,mb4.7						
TIXI	**Tiksi**	**25.48**	**341**	*e*P	**P**	**06 48 22.8**	**-2.9**
TIXI				*e*		06 48 39.4	
TIXI				*e*S	**S**	**06 52 47.1**	**-4.8**
TIXI				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,588nm,14.0s,MS4.3						
BOD	**Bodaibo**	**25.65**	**305**	*e*P	**P**	**06 48 28.5**	**+1.1**
BOD				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.0						
DL2	**Dalian**	**26.20**	**259**	P	**P**	**06 48 28.6**	**-4.0**
DL2				S	**S**	**06 52 57.0**	**-6.9**
DL2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.3						
DL2				AMB	AMB		
	comp=Z,120nm,7.7s						
DL2				LR	LR		
	comp=N,260nm,17.2s,MS3.9						
DL2				LR	LR		
	comp=E,140nm,15.5s,MS3.9						
DL2				LR	LR		
	comp=Z,400nm,19.8s,MS4.0						
BJI	**Beijing**	**29.12**	**266**	P	**P**	**06 48 58.7**	**0.0**
BJI				AP	pP	06 49 01.8	-1.8
BJI				XP	sP	06 49 03.1	-2.5
BJI				S	**S**	**06 53 51.3**	**+1.4**
BJI				AMB	AMB		
	comp=Z,3.0nm,0.5s,mb4.3						
BJI				AMB	AMB		
	comp=Z,203nm,5.5s						
BJI				LR	LR		
	comp=N,916nm,21.5s,MS4.4						
BJI				LR	LR		
	comp=E,478nm,19.0s,MS4.4						
BJI				LR	LR		
	comp=Z,790nm,28.7s						
SVW2	**Sparrevohn**	**29.59**	**48**	*e*P	**P**	**06 49 02.5**	**-0.1**
JOW	**Kunigami**	**30.72**	**233**	LR	LR	07 01 15.8	
	comp=Z,682nm,21.2s,MS4.3,baz=356,slow=36						
IMA2	**Indian Mountai**	**30.81**	**38**	*e*P	**P**	**06 49 13.0**	**-0.3**
KDAK	**Kodiak Island**	**31.30**	**54**	*e*P	**P**	**06 49 16.6**	**-1.2**
	comp=Z,18nm,0.8s,mb4.9						
KDAK	**Kodiak Island**	**31.30**	**54**	P	**P**	**06 49 16.3**	**-1.5**
	comp=Z,18nm,0.8s,mb5.0,baz=229,slow=3.7,SNR=18						
SSE	**Sheshan**	**31.50**	**247**	P	**P**	**06 49 20.5**	**+0.7**
SSE				S	**S**	**06 54 31.6**	**+4.3**
SSE				XS	sS	06 54 36.8	+1.5
SSE				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,109nm,4.9s						
SSE				LR	LR		
	comp=N,183nm,19.9s,MS3.9						
SSE				LR	LR		
	comp=E,187nm,20.0s,MS3.9						
SSE				LR	LR		
	comp=Z,381nm,20.3s,MS4.1						
ULN	**Ulaanbaatar**	**31.59**	**286**	⇑*e*P	**P**	**06 49 20.9**	**+0.5**
HHC	**Hu-ho-hao-te**	**31.72**	**271**	*e*P	**P**	**06 49 24.2**	**+2.5**
HHC				AP	pP	06 49 28.6	+2.1
HHC				XP	sP	06 49 31.2	+2.7
HHC				PP	PP	06 50 29.6	-3.6
HHC				PCP	PcP	06 52 15.5	+2.6
HHC				S	**S**	**06 54 37.0**	**+6.4**
HHC				XS	sS	06 54 40.0	+1.4
HHC				SCP	ScP	06 55 57.5	+2.2
HHC				PCS	PcS	06 55 59.1	+1.8
HHC				SS	SS	06 56 24.0	-22
HHC				SCS	ScS	06 59 53.3	0.0
HHC				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.5						
HHC				AMB	AMB		
	comp=Z,180nm,6.6s						
HHC				LR	LR		
	comp=N,831nm,17.1s,MS4.6						
HHC				LR	LR		
	comp=E,932nm,20.9s,MS4.6						
HHC				LR	LR		
	comp=Z,918nm,23.9s,MS4.4						
SONM	**Songino Array**	**32.02**	**286**	P	**P**	**06 49 23.9**	**-0.2**
SONM				PcP	PcP	06 52 13.3	-0.2
SONM				LR	LR	07 03 53.4	
SONM	**Songino Array**	**32.02**	**286**	P	**P**	**06 49 23.9**	**-0.3**
SONM						06 52 13.3	
SONM	**Songino Array**	**32.02**	**286**	P	**P**	**06 49 23.9**	**-0.2**
	comp=Z,0.6nm,0.3s,baz=74,slow=8.5,SNR=8.1						
SONM				PcP	PcP	06 52 13.3	-0.2
	comp=Z,2.6nm,0.8s,baz=78,slow=1.6,SNR=8.6						
SONM				LR	LR	07 03 53.4	
	comp=Z,1µm,18.8s,baz=44,slow=39						
NJ2	**Nanjing**	**32.27**	**251**	*e*P	**P**	**06 49 27.0**	**+0.5**
NJ2				AP	pP	06 49 32.7	+1.3
NJ2				XP	sP	06 49 35.6	+2.2
NJ2				PP	PP	06 50 34.2	-5.2
NJ2				S	**S**	**06 54 38.0**	**-1.2**
NJ2				XS	sS	06 54 48.0	+0.8
NJ2				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,110nm,11.4s						
NJ2				LR	LR		
	comp=N,660nm,19.8s,MS4.6						
NJ2				LR	LR		
	comp=E,1µm,19.8s,MS4.6						
NJ2				LR	LR		
	comp=Z,1µm,22.2s,MS4.6						
TLY	**Talaya**	**32.45**	**294**	*e*P	**P**	**06 49 29.4**	**+1.5**
TLY				*e*		06 50 51.4	
TLY				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.6						
TLY				MLR	MLR		
	comp=Z,856nm,17.0s,MS4.5						
PMR	**Palmer**	**32.68**	**47**	*e*P	**P**	**06 49 30.6**	**+0.8**
	comp=Z,9.7nm,0.5s,mb5.0						
PMR	**Palmer**	**32.68**	**47**	*e*P	**P**	**06 49 30.6**	**+0.8**
PMR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
MCK	**McKinley**	**32.69**	**43**	*e*P	**P**	**06 49 29.8**	**-0.1**
	comp=Z,18nm,0.9s,mb5.0						
MCK	**McKinley**	**32.69**	**43**	*e*P	**P**	**06 49 29.8**	**-0.1**
MCK				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
SML	**Sawmill**	**33.05**	**46**	*e*P	**P**	**06 49 32.9**	**-0.1**
ZAK	**Zakamensk**	**33.07**	**292**	⇓*i*P	**P**	**06 49 35.2**	**+1.9**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
COLA	**College**	**33.16**	**41**	*e*P	**P**	**06 49 33.9**	**-0.1**
	comp=Z,63nm,0.8s,mb5.6						
COLA	**College**	**33.16**	**41**	*e*P	**P**	**06 49 33.9**	**-0.1**
COLA				pmax	pmax		
	comp=Z,63nm,0.8s,mb5.6						
MENT	**Mentasta**	**35.09**	**44**	*e*P	**P**	**06 49 51.0**	**+0.3**
EGAK	**Eagle**	**36.02**	**41**	*e*P	**P**	**06 49 57.9**	**-0.9**
	comp=Z,35nm,0.8s,mb5.3						
GUMO	**Guam**	**36.69**	**197**	LR	LR	07 01 39.0	
	comp=Z,460nm,21.4s,MS4.2,baz=45,slow=30						
DAWY	**Dawson**	**36.87**	**42**	*e*P	**P**	**06 50 05.9**	**-0.1**
XAN	**Xi'an**	**37.31**	**264**	P	**P**	**06 50 12.7**	**+2.6**
XAN				AP	pP	06 50 20.1	+5.1
XAN				S	**S**	**06 56 04.9**	**+8.0**
XAN				SCS	ScS	07 00 22.2	-1.2
XAN				AMB	AMB		
	comp=Z,4.0nm,1.6s,mb4.0						
XAN				AMB	AMB		
	comp=Z,109nm,9.1s						
XAN				LR	LR		
	comp=N,456nm,21.3s,MS4.5						
XAN				LR	LR		
	comp=E,653nm,20.2s,MS4.5						
XAN				LR	LR		
	comp=Z,676nm,20.1s,MS4.4						
INK	**Inuvik**	**38.64**	**34**	*e*P	**P**	**06 50 21.2**	**+0.3**
	comp=Z,756nm,0.7s						
INK	**Inuvik**	**38.64**	**34**	P	**P**	**06 50 21.2**	**+0.3**
	comp=Z,23nm,0.6s,mb5.1,baz=292,slow=7.0,SNR=98						
INK				PcP	PcP	06 52 31.9	-0.7
	comp=Z,2.6nm,0.7s,baz=250,slow=3.9,SNR=3.1						
LZH	**Lanzhou**	**39.39**	**270**	*e*P	**P**	**06 50 27.9**	**+0.3**
LZH				AP	pP	06 50 31.4	-1.1
LZH				XP	sP	06 50 32.9	-1.6
LZH				PP	PP	06 52 02.8	+4.9
LZH				*e*S	**S**	**06 56 27.0**	**-1.3**
LZH				AMB	AMB		
	comp=Z,34nm,1.2s,mb5.0						
LZH				AMB	AMB		
	comp=Z,130nm,5.5s						
LZH				LR	LR		
	comp=N,670nm,14.0s						
LZH				LR	LR		
	comp=Z,1µm,17.4s,MS4.8						
SKAG	**Skagway**	**39.77**	**48**	*e*P	**P**	**06 50 30.9**	**+0.5**
	comp=Z,22nm,1.0s,mb4.8						
SKAG				LR	LR		
	comp=Z,500nm,22.0s,MS4.3						
GTA	**Gaotai**	**40.14**	**277**	*e*P	**P**	**06 50 34.4**	**+0.7**
GTA				AP	pP	06 50 39.4	+0.7
GTA				XP	sP	06 50 42.9	+2.3
GTA				PP	PP	06 52 13.2	+7.3
GTA				PCP	PcP	06 52 36.0	-1.9
GTA				PPP		06 52 40.1	
GTA				S	**S**	**06 56 41.6**	**+2.2**
GTA				SS	SS	06 59 37.8	+0.9
GTA				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.4						
GTA				AMB	AMB		
	comp=Z,130nm,6.5s						
GTA				LR	LR		
	comp=N,416nm,14.1s,MS4.8						
GTA				LR	LR		
	comp=E,1µm,17.5s,MS4.8						
GTA				LR	LR		
	comp=Z,1µm,16.7s,MS4.9						
ZALV	**Zalesovo Beam**	**42.40**	**304**	P	**P**	**06 50 51.4**	**-0.7**
ZALV				PcP	PcP	06 52 44.5	-0.5
ZALV				LR	LR	07 09 34.3	
ZALV	**Zalesovo Beam**	**42.40**	**304**	P	**P**	**06 50 51.4**	**-0.7**
	comp=Z,1.1nm,0.6s,baz=69,slow=6.9,SNR=5.9						
ZALV				PcP	PcP	06 52 44.5	-0.5
	comp=Z,11nm,0.8s,baz=79,slow=3.2,SNR=19						
ZALV				LR	LR	07 09 34.3	
	comp=Z,508nm,18.7s,MS4.4,baz=331,slow=38						
ZAL	**Zalesovo**	**42.41**	**304**	P	**P**	**06 50 51.4**	**-0.8**
ZAL						06 52 44.5	
CD2	**Chengdu**	**42.66**	**264**	*e*P	**P**	**06 50 55.3**	**+0.8**
CD2				AP	pP	06 50 59.8	+0.3
CD2				XP	sP	06 51 02.8	+1.3
CD2				PP	PP	06 52 37.0	+3.6
CD2				PCP	PcP	06 52 48.0	+1.7
CD2				S	**S**	**06 57 17.4**	**+0.4**
CD2				XS	sS	06 57 24.8	-0.4
CD2				SS	SS	07 00 21.3	-6.0
CD2				SCS	ScS	07 00 54.1	-1.0
CD2				AMB	AMB		
	comp=Z,20nm,0.5s,mb5.1						
CD2				AMB	AMB		
	comp=Z,60nm,5.2s						
CD2				LR	LR		
	comp=N,650nm,16.8s						
CD2				LR	LR		
	comp=E,1µm,22.8s						
CD2				LR	LR		
	comp=Z,670nm,20.4s,MS4.5						
DLBC	**Dease Lake**	**42.70**	**48**	*e*P	**P**	**06 50 56.0**	**+1.5**
GYA	**Guiyang**	**43.80**	**257**	⇑*i*P	**P**	**06 51 05.6**	**+1.8**
GYA				AP	pP	06 51 09.4	+0.7
GYA				XP	sP	06 51 12.8	+2.1
GYA				PP	PP	06 52 49.6	+3.9
GYA				PCP	PcP	06 52 52.7	+2.5
GYA				SCP	ScP	06 56 43.2	+2.3
GYA				S	**S**	**06 57 36.0**	**+2.2**
GYA				SS	SS	07 00 44.5	-5.1
GYA				SCS	ScS	07 01 02.6	+0.3
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
GYA				AMB	AMB		
	comp=Z,130nm,6.4s						
GYA				LR	LR		
	comp=N,450nm,18.2s,MS4.6						
GYA				LR	LR		
	comp=E,440nm,18.7s,MS4.6						
GYA				LR	LR		
	comp=Z,480nm,17.6s,MS4.5						
WMQ	**Urumqi**	**45.47**	**290**	*e*P	**P**	**06 51 18.9**	**+2.0**
WMQ				AP	pP	06 51 23.4	+1.5
WMQ				XP	sP	06 51 25.9	+2.1
WMQ				PCP	PcP	06 52 57.9	+2.3
WMQ				PP	PP	06 53 05.9	+2.8
WMQ				*e*S	**S**	**06 57 59.5**	**+1.9**
WMQ				XS	sS	06 58 07.1	+1.3
WMQ				SCS	ScS	07 01 12.6	+0.2
WMQ				AMB	AMB		
	comp=Z,8.0nm,0.6s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,121nm,9.4s						
WMQ				LR	LR		
	comp=N,265nm,16.6s,MS4.4						
WMQ				LR	LR		
	comp=E,219nm,16.6s,MS4.4						
WMQ				LR	LR		
	comp=Z,238nm,16.6s,MS4.2						
MK31	**Makanchi Array**	**47.16**	**296**	*e*P	**P**	**06 51 29.5**	**-0.7**
MKAR	**Makanchi Array**	**47.16**	**296**	*i* P	**P**	**06 51 29.8**	**-0.3**
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MKAR	**Makanchi Array**	**47.16**	**296**	P	**P**	**06 51 29.2**	**-0.9**
	comp=Z,2.8nm,0.7s,mb4.3,baz=62,slow=7.9,SNR=36						
MKAR				PcP	PcP	06 53 01.5	0.0
	comp=Z,2.0nm,0.6s,baz=50,slow=4.0,SNR=3.6						
MKAR				LR	LR	07 12 33.3	
	comp=Z,2µm,19.9s,MS5.0,baz=39,slow=38						
KMI	**Kunming**	**47.25**	**259**	P	**P**	**06 51 33.4**	**+2.3**
KMI				AP	pP	06 51 36.0	-0.1
KMI				XP	sP	06 51 37.2	-0.8
KMI				PP	PP	06 53 23.9	+1.9
KMI				S	**S**	**06 58 24.9**	**+1.4**
KMI				SS	SS	07 01 46.1	-4.6
KMI				SSS		07 02 57.0	
KMI				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
KMI				AMB	AMB		
	comp=Z,97nm,3.1s						
KMI				LR	LR		
	comp=N,338nm,14.8s,MS4.6						
KMI				LR	LR		
	comp=E,319nm,14.8s,MS4.6						
KMI				LR	LR		
	comp=Z,386nm,18.8s,MS4.4						
KURK	**Kurchatov**	**47.25**	**303**	P	**P**	**06 51 30.8**	**0.0**
	comp=Z,86nm,0.8s,mb5.7,SNR=9.8						
KURK	**Kurchatov**	**47.25**	**303**	*e*P	**P**	**06 51 29.7**	**-1.1**
	comp=Z,11nm,0.8s,mb4.8						
KURK	**Kurchatov**	**47.25**	**303**	*e*P	**P**	**06 51 29.7**	**-1.1**
KURK				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
QIZ	**Qiongzhong**	**47.29**	**247**	⇓P	**P**	**06 51 31.9**	**+0.4**
QIZ				XP	sP	06 51 36.0	-2.4
QIZ				S	**S**	**06 58 27.7**	**+3.5**
QIZ				AMB	AMB		
	comp=Z,19nm,1.4s,mb4.8						
QIZ				LR	LR		
	comp=N,283nm,18.7s,MS4.5						
QIZ				LR	LR		
	comp=E,323nm,17.8s,MS4.5						
QIZ				LR	LR		
	comp=Z,368nm,17.6s,MS4.4						
RES	**Resolute Bay**	**47.89**	**20**	*e*P	**P**	**06 51 35.3**	**-0.1**
	comp=Z,307nm,0.8s						
YKA	**Yellowknife Ar**	**47.93**	**39**	P	**P**	**06 51 35.7**	**-0.2**
YKA				PcP	PcP	06 53 03.4	-0.6
YKA	**Yellowknife Ar**	**47.93**	**39**	P	**P**	**06 51 35.7**	**-0.2**
	comp=Z,6.0nm,0.6s,mb4.8,baz=298,slow=7.5,SNR=84						
YKA				PcP	PcP	06 53 03.4	-0.6
	comp=Z,1.9nm,0.7s,baz=299,slow=3.7,SNR=5.4						
B04A	**Port Angeles**	**51.02**	**58**	⇓P	**P**	**06 52 00.5**	**+0.7**
	baz=51						
NLWA	**Neilton Lookou**	**51.19**	**59**	⇑P	**P**	**06 52 01.5**	**+0.6**
	baz=51						
A05A	**Maple Falls**	**51.29**	**57**	⇓P	**P**	**06 52 01.5**	**-0.1**
	baz=51						
D03A	**Wishkah Elem.**	**51.40**	**60**	⇓P	**P**	**06 52 03.3**	**+0.8**
	baz=51						
C04A	**Brinnon**	**51.51**	**59**	⇓P	**P**	**06 52 03.6**	**+0.2**
	baz=51						
A06A	**Chilliwack**	**51.56**	**56**	⇓P	**P**	**06 52 03.8**	**+0.1**
	baz=51						
B05A	**Bryant**	**51.69**	**58**	⇑P	**P**	**06 52 04.5**	**-0.2**
	baz=51						
LSA	**Lhasa**	**51.69**	**273**	P	**P**	**06 52 06.7**	**+1.7**
LSA	**Lhasa**	**51.69**	**273**	*e*P	**P**	**06 52 07.3**	**+2.3**
E03A	**Lebam**	**51.84**	**60**	⇑P	**P**	**06 52 06.3**	**+0.5**
	baz=52						
B06A	**Marblemount**	**51.88**	**57**	⇑P	**P**	**06 52 06.1**	**0.0**
	baz=52						
A07A	**Ashnola River,**	**52.19**	**56**	P	**P**	**06 52 08.4**	**0.0**
	baz=52,SNR=6.2						
F03A	**Seaside**	**52.20**	**61**	⇓P	**P**	**06 52 09.6**	**+1.1**
	baz=52						
C05A	**Tolt Reservoir**	**52.24**	**58**	⇓P	**P**	**06 52 08.9**	**+0.1**
	baz=52						
E04A	**Onalaska**	**52.29**	**60**	⇑P	**P**	**06 52 09.4**	**+0.2**
	baz=52						
D05A	**Enumclaw**	**52.36**	**59**	⇓P	**P**	**06 52 09.8**	**+0.1**
	baz=52						
C06A	**Tall Timber Ra**	**52.55**	**57**	⇑P	**P**	**06 52 11.4**	**+0.3**
	baz=52						
B07A	**Winthrop**	**52.66**	**56**	⇑P	**P**	**06 52 11.9**	**0.0**
	baz=52						

A08A	Turner Farm, O	52.84	56	P	P	06 52 13.1	-0.1
	baz=53,SNR=8.2						
F04A	Amboy	52.84	60	⇑P	P	06 52 13.2	-0.1
	baz=53						
E05A	Randle	52.85	59	⇑P	P	06 52 13.2	-0.2
	baz=53						
D06A	Cle Elum	53.00	58	⇓P	P	06 52 14.1	-0.3
	baz=53						
H03A	Soap Creek Ran	53.08	62	⇑P	P	06 52 15.5	+0.5
	baz=53						
NANT	Nan	53.12	255	⇑P	P	06 52 16.0	+0.4
	comp=Z,278nm,0.9s						
C07A	Waterville	53.14	57	⇓P	P	06 52 15.3	-0.2
	baz=53						
B08A	Colville Reser	53.15	56	P	P	06 52 15.2	-0.3
	baz=53,SNR=6.3						
I02A	Mapleton	53.17	63	⇓P	P	06 52 16.2	+0.5
	baz=53						
A09A	Danville	53.20	55	P	P	06 52 16.1	+0.3
	baz=53,SNR=16						
E06A	Yakima	53.30	59	⇓P	P	06 52 16.8	+0.1
	baz=53						
F05A	White Salmon	53.42	60	⇑P	P	06 52 17.7	+0.1
	baz=53						
EDM	Edmonton	53.42	48	*e*P	P	06 52 17.1	-0.3
D07A	Quincy	53.48	58	⇓P	P	06 52 17.8	-0.2
	baz=53						
I03A	Eugene	53.51	63	⇑P	P	06 52 18.1	-0.1
	baz=53						
C08A	Higginbotham F	53.64	57	P	P	06 52 18.4	-0.8
	baz=53,SNR=6.9						
J02A	Umpqua	53.69	63	⇓P	P	06 52 19.7	+0.1
	baz=53						
H04A	Detroit Lake	53.71	61	⇓P	P	06 52 18.9	-0.8
	baz=54						
A10A	Northport	53.74	55	P	P	06 52 19.6	-0.2
	baz=54,SNR=7.0						
B09A	Rice	53.75	56	P	P	06 52 20.0	0.0
	baz=54,SNR=5.1						
F06A	Goldendale	53.87	59	⇓P	P	06 52 21.3	+0.5
	baz=54						
G05A	Wamic	53.88	60	⇓P	P	06 52 21.0	+0.2
	baz=54						
E07A	Sunnyside	53.92	58	⇑P	P	06 52 21.0	-0.2
	baz=54						
J03A	Ideyld Park	54.05	63	⇑P	P	06 52 21.7	-0.4
	baz=54						
AAK	Ala-Archa	54.09	296	*e*P	P	06 52 22.1	-0.4
	comp=Z,4.7nm,0.6s,mb4.6						
AAK	Ala-Archa	54.09	296	⇓*i*P	P	06 52 22.5	0.0
AAK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
AAK				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.0						
K02A	Glendale	54.10	64	⇑P	P	06 52 23.1	+0.5
	baz=54						
I04A	Tendick Farm,	54.11	62	⇓P	P	06 52 21.6	-1.1
	baz=54						
D08A	Wollman Farm,	54.14	57	⇑P	P	06 52 22.0	-0.8
	baz=54						
ARU	Arti	54.16	317	P	P	06 52 22.7	-0.1
	comp=Z,166nm,0.4s,mb6.3,SNR=9.4						
ARU	Arti	54.16	317	*e*P	P	06 52 21.9	-0.9
	comp=Z,13nm,0.3s,mb5.3						
ARU	Arti	54.16	317	⇓*i*P	P	06 52 21.5	-1.3
ARU				*e*		06 53 20.9	
ARU				*e*		06 54 21.4	
ARU				*e*PPP		06 55 32.7	
ARU				*e*S	S	06 59 57.6	-1.1
ARU				*e*SS	SS	07 03 34.4	-5.3
ARU				*e*SSS		07 05 42.0	
ARU				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
ARU				MLR	MLR		
	comp=Z,500nm,20.0s,MS4.6						
ARU				MLR	MLR		
	comp=N,300nm,21.0s,MS4.5						
ARU				MLR	MLR		
	comp=E,300nm,21.0s,MS4.5						
CHG	Chiang Mai	54.22	257	⇑P	P	06 52 24.8	+1.1
	comp=E,65nm,0.9s,mb5.6						
CHTO	Chiang Mai	54.22	257	*e*P	P	06 52 24.8	+1.1
	comp=E,51nm,0.8s,mb5.5						
CHTO	Chiang Mai	54.22	257	P	P	06 52 24.9	+1.2
CHTO				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.5						
F07A	Phinny Hill Vi	54.27	59	P	P	06 52 24.1	+0.4
	baz=54,SNR=6.4						
H05A	Madras	54.28	61	⇓P	P	06 52 24.0	+0.2
	baz=54						
M01C	Crescent City	54.28	65	⇓P	P	06 52 25.4	+1.5
	baz=54						
B10A	Chitwood Farm,	54.32	55	⇓P	P	06 52 22.9	-1.2
	baz=54						
UCH	Uchtor	54.33	295	*e*P	P	06 52 16.7	-7.5
	comp=Z,4.6nm,0.6s,mb4.6						
A11A	Hall Mountain,	54.39	54	P	P	06 52 24.9	+0.4
	baz=54,SNR=5.0						
E08A	Dider Farm, El	54.40	58	⇑P	P	06 52 24.5	-0.2
	baz=54						
NEW	Newport	54.40	55	*e*P	P	06 52 24.4	-0.3
L02A	Cave Junction	54.41	65	⇓P	P	06 52 24.7	-0.1
	baz=54						
D09A	Jones Farm, Ri	54.47	57	⇓P	P	06 52 24.4	-0.8
	baz=54						
CM31	Chiang Mai Arr	54.49	256	*e*P	P	06 52 27.3	+1.6
EKS2	Erkin-Say	54.49	296	P	P	06 52 24.7	-0.7
	comp=Z,4.1nm,0.7s,mb4.5						
HUMO	Hull Mountain	54.51	64	⇓P	P	06 52 26.7	+1.1
	baz=54						
I05A	Bend	54.55	61	⇓P	P	06 52 26.0	+0.2
	baz=54						
C10A	Spilker Farm,	54.57	56	⇓P	P	06 52 25.7	-0.2
	baz=54						
J04A	Umpqua Nationa	54.62	63	P	P	06 52 27.4	+1.1
	baz=54,SNR=9.4						
B11A	Sandpoint	54.70	55	⇑P	P	06 52 27.2	+0.4
	baz=54						
H06A	Lindquist Farm	54.74	60	⇓P	P	06 52 27.6	+0.5
	baz=54						
A12A	Yaak River Ran	54.78	54	⇑P	P	06 52 27.5	+0.1
	baz=54						
G07A	Ruggs Ranch, H	54.80	59	⇑P	P	06 52 26.8	-0.8
	baz=54						
E09A	Wood Farm, Sta	54.89	57	P	P	06 52 27.8	-0.5
	baz=55,SNR=7.2						
F08A	Pendleton	54.98	58	⇓P	P	06 52 28.4	-0.5
	baz=55						
D10A	Wagner Farm, O	55.04	56	⇓P	P	06 52 28.8	-0.5
	baz=55,SNR=8.0						
J05A	Fort Rock	55.10	62	P	P	06 52 30.9	+1.0
	baz=55,SNR=15						
G08A	Pilot Rock	55.18	59	⇑P	P	06 52 30.2	-0.2
	baz=55						
YBH	Yreka Blue Hor	55.19	64	*e*P	P	06 52 31.2	+0.7
	comp=Z,18nm,1.3s,mb4.9						
YBH	Yreka Blue Hor	55.19	64	*e*P	P	06 52 31.2	+0.7
YBH				pmax	pmax		
	comp=Z,18nm,1.3s						
YBH	Yreka Blue Hor	55.19	64	P	P	06 52 31.4	+0.9
	baz=55,SNR=11						
I06A	Prineville	55.29	61	⇑P	P	06 52 31.3	+0.2
	baz=55						
M02C	Callahan	55.32	65	⇑P	P	06 52 32.3	+0.9
	baz=55						
L04A	Klamath Falls	55.40	64	⇑P	P	06 52 32.2	+0.2
	baz=55						
KEV	Kevo	55.42	341	*e*p	P	06 52 29.7	-2.0
	comp=Z,0.2nm,0.2s,mb3.8						
A13A	Flathead Natio	55.44	53	⇑P	P	06 52 31.9	-0.2
	baz=55						
E10A	Myers Farm, Un	55.48	57	⇓P	P	06 52 31.7	-0.8
	baz=55						
TAPN	Taplejung	55.51	273	*e*P	P	06 52 33.4	+0.4
F09A	S2 Ranch, Elgi	55.51	58	⇑P	P	06 52 32.5	-0.2
	baz=55						
O01C	Eel River Cons	55.51	67	⇓P	P	06 52 34.7	+1.8
	baz=55						
D11A	Klaveano Farm,	55.56	56	P	P	06 52 32.4	-0.7
	baz=55,SNR=7.9						
I07A	Izee	55.61	60	⇓P	P	06 52 33.3	-0.1
	baz=55						
WALA	Waterton Lakes	55.62	53	*e*P	P	06 52 32.9	-0.6
	comp=Z,16nm,0.6s,mb5.2						
K05A	Summer Lake	55.64	63	P	P	06 52 34.9	+1.2
	baz=55,SNR=8.2						
M04C	Macdoel	55.67	64	P	P	06 52 34.6	+0.6
	baz=55,SNR=7.0						
F10A	Beach Ranch, E	55.73	57	⇓P	P	06 52 32.8	-1.4
	baz=56						
B13A	Whitefish	55.75	54	P	P	06 52 34.5	+0.2
	baz=56,SNR=15						
J06A	Christmas Vall	55.75	62	P	P	06 52 35.0	+0.6
	baz=56,SNR=13						
H08A	Prairie City	55.81	60	⇓P	P	06 52 35.7	+0.8
	baz=56						
M03C	McCloud	55.82	65	⇓P	P	06 52 35.9	+0.9
	baz=56						
ARCES	ARCESS Array B	55.92	341	P	P	06 52 33.3	-2.0
	comp=Z,1.3nm,0.4s,mb4.3,baz=40,slow=7.7,SNR=28						
ARCES				LR	LR	07 19 54.9	
	comp=Z,651nm,20.8s,MS4.7,baz=29,slow=40						
K06A	Valley Falls	55.97	62	P	P	06 52 37.0	+0.9
	baz=56,SNR=19						
WDC	Whiskeytown Da	56.01	65	P	P	06 52 36.9	+0.5
	baz=56,SNR=6.0						
PRGR	Permogore	56.03	327	*e*P	P	06 52 35.2	-1.0
ODAN	Odare	56.05	273	*e*P	P	06 52 35.8	-1.0
	comp=Z,8.9nm,0.5s,mb5.1						
E11A	Bogner Ranch,	56.05	57	P	P	06 52 36.2	-0.4
	baz=56,SNR=5.3						
L05A	Lakeview	56.10	63	P	P	06 52 37.9	+0.9
	baz=56,SNR=14						
O02C	Red Bluff	56.11	66	⇓P	P	06 52 37.7	+0.6
	baz=56						
C13A	Hot Springs	56.12	54	P	P	06 52 37.1	+0.1
	baz=56,SNR=7.8						
J07A	Hines	56.16	61	⇑P	P	06 52 37.6	+0.2
	baz=56						
P01C	Double 8 Ranch	56.22	67	⇓P	P	06 52 37.9	0.0
	baz=56						
I08A	Drewsey	56.25	60	P	P	06 52 38.6	+0.6
	baz=56,SNR=11						
H09A	Durkee	56.29	59	⇓P	P	06 52 38.2	-0.2
	baz=56						
JIRN	Jiri	56.29	274	*e*P	P	06 52 39.3	+0.7
	comp=Z,14nm,0.4s,mb5.4						
GUN	Gumba	56.32	275	*e*P	P	06 52 39.3	+0.5
	comp=Z,40nm,0.9s,mb5.5						
M05C	Lookout	56.34	64	⇓P	P	06 52 39.3	+0.5
	baz=56						
F11A	Grangeville	56.37	57	⇓P	P	06 52 38.4	-0.5
	baz=56						
GASB	Alder Springs	56.48	66	⇑P	P	06 52 40.0	+0.3
	baz=56						
HATC	Hat Creek Radi	56.50	65	⇑P	P	06 52 40.1	+0.2
	baz=56						
MOD	Modoc	56.50	63	P	P	06 52 40.1	+0.3
	baz=56,SNR=8.6						
C14A	Swan Lake	56.50	54	⇑P	P	06 52 39.6	-0.2
	baz=56						
D13A	Huson	56.54	55	⇓P	P	06 52 39.2	-0.8
	baz=56						
G11A	Walters Elk Ra	56.61	58	⇑P	P	06 52 40.7	+0.1
	baz=56						
K07A	Rock Creek Ran	56.62	62	P	P	06 52 41.7	+1.0
	baz=56,SNR=7.0						
J08A	Circle Bar Ran	56.64	61	P	P	06 52 41.8	+0.9
	baz=56,SNR=7.0						
I09A	Lost Marbles R	56.68	60	P	P	06 52 41.6	+0.5
	baz=56,SNR=5.3						
HOPS	Hopland	56.68	67	⇑P	P	06 52 40.6	-0.6
	baz=56						
KKN	Kakani	56.80	275	*e*P	P	06 52 42.9	+0.7
	comp=Z,30nm,0.6s,mb5.5						
M06C	Likely Place G	56.83	64	⇑P	P	06 52 42.8	+0.5
	baz=57						
H10A	Noah’s Angus R	56.85	59	⇑P	P	06 52 42.5	+0.1
	baz=57,SNR=6.2						
PKI	Pulchoki	56.86	275	*e*P	P	06 52 43.3	+0.7
L07A	Adell	56.98	62	⇑P	P	06 52 44.1	+0.8
	baz=57,SNR=6.4						
K08A	Mann Creek Ran	57.03	61	P	P	06 52 44.3	+0.7
	baz=57,SNR=7.5						
DMN	Daman	57.03	275	*e*P	P	06 52 44.5	+0.7
	comp=Z,42nm,0.7s,mb5.6						
O04C	Chester	57.03	65	P	P	06 52 44.5	+0.9
	baz=57,SNR=8.0						
ELFS	Eagle Lake Fie	57.05	64	P	P	06 52 44.4	+0.6
	baz=57,SNR=6.9						
D14A	Greenough	57.06	55	P	P	06 52 43.7	-0.1
	baz=57,SNR=25						
J09A	Fry Pan Ranch,	57.06	60	P	P	06 52 44.6	+0.8
	baz=57,SNR=9.0						
GKN	Gorkha	57.07	276	*e*P	P	06 52 44.5	+0.4
	comp=Z,20nm,0.5s,mb5.4						
E13A	Victor	57.09	55	⇑P	P	06 52 44.3	+0.3
	baz=57						
WVOR	Wild Horse Val	57.13	62	*e*P	P	06 52 44.6	+0.2
	comp=Z,10nm,1.0s,mb4.8						
WVOR	Wild Horse Val	57.13	62	*e*P	P	06 52 44.6	+0.3
WVOR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
I10A	Payette	57.13	59	⇑P	P	06 52 45.0	+0.7
	baz=57						
MNRC	McLaughlin Nat	57.13	67	⇓P	P	06 52 45.0	+0.6
	baz=57						
H11A	Donnelly	57.19	58	P	P	06 52 44.8	+0.1
	baz=57,SNR=26						
ORV	Oroville	57.27	66	P	P	06 52 44.7	-0.7
	baz=57,SNR=7.6						
CHMT	Chamberlain Mo	57.30	55	*e*P	P	06 52 45.4	-0.1
SUTB	Sutter Butte	57.31	66	⇓P	P	06 52 45.7	+0.1
	baz=57						
O05C	Quincy	57.36	65	⇓P	P	06 52 45.8	-0.2
	baz=57						
OHCM	Honcut	57.42	66	*e*P	P	06 52 46.8	+0.3
F13A	Darby	57.43	56	⇑P	P	06 52 45.9	-0.4
	baz=57						
L08A	Fields	57.45	62	P	P	06 52 47.0	+0.4
	baz=57,SNR=5.0						
M07A	Soldier Meadow	57.48	63	P	P	06 52 47.8	+1.0
	baz=57,SNR=8.5						
E14A	Clinton	57.48	55	P	P	06 52 46.8	+0.1
	baz=57,SNR=18						
K09A	Rome	57.48	61	⇓P	P	06 52 47.4	+0.6
	baz=57,SNR=5.7						
N06A	Buffalo Meadow	57.50	64	P	P	06 52 47.2	+0.2
	baz=57,SNR=5.0						
J10A	Berg Farm, Mel	57.57	60	⇑P	P	06 52 47.6	+0.2
	baz=57						
D15A	Lincoln	57.61	54	P	P	06 52 48.0	+0.4
	baz=57,SNR=5.4						
I11A	Placerville	57.72	59	⇑P	P	06 52 48.4	0.0
	baz=57						
O06A	Flanigan	57.87	64	P	P	06 52 50.1	+0.5
	baz=58,SNR=6.5						
M08A	Happy Creek Ra	57.90	62	⇓P	P	06 52 50.3	+0.5
	baz=58						
KOLN	Koldanda	57.90	276	*e*P	P	06 52 50.5	+0.5
	comp=Z,15nm,0.7s,mb5.1						
G13A	Cobalt	57.92	57	P	P	06 52 49.8	-0.1
	baz=58,SNR=15						
K10A	MacKenzie Ranc	57.92	60	P	P	06 52 50.5	+0.6
	baz=58,SNR=5.7						
H12A	Diamond D Ranc	57.92	58	⇓P	P	06 52 49.5	-0.4
	baz=58						
F14A	Wisdom	57.93	56	⇓P	P	06 52 49.3	-0.7
	baz=58						
E15A	Deer Lodge	57.93	55	P	P	06 52 49.9	-0.1
	baz=58,SNR=12						
L09A	Wilkinson Ranc	57.95	61	⇓P	P	06 52 49.8	-0.3
	baz=58						
N07B	Gerlach	57.98	63	⇑P	P	06 52 50.4	0.0
	baz=58						
MFID	Camas Ranch	58.10	59	⇑P	P	06 52 50.9	-0.3
	baz=58						
HRY	Holter Researc	58.18	54	*e*P	P	06 52 52.2	+0.5
JRSC	Jasper Ridge	58.20	68	⇓P	P	06 52 51.9	-0.1
	baz=58						
LAVA	Lava Cap Winer	58.23	66	P	P	06 52 51.9	-0.3
	baz=58,SNR=7.1						
G14A	Jackson	58.25	56	⇑P	P	06 52 51.8	-0.3
	baz=58						
H13A	Challis	58.25	57	P	P	06 52 52.1	0.0
	baz=58,SNR=11						
FCC	Fort Churchill	58.25	35	*e*P	P	06 52 51.3	-0.7
	comp=Z,11nm,0.6s,mb5.1						
FCC	Fort Churchill	58.25	35	*e*P	P	06 52 51.3	-0.7
FCC				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
F15A	Butte	58.39	55	P	P	06 52 53.2	+0.1
	baz=58,SNR=12						
EGMT	Eagleton	58.42	52	⇓P	P	06 52 53.1	-0.2
	baz=58						
O07A	Toulon	58.44	64	P	P	06 52 53.9	+0.4
	baz=58,SNR=8.7						
M09A	Marrel Ranch,	58.45	62	⇓P	P	06 52 54.3	+0.6
	baz=58						
WCN	Washoe City	58.47	65	P	P	06 52 54.1	+0.3
	baz=58,SNR=6.4						
N08A	GE Springer Mi	58.47	63	P	P	06 52 54.2	+0.4
	baz=58,SNR=5.1						
L10A	Juniper Basin	58.60	61	P	P	06 52 55.1	+0.4
	baz=58,SNR=6.4						
J12A	Stokes Ranch,	58.62	59	⇓P	P	06 52 54.9	+0.1
	baz=58,SNR=13						
R05C	Kirkwood Meado	58.67	66	⇓P	P	06 52 55.4	+0.2
	baz=58						
S04C	Ingram Canyon,	58.69	68	⇓P	P	06 52 55.6	+0.3
	baz=58						
I13A	Wildhorse Cree	58.74	58	P	P	06 52 56.1	+0.6
	baz=58,SNR=20						
N09A	Rock Creek Ran	58.78	62	⇓P	P	06 52 56.1	+0.2
	baz=58						
HLID	Hailey	58.80	58	*e*P	P	06 52 56.4	+0.3
	comp=Z,6.1nm,0.9s,mb4.6						
HLID	Hailey	58.80	58	P	P	06 52 55.8	-0.3
	baz=58,SNR=9.3						
G15A	Dillon	58.82	56	P	P	06 52 56.1	0.0
	baz=58,SNR=7.3						
MCMT	McKenzie Canyo	58.84	56	*e*P	P	06 52 56.4	+0.1
CMB	Columbia Colle	58.91	67	*e*P	P	06 52 57.0	+0.1
	comp=Z,5.5nm,0.9s,mb4.6						
CMB	Columbia Colle	58.91	67	*e*P	P	06 52 57.0	+0.1
CMB				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
CMB	Columbia Colle	58.91	67	⇓P	P	06 52 57.4	+0.5
	baz=59,SNR=6.6						
M10A	I.L. Ranch, Tu	58.91	61	P	P	06 52 57.4	+0.5
	baz=59,SNR=5.7						
L11A	Cat Creek Ranc	58.95	60	P	P	06 52 57.6	+0.5
	baz=59,SNR=8.3						
BOZ	Bozeman (W)	58.97	55	P	P	06 52 58.0	+0.8
	baz=59,SNR=5.4						
PACP	Pacheco Peak	59.04	68	⇓P	P	06 52 58.0	+0.3
	baz=59						
J13A	Cove Ranch, Pi	59.04	58	P	P	06 52 58.3	+0.6
	baz=59,SNR=7.2						
K12A	Draper Farm, C	59.12	59	P	P	06 52 58.6	+0.3
	baz=59,SNR=7.5						
R06C	Coleville	59.16	66	P	P	06 52 59.3	+0.7
	baz=59,SNR=11						
P08A	Dixie Valley	59.20	64	⇑P	P	06 52 59.7	+0.8
	baz=59						
HAST	UC Hastings Re	59.28	69	⇑P	P	06 52 59.4	-0.1
	baz=59						
S06C	San Francisco	59.33	66	P	P	06 52 59.9	+0.1
	baz=59,SNR=8.7						
L12A	House Creek Ra	59.38	60	P	P	06 53 00.8	+0.7
	baz=59,SNR=11						
M11A	Holland Ranch,	59.40	61	⇑P	P	06 53 00.8	+0.6
	baz=59						
O09A	Fish Creek Ran	59.41	63	⇓P	P	06 53 00.9	+0.5
	baz=59						
N10A	Dunphy	59.45	62	⇓P	P	06 53 00.9	+0.3
	baz=59						
QLMT	Earthquake Lak	59.61	55	*e*P	P	06 53 02.5	+0.9
R07C	Lee Vining	59.68	66	P	P	06 53 02.7	+0.5
	baz=59,SNR=9.1						
JOF	Joensuu	59.70	334	*e*p	P	06 53 00.1	-1.8
	comp=Z,1.9nm,0.3s,mb4.6						
V03C	Hunter Liggett	59.71	69	⇓P	P	06 53 02.6	+0.2
	baz=60						
O10A	Cortez Mining,	59.74	62	⇑P	P	06 53 02.5	-0.1
	baz=60						
U04C	Hernandez Rese	59.77	68	⇓P	P	06 53 03.1	+0.3
	baz=60						
Q08A	Gabbs	59.84	64	P	P	06 53 03.4	+0.2
	baz=60,SNR=12						
NVAR	Mina Array Bea	59.90	65	P	P	06 53 03.9	+0.2
	comp=Z,4.7nm,0.7s,mb4.6,baz=305,slow=5.8,SNR=42						
M12A	Wells	59.91	60	⇓P	P	06 53 04.5	+0.7
	baz=60						
YMR	Madison River	59.97	55	*e*P	P	06 53 05.1	+1.0
	comp=Z,14nm,0.8s,mb5.0						
T06C	Millerton Lake	59.99	67	⇑P	P	06 53 04.1	-0.2
	baz=60						
KCC	Kaiser Creek	60.02	67	⇑P	P	06 53 04.4	-0.1
	baz=60						
L13A	Double Diamond	60.02	59	⇑P	P	06 53 04.7	+0.2
	baz=60,SNR=6.7						
R08A	Mina	60.07	65	⇑P	P	06 53 04.5	-0.4
	baz=60						
K14A	Jones Ranch, D	60.15	58	⇓P	P	06 53 05.3	0.0
	baz=60,SNR=8.5						
YFT	Old Faithful	60.18	55	*e*P	P	06 53 07.6	+2.1
PKD	Parkfield	60.19	68	⇓P	P	06 53 05.7	-0.1
	baz=60						
P10A	Eureka	60.20	63	⇑P	P	06 53 05.8	+0.1
	baz=60						
N12A	Clover Valley,	60.21	61	⇑P	P	06 53 05.5	-0.3
	baz=60						
O11A	Cowboy Ranch,	60.33	62	⇓P	P	06 53 06.4	-0.2
	baz=60						
M13A	Montello	60.37	60	P	P	06 53 07.4	+0.5
	baz=60,SNR=7.0						
S08C	White Mtn Res	60.59	66	⇓P	P	06 53 08.9	+0.5
	baz=60						
HELL	Mitchell Peak,	60.62	67	P	P	06 53 08.0	-0.6
	baz=60,SNR=9.5						
P11A	Circle Ranch,	60.65	62	⇑P	P	06 53 08.6	-0.3
	baz=60						
N13A	Wendover, West	60.68	60	⇓P	P	06 53 09.1	0.0
	baz=60						
RCTC	Rector, Farmer	60.73	67	⇑P	P	06 53 09.7	+0.3
	baz=60						
R09A	Tonopah	60.75	64	P	P	06 53 09.6	0.0
	baz=60,SNR=12						
O12A	Currie	60.76	61	⇑P	P	06 53 09.5	-0.1
	baz=60						
TIN	Tinemaha	60.85	66	⇑P	P	06 53 10.2	0.0
	baz=61						
DGMT	Dagmar	60.92	49	*e*P	P	06 53 10.7	+0.2
	comp=Z,27nm,0.8s,mb5.4						
S09A	Goldfield	61.00	65	⇓P	P	06 53 11.2	0.0
	baz=61						
LAO	LASA Array	61.11	51	*e*P	P	06 53 12.2	+0.4
	comp=Z,24nm,0.8s,mb5.4						
VES	Vestal, Richgr	61.14	68	⇑P	P	06 53 12.0	-0.2
	baz=61						
R10A	Warm Springs	61.17	64	⇑P	P	06 53 12.7	+0.3
	baz=61						
Q11A	Duckwater	61.18	63	⇓P	P	06 53 11.9	-0.5
	baz=61						
P12A	McGill	61.20	62	⇓P	P	06 53 11.8	-0.8
	baz=61						
S10A	Tonopah Range,	61.24	64	⇑P	P	06 53 12.6	-0.2
	baz=61						
PKM	Peak Mountain	61.32	69	⇓P	P	06 53 13.7	+0.3
	baz=61						
CWC	Cottonwood Cre	61.35	67	⇑P	P	06 53 13.6	0.0
	baz=61						
GRAC	Grapevine Rang	61.40	66	⇓P	P	06 53 13.9	-0.1
	baz=61						
Q12A	Willow Creek R	61.53	62	⇓P	P	06 53 14.2	-0.6
	baz=61						
ISA	Isabella	61.63	67	⇑P	P	06 53 14.6	-0.9
	baz=61						
HWUT	Hardware Ranch	61.67	58	*e*P	P	06 53 16.2	+0.5
	comp=Z,4.2nm,0.6s,mb4.8						
DUG	Dugway	61.91	60	*e*P	P	06 53 17.7	+0.3
	comp=Z,9.6nm,1.0s,mb4.9						
DUG	Dugway	61.91	60	*e*P	P	06 53 17.7	+0.3
DUG				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
DUG	Dugway	61.91	60	⇓P	P	06 53 17.2	-0.2
	baz=62,SNR=8.7						
MPMC	Manual Prospec	61.95	66	⇑P	P	06 53 17.4	-0.3
	baz=62,SNR=6.9						
BW06	Boulder Array	61.99	56	*e*P	P	06 53 17.9	0.0
	comp=Z,11nm,1.0s,mb4.9						
PDAR	Pinedale Array	61.99	56	P	P	06 53 17.9	0.0
	comp=Z,7.2nm,0.7s,mb4.9,baz=306,slow=1.9,SNR=72						
PDAR				LR	LR	07 22 09.3	
	comp=Z,88nm,18.4s,MS4.0,baz=336,slow=38						
FURC	Furnace Creek,	62.05	66	P	P	06 53 18.3	-0.1
	baz=62,SNR=18						
R12A	Pony Springs,	62.13	63	⇑P	P	06 53 18.5	-0.4
	baz=62						
FINES	FINESS Array B	62.35	335	P	P	06 53 18.0	-2.0
FINES				LR	LR	07 23 22.1	
FINES	FINESS Array B	62.35	335	*i* P	P	06 53 17.0	-3.0
FINES				pmax	pmax		

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             comp=Z,3.0nm,0.5s
FINES  FINESS Array B   62.35 335   P      P        06 53 18.0  -1.9
             comp=Z,2.5nm,0.5s,mb4.6,baz=37,slow=6.5,SNR=29
FINES                               LR     LR       07 23 22.1
             comp=Z,820nm,18.4s,MS4.9,slow=39
U10A   Ash Meadows, A   62.41  65 ⇓P      P        06 53 20.4  -0.3
             baz=62,SNR=5.4
EDW2   Edwards Air Fo   62.45  68   P      P        06 53 20.5  -0.5
             baz=62,SNR=7.2
DAU    Daniels Canyon   62.65  59  eP      P        06 53 23.2  +1.0
DAU    Daniels Canyon   62.65  59   P      P        06 53 23.5  +1.2
DECC   Green Verdugo    62.67  69 ⇓P      P        06 53 22.0  -0.5
             baz=62
SHOC   Shoshone         62.79  66 ⇓P      P        06 53 23.1  -0.2
             baz=62
GSC    Goldstone        62.88  67 ⇑P      P        06 53 23.2  -0.6
             baz=63
U11A   Corn Creek       62.97  65 ⇑P      P        06 53 23.8  -0.7
             baz=63
BFSC   Mount Baldy St   63.08  68 ⇓P      P        06 53 25.0  -0.2
             baz=63
T12A   Moapa            63.16  64 ⇓P      P        06 53 25.5  -0.2
             baz=63
ARUT   Antelope Range   63.18  63  eP      P        06 53 26.3  +0.4
ARUT   Antelope Range   63.18  63   P      P        06 53 26.1  +0.2
TUQ    Turquoise Mtn.   63.31  66 ⇑P      P        06 53 26.6  -0.2
             baz=63
V11A   Goodsprings      63.33  65 ⇑P      P        06 53 26.5  -0.4
             baz=63
S14A   Cedar City       63.36  62 ⇓P      P        06 53 26.8  -0.2
             baz=63
MSU    Marysvale        63.41  61  eP      P        06 53 28.3  +0.9
T13A   Saint George     63.43  63 ⇑P      P        06 53 27.3  -0.2
             baz=63
HEC    Hector,Ludlow    63.48  67 ⇑P      P        06 53 27.5  -0.4
             baz=63
BBRC   Big Bear Sol-O   63.51  68 ⇓P      P        06 53 27.8  -0.4
             baz=63
ULM    Lac du Bonnet    63.56  43   P      P        06 53 27.0  -1.2
             comp=Z,3.3nm,0.7s,mb4.5,baz=300,slow=7.2,SNR=7.5
ULM                                 LR     LR       07 23 41.1
             comp=Z,228nm,18.2s,MS4.4,baz=333,slow=38
V12A   Nelson           63.75  65 ⇓P      P        06 53 29.4  -0.3
             baz=64
MURC   Murrieta         63.80  68 ⇑P      P        06 53 29.2  -0.8
             baz=64
T14A   Hurricane        63.88  63   P      P        06 53 30.5   0.0
             baz=64,SNR=5.6
GMRC   Granite Mounta   63.92  66 ⇓P      P        06 53 30.4  -0.4
             baz=64,SNR=5.3
SRU    San Rafael       63.95  60  eP      P        06 53 31.0  +0.1
             comp=Z,14nm,0.7s,mb5.1
SRU    San Rafael       63.95  60  eP      P        06 53 31.0  +0.1
SRU                                 pmax   pmax
             comp=Z,14nm,0.7s,mb5.1
RSSD   Black Hills      63.99  52  eP      P        06 53 31.3  +0.2
W12A   Cal Nev Ari      64.03  65 ⇑P      P        06 53 31.4  -0.2
             baz=64
OBN    Obninsk          64.05 326   P      P        06 53 30.0  -1.3
OBN                                e                06 53 44.7
OBN                                                 06 54 03.0
OBN                                 MLR    MLR
             comp=Z,500nm,17.0s,MS4.8
PFO    Pinyon Flat Ob   64.24  68 ⇓P      P        06 53 32.1  -0.8
             baz=64
BELC   Belle Mtn.       64.25  67 ⇑P      P        06 53 32.1  -0.8
             baz=64
IRM    Iron Mountain    64.65  67   P      P        06 53 35.5  -0.1
             baz=64,SNR=6.1
W13A   Hualapai Mount   64.76  65 ⇑P      P        06 53 35.9  -0.4
             baz=64
BC3    Big Chuckw Mtn   64.81  67 ⇑P      P        06 53 36.2  -0.5
             baz=65
X13A   Yucca            65.14  65   P      P        06 53 38.4  -0.3
             baz=65,SNR=5.4
W14A   Seligman         65.15  64 ⇑P      P        06 53 38.2  -0.6
             baz=65,SNR=8.0
PDMCI  Parker Dam,Lak   65.16  66 ⇓P      P        06 53 38.0  -0.9
             baz=65
PV10   Paradox Valley   65.29  59  eP      P        06 53 40.3  +0.6
Y12C   Blythe           65.31  66 ⇑P      P        06 53 39.3  -0.6
             baz=65
W15A   Williams         65.66  64 ⇑P      P        06 53 41.5  -0.6
             baz=65
Y13A   Salome           65.68  66 ⇑P      P        06 53 41.8  -0.5
             baz=65
PV01   Paradox Valley   65.72  59  eP      P        06 53 42.4  -0.1
X14A   Yava             65.78  65 ⇓P      P        06 53 42.4  -0.5
             baz=66
SMCO   Snowmass         65.88  58  eP      P        06 53 43.8  +0.2
             comp=Z,13nm,0.8s,mb5.0
WUAZ   Wupatki          65.94  63 ⇓P      P        06 53 43.8  -0.2
             baz=66
Y14A   Wickenburg       66.08  65 ⇑P      P        06 53 44.4  -0.5
             baz=66
X15A   Humboldt         66.16  64   P      P        06 53 45.8  +0.4
             baz=66,SNR=6.9
ISCO   Idaho Springs    66.19  56  eP      P        06 53 46.0  +0.5
             comp=Z,12nm,0.7s,mb5.0
ISCO   Idaho Springs    66.19  56  eP      P        06 53 46.0  +0.5
ISCO                                pmax   pmax
             comp=Z,12nm,0.7s,mb5.0
NB2    NORSAR Subarra   66.27 342   P      P        06 53 44.0  -1.6
             comp=Z,3.7nm,0.8s,mb4.5,baz=23,slow=6.5
NOA    NORSAR Array B   66.27 342   P      P        06 53 44.2  -1.4
             comp=Z,2.7nm,0.7s,mb4.4,baz=25,slow=6.5,SNR=8.6
NOA                                 LR     LR       07 26 57.8
             comp=Z,645nm,18.9s,MS4.9,baz=25,slow=40
MVCO   Mesa Verde       66.41  60  eP      P        06 53 46.6  -0.3
             comp=Z,7.5nm,0.8s,mb4.8
MVCO   Mesa Verde       66.41  60 ⇑P      P        06 53 46.7  -0.2
             baz=66
115A   Sonoran Desert   67.42  66 ⇓P      P        06 53 53.4   0.0
             baz=67
SDCO   Great Sand Dun   67.71  58  eP      P        06 53 55.6  +0.4
             comp=Z,4.6nm,0.8s,mb4.6
116A   Eloy             67.83  66 ⇑P      P        06 53 55.7  -0.3
             baz=68
ECSD   EROS,Sioux Fal   67.99  48  eP      P        06 53 55.8  -1.0
             comp=Z,201nm,0.8s
HYB    Hyderabad        68.48 272  eP      P        06 54 00.0  -0.2
HYB    Hyderabad        68.48 272  i P     P        06 54 00.0  -0.2
GOF    Gofitskoye       69.09 315  eP      P        06 53 56.0  -7.7
GOF                                 pmax   pmax
             comp=Z,70nm,1.0s,mb5.5
ANMO   Albuquerque      69.18  60  eP      P        06 54 04.3  -0.1
             comp=Z,6.2nm,1.0s,mb4.5
ANMO   Albuquerque      69.18  60  eP      P        06 54 04.3  -0.1
ANMO                                pmax   pmax
             comp=Z,6.0nm,1.0s
LAZ    Ladron           69.19  61  eP      P        06 54 04.9  +0.4
KIV    Kislovodsk       70.09 315  i P     P        06 54 08.7  -1.2
KIV                                 pmax   pmax
             comp=Z,13nm,1.0s,mb4.8
KIV                                 MLR    MLR
             comp=Z,300nm,21.0s,MS4.5
AKASG  Malin Array Be   70.25 327  i P     P        06 54 08.8  -1.9
AKASG                               pmax   pmax
             comp=Z,2.0nm,0.3s
AKASG  Malin Array Be   70.25 327   P      P        06 54 08.9  -1.8
             comp=Z,1.9nm,0.3s,mb4.5,baz=32,slow=6.2,SNR=31
AKASG                               LR     LR       07 26 53.6
             comp=Z,581nm,21.9s,MS4.8,baz=20,slow=38
KIEV   Kiev             70.26 327  eP      P        06 54 09.1  -1.7
             comp=Z,7.1nm,0.8s,mb4.7
KIEV   Kiev             70.26 327   P      P        06 54 09.2  -1.6
KIEV                                pmax   pmax
             comp=Z,7.0nm,0.8s,mb4.6
SCHQ   Schefferville    70.32  24   P      P        06 54 09.3  -1.8
SCHQ                               eP               06 54 10.5
SCHQ                                LR     LR       07 24 30.0
SCHQ   Schefferville    70.32  24   P      P        06 54 09.3  -1.8
             comp=Z,13nm,0.8s,mb4.9,baz=346,slow=6.1,SNR=9.1
SCHQ                                LR     LR       07 24 30.0
             comp=Z,455nm,20.6s,MS4.7,baz=292,slow=36
SCIA   State Center     71.01  47  eP      P        06 54 14.9  -0.6
             comp=Z,31nm,0.6s,mb5.4
KSU1   Kansas State U   71.45  51  eP      P        06 54 16.0  -2.2
             comp=Z,14nm,0.7s,mb5.0
WRA    Warramunga Arr   71.47 201   P      P        06 54 17.2  -1.1
             comp=Z,4.5nm,0.8s,mb4.5,baz=17,slow=6.3,SNR=11
WRA                                 LR     LR       07 25 36.5
             comp=Z,112nm,18.9s,MS4.2,baz=35,slow=36
ANN    Anapa            71.79 319  eP      P        06 54 30.5  +10
ANN                                 pmax   pmax
             comp=Z,51nm,1.5s,mb5.2
ANN                                 MLR    MLR
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             comp=Z,570nm,19.0s,MS4.9
WMOK   Wichita Mounta   73.60  56  eP      P        06 54 30.2  -0.9
             comp=Z,8.8nm,0.7s,mb4.8
WMOK   Wichita Mounta   73.60  56  eP      P        06 54 30.3  -0.8
WMOK                                pmax   pmax
             comp=Z,9.0nm,0.7s,mb4.8
STHS   Stebnicka Huta   74.04 331  eP      P        06 54 33.3  -0.1
             comp=Z,5.5nm,0.6s,mb4.7
STHS   Stebnicka Huta   74.04 331  eP      P        06 54 33.3  -0.1
STHS                                pmax   pmax
             comp=Z,6.0nm,0.6s,mb4.7
STHS   Stebnicka Huta   74.04 331  eP      P        06 54 33.3  -0.1
STHS                               e                07 43 42.6
KOLS   Kolonicke sedl   74.13 330  eP      P        06 54 33.6  -0.3
BURAR  Bucovina Array   74.27 328 ⇑P      P        06 54 33.6  -1.1
BURAR  Bucovina Array   74.27 328⇑iP      P        06 54 33.7  -1.1
PALK   Pallekele        74.57 263  eP      P        06 54 38.0  +1.0
             comp=Z,18nm,0.8s,mb5.0
OKC    Ostrava-Krasne   74.62 333   AMS    AMS      07 29 40.0
             comp=Z,700nm,19.1s
DPC    Dobruska-Polom   74.70 334  eP      P        06 54 37.3  +0.1
DPC                                e                06 55 03.6
DPC                                 LR     LR
             comp=Z,1µm,20.5s,MS5.1
DPC    Dobruska-Polom   74.70 334  eP      P        06 54 37.3  +0.1
DPC                                ex      x        06 55 03.6
DPC                                 AMS    AMS      07 30 40.0
             comp=Z,1µm,20.5s
CLL    Collm            74.73 337  i P     P        06 54 37.1  -0.3
CLL                                i                06 54 58.5
CLL                                 pmax   pmax
             comp=Z,6.0nm,0.8s,mb4.6
CLL    Collm            74.73 337  i P     P        06 54 37.1  -0.3
             comp=Z,6.0nm,0.8s,mb4.6
CLL                                i x     x        06 54 58.5
CLL                                i x     x        06 55 10.1
CLL                                e(SS)            07 09 54.0
CLL                                 LmV             07 32 00.0
             comp=Z,500nm,19.8s
MORC   Moravsky Berou   74.86 333  eP      P        06 54 38.3  +0.2
             comp=Z,6.3nm,0.7s,mb4.7
MORC   Moravsky Berou   74.86 333  eP      P        06 54 38.3  +0.1
MORC                                pmax   pmax
             comp=Z,6.0nm,0.7s,mb4.6
MORC   Moravsky Berou   74.86 333⇓iP      P        06 54 37.2  -1.0
BRG    Berggiesshubel   74.88 336  eP      P        06 54 37.4  -0.9
             comp=Z,2.3nm,0.8s,mb4.2
BRG
             comp=N,830nm,23.3s
BRG
             comp=E,431nm,19.4s
BRG
             comp=Z,797nm,23.0s
LTX    Lajitas          74.90  63  eP      P        06 54 38.6  -0.2
             comp=Z,12nm,0.8s,mb4.9
LTX    Lajitas          74.90  63   P      P        06 54 38.7  -0.1
LTX                                 pmax   pmax
             comp=Z,12nm,0.8s,mb4.9
TXAR   Lajitas Array    74.90  63   P      P        06 54 38.3  -0.5
             comp=Z,5.8nm,0.6s,mb4.7,baz=300,slow=4.2,SNR=90
CLZ    Clausthal        74.90 338  eP      P        06 54 38.8  +0.4
CLZ                                 pmax   pmax
             comp=Z,7.0nm,0.9s,mb4.6
CLZ    Clausthal        74.90 338  eP      P        06 54 38.8  +0.4
             comp=Z,7.0nm,0.9s,mb4.6
PVCC   Panska Ves       75.02 335   AMS    AMS      07 30 40.0
             comp=Z,1µm,20.5s
KECS   Kecovo           75.10 331  eP      P        06 54 39.5  -0.1
             comp=Z,2.6nm,1.0s,mb4.1
KECS   Kecovo           75.10 331  eP      P        06 54 39.5  -0.1
KECS                                pmax   pmax
             comp=Z,3.0nm,1.0s,mb4.2
PRU    Pruhonice        75.52 335  eP      P        06 54 41.5  -0.5
VRAC   Vranov           75.55 334 ⇓P      P        06 54 41.4  -0.8
VRAC   Vranov           75.55 334⇓iP      P        06 54 41.4  -0.8
VYHS   Vyhne            75.61 332  eP      P        06 54 42.0  -0.5
             comp=Z,2.3nm,0.8s,mb4.2
VYHS   Vyhne            75.61 332  eP      P        06 54 42.0  -0.5
VYHS                                pmax   pmax
             comp=Z,2.0nm,0.8s,mb4.1
TIRR   Tirgusor         75.77 324⇓iP      P        06 54 43.9  +0.4
MLR    Muntele Rosu     75.82 326 ⇑P      P        06 54 44.7  +1.0
MLR    Muntele Rosu     75.82 326⇑iP      P        06 54 44.7  +0.9
WERN   Wernitzgruen     75.83 337  eP      P        06 54 43.8  +0.1
             comp=Z,6.0nm,0.7s,mb4.6
DRGR                    75.84 329⇑iP      P        06 54 43.1  -0.8
NKC    Novy Kostel      75.86 336  eP      P        06 54 45.7  +1.8
NKC                                 AMS    AMS      07 31 20.0
             comp=Z,700nm,18.5s
TREC   Trest            75.88 334   AMS    AMS      07 29 40.0
             comp=Z,900nm,20.9s
MODS   Modra-Piesok     76.19 333  eP      P        06 54 46.2  +0.4
MODS   Modra-Piesok     76.19 333  eP      P        06 54 46.1  +0.3
VOIR                    76.19 326 ⇑P      P        06 54 44.9  -1.0
VOIR                    76.19 326⇑iP      P        06 54 44.9  -1.0
JCT    Junction City    76.25  59  eP      P        06 54 45.8  -0.7
             comp=Z,8.1nm,0.6s,mb4.8
JCT    Junction City    76.25  59  eP      P        06 54 46.0  -0.5
JCT                                 pmax   pmax
             comp=Z,8.0nm,0.6s,mb4.8
ROTZ   Rotzenmuhle      76.35 336  eP      P        06 54 47.1  +0.4
             comp=Z,3.0nm,0.8s,mb4.3
MIAR   Mount Ida        76.50  52  eP      P        06 54 46.9  -1.0
             comp=Z,15nm,0.6s,mb5.1
MIAR   Mount Ida        76.50  52  eP      P        06 54 46.9  -1.0
MIAR                                pmax   pmax
             comp=Z,15nm,0.6s,mb5.1
MALT   Malatya          76.51 314  eP      P        06 54 49.7  +1.9
             comp=Z,4.8nm,0.8s,mb4.5
MALT   Malatya          76.51 314  eP      P        06 54 49.7  +1.9
MALT                                pmax   pmax
             comp=Z,5.0nm,0.8s,mb4.5
MALT   Malatya          76.51 314⇓iP      P        06 54 50.0  +2.2
KHC    Kasperske Hory   76.56 335  eP      P        06 54 47.6  -0.3
KHC                                e                06 55 03.5
KHC                                 MLR    MLR
             comp=Z,1µm,19.4s,MS5.2
KHC    Kasperske Hory   76.56 335  eP      P        06 54 47.6  -0.3
KHC                                epP     pP       06 54 53.0  -0.2
KHC                                ePCP    PcP      06 55 03.5  +4.0
KHC                                ex      x        06 55 13.5
KHC                                 AMS    AMS      07 31 40.0
             comp=Z,1µm,19.4s
GRA1   Grafenberg Arr   76.67 337  eP      P        06 54 48.5   0.0
             comp=Z,30nm,1.6s,mb5.0
GRA1                               e                06 55 12.9
GRA1                                LR     LR
             comp=Z,500nm,21.1s,MS4.8
GRF    Grafenberg Arr   76.67 337  eP      P        06 54 48.5   0.0
GRF                                 pmax   pmax
             comp=Z,30nm,1.6s,mb5.0
GRF                                 MLR    MLR
             comp=Z,500nm,21.1s,MS4.8
GRF    Grafenberg Arr   76.67 337  eP      P        06 54 48.5   0.0
GRF                                 pmax   pmax
             comp=Z,30nm,1.6s,mb5.0
GRF                                 MLR    MLR
             comp=Z,500nm,21.1s,MS4.8
GRF    Grafenberg Arr   76.67 337  eP      P        06 54 48.5   0.0
             comp=Z,30nm,1.6s,mb5.0
GRF                                e                06 55 12.9
GRF                                eL               07 30 20.9
             comp=Z,515nm,21.1s
WET    Wettzell         76.74 336  eP      P        06 54 49.0  +0.1
WET                                 pmax   pmax
             comp=Z,8.0nm,0.7s,mb4.8
WET    Wettzell         76.74 336  eP      P        06 54 49.0  +0.1
             comp=Z,8.0nm,0.7s,mb4.8
GEC2   GERESS Array S   76.79 335  eP      P        06 54 48.6  -0.6
GEC2                                pmax   pmax
             comp=Z,6.0nm,0.8s,mb4.6
GEC2   GERESS Array S   76.79 335  eP      P        06 54 48.6  -0.6
             comp=Z,6.0nm,0.8s,mb4.6
GERES  GERESS Array B   76.79 335   P      P        06 54 48.6  -0.6
             comp=Z,3.6nm,0.6s,mb4.5,baz=34,slow=5.1,SNR=22
GERES                               LR     LR       07 32 32.9
             comp=Z,1µm,19.9s,MS5.2,baz=187,slow=39
TNS    Taunus Mts       76.86 339  eP      P        06 54 49.4  -0.2
TNS                                 pmax   pmax
             comp=Z,13nm,0.8s,mb4.9
TNS    Taunus Mts       76.86 339  eP      P        06 54 49.4  -0.2
             comp=Z,13nm,0.8s,mb4.9
HGN    Heimansgroeve    76.92 341  eP      P        06 54 49.0  -0.9
             comp=Z,15nm,0.9s,mb5.0
CONA   Conrad Observa   77.01 333⇑ipP     P        06 54 50.2  -0.2
             comp=Z,6.7nm,0.7s,mb4.7
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GZR    Gura Zlata       77.03 328 ⇓P      P        06 54 50.2  -0.5
GZR    Gura Zlata       77.03 328⇓iP      P        06 54 50.2  -0.5
MEM    Membach          77.05 341   P      P        06 54 50.7  +0.1
             comp=Z,8.9nm,1.0s,mb4.7
BZS    Buzias           77.24 329 ⇑P      P        06 54 51.2  -0.6
BZS    Buzias           77.24 329⇑iP      P        06 54 51.2  -0.6
TOD    Tromm            77.35 338  eP      P        06 54 52.1  -0.3
BCLA   Clavier          77.38 341   P      P        06 54 52.2  -0.3
             comp=Z,4.3nm,0.9s,mb4.4
MOA    Molln            77.54 334⇓iP      P        06 54 53.6  +0.2
             comp=Z,4.3nm,0.6s,mb4.5
MOA    Molln            77.54 334⇓ipP     P        06 54 53.6  +0.2
             comp=Z,4.3nm,0.6s,mb4.5
BRTR   Keskin Array B   77.54 318   P      P        06 54 53.5  -0.1
             comp=Z,5.2nm,1.0s,mb4.4,baz=46,slow=3.1,SNR=16
BRTR                                LR     LR       07 35 42.1
             comp=Z,192nm,20.1s,MS4.4,baz=322,slow=41
PKSM   Moragy           77.69 331 ⇓P      P        06 54 53.2  -1.2
PKSM   Moragy           77.69 331⇓iP      P        06 54 53.2  -1.1
GIVF   Givet            77.78 341  eP      P        06 54 54.7  -0.1
DOU    Dourbes          77.84 341   P      P        06 54 54.4  -0.7
BAIF   Baives           77.95 341  eP      P        06 54 55.0  -0.7
             comp=Z,10nm,0.9s,mb4.8
BAIF   Baives           77.95 341  eP      P        06 54 55.0  -0.7
BAIF                                pmax   pmax
             comp=Z,10.0nm,0.9s,mb4.8
BAIF   Baives           77.95 341  eP      P        06 54 55.0  -0.7
             comp=Z,20nm,0.9s,mb4.8
NATX   Nacogdoches      78.09  55  eP      P        06 54 56.9  +0.1
             comp=Z,22nm,0.8s,mb5.2
GROS   Grobnik          78.44 333  i P     P        06 54 58.1  -0.4
KBA    Koelnbreinsper   78.50 335  i P     P        06 54 59.6  +0.8
             comp=Z,65nm,0.7s,mb5.7,SNR=58
KBA    Koelnbreinsper   78.50 335  i pP    P        06 54 59.6  +0.8
             comp=Z,65nm,0.7s,mb5.7,SNR=58
KBA    Koelnbreinsper   78.50 335  i P     P        06 54 59.6  +0.8
KBA                                 pmax   pmax
             comp=Z,65nm,0.7s,mb5.7
MIB    Mutribah         78.61 303  eP      P        06 54 57.6  -2.1
MIB                                 AMb    AMB      06 55 02.3
             comp=Z,31nm,0.5s,mb5.5
BFO    Black Forest     78.65 338  eP      P        06 54 59.2  -0.4
BFO                                 pmax   pmax
             comp=Z,16nm,1.3s,mb4.8
BFO    Black Forest     78.65 338  eP      P        06 54 58.9  -0.7
             comp=Z,7.0nm,0.9s,mb4.6
OBKA   Obir             78.67 334⇑iP      P        06 54 59.7  -0.1
             comp=Z,8.9nm,0.6s,mb4.9,SNR=7.5
OBKA   Obir             78.67 334⇑ipP     P        06 54 59.7  -0.1
             comp=Z,8.9nm,0.6s,mb4.9,SNR=7.5
WTTA   Wattenberg       78.80 336⇑iP      P        06 55 01.0  +0.5
             comp=Z,24nm,0.9s,mb5.1
WTTA   Wattenberg       78.80 336⇑ipP     P        06 55 01.0  +0.5
             comp=Z,24nm,0.9s,mb5.1
WTTA   Wattenberg       78.80 336⇑iP      P        06 55 01.0  +0.6
WTTA                                pmax   pmax
             comp=Z,24nm,0.9s,mb5.1
CDF    Champ du Feu     78.83 339⇑iP      P        06 54 59.9  -0.7
             comp=Z,8.1nm,0.8s,mb4.7
CDF    Champ du Feu     78.83 339⇑iP      P        06 54 59.9  -0.7
CDF                                 pmax   pmax
             comp=Z,8.0nm,0.8s,mb4.7
CDF    Champ du Feu     78.83 339⇑iP      P        06 54 59.9  -0.7
             comp=Z,16nm,0.8s,mb4.7
MOTA   Moosalm          78.86 336⇑iP      P        06 55 00.9  +0.1
             comp=Z,12nm,1.0s,mb4.8
MOTA   Moosalm          78.86 336⇑ipP     P        06 55 00.9  +0.1
             comp=Z,12nm,1.0s,mb4.8
MOTA   Moosalm          78.86 336⇑iP      P        06 55 00.9  +0.1
MOTA                                pmax   pmax
             comp=Z,12nm,1.0s,mb4.8
KBD    Kabd             78.90 302  eP      P        06 54 58.7  -2.6
KBD                                 AMb    AMB      06 55 04.1
             comp=Z,55nm,0.5s,mb5.8
GCIS   Gornji Cirnik    78.93 333  i P     P        06 55 00.4  -0.8
SQTA   Sankt Quirin     78.95 336⇑iP      P        06 55 01.3   0.0
             comp=Z,9.7nm,1.0s,mb4.7
SQTA   Sankt Quirin     78.95 336⇑ipP     P        06 55 01.3   0.0
             comp=Z,9.7nm,1.0s,mb4.7
SQTA   Sankt Quirin     78.95 336⇑iP      P        06 55 01.3   0.0
SQTA                                pmax   pmax
             comp=Z,10.0nm,1.0s,mb4.7
LEGS   Legarje          78.95 333  i P     P        06 55 00.6  -0.7
ECH    Echery           79.04 339  eP      P        06 55 01.2  -0.5
NAY    Al-Naaiem        79.09 302  eP      P        06 54 59.7  -2.7
NAY                                 AMb    AMB      06 55 04.6
             comp=Z,21nm,0.7s,mb5.2
FVI    Forni Avoltri    79.10 335   P      P        06 55 02.2  +0.1
             comp=Z,8.2nm,0.5s,mb4.9
FVI    Forni Avoltri    79.10 335   P      P        06 55 02.2  +0.1
FVI                                 pmax   pmax
             comp=Z,8.0nm,0.5s,mb4.9
QRN    Al-Qurain        79.10 301  eP      P        06 55 00.3  -2.2
QRN                                 AMb    AMB      06 55 03.9
             comp=Z,31nm,0.5s,mb5.5
PTCC   Patocco-Chiusa   79.11 334   P      P        06 55 01.4  -0.8
             comp=Z,11nm,0.5s,mb5.0
FELD   Feldberg im Sc   79.16 338  eP      P        06 55 01.6  -0.8
RDF    Al-Radifah       79.17 302  eP      P        06 55 00.5  -2.3
RDF                                 AMb    AMB      06 55 05.5
             comp=Z,59nm,0.7s,mb5.6
VISS   Visnje           79.23 333  eP      P        06 55 01.9  -0.9
MEZF   Maizieres J'vi   79.25 340  eP      P        06 55 02.4  -0.5
THEF   They Montfort    79.30 340  eP      P        06 55 02.5  -0.7
VTS    Vitosha          79.32 326 ⇓P      P        06 55 03.4  +0.1
VTS    Vitosha          79.32 326⇓iP      P        06 55 03.4   0.0
MOF    Molkenrain       79.39 339  eP      P        06 55 02.7  -0.9
HAU    Haudompre        79.42 339  eP      P        06 55 03.0  -0.8
             comp=Z,6.8nm,0.8s,mb4.6
HAU                                 LR     LR
             comp=Z,380nm,21.3s,MS4.7
HAU    Haudompre        79.42 339  eP      P        06 55 03.0  -0.8
HAU                                 pmax   pmax
             comp=Z,7.0nm,0.8s,mb4.6
HAU                                 MLR    MLR
             comp=Z,380nm,21.3s,MS4.7
HAU    Haudompre        79.42 339  eP      P        06 55 03.0  -0.8
             comp=Z,14nm,0.8s,mb4.6
HAU                                eMLR    MLR
             comp=Z,379nm,21.2s,MS4.4
HINF   Hinteralfeld     79.48 339  eP      P        06 55 03.1  -1.1
             comp=Z,3.5nm,0.7s,mb4.4
HINF   Hinteralfeld     79.48 339  eP      P        06 55 03.1  -1.1
HINF                                pmax   pmax
             comp=Z,4.0nm,0.7s,mb4.5
HINF   Hinteralfeld     79.48 339  eP      P        06 55 03.1  -1.1
             comp=Z,7.0nm,0.7s,mb4.4
BBS    Basel-Blauen     79.66 339  eP      P        06 55 04.4  -0.7
SWET   Sewanee          79.78  47  eP      P        06 55 04.8  -1.2
BRMO   Bormio           79.86 336   P      P        06 55 07.1  +0.9
             comp=Z,13nm,0.9s,mb4.8
LOMF   Lomont           79.93 339  eP      P        06 55 05.9  -0.7
FLN    La Foliniere     80.10 344⇑iP      P        06 55 06.7  -0.8
             comp=Z,29nm,0.9s,mb5.2
FLN                                 LR     LR
             comp=Z,600nm,21.0s,MS4.9
FLN    La Foliniere     80.10 344⇑iP      P        06 55 06.7  -0.8
FLN                                 pmax   pmax
             comp=Z,29nm,0.9s,mb5.2
FLN                                 MLR    MLR
             comp=Z,600nm,21.0s,MS4.9
FLN    La Foliniere     80.10 344⇑iP      P        06 55 06.7  -0.8
             comp=Z,58nm,0.9s,mb5.2
FLN                                eMLR    MLR
             comp=Z,596nm,21.0s,MS4.6
LDF    La Druitiere     80.20 344⇑iP      P        06 55 07.1  -0.9
GRR    Gorron           80.53 344⇑iP      P        06 55 09.2  -0.6
             comp=Z,40nm,0.8s,mb5.4
GRR    Gorron           80.53 344⇑iP      P        06 55 09.2  -0.6
GRR                                 pmax   pmax
             comp=Z,40nm,0.8s,mb5.4
GRR    Gorron           80.53 344⇑iP      P        06 55 09.2  -0.6
             comp=Z,80nm,0.8s,mb5.4
LOR    Lormes           80.67 341⇑iP      P        06 55 09.9  -0.7
             comp=Z,12nm,0.8s,mb4.9
LOR                                 LR     LR
             comp=Z,670nm,21.0s,MS5.0
LOR    Lormes           80.67 341⇑iP      P        06 55 09.9  -0.7
LOR                                 pmax   pmax
             comp=Z,12nm,0.8s,mb4.9
LOR                                 MLR    MLR
             comp=Z,670nm,21.0s,MS5.0
LOR    Lormes           80.67 341⇑iP      P        06 55 09.9  -0.7
             comp=Z,24nm,0.8s,mb4.9
LOR                                eMLR    MLR
             comp=Z,667nm,21.0s,MS4.7
```

CABF	**La Chapelle**	**80.80**	**339**	*e*P	**P**	**06 55 10.9**	**-0.4**
	comp=Z,4.6nm,0.7s,mb4.5						
CABF	**La Chapelle**	**80.80**	**339**	*e*P	**P**	**06 55 10.9**	**-0.4**
CABF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
CABF	**La Chapelle**	**80.80**	**339**	*e*P	**P**	**06 55 10.9**	**-0.4**
	comp=Z,9.1nm,0.7s,mb4.5						
VAI	**Varese**	**80.84**	**337**	P	**P**	**06 55 11.1**	**-0.4**
	comp=Z,17nm,0.5s,mb5.2						
VAI	**Varese**	**80.84**	**337**	P	**P**	**06 55 11.1**	**-0.4**
VAI				pmax	pmax		
	comp=Z,17nm,0.5s,mb5.2						
HYF	**Humbligny**	**80.93**	**342**	*e*P	**P**	**06 55 11.6**	**-0.4**
SSF	**Saint Saulge**	**80.95**	**341**	⇑*i*P	**P**	**06 55 11.3**	**-0.8**
	comp=Z,8.4nm,0.7s,mb4.8						
SSF	**Saint Saulge**	**80.95**	**341**	⇑*i*P	**P**	**06 55 11.3**	**-0.8**
SSF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
SSF	**Saint Saulge**	**80.95**	**341**	⇑*i*P	**P**	**06 55 11.3**	**-0.8**
	comp=Z,17nm,0.7s,mb4.8						
SGMF	**Saint Gilles**	**80.95**	**345**	⇑*i*P	**P**	**06 55 11.6**	**-0.5**
	comp=Z,36nm,0.8s,mb5.3						
SGMF	**Saint Gilles**	**80.95**	**345**	⇑*i*P	**P**	**06 55 11.6**	**-0.5**
SGMF				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.3						
SGMF	**Saint Gilles**	**80.95**	**345**	⇑*i*P	**P**	**06 55 11.6**	**-0.5**
	comp=Z,72nm,0.8s,mb5.3						
ROSF	**Rostrenen**	**80.99**	**346**	⇑*i*P	**P**	**06 55 11.9**	**-0.4**
	comp=Z,33nm,0.8s,mb5.3						
ROSF	**Rostrenen**	**80.99**	**346**	⇑*i*P	**P**	**06 55 11.9**	**-0.4**
ROSF				pmax	pmax		
	comp=Z,33nm,0.8s,mb5.3						
ROSF	**Rostrenen**	**80.99**	**346**	⇑*i*P	**P**	**06 55 11.9**	**-0.4**
	comp=Z,66nm,0.8s,mb5.3						
PMOR	**Pomariorio Ree**	**81.22**	**125**	*e*T		08 24 47.3	
	comp=Z,7.1nm,0.2s						
AVF	**Avril sur Loir**	**81.24**	**341**	⇑*i*P	**P**	**06 55 13.1**	**-0.5**
	comp=Z,11nm,0.8s,mb4.8						
AVF	**Avril sur Loir**	**81.24**	**341**	⇑*i*P	**P**	**06 55 13.1**	**-0.5**
AVF				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
AVF	**Avril sur Loir**	**81.24**	**341**	⇑*i*P	**P**	**06 55 13.1**	**-0.5**
	comp=Z,22nm,0.8s,mb4.8						
SMF	**Signal de Mont**	**81.27**	**341**	⇑*i*P	**P**	**06 55 13.2**	**-0.6**
	comp=Z,16nm,0.8s,mb5.0						
SMF	**Signal de Mont**	**81.27**	**341**	⇑*i*P	**P**	**06 55 13.2**	**-0.6**
SMF				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
SMF	**Signal de Mont**	**81.27**	**341**	⇑*i*P	**P**	**06 55 13.2**	**-0.6**
	comp=Z,31nm,0.8s,mb5.0						
QUIF	**Quistinic**	**81.38**	**346**	⇑*i*P	**P**	**06 55 13.7**	**-0.7**
	comp=Z,13nm,0.8s,mb4.9						
QUIF	**Quistinic**	**81.38**	**346**	⇑*i*P	**P**	**06 55 13.7**	**-0.7**
QUIF				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
QUIF	**Quistinic**	**81.38**	**346**	⇑*i*P	**P**	**06 55 13.7**	**-0.7**
	comp=Z,25nm,0.8s,mb4.9						
BGF	**Bois d’Agland**	**81.56**	**341**	*e*P	**P**	**06 55 14.7**	**-0.7**
	comp=Z,8.1nm,0.6s,mb4.8						
BGF	**Bois d’Agland**	**81.56**	**341**	*e*P	**P**	**06 55 14.7**	**-0.7**
BGF				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
BGF	**Bois d’Agland**	**81.56**	**341**	*e*P	**P**	**06 55 14.7**	**-0.7**
	comp=Z,16nm,0.6s,mb4.8						
LPL	**La Plagne**	**81.67**	**338**	⇑*i*P	**P**	**06 55 16.4**	**+0.4**
	comp=Z,17nm,0.7s,mb5.1						
LPL	**La Plagne**	**81.67**	**338**	⇑*i*P	**P**	**06 55 16.4**	**+0.4**
LPL				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.1						
LPL	**La Plagne**	**81.67**	**338**	⇑*i*P	**P**	**06 55 16.4**	**+0.4**
	comp=Z,33nm,0.7s,mb5.1						
LPG	**La Plagne**	**81.69**	**338**	⇑*i*P	**P**	**06 55 16.5**	**+0.5**
	comp=Z,25nm,0.7s,mb5.2						
LPG	**La Plagne**	**81.69**	**338**	⇑*i*P	**P**	**06 55 16.5**	**+0.5**
LPG				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.2						
LPG	**La Plagne**	**81.69**	**338**	⇑*i*P	**P**	**06 55 16.5**	**+0.5**
	comp=Z,49nm,0.7s,mb5.2						
BOB	**Bobbio (Coli)**	**81.69**	**336**	P	**P**	**06 55 16.3**	**+0.2**
	comp=Z,14nm,0.4s,mb5.2						
BOB	**Bobbio (Coli)**	**81.69**	**336**	P	**P**	**06 55 16.3**	**+0.2**
BOB				pmax	pmax		
	comp=Z,14nm,0.4s,mb5.2						
FSSB	**Fossombrone**	**81.75**	**334**	P	**P**	**06 55 16.6**	**+0.2**
	comp=Z,18nm,0.1s,mb6.0						
GSCL	**Gusciola**	**81.77**	**335**	P	**P**	**06 55 17.2**	**+0.7**
	comp=Z,17nm,0.8s,mb5.0						
STKA	**Stephens Creek**	**81.78**	**192**	P	**P**	**06 55 18.8**	**+2.4**
	comp=Z,1.3nm,0.6s,mb4.1,baz=0.0,slow=8.1,SNR=4.2						
STKA				LR	LR	07 30 29.7	
	comp=Z,219nm,18.3s,MS4.5,baz=24,slow=35						
SFI	**Santa Sofia**	**81.83**	**334**	P	**P**	**06 55 17.4**	**+0.6**
	comp=Z,26nm,1.0s,mb5.1						
SFI	**Santa Sofia**	**81.83**	**334**	P	**P**	**06 55 17.4**	**+0.6**
SFI				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
VMG	**Vicchio**	**81.86**	**335**	P	**P**	**06 55 18.1**	**+1.1**
	comp=Z,37nm,0.9s,mb5.3						
TCF	**Toulx Ste Croi**	**81.95**	**342**	⇑*i*P	**P**	**06 55 17.0**	**-0.4**
	comp=Z,8.4nm,0.8s,mb4.7						
TCF	**Toulx Ste Croi**	**81.95**	**342**	⇑*i*P	**P**	**06 55 17.0**	**-0.4**
TCF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
TCF	**Toulx Ste Croi**	**81.95**	**342**	⇑*i*P	**P**	**06 55 17.0**	**-0.4**
	comp=Z,17nm,0.8s,mb4.7						
PLDF	**La Plantade**	**81.96**	**341**	*e*P	**P**	**06 55 17.2**	**-0.3**
AGO	**Saint Agoulin**	**81.99**	**341**	*e*P	**P**	**06 55 17.6**	**0.0**
VLC	**Villacollemand**	**82.00**	**335**	*e*P	**P**	**06 55 17.6**	**-0.1**
	comp=Z,14nm,0.7s,mb5.0						
BDI	**Bagni Di Lucca**	**82.03**	**335**	P	**P**	**06 55 18.3**	**+0.4**
MFF	**Saint Martin d**	**82.12**	**343**	⇑*i*P	**P**	**06 55 18.0**	**-0.3**
	comp=Z,12nm,0.7s,mb4.9						
MFF	**Saint Martin d**	**82.12**	**343**	⇑*i*P	**P**	**06 55 18.0**	**-0.3**
MFF				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
MFF	**Saint Martin d**	**82.12**	**343**	⇑*i*P	**P**	**06 55 18.0**	**-0.3**
	comp=Z,24nm,0.7s,mb4.9						
BNI	**Bardonecchia**	**82.12**	**338**	*e*P	**P**	**06 55 18.7**	**+0.3**
	comp=Z,11nm,0.8s,mb4.8						
BNI	**Bardonecchia**	**82.12**	**338**	*e*P	**P**	**06 55 18.7**	**+0.4**
BNI				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
ASF	**Jabal al Asfar**	**82.19**	**311**	LR	LR	07 35 57.5	
	comp=Z,202nm,20.3s,MS4.5,baz=260,slow=39						
PYM	**Petit Puy Mans**	**82.30**	**341**	*e*P	**P**	**06 55 19.5**	**+0.2**
MBDF	**Montbardon**	**82.41**	**338**	⇑*i*P	**P**	**06 55 19.5**	**-0.3**
	comp=Z,7.7nm,0.6s,mb4.8						
MBDF	**Montbardon**	**82.41**	**338**	⇑*i*P	**P**	**06 55 19.5**	**-0.3**
MBDF				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
MBDF	**Montbardon**	**82.41**	**338**	⇑*i*P	**P**	**06 55 19.5**	**-0.3**
	comp=Z,15nm,0.6s,mb4.8						
ORIF	**Oris-en-Rattie**	**82.44**	**339**	⇑*i*P	**P**	**06 55 20.2**	**+0.2**
	comp=Z,11nm,0.7s,mb4.9						
ORIF	**Oris-en-Rattie**	**82.44**	**339**	⇑*i*P	**P**	**06 55 20.2**	**+0.2**
ORIF				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
ORIF	**Oris-en-Rattie**	**82.44**	**339**	⇑*i*P	**P**	**06 55 20.2**	**+0.2**
	comp=Z,22nm,0.7s,mb4.9						
ORIF				*e*MLR	MLR		
	comp=Z,387nm,20.8s,MS4.5						
NRCA	**Norcia**	**82.44**	**333**	P	**P**	**06 55 20.2**	**+0.1**
	comp=Z,19nm,0.8s,mb5.1						
PPT	**Papeete**	**82.47**	**128**	*e*LR	LR	07 20 52.0	
	comp=Z,195nm,23.8s						
PPT	**Papeete**	**82.47**	**128**	*e*T		08 26 21.2	
	comp=Z,6.7nm,0.2s						
PPT	**Papeete**	**82.47**	**128**	LR	LR	07 31 49.6	
	comp=Z,383nm,18.0s,MS4.8,baz=90,slow=36						
LBL	**Lubilhac**	**82.74**	**341**	*e*P	**P**	**06 55 21.5**	**-0.1**
VIVF	**Saint-Julien-l**	**82.78**	**339**	⇑*i*P	**P**	**06 55 21.8**	**0.0**
	comp=Z,12nm,0.8s,mb5.0						
VIVF	**Saint-Julien-l**	**82.78**	**339**	⇑*i*P	**P**	**06 55 21.8**	**0.0**
VIVF				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
VIVF	**Saint-Julien-l**	**82.78**	**339**	⇑*i*P	**P**	**06 55 21.8**	**0.0**
	comp=Z,25nm,0.8s,mb5.0						
IMI	**Imperia**	**82.89**	**337**	P	**P**	**06 55 22.1**	**-0.3**
	comp=Z,27nm,0.2s,mb5.9						
SAOF	**Saorge**	**82.90**	**337**	*e*P	**P**	**06 55 22.2**	**-0.2**
RJF	**Les Rejaudoux**	**83.04**	**342**	⇑*i*P	**P**	**06 55 22.8**	**-0.3**
	comp=Z,13nm,1.0s,mb4.9						
RJF				LR	LR		
	comp=Z,590nm,21.0s,MS4.9						
RJF	**Les Rejaudoux**	**83.04**	**342**	⇑*i*P	**P**	**06 55 22.8**	**-0.3**
RJF				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
RJF				MLR	MLR		
	comp=Z,590nm,21.0s,MS4.9						
RJF	**Les Rejaudoux**	**83.04**	**342**	⇑*i*P	**P**	**06 55 22.8**	**-0.3**
	comp=Z,26nm,1.0s,mb4.9						
RJF				*e*MLR	MLR		
	comp=Z,594nm,21.0s,MS4.6						
LUCF	**Luceram**	**83.05**	**337**	*e*P	**P**	**06 55 23.3**	**+0.1**
SBF	**Sospel**	**83.05**	**337**	*e*P	**P**	**06 55 22.5**	**-0.7**
	comp=Z,25nm,0.8s,mb5.3						
SBF	**Sospel**	**83.05**	**337**	*e*P	**P**	**06 55 22.5**	**-0.7**
SBF				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.3						
SBF	**Sospel**	**83.05**	**337**	*e*P	**P**	**06 55 22.5**	**-0.7**
	comp=Z,50nm,0.8s,mb5.3						
MVIF	**Mont Vial**	**83.09**	**337**	*e*P	**P**	**06 55 23.2**	**-0.2**
REVF	**Revere**	**83.18**	**337**	*e*P	**P**	**06 55 23.7**	**-0.2**
CAF	**Calviac**	**83.29**	**341**	*e*P	**P**	**06 55 24.5**	**+0.1**
	comp=Z,16nm,0.9s,mb5.1						
CAF	**Calviac**	**83.29**	**341**	*e*P	**P**	**06 55 24.5**	**+0.1**
CAF				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.1						
CAF	**Calviac**	**83.29**	**341**	*e*P	**P**	**06 55 24.5**	**+0.1**
	comp=Z,33nm,0.9s,mb5.0						
CALN	**Calern**	**83.29**	**338**	*e*P	**P**	**06 55 24.0**	**-0.4**
STOF	**St-Etienne Org**	**83.30**	**338**	*e*P	**P**	**06 55 24.2**	**-0.3**
FORT	**Forrest**	**83.40**	**203**	*e*P	**P**	**06 55 24.6**	**-0.3**
	comp=Z,26nm,0.7s,mb5.4						
SMRF	**Simiane la Rot**	**83.40**	**339**	*e*P	**P**	**06 55 25.4**	**+0.4**
	comp=Z,23nm,0.8s,mb5.3						
SMRF	**Simiane la Rot**	**83.40**	**339**	*e*P	**P**	**06 55 25.4**	**+0.4**
	comp=Z,23nm,0.8s,mb4.9						
FRF	**La Foret Royal**	**83.53**	**338**	*e*P	**P**	**06 55 24.9**	**-0.8**
LFF	**La Frestale**	**83.55**	**342**	*e*P	**P**	**06 55 25.7**	**0.0**
	comp=Z,30nm,1.0s,mb5.4						
LFF	**La Frestale**	**83.55**	**342**	*e*P	**P**	**06 55 25.7**	**0.0**
LFF				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
LFF	**La Frestale**	**83.55**	**342**	*e*P	**P**	**06 55 25.7**	**0.0**
	comp=Z,60nm,1.0s,mb5.4						
TAVF	**Tavernes**	**83.62**	**338**	*e*P	**P**	**06 55 25.7**	**-0.4**
PRAF	**Pradon**	**83.66**	**339**	*e*P	**P**	**06 55 26.6**	**+0.3**
LASF	**Ste Croix**	**83.70**	**340**	*e*P	**P**	**06 55 26.7**	**+0.1**
	comp=Z,11nm,0.8s,mb4.7						
LMR	**La Mourre**	**83.78**	**338**	⇑*i*P	**P**	**06 55 26.4**	**-0.6**
	comp=Z,18nm,0.8s,mb5.2						
LMR	**La Mourre**	**83.78**	**338**	⇑*i*P	**P**	**06 55 26.4**	**-0.6**
LMR				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
LMR	**La Mourre**	**83.78**	**338**	⇑*i*P	**P**	**06 55 26.4**	**-0.6**
	comp=Z,36nm,0.8s,mb5.2						
PGF	**Pioggiola**	**83.87**	**336**	⇑*i*P	**P**	**06 55 26.7**	**-0.7**
	comp=Z,17nm,0.8s,mb5.2						
PGF	**Pioggiola**	**83.87**	**336**	⇑*i*P	**P**	**06 55 26.7**	**-0.7**
PGF				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.2						
PGF	**Pioggiola**	**83.87**	**336**	⇑*i*P	**P**	**06 55 26.7**	**-0.7**
	comp=Z,34nm,0.8s,mb5.2						
GELF	**Grande-Etoile**	**84.00**	**338**	*e*P	**P**	**06 55 25.7**	**-2.4**
CORF	**Corte**	**84.06**	**336**	*e*P	**P**	**06 55 27.8**	**-0.6**
MTLF	**Montolieu**	**84.77**	**341**	⇑*i*P	**P**	**06 55 31.2**	**-0.8**
	comp=Z,8.8nm,0.9s,mb4.9						
MTLF	**Montolieu**	**84.77**	**341**	⇑*i*P	**P**	**06 55 31.2**	**-0.8**
MTLF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.9						
MTLF	**Montolieu**	**84.77**	**341**	⇑*i*P	**P**	**06 55 31.2**	**-0.8**
	comp=Z,18nm,0.9s,mb4.9						
IDI	**Anoyia**	**85.00**	**321**	LR	LR	07 33 10.3	
	comp=Z,126nm,21.6s,MS4.3,baz=263,slow=36						
EIL	**Elat**	**85.20**	**311**	LR	LR	07 37 20.3	
	comp=Z,222nm,21.6s,MS4.5,baz=36,slow=38						
EPF	**Esparros**	**85.46**	**342**	*e*P	**P**	**06 55 34.8**	**-0.6**
	comp=Z,3.5nm,0.6s,mb4.7						
EPF	**Esparros**	**85.46**	**342**	*e*P	**P**	**06 55 34.8**	**-0.6**
EPF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.7						
EPF	**Esparros**	**85.46**	**342**	*e*P	**P**	**06 55 34.8**	**-0.6**
	comp=Z,7.1nm,0.6s,mb4.7						
SJPF	**Ste Jean**	**85.69**	**343**	*e*P	**P**	**06 55 36.0**	**-0.6**
ETSF	**Etsaut**	**85.76**	**343**	*e*P	**P**	**06 55 35.9**	**-1.1**
	comp=Z,4.4nm,0.7s,mb4.8						
ETSF	**Etsaut**	**85.76**	**343**	*e*P	**P**	**06 55 35.9**	**-1.1**
ETSF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.8						
ETSF	**Etsaut**	**85.76**	**343**	*e*P	**P**	**06 55 35.9**	**-1.1**
	comp=Z,8.9nm,0.7s,mb4.8						
PBRG	**Braganca**	**87.90**	**347**	*e*P	**P**	**06 55 46.5**	**-0.9**
	comp=Z,5.4nm,1.4s,mb4.6						
PCAB	**Cabril**	**88.18**	**348**	*e*P	**P**	**06 55 48.3**	**-0.4**
	comp=Z,13nm,1.0s,mb5.1						
PVRL	**Vila Real**	**88.56**	**347**	*e*P	**P**	**06 55 49.4**	**-1.1**
	comp=Z,12nm,0.8s,mb5.3						
MVO	**Moncorvo**	**88.57**	**347**	*e*P	**P**	**06 55 49.3**	**-1.3**
	comp=Z,5.4nm,1.0s,mb4.8						
PVIS	**Viseu**	**89.14**	**347**	*e*P	**P**	**06 55 53.4**	**+0.1**
	comp=Z,5.9nm,0.8s,mb5.0						
MTE	**Manteigas**	**89.39**	**347**	*e*P	**P**	**06 55 54.0**	**-0.5**
	comp=Z,10nm,1.2s,mb5.0						
ESDC	**Sonseca Array**	**89.52**	**344**	P	**P**	**06 55 53.6**	**-1.5**
	comp=Z,1.5nm,0.7s,mb4.4,baz=6.3,slow=4.2,SNR=5.2						
ESDC				LR	LR	07 41 03.9	
	comp=Z,330nm,20.6s,MS4.8,baz=335,slow=39						
KEST	**Kesra**	**90.11**	**333**	P	**P**	**06 55 57.4**	**-0.5**
	comp=Z,4.5nm,0.8s,mb4.8,baz=310,slow=5.9,SNR=7.0						
KEST				LR	LR	07 40 19.5	
	comp=Z,281nm,21.0s,MS4.7,baz=177,slow=38						
PMAFR	**Mafra**	**91.06**	**348**	*e*P	**P**	**06 56 00.9**	**-1.4**
RKT	**Rikitea**	**94.90**	**120**	*e*SS	SS	07 13 53.3	-5.5
	comp=Z,167nm,34.5s						
RKT				*e*LR	LR	07 26 35.1	
	comp=Z,323nm,33.8s						
LPAZ	**La Paz**	**131.77**	**63**	PKP	PKPdf	07 02 11.0	-0.1
LPAZ	**La Paz**	**131.77**	**63**	PKIKP	PKPdf	07 02 11.0	-0.1
LPAZ	**La Paz**	**131.77**	**63**	PKP	PKPdf	07 02 11.0	-0.1
	comp=Z,1.1nm,0.8s,baz=20,slow=4.9,SNR=5.6						
MAIT	**Maitri**	**152.65**	**205**	*e*PKPdf	PKPdf	07 02 50.2	+4.2

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*MOS **05** 07:51:18.4±0.8, 5499N×11170E, h14^{km}, mb4.3/1, Error ellipse: s-maj=18.5km s-min=10.9km az=71.4*

BYKL 05 07:51:19.2±0.2, 5500N×11171E, h5^{km}±11^{km}, 8C, Lake Baykal region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMO	**Kumora**	**0.94**	**342**	*e*PG	Pg	07 51 36.0	-1.1
KMO				*e*		07 51 47.1	
KMO				pmax	pmax		
	comp=Z,66nm,0.3s						
KMO				smax			
	comp=E,390nm,0.7s						
KMO	**Kumora**	**0.94**	**342**	*e*Pg	Pg	07 51 35.7	-1.4
KMO				*e*Sg	Sg	07 51 47.8	-1.4
KMO				*e*		07 51 55.6	
KMO				Pmax			
	comp=E,65nm,0.3s						
KMO				max			
	comp=E,480nm,0.3s						
YOA	**Uoyan**	**1.14**	**0**	⇑*i*PG	Pg	07 51 39.9	-1.1
YOA				*e*		07 51 55.7	
YOA				pmax	pmax		
	comp=Z,250nm,0.2s						
YOA				smax			
	comp=N,1µm,0.4s						
YOA	**Uoyan**	**1.14**	**0**	⇑*i*Pg	Pg	07 51 39.9	-1.1
YOA				*e*Sg	Sg	07 51 55.4	-0.3
YOA				Pmax			
	comp=N,323nm,0.3s						
YOA				Smax			
	comp=N,1µm,0.4s						
UKT	**Uakit**	**1.20**	**65**	⇑*i*PG	Pg	07 51 40.5	-1.7
UKT				*e*		07 51 56.7	
UKT				pmax	pmax		
	comp=Z,184nm,0.2s						
UKT				smax			
	comp=N,1µm,0.2s						
UKT	**Uakit**	**1.20**	**65**	⇑*i*Pg	Pg	07 51 40.6	-1.6
UKT				*e*		07 51 43.1	
UKT				*e*Sg	Sg	07 51 56.8	-1.0
UKT				*e*		07 52 01.5	
UKT				max			
	comp=N,195nm,0.3s						
UKT				max			
	comp=N,1µm,0.3s						
NIZ	**Nizh Angarsk**	**1.46**	**303**	*e*PG	Pg	07 51 45.2	-2.0
NIZ				*e*		07 52 05.0	
NIZ				pmax	pmax		
	comp=Z,88nm,0.3s						
NIZ				smax			
	comp=N,324nm,0.4s						
SVKR	**Severomuysk**	**1.54**	**42**	*e*PN	Pn	07 51 47.4	+0.2
SVKR				*e*		07 52 08.3	
SVKR				pmax	pmax		
	comp=Z,427nm,0.3s						
SVKR				smax			
	comp=N,1µm,0.5s						
SVKR	**Severomuysk**	**1.54**	**42**	*e*Pg	Pg	07 51 47.7	-0.9
SVKR				*e*Sg	Sg	07 52 09.0	+0.5
SVKR				*e*		07 52 11.8	
SVKR				Pmax			
	comp=N,494nm,0.1s						
SVKR				max			
	comp=N,1µm,0.5s						
SYVR	**Suvo**	**1.68**	**217**	⇑*i*Pn	Pn	07 51 49.3	+0.2
SYVR				*e*Pg	Pg	07 51 49.9	-1.4
SYVR				*e*Sg	Sg	07 52 12.2	-0.8
SYVR				Pmax			
	comp=N,57nm,0.4s						
SYVR				Smax			
	comp=N,249nm,0.2s						
MXMB	**Maximikha**	**2.46**	**226**	*e*Pn	Pn	07 51 59.9	-0.1
MXMB				*e*Pg	Pg	07 52 03.5	-2.9
MXMB				*e*Sg	Sg	07 52 37.0	-1.3
MXMB				Pmax			
	comp=N,28nm,0.5s						
MXMB				Smax			
	comp=N,440nm,0.5s						
NLYR	**Nelyaty**	**2.71**	**55**	*e*Pn	Pn	07 52 03.5	+0.2
NLYR				*e*Sg	Sg	07 52 43.0	-3.1
OGRR	**Ongureny**	**2.77**	**242**	*e*PN	Pn	07 52 04.4	+0.3
OGRR				*e*		07 52 09.2	
OGRR				*e*		07 52 44.6	
OGRR				pmax	pmax		
	comp=Z,30nm,0.2s						
OGRR				smax			
	comp=N,160nm,0.5s						
OGRR	**Ongureny**	**2.77**	**242**	⇑*i*Pn	Pn	07 52 04.4	+0.3
OGRR				*e*Pg	Pg	07 52 08.1	-4.1
OGRR				*e*Sg	Sg	07 52 44.5	-3.5
OGRR				Pmax			
	comp=N,30nm,0.2s						
OGRR				Smax			
	comp=N,135nm,0.3s						
BOD	**Bodaibo**	**3.10**	**23**	*e*PN	Pn	07 52 07.1	-1.6
BOD				*e*		07 52 14.2	
BOD				*e*		07 52 53.0	
BOD				pmax	pmax		
	comp=Z,35nm,0.4s						
BOD				smax			
	comp=N,168nm,0.4s						
BOD	**Bodaibo**	**3.10**	**23**	*e*Pn	Pn	07 52 09.2	+0.5
BOD				*e*Pg	Pg	07 52 14.2	-4.3
BOD				*e*Sg	Sg	07 52 53.5	-5.2
BOD				Pmax			
	comp=N,34nm,0.4s						
BOD				Smax			
	comp=N,168nm,0.4s						
CIT	**Chita**	**3.18**	**159**	*e*Pn	Pn	07 52 09.9	+0.1
CIT				*e*Pg	Pg	07 52 15.3	-4.8
CIT				*e*Sg	Sg	07 52 57.4	-3.9
CIT				Pmax			
	comp=N,12nm,0.3s						
CIT				Smax			
	comp=N,139nm,0.4s						
ZRHB	**Zarechye**	**3.65**	**230**	*e*Sg	Sg	07 53 13.0	-3.3
ZRHB				Smax			
	comp=N,195nm,1.2s						
TRTB	**Turuntaevo**	**3.69**	**223**	*e*Pn	Pn	07 52 18.2	+1.4
TRTB				*e*Pg	Pg	07 52 25.1	-4.7
TRTB				*e*Sg	Sg	07 53 14.1	-3.5
TRTB				Pmax			
	comp=N,12nm,0.5s						
TRTB				Smax			
	comp=N,62nm,0.5s						
TRG	**Tyrgan**	**3.89**	**237**	*e*Pn	Pn	07 52 20.0	+0.5
TRG				*e*Pg	Pg	07 52 29.2	-4.4
TRG				*e*Sg	Sg	07 53 18.8	-5.1
TRG				Pmax			
	comp=N,5.0nm,0.4s						
TRG				Smax			
	comp=N,70nm,0.5s						
UUDB	**Ulan-Yde**	**3.96**	**219**	*e*Sg	Sg	07 53 22.8	-3.6
UUDB				Smax			
	comp=N,308nm,1.5s						
CRS	**Chara**	**4.15**	**60**	*e*PN	Pn	07 52 23.5	+0.4
CRS				*e*		07 52 33.4	
CRS				*e*		07 53 27.8	
CRS				pmax	pmax		
	comp=Z,21nm,1.0s						
CRS				smax			
	comp=E,232nm,1.2s						
CRS	**Chara**	**4.15**	**60**	*e*Pn	Pn	07 52 22.8	-0.3
CRS				*e*Pg	Pg	07 52 34.0	-4.6
CRS				*e*Sg	Sg	07 53 27.7	-4.6
CRS				Pmax			
	comp=E,13nm,0.4s						
CRS				Smax			
	comp=E,231nm,1.2s						
FFNB	**Fofonovo**	**4.18**	**227**	*e*Sg	Sg	07 53 28.5	-4.8
FFNB				Smax			
	comp=E,86nm,0.5s						
TUP	**Tupik**	**4.81**	**93**	*e*PN	Pn	07 52 32.3	0.0
TUP				*e*		07 52 45.1	
TUP				*e*S	Sn	07 53 26.3	-2.0
TUP				*e*		07 53 47.2	
TUP				pmax	pmax		
	comp=Z,14nm,0.5s						
TUP				smax			
	comp=N,90nm,0.9s						
TUP	**Tupik**	**4.81**	**93**	⇑*i*Pn	Pn	07 52 32.4	+0.1
TUP				*e*Pg	Pg	07 52 45.9	-5.5
TUP				*e*Sg	Sg	07 53 47.6	-6.1
TUP				Pmax			
	comp=N,9.0nm,0.3s						
TUP				Smax			
	comp=N,91nm,0.7s						
KHNR	**Khani**	**5.03**	**64**	*e*Sg	Sg	07 53 54.7	-5.8
KPC	**Khapcheranga**	**5.32**	**175**	*e*Pn	Pn	07 52 41.2	+2.0
KPC				*e*Pg	Pg	07 52 55.9	-5.2
KPC				*e*Sg	Sg	07 54 03.1	-6.8
KPC				Pmax			
	comp=N,4.0nm,0.3s						
KPC				Smax			
	comp=N,44nm,1.0s						
TLY	**Talaya**	**5.86**	**239**	*e*PN	Pn	07 53 03.1	+16
TLY				*e*		07 54 17.0	
TLY				pmax	pmax		
	comp=Z,5.0nm,0.5s						
TLY				smax			
	comp=N,23nm,0.6s						
MOY	**Mondy**	**7.23**	**247**	*e*PN	Pn	07 53 05.2	-0.2
MOY				*e*		07 53 28.9	
MOY				*e*		07 54 59.2	
MOY				pmax	pmax		
	comp=Z,3.0nm,0.4s						
MOY				smax			
	comp=E,59nm,1.6s						
MOY	**Mondy**	**7.23**	**247**	*e*Pn	Pn	07 53 06.4	+1.0
MOY				*e*Sg	Sg	07 55 02.2	-9.0
MOY				Smax			
	comp=E,59nm,1.6s						
ORL	**Orlik**	**7.47**	**256**	*e*PN	Pn	07 53 09.8	+1.1
ORL				*e*S	Sn	07 55 10.2	+36
ORL				smax			
	comp=N,43nm,1.3s						
ORL	**Orlik**	**7.47**	**256**	⇑*i*Pn	Pn	07 53 09.9	+1.2
ORL				*e*Sg	Sg	07 55 10.8	-8.0
ORL				Smax			
	comp=N,54nm,1.0s						

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*NEIC **05** 07:54:20.5, 1939N×6333W, h123^{km}, MD3.8(RSPR), After RSPR.*

TRN 05 07:54:17.3, 1950N×6315W, h67^{km}, 9C, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MTP	**Monte Pirata**	**2.67**	**239**	⇑*e*P	Pn	07 55 00.0	+2.0
MTP				*e*S	Sn	07 55 30.5	+1.2
CBYP	**Canovanas**	**2.84**	**245**	*e*P	Pn	07 55 02.2	+1.9
CBYP				*e*S	Sn	07 55 34.8	+1.4

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
HUMP	Col San Antoni	2.90	243	⇑eP	Pn	07 55 03.1	+2.1
HUMP				eS	Sn	07 55 35.8	+1.1
CPD	Cerro la Pandu	3.00	241	⇑eP	Pn	07 55 04.3	+1.8
CPD				ePn	Pn	07 55 04.4	+1.9
CPD				eSn	Sn	07 55 37.1	-0.2
CPD				eS	Sn	07 55 38.4	+1.1
SJG	San Juan	3.16	245	⇑eP	Pn	07 55 06.4	+1.7
CELP	Cerrillos	3.55	247	⇑eP	Pn	07 55 11.8	+1.8
AOPR	Arecibo Observ	3.60	252	⇑eP	Pn	07 55 12.2	+1.4
AOPR				eS	Sn	07 55 53.0	+1.0
LRS	Lares	3.70	252	⇑eP	Pn	07 55 13.5	+1.4
LSP	Las Mesas	3.96	251	⇑eP	Pn	07 55 17.1	+1.5
LSP				eS	Sn	07 56 01.7	+1.0
CRPR	Cabo Rojo, PR	4.04	249	⇑eP	Pn	07 55 18.5	+1.9
SDDR	Presa de Saban	7.71	267	ePn	Pn	07 56 08.9	+2.0
	11nm,0.5s						

IDC 05 07:57:32.1±2.6**,2984N**×**8048E,h0^{km},mb3.7**/6**,mb1 3.9**/7**, mb1mx3.7**/21**,mbtmp3.7**/7**,ML3.8**/1**,MS3.8**/2**,Ms1 3.8**/2**, ms1mx3.1**/33**,Error ellipse: s-maj=63.3km s-min=31.8km az=145.0,Nepal-India border region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
MKAR	Makanchi Array	16.98	4	Pn	Pn	08 01 30.0	-0.9
	0.3nm,0.3s,baz=189,slow=12,SNR=13						
ZALV	Zalesovo Beam	24.29	6	P	P	08 02 50.2	-0.7
	1.2nm,0.5s,baz=198,slow=11,SNR=5.9						
SONM	Songino Array	26.83	41	P	P	08 03 15.2	+1.2
	0.5nm,0.6s,baz=240,slow=12,SNR=5.2						
FINES	FINESS Array B	47.37	328	P	P	08 06 07.8	+0.2
	1.1nm,0.4s,baz=126,slow=8.9,SNR=9.9						
ARCES	ARCESS Array B	50.29	338	P	P	08 06 29.7	-0.2
	2.5nm,0.8s,baz=108,slow=6.8,SNR=4.1						
KEST	Kesra	58.90	296	LR	LR	08 38 06.4	
	comp=Z,47nm,18.0s,baz=224,slow=41						
TORD	Torodi Ar. Bea	73.94	276	P	P	08 09 10.1	+0.4
	0.1nm,0.5s,baz=49,slow=6.1,SNR=3.1						
TORD				LR	LR	08 48 01.7	
	comp=Z,76nm,19.8s,baz=150,slow=41						
YKA	Yellowknife Ar	87.19	7	P	P	08 10 18.6	-1.3
	0.2nm,0.6s,baz=338,slow=5.2,SNR=4.6						

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*CSEM **05** 08:00:06.8±0.1,3806N×3877E,h2^{km},MD3.5*
*ISK **05** 08:00:07.1,3809N×3877E,h2^{km},MD3.5*
*ISCJB **05** 08:00:08.2±0.3,3806N±003×3876E±003,h10^{km},Error ellipse: s-maj=3.9km s-min=2.9km az=153.1*
*DDA **05** 08:00:08.7,3807N×3879E,h24^{km}±3^{km},Md3.9*
ISC 05 08:00:08.8±0.3**,3805N**±003×**3876E**±003**,h10^{km},n46, σ1^{s}12**/58**,2D,Turkey**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
MALT	Malatya	0.37	315	i PG	Pg	08 00 15.0	-1.0
MALT				i SG	Sg	08 00 20.5	-0.5
MALT	Malatya	0.37	315	i Pg	Pg	08 00 15.0	-1.0
MALT				i Sg	Sg	08 00 20.5	-0.5
MYA	Malataya	0.38	316	i PG	Pg	08 00 15.2	-1.0
MYA	Malataya	0.38	316	i Pg	Pg	08 00 15.2	-1.0
ELZG	Elazig	0.48	22	⇓iP	Pg	08 00 16.8	-1.4
ELZG				i S	Sg	08 00 24.6	+0.1
ATAB	Bozova	0.69	212	⇓iP	Pg	08 00 21.4	-0.7
ATAB				i S	Sg	08 00 30.7	-0.3
PTK	Pertek	0.97	31	PG	Pg	08 00 25.5	-2.1
PTK	Pertek	0.97	31	ePg	Pg	08 00 25.5	-2.1
DIY	Diyarbakir	1.17	97	PN	Pn	08 00 29.7	-1.5
DIY				SN	Sn	08 00 47.0	-0.2
DIY	Diyarbakir	1.17	97	ePn	Pn	08 00 29.7	-1.5
DIY				eSn	Sn	08 00 47.0	-0.2
GZT	Gaziantep	1.17	234	i P	Pb	08 00 30.1	-1.0
GZT				i S	Sb	08 00 46.1	-0.3
KMRS	Kahramanmaras	1.57	250	PN	Pn	08 00 36.1	-0.6
KMRS	Kahramanmaras	1.57	250	ePn	Pn	08 00 36.1	-0.6
BINT	Bingol	1.59	58	PN	Pn	08 00 35.9	-1.1
BINT	Bingol	1.59	58	ePn	Pn	08 00 35.9	-1.1
MARD	Mardin	1.77	114	i P	Pn	08 00 38.4	-1.0
MARD				i S	Sn	08 01 01.4	-0.5
EZC	Erzincan	1.88	26	PN	Pn	08 00 40.0	-1.0
BTMT	Batman	2.16	85	PN	Pn	08 00 43.4	-1.4
SVSK	Karacayir	2.31	324	PN	Pn	08 00 47.8	+0.9
SVSK	Karacayir	2.31	324	ePn	Pn	08 00 47.8	+0.9
KOZT	Kozan	2.39	257	PN	Pn	08 00 48.8	+0.8
BNN	Bunyan	2.42	290	ePN	Pn	08 00 49.3	+0.9
BNN	Bunyan	2.42	290	ePn	Pn	08 00 49.3	+0.9
GUMT	Gumushane	2.47	13	PN	Pn	08 00 48.8	-0.3
GUMT	Gumushane	2.47	13	ePn	Pn	08 00 48.8	-0.3
CEYT	Ceyhan	2.61	247	ePN	Pn	08 00 52.3	+1.3
CEYT	Ceyhan	2.61	247	ePn	Pn	08 00 52.3	+1.3
EZM	Erzurum	2.75	47	ePN	Pn	08 00 53.7	+0.8
ERZM	Erzurum	2.75	47	i P	Pn	08 00 53.0	+0.1
ERZM				i S	Sg	08 01 40.2	+3.1
ERZM	Erzurum	2.75	47	i P	Pn	08 00 53.0	+0.1
SIRT	Sirnak	2.97	100	ePN	Pn	08 00 57.2	+1.3
SIRT	Sirnak	2.97	100	ePn	Pn	08 00 57.2	+1.3
NIG	Nigde	3.27	272	ePN	Pn	08 01 01.7	+1.6
NIG	Nigde	3.27	272	ePn	Pn	08 01 01.7	+1.6
AGRB	Hanur-Agry	3.64	64	ePN	Pn	08 01 06.1	+0.9
AGRB	Hanur-Agry	3.64	64	ePn	Pn	08 01 06.1	+0.9
CDAG	Cicekdag	3.77	296	i P	Pn	08 01 07.5	+0.6
CDAG				i S	Sb	08 02 04.1	+3.1
MSL	Mosul	3.88	116	eP	x	08 01 13.0	
MSL				eS	x	08 02 14.0	
CUKT	Cukurca	3.93	100	ePN	Pn	08 01 10.6	+1.4
CUKT	Cukurca	3.93	100	ePn	Pn	08 01 10.6	+1.4
HAKT	HAKKARI	3.95	96	i P	Pn	08 01 09.0	-0.4
HAKT				i S	Sb	08 02 07.7	+1.4
HKR	Hakkari	3.98	95	ePN	Pn	08 01 11.6	+1.8
HKR	Hakkari	3.98	95	ePn	Pn	08 01 11.6	+1.8
HWQ	Hawqa	4.40	212	eP	Pn	08 01 16.3	+0.7
HWQ				eS	Sb	08 02 20.0	+0.8
BHL	Bhannes	4.84	212	eP	Pn	08 01 20.4	-1.3
BHL				eS	Sg	08 02 40.7	-3.6
RCY	Rachaya	5.15	209	eS	Sg	08 02 48.5	-5.5

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*ISCJB **05** 08:04:21.9±0.7,3096S±007×1779W±02,h33^{km},mb4.3/3, Error ellipse: s-maj=20.4km s-min=6.3km az=23.7*
*NEIC **05** 08:04:23.8±1.4,3084S×17800W,h37^{km}±13^{km},Error ellipse: s-maj=24.4km s-min=13.1km az=127.0*
*IDC **05** 08:04:24.2±3.0,3073S×178.12W,h37^{km}±24^{km},mb3.9/2, mb1 4.3/4,mb1mx4.0/11,mbtmp4.1/4,ML4.4/2,MS3.4/1, Ms1 3.4/1,ms1mx2.7/20,Error ellipse: s-maj=32.3km s-min=19.0km az=118.0*
ISC 05 08:04:21.8±3.4**,3083S**±006×**1780W**±02**,h17^{km}**±23^{km}**,n27, σ0^{s}80**/20**,mb4.3**/3**,Kermadec Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
RAO	Raoul Island	1.57	2	Pn	Pn	08 04 48.9	+0.1
RAO				ePn	Pn	08 04 49.3	+0.4
RAO				Sn	Sn	08 05 05.1	-3.7
RAO				eSn	Sn	08 05 06.2	-2.7
RAO	Raoul Island	1.57	2	Pn	Pn	08 04 48.9	+0.1
	239nm,0.3s,baz=91,slow=20,SNR=7.8						
RAO				Sn	Sn	08 05 05.1	-3.7
	2μm,0.3s,baz=203,slow=22,SNR=13						
PUZ	Puketiti	7.86	202	PN	Pn	08 06 14.7	-0.5
PUZ				SN	Sn	08 07 42.8	-0.9
MWZ	Matawai	8.35	205	PN	Pn	08 06 21.7	-0.2
MWZ				SN	Sn	08 07 56.3	+0.5
URZ	Urewera	8.44	207	Pn	Pn	08 06 22.9	-0.3
URZ				Sn	Sn	08 07 57.9	-0.2
URZ	Urewera	8.44	207	Pn	Pn	08 06 22.9	-0.3
	0.7nm,0.3s,baz=122,slow=10,SNR=14						
URZ				Sn	Sn	08 07 57.9	-0.2
	4.3nm,0.3s,baz=65,slow=22,SNR=11						
URZ	Urewera	8.44	207	PN	Pn	08 06 22.6	-0.6
URZ				SN	Sn	08 07 58.6	+0.5
DZM	Mont Dzumac	16.43	298	LR	LR	08 12 51.7	
	comp=Z,117nm,18.7s,baz=180,slow=31						
RAR	Rarotonga	18.94	64	P	Pn	08 08 42.8	+0.1
	6.4nm,0.3s,baz=215,slow=2.3,SNR=6.0						
STKA	Stephens Creek	34.39	258	P	P	08 11 09.6	+1.5
	10nm,0.8s,mb4.8,baz=87,slow=9.0,SNR=17						
WRA	Warramunga Arr	44.12	273	P	P	08 12 29.4	0.0
	3.9nm,0.5s,mb4.4,baz=111,slow=7.9,SNR=8.8						
NVAR	Mina Array Bea	88.55	43	P	P	08 17 14.2	+0.8
	0.2nm,0.5s,mb3.7,baz=203,slow=5.8,SNR=3.6						
MKAR	Makanchi Array	118.06	310	PKP	PKPdf	08 23 05.2	-2.0
MKAR	Makanchi Array	118.06	310	PKP	PKPdf	08 23 05.2	-2.0
	0.2nm,0.5s,baz=57,slow=5.3,SNR=4.0						
ZALV	Zalesovo Beam	118.36	318	PKP	PKPdf	08 23 04.9	-2.7
ZALV	Zalesovo Beam	118.36	318	PKP	PKPdf	08 23 04.9	-2.7
	0.4nm,0.4s,baz=106,slow=3.1,SNR=2.2						
ARCES	ARCESS Array B	139.01	348	PKP	PKPdf	08 23 46.1	-0.2
ARCES	ARCESS Array B	139.01	348	PKP	PKPdf	08 23 46.1	-0.2
	3.0nm,0.9s,baz=26,slow=2.3,SNR=4.6						
FINES	FINESS Array B	145.55	340	PKPbc	PKPbc	08 23 56.8	-1.6
FINES	FINESS Array B	145.55	340	PKPbc	PKPbc	08 23 56.8	-1.6
	3.4nm,0.5s,baz=67,slow=3.6,SNR=39						
NOA	NORSAR Array B	149.18	351	PKPbc	PKPbc	08 24 07.0	-1.5
NOA	NORSAR Array B	149.18	351	PKPbc	PKPbc	08 24 07.0	-1.5
	0.9nm,0.7s,baz=24,slow=4.4,SNR=3.6						
AKASG	Malin Array Be	151.65	322	PKPbc	PKPbc	08 24 13.2	-1.4
AKASG	Malin Array Be	151.65	322	PKPbc	PKPbc	08 24 13.2	-1.4
	1.9nm,0.5s,baz=46,slow=2.9,SNR=6.7						
BRTR	Keskin Array B	152.81	298	PKPbc	PKPbc	08 24 17.1	-0.6
BRTR				PKPab	PKPab	08 24 27.1	-1.7
BRTR	Keskin Array B	152.81	298	PKPbc	PKPbc	08 24 17.1	-0.6
	0.6nm,0.5s,baz=90,slow=1.0,SNR=3.8						
BRTR				PKPab	PKPab	08 24 27.1	-1.7
	0.2nm,0.3s,baz=84,slow=5.9,SNR=3.1						
TORD	Torodi Ar. Bea	162.40	179	PKPab	PKPab	08 25 11.2	+0.8
	0.9nm,0.6s,baz=169,slow=4.1,SNR=11						

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*ISCJB **05** 08:21:51.1±1.2,176S±03×1788W±02,h563^{km}±19^{km}, mb4.0/14,Error ellipse: s-maj=48.4km s-min=12.3km az=149.7*
*NEIC **05** 08:21:51.7±0.9,1751S×17874W,h556^{km}±13^{km},mb4.5/8, Error ellipse: s-maj=37.8km s-min=9.5km az=150.0*
*IDC **05** 08:21:51.8±2.0,1706S×17899W,h542^{km}±28^{km},mb3.2/7, mb1 3.5/9,mb1mx3.4/15,mbtmp3.3/9,Error ellipse: s-maj=74.9km s-min=14.6km az=152.0*
ISC 05 08:21:51.8±1.2**,175S**±03×**1787W**±02**,h556^{km}**±16^{km}**,n19, σ0^{s}86**/19**,mb4.0**/14**,1D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
AFI	Afiamalu	7.61	63	P	P	08 23 45.3	-0.6
	4.9nm,0.3s,baz=329,slow=17,SNR=5.7						
DZM	Mont Dzumac	14.66	250	P	P	08 24 58.4	+0.7
	1.1nm,0.3s,baz=82,slow=18,SNR=14						
ARMA	Armidale	29.86	239	eP	P	08 27 15.2	+0.4
CTA	Charters Tower	33.20	260	eP	P	08 27 44.2	+0.9
	17nm,1.8s,mb4.3						
CNB	Canberra Magne	33.41	232	eP	P	08 27 44.5	-0.5
	8.0nm,0.5s,mb4.5						
TOO	Toolangi	37.17	230	eP	P	08 28 15.6	-0.5
	5.5nm,0.6s,mb4.3						
STKA	Stephens Creek	38.54	241	⇓iP	P	08 28 27.7	+0.4
	6.1nm,0.5s,mb4.4						
STKA	Stephens Creek	38.54	241	P	P	08 28 27.8	+0.4
	7.0nm,0.5s,mb4.5,baz=91,slow=10.0,SNR=46						
WB2	Warramunga Arr	44.38	259	eP	P	08 29 13.2	-0.4
WRA	Warramunga Arr	44.39	259	P	P	08 29 13.7	0.0
	3.4nm,0.5s,mb4.1,baz=94,slow=7.1,SNR=19						
KAKA	Kakadu	47.27	269	eP	P	08 29 36.4	+0.7
	21nm,1.1s,mb4.6						
FORT	Forrest	49.89	244	eP	P	08 29 54.0	-0.9
	17nm,0.8s,mb4.5						
FITZ	Fitzroy Crossi	52.78	260	eP	P	08 30 16.4	+0.5
	5.5nm,0.8s,mb3.9						
KLBR	Kellerberrin	58.72	243	eP	P	08 30 55.7	-1.1
	43nm,1.4s,mb4.5						
NVAR	Mina Array Bea	79.36	44	P	P	08 33 01.6	+1.1
	0.5nm,0.6s,mb3.0,baz=226,slow=8.6,SNR=6.0						
TXAR	Lajitas Array	86.06	58	P	P	08 33 35.8	+1.5
	0.6nm,0.7s,mb3.4,baz=210,slow=6.6,SNR=9.0						
PDAR	Pinedale Array	87.29	44	P	P	08 33 40.5	+0.7
	0.5nm,0.6s,mb3.3,baz=222,slow=4.4,SNR=6.2						
SONM	Songino Array	93.05	319	P	P	08 34 05.0	-1.3
	0.2nm,0.3s,mb3.6,baz=90,slow=3.6,SNR=3.3						
YKA	Yellowknife Ar	94.11	25	P	P	08 34 09.0	-1.8
	0.2nm,0.8s,mb3.3,baz=251,slow=5.2,SNR=3.7						

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*SZGRF **05** 08:30:03.4,4490N×1525E,h10^{km},mb4.8,Northwestern Balkan Peninsula*
*CSEM **05** 08:30:04.4±0.0,4508N×1509E,h5^{km},ML4.8/37,Mw4.5, Error ellipse: s-maj=0.7km s-min=0.6km az=65.0*
*ISCJB **05** 08:30:04.5±0.2,45.120N±0008×1495E±001,h15^{km}±1^{km}, mb4.0/20,Error ellipse: s-maj=1.4km s-min=1.3km az=145.3*
*GEN **05** 08:30:04.0,4535N×1491E,h7^{km},ML4.0*
*MOS **05** 08:30:04.3±0.9,4508N×1489E,h17^{km},mb4.5/4,Error ellipse: s-maj=3.3km s-min=2.7km az=107.3*
*ROM **05** 08:30:04.3±0.1,4508N×15.11E,h10^{km},Ml4.6/73,Error ellipse: s-maj=2.8km s-min=1.3km az=124.0*
*PRU **05** 08:30:04.1,4506N×1496E,h0^{km}*
*PDG **05** 08:30:05.4±0.8,45.17N×1498E,h19^{km}±3^{km},MD4.9/10, ML4.9/3,Error ellipse: s-maj=1.4km s-min=2.6km az=0.0*
*NEIC **05** 08:30:05.6±0.1,45.11N×1493E,h10^{km},ML4.9(PDG), ML4.1(LJU),ML4.8(SZGRF),ML4.6(ROM),ML4.6(LDG), ML4.4(BUC),Error ellipse: s-maj=1.8km s-min=1.8km az=137.0*
NEIC Felt [IV] in central and southern Slovenia.
*LDG **05** 08:30:05.5±0.1,4521N×15.10E,h10^{km},Ml4.6/27,ms3.2/5, Error ellipse: s-maj=2.9km s-min=1.9km az=7.0*
*ZUR **05** 08:30:06.3,4520N×1500E,h10^{km},mb4.4/11*
*BEO **05** 08:30:07.1±0.6,45.11N×1503E,h13^{km}±3^{km},ML4.8/9*
*IDC **05** 08:30:07.6±2.5,4509N×1486E,h30^{km}±19^{km},mb3.8/13, mb1 3.9/26,mb1mx3.9/31,mbtmp3.8/26,ML4.0/11,MS3.4/7, Ms1 3.4/7,ms1mx3.0/39,Error ellipse: s-maj=11.6km s-min=9.1km az=54.0*
*IPEC **05** 08:30:09.7±0.2,4524N×15.11E,h30^{km}±2^{km},Error ellipse: s-maj=1.3km s-min=1.3km az=95.0*
*STR **05** 08:30:12.2±0.5,45.19N×1421E,h5^{km},Ml4.6,Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
ISC 05 08:30:05.4±0.2**,45098N**±0008×**1495E**±001**,h8^{km}**±1^{km}**, n971,**σ**1^{s}17**/1310**,mb4.0**/20**,89C-125D,Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
BOJS	Bojanci	0.46	28	⇓iPg	Pg	08 30 14.1	-0.2
BOJS				i Sg	Sg	08 30 20.7	+0.4
BOJS	Bojanci	0.46	28	⇓iPg	Pg	08 30 14.1	-0.2
BOJS				i Sg	Sg	08 30 20.7	+0.4
BOJS							
	comp=Z,16μm,0.3s						
BOJS	Bojanci	0.46	28	Pg	Pg	08 30 14.1	-0.2
BOJS				i Sg	Sg	08 30 20.7	+0.4
	comp=Z,16μm,0.3s						
NVLJ	Novalja	0.54	186	⇓iPg	Pg	08 30 15.3	-0.4
NVLJ				Sg	Sg	08 30 23.3	+0.5
KNDS	Knezji Dol	0.59	317	⇓iPg	Pg	08 30 16.6	-0.1
KNDS				eSg	Sg	08 30 26.1	+1.7
KNDS	Knezji Dol	0.59	317	⇓iPg	Pg	08 30 16.6	-0.1
KNDS				eSg	Sg	08 30 26.1	+1.7
KNDS							
	comp=Z,9μm,0.6s						
KNDS	Knezji Dol	0.59	317	⇓iPg	Pg	08 30 16.6	-0.1
KNDS				eSg	Sg	08 30 26.1	+1.7
	comp=Z,9μm,0.6s						
VISS	Visnje	0.71	354	i Pg	Pg	08 30 18.5	-0.5
VISS				i Sg	Sg	08 30 28.7	+0.4
VISS	Visnje	0.71	354	i Pg	Pg	08 30 18.5	-0.5
VISS				i Sg	Sg	08 30 28.7	+0.4
VISS							
	comp=Z,5μm,0.3s						
VISS	Visnje	0.71	354	i Pg	Pg	08 30 18.5	-0.5
VISS				i Sg	Sg	08 30 28.7	+0.4
	comp=Z,5μm,0.3s						
CEY	Cerknica	0.74	330	i Pg	Pg	08 30 19.2	-0.4
CEY				i Sg	Sg	08 30 30.6	+1.4
CEY	Cerknica	0.74	330	i Pg	Pg	08 30 19.2	-0.4
CEY				i Sg	Sg	08 30 30.6	+1.4
CEY							
	comp=Z,11μm,0.5s						
CEY	Cerknica	0.74	330	ePg	Pg	08 30 19.6	0.0
CEY				eSg	Sg	08 30 32.0	+2.8
CEY	Cerknica	0.74	330	i Pg	Pg	08 30 19.2	-0.4
CEY				i Sg	Sg	08 30 30.6	+1.4
	comp=Z,11μm,0.5s						
SKDS	Skadanscina	0.80	304	i Pg	Pg	08 30 20.0	-0.7
SKDS				eSg	Sg	08 30 32.7	+1.6
CRES	Cresnjev	0.81	26	i Pg	Pg	08 30 20.0	-1.0
CRES				i Sg	Sg	08 30 31.1	-0.4
CRES	Cresnjev	0.81	26	i Pg	Pg	08 30 20.0	-1.0
CRES				i Sg	Sg	08 30 31.1	-0.4
CRES							
	comp=Z,12μm,0.4s						
CRES	Cresnjev	0.81	26	ePg	Pg	08 30 20.9	0.0
CRES				eSg	Sg	08 30 31.7	+0.2
CRES	Cresnjev	0.81	26	i Pg	Pg	08 30 20.0	-0.9
CRES				i Sg	Sg	08 30 31.1	-0.4
	comp=Z,12μm,0.4s						
LEGS	Legarje	0.89	17	⇓ePg	Pg	08 30 21.6	-0.8
LEGS	Legarje	0.89	17	⇓ePg	Pg	08 30 21.6	-0.8
LEGS	Legarje	0.89	17	⇓ePg	Pg	08 30 21.6	-0.8
GCIS	Gornji Cirnik	0.90	32	i Pg	Pg	08 30 22.2	-0.6
GCIS				i Sg	Sg	08 30 34.4	-0.1
GCIS	Gornji Cirnik	0.90	32	i Pg	Pg	08 30 22.2	-0.6
GCIS				i Sg	Sg	08 30 34.4	-0.1
GCIS							
	comp=Z,10μm,0.4s						
CESS	Cesta pri Krsk	0.95	22	⇓iPg	Pg	08 30 22.8	-0.7
CESS	Cesta pri Krsk	0.95	22	⇓iPg	Pg	08 30 22.8	-0.7
CESS							
	comp=Z,8μm,0.4s						
CESS	Cesta pri Krsk	0.95	22	⇓iPg	Pg	08 30 22.8	-0.7
	comp=Z,8μm,0.4s						
PDKS	Podkum	0.96	2	⇓ePg	Pg	08 30 23.5	-0.4
PDKS				i Sg	Sg	08 30 36.4	0.0
PDKS	Podkum	0.96	2	⇓ePg	Pg	08 30 23.5	-0.4
PDKS				i Sg	Sg	08 30 36.4	0.0
LJU	Ljubljana	0.99	343	i Pg	Pg	08 30 23.8	-0.6
LJU				i Sg	Sg	08 30 38.7	+1.4
LJU	Ljubljana	0.99	343	i Pg	Pg	08 30 23.8	-0.6
LJU				i		08 30 25.1	
LJU				i Sg	Sg	08 30 38.7	+1.4
LJU							
	comp=Z,1μm,0.1s						
LJU	Ljubljana	0.99	343	ePg	Pg	08 30 25.6	+1.2
LJU				eSg	Sg	08 30 39.9	+2.6
LJU	Ljubljana	0.99	343	i Pg	Pg	08 30 23.8	-0.6
LJU				i Sg	Sg	08 30 38.7	+1.4
	comp=Z,1μm,0.1s						
JAVS	Javornik	1.01	322	ePg	Pg	08 30 23.8	-1.0
JAVS				eSg	Sg	08 30 40.1	+2.2
JAVS	Javornik	1.01	322	ePg	Pg	08 30 23.8	-1.0
JAVS				eSg	Sg	08 30 40.1	+2.2
JAVS	Javornik	1.01	322	ePg	Pg	08 30 23.8	-1.0
JAVS				eSg	Sg	08 30 40.1	+2.2
VNDS	Vrh nad Dolski	1.02	350	ePg	Pg	08 30 24.5	-0.4
GOLS	Golise	1.03	27	⇓iPg	Pg	08 30 24.5	-0.6
GOLS				eSg	Sg	08 30 39.2	+0.8
GOLS	Golise	1.03	27	⇓iPg	Pg	08 30 24.5	-0.6
GOLS				eSg	Sg	08 30 39.2	+0.8
GOLS							
	comp=Z,10μm,0.5s						
GOLS	Golise	1.03	27	⇓iPg	Pg	08 30 24.5	-0.6
GOLS				eSg	Sg	08 30 39.2	+0.8
	comp=Z,10μm,0.5s						
DOBS	Dobrina	1.11	19	i Pg	Pg	08 30 26.0	-0.7
DOBS	Dobrina	1.11	19	i Pg	Pg	08 30 26.0	-0.7
DOBS	Dobrina	1.11	19	i Pg	Pg	08 30 26.0	-0.7
VOY	Vojsko	1.19	322	ePg	Pg	08 30 26.3	-2.0
VOY				e		08 30 27.0	
VOJS	Vojsko	1.20	322	i Pg	Pg	08 30 26.8	-1.5
VOJS				i Sg	Sg	08 30 45.3	+1.4
VOJS	Vojsko	1.20	322	i Pg	Pg	08 30 26.8	-1.5
VOJS				i Sg	Sg	08 30 45.3	+1.4
VOJS	Vojsko	1.20	322	i Pg	Pg	08 30 26.8	-1.5
VOJS				i Sg	Sg	08 30 45.3	+1.4
MOZS	Mozjanca	1.25	344	⇓iPg	Pg	08 30 29.3	0.0
MOZS				eSg	Sg	08 30 46.5	+1.0
ZAVS	Zavodnje	1.34	2	⇓iPg	Pg	08 30 30.2	-0.8
ZAVS				eSg	Sg	08 30 48.3	-0.1
GORS	Gorjuse	1.39	332	ePg	Pg	08 30 31.1	-0.9
GORS				eSg	Sg	08 30 51.3	+1.2
GORS	Gorjuse	1.39	332	ePg	Pg	08 30 31.1	-0.9
GORS				eSg	Sg	08 30 51.3	+1.2
GORS	Gorjuse	1.39	332	ePg	Pg	08 30 31.1	-0.9
GORS				eSg	Sg	08 30 51.3	+1.2
DRE	Drenchia	1.41	320	⇑iPg	Pg	08 30 30.5	-2.0
DRE				i Sg	Sg	08 30 52.9	+2.1
DRE	Drenchia	1.41	320	i Pg	Pg	08 30 30.5	-2.0
DRE				i Sg	Sg	08 30 52.9	+2.1
CADS	Cadrg	1.42	323	ePn	Pn	08 30 30.6	-0.7
CADS				eSn	Sn	08 30 53.0	+2.8
CADS	Cadrg	1.42	323	ePn	Pn	08 30 30.6	-0.7
CADS				i		08 30 32.3	
CADS				eSn	Sn	08 30 53.0	+2.8
CADS							
	comp=Z,12μm,0.7s						
CADS	Cadrg	1.42	323	ePn	Pn	08 30 30.6	-0.8
CADS				eSn	Sn	08 30 53.0	+2.8
	comp=Z,12μm,0.7s						
GROS	Grobnik	1.42	16	⇓iPg	Pg	08 30 30.9	-1.6
GROS	Grobnik	1.42	16	⇓iPg	Pg	08 30 30.9	-1.6
GROS	Grobnik	1.42	16	⇓iPg	Pg	08 30 31.0	-1.5
OBKA	Obir	1.44	349	⇓ePg	Pg	08 30 32.0	-1.0
	SNR=2669						
OBKA	Obir	1.44	349	⇑iSg	Sn	08 30 49.1	-1.7
	comp=Z,12μm,0.8s						
OBKA	Obir	1.44	349	⇓ePg	Pg	08 30 31.9	-1.0
OBKA				i Sg	Sg	08 30 49.1	-2.5
OBKA	Obir	1.44	349	⇓ePg	Pg	08 30 32.0	-1.0
	SNR=2669						
OBKA				⇑iSn	Sn	08 30 49.1	-1.7
	comp=Z,12μm,0.8s						
OBKA	Obir	1.44	349	Pg	Pg	08 30 32.0	-1.0
OBKA	Obir	1.44	349	ePn	Pn	08 30 32.8	+1.1
OBKA				Sn	Sn	08 30 49.1	-1.6
	comp=Z,12μm,0.8s						
OBKA				eSg	Sg	08 30 52.6	+1.0
COLI	Coloredo	1.51	314	⇑iPg	Pg	08 30 33.0	-1.4
COLI				Sg	Sg	08 30 56.0	+2.0
COLI	Coloredo	1.51	314	i Pg	Pg	08 30 33.0	-1.4
COLI				Sg	Sg	08 30 56.0	+2.0
ROBS	Robic	1.53	319	i Pn	Pn	08 30 32.9	-0.1
ROBS				eSn	Sn	08 30 55.0	+2.1
ROBS	Robic	1.53	319	i Pn	Pn	08 30 32.9	-0.1
ROBS				eSn	Sn	08 30 55.0	+2.1
ROBS							
	comp=Z,9μm,0.9s						
ROBS	Robic	1.53	319	i Pn	Pn	08 30 32.9	0.0
ROBS				eSn	Sn	08 30 55.0	+2.0
	comp=Z,9μm,0.9s						
TLI	Talmassons	1.54	303	⇑iPg	Pg	08 30 33.9	-0.9
TLI	Talmassons	1.54	303	i Pg	Pg	08 30 33.9	-1.0
PERS	Pernice	1.54	4	⇓iPn	Pn	08 30 33.1	0.0
PERS				i Sn	Sn	08 30 54.6	+1.3
PERS	Pernice	1.54	4	⇓iPn	Pn	08 30 33.1	0.0
PERS				i Sn	Sn	08 30 54.6	+1.3
PERS							
	comp=Z,1μm,0.3s						
PERS	Pernice	1.54	4	⇓iPn	Pn	08 30 33.1	0.0
PERS				i Sn	Sn	08 30 54.6	+1.3
	comp=Z,1μm,0.3s						
KOGS	Kog	1.63	33	⇓iPn	Pn	08 30 33.5	-0.8
KOGS				i Sn	Sn	08 30 57.1	+1.7
KOGS	Kog	1.63	33	⇓iPn	Pn	08 30 33.5	-0.8
KOGS				i Sn	Sn	08 30 57.1	+1.7
KOGS	Kog	1.63	33	⇓iPn	Pn	08 30 33.5	-0.8
KOGS				i Sn	Sn	08 30 57.1	+1.7
BAD	Bernadia	1.65	314	⇑iPn	Pn	08 30 35.3	+0.7
BAD				i Sn	Sn	08 30 59.0	+3.0
BAD	Bernadia	1.65	314	i Pn	Pn	08 30 35.3	+0.7
BAD				i Sn	Sn	08 30 59.0	+3.0
GMNA	Gemona	1.68	315	Pn	Pn	08 30 36.4	+1.4
GMNA	Gemona	1.68	315	Pn	Pn	08 30 36.4	+1.4
GMNA	Gemona	1.68	315	Pn	Pn	08 30 36.4	+1.4
LSR	Lussari	1.70	325	⇑iPn	Pn	08 30 36.3	+1.0
LSR				Sn	Sn	08 31 01.6	+4.4
LSR	Lussari	1.70	325	i Pn	Pn	08 30 36.3	+1.0
LSR				Sn	Sn	08 31 01.6	+4.4
PTCC	Patocco-Chiusa	1.72	320	Pn	Pn	08 30 36.3	+0.7
PTCC	Patocco-Chiusa	1.72	320	Pn	Pn	08 30 36.3	+0.7
PTCC	Patocco-Chiusa	1.72	320	Pn	Pn	08 30 36.3	+0.7
IESO	Jesolo	1.75	285	⇑iPn	Pn	08 30 36.4	+0.5
IESO	Jesolo	1.75	285	i Pn	Pn	08 30 36.4	+0.5
BOO	Bordano	1.78	314	⇑ePn	Pn	08 30 36.9	+0.5
BOO				eSn	Sn	08 31 03.9	+4.7
BOO	Bordano	1.78	314	ePn	Pn	08 30 36.9	+0.5
BOO				eSn	Sn	08 31 03.9	+4.7
MYKA	Terra Mystica	1.78	330	⇑iPn	Pn	08 30 37.6	+1.1

MYKA				⇓iPg	Pg	08 30 38.9	-0.6
MYKA				⇓iSg	Sg	08 31 00.8	-1.9
	comp=Z,2μm,0.6s						
MYKA	Terra Mystica	1.78	330	Pn	Pn	08 30 37.6	+1.2
MYKA	Terra Mystica	1.78	330	Pg	Pg	08 30 38.9	-0.7
MYKA				Sg	Sg	08 31 00.8	-1.9
	comp=Z,2μm,0.6s						
MPRI	Monte Prat	1.79	310	⇑iPn	Pn	08 30 37.3	+0.8
MPRI				i Sn	Sn	08 31 03.7	+4.3
MPRI	Monte Prat	1.79	310	i Pn	Pn	08 30 37.3	+0.8
MPRI				i Sn	Sn	08 31 03.7	+4.3
AOI	Ancona	1.83	213	⇓iPn	Pn	08 30 37.2	+0.2
AOI				Sn	Sn	08 31 03.3	+3.0
AOI	Ancona	1.83	213	⇓iPn	Pn	08 30 37.2	+0.2
AOI				Sn	Sn	08 31 03.3	+3.0
	comp=Z,7μm,0.6s						
AOI	Ancona	1.83	213	⇓iPn	Pn	08 30 37.2	+0.2
AOI				Sn	Sn	08 31 03.3	+3.0
	comp=Z,7μm,0.6s						
SENI	Senigallia	1.86	222	Pn	Pn	08 30 37.9	+0.4
	comp=Z,5μm,0.2s						
PESA	Pesaro	1.90	233	Pn	Pn	08 30 39.2	+1.1
PESA				Sn	Sn	08 31 05.9	+3.7
PESA	Pesaro	1.90	233	Pn	Pn	08 30 39.2	+1.1
PESA				Sn	Sn	08 31 05.9	+3.7
	comp=Z,14μm,0.4s						
PESA	Pesaro	1.90	233	Pn	Pn	08 30 39.2	+1.1
PESA				Sn	Sn	08 31 05.9	+3.7
	comp=Z,14μm,0.4s						
PLRO	Paularo	1.92	320	⇑iPn	Pn	08 30 39.5	+1.1
PLRO				i Sn	Sn	08 31 08.2	+5.5
PLRO	Paularo	1.92	320	i Pn	Pn	08 30 39.5	+1.2
PLRO				i Sn	Sn	08 31 08.2	+5.5
MLNI	Malnisio	1.95	303	⇑iPn	Pn	08 30 39.2	+0.5
MLNI				i Sn	Sn	08 31 08.0	+4.7
MLNI	Malnisio	1.95	303	i Pn	Pn	08 30 39.2	+0.5
MLNI				i Sn	Sn	08 31 08.0	+4.6
CAE	Caneva	1.99	298	⇑iPn	Pn	08 30 39.8	+0.6
CAE				i Sn	Sn	08 31 09.5	+5.3
CAE	Caneva	1.99	298	i Pn	Pn	08 30 39.8	+0.6
CAE				i Sn	Sn	08 31 09.5	+5.2
ZOU	Zoufplan	2.01	317	⇑iPn	Pn	08 30 40.6	+1.1
ZOU				i Sn	Sn	08 31 10.5	+5.7
ZOU	Zoufplan	2.01	317	i Pn	Pn	08 30 40.6	+1.1
ZOU				i Sn	Sn	08 31 10.5	+5.7
FSSB	Fossombrone	2.10	229	Pn	Pn	08 30 41.2	+0.4
FSSB	Fossombrone	2.10	229	Pn	Pn	08 30 41.2	+0.4
	comp=Z,11μm,0.5s						
FSSB	Fossombrone	2.10	229	Pn	Pn	08 30 41.2	+0.4
	comp=Z,11μm,0.5s						
FVI	Forni Avoltri	2.13	315	Pn	Pn	08 30 42.1	+0.9
FVI	Forni Avoltri	2.13	315	Pn	Pn	08 30 42.1	+0.9
	comp=Z,7μm,0.9s						
FVI	Forni Avoltri	2.13	315	Pn	Pn	08 30 42.1	+0.9
	comp=Z,7μm,0.9s						
MTLO	Montello	2.13	291	⇑ePn	Pn	08 30 41.7	+0.5
MTLO	Montello	2.13	291	ePn	Pn	08 30 41.7	+0.5
CING	Cingoli	2.13	217	Pn	Pn	08 30 41.2	-0.1
CING	Cingoli	2.13	217	Pn	Pn	08 30 41.2	-0.1
	comp=Z,3μm,0.6s						
CING	Cingoli	2.13	217	Pn	Pn	08 30 41.2	-0.1
	comp=Z,3μm,0.6s						
RSM	Repubblica di	2.14	238	Pn	Pn	08 30 41.4	+0.1
RSM	Repubblica di	2.14	238	Pn	Pn	08 30 41.4	+0.1
RSM	Repubblica di	2.14	238	Pn	Pn	08 30 41.4	+0.1
CSMI	Casera Mimoias	2.14	312	⇑iPn	Pn	08 30 42.0	+0.7
CSMI				i Sn	Sn	08 31 13.6	+5.5
CSMI	Casera Mimoias	2.14	312	i Pn	Pn	08 30 42.0	+0.7
CSMI				i Sn	Sn	08 31 13.6	+5.5
CSO	Casso	2.19	303	⇑iPn	Pn	08 30 42.0	+0.1
CSO	Casso	2.19	303	i Pn	Pn	08 30 42.0	+0.1
ARSA	Arzberg	2.19	10	ePn	Pn	08 30 42.0	0.0
	SNR=408						
ARSA	Arzberg	2.19	10	⇓iPg	Pg	08 30 46.0	-1.4
ARSA	Arzberg	2.19	10	⇓iSn	Sn	08 31 06.4	-2.8
ARSA	Arzberg	2.19	10	⇑iSg	Sg	08 31 13.3	-2.3
	comp=Z,643nm,0.6s						
ARSA	Arzberg	2.19	10	ePn	Pn	08 30 42.0	0.0
ARSA				⇓iPg	Pg	08 30 46.0	-1.3
ARSA				i Sn	Sn	08 31 06.4	-2.8
ARSA				i Sg	Sg	08 31 13.3	-2.3
ARSA	Arzberg	2.19	10	ePn	Pn	08 30 42.0	0.0
	SNR=408						
ARSA				⇓iPg	Pg	08 30 46.0	-1.4
ARSA				⇓iSn	Sn	08 31 06.4	-2.8
ARSA				⇑iSg	Sg	08 31 13.3	-2.3
	comp=Z,643nm,0.6s						
ARSA	Arzberg	2.19	10	ePn	Pn	08 30 42.0	0.0
ARSA	Arzberg	2.19	10	Pg	Pg	08 30 46.0	-1.3
ARSA				Sn	Sn	08 31 06.4	-2.8
ARSA				Sg	Sg	08 31 13.3	-2.4
	comp=Z,643nm,0.6s						
BRSN	Barisano	2.21	249	Pn	Pn	08 30 43.5	+1.3
BRSN	Barisano	2.21	249	Pn	Pn	08 30 43.5	+1.3
BRSN	Barisano	2.21	249	Pn	Pn	08 30 43.5	+1.3
KBA	Koelnbreinsper	2.27	331	ePn	Pn	08 30 44.7	+1.5
	SNR=212						
KBA	Koelnbreinsper	2.27	331	⇓iPg	Pg	08 30 47.9	-1.1
KBA	Koelnbreinsper	2.27	331	⇓iSn	Sn	08 31 10.4	-1.0
KBA	Koelnbreinsper	2.27	331	ePn	Pn	08 30 44.7	+1.5
KBA				⇓iPg	Pg	08 30 47.9	-1.1
KBA				i Sn	Sn	08 31 10.3	-1.0
KBA	Koelnbreinsper	2.27	331	ePn	Pn	08 30 44.7	+1.5
	SNR=212						
KBA				⇓iPg	Pg	08 30 47.9	-1.1
KBA				⇓iSn	Sn	08 31 10.4	-1.0
KBA	Koelnbreinsper	2.27	331	Pn	Pn	08 30 44.7	+1.5
KBA	Koelnbreinsper	2.27	331	Pg	Pg	08 30 47.9	-1.0
KBA				Sn	Sn	08 31 10.4	-0.9
TEOL	Teolo	2.33	278	⇑iPn	Pn	08 30 43.7	-0.3
TEOL	Teolo	2.33	278	i Pn	Pn	08 30 43.7	-0.3
OFFI	Offida	2.35	203	Pn	Pn	08 30 45.0	+0.8
	comp=Z,14μm,0.7s						
OFFI	Offida	2.35	203	Pn	Pn	08 30 45.0	+0.8
	comp=Z,14μm,0.7s						
CGRP	Cima Grappa	2.35	291	⇑iPn	Pn	08 30 44.4	+0.2
CGRP	Cima Grappa	2.35	291	i Pn	Pn	08 30 44.4	+0.2
ABTA	Abfaltersbach	2.37	315	⇑ePn	Pn	08 30 45.6	+1.1
	SNR=345						
ABTA				⇓iSg	Sg	08 31 21.4	-0.1
	comp=Z,2μm,0.5s						
ABTA	Abfaltersbach	2.37	315	Pn	Pn	08 30 45.6	+1.1
	SNR=345						
ABTA				Sg	Sg	08 31 21.4	-0.1
	comp=Z,2μm,0.5s						
FAU	Forcella Aurin	2.37	300	⇑iPn	Pn	08 30 44.9	+0.4
FAU	Forcella Aurin	2.37	300	i Pn	Pn	08 30 44.9	+0.4
TRTR	Tortoreto Alta	2.41	198	Pn	Pn	08 30 45.8	+0.8
	comp=Z,13μm,0.7s						
AFL	Alpe Faloria	2.41	307	⇑iPn	Pn	08 30 46.1	+1.1
AFL	Alpe Faloria	2.41	307	i Pn	Pn	08 30 46.1	+1.1
FIU	Minerbio Fiu	2.50	261	Pn	Pn	08 30 47.2	+0.9
FIU	Minerbio Fiu	2.50	261	Pn	Pn	08 30 47.2	+0.9
FIU	Minerbio Fiu	2.50	261	Pn	Pn	08 30 47.2	+0.9
CTI	Castel Tesino	2.51	293	Pn	Pn	08 30 46.9	+0.6
CTI	Castel Tesino	2.51	293	Pn	Pn	08 30 46.9	+0.6
	comp=Z,2μm,0.7s						
CTI	Castel Tesino	2.51	293	Pn	Pn	08 30 46.9	+0.6
	comp=Z,2μm,0.7s						
BADI	Badiali	2.51	232	Pn	Pn	08 30 47.6	+1.2
BADI	Badiali	2.51	232	Pn	Pn	08 30 47.6	+1.2
	comp=Z,5μm,0.8s						
BADI	Badiali	2.51	232	Pn	Pn	08 30 47.6	+1.2
	comp=Z,5μm,0.8s						
SFI	Santa Sofia	2.52	243	Pn	Pn	08 30 46.7	+0.1
SFI	Santa Sofia	2.52	243	Pn	Pn	08 30 46.7	+0.1
SEST	Monte Rota	2.52	312	Pn	Pn	08 30 48.0	+1.4
SEST	Monte Rota	2.52	312	Pn	Pn	08 30 48.0	+1.4
SEST	Monte Rota	2.52	312	Pn	Pn	08 30 48.0	+1.4
MURB	Monte Urbino	2.53	224	Pn	Pn	08 30 47.2	+0.5
MURB	Monte Urbino	2.53	224	Pn	Pn	08 30 47.2	+0.5
	comp=Z,9μm,0.6s						
MURB	Monte Urbino	2.53	224	Pn	Pn	08 30 47.2	+0.5
	comp=Z,9μm,0.6s						
CDCA	Citt‘ di Caste	2.55	231	Pn	Pn	08 30 48.7	+1.8
CDCA	Citt‘ di Caste	2.55	231	Pn	Pn	08 30 48.7	+1.8
	comp=Z,1μm,0.6s						
CDCA	Citt‘ di Caste	2.55	231	Pn	Pn	08 30 48.7	+1.8
	comp=Z,1μm,0.6s						
CESI	CESI - Serrava	2.56	216	⇓ePn	Pn	08 30 47.0	-0.1
	comp=Z,2μm,0.6s						
CRE	Caprese Michel	2.61	237	Pn	Pn	08 30 48.6	+0.8
CRE	Caprese Michel	2.61	237	Pn	Pn	08 30 48.6	+0.8
	comp=Z,1μm,0.6s						
CRE	Caprese Michel	2.61	237	Pn	Pn	08 30 48.6	+0.8
	comp=Z,1μm,0.6s						
ASS	Assisi	2.62	220	⇓ePn	Pn	08 30 48.1	+0.1
ASS	Assisi	2.62	220	⇓ePn	Pn	08 30 48.1	+0.1
	comp=Z,108nm,0.4s						
ASS	Assisi	2.62	220	⇓ePn	Pn	08 30 48.1	+0.1
	comp=Z,108nm,0.4s						
NRCA	Norcia	2.62	211	Pn	Pn	08 30 47.6	-0.4
NRCA	Norcia	2.62	211	Pn	Pn	08 30 47.6	-0.4
NRCA	Norcia	2.62	211	Pn	Pn	08 30 47.6	-0.4
TERO	Teramo	2.66	202	Pn	Pn	08 30 47.9	-0.6
TERO	Teramo	2.66	202	Pn	Pn	08 30 47.9	-0.6
	comp=Z,3μm,0.7s						
TERO	Teramo	2.66	202	Pn	Pn	08 30 47.9	-0.6
	comp=Z,3μm,0.7s						
VMG	Vicchio	2.69	246	Pn	Pn	08 30 49.4	+0.5
VMG	Vicchio	2.69	246	Pn	Pn	08 30 49.4	+0.5
	comp=Z,2μm,0.6s						
VMG	Vicchio	2.69	246	Pn	Pn	08 30 49.4	+0.5
	comp=Z,2μm,0.6s						
PKS9	Tamasi	2.76	56	eP	Pn	08 30 48.3	-1.6
SEI	Scarperia	2.77	249	Pn	Pn	08 30 51.2	+1.2
SEI	Scarperia	2.77	249	Pn	Pn	08 30 51.2	+1.2
SEI	Scarperia	2.77	249	Pn	Pn	08 30 51.2	+1.2
MOA	Molln	2.79	350	ePn	Pn	08 30 51.1	+0.8
	SNR=109						
MOA	Molln	2.79	350	⇓iPg	Pg	08 30 57.9	-0.9
MOA	Molln	2.79	350	⇓iSn	Sn	08 31 22.7	-1.4
MOA	Molln	2.79	350	ePn	Pn	08 30 51.1	+0.8
MOA				⇓iPg	Pg	08 30 57.9	-0.9
MOA				i Sn	Sn	08 31 22.7	-1.4
MOA	Molln	2.79	350	ePn	Pn	08 30 51.1	+0.8
	SNR=109						
MOA				⇓iPg	Pg	08 30 57.9	-0.9
MOA				⇓iSn	Sn	08 31 22.7	-1.4
MOA	Molln	2.79	350	ePn	Pn	08 30 51.3	+1.0
MOA	Molln	2.79	350	Pg	Pg	08 30 57.9	-1.0
MOA				Sn	Sn	08 31 22.7	-1.4
CAMP	Campotosto	2.79	204	⇓ePn	Pn	08 30 49.9	-0.4
	comp=Z,456nm,0.7s						
CAMP	Campotosto	2.79	204	⇓ePn	Pn	08 30 49.9	-0.4
	comp=Z,456nm,0.7s						
SOP	Sopron	2.81	23	⇑iPn	Pn	08 30 51.3	+0.7
SOP				eSn	Sn	08 31 21.7	-3.0
SOP	Sopron	2.81	23	ePn	Pn	08 30 50.5	-0.1
SOP				eSn	Sn	08 31 21.7	-3.0
PKSM	Moragy	2.82	65	⇓P	Pn	08 30 49.3	-1.3
PKSM	Moragy	2.82	65	⇓iP	Pn	08 30 49.3	-1.3
PKSM	Moragy	2.82	65	ePn	Pn	08 30 49.0	-1.6
VCEL	Villa Celiera	2.82	197	Pn	Pn	08 30 50.4	-0.3
	comp=Z,3μm,0.6s						
VCEL	Villa Celiera	2.82	197	Pn	Pn	08 30 50.4	-0.3
	comp=Z,3μm,0.6s						
LNSS	Leonessa	2.85	210	Pn	Pn	08 30 51.0	-0.1
	comp=Z,5μm,0.5s						
LNSS	Leonessa	2.85	210	Pn	Pn	08 30 51.0	-0.1
	comp=Z,5μm,0.5s						
FNVD	Fontana Vidola	2.89	253	Pn	Pn	08 30 52.5	+0.9
FNVD	Fontana Vidola	2.89	253	Pn	Pn	08 30 52.5	+0.9
	comp=Z,3μm,0.7s						
FNVD	Fontana Vidola	2.89	253	Pn	Pn	08 30 52.5	+0.9
	comp=Z,3μm,0.7s						
CONA	Conrad Observa	2.90	12	ePn	Pn	08 30 52.1	+0.3
	SNR=245						
CONA	Conrad Observa	2.90	12	Pn	Pn	08 30 52.1	+0.3
	SNR=245						
ZCCA	Zocca	2.93	257	Pn	Pn	08 30 53.3	+1.1
ZCCA	Zocca	2.93	257	Pn	Pn	08 30 53.3	+1.1
	comp=Z,57nm,0.8s						
ZCCA	Zocca	2.93	257	Pn	Pn	08 30 53.3	+1.1
	comp=Z,57nm,0.8s						
APPI	Appiano	2.95	299	Pn	Pn	08 30 53.4	+1.0
APPI	Appiano	2.95	299	Pn	Pn	08 30 53.4	+1.0
	comp=Z,3μm,1.0s						
APPI	Appiano	2.95	299	Pn	Pn	08 30 53.4	+1.0
	comp=Z,3μm,1.0s						
AQU	L'Aquila	2.96	203	ePn	Pn	08 30 51.5	-1.2
AQU				Pn	Pn	08 30 52.5	-0.2
AQU	L'Aquila	2.96	203	Pn	Pn	08 30 52.5	-0.2
AQU	L'Aquila	2.96	203	⇑iP	Pn	08 30 52.0	-0.7
AQU	L'Aquila	2.96	203	eP	Pn	08 30 51.5	-1.2
AQU	L'Aquila	2.96	203	Pn	Pn	08 30 52.5	-0.2
SCE	Schlegeis	2.98	312	⇓iPn	Pn	08 30 54.2	+1.4
SCE	Schlegeis	2.98	312	⇓iPn	Pn	08 30 54.2	+1.4
STON	Ston	2.98	137	⇓iPn	Pn	08 30 53.5	+0.6
STON				Sn	Sn	08 31 31.2	+2.4
FAGN	Fagnano	3.00	200	⇓ePn	Pn	08 30 52.8	-0.3
	comp=Z,4μm,0.5s						
FAGN	Fagnano	3.00	200	⇓ePn	Pn	08 30 52.8	-0.3
	comp=Z,4μm,0.5s						
NOVE	Novellara	3.02	266	Pn	Pn	08 30 54.2	+0.8
	comp=Z,3μm,0.6s						
NOVE	Novellara	3.02	266	Pn	Pn	08 30 54.2	+0.8
	comp=Z,3μm,0.6s						
PZZT	Monte Pizzetto	3.08	253	⇑iPn	Pn	08 30 54.7	+0.5
	comp=Z,2μm,0.6s						
PZZT	Monte Pizzetto	3.08	253	⇑iPn	Pn	08 30 54.7	+0.5
	comp=Z,2μm,0.6s						
CSNT	Castellina Chi	3.09	240	Pn	Pn	08 30 55.0	+0.6
CSNT	Castellina Chi	3.09	240	Pn	Pn	08 30 55.0	+0.6
	comp=Z,2μm,0.8s						
CSNT	Castellina Chi	3.09	240	Pn	Pn	08 30 55.0	+0.6
	comp=Z,2μm,0.8s						
MAGA	Magasa	3.12	284	⇑iPn	Pn	08 30 54.8	0.0
	comp=Z,9μm,0.4s						
MAGA	Magasa	3.12	284	⇑iPn	Pn	08 30 54.8	0.0
	comp=Z,9μm,0.4s						
FIAM	Fiamignano	3.13	206	Pn	Pn	08 30 55.1	+0.2
FIAM	Fiamignano	3.13	206	Pn	Pn	08 30 55.1	+0.2
	comp=Z,2μm,0.6s						
FIAM	Fiamignano	3.13	206	Pn	Pn	08 30 55.1	+0.2
	comp=Z,2μm,0.6s						
FRES	Fresagrandinar	3.13	184	Pn	Pn	08 30 54.1	-0.8
	comp=Z,3μm,0.8s						
FRES	Fresagrandinar	3.13	184	Pn	Pn	08 30 54.1	-0.8
	comp=Z,3μm,0.8s						
CRMI	Carmignano	3.14	247	Pn	Pn	08 30 54.5	-0.5
	comp=Z,443nm,0.9s						
CRMI	Carmignano	3.14	247	Pn	Pn	08 30 54.5	-0.5
	comp=Z,443nm,0.9s						
SACS	San Casciano d	3.14	225	Pn	Pn	08 30 55.2	+0.1
	comp=Z,4μm,1.2s						
WTTA	Wattenberg	3.16	314	ePn	Pn	08 30 57.2	+1.9
	SNR=94						
WTTA	Wattenberg	3.16	314	⇓iSg	Sg	08 31 47.7	+0.8
	comp=Z,1μm,0.6s						
WTTA	Wattenberg	3.16	314	ePn	Pn	08 30 57.2	+1.9
WTTA				i Sg	Sg	08 31 47.7	+0.8
WTTA	Wattenberg	3.16	314	i Pn	Pn	08 30 57.2	+1.9
	SNR=94						
WTTA				⇓iSg	Sg	08 31 47.7	+0.8
	comp=Z,1μm,0.6s						
WTTA	Wattenberg	3.16	314	eP	Pn	08 30 57.2	+1.8
WTTA	Wattenberg	3.16	314	Pn	Pn	08 30 57.2	+1.8
WTTA				Sg	Sg	08 31 47.7	+0.8
	comp=Z,1μm,0.6s						
SALO	Salr	3.16	281	⇑iPn	Pn	08 30 55.4	0.0
	comp=Z,8μm,1.1s						
SALO	Salr	3.16	281	⇑iPn	Pn	08 30 55.4	0.0
	comp=Z,8μm,1.1s						
MNS	Montasola	3.17	212	⇓iPn	Pn	08 30 55.5	0.0
MNS	Montasola	3.17	212	⇓iPn	Pn	08 30 55.5	0.0
	comp=Z,2μm,0.4s						
MNS	Montasola	3.17	212	⇓iPn	Pn	08 30 55.5	0.0
	comp=Z,2μm,0.4s						
INTR	Introdacqua	3.18	194	Pn	Pn	08 30 53.6	-2.0
INTR	Introdacqua	3.18	194	Pn	Pn	08 30 53.6	-2.0
	comp=Z,2μm,0.6s						
INTR	Introdacqua	3.18	194	Pn	Pn	08 30 53.6	-2.0
	comp=Z,2μm,0.6s						
WATA	Walderalm	3.24	315	i Pn	Pn	08 30 58.6	+2.1
	SNR=41						
WATA	Walderalm	3.24	315	i Pn	Pn	08 30 58.6	+2.1
WATA	Walderalm	3.24	315	i Pn	Pn	08 30 58.6	+2.1
	SNR=41						
WATA	Walderalm	3.24	315	Pn	Pn	08 30 58.6	+2.2
MABI	Malga Bissina	3.26	289	⇑iPn	Pn	08 30 57.4	+0.7
MABI	Malga Bissina	3.26	289	⇑iPn	Pn	08 30 57.4	+0.7
	comp=Z,479nm,0.9s						
MABI	Malga Bissina	3.26	289	⇑iPn	Pn	08 30 57.4	+0.7
	comp=Z,479nm,0.9s						
PTQR	Pietraquaria	3.27	201	Pn	Pn	08 30 57.3	+0.4
PTQR	Pietraquaria	3.27	201	Pn	Pn	08 30 57.3	+0.4
PTQR	Pietraquaria	3.27	201	Pn	Pn	08 30 57.3	+0.4
BDI	Bagni Di Lucca	3.28	253	⇓iPn	Pn	08 30 57.7	+0.7
BDI	Bagni Di Lucca	3.28	253	⇓iPn	Pn	08 30 57.7	+0.7
	comp=Z,974nm,1.1s						
BDI	Bagni Di Lucca	3.28	253	⇓iPn	Pn	08 30 57.7	+0.7
	comp=Z,974nm,1.1s						
FG2	Serracapriola	3.30	177	⇑iPn	Pn	08 30 56.4	-0.8
FG2	Serracapriola	3.30	177	⇑iPn	Pn	08 30 56.4	-0.8
	comp=Z,886nm,0.3s						
FG2	Serracapriola	3.30	177	⇑iPn	Pn	08 30 56.4	-0.8
	comp=Z,886nm,0.3s						
ERBM	Eremo	3.30	260	⇓iPn	Pn	08 30 58.2	+0.9
ERBM	Eremo	3.30	260	⇓iPn	Pn	08 30 58.2	+0.9
	comp=Z,4μm,1.6s						
ERBM	Eremo	3.30	260	⇓iPn	Pn	08 30 58.2	+0.9
	comp=Z,4μm,1.6s						
TRIV	Trivento	3.34	185	⇑iPn	Pn	08 30 57.1	-0.8
	comp=Z,2μm,1.1s						
TRIV	Trivento	3.34	185	⇑iPn	Pn	08 30 57.1	-0.8
	comp=Z,2μm,1.1s						
SQTA	Sankt Quirin	3.36	311	⇑iPn	Pn	08 31 00.3	+2.3
	SNR=61						
SQTA	Sankt Quirin	3.36	311	⇑iPn	Pn	08 31 00.3	+2.3
SQTA	Sankt Quirin	3.36	311	⇑iPn	Pn	08 31 00.3	+2.3
	SNR=61						
SQTA	Sankt Quirin	3.36	311	Pn	Pn	08 31 00.3	+2.3
	comp=Z,60nm,6.0s						
ARCI	Arcidosso	3.37	229	Pn	Pn	08 30 58.0	-0.2
	comp=Z,771nm,0.8s						
ARCI	Arcidosso	3.37	229	Pn	Pn	08 30 58.0	-0.2
	comp=Z,771nm,0.8s						
VVLD	Villa Vallelon	3.37	197	⇑iPn	Pn	08 30 57.2	-1.0
VVLD	Villa Vallelon	3.37	197	⇑iPn	Pn	08 30 57.2	-1.0
	comp=Z,2μm,0.6s						
VVLD	Villa Vallelon	3.37	197	⇑iPn	Pn	08 30 57.2	-1.0
	comp=Z,2μm,0.6s						
LATE	Laterza	3.37	224	Pn	Pn	08 30 59.6	+1.4
	comp=Z,333nm,1.2s						
LATE	Laterza	3.37	224	Pn	Pn	08 30 59.6	+1.4
	comp=Z,333nm,1.2s						
SARO	Sassorosso	3.37	256	P	Pn	08 30 57.5	-0.8
SGRT	San Giovanni R	3.39	170	i Pn	Pn	08 30 57.3	-1.2
	comp=Z,1μm,0.8s						
SGRT	San Giovanni R	3.39	170	i Pn	Pn	08 30 57.3	-1.2
	comp=Z,1μm,0.8s						
VLC	Villacollemand	3.39	256	ePn	Pn	08 30 59.4	+0.9
VLC				Pn	Pn	08 30 59.8	+1.3
VLC	Villacollemand	3.39	256	Pn	Pn	08 30 59.8	+1.3
	comp=Z,1μm,1.1s						
VLC	Villacollemand	3.39	256	ePn	Pn	08 30 59.4	+0.9
BRY	Bratogost	3.40	129	⇓iPn	Pn	08 30 59.7	+1.1
BRY				eSn	Sn	08 31 40.9	+1.8
BRY	Bratogost	3.40	129	⇓iPn	Pn	08 30 59.7	+1.1
BRY				eSn	Sn	08 31 40.9	+1.8
BRY	Bratogost	3.40	129	⇓iPn	Pn	08 30 59.7	+1.1
BRY				eSn	Sn	08 31 40.9	+1.8
MAIM		3.40	251	Pn	Pn	08 30 59.2	+0.5
MAIM		3.40	251	Pn	Pn	08 30 59.2	+0.5
	comp=Z,717nm,0.7s						
MAIM		3.40	251	P	Pn	08 30 58.5	-0.2
MAIM		3.40	251	Pn	Pn	08 30 59.2	+0.5
	comp=Z,717nm,0.7s						
BBLS	Bajina Basta -	3.42	110	ePn	Pn	08 30 59.7	+0.8
BBLS				eSg	Sg	08 31 54.2	-1.0
UPM	Unac-Piva	3.42	122	⇓iPn	Pn	08 31 00.2	+1.3
UPM				eSn	Sn	08 31 41.5	+1.9
UPM	Unac-Piva	3.42	122	⇓iPn	Pn	08 31 00.2	+1.3
UPM				eSn	Sn	08 31 41.5	+1.9
UPM	Unac-Piva	3.42	122	⇓iPn	Pn	08 31 00.2	+1.3
UPM				eSn	Sn	08 31 41.5	+1.9
ZST	Bratislava	3.44	25	ePn	Pn	08 30 59.1	0.0
ZST				e		08 31 04.3	
ZST				eSn	Sn	08 31 36.5	-3.5
ZST				eSg	Sg	08 31 58.1	+2.5
ZST	Bratislava	3.44	25	eP	Pn	08 30 59.1	0.0
ZST				e		08 31 36.5	
ZST	Bratislava	3.44	25	ePN	Pn	08 30 59.1	0.0
ZST				e		08 31 04.3	
ZST	Bratislava	3.44	25	eSN	Sn	08 31 36.5	-3.5
ZST				eSG	Sg	08 31 58.1	+2.5
ZST	Bratislava	3.44	25	ePn	Pn	08 30 59.1	0.0
ZST				eSn	Sn	08 31 36.5	-3.5
ZST				eSg	Sg	08 31 58.1	+2.5
VALM		3.44	259	P	Pn	08 30 57.1	-2.0
FGSL	Fruska Gora	3.44	87	i Pn	Pn	08 30 59.5	+0.3
CIGN	Sant'Elia a Pi	3.44	181	Pn	Pn	08 30 58.5	-0.7
CIGN	Sant'Elia a Pi	3.44	181	Pn	Pn	08 30 58.5	-0.7
	comp=Z,1μm,0.9s						
CIGN	Sant'Elia a Pi	3.44	181	Pn	Pn	08 30 58.5	-0.7
	comp=Z,1μm,0.9s						
RNI2	Rionero Sannit	3.44	190	Pn	Pn	08 30 58.3	-0.9
RNI2	Rionero Sannit	3.44	190	Pn	Pn	08 30 58.3	-0.9
	comp=Z,1μm,0.6s						
RNI2	Rionero Sannit	3.44	190	Pn	Pn	08 30 58.3	-0.9
	comp=Z,1μm,0.6s						
RGNG	Rignano Grg	3.45	172	Pn	Pn	08 30 57.9	-1.5
RGNG	Rignano Grg	3.45	172	Pn	Pn	08 30 57.9	-1.5
RGNG	Rignano Grg	3.45	172	Pn	Pn	08 30 57.9	-1.5
MSAG	Monte S. Angel	3.46	168	⇓iPn	Pn	08 30 58.1	-1.3
	comp=Z,2μm,0.6s						
MSAG	Monte S. Angel	3.46	168	⇓iPn	Pn	08 30 58.1	-1.3
	comp=Z,2μm,0.6s						
PII	Pisa	3.46	248	Pn	Pn	08 30 59.2	-0.2
PII	Pisa	3.46	248	Pn	Pn	08 30 59.2	-0.2
	comp=Z,163nm,1.0s						
PII	Pisa	3.46	248	Pn	Pn	08 30 59.2	-0.2
	comp=Z,163nm,1.0s						
CERT	Cerreto	3.46	205	Pn	Pn	08 30 58.9	-0.5
CERT	Cerreto	3.46	205	Pn	Pn	08 30 58.9	-0.5
	comp=Z,869nm,0.6s						
CERT	Cerreto	3.46	205	Pn	Pn	08 30 58.9	-0.5
	comp=Z,869nm,0.6s						
FGMS	Monte Sant'Ang	3.47	167	Pn	Pn	08 30 58.3	-1.3
FGMS	Monte Sant'Ang	3.47	167	Pn	Pn	08 30 58.3	-1.3
FGMS	Monte Sant'Ang	3.47	167	Pn	Pn	08 30 58.3	-1.3
MS1	Monte Sant'Ang	3.47	168	ePn	Pn	08 30 58.4	-1.2
MTCE	Montecelio	3.47	208	Pn	Pn	08 30 59.0	-0.6
MTCE	Montecelio	3.47	208	Pn	Pn	08 30 59.0	-0.6
	comp=Z,3μm,1.6s						
MTCE	Montecelio	3.47	208	Pn	Pn	08 30 59.0	-0.6
	comp=Z,3μm,1.6s						
BRMO	Bormio	3.49	295	Pn	Pn	08 31 01.3	+1.5
BRMO	Bormio	3.49	295	Pn	Pn	08 31 01.3	+1.5
	comp=Z,718nm,0.7s						
BRMO	Bormio	3.49	295	Pn	Pn	08 31 01.3	+1.5
	comp=Z,718nm,0.7s						
SDI	San Donato	3.49	194	Pn	Pn	08 30 59.2	-0.7
SDI	San Donato	3.49	194	Pn	Pn	08 30 59.2	-0.7
	comp=Z,282nm,0.3s						
SDI	San Donato	3.49	194	Pn	Pn	08 30 59.2	-0.7
	comp=Z,282nm,0.3s						
MOTA	Moosalm	3.49	311	i Pn	Pn	08 31 02.0	+2.2
	SNR=57						
MOTA	Moosalm	3.49	311	⇑iSg	Sg	08 31 59.0	+1.6
	comp=Z,1μm,0.9s						
MOTA	Moosalm	3.49	311	i Pn	Pn	08 31 02.0	+2.2
MOTA				i Sg	Sg	08 31 59.0	+1.6
MOTA	Moosalm	3.49	311	i Pn	Pn	08 31 02.0	+2.2
	SNR=57						
MOTA				⇑iSg	Sg	08 31 59.0	+1.6
	comp=Z,1μm,0.9s						
MOTA	Moosalm	3.49	311	Pn	Pn	08 31 02.0	+2.1
	comp=Z,57nm,3.0s						
MOTA				Sg	Sg	08 31 59.0	+1.6
	comp=Z,1μm,0.9s						
MIDA	Miranda	3.49	189	Pn	Pn	08 30 58.7	-1.2
MIDA	Miranda	3.49	189	Pn	Pn	08 30 58.7	-1.2
	comp=Z,893nm,0.6s						
MIDA	Miranda	3.49	189	Pn	Pn	08 30 58.7	-1.2
	comp=Z,893nm,0.6s						
FETA	Feichten	3.51	305	i Pn	Pn	08 31 01.6	+1.5
	SNR=79						
FETA	Feichten	3.51	305	Pn	Pn	08 31 01.6	+1.4
	SNR=79						
BSSO	Busso	3.56	184	Pn	Pn	08 31 00.4	-0.4
	comp=Z,1μm,0.9s						
BSSO	Busso	3.56	184	Pn	Pn	08 31 00.4	-0.4
	comp=Z,1μm,0.9s						
CERA	Filignano	3.56	191	Pn	Pn	08 31 00.5	-0.4
	comp=Z,1μm,0.7s						
CERA	Filignano	3.56	191	Pn	Pn	08 31 00.5	-0.4
	comp=Z,1μm,0.7s						
BACM		3.58	258	P	Pn	08 31 00.4	-0.6
FUORN	Ofenpass-Fuorn	3.61	297	Pn	Pn	08 31 02.8	+1.3
FUORN	Ofenpass-Fuorn	3.61	297	Pn	Pn	08 31 02.8	+1.3
MODS	Modra-Piesok	3.65	25	ePn	Pn	08 31 01.5	-0.5

MODS				e		08 31 10.9	
MODS				eSn	Sn	08 31 40.0	-5.2
MODS				eSg	Sg	08 32 07.0	+4.6
MODS	Modra-Piesok	3.65	25	ePN	Pn	08 31 01.5	-0.5
MODS				e		08 31 10.9	
MODS	Modra-Piesok	3.65	25	eSN	Sn	08 31 39.9	-5.3
MODS				eSG	Sg	08 32 07.0	+4.6
MODS	Modra-Piesok	3.65	25	ePn	Pn	08 31 01.5	-0.5
MODS				eSn	Sn	08 31 40.0	-5.2
PLE	Pljevlja	3.65	117	⇓iPn	Pn	08 31 03.0	+0.9
PLE				eSn	Sn	08 31 46.6	+1.3
PLE	Pljevlja	3.65	117	⇓iPn	Pn	08 31 03.0	+0.9
PLE				eSn	Sn	08 31 46.6	+1.3
PLE	Pljevlja	3.65	117	⇓iPn	Pn	08 31 03.0	+0.9
PLE				eSn	Sn	08 31 46.6	+1.3
HCY	Herceg Novi	3.69	135	⇓iPn	Pn	08 31 03.0	+0.4
HCY				eSn	Sn	08 31 48.2	+1.9
HCY	Herceg Novi	3.69	135	⇓iPn	Pn	08 31 03.0	+0.4
HCY				eSn	Sn	08 31 48.2	+1.9
HCY	Herceg Novi	3.69	135	⇓iPn	Pn	08 31 03.0	+0.4
HCY				eSn	Sn	08 31 48.2	+1.9
BERNI	Berninapass	3.69	293	⇑ePn	Pn	08 31 03.8	+1.1
	comp=Z,81nm,0.8s						
BERNI	Berninapass	3.69	293	⇑ePn	Pn	08 31 03.8	+1.1
	comp=Z,81nm,0.8s						
BUD	Budapest	3.70	48	i Pn	Pn	08 31 01.1	-1.6
BUD				eSB	Sg	08 32 02.8	-1.2
BUD	Budapest	3.70	48	i Pn	Pn	08 31 01.1	-1.6
CODM		3.70	261	P	Pn	08 31 02.7	-0.1
SACR	S. Croce Del S	3.70	183	Pn	Pn	08 31 02.1	-0.7
	comp=Z,690nm,0.7s						
SACR	S. Croce Del S	3.70	183	Pn	Pn	08 31 02.1	-0.7
	comp=Z,690nm,0.7s						
NKY	Niksic	3.71	127	⇓iPn	Pn	08 31 04.4	+1.5
NKY				eSn	Sn	08 31 47.8	+1.1
NKY	Niksic	3.71	127	⇓iPn	Pn	08 31 04.4	+1.5
NKY				eSn	Sn	08 31 47.8	+1.1
NKY	Niksic	3.71	127	⇓iPn	Pn	08 31 04.4	+1.5
NKY				eSn	Sn	08 31 47.8	+1.1
TOLF	Tolfa	3.71	216	Pn	Pn	08 31 02.8	-0.2
TOLF	Tolfa	3.71	216	Pn	Pn	08 31 02.8	-0.2
	comp=Z,993nm,1.4s						
TOLF	Tolfa	3.71	216	Pn	Pn	08 31 02.8	-0.2
	comp=Z,993nm,1.4s						
VAGA	Valle Agricola	3.72	188	Pn	Pn	08 31 02.3	-0.7
	comp=Z,777nm,0.5s						
VAGA	Valle Agricola	3.72	188	Pn	Pn	08 31 02.3	-0.7
	comp=Z,777nm,0.5s						
DIVS	Divcibare	3.74	104	eP	Pn	08 31 03.7	+0.4
DIVS				eS	Sg	08 32 10.2	+4.9
DIVS	Divcibare	3.74	104	i Pn	Pn	08 31 03.2	-0.1
DIVS				eSg	Sg	08 32 04.2	-1.1
PTRJ	Pietraroja	3.75	185	Pn	Pn	08 31 02.6	-0.8
	comp=Z,293nm,0.4s						
PTRJ	Pietraroja	3.75	185	Pn	Pn	08 31 02.6	-0.8
	comp=Z,293nm,0.4s						
MDI	Monti di Nese	3.75	282	⇑iPn	Pn	08 31 03.1	-0.4
	comp=Z,1µm,0.9s						
MDI	Monti di Nese	3.75	282	⇑iPn	Pn	08 31 03.1	-0.4
	comp=Z,1µm,0.9s						
RETA	Reutte	3.76	311	⇓iPn	Pn	08 31 05.2	+1.6
	SNR=16						
RETA	Reutte	3.76	311	Pn	Pn	08 31 05.2	+1.6
	SNR=16						
MOCO	Biccari - m.te	3.77	189	Pn	Pn	08 31 02.3	-1.5
	comp=Z,999nm,0.9s						
MOCO	Biccari - m.te	3.77	189	Pn	Pn	08 31 02.3	-1.5
	comp=Z,999nm,0.9s						
SMOL	Smolenice	3.82	26	ePn	Pn	08 31 03.7	-0.7
SMOL				e		08 31 13.8	
SMOL				eSn	Sn	08 31 45.7	-3.7
SMOL				eSg	Sg	08 32 09.9	+2.0
SMOL	Smolenice	3.82	26	eP	Pn	08 31 03.7	-0.7
SMOL				e		08 31 45.7	
SMOL	Smolenice	3.82	26	ePN	Pn	08 31 03.7	-0.7
SMOL				e		08 31 13.8	
SMOL	Smolenice	3.82	26	eSN	Sn	08 31 45.7	-3.7
SMOL				eSG	Sg	08 32 09.9	+2.0
SMOL	Smolenice	3.82	26	ePn	Pn	08 31 03.7	-0.7
SMOL				eSn	Sn	08 31 45.7	-3.7
SMOL				eSg	Sg	08 32 09.9	+2.0
FG5	Orsara di Pugl	3.82	176	⇑iPn	Pn	08 31 03.7	-0.7
FG5	Orsara di Pugl	3.82	176	⇑iPn	Pn	08 31 03.7	-0.7
	comp=Z,546nm,0.6s						
FG5	Orsara di Pugl	3.82	176	⇑iPn	Pn	08 31 03.7	-0.7
	comp=Z,546nm,0.6s						
GEC2	GERESS Array S	3.84	348	ePn	Pn	08 31 04.9	+0.2
GEC2				eSn	Sn	08 31 51.3	+1.2
GEC2	GERESS Array S	3.84	348	ePn	Pn	08 31 04.9	+0.2
GEC2				eSn	Sn	08 31 51.3	+1.2
GEC2	GERESS Array S	3.84	348	ePn	Pn	08 31 04.9	+0.2
GEC2				eSn	Sn	08 31 51.3	+1.2
GERES	GERESS Array B	3.84	348	Pn	Pn	08 31 05.1	+0.4
GERES				Sn	Sn	08 31 49.5	-0.5
GERES				Lg		08 32 10.2	
GERES				LR	LR	08 32 49.7	
GERES	GERESS Array B	3.84	348	Pn	Pn	08 31 05.1	+0.4
	comp=Z,12nm,0.3s,baz=164,slow=12,SNR=195						
GERES				Sn	Sn	08 31 49.5	-0.5
	comp=Z,68nm,0.3s,baz=166,slow=22,SNR=10						
GERES				Lg		08 32 10.2	
	comp=Z,33nm,0.3s,baz=171,slow=27,SNR=3.5						
GERES				LR	LR	08 32 49.7	
	comp=Z,670nm,18.1s,baz=21,slow=42						
GERES	GERESS Array B	3.84	348	Pn	Pn	08 31 05.1	+0.4
GERES				Sn	Sn	08 31 49.5	-0.6
RFI	Roccamonfina	3.86	191	Pn	Pn	08 31 05.1	+0.1
RFI	Roccamonfina	3.86	191	Pn	Pn	08 31 05.1	+0.1
	comp=Z,181nm,1.3s						
RFI	Roccamonfina	3.86	191	Pn	Pn	08 31 05.1	+0.1
	comp=Z,181nm,1.3s						
PSB1	Pescosannita	3.88	182	Pn	Pn	08 31 04.4	-0.8
PSB1	Pescosannita	3.88	182	Pn	Pn	08 31 04.4	-0.8
	comp=Z,1µm,1.4s						
PSB1	Pescosannita	3.88	182	Pn	Pn	08 31 04.4	-0.8
	comp=Z,1µm,1.4s						
BEO	Belgrade	3.92	92	i Pn	Pn	08 31 07.0	+1.3
BEO				eSg	Sg	08 32 10.3	-0.8
DAVOX	Davos/Dischmat	3.92	297	Pn	Pn	08 31 07.6	+1.9
DAVOX				Sn	Sn	08 31 51.0	-0.9
DAVOX				Lg		08 32 11.3	
DAVOX	Davos/Dischmat	3.92	297	Pn	Pn	08 31 07.6	+1.9
	comp=Z,30nm,0.3s,baz=119,slow=11,SNR=120						
DAVOX				Sn	Sn	08 31 51.0	-0.9
	comp=Z,26nm,0.3s,baz=139,slow=21,SNR=3.6						
DAVOX				Lg		08 32 11.3	
	comp=Z,37nm,0.3s,baz=190,slow=23,SNR=5.4						
DAVOX	Davos/Dischmat	3.92	297	Pn	Pn	08 31 07.5	+1.7
DAVOX	Davos/Dischmat	3.92	297	⇑iPn	Pn	08 31 07.6	+1.8
	comp=Z,196nm,0.5s						
DAVOX	Davos/Dischmat	3.92	297	⇑iPn	Pn	08 31 07.6	+1.8
	comp=Z,196nm,0.5s						
DAVOX				Sn	Sn	08 31 51.0	-0.9
BGY	Belgrade	3.96	92	ePn	Pn	08 31 10.8	+4.4
BGY				eSn	Sn	08 32 00.1	+7.1
SGTA	Sant Agata di	3.97	175	Pn	Pn	08 31 05.6	-0.9
	comp=Z,752nm,0.6s						
SGTA	Sant Agata di	3.97	175	Pn	Pn	08 31 05.6	-0.9
	comp=Z,752nm,0.6s						
FUR	Furstenfeldbru	3.98	322	ePn	Pn	08 31 08.7	+2.1
FUR	Furstenfeldbru	3.98	322	ePn	Pn	08 31 08.7	+2.1
FUR	Furstenfeldbru	3.98	322	ePn	Pn	08 31 08.4	+1.8
	baz=137						
FUR	Furstenfeldbru	3.98	322	ePg	Pg	08 31 20.0	-1.5
FG4	Candela	3.99	174	Pn	Pn	08 31 03.5	-3.2
FG4	Candela	3.99	174	Pn	Pn	08 31 03.5	-3.2
	comp=Z,509nm,0.4s						
FG4	Candela	3.99	174	Pn	Pn	08 31 03.5	-3.2
	comp=Z,509nm,0.4s						
GROG	Isola di Gorgo	4.00	247	Pn	Pn	08 31 07.2	+0.3
	comp=Z,300nm,0.7s						
GROG	Isola di Gorgo	4.00	247	Pn	Pn	08 31 07.2	+0.3
	comp=Z,300nm,0.7s						
BUM	Brajici-Budva	4.00	133	⇓iPn	Pn	08 31 07.7	+0.8
BUM				eSn	Sn	08 31 55.4	+1.5
BUM	Brajici-Budva	4.00	133	⇓iPn	Pn	08 31 07.7	+0.8
BUM				eSn	Sn	08 31 55.4	+1.5
BUM	Brajici-Budva	4.00	133	⇓iPn	Pn	08 31 07.7	+0.8
BUM				eSn	Sn	08 31 55.4	+1.5
PENC	Penc	4.03	46	eP	Pn	08 31 07.8	+0.6
SJES	Sjenica	4.03	115	ePn	Pn	08 31 08.2	+0.9
SJES				eSn	Sn	08 31 53.6	-1.0
SJES				eSg	Sg	08 32 14.9	+0.2
CAFE	Carife	4.07	177	⇓iPn	Pn	08 31 06.6	-1.3
	comp=Z,1µm,1.1s						
CAFE	Carife	4.07	177	⇓iPn	Pn	08 31 06.6	-1.3
	comp=Z,1µm,1.1s						
KRUC	Moravsky	4.09	13	ePn	Pn	08 31 07.9	-0.2
KRUC				eSn	Sn	08 31 52.6	-3.4
	baz=193						
VDL	Val di Lei	4.09	292	⇑iPn	Pn	08 31 09.9	+1.8
	comp=Z,217nm,0.7s						
VDL	Val di Lei	4.09	292	⇑iPn	Pn	08 31 09.9	+1.8
	comp=Z,217nm,0.7s						
PDG	Podgorica	4.11	129	⇓iPn	Pn	08 31 09.1	+0.8
PDG				eSn	Sn	08 31 57.6	+1.1
TTG	Podgorica	4.11	129	⇓iPn	Pn	08 31 09.1	+0.8
TTG				eSn	Sn	08 31 57.6	+1.1
TTG	Podgorica	4.11	129	⇓iPn	Pn	08 31 09.1	+0.8
TTG				eSn	Sn	08 31 57.6	+1.1
TTG	Podgorica	4.11	129	⇓iPn	Pn	08 31 09.1	+0.8
TTG				eSn	Sn	08 31 57.6	+1.1
CDT	Castel del Mon	4.13	166	ePn	Pn	08 31 07.3	-1.4
KHC	Kasperske Hory	4.14	347	ePn	Pn	08 31 09.0	+0.2
KHC				eSn	Sn	08 31 56.9	-0.5
KHC				eSg	Sg	08 32 18.4	+0.1
KHC	Kasperske Hory	4.14	347	eP	Pn	08 31 09.0	+0.2
KHC				e		08 31 56.9	
KHC	Kasperske Hory	4.14	347	ePN	Pn	08 31 09.0	+0.2
KHC				eSN	Sn	08 31 56.9	-0.5
KHC				eSG	Sg	08 32 18.4	+0.1
	comp=Z,282nm,0.8s						
KHC	Kasperske Hory	4.14	347	ePn	Pn	08 31 09.0	+0.2
KHC				eSn	Sn	08 31 56.9	-0.5
KHC				eSg	Sg	08 32 18.4	+0.1
	comp=Z,282nm,0.8s						
DAVA	Damuels	4.15	304	⇓iPn	Pn	08 31 10.5	+1.6
DAVA	Damuels	4.15	304	⇓iSg	Sg	08 32 21.2	+2.7
	comp=Z,783nm,0.6s						
DAVA	Damuels	4.15	304	⇓iPn	Pn	08 31 10.5	+1.6
DAVA				i Sg	Sg	08 32 21.2	+2.7
DAVA	Damuels	4.15	304	⇓iPn	Pn	08 31 10.5	+1.6
DAVA				⇓iSg	Sg	08 32 21.2	+2.7
	comp=Z,783nm,0.6s						
DAVA	Damuels	4.15	304	ePn	Pn	08 31 11.3	+2.4
DAVA				i Sg	Sg	08 32 21.2	+2.8
TUE	Stuetta	4.15	291	Pn	Pn	08 31 10.7	+1.7
TUE	Stuetta	4.15	291	Pn	Pn	08 31 10.7	+1.7
	comp=Z,742nm,1.0s						
TUE	Stuetta	4.15	291	Pn	Pn	08 31 10.7	+1.7
	comp=Z,742nm,1.0s						
SNAL	S. Angelo Dei	4.17	177	⇓iPn	Pn	08 31 07.8	-1.5
	comp=Z,1µm,1.3s						
SNAL	S. Angelo Dei	4.17	177	⇓iPn	Pn	08 31 07.8	-1.5
	comp=Z,1µm,1.3s						
JAVC	Velka Javorina	4.20	25	ePn	Pn	08 31 09.9	+0.3
BEY	Berane	4.21	120	ePn	Pn	08 31 10.8	+1.1
BEY				eSn	Sn	08 32 00.1	+1.1
IVA	Berane	4.21	120	ePn	Pn	08 31 10.8	+1.1
IVA				eSn	Sn	08 32 00.1	+1.1
IVA	Berane	4.21	120	ePn	Pn	08 31 10.8	+1.1
IVA				eSn	Sn	08 32 00.1	+1.1
IVA	Berane	4.21	120	ePn	Pn	08 31 10.8	+1.1
IVA				eSn	Sn	08 32 00.1	+1.1
TREC	Trest	4.21	5	eP	Pn	08 31 10.0	+0.2
TREC	Trest	4.21	5	ePN	Pn	08 31 10.0	+0.2
TREC	Trest	4.21	5	ePn	Pn	08 31 09.9	+0.1
BAI	Bari	4.23	160	ePn	Pn	08 31 09.3	-0.8
MUGIO	Muggio	4.24	283	Pn	Pn	08 31 09.8	-0.3
MUGIO	Muggio	4.24	283	Pn	Pn	08 31 09.8	-0.3
CSSN	Cassano Irpino	4.24	179	Pn	Pn	08 31 08.9	-1.2
CSSN	Cassano Irpino	4.24	179	Pn	Pn	08 31 08.9	-1.2
	comp=Z,99nm,0.4s						
CSSN	Cassano Irpino	4.24	179	Pn	Pn	08 31 08.9	-1.2
	comp=Z,99nm,0.4s						
WET	Wettzell	4.29	341	ePn	Pn	08 31 11.1	+0.3
WET				eSn	Sn	08 32 00.6	-0.4
WET	Wettzell	4.29	341	ePn	Pn	08 31 11.1	+0.3
WET				eSn	Sn	08 32 00.6	-0.4
WET	Wettzell	4.29	341	ePn	Pn	08 31 11.1	+0.3
WET				eSn	Sn	08 32 00.6	-0.4
GRUS	Gruza	4.30	104	i Pn	Pn	08 31 10.9	-0.1
GRUS				eSg	Sg	08 32 22.6	-0.7
GENL	Genova Univers	4.32	263	P	Pn	08 31 08.4	-2.8
MCRV	Calabrutti - M	4.32	178	Pn	Pn	08 31 09.6	-1.6
	comp=Z,393nm,0.4s						
MCRV	Calabrutti - M	4.32	178	Pn	Pn	08 31 09.6	-1.6
	comp=Z,393nm,0.4s						
VYHS	Vyhne	4.32	37	ePn	Pn	08 31 11.3	0.0
VYHS				e		08 31 22.0	
VYHS				eSn	Sn	08 31 57.9	-3.8
VYHS				eSg	Sg	08 32 28.1	+4.1
VYHS	Vyhne	4.32	37	eP	Pn	08 31 11.3	0.0
VYHS				e		08 31 57.9	
VYHS	Vyhne	4.32	37	ePN	Pn	08 31 11.3	0.0
VYHS				e		08 31 22.0	
VYHS	Vyhne	4.32	37	eSN	Sn	08 31 57.9	-3.8
VYHS				eSG	Sg	08 32 28.1	+4.1
VYHS	Vyhne	4.32	37	ePn	Pn	08 31 11.0	-0.3
VYHS				eSn	Sn	08 31 57.9	-3.8
PLONS	Plons/SG	4.34	299	⇑iPn	Pn	08 31 13.6	+2.1
	comp=Z,131nm,0.5s						
PLONS	Plons/SG	4.34	299	⇑iPn	Pn	08 31 13.6	+2.1
	comp=Z,131nm,0.5s						
VRAC	Vranov	4.36	14	P	Pn	08 31 11.3	-0.4
VRAC	Vranov	4.36	14	P	Pn	08 31 11.5	-0.3
VRAC						08 31 58.5	
VRAC				pmax	pmax		
	comp=Z,19nm,0.3s						
VRAC				smax			
	comp=N,16nm,0.3s						
VRAC	Vranov	4.36	14	Pn	Pn	08 31 11.5	-0.3
	comp=N,19nm,0.3s,baz=198,slow=14,SNR=65						
VRAC				Sn	Sn	08 31 58.5	-4.2
	comp=N,16nm,0.3s,baz=286,slow=22,SNR=7.9						
VRAC				Lg		08 32 30.0	
	comp=N,3.5nm,0.3s,baz=66,slow=7.5,SNR=5.7						
VRAC	Vranov	4.36	14	⇑iP	Pn	08 31 11.4	-0.4
VRAC	Vranov	4.36	14	ePn	Pn	08 31 11.5	-0.3
VRAC				eSn	Sn	08 31 58.7	-4.0
AMUR	Altamura	4.36	163	Pn	Pn	08 31 10.5	-1.4
	comp=N,657nm,0.8s						
AMUR	Altamura	4.36	163	Pn	Pn	08 31 10.5	-1.4
	comp=N,657nm,0.8s						
PVY	Plav	4.41	123	⇓iPn	Pn	08 31 13.7	+1.2
PVY				eSn	Sn	08 32 05.1	+1.1
PVY	Plav	4.41	123	⇓iPn	Pn	08 31 13.7	+1.2
PVY				eSn	Sn	08 32 05.1	+1.1
PVY	Plav	4.41	123	⇓iPn	Pn	08 31 13.7	+1.2
PVY				eSn	Sn	08 32 05.1	+1.1
VAI	Varese	4.42	282	⇑iPn	Pn	08 31 12.6	0.0
VAI	Varese	4.42	282	⇑iPn	Pn	08 31 12.6	0.0
VAI	Varese	4.42	282	⇑iPn	Pn	08 31 12.6	0.0
ULC	Ulcinj	4.42	134	⇓iPn	Pn	08 31 12.9	+0.2
ULC				eSn	Sn	08 32 06.0	+1.6
ULC	Ulcinj	4.42	134	⇓iPn	Pn	08 31 12.9	+0.2
ULC				eSn	Sn	08 32 06.0	+1.6
ULC	Ulcinj	4.42	134	⇓iPn	Pn	08 31 12.9	+0.2
ULC				eSn	Sn	08 32 06.0	+1.6
PSZ	Piszkesteto	4.43	49	ePn	Pn	08 31 12.0	-0.7
PSZ				⇓P		08 31 12.5	
PSZ	Piszkesteto	4.43	49	⇑iPn	Pn	08 31 12.0	-0.7
PSZ				eSn	Sn	08 32 01.6	-2.8
PSZ	Piszkesteto	4.43	49	⇓iP	Pn	08 31 12.5	-0.2
PSZ	Piszkesteto	4.43	49	ePn	Pn	08 31 11.6	-1.1
PSZ	Piszkesteto	4.43	49	⇓P	Pn	08 31 12.5	-0.2
PSZ				eSn	Sn	08 32 01.6	-2.8
SG1	Sgolgore (BA)	4.44	163	ePn	Pn	08 31 11.8	-1.2
SVIS	Svilajnac	4.54	98	i Pn	Pn	08 31 14.3	0.0
SVIS				eSn	Sn	08 32 05.5	-1.8
SVIS				eSg	Sg	08 32 31.4	+0.2
NOCI	Noci	4.58	159	Pn	Pn	08 31 13.6	-1.2
	comp=N,717nm,0.7s						
NOCI	Noci	4.58	159	Pn	Pn	08 31 13.6	-1.2
	comp=N,717nm,0.7s						
PCP	Pian Castagno	4.59	265	Pn	Pn	08 31 15.5	+0.5
PCP	Pian Castagno	4.59	265	Pn	Pn	08 31 15.5	+0.5
	comp=N,300nm,0.7s						
PCP	Pian Castagno	4.59	265	Pn	Pn	08 31 15.5	+0.5
	comp=N,300nm,0.7s						
FUSIO	Fusio	4.60	289	⇑iPn	Pn	08 31 15.7	+0.5
	comp=N,88nm,0.7s						
FUSIO	Fusio	4.60	289	⇑iPn	Pn	08 31 15.7	+0.5
	comp=N,88nm,0.7s						
CDRU	Civita di Ruta	4.61	177	Pn	Pn	08 31 14.2	-1.1
	comp=N,169nm,0.6s						
CDRU	Civita di Ruta	4.61	177	Pn	Pn	08 31 14.2	-1.1
	comp=N,169nm,0.6s						
MIGL	Miglionico	4.62	166	Pn	Pn	08 31 14.5	-1.0
	comp=N,3µm,0.8s						
MIGL	Miglionico	4.62	166	Pn	Pn	08 31 14.5	-1.0
	comp=N,3µm,0.8s						
PE1	Pezze di Greco	4.66	156	ePn	Pn	08 31 14.9	-1.0
BZS	Buzias	4.73	81	P	Pn	08 31 18.5	+1.7
BZS	Buzias	4.73	81	⇑iP	Pn	08 31 17.2	+0.3
BZS	Buzias	4.73	81	ePn	Pn	08 31 17.2	+0.3
BZS	Buzias	4.73	81	P	Pn	08 31 18.5	+1.6
MUO	Muotathal	4.78	295	⇑iPn	Pn	08 31 19.6	+2.0
	comp=N,67nm,0.3s						
MUO	Muotathal	4.78	295	⇑iPn	Pn	08 31 19.6	+2.0
	comp=N,67nm,0.3s						
CMPR	Campora	4.79	177	Pn	Pn	08 31 16.5	-1.2
	comp=N,271nm,0.8s						
CMPR	Campora	4.79	177	Pn	Pn	08 31 16.5	-1.2
	comp=N,271nm,0.8s						
MCEL	Monticello	4.81	172	Pn	Pn	08 31 17.3	-0.7
	comp=N,342nm,0.8s						
MCEL	Monticello	4.81	172	Pn	Pn	08 31 17.3	-0.7
	comp=N,342nm,0.8s						
PRU	Pruhonice	4.90	357	ePn	Pn	08 31 19.0	-0.2
PRU				e		08 32 44.6	
PRU	Pruhonice	4.90	357	ePN	Pn	08 31 19.0	-0.2
PRU				eSG	Sg	08 32 44.6	+2.0
PRU	Pruhonice	4.90	357	ePn	Pn	08 31 19.0	-0.2
ORO	Oropa	4.94	279	Pn	Pn	08 31 18.4	-1.4
ORO	Oropa	4.94	279	Pn	Pn	08 31 18.4	-1.4
	comp=N,124nm,0.3s						
ORO	Oropa	4.94	279	Pn	Pn	08 31 18.4	-1.4
	comp=N,124nm,0.3s						
MONC	Moncucco Torin	4.97	272	Pn	Pn	08 31 20.8	+0.5
	comp=N,1µm,1.1s						
MONC	Moncucco Torin	4.97	272	Pn	Pn	08 31 20.8	+0.5
	comp=N,1µm,1.1s						
PRA	Prague	4.99	356	PN	Pn	08 31 20.0	-0.4
PRA				ex	x	08 31 38.0	
MORC	Moravsky Berou	5.00	20	ePn	Pn	08 31 20.6	0.0
MORC				P		08 31 20.7	
MORC	Moravsky Berou	5.00	20	⇓iP	Pn	08 31 20.8	+0.2
MORC	Moravsky Berou	5.00	20	ePn	Pn	08 31 20.6	0.0
PGF	Pioggiola	5.00	241	ePn	Pn	08 31 19.9	-0.8
PGF				eSn	Sn	08 32 17.9	-0.8
PGF	Pioggiola	5.00	241	ePn	Pn	08 31 19.9	-0.8
	SNR=1.0						
PGF				eSn	Sn	08 32 17.9	-0.8
	comp=N,53nm,0.3s						
PGF	Pioggiola	5.00	241	ePn	Pn	08 31 19.9	-0.8
	SNR=1.0						
PGF				eSn	Sn	08 32 17.9	-0.8
	comp=N,26nm,0.3s						
RORO		5.01	261	P	Pn	08 31 17.7	-3.1
BULG	Bulgheria - Ca	5.03	176	Pn	Pn	08 31 20.2	-0.8
	comp=N,241nm,0.7s						
BULG	Bulgheria - Ca	5.03	176	Pn	Pn	08 31 20.2	-0.8
	comp=N,241nm,0.7s						
ROTZ	Rotzenmuhle	5.03	339	ePn	Pn	08 31 20.8	-0.2
ROTZ				eSn	Sn	08 32 17.1	-2.1
CORF	Corte	5.05	238	P	Pn	08 31 24.0	+2.7
CORF				S	Sn	08 32 20.4	+0.6
KECS	Kecovo	5.09	46	ePn	Pn	08 31 21.7	-0.1
	comp=N,388nm,2.6s						
KECS				e		08 31 27.9	
KECS				e		08 32 16.6	
KECS				eSg	Sg	08 32 55.6	+6.9
KECS	Kecovo	5.09	46	eP	Pn	08 31 21.7	-0.1
KECS				e		08 32 16.6	
KECS				pmax	pmax		
	comp=Z,389nm,2.6s						
KECS	Kecovo	5.09	46	ePN	Pn	08 31 21.7	-0.1
KECS				e		08 31 27.9	
KECS				e		08 32 16.6	
KECS	Kecovo	5.09	46	eSG	Sg	08 32 55.6	+6.9
TRAV		5.10	277	P	Pn	08 31 19.7	-2.3
ORI	Oriolo Calabro	5.15	167	Pn	Pn	08 31 22.5	-0.2
ORI	Oriolo Calabro	5.15	167	Pn	Pn	08 31 22.5	-0.2
	comp=Z,601nm,0.4s						
ORI	Oriolo Calabro	5.15	167	Pn	Pn	08 31 22.5	-0.2
	comp=Z,601nm,0.4s						
TIR	Tirane	5.19	135	eS	Sb	08 32 45.5	+6.8
TIR	Tirane	5.19	135	Pn	Pn	08 31 23.5	+0.3
	comp=Z,861nm,0.7s						
TIR	Tirane	5.19	135	Pn	Pn	08 31 23.5	+0.3
	comp=Z,861nm,0.7s						
SPAK	Spaichingen-Ko	5.20	307	P	Pn	08 31 23.5	+0.1
OKC	Ostrava-Krasne	5.21	23	ePn	Pn	08 31 22.8	-0.7
OKC				eSn	Sn	08 32 20.9	-2.9
OKC	Ostrava-Krasne	5.21	23	ePN	Pn	08 31 22.8	-0.7
OKC				eSN	Sn	08 32 20.9	-2.9
OKC	Ostrava-Krasne	5.21	23	ePn	Pn	08 31 22.8	-0.7
OKC				eSn	Sn	08 32 20.9	-2.9
MONE	Monesi	5.24	261	P	Pn	08 31 22.3	-1.6
GRFO	Grafenberg	5.25	332	ePn	Pn	08 31 23.9	-0.1
	comp=Z,138nm,0.6s						
GRFO	Grafenberg	5.25	332	eP	Pn	08 31 23.9	-0.1
GRFO				pmax	pmax		
	comp=Z,138nm,0.6s						
GRFO	Grafenberg	5.25	332	ePn	Pn	08 31 23.9	-0.1
	comp=Z,138nm,0.6s						
GRA1	Grafenberg Arr	5.25	332	ePn	Pn	08 31 23.9	-0.1
GRA1	Grafenberg Arr	5.25	332	ePn	Pn	08 31 23.9	-0.1
GRF	Grafenberg Arr	5.25	332	ePn	Pn	08 31 23.9	-0.1
GRF	Grafenberg Arr	5.25	332	ePn	Pn	08 31 23.9	-0.1
GRF	Grafenberg Arr	5.25	332	ePn	Pn	08 31 23.9	-0.1
MANZ	Manzenberg	5.25	340	ePn	Pn	08 31 23.9	-0.2
MANZ				eSn	Sn	08 32 22.2	-2.6
LCI	Lecce	5.30	153	Pn	Pn	08 31 24.1	-0.6
	comp=Z,105nm,0.3s						
LCI	Lecce	5.30	153	P	Pn	08 31 24.1	-0.6
LCI				pmax	pmax		
	comp=Z,105nm,0.3s						
LCI	Lecce	5.30	153	Pn	Pn	08 31 24.1	-0.6
	comp=Z,105nm,0.3s						
LCI	Lecce	5.30	153	Pn	Pn	08 31 24.1	-0.6
	comp=Z,105nm,0.3s						
SULZ	Cheisacher	5.33	300	⇑iPn	Pn	08 31 25.7	+0.6
	comp=Z,136nm,0.9s						
SULZ	Cheisacher	5.33	300	⇑iPn	Pn	08 31 25.7	+0.6
	comp=Z,136nm,0.9s						
DPC	Dobruska-Polom	5.34	9	ePn	Pn	08 31 24.5	-0.7
	comp=Z,278nm,1.1s						
DPC				eSn	Sn	08 32 24.6	-2.2
DPC				eSg	Sg	08 32 53.7	-2.9
DPC	Dobruska-Polom	5.34	9	ePN	Pn	08 31 24.5	-0.7
DPC				eSN	Sn	08 32 24.6	-2.2
DPC				eSG	Sg	08 32 53.7	-2.9
	comp=Z,278nm,1.1s						
DPC	Dobruska-Polom	5.34	9	ePn	Pn	08 31 24.5	-0.7
	comp=Z,278nm,1.1s						
DPC				eSn	Sn	08 32 24.6	-2.2
DPC				eSg	Sg	08 32 53.7	-2.9
	comp=Z,278nm,1.1s						
WIMIS	Wimmis	5.35	290	⇑iPn	Pn	08 31 26.8	+1.4
	comp=Z,98nm,1.4s						
WIMIS	Wimmis	5.35	290	⇑iPn	Pn	08 31 26.8	+1.4
	comp=Z,98nm,1.4s						
STU	Stuttgart	5.39	315	ePn	Pn	08 31 26.2	+0.3
STU	Stuttgart	5.39	315	ePn	Pn	08 31 26.2	+0.3
STU	Stuttgart	5.39	315	ePn	Pn	08 31 26.2	+0.3
SAOF	Saorge	5.40	261	P	Pn	08 31 26.1	-0.1
SAOF				S	Sn	08 32 26.3	-2.2
DJES	Djerdap	5.40	92	i Pn	Pn	08 31 25.9	-0.3
DJES				eSn	Sn	08 32 24.4	-4.1
NKC	Novy Kostel	5.41	343	ePn	Pn	08 31 25.9	-0.3
NKC				eSg	Sg	08 32 59.1	+0.2
NKC	Novy Kostel	5.41	343	ePN	Pn	08 31 25.9	-0.3
NKC				eSG	Sg	08 32 59.1	+0.2
	comp=Z,1µm,1.5s						
NKC	Novy Kostel	5.41	343	ePn	Pn	08 31 25.9	-0.3
NKC				eSg	Sg	08 32 59.1	+0.2
	comp=Z,1µm,1.5s						
PVCC	Panska Ves	5.44	357	ePn	Pn	08 31 26.1	-0.5
	comp=Z,1µm,1.2s						
PVCC				eSg	Sg	08 32 58.7	-1.2
PVCC	Panska Ves	5.44	357	ePN	Pn	08 31 26.1	-0.5
PVCC				eSG	Sg	08 32 58.7	-1.2
	comp=Z,1µm,1.2s						
PVCC	Panska Ves	5.44	357	ePn	Pn	08 31 26.3	-0.3
PVCC				eSg	Sg	08 32 58.7	-1.2
	comp=Z,1µm,1.2s						
BARS	Barje	5.46	112	i Pn	Pn	08 31 27.7	+0.8
BARS				eSg	Sg	08 32 55.8	-4.8

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UPC    Upice            5.46   7  ePn    Pn    08 31 26.8 -0.1
UPC                               eSg    Sg    08 32 57.4 -3.1
UPC    Upice            5.46   7  ePN    Pn    08 31 26.8 -0.1
UPC                               eSG    Sg    08 32 57.4 -3.1
UPC    Upice            5.46   7  ePn    Pn    08 31 26.8 -0.1
UPC                               eSg    Sg    08 32 57.4 -3.1
WERN   Wernitzgruen     5.47 342  ePn    Pn    08 31 26.9 -0.2
WERN                              eSn    Sn    08 32 28.5 -1.7
AUTN   L'Aution         5.49 261   P     Pn    08 31 27.6 +0.3
AUTN                               S     Sn    08 32 30.6  0.0
STV    Sta Anna Valdi   5.51 264   Pn    Pn    08 31 27.0 -0.6
       comp=Z,63nm,0.6s
STV    Sta Anna Valdi   5.51 264   P     Pn    08 31 27.0 -0.6
STV                                pmax  pmax
       comp=Z,63nm,0.6s
STV    Sta Anna Valdi   5.51 264   Pn    Pn    08 31 27.0 -0.6
       comp=Z,63nm,0.6s
STV    Sta Anna Valdi   5.51 264   Pn    Pn    08 31 27.0 -0.6
       comp=Z,63nm,0.6s
BALST  Balsthal         5.51 297⇑iPn    Pn    08 31 27.9 +0.3
       comp=Z,76nm,0.5s
BALST  Balsthal         5.51 297⇑iPn    Pn    08 31 27.9 +0.3
       comp=Z,76nm,0.5s
SBF    Sospel           5.52 260  ePn    Pn    08 31 26.5 -1.2
SBF                               eSn    Sn    08 32 28.2 -3.1
SBF    Sospel           5.52 260  ePn    Pn    08 31 26.5 -1.2
       SNR=1.0
SBF                               eSn    Sn    08 32 28.2 -3.1
       comp=Z,291nm,0.4s
SBF    Sospel           5.52 260  ePn    Pn    08 31 26.5 -1.2
       SNR=1.0
SBF                               eSn    Sn    08 32 28.2 -3.1
       comp=Z,146nm,0.4s
GZR    Gura Zlata       5.53  84   P     Pn    08 31 28.8 +0.9
GZR    Gura Zlata       5.53  84⇑iP     Pn    08 31 28.5 +0.5
GZR    Gura Zlata       5.53  84   P     Pn    08 31 28.8 +0.8
FELD   Feldberg im Sc   5.54 303   Pg    Pn    08 31 28.3 +0.2
GUNZ   Gunzen           5.56 342  ePn    Pn    08 31 28.2  0.0
GUNZ                              eSn    Sn    08 32 31.3 -0.9
LUCF   Luceram          5.57 260   P     Pn    08 31 28.8 +0.3
LUCF                               S     Sn    08 32 32.8 +0.1
TANN   Tannenbergstha   5.58 343  ePn    Pn    08 31 28.3 -0.2
BFO    Black Forest     5.58 308  ePn    Pn    08 31 28.5 -0.1
BFO    Black Forest     5.58 308  ePn    Pn    08 31 28.5 -0.1
BFO    Black Forest     5.58 308  ePn    Pn    08 31 28.5 -0.1
TOUF   Mont Tournerai   5.61 262   P     Pn    08 31 29.1 +0.1
WERD   Werda            5.64 343  ePn    Pn    08 31 29.1 -0.3
SCTE   Santa Cesarea    5.65 151   Pn    Pn    08 31 28.8 -0.8
       comp=Z,557nm,0.8s
SCTE   Santa Cesarea    5.65 151   Pn    Pn    08 31 28.8 -0.8
       comp=Z,557nm,0.8s
NIE    Niedzica         5.66  38  eP     Pn    08 31 30.3 +0.7
SKO    Skopje           5.66 121  eP     Pn    08 31 31.8 +2.2
SKO    Skopje           5.66 121  ePn    Pn    08 31 31.8 +2.1
SKO    Skopje           5.66 121  ePn    Pn    08 31 31.7 +2.0
DRGR                    5.67  70   P     Pn    08 31 31.4 +1.6
DRGR                    5.67  70⇑iP     Pn    08 31 29.3 -0.5
DRGR                    5.67  70   P     Pn    08 31 31.4 +1.6
BBS    Basel-Blauen     5.67 297   P     Pn    08 31 30.2 +0.3
OG22   Abries           5.69 270   P     Pn    08 31 28.5 -1.6
MVIF   Mont Vial        5.71 261   P     Pn    08 31 30.9 +0.6
LPG    La Plagne        5.80 277  ePn    Pn    08 31 31.1 -0.5
LPG                               eSn    Sn    08 32 34.2 -4.0
LPG    La Plagne        5.80 277  ePn    Pn    08 31 31.1 -0.5
       SNR=1.0
LPG                               eSn    Sn    08 32 34.2 -4.0
       comp=Z,183nm,0.6s,SNR=1.0
LPL    La Plagne        5.81 277  ePn    Pn    08 31 31.1 -0.7
LPL                               eSn    Sn    08 32 33.9 -4.7
LPL    La Plagne        5.81 277  ePn    Pn    08 31 31.1 -0.7
       SNR=1.0
LPL                               eSn    Sn    08 32 33.9 -4.7
       comp=Z,217nm,0.5s,SNR=1.0
BRG    Berggiesshubel   5.82 354   Pn    Pn    08 31 31.1 -0.7
BRG                               i            08 31 43.2
BRG                                Pg    Pg    08 31 57.2 +0.5
BRG                                Sn    Sn    08 32 34.3 -4.4
BRG                               i            08 33 00.5
BRG                                Sg    Sg    08 33 14.3 +2.3
BRG    Berggiesshubel   5.82 354   P     Pn    08 31 31.1 -0.7
BRG                                            08 32 34.3
BRG    Berggiesshubel   5.82 354  ePn    Pn    08 31 31.2 -0.6
BRG                               eSn    Sn    08 32 35.7 -3.0
BRG    Berggiesshubel   5.82 354   PN    Pn    08 31 31.1 -0.7
BRG                               i            08 31 43.2
BRG    Berggiesshubel   5.82 354   PG    Pg    08 31 57.2 +0.5
BRG                                SN    Sn    08 32 34.3 -4.4
BRG                               i            08 33 00.5
BRG    Berggiesshubel   5.82 354   SG    Sg    08 33 14.3 +2.3
       comp=Z,159nm,0.9s
BRG
       comp=N,990nm,9.9s
BRG
       comp=E,1µm,4.2s
BRG
       comp=Z,2µm,8.7s
KSP    Ksiaz            5.82   8  ePn    Pn    08 31 32.2 +0.4
KSP                               ePg    Pg    08 31 52.9 -3.9
KSP    Ksiaz            5.82   8  ePn    Pn    08 31 31.6 -0.2
KSP                               ePg    Pg    08 31 52.7 -4.0
KSP                               eSn    Sn    08 32 35.8 -2.9
KSP    Ksiaz            5.82   8  eP     Pn    08 31 31.6 -0.2
KSP                               e            08 32 35.8
KSP    Ksiaz            5.82   8  ePg    Pg    08 31 52.7 -4.0
MBDF   Montbardon       5.82 269  ePn    Pn    08 31 30.2 -1.7
MBDF                              eSn    Sn    08 32 33.9 -4.9
MBDF   Montbardon       5.82 269  ePn    Pn    08 31 30.2 -1.7
       SNR=1.0
MBDF                              eSn    Sn    08 32 33.9 -4.9
       comp=Z,186nm,0.5s
BOURR  Bourrignon       5.83 296⇑ePn    Pn    08 31 32.2 +0.2
       comp=Z,93nm,0.7s
BOURR  Bourrignon       5.83 296⇑ePn    Pn    08 31 32.2 +0.2
       comp=Z,93nm,0.7s
OHR    Ohrid            5.85 131  eP     Pn    08 31 32.8 +0.5
OHR    Ohrid            5.85 131  ePn    Pn    08 31 32.4 +0.1
OHR    Ohrid            5.85 131  ePn    Pn    08 31 32.4 +0.1
BNI    Bardonecchia     5.86 272  ePn    Pn    08 31 30.9 -1.5
       comp=Z,52nm,0.6s
BNI    Bardonecchia     5.86 272  eP     Pn    08 31 31.0 -1.4
BNI                                pmax  pmax
       comp=Z,51nm,0.6s
KRUS   Krusevo          5.92 127  ePn    Pn    08 31 34.2 +0.9
KRUS   Krusevo          5.92 127  ePn    Pn    08 31 34.2 +0.9
FBE    Freiberg         5.92 350  ePn    Pn    08 31 32.7 -0.6
FBE                               eSn    Sn    08 32 38.8 -2.5
CALN   Calern           5.93 260   P     Pn    08 31 34.0 +0.6
MOX    Moxa             5.99 339  ePn    Pn    08 31 34.0 -0.1
MOX                               eSn    Sn    08 32 40.6 -2.2
MOX    Moxa             5.99 339  ePN    Pn    08 31 34.0 -0.1
MOX                               eSN    Sn    08 32 40.6 -2.2
MOX
       comp=Z,1µm,14.0s
MOX    Moxa             5.99 339  eP     Pn    08 31 34.0 -0.1
MOX                               e            08 32 40.6
MOX    Moxa             5.99 339  ePn    Pn    08 31 34.0 -0.1
MOX                               eSn    Sn    08 32 40.4 -2.4
OSKI   Oschiri          6.05 227   Pn    Pn    08 31 36.2 +1.1
OSKI   Oschiri          6.05 227   Pn    Pn    08 31 36.2 +1.1
MOF    Molkenrain       6.06 300   P     Pn    08 31 35.2  0.0
TIP    Timpagrande      6.07 167  ePn    Pn    08 31 35.2 -0.1
TIP    Timpagrande      6.07 167  ePn    Pn    08 31 35.2 -0.1
LOMF   Lomont           6.07 295   P     Pn    08 31 35.6 +0.3
OJC    Ojcow            6.08  31  eP     Pn    08 31 35.7 +0.3
STHS   Stebnicka Huta   6.08  42  ePn    Pn    08 31 36.8 +1.3
       comp=Z,38nm,0.9s
STHS                              e            08 31 42.9
STHS                              eSg    Sg    08 33 30.2  +10
STHS   Stebnicka Huta   6.08  42  eP     Pn    08 31 36.8 +1.3
STHS                               pmax  pmax
       comp=Z,38nm,0.9s
STHS   Stebnicka Huta   6.08  42  ePN    Pn    08 31 36.8 +1.3
STHS                              e            08 31 42.9
STHS   Stebnicka Huta   6.08  42  eSG    Sg    08 33 30.2  +10
STHS   Stebnicka Huta   6.08  42  eP     Pn    08 31 36.8 +1.3
       comp=Z,38nm,0.9s
UZH    Uzhgorod         6.15  52  eP     Pn    08 31 37.3 +0.9
UZH                               eS     Sn    08 32 45.9 -0.9
FRF    La Foret Royal   6.15 258  ePn    Pn    08 31 34.8 -1.6
FRF                               eSn    Sn    08 32 42.5 -4.4
FRF    La Foret Royal   6.15 258  ePn    Pn    08 31 34.8 -1.6
       SNR=1.0
FRF                               eSn    Sn    08 32 42.5 -4.4
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       comp=Z,95nm,0.5s,SNR=1.0
BRANT  Les Verrieres    6.18 290⇑iPn    Pn    08 31 37.4 +0.5
       comp=Z,124nm,1.1s
BRANT  Les Verrieres    6.18 290⇑iPn    Pn    08 31 37.4 +0.5
       comp=Z,124nm,1.1s
SERS   Sersale          6.19 167   Pn    Pn    08 31 37.2 +0.2
       comp=Z,100nm,1.0s
SERS   Sersale          6.19 167   Pn    Pn    08 31 37.2 +0.2
       comp=Z,100nm,1.0s
BIA    Bitola           6.20 129  eP     Pn    08 31 37.1 +0.1
BIA    Bitola           6.20 129  ePn    Pn    08 31 37.0  0.0
BIA    Bitola           6.20 129  ePn    Pn    08 31 37.0 -0.1
ECH    Echery           6.20 303   P     Pn    08 31 37.3 +0.2
HINF   Hinteralfeld     6.22 299  ePn    Pn    08 31 37.1 -0.3
HINF                              eSn    Sn    08 32 44.1 -4.5
HINF                              eSg    Sg    08 33 20.2 -4.7
HINF   Hinteralfeld     6.22 299  eP     Pn    08 31 37.1 -0.3
HINF                              e            08 32 44.1
HINF   Hinteralfeld     6.22 299  ePn    Pn    08 31 37.1 -0.3
       SNR=1.0
HINF                              eSn    Sn    08 32 44.1 -4.5
HINF                              eSg    Sg    08 33 20.2 -4.7
       comp=Z,258nm,0.8s
HINF   Hinteralfeld     6.22 299  ePn    Pn    08 31 37.1 -0.3
       SNR=1.0
HINF                              eSn    Sn    08 32 44.1 -4.5
HINF                              eSg    Sg    08 33 20.2 -4.7
       comp=Z,129nm,0.8s
CDF    Champ du Feu     6.23 305  ePn    Pn    08 31 37.0 -0.5
CDF                               eSg    Sg    08 33 21.5 -3.7
CDF    Champ du Feu     6.23 305  ePn    Pn    08 31 37.0 -0.5
       SNR=1.0
CDF                               eSg    Sg    08 33 21.5 -3.7
       comp=Z,371nm,0.8s
CDF    Champ du Feu     6.23 305  ePn    Pn    08 31 37.0 -0.5
       SNR=1.0
CDF                               eSg    Sg    08 33 21.5 -3.7
       comp=Z,186nm,0.8s
LANF   Langenberg       6.24 311   P     Pn    08 31 37.6  0.0
STIP   Stip             6.27 120  eS     Sb    08 33 16.5 +6.6
STIP   Stip             6.27 120  ePn    Pn    08 31 37.7 -0.4
STIP   Stip             6.27 120  ePn    Pn    08 31 37.7 -0.4
KOLS   Kolonicke sedl   6.30  50  ePn    Pn    08 31 44.1 +5.6
KOLS                              e            08 32 11.1
KOLS                              eSg    Sg    08 33 42.0  +14
KOLS   Kolonicke sedl   6.30  50  ePN    Pn    08 31 44.1 +5.6
KOLS                              e            08 32 11.1
KOLS   Kolonicke sedl   6.30  50  eSG    Sg    08 33 42.0  +14
LMR    La Mourre        6.32 257  ePn    Pn    08 31 37.3 -1.4
LMR                               eSn    Sn    08 32 46.8 -4.2
LMR    La Mourre        6.32 257  ePn    Pn    08 31 37.3 -1.4
       SNR=1.0
LMR                               eSn    Sn    08 32 46.8 -4.2
       comp=Z,42nm,0.3s,SNR=1.0
CLL    Collm            6.35 349  i Pn   Pn    08 31 38.8 -0.3
       comp=Z,33nm,0.5s
CLL                               i Sn   Sn    08 32 47.2 -4.5
CLL                               i Sg   Sg    08 33 34.9 +5.9
CLL    Collm            6.35 349  i P    Pn    08 31 38.8 -0.3
CLL                               i            08 32 47.2
CLL                                pmax  pmax
       comp=Z,33nm,0.5s
CLL    Collm            6.35 349  ePn    Pn    08 31 38.6 -0.5
CLL                               eSn    Sn    08 32 49.7 -2.0
CLL    Collm            6.35 349⇑iPn    Pn    08 31 38.8 -0.3
       comp=Z,33nm,0.5s
CLL                               ex     x     08 31 40.0
CLL                               i x    x     08 31 43.9
CLL                               ePg    Pg    08 32 07.0 +0.1
CLL                               ex     x     08 32 27.0
CLL                               i Sn   Sn    08 32 47.2 -4.5
CLL                               ex     x     08 33 26.0
CLL                               i Sg   Sg    08 33 34.9 +5.9
       comp=Z,383nm,1.2s
CLL    Collm            6.35 349  i Pn   Pn    08 31 38.8 -0.3
       comp=Z,33nm,0.5s
CLL                               i Sn   Sn    08 32 47.2 -4.5
OG25   Le Caire         6.37 267   P     Pn    08 31 38.9 -0.5
CABF   La Chapelle      6.37 287  ePn    Pn    08 31 39.4 -0.1
CABF                              eSg    Sg    08 33 27.4 -2.5
CABF   La Chapelle      6.37 287  ePn    Pn    08 31 39.4 -0.1
       SNR=1.0
CABF                              eSg    Sg    08 33 27.4 -2.5
       comp=Z,130nm,0.7s,SNR=1.0
CABF   La Chapelle      6.37 287  ePn    Pn    08 31 39.4 -0.1
       SNR=1.0
CABF                              eSg    Sg    08 33 27.4 -2.5
       comp=Z,65nm,0.7s,SNR=1.0
FNA    Florina          6.39 130  eP     Pn    08 31 40.0 +0.3
ORIF   Oris-en-Rattie   6.43 272  ePn    Pn    08 31 40.3  0.0
ORIF                              eSn    Sn    08 32 50.3 -3.6
ORIF   Oris-en-Rattie   6.43 272  ePn    Pn    08 31 40.3  0.0
       SNR=1.0
ORIF                              eSn    Sn    08 32 50.3 -3.6
       comp=Z,276nm,0.5s
ORIF                              eMLR   MLR
       comp=Z,327nm,16.2s
ORIF   Oris-en-Rattie   6.43 272  ePn    Pn    08 31 40.3  0.0
       SNR=1.0
ORIF                              eSn    Sn    08 32 50.3 -3.6
       comp=Z,138nm,0.5s
KEK    Kerkira          6.47 145   Pn    Pn    08 31 40.1 -0.7
       comp=Z,127nm,0.6s
KEK    Kerkira          6.47 145   Pn    Pn    08 31 40.1 -0.7
       comp=Z,127nm,0.6s
VTS    Vitosha          6.47 110  eP     Pn    08 31 41.3 +0.4
VTS    Vitosha          6.47 110⇑iP     Pn    08 31 41.4 +0.5
VTS    Vitosha          6.47 110  i P    Pn    08 31 41.8 +0.9
STOF   St-Etienne Org   6.55 264   P     Pn    08 31 43.5 +1.5
HAU    Haudompre        6.61 299  ePn    Pn    08 31 42.2 -0.5
HAU                               eSn    Sn    08 32 52.8 -5.3
HAU    Haudompre        6.61 299  ePn    Pn    08 31 42.2 -0.5
       SNR=1.0
HAU                               eSn    Sn    08 32 52.8 -5.3
       comp=Z,152nm,0.4s,SNR=1.0
HAU                               eMLR   MLR
       comp=Z,549nm,16.0s
HAU    Haudompre        6.61 299  ePn    Pn    08 31 42.2 -0.5
       SNR=1.0
HAU                               eSn    Sn    08 32 52.8 -5.3
       comp=Z,76nm,0.4s,SNR=1.0
VAY    Valandovo        6.72 121  eP     Pn    08 31 45.3 +1.0
VAY    Valandovo        6.72 121  ePn    Pn    08 31 45.2 +0.9
VAY    Valandovo        6.72 121  ePn    Pn    08 31 45.1 +0.8
OG05   Jujurieux        6.73 281   P     Pn    08 31 44.8 +0.4
OG05                               S     Sn    08 33 00.9 -0.3
KKB    Krupnik          6.74 116  i P    Pn    08 31 46.0 +1.5
TNS    Taunus Mts       6.75 322  ePn    Pn    08 31 45.3 +0.7
TNS                               eSn    Sn    08 33 01.3 -0.3
TNS    Taunus Mts       6.75 322  ePn    Pn    08 31 45.3 +0.7
TNS                               eSn    Sn    08 33 01.3 -0.3
SMRF   Simiane la Rot   6.79 264  ePn    Pn    08 31 44.1 -1.2
SMRF                              eSn    Sn    08 32 58.4 -4.4
SMRF   Simiane la Rot   6.79 264  ePn    Pn    08 31 44.1 -1.2
       SNR=1.0
SMRF                              eSn    Sn    08 32 58.4 -4.4
       comp=Z,59nm,0.6s
SMRF   Simiane la Rot   6.79 264  ePn    Pn    08 31 44.1 -1.2
       SNR=1.0
SMRF                              eSn    Sn    08 32 58.4 -4.4
       comp=Z,30nm,0.6s
GRG    Griva            6.85 125  eP     Pn    08 31 46.5 +0.5
OCF    Saint Nazaire    6.88 269   P     Pn    08 31 46.5 +0.1
OG26   St.-Nazaire-De   6.88 269   P     Pn    08 31 46.5 +0.1
THEF   They Montfort    6.92 300   P     Pn    08 31 47.3 +0.4
ABH    Alteburg         6.93 316   P     Pn    08 31 48.0 +0.9
KWP    Kalwaria         6.95  46  ePn    Pn    08 31 49.6 +2.2
KWP                               eSn    Sn    08 33 05.1 -1.4
KWP    Kalwaria         6.95  46  ePn    Pn    08 31 49.5 +2.1
KWP                               ePn    Pn    08 31 49.6 +2.2
KWP                               eSn    Sn    08 33 05.1 -1.4
KWP    Kalwaria         6.95  46  eP     Pn    08 31 49.5 +2.1
KWP                               e            08 33 05.1
VSL    Villasalto       6.96 218   Pn    Pn    08 31 48.3 +0.8
       comp=Z,57nm,0.7s
VSL                               ePn    Pn    08 31 48.7 +1.2
VSL                               eSn    Sn    08 33 04.2 -2.5
VSL    Villasalto       6.96 218   Pn    Pn    08 31 48.3 +0.8
       comp=Z,57nm,0.7s
VSL    Villasalto       6.96 218   Pn    Pn    08 31 48.3 +0.8
       comp=Z,57nm,0.7s
KNT    Kendrikon        7.02 121  eP     Pn    08 31 49.0 +0.6
GELF   Grande-Etoile    7.05 259   P     Pn    08 31 49.0 +0.2
RUP    Ruppelstein      7.06 314   P     Pn    08 31 50.3 +1.4
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PRAF   Pradon           7.12 263   P     Pn    08 31 49.9 +0.2
VOIR                    7.13  84 ⇓P     Pn    08 31 50.1 +0.2
VOIR                    7.13  84⇓iP     Pn    08 31 50.1 +0.2
MMB    Musomiste        7.29 116  i P    Pn    08 31 53.0 +0.9
VIVF   Saint-Julien-l   7.29 272  ePn    Pn    08 31 50.5 -1.6
VIVF                              eSn    Sn    08 33 10.9 -4.2
VIVF   Saint-Julien-l   7.29 272  ePn    Pn    08 31 50.5 -1.6
       SNR=1.0
VIVF                              eSn    Sn    08 33 10.9 -4.2
       comp=Z,109nm,0.7s
VIVF   Saint-Julien-l   7.29 272  ePn    Pn    08 31 50.5 -1.6
       SNR=1.0
VIVF                              eSn    Sn    08 33 10.9 -4.2
       comp=Z,55nm,0.7s
RFYF   Reffroy          7.39 302  ePn    Pn    08 31 51.5 -2.0
RFYF   Reffroy          7.39 302  ePn    Pn    08 31 51.5 -2.0
       baz=119
RFYF   Reffroy          7.39 302  ePn    Pn    08 31 51.5 -2.0
CLZ    Clausthal        7.40 337  ePn    Pn    08 31 54.8 +1.2
CLZ    Clausthal        7.40 337  ePn    Pn    08 31 54.8 +1.2
SRS    Serrai           7.47 119  eP     Pn    08 31 55.4 +0.9
SFTF   Sexfontaines     7.50 298  ePn    Pn    08 31 53.1 -1.8
SFTF   Sexfontaines     7.50 298  ePn    Pn    08 31 53.1 -1.8
SFTF   Sexfontaines     7.50 298  ePn    Pn    08 31 53.1 -1.8
SOH    Sokhos           7.50 122  eP     Pn    08 31 55.6 +0.6
WLF    Walferdange      7.52 311  ePn    Pn    08 31 58.8 +3.6
BURAR  Bucovina Array   7.54  67⇓iP     Pn    08 31 55.2 -0.2
BURAR  Bucovina Array   7.54  67   P     Pn    08 31 58.1 +2.7
MEZF   Maizieres J'vi   7.60 300  ePn    Pn    08 31 53.9 -2.4
MEZF   Maizieres J'vi   7.60 300  ePn    Pn    08 31 53.9 -2.4
MEZF   Maizieres J'vi   7.60 300  ePn    Pn    08 31 53.9 -2.4
VAE    Valguarnera      7.62 183   LR    LR    08 35 18.0
       comp=Z,192nm,21.6s,baz=131,slow=41
LKD    Levkas           7.67 144  eP     Pn    08 31 55.9 -1.4
PVL    Pavlikeni        7.70 100  i P    Pn    08 31 56.0 -1.7
MLR    Muntele Rosu     7.76  83 ⇑P     Pn    08 31 58.7 +0.1
MLR                                P           08 32 06.7
MLR    Muntele Rosu     7.76  83   P     Pn    08 32 01.0 +2.4
MLR                                pmax  pmax
       comp=Z,1.0nm,0.3s
MLR                                MLR   MLR
       comp=Z,122nm,19.8s
MLR    Muntele Rosu     7.76  83   Pn    Pn    08 32 01.0 +2.5
       comp=Z,0.9nm,0.3s,baz=284,slow=5.5,SNR=8.7
MLR                                LR    LR    08 34 59.1
       comp=Z,122nm,19.8s,baz=281,slow=37
MLR    Muntele Rosu     7.76  83⇑iP     Pn    08 31 58.7 +0.1
PLG    Polygyros        7.83 124  eP     Pn    08 31 60.0 +0.5
RZN    Rozhen           7.88 112  i P    Pn    08 32 00.0 -0.2
SMF    Signal de Mont   7.91 285  ePn    Pn    08 31 59.8 -0.7
SMF                               eSn    Sn    08 33 24.7 -5.4
SMF    Signal de Mont   7.91 285  ePn    Pn    08 31 59.8 -0.7
       SNR=1.0
SMF                               eSn    Sn    08 33 24.7 -5.4
       comp=Z,65nm,0.4s,SNR=1.0
SMF    Signal de Mont   7.91 285  ePn    Pn    08 31 59.8 -0.7
       SNR=1.0
SMF                               eSn    Sn    08 33 24.7 -5.4
       comp=Z,32nm,0.4s,SNR=1.0
COLF   Collangettes     7.95 277   P     Pn    08 32 00.0 -1.1
LASF   Ste Croix        7.99 267  ePn    Pn    08 31 59.0 -2.6
LASF                              eSn    Sn    08 33 27.5 -4.6
LASF   Ste Croix        7.99 267  ePn    Pn    08 31 59.0 -2.6
LASF                              eSn    Sn    08 33 27.5 -4.6
       comp=Z,68nm,0.6s
LASF   Ste Croix        7.99 267  ePn    Pn    08 31 59.0 -2.6
LASF                              eSn    Sn    08 33 27.5 -4.6
       comp=Z,34nm,0.6s
LOR    Lormes           8.00 290  ePn    Pn    08 32 01.0 -0.8
LOR                               eSn    Sn    08 33 26.6 -5.8
LOR    Lormes           8.00 290  ePn    Pn    08 32 01.0 -0.8
       baz=113,SNR=1.0
LOR                               eSn    Sn    08 33 26.6 -5.8
       comp=Z,70nm,0.5s
LOR                               eMLR   MLR
       comp=Z,493nm,15.2s
LOR    Lormes           8.00 290  ePn    Pn    08 32 01.0 -0.8
       SNR=1.0
LOR                               eSn    Sn    08 33 26.6 -5.8
       comp=Z,35nm,0.5s
PLDF   La Plantade      8.01 280   P     Pn    08 32 01.3 -0.6
PLDF   La Plantade      8.01 280   Pg    Pn    08 32 01.3 -0.6
NRDL   Niedersach Rie   8.06 338  ePn    Pn    08 32 04.8 +2.2
SZH    Strazhica        8.10  99  i P    Pn    08 32 04.0 +0.8
MEM    Membach          8.16 316   P     Pn    08 32 05.0 +1.1
MEM    Membach          8.16 316   P     Pn    08 32 05.0 +1.1
SSF    Saint Saulge     8.20 288  ePn    Pn    08 32 03.8 -0.7
SSF                               eSn    Sn    08 33 32.5 -4.7
SSF    Saint Saulge     8.20 288  ePn    Pn    08 32 03.8 -0.7
       SNR=1.0
SSF                               eSn    Sn    08 33 32.5 -4.7
       comp=Z,33nm,0.5s,SNR=1.0
SSF    Saint Saulge     8.20 288  ePn    Pn    08 32 03.8 -0.7
       SNR=1.0
SSF                               eSn    Sn    08 33 32.5 -4.7
       comp=Z,17nm,0.5s,SNR=1.0
AVF    Avril sur Loir   8.26 286  ePn    Pn    08 32 04.5 -0.9
AVF    Avril sur Loir   8.26 286  ePn    Pn    08 32 04.5 -0.9
       SNR=1.0
AVF    Avril sur Loir   8.26 286  ePn    Pn    08 32 04.5 -0.9
       SNR=1.0
LBL    Lubilhac         8.27 275   P     Pn    08 32 04.6 -1.0
HGN    Heimansgroeve    8.29 316⇑eP     Pn    08 32 07.6 +1.8
GKP    Gorka Klasztor   8.31  10  eP     Pn    08 32 07.6 +1.6
AGO    Saint Agoulin    8.35 281   P     Pn    08 32 06.0 -0.6
AGO    Saint Agoulin    8.35 281   Pg    Pn    08 32 06.0 -0.6
KDZ    Kurdzhali        8.37 111  i P    Pn    08 32 09.0 +2.2
BCLA   Clavier          8.40 313   P     Pn    08 32 08.2 +0.9
PYM    Petit Puy Mans   8.43 279   P     Pn    08 32 06.5 -1.2
PYM    Petit Puy Mans   8.43 279   Pg    Pn    08 32 06.5 -1.2
GIVF   Givet            8.48 310  ePn    Pn    08 32 06.2 -2.1
GIVF                              eP           08 32 10.6
GIVF                              eSg    Sn    08 34 31.7  +48
GIVF   Givet            8.48 310  ePn    Pn    08 32 06.2 -2.1
GIVF   Givet            8.48 310  eP     Pn    08 32 10.6 +2.3
       SNR=1.0
GIVF                              eSg    Sn    08 34 31.7  +48
       comp=Z,256nm,1.1s
GIVF   Givet            8.48 310  ePn    Pn    08 32 06.2 -2.1
GIVF   Givet            8.48 310  eP     Pn    08 32 10.6 +2.3
       SNR=1.0
GIVF                              eSg    Sn    08 34 31.7  +48
       comp=Z,128nm,1.1s
BGF    Bois d'Agland    8.58 284  ePn    Pn    08 32 08.8 -0.9
BGF                               eSn    Sn    08 33 41.1 -5.5
BGF    Bois d'Agland    8.58 284  ePn    Pn    08 32 08.8 -0.9
       SNR=1.0
BGF                               eSn    Sn    08 33 41.1 -5.5
       comp=Z,134nm,0.6s
BGF    Bois d'Agland    8.58 284  ePn    Pn    08 32 08.8 -0.9
       SNR=1.0
BGF                               eSn    Sn    08 33 41.1 -5.5
       comp=Z,67nm,0.6s
WTSB   Winterswijk      8.74 325  eP     Pn    08 32 08.9 -3.1
BAIF   Baives           8.79 308  eP     Pn    08 32 14.4 +1.8
       SNR=1.0
BAIF                              eSg    Sn    08 34 41.5  +50
       comp=Z,297nm,1.3s
BAIF   Baives           8.79 308  eP     Pn    08 32 14.4 +1.8
       SNR=1.0
BAIF                              eSg    Sn    08 34 41.5  +50
       comp=Z,149nm,1.3s
TCF    Toulx Ste Croi   9.00 282  ePn    Pn    08 32 14.6 -0.9
TCF                               eSn    Sn    08 33 51.3 -5.6
TCF    Toulx Ste Croi   9.00 282  ePn    Pn    08 32 14.6 -0.9
       SNR=1.0
TCF                               eSn    Sn    08 33 51.3 -5.6
       comp=Z,52nm,0.6s
TCF    Toulx Ste Croi   9.00 282  ePn    Pn    08 32 14.6 -0.9
       SNR=1.0
TCF                               eSn    Sn    08 33 51.3 -5.6
       comp=Z,26nm,0.6s
EJON   La Jonquera      9.12 257   P     Pn    08 32 21.9 +4.7
       comp=Z,5.0nm,0.6s
EJON   La Jonquera      9.12 257   P     Pn    08 32 21.9 +4.7
       comp=Z,5.0nm,0.6s
CAF    Calviac          9.13 273  ePn    Pn    08 32 15.7 -1.6
CAF                               eSn    Sn    08 33 54.8 -5.4
CAF    Calviac          9.13 273  ePn    Pn    08 32 15.7 -1.6
CAF                               eSn    Sn    08 33 54.8 -5.4
       comp=Z,30nm,0.5s
CAF    Calviac          9.13 273  ePn    Pn    08 32 15.7 -1.6
CAF                               eSn    Sn    08 33 54.8 -5.4
       comp=Z,15nm,0.5s
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MTLF	**Montolieu**	**9.31**	**264**	*e*Pn	**Pn**	**08 32 19.5**	**-0.3**
MTLF				*e*Pg	Pn	08 32 59.5	+40
MTLF				*e*Sn	**Sn**	**08 33 59.4**	**-5.3**
MTLF	**Montolieu**	**9.31**	**264**	*e*Pn	**Pn**	**08 32 19.5**	**-0.3**
	SNR=1.0						
MTLF	**Montolieu**	**9.31**	**264**	*e*Pg	Pn	08 32 59.5	+40
	SNR=1.0						
MTLF				*e*Sn	**Sn**	**08 33 59.4**	**-5.3**
	comp=Z,10nm,0.5s						
MTLF	**Montolieu**	**9.31**	**264**	*e*Pg	Pn	08 32 59.5	+40
	SNR=1.0						
MTLF				*e*Sn	**Sn**	**08 33 59.4**	**-5.3**
	comp=Z,5.1nm,0.5s						
RJF	**Les Rejaudoux**	**9.49**	**276**	*e*Pn	**Pn**	**08 32 21.9**	**-0.3**
RJF				*e*Sn	**Sn**	**08 34 03.5**	**-5.5**
RJF	**Les Rejaudoux**	**9.49**	**276**	*e*Pn	**Pn**	**08 32 21.9**	**-0.3**
RJF				*e*Sn	**Sn**	**08 34 03.5**	**-5.5**
	comp=Z,34nm,0.7s						
RJF				*e*MLR	MLR		
	comp=Z,290nm,19.2s						
RJF	**Les Rejaudoux**	**9.49**	**276**	*e*Pn	**Pn**	**08 32 21.9**	**-0.3**
RJF				*e*Sn	**Sn**	**08 34 03.5**	**-5.5**
	comp=Z,17nm,0.7s						
LFF	**La Frestale**	**10.07**	**274**	*e*Pn	**Pn**	**08 32 28.9**	**-1.2**
LFF	**La Frestale**	**10.07**	**274**	*e*Pn	**Pn**	**08 32 28.9**	**-1.2**
LFF	**La Frestale**	**10.07**	**274**	*e*Pn	**Pn**	**08 32 28.9**	**-1.2**
EMIR	**Miracle**	**10.26**	**257**	P	**Pn**	**08 32 37.2**	**+4.5**
	comp=Z,4.7nm,0.6s						
EMIR	**Miracle**	**10.26**	**257**	P	**Pn**	**08 32 37.2**	**+4.4**
	comp=Z,4.7nm,0.6s						
KEST	**Kesra**	**10.28**	**206**	Pn	**Pn**	**08 32 37.0**	**+3.9**
	comp=Z,0.4nm,0.3s,baz=325,slow=14,SNR=4.6						
ETOS	**Mallorca**	**10.43**	**244**	P	**Pn**	**08 32 39.5**	**+4.4**
	comp=Z,4.5nm,0.4s						
MFF	**Saint Martin d**	**10.64**	**283**	*e*Pn	**Pn**	**08 32 38.5**	**+0.5**
MFF				*e*Sn	**Sn**	**08 34 30.9**	**-6.3**
MFF	**Saint Martin d**	**10.64**	**283**	*e*Pn	**Pn**	**08 32 38.5**	**+0.5**
	SNR=1.0						
MFF				*e*Sn	**Sn**	**08 34 30.9**	**-6.3**
	comp=Z,28nm,0.7s						
MFF	**Saint Martin d**	**10.64**	**283**	*e*Pn	**Pn**	**08 32 38.5**	**+0.5**
	SNR=1.0						
MFF				*e*Sn	**Sn**	**08 34 30.9**	**-6.3**
	comp=Z,14nm,0.7s						
EPF	**Esparros**	**10.72**	**264**	*e*Pn	**Pn**	**08 32 38.7**	**-0.3**
EPF	**Esparros**	**10.72**	**264**	*e*Pn	**Pn**	**08 32 38.7**	**-0.3**
EPOB	**Poblet**	**10.79**	**255**	P	**Pn**	**08 32 43.5**	**+3.5**
	comp=Z,2.6nm,0.6s						
EPOB	**Poblet**	**10.79**	**255**	P	**Pn**	**08 32 43.5**	**+3.4**
	comp=Z,2.6nm,0.6s						
LDF	**La Druitiere**	**10.90**	**294**	*e*Pn	**Pn**	**08 32 42.0**	**+0.5**
	SNR=1.0						
LDF	**La Druitiere**	**10.90**	**294**	*e*Pn	**Pn**	**08 32 42.0**	**+0.5**
	SNR=1.0						
EBIE	**Bielsa**	**10.96**	**263**	P	**Pn**	**08 32 45.7**	**+3.4**
	comp=Z,4.2nm,0.5s						
EBIE	**Bielsa**	**10.96**	**263**	P	**Pn**	**08 32 45.7**	**+3.4**
	comp=Z,4.2nm,0.5s						
AKASG	**Malin Array Be**	**11.09**	**55**	Pn	**Pn**	**08 32 43.9**	**-0.2**
AKASG				Sn	**Sn**	**08 34 46.2**	**-2.1**
AKASG	**Malin Array Be**	**11.09**	**55**	Pn	**Pn**	**08 32 43.9**	**-0.2**
	comp=Z,0.4nm,0.3s,baz=245,slow=13,SNR=3.7						
AKASG				Sn	**Sn**	**08 34 46.2**	**-2.1**
	comp=Z,0.5nm,0.3s,baz=245,slow=24,SNR=4.2						
AKASG	**Malin Array Be**	**11.09**	**55**	Pn	**Pn**	**08 32 43.9**	**-0.2**
AKASG				Sn	**Sn**	**08 34 46.2**	**-2.1**
FLN	**La Foliniere**	**11.17**	**295**	*e*Pn	**Pn**	**08 32 44.1**	**-1.1**
	baz=110,SNR=1.0						
FLN				*e*MLR	MLR		
	comp=Z,431nm,13.2s						
FLN	**La Foliniere**	**11.17**	**295**	*e*Pn	**Pn**	**08 32 44.1**	**-1.1**
	SNR=1.0						
GRR	**Gorron**	**11.34**	**292**	*e*Pn	**Pn**	**08 32 46.6**	**-0.9**
	SNR=1.0						
GRR	**Gorron**	**11.34**	**292**	*e*Pn	**Pn**	**08 32 46.6**	**-0.9**
	SNR=1.0						
ETSF	**Etsaut**	**11.39**	**264**	*e*Pn	**Pn**	**08 32 48.0**	**-0.2**
ETSF	**Etsaut**	**11.39**	**264**	*e*Pn	**Pn**	**08 32 48.0**	**-0.2**
ERTA	**Horta de San J**	**11.47**	**254**	P	**Pn**	**08 32 52.5**	**+3.2**
	comp=Z,5.5nm,0.9s						
ERTA	**Horta de San J**	**11.47**	**254**	P	**Pn**	**08 32 52.5**	**+3.1**
	comp=Z,5.5nm,0.9s						
SJPF	**Ste Jean**	**11.80**	**266**	*e*Pn	**Pn**	**08 32 52.6**	**-1.2**
SJPF	**Ste Jean**	**11.80**	**266**	*e*Pn	**Pn**	**08 32 52.6**	**-1.2**
IDI	**Anoyia**	**12.39**	**139**	Pn	**Pn**	**08 33 03.8**	**+1.9**
IDI				Sn	**Sn**	**08 35 22.6**	**+2.5**
IDI	**Anoyia**	**12.39**	**139**	Pn	**Pn**	**08 33 03.8**	**+1.9**
	comp=Z,2.7nm,0.3s,baz=332,slow=11,SNR=7.6						
IDI				Sn	**Sn**	**08 35 22.6**	**+2.5**
	comp=Z,7.0nm,0.3s,baz=50,slow=20,SNR=10						
SGMF	**Saint Gilles**	**12.43**	**291**	*e*Pn	**Pn**	**08 33 01.5**	**-0.9**
	SNR=1.0						
SGMF	**Saint Gilles**	**12.43**	**291**	*e*Pn	**Pn**	**08 33 01.5**	**-0.9**
	SNR=1.0						
QUIF	**Quistinic**	**12.79**	**289**	*e*Pn	**Pn**	**08 33 07.6**	**+0.2**
	SNR=1.0						
QUIF	**Quistinic**	**12.79**	**289**	*e*Pn	**Pn**	**08 33 07.6**	**+0.2**
	SNR=1.0						
ROSF	**Rostrenen**	**12.92**	**291**	*e*Pn	**Pn**	**08 33 09.2**	**+0.1**
ROSF	**Rostrenen**	**12.92**	**291**	*e*Pn	**Pn**	**08 33 09.2**	**+0.1**
EARI	**Arriondas**	**14.57**	**270**	P	**Pn**	**08 33 33.5**	**+1.8**
	comp=Z,4.4nm,0.5s						
EARI	**Arriondas**	**14.57**	**270**	P	**Pn**	**08 33 33.5**	**+1.8**
	comp=Z,4.4nm,0.5s						
GUD	**Guadarrama**	**14.69**	**259**	P	**Pn**	**08 33 36.6**	**+3.2**
GUD	**Guadarrama**	**14.69**	**259**	P	**Pn**	**08 33 36.6**	**+3.2**
BRTR	**Keskin Array B**	**14.80**	**105**	Pn	**Pn**	**08 33 37.0**	**+2.2**
BRTR	**Keskin Array B**	**14.80**	**105**	Pn	**Pn**	**08 33 37.0**	**+2.2**
	comp=Z,0.0nm,0.3s,baz=317,slow=10,SNR=2.6						
ESDC	**Sonseca Array**	**14.98**	**255**	Pn	**Pn**	**08 33 37.5**	**+0.2**
	comp=Z,0.5nm,0.3s,baz=60,slow=11,SNR=5.1						
ESDC	**Sonseca Array**	**14.98**	**255**	P	**Pn**	**08 33 39.0**	**+1.7**
	comp=Z,9.1nm,0.6s						
ESLA	**Sonseca Array**	**14.98**	**255**	Pn	**Pn**	**08 33 33.7**	**-3.6**
	comp=Z,5.4nm,1.0s						
HFS	**Hagfors**	**15.08**	**358**	Pn	**Pn**	**08 33 37.6**	**-0.8**
HFS	**Hagfors**	**15.08**	**358**	Pn	**Pn**	**08 33 37.6**	**-0.8**
	comp=Z,0.1nm,0.3s,baz=159,slow=17,SNR=3.9						
VSU	**Vasula**	**15.21**	**24**	*e*P	**Pn**	**08 33 42.0**	**+1.9**
EKA	**Eskdalemuir Ar**	**15.42**	**318**	Pn	**Pn**	**08 33 42.2**	**-0.8**
EKA	**Eskdalemuir Ar**	**15.42**	**318**	Pn	**Pn**	**08 33 42.2**	**-0.8**
	comp=Z,0.1nm,0.3s,baz=126,slow=13,SNR=3.2						
ANN	**Anapa**	**15.92**	**83**	*e*P	**Pn**	**08 33 52.3**	**+2.8**
ANN				pmax	pmax		
	comp=Z,33nm,1.3s						
ANN				MLR	MLR		
	comp=Z,295nm,14.0s						
EPON	**Pontenova**	**15.94**	**271**	P	**Pn**	**08 33 51.0**	**+1.2**
	comp=Z,9.1nm,0.9s						
EPON	**Pontenova**	**15.94**	**271**	P	**Pn**	**08 33 51.0**	**+1.2**
	comp=Z,9.1nm,0.9s						
ECAL	**Calabor**	**16.04**	**266**	P	**Pn**	**08 33 51.5**	**+0.4**
	comp=Z,7.3nm,0.8s						
ECAL	**Calabor**	**16.04**	**266**	P	**Pn**	**08 33 51.5**	**+0.4**
	comp=Z,7.3nm,0.8s						
PBRG	**Braganca**	**16.09**	**266**	*e*P	**Pn**	**08 33 56.3**	**+4.6**
	comp=Z,11nm,1.0s						
NB2	**NORSAR Subarra**	**16.12**	**353**	P	**Pn**	**08 33 54.7**	**+2.7**
	comp=Z,14nm,0.8s,baz=168,slow=11						
NOA	**NORSAR Array B**	**16.12**	**353**	Pn	**Pn**	**08 33 50.8**	**-1.3**
NOA				LR	LR	08 40 25.8	
NOA	**NORSAR Array B**	**16.12**	**353**	Pn	**Pn**	**08 33 50.8**	**-1.3**
	comp=Z,0.2nm,0.3s,baz=168,slow=11,SNR=3.0						
NOA				LR	LR	08 40 25.8	
	comp=Z,90nm,18.7s,baz=270,slow=38						
EADA	**Adamuz**	**16.14**	**251**	P	**Pn**	**08 33 53.4**	**+1.0**
	comp=Z,4.5nm,0.9s						
EADA	**Adamuz**	**16.14**	**251**	P	**Pn**	**08 33 53.4**	**+1.0**
	comp=Z,4.5nm,0.9s						
MVO	**Moncorvo**	**16.51**	**264**	*e*P	**Pn**	**08 34 01.1**	**+4.0**
PVRL	**Vila Real**	**16.95**	**265**	*e*P	**Pn**	**08 34 07.7**	**+4.9**
OBN	**Obninsk**	**17.04**	**46**⇓	*e*P	**Pn**	**08 34 06.1**	**+2.4**
OBN				pmax	pmax		
	comp=Z,15nm,1.3s						
OBN				MLR	MLR		
	comp=Z,100nm,15.0s						
OBN	**Obninsk**	**17.04**	**46**	*e*P	**Pn**	**08 34 06.1**	**+2.4**
	comp=Z,100nm,15.0s						
MTE	**Manteigas**	**17.16**	**262**	*e*P	**Pn**	**08 34 06.8**	**+1.4**
PCBR	**Castelo Branco**	**17.34**	**260**	*e*P	**Pn**	**08 34 10.4**	**+2.8**
	comp=Z,6.8nm,0.8s						
EBAD	**Badajoz**	**17.50**	**256**	P	**Pn**	**08 34 08.6**	**-1.1**
	comp=Z,5.9nm,1.1s						
FINES	**FINESS Array B**	**17.63**	**18**	P	**Pn**	**08 34 11.7**	**+0.6**
	comp=Z,0.3nm,0.3s,baz=195,slow=8.8,SNR=12						
FINES				LR	LR	08 41 24.6	
	comp=Z,176nm,18.2s,slow=38						
FIA1	**FINESS Array S**	**17.63**	**18**	*e*P	**Pn**	**08 34 14.0**	**+3.0**
FIA1	**FINESS Array S**	**17.63**	**18**	*e*P	**Pn**	**08 34 14.0**	**+3.0**
MDT	**Midelt**	**19.48**	**238**	P	**Pn**	**08 34 33.3**	**-0.5**
	comp=Z,0.1nm,0.3s,baz=52,slow=10,SNR=2.6						
MDT				LR	LR	08 41 37.7	
	comp=Z,86nm,19.3s,baz=45,slow=36						
KIV	**Kislovodsk**	**19.77**	**83**	*e*P	**Pn**	**08 34 35.1**	**-2.1**
KIV				pmax	pmax		
	comp=Z,12nm,0.9s						
KIV				MLR	MLR		
	comp=Z,38nm,12.0s						
KIV	**Kislovodsk**	**19.77**	**83**	*e*P	**Pn**	**08 34 35.1**	**-2.1**
	comp=Z,38nm,12.0s						
MMAI	**Mount Meron Ar**	**19.88**	**120**	P	**Pn**	**08 34 37.0**	**-1.6**
	comp=Z,1.4nm,0.3s,baz=312,slow=11,SNR=4.7						
JOF	**Joensuu**	**20.16**	**22**	*e*p	**P**	**08 34 42.0**	**+2.2**
	comp=Z,6.5nm,0.6s						
ZEI	**Tsey**	**20.93**	**86**	*e*P	**P**	**08 34 46.2**	**-2.1**
ZEI				*i*		08 34 53.9	
ASF	**Jabal al Asfar**	**21.38**	**120**	P	**P**	**08 34 55.9**	**+2.7**
	comp=Z,5.3nm,0.8s,mb3.9,baz=157,slow=13,SNR=4.2						
EIL	**Elat**	**22.04**	**128**	P	**P**	**08 35 01.9**	**+1.6**
	comp=Z,3.6nm,0.5s,mb4.0,baz=352,slow=12,SNR=2.9						
PRGR	**Permogore**	**24.34**	**36**	*e*P	**P**	**08 35 27.4**	**+4.2**
PRGR				*e*		08 36 01.2	
PRGR				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.5						
ARCES	**ARCESS Array B**	**25.08**	**9**	P	**P**	**08 35 29.5**	**-0.4**
ARCES	**ARCESS Array B**	**25.08**	**9**	P	**P**	**08 35 29.5**	**-0.4**
	comp=Z,3.9nm,0.9s,mb3.9,baz=183,slow=9.0,SNR=3.6						
AKTK	**Aktyubinsk**	**29.12**	**64**	P	**P**	**08 36 06.0**	**-0.3**
AKTK				LR	LR	08 48 45.4	
AKTO	**Aktyubinsk**	**29.12**	**64**	P	**P**	**08 36 06.0**	**-0.3**
	comp=Z,1.4nm,0.6s,mb3.9,baz=283,slow=14,SNR=4.2						
ARU	**Arti**	**29.32**	**51**⇓	*i*P	**P**	**08 36 07.5**	**-0.6**
ARU				*e*		08 37 00.4	
ARU				*e*S	**S**	**08 41 04.1**	**+2.8**
ARU				*e*SS	SS	08 42 33.3	-32
ARU				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
TORD	**Torodi Ar. Bea**	**33.79**	**204**	P	**P**	**08 36 45.4**	**-2.3**
TORD	**Torodi Ar. Bea**	**33.79**	**204**	P	**P**	**08 36 45.4**	**-2.3**
	comp=Z,1.0nm,0.4s,mb4.1,baz=12,slow=9.5,SNR=13						
EKS2	**Erkin-Say**	**41.66**	**72**	*e*P	**P**	**08 37 55.2**	**+1.1**
	comp=Z,3.8nm,0.6s,mb4.2						
KURK	**Kurchatov**	**41.87**	**59**	*e*P	**P**	**08 37 59.8**	**+4.2**
	comp=Z,7.2nm,0.9s,mb4.3						
KURK	**Kurchatov**	**41.87**	**59**	*e*P	**P**	**08 37 59.8**	**+4.1**
KURK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.3						
AAK	**Ala-Archa**	**42.16**	**71**	*e*P	**P**	**08 37 57.4**	**-0.7**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb3.9						
ZAL	**Zalesovo**	**44.47**	**52**	P	**P**	**08 38 14.9**	**-1.7**
ZALV	**Zalesovo Beam**	**44.48**	**52**	P	**P**	**08 38 14.9**	**-1.8**
	comp=Z,0.6nm,0.6s,mb3.5,baz=258,slow=2.8,SNR=3.4						
MK31	**Makanchi Array**	**45.54**	**63**	*e*P	**P**	**08 38 25.3**	**0.0**
MKAR	**Makanchi Array**	**45.54**	**63**	*i* P	**P**	**08 38 25.2**	**0.0**
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MKAR	**Makanchi Array**	**45.54**	**63**	P	**P**	**08 38 25.3**	**+0.1**
	comp=Z,3.2nm,0.7s,mb4.4,baz=283,slow=5.8,SNR=19						
SCHQ	**Schefferville**	**50.63**	**312**	P	**P**	**08 39 03.1**	**-1.4**
	comp=Z,3.7nm,0.7s,mb4.4,baz=76,slow=8.3,SNR=4.1						
TIXI	**Tiksi**	**54.65**	**21**	*e*P	**P**	**08 39 34.9**	**+0.9**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
SONM	**Songino Array**	**59.36**	**52**	P	**P**	**08 40 07.5**	**-0.2**
	comp=Z,0.6nm,0.7s,mb3.8,baz=291,slow=9.8,SNR=6.9						
YKA	**Yellowknife Ar**	**65.43**	**337**	P	**P**	**08 40 47.5**	**-0.6**
YKA	**Yellowknife Ar**	**65.43**	**337**	P	**P**	**08 40 47.5**	**-0.6**
	comp=Z,0.4nm,0.6s,mb3.6,baz=40,slow=5.8,SNR=6.7						
ULM	**Lac du Bonnet**	**67.69**	**320**	P	**P**	**08 41 01.2**	**-1.5**
	comp=Z,1.4nm,0.7s,mb4.1,baz=40,slow=7.9,SNR=4.7						
BOSA	**Boshof**	**73.96**	**171**	P	**P**	**08 41 39.0**	**-1.9**
BOSA	**Boshof**	**73.96**	**171**	P	**P**	**08 41 39.0**	**-1.9**
	comp=Z,2.3nm,0.6s,mb4.3,baz=212,slow=5.5,SNR=6.9						
NVAR	**Mina Array Bea**	**86.80**	**325**	P	**P**	**08 42 47.5**	**-2.6**
	comp=Z,0.1nm,0.3s,mb3.5,baz=80,slow=3.0,SNR=2.3						
TXAR	**Lajitas Array**	**87.26**	**310**	P	**P**	**08 42 52.9**	**+0.4**
TXAR	**Lajitas Array**	**87.26**	**310**	P	**P**	**08 42 52.9**	**+0.4**
	comp=Z,0.3nm,0.6s,mb3.7,baz=71,slow=5.4,SNR=4.4						

IDC 05 08:41:50.2±1.0,4578N×15402E,h0^{km},mb3.4/5, mb1 3.7/5,mb1mx3.5/19,mbtmp3.4/5,Error ellipse: s-maj=40.0km s-min=26.4km az=146.0,East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**47.95**	**299**	P	P	08 50 30.3	+0.1
	0.2nm,0.5s,baz=74,slow=6.6,SNR=3.3						
YKA	**Yellowknife Ar**	**51.33**	**36**	P	P	08 50 55.0	-0.7
	0.2nm,0.5s,baz=294,slow=6.8,SNR=3.8						
NVAR	**Mina Array Bea**	**62.32**	**62**	P	P	08 52 15.6	+1.5
	0.1nm,0.5s,baz=282,slow=4.5,SNR=2.1						
WRA	**Warramunga Arr**	**67.81**	**200**	P	P	08 52 49.9	+0.1
	0.6nm,0.8s,baz=19,slow=7.0,SNR=4.1						
TXAR	**Lajitas Array**	**77.42**	**61**	P	P	08 53 46.6	-0.6
	0.4nm,0.5s,baz=302,slow=4.3,SNR=8.3						

TRN 05 08:52:11.5,1524N×6076W,h34^{km},M3.2(FDF),1D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FDF	**Fort de France**	**0.63**	**217**⇓	*e*P	Pn	08 52 25.4	+1.4
FDF				*e*S	Sn	08 52 34.7	+1.8
BIM	**Bigot**	**0.78**	**203**	*e*P	Pn	08 52 27.6	+1.5
BIM				*e*S	Sn	08 52 38.9	+2.4
MGG	**Marie-Galante**	**0.86**	**322**	*e*P	Pn	08 52 28.4	+1.2
TBG	**Guadaloupe-3**	**1.05**	**306**	*e*P	Pn	08 52 31.5	+1.7
DEG	**La Desirade**	**1.11**	**345**	*e*P	Pn	08 52 31.1	+0.5
DEG				*e*S	Sn	08 52 45.4	+0.7
SCG	**Saint Claude**	**1.19**	**312**	*e*P	Pn	08 52 33.7	+2.1
SCG				*e*S	Sn	08 52 49.2	+2.7
SLW	**Petit Monier**	**1.22**	**188**	*e*P	Pn	08 52 34.0	+1.8
SLW				*e*S	Sn	08 52 50.5	+3.0
LZG	**Guadaloupe-1**	**1.33**	**313**	*e*P	Pn	08 52 35.6	+2.0

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*IDC **05** 08:58:56.6±0.7,4659N×15578E,h0^{km},mb3.9/14, mb1 4.1/16,mb1mx4.0/23,mbtmp3.9/16,ML3.7/2,MS3.5/1, Ms1 3.5/1,ms1mx2.4/37,Error ellipse: s-maj=23.4km s-min=16.2km az=155.0*

*NEIC **05** 08:58:58.2±0.4,4659N×15578E,h10^{km},Error ellipse: s-maj=13.6km s-min=8.5km az=150.0*

*ISCJB **05** 08:58:59.5±1.6,4641N±009×1558E±01,h33^{km}±14^{km}, mb3.9/16,Error ellipse: s-maj=18.8km s-min=10.5km az=139.4*

*SKHL **05** 08:58:59.8±0.3,4625N×15595E,h61^{km}±3^{km},mb5.1/1*

*MOS **05** 08:58:59.6±1.5,4645N×15579E,h33^{km},mb4.1/1,Error ellipse: s-maj=12.9km s-min=10.4km az=65.7*

ISC 05 08:59:02.2±1.3,4644N±009×1557E±01,h37^{km}±12^{km},n34, σ1^{s}09/36,mb3.9/16,East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**4.26**	**3**	*e*PN	**Pn**	**09 00 05.5**	**+1.0**
SKR				pmax	pmax		
	comp=Z,30nm,0.5s						
KUR	**Kuril'sk**	**5.62**	**260**	*e*P	**Pn**	**09 00 22.1**	**-1.1**
KUR				AMB	AMB	09 00 26.0	
	comp=Z,50nm,0.5s						
KUR				AMB	AMB	09 00 26.0	
	comp=Z,140nm,0.5s						
KUR				*e*S	**Sn**	**09 01 24.0**	**-2.4**
KUR				A		09 01 27.5	
	comp=Z,210nm,0.4s						
KUR				A		09 01 27.5	
	comp=Z,130nm,0.4s						
PET	**Petropavlovsk**	**6.86**	**15**	*e*PN	**Pn**	**09 00 36.1**	**-4.1**
YUK	**Yuzh-Kuril'sk**	**7.36**	**255**	*e*P	**Pn**	**09 00 46.9**	**-0.2**
YUK				*e*S	**Sn**	**09 02 07.0**	**-2.4**
YUK				A		09 02 10.8	
	comp=Z,230nm,0.3s						
YUK				A		09 02 10.8	
	comp=Z,140nm,0.3s						
YSS	**Yuzh-Sakhalins**	**8.93**	**278**	*i* PN	**Pn**	**09 01 10.8**	**+2.2**
YSS	**Yuzh-Sakhalins**	**8.93**	**278**	*e*P	**Pn**	**09 01 10.0**	**+1.4**
ASAJ	**Asahikawa**	**9.54**	**261**	PN	**Pn**	**09 01 17.4**	**+0.5**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**9.54**	**261**	Pn	**Pn**	**09 01 17.4**	**+0.5**
	comp=Z,1.0nm,0.3s,baz=94,slow=15,SNR=5.3						
ERM	**Erimo**	**10.04**	**248**	*i* PN	**Pn**	**09 01 24.4**	**+0.6**
MJAR	**Matsushiro Arr**	**16.40**	**239**	Pn	**Pn**	**09 02 50.0**	**+0.6**
MJAR	**Matsushiro Arr**	**16.40**	**239**	Pn	**Pn**	**09 02 50.0**	**+0.6**
	comp=Z,0.2nm,0.3s,baz=22,slow=13,SNR=3.6						
BILL	**Bilibino**	**22.34**	**10**	*i* P	**P**	**09 03 56.7**	**+0.4**
BILL				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.9						
KSRS	**Korea Array**	**22.45**	**256**	P	**P**	**09 04 02.5**	**+4.7**
	comp=Z,1.4nm,0.6s,mb3.6,baz=55,slow=11,SNR=5.8						
SONM	**Songino Array**	**33.13**	**291**	P	**P**	**09 05 34.4**	**-0.2**
	comp=Z,0.6nm,0.7s,mb3.6,baz=70,slow=8.0,SNR=4.7						
SONM				LR	LR	09 19 34.4	
	comp=Z,66nm,18.1s,baz=15,slow=37						
ZAK	**Zakamensk**	**34.44**	**296**	*e*P	**P**	**09 05 48.8**	**+2.9**
INK	**Inuvik**	**40.95**	**32**	P	**P**	**09 06 39.6**	**-1.1**
	comp=Z,1.5nm,0.6s,mb3.8,baz=279,slow=9.8,SNR=8.7						
MKAR	**Makanchi Array**	**48.68**	**299**	*e*P	**P**	**09 07 42.8**	**+0.4**
MKAR	**Makanchi Array**	**48.68**	**299**	P	**P**	**09 07 41.9**	**-0.6**
	comp=Z,0.4nm,0.7s,mb3.6,baz=62,slow=6.6,SNR=5.1						
KURK	**Kurchatov**	**49.03**	**305**	*i* P	**P**	**09 07 46.2**	**+1.1**
YKA	**Yellowknife Ar**	**50.09**	**37**	P	**P**	**09 07 51.9**	**-1.1**
	comp=Z,0.7nm,0.6s,mb3.9,baz=295,slow=7.2,SNR=7.8						
ARU	**Arti**	**56.45**	**319**	*e*P	**P**	**09 08 40.7**	**+0.9**
AKTK	**Aktyubinsk**	**60.27**	**313**	P	**P**	**09 09 06.8**	**+0.3**
AKTO	**Aktyubinsk**	**60.27**	**313**	P	**P**	**09 09 06.8**	**+0.3**
	comp=Z,0.4nm,0.4s,mb3.8,baz=22,slow=14,SNR=2.5						
NVAR	**Mina Array Bea**	**60.97**	**64**	P	**P**	**09 09 11.3**	**-0.2**
	comp=Z,0.4nm,0.5s,mb3.8,baz=308,slow=9.0,SNR=3.9						
PDAR	**Pinedale Array**	**63.47**	**55**	P	**P**	**09 09 27.9**	**-0.2**
	comp=Z,1.1nm,0.8s,mb4.0,baz=276,slow=3.7,SNR=8.6						
FINES	**FINESS Array B**	**65.08**	**336**	P	**P**	**09 09 37.2**	**-1.2**
	comp=Z,1.0nm,0.7s,mb3.9,baz=55,slow=7.2,SNR=5.5						
ULM	**Lac du Bonnet**	**65.57**	**42**	P	**P**	**09 09 40.0**	**-1.7**
	comp=Z,1.2nm,0.9s,mb3.9,baz=223,slow=6.2,SNR=3.2						
WRA	**Warramunga Arr**	**68.84**	**202**	P	**P**	**09 10 03.6**	**+0.9**
	comp=Z,1.5nm,0.6s,mb4.1,baz=21,slow=6.6,SNR=11						
AKASG	**Malin Array Be**	**72.79**	**328**	*e*P	**P**	**09 10 25.7**	**-0.8**
AKASG	**Malin Array Be**	**72.79**	**328**	P	**P**	**09 10 24.8**	**-1.6**
	comp=Z,1.2nm,0.5s,mb4.1,baz=30,slow=5.4,SNR=6.8						
TXAR	**Lajitas Array**	**76.06**	**62**	P	**P**	**09 10 45.9**	**+0.1**
TXAR	**Lajitas Array**	**76.06**	**62**	P	**P**	**09 10 45.9**	**+0.1**
	comp=Z,3.0nm,0.7s,mb4.3,baz=303,slow=4.0,SNR=36						
STKA	**Stephens Creek**	**78.99**	**192**	P	**P**	**09 11 02.6**	**+0.8**
	comp=Z,1.8nm,0.7s,mb4.1,baz=315,slow=4.3,SNR=3.5						
BRTR	**Keskin Array B**	**79.84**	**318**	P	**P**	**09 11 07.0**	**+0.4**
	comp=Z,1.2nm,0.9s,mb3.8,baz=55,slow=5.5,SNR=5.4						

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*NEIC **05** 09:06:01.5,3106S×6832W,h154^{km},MD3.3(GUC),After GUC.*

GUC 05 09:06:01.5±0.8,3106S×6832W,h154^{km}±89^{km},MD3.3, ML3.6,3D,San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TLL	**Tololo Astrono**	**2.32**	**292**⇓	*i*P	Pn	09 06 41.7	+1.1
TLL				AML	AML	09 07 17.5	
	comp=E,145nm,0.7s						
JACH	**Jahuel**	**2.52**	**230**⇓	*i*P	Pn	09 06 44.0	+0.9
CHNG	**Los Chungos**	**2.84**	**252**⇓	*i*P	Pn	09 06 36.4	-11
CHNG				*i* S	Sn	09 07 11.6	-11
CHNG				AML	AML	09 07 13.1	
	comp=N,246nm,0.3s						
PEL	**Peldehue**	**2.89**	**223**	*i* P	Pn	09 06 48.5	+0.9
PEL				*i* S	Sn	09 07 23.6	+0.4
PEL				AML	AML	09 07 26.4	
	comp=E,168nm,0.6s						
LCO	**Las Campanas**	**2.91**	**314**	*e*P	Pn	09 06 51.8	+4.0
LCO				*e*S	Sn	09 07 28.5	+4.8
ROCH	**El Roble**	**2.98**	**230**	*e*P	Pn	09 06 48.9	+0.3
PCH	**Pirque**	**3.15**	**216**	*e*P	Pn	09 06 52.2	+1.3
TACH	**Talagante**	**3.40**	**220**	*e*P	Pn	09 06 54.3	+0.2
SFDO	**San Fernando**	**4.21**	**212**	*e*P	Pn	09 07 05.7	+1.3

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*CSEM **05** 09:15:18.3±0.1,39.13N×40.05E,h2^{km},MD3.3,Error ellipse: s-maj=2.3km s-min=1.6km az=23.0*

*ISK **05** 09:15:19.2,39.11N×40.04E,h9^{km},MD3.3*

*DDA **05** 09:15:19.6,38.92N×40.26E,h11^{km},Md3.4*

*ISCJB **05** 09:15:20.2±0.7,39.08N±0.04×40.05E±0.04,h9^{km}±6^{km}, Error ellipse: s-maj=6.2km s-min=4.8km az=168.7*

ISC 05 09:15:20.7±0.6,3908N±004×4006E±004,h12^{km}±5^{km},n28, σ1^{s}16/38,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BINT	**Bingol**	**0.39**	**121**	*i* PG	**Pg**	**09 15 27.7**	**-0.8**
BINT				*i* SG	**Sg**	**09 15 34.4**	**+0.6**
BINT	**Bingol**	**0.39**	**121**	*i* Pg	**Pg**	**09 15 27.7**	**-0.8**
BINT				*i* Sg	**Sg**	**09 15 34.4**	**+0.6**
PTK	**Pertek**	**0.55**	**251**	*i* PG	**Pg**	**09 15 30.2**	**-1.3**
PTK				*i* SG	**Sg**	**09 15 38.8**	**0.0**
PTK	**Pertek**	**0.55**	**251**	*i* Pg	**Pg**	**09 15 30.2**	**-1.3**
PTK				*i* Sg	**Sg**	**09 15 38.8**	**0.0**
EZC	**Erzincan**	**0.69**	**345**	*i* PG	**Pg**	**09 15 35.1**	**+0.9**
EZC				*i* SG	**Sg**	**09 15 48.4**	**+5.0**
ELZG	**Elazig**	**1.02**	**236**	*i* P	**Pg**	**09 15 38.8**	**-1.5**
ELZG				*i* S	**Sg**	**09 15 55.7**	**+2.1**
DIY	**Diyarbakir**	**1.19**	**174**	PN	**Pn**	**09 15 43.5**	**+0.4**
DIY	**Diyarbakir**	**1.19**	**174**	*e*Pn	**Pn**	**09 15 43.5**	**+0.4**
EZM	**Erzurum**	**1.31**	**50**	PN	**Pn**	**09 15 44.4**	**-0.3**
ERZM	**Erzurum**	**1.31**	**50**	*i* P	**Pn**	**09 15 42.6**	**-2.1**
ERZM				*i* S	**Sb**	**09 16 03.1**	**+1.2**
BTMT	**Batman**	**1.43**	**128**	PN	**Pn**	**09 15 45.9**	**-0.5**
GUMT	**Gumushane**	**1.45**	**342**	PN	**Pn**	**09 15 45.0**	**-1.7**
GUMT	**Gumushane**	**1.45**	**342**	*e*Pn	**Pn**	**09 15 45.0**	**-1.7**
MYA	**Malataya**	**1.48**	**240**	PN	**Pn**	**09 15 46.2**	**-0.9**
MYA	**Malataya**	**1.48**	**240**	*e*Pn	**Pn**	**09 15 46.2**	**-0.9**
MALT	**Malatya**	**1.49**	**240**	PN	**Pn**	**09 15 46.1**	**-1.1**
MALT	**Malatya**	**1.49**	**240**	*e*Pn	**Pn**	**09 15 46.1**	**-1.1**
MARD	**Mardin**	**1.85**	**162**	*i* P	**Pn**	**09 15 53.7**	**+1.5**
MARD				*i* S	**Sn**	**09 16 15.1**	**-0.4**
URFA	**Urfa**	**1.90**	**211**	*e*PN	**Pn**	**09 15 53.7**	**+0.8**
URFA	**Urfa**	**1.90**	**211**	*e*Pn	**Pn**	**09 15 53.7**	**+0.8**
GRSN	**GIRESUNGRSN**	**2.30**	**324**	*i* P	**Pn**	**09 16 00.6**	**+2.2**
GRSN				*i* S	**Sn**	**09 16 20.5**	**-6.1**
AGRB	**Hanur-Agry**	**2.33**	**77**	*e*PN	**Pn**	**09 15 59.0**	**+0.2**
AGRB	**Hanur-Agry**	**2.33**	**77**	*e*Pn	**Pn**	**09 15 59.0**	**+0.2**
SVSK	**Karacayir**	**2.51**	**290**	*e*PN	**Pn**	**09 16 01.6**	**+0.3**
SVSK	**Karacayir**	**2.51**	**290**	*e*Pn	**Pn**	**09 16 01.6**	**+0.3**
GZT	**Gaziantep**	**2.61**	**230**	*i* P	**Pn**	**09 16 06.1**	**+3.5**
GZT				*i* S	**Sn**	**09 16 46.4**	**+12**
BNN	**Bunyan**	**3.29**	**267**	*e*PN	**Pn**	**09 16 12.1**	**+0.1**
BNN	**Bunyan**	**3.29**	**267**	*e*Pn	**Pn**	**09 16 12.1**	**+0.1**

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*NIED **05** 09:17:00,24.30N×122.20E,h32^{km},Mw3.6 Best double couple: $M_0$3.34000×10^{14} NP1:ϕ_s16.00000°,δ43.00000°, λ72.00000°. NP2:ϕ_s219.00000°,δ49.00000°,λ106.00000°.*

*ISCJB **05** 09:17:46.2±0.7,24.20N±0.10×122.20E±0.04,h71^{km}±5^{km}, mb3.3/4,Error ellipse: s-maj=16.4km s-min=5.1km az=11.5*

*IDC **05** 09:17:46.0±4.8,24.16N×122.20E,h48^{km}±49^{km},mb3.2/4, mb1 3.6/5,mb1mx3.4/18,mbtmp3.5/5,ML4.0/1,Error ellipse: s-maj=47.2km s-min=22.5km az=64.0*

*NEIC **05** 09:17:46.3±0.9,24.12N×122.21E,h52^{km}±9^{km}, MG3.5(JMA),Error ellipse: s-maj=16.6km s-min=12.1km az=190.0*

NEIC Recorded [3 TAP] in I-lan, [2 TAP] in Hua-lien and [1 TAP] in T'ai-tung Counties.

*JMA **05** 09:17:47.1±0.2,24.26N×122.22E,h67^{km}±3^{km},M3.5*

ISC 05 09:17:46.6±0.7,2411N±009×12217E±004,h56^{km}±7^{km}, n21,σ0^{s}78/30,mb3.3/4,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NACB	**Ninganchiao**	**0.53**	**277**	*e*P	**Pn**	**09 17 57.8**	**-0.8**
NACB				*e*S	**Sn**	**09 18 04.0**	**-3.2**
YOJ	**Yonaguni jima**	**0.84**	**66**	P	**Pn**	**09 18 02.5**	**0.0**
YOJ				*e*S	**Sn**	**09 18 13.8**	**-0.3**
YHNB	**Yeheng**	**0.91**	**308**	*e*P	**Pn**	**09 18 03.5**	**+0.2**
YHNB				*e*S	**Sn**	**09 18 16.1**	**+0.5**
TATO	**Taipei**	**1.06**	**324**	*e*P	**Pn**	**09 18 05.8**	**+0.6**
TATO				*e*S	**Sn**	**09 18 20.1**	**+0.9**
IRIF	**Iriomote-Funau**	**1.44**	**81**	P	**Pn**	**09 18 10.7**	**+0.3**
IRIF				*e*S	**Sn**	**09 18 28.6**	**+0.3**
HATJ	**Hateruma jima**	**1.50**	**92**	P	**Pn**	**09 18 11.8**	**+0.6**

HATJ				*e*S	**Sn**	**09 18 29.6**	**0.0**
JKRS	**Kuro-shima**	**1.69**	**85**	P	**Pn**	**09 18 14.5**	**+0.8**
JKRS				*e*S	**Sn**	**09 18 35.2**	**+1.0**
JIJ	**Ishigaki jima**	**1.82**	**82**	P	**Pn**	**09 18 15.7**	**+0.1**
JIJ				*e*S	**Sn**	**09 18 37.0**	**-0.5**
JTJ	**Tarama**	**2.37**	**77**	P	**Pn**	**09 18 23.5**	**+0.4**
JTJ				*e*S	**Sn**	**09 18 50.4**	**-0.6**
JOGS	**Gusukube**	**3.02**	**77**	P	**Pn**	**09 18 32.9**	**+0.9**
JKE	**Kume jima 2**	**4.73**	**61**	P	**Pn**	**09 18 55.6**	**+0.2**
JAGN	**Aguni-jima**	**5.21**	**61**	P	**Pn**	**09 19 02.1**	**+0.1**
JOW	**Kunigami**	**6.15**	**63**	P	**Pn**	**09 19 13.8**	**-1.0**
JOW	**Kunigami**	**6.15**	**63**	P	**Pn**	**09 19 13.8**	**-1.0**
	9.2nm,0.3s,baz=190,slow=11,SNR=30						
JTK	**Tokunoshima**	**7.12**	**58**	P	**Pn**	**09 19 26.8**	**-1.3**
JAM	**Amami Oshima**	**7.93**	**56**	P	**Pn**	**09 19 37.7**	**-1.5**
SONM	**Songino Array**	**26.79**	**336**	P	**P**	**09 23 21.1**	**-0.1**
	0.2nm,0.4s,mb3.0,baz=151,slow=9.2,SNR=2.6						
MKAR	**Makanchi Array**	**39.02**	**316**	P	**P**	**09 25 07.8**	**+0.2**
	0.1nm,0.5s,mb2.8,baz=101,slow=9.6,SNR=4.0						
WRA	**Warramunga Arr**	**45.37**	**164**	P	**P**	**09 26 00.0**	**+0.5**
	1.8nm,0.6s,mb4.1,baz=346,slow=8.8,SNR=16						
YKA	**Yellowknife Ar**	**82.69**	**23**	P	**P**	**09 30 04.0**	**+0.2**
	0.3nm,0.7s,mb3.5,baz=306,slow=5.3,SNR=6.5						
YFT	**Old Faithful**	**96.33**	**35**	*e*P	**P**	**09 31 06.0**	**-3.3**

IDC 05 09:22:44.6±1.0**,2360N**×**14341E,h0**^{km}**,mb3.7**/6**, mb1 3.9**/8**,mb1mx3.8**/18**,mbtmp3.7**/8**,ML3.7**/2**,MS3.1**/3**, Ms1 3.1**/3**,ms1mx2.7**/26**,Error ellipse: s-maj=38.8km s-min=23.1km az=83.0,Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**3.65**	**343**	Pn	Pn	09 23 41.1	-1.3
	10nm,0.3s,baz=107,slow=19,SNR=5.7						
CBIJ				Sn	Sn	09 24 19.9	-6.3
	34nm,0.3s,baz=266,slow=22,SNR=12						
GUMO	**Guam**	**10.06**	**172**	LR	LR	09 28 36.4	
	comp=Z,118nm,20.7s,baz=92,slow=35						
MJAR	**Matsushiro Arr**	**13.65**	**342**	Pn	Pn	09 25 57.9	-1.6
	0.3nm,0.3s,baz=157,slow=12,SNR=3.9						
JNU	**Nakatsue**	**14.53**	**313**	LR	LR	09 30 18.6	
	comp=Z,52nm,19.7s,baz=343,slow=31						
KSRS	**Korea Array**	**19.16**	**320**	P	Pn	09 27 14.5	+4.2
	0.2nm,0.3s,baz=125,slow=11,SNR=3.8						
KSRS				LR	LR	09 32 55.4	
	comp=Z,49nm,18.3s,baz=348,slow=32						
SONM	**Songino Array**	**38.02**	**319**	P	P	09 30 05.8	+1.3
	0.2nm,0.7s,baz=132,slow=6.4,SNR=2.3						
WRA	**Warramunga Arr**	**44.17**	**192**	P	P	09 30 54.9	-0.4
	0.5nm,0.5s,baz=17,slow=9.1,SNR=17						
YKA	**Yellowknife Ar**	**74.68**	**28**	P	P	09 34 25.0	-0.8
	0.3nm,0.6s,baz=291,slow=5.7,SNR=6.7						
ARCES	**ARCESS Array B**	**77.19**	**341**	P	P	09 34 40.2	+0.2
	2.8nm,0.8s,baz=62,slow=14,SNR=2.7						
FINES	**FINESS Array B**	**81.56**	**334**	P	P	09 35 03.6	-0.4
	1.1nm,0.9s,baz=80,slow=7.6,SNR=2.6						
NVAR	**Mina Array Bea**	**81.80**	**52**	P	P	09 35 07.2	+1.4
	0.1nm,0.3s,baz=266,slow=6.1,SNR=2.2						

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*IDC **05** 09:24:33.2±0.6, 1128N×92.15E, h0^{km}, mb4.3/15, mb1 4.4/16, mb1mx4.3/23, mbtmp4.3/16, ML3.5/1, MS4.1/7, Ms1 4.1/7, ms1mx3.7/30, Error ellipse: s-maj=25.1km s-min=13.1km az=55.0*

*ISCJB **05** 09:24:34.8±1.7, 1122N±0.05×9220E±0.05, h24^{km}±12^{km}, mb4.6/49, MS4.1/15, Error ellipse: s-maj=8.8km s-min=6.4km az=137.8*

*BJI **05** 09:24:35.6, 1109N×92.11E, h39^{km}, mB4.8, mb4.6, Ms4.2, Msz3.9*

*MOS **05** 09:24:36.1±0.8, 1125N×9229E, h33^{km}, mb4.7/14, MS4.0/4, Error ellipse: s-maj=14.0km s-min=6.8km az=112.1*

*NEIC **05** 09:24:37.8±0.2, 1124N×9222E, h30^{km}, mb4.7/18, Error ellipse: s-maj=8.8km s-min=4.8km az=55.0*

ISC 05 09:24:38.1±1.7**,1124N**±004×**9219E**±005**,h32**^{km}±12^{km}**, h30**^{km}±1.3^{km}**:pP-P,n110,**σ0^{s}**86**/104**,mb4.6**/49**,MS4.1**/15**, 1C-1D,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NNT	**Nongplab**	**7.50**	**79**	P	**Pn**	**09 26 23.5**	**-1.8**
BDT	**Bhumibol Dam**	**8.90**	**47**	P	**Pn**	**09 26 46.0**	**+1.6**
PSI	**Prapat**	**10.72**	**141**	Pn	**Pn**	**09 27 10.1**	**+0.6**
PSI				LR	LR	09 32 19.9	
PSI	**Prapat**	**10.72**	**141**	Pn	**Pn**	**09 27 10.1**	**+0.6**
	0.3nm,0.3s,baz=282,slow=19,SNR=2.8						
PSI				LR	LR	09 32 19.9	
	comp=Z,1µm,19.2s,baz=180,slow=43						
PALK	**Pallekele**	**12.01**	**252**	*e*Pn	**Pn**	**09 27 26.5**	**-0.6**
	44nm,1.1s						
HYB	**Hyderabad**	**14.57**	**296**	*e*P	**Pn**	**09 28 04.0**	**+1.9**
HYB				*e*S	**Sn**	**09 30 27.0**	**-16**
HYB	**Hyderabad**	**14.57**	**296**	*i* P	**Pn**	**09 28 04.0**	**+1.9**
HYB				*e*S	**Sn**	**09 30 41.0**	**-1.5**
ODAN	**Odare**	**16.18**	**344**	*e*P	**Pn**	**09 28 21.5**	**-1.6**
TAPN	**Taplejung**	**16.57**	**346**	*e*P	**Pn**	**09 28 26.1**	**-1.9**
KMI	**Kunming**	**17.04**	**34**	P	**Pn**	**09 28 34.5**	**+0.5**
KMI				AMB	AMB		
	comp=Z,15nm,0.9s						
KMI				LR	LR		
	comp=N,548nm,21.0s						
KMI				LR	LR		
	comp=E,532nm,19.0s						
KMI				LR	LR		
	comp=Z,575nm,17.0s						
JIRN	**Jiri**	**17.28**	**342**	*e*P	**Pn**	**09 28 36.9**	**0.0**
	comp=Z,151nm,1.4s						
PKI	**Pulchoki**	**17.45**	**340**	*e*P	**Pn**	**09 28 39.5**	**+0.4**
	comp=Z,102nm,1.2s						
DMN	**Daman**	**17.59**	**339**	*e*P	**Pn**	**09 28 41.4**	**+0.6**
	comp=Z,87nm,0.9s						
GUN	**Gumba**	**17.61**	**341**	*e*P	**Pn**	**09 28 41.2**	**+0.2**
	comp=Z,198nm,1.6s						
KKN	**Kakani**	**17.69**	**339**	*e*P	**Pn**	**09 28 42.5**	**+0.4**
	comp=Z,86nm,1.4s						
GKN	**Gorkha**	**18.12**	**338**	*e*P	**Pn**	**09 28 46.7**	**-0.6**
	comp=Z,36nm,0.5s						
KOLN	**Koldanda**	**18.31**	**335**	*e*P	**Pn**	**09 28 49.9**	**+0.2**
	comp=Z,60nm,0.9s						
LSA	**Lhasa**	**18.39**	**357**	*e*P	**Pn**	**09 28 51.6**	**+1.0**
	comp=Z,22nm,0.8s						
LSA	**Lhasa**	**18.39**	**357**	*e*P	**Pn**	**09 28 51.7**	**+1.1**
LSA				pmax	pmax		
	comp=Z,22nm,0.8s						
CD2	**Chengdu**	**22.31**	**27**	P	**P**	**09 29 32.9**	**-0.1**
CD2				AMB	AMB		
	comp=Z,40nm,1.3s,mb4.7						
CD2				AMB	AMB		
	comp=Z,290nm,6.4s						
CD2				LR	LR		
	comp=N,680nm,16.1s						
CD2				LR	LR		
	comp=Z,490nm,14.9s,MS4.1						
LZH	**Lanzhou**	**26.89**	**21**	*e*P	**P**	**09 30 16.9**	**+0.8**
LZH				AP	pP	09 30 25.5	+0.1
LZH				XP	sP	09 30 29.5	+0.2
LZH				AMB	AMB		
	comp=Z,26nm,1.2s,mb4.6						
LZH				AMB	AMB		
	comp=Z,70nm,4.0s						
LZH				LR	LR		
	comp=E,442nm,15.8s						
LZH				LR	LR		
	comp=Z,797nm,16.4s,MS4.4						
XAN	**Xi'an**	**27.36**	**31**	P	**P**	**09 30 18.8**	**-1.6**
XAN				AMB	AMB		
	comp=Z,5.0nm,1.5s,mb3.8						
XAN				AMB	AMB		
	comp=Z,29nm,5.0s						
XAN				LR	LR		
	comp=N,246nm,21.4s,MS4.0						
XAN				LR	LR		
	comp=E,430nm,21.4s,MS4.0						
XAN				LR	LR		
	comp=Z,240nm,16.3s						
GTA	**Gaotai**	**28.86**	**12**	P	**P**	**09 30 34.5**	**+0.8**
GTA				AP	pP	09 30 43.8	+0.8
GTA				XP	sP	09 30 49.9	+3.0
GTA				AMB	AMB		
	comp=Z,8.0nm,1.3s,mb4.3						
GTA				AMB	AMB		
	comp=Z,128nm,6.9s						
GTA				LR	LR		
	comp=N,133nm,13.7s,MS4.0						
GTA				LR	LR		
	comp=E,268nm,17.9s,MS4.0						
GTA				LR	LR		
	comp=Z,118nm,14.5s,MS3.6						
WMQ	**Urumqi**	**32.69**	**354**	*e*P	**P**	**09 31 08.6**	**+1.2**
WMQ				AP	pP	09 31 13.6	-3.2
WMQ				AMB	AMB		
	comp=Z,16nm,0.8s,mb5.0						
WMQ				LR	LR		
	comp=N,164nm,17.2s,MS3.9						
WMQ				LR	LR		
	comp=E,121nm,19.6s,MS3.9						
WMQ				LR	LR		
	comp=Z,191nm,18.0s,MS3.8						
UCH	**Uchtor**	**34.52**	**337**	*e*P	**P**	**09 31 24.8**	**+1.5**
	comp=Z,1.2nm,0.6s,mb4.0						
TKM2	**Tokmak 2**	**34.71**	**338**	*e*P	**P**	**09 31 25.6**	**+0.7**
	comp=Z,3.9nm,1.1s,mb4.2						
TKM2	**Tokmak 2**	**34.71**	**338**	*e*P	**P**	**09 31 25.7**	**+0.7**
TKM2				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
AML	**Almayashu**	**34.76**	**336**	*e*P	**P**	**09 31 26.8**	**+1.3**
	comp=Z,18nm,1.0s,mb4.9						
AAK	**Ala-Archa**	**34.87**	**337**	*e*P	**P**	**09 31 26.2**	**-0.2**
	comp=Z,13nm,1.2s,mb4.8						
AAK	**Ala-Archa**	**34.87**	**337**	*i* P	**P**	**09 31 26.4**	**0.0**
AAK				pmax	pmax		
	comp=Z,18nm,1.6s,mb4.8						
AAK				MLR	MLR		
	comp=Z,400nm,21.0s,MS4.1						
EKS2	**Erkin-Say**	**35.17**	**336**	*e*P	**P**	**09 31 30.5**	**+1.5**
	comp=Z,9.7nm,1.0s,mb4.7						
MK31	**Makanchi Array**	**36.41**	**349**	*e*P	**P**	**09 31 39.6**	**+0.1**
MKAR	**Makanchi Array**	**36.41**	**349**	P	**P**	**09 31 39.5**	**-0.1**
	comp=Z,5.7nm,0.8s,mb4.6,baz=169,slow=8.1,SNR=52						
MKAR				LR	LR	09 49 19.6	
	comp=Z,193nm,19.5s,MS3.9,baz=159,slow=41						
SONM	**Songino Array**	**38.38**	**15**	P	**P**	**09 31 56.6**	**+0.4**
SONM						09 34 10.4	
SONM	**Songino Array**	**38.38**	**15**	P	**P**	**09 31 56.6**	**+0.4**
	comp=Z,2.7nm,0.7s,mb4.1,baz=196,slow=9.5,SNR=21						
SONM				PcP	PcP	09 34 10.4	+1.1
	comp=Z,0.7nm,0.7s,baz=204,slow=3.2,SNR=2.8						
SONM				LR	LR	09 51 09.1	
	comp=Z,270nm,18.5s,MS4.1,baz=182,slow=42						
ZAK	**Zakamensk**	**40.08**	**11**	*e*P	**P**	**09 32 10.3**	**-0.1**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.7						
KURK	**Kurchatov**	**40.91**	**347**	*e*P	**P**	**09 32 17.1**	**-0.1**
	comp=Z,17nm,1.1s,mb4.6						
KURK	**Kurchatov**	**40.91**	**347**	*e*P	**P**	**09 32 17.1**	**-0.1**
KURK				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.6						
KSRS	**Korea Array**	**41.31**	**45**	P	**P**	**09 32 19.9**	**-0.9**
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.9						
KSRS				MLR	MLR		
	comp=Z,193nm,19.6s,MS4.0						
KSRS	**Korea Array**	**41.31**	**45**	P	**P**	**09 32 19.9**	**-0.9**
	comp=Z,1.9nm,0.7s,mb3.8,baz=243,slow=8.8,SNR=7.0						
KSRS				LR	LR	09 51 40.3	
	comp=Z,193nm,19.6s,MS4.0,baz=239,slow=39						
TLY	**Talaya**	**41.39**	**11**	*e*P	**P**	**09 32 21.3**	**+0.2**
CN2	**Changchun**	**43.31**	**35**	*e*P	**P**	**09 32 36.0**	**-0.9**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.5						
FITZ	**Fitzroy Crossi**	**44.05**	**131**	*e*P	**P**	**09 32 43.0**	**-0.2**
	comp=Z,6.6nm,0.5s,mb4.6						
FITZ				*e*	pP	09 32 51.7	-1.1
FITZ	**Fitzroy Crossi**	**44.05**	**131**	P	**P**	**09 32 43.1**	**-0.1**
	comp=Z,4.2nm,0.6s,mb4.4,baz=350,slow=15,SNR=15						
QRN	**Al-Qurain**	**44.81**	**300**	*e*P	**P**	**09 32 48.7**	**-0.5**
QRN				AMb	AMB	09 32 52.4	
	comp=Z,37nm,0.6s,mb5.4						
RDF	**Al-Radifah**	**45.16**	**300**	*e*P	**P**	**09 32 50.9**	**-1.1**
RDF				AMb	AMB	09 32 53.5	
	comp=Z,40nm,0.6s,mb5.4						
BRVK	**Borovoye**	**45.26**	**342**	*e*P	**P**	**09 32 52.2**	**-0.2**
	comp=Z,1.5nm,0.6s,mb4.0						
BRVK	**Borovoye**	**45.26**	**342**	*e*P	**P**	**09 32 52.2**	**-0.2**
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
NAY	**Al-Naaiem**	**45.50**	**300**	*e*P	**P**	**09 32 53.7**	**-1.0**
NAY				AMb	AMB	09 32 56.4	
	comp=Z,16nm,0.7s,mb5.0						
MIB	**Mutribah**	**45.55**	**301**	*e*P	**P**	**09 32 54.5**	**-0.6**
MIB				AMb	AMB	09 33 06.1	
	comp=Z,36nm,0.9s,mb5.3						
RST	**Umm Al-Ruwaisa**	**45.77**	**300**	*e*P	**P**	**09 32 55.5**	**-1.3**
RST				AMb	AMB	09 32 59.0	
	comp=Z,25nm,0.9s,mb5.2						
AKTK	**Aktyubinsk**	**48.09**	**331**	P	**P**	**09 33 14.3**	**-0.2**
AKTO	**Aktyubinsk**	**48.09**	**331**	P	**P**	**09 33 14.4**	**-0.2**
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
AKTO	**Aktyubinsk**	**48.09**	**331**	P	**P**	**09 33 14.3**	**-0.2**
	comp=Z,2.0nm,0.4s,mb4.5,baz=116,slow=7.1,SNR=10						
MUN	**Mundaring**	**48.74**	**153**	*e*P	**P**	**09 33 19.8**	**0.0**
MUN				*e*	pP	09 33 29.9	+0.4
KLBR	**Kellerberrin**	**49.13**	**151**	*e*P	**P**	**09 33 23.3**	**+0.4**
	comp=Z,9.6nm,0.8s,mb4.9						
KLBR				*e*	pP	09 33 31.7	-0.8
BOD	**Bodaibo**	**49.38**	**15**	*e*P	**P**	**09 33 22.6**	**-1.7**
BOD				*e*	pP	09 33 30.8	-3.2
BOD				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.4						
BOD				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.5						
NWAO	**Narrogin (SRO)**	**50.00**	**152**	P	**P**	**09 33 29.2**	**-0.2**
	comp=Z,7.6nm,0.9s,mb4.7,baz=325,slow=11,SNR=3.3						
WRA	**Warramunga Arr**	**51.78**	**127**	P	**P**	**09 33 43.0**	**-0.1**
	comp=Z,4.4nm,0.5s,mb4.7,baz=301,slow=10,SNR=96						
WB2	**Warramunga Arr**	**51.79**	**127**	*e*P	**P**	**09 33 43.2**	**0.0**
WB2				*e*	pP	09 33 51.9	-1.0
ARU	**Arti**	**52.06**	**337**	⇓*i*P	**P**	**09 33 43.2**	**-1.4**
ARU				*e*		09 35 38.9	
ARU				*e*PPP		09 36 41.5	
ARU				*e*S	**S**	**09 41 07.2**	**+1.1**
ARU				*e*SS	SS	09 44 44.5	+1.0
ARU				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
KIV	**Kislovodsk**	**53.55**	**317**	*e*P	**P**	**09 33 57.1**	**+1.2**
KIV				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.0						
KIV				MLR	MLR		
	comp=Z,88nm,18.0s,MS3.9						
MALT	**Malatya**	**54.85**	**309**	*e*P	**P**	**09 34 05.8**	**+0.4**
	comp=Z,9.9nm,1.3s,mb4.7						
MALT	**Malatya**	**54.85**	**309**	*e*P	**P**	**09 34 05.8**	**+0.4**
MALT				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.7						
KMBO	**Kilima Mbogo**	**55.97**	**261**	LR	LR	09 57 53.5	
	comp=Z,80nm,18.5s,MS3.8,baz=88,slow=36						
YAK	**Yakutsk**	**57.46**	**20**	*e*P	**P**	**09 34 23.9**	**+0.3**
YAK				pmax	pmax		
	comp=Z,13nm,1.5s,mb4.7						
BRTR	**Keskin Array B**	**58.80**	**310**	P	**P**	**09 34 32.4**	**-1.0**
	comp=Z,2.0nm,0.6s,mb4.3,baz=119,slow=8.5,SNR=10						
PRGR	**Permogore**	**60.51**	**337**	*e*P	pP	09 34 53.8	-0.9
OBN	**Obninsk**	**61.52**	**327**	⇑*e*P	**P**	**09 34 52.1**	**+0.3**
OBN				*e**PP	pP	09 35 00.8	-0.9
OBN				*e**SP	sP	09 35 05.2	-0.3
OBN				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.4						
OBN				MLR	MLR		
	comp=Z,300nm,19.0s,MS4.5						
STKA	**Stephens Creek**	**63.81**	**134**	P	**P**	**09 35 08.5**	**+1.1**
STKA	**Stephens Creek**	**63.81**	**134**	P	**P**	**09 35 08.5**	**+1.1**
	comp=Z,4.1nm,0.8s,mb4.5,baz=285,slow=14,SNR=6.0						
AKASG	**Malin Array Be**	**64.34**	**321**	P	**P**	**09 35 09.3**	**-1.3**
AKASG	**Malin Array Be**	**64.34**	**321**	P	**P**	**09 35 09.3**	**-1.3**
	comp=Z,0.6nm,0.4s,mb4.0,baz=86,slow=4.9,SNR=8.8						
TIXI	**Tiksi**	**64.34**	**12**	*e*P	**P**	**09 35 09.5**	**-0.8**
	comp=Z,12nm,1.0s,mb4.9						
TIXI	**Tiksi**	**64.34**	**12**	*e*P	**P**	**09 35 09.4**	**-0.9**
TIXI				pmax	pmax		
	comp=Z,18nm,1.6s,mb4.8						
MA2	**Magadan**	**64.72**	**29**	*e*P	**P**	**09 35 12.6**	**-0.3**
	comp=Z,12nm,1.1s,mb4.8						
MA2	**Magadan**	**64.72**	**29**	*e*P	**P**	**09 35 12.7**	**-0.2**
MA2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
SEY	**Seymchan**	**66.71**	**26**	*e*P	**P**	**09 35 25.6**	**-0.1**
JOF	**Joensuu**	**67.00**	**334**	*e*p	**P**	**09 35 27.7**	**+0.2**
	comp=Z,7.7nm,0.5s,mb5.0						
FINES	**FINESS Array B**	**68.85**	**332**	P	**P**	**09 35 39.0**	**-0.2**
	comp=Z,3.4nm,0.6s,mb4.5,baz=104,slow=6.9,SNR=17						
ARMA	**Armidale**	**70.53**	**128**	*e*P	**P**	**09 35 49.2**	**-0.9**
ARMA				*e*		09 36 00.9	
KEV	**Kevo**	**71.04**	**340**	*e*p	**P**	**09 35 52.7**	**+0.2**
	comp=Z,0.6nm,0.3s,mb4.0						
KEV	**Kevo**	**71.04**	**340**	*e*P	**P**	**09 35 52.7**	**+0.2**
KEV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
ARCES	**ARCESS Array B**	**71.47**	**340**	P	**P**	**09 35 55.6**	**+0.5**
	comp=Z,2.9nm,0.6s,mb4.4,baz=90,slow=5.6,SNR=17						
ARCES				LR	LR	10 09 54.9	
	comp=Z,349nm,18.0s,MS4.7,baz=14,slow=38						
MORC	**Moravsky Berou**	**71.59**	**319**	*e*P	**P**	**09 35 57.3**	**+1.1**
	comp=Z,10nm,1.2s,mb4.6						
MORC	**Moravsky Berou**	**71.59**	**319**	*e*P	**P**	**09 35 57.3**	**+1.1**
MORC				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
BILL	**Bilibino**	**73.70**	**22**	P	**P**	**09 36 09.0**	**+0.6**
BILL				*e*	pP	09 36 17.9	-0.6
BILL				MLR	MLR		
	comp=Z,200nm,19.0s,MS4.4						
GERES	**GERESS Array B**	**74.05**	**318**	P	**P**	**09 36 09.8**	**-1.1**
	comp=Z,0.7nm,0.3s,mb4.0,baz=99,slow=5.1,SNR=4.5						
BOSA	**Boshof**	**75.78**	**237**	P	**P**	**09 36 22.9**	**+1.7**
	comp=Z,2.4nm,0.8s,mb4.2,baz=88,slow=9.3,SNR=4.2						
NOA	**NORSAR Array B**	**75.87**	**330**	LR	LR	10 17 34.4	
	comp=Z,112nm,18.3s,MS4.2,baz=0.0,slow=42						
LPG	**La Plagne**	**78.90**	**314**	*e*P	**P**	**09 36 39.0**	**+0.6**
LPL	**La Plagne**	**78.91**	**314**	*e*P	**P**	**09 36 38.7**	**+0.3**
MBDF	**Montbardon**	**78.95**	**314**	*e*P	**P**	**09 36 39.1**	**+0.4**
	comp=Z,5.3nm,1.2s,mb4.3						
MBDF	**Montbardon**	**78.95**	**314**	*e*P	**P**	**09 36 39.1**	**+0.4**
MBDF				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.3						
MBDF	**Montbardon**	**78.95**	**314**	*e*P	**P**	**09 36 39.1**	**+0.4**
	comp=Z,10nm,1.2s,mb4.3						
CABF	**La Chapelle**	**79.27**	**316**	*e*P	**P**	**09 36 40.5**	**+0.1**
	comp=Z,7.3nm,1.1s,mb4.5						
CABF	**La Chapelle**	**79.27**	**316**	*e*P	**P**	**09 36 40.5**	**+0.1**
CABF				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
CABF	**La Chapelle**	**79.27**	**316**	*e*P	**P**	**09 36 40.5**	**+0.1**
	comp=Z,15nm,1.1s,mb4.5						
LOR	**Lormes**	**80.72**	**316**	*e*P	**P**	**09 36 47.9**	**-0.3**
SMF	**Signal de Mont**	**80.80**	**316**	*e*P	**P**	**09 36 47.3**	**-1.4**
	comp=Z,22nm,1.5s,mb4.9						
SMF	**Signal de Mont**	**80.80**	**316**	*e*P	**P**	**09 36 47.3**	**-1.4**
SMF				pmax	pmax		
	comp=Z,21nm,1.5s,mb4.8						
SMF	**Signal de Mont**	**80.80**	**316**	*e*P	**P**	**09 36 47.3**	**-1.4**
	comp=Z,43nm,1.5s,mb4.9						
RJF	**Les Rejaudoux**	**82.58**	**315**	*e*P	**P**	**09 36 58.4**	**+0.3**
TORD	**Torodi Ar. Bea**	**87.97**	**283**	P	**P**	**09 37 26.2**	**+0.6**
	comp=Z,1.6nm,1.0s,mb4.2,baz=46,slow=4.3,SNR=7.0						
YKA	**Yellowknife Ar**	**103.59**	**12**	PP	PP	09 42 56.9	+5.5
	comp=Z,0.6nm,1.0s,baz=341,slow=7.4,SNR=3.5						
NVAR	**Mina Array Bea**	**122.96**	**28**	PKP	PKPdf	09 43 31.7	+0.2
NVAR	**Mina Array Bea**	**122.96**	**28**	PKP	PKPdf	09 43 31.7	+0.2
	comp=Z,0.4nm,0.5s,baz=263,slow=4.5,SNR=5.7						
TXAR	**Lajitas Array**	**136.85**	**20**	PKP	PKPdf	09 43 59.3	+1.1
TXAR	**Lajitas Array**	**136.85**	**20**	PKIKP	PKPdf	09 43 59.3	+1.1
TXAR	**Lajitas Array**	**136.85**	**20**	PKP	PKPdf	09 43 59.3	+1.1
	comp=Z,0.2nm,0.5s,baz=14,slow=0.9,SNR=8.8						

IGQ 05 09:54:27.1,027N×**7999W,h12**^{km}±7^{km}**,Mb4.1,Ms3.9, 4C-5D,Error ellipse: s-maj=9.4km s-min=5.2km az=89.0, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PINO	**Pino**	**1.45**	**107**	⇓P	Pn	09 54 54.3	+1.1
PINO	**Pino**	**1.45**	**107**	⇓S	Sn	09 55 13.4	+1.2
TERV	**Terraza Guagua**	**1.46**	**108**	⇓P	Pn	09 54 54.7	+1.4
TERV	**Terraza Guagua**	**1.46**	**108**	⇓S	Sn	09 55 15.7	+3.3
GGP	**Refugio Guagua**	**1.47**	**108**	⇓P	Pn	09 54 54.5	+1.1
JUA2	**San Juan 2**	**1.47**	**109**	P	Pn	09 54 55.7	+2.3
YANA	**Yana**	**1.48**	**105**	⇑P	Pn	09 54 54.3	+0.8
YANA	**Yana**	**1.48**	**105**	⇑S	Sn	09 55 14.1	+1.3
COTA	**Cotacachi**	**1.66**	**88**	⇑P	Pn	09 54 58.4	+2.3
COTA	**Cotacachi**	**1.66**	**88**	⇑S	Sn	09 55 21.1	+3.8
CAMI	**Rancho Maria**	**1.76**	**122**	P	Pn	09 55 00.1	+2.6
VC1	**Cotopaxi 1**	**1.83**	**120**	P	Pn	09 55 03.5	+5.0
TAMB	**Tambo**	**1.89**	**121**	P	Pn	09 55 03.6	+4.3
TAMB	**Tambo**	**1.89**	**121**	S	Sn	09 55 27.2	+4.2
ANTI	**Antisana**	**1.97**	**111**	P	Pn	09 55 01.2	+0.9
CAYA	**Cayambe**	**2.01**	**96**	P	Pn	09 55 04.3	+3.3
CAYA	**Cayambe**	**2.01**	**96**	S	Sn	09 55 32.0	+6.0

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*ISCJB **05** 09:54:29.5±0.7, 4509N±0.03×1503E±0.07, h10^{km}, Error ellipse: s-maj=6.8km s-min=4.3km az=7.3*

*VIE **05** 09:54:31.9±0.5, 4522N×1490E, h8^{km}, ML2.1/1, Error ellipse: s-maj=3.1km s-min=1.6km az=179.0 41 km ESE of Rijeka*

ISC 05 09:54:30.1±0.7**,4508N**±003×**1506E**±007**,h10**^{km}**,n12,** σ0^{s}**89**/19**,2C-2D,Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BOJS	**Bojanci**	**0.45**	**18**	*i* Pg	**Pg**	**09 54 38.8**	**-0.2**
BOJS				*i* Sg	**Sg**	**09 54 45.2**	**+0.4**
BOJS							
	comp=Z,6.0nm,0.1s						
NVLJ	**Novalja**	**0.53**	**195**	*e*Pg	**Pg**	**09 54 39.8**	**-0.7**
NVLJ				Sg	**Sg**	**09 54 47.9**	**+0.5**
KNDS	**Knezji Dol**	**0.66**	**314**	*i* Sg	**Sg**	**09 54 51.5**	**+0.1**
KNDS							
	comp=Z,5.0nm,0.1s						
VISS	**Visnje**	**0.74**	**348**	*i* Pg	**Pg**	**09 54 43.7**	**-0.7**
VISS							
	comp=Z,6.0nm,0.1s						
CRES	**Cresnjev**	**0.80**	**20**	*i* Pg	**Pg**	**09 54 45.7**	**+0.2**
CRES				*i* Sg	**Sg**	**09 54 57.4**	**+1.4**
GCIS	**Gornji Cirnik**	**0.89**	**27**	*i* Pg	**Pg**	**09 54 47.1**	**-0.1**
PDKS	**Podkum**	**0.98**	**358**	*i* Pg	**Pg**	**09 54 49.0**	**-0.1**
VOY	**Vojsko**	**1.26**	**320**	*e*Pg	**Pg**	**09 54 54.3**	**0.0**
VOY				*e*Sg	**Sg**	**09 55 11.2**	**+0.6**
GORS	**Gorjuse**	**1.45**	**329**	*i* Pg	**Pg**	**09 54 56.7**	**-1.2**
OBKA	**Obir**	**1.48**	**346**	⇑*i*Pg	**Pg**	**09 54 57.6**	**-0.9**
OBKA				⇓*i*Sg	**Sg**	**09 55 15.7**	**-1.9**
	comp=Z,9.4nm,0.4s						
OBKA	**Obir**	**1.48**	**346**	⇑*i*Pg	**Pg**	**09 54 57.6**	**-0.9**
OBKA				⇓*i*Sg	**Sg**	**09 55 15.7**	**-1.9**
	comp=Z,9.4nm,0.4s						
CADS	**Cadrg**	**1.48**	**322**	*i* Pn	**Pn**	**09 54 57.5**	**+0.8**
CADS				*i* Sn	**Sn**	**09 55 18.3**	**+2.2**
CADS							
	comp=Z,12nm,0.3s						

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*ISCJB **05** 09:55:48.4±3.0, 2067S±0.06×17561W±0.04, h2^{km}±18^{km}, mb5.4/97, MS5.6/217, Error ellipse: s-maj=9.9km s-min=5.0km az=157.3*

*IDC **05** 09:55:49.3±0.5, 2063S×17566W, h0^{km}, mb4.9/15, mb1 5.0/17, mb1mx5.0/17, mbtmp4.9/17, ML3.6/2, MS5.3/35, Ms1 5.3/35, ms1mx5.2/40, Error ellipse: s-maj=18.6km s-min=13.7km az=141.0*

*BJI **05** 09:55:51.4, 2024S×17536W, h18^{km}, mB5.5, mb5.2, Ms5.6, Msz5.3*

*GCMT **05** 09:55:51.1±0.1, 2058S×17523W, h17^{km}, MW5.8/101, Moment Tensor Solution. s88,c167; s101,c271; Duration: 1^{s}8 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.51±.05; M$_{\theta\theta}$-4.69±.05; M$_{\phi\phi}$5.20±.06; M$_{r\theta}$-1.13±.13; M$_{\theta\phi}$-1.59±.04; M$_{\phi r}$0.66±.13; Best double couple: M$_{0}$5.36300×10^{17} NP1:φ$_{s}$36.00000°, δ76.00000°, λ-3.00000°. NP2:φ$_{s}$127.00000°, δ87.00000°, λ-166.00000°. Principal axes: T 5.5630, Plg8.0000°, Azm260.0000°; N -0.4030, Plg75.0000°, Azm139.0000°; P -5.1640, Plg12.0000°, Azm352.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC **05** 09:55:51.1±0.1, 2061S×17565W, h10^{km}, mb5.7/58, MS5.6/173, MW5.7 Error ellipse: s-maj=6.8km s-min=3.8km az=149.0, Moment Tensor Solution. s10 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.01; M$_{\theta\theta}$-5.03; M$_{\phi\phi}$5.04; M$_{r\theta}$-0.54; M$_{\theta\phi}$-1.07; M$_{\phi r}$0.93; Best double couple: M$_{0}$5.30000×10^{17} NP1:φ$_{s}$39.00000°, δ79.00000°, λ4.00000°. NP2:φ$_{s}$309.00000°, δ86.00000°, λ169.00000°.*

Principal axes: T 5.3400, Plg10.0000°, Azm264.0000°; N -0.1500, Plg78.0000°, Azm109.0000°; P -5.1800, Plg5.0000°, Azm354.0000°;

NEIC Felt [IV] at Nuku'alofa.

*SZGRF **05** 09:55:52.3, 21.20S×174.77W, h33^{km}, mb5.7, Tonga Islands*

*MOS **05** 09:56:00.4±1.7, 19.05S×175.13W, h33^{km}, mb5.8/33, MS5.5/51, Error ellipse: s-maj=11.5km s-min=8.5km az=61.4*

ISC 05 09:55:54.2±2.8, **20.67S**±0.06×**175.61W**±0.04, **h29**^{km}±19^{km}, **h30**^{km}±1.8^{km}**:pP-P, n927,** σ0^{s}**69**/545, **mb5.4**/96, **MS5.6**/217, **98C-91D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.65	29	eP	Pn	09 57 37.8	-5.9
	323nm,1.0s						
AFI	Afiamalu	7.65	29	Pn	Pn	09 57 40.1	-3.6
	7.6nm,0.3s,baz=326,slow=13,SNR=8.4						
AFI				LR	LR	09 59 54.3	
	comp=Z,12µm,20.1s,baz=198,slow=32						
RAO	Raoul Island	8.80	193	LR	LR	10 01 03.3	
	comp=Z,26µm,18.2s,baz=18,slow=36						
FUNA	Funafuti	13.07	337	eP	Pn	09 59 01.6	+3.5
	1µm,1.6s						
RAR	Rarotonga	14.80	95	Pn	Pn	09 59 14.4	-7.2
RAR				LR	LR	10 03 35.9	
RAR	Rarotonga	14.80	95	Pn	Pn	09 59 14.4	-7.2
	3.8nm,0.3s,baz=233,slow=7.7,SNR=8.3						
RAR				LR	LR	10 03 35.9	
	comp=Z,13µm,21.9s,baz=245,slow=31						
DZM	Mont Dzumac	16.78	262	Pn	Pn	09 59 51.2	+4.1
DZM				LR	LR	10 03 54.9	
DZM	Mont Dzumac	16.78	262	Pn	Pn	09 59 51.2	+4.1
	1.8nm,0.3s,baz=79,slow=16,SNR=17						
DZM				LR	LR	10 03 54.9	
	comp=Z,3µm,21.5s,baz=107,slow=29						
NOUC	Port Laguerre	16.91	262	eP	Pn	09 59 51.2	+2.4
URZ	Urewera	18.63	198	P	Pn	10 00 07.5	-2.4
	1.5nm,0.3s,baz=350,slow=8.2,SNR=8.6						
SNZO	South Karori	22.16	200	PFAKE		10 01 00.0	+12
SNZO				LR	LR		
	comp=Z,16µm,22.0s,MS5.4						
PAE	Paea	24.76	88	eT		10 25 51.0	
	comp=Z,345nm,0.4s						
PAE	Paea	24.76	88	eP	P	10 01 14.0	+0.5
	comp=Z,587nm,1.6s,mb5.9						
PAE				eTT		10 25 51.0	
PAE	Paea	24.76	88	eP	P	10 01 14.0	+0.5
PAE				pmax	pmax		
	comp=Z,587nm,1.6s,mb5.9						
PPT	Papeete	24.78	87	eP	P	10 01 14.5	+0.8
	comp=Z,297nm,1.6s,mb5.6						
PPT	Papeete	24.78	87	eT		10 25 52.5	
	comp=Z,49nm,0.4s						
PPT	Papeete	24.78	87	eLQ		10 06 01.8	
	comp=Z,21µm,25.2s						
PPT				eLR	LR	10 07 05.8	
	comp=Z,39µm,27.0s,baz=258						
PPT	Papeete	24.78	87	eP	P	10 01 14.9	+1.2
PPT	Papeete	24.78	87	P	P	10 01 13.9	+0.2
	comp=Z,70nm,0.9s,mb5.2,baz=214,slow=6.3,SNR=5.4						
PPT				LR	LR	10 07 58.5	
	comp=Z,11µm,21.8s,MS5.3,baz=270,slow=29						
TVO	Taravao	25.04	88	eT		10 26 12.2	
	comp=Z,110nm,0.4s						
TVO	Taravao	25.04	88	eP	P	10 01 17.0	+1.0
	comp=Z,1µm,1.6s,mb6.1						
TVO				eTT		10 26 12.2	
TVO	Taravao	25.04	88	eP	P	10 01 17.0	+1.0
TVO				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.1						
RPZ	Rata Peaks	25.54	203	P	P	10 01 18.6	-1.7
	comp=Z,48nm,0.6s,mb5.2,baz=15,slow=6.8,SNR=30						
HNR	Honiara	26.08	292	eP	P	10 01 25.1	-0.4
	comp=Z,806nm,1.3s,mb6.1						
HNR				LR	LR		
	comp=Z,8µm,19.0s,MS5.3						
HNR	Honiara	26.08	292	eP	P	10 01 25.1	-0.4
HNR				pmax	pmax		
	comp=Z,806nm,1.3s,mb6.1						
HNR				MLR	MLR		
	comp=Z,8µm,19.0s,MS5.3						
HNR	Honiara	26.08	292	LR	LR	10 09 52.5	
	comp=Z,8µm,20.1s,MS5.2,baz=176,slow=32						
PMOR	Pomariorio Ree	26.95	82	eT		10 28 25.3	
	comp=Z,11nm,0.3s						
VAH	Vaihoa	27.14	83	eT		10 28 48.7	
	comp=Z,20nm,0.3s						
EIDS	Eidsvold	30.97	255	eP	P	10 02 10.4	+1.4
ARMA	Armidale	31.02	245	eP	P	10 02 10.0	+0.6
CNB	Canberra Magne	34.00	237	eP	P	10 02 35.2	-0.3
	comp=Z,87nm,1.6s,mb5.4						
CTA	Charters Tower	35.70	264	eP	P	10 02 50.9	+0.5
	comp=Z,44nm,0.9s,mb5.4						
CTA				eS	S	10 08 19.3	-6.2
CTA	Charters Tower	35.70	264	P	P	10 02 50.6	+0.2
	comp=Z,61nm,0.9s,mb5.5,baz=97,slow=9.9,SNR=22						
CTAO	Charters Tower	35.70	264	eP	P	10 02 51.0	+0.7
	comp=Z,63nm,0.9s,mb5.5						
CTAO				LR	LR		
	comp=Z,13µm,19.0s,MS5.7						
PMG	Port Moresby	37.57	282	eP	P	10 03 06.2	-0.1
PMG				LR	LR		
	comp=Z,7µm,19.0s,MS5.5						
PMG	Port Moresby	37.57	282	P	P	10 03 05.5	-0.8
	comp=Z,88nm,1.0s,mb5.5,baz=99,slow=7.8,SNR=21						
PMG				LR	LR	10 16 56.2	
	comp=Z,7µm,18.1s,MS5.5,baz=104,slow=34						
TOO	Toolangi	37.62	235	eP	P	10 03 05.7	-0.8
	comp=Z,22nm,1.0s,mb4.8						
RKT	Rikitea	37.70	101	eS	S	10 08 53.0	-2.9
	comp=Z,1µm,26.5s						
RKT				eLQ		10 11 40.4	
	comp=Z,7µm,25.8s						
RKT				eLR	LR	10 13 07.7	
	comp=Z,18µm,28.0s,baz=268						
RKT	Rikitea	37.70	101	eT		10 42 01.9	
	comp=Z,72nm,0.3s						
TAU	Tasmania Unive	38.10	226	PFAKE		10 03 20.0	+10
TAU				LR	LR		
	comp=Z,7µm,19.0s,MS5.5						
STKA	Stephens Creek	39.74	245	P	P	10 03 23.6	-0.7
	comp=Z,8.0nm,0.7s,mb4.5,baz=88,slow=8.6,SNR=16						
STKA				LR	LR	10 17 57.9	
	comp=Z,9µm,18.8s,MS5.6,baz=74,slow=34						
COEN	Coen	39.83	273	eP	P	10 03 26.1	+0.8
KIP	Kipapa	45.23	23	eP	P	10 04 09.3	+0.4
	comp=Z,100nm,1.1s,mb5.6						
KIP	Kipapa	45.23	23	eP	P	10 04 09.3	+0.3
KIP				pmax	pmax		
	comp=Z,100nm,1.1s,mb5.6						
WB2	Warramunga Arr	46.79	262	eP	P	10 04 19.8	-1.6
WRA	Warramunga Arr	46.80	262	P	P	10 04 19.6	-1.9
	comp=Z,16nm,0.9s,mb4.9,baz=94,slow=5.2,SNR=60						
WRA				LR	LR	10 23 33.9	
	comp=Z,8µm,18.0s,MS5.7,baz=90,slow=36						
KAKA	Kakadu	50.22	270	eP	P	10 04 46.2	-1.7
	comp=Z,255nm,1.9s,mb5.9						
FORT	Forrest	51.29	247	eP	P	10 04 54.2	-1.6
	comp=Z,38nm,0.7s,mb5.4						
GUMO	Guam	51.65	308	PFAKE		10 05 10.0	+11
GUMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
GUMO	Guam	51.65	308	LR	LR	10 23 57.7	
	comp=Z,2µm,20.7s,MS5.2,baz=266,slow=33						
FITZ	Fitzroy Crossi	55.23	262	eP	P	10 05 24.1	-0.8
	comp=Z,109nm,2.0s,mb5.5						
FITZ				eS	S	10 13 07.0	+0.1
FITZ	Fitzroy Crossi	55.23	262	LR	LR	10 29 22.7	
	comp=Z,4µm,18.1s,MS5.6,baz=279,slow=36						
SBA	Scott Base	57.86	184	eP	P	10 05 43.9	+1.1
SBA				LR	LR		
	comp=Z,3µm,22.0s,MS5.4						
VNDA	Vanda	57.95	186	P	P	10 05 43.4	0.0
	comp=Z,3.9nm,1.1s,mb4.4,baz=32,slow=9.1,SNR=3.8						
VNDA				LR	LR	10 24 56.3	
	comp=Z,2µm,21.5s,MS5.1,baz=9.9,slow=30						
KLBR	Kellerberrin	60.02	245	eP	P	10 05 55.0	-3.5
	comp=Z,136nm,1.6s,mb5.7						
NWAO	Narrogin (SRO)	60.30	243	PFAKE		10 06 10.0	+10
NWAO				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
NWAO	Narrogin (SRO)	60.30	243	LR	LR	10 30 55.1	
	comp=Z,5µm,18.4s,MS5.6,baz=103,slow=35						
CBIJ	Chichi jima	62.65	318	LR	LR	10 30 51.4	
	comp=Z,4µm,20.6s,MS5.5,baz=295,slow=34						
DAV	Davao City (W)	64.00	289	PFAKE		10 06 40.0	+15
DAV				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
CASY	Casey	64.77	205	eP	P	10 06 35.3	+5.6
CASY				eS	S	10 15 21.0	+13
JHJ	Hachijo jima 2	68.37	321	LR	LR	10 31 29.7	
	comp=Z,1µm,20.9s,MS5.1,baz=137,slow=31						
QSPA	South Pole Qui	69.40	180	eP	P	10 07 00.1	+1.2
QSPA				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
MJAR	Matsushiro Arr	71.69	322	P	P	10 07 11.8	-1.6
MJAR				LR	LR	10 33 38.5	
MJAR	Matsushiro Arr	71.69	322	P	P	10 07 11.8	-1.6
	comp=Z,10nm,0.9s,mb4.7,baz=160,slow=5.6,SNR=15						
MJAR				LR	LR	10 33 38.5	
	comp=Z,1µm,21.0s,MS5.1,baz=130,slow=32						
MAJO	Matsushiro	71.69	322	eP	P	10 07 16.1	+2.7
MAJO				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
MIR	Mirnyy	71.79	205	d iP	P	10 07 20.0	+6.4
MIR				pmax	pmax		
	comp=Z,700nm,1.5s,mb6.4						
MIR				pmax	pmax		
	comp=Z,500nm,2.0s,mb6.1						
ADK	Adak	72.24	359	PFAKE		10 07 30.0	+14
ADK				LR	LR		
	comp=Z,5µm,21.0s,MS5.7						
ERM	Erimo	73.09	329	PFAKE		10 07 30.0	+8.4
ERM				LR	LR		
	comp=Z,7µm,22.0s,MS5.9						
SMY	Shemya	73.63	353	PFAKE		10 07 40.0	+15
SMY				LR	LR		
	comp=Z,4µm,21.0s,MS5.6						
JNU	Nakatsue	73.95	315	LR	LR	10 34 56.6	
	comp=Z,2µm,20.9s,MS5.4,baz=124,slow=32						
UNV	Unalaska Valle	74.62	6	PFAKE		10 07 40.0	+10
UNV				LR	LR		
	comp=Z,9µm,22.0s,MS6.0						
NACB	Ninganchiao	75.64	303	eP	P	10 07 37.9	+1.1
KSM	Kuching	75.66	277	eP	P	10 07 39.7	+2.5
SNCC	San Nicolas Is	75.73	46	⇑P	P	10 07 37.1	-0.1
	baz=76						
YHNB	Yeheng	76.06	303	eP	P	10 07 39.5	+0.3
BSC	Santa Cruz Isl	76.11	45	⇑P	P	10 07 39.7	+0.3
	baz=76						
TATO	Taipei	76.13	304	PFAKE		10 07 50.0	+10
TATO				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
SCI	San Clemente I	76.24	47	⇑P	P	10 07 40.0	-0.1
	baz=76,SNR=5.1						
V04C	Ramage Ranch,	76.30	43	⇑P	P	10 07 40.7	+0.3
	baz=76						
V03C	Hunter Liggett	76.30	43	⇓P	P	10 07 41.1	+0.8
	baz=76,SNR=8.8						
SBC	Santa Barbara	76.32	45	⇓P	P	10 07 40.4	-0.1
	baz=76						
HAST	UC Hastings Re	76.33	42	P	P	10 07 40.4	-0.1
	baz=76,SNR=25						
BNLO	Ben Lomond (Sa	76.41	41	⇑P	P	10 07 40.8	-0.2
	baz=76						
PKM	Peak Mountain	76.53	44	P	P	10 07 42.1	+0.4
	baz=76,SNR=18						
JRSC	Jasper Ridge	76.54	41	⇓P	P	10 07 41.7	0.0
	baz=76						
SAC	San Andreas	76.55	41	eP	P	10 07 41.2	-0.5
BLG	Laguna Peak	76.56	45	⇓P	P	10 07 42.2	+0.3
	baz=76						
CIS	Catalina Islan	76.58	46	⇓P	P	10 07 41.7	-0.3
	baz=76						
MCCM	Marconi Confer	76.62	40	PFAKE		10 07 50.0	+7.9
MCCM				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
MCCM	Marconi Confer	76.62	40	⇓P	P	10 07 42.2	+0.1
	baz=76						
SAO	San Andreas Ge	76.63	42	eP	P	10 07 42.0	-0.2
	comp=Z,109nm,1.4s,mb5.6						
SAO				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
SAO	San Andreas Ge	76.63	42	eP	P	10 07 42.1	-0.1
SAO				pmax	pmax		
	comp=Z,109nm,1.4s,mb5.6						
SAO				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.7						
SMMC	Simmler	76.66	44	⇑P	P	10 07 42.4	0.0
	baz=76,SNR=5.2						
LRV	Little Rabbit	76.69	42	eP	P	10 07 42.7	+0.2
PKD	Parkfield	76.70	43	P	P	10 07 43.2	+0.6
	baz=77,SNR=18						
PET	Petropavlovsk	76.71	344	eP	P	10 07 42.9	+0.7
PET				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
PET	Petropavlovsk	76.71	344	eP	P	10 07 46.3	+4.0
PET				eS	S	10 17 24.7	-2.3
PET				ePS		10 18 06.0	
PET				pmax	pmax		
	comp=Z,55nm,1.3s,mb5.3						
PET				smax			
	comp=N,600nm,15.0s						
PET				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
PTRM	Twissleman Ran	76.73	44	eP	P	10 07 43.2	+0.4
U04C	Hernandez Rese	76.80	43	P	P	10 07 43.8	+0.6
	baz=77,SNR=24						
FMP	Fort Macarthur	76.84	46	⇑P	P	10 07 43.1	-0.4
	baz=77						
PACP	Pacheco Peak	76.88	42	P	P	10 07 44.0	+0.4
	baz=77,SNR=19						
WENL	Wente Brothers	76.98	41	⇓P	P	10 07 44.2	0.0
	baz=77						
CVS	Carmenet Viney	77.01	40	⇑P	P	10 07 44.0	-0.3
	baz=77,SNR=6.2						
NSHM	Saint Helena R	77.03	40	eP	P	10 07 44.0	-0.5
HOPS	Hopland	77.06	39	PFAKE		10 08 00.0	+15
HOPS				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
HOPS	Hopland	77.06	39	⇑P	P	10 07 44.8	+0.2
	baz=77						
V05C	Boulder Hill,	77.06	44	⇑P	P	10 07 44.9	+0.3
	baz=77						
YSS	Yuzh-Sakhalins	77.07	332	eP	P	10 07 45.0	+0.6
	comp=Z,100nm,1.1s,mb5.7						
YSS				LR	LR		
	comp=Z,4µm,22.0s,MS5.7						
YSS	Yuzh-Sakhalins	77.07	332	⇓eP	P	10 07 44.0	-0.4
YSS				e	pP	10 07 53.0	-0.7
YSS				eS	S	10 17 26.0	-5.2
YSS				ePPS		10 18 09.0	
YSS				pmax	pmax		
	comp=E,60nm,1.0s						
YSS				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.7						
YSS				pmax	pmax		
	comp=Z,400nm,3.0s						
OSI	Osito Adit	77.08	45	⇑P	P	10 07 44.8	0.0
	baz=77						
BDM	Black Diamond	77.12	41	⇑P	P	10 07 44.8	-0.2
	baz=77						
DECC	Green Verdugo	77.13	46	⇓P	P	10 07 44.5	-0.6
	baz=77						
S04C	Ingram Canyon,	77.17	41	P	P	10 07 45.2	0.0
	baz=77,SNR=18						
109C	Camp Elliot, M	77.17	47	⇑P	P	10 07 44.8	-0.5
	baz=77,SNR=6.9						
T05C	Eagle Field, D	77.20	42	⇑P	P	10 07 45.5	+0.1
	baz=77						
KCPM	Cahto Peak	77.20	39	eP	P	10 07 44.6	-0.8
P01C	Double 8 Ranch	77.21	39	⇓P	P	10 07 45.4	0.0
	baz=77						
ARVC	Arvin	77.32	45	⇓P	P	10 07 45.9	-0.2
	baz=77,SNR=7.3						
KIPM	Iron Peak	77.34	39	eP	P	10 07 49.2	+3.0
MNRC	McLaughlin Nat	77.36	40	P	P	10 07 46.6	+0.4
	baz=77,SNR=21						
O01C	Eel River Cons	77.36	38	⇓P	P	10 07 46.7	+0.5
	baz=77						
Q03C	Winters	77.46	40	⇑P	P	10 07 46.4	-0.4
	baz=77						
MURC	Murrieta	77.51	47	P	P	10 07 47.1	-0.1
	baz=77,SNR=20						
BFSC	Mount Baldy St	77.57	46	⇓P	P	10 07 46.9	-0.7
	baz=77,SNR=7.2						
LPIG	La Paz	77.58	58	P	P	10 07 48.3	+0.4
	comp=Z,7.7nm,0.3s,mb5.1,baz=147,slow=4.9,SNR=3.3						
LPIG				LR	LR	10 33 08.8	
	comp=Z,3µm,21.9s,MS5.6,baz=228,slow=29						
VES	Vestal, Richgr	77.58	44	P	P	10 07 47.7	+0.1
	baz=78,SNR=25						
MONP	Monument Peak	77.64	48	P	P	10 07 48.1	+0.1
	baz=78,SNR=32						
GASB	Alder Springs	77.69	39	P	P	10 07 48.8	+0.7
	baz=78,SNR=15						
JCC	Jacoby Creek	77.69	37	⇓P	P	10 07 48.9	+0.8
	baz=78						
S05C	Merced	77.69	42	P	P	10 07 48.5	+0.3
	baz=78,SNR=14						
EDW2	Edwards Air Fo	77.72	45	P	P	10 07 48.4	0.0
	baz=78,SNR=50						
DVTC	Desert V Tower	77.74	48	P	P	10 07 48.7	+0.2
	baz=78,SNR=22						
RCTC	Rector, Farmer	77.76	43	⇓P	P	10 07 48.7	+0.1
	baz=78						
ISA	Isabella	77.87	44	⇓P	P	10 07 49.4	+0.2
	baz=78,SNR=70						
T06C	Millerton Lake	77.88	43	⇓P	P	10 07 49.2	-0.1
	baz=78,SNR=27						
KHMM	Horse Mountain	77.90	38	eP	P	10 07 50.0	+0.8
SUTB	Sutter Butte	77.97	40	⇓P	P	10 07 49.3	-0.4
	baz=78						
Q04C	Lincoln	77.97	40	⇓P	P	10 07 49.4	-0.3
	baz=78						
O02C	Red Bluff	77.99	39	P	P	10 07 50.2	+0.5
	baz=78,SNR=21						
PFO	Pinyon Flat Ob	78.03	47	eP	P	10 07 50.0	-0.2
	comp=Z,62nm,1.3s,mb5.4						
PFO				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
PFO	Pinyon Flat Ob	78.03	47	eP	P	10 07 49.6	-0.5
PFO				pmax	pmax		
	comp=Z,62nm,1.3s,mb5.4						
PFO	Pinyon Flat Ob	78.03	47	LR	LR	10 37 26.0	
	comp=Z,2µm,18.2s,MS5.5,baz=63,slow=32						
PFO	Pinyon Flat Ob	78.03	47	P	P	10 07 50.0	-0.1
	baz=78,SNR=30						
CMB	Columbia Colle	78.08	42	eP	P	10 07 49.8	-0.5
	comp=Z,109nm,1.6s,mb5.5						
CMB				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
CMB	Columbia Colle	78.08	42	eP	P	10 07 49.9	-0.4
CMB				pmax	pmax		
	comp=Z,110nm,1.5s,mb5.6						
CMB	Columbia Colle	78.08	42	P	P	10 07 50.0	-0.3
	baz=78,SNR=30						
BBRC	Big Bear Sol-O	78.08	46	⇑P	P	10 07 50.6	+0.1
	baz=78						
SWSC	Sam W. Stewart	78.11	48	P	P	10 07 50.3	-0.2
	baz=78,SNR=32						
HELL	Mitchell Peak,	78.12	43	P	P	10 07 50.0	-0.5
	baz=78,SNR=27						
KRMB	Red Mountain	78.22	37	eP	P	10 07 50.8	-0.2
OHCM	Honcut	78.22	40	eP	P	10 07 50.2	-0.9
LAVA	Lava Cap Winer	78.31	41	P	P	10 07 51.1	-0.4
	baz=78,SNR=19						
O03C	Acorn Hollow,	78.32	39	⇑P	P	10 07 51.2	-0.4
	baz=78,SNR=6.4						
KCC	Kaiser Creek	78.32	43	⇑P	P	10 07 51.2	-0.4
	baz=78,SNR=17						
M01C	Crescent City	78.32	37	⇑P	P	10 07 51.6	0.0
	baz=78						
S06C	San Francisco	78.32	42	⇑P	P	10 07 51.5	-0.1
	baz=78,SNR=28						
ORV	Oroville	78.35	40	P	P	10 07 51.2	-0.5
	baz=78,SNR=29						
RRX	Edison Barstow	78.39	46	⇑P	P	10 07 51.2	-0.8
	baz=78						
WDC	Whiskeytown Da	78.39	38	eP	P	10 07 51.7	-0.3
	comp=Z,90nm,1.5s,mb5.5						
WDC				LR	LR		
	comp=Z,3µm,22.0s,MS5.5						
WDC	Whiskeytown Da	78.39	38	eP	P	10 07 51.7	-0.3
WDC				pmax	pmax		
	comp=Z,90nm,1.5s,mb5.5						
WDC				MLR	MLR		
	comp=Z,3µm,22.0s,MS5.5						
WDC	Whiskeytown Da	78.39	38	P	P	10 07 51.8	-0.2
	baz=78,SNR=31						
KSRS	Korea Array	78.51	317	P	P	10 07 51.7	-1.0
	comp=Z,6.0nm,1.0s,mb4.5,baz=152,slow=5.7,SNR=6.9						
KSRS				LR	LR	10 42 59.3	
	comp=Z,2µm,18.4s,MS5.4,baz=129,slow=36						
BELC	Belle Mtn.	78.56	47	P	P	10 07 53.2	+0.2
	baz=78,SNR=24						
CWC	Cottonwood Cre	78.58	44	P	P	10 07 53.3	+0.2
	baz=78,SNR=15						
R05C	Kirkwood Meado	78.69	41	P	P	10 07 53.5	-0.1
	baz=79,SNR=35						
M02C	Callahan	78.74	38	P	P	10 07 54.4	+0.5
	baz=79,SNR=22						
BC3	Big Chuckw Mtn	78.75	48	P	P	10 07 54.3	+0.2
	baz=79,SNR=23						
MPMC	Manual Prospec	78.75	45	P	P	10 07 54.0	0.0
	baz=79,SNR=62						
GSC	Goldstone	78.76	46	P	P	10 07 53.8	-0.3
	baz=79,SNR=37						
DAC	Darwin (Calif)	78.81	44	eP	P	10 07 53.7	-0.6
	comp=Z,89nm,1.5s,mb5.5						
DAC				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
DAC	Darwin (Calif)	78.81	44	eP	P	10 07 53.7	-0.7
DAC				pmax	pmax		
	comp=Z,89nm,1.5s,mb5.5						
DAC				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.7						
MLAC	Mammoth Lakes	78.81	43	⇑P	P	10 07 54.6	+0.3
	baz=79,SNR=24						
HEC	Hector,Ludlow	78.81	46	⇓P	P	10 07 54.2	-0.2
	baz=79,SNR=6.2						
L02A	Cave Junction	78.81	37	⇓P	P	10 07 54.3	0.0
	baz=79,SNR=9.2						
MTUM	Tungsten Hills	78.81	43	eP	P	10 07 54.7	+0.3
TIN	Tinemaha	78.85	43	⇑P	P	10 07 54.5	-0.1
	baz=79						
R07C	Lee Vining	78.95	42	P	P	10 07 55.4	+0.3
	baz=79,SNR=37						
O05C	Quincy	78.96	40	⇑P	P	10 07 55.1	0.0
	baz=79,SNR=22						
WAKR	Walker	78.96	42	eP	P	10 07 55.2	+0.1
R06C	Coleville	78.96	42	P	P	10 07 55.4	+0.2
	baz=79,SNR=45						
YBH	Yreka Blue Hor	79.04	37	eP	P	10 07 55.7	+0.2
	comp=Z,78nm,1.4s,mb5.4						
YBH				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
YBH	Yreka Blue Hor	79.04	37	eP	P	10 07 55.7	+0.2
YBH				pmax	pmax		
	comp=Z,78nm,1.4s						
YBH				MLR	MLR		
	comp=Z,2µm,19.0s						
YBH	Yreka Blue Hor	79.04	37	P	P	10 07 55.7	+0.2
	baz=79,SNR=26						
M03C	McCloud	79.08	38	P	P	10 07 55.6	-0.1
	baz=79,SNR=17						
O04C	Chester	79.08	39	P	P	10 07 55.7	-0.1
	baz=79,SNR=37						
S08C	White Mtn Res	79.15	43	P	P	10 07 56.6	+0.3
	baz=79,SNR=50						
HATC	Hat Creek Radi	79.17	39	P	P	10 07 56.4	+0.1
	baz=79,SNR=25						
BEKR	Beckwourth	79.23	40	P	P	10 07 56.4	-0.2
	baz=79,SNR=35						
GMRC	Granite Mounta	79.23	46	P	P	10 07 56.7	-0.1
	baz=79,SNR=39						
IRM	Iron Mountain	79.23	47	P	P	10 07 56.5	-0.2
	baz=79,SNR=76						
WCN	Washoe City	79.25	41	P	P	10 07 56.9	+0.2
	baz=79,SNR=57						
LBCM	Butte Creek Ri	79.25	39	P	P	10 07 56.4	-0.3
K02A	Glendale	79.28	36	⇑P	P	10 07 57.0	+0.2
	baz=79						
INCN	Inchon	79.35	317	PFAKE		10 08 10.0	+13
INCN				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
GRAC	Grapevine Rang	79.37	44	P	P	10 07 57.8	+0.4
	baz=79,SNR=34						
P06A	Stead Airport,	79.39	40	⇓P	P	10 07 58.2	+0.6
	baz=79,SNR=7.2						
FURC	Furnace Creek,	79.40	45	P	P	10 07 57.5	-0.1
	baz=79,SNR=28						
TUQ	Turquoise Mtn.	79.43	46	⇑P	P	10 07 57.7	-0.1
	baz=79						
Y12C	Blythe	79.44	48	P	P	10 07 58.1	+0.2
	baz=79,SNR=21						
SHOC	Shoshone	79.45	45	⇓P	P	10 07 57.9	-0.1
	baz=79,SNR=36						
HUMO	Hull Mountain	79.47	37	eP	P	10 07 57.9	+0.1

	comp=Z,112nm,1.8s,mb5.5						
HUMO				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
HUMO	**Hull Mountain**	**79.47**	**37**	P	**P**	**10 07 58.1**	**+0.3**
	baz=79,SNR=20						
ELFS	**Eagle Lake Fie**	**79.48**	**39**	P	**P**	**10 07 58.0**	**+0.1**
	baz=79,SNR=27						
SSE	**Sheshan**	**79.53**	**309**	P	**P**	**10 07 58.9**	**+0.5**
SSE				S	S	10 17 59.4	+1.1
SSE				AMB	AMB		
	comp=Z,22nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,48nm,3.6s						
SSE				LR	LR		
	comp=N,467nm,18.8s,MS5.0						
SSE				LR	LR		
	comp=E,405nm,19.0s,MS5.0						
SSE				LR	LR		
	comp=Z,894nm,20.9s,MS5.1						
M04C	**Macdoel**	**79.57**	**38**	P	**P**	**10 07 58.5**	**+0.1**
	baz=80,SNR=24						
Q07A	**Schurz**	**79.61**	**42**	⇓P	**P**	**10 07 58.7**	**-0.1**
	baz=80,SNR=17						
NVAR	**Mina Array Bea**	**79.62**	**42**	P	**P**	**10 07 58.7**	**-0.1**
NVAR	**Mina Array Bea**	**79.62**	**42**	P	**P**	**10 07 58.7**	**-0.1**
	comp=Z,10.0nm,0.9s,mb4.8,baz=213,slow=6.8,SNR=44						
J02A	**Umpqua**	**79.62**	**36**	⇑P	**P**	**10 07 58.8**	**+0.1**
	baz=80						
BUOR	**Burton Butte**	**79.66**	**37**	P	**P**	**10 07 58.8**	**-0.1**
R08A	**Mina**	**79.70**	**42**	P	**P**	**10 07 59.2**	**0.0**
	baz=80,SNR=37						
M05C	**Lookout**	**79.70**	**39**	⇓P	**P**	**10 07 59.4**	**+0.3**
	baz=80						
U10A	**Ash Meadows, A**	**79.72**	**45**	P	**P**	**10 07 59.7**	**+0.3**
	baz=80,SNR=38						
PAHR	**Pah Rah Range**	**79.72**	**41**	*e*P	**P**	**10 07 59.0**	**-0.3**
	comp=Z,89nm,1.4s,mb5.5						
O06A	**Flanigan**	**79.74**	**40**	⇑P	**P**	**10 07 59.6**	**+0.2**
	baz=80,SNR=33						
L04A	**Klamath Falls**	**79.79**	**38**	P	**P**	**10 07 59.6**	**0.0**
	baz=80,SNR=20						
S09A	**Goldfield**	**79.89**	**43**	P	**P**	**10 08 00.1**	**-0.2**
	baz=80,SNR=27						
I02A	**Mapleton**	**79.91**	**35**	⇑P	**P**	**10 08 00.4**	**+0.3**
	baz=80						
P07A	**Fallon**	**79.93**	**41**	⇑P	**P**	**10 08 00.6**	**+0.2**
	baz=80						
NEE2	**Needles Airpor**	**79.94**	**47**	⇓P	**P**	**10 08 00.9**	**+0.3**
	baz=80						
Y13A	**Salome**	**79.96**	**48**	P	**P**	**10 08 01.1**	**+0.4**
	baz=80,SNR=29						
J03A	**Ideyld Park**	**79.96**	**36**	⇓P	**P**	**10 08 00.7**	**+0.2**
	baz=80,SNR=5.1						
V11A	**Goodsprings**	**79.99**	**46**	P	**P**	**10 08 01.0**	**+0.2**
	baz=80,SNR=29						
M06C	**Likely Place G**	**80.00**	**39**	P	**P**	**10 08 00.9**	**+0.1**
	baz=80,SNR=27						
PDMCI	**Parker Dam,Lak**	**80.01**	**48**	P	**P**	**10 08 01.0**	**0.0**
	baz=80,SNR=43						
W12A	**Cal Nev Ari**	**80.06**	**46**	⇑P	**P**	**10 08 01.7**	**+0.4**
	baz=80						
N06A	**Buffalo Meadow**	**80.09**	**40**	P	**P**	**10 08 01.1**	**-0.1**
	baz=80,SNR=39						
TPH	**Tonopah**	**80.10**	**43**	*e*P	**P**	**10 08 01.3**	**0.0**
	comp=Z,114nm,1.4s,mb5.6						
TPH				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
TPH	**Tonopah**	**80.10**	**43**	*e*P	**P**	**10 08 01.3**	**-0.1**
TPH				pmax	pmax		
	comp=Z,114nm,1.4s,mb5.6						
TPH				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.6						
Q08A	**Gabbs**	**80.11**	**42**	P	**P**	**10 08 01.4**	**-0.1**
	baz=80,SNR=30						
K04A	**Chilquin**	**80.16**	**37**	⇑P	**P**	**10 08 01.8**	**+0.2**
	baz=80						
I03A	**Eugene**	**80.19**	**35**	⇓P	**P**	**10 08 01.9**	**+0.2**
	baz=80						
PMSA	**Palmer Station**	**80.24**	**156**	PFAKE		10 08 10.0	+8.2
PMSA				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
PMSA	**Palmer Station**	**80.24**	**156**	LR	LR	10 35 47.2	
	comp=Z,1µm,21.3s,MS5.3,baz=323,slow=30						
H02A	**Toledo**	**80.27**	**35**	⇓P	**P**	**10 08 03.5**	**+1.4**
	baz=80						
R09A	**Tonopah**	**80.29**	**43**	P	**P**	**10 08 02.4**	**0.0**
	baz=80,SNR=31						
O07A	**Toulon**	**80.31**	**41**	P	**P**	**10 08 02.5**	**0.0**
	baz=80,SNR=47						
V12A	**Nelson**	**80.31**	**46**	P	**P**	**10 08 02.9**	**+0.3**
	baz=80,SNR=47						
L05A	**Lakeview**	**80.32**	**38**	P	**P**	**10 08 02.8**	**+0.4**
	baz=80,SNR=29						
Z14A	**Wintersburg**	**80.34**	**49**	⇓P	**P**	**10 08 03.1**	**+0.3**
	baz=80,SNR=6.8						
U11A	**Corn Creek**	**80.35**	**45**	⇓P	**P**	**10 08 03.2**	**+0.5**
	baz=80,SNR=7.9						
J04A	**Umpqua Nationa**	**80.35**	**37**	⇑P	**P**	**10 08 02.9**	**+0.3**
	baz=80,SNR=18						
X13A	**Yucca**	**80.38**	**47**	P	**P**	**10 08 03.3**	**+0.3**
	baz=80,SNR=44						
S10A	**Tonopah Range,**	**80.41**	**43**	P	**P**	**10 08 03.1**	**0.0**
	baz=80,SNR=31						
KDAK	**Kodiak Island**	**80.48**	**12**	*e*P	**P**	**10 08 03.2**	**+0.3**
	comp=Z,52nm,1.2s,mb5.3						
KDAK				LR	LR		
	comp=Z,758nm,22.0s,MS5.0						
115A	**Sonoran Desert**	**80.50**	**50**	⇓P	**P**	**10 08 03.8**	**+0.2**
	baz=80						
P08A	**Dixie Valley**	**80.52**	**41**	⇑P	**P**	**10 08 03.8**	**+0.3**
	baz=80						
MOD	**Modoc**	**80.53**	**38**	*e*P	**P**	**10 08 03.5**	**-0.1**
MOD				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
MOD	**Modoc**	**80.53**	**38**	P	**P**	**10 08 03.5**	**-0.1**
	baz=80,SNR=36						
SHPR	**Sheep Range**	**80.54**	**45**	*e*P	**P**	**10 08 04.0**	**+0.2**
I04A	**Tendick Farm,**	**80.55**	**36**	P	**P**	**10 08 03.1**	**-0.5**
	baz=80,SNR=7.4						
Q09A	**Carvers**	**80.57**	**42**	⇑P	**P**	**10 08 03.8**	**-0.1**
	baz=80						
COR	**Corvallis**	**80.58**	**35**	PFAKE		10 08 20.0	+16
COR				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
Y14A	**Wickenburg**	**80.60**	**48**	⇓P	**P**	**10 08 03.8**	**-0.3**
	baz=80,SNR=6.7						
W13A	**Hualapai Mount**	**80.62**	**47**	⇓P	**P**	**10 08 04.0**	**-0.3**
	baz=80,SNR=47						
N07B	**Gerlach**	**80.63**	**40**	⇓P	**P**	**10 08 04.3**	**+0.2**
	baz=80						
H03A	**Soap Creek Ran**	**80.64**	**35**	⇓P	**P**	**10 08 04.1**	**0.0**
	baz=81						
K05A	**Summer Lake**	**80.71**	**38**	P	**P**	**10 08 04.7**	**+0.1**
	baz=81,SNR=31						
IRO	**Indian Ridge**	**80.77**	**36**	P	**P**	**10 08 04.3**	**-0.5**
116A	**Eloy**	**80.80**	**50**	⇓P	**P**	**10 08 05.4**	**+0.1**
	baz=81						
R10A	**Warm Springs**	**80.81**	**43**	P	**P**	**10 08 05.7**	**+0.5**
	baz=81,SNR=48						
J05A	**Fort Rock**	**80.87**	**37**	P	**P**	**10 08 05.7**	**+0.3**
	baz=81,SNR=34						
M07A	**Soldier Meadow**	**80.88**	**39**	P	**P**	**10 08 05.5**	**0.0**
	baz=81,SNR=27						
U12A	**Valley of Fire**	**80.92**	**46**	P	**P**	**10 08 06.2**	**+0.5**
	baz=81,SNR=27						
T12A	**Moapa**	**80.96**	**45**	⇑P	**P**	**10 08 06.2**	**+0.2**
	baz=81						
X14A	**Yava**	**80.97**	**48**	P	**P**	**10 08 06.7**	**+0.6**
	baz=81,SNR=40						
P09A	**Austin**	**81.02**	**42**	⇓P	**P**	**10 08 06.3**	**0.0**
	baz=81						
G03A	**Yamhill**	**81.07**	**34**	⇑P	**P**	**10 08 06.6**	**+0.2**
	baz=81						
K06A	**Valley Falls**	**81.12**	**38**	P	**P**	**10 08 06.8**	**+0.1**
	baz=81,SNR=29						
N08A	**GE Springer Mi**	**81.14**	**40**	⇓P	**P**	**10 08 07.0**	**+0.2**
	baz=81						
L07A	**Adell**	**81.17**	**39**	P	**P**	**10 08 07.3**	**+0.3**
	baz=81,SNR=36						
W14A	**Seligman**	**81.23**	**47**	⇓P	**P**	**10 08 07.3**	**-0.2**
	baz=81,SNR=49						
H04A	**Detroit Lake**	**81.25**	**35**	P	**P**	**10 08 06.7**	**-0.7**
	baz=81,SNR=17						
TRCR	**Troy Canyon**	**81.31**	**44**	*e*P	**P**	**10 08 07.7**	**-0.1**
TUC	**Tucson**	**81.33**	**51**	*e*P	**P**	**10 08 08.6**	**+0.5**
	comp=Z,117nm,1.4s,mb5.6						
TUC				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
TUC	**Tucson**	**81.33**	**51**	*e*P	**P**	**10 08 08.6**	**+0.5**
TUC				pmax	pmax		
	comp=Z,117nm,1.4s,mb5.6						
TUC				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.6						
F03A	**Seaside**	**81.33**	**34**	⇑P	**P**	**10 08 08.2**	**+0.5**
	baz=81						
O09A	**Fish Creek Ran**	**81.35**	**41**	P	**P**	**10 08 07.8**	**-0.3**
	baz=81,SNR=18						
M08A	**Happy Creek Ra**	**81.39**	**40**	⇓P	**P**	**10 08 08.4**	**+0.2**
	baz=81,SNR=24						
I05A	**Bend**	**81.41**	**36**	⇓P	**P**	**10 08 08.4**	**+0.2**
	baz=81						
G04A	**Mulino**	**81.43**	**35**	⇑P	**P**	**10 08 08.8**	**+0.5**
	baz=81						
X15A	**Humboldt**	**81.43**	**48**	⇓P	**P**	**10 08 08.5**	**-0.1**
	baz=81,SNR=52						
J06A	**Christmas Vall**	**81.46**	**37**	P	**P**	**10 08 08.2**	**-0.4**
	baz=81,SNR=24						
P10A	**Eureka**	**81.48**	**42**	⇓P	**P**	**10 08 08.7**	**0.0**
	baz=81						
BMN	**Battle Mountai**	**81.49**	**41**	PFAKE		10 08 20.0	+11
BMN				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
BMN	**Battle Mountai**	**81.49**	**41**	*e*P	**P**	**10 08 09.2**	**+0.5**
BMN				pmax	pmax		
	comp=Z,78nm,1.4s,mb5.5						
Q11A	**Duckwater**	**81.55**	**43**	P	**P**	**10 08 09.2**	**+0.1**
	baz=81,SNR=38						
N09A	**Rock Creek Ran**	**81.55**	**41**	P	**P**	**10 08 09.2**	**+0.1**
	baz=81,SNR=17						
K07A	**Rock Creek Ran**	**81.64**	**38**	P	**P**	**10 08 09.6**	**+0.1**
	baz=82,SNR=33						
T13A	**Saint George**	**81.66**	**45**	⇓P	**P**	**10 08 10.2**	**+0.4**
	baz=82						
HABR	**Khabarovsk**	**81.71**	**329**	⇓*e*P	**P**	**10 08 09.4**	**-0.3**
HABR				*e*		10 08 14.9	
HABR				*e*S	S	10 18 18.9	-1.5
HABR				*e*SS	SS	10 23 34.3	-4.7
HABR				pmax	pmax		
	comp=Z,260nm,2.2s,mb5.8						
NJ2	**Nanjing**	**81.72**	**309**	*e*P	**P**	**10 08 13.1**	**+2.9**
NJ2				PP	PP	10 11 23.8	+6.2
NJ2				S	S	10 18 21.0	-0.3
NJ2				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,270nm,5.7s						
NJ2				LR	LR		
	comp=N,3µm,20.4s,MS5.7						
NJ2				LR	LR		
	comp=E,2µm,24.1s,MS5.7						
NJ2				LR	LR		
	comp=Z,2µm,24.2s,MS5.3						
E03A	**Lebam**	**81.74**	**33**	⇓P	**P**	**10 08 10.1**	**+0.1**
	baz=82						
H05A	**Madras**	**81.75**	**36**	⇓P	**P**	**10 08 09.9**	**0.0**
	baz=82						
GZH	**Guangzhou**	**81.77**	**298**	P	**P**	**10 08 13.1**	**+2.5**
GZH				S	S	10 18 27.4	+5.4
GZH				LR	LR		
	comp=N,642nm,24.3s,MS5.2						
GZH				LR	LR		
	comp=E,992nm,22.7s,MS5.2						
GZH				LR	LR		
	comp=Z,1µm,26.4s,MS5.1						
W15A	**Williams**	**81.78**	**48**	⇓P	**P**	**10 08 10.2**	**-0.2**
	baz=82,SNR=7.9						
WVOR	**Wild Horse Val**	**81.84**	**39**	*e*P	**P**	**10 08 10.4**	**-0.2**
	comp=Z,97nm,1.4s,mb5.5						
WVOR				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
WVOR	**Wild Horse Val**	**81.84**	**39**	*e*P	**P**	**10 08 10.4**	**-0.1**
WVOR				pmax	pmax		
	comp=Z,97nm,1.4s,mb5.5						
WVOR				MLR	MLR		
	comp=Z,3µm,22.0s,MS5.6						
O10A	**Cortez Mining,**	**81.85**	**42**	⇓P	**P**	**10 08 10.5**	**-0.1**
	baz=82,SNR=6.9						
L08A	**Fields**	**81.86**	**39**	P	**P**	**10 08 10.7**	**0.0**
	baz=82,SNR=44						
I06A	**Prineville**	**81.86**	**37**	⇑P	**P**	**10 08 11.0**	**+0.4**
	baz=82,SNR=37						
P11A	**Circle Ranch,**	**81.89**	**42**	⇑P	**P**	**10 08 10.8**	**-0.1**
	baz=82						
R12A	**Pony Springs,**	**81.93**	**44**	P	**P**	**10 08 11.3**	**+0.2**
	baz=82,SNR=32						
F04A	**Amboy**	**81.93**	**34**	⇓P	**P**	**10 08 10.6**	**-0.3**
	baz=82						
M09A	**Marrel Ranch,**	**81.94**	**40**	P	**P**	**10 08 11.4**	**+0.4**
	baz=82,SNR=15						
HOOD	**Mount Hood Mea**	**81.95**	**35**	*e*P	**P**	**10 08 11.2**	**+0.1**
MDJ	**Mudanjiang**	**81.96**	**324**	P	**P**	**10 08 13.0**	**+1.9**
MDJ				PP	PP	10 11 21.5	+2.2
MDJ				S	S	10 18 22.4	-0.7
MDJ				AMB	AMB		
	comp=Z,17nm,1.8s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,232nm,4.5s						
MDJ				LR	LR		
	comp=N,725nm,16.7s,MS5.3						
MDJ				LR	LR		
	comp=E,1µm,18.4s,MS5.3						
MDJ				LR	LR		
	comp=Z,2µm,20.2s,MS5.4						
MDJ	**Mudanjiang**	**81.96**	**324**	*e*P	**P**	**10 08 10.0**	**-1.1**
	comp=Z,201nm,1.8s,mb5.8						
MDJ				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
D03A	**Wishkah Elem.**	**82.02**	**33**	⇓P	**P**	**10 08 11.7**	**+0.4**
	baz=82						
J07A	**Hines**	**82.02**	**38**	P	**P**	**10 08 11.5**	**0.0**
	baz=82,SNR=27						
G05A	**Wamic**	**82.08**	**35**	⇑P	**P**	**10 08 12.1**	**+0.4**
	baz=82						
N10A	**Dunphy**	**82.09**	**41**	P	**P**	**10 08 12.2**	**+0.2**
	baz=82,SNR=16						
K08A	**Mann Creek Ran**	**82.11**	**39**	P	**P**	**10 08 12.1**	**+0.1**
	baz=82,SNR=46						
NLWA	**Neilton Lookou**	**82.15**	**33**	*e*P	**P**	**10 08 15.6**	**+3.6**
	comp=Z,88nm,1.6s,mb5.4						
NLWA				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
NLWA	**Neilton Lookou**	**82.15**	**33**	⇑P	**P**	**10 08 12.5**	**+0.5**
	baz=82						
MAW	**Mawson**	**82.16**	**199**	P	**P**	**10 08 11.6**	**-0.3**
	comp=Z,2.8nm,0.6s,mb4.4,baz=168,slow=5.4,SNR=5.7						
MAW				LR	LR	10 42 15.6	
	comp=Z,3µm,21.1s,MS5.7,baz=121,slow=34						
L09A	**Wilkinson Ranc**	**82.16**	**40**	⇓P	**P**	**10 08 12.5**	**+0.3**
	baz=82						
Q12A	**Willow Creek R**	**82.19**	**43**	⇓P	**P**	**10 08 12.8**	**+0.4**
	baz=82,SNR=22						
E04A	**Onalaska**	**82.21**	**34**	⇓P	**P**	**10 08 12.9**	**+0.6**
	baz=82						
T14A	**Hurricane**	**82.24**	**46**	P	**P**	**10 08 13.1**	**+0.3**
	baz=82,SNR=30						
O11A	**Cowboy Ranch,**	**82.28**	**42**	P	**P**	**10 08 13.0**	**+0.1**
	baz=82,SNR=34						
H06A	**Lindquist Farm**	**82.29**	**36**	P	**P**	**10 08 12.6**	**-0.2**
	baz=82,SNR=32						
CCUT	**Cedar City**	**82.32**	**45**	*e*P	**P**	**10 08 12.6**	**-0.5**
I07A	**Izee**	**82.35**	**37**	P	**P**	**10 08 13.2**	**0.0**
	baz=82,SNR=37						
P12A	**McGill**	**82.38**	**43**	P	**P**	**10 08 13.7**	**+0.2**
	baz=82,SNR=18						
ARUT	**Antelope Range**	**82.40**	**45**	*e*P	**P**	**10 08 12.0**	**-1.6**
F05A	**White Salmon**	**82.41**	**35**	⇑P	**P**	**10 08 13.5**	**+0.1**
	baz=82						
G06A	**Carlson Farm,**	**82.44**	**36**	P	**P**	**10 08 13.3**	**-0.4**
	baz=82,SNR=21						
J08A	**Circle Bar Ran**	**82.49**	**38**	P	**P**	**10 08 13.9**	**-0.1**
	baz=82,SNR=31						
D04A	**Dobbs Creek Ra**	**82.51**	**33**	⇓P	**P**	**10 08 13.3**	**-0.7**
	baz=82						
K09A	**Rome**	**82.53**	**39**	P	**P**	**10 08 14.2**	**0.0**
	baz=82,SNR=54						
M10A	**I.L. Ranch, Tu**	**82.55**	**41**	⇑P	**P**	**10 08 14.0**	**-0.2**
	baz=82,SNR=27						
S14A	**Cedar City**	**82.56**	**45**	P	**P**	**10 08 14.9**	**+0.5**
	baz=82,SNR=33						
WUAZ	**Wupatki**	**82.58**	**48**	*e*P	**P**	**10 08 14.5**	**-0.1**
WUAZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
WUAZ	**Wupatki**	**82.58**	**48**	P	**P**	**10 08 15.3**	**+0.7**
	baz=82,SNR=45						
N11A	**Elko Archery C**	**82.63**	**41**	P	**P**	**10 08 15.4**	**+0.7**
	baz=82,SNR=6.5						
E05A	**Randle**	**82.69**	**34**	⇑P	**P**	**10 08 14.9**	**0.0**
	baz=83,SNR=22						
F06A	**Goldendale**	**82.70**	**35**	⇓P	**P**	**10 08 14.8**	**-0.2**
	baz=83						
USHA	**Ushuaia**	**82.75**	**146**	LR	LR	10 40 17.9	
	comp=Z,1µm,18.2s,MS5.2,baz=233,slow=32						
I08A	**Drewsey**	**82.78**	**38**	P	**P**	**10 08 15.3**	**-0.1**
	baz=83,SNR=23						
B04A	**Port Angeles**	**82.78**	**32**	⇑P	**P**	**10 08 15.0**	**-0.3**
	baz=83						
C04A	**Brinnon**	**82.82**	**33**	⇓P	**P**	**10 08 15.8**	**+0.2**
	baz=83						
WPW	**White Pass**	**82.89**	**34**	P	**P**	**10 08 15.4**	**-0.5**
ELK	**Elko**	**82.90**	**42**	*e*P	**P**	**10 08 16.6**	**+0.4**
	comp=Z,100nm,1.4s,mb5.7						
ELK				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
ELK	**Elko**	**82.90**	**42**	*e*P	**P**	**10 08 16.6**	**+0.5**
ELK				pmax	pmax		
	comp=Z,100nm,1.4s						
ELK				MLR	MLR		
	comp=Z,3µm,19.0s						
J09A	**Fry Pan Ranch,**	**82.91**	**38**	P	**P**	**10 08 16.1**	**0.0**
	baz=83,SNR=34						
L10A	**Juniper Basin**	**82.91**	**40**	P	**P**	**10 08 16.1**	**-0.1**
	baz=83,SNR=54						
O12A	**Currie**	**82.94**	**42**	P	**P**	**10 08 16.4**	**+0.1**
	baz=83,SNR=29						
M11A	**Holland Ranch,**	**82.95**	**41**	P	**P**	**10 08 16.8**	**+0.4**
	baz=83,SNR=30						
QIZ	**Qiongzhong**	**82.98**	**293**	P	**P**	**10 08 16.6**	**-0.4**
QIZ				PP	PP	10 11 31.4	+3.2
QIZ				S	S	10 18 34.2	-0.4
QIZ				AMB	AMB		
	comp=Z,13nm,1.6s,mb4.7						
QIZ				LR	LR		
	comp=N,691nm,29.1s						
QIZ				LR	LR		
	comp=E,391nm,17.8s						
QIZ				LR	LR		
	comp=Z,807nm,28.2s,MS4.9						
QIZ	**Qiongzhong**	**82.98**	**293**	PFAKE		10 08 30.0	+13
QIZ				LR	LR		
	comp=Z,878nm,19.0s,MS5.2						
D05A	**Enumclaw**	**82.98**	**34**	⇓P	**P**	**10 08 16.8**	**+0.4**
	baz=83,SNR=29						
G07A	**Ruggs Ranch, H**	**82.99**	**36**	P	**P**	**10 08 16.2**	**-0.2**
	baz=83,SNR=25						
N12A	**Clover Valley,**	**83.08**	**42**	P	**P**	**10 08 17.2**	**+0.1**
	baz=83,SNR=35						
K10A	**MacKenzie Ranc**	**83.09**	**39**	⇑P	**P**	**10 08 17.2**	**+0.1**
	baz=83						
H08A	**Prairie City**	**83.09**	**37**	P	**P**	**10 08 16.6**	**-0.4**
	baz=83,SNR=26						
E06A	**Yakima**	**83.09**	**35**	P	**P**	**10 08 16.8**	**-0.2**
	baz=83,SNR=23						
PGC	**Sidney**	**83.20**	**32**	*e*P	**P**	**10 08 16.6**	**-0.9**
F07A	**Phinny Hill Vi**	**83.25**	**36**	⇓P	**P**	**10 08 17.5**	**-0.3**
	baz=83						
I09A	**Lost Marbles R**	**83.29**	**38**	⇓P	**P**	**10 08 18.0**	**-0.1**
	baz=83,SNR=6.7						
L11A	**Cat Creek Ranc**	**83.40**	**40**	⇑P	**P**	**10 08 18.4**	**-0.3**
	baz=83,SNR=47						
G08A	**Pilot Rock**	**83.40**	**36**	⇑P	**P**	**10 08 18.1**	**-0.5**
	baz=83						
DL2	**Dalian**	**83.40**	**316**	*e*P	**P**	**10 08 20.8**	**+2.0**
DL2				S	S	10 18 41.1	+3.0
DL2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
DL2				LR	LR		
	comp=N,370nm,17.5s,MS5.1						
DL2				LR	LR		
	comp=E,570nm,17.5s,MS5.1						
DL2				LR	LR		
	comp=Z,660nm,18.7s,MS5.0						
C05A	**Tolt Reservoir**	**83.46**	**33**	⇓P	**P**	**10 08 18.4**	**-0.5**
	baz=83						
SLKM	**Skilak Lake**	**83.47**	**12**	*e*P	**P**	**10 08 20.4**	**+1.8**
SLKM	**Skilak Lake**	**83.47**	**12**	P	**P**	**10 08 17.5**	**-1.1**
M12A	**Wells**	**83.48**	**41**	P	**P**	**10 08 19.2**	**+0.1**
	baz=83,SNR=62						
J10A	**Berg Farm, Mel**	**83.53**	**39**	⇑P	**P**	**10 08 19.2**	**-0.1**
	baz=83,SNR=5.1						
COCO	**West Island**	**83.53**	**259**	PFAKE		10 08 30.0	+10
COCO				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
D06A	**Cle Elum**	**83.58**	**34**	⇑P	**P**	**10 08 19.5**	**+0.1**
	baz=84						
N13A	**Wendover, West**	**83.61**	**42**	⇑P	**P**	**10 08 19.4**	**-0.3**
	baz=84,SNR=28						
A04A	**Legoe Bay, Lum**	**83.62**	**32**	⇑P	**P**	**10 08 19.3**	**-0.3**
	baz=84						
B05A	**Bryant**	**83.62**	**33**	⇑P	**P**	**10 08 19.5**	**-0.1**
	baz=84						
MSU	**Marysvale**	**83.63**	**45**	*e*P	**P**	**10 08 20.8**	**+0.8**
E07A	**Sunnyside**	**83.70**	**35**	P	**P**	**10 08 20.1**	**0.0**
	baz=84,SNR=31						
H09A	**Durkee**	**83.75**	**37**	P	**P**	**10 08 20.3**	**-0.1**
	baz=84,SNR=19						
HAWA	**Hanford**	**83.77**	**35**	*e*P	**P**	**10 08 20.0**	**-0.4**
HAWA				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
MDW	**Midway**	**83.79**	**35**	P	**P**	**10 08 20.3**	**-0.2**
SNY	**Shenyang**	**83.79**	**319**	⇑P	**P**	**10 08 23.4**	**+2.7**
SNY				S	S	10 18 47.7	+5.8
SNY				AMB	AMB		
	comp=Z,17nm,1.9s,mb4.8						
SNY				AMB	AMB		
	comp=Z,301nm,5.0s						
SNY				LR	LR		
	comp=N,477nm,11.8s						
SNY				LR	LR		
	comp=E,1µm,18.4s						
SNY				LR	LR		
	comp=Z,1µm,18.5s						
CN2	**Changchun**	**83.81**	**321**	⇓P	**P**	**10 08 19.9**	**-0.9**
CN2				*e*S	S	10 18 45.9	+3.9
CN2				AMB	AMB		
	comp=Z,40nm,1.3s,mb5.4						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,700nm,20.0s,MS5.2						
CN2				LR	LR		
	comp=E,900nm,20.0s,MS5.2						
CN2				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
F08A	**Pendleton**	**83.81**	**36**	P	**P**	**10 08 20.5**	**-0.2**
	baz=84,SNR=28						
KLR	**Kul’dur**	**83.83**	**328**	*e*P	**P**	**10 08 16.6**	**-4.1**
KLR				*e*S	S	10 18 39.0	-2.9
KLR				*e*		10 19 51.0	
KLR				pmax	pmax		
	comp=E,45nm,2.0s						
KLR				pmax	pmax		
	comp=Z,110nm,2.0s,mb5.6						
L12A	**House Creek Ra**	**83.83**	**41**	⇑P	**P**	**10 08 20.5**	**-0.4**
	baz=84,SNR=50						
I10A	**Payette**	**83.90**	**38**	⇑P	**P**	**10 08 20.9**	**-0.3**
	baz=84,SNR=21						
M13A	**Montello**	**83.91**	**42**	⇓P	**P**	**10 08 20.8**	**-0.5**
	baz=84,SNR=66						
GBL	**Gable Mountain**	**83.94**	**35**	P	**P**	**10 08 21.2**	**-0.1**
C06A	**Tall Timber Ra**	**84.02**	**34**	⇑P	**P**	**10 08 21.4**	**-0.3**
	baz=84						
D07A	**Quincy**	**84.04**	**34**	P	**P**	**10 08 21.6**	**-0.3**
	baz=84,SNR=18						
BMO	**Blue Mountains**	**84.07**	**37**	*e*P	**P**	**10 08 21.5**	**-0.5**
	comp=Z,70nm,1.3s,mb5.6						
BMO				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
MFID	**Camas Ranch**	**84.08**	**39**	P	**P**	**10 08 21.9**	**-0.2**
	baz=84,SNR=42						
E08A	**Dider Farm, El**	**84.09**	**35**	⇑P	**P**	**10 08 22.0**	**-0.1**
	baz=84						
B06A	**Marblemount**	**84.10**	**33**	⇑P	**P**	**10 08 22.0**	**0.0**
	baz=84						
A05A	**Maple Falls**	**84.11**	**32**	⇓P	**P**	**10 08 22.1**	**0.0**
	baz=84						
DUG	**Dugway**	**84.12**	**43**	*e*P	**P**	**10 08 21.9**	**-0.6**
DUG				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
DUG	**Dugway**	**84.12**	**43**	P	**P**	**10 08 22.0**	**-0.4**
	baz=84,SNR=28						
K12A	**Draper Farm, C**	**84.18**	**40**	P	**P**	**10 08 22.8**	**+0.1**
	baz=84,SNR=41						

H10A	Noah's Angus R	84.23	38	P	P	10 08 22.4	-0.5
	baz=84,SNR=69						
F09A	S2 Ranch, Elgi	84.24	37	P	P	10 08 22.7	-0.2
	baz=84,SNR=16						
I11A	Placerville	84.29	39	P	P	10 08 23.0	-0.2
	baz=84,SNR=38						
C07A	Waterville	84.30	34	P	P	10 08 22.6	-0.6
	baz=84,SNR=22						
EPH	Ephrata	84.34	35	P	P	10 08 22.8	-0.6
WHN	Wuhan	84.36	305	*e*P	P	10 08 24.2	+0.3
WHN				S	S	10 18 48.0	-0.1
WHN				LR	LR		
	comp=Z,3µm,17.3s,MS5.7						
WTV	Waterville	84.37	34	P	P	10 08 22.8	-0.6
BGU	Big Grassy Mou	84.39	43	*e*P	P	10 08 23.9	+0.1
J12A	Stokes Ranch,	84.42	40	P	P	10 08 24.0	+0.2
	baz=84,SNR=60						
L13A	Double Diamond	84.46	41	⇑P	P	10 08 24.2	+0.1
	baz=84						
SIT	Sitka	84.46	21	PFAKE		10 08 30.0	+6.3
SIT				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
NLU	North Lily Min	84.47	44	*e*P	P	10 08 24.5	+0.3
EYAK	Cordova Ski Ar	84.47	14	*e*P	P	10 08 24.9	+1.2
A06A	Chilliwack	84.48	32	⇑P	P	10 08 23.9	0.0
	baz=84						
D08A	Wollman Farm,	84.51	35	P	P	10 08 23.9	-0.4
	baz=84,SNR=35						
MA2	Magadan	84.56	344	*e*P	P	10 08 23.2	-1.0
	comp=Z,88nm,1.6s,mb5.6						
MA2				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
MA2	Magadan	84.56	344	*e*P	P	10 08 23.0	-1.2
MA2				*e*S	S	10 18 44.0	-4.8
MA2				*e*PS		10 19 32.1	
MA2				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
MA2				MLR	MLR		
	comp=Z,2µm,21.5s,MS5.6						
E09A	Wood Farm, Sta	84.60	36	P	P	10 08 24.1	-0.6
	baz=84,SNR=27						
PMR	Palmer	84.68	12	*e*P	P	10 08 23.5	-1.2
	comp=Z,33nm,1.4s,mb5.3						
PMR	Palmer	84.68	12	*e*P	P	10 08 23.5	-1.2
PMR				pmax	pmax		
	comp=Z,33nm,1.4s,mb5.3						
TMUT	Trail Mountain	84.68	45	*e*P	P	10 08 26.1	+0.8
K13A	Stover Farm, H	84.69	41	⇓P	P	10 08 25.0	-0.2
	baz=85,SNR=40						
H11A	Donnelly	84.72	38	⇓P	P	10 08 24.6	-0.8
	baz=85,SNR=52						
B07A	Winthrop	84.76	33	P	P	10 08 24.9	-0.5
	baz=85,SNR=20						
F10A	Beach Ranch, E	84.78	37	P	P	10 08 25.0	-0.6
	baz=85,SNR=34						
MPU	Maple Canyon	84.79	44	*e*P	P	10 08 26.1	+0.3
MPU				LR	LR		
	comp=Z,4µm,19.0s,MS5.9						
NOQ	North Oquirrh	84.82	43	*e*P	P	10 08 27.3	+1.4
OD2	Odessa Site #2	84.83	35	P	P	10 08 25.3	-0.5
D09A	Jones Farm, Ri	84.85	35	P	P	10 08 25.6	-0.4
	baz=85,SNR=21						
C08A	Higginbotham F	84.90	34	P	P	10 08 25.7	-0.5
	baz=85,SNR=20						
SPUT	South Promonto	84.96	42	*e*P	P	10 08 26.8	+0.1
DIV	Divide	84.98	14	PFAKE		10 08 40.0	+14
DIV				LR	LR		
	comp=Z,9µm,21.0s,MS6.1						
G11A	Walters Elk Ra	84.98	37	⇑P	P	10 08 26.4	-0.2
	baz=85						
WRAK	Wrangell Islan	85.00	22	PFAKE		10 08 40.0	+14
WRAK				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
A07A	Ashnola River,	85.00	33	P	P	10 08 26.4	-0.2
	baz=85,SNR=16						
HLID	Hailey	85.00	40	*e*P	P	10 08 27.0	+0.2
	comp=Z,89nm,1.3s,mb5.7						
HLID				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
HLID	Hailey	85.00	40	P	P	10 08 27.1	+0.3
	baz=85,SNR=59						
HVU	Hansel Valley	85.01	42	*e*P	P	10 08 26.9	0.0
LAZ	Ladron	85.02	51	*e*P	P	10 08 28.0	+0.9
Y22C	IRIS PASSCAL I	85.02	51	⇑P	P	10 08 26.4	-0.7
	baz=85						
LENM	Lemitar	85.02	51	*e*P	P	10 08 27.8	+0.7
MNTX	Cornudas Mount	85.03	54	*e*P	P	10 08 27.2	0.0
MNTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
SRU	San Rafael	85.04	45	*e*P	P	10 08 27.3	+0.2
SML	Sawmill	85.04	13	*e*P	P	10 08 27.5	+1.0
J13A	Cove Ranch, Pi	85.06	40	P	P	10 08 27.4	+0.3
	baz=85,SNR=78						
CTU	Camp Tracy	85.07	43	*e*P	P	10 08 27.2	0.0
B08A	Colville Reser	85.10	34	⇑P	P	10 08 26.6	-0.6
	baz=85,SNR=23						
E10A	Myers Farm, Un	85.15	36	⇓P	P	10 08 26.9	-0.5
	baz=85,SNR=26						
K14A	Jones Ranch, D	85.19	41	P	P	10 08 27.8	+0.1
	baz=85,SNR=51						
JLU	Jordanelle	85.22	43	*e*P	P	10 08 28.0	+0.1
DAU	Daniels Canyon	85.24	44	*e*P	P	10 08 28.1	0.0
DAU	Daniels Canyon	85.24	44	*e*P	P	10 08 28.4	+0.3
BNM	Barren Site	85.27	51	*e*P	P	10 08 29.0	+0.7
LTX	Lajitas	85.27	56	*e*P	P	10 08 28.7	+0.3
LTX				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
TXAR	Lajitas Array	85.27	56	P	P	10 08 28.5	0.0
TXAR				LR	LR	10 41 50.2	
TXAR	Lajitas Array	85.27	56	P	P	10 08 28.5	+0.1
	comp=Z,7.9nm,1.0s,mb4.8,baz=216,slow=8.8,SNR=26						
TXAR				LR	LR	10 41 50.2	
	comp=Z,2µm,18.0s,MS5.4,baz=355,slow=32						
H12A	Diamond D Ranc	85.31	39	P	P	10 08 28.1	-0.2
	baz=85,SNR=45						
F11A	Grangeville	85.33	37	⇓P	P	10 08 28.1	-0.3
	baz=85						
LPM	Los Pinos Moun	85.34	51	*e*P	P	10 08 29.2	+0.5
I13A	Wildhorse Cree	85.38	40	⇓P	P	10 08 28.5	-0.2
	baz=85,SNR=28						
PAYG	Puerto Ayora	85.38	89	PFAKE		10 08 40.0	+11
PAYG				LR	LR		
	comp=Z,3µm,22.0s,MS5.7						
D10A	Wagner Farm, O	85.40	36	P	P	10 08 27.9	-0.8
	baz=85,SNR=26						
MVCO	Mesa Verde	85.44	48	*e*P	P	10 08 29.8	+0.7
	comp=Z,71nm,1.4s,mb5.6						
MVCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
MVCO	Mesa Verde	85.44	48	⇓P	P	10 08 28.9	-0.2
	baz=85,SNR=7.0						
A08A	Turner Farm, O	85.51	33	P	P	10 08 28.9	-0.3
	baz=85,SNR=34						
E11A	Bogner Ranch,	85.58	37	⇓P	P	10 08 28.6	-1.0
	baz=86,SNR=7.2						
PV10	Paradox Valley	85.66	46	*e*P	P	10 08 30.0	-0.2
H13A	Challis	85.67	39	⇓P	P	10 08 29.3	-0.7
	baz=86,SNR=43						
HWUT	Hardware Ranch	85.68	43	*e*P	P	10 08 29.7	-0.5
	comp=Z,97nm,1.6s,mb5.8						
HWUT				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
B09A	Rice	85.77	34	P	P	10 08 29.9	-0.6
	baz=86,SNR=18						
ANMO	Albuquerque	85.77	50	*e*P	P	10 08 30.5	-0.4
ANMO				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
C10A	Spilker Farm,	85.85	35	⇑P	P	10 08 30.3	-0.6
	baz=86						
PV01	Paradox Valley	85.85	47	*e*P	P	10 08 31.0	-0.2
A09A	Danville	85.88	34	P	P	10 08 30.7	-0.3
	baz=86,SNR=16						
D11A	Klaveano Farm,	85.92	36	P	P	10 08 30.2	-1.1
	baz=86,SNR=26						
G13A	Cobalt	85.98	39	P	P	10 08 31.3	-0.3
	baz=86,SNR=30						
GDL2	Guadalupe Moun	86.03	54	*e*P	P	10 08 32.7	+0.5
TNA	Tin City	86.16	3	*e*P	P	10 08 31.1	-0.9
TNA				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
B10A	Chitwood Farm,	86.18	35	⇓P	P	10 08 32.0	-0.5
	baz=86						
NEW	Newport	86.21	35	*e*P	P	10 08 31.8	-0.9
NEW				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
F13A	Darby	86.32	38	P	P	10 08 32.5	-0.8
	baz=86,SNR=32						
SKAG	Skagway	86.38	19	*e*P	P	10 08 33.5	+0.3
	comp=Z,74nm,1.3s,mb5.8						
A10A	Northport	86.42	34	P	P	10 08 33.2	-0.5
	baz=86,SNR=18						
G14A	Jackson	86.52	39	⇓P	P	10 08 34.2	-0.1
	baz=86,SNR=7.8						
AHID	Auburn Hatcher	86.59	42	*e*P	P	10 08 35.2	+0.6
AHID				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
MCMT	McKenzie Canyo	86.64	39	*e*P	P	10 08 35.3	+0.4
MCK	McKinley	86.67	12	*e*P	P	10 08 33.1	-1.5
MCK				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
B11A	Sandpoint	86.72	35	P	P	10 08 34.8	-0.4
	baz=87,SNR=32						
PSI	Prapat	86.74	274	P	P	10 08 39.0	+2.9
	comp=Z,4.3nm,0.7s,mb4.8,baz=141,slow=5.2,SNR=5.4						
E13A	Victor	86.77	37	⇓P	P	10 08 34.9	-0.6
	baz=87,SNR=22						
F14A	Wisdom	86.89	38	⇓P	P	10 08 35.5	-0.5
	baz=87,SNR=8.1						
DCID1	Drake Creek	86.98	41	*e*P	P	10 08 38.1	+1.5
D13A	Huson	86.99	37	⇑P	P	10 08 36.2	-0.3
	baz=87,SNR=9.6						
A11A	Hall Mountain,	87.03	35	P	P	10 08 36.7	0.0
	baz=87,SNR=17						
MENT	Mentasta	87.04	14	*e*P	P	10 08 35.9	-0.5
G15A	Dillon	87.05	39	P	P	10 08 36.8	0.0
	baz=87,SNR=26						
SEY	Seymchan	87.06	346	*e*P	P	10 08 35.2	-1.3
TPAW	Teton Pass	87.07	41	*e*P	P	10 08 39.5	+2.5
	comp=Z,47nm,1.4s,mb5.5						
DLMT	Dillon	87.09	39	*e*P	P	10 08 37.6	+0.6
MSO	Missoula	87.13	37	*e*P	P	10 08 36.9	-0.3
MSO				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
E14A	Clinton	87.15	38	P	P	10 08 36.8	-0.5
	baz=87,SNR=7.4						
B12A	Libby	87.16	35	⇑P	P	10 08 37.3	0.0
	baz=87						
BSMT	Bassoo Peak	87.24	36	*e*P	P	10 08 37.0	-0.8
BSMT				*e*pP	pP	10 08 57.5	+10
C13A	Hot Springs	87.26	36	⇑P	P	10 08 38.0	+0.2
	baz=87,SNR=6.4						
IMW	Indian Meadow	87.29	41	*e*P	P	10 08 38.1	+0.1
	comp=Z,70nm,1.6s,mb5.6						
MOOW	Moose Ponds	87.33	41	*e*P	P	10 08 38.9	+0.6
DLBC	Dease Lake	87.34	22	*e*P	P	10 08 39.6	+1.6
LOHW	Long Hollow	87.35	41	*e*P	P	10 08 38.7	+0.3
	comp=Z,56nm,1.7s,mb5.5						
A12A	Yaak River Ran	87.40	35	P	P	10 08 38.3	-0.2
	baz=87,SNR=6.7						
F15A	Butte	87.41	39	⇓P	P	10 08 38.7	+0.1
	baz=87,SNR=6.4						
LRM	Limekiln Ridge	87.43	39	*e*P	P	10 08 39.2	+0.5
QLMT	Earthquake Lak	87.49	40	*e*P	P	10 08 40.0	+1.0
D14A	Greenough	87.52	37	⇑P	P	10 08 38.5	-0.5
	baz=87,SNR=9.1						
BW06	Boulder Array	87.56	42	*e*P	P	10 08 38.6	-0.8
BW06				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
PDAR	Pinedale Array	87.56	42	LR	LR	10 44 16.7	
	comp=Z,2µm,18.1s,MS5.5,baz=249,slow=33						
CHMT	Chamberlain Mo	87.57	37	*e*P	P	10 08 39.1	-0.3
BJT	Baijiatuau	87.59	314	*e*P	P	10 08 40.3	+0.7
	comp=Z,219nm,1.9s,mb6.1						
BJT				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
BJT	Baijiatuau	87.59	314	*e*P	P	10 08 40.3	+0.7
BJT				pmax	pmax		
	comp=Z,219nm,1.9s						
BJT				MLR	MLR		
	comp=Z,1µm,20.0s						
BJI	Beijing	87.60	314	P	P	10 08 40.1	+0.5
BJI				PP	PP	10 12 07.0	+1.7
BJI				S	S	10 19 17.1	-2.3
BJI				SS	SS	10 25 06.2	0.0
BJI				AMB	AMB		
	comp=Z,22nm,1.9s,mb5.1						
BJI				LR	LR		
	comp=N,1µm,22.6s,MS5.4						
BJI				LR	LR		
	comp=E,1µm,18.8s,MS5.4						
BJI				LR	LR		
	comp=Z,2µm,25.1s						
CMIG	Matias Romero	87.60	71	LR	LR	10 38 05.8	
	comp=Z,3µm,21.4s,MS5.6,baz=302,slow=29						
E15A	Deer Lodge	87.65	38	⇑P	P	10 08 39.0	-0.7
	baz=88,SNR=9.0						
YFT	Old Faithful	87.65	40	*e*P	P	10 08 41.4	+1.6
YMR	Madison River	87.69	40	*e*P	P	10 08 40.5	+0.5
	comp=Z,126nm,1.7s,mb5.9						
YMR				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
B13A	Whitefish	87.71	36	⇑P	P	10 08 39.7	-0.3
	baz=88						
C14A	Swan Lake	87.77	37	⇓P	P	10 08 39.5	-0.8
	baz=88						
SNAA	Sanae	87.77	178	LR	LR	10 45 42.1	
	comp=Z,937nm,18.6s,MS5.2,baz=217,slow=34						
SDCO	Great Sand Dun	87.78	48	*e*P	P	10 08 40.2	-0.4
SDCO				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
BOZ	Bozeman (W)	87.81	39	*e*P	P	10 08 40.6	0.0
	comp=Z,12nm,0.8s,mb5.2						
BOZ				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
BOZ	Bozeman (W)	87.81	39	*e*P	P	10 08 40.6	+0.1
BOZ				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.2						
BOZ				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.5						
BOZ	Bozeman (W)	87.81	39	⇑P	P	10 08 39.8	-0.7
	baz=88						
YNR	Norris Junctio	87.89	40	*e*P	P	10 08 42.2	+1.3
COLA	College	87.91	11	*e*P	P	10 08 39.3	-1.3
	comp=Z,102nm,1.6s,mb5.8						
COLA				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
COLA	College	87.91	11	P	P	10 08 38.7	-1.8
COLA				pmax	pmax		
	comp=Z,100nm,1.6s,mb5.8						
LKWY	Lake	87.97	40	*e*P	P	10 08 42.0	+0.6
	comp=Z,35nm,1.5s,mb5.4						
LKWY				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
LKWY	Lake	87.97	40	*e*P	P	10 08 42.0	+0.7
LKWY				pmax	pmax		
	comp=Z,35nm,1.5s,mb5.4						
LKWY				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.8						
ENH	Enshi	88.00	303	PFAKE		10 08 50.0	+8.2
ENH				LR	LR		
	comp=Z,3.0nm,21.0s						
IMA2	Indian Mountai	88.05	9	*e*P	P	10 08 39.2	-2.0
D15A	Lincoln	88.06	38	⇑P	P	10 08 41.3	-0.4
	baz=88,SNR=8.3						
HRY	Holter Researc	88.27	38	*e*P	P	10 08 42.8	+0.1
WALA	Waterton Lakes	88.41	35	*e*P	P	10 08 42.8	-0.4
	comp=Z,81nm,1.4s,mb5.8						
MAIT	Maitri	88.66	182	*e*P	P	10 08 42.1	-2.1
NVL	N'lazarevskaya	88.66	182	⇓*i*P	P	10 08 50.1	+5.8
NVL				pmax	pmax		
	comp=Z,43nm,1.9s,mb5.5						
NVL				MLR	MLR		
	comp=Z,3µm,17.0s,MS5.8						
ISCO	Idaho Springs	88.67	46	*e*P	P	10 08 45.1	+0.3
	comp=Z,0.9nm,1.5s						
ISCO				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
ISCO	Idaho Springs	88.67	46	*e*P	P	10 08 45.1	+0.3
ISCO				pmax	pmax		
	comp=Z,1.0nm,1.5s						
ISCO				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.4						
GYA	Guiyang	88.69	299	⇑*i*P	P	10 08 46.3	+1.2
GYA				PP	PP	10 12 18.2	+3.8
GYA				PPP		10 14 17.4	
GYA				SKS		10 19 06.2	
GYA				S	S	10 19 24.8	-5.6
GYA				PS		10 20 41.0	
GYA				SS	SS	10 25 21.4	-1.2
GYA				SSS		10 28 55.3	
GYA				AMB	AMB		
	comp=Z,180nm,1.0s,mb6.4						
GYA				LR	LR		
	comp=N,5µm,20.0s,MS6.0						
GYA				LR	LR		
	comp=E,4µm,21.6s,MS6.0						
GYA				LR	LR		
	comp=Z,4µm,20.4s,MS5.8						
JCT	Junction City	88.79	57	*e*P	P	10 08 45.0	-0.6
	comp=Z,52nm,1.4s,mb5.7						
JCT				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
JCT	Junction City	88.79	57	*e*P	P	10 08 45.0	-0.5
JCT				pmax	pmax		
	comp=Z,52nm,1.4s,mb5.7						
JCT				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.6						
RLMT	Red Lodge	88.95	40	PFAKE		10 09 00.0	+14
RLMT				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
DAWY	Dawson	89.02	15	*e*P	P	10 08 45.1	-0.7
TIY	Taiyuan	89.07	311	P	P	10 08 45.0	-1.7
TIY				S	S	10 19 38.4	+4.9
TIY				LR	LR		
	comp=N,664nm,15.0s,MS5.4						
TIY				LR	LR		
	comp=E,1µm,18.3s,MS5.4						
KVTX	Kingsville	89.11	60	PFAKE		10 09 00.0	+13
KVTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
EGAK	Eagle	89.21	14	*e*P	P	10 08 45.6	-1.0
	comp=Z,39nm,1.3s,mb5.6						
EGAK				LR	LR		
	comp=Z,3µm,22.0s,MS5.7						
AMTX	Amarillo	89.23	52	*e*P	P	10 08 47.0	-0.5
AMTX				LR	LR		
	comp=Z,4µm,19.0s,MS5.8						
BILL	Bilibino	89.45	353	*e*P	P	10 08 46.9	-0.8
	comp=Z,150nm,2.2s,mb5.9						
BILL				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
BILL	Bilibino	89.45	353	P	P	10 08 47.1	-0.6
BILL				*e*	pP	10 08 56.4	-0.7
BILL						10 19 26.0	
BILL				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.4						
EFI	East Falkland	89.72	146	*e*P	P	10 08 50.9	+1.3
	comp=Z,174nm,1.4s,mb6.2						
EFI				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
XAN	Xi'an	90.03	307	P	P	10 08 49.2	-2.0
XAN				AP	pP	10 08 56.2	-4.4
XAN				S	S	10 19 37.2	-5.3
XAN				AMB	AMB		
	comp=Z,7.0nm,2.1s,mb4.6						
XAN				AMB	AMB		
	comp=Z,111nm,6.2s						
XAN				LR	LR		
	comp=N,318nm,21.5s,MS5.1						
XAN				LR	LR		
	comp=E,685nm,20.1s,MS5.1						
XAN				LR	LR		
	comp=Z,819nm,25.4s						
HIA	Hailar	90.14	324	*e*P	P	10 08 53.9	+2.5
	comp=Z,43nm,1.4s,mb5.6						
HIA				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
HIA	Hailar	90.14	324	*e*P	P	10 08 53.9	+2.5
HIA				pmax	pmax		
	comp=Z,43nm,1.4s						
HIA				MLR	MLR		
	comp=Z,4µm,20.0s						
EGMT	Eagleton	90.17	38	*e*P	P	10 08 51.6	+0.1
	comp=Z,51nm,1.3s,mb5.7						
EGMT				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
EGMT	Eagleton	90.17	38	⇑P	P	10 08 51.1	-0.4
	baz=90						
EDM	Edmonton	91.05	32	*e*P	P	10 08 54.5	-1.0
HHC	Hu-ho-hao-te	91.08	314	*e*P	P	10 08 57.1	+1.1
HHC				PP	PP	10 12 37.4	+4.3
HHC				SKS		10 19 20.8	
HHC				S	S	10 19 47.0	-4.9
HHC				PS	PS	10 21 09.2	+5.3
HHC				SS	SS	10 25 56.0	-0.8
HHC				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb5.0						
HHC				AMB	AMB		
	comp=Z,166nm,6.1s						
HHC				LR	LR		
	comp=N,883nm,17.5s						
HHC				LR	LR		
	comp=E,1µm,24.5s						
HHC				LR	LR		
	comp=Z,1µm,24.1s						
WMOK	Wichita Mounta	91.33	53	PFAKE		10 09 10.0	+13
WMOK				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
KMI	Kunming	91.43	296	⇑P	P	10 08 59.9	+1.9
KMI				PP	PP	10 12 40.1	+3.9
KMI				PPP		10 14 41.6	
KMI				SKS		10 19 22.5	
KMI				S	S	10 19 51.6	-4.2
KMI				SS	SS	10 25 59.9	-2.5
KMI				AMB	AMB		
	comp=Z,23nm,1.5s,mb5.3						
KMI				AMB	AMB		
	comp=Z,97nm,3.1s						
KMI				LR	LR		
	comp=N,988nm,24.7s,MS5.3						
KMI				LR	LR		
	comp=E,865nm,20.0s,MS5.3						
KMI				LR	LR		
	comp=Z,2µm,22.8s,MS5.4						
LAO	LASA Array	91.58	40	*e*P	P	10 08 58.4	+0.3
	comp=Z,142nm,1.3s,mb6.1						
LAO				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
RSSD	Black Hills	91.73	43	*e*P	P	10 08 58.8	-0.1
	comp=Z,4.6nm,1.3s,mb4.7						
RSSD				LR	LR		
	comp=Z,343nm,19.0s,MS4.8						
RSSD	Black Hills	91.73	43	*e*P	P	10 08 58.8	-0.1
RSSD				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.7						
RSSD				MLR	MLR		
	comp=Z,343nm,19.0s,MS4.8						
NRGR	Nerungri	91.80	332	*e*P	P	10 09 00.2	+1.3
TLL	Tololo Astrono	91.82	123	*e*P	P	10 09 00.5	+0.7
CLNS	Chul'man	91.83	332	*e*P	P	10 09 00.9	+1.9
CLNS				*e**PP	pP	10 09 10.6	+2.2
CLNS				*e*PPP		10 14 38.2	
CLNS				*e*S	S	10 19 58.8	+0.8
CLNS				*e*SSS		10 29 37.0	
CLNS				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.5						
CLNS				pmax	pmax		
	comp=N,23nm,1.6s						
CLNS				pmax	pmax		
	comp=E,14nm,2.1s						
CLNS				pmax	pmax		
	comp=Z,14nm,2.1s,mb4.9						
CLNS				pmax	pmax		
	comp=N,7.0nm,1.2s						
CLNS				pmax	pmax		
	comp=E,6.0nm,0.9s						
CLNS				smax			
	comp=N,136nm,12.7s						
CLNS				smax			
	comp=Z,95nm,14.6s						
CLNS				smax			
	comp=E,261nm,13.2s						
CLNS				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.3						
CLNS				MLR	MLR		
	comp=N,200nm,14.0s,MS5.2						
CLNS				MLR	MLR		
	comp=E,600nm,17.0s,MS5.2						
CM31	Chiang Mai Arr	92.29	289	PFAKE		10 09 10.0	+7.9
CM31				LR	LR		
	comp=Z,764nm,21.0s,MS5.1						
CBKS	Cedar Bluff	92.32	49	*e*P	P	10 09 01.4	-0.4
CBKS				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
LCO	Las Campanas	92.39	122	*e*P	P	10 09 03.1	+0.6
	comp=Z,52nm,1.4s,mb5.7						
LCO				*e*		10 09 25.9	
LCO				LR	LR		

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             comp=Z,1µm,19.0s,MS5.3
CHTO  Chiang Mai       92.41 289 eP      P        10 09 03.0 +0.3
             comp=Z,86nm,1.8s,mb5.8
CHTO                             LR      LR
             comp=Z,850nm,22.0s,MS5.2
CHTO  Chiang Mai       92.41 289 eP      P        10 09 03.0 +0.3
CHTO                             pmax    pmax
             comp=Z,86nm,1.8s,mb5.8
CHTO                             MLR     MLR
             comp=Z,850nm,22.0s,MS5.2
CD2   Chengdu          92.77 302 eP      P        10 09 03.8 -0.3
CD2                              PP      PP       10 12 49.2 +2.5
CD2                              S       S        10 19 59.1 -8.5
CD2                              SS      SS       10 26 18.5 -3.1
CD2                              AMB     AMB
             comp=Z,10.0nm,0.9s,mb5.2
CD2                              AMB     AMB
             comp=Z,30nm,9.2s
CD2                              LR      LR
             comp=N,1µm,20.4s,MS5.4
CD2                              LR      LR
             comp=E,840nm,18.4s,MS5.4
CD2                              LR      LR
             comp=Z,1µm,19.2s,MS5.4
YAK   Yakutsk          93.12 337 PFAKE            10 09 20.0  +15
YAK                              LR      LR
             comp=Z,2µm,22.0s,MS5.5
YAK   Yakutsk          93.12 337 eP      P        10 09 08.8 +3.9
YAK                              pmax    pmax
             comp=Z,13nm,0.9s,mb5.4
YAK                              pmax    pmax
             comp=N,7.0nm,1.3s
YAK                              pmax    pmax
             comp=E,9.0nm,1.8s
CFAA  Coronel Fontan   93.18 125 LR      LR       10 46 22.5
             comp=E,83nm,18.0s,baz=251,slow=32
NATX  Nacogdoches      93.34  57 PFAKE            10 09 20.0  +13
NATX                             LR      LR
             comp=Z,3µm,20.0s,MS5.7
TGUH  Tegucigalpa,Un   93.34  76 eP      P        10 09 08.2 +1.1
             comp=Z,84nm,1.5s,mb6.0
TGUH                             LR      LR
             comp=Z,2µm,22.0s,MS5.5
DGMT  Dagmar           93.62  39 eP      P        10 09 08.0 +0.5
             comp=Z,91nm,1.1s,mb6.1
DGMT                             LR      LR
             comp=Z,3µm,22.0s,MS5.7
NNA   Nana             93.85 104 PFAKE            10 09 20.0  +11
NNA                              LR      LR
             comp=Z,1µm,21.0s,MS5.4
NNA   Nana             93.85 104 LR      LR       10 41 11.0
             comp=Z,1µm,21.8s,MS5.3,baz=248,slow=29
INK   Inuvik           93.86  14 eP      P        10 09 07.2 -1.0
             comp=Z,639nm,1.2s
INK   Inuvik           93.86  14 eP      P        10 09 07.2 -1.0
INK                              pmax    pmax
             comp=Z,639nm,1.2s
JTS   JuntasAbangare   94.17  81 eP      P        10 09 12.8 +1.9
             comp=Z,30nm,1.1s,mb5.6
JTS                              LR      LR
             comp=Z,2µm,22.0s,MS5.6
JTS   JuntasAbangare   94.17  81 eP      P        10 09 12.8 +1.9
JTS                              pmax    pmax
             comp=Z,30nm,1.1s
JTS                              MLR     MLR
             comp=Z,2µm,22.0s
JTS   JuntasAbangare   94.17  81 LR      LR       10 41 03.9
             comp=Z,2µm,21.6s,MS5.5,baz=330,slow=29
ATAH  Atahualpa        94.25  99 LR      LR       10 41 23.4
             comp=Z,2µm,20.5s,MS5.5,baz=69,slow=29
TEIG  Tepich           94.57  70 PFAKE            10 09 20.0 +7.4
TEIG                             LR      LR
             comp=Z,3µm,22.0s,MS5.7
TEIG  Tepich           94.57  70 LR      LR       10 43 02.2
             comp=Z,2µm,21.9s,MS5.4,baz=198,slow=30
LZH   Lanzhou          94.66 307 eP      P        10 09 14.0 +1.4
LZH                              AP      pP       10 09 24.4 +2.4
LZH                              XP      sP       10 09 28.0 +2.6
LZH                              PP      PP       10 13 05.0 +3.6
LZH                             eSKS              10 19 45.0
LZH                             eS       S        10 20 23.0 -0.9
LZH                              AMB     AMB
             comp=Z,54nm,1.6s,mb5.7
LZH                              AMB     AMB
             comp=Z,150nm,5.7s
LZH                              LR      LR
             comp=E,963nm,17.7s
LZH                              LR      LR
             comp=Z,1µm,19.7s,MS5.4
KSU1  Kansas State U   94.67  50 PFAKE            10 09 20.0 +7.4
KSU1                             LR      LR
             comp=Z,3µm,19.0s,MS5.8
CIT   Chita            94.93 324 eP      P        10 09 14.0 +0.5
CIT                              pmax    pmax
             comp=Z,75nm,1.9s,mb5.8
MIAR  Mount Ida        95.22  55 PFAKE            10 09 30.0  +15
MIAR                             LR      LR
             comp=Z,2µm,21.0s,MS5.5
YKA   Yellowknife Ar   95.74  24 P       P        10 09 15.4 -1.5
             comp=Z,2.7nm,1.1s,mb4.6,baz=239,slow=4.3,SNR=20
YKA                              LR      LR       10 45 46.6
             comp=Z,1µm,19.0s,MS5.4,baz=210,slow=31
ECSD  EROS,Sioux Fal   96.44  46 eP      P        10 09 19.1 -1.5
ECSD                             LR      LR
             comp=Z,3µm,22.0s,MS5.7
OTAV  Otavalo          96.78  92 PFAKE            10 09 30.0 +7.1
OTAV                             LR      LR
             comp=Z,2µm,22.0s,MS5.6
ULN   Ulaanbaatar      96.96 319 PFAKE            10 09 30.0 +7.2
ULN                              LR      LR
             comp=Z,1µm,21.0s,MS5.3
SONM  Songino Array    97.36 318 P       P        10 09 24.8 +0.2
             comp=Z,0.9nm,0.8s,baz=132,slow=4.5,SNR=8.7
SONM                             LR      LR       10 50 07.1
             comp=Z,1µm,21.9s,MS5.3,baz=215,slow=34
BOD   Bodaibo          97.37 329 eP      P        10 09 14.6  -10
BOD                              pmax    pmax
             comp=Z,7.0nm,1.7s,mb4.8
FFC   Flin Flon        97.62  34 PFAKE            10 09 40.0  +14
FFC                              LR      LR
             comp=Z,2µm,19.0s,MS5.5
SCIA  State Center     98.10  48 PFAKE            10 09 40.0  +12
SCIA                             LR      LR
             comp=Z,3µm,21.0s,MS5.7
OXF   Oxford           98.43  56 PFAKE            10 09 40.0  +10
OXF                              LR      LR
             comp=Z,3µm,19.0s,MS5.8
AGMN  Agassiz Refuge   98.62  42 PFAKE            10 09 40.0  +10
AGMN                             LR      LR
             comp=Z,2µm,21.0s,MS5.6
GTA   Gaotai           98.82 309 eP      P        10 09 30.7 -0.7
GTA                              PP      PP       10 13 35.7 +2.3
GTA                              S       S        10 20 51.9 -7.7
GTA                              AMB     AMB
             comp=Z,3.0nm,1.4s,mb4.6
GTA                              AMB     AMB
             comp=Z,72nm,8.4s
GTA                              LR      LR
             comp=N,452nm,18.3s,MS5.3
GTA                              LR      LR
             comp=E,806nm,19.4s,MS5.3
GTA                              LR      LR
             comp=Z,1µm,20.9s,MS5.3
BRAL  Brewton          99.18  60 PFAKE            10 09 40.0 +6.8
BRAL                             LR      LR
             comp=Z,1µm,21.0s,MS5.5
ULM   Lac du Bonnet    99.31  40 P       P        10 09 36.5 +3.2
ULM                              LR      LR       10 51 24.6
ULM   Lac du Bonnet    99.31  40 P       P        10 09 36.5 +3.2
             comp=Z,1.8nm,0.9s,mb4.6,baz=298,slow=4.6,SNR=4.0
ULM                              LR      LR       10 51 24.6
             comp=Z,2µm,18.4s,MS5.5,baz=253,slow=34
TIXI  Tiksi            99.49 345 PFAKE            10 09 40.0 +6.4
TIXI                             LR      LR
             comp=Z,1µm,21.0s,MS5.5
TIXI  Tiksi            99.49 345 eP      P        10 09 32.0 -1.6
TIXI                             pmax    pmax
             comp=Z,3.0nm,0.7s,mb4.9
TIXI                             MLR     MLR
             comp=Z,951nm,17.0s,MS5.4
PLAL  Pickwick Lake    99.62  56 PFAKE            10 09 50.0  +15
PLAL                             LR      LR
             comp=Z,2µm,20.0s,MS5.7
LRAL  Lakeview Retre   99.86  58 PFAKE            10 09 50.0  +14
LRAL                             LR      LR
             comp=Z,3µm,19.0s,MS5.8
LPAZ  La Paz           99.92 112 P       Pdif     10 09 41.5 +5.3
             comp=Z,3.0nm,1.1s,baz=232,slow=5.3,SNR=6.0
LPAZ                             LR      LR       10 46 25.2
             comp=Z,1µm,19.9s,MS5.4,baz=246,slow=30
WVT   Waverly         100.17  55 PFAKE            10 09 50.0  +13
WVT                              LR      LR
             comp=Z,3µm,21.0s,MS5.8
ZAK   Zakamensk       100.19 320⇑eP      Pdif     10 09 38.8 +1.4
ZAK                              pmax    pmax
             comp=Z,2.0nm,2.0s
TLY   Talaya          100.42 321 PFAKE            10 09 50.0  +12
TLY                              LR      LR
             comp=Z,2µm,20.0s,MS5.5
HDIL  Hopedale        100.45  51 PFAKE            10 09 50.0  +11
HDIL                             LR      LR
             comp=Z,3µm,22.0s,MS5.8
EYMN  Ely             101.25  43 PFAKE            10 09 50.0 +7.9
EYMN                             LR      LR
             comp=Z,3µm,19.0s,MS5.8
WCI   Wyandotte Cave  101.97  54 PFAKE            10 10 00.0  +15
WCI                              LR      LR
             comp=Z,2µm,20.0s,MS5.7
LSA   Lhasa           102.65 297 PFAKE            10 10 00.0  +12
LSA                              LR      LR
             comp=Z,611nm,20.0s,MS5.1
GOGA  Godfrey         102.80  59 PFAKE            10 10 00.0  +11
GOGA                             LR      LR
             comp=Z,2µm,20.0s,MS5.7
DWPF  Disney          102.98  65 PFAKE            10 10 00.0  +10
DWPF                             LR      LR
             comp=Z,1µm,20.0s,MS5.5
TZTN  Tazewell        103.60  56 PFAKE            10 10 00.0 +7.5
TZTN                             LR      LR
             comp=Z,3µm,21.0s,MS5.7
GLMI  Grayling        104.95  47 PFAKE            10 16 00.0
GLMI                             LR      LR
             comp=Z,2µm,19.0s,MS5.6
ACSO  Alum Creek Sta  104.98  52 PFAKE            10 10 10.0  +11
ACSO                             LR      LR
             comp=Z,2µm,20.0s,MS5.7
AAM   Ann Arbor       105.00  50 PFAKE            10 14 30.0  +16
AAM                              LR      LR
             comp=Z,3µm,19.0s,MS5.8
PALK  Pallekele       105.31 272 PFAKE            10 14 30.0  +15
PALK                             LR      LR
             comp=Z,3µm,20.0s,MS5.8
NHSC  New Hope        105.37  60 PFAKE            10 14 30.0  +15
NHSC                             LR      LR
             comp=Z,2µm,19.0s,MS5.6
BLA   Blacksburg      106.19  56 PFAKE            10 14 30.0  +14
BLA                              LR      LR
             comp=Z,3µm,20.0s,MS5.8
MCWV  Mont Chateau    107.19  54 PFAKE            10 14 30.0  +12
MCWV                             LR      LR
             comp=Z,4µm,21.0s,MS6.0
CNNC  Cliffs of the   107.73  58 PFAKE            10 14 30.0  +11
CNNC                             LR      LR
             comp=Z,2µm,22.0s,MS5.7
WMQ   Urumqi          108.73 311 ePDIF   Pdif     10 10 15.6 +0.3
WMQ                              PP      PP       10 14 51.3 +4.1
WMQ                              SS      SS       10 29 57.9 -5.2
WMQ                              PP      PP
             comp=Z,47nm,7.5s
WMQ                              LR      LR
             comp=N,383nm,18.4s,MS5.3
WMQ                              LR      LR
             comp=E,674nm,21.8s,MS5.3
WMQ                              LR      LR
             comp=Z,876nm,21.8s,MS5.3
CBN   Corbin          108.77  55 PFAKE            10 14 30.0 +9.3
CBN                              LR      LR
             comp=Z,3µm,20.0s,MS5.8
SSPA  Standing Stone  108.86  53 PFAKE            10 14 30.0 +9.2
SSPA                             LR      LR
             comp=Z,3µm,20.0s,MS5.8
SDDR  Presa de Saban  109.43  76 PFAKE            10 14 30.0 +7.5
SDDR                             LR      LR
             comp=Z,3µm,22.0s,MS5.9
BINY  Binghamton      110.55  51 PFAKE            10 14 40.0  +16
BINY                             LR      LR
             comp=Z,3µm,21.0s,MS5.9
LONY  Lake Ozonia     111.93  49 PFAKE            10 14 40.0  +14
LONY                             LR      LR
             comp=Z,3µm,20.0s,MS5.8
NCB   Newcomb         112.10  50 PFAKE            10 14 40.0  +13
NCB                              LR      LR
             comp=Z,2µm,20.0s,MS5.8
MK31  Makanchi Array  112.94 313 ePKPdf  PKiKP    10 14 26.6 -1.7
MK31  Makanchi Array  112.94 313 ePKIKP  PKiKP    10 14 26.6 -1.7
MKAR  Makanchi Array  112.94 313 Pdif    Pdif     10 10 40.1 +6.1
MKAR                             PKPdf   PKiKP    10 14 26.8 -1.6
MKAR  Makanchi Array  112.94 313 Pdiff   Pdif     10 10 40.1 +6.1
             comp=Z,0.2nm,0.7s,baz=85,slow=4.8,SNR=3.9
MKAR                             PKiKP   PKiKP    10 14 26.8 -1.5
             comp=Z,0.9nm,0.6s,baz=109,slow=1.4,SNR=7.8
LBNH  Lisbon          113.77  50 PFAKE            10 14 40.0  +10
LBNH                             LR      LR
             comp=Z,3µm,19.0s,MS5.9
HRV   Harvard--Oak R  113.85  52 PFAKE            10 14 40.0  +10
HRV                              LR      LR
             comp=Z,3µm,19.0s,MS6.0
SJG   San Juan        113.89  79 PFAKE            10 14 40.0 +9.0
SJG                              LR      LR
             comp=Z,678nm,19.0s,MS5.3
WES   Weston          114.01  52 PFAKE            10 14 40.0  +10
WES                              LR      LR
             comp=Z,4µm,21.0s,MS6.0
KURK  Kurchatov       115.64 317 ePKPdf  PKPdf    10 14 36.0 +2.7
KURK                             LR      LR
             comp=Z,1µm,21.0s,MS5.5
KURK  Kurchatov       115.64 317 i PKIKP PKPdf    10 14 34.3 +0.9
PKME  Peaks-Kenny Pk  115.73  49 PFAKE            10 14 50.0  +16
PKME                             LR      LR
             comp=Z,2µm,19.0s,MS5.8
KSH   Kashi           116.83 305 ePKP    PKPdf    10 14 36.7 +0.7
KSH                             ePPP              10 18 05.1
KSH                             ePKS              10 18 11.0
KSH                             eSKS     SKSdf    10 21 42.5 -3.6
KSH                              PP      PP
             comp=Z,281nm,5.6s
KSH                              LR      LR
             comp=N,856nm,5.6s
KSH                              LR      LR
             comp=E,565nm,6.0s
KSH                              LR      LR
             comp=Z,406nm,5.5s
TKM2  Tokmak 2        117.37 308 ePKPdf  PKPdf    10 14 37.2 +0.2
TKM2                             LR      LR
             comp=Z,1µm,19.0s,MS5.5
TKM2  Tokmak 2        117.37 308 ePKIKP  PKPdf    10 14 37.2 +0.2
TKM2                             MLR     MLR
             comp=Z,1µm,19.0s,MS5.5
SCHQ  Schefferville   117.42  38 PFAKE            10 14 50.0  +13
SCHQ                             LR      LR
             comp=Z,3µm,19.0s,MS6.0
UCH   Uchtor          118.13 308 ePKPdf  PKPdf    10 14 39.0 +0.6
UCH                              LR      LR
             comp=Z,809nm,21.0s,MS5.3
AAK   Ala-Archa       118.16 308 PFAKE            10 14 50.0  +12
AAK                              LR      LR
             comp=Z,800nm,20.0s,MS5.3
AAK   Ala-Archa       118.16 308 i PKIKP PKPdf    10 14 39.5 +1.0
BBGH  Gun Hill        118.67  86 PFAKE            10 14 50.0  +10
BBGH                             LR      LR
             comp=Z,3µm,20.0s,MS5.9
EKS2  Erkin-Say       118.69 308 PFAKE            10 14 50.0  +10
EKS2                             LR      LR
             comp=Z,1µm,22.0s,MS5.5
AML   Almayashu       118.73 307 PFAKE            10 14 50.0  +10
AML                              LR      LR
             comp=Z,995nm,21.0s,MS5.4
BRVK  Borovoye        120.71 320 PFAKE            10 14 50.0 +7.0
BRVK                             LR      LR
             comp=Z,1µm,20.0s,MS5.6
KBS   Kingsbay        121.58 358 PFAKE            10 15 00.0  +16
KBS                              LR      LR
             comp=Z,991nm,19.0s,MS5.5
KBL   Kabul           121.94 298 ePKPdf  PKPdf    10 14 46.9 +0.9
MSEY  Mahe Island     123.91 249 PFAKE            10 15 00.0  +10
MSEY                             LR      LR
             comp=Z,2µm,20.0s,MS5.8
SUR   Sutherland      124.96 197 PFAKE            10 15 00.0 +8.0
SUR                              LR      LR
             comp=Z,2µm,20.0s,MS5.7
ARU   Arti            126.61 326 ePKPdf  PKPdf    10 14 57.3 +3.0
ARU                              LR      LR
             comp=Z,3µm,22.0s,MS5.9
ARU   Arti            126.61 326 i PKIKP PKPdf    10 14 56.6 +2.4
ARU                             e                 10 16 49.0
ARU                             ePPP              10 19 30.4
ARU                             e                 10 21 57.8
ARU                             eSS      SS       10 33 48.7 -5.4
BOSA  Boshof          127.03 203 PKP     PKPdf    10 14 56.2 +0.1
BOSA                             LR      LR
             comp=Z,2µm,20.0s,MS5.7
BOSA  Boshof          127.03 203 PKIKP   PKPdf    10 14 56.2 +0.1
BOSA                             MLR     MLR
             comp=Z,2µm,20.0s,MS5.7
BOSA  Boshof          127.03 203 PKP     PKPdf    10 14 56.2 +0.1
             comp=Z,1.7nm,1.0s,baz=105,slow=1.7,SNR=1.9
AKTK  Aktyubinsk      128.68 319 PKP     PKPdf    10 14 59.6 +1.2
AKTO  Aktyubinsk      128.68 319 PKIKP   PKPdf    10 14 59.6 +1.2
AKTO  Aktyubinsk      128.68 319 PKP     PKPdf    10 14 59.6 +1.2
             comp=Z,3.1nm,0.8s,baz=36,slow=3.6,SNR=8.3
KEV   Kevo            129.04 350 PFAKE            10 15 10.0  +11
KEV                              LR      LR
             comp=Z,2µm,21.0s,MS5.8
LVZ   Lovozero        129.12 346 PFAKE            10 15 10.0  +11
LVZ                              LR      LR
             comp=Z,2µm,20.0s,MS5.8
ARCES ARCESS Array B  129.47 351 PKP     PKPdf    10 14 59.1 -0.3
ARCES ARCESS Array B  129.47 351 PKIKP   PKPdf    10 14 59.1 -0.3
ARCES ARCESS Array B  129.47 351 PKP     PKPdf    10 14 59.1 -0.3
             comp=Z,2.8nm,0.8s,baz=318,slow=1.2,SNR=3.7
APA   Apatity         129.66 346⇑iPKIKP  PKPdf    10 15 03.0 +3.2
APA                              pmax    pmax
             comp=Z,22nm,1.3s
APA                              MLR     MLR
             comp=Z,2µm,20.0s,MS5.8
LBTB  Lobatse         130.13 205 PFAKE            10 15 10.0 +7.9
LBTB                             LR      LR
             comp=Z,1µm,20.0s,MS5.5
RCBR  Riachuelo       132.47 119 PFAKE            10 15 20.0  +13
RCBR                             LR      LR
             comp=Z,1µm,22.0s,MS5.6
FINES FINESS Array B  136.54 345 PKP     PKPdf    10 15 13.6 +0.7
FINES FINESS Array B  136.54 345 PKIKP   PKPdf    10 15 13.6 +0.7
FINES FINESS Array B  136.54 345 PKP     PKPdf    10 15 13.6 +0.7
             comp=Z,2.6nm,0.9s,baz=41,slow=1.6,SNR=3.8
MOS   Moscow          137.09 333 ePKIKP  PKPdf    10 15 17.5 +3.4
LSZ   Lusaka          137.31 215 ePKPdf  PKPdf    10 15 19.0 +3.2
LSZ                              LR      LR
             comp=Z,2µm,20.0s,MS5.8
OBN   Obninsk         137.95 333 PFAKE            10 15 30.0  +14
OBN                              LR      LR
             comp=Z,1µm,19.0s,MS5.8
OBN   Obninsk         137.95 333 i PKIKP PKPdf    10 15 22.0 +6.3
OBN                             e                 10 15 30.4
OBN                             e                 10 18 07.7
OBN                              pmax    pmax
             comp=Z,22nm,1.2s
TSUM  Tsumeb          138.32 199 PFAKE            10 15 30.0  +12
TSUM                             LR      LR
             comp=Z,2µm,20.0s,MS5.8
NOA   NORSAR Array B  139.38 355 PKP     PKPdf    10 15 18.8 +0.7
NOA   NORSAR Array B  139.38 355 PKIKP   PKPdf    10 15 18.8 +0.7
NOA   NORSAR Array B  139.38 355 PKP     PKPdf    10 15 18.8 +0.7
             comp=Z,1.2nm,0.6s,baz=15,slow=4.1,SNR=3.5
KIV   Kislovodsk      140.67 315 PFAKE            10 15 30.0 +9.0
KIV                              LR      LR
             comp=Z,2µm,20.0s,MS5.8
KIV   Kislovodsk      140.67 315 i PKIKP PKPdf    10 15 22.8 +1.8
KIV                              pmax    pmax
             comp=Z,5.0nm,0.8s
KONO  Kongsberg       140.88 356 PFAKE            10 15 30.0 +9.1
KONO                             LR      LR
             comp=Z,869nm,21.0s,MS5.5
KMBO  Kilima Mbogo    141.22 240 PKP     PKPdf    10 15 23.2 +0.3
KMBO                             LR      LR
             comp=Z,855nm,19.0s,MS5.5
KMBO  Kilima Mbogo    141.22 240 PKP     PKPdf    10 15 23.2 +0.3
             comp=Z,3.8nm,1.0s,baz=117,slow=5.4,SNR=5.0
SOC   Sochi           142.77 316 i P     Pdif     10 12 45.1 -1.6
SOC                             i                 10 15 24.4
SOC                              MLR     MLR
             comp=Z,2µm,22.0s,MS5.9
ANN   Anapa           143.64 319 i PKIKP PKPdf    10 15 30.9 +4.6
ANN                              pmax    pmax
             comp=Z,43nm,1.3s
ANN                              MLR     MLR
             comp=N,2µm,24.0s,MS5.9
ANN                              MLR     MLR
             comp=E,1µm,24.0s,MS5.9
ANN                              MLR     MLR
             comp=Z,2µm,24.0s,MS5.7
SUW   Suwalki         143.75 341 ePKP    PKPdf    10 15 26.8 +0.6
SUW   Suwalki         143.75 341 ePKIKP  PKPdf    10 15 26.8 +0.6
AKASG Malin Array Be  144.22 333 PKP     PKPdf    10 15 23.3 -3.8
AKASG                            PKP     PKPdf    10 15 28.0 +0.9
AKASG Malin Array Be  144.22 333 PKHKP            10 15 23.3
AKASG                                             10 15 28.0
AKASG Malin Array Be  144.22 333 PKhKP            10 15 23.3
             comp=Z,2.0nm,0.4s,baz=37,slow=3.9,SNR=25
AKASG                            PKP     PKPdf    10 15 28.0 +0.9
             comp=Z,3.7nm,0.5s,baz=38,slow=3.9,SNR=20
AKBB  Malin Array Si  144.22 333 ePKPdf  PKPdf    10 15 23.4 -3.7
KIEV  Kiev            144.23 333 ePKPdf  PKPdf    10 15 23.4 -3.7
KIEV                             LR      LR
             comp=Z,2µm,22.0s,MS5.8
GMK   Mull of Kintyr  144.57  10 eP      PKPdf    10 15 25.9 -1.7
ESK   Eskdalemuir     144.93   8 PFAKE            10 15 40.0  +12
ESK                              LR      LR
             comp=Z,2µm,20.0s,MS5.8
BWH   Wardlaw         145.01   8 eP      PKPdf    10 15 26.5 -1.8
BHH   Howats Hill     145.15   8 eP      PKPbc    10 15 27.1 -1.0
GAL1  Galloway        145.17   9 eP      PKPbc    10 15 26.7 -1.5
BBO1  Bothel          145.50   8 eP      PKPdf    10 15 27.2 -2.0
XAL   Allendale       145.50   7 eP      PKPdf    10 15 27.5 -1.6
SIM   Simferopol'     145.54 322 i PKHKP PKPdf    10 15 28.4 -1.2
SIM                              pmax    pmax
             comp=Z,84nm,1.3s
GMM   Mts of Mourne   145.57  11 eP      PKPdf    10 15 27.9 -1.4
CKE   Keswick         145.66   8 eP      PKPdf    10 15 28.1 -1.4
MALT  Malatya         145.80 308 ePKPdf  PKPdf    10 15 29.9 -0.3
MALT                            ⇓P                10 15 30.6
WIM   Isle of Man     145.87  10 eP      PKPdf    10 15 29.2 -0.7
BSEG  Bad Segeberg    146.48 354 ePKPbc  PKPbc    10 15 31.3 -1.0
BSEG  Bad Segeberg    146.48 354 ePKPbc  PKPbc    10 15 31.3 -1.0
WCB1  Church Bay      146.63  10 eP      PKPdf    10 15 31.2  0.0
WLF1  Llynfaes        146.74  10 eP      PKPdf    10 15 31.8 +0.5
LHO   Holmfirth       146.83   7 eP      PKPdf    10 15 33.1 +1.7
LVV   L'vov           146.99 336 ePKP2   PKPab    10 15 37.1 +1.8
KIS   Kishinev        147.08 329 ePKHKP  PKPdf    10 15 30.0 -2.1
KBI1  Birley Grange   147.15   7 eP      PKPbc    10 15 34.9 +0.7
KWE   Weaver Farm     147.35   7 eP      PKPdf    10 15 31.6 -0.7
KWP   Kalwaria        147.63 338 ePKP    PKPbc    10 15 37.9 +2.2
KWP   Kalwaria        147.63 338 ePKP2   PKPab    10 15 37.9  0.0
HLM1  Long Mynd       147.71   8 eP      PKPdf    10 15 33.5 +0.5
NRDL  Niedersach Rie  147.93 353 ePKPbc  PKPbc    10 15 35.2 -1.1
OJC   Ojcow           148.09 341 ePKPdf  PKPdf    10 15 37.0 +3.3
OJC                             ePKPbc   PKPbc    10 15 39.5 +2.6
OJC                             ePKPab   PKPab    10 15 43.1 +3.5
OJC                             epPKPdf  pPKPdf   10 16 00.7  +17
OJC   Ojcow           148.09 341 ePKIKP  PKPbc    10 15 37.0 +0.1
OJC                             e                 10 15 39.5
OJC                             e                 10 15 43.1
MCH1  Michaelchurch   148.20   9 eP      PKPdf    10 15 35.7 +1.9
HAE   Alders End      148.23   8 eP      PKPbc    10 15 36.9 -0.2
BURAR Bucovina Array  148.27 333 P       PKPbc    10 15 38.4 +1.0
BURAR Bucovina Array  148.27 333 PKIKP   PKPbc    10 15 38.4 +1.0
IBBN  Ibbenburen      148.31 356 ePKPbc  PKPbc    10 15 36.4 -1.0
STHS  Stebnicka Huta  148.32 339 ePKP    PKPbc    10 15 38.8 +1.3
STHS                            e                 10 15 42.4
STHS                            e                 10 15 47.8
STHS  Stebnicka Huta  148.32 339 ePKIKP  PKPbc    10 15 38.8 +1.3
STHS                            e                 10 15 42.4
STHS                            e                 10 15 47.8
KOLS  Kolonicke sedl  148.37 337 ePKP    PKPdf    10 15 35.0 +0.8
KOLS                            e                 10 15 43.2
KOLS                            e                 10 15 50.4
SSW   Stow on the Wo  148.38   7 eP      PKPbc    10 15 37.1 -0.5
KSP   Ksiaz           148.46 346 ePKP    PKPbc    10 15 37.1 -0.7
KSP                              LR      LR
             comp=Z,4µm,22.2s,MS6.2
KSP   Ksiaz           148.46 346 ePKIKP  PKPbc    10 15 37.1 -0.7
KSP                              MLR     MLR
             comp=Z,4µm,22.2s,MS6.2
CLZ   Clausthal       148.54 353 ePKPbc  PKPbc    10 15 37.3 -0.7
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CLZ	Clausthal	148.54	353	*e*PKIKP	PKPbc	10 15 37.3	-0.7
CLZ	Clausthal	148.54	353	*e*PKPbc	PKPbc	10 15 37.3	-0.7
HGH	Gray Hill	148.58	9	*e*P	PKPbc	10 15 38.4	+0.3
BR131	Keskin Array S	148.59	314	PFAKE		10 15 50.0	+15
BR131				LR	LR		
	comp=Z,724nm,20.0s,MS5.5						
BRTR	Keskin Array B	148.59	314	PKPbc	PKPbc	10 15 38.0	-0.5
BRTR	Keskin Array B	148.59	314	PKPbc	PKPbc	10 15 38.0	-0.5
	comp=Z,4.1nm,0.6s,baz=127,slow=2.9,SNR=16						
UZH	Uzhgorod	148.62	337	*e*PKP2	PKPab	10 15 41.0	-0.8
NIE	Niedzica	148.63	340	*e*PKP	PKPab	10 15 42.9	+1.1
NIE	Niedzica	148.63	340	*e*PKP2	PKPab	10 15 42.9	+1.1
CLL	Collm	148.68	350	*i* PKP	PKPdf	10 15 37.4	+2.8
CLL	Collm	148.68	350	*i* PKIKP	PKPdf	10 15 37.4	+2.8
CLL	Collm	148.68	350	*e*PKPbc	PKPbc	10 15 37.3	-1.1
ASF	Jabal al Asfar	148.84	298	PKPbc	PKPbc	10 15 38.9	-0.5
ASF	Jabal al Asfar	148.84	298	PKPbc	PKPbc	10 15 38.9	-0.5
	comp=Z,7.6nm,0.9s,baz=88,slow=2.8,SNR=4.6						
UPC	Upice	148.84	346	*e*PKP	PKPbc	10 15 38.6	-0.2
UPC	Upice	148.84	346	*e*PKIKP	PKPbc	10 15 38.6	-0.2
UPC	Upice	148.84	346	⇑*e*PKPB	PKPbc	10 15 38.6	-0.2
VRI	Vrincioaia	148.90	329	P	PKPab	10 15 51.0	+7.9
OKC	Ostrava-Krasne	148.91	343	*e*PKP	PKPbc	10 15 38.4	-0.6
OKC	Ostrava-Krasne	148.91	343	*e*PKIKP	PKPbc	10 15 38.4	-0.6
OKC	Ostrava-Krasne	148.91	343	⇑*e*PKPB	PKPbc	10 15 38.4	-0.6
OKC				AMS	AMS	11 16 20.0	
	comp=Z,2μm,23.5s						
DPC	Dobruska-Polom	148.91	345	*e*PKP	PKPbc	10 15 38.2	-0.8
DPC				LR	LR		
	comp=Z,1μm,20.1s,MS5.7						
DPC	Dobruska-Polom	148.91	345	*e*PKIKP	PKPbc	10 15 38.2	-0.8
DPC				MLR	MLR		
	comp=Z,1μm,20.1s,MS5.7						
DPC	Dobruska-Polom	148.91	345	⇑*e*PKPB	PKPbc	10 15 38.2	-0.8
DPC				AMS	AMS	11 19 10.0	
	comp=Z,1μm,20.1s						
BRG	Berggiesshubel	148.93	348	*i* PKP	PKPdf	10 15 35.5	+0.5
BRG				*i*		10 15 43.3	
BRG				*e*PP	PP	10 19 17.3	+8.2
BRG	Berggiesshubel	148.93	348	*e*PKPbc	PKPbc	10 15 38.3	-0.7
FBE	Freiberg	149.00	349	*e*PKPbc	PKPbc	10 15 38.6	-0.6
ANTO	Ankara	149.09	315	⇑P	PKPdf	10 15 35.9	+0.2
ANTO				P		10 15 43.8	
ANTO				LR	LR		
	comp=Z,1μm,22.0s,MS5.6						
MORC	Moravsky Berou	149.13	343	P	PKPab	10 15 43.5	-0.3
MORC	Moravsky Berou	149.13	343	⇑PKIKP	PKPbc	10 15 40.8	+1.3
PVCC	Panska Ves	149.14	347	*e*PKP	PKPbc	10 15 40.1	+0.6
PVCC				LR	LR		
	comp=Z,2μm,20.4s,MS5.9						
PVCC	Panska Ves	149.14	347	*e*PKIKP	PKPbc	10 15 40.1	+0.6
PVCC				MLR	MLR		
	comp=Z,2μm,20.4s,MS5.9						
PVCC	Panska Ves	149.14	347	⇑*e*PKPB	PKPbc	10 15 40.1	+0.6
PVCC				AMS	AMS	11 21 10.0	
	comp=Z,2μm,20.4s						
BUG	Bochum--Univer	149.21	356	*e*PKPbc	PKPbc	10 15 38.4	-1.3
KECS	Kecovo	149.38	339	*e*PKP	PKPbc	10 15 41.4	+1.2
KECS				*e*		10 15 44.1	
KECS				*e*		10 15 47.0	
KECS	Kecovo	149.38	339	*e*PKIKP	PKPbc	10 15 41.4	+1.2
KECS				*e*		10 15 44.1	
KECS				*e*		10 15 47.0	
MLR	Muntele Rosu	149.55	329	P	PKPbc	10 15 41.2	+0.4
MLR				⇓P		10 15 44.4	
MLR	Muntele Rosu	149.55	329	PKIKP	PKPbc	10 15 41.2	+0.5
MLR						10 15 44.4	
MOX	Moxa	149.55	351	*e*PKP	PKPbc	10 15 41.4	+0.8
MOX	Moxa	149.55	351	*e*PKIKP	PKPbc	10 15 41.4	+0.8
MOX	Moxa	149.55	351	*e*PKPbc	PKPbc	10 15 39.7	-0.9
PRA	Prague	149.60	347	⇑PKPB	PKPbc	10 15 40.0	-0.7
WERD	Werda	149.63	350	*e*PKPbc	PKPbc	10 15 40.0	-0.8
TANN	Tannenbergstha	149.64	350	*e*PKPbc	PKPbc	10 15 40.2	-0.6
PRU	Pruhonice	149.65	347	*e*PKP	PKPbc	10 15 40.6	-0.2
PRU	Pruhonice	149.65	347	*e*PKIKP	PKPbc	10 15 40.6	-0.2
PRU	Pruhonice	149.65	347	⇑*e*PKPB	PKPbc	10 15 40.6	-0.2
GUNZ	Gunzen	149.71	350	*e*PKPbc	PKPbc	10 15 40.4	-0.6
WERN	Wernitzgruen	149.78	350	*e*PKPbc	PKPbc	10 15 40.6	-0.5
VRAC	Vranov	149.81	344	P	PKPab	10 15 44.2	-2.4
VRAC	Vranov	149.81	344	⇑PKP2	PKPab	10 15 43.8	-2.8
NKC	Novy Kostel	149.81	350	*e*PKP	PKPbc	10 15 41.9	+0.7
NKC	Novy Kostel	149.81	350	*e*PKIKP	PKPbc	10 15 41.9	+0.7
NKC	Novy Kostel	149.81	350	⇑*e*PKPB	PKPbc	10 15 41.9	+0.7
NKC				AMS	AMS	11 16 20.0	
	comp=Z,2μm,26.8s						
VYHS	Vyhne	149.91	341	*e*P	PKPdf	10 15 33.3	-3.4
VYHS				*e*PKP	PKPdf	10 15 39.8	+3.1
VYHS				*e*		10 15 44.4	
DRGR		149.97	334	P	PKPdf	10 15 39.9	+3.0
DRGR				⇓P		10 15 43.6	
PSZ	Piszkesteto	150.07	339	⇓P	PKPbc	10 15 43.0	+1.0
PSZ	Piszkesteto	150.07	339	⇓PKIKP	PKPbc	10 15 43.0	+1.1
TREC	Trest	150.09	345	*e*PKIKP	PKPdf	10 15 40.3	+3.4
TREC				MLR	MLR		
	comp=Z,2μm,19.8s,MS5.9						
TREC	Trest	150.09	345	⇑*e*PKPB	PKPdf	10 15 40.3	+3.4
TREC				AMS	AMS	11 20 00.0	
	comp=Z,2μm,19.8s						
MANZ	Manzenberg	150.11	350	*e*PKPbc	PKPbc	10 15 41.1	-0.9
ROTZ	Rotzenmuhle	150.31	350	*e*PKPbc	PKPbc	10 15 41.5	-0.9
TNS	Taunus Mts	150.33	355	*e*PKPbc	PKPbc	10 15 41.6	-0.9
TNS	Taunus Mts	150.33	355	*e*PKIKP	PKPbc	10 15 41.6	-0.9
TNS	Taunus Mts	150.33	355	*e*PKPbc	PKPbc	10 15 41.6	-0.9
MODS	Modra-Piesok	150.48	342	*e*PKP	PKPbc	10 15 41.7	-1.2
MODS	Modra-Piesok	150.48	342	*e*PKIKP	PKPbc	10 15 41.7	-1.2
GRA1	Grafenberg Arr	150.53	351	*e*PKPbc	PKPbc	10 15 42.4	-0.6
GRA1				*e*PP	PP	10 19 21.0	+2.7
GRF	Grafenberg Arr	150.53	351	*e*PKP	PKPbc	10 15 42.4	-0.6
GRF				*e*PP	PP	10 19 21.0	+2.7
GRF				LR	LR		
	comp=Z,1μm,21.9s,MS5.7						
GRF	Grafenberg Arr	150.53	351	*e*PKIKP	PKPbc	10 15 42.4	-0.6
GRF				*e*		10 19 21.0	
GRF				MLR	MLR		
	comp=Z,1μm,21.9s,MS5.7						
GRF	Grafenberg Arr	150.53	351	*e*PKIKP	PKPbc	10 15 42.4	-0.6
GRF				*e*		10 19 21.0	
GRF				MLR	MLR		
	comp=Z,1μm,21.9s,MS5.7						
GRF	Grafenberg Arr	150.53	351	*e*PKPbc	PKPbc	10 15 42.4	-0.6
GRF				*e*PP	PP	10 19 21.0	+2.7
GRF				*e*L		11 22 34.0	
	comp=Z,1μm,21.9s						
GRFO	Grafenberg	150.53	351	*e*PKPdf	PKPdf	10 15 38.2	+0.6
GRFO				*e*PKPbc	PKPbc	10 15 43.2	+0.2
GRFO				*e*PKPab	PKPab	10 15 48.4	-1.2
GRFO				LR	LR		
	comp=Z,1μm,22.0s,MS5.8						
GIVF	Givet	150.63	359	*e*PKP	PKPbc	10 15 42.0	-1.2
GIVF	Givet	150.63	359	*e*PKIKP	PKPbc	10 15 42.0	-1.2
GIVF	Givet	150.63	359	*e*PKP1	PKPbc	10 15 42.0	-1.2
	comp=Z,195nm,1.2s						
KHC	Kasperske Hory	150.67	348	*e*PKP	PKPdf	10 15 40.9	+3.1
KHC				*e*		10 15 50.0	
KHC				LR	LR		
	comp=Z,2μm,19.9s,MS6.0						
KHC	Kasperske Hory	150.67	348	*e*PKIKP	PKPdf	10 15 40.9	+3.1
KHC				*e*		10 15 50.0	
KHC				MLR	MLR		
	comp=Z,2μm,19.9s,MS6.0						
KHC	Kasperske Hory	150.67	348	⇑*e*PKPB	PKPdf	10 15 40.9	+3.1
KHC				*e*PKPAB	PKPab	10 15 50.0	-0.2
KHC				AMS	AMS	11 21 00.0	
	comp=Z,2μm,19.9s						
BAIF	Baives	150.67	0	*e*PKP	PKPbc	10 15 42.3	-1.0
BAIF	Baives	150.67	0	*e*PKIKP	PKPbc	10 15 42.3	-1.0
BAIF	Baives	150.67	0	*e*PKP1	PKPbc	10 15 42.3	-1.0
	comp=Z,133nm,1.2s						
ZST	Bratislava	150.69	343	*e*PKP	PKPbc	10 15 43.0	-0.4
ZST				*e*		10 15 51.2	
ZST	Bratislava	150.69	343	*e*PKHKP	PKPbc	10 15 43.0	-0.4
ZST				*e*		10 15 51.2	
ABH	Alteburg	150.74	356	PKP	PKPbc	10 15 44.0	+0.5
WET	Wettzell	150.79	349	*e*PKPbc	PKPbc	10 15 42.9	-0.7
WET	Wettzell	150.79	349	*e*PKPbc	PKPbc	10 15 42.9	-0.7
GEC2	GERESS Array S	150.91	347	*e*PKPbc	PKPbc	10 15 43.0	-0.9
GEC2	GERESS Array S	150.91	347	*e*PKPbc	PKPbc	10 15 43.0	-0.9
GERES	GERESS Array B	150.91	347	PKPbc	PKPbc	10 15 43.1	-0.8
GERES	GERESS Array B	150.91	347	PKPbc	PKPbc	10 15 43.1	-0.8
	comp=Z,1.5nm,0.6s,baz=358,slow=3.1,SNR=15						
RUP	Ruppelstein	150.95	356	PKP	PKPbc	10 15 44.3	+0.3
WLF	Walferdange	151.03	358	*e*PKPdf	PKPdf	10 15 35.9	-2.5
WLF				*e*PKPbc	PKPbc	10 15 44.7	+0.6
WLF				*e*PKPab	PKPab	10 15 48.4	-3.3
WLF	Walferdange	151.03	358	*e*PKIKP	PKPdf	10 15 35.9	-2.5
WLF				*e*		10 15 44.7	
WLF				*e*		10 15 48.4	
WLF	Walferdange	151.03	358	*e*PKPbc	PKPbc	10 15 43.5	-0.7
GZR	Gura Zlata	151.06	333	⇓P	PKPbc	10 15 47.7	+3.4
GZR	Gura Zlata	151.06	333	⇓PKIKP	PKPbc	10 15 47.7	+3.3
CONA	Conrad Observa	151.27	344	⇑*i*pPKPdf	pPKPdf	10 15 42.3	-6.2
	comp=Z,31nm,1.1s						
BZS	Buzias	151.37	334	⇑P	PKPbc	10 15 44.9	-0.2
BZS				P	pPKPdf	10 15 48.4	-0.3
BZS	Buzias	151.37	334	⇑PKIKP	PKPbc	10 15 44.9	-0.2
LANF	Langenberg	151.62	355	PKP	PKPbc	10 15 47.9	+2.4
LANF	Langenberg	151.62	355	PKIKP	PKPbc	10 15 47.9	+2.4
STU	Stuttgart	151.70	353	*e*PKPbc	PKPbc	10 15 44.8	-0.9
FLN	La Foliniere	151.70	7	*e*PKP	PKPbc	10 15 45.2	-0.5
FLN				LR	LR		
	comp=Z,2μm,22.5s,MS5.8						
FLN	La Foliniere	151.70	7	*e*PKIKP	PKPbc	10 15 45.2	-0.5
FLN				MLR	MLR		
	comp=Z,2μm,22.5s,MS5.8						
FLN	La Foliniere	151.70	7	*e*PKP1	PKPbc	10 15 45.2	-0.5
	comp=Z,111nm,1.1s						
FLN				*e*MLR	MLR		
	comp=Z,2μm,22.5s,MS5.5						
ROSF	Rostrenen	151.71	11	*e*PKP	PKPbc	10 15 45.5	-0.3
ROSF	Rostrenen	151.71	11	*e*PKIKP	PKPbc	10 15 45.5	-0.3
ROSF	Rostrenen	151.71	11	*e*PKP1	PKPbc	10 15 45.5	-0.3
	comp=Z,87nm,1.3s						
LDF	La Druitiere	151.90	6	*e*PKP	PKPbc	10 15 45.6	-0.6
LDF	La Druitiere	151.90	6	*e*PKIKP	PKPbc	10 15 45.6	-0.6
LDF	La Druitiere	151.90	6	*e*PKP1	PKPbc	10 15 45.6	-0.6
SGMF	Saint Gilles	151.91	10	*e*PKP	PKPbc	10 15 45.3	-0.9
SGMF	Saint Gilles	151.91	10	*e*PKIKP	PKPbc	10 15 45.3	-0.9
SGMF	Saint Gilles	151.91	10	*e*PKP1	PKPbc	10 15 45.3	-0.9
	comp=Z,142nm,1.3s						
PKSM	Moragy	151.98	339	⇑P	PKPbc	10 15 44.8	-1.6
PKSM	Moragy	151.98	339	⇑PKIKP	PKPbc	10 15 44.8	-1.6
ARSA	Arzberg	151.98	344	⇓*i*pPKPdf	pPKPdf	10 15 44.0	-5.6
	comp=Z,16nm,1.0s						
FUR	Furstenfeldbru	152.01	350	*e*PKPbc	PKPbc	10 15 45.4	-1.1
FUR	Furstenfeldbru	152.01	350	*e*PKIKP	PKPbc	10 15 45.4	-1.1
FUR	Furstenfeldbru	152.01	350	*e*PKPbc	PKPbc	10 15 45.4	-1.1
GRR	Gorron	152.02	7	*e*PKP	PKPbc	10 15 45.9	-0.6
GRR	Gorron	152.02	7	*e*PKIKP	PKPbc	10 15 45.9	-0.6
GRR	Gorron	152.02	7	*e*PKP1	PKPbc	10 15 45.9	-0.6
	comp=Z,50nm,0.8s						
BFO	Black Forest	152.22	354	*e*PKPdf	PKPdf	10 15 40.3	+0.1
BFO				*e*PKPbc	PKPbc	10 15 45.8	-1.1
BFO				*e*PKPbc	PKPbc	10 15 47.3	+0.4
BFO				LR	LR		
	comp=Z,1μm,21.0s,MS5.7						
BFO	Black Forest	152.22	354	*e*PKIKP	PKPdf	10 15 40.3	+0.1
BFO				*e*		10 15 45.8	
BFO				*e*		10 15 47.3	
BFO				MLR	MLR		
	comp=Z,1μm,21.0s,MS5.7						
BFO	Black Forest	152.22	354	*e*PKPbc	PKPbc	10 15 45.8	-1.1
CDF	Champ du Feu	152.22	356	*e*PKP	PKPbc	10 15 47.3	+0.4
CDF	Champ du Feu	152.22	356	*e*PKIKP	PKPbc	10 15 47.3	+0.4
CDF	Champ du Feu	152.22	356	*e*PKP1	PKPbc	10 15 47.3	+0.4
	comp=Z,53nm,1.1s						
MEZF	Maizieres J'vi	152.23	359	*e*PKP	PKPbc	10 15 47.7	+0.8
MEZF	Maizieres J'vi	152.23	359	*e*PKP1	PKPbc	10 15 47.7	+0.8
ECH	Echery	152.43	356	PKP	PKPbc	10 15 50.8	+3.4
ECH	Echery	152.43	356	PKIKP	PKPbc	10 15 50.8	+3.4
THEF	They Montfort	152.48	358	PKP	PKPbc	10 15 50.1	+2.6
THEF	They Montfort	152.48	358	PKIKP	PKPbc	10 15 50.1	+2.6
HAU	Haudompre	152.68	357	*e*PKP	PKPbc	10 15 48.2	+0.2
HAU				LR	LR		
	comp=Z,2μm,20.8s,MS5.8						
HAU	Haudompre	152.68	357	*e*PKIKP	PKPbc	10 15 48.2	+0.2
HAU				MLR	MLR		
	comp=Z,2μm,20.8s,MS5.8						
HAU	Haudompre	152.68	357	*e*PKP1	PKPbc	10 15 48.2	+0.2
	comp=Z,26nm,0.8s						
HAU				*e*MLR	MLR		
	comp=Z,2μm,20.8s,MS5.5						
HINF	Hinteralfeld	152.84	356	*e*PKP	PKPbc	10 15 48.5	+0.2
HINF	Hinteralfeld	152.84	356	*e*PKIKP	PKPbc	10 15 48.5	+0.2
HINF	Hinteralfeld	152.84	356	*e*PKP1	PKPbc	10 15 48.5	+0.2
	comp=Z,14nm,0.7s						
DAVA	Damuels	153.07	352	⇓*i*PKPdf	PKPdf	10 15 40.6	-0.9
	comp=Z,40nm,1.2s						
ABTA	Abfaltersbach	153.16	348	⇓*i*pPKPdf	pPKPdf	10 15 44.0	-7.3
	comp=Z,31nm,1.2s						
FETA	Feichten	153.21	350	⇑*i*PKPdf	PKPdf	10 15 42.3	+0.6
	comp=Z,39nm,1.3s						
LOMF	Lomont	153.31	356	PKP	pPKPdf	10 15 55.3	+3.8
LJU	Ljubljana	153.36	344	*e*PKPdf	PKPdf	10 15 43.2	+1.2
LJU	Ljubljana	153.36	344	*e*PKIKP	PKPdf	10 15 43.2	+1.2
LOR	Lormes	153.46	1	*e*PKP	PKPbc	10 15 49.3	-0.4
LOR				LR	LR		
	comp=Z,3μm,20.8s,MS6.1						
LOR	Lormes	153.46	1	*e*PKIKP	PKPbc	10 15 49.3	-0.4
LOR				MLR	MLR		
	comp=Z,3μm,20.8s,MS6.1						
LOR	Lormes	153.46	1	*e*PKP1	PKPbc	10 15 49.3	-0.4
LOR				*e*MLR	MLR		
	comp=Z,3μm,20.8s,MS5.8						
SSF	Saint Saulge	153.66	1	*e*PKP	PKPbc	10 15 49.9	-0.2
SSF	Saint Saulge	153.66	1	*e*PKIKP	PKPbc	10 15 49.9	-0.2
SSF	Saint Saulge	153.66	1	*e*PKP1	PKPbc	10 15 49.9	-0.2
	comp=Z,57nm,1.0s						
BOJS	Bojanci	153.66	343	*e*PKPdf	PKPdf	10 15 44.5	+2.1
MFF	Saint Martin d	153.87	7	*e*PKP	PKPbc	10 15 50.6	0.0
MFF	Saint Martin d	153.87	7	*e*PKIKP	PKPbc	10 15 50.6	0.0
MFF	Saint Martin d	153.87	7	*e*PKP1	PKPbc	10 15 50.6	0.0
	comp=Z,52nm,1.1s						
AVF	Avril sur Loir	153.93	2	*e*PKP	PKPbc	10 15 50.7	0.0
AVF	Avril sur Loir	153.93	2	*e*PKIKP	PKPbc	10 15 50.7	0.0
AVF	Avril sur Loir	153.93	2	*e*PKP1	PKPbc	10 15 50.7	0.0
	comp=Z,52nm,1.2s						
SMF	Signal de Mont	154.09	1	*e*PKP	PKPbc	10 15 50.7	-0.4
SMF	Signal de Mont	154.09	1	*e*PKIKP	PKPbc	10 15 50.7	-0.4
SMF	Signal de Mont	154.09	1	*e*PKP1	PKPbc	10 15 50.7	-0.4
	comp=Z,84nm,1.2s						
CABF	La Chapelle	154.09	357	*e*PKP	PKPbc	10 15 51.9	+0.8
CABF	La Chapelle	154.09	357	*e*PKIKP	PKPbc	10 15 51.9	+0.8
CABF	La Chapelle	154.09	357	*e*PKP1	PKPbc	10 15 51.9	+0.8
	comp=Z,77nm,1.3s						
BGF	Bois d'Agland	154.15	2	*e*PKP	PKPbc	10 15 50.9	-0.3
BGF	Bois d'Agland	154.15	2	*e*PKIKP	PKPbc	10 15 50.9	-0.3
BGF	Bois d'Agland	154.15	2	*e*PKP1	PKPbc	10 15 50.9	-0.3
TCF	Toulx Ste Croi	154.38	4	*e*PKP	PKPbc	10 15 51.7	0.0
TCF	Toulx Ste Croi	154.38	4	*e*PKIKP	PKPbc	10 15 51.7	0.0
TCF	Toulx Ste Croi	154.38	4	*e*PKP1	PKPbc	10 15 51.7	0.0
AUTN	L'Aution	156.60	354	PKP	PKPab	10 16 14.6	-0.8
AUTN	L'Aution	156.60	354	PKP2	PKPab	10 16 14.6	-0.8
PAB	San Pablo	159.74	20	PFAKE		10 16 00.0	+10
PAB				LR	LR		
	comp=Z,1μm,20.0s,MS5.8						
ESDC	Sonseca Array	159.75	19	PKP	PKPdf	10 15 50.0	-0.4
ESDC				PKPab	PKPab	10 16 28.6	-0.5
ESDC	Sonseca Array	159.75	19	PKP	PKPdf	10 15 50.0	-0.5
	comp=Z,0.1nm,0.2s,baz=336,slow=1.8,SNR=3.0						
ESDC				PKPab	PKPab	10 16 28.7	-0.5
	comp=Z,2.8nm,0.6s,baz=329,slow=3.6,SNR=9.3						
ESLA	Sonseca Array	159.75	19	PFAKE		10 16 00.0	+10
ESLA				LR	LR		
	comp=Z,8μm,21.0s,MS6.5						
LIC	Lamto	162.98	146	*e*PKPdf	PKPdf	10 15 55.5	+0.9
LIC				LR	LR		
	comp=Z,1μm,22.5s						
LIC	Lamto	162.98	146	*e*PKIKP	PKPdf	10 15 55.5	+0.9
	comp=Z,38nm,1.2s						
LIC				*e*MLR	MLR		
	comp=Z,2μm,22.5s						
TOA0	Torodi Ar. Sit	172.09	161	*e*PKPdf	PKPdf	10 15 56.6	-4.4
TORD	Torodi Ar. Bea	172.09	161	PKP	PKPdf	10 16 00.6	-0.5
TORD				PKPab	PKPab	10 17 23.7	-0.3
TORD	Torodi Ar. Bea	172.09	161	PKP	PKPdf	10 16 00.6	-0.5
	comp=Z,6.4nm,1.1s,baz=202,slow=1.6,SNR=9.7						
TORD				PKPab	PKPab	10 17 23.7	-0.3
	comp=Z,4.1nm,0.9s,baz=204,slow=3.5,SNR=5.2						

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*ISCJB **05** 09:58:52.2±1.4, 1943N±004×7821W±007, h18^{km}±12^{km}, Error ellipse: s-maj=11.0km s-min=6.9km az=7.4*

*JSN **05** 09:58:54.9±1.0, 1937N×7811W, h9^{km}±6^{km}, MD3.8*

*SSNC **05** 09:59:00.4, 2015N×7791W, h5^{km}, MD3.1, ML2.2*

ISC 05 09:58:51.6±1.3, 1940N±004×7823W±006, h9^{km}±7^{km}, n12, σ1§02/20, 7D, Cuba region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBJ	Montego Bay	1.05	160	*i* S	Sg	09 59 25.1	-0.3
LMGC	Las Mercedes	1.33	60	*e*PG	Pg	09 59 16.0	-1.2
LMGC				*e*SG	Sg	09 59 31.2	-3.4
	comp=N,127nm,0.1s						
LMGC				*e*			
	comp=E,195nm,0.1s						
CVJ	Coleyville	1.34	150	⇓*i*P	Pn	09 59 16.9	+0.5
BBJ	Bamboo Saint A	1.36	138	⇓*i*P	Pn	09 59 17.2	+0.5
MCJ	Malvern	1.55	160	⇓*e*P	Pn	09 59 20.4	+1.0
MCJ				*e*S	Sn	09 59 38.7	-0.9
BNJ	Bonny Gate	1.62	131	⇓*i*P	Pn	09 59 20.5	+0.2
STH	Stony Hill	1.88	134	⇓*i*P	Pn	09 59 24.1	+0.1
STH				*e*S	Sn	09 59 46.6	-1.2
PCJ	Portland Cotta	1.94	148	⇓*i*P	Pn	09 59 25.9	+1.2
PCJ				*e*S	Sn	09 59 49.2	+0.1
CMJ	Castle Mountai	2.16	125	⇓*i*P	Pn	09 59 28.2	+0.4
CMJ				*e*S	Sn	09 59 53.4	-1.3
RCC	Rio Carpintero	2.46	76	*e*PG	Pg	09 59 45.3	+6.4
RCC				*e*SG	Sg	10 00 11.7	+0.9
	comp=N,11nm,0.4s						
RCC				*e*			
	comp=E,14nm,0.5s						
MGV	Manicaragua	3.16	329	*e*P	Pn	09 59 40.4	-1.1
MGV				*e*S	Sn	10 00 14.2	-5.1
MASC	Masc	3.85	78	*e*P	Pn	09 59 53.9	+2.9
MASC				*e*S	Sn	10 00 36.8	+0.5
	comp=N,1.6nm,0.4s						
MASC				*e*			
	comp=E,1.8nm,0.4s						

IDC 05 10:08:57.3±0.8, 2047S×17576W, h0^{km}, mb4.1/5, mb1 4.4/6, mb1mx4.1/14, mbtmp4.1/6, ML4.0/1, Error ellipse: s-maj=40.9km s-min=21.9km az=125.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.55	31	Pn	Pn	10 10 52.0	+3.3
	3.9nm,0.3s,baz=128,slow=20,SNR=4.6						
DZM	Mont Dzumac	16.66	261	Pn	Pn	10 13 01.7	+9.3
	0.2nm,0.3s,baz=83,slow=19,SNR=5.6						
URZ	Urewera	18.77	198	P	Pn	10 13 17.7	-0.7
	0.5nm,0.3s,baz=348,slow=14,SNR=3.4						
RPZ	Rata Peaks	25.66	202	P	P	10 14 28.9	+0.2
	5.6nm,0.6s,baz=358,slow=9.4,SNR=7.9						
PMG	Port Moresby	37.39	282	P	P	10 16 19.4	+7.2
	13nm,0.8s,baz=33,slow=5.5,SNR=4.1						
STKA	Stephens Creek	39.69	244	P	P	10 16 35.5	+4.1
	3.4nm,0.7s,baz=105,slow=11,SNR=3.6						
WRA	Warramunga Arr	46.68	262	P	P	10 17 27.5	-0.6
	2.3nm,0.9s,baz=97,slow=6.8,SNR=8.5						
NVAR	Mina Array Bea	79.58	42	P	P	10 21 06.1	-0.2
	1.7nm,0.9s,baz=213,slow=6.7,SNR=10						
TXAR	Lajitas Array	85.28	56	P	P	10 21 36.6	+0.3
	0.8nm,0.8s,baz=219,slow=6.1,SNR=8.1						
YKA	Yellowknife Ar	95.62	24	P	P	10 22 23.4	-0.8
	0.2nm,0.6s,baz=240,slow=4.4,SNR=3.8						
BRTR	Keskin Array B	148.35	314	PKPbc	PKPbc	10 28 45.4	-0.5
	1.8nm,0.6s,baz=93,slow=2.9,SNR=2.6						
GERES	GERESS Array B	150.69	347	PKPbc	PKPbc	10 28 53.1	+1.7
	1.8nm,0.8s,baz=21,slow=1.9,SNR=7.1						
TORD	Torodi Ar. Bea	172.32	161	PKPab	PKPab	10 30 32.6	-0.3
	0.5nm,0.7s,baz=193,slow=5.7,SNR=3.1						

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*ISCJB **05** 10:15:07.2±3.3, 159N±004×12632E±008, h1^{km}±20^{km}, mb4.9/51, MS4.6/2, Error ellipse: s-maj=13.7km s-min=7.3km az=170.0*

*IDC **05** 10:15:09.0±0.4, 157N×12637E, h0^{km}, mb4.7/20, mb1 4.7/21, mb1mx4.7/23, mbtmp4.7/21, ML4.6/1, Error ellipse: s-maj=21.8km s-min=9.7km az=72.0*

*NEIC **05** 10:15:10.3±0.2, 161N×12644E, h10^{km}, mb4.9/18, Error ellipse: s-maj=10.9km s-min=5.7km az=74.0*

*BJI **05** 10:15:10.9, 188N×12605E, h10^{km}, mB5.2, mb4.7, Ms4.9, Msz4.9*

*MOS **05** 10:15:12.0±1.4, 164N×12632E, h33^{km}, mb5.0/34, Error ellipse: s-maj=14.4km s-min=7.0km az=107.7*

ISC 05 10:15:10.1±2.8, 158N±004×12633E±008, h9^{km}±17^{km}, h20^{km}±3.6^{km}:pP-P, n129, σ1§16/114, mb4.8/51, MS4.6/2, 2C, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KKM	Kota Kinabalu	11.02	294	*e*Pn	Pn	10 17 53.4	+5.2
KAKA	Kakadu	15.44	157	*e*P	Pn	10 18 54.4	+6.1
	72nm,0.7s						
KSM	Kuching	16.02	270	*e*P	Pn	10 19 01.7	+5.8
FITZ	Fitzroy Crossi	19.57	182	*e*P	Pn	10 19 39.0	-0.8
	20nm,0.9s						
FITZ	Fitzroy Crossi	19.57	182	P	Pn	10 19 38.9	-0.8
	1.4nm,0.3s,baz=15,slow=12,SNR=27						
WRA	Warramunga Arr	22.78	160	P	P	10 20 12.6	-0.5
WRA						10 24 05.2	
WRA				S	S	10 24 22.3	-0.4
WRA				pmax	pmax		
	comp=Z,46nm,0.8s						
WRA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
WRA				smax			
	comp=N,6.0nm,0.9s						
WRA	Warramunga Arr	22.78	160	P	P	10 20 12.6	-0.5
	comp=N,46nm,0.8s,mb5.0,baz=341,slow=9.3,SNR=110						
WRA				PcP	PcP	10 24 05.2	+0.2
	comp=N,3.1nm,0.7s,baz=321,slow=2.3,SNR=5.8						
WRA				S	S	10 24 22.3	-0.5
	comp=N,5.9nm,0.9s,baz=336,slow=20,SNR=7.4						
WB2	Warramunga Arr	22.79	160	⇑*i*P	P	10 20 12.6	-0.6
PMG	Port Moresby	23.44	118	*e*P	P	10 20 20.3	+0.1
	comp=N,16nm,0.9s,mb4.4						
PMG	Port Moresby	23.44	118	*e*P	P	10 20 20.3	+0.1
PMG				pmax	pmax		
	comp=Z,16nm,0.9s						
PMG	Port Moresby	23.44	118	P	P	10 20 20.8	+0.7
	comp=Z,11nm,0.9s,mb4.3,baz=334,slow=7.1,SNR=3.7						
YHNB	Yeheng	23.45	349	*e*P	P	10 20 20.1	0.0
QIZ	Qiongzhong	23.70	318	P	P	10 20 22.8	+0.2
JOW	Kunigami	25.18	4	P	P	10 20 36.9	+0.8
	comp=Z,29nm,0.9s,mb4.8,baz=177,slow=8.6,SNR=11						
KULM	Kulim	25.89	279	*e*P	P	10 20 46.2	+3.5
PSI	Prapat	27.41	273	P	P	10 20 56.8	+0.4
PSI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.1						
PSI	Prapat	27.41	273	P	P	10 20 56.8	+0.4
	comp=Z,5.6nm,0.8s,mb4.1,baz=248,slow=6.7,SNR=4.3						
JNU	Nakatsue	31.67	7	P	P	10 21 32.9	-1.1
	comp=Z,18nm,0.9s,mb4.9,baz=198,slow=6.4,SNR=2.9						
FORT	Forrest	32.22	177	*e*P	P	10 21 39.1	+0.3
	comp=Z,42nm,0.7s,mb5.4						
KLBR	Kellerberrin	33.98	193	*e*P	P	10 21 54.7	+0.5
	comp=Z,95nm,1.9s,mb5.4						
MUN	Mundaring	34.73	195	*e*P	P	10 22 01.4	+0.8
NWAO	Narrogin (SRO)	35.38	193	P	P	10 22 07.1	+0.8
NWAO	Narrogin (SRO)	35.38	193	P	P	10 22 07.1	+0.8
NWAO				pmax	pmax		
	comp=Z,8.0nm,0.5s						
NWAO	Narrogin (SRO)	35.38	193	P	P	10 22 07.1	+0.8
	comp=Z,7.5nm,0.5s,mb4.9,baz=25,slow=8.7,SNR=16						
KSRS	Korea Array	35.73	2	P	P	10 22 09.9	+0.7
KSRS				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
KSRS	Korea Array	35.73	2	P	P	10 22 09.9	+0.7
	comp=Z,5.9nm,0.7s,mb4.6,baz=182,slow=10,SNR=17						
STKA	Stephens Creek	36.29	158	*e*P	P	10 22 14.0	-0.1
	comp=Z,17nm,0.8s,mb5.0						
STKA	Stephens Creek	36.29	158	P	P	10 22 14.4	+0.3
	comp=Z,19nm,0.7s,mb5.1,baz=336,slow=6.9,SNR=23						
DL2	Dalian	37.40	354	P	P	10 22 24.1	+0.7
DL2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.1						
BJT	Baijiatuau	39.36	348	*e*P	P	10 22 39.3	-0.6
	comp=Z,18nm,0.8s,mb4.9						
BJT	Baijiatuau	39.36	348	*e*P	P	10 22 39.3	-0.7
BJT				pmax	pmax		
	comp=Z,18nm,0.8s						
LZH	Lanzhou	40.16	331	*e*P	P	10 22 47.0	+0.3
LZH				AP	pP	10 22 51.2	+1.7
LZH				XP	sP	10 22 54.0	+3.5
LZH				AMB	AMB		
	comp=Z,52nm,1.2s,mb5.1						

LZH				AMB	AMB		
	comp=Z,350nm,5.7s						
LZH				LR	LR		
	comp=E,763nm,16.7s						
LZH				LR	LR		
	comp=Z,915nm,17.7s,MS4.7						
VLA	Vladivostok	41.66	6	P	P	10 22 56.0	-2.9
VLA				pmax	pmax		
	comp=Z,100nm,3.0s						
MDJ	Mudanjiang	42.95	3	*e*P	P	10 23 11.8	+2.4
	comp=Z,15nm,1.0s,mb4.7						
LSA	Lhasa	43.58	313	P	P	10 23 18.6	+3.8
LSA				LR	LR		
	comp=Z,670nm,23.0s,MS4.5						
LSA	Lhasa	43.58	313	*e*P	P	10 23 15.2	+0.4
	comp=Z,12nm,0.8s,mb4.7						
LSA	Lhasa	43.58	313	*e*P	P	10 23 15.2	+0.4
LSA				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.7						
GTA	Gaotai	44.74	331	*e*P	P	10 23 23.1	-0.8
GTA				AP	pP	10 23 27.0	+0.3
GTA				XP	sP	10 23 29.9	+2.1
GTA				PCP	PcP	10 25 07.6	+1.4
GTA				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb4.4						
HABR	Khabarovsk	47.32	8	*e*P	P	10 23 44.8	+0.7
HABR				*e*S	S	10 30 38.3	+0.6
KLR	Kul'dur	47.70	5	*e*P	P	10 23 41.9	-5.1
HIA	Hailar	47.84	354	*e*P	P	10 23 48.4	+0.3
	comp=Z,22nm,1.0s,mb5.1						
HIA	Hailar	47.84	354	*e*P	P	10 23 48.4	+0.3
HIA				pmax	pmax		
	comp=Z,22nm,1.0s						
TAU	Tasmania Unive	48.15	159	*e*P	P	10 23 50.2	-0.5
SONM	Songino Array	49.20	342	P	P	10 23 58.4	-0.3
SONM						10 25 21.6	
SONM				pmax	pmax		
	comp=Z,5.0nm,0.7s						
SONM				pmax	pmax		
	comp=Z,3.0nm,1.0s						
SONM	Songino Array	49.20	342	P	P	10 23 58.4	-0.3
	comp=Z,4.9nm,0.7s,mb4.7,baz=159,slow=8.7,SNR=25						
SONM				PcP	PcP	10 25 21.6	-0.2
	comp=Z,3.0nm,1.0s,baz=146,slow=4.7,SNR=4.0						
HYB	Hyderabad	49.50	292	*e*P	P	10 24 03.5	+2.1
HYB	Hyderabad	49.50	292	*i* P	P	10 24 03.5	+2.1
CIT	Chita	51.40	350	*e*P	P	10 24 16.2	+1.0
CIT				*e*		10 24 26.4	
CIT				*e*		10 24 32.4	
CIT				pmax	pmax		
	comp=Z,48nm,1.6s,mb5.2						
ZAK	Zakamensk	52.42	342	*e*P	P	10 24 21.9	-0.9
ZAK				*e*		10 25 33.4	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
TLY	Talaya	53.44	343	*e*P	P	10 24 28.8	-1.6
TLY				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
CLNS	Chul'man	55.10	359	*e*P	P	10 24 41.7	-0.7
CLNS				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
CLNS				pmax	pmax		
	comp=N,7.0nm,0.7s						
BOD	Bodaibo	56.92	352	*e*P	P	10 24 55.4	0.0
BOD				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
MK31	Makanchi Array	59.10	326	*e*P	P	10 25 09.9	-1.0
MKAR	Makanchi Array	59.10	326	P	P	10 25 10.0	-0.9
MKAR	Makanchi Array	59.10	326	P	P	10 25 10.0	-0.9
MKAR				pmax	pmax		
	comp=Z,11nm,0.6s						
MKAR	Makanchi Array	59.10	326	P	P	10 25 10.0	-0.9
	comp=Z,11nm,0.6s,mb5.0,baz=119,slow=7.0,SNR=77						
YAK	Yakutsk	60.36	2	*e*P	P	10 25 20.2	+0.9
YAK				*e**PP	pP	10 25 29.2	+7.1
YAK				*e*PS		10 37 35.3	
YAK				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.2						
YAK				pmax	pmax		
	comp=N,14nm,1.3s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,238nm,3.6s						
YAK				pmax	pmax		
	comp=N,137nm,4.7s						
YAK				pmax	pmax		
	comp=E,150nm,4.8s						
MA2	Magadan	60.87	14	*e*P	P	10 25 23.7	+0.9
	comp=E,15nm,0.9s,mb5.1						
MA2	Magadan	60.87	14	*e*P	P	10 25 23.9	+1.1
MA2				pmax	pmax		
	comp=N,20nm,1.2s						
MA2				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.3						
TKM2	Tokmak 2	61.10	319	*e*P	P	10 25 24.9	+0.2
	comp=Z,5.8nm,0.8s,mb4.8						
TKM2	Tokmak 2	61.10	319	*e*P	P	10 25 24.9	+0.2
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
AAK	Ala-Archa	61.69	319	*e*P	P	10 25 31.1	+2.4
AAK	Ala-Archa	61.69	319	*e*P	P	10 25 27.2	-1.5
AAK				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.7						
KBL	Kabul	62.52	308	*e*P	P	10 25 34.5	+0.1
KURK	Kurchatov	63.34	328	*e*P	P	10 25 38.4	-1.2
	comp=Z,20nm,0.7s,mb5.4						
KURK	Kurchatov	63.34	328	*e*P	P	10 25 38.4	-1.2
KURK				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.4						
NVS	Novosibirsk	63.60	334	*e*P	P	10 25 38.3	-2.9
SEY	Seymchan	64.20	13	*i* P	P	10 25 46.3	+1.3
BRVK	Borovoye	68.97	328	*e*P	P	10 26 14.7	-1.0
	comp=Z,5.7nm,0.6s,mb4.7						
BRVK	Borovoye	68.97	328	*e*P	P	10 26 14.7	-1.0
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
TIXI	Tiksi	69.98	1	*e*P	P	10 26 21.1	-0.5
	comp=Z,19nm,1.2s,mb4.9						
TIXI	Tiksi	69.98	1	*e*P	P	10 26 21.6	0.0
TIXI				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
BILL	Bilibino	71.72	15	P	P	10 26 34.0	+1.8
BILL						10 26 50.0	
AKTK	Aktyubinsk	75.09	322	P	P	10 26 54.6	+2.2
AKTO	Aktyubinsk	75.09	322	P	P	10 26 54.6	+2.1
AKTO				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
AKTO	Aktyubinsk	75.09	322	P	P	10 26 54.6	+2.1
	comp=Z,5.6nm,0.7s,mb4.6,baz=106,slow=7.1,SNR=17						
SVE	Sverdlovsk	75.58	329	*e*P	P	10 26 53.0	-2.1
ARU	Arti	76.53	328	*e*P	P	10 27 00.2	-0.4
	comp=Z,12nm,0.8s,mb4.9						
ARU	Arti	76.53	328	⇑*i*P	P	10 26 59.7	-0.9
ARU				*e*		10 27 10.2	
ARU				*e*		10 29 52.1	
ARU				*e*S	S	10 36 44.8	-1.8
ARU				*e*SS	SS	10 41 42.1	+0.5
ARU				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
QRN	Al-Qurain	79.08	299	*e*P	P	10 27 14.3	-1.1
QRN				AML	AML	10 27 23.0	
	comp=Z,13nm,0.4s						
MIB	Mutribah	79.66	300	*e*P	P	10 27 17.4	-1.1
MIB				AMb	AMB	10 27 24.3	
	comp=Z,35nm,0.7s,mb5.4						
NAY	Al-Naaiem	79.71	299	*e*P	P	10 27 17.1	-1.7
NAY				AMb	AMB	10 27 24.5	
	comp=Z,21nm,1.0s,mb5.0						
RST	Umm Al-Ruwaisa	79.94	300	*e*P	P	10 27 18.7	-1.3
RST				AMb	AMB	10 27 25.1	
	comp=Z,40nm,1.0s,mb5.3						
VNDA	Vanda	81.36	173	P	P	10 27 26.0	-0.7
VNDA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
VNDA	Vanda	81.36	173	P	P	10 27 26.0	-0.7
	comp=Z,5.3nm,0.8s,mb4.5,baz=313,slow=7.4,SNR=6.4						
MAW	Mawson	81.61	200	P	P	10 27 29.0	+0.8
MAW				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MAW	Mawson	81.61	200	P	P	10 27 29.0	+0.8
	comp=Z,6.9nm,0.9s,mb4.6,baz=67,slow=7.3,SNR=8.6						
ZEI	Tsey	83.37	313	*e*P	P	10 27 34.8	-3.1
ZEI				*i*		10 27 44.9	
ZEI				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
PRGR	Permogore	84.19	332	*e*P	P	10 27 42.9	+1.2
PRGR				*e*		10 27 48.1	
PRGR				*e*S	S	10 37 54.1	-13
PRGR				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.0						
IMA2	Indian Mountai	84.50	24	*e*P	P	10 27 43.2	0.0
SLKM	Skilak Lake	85.40	30	*e*P	P	10 27 47.4	-0.4
VRHR	Novokhopersk	85.45	321	*e*P	P	10 27 48.4	+0.2
VRHR				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.5						
VRHR				pmax	pmax		
	comp=N,8.0nm,0.8s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.6s						
PMR	Palmer	86.01	29	*e*P	P	10 27 50.2	-0.6
	comp=E,7.9nm,1.0s,mb4.9						
PMR	Palmer	86.01	29	*e*P	P	10 27 50.2	-0.6
PMR				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.9						
VORD	Divnogorie	86.91	321	*e*P	P	10 27 53.3	-2.2
VORD				*e**PP	pP	10 28 00.2	+1.8
VORD				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.9						
VORD				pmax	pmax		
	comp=N,20nm,1.6s						
VORD				pmax	pmax		
	comp=E,8.0nm,1.1s						
OBN	Obninsk	88.58	325	P	P	10 28 06.0	+2.6
OBN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.0						
ASF	Jabal al Asfar	88.69	302	P	P	10 28 05.7	+1.3
ASF				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASF	Jabal al Asfar	88.69	302	P	P	10 28 05.7	+1.3
	comp=Z,2.1nm,0.3s,mb5.0,baz=265,slow=16,SNR=6.3						
KMBO	Kilima Mbogo	89.11	269	*e*P	P	10 28 08.8	+2.0
	comp=Z,4.2nm,1.0s,mb4.7						
KMBO	Kilima Mbogo	89.11	269	*e*P	P	10 28 08.8	+2.0
KMBO				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KMBO	Kilima Mbogo	89.11	269	P	P	10 28 09.5	+2.7
	comp=Z,0.5nm,0.3s,mb4.3,baz=32,slow=9.5,SNR=2.9						
BRTR	Keskin Array B	91.08	310	P	P	10 28 14.6	-0.8
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	91.08	310	P	P	10 28 14.6	-0.8
	comp=Z,1.2nm,0.8s,mb4.3,baz=126,slow=5.4,SNR=4.9						
ARCES	ARCESS Array B	92.32	340	P	P	10 28 20.1	-0.4
ARCES				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ARCES	ARCESS Array B	92.32	340	P	P	10 28 20.1	-0.4
	comp=Z,5.6nm,1.0s,mb4.9,baz=47,slow=2.3,SNR=5.3						
AKASG	Malin Array Be	93.30	321	P	P	10 28 25.4	-0.1
AKASG	Malin Array Be	93.30	321	P	P	10 28 25.4	-0.1
	comp=Z,0.3nm,0.3s,mb4.2,baz=87,slow=4.6,SNR=4.0						
FINES	FINESS Array B	93.53	332	P	P	10 28 24.8	-1.4
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	FINESS Array B	93.53	332	P	P	10 28 24.8	-1.5
	comp=Z,1.4nm,0.8s,mb4.4,baz=68,slow=4.9,SNR=2.8						
MLR	Muntele Rosu	96.16	316	P	P	10 28 40.5	+1.8
MLR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MLR	Muntele Rosu	96.16	316	P	P	10 28 40.5	+1.9
	comp=Z,1.9nm,0.6s,mb4.7,baz=108,slow=3.9,SNR=2.3						
YKA	Yellowknife Ar	101.61	24	P	Pdif	10 29 02.9	+0.1
YKA	Yellowknife Ar	101.61	24	P	Pdif	10 29 02.9	+0.1
YKA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
YKA	Yellowknife Ar	101.61	24	P	Pdif	10 29 02.9	+0.1
	comp=Z,0.9nm,1.0s,baz=298,slow=4.5,SNR=6.5						
TORD	Torodi Ar. Bea	123.18	287	PKP	PKPdf	10 34 07.9	-0.5
TORD	Torodi Ar. Bea	123.18	287	PKP	PKPdf	10 34 07.9	-0.6
	comp=Z,2.4nm,0.8s,baz=38,slow=1.8,SNR=11						
TXAR	Lajitas Array	123.21	53	PKP	PKPdf	10 34 08.8	+0.7
TXAR	Lajitas Array	123.21	53	PKP	PKPdf	10 34 08.8	+0.7
	comp=Z,0.7nm,0.8s,baz=178,slow=3.2,SNR=2.8						
JTS	JuntasAbangare	146.71	69	PKPbc	PKPbc	10 34 53.0	-0.5
JTS	JuntasAbangare	146.71	69	PKPbc	PKPbc	10 34 53.0	-0.5
	comp=Z,4.8nm,0.7s,baz=153,slow=2.3,SNR=3.2						
CFAA	Coronel Fontan	147.12	157	PKPbc	PKPbc	10 34 54.5	+0.2
CFAA	Coronel Fontan	147.12	157	PKPbc	PKPbc	10 34 54.5	+0.2
	comp=Z,2.1nm,0.6s,baz=217,slow=3.2,SNR=24						
LCO	Las Campanas	148.25	151	*e*PKPbc	PKPbc	10 34 57.2	-0.3
ATAH	Atahualpa	154.77	103	PKPbc	PKPbc	10 35 14.8	+1.8
	comp=Z,7.0nm,0.8s,baz=264,slow=2.2,SNR=3.6						
ATAH				PKPab	PKPab	10 35 29.8	+1.7
	comp=Z,3.4nm,0.6s,baz=78,slow=8.6,SNR=3.9						
LPAZ	La Paz	159.59	137	PKP	PKPdf	10 35 12.1	+1.7
LPAZ				PKPab	PKPab	10 35 49.4	+0.9
LPAZ	La Paz	159.59	137	PKIKP	PKPdf	10 35 12.1	+1.7
LPAZ				PKP	PKPab	10 35 49.4	+0.9
LPAZ	La Paz	159.59	137	PKP	PKPdf	10 35 12.1	+1.7
	comp=Z,0.9nm,0.9s,baz=19,slow=1.9,SNR=6.2						
LPAZ				PKPab	PKPab	10 35 49.4	+0.9
	comp=Z,1.0nm,0.7s,baz=207,slow=2.3,SNR=2.7						
SIV	San Ignacio	163.93	153	PKP	PKPdf	10 35 15.5	+0.6
SIV				PKPab	PKPab	10 36 07.6	+0.3
SIV	San Ignacio	163.93	153	PKP	PKPdf	10 35 15.5	+0.6
	comp=Z,3.3nm,1.1s,baz=242,slow=1.8,SNR=6.9						
SIV				PKPab	PKPab	10 36 07.6	+0.3
	comp=Z,2.4nm,0.7s,baz=220,slow=4.3,SNR=9.2						

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*SZGRF **05** 10:16:18.8,22.07S×174.96W,h33^{km},Tonga Islands region*

*IDC **05** 10:16:21.7±0.4,20.77S×175.44W,h0^{km},mb5.0/20, mb1 5.1/22,mb1mx5.1/23,mbtmp5.0/22,ML4.3/2,MS4.8/3, Ms1 4.9/3,ms1mx4.3/20,Error ellipse: s-maj=18.0km s-min=13.0km az=156.0*

*ISCJB **05** 10:16:22.1±0.1,20.75S±0.04×175.39W±0.04,h15^{km}, mb5.4/109,MS5.4/173,Error ellipse: s-maj=7.3km s-min=3.8km az=144.5*

*BJI **05** 10:16:22.8,20.70S×175.50W,h10^{km},mB5.7,mb5.2,Ms5.5, Msz5.3*

*BGS **05** 10:16:24.2,20.68S×175.49W,h10^{km},mb5.6(NEIC)*

*GCMT **05** 10:16:24.2±0.3,20.60S×175.21W,h17^{km}±1^{km},MW5.5/82, Moment Tensor Solution. s35,c46; s82,c152; Duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.11±.07; M$_{\theta\theta}$-1.67±.05; M$_{\phi\phi}$1.78±.06; M$_{r\theta}$-1.19±.20; M$_{\theta\phi}$-0.46±.05; M$_{\phi r}$0.20±.15; Best double couple: M$_0$2.12400×10^{17} NP1:ϕ_s34.00000°,δ62.00000°,λ-12.00000°. NP2: ϕ_s129.00000°,δ79.00000°,λ-151.00000°. Principal axes: T 1.9130, Plg12.0000°, Azm259.0000°; N 0.4260, Plg59.0000°, Azm148.0000°; P -2.3350, Plg28.0000°, Azm355.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC **05** 10:16:24.2±0.2,20.68S×175.49W,h15^{km},mb5.6/77, MS5.4/163 Error ellipse: s-maj=10.2km s-min=5.3km az=146.0*

NEIC Felt at Nuku'alofa.

*MOS **05** 10:16:26.8±1.6,20.34S×175.43W,h33^{km},mb5.8/41, MS5.4/43,Error ellipse: s-maj=10.1km s-min=7.1km az=58.5*

ISC 05 10:16:23.8±0.1**,20.75S**±0.04×**175.37W**±0.04**,h16**^{km}**, h16**^{km}±1.2^{km}**:pP-P,n929,**σ1^s**06**/547**,mb5.4**/108**,MS5.4**/173**, 108C-115D,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.62	27	*e*Pn	Pn	10 18 10.8	-3.4
AFI	Afiamalu	7.62	27	Pn	Pn	10 18 10.8	-3.4
	19nm,0.3s,baz=244,slow=21,SNR=17						
RAR	Rarotonga	14.58	95	Pn	Pn	10 19 44.9	-4.6
RAR	Rarotonga	14.58	95	Pn	Pn	10 19 44.8	-4.6
	8.5nm,0.3s,baz=272,slow=6.9,SNR=10.0						
DZM	Mont Dzumac	16.99	262	Pn	Pn	10 20 21.6	+0.8
DZM	Mont Dzumac	16.99	262	Pn	Pn	10 20 21.6	+0.8
	1.4nm,0.3s,baz=86,slow=13,SNR=22						
URZ	Urewera	18.62	199	P	Pn	10 20 39.0	-1.9
	0.7nm,0.3s,baz=4.5,slow=6.6,SNR=7.7						
MRZ	Mangatainoka R	21.30	199	PN	P	10 21 08.9	-0.8
SNZO	South Karori	22.16	200	*e*P	P	10 21 17.0	-1.9
	46nm,0.7s,mb5.0						
SNZO				LR	LR		
	comp=Z,8µm,21.0s,MS5.1						
QRZ	Quartz Range	22.51	205	PN	P	10 21 22.9	+0.2
NNZ	Nelson	22.53	203	PN	P	10 21 17.9	-5.0
THZ	Tophouse	23.18	203	PN	P	10 21 26.5	-3.3
LTZ	Lake Taylor	24.30	203	*e*PN	P	10 21 38.0	-2.4
PAE	Paea	24.54	87	*e*T		10 46 22.8	
	comp=Z,256nm,0.3s						
PAE	Paea	24.54	87	*e*P	P	10 21 43.0	+0.1
	comp=Z,342nm,1.3s,mb5.7						
PAE				*e*TT		10 46 22.8	
PAE	Paea	24.54	87	*e*P	P	10 21 43.0	+0.1
PAE				pmax	pmax		
	comp=Z,342nm,1.3s,mb5.7						
PPT	Papeete	24.56	87	*e*P	P	10 21 43.5	+0.4
	comp=Z,222nm,1.3s,mb5.5						
PPT	Papeete	24.56	87	*e*T		10 46 24.3	
	comp=Z,48nm,0.4s						
PPT	Papeete	24.56	87	*e*LQ		10 26 31.4	
	comp=Z,6µm,25.2s						
PPT				*e*LR	LR	10 27 35.1	
	comp=Z,11µm,27.0s,baz=257						
PPT	Papeete	24.56	87	*e*P	P	10 21 43.3	+0.2
PPT	Papeete	24.56	87	P	P	10 21 43.5	+0.4
	comp=Z,218nm,1.2s,mb5.6,baz=223,slow=4.6,SNR=11						
TVO	Taravao	24.82	88	*e*T		10 46 44.3	
	comp=Z,72nm,0.3s						
TVO	Taravao	24.82	88	*e*P	P	10 21 46.0	+0.6
TVO				*e*TT		10 46 44.3	
WVZ	Waitaha Valley	25.12	204	*e*PN	P	10 21 43.3	-4.6
RPZ	Rata Peaks	25.55	203	P	P	10 21 51.2	-0.6
	comp=Z,27nm,0.6s,mb5.0,baz=28,slow=2.8,SNR=13						
FOZ	Fox Glacier	25.95	205	PN	P	10 21 53.2	-2.2
HNR	Honiara	26.31	292	PFAKE		10 22 10.0	+11
HNR				LR	LR		
	comp=Z,3µm,19.0s,MS4.9						
HNR	Honiara	26.31	292	LR	LR	10 30 21.9	
	comp=Z,2µm,19.4s,MS4.7,baz=176,slow=32						
PMOR	Pomariorio Ree	26.75	82	*e*T		10 49 07.0	
	comp=Z,10nm,0.3s						
JCZ	Jackson Bay	26.75	206	PN	P	10 21 59.8	-2.8
VAH	Vaihoa	26.93	83	*e*T		10 49 20.6	
	comp=Z,19nm,0.2s						
EIDS	Eidsvold	31.16	255	*e*P	P	10 22 41.6	-0.5
ARMA	Armidale	31.19	245	*e*P	P	10 22 45.0	+2.7
CNB	Canberra Magne	34.15	237	*e*P	P	10 23 06.8	-1.3
	comp=Z,61nm,1.2s,mb5.4						
CTA	Charters Tower	35.92	264	*e*P	P	10 23 20.8	-2.8
	comp=Z,27nm,0.8s,mb5.2						
CTA	Charters Tower	35.92	264	*e*P	P	10 23 20.8	-2.8
CTA				pmax	pmax		
	comp=Z,27nm,0.8s						
CTA	Charters Tower	35.92	264	P	P	10 23 21.5	-2.1
	comp=Z,43nm,0.9s,mb5.4,baz=102,slow=10.0,SNR=12						
CTAO	Charters Tower	35.92	264	*e*P	P	10 23 21.6	-2.0
	comp=Z,36nm,0.8s,mb5.4						
CTAO				LR	LR		
	comp=Z,6µm,19.0s,MS5.4						
CTAO	Charters Tower	35.92	264	*e*P	P	10 23 21.6	-2.0
CTAO				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.4						
CTAO				MLR	MLR		
	comp=Z,6µm,19.0s,MS5.4						
RKT	Rikitea	37.47	101	*e*S	S	10 29 22.8	-2.2
	comp=Z,428nm,26.2s						
RKT				*e*LQ		10 32 10.9	
	comp=Z,2µm,25.2s						
RKT				*e*LR	LR	10 33 37.7	
	comp=Z,5µm,28.2s,baz=267						
RKT	Rikitea	37.47	101	*e*T		11 02 33.8	
	comp=Z,53nm,0.3s						
TOO	Toolangi	37.76	235	*e*P	P	10 23 37.2	-1.9
	comp=Z,22nm,1.0s,mb4.8						
TOO	Toolangi	37.76	235	*e*P	P	10 23 37.2	-1.9
TOO				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.8						
PMG	Port Moresby	37.80	282	*e*P	P	10 23 38.0	-1.7
	comp=Z,88nm,0.9s,mb5.5						
PMG				LR	LR		
	comp=Z,3µm,19.0s,MS5.1						
PMG	Port Moresby	37.80	282	*e*P	P	10 23 38.0	-1.7
PMG				pmax	pmax		
	comp=Z,88nm,0.9s						
PMG				MLR	MLR		
	comp=Z,3µm,19.0s						
PMG	Port Moresby	37.80	282	P	P	10 23 38.3	-1.4
	comp=Z,60nm,0.8s,mb5.4,baz=98,slow=7.6,SNR=10						
TAU	Tasmania Unive	38.20	226	P	P	10 23 44.1	+1.4
STKA	Stephens Creek	39.91	245	*e*P	P	10 23 57.4	+0.2
	comp=Z,16nm,0.6s,mb4.9						
STKA	Stephens Creek	39.91	245	P	P	10 23 57.2	+0.1
	comp=Z,19nm,0.6s,mb5.0,baz=85,slow=11,SNR=11						
COEN	Coen	40.06	273	*e*P	P	10 23 58.3	-0.3
KIP	Kipapa	45.21	23	*e*P	P	10 24 41.5	+1.2
WB2	Warramunga Arr	46.99	262	*e*P	P	10 24 56.8	+2.3
WRA	Warramunga Arr	47.00	262	P	P	10 24 51.1	-3.5
	comp=Z,5.9nm,0.9s,mb4.5,baz=101,slow=8.2,SNR=11						
WRA				PcP	PcP	10 26 28.0	+1.2
	comp=Z,8.2nm,0.9s,baz=92,slow=4.1,SNR=4.8						
KAKA	Kakadu	50.44	270	*e*P	P	10 25 19.7	-1.4
FORT	Forrest	51.46	247	*e*P	P	10 25 29.3	+0.7
	comp=Z,65nm,0.7s,mb5.7						
GUMO	Guam	51.88	308	PFAKE		10 25 40.0	+8.2
GUMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
GUMO	Guam	51.88	308	P	P	10 25 31.8	0.0
GUMO	Guam	51.88	308	LR	LR	10 41 36.6	
	comp=Z,680nm,21.0s,MS4.7,baz=294,slow=29						
FITZ	Fitzroy Crossi	55.43	262	P	P	10 25 58.1	+0.2
	comp=Z,8.4nm,1.0s,mb4.7,baz=100,slow=11,SNR=5.3						
SBA	Scott Base	57.80	184	PFAKE		10 26 30.0	+16
SBA				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
SBA	Scott Base	57.80	184	P	P	10 26 15.7	+1.9
VNDA	Vanda	57.90	186	*e*P	P	10 26 18.7	+4.2
	comp=Z,32nm,1.4s,mb5.2						
VNDA				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
VNDA	Vanda	57.90	186	*e*P	P	10 26 18.7	+4.2
VNDA				pmax	pmax		
	comp=Z,32nm,1.4s						
VNDA				MLR	MLR		
	comp=Z,2µm,19.0s						
VNDA	Vanda	57.90	186	P	P	10 26 18.0	+3.5
	comp=Z,4.4nm,0.7s,mb4.6,baz=27,slow=5.9,SNR=10						
KLBR	Kellerberrin	60.18	245	*e*P	P	10 26 29.9	-1.2
	comp=Z,100nm,1.6s,mb5.6						
NWAO	Narrogin (SRO)	60.46	243	PFAKE		10 26 50.0	+17
NWAO				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
NWAO	Narrogin (SRO)	60.46	243	P	P	10 26 34.0	+1.0
MUN	Mundaring	61.44	244	*e*P	P	10 26 40.7	+1.0
DAV	Davao City (W)	64.24	289	PFAKE		10 27 10.0	+11
DAV				LR	LR		
	comp=Z,920nm,19.0s,MS5.0						
CASY	Casey	64.80	205	*e*P	P	10 27 03.0	+1.7
CASY				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
QSPA	South Pole Qui	69.32	180	*e*P	P	10 27 31.6	+1.7
	comp=Z,61nm,0.8s,mb5.6						
QSPA				LR	LR		
	comp=Z,3µm,22.0s,MS5.4						
MIR	Mirnyy	71.81	205	*e*P	P	10 27 52.0	+6.7
MIR				*e*		10 28 06.0	
MIR				pmax	pmax		
	comp=Z,300nm,1.1s,mb6.1						
MJAR	Matsushiro Arr	71.89	322	P	P	10 27 44.7	-1.4
MJAR	Matsushiro Arr	71.89	322	P	P	10 27 44.7	-1.4
	comp=Z,5.9nm,0.7s,mb4.6,baz=157,slow=6.1,SNR=13						
MAJO	Matsushiro	71.89	322	*e*P	P	10 27 46.0	-0.2
	comp=Z,16nm,0.9s,mb4.9						
MAJO				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
MAJO	Matsushiro	71.89	322	*e*P	P	10 27 46.0	-0.2
MAJO				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
MAJO				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
JOW	Kunigami	72.23	309	P	P	10 27 49.0	+0.7
	comp=Z,10nm,0.9s,mb4.8,baz=132,slow=12,SNR=6.4						
ADK	Adak	72.33	359	PFAKE		10 28 00.0	+12
ADK				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
ERM	Erimo	73.28	329	PFAKE		10 28 10.0	+16
ERM				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
SMY	Shemya	73.74	353	PFAKE		10 28 10.0	+13
SMY				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
SNCC	San Nicolas Is	75.63	46	⇓P	P	10 28 08.7	+0.5

	baz=76						
BSC	Santa Cruz Isl	76.01	45	⇑P	P	10 28 11.3	+1.0
	baz=76,SNR=7.1						
SCI	San Clemente I	76.13	46	⇑P	P	10 28 11.7	+0.7
	baz=76,SNR=5.1						
FARB	Farallon Islan	76.18	40	⇑P	P	10 28 12.5	+1.3
	baz=76						
V04C	Ramage Ranch,	76.20	43	⇓P	P	10 28 12.7	+1.2
	baz=76						
V03C	Hunter Liggett	76.21	43	⇓P	P	10 28 12.7	+1.3
	baz=76,SNR=14						
SBC	Santa Barbara	76.22	45	⇑P	P	10 28 12.3	+0.7
	baz=76						
HAST	UC Hastings Re	76.24	42	⇑P	P	10 28 12.5	+0.9
	baz=76,SNR=35						
BNLO	Ben Lomond (Sa	76.32	41	⇑P	P	10 28 13.2	+1.2
	baz=76,SNR=7.5						
TATO	Taipei	76.36	304	PFAKE		10 28 20.0	+7.5
TATO				LR	LR		
	comp=Z,971nm,22.0s,MS5.1						
PKM	Peak Mountain	76.43	44	⇑P	P	10 28 13.3	+0.6
	baz=77,SNR=9.4						
BLG	Laguna Peak	76.45	45	⇓P	P	10 28 14.0	+1.2
	baz=77						
JRSC	Jasper Ridge	76.46	41	⇑P	P	10 28 12.7	-0.1
	baz=77,SNR=8.1						
SAC	San Andreas	76.46	41	*e*P	P	10 28 12.5	-0.3
CIS	Catalina Islan	76.48	46	⇑P	P	10 28 13.3	+0.3
	baz=77,SNR=6.7						
MCCM	Marconi Confer	76.54	40	PFAKE		10 28 30.0	+17
MCCM				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
MCCM	Marconi Confer	76.54	40	⇑P	P	10 28 13.7	+0.4
	baz=77						
SAO	San Andreas Ge	76.54	42	*e*P	P	10 28 12.7	-0.6
	comp=Z,140nm,1.5s,mb5.7						
SAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
SAO	San Andreas Ge	76.54	42	*e*P	P	10 28 12.7	-0.6
SAO				pmax	pmax		
	comp=Z,140nm,1.5s,mb5.7						
SAO				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.5						
SMMC	Simmler	76.56	44	⇓P	P	10 28 14.2	+0.8
	baz=77,SNR=9.1						
PKD	Parkfield	76.61	43	⇓P	P	10 28 14.1	+0.4
	baz=77,SNR=12						
PTRM	Twissleman Ran	76.64	43	*e*P	P	10 28 13.3	-0.6
U04C	Hernandez Rese	76.71	43	⇑P	P	10 28 14.4	+0.1
	baz=77,SNR=42						
PACP	Pacheco Peak	76.80	42	P	P	10 28 14.6	-0.2
	baz=77,SNR=31						
PET	Petropavlovsk	76.84	344	PFAKE		10 28 30.0	+15
PET				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
PET	Petropavlovsk	76.84	344	*e*P	P	10 28 16.5	+1.9
PET				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
PET				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.2						
CVS	Carmenet Viney	76.92	40	⇓P	P	10 28 17.0	+1.6
	baz=77,SNR=5.2						
NSHM	Saint Helena R	76.95	40	*e*P	P	10 28 17.2	+1.6
V05C	Boulder Hill,	76.97	43	⇑P	P	10 28 16.9	+1.2
	baz=77						
HOPS	Hopland	76.98	39	*e*P	P	10 28 18.1	+2.4
	comp=Z,127nm,1.4s,mb5.7						
HOPS				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
HOPS	Hopland	76.98	39	⇓P	P	10 28 16.4	+0.7
	baz=77,SNR=12						
OSI	Osito Adit	76.98	45	⇓P	P	10 28 16.7	+0.8
	baz=77						
DECC	Green Verdugo	77.03	45	⇑P	P	10 28 17.5	+1.4
	baz=77						
BDM	Black Diamond	77.03	41	⇑P	P	10 28 17.2	+1.2
	baz=77						
109C	Camp Elliot, M	77.06	47	⇓P	P	10 28 17.1	+0.8
	baz=77,SNR=6.4						
S04C	Ingram Canyon,	77.08	41	⇑P	P	10 28 16.7	+0.4
	baz=77,SNR=12						
T05C	Eagle Field, D	77.11	42	⇓P	P	10 28 17.5	+1.0
	baz=77,SNR=5.6						
U05C	Westside ANR,	77.11	43	⇓P	P	10 28 18.0	+1.5
	baz=77						
KCPM	Cahto Peak	77.13	38	*e*P	P	10 28 19.1	+2.5
P01C	Double 8 Ranch	77.13	39	⇓P	P	10 28 16.8	+0.2
	baz=77,SNR=7.5						
ARVC	Arvin	77.22	45	⇓P	P	10 28 18.2	+1.1
	baz=77,SNR=15						
YSS	Yuzh-Sakhalins	77.24	332	*e*P	P	10 28 16.7	-0.3
	comp=Z,104nm,1.1s,mb5.7						
YSS				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
YSS	Yuzh-Sakhalins	77.24	332	⇑*e*P	P	10 28 14.6	-2.4
YSS				pmax	pmax		
	comp=Z,90nm,1.0s,mb5.7						
MNRC	McLaughlin Nat	77.28	40	⇑P	P	10 28 18.5	+1.1
	baz=77,SNR=35						
O01C	Eel River Cons	77.29	38	⇑P	P	10 28 18.6	+1.2
	baz=78,SNR=9.1						
Q03C	Winters	77.38	40	⇓P	P	10 28 19.4	+1.4
	baz=78,SNR=12						
MURC	Murrieta	77.41	47	⇓P	P	10 28 19.2	+0.9
	baz=78,SNR=13						
LPIG	La Paz	77.43	58	P	P	10 28 20.1	+1.5
	comp=Z,37nm,1.1s,mb5.2,baz=118,slow=3.0,SNR=4.0						
BFSC	Mount Baldy St	77.47	46	⇑P	P	10 28 19.2	+0.6
	baz=78,SNR=6.6						
VES	Vestal, Richgr	77.48	44	⇓P	P	10 28 18.9	+0.3
	baz=78,SNR=20						
MONP	Monument Peak	77.54	48	⇑P	P	10 28 20.1	+1.1
	baz=78,SNR=35						
GASB	Alder Springs	77.61	39	⇑P	P	10 28 19.4	+0.1
	baz=78,SNR=17						
JCC	Jacoby Creek	77.62	37	⇑P	P	10 28 19.5	+0.3
	baz=78						
EDW2	Edwards Air Fo	77.62	45	P	P	10 28 18.9	-0.6
	baz=78,SNR=65						
DVTC	Desert V Tower	77.63	48	⇑P	P	10 28 19.9	+0.4
	baz=78,SNR=7.5						
RCTC	Rector, Farmer	77.66	43	⇓P	P	10 28 20.1	+0.5
	baz=78						
ISA	Isabella	77.77	44	P	P	10 28 19.8	-0.4
	baz=78,SNR=85						
T06C	Millerton Lake	77.79	43	⇓P	P	10 28 20.2	-0.1
	baz=78,SNR=22						
KHMM	Horse Mountain	77.83	37	*e*P	P	10 28 22.1	+1.7
Q04C	Lincoln	77.89	40	⇓P	P	10 28 21.1	+0.3
	baz=78,SNR=5.0						
SUTB	Sutter Butte	77.89	40	⇓P	P	10 28 21.1	+0.3
	baz=78						
O02C	Red Bluff	77.91	38	P	P	10 28 20.7	-0.2
	baz=78,SNR=44						
PFO	Pinyon Flat Ob	77.92	47	*e*P	P	10 28 20.6	-0.5
	comp=Z,52nm,1.1s,mb5.4						
PFO				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
PFO	Pinyon Flat Ob	77.92	47	*e*P	P	10 28 20.6	-0.5
PFO				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.4						
PFO				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
PFO	Pinyon Flat Ob	77.92	47	P	P	10 28 20.7	-0.4
	comp=Z,35nm,1.1s,mb5.2,baz=263,slow=5.0,SNR=15						
PFO	Pinyon Flat Ob	77.92	47	⇓P	P	10 28 21.6	+0.5
	baz=78,SNR=12						
BBRC	Big Bear Sol-O	77.98	46	⇑P	P	10 28 21.3	-0.1
	baz=78,SNR=8.6						
CMB	Columbia Colle	78.00	41	*e*P	P	10 28 20.4	-1.0
	comp=Z,86nm,1.5s,mb5.5						
CMB				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
CMB	Columbia Colle	78.00	41	*e*P	P	10 28 20.4	-1.0
CMB				pmax	pmax		
	comp=Z,86nm,1.5s,mb5.5						
CMB				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.5						
CMB	Columbia Colle	78.00	41	⇓P	P	10 28 21.3	-0.1
	baz=78,SNR=41						
SWSC	Sam W. Stewart	78.00	48	⇑P	P	10 28 21.3	-0.3
	baz=78,SNR=24						
HELL	Mitchell Peak,	78.03	43	⇓P	P	10 28 21.4	-0.3
	baz=78,SNR=40						
OHCM	Honcut	78.14	40	*e*P	P	10 28 24.0	+1.8
KRMB	Red Mountain	78.15	37	*e*P	P	10 28 21.5	-0.7
KCC	Kaiser Creek	78.23	42	⇑P	P	10 28 22.6	-0.1
	baz=78,SNR=15						
LAVA	Lava Cap Winer	78.23	41	⇑P	P	10 28 22.7	0.0
	baz=78,SNR=16						
S06C	San Francisco	78.23	42	⇓P	P	10 28 23.1	+0.4
	baz=78,SNR=25						
O03C	Acorn Hollow,	78.24	39	⇓P	P	10 28 22.7	0.0
	baz=78						
M01C	Crescent City	78.25	37	⇓P	P	10 28 23.2	+0.5
	baz=78,SNR=6.1						
ORV	Oroville	78.27	40	⇑P	P	10 28 22.9	0.0
	baz=78,SNR=22						
RRX	Edison Barstow	78.28	46	⇓P	P	10 28 23.0	-0.1
	baz=78						
WDC	Whiskeytown Da	78.32	38	*e*P	P	10 28 22.2	-0.9
	comp=Z,92nm,1.4s,mb5.5						
WDC				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
WDC	Whiskeytown Da	78.32	38	*e*P	P	10 28 22.3	-0.8
WDC				pmax	pmax		
	comp=Z,92nm,1.4s,mb5.5						
WDC				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
WDC	Whiskeytown Da	78.32	38	⇓P	P	10 28 23.1	0.0
	baz=78,SNR=20						
BELC	Belle Mtn.	78.46	47	P	P	10 28 24.2	+0.1
	baz=79,SNR=11						
CWC	Cottonwood Cre	78.49	44	⇑P	P	10 28 24.6	+0.4
	baz=79,SNR=5.8						
R05C	Kirkwood Meado	78.60	41	⇓P	P	10 28 25.1	+0.4
	baz=79,SNR=23						
BC3	Big Chuckw Mtn	78.64	47	⇑P	P	10 28 25.2	+0.2
	baz=79,SNR=33						
MPMC	Manual Prospec	78.65	44	⇑P	P	10 28 25.0	-0.1
	baz=79,SNR=106						
GSC	Goldstone	78.66	45	⇓P	P	10 28 24.5	-0.7
	baz=79,SNR=54						
M02C	Callahan	78.66	38	⇑P	P	10 28 24.8	-0.2
	baz=79,SNR=35						
HEC	Hector,Ludlow	78.70	46	⇑P	P	10 28 25.4	0.0
	baz=79,SNR=17						
DAC	Darwin (Calif)	78.71	44	*e*P	P	10 28 26.4	+1.0
	comp=Z,112nm,1.6s,mb5.5						
DAC				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
DAC	Darwin (Calif)	78.71	44	*e*P	P	10 28 25.3	-0.1
DAC				pmax	pmax		
	comp=Z,110nm,1.5s,mb5.6						
MLAC	Mammoth Lakes	78.72	42	⇓P	P	10 28 24.9	-0.5
	baz=79,SNR=18						
KSRS	Korea Array	78.72	317	P	P	10 28 25.2	-0.2
	comp=Z,6.7nm,1.1s,mb4.5,baz=147,slow=5.6,SNR=7.5						
MTUM	Tungsten Hills	78.72	43	*e*P	P	10 28 24.8	-0.6
L02A	Cave Junction	78.75	37	⇑P	P	10 28 25.2	-0.3
	baz=79,SNR=7.7						
TIN	Tinemaha	78.76	43	⇑P	P	10 28 24.9	-0.7
	baz=79,SNR=9.2						
KEBM	Edson Butte	78.82	36	*e*P	P	10 28 29.9	+4.1
R07C	Lee Vining	78.86	42	P	P	10 28 25.4	-0.8
	baz=79,SNR=55						
WAKR	Walker	78.87	41	*e*P	P	10 28 25.8	-0.4
R06C	Coleville	78.88	41	P	P	10 28 26.0	-0.3
	baz=79,SNR=66						
O05C	Quincy	78.88	40	⇑P	P	10 28 26.1	-0.2
	baz=79,SNR=17						
YBH	Yreka Blue Hor	78.97	37	*e*P	P	10 28 25.7	-1.0
	comp=Z,106nm,1.5s,mb5.5						
YBH				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
YBH	Yreka Blue Hor	78.97	37	*e*P	P	10 28 25.7	-1.0
YBH				pmax	pmax		
	comp=Z,106nm,1.5s						
YBH				MLR	MLR		
	comp=Z,2µm,21.0s						
YBH	Yreka Blue Hor	78.97	37	P	P	10 28 25.8	-0.9
	baz=79,SNR=41						
O04C	Chester	79.00	39	P	P	10 28 26.2	-0.7
	baz=79,SNR=24						
M03C	McCloud	79.01	38	⇓P	P	10 28 26.8	-0.1
	baz=79,SNR=15						
S08C	White Mtn Res	79.06	43	P	P	10 28 27.0	-0.3
	baz=79,SNR=111						
HATC	Hat Creek Radi	79.10	39	⇓P	P	10 28 27.5	+0.1
	baz=79,SNR=17						
IRM	Iron Mountain	79.13	47	P	P	10 28 27.7	-0.1
	baz=79,SNR=66						
GMRC	Granite Mounta	79.13	46	⇑P	P	10 28 27.4	-0.4
	baz=79,SNR=34						
BEKR	Beckwourth	79.15	40	P	P	10 28 27.0	-0.8
	baz=79,SNR=63						
WCN	Washoe City	79.17	41	P	P	10 28 27.3	-0.5
	baz=79,SNR=52						
UGL	Uglegorsk	79.17	333	P	P	10 28 24.0	-3.6
UGL				*e*		10 31 31.0	
UGL				pmax	pmax		
	comp=Z,56nm,1.0s,mb5.5						
LBCM	Butte Creek Ri	79.17	39	P	P	10 28 27.0	-0.9
K02A	Glendale	79.21	36	⇑P	P	10 28 28.2	+0.2
	baz=79,SNR=7.0						
GRAC	Grapevine Rang	79.28	44	⇑P	P	10 28 28.5	-0.1
	baz=79,SNR=14						
FURC	Furnace Creek,	79.30	44	P	P	10 28 28.1	-0.5
	baz=80,SNR=29						
LTIM	Timbered Crate	79.31	38	P	P	10 28 27.6	-0.9
P06A	Stead Airport,	79.31	40	⇑P	P	10 28 28.6	-0.1
	baz=80,SNR=11						
TUQ	Turquoise Mtn.	79.32	46	⇓P	P	10 28 28.7	-0.1
	baz=80,SNR=12						
Y12C	Blythe	79.33	48	⇓P	P	10 28 28.8	-0.1
	baz=80,SNR=30						
SHOC	Shoshone	79.35	45	⇓P	P	10 28 28.3	-0.7
	baz=80,SNR=28						
HUMO	Hull Mountain	79.40	37	*e*P	P	10 28 28.6	-0.5
	comp=Z,73nm,1.4s,mb5.4						
HUMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
HUMO	Hull Mountain	79.40	37	⇑P	P	10 28 28.8	-0.2
	baz=80,SNR=17						
ELFS	Eagle Lake Fie	79.40	39	⇓P	P	10 28 29.6	+0.5
	baz=80,SNR=20						
M04C	Macdoel	79.50	38	P	P	10 28 29.0	-0.6
	baz=80,SNR=29						
Q07A	Schurz	79.53	41	⇓P	P	10 28 29.7	-0.1
	baz=80,SNR=14						
NVAR	Mina Array Bea	79.53	42	P	P	10 28 29.6	-0.3
	comp=Z,15nm,1.0s,mb4.9,baz=212,slow=7.0,SNR=27						
J02A	Umpqua	79.56	36	⇑P	P	10 28 29.4	-0.5
	baz=80,SNR=9.3						
INCN	Inchon	79.56	317	PFAKE		10 28 40.0	+10
INCN				LR	LR		
	comp=Z,940nm,20.0s,MS5.1						
BUOR	Burton Butte	79.59	37	P	P	10 28 29.3	-0.8
R08A	Mina	79.61	42	⇑P	P	10 28 30.1	-0.1
	baz=80,SNR=16						
U10A	Ash Meadows, A	79.62	45	⇓P	P	10 28 30.1	-0.3
	baz=80,SNR=24						
M05C	Lookout	79.63	38	P	P	10 28 29.6	-0.7
	baz=80,SNR=19						
PAHR	Pah Rah Range	79.64	41	*e*P	P	10 28 29.2	-1.2
	comp=Z,78nm,1.2s,mb5.5						
O06A	Flanigan	79.66	40	P	P	10 28 29.9	-0.6
	baz=80,SNR=15						
L04A	Klamath Falls	79.72	37	P	P	10 28 30.1	-0.7
	baz=80,SNR=18						
S09A	Goldfield	79.80	43	⇓P	P	10 28 30.6	-0.7
	baz=80,SNR=21						
NEE2	Needles Airpor	79.83	47	⇑P	P	10 28 31.3	-0.3
	baz=80						
P07A	Fallon	79.84	41	⇑P	P	10 28 31.5	0.0
	baz=80,SNR=6.0						
Y13A	Salome	79.85	48	P	P	10 28 31.9	+0.2
	baz=80,SNR=54						
V11A	Goodsprings	79.88	46	⇓P	P	10 28 31.5	-0.4
	baz=80,SNR=30						
J03A	Ideyld Park	79.90	36	⇑P	P	10 28 31.1	-0.7
	baz=80,SNR=9.6						
PDMCI	Parker Dam,Lak	79.90	47	P	P	10 28 31.5	-0.5
	baz=80,SNR=60						
M06C	Likely Place G	79.92	39	P	P	10 28 31.4	-0.5
	baz=80,SNR=18						
W12A	Cal Nev Ari	79.96	46	⇓P	P	10 28 32.0	-0.3
	baz=80,SNR=6.9						
TPH	Tonopah	80.01	43	*e*P	P	10 28 34.6	+2.2
	comp=Z,120nm,1.3s,mb5.7						
TPH				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
TPH	Tonopah	80.01	43	*e*P	P	10 28 34.6	+2.2
TPH				pmax	pmax		
	comp=Z,120nm,1.3s,mb5.7						
TPH				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
N06A	Buffalo Meadow	80.01	39	P	P	10 28 31.3	-1.1
	baz=80,SNR=62						
Q08A	Gabbs	80.03	42	P	P	10 28 31.9	-0.7
	baz=80,SNR=24						
PMSA	Palmer Station	80.07	156	PFAKE		10 28 50.0	+18
PMSA				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
K04A	Chilquin	80.09	37	⇓P	P	10 28 31.9	-0.9
	baz=80,SNR=6.1						
I03A	Eugene	80.12	35	⇓P	P	10 28 33.6	+0.6
	baz=80,SNR=5.4						
R09A	Tonopah	80.20	43	⇓P	P	10 28 33.4	-0.1
	baz=80,SNR=31						
V12A	Nelson	80.21	46	P	P	10 28 33.5	-0.1
	baz=80,SNR=70						
Z14A	Wintersburg	80.22	49	⇓P	P	10 28 33.6	-0.1
	baz=80,SNR=31						
O07A	Toulon	80.23	40	P	P	10 28 32.9	-0.7
	baz=80,SNR=72						
L05A	Lakeview	80.24	38	⇑P	P	10 28 33.5	-0.1
	baz=80,SNR=23						
U11A	Corn Creek	80.25	45	⇓P	P	10 28 34.2	+0.5
	baz=80,SNR=16						
X13A	Yucca	80.28	47	⇓P	P	10 28 34.1	+0.2
	baz=80,SNR=46						
J04A	Umpqua Nationa	80.29	36	P	P	10 28 32.9	-1.0
	baz=80,SNR=26						
S10A	Tonopah Range,	80.32	43	P	P	10 28 33.6	-0.5
	baz=80,SNR=63						
115A	Sonoran Desert	80.38	50	⇑P	P	10 28 34.3	-0.3
	baz=80,SNR=10						
P08A	Dixie Valley	80.43	41	⇓P	P	10 28 33.9	-0.8
	baz=81,SNR=14						
SHPR	Sheep Range	80.44	45	*e*P	P	10 28 34.7	-0.1
MOD	Modoc	80.46	38	*e*P	P	10 28 33.9	-0.9
	comp=Z,21nm,1.3s,mb4.9						
MOD				LR	LR		
	comp=Z,943nm,22.0s,MS5.1						
MOD	Modoc	80.46	38	P	P	10 28 34.0	-0.8
	baz=81,SNR=49						
I04A	Tendick Farm,	80.48	36	⇑P	P	10 28 34.2	-0.7
	baz=81,SNR=13						
Y14A	Wickenburg	80.49	48	⇓P	P	10 28 34.8	-0.3
	baz=81,SNR=20						
KDAK	Kodiak Island	80.51	12	*e*P	P	10 28 36.5	+1.8
	comp=Z,78nm,1.5s,mb5.4						
KDAK				LR	LR		
	comp=Z,365nm,19.0s,MS4.8						
W13A	Hualapai Mount	80.52	47	P	P	10 28 35.4	+0.1
	baz=81,SNR=42						
COR	Corvallis	80.52	35	*e*P	P	10 28 37.3	+2.3
	comp=Z,93nm,1.5s,mb5.5						
COR				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
COR	Corvallis	80.52	35	*e*P	P	10 28 37.3	+2.3
COR				pmax	pmax		
	comp=Z,93nm,1.5s,mb5.5						
COR				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
N07B	Gerlach	80.55	40	⇑P	P	10 28 34.9	-0.4
	baz=81,SNR=6.5						
H03A	Soap Creek Ran	80.58	35	⇓P	P	10 28 35.1	-0.3
	baz=81,SNR=9.4						
K05A	Summer Lake	80.64	37	P	P	10 28 35.0	-0.7
	baz=81,SNR=43						
116A	Eloy	80.68	50	⇑P	P	10 28 36.4	+0.2
	baz=81,SNR=18						
R10A	Warm Springs	80.72	43	P	P	10 28 36.2	-0.1
	baz=81,SNR=68						
J05A	Fort Rock	80.80	37	P	P	10 28 36.1	-0.5
	baz=81,SNR=49						
M07A	Soldier Meadow	80.80	39	P	P	10 28 36.0	-0.6
	baz=81,SNR=50						
U12A	Valley of Fire	80.81	46	P	P	10 28 37.0	+0.1
	baz=81,SNR=31						
X14A	Yava	80.86	48	P	P	10 28 37.7	+0.6
	baz=81,SNR=50						
T12A	Moapa	80.86	45	⇓P	P	10 28 37.2	+0.1
	baz=81,SNR=9.2						
P09A	Austin	80.93	42	⇓P	P	10 28 37.3	0.0
	baz=81,SNR=18						
G03A	Yamhill	81.01	34	⇑P	P	10 28 37.6	-0.1
	baz=81,SNR=7.5						
K06A	Valley Falls	81.05	38	P	P	10 28 37.2	-0.7
	baz=81,SNR=44						
N08A	GE Springer Mi	81.06	40	P	P	10 28 37.0	-1.0
	baz=81,SNR=43						
L07A	Adell	81.09	39	⇓P	P	10 28 37.5	-0.6
	baz=81,SNR=21						
W14A	Seligman	81.13	47	P	P	10 28 39.0	+0.4
	baz=81,SNR=99						
H04A	Detroit Lake	81.18	35	P	P	10 28 37.1	-1.5
	baz=81,SNR=29						
TUC	Tucson	81.21	51	*e*P	P	10 28 39.7	+0.7
	comp=Z,85nm,1.2s,mb5.5						
TUC				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
TUC	Tucson	81.21	51	*e*P	P	10 28 39.7	+0.6
TUC				pmax	pmax		
	comp=Z,85nm,1.2s,mb5.5						
TUC				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
TRCR	Troy Canyon	81.22	43	*e*P	P	10 28 41.6	+2.7
O09A	Fish Creek Ran	81.27	41	P	P	10 28 38.6	-0.5
	baz=81,SNR=23						
F03A	Seaside	81.28	34	⇓P	P	10 28 38.8	-0.3
	baz=81						
M08A	Happy Creek Ra	81.31	40	⇑P	P	10 28 39.4	0.0
	baz=82,SNR=18						
X15A	Humboldt	81.32	48	P	P	10 28 40.4	+0.8
	baz=82,SNR=88						
I05A	Bend	81.35	36	⇑P	P	10 28 39.9	+0.5
	baz=82						
G04A	Mulino	81.37	35	⇑P	P	10 28 40.3	+0.7
	baz=82						
J06A	Christmas Vall	81.39	37	⇓P	P	10 28 39.3	-0.5
	baz=82,SNR=40						
P10A	Eureka	81.39	42	⇓P	P	10 28 40.0	+0.2
	baz=82,SNR=15						
BMN	Battle Mountai	81.40	41	*e*P	P	10 28 42.3	+2.5
	comp=Z,103nm,1.3s,mb5.6						
BMN				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
BMN	Battle Mountai	81.40	41	*e*P	P	10 28 42.3	+2.4
BMN				pmax	pmax		
	comp=Z,103nm,1.3s,mb5.6						
BMN				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
Q11A	Duckwater	81.45	43	P	P	10 28 39.9	-0.3
	baz=82,SNR=26						
N09A	Rock Creek Ran	81.47	40	⇑P	P	10 28 40.2	0.0
	baz=82,SNR=17						
T13A	Saint George	81.56	45	⇓P	P	10 28 41.1	+0.3
	baz=82						
K07A	Rock Creek Ran	81.56	38	⇑P	P	10 28 40.1	-0.5
	baz=82,SNR=44						
W15A	Williams	81.67	48	⇓P	P	10 28 42.2	+0.8
	baz=82,SNR=13						
H05A	Madras	81.68	36	⇑P	P	10 28 40.7	-0.6
	baz=82,SNR=12						
E03A	Lebam	81.69	33	⇓P	P	10 28 41.4	+0.2
	baz=82						
WVOR	Wild Horse Val	81.76	39	*e*P	P	10 28 40.4	-1.3
	comp=Z,94nm,1.3s,mb5.6						
WVOR				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
WVOR	Wild Horse Val	81.76	39	*e*P	P	10 28 40.4	-1.3
WVOR				pmax	pmax		
	comp=Z,94nm,1.3s,mb5.6						
WVOR				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.5						
O10A	Cortez Mining,	81.76	41	⇓P	P	10 28 41.5	-0.3
	baz=82,SNR=16						
L08A	Fields	81.78	39	P	P	10 28 40.9	-1.0
	baz=82,SNR=64						
I06A	Prineville	81.80	37	P	P	10 28 41.0	-0.9
	baz=82,SNR=54						
P11A	Circle Ranch,	81.80	42	⇓P	P	10 28 41.8	-0.2
	baz=82,SNR=10						
R12A	Pony Springs,	81.83	44	P	P	10 28 42.0	-0.2
	baz=82,SNR=60						
M09A	Marrel Ranch,	81.85	40	⇓P	P	10 28 41.8	-0.5
	baz=82,SNR=18						
F04A	Amboy	81.88	34	⇑P	P	10 28 41.6	-0.6
	baz=82,SNR=9.3						
HOOD	Mount Hood Mea	81.89	35	*e*P	P	10 28 43.6	+1.3
HABR	Khabarovsk	81.90	329	*e*P	P	10 28 42.4	+0.1

NJ2	Nanjing	81.95	309	eP	P	10 28 44.6	+1.7
NJ2				AP	pP	10 28 49.3	+0.9
NJ2				XP	sP	10 28 51.6	+1.2
NJ2				AMB	AMB		
	comp=Z,90nm,1.0s,mb5.7						
NJ2				AMB	AMB		
	comp=Z,230nm,8.6s						
NJ2				LR	LR		
	comp=N,2µm,26.1s,MS5.4						
NJ2				LR	LR		
	comp=E,1µm,26.5s,MS5.4						
NJ2				LR	LR		
	comp=Z,1µm,28.5s,MS5.1						
J07A	Hines	81.95	38	P	P	10 28 42.5	-0.2
	baz=82,SNR=20						
D03A	Wishkah Elem.	81.96	33	⇓P	P	10 28 42.8	+0.2
	baz=82						
N10A	Dunphy	82.01	41	⇑P	P	10 28 43.4	+0.3
	baz=82,SNR=14						
G05A	Wamic	82.01	35	⇓P	P	10 28 42.4	-0.6
	baz=82,SNR=7.8						
K08A	Mann Creek Ran	82.03	39	P	P	10 28 42.6	-0.5
	baz=82,SNR=76						
L09A	Wilkinson Ranc	82.08	39	⇓P	P	10 28 42.7	-0.7
	baz=82,SNR=13						
Q12A	Willow Creek R	82.09	43	⇑P	P	10 28 43.5	-0.1
	baz=82,SNR=29						
NLWA	Neilton Lookou	82.10	32	PFAKE		10 29 00.0	+17
NLWA				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
NLWA	Neilton Lookou	82.10	32	⇓P	P	10 28 43.7	+0.3
	baz=82						
C03A	Quillayute Air	82.13	32	⇓P	P	10 28 43.1	-0.4
	baz=82						
T14A	Hurricane	82.14	46	⇓P	P	10 28 43.8	-0.1
	baz=82,SNR=32						
E04A	Onalaska	82.15	34	⇑P	P	10 28 43.5	-0.2
	baz=82						
MDJ	Mudanjiang	82.15	324	P	P	10 28 45.6	+1.9
MDJ				AP	pP	10 28 48.8	-0.4
MDJ				AMB	AMB		
	comp=Z,22nm,1.3s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,186nm,4.7s						
MDJ				LR	LR		
	comp=N,522nm,21.7s						
MDJ				LR	LR		
	comp=E,669nm,16.0s						
MDJ				LR	LR		
	comp=Z,848nm,19.4s,MS5.1						
MDJ	Mudanjiang	82.15	324	eP	P	10 28 43.9	+0.1
	comp=Z,35nm,1.0s,mb5.2						
MDJ				LR	LR		
	comp=Z,918nm,20.0s,MS5.1						
MAW	Mawson	82.15	199	eP	P	10 28 44.6	+1.1
	comp=Z,6.8nm,0.6s,mb4.8						
MAW	Mawson	82.15	199	eP	P	10 28 44.6	+1.1
MAW				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MAW	Mawson	82.15	199	P	P	10 28 43.1	-0.3
	comp=Z,7.4nm,0.6s,mb4.8,baz=124,slow=11,SNR=3.4						
O11A	Cowboy Ranch,	82.19	42	⇑P	P	10 28 44.2	+0.2
	baz=82,SNR=27						
CCUT	Cedar City	82.22	45	eP	P	10 28 44.3	+0.1
H06A	Lindquist Farm	82.23	36	P	P	10 28 42.9	-1.2
	baz=82,SNR=52						
I07A	Izee	82.28	37	P	P	10 28 43.4	-1.0
	baz=82,SNR=50						
P12A	McGill	82.29	43	⇓P	P	10 28 44.4	-0.2
	baz=82,SNR=26						
ARUT	Antelope Range	82.30	45	eP	P	10 28 44.6	0.0
F05A	White Salmon	82.35	35	⇑P	P	10 28 44.6	-0.1
	baz=82,SNR=9.6						
G06A	Carlson Farm,	82.38	36	⇓P	P	10 28 43.9	-1.0
	baz=82,SNR=19						
J08A	Circle Bar Ran	82.42	38	⇓P	P	10 28 44.6	-0.5
	baz=83,SNR=45						
K09A	Rome	82.46	39	P	P	10 28 44.7	-0.7
	baz=83,SNR=80						
S14A	Cedar City	82.46	45	⇓P	P	10 28 45.0	-0.5
	baz=83,SNR=32						
M10A	I.L. Ranch, Tu	82.46	40	⇑P	P	10 28 45.1	-0.4
	baz=83,SNR=28						
WUAZ	Wupatki	82.47	48	eP	P	10 28 45.9	+0.3
	comp=Z,164nm,1.3s,mb5.8						
WUAZ				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
WUAZ	Wupatki	82.47	48	⇓P	P	10 28 45.7	+0.1
	baz=83						
N11A	Elko Archery C	82.54	41	⇑P	P	10 28 44.7	-1.2
	baz=83,SNR=7.2						
E05A	Randle	82.63	34	⇑P	P	10 28 44.9	-1.2
	baz=83,SNR=15						
F06A	Goldendale	82.64	35	⇓P	P	10 28 45.2	-1.0
	baz=83,SNR=16						
I08A	Drewsey	82.70	38	P	P	10 28 45.8	-0.9
	baz=83,SNR=20						
B04A	Port Angeles	82.73	32	⇑P	P	10 28 46.0	-0.6
	baz=83,SNR=9.0						
C04A	Brinnon	82.77	33	⇑P	P	10 28 46.6	-0.3
	baz=83,SNR=7.4						
ELK	Elko	82.81	42	PFAKE		10 29 00.0	+13
ELK				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
J09A	Fry Pan Ranch,	82.83	38	P	P	10 28 46.5	-0.8
	baz=83,SNR=54						
L10A	Juniper Basin	82.83	40	P	P	10 28 46.6	-0.7
	baz=83,SNR=72						
O12A	Currie	82.84	42	⇑P	P	10 28 47.0	-0.4
	baz=83,SNR=28						
M11A	Holland Ranch,	82.86	41	P	P	10 28 47.2	-0.3
	baz=83,SNR=65						
D05A	Enumclaw	82.92	33	P	P	10 28 47.8	+0.1
	baz=83,SNR=24						
G07A	Ruggs Ranch, H	82.93	36	P	P	10 28 46.7	-1.1
	baz=83,SNR=46						
N12A	Clover Valley,	83.00	42	P	P	10 28 47.5	-0.7
	baz=83,SNR=57						
K10A	MacKenzie Ranc	83.01	39	P	P	10 28 47.6	-0.6
	baz=83,SNR=71						
H08A	Prairie City	83.02	37	⇑P	P	10 28 47.4	-0.9
	baz=83,SNR=18						
E06A	Yakima	83.03	34	P	P	10 28 47.2	-1.0
	baz=83,SNR=17						
PGC	Sidney	83.15	32	eP	P	10 28 49.6	+0.7
	comp=Z,228nm,1.4s,mb6.0						
F07A	Phinny Hill Vi	83.18	35	⇑P	P	10 28 47.7	-1.4
	baz=83						
QIZ	Qiongzhong	83.21	293	PFAKE		10 29 00.0	+10
QIZ				LR	LR		
	comp=Z,471nm,19.0s,MS4.9						
I09A	Lost Marbles R	83.22	38	⇓P	P	10 28 48.5	-0.8
	baz=83,SNR=15						
L11A	Cat Creek Ranc	83.32	40	P	P	10 28 49.4	-0.4
	baz=84,SNR=69						
G08A	Pilot Rock	83.33	36	⇓P	P	10 28 49.2	-0.6
	baz=84						
M12A	Wells	83.39	41	P	P	10 28 49.6	-0.6
	baz=84,SNR=83						
C05A	Tolt Reservoir	83.41	33	P	P	10 28 48.9	-1.3
	baz=84,SNR=17						
J10A	Berg Farm, Mel	83.45	39	⇑P	P	10 28 50.1	-0.5
	baz=84,SNR=20						
SLKM	Skilak Lake	83.50	12	eP	P	10 28 51.2	+0.9
N13A	Wendover, West	83.52	42	P	P	10 28 50.6	-0.3
	baz=84,SNR=67						
D06A	Cle Elum	83.52	34	⇓P	P	10 28 51.0	+0.2
	baz=84						
MSU	Marysvale	83.53	45	eP	P	10 28 51.5	+0.5
A04A	Legoe Bay, Lum	83.57	32	⇓P	P	10 28 50.1	-0.9
	baz=84,SNR=7.5						
B05A	Bryant	83.57	33	⇓P	P	10 28 49.8	-1.2
	baz=84,SNR=9.2						
TBM	Table Mountain	83.63	34	P	P	10 28 53.6	+2.3
E07A	Sunnyside	83.64	35	P	P	10 28 50.3	-1.1
	baz=84,SNR=54						
H09A	Durkee	83.68	37	⇑P	P	10 28 51.0	-0.6
	baz=84,SNR=19						
HAWA	Hanford	83.71	35	eP	P	10 28 50.5	-1.3
	comp=Z,309nm,1.6s,mb6.2						
HAWA				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
COCO	West Island	83.74	259	PFAKE		10 29 00.0	+7.3
COCO				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
F08A	Pendleton	83.75	36	P	P	10 28 51.0	-0.9
	baz=84,SNR=57						
L12A	House Creek Ra	83.75	41	P	P	10 28 51.4	-0.6
	baz=84,SNR=74						
I10A	Payette	83.83	38	P	P	10 28 52.0	-0.3
	baz=84,SNR=19						
M13A	Montello	83.83	42	P	P	10 28 52.0	-0.5
	baz=84,SNR=128						
GBL	Gable Mountain	83.88	35	P	P	10 28 51.5	-1.1
C06A	Tall Timber Ra	83.96	33	⇓P	P	10 28 52.0	-1.0
	baz=84						
D07A	Quincy	83.98	34	P	P	10 28 52.0	-1.1
	baz=84,SNR=18						
BMO	Blue Mountains	84.00	37	eP	P	10 28 52.0	-1.3
BMO				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
MFID	Camas Ranch	84.00	39	P	P	10 28 52.5	-0.8
	baz=84,SNR=65						
KLR	Kul'dur	84.01	328	eP	P	10 28 50.8	-2.4
KLR				pmax	pmax		
	comp=E,35nm,1.8s						
KLR				pmax	pmax		
	comp=Z,64nm,1.8s,mb5.5						
CN2	Changchun	84.02	321	⇓P	P	10 28 53.4	0.0
CN2				AMB	AMB		
	comp=Z,30nm,1.3s,mb5.3						
CN2				LR	LR		
	comp=N,700nm,18.0s,MS5.3						
CN2				LR	LR		
	comp=E,800nm,18.0s,MS5.3						
CN2				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
E08A	Dider Farm, El	84.03	35	⇓P	P	10 28 52.6	-0.7
	baz=84,SNR=12						
DUG	Dugway	84.03	43	eP	P	10 28 55.4	+1.8
	comp=Z,26nm,0.9s,mb5.4						
DUG				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
DUG	Dugway	84.03	43	eP	P	10 28 53.2	-0.3
DUG				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.3						
DUG	Dugway	84.03	43	⇑P	P	10 28 52.7	-0.8
	baz=84,SNR=29						
B06A	Marblemount	84.05	33	⇓P	P	10 28 52.4	-1.0
	baz=84						
A05A	Maple Falls	84.06	32	⇓P	P	10 28 52.4	-1.1
	baz=84						
K12A	Draper Farm, C	84.10	40	P	P	10 28 53.3	-0.5
	baz=84,SNR=70						
H10A	Noah's Angus R	84.16	38	⇑P	P	10 28 53.3	-0.8
	baz=84,SNR=86						
F09A	S2 Ranch, Elgi	84.17	36	⇑P	P	10 28 53.4	-0.8
	baz=84,SNR=14						
I11A	Placerville	84.21	39	⇑P	P	10 28 53.1	-1.3
	baz=84						
C07A	Waterville	84.25	34	⇑P	P	10 28 53.2	-1.3
	baz=84,SNR=21						
BGU	Big Grassy Mou	84.30	42	eP	P	10 28 57.0	+2.1
WTV	Waterville	84.31	34	P	P	10 28 53.2	-1.6
J12A	Stokes Ranch,	84.34	40	⇓P	P	10 28 54.2	-0.8
	baz=84,SNR=87						
NLU	North Lily Min	84.37	44	eP	P	10 28 56.7	+1.4
L13A	Double Diamond	84.37	41	⇑P	P	10 28 54.4	-0.9
	baz=84,SNR=81						
A06A	Chilliwack	84.43	32	⇑P	P	10 28 54.1	-1.2
	baz=85,SNR=6.0						
D08A	Wollman Farm,	84.45	35	P	P	10 28 54.6	-0.9
	baz=85,SNR=45						
SIT	Sitka	84.46	21	PFAKE		10 29 10.0	+15
SIT				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
EYAK	Cordova Ski Ar	84.50	14	eP	P	10 28 56.0	+0.5
E09A	Wood Farm, Sta	84.54	36	⇓P	P	10 28 54.8	-1.2
	baz=85,SNR=43						
TMUT	Trail Mountain	84.58	45	eP	P	10 28 57.2	+0.8
WHN	Wuhan	84.58	305	eP	P	10 28 57.8	+1.2
K13A	Stover Farm, H	84.61	41	⇓P	P	10 28 55.4	-1.0
	baz=85,SNR=79						
H11A	Donnelly	84.65	38	P	P	10 28 55.6	-0.9
	baz=85,SNR=78						
MPU	Maple Canyon	84.69	44	eP	P	10 28 59.5	+2.6
	comp=Z,23nm,0.9s,mb5.3						
MPU				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
MA2	Magadan	84.70	343	eP	P	10 28 56.1	-0.4
MA2				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
MA2	Magadan	84.70	343	eP	P	10 28 54.0	-2.5
MA2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.3						
B07A	Winthrop	84.70	33	P	P	10 28 55.5	-1.3
	baz=85,SNR=17						
PMR	Palmer	84.71	12	eP	P	10 28 56.0	-0.5
	comp=Z,42nm,1.3s,mb5.4						
PMR				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
PMR	Palmer	84.71	12	eP	P	10 28 56.0	-0.5
PMR				pmax	pmax		
	comp=Z,42nm,1.3s,mb5.4						
PMR				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
F10A	Beach Ranch, E	84.71	37	⇑P	P	10 28 55.4	-1.5
	baz=85,SNR=58						
NOQ	North Oquirrh	84.72	43	eP	P	10 28 59.7	+2.6
	comp=Z,92nm,0.9s,mb5.9						
OD2	Odessa Site #2	84.77	35	P	P	10 28 55.8	-1.3
D09A	Jones Farm, Ri	84.78	35	P	P	10 28 56.1	-1.1
	baz=85,SNR=48						
C08A	Higginbotham F	84.84	34	P	P	10 28 56.1	-1.3
	baz=85,SNR=18						
SPUT	South Promonto	84.87	42	eP	P	10 28 57.7	-0.1
Y22C	IRIS PASSCAL I	84.90	51	⇓P	P	10 28 57.9	-0.1
	baz=85,SNR=14						
LAZ	Ladron	84.90	50	eP	P	10 28 59.6	+1.5
LENM	Lemitar	84.90	51	eP	P	10 28 58.6	+0.5
MNTX	Cornudas Mount	84.90	54	eP	P	10 28 58.3	+0.1
	comp=Z,96nm,1.4s,mb5.7						
MNTX				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
G11A	Walters Elk Ra	84.91	37	⇓P	P	10 28 56.9	-1.0
	baz=85						
HLID	Hailey	84.92	40	eP	P	10 28 57.5	-0.5
	comp=Z,17nm,0.7s,mb5.3						
HLID				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
HLID	Hailey	84.92	40	P	P	10 28 57.6	-0.4
	baz=85,SNR=118						
HVU	Hansel Valley	84.93	42	eP	P	10 28 58.4	+0.3
	comp=Z,93nm,1.1s,mb5.8						
HVU	Hansel Valley	84.93	42	eP	P	10 28 58.4	+0.4
HVU				pmax	pmax		
	comp=Z,93nm,1.1s,mb5.8						
SRU	San Rafael	84.94	45	eP	P	10 28 57.9	-0.3
	comp=Z,150nm,1.0s,mb6.1						
SRU	San Rafael	84.94	45	eP	P	10 28 57.9	-0.3
SRU				pmax	pmax		
	comp=Z,150nm,1.0s,mb6.1						
A07A	Ashnola River,	84.94	33	P	P	10 28 56.8	-1.1
	baz=85,SNR=13						
J13A	Cove Ranch, Pi	84.97	40	P	P	10 28 57.5	-0.7
	baz=85,SNR=137						
CTU	Camp Tracy	84.98	43	eP	P	10 29 00.2	+1.9
	comp=Z,89nm,1.1s,mb5.8						
WRAK	Wrangell Islan	84.98	22	eP	P	10 29 00.0	+2.1
	comp=Z,32nm,1.1s,mb5.4						
WRAK				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
B08A	Colville Reser	85.05	34	⇑P	P	10 28 57.4	-1.0
	baz=85,SNR=21						
SML	Sawmill	85.07	13	eP	P	10 29 00.6	+2.3
E10A	Myers Farm, Un	85.09	36	⇓P	P	10 28 58.0	-0.8
	baz=85,SNR=19						
K14A	Jones Ranch, D	85.10	41	⇓P	P	10 28 57.8	-1.1
	baz=85,SNR=38						
JLU	Jordanelle	85.12	43	eP	P	10 29 00.6	+1.6
LTX	Lajitas	85.13	56	eP	P	10 29 00.1	+0.7
	comp=Z,94nm,1.4s,mb5.7						
LTX				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
LTX	Lajitas	85.13	56	eP	P	10 29 00.1	+0.7
LTX				pmax	pmax		
	comp=Z,94nm,1.4s,mb5.7						
LTX				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
TXAR	Lajitas Array	85.13	56	P	P	10 29 01.4	+2.0
	comp=Z,22nm,1.0s,mb5.2,baz=212,slow=6.0,SNR=46						
BNM	Barren Site	85.14	51	eP	P	10 29 01.1	+1.8
DAU	Daniels Canyon	85.15	44	eP	P	10 28 59.5	+0.4
PAYG	Puerto Ayora	85.16	89	PFAKE		10 29 10.0	+10
PAYG				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
LPM	Los Pinos Moun	85.22	51	eP	P	10 29 00.2	+0.5
H12A	Diamond D Ranc	85.23	39	⇑P	P	10 28 57.9	-1.6
	baz=85,SNR=75						
F11A	Grangeville	85.26	37	⇓P	P	10 28 57.7	-1.9
	baz=85						
I13A	Wildhorse Cree	85.30	39	⇓P	P	10 28 58.9	-1.0
	baz=86,SNR=28						
MVCO	Mesa Verde	85.33	47	eP	P	10 29 02.9	+2.7
	comp=Z,79nm,1.5s,mb5.6						
MVCO				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
MVCO	Mesa Verde	85.33	47	⇑P	P	10 28 58.9	-1.3
	baz=86,SNR=13						
D10A	Wagner Farm, O	85.34	36	⇓P	P	10 28 58.6	-1.3
	baz=86,SNR=22						
A08A	Turner Farm, O	85.45	33	P	P	10 28 59.4	-1.1
	baz=86,SNR=54						
E11A	Bogner Ranch,	85.51	37	⇓P	P	10 28 59.3	-1.6
	baz=86,SNR=20						
PV10	Paradox Valley	85.55	46	eP	P	10 29 03.2	+2.0
H13A	Challis	85.59	39	⇑P	P	10 28 59.8	-1.5
	baz=86,SNR=73						
HWUT	Hardware Ranch	85.59	42	eP	P	10 29 03.5	+2.1
	comp=Z,55nm,1.3s,mb5.6						
HWUT				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
ANMO	Albuquerque	85.65	50	eP	P	10 29 02.5	+0.6
	comp=Z,103nm,1.2s,mb5.9						
ANMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
ANMO	Albuquerque	85.65	50	eP	P	10 29 02.5	+0.7
ANMO				pmax	pmax		
	comp=Z,103nm,1.2s						
ANMO				MLR	MLR		
	comp=Z,2µm,20.0s						
B09A	Rice	85.71	34	P	P	10 29 00.3	-1.4
	baz=86,SNR=17						
C10A	Spilker Farm,	85.78	35	⇑P	P	10 29 00.7	-1.4
	baz=86						
A09A	Danville	85.82	34	P	P	10 29 01.1	-1.2
	baz=86,SNR=17						
D11A	Klaveano Farm,	85.85	36	⇓P	P	10 29 01.6	-0.9
	baz=86,SNR=25						
GDL2	Guadalupe Moun	85.90	53	eP	P	10 29 04.6	+1.4
G13A	Cobalt	85.90	38	P	P	10 29 01.9	-1.0
	baz=86,SNR=51						
B10A	Chitwood Farm,	86.12	35	⇓P	P	10 29 03.1	-0.7
	baz=86						
NEW	Newport	86.15	35	eP	P	10 29 04.7	+0.7
	comp=Z,1.0nm,1.3s						
NEW				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
NEW	Newport	86.15	35	eP	P	10 29 04.7	+0.7
NEW				pmax	pmax		
	comp=Z,1.0nm,1.3s						
NEW				MLR	MLR		
	comp=Z,2µm,22.0s						
TNA	Tin City	86.22	3	eP	P	10 29 04.9	+0.9
TNA				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
F13A	Darby	86.24	38	P	P	10 29 03.2	-1.3
	baz=86,SNR=31						
A10A	Northport	86.36	34	P	P	10 29 03.7	-1.3
	baz=86,SNR=21						
G14A	Jackson	86.44	39	⇓P	P	10 29 04.4	-1.1
	baz=87,SNR=14						
AHID	Auburn Hatcher	86.50	42	eP	P	10 29 09.0	+3.1
	comp=Z,28nm,1.0s,mb5.4						
AHID				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
B11A	Sandpoint	86.66	35	⇑P	P	10 29 05.7	-0.8
	baz=87,SNR=12						
E13A	Victor	86.70	37	⇑P	P	10 29 05.4	-1.3
	baz=87,SNR=23						
MCK	McKinley	86.70	11	PFAKE		10 29 20.0	+14
MCK				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
MCK	McKinley	86.70	11	eP	P	10 29 06.0	-0.3
MCK				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.6						
F14A	Wisdom	86.81	38	⇑P	P	10 29 05.6	-1.7
	baz=87,SNR=10.0						
D13A	Huson	86.92	37	⇑P	P	10 29 06.6	-1.2
	baz=87,SNR=24						
G15A	Dillon	86.97	39	⇓P	P	10 29 06.6	-1.5
	baz=87,SNR=25						
PSI	Prapat	86.97	274	P	P	10 29 10.1	+1.2
	comp=Z,5.4nm,0.6s,mb5.0,baz=176,slow=6.4,SNR=7.4						
A11A	Hall Mountain,	86.97	34	⇓P	P	10 29 07.0	-1.0
	baz=87,SNR=20						
REDW	Red Top Meadow	86.98	41	eP	P	10 29 10.6	+2.4
	comp=Z,72nm,1.4s,mb5.7						
TPAW	Teton Pass	86.98	41	eP	P	10 29 10.8	+2.7
	comp=Z,51nm,1.3s,mb5.6						
MSO	Missoula	87.06	37	eP	P	10 29 10.6	+2.1
MSO				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
E14A	Clinton	87.08	38	⇑P	P	10 29 07.7	-0.9
	baz=87,SNR=23						
B12A	Libby	87.10	35	⇓P	P	10 29 06.9	-1.7
	baz=87,SNR=7.6						
BSMT	Bassoo Peak	87.17	36	eP	P	10 29 10.3	+1.3
C13A	Hot Springs	87.19	36	⇓P	P	10 29 08.3	-0.8
	baz=87,SNR=8.9						
SEY	Seymchan	87.19	346	i P	P	10 29 05.8	-2.9
IMW	Indian Meadow	87.21	41	eP	P	10 29 10.4	+1.1
	comp=Z,51nm,1.3s,mb5.6						
MOOW	Moose Ponds	87.25	41	eP	P	10 29 11.7	+2.2
LOHW	Long Hollow	87.26	41	eP	P	10 29 11.9	+2.3
	comp=Z,46nm,1.5s,mb5.5						
DLBC	Dease Lake	87.33	22	eP	P	10 29 11.4	+1.9
A12A	Yaak River Ran	87.34	35	⇑P	P	10 29 08.5	-1.2
	baz=88,SNR=17						
F15A	Butte	87.34	39	⇓P	P	10 29 08.8	-1.0
	baz=88,SNR=13						
LRM	Limekiln Ridge	87.35	39	eP	P	10 29 10.7	+0.8
D14A	Greenough	87.45	37	⇓P	P	10 29 10.5	+0.2
	baz=88,SNR=23						
BW06	Boulder Array	87.47	42	eP	P	10 29 12.2	+1.6
BW06				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
CHMT	Chamberlain Mo	87.50	37	eP	P	10 29 12.5	+1.9
YFT	Old Faithful	87.57	40	eP	P	10 29 15.4	+4.4
E15A	Deer Lodge	87.57	38	⇓P	P	10 29 10.9	-0.1
	baz=88,SNR=20						
YMR	Madison River	87.61	40	eP	P	10 29 14.3	+3.2
	comp=Z,112nm,1.6s,mb5.8						
YMR				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
B13A	Whitefish	87.65	36	⇓P	P	10 29 11.0	-0.3
	baz=88,SNR=13						
SDCO	Great Sand Dun	87.67	48	eP	P	10 29 12.5	+0.8
SDCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
C14A	Swan Lake	87.70	36	⇓P	P	10 29 11.2	-0.4
	baz=88						
BOZ	Bozeman (W)	87.74	39	eP	P	10 29 13.4	+1.6
	comp=Z,48nm,1.3s,mb5.6						
BOZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
BOZ	Bozeman (W)	87.74	39	eP	P	10 29 10.8	-1.0
BOZ				pmax	pmax		
	comp=Z,72nm,1.5s,mb5.7						
BOZ	Bozeman (W)	87.74	39	⇓P	P	10 29 11.4	-0.3
	baz=88,SNR=15						
YNR	Norris Junctio	87.80	40	eP	P	10 29 15.9	+3.8
BJT	Baijiatuau	87.81	314	eP	P	10 29 13.9	+1.7
	comp=Z,98nm,1.8s,mb5.7						
BJT				LR	LR		
	comp=Z,999nm,20.0s,MS5.2						
BJT	Baijiatuau	87.81	314	eP	P	10 29 13.9	+1.7
BJT				pmax	pmax		
	comp=Z,98nm,1.8s						
BJT				MLR	MLR		
	comp=Z,999nm,20.0s						
BJI	Beijing	87.81	314	P	P	10 29 13.7	+1.4
BJI				AP	pP	10 29 17.0	-0.8
BJI				XP	sP	10 29 18.3	-1.4
BJI				AMB	AMB		
	comp=Z,17nm,1.6s,mb5.0						
BJI				LR	LR		
	comp=N,499nm,21.0s,MS5.2						
BJI				LR	LR		
	comp=E,912nm,20.6s,MS5.2						
BJI				LR	LR		
	comp=Z,821nm,20.1s,MS5.1						

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LKWY Lake             87.89  40 eP     P      10 29 16.5 +3.9
          comp=Z,34nm,1.3s,mb5.4
LKWY                            LR     LR
          comp=Z,3µm,20.0s,MS5.7
LKWY Lake             87.89  40 eP     P      10 29 16.5 +4.0
LKWY                            pmax   pmax
          comp=Z,34nm,1.3s,mb5.4
LKWY                            MLR    MLR
          comp=Z,3µm,20.0s,MS5.7
COLA College          87.94  11 eP     P      10 29 09.2  -3.1
          comp=Z,46nm,1.1s,mb5.6
COLA                            LR     LR
          comp=Z,2µm,19.0s,MS5.6
COLA College          87.94  11 eP     P      10 29 09.2  -3.1
COLA                            pmax   pmax
          comp=Z,45nm,1.1s,mb5.6
COLA                            MLR    MLR
          comp=Z,2µm,19.0s,MS5.6
D15A Lincoln          87.98  38 ⇑P     P      10 29 13.6 +0.7
          baz=88,SNR=15
IMA2 Indian Mountai   88.09   9 eP     P      10 29 13.6 +0.7
HRY  Holter Researc   88.20  38 eP     P      10 29 15.6 +1.7
WALA Waterton Lakes   88.34  35 eP     P      10 29 16.0 +1.5
          comp=Z,73nm,1.2s,mb5.8
RWWY Rawlins          88.43  44 eP     P      10 29 16.5 +1.3
ISCO Idaho Springs    88.57  46 eP     P      10 29 18.4 +2.5
ISCO                            LR     LR
          comp=Z,1µm,19.0s,MS5.4
JCT  Junction City    88.64  57 eP     P      10 29 17.2 +0.7
          comp=Z,88nm,1.8s,mb5.8
JCT                             LR     LR
          comp=Z,1µm,19.0s,MS5.4
JCT  Junction City    88.64  57 eP     P      10 29 17.2 +0.7
JCT                             pmax   pmax
          comp=Z,88nm,1.8s,mb5.8
JCT                             MLR    MLR
          comp=Z,1µm,19.0s,MS5.4
RLMT Red Lodge        88.87  40 PFAKE         10 29 30.0  +13
RLMT                            LR     LR
          comp=Z,2µm,19.0s,MS5.5
GYA  Guiyang          88.92 299⇑iP     P      10 29 19.0 +1.2
GYA                             AP     pP     10 29 24.8 +1.5
GYA                             XP     sP     10 29 25.9 +0.6
GYA                             AMB    AMB
          comp=Z,140nm,1.0s,mb6.2
GYA                             AMB    AMB
          comp=Z,1µm,7.4s
GYA                             LR     LR
          comp=N,2µm,20.4s,MS5.7
GYA                             LR     LR
          comp=E,3µm,20.8s,MS5.7
GYA                             LR     LR
          comp=Z,2µm,20.0s,MS5.5
KVTX Kingsville       88.96  60 PFAKE         10 29 30.0  +12
KVTX                            LR     LR
          comp=Z,1µm,19.0s,MS5.3
GCMT Greycliff        88.98  40 eP     P      10 29 20.0 +2.4
DAWY Dawson           89.04  15 eP     P      10 29 18.3 +0.8
AMTX Amarillo         89.11  52 eP     P      10 29 20.8 +2.3
          comp=Z,26nm,0.9s,mb5.6
AMTX                            LR     LR
          comp=Z,2µm,19.0s,MS5.5
EGAK Eagle            89.23  14 eP     P      10 29 18.7 +0.3
          comp=Z,43nm,1.2s,mb5.7
EGAK                            LR     LR
          comp=Z,2µm,20.0s,MS5.6
PHWY Pilot Hill       89.39  45 eP     P      10 29 20.0 +0.3
EFI  East Falkland    89.53 146 eP     P      10 29 23.4 +3.1
          comp=Z,46nm,0.9s,mb5.8
EFI                             LR     LR
          comp=Z,1µm,19.0s,MS5.3
EFI  East Falkland    89.53 146 eP     P      10 29 23.4 +3.1
EFI                             pmax   pmax
          comp=Z,45nm,0.9s,mb5.8
EFI                             MLR    MLR
          comp=Z,1µm,19.0s,MS5.3
BILL Bilibino         89.55 353 eP     P      10 29 20.2 +0.4
          comp=Z,33nm,1.5s,mb5.4
BILL                            LR     LR
          comp=Z,961nm,20.0s,MS5.2
BILL Bilibino         89.55 353 P      P      10 29 19.0  -0.8
BILL                           e              10 29 29.9
BILL                            pmax   pmax
          comp=Z,16nm,1.8s,mb5.0
BILL                            MLR    MLR
          comp=Z,900nm,19.0s,MS5.2
EGMT Eagleton         90.09  38 eP     P      10 29 25.0 +2.2
          comp=Z,85nm,1.4s,mb5.9
EGMT                            LR     LR
          comp=Z,1µm,21.0s,MS5.4
EGMT Eagleton         90.09  38 ⇓P     P      10 29 23.4 +0.6
          baz=90,SNR=9.4
HIA  Hailar           90.34 324 eP     P      10 29 23.9   0.0
          comp=Z,60nm,1.8s,mb5.6
HIA                             LR     LR
          comp=Z,2µm,19.0s,MS5.5
HIA  Hailar           90.34 324 eP     P      10 29 23.9   0.0
HIA                             pmax   pmax
          comp=Z,60nm,1.8s
HIA                             MLR    MLR
          comp=Z,2µm,19.0s
EDM  Edmonton         91.00  32 eP     P      10 29 27.5 +0.6
EDM  Edmonton         91.00  32 eP     P      10 29 26.8  -0.1
WMOK Wichita Mounta   91.20  53 eP     P      10 29 30.4 +2.1
          comp=Z,11nm,1.0s,mb5.2
WMOK                            LR     LR
          comp=Z,1µm,20.0s,MS5.4
WMOK Wichita Mounta   91.20  53 eP     P      10 29 30.4 +2.1
WMOK                            pmax   pmax
          comp=Z,11nm,1.0s,mb5.1
WMOK                            MLR    MLR
          comp=Z,1µm,20.0s,MS5.4
HHC  Hu-ho-hao-te     91.30 313 eP     P      10 29 30.4 +1.8
HHC                             AP     pP     10 29 35.1 +1.0
HHC                             XP     sP     10 29 37.4 +1.3
HHC                             AMB    AMB
          comp=Z,13nm,0.6s,mb5.4
HHC                             AMB    AMB
          comp=Z,206nm,3.9s
HHC                             LR     LR
          comp=N,325nm,19.2s,MS5.1
HHC                             LR     LR
          comp=E,632nm,21.2s,MS5.1
HHC                             LR     LR
          comp=Z,1µm,18.6s,MS5.3
LAO  LASA Array       91.50  40 eP     P      10 29 31.6 +2.3
          comp=Z,167nm,1.1s,mb6.3
LAO                             LR     LR
          comp=Z,2µm,19.0s,MS5.5
RSSD Black Hills      91.64  43 eP     P      10 29 32.6 +2.5
          comp=Z,9.5nm,1.4s,mb4.9
RSSD                            LR     LR
          comp=Z,186nm,19.0s,MS4.5
RSSD Black Hills      91.64  43 eP     P      10 29 32.6 +2.5
RSSD                            pmax   pmax
          comp=Z,10.0nm,1.4s,mb5.0
RSSD                            MLR    MLR
          comp=Z,186nm,19.0s,MS4.5
KMI  Kunming          91.66 296 P      P      10 29 31.0 +0.3
KMI                             AP     pP     10 29 36.8 +0.6
KMI                             XP     sP     10 29 38.6 +0.5
KMI                             AMB    AMB
          comp=Z,16nm,1.1s,mb5.3
KMI                             AMB    AMB
          comp=Z,107nm,3.1s
KMI                             LR     LR
          comp=N,613nm,19.7s,MS5.3
KMI                             LR     LR
          comp=E,797nm,18.6s,MS5.3
KMI                             LR     LR
          comp=Z,1µm,18.9s,MS5.4
CLNS Chul'man         92.00 332 eP     P      10 29 32.7 +1.2
CLNS                           e*PP    pP     10 29 39.7 +2.7
CLNS                           ePS     PS     10 42 10.6  +26
CLNS                           eSSS           10 50 11.8
CLNS                            pmax   pmax
          comp=N,15nm,1.1s
CLNS                            pmax   pmax
          comp=Z,30nm,1.1s,mb5.5
CLNS                            pmax   pmax
          comp=E,13nm,1.3s
CLNS                            pmax   pmax
          comp=Z,14nm,1.5s,mb5.1
CLNS                            pmax   pmax
          comp=N,7.0nm,0.9s
CLNS                            pmax   pmax
          comp=E,5.0nm,1.1s
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CLNS                            MLR    MLR
          comp=N,400nm,18.0s,MS5.2
CLNS                            MLR    MLR
          comp=Z,1µm,18.0s,MS5.4
CLNS                            MLR    MLR
          comp=E,800nm,19.0s,MS5.2
LCO  Las Campanas     92.16 122 eP     P      10 29 37.0 +3.9
          comp=E,26nm,1.1s,mb5.5
LCO                             LR     LR
          comp=Z,646nm,20.0s,MS5.1
CBKS Cedar Bluff      92.20  49 eP     P      10 29 34.1 +1.3
          comp=Z,82nm,1.6s,mb5.8
CBKS                            LR     LR
          comp=Z,2µm,19.0s,MS5.6
CBKS Cedar Bluff      92.20  49 eP     P      10 29 34.1 +1.3
CBKS                            pmax   pmax
          comp=Z,82nm,1.6s,mb5.8
CBKS                            MLR    MLR
          comp=Z,2µm,19.0s,MS5.6
CM31 Chiang Mai Arr   92.52 289 PFAKE         10 29 50.0  +15
CM31                            LR     LR
          comp=Z,571nm,19.0s,MS5.0
CHTO Chiang Mai       92.65 289 eP     P      10 29 35.8 +0.4
          comp=Z,18nm,1.0s,mb5.5
CHTO                            LR     LR
          comp=Z,510nm,19.0s,MS5.0
CHTO Chiang Mai       92.65 289 eP     P      10 29 35.8 +0.4
CHTO                            pmax   pmax
          comp=Z,18nm,1.0s,mb5.5
CHTO                            MLR    MLR
          comp=Z,510nm,19.0s,MS5.0
CFAA Coronel Fontan   92.96 125 P      P      10 29 37.1 +0.5
          comp=Z,1.7nm,0.8s,mb4.5,baz=250,slow=4.1,SNR=11
CD2  Chengdu          93.00 302 P      P      10 29 37.6 +0.8
CD2                             AP     pP     10 29 42.4 +0.1
CD2                             XP     sP     10 29 44.9 +0.7
CD2                             AMB    AMB
          comp=Z,20nm,1.6s,mb5.3
CD2                             AMB    AMB
          comp=Z,40nm,5.7s
CD2                             LR     LR
          comp=N,690nm,19.2s,MS5.3
CD2                             LR     LR
          comp=E,580nm,15.6s,MS5.3
CD2                             LR     LR
          comp=Z,470nm,15.6s,MS5.0
TGUH Tegucigalpa,Un   93.14  76 PFAKE         10 29 50.0  +12
TGUH                            LR     LR
          comp=Z,1µm,21.0s,MS5.3
NATX Nacogdoches      93.20  57 eP     P      10 29 38.9 +1.3
          comp=Z,16nm,0.5s,mb5.7
NATX                            LR     LR
          comp=Z,2µm,19.0s,MS5.5
YAK  Yakutsk          93.28 337 eP     P      10 29 37.8 +0.6
          comp=Z,14nm,0.7s,mb5.5
YAK                             LR     LR
          comp=Z,1µm,20.0s,MS5.3
YAK  Yakutsk          93.28 337 i P    P      10 29 37.7 +0.5
YAK                             pmax   pmax
          comp=Z,64nm,2.3s,mb5.6
DGMT Dagmar           93.55  39 eP     P      10 29 40.5 +1.7
          comp=Z,165nm,1.0s,mb6.4
DGMT                            LR     LR
          comp=Z,2µm,19.0s,MS5.5
NNA  Nana             93.62 104 PFAKE         10 29 50.0  +10
NNA                             LR     LR
          comp=Z,825nm,19.0s,MS5.2
INK  Inuvik           93.88  14 eP     P      10 29 39.5  -0.4
          comp=Z,1µm,1.2s
JTS  JuntasAbangare   93.97  81 eP     P      10 29 42.5 +1.0
          comp=Z,20nm,0.8s,mb5.6
JTS                             LR     LR
          comp=Z,1µm,21.0s,MS5.3
JTS  JuntasAbangare   93.97  81 eP     P      10 29 42.6 +1.0
JTS                             pmax   pmax
          comp=Z,20nm,0.8s
JTS                             MLR    MLR
          comp=Z,1µm,21.0s
TEIG Tepich           94.39  70 PFAKE         10 30 00.0  +17
TEIG                            LR     LR
          comp=Z,2µm,19.0s,MS5.5
KSU1 Kansas State U   94.55  50 eP     P      10 29 47.6 +3.9
KSU1                            LR     LR
          comp=Z,2µm,19.0s,MS5.6
LZH  Lanzhou          94.88 307 eP     P      10 29 49.0 +3.7
LZH                             AP     pP     10 29 53.6 +2.8
LZH                             XP     sP     10 29 57.5 +4.8
LZH                             AMB    AMB
          comp=Z,42nm,1.5s,mb5.7
LZH                             AMB    AMB
          comp=Z,190nm,6.7s
LZH                             LR     LR
          comp=E,963nm,17.5s
LZH                             LR     LR
          comp=Z,1µm,18.3s,MS5.3
MIAR Mount Ida        95.08  55 eP     P      10 29 49.0 +2.8
MIAR                            LR     LR
          comp=Z,2µm,19.0s,MS5.5
CIT  Chita            95.13 324 eP     P      10 29 46.6 +0.6
CIT                            e              10 29 54.1
YKA  Yellowknife Ar   95.72  24 P      P      10 29 48.9 +0.5
          comp=Z,1.8nm,0.8s,mb4.6,baz=239,slow=4.4,SNR=18
YKW3 Yellowknife Ar   95.75  24 eP     P      10 29 51.2 +2.7
ECSD EROS,Sioux Fal   96.33  46 PFAKE         10 30 00.0 +8.3
ECSD                            LR     LR
          comp=Z,2µm,19.0s,MS5.6
OTAV Otavalo          96.56  92 PFAKE         10 30 10.0  +17
OTAV                            LR     LR
          comp=Z,1µm,21.0s,MS5.3
ULN  Ulaanbaatar      97.17 318 PFAKE         10 30 10.0  +15
ULN                             LR     LR
          comp=Z,736nm,19.0s,MS5.2
BOD  Bodaibo          97.55 329 eP     P      10 29 52.2  -4.6
BOD                             pmax   pmax
          comp=Z,6.0nm,1.7s,mb4.8
SONM Songino Array    97.57 318 P      P      10 29 57.1  -0.1
          comp=Z,1.1nm,0.9s,mb4.4,baz=132,slow=3.2,SNR=7.8
FFC  Flin Flon        97.57  34 PFAKE         10 30 10.0  +13
FFC                             LR     LR
          comp=Z,1µm,19.0s,MS5.5
SCIA State Center     97.99  48 PFAKE         10 30 10.0  +11
SCIA                            LR     LR
          comp=Z,2µm,20.0s,MS5.6
OXF  Oxford           98.29  56 PFAKE         10 30 10.0 +9.2
OXF                             LR     LR
          comp=Z,2µm,19.0s,MS5.6
AGMN Agassiz Refuge   98.53  42 PFAKE         10 30 10.0 +8.5
AGMN                            LR     LR
          comp=Z,2µm,19.0s,MS5.7
BRAL Brewton          99.03  60 PFAKE         10 30 20.0  +16
BRAL                            LR     LR
          comp=Z,1µm,20.0s,MS5.3
GTA  Gaotai           99.04 309 eP     P      10 30 06.4 +2.4
GTA                             AP     pP     10 30 12.2 +2.7
GTA                             XP     sP     10 30 15.0 +3.5
GTA                             AMB    AMB
          comp=Z,6.0nm,1.4s,mb4.9
GTA                             AMB    AMB
          comp=Z,97nm,6.1s
GTA                             LR     LR
          comp=N,499nm,20.1s,MS5.2
GTA                             LR     LR
          comp=E,627nm,19.4s,MS5.2
GTA                             LR     LR
          comp=Z,527nm,22.1s,MS5.0
ULM  Lac du Bonnet    99.23  40 P      P      10 30 03.5  -1.1
ULM                             LR     LR
          comp=Z,3µm,20.0s,MS5.7
ULM  Lac du Bonnet    99.23  40 P      P      10 30 03.5  -1.1
          comp=Z,3.2nm,1.0s,mb4.8,baz=208,slow=9.0,SNR=4.6
PLAL Pickwick Lake    99.48  56 PFAKE         10 30 20.0  +14
PLAL                            LR     LR
          comp=Z,2µm,19.0s,MS5.7
TIXI Tiksi            99.63 345 i P    Pdif   10 30 04.5  -2.0
TIXI                            LR     LR
          comp=Z,956nm,22.0s,MS5.3
LPAZ La Paz           99.68 111 P      Pdif   10 30 10.3 +3.6
          comp=Z,1.9nm,0.8s,baz=225,slow=2.6,SNR=9.6
LPAZ                            LR     LR     11 08 45.2
          comp=Z,477nm,18.6s,MS5.0,baz=239,slow=32
LRAL Lakeview Retre   99.72  58 PFAKE         10 30 20.0  +13
LRAL                            LR     LR
          comp=Z,2µm,19.0s,MS5.6
WVT  Waverly         100.03  55 PFAKE         10 30 20.0  +12
WVT                             LR     LR
          comp=Z,2µm,21.0s,MS5.6
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HDIL Hopedale        100.33  51 PFAKE         10 30 20.0  +10
HDIL                            LR     LR
          comp=Z,2µm,20.0s,MS5.6
ZAK  Zakamensk       100.39 320 eP     Pdif   10 30 11.0 +1.1
ZAK                             pmax   pmax
          comp=Z,2.0nm,1.6s
ZAK                             pmax   pmax
          comp=Z,1.0nm,1.8s
TLY  Talaya          100.62 321 PFAKE         10 30 20.0 +9.1
TLY                             LR     LR
          comp=Z,839nm,20.0s,MS5.2
EYMN Ely             101.16  43 PFAKE         10 30 30.0  +17
EYMN                            LR     LR
          comp=Z,1µm,19.0s,MS5.4
WCI  Wyandotte Cave  101.84  54 PFAKE         10 30 30.0  +14
WCI                             LR     LR
          comp=Z,2µm,19.0s,MS5.5
GOGA Godfrey         102.65  59 PFAKE         10 30 30.0  +10
GOGA                            LR     LR
          comp=Z,879nm,21.0s,MS5.3
DWPF Disney          102.82  65 PFAKE         10 30 30.0 +9.3
DWPF                            LR     LR
          comp=Z,890nm,21.0s,MS5.3
LSA  Lhasa           102.89 297 PFAKE         10 30 30.0 +9.0
LSA                             LR     LR
          comp=Z,611nm,20.0s,MS5.1
TZTN Tazewell        103.46  56 PFAKE         10 30 40.0  +16
TZTN                            LR     LR
          comp=Z,2µm,21.0s,MS5.5
ACSO Alum Creek Sta  104.86  52 PFAKE         10 30 40.0  +10
ACSO                            LR     LR
          comp=Z,2µm,19.0s,MS5.6
AAM  Ann Arbor       104.89  50 PFAKE         10 30 40.0  +10
AAM                             LR     LR
          comp=Z,1µm,19.0s,MS5.5
NHSC New Hope        105.22  60 PFAKE         10 35 00.0  +14
NHSC                            LR     LR
          comp=Z,979nm,19.0s,MS5.4
PALK Pallekele       105.53 272 PFAKE         10 35 00.0  +13
PALK                            LR     LR
          comp=Z,2µm,20.0s,MS5.6
BLA  Blacksburg      106.05  56 PFAKE         10 35 00.0  +13
BLA                             LR     LR
          comp=Z,2µm,20.0s,MS5.6
MCWV Mont Chateau    107.06  53 PFAKE         10 35 00.0  +11
MCWV                            LR     LR
          comp=Z,3µm,21.0s,MS5.8
CNNC Cliffs of the   107.58  58 PFAKE         10 35 00.0  +10
CNNC                            LR     LR
          comp=Z,1µm,19.0s,MS5.5
CBN  Corbin          108.63  55 PFAKE         10 35 00.0 +7.9
CBN                             LR     LR
          comp=Z,2µm,22.0s,MS5.7
SSPA Standing Stone  108.74  53 PFAKE         10 35 00.0 +7.8
SSPA                            LR     LR
          comp=Z,2µm,19.0s,MS5.7
SDDR Presa de Saban  109.23  76 PFAKE         10 35 10.0  +16
SDDR                            LR     LR
          comp=Z,2µm,22.0s,MS5.5
BINY Binghamton      110.43  51 PFAKE         10 35 10.0  +15
BINY                            LR     LR
          comp=Z,2µm,21.0s,MS5.7
LONY Lake Ozonia     111.82  49 PFAKE         10 35 10.0  +12
LONY                            LR     LR
          comp=Z,1µm,20.0s,MS5.6
NCB  Newcomb         111.98  50 PFAKE         10 35 10.0  +12
NCB                             LR     LR
          comp=Z,1µm,19.0s,MS5.6
MK31 Makanchi Array  113.16 313 ePKPdf PKiKP  10 35 01.6 +1.2
MK31 Makanchi Array  113.16 313 PKIKP  PKiKP  10 34 58.6  -1.8
MKAR Makanchi Array  113.16 313 Pdif   Pdif   10 31 08.4 +1.8
MKAR                           i PKP   PKiKP  10 34 58.2  -2.2
MKAR                            PKPdf  PKiKP  10 35 01.6 +1.2
MKAR                            PKKPbc PKKPbc 10 45 48.6 +1.2
MKAR Makanchi Array  113.16 313 P      Pdif   10 31 08.4 +1.8
MKAR                                          10 35 01.6
MKAR Makanchi Array  113.16 313 Pdiff  Pdif   10 31 08.4 +1.8
          comp=Z,0.7nm,1.0s,baz=98,slow=6.0,SNR=1.9
MKAR                            PKiKP  PKiKP  10 35 01.6 +1.2
          comp=Z,1.7nm,0.7s,baz=278,slow=0.4,SNR=11
MKAR                            PKKPbc PKKPbc 10 45 48.6 +1.2
          comp=Z,0.6nm,0.7s,baz=271,slow=3.6,SNR=6.8
SJG  San Juan        113.69  79 PFAKE         10 35 10.0 +7.7
SJG                             LR     LR
          comp=Z,547nm,20.0s,MS5.2
HRV  Harvard--Oak R  113.72  52 PFAKE         10 35 10.0 +8.4
HRV                             LR     LR
          comp=Z,2µm,19.0s,MS5.7
WES  Weston          113.88  52 PFAKE         10 35 10.0 +8.1
WES                             LR     LR
          comp=Z,2µm,19.0s,MS5.7
PKME Peaks-Kenny Pk  115.62  49 PFAKE         10 35 20.0  +15
PKME                            LR     LR
          comp=Z,2µm,20.0s,MS5.7
KURK Kurchatov       115.85 317 ePKPdf PKPdf  10 35 05.5 +0.1
KURK                            LR     LR
          comp=Z,824nm,21.0s,MS5.3
KURK Kurchatov       115.85 317 ePKIKP PKPdf  10 35 05.5 +0.1
KURK                            MLR    MLR
          comp=Z,824nm,21.0s,MS5.3
TKM2 Tokmak 2        117.59 308 PFAKE         10 35 20.0  +11
TKM2                            LR     LR
          comp=Z,1µm,19.0s,MS5.5
UCH  Uchtor          118.35 308 ePKPdf PKPdf  10 35 11.7 +1.1
UCH                             LR     LR
          comp=Z,655nm,19.0s,MS5.3
AAK  Ala-Archa       118.39 308⇑iPKP   PKPdf  10 35 10.7 +0.1
AAK                             LR     LR
          comp=Z,691nm,20.0s,MS5.3
AAK  Ala-Archa       118.39 308⇑iPKIKP PKPdf  10 35 10.7 +0.1
AAK                             MLR    MLR
          comp=Z,691nm,20.0s,MS5.3
EKS2 Erkin-Say       118.92 308 PFAKE         10 35 20.0 +8.4
EKS2                            LR     LR
          comp=Z,871nm,20.0s,MS5.4
AML  Almayashu       118.96 307 ePKPdf PKPdf  10 35 12.5 +0.8
AML                             LR     LR
          comp=Z,859nm,20.0s,MS5.4
BRVK Borovoye        120.91 320 ePKPdf PKPdf  10 35 14.6  -0.5
BRVK                            LR     LR
          comp=Z,936nm,19.0s,MS5.5
BRVK Borovoye        120.91 320 ePKIKP PKPdf  10 35 14.6  -0.5
BRVK                            MLR    MLR
          comp=Z,936nm,19.0s,MS5.5
KBS  Kingsbay        121.67 358 PFAKE         10 35 30.0  +14
KBS                             LR     LR
          comp=Z,813nm,21.0s,MS5.3
KBL  Kabul           122.17 298 ePKPdf PKPdf  10 35 19.1 +1.0
MSEY Mahe Island     124.09 249 PFAKE         10 35 30.0 +7.5
MSEY                            LR     LR
          comp=Z,1µm,21.0s,MS5.6
SUR  Sutherland      124.95 197 PFAKE         10 35 40.0  +16
SUR                             LR     LR
          comp=Z,1µm,21.0s,MS5.5
ARU  Arti            126.80 326 ePKPdf PKPdf  10 35 26.4 +0.1
ARU                             LR     LR
          comp=Z,1µm,21.0s,MS5.6
ARU  Arti            126.80 326 i PKIKP PKPdf 10 35 26.1  -0.2
ARU                            e              10 37 19.7
ARU                            e              10 42 27.6
ARU                            eSS     SS     10 54 25.8  -3.4
BOSA Boshof          127.04 203 PKP    PKPdf  10 35 28.6 +0.8
BOSA                            LR     LR
          comp=Z,1µm,19.0s,MS5.5
BOSA Boshof          127.04 203 PKIKP  PKPdf  10 35 28.6 +0.8
BOSA                            MLR    MLR
          comp=Z,1µm,19.0s,MS5.5
BOSA Boshof          127.04 203 PKP    PKPdf  10 35 28.6 +0.8
          comp=Z,3.5nm,1.0s,baz=104,slow=5.0,SNR=4.3
AKTK Aktyubinsk      128.88 319 PKP    PKPdf  10 35 29.5  -1.0
AKTO Aktyubinsk      128.88 319 PKIKP  PKPdf  10 35 29.5  -1.0
AKTO Aktyubinsk      128.88 319 PKP    PKPdf  10 35 29.5  -1.0
          comp=Z,3.1nm,0.8s,baz=76,slow=2.0,SNR=10
KEV  Kevo            129.15 350 PFAKE         10 35 40.0  +10
KEV                             LR     LR
          comp=Z,2µm,20.0s,MS5.7
LVZ  Lovozero        129.25 346 PFAKE         10 35 40.0 +9.4
LVZ                             LR     LR
          comp=Z,1µm,22.0s,MS5.6
ARCES ARCESS Array B 129.59 351 PKP    PKPdf  10 35 32.5 +1.3
ARCES ARCESS Array B 129.59 351 PKIKP  PKPdf  10 35 32.5 +1.2
ARCES ARCESS Array B 129.59 351 PKP    PKPdf  10 35 32.5 +1.3
          comp=Z,6.3nm,1.0s,baz=17,slow=1.3,SNR=6.0
LBTB Lobatse         130.15 205 PFAKE         10 35 50.0  +16
LBTB                            LR     LR
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	comp=Z,1µm,20.0s,MS5.5						
RCBR	**Riachuelo**	**132.24**	**119**	PFAKE		10 35 50.0	+12
RCBR				LR	LR		
	comp=Z,840nm,19.0s,MS5.5						
FINES	**FINESS Array B**	**136.67**	**345**	PKP	PKPdf	10 35 40.2	-4.6
FINES	**FINESS Array B**	**136.67**	**345**	PKIKP	PKPdf	10 35 40.2	-4.6
FINES	**FINESS Array B**	**136.67**	**345**	PKhKP		10 35 40.2	
	comp=Z,2.8nm,1.0s,baz=135,slow=1.3,SNR=4.2						
LSZ	**Lusaka**	**137.37**	**215**	*e*PKPdf	PKPdf	10 35 48.5	+1.0
LSZ				LR	LR		
	comp=Z,974nm,20.0s,MS5.5						
LSZ	**Lusaka**	**137.37**	**215**	*e*PKIKP	PKPdf	10 35 48.5	+1.0
LSZ				MLR	MLR		
	comp=Z,974nm,20.0s,MS5.5						
OBN	**Obninsk**	**138.12**	**333**	PFAKE		10 36 00.0	+12
OBN				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
OBN	**Obninsk**	**138.12**	**333**	⇓*i*PKIKP	PKPdf	10 35 51.8	+4.1
OBN				*e*		10 38 41.0	
OBN				pmax	pmax		
	comp=Z,28nm,1.3s						
TSUM	**Tsumeb**	**138.32**	**199**	PFAKE		10 36 00.0	+11
TSUM				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
NOA	**NORSAR Array B**	**139.48**	**355**	PKP	PKPdf	10 35 50.4	+0.4
NOA	**NORSAR Array B**	**139.48**	**355**	PKIKP	PKPdf	10 35 50.4	+0.4
NOA	**NORSAR Array B**	**139.48**	**355**	PKP	PKPdf	10 35 50.4	+0.4
	comp=Z,4.5nm,0.9s,baz=13,slow=3.9,SNR=5.4						
HFS	**Hagfors**	**140.13**	**353**	PKP	PKPdf	10 35 50.8	-0.4
HFS	**Hagfors**	**140.13**	**353**	PKIKP	PKPdf	10 35 50.8	-0.4
HFS	**Hagfors**	**140.13**	**353**	PKhKP		10 35 43.3	
	comp=Z,2.7nm,0.7s,baz=260,slow=2.6,SNR=4.4						
HFS				PKP	PKPdf	10 35 50.8	-0.4
	comp=Z,4.2nm,0.8s,baz=86,slow=4.6,SNR=4.6						
KIV	**Kislovodsk**	**140.88**	**315**	PFAKE		10 36 10.0	+17
KIV				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
KIV	**Kislovodsk**	**140.88**	**315**	*i* PKIKP	PKPdf	10 35 58.1	+5.0
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,761nm,18.0s,MS5.5						
KONO	**Kongsberg**	**140.98**	**356**	PFAKE		10 36 00.0	+7.3
KONO				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
KMBO	**Kilima Mbogo**	**141.38**	**240**	PKP	PKPdf	10 35 53.9	-1.0
KMBO				LR	LR		
	comp=Z,814nm,20.0s,MS5.5						
KMBO	**Kilima Mbogo**	**141.38**	**240**	PKIKP	PKPdf	10 35 53.9	-1.0
KMBO				MLR	MLR		
	comp=Z,814nm,20.0s						
KMBO	**Kilima Mbogo**	**141.38**	**240**	PKP	PKPdf	10 35 53.9	-1.0
	comp=Z,2.1nm,0.7s,baz=59,slow=19,SNR=7.6						
ANN	**Anapa**	**143.84**	**319**	*i* PKIKP	PKPdf	10 35 56.9	-1.4
ANN				pmax	pmax		
	comp=Z,63nm,1.4s						
SUW	**Suwalki**	**143.90**	**341**	*e*PKP	PKPdf	10 35 58.4	+0.3
SUW	**Suwalki**	**143.90**	**341**	*e*PKIKP	PKPdf	10 35 58.4	+0.3
EAB	**Aberfoyle**	**143.98**	**9**	*e*P	PKPdf	10 35 57.2	-0.9
AKASG	**Malin Array Be**	**144.39**	**333**	PKP	PKPdf	10 35 57.0	-2.0
AKASG	**Malin Array Be**	**144.39**	**333**	PKIKP	PKPdf	10 35 57.0	-2.0
AKASG	**Malin Array Be**	**144.39**	**333**	PKP	PKPdf	10 35 57.0	-2.0
	comp=Z,4.8nm,0.6s,baz=36,slow=4.0,SNR=22						
AKBB	**Malin Array Si**	**144.39**	**333**	*e*PKPdf	PKPdf	10 35 56.9	-2.1
AKBB	**Malin Array Si**	**144.39**	**333**	*e*PKIKP	PKPdf	10 35 56.9	-2.1
KIEV	**Kiev**	**144.40**	**333**	PFAKE		10 36 10.0	+11
KIEV				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
EAU	**Auchinoon**	**144.44**	**8**	*e*P	PKPdf	10 35 57.7	-1.3
MARD	**Mardin**	**144.60**	**306**	*i* P	PKPdf	10 35 57.0	-2.8
GMK	**Mull of Kintyr**	**144.61**	**10**	*e*P	PKPdf	10 35 58.1	-1.1
EKA	**Eskdalemuir Ar**	**144.97**	**8**	PKPbc	PKPdf	10 35 58.7	-1.2
	comp=Z,29nm,0.8s,baz=336,slow=2.4,SNR=22						
ESK	**Eskdalemuir**	**144.98**	**8**	*e*PKPdf	PKPdf	10 36 00.0	+0.1
ESK				LR	LR		
	comp=Z,1µm,19.0s,MS5.8						
ESK	**Eskdalemuir**	**144.98**	**8**	*e*PKIKP	PKPdf	10 36 00.0	+0.1
ESK				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.8						
GAL1	**Galloway**	**145.21**	**9**	*e*P	PKPbc	10 35 59.0	-1.0
BBO1	**Bothel**	**145.54**	**8**	*e*P	PKPdf	10 35 59.8	-1.1
ELZG	**Elazig**	**145.55**	**308**	*i* P	PKPbc	10 36 00.6	-1.0
XAL	**Allendale**	**145.55**	**7**	*e*P	PKPdf	10 35 58.6	-2.3
GMM	**Mts of Mourne**	**145.61**	**11**	*e*P	PKPdf	10 36 00.1	-1.0
CKE	**Keswick**	**145.71**	**8**	*e*P	PKPdf	10 35 59.2	-2.0
SIM	**Simferopol’**	**145.74**	**322**	*i* PKP2	PKPab	10 36 01.3	-1.0
SIM				pmax	pmax		
	comp=Z,149nm,0.8s						
GIM	**North Isle of**	**145.80**	**9**	*e*P	PKPdf	10 36 00.3	-1.0
MYA	**Malataya**	**146.02**	**308**	*i* P	PKPbc	10 36 01.9	-1.2
MALT	**Malatya**	**146.02**	**308**	*e*P	PKPbc	10 36 02.0	-1.1
MALT	**Malatya**	**146.02**	**308**	*e*PKPdf	PKPdf	10 36 02.2	-0.1
MALT	**Malatya**	**146.02**	**308**	*e*PKIKP	PKPdf	10 36 02.2	-0.1
MALT	**Malatya**	**146.02**	**308**	⇑*i*P	PKPbc	10 36 02.2	-0.9
URFA	**Urfa**	**146.04**	**307**	*e*P	PKPbc	10 36 01.4	-1.7
GKP	**Gorka Klasztor**	**146.12**	**346**	*e*PKP	PKPdf	10 36 03.8	+1.9
GKP				*e*		10 36 27.0	
GKP	**Gorka Klasztor**	**146.12**	**346**	*e*PKP2	PKPab	10 36 03.8	+0.3
SVSK	**Karacayir**	**146.42**	**312**	*e*P	PKPbc	10 36 04.9	+0.7
ATAB	**Bozova**	**146.42**	**307**	*e*P	PKPbc	10 36 05.6	+1.3
HLG	**Helgoland**	**146.53**	**357**	*e*PKPbc	PKPbc	10 36 03.7	-0.3
BSEG	**Bad Segeberg**	**146.59**	**354**	*e*PKPbc	PKPbc	10 36 03.2	-1.0
YRC	**Rhoscolyn**	**146.79**	**10**	*e*P	PKPdf	10 36 04.5	+1.4
DIKM	**Dikmen**	**146.80**	**316**	*e*P	PKPbc	10 36 05.4	+0.1
LHO	**Holmfirth**	**146.88**	**7**	*e*P	PKPdf	10 36 03.3	+0.1
GZT	**Gaziantep**	**147.01**	**307**	*i* P	PKPdf	10 36 04.7	+0.7
BOYT	**Boyabat**	**147.14**	**316**	*i* P	PKPbc	10 36 06.0	-0.3
KBI1	**Birley Grange**	**147.21**	**7**	*e*P	PKPdf	10 36 03.3	-0.5
KIS	**Kishinev**	**147.26**	**329**	*e*PKP2	PKPab	10 36 07.0	-1.1
SBD1	**Bryn Du**	**147.33**	**9**	*e*P	PKPdf	10 36 04.9	+0.9
KWE	**Weaver Farm**	**147.41**	**7**	*e*P	PKPdf	10 36 05.0	+0.9
CTKT	**Corum**	**147.60**	**314**	*i* P	PKPdf	10 36 06.2	+1.4
HLM1	**Long Mynd**	**147.76**	**9**	*e*P	PKPdf	10 36 05.1	+0.4
KWP	**Kalwaria**	**147.79**	**338**	*e*PKPdf	PKPdf	10 36 06.1	+1.2
KWP				*e*PKPbc	PKPbc	10 36 08.8	+1.0
KWP				*e*PKP	PKPab	10 36 09.1	-1.0
KWP	**Kalwaria**	**147.79**	**338**	*e*PKIKP	PKPdf	10 36 06.1	+1.2
KWP				*e*		10 36 08.8	
TOS	**Tosya**	**147.91**	**316**	*e*P	PKPbc	10 36 08.1	-0.3
NRDL	**Niedersach Rie**	**148.03**	**354**	*e*PKPbc	PKPbc	10 36 07.2	-1.1
OJC	**Ojcow**	**148.23**	**341**	*e*PKPdf	PKPdf	10 36 07.0	+1.4
OJC				*e*PKPbc	PKPbc	10 36 09.3	+0.4
OJC				*e*PKPab	PKPab	10 36 11.6	-0.3
OJC	**Ojcow**	**148.23**	**341**	*e*PKIKP	PKPdf	10 36 07.0	+1.4
OJC				*e*		10 36 09.3	
OJC				*e*		10 36 11.6	
MCH1	**Michaelchurch**	**148.25**	**9**	*e*P	PKPdf	10 36 05.0	-0.6
HAE	**Alders End**	**148.27**	**8**	*e*P	PKPdf	10 36 05.7	+0.1
CANT	**Cankiri**	**148.39**	**315**	*e*P	PKPbc	10 36 10.3	+0.7
AVNT	**Avonos**	**148.40**	**311**	*i* P	PKPbc	10 36 09.0	-0.7
IBBN	**Ibbenburen**	**148.41**	**356**	*e*PKPbc	PKPbc	10 36 08.2	-1.1
SSW	**Stow on the Wo**	**148.44**	**8**	*e*P	PKPdf	10 36 06.1	+0.2
STHS	**Stebnicka Huta**	**148.48**	**339**	*e*PKP	PKPbc	10 36 10.9	+1.3
STHS				*e*		10 36 13.6	
STHS				*e*		10 36 16.6	
STHS	**Stebnicka Huta**	**148.48**	**339**	*e*PKP2	PKPab	10 36 10.9	-2.0
HTY	**Hatay**	**148.51**	**306**	*e*P	PKPbc	10 36 09.8	-0.3
KOLS	**Kolonicke sedl**	**148.53**	**337**	*e*PKP	PKPbc	10 36 09.1	-0.6
KOLS				*e*		10 36 12.7	
KOLS				*e*		10 36 17.5	
KOLS	**Kolonicke sedl**	**148.53**	**337**	*e*PKP2	PKPbc	10 36 09.1	-0.6
ELDT	**Eldivan**	**148.57**	**315**	*i* P	PKPbc	10 36 09.7	-0.4
KSP	**Ksiaz**	**148.59**	**346**	*e*PKP	PKPdf	10 36 08.8	+2.7
KSP	**Ksiaz**	**148.59**	**346**	*e*PKP2	PKPbc	10 36 08.8	-1.0
HGH	**Gray Hill**	**148.63**	**9**	*e*P	PKPdf	10 36 05.9	-0.3
CLZ	**Clausthal**	**148.65**	**353**	*e*PKPbc	PKPbc	10 36 09.2	-0.7
SAFT	**Safranbolu**	**148.67**	**317**	*e*P	PKPbc	10 36 10.8	+0.5
UZH	**Uzhgorod**	**148.78**	**337**	⇓*i*PKP2	PKPab	10 36 11.5	-2.6
NIE	**Niedzica**	**148.78**	**340**	*e*PKP	PKPbc	10 36 12.1	+1.8
NIE	**Niedzica**	**148.78**	**340**	*e*PKP2	PKPab	10 36 12.1	-2.0
CLL	**Collm**	**148.80**	**350**	*i* PKP	PKPdf	10 36 09.3	+2.8
CLL	**Collm**	**148.80**	**350**	*i* PKP2	PKPbc	10 36 09.3	-1.0
CLL	**Collm**	**148.80**	**350**	*e*PKPbc	PKPbc	10 36 09.2	-1.1
BR131	**Keskin Array S**	**148.81**	**314**	PFAKE		10 36 20.0	+13
BR131				LR	LR		
	comp=Z,724nm,20.0s,MS5.5						
BRTR	**Keskin Array B**	**148.81**	**314**	PKPbc	PKPbc	10 36 09.9	-0.8
	comp=Z,19nm,0.8s,baz=108,slow=2.7,SNR=32						
UPC	**Upice**	**148.97**	**346**	*e*PKP	PKPbc	10 36 09.9	-0.9
UPC				*e*		10 36 14.2	
UPC	**Upice**	**148.97**	**346**	*e*PKP2	PKPbc	10 36 09.9	-0.9
UPC	**Upice**	**148.97**	**346**	⇑*e*PKPB	PKPbc	10 36 09.9	-0.9
UPC				*e*PKPAB	PKPab	10 36 14.2	-0.6
DPC	**Dobruska-Polom**	**149.04**	**345**	*e*PKP	PKPdf	10 36 08.5	+1.6
DPC				*e*		10 36 14.6	
DPC	**Dobruska-Polom**	**149.04**	**345**	*e*PKIKP	PKPdf	10 36 08.5	+1.6
DPC				*e*		10 36 14.6	
DPC	**Dobruska-Polom**	**149.04**	**345**	*e*PKPDF	PKPdf	10 36 08.5	+1.6
DPC				⇑*e*PKPB	PKPbc	10 36 14.6	+3.6
OKC	**Ostrava-Krasne**	**149.05**	**343**	*e*PKP	PKPbc	10 36 10.1	-0.9
OKC				*e*		10 36 14.2	
OKC	**Ostrava-Krasne**	**149.05**	**343**	*e*PKP2	PKPbc	10 36 10.1	-0.9
OKC	**Ostrava-Krasne**	**149.05**	**343**	⇑*e*PKPB	PKPbc	10 36 10.1	-0.9
OKC				*e*PKPAB	PKPab	10 36 14.2	-1.0
BRG	**Berggiesshubel**	**149.06**	**348**	*i* PKP	PKPdf	10 36 09.1	+2.2
BRG				*i*		10 36 13.6	
BRG	**Berggiesshubel**	**149.06**	**348**	*i* PKIKP	PKPdf	10 36 09.1	+2.2
BRG				*i*		10 36 13.6	
BRG	**Berggiesshubel**	**149.06**	**348**	*e*PKPbc	PKPbc	10 36 10.2	-0.8
ASF	**Jabal al Asfar**	**149.07**	**298**	PKPbc	PKPbc	10 36 13.3	+1.7
	comp=Z,20nm,0.9s,baz=1.7,slow=1.6,SNR=15						
VRI	**Vrincioaia**	**149.08**	**329**	PKP2	PKPab	10 36 13.8	-1.6
FBE	**Freiberg**	**149.12**	**349**	*e*PKPbc	PKPbc	10 36 10.4	-0.7
TIRR	**Tirgusor**	**149.22**	**326**	⇑*i*P	PKPab	10 36 16.0	-0.1
PVCC	**Panska Ves**	**149.26**	**348**	*e*PKP	PKPbc	10 36 10.3	-1.2
PVCC				*e*		10 36 14.9	
PVCC	**Panska Ves**	**149.26**	**348**	*e*PKIKP	PKPbc	10 36 10.3	-1.2
PVCC				*e*		10 36 14.9	
PVCC	**Panska Ves**	**149.26**	**348**	⇑*e*PKPB	PKPbc	10 36 10.3	-1.2
PVCC				*e*PKPAB	PKPab	10 36 14.9	-1.1
MORC	**Moravsky Berou**	**149.27**	**344**	*e*PKPdf	PKPdf	10 36 08.2	+0.9
MORC	**Moravsky Berou**	**149.27**	**344**	PKP2	PKPbc	10 36 11.2	-0.4
BUG	**Bochum--Univer**	**149.30**	**357**	*e*PKPbc	PKPbc	10 36 10.4	-1.2
ANTO	**Ankara**	**149.31**	**315**	*e*PKPbc	PKPbc	10 36 12.3	+0.3
ANTO				LR	LR		
	comp=Z,709nm,20.0s,MS5.5						
ANTO	**Ankara**	**149.31**	**315**	*e*PKP2	PKPbc	10 36 12.3	+0.3
ANTO				MLR	MLR		
	comp=Z,709nm,20.0s,MS5.5						
SGKT	**Sivrigoynuk**	**149.43**	**316**	*i* P	PKPdf	10 36 10.0	+2.2
KECS	**Kecovo**	**149.53**	**339**	*e*PKP	PKPbc	10 36 11.7	-0.6
KECS				*e*		10 36 15.9	
KECS	**Kecovo**	**149.53**	**339**	*e*PKP2	PKPbc	10 36 11.7	-0.6
MOX	**Moxa**	**149.66**	**351**	*e*PKP	PKPbc	10 36 11.9	-0.6
MOX				*e*PKPab	PKPab	10 36 22.7	+5.1
MOX	**Moxa**	**149.66**	**351**	*e*PKP2	PKPbc	10 36 11.9	-0.6
MOX	**Moxa**	**149.66**	**351**	*e*PKPbc	PKPbc	10 36 11.6	-0.9
PRA	**Prague**	**149.72**	**347**	⇑PKPB	PKPbc	10 36 14.0	+1.3
MLR	**Muntele Rosu**	**149.73**	**330**	PKP2	PKPab	10 36 15.0	-3.1
MLR	**Muntele Rosu**	**149.73**	**330**	PKPbc	PKPbc	10 36 14.2	+1.3
	comp=Z,3.9nm,0.9s,baz=334,slow=7.8,SNR=3.3						
WERD	**Werda**	**149.75**	**350**	*e*PKPbc	PKPbc	10 36 11.8	-0.9
TANN	**Tannenbergstha**	**149.75**	**350**	*e*PKPbc	PKPbc	10 36 11.9	-0.8
PRU	**Pruhonice**	**149.78**	**347**	*e*PKP	PKPdf	10 36 10.6	+2.5
PRU				*e*		10 36 18.6	
PRU	**Pruhonice**	**149.78**	**347**	*e*PKHKP	PKPdf	10 36 10.6	+2.5
PRU				*e*		10 36 18.6	
PRU	**Pruhonice**	**149.78**	**347**	*e*PKPDF	PKPdf	10 36 10.6	+2.5
PRU				*e*PKPAB	PKPab	10 36 18.6	+0.5
GUNZ	**Gunzen**	**149.82**	**350**	*e*PKPbc	PKPbc	10 36 12.2	-0.7
WERN	**Wernitzgruen**	**149.89**	**350**	*e*PKPbc	PKPbc	10 36 12.5	-0.6
NKC	**Novy Kostel**	**149.93**	**350**	*e*PKP	PKPbc	10 36 13.2	0.0
NKC				*e*		10 36 16.5	
NKC	**Novy Kostel**	**149.93**	**350**	*e*PKP2	PKPbc	10 36 13.2	0.0
NKC	**Novy Kostel**	**149.93**	**350**	⇑*e*PKPB	PKPbc	10 36 13.2	0.0
NKC				*e*PKPAB	PKPab	10 36 16.5	-2.2
VRAC	**Vranov**	**149.94**	**344**	PKP2	PKPbc	10 36 14.2	+1.0
VRAC	**Vranov**	**149.94**	**344**	PKPbc	PKPbc	10 36 14.6	+1.3
	comp=Z,13nm,1.0s,baz=6.2,slow=1.0,SNR=14						
MDU	**Mudurnu**	**150.03**	**317**	*e*P	PKPdf	10 36 11.8	+3.0
HENT	**Hendek**	**150.03**	**318**	*i* P	PKPbc	10 36 12.8	-0.9
VYHS	**Vyhne**	**150.06**	**341**	*e*PKP	PKPdf	10 36 11.5	+2.9
VYHS				*e*		10 36 16.8	
VYHS	**Vyhne**	**150.06**	**341**	*e*PKHKP	PKPdf	10 36 11.5	+2.9
VYHS				*e*		10 36 16.8	
MMAI	**Mount Meron Ar**	**150.07**	**301**	PKPbc	PKPbc	10 36 15.4	+1.3
	comp=Z,33nm,0.9s,baz=342,slow=13,SNR=8.9						
MMAI				PKPab	PKPab	10 36 21.8	+1.8
	comp=Z,30nm,1.0s,baz=64,slow=5.7,SNR=4.7						
DRGR		**150.14**	**335**	PKP2	PKPbc	10 36 14.5	+0.7
PSZ	**Piszkesteto**	**150.22**	**339**	*e*PKPbc	PKPbc	10 36 14.8	+0.9
PSZ				*e*PKPab	PKPab	10 36 21.8	+1.7
PSZ	**Piszkesteto**	**150.22**	**339**	*e*PKP2	PKPbc	10 36 14.9	+0.9
TREC	**Trest**	**150.23**	**346**	*e*PKHKP	PKPbc	10 36 12.8	-1.1
TREC				*e*		10 36 17.1	
TREC	**Trest**	**150.23**	**346**	⇑*e*PKPB	PKPbc	10 36 12.8	-1.1
TREC				*e*PKPAB	PKPab	10 36 17.1	-2.9
MANZ	**Manzenberg**	**150.23**	**350**	*e*PKPbc	PKPbc	10 36 13.0	-0.9
KIZT	**Kizilcal**	**150.41**	**314**	*e*P	PKPbc	10 36 13.8	-1.0
ROTZ	**Rotzenmuhle**	**150.42**	**350**	*e*PKPbc	PKPbc	10 36 13.4	-1.0
KDHN	**Kadinhani**	**150.43**	**313**	*i* P	PKPbc	10 36 12.6	-2.1
TNS	**Taunus Mts**	**150.43**	**355**	*e*PKPbc	PKPbc	10 36 13.5	-0.9
SMOL	**Smolenice**	**150.45**	**343**	*e*PKIKP	PKPbc	10 36 16.8	+2.3
MODS	**Modra-Piesok**	**150.62**	**343**	*e*PKP	PKPdf	10 36 08.0	-1.4
MODS				*e*		10 36 18.8	
MODS	**Modra-Piesok**	**150.62**	**343**	*e*PKIKP	PKPdf	10 36 08.0	-1.4
MODS				*e*		10 36 18.8	
GRF	**Grafenberg Arr**	**150.65**	**351**	*e*PKP	PKPbc	10 36 13.8	-1.1
GRF				*e*		10 36 17.8	
GRF				*e*		10 36 24.2	
GRF	**Grafenberg Arr**	**150.65**	**351**	*e*PKIKP	PKPbc	10 36 13.8	-1.1
GRF				*e*		10 36 17.8	
GRF				*e*		10 36 24.2	
GRF	**Grafenberg Arr**	**150.65**	**351**	*e*PKPbc	PKPbc	10 36 13.8	-1.1
GRF				*e*		10 36 17.8	
GRF				*e*		10 36 24.2	
GRFO	**Grafenberg**	**150.65**	**351**	*e*PKPbc	PKPbc	10 36 14.9	0.0
GRFO				LR	LR		
	comp=Z,995nm,21.0s,MS5.6						
GRFO	**Grafenberg**	**150.65**	**351**	*e*PKIKP	PKPbc	10 36 14.9	0.0
GRFO				MLR	MLR		
	comp=Z,995nm,21.0s,MS5.6						
GIVF	**Givet**	**150.71**	**360**	*e*PKP	PKPdf	10 36 08.3	-1.2
GIVF	**Givet**	**150.71**	**360**	*e*PKIKP	PKPdf	10 36 08.3	-1.2
GIVF	**Givet**	**150.71**	**360**	*e*PKP1	PKPdf	10 36 08.3	-1.2
	comp=Z,310nm,1.3s						
BAIF	**Baives**	**150.75**	**1**	*e*PKP	PKPdf	10 36 08.5	-1.1
BAIF	**Baives**	**150.75**	**1**	*e*PKIKP	PKPdf	10 36 08.5	-1.1
BAIF	**Baives**	**150.75**	**1**	*e*PKP1	PKPdf	10 36 08.5	-1.1
	comp=Z,244nm,1.2s						
KHC	**Kasperske Hory**	**150.79**	**348**	*e*PKP	PKPdf	10 36 12.4	+2.7
KHC				*e*		10 36 16.4	
KHC				*e*		10 36 28.0	
KHC	**Kasperske Hory**	**150.79**	**348**	*e*PKIKP	PKPdf	10 36 12.4	+2.7
KHC				*e*		10 36 28.0	
KHC	**Kasperske Hory**	**150.79**	**348**	*e*PKPDF	PKPdf	10 36 12.4	+2.7
KHC				⇑*e*PKPB	PKPdf	10 36 16.4	+6.7
KHC				*e*pPKP	pPKPdf	10 36 28.0	+13
ZST	**Bratislava**	**150.83**	**343**	*e*PKIKP	PKPbc	10 36 15.9	+0.5
ZST				*e*		10 36 20.2	
WET	**Wettzell**	**150.91**	**349**	*e*PKPbc	PKPbc	10 36 14.7	-0.8
ADVT	**Abdulvahap**	**150.98**	**318**	*e*P	PKPbc	10 36 16.7	+0.7
GEC2	**GERESS Array S**	**151.04**	**348**	*e*PKPbc	PKPbc	10 36 16.8	+1.0
GEC2	**GERESS Array S**	**151.04**	**348**	*e*PKIKP	PKPbc	10 36 16.8	+0.9
GEC2	**GERESS Array S**	**151.04**	**348**	*e*PKPbc	PKPbc	10 36 14.8	-1.1
GERES	**GERESS Array B**	**151.04**	**348**	PKPbc	PKPbc	10 36 17.0	+1.1
	comp=Z,18nm,0.9s,baz=5.4,slow=2.8,SNR=37						
GERES				PKPab	PKPab	10 36 25.8	+2.4
	comp=Z,26nm,0.8s,baz=48,slow=2.0,SNR=19						
WLF	**Walferdange**	**151.12**	**358**	*e*PKPbc	PKPbc	10 36 16.6	+0.6
WLF	**Walferdange**	**151.12**	**358**	*e*PKIKP	PKPbc	10 36 16.6	+0.6
WLF	**Walferdange**	**151.12**	**358**	*e*PKPbc	PKPbc	10 36 15.5	-0.5
EIL	**Elat**	**151.23**	**294**	PKPbc	PKPbc	10 36 17.8	+0.8
	comp=Z,37nm,1.1s,baz=342,slow=0.6,SNR=7.4						
GZR	**Gura Zlata**	**151.23**	**333**	PKIKP	PKPbc	10 36 17.6	+1.2
CONA	**Conrad Observa**	**151.41**	**344**	⇓*i*PKPdf	PKPdf	10 36 11.9	+1.2
	comp=Z,62nm,1.6s,SNR=16						
ULDT	**Uludag**	**151.52**	**318**	*i* P	PKPbc	10 36 17.7	+0.4
BZS	**Buzias**	**151.53**	**335**	PKIKP	PKPbc	10 36 18.5	+1.4
FLN	**La Foliniere**	**151.75**	**7**	*e*PKP	PKPdf	10 36 10.4	-0.8
FLN	**La Foliniere**	**151.75**	**7**	*e*PKIKP	PKPdf	10 36 10.4	-0.8
FLN	**La Foliniere**	**151.75**	**7**	*e*PKP1	PKPdf	10 36 10.4	-0.8
	comp=Z,123nm,1.0s						
ROSF	**Rostrenen**	**151.75**	**11**	*e*PKP	PKPdf	10 36 10.2	-1.0
ROSF	**Rostrenen**	**151.75**	**11**	*e*PKIKP	PKPdf	10 36 10.2	-1.0
ROSF	**Rostrenen**	**151.75**	**11**	*e*PKP1	PKPdf	10 36 10.2	-1.0
	comp=Z,53nm,0.9s						
STU	**Stuttgart**	**151.80**	**354**	*e*PKPbc	PKPbc	10 36 16.6	-1.0
MOA	**Molln**	**151.86**	**346**	⇓*i*pPKPdf	pPKPdf	10 36 13.7	-3.3
	comp=Z,37nm,1.4s,SNR=7.2						
EDRB	**Edirne**	**151.88**	**323**	*e*P	PKPbc	10 36 17.2	-0.8
SGMF	**Saint Gilles**	**151.95**	**10**	*e*PKP	PKPdf	10 36 10.6	-0.9
SGMF	**Saint Gilles**	**151.95**	**10**	*e*PKIKP	PKPdf	10 36 10.6	-0.9
SGMF	**Saint Gilles**	**151.95**	**10**	*e*PKP1	PKPdf	10 36 10.6	-0.9
	comp=Z,86nm,0.9s						
LDF	**La Druitiere**	**151.96**	**7**	*e*PKP	PKPdf	10 36 10.7	-0.8
LDF	**La Druitiere**	**151.96**	**7**	*e*PKIKP	PKPdf	10 36 10.7	-0.8
LDF	**La Druitiere**	**151.96**	**7**	*e*PKP1	PKPdf	10 36 10.7	-0.8
	comp=Z,102nm,1.1s						
GRR	**Gorron**	**152.07**	**8**	*e*PKP	PKPdf	10 36 11.2	-0.5
GRR	**Gorron**	**152.07**	**8**	*e*PKIKP	PKPdf	10 36 11.2	-0.5
GRR	**Gorron**	**152.07**	**8**	*e*PKP1	PKPdf	10 36 11.2	-0.5
	comp=Z,89nm,0.8s						
FUR	**Furstenfeldbru**	**152.13**	**350**	*e*PKPbc	PKPbc	10 36 17.2	-1.2
QUIF	**Quistinic**	**152.17**	**11**	*e*PKP	PKPdf	10 36 11.1	-0.7
QUIF	**Quistinic**	**152.17**	**11**	*e*PKIKP	PKPdf	10 36 11.1	-0.7
QUIF	**Quistinic**	**152.17**	**11**	*e*PKP1	PKPdf	10 36 11.1	-0.7
	comp=Z,45nm,0.9s						
MEZF	**Maizieres J’vi**	**152.31**	**359**	*e*PKP	PKPdf	10 36 12.1	+0.1
MEZF	**Maizieres J’vi**	**152.31**	**359**	*e*PKP1	PKPdf	10 36 12.1	+0.1
	comp=Z,104nm,1.0s						
CDF	**Champ du Feu**	**152.32**	**356**	*e*PKP	PKPdf	10 36 11.9	-0.1
CDF	**Champ du Feu**	**152.32**	**356**	*e*PKIKP	PKPdf	10 36 11.9	-0.1
CDF	**Champ du Feu**	**152.32**	**356**	*e*PKP1	PKPdf	10 36 11.9	-0.1
	comp=Z,51nm,0.9s						
BFO	**Black Forest**	**152.32**	**355**	*e*PKPbc	PKPbc	10 36 17.9	-0.9
BFO				*e*PKPab	PKPab	10 36 29.0	+0.3
BFO				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
BFO	**Black Forest**	**152.32**	**355**	*e*PKIKP	PKPbc	10 36 17.6	-1.2
BFO	**Black Forest**	**152.32**	**355**	*e*PKPbc	PKPbc	10 36 17.6	-1.2
HAU	**Haudompre**	**152.77**	**357**	*e*PKP	PKPdf	10 36 12.8	+0.1
HAU	**Haudompre**	**152.77**	**357**	*e*PKIKP	PKPdf	10 36 12.8	+0.1
HAU	**Haudompre**	**152.77**	**357**	*e*PKP1	PKPdf	10 36 12.8	+0.1
	comp=Z,48nm,0.9s						
ELL	**Elmali**	**152.82**	**311**	*e*P	PKPbc	10 36 19.1	-1.2
HINF	**Hinteralfeld**	**152.94**	**357**	*e*PKP	PKPdf	10 36 12.9	-0.1
HINF	**Hinteralfeld**	**152.94**	**357**	*e*PKIKP	PKPdf	10 36 12.9	-0.1
HINF	**Hinteralfeld**	**152.94**	**357**	*e*PKP1	PKPdf	10 36 12.9	-0.1
	comp=Z,34nm,0.9s						
VTS	**Vitosha**	**153.20**	**329**	PKP2	PKPab	10 36 35.7	+3.1
FETA	**Feichten**	**153.33**	**351**	⇑*i*PKPdf	PKPdf	10 36 14.5	+1.0
	comp=Z,49nm,1.3s						
EZN	**Ezine**	**153.43**	**320**	*e*P	PKPbc	10 36 21.8	+0.2
HYF	**Humbligny**	**153.50**	**3**	*e*PKP	PKPdf	10 36 14.8	+1.0
HYF	**Humbligny**	**153.50**	**3**	*e*PKP1	PKPdf	10 36 14.8	+1.0
LJU	**Ljubljana**	**153.50**	**344**	*e*PKPdf	PKPdf	10 36 14.3	+0.5
LJU	**Ljubljana**	**153.50**	**344**	*e*PKIKP	PKPdf	10 36 14.3	+0.5
LOR	**Lormes**	**153.54**	**1**	*e*PKP	PKPdf	10 36 14.7	+0.9
LOR	**Lormes**	**153.54**	**1**	*e*PKIKP	PKPdf	10 36 14.7	+0.9
LOR	**Lormes**	**153.54**	**1**	*e*PKP1	PKPdf	10 36 14.7	+0.9
	comp=Z,27nm,0.8s						
VISS	**Visnje**	**153.64**	**344**	*e*PKPdf	PKPdf	10 36 14.7	+0.7
VISS				*e*PKPbc	PKPbc	10 36 24.3	+2.5
VOJS	**Vojsko**	**153.66**	**345**	*e*PKPdf	PKPdf	10 36 12.7	-1.4
DAVOX	**Davos/Dischmat**	**153.68**	**352**	PKP	PKPdf	10 36 14.6	+0.6
DAVOX				PKPbc	PKPbc	10 36 24.3	+2.5
DAVOX	**Davos/Dischmat**	**153.68**	**352**	PKP	PKPdf	10 36 14.6	+0.6
	comp=Z,2.7nm,0.8s,baz=322,slow=1.0,SNR=6.2						
DAVOX				PKPbc	PKPbc	10 36 24.3	+2.5
	comp=Z,12nm,0.9s,baz=8.8,slow=3.5,SNR=11						
SSF	**Saint Saulge**	**153.74**	**2**	*e*PKP	PKPdf	10 36 15.2	+1.1
SSF	**Saint Saulge**	**153.74**	**2**	*e*PKIKP	PKPdf	10 36 15.2	+1.1
SSF	**Saint Saulge**	**153.74**	**2**	*e*PKP1	PKPdf	10 36 15.2	+1.1
	comp=Z,60nm,1.0s						
BOJS	**Bojanci**	**153.81**	**343**	*e*PKPdf	PKPdf	10 36 15.3	+1.0
BOJS				*e*PKPbc	PKPbc	10 36 24.9	+2.7
MFF	**Saint Martin d**	**153.92**	**8**	*e*PKP	PKPdf	10 36 15.2	+0.8
MFF	**Saint Martin d**	**153.92**	**8**	*e*PKIKP	PKPdf	10 36 15.2	+0.8
MFF	**Saint Martin d**	**153.92**	**8**	*e*PKP1	PKPdf	10 36 15.2	+0.8
	comp=Z,31nm,0.8s						
AVF	**Avril sur Loir**	**154.00**	**2**	*e*PKP	PKPdf	10 36 16.4	+1.9
AVF	**Avril sur Loir**	**154.00**	**2**	*e*PKIKP	PKPdf	10 36 16.4	+1.9
AVF	**Avril sur Loir**	**154.00**	**2**	*e*PKP1	PKPdf	10 36 16.4	+1.9
	comp=Z,46nm,1.3s						
SMF	**Signal de Mont**	**154.16**	**1**	*e*PKP	PKPdf	10 36 16.5	+1.7
SMF	**Signal de Mont**	**154.16**	**1**	*e*PKIKP	PKPdf	10 36 16.5	+1.7
SMF	**Signal de Mont**	**154.16**	**1**	*e*PKP1	PKPdf	10 36 16.5	+1.7
	comp=Z,57nm,1.3s						
CABF	**La Chapelle**	**154.18**	**358**	*e*PKP	PKPdf	10 36 16.5	+1.7
CABF	**La Chapelle**	**154.18**	**358**	*e*PKIKP	PKPdf	10 36 16.5	+1.7
CABF	**La Chapelle**	**154.18**	**358**	*e*PKP1	PKPdf	10 36 16.5	+1.7
	comp=Z,101nm,1.3s						
BGF	**Bois d’Agland**	**154.22**	**3**	*e*PKP	PKPdf	10 36 16.0	+1.2
BGF	**Bois d’Agland**	**154.22**	**3**	*e*PKIKP	PKPdf	10 36 16.0	+1.2
BGF	**Bois d’Agland**	**154.22**	**3**	*e*PKP1	PKPdf	10 36 16.0	+1.2
	comp=Z,36nm,0.8s						
TCF	**Toulx Ste Croi**	**154.45**	**4**	*e*PKP	PKPdf	10 36 16.3	+1.1
TCF	**Toulx Ste Croi**	**154.45**	**4**	*e*PKIKP	PKPdf	10 36 16.3	+1.1
TCF	**Toulx Ste Croi**	**154.45**	**4**	*e*PKP1	PKPdf	10 36 16.3	+1.1
	comp=Z,30nm,0.9s						
BNI	**Bardonecchia**	**155.70**	**356**	*e*PKPdf	PKPdf	10 36 17.0	0.0
BNI				*e*PKPab	PKPab	10 36 45.3	+2.1
PAB	**San Pablo**	**159.74**	**20**	PFAKE		10 36 30.0	+7.9
PAB				LR	LR		
	comp=Z,1µm,19.0s,MS5.8						
ESDC	**Sonseca Array**	**159.75**	**19**	PKP	PKPdf	10 36 23.8	+1.6
ESDC				PKPab	PKPab	10 37 01.7	+0.9
ESDC	**Sonseca Array**	**159.75**	**19**	PKP	PKPdf	10 36 23.8	+1.6
	comp=Z,1.0nm,0.3s,baz=347,slow=2.8,SNR=15						
ESDC				PKPab	PKPab	10 37 01.7	+0.9
	comp=Z,9.3nm,0.9s,baz=330,slow=3.7,SNR=15						
ESLA	**Sonseca Array**	**159.75**	**19**	*e*PKPdf	PKPdf	10 36 22.0	-0.1
ESLA				*e*PKPab	PKPab	10 37 00.1	-0.7
LIC	**Lamto**	**162.79**	**146**	*e*PKIKP		10 36 15.9	
	comp=Z,40nm,1.2s						
KEST	**Kesra**	**164.51**	**345**	PKPab	PKPab	10 37 22.2	+0.5
	comp=Z,2.8nm,0.8s,baz=7.1,slow=8.0,SNR=4.1						
MDT	**Midelt**	**165.43**	**33**	PKP	PKPdf	10 36 29.7	+1.8
MDT				PKPab	PKPab	10 37 26.2	+0.3
MDT	**Midelt**	**165.43**	**33**	PKP	PKPdf	10 36 29.7	+1.8
	comp=Z,4.9nm,1.0s,baz=314,slow=2.1,SNR=8.0						
MDT				PKPab	PKPab	10 37 26.2	+0.3
	comp=Z,20nm,1.1s,baz=329,slow=4.3,SNR=9.4						
TORD	**Torodi Ar. Bea**	**171.94**	**159**	PKP	PKPdf	10 36 32.7	+0.1
TORD				PKPab	PKPab	10 37 55.1	+0.2
TORD	**Torodi Ar. Bea**	**171.94**	**159**	PKP	PKPdf	10 36 32.7	+0.1
	comp=Z,3.6nm,1.0s,baz=333,slow=1.9,SNR=10.0						
TORD				PKPab	PKPab	10 37 55.1	+0.2
	comp=Z,9.4nm,1.1s,baz=196,slow=2.6,SNR=11						

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*IDC **05** 10:19:21.2±0.5, 20.59S×175.51W, h0^{km}, mb4.6/15, mb1 4.8/16, mb1mx4.7/21, mbtmp4.6/16, ML4.5/1, MS5.1/15, Ms1 5.1/15, ms1mx4.9/22, Error ellipse: s-maj=20.8km s-min=15.5km az=147.0*

*ISCJB **05** 10:19:22.2±0.2, 20.79S±0.06×175.45W±0.05, h14^{km}, mb5.1/71, MS5.2/22, Error ellipse: s-maj=9.6km s-min=4.9km az=139.8*

*BJI **05** 10:19:23.0, 20.70S×175.50W, h15^{km}, mB5.6, mb5.2, Ms5.4, Msz5.2*

*NEIC **05** 10:19:24.0±0.2, 20.67S×175.47W, h15^{km}, mb5.2/48, Error ellipse: s-maj=10.8km s-min=5.7km az=138.0*

NEIC Felt at Nuku‘alofa.

*SZGRF **05** 10:19:24.3, 21.60S×174.67W, h33^{km}, Tonga Islands*

*GCMT **05** 10:19:24.0±0.2, 20.46S×175.23W, h16^{km}±1^{km}, MW5.5/95, Moment Tensor Solution. s54,c84; s95,c183; Duration: $1^{s}4$ Moment tensor: Scale 10^{17}Nm; M_{rr}-0.22±.05; $M_{\theta\theta}$-1.49±.04; $M_{\phi\phi}$1.71±.04; $M_{r\theta}$-0.83±.14; $M_{\theta\phi}$-1.13±.03; $M_{\phi r}$-0.03±.12; Best double couple: $M_0$2.13700×10^{17} NP1:ϕ_s25.00000°, δ70.00000°, λ-12.00000°. NP2: ϕ_s119.00000°, δ79.00000°, λ-160.00000°. Principal axes: T 2.0920, Plg6.0000°, Azm251.0000°; N 0.0910, Plg67.0000°, Azm147.0000°; P -2.1820, Plg22.0000°, Azm344.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **05** 10:19:25.3±1.1, 20.66S×175.52W, h33^{km}, mb5.4/26 Error ellipse: s-maj=14.3km s-min=9.9km az=52.6*

ISC 05 10:19:23.9±0.2**, 20.77S**±0.06×**175.47W**±0.05**, h15^{km}, h15^{km}±.9^{km}:pP-P, n575, $\sigma 0^{s}85$**/427**, mb5.1**/71**, MS5.2**/22**, 118C-96D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**7.68**	**28**	*e*Pn	**Pn**	**10 21 11.2**	**-4.1**
AFI	**Afiamalu**	**7.68**	**28**	Pn	**Pn**	**10 21 09.0**	**-6.3**
	8.4nm,0.3s,baz=201,slow=18,SNR=4.4						
AFI				Sn	**Sn**	**10 22 28.3**	**-14**
	4.7nm,0.3s,baz=197,slow=20,SNR=2.3						
RAR	**Rarotonga**	**14.67**	**95**	LR	LR	10 26 02.3	
	comp=Z,3µm,20.9s,baz=242,slow=27						
DZM	**Mont Dzumac**	**16.89**	**262**	Pn	**Pn**	**10 23 23.9**	**+4.0**
DZM				LR	LR	10 27 42.8	

DZM	Mont Dzumac	16.89	262	Pn	Pn	10 23 23.9	+4.0
	1.3nm,0.3s,baz=86,slow=15,SNR=9.3						
DZM				LR	LR	10 27 42.8	
	comp=Z,4µm,18.9s,baz=99,slow=30						
URZ	Urewera	18.57	199	P	Pn	10 23 40.1	-0.5
	1.3nm,0.3s,baz=352,slow=5.9,SNR=5.5						
SNZO	South Karori	22.11	200	*e*P	P	10 24 19.8	+1.2
	56nm,0.8s,mb5.0						
NNZ	Nelson	22.47	202	PN	P	10 24 18.7	-3.9
THZ	Tophouse	23.12	203	PN	P	10 24 26.5	-2.9
LTZ	Lake Taylor	24.24	202	PN	P	10 24 38.7	-1.4
PAE	Paea	24.63	87	*e*P	P	10 24 37.9	-6.1
	108nm,1.1s,mb5.3						
PAE	Paea	24.63	87	*e*T		10 49 05.9	
	133nm,0.3s						
PPT	Papeete	24.65	87	*e*P	P	10 24 38.5	-5.7
	97nm,1.3s,mb5.2						
PPT	Papeete	24.65	87	*e*T		10 49 07.6	
	26nm,0.3s						
PPT	Papeete	24.65	87	*e*LQ		10 29 32.5	
	14µm,25.2s						
PPT				*e*LR	LR	10 30 35.9	
	12µm,27.0s,baz=253						
PPT	Papeete	24.65	87	LR	LR	10 31 04.3	
	comp=Z,6µm,20.7s,MS5.0,baz=270,slow=28						
TVO	Taravao	24.92	88	*e*P	P	10 24 41.3	-5.3
	175nm,1.1s,mb5.5						
TVO	Taravao	24.92	88	*e*T		10 49 27.4	
	45nm,0.4s						
RPZ	Rata Peaks	25.49	203	P	P	10 24 52.0	+0.4
	10nm,0.7s,mb4.5,baz=44,slow=10,SNR=7.2						
FOZ	Fox Glacier	25.89	205	PN	P	10 24 53.5	-1.6
PMOR	Pomariorio Ree	26.84	82	*e*T		10 51 50.2	
	6.7nm,0.3s						
ARMA	Armidale	31.09	245	*e*P	P	10 25 48.3	+6.5
CNB	Canberra Magne	34.05	237	*e*P	P	10 26 07.5	-0.2
	18nm,0.9s,mb5.0						
CTA	Charters Tower	35.82	264	*e*P	P	10 26 24.2	+1.1
	28nm,0.9s,mb5.2						
CTA	Charters Tower	35.82	264	*e*P	P	10 26 24.2	+1.1
CTA				pmax	pmax		
	comp=Z,28nm,0.9s						
CTA	Charters Tower	35.82	264	P	P	10 26 23.4	+0.3
	comp=Z,41nm,0.8s,mb5.4,baz=92,slow=11,SNR=9.1						
CTA				LR	LR	10 39 33.2	
	comp=Z,7µm,19.1s,MS5.4,baz=95,slow=34						
CTAO	Charters Tower	35.82	264	*e*P	P	10 26 24.0	+0.9
	comp=Z,17nm,0.5s,mb5.2						
CTAO	Charters Tower	35.82	264	*e*P	P	10 26 24.0	+0.9
CTAO				pmax	pmax		
	comp=Z,17nm,0.5s,mb5.2						
RKT	Rikitea	37.55	101	*e*LQ		10 35 11.5	
	comp=Z,3µm,25.8s						
RKT				*e*LR	LR	10 36 38.4	
	comp=Z,5µm,27.2s,baz=272						
RKT	Rikitea	37.55	101	*e*T		11 05 17.0	
	comp=Z,38nm,0.3s						
TOO	Toolangi	37.66	235	*e*P	P	10 26 38.0	-0.6
	comp=Z,17nm,0.9s,mb4.8						
TOO	Toolangi	37.66	235	*e*P	P	10 26 38.0	-0.6
TOO				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.8						
PMG	Port Moresby	37.72	282	*e*P	P	10 26 40.5	+1.2
	comp=Z,60nm,1.0s,mb5.3						
PMG	Port Moresby	37.72	282	*e*P	P	10 26 40.5	+1.2
PMG				pmax	pmax		
	comp=Z,60nm,1.0s						
PMG	Port Moresby	37.72	282	P	P	10 26 38.8	-0.5
	comp=Z,47nm,1.0s,mb5.2,baz=98,slow=6.3,SNR=3.6						
STKA	Stephens Creek	39.81	245	*e*P	P	10 26 58.5	+1.8
STKA	Stephens Creek	39.81	245	P	P	10 26 59.9	+3.2
	comp=Z,6.6nm,0.4s,mb4.7,baz=104,slow=10,SNR=4.2						
STKA				LR	LR	10 39 48.0	
	comp=Z,5µm,21.3s,MS5.3,baz=67,slow=31						
COEN	Coen	39.97	273	*e*P	P	10 26 57.8	-0.4
POHA	Pohakuloa	44.76	27	P	P	10 27 37.1	+0.1
	comp=Z,40nm,0.8s,mb5.3						
WB2	Warramunga Arr	46.90	262	*e*P	P	10 27 51.4	-2.7
WRA	Warramunga Arr	46.91	262	P	P	10 27 52.2	-2.0
WRA						10 29 30.8	
WRA	Warramunga Arr	46.91	262	P	P	10 27 52.2	-2.0
	comp=Z,5.8nm,0.8s,mb4.5,baz=92,slow=7.7,SNR=7.4						
WRA				PcP	PcP	10 29 30.8	+4.0
	comp=Z,4.8nm,0.7s,baz=95,slow=5.0,SNR=4.7						
WRA				LR	LR	10 47 32.3	
	comp=Z,4µm,18.7s,MS5.4,baz=95,slow=36						
KAKA	Kakadu	50.35	271	*e*P	P	10 28 16.4	-4.3
	comp=Z,26nm,0.8s,mb5.3						
FITZ	Fitzroy Crossi	55.34	262	P	P	10 28 56.7	-0.9
	comp=Z,3.3nm,0.8s,mb4.4,baz=129,slow=6.5,SNR=2.6						
SBA	Scott Base	57.77	184	*e*P	P	10 29 16.0	+2.0
	comp=Z,61nm,1.5s,mb5.4						
SBA	Scott Base	57.77	184	*e*P	P	10 29 16.0	+2.1
SBA				pmax	pmax		
	comp=Z,61nm,1.5s,mb5.4						
VNDA	Vanda	57.86	186	LR	LR	10 48 48.8	
	comp=Z,1µm,19.3s,MS5.0,baz=19,slow=30						
CBIJ	Chichi jima	62.82	318	LR	LR	10 53 20.9	
	comp=Z,2µm,19.2s,MS5.3,baz=288,slow=32						
JHJ	Hachijo jima 2	68.53	321	LR	LR	10 54 59.2	
	comp=Z,952nm,19.0s,MS5.0,baz=149,slow=31						
QSPA	South Pole Qui	69.30	180	*e*P	P	10 30 32.7	+2.7
	comp=Z,22nm,0.8s,mb5.2						
MJAR	Matsushiro Arr	71.85	322	P	P	10 30 44.1	-2.1
	comp=Z,1.7nm,0.6s,mb4.1,baz=160,slow=6.3,SNR=4.8						
MJAR				LR	LR	10 58 07.8	
	comp=Z,579nm,19.0s,MS4.9,baz=115,slow=32						
JOW	Kunigami	72.17	309	LR	LR	10 55 21.8	
	comp=Z,1µm,21.9s,MS5.2,baz=287,slow=30						
JNU	Nakatsue	74.12	315	LR	LR	11 00 18.9	
	comp=Z,941nm,18.4s,MS5.1,baz=275,slow=33						
ASAJ	Asahikawa	75.12	330	LR	LR	10 57 52.7	
	comp=Z,3µm,20.7s,MS5.6,baz=178,slow=31						
SNCC	San Nicolas Is	75.72	46	⇓P	P	10 31 11.9	+2.9
	baz=76						
BSC	Santa Cruz Isl	76.09	45	⇓P	P	10 31 12.5	+1.4
	baz=76						
SCI	San Clemente I	76.22	46	⇓P	P	10 31 12.6	+0.8
	baz=76						
V04C	Ramage Ranch,	76.29	43	⇓P	P	10 31 13.4	+1.2
	baz=76						
V03C	Hunter Liggett	76.29	43	⇑P	P	10 31 12.9	+0.6
	baz=76						
SBC	Santa Barbara	76.31	45	⇓P	P	10 31 13.5	+1.1
	baz=76						
HAST	UC Hastings Re	76.32	42	⇑P	P	10 31 13.0	+0.7
	baz=76						
PKM	Peak Mountain	76.51	44	⇑P	P	10 31 14.9	+1.4
	baz=77						
JRSC	Jasper Ridge	76.54	41	⇑P	P	10 31 14.9	+1.3
	baz=77						
CIS	Catalina Islan	76.56	46	⇑P	P	10 31 15.1	+1.3
	baz=77						
SAO	San Andreas Ge	76.62	42	*e*P	P	10 31 13.8	-0.3
	comp=Z,33nm,1.3s,mb5.1						
SAO	San Andreas Ge	76.62	42	*e*P	P	10 31 13.8	-0.3
SAO				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.1						
SMMC	Simmler	76.65	44	⇑P	P	10 31 15.2	+0.9
	baz=77						
LRV	Little Rabbit	76.68	42	*e*P	P	10 31 15.2	+0.8
PKD	Parkfield	76.69	43	⇓P	P	10 31 15.4	+0.9
	baz=77						
PTRM	Twissleman Ran	76.72	43	*e*P	P	10 31 14.8	+0.1
U04C	Hernandez Rese	76.79	43	P	P	10 31 15.7	+0.7
	baz=77,SNR=6.4						
PACP	Pacheco Peak	76.88	42	⇓P	P	10 31 16.2	+0.7
	baz=77						
NSHM	Saint Helena R	77.03	40	*e*P	P	10 31 14.4	-1.9
V05C	Boulder Hill,	77.05	43	⇓P	P	10 31 18.6	+2.1
	baz=77						
HOPS	Hopland	77.05	39	*e*P	P	10 31 15.6	-0.8
	comp=Z,28nm,1.2s,mb5.1						
HOPS	Hopland	77.05	39	⇓P	P	10 31 16.9	+0.5
	baz=77						
OSI	Osito Adit	77.06	45	⇑P	P	10 31 18.0	+1.4
	baz=77						
DECC	Green Verdugo	77.11	46	⇓P	P	10 31 18.0	+1.1
	baz=77						
109C	Camp Elliot, M	77.15	47	⇑P	P	10 31 17.3	+0.1
	baz=77						
S04C	Ingram Canyon,	77.16	41	⇓P	P	10 31 17.2	+0.1
	baz=77						
T05C	Eagle Field, D	77.19	42	⇓P	P	10 31 17.3	+0.1
	baz=77						
KCPM	Cahto Peak	77.21	39	*e*P	P	10 31 17.0	-0.3
P01C	Double 8 Ranch	77.21	39	⇑P	P	10 31 18.1	+0.8
	baz=77						
YSS	Yuzh-Sakhalins	77.22	332	*e*P	P	10 31 17.7	+0.5
	comp=Z,56nm,1.0s,mb5.4						
YSS	Yuzh-Sakhalins	77.22	332	*e*P	P	10 31 15.0	-2.2
YSS				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.5						
ARVC	Arvin	77.30	45	⇑P	P	10 31 17.6	-0.3
	baz=77						
MNRC	McLaughlin Nat	77.36	40	P	P	10 31 18.5	+0.4
	baz=77,SNR=10						
O01C	Eel River Cons	77.37	38	⇓P	P	10 31 18.1	0.0
	baz=77						
Q03C	Winters	77.46	40	⇓P	P	10 31 18.6	-0.1
	baz=78						
MURC	Murrieta	77.49	47	⇑P	P	10 31 19.5	+0.5
	baz=78						
BFSC	Mount Baldy St	77.55	46	⇑P	P	10 31 20.5	+1.1
	baz=78						
VES	Vestal, Richgr	77.56	44	⇓P	P	10 31 20.8	+1.5
	baz=78						
MONP	Monument Peak	77.62	48	P	P	10 31 20.2	+0.4
	baz=78,SNR=9.0						
GASB	Alder Springs	77.69	39	⇓P	P	10 31 21.4	+1.4
	baz=78						
JCC	Jacoby Creek	77.69	37	⇑P	P	10 31 20.3	+0.3
	baz=78						
EDW2	Edwards Air Fo	77.71	45	P	P	10 31 19.8	-0.4
	baz=78,SNR=14						
DVTC	Desert V Tower	77.71	48	⇓P	P	10 31 20.4	+0.1
	baz=78						
RCTC	Rector, Farmer	77.74	43	⇓P	P	10 31 19.8	-0.6
	baz=78						
ISA	Isabella	77.85	44	⇑P	P	10 31 21.0	0.0
	baz=78						
T06C	Millerton Lake	77.87	43	⇓P	P	10 31 20.5	-0.5
	baz=78						
KHMM	Horse Mountain	77.90	38	*e*P	P	10 31 20.7	-0.4
Q04C	Lincoln	77.97	40	⇑P	P	10 31 21.7	+0.2
	baz=78						
O02C	Red Bluff	77.99	39	⇓P	P	10 31 20.7	-1.0
	baz=78						
PFO	Pinyon Flat Ob	78.01	47	*e*P	P	10 31 22.1	+0.2
	comp=Z,9.6nm,0.9s,mb4.7						
PFO	Pinyon Flat Ob	78.01	47	*e*P	P	10 31 22.1	+0.2
PFO				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
PFO	Pinyon Flat Ob	78.01	47	P	P	10 31 21.1	-0.8
	comp=Z,12nm,1.1s,mb4.8,baz=229,slow=2.7,SNR=4.5						
PFO	Pinyon Flat Ob	78.01	47	⇑P	P	10 31 21.5	-0.5
	baz=78						
CMB	Columbia Colle	78.08	41	*e*P	P	10 31 21.1	-1.1
	comp=Z,19nm,1.3s,mb4.9						
CMB	Columbia Colle	78.08	41	*e*P	P	10 31 21.1	-1.1
CMB				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.9						
CMB	Columbia Colle	78.08	41	⇑P	P	10 31 21.4	-0.8
	baz=78						
SWSC	Sam W. Stewart	78.08	48	⇓P	P	10 31 21.0	-1.4
	baz=78						
HELL	Mitchell Peak,	78.11	43	⇑P	P	10 31 21.8	-0.6
	baz=78						
OHCM	Honcut	78.22	40	*e*P	P	10 31 24.5	+1.6
KRMB	Red Mountain	78.23	37	*e*P	P	10 31 22.0	-0.9
LAVA	Lava Cap Winer	78.31	41	⇑P	P	10 31 21.5	-1.9
	baz=78						
KCC	Kaiser Creek	78.31	43	⇓P	P	10 31 22.6	-0.8
	baz=78						
ORV	Oroville	78.35	40	⇓P	P	10 31 23.8	+0.2
	baz=78						
WDC	Whiskeytown Da	78.39	38	*e*P	P	10 31 23.1	-0.8
	comp=Z,18nm,1.1s,mb4.9						
WDC	Whiskeytown Da	78.39	38	*e*P	P	10 31 23.1	-0.8
WDC				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
WDC	Whiskeytown Da	78.39	38	⇑P	P	10 31 23.8	-0.1
	baz=78						
BELC	Belle Mtn.	78.54	47	⇑P	P	10 31 24.1	-0.7
	baz=79						
CWC	Cottonwood Cre	78.57	44	⇑P	P	10 31 24.4	-0.6
	baz=79						
KSRS	Korea Array	78.68	317	P	P	10 31 24.9	-0.6
	comp=Z,0.4nm,0.3s,baz=137,slow=6.3,SNR=4.0						
KSRS				LR	LR	11 02 28.4	
	comp=Z,1µm,18.7s,MS5.2,baz=129,slow=33						
R05C	Kirkwood Meado	78.68	41	⇑P	P	10 31 24.4	-1.1
	baz=79						
BC3	Big Chuckw Mtn	78.72	47	⇑P	P	10 31 24.8	-1.1
	baz=79						
MPMC	Manual Prospec	78.73	44	⇑P	P	10 31 25.5	-0.3
	baz=79,SNR=8.8						
M02C	Callahan	78.74	38	P	P	10 31 24.9	-0.8
	baz=79,SNR=9.0						
GSC	Goldstone	78.74	45	⇓P	P	10 31 25.3	-0.7
	baz=79						
HEC	Hector,Ludlow	78.79	46	⇑P	P	10 31 25.5	-0.7
	baz=79						
DAC	Darwin (Calif)	78.79	44	*e*P	P	10 31 28.0	+1.8
MLAC	Mammoth Lakes	78.80	43	⇑P	P	10 31 26.2	+0.1
	baz=79						
MTUM	Tungsten Hills	78.80	43	*e*P	P	10 31 26.1	-0.1
TIN	Tinemaha	78.84	43	⇑P	P	10 31 27.3	+0.9
	baz=79						
R07C	Lee Vining	78.94	42	⇑P	P	10 31 27.3	+0.4
	baz=79						
WAKR	Walker	78.95	42	*e*P	P	10 31 27.1	+0.1
O05C	Quincy	78.95	40	⇓P	P	10 31 26.9	-0.1
	baz=79						
R06C	Coleville	78.95	42	⇑P	P	10 31 27.7	+0.7
	baz=79						
YBH	Yreka Blue Hor	79.04	37	*e*P	P	10 31 26.8	-0.6
	comp=Z,18nm,1.1s,mb4.9						
YBH	Yreka Blue Hor	79.04	37	*e*P	P	10 31 26.8	-0.6
YBH				pmax	pmax		
	comp=Z,18nm,1.1s						
YBH	Yreka Blue Hor	79.04	37	P	P	10 31 27.2	-0.2
	baz=79,SNR=11						
O04C	Chester	79.08	39	⇓P	P	10 31 27.6	-0.1
	baz=79						
M03C	McCloud	79.08	38	⇑P	P	10 31 27.9	+0.2
	baz=79						
S08C	White Mtn Res	79.14	43	P	P	10 31 28.2	+0.2
	baz=79,SNR=18						
HATC	Hat Creek Radi	79.17	39	⇓P	P	10 31 29.0	+0.8
	baz=79						
IRM	Iron Mountain	79.21	47	P	P	10 31 29.1	+0.5
	baz=79,SNR=10.0						
GMRC	Granite Mounta	79.21	46	⇑P	P	10 31 27.8	-0.7
	baz=79						
BEKR	Beckwourth	79.23	40	P	P	10 31 27.5	-1.0
	baz=79,SNR=6.7						
WCN	Washoe City	79.25	41	P	P	10 31 28.2	-0.4
	baz=79,SNR=8.0						
K02A	Glendale	79.28	36	⇑P	P	10 31 29.3	+0.6
	baz=79						
GRAC	Grapevine Rang	79.36	44	⇓P	P	10 31 29.6	+0.3
	baz=79						
FURC	Furnace Creek,	79.38	44	⇑P	P	10 31 29.7	+0.2
	baz=79						
P06A	Stead Airport,	79.39	40	⇓P	P	10 31 30.1	+0.7
	baz=80						
TUQ	Turquoise Mtn.	79.41	46	⇑P	P	10 31 29.5	-0.1
	baz=80						
Y12C	Blythe	79.42	48	⇑P	P	10 31 29.8	+0.1
	baz=80						
SHOC	Shoshone	79.44	45	⇓P	P	10 31 30.9	+1.1
	baz=80						
HUMO	Hull Mountain	79.48	37	*e*P	P	10 31 29.1	-0.7
HUMO	Hull Mountain	79.48	37	⇑P	P	10 31 30.4	+0.6
	baz=80						
ELFS	Eagle Lake Fie	79.48	39	⇑P	P	10 31 30.0	+0.2
	baz=80						
M04C	Macdoel	79.57	38	⇓P	P	10 31 30.0	-0.3
	baz=80						
NVAR	Mina Array Bea	79.61	42	P	P	10 31 29.9	-0.7
	comp=Z,12nm,0.9s,mb4.8,baz=211,slow=6.8,SNR=10						
J02A	Umpqua	79.64	36	⇑P	P	10 31 31.0	+0.3
	baz=80						
R08A	Mina	79.69	42	⇑P	P	10 31 30.8	-0.2
	baz=80						
U10A	Ash Meadows, A	79.70	45	P	P	10 31 32.3	+1.1
	baz=80,SNR=6.0						
M05C	Lookout	79.70	38	⇑P	P	10 31 31.0	-0.1
	baz=80,SNR=5.7						
PAHR	Pah Rah Range	79.72	41	*e*P	P	10 31 31.2	+0.1
	comp=Z,25nm,1.2s,mb5.0						
L04A	Klamath Falls	79.80	37	⇑P	P	10 31 31.2	-0.3
	baz=80						
S09A	Goldfield	79.88	43	⇓P	P	10 31 32.7	+0.6
	baz=80,SNR=7.5						
I02A	Mapleton	79.92	35	⇓P	P	10 31 32.8	+0.7
	baz=80						
Y13A	Salome	79.93	48	P	P	10 31 32.6	+0.2
	baz=80,SNR=11						
V11A	Goodsprings	79.97	46	⇑P	P	10 31 32.8	+0.2
	baz=80						
J03A	Ideyld Park	79.97	36	⇑P	P	10 31 32.8	+0.3
	baz=80						
PDMCI	Parker Dam,Lak	79.98	48	P	P	10 31 32.7	-0.1
	baz=80,SNR=8.0						
M06C	Likely Place G	80.00	39	⇓P	P	10 31 31.7	-1.0
	baz=80						
W12A	Cal Nev Ari	80.04	46	⇓P	P	10 31 32.3	-0.7
	baz=80						
TPH	Tonopah	80.09	43	*e*P	P	10 31 33.4	+0.2
	comp=Z,13nm,0.9s,mb4.9						
TPH	Tonopah	80.09	43	*e*P	P	10 31 33.4	+0.2
TPH				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
N06A	Buffalo Meadow	80.09	40	P	P	10 31 33.0	-0.1
	baz=80,SNR=5.5						
Q08A	Gabbs	80.11	42	⇓P	P	10 31 32.8	-0.5
	baz=80						
K04A	Chilquin	80.17	37	⇑P	P	10 31 32.3	-1.2
	baz=80						
R09A	Tonopah	80.28	43	⇑P	P	10 31 34.0	-0.3
	baz=80						
V12A	Nelson	80.29	46	P	P	10 31 34.9	+0.5
	baz=80,SNR=11						
O07A	Toulon	80.31	40	P	P	10 31 33.5	-0.8
	baz=80,SNR=15						
Z14A	Wintersburg	80.31	49	⇓P	P	10 31 34.0	-0.5
	baz=80						
L05A	Lakeview	80.32	38	⇓P	P	10 31 34.6	+0.2
	baz=80						
U11A	Corn Creek	80.33	45	⇓P	P	10 31 35.1	+0.5
	baz=80						
X13A	Yucca	80.36	47	⇑P	P	10 31 34.6	-0.2
	baz=80						
J04A	Umpqua Nationa	80.36	36	⇓P	P	10 31 34.8	+0.3
	baz=80						
S10A	Tonopah Range,	80.40	43	P	P	10 31 34.5	-0.4
	baz=80,SNR=7.4						
P08A	Dixie Valley	80.51	41	⇑P	P	10 31 35.6	+0.1
	baz=81						
MOD	Modoc	80.54	38	P	P	10 31 34.8	-0.7
	baz=81,SNR=12						
I04A	Tendick Farm,	80.55	36	⇑P	P	10 31 35.6	0.0
	baz=81						
Y14A	Wickenburg	80.58	48	⇓P	P	10 31 35.7	-0.2
	baz=81						
W13A	Hualapai Mount	80.60	47	⇓P	P	10 31 35.6	-0.5
	baz=81						
H03A	Soap Creek Ran	80.66	35	⇑P	P	10 31 36.5	+0.4
	baz=81						
K05A	Summer Lake	80.72	37	P	P	10 31 35.9	-0.5
	baz=81,SNR=15						
116A	Eloy	80.77	50	⇑P	P	10 31 36.7	-0.3
	baz=81						
R10A	Warm Springs	80.80	43	P	P	10 31 38.1	+1.1
	baz=81,SNR=7.5						
J05A	Fort Rock	80.88	37	P	P	10 31 37.0	-0.3
	baz=81,SNR=17						
M07A	Soldier Meadow	80.88	39	P	P	10 31 36.5	-0.9
	baz=81,SNR=8.2						
U12A	Valley of Fire	80.90	46	⇓P	P	10 31 37.5	-0.1
	baz=81						
X14A	Yava	80.94	48	P	P	10 31 38.8	+0.9
	baz=81,SNR=6.8						
T12A	Moapa	80.94	45	⇓P	P	10 31 38.1	+0.2
	baz=81						
P09A	Austin	81.01	42	⇑P	P	10 31 37.9	-0.2
	baz=81						
G03A	Yamhill	81.09	34	⇑P	P	10 31 38.5	+0.1
	baz=81						
K06A	Valley Falls	81.13	38	P	P	10 31 38.1	-0.5
	baz=81,SNR=17						
N08A	GE Springer Mi	81.13	40	⇑P	P	10 31 38.6	-0.2
	baz=81						
L07A	Adell	81.17	39	P	P	10 31 39.2	+0.3
	baz=81,SNR=6.5						
W14A	Seligman	81.21	47	P	P	10 31 39.6	+0.3
	baz=81,SNR=15						
H04A	Detroit Lake	81.26	35	⇑P	P	10 31 39.0	-0.3
	baz=81						
O09A	Fish Creek Ran	81.34	41	⇑P	P	10 31 39.7	-0.2
	baz=81						
F03A	Seaside	81.35	34	⇑P	P	10 31 40.2	+0.4
	baz=81						
M08A	Happy Creek Ra	81.39	40	⇑P	P	10 31 40.5	+0.4
	baz=82						
X15A	Humboldt	81.41	48	P	P	10 31 40.9	+0.5
	baz=81,SNR=12						
I05A	Bend	81.42	36	⇓P	P	10 31 40.5	+0.3
	baz=82						
G04A	Mulino	81.44	35	⇑P	P	10 31 41.5	+1.2
	baz=82						
J06A	Christmas Vall	81.47	37	⇑P	P	10 31 40.4	-0.1
	baz=82,SNR=5.9						
P10A	Eureka	81.47	42	⇑P	P	10 31 40.9	+0.3
	baz=82						
BMN	Battle Mountai	81.48	41	*e*P	P	10 31 40.5	-0.1
	comp=Z,15nm,1.1s,mb4.8						
BMN	Battle Mountai	81.48	41	*e*P	P	10 31 40.5	-0.1
BMN				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
Q11A	Duckwater	81.54	43	⇑P	P	10 31 41.2	+0.3
	baz=82						
N09A	Rock Creek Ran	81.55	41	⇓P	P	10 31 41.0	+0.1
	baz=82						
K07A	Rock Creek Ran	81.64	38	P	P	10 31 40.6	-0.8
	baz=82,SNR=5.5						
T13A	Saint George	81.64	45	⇓P	P	10 31 41.5	-0.1
	baz=82						
H05A	Madras	81.75	36	⇓P	P	10 31 42.2	+0.3
	baz=82						
W15A	Williams	81.76	48	⇑P	P	10 31 42.3	+0.1
	baz=82						
E03A	Lebam	81.76	33	⇓P	P	10 31 42.3	+0.4
	baz=82						
WVOR	Wild Horse Val	81.84	39	*e*P	P	10 31 41.2	-1.2
L08A	Fields	81.86	39	P	P	10 31 42.6	+0.1
	baz=82,SNR=6.4						
HABR	Khabarovsk	81.87	329	*e*P	P	10 31 42.5	0.0
HABR				*e*S	S	10 41 53.0	-2.4
HABR				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.5						
I06A	Prineville	81.87	37	⇓P	P	10 31 42.2	-0.3
	baz=82						
P11A	Circle Ranch,	81.88	42	⇓P	P	10 31 42.8	0.0
	baz=82						
NJ2	Nanjing	81.89	309	*e*P	P	10 31 44.6	+1.6
NJ2				AP	pP	10 31 49.3	+1.5
NJ2				XP	sP	10 31 51.6	+2.1
NJ2				PP	PP	10 34 54.3	+3.6
NJ2				S	S	10 41 58.0	+1.7
NJ2				XS	sS	10 42 07.0	+2.7
NJ2				AMB	AMB		
	comp=Z,80nm,1.1s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,130nm,8.6s						
NJ2				LR	LR		
	comp=N,1µm,24.1s,MS5.2						
NJ2				LR	LR		
	comp=E,1µm,27.5s,MS5.2						
NJ2				LR	LR		
	comp=Z,1µm,27.5s,MS5.0						
R12A	Pony Springs,	81.92	44	⇑P	P	10 31 43.8	+0.8
	baz=82						
M09A	Marrel Ranch,	81.93	40	⇑P	P	10 31 43.1	+0.1
	baz=82						
F04A	Amboy	81.95	34	⇑P	P	10 31 44.5	+1.5
	baz=82						
J07A	Hines	82.03	38	⇓P	P	10 31 43.6	+0.2
	baz=82						
G05A	Wamic	82.09	35	⇑P	P	10 31 42.5	-1.2
	baz=82						
MAW	Mawson	82.10	199	P	P	10 31 44.4	+0.9
	comp=Z,6.7nm,1.0s,mb4.5,baz=135,slow=4.3,SNR=3.1						
K08A	Mann Creek Ran	82.11	39	⇑P	P	10 31 44.0	+0.2
	baz=82						
MDJ	Mudanjiang	82.12	324	P	P	10 31 47.0	+3.1
MDJ				AP	pP	10 31 50.4	+1.7
MDJ				XP	sP	10 31 51.6	+1.2
MDJ				PP	PP	10 34 55.1	+2.7
MDJ				S	S	10 42 03.5	+5.4
MDJ				AMB	AMB		

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      comp=Z,7.0nm,1.1s,mb4.5
MDJ                                  AMB    AMB
      comp=Z,117nm,4.2s
MDJ                                  LR     LR
      comp=N,450nm,16.4s,MS5.1
MDJ                                  LR     LR
      comp=E,598nm,17.8s,MS5.1
MDJ                                  LR     LR
      comp=Z,1µm,17.8s,MS5.2
MDJ   Mudanjiang        82.12 324 eP     P      10 31 45.0 +1.1
      comp=Z,32nm,1.3s,mb5.1
L09A  Wilkinson Ranc    82.16  40 ⇓P     P      10 31 43.7  -0.4
      baz=82
NLWA  Neilton Lookou    82.17  33 ⇓P     P      10 31 43.9  -0.2
      baz=82
Q12A  Willow Creek R    82.17  43 ⇓P     P      10 31 44.0  -0.3
      baz=82
T14A  Hurricane         82.22  46 ⇓P     P      10 31 44.8 +0.2
      baz=82
E04A  Onalaska          82.22  34 ⇑P     P      10 31 44.2  -0.2
      baz=82
O11A  Cowboy Ranch,     82.28  42 ⇓P     P      10 31 44.8   0.0
      baz=82
CCUT  Cedar City        82.30  45 eP     P      10 31 45.2 +0.2
H06A  Lindquist Farm    82.30  36  P     P      10 31 43.9  -0.9
      baz=82,SNR=16
I07A  Izee              82.36  37 ⇑P     P      10 31 45.1   0.0
      baz=82
P12A  McGill            82.37  43 ⇑P     P      10 31 44.7  -0.6
      baz=82
ARUT  Antelope Range    82.38  45 eP     P      10 31 45.5 +0.1
F05A  White Salmon      82.42  35 ⇓P     P      10 31 44.6  -0.8
      baz=82
G06A  Carlson Farm,     82.45  36 ⇓P     P      10 31 45.6   0.0
      baz=82
J08A  Circle Bar Ran    82.50  38  P     P      10 31 45.8   0.0
      baz=83,SNR=6.9
D04A  Dobbs Creek Ra    82.52  33 ⇑P     P      10 31 47.5 +1.6
      baz=83
K09A  Rome              82.53  39 ⇑P     P      10 31 47.7 +1.6
      baz=83,SNR=13
M10A  I.L. Ranch, Tu    82.54  40 ⇓P     P      10 31 46.3 +0.1
      baz=83
S14A  Cedar City        82.54  45 ⇓P     P      10 31 47.4 +1.1
      baz=83,SNR=5.3
WUAZ  Wupatki           82.55  48 eP     P      10 31 46.8 +0.5
      comp=Z,14nm,1.1s,mb4.9
WUAZ  Wupatki           82.55  48 ⇓P     P      10 31 46.8 +0.4
      baz=83
N11A  Elko Archery C    82.62  41 ⇓P     P      10 31 47.0 +0.4
      baz=83
E05A  Randle            82.70  34 ⇑P     P      10 31 46.9 +0.1
      baz=83
F06A  Goldendale        82.71  35 ⇑P     P      10 31 47.3 +0.3
      baz=83
I08A  Drewsey           82.78  38 ⇓P     P      10 31 47.3  -0.1
      baz=83
B04A  Port Angeles      82.80  32 ⇑P     P      10 31 48.1 +0.7
      baz=83
C04A  Brinnon           82.84  33 ⇑P     P      10 31 47.7 +0.1
      baz=83
J09A  Fry Pan Ranch,    82.91  38 ⇓P     P      10 31 47.9  -0.1
      baz=83,SNR=9.4
L10A  Juniper Basin     82.91  40 ⇑P     P      10 31 47.6  -0.5
      baz=83,SNR=7.7
O12A  Currie            82.93  42 ⇑P     P      10 31 48.5 +0.3
      baz=83
M11A  Holland Ranch,    82.94  41  P     P      10 31 48.7 +0.4
      baz=83,SNR=8.6
D05A  Enumclaw          82.99  34 ⇑P     P      10 31 49.3 +1.0
      baz=83
G07A  Ruggs Ranch, H    83.00  36 ⇓P     P      10 31 49.0 +0.6
      baz=83
N12A  Clover Valley,    83.08  42 ⇓P     P      10 31 49.0   0.0
      baz=83,SNR=7.0
K10A  MacKenzie Ranc    83.08  39  P     P      10 31 48.5  -0.4
      baz=83,SNR=16
H08A  Prairie City      83.10  37 ⇓P     P      10 31 49.2 +0.2
      baz=83
E06A  Yakima            83.10  34 ⇑P     P      10 31 49.6 +0.6
      baz=83
F07A  Phinny Hill Vi    83.26  35 ⇑P     P      10 31 49.5  -0.3
      baz=83
I09A  Lost Marbles R    83.29  38 ⇓P     P      10 31 50.5 +0.5
      baz=83
L11A  Cat Creek Ranc    83.39  40 ⇓P     P      10 31 51.2 +0.7
      baz=84
G08A  Pilot Rock        83.41  36 ⇓P     P      10 31 50.2  -0.3
      baz=84
M12A  Wells             83.47  41  P     P      10 31 51.2 +0.2
      baz=84,SNR=8.4
C05A  Tolt Reservoir    83.48  33 ⇑P     P      10 31 50.0  -0.8
      baz=84
J10A  Berg Farm, Mel    83.53  39  P     P      10 31 50.6  -0.6
      baz=84,SNR=5.6
SLKM  Skilak Lake       83.55  12 eP     P      10 31 50.9   0.0
D06A  Cle Elum          83.59  34 ⇑P     P      10 31 51.2  -0.2
      baz=84
N13A  Wendover, West    83.60  42  P     P      10 31 52.0 +0.3
      baz=84,SNR=7.0
MSU   Marysvale         83.61  45 eP     P      10 31 52.6 +0.8
A04A  Legoe Bay, Lum    83.64  32 ⇓P     P      10 31 51.8 +0.1
      baz=84
B05A  Bryant            83.64  33 ⇑P     P      10 31 52.4 +0.7
      baz=84
E07A  Sunnyside         83.71  35  P     P      10 31 51.9  -0.2
      baz=84,SNR=5.2
H09A  Durkee            83.75  37  P     P      10 31 52.1  -0.3
      baz=84,SNR=5.0
HAWA  Hanford           83.78  35 eP     P      10 31 52.1  -0.3
      comp=Z,36nm,1.1s,mb5.4
F08A  Pendleton         83.82  36 ⇑P     P      10 31 52.6   0.0
      baz=84
L12A  House Creek Ra    83.83  41  P     P      10 31 53.2 +0.4
      baz=84,SNR=7.5
I10A  Payette           83.90  38 ⇓P     P      10 31 53.0  -0.1
      baz=84
M13A  Montello          83.91  42  P     P      10 31 52.9  -0.3
      baz=84,SNR=24
CN2   Changchun         83.98 321 eP     P      10 31 50.8  -2.7
C06A  Tall Timber Ra    84.03  33 ⇓P     P      10 31 52.8  -0.9
      baz=84
D07A  Quincy            84.05  34 ⇓P     P      10 31 53.2  -0.6
      baz=84
BMO   Blue Mountains    84.07  37 eP     P      10 31 52.3  -1.6
      comp=Z,16nm,1.1s,mb5.1
MFID  Camas Ranch       84.08  39  P     P      10 31 53.9  -0.2
      baz=84,SNR=9.2
E08A  Dider Farm, El    84.10  35 ⇑P     P      10 31 54.3 +0.3
      baz=84
DUG   Dugway            84.11  43 eP     P      10 31 53.5  -0.8
DUG   Dugway            84.11  43 ⇑P     P      10 31 53.1  -1.2
      baz=84
B06A  Marblemount       84.12  33 ⇓P     P      10 31 53.9  -0.2
      baz=84
A05A  Maple Falls       84.13  32 ⇑P     P      10 31 53.7  -0.5
      baz=84
K12A  Draper Farm, C    84.18  40 ⇓P     P      10 31 54.4  -0.2
      baz=84,SNR=8.2
H10A  Noah’s Angus R    84.23  38  P     P      10 31 53.8  -1.0
      baz=84,SNR=25
F09A  S2 Ranch, Elgi    84.25  36 ⇓P     P      10 31 54.8  -0.1
      baz=84
I11A  Placerville       84.29  39  P     P      10 31 54.9  -0.3
      baz=84,SNR=22
C07A  Waterville        84.32  34 ⇑P     P      10 31 54.9  -0.3
      baz=84
J12A  Stokes Ranch,     84.42  40  P     P      10 31 55.5  -0.3
      baz=84,SNR=6.5
L13A  Double Diamond    84.45  41 ⇑P     P      10 31 55.7  -0.2
      baz=84,SNR=8.0
NLU   North Lily Min    84.45  44 eP     P      10 31 56.1   0.0
A06A  Chilliwack        84.50  32 ⇑P     P      10 31 56.7 +0.7
      baz=85
D08A  Wollman Farm,     84.53  35  P     P      10 31 55.5  -0.8
      baz=85,SNR=14
E09A  Wood Farm, Sta    84.61  36  P     P      10 31 56.0  -0.7
      baz=85,SNR=6.4
TMUT  Trail Mountain    84.67  45 eP     P      10 31 57.6 +0.5
K13A  Stover Farm, H    84.68  41  P     P      10 31 57.5 +0.4
      baz=85,SNR=27
MA2   Magadan           84.70 343 eP     P      10 31 57.2 +0.4
      comp=Z,14nm,1.1s,mb5.0
MA2   Magadan           84.70 343 eP     P      10 31 57.9 +1.1
MA2                                  pmax   pmax
      comp=Z,10.0nm,0.8s,mb5.0
H11A  Donnelly          84.72  38  P     P      10 31 56.5  -0.7
      baz=85,SNR=22
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PMR   Palmer            84.75  12 eP     P      10 31 57.6 +0.6
      comp=Z,9.5nm,1.0s,mb4.9
PMR   Palmer            84.75  12 eP     P      10 31 57.6 +0.6
PMR                                  pmax   pmax
      comp=Z,10.0nm,1.0s,mb4.9
MPU   Maple Canyon      84.77  44 eP     P      10 31 57.2  -0.4
      comp=Z,22nm,1.0s,mb5.2
B07A  Winthrop          84.78  33 ⇓P     P      10 31 57.5 +0.1
      baz=85
F10A  Beach Ranch, E    84.79  37  P     P      10 31 56.8  -0.8
      baz=85,SNR=14
NOQ   North Oquirrh     84.80  43 eP     P      10 31 58.0 +0.3
      comp=Z,28nm,1.0s,mb5.3
D09A  Jones Farm, Ri    84.86  35  P     P      10 31 57.0  -0.9
      baz=85,SNR=12
C08A  Higginbotham F    84.91  34 ⇓P     P      10 31 56.4  -1.8
      baz=85
SPUT  South Promonto    84.95  42 eP     P      10 31 57.8  -0.7
Y22C  IRIS PASSCAL I    84.98  51 ⇓P     P      10 31 58.8  -0.1
      baz=85
LAZ   Ladron            84.98  50 eP     P      10 31 59.3 +0.4
G11A  Walters Elk Ra    84.99  37 ⇑P     P      10 31 58.2  -0.4
      baz=85
LENM  Lemitar           84.99  51 eP     P      10 31 59.0 +0.2
MNTX  Cornudas Mount    84.99  54 eP     P      10 31 58.0  -0.9
      comp=Z,27nm,1.4s,mb5.2
HLID  Hailey            85.00  40 eP     P      10 31 58.2  -0.5
      comp=Z,36nm,1.1s,mb5.4
HLID  Hailey            85.00  40  P     P      10 31 58.6  -0.1
      baz=85,SNR=23
HVU   Hansel Valley     85.01  42 eP     P      10 31 58.3  -0.5
      comp=Z,20nm,0.9s,mb5.2
HVU   Hansel Valley     85.01  42 eP     P      10 31 58.3  -0.5
HVU                                  pmax   pmax
      comp=Z,19nm,0.9s,mb5.2
A07A  Ashnola River,    85.02  33 ⇑P     P      10 31 57.8  -0.8
      baz=85
SRU   San Rafael        85.02  45 eP     P      10 31 58.4  -0.5
      comp=Z,36nm,0.9s,mb5.5
SRU   San Rafael        85.02  45 eP     P      10 31 58.4  -0.5
SRU                                  pmax   pmax
      comp=Z,36nm,0.9s,mb5.5
J13A  Cove Ranch, Pi    85.05  40  P     P      10 31 59.4 +0.5
      baz=85,SNR=38
CTU   Camp Tracy        85.06  43 eP     P      10 31 58.6  -0.4
      comp=Z,31nm,1.1s,mb5.3
B08A  Colville Reser    85.12  34 ⇓P     P      10 31 57.1  -2.0
      baz=85
E10A  Myers Farm, Un    85.16  36 ⇓P     P      10 31 57.6  -1.8
      baz=85,SNR=6.7
K14A  Jones Ranch, D    85.18  41 ⇑P     P      10 31 59.4  -0.3
      baz=85
JLU   Jordanelle        85.21  43 eP     P      10 31 58.9  -0.9
LTX   Lajitas           85.22  56 eP     P      10 32 00.4 +0.3
      comp=Z,23nm,1.3s,mb5.1
LTX   Lajitas           85.22  56 eP     P      10 32 00.4 +0.3
LTX                                  pmax   pmax
      comp=Z,23nm,1.3s,mb5.2
TXAR  Lajitas Array     85.22  56  P     P      10 31 59.3  -0.9
      comp=Z,7.3nm,1.0s,mb4.8,baz=216,slow=6.2,SNR=9.6
DAU   Daniels Canyon    85.23  44 eP     P      10 32 00.9 +1.0
BNM   Barren Site       85.23  51 eP     P      10 31 59.3  -0.8
H12A  Diamond D Ranc    85.31  39  P     P      10 31 59.9  -0.3
      baz=85,SNR=10
LPM   Los Pinos Moun    85.31  51 eP     P      10 32 01.1 +0.6
F11A  Grangeville       85.34  37 ⇑P     P      10 31 58.8  -1.6
      baz=85
I13A  Wildhorse Cree    85.38  40  P     P      10 32 00.4  -0.2
      baz=85,SNR=8.6
D10A  Wagner Farm, O    85.41  36 ⇑P     P      10 31 58.9  -1.8
      baz=86
A08A  Turner Farm, O    85.52  33  P     P      10 32 00.7  -0.4
      baz=86,SNR=12
E11A  Bogner Ranch,     85.59  37 ⇓P     P      10 32 00.6  -1.0
      baz=86,SNR=5.8
PV10  Paradox Valley    85.63  46 eP     P      10 32 01.3  -0.7
H13A  Challis           85.67  39  P     P      10 32 02.1 +0.1
      baz=86,SNR=12
HWUT  Hardware Ranch    85.67  42 eP     P      10 32 02.6 +0.5
      comp=Z,35nm,1.6s,mb5.3
ANMO  Albuquerque       85.74  50 eP     P      10 32 02.6   0.0
      comp=Z,30nm,1.1s,mb5.4
ANMO  Albuquerque       85.74  50 eP     P      10 32 02.6   0.0
ANMO                                 pmax   pmax
      comp=Z,30nm,1.1s
B09A  Rice              85.78  34 ⇓P     P      10 32 01.3  -1.2
      baz=86
PV01  Paradox Valley    85.83  47 eP     P      10 32 02.5  -0.5
C10A  Spilker Farm,     85.86  35 ⇑P     P      10 32 01.4  -1.5
      baz=86
A09A  Danville          85.89  34 ⇑P     P      10 32 02.1  -0.9
      baz=86
D11A  Klaveano Farm,    85.92  36  P     P      10 32 02.2  -1.0
      baz=86,SNR=6.5
G13A  Cobalt            85.98  38 ⇓P     P      10 32 03.1  -0.5
      baz=86,SNR=9.0
GDL2  Guadalupe Moun    85.99  54 eP     P      10 32 04.6 +0.6
B10A  Chitwood Farm,    86.19  35 ⇓P     P      10 32 04.8 +0.3
      baz=86
NEW   Newport           86.23  35 eP     P      10 32 05.6 +0.9
      comp=Z,14nm,1.1s,mb5.1
NEW   Newport           86.23  35 eP     P      10 32 05.6 +0.9
NEW                                  pmax   pmax
      comp=Z,14nm,1.1s
TNA   Tin City          86.25   3 eP     P      10 32 05.4 +1.0
      comp=Z,6.6nm,1.0s,mb4.8
F13A  Darby             86.32  38 ⇓P     P      10 32 04.5  -0.7
      baz=86
A10A  Northport         86.43  34 ⇑P     P      10 32 04.8  -0.9
      baz=86
SKAG  Skagway           86.44  19 eP     P      10 32 07.6 +2.2
      comp=Z,29nm,1.2s,mb5.4
G14A  Jackson           86.52  39 ⇓P     P      10 32 06.6 +0.4
      baz=87
MCMT  McKenzie Canyo    86.64  39 eP     P      10 32 09.6 +2.8
B11A  Sandpoint         86.73  35 ⇑P     P      10 32 06.8  -0.3
      baz=87,SNR=5.4
MCK   McKinley          86.75  11 eP     P      10 32 07.7 +0.9
      comp=Z,4.6nm,0.9s,mb4.7
MCK   McKinley          86.75  11 eP     P      10 32 07.7 +0.8
MCK                                  pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.7
E13A  Victor            86.78  37 ⇓P     P      10 32 07.6 +0.2
      baz=87,SNR=5.4
F14A  Wisdom            86.89  38 ⇑P     P      10 32 09.0 +1.0
      baz=87
D13A  Huson             87.00  37 ⇑P     P      10 32 07.8  -0.7
      baz=87,SNR=6.0
A11A  Hall Mountain,    87.05  34 ⇑P     P      10 32 08.6   0.0
      baz=87
G15A  Dillon            87.05  39 ⇓P     P      10 32 08.9 +0.1
      baz=87,SNR=6.7
E14A  Clinton           87.16  38 ⇓P     P      10 32 09.7 +0.4
      baz=87
B12A  Libby             87.17  35 ⇑P     P      10 32 08.9  -0.4
      baz=87
SEY   Seymchan          87.20 346 eP     P      10 32 09.2 +0.1
SEY   Seymchan          87.20 346 eP     P      10 32 09.1   0.0
C13A  Hot Springs       87.27  36 ⇑P     P      10 32 08.2  -1.6
      baz=87
IMW   Indian Meadow     87.29  41 eP     P      10 32 12.2 +2.2
      comp=Z,14nm,1.3s,mb5.0
A12A  Yaak River Ran    87.41  35 ⇑P     P      10 32 10.4  -0.1
      baz=88
F15A  Butte             87.41  39 ⇑P     P      10 32 10.3  -0.2
      baz=88
SMCO  Snowmass          87.43  46 eP     P      10 32 10.3  -0.5
QLMT  Earthquake Lak    87.49  40 eP     P      10 32 12.7 +1.8
CMIG  Matias Romero     87.51  71  P     P      10 32 11.0  -0.7
      comp=Z,3.9nm,1.0s,mb4.6,baz=158,slow=11,SNR=2.1
D14A  Greenough         87.52  37 ⇓P     P      10 32 10.6  -0.4
      baz=88
E15A  Deer Lodge        87.65  38 ⇑P     P      10 32 11.8 +0.1
      baz=88
B13A  Whitefish         87.72  36 ⇓P     P      10 32 11.9  -0.1
      baz=88
SDCO  Great Sand Dun    87.75  48 eP     P      10 32 11.8  -0.6
BJT   Baijiatuau        87.76 314 eP     P      10 32 12.2  -0.1
      comp=Z,37nm,1.8s,mb5.3
BJT   Baijiatuau        87.76 314 eP     P      10 32 12.2  -0.1
BJT                                  pmax   pmax
      comp=Z,37nm,1.8s
BJI   Beijing           87.76 314  P     P      10 32 15.2 +2.8
BJI                                  AP     pP     10 32 18.5 +1.3
BJI                                  XP     sP     10 32 19.8 +0.8
BJI                                  PP     PP     10 35 41.9 +3.5
BJI                                  S      S      10 42 58.9 +4.5
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BJI                                  XS     sS     10 43 04.6 +2.2
BJI                                  AMB    AMB
      comp=Z,7.0nm,0.4s,mb5.2
BJI                                  AMB    AMB
      comp=Z,184nm,3.4s
BJI                                  LR     LR
      comp=N,205nm,19.0s,MS4.9
BJI                                  LR     LR
      comp=E,465nm,22.2s,MS4.9
BJI                                  LR     LR
      comp=Z,782nm,21.6s,MS5.1
C14A  Swan Lake         87.78  36 ⇓P     P      10 32 12.7 +0.5
      baz=88
COLA  College           87.98  11 eP     P      10 32 13.7 +0.9
      comp=Z,14nm,0.9s,mb5.2
COLA  College           87.98  11 eP     P      10 32 13.7 +0.9
COLA                                 pmax   pmax
      comp=Z,14nm,0.9s,mb5.2
D15A  Lincoln           88.06  38 ⇑P     P      10 32 14.0 +0.4
      baz=88
IMA2  Indian Mountai    88.13   9 eP     P      10 32 14.7 +1.2
HRY   Holter Researc    88.28  38 eP     P      10 32 15.8 +1.1
WALA  Waterton Lakes    88.42  35 eP     P      10 32 14.2  -1.0
      comp=Z,19nm,1.0s,mb5.3
GYA   Guiyang           88.85 299⇓iP     P      10 32 20.4 +2.6
GYA                                  AP     pP     10 32 25.6 +2.9
GYA                                  XP     sP     10 32 27.3 +2.9
GYA                                  PP     PP     10 35 52.7 +5.3
GYA                                  PPP           10 37 51.7
GYA                                  SKS           10 42 47.6
GYA                                  S      S      10 43 06.5 +1.2
GYA                                  XS     sS     10 43 14.3 +0.9
GYA                                  PS            10 44 14.6
GYA                                  AMB    AMB
      comp=Z,30nm,1.0s,mb5.6
GYA                                  AMB    AMB
      comp=Z,140nm,7.9s
GYA                                  LR     LR
      comp=N,450nm,21.4s,MS5.0
GYA                                  LR     LR
      comp=E,540nm,21.8s,MS5.0
GYA                                  LR     LR
      comp=Z,560nm,20.6s,MS5.0
DAWY  Dawson            89.09  15 eP     P      10 32 16.3  -1.7
EGAK  Eagle             89.28  14 eP     P      10 32 19.3 +0.4
BILL  Bilibino          89.57 353 eP     P      10 32 20.9 +0.7
HIA   Hailar            90.30 324 eP     P      10 32 23.4  -0.7
HIA   Hailar            90.30 324 eP     P      10 32 23.3  -0.8
EDM   Edmonton          91.06  32 eP     P      10 32 26.7  -0.9
HHC   Hu-ho-hao-te      91.25 313 eP     P      10 32 30.9 +2.2
HHC                                  AP     pP     10 32 35.7 +2.1
HHC                                  XP     sP     10 32 38.0 +2.7
HHC                                  PP     PP     10 36 11.6 +5.4
HHC                                  SKS           10 43 00.9
HHC                                  S      S      10 43 28.3 +1.4
HHC                                  XS     sS     10 43 35.5 +0.5
HHC                                  PS     PS     10 44 42.7 +5.5
HHC                                  SS     SS     10 49 36.0 +3.7
HHC                                  AMB    AMB
      comp=Z,6.0nm,0.8s,mb5.0
HHC                                  AMB    AMB
      comp=Z,251nm,5.0s
HHC                                  LR     LR
      comp=N,409nm,16.5s,MS5.2
HHC                                  LR     LR
      comp=E,680nm,19.3s,MS5.2
HHC                                  LR     LR
      comp=Z,796nm,17.8s,MS5.2
LAO   LASA Array        91.57  40 eP     P      10 32 29.8  -0.2
      comp=Z,18nm,1.1s,mb5.3
KMI   Kunming           91.59 296  P     P      10 32 32.3 +1.6
KMI                                  AP     pP     10 32 37.4 +1.9
KMI                                  XP     sP     10 32 39.4 +2.1
KMI                                  PP     PP     10 36 14.5 +5.2
KMI                                  S      S      10 43 31.1 +0.4
KMI                                  AMB    AMB
      comp=Z,11nm,0.7s,mb5.3
KMI                                  AMB    AMB
      comp=Z,137nm,4.1s
KMI                                  LR     LR
      comp=N,534nm,17.6s,MS5.2
KMI                                  LR     LR
      comp=E,437nm,15.7s,MS5.2
KMI                                  LR     LR
      comp=Z,921nm,22.6s
CHTO  Chiang Mai        92.57 289 eP     P      10 32 34.5  -0.8
      comp=Z,8.8nm,0.9s,mb5.2
CHTO  Chiang Mai        92.57 289 eP     P      10 32 34.5  -0.8
CHTO                                 pmax   pmax
      comp=Z,9.0nm,0.9s,mb5.2
CD2   Chengdu           92.94 302 eP     P      10 32 38.1 +1.3
CD2                                  AP     pP     10 32 42.9 +1.2
CD2                                  XP     sP     10 32 45.2 +1.8
CD2                                  PP     PP     10 36 23.7 +3.9
CD2                                  SKS           10 43 09.9
CD2                                  S      S      10 43 41.0  -1.5
CD2                                  XS     sS     10 43 49.1  -1.5
CD2                                  SS     SS     10 49 59.3 +2.3
CD2                                  AMB    AMB
      comp=Z,20nm,1.2s,mb5.4
CD2                                  AMB    AMB
      comp=Z,40nm,5.8s
CD2                                  LR     LR
      comp=N,470nm,20.4s,MS5.2
CD2                                  LR     LR
      comp=E,820nm,20.4s,MS5.2
CD2                                  LR     LR
      comp=Z,450nm,18.0s,MS5.0
CFAA  Coronel Fontan    93.02 125  P     P      10 32 39.1 +1.9
      comp=Z,1.0nm,0.8s,mb4.3,baz=256,slow=4.9,SNR=7.9
YAK   Yakutsk           93.26 337 eP     P      10 32 37.9 +0.4
YAK   Yakutsk           93.26 337 eP     P      10 32 37.8 +0.3
YAK                                  pmax   pmax
      comp=Z,12nm,0.7s,mb5.4
DGMT  Dagmar            93.62  39 eP     P      10 32 39.5   0.0
      comp=Z,26nm,0.8s,mb5.7
INK   Inuvik            93.93  14 eP     P      10 32 37.8  -2.6
      comp=Z,305nm,1.0s
INK   Inuvik            93.93  14 eP     P      10 32 37.8  -2.6
INK                                  pmax   pmax
      comp=Z,305nm,1.0s
JTS   JuntasAbangare    94.06  81 eP     P      10 32 41.4  -0.9
      comp=Z,13nm,1.0s,mb5.3
JTS   JuntasAbangare    94.06  81 eP     P      10 32 41.4  -0.9
JTS                                  pmax   pmax
      comp=Z,13nm,1.0s
LZH   Lanzhou           94.82 307 eP     P      10 32 48.7 +3.4
LZH                                  AP     pP     10 32 52.6 +2.4
LZH                                  XP     sP     10 32 55.2 +3.3
LZH                                  PP     PP     10 36 40.0 +5.6
LZH                                 eSKS           10 43 21.2
LZH                                 eS      S      10 43 56.2  -2.6
LZH                                  SS     SS     10 50 28.0 +4.2
LZH                                  AMB    AMB
      comp=Z,25nm,1.0s,mb5.6
LZH                                  AMB    AMB
      comp=Z,140nm,6.5s
LZH                                  LR     LR
      comp=E,663nm,17.3s
LZH                                  LR     LR
      comp=Z,709nm,18.0s,MS5.2
YKA   Yellowknife Ar    95.78  24  P     P      10 32 46.6  -2.4
      comp=Z,3.7nm,0.9s,mb4.8,baz=238,slow=4.1,SNR=9.4
YKA                                  PP     PP     10 36 46.4 +5.2
      comp=Z,0.5nm,1.0s,baz=230,slow=7.7,SNR=3.6
SONM  Songino Array     97.52 318  P     P      10 32 56.6  -0.6
      comp=Z,0.4nm,0.8s,baz=132,slow=2.1,SNR=2.7
SONM                                 LR     LR     11 12 16.9
      comp=Z,619nm,20.1s,MS5.1,baz=217,slow=33
GTA   Gaotai            98.99 309 eP     P      10 33 03.3  -0.8
GTA                                  PP     PP     10 37 06.5 +0.1
GTA                                  PPP           10 39 15.4
GTA                                  SKS           10 43 39.7
GTA                                  S      S      10 44 24.2   -10
GTA                                  SS     SS     10 51 17.9  -4.6
GTA                                  AMB    AMB
      comp=Z,2.0nm,0.8s,mb4.7
GTA                                  AMB    AMB
      comp=Z,144nm,5.7s
GTA                                  LR     LR
      comp=N,382nm,18.3s,MS5.1
GTA                                  LR     LR
      comp=E,396nm,18.6s,MS5.1
GTA                                  LR     LR
      comp=Z,617nm,17.9s,MS5.2
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MKAR	Makanchi Array	113.11	313	PKPdf	PKiKP	10 37 59.3	-1.3
MKAR	Makanchi Array	113.11	313	PKIKP	PKiKP	10 37 59.3	-1.3
MKAR	Makanchi Array	113.11	313	PKiKP	PKiKP	10 37 59.3	-1.3
	comp=Z,0.5nm,0.8s,baz=88,slow=2.9,SNR=3.6						
KSH	Kashi	116.99	305	ePKP	PKPdf	10 38 01.5	-6.8
KSH				eXPKP		10 38 15.0	
KSH				PP	PP		
	comp=Z,421nm,4.2s						
KSH				LR	LR		
	comp=N,648nm,5.7s						
KSH				LR	LR		
	comp=E,660nm,6.3s						
KSH				LR	LR		
	comp=Z,501nm,6.3s						
ARU	Arti	126.76	326	ePKIKP	PKPdf	10 38 22.9	-3.7
BOSA	Boshof	126.98	203	PKP	PKPdf	10 38 28.2	+0.2
BOSA	Boshof	126.98	203	PKIKP	PKPdf	10 38 28.2	+0.2
BOSA	Boshof	126.98	203	PKP	PKPdf	10 38 28.2	+0.2
	comp=Z,0.9nm,0.6s,baz=209,slow=1.1,SNR=1.7						
AKTK	Aktyubinsk	128.84	319	PKP	PKPdf	10 38 29.6	-1.1
AKTO	Aktyubinsk	128.84	319	PKIKP	PKPdf	10 38 29.6	-1.1
AKTO	Aktyubinsk	128.84	319	PKP	PKPdf	10 38 29.6	-1.1
	comp=Z,1.2nm,0.8s,baz=120,slow=2.4,SNR=2.6						
ARCES	ARCESS Array B	129.60	351	PKP	PKPdf	10 38 30.7	-0.9
ARCES	ARCESS Array B	129.60	351	PKIKP	PKPdf	10 38 30.7	-0.9
ARCES	ARCESS Array B	129.60	351	PKP	PKPdf	10 38 30.7	-0.9
	comp=Z,3.6nm,0.8s,baz=48,slow=1.8,SNR=5.5						
FINES	FINESS Array B	136.67	345	PKP	PKPdf	10 38 45.4	+0.3
FINES	FINESS Array B	136.67	345	PKIKP	PKPdf	10 38 45.4	+0.3
FINES	FINESS Array B	136.67	345	PKP	PKPdf	10 38 45.4	+0.3
	comp=Z,1.3nm,0.8s,baz=199,slow=28,SNR=3.4						
LSZ	Lusaka	137.30	215	ePKPdf	PKPdf	10 38 46.8	-1.0
LSZ	Lusaka	137.30	215	ePKIKP	PKPdf	10 38 46.8	-0.9
TSUM	Tsumeb	138.27	199	ePKPdf	PKPdf	10 38 50.3	+0.9
HFS	Hagfors	140.14	353	PKP	PKPdf	10 38 50.9	-0.6
HFS	Hagfors	140.14	353	PKIKP	PKPdf	10 38 50.9	-0.6
HFS	Hagfors	140.14	353	PKhKP		10 38 43.8	
	comp=Z,2.1nm,0.7s,baz=178,slow=40,SNR=2.8						
HFS				PKP	PKPdf	10 38 50.9	-0.6
	comp=Z,4.6nm,0.9s,baz=0.0,slow=1.8,SNR=3.6						
KIV	Kislovodsk	140.83	315	ePKIKP	PKPdf	10 38 58.7	+5.4
KIV				pmax	pmax		
	comp=Z,11nm,1.1s						
KMBO	Kilima Mbogo	141.28	240	PKP	PKPdf	10 38 52.1	-2.9
KMBO	Kilima Mbogo	141.28	240	i PKIKP	PKPdf	10 38 54.0	-1.1
KMBO				pmax	pmax		
	comp=Z,4.0nm,0.3s						
KMBO	Kilima Mbogo	141.28	240	PKhKP		10 38 52.1	
	comp=Z,4.1nm,0.2s,baz=17,slow=2.9,SNR=6.8						
AKASG	Malin Array Be	144.37	333	PKP	PKPdf	10 38 57.0	-2.3
AKASG	Malin Array Be	144.37	333	PKIKP	PKPdf	10 38 57.1	-2.2
AKASG	Malin Array Be	144.37	333	PKP	PKPdf	10 38 57.0	-2.3
	comp=Z,4.4nm,0.6s,baz=34,slow=4.1,SNR=6.6						
EKA	Eskdalemuir Ar	145.01	8	PKP	PKPdf	10 38 59.2	-1.1
EKA	Eskdalemuir Ar	145.01	8	PKIKP	PKPdf	10 38 59.2	-1.1
EKA	Eskdalemuir Ar	145.01	8	PKP	PKPdf	10 38 59.2	-1.1
	comp=Z,14nm,0.9s,baz=347,slow=3.4,SNR=8.4						
SIM	Simferopol’	145.70	322	i PKP2	PKPab	10 39 01.7	-0.8
SIM				pmax	pmax		
	comp=Z,75nm,1.1s						
MALT	Malatya	145.97	308	ePKPdf	PKPdf	10 39 02.8	+0.3
MALT	Malatya	145.97	308	ePKP2	PKPab	10 39 02.8	-1.0
BSEG	Bad Segeberg	146.60	354	ePKPbc	PKPbc	10 39 04.2	-0.4
MBAR	Mbarara	146.71	234	i PKP2	PKPab	10 39 07.5	+0.2
KIS	Kishinev	147.23	329	ePKP2	PKPab	10 39 10.0	+1.7
KWP	Kalwaria	147.78	338	ePKPbc	PKPbc	10 39 08.5	+0.4
KWP	Kalwaria	147.78	338	ePKP2	PKPab	10 39 08.5	-1.9
NRDL	Niedersach Rie	148.04	354	ePKPbc	PKPbc	10 39 08.3	-0.3
OJC	Ojcow	148.23	341	ePKP2	PKPab	10 39 11.4	-0.8
IBBN	Ibbenburen	148.43	356	ePKPbc	PKPbc	10 39 09.4	-0.3
STHS	Stebnicka Huta	148.47	339	ePKP2	PKPab	10 39 12.2	-1.0
KOLS	Kolonicke sedl	148.52	337	ePKP	PKPbc	10 39 11.8	+1.8
KOLS				e		10 39 15.9	
KOLS	Kolonicke sedl	148.52	337	ePKP2	PKPab	10 39 11.8	-1.6
KSP	Ksiaz	148.59	346	ePKP	PKPbc	10 39 10.7	+0.6
KSP				e		10 39 15.7	
KSP	Ksiaz	148.59	346	ePKP2	PKPab	10 39 10.7	-2.9
CLZ	Clausthal	148.66	353	ePKPbc	PKPbc	10 39 10.3	0.0
BR131	Keskin Array S	148.76	314	ePKPbc	PKPbc	10 39 10.8	-0.1
BRTR	Keskin Array B	148.76	314	PKPbc	PKPbc	10 39 09.8	-1.1
	comp=Z,7.6nm,0.8s,baz=119,slow=4.4,SNR=7.3						
UZH	Uzhgorod	148.76	337	ePKP2	PKPbc	10 39 11.0	+0.3
NIE	Niedzica	148.77	340	ePKP2	PKPab	10 39 13.8	-0.6
CLL	Collm	148.81	350	i PKP	PKPdf	10 39 09.0	+2.2
CLL				i PKP	PKPbc	10 39 11.0	+0.3
CLL	Collm	148.81	350	i PKP2	PKPbc	10 39 09.0	-1.7
CLL				pmax	pmax		
	comp=Z,7.0nm,1.0s						
CLL				pmax	pmax		
	comp=Z,77nm,1.9s						
CLL				pmax	pmax		
	comp=Z,27nm,1.0s						
CLL	Collm	148.81	350	ePKPbc	PKPbc	10 39 10.4	-0.3
UPC	Upice	148.97	346	ePKP2	PKPbc	10 39 12.2	+1.1
UPC	Upice	148.97	346	⇑ePKPB	PKPbc	10 39 12.2	+1.1
ASF	Jabal al Asfar	149.00	298	PKPbc	PKPbc	10 39 11.9	+0.1
	comp=Z,9.4nm,0.9s,baz=241,slow=2.2,SNR=4.3						
DPC	Dobruska-Polom	149.05	345	ePKP2	PKPab	10 39 12.5	-3.0
DPC	Dobruska-Polom	149.05	345	⇑ePKPB	PKPbc	10 39 12.5	+1.2
DPC				ePKPAB	PKPab	10 39 15.6	+0.1
OKC	Ostrava-Krasne	149.05	343	ePKP2	PKPbc	10 39 13.1	+1.8
OKC	Ostrava-Krasne	149.05	343	⇑ePKPB	PKPbc	10 39 13.1	+1.8
OKC				ePKPAB	PKPab	10 39 19.7	+4.2
BRG	Berggiesshubel	149.06	348	i PKP	PKPbc	10 39 11.0	-0.3
BRG				i		10 39 17.5	
BRG	Berggiesshubel	149.06	348	i PKP2	PKPbc	10 39 11.0	-0.3
BRG				pmax	pmax		
	comp=Z,20nm,1.5s						
BRG	Berggiesshubel	149.06	348	ePKPbc	PKPbc	10 39 11.3	0.0
FBE	Freiberg	149.12	349	ePKPbc	PKPbc	10 39 11.6	+0.1
PVCC	Panska Ves	149.27	347	ePKP2	PKPbc	10 39 12.9	+1.0
PVCC	Panska Ves	149.27	347	⇑ePKPB	PKPbc	10 39 12.9	+1.0
BUG	Bochum--Univer	149.32	357	ePKPbc	PKPbc	10 39 11.5	-0.5
KECS	Kecovo	149.53	339	ePKP	PKPbc	10 39 12.2	-0.4
KECS				e		10 39 16.7	
KECS	Kecovo	149.53	339	ePKP2	PKPbc	10 39 12.2	-0.4
MOX	Moxa	149.67	351	ePKP2	PKPbc	10 39 13.9	+1.0
MOX				pmax	pmax		
	comp=Z,30nm,1.6s						
MOX	Moxa	149.67	351	ePKPbc	PKPbc	10 39 12.7	-0.2
MLR	Muntele Rosu	149.70	329	PKPbc	PKPbc	10 39 13.2	0.0
	comp=Z,3.2nm,0.6s,baz=22,slow=2.6,SNR=3.3						
WERD	Werda	149.76	350	ePKPbc	PKPbc	10 39 13.0	-0.1
TANN	Tannenbergstha	149.76	350	ePKPbc	PKPbc	10 39 13.1	0.0
PRU	Pruhonice	149.78	347	ePKP	PKPdf	10 39 11.5	+3.1
PRU	Pruhonice	149.78	347	⇑ePKPB	PKPdf	10 39 11.5	+3.1
GUNZ	Gunzen	149.83	350	ePKPbc	PKPbc	10 39 13.4	+0.1
WERN	Wernitzgruen	149.90	350	ePKPbc	PKPbc	10 39 13.7	+0.3
NKC	Novy Kostel	149.94	350	ePKP2	PKPbc	10 39 14.7	+1.2
NKC	Novy Kostel	149.94	350	⇑ePKPB	PKPbc	10 39 14.7	+1.2
VRAC	Vranov	149.94	344	PKPbc	PKPbc	10 39 13.3	-0.3
	comp=Z,2.2nm,0.4s,baz=14,slow=4.2,SNR=3.2						
MMAI	Mount Meron Ar	150.00	300	PKPbc	PKPbc	10 39 14.5	+0.3
	comp=Z,32nm,1.1s,baz=66,slow=4.9,SNR=3.8						
VYHS	Vyhne	150.05	341	ePKP	PKPdf	10 39 12.1	+3.2
VYHS				e		10 39 17.8	
PSZ	Piszkesteto	150.21	339	ePKPdf	PKPdf	10 39 11.2	+2.1
PSZ	Piszkesteto	150.21	339	ePKIKP	PKPdf	10 39 11.2	+2.0
TREC	Trest	150.23	345	ePKIKP	PKPab	10 39 18.1	-2.2
TREC	Trest	150.23	345	ePKPAB	PKPab	10 39 18.1	-2.2
MANZ	Manzenberg	150.24	350	ePKPbc	PKPbc	10 39 14.2	0.0
ROTZ	Rotzenmuhle	150.43	350	ePKPbc	PKPbc	10 39 14.6	-0.1
TNS	Taunus Mts	150.45	355	ePKPbc	PKPbc	10 39 14.6	-0.2
MODS	Modra-Piesok	150.62	343	ePKP	PKPbc	10 39 14.1	-1.1
MODS				e		10 39 19.8	
MODS	Modra-Piesok	150.62	343	ePKIKP	PKPbc	10 39 14.1	-1.1
MODS				e		10 39 19.8	
GRF	Grafenberg Arr	150.66	351	ePKPbc	PKPbc	10 39 15.2	-0.1
GIVF	Givet	150.73	360	ePKP1	PKPbc	10 39 16.0	+0.6
	comp=Z,36nm,0.8s						
BAIF	Baives	150.78	0	ePKP1	PKPbc	10 39 16.3	+0.8
	comp=Z,62nm,1.1s						
KHC	Kasperske Hory	150.79	348	ePKP	PKPbc	10 39 14.6	-1.0
KHC				e		10 39 19.7	
KHC	Kasperske Hory	150.79	348	ePKIKP	PKPbc	10 39 14.6	-1.0
KHC				e		10 39 19.7	
KHC	Kasperske Hory	150.79	348	⇑ePKPB	PKPbc	10 39 14.6	-1.0
KHC				ePKPAB	PKPab	10 39 19.7	-3.0
WET	Wettzell	150.92	349	ePKPbc	PKPbc	10 39 16.0	+0.1
GEC2	GERESS Array S	151.04	347	ePKPbc	PKPbc	10 39 16.0	-0.2
GERES	GERESS Array B	151.04	347	PKPbc	PKPbc	10 39 14.7	-1.5
	comp=Z,9.5nm,0.9s,baz=48,slow=2.0,SNR=10						
WLF	Walferdange	151.14	358	ePKPbc	PKPbc	10 39 17.8	+1.4
WLF	Walferdange	151.14	358	ePKIKP	PKPbc	10 39 17.8	+1.4
WLF	Walferdange	151.14	358	ePKPbc	PKPbc	10 39 16.7	+0.3
FLN	La Foliniere	151.79	7	ePKP1	PKPbc	10 39 18.2	+0.3
	comp=Z,140nm,1.3s						
ROSF	Rostrenen	151.79	11	ePKP1	PKPbc	10 39 18.1	+0.2
	comp=Z,70nm,1.3s						
STU	Stuttgart	151.82	353	ePKPbc	PKPbc	10 39 17.8	-0.2
LDF	La Druitiere	151.99	7	ePKP1	PKPbc	10 39 18.6	+0.2
	comp=Z,23nm,0.8s						
SGMF	Saint Gilles	152.00	10	ePKP1	PKPbc	10 39 18.4	0.0
	comp=Z,62nm,1.1s						
GRR	Gorron	152.11	8	ePKP1	PKPbc	10 39 18.8	+0.1
	comp=Z,30nm,0.8s						
FUR	Furstenfeldbru	152.14	350	ePKPbc	PKPbc	10 39 18.4	-0.3
QUIF	Quistinic	152.22	11	ePKP1	PKPbc	10 39 19.0	+0.1
MEZF	Maizieres J’vi	152.33	359	ePKP1	PKPbc	10 39 19.9	+0.7
CDF	Champ du Feu	152.34	356	ePKP1	PKPbc	10 39 19.8	+0.6
	comp=Z,28nm,1.0s						
BFO	Black Forest	152.34	355	ePKIKP	PKPbc	10 39 18.7	-0.5
BFO	Black Forest	152.34	355	ePKPbc	PKPbc	10 39 18.7	-0.5
HAU	Haudompre	152.79	357	ePKP1	PKPbc	10 39 20.8	+0.6
	comp=Z,16nm,0.6s						
HINF	Hinteralfeld	152.96	357	ePKP1	PKPbc	10 39 20.9	+0.3
	comp=Z,10nm,0.6s						
FETA	Feichten	153.34	351	⇑iPKiKP	PKiKP	10 39 22.3	+0.8
	comp=Z,19nm,1.1s						
LOR	Lormes	153.56	1	ePKP1	PKPbc	10 39 22.3	+0.4
	comp=Z,24nm,1.1s						
DAVOX	Davos/Dischmat	153.69	352	PKPbc	PKPbc	10 39 22.1	-0.1
	comp=Z,9.6nm,1.0s,baz=346,slow=2.7,SNR=3.3						
SSF	Saint Saulge	153.76	2	ePKP1	PKPbc	10 39 23.0	+0.6
	comp=Z,27nm,1.0s						
MFF	Saint Martin d	153.96	7	ePKP1	PKPbc	10 39 23.0	+0.2
	comp=Z,12nm,0.7s						
AVF	Avril sur Loir	154.03	2	ePKP1	PKPbc	10 39 24.2	+1.3
	comp=Z,16nm,1.1s						
SMF	Signal de Mont	154.19	1	ePKP1	PKPbc	10 39 23.7	+0.4
	comp=Z,27nm,1.3s						
CABF	La Chapelle	154.20	358	ePKP1	PKPbc	10 39 24.4	+1.1
	comp=Z,29nm,1.1s						
TCF	Toulx Ste Croi	154.48	4	ePKP1	PKPbc	10 39 24.2	+0.3
	comp=Z,11nm,0.8s						
ESDC	Sonseca Array	159.80	19	PKPab	PKPab	10 40 01.1	-0.3
	comp=Z,2.9nm,0.9s,baz=325,slow=4.5,SNR=6.1						
MDT	Midelt	165.50	32	PKPab	PKPab	10 40 26.2	-0.3
	comp=Z,5.3nm,1.0s,baz=349,slow=3.5,SNR=3.2						
TORD	Torodi Ar. Bea	171.95	160	PKPab	PKPab	10 40 55.9	+0.6
	comp=Z,0.3nm,0.6s,baz=157,slow=35,SNR=4.2						

MAN 05 10:26:34, 1022N×12482E, h9^{km}, mb4.2, ML3.0, MS2.8, 2C, Leyte

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSLP	Maasin	0.09	154	eP	Pg	10 26 37.8	+1.5
SCPH	Surigao	0.79	123	eP	Pg	10 26 42.9	-6.3
SCPH				i S	Sg	10 26 52.7	-6.8
LLP	Lapu-Lapu	0.84	277	⇑iP	Pg	10 26 51.8	+1.5
LLP				i S	Sg	10 27 07.9	+6.6
OCLP	Ormoc	0.85	346	eP	Pg	10 26 49.6	-0.9
OCLP				eS	Sg	10 27 07.1	+5.5
PLP	Palo	0.96	9	eP	Pg	10 26 48.8	-3.6
TBP	Tagbilaran	1.08	241	eP	Pg	10 26 55.3	+0.6
SNPH	Sibulan	1.79	241	eP	Pn	10 27 06.5	+1.5
GUIM	Jordan	2.23	281	eP	Pn	10 27 13.4	+2.3
GUIM				eS	Sn	10 27 44.3	+5.5
CNP	Catarman	2.29	356	eP	Pn	10 27 11.4	-0.6
CNP				eS	Sn	10 27 42.1	+1.9
BUKP	Musuan	2.33	174	eP	Pn	10 27 11.7	-0.9
RCP	Roxas	2.44	303	⇑eP	Pn	10 27 15.6	+1.7
PAGZ	Pagadian	2.75	211	eP	Pn	10 27 19.2	+0.9

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*CSEM **05** 10:35:06.5, 1349N×4898E, h4^{km}, ML3.5, After DHMR*

DHMR 05 10:35:06.5±1.2**, 1349N×4898E, h4^{km}**±999^{km}**, ML3.5, 2C, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MUKL	Al Mukalla	0.98	3	⇑iP	Pg	10 35 24.1	-1.3
MUKL				i S	Sg	10 35 39.2	+1.1
MUKL				AML	AML	10 35 40.6	
	comp=N,1μm,0.2s						
BDHA	Al Bayda’	3.35	279	i P	Pn	10 36 02.9	+3.2
BDHA				i S	Sn	10 36 46.3	+6.3
BDHA	Al Bayda’	3.35	279	i P	Pn	10 36 02.8	+3.1
BDHA				i S	Sn	10 36 46.3	+6.3
LBOS		3.65	276	⇑iP	Pn	10 36 07.0	+3.3
LBOS				i S	Sn	10 36 53.5	+6.2
TRBA	At Turbah	4.74	267	i S	Sn	10 37 18.7	+4.4

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*ISCJB **05** 10:35:21.7±1.1, 3684N±006×3365E±007, h9^{km}±12^{km}, Error ellipse: s-maj=10.8km s-min=8.0km az=137.0*

*ISK **05** 10:35:21.5, 3679N×3378E, h5^{km}, MD3.0*

*CSEM **05** 10:35:21.5, 3679N×3378E, h5^{km}, MD3.0, After ISK*

ISC 05 10:35:23.0±1.0**, 3681N**±006×**3368E**±007**, h14^{km}**±11^{km}**, n17, $\sigma 1^{s}06$**/21**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IKL	Isikli	0.57	180	ePG	Pg	10 35 32.7	-1.4
IKL				eSG	Sg	10 35 42.7	+1.1
IKL	Isikli	0.57	180	ePg	Pg	10 35 32.7	-1.4
IKL				eSg	Sg	10 35 42.7	+1.1
KARA	Karaisali	1.19	67	ePN	Pn	10 35 43.8	-1.4
KARA				eSN	Sn	10 36 00.4	-0.7
KARA	Karaisali	1.19	67	ePn	Pn	10 35 43.8	-1.4
KARA				eSn	Sn	10 36 00.4	-0.7
CEYT	Ceyhan	1.67	82	ePN	Pn	10 35 52.3	+0.5
CEYT	Ceyhan	1.67	82	ePn	Pn	10 35 52.3	+0.5
KOZT	Kozan	1.84	68	ePN	Pn	10 35 55.0	+0.8
KAMT	Kaman	2.56	1	eP	Pg	10 36 11.8	-0.2
BNN	Bunyan	2.67	39	eP	Pn	10 36 06.0	+0.6
GAZ	Gaziantep	2.85	82	eP	Pn	10 36 07.8	-0.2
CDAG	Cicekdag	2.86	11	i P	Pn	10 36 10.2	+2.0
SHUT	Suhut-Afyon	3.03	306	eP	Pn	10 36 11.8	+1.2
ANTO	Ankara	3.14	347	eP	Pn	10 36 11.4	-0.5
ANTO	Ankara	3.14	347	⇑iP	Pn	10 36 12.5	+0.5
ESKT	Eskisehir	3.51	321	eP	Pn	10 36 16.7	-0.4
ESKT	Eskisehir	3.51	321	i P	Pn	10 36 14.5	-2.6
KHL	Karahalli	3.63	296	eP	Pn	10 36 17.7	-1.1

IDC 05 10:46:38.7±5.2**, 4595N×15441E, h70^{km}**±50^{km}**, mb3.3**/6**, mb1 3.6**/8**, mb1mx3.4**/22**, mbtmp3.4**/8**, ML3.3**/2**, Error ellipse: s-maj=34.7km s-min=26.5km az=142.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAJ	Asahikawa	8.56	262	P	Pn	10 48 39.2	-0.5
	0.4nm,0.3s,baz=111,slow=17,SNR=2.9						
MJAR	Matsushiro Arr	15.36	238	P	Pn	10 50 12.6	+1.4
	0.1nm,0.3s,baz=34,slow=11,SNR=5.7						
MKAR	Makanchi Array	48.11	299	P	P	10 55 10.8	-0.4
	0.7nm,0.8s,baz=64,slow=6.6,SNR=6.5						
YKA	Yellowknife Ar	51.03	37	P	P	10 55 33.2	+0.1
	0.2nm,0.7s,baz=299,slow=7.2,SNR=3.1						
PDAR	Pinedale Array	64.50	54	P	P	10 57 07.8	+0.1
	0.5nm,0.8s,baz=346,slow=6.9,SNR=3.9						
FINES	FINESS Array B	65.15	335	P	P	10 57 12.2	+0.5
	0.4nm,0.5s,baz=36,slow=7.0,SNR=2.5						
WRA	Warramunga Arr	68.06	200	P	P	10 57 30.6	0.0
	0.7nm,0.7s,baz=18,slow=7.0,SNR=4.6						
TXAR	Lajitas Array	77.10	61	P	P	10 58 24.7	+0.2
	0.9nm,0.7s,baz=308,slow=4.6,SNR=11						

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*ISCJB **05** 10:53:26.7±1.5, 1937N±004×7814W±007, h11^{km}±8^{km}, Error ellipse: s-maj=11.5km s-min=6.0km az=6.6*

*JSN **05** 10:53:28.7±1.2, 1936N×7815W, h12^{km}±13^{km}, MD3.5*

*SSNC **05** 10:53:34.8, 1978N×7824W, h10^{km}, MD3.1, ML1.9*

ISC 05 10:53:26.4±1.5**, 1936N**±004×**7821W**±008**, h11^{km}**±7^{km}**, n10, $\sigma 0^{s}98$**/17**, 6D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MBJ	Montego Bay	1.00	161	⇓eP	Pg	10 53 45.9	+0.2
CVJ	Coleyville	1.29	150	⇓eP	Pn	10 53 50.5	+0.1
BBJ	Bamboo Saint A	1.32	137	⇓eP	Pn	10 53 50.9	+0.2
LMGC	Las Mercedes	1.34	58	ePG	Pg	10 53 50.0	-2.1
LMGC				eSG	Sg	10 54 05.7	-3.8
	comp=N,308nm,0.1s						
LMGC				e			
	comp=E,286nm,0.1s						
MCJ	Malvern	1.51	161	⇓eP	Pn	10 53 53.8	+0.4
MCJ				eS	Sn	10 54 12.1	-0.9
STH	Stony Hill	1.84	134	⇓eP	Pn	10 53 57.7	-0.2
STH				eS	Sn	10 54 19.6	-1.6
CCCC	Cccc	1.88	13	eP	Pn	10 53 59.2	+0.7
CCCC				eS	Sn	10 54 21.8	-0.5
	comp=N,0.7nm,0.3s						
CCCC				e			
	comp=E,0.7nm,0.3s						
PCJ	Portland Cotta	1.89	148	⇓eP	Pn	10 53 59.5	+0.9
PCJ				eS	Sn	10 54 22.9	+0.4
RCC	Rio Carpintero	2.45	75	eP	Pg	10 54 19.3	+5.9
RCC				eS	Sg	10 54 47.1	+1.8
	comp=N,17nm,0.1s						
RCC				e			
	comp=E,18nm,0.2s						
MASC	Masc	3.84	77	eP	Pn	10 54 26.2	+0.8
MASC				eS	Sn	10 55 11.1	+0.6
	comp=N,0.6nm,0.1s						
MASC				e			
	comp=E,0.7nm,0.3s						

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*DDA **05** 10:53:29.8, 3844N×2698E, h10^{km}±3^{km}, Md3.5*

*CSEM **05** 10:53:30.4±0.1, 3860N×2712E, h8^{km}, MD3.2, Error ellipse: s-maj=2.3km s-min=1.6km az=91.0*

*ISCJB **05** 10:53:30.5±0.6, 3861N±002×2708E±004, h3^{km}±5^{km}, Error ellipse: s-maj=4.9km s-min=3.6km az=8.7*

*NEIC **05** 10:53:30.6, 3832N×2592E, h10^{km}, MD3.4(ATH), After ATH.*

*ATH **05** 10:53:30.3, 3858N×2704E, h75^{km}±15^{km}*

*ISK **05** 10:53:30.5, 3860N×2710E, h9^{km}, MD3.2*

ISC 05 10:53:30.6±0.6**, 3861N**±002×**2704E**±004**, h2^{km}**±5^{km}**, n50, $\sigma 0^{s}90$**/68**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BLCB	Balcova	0.22	180	i PG	Pg	10 53 35.6	+0.8
BLCB				i SG	Sg	10 53 39.0	+1.3
BLCB	Balcova	0.22	180	i Pg	Pg	10 53 35.6	+0.8
BLCB				i Sg	Sg	10 53 39.0	+1.3
KDAG	Bornova	0.27	139	i P	Pg	10 53 34.7	-1.1
KDAG				i S	Sg	10 53 38.2	-1.1
IZM	Izmir	0.27	140	i PG	Pg	10 53 35.7	-0.1
IZM				i SG	Sg	10 53 39.7	+0.4
IZM	Izmir	0.27	140	i Pg	Pg	10 53 35.7	-0.1
IZM				i Sg	Sg	10 53 39.7	+0.4
AKS	Akhisar	0.66	66	PG	Pg	10 53 42.9	-0.3
AKS				SG	Sg	10 53 52.4	+0.6
AKS	Akhisar	0.66	66	ePg	Pg	10 53 42.9	-0.3
AKS				eSg	Sg	10 53 52.4	+0.6
AYVA	Ayvalik	0.75	339	i P	Pg	10 53 46.0	+1.0
AYVA				i S	Sg	10 53 59.1	+4.4
PRK	Paraskevi	0.88	317	⇑iP	Pn	10 53 49.3	-0.6
PRK				eS	Sb	10 54 01.5	+0.9
PRK	Paraskevi	0.88	317	i Pn	Pn	10 53 49.3	-0.6
PRK				eSb	Sb	10 54 01.5	+0.9
SMG	Samos	0.91	190	eP	Pg	10 53 48.1	+0.1
SMG				eS	Sb	10 54 02.0	+0.4
SMG	Samos	0.91	190	ePg	Pg	10 53 48.1	+0.1
SMG				eSb	Sb	10 54 02.0	+0.4
EZN	Ezine	1.34	336	PN	Pn	10 53 56.2	0.0
EZN	Ezine	1.34	336	ePn	Pn	10 53 56.2	0.0
BTOK	Tokmak	1.39	33	i P	Pn	10 53 55.6	-1.2
BTOK				i S	Sg	10 54 14.8	-0.2
BODT	Bodrum	1.56	172	PN	Pn	10 53 58.6	-0.6
BODT	Bodrum	1.56	172	ePn	Pn	10 53 58.6	-0.6
BDRM	Kayabasi	1.57	168	i P	Pn	10 53 54.8	-4.6
BDRM				i S	Sn	10 54 20.1	-0.2
BDRM	Kayabasi	1.57	168	i S	Sn	10 54 20.1	-0.2
GADA	Gvkgeada	1.81	331	PN	Pn	10 54 03.7	+1.0
GADA	Gvkgeada	1.81	331	ePn	Pn	10 54 03.7	+1.0
EDC	Edincik	1.85	20	PN	Pn	10 54 03.4	+0.2
EDC	Edincik	1.85	20	ePn	Pn	10 54 03.4	+0.2
BNT	Bandirma	1.87	21	PN	Pn	10 54 03.1	-0.5
LIA	Limnos Island	1.94	312	eP	Pn	10 54 02.5	-1.9
LIA	Limnos Island	1.94	312	ePb	Pn	10 54 02.5	-1.9
KCT	Karacabey	1.94	31	PN	Pn	10 54 04.1	-0.4
KCT	Karacabey	1.94	31	ePn	Pn	10 54 04.1	-0.4
SART	Tekirdag	2.08	3	i P	Pb	10 54 08.7	-0.3
SART				i S	Sn	10 54 34.1	+1.2
ULDT	Uludag	2.23	46	i P	Pn	10 54 07.9	-0.6
ULDT				i S	Sn	10 54 37.6	+1.0
ENEZ	Enez	2.23	342	ePN	Pn	10 54 08.9	+0.4
ENEZ	Enez	2.23	342	ePn	Pn	10 54 08.9	+0.4
GEMT	Gemlik	2.47	42	ePN	Pn	10 54 12.3	+0.6
GEMT	Gemlik	2.47	42	ePn	Pn	10 54 12.3	+0.6
IZI	Iznik	2.55	47	ePN	Pn	10 54 13.0	+0.1
IZI	Iznik	2.55	47	ePn	Pn	10 54 13.0	+0.1
YLV	Yalova	2.66	42	ePN	Pn	10 54 15.1	+0.7
YLV	Yalova	2.66	42	ePn	Pn	10 54 15.1	+0.7
RDO	Rodhopi	2.79	336	ePb	Pb	10 54 18.6	-2.4
RDO	Rodhopi	2.79	336	eP	Pn	10 54 14.9	-1.2
RDO	Rodhopi	2.79	336	ePb	Pb	10 54 18.6	-2.4
HRT	Hereke	3.00	42	ePN	Pn	10 54 20.2	+1.2
HRT	Hereke	3.00	42	ePn	Pn	10 54 20.2	+1.2
ESKT	Eskisehir	3.10	72	ePN	Pn	10 54 20.2	-0.2
ESKT	Eskisehir	3.10	72	i P	Pb	10 54 25.3	-1.0
ESKT				i S	Sg	10 55 11.7	+1.5
ESKT	Eskisehir	3.10	72	ePn	Pn	10 54 20.2	-0.2
GULT	Gulveren	3.25	55	ePN	Pn	10 54 23.0	+0.6
GULT	Gulveren	3.25	55	ePn	Pn	10 54 23.0	+0.6
PLG	Polygyros	3.29	303	ePn	Pn	10 54 13.9	-9.2
SGKT	Sivrigoynuk	4.34	62	i P	Pb	10 54 48.1	+0.5
SGKT				i S	Sg	10 55 48.4	-1.7

IDC 05 11:04:30.9±0.8**, 2051S×17573W, h0^{km}, mb4.0**/5**, mb1 4.3**/6**, mb1mx4.0**/15**, mbtmp4.0**/6**, ML4.0**/1**, MS4.1**/5**, Ms1 4.1**/5**, ms1mx3.8**/18**, Error ellipse: s-maj=45.8km s-min=22.5km az=125.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	Afiamalu	7.57	30	Pn	Pn	11 06 26.3	+3.7
	1.9nm,0.3s,baz=205,slow=17,SNR=3.1						
RAR	Rarotonga	14.93	96	LR	LR	11 11 55.0	
	comp=Z,732nm,18.3s,baz=296,slow=30						
DZM	Mont Dzumac	16.69	261	Pn	Pn	11 08 35.0	+8.6
	0.3nm,0.3s,baz=111,slow=13,SNR=10						
DZM				LR	LR	11 13 32.7	
	comp=Z,616nm,21.5s,baz=306,slow=32						
URZ	Urewera	18.75	198	P	Pn	11 08 50.6	-1.1
	0.4nm,0.3s,baz=311,slow=9.3,SNR=2.9						
PAE	Paea	24.86	88	eT		11 34 29.6	
	23nm,0.2s						
PPT	Papeete	24.88	88	eLR	LR	11 15 35.9	
	1μm,25.8s,baz=258						
PPT	Papeete	24.88	88	eT		11 34 31.2	
	5.9nm,0.3s						
TVO	Taravao	25.15	88	eT		11 34 51.0	
	12nm,0.4s						
RPZ	Rata Peaks	25.64	203	P	P	11 10 02.3	+0.2
	5.2nm,0.6s,baz=0.0,slow=5.1,SNR=5.0						
HNR	Honiara	25.91	292	LR	LR	11 18 33.7	
	comp=Z,360nm,19.7s,baz=179,slow=32						
RKT	Rikitea	37.84	102	eLR	LR	11 21 47.0	
	564nm,28.8s,baz=260						
RKT	Rikitea	37.84	102	eT		11 50 40.6	
	7.8nm,0.3s						
STKA	Stephens Creek	39.71	245	LR	LR	11 24 53.8	
	comp=Z,365nm,19.2s,baz=18,slow=31						
WRA	Warramunga Arr	46.71	262	P	P	11 13 02.1	+0.1
	1.8nm,0.8s,baz=96,slow=8.5,SNR=8.1						
WRA				LR	LR	11 32 14.8	
	comp=Z,263nm,18.3s,baz=235,slow=36						
NVAR	Mina Array Bea	79.58	42	P	P	11 16 39.9	0.0
	1.3nm,0.9s,baz=213,slow=6.4,SNR=7.9						
TXAR	Lajitas Array	85.27	56	P	P	11 17 11.8	+1.8
	0.4nm,0.8s,baz=202,slow=6.5,SNR=3.6						
YKA	Yellowknife Ar	95.64	24	P	P	11 17 56.4	-1.4
	0.3nm,0.8s,baz=247,slow=4.6,SNR=4.3						
MKAR	Makanchi Array	112.76	313	PKiKP	PKiKP	11 23 08.8	-0.8
	0.3nm,0.8s,baz=126,slow=2.5,SNR=3.2						
AKASG	Malin Array Be	144.03	333	PKhKP		11 24 04.2	
	0.2nm,0.4s,baz=40,slow=4.3,SNR=2.8						
AKASG				PKP	PKPdf	11 24 08.5	+0.2
	0.3nm,0.3s,baz=39,slow=4.3,SNR=3.9						

BRTR	**Keskin Array B**	**148.41**	**314**	PKPbc	PKPbc	11 24 19.5	-0.1
	0.5nm,0.7s,baz=197,slow=33,SNR=3.7						
GERES	**GERESS Array B**	**150.74**	**347**	PKPbc	PKPbc	11 24 24.6	-0.4
	0.6nm,0.7s,baz=0.0,slow=2.3,SNR=3.2						
GERES				PKPab	PKPab	11 24 32.4	+0.5
	0.9nm,0.7s,baz=319,slow=5.9,SNR=4.1						

CSEM 05 11:15:42.8±0.8**, 4125N×154E, h6^{km}**±11^{km}**, mb3.6**/2**, Error ellipse: s-maj=8.3km s-min=4.2km az=148.0, After MDD, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EPOB	**Poblet**	**0.37**	**287**	Pg	Pg	11 15 49.6	-0.3
	4.8nm,0.2s,SNR=28						
EPOB				Lg		11 15 54.8	
	4.1nm,0.2s,SNR=11						
EMIR	**Miracle**	**0.67**	**359**	Pg	Pg	11 15 53.8	-1.8
	2.4nm,0.6s,SNR=6.4						
EMIR				Lg		11 16 05.0	
	0.4nm,0.2s,SNR=4.6						
ERTA	**Horta de San J**	**0.96**	**253**	Pg	Pg	11 16 01.2	0.0
	0.9nm,0.3s,SNR=5.8						
ERTA				Lg		11 16 14.9	
	0.3nm,0.4s,SNR=7.6						
EJON	**La Jonquera**	**1.56**	**39**	Pn	Pn	11 16 09.4	-1.7
	4.8nm,0.4s,SNR=21						
EJON	**La Jonquera**	**1.56**	**39**	Pg	Pg	11 16 12.2	-0.6
	1.5nm,0.5s,SNR=7.9						
EJON				Lg		11 16 34.8	
	3.3nm,0.2s,SNR=5.0						
ESAC	**San Caprasio**	**1.58**	**288**	Pn	Pn	11 16 10.7	-0.7
	5.2nm,0.3s,SNR=7.9						
ESAC				Lg		11 16 32.9	
	13nm,0.2s,SNR=7.9						
EMOS	**Mosqueruela**	**1.77**	**241**	Lg		11 16 38.0	
	1.3nm,0.4s,SNR=7.9						
EBIE	**Bielsa**	**1.78**	**324**	Pg	Pg	11 16 16.2	-0.7
	0.2nm,0.1s,SNR=7.9						
EBIE				Lg		11 16 39.5	
	1.1nm,0.6s,SNR=7.9						

KRSC 05 11:16:58.7±0.6**, 5045N×15727E, h5^{km}**±5^{km}**, ML3.6, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALID	**Alaid**	**1.17**	**292**	*e*P	Pg	11 17 19.7	-1.5
ALID				*e*S	Sg	11 17 34.3	-2.1
MIPR	**Malaya Ipel’ka**	**1.86**	**350**	*e*P	Pn	11 17 32.5	+1.4
MIPR				*e*S	Sn	11 17 57.1	+2.2
RUS	**Russkaya**	**2.13**	**21**	*i* P	Pn	11 17 36.5	+1.6
RUS				*i* S	Sn	11 18 04.7	+2.9
GRL	**Gorelyy**	**2.16**	**13**	*i* P	Pn	11 17 38.0	+2.6
GRL				*i* S	Sn	11 18 06.8	+4.3
PET	**Petropavlovsk**	**2.72**	**18**	*e*P	Pn	11 17 45.0	+2.0
PET				*i* S	Sn	11 18 19.2	+3.0
AVH	**Avacha**	**2.96**	**17**	*e*P	Pn	11 17 49.3	+3.0
AVH				*e*S	Sn	11 18 25.7	+3.5
NLC	**Nalytchevo**	**3.01**	**24**	*e*P	Pn	11 17 47.6	+0.6
NLC				*i* S	Sn	11 18 23.4	-0.1
SPN	**Mys Shipunski**	**3.15**	**32**	*e*P	Pn	11 17 50.8	+1.8
SPN				*i* S	Sn	11 18 28.5	+1.5
GNL	**Ganaly**	**3.28**	**7**	*e*P	Pn	11 17 53.1	+2.5
MKZ	**Mys Kozlova**	**4.93**	**32**	*e*P	Pn	11 18 13.9	+0.5
MKZ				*e*S	Sn	11 19 09.5	-1.2
KBTR	**Krutoberegovo**	**6.66**	**28**	P	Pn	11 18 37.8	+0.8

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*ISCJB **05** 11:30:57.4±0.8, 4770N±005×1620E±007, h12^{km}±8^{km}, Error ellipse: s-maj=10.1km s-min=5.8km az=146.1*

*VIE **05** 11:30:58.0±0.3, 4772N×1620E, h8^{km}±5^{km}, mb1.6/2, ML2.1/4, Error ellipse: s-maj=2.2km s-min=1.6km az=161.0   9 km E of Neunkirchen felt 3-4 EMS98 at Pitten / LOWER AUSTRIA*

ISC 05 11:30:58.1±0.8**, 4771N**±006×**1621E**±007**, h13^{km}**±8^{km}**, n10, σ0^{s}71**/16**, 6C-4D, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CONA	**Conrad Observa**	**0.32**	**313**	⇑*i*Pg	**Pg**	**11 31 04.5**	**-0.2**
	3.0nm,0.2s						
CONA				⇑*i*Sg	**Sg**	**11 31 08.9**	**-0.3**
	17nm,0.2s						
ARSA	**Arzberg**	**0.65**	**226**	⇑*i*Pg	**Pg**	**11 31 10.6**	**-0.2**
	comp=Z,1.3nm,0.1s						
ARSA				⇓*i*Sg	**Sg**	**11 31 19.0**	**-0.5**
	comp=E,6.6nm,0.1s						
ARSA	**Arzberg**	**0.65**	**226**	⇑*i*Pg	**Pg**	**11 31 10.6**	**-0.2**
	1.3nm,0.1s						
ARSA				⇓*i*Sg	**Sg**	**11 31 19.0**	**-0.5**
	6.6nm,0.1s						
ZST	**Bratislava**	**0.77**	**50**	*e*PG	**Pg**	**11 31 13.1**	**0.0**
ZST				*e*SG	**Sg**	**11 31 23.4**	**+0.2**
MODS	**Modra-Piesok**	**0.98**	**47**	*e*PN	**Pn**	**11 31 16.6**	**-0.8**
MODS				*e*		11 31 18.8	
MODS	**Modra-Piesok**	**0.98**	**47**	*e*SN	**Sn**	**11 31 30.2**	**-0.9**
MODS				*e*		11 31 32.5	
MOA	**Molln**	**1.32**	**277**	⇓*i*Pg	**Pg**	**11 31 23.4**	**-0.1**
	comp=Z,0.7nm,0.1s						
MOA				⇑*i*Sg	**Sg**	**11 31 41.5**	**+0.9**
	comp=N,3.6nm,0.1s						
MOA	**Molln**	**1.32**	**277**	⇓*i*Pg	**Pg**	**11 31 23.4**	**-0.1**
	0.7nm,0.1s						
MOA				⇑*i*Sg	**Sg**	**11 31 41.5**	**+0.9**
	3.6nm,0.1s						
VYHS	**Vyhne**	**1.93**	**65**	*e*PN	**Pn**	**11 31 32.4**	**+1.9**
VYHS				*e*		11 31 37.4	
VYHS	**Vyhne**	**1.93**	**65**	*e*SN	**Sn**	**11 31 54.6**	**+0.1**
VYHS				*e*		11 32 03.0	

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*ISCJB **05** 11:43:59.5±0.4, 4083N±002×2742E±002, h6^{km}±3^{km}, Error ellipse: s-maj=3.2km s-min=2.6km az=17.3*

*CSEM **05** 11:43:59.8±0.1, 4079N×2744E, h10^{km}, MD3.4, Error ellipse: s-maj=1.6km s-min=1.0km az=19.0*

*ISK **05** 11:43:59.9, 4076N×2742E, h12^{km}, MD3.1*

*SOF **05** 11:43:59.1, 4078N×2733E, h7^{km}, MD2.8*

*NEIC **05** 11:43:59.9, 4077N×2741E, h11^{km}, MD3.7(ATH), ML3.1(ISK), ML2.5(BUC), After ISK.*

*THE **05** 11:43:59.6, 4098N×2739E, h3^{km}*

*ATH **05** 11:44:00.3, 4085N×2753E, h37^{km}±17^{km}, MD3.7/3*

*DDA **05** 11:44:01.1, 4079N×2738E, h6^{km}±1^{km}, Md3.4*

*SKO **05** 11:44:07.6, 4106N×2709E, h22^{km}*

ISC 05 11:44:00.2±0.4**, 4080N**±002×**2742E**±002**, h7^{km}**±3^{km}**, n121, σ0^{s}89**/154**, 5C-3D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SART	**Tekirdag**	**0.21**	**238**	*i* P	**Pg**	**11 44 04.7**	**+0.2**
SART				*i* S	**Sg**	**11 44 07.5**	**+0.1**
RKY	**Sarkoy-Tekirda**	**0.22**	**238**	*i* PG	**Pg**	**11 44 04.7**	**+0.2**
RKY				*i* SG	**Sg**	**11 44 07.7**	**+0.3**
RKY	**Sarkoy-Tekirda**	**0.22**	**238**	Pg	**Pg**	**11 44 04.6**	**+0.1**
RKY				Sg	**Sg**	**11 44 07.6**	**+0.2**
RKY	**Sarkoy-Tekirda**	**0.22**	**238**	Pg	**Pg**	**11 44 04.6**	**+0.1**
RKY				*i* Sg	**Sg**	**11 44 07.7**	**+0.3**
MRMT	**Marmara Adasi**	**0.24**	**146**	*i* PG	**Pg**	**11 44 04.2**	**-0.8**
MRMT				*i* SG	**Sg**	**11 44 07.5**	**-0.7**
MRMT	**Marmara Adasi**	**0.24**	**146**	*i* Pg	**Pg**	**11 44 04.2**	**-0.8**
MRMT				*i* Sg	**Sg**	**11 44 07.5**	**-0.7**
EDC	**Edincik**	**0.57**	**143**	*i* PG	**Pg**	**11 44 11.2**	**0.0**
EDC	**Edincik**	**0.57**	**143**	Pg	**Pg**	**11 44 11.2**	**0.0**
EDC	**Edincik**	**0.57**	**143**	*i* Pg	**Pg**	**11 44 11.2**	**0.0**
BNT	**Bandirma**	**0.59**	**139**	*i* PG	**Pg**	**11 44 11.4**	**-0.2**
BNT				*i* SG	**Sg**	**11 44 19.3**	**+0.1**
BNT	**Bandirma**	**0.59**	**139**	Pg	**Pg**	**11 44 11.4**	**-0.1**
LPK	**Lapseki**	**0.66**	**230**	PG	**Pg**	**11 44 12.8**	**-0.1**
LPK	**Lapseki**	**0.66**	**230**	Pg	**Pg**	**11 44 12.4**	**-0.5**
LPK	**Lapseki**	**0.66**	**230**	Pg	**Pg**	**11 44 12.4**	**-0.5**
CTT	**Catalca**	**0.84**	**66**	PG	**Pg**	**11 44 17.2**	**+0.8**
CTT	**Catalca**	**0.84**	**66**	Pg	**Pg**	**11 44 17.2**	**+0.9**
CTT	**Catalca**	**0.84**	**66**	*e*Pg	**Pg**	**11 44 17.2**	**+0.8**
KCT	**Karacabey**	**0.90**	**127**	PG	**Pg**	**11 44 17.4**	**0.0**
KCT	**Karacabey**	**0.90**	**127**	Pg	**Pg**	**11 44 17.4**	**0.0**
KCT	**Karacabey**	**0.90**	**127**	*e*Pg	**Pg**	**11 44 17.4**	**0.0**
ENEZ	**Enez**	**0.96**	**266**	PG	**Pg**	**11 44 18.7**	**0.0**
ENEZ	**Enez**	**0.96**	**266**	*e*Pg	**Pg**	**11 44 18.7**	**0.0**
ALN	**Alexandroupoli**	**1.04**	**276**	*e*Pg	**Pg**	**11 44 20.1**	**-0.2**
ALN				*e*Sg	**Sg**	**11 44 33.7**	**-0.2**
ALN	**Alexandroupoli**	**1.04**	**276**	*e*Pg	**Pg**	**11 44 20.1**	**-0.2**
ALN				*e*Sg	**Sg**	**11 44 33.7**	**-0.1**
BTOK	**Tokmak**	**1.14**	**156**	*i* P	**Pg**	**11 44 21.3**	**-0.8**
BTOK				*i* S	**Sg**	**11 44 37.4**	**+0.5**
EDRB	**Edirne**	**1.16**	**334**	PN	**Pn**	**11 44 23.2**	**+0.3**
EDRB	**Edirne**	**1.16**	**334**	Pn	**Pn**	**11 44 23.3**	**+0.4**
EDRB	**Edirne**	**1.16**	**334**	*e*Pn	**Pn**	**11 44 23.2**	**+0.3**
ISK	**Istanbul-Kandi**	**1.27**	**78**	PN	**Pn**	**11 44 23.7**	**-0.7**
ISK	**Istanbul-Kandi**	**1.27**	**78**	Pn	**Pn**	**11 44 24.0**	**-0.4**
ISK	**Istanbul-Kandi**	**1.27**	**78**	*e*Pg	**Pg**	**11 44 23.6**	**-1.0**
ISK				*e*Sg	**Sg**	**11 44 41.3**	**+0.2**
ISK	**Istanbul-Kandi**	**1.27**	**78**	*e*Pg	**Pg**	**11 44 23.6**	**-1.0**
ISK	**Istanbul-Kandi**	**1.27**	**78**	Pn	**Pn**	**11 44 24.0**	**-0.4**
ISK				*e*Sg	**Sg**	**11 44 41.3**	**+0.2**
EZN	**Ezine**	**1.28**	**221**	PN	**Pn**	**11 44 23.6**	**-1.0**
EZN	**Ezine**	**1.28**	**221**	Pn	**Pn**	**11 44 23.6**	**-0.9**
EZN	**Ezine**	**1.28**	**221**	*e*Pn	**Pn**	**11 44 23.6**	**-1.0**
KLYT	**Kilyos**	**1.31**	**69**	PN	**Pn**	**11 44 24.3**	**-0.6**
KLYT	**Kilyos**	**1.31**	**69**	*e*Pn	**Pn**	**11 44 24.3**	**-0.6**
GADA	**Gvkgeada**	**1.31**	**243**	PN	**Pn**	**11 44 24.1**	**-0.8**
GADA	**Gvkgeada**	**1.31**	**243**	Pn	**Pn**	**11 44 25.0**	**+0.1**
GADA	**Gvkgeada**	**1.31**	**243**	Pn	**Pn**	**11 44 25.0**	**+0.1**
GEMT	**Gemlik**	**1.40**	**105**	PN	**Pn**	**11 44 25.6**	**-0.5**
GEMT	**Gemlik**	**1.40**	**105**	Pn	**Pn**	**11 44 25.7**	**-0.5**
GEMT	**Gemlik**	**1.40**	**105**	Pn	**Pn**	**11 44 25.7**	**-0.4**
BOZC	**Bozcaada**	**1.42**	**228**	*i* P	**Pn**	**11 44 25.6**	**-0.8**
BOZC				*i* S	**Sb**	**11 44 44.5**	**-0.7**
RDO	**Rodhopi**	**1.46**	**284**	*e*PN	**Pn**	**11 44 26.9**	**-0.1**
RDO				*e*SN	**Sn**	**11 44 46.8**	**+0.4**
ULDT	**Uludag**	**1.47**	**116**	*i* P	**Pn**	**11 44 27.6**	**+0.5**
ULDT				*i* S	**Sn**	**11 44 44.6**	**-2.0**
YLV	**Yalova**	**1.51**	**98**	PN	**Pn**	**11 44 27.0**	**-0.6**
YLV	**Yalova**	**1.51**	**98**	*e*Pn	**Pn**	**11 44 27.0**	**-0.6**
AYVA	**Ayvalik**	**1.59**	**201**	*i* P	**Pn**	**11 44 29.7**	**+0.9**
AYVA				*i* S	**Sn**	**11 44 48.3**	**-1.3**
IZI	**Iznik**	**1.63**	**106**	PN	**Pn**	**11 44 29.2**	**-0.2**
IZI	**Iznik**	**1.63**	**106**	Pn	**Pn**	**11 44 29.3**	**-0.1**
IZI	**Iznik**	**1.63**	**106**	*e*Pn	**Pn**	**11 44 29.2**	**-0.2**
HRT	**Hereke**	**1.71**	**89**	PN	**Pn**	**11 44 30.0**	**-0.4**
HRT	**Hereke**	**1.71**	**89**	Pn	**Pn**	**11 44 30.1**	**-0.3**
HRT	**Hereke**	**1.71**	**89**	Pn	**Pn**	**11 44 30.1**	**-0.3**
KDZ	**Kurdzhali**	**1.73**	**300**	*i* P	**Pn**	**11 44 30.9**	**+0.2**
KDZ				*i* Pg	**Pg**	**11 44 33.4**	**0.0**
KDZ	**Kurdzhali**	**1.73**	**300**	*i* Pg	**Pg**	**11 44 33.4**	**0.0**
JMB	**Yambol**	**1.77**	**340**	*i* Pg	**Pg**	**11 44 35.5**	**+1.2**
JMB	**Yambol**	**1.77**	**340**	*i* Pg	**Pg**	**11 44 35.5**	**+1.2**
JMB	**Yambol**	**1.77**	**340**	*i* Pg	**Pg**	**11 44 35.5**	**+1.2**
PRK	**Paraskevi**	**1.79**	**210**	*e*PN	**Pn**	**11 44 31.9**	**+0.4**
PRK				*e*SN	**Sn**	**11 44 54.5**	**+0.1**
ADVT	**Abdulvahap**	**1.81**	**101**	*e*PN	**Pn**	**11 44 31.8**	**+0.1**
ADVT	**Abdulvahap**	**1.81**	**101**	Pn	**Pn**	**11 44 31.8**	**+0.1**
ADVT	**Abdulvahap**	**1.81**	**101**	*e*Pn	**Pn**	**11 44 31.8**	**+0.1**
DIM	**Dimitrovgrad**	**1.89**	**312**	*i* P	**Pn**	**11 44 32.7**	**-0.1**
DIM				*i* Pg	**Pg**	**11 44 35.7**	**-0.7**
DIM	**Dimitrovgrad**	**1.89**	**312**	*i* Pg	**Pg**	**11 44 35.7**	**-0.7**
LIA	**Limnos Island**	**1.93**	**243**	*e*PN	**Pn**	**11 44 34.1**	**+0.6**
AKS	**Akhisar**	**1.95**	**171**	*e*PN	**Pn**	**11 44 33.5**	**-0.2**
AKS	**Akhisar**	**1.95**	**171**	Pn	**Pn**	**11 44 33.5**	**-0.2**
AKS	**Akhisar**	**1.95**	**171**	*e*Pn	**Pn**	**11 44 33.5**	**-0.2**
LOS	**Limnos**	**1.98**	**245**	*e*Pn	**Pn**	**11 44 33.7**	**-0.5**
LOS	**Limnos**	**1.98**	**245**	*e*Pn	**Pn**	**11 44 33.7**	**-0.5**
RZN	**Rozhen**	**2.22**	**294**	*i* P	**Pn**	**11 44 37.7**	**+0.3**
GPA	**Golpazari**	**2.26**	**102**	*e*PN	**Pn**	**11 44 38.0**	**0.0**
GPA	**Golpazari**	**2.26**	**102**	Pn	**Pn**	**11 44 38.9**	**+0.9**
GPA	**Golpazari**	**2.26**	**102**	*e*Pn	**Pn**	**11 44 38.0**	**0.0**
GDZ	**Gediz**	**2.33**	**137**	*i* P	**Pn**	**11 44 39.2**	**+0.2**
GDZ				*i* S	**Sn**	**11 45 03.1**	**-4.8**
KDAG	**Bornova**	**2.40**	**183**	*i* P	**Pn**	**11 44 42.8**	**+2.9**
KDAG				*i* S	**Sn**	**11 45 11.6**	**+2.1**
KDAG	**Bornova**	**2.40**	**183**	*i* S	**Sn**	**11 45 11.6**	**+2.0**
PLD	**Plovdiv**	**2.42**	**303**	*e*Pn	**Pn**	**11 44 38.5**	**-1.7**
PLD				*e*Sn	**Sn**	**11 45 08.2**	**-1.9**
PLD	**Plovdiv**	**2.42**	**303**	*e*Pn	**Pn**	**11 44 38.5**	**-1.7**
PLD				*e*Sn	**Sn**	**11 45 08.2**	**-1.8**
BLCB	**Balcova**	**2.43**	**187**	*e*PN	**Pn**	**11 44 40.1**	**-0.3**
BLCB	**Balcova**	**2.43**	**187**	Pn	**Pn**	**11 44 40.6**	**+0.3**
BLCB	**Balcova**	**2.43**	**187**	*e*Pn	**Pn**	**11 44 41.9**	**+1.5**
BLCB				*e*Sn	**Sb**	**11 45 16.1**	**+1.6**
BLCB	**Balcova**	**2.43**	**187**	Pn	**Pn**	**11 44 40.7**	**+0.3**
OUR	**Ouranopolis**	**2.66**	**261**	*e*Pn	**Pn**	**11 44 42.1**	**-1.3**
OUR	**Ouranopolis**	**2.66**	**261**	*e*Pn	**Pn**	**11 44 42.1**	**-1.4**
ALT	**Altintas**	**2.71**	**129**	*e*PN	**Pn**	**11 44 44.3**	**+0.1**
ALT	**Altintas**	**2.71**	**129**	Pn	**Pn**	**11 44 44.4**	**+0.2**
ALT	**Altintas**	**2.71**	**129**	Pn	**Pn**	**11 44 44.4**	**+0.2**
NVR	**Nevrokopi**	**2.74**	**283**	*e*PN	**Pn**	**11 44 45.0**	**+0.4**
MDU	**Mudurnu**	**2.91**	**95**	*e*PN	**Pn**	**11 44 47.7**	**+0.8**
MDU	**Mudurnu**	**2.91**	**95**	Pn	**Pn**	**11 44 47.8**	**+0.9**
MDU	**Mudurnu**	**2.91**	**95**	*e*Pn	**Pn**	**11 44 47.7**	**+0.8**
ESKT	**Eskisehir**	**2.93**	**115**	*e*PN	**Pn**	**11 44 47.7**	**+0.6**
ESKT	**Eskisehir**	**2.93**	**115**	Pn	**Pn**	**11 44 47.8**	**+0.6**
ESKT	**Eskisehir**	**2.93**	**115**	*i* P	**Pn**	**11 44 47.0**	**-0.2**
ESKT				*i* S	**Sn**	**11 45 21.5**	**-1.0**
ESKT	**Eskisehir**	**2.93**	**115**	*e*Pn	**Pn**	**11 44 47.7**	**+0.6**
SEYT	**Eskypehyr**	**2.93**	**115**	*i* P	**Pn**	**11 44 47.0**	**-0.1**
SEYT				*i* S	**Sn**	**11 45 21.5**	**-1.0**
SGKT	**Sivrigoynuk**	**3.53**	**92**	*i* P	**Pn**	**11 44 56.2**	**+0.7**
VTS	**Vitosha**	**3.62**	**301**	*i* P	**Pn**	**11 44 57.0**	**+0.3**
VAY	**Valandovo**	**3.70**	**280**	*e*Pn	**Pn**	**11 45 01.6**	**+3.9**
VAY				*e*Sg	**Sg**	**11 45 55.6**	**-3.5**
VAY	**Valandovo**	**3.70**	**280**	*e*Pn	**Pn**	**11 45 01.6**	**+3.8**
VAY				*e*Sg	**Sg**	**11 45 55.5**	**-3.6**
TIRR	**Tirgusor**	**3.73**	**11**	⇑P	**Pn**	**11 44 58.8**	**+0.7**
TIRR				S	**Sn**	**11 45 40.3**	**-2.0**
TIRR	**Tirgusor**	**3.73**	**11**	⇑*i*P	**Pn**	**11 44 58.8**	**+0.7**
TIRR	**Tirgusor**	**3.73**	**11**	S	**Sn**	**11 45 40.3**	**-1.9**
TIRR	**Tirgusor**	**3.73**	**11**	⇑P	**Pn**	**11 44 58.8**	**+0.7**
TIRR				S	**Sn**	**11 45 40.3**	**-1.9**
KIZT	**Kizilcal**	**3.94**	**118**	*e*PN	**Pn**	**11 45 02.0**	**+1.0**
KIZT	**Kizilcal**	**3.94**	**118**	Pn	**Pn**	**11 45 02.1**	**+1.1**
KIZT	**Kizilcal**	**3.94**	**118**	*e*Pn	**Pn**	**11 45 02.0**	**+1.0**
STIP	**Stip**	**4.04**	**284**	*e*Pn	**Pn**	**11 45 06.1**	**+3.6**
STIP				*e*Sg	**Sg**	**11 46 04.8**	**-5.2**
STIP	**Stip**	**4.04**	**284**	*e*Pn	**Pn**	**11 45 06.1**	**+3.6**
KRUS	**Krusevo**	**4.70**	**279**	*e*Pn	**Pn**	**11 45 11.7**	**+0.2**
KRUS	**Krusevo**	**4.70**	**279**	*e*Pn	**Pn**	**11 45 11.6**	**+0.1**
MLR	**Muntele Rosu**	**4.81**	**348**	⇓P	**Pn**	**11 45 16.2**	**+3.2**
MLR				S	**Sn**	**11 46 09.9**	**+1.0**
MLR	**Muntele Rosu**	**4.81**	**348**	⇓*i*P	**Pn**	**11 45 16.2**	**+3.2**
MLR	**Muntele Rosu**	**4.81**	**348**	S	**Sn**	**11 46 09.9**	**+1.0**
MLR	**Muntele Rosu**	**4.81**	**348**	⇓P	**Pn**	**11 45 16.2**	**+3.2**
MLR				S	**Sn**	**11 46 09.9**	**+1.0**
VRI	**Vrincioaia**	**5.08**	**355**	⇑P	**Pn**	**11 45 18.8**	**+2.0**
VRI	**Vrincioaia**	**5.08**	**355**	⇑*i*P	**Pn**	**11 45 18.8**	**+2.0**

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*BJI **05** 11:52:13.6, 4756N×15395E, h10^{km}, mB4.7, mb4.3, Ms3.9, Msz3.8*

*NEIC **05** 11:52:22.6±0.7, 4721N×15305E, h10^{km}, mb4.3/2, Error ellipse: s-maj=28.4km s-min=9.9km az=146.0*

*ISCJB **05** 11:52:24.2±0.9, 4677N±007×15285E±009, h63^{km}±9^{km}, mb4.1/17, Error ellipse: s-maj=14.8km s-min=6.1km az=142.2*

*SKHL **05** 11:52:24.7±2.6, 4663N×15307E, h52^{km}±4^{km}, mb4.5/3*

*MOS **05** 11:52:25.5±0.8, 4687N×15279E, h73^{km}, mb4.2/8, Error ellipse: s-maj=15.0km s-min=10.0km az=69.0*

*IDC **05** 11:52:29.6±3.8, 4685N×15267E, h94^{km}±35^{km}, mb3.8/14, mb1 4.0/15, mb1mx3.9/23, mbtmp3.8/15, MS3.2/1, Ms1 3.2/1, ms1mx2.5/32, Error ellipse: s-maj=22.0km s-min=16.7km az=157.0*

ISC 05 11:52:26.2±0.8**, 4678N**±007×**15288E**±009**, h64^{km}**±7^{km}**, n58, σ1^{s}02**/69**, mb4.1**/17**, 1C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril’sk**	**3.82**	**248**	*e*PN	**Pn**	**11 53 22.0**	**-0.5**
KUR				*e*S	**Sn**	**11 54 05.5**	**-0.6**
KUR				pmax	pmax		
	comp=N,40nm,0.4s						
KUR				pmax	pmax		
	comp=Z,100nm,0.4s						
KUR				smax			
	comp=N,550nm,0.6s						
KUR				smax			
	comp=E,100nm,0.6s						
KUR	**Kuril’sk**	**3.82**	**248**	*e*P	**Pn**	**11 53 22.0**	**-0.5**
KUR				AMB	AMB	11 53 24.0	
	comp=E,40nm,0.4s						
KUR				AMB	AMB	11 53 24.0	
	comp=E,100nm,0.4s						
KUR				*e*S	**Sn**	**11 54 05.5**	**-0.6**
KUR				A		11 54 25.0	
	comp=E,550nm,0.6s						
KUR				A		11 54 25.0	
	comp=E,100nm,0.6s						
SKR	**Severo-Kuril’s**	**4.46**	**28**	*e*PN	**Pn**	**11 53 30.4**	**-0.8**
SKR				*e*S	**Sn**	**11 54 17.0**	**-4.7**
SKR				pmax	pmax		
	comp=Z,30nm,0.4s						
SKR				smax			
	comp=N,130nm,0.2s						
SKR				smax			
	comp=E,260nm,0.2s						
SKR	**Severo-Kuril’s**	**4.46**	**28**	*e*P	**Pn**	**11 53 30.4**	**-0.8**
SKR				AMB	AMB	11 53 31.0	
	comp=E,30nm,0.4s						
SKR				*e*S	**Sn**	**11 54 17.0**	**-4.7**
SKR				A		11 54 21.2	
	comp=E,130nm,0.2s						
SKR				A		11 54 21.2	
	comp=E,260nm,0.2s						
YUK	**Yuzh-Kuril’sk**	**5.65**	**244**	*e*P	**Pn**	**11 53 48.9**	**+1.4**
YUK				*e*S	**Sn**	**11 54 50.7**	**-0.3**
YUK				A		11 55 13.9	
	comp=E,720nm,0.7s						
YUK				A		11 55 13.9	
	comp=E,550nm,0.7s						
NEM2	**Nemuro 2**	**6.10**	**239**	P	**Pn**	**11 53 51.4**	**-2.2**
NEM2				*e*S	**Sn**	**11 54 58.2**	**-3.7**
JRA	**Rausu**	**6.16**	**245**	P	**Pn**	**11 53 55.7**	**+1.2**
JNK	**Nakash**	**6.59**	**244**	P	**Pn**	**11 54 00.2**	**-0.2**
JNK				*e*S	**Sn**	**11 55 13.5**	**-0.5**
JTKR	**Abashiri--Toko**	**6.91**	**249**	P	**Pn**	**11 54 05.6**	**+0.8**
JAK	**Akkeshi**	**6.93**	**240**	P	**Pn**	**11 54 03.2**	**-1.9**
JAK				*e*S	**Sn**	**11 55 18.1**	**-4.3**
YSS	**Yuzh-Sakhalins**	**6.94**	**275**	*e*Pn	**Pn**	**11 54 06.2**	**+1.0**
	comp=E,25nm,0.9s						
YSS	**Yuzh-Sakhalins**	**6.94**	**275**	*e*PN	**Pn**	**11 54 06.2**	**+1.0**
YSS				*e*S	**Sn**	**11 55 24.2**	**+1.5**
YSS				pmax	pmax		
	comp=Z,30nm,1.0s						
YSS	**Yuzh-Sakhalins**	**6.94**	**275**	*e*P	**Pn**	**11 54 06.2**	**+1.0**
YSS				AMB	AMB	11 54 09.0	
	comp=Z,30nm,1.0s						
YSS				*e*S	**Sn**	**11 55 24.2**	**+1.5**
JMP	**Maruseppu**	**7.25**	**251**	P	**Pn**	**11 54 10.7**	**+1.3**
PET	**Petropavlovsk**	**7.28**	**29**	*e*Pn	**Pn**	**11 54 09.9**	**+0.1**
PET				*e*Sn	**Sn**	**11 55 26.0**	**-4.9**
PET	**Petropavlovsk**	**7.28**	**29**	*e*PN	**Pn**	**11 54 10.4**	**+0.6**
PET				pmax	pmax		
	comp=Z,14nm,0.5s						
JAR	**Ashorobuto**	**7.33**	**245**	P	**Pn**	**11 54 10.5**	**0.0**
JAR				*e*S	**Sn**	**11 55 31.9**	**-0.3**
ASAJ	**Asahikawa**	**7.70**	**254**	PN	**Pn**	**11 54 17.5**	**+1.9**
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,179nm,19.0s						
ASAJ	**Asahikawa**	**7.70**	**254**	P	**Pn**	**11 54 17.4**	**+1.8**
	comp=Z,2.3nm,0.3s,baz=74,slow=8.7,SNR=20						
ASAJ				LR	LR	11 56 52.0	
	comp=Z,178nm,19.0s,baz=335,slow=35						
JCH	**Churui**	**7.95**	**242**	P	**Pn**	**11 54 17.5**	**-1.5**
JCH				*e*S	**Sn**	**11 55 43.6**	**-3.9**
MA2	**Magadan**	**12.88**	**355**	*e*Pn	**Pn**	**11 55 25.4**	**-0.8**
	comp=Z,7.0nm,0.5s						
MA2	**Magadan**	**12.88**	**355**	*c i*PN	**Pn**	**11 55 25.9**	**-0.3**
MA2				pmax	pmax		
	comp=N,10.0nm,0.5s						
MA2				pmax	pmax		
	comp=Z,10.0nm,0.5s						
KLR	**Kul’dur**	**14.35**	**288**	*e*P	**Pn**	**11 55 45.6**	**-0.3**
MAJO	**Matsushiro**	**14.97**	**232**	P	**Pn**	**11 55 58.6**	**+4.7**
MJAR	**Matsushiro Arr**	**14.97**	**232**	P	**Pn**	**11 55 59.0**	**+5.1**
	comp=Z,0.4nm,0.3s,baz=35,slow=9.0,SNR=9.5						
KSRS	**Korea Array**	**20.65**	**252**	P	**P**	**11 57 01.9**	**+1.4**
	comp=Z,2.7nm,0.6s,baz=57,slow=9.8,SNR=13						
JNU	**Nakatsue**	**21.60**	**239**	P	**P**	**11 57 10.3**	**-0.3**
	comp=Z,5.7nm,0.9s,mb4.0,baz=23,slow=14,SNR=3.2						
SONM	**Songino Array**	**31.17**	**289**	P	**P**	**11 58 37.7**	**-1.1**
	comp=Z,0.2nm,0.5s,mb3.2,baz=66,slow=12,SNR=1.8						
COLA	**College**	**36.22**	**38**	*e*P	**P**	**11 59 22.5**	**+0.1**
	comp=Z,3.5nm,0.6s,mb4.5						
COLA	**College**	**36.22**	**38**	*e*P	**P**	**11 59 22.5**	**+0.1**
COLA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
GTA	**Gaotai**	**38.81**	**279**	*e*P	**P**	**11 59 46.8**	**+2.2**
GTA				AP	pP	11 59 52.2	-8.3
GTA				XP	sP	11 59 55.0	-13
GTA				AMB	AMB		
	comp=Z,3.0nm,1.0s,mb4.0						
INK	**Inuvik**	**41.72**	**32**	*e*P	**P**	**12 00 08.5**	**+0.2**
	comp=Z,133nm,0.8s,mb5.6						
INK	**Inuvik**	**41.72**	**32**	P	**P**	**12 00 09.1**	**+0.8**
INK				pmax	pmax		
	comp=Z,3.0nm,0.7s						
INK	**Inuvik**	**41.72**	**32**	P	**P**	**12 00 09.1**	**+0.8**
	comp=Z,3.2nm,0.7s,mb4.1,baz=283,slow=5.1,SNR=12						
ZALV	**Zalesovo Beam**	**42.47**	**306**	PcP	PcP	12 02 05.9	-0.3
	comp=Z,0.5nm,0.4s,baz=90,slow=3.0,SNR=3.5						
MKAR	**Makanchi Array**	**46.79**	**297**	PcP	PcP	12 02 20.8	-0.5
	comp=Z,1.0nm,0.8s,baz=73,slow=5.0,SNR=1.9						
YKA	**Yellowknife Ar**	**51.00**	**37**	P	**P**	**12 01 21.3**	**+0.2**
YKA						12 02 36.3	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	**Yellowknife Ar**	**51.00**	**37**	P	**P**	**12 01 21.3**	**+0.2**
	comp=Z,0.9nm,0.8s,mb3.8,baz=297,slow=7.0,SNR=11						
YKA				PcP	PcP	12 02 36.3	0.0
	comp=Z,0.6nm,0.6s,baz=302,slow=3.6,SNR=8.2						
KEV	**Kevo**	**57.27**	**340**	*e*P	**P**	**12 02 05.5**	**-1.0**
KEV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.3						
NVAR	**Mina Array Bea**	**62.56**	**62**	P	**P**	**12 02 44.1**	**+0.8**
	comp=Z,0.7nm,0.7s,mb3.9,baz=285,slow=9.3,SNR=7.2						
FINES	**FINESS Array B**	**63.95**	**335**	P	**P**	**12 02 51.2**	**-0.9**
FINES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
FINES	**FINESS Array B**	**63.95**	**335**	P	**P**	**12 02 51.1**	**-0.9**
	comp=Z,3.5nm,0.6s,mb4.6,baz=35,slow=7.9,SNR=23						
BW06	**Boulder Array**	**64.86**	**54**	P	**P**	**12 02 59.4**	**+1.0**
	comp=Z,1.4nm,0.7s,mb4.1						
NB2	**NORSAR Subarra**	**68.15**	**341**	P	**P**	**12 03 18.2**	**-0.8**
	comp=Z,2.7nm,0.6s,mb4.5,baz=28,slow=6.2						
NOA	**NORSAR Array B**	**68.15**	**341**	P	**P**	**12 03 18.5**	**-0.5**
NOA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NOA	**NORSAR Array B**	**68.15**	**341**	P	**P**	**12 03 18.4**	**-0.6**
	comp=Z,5.0nm,0.7s,mb4.6,baz=27,slow=6.3,SNR=12						
HFS	**Hagfors**	**68.38**	**339**	P	**P**	**12 03 19.6**	**-0.8**
HFS				pmax	pmax		
	comp=Z,6.0nm,0.5s						
HFS	**Hagfors**	**68.38**	**339**	P	**P**	**12 03 19.6**	**-0.8**
	comp=Z,6.2nm,0.5s,mb4.9,baz=46,slow=6.4,SNR=32						
WRA	**Warramunga Arr**	**68.48**	**199**	P	**P**	**12 03 21.6**	**+0.1**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	**Warramunga Arr**	**68.48**	**199**	P	**P**	**12 03 21.6**	**+0.1**
	comp=Z,0.8nm,0.8s,mb3.8,baz=14,slow=6.7,SNR=6.1						
AKASG	**Malin Array Be**	**71.44**	**326**	P	**P**	**12 03 38.3**	**-1.1**
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.5s						
AKASG	**Malin Array Be**	**71.44**	**326**	P	**P**	**12 03 38.3**	**-1.0**
	comp=Z,4.0nm,0.5s,mb4.6,baz=32,slow=6.1,SNR=23						
TXAR	**Lajitas Array**	**77.62**	**60**	P	**P**	**12 04 16.2**	**+0.6**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	**Lajitas Array**	**77.62**	**60**	P	**P**	**12 04 16.2**	**+0.6**
	comp=Z,0.6nm,0.6s,mb3.7,baz=298,slow=4.7,SNR=18						
BRTR	**Keskin Array B**	**78.26**	**317**	P	**P**	**12 04 19.2**	**+0.2**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	**Keskin Array B**	**78.26**	**317**	P	**P**	**12 04 19.2**	**+0.2**
	comp=Z,1.0nm,0.8s,mb3.8,baz=52,slow=8.0,SNR=5.6						
GERES	**GERESS Array B**	**78.36**	**334**	P	**P**	**12 04 18.9**	**-0.5**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
GERES	**GERESS Array B**	**78.36**	**334**	P	**P**	**12 04 18.9**	**-0.5**
	comp=Z,1.0nm,0.8s,mb3.8,baz=316,slow=9.3,SNR=3.7						

MAN 05 12:01:51, 1622N×11984E, h12^{km}, mb4.1, ML2.9, MS2.7, 1C-2D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOLP	**Bolinao**	**0.18**	**25**	*e*P	Pg	12 01 58.6	+3.6
BOLP				*e*S	Sg	12 02 04.9	+7.1
SCZP	**Santa Cruz**	**0.45**	**171**	*e*P	Pg	12 02 00.7	+0.8
SCZP				*e*S	Sg	12 02 08.0	+2.2
BCPH	**Baguio City Da**	**0.73**	**77**	⇓*i*P	Pg	12 02 05.3	+0.1
BCPH				*i* S	Sg	12 02 16.1	+1.2
PCPH	**Palayan**	**1.38**	**118**	⇓*e*P	Pn	12 02 14.4	-1.7
PCPH				*i* S	Sn	12 02 16.1	-18
ABRA	**Dolores**	**1.65**	**30**	*e*P	Pn	12 02 18.9	-0.9
ABRA				*e*S	Sn	12 02 42.0	+1.0
BALP	**Baler**	**1.74**	**106**	*e*P	Pn	12 02 20.6	-0.5
BALP				*e*S	Sn	12 02 44.0	+0.8
CAUP	**Cauayan**	**2.04**	**69**	*e*P	Pn	12 02 26.3	+1.2
CAUP				*e*S	Sn	12 02 54.8	+4.3
APYP	**Conner**	**2.12**	**39**	*e*P	Pn	12 02 25.6	-0.6
APYP				*e*S	Sn	12 02 53.8	+1.3
PIP	**Pasuquin**	**2.22**	**20**	⇑*i*P	Pn	12 02 27.4	-0.4
PIP				*e*S	Sn	12 02 59.5	+4.4
CVP	**Callao Caves**	**2.41**	**52**	*e*P	Pn	12 02 30.5	+0.2
CVP				*e*S	Sn	12 03 01.3	+1.7
LUBP	**Lubang**	**2.50**	**171**	*e*P	Pn	12 02 32.2	+0.7
LUBP				*e*S	Sn	12 03 05.6	+3.6
POLP	**Polilio Island**	**2.51**	**126**	*e*P	Pn	12 02 32.0	+0.3
POLP				*e*S	Sn	12 03 03.2	+0.9
BUSP	**Coron**	**4.21**	**175**	*e*P	Pn	12 02 52.5	-2.5

*TEH **05** 12:02:03.1, 3132N×5677E, h2^{km}, ML3.6*
*ISCJB **05** 12:03:03.7±1.8, 3126N±0.10×5675E±006, h3^{km}±11^{km}, Error ellipse: s-maj=17.5km s-min=6.6km az=161.2*
*CSEM **05** 12:03:04.4±0.2, 3134N×5674E, h10^{km}, ML3.6, Error ellipse: s-maj=6.2km s-min=1.8km az=170.0*
ISC 05 12:03:03.1±1.9**, 311N**±01×**5677E**±006**, h8**^{km}±13^{km}**, n24, σ1^{s}09**/27**, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IBAF	**Bafgh**	**1.16**	**298**	*e*Pg	**Pg**	**12 03 24.6**	**-0.8**
IBAF				*e*		12 03 27.1	
	comp=Z,33µm,0.1s						
IBAF	**Bafgh**	**1.16**	**298**	*e*Pg	**Pg**	**12 03 24.6**	**-0.8**
IMEH	**Mehriz**	**1.88**	**281**	*e*Pn	**Pn**	**12 03 35.7**	**+0.2**
IMEH				*e*		12 04 07.0	
	comp=Z,10µm,0.1s						
IMEH	**Mehriz**	**1.88**	**281**	*e*Pn	**Pn**	**12 03 35.7**	**+0.2**
ICHK	**Chekchek**	**2.34**	**301**	*e*Pn	**Pn**	**12 03 43.0**	**+1.1**
ICHK				*e*Sn	**Sn**	**12 04 10.9**	**+0.1**
ICHK				*e*		12 04 23.2	
	comp=Z,5µm,0.2s						
ICHK	**Chekchek**	**2.34**	**301**	*e*Pn	**Pn**	**12 03 43.0**	**+1.1**
ICHK				*e*Sn	**Sn**	**12 04 10.9**	**+0.1**
IKOO		**2.35**	**54**	*e*Pn	**Pn**	**12 03 42.8**	**+0.8**
ITEG		**2.50**	**42**	*e*Pn	**Pn**	**12 03 44.5**	**+0.5**
ITEG				*e*Sn	**Sn**	**12 04 13.0**	**-1.7**
IMON		**3.26**	**48**	*e*Pn	**Pn**	**12 03 55.1**	**+0.6**
ISRV	**Sarvestan**	**3.57**	**243**	*e*Sn	**Sn**	**12 04 46.4**	**+5.1**
ISRV	**Sarvestan**	**3.57**	**243**	*e*Sn	**Sn**	**12 04 46.4**	**+5.1**
IZEF	**Zefreh**	**4.20**	**297**	*e*Pn	**Pn**	**12 04 09.0**	**+1.6**
IZEF				*e*		12 05 17.5	
	comp=Z,507nm,0.2s						
IZEF	**Zefreh**	**4.20**	**297**	*e*Pn	**Pn**	**12 04 09.0**	**+1.6**
IANJ	**Anjiloo**	**5.01**	**332**	*e*Pn	**Pn**	**12 04 11.8**	**-6.8**
IANJ				*e*		12 05 51.6	
	comp=Z,341nm,0.3s						
IANJ	**Anjiloo**	**5.01**	**332**	*e*Pn	**Pn**	**12 04 11.8**	**-6.8**
ISHM	**Shahmirzad**	**5.56**	**329**	*e*Pn	**Pn**	**12 04 21.4**	**-4.8**
ISHM				*e*		12 06 17.2	
	comp=Z,387nm,0.2s						
ISHM	**Shahmirzad**	**5.56**	**329**	*e*Pn	**Pn**	**12 04 21.4**	**-4.8**
IDMV	**Damavand**	**6.01**	**320**	*e*Pn	**Pn**	**12 04 31.9**	**-0.4**
IDMV				*e*		12 06 42.4	
	comp=Z,192nm,0.3s						
IDMV	**Damavand**	**6.01**	**320**	*e*Pn	**Pn**	**12 04 31.9**	**-0.4**
QRN	**Al-Qurain**	**8.02**	**256**	*e*P	**Pn**	**12 04 56.9**	**-3.0**
QRN				AMb	AMB	12 04 58.7	
	comp=Z,39nm,0.4s						
KBD	**Kabd**	**8.08**	**259**	*e*P	**Pn**	**12 04 59.5**	**-1.2**
KBD				AMb	AMB	12 05 02.0	
	comp=Z,48nm,0.9s						
KBD	**Kabd**	**8.08**	**259**	*e*P	**Pn**	**12 04 59.5**	**-1.3**
	comp=Z,48nm,0.9s						
RDF	**Al-Radifah**	**8.27**	**258**	*e*P	**Pn**	**12 04 56.1**	**-7.3**
RDF				AMb	AMB	12 05 06.7	
	comp=Z,25nm,1.0s						
RST	**Umm Al-Ruwaisa**	**8.59**	**262**	*e*P	**Pn**	**12 04 57.8**	**-10**
RST				AMb	AMB	12 05 04.8	
	comp=Z,5.8nm,0.8s						

*ISCJB **05** 12:18:47.5±1.2, 2983N±004×3624E±008, h0^{km}, Error ellipse: s-maj=9.4km s-min=5.8km az=0.8*
*CSEM **05** 12:18:49.2±0.3, 2978N×3612E, h2^{km}, ML2.5, Error ellipse: s-maj=6.1km s-min=4.0km az=89.0, Mining explosion.*
*GII **05** 12:18:49.3±0.6, 2991N×3614E, h0^{km}±12^{km}, ML2.5/1*
*SGS **05** 12:18:52.1, 2979N×3606E, h6^{km}*
ISC 05 12:18:47.7±1.3**, 2982N**±004×**3628E**±008**, h0**^{km}**, n25, σ0^{s}73**/32**, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AQBJ	**Aqaba**	**1.07**	**265**	Pg	**Pg**	**12 19 07.9**	**-0.4**
HRFI	**Mount Harif**	**1.10**	**282**	Pg	**Pg**	**12 19 08.6**	**-0.2**
HRFI	**Mount Harif**	**1.10**	**282**	Pg	**Pg**	**12 19 08.6**	**-0.2**
EIL	**Elat**	**1.17**	**263**	Pg	**Pg**	**12 19 10.0**	**0.0**
EIL				Sg	**Sg**	**12 19 26.2**	**+1.0**
EIL	**Elat**	**1.17**	**263**	Pg	**Pg**	**12 19 10.0**	**0.0**
EIL				Sg	**Sg**	**12 19 26.2**	**+1.0**
HQLS		**1.18**	**244**	P	**Pg**	**12 19 10.8**	**+0.5**
HQLS				S	**Sg**	**12 19 24.6**	**-1.1**
HQLS		**1.18**	**244**	S	**Sg**	**12 19 24.6**	**-1.1**
HQLS		**1.18**	**244**	P	**Pg**	**12 19 10.8**	**+0.5**
MBH	**Mount Berech**	**1.19**	**269**	Pg	**Pg**	**12 19 11.4**	**+1.0**
MBH	**Mount Berech**	**1.19**	**269**	Pg	**Pg**	**12 19 11.4**	**+0.9**
ZFRI	**Zfri**	**1.20**	**308**	Pg	**Pg**	**12 19 08.9**	**-1.9**
PRNI	**Paran**	**1.23**	**296**	Pg	**Pg**	**12 19 10.4**	**-0.8**
PRNI				Sg	**Sg**	**12 19 27.8**	**+0.6**
PRNI	**Paran**	**1.23**	**296**	Pg	**Pg**	**12 19 10.4**	**-0.8**
PRNI				Sg	**Sg**	**12 19 27.8**	**+0.7**
JLOS		**1.28**	**213**	P	**Pg**	**12 19 13.1**	**+0.8**
JLOS				S	**Sg**	**12 19 28.6**	**-0.3**
JLOS		**1.28**	**213**	S	**Sg**	**12 19 28.6**	**-0.3**
JLOS		**1.28**	**213**	P	**Pg**	**12 19 13.1**	**+0.8**
KRMI	**Paran Flat**	**1.38**	**283**	Pg	**Pg**	**12 19 14.1**	**-0.1**
KRMI	**Paran Flat**	**1.38**	**283**	Pg	**Pg**	**12 19 14.1**	**-0.1**
YTIR	**Yattir**	**1.84**	**327**	Pn	**Pn**	**12 19 20.9**	**+0.5**
YTIR	**Yattir**	**1.84**	**327**	Pn	**Pn**	**12 19 20.9**	**+0.4**
DSI	**Dead Sea**	**1.91**	**336**	Pn	**Pn**	**12 19 22.0**	**+0.5**
DSI	**Dead Sea**	**1.91**	**336**	Pn	**Pn**	**12 19 22.0**	**+0.6**
RSHS		**2.00**	**221**	P	**Pn**	**12 19 22.3**	**-0.4**
RSHS				S	**Sn**	**12 19 48.4**	**0.0**
RSHS		**2.00**	**221**	S	**Sn**	**12 19 48.4**	**+0.1**
RSHS		**2.00**	**221**	P	**Pn**	**12 19 22.3**	**-0.3**

*IDC **05** 12:36:45.0±0.9, 095S×12682E, h0^{km}, mb4.3/9, mb1 4.3/10, mb1mx4.2/19, mbtmp4.3/10, ML3.6/1, Error ellipse: s-maj=38.4km s-min=15.7km az=71.0*
*ISCJB **05** 12:36:47.3±0.5, 097S±007×1269E±02, h33^{km}, mb4.4/13, Error ellipse: s-maj=25.1km s-min=7.8km az=163.8*
*MOS **05** 12:36:47.0±1.3, 099S×12673E, h33^{km}, mb4.6/8, Error ellipse: s-maj=31.6km s-min=14.2km az=105.4*
*NEIC **05** 12:36:48.0±7.9, 096S×12678E, h20^{km}±59^{km}, mb4.5/4, Error ellipse: s-maj=25.3km s-min=16.1km az=77.0*
*BJI **05** 12:36:48.0, 100S×12680E, h20^{km}, mB5.1, mb4.6*
ISC 05 12:36:49.8±0.5**, 097S**±007×**1269E**±02**, h35**^{km}**, n35, σ1^{s}18**/33**, mb4.4**/13**, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**12.90**	**155**	*e*P	**Pn**	**12 39 50.1**	**-0.7**
	26nm,0.9s						
FITZ	**Fitzroy Crossi**	**17.07**	**184**	*e*P	**Pn**	**12 40 47.3**	**+1.4**
	8.5nm,1.0s						
FITZ	**Fitzroy Crossi**	**17.07**	**184**	P	**Pn**	**12 40 44.1**	**-1.8**
	0.2nm,0.3s,baz=357,slow=18,SNR=4.7						
WRA	**Warramunga Arr**	**20.22**	**159**	P	**P**	**12 41 21.2**	**-0.7**
WRA				pmax	pmax		
	comp=Z,13nm,0.8s						
WRA	**Warramunga Arr**	**20.22**	**159**	P	**P**	**12 41 21.2**	**-0.8**
	comp=Z,13nm,0.8s,baz=340,slow=12,SNR=63						
WB2	**Warramunga Arr**	**20.22**	**159**	*e*P	**P**	**12 41 21.1**	**-0.9**
COEN	**Coen**	**20.65**	**129**	*e*P	**P**	**12 41 27.9**	**+1.2**
PMG	**Port Moresby**	**21.85**	**113**	*e*P	**P**	**12 41 42.9**	**+3.3**
	comp=Z,24nm,0.9s,mb4.6						
PMG	**Port Moresby**	**21.85**	**113**	P	**P**	**12 41 41.9**	**+2.3**
PMG				pmax	pmax		
	comp=Z,24nm,0.9s						
PMG	**Port Moresby**	**21.85**	**113**	P	**P**	**12 41 41.9**	**+2.3**
	comp=Z,24nm,0.9s,mb4.6,baz=298,slow=8.0,SNR=8.6						
JOW	**Kunigami**	**27.67**	**3**	P	**P**	**12 42 34.0**	**-0.6**
	comp=Z,15nm,0.8s,mb4.7,baz=196,slow=9.2,SNR=6.4						
STKA	**Stephens Creek**	**33.74**	**157**	*e*P	**P**	**12 43 28.8**	**+0.7**
STKA	**Stephens Creek**	**33.74**	**157**	P	**P**	**12 43 28.9**	**+0.7**
	comp=Z,18nm,0.8s,mb5.1,baz=328,slow=7.8,SNR=28						
KSRS	**Korea Array**	**38.24**	**1**	P	**P**	**12 44 06.5**	**-0.1**
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
KSRS	**Korea Array**	**38.24**	**1**	P	**P**	**12 44 06.5**	**-0.1**
	comp=Z,2.3nm,0.7s,mb4.0,baz=178,slow=9.6,SNR=7.5						
MJAR	**Matsushiro Arr**	**38.78**	**15**	P	**P**	**12 44 09.6**	**-1.5**
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MJAR	**Matsushiro Arr**	**38.78**	**15**	P	**P**	**12 44 09.6**	**-1.5**
	comp=Z,2.2nm,0.6s,mb4.0,baz=182,slow=8.9,SNR=6.3						
GTA	**Gaotai**	**47.22**	**331**	*e*P	**P**	**12 45 23.9**	**+4.5**
GTA				AP	pP	12 45 31.9	+2.1
GTA				XP	sP	12 45 35.4	+1.4
GTA				AMB	AMB		
	comp=Z,3.0nm,1.1s,mb4.1						
SONM	**Songino Array**	**51.78**	**343**	P	**P**	**12 45 54.9**	**+0.9**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	**Songino Array**	**51.78**	**343**	P	**P**	**12 45 54.9**	**+0.9**
	comp=Z,0.5nm,0.7s,mb3.6,baz=158,slow=8.9,SNR=4.4						
MK31	**Makanchi Array**	**61.51**	**327**	*e*P	**P**	**12 47 03.1**	**-0.1**
MKAR	**Makanchi Array**	**61.51**	**327**	P	**P**	**12 47 03.6**	**+0.4**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	**Makanchi Array**	**61.51**	**327**	P	**P**	**12 47 03.6**	**+0.4**
	comp=Z,1.2nm,0.7s,mb4.2,baz=119,slow=8.0,SNR=18						
YAK	**Yakutsk**	**62.87**	**1**	*e*P	**P**	**12 47 12.1**	**+0.1**
YAK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
MA2	**Magadan**	**63.20**	**13**	*e*P	**P**	**12 47 15.1**	**+0.8**
	comp=Z,3.0nm,0.6s,mb4.6						
MA2	**Magadan**	**63.20**	**13**	*e*P	**P**	**12 47 13.8**	**-0.5**
MA2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
AAK	**Ala-Archa**	**63.96**	**319**	*e*P	**P**	**12 47 24.5**	**+4.9**
ZALV	**Zalesovo Beam**	**64.83**	**334**	P	**P**	**12 47 27.1**	**+2.0**
	comp=Z,0.3nm,0.3s,mb3.8,baz=141,slow=4.8,SNR=2.8						
ZAL	**Zalesovo**	**64.84**	**334**	P	**P**	**12 47 27.1**	**+2.0**
KURK	**Kurchatov**	**65.78**	**329**	*e*P	**P**	**12 47 30.2**	**-1.2**
	comp=Z,1.9nm,0.5s,mb4.4						
KURK	**Kurchatov**	**65.78**	**329**	*e*P	**P**	**12 47 30.2**	**-1.1**
KURK				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
SEY	**Seymchan**	**66.55**	**12**	*e*P	**P**	**12 47 35.3**	**-0.7**
TIXI	**Tiksi**	**72.51**	**1**	*e*P	**P**	**12 48 10.5**	**-2.1**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
TORD	**Torodi Ar. Bea**	**124.41**	**285**	PKP	PKPdf	12 55 46.1	-0.2
TORD	**Torodi Ar. Bea**	**124.41**	**285**	PKP	PKPdf	12 55 46.1	-0.2
	comp=Z,0.7nm,0.8s,baz=78,slow=2.4,SNR=4.4						

NEIC 05 13:10:12.8, 6217N×14808W, h15^{km}**, ML3.5**(PMR)**, ML3.1**(AEIC)**, After AEIC., Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SML	**Sawmill**	**0.38**	**198**	P	Pg	13 10 20.6	+0.1
SML				S	Sg	13 10 26.7	+1.0
GHO	**Glory Hole Cre**	**0.56**	**225**	P	Pg	13 10 23.0	-0.8
GHO				S	Sg	13 10 30.9	-0.5
PMR	**Palmer**	**0.76**	**221**	*e*P	Pg	13 10 25.7	-1.9
PMR				S	Sg	13 10 36.5	-1.2
KNK	**Knik Glacier**	**0.78**	**193**	P	Pg	13 10 26.7	-1.2
KNK				S	Sg	13 10 37.3	-0.9
RC01	**Rabbit Creek A**	**1.34**	**217**	P	Pn	13 10 35.8	-1.1
FIB	**Fire Island**	**1.42**	**226**	P	Pn	13 10 37.7	-0.3
PAX	**Paxson**	**1.45**	**55**	P	Pn	13 10 36.5	-1.9
DIV	**Divide**	**1.52**	**132**	P	Pn	13 10 37.6	-1.7
MCK	**McKinley**	**1.62**	**346**	P	Pn	13 10 39.4	-1.4
TRF	**Thorofare Moun**	**1.64**	**323**	P	Pn	13 10 39.4	-1.7
KTH	**Kantishna Hill**	**1.91**	**318**	P	Pn	13 10 43.2	-1.4
EYAK	**Cordova Ski Ar**	**1.98**	**144**	P	Pn	13 10 45.9	+0.3
BMRM	**Bremner River**	**2.05**	**124**	P	Pn	13 10 46.1	-0.6
MENT	**Mentasta**	**2.16**	**67**	*e*P	Pn	13 10 48.2	0.0
COLA	**College**	**2.72**	**2**	P	Pn	13 10 53.9	-2.0
SVW2	**Sparrevohn**	**3.74**	**257**	*e*P	Pn	13 11 10.2	+0.4
EGAK	**Eagle**	**4.06**	**47**	P	Pn	13 11 13.9	-0.4
DAWY	**Dawson**	**4.38**	**60**	P	Pn	13 11 18.8	+0.2
IMA2	**Indian Mountai**	**4.62**	**330**	*e*P	Pn	13 11 20.8	-1.2
COLD	**Coldfoot**	**5.16**	**351**	P	Pn	13 11 26.8	-2.6

*CSEM **05** 13:10:27.4±0.1, 4305N×1355E, h15^{km}, ML3.5/8, Error ellipse: s-maj=2.0km s-min=1.2km az=60.0*
*ISCJB **05** 13:10:28.4±0.3, 4307N±002×1356E±003, h24^{km}±4^{km}, Error ellipse: s-maj=4.5km s-min=3.5km az=149.4*
*ROM **05** 13:10:28.5±0.3, 4305N×1353E, h10^{km}±4^{km}, Md3.0/26, Ml2.8/21, Error ellipse: s-maj=3.3km s-min=3.2km az=123.0*
*NEIC **05** 13:10:28.5, 4305N×1353E, h10^{km}, ML3.2(LDG), ML2.8(ROM), After ROM.*
*LDG **05** 13:10:30.9±0.3, 4313N×1350E, h10^{km}, Ml3.2/7, Error ellipse: s-maj=5.6km s-min=3.8km az=93.0*
ISC 05 13:10:28.4±0.3**, 4306N**±002×**1355E**±003**, h18**^{km}±3^{km}**, n110, σ1^{s}01**/150**, 14D, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFFI	**Offida**	**0.15**	**141**	⇓*e*Pg	**Pg**	**13 10 33.6**	**+1.0**
	6µm,0.5s						
OFFI	**Offida**	**0.15**	**141**	⇓*e*Pg	**Pg**	**13 10 33.6**	**+1.0**
	6µm,0.5s						
TRTR	**Tortoreto Alta**	**0.36**	**133**	Pg	**Pg**	**13 10 36.8**	**+0.8**
CING	**Cingoli**	**0.41**	**321**	Pg	**Pg**	**13 10 36.4**	**-0.5**
CING				Sg	**Sg**	**13 10 43.3**	**+0.7**
CING	**Cingoli**	**0.41**	**321**	Pg	**Pg**	**13 10 36.4**	**-0.5**
CING				Sg	**Sg**	**13 10 43.3**	**+0.7**
	781nm,0.2s						
CING	**Cingoli**	**0.41**	**321**	Pg	**Pg**	**13 10 36.4**	**-0.5**
CING				Sg	**Sg**	**13 10 43.3**	**+0.7**
	781nm,0.2s						
TERO	**Teramo**	**0.43**	**175**	Pg	**Pg**	**13 10 36.7**	**-0.5**
TERO				Sg	**Sg**	**13 10 43.7**	**+0.5**
TERO	**Teramo**	**0.43**	**175**	Pg	**Pg**	**13 10 36.7**	**-0.5**
TERO				Sg	**Sg**	**13 10 43.7**	**+0.5**
	549nm,0.6s						
TERO	**Teramo**	**0.43**	**175**	Pg	**Pg**	**13 10 36.7**	**-0.5**
TERO				Sg	**Sg**	**13 10 43.7**	**+0.5**
	549nm,0.6s						
CESI	**CESI - Serrava**	**0.48**	**264**	⇓*i*Pg	**Pg**	**13 10 37.5**	**-0.5**
CESI				Sg	**Sg**	**13 10 45.2**	**+0.7**
	2µm,0.5s						
SNTG	**Esanatoglia**	**0.49**	**294**	⇓*i*Pg	**Pg**	**13 10 37.7**	**-0.6**
SNTG				Sg	**Sg**	**13 10 45.1**	**+0.2**
SNTG	**Esanatoglia**	**0.49**	**294**	⇓*i*Pg	**Pg**	**13 10 37.7**	**-0.6**
SNTG				Sg	**Sg**	**13 10 45.1**	**+0.2**
SNTG	**Esanatoglia**	**0.49**	**294**	⇓*i*Pg	**Pg**	**13 10 37.7**	**-0.6**
SNTG				Sg	**Sg**	**13 10 45.1**	**+0.2**
AOI	**Ancona**	**0.50**	**4**	Pg	**Pg**	**13 10 38.0**	**-0.4**
AOI	**Ancona**	**0.50**	**4**	Pg	**Pg**	**13 10 38.0**	**-0.4**
	572nm,0.3s						
AOI	**Ancona**	**0.50**	**4**	Pg	**Pg**	**13 10 38.0**	**-0.4**
	572nm,0.3s						
CAMP	**Campotosto**	**0.53**	**192**	Pg	**Pg**	**13 10 38.1**	**-0.9**
CAMP				Sg	**Sg**	**13 10 47.7**	**+1.6**
	199nm,1.1s						
CAMP	**Campotosto**	**0.53**	**192**	Pg	**Pg**	**13 10 38.1**	**-0.9**
CAMP				Sg	**Sg**	**13 10 47.7**	**+1.6**
	199nm,1.1s						
LNSS	**Leonessa**	**0.59**	**220**	⇓*e*Pg	**Pg**	**13 10 39.3**	**-0.8**
LNSS				Sg	**Sg**	**13 10 48.9**	**+1.0**
	1µm,0.6s						
LNSS	**Leonessa**	**0.59**	**220**	⇓*e*Pg	**Pg**	**13 10 39.3**	**-0.8**
LNSS				Sg	**Sg**	**13 10 48.9**	**+1.0**
	1µm,0.6s						
ASS	**Assisi**	**0.66**	**271**	⇓*i*Pg	**Pg**	**13 10 40.5**	**-0.9**
ASS	**Assisi**	**0.66**	**271**	⇓*i*Pg	**Pg**	**13 10 40.5**	**-0.9**
	34nm,0.4s						
ASS	**Assisi**	**0.66**	**271**	⇓*i*Pg	**Pg**	**13 10 40.5**	**-0.9**
	34nm,0.4s						
VCEL	**Villa Celiera**	**0.69**	**162**	Pg	**Pg**	**13 10 41.3**	**-0.7**
	326nm,0.4s						
VCEL	**Villa Celiera**	**0.69**	**162**	Pg	**Pg**	**13 10 41.3**	**-0.7**
	326nm,0.4s						
AQU	**L'Aquila**	**0.71**	**189**	*e*Pg	**Pg**	**13 10 44.2**	**+1.9**
AQU	**L'Aquila**	**0.71**	**189**	*e*Pg	**Pg**	**13 10 44.2**	**+1.9**
MURB	**Monte Urbino**	**0.78**	**286**	⇓*e*Pg	**Pg**	**13 10 42.7**	**-1.0**
MURB				Sg	**Sg**	**13 10 55.3**	**+1.3**
MURB	**Monte Urbino**	**0.78**	**286**	⇓*e*Pg	**Pg**	**13 10 42.7**	**-1.0**
MURB				Sg	**Sg**	**13 10 55.3**	**+1.3**
	1µm,0.2s						
MURB	**Monte Urbino**	**0.78**	**286**	⇓*e*Pg	**Pg**	**13 10 42.7**	**-1.0**
MURB				Sg	**Sg**	**13 10 55.3**	**+1.3**
	1µm,0.2s						
FAGN	**Fagnano**	**0.79**	**178**	Pg	**Pg**	**13 10 43.6**	**-0.2**
	387nm,0.4s						
FAGN	**Fagnano**	**0.79**	**178**	Pg	**Pg**	**13 10 43.6**	**-0.2**
	387nm,0.4s						
FIAM	**Fiamignano**	**0.85**	**202**	Pg	**Pg**	**13 10 43.8**	**-1.2**
FIAM	**Fiamignano**	**0.85**	**202**	Pg	**Pg**	**13 10 43.8**	**-1.2**
	256nm,0.7s						
FIAM	**Fiamignano**	**0.85**	**202**	Pg	**Pg**	**13 10 43.8**	**-1.2**
	256nm,0.7s						
FSSB	**Fossombrone**	**0.85**	**319**	Pg	**Pg**	**13 10 44.1**	**-0.9**
FSSB				Sg	**Sg**	**13 10 58.3**	**+2.0**
FSSB	**Fossombrone**	**0.85**	**319**	Pg	**Pg**	**13 10 44.1**	**-0.9**
FSSB				Sg	**Sg**	**13 10 58.3**	**+2.0**
	2µm,0.5s						
FSSB	**Fossombrone**	**0.85**	**319**	Pg	**Pg**	**13 10 44.1**	**-0.9**
FSSB				Sg	**Sg**	**13 10 58.3**	**+2.0**
	2µm,0.5s						
MNS	**Montasola**	**0.93**	**224**	Pg	**Pg**	**13 10 45.0**	**-1.4**
MNS	**Montasola**	**0.93**	**224**	Pg	**Pg**	**13 10 45.0**	**-1.4**
	292nm,0.5s						
MNS	**Montasola**	**0.93**	**224**	Pg	**Pg**	**13 10 45.0**	**-1.4**
	292nm,0.5s						
PESA	**Pesaro**	**1.03**	**330**	Pg	**Pg**	**13 10 48.5**	**+0.2**
PESA	**Pesaro**	**1.03**	**330**	Pg	**Pg**	**13 10 48.5**	**+0.2**
	404nm,0.2s						
PESA	**Pesaro**	**1.03**	**330**	Pg	**Pg**	**13 10 48.5**	**+0.2**
	404nm,0.2s						
BADI	**Badiali**	**1.06**	**296**	Pg	**Pg**	**13 10 47.6**	**-1.3**
BADI				Sg	**Sg**	**13 11 04.3**	**+1.5**
BADI	**Badiali**	**1.06**	**296**	Pg	**Pg**	**13 10 47.6**	**-1.3**
BADI				Sg	**Sg**	**13 11 04.3**	**+1.5**
	376nm,0.5s						
BADI	**Badiali**	**1.06**	**296**	Pg	**Pg**	**13 10 47.6**	**-1.3**
BADI				Sg	**Sg**	**13 11 04.3**	**+1.5**
	376nm,0.5s						
INTR	**Introdacqua**	**1.07**	**166**	Pg	**Pg**	**13 10 48.5**	**-0.7**
INTR	**Introdacqua**	**1.07**	**166**	Pg	**Pg**	**13 10 48.5**	**-0.7**
	275nm,0.7s						
INTR	**Introdacqua**	**1.07**	**166**	Pg	**Pg**	**13 10 48.5**	**-0.7**
	275nm,0.7s						
VVLD	**Villa Vallelon**	**1.18**	**177**	Pg	**Pg**	**13 10 51.5**	**+0.2**
VVLD	**Villa Vallelon**	**1.18**	**177**	Pg	**Pg**	**13 10 51.5**	**+0.2**
	173nm,0.5s						
VVLD	**Villa Vallelon**	**1.18**	**177**	Pg	**Pg**	**13 10 51.5**	**+0.2**
	173nm,0.5s						
RSM	**Repubblica di**	**1.19**	**318**	Pg	**Pg**	**13 10 50.7**	**-0.7**
RSM	**Repubblica di**	**1.19**	**318**	Pg	**Pg**	**13 10 50.7**	**-0.7**
	116nm,0.5s						
RSM	**Repubblica di**	**1.19**	**318**	Pg	**Pg**	**13 10 50.7**	**-0.7**
	116nm,0.5s						
SACS	**San Casciano d**	**1.22**	**261**	Pg	**Pg**	**13 10 51.3**	**-0.7**
	193nm,0.9s						
SACS	**San Casciano d**	**1.22**	**261**	Pg	**Pg**	**13 10 51.3**	**-0.7**
	193nm,0.9s						
SDI	**San Donato**	**1.36**	**172**	Pg	**Pg**	**13 10 54.1**	**-0.5**
SDI	**San Donato**	**1.36**	**172**	Pg	**Pg**	**13 10 54.1**	**-0.5**
	28nm,0.4s						
SDI	**San Donato**	**1.36**	**172**	Pg	**Pg**	**13 10 54.1**	**-0.5**
	28nm,0.4s						
LATE	**Laterza**	**1.36**	**252**	Pg	**Pg**	**13 10 53.1**	**-1.5**
	22nm,0.8s						
LATE	**Laterza**	**1.36**	**252**	Pg	**Pg**	**13 10 53.1**	**-1.5**
	22nm,0.8s						
SFI	**Santa Sofia**	**1.50**	**305**	Pg	**Pg**	**13 10 57.1**	**-0.3**
SFI	**Santa Sofia**	**1.50**	**305**	Pg	**Pg**	**13 10 57.1**	**-0.3**
	49nm,0.9s						
SFI	**Santa Sofia**	**1.50**	**305**	Pg	**Pg**	**13 10 57.1**	**-0.3**
	49nm,0.9s						
VMG	**Vicchio**	**1.72**	**302**	Pg	**Pg**	**13 11 00.0**	**-1.5**
VMG	**Vicchio**	**1.72**	**302**	Pg	**Pg**	**13 11 00.0**	**-1.5**
	54nm,0.7s						
VMG	**Vicchio**	**1.72**	**302**	Pg	**Pg**	**13 11 00.0**	**-1.5**
	54nm,0.7s						
NVLJ	**Novalja**	**1.79**	**32**	*e*Pn	**Pn**	**13 10 59.6**	**+1.2**
NVLJ				Sn	**Sn**	**13 11 20.2**	**-0.4**
NVLJ	**Novalja**	**1.79**	**32**	*e*Pn	**Pn**	**13 10 59.5**	**+1.2**
NVLJ				Sn	**Sn**	**13 11 20.1**	**-0.5**
CRMI	**Carmignano**	**2.02**	**292**	Pg	**Pn**	**13 11 03.6**	**+2.0**
	35nm,1.5s						
CRMI	**Carmignano**	**2.02**	**292**	Pg	**Pn**	**13 11 03.6**	**+2.0**
	35nm,1.5s						
PZZT	**Monte Pizzetto**	**2.23**	**300**	Pg	**Pn**	**13 11 06.8**	**+2.3**
SKDS	**Skadanscina**	**2.51**	**7**	*i* Pn	**Pn**	**13 11 07.8**	**-0.6**
SKDS				*i* Sn	**Sn**	**13 11 37.9**	**-0.6**
VOJS	**Vojsko**	**2.99**	**4**	*i* Pn	**Pn**	**13 11 14.5**	**-0.4**
VOJS	**Vojsko**	**2.99**	**4**	*i* Pn	**Pn**	**13 11 14.5**	**-0.4**
VOJS	**Vojsko**	**2.99**	**4**	*i* Pn	**Pn**	**13 11 14.5**	**-0.3**
VOY	**Vojsko**	**2.99**	**5**	*e*Sn	**Sn**	**13 11 50.4**	**+0.2**
VOY	**Vojsko**	**2.99**	**5**	*e*Sn	**Sn**	**13 11 50.4**	**+0.2**
STON	**Ston**	**3.05**	**92**	*e*Pn	**Pn**	**13 11 16.7**	**+1.0**
STON				Sn	**Sn**	**13 11 51.4**	**-0.4**
STON	**Ston**	**3.05**	**92**	*e*Pn	**Pn**	**13 11 16.7**	**+1.0**
STON				Sn	**Sn**	**13 11 51.3**	**-0.4**
PGF	**Pioggiola**	**3.39**	**263**	*e*Pn	**Pn**	**13 11 21.9**	**+1.5**
PGF				*e*Sn	**Sn**	**13 11 58.7**	**-1.4**
PGF	**Pioggiola**	**3.39**	**263**	*e*Pn	**Pn**	**13 11 21.9**	**+1.5**
PGF				*e*Sn	**Sn**	**13 11 58.7**	**-1.4**
	7.2nm,0.5s						
PGF	**Pioggiola**	**3.39**	**263**	*e*Pn	**Pn**	**13 11 21.9**	**+1.5**
PGF				*e*Sn	**Sn**	**13 11 58.7**	**-1.4**
	3.6nm,0.5s						
SBF	**Sospel**	**4.53**	**282**	*e*Pn	**Pn**	**13 11 37.2**	**+1.2**
SBF	**Sospel**	**4.53**	**282**	*e*Pn	**Pn**	**13 11 37.2**	**+1.2**
SBF	**Sospel**	**4.53**	**282**	*e*Pn	**Pn**	**13 11 37.2**	**+1.2**
LMR	**La Mourre**	**5.16**	**276**	*e*Pn	**Pn**	**13 11 44.4**	**-0.3**
LMR	**La Mourre**	**5.16**	**276**	*e*Pn	**Pn**	**13 11 44.4**	**-0.3**
LMR	**La Mourre**	**5.16**	**276**	*e*Pn	**Pn**	**13 11 44.4**	**-0.3**
MBDF	**Montbardon**	**5.18**	**291**	*e*Pn	**Pn**	**13 11 45.9**	**+0.9**
MBDF	**Montbardon**	**5.18**	**291**	*e*Pn	**Pn**	**13 11 45.9**	**+0.9**
MBDF	**Montbardon**	**5.18**	**291**	*e*Pn	**Pn**	**13 11 45.9**	**+0.9**
LPL	**La Plagne**	**5.48**	**299**	*e*Pn	**Pn**	**13 11 49.4**	**+0.3**
LPL				*e*Sn	**Sn**	**13 12 48.8**	**-2.8**
LPL	**La Plagne**	**5.48**	**299**	*e*Pn	**Pn**	**13 11 49.4**	**+0.3**
LPL				*e*Sn	**Sn**	**13 12 48.8**	**-2.8**
	5.2nm,0.4s						
LPL	**La Plagne**	**5.48**	**299**	*e*Pn	**Pn**	**13 11 49.4**	**+0.3**
LPL				*e*Sn	**Sn**	**13 12 48.8**	**-2.8**
	2.6nm,0.4s						
CABF	**La Chapelle**	**6.39**	**306**	*e*Sn	**Sn**	**13 13 09.6**	**-4.4**
	2.8nm,0.4s						
CABF	**La Chapelle**	**6.39**	**306**	*e*Sn	**Sn**	**13 13 09.6**	**-4.4**
	1.4nm,0.4s						
HINF	**Hinteralfeld**	**6.70**	**318**	*e*Pn	**Pn**	**13 12 05.9**	**+0.1**
HINF				*e*Sn	**Sn**	**13 13 16.9**	**-4.7**
HINF	**Hinteralfeld**	**6.70**	**318**	*e*Pn	**Pn**	**13 12 05.9**	**+0.1**
HINF				*e*Sn	**Sn**	**13 13 16.9**	**-4.7**
	4.5nm,0.3s						
HINF	**Hinteralfeld**	**6.70**	**318**	*e*Sn	**Sn**	**13 13 16.9**	**-4.7**
	2.2nm,0.3s						
CDF	**Champ du Feu**	**6.93**	**323**	*e*Pn	**Pn**	**13 12 09.0**	**+0.1**
CDF				*e*Sn	**Sn**	**13 13 22.4**	**-4.8**
CDF	**Champ du Feu**	**6.93**	**323**	*e*Pn	**Pn**	**13 12 09.0**	**+0.1**
CDF				*e*Sn	**Sn**	**13 13 22.4**	**-4.8**
	2.1nm,0.2s						
CDF	**Champ du Feu**	**6.93**	**323**	*e*Sn	**Sn**	**13 13 22.4**	**-4.8**
	1.0nm,0.2s						
HAU	**Haudompre**	**7.08**	**317**	*e*Sn	**Sn**	**13 13 26.2**	**-4.7**
	5.9nm,0.3s						
HAU	**Haudompre**	**7.08**	**317**	*e*Sn	**Sn**	**13 13 26.2**	**-4.7**
	3.0nm,0.3s						
LOR	**Lormes**	**8.04**	**305**	*e*Pn	**Pn**	**13 12 24.2**	**0.0**
LOR				*e*Sn	**Sn**	**13 13 49.2**	**-5.4**
LOR	**Lormes**	**8.04**	**305**	*e*Pn	**Pn**	**13 12 24.2**	**0.0**
LOR				*e*Sn	**Sn**	**13 13 49.2**	**-5.4**
	4.0nm,0.4s						
LOR	**Lormes**	**8.04**	**305**	*e*Sn	**Sn**	**13 13 49.2**	**-5.4**

2.0nm,0.4s

IGQ 05 13:13:10.9, 2.80S×78.47W, h118km±6km, Mb4.1, Ms3.9, 2C-9D, Error ellipse: s-maj=8.2km s-min=4.9km az=59.2, Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARRY	**Arrayan**	**1.28**	**1**	⇓P	Pn	13 13 36.7	+0.8
ARRY	**Arrayan**	**1.28**	**1**	⇓S	Sn	13 13 53.0	-1.7
PATA	**Patacocha**	**1.29**	**2**	⇓P	Pn	13 13 37.2	+1.3
IGUA	**Igualata**	**1.31**	**353**	P	Pn	13 13 37.3	+1.1
RETU	**Refugio**	**1.34**	**1**	⇓P	Pn	13 13 37.8	+1.3
ULBA	**Ulba**	**1.34**	**3**	⇓P	Pn	13 13 37.7	+1.2
ULBA	**Ulba**	**1.34**	**3**	⇓S	Sn	13 13 57.5	+1.5
BILB	**Tungurahua vol**	**1.35**	**359**	⇓P	Pn	13 13 37.7	+1.1
JUIV	**Juive**	**1.37**	**0**	⇓P	Pn	13 13 37.6	+0.9
RUN5	**Runtun**	**1.38**	**2**	P	Pn	13 13 37.7	+0.8
RUN5	**Runtun**	**1.38**	**2**	S	Sn	13 13 57.0	+0.5
TAMB	**Tambo**	**2.09**	**3**	⇓P	Pn	13 13 47.1	+1.6
CAMI	**Rancho Maria**	**2.11**	**359**	P	Pn	13 13 47.0	+1.3
VC1	**Cotopaxi 1**	**2.14**	**2**	P	Pn	13 13 47.7	+1.5
ANTI	**Antisana**	**2.35**	**7**	⇑P	Pn	13 13 50.2	+1.4
ANTI	**Antisana**	**2.35**	**7**	⇑S	Sn	13 14 20.8	+2.8
JUA2	**San Juan 2**	**2.57**	**357**	P	Pn	13 13 56.8	+5.2
GGP	**Refugio Guagua**	**2.61**	**357**	P	Pn	13 13 54.5	+2.3
TERV	**Terraza Guagua**	**2.61**	**357**	P	Pn	13 13 53.9	+1.8
PINO	**Pino**	**2.63**	**357**	P	Pn	13 13 53.5	+1.1
LAV3	**Lava3-Reventad**	**2.81**	**17**	P	Pn	13 13 54.7	-0.1
CONE	**Cono NE Rev Vo**	**2.83**	**17**	P	Pn	13 13 56.0	+0.9
CHIS	**Cerro-Chispas-**	**2.85**	**308**	P	Pn	13 13 55.0	-0.2
CAYA	**Cayambe**	**2.89**	**10**	P	Pn	13 13 57.2	+1.4
JAMA	**Jama**	**3.06**	**325**	P	Pn	13 13 55.9	-2.2
COTA	**Cotacachi**	**3.12**	**2**	P	Pn	13 14 01.8	+3.0

IDC 05 13:16:02.6±6.2, 19.97S×178.20W, h561km±73km, mb2.9/4, mb1 3.2/5, mb1mx3.0/13, mbtmp2.9/5, Error ellipse: s-maj=119.6km s-min=30.3km az=154.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**14.49**	**259**	P	P	13 19 05.4	-1.4
	0.2nm,0.3s,baz=81,slow=19,SNR=3.0						
STKA	**Stephens Creek**	**37.85**	**244**	P	P	13 22 31.8	-0.5
	5.7nm,1.1s,baz=79,slow=10,SNR=3.6						
WRA	**Warramunga Arr**	**44.49**	**262**	P	P	13 23 25.4	+0.5
	0.8nm,0.3s,baz=97,slow=7.5,SNR=67						
NVAR	**Mina Array Bea**	**80.77**	**44**	P	P	13 27 18.7	+0.6
	0.2nm,0.6s,baz=207,slow=5.8,SNR=3.1						
TXAR	**Lajitas Array**	**86.93**	**57**	P	P	13 27 49.1	+0.4
	0.2nm,0.7s,baz=224,slow=8.2,SNR=4.1						
AKASG	**Malin Array Be**	**142.46**	**331**	PKP	PKPdf	13 34 29.5	-2.3
	1.3nm,0.5s,baz=50,slow=1.8,SNR=7.4						

ISCJB ***05*** *13:34:02.9±0.7, 46.5N±0.1×155.9E±0.1, h33km, mb3.9/15, Error ellipse: s-maj=16.5km s-min=9.1km az=148.0*

MOS ***05*** *13:34:02.6±1.3, 46.62N×155.89E, h28km, mb4.2/8, Error ellipse: s-maj=17.1km s-min=11.4km az=81.7*

IDC ***05*** *13:34:06.6±4.8, 46.37N×156.06E, h51km±46km, mb3.5/10, mb1 3.8/12, mb1mx3.6/24, mbtmp3.5/12, ML3.4/1, Error ellipse: s-maj=29.7km s-min=17.6km az=153.0*

ISC 05 13:34:05.3±0.7, 46.5N±0.1×156.0E±0.1, h35km, n26, σ0.96s/26, mb3.9/15, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**4.18**	**1**	*e*PN	**Pn**	**13 35 04.9**	**-1.5**
KUR	**Kuril'sk**	**5.80**	**260**	*e*PN	**Pn**	**13 35 27.0**	**-1.7**
KUR				pmax	pmax		
	comp=Z,60nm,0.7s						
PET	**Petropavlovsk**	**6.75**	**14**	*e*PN	**Pn**	**13 35 37.4**	**-4.3**
ASAJ	**Asahikawa**	**9.72**	**261**	P	**Pn**	**13 36 23.6**	**+1.1**
	comp=Z,0.4nm,0.3s,baz=159,slow=24,SNR=5.9						
MJAR	**Matsushiro Arr**	**16.58**	**239**	P	**Pn**	**13 37 54.2**	**-0.7**
	baz=61,slow=13,SNR=2.7						
YAK	**Yakutsk**	**21.61**	**325**	*e*P	**P**	**13 38 51.9**	**+0.1**
YAK				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.3						
BILL	**Bilibino**	**22.23**	**10**	P	**P**	**13 38 59.0**	**+0.6**
BILL				*e*		13 39 05.1	
BILL				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.2						
KSRS	**Korea Array**	**22.63**	**257**	P	**P**	**13 39 05.7**	**+2.8**
	comp=Z,1.0nm,0.8s,mb3.3,baz=58,slow=42,SNR=3.3						
TIXI	**Tiksi**	**28.27**	**342**	*e*P	**P**	**13 39 54.5**	**-0.2**
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.0						
SONM	**Songino Array**	**33.26**	**291**	P	**P**	**13 40 39.6**	**+0.7**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	**Songino Array**	**33.26**	**291**	P	**P**	**13 40 39.6**	**+0.7**
	comp=Z,0.5nm,0.8s,mb3.5,baz=73,slow=8.6,SNR=5.2						
INK	**Inuvik**	**40.80**	**32**	P	**P**	**13 41 42.5**	**-0.2**
INK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
INK	**Inuvik**	**40.80**	**32**	P	**P**	**13 41 42.5**	**-0.2**
	comp=Z,1.7nm,0.8s,mb3.7,baz=262,slow=6.7,SNR=7.6						
ZALV	**Zalesovo Beam**	**44.34**	**307**	P	**P**	**13 42 12.4**	**+0.9**
	comp=Z,0.3nm,0.4s,mb3.4,baz=45,slow=6.3,SNR=2.4						
MKAR	**Makanchi Array**	**48.79**	**299**	*i* P	**P**	**13 42 47.0**	**+0.5**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	**Makanchi Array**	**48.79**	**299**	P	**P**	**13 42 47.1**	**+0.6**
	comp=Z,0.6nm,0.8s,mb3.7,baz=65,slow=5.8,SNR=7.7						
KURK	**Kurchatov**	**49.12**	**305**	*e*P	**P**	**13 42 48.2**	**-0.8**
YKA	**Yellowknife Ar**	**49.93**	**37**	P	**P**	**13 42 54.5**	**-0.5**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**49.93**	**37**	P	**P**	**13 42 54.5**	**-0.5**
	comp=Z,0.6nm,0.8s,mb3.7,baz=293,slow=7.4,SNR=7.8						
AAK	**Ala-Archa**	**55.69**	**298**	*e*P	**P**	**13 43 37.4**	**-0.4**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.8s,mb4.2						
NVAR	**Mina Array Bea**	**60.79**	**64**	P	**P**	**13 44 14.2**	**+0.7**
	comp=Z,0.5nm,0.7s,mb3.8,baz=295,slow=6.8,SNR=5.3						
PDAR	**Pinedale Array**	**63.28**	**55**	P	**P**	**13 44 30.8**	**+0.6**
	comp=Z,0.4nm,0.9s,mb3.6,baz=291,slow=4.6,SNR=3.6						
FITZ	**Fitzroy Crossi**	**69.90**	**211**	P	**P**	**13 45 10.9**	**-1.7**
	comp=Z,2.1nm,0.6s,mb4.3,baz=23,slow=6.2,SNR=9.6						
KIV	**Kislovodsk**	**72.36**	**316**	*e*P	**P**	**13 45 27.8**	**+0.5**
KIV				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
TXAR	**Lajitas Array**	**75.88**	**62**	P	**P**	**13 45 48.4**	**+0.3**
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
TXAR	**Lajitas Array**	**75.88**	**62**	P	**P**	**13 45 48.4**	**+0.3**
	comp=Z,1.6nm,0.6s,mb4.1,baz=302,slow=4.1,SNR=24						

BJI ***05*** *13:35:15.5, 46.60N×156.00E, h5km, mB4.8, mb4.6, Ms4.3, Msz4.0*

IDC ***05*** *13:35:16.0±0.6, 46.48N×156.11E, h0km, mb4.3/19, mb1 4.5/21, mb1mx4.5/24, mbtmp4.3/21, ML3.8/2, MS3.8/8, Ms1 3.8/8, ms1mx3.5/20, Error ellipse: s-maj=19.3km s-min=13.2km az=154.0*

ISCJB ***05*** *13:35:17.8±0.2, 46.66N±0.05×156.11E±0.03, h17km, mb4.7/106, MS4.1/22, Error ellipse: s-maj=7.6km s-min=2.6km az=177.8*

GCMT ***05*** *13:35:18.1±0.5, 46.73N×156.18E, h14km±1km, MW4.7/60, Moment Tensor Solution. s8,c8; s60,c81; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.48±.15; $M_{\theta\theta}$0.92±.09; $M_{\phi\phi}$0.55±.08; $M_{r\theta}$0.69±.19; $M_{\theta\phi}$0.48±.04; $M_{\phi r}$0.06±.21; Best double couple: $M_0$1.52600×10^{16} NP1:ϕ_s47.00000°,δ34.00000°,λ-107.00000°. NP2: ϕ_s247.00000°,δ58.00000°,λ-79.00000°. Principal axes: T 1.3830, Plg12.0000°, Azm329.0000°; N 0.2800, Plg9.0000°, Azm61.0000°; P -1.6680, Plg75.0000°, Azm187.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

MOS ***05*** *13:35:18.2±1.0, 46.37N×156.00E, h27km, mb5.0/49, MS4.2/11 Error ellipse: s-maj=7.9km s-min=6.1km az=106.9*

NEIC ***05*** *13:35:18.1±0.2, 46.58N×156.03E, h10km, mb4.9/58, MS4.4/1, Error ellipse: s-maj=6.7km s-min=3.5km az=174.0*

SKHL ***05*** *13:35:20.4±2.9, 46.77N×155.89E, h43km±9km, mb5.0/5, Ms4.5/2*

SZGRF ***05*** *13:35:25.8, 46.91N×155.31E, h33km, mb5.0, East of Kuril Islands, Russia*

ISC 05 13:35:19.7±0.2, 46.68N±0.05×156.00E±0.03, h17km, h17km±1.9km:pP-P, n443, σ0.77s/456, mb4.7/106, MS4.1/22, 86C-60D, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**4.01**	**1**	*e*P	**Pn**	**13 36 18.0**	**-2.3**
SKR				AMB	AMB	13 36 23.5	
	40nm,0.5s						
SKR				AMB	AMB	13 36 23.5	
	50nm,0.5s						
SKR				*e*S	**Sn**	**13 37 01.2**	**-5.7**
SKR				A		13 37 10.5	
	420nm,0.5s						
SKR				A		13 37 10.5	
	230nm,0.5s						
SKR				AMS	AMS	13 38 15.0	
	2μm,5.0s						
SKR				AMS	AMS	13 38 15.0	
	3μm,5.0s						
KUR	**Kuril'sk**	**5.85**	**259**	P	**Pn**	**13 36 43.5**	**-2.1**
KUR				*e*S	**Sn**	**13 37 45.0**	**-7.3**
KUR				pmax	pmax		
	comp=N,70nm,0.7s						
KUR				pmax	pmax		
	comp=E,90nm,0.7s						
KUR				pmax	pmax		
	comp=Z,260nm,0.7s						
KUR				smax			
	comp=N,650nm,0.8s						
KUR				smax			
	comp=E,240nm,0.8s						
KUR	**Kuril'sk**	**5.85**	**259**	*e*P	**Pn**	**13 36 43.5**	**-2.1**
KUR				AMB	AMB	13 36 46.3	
	comp=E,70nm,0.7s						
KUR				AMB	AMB	13 36 46.3	
	comp=E,90nm,0.7s						
KUR				AMB	AMB	13 36 46.3	
	comp=E,260nm,0.7s						
KUR				*e*S	**Sn**	**13 37 45.0**	**-7.3**
KUR				A		13 37 50.5	
	comp=E,650nm,0.8s						
KUR				A		13 37 50.5	
	comp=E,240nm,0.8s						
PET	**Petropavlovsk**	**6.58**	**14**	*e*Pn	**Pn**	**13 36 48.9**	**-6.7**
PET				*e*Sn	**Sn**	**13 38 02.4**	**-7.8**
PET	**Petropavlovsk**	**6.58**	**14**	*e*P	**Pn**	**13 36 53.8**	**-1.8**
YUK	**Yuzh-Kuril'sk**	**7.62**	**253**	*e*P	**Pn**	**13 37 07.5**	**-2.3**
YUK				*e*S	**Sn**	**13 38 25.6**	**-10**
YUK				pmax	pmax		
	comp=Z,390nm,0.5s						
YUK				smax			
	comp=N,260nm,0.6s						
YUK				smax			
	comp=E,1μm,1.0s						
YUK	**Yuzh-Kuril'sk**	**7.62**	**253**	*e*P	**Pn**	**13 37 07.5**	**-2.3**
YUK				AMB	AMB	13 37 07.8	
	comp=E,390nm,0.5s						
YUK				*e*S	**Sn**	**13 38 25.6**	**-10**
YUK				A		13 38 50.1	
	comp=E,260nm,0.6s						
YUK				A		13 38 50.1	
	comp=E,1μm,0.6s						
YSS	**Yuzh-Sakhalins**	**9.09**	**277**	*e*Pn	**Pn**	**13 37 30.4**	**+0.3**
YSS	**Yuzh-Sakhalins**	**9.09**	**277**	⇑*e*P	**Pn**	**13 37 30.5**	**+0.5**
YSS				*e*S	**Sn**	**13 39 11.0**	**-0.9**
YSS				pmax	pmax		
	comp=Z,40nm,1.0s						
YSS				MLR	MLR		
	comp=Z,500nm,16.0s						
YSS	**Yuzh-Sakhalins**	**9.09**	**277**	*e*P	**Pn**	**13 37 30.5**	**+0.5**
YSS				AMB	AMB	13 37 32.7	
	comp=Z,40nm,1.0s						
YSS				*e*S	**Sn**	**13 39 11.0**	**-0.9**
YSS				AMS	AMS	13 42 30.0	
	comp=Z,500nm,16.0s						
UGL	**Uglegorsk**	**9.67**	**289**	*e*P	**Pn**	**13 37 42.0**	**+4.1**
UGL				AMB	AMB	13 37 49.0	
	comp=Z,50nm,1.0s						
UGL				AMS	AMS	13 42 22.0	
	comp=Z,900nm,13.0s						
UGL				AMS	AMS	13 42 22.0	
	comp=Z,500nm,13.0s						
UGL				AMS	AMS	13 42 22.0	
	comp=Z,600nm,13.0s						
ASAJ	**Asahikawa**	**9.77**	**260**	P	**Pn**	**13 37 38.3**	**-1.1**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**9.77**	**260**	Pn	**Pn**	**13 37 38.2**	**-1.1**
	comp=Z,1.2nm,0.3s,baz=93,slow=15,SNR=12						
ASAJ				LR	LR	13 41 06.0	
	comp=Z,285nm,21.0s,baz=339,slow=36						
ERM	**Erimo**	**10.31**	**248**	*i* P	**Pn**	**13 37 44.6**	**-2.1**
OKH	**Okha**	**10.84**	**314**	*e*P	**Pn**	**13 37 48.2**	**-5.8**
MA2	**Magadan**	**13.29**	**348**	*e*Pn	**Pn**	**13 38 26.5**	**-0.9**
	comp=Z,6.4nm,1.1s						
MA2	**Magadan**	**13.29**	**348**	*e*P	**Pn**	**13 38 26.3**	**-1.1**
MA2				pmax	pmax		
	comp=Z,30nm,0.5s						
MA2				pmax	pmax		
	comp=E,30nm,0.3s						
MA2				MLR	MLR		
	comp=Z,3μm,16.5s						
HABR	**Khabarovsk**	**14.25**	**285**	*e*P	**Pn**	**13 38 43.0**	**+2.4**
HABR				*e*		13 41 24.9	
HABR				pmax	pmax		
	comp=Z,8.0nm,0.7s						
SEY	**Seymchan**	**16.42**	**354**	⇑*e*P	**Pn**	**13 39 05.9**	**-3.2**
KLR	**Kul'dur**	**16.43**	**288**	*e*P	**Pn**	**13 39 08.0**	**-1.3**
KLR				MLR	MLR		
	comp=E,800nm,12.0s						
KLR				MLR	MLR		
	comp=Z,3μm,12.0s						
MJAR	**Matsushiro Arr**	**16.68**	**239**	Pn	**Pn**	**13 39 08.6**	**-4.0**
MJAR				LR	LR	13 45 38.5	
MJAR	**Matsushiro Arr**	**16.68**	**239**	Pn	**Pn**	**13 39 08.6**	**-4.0**
	comp=Z,0.2nm,0.3s,baz=34,slow=12,SNR=13						
MJAR				LR	LR	13 45 38.6	
	comp=Z,96nm,20.9s,baz=250,slow=37						
MAJO	**Matsushiro**	**16.68**	**239**	*e*Pn	**Pn**	**13 39 08.9**	**-3.7**
	comp=Z,70nm,1.0s						
MAJO	**Matsushiro**	**16.68**	**239**	*e*P	**Pn**	**13 39 08.9**	**-3.7**
MAJO				pmax	pmax		
	comp=Z,70nm,1.0s						
VLA	**Vladivostok**	**17.43**	**267**	*e*P	**Pn**	**13 39 17.2**	**-4.7**
VLA				pmax	pmax		
	comp=Z,38nm,1.3s						
MDJ	**Mudanjiang**	**18.55**	**273**	P	**Pn**	**13 39 34.6**	**-1.1**
MDJ				AP	pP	13 39 37.8	-2.4
MDJ				XP	sP	13 39 39.2	-3.1
MDJ				S	**Sn**	**13 43 02.0**	**-0.5**
MDJ				PCS	PcS	13 47 41.5	+0.6
MDJ				SCS	ScS	13 51 21.2	+1.4
MDJ				AMB	AMB		
	comp=Z,12nm,0.8s						
MDJ				AMB	AMB		
	comp=Z,78nm,4.7s						
MDJ				LR	LR		
	comp=N,144nm,21.2s						
MDJ				LR	LR		
	comp=E,122nm,34.5s						
MDJ				LR	LR		
	comp=Z,171nm,30.8s						
YAK	**Yakutsk**	**21.49**	**325**	*e*P	**P**	**13 40 06.7**	**-0.5**
	comp=Z,26nm,0.8s,mb4.6						
YAK	**Yakutsk**	**21.49**	**325**	*e*P	**P**	**13 40 07.7**	**+0.5**
YAK				*e**PP		13 40 15.1	
YAK				*e*		13 40 29.2	
YAK				*e*S	**S**	**13 44 01.1**	**-3.5**
YAK				*e**SS	sS	13 44 10.1	-2.1
YAK				pmax	pmax		
	comp=Z,28nm,0.9s,mb4.6						
YAK				pmax	pmax		
	comp=N,12nm,1.2s						
YAK				pmax	pmax		
	comp=E,21nm,1.3s						
YAK				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.5						
YAK				pmax	pmax		
	comp=N,44nm,2.0s						
YAK				pmax	pmax		
	comp=E,27nm,1.5s						
YAK				smax			
	comp=N,123nm,2.2s						
YAK				smax			
	comp=Z,112nm,3.2s						
YAK				smax			
	comp=E,255nm,3.3s						
YAK				MLR	MLR		
	comp=Z,276nm,10.0s,MS4.0						
YAK				MLR	MLR		
	comp=N,181nm,12.0s,MS4.0						
YAK				MLR	MLR		
	comp=E,302nm,13.0s,MS4.0						
CLNS	**Chul'man**	**21.59**	**309**	*e*P	**P**	**13 40 05.7**	**-2.6**
CLNS				pmax	pmax		
	comp=E,6.0nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.4						
CLNS				pmax	pmax		
	comp=N,5.0nm,0.7s						
CLNS				MLR	MLR		
	comp=N,200nm,12.0s,MS3.9						
CLNS				MLR	MLR		
	comp=Z,300nm,12.0s,MS3.9						
CLNS				MLR	MLR		
	comp=E,200nm,13.0s,MS3.9						
NRGR	**Nerungri**	**21.64**	**309**	*e*P	**P**	**13 40 11.8**	**+3.0**
NRGR				S	**S**	**13 43 58.4**	**-9.1**
NRGR				smax			
	comp=N,42nm,0.6s						
CN2	**Changchun**	**21.64**	**274**	*e*P	**P**	**13 40 06.0**	**-3.0**
CN2				*e*S	**S**	**13 44 00.0**	**-7.9**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.5						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,300nm,13.0s,MS4.0						
CN2				LR	LR		
	comp=E,300nm,13.0s,MS4.0						
CN2				LR	LR		
	comp=Z,400nm,15.0s,MS3.9						
BILL	**Bilibino**	**22.06**	**10**	*e*P	**P**	**13 40 13.2**	**-0.1**
	comp=Z,16nm,0.8s,mb4.5						
BILL	**Bilibino**	**22.06**	**10**	⇑*e*P	**P**	**13 40 13.6**	**+0.3**
BILL				*e*		13 40 28.5	
BILL				pmax	pmax		
	comp=Z,30nm,1.6s,mb4.5						
BILL				MLR	MLR		
	comp=Z,100nm,13.0s						
KSRS	**Korea Array**	**22.69**	**256**	P	**P**	**13 40 21.1**	**+0.9**
	comp=Z,9.1nm,0.9s,mb4.2,baz=54,slow=11,SNR=19						
KSRS				LR	LR	13 48 35.3	
	comp=Z,104nm,19.4s,baz=254,slow=35						
JNU	**Nakatsue**	**23.43**	**244**	P	**P**	**13 40 28.2**	**+0.1**
	comp=Z,14nm,1.0s,mb4.3,baz=66,slow=12,SNR=5.7						
JNU				LR	LR	13 50 31.4	
	comp=Z,74nm,18.6s,baz=31,slow=39						
SNY	**Shenyang**	**23.62**	**270**	⇓P	**P**	**13 40 29.2**	**-0.7**
SNY				XP	sP	13 40 36.8	-0.2
SNY				S	**S**	**13 44 45.0**	**+1.7**
SNY				AMB	AMB		
	comp=Z,18nm,1.0s,mb4.5						
SNY				AMB	AMB		
	comp=Z,233nm,5.5s						
SNY				LR	LR		
	comp=N,187nm,14.3s,MS3.9						
SNY				LR	LR		
	comp=E,219nm,13.5s,MS3.9						
SNY				LR	LR		
	comp=Z,269nm,15.3s,MS3.8						
BOD	**Bodaibo**	**27.57**	**309**	*e*P	**P**	**13 41 03.5**	**-2.0**
BOD				pmax	pmax		
	comp=Z,4.0nm,1.6s,mb3.8						
TIXI	**Tiksi**	**28.12**	**342**	*e*P	**P**	**13 41 10.3**	**0.0**
	comp=Z,5.7nm,0.8s,mb4.2						
TIXI	**Tiksi**	**28.12**	**342**	⇑*e*P	**P**	**13 41 10.1**	**-0.2**
TIXI				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.3						
BJI	**Beijing**	**29.46**	**272**	P	**P**	**13 41 22.1**	**-0.4**
BJI				AP	pP	13 41 25.2	-2.5
BJI				XP	sP	13 41 26.5	-3.2
BJI				S	**S**	**13 46 16.6**	**+0.6**
BJI				XS	sS	13 46 22.1	-2.3
BJI				PCS	PcS	13 48 11.0	+0.3
BJI				AMB	AMB		
	comp=Z,5.0nm,0.5s,mb4.5						
BJI				AMB	AMB		
	comp=Z,141nm,3.4s						
BJI				LR	LR		
	comp=N,198nm,12.8s						
BJI				LR	LR		
	comp=E,198nm,8.3s						
BJI				LR	LR		
	comp=Z,126nm,29.4s						
NJ2	**Nanjing**	**31.89**	**256**	*e*P	**P**	**13 41 45.1**	**+1.1**
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
HHC	**Hu-ho-hao-te**	**32.28**	**276**	*e*P	**P**	**13 41 48.0**	**+0.6**
HHC				AP	pP	13 41 52.5	0.0
HHC				XP	sP	13 41 55.1	+0.5
HHC				PP	PP	13 42 55.2	-5.0
HHC				PCP	PcP	13 44 36.8	+1.6
HHC				XS	sS	13 47 07.4	-1.1
HHC				SCP	ScP	13 48 18.0	0.0
HHC				PCS	PcS	13 48 20.7	+0.7
HHC				SS	SS	13 48 53.2	-25
HHC				SCS	ScS	13 52 16.6	-0.3
HHC				AMB	AMB		
	comp=Z,13nm,0.8s,mb4.8						
HHC				AMB	AMB		
	comp=Z,214nm,2.9s,mb5.5						
HHC				LR	LR		
	comp=N,166nm,17.8s,MS3.9						
HHC				LR	LR		
	comp=E,159nm,16.7s,MS3.9						
HHC				LR	LR		
	comp=Z,190nm,19.0s,MS3.8						
KDAK	**Kodiak Island**	**32.61**	**51**	P	**P**	**13 41 47.0**	**-3.1**
KDAK	**Kodiak Island**	**32.61**	**51**	P	**P**	**13 41 47.0**	**-3.1**
	comp=Z,4.2nm,0.8s,mb4.4,baz=276,slow=13,SNR=4.1						
IMA2	**Indian Mountai**	**32.70**	**36**	*e*P	**P**	**13 41 50.1**	**-0.6**
SONM	**Songino Array**	**33.23**	**291**	P	**P**	**13 41 55.9**	**+0.3**
SONM						13 44 36.6	
SONM				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SONM	**Songino Array**	**33.23**	**291**	P	**P**	**13 41 55.9**	**+0.4**
	comp=Z,1.9nm,0.8s,mb4.1,baz=68,slow=8.3,SNR=15						
SONM				PcP	PcP	13 44 36.6	-1.1
	comp=Z,0.8nm,0.8s,baz=72,slow=2.3,SNR=3.9						
TLY	**Talaya**	**33.97**	**298**	*e*P	**P**	**13 42 06.2**	**+4.2**
TLY				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
TLY				MLR	MLR		
	comp=Z,272nm,19.0s,MS4.0						
MCK	**McKinley**	**34.42**	**40**	*e*P	**P**	**13 42 04.2**	**-1.5**
	comp=Z,4.5nm,1.2s,mb4.3						
MCK	**McKinley**	**34.42**	**40**	*e*P	**P**	**13 42 04.2**	**-1.6**
MCK				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.3						
ZAK	**Zakamensk**	**34.50**	**296**	*e*P	**P**	**13 42 07.0**	**+0.4**
SML	**Sawmill**	**34.65**	**44**	*e*P	**P**	**13 42 06.8**	**-1.0**
COLA	**College**	**34.96**	**38**	*e*P	**P**	**13 42 10.1**	**-0.4**
	comp=Z,3.7nm,0.7s,mb4.4						
COLA	**College**	**34.96**	**38**	*e*P	**P**	**13 42 10.1**	**-0.3**
COLA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
XAN	**Xi'an**	**37.49**	**268**	P	**P**	**13 42 32.4**	**0.0**
XAN				AP	pP	13 42 41.5	+3.9
XAN				AMB	AMB		
	comp=Z,22nm,1.2s,mb4.9						
EGAK	**Eagle**	**37.82**	**38**	*e*P	**P**	**13 42 33.7**	**-1.2**
	comp=Z,17nm,1.2s,mb4.7						
DAWY	**Dawson**	**38.64**	**40**	*e*P	**P**	**13 42 41.9**	**+0.2**
LZH	**Lanzhou**	**39.88**	**274**	*e*P	**P**	**13 42 53.9**	**+1.5**
LZH				AP	pP	13 42 58.0	+0.4
LZH				XP	sP	13 43 01.5	+1.8
LZH				PP	PP	13 44 31.0	+7.0
LZH				*e*S	**S**	**13 48 57.9**	**+1.6**
LZH				XS	sS	13 49 02.8	-2.1
LZH				SS	SS	13 51 45.0	-7.6
LZH				AMB	AMB		
	comp=Z,75nm,1.5s,mb5.2						
LZH				AMB	AMB		
	comp=Z,221nm,4.0s						
LZH				LR	LR		
	comp=E,447nm,14.5s						
LZH				LR	LR		

	comp=Z,639nm,15.7s,MS4.6						
INK	Inuvik	40.65	33	*e*P	P	13 42 58.3	-0.1
	comp=Z,318nm,1.0s,mb5.9						
INK	Inuvik	40.65	33	P	P	13 42 58.5	+0.1
INK				pmax	pmax		
	comp=Z,8.0nm,0.7s						
INK	Inuvik	40.65	33	P	P	13 42 58.5	+0.1
	comp=Z,7.6nm,0.7s,mb4.5,baz=285,slow=6.7,SNR=28						
GTA	Gaotai	40.94	281	*e*P	P	13 43 02.2	+1.1
GTA				AP	pP	13 43 06.3	-0.1
GTA				XP	sP	13 43 08.7	+0.3
GTA				PP	PP	13 44 42.0	+6.5
GTA				PCP	PcP	13 45 01.6	+0.3
GTA				PPP		13 45 11.6	
GTA				S	S	13 49 14.2	+2.1
GTA				XS	sS	13 49 24.5	+3.8
GTA				AMB	AMB		
	comp=Z,5.0nm,1.7s,mb3.9						
GTA				AMB	AMB		
	comp=Z,77nm,6.1s						
GTA				LR	LR		
	comp=N,174nm,12.9s,MS4.2						
GTA				LR	LR		
	comp=E,154nm,12.9s,MS4.2						
GTA				LR	LR		
	comp=Z,204nm,14.4s,MS4.1						
CD2	Chengdu	42.86	267	P	P	13 43 17.0	+0.1
CD2				AP	pP	13 43 21.5	-0.6
CD2				XP	sP	13 43 24.2	0.0
CD2				PP	PP	13 44 59.0	+2.7
CD2				S	S	13 49 40.4	-0.2
CD2				XS	sS	13 49 47.8	-1.4
CD2				SS	SS	13 52 45.1	-6.7
CD2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.8						
CD2				AMB	AMB		
	comp=Z,50nm,5.2s						
CD2				LR	LR		
	comp=N,150nm,12.0s,MS4.3						
CD2				LR	LR		
	comp=E,170nm,13.2s,MS4.3						
CD2				LR	LR		
	comp=Z,130nm,12.0s,MS4.0						
GYA	Guiyang	43.65	260	P	P	13 43 25.2	+1.8
GYA				AP	pP	13 43 29.2	+0.6
GYA				XP	sP	13 43 32.8	+2.1
GYA				PP	PP	13 45 08.6	+3.7
GYA				PCP	PcP	13 45 13.0	+2.5
GYA				SCP	ScP	13 49 03.3	+2.2
GYA				S	S	13 49 54.0	+1.7
GYA				SS	SS	13 53 01.6	-5.9
GYA				SCS	ScS	13 53 22.4	+0.3
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
GYA				AMB	AMB		
	comp=Z,120nm,5.4s						
GYA				LR	LR		
	comp=N,470nm,17.2s,MS4.6						
GYA				LR	LR		
	comp=E,460nm,17.7s,MS4.6						
GYA				LR	LR		
	comp=Z,430nm,18.6s,MS4.4						
ZALV	Zalesovo Beam	44.26	307	P	P	13 43 28.1	+0.2
ZALV				PcP	PcP	13 45 11.3	-0.7
ZALV	Zalesovo Beam	44.26	307	P	P	13 43 28.1	+0.2
	comp=Z,0.7nm,0.5s,mb3.6,baz=53,slow=7.4,SNR=4.6						
ZALV				PcP	PcP	13 45 11.3	-0.7
	comp=Z,0.7nm,0.6s,baz=60,slow=3.9,SNR=4.4						
ZAL	Zalesovo	44.27	307	P	P	13 43 28.1	+0.1
ZAL						13 45 11.3	
WMQ	Urumqi	46.80	293	*e*P	P	13 43 49.6	+1.5
WMQ				AP	pP	13 43 54.1	+0.7
WMQ				XP	sP	13 43 56.6	+1.1
WMQ				PCP	PcP	13 45 23.1	+2.0
WMQ				PP	PP	13 45 39.4	+1.4
WMQ				*e*S	S	13 50 38.6	+1.2
WMQ				SCS	ScS	13 53 41.3	-0.5
WMQ				SS	SS	13 53 57.7	-5.8
WMQ				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,28nm,8.1s						
WMQ				LR	LR		
	comp=N,263nm,22.6s,MS4.2						
WMQ				LR	LR		
	comp=E,125nm,18.0s,MS4.2						
WMQ				LR	LR		
	comp=Z,119nm,19.0s,MS3.9						
KMI	Kunming	47.19	262	P	P	13 43 51.6	+0.2
KMI				AP	pP	13 43 55.6	-1.1
KMI				PP	PP	13 45 43.3	+1.0
KMI				S	S	13 50 44.8	+1.3
KMI				SS	SS	13 54 03.9	-6.7
KMI				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.8						
KMI				AMB	AMB		
	comp=Z,71nm,3.1s						
KMI				LR	LR		
	comp=Z,38nm,23.6s,MS3.3						
MK31	Makanchi Array	48.73	299	*e*P	P	13 44 03.2	+0.1
MKAR	Makanchi Array	48.73	299	P	P	13 44 03.4	+0.3
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MKAR	Makanchi Array	48.73	299	P	P	13 44 03.4	+0.3
	comp=Z,2.7nm,0.7s,mb4.4,baz=65,slow=7.8,SNR=21						
KURK	Kurchatov	49.05	305	*e*P	P	13 44 05.5	0.0
	comp=Z,6.9nm,0.8s,mb4.7						
KURK	Kurchatov	49.05	305	*e*P	P	13 44 05.5	0.0
KURK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
YKA	Yellowknife Ar	49.79	37	P	P	13 44 10.7	-0.2
YKA				PcP	PcP	13 45 30.8	-0.6
YKA	Yellowknife Ar	49.79	37	P	P	13 44 10.7	-0.2
YKA						13 45 30.8	
YKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
YKA	Yellowknife Ar	49.79	37	P	P	13 44 10.7	-0.2
	comp=Z,3.2nm,0.8s,mb4.4,baz=294,slow=7.3,SNR=19						
YKA				PcP	PcP	13 45 30.8	-0.6
	comp=Z,1.2nm,0.7s,baz=298,slow=3.4,SNR=7.0						
RES	Resolute Bay	50.27	19	*e*P	P	13 44 14.7	+0.2
	comp=Z,84nm,0.7s,mb5.9						
RES	Resolute Bay	50.27	19	*e*P	P	13 44 14.7	+0.3
RES				pmax	pmax		
	comp=Z,84nm,0.7s,mb5.9						
LSA	Lhasa	52.26	275	P	P	13 44 32.1	+2.1
LSA	Lhasa	52.26	275	*e*P	P	13 44 31.8	+1.8
	comp=Z,6.6nm,0.9s,mb4.6						
LSA	Lhasa	52.26	275	*e*P	P	13 44 31.8	+1.8
LSA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
BRVK	Borovoye	52.47	311	*e*P	P	13 44 31.5	+0.3
	comp=Z,13nm,0.8s,mb4.9						
BRVK	Borovoye	52.47	311	*e*P	P	13 44 31.5	+0.3
BRVK				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
B07A	Winthrop	53.84	55	⇑P	P	13 44 41.0	-0.4
	baz=54						
CHTO	Chiang Mai	54.05	259	*e*P	P	13 44 43.3	+0.1
	comp=Z,6.7nm,0.8s,mb4.6						
CHTO	Chiang Mai	54.05	259	*e*P	P	13 44 43.3	+0.1
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
CM31	Chiang Mai Arr	54.30	259	*e*P	P	13 44 45.0	0.0
	comp=Z,8.7nm,0.8s,mb4.7						
A09A	Danville	54.42	54	⇑P	P	13 44 44.9	-0.7
	baz=54						
J02A	Umpqua	54.57	62	⇑P	P	13 44 46.5	-0.2
	baz=54						
H04A	Detroit Lake	54.68	60	⇑P	P	13 44 46.9	-0.6
	baz=54						
C08A	Higginbotham F	54.81	55	⇑P	P	13 44 47.8	-0.7
	baz=55						
J03A	Ideyld Park	54.94	62	⇓P	P	13 44 49.2	-0.2
	baz=55						
K02A	Glendale	54.95	63	⇓P	P	13 44 50.6	+1.1
	baz=55						
B09A	Rice	54.97	54	⇓P	P	13 44 49.2	-0.4
	baz=55						
A10A	Northport	54.99	53	⇑P	P	13 44 48.7	-1.0
	baz=55						
E07A	Sunnyside	55.02	57	⇓P	P	13 44 49.0	-1.0
	baz=55						
I04A	Tendick Farm,	55.04	61	⇑P	P	13 44 50.5	+0.4
	baz=55						
G06A	Carlson Farm,	55.29	59	⇑P	P	13 44 53.3	+1.3
	baz=55						
F07A	Phinny Hill Vi	55.34	58	⇓P	P	13 44 52.0	-0.3
	baz=55						
HUMO	Hull Mountain	55.37	62	⇑P	P	13 44 52.7	+0.1
	baz=55						
J04A	Umpqua Nationa	55.53	61	⇓P	P	13 44 54.4	+0.7
	baz=55						
AAK	Ala-Archa	55.64	298	*e*P	P	13 44 54.2	-0.3
	comp=Z,4.4nm,0.9s,mb4.5						
AAK	Ala-Archa	55.64	298	*e*P	P	13 44 54.2	-0.3
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
A11A	Hall Mountain,	55.66	53	⇓P	P	13 44 54.2	-0.4
	baz=55						
H06A	Lindquist Farm	55.75	59	⇑P	P	13 44 55.3	0.0
	baz=56						
YBH	Yreka Blue Hor	56.02	63	*e*P	P	13 44 58.4	+1.1
YBH	Yreka Blue Hor	56.02	63	P	P	13 44 58.4	+1.2
	baz=56,SNR=6.2						
E09A	Wood Farm, Sta	56.02	56	⇑P	P	13 44 56.5	-0.7
	baz=56						
J05A	Fort Rock	56.03	61	P	P	13 44 58.0	+0.7
	baz=56,SNR=5.4						
M02C	Callahan	56.12	64	⇑P	P	13 44 56.8	-1.2
	baz=56						
D10A	Wagner Farm, O	56.22	55	⇓P	P	13 44 57.6	-1.0
	baz=56						
G08A	Pilot Rock	56.24	58	⇓P	P	13 44 58.2	-0.6
	baz=56						
L04A	Klamath Falls	56.27	62	⇑P	P	13 44 59.4	+0.4
	baz=56						
I06A	Prineville	56.27	60	⇓P	P	13 44 58.7	-0.3
	baz=56						
ARU	Arti	56.40	319	*e*P	P	13 44 59.4	-0.3
	comp=Z,15nm,0.8s,mb5.1						
ARU	Arti	56.40	319	⇑*i*P	P	13 44 59.1	-0.6
ARU				*e*		13 45 55.0	
ARU				*e*S	S	13 52 51.0	+1.7
ARU				*e*SS	SS	13 56 36.4	+0.8
ARU				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
M04C	Macdoel	56.52	63	P	P	13 45 01.6	+0.7
	baz=56,SNR=5.2						
K05A	Summer Lake	56.55	61	⇓P	P	13 45 01.8	+0.7
	baz=56						
I07A	Izee	56.61	59	P	P	13 45 02.1	+0.7
	baz=56,SNR=5.4						
F09A	S2 Ranch, Elgi	56.62	57	⇑P	P	13 45 01.4	0.0
	baz=56						
M03C	McCloud	56.64	63	⇑P	P	13 45 01.5	-0.2
	baz=56						
J06A	Christmas Vall	56.70	60	⇑P	P	13 45 03.4	+1.4
	baz=56						
A13A	Flathead Natio	56.74	52	⇑P	P	13 45 01.6	-0.7
	baz=56						
D11A	Klaveano Farm,	56.75	55	⇑P	P	13 45 02.0	-0.4
	baz=56						
WDC	Whiskeytown Da	56.78	64	*e*P	P	13 45 03.2	+0.5
WDC	Whiskeytown Da	56.78	64	⇑P	P	13 45 03.2	+0.5
	baz=57						
H08A	Prairie City	56.85	58	⇑P	P	13 45 02.8	-0.3
	baz=57						
O02C	Red Bluff	56.87	65	⇓P	P	13 45 03.8	+0.5
	baz=57						
K06A	Valley Falls	56.90	61	P	P	13 45 04.3	+0.8
	baz=57,SNR=8.9						
P01C	Double 8 Ranch	56.94	66	⇓P	P	13 45 03.6	-0.2
	baz=57						
L05A	Lakeview	56.98	62	⇓P	P	13 45 04.8	+0.7
	baz=57						
B13A	Whitefish	57.03	53	⇑P	P	13 45 03.9	-0.4
	baz=57						
J07A	Hines	57.13	60	⇑P	P	13 45 05.8	+0.7
	baz=57						
M05C	Lookout	57.19	63	⇑P	P	13 45 05.4	-0.2
	baz=57						
GASB	Alder Springs	57.22	65	⇑P	P	13 45 05.6	-0.2
	baz=57						
E11A	Bogner Ranch,	57.22	55	⇓P	P	13 45 05.7	0.0
	baz=57						
I08A	Drewsey	57.26	59	P	P	13 45 06.8	+0.7
	baz=57,SNR=6.4						
HATC	Hat Creek Radi	57.31	63	⇓P	P	13 45 06.3	-0.2
	baz=57						
H09A	Durkee	57.35	58	⇓P	P	13 45 06.7	0.0
	baz=57						
C13A	Hot Springs	57.37	53	⇑P	P	13 45 06.7	-0.1
	baz=57						
MOD	Modoc	57.39	62	*e*P	P	13 45 07.6	+0.6
MOD	Modoc	57.39	62	P	P	13 45 07.6	+0.7
	baz=57,SNR=7.6						
F11A	Grangeville	57.52	56	⇑P	P	13 45 08.1	+0.3
	baz=57						
K07A	Rock Creek Ran	57.56	60	⇑P	P	13 45 08.3	+0.1
	baz=57						
J08A	Circle Bar Ran	57.64	59	P	P	13 45 09.4	+0.7
	baz=57,SNR=5.1						
M06C	Likely Place G	57.69	63	⇑P	P	13 45 08.9	-0.2
	baz=58						
I09A	Lost Marbles R	57.71	58	⇑P	P	13 45 08.9	-0.3
	baz=58						
G11A	Walters Elk Ra	57.74	56	⇓P	P	13 45 08.7	-0.6
	baz=58						
D13A	Huson	57.77	54	⇓P	P	13 45 08.6	-1.0
	baz=58						
C14A	Swan Lake	57.77	53	⇓P	P	13 45 08.9	-0.7
	baz=58						
O04C	Chester	57.84	64	P	P	13 45 10.9	+0.8
	baz=58,SNR=5.4						
MNRC	McLaughlin Nat	57.84	66	⇓P	P	13 45 10.1	-0.1
	baz=58						
ELFS	Eagle Lake Fie	57.88	63	P	P	13 45 11.0	+0.6
	baz=58,SNR=5.4						
L07A	Adell	57.90	61	⇓P	P	13 45 10.3	-0.2
	baz=58						
H10A	Noah's Angus R	57.93	57	⇑P	P	13 45 10.8	0.0
	baz=58						
K08A	Mann Creek Ran	58.00	60	P	P	13 45 11.9	+0.7
	baz=58,SNR=6.8						
ORV	Oroville	58.03	65	⇓P	P	13 45 11.4	-0.2
	baz=58						
J09A	Fry Pan Ranch,	58.07	59	P	P	13 45 12.5	+0.8
	baz=58,SNR=6.0						
O05C	Quincy	58.15	64	⇑P	P	13 45 12.5	+0.1
	baz=58						
H11A	Donnelly	58.29	57	P	P	13 45 13.1	-0.2
	baz=58,SNR=7.0						
E13A	Victor	58.30	54	⇑P	P	13 45 13.6	+0.3
	baz=58						
D14A	Greenough	58.31	53	⇓P	P	13 45 13.0	-0.4
	baz=58						
N06A	Buffalo Meadow	58.35	63	P	P	13 45 14.2	+0.5
	baz=58,SNR=6.0						
M07A	Soldier Meadow	58.38	62	P	P	13 45 14.6	+0.6
	baz=58,SNR=10						
L08A	Fields	58.40	60	⇓P	P	13 45 14.1	+0.1
	baz=58						
K09A	Rome	58.47	60	⇑P	P	13 45 14.6	+0.1
	baz=58						
PRGR	Permogore	58.49	328	*e*P	P	13 45 14.5	+0.1
PRGR				pmax	pmax		
	comp=Z,13nm,0.5s,mb5.2						
BEKR	Beckwourth	58.55	64	P	P	13 45 15.1	-0.1
	baz=58,SNR=6.8						
ARCES	ARCESS Array B	58.56	342	P	P	13 45 17.2	+2.4
ARCES				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ARCES	ARCESS Array B	58.56	342	P	P	13 45 17.2	+2.4
	comp=Z,6.1nm,1.0s,mb4.6,baz=66,slow=22,SNR=3.2						
F13A	Darby	58.61	55	⇑P	P	13 45 15.1	-0.3
	baz=58						
O06A	Flanigan	58.70	63	⇑P	P	13 45 15.7	-0.5
	baz=58						
E14A	Clinton	58.71	54	⇑P	P	13 45 15.5	-0.7
	baz=58						
I11A	Placerville	58.79	58	⇑P	P	13 45 16.4	-0.3
	baz=58						
M08A	Happy Creek Ra	58.82	61	⇓P	P	13 45 17.1	+0.1
	baz=59						
D15A	Lincoln	58.88	53	⇑P	P	13 45 17.2	-0.1
	baz=59						
L09A	Wilkinson Ranc	58.91	60	⇓P	P	13 45 17.3	-0.2
	baz=59						
K10A	MacKenzie Ranc	58.93	59	P	P	13 45 18.1	+0.4
	baz=59,SNR=5.1						
LAVA	Lava Cap Winer	58.98	65	⇓P	P	13 45 18.0	-0.1
	baz=59						
H12A	Diamond D Ranc	59.05	56	⇑P	P	13 45 18.2	-0.3
	baz=59						
G13A	Cobalt	59.08	56	P	P	13 45 18.6	-0.2
	baz=59,SNR=9.4						
F14A	Wisdom	59.14	55	⇑P	P	13 45 17.5	-1.6
	baz=59						
MFID	Camas Ranch	59.16	58	⇓P	P	13 45 19.7	+0.4
	baz=59						
E15A	Deer Lodge	59.18	54	⇑P	P	13 45 18.4	-1.0
	baz=59						
PAHR	Pah Rah Range	59.25	63	*e*P	P	13 45 19.8	-0.2
	comp=Z,12nm,1.3s,mb4.8						
WCN	Washoe City	59.27	64	⇑P	P	13 45 19.9	-0.2
	baz=59						
O07A	Toulon	59.29	63	P	P	13 45 20.7	+0.5
	baz=59,SNR=5.8						
N08A	GE Springer Mi	59.37	62	⇑P	P	13 45 20.9	+0.1
	baz=59						
H13A	Challis	59.38	56	⇑P	P	13 45 20.2	-0.6
	baz=59						
M09A	Marrel Ranch,	59.39	61	⇑P	P	13 45 21.1	+0.1
	baz=59						
R05C	Kirkwood Meado	59.43	65	⇓P	P	13 45 20.8	-0.5
	baz=59						
HRY	Holter Researc	59.45	53	*e*P	P	13 45 15.1	-6.2
FFC	Flin Flon	59.50	41	*e*P	P	13 45 21.8	+0.3
	comp=Z,12nm,1.0s,mb4.9						
FFC	Flin Flon	59.50	41	*e*P	P	13 45 21.8	+0.3
FFC				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
L10A	Juniper Basin	59.59	60	⇑P	P	13 45 22.7	+0.4
	baz=59						
F15A	Butte	59.61	54	P	P	13 45 22.7	+0.3
	baz=59,SNR=6.2						
CMB	Columbia Colle	59.64	65	*e*P	P	13 45 22.4	-0.4
	comp=Z,1.9nm,0.8s,mb4.2						
CMB	Columbia Colle	59.64	65	*e*P	P	13 45 22.4	-0.3
CMB				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
CMB	Columbia Colle	59.64	65	⇑P	P	13 45 22.3	-0.5
	baz=59						
J12A	Stokes Ranch,	59.69	58	P	P	13 45 23.2	+0.3
	baz=59,SNR=5.5						
N09A	Rock Creek Ran	59.69	61	⇑P	P	13 45 23.5	+0.4
	baz=60						
PACP	Pacheco Peak	59.70	67	⇑P	P	13 45 23.1	-0.1
	baz=60						
EGMT	Eagleton	59.78	51	*e*P	P	13 45 23.6	0.0
I13A	Wildhorse Cree	59.85	57	P	P	13 45 24.7	+0.6
	baz=60,SNR=7.0						
M10A	I.L. Ranch, Tu	59.88	60	P	P	13 45 25.3	+1.0
	baz=60,SNR=5.9						
HLID	Hailey	59.89	57	*e*P	P	13 45 24.2	-0.2
	comp=Z,4.6nm,1.2s,mb4.4						
HLID	Hailey	59.89	57	P	P	13 45 24.6	+0.2
	baz=60,SNR=5.4						
HAST	UC Hastings Re	59.91	68	⇑P	P	13 45 24.5	-0.1
	baz=60						
R06C	Coleville	59.93	64	P	P	13 45 25.0	+0.3
	baz=60,SNR=8.8						
WAKR	Walker	59.95	64	*e*P	P	13 45 25.2	+0.4
L11A	Cat Creek Ranc	59.96	59	P	P	13 45 25.2	+0.4
	baz=60,SNR=7.2						
G15A	Dillon	60.02	55	⇓P	P	13 45 24.9	-0.3
	baz=60						
P08A	Dixie Valley	60.06	63	⇑P	P	13 45 26.7	+1.1
	baz=60						
S06C	San Francisco	60.07	65	P	P	13 45 25.5	-0.2
	baz=60,SNR=8.1						
S05C	Merced	60.10	66	⇑P	P	13 45 25.8	-0.1
	baz=60						
J13A	Cove Ranch, Pi	60.13	57	P	P	13 45 26.7	+0.7
	baz=60,SNR=5.8						
K12A	Draper Farm, C	60.17	58	P	P	13 45 26.6	+0.3
	baz=60,SNR=5.7						
FCC	Fort Churchill	60.22	34	*e*P	P	13 45 25.7	-0.7
	comp=Z,6.6nm,0.7s,mb4.8						
FCC	Fort Churchill	60.22	34	*e*P	P	13 45 25.7	-0.7
FCC				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
AKTK	Aktyubinsk	60.24	313	P	P	13 45 27.5	+0.9
AKTO	Aktyubinsk	60.24	313	P	P	13 45 27.5	+0.8
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
AKTO	Aktyubinsk	60.24	313	P	P	13 45 27.5	+0.9
	comp=Z,1.7nm,0.7s,mb4.2,baz=46,slow=7.2,SNR=6.0						
O09A	Fish Creek Ran	60.31	62	P	P	13 45 27.9	+0.7
	baz=60,SNR=5.2						
M11A	Holland Ranch,	60.38	60	⇓P	P	13 45 28.2	+0.4
	baz=60						
L12A	House Creek Ra	60.40	59	P	P	13 45 28.4	+0.5
	baz=60,SNR=8.9						
U04C	Hernandez Rese	60.41	67	⇑P	P	13 45 29.6	+1.5
	baz=60						
R07C	Lee Vining	60.44	65	P	P	13 45 29.2	+0.9
	baz=60,SNR=5.2						
O10A	Cortez Mining,	60.65	61	⇑P	P	13 45 30.1	+0.4
	baz=60						
Q08A	Gabbs	60.66	63	P	P	13 45 30.0	+0.3
	baz=60,SNR=6.6						
NVAR	Mina Array Bea	60.70	64	P	P	13 45 30.2	+0.2
NVAR	Mina Array Bea	60.70	64	P	P	13 45 30.2	+0.2
	comp=Z,3.8nm,0.7s,mb4.6,baz=284,slow=8.7,SNR=28						
T06C	Millerton Lake	60.70	66	⇑P	P	13 45 29.5	-0.4
	baz=60						
KCC	Kaiser Creek	60.74	65	⇓P	P	13 45 29.9	-0.4
	baz=60						
V04C	Ramage Ranch,	60.81	68	⇑P	P	13 45 30.7	-0.1
	baz=61						
QLMT	Earthquake Lak	60.82	55	*e*P	P	13 45 31.4	+0.7
PKD	Parkfield	60.83	67	⇓P	P	13 45 29.8	-1.0
	baz=61						
M12A	Wells	60.91	59	P	P	13 45 32.4	+1.0
	baz=61,SNR=6.6						
L13A	Double Diamond	61.07	58	P	P	13 45 33.4	+0.9
	baz=61,SNR=6.0						
P10A	Eureka	61.09	62	⇑P	P	13 45 32.7	+0.1
	baz=61						
Q09A	Carvers	61.14	63	⇑P	P	13 45 33.1	+0.2
	baz=61						
N12A	Clover Valley,	61.19	60	⇓P	P	13 45 33.0	-0.2
	baz=61						
K14A	Jones Ranch, D	61.23	57	⇑P	P	13 45 33.9	+0.4
	baz=61						
O11A	Cowboy Ranch,	61.26	61	⇑P	P	13 45 33.9	+0.1
	baz=61						
HELL	Mitchell Peak,	61.33	66	P	P	13 45 33.6	-0.7
	baz=61,SNR=9.7						
S08C	White Mtn Res	61.35	65	⇑P	P	13 45 34.6	+0.2
	baz=61						
P11A	Circle Ranch,	61.56	62	⇑P	P	13 45 35.9	+0.1
	baz=61						
R09A	Tonopah	61.57	63	P	P	13 45 35.9	0.0
	baz=61,SNR=12						
IMW	Indian Meadow	61.67	55	*e*P	P	13 45 37.5	+1.0
	comp=Z,12nm,1.3s,mb4.9						
N13A	Wendover, West	61.68	60	⇑P	P	13 45 37.0	+0.4
	baz=61						
O12A	Currie	61.72	60	P	P	13 45 37.4	+0.5
	baz=62,SNR=7.6						
S09A	Goldfield	61.80	64	P	P	13 45 37.4	0.0
	baz=62,SNR=5.5						
VES	Vestal, Richgr	61.82	67	⇓P	P	13 45 36.9	-0.7
	baz=62						
MOOW	Moose Ponds	61.88	55	*e*P	P	13 45 38.5	+0.6
	comp=Z,8.9nm,1.2s,mb4.8						
TPAW	Teton Pass	61.92	55	*e*P	P	13 45 38.9	+0.7
PKM	Peak Mountain	61.94	68	⇓P	P	13 45 38.5	0.0
	baz=62						
R10A	Warm Springs	62.02	63	⇑P	P	13 45 38.4	-0.5
	baz=62						
LOHW	Long Hollow	62.04	55	*e*P	P	13 45 39.7	+0.8
	comp=Z,14nm,1.3s,mb4.9						
REDW	Red Top Meadow	62.06	56	*e*P	P	13 45 39.9	+0.8
Q11A	Duckwater	62.06	62	⇓P	P	13 45 38.7	-0.5
	baz=62						
S10A	Tonopah Range,	62.06	63	P	P	13 45 39.5	+0.3
	baz=62,SNR=6.3						
CWC	Cottonwood Cre	62.07	66	⇓P	P	13 45 39.5	+0.2
	baz=62						
P12A	McGill	62.12	61	⇓P	P	13 45 40.0	+0.4
	baz=62						
ISA	Isabella	62.31	66	P	P	13 45 40.0	-0.9
	baz=62,SNR=5.5						
DGMT	Dagmar	62.40	48	*e*P	P	13 45 41.4	+0.1
	comp=Z,14nm,0.8s,mb5.1						
Q12A	Willow Creek R	62.44	61	⇑P	P	13 45 41.5	-0.2
	baz=62						

MPMC	Manual Prospec	62.68	66	P	P	13 45 43.3	-0.1
	baz=62,SNR=7.7						
HWUT	Hardware Ranch	62.76	57	*e*P	P	13 45 43.3	-0.5
	comp=Z,27nm,1.9s,mb5.0						
FURC	Furnace Creek,	62.81	65	P	P	13 45 44.3	+0.1
	baz=63,SNR=8.9						
OSI	Osito Adit	62.82	68	⇓P	P	13 45 43.6	-0.7
	baz=63						
DUG	Dugway	62.92	59	*e*P	P	13 45 45.0	+0.1
	comp=Z,9.8nm,1.0s,mb4.9						
DUG	Dugway	62.92	59	*e*P	P	13 45 45.0	+0.1
DUG				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
DUG	Dugway	62.92	59	P	P	13 45 45.1	+0.2
	baz=63,SNR=10						
R12A	Pony Springs,	63.02	62	P	P	13 45 46.0	+0.4
	baz=63,SNR=7.2						
EDW2	Edwards Air Fo	63.11	67	P	P	13 45 46.1	-0.2
	baz=63,SNR=10						
BW06	Boulder Array	63.17	55	*e*P	P	13 45 46.3	-0.2
	comp=Z,8.4nm,1.0s,mb4.8						
U10A	Ash Meadows, A	63.18	65	⇓P	P	13 45 47.2	+0.5
	baz=63						
SHOC	Shoshone	63.54	65	⇑P	P	13 45 48.4	-0.7
	baz=63						
GSC	Goldstone	63.59	66	⇑P	P	13 45 48.4	-1.0
	baz=63						
BFSC	Mount Baldy St	63.73	67	⇑P	P	13 45 49.1	-1.3
	baz=64						
U11A	Corn Creek	63.76	64	⇓P	P	13 45 50.7	+0.2
	baz=64						
CIS	Catalina Islan	63.79	68	⇓P	P	13 45 49.1	-1.6
	baz=64						
SHPR	Sheep Range	63.85	64	*e*P	P	13 45 51.1	0.0
KBL	Kabul	63.93	293	*e*P	P	13 45 50.2	-1.5
T12A	Moapa	63.98	63	⇓P	P	13 45 51.5	-0.4
	baz=64						
TUQ	Turquoise Mtn.	64.06	65	⇑P	P	13 45 52.1	-0.4
	baz=64						
ARUT	Antelope Range	64.08	62	*e*P	P	13 45 52.4	-0.2
V11A	Goodsprings	64.11	65	⇓P	P	13 45 52.7	-0.1
	baz=64						
BBRC	Big Bear Sol-O	64.19	67	⇑P	P	13 45 53.0	-0.4
	baz=64						
S14A	Cedar City	64.26	62	⇑P	P	13 45 54.0	+0.2
	baz=64						
U12A	Valley of Fire	64.28	64	⇑P	P	13 45 53.5	-0.4
	baz=64						
T13A	Saint George	64.29	63	⇑P	P	13 45 54.2	+0.2
	baz=64						
MSU	Marysvale	64.37	60	*e*P	P	13 45 55.1	+0.6
MURC	Murrieta	64.44	67	⇑P	P	13 45 54.0	-1.0
	baz=64						
V12A	Nelson	64.54	64	⇓P	P	13 45 55.6	-0.1
	baz=64						
GMRC	Granite Mounta	64.65	66	⇓P	P	13 45 56.6	+0.2
	baz=64						
T14A	Hurricane	64.76	62	P	P	13 45 57.5	+0.4
	baz=64,SNR=5.7						
FINES	FINESS Array B	64.94	336	*i* P	P	13 46 00.0	+2.2
FINES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
FINES	FINESS Array B	64.94	336	P	P	13 45 57.5	-0.3
	comp=Z,3.3nm,0.9s,mb4.4,baz=66,slow=11,SNR=6.0						
SRU	San Rafael	64.97	59	*e*P	P	13 45 58.4	+0.1
	comp=Z,7.8nm,0.7s,mb4.8						
SRU	San Rafael	64.97	59	*e*P	P	13 45 58.4	0.0
SRU				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
ULM	Lac du Bonnet	65.26	42	P	P	13 45 59.6	-0.5
	comp=Z,4.8nm,0.7s,mb4.7,baz=309,slow=6.6,SNR=13						
IRM	Iron Mountain	65.37	66	P	P	13 46 00.8	-0.2
	baz=65,SNR=5.9						
BC3	Big Chuckw Mtn	65.51	66	⇓P	P	13 46 01.0	-1.0
	baz=65						
W13A	Hualapai Mount	65.55	64	⇓P	P	13 46 01.8	-0.4
	baz=65						
PDMCI	Parker Dam,Lak	65.91	65	⇓P	P	13 46 03.8	-0.7
	baz=66						
X13A	Yucca	65.91	65	P	P	13 46 04.4	-0.2
	baz=66,SNR=7.0						
W14A	Seligman	65.97	64	P	P	13 46 05.3	+0.4
	baz=66,SNR=14						
Y12C	Blythe	66.03	66	⇓P	P	13 46 05.0	-0.4
	baz=66						
PV10	Paradox Valley	66.33	59	*e*P	P	13 46 07.0	-0.1
Y13A	Salome	66.42	65	⇓P	P	13 46 08.1	+0.3
	baz=66						
OBN	Obninsk	66.48	327	⇑*e*P	P	13 46 08.7	+0.9
OBN				*e*		13 46 15.7	
OBN				pmax	pmax		
	comp=Z,31nm,1.4s,mb5.2						
OBN				MLR	MLR		
	comp=Z,100nm,18.0s,MS4.1						
W15A	Williams	66.49	63	⇑P	P	13 46 08.8	+0.6
	baz=66						
X14A	Yava	66.58	64	P	P	13 46 09.2	+0.4
	baz=66,SNR=6.3						
PV01	Paradox Valley	66.76	59	*e*P	P	13 46 10.0	0.0
WUAZ	Wupatki	66.82	62	*e*P	P	13 46 10.7	+0.3
	comp=Z,12nm,1.1s,mb4.8						
WUAZ	Wupatki	66.82	62	⇓P	P	13 46 10.6	+0.2
	baz=67						
X15A	Humboldt	66.97	64	P	P	13 46 11.7	+0.4
	baz=67,SNR=9.9						
SMCO	Snowmass	67.00	57	*e*P	P	13 46 11.9	+0.4
	comp=Z,11nm,1.1s,mb4.8						
Z14A	Wintersburg	67.27	65	⇓P	P	13 46 12.9	-0.4
	baz=67						
ISCO	Idaho Springs	67.36	56	*e*P	P	13 46 14.0	+0.3
	comp=Z,14nm,1.4s,mb4.8						
ISCO	Idaho Springs	67.36	56	*e*P	P	13 46 14.0	+0.3
ISCO				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.8						
MVCO	Mesa Verde	67.42	59	⇑P	P	13 46 14.3	+0.2
	baz=67						
115A	Sonoran Desert	68.16	65	⇑P	P	13 46 19.5	+0.6
	baz=68						
VRSR	Storozhevoye	68.38	323	*e*P	P	13 46 19.8	-0.2
VRSR				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
VRSR				pmax	pmax		
	comp=N,2.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.9s						
VORD	Divnogorie	68.53	323	*e*P	P	13 46 19.1	-1.8
VORD				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
VORD				pmax	pmax		
	comp=N,20nm,0.8s						
VORD				pmax	pmax		
	comp=E,4.0nm,0.5s						
116A	Eloy	68.58	65	⇓P	P	13 46 21.5	0.0
	baz=68						
SDCO	Great Sand Dun	68.81	57	*e*P	P	13 46 23.1	+0.2
	comp=E,5.6nm,1.1s,mb4.4						
NOA	NORSAR Array B	68.92	342	P	P	13 46 24.2	+1.0
NOA	NORSAR Array B	68.92	342	P	P	13 46 24.2	+1.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
NOA	NORSAR Array B	68.92	342	P	P	13 46 24.2	+1.0
	comp=Z,2.2nm,0.9s,mb4.1,baz=41,slow=10,SNR=2.8						
WRA	Warramunga Arr	69.14	202	P	P	13 46 22.7	-2.2
WRA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
WRA	Warramunga Arr	69.14	202	P	P	13 46 22.7	-2.1
	comp=Z,9.4nm,0.9s,mb4.7,baz=20,slow=6.5,SNR=20						
LAZ	Ladron	70.13	61	*e*P	P	13 46 31.4	+0.3
ANMO	Albuquerque	70.16	60	*e*P	P	13 46 31.3	0.0
	comp=Z,14nm,1.7s,mb4.6						
ANMO	Albuquerque	70.16	60	*e*P	P	13 46 31.3	0.0
ANMO				pmax	pmax		
	comp=Z,14nm,1.7s						
GOF	Gofitskoye	71.27	316	*e*P	P	13 46 35.0	-2.8
GOF				pmax	pmax		
	comp=Z,75nm,0.8s,mb5.7						
KIV	Kislovodsk	72.26	316	*e*P	P	13 46 44.8	+1.0
KIV	Kislovodsk	72.26	316	*e*P	P	13 46 44.7	+0.9
KIV				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
KIV				MLR	MLR		
	comp=Z,123nm,18.0s,MS4.2						
SCIA	State Center	72.53	47	*e*P	P	13 46 44.9	-0.6
	comp=Z,22nm,0.6s,mb5.3						
ZEI	Tsey	72.55	314	*e*P	P	13 46 46.0	+0.4
ZEI				*i*		13 46 54.4	
ZEI				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
AKASG	Malin Array Be	72.69	328	P	P	13 46 45.3	-1.0
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.7s						
AKASG	Malin Array Be	72.69	328	P	P	13 46 45.3	-1.0
	comp=Z,4.0nm,0.7s,mb4.5,baz=34,slow=6.0,SNR=16						
KIEV	Kiev	72.70	328	*e*P	P	13 46 45.2	-1.1
	comp=Z,5.5nm,0.9s,mb4.5						
KIEV	Kiev	72.70	328	*e*P	P	13 46 45.2	-1.1
KIEV				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
AMTX	Amarillo	73.02	57	*e*P	P	13 46 49.1	+0.7
MNTX	Cornudas Mount	73.07	62	*e*P	P	13 46 48.6	-0.3
	comp=Z,14nm,1.3s,mb4.7						
SOC	Sochi	73.94	317	*i* P	P	13 46 54.7	+0.9
ANN	Anapa	74.05	319	*e*P	P	13 46 49.8	-4.6
ANN				*e*S	S	13 56 23.2	-2.9
ANN				pmax	pmax		
	comp=Z,36nm,1.5s,mb5.1						
WMOK	Wichita Mounta	74.78	55	*e*P	P	13 46 57.9	-0.9
	comp=Z,7.7nm,0.9s,mb4.6						
WMOK	Wichita Mounta	74.78	55	*e*P	P	13 46 57.9	-0.9
WMOK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
LTX	Lajitas	75.78	62	*e*P	P	13 47 04.3	-0.4
	comp=Z,12nm,0.6s,mb5.0						
LTX	Lajitas	75.78	62	*e*P	P	13 47 04.3	-0.4
LTX				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.0						
TXAR	Lajitas Array	75.78	62	P	P	13 47 04.4	-0.3
TXAR				pmax	pmax		
	comp=Z,13nm,0.6s						
TXAR	Lajitas Array	75.78	62	P	P	13 47 04.3	-0.3
	comp=Z,13nm,0.6s,mb5.0,baz=302,slow=4.1,SNR=105						
BURAR	Bucovina Array	76.72	328	⇓P	P	13 47 09.6	-0.1
DPC	Dobruska-Polom	77.26	335	*e*P	P	13 47 12.8	+0.1
JCT	Junction City	77.28	59	*e*P	P	13 47 12.6	-0.6
	comp=Z,11nm,1.1s,mb4.7						
JCT	Junction City	77.28	59	*e*P	P	13 47 12.6	-0.5
JCT				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
CLL	Collm	77.33	337	*i* P	P	13 47 13.4	+0.4
CLL				*e*		13 47 21.0	
CLL				pmax	pmax		
	comp=Z,25nm,1.6s,mb4.9						
MORC	Moravsky Berou	77.41	334	*e*P	P	13 47 13.5	0.0
	comp=Z,21nm,1.7s,mb4.8						
MORC	Moravsky Berou	77.41	334	*e*P	P	13 47 13.5	0.0
MORC				pmax	pmax		
	comp=Z,21nm,1.7s,mb4.8						
BRG	Berggiesshubel	77.47	336	*e*P	P	13 47 21.3	+7.5
BRG				pmax	pmax		
	comp=Z,7.0nm,1.6s,mb4.3						
CLZ	Clausthal	77.52	339	*e*P	P	13 47 14.9	+0.8
CLZ				pmax	pmax		
	comp=Z,30nm,1.6s,mb5.0						
CLZ	Clausthal	77.52	339	*e*P	P	13 47 14.9	+0.8
	comp=Z,30nm,1.6s,mb5.0						
PRU	Pruhonice	78.10	336	*e*P	P	13 47 17.8	+0.5
MLR	Muntele Rosu	78.25	327	⇑P	P	13 47 17.8	-0.4
MOX	Moxa	78.30	338	*e*P	P	13 47 18.8	+0.4
	comp=Z,20nm,1.5s,mb4.8						
DRGR		78.32	329	⇑P	P	13 47 18.5	-0.1
VOIR		78.63	327	⇓P	P	13 47 20.7	+0.4
MALT	Malatya	78.64	315	*e*P	P	13 47 20.8	+0.2
	comp=Z,12nm,1.0s,mb4.8						
MALT	Malatya	78.64	315	*e*P	P	13 47 20.8	+0.3
MALT				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
KHC	Kasperske Hory	79.14	336	*e*P	P	13 47 23.7	+0.6
KHC				*e*pP	pP	13 47 31.8	+3.2
STKA	Stephens Creek	79.26	192	P	P	13 47 21.7	-2.0
	comp=Z,3.2nm,0.8s,mb4.3,baz=131,slow=21,SNR=3.6						
STKA				LR	LR	14 23 00.6	
	comp=Z,70nm,18.8s,MS4.0,baz=25,slow=36						
GRA1	Grafenberg Arr	79.27	338	*e*P	P	13 47 24.2	+0.4
	comp=Z,60nm,1.7s,mb5.2						
GRF	Grafenberg Arr	79.27	338	*e*P	P	13 47 24.2	+0.4
GRF				pmax	pmax		
	comp=Z,60nm,1.7s,mb5.2						
GRF	Grafenberg Arr	79.27	338	*e*P	P	13 47 24.2	+0.4
GRF				pmax	pmax		
	comp=Z,60nm,1.7s,mb5.2						
GRF	Grafenberg Arr	79.27	338	*e*P	P	13 47 24.2	+0.4
	comp=Z,60nm,1.7s,mb5.2						
WET	Wettzell	79.33	336	*e*P	P	13 47 24.8	+0.7
WET				pmax	pmax		
	comp=Z,32nm,1.8s,mb5.0						
WET	Wettzell	79.33	336	*e*P	P	13 47 24.8	+0.7
	comp=Z,32nm,1.8s,mb5.0						
GEC2	GERESS Array S	79.37	336	*e*P	P	13 47 24.8	+0.5
GEC2				pmax	pmax		
	comp=Z,14nm,1.8s,mb4.6						
GEC2	GERESS Array S	79.37	336	*e*P	P	13 47 24.8	+0.5
	comp=Z,14nm,1.8s,mb4.6						
GERES	GERESS Array B	79.37	336	P	P	13 47 24.3	0.0
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES				MLR	MLR		
	comp=Z,191nm,18.9s						
GERES	GERESS Array B	79.37	336	P	P	13 47 24.3	-0.1
	comp=Z,0.8nm,0.6s,mb3.8,baz=43,slow=6.4,SNR=5.5						
GERES				LR	LR	14 24 16.6	
	comp=Z,191nm,18.9s,MS4.5,baz=278,slow=37						
GZR	Gura Zlata	79.50	329	⇑P	P	13 47 24.2	-0.9
BZS	Buzias	79.72	329	⇓P	P	13 47 25.5	-0.8
BRTR	Keskin Array B	79.78	319	P	P	13 47 27.1	+0.3
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BRTR	Keskin Array B	79.78	319	P	P	13 47 27.1	+0.3
	comp=Z,2.6nm,0.9s,mb4.1,baz=45,slow=3.9,SNR=8.8						
MIB	Mutribah	80.38	303	*e*P	P	13 47 29.6	-0.5
MIB				AMb	AMB	13 47 30.9	
	comp=Z,26nm,0.8s,mb5.2						
PPT	Papeete	80.53	128	*e*LR	LR	14 12 32.3	
	comp=Z,151nm,22.8s,baz=318						
PPT	Papeete	80.53	128	LR	LR	14 23 15.5	
	comp=Z,282nm,18.3s,MS4.7,baz=180,slow=36						
RST	Umm Al-Ruwaisa	80.81	303	*e*P	P	13 47 31.5	-0.9
RST				AMb	AMB	13 47 33.2	
	comp=Z,27nm,0.9s,mb5.2						
QRN	Al-Qurain	80.84	302	*e*P	P	13 47 31.3	-1.3
QRN				AMb	AMB	13 47 41.9	
	comp=Z,30nm,0.9s,mb5.2						
NAY	Al-Naaiem	80.85	303	*e*P	P	13 47 32.1	-0.6
NAY				AMb	AMB	13 47 33.2	
	comp=Z,15nm,0.7s,mb5.0						
RDF	Al-Radifah	80.92	303	*e*P	P	13 47 32.4	-0.7
RDF				AMb	AMB	13 47 33.9	
	comp=Z,33nm,1.0s,mb5.2						
BFO	Black Forest	81.27	339	*e*P	P	13 47 35.0	+0.4
BFO				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
BFO	Black Forest	81.27	339	*e*P	P	13 47 35.0	+0.4
	comp=Z,13nm,1.3s,mb4.7						
CDF	Champ du Feu	81.45	340	*e*P	P	13 47 36.0	+0.5
	comp=Z,12nm,1.2s,mb4.7						
CDF	Champ du Feu	81.45	340	*e*P	P	13 47 36.0	+0.5
CDF				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
CDF	Champ du Feu	81.45	340	*e*P	P	13 47 36.0	+0.5
	comp=Z,25nm,1.2s,mb4.7						
HINF	Hinteralfeld	82.11	340	*e*P	P	13 47 39.3	+0.3
FLN	La Foliniere	82.77	345	*e*P	P	13 47 43.2	+0.8
FLN				LR	LR		
	comp=Z,180nm,22.0s,MS4.4						
FLN	La Foliniere	82.77	345	*e*P	P	13 47 43.2	+0.8
FLN				*e*MLR	MLR		
	comp=Z,177nm,22.0s,MS4.1						
LDF	La Druitiere	82.86	344	*e*P	P	13 47 43.2	+0.3
GRR	Gorron	83.19	345	*e*P	P	13 47 44.9	+0.2
	comp=Z,54nm,1.6s,mb5.3						
GRR	Gorron	83.19	345	*e*P	P	13 47 44.9	+0.2
GRR				pmax	pmax		
	comp=Z,54nm,1.6s,mb5.3						
GRR	Gorron	83.19	345	*e*P	P	13 47 44.9	+0.2
	comp=Z,107nm,1.6s,mb5.3						
LOR	Lormes	83.31	341	*e*P	P	13 47 45.4	+0.1
	comp=Z,24nm,1.5s,mb5.0						
LOR				LR	LR		
	comp=Z,150nm,17.8s,MS4.4						
LOR	Lormes	83.31	341	*e*P	P	13 47 45.4	+0.1
LOR				pmax	pmax		
	comp=Z,24nm,1.5s,mb5.0						
LOR				MLR	MLR		
	comp=Z,150nm,17.8s,MS4.4						
LOR	Lormes	83.31	341	*e*P	P	13 47 45.4	+0.1
	comp=Z,48nm,1.5s,mb5.0						
LOR				*e*MLR	MLR		
	comp=Z,150nm,17.8s,MS4.1						
SSF	Saint Saulge	83.59	341	*e*P	P	13 47 46.9	+0.2
	comp=Z,5.7nm,0.9s,mb4.7						
SSF	Saint Saulge	83.59	341	*e*P	P	13 47 46.9	+0.2
SSF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
SSF	Saint Saulge	83.59	341	*e*P	P	13 47 46.9	+0.2
	comp=Z,11nm,0.9s,mb4.7						
ROSF	Rostrenen	83.66	346	*e*P	P	13 47 47.6	+0.5
AVF	Avril sur Loir	83.88	341	*e*P	P	13 47 48.4	+0.2
	comp=Z,14nm,1.1s,mb5.0						
AVF	Avril sur Loir	83.88	341	*e*P	P	13 47 48.4	+0.2
AVF				pmax	pmax		
	comp=Z,14nm,1.1s,mb5.0						
AVF	Avril sur Loir	83.88	341	*e*P	P	13 47 48.4	+0.2
	comp=Z,27nm,1.1s,mb5.0						
SMF	Signal de Mont	83.91	341	*e*P	P	13 47 48.6	+0.2
	comp=Z,16nm,1.1s,mb5.1						
SMF	Signal de Mont	83.91	341	*e*P	P	13 47 48.6	+0.2
SMF				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.1						
SMF	Signal de Mont	83.91	341	*e*P	P	13 47 48.6	+0.2
	comp=Z,32nm,1.1s,mb5.1						
BGF	Bois d’Agland	84.21	342	*e*P	P	13 47 50.4	+0.5
LPL	La Plagne	84.29	339	*e*P	P	13 47 51.6	+1.3
LPG	La Plagne	84.30	339	*e*P	P	13 47 51.8	+1.4
	comp=Z,17nm,1.2s,mb5.1						
LPG	La Plagne	84.30	339	*e*P	P	13 47 51.8	+1.4
LPG				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
LPG	La Plagne	84.30	339	*e*P	P	13 47 51.8	+1.4
	comp=Z,35nm,1.2s,mb5.1						
TCF	Toulx Ste Croi	84.60	342	*e*P	P	13 47 52.2	+0.3
MFF	Saint Martin d	84.78	344	*e*P	P	13 47 53.1	+0.3
ORIF	Oris-en-Rattie	85.06	339	*e*P	P	13 47 55.3	+1.1
	comp=Z,6.3nm,0.9s,mb4.8						
ORIF	Oris-en-Rattie	85.06	339	*e*P	P	13 47 55.3	+1.1
ORIF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
ORIF	Oris-en-Rattie	85.06	339	*e*P	P	13 47 55.3	+1.1
	comp=Z,13nm,0.9s,mb4.7						
ORIF				*e*MLR	MLR		
	comp=Z,129nm,18.0s,MS4.1						
RJF	Les Rejaudoux	85.69	342	*e*P	P	13 47 57.0	-0.3
	comp=Z,5.3nm,0.8s,mb4.8						
RJF				LR	LR		
	comp=Z,180nm,17.5s,MS4.5						
RJF	Les Rejaudoux	85.69	342	*e*P	P	13 47 57.0	-0.3
RJF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
RJF				MLR	MLR		
	comp=Z,180nm,17.5s,MS4.5						
RJF	Les Rejaudoux	85.69	342	*e*P	P	13 47 57.0	-0.3
	comp=Z,11nm,0.8s,mb4.8						
RJF				*e*MLR	MLR		
	comp=Z,180nm,17.5s,MS4.2						
PGF	Pioggiola	86.46	336	*e*P	P	13 48 01.4	+0.2
	comp=Z,12nm,1.0s,mb5.1						
PGF	Pioggiola	86.46	336	*e*P	P	13 48 01.4	+0.2
PGF				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.1						
PGF	Pioggiola	86.46	336	*e*P	P	13 48 01.4	+0.2
	comp=Z,23nm,1.0s,mb5.1						
ESDC	Sonseca Array	92.19	345	P	P	13 48 26.9	-1.4
	comp=Z,1.5nm,0.7s,mb4.4,baz=7.6,slow=4.8,SNR=5.1						
KEST	Kesra	92.66	333	LR	LR	14 36 03.9	
	comp=Z,47nm,21.6s,MS3.9,baz=243,slow=39						
LPAZ	La Paz	132.59	65	*e*PKPdf	PKPdf	13 54 34.0	+0.5
LPAZ	La Paz	132.59	65	PKIKP	PKPdf	13 54 33.3	-0.2
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.9s						
LPAZ	La Paz	132.59	65	PKP	PKPdf	13 54 33.3	-0.2
	comp=Z,1.5nm,0.9s,baz=355,slow=3.4,SNR=6.8						
CFAA	Coronel Fontan	143.04	82	PKP	PKPdf	13 54 48.8	-3.5
CFAA	Coronel Fontan	143.04	82	PKP	PKPdf	13 54 48.8	-3.5
	comp=Z,0.2nm,0.4s,baz=264,slow=6.0,SNR=4.0						

IDC 05 13:37:17.7±7.4, 525S×15288E, h85^{km}±52^{km}, mb3.5/5, mb1 3.6/6, mb1mx3.5/14, mbtmp3.5/6, ML2.6/1, MS3.0/1, Ms1 3.0/1, ms1mx2.5/21, Error ellipse: s-maj=82.7km s-min=31.1km az=113.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	7.01	234	P	Pn	13 38 57.2	-0.6
	0.7nm,0.3s,baz=44,slow=12,SNR=3.7						
PMG				S	Sn	13 40 17.9	+1.9
	2.8nm,0.3s,baz=35,slow=15,SNR=9.2						
PMG				LR	LR	13 41 48.3	
	comp=Z,111nm,18.3s,baz=245,slow=39						
WRA	Warramunga Arr	23.20	229	P	P	13 42 17.2	-0.2
	0.5nm,0.4s,baz=54,slow=9.8,SNR=9.2						
FITZ	Fitzroy Crossi	29.51	242	P	P	13 43 14.2	0.0
	2.3nm,0.6s,baz=67,slow=8.4,SNR=5.5						
SONM	Songino Array	66.75	328	P	P	13 48 00.6	+0.7
	0.3nm,0.5s,baz=131,slow=5.9,SNR=4.6						
MKAR	Makanchi Array	80.72	319	P	P	13 49 22.1	+0.4
	0.5nm,0.8s,baz=100,slow=5.9,SNR=4.7						
ZALV	Zalesovo Beam	81.57	326	P	P	13 49 25.4	-0.6
	1.7nm,0.7s,baz=117,slow=5.6,SNR=9.8						
TORD	Torodi Ar. Bea	150.52	287	PKPbc	PKPbc	13 57 00.6	-0.1
	0.9nm,0.5s,baz=82,slow=1.5,SNR=8.9						

MAN 05 13:37:22, 939N×12580E, h20^{km}, mb4.0, ML2.8, MS2.5, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SCPH	Surigao	0.50	322	*e*P	Pb	13 37 33.4	+1.3
SCPH				*e*S	Sb	13 37 40.2	+1.2
MSLP	Maasin	1.19	309	*e*P	Pn	13 37 43.8	+0.3
MSLP				*e*S	Sb	13 37 59.8	+0.9
BUKP	Musuan	1.67	206	*e*P	Pn	13 37 50.8	+0.7

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*NIED **05** 14:07:00, 43.10N×145.00E, h62^{km}, Mw4.1 Best double couple: M$_0$1.40000×10^{15} NP1:ϕ_s251.00000°, δ37.00000°, λ134.00000°. NP2:ϕ_s21.00000°, δ64.00000°, λ62.00000°.*

*ISCJB **05** 14:07:52.1±0.4, 43.06N±0.04×145.00E±0.05, h67^{km}±3^{km}, mb4.0/20, Error ellipse: s-maj=7.3km s-min=4.0km az=139.0*

*IDC **05** 14:07:52.7±0.8, 43.13N×144.97E, h57^{km}±6^{km}, mb3.8/15, mb1 4.0/17, mb1mx3.9/25, mbtmp3.8/17, MS2.8/2, Ms1 2.8/2, ms1mx2.4/28, Error ellipse: s-maj=18.8km s-min=12.7km az=160.0*

*MOS **05** 14:07:52.1±1.1, 43.06N×144.96E, h72^{km}, mb4.4/11, Error ellipse: s-maj=12.0km s-min=8.7km az=97.9*

MOS Felt (II) at Yuzhno-Kuril’sk.

*JMA **05** 14:07:53.2±0.1, 43.08N×145.01E, h62^{km}±1^{km}, M4.3 Broadband fault plane solution: P waves. NP1: ϕ_s245.00000°, δ47.00000°, λ135.00000°. NP2: ϕ_s10.00000°, δ59.00000°, λ53.00000°. Principal axes: T Plg58.0000°, Azm226.0000°; N Plg31.0000°, Azm31.0000°; P Plg7.0000°, Azm125.0000°;*

JMA Felt II J1.

*NEIC **05** 14:07:53.2, 43.08N×145.01E, h62^{km}, mb4.5/2, MW4.0(NIED), After JMA.*

NEIC Felt [II] at Yuzhno-Kuril’sk, Kunashir. Recorded [2 JMA] in eastern Hokkaido.

*SKHL **05** 14:07:53.2±0.6, 43.05N×145.08E, h70^{km}±7^{km}, mb5.7/2*

SKHL Felt (II) at Yushno-Kurilsk.

*BJI **05** 14:07:53.2, 43.10N×145.00E, h61^{km}, mb4.5, mB5.0, Ms4.4*

ISC 05 14:07:53.4±0.4, 4309N±004×14500E±005, h60^{km}±3^{km}, h55^{km}±1.1^{km}:pP-P, n73, σ0^{s}71/85, mb4.1/20, 7C-8D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAK	Akkeshi	0.24	248	⇑P	Pn	14 08 03.0	-0.1
JAK				*e*S	Sn	14 08 10.2	+0.1
JNK	Nakash	0.54	338	⇓P	Pn	14 08 05.3	-0.5
JNK				*e*S	Sn	14 08 14.0	-0.8
NEM2	Nemuro 2	0.61	62	⇑P	Pn	14 08 06.2	-0.3
NEM2				*e*S	Sn	14 08 15.3	-0.9
JRA	Rausu	0.86	6	⇑P	Pn	14 08 09.6	+0.1
JRA				*e*S	Sn	14 08 21.4	-0.1
JOB	Onbets	0.88	258	⇓P	Pn	14 08 09.8	0.0

JOB				*e*S	Sn	14 08 22.0	+0.1
JAR	Ashorobuto	0.93	284	⇓P	Pn	14 08 10.5	+0.1
JAR				*e*S	Sn	14 08 23.2	+0.2
YUK	Yuzh-Kuril'sk	1.14	33	α *i*PN	Pn	14 08 13.0	-0.2
YUK				*i* S	Sn	14 08 27.9	0.0
YUK				pmax	pmax		
	comp=N,1µm,0.3s						
YUK				pmax	pmax		
	comp=E,3µm,0.3s						
YUK				pmax	pmax		
	comp=Z,14µm,0.3s						
YUK				pmax	pmax		
	comp=E,3µm,0.3s						
YUK				pmax	pmax		
	comp=Z,14µm,0.3s						
YUK				pmax	pmax		
	comp=N,4µm,0.5s						
YUK				smax			
	comp=N,20µm,0.5s						
YUK				smax			
	comp=E,56µm,0.5s						
YUK				smax			
	comp=N,23µm,0.4s						
YUK				smax			
	comp=E,32µm,0.3s						
YUK	Yuzh-Kuril'sk	1.14	33	*i* P	Pn	14 08 13.0	-0.2
YUK				AMB	AMB	14 08 13.5	
	comp=E,1µm,0.3s						
YUK				AMB	AMB	14 08 13.5	
	comp=E,3µm,0.3s						
YUK				AMB	AMB	14 08 13.5	
	comp=E,14µm,0.3s						
YUK				AMB	AMB	14 08 13.6	
	comp=E,4µm,0.3s						
YUK				AMB	AMB	14 08 13.6	
	comp=E,3µm,0.3s						
YUK				AMB	AMB	14 08 13.6	
	comp=E,14µm,0.3s						
YUK				*i* S	Sn	14 08 27.9	0.0
YUK				A		14 08 28.2	
	comp=E,20µm,0.5s						
YUK				A		14 08 28.2	
	comp=E,56µm,0.5s						
YUK				A		14 08 28.3	
	comp=E,23µm,0.4s						
YUK				A		14 08 28.3	
	comp=E,32µm,0.4s						
JTKR	Abashiri--Toko	1.19	318	⇓P	Pn	14 08 14.3	+0.4
JTKR				*e*S	Sn	14 08 30.1	+0.9
JCH	Churui	1.29	249	⇓P	Pn	14 08 14.8	-0.5
JCH				*e*S	Sn	14 08 30.9	-0.8
JMP	Maruseppu	1.51	308	⇓P	Pn	14 08 18.5	+0.4
ERM	Erimo	1.73	232	*e*Pn	Pn	14 08 22.6	+1.4
ERM				Sn	Sn	14 08 42.1	-0.1
ERM	Erimo	1.73	232	*e*PN	Pn	14 08 22.6	+1.4
ERM						14 08 42.1	
ASAJ	Asahikawa	2.03	301	PN	Pn	14 08 25.6	+0.4
ASAJ				pmax	pmax		
	comp=Z,76nm,0.3s						
ASAJ	Asahikawa	2.03	301	P	Pn	14 08 25.6	+0.4
	comp=Z,76nm,0.3s,baz=128,slow=11,SNR=764						
KUR	Kuril'sk	2.98	43	⇓*i*PN	Pn	14 08 39.6	+1.5
KUR				*i* S	Sn	14 09 13.0	+0.5
KUR				pmax	pmax		
	comp=N,80nm,0.5s						
KUR				pmax	pmax		
	comp=E,80nm,0.5s						
KUR				pmax	pmax		
	comp=Z,300nm,0.5s						
KUR				smax			
	comp=N,490nm,0.5s						
KUR				smax			
	comp=E,730nm,0.5s						
KUR	Kuril'sk	2.98	43	*i* P	Pn	14 08 39.6	+1.5
KUR				AMB	AMB	14 08 41.4	
	comp=E,80nm,0.5s						
KUR				AMB	AMB	14 08 41.4	
	comp=E,300nm,0.5s						
KUR				*i* S	Sn	14 09 13.0	+0.5
KUR				A		14 09 21.5	
	comp=E,490nm,0.5s						
KUR				A		14 09 21.5	
	comp=E,730nm,0.5s						
YSS	Yuzh-Sakhalins	4.18	338	*e*Pn	Pn	14 08 55.1	+0.5
YSS	Yuzh-Sakhalins	4.18	338	*i* P	Pn	14 08 55.2	+0.6
YSS				*e*S	Sn	14 09 37.1	-5.0
YSS				A		14 09 38.0	
	comp=E,40nm,0.6s						
MAJO	Matsushiro	8.37	221	*e*Pn	Pn	14 09 50.8	-1.1
	comp=E,16nm,0.7s						
MAJO	Matsushiro	8.37	221	*e*PN	Pn	14 09 50.8	-1.1
MAJO				pmax	pmax		
	comp=Z,16nm,0.7s						
MAT	Matsushiro	8.37	221	P	Pn	14 09 51.3	-0.6
MAT				S	Sn	14 11 25.3	+0.5
MJAR	Matsushiro Arr	8.37	221	PN	Pn	14 09 51.4	-0.5
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR				MLR	MLR		
	comp=Z,98nm,20.9s						
MJAR	Matsushiro Arr	8.37	221	P	Pn	14 09 51.4	-0.5
	comp=Z,1.3nm,0.3s,baz=31,slow=13,SNR=26						
MJAR				LR	LR	14 13 49.0	
	comp=Z,98nm,20.9s,baz=50,slow=42						
HABR	Khabarovsk	8.79	311	PN	Pn	14 09 57.3	-0.3
KLR	Kul'dur	11.05	308	*e*PN	Pn	14 10 28.9	+0.5
KSRS	Korea Array	14.19	252	P	Pn	14 11 12.4	+1.2
	comp=Z,0.1nm,0.3s,baz=63,slow=13,SNR=3.8						
JNU	Nakatsue	14.90	233	LR	LR	14 17 26.4	
	comp=Z,29nm,19.7s,baz=22,slow=38						
JOW	Kunigami	21.17	225	P	P	14 12 33.6	+0.1
	comp=Z,14nm,0.8s,mb4.3,baz=87,slow=6.9,SNR=6.1						
SONM	Songino Array	27.29	294	P	P	14 13 31.9	0.0
SONM						14 16 48.4	
SONM				pmax	pmax		
	comp=Z,5.0nm,0.9s						
SONM	Songino Array	27.29	294	P	P	14 13 31.9	-0.1
	comp=Z,5.0nm,0.8s,mb4.1,baz=87,slow=8.0,SNR=30						
SONM				PcP	PcP	14 16 48.4	-1.6
	comp=Z,0.4nm,0.7s,baz=116,slow=3.4,SNR=3.6						
ZAK	Zakamensk	29.20	299	⇓*e*P	P	14 13 48.9	0.0
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.3s,mb3.4						
GTA	Gaotai	33.86	279	*e*P	P	14 14 29.8	-0.2
GTA				AMB	AMB		
	comp=Z,3.0nm,0.9s,mb4.2						
ZALV	Zalesovo Beam	40.15	307	P	P	14 15 23.6	+0.5
	comp=Z,0.8nm,0.7s,mb3.6,baz=91,slow=8.0,SNR=4.7						
ZALV				PcP	PcP	14 17 26.1	-0.2
	comp=Z,1.7nm,0.5s,baz=85,slow=2.6,SNR=10						
ZAL	Zalesovo	40.17	307	P	P	14 15 23.7	+0.5
ZAL						14 17 26.1	
KDAK	Kodiak Island	40.85	47	P	P	14 15 28.2	-0.6
KDAK	Kodiak Island	40.85	47	P	P	14 15 28.2	-0.6
	comp=Z,3.3nm,0.5s,mb4.2,baz=263,slow=2.9,SNR=5.2						
MK31	Makanchi Array	43.51	298	*e*P	P	14 15 49.8	-0.8
MKAR	Makanchi Array	43.51	298	P	P	14 15 49.9	-0.7
MKAR						14 17 37.1	
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	43.51	298	P	P	14 15 49.9	-0.7
	comp=Z,4.1nm,0.7s,mb4.3,baz=80,slow=9.0,SNR=43						
MKAR				PcP	PcP	14 17 37.1	-0.4
	comp=Z,0.5nm,0.5s,baz=75,slow=3.0,SNR=4.1						
KURK	Kurchatov	44.60	304	⇑*e*P	P	14 15 58.6	-0.7
INK	Inuvik	47.76	30	P	P	14 16 22.8	-1.0
INK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
INK	Inuvik	47.76	30	P	P	14 16 22.8	-1.1
	comp=Z,0.6nm,0.3s,mb4.1,baz=288,slow=3.1,SNR=12						
TKM2	Tokmak 2	49.37	295	*e*P	P	14 16 36.4	-0.1
	comp=Z,7.4nm,0.8s,mb4.8						
TKM2	Tokmak 2	49.37	295	*e*P	P	14 16 36.4	-0.2
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
YKA	Yellowknife Ar	57.22	33	P	P	14 17 33.4	-0.4
YKA				pP	pP	14 17 48.1	-1.7
YKA	Yellowknife Ar	57.22	33	P	P	14 17 33.4	-0.4
YKA				*PP	pP	14 17 48.1	-1.7
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	57.22	33	P	P	14 17 33.4	-0.4
	comp=Z,0.7nm,0.7s,mb3.8,baz=304,slow=6.9,SNR=11						
YKA				pP	pP	14 17 48.1	-1.7
	comp=Z,0.6nm,0.7s,baz=301,slow=6.9,SNR=5.2						
WB2	Warramunga Arr	63.48	191	P	P	14 18 19.1	+2.2
WRA	Warramunga Arr	63.48	191	P	P	14 18 16.4	-0.5
WRA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
WRA	Warramunga Arr	63.48	191	P	P	14 18 16.4	-0.5
	comp=Z,1.5nm,0.8s,mb4.2,baz=8.9,slow=6.8,SNR=6.6						
FINES	FINESS Array B	64.75	332	*i* P	P	14 18 23.8	-1.0
FINES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
FINES	FINESS Array B	64.75	332	P	P	14 18 23.2	-1.6
	comp=Z,1.2nm,0.3s,mb4.3,baz=39,slow=7.8,SNR=11						
KIV	Kislovodsk	69.03	311	*e*P	P	14 18 52.9	+0.6
KIV				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
NVAR	Mina Array Bea	69.25	57	P	P	14 18 55.0	+1.1
NVAR	Mina Array Bea	69.25	57	P	P	14 18 55.0	+1.1
	comp=Z,0.8nm,0.5s,mb3.9,baz=286,slow=8.6,SNR=11						
NB2	NORSAR Subarra	69.64	338	P	P	14 18 54.7	-1.1
	comp=Z,1.2nm,0.6s,mb4.0,baz=33,slow=6.5						
NOA	NORSAR Array B	69.64	338	P	P	14 18 54.9	-0.9
NOA	NORSAR Array B	69.64	338	P	P	14 18 54.9	-0.9
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA	NORSAR Array B	69.64	338	P	P	14 18 54.9	-0.9
	comp=Z,2.1nm,0.7s,mb4.2,baz=35,slow=6.0,SNR=6.1						
AKASG	Malin Array Be	71.17	323	P	P	14 19 03.7	-1.6
AKASG	Malin Array Be	71.17	323	*i* P	P	14 19 04.4	-1.0
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	71.17	323	P	P	14 19 03.7	-1.6
	comp=Z,1.1nm,0.5s,mb4.1,baz=40,slow=6.0,SNR=11						
BW06	Boulder Array	71.53	48	*e*P	P	14 19 07.8	+0.2
	comp=Z,1.3nm,0.4s,mb4.2						
PDAR	Pinedale Array	71.53	48	P	P	14 19 08.0	+0.3
	comp=Z,1.3nm,0.4s,mb4.2,baz=332,slow=0.5,SNR=30						
PDAR				pP	pP	14 19 23.3	-0.9
	comp=Z,0.4nm,0.5s,baz=231,slow=0.5,SNR=3.4						
PV10	Paradox Valley	74.78	52	P	P	14 19 28.0	+1.1
KHC	Kasperske Hory	78.77	330	⇑*e*P	P	14 19 49.0	-0.1
GERES	GERESS Array B	78.96	330	P	P	14 19 49.7	-0.5
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
GERES	GERESS Array B	78.96	330	P	P	14 19 49.7	-0.5
	comp=Z,0.6nm,0.4s,mb3.9,baz=38,slow=6.8,SNR=5.9						
TXAR	Lajitas Array	84.32	55	P	P	14 20 19.7	+0.9
TXAR				*PP	pP	14 20 34.6	-1.1
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	84.32	55	P	P	14 20 19.7	+0.9
	comp=Z,0.9nm,0.7s,mb4.0,baz=300,slow=3.7,SNR=12						
TXAR				pP	pP	14 20 34.6	-1.1
	comp=Z,0.7nm,0.7s,baz=305,slow=2.7,SNR=6.3						
TORD	Torodi Ar. Bea	114.73	320	PKP	PKiKP	14 26 25.2	-2.1
TORD	Torodi Ar. Bea	114.73	320	PKP	PKiKP	14 26 25.2	-2.1
	comp=Z,0.2nm,0.3s,baz=18,slow=2.1,SNR=3.9						

MAN 05 14:44:19,1124N×12567E,h33^{km},mb4.7,ML3.5,MS3.5, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	0.42	328	*e*P	Pb	14 44 31.2	+2.7
BESP				*e*S	Sb	14 44 37.5	+2.5
PLP	Palo	0.68	264	*e*P	Pn	14 44 33.2	+0.9
OCLP	Ormoc	1.06	260	*e*P	Pn	14 44 39.6	+2.1
MSLP	Maasin	1.35	216	*e*P	Pn	14 44 47.3	+5.7
MSLP				*e*S	Sn	14 45 04.9	+6.5
MATI	Mati	4.30	172	*e*P	Pb	14 45 40.3	+6.3
MATI				*e*S	Sb	14 46 26.6	+1.1
GSPH	General Santos	5.17	188	*e*P	Pn	14 45 35.7	+1.6

IDC 05 14:44:51.5±1.3**,409N×12618E,h0^{km},mb3.8**/5**,mb1 4.0**/5**, mb1mx3.7**/18**,mbtmp3.8**/5**,MS3.3**/1**,Ms1 3.3**/1**, ms1mx2.3**/25**,Error ellipse: s-maj=101.5km s-min=19.8km az=71.0,Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	20.72	62	LR	LR	14 55 34.4	
	comp=Z,78nm,20.4s,baz=90,slow=31						
FITZ	Fitzroy Crossi	22.06	181	P	P	14 49 50.0	+1.9
	2.9nm,0.8s,baz=6.9,slow=12,SNR=6.4						
WRA	Warramunga Arr	25.19	162	P	P	14 50 18.4	-0.5
	1.3nm,0.5s,baz=337,slow=10,SNR=24						
STKA	Stephens Creek	38.66	159	P	P	14 52 15.9	-1.0
	2.5nm,0.8s,baz=333,slow=9.0,SNR=3.2						
SONM	Songino Array	46.79	342	P	P	14 53 23.3	+0.5
	0.5nm,0.6s,baz=156,slow=7.9,SNR=5.2						
MKAR	Makanchi Array	56.95	325	P	P	14 54 38.5	-0.2
	0.4nm,0.5s,baz=126,slow=5.5,SNR=8.1						

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*ISCJB **05** 15:07:31.2±1.1,6174N±005×308E±01,h0^{km},Error ellipse: s-maj=10.2km s-min=5.0km az=32.4*

*HEL **05** 15:07:31.5±0.3,6168N×3100E,h0^{km},ML1.9,Explosion*

*IDC **05** 15:07:34.5±2.0,6179N×3046E,h0^{km},mb1 3.4/4, mb1mx3.1/21,mbtmp3.3/4,ML2.6/4,Error ellipse: s-maj=21.5km s-min=9.7km az=138.0*

ISC 05 15:07:31.0±1.1**,6172N**±005×**310E**±01**,h0^{km},n14, σ1^{s}09**/27**,Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOF	Joensuu	1.22	7	*e*P	Pg	15 07 53.9	-0.4
JOF				*e*S	Sg	15 08 09.3	-0.7
VJF	Virojoki	2.04	236	*e*P	Pn	15 08 06.9	+0.5
VJF				*e*S	Sn	15 08 33.2	+0.7
VJF				MSG		15 08 35.7	
	comp=Z,5.8nm,0.1s						
FIA0	FINESS Array S	2.36	266	*e*P	Pn	15 08 11.8	+0.9
FIA0				*e*S	Sn	15 08 40.4	-0.1
FINES	FINESS Array B	2.36	266	Pn	Pn	15 08 11.9	+1.1
	comp=Z,3.8nm,0.3s,baz=82,slow=16,SNR=178						
FINES				Pg	Pg	15 08 12.5	-3.6
	comp=Z,3.8nm,0.3s,baz=80,slow=17,SNR=178						
FINES				Lg		15 08 40.4	
	comp=Z,1.7nm,0.3s,baz=76,slow=28,SNR=22						
SUF	Sumiainen	2.47	296	*e*P	Pn	15 08 14.0	+1.6
SUF				*e*S	Sn	15 08 43.2	-0.1
SUF				MSG		15 08 47.4	
	comp=Z,5.2nm,0.1s						
PVF	Pernaja	2.74	247	*e*P	Pn	15 08 16.2	+0.1
PVF				*e*S	Sn	15 08 49.5	-0.5
PVF				MSG		15 08 56.5	
	comp=Z,2.5nm,0.2s						
KJN	Kajaani	2.81	329	*e*P	Pn	15 08 18.8	+1.8
KJN				*e*S	Sn	15 08 51.7	+0.1
KJN				MSG		15 08 54.6	
	comp=Z,5.3nm,0.2s						
KEF	Keuruu	2.92	282	*e*P	Pn	15 08 20.5	+1.9
KEF				*e*S	Sn	15 08 54.9	+0.6
KEF				MSG		15 08 58.5	
	comp=Z,3.9nm,0.2s						
MEF	Metsahovi	3.54	248	*e*P	Pn	15 08 27.1	0.0
MEF				*e*S	Sn	15 09 08.2	-1.4
MEF				MSG		15 09 14.0	
	comp=Z,1.6nm,0.2s						
VAF	Ylistaro	4.09	293	*e*P	Pn	15 08 35.7	+1.1
VAF				*e*S	Sn	15 09 23.4	+0.3
VAF				MSG		15 09 29.6	
	comp=Z,1.2nm,0.2s						
RAF	Rauma	4.49	265	*e*P	Pn	15 08 40.4	+0.3
RAF				*e*S	Sn	15 09 31.9	-0.9
ARCES	ARCESS Array B	8.17	346	Pn	Pn	15 09 29.1	-1.5
	comp=Z,0.1nm,0.3s,baz=156,slow=15,SNR=6.0						
ARCES				Sn	Sn	15 10 56.8	-6.6
	comp=Z,0.1nm,0.3s,baz=160,slow=25,SNR=2.6						
HFS	Hagfors	8.56	267	Pn	Pn	15 09 33.6	-2.4
	comp=Z,0.1nm,0.3s,baz=83,slow=13,SNR=3.5						
HFS				Sn	Sn	15 11 06.7	-6.4
	comp=Z,0.1nm,0.3s,baz=81,slow=28,SNR=3.2						
NOA	NORSAR Array B	9.50	275	Pn	Pn	15 09 46.9	-1.9
	comp=Z,0.1nm,0.3s,baz=81,slow=12,SNR=2.6						

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*ISCJB **05** 15:34:59.3±0.5,3495N±003×12962E±006,h10^{km},Error ellipse: s-maj=7.0km s-min=4.1km az=163.9*

*JMA **05** 15:34:59.1±0.1,3496N×12963E,h7^{km}±4^{km},M3.0*

*KMA **05** 15:35:02.8,35.13N×129.41E,ML2.2*

ISC 05 15:34:59.3±0.6**,3496N**±003×**12964E**±006**,h10^{km},n12, σ0^{s}84**/16**,South Korea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTU	Tsushima	0.48	205	P	Pg	15 35 08.4	-0.2
JTU				S	Sg	15 35 14.7	-0.2
KSBUS	Busan	0.52	304	P	Pg	15 35 09.0	-0.5
KSULS	Ulsan	0.65	336	P	Pg	15 35 11.6	-0.3
KSDAG	Daegu	1.01	323	P	Pg	15 35 17.7	-1.1
JII	Iki	1.16	176	P	Pb	15 35 20.9	-0.5
JII				S	Sb	15 35 36.3	-0.2
KSPHA	Pohang	1.25	350	P	Pn	15 35 22.3	-0.6
KSPHA				S	Sb	15 35 39.0	-0.2
KSJIN	Jinju	1.34	279	P	Pn	15 35 23.2	-0.9
JTY	Toyota	1.36	120	P	Pn	15 35 23.9	-0.4
JTY				S	Sb	15 35 42.8	+0.5
KSULJ	Uljin	1.75	354	P	Pn	15 35 30.7	+1.0
KSKWJ	Gwangju	2.19	276	P	Pn	15 35 37.4	+1.8
KSCHO	Jeonju	2.21	294	P	Pn	15 35 38.1	+2.1
KSJEU	Jeongeup	2.29	284	P	Pn	15 35 37.1	+0.1

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*ISCJB **05** 15:58:06.5±1.2,02S±02×912W±02,h10^{km},mb4.0/7, MS3.0/2,Error ellipse: s-maj=45.8km s-min=10.3km az=138.9*

*NEIC **05** 15:58:08.8±4.5,0.19S×91.13W,h10^{km}±22^{km},mb4.1/2, Error ellipse: s-maj=73.4km s-min=11.6km az=57.0*

*IDC **05** 15:58:10.0±4.3,040N×9038W,h0^{km},mb3.9/5,mb1 4.2/6, mb1mx4.0/15,mbtmp4.0/6,ML4.5/1,MS3.1/3,Ms1 3.2/3, ms1mx2.8/23,Error ellipse: s-maj=212.2km s-min=19.1km az=54.0*

ISC 05 15:58:08.7±5.2**,02S**±03×**911W**±05**,h9^{km}**±26^{km}**,n15, σ0^{s}80**/13**,mb4.0**/7**,MS3.0**/2**,Galapagos Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAYG	Puerto Ayora	0.98	121	*e*Pg	Pg	15 58 27.4	-0.1
CMIG	Matias Romero	17.55	348	LR	LR	16 07 15.0	
	comp=Z,83nm,21.3s,baz=14,slow=32						
NNA	Nana	18.41	130	P	Pn	16 02 25.1	+0.6
	1.6nm,0.3s,baz=297,slow=14,SNR=2.3						
TEIG	Tepich	20.46	8	LR	LR	16 09 27.1	
	comp=Z,83nm,20.2s,MS3.1,baz=75,slow=34						
LPAZ	La Paz	27.77	126	P	P	16 03 59.4	+1.3
LPAZ				LR	LR	16 14 31.7	
LPAZ	La Paz	27.77	126	P	P	16 03 59.4	+1.3
	1.1nm,0.6s,mb3.6,baz=267,slow=9.1,SNR=3.5						
LPAZ				LR	LR	16 14 31.7	
	comp=Z,29nm,20.1s,MS2.9,baz=274,slow=36						
TXAR	Lajitas Array	31.69	339	P	P	16 04 33.9	+1.2
TXAR	Lajitas Array	31.69	339	P	P	16 04 33.9	+1.2
	0.6nm,0.7s,mb3.5,baz=153,slow=11,SNR=6.9						
SIV	San Ignacio	33.56	119	P	P	16 04 48.6	-0.8
	2.1nm,0.9s,mb4.1,baz=292,slow=12,SNR=7.5						
MNTX	Cornudas Mount	34.45	338	*e*P	P	16 04 57.0	+0.1
	1.0nm,0.6s,mb3.9						
LCO	Las Campanas	34.69	148	*e*P	P	16 04 58.2	-0.8
	3.9nm,0.8s,mb4.4						
ULM	Lac du Bonnet	50.39	356	*e*P	P	16 07 05.6	-0.7
ULM	Lac du Bonnet	50.39	356	P	P	16 07 05.8	-0.4
	1.6nm,0.5s,mb4.3,baz=182,slow=9.7,SNR=5.3						
YKA	Yellowknife Ar	64.96	348	P	P	16 08 47.7	-0.9
YKA	Yellowknife Ar	64.96	348	P	P	16 08 47.7	-0.9
	0.7nm,0.7s,mb3.8,baz=148,slow=6.3,SNR=9.4						

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*IDC **05** 16:37:00.8±1.8,126S×1409W,h0^{km},mb3.9/9,mb1 4.0/9, mb1mx3.9/20,mbtmp3.9/9,MS4.1/26,Ms1 4.1/26, ms1mx4.0/32,Error ellipse: s-maj=49.4km s-min=30.2km az=76.0*

*ISCJB **05** 16:37:00.4±0.8,144S±010×139W±01,h10^{km},mb4.0/10, MS4.1/26,Error ellipse: s-maj=22.2km s-min=10.4km az=27.9*

*NEIC **05** 16:37:02.0±0.9,140S×1408W,h10^{km},mb4.6/3,Error ellipse: s-maj=35.1km s-min=15.3km az=101.0*

*SZGRF **05** 16:37:01.9,211S×1379W,h33^{km},mb4.6,North of Ascension Island*

*GCMT **05** 16:37:02.0±0.2,096S×1439W,h15^{km},MW5.1/81, Moment Tensor Solution. s42,c49; s81,c135; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.73±.15; M$_{\theta\theta}$1.85±.12; M$_{\phi\phi}$-1.12±.15; M$_{r\theta}$-0.62±.41; M$_{\theta\phi}$-4.35±.10; M$_{\phi r}$2.64±.44; Best double couple: M$_0$5.34900×10^{16} NP1:φ$_s$261.00000°,δ59.00000°,λ-175.00000°. NP2: φ$_s$169.00000°,δ86.00000°,λ-31.00000°. Principal axes: T 5.6480, Plg19.0000°, Azm219.0000°; N -0.6020, Plg58.0000°, Azm342.0000°; P -5.0500, Plg25.0000°, Azm120.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*LIC **05** 16:38:47.0±0.0,370N×816W,h2^{km} Error ellipse: s-maj=0.0km s-min=0.0km az=49.0*

ISC 05 16:37:01.8±0.7**,149S**±007×**141W**±01**,h10^{km},n40, σ1^{s}22**/23**,mb4.0**/10**,MS4.1**/26**,North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASCN	Ascension	6.41	182	*e*Pn	Pn	16 38 37.4	+1.1
	76nm,0.5s						
ASCN				*e*Sn	Sn	16 39 47.9	-1.7
LIC	Lamto	11.86	50	*e*P	Pn	16 39 50.8	-0.3
	30nm,0.2s						
TIC	Toumodi	12.13	48	*e*P	Pn	16 39 54.8	-0.1
	23nm,0.2s						
KIC	Kosan Boka	12.16	50	*e*P	Pn	16 39 55.2	-0.1
	34nm,0.2s						
TOA0	Torodi Ar. Sit	21.37	47	*e*P	P	16 41 49.0	-0.6
TOA0				*e*S	S	16 45 37.2	-10
TORD	Torodi Ar. Bea	21.37	47	P	P	16 41 49.3	-0.3
	14nm,0.8s,mb4.3,baz=232,slow=11,SNR=54						
TORD				S	S	16 45 38.6	-8.4
	5.5nm,0.5s,baz=235,slow=23,SNR=6.6						
TORD				LR	LR	16 49 43.7	
	comp=Z,446nm,20.5s,MS3.8,baz=235,slow=36						
MDT	Midelt	35.28	14	LR	LR	16 57 13.0	
	comp=Z,237nm,20.4s,MS3.9,baz=206,slow=35						
ESDC	Sonseca Array	42.00	12	LR	LR	17 02 06.7	
	comp=Z,221nm,18.2s,MS4.1,baz=185,slow=36						
KEST	Kesra	43.01	28	P	P	16 45 01.9	+0.4
	1.8nm,1.1s,mb3.7,baz=270,slow=20,SNR=2.8						
KEST				LR	LR	17 01 55.8	
	comp=Z,168nm,20.2s,MS3.9,baz=192,slow=35						
LBTB	Lobatse	44.86	125	P	P	16 45 20.6	+3.9
BOSA	Boshof	46.21	129	P	P	16 45 29.4	+2.1
BOSA				LR	LR	17 01 34.8	
BOSA	Boshof	46.21	129	P	P	16 45 29.4	+2.1
	1.7nm,0.9s,mb4.0,baz=290,slow=12,SNR=2.4						
BOSA				LR	LR	17 01 34.8	
	comp=Z,108nm,20.2s,MS3.8,baz=248,slow=32						
VAE	Valguarnera	46.90	31	LR	LR	17 07 00.4	
	comp=Z,236nm,21.6s,MS4.1,baz=180,slow=39						
KMBO	Kilima Mbogo	51.33	90	LR	LR	17 06 20.8	
	comp=Z,559nm,19.1s,MS4.6,baz=276,slow=34						
PCRV	Puerto La Cruz	51.62	284	LR	LR	17 04 47.4	
	comp=Z,69nm,20.2s,MS3.7,baz=247,slow=32						
DAVOX	Davos/Dischmat	52.48	21	LR	LR	17 08 38.1	
	comp=Z,240nm,18.6s,MS4.3,baz=248,slow=36						
SJG	San Juan	54.79	293	LR	LR	17 04 13.5	
	comp=Z,131nm,19.2s,MS4.0,baz=99,slow=30						
LPAZ	La Paz	55.19	251	LR	LR	17 07 39.6	
	comp=Z,135nm,20.5s,MS4.0,baz=97,slow=33						
GRA1	Grafenberg Arr	55.44	20	*e*P	P	16 46 38.2	+1.7
	9.0nm,1.5s,mb4.6						
GRF	Grafenberg Arr	55.44	20	*e*P	P	16 46 38.2	+1.7
	comp=Z,9.0nm,1.5s,mb4.6						
GEC2	GERESS Array S	55.61	22	*e*P	P	16 46 40.1	+2.4
	comp=Z,14nm,1.6s,mb4.7						
GERES	GERESS Array B	55.61	22	P	P	16 46 35.2	-2.5
	comp=Z,0.2nm,0.4s,mb3.5,baz=187,slow=15,SNR=3.7						
GERES				LR	LR	17 10 07.9	
	comp=Z,174nm,18.4s,MS4.2,baz=263,slow=36						
VRAC	Vranov	57.10	23	LR	LR	17 13 14.9	
	comp=Z,160nm,18.1s,MS4.2,baz=216,slow=38						
BRTR	Keskin Array B	59.86	41	P	P	16 47 05.8	-2.0
	comp=Z,0.4nm,0.8s,mb3.5,baz=346,slow=5.2,SNR=2.2						
ROSC	El Rosal	60.51	276	LR	LR	17 11 14.5	
	comp=Z,102nm,19.0s,MS4.0,baz=166,slow=34						
AKASG	Malin Array Be	63.73	29	P	P	16 47 32.8	-0.8
	comp=Z,0.1nm,0.3s,mb3.4,baz=226,slow=5.0,SNR=4.5						
AKASG				LR	LR	17 17 34.0	
	comp=Z,135nm,18.6s,MS4.2,baz=255,slow=38						

HFS	Hagfors	65.14	15	LR	LR	17 17 16.7	
	comp=Z,214nm,19.6s,MS4.3,baz=244,slow=37						
NOA	NORSAR Array B	65.33	13	LR	LR	17 16 11.8	
	comp=Z,113nm,18.9s,MS4.1,baz=205,slow=36						
FINES	FINESS Array B	69.85	19	P	P	16 48 12.1	-0.4
	comp=Z,0.9nm,0.4s,mb4.0,baz=216,slow=5.0,SNR=9.0						
FINES				LR	LR	17 19 11.9	
	comp=Z,224nm,19.2s,MS4.4,slow=36						
TKL	Tuckaleechee C	74.47	308	LR	LR	17 14 22.6	
	comp=Z,145nm,20.6s,MS4.3,baz=3.3,slow=30						
ARCES	ARCESS Array B	75.71	13	P	P	16 48 48.4	+1.3
ARCES				LR	LR	17 20 26.3	
ARCES	ARCESS Array B	75.71	13	P	P	16 48 48.4	+1.3
	comp=Z,3.3nm,1.0s,mb4.2,baz=208,slow=4.8,SNR=6.1						
ARCES				LR	LR	17 20 26.3	
	comp=Z,176nm,21.2s,MS4.3,baz=18,slow=34						
MAW	Mawson	83.67	158	LR	LR	17 18 31.2	
	comp=Z,116nm,19.2s,MS4.3,baz=74,slow=30						
ULM	Lac du Bonnet	85.88	320	LR	LR	17 23 43.3	
	comp=Z,119nm,18.5s,MS4.3,baz=26,slow=33						
TXAR	Lajitas Array	90.35	299	LR	LR	17 33 22.7	
	comp=Z,64nm,18.2s,MS4.1,baz=80,slow=38						
MKAR	Makanchi Array	95.45	43	LR	LR	17 38 05.2	
	comp=Z,78nm,18.4s,MS4.2,baz=301,slow=38						
YKA	Yellowknife Ar	96.17	333	P	P	16 50 29.0	-0.8
	comp=Z,0.3nm,0.8s,mb3.8,baz=85,slow=4.9,SNR=4.6						
YKA				LR	LR	17 30 35.2	
	comp=Z,80nm,19.9s,MS4.2,baz=140,slow=34						
ZALV	Zalesovo Beam	96.45	36	LR	LR	17 37 43.7	
	comp=Z,61nm,19.4s,MS4.1,baz=69,slow=38						
WRA	Warramunga Arr	142.42	126	PKP	PKPdf	16 56 35.5	-0.4
WRA	Warramunga Arr	142.42	126	PKP	PKPdf	16 56 35.5	-0.4
	comp=Z,0.5nm,0.8s,baz=224,slow=3.5,SNR=3.9						

SZGRF ***05*** *17:26:45.5, 21.77S×177.87W, h33^{km}, Fiji Islands region*

ISCJB ***05*** *17:27:45.9±1.0, 20.5S±0.1×178.07W±0.10, h550^{km}±15^{km}, mb4.2/20, Error ellipse: s-maj=20.0km s-min=11.3km az=151.5*

IDC ***05*** *17:27:46.9±1.6, 20.62S×178.07W, h550^{km}±19^{km}, mb3.6/11, mb1 3.7/14, mb1mx3.7/17, mbtmp3.6/14, Error ellipse: s-maj=21.6km s-min=13.9km az=155.0*

BJI ***05*** *17:27:46.8, 20.60S×178.00W, h554^{km}, mB5.1, mb4.5*

NEIC ***05*** *17:27:46.9±0.6, 20.62S×178.01W, h554^{km}±7^{km}, mb4.6/4, Error ellipse: s-maj=12.5km s-min=7.5km az=151.0*

MOS ***05*** *17:27:51.6±1.6, 18.92S×178.83W, h526^{km}, mb4.7/5, Error ellipse: s-maj=17.7km s-min=15.6km az=122.0*

ISC 05 17:27:46.6±0.9**, 20.6S**±0.1×**178.05W**±0.09**, h548**^{km}±13^{km}**, n153, σ0.86**/46**, mb4.2**/20**, 17C-2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	8.67	179	P	P	17 29 50.7	-0.2
	512nm,0.3s,baz=98,slow=22,SNR=4.4						
AFI	Afiamalu	8.91	43	P	P	17 29 53.4	-0.2
AFI				S	S	17 31 29.4	-8.2
AFI	Afiamalu	8.91	43	P	P	17 29 53.5	-0.1
AFI				S	S	17 31 29.4	-8.3
AFI				pmax	pmax		
	comp=Z,5.0nm,0.3s						
AFI				smax			
	comp=N,4.0nm,0.3s						
AFI	Afiamalu	8.91	43	P	P	17 29 53.5	0.0
	comp=N,4.5nm,0.3s,baz=34,slow=16,SNR=5.3						
AFI				S	S	17 31 29.4	-8.2
	comp=N,3.6nm,0.3s,baz=84,slow=20,SNR=7.4						
DZM	Mont Dzumac	14.54	261	P	P	17 30 52.1	+0.7
	comp=N,0.7nm,0.3s,baz=72,slow=19,SNR=6.6						
URZ	Urewera	18.14	192	P	P	17 31 25.0	-0.7
	comp=N,1.3nm,0.3s,baz=314,slow=4.9,SNR=8.1						
EIDS	Eidsvold	28.79	255	eP	P	17 33 01.5	+0.6
CTA	Charters Tower	33.44	264	P	P	17 33 41.4	+0.7
CTA	Charters Tower	33.44	264	P	P	17 33 41.4	+0.7
	comp=N,12nm,0.5s,mb4.7,baz=87,slow=11,SNR=6.9						
CTAO	Charters Tower	33.44	264	eP	P	17 33 41.5	+0.8
	comp=N,11nm,0.4s,mb4.8						
CTAO	Charters Tower	33.44	264	eP	P	17 33 41.5	+0.8
CTAO				pmax	pmax		
	comp=Z,11nm,0.4s,mb4.7						
PMG	Port Moresby	35.31	283	P	P	17 33 55.8	-0.6
	comp=Z,12nm,1.0s,mb4.4,baz=78,slow=9.3,SNR=4.1						
STKA	Stephens Creek	37.73	244	eP	P	17 34 16.3	+0.2
STKA	Stephens Creek	37.73	244	P	P	17 34 15.4	-0.7
	comp=Z,3.9nm,0.6s,mb4.1,baz=117,slow=9.1,SNR=9.1						
WB2	Warramunga Arr	44.54	262	eP	P	17 35 10.0	-0.3
WRA	Warramunga Arr	44.55	262	P	P	17 35 09.8	-0.5
	comp=Z,6.2nm,0.6s,mb4.3,baz=96,slow=8.1,SNR=38						
KAKA	Kakadu	47.93	271	eP	P	17 35 35.9	-0.1
MJAR	Matsushiro Arr	70.22	324	P	P	17 38 04.6	-0.2
MJAR	Matsushiro Arr	70.22	324	P	P	17 38 04.6	-0.2
	comp=Z,6.1nm,0.7s,mb4.2,baz=157,slow=6.2,SNR=16						
YSS	Yuzh-Sakhalins	75.92	333	eP	P	17 38 36.8	-0.3
YSS				pmax	pmax		
	comp=Z,23nm,0.9s,mb4.6						
KSRS	Korea Array	76.89	319	P	P	17 38 43.9	+1.2
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.7						
KSRS	Korea Array	76.89	319	P	P	17 38 43.9	+1.1
	comp=Z,2.3nm,0.7s,mb3.7,baz=125,slow=5.8,SNR=9.4						
HABR	Khabarovsk	80.47	330	eP	P	17 38 59.6	-1.9
HABR				e		17 39 03.3	
HABR				e		17 48 29.4	
MDJ	Mudanjiang	80.53	325	P	P	17 39 02.8	+0.9
MDJ				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,110nm,4.8s						
MDJ	Mudanjiang	80.53	325	eP	P	17 39 02.9	+1.0
	comp=Z,8.6nm,0.9s,mb4.2						
NVAR	Mina Array Bea	81.09	43	P	P	17 39 05.7	+0.7
	comp=Z,2.0nm,0.8s,mb3.6,baz=211,slow=6.9,SNR=16						
CN2	Changchun	82.31	322	eP	P	17 39 11.7	+0.6
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.2						
MA2	Magadan	83.82	345	eP	P	17 39 16.3	-1.9
MA2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.3						
SEY	Seymchan	86.41	347	eP	P	17 39 30.5	-0.2
TXAR	Lajitas Array	87.12	57	P	P	17 39 36.5	+1.6
	comp=Z,1.7nm,0.9s,mb3.7,baz=217,slow=6.1,SNR=12						
ANMO	Albuquerque	87.47	51	eP	P	17 39 35.4	-0.9
MCMT	McKenzie Canyo	88.02	40	eP	P	17 39 39.9	+1.2
DLBC	Dease Lake	88.11	23	P	P	17 39 39.9	+1.2
DLBC	Dease Lake	88.11	23	P	P	17 39 39.9	+1.2
	baz=184,slow=14						
XAN	Xi'an	88.13	307	P	P	17 39 40.5	+1.1
XAN				AMB	AMB		
	comp=Z,33nm,1.0s,mb5.0						
COLA	College	88.26	12	eP	P	17 39 38.1	-1.2
	comp=Z,9.4nm,0.8s,mb4.6						
COLA	College	88.26	12	eP	P	17 39 38.1	-1.2
COLA				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
BILL	Bilibino	89.08	354	eP	P	17 39 42.1	-0.9
BILL				pmax	pmax		
	comp=Z,10.0nm,2.0s,mb4.3						
EGAK	Eagle	89.66	15	eP	P	17 39 45.9	+0.1
	comp=Z,6.5nm,0.9s,mb4.5						
YAK	Yakutsk	92.14	338	eP	P	17 39 56.8	-0.5
YAK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
INK	Inuvik	94.33	15	P	P	17 40 06.4	-0.8
	comp=Z,1.5nm,1.0s,mb4.1,baz=331,slow=2.2,SNR=3.1						
SONM	Songino Array	95.76	319	P	P	17 40 14.6	+0.5
	comp=Z,0.3nm,0.8s,mb3.6,baz=105,slow=2.7,SNR=3.4						
YKA	Yellowknife Ar	96.57	25	P	P	17 40 17.5	+0.1
	comp=Z,0.2nm,0.3s,mb3.8,baz=247,slow=4.5,SNR=5.3						
ZALV	Zalesovo Beam	110.50	321	PKPdf	PKiKP	17 45 15.5	-1.1
ZALV	Zalesovo Beam	110.50	321	PKiKP	PKiKP	17 45 15.5	-1.1
	comp=Z,0.4nm,0.4s,baz=140,slow=2.0,SNR=5.0						
MK31	Makanchi Array	111.20	313	ePKPdf	PKiKP	17 45 17.1	-1.1
MKAR	Makanchi Array	111.20	313	PKPdf	PKiKP	17 45 17.2	-1.0
MKAR	Makanchi Array	111.20	313	PKiKP	PKiKP	17 45 17.2	-1.0
	comp=Z,0.7nm,0.6s,baz=64,slow=2.8,SNR=7.1						
ARU	Arti	125.22	325	i PKIKP	PKPdf	17 45 44.0	-0.8
ARU				e		17 47 39.6	
AKTK	Aktyubinsk	127.08	318	PKP	PKPdf	17 45 49.1	+0.5
AKTO	Aktyubinsk	127.08	318	PKIKP	PKPdf	17 45 49.1	+0.6
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKTO	Aktyubinsk	127.08	318	PKP	PKPdf	17 45 49.1	+0.5
	comp=Z,1.7nm,0.7s,baz=35,slow=2.7,SNR=8.5						
ARCES	ARCESS Array B	128.96	350	PKP	PKPdf	17 45 51.3	-0.3
ARCES	ARCESS Array B	128.96	350	PKIKP	PKPdf	17 45 51.3	-0.3
ARCES	ARCESS Array B	128.96	350	PKP	PKPdf	17 45 51.3	-0.3
	comp=Z,3.9nm,1.0s,baz=28,slow=0.7,SNR=5.2						
FINES	FINESS Array B	135.81	344	PKP	PKPdf	17 46 02.7	-2.0
FINES	FINESS Array B	135.81	344	PKIKP	PKPdf	17 46 02.7	-2.0
FINES	FINESS Array B	135.81	344	PKP	PKPdf	17 46 02.7	-2.0
	comp=Z,3.4nm,1.0s,baz=116,slow=4.4,SNR=4.1						
OBN	Obninsk	136.78	332	i PKIKP	PKPdf	17 46 14.0	+7.3
OBN				e		17 48 49.4	
AKASG	Malin Array Be	143.04	331	PKP	PKPdf	17 46 14.8	-3.3
AKASG	Malin Array Be	143.04	331	PKHKP		17 46 14.8	
AKASG	Malin Array Be	143.04	331	PKhKP		17 46 14.8	
	comp=Z,9.7nm,0.7s,baz=42,slow=4.3,SNR=90						
KIEV	Kiev	143.05	331	ePKPpre		17 46 15.0	
KIEV	Kiev	143.05	331	ePKHKP		17 46 15.0	
MALT	Malatya	143.93	307	⇑PKHKP		17 46 19.6	
BSEG	Bad Segeberg	146.06	351	ePKPbc	PKPbc	17 46 25.2	0.0
BSEG	Bad Segeberg	146.06	351	ePKHKP		17 46 25.2	
BSEG	Bad Segeberg	146.06	351	ePKPbc	PKPbc	17 46 25.2	0.0
KWP	Kalwaria	146.61	335	ePKPbc	PKPbc	17 46 27.1	+0.3
KWP	Kalwaria	146.61	335	ePKIKP	PKPbc	17 46 27.2	+0.4
BRTR	Keskin Array B	146.84	312	PKPbc	PKPbc	17 46 27.8	0.0
BRTR	Keskin Array B	146.84	312	PKHKP	PKPbc	17 46 27.8	0.0
BRTR	Keskin Array B	146.84	312	PKPbc	PKPbc	17 46 27.8	0.0
	comp=Z,3.2nm,0.8s,baz=116,slow=4.6,SNR=16						
KOLS	Kolonicke sedl	147.34	335	ePKP	PKPbc	17 46 29.4	+0.6
KOLS				e		17 46 32.6	
KOLS	Kolonicke sedl	147.34	335	ePKIKP	PKPbc	17 46 29.4	+0.6
KOLS				e		17 46 32.6	
STHS	Stebnicka Huta	147.34	336	ePKP	PKPbc	17 46 29.5	+0.7
STHS				e		17 46 34.1	
STHS	Stebnicka Huta	147.34	336	ePKIKP	PKPbc	17 46 29.5	+0.7
STHS				e		17 46 34.1	
ANTO	Ankara	147.36	313	ePKPbc	PKPbc	17 46 29.0	-0.2
ANTO	Ankara	147.36	313	ePKHKP	PKPbc	17 46 29.0	-0.2
NRDL	Niedersach Rie	147.49	351	ePKPbc	PKPbc	17 46 29.2	+0.1
UZH	Uzhgorod	147.57	335	⇓iPKIKP	PKPbc	17 46 30.0	+0.6
VRI	Vrincioaia	147.59	327	⇑P	PKPbc	17 46 29.1	-0.5
VRI	Vrincioaia	147.59	327	⇑PKIKP	PKPbc	17 46 29.1	-0.4
KSP	Ksiaz	147.72	343	ePKP	PKPbc	17 46 30.1	+0.4
KSP	Ksiaz	147.72	343	ePKIKP	PKPbc	17 46 30.1	+0.4
OKC	Ostrava-Krasne	148.06	340	ePKIKP	PKPbc	17 46 31.0	+0.4
OKC				e		17 46 36.4	
OKC	Ostrava-Krasne	148.06	340	⇑ePKPB	PKPbc	17 46 31.0	+0.4
OKC				ePKPAB	PKPab	17 46 36.4	+1.0
CLZ	Clausthal	148.08	350	ePKPbc	PKPbc	17 46 31.0	+0.4
CLZ				ePKPab	PKPab	17 46 35.6	+0.1
CLZ	Clausthal	148.08	350	ePKIKP	PKPbc	17 46 31.0	+0.4
CLZ				e	PKPab	17 46 35.6	+0.1
CLZ	Clausthal	148.08	350	ePKPbc	PKPbc	17 46 31.0	+0.4
CLZ				ePKPab	PKPab	17 46 35.6	+0.1
CLL	Collm	148.10	347	ePKP	PKPdf	17 46 26.0	-0.7
CLL				⇓iPKP	PKPbc	17 46 30.7	0.0
CLL				i PKP	PKPab	17 46 35.3	-0.2
CLL				epPKP	pPKPdf	17 48 17.0	-18
CLL	Collm	148.10	347	ePKHKP		17 46 26.0	
CLL	Collm	148.10	347	ePKPbc	PKPbc	17 46 30.6	-0.1
CLL				ePKPab	PKPab	17 46 35.4	-0.1
UPC	Upice	148.10	343	ePKIKP	PKPbc	17 46 31.4	+0.7
UPC				e		17 46 36.9	
UPC	Upice	148.10	343	⇑ePKPB	PKPbc	17 46 31.4	+0.7
UPC				ePKPAB	PKPab	17 46 36.9	+1.3
DPC	Dobruska-Polom	148.16	342	ePKIKP	PKPbc	17 46 31.7	+0.8
DPC				e		17 46 36.6	
DPC	Dobruska-Polom	148.16	342	⇑ePKPB	PKPbc	17 46 31.7	+0.8
DPC				ePKPAB	PKPab	17 46 36.6	+0.8
BRG	Berggiesshubel	148.30	345	ePKPbc	PKPbc	17 46 31.3	+0.1
BRG				ePKPab	PKPab	17 46 36.4	0.0
MORC	Moravsky Berou	148.31	341	⇑P	PKPdf	17 46 30.9	+3.8
MORC	Moravsky Berou	148.31	341	⇑PKIKP	PKPbc	17 46 30.9	-0.3
FBE	Freiberg	148.39	346	ePKPbc	PKPbc	17 46 31.8	+0.4
FBE				ePKPab	PKPab	17 46 36.9	+0.2
KECS	Kecovo	148.40	336	ePKP	PKPbc	17 46 31.1	-0.4
KECS				e		17 46 37.6	
KECS	Kecovo	148.40	336	ePKIKP	PKPbc	17 46 31.1	-0.4
KECS				e		17 46 37.6	
PVCC	Panska Ves	148.47	345	ePKIKP	PKPbc	17 46 32.4	+0.8
PVCC				e		17 46 37.5	
PVCC	Panska Ves	148.47	345	⇑ePKPB	PKPbc	17 46 32.4	+0.8
PVCC				ePKPAB	PKPab	17 46 37.5	+0.4
DRGR		148.83	332	⇑P	PKPbc	17 46 32.2	-0.5
DRGR		148.83	332	⇑PKIKP	PKPbc	17 46 32.2	-0.4
PRU	Pruhonice	148.97	344	ePKIKP	PKPbc	17 46 33.4	+0.5
PRU				e		17 46 39.4	
PRU	Pruhonice	148.97	344	⇑ePKPB	PKPbc	17 46 33.4	+0.5
PRU				ePKPAB	PKPab	17 46 39.4	+0.2
VYHS	Vyhne	148.99	338	ePKP	PKPbc	17 46 32.8	-0.2
VYHS				e		17 46 40.0	
VYHS	Vyhne	148.99	338	ePKIKP	PKPbc	17 46 32.8	-0.2
VYHS				e		17 46 40.0	
MOX	Moxa	149.01	348	ePKPbc	PKPbc	17 46 33.1	+0.2
MOX				ePKPab	PKPab	17 46 39.2	-0.1
TANN	Tannenbergstha	149.06	347	ePKPbc	PKPbc	17 46 33.4	+0.3
TANN				ePKPab	PKPab	17 46 39.4	-0.1
WERD	Werda	149.06	347	ePKPbc	PKPbc	17 46 33.3	+0.2
WERD				ePKPab	PKPab	17 46 39.3	-0.2
GUNZ	Gunzen	149.13	347	ePKPbc	PKPbc	17 46 33.6	+0.4
WERN	Wernitzgruen	149.20	347	ePKPbc	PKPbc	17 46 33.8	+0.4
WERN				ePKPab	PKPab	17 46 40.3	+0.2
NKC	Novy Kostel	149.23	347	ePKIKP	PKPbc	17 46 34.0	+0.5
NKC				e		17 46 40.3	
NKC	Novy Kostel	149.23	347	⇑ePKPB	PKPbc	17 46 34.0	+0.5
NKC				ePKPAB	PKPab	17 46 40.3	+0.1
MANZ	Manzenberg	149.54	347	ePKPbc	PKPbc	17 46 34.4	+0.2
MODS	Modra-Piesok	149.62	340	ePKP	PKPdf	17 46 30.1	+0.9
MODS				e		17 46 35.5	
MODS	Modra-Piesok	149.62	340	ePKIKP	PKPdf	17 46 30.1	+0.9
MODS				e		17 46 35.5	
ROTZ	Rotzenmuhle	149.72	347	ePKPbc	PKPbc	17 46 34.8	+0.1
ZST	Bratislava	149.83	340	eP	PKPbc	17 46 33.5	-1.5
ZST	Bratislava	149.83	340	ePKIKP	PKPbc	17 46 33.5	-1.5
GZR	Gura Zlata	149.86	330	⇑P	PKPbc	17 46 34.9	-0.2
GZR	Gura Zlata	149.86	330	⇑PKIKP	PKPbc	17 46 34.9	-0.2
TNS	Taunus Mts	149.94	352	ePKPbc	PKPbc	17 46 35.3	+0.1
TNS	Taunus Mts	149.94	352	ePKHKP	PKPbc	17 46 35.3	+0.1
TNS	Taunus Mts	149.94	352	ePKPbc	PKPbc	17 46 35.3	+0.1
GRA1	Grafenberg Arr	150.00	348	ePKPbc	PKPbc	17 46 35.2	-0.1
GRF	Grafenberg Arr	150.00	348	ePKP	PKPbc	17 46 35.2	-0.1
GRF	Grafenberg Arr	150.00	348	ePKHKP	PKPbc	17 46 35.2	-0.1
GRF	Grafenberg Arr	150.00	348	ePKHKP	PKPbc	17 46 35.2	-0.1
GRF	Grafenberg Arr	150.00	348	ePKPbc	PKPbc	17 46 35.2	-0.1
KHC	Kasperske Hory	150.00	345	i PKHKP	PKPbc	17 46 35.2	-0.1
KHC	Kasperske Hory	150.00	345	⇑ePKPB	PKPbc	17 46 35.8	+0.5
KHC				ePKPAB	PKPab	17 46 43.9	+0.4
BZS	Buzias	150.22	332	⇑PKHKP	PKPbc	17 46 36.1	+0.1
GEC2	GERESS Array S	150.24	344	ePKPdf	PKPdf	17 46 30.2	+0.1
GEC2				ePKPbc	PKPbc	17 46 35.9	0.0
GEC2	GERESS Array S	150.24	344	ePKIKP	PKPdf	17 46 30.2	+0.1
GEC2	GERESS Array S	150.24	344	ePKPdf	PKPdf	17 46 30.2	+0.1
GEC2				ePKPbc	PKPbc	17 46 35.9	0.0
GERES	GERESS Array B	150.24	344	PKPbc	PKPbc	17 46 35.6	-0.3
GERES	GERESS Array B	150.24	344	PKHKP		17 46 35.6	
GERES	GERESS Array B	150.24	344	PKPbc	PKPbc	17 46 35.6	-0.3
	comp=Z,2.8nm,0.8s,baz=29,slow=3.0,SNR=19						
WLF	Walferdange	150.76	354	ePKPbc	PKPbc	17 46 37.6	+0.5
FUR	Furstenfeldbru	151.44	347	ePKPbc	PKPbc	17 46 38.3	-0.4
FUR	Furstenfeldbru	151.44	347	ePKHKP	PKPbc	17 46 38.3	-0.4
FUR	Furstenfeldbru	151.44	347	ePKPbc	PKPbc	17 46 38.3	-0.4
BFO	Black Forest	151.81	351	ePKPbc	PKPbc	17 46 39.3	-0.2
BFO	Black Forest	151.81	351	ePKIKP	PKPbc	17 46 39.3	-0.2
BFO	Black Forest	151.81	351	ePKPbc	PKPbc	17 46 39.3	-0.2
TOA0	Torodi Ar. Sit	172.64	178	ePKPdf	PKPdf	17 46 52.8	-1.0
TORD	Torodi Ar. Bea	172.64	178	PKP	PKPdf	17 46 52.1	-1.7
TORD	Torodi Ar. Bea	172.64	178	PKP	PKPdf	17 46 52.1	-1.7
	comp=Z,1.7nm,1.0s,baz=297,slow=0.9,SNR=7.0						

NIED ***05*** *17:44:00, 42.20N×143.40E, h32^{km}, Mw3.9 Best double couple: $M_0$9.13000×10^{14} NP1:ϕ_s241.00000°, δ27.00000°, λ89.00000°. NP2:ϕ_s62.00000°, δ63.00000°, λ90.00000°.*

BJI ***05*** *17:44:15.3, 42.37N×144.00E, h45^{km}, mB4.8, mb4.5, Ms4.0, Msz3.8*

MOS ***05*** *17:44:19.8±1.2, 42.15N×143.33E, h55^{km}, mb4.2/15, Error ellipse: s-maj=13.0km s-min=7.5km az=86.4*

ISCJB ***05*** *17:44:20.1±0.4, 42.12N±0.04×143.38E±0.06, h54^{km}±3^{km}, mb4.1/24, MS3.6/2, Error ellipse: s-maj=8.1km s-min=4.4km az=37.9*

JMA ***05*** *17:44:21.9±0.1, 42.20N×143.38E, h41^{km}±1^{km}, M3.9 Broadband fault plane solution: P waves. NP1: ϕ_s249.00000°, δ23.00000°, λ93.00000°. NP2:ϕ_s66.00000°, δ67.00000°, λ89.00000°. Principal axes: T Plg68.0000°, Azm334.0000°; N Plg1.0000°, Azm67.0000°; P Plg22.0000°, Azm157.0000°;*

JMA Felt III J1.

NEIC ***05*** *17:44:21.1±0.8, 42.20N×143.36E, h45^{km}±7^{km}, mb4.4/4 Error ellipse: s-maj=13.1km s-min=8.9km az=121.0*

NEIC Recorded [3 JMA] in south-central Hokkaido.

IDC ***05*** *17:44:23.0±1.8, 42.12N×143.31E, h62^{km}±14^{km}, mb3.7/15, mb1 3.9/19, mb1mx3.8/26, mbtmp3.7/19, MS2.5/1, Ms1 2.5/1, ms1mx2.3/33, Error ellipse: s-maj=16.4km s-min=11.8km az=102.0*

ISC 05 17:44:21.4±0.4**, 42.18N**±0.03×**143.38E**±0.06**, h46**^{km}±3^{km}**, n77, σ1.02**/90**, mb4.1**/24**, MS3.6**/2**, 1C-8D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JEM	Erimo	0.23	225	⇑P	Pn	17 44 29.5	-0.1
JEM				eS	Sn	17 44 35.1	-0.3
ERM	Erimo	0.24	225	ePg	Pn	17 44 29.0	-0.6
ERM	Erimo	0.24	225	d iPN	Pn	17 44 29.5	-0.1
JCH	Churui	0.43	358	⇓P	Pn	17 44 31.6	-0.1
JCH				eS	Sn	17 44 39.3	+0.4
JNBK	Urakawa-nobuka	0.48	282	⇓P	Pn	17 44 32.4	+0.2
JNBK				eS	Sn	17 44 40.5	+0.7
JOB	Onbets	0.80	25	⇓P	Pn	17 44 37.2	+0.9
JBT2	Biratori 2	0.96	309	⇓P	Pn	17 44 38.5	0.0
JFR	Furan	1.14	330	⇓P	Pn	17 44 40.0	-1.0
JFR				eS	Sn	17 44 53.4	-2.0
JAR	Ashorobuto	1.15	14	⇓P	Pn	17 44 41.5	+0.4
JAR				eS	Sn	17 44 55.4	-0.3
JAK	Akkeshi	1.27	50	P	Pn	17 44 42.7	0.0
ASAJ	Asahikawa	2.02	344	PN	Pn	17 44 54.5	+1.5
ASAJ				S	Sn	17 45 20.9	+4.0
ASAJ				pmax	pmax		
	comp=Z,56nm,0.3s						
ASAJ				smax			
	comp=N,26nm,0.3s						
ASAJ	Asahikawa	2.02	344	P	Pn	17 44 54.5	+1.5
	comp=N,56nm,0.3s,baz=199,slow=11,SNR=555						
ASAJ				S	Sn	17 45 20.9	+4.0
	comp=N,26nm,0.3s,baz=143,slow=20,SNR=5.7						
YUK	Yuzh-Kuril'sk	2.59	44	ePN	Pn	17 45 02.5	+1.6
YUK				eS	Sn	17 45 30.7	-0.4
YUK				pmax	pmax		
	comp=E,130nm,0.4s						
YUK				pmax	pmax		
	comp=Z,320nm,0.4s						
YUK				pmax	pmax		
	comp=N,190nm,0.5s						
YUK				smax			
	comp=N,1μm,0.4s						
YUK				smax			
	comp=E,1μm,0.4s						
YUK				smax			
	comp=N,2μm,0.8s						
YUK				smax			
	comp=E,3μm,0.7s						
KUR	Kuril'sk	4.46	45	ePN	Pn	17 45 28.5	+2.1
KUR				eS	Sn	17 46 21.0	+4.0
KUR				pmax	pmax		
	comp=Z,70nm,0.6s						
KUR				smax			
	comp=N,190nm,0.7s						
KUR				smax			
	comp=E,80nm,0.7s						
YSS	Yuzh-Sakhalins	4.79	355	ePn	Pn	17 45 31.9	+0.9
YSS	Yuzh-Sakhalins	4.79	355	ePN	Pn	17 45 29.6	-1.4
YSS				pmax	pmax		
	comp=Z,18nm,0.9s						
MAJO	Matsushiro	6.91	217	ePn	Pn	17 45 58.5	-1.6
	comp=Z,7.8nm,0.6s						
MAJO	Matsushiro	6.91	217	ePN	Pn	17 45 58.5	-1.6
MAJO				pmax	pmax		
	comp=Z,8.0nm,0.6s						
MAT	Matsushiro	6.91	217	P	Pn	17 46 00.5	+0.4
MAT				eS	Sn	17 47 16.5	-0.9
MJAR	Matsushiro Arr	6.91	217	PN	Pn	17 46 01.0	+0.9
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	6.91	217	P	Pn	17 46 01.0	+0.9
	comp=Z,0.9nm,0.3s,baz=30,slow=14,SNR=13						
HABR	Khabarovsk	8.60	320	ePN	Pn	17 46 17.3	-5.9
JHJ	Hachijo jima 2	9.48	199	P	Pn	17 46 33.9	-1.5
	comp=Z,7.2nm,0.3s,baz=254,slow=17,SNR=7.4						
KSRS	Korea Array	12.78	253	P	Pn	17 47 23.0	+2.5
	comp=Z,0.1nm,0.3s,baz=150,slow=39,SNR=2.8						
KSRS				LR	LR	17 52 29.0	
	comp=Z,23nm,20.5s,baz=290,slow=38						
MA2	Magadan	18.01	12	eP	Pn	17 48 25.6	-2.4
MA2	Magadan	18.01	12	eP	Pn	17 48 25.9	-2.1
MA2				pmax	pmax		
	comp=N,10.0nm,0.9s						
MA2				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SEY	Seymchan	21.45	11	i P	P	17 49 03.1	-2.3
YAK	Yakutsk	21.50	342	eP	P	17 49 01.9	-4.0
	comp=Z,9.7nm,0.5s,mb4.4						
YAK	Yakutsk	21.50	342	eP	P	17 49 02.2	-3.7
YAK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.2						
YAK				pmax	pmax		
	comp=N,2.0nm,0.8s						
NJ2	Nanjing	21.95	251	eP	P	17 49 11.6	+0.6
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.8						
HHC	Hu-ho-hao-te	23.79	278	eP	P	17 49 29.7	0.0
HHC				AP		17 49 41.1	
HHC				XP	sP	17 49 46.7	-0.7
HHC				PP		17 50 06.4	
HHC				PCP	PcP	17 53 13.5	+1.5
HHC				S	S	17 53 43.1	+1.1
HHC				XS	sS	17 54 00.4	-1.8
HHC				SS		17 54 34.4	
HHC				SCP	ScP	17 56 45.9	-0.5
HHC				PCS	PcS	17 56 50.7	-0.8
HHC				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.4						
HHC				AMB	AMB		
	comp=Z,99nm,5.1s						
HHC				LR	LR		
	comp=N,152nm,15.3s,MS3.7						
HHC				LR	LR		
	comp=E,139nm,15.3s,MS3.7						
HHC				LR	LR		
	comp=Z,85nm,14.2s,MS3.4						
SONM	Songino Array	26.57	295	P	P	17 49 54.9	0.0
SONM				pmax	pmax		
	comp=Z,1.0nm,0.4s						
SONM	Songino Array	26.57	295	P	P	17 49 54.9	+0.1
	comp=Z,0.9nm,0.4s,mb3.6,baz=77,slow=7.8,SNR=12						
TLY	Talaya	28.43	303	eP	P	17 50 10.6	-0.9
GTA	Gaotai	32.84	280	eP	P	17 50 51.2	+0.7
GTA				AP	pP	17 51 00.4	-2.3
GTA				XP	sP	17 51 05.2	-3.1
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.3						
CD2	Chengdu	33.49	263	eP	P	17 50 57.5	+1.3
CD2				PP	PP	17 52 11.6	-0.9
CD2				S	S	17 56 17.2	+2.5
CD2				SS	SS	17 58 25.0	-15
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
CD2				AMB	AMB		
	comp=Z,30nm,5.2s						
CD2				LR	LR		
	comp=N,150nm,14.2s						
CD2				LR	LR		
	comp=Z,130nm,16.0s,MS3.7						
ZALV	Zalesovo Beam	39.76	308	P	P	17 51 49.4	+0.1
	comp=Z,4.6nm,0.7s,mb4.3,baz=90,slow=7.8,SNR=28						
ZALV				PcP	PcP	17 53 55.5	+0.6
	comp=Z,1.3nm,0.6s,baz=70,slow=2.4,SNR=7.5						
ZAL	Zalesovo	39.77	308	P	P	17 51 49.4	0.0
ZAL						17 53 55.5	
WMQ	Urumqi	40.10	292	eP	P	17 51 54.3	+2.0
KDAK	Kodiak Island	42.33	46	P	P	17 52 10.5	+0.1
	comp=Z,3.5nm,0.5s,mb4.2,baz=128,slow=10,SNR=9.0						
MK31	Makanchi Array	42.87	298	eP	P	17 52 14.2	-0.7
MKAR	Makanchi Array	42.87	298	P	P	17 52 15.1	+0.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						

MKAR	Makanchi Array	42.87	298	P	P	17 52 15.1	+0.2
	comp=Z,0.8nm,0.4s,mb3.8,baz=82,slow=9.8,SNR=13						
COLA	College	43.96	35	eP	P	17 52 21.8	-1.6
KURK	Kurchatov	44.12	304	eP	P	17 52 24.6	-0.3
	comp=Z,5.3nm,0.9s,mb4.3						
KURK	Kurchatov	44.12	304	eP	P	17 52 24.6	-0.3
KURK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.2						
BRVK	Borovoye	48.41	309	eP	P	17 52 58.7	+0.1
TKM2	Tokmak 2	48.67	295	eP	P	17 53 01.2	+0.5
	comp=Z,4.9nm,0.7s,mb4.7						
TKM2	Tokmak 2	48.67	295	eP	P	17 53 01.2	+0.4
TKM2				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
INK	Inuvik	49.14	29	eP	P	17 53 02.1	-1.9
INK	Inuvik	49.14	29	P	P	17 53 03.8	-0.2
INK				pmax	pmax		
	comp=Z,1.0nm,0.4s						
INK	Inuvik	49.14	29	P	P	17 53 03.8	-0.1
	comp=Z,1.1nm,0.4s,mb4.2,baz=297,slow=8.8,SNR=9.1						
ARU	Arti	53.59	317	⇓iP	P	17 53 36.2	-1.2
ARU				e		17 54 39.3	
ARU				eS	S	18 01 07.6	+0.5
ARU				eSS	SS	18 04 49.8	+2.4
ARU				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
AKTK	Aktyubinsk	56.45	310	P	P	17 53 57.9	-0.3
AKTO	Aktyubinsk	56.45	310	P	P	17 53 57.9	-0.2
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
AKTO	Aktyubinsk	56.45	310	P	P	17 53 57.9	-0.3
	comp=Z,1.1nm,0.5s,mb4.2,baz=56,slow=14,SNR=6.6						
YKA	Yellowknife Ar	58.62	32	P	P	17 54 13.2	0.0
YKA	Yellowknife Ar	58.62	32	i P	P	17 54 13.3	+0.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	58.62	32	P	P	17 54 13.2	0.0
	comp=Z,0.7nm,0.7s,mb3.8,baz=304,slow=6.6,SNR=12						
WRA	Warramunga Arr	62.37	190	P	P	17 54 38.5	-0.7
WRA				*PP	pP	17 54 50.4	-2.0
WRA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WRA	Warramunga Arr	62.37	190	P	P	17 54 38.5	-0.7
	comp=Z,0.3nm,0.6s,mb3.6,baz=7.0,slow=6.7,SNR=6.4						
WRA				pP	pP	17 54 50.4	-2.0
	comp=Z,2.0nm,0.7s,baz=7.0,slow=6.8,SNR=15						
FINES	FINESS Array B	64.98	332	i P	P	17 54 55.7	-0.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	64.98	332	P	P	17 54 55.3	-0.7
	comp=Z,1.4nm,0.4s,mb4.4,baz=48,slow=7.8,SNR=24						
KIV	Kislovodsk	68.71	310	eP	P	17 55 20.3	+0.3
KIV				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
NB2	NORSAR Subarra	70.03	337	P	P	17 55 27.0	-0.8
	comp=Z,1.0nm,0.6s,mb3.9,baz=36,slow=6.5						
NOA	NORSAR Array B	70.03	337	P	P	17 55 27.7	-0.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NOA	NORSAR Array B	70.03	337	P	P	17 55 27.7	-0.2
	comp=Z,1.1nm,0.9s,mb3.8,baz=247,slow=19,SNR=3.5						
NVAR	Mina Array Bea	70.75	55	P	P	17 55 34.5	+1.8
	comp=Z,0.8nm,0.7s,mb3.8,baz=283,slow=7.6,SNR=7.9						
AKASG	Malin Array Be	71.16	322	P	P	17 55 34.0	-1.0
AKASG	Malin Array Be	71.16	322	i P	P	17 55 33.5	-1.4
AKASG	Malin Array Be	71.16	322	P	P	17 55 34.0	-1.0
	comp=Z,0.2nm,0.3s,mb3.6,baz=42,slow=5.9,SNR=9.0						
BRTR	Keskin Array B	76.57	312	P	P	17 56 07.4	+0.6
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	76.57	312	P	P	17 56 07.3	+0.6
	comp=Z,0.6nm,0.7s,mb3.6,baz=95,slow=2.9,SNR=4.1						
KHC	Kasperske Hory	78.94	329	eP	P	17 56 19.3	-0.5
GERES	GERESS Array B	79.12	329	P	P	17 56 20.9	+0.1
	comp=Z,0.4nm,0.7s,mb3.5,baz=40,slow=7.1,SNR=4.5						
TXAR	Lajitas Array	85.81	54	P	P	17 56 57.1	+1.1
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	85.81	54	P	P	17 56 57.1	+1.1
	comp=Z,0.8nm,0.7s,mb4.1,baz=298,slow=3.3,SNR=8.3						

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*NEIC **05** 17:47:56.1, 1752N×9899W, h55^{km}, MD3.8(MEX), After MEX.*

MEX 05 17:47:54.3±1.4**, 1738N×9904W, h60**^{km}±33^{km}**, MD3.8, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MEIG	Mezcala	0.78	315	i P	Pn	17 48 09.0	-0.5
MEIG				i S	Sn	17 48 19.4	-1.2
ACX	Acapulco	0.98	239	eP	Pn	17 48 09.2	-2.9
ACX				i S	Sn	17 48 23.5	-1.7
PLIG	Platanillo	1.10	337	eP	Pn	17 48 12.5	-1.2
PLIG				i S	Sn	17 48 25.0	-3.1
PLIG	Platanillo	1.10	337	eP	Pn	17 48 12.5	-1.2
PLIG				i S	Sn	17 48 25.1	-2.9
CAIG	El Cayaco	1.22	255	i P	Pn	17 48 16.3	+1.1
CAIG				i S	Sn	17 48 33.3	+2.5
CAIG	El Cayaco	1.22	255	i P	Pn	17 48 13.6	-1.6
CAIG				i S	Sn	17 48 31.6	+0.9
UTMO	Huajuapan	1.26	69	i P	Pn	17 48 15.2	-0.6
UTMO				i S	Sn	17 48 29.6	-2.3
PTVM	Pico Tres Padr	2.21	358	eP	Pn	17 48 27.8	-0.8
IIO	Organos	2.22	8	i P	Pn	17 48 28.1	-0.7
IIO				i S	Sn	17 48 52.0	-3.2

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*ATH **05** 17:59:38.8, 3860N×2732E, h10^{km}±1^{km}, MD3.6/5*
*NEIC **05** 17:59:38.8, 3860N×2732E, h10^{km}, MD3.6(ATH), MD3.3(ISK), After ATH.*
*ISK **05** 17:59:39.6, 3859N×2704E, h6^{km}, MD3.3*
*CSEM **05** 17:59:39.9±0.1, 3858N×2705E, h8^{km}, MD3.3, Error ellipse: s-maj=2.0km s-min=1.2km az=79.0*
*ISCJB **05** 17:59:40.1±0.6, 3861N±002×27.11E±003, h3^{km}±5^{km}, Error ellipse: s-maj=4.2km s-min=3.3km az=172.8*
*DDA **05** 17:59:40.4, 3863N×27.11E, h4^{km}±2^{km}, Md3.4*

ISC 05 17:59:40.6±0.6**, 3859N**±002×**2707E**±003**, h4**^{km}±5^{km}**, n90, σ0^{s}.90**/108**, 3D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLCB	Balcova	0.21	187	PG	Pg	17 59 44.8	+0.2
BLCB				SG	Sg	17 59 47.7	+0.3
BLCB	Balcova	0.21	187	ePg	Pg	17 59 44.8	+0.2
BLCB				eSg	Sg	17 59 47.7	+0.3
KDAG	Bornova	0.24	141	i P	Pg	17 59 44.7	-0.6
KDAG				i S	Sg	17 59 48.4	0.0
IZM	Izmir	0.25	143	PG	Pg	17 59 44.8	-0.5
AKS	Akhisar	0.65	64	PG	Pg	17 59 52.7	-0.3
AKS	Akhisar	0.65	64	ePg	Pg	17 59 52.7	-0.3
AYVA	Ayvalik	0.77	337	i P	Pg	17 59 55.1	-0.4
AYVA				i S	Sg	17 59 59.6	-5.9
PRK	Paraskevi	0.90	316	ePb	Pb	17 59 58.5	-0.3
PRK				eSb	Sb	18 00 12.9	+1.7
PRK	Paraskevi	0.90	316	ePB	Pb	17 59 58.5	-0.3
PRK				eSB	Sb	18 00 12.9	+1.7
PRK	Paraskevi	0.90	316	ePb	Pb	17 59 58.5	-0.3
SMG	Samos	0.90	192	ePb	Pb	17 59 57.3	-1.5
SMG				eSb	Sb	18 00 10.4	-0.8
SMG	Samos	0.90	192	ePB	Pb	17 59 57.3	-1.5
SMG				eSB	Sb	18 00 10.4	-0.8
SMG	Samos	0.90	192	ePb	Pb	17 59 57.3	-1.5
SMG				eSb	Sb	18 00 10.4	-0.8
EZN	Ezine	1.36	335	PN	Pn	18 00 05.2	-1.2
EZN				SN	Sn	18 00 24.4	-0.5
EZN	Ezine	1.36	335	ePn	Pn	18 00 05.2	-1.2
EZN				eSn	Sn	18 00 24.4	-0.5
MLSB	Milas	1.41	157	ePN	Pn	18 00 06.2	-0.9
MLSB	Milas	1.41	157	ePn	Pn	18 00 06.2	-0.9
BOZC	Bozcaada	1.48	328	i P	Pn	18 00 07.6	-0.4
BOZC				i S	Sb	18 00 25.1	-2.7
BODT	Bodrum	1.54	173	ePN	Pn	18 00 08.3	-0.5
BODT	Bodrum	1.54	173	ePn	Pn	18 00 08.3	-0.5
BDRM	Kayabasi	1.55	169	i P	Pn	18 00 06.7	-2.3
BDRM				i S	Sn	18 00 30.6	+1.0
YER	Yerkesik	1.74	146	ePN	Pn	18 00 11.2	-0.4
YER	Yerkesik	1.74	146	ePn	Pn	18 00 11.2	-0.4
DENT	Denizli	1.76	118	ePN	Pn	18 00 11.5	-0.3
DENT	Denizli	1.76	118	ePn	Pn	18 00 11.5	-0.3
LPK	Lapseki	1.79	352	ePN	Pn	18 00 11.8	-0.5
LPK	Lapseki	1.79	352	ePn	Pn	18 00 11.8	-0.5
GADA	Gvkgeada	1.84	331	ePN	Pn	18 00 12.3	-0.6
GADA	Gvkgeada	1.84	331	ePn	Pn	18 00 12.3	-0.6
EDC	Edincik	1.85	19	ePN	Pn	18 00 13.1	-0.1
EDC	Edincik	1.85	19	ePn	Pn	18 00 13.1	-0.1
BNT	Bandirma	1.88	20	ePN	Pn	18 00 13.3	-0.2
BNT	Bandirma	1.88	20	ePn	Pn	18 00 13.3	-0.2
DAT	Datca	1.90	168	ePN	Pn	18 00 13.7	-0.1
DAT	Datca	1.90	168	ePn	Pn	18 00 13.7	-0.1
KHL	Karahalli	1.94	97	ePN	Pn	18 00 14.9	+0.5
KHL	Karahalli	1.94	97	ePn	Pn	18 00 14.9	+0.5
KCT	Karacabey	1.94	30	ePN	Pn	18 00 14.0	-0.4
KCT	Karacabey	1.94	30	ePn	Pn	18 00 14.0	-0.4
GDZ	Gediz	1.94	75	i P	Pn	18 00 14.7	+0.3
GDZ				i S	Sn	18 00 38.7	-0.6
APE	Apeiranthos	1.95	219	ePn	Pn	18 00 16.2	+1.7
APE	Apeiranthos	1.95	219	ePN	Pn	18 00 16.2	+1.7
APE	Apeiranthos	1.95	219	ePn	Pn	18 00 16.2	+1.7
LIA	Limnos Island	1.96	312	⇓iPn	Pn	18 00 16.3	+1.6
LIA	Limnos Island	1.96	312	⇓iPN	Pn	18 00 16.3	+1.6
LIA	Limnos Island	1.96	312	⇓iPn	Pn	18 00 16.3	+1.6
MRMT	Marmara Adasi	2.05	11	ePN	Pn	18 00 16.1	+0.3
MRMT	Marmara Adasi	2.05	11	ePn	Pn	18 00 16.1	+0.3
RKY	Sarkoy-Tekirda	2.09	2	ePN	Pn	18 00 16.1	-0.4
RKY	Sarkoy-Tekirda	2.09	2	ePn	Pn	18 00 16.1	-0.4
SART	Tekirdag	2.09	2	i P	Pn	18 00 15.8	-0.7
SART				i S	Sn	18 00 42.5	-0.5
ULDT	Uludag	2.23	45	i P	Pn	18 00 16.6	-1.7
ULDT				i S	Sn	18 00 43.7	-2.5
ULDT	Uludag	2.23	45	i P	Pn	18 00 16.5	-1.8
ULDT				i S	Sn	18 00 43.7	-2.5
ENEZ	Enez	2.25	342	ePN	Pn	18 00 18.6	-0.1
ENEZ	Enez	2.25	342	ePn	Pn	18 00 18.6	-0.1
ALT	Altintas	2.42	78	ePN	Pn	18 00 20.9	0.0
ALT	Altintas	2.42	78	ePn	Pn	18 00 20.9	0.0
GEMT	Gemlik	2.46	41	ePN	Pn	18 00 22.0	+0.5
GEMT	Gemlik	2.46	41	ePn	Pn	18 00 22.0	+0.5
IZI	Iznik	2.55	46	ePN	Pn	18 00 23.2	+0.5
IZI	Iznik	2.55	46	ePn	Pn	18 00 23.2	+0.5
YLV	Yalova	2.65	41	ePN	Pn	18 00 24.8	+0.6
YLV	Yalova	2.65	41	ePn	Pn	18 00 24.8	+0.6
CTT	Catalca	2.76	22	ePN	Pn	18 00 25.9	+0.3
CTT	Catalca	2.76	22	ePn	Pn	18 00 25.9	+0.3
ADVT	Abdulvahap	2.76	47	ePN	Pn	18 00 25.9	+0.3
ADVT	Abdulvahap	2.76	47	ePn	Pn	18 00 25.9	+0.3
ISP	Isparta	2.81	104	ePN	Pn	18 00 27.0	+0.7
RDO	Rodhopi	2.81	336	ePn	Pn	18 00 26.0	-0.3
RDO	Rodhopi	2.81	336	ePN	Pn	18 00 27.0	+0.7
RDO	Rodhopi	2.81	336	ePn	Pn	18 00 26.0	-0.3
ISK	Istanbul-Kandi	2.90	31	ePN	Pn	18 00 28.1	+0.5
ISK	Istanbul-Kandi	2.90	31	ePn	Pn	18 00 28.1	+0.5
ELL	Elmali	2.91	128	ePN	Pn	18 00 27.8	+0.1
ELL	Elmali	2.91	128	ePn	Pn	18 00 27.8	+0.1
HRT	Hereke	2.99	41	ePN	Pn	18 00 29.6	+0.8
HRT	Hereke	2.99	41	ePn	Pn	18 00 29.6	+0.8
GPA	Golpazari	3.02	55	ePN	Pn	18 00 30.1	+0.8
GPA	Golpazari	3.02	55	ePn	Pn	18 00 30.1	+0.8
KLYT	Kilyos	3.06	29	ePN	Pn	18 00 30.4	+0.7
KLYT	Kilyos	3.06	29	ePn	Pn	18 00 30.4	+0.7
ESKT	Eskisehir	3.08	71	ePN	Pn	18 00 31.2	+1.1
ESKT	Eskisehir	3.08	71	i P	Pb	18 00 36.5	+0.5
ESKT				i S	Sg	18 01 20.2	+0.6
ESKT	Eskisehir	3.08	71	ePn	Pn	18 00 31.2	+1.1
EDRB	Edirne	3.26	356	ePN	Pn	18 00 33.3	+0.8
EDRB	Edirne	3.26	356	ePn	Pn	18 00 33.3	+0.8
NVR	Nevrokopi	3.70	319	P	Pn	18 00 39.2	+0.7
KIZT	Kizilcal	3.77	84	ePN	Pn	18 00 40.7	+1.2
KIZT	Kizilcal	3.77	84	ePn	Pn	18 00 40.7	+1.2
ITM	Ithomi	4.31	252	P	Pn	18 00 49.4	+2.5

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*LDG **05** 18:28:53.1±0.2, 4080N×7224E, h10^{km}, Mb4.6/23, Ms3.7/6, Error ellipse: s-maj=8.0km s-min=5.5km az=19.0*
*SZGRF **05** 18:28:58.2, 4109N×7286E, h33^{km}, mb4.3, MS4.1, Kyrgyzstan*
*IDC **05** 18:28:59.5±0.7, 4106N×7224E, h29^{km}±4^{km}, mb4.1/14, mb1 4.2/17, mb1mx4.2/22, mbtmp4.1/17, ML4.0/3, MS3.8/12, Ms1 3.8/12, ms1mx3.6/30, Error ellipse: s-maj=16.7km s-min=10.1km az=167.0*
*ISCJB **05** 18:29:00.4±0.4, 41.12N±003×72.14E±003, h50^{km}±4^{km}, mb4.4/55, MS3.8/22, Error ellipse: s-maj=4.5km s-min=3.9km az=153.8*
*NEIC **05** 18:29:00.3±0.2, 41.17N×72.15E, mb4.5/28, Error ellipse: s-maj=5.4km s-min=3.6km az=166.0*
*BJI **05** 18:29:01.1, 4107N×7259E, h30^{km}, mB4.8, mb4.4, ML4.8, Ms4.2, Msz3.9*
*MOS **05** 18:29:01.1±1.0, 4128N×7220E, h54^{km}, mb4.7/34, Error ellipse: s-maj=7.3km s-min=5.6km az=123.9*
*NNC **05** 18:29:01.7±1.6, 4139N×7229E, h6^{km}±9^{km}, mb4.7, mpv4.4, Error ellipse: s-maj=13.9km s-min=5.2km az=3.0*

ISC 05 18:29:02.2±0.4**, 4117N**±003×**7215E**±003**, h48**^{km}±4^{km}**, h38**^{km}±3.4^{km}**:pP-P, n204, σ0^{s}.92**/230**, mb4.4**/55**, MS3.8**/22**, 68C-7D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	1.50	50	P	Pn	18 29 25.6	-1.0
	SNR=1849						
AML	Almayashu	1.50	50	⇑ePn	Pn	18 29 25.5	-1.1
AML				eSn	Sn	18 29 43.9	-1.1
EKS2	Erkin-Say	1.92	39	P	Pn	18 29 32.9	+0.5
	SNR=654						
EKS2	Erkin-Say	1.92	39	⇑ePn	Pn	18 29 32.9	+0.5
EKS2				eS	Sn	18 29 56.0	+0.7
UCH	Uchtor	2.06	58	P	Pn	18 29 34.4	+0.2
	SNR=2994						
UCH	Uchtor	2.06	58	ePn	Pn	18 29 34.1	-0.1
UCH				eS	Sn	18 30 01.4	+2.7
AAK	Ala-Archa	2.28	49	P	Pn	18 29 37.7	+0.4
	SNR=1086						
AAK	Ala-Archa	2.28	49	ePn	Pn	18 29 36.8	-0.4
AAK				eS	Sn	18 30 05.2	+1.1
AAK	Ala-Archa	2.28	49	ePN	Pn	18 29 36.8	-0.5
AAK				eS	Sn	18 30 05.2	+1.1
KK31	Karatay Array	2.28	328	⇑Pn	Pn	18 29 38.2	+0.9
	73nm,0.5s,baz=136,slow=14						
KK31				⇓Pg	Pn	18 29 41.8	+4.5
	310nm,0.3s,baz=141,slow=16						
KK31				⇑Lg		18 30 10.5	
	1µm,0.5s,baz=143,slow=32,SNR=14						
FRU	Bishkek	2.48	47	ePN	Pn	18 29 40.5	+0.5
FRU				i S	Sn	18 30 14.0	+5.1
FRU				pmax	pmax		
	comp=Z,1µm,1.6s						
FRU				pmax	pmax		
	comp=Z,2µm,2.0s						
FRU				smax			
	comp=E,10µm,2.4s						
KZA	Kyzart	2.49	68	P	Pn	18 29 40.8	+0.6
	SNR=281						
KBK	Karagaybulak	2.56	54	P	Pn	18 29 42.0	+0.9
	SNR=1052						
CHMS	Chumysh	2.66	46	P	Pn	18 29 43.1	+0.6
	SNR=217						
USP	Ospenovka	2.72	39	P	Pn	18 29 43.6	+0.2
	SNR=236						
TKM2	Tokmak 2	3.10	55	P	Pn	18 29 48.9	+0.4
	SNR=184						
TKM2	Tokmak 2	3.10	55	⇑Pn	Pn	18 29 49.0	+0.5
	comp=E,1.4nm,0.3s						
TKM2				⇓Pg	Pn	18 29 54.2	+5.6
	comp=E,96nm,0.8s						
TKM2				⇑Lg		18 30 31.9	
	comp=E,114nm,0.5s						
TKM2	Tokmak 2	3.10	55	ePn	Pn	18 29 49.1	+0.6
TKM2				eS	Sn	18 30 30.4	+6.0
TKM2	Tokmak 2	3.10	55	ePN	Pn	18 29 49.1	+0.5
TKM2				eS	Sn	18 30 30.4	+6.0
ULHL	Ulahol	3.25	69	P	Pn	18 29 50.8	+0.3
	SNR=37						
KSH	Kashi	3.36	118	i PGR	Pn	18 29 51.5	-0.6
KSH				SG	Sn	18 30 29.3	-1.4
KSH				Smax			
	comp=N,10µm,1.1s						
KSH				Smax			
	comp=E,6µm,0.7s						
KNDC	Almaty	4.12	59	⇓Pn	Pn	18 30 03.4	+0.9
	comp=E,68nm,0.5s						
KNDC				⇓Pg	Pn	18 30 13.2	+11
	comp=E,799nm,0.9s						
KNDC				⇓Lg		18 31 05.9	
	comp=E,3µm,1.1s						
AAA	Alma-Ata	4.13	58	i PN	Pn	18 30 13.3	+11
AAA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
KBL	Kabul	7.06	201	ePn	Pn	18 30 43.3	+0.4
KBL				eS	Sn	18 32 02.0	+0.1
CEP	Cherat	7.34	182	P	Pn	18 30 47.2	+0.5
CEP				S	Sn	18 32 01.0	-7.7
CHCP	Chirah Chowk	7.55	173	P	Pn	18 30 50.4	+0.7
THW	Thamme Wali	8.37	182	P	Pn	18 31 02.5	+1.7
SBDP	Sheikh Budin	8.92	187	P	Pn	18 31 06.6	-1.8
MK31	Makanchi Array	9.21	49	⇑Pn	Pn	18 31 11.8	-0.5
	comp=Z,12nm,0.5s,baz=233,slow=14,SNR=11						
MK31				⇑Lg		18 33 46.6	
	comp=Z,130nm,1.1s,baz=221,slow=26,SNR=5.9						
MK31	Makanchi Array	9.21	49	ePn	Pn	18 31 11.7	-0.6
MK31	Makanchi Array	9.21	49	eP	Pn	18 31 11.7	-0.6
MKAR	Makanchi Array	9.21	49	Pn	Pn	18 31 11.9	-0.4
MKAR				Lg		18 33 45.5	
MKAR				LR	LR	18 34 55.8	
MKAR	Makanchi Array	9.21	49	i P	Pn	18 31 11.8	-0.5
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MKAR	Makanchi Array	9.21	49	Pn	Pn	18 31 11.9	-0.4
	comp=Z,1.1nm,0.3s,baz=228,slow=13,SNR=65						
MKAR				Lg		18 33 45.5	
	comp=Z,3.6nm,0.3s,baz=223,slow=26,SNR=7.9						
MKAR				LR	LR	18 34 55.8	
	comp=Z,457nm,19.1s,baz=242,slow=39						
KURK	Kurchatov	10.55	23	⇑Pn	Pn	18 31 30.3	-0.2
	comp=Z,4.4nm,0.6s						
KURK				⇑Lg		18 34 27.7	
	comp=Z,122nm,0.9s						
KURK	Kurchatov	10.55	23	ePn	Pn	18 31 28.3	-2.2
	comp=Z,17nm,0.9s						
KURK	Kurchatov	10.55	23	eP	Pn	18 31 28.3	-2.2
KURK				pmax	pmax		
	comp=Z,17nm,0.9s						
WMQ	Urumqi	11.78	72	eP	Pn	18 31 48.0	+0.6
WMQ				PP		18 31 58.3	
WMQ				XP		18 32 02.8	
WMQ				S	Sn	18 33 58.1	+0.8
WMQ				PCP	PcP	18 37 35.5	+2.7
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.6s						
WMQ				LR	LR		
	comp=N,438nm,19.0s						
WMQ				LR	LR		
	comp=E,354nm,16.6s						
WMQ				LR	LR		
	comp=Z,371nm,19.0s						
AB31	Akbulak array	11.79	317	⇑Pn	Pn	18 31 45.0	-2.5
	comp=Z,5.8nm,0.4s,baz=128,slow=12,SNR=169						
AB31				⇑Lg		18 35 15.0	
	comp=Z,65nm,1.0s						
BRVK	Borovoye	11.96	355	⇑Pn	Pn	18 31 49.8	+0.1
	comp=Z,4.7nm,0.8s						
BRVK				⇓Lg		18 35 12.1	
	comp=Z,140nm,1.3s						
BRVK	Borovoye	11.96	355	ePn	Pn	18 31 47.9	-1.8
	comp=Z,17nm,0.6s						
BRVK	Borovoye	11.96	355	eP	Pn	18 31 47.9	-1.8
BRVK				pmax	pmax		
	comp=Z,17nm,0.6s						
AKTK	Aktyubinsk	13.51	318	Pn	Pn	18 32 08.8	-2.1
AKTK				Sn	Sn	18 34 50.0	+11
AKTK				Lg		18 36 05.1	
AKTK				LR	LR	18 37 39.9	
AKTO	Aktyubinsk	13.51	318	P	Pn	18 32 08.8	-2.1
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO				MLR	MLR		
	comp=Z,457nm,18.0s						
AKTO	Aktyubinsk	13.51	318	Pn	Pn	18 32 08.8	-2.1
	comp=Z,0.7nm,0.3s,baz=129,slow=14,SNR=16						
AKTO				Sn	Sn	18 34 50.0	+11
	comp=Z,0.7nm,0.3s,baz=189,slow=19,SNR=3.3						
AKTO				Lg		18 36 05.1	
	comp=Z,0.2nm,0.3s,baz=222,slow=16,SNR=1.6						
AKTO				LR	LR	18 37 39.9	
	comp=Z,457nm,18.0s,baz=131,slow=38						
ZAL	Zalesovo	15.33	29	P	Pn	18 32 33.9	-1.2
ZAL						18 35 26.1	
ZALV	Zalesovo Beam	15.34	29	Pn	Pn	18 32 33.9	-1.4
ZALV				Sn	Sn	18 35 26.1	+2.1
ZALV				Lg		18 36 56.5	
ZALV				LR	LR	18 38 40.5	
ZALV	Zalesovo Beam	15.34	29	Pn	Pn	18 32 33.9	-1.4
	comp=Z,0.7nm,0.3s,baz=225,slow=11,SNR=15						
ZALV				Sn	Sn	18 35 26.0	+2.1
	comp=Z,0.6nm,0.3s,baz=227,slow=14,SNR=2.6						
ZALV				Lg		18 36 56.5	
	baz=228,slow=21,SNR=2.6						
ZALV				LR	LR	18 38 40.5	
	comp=Z,176nm,18.9s,baz=47,slow=38						
KOLN	Koldanda	16.35	141	eP	Pn	18 32 41.6	-6.7
	comp=Z,31nm,0.5s						
GKN	Gorkha	16.66	138	eP	Pn	18 32 45.6	-6.6
	comp=Z,59nm,0.5s						
GKN				eS	S	18 35 41.5	-24
KKN	Kakani	17.16	137	eP	Pn	18 32 51.6	-6.8
	comp=Z,39nm,0.5s						
KKN				eS	S	18 35 52.2	-23
DMN	Daman	17.22	138	eP	Pn	18 32 52.6	-6.6
	comp=Z,75nm,0.8s						
SVE	Sverdlovsk	17.35	338	eP	Pn	18 33 05.0	+4.4
SVE				e		18 36 17.0	
GUN	Gumba	17.38	135	eP	Pn	18 32 54.5	-6.6
	comp=Z,43nm,0.4s						
PKI	Pulchoki	17.40	137	eP	Pn	18 32 54.9	-6.6
	comp=Z,42nm,0.7s						
ARU	Arti	17.64	334	eP	Pn	18 33 02.7	-1.5
	comp=Z,11nm,0.6s						
ARU	Arti	17.64	334	⇓iP	Pn	18 33 01.7	-2.5
ARU				eS	S	18 36 19.1	-6.0
ARU				pmax	pmax		
	comp=Z,6.0nm,1.1s						
JIRN	Jiri	17.74	135	eP	Pn	18 32 59.5	-6.1
	comp=Z,60nm,0.5s						
JIRN				eS	S	18 36 07.1	-20
TAPN	Taplejung	18.82	132	eP	Pn	18 33 13.2	-5.4
	comp=Z,41nm,0.7s						
ODAN	Odare	19.02	134	eP	Pn	18 33 15.1	-6.0
	comp=Z,51nm,0.6s						
LSA	Lhasa	19.21	121	P	Pn	18 33 23.0	-0.4
LSA	Lhasa	19.21	121	eP	Pn	18 33 22.9	-0.5
	comp=Z,20nm,0.8s						
LSA	Lhasa	19.21	121	eP	Pn	18 33 22.9	-0.5
LSA				pmax	pmax		
	comp=Z,20nm,0.8s						
ZEI	Tsey	21.03	284	eP	P	18 33 40.9	-0.8
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb3.9						
GTA	Gaotai	21.14	86	eP	P	18 33 42.7	-0.3
GTA				AP		18 33 53.9	
GTA				XP	sP	18 33 59.8	-0.5
GTA				PP		18 34 09.0	
GTA				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.1						
GTA				AMB	AMB		
	comp=Z,62nm,6.1s						
GTA				LR	LR		
	comp=N,275nm,12.6s,MS4.0						
GTA				LR	LR		
	comp=E,315nm,12.9s,MS4.0						
GTA				LR	LR		
	comp=Z,409nm,16.0s,MS3.9						
GOF	Gofitskoye	21.55	290	eP	P	18 33 39.0	-8.3
GOF				pmax	pmax		
	comp=Z,40nm,1.2s,mb4.7						
KIV	Kislovodsk	21.83	287	eP	P	18 33 49.6	-0.6
	comp=Z,25nm,0.8s,mb4.7						
KIV	Kislovodsk	21.83	287	eP	P	18 33 49.7	-0.5
KIV				e		18 34 09.8	
KIV				eS	S	18 37 50.3	+1.6
KIV				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.4						
KIV				MLR	MLR		
	comp=Z,72nm,12.0s,MS3.3						
MOY	Mondy	22.34	52	eP	P	18 34 05.3	+10
ZAK	Zakamensk	23.43	56	eP	P	18 34 06.7	-0.2
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb3.9						
HYB	Hyderabad	24.31	165	eP	P	18 34 14.5	-0.7
HYB	Hyderabad	24.31	165	i P	P	18 34 14.5	-0.7

HYB				*e*pP		18 34 23.0	
HYB				*e*S	**S**	**18 38 32.0**	**+1.0**
VRSR	**Storozhevoye**	**24.73**	**305**	*e*P	**P**	**18 34 19.1**	**+0.3**
VRSR				*e*S	**S**	**18 38 35.9**	**-1.5**
VRSR				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.4						
VRSR				pmax	pmax		
	comp=E,4.0nm,0.9s						
VRSR				smax			
	comp=N,40nm,4.8s						
VRSR				smax			
	comp=Z,50nm,4.7s						
VRSR				smax			
	comp=E,20nm,3.3s						
VRSR				MLR	MLR		
	comp=Z,40nm,18.0s,MS3.0						
VRSR				MLR	MLR		
	comp=N,120nm,49.0s						
VRSR				MLR	MLR		
	comp=E,70nm,20.0s						
SONM	**Songino Array**	**25.17**	**63**	P	**P**	**18 34 22.5**	**-0.2**
SONM				*PP	pP	18 34 31.3	-3.8
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM				pmax	pmax		
	comp=Z,5.0nm,0.9s						
SONM				MLR	MLR		
	comp=Z,175nm,18.3s						
SONM	**Songino Array**	**25.17**	**63**	P	**P**	**18 34 22.5**	**-0.2**
	comp=Z,0.6nm,0.6s,baz=276,slow=9.7,SNR=8.9						
SONM				pP	pP	18 34 31.3	-3.9
	comp=Z,4.6nm,0.9s,baz=276,slow=9.5,SNR=26						
SONM				LR	LR	18 44 50.1	
	comp=Z,175nm,18.3s,MS3.6,baz=202,slow=38						
LZH	**Lanzhou**	**25.19**	**91**	*e*P	**P**	**18 34 23.6**	**+0.5**
LZH				AP	pP	18 34 36.6	+1.1
LZH				PP		18 35 02.8	
LZH				*e*S	**S**	**18 38 42.5**	**-2.4**
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.5						
LZH				AMB	AMB		
	comp=Z,110nm,5.0s						
LZH				LR	LR		
	comp=N,460nm,9.0s						
LZH				LR	LR		
	comp=Z,702nm,10.3s,MS4.5						
ANN	**Anapa**	**25.54**	**290**	*e*P	**P**	**18 34 25.9**	**-0.2**
ANN				*e*S	**S**	**18 38 53.0**	**+2.8**
ANN				pmax	pmax		
	comp=Z,54nm,1.1s,mb5.0						
ANN				MLR	MLR		
	comp=Z,221nm,9.0s						
MALT	**Malatya**	**26.00**	**275**	*e*P	**P**	**18 34 32.9**	**+2.5**
	comp=Z,38nm,1.2s,mb4.8						
MALT	**Malatya**	**26.00**	**275**	*e*P	**P**	**18 34 32.9**	**+2.5**
MALT				pmax	pmax		
	comp=Z,38nm,1.2s,mb4.8						
PRGR	**Permogore**	**26.00**	**331**	⇑*i*P	**P**	**18 34 30.3**	**+0.1**
PRGR				*e*		18 35 12.4	
PRGR				pmax	pmax		
	comp=Z,20nm,0.7s,mb4.8						
OBN	**Obninsk**	**27.19**	**313**	P	**P**	**18 34 40.0**	**-0.9**
OBN				*e**PP	pP	18 34 54.2	+0.8
OBN				*e**SP	sP	18 34 59.1	0.0
CD2	**Chengdu**	**27.40**	**102**	*e*P	**P**	**18 34 43.8**	**+0.7**
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.5						
CD2				AMB	AMB		
	comp=Z,30nm,5.8s						
BR131	**Keskin Array S**	**29.19**	**280**	*e*P	**P**	**18 35 00.1**	**+1.2**
BRTR	**Keskin Array B**	**29.19**	**280**	P	**P**	**18 35 00.1**	**+1.2**
BRTR				*PP	pP	18 35 09.1	-2.3
BRTR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
BRTR	**Keskin Array B**	**29.19**	**280**	P	**P**	**18 35 00.1**	**+1.2**
	comp=Z,7.7nm,0.9s,mb4.5,baz=84,slow=9.3,SNR=39						
BRTR				pP	pP	18 35 09.1	-2.3
	comp=Z,4.0nm,0.9s,baz=86,slow=9.2,SNR=5.8						
HHC	**Hu-ho-hao-te**	**29.57**	**77**	*e*P	**P**	**18 35 02.6**	**+0.3**
HHC				AP	pP	18 35 14.5	-0.3
HHC				XP	sP	18 35 19.9	-0.6
HHC				PP	PP	18 35 59.9	-10
HHC				PCP	PcP	18 38 08.1	+1.9
HHC				S	**S**	**18 39 53.6**	**-0.3**
HHC				XS	sS	18 40 11.8	-3.2
HHC				SS	SS	18 41 27.0	-34
HHC				SCP	ScP	18 41 44.7	+0.8
HHC				PCS	PcS	18 41 50.3	+1.1
HHC				SCS	ScS	18 45 37.9	-0.7
HHC				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.5						
HHC				AMB	AMB		
	comp=Z,121nm,4.8s						
HHC				LR	LR		
	comp=N,163nm,18.0s,MS3.9						
HHC				LR	LR		
	comp=E,243nm,19.2s,MS3.9						
HHC				LR	LR		
	comp=Z,199nm,19.2s,MS3.8						
KMI	**Kunming**	**30.00**	**113**	P	**P**	**18 35 06.2**	**-0.1**
KMI				XP	sP	18 35 22.8	-1.7
KMI				S	**S**	**18 40 02.1**	**+1.2**
KMI				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.3						
KMI				LR	LR		
	comp=N,240nm,14.4s,MS4.1						
KMI				LR	LR		
	comp=E,110nm,10.7s,MS4.1						
KMI				LR	LR		
	comp=Z,158nm,10.9s,MS3.9						
AKASG	**Malin Array Be**	**30.95**	**303**	P	**P**	**18 35 14.5**	**+0.2**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.7s						
AKASG	**Malin Array Be**	**30.95**	**303**	P	**P**	**18 35 14.5**	**+0.2**
	comp=Z,1.4nm,0.7s,mb3.9,baz=77,slow=7.7,SNR=7.7						
KIEV	**Kiev**	**30.95**	**303**	*e*P	**P**	**18 35 14.6**	**+0.2**
	comp=Z,2.3nm,0.6s,mb4.2						
KIEV	**Kiev**	**30.95**	**303**	*e*P	**P**	**18 35 14.6**	**+0.2**
KIEV				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
BOD	**Bodaibo**	**31.25**	**44**	*e*P	**P**	**18 35 15.3**	**-1.6**
BOD				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.0						
GYA	**Guiyang**	**31.98**	**106**	P	**P**	**18 35 25.4**	**+1.8**
GYA				AP	pP	18 35 38.2	+2.0
GYA				PP	PP	18 36 32.6	-3.9
GYA				PCP	PcP	18 38 14.9	+2.1
GYA				S	**S**	**18 40 32.4**	**+0.6**
GYA				SCP	ScP	18 41 53.8	+1.7
GYA				SCS	ScS	18 45 50.3	-0.5
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.7						
GYA				AMB	AMB		
	comp=Z,70nm,4.9s						
BJI	**Beijing**	**33.18**	**77**	P	**P**	**18 35 33.6**	**-0.4**
BJI				AP	pP	18 35 44.6	-2.0
BJI				XP	sP	18 35 49.7	-2.6
BJI				PP	PP	18 36 48.4	-1.2
BJI				PCP	PcP	18 38 16.2	+0.3
BJI				S	**S**	**18 40 50.2**	**0.0**
BJI				XS	sS	18 41 09.6	-1.8
BJI				SCP	ScP	18 41 57.0	+1.0
BJI				PCS	PcS	18 42 01.7	+0.4
BJI				AMB	AMB		
	comp=Z,1.0nm,0.4s,mb4.1						
BJI				AMB	AMB		
	comp=Z,120nm,7.0s						
BJI				LR	LR		
	comp=N,116nm,22.9s,MS3.6						
BJI				LR	LR		
	comp=E,115nm,25.4s,MS3.6						
BJI				LR	LR		
	comp=Z,189nm,24.1s,MS3.7						
FIA1	**FINESS Array S**	**34.23**	**322**	*e*P	**P**	**18 35 43.0**	**+0.2**
FINES	**FINESS Array B**	**34.23**	**322**	P	**P**	**18 35 43.2**	**+0.3**
FINES				pmax	pmax		
	comp=Z,5.0nm,0.3s						
FINES				MLR	MLR		
	comp=Z,149nm,18.3s						
FINES	**FINESS Array B**	**34.23**	**322**	P	**P**	**18 35 43.2**	**+0.3**
	comp=Z,4.5nm,0.3s,mb4.8,baz=111,slow=9.3,SNR=63						
FINES				LR	LR	18 50 36.3	
	comp=Z,149nm,18.2s,MS3.8,slow=38						
STHS	**Stebnicka Huta**	**36.14**	**301**	*e*P	**P**	**18 36 00.3**	**+0.8**
ARCES	**ARCESS Array B**	**37.23**	**335**	P	**P**	**18 36 08.9**	**+0.4**
ARCES				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ARCES	**ARCESS Array B**	**37.23**	**335**	P	**P**	**18 36 08.9**	**+0.4**
	comp=Z,5.9nm,0.6s,mb4.6,baz=109,slow=8.6,SNR=55						
VYHS	**Vyhne**	**37.84**	**300**	*e*P	**P**	**18 36 15.2**	**+1.3**
	comp=Z,3.0nm,1.1s,mb3.9						
VYHS				*e*PP	pP	18 36 24.6	-2.1
VYHS	**Vyhne**	**37.84**	**300**	*e*P	**P**	**18 36 15.2**	**+1.3**
VYHS				*e*	pP	18 36 24.6	-2.1
VYHS				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.9						
DPC	**Dobruska-Polom**	**39.18**	**303**	*e*P	**P**	**18 36 26.1**	**+1.0**
YAK	**Yakutsk**	**39.70**	**39**	*e*P	**P**	**18 36 27.6**	**-1.7**
YAK				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.8						
GEC2	**GERESS Array S**	**41.12**	**301**	*e*P	**P**	**18 36 41.8**	**+0.6**
GERES	**GERESS Array B**	**41.12**	**301**	P	**P**	**18 36 42.0**	**+0.8**
GERES				pmax	pmax		
	comp=Z,3.0nm,0.4s						
GERES				MLR	MLR		
	comp=Z,133nm,20.4s						
GERES	**GERESS Array B**	**41.12**	**301**	P	**P**	**18 36 42.0**	**+0.8**
	comp=Z,2.8nm,0.4s,mb4.2,baz=66,slow=8.1,SNR=29						
GERES				LR	LR	18 56 34.9	
	comp=Z,133nm,20.4s,MS3.8,baz=93,slow=40						
TIXI	**Tiksi**	**41.12**	**24**	*e*P	**P**	**18 36 38.7**	**-2.2**
TIXI				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.5						
TIXI				MLR	MLR		
	comp=Z,68nm,15.0s,MS3.6						
KHC	**Kasperske Hory**	**41.14**	**302**	*e*P	**P**	**18 36 42.3**	**+0.9**
NOA	**NORSAR Array B**	**41.29**	**320**	LR	LR	18 54 44.5	
	comp=Z,147nm,18.4s,MS3.9,baz=95,slow=37						
GRA1	**Grafenberg Arr**	**42.53**	**303**	*e*P	**P**	**18 36 53.7**	**+1.0**
	comp=Z,6.0nm,0.9s,mb4.3						
GRA1				LR	LR		
	comp=Z,200nm,18.9s,MS4.0						
GRF	**Grafenberg Arr**	**42.53**	**303**	*e*P	**P**	**18 36 53.7**	**+1.0**
GRF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
GRF				MLR	MLR		
	comp=Z,200nm,18.9s,MS4.0						
GRF	**Grafenberg Arr**	**42.53**	**303**	*e*P	**P**	**18 36 53.7**	**+1.0**
GRF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
GRF				MLR	MLR		
	comp=Z,200nm,18.9s,MS4.0						
GRF	**Grafenberg Arr**	**42.53**	**303**	*e*P	**P**	**18 36 53.7**	**+1.0**
	comp=Z,6.0nm,0.9s,mb4.3						
GRF				*e*L		18 56 20.6	
	comp=Z,207nm,18.9s						
KSRS	**Korea Array**	**42.69**	**76**	LR	LR	18 58 07.7	
	comp=Z,107nm,19.0s,MS3.8,baz=69,slow=41						
CDF	**Champ du Feu**	**45.36**	**302**	⇑*i*P	**P**	**18 37 15.7**	**+0.3**
	comp=Z,4.3nm,0.8s,mb4.3						
CDF	**Champ du Feu**	**45.36**	**302**	⇑*i*P	**P**	**18 37 15.7**	**+0.3**
CDF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
CDF	**Champ du Feu**	**45.36**	**302**	⇑*i*P	**P**	**18 37 15.7**	**+0.3**
	comp=Z,8.7nm,0.8s,mb4.3						
HINF	**Hinteralfeld**	**45.80**	**301**	⇑*i*P	**P**	**18 37 19.1**	**+0.2**
	comp=Z,3.1nm,0.8s,mb4.3						
HINF	**Hinteralfeld**	**45.80**	**301**	⇑*i*P	**P**	**18 37 19.1**	**+0.2**
HINF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
HINF	**Hinteralfeld**	**45.80**	**301**	⇑*i*P	**P**	**18 37 19.1**	**+0.2**
	comp=Z,6.2nm,0.8s,mb4.3						
HAU	**Haudompre**	**46.07**	**302**	⇑*i*P	**P**	**18 37 21.3**	**+0.3**
	comp=Z,5.7nm,0.7s,mb4.6						
HAU				LR	LR		
	comp=Z,170nm,21.3s,MS4.0						
HAU	**Haudompre**	**46.07**	**302**	⇑*i*P	**P**	**18 37 21.3**	**+0.3**
HAU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
HAU				MLR	MLR		
	comp=Z,170nm,21.3s,MS4.0						
HAU	**Haudompre**	**46.07**	**302**	⇑*i*P	**P**	**18 37 21.3**	**+0.3**
	comp=Z,11nm,0.7s,mb4.6						
HAU				*e*MLR	MLR		
	comp=Z,171nm,21.2s,MS3.7						
LPG	**La Plagne**	**46.59**	**298**	*e*P	**P**	**18 37 25.6**	**+0.5**
	comp=Z,4.1nm,0.7s,mb4.5						
LPG	**La Plagne**	**46.59**	**298**	*e*P	**P**	**18 37 25.6**	**+0.5**
LPG				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
LPG	**La Plagne**	**46.59**	**298**	*e*P	**P**	**18 37 25.6**	**+0.5**
	comp=Z,8.2nm,0.7s,mb4.5						
LPL	**La Plagne**	**46.59**	**298**	*e*P	**P**	**18 37 25.6**	**+0.4**
	comp=Z,4.3nm,0.5s,mb4.6						
LPL	**La Plagne**	**46.59**	**298**	*e*P	**P**	**18 37 25.6**	**+0.4**
LPL				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
LPL	**La Plagne**	**46.59**	**298**	*e*P	**P**	**18 37 25.6**	**+0.4**
	comp=Z,8.6nm,0.5s,mb4.6						
JNU	**Nakatsue**	**46.72**	**80**	LR	LR	18 58 31.7	
	comp=Z,68nm,18.4s,MS3.6,baz=24,slow=38						
BAIF	**Baives**	**46.83**	**305**	⇑*i*P	**P**	**18 37 27.7**	**+0.8**
MBDF	**Montbardon**	**46.83**	**297**	⇑*i*P	**P**	**18 37 27.0**	**0.0**
	comp=Z,9.6nm,0.8s,mb4.8						
MBDF	**Montbardon**	**46.83**	**297**	⇑*i*P	**P**	**18 37 27.0**	**0.0**
MBDF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
MBDF	**Montbardon**	**46.83**	**297**	⇑*i*P	**P**	**18 37 27.0**	**0.0**
	comp=Z,19nm,0.8s,mb4.8						
FRF	**La Foret Royal**	**47.32**	**296**	⇑*i*P	**P**	**18 37 31.1**	**+0.2**
	comp=Z,15nm,1.0s,mb4.9						
FRF	**La Foret Royal**	**47.32**	**296**	⇑*i*P	**P**	**18 37 31.1**	**+0.2**
FRF				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
FRF	**La Foret Royal**	**47.32**	**296**	⇑*i*P	**P**	**18 37 31.1**	**+0.2**
	comp=Z,30nm,1.0s,mb4.9						
ORIF	**Oris-en-Rattie**	**47.36**	**298**	*e*P	**P**	**18 37 30.9**	**-0.3**
ORIF				*e*MLR	MLR		
	comp=Z,164nm,19.2s,MS3.7						
LMR	**La Mourre**	**47.50**	**296**	*e*P	**P**	**18 37 32.7**	**+0.5**
SMRF	**Simiane la Rot**	**47.90**	**297**	*e*P	**P**	**18 37 35.8**	**+0.5**
	comp=Z,22nm,1.0s,mb5.2						
SMRF	**Simiane la Rot**	**47.90**	**297**	*e*P	**P**	**18 37 35.8**	**+0.5**
	comp=Z,22nm,1.0s,mb4.8						
LOR	**Lormes**	**47.90**	**301**	⇑*i*P	**P**	**18 37 34.4**	**-0.9**
	comp=Z,2.0nm,0.6s,mb4.3						
LOR				LR	LR		
	comp=Z,180nm,21.8s,MS4.0						
LOR	**Lormes**	**47.90**	**301**	⇑*i*P	**P**	**18 37 34.4**	**-0.9**
LOR				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
LOR				MLR	MLR		
	comp=Z,180nm,21.8s,MS4.0						
LOR	**Lormes**	**47.90**	**301**	⇑*i*P	**P**	**18 37 34.4**	**-0.9**
	comp=Z,4.0nm,0.6s,mb4.3						
LOR				*e*MLR	MLR		
	comp=Z,180nm,21.8s,MS3.7						
VIVF	**Saint-Julien-l**	**48.19**	**298**	⇑*i*P	**P**	**18 37 37.9**	**+0.3**
	comp=Z,3.2nm,0.5s,mb4.6						
VIVF	**Saint-Julien-l**	**48.19**	**298**	⇑*i*P	**P**	**18 37 37.9**	**+0.3**
VIVF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
VIVF	**Saint-Julien-l**	**48.19**	**298**	⇑*i*P	**P**	**18 37 37.9**	**+0.3**
	comp=Z,6.3nm,0.5s,mb4.6						
SSF	**Saint Saulge**	**48.20**	**301**	⇑*i*P	**P**	**18 37 37.3**	**-0.3**
	comp=Z,2.6nm,0.7s,mb4.4						
SSF	**Saint Saulge**	**48.20**	**301**	⇑*i*P	**P**	**18 37 37.3**	**-0.3**
SSF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
SSF	**Saint Saulge**	**48.20**	**301**	⇑*i*P	**P**	**18 37 37.3**	**-0.3**
	comp=Z,5.2nm,0.7s,mb4.4						
AVF	**Avril sur Loir**	**48.39**	**301**	⇑*i*P	**P**	**18 37 39.0**	**-0.1**
	comp=Z,8.2nm,0.9s,mb4.8						
AVF	**Avril sur Loir**	**48.39**	**301**	⇑*i*P	**P**	**18 37 39.0**	**-0.1**
AVF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
AVF	**Avril sur Loir**	**48.39**	**301**	⇑*i*P	**P**	**18 37 39.0**	**-0.1**
	comp=Z,16nm,0.9s,mb4.8						
KEST	**Kesra**	**48.55**	**285**	P	**P**	**18 37 41.6**	**+1.1**
	comp=Z,2.5nm,1.0s,mb4.2,baz=280,slow=2.9,SNR=5.1						
LASF	**Ste Croix**	**49.02**	**297**	⇑*i*P	**P**	**18 37 44.6**	**+0.7**
	comp=Z,8.9nm,0.7s,mb4.6						
TCF	**Toulx Ste Croi**	**49.30**	**301**	⇑*i*P	**P**	**18 37 46.3**	**+0.2**
CAF	**Calviac**	**49.89**	**299**	⇑*i*P	**P**	**18 37 51.2**	**+0.6**
	comp=Z,3.5nm,0.8s,mb4.4						
CAF	**Calviac**	**49.89**	**299**	⇑*i*P	**P**	**18 37 51.2**	**+0.6**
CAF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
CAF	**Calviac**	**49.89**	**299**	⇑*i*P	**P**	**18 37 51.2**	**+0.6**
	comp=Z,6.9nm,0.8s,mb4.4						
LDF	**La Druitiere**	**49.98**	**304**	⇑*i*P	**P**	**18 37 50.9**	**-0.3**
RJF	**Les Rejaudoux**	**50.11**	**300**	⇑*i*P	**P**	**18 37 53.0**	**+0.8**
	comp=Z,4.5nm,0.7s,mb4.6						
RJF				LR	LR		
	comp=Z,150nm,18.0s,MS4.0						
RJF	**Les Rejaudoux**	**50.11**	**300**	⇑*i*P	**P**	**18 37 53.0**	**+0.8**
RJF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
RJF				MLR	MLR		
	comp=Z,150nm,18.0s,MS4.0						
RJF	**Les Rejaudoux**	**50.11**	**300**	⇑*i*P	**P**	**18 37 53.0**	**+0.8**
	comp=Z,9.0nm,0.7s,mb4.6						
RJF				*e*MLR	MLR		
	comp=Z,147nm,18.0s,MS3.7						
MA2	**Magadan**	**50.18**	**41**	P	**P**	**18 37 52.1**	**-0.5**
MA2				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
MTLF	**Montolieu**	**50.40**	**297**	⇑*i*P	**P**	**18 37 54.9**	**+0.5**
	comp=Z,4.2nm,0.8s,mb4.5						
MTLF	**Montolieu**	**50.40**	**297**	⇑*i*P	**P**	**18 37 54.9**	**+0.5**
MTLF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
MTLF	**Montolieu**	**50.40**	**297**	⇑*i*P	**P**	**18 37 54.9**	**+0.5**
	comp=Z,8.4nm,0.8s,mb4.5						
GRR	**Gorron**	**50.51**	**304**	*e*P	**P**	**18 37 54.8**	**-0.4**
MJAR	**Matsushiro Arr**	**50.54**	**72**	P	**P**	**18 37 54.9**	**-0.8**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MJAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MJAR				MLR	MLR		
	comp=Z,60nm,18.1s						
MJAR	**Matsushiro Arr**	**50.54**	**72**	P	**P**	**18 37 54.9**	**-0.8**
	comp=Z,1.2nm,0.9s,mb3.8,baz=288,slow=8.5,SNR=2.8						
MJAR				pP	pP	18 38 03.2	-5.7
	comp=Z,3.0nm,0.9s,baz=302,slow=9.3,SNR=4.8						
MJAR				LR	LR	19 02 58.7	
	comp=Z,60nm,18.1s,MS3.6,baz=45,slow=40						
MFF	**Saint Martin d**	**50.71**	**302**	⇑*i*P	**P**	**18 37 56.2**	**-0.5**
	comp=Z,5.0nm,0.9s,mb4.4						
MFF	**Saint Martin d**	**50.71**	**302**	⇑*i*P	**P**	**18 37 56.2**	**-0.5**
MFF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
MFF	**Saint Martin d**	**50.71**	**302**	⇑*i*P	**P**	**18 37 56.2**	**-0.5**
	comp=Z,10.0nm,0.9s,mb4.4						
LFF	**La Frestale**	**50.76**	**300**	⇑*i*P	**P**	**18 37 57.6**	**+0.5**
SGMF	**Saint Gilles**	**51.62**	**305**	⇑*i*P	**P**	**18 38 03.3**	**-0.2**
ROSF	**Rostrenen**	**52.03**	**305**	⇑*i*P	**P**	**18 38 06.3**	**-0.3**
	comp=Z,2.3nm,0.5s,mb4.4						
ROSF	**Rostrenen**	**52.03**	**305**	⇑*i*P	**P**	**18 38 06.3**	**-0.3**
ROSF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
ROSF	**Rostrenen**	**52.03**	**305**	⇑*i*P	**P**	**18 38 06.3**	**-0.3**
	comp=Z,4.5nm,0.5s,mb4.4						
QUIF	**Quistinic**	**52.12**	**304**	⇑*i*P	**P**	**18 38 07.0**	**-0.3**
ETSF	**Etsaut**	**52.43**	**298**	⇑*i*P	**P**	**18 38 10.2**	**+0.5**
	comp=Z,3.1nm,0.7s,mb4.3						
ETSF	**Etsaut**	**52.43**	**298**	⇑*i*P	**P**	**18 38 10.2**	**+0.5**
ETSF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
ETSF	**Etsaut**	**52.43**	**298**	⇑*i*P	**P**	**18 38 10.2**	**+0.5**
	comp=Z,6.2nm,0.7s,mb4.4						
KMBO	**Kilima Mbogo**	**52.68**	**226**	*e*P	**P**	**18 38 12.1**	**+0.2**
	comp=Z,3.1nm,0.9s,mb4.2						
KMBO	**Kilima Mbogo**	**52.68**	**226**	*e*P	**P**	**18 38 12.1**	**+0.3**
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KMBO	**Kilima Mbogo**	**52.68**	**226**	P	**P**	**18 38 11.3**	**-0.5**
	comp=Z,2.6nm,0.8s,mb4.2,baz=34,slow=13,SNR=7.2						
KMBO				LR	LR	19 04 07.0	
	comp=Z,96nm,18.2s,MS3.9,baz=92,slow=40						
SJPF	**Ste Jean**	**52.79**	**298**	*e*P	**P**	**18 38 12.2**	**-0.1**
MBAR	**Mbarara**	**55.99**	**233**	*e*P	**P**	**18 38 34.2**	**-1.7**
ESDC	**Sonseca Array**	**56.16**	**296**	P	**P**	**18 38 36.9**	**+0.1**
	comp=Z,1.3nm,0.5s,mb4.2,baz=58,slow=6.8,SNR=8.6						
ESDC				pP	pP	18 38 45.9	-4.3
	comp=Z,0.7nm,0.5s,baz=60,slow=6.8,SNR=3.4						
TOA0	**Torodi Ar. Sit**	**66.78**	**267**	*e*P	**P**	**18 39 47.7**	**-1.1**
TORD	**Torodi Ar. Bea**	**66.78**	**267**	P	**P**	**18 39 48.0**	**-0.8**
	comp=Z,14nm,0.7s,mb5.1,baz=47,slow=5.6,SNR=98						
TORD				pP	pP	18 39 58.6	-3.9
	comp=Z,2.3nm,0.7s,baz=51,slow=5.9,SNR=4.9						
IMA2	**Indian Mountai**	**67.40**	**18**	*e*P	**P**	**18 39 51.0**	**-1.0**
INK	**Inuvik**	**69.15**	**10**	*e*P	**P**	**18 40 02.7**	**-0.2**
LIC	**Lamto**	**76.28**	**266**	⇑*i*P	**P**	**18 40 45.6**	**-0.5**
	comp=Z,12nm,0.6s,mb5.0						
LIC	**Lamto**	**76.28**	**266**	⇑*i*P	**P**	**18 40 45.6**	**-0.5**
	comp=Z,25nm,0.6s,mb5.1						
YKA	**Yellowknife Ar**	**76.54**	**3**	P	**P**	**18 40 46.4**	**-0.3**
YKA				pP	pP	18 40 55.5	-5.1
YKA				LR	LR	19 18 56.3	
YKA	**Yellowknife Ar**	**76.54**	**3**	P	**P**	**18 40 46.4**	**-0.3**
YKA				*PP	pP	18 40 55.5	-5.1
YKA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
YKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
YKA				MLR	MLR		
	comp=Z,68nm,18.2s						
YKA	**Yellowknife Ar**	**76.54**	**3**	P	**P**	**18 40 46.4**	**-0.3**
	comp=Z,3.5nm,0.6s,mb4.4,baz=350,slow=5.9,SNR=70						
YKA				pP	pP	18 40 55.5	-5.1
	comp=Z,1.6nm,0.6s,baz=350,slow=5.8,SNR=9.5						
YKA				LR	LR	19 18 56.3	
	comp=Z,68nm,18.2s,MS4.0,baz=185,slow=39						
BOSA	**Boshof**	**81.89**	**220**	P	**P**	**18 41 15.9**	**-0.4**
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
BOSA	**Boshof**	**81.89**	**220**	P	**P**	**18 41 15.9**	**-0.3**
	comp=Z,2.3nm,0.4s,mb4.5,baz=31,slow=3.0,SNR=12						
WRA	**Warramunga Arr**	**83.74**	**123**	P	**P**	**18 41 25.3**	**-0.8**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	**Warramunga Arr**	**83.74**	**123**	P	**P**	**18 41 25.3**	**-0.7**
	comp=Z,0.5nm,0.6s,mb3.8,baz=327,slow=4.3,SNR=7.5						
WB2	**Warramunga Arr**	**83.75**	**123**	P	**P**	**18 41 25.6**	**-0.5**
LCO	**Las Campanas**	**147.51**	**280**	*e*PKPdf	PKPdf	18 48 39.0	+0.7

MAN 05 18:33:23,1879N×12082E,h1^{km},mb4.4,ML3.3,MS3.2, 1C-1D,Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	**Pasuquin**	**0.50**	**202**	⇑*i*P	Pg	18 33 33.7	+1.0
APYP	**Conner**	**1.01**	**157**	*e*P	Pg	18 33 43.4	+1.0
APYP				*e*S	Sg	18 34 01.3	+5.8
ABRA	**Dolores**	**1.14**	**185**	*e*P	Pg	18 33 44.2	-0.8
ABRA				*e*S	Sg	18 34 04.0	+4.2
SGCP	**Mt. Cagua**	**1.28**	**115**	*e*P	Pg	18 33 48.5	+0.9
SGCP				*e*S	Sg	18 34 08.1	+3.7
CVP	**Callao Caves**	**1.44**	**139**	*e*P	Pn	18 33 50.3	0.0
CVP				*e*S	Sg	18 34 11.1	+1.7
CAUP	**Cauayan**	**2.07**	**152**	*e*P	Pn	18 34 02.0	+3.0
CAUP				*e*S	Sn	18 34 35.5	+10
BCPH	**Baguio City Da**	**2.41**	**185**	⇓*e*P	Pn	18 34 04.3	+0.7
BCPH				*i* S	Sn	18 34 37.0	+3.2
BOLP	**Bolinao**	**2.55**	**200**	*e*P	Pn	18 34 08.1	+2.5
BOLP				*e*S	Sn	18 34 44.0	+6.8
BALP	**Baler**	**3.12**	**167**	*e*P	Pn	18 34 16.5	+3.1
SCZP	**Santa Cruz**	**3.12**	**196**	*e*P	Pn	18 34 15.0	+1.6
POLP	**Polilio Island**	**4.18**	**165**	*e*P	Pn	18 34 30.9	+3.0
OCLP	**Ormoc**	**8.52**	**154**	*e*P	Pn	18 35 19.3	-8.4
PLP	**Palo**	**8.58**	**152**	*e*P	Pn	18 35 24.9	-3.6
MSLP	**Maasin**	**9.45**	**155**	*e*P	Pn	18 35 35.0	-5.4

ATH ***05*** *18:39:09.6,3861N×2729E,h9^{km}±7^{km},MD3.5/4*
CSEM ***05*** *18:39:10.5±0.1,3853N×27.16E,h10^{km},MD3.3,Error ellipse: s-maj=3.1km s-min=1.6km az=100.0*
DDA ***05*** *18:39:10.9,3854N×2707E,h10^{km}±1^{km},Md3.2*
ISCJB ***05*** *18:39:10.8±0.4,3856N±002×27.14E±004,h10^{km}±4^{km}, Error ellipse: s-maj=4.6km s-min=3.8km az=2.0*
NEIC ***05*** *18:39:10.1,3859N×2724E,h17^{km},MD3.5(ATH), MD3.2(ISK),After ATH.*
ISK ***05*** *18:39:10.4,3856N×27.16E,h10^{km},MD3.3*

ISC 05 18:39:11.1±0.4,3856N±002×2712E±004,h9^{km}±3^{km},n62, σ0^{s}89/80,2C,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLCB	**Balcova**	**0.18**	**199**	PG	**Pg**	**18 39 15.1**	**+0.2**
BLCB				SG	**Sg**	**18 39 18.4**	**+1.0**
BLCB	**Balcova**	**0.18**	**199**	*e*Pg	**Pg**	**18 39 15.1**	**+0.2**

BLCB				*e*Sg	Sg	18 39 18.4	+1.0
KDAG	**Bornova**	0.19	142	*i* P	Pg	18 39 15.1	0.0
KDAG				*i* S	Sg	18 39 18.0	+0.1
IZM	**Izmir**	0.20	143	PG	Pg	18 39 15.0	-0.2
IZM				SG	Sg	18 39 18.0	+0.1
IZM	**Izmir**	0.20	143	*e*Pg	Pg	18 39 15.0	-0.2
IZM				*e*Sg	Sg	18 39 18.0	+0.1
AKS	**Akhisar**	0.64	59	PG	Pg	18 39 22.3	-1.1
AKS				SG	Sg	18 39 31.1	-0.6
AKS	**Akhisar**	0.64	59	*e*Pg	Pg	18 39 22.3	-1.1
AKS				*e*Sg	Sg	18 39 31.1	-0.6
AYVA	**Ayvalik**	0.82	336	*i* P	Pg	18 39 26.4	-0.6
AYVA				*i* S	Sg	18 39 37.6	-0.1
SMG	**Samos**	0.87	195	⇑*i*Pn	Pg	18 39 27.6	-0.3
SMG				*e*Sn	Sn	18 39 41.3	-1.0
SMG	**Samos**	0.87	195	⇑*i*PG	Pg	18 39 27.6	-0.3
SMG				*e*SB	Sn	18 39 41.3	-1.0
SMG	**Samos**	0.87	195	*i* Pn	Pg	18 39 27.6	-0.3
SMG				*e*Sn	Sn	18 39 41.3	-1.0
PRK	**Paraskevi**	0.95	317	*e*Pn	Pn	18 39 29.2	-1.4
PRK				*e*Sn	Sb	18 39 42.7	+0.2
PRK	**Paraskevi**	0.95	317	*e*PN	Pn	18 39 29.2	-1.4
PRK				*e*SB	Sb	18 39 42.7	+0.2
PRK	**Paraskevi**	0.95	317	*e*Pn	Pn	18 39 29.2	-1.4
PRK				*e*Sn	Sb	18 39 42.7	+0.2
MLSB	**Milas**	1.36	157	PN	Pn	18 39 35.8	-0.4
MLSB	**Milas**	1.36	157	*e*Pn	Pn	18 39 35.8	-0.4
EZN	**Ezine**	1.41	334	PN	Pn	18 39 36.5	-0.4
EZN	**Ezine**	1.41	334	*e*Pn	Pn	18 39 36.5	-0.4
BODT	**Bodrum**	1.50	174	PN	Pn	18 39 37.6	-0.5
BODT	**Bodrum**	1.50	174	*e*Pn	Pn	18 39 37.6	-0.5
BDRM	**Kayabasi**	1.51	170	*i* P	Pn	18 39 37.2	-1.0
BDRM				*i* S	Sg	18 40 01.4	+1.7
BOZC	**Bozcaada**	1.53	328	*i* P	Pn	18 39 37.4	-1.1
BOZC				*i* S	Sn	18 39 57.2	-1.3
YER	**Yerkesik**	1.69	147	PN	Pn	18 39 40.0	-0.8
YER	**Yerkesik**	1.69	147	*e*Pn	Pn	18 39 40.0	-0.8
DENT	**Denizli**	1.71	117	PN	Pn	18 39 41.0	0.0
DENT	**Denizli**	1.71	117	*e*Pn	Pn	18 39 41.0	0.0
DAT	**Datca**	1.86	168	*e*PN	Pn	18 39 42.7	-0.4
DAT	**Datca**	1.86	168	*e*Pn	Pn	18 39 42.7	-0.4
EDC	**Edincik**	1.88	18	PN	Pn	18 39 42.6	-0.8
EDC	**Edincik**	1.88	18	*e*Pn	Pn	18 39 42.6	-0.8
GADA	**Gvkgeada**	1.89	330	*e*PN	Pn	18 39 43.4	-0.1
GADA	**Gvkgeada**	1.89	330	*e*Pn	Pn	18 39 43.4	-0.1
BNT	**Bandirma**	1.90	19	*e*PN	Pn	18 39 44.4	+0.7
KHL	**Karahalli**	1.91	96	*e*PN	Pn	18 39 42.7	-1.0
KHL	**Karahalli**	1.91	96	*e*Pn	Pn	18 39 42.7	-1.0
GDZ	**Gediz**	1.92	73	*i* P	Pn	18 39 44.9	+0.9
GDZ				*i* S	Sg	18 40 11.6	-1.3
KCT	**Karacabey**	1.96	29	*e*PN	Pn	18 39 44.9	+0.4
KCT	**Karacabey**	1.96	29	*e*Pn	Pn	18 39 44.9	+0.4
LIA	**Limnos Island**	2.01	312	*e*Pn	Pn	18 39 47.5	+2.3
LIA	**Limnos Island**	2.01	312	*e*PN	Pn	18 39 47.5	+2.3
LIA	**Limnos Island**	2.01	312	*e*Pn	Pn	18 39 47.5	+2.3
RKY	**Sarkoy-Tekirda**	2.13	1	*e*PN	Pn	18 39 47.1	+0.3
RKY	**Sarkoy-Tekirda**	2.13	1	*e*Pn	Pn	18 39 47.1	+0.3
ULDT	**Uludag**	2.23	44	*i* P	Pn	18 39 46.7	-1.4
ULDT				*i* S	Sn	18 40 17.7	+1.9
ENEZ	**Enez**	2.30	341	*e*PN	Pn	18 39 49.9	+0.7
ENEZ	**Enez**	2.30	341	*e*Pn	Pn	18 39 49.9	+0.7
IZI	**Iznik**	2.55	45	*e*PN	Pn	18 39 53.4	+0.8
IZI	**Iznik**	2.55	45	*e*Pn	Pn	18 39 53.4	+0.8
YLV	**Yalova**	2.66	40	*e*PN	Pn	18 39 55.0	+0.9
YLV	**Yalova**	2.66	40	*e*Pn	Pn	18 39 55.0	+0.9
SHUT	**Suhut-Afyon**	2.69	89	*e*PN	Pn	18 39 55.4	+0.8
SHUT	**Suhut-Afyon**	2.69	89	*e*Pn	Pn	18 39 55.4	+0.8
RDO	**Rodhopi**	2.86	335	*e*Pn	Pn	18 39 57.2	+0.4
RDO	**Rodhopi**	2.86	335	*e*PN	Pn	18 39 57.2	+0.4
HRT	**Hereke**	3.00	40	*e*PN	Pn	18 39 59.9	+1.1
HRT	**Hereke**	3.00	40	*e*Pn	Pn	18 39 59.9	+1.1
ESKT	**Eskisehir**	3.06	70	*e*PN	Pn	18 39 59.7	+0.1
ESKT	**Eskisehir**	3.06	70	*e*Pn	Pn	18 39 59.7	+0.1
GULT	**Gulveren**	3.23	53	*e*PN	Pn	18 40 02.4	+0.5
GULT	**Gulveren**	3.23	53	*e*Pn	Pn	18 40 02.4	+0.5
EDRB	**Edirne**	3.30	355	*e*PN	Pn	18 40 04.3	+1.4
EDRB	**Edirne**	3.30	355	*e*Pn	Pn	18 40 04.3	+1.4

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*ISCJB **05** 19:38:22.6±0.4, 32.73N±0.02×116.04W±0.02, h14^{km}±2^{km}, Error ellipse: s-maj=3.5km s-min=2.7km az=40.1*

*ECX **05** 19:38:23.7±0.7, 32.72N×116.06W, h2^{km}±2^{km}, MD2.7, ML2.9*

*NEIC **05** 19:38:23.5, 32.70N×116.06W, h8^{km}, ML2.9(PAS), ML2.9(ECX), After PAS.*

ISC 05 19:38:22.7±0.3**, 32.72N**±0.02×**116.05W**±0.02**, h15**^{km}±2^{km}**, n28, σ0^{s}52**/46**, 17C-15D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DVTC	**Desert V Tower** baz=0.1,SNR=1000	0.07	215	⇓P	Pg	19 38 25.3	-0.3
DVTC	baz=0.1			⇓S	Sg	19 38 26.9	-0.7
RMX	**La Rumorosa**	0.12	190	⇑*i*P	Pg	19 38 26.0	-0.1
RMX				*e*S	Sg	19 38 27.9	-0.5
YUH	**Yuha Desert**	0.13	123	⇑*e*P	Pg	19 38 25.9	-0.4
CRR	**Carrizo Plain**	0.18	23	⇓*e*P	Pg	19 38 27.3	+0.2
SGL	**Mount Signal**	0.28	104	⇑*e*P	Pg	19 38 28.9	+0.2
COK	**Cook Ranch**	0.30	64	⇑*e*P	Pg	19 38 29.8	+0.8
SWSC	**Sam W. Stewart** baz=0.3,SNR=772	0.31	44	P	Pg	19 38 29.5	+0.3
SWSC	baz=0.3			⇑S	Sg	19 38 34.0	+0.4
MONP	**Monument Peak** baz=0.3,SNR=1000	0.35	299	⇓P	Pg	19 38 30.4	+0.4
MONP	baz=0.3			⇓S	Sg	19 38 35.4	+0.6
BAR	**Barrett**	0.52	266	⇑*e*P	Pg	19 38 33.3	+0.2
BAR				*e*S	Sg	19 38 40.2	+0.2
CBX	**Cerro Bola**	0.65	232	⇓*e*P	Pg	19 38 35.6	+0.1
CBX				*e*S	Sg	19 38 44.4	+0.2
CPBX	**Cerro Prieto**	0.70	115	*e*P	Pg	19 38 36.7	+0.4
CPBX				*e*S	Sg	19 38 46.4	+0.8
109C	**Camp Elliot, M** baz=0.8,SNR=43	0.90	281	P	Pb	19 38 39.7	-0.3
109C	baz=0.8			⇑S	Sb	19 38 51.5	-0.4
PFO	**Pinyon Flat Ob**	0.95	339	*e*Pg	Pg	19 38 40.5	-0.6
PFO				*e*Sg	Sg	19 38 53.2	-0.4
PFO	**Pinyon Flat Ob** baz=0.9,SNR=81	0.95	339	P	Pb	19 38 40.9	0.0
PFO	baz=0.9			⇓S	Sb	19 38 53.7	+0.5
ENX	**Ensenada**	0.98	212	⇓*e*P	Pb	19 38 41.2	-0.2
ENX				*e*S	Sb	19 38 54.2	+0.1
ENX	comp=N,238nm,0.3s			⇑*e*		19 38 55.2	
ENX	comp=E,613nm,0.4s			*e*		19 38 57.5	
BC3	**Big Chuckw Mtn** baz=1.1,SNR=13	1.06	28	P	Pb	19 38 42.4	-0.4
BC3	baz=1.1			⇓S	Sb	19 38 57.3	+0.9
PBX	**Punta Banda**	1.13	211	*e*P	Pb	19 38 43.4	-0.5
PBX				*e*S	Sb	19 38 58.5	+0.2
ECNX	**Esteban Cantu**	1.15	204	⇓*e*P	Pn	19 38 44.2	-0.1
ECNX				⇓*e*P		19 38 41.5	
ECNX				*e*S	Sb	19 38 54.3	-4.8
ECNX				*e*S	Sb	19 38 59.5	+0.4
BELC	**Belle Mtn.** baz=1.3,SNR=38	1.28	2	⇓P	Pn	19 38 45.5	-0.6
BELC	baz=1.3			⇑S	Sb	19 39 01.6	-1.2
MURC	**Murrieta** baz=1.2	1.30	313	⇑S	Sb	19 39 04.6	+1.2
IRM	**Iron Mountain** baz=1.6	1.62	27	⇑P	Pn	19 38 50.2	-0.6
IRM	baz=1.6			⇑S	Sn	19 39 12.0	+0.6
Y12C	**Blythe** baz=1.7,SNR=5.5	1.64	51	⇑P	Pn	19 38 50.4	-0.7
Y12C	baz=1.7			⇓S	Sn	19 39 12.1	+0.2
GMRC	**Granite Mounta** baz=2.1	2.08	9	⇑S	Sn	19 39 21.7	-1.0
CIS	**Catalina Islan** baz=2.0	2.09	290	⇑S	Sn	19 39 23.7	+0.8
HEC	**Hector,Ludlow** baz=2.1	2.12	354	⇓S	Sn	19 39 23.5	-0.1
Y13A	**Salome** baz=2.2	2.16	59	⇑S	Sn	19 39 24.9	+0.2
Y14A	**Wickenburg** baz=2.9	2.83	64	⇓S	Sn	19 39 40.7	-0.4
115A	**Sonoran Desert** baz=3.3	3.23	89	⇑S	Sn	19 39 50.9	0.0

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*NIED **05** 20:15:00, 46.50N×153.30E, h47^{km}, Mw4.9 Best double couple: M$_0$2.27000×10^{16} NP1:ϕ_s300.00000°, δ27.00000°, λ-53.00000°. NP2:ϕ_s79.00000°, δ69.00000°, λ-107.00000°.*

*NEIC **05** 20:15:37.4±0.2, 46.91N×152.70E, h10^{km}, mb4.9/62, Error ellipse: s-maj=7.6km s-min=3.8km az=165.0*

*SZGRF **05** 20:15:37.4, 46.10N×153.13E, h33^{km}, mb4.8, Kuril Islands, Russia*

*BJI **05** 20:15:38.5, 46.90N×152.70E, h10^{km}, mB4.7, mb4.3, Ms4.1, Msz3.8*

*ISCJB **05** 20:15:40.2±0.5, 46.83N±0.04×152.78E±0.03, h42^{km}±5^{km}, mb4.7/95, MS4.0/22, Error ellipse: s-maj=6.0km s-min=3.1km az=163.9*

*JMA **05** 20:15:40.3±0.9, 46.53N×153.25E, h30^{km}, M5.1*

*MOS **05** 20:15:41.8±0.9, 47.02N×152.79E, h51^{km}, mb4.9/47, MS4.0/13, Error ellipse: s-maj=8.8km s-min=5.4km az=94.7*

*SKHL **05** 20:15:42.1±2.3, 46.76N×153.07E, h66^{km}±7^{km}, mb5.4/5, Ms4.1/3*

*IDC **05** 20:15:45.4±3.3, 46.89N×152.79E, h76^{km}±30^{km}, mb4.0/18, mb1 4.2/19, mb1mx4.2/24, mbtmp4.1/19, MS3.9/17, Ms1 3.9/17, ms1mx3.7/24, Error ellipse: s-maj=19.0km s-min=12.9km az=160.0*

ISC 05 20:15:43.5±0.4**, 46.88N**±0.03×**152.68E**±0.03**, h54**^{km}±4^{km}**, h36**^{km}±7.8^{km}**:pP-P, n517, σ0^{s}87**/537**, mb4.7**/95**, MS4.0**/22**, 83C-74D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	3.74	246	⇑*i*PN	Pn	20 16 39.9	+1.3
KUR				*i* S	Sn	20 17 25.0	+3.7
KUR	comp=Z,2μm,1.0s			pmax	pmax		
KUR	comp=N,350nm,0.6s			pmax	pmax		
KUR	comp=E,230nm,0.6s			pmax	pmax		
KUR	comp=Z,720nm,0.6s			pmax	pmax		
KUR	comp=N,3μm,0.7s			smax			
KUR	comp=E,2μm,0.7s			smax			
KUR	comp=N,8μm,1.6s			smax			
KUR	comp=E,8μm,1.6s			smax			
KUR	**Kuril'sk**	3.74	246	*i* P	Pn	20 16 39.9	+1.3
KUR	comp=E,2μm,1.0s			AMB	AMB	20 16 42.0	
KUR	comp=E,350nm,0.6s			AMB	AMB	20 16 47.8	
KUR	comp=E,230nm,0.6s			AMB	AMB	20 16 47.8	
KUR	comp=E,720nm,0.6s			AMB	AMB	20 16 47.8	
KUR				*i* S	Sn	20 17 25.0	+3.7
KUR	comp=E,3μm,0.7s			A		20 17 31.0	
KUR	comp=E,2μm,0.7s			A		20 17 31.0	
KUR	comp=E,8μm,1.6s			A		20 17 31.0	
KUR	comp=E,8μm,1.6s			A		20 17 31.0	
SKR	**Severo-Kuril's**	4.43	30	*e*P	Pn	20 16 45.5	-2.6
SKR	comp=E,270nm,0.5s			AMB	AMB	20 16 48.5	
SKR	comp=E,120nm,0.5s			AMB	AMB	20 16 48.5	
SKR	comp=E,620nm,0.5s			AMB	AMB	20 16 48.5	
SKR	comp=E,2μm,0.3s			A		20 17 42.0	
SKR	comp=E,3μm,0.3s			A		20 17 42.0	
YUK	**Yuzh-Kuril'sk**	5.58	242	*e*PN	Pn	20 17 05.2	+1.4
YUK	comp=Z,780nm,0.4s			pmax	pmax		
YUK	comp=N,190nm,0.4s			pmax	pmax		
YUK	comp=E,210nm,0.4s			pmax	pmax		
YUK	comp=Z,2μm,1.2s			pmax	pmax		
YUK	comp=N,2μm,1.0s			pmax	pmax		
YUK	**Yuzh-Kuril'sk**	5.58	242	*e*P	Pn	20 17 05.2	+1.4
YUK	comp=N,190nm,0.4s			AMB	AMB	20 17 07.5	
YUK	comp=N,210nm,0.4s			AMB	AMB	20 17 07.5	
YUK	comp=N,780nm,0.4s			AMB	AMB	20 17 07.5	
YUK	comp=N,2μm,1.2s			AMB	AMB	20 17 17.0	
YUK	comp=N,2μm,1.2s			AMB	AMB	20 17 17.0	
YUK				*e*S	Sn	20 18 05.8	-0.8
YUK	comp=N,2μm,0.5s			A		20 18 15.6	
YUK	comp=N,1μm,0.5s			A		20 18 15.6	
YUK	comp=N,4μm,0.8s			A		20 18 16.5	
YUK	comp=N,3μm,0.8s			A		20 18 16.5	
NEM2	**Nemuro 2**	6.04	237	P	Pn	20 17 08.6	-1.5
NEM2				*e*S	Sn	20 18 14.8	-3.1
JRA	**Rausu**	6.08	244	P	Pn	20 17 12.6	+1.9
JRA				*e*S	Sn	20 18 22.9	+4.0
JNK	**Nakash**	6.52	243	P	Pn	20 17 17.8	+1.1
JNK				*e*S	Sn	20 18 31.9	+2.3
YSS	**Yuzh-Sakhalins** comp=N,55nm,0.8s	6.80	274	*e*P	Pn	20 17 22.5	+1.9
YSS	**Yuzh-Sakhalins**	6.80	274	*e*PN	Pn	20 17 25.3	+4.7
YSS				*e*S	Sn	20 18 40.1	+3.5
YSS	comp=Z,50nm,0.9s			pmax	pmax		
YSS	comp=N,90nm,0.6s			smax			
YSS	comp=E,110nm,0.6s			smax			
YSS	comp=N,500nm,14.0s			MLR	MLR		
YSS	comp=E,500nm,14.0s			MLR	MLR		
YSS	comp=Z,700nm,14.0s			MLR	MLR		
YSS	**Yuzh-Sakhalins**	6.80	274	*e*P	Pn	20 17 25.3	+4.7
YSS	comp=Z,50nm,0.9s			AMB	AMB	20 17 29.0	
YSS				*e*S	Sn	20 18 40.1	+3.5
YSS	comp=Z,90nm,0.6s			A		20 18 43.7	
YSS	comp=Z,110nm,0.6s			A		20 18 43.7	
YSS	comp=Z,500nm,14.0s			AMS	AMS	20 20 08.0	
YSS	comp=Z,700nm,14.0s			AMS	AMS	20 20 08.0	
JTKR	**Abashiri--Toko**	6.83	248	P	Pn	20 17 23.2	+2.3
JTKR				*e*S	Sn	20 18 42.8	+5.6
JAK	**Akkeshi**	6.87	238	P	Pn	20 17 20.4	-1.1
JAK				*e*S	Sn	20 18 35.1	-3.2
JMP	**Maruseppu**	7.16	250	P	Pn	20 17 28.2	+2.7
PET	**Petropavlovsk** comp=Z,142nm,0.8s	7.25	30	*e*P	Pn	20 17 25.6	-1.1
PET	**Petropavlovsk**	7.25	30	*e*PN	Pn	20 17 26.6	-0.1
PET	comp=Z,400nm,1.2s			pmax	pmax		
PET	comp=Z,179nm,0.6s			pmax	pmax		
PET	comp=Z,600nm,20.0s			MLR	MLR		
PET	**Petropavlovsk**	7.25	30	*e*P	Pn	20 17 26.4	-0.3
JAR	**Ashorobuto**	7.25	244	P	Pn	20 17 27.9	+1.1
JAR				*e*S	Sn	20 18 48.8	+1.1
JSE	**Soyaes**	7.30	258	P	Pn	20 17 34.8	+7.4
JOB	**Onbets**	7.43	241	P	Pn	20 17 29.5	+0.2
JOB				*e*S	Sn	20 18 51.0	-1.1
UGL	**Uglegorsk**	7.46	291	*e*P	Pn	20 17 35.0	+5.5
UGL	comp=Z,40nm,0.9s			AMB	AMB	20 17 40.0	
UGL	comp=Z,600nm,20.0s			AMS	AMS	20 20 17.0	
UGL	comp=Z,700nm,20.0s			AMS	AMS	20 20 17.0	
UGL	comp=Z,800nm,20.0s			AMS	AMS	20 20 17.0	
ASAJ	**Asahikawa**	7.61	252	P	Pn	20 17 36.2	+4.6
ASAJ	**Asahikawa**	7.61	252	PN	Pn	20 17 35.6	+4.0
ASAJ	comp=Z,9.0nm,0.3s			pmax	pmax		
ASAJ	comp=Z,443nm,20.6s			MLR	MLR		
ASAJ	**Asahikawa** comp=Z,9.1nm,0.3s,baz=87,slow=13,SNR=76	7.61	252	P	Pn	20 17 35.5	+3.9
ASAJ	comp=Z,443nm,20.6s,baz=235,slow=37			LR	LR	20 20 26.1	
JKK2	**Kamakawa 2**	7.62	250	P	Pn	20 17 34.7	+3.0
JWK2	**Keihoku**	7.66	262	P	Pn	20 17 38.6	+6.3
JCH	**Churui**	7.89	241	P	Pn	20 17 34.9	-0.5
JCH				*e*S	Sn	20 19 01.4	-1.8
JFR	**Furan**	8.05	246	P	Pn	20 17 40.5	+2.8
JAB	**Ashibetsu**	8.12	249	P	Pn	20 17 43.0	+4.3
JHR	**Hokuryu**	8.34	252	P	Pn	20 17 46.5	+4.9
ERM	**Erimo** comp=Z,113nm,0.4s	8.37	238	*e*P	Pn	20 17 40.5	-1.6
ERM	**Erimo**	8.37	238	⇓*e*PN	Pn	20 17 43.3	+1.2
JBT2	**Biratori 2**	8.40	245	P	Pn	20 17 43.4	+0.9
JNBK	**Urakawa-nobuka**	8.45	241	P	Pn	20 17 41.9	-1.2
JNBK				*e*S	Sn	20 19 13.6	-3.4
JEW	**Eniwo**	8.94	247	P	Pn	20 17 52.2	+2.3
OKH	**Okha**	9.14	320	*e*P	Pn	20 17 51.8	-0.7
OKH				*e*S	Sn	20 19 32.2	-1.6
OKH	comp=Z,900nm,11.0s			AMS	AMS	20 22 55.4	
OKH	comp=Z,600nm,11.0s			AMS	AMS	20 22 55.4	
JNB	**Noboribetsu**	9.39	246	P	Pn	20 17 56.1	0.0
JNB				*e*S	Sn	20 19 38.1	-2.1
JKB	**Kayabe**	9.72	243	P	Pn	20 17 59.8	-0.7
JKB				*e*S	Sn	20 19 43.3	-4.8
JSH	**Shimam**	9.94	249	P	Pn	20 18 04.8	+1.3
JYM2	**Yakumo 2**	10.00	246	P	Pn	20 18 03.9	-0.5
JYM2				*e*S	Sn	20 19 51.0	-4.0
JTM	**Tenmabayashi**	10.36	238	P	Pn	20 18 07.1	-2.2
JTM				*e*S	Sn	20 19 53.6	-10
JANG	**Nango**	10.38	235	P	Pn	20 18 05.9	-3.6
JANG				*e*S	Sn	20 19 53.3	-11
JTH	**Tanohata**	10.49	232	P	Pn	20 18 07.0	-4.0
JTH				*e*S	Sn	20 19 56.0	-11
JOSM	**Okushiri--Mats**	10.58	248	P	Pn	20 18 13.5	+1.2
OFUJ	**Ofunato**	11.21	230	P	Pn	20 18 17.2	-3.7
OFUJ				*e*S	Sn	20 20 13.8	-11
JRG	**Rokugo**	11.54	234	P	Pn	20 18 23.1	-2.3
JRG				*e*S	Sn	20 20 25.7	-7.0
JIO	**Ouri**	11.84	229	P	Pn	20 18 26.0	-3.5
JIO				*e*S	Sn	20 20 29.4	-11
HABR	**Khabarovsk**	11.99	284	*e*PN	Pn	20 18 34.5	+3.0
HABR				*e*		20 20 50.6	
JYA	**Atsumi**	12.62	234	P	Pn	20 18 37.7	-2.4
MA2	**Magadan** comp=Z,27nm,0.5s	12.77	356	*e*P	Pn	20 18 42.2	+0.2
MA2	**Magadan**	12.77	356	*e*PN	Pn	20 18 42.4	+0.4
MA2				*e*S	Sn	20 21 04.3	+1.9
MA2	comp=N,20nm,0.5s			pmax	pmax		
MA2	comp=Z,30nm,0.5s			pmax	pmax		
MA2	comp=Z,300nm,16.2s			MLR	MLR		
JFK	**Kawauchi**	12.92	227	P	Pn	20 18 40.1	-4.1
JFK				*e*S	Sn	20 20 55.7	-11
JFY	**Yanaizu**	13.49	230	P	Pn	20 18 49.9	-2.0
KLR	**Kul'dur**	14.19	287	*e*P	Pn	20 19 10.7	+9.3
KLR	comp=Z,1μm,12.0s			MLR	MLR		
MAJO	**Matsushiro** comp=Z,17nm,0.6s	14.93	231	*e*P	Pn	20 19 09.2	-1.9
MAJO	**Matsushiro**	14.93	231	*e*P	Pn	20 19 09.2	-1.9
MAJO	comp=Z,17nm,0.6s			pmax	pmax		
MJAR	**Matsushiro Arr**	14.93	231	P	Pn	20 19 08.0	-3.1
MJAR	comp=Z,1.0nm,0.3s			pmax	pmax		
MJAR	**Matsushiro Arr** comp=Z,1.1nm,0.3s,baz=27,slow=13,SNR=17	14.93	231	P	Pn	20 19 08.0	-3.1
SEY	**Seymchan**	16.09	360	⇑*i*P	Pn	20 19 27.6	+1.8
MDJ	**Mudanjiang**	16.27	270	P	Pn	20 19 32.7	+4.5
MDJ	comp=Z,8.0nm,0.9s			AMB	AMB		
MDJ	comp=Z,128nm,6.5s			AMB	AMB		
CN2	**Changchun**	19.35	271	*e*P	Pn	20 20 04.7	-1.2
CN2	comp=Z,10.0nm,0.7s			AMB	AMB		
CLNS	**Chul'man**	19.71	311	*e*P	Pn	20 20 17.4	+7.4
CLNS	comp=Z,12nm,0.7s			pmax	pmax		
CLNS	comp=N,8.0nm,0.9s			pmax	pmax		
CLNS	comp=E,8.0nm,1.1s			pmax	pmax		
CLNS	comp=Z,300nm,14.0s			MLR	MLR		
CLNS	comp=N,100nm,15.0s			MLR	MLR		
CLNS	comp=E,100nm,14.0s			MLR	MLR		
YAK	**Yakutsk** comp=E,36nm,0.8s	20.05	327	*e*P	P	20 20 12.8	+1.0
YAK	**Yakutsk**	20.05	327	*e*P	P	20 20 13.1	+1.3
YAK	comp=Z,24nm,1.2s			pmax	pmax		
YAK	comp=N,11nm,1.4s			pmax	pmax		
YAK	comp=E,11nm,1.1s			pmax	pmax		
YAK	comp=Z,90nm,1.3s			pmax	pmax		
YAK	comp=N,96nm,1.7s			pmax	pmax		
YAK	comp=E,171nm,1.8s			pmax	pmax		
YAK	comp=Z,258nm,19.0s,MS3.6			MLR	MLR		
YAK	comp=N,209nm,18.0s,MS3.7			MLR	MLR		
YAK	comp=E,189nm,14.0s,MS3.7			MLR	MLR		
KSRS	**Korea Array** comp=E,4.5nm,0.9s,baz=58,slow=11,SNR=8.2	20.56	252	P	P	20 20 18.6	+1.2
KSRS	comp=E,231nm,18.1s,MS3.6,baz=41,slow=41			LR	LR	20 29 56.3	
CBIJ	**Chichi jima** comp=E,155nm,20.5s,baz=121,slow=34	21.42	206	LR	LR	20 27 59.9	
JNU	**Nakatsue** comp=E,17nm,1.0s,mb4.4,baz=56,slow=18,SNR=5.9	21.54	238	P	P	20 20 29.1	+1.0
JNU	comp=E,137nm,18.5s,baz=229,slow=38			LR	LR	20 29 20.2	
BILL	**Bilibino**	22.33	13	P	P	20 20 35.0	-1.2
BILL				S	S	20 24 36.0	-2.5
BILL				SS		20 25 23.0	
TIXI	**Tiksi**	27.26	344	*i* P	P	20 21 20.8	-1.3
TIXI	comp=Z,2.0nm,1.1s,mb3.6			pmax	pmax		
TNA	**Tin City** comp=Z,15nm,1.0s,mb4.6	28.09	34	*e*P	P	20 21 29.3	-0.3
SONM	**Songino Array**	31.01	289	P	P	20 21 57.9	+2.2
SONM						20 24 51.6	
SONM	comp=Z,1.0nm,0.9s			pmax	pmax		
SONM	comp=Z,264nm,18.0s			MLR	MLR		
SONM	**Songino Array** comp=Z,0.4nm,0.6s,baz=92,slow=8.7,SNR=2.7	31.01	289	P	P	20 21 57.9	+2.3
SONM	comp=Z,0.8nm,0.9s,baz=96,slow=2.8,SNR=4.1			PcP	PcP	20 24 51.6	+1.3
SONM				LR	LR	20 35 35.0	

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      comp=Z,264nm,18.0s,MS3.9,baz=174,slow=38
ZAK   Zakamensk         32.35 295 eP    P     20 22 08.1 +0.7
ZAK                               e           20 24 54.8
ZAK                                pmax  pmax
      comp=Z,1.0nm,1.8s
ZAK                                pmax  pmax
      comp=Z,1.0nm,1.0s,mb3.6
ZAK                                pmax  pmax
      comp=Z,1.0nm,1.0s,mb3.6
SVW2  Sparrevohn        32.61  45 eP    P     20 22 08.5 -1.0
IMA2  Indian Mountai    33.87  36 eP    P     20 22 20.2 -0.3
KDAK  Kodiak Island     34.25  51  P    P     20 22 21.4 -2.5
      comp=Z,9.6nm,0.9s,mb4.7,baz=322,slow=3.3,SNR=6.2
XAN   Xi'an             35.23 265  P    P     20 22 34.0 +1.4
XAN                                AP   pP    20 22 44.0 -2.3
PMR   Palmer            35.71  44 eP    P     20 22 36.1 -0.2
MCK   McKinley          35.74  40 eP    P     20 22 35.5 -1.1
      comp=Z,7.9nm,1.0s,mb4.6
MCK   McKinley          35.74  40 eP    P     20 22 35.5 -1.1
MCK                                pmax  pmax
      comp=Z,8.0nm,1.0s,mb4.6
SML   Sawmill           36.08  44 eP    P     20 22 37.5 -2.0
COLA  College           36.22  38 eP    P     20 22 40.7 +0.1
      comp=Z,29nm,0.8s,mb5.2
COLA  College           36.22  38 eP    P     20 22 40.7  0.0
COLA                               pmax  pmax
      comp=Z,29nm,0.8s,mb5.3
MENT  Mentasta          38.13  42 eP    P     20 22 56.9  0.0
GTA   Gaotai            38.66 279 eP    P     20 23 05.4 +3.8
GTA                                AP   pP    20 23 13.3 -2.2
GTA                                XP   sP    20 23 17.3 -4.5
GTA                                PCP  PcP   20 25 14.7 +2.0
GTA                                AMB  AMB
      comp=Z,2.0nm,0.8s,mb3.9
GTA                                AMB  AMB
      comp=Z,60nm,6.1s
GTA                                LR   LR
      comp=N,121nm,16.7s,MS4.0
GTA                                LR   LR
      comp=E,154nm,16.4s,MS4.0
GTA                                LR   LR
      comp=Z,186nm,15.2s,MS4.0
EGAK  Eagle             39.08  38 eP    P     20 23 03.5 -1.4
      comp=Z,22nm,0.9s,mb4.9
DAWY  Dawson            39.93  39 eP    P     20 23 11.5 -0.3
CD2   Chengdu           40.60 265  P    P     20 23 19.0 +1.2
CD2                                AMB  AMB
      comp=Z,30nm,0.6s,mb5.1
INK   Inuvik            41.70  32 eP    P     20 23 26.2 -0.2
      comp=Z,583nm,0.9s
INK   Inuvik            41.70  32  P    P     20 23 26.6 +0.2
INK                                pmax  pmax
      comp=Z,14nm,0.8s
INK   Inuvik            41.70  32  P    P     20 23 26.6 +0.2
      comp=Z,14nm,0.8s,mb4.7,baz=289,slow=7.1,SNR=46
ZALV  Zalesovo Beam     42.30 306  P    P     20 23 31.6 +0.1
      comp=Z,0.7nm,0.4s,mb3.6,baz=57,slow=7.0,SNR=7.0
ZALV                               PcP  PcP   20 25 24.1 -0.1
      comp=Z,1.6nm,0.6s,baz=83,slow=3.4,SNR=8.7
ZALV                               LR   LR    20 42 34.4
      comp=Z,158nm,18.0s,MS3.9,baz=266,slow=38
ZAL   Zalesovo          42.31 306  P    P     20 23 31.6  0.0
ZAL                                           20 25 24.1
QIZ   Qiongzhong        44.63 246 eP    P     20 23 51.7 +1.1
QIZ                                S    S     20 30 21.9 -1.0
QIZ                                AMB  AMB
      comp=Z,19nm,1.8s,mb4.6
QIZ                                LR   LR
      comp=E,94nm,23.9s
QIZ                                LR   LR
      comp=Z,82nm,24.6s,MS3.6
MK31  Makanchi Array    46.62 297 eP    P     20 24 05.1 -0.9
MKAR  Makanchi Array    46.62 297  P    P     20 24 06.0  0.0
MKAR                                          20 25 39.1
MKAR                               pmax  pmax
      comp=Z,1.0nm,0.6s
MKAR                               pmax  pmax
      comp=Z,1.0nm,0.5s
MKAR                               MLR  MLR
      comp=Z,230nm,18.6s
MKAR  Makanchi Array    46.62 297  P    P     20 24 06.0  0.0
      comp=Z,0.6nm,0.6s,mb3.7,baz=67,slow=7.6,SNR=12
MKAR                               PcP  PcP   20 25 39.0 -0.1
      comp=Z,0.7nm,0.5s,baz=73,slow=1.5,SNR=7.3
MKAR                               LR   LR    20 45 07.7
      comp=Z,230nm,18.6s,MS4.2,baz=242,slow=38
KURK  Kurchatov         47.05 303 eP    P     20 24 07.8 -1.5
      comp=Z,2.2nm,0.8s,mb4.1
KURK  Kurchatov         47.05 303 eP    P     20 24 07.8 -1.5
KURK                               pmax  pmax
      comp=Z,2.0nm,0.8s,mb4.1
LSA   Lhasa             49.97 273 eP    P     20 24 34.3 +2.2
      comp=Z,5.0nm,0.7s,mb4.7
LSA   Lhasa             49.97 273 eP    P     20 24 34.3 +2.2
LSA                                pmax  pmax
      comp=Z,5.0nm,0.7s,mb4.7
YKA   Yellowknife Ar    50.99  37  P    P     20 24 38.9 -0.4
YKA                                           20 25 54.0
YKA                                pmax  pmax
      comp=Z,5.0nm,0.9s
YKA                                pmax  pmax
      comp=Z,1.0nm,0.5s
YKA                                MLR  MLR
      comp=Z,53nm,20.8s
YKA   Yellowknife Ar    50.99  37  P    P     20 24 38.9 -0.4
      comp=Z,4.6nm,0.8s,mb4.4,baz=297,slow=7.2,SNR=42
YKA                                PcP  PcP   20 25 54.0 -0.6
      comp=Z,1.2nm,0.5s,baz=304,slow=3.7,SNR=9.0
YKA                                LR   LR    20 47 52.6
      comp=Z,53nm,20.8s,MS3.5,baz=130,slow=38
C03A  Quillayute Air    53.35  56 ⇑P    P     20 24 57.0 -0.1
      baz=53
AAK   Ala-Archa         53.51 296 i P   P     20 24 58.8 +0.5
AAK                                pmax  pmax
      comp=Z,3.0nm,1.2s,mb4.1
TAPN  Taplejung         53.80 273 eP    P     20 25 02.7 +2.1
      comp=Z,11nm,0.8s,mb4.8
A04A  Legoe Bay, Lum    53.99  55 ⇑P    P     20 25 01.7  0.0
      baz=54
NLWA  Neilton Lookou    54.05  56 ⇑P    P     20 25 02.8 +0.7
      baz=54
A05A  Maple Falls       54.19  54 ⇑P    P     20 25 02.5 -0.6
      baz=54
D03A  Wishkah Elem.     54.26  57 ⇓P    P     20 25 03.4 -0.3
      baz=54
ODAN  Odare             54.33 273 eP    P     20 25 06.6 +2.1
C04A  Brinnon           54.39  56 ⇓P    P     20 25 04.3 -0.3
      baz=54
A06A  Chilliwack        54.47  54 ⇑P    P     20 25 04.9 -0.3
      baz=54
B05A  Bryant            54.58  55 ⇓P    P     20 25 05.4 -0.6
      baz=54
JIRN  Jiri              54.64 274 eP    P     20 25 08.3 +1.6
      comp=Z,13nm,0.5s,mb5.2
E03A  Lebam             54.69  57 ⇓P    P     20 25 06.9 +0.1
      baz=54
GUN   Gumba             54.70 275 eP    P     20 25 08.9 +1.8
      comp=Z,9.5nm,0.5s,mb5.1
ARU   Arti              54.72 317 eP    P     20 25 07.1 +0.3
ARU                               e     pP    20 25 23.6 +2.3
ARU                               e           20 26 04.9
ARU                               e           20 27 09.6
ARU                               eS    S     20 32 44.9 +2.0
ARU                               eSS   SS    20 36 28.3 +2.6
B06A  Marblemount       54.78  54 ⇓P    P     20 25 06.9 -0.5
      baz=55
A07A  Ashnola River,    55.10  53 ⇑P    P     20 25 09.3 -0.5
      baz=55
C05A  Tolt Reservoir    55.12  55 ⇑P    P     20 25 09.8 -0.1
      baz=55
KKN   Kakani            55.18 275 eP    P     20 25 12.4 +1.8
      comp=Z,13nm,0.6s,mb5.1
D05A  Enumclaw          55.23  56 ⇑P    P     20 25 10.3 -0.4
      baz=55
DMN   Daman             55.41 275 eP    P     20 25 13.7 +1.4
      comp=Z,36nm,0.9s,mb5.4
C06A  Tall Timber Ra    55.44  55 ⇓P    P     20 25 11.4 -0.8
      baz=55
H02A  Toledo            55.47  59 ⇑P    P     20 25 12.5  0.0
      baz=55
GKN   Gorkha            55.49 276 eP    P     20 25 14.9 +2.1
      comp=Z,22nm,0.9s,mb5.2
G03A  Yamhill           55.53  58 ⇑P    P     20 25 11.8 -1.1
      baz=55
FMW   Mount Fremont     55.56  56  P    P     20 25 12.9 -0.1
B07A  Winthrop          55.57  54  P    P     20 25 12.9 -0.2
      baz=55,SNR=5.2
NLW   Nelson Butte      55.67  54  P    P     20 25 13.7 -0.1
F04A  Amboy             55.69  57 ⇓P    P     20 25 13.3 -0.7
      baz=56
E05A  Randle            55.71  56 ⇓P    P     20 25 14.1  0.0
      baz=56
A08A  Turner Farm, O    55.76  53  P    P     20 25 14.3 -0.2
      baz=56,SNR=8.0
D06A  Cle Elum          55.88  55 ⇑P    P     20 25 15.3  0.0
      baz=56
I02A  Mapleton          55.95  60 ⇓P    P     20 25 15.7 -0.2
      baz=56
C07A  Waterville        56.04  54  P    P     20 25 15.7 -0.8
      baz=56,SNR=8.1
B08A  Colville Reser    56.06  53  P    P     20 25 16.4 -0.3
      baz=56,SNR=6.4
WTV   Waterville        56.09  54  P    P     20 25 16.1 -0.8
A09A  Danville          56.13  53  P    P     20 25 16.8 -0.3
      baz=56,SNR=9.8
E06A  Yakima            56.17  56 ⇑P    P     20 25 16.8 -0.6
      baz=56
EBG   Ellensburg        56.20  55  P    P     20 25 17.6 +0.1
F05A  White Salmon      56.27  57 ⇑P    P     20 25 18.6 +0.4
      baz=56
I03A  Eugene            56.30  60  P    P     20 25 19.3 +0.9
      baz=56,SNR=5.4
KOLN  Koldanda          56.34 276 eP    P     20 25 20.1 +1.2
      comp=Z,25nm,1.1s,mb5.2
D07A  Quincy            56.37  55 ⇑P    P     20 25 17.6 -1.3
      baz=56
EDM   Edmonton          56.44  46 eP    P     20 25 18.4 -0.8
J02A  Umpqua            56.47  60  P    P     20 25 20.4 +0.8
      baz=56,SNR=13
EPH   Ephrata           56.49  55  P    P     20 25 19.1 -0.6
H04A  Detroit Lake      56.53  58  P    P     20 25 20.0  0.0
      baz=56,SNR=14
C08A  Higginbotham F    56.55  54  P    P     20 25 19.6 -0.5
      baz=56,SNR=7.8
BROR  Big Rock Looko    56.62  59  P    P     20 25 21.1 +0.4
B09A  Rice              56.68  53 ⇑P    P     20 25 19.5 -1.5
      baz=56
A10A  Northport         56.68  52 ⇑P    P     20 25 20.5 -0.5
      baz=56
G05A  Wamic             56.72  57  P    P     20 25 21.9 +0.6
      baz=56,SNR=5.6
F06A  Goldendale        56.73  57 ⇑P    P     20 25 21.5 +0.1
      baz=56
E07A  Sunnyside         56.80  55 ⇑P    P     20 25 21.4 -0.5
      baz=57
J03A  Ideyld Park       56.83  60  P    P     20 25 23.1 +1.0
      baz=57,SNR=5.3
FRIS  Frissel Point     56.85  59  P    P     20 25 22.9 +0.6
K02A  Glendale          56.87  61 ⇑P    P     20 25 22.4  0.0
      baz=57
IRO   Indian Ridge      56.88  59  P    P     20 25 22.9 +0.3
I04A  Tendick Farm,     56.91  59  P    P     20 25 22.9 +0.1
      baz=57,SNR=10
OD2   Odessa Site #2    56.96  54  P    P     20 25 22.2 -0.8
C09A  Chrisman Ranch    56.97  54 ⇑P    P     20 25 22.6 -0.4
      baz=57
D08A  Wollman Farm,     57.04  55 ⇑P    P     20 25 22.7 -0.8
      baz=57
CROR  Criterion Ridg    57.06  58  P    P     20 25 23.8  0.0
HAWA  Hanford           57.08  55 eP    P     20 25 23.6 -0.2
      comp=Z,9.4nm,1.0s,mb4.8
H05A  Madras            57.11  58 ⇑P    P     20 25 23.4 -0.8
      baz=57
G06A  Carlson Farm,     57.12  57 ⇓P    P     20 25 23.7 -0.4
      baz=57
F07A  Phinny Hill Vi    57.14  56 ⇓P    P     20 25 24.8 +0.5
      baz=57
L02A  Cave Junction     57.15  62 ⇑P    P     20 25 25.2 +0.7
      baz=57
HUMO  Hull Mountain     57.28  61 ⇑P    P     20 25 25.4  0.0
      baz=57
E08A  Dider Farm, El    57.28  55 ⇓P    P     20 25 24.9 -0.4
      baz=57
A11A  Hall Mountain,    57.34  52 ⇓P    P     20 25 26.2 +0.6
      baz=57
I05A  Bend              57.37  58 ⇑P    P     20 25 26.6 +0.6
      baz=57
D09A  Jones Farm, Ri    57.38  54 ⇓P    P     20 25 24.5 -1.4
      baz=57
J04A  Umpqua Nationa    57.41  60  P    P     20 25 27.2 +1.0
      baz=57,SNR=7.8
C10A  Spilker Farm,     57.49  53 ⇓P    P     20 25 26.0 -0.8
      baz=57
VIPM  Ingram Point      57.55  58  P    P     20 25 27.5 +0.3
H06A  Lindquist Farm    57.58  57  P    P     20 25 27.3 -0.1
      baz=57,SNR=11
ARCES ARCESS Array B    57.63 341  P    P     20 25 26.7 -0.7
ARCES                              pmax  pmax
      comp=Z,5.0nm,1.0s
ARCES                              MLR  MLR
      comp=Z,206nm,18.1s
ARCES ARCESS Array B    57.63 341  P    P     20 25 26.7 -0.7
      comp=Z,4.5nm,1.0s,mb4.5,baz=27,slow=8.2,SNR=5.5
ARCES                              LR   LR    20 55 35.8
      comp=Z,206nm,18.1s,MS4.3,baz=16,slow=42
B11A  Sandpoint         57.64  52  P    P     20 25 27.8  0.0
      baz=57,SNR=7.1
G07A  Ruggs Ranch, H    57.65  57  P    P     20 25 28.1 +0.1
      baz=57,SNR=6.5
A12A  Yaak River Ran    57.73  51 ⇓P    P     20 25 29.1 +0.6
      baz=58
E09A  Wood Farm, Sta    57.78  55  P    P     20 25 28.5 -0.4
      baz=58,SNR=15
F08A  Pendleton         57.85  56 ⇑P    P     20 25 29.3  0.0
      baz=58
J05A  Fort Rock         57.90  59  P    P     20 25 30.3 +0.6
      baz=58,SNR=12
YBH   Yreka Blue Hor    57.94  62 ⇑P    P     20 25 29.6 -0.5
      baz=58
D10A  Wagner Farm, O    57.95  54  P    P     20 25 29.5 -0.5
      baz=58,SNR=7.3
G08A  Pilot Rock        58.04  56 ⇓P    P     20 25 30.4 -0.3
      baz=58
M02C  Callahan          58.06  62 ⇓P    P     20 25 31.4 +0.6
      baz=58
H07A  Lands Inn, Kim    58.11  57 ⇑P    P     20 25 31.3 +0.2
      baz=58
I06A  Prineville        58.12  58  P    P     20 25 31.9 +0.7
      baz=58,SNR=9.9
L04A  Klamath Falls     58.17  61 ⇑P    P     20 25 31.5 -0.1
      baz=58
E10A  Myers Farm, Un    58.38  54  P    P     20 25 32.9 -0.1
      baz=58,SNR=5.3
A13A  Flathead Natio    58.39  51 ⇓P    P     20 25 32.8 -0.2
      baz=58
F09A  S2 Ranch, Elgi    58.39  55 ⇑P    P     20 25 34.2 +1.1
      baz=58
M04C  Macdoel           58.44  61  P    P     20 25 34.1 +0.6
      baz=58,SNR=5.2
K05A  Summer Lake       58.44  60  P    P     20 25 34.3 +0.8
      baz=58,SNR=9.8
I07A  Izee              58.45  58  P    P     20 25 33.9 +0.4
      baz=58,SNR=9.6
D11A  Klaveano Farm,    58.48  53 ⇓P    P     20 25 33.1 -0.6
      baz=58
J06A  Christmas Vall    58.56  59  P    P     20 25 34.5 +0.2
      baz=58,SNR=10
M03C  McCloud           58.57  62 ⇑P    P     20 25 34.7 +0.3
      baz=58
WALA  Waterton Lakes    58.58  50 eP    P     20 25 33.8 -0.6
      comp=Z,18nm,0.9s,mb5.1
F10A  Beach Ranch, E    58.62  55 ⇓P    P     20 25 34.5 -0.2
      baz=58
H08A  Prairie City      58.67  57  P    P     20 25 35.5 +0.5
      baz=58,SNR=9.3
B13A  Whitefish         58.70  51  P    P     20 25 35.3 +0.1
      baz=58,SNR=10
WDC   Whiskeytown Da    58.73  63 ⇓P    P     20 25 35.9 +0.4
      baz=58
K06A  Valley Falls      58.77  59  P    P     20 25 36.3 +0.5
      baz=58,SNR=22
O02C  Red Bluff         58.82  63 ⇑P    P     20 25 36.3 +0.1
      baz=59
L05A  Lakeview          58.88  60  P    P     20 25 37.5 +1.0
      baz=59,SNR=9.2
P01C  Double 8 Ranch    58.91  64 ⇑P    P     20 25 36.7 -0.2
      baz=59
E11A  Bogner Ranch,     58.96  54 ⇑P    P     20 25 36.9 -0.2
      baz=59
J07A  Hines             58.98  58 ⇑P    P     20 25 38.5 +1.2
      baz=59
C13A  Hot Springs       59.06  52  P    P     20 25 37.7  0.0
      baz=59,SNR=5.5
I08A  Drewsey           59.09  57 ⇑P    P     20 25 38.2 +0.2
      baz=59
M05C  Lookout           59.10  61  P    P     20 25 38.5 +0.4
      baz=59,SNR=9.3
H09A  Durkee            59.16  56  P    P     20 25 38.8 +0.3
      baz=59,SNR=8.3
GASB  Alder Springs     59.18  64 ⇓P    P     20 25 39.5 +0.8
      baz=59
HATC  Hat Creek Radi    59.24  62 ⇓P    P     20 25 39.2 +0.1
      baz=59
BMO   Blue Mountains    59.25  56 eP    P     20 25 39.1  0.0
      comp=Z,7.2nm,0.9s,mb4.7
F11A  Grangeville       59.27  54 ⇓P    P     20 25 39.4 +0.2
      baz=59
MOD   Modoc             59.28  60 eP    P     20 25 39.2 -0.2
      comp=Z,6.7nm,0.9s,mb4.7
MOD   Modoc             59.28  60  P    P     20 25 39.7 +0.4
      baz=59,SNR=14
K07A  Rock Creek Ran    59.43  59  P    P     20 25 41.0 +0.6
      baz=59,SNR=8.0
C14A  Swan Lake         59.45  51 ⇑P    P     20 25 39.7 -0.7
      baz=59
D13A  Huson             59.47  52  P    P     20 25 40.5 -0.1
      baz=59,SNR=5.3
J08A  Circle Bar Ran    59.48  58  P    P     20 25 41.2 +0.6
      baz=59,SNR=6.7
G11A  Walters Elk Ra    59.50  55 ⇑P    P     20 25 41.1 +0.3
      baz=59
I09A  Lost Marbles R    59.53  57 ⇓P    P     20 25 41.6 +0.6
      baz=59
M06C  Likely Place G    59.60  61 ⇓P    P     20 25 42.3 +0.8
      baz=59
H10A  Noah's Angus R    59.72  56  P    P     20 25 42.1 -0.2
      baz=60,SNR=22
O04C  Chester           59.77  62 ⇑P    P     20 25 42.9 +0.2
      baz=60
L07A  Adell             59.78  60 ⇑P    P     20 25 43.9 +1.1
      baz=60
ELFS  Eagle Lake Fie    59.81  62  P    P     20 25 43.6 +0.7
      baz=60,SNR=7.1
MNRC  McLaughlin Nat    59.82  64 ⇑P    P     20 25 44.1 +1.0
      baz=60
F12A  Elk City          59.85  54 ⇓P    P     20 25 43.1 -0.1
      baz=60
K08A  Mann Creek Ran    59.85  58  P    P     20 25 43.3  0.0
      baz=60,SNR=17
J09A  Fry Pan Ranch,    59.90  57 ⇑P    P     20 25 43.9 +0.4
      baz=60
MSO   Missoula          59.92  52 eP    P     20 25 43.6  0.0
      comp=Z,12nm,1.1s,mb4.8
WVOR  Wild Horse Val    59.94  59 eP    P     20 25 44.0 +0.1
      comp=Z,14nm,0.9s,mb5.0
WVOR  Wild Horse Val    59.94  59 eP    P     20 25 44.0 +0.1
WVOR                               pmax  pmax
      comp=Z,14nm,0.9s,mb5.0
ORV   Oroville          59.99  63 ⇑P    P     20 25 43.2 -1.0
      baz=60
D14A  Greenough         60.00  52  P    P     20 25 44.0 -0.2
      baz=60,SNR=15
I10A  Payette           60.00  56 ⇑P    P     20 25 45.2 +1.0
      baz=60
E13A  Victor            60.02  53 ⇓P    P     20 25 44.7 +0.3
      baz=60
H11A  Donnelly          60.07  55  P    P     20 25 44.8  0.0
      baz=60,SNR=7.6
O05C  Quincy            60.09  62 ⇓P    P     20 25 44.2 -0.7
      baz=60
CHMT  Chamberlain Mo    60.24  52 eP    P     20 25 45.4 -0.4
L08A  Fields            60.26  59  P    P     20 25 46.5 +0.5
      baz=60,SNR=6.2
N06A  Buffalo Meadow    60.26  61  P    P     20 25 46.0 -0.1
      baz=60,SNR=10
K09A  Rome              60.31  58 ⇑P    P     20 25 46.5 +0.1
      baz=60
F13A  Darby             60.34  54  P    P     20 25 46.4 -0.2
      baz=60,SNR=8.1
E14A  Clinton           60.41  53  P    P     20 25 46.9 -0.1
      baz=60,SNR=7.7
J10A  Berg Farm, Mel    60.42  57 ⇑P    P     20 25 46.9 -0.2
      baz=60
BEKR  Beckwourth        60.49  62  P    P     20 25 47.5 -0.1
      baz=60,SNR=9.7
D15A  Lincoln           60.55  52 ⇑P    P     20 25 48.1 +0.1
      baz=60
I11A  Placerville       60.59  56 ⇑P    P     20 25 48.7 +0.5
      baz=60
O06A  Flanigan          60.63  61  P    P     20 25 48.5 -0.1
      baz=60,SNR=8.6
M08A  Happy Creek Ra    60.70  60 ⇓P    P     20 25 50.0 +0.9
      baz=60
K10A  MacKenzie Ranc    60.76  58  P    P     20 25 49.7 +0.2
      baz=60,SNR=11
N07B  Gerlach           60.76  60 ⇑P    P     20 25 49.1 -0.4
      baz=60
L09A  Wilkinson Ranc    60.77  59 ⇓P    P     20 25 49.7 +0.2
      baz=60
H12A  Diamond D Ranc    60.81  55 ⇓P    P     20 25 49.9 +0.2
      baz=61
G13A  Cobalt            60.83  54  P    P     20 25 49.5 -0.3
      baz=61,SNR=19
FFC   Flin Flon         60.83  40 eP    P     20 25 48.9 -0.8
      comp=Z,15nm,1.0s,mb5.1
FFC   Flin Flon         60.83  40 eP    P     20 25 48.9 -0.8
FFC                                pmax  pmax
      comp=Z,15nm,1.0s,mb5.1
F14A  Wisdom            60.85  53 ⇑P    P     20 25 50.2 +0.2
      baz=61
E15A  Deer Lodge        60.87  52  P    P     20 25 50.0 -0.1
      baz=61,SNR=11
LAVA  Lava Cap Winer    60.95  63 ⇓P    P     20 25 50.6 -0.2
      baz=61
MFID  Camas Ranch       60.97  56  P    P     20 25 51.0 +0.2
      baz=61,SNR=6.5
H13A  Challis           61.14  55  P    P     20 25 51.9 -0.1
      baz=61,SNR=16
G14A  Jackson           61.16  54 ⇓P    P     20 25 51.7 -0.5
      baz=61
O07A  Toulon            61.20  61  P    P     20 25 53.0 +0.5
      baz=61,SNR=5.9
WCN   Washoe City       61.20  62 ⇓P    P     20 25 52.7 +0.1
      baz=61
N08A  GE Springer Mi    61.26  60  P    P     20 25 53.0 +0.1
      baz=61,SNR=6.2
M09A  Marrel Ranch,     61.26  59 ⇓P    P     20 25 53.9 +1.0
      baz=61
FCC   Fort Churchill    61.31  33 eP    P     20 25 51.8 -1.2
      comp=Z,12nm,0.8s,mb5.1
FCC   Fort Churchill    61.31  33 eP    P     20 25 51.8 -1.1
FCC                                pmax  pmax
      comp=Z,12nm,0.8s,mb5.1
F15A  Butte             61.32  53  P    P     20 25 53.5 +0.3
      baz=61,SNR=21
R05C  Kirkwood Meado    61.38  63 ⇓P    P     20 25 53.9 +0.2
      baz=61
EGMT  Eagleton          61.40  49 eP    P     20 25 53.5 -0.2
      comp=Z,22nm,1.0s,mb5.2
EGMT  Eagleton          61.40  49 ⇑P    P     20 25 54.0 +0.3
      baz=61
L10A  Juniper Basin     61.43  58  P    P     20 25 54.1 +0.1
      baz=61,SNR=8.2
J12A  Stokes Ranch,     61.49  56  P    P     20 25 54.8 +0.4
      baz=61,SNR=12
N09A  Rock Creek Ran    61.58  60 ⇑P    P     20 25 55.7 +0.7
      baz=61
CMB   Columbia Colle    61.61  64 ⇓P    P     20 25 55.6 +0.3
      baz=61
I13A  Wildhorse Cree    61.62  55  P    P     20 25 55.9 +0.6
      baz=61,SNR=13
HLID  Hailey            61.68  56 eP    P     20 25 55.7 +0.1
      comp=Z,3.2nm,0.8s,mb4.5
HLID  Hailey            61.68  56  P    P     20 25 56.0 +0.4
      baz=61,SNR=7.2
PACP  Pacheco Peak      61.70  65 ⇑P    P     20 25 56.0 +0.1
      baz=62
M10A  I.L. Ranch, Tu    61.73  58  P    P     20 25 56.9 +0.8
      baz=62,SNR=8.6
G15A  Dillon            61.74  53  P    P     20 25 56.9 +0.8
      baz=62,SNR=7.8
L11A  Cat Creek Ranc    61.79  57  P    P     20 25 56.7 +0.3
      baz=62,SNR=16
R06C  Coleville         61.88  63 ⇑P    P     20 25 57.0 -0.1
      baz=62
BOZ   Bozeman (W)       61.91  52 ⇓P    P     20 25 57.5 +0.3
      baz=62
J13A  Cove Ranch, Pi    61.92  56  P    P     20 25 57.8 +0.5
      baz=62,SNR=8.5
HAST  UC Hastings Re    61.92  66 ⇓P    P     20 25 57.2 -0.2
      baz=62
K12A  Draper Farm, C    61.98  57 ⇑P    P     20 25 57.4 -0.3
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        baz=62
S06C  San Francisco   62.04  64  P       P        20 25 57.5 -0.6
        baz=62,SNR=7.8
S05C  Merced          62.08  64 ⇑P       P        20 25 58.2 -0.2
        baz=62
O09A  Fish Creek Ran  62.20  60 ⇓P       P        20 25 59.1 -0.1
        baz=62
L12A  House Creek Ra  62.23  57  P       P        20 25 59.5 +0.2
        baz=62,SNR=6.2
M11A  Holland Ranch,  62.23  58 ⇑P       P        20 25 59.5 +0.1
        baz=62
V03C  Hunter Liggett  62.35  66 ⇑P       P        20 25 59.9 -0.4
        baz=62
R07C  Lee Vining      62.40  63 ⇓P       P        20 26 01.6 +1.0
        baz=62
U04C  Hernandez Rese  62.42  65 ⇓P       P        20 26 01.9 +1.2
        baz=62
K13A  Stover Farm, H  62.44  56 ⇓P       P        20 26 00.9 +0.1
        baz=62
O10A  Cortez Mining,  62.53  60 ⇓P       P        20 26 03.7 +2.2
        baz=62
QLMT  Earthquake Lak  62.54  53 eP       P        20 26 01.6 +0.2
Q08A  Gabbs           62.59  62  P       P        20 26 01.8  0.0
        baz=62,SNR=6.2
NVAR  Mina Array Bea  62.63  62  P       P        20 26 02.3 +0.2
        comp=Z,3.9nm,0.8s,mb4.6,baz=298,slow=5.4,SNR=19
KCC   Kaiser Creek    62.72  64 ⇑P       P        20 26 03.2 +0.5
        baz=62
M12A  Wells           62.75  58  P       P        20 26 03.4 +0.6
        baz=62,SNR=8.1
L13A  Double Diamond  62.88  57  P       P        20 26 05.0 +1.3
        baz=63,SNR=5.4
P10A  Eureka          62.98  60 ⇑P       P        20 26 05.1 +0.7
        baz=63
K14A  Jones Ranch, D  63.02  56  P       P        20 26 05.2 +0.5
        baz=63,SNR=6.7
N12A  Clover Valley,  63.04  58 ⇓P       P        20 26 05.7 +0.9
        baz=63
Q09A  Carvers         63.05  61 ⇓P       P        20 26 05.7 +0.7
        baz=63
O11A  Cowboy Ranch,   63.13  59 ⇓P       P        20 26 06.1 +0.7
        baz=63
M13A  Montello        63.22  57 ⇑P       P        20 26 06.6 +0.6
        baz=63
S08C  White Mtn Res   63.31  63 ⇑P       P        20 26 07.2 +0.5
        baz=63
HELL  Mitchell Peak,  63.31  64  P       P        20 26 06.1 -0.5
        baz=63,SNR=10
IMW   Indian Meadow   63.41  53 eP       P        20 26 08.0 +0.8
        comp=Z,12nm,1.0s,mb5.0
P11A  Circle Ranch,   63.45  60 ⇑P       P        20 26 07.9 +0.4
        baz=63
R09A  Tonopah         63.50  62  P       P        20 26 07.5 -0.4
        baz=63,SNR=8.5
N13A  Wendover, West  63.52  58 ⇑P       P        20 26 08.0  0.0
        baz=63
RLMT  Red Lodge       63.52  52 eP       P        20 26 08.2 +0.4
        comp=Z,8.7nm,0.9s,mb4.8
O12A  Currie          63.58  59 ⇑P       P        20 26 09.4 +1.1
        baz=63
MOOW  Moose Ponds     63.61  53 eP       P        20 26 09.2 +0.7
        comp=Z,5.9nm,0.9s,mb4.6
TPAW  Teton Pass      63.66  54 eP       P        20 26 09.9 +1.0
        comp=Z,22nm,1.0s,mb5.1
S09A  Goldfield       63.74  62 ⇓P       P        20 26 10.4 +0.9
        baz=64
FINES FINESS Array B  63.80 335  P       P        20 26 08.3 -1.1
FINES                            LR      LR       20 55 29.5
FINES FINESS Array B  63.80 335 i P      P        20 26 08.8 -0.6
FINES                            pmax    pmax
        comp=Z,6.0nm,0.6s
FINES FINESS Array B  63.80 335  P       P        20 26 08.3 -1.1
        comp=Z,6.2nm,0.6s,mb4.8,baz=36,slow=7.0,SNR=51
FINES                            LR      LR       20 55 29.5
        comp=Z,108nm,19.0s,MS4.0,slow=37
REDW  Red Top Meadow  63.80  54 eP       P        20 26 10.5 +0.8
        comp=Z,14nm,0.9s,mb5.0
VES   Vestal, Richgr  63.81  65 ⇓P       P        20 26 09.1 -0.9
        baz=64
DGMT  Dagmar          63.93  46 eP       P        20 26 10.2 -0.4
        comp=Z,29nm,0.9s,mb5.3
R10A  Warm Springs    63.93  61 ⇓P       P        20 26 10.6 -0.1
        baz=64
PKM   Peak Mountain   63.96  66 ⇑P       P        20 26 11.2 +0.3
        baz=64
Q11A  Duckwater       63.96  60 ⇓P       P        20 26 10.8 -0.1
        baz=64
S10A  Tonopah Range,  63.99  62  P       P        20 26 10.8 -0.3
        baz=64,SNR=5.8
P12A  McGill          64.00  59 ⇓P       P        20 26 11.3 +0.2
        baz=64
CWC   Cottonwood Cre  64.04  64 ⇑P       P        20 26 11.6 +0.1
        baz=64
LAO   LASA Array      64.09  49 eP       P        20 26 12.0 +0.4
        comp=Z,21nm,0.9s,mb5.2
GRAC  Grapevine Rang  64.12  63 ⇓P       P        20 26 12.3 +0.4
        baz=64
SPUT  South Promonto  64.24  56 eP       P        20 26 12.8 +0.1
ISA   Isabella        64.30  65 ⇓P       P        20 26 12.4 -0.8
        baz=64
Q12A  Willow Creek R  64.33  60 ⇓P       P        20 26 13.8 +0.6
        baz=64
HWUT  Hardware Ranch  64.55  56 eP       P        20 26 14.4 -0.3
        comp=Z,9.2nm,0.9s,mb4.8
MPMC  Manual Prospec  64.65  64  P       P        20 26 15.4 -0.1
        baz=64,SNR=7.3
DUG   Dugway          64.75  58 eP       P        20 26 16.1 +0.1
        comp=Z,9.4nm,0.9s,mb4.8
DUG   Dugway          64.75  58 eP       P        20 26 16.1  0.0
DUG                              pmax    pmax
        comp=Z,9.0nm,0.9s,mb4.8
DUG   Dugway          64.75  58 ⇓P       P        20 26 17.0 +0.9
        baz=64
EDW2  Edwards Air Fo  65.11  65  P       P        20 26 18.0 -0.5
        baz=65,SNR=8.3
U10A  Ash Meadows, A  65.13  63 ⇓P       P        20 26 18.8 +0.2
        baz=65
NLU   North Lily Min  65.34  57 eP       P        20 26 19.7 -0.1
DAU   Daniels Canyon  65.51  57 eP       P        20 26 21.4 +0.5
GSC   Goldstone       65.57  64 ⇓P       P        20 26 21.1 -0.3
        baz=65
BFSC  Mount Baldy St  65.74  65 ⇑P       P        20 26 22.7 +0.2
        baz=66
CIS   Catalina Islan  65.82  66 ⇓P       P        20 26 22.4 -0.6
        baz=66
TUQ   Turquoise Mtn.  66.02  63 ⇑P       P        20 26 25.1 +0.7
        baz=66
U12A  Valley of Fire  66.21  62 ⇑P       P        20 26 25.5  0.0
        baz=66
MURC  Murrieta        66.45  66 ⇓P       P        20 26 26.7 -0.3
        baz=66
V12A  Nelson          66.49  62 ⇓P       P        20 26 27.7 +0.4
        baz=66
ULM   Lac du Bonnet   66.61  41  P       P        20 26 26.2 -1.7
        comp=Z,2.9nm,0.8s,mb4.4,baz=295,slow=5.7,SNR=7.0
ULM                              LR      LR       20 54 59.0
        comp=Z,70nm,18.5s,MS3.9,baz=315,slow=35
SRU   San Rafael      66.80  57 eP       P        20 26 28.7 -0.5
        comp=Z,13nm,0.9s,mb5.0
SRU   San Rafael      66.80  57 eP       P        20 26 28.7 -0.5
SRU                              pmax    pmax
        comp=Z,13nm,0.9s,mb5.0
IRM   Iron Mountain   67.34  64  P       P        20 26 32.3 -0.5
        baz=67,SNR=5.9
MONP  Monument Peak   67.41  66 ⇑P       P        20 26 32.3 -0.9
        baz=67
W13A  Hualapai Mount  67.49  62 ⇓P       P        20 26 33.6 -0.1
        baz=67
BC3   Big Chuckw Mtn  67.50  64 ⇑P       P        20 26 33.5 -0.3
        baz=67
DVTC  Desert V Tower  67.76  66 ⇑P       P        20 26 34.6 -0.8
        baz=68
X13A  Yucca           67.86  63 ⇑P       P        20 26 35.7 -0.3
        baz=68
PDMCI Parker Dam,Lak  67.87  63 ⇑P       P        20 26 36.8 +0.7
        baz=68
W14A  Seligman        67.90  62  P       P        20 26 36.2  0.0
        baz=68,SNR=7.5
Y12C  Blythe          68.00  64 ⇓P       P        20 26 37.1 +0.1
        baz=68
NB2   NORSAR Subarra  68.01 341  P       P        20 26 35.8 -0.7
        comp=Z,4.6nm,0.6s,mb4.7,baz=28,slow=6.2
NOA   NORSAR Array B  68.01 341  P       P        20 26 35.5 -1.0
NOA                              pmax    pmax
        comp=Z,6.0nm,0.5s
NOA                              MLR     MLR
        comp=Z,102nm,18.9s
NOA   NORSAR Array B  68.01 341  P       P        20 26 35.5 -1.0
        comp=Z,6.2nm,0.5s,mb4.9,baz=28,slow=6.4,SNR=26
NOA                              LR      LR       20 59 21.0
        comp=Z,102nm,18.9s,MS4.1,baz=20,slow=38
NAO01 NORSAR Array S  68.26 341 eP       P        20 26 38.3 +0.2
X14A  Yava            68.52  62 ⇓P       P        20 26 40.9 +0.8
        baz=68
WRA   Warramunga Arr  68.54 199  P       P        20 26 38.7 -1.5
WRA                              pmax    pmax
        comp=Z,1.0nm,0.8s
WRA   Warramunga Arr  68.54 199  P       P        20 26 38.7 -1.5
        comp=Z,1.1nm,0.8s,mb3.8,baz=19,slow=6.9,SNR=11
WUAZ  Wupatki         68.72  61 ⇓P       P        20 26 42.1 +0.7
        baz=68
SMCO  Snowmass        68.77  55 eP       P        20 26 41.5 -0.1
        comp=Z,9.8nm,1.0s,mb4.7
Y14A  Wickenburg      68.81  63 ⇓P       P        20 26 42.2 +0.2
        baz=69
X15A  Humboldt        68.90  62 ⇓P       P        20 26 43.0 +0.5
        baz=69
ISCO  Idaho Springs   69.10  54 eP       P        20 26 44.1 +0.4
        comp=Z,9.6nm,1.1s,mb4.6
ISCO  Idaho Springs   69.10  54 eP       P        20 26 44.1 +0.4
ISCO                             pmax    pmax
        comp=Z,10.0nm,1.1s,mb4.7
MVCO  Mesa Verde      69.26  58 ⇓P       P        20 26 45.4 +0.7
        baz=69
KIV   Kislovodsk      70.50 314 eP       P        20 26 55.3 +3.1
KIV                              pmax    pmax
        comp=Z,4.0nm,0.9s,mb4.3
KIV                              MLR     MLR
        comp=Z,106nm,19.0s,MS4.1
AKASG Malin Array Be  71.27 326  P       P        20 26 56.0 -0.8
AKASG                            pmax    pmax
        comp=Z,7.0nm,0.5s
AKASG                            MLR     MLR
        comp=Z,86nm,20.3s
AKASG Malin Array Be  71.27 326  P       P        20 26 56.0 -0.7
        comp=Z,6.5nm,0.5s,mb4.9,baz=34,slow=6.4,SNR=46
AKASG                            LR      LR       20 59 42.5
        comp=Z,86nm,20.3s,MS4.0,baz=355,slow=37
TUC   Tucson          71.28  63 eP       P        20 26 56.5 -0.6
KIEV  Kiev            71.28 326 eP       P        20 26 56.0 -0.9
        comp=Z,7.5nm,0.6s,mb4.8
KIEV  Kiev            71.28 326 eP       P        20 26 56.0 -0.8
KIEV                             pmax    pmax
        comp=Z,7.0nm,0.6s,mb4.8
SCIA  State Center    74.03  45 eP       P        20 27 12.4 -0.9
        comp=Z,28nm,0.8s,mb5.2
STHS  Stebnicka Huta  75.25 330 eP       P        20 27 20.6 +0.4
        comp=Z,4.8nm,0.8s,mb4.5
STHS  Stebnicka Huta  75.25 330 eP       P        20 27 20.6 +0.4
STHS                             pmax    pmax
        comp=Z,5.0nm,0.8s,mb4.5
BURAR Bucovina Array  75.32 326 ⇑P       P        20 27 20.4 -0.2
OKC   Ostrava-Krasne  75.94 332 eP       P        20 27 24.5 +0.4
DPC   Dobruska-Polom  76.07 333 eP       P        20 27 25.0 +0.1
MORC  Moravsky Berou  76.19 332 ⇑P       P        20 27 25.7 +0.2
CLL   Collm           76.22 335⇓iP       P        20 27 24.5 -1.2
CLL                             i        pP       20 27 34.5 -6.4
CLL                             i        pP       20 27 39.1 -1.8
CLL                              pmax    pmax
        comp=Z,15nm,1.2s,mb4.8
CLL   Collm           76.22 335 eP       P        20 27 24.7 -1.0
        comp=Z,15nm,1.2s,mb4.8
KECS  Kecovo          76.31 330 eP       P        20 27 26.2 -0.1
        comp=Z,2.6nm,1.0s,mb4.1
KECS  Kecovo          76.31 330 eP       P        20 27 26.2 -0.1
KECS                             pmax    pmax
        comp=Z,3.0nm,1.0s,mb4.2
BRG   Berggiesshubel  76.34 335 eP       P        20 27 27.1 +0.7
BRG                              pmax    pmax
        comp=Z,5.0nm,1.3s,mb4.3
CLZ   Clausthal       76.47 337 eP       P        20 27 27.1  0.0
CLZ                              pmax    pmax
        comp=Z,18nm,1.4s,mb4.8
CLZ   Clausthal       76.47 337 eP       P        20 27 27.1  0.0
        comp=Z,18nm,1.4s,mb4.8
MLR   Muntele Rosu    76.79 325 ⇑P       P        20 27 29.9 +0.8
MALT  Malatya         76.85 313 ⇑P       P        20 27 31.8 +2.2
VYHS  Vyhne           76.87 330 eP       P        20 27 29.3 -0.1
        comp=Z,2.9nm,0.9s,mb4.2
VYHS  Vyhne           76.87 330 eP       P        20 27 29.3 -0.1
VYHS                             pmax    pmax
        comp=Z,3.0nm,0.9s,mb4.2
PRU   Pruhonice       76.94 334 eP       P        20 27 29.7 -0.1
VOIR                  77.19 325 ⇓P       P        20 27 31.6 +0.3
MOX   Moxa            77.21 336 eP       P        20 27 31.0 -0.3
        comp=Z,10.0nm,1.2s,mb4.6
TXAR  Lajitas Array   77.69  60  P       P        20 27 33.8 -0.5
TXAR                             pmax    pmax
        comp=Z,5.0nm,0.7s
TXAR  Lajitas Array   77.69  60  P       P        20 27 33.8 -0.6
        comp=Z,4.9nm,0.7s,mb4.5,baz=298,slow=4.3,SNR=48
ZST   Bratislava      77.70 331 eP       P        20 27 35.0 +0.9
        comp=Z,5.4nm,0.7s,mb4.6
ZST   Bratislava      77.70 331 eP       P        20 27 35.0 +0.9
ZST                              pmax    pmax
        comp=Z,5.0nm,0.7s,mb4.5
KHC   Kasperske Hory  77.99 334 eP       P        20 27 35.6 -0.1
KHC                             epP      pP       20 27 40.0  -11
BRTR  Keskin Array B  78.09 316  P       P        20 27 35.2 -1.2
BRTR                             pmax    pmax
        comp=Z,3.0nm,0.9s
BRTR  Keskin Array B  78.09 316  P       P        20 27 35.1 -1.3
        comp=Z,2.6nm,0.9s,mb4.2,baz=44,slow=5.5,SNR=13
GZR   Gura Zlata      78.10 326 ⇑P       P        20 27 36.0 -0.4
GRA1  Grafenberg Arr  78.18 336 eP       P        20 27 36.6 -0.1
        comp=Z,11nm,1.0s,mb4.7
GRF   Grafenberg Arr  78.18 336 eP       P        20 27 36.6 -0.1
GRF                              pmax    pmax
        comp=Z,11nm,1.0s,mb4.7
GRF   Grafenberg Arr  78.18 336 eP       P        20 27 36.6 -0.1
GRF                              pmax    pmax
        comp=Z,11nm,1.0s,mb4.7
GRF   Grafenberg Arr  78.18 336 eP       P        20 27 36.6 -0.1
        comp=Z,11nm,1.0s,mb4.7
WET   Wettzell        78.19 334 eP       P        20 27 36.6 -0.2
WET                              pmax    pmax
        comp=Z,8.0nm,1.1s,mb4.6
WET   Wettzell        78.19 334 eP       P        20 27 36.6 -0.2
        comp=Z,8.0nm,1.1s,mb4.6
GERES GERESS Array B  78.21 334  P       P        20 27 36.6 -0.3
GERES                            pmax    pmax
        comp=Z,1.0nm,0.5s
GERES                            MLR     MLR
        comp=Z,99nm,20.8s
GERES GERESS Array B  78.21 334  P       P        20 27 36.6 -0.3
        comp=Z,0.9nm,0.5s,mb3.9,baz=34,slow=5.0,SNR=10
GERES                            LR      LR       21 04 48.1
        comp=Z,99nm,20.8s,MS4.1,baz=7.7,slow=38
MIB   Mutribah        78.34 301 eP       P        20 27 37.9 -0.1
MIB                              AMb     AMB      20 27 40.4
        comp=Z,33nm,0.7s,mb5.4
BZS   Buzias          78.34 327 ⇓P       P        20 27 37.1 -0.6
TNS   Taunus Mts      78.46 337 eP       P        20 27 38.2  0.0
TNS                              pmax    pmax
        comp=Z,9.0nm,1.1s,mb4.6
TNS   Taunus Mts      78.46 337 eP       P        20 27 38.2  0.0
        comp=Z,9.0nm,1.1s,mb4.6
RST   Umm Al-Ruwaisa  78.77 301 eP       P        20 27 39.9 -0.5
RST                              AMb     AMB      20 27 42.1
        comp=Z,29nm,0.7s,mb5.3
NAY   Al-Naaiem       78.81 301 eP       P        20 27 39.9 -0.7
NAY                              AMb     AMB      20 27 43.1
        comp=Z,14nm,1.1s,mb4.8
RDF   Al-Radifah      78.86 300 eP       P        20 27 40.5 -0.4
RDF                              AMb     AMB      20 27 44.2
        comp=Z,34nm,1.1s,mb5.2
STKA  Stephens Creek  79.03 190  LR      LR       21 01 26.1
        comp=Z,75nm,19.4s,MS4.0,baz=25,slow=35
BAIF  Baives          79.66 340 eP       P        20 27 43.6 -1.2
ACSO  Alum Creek Sta  80.10  40 eP       P        20 27 46.4 -1.1
        comp=Z,4.6nm,0.5s,mb4.7
BFO   Black Forest    80.22 337 eP       P        20 27 47.7 -0.2
BFO                              pmax    pmax
        comp=Z,11nm,1.4s,mb4.6
BFO   Black Forest    80.22 337 eP       P        20 27 47.7 -0.2
        comp=Z,11nm,1.4s,mb4.6
VTS   Vitosha         80.29 325 ⇑P       P        20 27 48.1 -0.3
CDF   Champ du Feu    80.42 337 eP       P        20 27 48.9 -0.1
        comp=Z,7.9nm,1.1s,mb4.6
CDF   Champ du Feu    80.42 337 eP       P        20 27 48.9 -0.1
CDF                              pmax    pmax
        comp=Z,8.0nm,1.1s,mb4.6
CDF   Champ du Feu    80.42 337 eP       P        20 27 48.9 -0.1
        comp=Z,16nm,1.1s,mb4.6
MEZF  Maizieres J'vi  80.91 339 eP       P        20 27 51.5 -0.1
HAU   Haudompre       81.04 338 eP       P        20 27 50.9 -1.4
        comp=Z,6.1nm,0.9s,mb4.5
HAU                              LR      LR
        comp=Z,150nm,21.8s,MS4.3
HAU   Haudompre       81.04 338 eP       P        20 27 50.9 -1.4
HAU                              pmax    pmax
        comp=Z,6.0nm,0.9s,mb4.5
HAU                              MLR     MLR
        comp=Z,150nm,21.8s,MS4.3
HAU   Haudompre       81.04 338 eP       P        20 27 50.9 -1.4
        comp=Z,12nm,0.9s,mb4.5
HAU                             eMLR     MLR
        comp=Z,153nm,21.8s,MS4.0
HINF  Hinteralfeld    81.08 337 eP       P        20 27 52.0 -0.5
PMOR  Pomariorio Ree  81.37 123 eT                21 57 11.1
        comp=Z,23nm,0.2s
FLN   La Foliniere    81.92 342 eP       P        20 27 55.7 -1.2
FLN                              LR      LR
        comp=Z,150nm,17.8s,MS4.4
FLN   La Foliniere    81.92 342 eP       P        20 27 55.7 -1.2
FLN                             eMLR     MLR
        comp=Z,148nm,17.8s,MS4.1
LDF   La Druitiere    82.01 342 eP       P        20 27 56.8 -0.6
LOR   Lormes          82.35 339 eP       P        20 27 58.7 -0.5
        comp=Z,7.7nm,1.1s,mb4.5
LOR                              LR      LR
        comp=Z,170nm,19.3s,MS4.4
LOR   Lormes          82.35 339 eP       P        20 27 58.7 -0.5
LOR                              pmax    pmax
        comp=Z,8.0nm,1.1s,mb4.6
LOR                              MLR     MLR
        comp=Z,170nm,19.3s,MS4.4
LOR   Lormes          82.35 339 eP       P        20 27 58.7 -0.5
        comp=Z,15nm,1.1s,mb4.6
LOR                             eMLR     MLR
        comp=Z,168nm,19.2s,MS4.1
GRR   Gorron          82.35 343 eP       P        20 27 58.1 -1.1
        comp=Z,7.6nm,1.1s,mb4.5
GRR   Gorron          82.35 343 eP       P        20 27 58.1 -1.1
GRR                              pmax    pmax
        comp=Z,8.0nm,1.1s,mb4.6
GRR   Gorron          82.35 343 eP       P        20 27 58.1 -1.1
        comp=Z,15nm,1.1s,mb4.5
CABF  La Chapelle     82.40 337 eP       P        20 27 57.4 -2.0
        comp=Z,28nm,1.5s,mb5.0
CABF  La Chapelle     82.40 337 eP       P        20 27 57.4 -2.0
CABF                             pmax    pmax
        comp=Z,28nm,1.5s,mb5.0
CABF  La Chapelle     82.40 337 eP       P        20 27 57.4 -2.0
        comp=Z,55nm,1.5s,mb5.0
PPT   Papeete         82.47 126 eLR      LR       20 53 21.7
        comp=Z,140nm,25.0s
PPT   Papeete         82.47 126  LR      LR       21 03 14.9
        comp=Z,263nm,19.2s,MS4.6,baz=180,slow=35
SSF   Saint Saulge    82.63 339 eP       P        20 27 59.3 -1.4
        comp=Z,4.4nm,0.8s,mb4.5
SSF   Saint Saulge    82.63 339 eP       P        20 27 59.3 -1.4
SSF                              pmax    pmax
        comp=Z,4.0nm,0.8s,mb4.5
SSF   Saint Saulge    82.63 339 eP       P        20 27 59.3 -1.4
        comp=Z,8.8nm,0.8s,mb4.5
SWET  Sewanee         82.81  45 eP       P        20 28 00.0 -1.8
SGMF  Saint Gilles    82.82 344 eP       P        20 28 00.3 -1.3
        comp=Z,13nm,1.1s,mb4.9
SGMF  Saint Gilles    82.82 344 eP       P        20 28 00.3 -1.3
SGMF                             pmax    pmax
        comp=Z,13nm,1.1s,mb4.9
SGMF  Saint Gilles    82.82 344 eP       P        20 28 00.3 -1.3
        comp=Z,25nm,1.1s,mb4.9
ROSF  Rostrenen       82.88 344 eP       P        20 28 00.8 -1.1
        comp=Z,5.3nm,0.9s,mb4.6
ROSF  Rostrenen       82.88 344 eP       P        20 28 00.8 -1.1
ROSF                             pmax    pmax
        comp=Z,5.0nm,0.9s,mb4.5
ROSF  Rostrenen       82.88 344 eP       P        20 28 00.8 -1.1
        comp=Z,10nm,0.9s,mb4.6
AVF   Avril sur Loir  82.92 339 eP       P        20 28 01.1 -1.1
        comp=Z,6.2nm,1.0s,mb4.6
AVF   Avril sur Loir  82.92 339 eP       P        20 28 01.1 -1.1
AVF                              pmax    pmax
        comp=Z,6.0nm,1.0s,mb4.6
AVF   Avril sur Loir  82.92 339 eP       P        20 28 01.1 -1.1
        comp=Z,12nm,1.0s,mb4.6
SMF   Signal de Mont  82.94 339 eP       P        20 28 02.2 -0.1
        comp=Z,17nm,1.1s,mb5.0
SMF   Signal de Mont  82.94 339 eP       P        20 28 02.2 -0.1
SMF                              pmax    pmax
        comp=Z,17nm,1.1s,mb5.0
SMF   Signal de Mont  82.94 339 eP       P        20 28 02.2 -0.1
        comp=Z,35nm,1.1s,mb5.0
LPL   La Plagne       83.23 337 eP       P        20 28 03.6 -0.2
        comp=Z,7.3nm,1.1s,mb4.6
LPL   La Plagne       83.23 337 eP       P        20 28 03.6 -0.2
LPL                              pmax    pmax
        comp=Z,7.0nm,1.1s,mb4.6
LPL   La Plagne       83.23 337 eP       P        20 28 03.6 -0.2
        comp=Z,15nm,1.1s,mb4.6
LPG   La Plagne       83.25 337 eP       P        20 28 03.7 -0.2
        comp=Z,5.3nm,1.0s,mb4.5
LPG   La Plagne       83.25 337 eP       P        20 28 03.7 -0.2
LPG                              pmax    pmax
        comp=Z,5.0nm,1.0s,mb4.5
LPG   La Plagne       83.25 337 eP       P        20 28 03.7 -0.2
        comp=Z,11nm,1.0s,mb4.5
BGF   Bois d'Agland   83.26 340 eP       P        20 28 03.0 -0.9
TCF   Toulx Ste Croi  83.67 340 eP       P        20 28 06.0  0.0
        comp=Z,7.6nm,1.2s,mb4.7
TCF   Toulx Ste Croi  83.67 340 eP       P        20 28 06.0  0.0
TCF                              pmax    pmax
        comp=Z,8.0nm,1.2s,mb4.7
TCF   Toulx Ste Croi  83.67 340 eP       P        20 28 06.0  0.0
        comp=Z,15nm,1.2s,mb4.7
MFF   Saint Martin d  83.90 342 eP       P        20 28 06.9 -0.3
        comp=Z,13nm,1.3s,mb4.9
MFF   Saint Martin d  83.90 342 eP       P        20 28 06.9 -0.3
MFF                              pmax    pmax
        comp=Z,13nm,1.3s,mb4.9
MFF   Saint Martin d  83.90 342 eP       P        20 28 06.9 -0.3
        comp=Z,26nm,1.3s,mb4.9
MBDF  Montbardon      83.95 336 eP       P        20 28 07.7 +0.2
        comp=Z,3.8nm,0.8s,mb4.6
MBDF  Montbardon      83.95 336 eP       P        20 28 07.7 +0.2
MBDF                             pmax    pmax
        comp=Z,4.0nm,0.8s,mb4.6
MBDF  Montbardon      83.95 336 eP       P        20 28 07.7 +0.2
        comp=Z,7.6nm,0.8s,mb4.6
ORIF  Oris-en-Rattie  84.02 337 eP       P        20 28 07.3 -0.5
        comp=Z,5.8nm,0.9s,mb4.7
ORIF  Oris-en-Rattie  84.02 337 eP       P        20 28 07.3 -0.5
ORIF                             pmax    pmax
        comp=Z,6.0nm,0.9s,mb4.7
ORIF  Oris-en-Rattie  84.02 337 eP       P        20 28 07.3 -0.5
        comp=Z,12nm,0.9s,mb4.7
ORIF                            eMLR     MLR
        comp=Z,139nm,17.2s,MS4.1
VIVF  Saint-Julien-l  84.39 338 eP       P        20 28 09.1 -0.7
        comp=Z,8.9nm,1.1s,mb4.8
VIVF  Saint-Julien-l  84.39 338 eP       P        20 28 09.1 -0.7
VIVF                             pmax    pmax
        comp=Z,9.0nm,1.1s,mb4.8
VIVF  Saint-Julien-l  84.39 338 eP       P        20 28 09.1 -0.7
        comp=Z,18nm,1.1s,mb4.8
SMRF  Simiane la Rot  84.97 337 eP       P        20 28 11.8 -0.9
LMR   La Mourre       85.31 336 eP       P        20 28 14.2 -0.2
        comp=Z,12nm,1.0s,mb5.0
LMR   La Mourre       85.31 336 eP       P        20 28 14.2 -0.2
LMR                              pmax    pmax
        comp=Z,12nm,1.0s,mb5.0
LMR   La Mourre       85.31 336 eP       P        20 28 14.2 -0.2
        comp=Z,23nm,1.0s,mb5.0
KEST  Kesra           91.41 331  LR      LR       21 13 44.0
        comp=Z,38nm,19.6s,MS3.8,baz=274,slow=38
TORD  Torodi Ar. Bea 114.83 329  PKP     PKiKP    20 34 17.1 -1.2
TORD  Torodi Ar. Bea 114.83 329  PKP     PKiKP    20 34 17.1 -1.2
        comp=Z,0.2nm,0.6s,baz=24,slow=1.4,SNR=4.6
CFAA  Coronel Fontan 145.26  79  PKPbc   PKPbc    20 35 12.8 -1.8
        comp=Z,1.1nm,0.8s,baz=310,slow=2.5,SNR=14
```

IDC 05 20:17:49.4±5.0**, 482S**×**10235E, h0**km**, mb3.7**/4**, mb1 3.8**/4**, mb1mx3.5**/18**, mbtmp3.7**/4**, Error ellipse: s-maj=201.1km s-min=30.1km az=51.0, Southern Sumatera**

```
Code  Station Name       Δ°   AZ°   Phase ID          Time     Res
                                    Op      ISC      h  m  s   ISC
```

WRA	Warramunga Arr	34.57	119	P	P	20 24 40.2	0.0
	0.6nm,0.9s,baz=301,slow=10,SNR=4.7						
SONM	Songino Array	52.55	3	P	P	20 27 05.1	+0.6
	0.7nm,0.8s,baz=182,slow=7.7,SNR=4.6						
MKAR	Makanchi Array	54.38	343	P	P	20 27 18.3	+0.3
	0.4nm,0.5s,baz=149,slow=9.2,SNR=5.2						
ZALV	Zalesovo Beam	60.38	348	P	P	20 27 59.7	-0.5
	1.2nm,0.4s,baz=158,slow=6.0,SNR=9.0						

NNC ***05*** *20:28:31.9±5.3, 36.14N×69.48E, h74^{km}±103^{km}, mb3.6, mpv3.4, Error ellipse: s-maj=40.3km s-min=37.1km az=16.0*

ISC 05 20:28:31.1±2.2**, 36.1N**±0.1×**69.4E**±0.1**, h61**^{km}±51^{km}**, n14, σ0^{s}63**/17**, 2C-3D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	6.88	28	P	Pn	20 30 09.3	0.0
	SNR=52						
KK31	Karatay Array	7.03	7	P	Pn	20 30 12.6	+1.2
	2.5nm,0.3s,baz=193,slow=14,SNR=133						
KK31				⇑S	Sn	20 31 30.9	+1.1
	19nm,0.5s,baz=195,slow=25						
UCH	Uchtor	7.30	32	P	Pn	20 30 14.8	-0.2
	SNR=22						
EKS2	Erkin-Say	7.38	26	P	Pn	20 30 16.2	+0.2
	SNR=25						
KZA	Kyzart	7.51	36	P	Pn	20 30 18.3	+0.4
	SNR=38						
AAK	Ala-Archa	7.62	30	P	Pn	20 30 19.2	-0.3
	SNR=34						
KBK	Karagaybulak	7.83	32	P	Pn	20 30 21.9	-0.4
	SNR=22						
CHMS	Chumysh	8.03	30	P	Pn	20 30 24.7	-0.4
	SNR=30						
ULHL	Ulahol	8.12	39	P	Pn	20 30 26.6	+0.4
	SNR=20						
USP	Ospenovka	8.16	27	P	Pn	20 30 26.7	-0.2
	SNR=16						
TKM2	Tokmak 2	8.33	33	P	Pn	20 30 28.2	-0.9
	SNR=6.0						
TKM2	Tokmak 2	8.33	33	⇑P	Pn	20 30 27.7	-1.4
	0.2nm,0.3s						
TKM2				⇓S	Sn	20 32 00.9	-0.7
	0.4nm,0.6s						
MK31	Makanchi Array	14.39	38	⇓P	Pn	20 31 52.4	+0.9
	4.5nm,0.7s,baz=225,slow=15,SNR=31						
AB31	Akbulak array	14.83	335	⇓P	Pn	20 31 57.0	-0.1
	2.6nm,0.6s,baz=156,slow=12,SNR=66						
AB31				S	Sn	20 34 39.3	-0.7
	1.2nm,0.5s,baz=170,slow=22,SNR=4.4						

NIED ***05*** *20:39:00, 30.50N×137.50E, h540^{km}, Mw4.3 Best double couple: $M_0$3.38000×10^{15} NP1:ϕ_s206.00000°, δ40.00000°, λ-128.00000°. NP2:ϕ_s71.00000°, δ60.00000°, λ-63.00000°.*

JMA ***05*** *20:39:21.9±0.2, 30.55N×137.51E, h523^{km}, M4.1*

MOS ***05*** *20:39:22.6±0.8, 30.51N×137.02E, h496^{km}, mb4.0/6, Error ellipse: s-maj=19.6km s-min=7.9km az=94.9*

ISCJB ***05*** *20:39:22.2±0.4, 30.45N±0.05×137.33E±0.06, h503^{km}±3^{km}, mb3.9/19, Error ellipse: s-maj=8.1km s-min=7.9km az=137.7*

IDC ***05*** *20:39:23.2±0.7, 30.47N×137.25E, h489^{km}±7^{km}, mb3.1/10, mb1 3.4/17, mb1mx3.3/26, mbtmp3.3/17, Error ellipse: s-maj=13.6km s-min=10.7km az=59.0*

BJI ***05*** *20:39:23.1, 30.54N×137.00E, h481^{km}, mB5.1, mb4.8*

NEIC ***05*** *20:39:24.4±0.8, 30.59N×137.17E, h501^{km}±7^{km}, mb4.5/7, MW4.3(NIED), Error ellipse: s-maj=16.1km s-min=10.0km az=130.0*

ISC 05 20:39:23.7±0.5**, 30.53N**±0.06×**137.29E**±0.06**, h499**^{km}±3^{km}**, n73, σ1^{s}03**/89**, mb3.9**/19**, 5C-1D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JWZ	Kozaga	3.28	336	P	P	20 40 37.3	+0.9
JWZ				S	S	20 41 36.2	+0.5
JHJ	Hachijo jima 2	3.35	39	P	P	20 40 37.6	+0.8
	23nm,0.3s,baz=96,slow=22,SNR=29						
JHJ				S	S	20 41 37.0	+0.4
	30nm,0.3s,baz=77,slow=22,SNR=7.0						
JHJ2	Mitsune	3.36	39	P	P	20 40 37.4	+0.4
JKN2	Miekihoku	3.80	347	P	P	20 40 41.5	+1.2
JKN2				S	S	20 41 43.2	+0.3
JIE	Ise	3.89	353	P	P	20 40 42.4	+1.4
JIE				S	S	20 41 44.9	+0.8
JWY	Kouya	3.95	339	P	P	20 40 42.7	+1.2
JAI	Aioi	4.05	324	P	P	20 40 43.3	+1.0
JNY	Yasuok	4.84	6	P	P	20 40 50.1	+1.1
JNY				S	S	20 41 59.6	+0.8
BSO4	Boso 4	5.14	29	P	P	20 40 50.8	-0.9
BSO1	Boso 1	5.16	36	P	P	20 40 50.1	-1.8
CBIJ	Chichi jima	5.49	127	P	P	20 40 53.1	-2.1
CBIJ				S	S	20 42 06.4	-3.4
CBIJ	Chichi jima	5.49	127	P	P	20 40 53.2	-1.9
	11nm,0.3s,baz=257,slow=22,SNR=8.3						
CBIJ				S	S	20 42 04.8	-5.0
	40nm,0.3s,baz=295,slow=22,SNR=11						
JHU	Hanno	5.57	17	P	P	20 40 55.4	-0.3
JHU				S	S	20 42 06.2	-4.8
JRY	Ryogami san	5.64	13	P	P	20 40 56.5	+0.2
JRY				S	S	20 42 10.3	-1.9
JHS	Saijyo	5.68	323	P	P	20 40 57.5	+0.8
JNU	Nakatsue	6.04	297	P	P	20 41 01.2	+1.0
	5.1nm,0.3s,baz=112,slow=5.0,SNR=40						
JNU				S	S	20 42 18.1	-1.1
	0.5nm,0.3s,baz=216,slow=26,SNR=4.6						
MJAR	Matsushiro Arr	6.05	7	P	P	20 40 59.9	-0.4
MJAR				S	S	20 42 17.4	-2.0
MJAR				pmax	pmax		
	comp=Z,5.0nm,0.3s						
MJAR				smax			
	comp=N,1.0nm,0.3s						
MJAR	Matsushiro Arr	6.05	7	P	P	20 40 59.9	-0.4
	comp=N,5.4nm,0.3s,baz=184,slow=9.0,SNR=87						
MJAR				S	S	20 42 17.4	-1.9
	comp=N,0.9nm,0.3s,baz=176,slow=35,SNR=7.0						
MAJO	Matsushiro	6.05	7	*e*P	P	20 41 00.0	-0.2
	comp=N,70nm,0.7s						
MAJO	Matsushiro	6.05	7	*e*P	P	20 41 00.0	-0.3
MAJO				pmax	pmax		
	comp=Z,70nm,0.7s						
MAT	Matsushiro	6.05	7	P	P	20 41 00.1	-0.2
MAT				S	S	20 42 16.3	-3.1
JAG	Ashikaga	6.16	17	P	P	20 40 59.7	-1.6
JAG				S	S	20 42 15.8	-5.4
JHO	Hitachi	6.66	23	P	P	20 41 04.8	-1.4
JHO				S	S	20 42 24.4	-5.9
JOW	Kunigami	8.73	247	P	P	20 41 27.9	+0.3
	comp=Z,3.8nm,0.3s,baz=71,slow=8.8,SNR=34						
KSRS	Korea Array	10.40	314	P	P	20 41 45.3	+0.2
	comp=Z,0.6nm,0.3s,baz=124,slow=10,SNR=16						
ERM	Erimo	12.40	21	*e*P	P	20 42 07.5	+1.2
VLA	Vladivostok	13.29	343	*i* P	P	20 42 14.9	-0.7
VLA				pmax	pmax		
	comp=Z,116nm,1.4s						
ASAJ	Asahikawa	14.20	16	P	P	20 42 26.8	+1.5
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ	Asahikawa	14.20	16	P	P	20 42 26.8	+1.5
	comp=Z,3.3nm,0.3s,baz=228,slow=13,SNR=24						
NJ2	Nanjing	15.84	280	*e*P	P	20 42 37.5	-5.1
NJ2				AMB	AMB		
	comp=Z,40nm,1.1s						
CN2	Changchun	16.24	328	*e*P	P	20 42 45.2	-1.4
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s						
YSS	Yuzh-Sakhalins	16.94	13	⇓*i*P	P	20 42 54.3	+0.5
YSS				pmax	pmax		
	comp=Z,40nm,0.5s						
HABR	Khabarovsk	18.00	355	⇑*e*P	P	20 43 03.4	-0.4
HABR				*e*S	S	20 46 04.1	+0.6
HABR				pmax	pmax		
	comp=Z,39nm,1.0s						
KLR	Kul'dur	19.15	349	*e*P	P	20 43 12.2	-2.1
HIA	Hailar	22.95	330	*e*P	P	20 43 48.4	-0.4
XAN	Xi'an	24.20	286	P	P	20 43 59.5	-0.6
XAN				AMB	AMB		
	comp=Z,48nm,1.0s,mb4.9						
LZH	Lanzhou	28.41	290	*e*P	P	20 44 36.9	-0.3
LZH				AMB	AMB		
	comp=Z,19nm,1.2s,mb4.4						
SONM	Songino Array	29.27	315	P	P	20 44 44.6	+0.2
	comp=Z,0.4nm,0.5s,mb3.1,baz=124,slow=6.9,SNR=6.9						
MA2	Magadan	30.45	14	*e*P	P	20 44 54.7	+0.2
	comp=Z,8.0nm,0.8s,mb4.2						
MA2	Magadan	30.45	14	c *i*P	P	20 44 55.9	+1.4
MA2				pmax	pmax		
	comp=Z,15nm,0.6s,mb4.6						
GTA	Gaotai	31.78	296	P	P	20 45 06.0	-0.3
GTA				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.1						
YAK	Yakutsk	31.90	353	*e*P	P	20 45 06.9	-0.1
	comp=Z,8.6nm,0.3s,mb4.7						
YAK	Yakutsk	31.90	353	*e*P	P	20 45 06.9	-0.1
YAK				pmax	pmax		
	comp=Z,9.0nm,0.3s,mb4.7						
SEY	Seymchan	33.85	12	*e*P	P	20 45 25.2	+1.7
CHTO	Chiang Mai	36.58	260	*e*P	P	20 45 46.6	-0.3
	comp=Z,14nm,0.6s,mb4.5						
CHTO	Chiang Mai	36.58	260	*e*P	P	20 45 46.6	-0.3
CHTO				pmax	pmax		
	comp=Z,13nm,0.6s,mb4.5						
BILL	Bilibino	41.22	16	*e*P	P	20 46 25.6	+1.8
	comp=Z,25nm,0.9s,mb4.6						
BILL	Bilibino	41.22	16	α *i*P	P	20 46 25.7	+1.9
BILL				pmax	pmax		
	comp=Z,28nm,1.1s,mb4.6						
TIXI	Tiksi	41.43	356	*e*P	P	20 46 25.1	-0.3
	comp=Z,5.0nm,0.6s,mb4.1						
TIXI	Tiksi	41.43	356	c *i*P	P	20 46 25.6	+0.1
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.1						
ZALV	Zalesovo Beam	44.08	318	P	P	20 46 45.8	-0.7
	comp=Z,0.9nm,0.4s,mb3.5,baz=85,slow=8.2,SNR=5.9						
ZAL	Zalesovo	44.09	318	P	P	20 46 45.8	-0.8
MK31	Makanchi Array	44.98	307	*e*P	P	20 46 53.8	+0.2
MKAR	Makanchi Array	44.98	307	P	P	20 46 53.6	0.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	44.98	307	P	P	20 46 53.6	0.0
	comp=Z,0.6nm,0.6s,mb3.2,baz=93,slow=9.9,SNR=9.2						
WRA	Warramunga Arr	50.26	184	P	P	20 47 33.8	+0.3
WRA				pmax	pmax		
	comp=Z,2.0nm,0.4s						
WRA	Warramunga Arr	50.26	184	P	P	20 47 33.8	+0.3
	comp=Z,2.3nm,0.4s,mb3.9,baz=360,slow=7.6,SNR=84						
ARU	Arti	59.07	321	*e*P	P	20 48 34.7	-0.3
KEV	Kevo	68.31	339	*e*P	P	20 49 33.1	-0.8
KEV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.9						
ARCES	ARCESS Array B	68.87	340	P	P	20 49 38.0	+0.7
ARCES	ARCESS Array B	68.87	340	P	P	20 49 38.0	+0.7
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ARCES	ARCESS Array B	68.87	340	P	P	20 49 38.0	+0.7
	comp=Z,2.2nm,0.4s,mb4.0,baz=63,slow=8.0,SNR=28						
YKA	Yellowknife Ar	71.15	28	P	P	20 49 52.2	+1.2
YKA	Yellowknife Ar	71.15	28	P	P	20 49 52.2	+1.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	71.15	28	P	P	20 49 52.2	+1.2
	comp=Z,0.8nm,0.5s,mb3.5,baz=296,slow=6.0,SNR=16						
VORD	Divnogorie	71.60	319	*e*P	P	20 49 50.3	-3.6
VORD				pmax	pmax		
	comp=Z,180nm,0.3s						
VORD				pmax	pmax		
	comp=N,40nm,0.2s						
VORD				pmax	pmax		
	comp=E,40nm,0.2s						
FINES	FINESS Array B	72.95	332	P	P	20 50 01.5	0.0
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	72.95	332	P	P	20 50 01.5	0.0
	comp=Z,0.8nm,0.4s,mb3.6,baz=64,slow=4.7,SNR=16						
AKASG	Malin Array Be	77.30	322	P	P	20 50 25.8	-0.3
	comp=Z,0.2nm,0.3s,mb3.1,baz=53,slow=5.5,SNR=4.2						
NOA	NORSAR Array B	78.80	336	P	P	20 50 33.3	-0.7
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA	NORSAR Array B	78.80	336	P	P	20 50 33.3	-0.7
	comp=Z,2.1nm,0.7s,mb3.8,baz=47,slow=5.0,SNR=5.4						
NVAR	Mina Array Bea	81.71	50	P	P	20 50 52.2	+2.6
NVAR	Mina Array Bea	81.71	50	P	P	20 50 52.2	+2.6
	comp=Z,0.6nm,0.5s,mb3.4,baz=302,slow=6.0,SNR=6.8						

ISK ***05*** *20:54:53.7, 39.00N×29.57E, h5^{km}, MD2.9*

DDA ***05*** *20:54:53.0, 38.91N×29.55E, h3^{km}±1^{km}, Md2.8*

CSEM ***05*** *20:54:53.5±0.1, 39.01N×29.58E, h5^{km}, MD2.8, Error ellipse: s-maj=1.8km s-min=1.3km az=51.0*

ISCJB ***05*** *20:54:54.0±0.6, 39.00N±0.03×29.58E±0.04, h5^{km}±6^{km}, Error ellipse: s-maj=6.4km s-min=4.9km az=136.2*

ISC 05 20:54:54.4±0.5**, 39.01N**±0.03×**29.57E**±0.04**, h6**^{km}±5^{km}**, n30, σ0^{s}63**/38**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GDZ	Gediz	0.11	319	*i* P	Pg	20 54 56.5	-0.2
GDZ				*i* S	Sg	20 54 58.3	0.0
ALT	Altintas	0.42	84	PG	Pg	20 55 02.3	-0.3
ALT				SG	Sg	20 55 08.7	+0.6
ALT	Altintas	0.42	84	*e*Pg	Pg	20 55 02.3	-0.3
ALT				*e*Sg	Sg	20 55 08.7	+0.6
KHL	Karahalli	0.69	183	PG	Pg	20 55 07.3	-0.3
KHL				SG	Sg	20 55 17.0	+0.5
KHL	Karahalli	0.69	183	*e*Pg	Pg	20 55 07.3	-0.3
KHL				*e*Sg	Sg	20 55 17.0	+0.5
SHUT	Suhut-Afyon	0.89	120	PG	Pg	20 55 11.5	0.0
SHUT	Suhut-Afyon	0.89	120	*e*Pg	Pg	20 55 11.5	0.0
ESKT	Eskisehir	1.12	62	PN	Pn	20 55 14.8	-1.7
ESKT	Eskisehir	1.12	62	*i* P	Pg	20 55 14.4	-1.4
ESKT				*i* S	Sg	20 55 31.1	+0.8
ESKT	Eskisehir	1.12	62	*e*Pn	Pn	20 55 14.8	-1.7
SEYT	Eskypehyr	1.12	62	*i* P	Pg	20 55 14.4	-1.4
SEYT				*i* S	Sg	20 55 31.1	+0.8
ULDT	Uludag	1.18	344	*i* P	Pg	20 55 16.5	-0.6
ULDT				*i* S	Sg	20 55 33.2	+0.8
IZI	Iznik	1.33	357	PN	Pn	20 55 19.2	-0.3
IZI	Iznik	1.33	357	*e*Pn	Pn	20 55 19.2	-0.3
AKS	Akhisar	1.38	265	PN	Pn	20 55 20.2	+0.1
AKS	Akhisar	1.38	265	*e*Pn	Pn	20 55 20.2	+0.1
GPA	Golpazari	1.40	24	*e*PN	Pn	20 55 20.3	-0.1
GPA	Golpazari	1.40	24	*e*Pn	Pn	20 55 20.3	-0.1
ADVT	Abdulvahap	1.43	5	*e*PN	Pn	20 55 20.9	+0.1
ADVT	Abdulvahap	1.43	5	*e*Pn	Pn	20 55 20.9	+0.1
YLV	Yalova	1.56	354	*e*PN	Pn	20 55 22.9	+0.2
YLV	Yalova	1.56	354	*e*Pn	Pn	20 55 22.9	+0.2
KCT	Karacabey	1.57	324	*e*PN	Pn	20 55 22.9	+0.2
KCT	Karacabey	1.57	324	*e*Pn	Pn	20 55 22.9	+0.2
GULT	Gulveren	1.60	27	*e*PN	Pn	20 55 24.0	+0.9
GULT	Gulveren	1.60	27	*e*Pn	Pn	20 55 24.0	+0.9
KIZT	Kizilcal	1.81	93	*e*PN	Pn	20 55 26.3	+0.3
KIZT	Kizilcal	1.81	93	*e*Pn	Pn	20 55 26.3	+0.3
KONT	Konya--Tatoy	2.43	115	*e*PN	Pn	20 55 35.0	+0.4
KONT	Konya--Tatoy	2.43	115	*e*Pn	Pn	20 55 35.0	+0.4

BJI ***05*** *20:58:05.0, 59.90S×28.20W, h112^{km}*

GCMT ***05*** *20:58:06.4±0.3, 60.33S×27.90W, h119^{km}±2^{km}, MW5.1/65, Moment Tensor Solution. s41,c47; s65,c85; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.18±.16; $M_{\theta\theta}$3.61±.21; $M_{\phi\phi}$-0.43±.22; $M_{r\theta}$-1.82±.14; $M_{\theta\phi}$-3.60±.17; $M_{\phi r}$-1.71±.13; Best double couple: $M_0$5.54000×10^{16} NP1:ϕ_s334.00000°, δ54.00000°, λ-36.00000°. NP2: ϕ_s87.00000°, δ62.00000°, λ-138.00000°. Principal axes: T 5.7780, Plg5.0000°, Azm209.0000°; N -0.4780, Plg41.0000°, Azm115.0000°; P -5.3020, Plg49.0000°, Azm305.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***05*** *20:58:06.4±0.2, 59.92S×28.23W, mb5.2/6 Error ellipse: s-maj=11.5km s-min=8.7km az=34.0*

IDC ***05*** *20:58:07.7±0.8, 59.98S×28.30W, h120^{km}±6^{km}, mb4.5/11, mb1 4.5/12, mb1mx4.5/14, mbtmp4.5/12, MS3.9/7, Ms1 3.9/7, ms1mx3.8/11, Error ellipse: s-maj=16.2km s-min=13.0km az=24.0*

ISCJB ***05*** *20:58:08.1±3.3, 60.04S±0.08×28.2W±0.2, h134^{km}±32^{km}, mb4.7/17, Error ellipse: s-maj=15.8km s-min=10.2km az=38.0*

MOS ***05*** *20:58:09.9±0.9, 60.06S×28.14W, h147^{km}, mb5.2/2, Error ellipse: s-maj=32.3km s-min=15.5km az=101.5*

ISC 05 20:58:09.4±3.1**, 60.01S**±0.10×**28.2W**±0.2**, h130**^{km}±30^{km}**, h115**^{km}±1.6^{km}**:pP-P, n118, σ0^{s}69**/30**, mb4.7**/17**, 2D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNAA	Sanae	15.46	149	P	Pn	21 01 39.5	-0.4
	0.6nm,0.3s,baz=314,slow=11,SNR=35						
SNAA				S	S	21 04 24.0	-13
	0.1nm,0.3s,baz=317,slow=20,SNR=4.2						
MAIT	Maitri	19.37	140	⇓*i*P	P	21 02 24.4	0.0
NVL	N'lazarevskaya	19.40	140	*e*P	P	21 02 25.1	+0.4
NVL				pmax	pmax		
	comp=Z,38nm,1.0s						
USHA	Ushuaia	22.00	266	P	P	21 02 52.5	-0.2
	comp=Z,31nm,1.1s,mb4.6,baz=103,slow=9.8,SNR=7.6						
QSPA	South Pole Qui	30.23	180	*e*P	P	21 04 07.8	+0.8
	comp=Z,35nm,1.2s,mb5.0						
MAW	Mawson	37.35	141	P	P	21 05 08.6	+0.1
	comp=Z,6.7nm,0.5s,mb4.6,baz=248,slow=16,SNR=13						
CFAA	Coronel Fontan	38.81	299	P	P	21 05 20.2	-1.1
CFAA	Coronel Fontan	38.81	299	P	P	21 05 20.2	-1.1
	comp=Z,3.9nm,0.7s,mb4.1,baz=157,slow=7.8,SNR=67						
LCO	Las Campanas	42.12	298	*e*P	P	21 05 48.2	-0.2
	comp=Z,46nm,0.9s,mb5.1						
SUR	Sutherland	42.31	72	P	P	21 05 50.1	+0.2
SUR				PcP	PcP	21 07 42.0	+1.0
SUR	Sutherland	42.31	72	P	P	21 05 50.2	+0.2
	comp=Z,12nm,0.8s,mb4.6,baz=203,slow=7.4,SNR=7.8						
SUR				PcP	PcP	21 07 42.0	+1.0
	comp=Z,14nm,0.9s,baz=303,slow=2.6,SNR=5.2						
VNDA	Vanda	42.58	183	P	P	21 05 52.3	+0.7
	comp=Z,7.8nm,0.9s,mb4.3,baz=219,slow=3.7,SNR=6.5						
BOSA	Boshof	47.56	73	*e*P	P	21 06 30.9	-0.6
BOSA				*e*pP	pP	21 06 55.7	-5.5
BOSA				*e*PcP	PcP	21 07 59.5	+0.2
BOSA				LR	LR	21 24 04.7	
BOSA	Boshof	47.56	73	*e*P	P	21 06 30.9	-0.6
BOSA				*e*		21 07 59.5	
BOSA	Boshof	47.56	73	P	P	21 06 31.4	-0.1
	comp=Z,18nm,0.9s,mb4.7,baz=209,slow=7.7,SNR=25						
BOSA				pP	pP	21 06 57.9	-3.3
	comp=Z,14nm,0.9s,baz=217,slow=11,SNR=6.0						
BOSA				PcP	PcP	21 07 59.3	0.0
	comp=Z,16nm,0.9s,baz=193,slow=3.7,SNR=9.2						
BOSA				LR	LR	21 24 04.7	
	comp=Z,50nm,20.9s,baz=108,slow=33						
CASY	Casey	50.36	160	*e*P	P	21 06 52.4	0.0
	comp=Z,9.3nm,0.3s,mb4.9						
CASY				*e*pP	pP	21 07 19.1	-3.2
LBTB	Lobatse	50.75	71	*e*P	P	21 06 55.4	-0.3
	comp=Z,35nm,0.9s,mb5.0						
LBTB				*e*pP	pP	21 07 22.3	-3.5
LBTB	Lobatse	50.75	71	*e*P	P	21 06 55.4	-0.4
LBTB				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.0						
LPAZ	La Paz	52.33	309	P	P	21 07 08.6	+0.9
	comp=Z,17nm,0.4s,mb5.0,baz=139,slow=5.8,SNR=147						
LPAZ				LR	LR	21 30 25.1	
	comp=Z,51nm,18.3s,baz=295,slow=37						
ARE	Arequipa	53.52	305	*e*P	P	21 07 17.0	+0.7
NNA	Nana	59.78	302	*e*P	P	21 08 00.5	0.0
	comp=Z,8.8nm,0.6s,mb4.8						
LSZ	Lusaka	60.35	68	*e*P	P	21 08 04.1	-0.4
	comp=Z,28nm,0.9s,mb5.1						
LSZ				*e*pP	pP	21 08 32.3	-3.2
LSZ	Lusaka	60.35	68	*e*P	P	21 08 04.1	-0.3
LSZ				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.1						
ROSC	El Rosal	74.08	312	LR	LR	21 41 20.2	
	comp=Z,50nm,20.8s,baz=347,slow=35						
RPZ	Rata Peaks	75.43	194	LR	LR	21 41 25.5	
	comp=Z,144nm,19.0s,baz=208,slow=34						
TOA0	Torodi Ar. Sit	76.78	30	*e*P	P	21 09 46.0	-0.2
TOA0				*e*pP	pP	21 10 14.3	-4.3
TORD	Torodi Ar. Bea	76.78	30	P	P	21 09 46.4	+0.1
TORD				pP	pP	21 10 15.9	-2.7
TORD				PKKPbc	PKKPbc	21 28 50.4	-2.5
TORD	Torodi Ar. Bea	76.78	30	P	P	21 09 46.4	+0.1
	comp=Z,43nm,0.4s,mb5.4,baz=198,slow=6.3,SNR=1529						
TORD				pP	pP	21 10 15.9	-2.7
	comp=Z,4.0nm,0.5s,baz=189,slow=6.6,SNR=1.4						
TORD				PKKPbc	PKKPbc	21 28 50.4	-2.5
	comp=Z,0.3nm,0.6s,baz=282,slow=1.0,SNR=4.6						
KMBO	Kilima Mbogo	76.97	69	P	P	21 09 49.0	+1.5
	comp=Z,3.9nm,1.1s,mb4.0,baz=196,slow=4.8,SNR=7.1						
KMBO				LR	LR	21 42 08.9	
	comp=Z,101nm,18.2s,baz=156,slow=34						
STKA	Stephens Creek	88.07	171	P	P	21 10 44.5	-0.3
	comp=Z,10.0nm,0.8s,mb4.7,baz=193,slow=3.9,SNR=12						
STKA				LR	LR	21 46 42.7	
	comp=Z,126nm,21.0s,baz=206,slow=33						
PPT	Papeete	89.43	235	LR	LR	21 41 45.9	
	comp=Z,161nm,21.8s,baz=90,slow=29						
WRA	Warramunga Arr	99.08	163	P	P	21 11 33.3	-2.1
	comp=Z,2.7nm,0.9s,mb4.7,baz=194,slow=4.4,SNR=10						
WRA				PKKPbc	PKKPbc	21 27 58.3	+1.0
	comp=Z,0.5nm,0.8s,baz=0.7,slow=3.2,SNR=5.5						
GERES	GERESS Array B	113.71	29	PKPdf	PKiKP	21 16 29.7	-1.4
GERES	GERESS Array B	113.71	29	PKIKP	PKiKP	21 16 29.7	-1.4
GERES	GERESS Array B	113.71	29	PKiKP	PKiKP	21 16 29.7	-1.4
	comp=Z,0.3nm,0.6s,baz=242,slow=2.9,SNR=4.2						
AKASG	Malin Array Be	119.69	38	PKP	PKPdf	21 16 40.1	-2.4
AKASG	Malin Array Be	119.69	38	PKIKP	PKPdf	21 16 40.1	-2.4
AKASG	Malin Array Be	119.69	38	PKP	PKPdf	21 16 40.1	-2.4
	comp=Z,1.5nm,0.6s,baz=241,slow=1.8,SNR=14						
PDAR	Pinedale Array	121.96	301	PKP	PKPdf	21 16 45.1	-2.1
PDAR	Pinedale Array	121.96	301	PKP	PKPdf	21 16 45.1	-2.1
	comp=Z,1.0nm,0.6s,baz=139,slow=5.0,SNR=9.4						
NVAR	Mina Array Bea	122.40	292	PKP	PKPdf	21 16 48.2	+0.1
NVAR	Mina Array Bea	122.40	292	PKP	PKPdf	21 16 48.2	+0.1
	comp=Z,1.3nm,0.6s,baz=126,slow=3.2,SNR=8.9						
ULM	Lac du Bonnet	122.71	315	PKP	PKPdf	21 16 46.0	-2.4
ULM	Lac du Bonnet	122.71	315	PKP	PKPdf	21 16 46.0	-2.4
	comp=Z,0.9nm,0.4s,baz=32,slow=11,SNR=4.5						
KBL	Kabul	122.71	77	*e*PKPdf	PKPdf	21 16 47.2	-1.7
LOHW	Long Hollow	123.09	301	*e*PKPdf	PKPdf	21 16 48.1	-1.1
NB2	NORSAR Subarra	124.50	22	PKPd	PKPdf	21 16 49.7	-1.7
	comp=Z,5.9nm,1.0s,baz=202,slow=1.9						
NB2	NORSAR Subarra	124.50	22	PKPdf	PKPdf	21 16 49.7	-1.7
NB2	NORSAR Subarra	124.50	22	PKPd	PKPdf	21 16 49.7	-1.7
	baz=202,slow=1.9						
NB2	NORSAR Subarra	124.50	22	PKIKP	PKPdf	21 16 49.7	-1.7
NOA	NORSAR Array B	124.50	22	PKP	PKPdf	21 16 50.5	-0.9
NOA	NORSAR Array B	124.50	22	PKIKP	PKPdf	21 16 50.5	-0.9
NOA	NORSAR Array B	124.50	22	PKP	PKPdf	21 16 50.5	-0.9
	comp=Z,5.3nm,0.8s,baz=195,slow=1.7,SNR=11						
OBN	Obninsk	125.78	40	*i* PKIKP	PKPdf	21 16 53.0	-1.1
FINES	FINESS Array B	128.13	30	PKP	PKPdf	21 16 56.6	-1.7
FINES	FINESS Array B	128.13	30	PKIKP	PKPdf	21 16 56.6	-1.7
FINES	FINESS Array B	128.13	30	PKP	PKPdf	21 16 56.6	-1.7
	comp=Z,10nm,0.8s,baz=148,slow=1.9,SNR=26						
LSA	Lhasa	129.83	99	*e*PKPdf	PKPdf	21 17 02.9	+0.2
LSA				*e*SKPdf	SKPdf	21 20 12.3	-13
LSA	Lhasa	129.83	99	*e*PKIKP	PKPdf	21 17 02.9	+0.2
AKTK	Aktyubinsk	130.06	56	PKP	PKPdf	21 17 01.4	-1.0
AKTO	Aktyubinsk	130.06	56	PKIKP	PKPdf	21 17 01.4	-1.0
AKTO	Aktyubinsk	130.06	56	PKP	PKPdf	21 17 01.4	-1.0
	comp=Z,13nm,1.0s,baz=190,slow=2.6,SNR=26						
JOF	Joensuu	130.71	31	*e*PKIKP	PKPdf	21 16 54.7	-8.5
AML	Almayashu	130.92	74	*e*PKPdf	PKPdf	21 17 04.1	-0.2
EKS2	Erkin-Say	131.36	74	*e*PKPdf	PKPdf	21 17 04.3	-0.8
AAK	Ala-Archa	131.69	75	d *i*PKIKP	PKPdf	21 17 04.0	-1.7
TKM2	Tokmak 2	132.44	75	*e*PKPdf	PKPdf	21 17 05.6	-1.6
TKM2	Tokmak 2	132.44	75	*e*PKIKP	PKPdf	21 17 05.6	-1.5
ARCES	ARCESS Array B	134.82	24	PKP		21 16 54.0	
ARCES				PKP	PKPdf	21 17 09.1	-1.7
ARCES	ARCESS Array B	134.82	24	PKHKP		21 16 54.0	
ARCES						21 17 09.1	
ARCES	ARCESS Array B	134.82	24	PKhKP		21 16 54.0	
	comp=Z,2.7nm,0.8s,baz=288,slow=1.2,SNR=7.3						
ARCES				PKP	PKPdf	21 17 09.1	-1.7
	comp=Z,8.3nm,0.7s,baz=191,slow=0.8,SNR=11						
BRVK	Borovoye	137.24	62	PKPdf	PKPdf	21 17 14.9	-0.8
BRVK	Borovoye	137.24	62	PKIKP	PKPdf	21 17 14.9	-0.9
MKAR	Makanchi Array	138.52	76	PKP		21 17 07.3	
MKAR				PKP	PKPdf	21 17 16.7	-1.6
MKAR				SKPbc	SKPbc	21 20 39.3	-1.2
MKAR	Makanchi Array	138.52	76	PKHKP		21 17 07.3	
MKAR						21 17 16.7	
MKAR	Makanchi Array	138.52	76	PKhKP		21 17 07.3	
	comp=Z,2.6nm,0.8s,baz=241,slow=3.1,SNR=16						
MKAR				PKP	PKPdf	21 17 16.7	-1.6
	comp=Z,6.5nm,0.9s,baz=270,slow=2.4,SNR=14						
MKAR				SKPbc	SKPbc	21 20 39.3	-1.2
	comp=Z,1.9nm,0.8s,baz=233,slow=1.5,SNR=8.4						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YKA	Yellowknife Ar	138.69	315	PKP		21 17 05.1	
YKA				PKP	PKPdf	21 17 16.7	-1.4
YKA				SKPbc	SKPbc	21 20 37.7	-2.8
YKA	Yellowknife Ar	138.69	315	PKHKP		21 17 05.1	
YKA						21 17 16.7	
YKA	Yellowknife Ar	138.69	315	PKhKP		21 17 05.1	
	comp=Z,0.6nm,0.6s,baz=121,slow=3.2,SNR=7.3						
YKA				PKP	PKPdf	21 17 16.7	-1.4
	comp=Z,3.8nm,0.7s,baz=128,slow=2.2,SNR=34						
YKA				SKPbc	SKPbc	21 20 37.7	-2.8
	comp=Z,0.2nm,0.5s,baz=134,slow=3.4,SNR=4.4						
KURK	Kurchatov	139.46	69	*e*PKPpre		21 17 09.1	
KURK	Kurchatov	139.46	69	*i* PKHKP		21 17 10.2	
NVS	Novosibirsk	144.25	67	*e*PKIKP	PKPdf	21 17 27.2	-1.1
NVS				pmax	pmax		
	comp=Z,173nm,0.9s						
NVS				pmax	pmax		
	comp=N,37nm,0.5s						
NVS				pmax	pmax		
	comp=E,41nm,0.5s						
ZAL	Zalesovo	144.43	69	PKIKP	PKPdf	21 17 26.3	-2.4
ZALV	Zalesovo Beam	144.45	69	PKP	PKPdf	21 17 26.3	-2.4
ZALV	Zalesovo Beam	144.45	69	PKP	PKPdf	21 17 26.3	-2.4
	comp=E,67nm,0.7s,baz=245,slow=3.8,SNR=315						
SKAG	Skagway	144.97	302	*e*PKPdf	PKPdf	21 17 28.2	-1.2
INK	Inuvik	148.43	317	*e*PKPbc	PKPbc	21 17 36.5	-2.2
INK	Inuvik	148.43	317	*e*PKIKP	PKPdf	21 17 36.5	+1.5
DAWY	Dawson	148.91	307	*e*PKPbc	PKPbc	21 17 38.0	-2.0
JNU	Nakatsue	149.78	143	PKPbc	PKPbc	21 17 42.9	-0.3
JNU	Nakatsue	149.78	143	PKPbc	PKPbc	21 17 42.9	-0.3
	comp=E,9.3nm,0.9s,baz=145,slow=13,SNR=5.0						
EGAK	Eagle	149.90	308	*e*PKPbc	PKPbc	21 17 39.9	-2.5
EYAK	Cordova Ski Ar	150.05	299	*e*PKPbc	PKPbc	21 17 42.1	-0.8
BJT	Baijiatuau	150.16	116	*e*PKPbc	PKPbc	21 17 43.8	-0.1
BJT	Baijiatuau	150.16	116	*e*PKIKP	PKPbc	21 17 43.8	-0.1
MOY	Mondy	150.96	84	*e*PKIKP	PKPdf	21 17 39.1	-0.4
MOY				pmax	pmax		
	comp=Z,67nm,1.8s						
SONM	Songino Array	151.24	95	PKP	PKPdf	21 17 39.2	-0.8
SONM				PKPbc	PKPbc	21 17 45.6	-0.5
SONM				PKPab	PKPab	21 17 54.1	-0.6
SONM				pPKPbc	pPKPbc	21 18 16.8	-3.9
SONM	Songino Array	151.24	95	PKIKP	PKPdf	21 17 39.2	-0.9
SONM						21 17 54.1	
SONM						21 18 16.8	
SONM	Songino Array	151.24	95	PKP	PKPdf	21 17 39.2	-0.8
	comp=Z,0.9nm,0.8s,baz=192,slow=2.8,SNR=8.6						
SONM				PKPbc	PKPbc	21 17 45.6	-0.5
	comp=Z,30nm,0.5s,baz=213,slow=3.4,SNR=331						
SONM				PKPab	PKPab	21 17 54.1	-0.6
	comp=Z,3.9nm,0.6s,baz=214,slow=1.4,SNR=5.2						
SONM				pPKPbc	pPKPbc	21 18 16.8	-3.9
	comp=Z,4.7nm,0.8s,baz=203,slow=3.4,SNR=2.2						
ZAK	Zakamensk	151.32	88	*e*PKIKP	PKPdf	21 17 39.1	-1.0
ZAK				pmax	pmax		
	comp=Z,24nm,1.1s						
SML	Sawmill	151.72	300	*e*PKPbc	PKPbc	21 17 45.8	-1.0
SML	Sawmill	151.72	300	*e*PKIKP	PKPbc	21 17 45.8	-1.0
SLKM	Skilak Lake	152.02	297	*e*PKPbc	PKPbc	21 17 46.0	-1.5
SLKM	Skilak Lake	152.02	297	*e*PKIKP	PKPbc	21 17 46.0	-1.5
TLY	Talaya	152.29	86	*e*PKPdf	PKPdf	21 17 40.8	-0.7
TLY				*e*PKPbc	PKPbc	21 17 48.3	-0.1
TLY	Talaya	152.29	86	*e*PKIKP	PKPdf	21 17 40.7	-0.8
TLY				*e*		21 17 57.6	
TLY				pmax	pmax		
	comp=Z,23nm,1.0s						
COLA	College	152.62	306	*e*PKPbc	PKPbc	21 17 46.9	-1.9
COLA				*e*PKPab	PKPab	21 17 58.8	-1.2
COLA	College	152.62	306	*e*PKIKP	PKPbc	21 17 46.9	-1.8
COLA				*e*		21 17 58.8	
MCK	McKinley	152.69	304	*e*PKPbc	PKPbc	21 17 47.0	-1.9
MCK	McKinley	152.69	304	*e*PKIKP	PKPbc	21 17 47.0	-1.9
KSRS	Korea Array	152.77	135	PKP	PKPdf	21 17 42.0	-0.7
	comp=Z,0.7nm,0.8s,baz=49,slow=24,SNR=6.3						
KSRS				PKPbc	PKPbc	21 17 49.4	-0.6
	comp=Z,6.0nm,1.0s,baz=191,slow=1.8,SNR=16						
KSRS				PKPab	PKPab	21 18 00.9	-0.4
	comp=Z,1.4nm,0.8s,baz=204,slow=3.8,SNR=8.3						
MJAR	Matsushiro Arr	154.94	153	PKPbc	PKPbc	21 17 53.6	-1.1
MJAR				PKPab	PKPab	21 18 09.7	-0.9
MJAR	Matsushiro Arr	154.94	153	PKIKP	PKPbc	21 17 53.6	-1.0
MJAR						21 18 09.7	
MJAR	Matsushiro Arr	154.94	153	PKPbc	PKPbc	21 17 53.6	-1.1
	comp=Z,3.4nm,1.1s,baz=119,slow=1.8,SNR=5.6						
MJAR				PKPab	PKPab	21 18 09.7	-0.9
	comp=Z,3.4nm,0.9s,baz=167,slow=4.3,SNR=6.2						
BOD	Bodaibo	160.54	80	*e*PKIKP	PKPdf	21 17 48.9	-3.1
BOD				*e*		21 18 32.9	
BOD				pmax	pmax		
	comp=Z,5.0nm,1.3s						
BOD				pmax	pmax		
	comp=Z,9.0nm,1.4s						
KLR	Kul'dur	164.23	124	*e*PKIKP	PKPdf	21 17 51.2	-4.7
TIXI	Tiksi	165.17	29	*e*PKP2	PKPab	21 18 51.8	-2.5
TIXI				pmax	pmax		
	comp=Z,9.0nm,0.9s						
SEY	Seymchan	177.05	355	*i* PKIKP	PKPdf	21 17 59.2	-3.1

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*ISCJB **05** 21:04:48.4±0.6, 4059N±005×2895E±004, h3^{km}±15^{km}, Error ellipse: s-maj=8.4km s-min=5.0km az=22.4*
*ISK **05** 21:04:48.3, 4058N×2897E, h6^{km}, MD2.7*
*CSEM **05** 21:04:48.3, 4058N×2897E, h6^{km}, MD2.7, After ISK*
ISC 05 21:04:48.8±0.6, **4058N**±005×**2896E**±004, **h6**^{km}±13^{km}, **n24, σ0^{s}31**/30, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GEMT	Gemlik	0.23	131	*e*PG	Pg	21 04 53.5	+0.2
GEMT				*e*SG	Sg	21 04 56.6	+0.3
GEMT	Gemlik	0.23	131	*e*Pg	Pg	21 04 53.5	+0.2
GEMT				*e*Sg	Sg	21 04 56.6	+0.3
YLV	Yalova	0.31	93	PG	Pg	21 04 54.6	-0.3
YLV				SG	Sg	21 04 58.8	-0.2
YLV	Yalova	0.31	93	*e*Pg	Pg	21 04 54.6	-0.3
YLV				*e*Sg	Sg	21 04 58.8	-0.2
IZI	Iznik	0.46	122	PG	Pg	21 04 57.7	0.0
IZI				SG	Sg	21 05 03.9	+0.2
IZI	Iznik	0.46	122	*e*Pg	Pg	21 04 57.7	0.0
IZI				*e*Sg	Sg	21 05 03.9	+0.2
ISK	Istanbul-Kandi	0.49	9	PG	Pg	21 04 58.5	+0.3
ISK	Istanbul-Kandi	0.49	9	*e*Pg	Pg	21 04 58.5	+0.3
KCT	Karacabey	0.56	236	PG	Pg	21 05 00.0	+0.4
KCT	Karacabey	0.56	236	*e*Pg	Pg	21 05 00.0	+0.4
HRT	Hereke	0.59	66	PG	Pg	21 04 59.6	-0.5
HRT	Hereke	0.59	66	*e*Pg	Pg	21 04 59.6	-0.5
ADVT	Abdulvahap	0.61	104	PG	Pg	21 05 00.5	-0.1
ADVT	Abdulvahap	0.61	104	*e*Pg	Pg	21 05 00.5	-0.1
KLYT	Kilyos	0.67	5	PG	Pg	21 05 02.1	+0.3
KLYT	Kilyos	0.67	5	*e*Pg	Pg	21 05 02.1	+0.3
CTT	Catalca	0.69	325	PG	Pg	21 05 02.4	+0.2
CTT	Catalca	0.69	325	*e*Pg	Pg	21 05 02.4	+0.2
EDC	Edincik	0.87	255	PG	Pg	21 05 04.9	-0.6
EDC	Edincik	0.87	255	*e*Pg	Pg	21 05 04.9	-0.6
MRMT	Marmara Adasi	1.04	272	PG	Pg	21 05 08.6	-0.2
MRMT	Marmara Adasi	1.04	272	*e*Pg	Pg	21 05 08.6	-0.2
GULT	Gulveren	1.19	97	PN	Pn	21 05 12.1	+0.1
GULT	Gulveren	1.19	97	*e*Pn	Pn	21 05 12.1	+0.1

IDC 05 21:30:13.6±1.5, **058N**×**9717E, h0**^{km}, **mb3.7**/4, **mb1 3.7**/5, **mb1mx3.5**/21, **mbtmp3.7**/5, **ML3.1**/1, **Error ellipse: s-maj=28.5km s-min=21.4km az=122.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.82	38	Pn	Pn	21 30 57.0	-2.9
	3.0nm,0.3s,baz=189,slow=10,SNR=7.2						
PSI				Pg	Pg	21 31 04.0	-3.7
	2.4nm,0.3s,baz=189,slow=7.6,SNR=11						
PSI				Sn	Sn	21 31 31.0	-3.7
	1.9nm,0.3s,baz=246,slow=19,SNR=4.4						
PSI				Lg		21 31 41.5	
	2.0nm,0.3s,baz=285,slow=22,SNR=6.0						
WRA	Warramunga Arr	41.73	121	P	P	21 38 04.9	+0.1
	0.5nm,0.7s,baz=303,slow=9.0,SNR=4.0						
SONM	Songino Array	47.75	8	P	P	21 38 52.1	-0.2
	0.3nm,0.4s,baz=189,slow=9.2,SNR=5.6						
MKAR	Makanchi Array	47.83	346	P	P	21 38 53.5	+0.4
	1.0nm,0.5s,baz=156,slow=7.4,SNR=10						
ZALV	Zalesovo Beam	54.16	351	P	P	21 39 40.4	-0.1
	1.0nm,0.4s,baz=178,slow=5.7,SNR=7.9						

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*ISCJB **05** 21:38:32.0±0.6, 4985N±004×1839E±004, h0^{km}, Error ellipse: s-maj=6.5km s-min=3.2km az=22.1*
*PRU **05** 21:38:33.6, 4989N×1846E, h0^{km}*
ISC 05 21:38:33.2±0.6, **4982N**±004×**1843E**±004, **h0**^{km}, **n17, σ1^{s}21**/27, **3C, Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	Ostrava-Krasne	0.18	277	*e*PG	Pg	21 38 38.2	+1.5
OKC				*e*SG	Sg	21 38 41.4	+2.3
	113nm,0.4s						
LIKS	Likavka	0.89	150	*e*PN	Pn	21 38 50.5	-2.3
VRAC	Vranov	1.30	248	⇑*i*P	Pg	21 38 58.0	0.0
VYHS	Vyhne	1.35	168	*e*PN	Pn	21 38 58.8	-0.4
VYHS				*e*SN	Sn	21 39 17.6	-0.2
DPC	Dobruska-Polom	1.46	292	*e*PG	Pg	21 39 00.8	-0.3
DPC				*e*SG	Sg	21 39 20.7	+0.7
	9.3nm,0.4s						
SMOL	Smolenice	1.46	207	*e*PN	Pn	21 39 00.9	+0.2
SMOL				*e*SN	Sn	21 39 21.2	+0.7
MODS	Modra-Piesok	1.63	208	*e*PN	Pn	21 39 03.5	+0.4
MODS				*e*SN	Sn	21 39 24.9	+0.2
UPC	Upice	1.70	295	*e*PG	Pn	21 39 04.1	0.0
ZST	Bratislava	1.84	209	*e*PN	Pn	21 39 06.5	+0.5
ZST				*e*	Sg	21 39 31.1	-1.2
STHS	Stebnicka Huta	1.87	101	*e*PN	Pg	21 39 08.4	-0.6
STHS				*e*	Sg	21 39 35.7	+2.4
KECS	Kecovo	1.90	134	*e*PN	Pn	21 39 08.0	+1.2
KECS				*e*SN	Sn	21 39 31.5	+0.2
PSZ	Piszkesteto	2.13	152	⇑*i*P	Pg	21 39 15.0	+1.0
PRU	Pruhonice	2.52	275	*e*PG	Pg	21 39 18.9	-2.5
PRU				*e*SG	Sg	21 39 53.9	-0.2
BRG	Berggiesshubel	3.06	292	*e*P	Sg	21 40 10.9	-0.6
	2.7nm,0.4s						
KHC	Kasperske Hory	3.24	260	*e*PG	Pg	21 39 32.9	-2.3
KHC				*e*SG	Sg	21 40 18.7	+1.6
	3.3nm,0.4s						
NKC	Novy Kostel	3.88	278	*e*SG	Sg	21 40 36.9	-0.8
BURAR	Bucovina Array	5.00	114	⇑*i*P	Pn	21 39 46.5	-2.9

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*ISCJB **05** 22:38:45.0±1.6, 2206N±007×1429E±0.1, h182^{km}±16^{km}, mb4.1/24, Error ellipse: s-maj=17.4km s-min=10.6km az=161.6*
*MOS **05** 22:38:45.6±1.1, 2209N×14301E, h189^{km}, mb4.1/9, Error ellipse: s-maj=24.1km s-min=9.4km az=113.0*
*NEIC **05** 22:38:45.8±1.2, 2206N×14295E, h176^{km}±12^{km}, mb4.2/15, Error ellipse: s-maj=11.3km s-min=7.1km az=69.0*
*IDC **05** 22:38:46.4±6.5, 2205N×14295E, h185^{km}±60^{km}, mb3.6/11, mb1 3.7/11, mb1mx3.7/20, mbtmp3.6/11, MS3.3/5, Ms1 3.3/5, ms1mx2.9/21, Error ellipse: s-maj=26.2km s-min=17.9km az=76.0*
ISC 05 22:38:45.8±1.6, **2206N**±007×**1430E**±01, **h175**^{km}±16^{km}, **n62, σ0^{s}91**/56, **mb4.1**/24, **Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	8.62	168	Pn	Pn	22 40 48.1	+0.7
MJAR	Matsushiro Arr	15.01	345	LR	LR	22 47 29.7	
	comp=Z,135nm,20.5s,baz=205,slow=35						
MAJO	Matsushiro	15.01	345	*e*Pn	Pn	22 42 09.7	+0.6
	4.3nm,0.7s						
MAJO	Matsushiro	15.01	345	*e*P	Pn	22 42 09.7	+0.6
MAJO				pmax	pmax		
	comp=Z,4.0nm,0.7s						
JNU	Nakatsue	15.35	318	LR	LR	22 46 51.0	
	comp=Z,48nm,18.2s,baz=312,slow=32						
YHNB	Yeheng	19.98	282	P	P	22 43 04.0	-0.8
KSRS	Korea Array	20.10	323	P	P	22 43 07.5	+1.6
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KSRS				MLR	MLR		
	comp=Z,23nm,18.3s						
KSRS	Korea Array	20.10	323	P	P	22 43 07.5	+1.5
	comp=Z,2.9nm,0.9s,baz=149,slow=7.9,SNR=7.1						
KSRS				LR	LR	22 50 37.3	
	comp=Z,23nm,18.3s,baz=165,slow=35						
INCN	Inchon	20.85	321	*e*P	P	22 43 13.0	-1.0
MDJ	Mudanjiang	25.05	337	*e*P	P	22 43 52.3	-1.4
KLR	Kul'dur	28.53	345	*e*P	P	22 44 20.2	-4.7
ENH	Enshi	31.05	292	*e*P	P	22 44 46.2	-1.1
MA2	Magadan	37.89	6	P	P	22 45 44.7	-0.9
SONM	Songino Array	38.92	320	P	P	22 45 54.0	-0.5
	comp=Z,2.3nm,0.7s,mb3.9,baz=130,slow=7.4,SNR=17						
YAK	Yakutsk	40.97	350	*e*P	P	22 46 10.9	-0.3
	comp=Z,8.4nm,0.3s,mb4.8						
YAK	Yakutsk	40.97	350	*e*P	P	22 46 10.9	-0.2
YAK				pmax	pmax		
	comp=Z,8.0nm,0.3s,mb4.8						
CTAO	Charters Tower	42.02	175	*e*P	P	22 46 19.0	-1.0
	comp=Z,44nm,1.4s,mb4.9						
CTAO	Charters Tower	42.02	175	*e*P	P	22 46 19.0	-1.1
CTAO				pmax	pmax		
	comp=Z,44nm,1.4s,mb4.9						
TLY	Talaya	42.35	324	*e*P	P	22 46 22.2	-0.2
	comp=Z,1.5nm,0.3s,mb4.1						
TLY	Talaya	42.35	324	*e*P	P	22 46 22.2	-0.2
TLY				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.9						
WB2	Warramunga Arr	42.59	192	*e*P	P	22 46 24.1	-0.6
WRA	Warramunga Arr	42.59	192	P	P	22 46 23.9	-0.7
WRA	Warramunga Arr	42.59	192	*i* P	P	22 46 25.2	+0.5
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
WRA	Warramunga Arr	42.59	192	P	P	22 46 24.0	-0.7
	comp=Z,2.2nm,0.9s,mb3.8,baz=16,slow=9.3,SNR=10						
FITZ	Fitzroy Crossi	43.37	204	LR	LR	23 04 12.5	
	comp=Z,61nm,18.7s,baz=274,slow=35						
LSA	Lhasa	46.91	291	P	P	22 46 59.5	+0.6
	comp=Z,1.8nm,0.7s,mb3.8						
LSA	Lhasa	46.91	291	P	P	22 46 59.5	+0.6
LSA				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.9						
ZALV	Zalesovo Beam	53.80	322	P	P	22 47 48.9	-1.3
	comp=Z,5.6nm,0.9s,mb4.3,baz=103,slow=6.4,SNR=16						
ZAL	Zalesovo	53.80	322	P	P	22 47 48.9	-1.3
MKAR	Makanchi Array	54.30	312	P	P	22 47 54.0	+0.1
MKAR				PcP	PcP	22 48 56.4	+0.7
MKAR	Makanchi Array	54.30	312	P	P	22 47 54.0	+0.1
	comp=Z,1.0nm,0.7s,mb3.6,baz=92,slow=9.1,SNR=12						
MKAR				PcP	PcP	22 48 56.4	+0.7
	comp=Z,1.0nm,0.9s,baz=97,slow=4.9,SNR=3.8						
KURK	Kurchatov	57.07	317	*e*P	P	22 48 13.5	0.0
	comp=Z,26nm,2.1s,mb4.7						
KURK	Kurchatov	57.07	317	*e*P	P	22 48 13.5	0.0
KURK				pmax	pmax		
	comp=Z,26nm,2.1s,mb4.7						
TKM2	Tokmak 2	58.96	308	*e*P	P	22 48 28.0	+1.2
	comp=Z,4.0nm,0.9s,mb4.2						
TKM2	Tokmak 2	58.96	308	*e*P	P	22 48 28.0	+1.2
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
AAK	Ala-Archa	59.78	307	*e*P	P	22 48 32.5	0.0
	comp=Z,2.6nm,1.1s,mb4.0						
AAK	Ala-Archa	59.78	307	*e*P	P	22 48 32.5	0.0
AAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.0						
UCH	Uchtor	59.79	307	*e*P	P	22 48 34.8	+2.2
	comp=Z,5.9nm,1.1s,mb4.3						
EKS2	Erkin-Say	60.31	307	*e*P	P	22 48 35.9	-0.2
	comp=Z,1.3nm,0.8s,mb3.8						
AML	Almayashu	60.40	307	*e*P	P	22 48 38.3	+1.5
	comp=Z,5.8nm,1.0s,mb4.4						
BRVK	Borovoye	62.32	319	*e*P	P	22 48 49.8	+0.4
	comp=Z,6.2nm,1.0s,mb4.4						
BRVK	Borovoye	62.32	319	*e*P	P	22 48 49.8	+0.4
BRVK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.4						
KBL	Kabul	64.98	299	*e*P	P	22 49 07.5	+0.4
INK	Inuvik	67.32	24	*e*P	P	22 49 21.3	-0.1
	comp=Z,62nm,0.7s						
INK	Inuvik	67.32	24	P	P	22 49 20.5	-0.9
INK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
INK	Inuvik	67.32	24	P	P	22 49 20.5	-0.9
	comp=Z,1.5nm,0.8s,mb3.9,baz=246,slow=5.9,SNR=4.1						
ARU	Arti	68.85	324	*e*P	P	22 49 31.7	+0.6
	comp=Z,2.5nm,0.8s,mb4.0						
ARU	Arti	68.85	324	*e*P	P	22 49 31.7	+0.6
ARU				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
YKA	Yellowknife Ar	76.23	28	P	P	22 50 14.0	-0.6
YKA	Yellowknife Ar	76.23	28	P	P	22 50 14.0	-0.6
	comp=Z,0.7nm,0.5s,mb3.6,baz=290,slow=5.9,SNR=9.9						
KIV	Kislovodsk	82.02	314	*e*P	P	22 50 47.7	+1.3
	comp=Z,7.2nm,1.0s,mb4.3						
KIV	Kislovodsk	82.02	314	*e*P	P	22 50 48.3	+1.9
KIV				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
FINES	FINESS Array B	82.76	334	P	P	22 50 49.9	0.0
FINES	FINESS Array B	82.76	334	P	P	22 50 49.9	0.0
	comp=Z,1.5nm,0.8s,mb3.8,baz=72,slow=6.2,SNR=5.4						
NVAR	Mina Array Bea	83.08	51	P	P	22 50 52.9	+0.9
	comp=Z,1.6nm,0.7s,mb3.8,baz=260,slow=4.0,SNR=8.9						
AKASG	Malin Array Be	87.09	324	*i* P	P	22 51 12.1	+0.4
AKASG	Malin Array Be	87.09	324	P	P	22 51 10.5	-1.2
	comp=Z,0.1nm,0.3s,mb3.2,baz=44,slow=4.4,SNR=6.8						
NOA	NORSAR Array B	88.53	339	LR	LR	23 35 31.8	
	comp=Z,50nm,18.4s,baz=290,slow=38						
BRTR	Keskin Array B	89.94	313	P	P	22 51 25.4	+0.1
	comp=Z,1.9nm,1.0s,mb4.0,baz=90,slow=2.7,SNR=6.8						
SMCO	Snowmass	90.71	47	*e*P	P	22 51 29.9	+0.9
	comp=Z,2.7nm,0.9s,mb4.3						
LPAZ	La Paz	150.12	84	*e*PKPdf	PKPdf	22 58 11.2	-0.2
LPAZ				*e*PKPbc	PKPbc	22 58 18.0	+1.4
LPAZ	La Paz	150.12	84	*e*PKIKP	PKPdf	22 58 11.3	-0.1

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*ISCJB **05** 22:46:54.5±0.3, 5549N±002×11031E±003, h10^{km}, mb3.4/1, Error ellipse: s-maj=3.9km s-min=2.0km az=142.2*
*MOS **05** 22:46:55.8±0.8, 5575N×110.18E, h10^{km}, mb4.3/1, Error ellipse: s-maj=13.1km s-min=9.0km az=50.7*
*BYKL **05** 22:46:57.1±0.2, 5569N×11023E, h9^{km}±3^{km}*
*IDC **05** 22:46:58.7±8.9, 5569N×10966E, h0^{km}, mb1 3.2/3, mb1mx3.0/22, mbtmp3.2/3, ML2.8/2, Error ellipse: s-maj=113.9km s-min=38.5km az=74.0*
*NEIC **05** 22:47:01.0±2.5, 5569N×10952E, h10^{km}, mb3.5/1, Error ellipse: s-maj=38.9km s-min=14.9km az=66.0*
ISC 05 22:46:56.5±0.3, **5557N**±002×**11030E**±003, **h10**^{km}, **n52, σ1^{s}43**/93, **mb3.4**/1, **8C-2D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIZ	Nizh Angarsk	0.48	296	*e*PG	Pg	22 47 04.1	-1.7
NIZ				*e*		22 47 09.8	
NIZ				pmax	pmax		
	comp=Z,582nm,0.4s						
NIZ				smax			
	comp=E,2μm,0.5s						
NIZ	Nizh Angarsk	0.48	296	⇑*i*Pg	Pg	22 47 04.2	-1.6
NIZ				*e*Sg	Sg	22 47 09.8	-2.3
NIZ				Pmax			
	comp=E,268nm,0.3s						
NIZ				Smax			
	comp=E,1μm,0.2s						
KMO	Kumora	0.60	58	⇑*i*PG	Pg	22 47 07.4	-0.7
KMO				*e*		22 47 14.3	
KMO				pmax	pmax		
	comp=Z,370nm,0.2s						
KMO				smax			
	comp=N,548nm,0.4s						
KMO	Kumora	0.60	58	⇑*i*Pg	Pg	22 47 07.5	-0.6
	comp=N,11nm,0.3s						
KMO				⇑*i*Pg	Pg	22 47 07.5	-0.6
	comp=N,38nm,0.3s						
KMO				⇑*i*Pg	Pg	22 47 07.5	-0.6
	comp=N,446nm,0.3s						
KMO				*e*Sg	Sg	22 47 15.4	-0.5
KMO				Pmax			
	comp=N,370nm,0.3s						
KMO				Smax			
	comp=N,877nm,0.9s						
YOA	Uoyan	0.98	54	⇓*i*PG	Pg	22 47 14.4	-0.9
YOA				*e*		22 47 27.9	
YOA				pmax	pmax		
	comp=Z,130nm,0.2s						
YOA				smax			
	comp=E,1μm,0.5s						
YOA	Uoyan	0.98	54	*e*Pg	Pg	22 47 14.4	-0.9
YOA				*e*Sg	Sg	22 47 27.9	-0.1
YOA				Pmax			
	comp=E,171nm,0.2s						
YOA				Smax			
	comp=E,1μm,0.5s						
UKT	Uakit	1.89	91	⇑*i*PN	Pn	22 47 31.2	+2.4
UKT				*e*		22 47 57.7	
UKT				pmax	pmax		
	comp=Z,200nm,0.9s						
UKT				smax			
	comp=N,527nm,0.8s						
UKT	Uakit	1.89	91	⇓*i*Pg	Pg	22 47 31.3	-1.4
	comp=N,27nm,0.3s						
UKT				⇑*i*Pg	Pg	22 47 31.3	-1.4
	comp=N,53nm,0.3s						
UKT				⇑*i*Pg	Pg	22 47 31.3	-1.4
	comp=N,65nm,0.3s						
UKT				*e*Sg	Sg	22 47 57.1	-0.1
UKT				Pmax			
	comp=N,91nm,0.4s						
UKT				Smax			
	comp=N,372nm,0.5s						
SVKR	Severomuysk	1.92	72	*e*PN	Pn	22 47 30.9	+1.8
SVKR				*e*		22 47 32.2	
SVKR				*e*S	Sn	22 47 53.1	-0.2
SVKR				*e*		22 47 57.4	
SVKR				pmax	pmax		
	comp=Z,247nm,0.6s						
SVKR				smax			
	comp=N,2μm,0.5s						
SVKR	Severomuysk	1.92	72	*e*Pn	Pn	22 47 31.0	+1.9
SVKR				*e*Pg	Pg	22 47 31.9	-1.3
SVKR				*e*Sg	Sg	22 47 57.4	-0.6
SVKR				Pmax			
	comp=N,251nm,0.3s						
SVKR				Smax			
	comp=N,2μm,0.5s						
SYVR	Suvo	1.93	185	*e*PN	Pg	22 47 33.5	+0.1
SYVR				*e*		22 48 00.9	
SYVR				pmax	pmax		
	comp=Z,51nm,0.6s						
SYVR				smax			
	comp=N,432nm,0.7s						
SYVR	Suvo	1.93	185	*e*Pg	Pg	22 47 33.6	+0.2
SYVR				*e*Sg	Sg	22 48 01.0	+2.7
SYVR				Pmax			
	comp=N,58nm,0.6s						
SYVR				Smax			
	comp=N,531nm,0.7s						
MXMB	Maximikha	2.49	202	*e*Pg	Pg	22 47 43.6	-0.5
MXMB				*e*Sg	Sg	22 48 17.3	+1.0
MXMB				Pmax			
	comp=N,27nm,0.4s						
MXMB				Smax			
	comp=N,250nm,0.5s						
OGRR	Ongureny	2.49	220	*e*PN	Pn	22 47 39.7	+2.6
OGRR				*e*		22 47 43.3	
OGRR				*e*		22 48 15.0	
OGRR				pmax	pmax		
	comp=Z,20nm,0.3s						
OGRR				smax			
	comp=E,128nm,0.6s						
OGRR	Ongureny	2.49	220	*e*Pn	Pn	22 47 39.7	+2.6
OGRR				*e*Sg	Sg	22 48 15.9	-0.6
OGRR				Smax			
	comp=E,126nm,0.2s						
BOD	Bodaibo	3.04	41	*e*Pn	Pn	22 47 45.4	+0.8
BOD				*e*Sn	Sn	22 48 21.1	+0.1
BOD				*e*Sg	Sb	22 48 28.5	+0.8
BOD				Smax			
	comp=E,115nm,0.4s						
NLYR	Nelyaty	3.17	71	*e*Pn	Pn	22 47 47.5	+1.2
NLYR				*e*Pg	Pg	22 47 53.7	-3.4
NLYR				*e*		22 47 57.0	
NLYR				*e*Sg	Sg	22 48 36.1	-2.0
ZRHB	Zarechye	3.55	213	*e*Sg	Sg	22 48 49.1	-1.2
ZRHB				Smax			
	comp=E,163nm,0.9s						
TRG	Tyrgan	3.65	221	*e*Pn	Pn	22 47 55.4	+2.4
TRG				*e*Sn	Sn	22 48 39.2	+3.1
TRG				*e*Sg	Sg	22 48 53.0	-0.7
TRG				Smax			
	comp=E,58nm,0.5s						
TRTB	Turuntaevo	3.70	206	*e*Pn	Pn	22 47 56.6	+2.9
TRTB				*e*Sg	Sg	22 48 55.1	-0.2
TRTB				Smax			
	comp=E,66nm,1.0s						

UUDB	Ulan-Yde	4.03	204	eSg	Sg	22 49 04.8	-1.0
UUDB				Smax			
	comp=E,161nm,1.5s						
CIT	Chita	4.04	150	ePN	Pg	22 48 11.1	-2.8
CIT				e		22 49 04.7	
CIT				pmax	pmax		
	comp=Z,41nm,1.1s						
CIT				smax			
	comp=E,144nm,0.9s						
CIT	Chita	4.04	150	ePg	Pg	22 48 11.4	-2.5
CIT				eSg	Sg	22 49 05.0	-1.3
CIT				Pmax			
	comp=E,27nm,0.6s						
CIT				Smax			
	comp=E,87nm,0.7s						
FFNB	Fofonovo	4.11	212	eSg	Sg	22 49 07.6	-0.7
FFNB				Smax			
	comp=E,139nm,0.5s						
KAB	Kabansk	4.14	213	ePN	Pg	22 48 13.7	-2.0
CRS	Chara	4.64	70	ePN	Pn	22 48 08.0	+1.5
CRS				e		22 48 19.6	
CRS				e		22 49 20.0	
CRS				pmax	pmax		
	comp=Z,67nm,0.9s						
CRS				smax			
	comp=E,78nm,0.9s						
CRS	Chara	4.64	70	ePg	Pg	22 48 20.1	-5.2
CRS				eSg	Sg	22 49 20.0	-5.3
CRS				Pmax			
	comp=E,67nm,0.9s						
CRS				Smax			
	comp=E,92nm,1.4s						
IRK	Irkutsk	4.88	229	ePN	Pn	22 48 12.0	+2.1
IRK				eS	Sn	22 49 06.7	+0.3
IRK				eS	Sg	22 49 28.4	-4.7
IRK				smax			
	comp=N,158nm,0.2s						
LSTR	Listvyanka	4.93	223	ePn	Pn	22 48 12.8	+2.2
LSTR				eSn	Sn	22 49 08.9	+1.3
LSTR				eSg	Sg	22 49 31.9	-2.8
LSTR				Smax			
	comp=N,57nm,1.2s						
TUP	Tupik	5.67	98	ePN	Pn	22 48 22.0	+1.3
TUP				e		22 48 39.6	
TUP				eS	Sn	22 49 26.4	+0.6
TUP				e		22 49 54.5	
TUP				pmax	pmax		
	comp=Z,15nm,0.6s						
TUP				smax			
	comp=N,70nm,0.9s						
TUP	Tupik	5.67	98	ePn	Pn	22 48 22.1	+1.4
TUP				ePg	Pg	22 48 39.8	-5.3
TUP				eSg	Sg	22 49 54.8	-3.7
TUP				Pmax			
	comp=N,19nm,0.8s						
TUP				Smax			
	comp=N,77nm,0.8s						
ARS	Arshan	5.94	235	ePn	Pn	22 48 24.7	+0.4
ARS				eSn	Sn	22 49 31.7	-0.6
ARS				eSg	Sg	22 50 02.2	-4.7
ARS				Smax			
	comp=N,210nm,0.7s						
KPC	Khapcheranga	6.01	167	ePN	Pn	22 48 28.3	+2.9
KPC				e		22 48 46.9	
KPC				e		22 50 05.7	
KPC				pmax	pmax		
	comp=Z,3.0nm,0.6s						
KPC				smax			
	comp=E,61nm,1.1s						
KPC	Khapcheranga	6.01	167	ePn	Pn	22 48 27.6	+2.2
KPC				ePg	Pg	22 48 47.0	-4.5
KPC				eSg	Sg	22 50 05.9	-3.4
KPC				Pmax			
	comp=E,3.0nm,0.7s						
KPC				Smax			
	comp=E,60nm,1.2s						
MOY	Mondy	6.78	239	ePN	Pn	22 48 38.4	+2.5
MOY				e		22 48 59.9	
MOY				eS	Sn	22 49 53.1	0.0
MOY				e		22 50 26.7	
MOY				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MOY				smax			
	comp=E,49nm,1.2s						
MOY	Mondy	6.78	239	ePn	Pn	22 48 38.5	+2.6
MOY				eSn	Sn	22 49 52.3	-0.8
MOY				eSg	Sg	22 50 26.7	-7.2
MOY				Smax			
	comp=E,50nm,1.2s						
ORL	Orlik	6.88	248	ePN	Pn	22 48 39.2	+1.9
ORL				eS	Sn	22 49 55.3	-0.3
ORL				eS	Sg	22 50 28.7	-8.5
ORL				smax			
	comp=N,76nm,0.7s						
ORL	Orlik	6.88	248	ePn	Pn	22 48 39.4	+2.1
ORL				eSn	Sn	22 49 55.1	-0.5
ORL				eSg	Sg	22 50 30.4	-6.8
ORL				Smax			
	comp=N,75nm,0.7s						
SONM	Songino Array	8.12	199	Pn	Pn	22 48 58.8	+4.5
SONM				Lg		22 51 16.2	
SONM	Songino Array	8.12	199	PN	Pn	22 48 58.8	+4.5
SONM	Songino Array	8.12	199	Pn	Pn	22 48 58.8	+4.5
	comp=N,0.1nm,0.3s,baz=13,slow=13,SNR=7.2						
SONM				Lg		22 51 16.2	
	comp=N,0.8nm,0.3s,baz=17,slow=27,SNR=14						
ZALV	Zalesovo Beam	14.78	274	Pn	Pn	22 50 23.9	-1.3
ZALV	Zalesovo Beam	14.78	274	Pn	Pn	22 50 23.9	-1.3
	comp=N,0.1nm,0.3s,baz=79,slow=9.2,SNR=3.5						
ZAL	Zalesovo	14.79	274	P	Pn	22 50 24.0	-1.4
MK31	Makanchi Array	19.52	255	eP	Pn	22 51 24.3	-0.7
MKAR	Makanchi Array	19.52	255	P	Pn	22 51 23.4	-1.5
MKAR	Makanchi Array	19.52	255	P	Pn	22 51 23.4	-1.5
	comp=N,0.1nm,0.3s,baz=62,slow=10.0,SNR=8.1						
BRVK	Borovoye	23.26	281	eP	P	22 52 03.3	-0.5
	comp=N,1.1nm,0.7s,mb3.4						
AAK	Ala-Archa	26.45	256	P	P	22 52 34.6	+1.3
KIV	Kislovodsk	43.49	284	P	P	22 55 00.3	+0.7
KIV	Kislovodsk	43.49	284	P	P	22 55 00.3	+0.7
MALT	Malatya	49.67	281	P	P	22 55 49.8	+1.6

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*ISCJB **05** 22:47:09.3±0.5, 40.37N±0.02×25.74E±0.03, h6^{km}±4^{km}, Error ellipse: s-maj=4.2km s-min=3.7km az=152.4*

*CSEM **05** 22:47:09.6±0.1, 40.35N×25.78E, h8^{km}, MD3.1, Error ellipse: s-maj=1.8km s-min=1.3km az=54.0*

*ATH **05** 22:47:09.7, 40.41N×25.83E, h32^{km}±3^{km}, MD3.4/5*

*THE **05** 22:47:09.7, 40.29N×25.88E, h3^{km}*

*SOF **05** 22:47:09.9, 40.47N×25.80E, h18^{km}, MD2.5*

*NEIC **05** 22:47:09.8, 40.41N×25.82E, h34^{km}, MD3.4(ATH), MD3.1(ISK), After ATH.*

*ISK **05** 22:47:10.4, 40.38N×25.86E, h6^{km}, MD3.1*

ISC 05 22:47:10.2±0.4**, 40.38N**±0.02×**25.79E**±0.03**, h9**^{km}±4^{km}**, n77, σ0^{s}82**/103**, 6C, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GADA	Gvkgeada	0.21	156	i PG	Pg	22 47 14.8	+0.3
GADA				i SG	Sg	22 47 17.9	+0.5
GADA	Gvkgeada	0.21	156	Pg	Pg	22 47 14.1	-0.4
GADA	Gvkgeada	0.21	156	Pg	Pg	22 47 14.1	-0.4
GADA				i Sg	Sg	22 47 17.9	+0.5
ENEZ	Enez	0.45	38	i PG	Pg	22 47 18.9	-0.1
ENEZ				i SG	Sg	22 47 25.7	+0.7
ENEZ	Enez	0.45	38	i Pg	Pg	22 47 18.9	-0.1
ENEZ				i Sg	Sg	22 47 25.7	+0.7
ALN	Alexandroupoli	0.55	21	P	Pg	22 47 20.9	0.0
ALN				S	Sg	22 47 29.0	+0.8
ALN	Alexandroupoli	0.55	21	ePg	Pg	22 47 20.9	0.0
ALN				eSg	Sg	22 47 29.0	+0.8
ALN	Alexandroupoli	0.55	21	ePg	Pg	22 47 20.9	0.0
ALN				eSg	Sg	22 47 29.0	+0.8
LIA	Limnos Island	0.67	224	⇑iPn	Pn	22 47 24.6	-1.2
LIA				eSn	Sg	22 47 34.0	+2.1
LIA	Limnos Island	0.67	224	⇑iPN	Pn	22 47 24.6	-1.2
LIA				eSN	Sg	22 47 34.0	+2.1
LIA	Limnos Island	0.67	224	i Pn	Pn	22 47 24.6	-1.2
LIA				eSn	Sg	22 47 34.0	+2.1
EZN	Ezine	0.69	143	PG	Pg	22 47 23.0	-0.5
EZN	Ezine	0.69	143	Pg	Pg	22 47 23.0	-0.5
EZN	Ezine	0.69	143	ePg	Pg	22 47 23.0	-0.5
LOS	Limnos	0.70	231	P	Pg	22 47 23.4	-0.3
LOS	Limnos	0.70	231	ePg	Pg	22 47 23.4	-0.3
LOS	Limnos	0.70	231	ePg	Pg	22 47 23.4	-0.3
LPK	Lapseki	0.74	90	PG	Pg	22 47 24.3	-0.2
LPK	Lapseki	0.74	90	Pg	Pg	22 47 24.3	-0.2
LPK	Lapseki	0.74	90	ePg	Pg	22 47 24.3	-0.2
RDO	Rodhopi	0.79	346	⇑iPn	Pg	22 47 25.1	-0.3
RDO				eSn	Sg	22 47 35.9	+0.2
RDO	Rodhopi	0.79	346	⇑iPN	Pg	22 47 25.1	-0.3
RDO				eSN	Sg	22 47 35.9	+0.2
RDO	Rodhopi	0.79	346	i Pn	Pg	22 47 25.1	-0.3
RDO				eSn	Sg	22 47 35.9	+0.2
RKY	Sarkoy-Tekirda	1.10	73	PG	Pg	22 47 30.3	-1.1
RKY	Sarkoy-Tekirda	1.10	73	Pn	Pn	22 47 30.4	-1.4
RKY	Sarkoy-Tekirda	1.10	73	ePg	Pg	22 47 30.3	-1.1
PRK	Paraskevi	1.19	162	⇑iPn	Pn	22 47 32.1	-0.9
PRK				i Sn	Sn	22 47 48.4	-0.9
PRK	Paraskevi	1.19	162	⇑iPN	Pn	22 47 32.1	-0.9
PRK				eSN	Sn	22 47 48.4	-0.9
PRK	Paraskevi	1.19	162	i Pn	Pn	22 47 32.1	-0.9
PRK				i Sn	Sn	22 47 48.4	-0.9
MFT	Murefte	1.21	70	PN	Pn	22 47 32.8	-0.4
MFT	Murefte	1.21	70	ePn	Pn	22 47 32.8	-0.4
KDZ	Kurdzhali	1.30	348	i Pg	Pn	22 47 33.9	-0.6
KDZ	Kurdzhali	1.30	348	i Pg	Pn	22 47 33.9	-0.6
KDZ	Kurdzhali	1.30	348	i Pg	Pn	22 47 33.9	-0.6
MRMT	Marmara Adasi	1.40	80	ePN	Pn	22 47 36.9	+1.1
MRMT	Marmara Adasi	1.40	80	ePn	Pn	22 47 36.9	+1.1
RZN	Rozhen	1.54	328	i Pg	Pg	22 47 39.5	-0.2
RZN	Rozhen	1.54	328	i Pg	Pg	22 47 39.5	-0.2
RZN	Rozhen	1.54	328	i Pg	Pg	22 47 39.5	-0.2
EDC	Edincik	1.59	91	ePN	Pn	22 47 38.6	+0.2
EDC	Edincik	1.59	91	Pn	Pn	22 47 38.6	+0.2
EDC	Edincik	1.59	91	ePn	Pn	22 47 38.6	+0.2
EDRB	Edirne	1.63	26	ePN	Pn	22 47 39.8	+0.7
EDRB	Edirne	1.63	26	Pn	Pn	22 47 39.9	+0.8
EDRB	Edirne	1.63	26	ePn	Pn	22 47 39.8	+0.7
DIM	Dimitrovgrad	1.68	353	i Pg	Pg	22 47 41.7	-0.7
DIM	Dimitrovgrad	1.68	353	i Pg	Pg	22 47 41.7	-0.7
DIM	Dimitrovgrad	1.68	353	i Pg	Pg	22 47 41.7	-0.7
NVR	Nevrokopi	1.75	304	ePb	Pn	22 47 40.1	-0.6
NVR	Nevrokopi	1.75	304	ePB	Pn	22 47 40.1	-0.6
NVR	Nevrokopi	1.75	304	ePb	Pn	22 47 40.1	-0.6
PLG	Polygyros	1.79	271	ePn	Pn	22 47 40.5	-0.7
PLG	Polygyros	1.79	271	ePb	Pn	22 47 41.0	-0.2
PLG				eSb	Sg	22 48 07.5	-0.2
PLG	Polygyros	1.79	271	ePN	Pn	22 47 40.5	-0.7
PLG	Polygyros	1.79	271	ePn	Pn	22 47 40.5	-0.7
PLG	Polygyros	1.79	271	ePb	Pn	22 47 41.0	-0.2
PLG				eSb	Sg	22 48 07.5	-0.2
SRS	Serrai	1.82	294	P	Pb	22 47 43.7	0.0
SRS				S	Sb	22 48 08.0	+1.4
SRS	Serrai	1.82	294	ePb	Pb	22 47 43.7	0.0
SRS				eSb	Sb	22 48 08.0	+1.4
SRS	Serrai	1.82	294	ePb	Pb	22 47 43.7	0.0
SRS				eSb	Sb	22 48 08.0	+1.4
PLD	Plovdiv	1.91	335	P	Pg	22 47 46.0	-0.8
PLD				S	Sg	22 48 12.0	+0.5
PLD	Plovdiv	1.91	335	ePn	Pg	22 47 46.0	-0.8
PLD				eSn	Sg	22 48 12.0	+0.5
PLD	Plovdiv	1.91	335	ePn	Pg	22 47 46.0	-0.8
PLD				eSn	Sg	22 48 12.0	+0.5
KCT	Karacabey	1.97	93	ePN	Pn	22 47 44.4	+0.8
KCT	Karacabey	1.97	93	Pn	Pn	22 47 44.4	+0.8
KCT	Karacabey	1.97	93	ePn	Pn	22 47 44.4	+0.8
CTT	Catalca	2.15	68	ePN	Pn	22 47 47.2	+1.1
CTT	Catalca	2.15	68	Pn	Pn	22 47 47.3	+1.1
CTT	Catalca	2.15	68	ePn	Pn	22 47 47.2	+1.1
JMB	Yambol	2.17	16	ePn	Pn	22 47 46.9	+0.5
JMB				eSn	Sg	22 48 18.0	-1.9
JMB	Yambol	2.17	16	ePn	Pn	22 47 46.9	+0.5
JMB	Yambol	2.17	16	i P	Pb	22 47 50.0	+0.4
JMB				eSn	Sg	22 48 18.0	-1.9
YLV	Yalova	2.74	85	ePN	Pn	22 47 55.5	+1.2
YLV	Yalova	2.74	85	ePn	Pn	22 47 55.5	+1.2
IZI	Iznik	2.81	90	ePN	Pn	22 47 56.2	+0.9
IZI	Iznik	2.81	90	Pn	Pn	22 47 56.3	+0.9
IZI	Iznik	2.81	90	Pn	Pn	22 47 56.3	+1.0
SZH	Strazhica	2.89	2	i P	Pn	22 47 56.0	-0.3

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*IDC **05** 22:51:26.1±1.2, 3.09N×100.04E, h0^{km}, mb4.1/3, mb1 4.2/3, mb1mx3.6/20, mbtmp4.1/3, Error ellipse: s-maj=26.1km s-min=13.4km az=157.0*

*ISCJB **05** 22:51:33.6±1.2, 2.6N±0.7×99.4E±0.8, h103^{km}±35^{km}, mb4.2/7, Error ellipse: s-maj=170.8km s-min=17.1km az=140.5*

*NEIC **05** 22:51:34.5±1.0, 2.54N×99.36E, h97^{km}±29^{km}, mb4.2/3, Error ellipse: s-maj=131.4km s-min=12.9km az=51.0*

ISC 05 22:51:34.5±1.1**, 2.6N**±0.7×**99.4E**±0.8**, h95**^{km}±31^{km}**, n11, σ0^{s}72**/11**, mb4.2**/7**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	0.52	298	Pg	Pn	22 51 49.9	0.0
PSI				Lg		22 52 04.2	
PSI	Prapat	0.52	298	Pg	Pn	22 51 49.9	0.0
	24nm,0.3s,baz=205,slow=8.0,SNR=166						
PSI				Lg		22 52 04.2	
WRA	Warramunga Arr	40.95	125	P	P	22 59 08.8	+0.7
	1.3nm,0.4s,mb4.2,baz=303,slow=9.1,SNR=13						
WB2	Warramunga Arr	40.96	125	eP	P	22 59 08.9	+0.8
MKAR	Makanchi Array	46.51	344	P	P	22 59 51.9	-0.2
	0.3nm,0.3s,mb3.5,baz=156,slow=8.9,SNR=19						
PMG	Port Moresby	49.06	105	eP	P	23 00 12.4	-0.1
	3.9nm,0.4s,mb4.7						
KURK	Kurchatov	51.09	343	eP	P	23 00 27.2	0.0
	0.8nm,0.5s,mb4.0						
CTAO	Charters Tower	51.19	118	P	P	23 00 26.8	-1.6
	7.9nm,1.1s,mb4.7						
ZALV	Zalesovo Beam	52.61	349	P	P	23 00 39.2	+0.9
ZALV	Zalesovo Beam	52.61	349	P	P	23 00 39.2	+0.9
	2.7nm,0.4s,mb4.7,baz=169,slow=6.9,SNR=21						
BRVK	Borovoye	55.79	339	eP	P	23 01 01.0	-0.5
	1.1nm,0.5s,mb4.1						

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*CSEM **05** 23:17:38.8±0.1, 43.36N×12.64E, h15^{km}, MD2.7/27, Error ellipse: s-maj=1.2km s-min=1.0km az=62.0*

*ISCJB **05** 23:17:39.2±0.3, 43.37N±0.01×12.64E±0.03, h10^{km}, Error ellipse: s-maj=2.7km s-min=2.1km az=179.8*

*ROM **05** 23:17:39.5±0.2, 43.37N×12.64E, h10^{km}±2^{km}, Md2.7/27, Ml2.4/19, Error ellipse: s-maj=1.7km s-min=1.6km az=2.0*

*VIE **05** 23:17:40.5±0.4, 43.40N×12.84E, h10^{km}, mb2.4/5, ML2.5/8, Error ellipse: s-maj=3.6km s-min=3.0km az=96.0*

ISC 05 23:17:39.9±0.3**, 43.35N**±0.02×**12.63E**±0.03**, h13**^{km}±3^{km}**, n84, σ0^{s}97**/113**, 15C-15D, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MURB	Monte Urbino	0.11	223	⇑iPg	Pg	23 17 43.1	+0.1
MURB				Sg	Sg	23 17 46.3	+1.1
	9µm,0.3s						
MURB	Monte Urbino	0.11	223	⇑iPg	Pg	23 17 43.1	+0.1
MURB				Sg	Sg	23 17 46.3	+1.1
	9µm,0.3s						
SNTG	Esanatoglia	0.24	112	⇓iPg	Pg	23 17 44.9	-0.2
SNTG				Sg	Sg	23 17 48.8	+0.2
SNTG	Esanatoglia	0.24	112	⇓iPg	Pg	23 17 44.9	-0.2
SNTG				Sg	Sg	23 17 48.8	+0.2
ASS	Assisi	0.28	177	⇑iPg	Pg	23 17 45.9	+0.2
ASS				Sg	Sg	23 17 50.9	+1.2
	16nm,0.2s						
ASS	Assisi	0.28	177	⇑iPg	Pg	23 17 45.9	+0.2
ASS				Sg	Sg	23 17 50.9	+1.2
	16nm,0.2s						
CDCA	Citt' di Caste	0.31	292	Pg	Pg	23 17 45.9	-0.3
	123nm,0.5s						
CDCA	Citt' di Caste	0.31	292	Pg	Pg	23 17 45.9	-0.3
	123nm,0.5s						
BADI	Badiali	0.33	300	⇑ePg	Pg	23 17 45.9	-0.6
BADI				Sg	Sg	23 17 51.4	+0.4
	487nm,0.2s						
BADI	Badiali	0.33	300	⇑ePg	Pg	23 17 45.9	-0.6
BADI				Sg	Sg	23 17 51.4	+0.4
	487nm,0.2s						
FSSB	Fossombrone	0.36	17	Pg	Pg	23 17 46.2	-1.0
FSSB				Sg	Sg	23 17 51.7	-0.4
FSSB	Fossombrone	0.36	17	Pg	Pg	23 17 46.2	-1.0
FSSB				Sg	Sg	23 17 51.7	-0.4
CESI	CESI - Serrava	0.40	149	⇑ePg	Pg	23 17 47.7	-0.1
CESI				Sg	Sg	23 17 55.0	+1.9
	131nm,0.3s						
CING	Cingoli	0.41	86	Pg	Pg	23 17 47.7	-0.4
CING				Sg	Sg	23 17 54.4	+0.7
	361nm,0.3s						
CING	Cingoli	0.41	86	Pg	Pg	23 17 47.7	-0.4
CING				Sg	Sg	23 17 54.4	+0.7
	361nm,0.3s						
CRE	Caprese Michel	0.56	299	Pg	Pg	23 17 50.3	-0.6
	44nm,0.3s						
CRE	Caprese Michel	0.56	299	Pg	Pg	23 17 50.3	-0.6
	44nm,0.3s						
SENI	Senigallia	0.57	50	Pg	Pg	23 17 51.3	+0.3
SENI				Sg	Sg	23 17 57.2	-1.3
	316nm,0.3s						
RSM	Repubblica di	0.60	347	Pg	Pg	23 17 51.4	-0.2
	45nm,0.2s						
RSM	Repubblica di	0.60	347	Pg	Pg	23 17 51.4	-0.2
	45nm,0.2s						
PESA	Pesaro	0.61	14	Pg	Pg	23 17 51.1	-0.8
PESA				Sg	Sg	23 18 00.8	+0.8
	498nm,0.3s						
PESA	Pesaro	0.61	14	Pg	Pg	23 17 51.1	-0.8
PESA				Sg	Sg	23 18 00.8	+0.8
	498nm,0.3s						
NRCA	Norcia	0.62	145	⇑ePg	Pg	23 17 51.6	-0.4
	32nm,0.3s						
NRCA	Norcia	0.62	145	⇑ePg	Pg	23 17 51.6	-0.4
	32nm,0.3s						
SACS	San Casciano d	0.72	227	Pg	Pg	23 17 53.7	-0.2
SACS				Sg	Sg	23 18 05.5	+2.1
	256nm,0.7s						
AOI	Ancona	0.74	74	Pg	Pg	23 17 53.5	-0.7
AOI				Sg	Sg	23 18 05.2	+1.3
	132nm,0.3s						
AOI	Ancona	0.74	74	Pg	Pg	23 17 53.5	-0.7
AOI				Sg	Sg	23 18 05.2	+1.3
SFI	Santa Sofia	0.80	315	Pg	Pg	23 17 54.7	-0.6
	55nm,0.8s						
SFI	Santa Sofia	0.80	315	Pg	Pg	23 17 54.7	-0.6
	55nm,0.8s						
LNSS	Leonessa	0.80	158	Pg	Pg	23 17 55.1	-0.3
LNSS				Sg	Sg	23 18 08.4	+2.5
	221nm,0.3s						
LNSS	Leonessa	0.80	158	Pg	Pg	23 17 55.1	-0.3
LNSS				Sg	Sg	23 18 08.4	+2.5
OFFI	Offida	0.88	118	Pg	Pg	23 17 57.3	+0.5
	380nm,0.8s						
OFFI	Offida	0.88	118	Pg	Pg	23 17 57.3	+0.5
	380nm,0.8s						
LATE	Laterza	0.95	220	Pg	Pg	23 17 58.2	0.0
	19nm,0.5s						
LATE	Laterza	0.95	220	Pg	Pg	23 17 58.2	0.0
	19nm,0.5s						
MNS	Montasola	0.96	178	Pg	Pg	23 17 58.2	-0.2
	65nm,0.4s						
MNS	Montasola	0.96	178	Pg	Pg	23 17 58.2	-0.2
	65nm,0.4s						
ARCI	Arcidosso	0.98	240	Pg	Pg	23 17 58.3	-0.5
	73nm,0.9s						
ARCI	Arcidosso	0.98	240	Pg	Pg	23 17 58.3	-0.5
	73nm,0.9s						
CSNT	Castellina Chi	0.98	278	Pg	Pg	23 17 58.1	-0.8
	88nm,0.7s						
CSNT	Castellina Chi	0.98	278	Pg	Pg	23 17 58.1	-0.8
	88nm,0.7s						
CAMP	Campotosto	0.99	144	Pg	Pg	23 17 58.1	-0.9
	18nm,0.7s						
CAMP	Campotosto	0.99	144	Pg	Pg	23 17 58.1	-0.9
	18nm,0.7s						
VMG	Vicchio	1.00	308	Pg	Pg	23 17 59.9	+0.7
VMG	Vicchio	1.00	308	Pg	Pg	23 17 59.9	+0.7
TERO	Teramo	1.02	135	Pg	Pg	23 17 58.6	-0.9
	76nm,0.4s						
TERO	Teramo	1.02	135	Pg	Pg	23 17 58.6	-0.9
	76nm,0.4s						
FIAM	Fiamignano	1.14	161	Pg	Pg	23 18 00.5	-1.2
	63nm,0.8s						
FIAM	Fiamignano	1.14	161	Pg	Pg	23 18 00.5	-1.2
	63nm,0.8s						
AQU	L'Aquila	1.14	150	Pg	Pg	23 18 01.6	-0.3
	15nm,0.4s						
AQU	L'Aquila	1.14	150	Pg	Pg	23 18 01.6	-0.3
	15nm,0.4s						
GRFL	Gerfalco	1.22	261	Pg	Pg	23 18 01.9	-1.5
	29nm,1.1s						
GRFL	Gerfalco	1.22	261	Pg	Pg	23 18 01.9	-1.5
	29nm,1.1s						
FAGN	Fagnano	1.29	147	Pg	Pg	23 18 02.2	-2.4
	100nm,0.6s						
FAGN	Fagnano	1.29	147	Pg	Pg	23 18 02.2	-2.4
	100nm,0.6s						
CERT	Cerreto	1.42	169	Pg	Pg	23 18 06.2	-1.0
	38nm,0.8s						
CERT	Cerreto	1.42	169	Pg	Pg	23 18 06.2	-1.0
	38nm,0.8s						
SKDS	Skadanscina	2.41	24	i Pn	Pn	23 18 17.9	-1.2
VOY	Vojsko	2.83	18	ePn	Pn	23 18 24.2	-0.6
VOY				eSn	Sg	23 19 13.4	+2.5
VOY	Vojsko	2.83	18	ePn	Pn	23 18 24.2	-0.6
CADS	Cadrg	2.99	15	i Pn	Pn	23 18 26.1	-0.9
CADS	Cadrg	2.99	15	i Pn	Pn	23 18 26.1	-0.8
PDKS	Podkum	3.20	31	i Pn	Pn	23 18 29.7	-0.1
ABTA	Abfaltersbach	3.40	359	⇓iPn	Pn	23 18 33.1	+0.4
ABTA	Abfaltersbach	3.40	359	Pn	Pn	23 18 33.1	+0.5
OBKA	Obir	3.44	23	⇑iPn	Pn	23 18 32.5	-0.7
OBKA	Obir	3.44	23	⇓iSg	Sg	23 19 30.6	+0.2
	comp=E,14nm,0.6s						
OBKA	Obir	3.44	23	⇑iPn	Pn	23 18 32.5	-0.7
OBKA				⇓iSg	Sg	23 19 30.6	+0.2
	14nm,0.6s						
OBKA	Obir	3.44	23	Pn	Pn	23 18 32.5	-0.7
OBKA				Sg	Sg	23 19 30.6	+0.1
WTTA	Wattenberg	3.98	350	⇓iPn	Pn	23 18 41.9	+1.3
WTTA	Wattenberg	3.98	350	⇓iSg	Sg	23 19 52.0	+4.4
	comp=E,4.6nm,0.4s						
WTTA	Wattenberg	3.98	350	⇓iPn	Pn	23 18 41.9	+1.3
WTTA				⇓iSg	Sg	23 19 52.0	+4.4
	4.6nm,0.4s						
WTTA	Wattenberg	3.98	350	Pn	Pn	23 18 41.9	+1.3
SQTA	Sankt Quirin	4.00	346	⇑iPn	Pn	23 18 42.1	+1.2
SQTA	Sankt Quirin	4.00	346	⇓iSn	Sn	23 19 30.0	+2.3
SQTA	Sankt Quirin	4.00	346	⇑iPn	Pn	23 18 42.1	+1.2
SQTA				⇓iSn	Sn	23 19 30.0	+2.3
SQTA	Sankt Quirin	4.00	346	Pn	Pn	23 18 42.1	+1.2
SQTA				Sn	Sn	23 19 30.0	+2.4
WATA	Walderalm	4.06	350	⇑iPn	Pn	23 18 42.7	+1.0
WATA	Walderalm	4.06	350	⇑iPn	Pn	23 18 42.7	+1.0
WATA	Walderalm	4.06	350	Pn	Pn	23 18 42.7	+1.1
MOA	Molln	4.65	14	⇓iPn	Pn	23 18 50.1	+0.3
MOA	Molln	4.65	14	⇓iSn	Sn	23 19 43.5	0.0
MOA	Molln	4.65	14	⇓iPn	Pn	23 18 50.1	+0.3
MOA				⇓iSn	Sn	23 19 43.5	0.0
MOA	Molln	4.65	14	Pn	Pn	23 18 50.1	+0.4
MOA				Sn	Sn	23 19 43.5	0.0

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*CSEM **05** 23:21:37.8±0.1, 38.43N×26.06W, h10^{km}, ML3.3, Error ellipse: s-maj=2.5km s-min=1.3km az=15.0*

*ISCJB **05** 23:21:38.9±0.3, 37.88N±0.04×26.44W±0.03, h10^{km}, Error ellipse: s-maj=6.5km s-min=1.5km az=22.6*

*PDA **05** 23:21:43.3±1.3, 37.95N×26.31W, h5^{km}±4^{km}, MD3.2, ML3.3, Error ellipse: s-maj=4.5km s-min=2.2km az=27.0*

*SVSA **05** 23:21:43.3±1.3, 37.95N×26.31W, h5^{km}±4^{km}, MD3.2, ML3.3, Error ellipse: s-maj=4.5km s-min=2.2km az=27.0*

*NEIC **05** 23:21:43.6, 38.66N×25.74W, h0^{km}, MG4.3(MDD), After MDD.*

ISC 05 23:21:39.3±0.3**, 37.92N**±0.04×**26.43W**±0.02**, h10**^{km}**, n76, σ1^{s}04**/120**, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SET2	Ginetes	0.50	98	eP	Pg	23 21 50.9	+1.9
SET4	Mosteiros	0.50	94	i P	Pg	23 21 50.7	+1.7
PFET	Feteiras	0.52	101	i P	Pg	23 21 51.2	+1.9
PSAN	Santo Antonio	0.56	96	eP	Pg	23 21 51.5	+1.3
PDA	Ponta Delgada	0.63	105	eP	Pg	23 21 53.0	+1.5
PDA				eS	Sg	23 21 59.0	-0.7
FAC	Faja de Cima	0.63	103	eP	Pg	23 21 53.0	+1.5
FAC				eS	Sg	23 21 59.9	+0.1
CML	Cha da Macela	0.71	101	i P	Pg	23 21 54.1	+1.0
CML				eS	Sg	23 22 01.3	-1.1
CML	Cha da Macela	0.71	101	eS	Sg	23 22 01.3	-1.1
PVER	Pico Vermelho	0.73	99	i P	Pg	23 21 54.2	+0.7

PVER				eS	Sg	23 22 02.1	-0.9
PVER							
	1µm,0.3s						
PVER	Pico Vermelho	0.73	99	eS	Sg	23 22 02.1	-0.9
LFA	Lagoa do Fogo	0.76	101	i P	Pg	23 21 54.7	+0.7
PMAT	Coroa da Mata	0.76	97	i P	Pg	23 21 54.5	+0.5
PMAT				eS	Sg	23 22 02.8	-1.2
PMAT							
	2µm,0.2s						
PMAT	Coroa da Mata	0.76	97	eS	Sg	23 22 02.8	-1.2
PRCH	Ribeira Ch	0.77	104	i P	Pg	23 21 55.0	+0.8
PRCH				eS	Sg	23 22 03.6	-0.7
PRCH							
	1µm,0.3s						
PRCH	Ribeira Ch	0.77	104	eS	Sg	23 22 03.6	-0.7
MESC	Monte Escuro	0.79	99	i P	Pg	23 21 54.7	+0.2
MESC				eS	Sg	23 22 03.6	-1.2
MESC	Monte Escuro	0.79	99	eS	Sg	23 22 03.6	-1.2
VIF	Vila Franca	0.80	102	eP	Pg	23 21 55.2	+0.5
VIF				eS	Sg	23 22 04.4	-0.8
VIF							
	588nm,0.3s						
VIF	Vila Franca	0.80	102	eP	Pg	23 21 55.2	+0.5
VIF				eS	Sg	23 22 04.4	-0.8
PCNG	Congro	0.83	100	i P	Pg	23 21 55.3	0.0
PCNG				eS	Sg	23 22 05.0	-1.1
PCNG							
	481nm,0.3s						
PCNG	Congro	0.83	100	eS	Sg	23 22 05.0	-1.1
FRA1	Furnas	0.87	101	eP	Pg	23 21 56.0	0.0
FRA1				eS	Sg	23 22 05.2	-2.0
PFAD	Fenais da Ajud	0.88	95	i P	Pg	23 21 55.6	-0.6
PFAD				eS	Sg	23 22 06.1	-1.5
PFAD	Fenais da Ajud	0.88	95	eS	Sg	23 22 06.1	-1.5
MIRA	Miradouro	0.92	98	eP	Pg	23 21 56.4	-0.6
PFAV	Pico das Favas	0.95	327	eP	Pg	23 21 58.9	+1.3
PFAV				eS	Sg	23 22 10.2	+0.3
PFAV							
	299nm,0.2s						
PFAV	Pico das Favas	0.95	327	eP	Pg	23 21 58.9	+1.3
PFAV				eS	Sg	23 22 10.2	+0.3
PSCM	Serra do Cume	0.95	326	eP	Pg	23 21 58.0	+0.3
PSCM				eS	Sg	23 22 09.7	-0.4
PSCM							
	818nm,0.2s						
PSCM	Serra do Cume	0.95	326	eP	Pg	23 21 58.0	+0.3
PSCM				eS	Sg	23 22 09.7	-0.4
RIB2	Ribeirinha	0.96	322	eP	Pg	23 21 59.1	+1.4
RIB2				eS	Sg	23 22 10.9	+0.7
RIB2							
	616nm,0.2s						
RIB2	Ribeirinha	0.96	322	eP	Pg	23 21 59.1	+1.4
RIB2				eS	Sg	23 22 10.9	+0.7
ADH	Angra Heroismo	0.97	320	eP	Pg	23 21 58.8	+0.8
ADH				eS	Sg	23 22 11.0	+0.3
PVNV	Vila Nova	1.02	326	eP	Pg	23 21 59.9	+1.0
PVNV				eS	Sg	23 22 12.2	0.0
PVNV							
	544nm,0.1s						
PVNV	Vila Nova	1.02	326	eP	Pg	23 21 59.9	+1.0
PVNV				eS	Sg	23 22 12.2	0.0
PPAD	Pico dos Padre	1.03	319	eP	Pg	23 22 00.5	+1.3
PPAD				eS	Sg	23 22 13.1	+0.4
PPAD							
	211nm,0.1s						
PPAD	Pico dos Padre	1.03	319	eP	Pg	23 22 00.5	+1.3
PPAD				eS	Sg	23 22 13.1	+0.4
ASBA	Santa Barbara	1.07	319	eP	Pg	23 22 01.1	+1.2
ASBA				eS	Sg	23 22 13.8	0.0
ASBA							
	247nm,0.3s						
ASBA	Santa Barbara	1.07	319	eP	Pg	23 22 01.1	+1.2
ASBA				eS	Sg	23 22 13.8	0.0
PIED	Piedade	1.38	292	eP	Pn	23 22 05.8	+1.2
PSMN	Pico do Norte,	1.42	130	eP	Pn	23 22 04.8	-0.3
PSMN				eS	Sn	23 22 19.9	-3.9
PID	Ribeirinha	1.43	292	eP	Pn	23 22 06.0	+0.7
PID				eS	Sn	23 22 23.7	-0.5
PMAN	Manadas	1.49	299	eP	Pn	23 22 06.6	+0.5
PMAN				eS	Sn	23 22 24.3	-1.3
PMAN							
	304nm,0.3s						
PMAN	Manadas	1.49	299	eP	Pn	23 22 06.6	+0.5
PMAN				eS	Sn	23 22 24.3	-1.3
PPNO	Prainha do Nor	1.55	292	eP	Pn	23 22 07.5	+0.6
PPNO				eS	Sn	23 22 26.1	-1.0
PPNO							
	203nm,0.2s						
PPNO	Prainha do Nor	1.55	292	eP	Pn	23 22 07.5	+0.6
PPNO				eS	Sn	23 22 26.1	-1.0
PAMA	Santo Amaro	1.57	300	eP	Pn	23 22 07.5	+0.2
PAMA				eS	Sn	23 22 26.2	-1.5
PAMA							
	48nm,0.1s						
PAMA	Santo Amaro	1.57	300	eP	Pn	23 22 07.5	+0.2
PAMA				eS	Sn	23 22 26.2	-1.5
PBOI	Pico dos Bois	1.62	289	eP	Pn	23 22 09.0	+1.1
PBOI				eS	Sn	23 22 27.4	-1.4
PBOI							
	72nm,0.2s						
PTEI	Pico do Teixo	1.63	291	eS	Sn	23 22 28.1	-0.9
PTEI							
	33nm,0.3s						
ROSA	Rosais	1.64	300	eP	Pn	23 22 08.7	+0.6
ROSA				eS	Sn	23 22 28.3	-0.9
PGRA	Graciosa	1.65	313	eP	Pn	23 22 08.5	+0.2
PGRA				eS	Sn	23 22 27.9	-1.7
PGRA							
	122nm,0.3s						
PGRA	Graciosa	1.65	313	eP	Pn	23 22 08.5	+0.2
PGRA				eS	Sn	23 22 27.9	-1.7
SRBC	Serra Branca	1.69	312	eS	Sn	23 22 29.1	-1.5
SRBC	Serra Branca	1.69	312	eS	Sn	23 22 29.1	-1.5
PCND	Candelaria	1.70	290	eP	Pn	23 22 10.5	+1.6
PCND				eS	Sn	23 22 30.0	-0.7
PCND							
	68nm,0.2s						
STGR	Santa Cruz	1.70	314	eS	Sn	23 22 29.2	-1.5
STGR							
	47nm,0.2s						
STGR	Santa Cruz	1.70	314	eS	Sn	23 22 29.2	-1.5
PVIA	Vitoria	1.72	313	eS	Sn	23 22 29.5	-1.7
PVIA							
	16nm,0.2s						
HOR	Horta	1.84	290	eP	Pn	23 22 11.4	+0.5
HOR				eS	Sn	23 22 33.5	-0.7
CALA	Caldeira	1.91	291	eP	Pn	23 22 12.7	+0.8
CALA				eS	Sn	23 22 35.2	-0.8
PCED	Cedros	1.93	292	eP	Pn	23 22 12.5	+0.4
PCED				eS	Sn	23 22 35.1	-1.3
PCED							
	117nm,0.2s						
PCED	Cedros	1.93	292	eP	Pn	23 22 12.5	+0.4
PCED				eS	Sn	23 22 35.1	-1.3
PTCA	Ponta do Capel	1.98	290	eP	Pn	23 22 14.1	+1.2
PTCA				eS	Sn	23 22 37.1	-0.6
PTCA							
	52nm,0.2s						
PTCA	Ponta do Capel	1.98	290	eP	Pn	23 22 14.1	+1.2
PTCA				eS	Sn	23 22 37.1	-0.6
PLUZ	Luz	2.28	300	eS	Sn	23 22 27.7	-17
PLUZ							
	55nm,0.2s						
EMAZ	Mazaricos	14.21	64	P	Pn	23 24 53.3	-7.1
	1.0nm,0.1s						
EMAZ				S	Sx	23 27 13.3	
ELOB	Lobios	14.64	69	P	Pn	23 25 00.4	-6.0
	2.0nm,0.2s						
ELOB				S	Sx	23 27 24.2	
ELOB	Lobios	14.64	69	P	Pn	23 25 00.4	-6.0
	2.0nm,0.2s						
EGRO	El Granado	15.00	86	P	Pn	23 25 08.3	-3.1
EGRO				S	Sx	23 27 37.0	
EGRO	El Granado	15.00	86	P	Pn	23 25 08.3	-3.0
EBAD	Badajoz	15.26	81	P	Pn	23 25 10.0	-4.7
EBAD				S	Sx	23 27 42.6	
EBAD	Badajoz	15.26	81	P	Pn	23 25 10.0	-4.8
EPON	Pontenova	15.60	64	P	Pn	23 25 12.1	-7.0
	0.2nm,0.2s						
EPON				S	Sx	23 27 46.7	
EPON	Pontenova	15.60	64	P	Pn	23 25 12.1	-7.0
	0.2nm,0.2s						
ECAL	Calabor	15.63	69	P	Pn	23 25 14.4	-5.1
	1.4nm,0.2s						
ECAL				S	Sx	23 27 49.6	
ECAL	Calabor	15.63	69	P	Pn	23 25 14.4	-5.1
	1.4nm,0.2s						

IDC 05 23:23:37.4±1.8**, 2577S×6757W, h0^{km}, mb3.8**/3**, mb1 4.0**/5**, mb1mx3.8**/15**, mbtmp3.7**/5**, ML3.9**/2**, MS2.7**/1**, Ms1 2.8**/1**, ms1mx2.2**/19**, Error ellipse: s-maj=52.4km s-min=37.4km az=28.0, Catamarca Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	9.45	357	Pn	Pn	23 25 57.2	+2.5
	0.2nm,0.3s,baz=145,slow=11,SNR=5.7						
LPAZ				LR	LR	23 29 41.3	
	comp=Z,41nm,19.0s,baz=88,slow=38						
SIV	San Ignacio	11.46	33	Pn	Pn	23 26 21.2	-1.2
	1.1nm,0.3s,baz=222,slow=14,SNR=17						
TXAR	Lajitas Array	64.82	325	P	P	23 34 18.0	-0.1
	0.3nm,0.9s,baz=125,slow=7.8,SNR=3.3						
TORD	Torodi Ar. Bea	77.68	69	P	P	23 35 36.1	-0.2
	0.5nm,0.5s,baz=254,slow=4.3,SNR=12						
YKA	Yellowknife Ar	95.60	340	P	P	23 37 02.8	-1.2
	0.2nm,0.4s,baz=135,slow=4.6,SNR=5.2						
ZALV	Zalesovo Beam	145.19	29	PKPbc	PKPbc	23 43 15.9	-0.2
	0.8nm,0.5s,baz=309,slow=4.7,SNR=4.6						
MKAR	Makanchi Array	148.20	41	PKPbc	PKPbc	23 43 25.5	+0.4
	1.1nm,0.6s,baz=310,slow=3.0,SNR=21						

IDC 06 00:33:54.3±1.4**, 1239N×14460E, h0^{km}, mb3.7**/3**, mb1 4.1**/3**, mb1mx3.7**/18**, mbtmp3.7**/3**, Error ellipse: s-maj=59.4km s-min=22.3km az=104.0, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.23	12	Pn	Pn	00 34 19.0	+0.3
	48nm,0.3s,baz=165,slow=12,SNR=14						
WRA	Warramunga Arr	33.67	198	P	P	00 40 37.3	+0.2
	4.1nm,0.6s,baz=22,slow=9.8,SNR=19						
MKAR	Makanchi Array	62.17	317	P	P	00 44 17.1	-0.3
	0.1nm,0.4s,baz=93,slow=7.8,SNR=7.1						
YKA	Yellowknife Ar	84.04	27	P	P	00 46 26.6	+0.1
	0.4nm,0.8s,baz=287,slow=5.4,SNR=5.1						

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*IDC **06** 00:59:44.4±0.9, 849S×11248E, h0^{km}, mb4.0/7, mb1 4.1/8, mb1mx4.0/18, mbtmp4.0/8, ML4.0/1, Error ellipse: s-maj=46.0km s-min=18.9km az=49.0*

*ISCJB **06** 00:59:52.3±2.8, 85S±0.1×1127E±0.1, h69^{km}±26^{km}, mb4.0/10, Error ellipse: s-maj=26.2km s-min=11.8km az=143.2*

*NEIC **06** 00:59:55.7±2.2, 846S×11280E, h88^{km}±23^{km}, mb4.0/3, Error ellipse: s-maj=17.3km s-min=11.4km az=48.0*

NEIC Felt [II] at Karangkates.

ISC 06 00:59:50.9±1.5**, 863S**±009×**11256E**±009**, h41**^{km}±16^{km}**, n21, σ1**^{s}**13**/23**, mb4.1**/10**, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XMIS	Christmas Isla	7.05	254	ePn	Pn	01 01 31.4	-0.3
KKM	Kota Kinabalu	15.03	14	ePn	Pn	01 03 20.1	-0.5
FITZ	Fitzroy Crossi	15.82	128	Pn	Pn	01 03 30.4	-0.5
FITZ				Sn	Sn	01 06 12.9	-12
FITZ	Fitzroy Crossi	15.82	128	Pn	Pn	01 03 30.4	-0.5
	0.4nm,0.3s,baz=322,slow=18,SNR=5.7						
FITZ				Sn	Sn	01 06 12.9	-12
	0.2nm,0.3s,baz=139,slow=19,SNR=6.0						
COCO	West Island	15.86	256	ePn	Pn	01 03 38.6	+7.2
KULM	Kulim	18.23	319	eP	Pn	01 04 02.2	+1.2
WRA	Warramunga Arr	23.88	120	P	P	01 05 01.0	0.0
	3.5nm,0.5s,mb4.0,baz=296,slow=12,SNR=13						
WB2	Warramunga Arr	23.89	120	eP	P	01 05 01.5	+0.5
NWAO	Narrogin (SRO)	24.56	171	eP	P	01 05 14.7	+7.8
	2.8nm,0.6s,mb4.0						
YHNB	Yeheng	34.20	14	P	P	01 06 33.2	+0.5
STKA	Stephens Creek	35.52	135	P	P	01 06 44.8	+0.7
	7.0nm,0.5s,mb4.9,baz=312,slow=10,SNR=20						
LSA	Lhasa	43.32	332	eP	P	01 07 50.6	+1.5
	1.6nm,0.4s,mb4.1						
SONM	Songino Array	56.48	355	P	P	01 09 28.2	-0.5
	0.3nm,0.4s,mb3.7,baz=198,slow=6.0,SNR=3.6						
CASY	Casey	57.58	181	P	P	01 09 43.5	+7.3
MK31	Makanchi Array	61.42	337	P	P	01 10 01.1	-1.8
MKAR	Makanchi Array	61.42	337	P	P	01 10 01.7	-1.2
	0.7nm,0.5s,mb4.0,baz=148,slow=7.5,SNR=17						
KURK	Kurchatov	66.02	337	eP	P	01 10 34.9	+1.7
	1.1nm,0.6s,mb4.1						
ZALV	Zalesovo Beam	66.61	343	P	P	01 10 34.3	-2.6
	0.4nm,0.4s,mb3.8,baz=165,slow=5.4,SNR=4.2						
BRVK	Borovoye	71.17	335	P	P	01 11 06.8	+1.6
MATP	Matopo	81.50	251	P	P	01 12 04.7	0.0
	1.3nm,0.6s,mb4.1,baz=103,slow=5.4,SNR=4.8						
BRTR	Keskin Array B	87.04	311	P	P	01 12 31.1	-1.2
	0.9nm,0.9s,mb4.0,baz=116,slow=6.6,SNR=4.6						

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*MOS **06** 01:03:24.9±0.8, 4094N×3084E, h10^{km}, mb4.1/1, Error ellipse: s-maj=8.7km s-min=7.4km az=89.9*

*CSEM **06** 01:03:24.4±0.0, 4094N×3085E, h5^{km}, MD3.5, Error ellipse: s-maj=1.3km s-min=0.9km az=174.0*

*ISK **06** 01:03:24.9, 4092N×3086E, h7^{km}, MD3.5*

*NEIC **06** 01:03:24.8, 4092N×3084E, h6^{km}, ML3.5(ISK), After ISK.*

*ISCJB **06** 01:03:25.2±0.5, 4097N±002×3082E±002, h10^{km}±4^{km}, Error ellipse: s-maj=4.1km s-min=2.9km az=175.7*

*THE **06** 01:03:28.2, 4083N×3086E, h16^{km}, ML3.7*

ISC 06 01:03:25.8±0.5**, 4093N**±002×**3085E**±002**, h6**^{km}±4^{km}**, n163, σ0**^{s}**76**/186**, 5C-10D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDU	Mudurnu	0.54	149	i PG	Pg	01 03 35.3	-0.9
MDU	Mudurnu	0.54	149	Pg	Pg	01 03 35.3	-0.9
MDU	Mudurnu	0.54	149	i Pg	Pg	01 03 35.3	-0.9
GULT	Gulveren	0.56	207	ePG	Pg	01 03 36.4	-0.1
GULT	Gulveren	0.56	207	ePg	Pg	01 03 36.4	-0.1
KDZE	Karadeniz Ereo	0.59	49	PG	Pg	01 03 37.0	-0.2
KDZE				SG	Sg	01 03 44.9	-0.1
KDZE	Karadeniz Ereo	0.59	49	ePg	Pg	01 03 37.0	-0.2
KDZE				eSg	Sg	01 03 44.9	-0.1
EYL	Eskiyayla	0.64	236	Pg	Pg	01 03 37.8	-0.2
GPA	Golpazari	0.76	213	PG	Pg	01 03 39.8	-0.6
GPA	Golpazari	0.76	213	Pg	Pg	01 03 39.8	-0.5
GPA	Golpazari	0.76	213	ePg	Pg	01 03 39.8	-0.6
HRT	Hereke	0.90	264	PG	Pg	01 03 43.3	+0.2
HRT				SG	Sg	01 03 55.7	+1.0
HRT	Hereke	0.90	264	Pg	Pg	01 03 42.1	-1.0
HRT				Sg	Sg	01 03 55.1	+0.3
HRT	Hereke	0.90	264	P	Pg	01 03 42.1	-1.0
HRT						01 03 55.1	
HRT	Hereke	0.90	264	Pg	Pg	01 03 42.1	-1.0
HRT				eSg	Sg	01 03 55.7	+1.0
ADVT	Abdulvahap	0.98	240	PG	Pg	01 03 44.1	-0.4
ADVT	Abdulvahap	0.98	240	Pg	Pg	01 03 43.9	-0.7
ADVT	Abdulvahap	0.98	240	ePg	Pg	01 03 44.1	-0.4
YLV	Yalova	1.18	253	PN	Pn	01 03 47.7	-1.1
YLV	Yalova	1.18	253	ePn	Pn	01 03 47.7	-1.1
IZI	Iznik	1.20	241	PN	Pn	01 03 48.2	-1.0
IZI	Iznik	1.20	241	Pn	Pn	01 03 48.2	-0.9
IZI	Iznik	1.20	241	ePn	Pn	01 03 48.2	-1.0
GEMT	Gemlik	1.35	249	PN	Pn	01 03 51.1	-0.2
GEMT	Gemlik	1.35	249	Pn	Pn	01 03 51.1	-0.1
GEMT	Gemlik	1.35	249	ePn	Pn	01 03 51.1	-0.2
ISK	Istanbul-Kandi	1.36	276	PN	Pn	01 03 50.6	-0.8
ISK	Istanbul-Kandi	1.36	276	Pn	Pn	01 03 50.7	-0.7
ISK				S	Sg	01 04 09.6	+0.1
ISK	Istanbul-Kandi	1.36	276	ePg	Pg	01 03 50.9	-1.0
ISK				eSg	Sg	01 04 09.6	+0.1
ISK	Istanbul-Kandi	1.36	276	P	Pn	01 03 50.7	-0.7
ISK				S	Sg	01 04 09.6	+0.1
ISK	Istanbul-Kandi	1.36	276	ePn	Pn	01 03 50.6	-0.8
ISK	Istanbul-Kandi	1.36	276	ePg	Pg	01 03 50.9	-1.0
ISK				eSg	Sg	01 04 09.6	+0.1
KLYT	Kilyos	1.40	284	PN	Pn	01 03 51.6	-0.3
KLYT	Kilyos	1.40	284	Pn	Pn	01 03 51.1	-0.8
KLYT	Kilyos	1.40	284	Pn	Pn	01 03 51.1	-0.8
ESKT	Eskisehir	1.41	180	PN	Pn	01 03 50.8	-1.2
ESKT	Eskisehir	1.41	180	Pn	Pn	01 03 50.9	-1.1
ESKT	Eskisehir	1.41	180	Pn	Pn	01 03 50.9	-1.1
SAFT	Safranbolu	1.43	77	PN	Pn	01 03 51.5	-0.8
SAFT	Safranbolu	1.43	77	Pn	Pn	01 03 52.4	0.0
SAFT	Safranbolu	1.43	77	ePn	Pn	01 03 51.5	-0.8
LOD	Lodumlu	1.80	125	PN	Pn	01 03 57.6	+0.2
LOD	Lodumlu	1.80	125	Pn	Pn	01 03 57.3	0.0
LOD	Lodumlu	1.80	125	Pn	Pn	01 03 57.3	-0.1
ANTO	Ankara	1.83	125	PN	Pn	01 03 57.9	+0.1
ANTO	Ankara	1.83	125	Pn	Pn	01 03 58.0	+0.2
ANTO	Ankara	1.83	125	P	Pn	01 03 58.0	+0.2
ANTO	Ankara	1.83	125	ePn	Pn	01 03 57.9	+0.1
CTT	Catalca	1.84	278	PN	Pn	01 03 58.2	+0.2
CTT	Catalca	1.84	278	Pn	Pn	01 03 58.2	+0.2
CTT	Catalca	1.84	278	ePn	Pn	01 03 58.2	+0.2
ALT	Altintas	1.95	197	ePN	Pn	01 03 59.2	-0.3
ALT	Altintas	1.95	197	Pn	Pn	01 03 59.2	-0.3
ALT	Altintas	1.95	197	ePn	Pn	01 03 59.2	-0.3
KCT	Karacabey	2.01	252	ePN	Pn	01 04 00.4	+0.1
KCT	Karacabey	2.01	252	Pn	Pn	01 04 00.5	+0.2
KCT	Karacabey	2.01	252	ePn	Pn	01 04 00.4	+0.1
CANT	Cankiri	2.13	98	ePN	Pn	01 04 01.6	-0.4
CANT	Cankiri	2.13	98	Pn	Pn	01 04 02.3	+0.3
KIZT	Kizilcal	2.19	158	ePN	Pn	01 04 01.8	-1.1
KIZT	Kizilcal	2.19	158	Pn	Pn	01 04 01.9	-1.0
KIZT	Kizilcal	2.19	158	Pn	Pn	01 04 01.9	-1.0
BNT	Bandirma	2.30	257	ePN	Pn	01 04 04.1	-0.2
BNT	Bandirma	2.30	257	Pn	Pn	01 04 04.2	-0.1
BNT	Bandirma	2.30	257	P	Pn	01 04 04.2	-0.1
EDC	Edincik	2.34	257	ePN	Pn	01 04 04.7	-0.2
EDC	Edincik	2.34	257	Pn	Pn	01 04 04.8	-0.1
EDC	Edincik	2.34	257	P	Pn	01 04 04.8	-0.1
EDC	Edincik	2.34	257	ePn	Pn	01 04 04.7	-0.2
SHUT	Suhut-Afyon	2.38	186	ePN	Pn	01 04 05.4	0.0
SHUT	Suhut-Afyon	2.38	186	ePn	Pn	01 04 05.4	0.0
TOS	Tosya	2.41	86	ePN	Pn	01 04 05.8	0.0
TOS	Tosya	2.41	86	Pn	Pn	01 04 05.9	+0.1
TOS	Tosya	2.41	86	Pn	Pn	01 04 05.9	+0.1
MRMT	Marmara Adasi	2.49	264	ePN	Pn	01 04 07.3	+0.4
MRMT	Marmara Adasi	2.49	264	ePn	Pn	01 04 07.3	+0.4
BZK	Bozkurt	2.59	65	ePN	Pn	01 04 08.6	+0.3
BZK	Bozkurt	2.59	65	Pn	Pn	01 04 08.7	+0.4
BZK	Bozkurt	2.59	65	ePn	Pn	01 04 08.6	+0.3
KAMT	Kaman	2.69	124	ePN	Pn	01 04 10.2	+0.5
KAMT	Kaman	2.69	124	Pn	Pn	01 04 10.2	+0.5
KAMT	Kaman	2.69	124	ePn	Pn	01 04 10.2	+0.5
MFT	Murefte	2.71	268	ePN	Pn	01 04 10.1	+0.2
MFT	Murefte	2.71	268	ePn	Pn	01 04 10.1	+0.2
RKY	Sarkoy-Tekirda	2.79	266	ePN	Pn	01 04 10.8	-0.3
RKY	Sarkoy-Tekirda	2.79	266	Pn	Pn	01 04 10.8	-0.2
RKY	Sarkoy-Tekirda	2.79	266	Pn	Pn	01 04 10.9	-0.2
KHL	Karahalli	2.79	202	ePN	Pn	01 04 11.5	+0.4
KHL	Karahalli	2.79	202	Pn	Pn	01 04 11.6	+0.4
KHL	Karahalli	2.79	202	ePn	Pn	01 04 11.5	+0.4
CORM	Corum	2.98	103	ePN	Pn	01 04 13.8	+0.2
CORM	Corum	2.98	103	ePn	Pn	01 04 13.8	+0.2
AKS	Akhisar	3.10	230	ePN	Pn	01 04 15.5	+0.2
AKS	Akhisar	3.10	230	Pn	Pn	01 04 15.6	+0.2
AKS	Akhisar	3.10	230	Pn	Pn	01 04 15.6	+0.3
LPK	Lapseki	3.16	261	ePN	Pn	01 04 16.6	+0.5
LPK	Lapseki	3.16	261	Pn	Pn	01 04 16.7	+0.6
LPK	Lapseki	3.16	261	ePn	Pn	01 04 16.6	+0.5
KONT	Konya--Tatoy	3.20	158	ePN	Pn	01 04 16.6	-0.1
KONT	Konya--Tatoy	3.20	158	Pn	Pn	01 04 16.6	-0.1
KONT	Konya--Tatoy	3.20	158	ePn	Pn	01 04 16.6	-0.1
EDRB	Edirne	3.22	288	ePN	Pn	01 04 16.9	0.0
EDRB	Edirne	3.22	288	ePn	Pn	01 04 16.9	0.0
DIKM	Dikmen	3.40	76	ePN	Pn	01 04 20.0	+0.5
DIKM	Dikmen	3.40	76	ePn	Pn	01 04 20.0	+0.5
JMB	Yambol	3.54	297	ePn	Pn	01 04 22.2	+0.8
JMB	Yambol	3.54	297	ePn	Pn	01 04 22.2	+0.8
ENEZ	Enez	3.56	268	ePN	Pn	01 04 21.8	+0.1
ENEZ	Enez	3.56	268	ePn	Pn	01 04 21.8	+0.1
EZN	Ezine	3.62	254	ePN	Pn	01 04 22.7	+0.2
EZN	Ezine	3.62	254	Pn	Pn	01 04 22.8	+0.3
EZN	Ezine	3.62	254	Pn	Pn	01 04 22.8	+0.3
ALN	Alexandroupoli	3.64	271	ePn	Pn	01 04 23.2	+0.5
ALN				eSn	Sn	01 05 06.0	+0.1
ALN	Alexandroupoli	3.64	271	ePn	Pn	01 04 23.2	+0.5
ALN				eSn	Sn	01 05 06.0	+0.1
GADA	Gvkgeada	3.84	261	ePN	Pn	01 04 26.1	+0.6
GADA	Gvkgeada	3.84	261	Pn	Pn	01 04 26.1	+0.6
GADA	Gvkgeada	3.84	261	ePn	Pn	01 04 26.1	+0.6
KVT	Kavak	3.94	86	Pn	Pn	01 04 27.7	+0.9
KVT	Kavak	3.94	86	Pn	Pn	01 04 27.7	+0.9
TIRR	Tirgusor	3.96	334	⇓P	Pn	01 04 28.3	+1.2
TIRR				S	Sn	01 05 12.7	-1.1
TIRR	Tirgusor	3.96	334	⇓iP	Pn	01 04 28.3	+1.2
TIRR	Tirgusor	3.96	334	P	Pn	01 04 28.3	+1.2
TIRR				S	Sn	01 05 12.7	-1.1
SEV	Sevastopol’	4.17	29	eP	Pn	01 04 29.7	-0.3
SEV				eS	Sn	01 05 15.3	-3.7
SEV				pmax	pmax		
	comp=Z,2.0nm,0.2s						
SEV				smax			
	comp=N,6.0nm,0.3s						
SEV				smax			
	comp=E,7.0nm,0.3s						
SEV	Sevastopol’	4.17	29	eP	Pn	01 04 29.7	-0.3
	comp=E,2.0nm,0.2s						
SEV				eS	Sn	01 05 15.3	-3.7
ELL	Elmali	4.24	190	ePN	Pn	01 04 31.8	+0.9
ELL	Elmali	4.24	190	Pn	Pn	01 04 31.8	+0.9
ELL	Elmali	4.24	190	ePn	Pn	01 04 31.8	+0.9
YAL	Yalta	4.31	33	eP	Pn	01 04 31.9	-0.1
YAL				eS	Sn	01 05 19.1	-3.5
YAL				pmax	pmax		
	comp=Z,24nm,0.3s						
YAL				smax			
	comp=N,20nm,0.3s						
YAL	Yalta	4.31	33	eP	Pn	01 04 31.9	-0.1
	comp=N,24nm,0.3s						
YAL				eS	Sn	01 05 19.1	-3.5
	comp=N,20nm,0.3s						
BNN	Bunyan	4.37	117	ePN	Pn	01 04 33.7	+0.9
BNN	Bunyan	4.37	117	Pn	Pn	01 04 33.7	+0.9
BNN	Bunyan	4.37	117	ePn	Pn	01 04 33.7	+0.9
LOS	Limnos	4.51	259	ePn	Pn	01 04 34.7	+0.1
LOS	Limnos	4.51	259	ePn	Pn	01 04 34.7	0.0
SIM	Simferopol’	4.68	30	deP	Pn	01 04 37.3	+0.3
SIM				eS	Sn	01 05 28.0	-3.6
SIM				pmax	pmax		
	comp=Z,120nm,0.3s						
SIM	Simferopol’	4.68	30	eP	Pn	01 04 37.3	+0.3
	comp=Z,120nm,0.3s						
SVSK	Karacayir	4.80	100	ePN	Pn	01 04 39.3	+0.6
SVSK	Karacayir	4.80	100	Pn	Pn	01 04 39.3	+0.6
SVSK	Karacayir	4.80	100	ePn	Pn	01 04 39.3	+0.6
SUDU	Sudak	5.00	36	i P	Pn	01 04 41.6	+0.2
SUDU				i S	Sn	01 05 36.6	-2.9
SRS	Serrai	5.49	274	ePn	Pn	01 04 48.2	+0.1
SRS				eSn	Sn	01 05 51.2	-0.4
SRS	Serrai	5.49	274	ePn	Pn	01 04 48.2	+0.1
VRI	Vrincioaia	5.78	330	⇑P	Pn	01 04 53.0	+0.9
VRI				S	Sn	01 05 57.4	-1.2
VRI	Vrincioaia	5.78	330	⇑iP	Pn	01 04 53.0	+1.0
VRI	Vrincioaia	5.78	330	S	Sn	01 05 57.4	-1.2
PLOR	Plostina	5.79	330	⇓iP	Pn	01 04 53.5	+1.2
PLOR				S	Sn	01 05 58.9	-0.1
MLR	Muntele Rosu	5.80	323	⇓P	Pn	01 04 53.8	+1.5
MLR	Muntele Rosu	5.80	323	⇓iP	Pn	01 04 53.8	+1.4
KNT	Kendrikon	6.01	275	ePn	Pn	01 04 56.0	+0.7
KNT				eSn	Sn	01 06 03.4	-1.1
KNT	Kendrikon	6.01	275	ePn	Pn	01 04 56.0	+0.7
VOIR		6.18	319	⇑iP	Pn	01 04 58.8	+1.1
VAY	Valandovo	6.26	276	ePn	Pn	01 04 58.1	-0.6
VAY	Valandovo	6.26	276	ePn	Pn	01 04 58.1	-0.6
STIP	Stip	6.56	280	ePn	Pn	01 05 03.6	+0.7
STIP	Stip	6.56	280	ePn	Pn	01 05 03.6	+0.7
KRUS	Krusevo	7.26	277	ePn	Pn	01 05 13.8	+1.4
KRUS	Krusevo	7.26	277	ePn	Pn	01 05 13.8	+1.4
GZR	Gura Zlata	7.39	310	⇑P	Pn	01 05 13.7	-0.6
GZR	Gura Zlata	7.39	310	⇑iP	Pn	01 05 13.7	-0.6
BURAR	Bucovina Array	7.81	331	⇓P	Pn	01 05 21.6	+1.6
BURAR	Bucovina Array	7.81	331	⇓iP	Pn	01 05 21.5	+1.6
BZS	Buzias	8.20	308	⇓P	Pn	01 05 24.4	-1.0
BZS	Buzias	8.20	308	⇓iP	Pn	01 05 24.4	-0.9

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*ISCJB **06** 01:40:02.6±0.5, 524S±007×10230E±009, h44^{km}, mb4.4/20, MS4.0/2, Error ellipse: s-maj=12.7km s-min=8.8km az=157.9*

*NEIC **06** 01:40:04.1±0.9, 5.19S×10228E, h39^{km}±8^{km}, mb4.5/9, Error ellipse: s-maj=9.7km s-min=6.6km az=71.0*

*IDC **06** 01:40:05.1±1.2, 5.13S×10236E, h44^{km}±6^{km}, mb3.9/7, mb1 3.9/8, mb1mx3.7/19, mbtmp3.9/8, ML3.6/1, MS4.0/2, Ms1 4.0/2, ms1mx3.0/28, Error ellipse: s-maj=49.9km s-min=18.2km az=52.0*

ISC 06 01:40:05.0±0.5**, 523S**±007×**10232E**±009**, h46**^{km}**, h46**^{km}±.8^{km}**:pP-P, n36, σ0^{s}66**/32**, mb4.4**/20**, MS4.0**/2**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	8.67	337	P	Pn	01 42 04.0	-3.9
	0.7nm,0.3s,baz=191,slow=16,SNR=3.6						
COCO	West Island	8.78	218	ePn	Pn	01 42 09.1	-0.3
KULM	Kulim	10.58	351	ePn	Pn	01 42 33.0	-1.1
KKM	Kota Kinabalu	17.83	51	ePn	Pn	01 44 10.4	+0.5
NWAO	Narrogin (SRO)	30.87	155	LR	LR	01 56 46.6	
	comp=Z,92nm,19.1s,MS3.5,baz=202,slow=32						
WRA	Warramunga Arr	34.41	118	P	P	01 46 48.1	0.0
WRA	Warramunga Arr	34.41	118	P	P	01 46 48.2	0.0
	0.7nm,0.6s,mb3.8,baz=303,slow=11,SNR=2.1						
ODAN	Odare	35.02	336	eP	P	01 46 53.6	+0.3
	11nm,0.5s,mb5.0						
YHNB	Yeheng	35.03	31	P	P	01 46 53.0	-0.5
TAPN	Taplejung	35.33	337	eP	P	01 46 56.6	+0.6
	25nm,0.8s,mb5.2						
LSA	Lhasa	36.35	343	eP	P	01 47 05.0	+0.4
	3.1nm,0.4s,mb4.6						
GUN	Gumba	36.57	335	eP	P	01 47 07.2	+0.7
	20nm,0.4s,mb5.2						
GKN	Gorkha	37.18	334	eP	P	01 47 12.2	+0.4
KOLN	Koldanda	37.45	332	eP	P	01 47 14.8	+0.7
	12nm,0.9s,mb4.7						
PMG	Port Moresby	44.65	98	eP	P	01 48 13.6	+0.2
	7.5nm,0.8s,mb4.6						
STKA	Stephens Creek	45.30	131	P	P	01 48 18.2	-0.2
	3.0nm,0.6s,mb4.3,baz=306,slow=10.0,SNR=7.1						
SONM	Songino Array	52.96	3	P	P	01 49 16.6	0.0
	2.6nm,0.7s,mb4.2,baz=182,slow=9.2,SNR=28						
SONM				pP	pP	01 49 29.0	-0.6
	2.1nm,0.6s,baz=180,slow=8.6,SNR=9.6						
SONM				PcP	PcP	01 50 26.5	+1.5
	0.5nm,0.6s,baz=197,slow=4.5,SNR=2.4						
ULN	Ulaanbaatar	53.03	4	eP	P	01 49 16.9	-0.3
	1.7nm,0.4s,mb4.3						
UCH	Uchtor	53.58	334	eP	P	01 49 22.0	+0.6
TKM2	Tokmak 2	53.70	336	eP	P	01 49 22.5	+0.2
	3.6nm,0.8s,mb4.3						
TKM2				e	pP	01 49 34.7	-0.4
AAK	Ala-Archa	53.92	335	eP	P	01 49 24.5	+0.6
	0.6nm,0.4s,mb3.9						
AAK				e	pP	01 49 36.1	-0.7
EKS2	Erkin-Say	54.25	334	eP	P	01 49 26.7	+0.4
	2.6nm,0.8s,mb4.2						
EKS2				e	pP	01 49 38.7	-0.6
TAU	Tasmania Unive	54.63	140	eP	P	01 49 29.7	+0.6
	18nm,0.8s,mb5.1						
MK31	Makanchi Array	54.76	343	eP	P	01 49 29.2	-0.6
MK31				e	pP	01 49 42.2	-0.6
MKAR	Makanchi Array	54.76	343	P	P	01 49 29.4	-0.4
	2.3nm,0.7s,mb4.3,baz=146,slow=8.3,SNR=34						
MKAR				pP	pP	01 49 42.2	-0.5
	2.9nm,0.7s,baz=148,slow=9.1,SNR=11						
KURK	Kurchatov	59.35	343	eP	P	01 50 01.5	-0.7
	5.5nm,1.0s,mb4.5						
KURK				e	pP	01 50 13.4	-1.9
ZALV	Zalesovo Beam	60.77	348	P	P	01 50 11.0	-0.9
	1.6nm,0.4s,mb4.5,baz=160,slow=4.7,SNR=16						
ZALV				pP	pP	01 50 23.8	-1.2
	10.0nm,0.8s,baz=150,slow=6.2,SNR=13						
CASY	Casey	61.21	176	P	P	01 50 14.1	-0.7
BRVK	Borovoye	64.06	339	eP	P	01 50 31.0	-2.9
	0.7nm,0.4s,mb4.0						
AKTO	Aktyubinsk	67.28	331	LR	LR	02 21 00.8	
	comp=Z,262nm,20.4s,MS4.4,baz=252,slow=36						
KIV	Kislovodsk	72.48	319	P	P	01 51 26.7	-0.2
MALT	Malatya	73.21	312	eP	P	01 51 31.9	+0.6
BRTR	Keskin Array B	77.19	313	P	P	01 51 54.4	+0.2
	0.7nm,0.8s,mb3.6,baz=123,slow=4.6,SNR=4.7						
BRTR				pP	pP	01 52 07.8	+0.1
	0.4nm,0.6s,baz=134,slow=7.1,SNR=2.5						
FINES	FINESS Array B	88.03	332	P	P	01 52 50.2	+0.2
	1.6nm,0.9s,mb4.2,baz=82,slow=4.0,SNR=3.5						
FINES				pP	pP	01 53 04.5	+0.7
	3.4nm,0.9s,baz=102,slow=6.6,SNR=3.3						
TXAR	Lajitas Array	145.67	43	PKPbc	PKPbc	01 59 39.7	+0.3
TXAR	Lajitas Array	145.67	43	PKPbc	PKPbc	01 59 39.7	+0.3
	0.5nm,0.6s,baz=252,slow=1.1,SNR=15						

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*IDC **06** 01:55:32.6±2.0, 4864N×15427E, h0^{km}, mb3.6/4, mb1 3.9/5, mb1mx3.5/22, mbtmp3.7/5, ML3.5/1, MS2.6/1, Ms1 2.6/1, ms1mx2.2/32, Error ellipse: s-maj=63.7km s-min=27.1km az=168.0*

*ISCJB **06** 01:55:37.7±1.8, 48.1N±02×1543E±03, h66^{km}±16^{km}, mb3.5/4, Error ellipse: s-maj=43.3km s-min=8.0km az=44.6*

*MOS **06** 01:55:38.4±1.0, 4824N×15401E, h75^{km}, mb4.5/1, Error ellipse: s-maj=45.8km s-min=21.0km az=56.8*

ISC 06 01:55:39.7±1.6**, 482N**±02×**1542E**±03**, h69**^{km}±13^{km}**, n10, σ1^{s}03**/12**, mb3.5**/4**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	2.78	25	ePN	Pn	01 56 22.0	+0.2
SKR				eS	Sn	01 56 54.5	+0.3
SKR				pmax	pmax		
	comp=N,60nm,0.5s						
SKR				pmax	pmax		
	comp=E,80nm,0.5s						
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=N,220nm,0.3s						
SKR				smax			
	comp=E,200nm,0.3s						
SKR				smax			
	comp=Z,80nm,0.5s						
KUR	Kuril'sk	5.29	238	PN	Pn	01 56 55.0	-1.1
KUR				S	Sn	01 57 57.0	+1.3
KUR				smax			
	comp=N,80nm,0.4s						
ASAJ	Asahikawa	9.05	248	PN	Pn	01 57 46.7	-0.8
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,36nm,21.2s						
ASAJ	Asahikawa	9.05	248	Pn	Pn	01 57 46.7	-0.8
	comp=Z,0.6nm,0.3s,baz=68,slow=15,SNR=6.6						
ASAJ				LR	LR	02 00 38.1	
	comp=Z,36nm,21.2s,baz=154,slow=33						
MKAR	Makanchi Array	46.97	297	P	P	02 04 04.7	+1.2
	comp=Z,0.2nm,0.6s,mb3.0,baz=75,slow=7.9,SNR=3.3						
YKA	Yellowknife Ar	49.31	38	P	P	02 04 21.5	+0.2
YKA	Yellowknife Ar	49.31	38	P	P	02 04 21.5	+0.3
	comp=Z,0.2nm,0.4s,mb3.4,baz=305,slow=7.3,SNR=4.6						
FINES	FINESS Array B	63.06	335	i P	P	02 05 57.2	-2.0
FINES				pmax	pmax		
	comp=Z,3.0nm,1.0s						
FINES	FINESS Array B	63.06	335	P	P	02 05 56.6	-2.5
	comp=Z,2.6nm,1.0s,mb4.1,baz=29,slow=7.1,SNR=4.5						
TXAR	Lajitas Array	76.12	62	P	P	02 07 20.6	+0.5
	comp=Z,0.3nm,0.5s,mb3.3,baz=298,slow=4.1,SNR=9.1						

IDC 06 01:57:22.1±5.0**, 2273S**×**6842W, h0**^{km}**, mb3.6**/1**, mb1 3.9**/2**, mb1mx3.6**/14**, mbtmp3.7**/2**, ML4.0**/1**, Error ellipse: s-maj=154.2km s-min=55.8km az=71.0, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	6.41	3	Pn	Pn	01 58 58.4	+0.6
	1.6nm,0.3s,baz=184,slow=5.6,SNR=37						
TORD	Torodi Ar. Bea	77.35	70	P	P	02 09 19.3	+0.1
	0.5nm,0.8s,baz=262,slow=6.0,SNR=5.0						
MKAR	Makanchi Array	146.34	37	PKPbc	PKPbc	02 17 04.0	-0.7
	0.3nm,0.6s,baz=321,slow=3.3,SNR=5.3						

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*NEIC **06** 01:57:43.7±0.5, 3590N×2970E, h10^{km}, ML4.5(ATH), Error ellipse: s-maj=11.5km s-min=7.4km az=178.0*

*ISCJB **06** 01:57:44.8±0.6, 3588N±007×2971E±005, h49^{km}±11^{km}, mb3.7/3, Error ellipse: s-maj=12.6km s-min=7.1km az=10.4*

*IDC **06** 01:57:46.4±1.8, 3594N×2972E, h46^{km}±23^{km}, mb3.6/3, mb1 3.7/9, mb1mx3.5/22, mbtmp3.7/9, ML3.7/6, Error ellipse: s-maj=27.8km s-min=17.2km az=160.0*

ISC 06 01:57:46.6±0.6**, 3592N**±008×**2967E**±005**, h48**^{km}±11^{km}**, n25, σ1^{s}23**/25**, mb3.7**/3**, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARG	Arkhangelos	1.28	284	P	Pn	01 58 07.1	-1.0
ISP	Isparta	2.03	19	P	Pn	01 58 23.9	+5.6
SMG	Samos	2.89	309	P	Pn	01 58 29.3	-0.7
CSS	Prodhromos	3.14	107	ePn	Pn	01 58 33.0	-0.5
NPS	Neapolis	3.37	260	P	Pn	01 58 37.6	+0.9
IDI	Anoyia	3.94	262	P	Pn	01 58 43.8	-0.8
	3.7nm,0.3s,baz=89,slow=16,SNR=36						
ANTO	Ankara	4.65	31	ePn	Pn	01 58 55.1	+0.9
BR131	Keskin Array S	4.93	38	ePn	Pn	01 58 59.1	+1.1
BRTR	Keskin Array B	4.93	38	P	Pn	01 58 58.6	+0.6
	1.9nm,0.3s,baz=202,slow=14,SNR=62						
VLI	Veliai	5.49	280	P	Pn	01 59 06.6	+0.8
MMAI	Mount Meron Ar	5.55	120	P	Pn	01 59 05.8	-0.9
	20nm,0.3s,baz=318,slow=12,SNR=81						
ITM	Ithomi	6.36	284	P	Pn	01 59 19.8	+2.2
ASF	Jabal al Asfar	7.07	120	P	Pn	01 59 27.3	-0.1
	1.6nm,0.3s,baz=165,slow=4.5,SNR=16						
EIL	Elat	7.66	143	P	Pn	01 59 35.2	-0.3
	0.7nm,0.3s,baz=188,slow=21,SNR=8.0						
TIP	Timpagrande	10.75	291	ePn	Pn	02 00 15.6	-2.2
MIB	Mutribah	16.05	107	eP	Pn	02 01 31.4	+2.5
MIB				AMb	AMB	02 02 05.2	
	comp=Z,75nm,0.5s						
NAY	Al-Naaiem	16.23	109	eP	Pn	02 01 33.6	+2.4
NAY				AMb	AMB	02 02 08.3	
	comp=Z,30nm,1.0s						
MORC	Moravsky Berou	16.42	331	Pn	Pn	02 01 29.6	-3.9
KEST	Kesra	16.49	275	P	Pn	02 01 34.6	+0.2
	comp=Z,0.1nm,0.3s,baz=52,slow=12,SNR=6.0						
RDF	Al-Radifah	16.62	110	eP	Pn	02 01 33.9	-2.2
RDF				AMb	AMB	02 02 13.2	
	comp=Z,56nm,0.9s						
QRN	Al-Qurain	16.99	110	eP	Pn	02 01 34.2	-6.5
QRN				AMb	AMB	02 01 59.2	
	comp=Z,14nm,1.0s						
TORD	Torodi Ar. Bea	33.87	235	P	P	02 04 25.6	+0.9
	comp=Z,1.2nm,0.4s,mb4.2,baz=43,slow=7.2,SNR=30						
MK31	Makanchi Array	40.27	58	eP	P	02 05 18.7	0.0
MKAR	Makanchi Array	40.27	58	P	P	02 05 18.6	-0.2
	comp=Z,0.4nm,0.5s,mb3.4,baz=278,slow=6.6,SNR=7.1						
ZALV	Zalesovo Beam	41.81	47	P	P	02 05 29.9	-1.4
	comp=Z,0.7nm,0.5s,mb3.6,baz=277,slow=9.6,SNR=3.9						

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*MOS **06** 01:58:11.4±1.4, 3541N×2965E, h27^{km}, mb4.5/52, Error ellipse: s-maj=4.8km s-min=2.6km az=113.9*

*ISCJB **06** 01:58:12.7±0.1, 3577N±001×2958E±001, h10^{km}, mb4.4/89, MS3.9/11, Error ellipse: s-maj=1.9km s-min=1.4km az=25.2*

*ISK **06** 01:58:12.9, 3576N×2976E, h5^{km}, ML5.0*

*NEIC **06** 01:58:12.3, 3572N×2976E, h3^{km}, mb4.5/75, MS4.0/2, ML4.9(ATH), ML4.7(ISK), ML4.4(NIC), After ISK.*

*CSEM **06** 01:58:14.1±0.0, 3581N×2967E, h10^{km}, mb4.4/13, Ms3.8, Mw3.1, Error ellipse: s-maj=1.1km s-min=0.8km az=46.0*

*ATH **06** 01:58:16.1, 3600N×2954E, h23^{km}, MD4.6/24, ML4.9*

*NAO **06** 01:58:16.0, 3597N×30.14E, h33^{km}, mb4.4*

*CRAAG **06** 01:58:17.5, 3597N×30.14E, Mb4.4*

*HLW **06** 01:58:17.0, 3593N×2969E, h33^{km}, Mb4.5*

*NIC **06** 01:58:18.3±0.3, 36.11N×2985E, h20^{km}, mb4.6, ML4.4*

*BJI **06** 01:58:18.0, 36.10N×3054E, h10^{km}, mB5.1, mb4.5, Ms4.4, Msz4.1*

*IDC **06** 01:58:18.6±1.2, 3589N×2981E, h45^{km}±13^{km}, mb4.0/15, mb1 4.2/26, mb1mx4.2/29, mbtmp4.2/26, ML4.1/11, MS3.6/6, Ms1 3.6/6, ms1mx3.4/20, Error ellipse: s-maj=10.9km s-min=9.7km az=24.0*

*GII **06** 01:58:22.7±0.0, 3558N×3001E, h15^{km}, mb4.1/3, ML3.7/7, Mw3.1/6*

*NSSC **06** 01:58:23.3, 3603N×3030E, h36^{km}±16^{km}*

*SKO **06** 01:58:56.9, 3850N×2782E, h0^{km}*

ISC 06 01:58:14.8±0.1**, 3580N**±001×**2961E**±001**, h10**^{km}**, n831, σ1^{s}53**/897**, mb4.4**/89**, MS3.9**/11**, 19C-17D, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSL	Kastellorizon	0.35	357	ePb	Pg	01 58 21.0	-0.7
KSL	Kastellorizon	0.35	357	ePB	Pg	01 58 21.0	-0.7
AKAS	Kas	0.44	360	i P	Pg	01 58 24.1	+0.8
AKAS				i S	Sg	01 58 30.9	+1.8
FETY	Fethiye	0.94	333	PG	Pg	01 58 32.8	0.0
FETY	Fethiye	0.94	333	Pg	Pg	01 58 32.8	0.0
FETY	Fethiye	0.94	333	ePg	Pg	01 58 32.8	0.0
ELL	Elmali	0.98	14	PG	Pg	01 58 32.4	-1.2
ELL				SG	Sg	01 58 46.3	-0.1
ELL	Elmali	0.98	14	Pg	Pg	01 58 33.3	-0.4
ELL				Sg	Sg	01 58 47.3	+0.9
ELL	Elmali	0.98	14	ePg	Pg	01 58 32.4	-1.2
ELL	Elmali	0.98	14	P	Pg	01 58 33.3	-0.3
ELL				eSg	Sg	01 58 46.3	-0.1
ELL				S	Sg	01 58 47.3	+0.9
ARG	Arkhangelos	1.27	290	ePb	Pb	01 58 37.5	-1.3
ARG				eSn	Sn	01 58 54.8	-0.9
ARG	Arkhangelos	1.27	290	ePN	Pn	01 58 38.5	-0.1
ARG				eSN	Sn	01 58 54.8	-0.9
ARG	Arkhangelos	1.27	290	ePb	Pb	01 58 37.5	-1.3
ARG				eSn	Sn	01 58 54.8	-0.9
ANTB	Antalya	1.39	37	PN	Pn	01 58 39.6	-0.6
ANTB				SN	Sn	01 58 58.0	-0.5
ANTB	Antalya	1.39	37	ePn	Pn	01 58 39.6	-0.6
ANTB				eSn	Sn	01 58 58.0	-0.5
GOLH	Golhisar	1.44	358	i P	Pn	01 58 42.2	+1.4
BCK	Bucak	1.84	25	Pn	Pn	01 58 46.2	-0.2
BCK	Bucak	1.84	25	P	Pn	01 58 46.2	-0.2
DAT	Datca	1.89	300	PN	Pn	01 58 49.3	+2.3
DAT	Datca	1.89	300	ePn	Pn	01 58 49.3	+2.3
DENT	Denizli	2.01	347	Pn	Pn	01 58 49.6	+0.9
KARP	Karpathos	2.01	264	ePn	Pn	01 58 50.6	+1.9
KARP	Karpathos	2.01	264	ePN	Pn	01 58 50.6	+1.9
KARP	Karpathos	2.01	264	ePn	Pn	01 58 50.6	+1.9
MLSB	Milas	2.10	316	PN	Pn	01 58 50.5	+0.5
MLSB	Milas	2.10	316	Pn	Pn	01 58 51.8	+1.8
MLSB	Milas	2.10	316	ePn	Pn	01 58 50.5	+0.5
BDRM	Kayabasi	2.16	307	i P	Pn	01 58 55.1	+4.4
ISP	Isparta	2.17	19	PN	Pn	01 58 50.6	-0.3
ISP	Isparta	2.17	19	Pn	Pn	01 58 51.2	+0.3
ISP	Isparta	2.17	19	eP	Pn	01 58 53.5	+2.6
ISP	Isparta	2.17	19	P	Pn	01 58 51.2	+0.3
BODT	Bodrum	2.24	305	PN	Pn	01 58 52.5	+0.6
BODT	Bodrum	2.24	305	Pn	Pn	01 58 51.7	-0.3
BODT	Bodrum	2.24	305	ePn	Pn	01 58 52.5	+0.6
PPCY	Paphos	2.42	111	P	Pn	01 58 55.4	+1.1
PPCY				S	Sn	01 59 23.5	-0.4
KHL	Karahalli	2.52	358	PN	Pn	01 58 56.5	+0.7
KHL	Karahalli	2.52	358	Pn	Pn	01 58 56.6	+0.8
KHL	Karahalli	2.52	358	ePn	Pn	01 58 56.5	+0.7
ALFC	Alevga	2.52	104	P	Pn	01 58 55.5	-0.3
	54nm,0.2s						
ALFC				S	Sn	01 59 25.4	-1.2
ERMK	Ermenek	2.80	72	i P	Pn	01 58 59.6	0.0
SHUT	Suhut-Afyon	2.85	15	PN	Pn	01 59 00.9	+0.6
SHUT	Suhut-Afyon	2.85	15	ePn	Pn	01 59 00.9	+0.6
SZAC	Souni-Zanaja	2.87	110	P	Pn	01 59 01.6	+1.0
	33nm,0.2s						
SZAC				S	Sn	01 59 35.7	+0.5
SMG	Samos	2.93	311	ePn	Pn	01 59 00.3	-1.1
SMG				eSn	Sn	01 59 32.9	-3.7
SMG	Samos	2.93	311	ePN	Pn	01 59 01.1	-0.3
SMG				eSN	Sn	01 59 34.7	-1.9
SMG	Samos	2.93	311	ePn	Pn	01 59 00.3	-1.1
SMG				eSn	Sn	01 59 32.9	-3.7
MAMC	Mammari	3.01	101	P	Pn	01 59 02.8	+0.3
KONT	Konya--Tatoy	3.08	45	PN	Pn	01 59 02.8	-0.6
KONT	Konya--Tatoy	3.08	45	Pn	Pn	01 59 02.9	-0.5
KONT	Konya--Tatoy	3.08	45	ePn	Pn	01 59 02.8	-0.6
CSS	Prodhromos	3.15	104	ePn	Pn	01 59 01.1	-3.4
CSS				eSn	Sn	01 59 34.2	-7.9
CSS	Prodhromos	3.15	104	eP	Pn	01 59 04.6	+0.2
IZM	Izmir	3.20	325	ePN	Pn	01 59 07.4	+2.3
IZM	Izmir	3.20	325	Pn	Pn	01 59 08.1	+3.0
IZM	Izmir	3.20	325	P	Pn	01 59 08.1	+3.0
ALT	Altintas	3.28	7	PN	Pn	01 59 06.9	+0.8
ALT	Altintas	3.28	7	Pn	Pn	01 59 06.9	+0.8
ALT	Altintas	3.28	7	ePn	Pn	01 59 06.9	+0.8
BLCB	Balcova	3.30	322	ePN	Pn	01 59 07.8	+1.4
BLCB	Balcova	3.30	322	Pn	Pn	01 59 06.2	-0.3
BLCB	Balcova	3.30	322	ePn	Pn	01 59 07.8	+1.4
BLCB	Balcova	3.30	322	eP	Pn	01 59 10.8	+4.4
NPS	Neapolis	3.30	262	ePn	Pn	01 59 08.8	+2.3
NPS				eSn	Sn	01 59 46.1	+0.3
NPS	Neapolis	3.30	262	ePN	Pn	01 59 08.8	+2.3
NPS				eSN	Sn	01 59 46.1	+0.3
NPS	Neapolis	3.30	262	ePn	Pn	01 59 08.8	+2.3
NPS				eSn	Sn	01 59 46.1	+0.3
XRY	Khrisi	3.33	255	ePn	Pn	01 59 09.5	+2.6
XRY	Khrisi	3.33	255	ePN	Pn	01 59 09.5	+2.6
XRY	Khrisi	3.33	255	ePn	Pn	01 59 09.5	+2.6
IKL	Isikli	3.33	81	PN	Pn	01 59 05.7	-1.2
IKL	Isikli	3.33	81	Pn	Pn	01 59 05.7	-1.2
IKL	Isikli	3.33	81	ePn	Pn	01 59 05.7	-1.2
AKS	Akhisar	3.39	336	ePN	Pn	01 59 09.5	+1.8
AKS	Akhisar	3.39	336	Pn	Pn	01 59 10.3	+2.6
AKS	Akhisar	3.39	336	ePn	Pn	01 59 09.5	+1.8
SANT	Santorini	3.41	281	ePn	Pn	01 59 08.7	+0.7
SANT				Sn	Sn	01 59 43.7	-4.7
LAST	Lasithi	3.43	261	eP	Pn	01 59 11.4	+3.1
APE	Apeiranthos	3.52	292	ePn	Pn	01 59 11.1	+1.5
APE	Apeiranthos	3.52	292	ePN	Pn	01 59 11.1	+1.5
APE	Apeiranthos	3.52	292	eP	Pn	01 59 10.3	+0.7
APE	Apeiranthos	3.52	292	ePn	Pn	01 59 11.1	+1.5
KIZT	Kizilcal	3.57	30	ePN	Pn	01 59 10.4	+0.2
KIZT	Kizilcal	3.57	30	Pn	Pn	01 59 10.5	+0.3
KIZT	Kizilcal	3.57	30	ePn	Pn	01 59 10.4	+0.2
PHNC	Paralimni	3.70	101	P	Pn	01 59 14.1	+2.1
PHNC				S	Sn	01 59 56.7	+1.1
CHOS	Chios island	3.84	313	eP	Pn	01 59 17.4	+3.5
ESKT	Eskisehir	3.84	14	ePN	Pn	01 59 15.1	+1.2
ESKT	Eskisehir	3.84	14	Pn	Pn	01 59 15.7	+1.8
ESKT	Eskisehir	3.84	14	ePn	Pn	01 59 15.1	+1.2
IDI	Anoyia	3.88	264	P	Pn	01 59 16.2	+1.7
	24nm,0.3s,baz=96,slow=12,SNR=25						
IDI				S	Sn	01 59 58.5	-1.6
	75nm,0.3s,baz=137,slow=23,SNR=7.0						
MERS	Mersin	4.11	73	ePN	Pn	01 59 17.4	-0.2
MERS	Mersin	4.11	73	ePn	Pn	01 59 17.4	-0.2
PRK	Paraskevi	4.35	323	ePn	Pn	01 59 20.5	-0.3
PRK	Paraskevi	4.35	323	ePN	Pn	01 59 20.5	-0.3
PRK	Paraskevi	4.35	323	ePn	Pn	01 59 20.5	-0.3
VAM	Vamos	4.42	267	ePn	Pn	01 59 25.4	+3.5
VAM	Vamos	4.42	267	ePN	Pn	01 59 25.4	+3.5
VAM	Vamos	4.42	267	ePn	Pn	01 59 25.4	+3.5
GPA	Golpazari	4.52	7	ePN	Pn	01 59 24.8	+1.6
GPA	Golpazari	4.52	7	Pn	Pn	01 59 24.8	+1.6
GPA	Golpazari	4.52	7	ePn	Pn	01 59 24.8	+1.6
IZI	Iznik	4.53	359	ePN	Pn	01 59 25.3	+1.9
IZI	Iznik	4.53	359	Pn	Pn	01 59 25.4	+2.0
IZI	Iznik	4.53	359	ePn	Pn	01 59 25.3	+1.9
KCT	Karacabey	4.57	348	ePN	Pn	01 59 25.1	+1.2
KCT	Karacabey	4.57	348	Pn	Pn	01 59 25.2	+1.3
KCT	Karacabey	4.57	348	ePn	Pn	01 59 25.1	+1.2
GVD	Gavdhos	4.62	260	ePn	Pn	01 59 23.1	-1.5
GVD				eSn	Sn	02 00 17.2	-1.0
GVD	Gavdhos	4.62	260	eP	Pn	01 59 27.1	+2.5
GVD	Gavdhos	4.62	260	ePN	Pn	01 59 27.0	+2.5
GVD	Gavdhos	4.62	260	ePn	Pn	01 59 27.0	+2.5
KARA	Karaisali	4.62	70	ePN	Pn	01 59 24.3	-0.3
KARA	Karaisali	4.62	70	ePn	Pn	01 59 24.3	-0.3
NIG	Nigde	4.62	59	ePN	Pn	01 59 24.4	-0.2
NIG	Nigde	4.62	59	Pn	Pn	01 59 25.4	+0.7
NIG	Nigde	4.62	59	ePn	Pn	01 59 24.4	-0.2
ADVT	Abdulvahap	4.63	1	ePN	Pn	01 59 26.7	+2.0
ADVT	Abdulvahap	4.63	1	Pn	Pn	01 59 26.7	+2.0
ADVT	Abdulvahap	4.63	1	ePn	Pn	01 59 26.7	+2.0
GEMT	Gemlik	4.64	356	ePN	Pn	01 59 27.2	+2.3
GEMT	Gemlik	4.64	356	Pn	Pn	01 59 27.3	+2.4
GEMT	Gemlik	4.64	356	ePn	Pn	01 59 27.2	+2.3
KRTS	Karatas	4.73	79	ePN	Pn	01 59 25.7	-0.4
KRTS	Karatas	4.73	79	ePn	Pn	01 59 25.7	-0.4
BNT	Bandirma	4.74	344	ePN	Pn	01 59 28.5	+2.2
BNT	Bandirma	4.74	344	Pn	Pn	01 59 29.2	+2.9
BNT	Bandirma	4.74	344	ePn	Pn	01 59 28.5	+2.2
BNT	Bandirma	4.74	344	P	Pn	01 59 29.2	+2.9
EDC	Edincik	4.75	344	ePN	Pn	01 59 28.9	+2.6
EDC	Edincik	4.75	344	Pn	Pn	01 59 29.0	+2.6
EDC	Edincik	4.75	344	P	Pn	01 59 29.0	+2.7
EDC	Edincik	4.75	344	ePn	Pn	01 59 28.9	+2.6
ANTO	Ankara	4.78	31	ePN	Pn	01 59 26.9	+0.1
ANTO	Ankara	4.78	31	ePn	Pn	01 59 26.8	0.0
ANTO				eSn	Sn	02 00 21.7	-0.6
ANTO	Ankara	4.78	31	eP	Pn	01 59 26.8	0.0
ANTO				e		02 00 21.7	
ANTO	Ankara	4.78	31	⇓iP	Pn	01 59 27.5	+0.7
ANTO	Ankara	4.78	31	ePn	Pn	01 59 26.9	+0.1
LOD	Lodumlu	4.79	30	ePN	Pn	01 59 27.2	+0.3
LOD	Lodumlu	4.79	30	Pn	Pn	01 59 27.2	+0.3
LOD	Lodumlu	4.79	30	ePn	Pn	01 59 27.2	+0.3
EZN	Ezine	4.79	328	ePN	Pn	01 59 29.5	+2.6
EZN	Ezine	4.79	328	Pn	Pn	01 59 27.1	+0.2
EZN	Ezine	4.79	328	P	Pn	01 59 27.1	+0.2
EZN	Ezine	4.79	328	ePn	Pn	01 59 29.5	+2.6
MDU	Mudurnu	4.83	15	ePN	Pn	01 59 28.1	+0.6
MDU	Mudurnu	4.83	15	Pn	Pn	01 59 28.2	+0.7
MDU	Mudurnu	4.83	15	ePn	Pn	01 59 28.1	+0.6
KAMT	Kaman	4.83	41	ePN	Pn	01 59 27.5	0.0
KAMT	Kaman	4.83	41	Pn	Pn	01 59 27.5	0.0
KAMT	Kaman	4.83	41	ePn	Pn	01 59 27.5	0.0
HRT	Hereke	5.02	1	ePN	Pn	01 59 31.6	+1.6
HRT	Hereke	5.02	1	Pn	Pn	01 59 32.8	+2.8
HRT	Hereke	5.02	1	P	Pn	01 59 32.8	+2.8
HRT	Hereke	5.02	1	ePn	Pn	01 59 31.6	+1.6
MRMT	Marmara Adasi	5.05	342	ePN	Pn	01 59 33.3	+2.8
MRMT	Marmara Adasi	5.05	342	ePn	Pn	01 59 33.3	+2.8
BR131	Keskin Array S	5.06	38	ePn	Pn	01 59 30.8	+0.2
	96nm,0.7s						
BR131				eSn	Sn	02 00 22.1	-6.9
BRTR	Keskin Array B	5.06	38	P	Pn	01 59 30.5	-0.1
BRTR				S	Sn	02 00 26.9	-2.1
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
BRTR				smax			
	comp=N,36nm,0.3s						
BRTR	Keskin Array B	5.06	38	P	Pn	01 59 30.4	-0.1
	comp=N,1.5nm,0.3s,baz=213,slow=13,SNR=4.6						
BRTR				S	Sn	02 00 26.9	-2.1
	comp=N,36nm,0.3s,baz=212,slow=23,SNR=23						
LPK	Lapseki	5.09	335	ePN	Pn	01 59 33.4	+2.3
LPK	Lapseki	5.09	335	Pn	Pn	01 59 34.2	+3.2
LPK	Lapseki	5.09	335	ePn	Pn	01 59 33.4	+2.3
CEYT	Ceyhan	5.10	74	ePN	Pn	01 59 30.6	-0.6
CEYT	Ceyhan	5.10	74	Pn	Pn	01 59 30.6	-0.5
CEYT	Ceyhan	5.10	74	ePn	Pn	01 59 30.6	-0.6
ARNB	Al Arnab	5.17	87	⇓P	Pn	01 59 30.6	-1.6
ARNB				⇓S	Sn	02 00 20.8	-11
ARNB	Al Arnab	5.17	87	⇓iP	Pn	01 59 30.5	-1.7
ATH	Athens Observa	5.20	296	ePn	Pn	01 59 32.9	+0.4
ATH	Athens Observa	5.20	296	ePN	Pn	01 59 32.9	+0.4
ATH	Athens Observa	5.20	296	ePn	Pn	01 59 32.9	+0.4
BEYL	Beyrouth	5.21	110	eP	Pn	01 59 33.4	+0.7
RKY	Sarkoy-Tekirda	5.24	339	ePN	Pn	01 59 35.9	+2.7
RKY	Sarkoy-Tekirda	5.24	339	Pn	Pn	01 59 35.9	+2.8
RKY	Sarkoy-Tekirda	5.24	339	ePn	Pn	01 59 35.9	+2.7
MATL	Matirih	5.25	114	eP	Pn	01 59 33.2	0.0
GADA	Gvkgeada	5.27	327	ePN	Pn	01 59 36.4	+2.8
GADA	Gvkgeada	5.27	327	Pn	Pn	01 59 34.0	+0.4
GADA	Gvkgeada	5.27	327	ePn	Pn	01 59 36.4	+2.8
KOZT	Kozan	5.28	70	ePN	Pn	01 59 33.0	-0.6
ISK	Istanbul-Kandi	5.28	355	ePN	Pn	01 59 35.1	+1.5
ISK	Istanbul-Kandi	5.28	355	Pn	Pn	01 59 36.6	+2.9
ISK	Istanbul-Kandi	5.28	355	eP	Pn	01 59 37.5	+3.9
ISK	Istanbul-Kandi	5.28	355	P	Pn	01 59 36.6	+3.0
ISK	Istanbul-Kandi	5.28	355	ePn	Pn	01 59 35.1	+1.5
HTY	Hatay	5.31	85	ePN	Pn	01 59 33.2	-0.8
HTY	Hatay	5.31	85	Pn	Pn	01 59 32.6	-1.4
HTY	Hatay	5.31	85	ePn	Pn	01 59 33.2	-0.8
MFT	Murefte	5.31	341	ePN	Pn	01 59 36.9	+2.9
MFT	Murefte	5.31	341	ePn	Pn	01 59 36.9	+2.9
BHL	Bhannes	5.32	109	eP	Pn	01 59 33.4	-0.8
HNTI	Hanita	5.34	119	Pn	Pn	01 59 35.5	+1.0
HNTI	Hanita	5.34	119	Pn	Pn	01 59 35.4	+0.9
KYTH	Kithira	5.35	277	ePn	Pn	01 59 36.0	+1.4

KYTH	Kithira	5.35	277	*e*PN	Pn	01 59 36.0	+1.4
KYTH	Kithira	5.35	277	*e*Pn	Pn	01 59 36.0	+1.4
LIA	Limnos Island	5.39	321	*e*Pn	Pn	01 59 36.2	+1.1
LIA	Limnos Island	5.39	321	*e*PN	Pn	01 59 36.2	+1.1
LIA	Limnos Island	5.39	321	*e*Pn	Pn	01 59 36.2	+1.1
SLNF	Slenfeh	5.39	90	⇑P	Pn	01 59 34.4	-0.7
SLNF				⇑S	Sn	02 00 25.4	-12
SLNF	Slenfeh	5.39	90	⇑*i*P	Pn	01 59 34.4	-0.7
HWQ	Hawqa	5.42	104	*e*P	Pn	01 59 36.2	+0.7
CTT	Catalca	5.42	351	*e*PN	Pn	01 59 37.7	+2.1
CTT	Catalca	5.42	351	Pn	Pn	01 59 38.5	+2.9
CTT	Catalca	5.42	351	P	Pn	01 59 38.5	+2.9
CTT	Catalca	5.42	351	*e*Pn	Pn	01 59 37.7	+2.1
KLYT	Kilyos	5.46	356	*e*PN	Pn	01 59 38.8	+2.6
KLYT	Kilyos	5.46	356	Pn	Pn	01 59 38.9	+2.7
KLYT	Kilyos	5.46	356	*e*Pn	Pn	01 59 38.8	+2.6
LOS	Limnos	5.47	320	*e*P	Pn	01 59 39.3	+3.1
OFRI	‘Ofer	5.47	124	Pn	Pn	01 59 37.6	+1.3
OFRI	‘Ofer	5.47	124	Pn	Pn	01 59 37.6	+1.4
VLI	Veliai	5.47	282	*e*Pn	Pn	01 59 38.6	+2.3
VLI	Veliai	5.47	282	*e*PN	Pn	01 59 38.6	+2.3
VLI	Veliai	5.47	282	*e*Pn	Pn	01 59 38.6	+2.3
MMA0	Mount Meron ar	5.54	118	Pn	Pn	01 59 38.4	+1.2
MMA0				Sn	Sn	02 00 38.5	-2.4
MMA0	Mount Meron ar	5.54	118	Pn	Pn	01 59 38.4	+1.2
MMA0				Sn	Sn	02 00 38.5	-2.4
MMAI	Mount Meron Ar	5.54	118	P	Pn	01 59 37.9	+0.7
	comp=N,84nm,0.3s,baz=309,slow=12,SNR=55						
MMAI				S	Sn	02 00 38.1	-2.8
	comp=N,233nm,0.3s,baz=335,slow=31,SNR=18						
BTCH	Batrach	5.56	86	⇑P	Pn	01 59 36.4	-1.2
BTCH				⇑S	Sn	02 00 30.4	-11
BTCH	Batrach	5.56	86	⇑*i*P	Pn	01 59 36.4	-1.2
RCY	Rachaya	5.62	112	*e*P	Pn	01 59 39.2	+0.9
ENEZ	Enez	5.63	332	*e*PN	Pn	01 59 41.5	+3.0
ENEZ	Enez	5.63	332	*e*Pn	Pn	01 59 41.5	+3.0
KSDI	Kefar Szold	5.63	116	Pn	Pn	01 59 39.7	+1.2
KSDI				Sn	Sn	02 00 40.3	-2.9
KSDI	Kefar Szold	5.63	116	Pn	Pn	01 59 39.7	+1.2
KSDI				Sn	Sn	02 00 40.3	-2.9
AOS	Alonnisos	5.66	308	*e*P	Pn	01 59 42.5	+3.6
KDZE	Karadeniz Ereo	5.69	14	*e*PN	Pn	01 59 41.3	+2.0
KDZE	Karadeniz Ereo	5.69	14	*e*Pn	Pn	01 59 41.3	+2.0
SLTI	Sal’it	5.74	127	Pn	Pn	01 59 42.1	+2.2
SLTI				Sn	Sn	02 00 43.3	-2.6
SLTI	Sal’it	5.74	127	Pn	Pn	01 59 42.2	+2.2
SLTI				Sn	Sn	02 00 43.3	-2.6
CANT	Cankiri	5.75	32	*e*PN	Pn	01 59 40.6	+0.5
CANT	Cankiri	5.75	32	Pn	Pn	01 59 40.6	+0.6
DRWC	Darouich	5.77	80	⇑P	Pn	01 59 39.2	-1.1
DRWC				⇑S	Sn	02 00 34.0	-13
DRWC	Darouich	5.77	80	⇑*i*P	Pn	01 59 39.2	-1.2
ALN	Alexandroupoli	5.81	332	*e*P	Pn	01 59 43.6	+2.7
BNN	Bunyan	5.83	57	*e*PN	Pn	01 59 41.4	+0.2
BNN	Bunyan	5.83	57	Pn	Pn	01 59 41.4	+0.2
BNN	Bunyan	5.83	57	*e*Pn	Pn	01 59 41.4	+0.2
MMLI	Mount Malkishu	5.87	123	Pn	Pn	01 59 43.1	+1.3
MMLI				Sn	Sn	02 00 46.8	-2.3
MMLI	Mount Malkishu	5.87	123	Pn	Pn	01 59 43.1	+1.3
MMLI				Sn	Sn	02 00 46.8	-2.4
CORM	Corum	5.90	41	*e*PN	Pn	01 59 42.6	+0.4
CORM	Corum	5.90	41	*e*Pn	Pn	01 59 42.6	+0.4
MARH	Ras Al Marh	5.92	105	⇓P	Pn	01 59 43.2	+0.8
MARH				⇓S	Sn	02 00 40.9	-9.4
MARH	Ras Al Marh	5.92	105	⇓*i*P	Pn	01 59 43.2	+0.8
SAFT	Safranbolu	5.95	23	*e*PN	Pn	01 59 44.3	+1.5
SAFT	Safranbolu	5.95	23	Pn	Pn	01 59 44.3	+1.5
SAFT	Safranbolu	5.95	23	*e*Pn	Pn	01 59 44.3	+1.5
AMAG	Maghara	5.96	149	P	Pn	01 59 44.5	+1.5
LKR	Lokris	5.99	300	*e*Pn	Pn	01 59 45.7	+2.2
LKR	Lokris	5.99	300	*e*PN	Pn	01 59 45.7	+2.2
LKR	Lokris	5.99	300	*e*Pn	Pn	01 59 45.7	+2.2
LTBQ	Tobruq	6.02	233	*i* P	Pn	01 59 46.7	+2.8
	SNR=43						
LTBQ				*e*S	Sn	02 00 42.6	-10
	comp=N,199nm,0.7s,SNR=43						
SQR		6.05	167	P	Pn	01 59 46.4	+2.2
HMYD	Mayadein	6.07	170	P	Pn	01 59 46.5	+2.0
TCHB	Talchebab	6.12	119	⇑P	Pn	01 59 46.8	+1.5
TCHB				⇑S	Sn	02 00 48.8	-6.5
TCHB	Talchebab	6.12	119	⇑*i*P	Pn	01 59 46.8	+1.5
NEO	Neokhori	6.16	307	*e*Pn	Pn	01 59 47.0	+1.2
NEO	Neokhori	6.16	307	*e*PN	Pn	01 59 47.0	+1.2
NEO	Neokhori	6.16	307	*e*Pn	Pn	01 59 47.0	+1.2
HNAT	Natroun	6.21	172	P	Pn	01 59 48.3	+1.9
FYM	Al Fayyum	6.21	168	P	Pn	01 59 48.2	+1.8
AYT	Al ‘Ayyat	6.21	167	P	Pn	01 59 49.3	+2.7
XOR	Xorichti	6.22	307	*e*P	Pn	01 59 49.2	+2.7
RDO	Rodhopi	6.22	330	*e*Pn	Pn	01 59 47.6	+1.0
RDO	Rodhopi	6.22	330	*e*PN	Pn	01 59 47.6	+1.0
RDO	Rodhopi	6.22	330	*e*Pn	Pn	01 59 47.6	+1.0
PAIG	Paliouri	6.24	313	*e*P	Pn	01 59 51.2	+4.3
GAZ	Gaziantep	6.28	75	*e*PN	Pn	01 59 46.7	-0.7
KZIT	Kziot	6.31	139	Pn	Pn	01 59 49.6	+1.7
KZIT				Sn	Sn	02 00 57.5	-2.5
KZIT	Kziot	6.31	139	Pn	Pn	01 59 49.6	+1.7
KZIT				Sn	Sn	02 00 57.5	-2.5
ITM	Ithomi	6.34	285	*e*Pn	Pn	01 59 51.1	+2.9
ITM	Ithomi	6.34	285	*e*PN	Pn	01 59 51.1	+2.9
ITM	Ithomi	6.34	285	*e*Pn	Pn	01 59 51.1	+2.9
RABH	Abou Rabah	6.37	100	⇑P	Pn	01 59 49.1	+0.4
RABH	Abou Rabah	6.37	100	⇑*i*P	Pn	01 59 49.1	+0.4
HSAF	As Saff	6.38	165	P	Pn	01 59 51.0	+2.2
YTIR	Yattir	6.38	132	Pn	Pn	01 59 50.3	+1.5
YTIR	Yattir	6.38	132	Pn	Pn	01 59 50.3	+1.5
DRGI	Dragot	6.39	129	Pn	Pn	01 59 50.8	+1.8
DRGI	Dragot	6.39	129	Pn	Pn	01 59 50.8	+1.9
DSI	Dead Sea	6.40	130	Pn	Pn	01 59 51.0	+2.0
DSI	Dead Sea	6.40	130	Pn	Pn	01 59 51.0	+2.0
EDRB	Edirne	6.44	341	*e*PN	Pn	01 59 52.5	+2.9
EDRB	Edirne	6.44	341	Pn	Pn	01 59 52.6	+3.0
EDRB	Edirne	6.44	341	*e*Pn	Pn	01 59 52.5	+2.9
GLL	Jalalah	6.45	163	P	Pn	01 59 51.4	+1.6
ROOS	tl_alroos	6.51	102	⇑P	Pn	01 59 50.6	0.0
ROOS				⇑S	Sn	02 00 54.6	-10
ROOS	tl_alroos	6.51	102	⇑*i*P	Pn	01 59 50.6	0.0
SUZ		6.53	155	P	Pn	01 59 53.1	+2.2
MZDA	Masada	6.56	131	Pn	Pn	01 59 52.7	+1.4
MZDA				Sn	Sn	02 01 03.9	-2.3
MZDA	Masada	6.56	131	Pn	Pn	01 59 52.7	+1.4
MZDA				Sn	Sn	02 01 03.9	-2.3
AGG	Agios Georgios	6.63	301	*e*P	Pn	01 59 57.1	+4.9
PLG	Polygyros	6.67	315	*e*Pn	Pn	01 59 54.2	+1.4
PLG	Polygyros	6.67	315	*e*P	Pn	01 59 56.8	+4.0
PLG	Polygyros	6.67	315	*e*PN	Pn	01 59 54.2	+1.4
PLG	Polygyros	6.67	315	*e*Pn	Pn	01 59 54.2	+1.4
PLG	Polygyros	6.67	315	*e*P	Pn	01 59 56.8	+4.0
KDZ	Kurdzhali	6.70	332	*i* P	Pn	01 59 58.9	+5.8
RLS	Riolos of Patr	6.90	291	*e*Pn	Pn	01 59 58.0	+2.1
RLS	Riolos of Patr	6.90	291	*e*PN	Pn	01 59 58.0	+2.1
RLS	Riolos of Patr	6.90	291	*e*Pn	Pn	01 59 58.0	+2.1
HNKL	Nakhl	6.91	147	P	Pn	01 59 57.0	+0.9
EVR	Evrytania	6.95	299	*e*Pn	Pn	01 59 57.6	+1.0
EVR	Evrytania	6.95	299	*e*PN	Pn	01 59 57.6	+1.0
EVR	Evrytania	6.95	299	*e*Pn	Pn	01 59 57.6	+1.0
ZAF		6.95	158	P	Pn	01 59 58.6	+1.9
HBNS	Bani Suwayf	6.96	168	P	Pn	01 59 58.5	+1.8
ZNM		6.97	156	P	Pn	01 59 59.4	+2.4
ZFRI	Zfri	7.01	137	Pn	Pn	01 59 59.2	+1.7
ZFRI	Zfri	7.01	137	Pn	Pn	01 59 59.2	+1.8
HORT	Hortiatis	7.01	315	*e*P	Pn	02 00 03.2	+5.7
SOH	Sokhos	7.02	317	*e*P	Pn	02 00 03.6	+6.0
BZK	Bozkurt	7.04	28	*e*PN	Pn	01 59 59.6	+1.7
BZK	Bozkurt	7.04	28	Pn	Pn	01 59 59.7	+1.8
BZK	Bozkurt	7.04	28	*e*Pn	Pn	01 59 59.6	+1.7
ASF	Jabal al Asfar	7.05	119	P	Pn	01 59 59.0	+1.0
ASF				S	Sn	02 01 14.5	-3.7
ASF				pmax	pmax		
	comp=Z,7.0nm,0.3s						
ASF				smax			
	comp=N,2.0nm,0.3s						
ASF				MLR	MLR		
	comp=Z,908nm,18.8s						
ASF	Jabal al Asfar	7.05	119	P	Pn	01 59 59.0	+1.0
	comp=Z,7.4nm,0.3s,baz=185,slow=2.9,SNR=18						
ASF				S	Sn	02 01 14.5	-3.7
	comp=Z,2.1nm,0.3s,baz=70,slow=15,SNR=1.9						
ASF				LR	LR	02 03 46.1	
	comp=Z,908nm,18.8s,baz=301,slow=47						
JMB	Yambol	7.06	341	*e*P	Pn	02 00 00.2	+2.1
JMB	Yambol	7.06	341	*i* P	Pn	02 00 04.0	+5.9
JMB	Yambol	7.06	341	*e*P	Pn	02 00 00.2	+2.1
PRNI	Paran	7.07	139	Pn	Pn	02 00 00.0	+1.7
PRNI	Paran	7.07	139	Pn	Pn	02 00 00.0	+1.7
LIT	Litokhoron	7.08	309	*e*P	Pn	02 00 03.4	+5.1
THL	Klokotos Trika	7.10	304	*e*PN	Pn	02 00 00.2	+1.6
THL	Klokotos Trika	7.10	304	*e*Pn	Pn	02 00 00.2	+1.6
SRS	Serrai	7.10	320	*e*P	Pn	02 00 03.2	+4.5
KRMI	Paran Flat	7.11	141	Pn	Pn	01 59 59.9	+1.1
KRMI	Paran Flat	7.11	141	Pn	Pn	01 59 59.9	+1.1
THE	Thessaloniki	7.12	315	*e*P	Pn	02 00 04.5	+5.6
NVR	Nevrokopi	7.14	323	*e*Pn	Pn	01 59 59.7	+0.5
NVR	Nevrokopi	7.14	323	*e*PN	Pn	01 59 59.7	+0.5
NVR	Nevrokopi	7.14	323	*e*Pn	Pn	01 59 59.7	+0.5
KVT	Kavak	7.30	42	*e*PN	Pn	02 00 01.8	+0.4
KVT	Kavak	7.30	42	Pn	Pn	02 00 01.8	+0.4
KVT	Kavak	7.30	42	*e*Pn	Pn	02 00 01.8	+0.4
DIKM	Dikmen	7.32	35	*e*PN	Pn	02 00 02.8	+1.1
DIKM	Dikmen	7.32	35	*e*Pn	Pn	02 00 02.8	+1.1
HRFI	Mount Harif	7.33	140	Pn	Pn	02 00 03.2	+1.2
HRFI				Sn	Sn	02 01 23.4	-1.8
HRFI	Mount Harif	7.33	140	Pn	Pn	02 00 03.2	+1.3
HRFI				Sn	Sn	02 01 23.4	-1.8
PLD	Plovdiv	7.37	330	*i* P	Pn	02 00 09.0	+6.7
MALT	Malatya	7.49	68	*e*Pn	Pn	02 00 02.8	-1.1
MALT				*e*Sn	Sn	02 01 18.6	-10
MALT	Malatya	7.49	68	⇑*i*P	Pn	02 00 03.4	-0.6
MALT	Malatya	7.49	68	*e*P	Pn	02 00 02.8	-1.2
MYA	Malataya	7.49	68	*e*PN	Pn	02 00 03.7	-0.3
MYA	Malataya	7.49	68	Pn	Pn	02 00 03.8	-0.2
MYA	Malataya	7.49	68	P	Pn	02 00 03.8	-0.2
KNT	Kendrikon	7.51	318	*e*P	Pn	02 00 09.7	+5.4
EIL	Elat	7.59	142	P	Pn	02 00 06.3	+0.9
	comp=Z,5.3nm,0.3s,baz=331,slow=12,SNR=18						
EIL				S	Sn	02 01 26.9	-4.5
	comp=Z,15nm,0.3s,baz=98,slow=22,SNR=7.9						
EIL				LR	LR	02 04 35.5	
	comp=Z,288nm,20.2s,baz=120,slow=50						
EIL	Elat	7.59	142	Pn	Pn	02 00 07.2	+1.8
EIL				Sn	Sn	02 01 29.1	-2.4
EIL	Elat	7.59	142	Pn	Pn	02 00 07.2	+1.8
EIL				Sn	Sn	02 01 29.1	-2.3
AQBJ	Aqaba	7.59	141	Pn	Pn	02 00 07.0	+1.6
VLS	Valsamata	7.60	291	*e*Pn	Pn	02 00 07.4	+1.9
VLS	Valsamata	7.60	291	*e*PN	Pn	02 00 07.4	+1.9
VLS	Valsamata	7.60	291	*e*Pn	Pn	02 00 07.4	+1.9
GRG	Griva	7.65	314	*e*P	Pn	02 00 12.3	+6.1
LKD	Levkas	7.71	295	*e*P	Pn	02 00 09.5	+2.4
VAY	Valandovo	7.80	317	*e*Pn	Pn	02 00 10.7	+2.5
VAY	Valandovo	7.80	317	*e*Pn	Pn	02 00 10.7	+2.5
KKB	Krupnik	7.91	322	*i* P	Pn	02 00 18.0	+8.2
JAN	Janina	7.94	302	*e*Pn	Pn	02 00 12.3	+2.2
JAN	Janina	7.94	302	*e*PN	Pn	02 00 12.3	+2.2
JAN	Janina	7.94	302	*e*Pn	Pn	02 00 12.3	+2.2
PSN	Preselentsi	7.95	353	*i* P	Pn	02 00 13.0	+2.7
SZH	Strazhica	7.98	340	*i* P	Pn	02 00 15.0	+4.3
HKAT	Jabal Katrina	8.15	152	P	Pn	02 00 14.9	+1.8
FNA	Florina	8.16	310	*e*P	Pn	02 00 18.1	+4.8
STIP	Stip	8.26	318	*e*Pn	Pn	02 00 18.4	+3.8
STIP	Stip	8.26	318	*e*Pn	Pn	02 00 18.3	+3.7
BIA	Bitola	8.33	311	*e*P	Pn	02 00 21.0	+5.4
BIA	Bitola	8.33	311	*e*Pn	Pn	02 00 21.6	+6.0
VTS	Vitosha	8.41	326	*e*P	Pn	02 00 20.9	+4.4
VTS	Vitosha	8.41	326	*i* P	Pn	02 00 24.0	+7.4
VTS	Vitosha	8.41	326	⇑*i*P	Pn	02 00 24.1	+7.5
VTS	Vitosha	8.41	326	⇑*i*P	Sn	02 01 53.0	+1.5
KRUS	Krusevo	8.59	313	*e*Pn	Pn	02 00 22.6	+3.6
KRUS	Krusevo	8.59	313	*e*Pn	Pn	02 00 22.6	+3.5
TR1		8.60	153	P	Pn	02 00 20.6	+1.3
HFRF	Wahat Farafira	8.69	188	P	Pn	02 00 22.1	+1.5
TIRR	Tirgusor	8.70	354	⇓P	Pn	02 00 24.1	+3.5
TIRR	Tirgusor	8.70	354	⇓*i*P	Pn	02 00 24.1	+3.5
TIRR	Tirgusor	8.70	354	S	Sn	02 01 56.1	-2.6
SHRM		8.77	153	P	Pn	02 00 23.1	+1.5
GUMT	Gumushane	9.06	56	*e*PN	Pn	02 00 25.5	-0.1
GUMT	Gumushane	9.06	56	Pn	Pn	02 00 26.0	+0.4
HHRG	Al Ghardaqah	9.19	157	P	Pn	02 00 29.2	+1.8
LJBD	Adjabya	9.25	241	*i* P	Pn	02 00 28.7	+0.4
	SNR=41						
SIM	Simferopol’	9.76	19	*ce*P	Pn	02 00 40.8	+5.6
SIM				*e*S	Sn	02 02 27.0	+2.2
SIM				pmax	pmax		
	comp=Z,63nm,0.4s						
SCTE	Santa Cesarea	9.78	299	Pn	Pn	02 00 36.8	+1.4
	comp=Z,392nm,1.0s						
MLR	Muntele Rosu	10.07	345	P	Pn	02 00 40.5	+1.1
MLR				⇑P		02 00 45.1	
MLR	Muntele Rosu	10.07	345	P	Pn	02 00 40.5	+1.1
	comp=Z,0.2nm,0.3s,baz=132,slow=12,SNR=3.8						
MLR	Muntele Rosu	10.07	345	⇑*i*P	Pn	02 00 45.1	+5.7
LCI	Lecce	10.13	300	Pn	Pn	02 00 41.5	+1.3
	comp=Z,20nm,0.2s						
LCI	Lecce	10.13	300	P	Pn	02 00 41.5	+1.3
LCI				pmax	pmax		
	comp=Z,20nm,0.2s						
LCI	Lecce	10.13	300	Pn	Pn	02 00 41.5	+1.3
	comp=Z,20nm,0.2s						
VOIR		10.23	342	⇑P	Pn	02 00 47.7	+6.1
VOIR		10.23	342	⇑*i*P	Pn	02 00 47.7	+6.1
VRI	Vrincioaia	10.29	349	⇑P	Pn	02 00 48.1	+5.7
VRI	Vrincioaia	10.29	349	⇑*i*P	Pn	02 00 48.1	+5.7
TIP	Timpagrande	10.75	292	*e*Pn	Pn	02 00 47.9	-0.9
TIP				*e*Sn	Sn	02 02 38.5	-11
SERS	Sersale	10.77	291	Pn	Pn	02 00 47.7	-1.3
	comp=Z,52nm,0.4s						
PLAC	Placanica	10.84	288	Pn	Pn	02 00 49.0	-1.0
	comp=Z,18nm,0.6s						
SOC	Sochi	11.00	42	*i* P	Pn	02 00 54.1	+2.0
NOCI	Noci	11.04	301	Pn	Pn	02 00 52.7	0.0
	comp=Z,44nm,0.6s						
SOI	Samo	11.08	286	Pn	Pn	02 00 52.6	-0.7
	comp=Z,23nm,0.5s						
SOI	Samo	11.08	286	P	Pn	02 00 52.6	-0.7
SOI				pmax	pmax		
	comp=Z,23nm,0.5s						
SOI	Samo	11.08	286	Pn	Pn	02 00 52.6	-0.7
	comp=Z,23nm,0.5s						
MPAZ	Palizzi	11.11	285	Pn	Pn	02 00 52.8	-0.8
	comp=Z,48nm,0.3s						
CARO	Carolei	11.18	292	Pn	Pn	02 00 54.8	+0.2
	comp=Z,114nm,0.8s						
KIS	Kishinev	11.21	357	*e*P	Pn	02 00 57.0	+2.1
ORI	Oriolo Calabro	11.23	296	Pn	Pn	02 00 55.0	-0.3
	comp=Z,113nm,0.5s						
ORI	Oriolo Calabro	11.23	296	P	Pn	02 00 55.0	-0.3
ORI				pmax	pmax		
	comp=Z,113nm,0.5s						
ORI	Oriolo Calabro	11.23	296	Pn	Pn	02 00 55.0	-0.3
	comp=Z,113nm,0.5s						
BAI	Bari	11.30	302	*e*Pn	Pn	02 00 56.3	+0.1
JOPP	Joppolo	11.30	288	Pn	Pn	02 00 55.1	-1.1
	comp=Z,28nm,0.5s						
SG1	Sgolgore (BA)	11.33	300	*e*Pn	Pn	02 00 55.7	-1.0
CRAC	Craco	11.34	298	Pn	Pn	02 00 56.7	0.0
	comp=Z,130nm,1.0s						
MTTG	Motta San Giov	11.36	285	Pn	Pn	02 00 56.8	-0.2
	comp=Z,122nm,1.0s						
MTTG	Motta San Giov	11.36	285	Pn	Pn	02 00 56.8	-0.2
	comp=Z,122nm,1.0s						
AMUR	Altamura	11.41	300	Pn	Pn	02 00 57.6	-0.1
	comp=Z,51nm,1.0s						
MIGL	Miglionico	11.41	299	Pn	Pn	02 00 57.3	-0.5
	comp=Z,232nm,1.0s						
BZS	Buzias	11.53	331	⇓*i*P	Pn	02 01 05.5	+6.2
MSRU	Castanea	11.54	286	Pn	Pn	02 00 57.5	-2.0
	comp=Z,175nm,1.5s						
SCHR	S. Chirico Rap	11.54	296	Pn	Pn	02 00 59.3	-0.3
	comp=Z,48nm,1.0s						
AGST	Augusta-Monte	11.66	281	Pn	Pn	02 00 59.6	-1.6
AGST	Augusta-Monte	11.66	281	Pn	Pn	02 00 59.6	-1.6
SIRI	Monte Sirino -	11.69	296	Pn	Pn	02 01 01.3	-0.3
	comp=Z,56nm,0.4s						
MMME	Mongiuffi-Meli	11.70	285	Pn	Pn	02 01 01.2	-0.5
	comp=Z,38nm,0.6s						
HAVL	Avola	11.73	280	Pn	Pn	02 01 00.9	-1.3
HAVL	Avola	11.73	280	Pn	Pn	02 01 00.9	-1.3
MCEL	Monticello	11.78	297	Pn	Pn	02 01 02.6	-0.2
	comp=Z,81nm,0.7s						
SSY	Sortino	11.78	281	Pn	Pn	02 01 01.4	-1.5
SSY	Sortino	11.78	281	Pn	Pn	02 01 01.4	-1.5
MTSN	Montesano sull	11.80	296	Pn	Pn	02 01 03.2	+0.1
	comp=Z,58nm,0.9s						
PALZ	Palazzo San Ge	11.88	300	Pn	Pn	02 01 04.0	-0.1
	comp=Z,329nm,1.4s						
MGR	Morigerati	11.91	296	Pn	Pn	02 01 03.5	-1.0
	comp=Z,126nm,0.8s						
MGR	Morigerati	11.91	296	Pn	Pn	02 01 03.5	-1.0
	comp=Z,126nm,0.8s						
HMDC	Modica	12.01	280	Pn	Pn	02 01 04.7	-1.2
HMDC	Modica	12.01	280	Pn	Pn	02 01 04.7	-1.2
BULG	Bulgheria - Ca	12.02	295	Pn	Pn	02 01 04.9	-1.2
	comp=Z,66nm,0.5s						
HVZN	Vizzini	12.07	281	Pn	Pn	02 01 05.8	-1.0
	comp=Z,214nm,0.4s						
HVZN	Vizzini	12.07	281	Pn	Pn	02 01 05.8	-1.0
	comp=Z,214nm,0.4s						
DRGR		12.14	337	⇑P	Pn	02 01 14.1	+6.4
DRGR		12.14	337	⇑*i*P	Pn	02 01 14.1	+6.4
CMPR	Campora	12.14	296	Pn	Pn	02 01 06.6	-1.2
	comp=Z,82nm,1.2s						
CDRU	Civita di Ruta	12.19	297	Pn	Pn	02 01 08.3	-0.2
	comp=Z,58nm,0.9s						
SGO	Sicignano	12.21	297	Pn	Pn	02 01 08.2	-0.5
	comp=Z,9.8nm,0.4s						
SGO	Sicignano	12.21	297	P	Pn	02 01 08.2	-0.5
SGO				pmax	pmax		
	comp=Z,10.0nm,0.4s						
SGO	Sicignano	12.21	297	Pn	Pn	02 01 08.2	-0.5
	comp=Z,9.8nm,0.4s						
WDD	Wield Dalam	12.25	275	Pn	Pn	02 01 07.4	-1.8
BURAR	Bucovina Array	12.25	346	⇑P	Pn	02 01 14.5	+5.3
BURAR	Bucovina Array	12.25	346	⇑*i*P	Pn	02 01 14.5	+5.3
VAE	Valguarnera	12.32	282	P	Pn	02 01 13.4	+3.1
	comp=Z,2.6nm,0.3s,baz=19,slow=3.3,SNR=11						
VAE				S	Sn	02 03 17.7	-10
	comp=Z,4.2nm,0.3s,baz=153,slow=9.0,SNR=4.9						
VAE				LR	LR	02 05 40.0	
	comp=Z,163nm,21.6s,baz=360,slow=35						
RAFF	Raffo Rosso	12.35	281	Pn	Pn	02 01 10.2	-0.4
	comp=Z,539nm,3.0s						
RAFF	Raffo Rosso	12.35	281	Pn	Pn	02 01 10.2	-0.4
	comp=Z,539nm,3.0s						
LZLA	Zalla	12.49	238	*i* P	Pn	02 01 11.7	-0.9
	SNR=41						
LMSR	Misrath	12.60	258	*i* P	Pn	02 01 10.9	-3.1
	SNR=41						
LKFR	Kufra	12.85	207	*i* P	Pn	02 01 22.0	+4.5
	SNR=41						
KIV	Kislovodsk	12.92	47	*e*P	Pn	02 01 14.2	-4.2
KIV				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,183nm,10.0s						
ZEI	Tsey	13.07	53	*e*P	Pn	02 01 21.2	+0.8
PKSM	Moragy	13.28	325	⇓P	Pn	02 01 29.9	+6.6
PKSM	Moragy	13.28	325	⇓*i*P	Pn	02 01 29.9	+6.6
LJFR	Jufra	13.42	244	*i* P	Pn	02 01 21.8	-3.5
	SNR=41						
UZH	Uzhgorod	13.91	339	⇑*i*P	Pn	02 01 40.3	+8.4
UZH				*e*S	Sn	02 04 20.7	+14
UZH				MLR	MLR		
	comp=Z,900nm,12.0s						
PSZ	Piszkesteto	14.09	332	*e*Pn	Pn	02 01 34.4	+0.1
LSHF	Shwairf	14.14	250	*i* P	Pn	02 01 31.0	-4.1
	SNR=41						
AQU	L’Aquila	14.18	302	*e*Pn	Pn	02 01 36.6	+1.1
AQU				*e*Sn	Sn	02 04 08.2	-4.7
AQU	L’Aquila	14.18	302	⇓*i*P	Pn	02 01 43.1	+7.5
KOLS	Kolonicke sedl	14.19	340	*e*P	Pn	02 01 44.0	+8.3
KOLS				*e*		02 01 53.9	
KECS	Kecovo	14.36	335	*e*P	Pn	02 01 46.0	+8.1
KECS				*e*		02 01 52.3	
BOJS	Bojanci	14.57	316	*i* Pn	Pn	02 01 44.2	+3.4
BOJS				*e*Sn	Sn	02 04 25.6	+3.4
BOJS	Bojanci	14.57	316	*i* Pn	Pn	02 01 44.2	+3.4
BOJS				*e*Sn	Sn	02 04 25.6	+3.4
BOJS	Bojanci	14.57	316	*i* Pn	Pn	02 01 44.2	+3.4
LVV	L’vov	14.59	346	*e*P	Pn	02 01 45.6	+4.5
LVV				*e*S	Sn	02 04 29.4	+6.5
LVV				MLR	MLR		
	comp=Z,200nm,11.0s						
LVV				MLR	MLR		
	comp=E,300nm,6.0s						
LVV				MLR	MLR		
	comp=N,200nm,11.0s						
KWP	Kalwaria	14.72	342	*e*P	Pn	02 01 49.2	+6.3
KWP	Kalwaria	14.72	342	*e*Pn	Pn	02 01 43.8	+1.0
KWP	Kalwaria	14.72	342	*e*P	Pn	02 01 43.8	+1.0
KIEV	Kiev	14.89	359	*e*Pn	Pn	02 01 46.5	+1.3
	comp=N,9.4nm,0.8s						
KIEV				*e*Sn	Sn	02 04 28.1	-2.1
KIEV	Kiev	14.89	359	*e*P	Pn	02 01 46.5	+1.3
KIEV				*e*		02 04 28.1	
KIEV				pmax	pmax		
	comp=Z,9.0nm,0.8s						
KIEV	Kiev	14.89	359	*e*P	Pn	02 01 46.5	+1.3
	comp=Z,9.0nm,0.8s						
KIEV				*e*S	Sn	02 04 28.1	-2.1
AKASG	Malin Array Be	14.90	359	P	Pn	02 01 46.0	+0.7
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	14.90	359	P	Pn	02 01 46.0	+0.6
	comp=Z,0.9nm,0.3s,baz=179,slow=11,SNR=12						
AKBB	Malin Array Si	14.90	359	*e*Pn	Pn	02 01 46.7	+1.4
AKBB				*e*Sn	Sn	02 04 24.2	-6.2
AKBB	Malin Array Si	14.90	359	*e*P	Pn	02 01 46.7	+1.4
STHS	Stebnicka Huta	14.93	338	*e*Pn	Pn	02 01 50.3	+4.6
STHS	Stebnicka Huta	14.93	338	*e*P	Pn	02 01 50.2	+4.5
VYHS	Vyhne	14.97	331	*e*P	Pn	02 01 51.2	+4.9
VYHS				*e*		02 01 59.1	
VYHS				*e*		02 06 17.7	
ALAS	Alassa	15.16	264	*i* P	Pn	02 01 47.9	-1.0
	SNR=45						
CEY	Cerknica	15.17	316	*i* Pn	Pn	02 01 51.9	+2.9
CEY				*i* Sn	Sn	02 04 37.6	+0.6
CEY	Cerknica	15.17	316	*i* Pn	Pn	02 01 51.9	+2.9
CEY				*i* Sn	Sn	02 04 37.6	+0.6
JAVS	Javornik	15.47	315	*e*Pn	Pn	02 01 54.6	+1.7
JAVS				*i* Sn	Sn	02 04 46.2	+2.0
JAVS	Javornik	15.47	315	*e*Pn	Pn	02 01 54.6	+1.7
JAVS				*i* Sn	Sn	02 04 46.2	+2.0
JAVS	Javornik	15.47	315	*e*Pn	Pn	02 01 54.6	+1.7
MODS	Modra-Piesok	15.52	328	*e*P	Pn	02 01 57.2	+3.7
MODS				*e*		02 02 04.8	
MODS				*e*		02 06 48.8	
MAK	Makhachkala	15.56	57	*e*P	Pn	02 01 48.5	-5.6
MAK				*e*S	Sn	02 04 40.2	-6.4
MAK				pmax	pmax		
	comp=Z,11nm,0.4s						
MAK				MLR	MLR		
	comp=Z,298nm,12.0s						
VOY	Vojsko	15.64	316	*e*Pn	Pn	02 01 57.2	+2.0
VOY				*e*		02 02 04.4	
VOY				*e*		02 02 16.7	
VOY				*e*		02 02 49.8	
VOY	Vojsko	15.64	316	*e*Pn	Pn	02 01 57.2	+2.0
VOY				*e*		02 02 04.4	
VOY				*e*		02 02 16.7	
VOY				*e*		02 02 49.8	
VOY	Vojsko	15.64	316	*e*Pn	Pn	02 01 57.2	+2.0
LUMB	Murzuk	15.95	237	*i* P	Pn	02 02 00.7	+1.4
	SNR=45						
OJC	Ojcow	16.08	337	*e*P	Pn	02 02 00.9	+0.1
OJC				*e*PP		02 02 03.5	
OKC	Ostrava-Krasne	16.33	333	*e*P	Pn	02 02 06.5	+2.5
OKC				*e*		02 02 15.0	
OKC	Ostrava-Krasne	16.33	333	*e*P	Pn	02 02 06.5	+2.5
OKC				*e*x	x	02 02 15.0	
OKC				AMS	AMS	02 10 20.0	
	comp=Z,500nm,10.9s						
VSL	Villasalto	16.44	289	*e*Pn	Pn	02 02 03.9	-1.6
	comp=Z,46nm,1.2s						
KEST	Kesra	16.45	276	P	Pn	02 02 09.4	+3.7
	comp=Z,0.4nm,0.3s,baz=8.4,slow=0.7,SNR=34						
KEST				LR	LR	02 09 20.7	
	comp=Z,102nm,20.1s,baz=324,slow=40						
MORC	Moravsky Berou	16.51	332	*e*Pn	Pn	02 01 59.6	-6.7
VRAC	Vranov	16.53	329	P	Pn	02 02 08.0	+1.5
	comp=Z,0.2nm,0.3s,baz=164,slow=8.2,SNR=4.7						
VRAC	Vranov	16.53	329	*e*P	Pn	02 02 08.0	+1.5
KBA	Koelnbreinsper	16.57	318	⇑*i*P	Pn	02 02 09.8	+2.7
	comp=Z,26nm,1.2s						
KBA	Koelnbreinsper	16.57	318	⇑*i*P	Pn	02 02 09.8	+2.7
KBA				pmax	pmax		
	comp=Z,26nm,1.2s						
VRSR	Storozhevoye	16.88	21	*e*P	Pn	02 02 14.6	+3.6
VRSR				pmax	pmax		

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        comp=Z,2.0nm,0.9s
VRSR                                pmax     pmax
        comp=N,5.0nm,1.0s
VRSR                                pmax     pmax
        comp=E,2.0nm,1.0s
TREC    Trest              17.00 327 eP       Pn        02 02 14.1 +1.7
TREC                                AMS      AMS       02 09 40.0
        comp=Z,700nm,10.7s
PGF     Pioggiola          17.32 299 eP       Pn        02 02 14.5  -2.1
PGF                                 pmax     pmax
        comp=Z,73nm,1.5s
PGF     Pioggiola          17.32 299 eP       Pn        02 02 14.5  -2.1
        comp=Z,146nm,1.5s
PGF     Pioggiola          17.32 299 eP       Pn        02 02 14.5  -2.1
        comp=Z,73nm,1.5s
DPC     Dobruska-Polom     17.45 331 eP       Pn        02 02 15.1  -2.9
DPC                                 ex       x         02 02 24.3
GEC2    GERESS Array S     17.51 323 eL                 02 09 28.3
        comp=Z,410nm,18.0s
GEC2    GERESS Array S     17.51 323 eP       Pn        02 02 17.9  -1.0
GERES   GERESS Array B     17.51 323  P       Pn        02 02 19.2 +0.3
        comp=Z,0.2nm,0.3s,baz=134,slow=9.5,SNR=13
UPC     Upice              17.69 330 eP       Pn        02 02 24.5 +3.4
KHC     Kasperske Hory     17.77 324 eP       Pn        02 02 23.4 +1.4
KHC                                 e                  02 02 31.2
KHC     Kasperske Hory     17.77 324 eP       Pn        02 02 23.4 +1.4
KHC                                 ex       x         02 02 31.2
KHC                                 AMS      AMS       02 10 00.0
        comp=Z,800nm,14.7s
LGHD    Ghdames            17.88 257⇓iP       Pn        02 02 23.5   0.0
        SNR=42
PRU     Pruhonice          17.92 327 eP       Pn        02 02 23.5  -0.4
PRU                                 e                  02 02 32.1
PRU     Pruhonice          17.92 327 eP       Pn        02 02 23.5  -0.4
PRU                                 ex       x         02 02 32.1
PRU                                 AMS      AMS       02 10 10.0
        comp=Z,600nm,13.9s
CMAH    Djebel Manchou     17.93 279  P       Pn        02 02 35.0  +11
CGMA    Guelma             17.95 279  P       Pn        02 02 34.0  +10
MOTA    Moosalm            17.97 316⇓iP       Pn        02 02 26.1 +1.5
        comp=Z,7.0nm,0.8s
MOTA    Moosalm            17.97 316⇓ipP      Pn        02 02 26.1 +1.5
        comp=Z,7.0nm,0.8s
MOTA    Moosalm            17.97 316⇓iP       Pn        02 02 26.1 +1.5
MOTA                                pmax     pmax
        comp=Z,7.0nm,0.8s
FETA    Feichten           18.01 314⇑iP       Pn        02 02 25.8 +0.7
        comp=Z,7.8nm,0.7s
WET     Wettzell           18.12 323 eP       Pn        02 02 25.2  -1.1
WET                                 MLR      MLR
        comp=Z,400nm,18.0s
WET     Wettzell           18.12 323 ePn      Pn        02 02 25.2  -1.1
WET                                 eL                 02 09 48.4
        comp=Z,430nm,18.0s
WET     Wettzell           18.12 323 eP       Pn        02 02 25.2  -1.1
        comp=Z,400nm,18.0s
PVCC    Panska Ves         18.31 328 eP       Pn        02 02 29.9 +1.2
FUR     Furstenfeldbru     18.34 318 eL                 02 10 03.4
        comp=Z,449nm,18.5s
DAVOX   Davos/Dischmat     18.39 313  S       Sn        02 05 40.1   -15
        comp=Z,0.3nm,0.3s,baz=336,slow=22,SNR=3.5
SBF     Sospel             18.80 302 eP       Pn        02 02 32.2  -2.5
SBF                                 pmax     pmax
        comp=Z,39nm,0.9s
SBF     Sospel             18.80 302 eP       Pn        02 02 32.2  -2.5
        comp=Z,79nm,0.9s
SBF     Sospel             18.80 302 eP       Pn        02 02 32.2  -2.5
        comp=Z,40nm,0.9s
BRG     Berggiesshubel     18.83 328 eL                 02 11 16.0
        comp=Z,377nm,18.3s
BRG     Berggiesshubel     18.83 328 eP       Pn        02 02 34.1  -0.9
        comp=Z,15nm,1.6s
BRG                                 e                  02 02 42.0
        comp=Z,16nm,1.2s
ROTZ    Rotzenmuhle        18.86 323 eL                 02 10 19.8
        comp=Z,365nm,20.2s
MANZ    Manzenberg         19.05 324 eL                 02 10 35.8
        comp=Z,320nm,21.1s
NKC     Novy Kostel        19.05 325 eP       Pn        02 02 36.0  -1.7
NKC                                 e                  02 02 44.4
NKC     Novy Kostel        19.05 325 eP       Pn        02 02 36.0  -1.7
NKC                                 ex       x         02 02 44.4
NKC                                 AMS      AMS       02 11 00.0
        comp=Z,500nm,19.6s
WERN    Wernitzgruen       19.12 325 ePn      Pn        02 02 37.8  -0.8
DFRA    Djebel Bou Aff     19.17 279  P       Pn        02 02 43.0 +3.8
TANN    Tannenbergstha     19.17 325 eL                 02 09 40.8
        comp=Z,357nm,19.8s
GUNZ    Gunzen             19.20 325 ePn      Pn        02 02 38.7  -0.8
FRF     La Foret Royal     19.26 301 eP       Pn        02 02 38.2  -2.1
FRF                                 pmax     pmax
        comp=Z,21nm,1.2s
FRF     La Foret Royal     19.26 301 eP       Pn        02 02 38.2  -2.1
        comp=Z,42nm,1.2s
FRF     La Foret Royal     19.26 301 eP       Pn        02 02 38.2  -2.1
        comp=Z,21nm,1.2s
LMR     La Mourre          19.30 300 eP       Pn        02 02 38.5  -2.2
LMR                                 pmax     pmax
        comp=Z,44nm,1.6s
LMR     La Mourre          19.30 300 eP       Pn        02 02 38.5  -2.2
        comp=Z,88nm,1.6s
LMR     La Mourre          19.30 300 eP       Pn        02 02 38.5  -2.2
        comp=Z,44nm,1.6s
GRA1    Grafenberg Arr     19.30 322 ePn      Pn        02 02 38.4  -2.3
GRA1                                eS       Sn        02 06 20.4 +3.5
GRA1    Grafenberg Arr     19.30 322 eP       Pn        02 02 38.4  -2.3
        comp=Z,500nm,18.0s
GRF     Grafenberg Arr     19.30 322 ePn      Pn        02 02 38.4  -2.3
GRF                                 eS       Sn        02 06 20.4 +3.5
GRF     Grafenberg Arr     19.30 322 eP       Pn        02 02 38.4  -2.3
GRF                                 eS       Sn        02 06 20.4 +3.5
GRF                                 MLR      MLR
        comp=Z,500nm,18.0s
GRF     Grafenberg Arr     19.30 322 eP       Pn        02 02 38.4  -2.3
GRF                                 eS       Sn        02 06 20.4 +3.5
GRF     Grafenberg Arr     19.30 322 ePn      Pn        02 02 38.4  -2.3
GRF                                 eS       Sn        02 06 20.4 +3.5
GRF                                 eL                 02 11 25.1
        comp=Z,465nm,18.0s
GRFO    Grafenberg         19.30 322 eP       Pn        02 02 38.2  -2.5
        comp=Z,18nm,1.1s
GRFO    Grafenberg         19.30 322 eP       Pn        02 02 38.2  -2.5
GRFO                                pmax     pmax
        comp=Z,18nm,1.1s
GRFO    Grafenberg         19.30 322 eL                 02 11 06.4
        comp=Z,306nm,19.7s
GRFO    Grafenberg         19.30 322 eP       Pn        02 02 38.2  -2.5
        comp=Z,18nm,1.1s
MBDF    Montbardon         19.53 304 eP       Pn        02 02 41.7  -1.8
MBDF                                pmax     pmax
        comp=Z,12nm,0.6s
MBDF    Montbardon         19.53 304 eP       Pn        02 02 41.7  -1.8
        comp=Z,24nm,0.6s
MBDF    Montbardon         19.53 304 eP       Pn        02 02 41.7  -1.8
        comp=Z,12nm,0.6s
CLL     Collm              19.55 328 eP       Pn        02 02 43.0  -0.7
        comp=Z,18nm,1.5s
CLL                                 i                  02 02 50.4
CLL                                 eS       Sn        02 06 30.0 +6.9
CLL     Collm              19.55 328 eP       Pn        02 02 43.0  -0.7
CLL                                 eS       Sn        02 06 30.0 +6.9
CLL                                 pmax     pmax
        comp=Z,18nm,1.5s
CLL                                 MLR      MLR
        comp=Z,700nm,10.8s
CLL     Collm              19.55 328 eL                 02 11 47.4
        comp=Z,362nm,18.4s
CLL     Collm              19.55 328 eP       Pn        02 02 43.0  -0.7
        comp=Z,18nm,1.5s
CLL                                 i x      x         02 02 50.4
        comp=Z,33nm,1.7s
CLL                                 i PP               02 02 56.4
CLL                                 i PPP              02 03 05.6
CLL                                 i x      x         02 03 25.2
CLL                                 eS       Sn        02 06 30.0 +6.9
SET     Setif              19.58 278  P       Pn        02 02 44.0  -0.2
BNI     Bardonecchia       19.70 305 ePn      Pn        02 02 44.4  -1.1
BNI     Bardonecchia       19.70 305 eP       Pn        02 02 44.4  -1.1
MOX     Moxa               19.72 324 ePN      Pn        02 02 43.9  -1.9
MOX
        comp=Z,300nm,17.0s
MOX     Moxa               19.72 324 ePn      Pn        02 02 44.4  -1.4
MOX                                 eL                 02 10 56.3
        comp=Z,279nm,18.5s
MOX     Moxa               19.72 324 eP       Pn        02 02 43.9  -1.9
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        comp=Z,300nm,17.0s
LPG     La Plagne          19.81 306 eP       Pn        02 02 44.3  -2.5
LPG                                 pmax     pmax
        comp=Z,12nm,0.7s
LPG     La Plagne          19.81 306 eP       Pn        02 02 44.3  -2.5
        comp=Z,25nm,0.7s
LPG     La Plagne          19.81 306 eP       Pn        02 02 44.3  -2.5
        comp=Z,12nm,0.7s
STU     Stuttgart          19.83 317 eL                 02 11 41.7
        comp=Z,286nm,19.0s
LPL     La Plagne          19.83 306 eP       Pn        02 02 44.7  -2.3
LPL                                 pmax     pmax
        comp=Z,12nm,0.7s
LPL     La Plagne          19.83 306 eP       Pn        02 02 44.7  -2.3
        comp=Z,25nm,0.7s
LPL     La Plagne          19.83 306 eP       Pn        02 02 44.7  -2.3
        comp=Z,12nm,0.7s
OBN     Obninsk            19.91  12  Pn      Pn        02 02 44.6  -3.3
OBN     Obninsk            19.91  12 eP       Pn        02 02 43.4  -4.5
OBN                                 e                  02 02 57.1
OBN                                 eS       Sn        02 06 19.8   -12
OBN                                 e                  02 06 59.3
OBN                                 pmax     pmax
        comp=Z,9.0nm,1.2s
OBN                                 MLR      MLR
        comp=Z,300nm,21.0s
BFO     Black Forest       20.08 315 eP       P         02 02 51.8 +3.6
BFO                                 MLR      MLR
        comp=Z,200nm,19.0s,MS3.5
BFO     Black Forest       20.08 315 ePn      P         02 02 51.8 +3.6
BFO                                 eL                 02 11 00.0
        comp=Z,203nm,19.0s
SMRF    Simiane la Rot     20.12 301 eP       P         02 02 47.8  -0.9
BBS     Basel-Blauen       20.14 312 eP       P         02 02 50.6 +1.7
ORIF    Oris-en-Rattie     20.19 304 eP       P         02 02 47.6  -1.8
        comp=Z,23nm,1.2s
ORIF    Oris-en-Rattie     20.19 304 eP       P         02 02 47.6  -1.8
ORIF                                pmax     pmax
        comp=Z,23nm,1.2s
ORIF    Oris-en-Rattie     20.19 304 eP       P         02 02 47.6  -1.8
        comp=Z,46nm,1.2s
ORIF                                eMLR     MLR
        comp=Z,448nm,20.2s,MS3.5
CABF    La Chapelle        20.66 309 eP       P         02 02 53.4  -1.1
CABF                                pmax     pmax
        comp=Z,19nm,0.8s
CABF    La Chapelle        20.66 309 eP       P         02 02 53.4  -1.1
        comp=Z,38nm,0.8s
CABF    La Chapelle        20.66 309 eP       P         02 02 53.4  -1.1
        comp=Z,19nm,0.8s
MOS     Moscow             20.69  13 eP       P         02 02 48.0  -6.7
MOS                                 pmax     pmax
        comp=Z,32nm,0.8s
HINF    Hinteralfeld       20.70 312 eP       P         02 02 52.5  -2.4
        comp=Z,2.8nm,0.6s
HINF    Hinteralfeld       20.70 312 eP       P         02 02 52.5  -2.4
HINF                                pmax     pmax
        comp=Z,3.0nm,0.6s
HINF    Hinteralfeld       20.70 312 eP       P         02 02 52.5  -2.4
        comp=Z,5.7nm,0.6s
LANF    Langenberg         20.71 316 eP       P         02 02 57.9 +2.8
CDF     Champ du Feu       20.73 314 eP       P         02 02 53.8  -1.5
CDF                                 pmax     pmax
        comp=Z,10.0nm,1.1s
CDF     Champ du Feu       20.73 314 eP       P         02 02 53.8  -1.5
        comp=Z,20nm,1.1s
CDF     Champ du Feu       20.73 314 eP       P         02 02 53.8  -1.5
        comp=Z,9.9nm,1.1s
AKET    Djebel Ketaf       20.82 278  P       P         02 02 56.8 +0.4
VIVF    Saint-Julien-l     20.99 303 eP       P         02 02 55.8  -2.3
        comp=Z,13nm,0.9s
VIVF    Saint-Julien-l     20.99 303 eP       P         02 02 55.8  -2.3
VIVF                                pmax     pmax
        comp=Z,13nm,0.9s
VIVF    Saint-Julien-l     20.99 303 eP       P         02 02 55.8  -2.3
        comp=Z,25nm,0.9s
TNS     Taunus Mts         21.05 320 eL                 02 12 41.3
        comp=Z,410nm,18.3s
HAU     Haudompre          21.09 313 eP       P         02 02 57.3  -1.8
        comp=Z,5.1nm,0.8s,mb3.9
HAU                                 LR       LR
        comp=Z,780nm,18.0s,MS4.1
HAU     Haudompre          21.09 313 eP       P         02 02 57.3  -1.8
HAU                                 pmax     pmax
        comp=Z,5.0nm,0.8s,mb3.9
HAU                                 MLR      MLR
        comp=Z,780nm,18.0s,MS4.1
HAU     Haudompre          21.09 313 eP       P         02 02 57.3  -1.8
        comp=Z,10nm,0.8s,mb3.9
HAU                                 eMLR     MLR
        comp=Z,782nm,18.0s,MS3.8
CLZ     Clausthal          21.11 325 eL                 02 10 49.2
        comp=Z,321nm,20.0s
ADJB    Djebel Djouab      21.17 279  P       P         02 02 59.4  -0.7
LASF    Ste Croix          21.34 301 eP       P         02 03 01.6  -0.3
        comp=Z,15nm,0.9s,mb4.0
LASF    Ste Croix          21.34 301 eP       P         02 03 01.6  -0.3
        comp=Z,7.3nm,0.9s,mb4.0
ABA     Alger-Bouzarea     21.42 281  P       P         02 03 03.2 +0.4
ETOS    Mallorca           21.51 289  P       P         02 03 00.5  -3.3
        comp=Z,108nm,2.1s,mb4.9
EMHD    Djebel Mahouad     21.55 279  P       P         02 03 04.0  -0.2
NRDL    Niedersach Rie     21.67 326 eL                 02 11 16.4
        comp=Z,254nm,21.6s
RGN     Rugen              21.89 334 eL                 02 13 59.1
        comp=Z,213nm,20.8s
WLF     Walferdange        21.99 316  P       P         02 03 08.4  -0.4
LBL     Lubilhac           22.06 303 eP       P         02 03 10.4 +0.8
SMF     Signal de Mont     22.11 307 eP       P         02 03 07.6  -2.5
        comp=Z,29nm,0.9s,mb4.4
SMF     Signal de Mont     22.11 307 eP       P         02 03 07.6  -2.5
        comp=Z,14nm,0.9s,mb4.4
LOR     Lormes             22.32 309 eP       P         02 03 09.8  -2.5
        comp=Z,8.9nm,0.9s,mb4.2
LOR                                 LR       LR
        comp=Z,390nm,17.0s,MS3.9
LOR     Lormes             22.32 309 eP       P         02 03 09.8  -2.5
LOR                                 pmax     pmax
        comp=Z,9.0nm,0.9s,mb4.2
LOR                                 MLR      MLR
        comp=Z,390nm,17.0s,MS3.9
LOR     Lormes             22.32 309 eP       P         02 03 09.8  -2.5
        comp=Z,18nm,0.9s,mb4.2
LOR                                 eMLR     MLR
        comp=Z,389nm,17.0s,MS3.6
MTLF    Montolieu          22.35 298 eP       P         02 03 09.8  -2.9
        comp=Z,9.6nm,1.0s,mb4.2
MTLF    Montolieu          22.35 298 eP       P         02 03 09.8  -2.9
MTLF                                pmax     pmax
        comp=Z,10.0nm,1.0s,mb4.2
MTLF    Montolieu          22.35 298 eP       P         02 03 09.8  -2.9
        comp=Z,19nm,1.0s,mb4.2
BUG     Bochum--Univer     22.36 321 eL                 02 12 38.7
        comp=Z,289nm,20.1s
SSF     Saint Saulge       22.47 308 eP       P         02 03 11.2  -2.7
SSF                                 pmax     pmax
        comp=Z,11nm,0.9s,mb4.3
SSF     Saint Saulge       22.47 308 eP       P         02 03 11.2  -2.7
        comp=Z,23nm,0.9s,mb4.3
SSF     Saint Saulge       22.47 308 eP       P         02 03 11.2  -2.7
        comp=Z,11nm,0.9s,mb4.3
AVF     Avril sur Loir     22.47 307 eP       P         02 03 11.5  -2.5
AVF                                 pmax     pmax
        comp=Z,16nm,1.1s,mb4.4
AVF     Avril sur Loir     22.47 307 eP       P         02 03 11.5  -2.5
        comp=Z,32nm,1.1s,mb4.4
AVF     Avril sur Loir     22.47 307 eP       P         02 03 11.5  -2.5
        comp=Z,16nm,1.1s,mb4.4
BSEG    Bad Segeberg       22.58 329 eL                 02 13 35.9
        comp=Z,272nm,18.5s
IBBN    Ibbenburen         22.64 324 eL                 02 13 05.7
        comp=Z,274nm,20.9s
EIBI    Ibiza              22.64 287  P       P         02 03 14.0  -1.9
        comp=Z,37nm,1.4s,mb4.6
EMIR    Miracle            22.65 294  P       P         02 03 14.8  -1.1
        comp=Z,50nm,1.5s,mb4.7
EBNR    Beni Rached        22.68 280  P       P         02 03 16.0  -0.3
BGF     Bois d'Agland      22.73 306 eP       P         02 03 14.2  -2.5
VSU     Vasula             22.75 356 eP       P         02 03 16.4  -0.5
CAF     Calviac            22.79 302 eP       P         02 03 15.4  -2.0
CAF                                 pmax     pmax
        comp=Z,14nm,1.1s,mb4.3
CAF     Calviac            22.79 302 eP       P         02 03 15.4  -2.0
        comp=Z,28nm,1.1s,mb4.3
CAF     Calviac            22.79 302 eP       P         02 03 15.4  -2.0
        comp=Z,14nm,1.1s,mb4.3
ECHA    Ech Chlef          22.83 279  P       P         02 03 19.0 +1.1
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GIVF    Givet              22.96 316 eP       P         02 03 15.8  -3.3
ETRT    Tiaret             23.00 277  P       P         02 03 23.0 +3.4
TCF     Toulx Ste Croi     23.06 305 eP       P         02 03 17.1  -3.1
TCF                                 pmax     pmax
        comp=Z,10.0nm,1.2s,mb4.1
TCF     Toulx Ste Croi     23.06 305 eP       P         02 03 17.1  -3.1
        comp=Z,19nm,1.2s,mb4.1
TCF     Toulx Ste Croi     23.06 305 eP       P         02 03 17.1  -3.1
        comp=Z,9.6nm,1.2s,mb4.1
EANR    'Ain N'Sour        23.07 279  P       P         02 03 21.0 +0.6
RJF     Les Rejaudoux      23.26 303 eP       P         02 03 19.2  -3.2
        comp=Z,15nm,1.0s,mb4.4
RJF                                 LR       LR
        comp=Z,290nm,18.8s,MS3.8
RJF     Les Rejaudoux      23.26 303 eP       P         02 03 19.2  -3.2
RJF                                 pmax     pmax
        comp=Z,15nm,1.0s,mb4.4
RJF                                 MLR      MLR
        comp=Z,290nm,18.8s,MS3.8
RJF     Les Rejaudoux      23.26 303 eP       P         02 03 19.2  -3.2
        comp=Z,29nm,1.0s,mb4.3
RJF                                 eMLR     MLR
        comp=Z,291nm,18.8s,MS3.5
BAIF    Baives             23.28 316 eP       P         02 03 19.0  -3.5
ERTA    Horta de San J     23.46 292  P       P         02 03 22.1  -2.4
        comp=Z,18nm,0.9s,mb4.5
EPF     Esparros           23.66 297 eP       P         02 03 23.9  -2.5
EPF                                 pmax     pmax
        comp=Z,5.0nm,0.8s,mb4.0
EPF     Esparros           23.66 297 eP       P         02 03 23.9  -2.5
        comp=Z,9.4nm,0.8s,mb4.0
EPF     Esparros           23.66 297 eP       P         02 03 23.9  -2.5
        comp=Z,4.7nm,0.8s,mb4.0
LFF     La Frestale        23.71 301 eP       P         02 03 22.9  -4.0
EBIE    Bielsa             23.76 296  P       P         02 03 25.3  -2.0
        comp=Z,12nm,0.8s,mb4.4
HLG     Helgoland          23.79 327 eL                 02 14 32.2
        comp=Z,218nm,19.4s
EBEN    Beniarda           23.88 286  P       P         02 03 27.4  -1.0
        comp=Z,20nm,1.0s,mb4.5
EMOS    Mosqueruela        24.05 290  P       P         02 03 28.1  -1.9
        comp=Z,28nm,1.4s,mb4.5
ETSF    Etsaut             24.30 296 eP       P         02 03 29.0  -3.2
ETSF                                pmax     pmax
        comp=Z,13nm,1.3s,mb4.2
ETSF    Etsaut             24.30 296 eP       P         02 03 29.0  -3.2
        comp=Z,26nm,1.3s,mb4.2
ETSF    Etsaut             24.30 296 eP       P         02 03 29.0  -3.2
        comp=Z,13nm,1.3s,mb4.2
ECHE    Chera              24.43 288  P       P         02 03 31.4  -2.0
        comp=Z,13nm,1.1s,mb4.3
ECHE    Chera              24.43 288  P       P         02 03 31.4  -2.1
ECHE                                pmax     pmax
        comp=Z,13nm,1.1s,mb4.3
ECHE    Chera              24.43 288  P       P         02 03 31.4  -2.1
        comp=Z,13nm,1.1s,mb4.3
MFF     Saint Martin d     24.71 305 eP       P         02 03 32.2  -3.8
        comp=Z,22nm,1.3s,mb4.5
MFF     Saint Martin d     24.71 305 eP       P         02 03 32.2  -3.8
MFF                                 pmax     pmax
        comp=Z,22nm,1.3s,mb4.5
MFF     Saint Martin d     24.71 305 eP       P         02 03 32.2  -3.8
        comp=Z,43nm,1.3s,mb4.5
SJPF    Ste Jean           24.81 297 eP       P         02 03 34.5  -2.4
ETOB    Tobarra            24.91 286  P       P         02 03 37.8  -0.1
        comp=Z,16nm,0.8s,mb4.6
ELIZ    Elizondo           25.03 297  P       P         02 03 39.6 +0.7
        comp=Z,5.3nm,0.8s,mb4.1
ELIZ    Elizondo           25.03 297  P       P         02 03 39.6 +0.7
ELIZ                                pmax     pmax
        comp=Z,5.0nm,0.8s,mb4.1
ELIZ    Elizondo           25.03 297  P       P         02 03 39.6 +0.7
        comp=Z,5.0nm,0.8s,mb4.1
LDF     La Druitiere       25.29 310 eP       P         02 03 38.4  -2.8
LDF                                 pmax     pmax
        comp=Z,33nm,1.4s,mb4.7
LDF     La Druitiere       25.29 310 eP       P         02 03 38.4  -2.8
        comp=Z,66nm,1.4s,mb4.7
LDF     La Druitiere       25.29 310 eP       P         02 03 38.4  -2.8
        comp=Z,33nm,1.4s,mb4.7
FLN     La Foliniere       25.57 310 eP       P         02 03 42.1  -1.6
FLN                                 LR       LR
        comp=Z,390nm,17.0s,MS4.0
FLN     La Foliniere       25.57 310 eP       P         02 03 42.1  -1.6
FLN                                 eMLR     MLR
        comp=Z,386nm,17.0s,MS3.7
ENIJ    Nijar              25.58 282  P       P         02 03 42.4  -1.6
        comp=Z,7.8nm,0.7s,mb4.3
ENIJ    Nijar              25.58 282  P       P         02 03 42.4  -1.6
ENIJ                                pmax     pmax
        comp=Z,8.0nm,0.7s,mb4.4
ENIJ    Nijar              25.58 282  P       P         02 03 42.4  -1.6
        comp=Z,8.0nm,0.7s,mb4.4
EVIA    Vianos             25.66 286  P       P         02 03 44.4  -0.3
        comp=Z,28nm,0.7s,mb4.9
EVIA    Vianos             25.66 286  P       P         02 03 44.4  -0.3
EVIA                                pmax     pmax
        comp=Z,28nm,0.7s,mb4.9
EVIA    Vianos             25.66 286  P       P         02 03 44.4  -0.3
        comp=Z,28nm,0.7s,mb4.9
GRR     Gorron             25.69 309 eP       P         02 03 42.4  -2.4
GRR                                 pmax     pmax
        comp=Z,10.0nm,0.9s,mb4.3
GRR     Gorron             25.69 309 eP       P         02 03 42.4  -2.4
        comp=Z,20nm,0.9s,mb4.4
GRR     Gorron             25.69 309 eP       P         02 03 42.4  -2.4
        comp=Z,9.9nm,0.9s,mb4.4
ECRI    Cripan             25.70 295  P       P         02 03 44.4  -0.6
        comp=Z,6.3nm,0.7s,mb4.2
ECRI    Cripan             25.70 295  P       P         02 03 44.4  -0.6
ECRI                                pmax     pmax
        comp=Z,6.0nm,0.7s,mb4.2
ECRI    Cripan             25.70 295  P       P         02 03 44.4  -0.6
        comp=Z,6.0nm,0.7s,mb4.2
FINES   FINESS Array B     25.77 356  P       P         02 03 43.5  -1.8
FINES                               pmax     pmax
        comp=Z,3.0nm,0.9s
FINES   FINESS Array B     25.77 356  P       P         02 03 43.5  -1.8
        comp=Z,3.3nm,0.9s,mb3.9,baz=161,slow=12,SNR=8.7
EBER    Berja              26.13 282  P       P         02 03 48.1  -0.9
        comp=Z,48nm,1.3s,mb4.9
EQES    Quesada            26.18 284  P       P         02 03 48.1  -1.2
        comp=Z,24nm,0.9s,mb4.7
ELAN    Lanestosa          26.43 296  P       P         02 03 51.4  -0.2
        comp=Z,66nm,1.8s,mb4.9
HFS     Hagfors            26.44 342  P       P         02 03 50.2  -1.2
HFS                                 pmax     pmax
        comp=Z,6.0nm,0.6s
HFS     Hagfors            26.44 342  P       P         02 03 50.2  -1.2
        comp=Z,6.0nm,0.6s,mb4.3,baz=128,slow=9.6,SNR=22
ECOG    Cogollos-Vega      26.62 283  P       P         02 03 52.5  -0.9
ECOG                                pmax     pmax
        comp=Z,1.0nm,0.4s,mb3.7
ECOG    Cogollos-Vega      26.62 283  P       P         02 03 52.5  -0.9
        comp=Z,1.0nm,0.4s,mb3.7
EGUA    Guajares           26.68 282  P       P         02 03 52.4  -1.5
        comp=Z,2.3nm,0.8s,mb3.8
EGUA    Guajares           26.68 282  P       P         02 03 52.4  -1.5
EGUA                                pmax     pmax
        comp=Z,2.0nm,0.8s,mb3.7
EGUA    Guajares           26.68 282  P       P         02 03 52.4  -1.5
        comp=Z,2.0nm,0.8s,mb3.7
EBAN    Banos Encina       26.70 285  P       P         02 03 53.1  -1.0
        comp=Z,10nm,0.8s,mb4.4
EBAN    Banos Encina       26.70 285  P       P         02 03 53.1  -1.0
EBAN                                pmax     pmax
        comp=Z,11nm,0.8s,mb4.4
EBAN    Banos Encina       26.70 285  P       P         02 03 53.1  -1.0
        comp=Z,11nm,0.8s,mb4.4
SGMF    Saint Gilles       26.73 308 eP       P         02 03 51.6  -2.7
        comp=Z,18nm,1.3s,mb4.5
SGMF    Saint Gilles       26.73 308 eP       P         02 03 51.6  -2.7
SGMF                                pmax     pmax
        comp=Z,18nm,1.3s,mb4.4
SGMF    Saint Gilles       26.73 308 eP       P         02 03 51.6  -2.7
        comp=Z,36nm,1.3s,mb4.4
ESDC    Sonseca Array      26.74 288  P       P         02 03 53.3  -1.1
        comp=Z,8.5nm,1.1s,mb4.2
ESDC    Sonseca Array      26.74 288  P       P         02 03 54.7 +0.3
        comp=Z,1.6nm,0.4s,mb3.9,baz=84,slow=9.3,SNR=12
ESLA    Sonseca Array      26.74 288 eP       P         02 03 53.9  -0.5
        comp=Z,3.0nm,0.9s,mb3.8
GUD     Guadarrama         26.86 291  P       P         02 03 55.4  -0.1
        comp=Z,8.5nm,1.1s,mb4.2
GUD     Guadarrama         26.86 291  P       P         02 03 55.4  -0.1
GUD                                 pmax     pmax
        comp=Z,9.0nm,1.1s,mb4.2
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Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
GUD	**Guadarrama**	26.86	291	P	P	02 03 55.4	-0.1
	comp=Z,9.0nm,1.1s,mb4.2						
QUIF	**Quistinic**	27.04	307	*e*P	P	02 03 55.4	-1.6
QUIF				pmax	pmax		
	comp=Z,30nm,1.5s,mb4.6						
QUIF	**Quistinic**	27.04	307	*e*P	P	02 03 55.4	-1.6
	comp=Z,60nm,1.5s,mb4.6						
QUIF	**Quistinic**	27.04	307	*e*P	P	02 03 55.4	-1.6
	comp=Z,30nm,1.5s,mb4.6						
PAB	**San Pablo**	27.04	288	*e*P	P	02 03 56.8	-0.3
	comp=Z,17nm,1.1s,mb4.5						
PAB	**San Pablo**	27.04	288	*e*P	P	02 03 56.8	-0.4
PAB				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.5						
PAB	**San Pablo**	27.04	288	*e*P	P	02 03 56.8	-0.4
	comp=Z,17nm,1.1s,mb4.5						
ELOJ	**Sierra Loja**	27.10	283	P	P	02 03 56.9	-0.8
	comp=Z,2.9nm,0.8s,mb3.9						
ELOJ	**Sierra Loja**	27.10	283	P	P	02 03 56.9	-0.8
ELOJ				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.9						
ELOJ	**Sierra Loja**	27.10	283	P	P	02 03 56.9	-0.8
	comp=Z,3.0nm,0.8s,mb3.9						
ELUQ	**Luque**	27.14	284	P	P	02 03 56.9	-1.2
ELUQ				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.3						
ELUQ	**Luque**	27.14	284	P	P	02 03 56.9	-1.2
	comp=Z,10.0nm,0.9s,mb4.3						
JOF	**Joensuu**	27.17	2	*e*p	P	02 03 55.4	-2.6
KONO	**Kongsberg**	27.18	338	P	P	02 03 57.1	-1.1
EADA	**Adamuz**	27.32	285	P	P	02 03 58.3	-1.4
	comp=Z,7.7nm,0.6s,mb4.4						
EMIJ	**Mijas**	27.68	282	P	P	02 04 01.5	-1.4
	comp=Z,16nm,1.0s,mb4.6						
NAO01	**NORSAR Array S**	27.78	340	*e*P	P	02 04 01.5	-2.0
NB2	**NORSAR Subarra**	27.85	341	P	P	02 04 02.0	-2.2
	comp=Z,5.4nm,1.0s,mb4.1,baz=146,slow=9.3						
NOA	**NORSAR Array B**	27.85	341	P	P	02 04 02.5	-1.7
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA				MLR	MLR		
	comp=Z,140nm,18.6s						
NOA	**NORSAR Array B**	27.85	341	P	P	02 04 02.5	-1.7
	comp=Z,1.9nm,0.6s,mb3.9,baz=145,slow=9.1,SNR=6.4						
NOA				LR	LR	02 15 52.8	
	comp=Z,140nm,18.6s,MS3.6,baz=160,slow=38						
EJIF	**Jimena Fronter**	28.25	282	P	P	02 04 07.2	-0.8
	comp=Z,4.4nm,0.7s,mb4.2						
EJIF	**Jimena Fronter**	28.25	282	P	P	02 04 07.2	-0.8
EJIF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.2						
EJIF	**Jimena Fronter**	28.25	282	P	P	02 04 07.2	-0.8
	comp=Z,4.0nm,0.7s,mb4.2						
MDT	**Midelt**	28.34	274	P	P	02 04 09.2	+0.4
	comp=Z,5.1nm,0.9s,mb4.2,baz=88,slow=9.9,SNR=13						
ARU	**Arti**	28.43	34	*e*P	P	02 04 06.7	-2.7
	comp=Z,18nm,1.2s,mb4.6						
ARU	**Arti**	28.43	34	⇑*i*P	P	02 04 06.2	-3.2
ARU				*e*PPP		02 05 00.3	
ARU				*e*S	S	02 08 54.6	-1.8
ARU				pmax	pmax		
	comp=Z,10.0nm,1.7s,mb4.2						
ARU	**Arti**	28.43	34	*i* P	P	02 04 06.2	-3.2
	comp=Z,10.0nm,1.7s,mb4.2						
ESPR	**Espera**	28.49	283	P	P	02 04 04.4	-5.7
	comp=Z,14nm,1.1s,mb4.5						
ECAL	**Calabor**	28.80	293	P	P	02 04 13.9	+1.0
	comp=Z,21nm,1.2s,mb4.8						
EMIN	**Mina Concepcio**	29.01	285	P	P	02 04 13.6	-1.2
	comp=Z,15nm,0.7s,mb4.8						
EBAD	**Badajoz**	29.17	287	P	P	02 04 16.0	-0.2
	comp=Z,7.6nm,0.6s,mb4.6						
EGRO	**El Granado**	29.68	284	P	P	02 04 18.8	-1.9
	comp=Z,15nm,1.0s,mb4.7						
BRVK	**Borovoye**	33.23	46	*e*P	P	02 04 50.0	-1.8
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
BRVK	**Borovoye**	33.23	46	*e*P	P	02 04 50.0	-1.8
	comp=Z,3.0nm,0.8s,mb4.3						
TOA0	**Torodi Ar. Sit**	33.76	235	*e*P	P	02 04 57.0	+0.3
TORD	**Torodi Ar. Bea**	33.76	235	P	P	02 04 57.4	+0.7
	comp=Z,24nm,0.9s,mb5.1,baz=33,slow=8.5,SNR=69						
ARCES	**ARCESS Array B**	33.87	357	P	P	02 04 55.1	-2.0
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ARCES	**ARCESS Array B**	33.87	357	P	P	02 04 55.0	-2.1
	comp=Z,3.4nm,0.8s,mb4.3,baz=165,slow=8.6,SNR=6.4						
EKS2	**Erkin-Say**	34.58	65	*e*P	P	02 05 01.0	-2.6
	comp=Z,1.2nm,0.5s,mb4.1						
EKS2				*e*PP	PP	02 06 20.0	-1.8
AAK	**Ala-Archa**	35.11	65	*e*P	P	02 05 06.3	-1.9
	comp=Z,4.1nm,0.6s,mb4.5						
AAK	**Ala-Archa**	35.11	65	*e*P	P	02 05 06.3	-1.9
AAK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
AAK	**Ala-Archa**	35.11	65	*e*P	P	02 05 06.3	-1.9
	comp=Z,4.0nm,0.6s,mb4.5						
UCH	**Uchtor**	35.16	66	*e*P	P	02 05 07.8	-0.8
	comp=Z,1.8nm,0.6s,mb4.2						
FRU	**Bishkek**	35.19	65	*e*P	P	02 05 07.5	-1.3
TKM2	**Tokmak 2**	35.90	64	*e*P	P	02 05 12.3	-2.6
	comp=Z,2.7nm,0.6s,mb4.3						
TKM2				*e*PP	PP	02 06 33.9	-2.5
TKM2	**Tokmak 2**	35.90	64	*e*P	P	02 05 12.3	-2.7
TKM2				*e*		02 06 33.9	
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
TKM2	**Tokmak 2**	35.90	64	*e*P	P	02 05 12.3	-2.7
	comp=Z,3.0nm,0.6s,mb4.4						
KURK	**Kurchatov**	37.95	51	*e*P	P	02 05 29.8	-2.5
	comp=Z,12nm,0.9s,mb4.6						
KURK				*e*		02 05 44.3	
KURK				*e*PP	PP	02 06 56.9	-2.0
KURK	**Kurchatov**	37.95	51	*e*P	P	02 05 29.8	-2.5
KURK				*e*		02 05 44.3	
KURK				*e*		02 06 56.9	
KURK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.6						
KURK	**Kurchatov**	37.95	51	*e*P	P	02 05 29.8	-2.5
	comp=Z,12nm,0.9s,mb4.6						
MK31	**Makanchi Array**	40.38	57	*e*P	P	02 05 50.3	-2.4
MK31	**Makanchi Array**	40.38	57	*e*P	P	02 05 50.3	-2.4
MKAR	**Makanchi Array**	40.38	57	P	P	02 05 50.1	-2.6
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MKAR	**Makanchi Array**	40.38	57	P	P	02 05 50.1	-2.6
	comp=Z,2.6nm,0.6s,mb4.2,baz=275,slow=7.2,SNR=28						
NVS	**Novosibirsk**	41.07	45	*e*P	P	02 05 52.5	-5.8
ZAL	**Zalesovo**	41.92	47	P	P	02 06 01.9	-3.4
ZAA0	**Zalesovo Array**	41.94	47	*e*P	P	02 06 02.1	-3.2
ZAA0	**Zalesovo Array**	41.94	47	*e*P	P	02 06 01.8	-3.5
ZAA0	**Zalesovo Array**	41.94	47	*e*P	P	02 06 02.1	-3.3
ZALV	**Zalesovo Beam**	41.94	47	P	P	02 06 01.9	-3.5
	comp=Z,3.0nm,0.5s,mb4.2,baz=267,slow=9.9,SNR=15						
TIC	**Toumodi**	42.99	236	*e*P	P	02 06 14.5	+0.1
	comp=Z,16nm,1.1s,mb4.7						
KIC	**Kosan Boka**	43.01	235	*e*P	P	02 06 14.8	+0.2
	comp=Z,89nm,0.6s						
LIC	**Lamto**	43.30	235	*e*P	P	02 06 17.1	+0.2
	comp=Z,70nm,1.2s,mb5.3						
LIC	**Lamto**	43.30	235	*e*P	P	02 06 16.8	-0.1
	comp=Z,13nm,0.5s,mb4.6						
LIC	**Lamto**	43.30	235	*e*P	P	02 06 16.8	-0.1
	comp=Z,6.5nm,0.5s,mb4.6						
WMQ	**Urumqi**	44.53	61	*e*P	P	02 06 25.7	-0.8
WMQ				AP	pP	02 06 30.7	+1.1
WMQ				XP	sP	02 06 32.7	+1.8
WMQ				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.6						
WMQ				AMB	AMB		
	comp=Z,31nm,7.8s						
WMQ				LR	LR		
	comp=N,277nm,23.8s,MS4.2						
WMQ				LR	LR		
	comp=E,184nm,23.2s,MS4.2						
WMQ				LR	LR		
	comp=Z,222nm,20.0s,MS4.1						
KOLN	**Koldanda**	46.10	84	*e*P	P	02 06 37.8	-1.4
	comp=Z,16nm,0.6s,mb5.2						
GKN	**Gorkha**	46.84	83	*e*P	P	02 06 43.6	-1.4
	comp=Z,18nm,0.5s,mb5.3						
HYB	**Hyderabad**	46.92	100	*i* P	P	02 06 45.0	-0.7
HYB	**Hyderabad**	46.92	100	*e*P	P	02 06 45.0	-0.7
DMN	**Daman**	47.38	84	*e*P	P	02 06 48.1	-1.1
	comp=Z,30nm,0.6s,mb5.4						
KKN	**Kakani**	47.45	83	*e*P	P	02 06 49.3	-0.4
	comp=Z,19nm,0.6s,mb5.2						
PKI	**Pulchoki**	47.64	83	*e*P	P	02 06 50.0	-1.2
	comp=Z,16nm,0.6s,mb5.2						
GUN	**Gumba**	47.88	83	*e*P	P	02 06 51.9	-1.2
	comp=Z,27nm,0.8s,mb5.3						
JIRN	**Jiri**	48.24	83	*e*P	P	02 06 55.2	-0.6
ODAN	**Odare**	49.54	83	*e*P	P	02 07 06.0	+0.1
TAPN	**Taplejung**	49.59	83	*e*P	P	02 07 05.6	-0.6
LSZ	**Lusaka**	50.81	182	P	P	02 07 17.4	+2.0
TLY	**Talaya**	53.49	48	*e*P	P	02 07 33.1	-2.0
ZAK	**Zakamensk**	53.58	50	*e*P	P	02 07 33.6	-2.2
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
ZAK	**Zakamensk**	53.58	50	*e*P	P	02 07 33.6	-2.2
	comp=Z,2.0nm,1.0s,mb4.0						
GTA	**Gaotai**	54.44	64	*e*P	P	02 07 41.7	-0.5
GTA				AP	pP	02 07 45.0	-0.4
GTA				XP	sP	02 07 46.9	+0.3
GTA				AMB	AMB		
	comp=Z,3.0nm,1.2s,mb4.1						
SONM	**Songino Array**	56.25	52	P	P	02 07 53.1	-2.0
SONM				pmax	pmax		
	comp=Z,1.0nm,0.4s						
SONM				MLR	MLR		
	comp=Z,140nm,18.9s						
SONM	**Songino Array**	56.25	52	P	P	02 07 53.1	-2.0
	comp=Z,0.7nm,0.4s,mb4.0,baz=283,slow=7.3,SNR=8.3						
SONM				LR	LR	02 35 20.6	
	comp=Z,140nm,18.9s,MS4.1,baz=331,slow=40						
ULN	**Ulaanbaatar**	56.67	52	P	P	02 07 56.5	-1.5
ULN	**Ulaanbaatar**	56.67	52	P	P	02 07 56.6	-1.5
BOD	**Bodaibo**	57.70	39	*e*P	P	02 08 01.8	-3.4
BOD				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
TIXI	**Tiksi**	59.27	21	*e*P	P	02 08 15.0	-1.0
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.6s,mb4.2						
TIXI	**Tiksi**	59.27	21	*e*P	P	02 08 15.0	-1.0
	comp=Z,4.0nm,1.6s,mb4.2						
LBTB	**Lobatse**	60.60	184	*e*P	P	02 08 29.0	+3.4
	comp=Z,15nm,1.4s,mb4.9						
LBTB	**Lobatse**	60.60	184	*e*P	P	02 08 29.0	+3.4
LBTB				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.9						
HIA	**Hailar**	63.98	47	*e*P	P	02 08 45.9	-2.2
BOSA	**Boshof**	64.20	184	P	P	02 08 51.2	+1.6
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
BOSA	**Boshof**	64.20	184	P	P	02 08 51.1	+1.6
	comp=Z,1.8nm,0.6s,mb4.3,baz=336,slow=7.5,SNR=9.5						
SCHQ	**Schefferville**	65.03	321	P	P	02 08 55.6	+0.7
	comp=Z,1.9nm,0.6s,mb4.3,baz=100,slow=6.1,SNR=3.7						
BJI	**Beijing**	65.76	57	P	P	02 08 56.5	-3.4
BJI				AMB	AMB		
	comp=Z,6.0nm,1.1s,mb4.5						
BJI				LR	LR		
	comp=N,191nm,27.0s,MS4.3						
BJI				LR	LR		
	comp=E,192nm,22.8s,MS4.3						
BJI				LR	LR		
	comp=Z,155nm,23.7s,MS4.1						
BJI	**Beijing**	65.76	57	P	P	02 08 56.5	-3.4
	comp=Z,160nm,23.7s						
BILL	**Bilibino**	71.51	16	*e*P	P	02 09 34.0	-1.2
BILL				*e*		02 09 47.1	
BILL				*e*		02 09 55.5	
BILL				*e*S	S	02 18 48.6	-5.0
BILL				pmax	pmax		
	comp=Z,13nm,2.7s,mb4.4						
BILL				MLR	MLR		
	comp=Z,100nm,21.0s,MS4.1						
BILL	**Bilibino**	71.51	16	*e*P	P	02 09 34.0	-1.2
	comp=Z,13nm,2.7s,mb4.4						
NJ2	**Nanjing**	71.54	64	*e*P	P	02 09 38.7	+2.6
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.4						
SEY	**Seymchan**	71.55	24	*e*P	P	02 09 34.0	-1.6
MA2	**Magadan**	73.31	27	P	P	02 09 44.9	-1.2
MA2				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
MA2	**Magadan**	73.31	27	P	P	02 09 44.9	-1.2
	comp=Z,10.0nm,1.2s,mb4.6						
KSRS	**Korea Array**	74.98	55	P	P	02 09 53.6	-2.7
	comp=Z,1.5nm,0.5s,mb4.2,baz=291,slow=5.8,SNR=6.6						
YKA	**Yellowknife Ar**	77.90	344	P	P	02 10 10.2	-2.2
YKA	**Yellowknife Ar**	77.90	344	*i* P	P	02 10 10.6	-1.8
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	77.90	344	P	P	02 10 10.2	-2.2
	comp=Z,0.7nm,0.8s,mb3.6,baz=35,slow=5.4,SNR=9.3						
YKA	**Yellowknife Ar**	77.90	344	*i* P	P	02 10 10.6	-1.8
	comp=Z,1.0nm,0.8s,mb3.8						
MJAR	**Matsushiro Arr**	82.16	50	P	P	02 10 34.5	-1.4
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MJAR	**Matsushiro Arr**	82.16	50	P	P	02 10 34.5	-1.4
	comp=Z,1.4nm,0.8s,mb4.0,baz=294,slow=5.8,SNR=4.4						

MOS 06 02:01:29.2±2.1**, 4443N×4189E, h10^{km}, mb3.8**/1**, 6C-3D, Error ellipse: s-maj=42.6km s-min=7.2km az=130.7, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIV	**Kislovodsk**	0.74	129	⇑*i*PG	Pg	02 01 42.0	-1.5
KIV0	**Kislovodsk Arr**	0.75	129	*i* PG	Pg	02 01 42.1	-1.5
BEYR	**Belyy Ugol+**	0.78	122	⇑*i*PG	Pg	02 01 43.2	-1.1
BEYR				*i* S	Sg	02 01 51.4	-3.1
SHAR	**Shatzhatmas**	0.88	140	⇓*i*PG	Pg	02 01 44.1	-2.1
PYA	**Pyatigorsk**	0.93	115	⇓*i*PG	Pg	02 01 46.1	-0.9
PYA				*i* S	Sg	02 01 56.5	-2.6
KUBR	**Kubataba**	1.26	119	⇑*i*PG	Pg	02 01 52.5	-0.9
KUBR				*i* S	Sb	02 02 07.3	-2.0
LSNR	**Lesken**	1.81	129	*e*PN	Pn	02 02 01.4	+1.1
DIGR	**Digorskoe uzhe**	1.96	141	⇓*i*PN	Pn	02 02 03.8	+1.4
KMSR	**Komsomolskaya**	2.03	120	⇑*i*PN	Pn	02 02 08.6	+5.2
KMSR				*e*S	Sn	02 02 34.4	+5.6
KORR	**Kora**	2.07	130	*e*PN	Pn	02 02 07.5	+3.5
KORR				*i* S	Sn	02 02 32.2	+2.4
ARNR	**Ardon**	2.12	125	⇑*i*PN	Pn	02 02 09.1	+4.4
ARNR				*e*S	Sn	02 02 35.2	+4.0
ZEI	**Tsey**	2.21	138	*e*PN	Pn	02 02 07.8	+2.0
ZEI				*e*		02 02 32.6	
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.1s						
ZEI				smax			
	comp=N,26nm,0.2s						
LACR	**Lac**	2.37	132	⇑*i*PN	Pn	02 02 10.9	+2.8
LACR				*i* S	Sn	02 02 38.7	+1.6

IDC 06 02:26:58.1±3.8**, 4662N×15556E, h0^{km}, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.4**/20**, mbtmp3.5**/3**, Error ellipse: s-maj=135.2km s-min=37.1km az=179.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	48.49	299	P	P	02 35 42.3	0.0
	0.3nm,0.7s,baz=64,slow=9.2,SNR=4.5						
YKA	**Yellowknife Ar**	50.02	37	P	P	02 35 53.6	-0.1
	0.3nm,0.7s,baz=295,slow=7.1,SNR=4.7						
TXAR	**Lajitas Array**	76.08	62	P	P	02 38 47.8	+0.2
	0.4nm,0.6s,baz=299,slow=4.2,SNR=10						

ISCJB ***06*** *02:32:57.4±0.5, 4950S±007×1207E±02, h10^{km}, mb4.6/9, MS3.7/3, Error ellipse: s-maj=20.8km s-min=8.8km az=15.3*

IDC ***06*** *02:32:57.6±0.6, 4944S×12042E, h0^{km}, mb4.6/8, mb1 4.8/9, mb1mx4.6/14, mbtmp4.7/9, ML3.6/1, MS3.8/4, Ms1 3.8/4, ms1mx3.6/11, Error ellipse: s-maj=32.1km s-min=16.8km az=117.0*

NEIC ***06*** *02:32:58.7±0.4, 4951S×12062E, h10^{km}, mb4.6/4, Error ellipse: s-maj=16.6km s-min=9.6km az=102.0*

ISC 06 02:32:59.3±0.5**, 4949S**±007×**1207E**±02**, h10^{km}, n43, σ0^{s}83**/21**, mb4.6**/9**, MS3.7**/3**, 1C, Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWAO	**Narrogin (SRO)**	16.74	350	*e*Pn	Pn	02 36 53.5	-0.2
	26nm,0.6s						
NWAO	**Narrogin (SRO)**	16.74	350	Pn	Pn	02 36 53.8	0.0
	9.8nm,0.3s,baz=175,slow=10,SNR=50						
NWAO				LR	LR	02 41 51.5	
	comp=Z,348nm,19.2s,baz=172,slow=32						
MUN	**Mundaring**	17.81	348	*e*P	Pn	02 37 08.3	+1.2
STKA	**Stephens Creek**	23.56	49	*e*P	P	02 38 10.0	0.0
	13nm,0.8s,mb4.4						
STKA	**Stephens Creek**	23.56	49	P	P	02 38 10.2	+0.3
	12nm,0.7s,mb4.5,baz=202,slow=9.9,SNR=31						
STKA				LR	LR	02 45 33.6	
	comp=Z,216nm,21.2s,MS3.6,baz=206,slow=32						
WRA	**Warramunga Arr**	31.44	25	P	P	02 39 19.6	-1.1
	3.5nm,0.6s,mb4.4,baz=200,slow=8.1,SNR=11						
WRA				LR	LR	02 52 28.7	
	comp=Z,109nm,18.9s,MS3.5,baz=230,slow=37						
WB2	**Warramunga Arr**	31.45	25	*e*P	P	02 39 19.4	-1.3
FITZ	**Fitzroy Crossi**	31.56	9	P	P	02 39 21.5	-0.2
	8.2nm,0.3s,mb5.0,baz=36,slow=11,SNR=57						
VNDA	**Vanda**	32.15	164	P	P	02 39 26.9	+0.5
VNDA				LR	LR	02 51 17.1	
VNDA	**Vanda**	32.15	164	P	P	02 39 26.9	+0.5
	5.1nm,1.0s,mb4.3,baz=343,slow=5.6,SNR=3.3						
VNDA				LR	LR	02 51 17.1	
	comp=Z,306nm,21.3s,MS4.0,baz=335,slow=34						
CTA	**Charters Tower**	35.74	44	*e*P	P	02 39 58.4	+0.3
	9.6nm,0.9s,mb4.7						
CTA	**Charters Tower**	35.74	44	P	P	02 39 58.5	+0.3
	9.2nm,1.0s,mb4.7,baz=184,slow=9.2,SNR=4.2						
SYO	**Syowa Base**	41.96	212	⇑*e*P	P	02 40 48.8	-0.9
PMG	**Port Moresby**	45.65	38	*e*P	P	02 41 20.2	+0.2
	12nm,0.7s,mb4.9						
SNAA	**Sanae**	52.75	199	P	P	02 42 13.9	+0.3
	12nm,0.8s,mb4.8,baz=142,slow=9.0,SNR=51						
VNA2	**Neumayer--Watz**	54.28	199	*e*	P	02 42 25.1	+0.2
	baz=140,slow=7.1						
VNA2				*e*	pP	02 42 29.5	+1.4
VNA3	**Neumayer Olymp**	54.49	198	*e*	P	02 42 26.2	-0.2
VNA3				*e*		02 42 31.2	
VNA1	**Neumayer--Stat**	54.68	199	*e*	P	02 42 28.6	+0.8
VNA1				*e*	pP	02 42 33.2	+2.2
BOSA	**Boshof**	72.11	247	P	P	02 44 22.5	-1.3
BOSA	**Boshof**	72.11	247	P	P	02 44 22.5	-1.3
	5.5nm,0.8s,mb4.5,baz=149,slow=9.4,SNR=8.3						
SONM	**Songino Array**	97.72	350	P	P	02 46 35.3	+1.7
	0.4nm,0.7s,mb4.1,baz=172,slow=6.6,SNR=3.8						
TORD	**Torodi Ar. Bea**	118.62	256	PKP	PKPdf	02 51 46.0	-1.5
TORD	**Torodi Ar. Bea**	118.62	256	PKP	PKPdf	02 51 46.0	-1.5
	0.5nm,0.9s,baz=74,slow=1.6,SNR=4.5						
TIXI	**Tiksi**	120.97	3	*e*PKPdf	PKPdf	02 51 48.1	-2.2
AKASG	**Malin Array Be**	126.55	308	PKP	PKPdf	02 52 00.5	-1.1
AKASG	**Malin Array Be**	126.55	308	PKP	PKPdf	02 52 00.5	-1.1
	0.9nm,0.7s,baz=91,slow=2.0,SNR=5.5						
FINES	**FINESS Array B**	133.62	319	PKP	PKPdf	02 52 13.7	-0.9
FINES	**FINESS Array B**	133.62	319	PKP	PKPdf	02 52 13.7	-0.9
	1.3nm,0.7s,baz=95,slow=2.1,SNR=7.1						
GERES	**GERESS Array B**	134.01	299	PKP	PKPdf	02 52 15.6	-0.2
GERES	**GERESS Array B**	134.01	299	PKP	PKPdf	02 52 15.6	-0.2
	0.8nm,0.7s,baz=153,slow=0.3,SNR=5.9						
ARCES	**ARCESS Array B**	136.91	329	PKP	PKPdf	02 52 21.2	+0.6
ARCES	**ARCESS Array B**	136.91	329	PKP	PKPdf	02 52 21.2	+0.6
	1.5nm,0.8s,baz=90,slow=1.6,SNR=6.1						
TXAR	**Lajitas Array**	140.97	104	PKP		02 52 24.1	
TXAR				PKP	PKPdf	02 52 30.6	+1.3
TXAR	**Lajitas Array**	140.97	104	PKhKP		02 52 24.1	
	0.1nm,0.5s,baz=185,slow=6.3,SNR=3.5						
TXAR				PKP	PKPdf	02 52 30.6	+1.3
	0.4nm,0.6s,baz=200,slow=4.8,SNR=7.3						
CHMT	**Chamberlain Mo**	144.61	73	*e*PKPdf	PKPdf	02 52 34.5	-0.7
MOOW	**Moose Ponds**	144.80	79	*e*PKPdf	PKPdf	02 52 35.0	-0.6
WALA	**Waterton Lakes**	145.05	69	*e*PKPdf	PKPdf	02 52 35.5	-0.4
PDAR	**Pinedale Array**	145.10	82	PKPbc	PKPbc	02 52 36.1	+0.4
PDAR	**Pinedale Array**	145.10	82	PKPbc	PKPbc	02 52 36.1	+0.4
	1.9nm,0.9s,baz=192,slow=3.9,SNR=16						
EKA	**Eskdalemuir Ar**	146.06	302	PKPbc	PKPbc	02 52 37.4	-0.9
EKA	**Eskdalemuir Ar**	146.06	302	PKPbc	PKPbc	02 52 37.4	-0.9
	4.6nm,0.8s,baz=120,slow=2.2,SNR=13						
YKA	**Yellowknife Ar**	147.56	45	PKP	PKPdf	02 52 39.4	-0.3
YKA				PKPbc	PKPbc	02 52 42.4	0.0
YKA	**Yellowknife Ar**	147.56	45	PKP	PKPdf	02 52 39.3	-0.3
	1.5nm,0.6s,baz=272,slow=2.5,SNR=31						
YKA				PKPbc	PKPbc	02 52 42.3	0.0
	3.3nm,0.8s,baz=273,slow=2.6,SNR=32						

NEIC ***06*** *03:26:00.2, 3266S×7179W, h26^{km}, ML2.9(GUC), After GUC.*

GUC 06 03:26:00.2±0.8**, 3266S×7179W, h26^{km}**±18^{km}**, MD4.0, ML2.9, 8C-5D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IHA	**Instituto Hidr**	0.38	161	⇓*i*P	Pb	03 26 08.2	-0.4
CHNG	**Los Chungos**	0.81	18	*e*P	Pb	03 26 05.0	-11
CHNG				*i* S	Sb	03 26 15.7	-11
PTCH	**Petorca**	0.83	62	⇑*i*P	Pb	03 26 15.8	-0.2
PTCH				*i* S	Sb	03 26 27.2	+0.5
PTCH	**Petorca**	0.83	62	⇑*i*P	Pb	03 26 15.8	-0.2
PTCH				*i* S	Sb	03 26 27.2	+0.5
PTCH				AML	AML	03 26 29.1	
	comp=N,877nm,0.2s						
RCDM	**Rinconada Maip**	1.17	135	⇓*i*P	Pn	03 26 20.9	+0.1
RCDM				*i* S	Sn	03 26 35.9	0.0
RCDM	**Rinconada Maip**	1.17	135	⇓*i*P	Pn	03 26 20.9	+0.1
RCDM				*i* S	Sn	03 26 35.9	0.0
RCDM				AML	AML	03 26 39.9	
	comp=N,385nm,0.1s						
TACH	**Talagante**	1.22	144	*e*P	Pn	03 26 21.3	-0.2
STL	**Santa Lucia**	1.23	129	*e*P	Pn	03 26 21.4	-0.3
STL				*i* S	Sn	03 26 37.8	+0.3
ANTU	**Antumapu**	1.33	133	*e*P	Pn	03 26 23.8	+0.9
ANTU				*i* S	Sn	03 26 41.4	+1.6
ANTU	**Antumapu**	1.33	133	*e*P	Pn	03 26 23.8	+0.9
ANTU				*i* S	Sn	03 26 41.4	+1.6
ANTU				AML	AML	03 26 45.1	
	comp=E,356nm,0.6s						
LNV	**Longovilo**	1.33	166	⇑*i*P	Pn	03 26 23.1	+0.1
FCH	**Farellones**	1.42	118	⇓*i*P	Pn	03 26 25.4	+1.1
FCH				*i* S	Sn	03 26 44.3	+2.2
FCH				AML	AML	03 26 44.9	
	comp=E,341nm,0.3s						
PCH	**Pirque**	1.44	132	⇓*i*P	Pn	03 26 25.4	+0.9
PCH				*i* S	Sn	03 26 44.2	+1.8
SJCH	**San Jose de Ma**	1.55	129	⇑*i*P	Pn	03 26 26.8	+0.7
SJCH				*i* S	Sn	03 26 47.0	+1.7
SJCH	**San Jose de Ma**	1.55	129	⇑*i*P	Pn	03 26 26.8	+0.7
SJCH				*i* S	Sn	03 26 47.0	+1.7
SJCH				AML	AML	03 26 51.9	
	comp=E,144nm,0.5s						
CHCH	**Chadas Angostu**	1.59	143	⇑*i*P	Pn	03 26 27.3	+0.7
CMCH	**Combarbala**	1.63	24	⇑*i*P	Pn	03 26 27.8	+0.7
CMCH				*i* S	Sn	03 26 48.8	+1.7
CMCH	**Combarbala**	1.63	24	⇑*i*P	Pn	03 26 27.8	+0.7
CMCH				*i* S	Sn	03 26 48.8	+1.7
CMCH				AML	AML	03 26 52.8	
	comp=E,484nm,0.5s						
CACH	**El Canelo**	1.76	146	*e*P	Pn	03 26 31.1	+2.2

IDC ***06*** *03:29:16.1±1.3, 1444N×9056W, h0^{km}, mb4.1/6, mb1 4.2/8, mb1mx4.0/18, mbtmp4.0/8, ML4.3/3, MS3.3/6, Ms1 3.3/6, ms1mx3.0/28, Error ellipse: s-maj=25.2km s-min=17.3km az=100.0*

CASC ***06*** *03:29:17.9±2.8, 1449N×9068W, h2^{km}±8^{km}, MD3.9, ML3.6, mb4.1(NEIC)*

MEX ***06*** *03:29:17.0±0.6, 1423N×9049W, h131^{km}±50^{km}, MD4.6*

ISCJB ***06*** *03:29:18.2±0.5, 1451N±003×9064W±003, h18^{km}±4^{km}, mb4.0/10, MS4.0/4, Error ellipse: s-maj=6.7km s-min=4.2km az=39.8*

BJI ***06*** *03:29:22.0, 1450N×9070W, h35^{km}, mB5.1, Ms4.9, Msz4.5*

NEIC ***06*** *03:29:22.0±0.6, 1450N×9070W, h35^{km}, mb4.1/7, MD4.6(MEX), Error ellipse: s-maj=17.5km s-min=6.1km az=47.0*

NEIC Felt [IV] at Antigua Guatemala and San Lucas Sacatepequez; [III] at Guatemala and Mixco. Also felt at Ciudad Vieja, Fraijanes, Petapa, San Jose Pinula and Santiago Sacatepequez.

ISC 06 03:29:19.0±0.5**, 1451N**±003×**9067W**±003**, h9^{km}**±3^{km}**, n58, σ1^{s}28**/64**, mb4.0**/10**, MS4.0**/4**, 2C-2D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCG	**Pacaya**	0.13	151	⇓*e*P	Pg	03 29 20.6	-1.5

GCG	Guatemala City	0.16	60	⇑eP	Pg	03 29 22.4	-0.1
GCG				eS	Sg	03 29 26.0	+1.2
FUG	Fuego 3	0.17	250	⇑iP	Pg	03 29 21.2	-1.5
JAT	Jato	0.95	259	⇓eP	Pg	03 29 36.4	-1.0
JAT				eS	Sg	03 29 51.7	+1.9
CCIG	Comitan	2.26	321	eP	Pn	03 29 57.2	+0.7
CCIG				i S	Sn	03 30 29.6	+5.0
CCIG	Comitan	2.26	321	eP	Pn	03 29 57.2	+0.7
CCIG				i S	Sn	03 30 28.9	+4.3
SCX	San Cristobal	2.91	320	i P	Pn	03 30 03.2	-2.3
TGUH	Tegucigalpa,Un	3.33	97	ePn	Pn	03 30 10.2	-1.0
TGUH				eSn	Sg	03 31 00.8	-5.1
CNGN	Cerro Negro	4.35	117	eP	Pn	03 30 25.5	+0.2
CNGN				eS	Sn	03 31 15.3	-0.9
CNGN				i		03 31 26.1	
	comp=E,231nm,0.4s						
SCIG	Sabancuy	4.46	354	i P	Pn	03 30 26.3	-0.6
SCIG				i S	Sn	03 31 18.4	-0.5
CMIG	Matias Romero	4.80	303	eP	Pn	03 30 30.1	-1.4
CMIG				i S	Sn	03 31 27.8	+0.6
CMIG				Lg		03 31 46.2	
CMIG	Matias Romero	4.80	303	Pn	Pn	03 30 30.2	-1.3
	comp=E,3.4nm,0.3s,baz=92,slow=9.8,SNR=35						
CMIG				Lg		03 31 46.2	
	comp=E,14nm,0.3s,baz=134,slow=11,SNR=7.1						
CMIG	Matias Romero	4.80	303	eP	Pn	03 30 29.7	-1.8
CMIG				i S	Sn	03 31 30.0	+2.7
BOAB	BOACO BROADBAN	5.28	112	eP	Pn	03 30 37.9	-0.2
TEIG	Tepich	6.13	22	ePn	Pn	03 30 49.5	-0.2
	comp=E,170nm,0.4s						
TEIG				eSn	Sn	03 32 01.5	+1.4
TEIG	Tepich	6.13	22	Pn	Pn	03 30 49.7	0.0
	comp=E,60nm,0.3s,baz=191,slow=1.3,SNR=295						
TEIG				Sn	Sn	03 31 59.3	-0.7
	comp=E,32nm,0.3s,baz=311,slow=23,SNR=12						
TEIG				Lg		03 32 33.1	
	comp=E,22nm,0.3s,baz=66,slow=19,SNR=2.9						
TEIG				LR	LR	03 33 35.5	
	comp=E,340nm,18.5s,baz=8.0,slow=42						
TEIG	Tepich	6.13	22	i P	Pn	03 30 48.3	-1.5
TEIG				i S	Sn	03 31 57.6	-2.4
JTS	JuntasAbangare	6.98	126	ePn	Pn	03 31 01.2	-0.3
	comp=E,13nm,0.6s						
JTS				eSn	Sn	03 32 19.3	-1.8
JTS	JuntasAbangare	6.98	126	Pn	Pn	03 31 01.3	-0.2
	comp=E,2.2nm,0.3s,baz=304,slow=22,SNR=11						
JTS				LR	LR	03 34 14.0	
	comp=E,195nm,20.1s,baz=326,slow=44						
UTMO	Huajuapan	7.61	297	i S	Sn	03 32 31.5	-5.0
PRS1	Puriscal	7.67	125	eP	Pn	03 31 13.3	+2.3
PRS1	Puriscal	7.67	125	eP	Pn	03 31 13.2	+2.2
LCR2	La Lucha 2	8.06	125	eP	Pn	03 31 17.9	+1.6
LCR2	La Lucha 2	8.06	125	eP	Pn	03 31 17.6	+1.4
QCR	Quepos	8.12	128	eP	Pn	03 31 17.8	+0.6
QCR	Quepos	8.12	128	eP	Pn	03 31 19.3	+2.1
URSC	Urasca	8.18	124	eP	Pn	03 31 19.1	+1.1
URSC	Urasca	8.18	124	eP	Pn	03 31 19.0	+1.0
BAR1		8.90	125	eP	Pn	03 31 29.3	+1.4
JCT	Junction City	17.98	334	eP	Pn	03 33 31.5	+2.2
	comp=E,5.1nm,0.8s						
OTAV	Otavalo	18.63	139	Pn	Pn	03 33 39.1	+1.7
ROSC	El Rosal	18.73	119	LR	LR	03 40 17.7	
	comp=E,55nm,19.6s,baz=1.0,slow=36						
TXAR	Lajitas Array	19.03	323	P	Pn	03 33 43.0	+1.0
	comp=E,0.1nm,0.3s,baz=150,slow=10,SNR=14						
TXAR				LR	LR	03 42 59.2	
	comp=E,52nm,19.6s,baz=0.0,slow=43						
MIAR	Mount Ida	20.12	353	eP	P	03 33 53.5	+0.2
	comp=E,14nm,1.1s						
MIAR				eS	S	03 37 30.3	-9.1
UALR	University of	20.24	356	eP	P	03 33 55.7	+1.3
	comp=E,11nm,0.8s						
SWET	Sewanee	21.06	11	eP	P	03 34 04.1	+0.8
WMOK	Wichita Mounta	21.43	341	eP	P	03 34 08.3	+0.8
	comp=E,5.5nm,1.1s,mb3.8						
MNTX	Cornudas Mount	21.77	324	eP	P	03 34 10.2	-1.0
	comp=E,4.6nm,0.9s,mb3.9						
TKL	Tuckaleechee C	21.95	15	P	P	03 34 12.6	-0.4
	comp=E,8.1nm,1.1s,mb4.1,baz=173,slow=10,SNR=3.5						
TKL				S	S	03 38 16.1	+0.7
	comp=E,1.9nm,0.7s,baz=61,slow=13,SNR=2.0						
AMTX	Amarillo	22.59	336	eP	P	03 34 18.4	-1.4
	comp=E,6.3nm,0.8s,mb4.1						
SJG	San Juan	23.80	78	eP	P	03 34 26.0	-6.4
SJG	San Juan	23.80	78	LR	LR	03 43 13.7	
	comp=E,74nm,18.5s,MS3.2,baz=90,slow=35						
WCI	Wyandotte Cave	23.94	9	eP	P	03 34 33.3	-0.2
	comp=E,13nm,0.8s,mb4.4						
BNM	Barren Site	24.31	326	eP	P	03 34 38.3	+1.4
NVAR	Mina Array Bea	34.11	319	P	P	03 36 04.5	+0.5
	comp=E,0.9nm,0.6s,mb3.9,baz=125,slow=9.6,SNR=11						
ULM	Lac du Bonnet	35.90	354	P	P	03 36 16.6	-2.7
	comp=E,1.2nm,0.7s,mb3.9,baz=172,slow=9.9,SNR=3.9						
NEW	Newport	40.13	332	LR	LR	03 57 59.9	
	comp=E,84nm,18.6s,MS3.6,baz=50,slow=43						
SIV	San Ignacio	42.11	135	P	P	03 37 09.1	-2.7
	comp=E,1.1nm,0.8s,mb3.5,baz=306,slow=12,SNR=5.9						
SCHQ	Schefferville	44.31	20	P	P	03 37 28.5	-0.5
SCHQ	Schefferville	44.31	20	P	P	03 37 28.5	-0.5
	comp=E,4.2nm,0.7s,mb4.2,baz=278,slow=6.9,SNR=4.5						
YKA	Yellowknife Ar	50.84	346	P	P	03 38 18.2	-1.5
YKA	Yellowknife Ar	50.84	346	P	P	03 38 18.2	-1.5
	comp=E,4.1nm,0.8s,mb4.4,baz=147,slow=7.6,SNR=44						
CLL	Collm	87.13	38	i (pP)	pP	03 42 11.9	+3.4
HHC	Hu-ho-hao-te	121.19	340	ePKP	PKPdf	03 48 12.3	-0.4
HHC				XPKP		03 48 26.7	
HHC				PP	PP	03 49 46.6	+5.0
HHC				PKS		03 51 47.6	
HHC				SKS	SKSdf	03 55 19.9	-5.2
HHC				SKKS	SKKSac	03 56 34.5	-8.3
HHC				LR	LR		
	comp=N,125nm,21.6s,MS4.6						
HHC				LR	LR		
	comp=E,102nm,21.6s,MS4.6						
HHC				LR	LR		
	comp=Z,93nm,19.2s,MS4.4						
WMQ	Urumqi	121.94	1	ePKP	PKPdf	03 48 14.0	0.0
GTA	Gaotai	125.48	350	ePKP	PKPdf	03 48 20.5	-0.5
GTA				XPKP		03 48 34.9	
GTA				PKS		03 51 55.7	
GTA				SKS	SKSdf	03 55 27.1	-6.1
GTA				PP	PP		
	comp=Z,101nm,5.7s						
GTA				LR	LR		
	comp=N,106nm,16.7s,MS4.7						
GTA				LR	LR		
	comp=E,70nm,15.6s,MS4.7						
GTA				LR	LR		
	comp=Z,69nm,15.6s,MS4.4						
LZH	Lanzhou	127.84	345	eP	PKPdf	03 48 24.5	-1.1
LZH				pP		03 48 36.8	
LZH				sP		03 48 39.5	
GYA	Guiyang	135.93	337	PKP	PKPdf	03 48 40.2	-0.9
GYA				XPKP		03 48 55.8	
GYA				PP	PP	03 51 21.9	+3.5
GYA				PKS		03 52 14.9	
GYA				SKS	SKSdf	03 55 45.4	-7.2
GYA				PP	PP		
	comp=Z,80nm,7.8s						

CASC 06 03:33:56.5±5.7, 14.50N×90.57W, h20^{km}±43^{km}, MD3.7, 1C-1D, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GCG	Guatemala City	0.10	23	eP	Pb	03 34 02.9	+2.5
PCG	Pacaya	0.11	198	⇓eP	Pb	03 33 58.6	-2.0
JAT	Jato	1.05	260	⇑eP	Pb	03 34 15.6	-0.3
JAT				eS	Sb	03 34 31.5	+2.3
SBLS	San Blas	1.13	125	eP	x	03 34 22.1	
SBLS				eS	x	03 34 40.3	
SNVI	San Vicente	1.90	117	eP	x	03 34 37.9	
SNVI				eS	x	03 35 05.6	

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*IDC **06** 03:35:32.3±0.8, 0.45S×125.62E, h0^{km}, mb4.2/7, mb1 4.2/8, mb1mx4.0/18, mbtmp4.2/8, ML3.9/1, Error ellipse: s-maj=57.0km s-min=16.7km az=75.0*

*NEIC **06** 03:35:33.6±0.5, 0.38S×125.77E, h10^{km}, Error ellipse: s-maj=33.5km s-min=9.1km az=75.0*

*ISCJB **06** 03:35:34.9±0.7, 0.4S±0.1×125.7E±0.3, h33^{km}, mb4.2/7, Error ellipse: s-maj=45.2km s-min=11.6km az=167.5*

ISC 06 03:35:37.3±0.7, 0.4S±0.1×125.7E±0.3, h35^{km}, n16, σ0^{s}67/10, mb4.2/7, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.56	180	P	Pn	03 39 40.4	+0.9
	0.3nm,0.3s,baz=9.7,slow=10.0,SNR=9.8						
WRA	Warramunga Arr	21.15	157	P	P	03 40 18.2	-1.3
	3.4nm,0.4s,mb4.0,baz=334,slow=11,SNR=21						
JOW	Kunigami	27.22	5	P	P	03 41 18.1	0.0
	7.0nm,0.7s,mb4.3,baz=175,slow=11,SNR=7.7						
STKA	Stephens Creek	34.69	156	P	P	03 42 24.3	+0.4
STKA	Stephens Creek	34.69	156	P	P	03 42 24.3	+0.4
	0.9nm,0.3s,mb4.1,baz=307,slow=10,SNR=2.7						
KSRS	Korea Array	37.75	3	P	P	03 42 50.8	+0.9
	3.5nm,0.6s,mb4.3,baz=180,slow=9.6,SNR=15						
SONM	Songino Array	50.93	343	P	P	03 44 35.4	+0.2
	1.2nm,0.7s,mb3.9,baz=162,slow=8.5,SNR=10.0						
MK31	Makanchi Array	60.42	327	eP	P	03 45 42.6	-0.7
MKAR	Makanchi Array	60.42	327	P	P	03 45 43.1	-0.2
	1.3nm,0.4s,mb4.3,baz=122,slow=7.9,SNR=38						
ZALV	Zalesovo Beam	63.85	334	P	P	03 46 05.8	-0.3
	0.8nm,0.3s,mb4.2,baz=143,slow=7.4,SNR=4.5						
EGMT	Eagleton	112.71	37	eP	Pdif	03 50 14.3	-1.0
ARUT	Antelope Range	114.26	48	ePKPdf	PKiKP	03 54 14.0	+0.3
TORD	Torodi Ar. Bea	123.14	285	PKP	PKPdf	03 54 32.0	+0.7
TORD	Torodi Ar. Bea	123.14	285	PKP	PKPdf	03 54 32.0	+0.7
	0.5nm,0.7s,baz=66,slow=1.5,SNR=6.0						
TXAR	Lajitas Array	124.90	54	PKP	PKPdf	03 54 34.9	+0.5
TXAR	Lajitas Array	124.90	54	PKP	PKPdf	03 54 34.9	+0.5
	0.2nm,0.7s,baz=267,slow=4.5,SNR=3.1						

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*IDC **06** 03:56:50.8±1.5, 14.38N×144.30E, h0^{km}, mb3.7/3, mb1 3.9/3, mb1mx3.6/18, mbtmp3.7/3, Error ellipse: s-maj=62.4km s-min=17.0km az=56.0*

*ISCJB **06** 03:56:54.1±1.3, 14.5N±0.2×144.3E±0.3, h33^{km}, mb3.9/4, Error ellipse: s-maj=49.3km s-min=9.3km az=144.9*

*NEIC **06** 03:56:55.5±1.1, 14.44N×144.38E, h35^{km}, mb4.6/1, Error ellipse: s-maj=46.5km s-min=11.7km az=60.0*

ISC 06 03:56:55.6±1.3, 14.4N±0.2×144.4E±0.3, h35^{km}, n7, σ0^{s}50/9, mb3.9/4, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	0.96	150	Pn	Pn	03 57 12.0	-0.6
GUMO				Sn	Sn	03 57 25.1	0.0
GUMO	Guam	0.96	150	Pn	Pn	03 57 12.0	-0.6
	41nm,0.3s,baz=317,slow=1.9,SNR=9.3						
GUMO				Sn	Sn	03 57 25.1	0.0
	55nm,0.3s,baz=172,slow=23,SNR=6.6						
NACB	Ninganchiao	23.56	298	eP	P	04 02 02.5	-0.6
PMG	Port Moresby	23.84	173	eP	P	04 02 06.7	+0.9
	24nm,1.0s,mb4.6						
WRA	Warramunga Arr	35.55	196	P	P	04 03 49.6	-0.1
	2.8nm,0.8s,mb4.2,baz=14,slow=9.6,SNR=6.9						
SONM	Songino Array	45.77	325	P	P	04 05 13.9	+0.2
	0.6nm,0.9s,mb3.5,baz=134,slow=10,SNR=4.6						
MKAR	Makanchi Array	60.56	316	P	P	04 07 02.8	+0.2
	0.2nm,0.6s,mb3.4,baz=94,slow=8.6,SNR=3.6						

MOS 06 04:30:37.6±0.3, 42.97N×45.48E, h16^{km}, mb3.6/1, 2C-1D, Error ellipse: s-maj=39.7km s-min=13.0km az=12.9, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTKR	Batakoyurt	0.80	301	⇑iPG	Pg	04 30 53.3	+0.2
BTKR				i S	Sb	04 31 10.0	+6.4
LACR	Lac	0.88	261	⇓iPG	Pg	04 30 55.0	+0.3
LACR				i S	Sb	04 31 12.9	+6.8
ARNR	Ardon	0.91	284	ePG	Pg	04 30 55.5	+0.3
ARNR				eS	Sb	04 31 13.9	+7.1
KMSR	Komsomolskaya	0.96	295	ePG	Pg	04 30 55.9	-0.3
KMSR				eS	Sb	04 31 14.7	+6.5
KORR	Kora	1.04	277	ePG	Pg	04 30 57.2	-0.6
KORR				eS	Sb	04 31 17.3	+6.6
ZEI	Tsey	1.18	261	⇑iPG	Pg	04 30 59.1	-1.3
ZEI				i S	Sb	04 31 20.3	+5.7
LSNR	Lesken	1.26	285	ePG	Pg	04 31 00.1	-1.7
LSNR				eS	Sb	04 31 22.2	+5.4
DIGR	Digorskoe uzhe	1.40	268	ePG	Pg	04 31 02.3	-2.2
DIGR				i S	Sn	04 31 26.1	+5.6

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*IDC **06** 04:35:46.8±1.8, 2.27S×139.66E, h0^{km}, mb4.2/3, mb1 4.4/5, mb1mx4.1/12, mbtmp4.2/5, ML4.1/1, MS3.8/9, Ms1 3.8/9, ms1mx3.5/18, Error ellipse: s-maj=65.4km s-min=24.1km az=84.0*

*ISCJB **06** 04:35:49.4±0.8, 2.44S±0.07×139.5E±0.1, h33^{km}, mb4.2/2, MS3.8/5, Error ellipse: s-maj=14.6km s-min=10.1km az=3.6*

*NEIC **06** 04:35:51.1±0.8, 2.37S×139.60E, h35^{km}, Error ellipse: s-maj=18.9km s-min=12.3km az=64.0*

ISC 06 04:35:51.5±0.8, 2.42S±0.07×139.59E±0.09, h35^{km}, n19, σ1^{s}09/14, mb4.2/2, MS3.8/5, Near north coast of Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	10.24	133	ePn	Pn	04 38 14.8	-1.2
	37nm,1.4s						
PMG	Port Moresby	10.24	133	LR	LR	04 42 16.0	
	comp=Z,357nm,21.8s,baz=6.7,slow=38						
KAKA	Kakadu	12.44	214	ePn	Pn	04 38 45.9	-0.3
KAKA				eSn	Sn	04 41 02.5	-1.1
GUMO	Guam	16.74	18	LR	LR	04 45 35.9	
	comp=Z,163nm,18.7s,baz=195,slow=36						
WB2	Warramunga Arr	18.16	196	eP	Pn	04 40 01.9	+1.0
WRA	Warramunga Arr	18.16	196	P	Pn	04 40 02.3	+1.3
	0.9nm,0.3s,baz=11,slow=13,SNR=12						
WRA				LR	LR	04 47 38.5	
	comp=Z,296nm,19.5s,baz=15,slow=39						
CTA	Charters Tower	18.73	160	P	Pn	04 40 08.5	+0.6
	0.3nm,0.3s,baz=323,slow=10,SNR=4.5						
CTA				LR	LR	04 47 18.1	
	comp=Z,375nm,21.0s,baz=153,slow=37						
FITZ	Fitzroy Crossi	20.74	220	eP	P	04 40 29.7	+0.5
FITZ	Fitzroy Crossi	20.74	220	P	P	04 40 31.2	+1.9
	5.8nm,0.8s,baz=44,slow=16,SNR=8.4						
KKM	Kota Kinabalu	24.81	290	eP	P	04 41 07.9	-2.7
EIDS	Eidsvold	25.36	155	eP	P	04 41 14.8	-0.6
STKA	Stephens Creek	29.37	177	LR	LR	04 55 27.8	
	comp=Z,262nm,19.3s,MS3.9,baz=13,slow=40						
CBIJ	Chichi jima	29.45	5	LR	LR	04 50 46.6	
	comp=Z,123nm,20.1s,MS3.5,baz=261,slow=31						
KSRS	Korea Array	41.12	346	LR	LR	04 58 02.7	
	comp=Z,72nm,18.5s,MS3.6,baz=7.6,slow=33						
MK31	Makanchi Array	70.10	322	eP	P	04 47 00.7	+0.5
MKAR	Makanchi Array	70.10	322	P	P	04 47 01.1	+0.9
	6.0nm,1.1s,mb4.4,baz=111,slow=7.9,SNR=23						
ZALV	Zalesovo Beam	72.13	330	P	P	04 47 11.8	-0.5
ZALV				LR	LR	05 18 21.6	
ZALV	Zalesovo Beam	72.13	330	P	P	04 47 11.8	-0.5
	0.9nm,0.6s,mb3.9,baz=101,slow=4.1,SNR=6.1						
ZALV				LR	LR	05 18 21.7	
	comp=Z,50nm,18.1s,MS3.8,baz=38,slow=36						
VNDA	Vanda	76.00	175	LR	LR	05 17 38.9	
	comp=Z,157nm,21.6s,MS4.3,baz=338,slow=33						

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*ISK **06** 04:52:54.5, 36.61N×28.94E, h7^{km}, MD3.2, ML3.2*

*CSEM **06** 04:52:54.1±0.1, 36.61N×28.94E, h5^{km}, MD3.2, Error ellipse: s-maj=2.9km s-min=1.8km az=4.0*

*NEIC **06** 04:52:54.0, 36.62N×28.94E, h7^{km}, MD3.4(ATH), ML3.2(ISK), After ISK.*

*ATH **06** 04:52:54.2, 36.69N×29.01E, h15^{km}±9^{km}, MD3.4/4*

*DDA **06** 04:52:56.0, 36.63N×29.00E, h27^{km}, Md2.9*

*ISCJB **06** 04:52:55.3±0.5, 36.64N±0.04×28.95E±0.03, h8^{km}±5^{km}, Error ellipse: s-maj=6.3km s-min=4.0km az=2.9*

ISC 06 04:52:55.8±0.5, 36.63N±0.04×28.95E±0.03, h9^{km}±4^{km}, n44, σ0^{s}90/54, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	0.11	86	i PG	Pg	04 52 57.8	-0.6
FETY				i SG	Sg	04 52 59.9	-0.3
FETY	Fethiye	0.11	86	i Pg	Pg	04 52 57.8	-0.6
FETY				i Sg	Sg	04 52 59.9	-0.3
AKAS	Kas	0.66	126	i P	Pg	04 53 08.1	-0.4
AKAS				i S	Sg	04 53 19.2	+2.1
KSL	Kastellorizon	0.70	133	eP	Pg	04 53 08.0	-1.3
KSL	Kastellorizon	0.70	133	ePN	Pg	04 53 08.0	-1.3
YER	Yerkesik	0.74	314	PG	Pg	04 53 09.4	-0.6
YER				SG	Sg	04 53 20.2	+0.6
YER	Yerkesik	0.74	314	ePg	Pg	04 53 09.4	-0.6
YER				eSg	Sg	04 53 20.2	+0.6
ARG	Arkhangelos	0.78	239	ePN	Pg	04 53 09.8	-1.0
ARG				eSN	Sg	04 53 23.0	+2.0
ELL	Elmali	0.78	81	PG	Pg	04 53 09.9	-0.9
ELL	Elmali	0.78	81	ePg	Pg	04 53 09.9	-0.9
GOLH	Golhisar	0.78	39	i P	Pg	04 53 10.3	-0.6
GOLH				i S	Sg	04 53 23.5	+2.4
DAT	Datca	1.11	276	PN	Pn	04 53 15.9	-1.6
DAT	Datca	1.11	276	ePn	Pn	04 53 15.9	-1.6
DENT	Denizli	1.13	3	PN	Pn	04 53 16.7	-1.1
DENT	Denizli	1.13	3	ePn	Pn	04 53 16.7	-1.1
MLSB	Milas	1.15	306	PN	Pn	04 53 16.9	-1.2
MLSB	Milas	1.15	306	ePn	Pn	04 53 16.9	-1.2
BDRM	Kayabasi	1.28	290	i P	Pn	04 53 19.5	-0.4
BDRM				i S	Sb	04 53 37.5	+0.8
BDRM	Kayabasi	1.28	290	i P	Pn	04 53 19.5	-0.4
BDRM				i S	Sb	04 53 37.5	+0.8
BODT	Bodrum	1.38	289	PN	Pn	04 53 20.9	-0.4
BODT	Bodrum	1.38	289	ePn	Pn	04 53 20.9	-0.4
ANTB	Antalya	1.40	78	ePN	Pn	04 53 21.6	+0.1
ANTB	Antalya	1.40	78	ePn	Pn	04 53 21.6	+0.1
ISP	Isparta	1.74	45	ePN	Pn	04 53 26.3	+0.1
ISP	Isparta	1.74	45	ePn	Pn	04 53 26.3	+0.1
KHL	Karahalli	1.75	15	ePN	Pn	04 53 26.0	-0.4
KHL	Karahalli	1.75	15	ePn	Pn	04 53 26.0	-0.4
KARP	Karpathos	1.80	234	ePN	Pn	04 53 27.9	+0.8
SMG	Samos	2.00	303	ePN	Pn	04 53 30.0	+0.2
IZM	Izmir	2.22	323	ePN	Pn	04 53 33.2	+0.4
IZM	Izmir	2.22	323	ePn	Pn	04 53 33.2	+0.4
KDAG	Bornova	2.22	323	i P	Pn	04 53 33.4	+0.6
KDAG				i S	Sn	04 54 00.4	0.0
SHUT	Suhut-Afyon	2.31	33	ePN	Pn	04 53 34.1	+0.1
SHUT	Suhut-Afyon	2.31	33	ePn	Pn	04 53 34.1	+0.1
BLCB	Balcova	2.32	320	ePN	Pn	04 53 34.2	0.0
BLCB	Balcova	2.32	320	ePn	Pn	04 53 34.2	0.0
AKS	Akhisar	2.42	339	ePN	Pn	04 53 35.3	-0.3
AKS	Akhisar	2.42	339	ePn	Pn	04 53 35.3	-0.3
ALT	Altintas	2.59	20	ePN	Pn	04 53 38.0	+0.1
ALT	Altintas	2.59	20	ePn	Pn	04 53 38.0	+0.1
KONT	Konya--Tatoy	3.02	63	ePN	Pn	04 53 44.5	+0.7
KONT	Konya--Tatoy	3.02	63	ePn	Pn	04 53 44.5	+0.7
KIZT	Kizilcal	3.23	45	ePN	Pn	04 53 47.6	+0.9
KIZT	Kizilcal	3.23	45	ePn	Pn	04 53 47.6	+0.9

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*ISCJB **06** 05:06:57.5±2.1, 8.2N±0.3×104.2W±0.4, h10^{km}, mb3.7/6, MS3.5/8, Error ellipse: s-maj=71.0km s-min=19.4km az=150.9*

*IDC **06** 05:06:57.4±3.5, 8.28N×104.06W, h0^{km}, mb3.5/5, mb1 4.0/5, mb1mx3.9/13, mbtmp3.6/5, MS3.5/11, Ms1 3.5/11, ms1mx3.3/22, Error ellipse: s-maj=140.6km s-min=25.8km az=59.0*

*NEIC **06** 05:06:58.5±2.0, 8.14N×104.20W, h10^{km}, mb4.5/1, Error ellipse: s-maj=66.9km s-min=20.2km az=62.0*

ISC 06 05:06:59.6±2.0, 8.2N±0.2×104.1W±0.4, h10^{km}, n21, σ0^{s}90/8, mb3.7/6, MS3.5/8, Northern East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	12.60	45	LR	LR	05 13 31.3	
	comp=Z,481nm,21.2s,baz=199,slow=32						
LPIG	La Paz	16.87	340	LR	LR	05 15 43.7	
	comp=Z,97nm,21.5s,baz=349,slow=31						
TEIG	Tepich	19.42	50	LR	LR	05 18 05.3	
	comp=Z,154nm,20.4s,baz=183,slow=34						
TXAR	Lajitas Array	21.01	1	P	P	05 11 42.8	-0.6
	2.6nm,0.9s,mb3.6,baz=182,slow=11,SNR=22						
TXAR				LR	LR	05 19 04.1	
	comp=Z,252nm,19.5s,MS3.6,baz=5.0,slow=35						
JCT	Junction City	22.51	10	eP	P	05 11 59.6	+0.2
	22nm,1.3s,mb4.4						
LAZ	Ladron	26.20	354	eP	P	05 12 35.5	+0.9
DAU	Daniels Canyon	32.68	350	eP	P	05 13 33.0	+0.9
NVAR	Mina Array Bea	32.69	339	P	P	05 13 32.1	0.0
	0.3nm,0.8s,mb3.3,baz=154,slow=11,SNR=2.9						
TKL	Tuckaleechee C	33.04	31	LR	LR	05 26 17.4	
	comp=Z,85nm,21.2s,MS3.4,baz=229,slow=35						
PDAR	Pinedale Array	34.74	353	P	P	05 13 49.7	-0.2
	1.3nm,0.8s,mb3.9,baz=165,slow=9.5,SNR=10						
SJG	San Juan	38.17	71	LR	LR	05 29 07.7	
	comp=Z,30nm,18.0s,MS3.1,baz=94,slow=35						
TAOE	Nuku Hiva Isla	39.71	246	eT		05 56 29.5	
	320nm,0.3s						
ULM	Lac du Bonnet	42.45	8	LR	LR	05 31 34.8	
	comp=Z,87nm,18.2s,MS3.7,baz=312,slow=35						
LPAZ	La Paz	43.14	124	P	P	05 15 00.8	+0.1
	2.5nm,1.0s,mb3.9,baz=335,slow=8.2,SNR=6.6						
RKT	Rikitea	43.38	223	eLR	LR	05 26 57.5	
	188nm,27.0s						
PPT	Papeete	51.71	240	eLR	LR	05 30 50.3	
	123nm,25.0s						
PPT	Papeete	51.71	240	LR	LR	05 31 07.6	
	comp=Z,3.2nm,18.1s,MS2.4,baz=182,slow=28						
YKA	Yellowknife Ar	54.71	354	P	P	05 16 25.8	-3.0
	0.2nm,0.6s,mb3.3,baz=164,slow=7.4,SNR=3.6						
YKA				LR	LR	05 40 27.4	
	comp=Z,40nm,18.3s,MS3.5,baz=170,slow=37						
PMSA	Palmer Station	78.68	164	LR	LR	05 46 26.2	
	comp=Z,71nm,20.2s,MS4.0,baz=144,slow=30						
NOA	NORSAR Array B	94.70	26	LR	LR	06 08 46.1	
	comp=Z,46nm,18.7s,MS4.0,baz=290,slow=39						
MKAR	Makanchi Array	124.94	355	PKP	PKPdf	05 26 04.1	+3.9
	0.2nm,0.6s,baz=42,slow=2.3,SNR=2.9						

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*NEIC **06** 05:24:30.5±6.2, 1.46S×90.74W, h10^{km}, Error ellipse: s-maj=122.0km s-min=17.3km az=144.0*

*IDC **06** 05:24:30.5±12.0, 1.08S×90.28W, h0^{km}, mb3.6/5, mb1 3.9/5, mb1mx3.8/15, mbtmp3.6/5, MS3.3/6, Ms1 3.4/6, ms1mx3.0/23, Error ellipse: s-maj=309.1km s-min=155.8km az=31.0*

ISC 06 05:24:32.0±6.1, 1.4S±0.5×90.7W±0.7, h18^{km}±49^{km}, n12, σ0^{s}69/8, mb3.6/5, MS3.5/4, Galapagos Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAYG	Puerto Ayora	0.83	26	eP	Pb	05 24 48.0	0.0
PAYG				eS	Sb	05 24 58.9	0.0
JTS	JuntasAbangare	12.95	26	LR	LR	05 30 18.0	
	comp=Z,24nm,20.6s,baz=233,slow=28						
CMIG	Matias Romero	18.87	347	LR	LR	05 34 20.0	
	comp=Z,115nm,21.3s,baz=207,slow=32						
TEIG	Tepich	21.64	6	LR	LR	05 35 36.5	
	comp=Z,84nm,19.4s,MS3.1,baz=131,slow=31						
LPAZ	La Paz	26.65	125	LR	LR	05 40 20.3	
	comp=Z,64nm,21.0s,MS3.1,baz=299,slow=36						
TXAR	Lajitas Array	33.02	339	P	P	05 31 05.6	-0.7
	0.9nm,0.9s,mb3.7,baz=147,slow=12,SNR=5.5						
TXAR				LR	LR	05 43 05.4	
	comp=Z,110nm,19.4s,MS3.6,baz=185,slow=34						
ANMO	Albuquerque	39.10	339	P	P	05 31 58.5	+0.2
	1.1nm,0.8s,mb3.6,baz=135,slow=11,SNR=3.8						
NVAR	Mina Array Bea	47.14	330	P	P	05 33 03.2	-0.1
NVAR	Mina Array Bea	47.14	330	P	P	05 33 03.2	-0.1
	0.7nm,0.8s,mb3.6,baz=154,slow=8.8,SNR=3.4						
PDAR	Pinedale Array	47.18	341	P	P	05 33 04.5	+1.0
	0.5nm,0.9s,mb3.4,baz=130,slow=6.0,SNR=4.1						
USHA	Ushuaia	56.25	165	LR	LR	05 54 14.8	
	comp=Z,93nm,18.7s,MS3.9,baz=86,slow=32						
YKA	Yellowknife Ar	66.28	348	P	P	05 35 18.5	-0.4
	0.4nm,0.8s,mb3.5,baz=150,slow=6.6,SNR=6.0						

IDC 06 05:36:00.2±14.0, 17.07S×179.25W, h516^{km}±170^{km}, mb2.9/3, mb1 3.2/3, mb1mx3.1/10, mbtmp2.9/3, Error ellipse: s-maj=138.1km s-min=52.7km az=169.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	38.34	240	P	P	05 42 36.8	+0.1
	1.7nm,0.4s,baz=101,slow=11,SNR=4.0						
WRA	Warramunga Arr	44.00	259	P	P	05 43 21.6	-0.3
	0.8nm,0.4s,baz=92,slow=6.7,SNR=11						
TXAR	Lajitas Array	86.23	58	P	P	05 47 47.1	-0.1
	0.1nm,0.5s,baz=213,slow=6.5,SNR=3.6						
BRTR	Keskin Array B	143.63	315	PKP	PKPdf	05 54 35.1	-1.3
	0.4nm,0.5s,baz=61,slow=2.6,SNR=4.4						
GERES	GERESS Array B	146.60	344	PKPbc	PKPbc	05 54 43.7	0.0

```
             0.5nm,0.5s,baz=20,slow=4.3,SNR=5.5
```

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*ISCJB **06** 05:40:23.3±0.5, 23.47S±0.04×68.40W±0.06, h98km, mb4.1/10, Error ellipse: s-maj=7.8km s-min=5.3km az=29.0*
*NEIC **06** 05:40:25.6, 23.52S×68.65W, h110km, mb4.9/2, MD4.3(GUC), After GUC.*
*GUC **06** 05:40:25.6±0.7, 23.52S×68.65W, h110km, MD4.3, ML4.5*
*IDC **06** 05:40:26.4±0.7, 23.22S×68.42W, h102km±5km, mb4.0/9, mb1 4.2/11, mb1mx4.0/17, mbtmp4.1/11, MS3.3/1, Ms1 3.3/1, ms1mx2.4/17, Error ellipse: s-maj=25.8km s-min=14.9km az=62.0*
ISC 06 05:40:25.3±0.5**, 23.51S**±0.04×**68.49W**±0.06**, h100km, h100km**±.9km**:pP-P, n34,** $\sigma 1\overset{s}{.}09$/36**, mb4.1**/10**, 2C-1D, Northern Chile**

```
Code  Station Name       Δ°   AZ°   Phase ID            Time      Res
                                    Op        ISC       h  m  s   ISC
CEN1  Los Morros        1.57 274⇓iP       Pn        05 40 53.4 +0.9
CEN1                             i S       Sn        05 41 14.5 +1.4
CEN1                               AML     AML       05 41 19.2
      comp=E,4µm,0.8s
ANCH  Antofagasta       1.77 264⇑iP       Pn        05 40 54.4 -0.5
ANCH                             i S       Sn        05 41 16.4 -1.0
ANCH  Antofagasta       1.77 264⇑iP       Pn        05 40 54.4 -0.5
ANCH                             i S       Sn        05 41 16.4 -1.0
ANCH                               AML     AML       05 41 22.6
      comp=N,8µm,0.3s
CPN1  Cerro Paranal     2.07 237 eP        Pn        05 40 59.2 +0.4
CPN1                             i S       Sn        05 41 25.1 +0.7
CPN1                               AML     AML       05 41 30.4
      comp=E,6µm,0.4s
CDCH  Caldera           4.13 210 eP        Pn        05 41 25.5 -0.7
CDCH                             i S       Sn        05 42 11.8 -1.7
CPCH  Copiapo           4.18 203 eP        Pn        05 41 27.6 +0.6
CPCH                             i S       Sn        05 42 15.2 +0.4
VACH  Vallenar          5.44 202 eP        Pn        05 41 43.7 -0.3
LCO   Las Campanas      5.83 199 ePn       Pn        05 41 48.5 -0.7
      comp=E,43nm,0.3s
LCO                              eSn       Sn        05 42 59.0 +4.4
TLL   Tololo Astrono    6.94 197 eP        Pn        05 42 03.8 -0.6
LPAZ  La Paz            7.19   3 ePn       Pn        05 42 06.8 -1.1
      comp=E,8.2nm,0.5s
LPAZ  La Paz            7.19   3 P         Pn        05 42 07.2 -0.7
      comp=E,1.3nm,0.3s,baz=191,slow=5.4,SNR=24
CFAA  Coronel Fontan    8.07 178 P         Pn        05 42 20.8 +1.1
CFAA                             S         Sn        05 43 45.9 -3.3
CFAA  Coronel Fontan    8.07 178 P         Pn        05 42 20.8 +1.1
      comp=E,0.8nm,0.3s,baz=356,slow=13,SNR=42
CFAA                             S         Sn        05 43 45.9 -3.2
      comp=E,0.2nm,0.3s,baz=318,slow=8.8,SNR=2.1
SIV   San Ignacio      10.23  44 P         Pn        05 42 45.2 -4.0
      comp=E,24nm,0.3s,baz=239,slow=11,SNR=425
SIV                              S         Sn        05 44 33.6 -8.5
      baz=108,slow=20,SNR=2.9
ROSC  El Rosal         28.76 348 LR        LR        05 59 40.6
      comp=E,50nm,18.3s,baz=52,slow=40
SNAA  Sanae            60.26 161 P         P         05 50 25.2 +2.5
      comp=E,1.6nm,0.5s,mb4.3,baz=298,slow=8.5,SNR=28
TKL   Tuckaleechee C   60.60 346 P         P         05 50 24.0 -1.4
      comp=E,2.7nm,0.8s,mb4.3,baz=173,slow=9.5,SNR=2.9
TXAR  Lajitas Array    62.49 325 P         P         05 50 38.1 -0.1
TXAR                             pP        pP        05 51 03.2  0.0
TXAR  Lajitas Array    62.49 325 P         P         05 50 38.1 -0.1
      comp=E,0.3nm,0.8s,mb3.4,baz=106,slow=6.0,SNR=2.9
TXAR                             pP        pP        05 51 03.2  0.0
      comp=E,0.3nm,0.8s,baz=144,slow=4.0,SNR=3.2
ANMO  Albuquerque      68.39 327 P         P         05 51 16.6 +0.4
      comp=E,1.2nm,0.7s,mb3.9,baz=150,slow=7.8,SNR=6.3
ANMO                             pP        pP        05 51 41.1 -0.3
      comp=E,0.8nm,0.4s,baz=128,slow=5.7,SNR=3.7
PDAR  Pinedale Array   76.04 330 P         P         05 52 01.9 +0.4
      comp=E,0.3nm,0.6s,mb3.2,baz=134,slow=7.7,SNR=5.0
NVAR  Mina Array Bea   77.31 322 pP        pP        05 52 36.9 +2.2
      comp=E,0.4nm,0.6s,baz=150,slow=11,SNR=3.9
ULM   Lac du Bonnet    77.34 342 P         P         05 52 07.8 -0.9
      comp=E,3.6nm,0.5s,mb4.4,baz=150,slow=6.0,SNR=23
ULM                              pP        pP        05 52 33.9 -0.7
      comp=E,1.2nm,0.6s,baz=350,slow=15,SNR=1.9
TORD  Torodi Ar. Bea   77.68  70 P         P         05 52 11.7 +0.3
      comp=E,8.5nm,0.7s,mb4.6,baz=258,slow=5.6,SNR=106
TORD                             pP        pP        05 52 37.5 +0.3
      comp=E,2.9nm,0.6s,baz=253,slow=5.4,SNR=4.7
BOSA  Boshof           82.17 118 P         P         05 52 37.0 +1.5
      comp=E,1.2nm,0.5s,mb4.0,baz=268,slow=3.7,SNR=3.4
MAW   Mawson           82.30 163 P         P         05 52 37.9 +2.5
      comp=E,5.3nm,0.5s,mb4.6,baz=211,slow=9.0,SNR=16
YKA   Yellowknife Ar   93.20 340 P         P         05 53 27.6 -0.2
YKA                              pP        pP        05 53 53.7 -0.6
YKA   Yellowknife Ar   93.20 340 P         P         05 53 27.6 -0.2
      comp=E,1.4nm,1.0s,mb4.2,baz=137,slow=5.1,SNR=12
YKA                              pP        pP        05 53 53.7 -0.6
      comp=E,1.2nm,0.9s,baz=135,slow=4.5,SNR=7.9
WRA   Warramunga Arr  131.41 209 PKP       PKPdf     05 59 27.9 +1.2
WRA   Warramunga Arr  131.41 209 PKP       PKPdf     05 59 28.0 +1.2
      comp=E,0.8nm,0.7s,baz=159,slow=1.6,SNR=4.7
ZALV  Zalesovo Beam   143.59  27 PKP                 05 59 43.4
ZALV                             PKP       PKPdf     05 59 47.6 -0.3
ZALV  Zalesovo Beam   143.59  27 PKhKP               05 59 43.4
      comp=E,1.6nm,0.6s,baz=283,slow=5.2,SNR=8.7
ZALV                             PKP       PKPdf     05 59 47.6 -0.3
      comp=E,1.6nm,0.6s,baz=312,slow=3.3,SNR=8.8
MKAR  Makanchi Array  147.00  38 PKPbc     PKPbc     05 59 55.4 -0.8
MKAR                             pPKPbc    pPKPbc    06 00 24.3 +0.8
MKAR  Makanchi Array  147.00  38 PKPbc     PKPbc     05 59 55.4 -0.8
      comp=E,2.3nm,0.7s,baz=331,slow=0.7,SNR=28
MKAR                             pPKPbc    pPKPbc    06 00 24.3 +0.8
      comp=E,1.2nm,0.6s,baz=308,slow=2.5,SNR=5.2
```

IDC 06 06:08:48.9±18.0**, 6.01S**×**155.05E, h370km**±138km**, mb3.3**/5**, mb1 3.5**/5**, mb1mx3.3**/12**, mbtmp3.3**/5**, Error ellipse: s-maj=212.7km s-min=25.8km az=103.0, Bougainville - Solomon Islands region**

```
Code  Station Name       Δ°   AZ°   Phase ID            Time      Res
                                    Op        ISC       h  m  s   ISC
WRA   Warramunga Arr   24.43 234 P         P         06 13 35.7 -0.1
      1.1nm,0.4s,baz=65,slow=10,SNR=5.1
MJAR  Matsushiro Arr   45.17 341 P         P         06 16 30.0 -0.5
      1.7nm,0.6s,baz=172,slow=8.7,SNR=4.6
KSRS  Korea Array      50.10 332 P         P         06 17 08.1 +0.3
      1.4nm,0.4s,baz=151,slow=8.5,SNR=5.2
MKAR  Makanchi Array   82.70 319 P         P         06 20 32.3 +0.1
      1.2nm,0.7s,baz=103,slow=5.8,SNR=13
ZALV  Zalesovo Beam    83.40 326 P         P         06 20 34.4 -1.1
      0.6nm,0.4s,baz=125,slow=5.0,SNR=3.5
TORD  Torodi Ar. Bea  152.80 287 PKPbc     PKPbc     06 28 03.9 +0.2
      0.6nm,0.3s,baz=69,slow=1.6,SNR=19
```

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*ISCJB **06** 06:19:28.8±0.9, 39.38N±0.03×33.15E±0.04, h5km±7km, Error ellipse: s-maj=5.6km s-min=4.9km az=28.7*
*CSEM **06** 06:19:28.5±0.2, 39.40N×33.17E, h15km, MD3.1, Error ellipse: s-maj=3.9km s-min=3.3km az=1.0*
*ISK **06** 06:19:28.6, 39.47N×33.21E, h22km, MD3.1*
*DDA **06** 06:19:29.6, 39.36N×33.15E, h3km, Md2.9*
ISC 06 06:19:29.0±0.6**, 39.39N**±0.03×**33.14E**±0.04**, h6km**±6km**, n17,** $\sigma 0\overset{s}{.}94$/28**, Turkey**

```
Code  Station Name       Δ°   AZ°   Phase ID            Time      Res
                                    Op        ISC       h  m  s   ISC
KAMT  Kaman             0.45  92 i PG      Pg        06 19 37.7 +0.1
KAMT                             i SG      Sg        06 19 44.0 +0.6
KAMT  Kaman             0.45  92 i Pg      Pg        06 19 37.7 +0.1
KAMT                             i Sg      Sg        06 19 44.0 +0.6
ANTO  Ankara            0.55 331   PG      Pg        06 19 39.6  0.0
ANTO                               SG      Sg        06 19 47.2 +0.5
ANTO  Ankara            0.55 331 ePg       Pg        06 19 39.6  0.0
ANTO                             eSg       Sg        06 19 47.2 +0.5
CDAG  Cicekdag          0.98  76 i P       Pg        06 19 47.1 -0.7
CDAG                             i S       Sg        06 20 00.3 -0.3
KIZT  Kizilcal          1.10 243   PN      Pn        06 19 50.3 -0.6
KIZT  Kizilcal          1.10 243 ePn       Pn        06 19 50.3 -0.6
ELDT  Eldivan           1.12  11 i P       Pg        06 19 50.2 -0.3
ELDT                             i S       Sg        06 20 05.4 +0.2
KDHN  Kadinhani         1.18 223 i P       Pg        06 19 51.6  0.0
KDHN                             i S       Sg        06 20 06.7 -0.1
CORM  Corum             1.40  55   PN      Pn        06 19 52.0 -3.0
CORM  Corum             1.40  55 ePn       Pn        06 19 52.0 -3.0
SGKT  Sivrigoynuk       1.45 325 i P       Pn        06 19 56.4 +0.7
SGKT                             i S       Sn        06 20 14.9 -0.1
AVNT  Avonos            1.47 114 i P       Pn        06 19 56.8 +0.8
AVNT                             i S       Sn        06 20 18.0 +2.5
YOZ   Yozgat            1.71  81   PN      Pn        06 19 56.8 -2.5
YOZ   Yozgat            1.71  81 ePn       Pn        06 19 56.8 -2.5
BALT  Daday             2.15   5 i P       Pb        06 20 08.9 +0.5
BALT                             i S       Sb        06 20 35.3  0.0
BOYT  Boyabat           2.44  33 i P       Pb        06 20 13.9 +0.7
BOYT                             i S       Sn        06 20 35.5 -4.0
```

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*NEIC **06** 06:46:45.5, 18.19N×100.68W, h62km, MD3.8(MEX), After MEX.*
MEX 06 06:46:46.0±0.7**, 18.14N**×**100.67W, h64km**±16km**, MD3.8, 1D, Guerrero**

```
Code  Station Name       Δ°   AZ°   Phase ID            Time      Res
                                    Op        ISC       h  m  s   ISC
ZIIG  Zihuatanejo       0.92 235 eP        Pn        06 47 01.5 -1.7
ZIIG                             i S       Sn        06 47 14.4 -1.5
MEIG  Mezcala           1.02 102 i P       Pn        06 47 03.6 -0.8
MEIG                             i S       Sn        06 47 16.7 -1.5
PLIG  Platanillo        1.14  77 eP        Pn        06 47 04.9 -1.1
PLIG                             i S       Sn        06 47 18.5 -2.4
CAIG  El Cayaco         1.15 160 eP        Pn        06 47 04.8 -1.3
CAIG                             i S       Sn        06 47 18.9 -2.1
ACX   Acapulco          1.45 150 eP        Pn        06 47 05.8 -4.3
ACX   Acapulco          1.45 150 eP        Pn        06 47 06.5 -3.6
ACX                              i S       Sn        06 47 26.0 -2.3
PTVM  Pico Tres Padr    2.07  45 i P       Pn        06 47 14.6 -3.8
PTVM                             i S       Sn        06 47 40.0 -3.1
PTVM  Pico Tres Padr    2.07  45⇓iP       Pn        06 47 14.7 -3.8
PTVM                             i S       Sn        06 47 40.0 -3.1
IIO   Organos           2.34  52 i P       Pn        06 47 21.6 -0.6
IIO                              i S       Sn        06 47 48.4 -1.6
UTMO  Huajuapan         2.75  96 i P       Pn        06 47 27.7 +0.1
UTMO                             i S       Sn        06 47 57.6 -2.1
```

IDC 06 07:01:18.6±1.4**, 16.32S**×**173.20W, h0km, mb3.8**/5**, mb1 4.1**/6**, mb1mx4.0**/16**, mbtmp3.8**/6**, ML1.4**/1**, MS3.5**/5**, Ms1 3.5**/5**, ms1mx3.2**/23**, Error ellipse: s-maj=74.6km s-min=19.1km az=142.0, Tonga Islands**

```
Code  Station Name       Δ°   AZ°   Phase ID            Time      Res
                                    Op        ISC       h  m  s   ISC
AFI   Afiamalu          2.77  30 Pn        Pn        07 02 02.9 -1.2
      3.6nm,0.3s,baz=161,slow=14,SNR=4.7
AFI                              Sn        Sn        07 02 37.6 -0.7
      22nm,0.3s,baz=192,slow=23,SNR=9.7
AFI                              LR        LR        07 02 39.4
      comp=Z,414nm,19.8s,baz=272,slow=29
RAR   Rarotonga        13.61 113 LR        LR        07 08 22.3
      comp=Z,158nm,20.4s,baz=174,slow=31
DZM   Mont Dzumac      20.05 250 P         P         07 05 54.5 +1.1
      3.5nm,0.9s,baz=90,slow=17,SNR=3.9
URZ   Urewera          23.46 199 P         P         07 06 24.5 -5.3
      12nm,0.6s,baz=356,slow=8.0,SNR=6.6
HNR   Honiara          27.04 281 LR        LR        07 16 10.1
      comp=Z,134nm,20.2s,baz=0.7,slow=33
WRA   Warramunga Arr   49.83 257 P         P         07 10 12.6 -1.1
      1.2nm,0.5s,baz=96,slow=7.2,SNR=5.8
ASAR  Alice Springs    50.01 253 P         P         07 10 14.1 -1.0
      4.5nm,0.7s,baz=89,slow=8.6,SNR=38
KSRS  Korea Array      76.95 316 LR        LR        07 45 40.2
      comp=Z,16nm,18.1s,baz=120,slow=35
TXAR  Lajitas Array    80.97  56 P         P         07 13 34.5 -0.9
      0.4nm,0.9s,baz=232,slow=4.4,SNR=3.1
YKA   Yellowknife Ar   90.86  23 P         P         07 14 25.4 +1.8
      0.1nm,0.3s,baz=235,slow=4.7,SNR=4.1
ULM   Lac du Bonnet    94.53  39 LR        LR        07 53 10.5
      comp=Z,64nm,18.6s,baz=158,slow=33
KMBO  Kilima Mbogo    145.30 243 PKPbc     PKPbc     07 20 59.1 -0.1
      2.7nm,0.7s,baz=65,slow=4.6,SNR=9.2
BRTR  Keskin Array B  146.99 320 PKPbc     PKPbc     07 21 04.5 +1.0
      1.8nm,0.9s,baz=48,slow=2.1,SNR=7.1
GERES GERESS Array B  147.08 352 PKPab     PKPab     07 21 10.8 +5.9
      0.8nm,0.8s,baz=355,slow=5.9,SNR=2.7
```

IDC 06 07:19:43.9±1.6**, 13.17N**×**88.41W, h91km**±22km**, mb3.0**/4**, mb1 3.5**/7**, mb1mx3.4**/19**, mbtmp3.2**/7**, Error ellipse: s-maj=47.8km s-min=13.1km az=40.0, El Salvador**

```
Code  Station Name       Δ°   AZ°   Phase ID            Time      Res
                                    Op        ISC       h  m  s   ISC
JTS   JuntasAbangare    4.44 130 P         Pn        07 20 48.1 -0.8
      14nm,0.3s,baz=314,slow=12,SNR=13
JTS                              S         Sn        07 21 40.3 +0.9
      2.7nm,0.3s,baz=262,slow=23,SNR=5.7
TEIG  Tepich            7.01   1 P         Pn        07 21 25.5 +1.5
      1.6nm,0.3s,baz=150,slow=24,SNR=11
CMIG  Matias Romero     7.36 303 P         Pn        07 21 27.8 -0.9
      0.6nm,0.3s,baz=328,slow=2.5,SNR=13
CMIG                             S         Sn        07 22 50.2 -0.5
      0.4nm,0.3s,baz=164,slow=23,SNR=3.4
TXAR  Lajitas Array    21.43 321 P         P         07 24 25.0 +0.5
      0.9nm,0.6s,baz=145,slow=10,SNR=14
PDAR  Pinedale Array   34.70 332 P         P         07 26 24.7 -0.2
      0.3nm,0.7s,baz=110,slow=12,SNR=3.7
NVAR  Mina Array Bea   36.54 319 P         P         07 26 42.9 +2.2
      0.2nm,0.6s,baz=123,slow=6.6,SNR=2.7
YKA   Yellowknife Ar   52.67 345 P         P         07 28 47.1 -1.4
      0.2nm,0.4s,baz=138,slow=7.9,SNR=8.5
```

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*CASC **06** 07:23:44.2±3.4, 13.86N×92.32W, h57km±99km, MD4.4, ML3.7, mb4.3(NEIC)*
*ISCJB **06** 07:23:47.3±1.3, 13.94N±0.04×91.74W±0.04, h27km±10km, mb4.2/20, MS3.4/6, Error ellipse: s-maj=7.9km s-min=4.1km az=38.2*
*NEIC **06** 07:23:49.4±0.6, 13.90N×91.69W, h35km, mb4.3/15, Error ellipse: s-maj=13.6km s-min=7.4km az=32.0*
*MEX **06** 07:23:53.9±0.4, 14.25N×92.14W, h150km±20km, MD4.7*
*IDC **06** 07:23:54.0±3.0, 14.11N×91.27W, h82km±27km, mb3.8/10, mb1 4.0/14, mb1mx3.9/23, mbtmp3.9/14, MS3.4/10, Ms1 3.4/10, ms1mx3.2/25, Error ellipse: s-maj=29.3km s-min=10.7km az=61.0*
ISC 06 07:23:51.2±0.4**, 14.04N**±0.04×**91.65W**±0.04**, h39km**±4km**, n261,** $\sigma 0\overset{s}{.}81$/267**, mb4.2**/20**, MS3.4**/6**, 80C-66D, Guatemala**

```
Code  Station Name       Δ°   AZ°   Phase ID            Time      Res
                                    Op        ISC       h  m  s   ISC
JAT   Jato              0.28   3⇓eP       Pn        07 24 00.7 +1.6
FUG   Fuego 3           0.88  63⇑eP       Pn        07 24 08.0 +0.9
PCG   Pacaya            1.07  71⇓eP       Pn        07 24 10.9 +1.2
GCG   Guatemala City    1.21  63⇑eP       Pn        07 24 12.9 +1.3
RBDL  Robledal          1.91  88 eP        x         07 24 24.9
RBDL                             eS        x         07 24 53.3
RTR   El Retiro         1.95  94 eP        x         07 24 25.6
RTR                              eS        x         07 24 52.8
SBLS  San Blas          1.98  96 eP        x         07 24 25.4
SBLS                             eS        x         07 24 55.9
SNJE  San Jose          1.99  95 eP        x         07 24 25.7
SNJE                             eS        x         07 24 55.3
MTO2  Montecristo 2     2.25  81 eP        x         07 24 29.9
MTO2                             eS        x         07 25 02.2
CCIG  Comitan           2.28 348 i P       Pn        07 24 28.2 +1.9
CCIG                             i S       Sn        07 24 54.2 +1.1
BOQS  Boqueron          2.32  97 eP        x         07 24 30.4
BOQS                             eS        x         07 25 05.6
PICS  Picacho           2.34  97⇑eP       x         07 24 30.5
SNET  Serv Nac Est T    2.38  98 eP        x         07 24 26.9
LFU   La Fuente         2.48  96 eP        x         07 24 32.8
LFU                              eS        x         07 25 08.6
LFRS  El Faro           2.55  99 eP        x         07 24 33.1
LBRS  Las Brisas        2.55  96 eP        x         07 24 33.1
LBRS                             eS        x         07 25 08.7
LCBS  La Ceiba          2.62  98⇑eP       x         07 24 34.2
SNVI  San Vicente       2.76  99 eP        x         07 24 36.8
SNVI                             eS        x         07 25 16.6
SCX   San Cristobal     2.84 341 i P       Pn        07 24 31.8 -2.3
SCX                              i S       Sn        07 25 07.5 +0.4
VSM   San Miguel        3.34 100⇓eP       x         07 24 45.2
VSM                              eS        x         07 25 30.3
BLLM  Bellamira         3.37 100⇑eP       x         07 24 45.4
CNCH  Conchagua         3.79 101 eP        x         07 24 50.5
CNCH                             eS        x         07 25 40.9
TGUH  Tegucigalpa,Un    4.25  89 ePn       Pn        07 24 53.8 +0.4
CMIG  Matias Romero     4.35 315   P       Pn        07 24 51.6 -3.2
CMIG                               S       Sn        07 25 41.9 -2.4
CMIG                             i S       Sn        07 25 45.5 +1.3
CMIG                               LR      LR        07 27 07.1
CMIG  Matias Romero     4.35 315   P       Pn        07 24 51.6 -3.2
      10nm,0.3s,baz=146,slow=12,SNR=164
CMIG                               S       Sn        07 25 41.9 -2.4
      60nm,0.3s,baz=138,slow=7.8,SNR=5.9
CMIG                               LR      LR        07 27 07.1
      comp=Z,922nm,18.5s,baz=130,slow=42
CMIG  Matias Romero     4.35 315 i P       Pn        07 24 51.6 -3.2
CMIG                             i S       Sn        07 25 36.5 -7.7
HUIG  Huatulco          4.64 292 eP        Pn        07 24 54.3 -4.5
HUIG                             i S       Sn        07 25 44.9 -6.6
HUIG  Huatulco          4.64 292 eP        Pn        07 24 54.3 -4.5
HUIG                             i S       Sn        07 25 42.3 -9.2
TEL3  Telica 3          4.90 107⇑eP       Pn        07 25 02.1 -0.2
TEL3                             eS        Sn        07 26 07.9  +10
TELN  Telica            4.90 106 eP        Pn        07 25 03.0 +0.6
TELN                             eS        Sn        07 26 06.7 +8.8
SCIG  Sabancuy          4.92   5 eP        Pn        07 25 02.8 +0.2
SCIG                             i S       Sn        07 25 57.0 -1.4
MOMJ  Momotombo         5.23 107 eP        Pn        07 25 07.3 +0.3
COPN  Copaltepe         5.26 110⇓eP       Pn        07 25 06.5 -0.8
MGAN  Managua           5.59 109 eP        Pn        07 25 12.3 +0.4
MGAN                             eS        Sn        07 26 24.0 +9.1
TICN  Ticuantepe        5.64 110 eP        Pn        07 25 11.9 -0.7
TICN                             eS        Sn        07 26 24.0 +7.8
OXX   Oaxaca            5.75 302 i P       Pn        07 25 08.5 -5.5
OXX                              i S       Sn        07 26 15.7 -3.1
TEIG  Tepich            6.95  27 ePn       Pn        07 25 32.2 +1.8
      89nm,0.4s
TEIG                             eP                  07 25 32.7
TEIG                             i S       Sn        07 26 46.8 -1.4
TEIG                             eSn       Sn        07 26 54.5 +6.3
TEIG  Tepich            6.95  27   P       Pn        07 25 31.2 +0.8
      19nm,0.3s,baz=22,slow=1.4,SNR=102
TEIG                               S       Sn        07 26 46.4 -1.8
      baz=173,slow=22,SNR=1.4
TEIG  Tepich            6.95  27 eP        Pn        07 25 32.7 +2.3
TEIG                             eS        Sn        07 26 50.8 +2.6
TPIG  Tehuac#an         7.00 309 eP        Pn        07 25 26.0 -5.2
TPIG                             i S       Sn        07 26 37.2  -12
UTMO  Huajuapan         7.02 303 eP        Pn        07 25 30.2 -1.2
UTMO                             i S       Sn        07 26 43.2 -6.7
VCR   Vista de Mar      7.05 123 eP        Pn        07 25 30.8 -1.2
JTS   JuntasAbangare    7.53 119 ePn       Pn        07 25 36.9 -1.6
      46nm,0.9s
JTS                              eSn       Sn        07 26 59.2 -3.6
JTS   JuntasAbangare    7.53 119   P       Pn        07 25 37.0 -1.6
      3.5nm,0.3s,baz=318,slow=19,SNR=11
JTS                                S       Sn        07 26 57.0 -5.8
      baz=277,slow=18,SNR=1.0
JTS                                LR      LR        07 28 38.6
      comp=Z,300nm,19.8s,baz=302,slow=39
JCR   Jicaral           7.63 122 eP        Pn        07 25 39.3 -0.6
PRS1  Puriscal          8.23 119 eP        Pn        07 25 48.4 +0.3
LAJ   Bijagual          8.46 119 eP        Pn        07 25 47.5 -3.8
MEIG  Mezcala           8.58 298 i P       Pn        07 25 52.3 -0.7
MEIG                             i S       Sn        07 27 21.3 -7.2
LCR2  La Lucha 2        8.62 119⇓eP       Pn        07 25 54.5 +1.0
QCR   Quepos            8.65 121 eP        Pn        07 25 53.7 -0.1
PLIG  Platanillo        8.69 301 i P       Pn        07 25 53.9 -0.6
PLIG                             i S       Sn        07 27 40.6 +9.4
PLIG  Platanillo        8.69 301 i P       Pn        07 25 53.9 -0.6
PLIG                             i S       Sn        07 27 17.3  -14
IIO   Organos           8.73 310 i P       Pn        07 25 57.4 +2.4
URSC  Urasca            8.76 118 eP        Pn        07 25 56.2 +0.8
CAIG  El Cayaco         8.83 291 i P       Pn        07 25 53.7 -2.6
PTVM  Pico Tres Padr    9.03 309 i P       Pn        07 25 55.2 -3.9
SZVM  Salazar           9.08 306 eP        Pn        07 25 53.7 -6.0
SZVM                             i S       Sn        07 27 28.4  -12
BAR1                    9.46 119⇑eP       Pn        07 26 05.7 +0.7
MOIG  Morelia          10.71 303 i P       Pn        07 26 23.6 +1.5
JCT   Junction City    18.00 337 ePn       Pn        07 27 58.3 -0.1
LTX   Lajitas          18.85 326 eP        Pn        07 28 09.1 +0.3
      26nm,0.8s
TXAR  Lajitas Array    18.85 326   P       Pn        07 28 08.9 +0.1
      0.5nm,0.3s,baz=153,slow=11,SNR=44
TXAR                               LR      LR        07 35 59.8
      comp=Z,33nm,19.1s,baz=0.0,slow=38
ROSC  El Rosal         19.35 116 eP        Pn        07 28 13.0 -1.9
ROSC  El Rosal         19.35 116   P       Pn        07 28 11.9 -3.1
      0.5nm,0.3s,baz=138,slow=5.0,SNR=8.2
ROSC                               LR      LR        07 36 38.3
      comp=Z,81nm,18.9s,baz=2.5,slow=40
LRAL  Lakeview Retre   19.38  12 eP        Pn        07 28 14.5 -0.6
      4.3nm,0.5s
OXF   Oxford           20.48   5 eP        P         07 28 24.7 -1.0
      35nm,1.0s
MIAR  Mount Ida        20.49 355 eP        P         07 28 24.8 -1.0
      11nm,1.0s
GOGA  Godfrey          20.67  20 eP        P         07 28 28.1 +0.4
WMOK  Wichita Mounta   21.59 344 eP        P         07 28 36.2 -1.5
      3.8nm,0.3s,mb4.3
MNTX  Cornudas Mount   21.62 327 eP        P         07 28 37.6 -0.4
      10nm,0.8s,mb4.3
AMTX  Amarillo         22.64 338 eP        P         07 28 47.2 -1.7
      15nm,0.5s,mb4.7
TKL   Tuckaleechee C   22.66  17   P       P         07 28 48.0 -1.0
      2.9nm,0.8s,mb3.8,baz=196,slow=9.7,SNR=3.6
TKL                                LR      LR        07 38 03.1
      comp=Z,85nm,19.2s,MS3.2,baz=258,slow=38
BNM   Barren Site      24.19 328 eP        P         07 29 04.5 +0.5
Y22C  IRIS PASSCAL I   24.28 328 ⇓P        P         07 29 05.5 +0.7
      baz=24
LPM   Los Pinos Moun   24.32 329 eP        P         07 29 05.5 +0.3
LENM  Lemitar          24.38 328 eP        P         07 29 05.0 -0.7
WCI   Wyandotte Cave   24.56  10 eP        P         07 29 05.8 -1.5
      8.8nm,0.8s,mb4.3
LAZ   Ladron           24.64 328 eP        P         07 29 08.6 +0.4
ATAH  Atahualpa        24.70 147   P       P         07 29 09.2 +0.4
      11nm,0.8s,mb4.5,baz=12,slow=3.4,SNR=6.5
ATAH                               LR      LR        07 37 24.6
      comp=Z,134nm,20.4s,MS3.4,baz=119,slow=33
ANMO  Albuquerque      24.74 330 eP        P         07 29 09.2 +0.1
      2.9nm,0.6s,mb4.0
ANMO  Albuquerque      24.74 330   P       P         07 29 09.2 +0.2
      3.1nm,0.6s,mb4.0,baz=152,slow=11,SNR=21
TUC   Tucson           25.22 319 eP        P         07 29 13.8 +0.4
      3.1nm,0.8s,mb3.9
116A  Eloy             25.98 319 ⇑P        P         07 29 20.0 -0.3
      baz=26
115A  Sonoran Desert   26.40 318 ⇑P        P         07 29 23.5 -0.6
      baz=26
PCRV  Puerto La Cruz   26.68  95   LR      LR        07 38 47.9
      comp=Z,58nm,19.9s,MS3.1,baz=117,slow=34
Z14A  Wintersburg      27.29 318 ⇑P        P         07 29 31.9 -0.2
      baz=27
MVCO  Mesa Verde       27.53 330 ⇓P        P         07 29 34.4 +0.1
      baz=28
X15A  Humboldt         27.58 321 ⇑P        P         07 29 35.1 +0.4
      baz=28
Y14A  Wickenburg       27.70 319 ⇑P        P         07 29 35.7  0.0
      baz=28
WUAZ  Wupatki          27.79 324 eP        P         07 29 36.5 -0.1
      6.0nm,1.1s,mb4.1
WUAZ  Wupatki          27.79 324 ⇑P        P         07 29 36.7 +0.2
      baz=28
X14A  Yava             27.97 320 ⇓P        P         07 29 38.3 +0.1
      baz=28
W15A  Williams         28.07 322 ⇓P        P         07 29 39.2 +0.1
      baz=28
Y13A  Salome           28.14 318 ⇓P        P         07 29 39.6 -0.1
      baz=28
Y12C  Blythe           28.56 317 ⇓P        P         07 29 42.9 -0.5
      baz=29
W14A  Seligman         28.59 321 ⇓P        P         07 29 44.0 +0.3
      baz=29
X13A  Yucca            28.64 319 ⇓P        P         07 29 43.8 -0.4
      baz=29
PDMCI Parker Dam,Lak   28.65 319 ⇑P        P         07 29 44.0 -0.3
      baz=29
SWSC  Sam W. Stewart   28.94 315 ⇑P        P         07 29 46.9 +0.1
      baz=29
W13A  Hualapai Mount   29.00 320 ⇓P        P         07 29 47.9 +0.5
      baz=29
BC3   Big Chuckw Mtn   29.12 316   P       P         07 29 48.9 +0.5
      baz=29,SNR=5.6
IRM   Iron Mountain    29.22 317 ⇓P        P         07 29 49.0 -0.3
      baz=29
BELC  Belle Mtn.       29.69 316 ⇓P        P         07 29 53.4 -0.1
      baz=30
W12A  Cal Nev Ari      29.75 319 ⇑P        P         07 29 54.2 +0.2
      baz=30
PFO   Pinyon Flat Ob   29.77 315   LR      LR        07 42 19.9
      comp=Z,119nm,21.1s,MS3.5,baz=312,slow=37
PFO   Pinyon Flat Ob   29.77 315 ⇑P        P         07 29 54.7 +0.5
      baz=30
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T14A	Hurricane baz=30,SNR=5.6	29.85	324	⇓P	P	07 29 55.0	+0.2
GMRC	Granite Mounta baz=30	29.93	318	⇓P	P	07 29 55.7	+0.1
V12A	Nelson baz=30,SNR=12	30.01	320	P	P	07 29 56.5	+0.2
U12A	Valley of Fire baz=30	30.28	322	⇑P	P	07 29 59.1	+0.4
T13A	Saint George baz=30	30.30	323	⇓P	P	07 29 59.1	+0.3
S14A	Cedar City baz=30	30.39	325	⇑P	P	07 30 00.1	+0.5
V11A	Goodsprings baz=30	30.44	320	⇓P	P	07 30 00.2	+0.1
ARUT	Antelope Range	30.56	325	*e*P	P	07 30 02.6	+1.4
GSC	Goldstone baz=31	30.99	318	⇓P	P	07 30 05.1	+0.1
SHOC	Shoshone baz=31	31.02	319	⇑P	P	07 30 05.3	+0.1
U10A	Ash Meadows, A baz=31	31.37	320	⇑P	P	07 30 09.2	+0.9
R12A	Pony Springs, baz=32	31.60	324	⇓P	P	07 30 10.9	+0.6
FURC	Furnace Creek, baz=32	31.74	319	⇑P	P	07 30 11.9	+0.4
S11A	Rachel baz=32	31.80	322	⇓P	P	07 30 12.7	+0.6
MPMC	Manual Prospec baz=32,SNR=5.1	31.89	318	P	P	07 30 13.1	+0.2
DAC	Darwin (Calif) 3.7nm,1.1s,mb4.1	32.09	318	*e*P	P	07 30 14.6	0.0
GRAC	Grapevine Rang baz=32,SNR=5.1	32.39	320	⇓P	P	07 30 17.7	+0.5
HWUT	Hardware Ranch 1.4nm,0.6s,mb4.0	32.46	332	*e*P	P	07 30 17.7	-0.1
S10A	Tonopah Range, baz=33,SNR=7.2	32.49	322	⇑P	P	07 30 18.8	+0.6
PDAR	Pinedale Array 0.5nm,0.7s,mb3.6,baz=126,slow=11,SNR=8.1	32.52	335	P	P	07 30 17.1	-1.3
Q11A	Duckwater baz=33	32.55	324	⇓P	P	07 30 19.6	+1.0
P12A	McGill baz=33	32.56	325	⇑P	P	07 30 19.1	+0.3
S09A	Goldfield baz=33,SNR=5.4	32.75	321	P	P	07 30 21.0	+0.6
VES	Vestal, Richgr baz=33	32.81	316	⇑P	P	07 30 22.1	+1.1
R09A	Tonopah baz=33,SNR=5.7	32.98	322	P	P	07 30 23.3	+0.9
O12A	Currie baz=33,SNR=7.6	33.04	327	⇓P	P	07 30 23.4	+0.5
RCTC	Rector, Farmer baz=33	33.19	317	⇓P	P	07 30 24.7	+0.5
S08C	White Mtn Res baz=33	33.20	320	⇓P	P	07 30 24.9	+0.6
HELL	Mitchell Peak, baz=33,SNR=5.6	33.26	318	P	P	07 30 25.3	+0.4
O11A	Cowboy Ranch, baz=34	33.44	326	⇑P	P	07 30 27.0	+0.6
P10A	Eureka baz=34	33.54	324	⇑P	P	07 30 27.7	+0.4
REDW	Red Top Meadow 7.9nm,0.8s,mb4.7	33.55	334	*e*P	P	07 30 26.7	-0.6
N12A	Clover Valley, baz=34	33.61	327	⇓P	P	07 30 28.3	+0.4
R08A	Mina baz=34	33.68	321	⇑P	P	07 30 29.2	+0.7
TPAW	Teton Pass 2.4nm,0.5s,mb4.4	33.70	334	*e*P	P	07 30 28.1	-0.5
KCC	Kaiser Creek baz=34	33.83	318	⇑P	P	07 30 30.6	+0.8
NVAR	Mina Array Bea	33.85	321	P	P	07 30 31.0	+1.0
NVAR				PcP	PcP	07 33 07.6	-0.7
NVAR	Mina Array Bea 4.9nm,0.7s,mb4.5,baz=128,slow=9.6,SNR=41	33.85	321	P	P	07 30 31.0	+1.0
NVAR	0.5nm,0.7s,baz=148,slow=3.7,SNR=3.5			PcP	PcP	07 33 07.6	-0.7
Q08A	Gabbs baz=34	33.90	322	⇑P	P	07 30 30.9	+0.5
K14A	Jones Ranch, D baz=34,SNR=7.4	33.94	331	P	P	07 30 30.7	0.0
M12A	Wells baz=34,SNR=5.1	33.96	328	P	P	07 30 31.5	+0.7
N11A	Elko Archery C baz=34	33.96	326	⇓P	P	07 30 31.4	+0.5
L13A	Double Diamond baz=34	33.97	330	⇑P	P	07 30 31.1	+0.2
R07C	Lee Vining baz=34	34.11	320	⇓P	P	07 30 33.1	+0.8
O09A	Fish Creek Ran baz=34	34.32	324	⇓P	P	07 30 34.4	+0.4
M11A	Holland Ranch, baz=34	34.42	327	⇑P	P	07 30 35.5	+0.6
S06C	San Francisco baz=35	34.49	319	⇓P	P	07 30 36.3	+0.8
L12A	House Creek Ra baz=35	34.54	329	⇓P	P	07 30 36.1	+0.2
R06C	Coleville baz=35	34.62	320	⇓P	P	07 30 37.5	+0.8
K12A	Draper Farm, C baz=35	34.85	329	⇓P	P	07 30 38.5	-0.1
M10A	I.L. Ranch, Tu baz=35	34.89	326	⇓P	P	07 30 39.7	+0.8
CMB	Columbia Colle baz=35	34.93	318	⇑P	P	07 30 39.4	0.0
L11A	Cat Creek Ranc baz=35	34.93	328	⇑P	P	07 30 39.5	+0.3
N09A	Rock Creek Ran baz=35	34.97	325	⇓P	P	07 30 40.2	+0.6
J13A	Cove Ranch, Pi baz=35	35.07	331	⇓P	P	07 30 40.3	-0.2
R05C	Kirkwood Meado baz=35	35.12	320	⇑P	P	07 30 42.0	+1.0
L10A	Juniper Basin baz=35	35.24	327	⇑P	P	07 30 42.0	0.0
WCN	Washoe City baz=35	35.28	321	⇑P	P	07 30 43.3	+0.9
HLID	Hailey baz=35	35.30	331	⇓P	P	07 30 42.3	-0.2
I13A	Wildhorse Cree baz=36,SNR=7.5	35.44	332	P	P	07 30 44.0	+0.4
G15A	Dillon baz=36	35.70	334	⇓P	P	07 30 45.9	0.0
N07B	Gerlach baz=36	35.74	323	⇑P	P	07 30 47.4	+1.1
O06A	Flanigan baz=36,SNR=5.6	35.86	322	P	P	07 30 47.9	+0.6
BEKR	Beckwourth baz=36,SNR=6.0	36.00	321	P	P	07 30 49.3	+0.9
H13A	Challis baz=36,SNR=13	36.00	332	P	P	07 30 48.8	+0.4
N06A	Buffalo Meadow baz=36	36.23	323	⇓P	P	07 30 51.3	+0.9
F15A	Butte baz=36	36.25	335	⇓P	P	07 30 50.5	-0.1
H12A	Diamond D Ranc baz=36,SNR=8.3	36.26	332	P	P	07 30 50.9	+0.3
I11A	Placerville baz=36,SNR=22	36.31	330	P	P	07 30 51.3	+0.2
L08A	Fields baz=36	36.32	326	⇑P	P	07 30 51.9	+0.7
K09A	Rome baz=36,SNR=11	36.34	327	P	P	07 30 52.0	+0.6
G13A	Cobalt baz=36	36.40	333	⇑P	P	07 30 51.7	-0.2
ELFS	Eagle Lake Fie baz=37	36.68	322	⇓P	P	07 30 55.5	+1.2
O04C	Chester baz=37	36.72	321	⇓P	P	07 30 55.5	+0.9
L07A	Adell baz=37	36.76	325	⇓P	P	07 30 55.4	+0.4
K08A	Mann Creek Ran baz=37,SNR=6.5	36.77	326	⇑P	P	07 30 56.4	+1.4
E15A	Deer Lodge baz=37	36.79	336	⇓P	P	07 30 54.9	-0.2
J09A	Fry Pan Ranch, baz=37,SNR=5.3	36.81	328	P	P	07 30 56.5	+1.1
I10A	Payette baz=37	36.85	329	⇑P	P	07 30 56.1	+0.4
M06C	Likely Place G baz=37	36.89	323	⇓P	P	07 30 56.5	+0.4
H11A	Donnelly baz=37,SNR=6.9	36.92	331	P	P	07 30 56.2	-0.1
F13A	Darby baz=37,SNR=5.2	36.99	333	P	P	07 30 56.2	-0.6
EGMT	Eagleton baz=37	37.07	340	⇑P	P	07 30 56.6	-0.8
E14A	Clinton baz=37	37.13	335	⇑P	P	07 30 57.5	-0.5
K07A	Rock Creek Ran baz=37	37.16	326	⇑P	P	07 30 58.6	+0.3
H10A	Noah’s Angus R baz=37	37.19	330	⇑P	P	07 30 58.0	-0.6
J08A	Circle Bar Ran baz=37	37.19	327	⇑P	P	07 30 59.0	+0.4
MOD	Modoc baz=37	37.23	324	⇑P	P	07 30 59.1	+0.1
I09A	Lost Marbles R baz=37,SNR=9.0	37.24	328	P	P	07 30 59.1	+0.1
D15A	Lincoln baz=37	37.24	336	⇑P	P	07 30 58.3	-0.6
GASB	Alder Springs baz=37	37.34	319	⇑P	P	07 31 01.1	+1.1
F12A	Elk City baz=38,SNR=14	37.37	332	P	P	07 30 59.8	-0.3
M05C	Lookout baz=38	37.38	322	⇓P	P	07 31 00.6	+0.3
E13A	Victor baz=38,SNR=6.3	37.44	334	P	P	07 30 59.9	-0.7
G11A	Walters Elk Ra baz=38	37.56	331	⇑P	P	07 31 01.5	-0.2
I08A	Drewsey baz=38	37.62	328	⇑P	P	07 31 02.4	+0.1
P01C	Double 8 Ranch baz=38	37.64	318	⇑P	P	07 31 03.5	+1.0
J07A	Hines baz=38	37.65	326	⇑P	P	07 31 02.7	+0.2
D14A	Greenough baz=38	37.67	335	⇓P	P	07 31 01.4	-1.1
H09A	Durkee baz=38	37.70	329	⇓P	P	07 31 02.9	0.0
M03C	McCloud baz=38	37.92	322	⇑P	P	07 31 05.2	+0.4
J06A	Christmas Vall baz=38	38.02	326	⇑P	P	07 31 05.3	-0.3
LPAZ	La Paz 1.2nm,0.7s,mb3.8,baz=318,slow=8.0,SNR=6.7	38.05	142	P	P	07 31 03.0	-3.1
LPAZ	comp=Z,68nm,18.3s,MS3.5,baz=299,slow=36			LR	LR	07 46 17.0	
D13A	Huson baz=38	38.07	335	⇑P	P	07 31 05.1	-0.8
H08A	Prairie City baz=38	38.10	328	⇑P	P	07 31 06.8	+0.5
I07A	Izee baz=38	38.23	327	⇑P	P	07 31 07.3	0.0
E11A	Bogner Ranch, baz=38,SNR=6.1	38.26	332	P	P	07 31 06.3	-1.2
F10A	Beach Ranch, E baz=38,SNR=8.4	38.44	331	P	P	07 31 08.6	-0.5
I06A	Prineville baz=39	38.52	326	⇓P	P	07 31 09.8	0.0
F09A	S2 Ranch, Elgi baz=39	38.57	330	⇓P	P	07 31 09.9	-0.3
C13A	Hot Springs baz=39	38.58	335	⇓P	P	07 31 09.4	-0.8
D11A	Klaveano Farm, baz=39	38.84	333	⇑P	P	07 31 11.4	-1.1
F08A	Pendleton baz=39	39.05	330	⇓P	P	07 31 13.3	-1.0
B13A	Whitefish baz=39	39.09	336	⇑P	P	07 31 13.5	-1.0
H06A	Lindquist Farm baz=39	39.11	327	⇑P	P	07 31 14.3	-0.4
G07A	Ruggs Ranch, H baz=39	39.13	328	⇑P	P	07 31 14.2	-0.7
HUMO	Hull Mountain baz=39	39.22	323	⇑P	P	07 31 14.9	-0.8
D10A	Wagner Farm, O baz=39	39.27	332	⇓P	P	07 31 14.4	-1.6
E09A	Wood Farm, Sta baz=39	39.27	331	⇑P	P	07 31 15.1	-0.9
B12A	Libby baz=40	39.62	335	⇑P	P	07 31 18.6	-0.3
D09A	Jones Farm, Ri baz=40	39.74	331	⇑P	P	07 31 19.2	-0.7
C10A	Spilker Farm, baz=40	39.85	333	⇓P	P	07 31 20.2	-0.7
B11A	Sandpoint baz=40	39.92	334	⇑P	P	07 31 20.5	-0.9
A12A	Yaak River Ran baz=40	40.02	335	⇑P	P	07 31 21.6	-0.6
D08A	Wollman Farm, baz=40	40.03	331	⇑P	P	07 31 21.4	-1.0
F06A	Goldendale baz=40	40.04	328	⇓P	P	07 31 22.4	0.0
H04A	Detroit Lake baz=40	40.07	326	⇓P	P	07 31 22.3	-0.4
E07A	Sunnyside baz=40	40.12	330	⇑P	P	07 31 22.0	-1.1
C09A	Chrisman Ranch baz=40	40.27	332	⇑P	P	07 31 23.9	-0.4
A11A	Hall Mountain, baz=40,SNR=5.8	40.32	335	P	P	07 31 24.8	0.0
F05A	White Salmon baz=41	40.47	328	⇑P	P	07 31 25.9	-0.1
C08A	Higginbotham F baz=41	40.62	332	⇑P	P	07 31 26.9	-0.3
D07A	Quincy baz=41	40.63	330	⇑P	P	07 31 26.5	-0.8
E06A	Yakima baz=41	40.67	329	⇓P	P	07 31 28.0	+0.3
H03A	Soap Creek Ran baz=41	40.68	325	⇓P	P	07 31 27.7	-0.1
B09A	Rice baz=41,SNR=5.1	40.68	333	P	P	07 31 27.1	-0.6
A10A	Northport baz=41	40.84	334	⇓P	P	07 31 28.1	-1.0
C07A	Waterville baz=41	41.02	331	⇓P	P	07 31 30.4	-0.1
B08A	Colville Reser baz=41	41.16	332	⇓P	P	07 31 30.9	-0.8
A09A	Danville baz=41,SNR=5.8	41.28	333	P	P	07 31 32.1	-0.6
A08A	Turner Farm, O baz=42	41.57	333	⇓P	P	07 31 34.7	-0.3
C06A	Tall Timber Ra baz=42	41.59	330	⇑P	P	07 31 34.7	-0.4
E04A	Onalaska baz=42	41.60	328	⇑P	P	07 31 36.4	+1.1
C05A	Tolt Reservoir baz=42	41.81	330	⇓P	P	07 31 36.2	-0.9
A07A	Ashnola River, baz=42	42.15	332	⇑P	P	07 31 39.7	0.0
B06A	Marblemount baz=42	42.28	331	⇑P	P	07 31 40.3	-0.6
C04A	Brinnon baz=43	42.47	329	⇑P	P	07 31 41.7	-0.7
SIV	San Ignacio 1.1nm,0.7s,mb3.6,baz=313,slow=6.6,SNR=7.0	42.47	134	P	P	07 31 39.3	-3.5
SCHQ	Schefferville 4.4nm,1.0s,mb4.3,baz=171,slow=10,SNR=5.0	45.07	20	P	P	07 31 59.3	-3.8
YKA	Yellowknife Ar	51.06	347	P	P	07 32 47.2	-2.2
YKA				PcP	PcP	07 34 02.8	-2.0
YKA				LR	LR	07 57 16.0	
YKA	Yellowknife Ar 1.1nm,0.5s,mb4.1,baz=152,slow=7.5,SNR=30	51.06	347	P	P	07 32 47.2	-2.2
YKA	1.0nm,0.7s,baz=147,slow=3.6,SNR=12			PcP	PcP	07 34 02.8	-2.0
YKA	comp=Z,46nm,19.9s,MS3.5,baz=175,slow=39			LR	LR	07 57 16.0	
DLBC	Dease Lake	52.76	336	*e*P	P	07 33 02.7	+0.6
ARCES	ARCESS Array B 2.1nm,0.9s,mb4.4,baz=284,slow=3.6,SNR=3.0	85.99	18	P	P	07 36 23.0	-4.2
MKAR	Makanchi Array 0.2nm,0.7s,baz=322,slow=4.4,SNR=2.8	119.20	5	PKP	PKPdf	07 42 34.9	-1.4
COCO	West Island	171.53	282	*e*PKPdf	PKPdf	07 43 56.3	-0.3

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*ISCJB **06** 08:10:59.8±1.3, 19.47N±0.05×78.23W±0.07, h9^{km}±9^{km}, Error ellipse: s-maj=11.0km s-min=6.7km az=24.3*

*JSN **06** 08:11:02.2±0.5, 19.45N×78.17W, h5^{km}±4^{km}, MD4.5*

*SSNC **06** 08:11:09.9, 20.03N×77.92W, h0^{km}, MD3.5, ML2.3*

ISC 06 08:11:00.2±1.2**, 19.44N**±0.04×**78.25W**±0.07**, h8**^{km}±6^{km}**, n11, σ0^{s}71**/18**, 8C, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MBJ	Montego Bay	1.09	160	⇑*e*P	Pg	08 11 21.2	+0.1
MBJ				*e*S	Sg	08 11 35.5	+0.1
LMGC	Las Mercedes	1.33	62	*e*PG	Pg	08 11 25.8	+0.2
LMGC				*e*SG	Sg	08 11 42.2	-0.7
	comp=N,221nm,0.1s						
LMGC				*e*			
	comp=E,330nm,0.2s						
CVJ	Coleyville	1.38	151	⇑*e*P	Pn	08 11 25.7	-0.1
BBJ	Bamboo Saint A	1.40	138	⇑*e*P	Pn	08 11 26.2	+0.2
MCJ	Malvern	1.60	160	⇑*e*P	Pn	08 11 29.1	+0.3
MCJ				*e*S	Sn	08 11 49.6	0.0
BNJ	Bonny Gate	1.66	132	⇑*e*P	Pn	08 11 29.6	0.0
STH	Stony Hill	1.92	135	⇑*e*P	Pn	08 11 33.1	-0.1
STH				*e*S	Sn	08 11 56.7	-0.9
PCJ	Portland Cotta	1.98	148	⇑*e*P	Pn	08 11 34.8	+0.8
PCJ				⇑*e*S	Sn	08 11 58.5	-0.5
RCC	Rio Carpintero	2.47	77	*e*P	Pn	08 11 41.2	+0.5
RCC				*e*S	Sn	08 12 10.2	-0.9
	comp=N,33nm,0.3s						
RCC				*e*			
	comp=E,46nm,0.3s						
MGV	Manicaragua	3.11	329	*e*P	Pn	08 11 49.0	-0.6
MASC	Masc	3.85	78	*e*P	Pn	08 12 04.0	+4.2
MASC				*e*S	Sn	08 12 47.7	+2.4
	comp=N,1.2nm,0.3s						
MASC				*e*			
	comp=E,1.1nm,0.4s						

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*CSEM **06** 08:17:43.9±0.1, 38.59N×40.66E, h12^{km}, MD2.9, Error ellipse: s-maj=3.4km s-min=2.1km az=32.0*

*ISCJB **06** 08:17:44.2±0.7, 38.60N±0.05×40.74E±0.05, h8^{km}±8^{km}, Error ellipse: s-maj=9.7km s-min=4.9km az=31.9*

*ISK **06** 08:17:44.2, 38.58N×40.65E, h12^{km}, MD2.9*

*DDA **06** 08:18:45.4, 38.53N×40.74E, h6^{km}, Md2.9*

ISC 06 08:17:44.5±0.6**, 38.58N**±0.05×**40.69E**±0.06**, h8**^{km}±7^{km}**, n18, σ0^{s}66**/24**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BINT	Bingol	0.34	333	PG	Pg	08 17 51.1	0.0
BINT				SG	Sg	08 17 56.5	+0.9
BINT	Bingol	0.34	333	*e*Pg	Pg	08 17 51.1	0.0
BINT				*e*Sg	Sg	08 17 56.5	+0.9
BTMT	Batman	0.74	121	PG	Pg	08 17 57.6	-1.1
BTMT				SG	Sg	08 18 08.4	+0.1
BEST	Besiri	0.82	146	*i* P	Pg	08 17 59.8	-0.6
BEST				*i* S	Sg	08 18 12.1	+1.1
PTK	Pertek	1.06	288	PG	Pg	08 18 04.2	-0.7
PTK	Pertek	1.06	288	*e*Pg	Pg	08 18 04.2	-0.7
MARD	Mardin	1.26	177	*i* P	Pn	08 18 07.5	-1.0
MARD				*i* S	Sb	08 18 25.9	+0.9
ELZG	Elazig	1.34	267	*i* P	Pn	08 18 10.1	+0.6
ELZG				*i* S	Sg	08 18 32.3	+4.8
SIRT	Sirnak	1.75	127	*e*PN	Pn	08 18 15.0	-0.2
SIRT	Sirnak	1.75	127	*e*Pn	Pn	08 18 15.0	-0.2
MALT	Malatya	1.79	262	*e*PN	Pn	08 18 15.5	-0.3
MALT	Malatya	1.79	262	*e*Pn	Pn	08 18 15.5	-0.3
MYA	Malataya	1.79	263	*e*PN	Pn	08 18 15.4	-0.4
MYA	Malataya	1.79	263	*e*Pn	Pn	08 18 15.4	-0.4
URFA	Urfa	1.86	233	*e*PN	Pn	08 18 16.7	+0.1
URFA	Urfa	1.86	233	*e*Pn	Pn	08 18 16.7	+0.1
AGRB	Hanur-Agry	2.06	60	*e*PN	Pn	08 18 19.8	+0.4
AGRB	Hanur-Agry	2.06	60	*e*Pn	Pn	08 18 19.8	+0.4

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*CSEM **06** 08:34:06.3, 37.91N×20.25E, h8^{km}, MD4.2, After ATH*

*NEIC **06** 08:34:06.3, 37.91N×20.25E, h8^{km}, MD4.2(ATH), After ATH.*

ATH 06 08:34:06.3, 37.91N×20.25E, h8^{km}, MD3.5/5**, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLS	Valsamata	0.38	45	*e*Pb	Pg	08 34 14.0	+0.3
VLS				*e*Sb	Sg	08 34 32.7	+14
VLS	Valsamata	0.38	45	*e*PB	Pg	08 34 14.0	+0.3
VLS				*e*SB	Sg	08 34 19.2	+0.5
VLS	Valsamata	0.38	45	*e*Pb	Pg	08 34 14.0	+0.3
VLS				*e*Sb	Sg	08 34 32.7	+14
RLS	Riolos of Patr	0.97	81	*e*Pn	Pn	08 34 25.2	-1.0
RLS	Riolos of Patr	0.97	81	*e*PN	Pn	08 34 25.2	-1.0
RLS	Riolos of Patr	0.97	81	*e*Pn	Pn	08 34 25.2	-1.0
ITM	Ithomi	1.52	118	*e*Pg	Pg	08 34 34.6	-0.8
ITM	Ithomi	1.52	118	*e*PG	Pg	08 34 34.6	-0.8
ITM	Ithomi	1.52	118	*e*Pg	Pg	08 34 34.6	-0.8
EVR	Evrytania	1.58	50	*e*Pb	Pb	08 34 36.4	+0.6
EVR	Evrytania	1.58	50	*e*PB	Pb	08 34 36.4	+0.6
EVR	Evrytania	1.58	50	*e*Pb	Pb	08 34 36.4	+0.6
KEK	Kerkira	1.83	349	*e*Pn	Pn	08 34 40.1	+2.0
KEK	Kerkira	1.83	349	*e*PN	Pn	08 34 40.1	+2.0
KEK	Kerkira	1.83	349	*e*Pn	Pn	08 34 40.1	+2.0

MEX 06 08:43:54.1±0.8**, 16.21N×97.97W, h13**^{km}±8^{km}**, MD3.6, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.23	319	*i* P	Pg	08 43 58.9	-0.2
PNIG				*i* S	Sg	08 44 02.1	-0.4
OXX	Oaxaca	1.47	54	*i* P	Pn	08 44 16.0	-4.3
OXX				*i* S	Sn	08 44 34.0	-5.5
UTMO	Huajuapan	1.62	6	*e*P	Pn	08 44 20.5	-1.8
UTMO				*i* S	Sn	08 44 37.9	-5.1
ACX	Acapulco	1.98	289	*e*P	Pn	08 44 23.0	-4.3
ACX				*i* S	Sn	08 44 47.0	-5.0
PPM	Popocatepetl	2.91	348	*e*P	Pn	08 44 37.4	-2.6
PPM				*i* S	Sn	08 45 12.1	-2.8

IDC 06 09:00:43.3±1.7**, 45.44S×72.72W, h0**^{km}**, mb4.0**/5**, mb1 4.2**/5**, mb1mx4.1**/12**, mbtmp3.9**/5**, MS4.0**/6**, Ms1 4.0**/6**, ms1mx3.7**/12**, Error ellipse: s-maj=72.4km s-min=33.7km az=51.0, Southern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz 1.4nm,0.6s,baz=135,slow=8.0,SNR=6.5	29.31	9	P	P	09 06 48.3	+0.8
MAW	Mawson comp=Z,180nm,20.9s,baz=244,slow=36	62.41	162	LR	LR	09 38 17.5	
PPT	Papeete comp=Z,30nm,21.0s,baz=180,slow=27	68.55	266	LR	LR	09 31 56.6	
BOSA	Boshof 4.3nm,1.1s,baz=249,slow=8.8,SNR=3.4	75.38	116	P	P	09 12 29.2	+0.5
BOSA	comp=Z,103nm,18.3s,baz=222,slow=35			LR	LR	09 44 44.0	
TXAR	Lajitas Array 0.6nm,0.9s,baz=148,slow=9.8,SNR=4.0	79.56	333	P	P	09 12 52.4	+0.5
TXAR	comp=Z,123nm,21.9s,baz=180,slow=30			LR	LR	09 41 07.1	
TORD	Torodi Ar. Bea 0.9nm,0.8s,baz=249,slow=5.1,SNR=4.8	88.63	70	P	P	09 13 38.5	+0.1
PDAR	Pinedale Array 0.2nm,0.5s,baz=122,slow=8.6,SNR=2.2	93.75	334	P	P	09 14 01.3	-0.2
PDAR	comp=Z,84nm,18.0s,baz=352,slow=32			LR	LR	09 50 14.6	
STKA	Stephens Creek comp=Z,77nm,18.9s,baz=205,slow=32	96.99	209	LR	LR	09 51 55.9	
BRTR	Keskin Array B 0.7nm,0.8s,baz=188,slow=2.5,SNR=3.8	127.22	68	PKP	PKPdf	09 19 49.0	-0.1
AKTO	Aktyubinsk 2.6nm,0.7s,baz=199,slow=4.5,SNR=12	147.11	63	PKPbc	PKPbc	09 20 27.0	-0.4
MKAR	Makanchi Array 0.8nm,0.9s,baz=318,slow=1.9,SNR=5.7	162.63	77	PKPab	PKPab	09 21 33.9	-1.0

IDC 06 09:12:25.9±2.0**, 1.01N×125.55E, h0**^{km}**, mb3.4**/3**, mb1 3.7**/3**, mb1mx3.5**/16**, mbtmp3.5**/3**, MS3.0**/1**, Ms1 3.0**/1**, ms1mx2.6**/13**, Error ellipse: s-maj=177.0km s-min=26.1km az=64.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr 1.5nm,0.7s,baz=336,slow=11,SNR=9.8	22.53	158	P	P	09 17 27.4	-0.1
WRA	comp=Z,32nm,18.8s,baz=125,slow=37			LR	LR	09 26 09.9	
ASAR	Alice Springs 0.3nm,0.5s,baz=344,slow=7.7,SNR=6.4	25.83	162	P	P	09 17 59.4	+0.3
MKAR	Makanchi Array 0.2nm,0.3s,baz=125,slow=6.8,SNR=5.0	59.14	327	P	P	09 22 28.3	0.0

IDC 06 09:27:45.5±2.4**, 4.41N×123.71E, h0**^{km}**, mb3.9**/3**, mb1 4.1**/3**, mb1mx3.8**/18**, mbtmp3.9**/3**, Error ellipse: s-maj=331.7km s-min=23.7km az=63.0, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr 1.0nm,0.3s,baz=336,slow=9.6,SNR=13	26.36	157	P	P	09 33 23.9	+0.3

ASAR	**Alice Springs**	29.63	161	P	P	09 33 52.5	-0.2
	0.6nm,0.5s,baz=338,slow=7.1,SNR=10						
MKAR	**Makanchi Array**	55.30	326	P	P	09 37 20.8	0.0
	0.9nm,0.3s,baz=125,slow=8.1,SNR=17						

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*NEIC **06** 09:33:11.9, 53.19N×166.73W, h40^{km}, ML3.4(AEIC), After AEIC.*

*IDC **06** 09:33:15.0±10.0, 53.48N×166.31W, h41^{km}±76^{km}, mb3.2/5, mb1 3.6/6, mb1mx3.3/25, mbtmp3.4/6, ML3.0/1, Error ellipse: s-maj=65.5km s-min=36.5km az=46.0*

ISC 06 09:33:13.8±1.5, 53.3N±0.1×166.3W±0.2, h35^{km}, n14, σ0.^{s}89/18, mb3.4/5, Fox Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UNV	**Unalaska Valle**	0.59	349	P	Pn	09 33 24.4	-1.2
UNV				S	Sn	09 33 34.3	+0.4
AKLV	**Akutan Long Va**	0.92	13	P	Pn	09 33 30.7	+0.5
AKLV				S	Sn	09 33 46.3	+4.2
AKUT	**Akutan**	0.92	20	P	Pn	09 33 30.9	+0.7
AKGG	**Akutan Green G**	0.95	11	P	Pn	09 33 31.2	+0.7
KDAK	**Kodiak Island**	9.00	54	P	Pn	09 35 20.5	-0.5
KDAK				S	Sn	09 36 57.9	-3.0
KDAK	**Kodiak Island**	9.00	54	P	Pn	09 35 20.5	-0.5
	0.2nm,0.3s,baz=142,slow=13,SNR=2.3						
KDAK				S	Sn	09 36 57.9	-3.0
	0.3nm,0.3s,baz=206,slow=14,SNR=1.9						
DLBC	**Dease Lake**	20.82	61	P	P	09 37 51.8	-0.1
INK	**Inuvik**	21.57	33	P	P	09 37 59.7	-0.2
INK	**Inuvik**	21.57	33	P	P	09 37 59.7	-0.2
	1.2nm,0.5s,mb3.5,baz=249,slow=10,SNR=14						
YKA	**Yellowknife Ar**	28.24	50	P	P	09 39 02.6	-0.3
YKA	**Yellowknife Ar**	28.24	50	P	P	09 39 02.6	-0.3
	0.1nm,0.5s,mb2.7,baz=271,slow=9.6,SNR=3.9						
NVAR	**Mina Array Bea**	35.85	95	P	P	09 40 10.9	+1.1
	0.1nm,0.4s,mb3.1,baz=331,slow=11,SNR=2.6						
TXAR	**Lajitas Array**	50.90	92	P	P	09 42 11.7	+0.5
	0.6nm,0.9s,mb3.5,baz=293,slow=6.7,SNR=5.1						
BRTR	**Keskin Array B**	85.78	345	P	P	09 45 48.0	-1.1
	1.0nm,0.9s,mb4.1,baz=54,slow=6.3,SNR=4.3						

MAN 06 09:36:52, 13.56N×121.64E, h5^{km}, mb3.8, ML2.6, MS2.1, 1C, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOAC	**Boac**	0.22	117	*e*P	Pg	09 36 57.0	+0.7
GQP	**Guinayangan**	0.85	66	⇑*e*P	Pg	09 37 09.6	+1.1
GQP				*e*S	Sg	09 37 21.9	+2.4
POLP	**Polilio Island**	1.20	14	*e*P	Pg	09 37 13.8	-1.2
OTRP	**Odiongan**	1.25	163	*e*P	Pg	09 37 15.8	-0.2
OTRP				*e*S	Sg	09 37 32.7	+0.6
LUBP	**Lubang**	1.37	277	*e*P	Pn	09 37 17.1	-0.6
BUSP	**Coron**	2.09	222	*e*P	Pn	09 37 19.2	-8.5
BALP	**Baler**	2.17	358	*e*P	Pn	09 37 31.2	+2.4

NEIC 06 09:55:18.9, 61.50N×149.99W, h59^{km}, ML3.6(PMR), ML3.4(AEIC), After AEIC., Southern Alaska

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FIB	**Fire Island**	0.35	195	P	Pn	09 55 29.4	+0.1
FIB				S	Sn	09 55 38.7	+1.9
PMR	**Palmer**	0.42	77	P	Pn	09 55 28.9	-1.0
RC01	**Rabbit Creek A**	0.43	164	P	Pn	09 55 28.7	-1.4
RC01				S	Sn	09 55 38.3	+0.1
GHO	**Glory Hole Cre**	0.58	62	P	Pn	09 55 30.8	-0.8
GHO				S	Sn	09 55 41.0	+0.2
KNK	**Knik Glacier**	0.74	96	P	Pn	09 55 33.5	-0.1
SML	**Sawmill**	0.85	68	P	Pn	09 55 34.1	-0.7
SLKM	**Skilak Lake**	1.01	187	P	Pn	09 55 36.6	-0.3
SEW	**Seward**	1.43	169	P	Pn	09 55 41.6	-1.0
TRF	**Thorofare Moun**	1.96	356	P	Pn	09 55 49.1	-0.6
DIV	**Divide**	2.07	99	P	Pn	09 55 50.3	-0.9
DIV				S	Sn	09 56 15.7	-0.1
KTH	**Kantishna Hill**	2.10	349	P	Pn	09 55 50.9	-0.7
KTH				S	Sn	09 56 16.7	0.0
EYAK	**Cordova Ski Ar**	2.28	113	P	Pn	09 55 53.2	-0.9
MCK	**McKinley**	2.29	12	P	Pn	09 55 54.0	-0.2
MCK				S	Sn	09 56 21.4	+0.3
BMRM	**Bremner River**	2.66	99	P	Pn	09 55 58.1	-1.2
SVW2	**Sparrevohn**	2.73	264	*e*P	Pn	09 55 58.6	-1.6
DOT	**Dot Lake**	3.49	49	P	Pn	09 56 10.6	0.0
COLA	**College**	3.52	15	P	Pn	09 56 10.0	-0.9
IL1	**Eielson Array**	3.57	22	P	Pn	09 56 10.8	-0.9
KDAK	**Kodiak Island**	3.96	201	*e*Pn	Pn	09 56 15.6	-1.4
BCA3	**Beaver Creek A**	4.14	64	P	Pn	09 56 19.3	-0.2
IM3	**Indian Mountai**	4.80	341	P	Pn	09 56 27.2	-1.2
IMA2	**Indian Mountai**	4.87	342	*e*P	Pn	09 56 28.5	-0.9
EGAK	**Eagle**	5.18	47	P	Pn	09 56 32.1	-1.5
DAWY	**Dawson**	5.50	58	P	Pn	09 56 36.9	-1.2
TNA	**Tin City**	8.97	305	*e*Pn	Pn	09 57 25.6	+0.1
TNA				*e*Sn	Sn	09 58 59.2	-5.6
WRAK	**Wrangell Islan**	10.42	111	*e*Pn	Pn	09 57 44.9	-0.5

KRSC 06 10:11:03.0±1.4, 49.13N×157.47E, h5^{km}±5^{km}, ML3.8, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALID	**Alaid**	2.14	325	P	Pn	10 11 37.0	-2.3
ALID				*i*S	Sn	10 12 01.7	-4.5
MIPR	**Malaya Ipel'ka**	3.18	352	P	Pn	10 11 56.2	+2.6
RUS	**Russkaya**	3.37	11	P	Pn	10 11 57.9	+1.6
RUS				*i*S	Sn	10 12 37.5	+0.9
GRL	**Gorelyy**	3.45	6	P	Pn	10 11 59.2	+1.9
PET	**Petropavlovsk**	3.97	10	P	Pn	10 12 07.3	+2.8
PET				*i*S	Sn	10 12 54.0	+2.7
SDLR	**Sedlovina**	4.25	12	*e*P	Pn	10 12 11.1	+2.8
SDLR				*e*S	Sn	10 13 00.6	+2.4
SPN	**Mys Shipunski**	4.29	21	P	Pn	10 12 11.6	+2.8
SPN				*i*S	Sn	10 13 01.3	+2.2
GNL	**Ganaly**	4.58	4	P	Pn	10 12 15.6	+2.8
MKZ	**Mys Kozlova**	6.04	24	P	Pn	10 12 35.7	+2.8
KBTR	**Krutoberegovo**	7.80	23	P	Pn	10 13 00.1	+3.1

KRSC 06 10:13:57.0±1.4, 49.08N×157.29E, h5^{km}±5^{km}, ML3.8, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALID	**Alaid**	2.11	329	P	Pn	10 14 30.8	-2.2
ALID				*i*S	Sn	10 14 55.4	-4.2
RUS	**Russkaya**	3.45	13	P	Pn	10 14 53.8	+2.5
RUS				*i*S	Sn	10 15 34.7	+2.3
GRL	**Gorelyy**	3.51	8	P	Pn	10 14 54.5	+2.3
GRL				*i*S	Sn	10 15 35.6	+1.6
PET	**Petropavlovsk**	4.04	12	P	Pn	10 15 02.4	+3.0
PET				*i*S	Sn	10 15 49.5	+2.4
SDLR	**Sedlovina**	4.32	13	P	Pn	10 15 06.9	+3.6
SDLR				*i*S	Sn	10 15 57.4	+3.4
SPN	**Mys Shipunski**	4.38	22	P	Pn	10 15 06.5	+2.5
SPN				*i*S	Sn	10 15 57.0	+1.7
GNL	**Ganaly**	4.64	5	P	Pn	10 15 10.2	+2.5
GNL				*i*S	Sn	10 16 03.0	+1.2
MKZ	**Mys Kozlova**	6.13	25	P	Pn	10 15 29.7	+1.5
KBTR	**Krutoberegovo**	7.89	23	P	Pn	10 15 55.6	+3.4

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*MOS **06** 10:16:03.3±0.6, 46.79N×152.28E, h64^{km}, mb4.1/4, Error ellipse: s-maj=32.3km s-min=16.4km az=59.7*

*ISCJB **06** 10:16:04.9±1.6, 46.2N±0.2×152.6E±0.2, h105^{km}±19^{km}, mb3.5/7, Error ellipse: s-maj=44.2km s-min=13.0km az=152.5*

*IDC **06** 10:16:25.6±7.3, 47.22N×152.45E, h234^{km}±84^{km}, mb3.0/7, mb1 3.2/8, mb1mx3.0/23, mbtmp3.0/8, MS2.9/1, Ms1 2.9/1, ms1mx2.4/10, Error ellipse: s-maj=51.3km s-min=22.1km az=168.0*

ISC 06 10:16:04.2±1.2, 46.5N±0.2×152.6E±0.2, h67^{km}±12^{km}, n25, σ1.^{s}32/32, mb3.5/7, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	3.52	251	*e*PN	Pn	10 16 56.0	-0.4
KUR				*e*S	Sn	10 17 40.2	+3.4
KUR				pmax	pmax		
	comp=Z,100nm,0.7s						
KUR				smax			
	comp=N,230nm,0.5s						
KUR				smax			
	comp=E,150nm,0.5s						
SKR	**Severo-Kuril's**	4.82	28	*e*PN	Pn	10 17 12.5	-1.6
YUK	**Yuzh-Kuril'sk**	5.33	245	*e*PN	Pn	10 17 21.5	+0.3
YUK				*e*S	Sn	10 18 27.0	+5.7
YUK				smax			
	comp=N,300nm,0.7s						
YUK				smax			
	comp=E,100nm,0.4s						
NEM2	**Nemuro 2**	5.76	240	P	Pn	10 17 26.2	-0.9
NEM2				*e*S	Sn	10 18 29.2	-2.7
JRA	**Rausu**	5.85	247	P	Pn	10 17 30.2	+1.9
JNK	**Nakash**	6.28	245	P	Pn	10 17 35.0	+0.9
JAK	**Akkeshi**	6.60	241	P	Pn	10 17 37.6	-1.0
JAK				*e*S	Sn	10 18 49.4	-3.0
JTKR	**Abashiri--Toko**	6.62	251	P	Pn	10 17 40.6	+1.8
JAR	**Ashorobuto**	7.02	246	P	Pn	10 17 45.2	+0.9
JAR				*e*S	Sn	10 19 04.1	+1.6
JOB	**Onbets**	7.18	243	P	Pn	10 17 46.9	+0.4
JOB				*e*S	Sn	10 19 05.9	-0.7
JKK2	**Kamakawa 2**	7.42	253	P	Pn	10 17 51.9	+2.2
JCH	**Churui**	7.63	243	P	Pn	10 17 52.1	-0.6
JCH				*e*S	Sn	10 19 14.4	-3.2
JNBK	**Urakawa-nobuka**	8.19	243	P	Pn	10 17 59.5	-0.8
JNBK				*e*S	Sn	10 19 27.8	-3.5
MJAR	**Matsushiro Arr**	14.62	232	P		10 19 46.7	
	comp=E,0.5nm,0.3s,baz=42,slow=8.4,SNR=7.0						
MJAR				LR	LR	10 26 45.9	
	comp=E,46nm,19.1s,baz=265,slow=41						
INK	**Inuvik**	42.08	32	P	P	10 23 48.6	-0.3
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	**Inuvik**	42.08	32	P	P	10 23 48.6	-0.3
	comp=Z,0.8nm,0.6s,mb3.6,baz=273,slow=6.3,SNR=8.5						
MKAR	**Makanchi Array**	46.74	297	P	P	10 24 27.1	+0.8
	comp=Z,0.1nm,0.5s,mb2.8,baz=53,slow=7.8,SNR=2.6						
YKA	**Yellowknife Ar**	51.36	36	P	P	10 25 02.4	+1.0
	comp=Z,0.2nm,0.6s,mb3.4,baz=300,slow=7.4,SNR=2.6						
FINES	**FINESS Array B**	64.13	335	P	P	10 26 30.0	-0.9
FINES				pmax	pmax		
	comp=Z,2.0nm,1.0s						
FINES	**FINESS Array B**	64.13	335	P	P	10 26 29.9	-0.9
	comp=Z,1.9nm,1.0s,mb3.9,baz=29,slow=8.7,SNR=5.4						
NOA	**NORSAR Array B**	68.36	341	P	P	10 26 57.5	-0.5
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	**NORSAR Array B**	68.36	341	P	P	10 26 57.5	-0.5
	comp=Z,0.7nm,0.5s,mb3.7,baz=26,slow=6.4,SNR=3.5						
AKASG	**Malin Array Be**	71.56	326	P	P	10 27 17.0	-0.8
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	**Malin Array Be**	71.56	326	P	P	10 27 17.0	-0.8
	comp=Z,0.6nm,0.4s,mb3.8,baz=38,slow=6.1,SNR=3.7						
TXAR	**Lajitas Array**	77.95	60	P	P	10 27 56.0	+1.0
	comp=Z,0.3nm,0.8s,mb3.1,baz=303,slow=4.6,SNR=4.1						

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*BJI **06** 10:55:25.0, 18.10N×100.80W, h57^{km}, mB4.9, Ms4.8, Msz4.5*

*ISCJB **06** 10:55:29.6±0.3, 18.11N±0.03×100.74W±0.02, h65^{km}±3^{km}, mb4.4/47, Error ellipse: s-maj=4.6km s-min=3.4km az=27.8*

*MEX **06** 10:55:30.5±0.7, 18.11N×100.84W, h69^{km}±11^{km}, MD4.5*

*NEIC **06** 10:55:31.0, 18.13N×100.84W, h57^{km}, mb4.6/46, MD4.5(MEX), After MEX.*

*MOS **06** 10:55:31.3±1.1, 18.33N×100.58W, h69^{km}, mb4.8/18, Error ellipse: s-maj=11.1km s-min=5.2km az=87.0*

*IDC **06** 10:55:31.6±2.9, 18.25N×100.60W, h66^{km}±23^{km}, mb4.1/12, mb1 4.3/15, mb1mx4.2/21, mbtmp4.1/15, MS3.5/11, Ms1 3.5/11, ms1mx3.3/26, Error ellipse: s-maj=28.0km s-min=13.5km az=42.0*

ISC 06 10:55:31.2±0.3, 18.12N±0.03×100.69W±0.03, h65^{km}±3^{km}, h54^{km}±.7^{km}:pP-P, n348, σ1.^{s}00/350, mb4.4/47, 73C-67D, Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZIIG	**Zihuatanejo**	0.90	236	⇑*i*P	Pn	10 55 44.9	-3.2
ZIIG				*i*S	Sn	10 55 56.4	-4.3
MEIG	**Mezcala**	1.03	101	⇓*e*P	Pn	10 55 50.0	+0.1
MEIG				*i*S	Sn	10 56 05.1	+1.3
CAIG	**El Cayaco**	1.14	159	⇑*i*P	Pn	10 55 49.9	-1.3
CAIG				*e*S	Sn	10 56 04.1	-2.1
CAIG	**El Cayaco**	1.14	159	⇑*i*P	Pn	10 55 49.9	-1.3
CAIG				*i*S	Sn	10 56 04.8	-1.4
PLIG	**Platanillo**	1.16	76	⇑*i*P	Pn	10 55 51.7	+0.2
PLIG				*e*S	Sn	10 56 07.0	+0.3
PLIG	**Platanillo**	1.16	76	⇑*i*P	Pn	10 55 51.7	+0.2
PLIG				*i*S	Sn	10 56 07.9	+1.2
ACX	**Acapulco**	1.45	149	*i*P	Pn	10 55 51.2	-4.1
ACX	**Acapulco**	1.45	149	*i*P	Pn	10 55 51.5	-3.8
ACX				*i*S	Sn	10 56 12.0	-1.4
MOIG	**Morelia**	1.62	343	*i*P	Pn	10 55 54.7	-2.9
MOIG				*i*S	Sn	10 56 13.0	-4.6
MOIG	**Morelia**	1.62	343	*i*P	Pn	10 55 54.7	-2.9
MOIG				*i*S	Sn	10 56 15.3	-2.3
YAIG	**Yautepec**	1.71	64	*i*P	Pn	10 55 58.9	+0.2
YAIG				*i*S	Sn	10 56 21.9	+2.2
YAIG	**Yautepec**	1.71	64	*i*P	Pn	10 55 58.9	+0.2
YAIG				*i*S	Sn	10 56 21.1	+1.4
SZVM	**Salazar**	1.72	46	*i*P	Pn	10 55 59.6	+0.6
SZVM				*i*S	Sn	10 56 20.6	+0.5
UNM	**Universidad Na**	1.87	50	*e*P	Pn	10 56 01.5	+0.6
UNM				*i*S	Sn	10 56 25.6	+2.0
UNM	**Universidad Na**	1.87	50	*e*P	Pn	10 56 01.5	+0.6
UNM				*i*S	Sn	10 56 25.1	+1.5
PTVM	**Pico Tres Padr**	2.09	45	*i*P	Pn	10 56 01.3	-2.7
PTVM				*i*S	Sn	10 56 31.0	+2.0
PTVM	**Pico Tres Padr**	2.09	45	⇑*i*P	Pn	10 56 01.4	-2.6
PTVM				*i*S	Sn	10 56 31.5	+2.6
IIO	**Organos**	2.37	52	*i*P	Pn	10 56 08.4	+0.7
IIO				*i*S	Sn	10 56 37.0	+1.3
UTMO	**Huajuapan**	2.76	96	*i*P	Pn	10 56 14.1	+1.0
UTMO				*i*S	Sn	10 56 45.8	+0.5
PNIG	**Pinotepa**	2.99	125	*e*P	Pn	10 56 16.7	+0.5
PNIG				*i*S	Sn	10 56 51.4	+0.5
TPIG	**Tehuac#an**	3.17	84	*i*P	Pn	10 56 20.3	+1.6
TPIG				*i*S	Sn	10 57 00.1	+4.7
SFJM	**Santa Fe**	3.24	317	*i*P	Pn	10 56 16.2	-3.3
OXX	**Oaxaca**	3.92	105	*e*P	Pn	10 56 28.2	-0.7
LVIG	**Laguna Verde**	4.35	68	*i*P	Pn	10 56 34.1	-0.6
ANIG	**Ahuacatlan**	4.64	310	*i*P	Pn	10 56 40.9	+2.1
ZAIG	**Zacatecas**	4.95	339	*e*P	Pn	10 56 41.5	-1.5
ZAIG				*i*S	Sn	10 57 37.8	-1.1
ZAIG	**Zacatecas**	4.95	339	*e*P	Pn	10 56 41.5	-1.5
ZAIG				*i*S	Sn	10 57 37.0	-1.9
HUIG	**Huatulco**	4.97	117	*i*P	Pn	10 56 44.6	+1.4
HUIG				*i*S	Sn	10 57 36.6	-2.8
HUIG	**Huatulco**	4.97	117	*i*P	Pn	10 56 44.6	+1.4
HUIG				*i*S	Sn	10 57 40.0	+0.6
CMIG	**Matias Romero**	5.63	100	P	Pn	10 56 53.6	+1.4
CMIG				*i*P		10 56 54.3	
CMIG				*i*S	Sn	10 57 52.7	-2.9
CMIG				S	Sn	10 57 53.6	-2.0
CMIG				LR	LR	10 59 18.1	
CMIG	**Matias Romero**	5.63	100	P	Pn	10 56 53.6	+1.4
	2.2nm,0.3s,baz=257,slow=12,SNR=164						
CMIG				S	Sn	10 57 53.6	-2.0
	5.1nm,0.3s,baz=319,slow=11,SNR=3.6						
CMIG				LR	LR	10 59 18.1	
	comp=Z,394nm,20.3s,baz=11,slow=41						
CMIG	**Matias Romero**	5.63	100	*i*P	Pn	10 56 54.3	+2.0
CMIG				*i*S	Sn	10 58 01.2	+5.6
LPIG	**La Paz**	10.77	305	LR	LR	11 01 51.6	
	comp=Z,197nm,21.2s,baz=317,slow=35						
TXAR	**Lajitas Array**	11.49	347	P	Pn	10 58 13.1	+0.7
	0.2nm,0.3s,baz=161,slow=15,SNR=44						
TXAR				LR	LR	11 03 04.5	
	comp=Z,229nm,21.9s,baz=5.0,slow=40						
LTX	**Lajitas**	11.49	347	*e*P	Pn	10 58 13.1	+0.7
	18nm,1.0s						
LTX	**Lajitas**	11.49	347	*e*P	Pn	10 58 13.1	+0.7
LTX				pmax	pmax		
	comp=Z,18nm,1.0s						
TEIG	**Tepich**	11.91	78	LR	LR	11 03 05.1	
	comp=Z,106nm,21.7s,baz=238,slow=38						
JCT	**Junction City**	12.33	4	*e*P	Pn	10 58 24.2	+0.3
	comp=Z,34nm,1.1s						
JCT	**Junction City**	12.33	4	*e*P	Pn	10 58 24.2	+0.4
JCT				pmax	pmax		
	comp=Z,34nm,1.1s						
HKT	**Hockley**	12.58	20	*e*P	Pn	10 58 26.3	-0.9
	comp=Z,12nm,1.1s						
HKT	**Hockley**	12.58	20	*e*P	Pn	10 58 26.3	-1.0
HKT				pmax	pmax		
	comp=Z,12nm,1.1s						
MNTX	**Cornudas Mount**	14.17	343	*e*P	Pn	10 58 48.1	-0.5
	comp=Z,38nm,1.1s						
NATX	**Nacogdoches**	14.63	21	*e*P	Pn	10 58 56.4	+1.8
	comp=Z,61nm,1.0s						
WMOK	**Wichita Mounta**	16.64	5	*e*P	Pn	10 59 17.6	-2.5
	comp=Z,16nm,1.0s						
WMOK	**Wichita Mounta**	16.64	5	*e*P	Pn	10 59 17.6	-2.5
WMOK				pmax	pmax		
	comp=Z,16nm,1.0s						
AMTX	**Amarillo**	16.72	357	*e*P	Pn	10 59 19.8	-1.3
	comp=Z,64nm,0.9s						
TUC	**Tucson**	16.81	329	*e*P	Pn	10 59 22.7	+0.4
	comp=Z,13nm,1.0s						
TUC	**Tucson**	16.81	329	*e*P	Pn	10 59 22.7	+0.5
TUC				pmax	pmax		
	comp=Z,13nm,1.0s						
BNM	**Barren Site**	16.82	343	*e*P	Pn	10 59 23.7	+1.3
LENM	**Lemitar**	16.94	342	*e*P	Pn	10 59 25.5	+1.6
LPM	**Los Pinos Moun**	16.98	343	*e*P	Pn	10 59 25.5	+1.2
JTS	**JuntasAbangare**	17.12	115	LR	LR	11 05 45.5	
	comp=Z,91nm,21.7s,baz=103,slow=36						
LAZ	**Ladron**	17.21	342	*e*P	Pn	10 59 29.2	+2.0
116A	**Eloy**	17.47	327	P	Pn	10 59 31.0	+0.6
	baz=18,SNR=17						
ANMO	**Albuquerque**	17.53	344	*e*P	Pn	10 59 31.9	+0.7
	comp=Z,26nm,1.0s						
ANMO	**Albuquerque**	17.53	344	*c* *i*P	Pn	10 59 32.0	+0.9
ANMO	**Albuquerque**	17.53	344	P	Pn	10 59 31.9	+0.8
	comp=Z,0.4nm,0.3s,baz=156,slow=13,SNR=48						
MIAR	**Mount Ida**	17.55	20	*e*P	Pn	10 59 29.6	-1.8
	comp=Z,100nm,1.8s						
MIAR	**Mount Ida**	17.55	20	*e*P	Pn	10 59 29.6	-1.7
MIAR				pmax	pmax		
	comp=Z,100nm,1.8s						
115A	**Sonoran Desert**	17.85	327	P	Pn	10 59 35.9	+0.9
	baz=19,SNR=9.0						
UALR	**University of**	18.18	23	*e*P	Pn	10 59 36.7	-2.3
	comp=Z,11nm,0.8s						
Z14A	**Wintersburg**	18.74	326	P	Pn	10 59 45.7	-0.1
	baz=20,SNR=5.1						
OXF	**Oxford**	19.18	29	*e*P	Pn	10 59 49.2	-1.7
	comp=Z,40nm,1.2s						
OXF	**Oxford**	19.18	29	*e*P	Pn	10 59 49.2	-1.8
OXF				pmax	pmax		
	comp=Z,40nm,1.2s						
Y14A	**Wickenburg**	19.22	327	P	Pn	10 59 50.6	-0.9
	baz=20,SNR=15						
X15A	**Humboldt**	19.28	330	P	Pn	10 59 51.5	-0.7
	baz=20,SNR=14						
HBAR	**Harrisburg**	19.51	25	*e*P	Pn	10 59 52.3	-2.7
Y13A	**Salome**	19.56	326	P	Pn	10 59 54.5	-1.0
	baz=20,SNR=10						
X14A	**Yava**	19.59	329	P	Pn	10 59 54.9	-0.9
	baz=20,SNR=11						
WUAZ	**Wupatki**	19.75	333	*e*P	Pn	10 59 57.3	-0.5
	comp=Z,51nm,0.8s						
WUAZ	**Wupatki**	19.75	333	⇑P	Pn	10 59 57.6	-0.1
	baz=20						
W15A	**Williams**	19.86	331	P	Pn	10 59 58.8	-0.3
	baz=21,SNR=9.8						
Y12C	**Blythe**	19.89	324	P	Pn	10 59 58.2	-1.3
	baz=21,SNR=8.0						
SDCO	**Great Sand Dun**	20.00	349	*e*P	P	10 59 57.4	-1.0
	comp=Z,30nm,1.0s						
DVTC	**Desert V Tower**	20.05	319	⇓P	P	11 00 00.0	+1.0
	baz=21						
SWSC	**Sam W. Stewart**	20.05	320	⇑P	P	11 00 00.4	+1.3
	baz=21						
PDMCI	**Parker Dam,Lak**	20.10	326	P	P	11 00 00.0	+0.5
	baz=21,SNR=12						
X13A	**Yucca**	20.16	327	P	P	11 00 01.2	+1.1
	baz=21,SNR=11						
PLAL	**Pickwick Lake**	20.20	31	*e*P	P	10 59 58.3	-2.3
	comp=Z,37nm,0.8s						
MVCO	**Mesa Verde**	20.22	342	*e*P	P	11 00 01.0	+0.2
	comp=Z,22nm,0.8s						
MVCO	**Mesa Verde**	20.22	342	P	P	11 00 01.1	+0.3
	baz=21,SNR=25						
W14A	**Seligman**	20.28	330	P	P	11 00 02.7	+1.2
	baz=21,SNR=18						
BC3	**Big Chuckw Mtn**	20.35	322	P	P	11 00 03.1	+0.8
	baz=21,SNR=6.9						
MONP	**Monument Peak**	20.40	319	P	P	11 00 03.6	+0.8
	baz=21,SNR=9.3						
IRM	**Iron Mountain**	20.55	324	P	P	11 00 05.1	+0.8
	baz=21,SNR=12						
W13A	**Hualapai Mount**	20.58	328	P	P	11 00 05.8	+1.1
	baz=21,SNR=11						
CBKS	**Cedar Bluff**	20.64	2	*e*P	P	11 00 04.2	-1.1
	comp=Z,40nm,1.0s						
CBKS	**Cedar Bluff**	20.64	2	*e*P	P	11 00 04.2	-1.1
CBKS				pmax	pmax		
	comp=Z,40nm,1.0s						
NEE2	**Needles Airpor**	20.71	326	⇓P	P	11 00 06.8	+0.7
	baz=21						
109C	**Camp Elliot, M**	20.83	318	⇓P	P	11 00 08.0	+0.5
	baz=22						
PFO	**Pinyon Flat Ob**	20.91	321	*e*P	P	11 00 09.2	+0.9
	comp=Z,8.1nm,0.9s						
PFO	**Pinyon Flat Ob**	20.91	321	*e*P	P	11 00 09.2	+0.9
PFO				pmax	pmax		
	comp=Z,8.0nm,0.9s						
PFO	**Pinyon Flat Ob**	20.91	321	P	P	11 00 08.9	+0.6
	comp=Z,4.0nm,0.7s,baz=122,slow=7.4,SNR=7.4						
PFO	**Pinyon Flat Ob**	20.91	321	⇑P	P	11 00 09.0	+0.7
	baz=22						
BELC	**Belle Mtn.**	20.92	322	P	P	11 00 09.0	+0.6
	baz=22,SNR=11						
PV01	**Paradox Valley**	21.10	343	*e*P	P	11 00 10.4	+0.1
KSU1	**Kansas State U**	21.20	9	*e*P	P	11 00 09.0	-2.4
	comp=Z,41nm,0.7s,mb4.9						
WVT	**Waverly**	21.24	30	*e*P	P	11 00 09.7	-2.1
	comp=Z,13nm,0.5s,mb4.5						
WVT	**Waverly**	21.24	30	*e*P	P	11 00 09.7	-2.1
WVT				pmax	pmax		
	comp=Z,13nm,0.5s,mb4.5						
GMRC	**Granite Mounta**	21.29	324	⇓P	P	11 00 12.8	+0.5
	baz=22						
MURC	**Murrieta**	21.36	319	P	P	11 00 13.9	+0.7
	baz=22,SNR=5.8						
PV10	**Paradox Valley**	21.46	342	*e*P	P	11 00 13.2	-0.9
V12A	**Nelson**	21.57	327	P	P	11 00 15.9	+0.6
	baz=22,SNR=6.1						
SMCO	**Snowmass**	21.68	347	*e*P	P	11 00 16.7	+0.2
	comp=Z,24nm,1.2s,mb4.4						
GOGA	**Godfrey**	21.69	42	*e*P	P	11 00 14.7	-1.9
	comp=Z,8.4nm,0.8s,mb4.1						
GOGA	**Godfrey**	21.69	42	*e*P	P	11 00 14.7	-1.9
GOGA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.1						
FVM	**French Village**	21.73	22	*e*P	P	11 00 14.8	-2.3
	comp=Z,20nm,0.6s,mb4.6						
FVM	**French Village**	21.73	22	*e*P	P	11 00 14.8	-2.3
FVM				pmax	pmax		
	comp=Z,20nm,0.6s,mb4.6						
T14A	**Hurricane**	21.80	332	P	P	11 00 18.1	+0.3
	baz=22,SNR=7.3						
TUQ	**Turquoise Mtn.**	21.91	325	P	P	11 00 19.8	+0.8
	baz=23,SNR=11						
V11A	**Goodsprings**	21.95	326	⇓P	P	11 00 19.8	+0.3
	baz=23						
SIUC	**Southern Illin**	21.96	25	*e*P	P	11 00 17.7	-1.8
	comp=Z,27nm,0.8s,mb4.6						
U12A	**Valley of Fire**	21.96	329	⇑P	P	11 00 19.9	+0.5
	baz=23,SNR=7.5						
ISCO	**Idaho Springs**	22.02	350	*e*P	P	11 00 18.9	-1.2
	comp=Z,17nm,0.6s,mb4.5						
ISCO	**Idaho Springs**	22.02	350	*e*P	P	11 00 18.9	-1.2
ISCO				pmax	pmax		
	comp=Z,17nm,0.6s,mb4.5						
BFSC	**Mount Baldy St**	22.07	320	⇓P	P	11 00 21.5	+0.7
	baz=23						
FMP	**Fort Macarthur**	22.12	318	⇑P	P	11 00 21.3	+0.1
	baz=23						
T12A	**Moapa**	22.28	329	⇓P	P	11 00 22.9	0.0
	baz=23						
GSC	**Goldstone**	22.31	323	⇓P	P	11 00 23.7	+0.5
	baz=23						
U11A	**Corn Creek**	22.38	327	⇑P	P	11 00 24.4	+0.5
	baz=23						

S14A	**Cedar City**	**22.42**	**333**	⇑P	**P**	**11 00 25.1**	**+0.8**
	baz=23						
SHOC	**Shoshone**	**22.45**	**325**	⇓P	**P**	**11 00 25.1**	**+0.4**
	baz=23						
ARUT	**Antelope Range**	**22.56**	**333**	*e*P	**P**	**11 00 26.1**	**+0.3**
SRU	**San Rafael**	**22.60**	**340**	*e*P	**P**	**11 00 25.3**	**-0.9**
	comp=Z,10nm,0.6s,mb4.3						
SRU	**San Rafael**	**22.60**	**340**	*e*P	**P**	**11 00 25.3**	**-0.9**
SRU				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.3						
MSU	**Marysvale**	**22.66**	**336**	*e*P	**P**	**11 00 27.3**	**+0.5**
EDW2	**Edwards Air Fo**	**22.71**	**321**	⇑P	**P**	**11 00 27.3**	**-0.1**
	baz=23						
USIN	**University of**	**22.82**	**27**	*e*P	**P**	**11 00 27.0**	**-1.6**
	comp=Z,29nm,0.8s,mb4.7						
U10A	**Ash Meadows, A**	**22.87**	**326**	⇓P	**P**	**11 00 29.1**	**+0.1**
	baz=24						
BLG	**Laguna Peak**	**22.87**	**318**	⇓P	**P**	**11 00 28.6**	**-0.5**
	baz=24						
LRMC	**Laurel Mountai**	**22.94**	**322**	⇑P	**P**	**11 00 29.9**	**0.0**
	baz=24						
TMUT	**Trail Mountain**	**23.00**	**339**	*e*P	**P**	**11 00 30.5**	**+0.1**
TKL	**Tuckaleechee C**	**23.02**	**37**	P	**P**	**11 00 26.9**	**-3.8**
	comp=Z,6.9nm,0.7s,mb4.1,baz=199,slow=12,SNR=11						
FURC	**Furnace Creek,**	**23.19**	**325**	⇑P	**P**	**11 00 32.3**	**0.0**
	baz=24						
MPMC	**Manual Prospec**	**23.24**	**324**	P	**P**	**11 00 32.8**	**0.0**
	baz=24,SNR=9.0						
ARVC	**Arvin**	**23.38**	**320**	⇑P	**P**	**11 00 33.9**	**-0.3**
	baz=24						
PHWY	**Pilot Hill**	**23.46**	**351**	*e*P	**P**	**11 00 34.0**	**-0.8**
SBC	**Santa Barbara**	**23.50**	**317**	⇑P	**P**	**11 00 34.7**	**-0.5**
	baz=24						
R12A	**Pony Springs,**	**23.52**	**332**	⇑P	**P**	**11 00 35.5**	**+0.1**
	baz=24						
ISA	**Isabella**	**23.53**	**321**	⇑P	**P**	**11 00 35.2**	**-0.3**
	baz=24						
WCI	**Wyandotte Cave**	**23.66**	**29**	*e*P	**P**	**11 00 35.0**	**-1.6**
	comp=Z,12nm,0.8s,mb4.3						
WCI	**Wyandotte Cave**	**23.66**	**29**	*e*P	**P**	**11 00 35.0**	**-1.6**
WCI				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.3						
CWC	**Cottonwood Cre**	**23.84**	**323**	⇑P	**P**	**11 00 38.2**	**-0.1**
	baz=24						
PKM	**Peak Mountain**	**23.85**	**318**	⇓P	**P**	**11 00 37.9**	**-0.5**
	baz=24						
GRAC	**Grapevine Rang**	**23.86**	**325**	⇑P	**P**	**11 00 38.4**	**0.0**
	baz=25						
VES	**Vestal, Richgr**	**24.01**	**321**	⇓P	**P**	**11 00 39.5**	**-0.4**
	baz=25,SNR=6.5						
RWWY	**Rawlins**	**24.14**	**348**	*e*P	**P**	**11 00 41.5**	**+0.5**
	comp=Z,25nm,0.9s,mb4.5						
S10A	**Tonopah Range,**	**24.15**	**328**	⇑P	**P**	**11 00 41.1**	**+0.1**
	baz=25,SNR=6.8						
Q12A	**Willow Creek R**	**24.20**	**332**	⇓P	**P**	**11 00 42.3**	**+0.7**
	baz=25						
SMMC	**Simmler**	**24.23**	**319**	⇑P	**P**	**11 00 41.6**	**-0.3**
	baz=25						
JLU	**Jordanelle**	**24.25**	**340**	*e*P	**P**	**11 00 42.7**	**+0.7**
R10A	**Warm Springs**	**24.29**	**329**	⇓P	**P**	**11 00 42.8**	**+0.5**
	baz=25						
S09A	**Goldfield**	**24.32**	**327**	⇑P	**P**	**11 00 43.0**	**+0.3**
	baz=25						
BLO	**Bloomington**	**24.32**	**28**	*e*P	**P**	**11 00 40.9**	**-1.8**
	comp=Z,11nm,0.4s,mb4.5						
BLO	**Bloomington**	**24.32**	**28**	*e*P	**P**	**11 00 40.9**	**-1.8**
BLO				pmax	pmax		
	comp=Z,11nm,0.4s,mb4.5						
DUG	**Dugway**	**24.36**	**337**	*e*P	**P**	**11 00 43.2**	**+0.1**
	comp=Z,7.2nm,1.2s,mb3.9						
DUG	**Dugway**	**24.36**	**337**	*e*P	**P**	**11 00 43.2**	**+0.2**
DUG				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb3.9						
DUG	**Dugway**	**24.36**	**337**	⇓P	**P**	**11 00 43.8**	**+0.8**
	baz=25						
TIN	**Tinemaha**	**24.37**	**324**	⇑P	**P**	**11 00 43.6**	**+0.5**
	baz=25						
Q11A	**Duckwater**	**24.42**	**331**	⇓P	**P**	**11 00 43.9**	**+0.3**
	baz=25						
HDIL	**Hopedale**	**24.42**	**21**	*e*P	**P**	**11 00 41.6**	**-2.0**
	comp=Z,99nm,0.9s,mb5.1						
RCTC	**Rector, Farmer**	**24.43**	**322**	⇓P	**P**	**11 00 43.2**	**-0.4**
	baz=25,SNR=6.4						
HELL	**Mitchell Peak,**	**24.55**	**323**	⇓P	**P**	**11 00 45.4**	**+0.6**
	baz=25,SNR=9.8						
P12A	**McGill**	**24.59**	**333**	⇑P	**P**	**11 00 46.0**	**+0.9**
	baz=25						
R09A	**Tonopah**	**24.63**	**328**	⇓P	**P**	**11 00 45.7**	**+0.2**
	baz=25						
S08C	**White Mtn Res**	**24.66**	**325**	P	**P**	**11 00 46.6**	**+0.8**
	baz=25,SNR=8.5						
PKD	**Parkfield**	**24.97**	**319**	⇓P	**P**	**11 00 49.0**	**+0.4**
	baz=26						
V04C	**Ramage Ranch,**	**24.98**	**318**	⇑P	**P**	**11 00 49.5**	**+0.8**
	baz=26						
BGU	**Big Grassy Mou**	**25.08**	**338**	*e*P	**P**	**11 00 51.2**	**+1.6**
MLAC	**Mammoth Lakes**	**25.12**	**324**	⇑P	**P**	**11 00 50.2**	**+0.3**
	baz=26						
KCC	**Kaiser Creek**	**25.17**	**323**	⇑P	**P**	**11 00 50.7**	**+0.3**
	baz=26,SNR=5.7						
T06C	**Millerton Lake**	**25.18**	**322**	⇓P	**P**	**11 00 50.9**	**+0.4**
	baz=26						
R08A	**Mina**	**25.25**	**327**	⇓P	**P**	**11 00 51.6**	**+0.5**
	baz=26,SNR=7.2						
U04C	**Hernandez Rese**	**25.39**	**320**	⇑P	**P**	**11 00 52.7**	**+0.3**
	baz=26						
NVAR	**Mina Array Bea**	**25.41**	**326**	P	**P**	**11 00 53.5**	**+0.9**
NVAR				PcP	PcP	11 04 23.7	+0.4
NVAR	**Mina Array Bea**	**25.41**	**326**	P	**P**	**11 00 53.5**	**+0.9**
	comp=Z,8.5nm,0.7s,mb4.3,baz=166,slow=9.2,SNR=48						
NVAR				PcP	PcP	11 04 23.7	+0.3
	comp=Z,0.4nm,0.6s,baz=133,slow=3.8,SNR=4.5						
V03C	**Hunter Liggett**	**25.46**	**319**	⇑P	**P**	**11 00 53.5**	**+0.5**
	baz=26						
O11A	**Cowboy Ranch,**	**25.46**	**333**	⇓P	**P**	**11 00 54.0**	**+1.0**
	baz=26						
Q08A	**Gabbs**	**25.54**	**328**	⇑P	**P**	**11 00 54.3**	**+0.5**
	baz=26,SNR=14						
R07C	**Lee Vining**	**25.56**	**325**	⇓P	**P**	**11 00 54.8**	**+0.8**
	baz=26						
P09A	**Austin**	**25.68**	**330**	⇓P	**P**	**11 00 56.5**	**+1.5**
	baz=26						
PDAR	**Pinedale Array**	**25.70**	**345**	P	**P**	**11 00 54.0**	**-1.1**
	comp=Z,7.4nm,0.8s,mb4.2,baz=147,slow=9.0,SNR=44						
PDAR				PcP	PcP	11 04 23.7	-0.2
	comp=Z,0.9nm,0.8s,baz=145,slow=3.3,SNR=3.7						
PDAR				LR	LR	11 12 04.4	
	comp=Z,153nm,18.6s,baz=172,slow=39						
ECSD	**EROS,Sioux Fal**	**25.77**	**7**	*e*P	**P**	**11 00 53.5**	**-2.2**
	comp=Z,12nm,0.7s,mb4.4						
S05C	**Merced**	**25.77**	**322**	⇑P	**P**	**11 00 56.7**	**+0.8**
	baz=26						
N12A	**Clover Valley,**	**25.80**	**334**	⇓P	**P**	**11 00 57.1**	**+1.1**
	baz=26						
S06C	**San Francisco**	**25.86**	**323**	⇓P	**P**	**11 00 57.4**	**+0.8**
	baz=27						
M13A	**Montello**	**25.88**	**336**	⇑P	**P**	**11 00 56.8**	**0.0**
	baz=27						
RSSD	**Black Hills**	**26.07**	**355**	*e*P	**P**	**11 00 56.6**	**-1.9**
	comp=Z,7.8nm,1.0s,mb4.1						
RSSD	**Black Hills**	**26.07**	**355**	*e*P	**P**	**11 00 56.6**	**-1.9**
RSSD				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.1						
R06C	**Coleville**	**26.09**	**325**	⇑P	**P**	**11 00 59.7**	**+0.9**
	baz=27						
O09A	**Fish Creek Ran**	**26.19**	**330**	⇑P	**P**	**11 01 00.6**	**+1.0**
	baz=27						
M12A	**Wells**	**26.22**	**335**	⇓P	**P**	**11 01 01.2**	**+1.3**
	baz=27						
CMB	**Columbia Colle**	**26.27**	**323**	*e*P	**P**	**11 01 01.9**	**+1.5**
	comp=Z,1.7nm,0.7s,mb3.6						
CMB	**Columbia Colle**	**26.27**	**323**	*e*P	**P**	**11 01 01.9**	**+1.5**
CMB				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.7						
CMB	**Columbia Colle**	**26.27**	**323**	⇑P	**P**	**11 01 01.5**	**+1.1**
	baz=27						
K14A	**Jones Ranch, D**	**26.56**	**339**	⇓P	**P**	**11 01 03.5**	**+0.5**
	baz=27						
R05C	**Kirkwood Meado**	**26.57**	**324**	⇓P	**P**	**11 01 03.3**	**+0.3**
	baz=27						
REDW	**Red Top Meadow**	**26.59**	**343**	*e*P	**P**	**11 01 02.6**	**-0.6**
	comp=Z,15nm,1.2s,mb4.4						
M11A	**Holland Ranch,**	**26.59**	**334**	⇓P	**P**	**11 01 03.7**	**+0.4**
	baz=27						
TPAW	**Teton Pass**	**26.74**	**343**	*e*P	**P**	**11 01 04.3**	**-0.2**
	comp=Z,24nm,0.9s,mb4.7						
LOHW	**Long Hollow**	**26.76**	**344**	*e*P	**P**	**11 01 04.2**	**-0.5**
	comp=Z,9.0nm,0.7s,mb4.4						
WCN	**Washoe City**	**26.82**	**326**	⇑P	**P**	**11 01 05.6**	**+0.3**
	baz=28						
DCID1	**Drake Creek**	**26.90**	**343**	*e*P	**P**	**11 01 08.5**	**+2.6**
MOOW	**Moose Ponds**	**26.92**	**344**	*e*P	**P**	**11 01 05.4**	**-0.7**
	comp=Z,7.6nm,0.9s,mb4.2						
K13A	**Stover Farm, H**	**26.97**	**338**	⇓P	**P**	**11 01 07.0**	**+0.4**
	baz=28						
O07A	**Toulon**	**27.00**	**328**	⇑P	**P**	**11 01 07.0**	**+0.1**
	baz=28						
IMW	**Indian Meadow**	**27.11**	**344**	*e*P	**P**	**11 01 07.4**	**-0.5**
	comp=Z,4.0nm,0.8s,mb4.0						
N08A	**GE Springer Mi**	**27.11**	**330**	⇓P	**P**	**11 01 10.7**	**+2.8**
	baz=28						
L11A	**Cat Creek Ranc**	**27.19**	**335**	⇑P	**P**	**11 01 08.6**	**0.0**
	baz=28						
K12A	**Draper Farm, C**	**27.26**	**337**	⇑P	**P**	**11 01 09.2**	**0.0**
	baz=28						
L10A	**Juniper Basin**	**27.41**	**334**	⇓P	**P**	**11 01 10.8**	**+0.3**
	baz=28						
BEKR	**Beckwourth**	**27.55**	**326**	⇓P	**P**	**11 01 12.8**	**+1.0**
	baz=28						
RLMT	**Red Lodge**	**27.86**	**347**	*e*P	**P**	**11 01 14.0**	**-0.5**
	comp=Z,2.8nm,0.4s,mb4.2						
J12A	**Stokes Ranch,**	**27.86**	**337**	⇑P	**P**	**11 01 14.9**	**+0.3**
	baz=29						
HLID	**Hailey**	**27.89**	**338**	⇓P	**P**	**11 01 14.5**	**-0.3**
	baz=29						
O05C	**Quincy**	**27.92**	**325**	⇑P	**P**	**11 01 15.7**	**+0.6**
	baz=29						
N06A	**Buffalo Meadow**	**27.92**	**328**	P	**P**	**11 01 16.0**	**+0.8**
	baz=29,SNR=6.5						
ORV	**Oroville**	**27.95**	**324**	⇑P	**P**	**11 01 15.3**	**-0.1**
	baz=29						
AAM	**Ann Arbor**	**28.13**	**27**	*e*P	**P**	**11 01 15.2**	**-1.8**
K10A	**MacKenzie Ranc**	**28.16**	**334**	⇑P	**P**	**11 01 16.5**	**-0.7**
	baz=29						
O04C	**Chester**	**28.26**	**326**	P	**P**	**11 01 19.4**	**+1.2**
	baz=29,SNR=6.1						
ELFS	**Eagle Lake Fie**	**28.29**	**327**	⇑P	**P**	**11 01 19.0**	**+0.6**
	baz=29						
K09A	**Rome**	**28.46**	**333**	⇑P	**P**	**11 01 19.4**	**-0.4**
	baz=29						
M06C	**Likely Place G**	**28.59**	**328**	⇑P	**P**	**11 01 21.7**	**+0.7**
	baz=29						
L07A	**Adell**	**28.65**	**330**	⇓P	**P**	**11 01 21.0**	**-0.5**
	baz=29						
G15A	**Dillon**	**28.71**	**342**	⇓P	**P**	**11 01 22.8**	**+0.7**
	baz=30						
H13A	**Challis**	**28.72**	**340**	⇓P	**P**	**11 01 23.2**	**+1.0**
	baz=30						
I11A	**Placerville**	**28.75**	**337**	⇓P	**P**	**11 01 23.1**	**+0.6**
	baz=30						
K08A	**Mann Creek Ran**	**28.81**	**332**	P	**P**	**11 01 23.4**	**+0.4**
	baz=30,SNR=6.9						
J09A	**Fry Pan Ranch,**	**29.00**	**334**	⇓P	**P**	**11 01 25.9**	**+1.2**
	baz=30						
MOD	**Modoc**	**29.02**	**329**	⇓P	**P**	**11 01 26.0**	**+1.1**
	baz=30						
G14A	**Jackson**	**29.07**	**341**	⇑P	**P**	**11 01 25.0**	**-0.3**
	baz=30						
K07A	**Rock Creek Ran**	**29.13**	**331**	⇑P	**P**	**11 01 25.6**	**-0.2**
	baz=30						
G13A	**Cobalt**	**29.18**	**340**	⇑P	**P**	**11 01 26.6**	**+0.4**
	baz=30						
J08A	**Circle Bar Ran**	**29.31**	**333**	⇓P	**P**	**11 01 27.0**	**-0.5**
	baz=30						
F15A	**Butte**	**29.33**	**343**	⇓P	**P**	**11 01 28.0**	**+0.4**
	baz=30						
H11A	**Donnelly**	**29.45**	**337**	⇓P	**P**	**11 01 28.3**	**-0.4**
	baz=30						
H10A	**Noah’s Angus R**	**29.63**	**336**	⇑P	**P**	**11 01 29.5**	**-0.7**
	baz=30						
F13A	**Darby**	**29.83**	**341**	⇑P	**P**	**11 01 31.4**	**-0.6**
	baz=31						
E15A	**Deer Lodge**	**29.91**	**343**	⇓P	**P**	**11 01 32.7**	**0.0**
	baz=31						
H09A	**Durkee**	**30.05**	**335**	⇓P	**P**	**11 01 33.2**	**-0.7**
	baz=31						
F12A	**Elk City**	**30.10**	**339**	⇑P	**P**	**11 01 34.4**	**0.0**
	baz=31						
YBH	**Yreka Blue Hor**	**30.13**	**326**	⇓P	**P**	**11 01 33.6**	**-1.1**
	baz=31						
E14A	**Clinton**	**30.14**	**342**	⇓P	**P**	**11 01 34.4**	**-0.3**
	baz=31						
G11A	**Walters Elk Ra**	**30.14**	**338**	⇑P	**P**	**11 01 34.4**	**-0.4**
	baz=31						
H08A	**Prairie City**	**30.33**	**334**	⇑P	**P**	**11 01 35.4**	**-1.1**
	baz=31						
I07A	**Izee**	**30.34**	**333**	⇓P	**P**	**11 01 35.4**	**-1.2**
	baz=31						
AGMN	**Agassiz Refuge**	**30.36**	**6**	*e*P	**P**	**11 01 34.6**	**-2.0**
	comp=Z,11nm,0.8s,mb4.5						
EGMT	**Eagleton**	**30.73**	**348**	⇑P	**P**	**11 01 40.0**	**0.0**
	baz=32						
E11A	**Bogner Ranch,**	**30.95**	**339**	⇓P	**P**	**11 01 40.8**	**-1.0**
	baz=32						
F10A	**Beach Ranch, E**	**30.98**	**337**	⇑P	**P**	**11 01 42.1**	**-0.1**
	baz=32						
F09A	**S2 Ranch, Elgi**	**31.01**	**336**	⇑P	**P**	**11 01 41.7**	**-0.8**
	baz=32						
D13A	**Huson**	**31.04**	**342**	⇓P	**P**	**11 01 42.3**	**-0.3**
	baz=32						
G08A	**Pilot Rock**	**31.08**	**335**	⇓P	**P**	**11 01 41.3**	**-1.8**
	baz=32						
H06A	**Lindquist Farm**	**31.22**	**332**	⇑P	**P**	**11 01 44.4**	**+0.1**
	baz=32						
G07A	**Ruggs Ranch, H**	**31.36**	**334**	⇓P	**P**	**11 01 45.3**	**-0.2**
	baz=32						
E09A	**Wood Farm, Sta**	**31.78**	**337**	⇑P	**P**	**11 01 47.4**	**-1.8**
	baz=32						
D10A	**Wagner Farm, O**	**31.92**	**338**	⇓P	**P**	**11 01 49.7**	**-0.7**
	baz=33						
E08A	**Dider Farm, El**	**32.11**	**336**	⇑P	**P**	**11 01 51.3**	**-0.8**
	baz=33						
B13A	**Whitefish**	**32.20**	**343**	⇑P	**P**	**11 01 51.8**	**-1.0**
	baz=33						
F06A	**Goldendale**	**32.23**	**333**	⇓P	**P**	**11 01 52.6**	**-0.6**
	baz=33						
ULM	**Lac du Bonnet**	**32.29**	**6**	*e*P	**P**	**11 01 50.9**	**-2.6**
	comp=Z,11nm,0.8s,mb4.7						
ULM	**Lac du Bonnet**	**32.29**	**6**	P	**P**	**11 01 51.0**	**-2.6**
	comp=Z,8.9nm,0.7s,mb4.6,baz=194,slow=9.6,SNR=25						
F05A	**White Salmon**	**32.61**	**333**	⇑P	**P**	**11 01 55.9**	**-0.6**
	baz=33						
A13A	**Flathead Natio**	**32.69**	**343**	⇓P	**P**	**11 01 57.0**	**-0.1**
	baz=34						
C08A	**Higginbotham F**	**33.18**	**337**	⇓P	**P**	**11 02 01.2**	**-0.2**
	baz=34						
E05A	**Randle**	**33.27**	**333**	⇑P	**P**	**11 02 02.3**	**+0.1**
	baz=34						
A11A	**Hall Mountain,**	**33.28**	**341**	⇑P	**P**	**11 02 03.1**	**+0.9**
	baz=34						
D06A	**Cle Elum**	**33.39**	**335**	⇑P	**P**	**11 02 02.4**	**-0.9**
	baz=34						
B09A	**Rice**	**33.40**	**339**	⇓P	**P**	**11 02 01.5**	**-1.8**
	baz=34						
C07A	**Waterville**	**33.48**	**336**	⇓P	**P**	**11 02 02.9**	**-1.2**
	baz=34						
E04A	**Onalaska**	**33.72**	**332**	⇓P	**P**	**11 02 05.8**	**-0.3**
	baz=34						
B08A	**Colville Reser**	**33.76**	**337**	⇓P	**P**	**11 02 06.6**	**+0.1**
	baz=34						
D05A	**Enumclaw**	**33.86**	**334**	⇓P	**P**	**11 02 07.1**	**-0.3**
	baz=35						
C06A	**Tall Timber Ra**	**34.00**	**335**	⇓P	**P**	**11 02 08.0**	**-0.6**
	baz=35						
C05A	**Tolt Reservoir**	**34.14**	**334**	⇓P	**P**	**11 02 08.5**	**-1.3**
	baz=35						
A05A	**Maple Falls**	**35.34**	**335**	⇑P	**P**	**11 02 18.7**	**-1.3**
	baz=36						
FFC	**Flin Flon**	**36.55**	**359**	*e*P	**P**	**11 02 28.4**	**-2.0**
	comp=Z,6.0nm,0.9s,mb4.5						
FFC	**Flin Flon**	**36.55**	**359**	*e*P	**P**	**11 02 28.4**	**-1.9**
FFC				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
SCHQ	**Schefferville**	**44.84**	**27**	P	**P**	**11 03 36.6**	**-2.0**
	comp=Z,7.5nm,0.7s,mb4.5,baz=222,slow=6.3,SNR=9.5						
YKA	**Yellowknife Ar**	**45.38**	**351**	P	**P**	**11 03 40.7**	**-2.1**
YKA				PcP	PcP	11 05 21.1	0.0
YKA				LR	LR	11 24 03.6	
YKA	**Yellowknife Ar**	**45.38**	**351**	P	**P**	**11 03 40.7**	**-2.1**
YKA						11 05 21.1	
YKA	**Yellowknife Ar**	**45.38**	**351**	P	**P**	**11 03 40.7**	**-2.1**
	comp=Z,1.8nm,0.6s,mb4.0,baz=155,slow=7.3,SNR=28						
YKA				PcP	PcP	11 05 21.1	0.0
	comp=Z,1.8nm,0.8s,baz=155,slow=3.2,SNR=14						
YKA				LR	LR	11 24 03.6	
	comp=Z,96nm,19.1s,baz=155,slow=38						
DLBC	**Dease Lake**	**45.66**	**339**	*e*P	**P**	**11 03 45.6**	**+0.6**
LPAZ	**La Paz**	**46.87**	**135**	P	**P**	**11 03 55.6**	**+0.5**
	comp=Z,0.6nm,0.6s,mb3.5,baz=308,slow=6.4,SNR=4.2						
LPAZ				LR	LR	11 22 33.3	
	comp=Z,42nm,19.0s,baz=112,slow=35						
TAOE	**Nuku Hiva Isla**	**47.28**	**239**	*e*T		11 53 24.8	
	comp=Z,64nm,0.2s						
EGAK	**Eagle**	**53.89**	**340**	*e*P	**P**	**11 04 46.9**	**-0.6**
	comp=Z,4.0nm,0.8s,mb4.5						
INK	**Inuvik**	**54.26**	**346**	*e*P	**P**	**11 04 49.5**	**-0.7**
	comp=Z,80nm,0.7s						
INK	**Inuvik**	**54.26**	**346**	*e*P	**P**	**11 04 49.5**	**-0.6**
INK				pmax	pmax		
	comp=Z,80nm,0.7s						
PMR	**Palmer**	**55.03**	**334**	*e*P	**P**	**11 04 55.6**	**-0.1**
	comp=Z,5.4nm,0.8s,mb4.6						
PMR	**Palmer**	**55.03**	**334**	*e*P	**P**	**11 04 55.6**	**-0.1**
PMR				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
MCK	**McKinley**	**56.04**	**336**	*e*P	**P**	**11 05 02.8**	**-0.2**
PMOR	**Pomariorio Ree**	**56.99**	**238**	*e*T		12 06 01.6	
	comp=Z,3.3nm,0.2s						
PPT	**Papeete**	**59.75**	**236**	*e*LR	LR	11 23 05.4	
	comp=Z,70nm,25.8s						
PPT	**Papeete**	**59.75**	**236**	LR	LR	11 26 09.8	
	comp=Z,18nm,18.6s,baz=182,slow=31						
BILL	**Bilibino**	**74.49**	**337**	*e*P	**P**	**11 07 02.6**	**+0.4**
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.8						
SEY	**Seymchan**	**81.48**	**334**	⇑*e*P	**P**	**11 07 41.9**	**+0.8**
GRR	**Gorron**	**82.98**	**41**	*e*P	**P**	**11 07 49.9**	**+0.7**
FLN	**La Foliniere**	**83.09**	**41**	*e*P	**P**	**11 07 50.6**	**+0.8**
FLN				*e*pP	pP	11 08 06.3	-1.5
MA2	**Magadan**	**83.56**	**331**	⇑*e*P	**P**	**11 07 51.8**	**-0.2**
ESDC	**Sonseca Array**	**83.65**	**50**	P	**P**	**11 07 53.3**	**+0.4**
	comp=Z,0.3nm,0.3s,mb3.6,baz=299,slow=5.4,SNR=5.5						
MFF	**Saint Martin d**	**84.04**	**43**	*e*P	**P**	**11 07 55.6**	**+0.9**
TIXI	**Tiksi**	**84.39**	**346**	*e*P	**P**	**11 07 53.8**	**-2.2**
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
NOA	**NORSAR Array B**	**84.41**	**27**	P	**P**	**11 07 57.5**	**+1.2**
	comp=Z,2.1nm,0.8s,mb4.0,baz=295,slow=4.8,SNR=5.4						
NOA				LR	LR	11 44 43.5	
	comp=Z,32nm,18.4s,baz=230,slow=35						
ARCES	**ARCESS Array B**	**84.73**	**17**	P	**P**	**11 07 58.6**	**+0.9**
	comp=Z,5.4nm,0.6s,mb4.7,baz=304,slow=4.6,SNR=24						
ETSF	**Etsaut**	**85.02**	**47**	*e*P	**P**	**11 08 00.7**	**+1.0**
	comp=Z,5.0nm,0.7s,mb4.5						
ETSF	**Etsaut**	**85.02**	**47**	*e*P	**P**	**11 08 00.7**	**+1.0**
ETSF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
ETSF	**Etsaut**	**85.02**	**47**	*e*P	**P**	**11 08 00.7**	**+1.0**
	comp=Z,10.0nm,0.7s,mb4.6						
MDT	**Midelt**	**85.30**	**57**	P	**P**	**11 08 02.6**	**+1.3**
	comp=Z,6.1nm,1.1s,mb4.4,baz=295,slow=6.0,SNR=5.6						
BAIF	**Baives**	**85.48**	**39**	*e*P	**P**	**11 08 02.7**	**+0.8**
BAIF				*e*pP	pP	11 08 17.6	-2.4
RJF	**Les Rejaudoux**	**85.58**	**44**	*e*P	**P**	**11 08 03.0**	**+0.6**
	comp=Z,12nm,1.0s,mb4.8						
RJF				*e*pP	pP	11 08 18.0	-2.6
RJF	**Les Rejaudoux**	**85.58**	**44**	*e*P	**P**	**11 08 03.0**	**+0.6**
RJF				*e**PP	pP	11 08 18.0	-2.6
RJF				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
RJF	**Les Rejaudoux**	**85.58**	**44**	*e*pP	pP	11 08 18.0	-2.6
RJF	**Les Rejaudoux**	**85.58**	**44**	*e*P	**P**	**11 08 03.0**	**+0.6**
	comp=Z,24nm,1.0s,mb4.8						
EPF	**Esparros**	**85.60**	**46**	*e*P	**P**	**11 08 03.4**	**+0.8**
TCF	**Toulx Ste Croi**	**85.67**	**43**	*e*P	**P**	**11 08 03.3**	**+0.4**
	comp=Z,6.2nm,0.8s,mb4.6						
TCF				*e*pP	pP	11 08 18.0	-3.0
TCF	**Toulx Ste Croi**	**85.67**	**43**	*e*P	**P**	**11 08 03.3**	**+0.4**
TCF				*e**PP	pP	11 08 18.0	-3.0
TCF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
TCF	**Toulx Ste Croi**	**85.67**	**43**	*e*pP	pP	11 08 18.0	-3.0
TCF	**Toulx Ste Croi**	**85.67**	**43**	*e*P	**P**	**11 08 03.3**	**+0.4**
	comp=Z,12nm,0.8s,mb4.6						
SSF	**Saint Saulge**	**86.21**	**42**	*e*P	**P**	**11 08 05.2**	**-0.3**
	comp=Z,6.7nm,0.9s,mb4.6						
SSF	**Saint Saulge**	**86.21**	**42**	*e*P	**P**	**11 08 05.2**	**-0.3**
SSF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
SSF	**Saint Saulge**	**86.21**	**42**	*e*P	**P**	**11 08 05.2**	**-0.3**
	comp=Z,13nm,0.9s,mb4.6						
AVF	**Avril sur Loir**	**86.21**	**42**	*e*P	**P**	**11 08 05.6**	**0.0**
AVF				*e*pP	pP	11 08 20.6	-3.1
LOR	**Lormes**	**86.35**	**41**	*e*P	**P**	**11 08 06.8**	**+0.6**
	comp=Z,6.8nm,0.6s,mb4.8						
LOR				*e*pP	pP	11 08 21.8	-2.5
LOR	**Lormes**	**86.35**	**41**	*e*P	**P**	**11 08 06.8**	**+0.6**
LOR				*e**PP	pP	11 08 21.8	-2.5
LOR				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
LOR	**Lormes**	**86.35**	**41**	*e*pP	pP	11 08 21.8	-2.5
LOR	**Lormes**	**86.35**	**41**	*e*P	**P**	**11 08 06.8**	**+0.6**
	comp=Z,14nm,0.6s,mb4.8						
MTLF	**Montolieu**	**86.77**	**45**	*e*P	**P**	**11 08 08.9**	**+0.6**
LASF	**Ste Croix**	**87.59**	**44**	*e*P	**P**	**11 08 12.7**	**+0.4**
YAK	**Yakutsk**	**90.77**	**339**	⇑*e*P	**P**	**11 08 27.4**	**+0.6**
GERES	**GERESS Array B**	**91.57**	**37**	LR	LR	11 55 28.2	
	comp=Z,53nm,18.6s,baz=311,slow=39						
TORD	**Torodi Ar. Bea**	**97.40**	**74**	P	**P**	**11 08 58.5**	**+0.3**
	comp=Z,0.7nm,0.7s,mb4.2,baz=288,slow=4.7,SNR=4.0						
OBN	**Obninsk**	**98.53**	**23**	*e*P	**P**	**11 09 02.7**	**+0.3**
OBN				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb5.0						
HHC	**Hu-ho-hao-te**	**114.13**	**334**	*e*PKP	PKiKP	11 13 57.2	-6.1
HHC				PP	PP	11 14 59.5	+1.8
HHC				PKS		11 17 32.3	
HHC				SKS	SKSdf	11 21 04.0	-5.9
HHC				SKKS	SKKSac	11 21 49.2	-5.5
HHC				PP	PP		
	comp=Z,104nm,16.1s						
HHC				LR	LR		
	comp=N,137nm,28.5s						
HHC				LR	LR		
	comp=E,131nm,26.2s						
HHC				LR	LR		
	comp=Z,130nm,25.6s						
WMQ	**Urumqi**	**117.89**	**353**	*e*PKP	PKPdf	11 14 06.5	-4.0
GTA	**Gaotai**	**119.65**	**342**	*e*PKP	PKPdf	11 14 12.2	-1.8
GTA				PKS		11 17 47.7	
GTA				PP	PP		
	comp=Z,65nm,8.0s						
GTA				LR	LR		
	comp=N,71nm,16.3s						
GTA				LR	LR		
	comp=E,66nm,16.0s						
GTA				LR	LR		
	comp=Z,91nm,16.0s						
STKA	**Stephens Creek**	**122.60**	**243**	PKP	PKPdf	11 14 19.1	-0.6
STKA	**Stephens Creek**	**122.60**	**243**	PKP	PKPdf	11 14 19.1	-0.6
	comp=Z,2.9nm,0.8s,baz=161,slow=6.1,SNR=3.3						
CD2	**Chengdu**	**125.88**	**334**	*e*PKP	PKPdf	11 14 21.0	-5.2
WRA	**Warramunga Arr**	**128.14**	**259**	PKP	PKPdf	11 14 30.7	0.0
WRA	**Warramunga Arr**	**128.14**	**259**	PKIKP	PKPdf	11 14 30.7	0.0
WRA	**Warramunga Arr**	**128.14**	**259**	PKP	PKPdf	11 14 30.7	0.0
	comp=Z,1.7nm,0.6s,baz=80,slow=2.4,SNR=13						
GYA	**Guiyang**	**128.33**	**328**	*e*PDIF	Pdif	11 11 11.4	-3.6
GYA				PKP	PKPdf	11 14 26.2	-4.8
GYA				PP	PP	11 16 36.8	+2.1
GYA				PKS		11 18 01.2	
GYA				S	Sdif	11 24 34.9	+0.2
GYA				PP	PP		
	comp=Z,80nm,8.2s						
ASAR	**Alice Springs**	**128.95**	**254**	PKP	PKPdf	11 14 32.0	-0.1
ASAR	**Alice Springs**	**128.95**	**254**	PKIKP	PKPdf	11 14 32.0	-0.1
ASAR	**Alice Springs**	**128.95**	**254**	PKP	PKPdf	11 14 32.0	-0.1
	comp=Z,1.5nm,0.9s,baz=83,slow=2.0,SNR=12						
KMI	**Kunming**	**131.34**	**331**	PKP	PKPdf	11 14 31.7	-5.0
KMI	**Kunming**	**131.34**	**331**	PKIKP	PKPdf	11 14 31.7	-5.0

ISCJB ***06*** *11:28:58.9±0.8, 5934N±003×272E±0.1, h0*^{km}*, Error ellipse: s-maj=10.2km s-min=4.5km az=2.5*

HEL ***06*** *11:29:00.1±0.2, 5930N×2729E, h0*^{km}*, ML1.8, ML2.3(NAO), Explosion*

NAO ***06*** *11:29:00.0±1.1, 5931N×2704E, ML2.3*

BER ***06*** *11:29:01.0±2.8, 5931N×27.18E, h0*^{km}*, ML2.3(NAO), Suspected explosion*

ISC 06 11:28:59.1±0.8, **5932N**±003×**273E**±02, **h0**^{km}**, n17,** σ1.**21**/29, **Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VSU	Vasula	0.90	198	*i* P	Pg	11 29 15.4	-1.0
VSU				*i* SB	Sb	11 29 29.4	-0.7
VSU	Vasula	0.90	198	Pg	Pg	11 29 15.4	-1.0
VSU				Lg		11 29 29.4	
VJF	Virojoki	1.23	6	*e*P	Pg	11 29 21.8	-0.9
VJF				*e*SB	Sb	11 29 38.9	-0.8
VJF				MSG		11 29 38.9	
	comp=Z,4.3nm,0.2s						
MEF	Metsahovi	1.71	303	*e*P	Pn	11 29 30.7	+0.5
MEF				*e*S	Sn	11 29 52.5	-0.2
MEF				MSG		11 29 52.5	
	comp=Z,5.1nm,0.1s						
FIA0	FINESS Array S	2.21	345	Pn	Pn	11 29 38.1	+1.0
	baz=165,slow=18						
FIA0				Sn	Sn	11 30 06.4	+1.3
FIA0				Lg		11 30 08.8	
	baz=170,slow=28						
FIA0	FINESS Array S	2.21	345	*e*P	Pn	11 29 38.0	+0.9
	baz=167						
FIA0				*e*SG	Sg	11 30 08.6	-1.6
FIA0				MSG		11 30 08.6	
	comp=Z,5.4nm,0.3s						
FIA0	FINESS Array S	2.21	345	Pn	Pn	11 29 38.1	+1.0
	baz=165,slow=18						
FIA0				Sn	Sn	11 30 06.4	+1.3
FIA0				Lg		11 30 08.8	
	baz=170,slow=28						
FIA1	FINESS Array S	2.21	345	*e*P	Pn	11 29 38.2	+1.1
FIA1				*e*SG	Sg	11 30 09.3	-0.9
KEF	Keuruu	3.09	339	*e*PB	Pb	11 29 54.5	-0.4
KEF				*e*		11 30 44.1	
KEF				MSG		11 30 44.1	
	comp=Z,5.2nm,0.4s						
RAF	Rauma	3.24	304	*e*P	Pn	11 29 53.0	+1.9
	baz=115						
RAF				*e*S	Sn	11 30 33.9	+3.5
RAF				MSG		11 30 33.9	
	comp=Z,3.1nm,0.4s						
JOF	Joensuu	4.11	27	*e*P	Pn	11 30 05.5	+2.4
HFS	Hagfors	6.92	283	Sn	Sn	11 31 55.0	-5.9
	baz=94,slow=28						
HFS				Lg		11 32 32.8	
	baz=98,slow=28						
HFS	Hagfors	6.92	283	*e*S	Sn	11 31 55.0	-5.9
HFS				*e*SG	Sg	11 32 32.8	-8.3
HFS	Hagfors	6.92	283	Sn	Sn	11 31 55.0	-5.9
	baz=94,slow=28						
HFS				Lg		11 32 32.8	
	baz=98,slow=28						
ARA0	ARCESS Array S	10.29	357	Pn	Pn	11 31 26.6	-1.2
	baz=173,slow=14						
ARA0				Sn	Sn	11 33 16.5	-7.1
	baz=175,slow=28						
ARA0	ARCESS Array S	10.29	357	*e*P	Pn	11 31 26.6	-1.2
ARA0				*e*S	Sn	11 33 16.5	-7.1
ARA0	ARCESS Array S	10.29	357	Pn	Pn	11 31 26.6	-1.2
	baz=173,slow=14						
ARA0				Sn	Sn	11 33 16.5	-7.1
	baz=175,slow=28						

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*CASC **06** 11:32:35.1±2.5, 15.23N×92.07W, h250^{km}±12^{km}, MD4.4, mb4.5(NEIC)*

*ISCJB **06** 11:32:38.6±0.2, 15.48N±0.03×91.67W±0.02, h228^{km}±2^{km}, mb4.4/94, Error ellipse: s-maj=5.6km s-min=2.8km az=26.0*

*IDC **06** 11:32:39.7±0.6, 15.61N×91.62W, h224^{km}±3^{km}, mb4.1/19, mb1 4.2/22, mb1mx4.2/24, mbtmp4.1/22, Error ellipse: s-maj=15.0km s-min=7.7km az=51.0*

*NEIC **06** 11:32:40.8, 15.66N×92.03W, h224^{km}, mb4.5/85, MD4.8(MEX), After MEX.*

*MOS **06** 11:32:40.3±0.9, 15.51N×91.66W, h250^{km}, mb4.7/35, Error ellipse: s-maj=8.9km s-min=5.7km az=86.2*

*BJI **06** 11:32:40.8, 15.70N×92.00W, h224^{km}, mB5.0*

*MEX **06** 11:32:43.6±1.5, 15.93N×92.05W, h202^{km}±12^{km}, MD4.8*

ISC 06 11:32:39.7±0.3**, 15.49N**±0.03**×91.61W**±0.02**, h223**^{km}±2^{km}**, h227**^{km}±1.8^{km}**:pP-P, n579,** σ**1.03**/555**, mb4.4**/94**, 90C-87D, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CCIG	Comitan	0.94	327	⇑*i*P	Pn	11 33 10.0	-1.5
CCIG				*i* S	S	11 33 32.8	-3.6
CCIG	Comitan	0.94	327	⇑*i*P	Pn	11 33 10.0	-1.5
CCIG				*i* S	S	11 33 30.1	-6.3
JAT	Jato	1.17	181	*e*P	Pn	11 33 12.3	-0.7
JAT				*e*S	S	11 33 36.3	-2.8
FUG	Fuego 3	1.27	144	⇑*e*P	Pn	11 33 14.5	+0.7
GCG	Guatemala City	1.37	131	⇑*e*P	Pn	11 33 15.0	+0.4
GCG				*e*S	S	11 33 43.5	+1.8
SCX	San Cristobal	1.58	322	*i* P	Pn	11 33 10.7	-5.5
SCX				*i* S	S	11 33 34.7	-10
RBDL	Robledal	2.31	126	*e*P	x	11 33 24.3	
MTO2	Montecristo 2	2.43	116	*e*P	x	11 33 26.0	
RTR	El Retiro	2.47	130	*e*P	x	11 33 26.0	
SNJE	San Jose	2.52	129	*e*P	x	11 33 26.7	
SBLS	San Blas	2.53	130	*e*P	x	11 33 26.6	
SBLS				*e*S	x	11 34 07.9	
BOQS	Boqueron	2.85	127	*e*P	x	11 33 30.1	
SNET	Serv Nac Est T	2.92	128	*e*P	x	11 33 30.4	
SNET				*e*S	x	11 34 16.0	
LFU	La Fuente	2.97	125	*e*P	x	11 33 31.8	
LFRS	El Faro	3.09	127	*e*P	x	11 33 32.6	
LCBS	La Ceiba	3.13	125	*e*P	x	11 33 33.5	
SNVI	San Vicente	3.27	124	*e*P	x	11 33 34.8	
SCIG	Sabancuy	3.48	7	*i* P	Pn	11 33 35.1	-1.1
SCIG				*i* S	S	11 34 12.8	-8.0
CMIG	Matias Romero	3.52	297	P	Pn	11 33 32.0	-4.7
	760nm,0.3s,baz=102,slow=8.2,SNR=5789						
CMIG				S	S	11 34 10.4	-11
	315nm,0.3s,baz=315,slow=19,SNR=20						
CMIG	Matias Romero	3.52	297	*i* P	Pn	11 33 32.0	-4.7
CMIG				*i* S	S	11 34 09.9	-12
HUIG	Huatulco	4.34	274	⇑*i*P	Pn	11 33 40.4	-6.2
HUIG				*i* S	S	11 34 26.4	-13
HUIG	Huatulco	4.34	274	⇑*i*P	Pn	11 33 40.4	-6.2
HUIG				*i* S	S	11 34 25.9	-14
TGUH	Tegucigalpa,Un	4.43	108	*e*P	Pn	11 33 50.3	+2.6
TGUH				*e*S	S	11 34 36.4	-5.0
OXX	Oaxaca	5.16	289	*i* P	Pn	11 33 50.2	-6.6
OXX				*i* S	S	11 34 37.8	-20
OXX	Oaxaca	5.16	289	*i* P	Pn	11 33 50.2	-6.6
OXX				*i* S	S	11 34 44.0	-14
VHO	Vista Hermosa	5.17	288	⇑*e*P	Pn	11 33 53.4	-3.4
VHO				*e*S	S	11 34 46.3	-12
VHO	Vista Hermosa	5.17	288	*i* P	Pn	11 33 53.5	-3.4
VHO				*i* S	S	11 34 46.4	-12
TEIG	Tepich	5.68	33	*e*P	Pn	11 34 03.1	-0.1
	476nm,0.4s						
TEIG				*i* S	S	11 35 11.0	+1.3
TEIG	Tepich	5.68	33	P	Pn	11 34 03.1	-0.2
	106nm,0.3s,baz=236,slow=4.8,SNR=492						
TEIG	Tepich	5.68	33	⇓*i*P	Pn	11 34 03.2	-0.1
TEIG				*i* S	S	11 35 10.0	+0.3
LVIG	Laguna Verde	6.22	313	*e*P	Pn	11 34 07.8	-2.4
LVIG				*i* S	S	11 35 10.4	-12
TPIG	Tehuac#an	6.23	299	⇑*i*P	Pn	11 34 06.8	-3.5
TPIG				*i* S	S	11 35 10.1	-12
PNIG	Pinotepa	6.33	279	⇑*i*P	Pn	11 34 07.2	-4.4
PNIG				*i* S	S	11 35 11.8	-13
PNIG	Pinotepa	6.33	279	⇑*i*P	Pn	11 34 07.2	-4.4
PNIG				*i* S	S	11 35 12.6	-12
UTMO	Huajuapan	6.38	292	*i* P	Pn	11 34 09.2	-3.0
UTMO				*i* S	S	11 35 14.4	-11
YAIG	Yautepec	7.88	296	*e*P	Pn	11 34 29.6	-1.8
YAIG	Yautepec	7.88	296	*e*P	Pn	11 34 28.2	-3.2
YAIG				*i* S	S	11 35 48.5	-12
IIO	Organos	7.92	302	*i* P	Pn	11 34 30.8	-1.1
MEIG	Mezcala	8.05	289	*i* P	Pn	11 34 30.6	-3.0
MEIG				*i* S	S	11 35 53.1	-12
PLIG	Platanillo	8.09	292	*e*P	Pn	11 34 32.1	-2.1
PLIG				*i* S	S	11 35 54.6	-11
ACX	Acapulco	8.10	281	*i* P	Pn	11 34 26.3	-8.0
UNM	Universidad Na	8.17	299	*i* P	Pn	11 34 33.5	-1.7
UNM	Universidad Na	8.17	299	*i* P	Pn	11 34 31.2	-4.0
UNM				*i* S	S	11 35 57.2	-11
PTVM	Pico Tres Padr	8.24	301	*e*P	Pn	11 34 31.1	-5.0
JTS	JuntasAbangare	8.29	128	*e*P	Pn	11 34 37.1	+0.3
	58nm,0.4s						
JTS				*e*S	S	11 36 06.7	-4.1
JTS	JuntasAbangare	8.29	128	*e*P	Pn	11 34 37.2	+0.3
JTS				*e*S	S	11 36 06.7	-4.1
JTS				pmax	pmax		
	comp=Z,58nm,0.4s						
JTS	JuntasAbangare	8.29	128	P	Pn	11 34 37.1	+0.3
	comp=Z,12nm,0.3s,baz=311,slow=9.1,SNR=41						
JTS				S	S	11 36 03.8	-7.0
	comp=Z,2.0nm,0.3s,baz=305,slow=19,SNR=1.9						
SZVM	Salazar	8.34	298	*e*P	Pn	11 34 36.0	-1.4
SZVM				*i* S	S	11 35 58.6	-13
CAIG	El Cayaco	8.46	282	*i* P	Pn	11 34 35.9	-3.1
CAIG				*i* S	S	11 36 09.0	-5.6
CAIG	El Cayaco	8.46	282	*i* P	Pn	11 34 35.9	-3.1
CAIG				*i* S	S	11 36 02.6	-12
JCR	Jicaral	8.46	131	⇑*e*P	Pn	11 34 40.8	+1.8
CGA2	Cerro Gallo 2	8.84	127	*e*P	Pn	11 34 46.0	+2.1
PRS1	Puriscal	8.98	127	*e*P	Pn	11 34 48.0	+2.4
LAJ	Bijagual	9.20	127	*e*P	Pn	11 34 47.0	-1.5
LCR2	La Lucha 2	9.37	127	*e*P	Pn	11 34 52.5	+1.9
QCR	Quepos	9.44	129	*e*P	Pn	11 34 52.9	+1.3
URSC	Urasca	9.48	125	⇓*e*P	Pn	11 34 54.6	+2.5
MOIG	Morelia	10.04	296	*i* P	Pn	11 34 58.0	-1.1
BAR1		10.21	127	*e*P	Pn	11 35 03.1	+1.7
LNIG	Linares	11.91	323	*i* P	Pn	11 35 24.0	+1.1
MGV	Manicaragua	12.82	57	*e*P	Pn	11 35 41.2	+6.8
ANIG	Ahuacatlan	13.45	296	*i* P	Pn	11 35 42.8	+0.7
MCJ	Malvern	13.56	78	⇓*i*P	Pn	11 35 49.5	+6.0
CVJ	Coleyville	13.74	77	⇓*i*P	Pn	11 35 51.5	+5.8
PCJ	Portland Cotta	14.03	79	⇓*i*P	Pn	11 35 54.2	+4.9
CCCC	Cccc	14.31	65	*e*P	Pn	11 36 01.5	+8.8
STH	Stony Hill	14.40	78	⇓*i*P	Pn	11 35 56.7	+2.8
LMGC	Las Mercedes	14.63	70	*e*P	Pn	11 35 59.4	+2.8
HKT	Hockley	14.91	346	*e*P	Pn	11 35 56.7	-3.2
	comp=Z,28nm,1.4s						
HKT	Hockley	14.91	346	*e*P	Pn	11 35 56.7	-3.1
HKT				pmax	pmax		
	comp=Z,28nm,1.4s						
DWPF	Disney	15.70	35	*e*P	Pn	11 36 11.7	+2.3
	comp=Z,178nm,0.6s						
RCC	Rio Carpintero	15.80	71	*e*P	Pn	11 36 12.2	+1.5
NATX	Nacogdoches	16.43	351	*e*P	P	11 36 17.8	+0.8
	comp=Z,76nm,0.7s						
JCT	Junction City	16.71	335	*e*P	P	11 36 21.0	+1.1
	comp=Z,16nm,0.7s						
JCT	Junction City	16.71	335	*e*P	P	11 36 21.0	+1.1
JCT				pmax	pmax		
	comp=Z,16nm,0.7s						
MASC	Masc	17.18	72	*e*P	P	11 36 29.3	+4.0
LTX	Lajitas	17.70	323	*e*P	P	11 36 31.8	+1.0
	comp=Z,18nm,1.1s						
LTX	Lajitas	17.70	323	*e*P	P	11 36 31.8	+1.0
LTX				pmax	pmax		
	comp=Z,18nm,1.1s						
TXAR	Lajitas Array	17.70	323	P	P	11 36 31.6	+0.8
	comp=Z,1.9nm,0.3s,baz=148,slow=8.7,SNR=135						
TXAR				PcP	PcP	11 40 57.8	-0.1
	comp=Z,0.4nm,0.3s,baz=148,slow=2.6,SNR=15						
TXAR				ScP	ScP	11 44 13.0	+1.2
	comp=Z,0.2nm,0.3s,baz=155,slow=4.1,SNR=28						
LRAL	Lakeview Retre	17.96	13	*e*P	P	11 36 35.3	+1.8
	comp=Z,25nm,0.5s						
OXF	Oxford	19.04	6	*e*P	P	11 36 45.3	0.0
	comp=Z,115nm,0.5s						
OXF	Oxford	19.04	6	*e*P	P	11 36 45.3	0.0
OXF				pmax	pmax		
	comp=Z,115nm,0.5s						
MIAR	Mount Ida	19.06	355	*e*P	P	11 36 44.9	-0.5
	comp=Z,26nm,0.7s						
MIAR	Mount Ida	19.06	355	*e*P	P	11 36 44.9	-0.5
MIAR				pmax	pmax		
	comp=Z,25nm,0.7s						
UALR	University of	19.21	358	*e*P	P	11 36 47.4	+0.3
	comp=Z,62nm,0.8s						
GOGA	Godfrey	19.30	21	*e*P	P	11 36 49.5	+1.4
	comp=Z,59nm,0.8s						
GOGA	Godfrey	19.30	21	*e*P	P	11 36 49.5	+1.4
GOGA				pmax	pmax		
	comp=Z,59nm,0.8s						
PLAL	Pickwick Lake	19.67	9	*e*P	P	11 36 51.7	-0.2
	comp=Z,61nm,0.6s						
SDDR	Presa de Saban	19.71	77	*e*P	P	11 36 56.0	+3.4
	comp=Z,188nm,0.9s						
OTAV	Otavalo	19.96	138	*e*P	P	11 36 58.2	+2.9
	comp=Z,31nm,0.8s						
HBAR	Harrisburg	20.00	2	*e*P	P	11 36 56.3	+0.9
ROSC	El Rosal	20.00	120	*e*P	P	11 36 58.4	+2.7
ROSC	El Rosal	20.00	120	P	P	11 36 58.2	+2.4
	comp=Z,30nm,0.5s,baz=310,slow=1.6,SNR=12						
WMOK	Wichita Mounta	20.22	343	*e*P	P	11 36 56.0	-1.8
	comp=Z,22nm,1.0s						
WMOK	Wichita Mounta	20.22	343	*e*P	P	11 36 56.0	-1.9
WMOK				pmax	pmax		
	comp=Z,22nm,1.0s						
SWET	Sewanee	20.29	14	*e*P	P	11 36 59.1	+0.5
COW	Cow Castle Cre	20.37	27	*e*P	P	11 37 01.5	+2.0
HALT	Halls	20.44	5	*e*P	P	11 36 59.6	-0.5
GNAR	Gosnell	20.44	4	*e*P	P	11 37 00.4	+0.2
	comp=Z,398nm,0.5s						
MNTX	Cornudas Mount	20.45	324	*e*P	P	11 36 59.4	-0.9
	comp=Z,14nm,0.8s						
GLAT	Glass	20.80	5	*e*P	P	11 37 03.7	-0.2
WVT	Waverly	20.83	9	*e*P	P	11 37 03.7	-0.6
	comp=Z,124nm,0.6s						
WVT	Waverly	20.83	9	*e*P	P	11 37 03.7	-0.6
WVT				pmax	pmax		
	comp=Z,124nm,0.6s						
CPCT	Cooper Cave	20.87	16	*e*P	P	11 37 05.3	+0.7
JSC	Jenkinsville	20.91	25	*e*P	P	11 37 06.3	+1.2
UTMT	University of	20.91	6	*e*P	P	11 37 04.3	-0.8
	comp=Z,455nm,0.9s						
PARMO	Parma	21.15	4	*e*P	P	11 37 07.0	-0.6
LHS	Liberty Hill	21.26	25	*e*P	P	11 37 10.1	+1.3
TKL	Tuckaleechee C	21.27	18	P	P	11 37 09.5	+0.6
TKL	Tuckaleechee C	21.27	18	P	P	11 37 09.5	+0.6
	comp=Z,68nm,0.8s,mb5.2,baz=188,slow=10.0,SNR=60						
AMTX	Amarillo	21.33	337	*e*P	P	11 37 08.2	-1.3
	comp=Z,45nm,0.8s,mb5.0						
SIUC	Southern Illin	22.24	5	*e*P	P	11 37 18.5	+0.4
	comp=Z,566nm,0.8s						
FVM	French Village	22.43	2	*e*P	P	11 37 18.9	-0.9
	comp=Z,15nm,0.6s,mb4.7						
FVM	French Village	22.43	2	*e*P	P	11 37 18.9	-0.9
FVM				pmax	pmax		
	comp=Z,15nm,0.6s,mb4.7						
USIN	University of	22.66	8	*e*P	P	11 37 22.2	+0.3
	comp=Z,193nm,0.6s						
BNM	Barren Site	22.99	327	*e*P	P	11 37 25.6	+0.6
SLM	Saint Louis	23.09	3	*e*P	P	11 37 26.4	+0.6
	comp=Z,94nm,0.6s,mb5.5						
SLM	Saint Louis	23.09	3	*e*P	P	11 37 26.4	+0.6
SLM				pmax	pmax		
	comp=Z,94nm,0.6s,mb5.5						
WCI	Wyandotte Cave	23.13	11	*e*P	P	11 37 26.2	0.0
	comp=Z,231nm,0.7s						
WCI	Wyandotte Cave	23.13	11	*e*P	P	11 37 26.2	0.0
WCI				pmax	pmax		
	comp=Z,231nm,0.7s						
LAZ	Ladron	23.46	326	*e*P	P	11 37 30.2	+1.0
ANMO	Albuquerque	23.52	328	P	P	11 37 29.7	-0.1
ANMO				*e*P		11 37 30.2	
ANMO				pP		11 38 09.7	
ANMO				ScP	ScP	11 44 24.4	-1.3
ANMO	Albuquerque	23.52	328	P	P	11 37 29.7	-0.1
	comp=Z,1.5nm,0.5s,mb3.9,baz=145,slow=9.7,SNR=12						
ANMO				pP		11 38 09.7	
	comp=Z,17nm,0.8s,baz=140,slow=12,SNR=30						
ANMO				ScP	ScP	11 44 24.4	-1.3
	comp=Z,2.3nm,0.9s,baz=185,slow=8.3,SNR=5.6						
ELN	Prospectdale	23.70	22	*e*P	P	11 37 32.6	+1.2
BLA	Blacksburg	23.80	23	*e*P	P	11 37 33.4	+1.1
	comp=Z,28nm,0.8s,mb4.9						
BLA	Blacksburg	23.80	23	*e*P	P	11 37 33.4	+1.1
BLA				pmax	pmax		
	comp=Z,28nm,0.8s,mb4.9						
KSU1	Kansas State U	23.93	350	*e*P	P	11 37 32.3	-1.1
	comp=Z,27nm,0.8s,mb4.9						
BLO	Bloomington	24.01	10	*e*P	P	11 37 34.3	+0.1
	comp=Z,94nm,0.6s,mb5.6						
BLO	Bloomington	24.01	10	*e*P	P	11 37 34.3	+0.1
BLO				pmax	pmax		
	comp=Z,94nm,0.6s,mb5.6						
SJG	San Juan	24.50	80	P	P	11 37 39.7	+0.8
	comp=Z,33nm,0.5s,mb5.2,baz=244,slow=4.9,SNR=8.5						
CPD	Cerro la Pandu	24.73	80	*e*P	P	11 37 41.3	+0.4
116A	Eloy	24.94	317	⇑P	P	11 37 42.7	0.0
	baz=25						
HDIL	Hopedale	25.06	4	*e*P	P	11 37 43.8	+0.2
	comp=Z,112nm,1.1s,mb5.4						
MTP	Monte Pirata	25.07	80	*e*P	P	11 37 44.6	+0.6
SDCO	Great Sand Dun	25.35	334	*e*P	P	11 37 47.8	+1.5
115A	Sonoran Desert	25.37	316	⇑P	P	11 37 47.8	+1.2
	baz=25,SNR=7.8						
ACSO	Alum Creek Sta	25.77	15	*e*P	P	11 37 50.3	+0.2
	comp=Z,35nm,0.6s,mb5.2						
ATAH	Atahualpa	25.90	149	P	P	11 37 55.5	+4.0
	comp=Z,15nm,0.6s,mb4.8,baz=320,slow=2.8,SNR=12						
MCWV	Mont Chateau	26.19	21	*e*P	P	11 37 53.5	-0.3
	comp=Z,18nm,0.7s,mb4.8						
Z14A	Wintersburg	26.25	316	⇑P	P	11 37 55.6	+1.2
	baz=26						
MVCO	Mesa Verde	26.32	328	*e*P	P	11 37 52.6	-2.4
	comp=Z,7.0nm,1.0s,mb4.2						
MVCO	Mesa Verde	26.32	328	⇑P	P	11 37 55.9	+0.9
	baz=26,SNR=8.7						
X15A	Humboldt	26.50	319	⇑P	P	11 37 56.3	-0.3
	baz=26,SNR=11						
Y14A	Wickenburg	26.64	317	⇑P	P	11 37 58.2	+0.3
	baz=27,SNR=13						
WUAZ	Wupatki	26.66	322	*e*P	P	11 37 59.3	+1.2
	comp=Z,8.7nm,0.9s,mb4.4						
WUAZ	Wupatki	26.66	322	⇓P	P	11 37 58.4	+0.3
	baz=27,SNR=8.3						
PCRV	Puerto La Cruz	26.81	98	P	P	11 37 60.0	+0.3
	comp=Z,12nm,0.4s,mb4.8,baz=198,slow=3.1,SNR=9.1						
X14A	Yava	26.90	318	⇓P	P	11 37 59.9	-0.4
	baz=27,SNR=7.6						
W15A	Williams	26.97	320	⇓P	P	11 38 01.1	+0.3
	baz=27,SNR=7.4						
PV01	Paradox Valley	27.07	330	P	P	11 38 00.6	-1.1
Y13A	Salome	27.11	316	⇑P	P	11 38 02.5	+0.4
	baz=27						
SDMD	Soldier’s Deli	27.12	26	*e*P	P	11 38 03.2	+1.1
W14A	Seligman	27.50	320	⇓P	P	11 38 06.2	+0.7
	baz=27,SNR=8.3						
X13A	Yucca	27.59	318	⇓P	P	11 38 06.6	+0.2
	baz=28						
PDMCI	Parker Dam,Lak	27.61	317	⇓P	P	11 38 07.0	+0.4
	baz=28						
SSPA	Standing Stone	27.75	23	*e*P	P	11 38 08.4	+0.7
	comp=Z,44nm,1.1s,mb5.0						
MVL	Millersville	27.82	26	*e*P	P	11 38 09.6	+1.3
ALLY	Alegheny Colle	27.89	19	*e*P	P	11 38 09.1	+0.2
W13A	Hualapai Mount	27.93	318	⇑P	P	11 38 10.5	+1.0
	baz=28						
SWSC	Sam W. Stewart	27.97	313	⇑P	P	11 38 10.8	+1.1
	baz=28						
BC3	Big Chuckw Mtn	28.12	314	⇓P	P	11 38 11.6	+0.5
	baz=28,SNR=13						
IRM	Iron Mountain	28.20	316	⇓P	P	11 38 12.1	+0.3
	baz=28						
W12A	Cal Nev Ari	28.69	318	⇓P	P	11 38 16.9	+0.8
	baz=29						
T14A	Hurricane	28.72	322	P	P	11 38 17.6	+1.2
	baz=29,SNR=11						
PFO	Pinyon Flat Ob	28.79	313	pP	pP	11 38 59.6	-2.1
	comp=Z,7.3nm,1.0s,baz=92,slow=5.2,SNR=3.6						
GMRC	Granite Mounta	28.90	316	⇓P	P	11 38 18.6	+0.6
	baz=29						
V12A	Nelson	28.94	318	P	P	11 38 19.7	+1.4
	baz=29,SNR=8.3						
BRNJ	Basking Ridge	29.15	27	*e*P	P	11 38 22.4	+2.3
U12A	Valley of Fire	29.19	320	⇓P	P	11 38 21.2	+0.7
	baz=29						
CCUT	Cedar City	29.22	323	*e*P	P	11 38 22.5	+1.8
S14A	Cedar City	29.25	323	P	P	11 38 22.4	+1.4
	baz=29,SNR=7.0						
V11A	Goodsprings	29.38	318	⇑P	P	11 38 22.4	+0.2
	baz=29						
HEC	Hector,Ludlow	29.38	315	⇑P	P	11 38 23.4	+1.2
	baz=29						
ARUT	Antelope Range	29.42	323	*e*P	P	11 38 23.7	+1.2
TUQ	Turquoise Mtn.	29.46	317	⇓P	P	11 38 23.9	+0.9
	baz=29,SNR=5.2						
T12A	Moapa	29.48	320	⇓P	P	11 38 24.0	+0.9
	baz=29						
BBSR	BB Station	29.67	51	*e*P	P	11 38 25.9	+1.1
	comp=Z,81nm,0.8s,mb5.4						
BINY	Binghamton	29.82	24	*e*P	P	11 38 26.6	+0.5
	comp=Z,119nm,1.1s,mb5.4						
U10A	Ash Meadows, A	30.31	318	⇓P	P	11 38 31.0	+0.6
	baz=30						
R12A	Pony Springs,	30.47	323	P	P	11 38 33.4	+1.7
	baz=30,SNR=17						
EDW2	Edwards Air Fo	30.55	314	⇓P	P	11 38 33.0	+0.5
	baz=30						
COWI	Conover	30.59	3	*e*P	P	11 38 32.1	-0.6
	comp=Z,16nm,0.6s,mb4.8						
LRMC	Laurel Mountai	30.67	315	⇑P	P	11 38 34.0	+0.5
	baz=31						
FURC	Furnace Creek,	30.69	318	⇑P	P	11 38 34.3	+0.6
	baz=31						
DUG	Dugway	30.78	327	⇓P	P	11 38 36.1	+1.6
	baz=31						
SNCC	San Nicolas Is	30.82	310	⇑P	P	11 38 35.7	+0.8
	baz=31						
MPMC	Manual Prospec	30.86	316	P	P	11 38 36.2	+1.0
	baz=31,SNR=5.2						
NNA	Nana	30.97	151	*e*P	P	11 38 37.3	+1.0
	comp=Z,6.7nm,0.7s,mb4.4						
Q12A	Willow Creek R	31.07	323	⇓P	P	11 38 38.6	+1.5
	baz=31						
HWUT	Hardware Ranch	31.22	330	*e*P	P	11 38 37.5	-0.8
	comp=Z,5.1nm,0.9s,mb4.2						
PDAR	Pinedale Array	31.24	334	P	P	11 38 37.6	-0.8
	comp=Z,0.7nm,0.5s,mb3.5,baz=128,slow=12,SNR=14						
PDAR				pP	pP	11 39 24.1	+0.7
	comp=Z,0.4nm,0.6s,baz=128,slow=10,SNR=1.9						
PDAR				PcP	PcP	11 41 26.3	-1.0
	comp=Z,1.1nm,0.5s,baz=137,slow=5.1,SNR=11						
PDAR				ScP	ScP	11 44 48.1	-1.0
	comp=Z,1.1nm,0.8s,baz=137,slow=3.9,SNR=8.8						
ISA	Isabella	31.30	315	⇑P	P	11 38 40.0	+0.9
	baz=31						
GRAC	Grapevine Rang	31.33	318	⇑P	P	11 38 40.2	+0.9
	baz=31						
S10A	Tonopah Range,	31.40	320	P	P	11 38 41.5	+1.5
	baz=31,SNR=10						
P12A	McGill	31.41	324	P	P	11 38 41.1	+1.1
	baz=31,SNR=8.6						
SPUT	South Promonto	31.42	329	*e*P	P	11 38 40.4	+0.4
Q11A	Duckwater	31.42	322	P	P	11 38 41.6	+1.5
	baz=31,SNR=18						
BGU	Big Grassy Mou	31.43	328	*e*P	P	11 38 40.8	+0.6
R10A	Warm Springs	31.45	321	P	P	11 38 42.1	+1.7
	baz=31,SNR=9.3						
S09A	Goldfield	31.67	319	P	P	11 38 43.5	+1.3
	baz=32,SNR=5.8						
VES	Vestal, Richgr	31.81	315	⇑P	P	11 38 44.7	+1.1
	baz=32						
O12A	Currie	31.87	325	P	P	11 38 45.0	+1.0
	baz=32,SNR=6.1						
R09A	Tonopah	31.89	320	P	P	11 38 45.8	+1.6
	baz=32,SNR=10						
P11A	Circle Ranch,	31.95	323	⇓P	P	11 38 46.2	+1.5
	baz=32						
S08C	White Mtn Res	32.14	318	P	P	11 38 47.8	+1.4
	baz=32,SNR=5.7						
RCTC	Rector, Farmer	32.18	315	⇑P	P	11 38 48.0	+1.3
	baz=32						
HELL	Mitchell Peak,	32.23	316	⇓P	P	11 38 48.1	+0.9
	baz=32						
REDW	Red Top Meadow	32.28	333	*e*P	P	11 38 47.5	0.0
	comp=Z,8.7nm,0.6s,mb4.5						
O11A	Cowboy Ranch,	32.28	324	P	P	11 38 49.0	+1.5
	baz=32,SNR=6.7						
Q09A	Carvers	32.33	321	⇑P	P	11 38 49.0	+1.0
	baz=32						
M13A	Montello	32.33	327	P	P	11 38 48.7	+0.7
	baz=32,SNR=9.7						
LOHW	Long Hollow	32.37	334	*e*P	P	11 38 48.4	+0.1
	comp=Z,5.2nm,0.6s,mb4.2						
P10A	Eureka	32.41	323	⇑P	P	11 38 49.5	+0.9
	baz=32,SNR=6.1						
TPAW	Teton Pass	32.42	333	*e*P	P	11 38 48.9	+0.2
	comp=Z,4.1nm,0.5s,mb4.2						
N12A	Clover Valley,	32.44	326	⇓P	P	11 38 49.5	+0.6
	baz=32						
MOOW	Moose Ponds	32.54	334	*e*P	P	11 38 49.5	-0.3
	comp=Z,1.8nm,0.7s,mb3.7						
R08A	Mina	32.60	319	⇓P	P	11 38 51.0	+0.6
	baz=32						
K14A	Jones Ranch, D	32.71	330	P	P	11 38 51.1	-0.1

	baz=33,SNR=12						
IMW	Indian Meadow	32.75	334	eP	P	11 38 50.5	-1.0
	comp=Z,3.6nm,0.6s,mb4.1						
IMW				e	pP	11 39 36.3	-0.4
L13A	Double Diamond	32.75	328	⇑P	P	11 38 52.5	+0.9
	baz=33						
P09A	Austin	32.76	322	⇓P	P	11 38 52.6	+0.9
	baz=33						
M12A	Wells	32.77	327	P	P	11 38 52.6	+0.9
	baz=33,SNR=5.8						
NVAR	Mina Array Bea	32.77	319	P	P	11 38 52.0	+0.1
NVAR				pP	pP	11 39 35.5	-1.6
NVAR				sP	sP	11 40 02.2	-0.6
NVAR				PcP	PcP	11 41 32.0	+0.4
NVAR				ScP	ScP	11 44 56.0	+1.6
NVAR	Mina Array Bea	32.77	319	P	P	11 38 52.0	+0.1
	comp=Z,7.9nm,0.7s,mb4.4,baz=130,slow=9.0,SNR=85						
NVAR				pP	pP	11 39 35.5	-1.6
	comp=Z,6.7nm,0.8s,baz=127,slow=10.0,SNR=7.0						
NVAR				sP	sP	11 40 02.2	-0.6
	comp=Z,5.3nm,0.9s,baz=128,slow=10,SNR=2.8						
NVAR				PcP	PcP	11 41 32.0	+0.4
	comp=Z,1.2nm,0.7s,baz=108,slow=4.1,SNR=4.5						
NVAR				ScP	ScP	11 44 56.0	+1.6
	comp=Z,1.5nm,0.7s,baz=120,slow=5.1,SNR=13						
KCC	Kaiser Creek	32.79	317	⇑P	P	11 38 52.1	+0.1
	baz=33						
N11A	Elko Archery C	32.79	325	⇓P	P	11 38 53.0	+0.9
	baz=33						
Q08A	Gabbs	32.80	320	P	P	11 38 53.7	+1.6
	baz=33,SNR=8.7						
O10A	Cortez Mining,	32.87	324	P	P	11 38 54.0	+1.3
	baz=33,SNR=6.8						
T06C	Millerton Lake	32.87	316	⇓P	P	11 38 53.4	+0.7
	baz=33						
PKD	Parkfield	32.88	314	⇑P	P	11 38 53.9	+1.0
	baz=33						
AGMN	Agassiz Refuge	32.90	355	eP	P	11 38 52.5	-0.3
	comp=Z,5.1nm,0.6s,mb4.2						
R07C	Lee Vining	33.05	318	⇑P	P	11 38 55.8	+1.5
	baz=33						
O09A	Fish Creek Ran	33.19	323	P	P	11 38 56.7	+1.3
	baz=33,SNR=13						
K13A	Stover Farm, H	33.23	329	⇑P	P	11 38 55.3	-0.5
	baz=33						
M11A	Holland Ranch,	33.25	326	P	P	11 38 57.0	+1.1
	baz=33,SNR=7.1						
U04C	Hernandez Rese	33.26	314	⇓P	P	11 38 56.8	+0.6
	baz=33						
L12A	House Creek Ra	33.34	327	⇓P	P	11 38 57.7	+1.0
	baz=33						
YMR	Madison River	33.38	335	eP	P	11 38 57.6	+0.6
	comp=Z,4.1nm,0.7s,mb4.1						
S06C	San Francisco	33.45	317	⇓P	P	11 38 57.6	-0.1
	baz=33						
T05C	Eagle Field, D	33.46	315	⇑P	P	11 38 58.1	+0.2
	baz=33						
R06C	Coleville	33.56	318	P	P	11 39 00.6	+1.9
	baz=34,SNR=5.0						
K12A	Draper Farm, C	33.63	328	⇓P	P	11 38 58.9	-0.4
	baz=34						
M10A	I.L. Ranch, Tu	33.72	325	P	P	11 39 01.2	+1.2
	baz=34,SNR=7.4						
L11A	Cat Creek Ranc	33.74	327	⇑P	P	11 39 00.6	+0.4
	baz=34						
N09A	Rock Creek Ran	33.82	323	⇑P	P	11 39 00.8	-0.1
	baz=34						
J13A	Cove Ranch, Pi	33.83	330	P	P	11 39 01.1	+0.2
	baz=34,SNR=6.0						
CMB	Columbia Colle	33.89	317	eP	P	11 39 01.5	0.0
	comp=Z,1.3nm,0.3s,mb3.9						
CMB	Columbia Colle	33.89	317	eP	P	11 39 01.5	0.0
CMB				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.8						
CMB	Columbia Colle	33.89	317	⇑P	P	11 39 01.8	+0.3
	baz=34						
L10A	Juniper Basin	34.06	326	⇓P	P	11 39 02.7	-0.2
	baz=34						
R05C	Kirkwood Meado	34.06	318	⇓P	P	11 39 03.5	+0.5
	baz=34						
HLID	Hailey	34.07	330	eP	P	11 39 01.1	-1.9
	comp=Z,1.4nm,0.7s,mb3.6						
HLID	Hailey	34.07	330	⇓P	P	11 39 03.1	+0.1
	baz=34						
N08A	GE Springer Mi	34.13	323	⇑P	P	11 39 03.0	-0.5
	baz=34						
M09A	Marrel Ranch,	34.16	324	P	P	11 39 04.8	+1.1
	baz=34,SNR=5.4						
J12A	Stokes Ranch,	34.18	329	⇑P	P	11 39 04.4	+0.4
	baz=34						
O07A	Toulon	34.18	321	P	P	11 39 05.0	+1.1
	baz=34,SNR=9.1						
I13A	Wildhorse Cree	34.19	331	P	P	11 39 04.9	+0.9
	baz=34,SNR=5.4						
S04C	Ingram Canyon,	34.23	316	⇑P	P	11 39 05.1	+0.6
	baz=34						
G15A	Dillon	34.43	334	P	P	11 39 06.8	+0.8
	baz=34,SNR=6.3						
BOZ	Bozeman (W)	34.45	335	⇓P	P	11 39 05.9	-0.4
	baz=34						
P06A	Stead Airport,	34.52	320	⇓P	P	11 39 07.4	+0.6
	baz=34						
LAVA	Lava Cap Winer	34.52	318	⇑P	P	11 39 07.2	+0.3
	baz=34						
N07B	Gerlach	34.62	322	⇑P	P	11 39 08.6	+0.8
	baz=35						
MFID	Camas Ranch	34.66	328	⇓P	P	11 39 08.3	+0.2
	baz=35						
M08A	Happy Creek Ra	34.70	324	P	P	11 39 09.2	+0.8
	baz=35,SNR=5.8						
H13A	Challis	34.75	331	P	P	11 39 09.1	+0.3
	baz=35,SNR=11						
K10A	MacKenzie Ranc	34.76	327	⇑P	P	11 39 09.3	+0.4
	baz=35						
O06A	Flanigan	34.76	321	P	P	11 39 10.1	+1.1
	baz=35,SNR=18						
ULM	Lac du Bonnet	34.84	355	P	P	11 39 07.2	-2.3
ULM				pP	pP	11 39 53.8	-1.3
ULM				PcP	PcP	11 41 35.5	-1.8
ULM				ScP	ScP	11 45 00.2	-1.2
ULM	Lac du Bonnet	34.84	355	P	P	11 39 07.2	-2.3
	comp=Z,3.5nm,0.6s,mb4.1,baz=177,slow=9.3,SNR=17						
ULM				pP	pP	11 39 53.8	-1.3
	comp=Z,4.3nm,0.9s,baz=181,slow=8.6,SNR=4.6						
ULM				PcP	PcP	11 41 35.5	-1.8
	comp=Z,1.0nm,0.4s,baz=342,slow=9.6,SNR=4.3						
ULM				ScP	ScP	11 45 00.2	-1.2
	comp=Z,1.4nm,0.7s,baz=229,slow=2.2,SNR=5.2						
G14A	Jackson	34.91	333	⇓P	P	11 39 09.3	-0.8
	baz=35						
BEKR	Beckwourth	34.91	320	P	P	11 39 11.5	+1.2
	baz=35,SNR=7.8						
F15A	Butte	34.97	334	P	P	11 39 10.6	0.0
	baz=35,SNR=6.3						
Q04C	Lincoln	34.98	317	⇑P	P	11 39 08.8	-2.1
	baz=35						
H12A	Diamond D Ranc	35.02	331	P	P	11 39 11.6	+0.5
	baz=35,SNR=6.4						
I11A	Placerville	35.09	329	P	P	11 39 12.2	+0.4
	baz=35,SNR=18						
N06A	Buffalo Meadow	35.12	321	P	P	11 39 12.7	+0.6
	baz=35,SNR=13						
G13A	Cobalt	35.14	332	P	P	11 39 12.2	+0.1
	baz=35,SNR=5.3						
J10A	Berg Farm, Mel	35.16	327	⇑P	P	11 39 12.1	-0.2
	baz=35						
K09A	Rome	35.16	326	P	P	11 39 13.4	+1.0
	baz=35,SNR=28						
L08A	Fields	35.16	325	P	P	11 39 12.7	+0.3
	baz=35,SNR=16						
Q03C	Winters	35.29	317	⇑P	P	11 39 13.3	-0.1
	baz=35						
F14A	Wisdom	35.32	333	⇑P	P	11 39 13.8	+0.2
	baz=35						
O05C	Quincy	35.32	319	⇑P	P	11 39 12.9	-0.8
	baz=35						
ORV	Oroville	35.45	318	⇓P	P	11 39 15.8	+0.9
	baz=35						
SUTB	Sutter Butte	35.46	318	⇓P	P	11 39 15.6	+0.7
	baz=35						
WVOR	Wild Horse Val	35.49	325	eP	P	11 39 15.3	+0.2
	comp=Z,9.9nm,1.0s,mb4.3						
WVOR	Wild Horse Val	35.49	325	eP	P	11 39 15.3	+0.2
WVOR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.3						
E15A	Deer Lodge	35.49	335	⇑P	P	11 39 15.1	0.0
	baz=36						
ELFS	Eagle Lake Fie	35.58	320	P	P	11 39 17.6	+1.7
	baz=36,SNR=9.1						
K08A	Mann Creek Ran	35.60	325	P	P	11 39 16.8	+0.7
	baz=36,SNR=37						
L07A	Adell	35.62	323	P	P	11 39 17.0	+0.8
	baz=36,SNR=12						
J09A	Fry Pan Ranch,	35.62	326	P	P	11 39 16.9	+0.7
	baz=36,SNR=13						
O04C	Chester	35.63	320	⇑P	P	11 39 16.5	+0.2
	baz=36,SNR=5.2						
I10A	Payette	35.64	328	⇑P	P	11 39 16.6	+0.2
	baz=36						
H11A	Donnelly	35.69	330	⇓P	P	11 39 16.7	-0.1
	baz=36						
F13A	Darby	35.72	332	P	P	11 39 16.6	-0.5
	baz=36,SNR=7.3						
EGMT	Eagleton	35.73	339	eP	P	11 39 16.5	-0.6
	comp=Z,6.0nm,0.6s,mb4.3						
EGMT	Eagleton	35.73	339	⇓P	P	11 39 16.7	-0.5
	baz=36						
M06C	Likely Place G	35.78	321	P	P	11 39 18.2	+0.6
	baz=36,SNR=5.4						
E14A	Clinton	35.84	334	⇑P	P	11 39 17.7	-0.4
	baz=36						
D15A	Lincoln	35.94	335	⇓P	P	11 39 18.6	-0.4
	baz=36						
H10A	Noah’s Angus R	35.97	329	⇓P	P	11 39 18.4	-0.8
	baz=36						
K07A	Rock Creek Ran	36.00	324	P	P	11 39 20.0	+0.5
	baz=36,SNR=22						
J08A	Circle Bar Ran	36.01	326	P	P	11 39 19.9	+0.3
	baz=36,SNR=24						
I09A	Lost Marbles R	36.04	327	P	P	11 39 19.9	+0.1
	baz=36,SNR=9.5						
MOD	Modoc	36.10	323	eP	P	11 39 20.3	-0.1
	comp=Z,2.5nm,0.8s,mb3.8						
MOD	Modoc	36.10	323	P	P	11 39 20.4	+0.1
	baz=36,SNR=6.8						
F12A	Elk City	36.11	332	P	P	11 39 20.1	-0.3
	baz=36,SNR=12						
E13A	Victor	36.16	333	P	P	11 39 20.2	-0.6
	baz=36,SNR=7.8						
M05C	Lookout	36.28	321	P	P	11 39 22.2	+0.4
	baz=36,SNR=10						
GASB	Alder Springs	36.30	318	⇓P	P	11 39 21.5	-0.5
	baz=36						
G11A	Walters Elk Ra	36.32	330	⇓P	P	11 39 20.9	-1.3
	baz=36						
D14A	Greenough	36.38	335	⇑P	P	11 39 20.8	-1.8
	baz=36						
I08A	Drewsey	36.44	327	⇑P	P	11 39 22.5	-0.6
	baz=36,SNR=6.2						
J07A	Hines	36.48	325	⇓P	P	11 39 23.2	-0.3
	baz=36						
H09A	Durkee	36.48	328	⇓P	P	11 39 23.0	-0.6
	baz=36						
L05A	Lakeview	36.51	322	⇑P	P	11 39 24.2	+0.4
	baz=36						
F11A	Grangeville	36.63	331	⇑P	P	11 39 24.6	-0.1
	baz=37						
K06A	Valley Falls	36.63	324	P	P	11 39 25.0	+0.2
	baz=37,SNR=5.1						
WDC	Whiskeytown Da	36.69	319	⇓P	P	11 39 24.5	-0.9
	baz=37						
D13A	Huson	36.79	334	P	P	11 39 25.6	-0.4
	baz=37,SNR=5.4						
M03C	McCloud	36.82	320	⇓P	P	11 39 26.4	0.0
	baz=37						
J06A	Christmas Vall	36.87	324	P	P	11 39 26.5	-0.3
	baz=37,SNR=6.8						
H08A	Prairie City	36.90	327	⇑P	P	11 39 27.0	0.0
	baz=37						
M04C	Macdoel	36.95	321	⇑P	P	11 39 27.9	+0.4
	baz=37						
K05A	Summer Lake	36.96	323	⇓P	P	11 39 26.4	-1.1
	baz=37						
E11A	Bogner Ranch,	37.00	331	⇑P	P	11 39 26.4	-1.5
	baz=37						
I07A	Izee	37.05	326	P	P	11 39 28.2	-0.1
	baz=37,SNR=6.5						
F10A	Beach Ranch, E	37.20	330	P	P	11 39 29.1	-0.4
	baz=37,SNR=6.6						
L04A	Klamath Falls	37.21	322	⇓P	P	11 39 29.9	+0.2
	baz=37						
O01C	Eel River Cons	37.27	318	⇓P	P	11 39 30.5	+0.3
	baz=37						
C13A	Hot Springs	37.30	334	⇑P	P	11 39 29.3	-1.0
	baz=37						
M02C	Callahan	37.34	320	⇑P	P	11 39 29.8	-1.0
	baz=37						
F09A	S2 Ranch, Elgi	37.34	329	⇑P	P	11 39 30.4	-0.4
	baz=37						
I06A	Prineville	37.35	325	⇓P	P	11 39 30.5	-0.3
	baz=37						
YBH	Yreka Blue Hor	37.45	321	⇑P	P	11 39 31.1	-0.6
	baz=37						
J05A	Fort Rock	37.50	324	⇑P	P	11 39 31.8	-0.3
	baz=37						
D11A	Klaveano Farm,	37.58	332	⇑P	P	11 39 31.4	-1.3
	baz=38						
G08A	Pilot Rock	37.58	328	⇓P	P	11 39 32.5	-0.2
	baz=38						
B13A	Whitefish	37.80	335	⇑P	P	11 39 34.1	-0.4
	baz=38						
F08A	Pendleton	37.84	329	⇑P	P	11 39 34.1	-0.8
	baz=38						
H06A	Lindquist Farm	37.93	326	⇑P	P	11 39 35.8	+0.1
	baz=38						
G07A	Ruggs Ranch, H	37.93	327	⇓P	P	11 39 35.8	+0.2
	baz=38						
J04A	Umpqua Nationa	37.98	323	⇓P	P	11 39 35.7	-0.4
	baz=38						
D10A	Wagner Farm, O	38.02	331	⇑P	P	11 39 35.0	-1.3
	baz=38						
E09A	Wood Farm, Sta	38.03	330	⇓P	P	11 39 35.8	-0.7
	baz=38						
I05A	Bend	38.07	325	P	P	11 39 37.4	+0.5
	baz=38,SNR=6.0						
HUMO	Hull Mountain	38.10	322	⇓P	P	11 39 36.7	-0.4
	baz=38						
A13A	Flathead Natio	38.22	336	⇑P	P	11 39 37.7	-0.4
	baz=38						
B12A	Libby	38.34	334	⇓P	P	11 39 39.2	+0.2
	baz=38						
G06A	Carlson Farm,	38.42	327	⇑P	P	11 39 40.5	+0.7
	baz=38						
I04A	Tendick Farm,	38.49	323	⇑P	P	11 39 40.4	0.0
	baz=38						
D09A	Jones Farm, Ri	38.51	330	⇑P	P	11 39 40.3	-0.1
	baz=38						
K02A	Glendale	38.52	321	⇓P	P	11 39 40.4	-0.2
	baz=38						
C10A	Spilker Farm,	38.59	332	⇓P	P	11 39 40.7	-0.5
	baz=39						
B11A	Sandpoint	38.64	333	⇑P	P	11 39 42.1	+0.5
	baz=39						
A12A	Yaak River Ran	38.73	335	⇑P	P	11 39 42.0	-0.2
	baz=39						
G05A	Wamic	38.79	326	⇓P	P	11 39 44.1	+1.3
	baz=39						
D08A	Wollman Farm,	38.80	330	⇓P	P	11 39 42.5	-0.4
	baz=39						
F06A	Goldendale	38.85	327	P	P	11 39 44.4	+1.1
	baz=39,SNR=6.2						
E07A	Sunnyside	38.91	329	⇓P	P	11 39 43.4	-0.4
	baz=39						
H04A	Detroit Lake	38.91	325	P	P	11 39 43.6	-0.2
	baz=39,SNR=11						
J02A	Umpqua	38.91	322	⇑P	P	11 39 44.7	+0.8
	baz=39						
A11A	Hall Mountain,	39.04	334	⇓P	P	11 39 45.2	+0.4
	baz=39						
I03A	Eugene	39.10	323	⇓P	P	11 39 45.2	-0.2
	baz=39						
LPAZ	La Paz	39.17	143	eP	P	11 39 47.4	+1.1
	comp=Z,34nm,0.6s,mb5.0						
LPAZ				e		11 40 17.9	
LPAZ				ePcP	PcP	11 41 52.8	+1.8
LPAZ	La Paz	39.17	143	P	P	11 39 47.6	+1.3
LPAZ						11 41 52.0	
LPAZ						11 45 18.6	
LPAZ				pmax	pmax		
	comp=Z,36nm,0.7s						
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.4s						
LPAZ				pmax	pmax		
	comp=N,1.0nm,0.4s						
LPAZ	La Paz	39.17	143	P	P	11 39 47.5	+1.3
	comp=N,36nm,0.7s,mb5.0,baz=330,slow=8.0,SNR=156						
LPAZ				PcP	PcP	11 41 52.0	+0.9
	comp=N,2.7nm,0.3s,baz=324,slow=4.3,SNR=7.5						
LPAZ				ScP	ScP	11 45 18.6	+0.3
	comp=N,0.7nm,0.4s,baz=359,slow=14,SNR=3.9						
F05A	White Salmon	39.28	327	P	P	11 39 47.9	+1.0
	baz=39,SNR=5.6						
C08A	Higginbotham F	39.37	331	P	P	11 39 47.8	+0.2
	baz=39,SNR=5.7						
G04A	Mulino	39.40	325	⇓P	P	11 39 48.1	+0.3
	baz=39						
D07A	Quincy	39.40	329	⇓P	P	11 39 47.9	0.0
	baz=39						
B09A	Rice	39.42	332	⇓P	P	11 39 47.3	-0.7
	baz=39						
I02A	Mapleton	39.44	323	⇓P	P	11 39 48.6	+0.4
	baz=39						
E06A	Yakima	39.47	328	⇑P	P	11 39 49.2	+0.8
	baz=39						
H03A	Soap Creek Ran	39.53	324	⇓P	P	11 39 48.8	-0.2
	baz=40						
C07A	Waterville	39.79	330	⇓P	P	11 39 50.5	-0.6
	baz=40						
E05A	Randle	39.88	327	⇓P	P	11 39 51.6	-0.2
	baz=40						
G03A	Yamhill	39.91	325	⇑P	P	11 39 52.3	+0.3
	baz=40						
B08A	Colville Reser	39.92	331	⇓P	P	11 39 51.4	-0.7
	baz=40						
A09A	Danville	40.02	332	⇑P	P	11 39 52.4	-0.5
	baz=40						
B07A	Winthrop	40.36	331	⇑P	P	11 39 55.5	-0.2
	baz=40						
C06A	Tall Timber Ra	40.36	329	⇓P	P	11 39 55.3	-0.4
	baz=40						
E04A	Onalaska	40.41	327	⇓P	P	11 39 56.3	+0.1
	baz=40						
D05A	Enumclaw	40.41	328	⇑P	P	11 39 56.1	0.0
	baz=40						
C05A	Tolt Reservoir	40.60	329	⇓P	P	11 39 57.8	+0.2
	baz=40						
E03A	Lebam	40.83	326	⇑P	P	11 40 00.1	+0.5
	baz=41						
B06A	Marblemount	41.05	330	⇑P	P	11 40 00.4	-1.0
	baz=41						
B05A	Bryant	41.18	329	⇑P	P	11 40 01.0	-1.4
	baz=41						
C04A	Brinnon	41.26	328	⇓P	P	11 40 02.1	-1.0
	baz=41						
EDM	Edmonton	41.36	340	eP	P	11 40 02.7	-1.1
EDM				esP	sP	11 41 14.2	-1.8
A06A	Chilliwack	41.45	330	⇓P	P	11 40 04.4	-0.2
	baz=41						
NLWA	Neilton Lookou	41.52	327	⇑P	P	11 40 04.9	-0.3
	baz=42						
A05A	Maple Falls	41.67	330	⇓P	P	11 40 06.4	0.0
	baz=42						
FCC	Fort Churchill	43.24	358	eP	P	11 40 17.9	-0.9
	comp=N,8.7nm,1.0s,mb4.1						
FCC				epP	pP	11 41 06.7	+0.6
FCC				esP	sP	11 41 28.9	-2.4
FCC				ePP	PP	11 42 04.4	+0.3
FCC	Fort Churchill	43.24	358	eP	P	11 40 18.0	-0.8
FCC				e*PP	pP	11 41 06.7	+0.6
FCC				e		11 42 04.4	
FCC				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
SCHQ	Schefferville	43.70	21	eP	P	11 40 22.0	-0.5
	comp=Z,32nm,1.0s,mb4.6						
SCHQ	Schefferville	43.70	21	P	P	11 40 22.1	-0.5
	comp=Z,22nm,1.0s,mb4.4,baz=232,slow=4.9,SNR=11						
SCHQ				PcP	PcP	11 42 03.6	-1.7
	comp=Z,2.9nm,0.6s,baz=166,slow=4.2,SNR=3.5						
LCO	Las Campanas	48.64	155	eP	P	11 41 02.9	+1.6
LCO				ePcP	PcP	11 42 24.4	+1.2
YKA	Yellowknife Ar	49.67	346	P	P	11 41 07.6	-1.0
YKA				pP	pP	11 41 55.7	-1.6
YKA				sP	sP	11 42 19.8	-2.4
YKA				ScP	ScP	11 45 59.4	-1.1
YKA	Yellowknife Ar	49.67	346	P	P	11 41 07.6	-1.1
YKA				*SP	sP	11 42 19.8	-2.3
YKA	Yellowknife Ar	49.67	346	P	P	11 41 07.6	-1.0
	comp=Z,18nm,0.6s,mb4.6,baz=148,slow=7.5,SNR=290						
YKA				pP	pP	11 41 55.7	-1.6
	comp=Z,4.5nm,0.6s,baz=149,slow=7.4,SNR=8.0						
YKA				sP	sP	11 42 19.7	-2.4
	comp=Z,6.7nm,0.9s,baz=146,slow=7.7,SNR=4.4						
YKA				ScP	ScP	11 45 59.4	-1.1
	comp=Z,2.1nm,0.8s,baz=144,slow=4.1,SNR=20						
DLBC	Dease Lake	51.46	335	eP	P	11 41 22.9	+0.9
DLBC				epP	pP	11 42 10.6	-0.4
INK	Inuvik	59.13	343	eP	P	11 42 15.6	-1.0
	comp=Z,176nm,0.6s						
INK	Inuvik	59.13	343	eP	P	11 42 15.6	-0.9
INK				pmax	pmax		
	comp=Z,176nm,0.6s						
RES	Resolute Bay	59.23	359	eP	P	11 42 15.7	-1.4
	comp=Z,141nm,0.6s						
RES	Resolute Bay	59.23	359	eP	P	11 42 15.7	-1.4
RES				pmax	pmax		
	comp=Z,141nm,0.6s						
CAM4	Nova Friburgo	61.01	127	eP	P	11 42 30.0	0.0
CAM4				i		11 42 32.4	
CAM3	Guarapari	61.74	124	⇑iP	P	11 42 34.5	-0.5
CAM3				i		11 42 35.1	
CAM3				e		11 42 37.7	
CAM3				i		11 42 42.8	
CAM3				i		11 43 01.2	
MCK	McKinley	62.01	335	eP	P	11 42 35.5	-0.5
COLA	College	62.05	336	eP	P	11 42 35.4	-0.9
	comp=Z,2.1nm,0.6s,mb3.9						
COLA	College	62.05	336	eP	P	11 42 35.4	-0.9
COLA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
DAG	Danmarks Havn	71.13	13	⇓eP	P	11 43 32.0	-1.5
DAG				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb4.7						
DAG	Danmarks Havn	71.13	13	⇓iP	P	11 43 32.0	-1.5
	comp=Z,7.6nm,0.4s,mb4.7						
MORF	Marmelete	75.26	55	eP	P	11 43 57.9	-0.5
PVIS	Viseu	75.36	51	eP	P	11 43 58.0	-0.9
	comp=Z,17nm,0.7s,mb4.8						
EPON	Pontenova	75.56	49	P	P	11 43 58.7	-1.2
	comp=Z,2.9nm,0.5s,mb4.2						
MTE	Manteigas	75.67	52	eP	P	11 44 00.1	-0.5
	comp=Z,19nm,1.0s,mb4.7						
PBEJ	Beja	75.77	54	eP	P	11 44 00.9	-0.4
PCBR	Castelo Branco	75.80	52	eP	P	11 44 00.6	-0.8
MVO	Moncorvo	75.95	51	eP	P	11 44 01.4	-0.8
	comp=Z,22nm,0.7s,mb4.9						
PVAQ	Vaqueiros	75.98	55	eP	P	11 44 00.9	-1.6
ECAL	Calabor	76.05	50	P	P	11 44 01.9	-0.8
	comp=Z,4.6nm,0.6s,mb4.3						
PBRG	Braganca	76.07	50	eP	P	11 44 02.0	-0.9
EGRO	El Granado	76.15	55	P	P	11 44 02.8	-0.6
	comp=Z,1.7nm,0.4s,mb4.0						
ESK	Eskdalemuir	76.52	36	eP	P	11 44 04.2	-0.9
	comp=Z,15nm,0.6s,mb4.8						
ESK	Eskdalemuir	76.52	36	eP	P	11 44 04.2	-0.9
ESK				pmax	pmax		
	comp=Z,15nm,0.6s,mb4.8						
EMIN	Mina Concepcio	76.74	54	P	P	11 44 06.0	-0.7
	comp=Z,2.3nm,0.4s,mb4.2						
EARI	Arriondas	76.96	48	P	P	11 44 06.7	-1.2
	comp=Z,0.9nm,0.5s,mb3.7						
ROSF	Rostrenen	77.50	43	eP	P	11 44 09.0	-1.7
	comp=Z,8.9nm,0.9s,mb4.4						
ROSF	Rostrenen	77.50	43	eP	P	11 44 09.0	-1.7
ROSF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.4						
ROSF	Rostrenen	77.50	43	eP	P	11 44 09.0	-1.7
	comp=Z,18nm,0.9s,mb4.4						
QUIF	Quistinic	77.64	44	eP	P	11 44 09.9	-1.6
	comp=Z,6.6nm,0.6s,mb4.4						
QUIF				epP	pP	11 45 04.4	-0.2
QUIF	Quistinic	77.64	44	eP	P	11 44 09.9	-1.6
QUIF				e*PP	pP	11 45 04.4	-0.2
QUIF				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.5						
QUIF	Quistinic	77.64	44	eP	P	11 44 09.9	-1.6
	comp=Z,13nm,0.6s,mb4.4						
QUIF				epP	pP	11 45 04.4	-0.2
SGMF	Saint Gilles	77.99	43	eP	P	11 44 11.5	-1.9
	comp=Z,4.7nm,0.7s,mb4.2						
SGMF	Saint Gilles	77.99	43	eP	P	11 44 11.5	-1.9
SGMF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.2						

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SGMF  Saint Gilles      77.99  43 eP        P          11 44 11.5 -1.9
      comp=Z,9.4nm,0.7s,mb4.2
GUD   Guadarrama        78.18  51  P        P          11 44 14.3 -0.4
      comp=Z,5.5nm,0.5s,mb4.4
GUD   Guadarrama        78.18  51  P        P          11 44 14.3 -0.3
GUD                                pmax     pmax
      comp=Z,6.0nm,0.5s,mb4.5
EADA  Adamuz            78.31  54  P        P          11 44 14.2 -1.2
      comp=Z,0.8nm,0.5s,mb3.6
ESDC  Sonseca Array     78.50  52  P        P          11 44 15.6 -0.8
      comp=Z,4.3nm,0.7s,mb4.2,baz=286,slow=6.0,SNR=23
ESDC                               pP       pP         11 45 08.6 -1.0
      comp=Z,0.7nm,0.5s,baz=293,slow=4.6,SNR=1.8
GRR   Gorron            79.08  43 eP        P          11 44 17.9 -1.5
      comp=Z,15nm,0.7s,mb4.7
GRR                               epP       pP         11 45 12.4 -0.2
GRR   Gorron            79.08  43 eP        P          11 44 17.9 -1.5
GRR                               e*PP      pP         11 45 12.4 -0.2
GRR                                pmax     pmax
      comp=Z,15nm,0.7s,mb4.7
GRR   Gorron            79.08  43 eP        P          11 44 17.9 -1.5
      comp=Z,30nm,0.7s,mb4.8
GRR                               epP       pP         11 45 12.4 -0.2
FLN   La Foliniere      79.25  42 eP        P          11 44 19.0 -1.3
      comp=Z,14nm,0.8s,mb4.7
FLN   La Foliniere      79.25  42 eP        P          11 44 19.0 -1.3
FLN                                pmax     pmax
      comp=Z,14nm,0.8s,mb4.6
FLN   La Foliniere      79.25  42 eP        P          11 44 19.0 -1.3
      comp=Z,28nm,0.8s,mb4.7
LDF   La Druitiere      79.52  42 eP        P          11 44 20.3 -1.4
      comp=Z,5.3nm,0.6s,mb4.3
LDF   La Druitiere      79.52  42 eP        P          11 44 20.3 -1.4
LDF                                pmax     pmax
      comp=Z,5.0nm,0.6s,mb4.3
LDF   La Druitiere      79.52  42 eP        P          11 44 20.3 -1.4
      comp=Z,11nm,0.6s,mb4.3
EQES  Quesada           79.54  54  P        P          11 44 23.6 +1.5
      comp=Z,0.8nm,0.3s,mb3.8
EVIA  Vianos            79.82  53  P        P          11 44 23.7 +0.2
      comp=Z,1.3nm,0.4s,mb3.9
EVIA  Vianos            79.82  53  P        P          11 44 23.7 +0.2
EVIA                               pmax     pmax
      comp=Z,1.0nm,0.4s,mb3.8
SJPF  Ste Jean          79.86  48 eP        P          11 44 22.7 -1.0
MFF   Saint Martin d    79.91  44 eP        P          11 44 22.2 -1.7
      comp=Z,7.2nm,0.9s,mb4.3
MFF   Saint Martin d    79.91  44 eP        P          11 44 22.2 -1.7
MFF                                pmax     pmax
      comp=Z,7.0nm,0.9s,mb4.3
MFF   Saint Martin d    79.91  44 eP        P          11 44 22.2 -1.7
      comp=Z,14nm,0.9s,mb4.3
BILL  Bilibino          80.23 338c iP       P          11 44 24.4 -0.7
BILL                              e                    11 47 29.7
BILL                              eS        S          11 54 07.3 -3.8
BILL                               pmax     pmax
      comp=Z,4.0nm,0.5s,mb4.3
ETSF  Etsaut            80.39  48 eP        P          11 44 25.4 -1.1
      comp=Z,6.4nm,0.7s,mb4.4
ETSF  Etsaut            80.39  48 eP        P          11 44 25.4 -1.1
ETSF                               pmax     pmax
      comp=Z,6.0nm,0.7s,mb4.3
ETSF  Etsaut            80.39  48 eP        P          11 44 25.4 -1.1
      comp=Z,13nm,0.7s,mb4.4
ECHE  Chera             80.79  52  P        P          11 44 28.0 -0.7
      comp=Z,0.9nm,0.2s,mb4.0
ECHE  Chera             80.79  52  P        P          11 44 28.0 -0.7
ECHE                               pmax     pmax
      comp=Z,1.0nm,0.2s,mb4.1
LFF   La Frestale       80.86  46 eP        P          11 44 27.4 -1.6
      comp=Z,11nm,0.7s,mb4.6
LFF   La Frestale       80.86  46 eP        P          11 44 27.4 -1.6
LFF                                pmax     pmax
      comp=Z,11nm,0.7s,mb4.6
LFF   La Frestale       80.86  46 eP        P          11 44 27.4 -1.6
      comp=Z,23nm,0.7s,mb4.6
EBIE  Bielsa            80.94  48  P        P          11 44 28.6 -0.8
      comp=Z,4.4nm,0.7s,mb4.2
EMOS  Mosqueruela       80.99  51  P        P          11 44 29.5 -0.3
      comp=Z,1.7nm,0.4s,mb4.0
EPF   Esparros          81.00  48 eP        P          11 44 28.4 -1.4
      comp=Z,5.9nm,0.8s,mb4.3
EPF   Esparros          81.00  48 eP        P          11 44 28.4 -1.4
EPF                                pmax     pmax
      comp=Z,6.0nm,0.8s,mb4.3
EPF   Esparros          81.00  48 eP        P          11 44 28.4 -1.4
      comp=Z,12nm,0.8s,mb4.3
RJF   Les Rejaudoux     81.32  45 eP        P          11 44 29.6 -1.8
      comp=Z,3.8nm,0.6s,mb4.2
RJF   Les Rejaudoux     81.32  45 eP        P          11 44 29.6 -1.8
RJF                                pmax     pmax
      comp=Z,4.0nm,0.6s,mb4.2
RJF   Les Rejaudoux     81.32  45 eP        P          11 44 29.6 -1.8
      comp=Z,7.6nm,0.6s,mb4.2
TCF   Toulx Ste Croi    81.56  44 eP        P          11 44 30.7 -1.9
      comp=Z,4.4nm,0.6s,mb4.3
TCF   Toulx Ste Croi    81.56  44 eP        P          11 44 30.7 -1.9
TCF                                pmax     pmax
      comp=Z,4.0nm,0.6s,mb4.2
TCF   Toulx Ste Croi    81.56  44 eP        P          11 44 30.7 -1.9
      comp=Z,8.9nm,0.6s,mb4.3
CAF   Calviac           81.78  46 eP        P          11 44 32.0 -1.8
      comp=Z,3.7nm,0.7s,mb4.1
CAF   Calviac           81.78  46 eP        P          11 44 32.0 -1.8
CAF                                pmax     pmax
      comp=Z,4.0nm,0.7s,mb4.2
CAF   Calviac           81.78  46 eP        P          11 44 32.0 -1.8
      comp=Z,7.3nm,0.7s,mb4.1
BGF   Bois d'Agland     81.93  44 eP        P          11 44 32.8 -1.7
      comp=Z,11nm,0.8s,mb4.5
BGF   Bois d'Agland     81.93  44 eP        P          11 44 32.8 -1.7
BGF                                pmax     pmax
      comp=Z,11nm,0.8s,mb4.5
BGF   Bois d'Agland     81.93  44 eP        P          11 44 32.8 -1.7
      comp=Z,22nm,0.8s,mb4.6
AVF   Avril sur Loir    82.21  44 eP        P          11 44 33.9 -2.1
      comp=Z,7.0nm,0.9s,mb4.3
AVF   Avril sur Loir    82.21  44 eP        P          11 44 33.9 -2.1
AVF                                pmax     pmax
      comp=Z,7.0nm,0.9s,mb4.3
AVF   Avril sur Loir    82.21  44 eP        P          11 44 33.9 -2.1
      comp=Z,14nm,0.9s,mb4.3
SSF   Saint Saulge      82.25  43 eP        P          11 44 34.2 -2.0
      comp=Z,6.7nm,0.7s,mb4.4
SSF                               epP       pP         11 45 29.0 -0.8
SSF   Saint Saulge      82.25  43 eP        P          11 44 34.2 -2.0
SSF                               e*PP      pP         11 45 29.0 -0.8
SSF                                pmax     pmax
      comp=Z,7.0nm,0.7s,mb4.4
SSF   Saint Saulge      82.25  43 eP        P          11 44 34.2 -2.0
      comp=Z,13nm,0.7s,mb4.4
SSF                               epP       pP         11 45 29.0 -0.8
MTLF  Montolieu         82.27  47 eP        P          11 44 34.8 -1.6
      comp=Z,5.4nm,0.8s,mb4.2
MTLF  Montolieu         82.27  47 eP        P          11 44 34.8 -1.6
MTLF                               pmax     pmax
      comp=Z,5.0nm,0.8s,mb4.2
MTLF  Montolieu         82.27  47 eP        P          11 44 34.8 -1.6
      comp=Z,11nm,0.8s,mb4.2
GIVF  Givet             82.33  40 eP        P          11 44 35.1 -1.4
LOR   Lormes            82.43  43 eP        P          11 44 35.5 -1.6
      comp=Z,6.3nm,0.8s,mb4.3
LOR   Lormes            82.43  43 eP        P          11 44 35.5 -1.6
LOR                                pmax     pmax
      comp=Z,6.0nm,0.8s,mb4.3
LOR   Lormes            82.43  43 eP        P          11 44 35.5 -1.6
      comp=Z,12nm,0.8s,mb4.3
SMF   Signal de Mont    82.57  44 eP        P          11 44 35.8 -2.1
      comp=Z,3.7nm,0.6s,mb4.3
SMF   Signal de Mont    82.57  44 eP        P          11 44 35.8 -2.1
SMF                                pmax     pmax
      comp=Z,4.0nm,0.6s,mb4.3
SMF   Signal de Mont    82.57  44 eP        P          11 44 35.8 -2.1
      comp=Z,7.4nm,0.6s,mb4.3
NB2   NORSAR Subarra    82.66  29  P        P          11 44 37.7 -0.3
      comp=Z,1.2nm,0.7s,mb3.7,baz=289,slow=5.3
NOA   NORSAR Array B    82.66  29  P        P          11 44 37.3 -0.7
      comp=Z,1.9nm,0.7s,mb3.9,baz=291,slow=5.2,SNR=7.1
NOA                                pP       pP         11 45 32.0 +0.3
      comp=Z,4.2nm,0.8s,baz=290,slow=5.2,SNR=8.0
MEZF  Maizieres J'vi    82.89  42 eP        P          11 44 38.0 -1.4
LASF  Ste Croix         83.24  46 eP        P          11 44 39.7 -1.6
VIVF  Saint-Julien-l    83.60  45 eP        P          11 44 41.8 -1.3
      comp=Z,4.3nm,0.8s,mb4.2
VIVF  Saint-Julien-l    83.60  45 eP        P          11 44 41.8 -1.3
VIVF                               pmax     pmax
      comp=Z,4.0nm,0.8s,mb4.2
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VIVF  Saint-Julien-l    83.60  45 eP        P          11 44 41.8 -1.3
      comp=Z,8.7nm,0.8s,mb4.2
HAU   Haudompre         83.86  42 eP        P          11 44 42.9 -1.5
      comp=Z,6.1nm,0.6s,mb4.5
HAU   Haudompre         83.86  42 eP        P          11 44 42.9 -1.5
HAU                                pmax     pmax
      comp=Z,6.0nm,0.6s,mb4.5
HAU   Haudompre         83.86  42 eP        P          11 44 42.9 -1.5
      comp=Z,12nm,0.6s,mb4.5
ORIF  Oris-en-Rattie    84.41  45 eP        P          11 44 46.4 -0.8
      comp=Z,7.3nm,0.9s,mb4.4
ORIF  Oris-en-Rattie    84.41  45 eP        P          11 44 46.4 -0.8
ORIF                               pmax     pmax
      comp=Z,7.0nm,0.9s,mb4.4
ORIF  Oris-en-Rattie    84.41  45 eP        P          11 44 46.4 -0.8
      comp=Z,14nm,0.9s,mb4.4
SMRF  Simiane la Rot    84.46  46 eP        P          11 44 46.0 -1.5
      comp=Z,15nm,1.0s,mb4.7
SMRF  Simiane la Rot    84.46  46 eP        P          11 44 46.0 -1.5
      comp=Z,15nm,1.0s,mb4.4
ARCES ARCESS Array B    84.61  18  P        P          11 44 45.8 -1.9
      comp=Z,4.5nm,0.7s,mb4.3,baz=285,slow=4.8,SNR=15
ARCES                              pP       pP         11 45 41.4 -0.4
      comp=Z,3.4nm,0.8s,baz=349,slow=4.1,SNR=2.5
MBDF  Montbardon        85.07  45 eP        P          11 44 49.7 -0.8
      comp=Z,5.8nm,0.7s,mb4.4
MBDF  Montbardon        85.07  45 eP        P          11 44 49.7 -0.8
MBDF                               pmax     pmax
      comp=Z,6.0nm,0.7s,mb4.4
MBDF  Montbardon        85.07  45 eP        P          11 44 49.7 -0.8
      comp=Z,12nm,0.7s,mb4.4
LMR   La Mourre         85.29  46 eP        P          11 44 50.3 -1.3
      comp=Z,12nm,1.0s,mb4.6
LMR   La Mourre         85.29  46 eP        P          11 44 50.3 -1.3
LMR                                pmax     pmax
      comp=Z,12nm,1.0s,mb4.6
LMR   La Mourre         85.29  46 eP        P          11 44 50.3 -1.3
      comp=Z,24nm,1.0s,mb4.6
FRF   La Foret Royal    85.32  46 eP        P          11 44 50.6 -1.2
PGF   Pioggiola         87.27  47 eP        P          11 44 59.7 -1.6
      comp=Z,36nm,1.3s,mb4.9
PGF   Pioggiola         87.27  47 eP        P          11 44 59.7 -1.6
PGF                                pmax     pmax
      comp=Z,36nm,1.3s,mb4.9
PGF   Pioggiola         87.27  47 eP        P          11 44 59.7 -1.6
      comp=Z,72nm,1.3s,mb5.0
SEY   Seymchan          87.56 336 i P       P          11 45 01.0 -1.2
GERES GERESS Array B    88.22  40  P        P          11 45 03.8 -1.9
      comp=Z,0.8nm,0.7s,mb3.6,baz=294,slow=3.9,SNR=4.9
GERES                              pP       pP         11 46 00.2 +0.1
      comp=Z,1.0nm,0.7s,baz=297,slow=5.8,SNR=4.6
TIXI  Tiksi             88.89 348⇓eP        P          11 45 05.9 -2.4
TIXI                               pmax     pmax
      comp=Z,4.0nm,0.7s,mb4.4
FINES FINESS Array B    89.00  25  P        P          11 45 07.6 -1.4
      comp=Z,1.1nm,0.5s,mb4.0,baz=310,slow=3.0,SNR=8.8
FINES                              pP       pP         11 46 03.6 +0.1
      comp=Z,2.7nm,0.8s,baz=320,slow=5.0,SNR=3.9
TORD  Torodi Ar. Bea    89.66  77  P        P          11 45 11.8 -1.3
      comp=Z,0.4nm,0.5s,mb3.5,baz=264,slow=5.1,SNR=4.1
KEST  Kesra             89.70  53  P        P          11 45 12.3 -0.6
      comp=Z,1.0nm,0.7s,mb3.8,baz=225,slow=7.3,SNR=4.8
SKR   Severo-Kuril's    91.59 324 eP        P          11 45 14.0 -7.3
CN2   Changchun        111.97 332  PDIF     Pdif       11 46 49.6 -3.0
CN2                               ePP       PP         11 51 34.4 -0.2
SONM  Songino Array    114.94 347  PKPdf    PKiKP      11 50 52.7 -1.4
SONM  Songino Array    114.94 347  PKIKP    PKiKP      11 50 52.7 -1.4
SONM  Songino Array    114.94 347  PKiKP    PKiKP      11 50 52.7 -1.4
      comp=Z,0.5nm,0.7s,baz=280,slow=1.1,SNR=4.9
KSRS  Korea Array      115.53 326 i PKIKP   PKPdf      11 50 54.5 -1.1
KSRS                               pmax     pmax
      comp=Z,2.0nm,0.6s
KSRS  Korea Array      115.53 326  PKiKP    PKiKP      11 50 54.5 -1.1
      comp=Z,2.1nm,0.6s,baz=11,slow=2.0,SNR=11
MKAR  Makanchi Array   117.77   5  PKP      PKPdf      11 50 57.2 -2.4
MKAR  Makanchi Array   117.77   5  PKIKP    PKPdf      11 50 57.2 -2.4
MKAR  Makanchi Array   117.77   5  PKP      PKPdf      11 50 57.2 -2.4
      comp=Z,0.2nm,0.4s,baz=313,slow=1.7,SNR=4.8
HHC   Hu-ho-hao-te     119.97 340 ePKP      PKPdf      11 51 03.1 -0.9
HHC                                XPKP                11 52 23.9
HHC                                PP       PP         11 52 30.4 +0.3
HHC                                PKS                 11 54 38.3
HHC                                SKS      SKSdf      11 57 51.0 -3.8
HHC                                SKKS     SKKSac     11 58 57.6  -11
HHC                                PP       PP
      comp=Z,92nm,17.2s
HHC                                LR       LR
      comp=N,120nm,28.5s
HHC                                LR       LR
      comp=E,139nm,28.5s
HHC                                LR       LR
      comp=Z,113nm,25.6s
BOSA  Boshof           120.63 114  PKP      PKPdf      11 51 04.3 -1.2
BOSA  Boshof           120.63 114  PKIKP    PKPdf      11 51 04.4 -1.1
BOSA  Boshof           120.63 114  PKP      PKPdf      11 51 04.3 -1.2
      comp=Z,4.3nm,0.6s,baz=259,slow=0.6,SNR=8.7
WMQ   Urumqi           120.98   1 ePKP      PKPdf      11 51 05.7 -0.1
GTA   Gaotai           124.36 349 ePKP      PKPdf      11 51 11.8 -0.7
GTA                                XPKP                11 52 32.6
GTA                                PP       PP         11 53 08.2 +8.6
GTA                                PKS                 11 54 47.1
GTA                                SKS      SKSdf      11 58 00.6 -2.6
GTA                                SKKS     SKKSac     11 59 36.4 -0.3
GTA                                PP       PP
      comp=Z,86nm,7.6s
GTA                                LR       LR
      comp=N,55nm,16.0s
GTA                                LR       LR
      comp=E,54nm,15.2s
GTA                                LR       LR
      comp=Z,84nm,15.6s
NJ2   Nanjing          124.44 329 ePKP      PKPdf      11 51 12.5 -0.3
CTA   Charters Tower   124.94 256 eP        PKPdf      11 51 13.9 -0.1
CTA   Charters Tower   124.94 256 ePKIKP    PKPdf      11 51 13.9 -0.1
MAW   Mawson           125.35 168 eP        PKPdf      11 51 12.5 -0.9
MAW                                PKP      PKPdf      11 51 13.1 -0.3
MAW   Mawson           125.35 168 ePKIKP    PKPdf      11 51 12.5 -0.9
MAW   Mawson           125.35 168  PKP      PKPdf      11 51 13.1 -0.3
      comp=Z,10.0nm,0.5s,baz=177,slow=2.9,SNR=40
LZH   Lanzhou          126.66 344 ePKP      PKPdf      11 51 14.5 -2.5
LZH                                XPKP                11 52 36.2
LZH                                PP       PP         11 53 16.5 +1.5
LZH                                SKKS     SKKSac     11 59 44.5 -7.0
LZH                                PP       PP
      comp=Z,70nm,5.3s
LZH                                LR       LR
      comp=E,175nm,18.5s
LZH                                LR       LR
      comp=Z,210nm,19.8s
LZH   Lanzhou          126.66 344 ePKP      PKPdf      11 51 14.5 -2.5
LZH                                sPKP                11 52 36.2
LZH                                PP       PP         11 53 16.5 +1.5
LZH                                SKKS     SKKSac     11 59 44.5 -7.0
LZH   Lanzhou          126.66 344 ePKIKP    PKPdf      11 51 14.5 -2.5
LZH                                                    11 53 16.5
XAN   Xi'an            127.01 339  PKP      PKPdf      11 51 16.6 -1.1
STKA  Stephens Creek   129.11 241 eP        PKPdf      11 51 21.5 -0.2
STKA  Stephens Creek   129.11 241  PKP      PKPdf      11 51 21.6 -0.1
      comp=Z,4.8nm,0.6s,baz=69,slow=3.1,SNR=12
CD2   Chengdu          131.56 342 ePKP      PKPdf      11 51 25.0 -1.4
CD2                                XPKP                11 52 45.8
CD2                                PP       PP         11 53 49.7 +2.8
CD2                                PKS                 11 55 00.1
CD2                                SKS      SKSdf      11 58 12.5 -4.3
CD2                                SKKS     SKKSac     12 00 16.6 -5.5
CD2                                PP       PP
      comp=Z,90nm,8.2s
CD2                                LR       LR
      comp=N,140nm,14.4s
CD2                                LR       LR
      comp=E,100nm,18.0s
GYA   Guiyang          134.68 337  PDIF     Pdif       11 48 32.2 -1.3
GYA                                PKP      PKPdf      11 51 31.6 -0.8
GYA                                XPKP                11 52 51.4
GYA                                PP       PP         11 54 09.9 +3.0
GYA                                PKS                 11 55 06.5
GYA                                SKS      SKSdf      11 58 18.7 -3.8
GYA                                SKKS     SKKSac     12 00 37.2 -4.0
GYA                                PP       PP
      comp=Z,120nm,8.7s
GYA                                LR       LR
      comp=N,110nm,20.8s
GYA                                LR       LR
      comp=E,140nm,22.4s
GYA                                LR       LR
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      comp=Z,160nm,21.0s
WB2   Warramunga Arr   136.10 257 eP                   11 51 25.5
WRA   Warramunga Arr   136.11 257  PKP                 11 51 25.3
WRA                                PKP      PKPdf      11 51 34.7 -0.5
WRA   Warramunga Arr   136.11 257  PKHKP               11 51 25.3
WRA                                                    11 51 34.7
WRA   Warramunga Arr   136.11 257  PKhKP               11 51 25.3
      comp=Z,0.5nm,0.4s,baz=90,slow=3.7,SNR=21
WRA                                PKP      PKPdf      11 51 34.7 -0.5
      comp=Z,9.0nm,1.1s,baz=81,slow=2.5,SNR=25
ASAR  Alice Springs    136.50 252  PKP                 11 51 24.7
ASAR                               PKP      PKPdf      11 51 35.1 -0.7
ASAR  Alice Springs    136.50 252  PKHKP               11 51 24.7
ASAR                                                   11 51 35.1
ASAR  Alice Springs    136.50 252  PKhKP               11 51 24.7
      comp=Z,1.3nm,0.8s,baz=106,slow=3.7,SNR=23
ASAR                               PKP      PKPdf      11 51 35.1 -0.7
      comp=Z,2.8nm,0.7s,baz=96,slow=2.0,SNR=19
KAKA  Kakadu           137.24 268 eP        PKPdf      11 51 37.2 -0.2
KMI   Kunming          137.28 341  PKP      PKPdf      11 51 37.0 -0.3
KMI   Kunming          137.28 341  PKIKP    PKPdf      11 51 37.0 -0.3
FORT  Forrest          140.70 240 eP        PKPdf      11 51 43.1 -0.2
FITZ  Fitzroy Crossi   144.28 260 eP        PKPdf      11 51 48.1 -1.9
KLBR  Kellerberrin     148.81 234 eP        PKPdf      11 51 57.3 +0.1
MUN   Mundaring        149.83 232 eP        PKPbc      11 52 03.7 -0.2
MUN   Mundaring        149.83 232 ePKP2     PKPbc      11 52 03.7 -0.2
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IDC ***06*** *11:54:36.0±3.6, 23.43S×177.80W, h200^{km}±36^{km}, mb3.5/6, mb1 3.8/7, mb1mx3.6/15, mbtmp3.6/7, Error ellipse: s-maj=32.8km s-min=16.4km az=141.0*

ISCJB ***06*** *11:54:38.1±2.0, 23.02S±0.09×178.1W±0.1, h223^{km}±23^{km}, mb3.8/8, Error ellipse: s-maj=23.9km s-min=11.7km az=25.6*

NEIC ***06*** *11:54:39.8±1.6, 22.96S×178.08W, h228^{km}±18^{km}, mb4.4/2, Error ellipse: s-maj=21.1km s-min=11.1km az=137.0*

ISC 06 11:54:39.6±2.0**, 23.0S**±0.1×**178.1W**±0.2**, h226**^{km}±24^{km}**, n19, σ0.77**/19**, mb3.8**/8**, South of Fiji Islands**

```
Code  Station Name      Δ°   AZ°   Phase ID           Time      Res
                                   Op       ISC       h  m  s   ISC
AFI   Afiamalu          10.81  35  P        Pn        11 57 09.0 +0.2
      1.8nm,0.3s,baz=24,slow=15,SNR=3.2
AFI                                S        S         11 58 59.8  -10
      4.8nm,0.3s,baz=246,slow=18,SNR=6.6
DZM   Mont Dzumac       14.32 271  P        Pn        11 57 59.9 +7.3
      0.5nm,0.3s,baz=85,slow=18,SNR=13
URZ   Urewera           15.80 194  P        Pn        11 58 09.6 -0.7
      0.9nm,0.3s,baz=29,slow=5.8,SNR=5.6
URZ                                S        S         12 00 54.5  -10
      1.3nm,0.3s,baz=70,slow=23,SNR=12
QRZ   Quartz Range      19.49 202  PN       P         11 58 50.7 +1.0
NNZ   Nelson            19.57 200  PN       P         11 58 48.3 -2.2
THZ   Tophouse          20.21 200  PN       P         11 58 58.1 +0.7
KHZ   Kahutara          20.62 198  PN       P         11 59 02.6 +0.9
RPZ   Rata Peaks        22.56 201  P        P         11 59 15.8 -4.7
RPZ   Rata Peaks        22.56 201  P        P         11 59 15.9 -4.7
      6.0nm,0.7s,mb4.2,baz=356,slow=16,SNR=2.8
STKA  Stephens Creek    36.70 247  P        P         12 01 25.1 -0.1
      1.5nm,0.5s,mb3.8,baz=98,slow=15,SNR=7.8
ASAR  Alice Springs     43.93 259  P        P         12 02 24.9 +0.4
      4.9nm,0.8s,mb3.9,baz=94,slow=7.9,SNR=35
WB2   Warramunga Arr    44.22 265 eP        P         12 02 26.5 -0.3
WRA   Warramunga Arr    44.23 265  P        P         12 02 26.6 -0.3
      1.2nm,0.3s,mb3.7,baz=89,slow=6.0,SNR=84
KAKA  Kakadu            47.99 273 eP        P         12 02 55.7 -0.5
      19nm,1.1s,mb4.3
FITZ  Fitzroy Crossi    52.66 264 eP        P         12 03 32.0 +0.9
      17nm,1.5s,mb4.2
NVAR  Mina Array Bea    82.86  43  P        P         12 06 38.6 -0.3
      0.2nm,0.6s,mb3.1,baz=215,slow=7.7,SNR=4.3
TXAR  Lajitas Array     88.45  57  P        P         12 07 06.5  0.0
      0.2nm,0.9s,mb3.0,baz=203,slow=9.1,SNR=3.6
AKASG Malin Array Be   145.10 329  PKPbc    PKPbc     12 13 50.1 +0.3
AKASG Malin Array Be   145.10 329  PKPbc    PKPbc     12 13 50.1 +0.3
      0.3nm,0.3s,baz=43,slow=4.1,SNR=6.2
```

NIED ***06*** *12:01:00, 33.10N×131.40E, h113^{km}, Mw4.1 Best double couple: $M_0$1.79000×10^{15} NP1:ϕ_s199.00000°, δ34.00000°, λ91.00000°. NP2:ϕ_s17.00000°, δ56.00000°, λ89.00000°.*

BJI ***06*** *12:01:33.7, 32.57N×132.14E, h121^{km}, mB4.6, mb4.4*

ISCJB ***06*** *12:01:41.3±0.3, 33.05N±0.04×131.36E±0.05, h132^{km}±2^{km}, mb4.0/29, Error ellipse: s-maj=7.4km s-min=6.7km az=151.3*

NEIC ***06*** *12:01:42.5, 33.11N×131.40E, h121^{km}, mb4.4/7, After JMA.*

MOS ***06*** *12:01:42.5±1.2, 33.06N×131.41E, h149^{km}, mb4.0/15, Error ellipse: s-maj=17.5km s-min=10.6km az=112.3*

IDC ***06*** *12:01:42.1±0.5, 33.10N×131.18E, h123^{km}±3^{km}, mb3.7/17, mb1 3.8/19, mb1mx3.8/27, mbtmp3.8/19, Error ellipse: s-maj=15.2km s-min=10.8km az=66.0*

JMA ***06*** *12:01:42.5±0.1, 33.11N×131.40E, h121^{km}±1^{km}, M3.7 Broadband fault plane solution: P waves. NP1: ϕ_s161.00000°, δ17.00000°, λ82.00000°. NP2: ϕ_s350.00000°, δ73.00000°, λ93.00000°. Principal axes: T Plg62.0000°, Azm264.0000°; N Plg2.0000°, Azm169.0000°; P Plg28.0000°, Azm78.0000°;*

JMA Felt II J1.

ISC 06 12:01:42.5±0.3**, 33.06N**±0.04×**131.33E**±0.05**, h126**^{km}±2^{km}**, n62, σ0.85**/68**, mb4.1**/29**, 3C-1D, Kyushu**

```
Code  Station Name      Δ°   AZ°   Phase ID           Time      Res
                                   Op       ISC       h  m  s   ISC
OIT2  Oita 2             0.24  26 ⇑P        Pn        12 01 59.5 -0.3
OIT2                               S        Sn        12 02 12.6 -0.4
JUS   Usuki              0.36  90 ⇑P        Pn        12 01 59.7 -0.6
JUS                                S        Sn        12 02 12.5 -1.2
JNU   Nakatsue           0.38 279  P        Pn        12 02 00.4  0.0
      264nm,0.3s,baz=64,slow=4.1,SNR=2117
JNU                                S        Sn        12 02 13.6 -0.4
      195nm,0.3s,baz=255,slow=16,SNR=90
JIU2  Izumi 2            0.67 220 ⇑P        Pn        12 02 02.5 +0.3
JIU2                               S        Sn        12 02 17.1  0.0
JTZ   Takazaki           1.18 190 ⇓P        Pn        12 02 07.1 +0.4
JTZ                                S        Sn        12 02 26.8 +1.7
KSRS  Korea Array        5.19 329  P        Pn        12 02 59.2 +1.2
      5.2nm,0.3s,baz=147,slow=14,SNR=102
INCN  Inchon             5.84 320 eP        Pn        12 03 08.4 +1.6
      34nm,0.7s
MAT   Matsushiro         6.64  57  P        Pn        12 03 17.7 +0.2
MAT                                S        Sn        12 04 32.2 +0.5
MJAR  Matsushiro Arr     6.64  57  P        Pn        12 03 17.6 +0.1
MJAR                               pmax     pmax
      comp=Z,3.0nm,0.3s
MJAR  Matsushiro Arr     6.64  57  P        Pn        12 03 17.6 +0.1
      comp=Z,2.5nm,0.3s,baz=242,slow=14,SNR=29
JOW   Kunigami           6.75 204  S        Sn        12 04 31.2 -3.4
      comp=Z,1.3nm,0.3s,baz=125,slow=28,SNR=8.0
JHJ   Hachijo jima 2     7.10  87  P        Pn        12 03 24.3 +0.6
      comp=Z,52nm,0.3s,baz=243,slow=21,SNR=8.8
CBIJ  Chichi jima       11.12 119  P        Pn        12 04 16.8 -1.1
      comp=Z,4.0nm,0.3s,baz=271,slow=18,SNR=3.3
KLR   Kul'dur           16.16   1 eP        Pn        12 05 21.2 -0.9
XAN   Xi'an             18.70 279  P        P         12 05 57.7 +6.7
XAN                                AMB      AMB
      comp=Z,9.0nm,0.7s
LZH   Lanzhou           22.80 285 eP        P         12 06 35.2 +0.7
LZH                                AMB      AMB
      comp=Z,18nm,1.3s,mb4.2
CD2   Chengdu           23.46 272  P        P         12 06 41.0 +0.5
CD2                                AMB      AMB
      comp=Z,40nm,0.5s,mb5.0
ULN   Ulaanbaatar       23.52 316 eP        P         12 06 41.5 +0.5
      comp=Z,5.6nm,0.6s,mb4.1
ULN   Ulaanbaatar       23.52 316 eP        P         12 06 41.5 +0.6
ULN                                pmax     pmax
      comp=Z,6.0nm,0.6s,mb4.1
SONM  Songino Array     23.89 315  P        P         12 06 44.7 +0.4
SONM                                                  12 10 23.5
SONM                               pmax     pmax
      comp=Z,9.0nm,1.0s
SONM  Songino Array     23.89 315  P        P         12 06 44.7 +0.4
      comp=Z,8.5nm,1.0s,mb4.0,baz=131,slow=9.2,SNR=39
SONM                               PcP      PcP       12 10 23.5  0.0
      comp=Z,0.1nm,0.4s,baz=107,slow=2.3,SNR=4.7
GTA   Gaotai            26.11 293 eP        P         12 07 04.9 +0.4
GTA                                AMB      AMB
      comp=Z,3.0nm,1.2s,mb3.6
ZAK   Zakamensk         26.92 318 eP        P         12 07 11.4 -0.3
ZAK                               e         pP        12 07 42.2 +3.6
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ZAK				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.4						
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.1s,mb3.3						
ZALV	Zalesovo Beam	38.77	317	P	P	12 08 53.6	-0.8
	comp=Z,0.5nm,0.3s,mb3.8,baz=113,slow=8.0,SNR=4.2						
ZALV				PcP	PcP	12 11 01.7	-1.5
	comp=Z,1.1nm,0.6s,baz=106,slow=3.4,SNR=6.3						
ZAL	Zalesovo	38.78	317	P	P	12 08 53.7	-0.8
ZAL						12 11 01.7	
MK31	Makanchi Array	39.40	305	*e*P	P	12 08 59.4	-0.3
MKAR	Makanchi Array	39.40	305	P	P	12 08 59.6	-0.1
MKAR						12 11 04.2	
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR	Makanchi Array	39.40	305	P	P	12 08 59.6	-0.1
	comp=Z,2.3nm,0.7s,mb4.1,baz=92,slow=11,SNR=32						
MKAR				PcP	PcP	12 11 04.2	-1.2
	comp=Z,1.0nm,0.8s,baz=69,slow=4.0,SNR=6.8						
BILL	Bilibino	40.36	19	*e*P	P	12 09 08.4	+1.1
BILL				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
TKM2	Tokmak 2	44.29	300	*e*P	P	12 09 40.6	+1.1
	comp=Z,6.8nm,0.7s,mb4.5						
TKM2	Tokmak 2	44.29	300	*e*P	P	12 09 40.6	+1.0
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
AML	Almayashu	45.79	299	*e*P	P	12 09 52.8	+1.4
	comp=Z,7.1nm,1.0s,mb4.3						
FITZ	Fitzroy Crossi	51.16	187	*e*P	P	12 10 32.9	+0.2
	comp=Z,9.6nm,1.5s,mb4.6						
WRA	Warramunga Arr	52.78	176	P	P	12 10 44.1	-0.6
WRA						12 11 53.3	
WRA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WRA	Warramunga Arr	52.78	176	P	P	12 10 44.1	-0.6
	comp=Z,2.4nm,0.7s,mb4.4,baz=353,slow=8.0,SNR=17						
WRA				PcP	PcP	12 11 53.3	+0.8
	comp=Z,0.4nm,0.4s,baz=355,slow=3.9,SNR=7.1						
WB2	Warramunga Arr	52.79	176	*e*P	P	12 10 44.2	-0.5
KDAK	Kodiak Island	55.48	39	P	P	12 11 04.5	+0.7
	comp=Z,21nm,1.1s,mb5.1,baz=282,slow=9.3,SNR=2.6						
ASAR	Alice Springs	56.47	177	P	P	12 11 11.2	0.0
ASAR						12 12 07.0	
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	56.47	177	P	P	12 11 11.2	0.0
	comp=Z,1.8nm,0.6s,mb4.3,baz=10,slow=13,SNR=30						
ASAR				PcP	PcP	12 12 07.0	+0.4
	comp=Z,0.5nm,0.7s,baz=352,slow=5.1,SNR=3.4						
INK	Inuvik	61.57	25	P	P	12 11 46.5	+0.6
INK	Inuvik	61.57	25	P	P	12 11 46.5	+0.6
INK				pmax	pmax		
	comp=Z,2.0nm,0.5s						
INK	Inuvik	61.57	25	P	P	12 11 46.5	+0.6
	comp=Z,1.5nm,0.5s,mb4.3,baz=293,slow=7.0,SNR=27						
DZM	Mont Dzumac	64.26	144	P	P	12 12 05.5	+1.3
	comp=Z,2.6nm,1.1s,mb4.0,baz=119,slow=18,SNR=2.4						
ARCES	ARCESS Array B	64.67	338	P	P	12 12 05.6	-0.8
ARCES	ARCESS Array B	64.67	338	P	P	12 12 05.6	-0.7
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	64.67	338	P	P	12 12 05.6	-0.8
	comp=Z,2.5nm,0.9s,mb4.1,baz=54,slow=8.2,SNR=6.9						
STKA	Stephens Creek	65.31	170	*e*P	P	12 12 11.6	+0.7
	comp=Z,2.0nm,0.5s,mb4.2						
STKA	Stephens Creek	65.31	170	P	P	12 12 11.6	+0.7
	comp=Z,1.4nm,0.5s,mb4.1,baz=354,slow=5.9,SNR=7.2						
FINES	FINESS Array B	68.28	330	P	P	12 12 27.9	-1.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	68.28	330	P	P	12 12 27.9	-1.6
	comp=Z,0.6nm,0.4s,mb3.7,baz=77,slow=6.6,SNR=7.3						
MIB	Mutribah	69.82	293	*e*P	P	12 12 38.9	-0.6
MIB				AMb	AMB	12 12 39.5	
	comp=Z,9.3nm,0.6s,mb4.8						
RDF	Al-Radifah	70.06	292	*e*P	P	12 12 40.5	-0.4
RDF				AMb	AMB	12 12 41.8	
	comp=Z,8.2nm,0.6s,mb4.8						
NAY	Al-Naaiem	70.15	292	*e*P	P	12 12 40.8	-0.8
NAY				AMb	AMB	12 12 42.0	
	comp=Z,5.7nm,0.7s,mb4.5						
YKA	Yellowknife Ar	71.22	27	P	P	12 12 47.6	+0.2
	comp=Z,0.3nm,0.7s,mb3.2,baz=302,slow=5.5,SNR=4.3						
AKASG	Malin Array Be	72.12	319	P	P	12 12 51.2	-1.8
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	72.12	319	P	P	12 12 51.2	-1.8
	comp=Z,0.8nm,0.5s,mb3.8,baz=56,slow=6.1,SNR=5.2						
HFS	Hagfors	74.03	333	P	P	12 13 02.8	-1.2
HFS				pmax	pmax		
	comp=Z,2.0nm,0.7s						
HFS	Hagfors	74.03	333	P	P	12 13 02.8	-1.2
	comp=Z,1.6nm,0.7s,mb3.9,baz=76,slow=6.3,SNR=4.5						
NOA	NORSAR Array B	74.38	334	P	P	12 13 04.5	-1.5
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	74.38	334	P	P	12 13 04.5	-1.6
	comp=Z,0.8nm,0.8s,mb3.5,baz=74,slow=4.8,SNR=2.7						
BRTR	Keskin Array B	74.99	308	P	P	12 13 10.3	+0.3
	comp=Z,0.4nm,0.5s,mb3.4,baz=36,slow=4.6,SNR=4.4						
NVAR	Mina Array Bea	83.89	48	P	P	12 13 59.3	+1.1
	comp=Z,0.4nm,0.6s,mb3.4,baz=317,slow=4.4,SNR=5.5						
NVAR				pP	pP	12 14 30.6	+0.5
	comp=Z,0.3nm,0.7s,baz=300,slow=5.7,SNR=2.6						

IDC 06 12:12:45.4±2.1**,0.98N×126.08E,h0^{km},mb3.3**/3**,mb1 3.5**/3**, mb1mx3.3**/17**,mbtmp3.3**/3**,Error ellipse: s-maj=174.4km s-min=26.7km az=65.0,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.31	159	P	P	12 17 44.1	-0.6
	0.5nm,0.4s,baz=338,slow=10,SNR=20						
ASAR	Alice Springs	25.65	163	P	P	12 18 17.6	+0.6
	0.3nm,0.3s,baz=343,slow=11,SNR=4.6						
MKAR	Makanchi Array	59.45	326	P	P	12 22 50.1	+0.1
	0.1nm,0.3s,baz=122,slow=8.5,SNR=4.1						

MAN 06 12:44:49,11.73N×125.71E,h14^{km},mb4.0,ML2.8,MS2.5, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	0.29	244	*e*P	Pg	12 44 56.4	+1.3
PLP	Palo	0.91	232	*e*P	Pb	12 45 05.9	-0.7
PLP				*e*S	Sb	12 45 20.8	+2.3
CNP	Catarman	1.28	307	*e*P	Pn	12 45 11.6	-0.9
MSLP	Maasin	1.79	208	*e*P	Pn	12 45 20.0	+0.4
MSLP				*e*S	Sn	12 45 46.9	+4.8

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*ISCJB **06** 13:09:23.7±0.4,46.47N±0.02×10.60E±0.03,h12^{km}±7^{km}, Error ellipse: s-maj=3.3km s-min=3.0km az=173.7*

*CSEM **06** 13:09:23.6±0.1,46.43N×10.57E,h12^{km},ML2.9/8,Error ellipse: s-maj=1.5km s-min=1.4km az=161.0*

*VIE **06** 13:09:24.7±0.3,46.49N×10.62E,h9^{km}±3^{km},mb1.9/7, ML2.3/13,Error ellipse: s-maj=1.7km s-min=0.9km az=16.0*

*ZUR **06** 13:09:24.4,46.44N×10.57E,h4^{km}±3^{km},ML2.2/4*

*ROM **06** 13:09:24.3±0.2,46.45N×10.54E,h11^{km}±2^{km},Md2.3/9, Ml2.1/7,Error ellipse: s-maj=2.5km s-min=2.0km az=156.0*

ISC 06 13:09:24.3±0.5**,46.46N**±0.02×**10.58E**±0.03**,h13^{km}**±7^{km}**,n45, σ0.34**/76**,21C-4D,Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRMO	Bormio	0.14	277	Pg	Pg	13 09 27.9	+0.1
BRMO				Sg	Sg	13 09 29.8	-0.6
	598nm,0.2s						
BRMO	Bormio	0.14	277	Pg	Pg	13 09 27.9	+0.1
BRMO				Sg	Sg	13 09 29.8	-0.6
	598nm,0.2s						
FUORN	Ofenpass-Fuorn	0.27	307	Pg	Pg	13 09 30.1	+0.1
FUORN				Sg	Sg	13 09 34.0	+0.2
FUORN	Ofenpass-Fuorn	0.27	307	*e*Sg	Pg	13 09 30.1	+0.1
	477nm,0.4s						
FUORN	Ofenpass-Fuorn	0.27	307	⇓*i*Pg	Pg	13 09 34.1	+4.1
	477nm,0.4s						
FUORN	Ofenpass-Fuorn	0.27	307	Pg	Pg	13 09 30.1	+0.1
FUORN				Sg	Sg	13 09 34.0	+0.2
BERNI	Berninapass	0.39	264	⇑*i*Pg	Pg	13 09 32.3	+0.3
	656nm,0.2s						
BERNI	Berninapass	0.39	264	⇑*i*Pg	Pg	13 09 32.3	+0.3
	656nm,0.2s						
MABI	Malga Bissina	0.41	186	Pg	Pg	13 09 32.5	+0.1
MABI				Sg	Sg	13 09 37.5	-0.3
	30nm,0.1s						
MABI	Malga Bissina	0.41	186	Pg	Pg	13 09 32.5	+0.1
MABI				Sg	Sg	13 09 37.5	-0.3
	30nm,0.1s						
APPI	Appiano	0.45	87	⇑*i*Pg	Pg	13 09 33.6	+0.4
APPI				Sg	Sg	13 09 39.6	+0.3
	130nm,0.4s						
APPI	Appiano	0.45	87	⇑*i*Pg	Pg	13 09 33.6	+0.4
APPI				Sg	Sg	13 09 39.6	+0.3
	130nm,0.4s						
FETA	Feichten	0.57	11	⇑*e*Pg	Pg	13 09 35.6	0.0
	SNR=9.1						
FETA				⇑*i*Sg	Sg	13 09 43.0	-0.1
	18nm,0.1s						
FETA	Feichten	0.57	11	Pg	Pg	13 09 35.6	+0.1
	SNR=9.1						
FETA				Sg	Sg	13 09 43.0	-0.1
	18nm,0.1s						
DAVOX	Davos/Dischmat	0.58	304	Pg	Pg	13 09 36.1	+0.5
DAVOX				Sg	Sg	13 09 43.4	+0.1
DAVOX	Davos/Dischmat	0.58	304	*e*P	Pg	13 09 35.8	+0.2
	201nm,0.2s						
DAVOX	Davos/Dischmat	0.58	304	Pg	Pg	13 09 36.1	+0.5
DAVOX				Sg	Sg	13 09 43.4	+0.1
MAGA	Magasa	0.68	177	Pg	Pg	13 09 38.1	+0.5
MAGA				Sg	Sg	13 09 47.0	+0.4
	273nm,0.2s						
MAGA	Magasa	0.68	177	Pg	Pg	13 09 38.1	+0.5
MAGA				Sg	Sg	13 09 47.0	+0.4
	273nm,0.2s						
TUE	Stuetta	0.85	271	Pg	Pg	13 09 39.9	-0.8
TUE				Sg	Sg	13 09 51.5	-0.4
	37nm,0.3s						
TUE	Stuetta	0.85	271	Pg	Pg	13 09 39.9	-0.8
CTI	Castel Tesino	0.85	118	Pg	Pg	13 09 40.8	0.0
CTI				Sg	Sg	13 09 52.1	+0.2
	30nm,0.2s						
CTI	Castel Tesino	0.85	118	Pg	Pg	13 09 40.8	0.0
CTI				Sg	Sg	13 09 52.1	+0.2
	30nm,0.2s						
SQTA	Sankt Quirin	0.88	29	⇑*e*Pg	Pg	13 09 41.3	0.0
	SNR=7.8						
SQTA	Sankt Quirin	0.88	29	⇑*e*Pg	Pg	13 09 41.3	0.0
	SNR=7.8						
SQTA				⇑*i*Sg	Sg	13 09 52.6	-0.2
	27nm,0.3s						
SQTA	Sankt Quirin	0.88	29	Pg	Pg	13 09 41.3	0.0
	7.0nm,8.0s						
SQTA				Sg	Sg	13 09 52.6	-0.2
	27nm,0.3s						
DAVA	Damuels	0.96	330	⇑*i*Pg	Pg	13 09 43.3	+0.5
DAVA	Damuels	0.96	330	⇑*i*Pg	Pg	13 09 43.3	+0.5
DAVA				⇓*i*Sg	Sg	13 09 55.8	+0.6
	8.4nm,0.2s						
DAVA	Damuels	0.96	330	Pg	Pg	13 09 43.3	+0.5
DAVA				Sg	Sg	13 09 55.8	+0.5
	8.4nm,0.2s						
MOTA	Moosalm	0.96	22	⇑*i*Pg	Pg	13 09 42.5	-0.4
MOTA	Moosalm	0.96	22	⇑*i*Pg	Pg	13 09 42.5	-0.4
MOTA				⇑*i*Sg	Sg	13 09 55.2	-0.2
	7.5nm,0.2s						
MOTA	Moosalm	0.96	22	Pg	Pg	13 09 42.5	-0.3
MOTA				Sg	Sg	13 09 55.2	-0.1
	7.5nm,0.2s						
RETA	Reutte	1.04	7	⇑*i*Pg	Pg	13 09 44.4	0.0
RETA				⇑*i*Sg	Sg	13 09 58.2	+0.3
	9.1nm,0.3s						
RETA	Reutte	1.04	7	Pg	Pg	13 09 44.4	+0.1
RETA				Sg	Sg	13 09 58.2	+0.3
	9.1nm,0.3s						
WTTA	Wattenberg	1.09	42	⇑*i*Pg	Pg	13 09 45.1	-0.1
WTTA	Wattenberg	1.09	42	⇑*i*Pg	Pg	13 09 45.1	-0.1
WTTA				⇑*i*Sg	Sg	13 09 59.5	+0.1
	11nm,0.4s						
WTTA	Wattenberg	1.09	42	Pg	Pg	13 09 45.1	-0.1
WTTA				Sg	Sg	13 09 59.5	+0.1
	11nm,0.4s						
SEST	Monte Rota	1.17	75	Pg	Pg	13 09 46.7	-0.1
SEST				Sg	Sg	13 10 01.9	-0.1
	35nm,0.3s						
SEST	Monte Rota	1.17	75	Pg	Pg	13 09 46.7	-0.1
SEST				Sg	Sg	13 10 01.9	-0.1
	35nm,0.3s						
MUGIO	Muggio	1.19	244	*e*P	Pn	13 09 46.5	-0.1
	67nm,0.4s						
ABTA	Abfaltersbach	1.37	77	⇑*i*Pg	Pg	13 09 50.0	-0.5
ABTA				⇑*i*Sg	Sg	13 10 08.4	+0.1
	6.4nm,0.1s						
ABTA	Abfaltersbach	1.37	77	Pg	Pg	13 09 50.0	-0.6
ABTA				Sg	Sg	13 10 08.4	+0.1
	6.4nm,0.1s						
KBA	Koelnbreinsper	2.00	71	⇓*i*Pg	Pg	13 10 02.0	-0.7
KBA	Koelnbreinsper	2.00	71	⇓*i*Pg	Pg	13 10 02.0	-0.7
KBA	Koelnbreinsper	2.00	71	Pg	Pg	13 10 02.0	-0.7

KRSC 06 13:28:29.1±0.5**,55.63N×162.51E,h49^{km}**±51^{km}**,ML3.7, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.60	17	*e*P	Pn	13 28 41.4	-0.1
KBTR				*e*S	Sn	13 28 50.3	-0.2
ZLN	Zelenaya	1.04	293	*i* P	Pn	13 28 48.2	+1.0
ZLN				*e*S	Sn	13 29 02.5	+1.8
MKZ	Mys Kozlova	1.17	203	P	Pn	13 28 48.8	-0.2
MKZ				*e*S	Sn	13 29 03.4	-0.3
KRSR	Krestovskiy	1.24	299	*i* P	Pn	13 28 50.8	+0.8
KRSR				*e*S	Sn	13 29 06.8	+1.2
KLY	Klyuchi	1.25	304	*i* P	Pn	13 28 49.8	-0.3
KLY				*e*S	Sn	13 29 05.2	-0.6
SRKR	Sorokina	1.27	324	*i* P	Pn	13 28 51.8	+1.4
SRKR				*e*S	Sn	13 29 08.3	+2.0
KMNR	Kamenistaya	1.29	277	*i* P	Pn	13 28 52.7	+2.0
KMNR				*i* S	Sn	13 29 09.8	+3.0
KPT	Kopyto	1.33	286	*i* P	Pn	13 28 52.9	+1.6
KPT				*e*S	Sn	13 29 10.6	+2.7
TUMR	Tumrok	1.39	256	*i* P	Pn	13 28 54.2	+2.2
TUMR				*e*S	Sn	13 29 11.9	+2.7
KOZ	Kozyrevsk	1.55	287	*i* P	Pn	13 28 56.6	+2.4
KOZ				*e*S	Sn	13 29 17.1	+4.0
SRDR	Sredinnyy	1.71	295	*i* P	Pn	13 28 58.8	+2.4
SRDR				*e*S	Sn	13 29 20.5	+3.4
SPN	Mys Shipunski	2.92	211	P	Pn	13 29 13.7	+0.7
SPN				*e*S	Sn	13 29 45.9	-1.0
NLC	Nalytchevo	3.08	218	S	Sn	13 29 52.0	+1.3
AVH	Avacha	3.23	224	P	Pn	13 29 21.3	+4.0
GNL	Ganaly	3.29	236	P	Pn	13 29 20.3	+2.3
PET	Petropavlovsk	3.45	222	P	Pn	13 29 23.5	+3.2
PET				*e*S	Sn	13 30 02.4	+2.6
GRL	Gorelyy	4.04	222	P	Pn	13 29 31.3	+3.0

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*IDC **06** 14:02:52.0±2.3,8.81S×110.40E,h0^{km},mb3.8/5,mb1 3.9/5, mb1mx3.7/15,mbtmp3.8/5,MS3.6/1,Ms1 3.6/1, ms1mx2.5/24,Error ellipse: s-maj=120.5km s-min=21.0km az=53.0*

*NEIC **06** 14:02:55.3±1.3,8.43S×110.93E,h10^{km},mb4.4/2,Error ellipse: s-maj=76.9km s-min=13.0km az=50.0*

*ISCJB **06** 14:02:56.6±1.7,8.4S±0.4×110.9E±0.5,h33^{km},mb4.0/7, Error ellipse: s-maj=95.5km s-min=16.4km az=140.0*

ISC 06 14:02:59.1±1.7**,8.4S**±0.4×**111.0E**±0.5**,h35^{km},n10,σ0.44**/9**, mb4.0**/7**,Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	25.36	119	P	P	14 08 23.2	+0.1
	0.5nm,0.6s,mb3.2,baz=289,slow=11,SNR=6.3						
STKA	Stephens Creek	36.80	134	*e*P	P	14 10 03.7	0.0
STKA	Stephens Creek	36.80	134	P	P	14 10 03.5	-0.2
	1.9nm,0.5s,mb4.2,baz=311,slow=10,SNR=9.5						
GUMO	Guam	40.16	57	LR	LR	14 27 22.5	
	comp=Z,80nm,19.7s,baz=95,slow=36						
SONM	Songino Array	56.17	356	P	P	14 12 35.6	+0.4
	0.5nm,0.5s,mb3.8,baz=183,slow=8.1,SNR=4.8						
TKM2	Tokmak 2	60.41	331	*e*P	P	14 13 05.2	+0.2
	1.0nm,0.4s,mb4.2						
MKAR	Makanchi Array	60.63	338	P	P	14 13 06.3	0.0
MKAR	Makanchi Array	60.63	338	P	P	14 13 06.3	0.0
	1.1nm,0.5s,mb4.3,baz=142,slow=7.9,SNR=12						
EKS2	Erkin-Say	61.12	329	*e*P	P	14 13 10.2	+0.5
	4.5nm,1.3s,mb4.4						
ZALV	Zalesovo Beam	65.96	343	P	P	14 13 40.5	-1.0
	0.7nm,0.3s,mb4.1,baz=154,slow=5.7,SNR=5.2						

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*ISCJB **06** 14:05:16.3±1.6,1.7N±0.2×96.8E±0.2,h33^{km},mb3.9/4,Error ellipse: s-maj=27.6km s-min=21.6km az=18.5*

*NEIC **06** 14:05:17.8±1.2,1.66N×96.83E,h30^{km},Error ellipse: s-maj=21.7km s-min=16.6km az=203.0*

*IDC **06** 14:05:23.2±12.0,1.86N×97.15E,h67^{km}±93^{km},mb3.6/4, mb1 3.7/4,mb1mx3.4/19,mbtmp3.6/4,Error ellipse: s-maj=148.1km s-min=24.9km az=58.0*

ISC 06 14:05:18.7±1.6**,1.7N**±0.2×**96.9E**±0.2**,h35^{km},n7,σ0.18**/7**, mb3.9**/4**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.33	61	P	Pn	14 05 54.3	-0.2
	0.7nm,0.3s,baz=327,slow=2.9,SNR=3.4						
KULM	Kulim	5.20	46	*e*P	Pn	14 06 34.2	+0.2
WRA	Warramunga Arr	42.56	122	P	P	14 13 11.5	0.0
	0.6nm,0.7s,mb3.4,baz=302,slow=9.0,SNR=4.3						
MKAR	Makanchi Array	46.70	346	P	P	14 13 43.9	-0.2
MKAR	Makanchi Array	46.70	346	P	P	14 13 43.9	-0.2
	1.3nm,0.7s,mb4.0,baz=160,slow=8.1,SNR=8.0						
SONM	Songino Array	46.71	9	P	P	14 13 44.0	-0.1
	0.8nm,0.8s,mb3.7,baz=184,slow=9.6,SNR=6.0						
ZALV	Zalesovo Beam	53.04	351	P	P	14 14 32.4	+0.2
	5.3nm,0.7s,mb4.6,baz=179,slow=6.3,SNR=26						

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*NIED **06** 14:15:00,37.30N×142.10E,h14^{km},Mw4.2 Best double couple: M$_0$2.23000×10^{15} NP1:φ$_s$229.00000°,δ43.00000°, λ-178.00000°. NP2:φ$_s$137.00000°,δ89.00000°, λ-47.00000°.*

*BJI **06** 14:15:48.5,37.13N×142.43E,h29^{km},mB4.8,mb4.4,Ms3.8, Msz3.8*

*IDC **06** 14:15:49.4±0.7,37.23N×142.19E,h0^{km},mb4.0/12, mb1 4.2/19,mb1mx4.1/27,mbtmp4.1/19,ML3.9/7,MS3.3/4, Ms1 3.3/4,ms1mx2.8/31,Error ellipse: s-maj=17.9km s-min=14.8km az=118.0*

*JMA **06** 14:15:51.5±0.2,37.33N×142.11E,h36^{km},M4.5*

JMA Felt II J1.

*ISCJB **06** 14:15:52.6±0.4,37.30N±0.03×142.07E±0.04,h33^{km}, mb4.3/28,MS3.6/4,Error ellipse: s-maj=5.1km s-min=4.4km az=144.2*

*MOS **06** 14:15:53.8±1.1,37.31N×141.98E,h40^{km},mb4.4/17,Error ellipse: s-maj=12.4km s-min=9.8km az=98.7*

*NEIC **06** 14:15:53.8±2.9,37.27N×142.10E,h29^{km}±20^{km},mb4.6/7, MW4.2(NIED),Error ellipse: s-maj=11.8km s-min=7.2km az=115.0*

NEIC Recorded [2 JMA] in Fukushima Prefecture.

ISC 06 14:15:55.0±0.4**,37.31N**±0.03×**141.97E**±0.04**,h35^{km},n83, σ1.13**/93**,mb4.3**/28**,MS3.6**/4**,1C-5D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JFK	Kawauchi	0.88	274	⇓P	Pn	14 16 09.2	-1.6
JFK				S	Sn	14 16 21.4	-0.9
ONAJ	Iwakimizuishiy	0.96	258	P	Pn	14 16 10.3	-1.7
ONAJ				*e*S	Sn	14 16 23.6	-0.8
JMM	Marumori	1.09	301	⇓P	Pn	14 16 11.9	-1.9
JMM				S	Sn	14 16 26.6	-1.0
JIO	Ouri	1.25	337	⇑P	Pn	14 16 13.3	-2.6
JIO				S	Sn	14 16 28.5	-3.0
JFT	Otama	1.32	280	⇓P	Pn	14 16 16.6	-0.3
JFT				S	Sn	14 16 33.5	+0.3
JOU	Okura	1.48	316	P	Pn	14 16 18.3	-0.8
JOU				S	Sn	14 16 37.6	+0.4
JMK	Ichinoseki	1.75	340	P	Pn	14 16 20.9	-1.9
JYS	Shirataka	1.76	302	P	Pn	14 16 23.4	+0.4
JYS				*e*S	Sn	14 16 46.4	+2.2
JFY	Yanaizu	1.81	274	P	Pn	14 16 23.4	-0.2
JYK	Kaneyama	2.05	322	⇓P	Pn	14 16 26.0	-1.0
MJAR	Matsushiro Arr	3.11	257	Pn	Pn	14 16 42.1	+0.5
MJAR				LR	LR	14 18 04.6	
MJAR	Matsushiro Arr	3.11	257	P	Pn	14 16 42.1	+0.6
MJAR				pmax	pmax		
	comp=Z,13nm,0.3s						
MJAR				MLR	MLR		
	comp=Z,854nm,19.8s						
MJAR	Matsushiro Arr	3.11	257	Pn	Pn	14 16 42.1	+0.5
	comp=Z,13nm,0.3s,baz=84,slow=15,SNR=48						
MJAR				LR	LR	14 18 04.6	
	comp=Z,854nm,19.8s,baz=70,slow=42						
MAJO	Matsushiro	3.11	257	*e*Pn	Pn	14 16 42.0	+0.4
MAT	Matsushiro	3.11	257	P	Pn	14 16 42.2	+0.6
MAT				S	Sn	14 17 22.1	+4.6
JHJ	Hachijo jima 2	4.55	204	Pn	Pn	14 17 00.1	-1.2
	comp=Z,246nm,0.3s,baz=202,slow=4.7,SNR=36						
JHJ				Sn	Sn	14 17 50.2	-2.6
	comp=Z,52nm,0.3s,baz=89,slow=24,SNR=3.3						
ASAJ	Asahikawa	6.82	4	P	Pn	14 17 30.6	-1.9
ASAJ						14 18 48.0	
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				smax			
	comp=N,2.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,207nm,18.4s						
ASAJ	Asahikawa	6.82	4	Pn	Pn	14 17 30.6	-1.9
	comp=Z,1.9nm,0.3s,baz=176,slow=14,SNR=18						
ASAJ				Sn	Sn	14 18 48.0	-0.8
	comp=Z,2.0nm,0.3s,baz=170,slow=32,SNR=8.5						
ASAJ				LR	LR	14 21 13.7	
	comp=Z,207nm,18.4s,baz=287,slow=47						
YUK	Yuzh-Kuril'sk	7.34	23	*e*P	Pn	14 17 35.0	-4.6
YUK				*e*S	Sn	14 18 56.0	-5.7
YUK				pmax	pmax		
	comp=Z,200nm,0.3s						
YUK				smax			
	comp=N,500nm,0.6s						
YUK				smax			
	comp=E,200nm,0.5s						
KUR	Kuril'sk	9.07	27	P	Pn	14 18 05.5	+2.1
VLA	Vladivostok	9.65	310	*e*P	Pn	14 18 19.1	+7.9
VLA				pmax	pmax		
	comp=Z,17nm,1.3s						
YSS	Yuzh-Sakhalins	9.66	3	Pn	Pn	14 18 11.5	+0.1
JNU	Nakatsue	9.99	249	Pn	Pn	14 18 18.0	+2.0
JNU				LR	LR	14 22 09.2	
JNU	Nakatsue	9.99	249	Pn	Pn	14 18 18.0	+2.0
	comp=Z,0.4nm,0.3s,baz=62,slow=21,SNR=6.7						
JNU				LR	LR	14 22 09.2	
	comp=Z,114nm,18.5s,baz=60,slow=38						
CBIJ	Chichi jima	10.18	179	Pn	Pn	14 18 14.3	-4.3
	comp=Z,22nm,0.3s,baz=216,slow=16,SNR=22						
CBIJ				Sn	Sn	14 19 60.0	-12
	comp=Z,8.9nm,0.3s,baz=267,slow=21,SNR=3.3						
KSRS	Korea Array	11.18	275	Pn	Pn	14 18 33.9	+1.6
	comp=Z,0.3nm,0.3s,baz=101,slow=13,SNR=4.3						
KSRS				LR	LR	14 22 44.8	
	comp=Z,159nm,18.9s,baz=346,slow=36						
JOW	Kunigami	15.60	232	Pn	Pn	14 19 31.6	-0.6
JOW	Kunigami	15.60	232	Pn	Pn	14 19 31.6	-0.6
	comp=Z,0.4nm,0.3s,baz=143,slow=22,SNR=2.1						
MA2	Magadan	23.00	11	*e*P	P	14 20 54.5	-1.9
	comp=Z,3.4nm,0.6s,mb4.0						
MA2	Magadan	23.00	11	*i* P	P	14 20 56.2	-0.2
MA2				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.0						
MA2				MLR	MLR		
	comp=Z,100nm,23.0s,MS3.2						
YAK	Yakutsk	25.90	347	*e*P	P	14 21 23.9	+0.5
	comp=Z,12nm,0.7s,mb4.5						
YAK	Yakutsk	25.90	347	*i* P	P	14 21 26.7	+3.3
YAK				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.4						
YAK				MLR	MLR		
	comp=Z,100nm,13.0s,MS3.5						
SEY	Seymchan	26.44	11	⇓*e*P	P	14 21 29.1	+0.9
BOD	Bodaibo	27.54	327	*e*P	P	14 21 38.9	+0.8
BOD				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.8						

ULN	Ulaanbaatar	27.57	304	eP	P	14 21 37.9	-0.6
	comp=Z,3.4nm,0.3s,mb4.5						
ULN	Ulaanbaatar	27.57	304	eP	P	14 21 37.9	-0.7
ULN				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.4						
SONM	Songino Array	28.00	303	P	P	14 21 43.4	+1.0
SONM				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SONM	Songino Array	28.00	303	P	P	14 21 43.4	+1.0
	comp=Z,1.6nm,0.6s,mb3.9,baz=100,slow=8.8,SNR=14						
ZAK	Zakamensk	30.45	308	eP	P	14 22 04.6	+0.5
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.5						
CD2	Chengdu	32.12	270	eP	P	14 22 19.3	+0.3
CD2				XP	sP	14 22 34.8	+1.5
CD2				PP	PP	14 23 25.9	-5.9
CD2				S	S	14 27 27.8	-1.3
CD2				XS	sS	14 27 44.3	-1.4
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
CD2				AMB	AMB		
	comp=Z,30nm,4.2s						
CD2				LR	LR		
	comp=N,280nm,14.4s,MS4.3						
CD2				LR	LR		
	comp=E,400nm,15.6s,MS4.3						
CD2				LR	LR		
	comp=Z,210nm,13.2s,MS4.0						
GTA	Gaotai	32.91	287	eP	P	14 22 26.9	+1.1
GTA				AP	pP	14 22 31.0	-4.9
GTA				XP	sP	14 22 33.7	-6.5
GTA				AMB	AMB		
	comp=Z,2.0nm,0.8s,mb4.1						
KMI	Kunming	35.44	261	P	P	14 22 48.7	+0.8
KMI				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
KMI				LR	LR		
	comp=Z,59nm,19.1s,MS3.4						
KMI	Kunming	35.44	261	P	P	14 22 48.7	+0.8
	comp=Z,10.0nm,0.8s,mb4.8						
KMI				LR	LR		
	comp=Z,60nm,19.1s,MS3.4						
ZALV	Zalesovo Beam	42.06	312	P	P	14 23 42.3	-0.7
	comp=Z,1.4nm,0.5s,mb3.8,baz=88,slow=8.0,SNR=8.5						
ZAL	Zalesovo	42.07	312	P	P	14 23 42.3	-0.8
LSA	Lhasa	42.63	275	P	P	14 23 49.4	+1.4
LSA	Lhasa	42.63	275	eP	P	14 23 49.0	+1.0
	comp=Z,3.5nm,0.7s,mb4.2						
LSA	Lhasa	42.63	275	eP	P	14 23 49.0	+1.0
LSA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
NVS	Novosibirsk	42.97	314	eP	P	14 23 51.4	+0.9
MKAR	Makanchi Array	44.35	302	P	P	14 24 02.3	+0.7
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	44.35	302	P	P	14 24 02.2	+0.6
	comp=Z,1.1nm,0.6s,mb3.8,baz=86,slow=9.8,SNR=12						
KURK	Kurchatov	46.12	308	eP	P	14 24 15.4	-0.2
	comp=Z,6.9nm,0.7s,mb4.7						
KURK	Kurchatov	46.12	308	eP	P	14 24 15.4	-0.2
KURK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
TAPN	Taplejung	46.37	274	eP	P	14 24 18.7	+0.8
	comp=Z,6.5nm,0.4s,mb5.0						
ODAN	Odare	46.84	274	eP	P	14 24 22.7	+1.1
	comp=Z,13nm,0.6s,mb5.0						
GUN	Gumba	47.57	276	eP	P	14 24 28.8	+1.5
PKI	Pulchoki	48.09	276	eP	P	14 24 32.6	+1.3
KKN	Kakani	48.10	276	eP	P	14 24 32.4	+1.0
	comp=Z,16nm,0.8s,mb5.1						
GKN	Gorkha	48.52	276	eP	P	14 24 35.1	+0.5
	comp=Z,18nm,0.7s,mb5.2						
KOLN	Koldanda	49.44	277	eP	P	14 24 42.5	+0.8
	comp=Z,10nm,0.8s,mb4.9						
TKM2	Tokmak 2	49.89	298	eP	P	14 24 44.3	-0.6
	comp=Z,3.6nm,0.5s,mb4.7						
TKM2	Tokmak 2	49.89	298	eP	P	14 24 44.3	-0.6
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
INK	Inuvik	53.94	27	eP	P	14 25 14.1	-0.6
INK	Inuvik	53.94	27	P	P	14 25 14.2	-0.5
INK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
INK	Inuvik	53.94	27	P	P	14 25 14.2	-0.5
	comp=Z,1.6nm,0.6s,mb4.1,baz=299,slow=3.6,SNR=19						
FITZ	Fitzroy Crossi	57.22	199	eP	P	14 25 39.0	+0.3
WB2	Warramunga Arr	57.39	189	eP	P	14 25 38.8	-1.1
WRA	Warramunga Arr	57.39	189	P	P	14 25 38.7	-1.2
WRA				pmax	pmax		
	comp=Z,5.0nm,0.6s						
WRA	Warramunga Arr	57.39	189	P	P	14 25 38.7	-1.2
	comp=Z,4.5nm,0.6s,mb4.7,baz=6.9,slow=6.7,SNR=44						
YKA	Yellowknife Ar	63.35	30	P	P	14 26 19.5	-0.7
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	63.35	30	P	P	14 26 19.5	-0.6
	comp=Z,0.9nm,0.7s,mb4.0,baz=303,slow=6.6,SNR=14						
FINES	FINESS Array B	68.78	332	P	P	14 26 56.8	+1.7
FINES				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FINES	FINESS Array B	68.78	332	P	P	14 26 56.8	+1.8
	comp=Z,1.2nm,0.8s,mb3.9,baz=195,slow=29,SNR=3.2						
STKA	Stephens Creek	68.83	180	P	P	14 26 55.1	-0.5
	comp=Z,2.0nm,0.8s,mb4.1,baz=276,slow=10,SNR=3.3						
NOA	NORSAR Array B	74.11	337	P	P	14 27 28.6	+1.4
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	74.11	337	P	P	14 27 28.6	+1.4
	comp=Z,1.1nm,0.8s,mb3.9,baz=38,slow=5.8,SNR=3.3						
AKASG	Malin Array Be	74.35	322	P	P	14 27 29.8	+1.0
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	74.35	322	P	P	14 27 29.8	+1.0
	comp=Z,0.7nm,0.4s,mb3.9,baz=44,slow=6.1,SNR=6.4						
NVAR	Mina Array Bea	74.47	53	P	P	14 27 29.8	+0.1
	comp=Z,0.8nm,0.7s,mb3.7,baz=290,slow=3.7,SNR=9.1						
TXAR	Lajitas Array	89.60	53	P	P	14 28 48.8	-0.5
	comp=Z,0.2nm,0.6s,mb3.6,baz=302,slow=2.8,SNR=3.3						
LPAZ	La Paz	146.17	60	PKPbc	PKPbc	14 35 32.0	+0.1
LPAZ	La Paz	146.17	60	PKP2	PKPab	14 35 32.0	-0.6
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPAZ	La Paz	146.17	60	PKPbc	PKPbc	14 35 32.0	+0.1
	comp=Z,0.8nm,0.7s,baz=346,slow=4.2,SNR=4.2						

BJI ***06*** *14:44:49.3, 3678N×7124E, h130^{km}, mB4.9, mb4.6*

MOS ***06*** *14:44:49.1±0.9, 3654N×7148E, h107^{km}, mb4.6/20, Error ellipse: s-maj=9.7km s-min=5.9km az=113.5*

ISCJB ***06*** *14:44:49.4±0.4, 3650N±002×7160E±003, h116^{km}±4^{km}, mb4.4/38, Error ellipse: s-maj=4.6km s-min=4.0km az=172.8*

IDC ***06*** *14:44:51.3±0.9, 3654N×7153E, h110^{km}±6^{km}, mb3.7/11, mb1 4.0/14, mb1mx3.9/21, mbtmp3.9/14, MS3.7/1, Ms1 3.7/1, ms1mx2.5/28, Error ellipse: s-maj=23.3km s-min=13.2km az=16.0*

NEIC ***06*** *14:44:51.0±0.3, 3658N×7153E, mb4.5/16, Error ellipse: s-maj=6.8km s-min=5.7km az=173.0*

NNC ***06*** *14:44:55.5±3.5, 3703N×7113E, h180^{km}±41^{km}, mb3.8, mpv4.7, Error ellipse: s-maj=31.3km s-min=17.0km az=17.0*

ISC 06 14:44:51.2±0.4**, 3651N**±002×**7167E**±004**, h122**^{km}±4^{km}**, h116**^{km}±4.7^{km}**:pP-P, n148,** σ1^{s}**15**/181**, mb4.4**/38**, 6C-6D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEP	Cherat	2.69	176	⇓P	Pn	14 45 34.3	+0.8
CHCP	Chirah Chowk	3.13	155	P	Pn	14 45 41.6	+2.3
THW	Thamme Wali	3.71	179	P	Pn	14 45 47.0	+0.1
SBDP	Sheikh Budin	4.26	190	P	Pn	14 45 53.2	-1.0
KSH	Kashi	4.54	47	P	Pn	14 46 01.0	+3.2
KSH				XP		14 46 32.1	
KSH				S	Sn	14 46 51.1	+1.5
KSH				AMB	AMB		
	comp=Z,242nm,1.2s						
KSH				LR	LR		
	comp=Z,709nm,4.6s						
SARP	Sargodha	4.65	169	P	Pn	14 45 59.4	-0.1
DRP	Derazinda	4.91	195	P	Pn	14 46 02.9	0.0
AML	Almayashu	5.83	15	P	Pn	14 46 15.3	+0.1
	SNR=654						
AML	Almayashu	5.83	15	ePn	Pn	14 46 15.1	-0.1
	comp=Z,337nm,0.5s						
AML				eSn	Sn	14 47 15.9	-4.9
UCH	Uchtor	6.12	20	P	Pn	14 46 19.4	+0.3
	SNR=166						
UCH	Uchtor	6.12	20	ePn	Pn	14 46 19.2	+0.1
	comp=Z,102nm,0.7s						
UCH				eSn	Sn	14 47 24.6	-3.2
KZA	Kyzart	6.21	25	P	Pn	14 46 21.2	+0.8
	SNR=40						
EKS2	Erkin-Say	6.36	14	P	Pn	14 46 22.3	0.0
	SNR=374						
EKS2	Erkin-Say	6.36	14	ePn	Pn	14 46 22.1	-0.2
	comp=Z,151nm,0.5s						
EKS2				eSn	Sn	14 47 25.0	-8.5
AAK	Ala-Archa	6.49	19	P	Pn	14 46 24.7	+0.5
	SNR=332						
AAK	Ala-Archa	6.49	19	ePn	Pn	14 46 23.7	-0.5
	comp=Z,180nm,0.6s						
AAK	Ala-Archa	6.49	19	ePN	Pn	14 46 23.7	-0.5
AAK				pmax	pmax		
	comp=Z,180nm,0.6s						
KBK	Karagaybulak	6.64	21	P	Pn	14 46 27.1	+1.0
	SNR=71						
KK31	Karatay Array	6.64	353	⇓P	Pn	14 46 24.2	-2.0
	comp=Z,104nm,0.3s,baz=178,slow=12,SNR=1235						
KK31				⇑S	Sn	14 47 33.4	-7.0
	comp=Z,28nm,0.3s,baz=185,slow=26,SNR=7.2						
FRU	Bishkek	6.71	19	⇓iPN	Pn	14 46 27.5	+0.4
FRU				pmax	pmax		
	comp=Z,140nm,1.6s						
ULHL	Ulahol	6.73	30	P	Pn	14 46 28.8	+1.4
	SNR=88						
CHMS	Chumysh	6.90	19	P	Pn	14 46 29.8	+0.1
	SNR=84						
TKM2	Tokmak 2	7.08	24	P	Pn	14 46 32.9	+0.8
	SNR=44						
TKM2	Tokmak 2	7.08	24	⇑P	Pn	14 46 32.6	+0.4
	comp=Z,9.4nm,0.6s						
TKM2				⇓S	Sn	14 47 51.2	+0.2
	comp=Z,7.4nm,1.0s						
TKM2	Tokmak 2	7.08	24	ePn	Pn	14 46 32.1	-0.1
	comp=Z,153nm,0.6s						
TKM2	Tokmak 2	7.08	24	ePN	Pn	14 46 32.1	0.0
TKM2				pmax	pmax		
	comp=Z,153nm,0.6s						
USP	Ospenovka	7.09	17	P	Pn	14 46 31.6	-0.6
	SNR=60						
MK31	Makanchi Array	12.97	34	P	Pn	14 47 50.8	0.0
	comp=Z,7.4nm,0.7s,baz=214,slow=11,SNR=24						
MKAR	Makanchi Array	12.97	34	P	Pn	14 47 50.2	-0.6
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MKAR	Makanchi Array	12.97	34	P	Pn	14 47 50.2	-0.6
	comp=Z,0.8nm,0.3s,baz=223,slow=14,SNR=26						
KOLN	Koldanda	13.34	127	eP	Pn	14 47 54.8	-0.9
	comp=Z,34nm,0.3s						
KOLN				eS	Sn	14 50 15.2	-7.6
GKN	Gorkha	13.86	124	eP	Pn	14 48 01.4	-1.0
	comp=Z,222nm,0.6s						
GKN				eS	Sn	14 50 28.2	-7.2
WMQ	Urumqi	14.25	54	eP	Pn	14 48 07.1	-0.2
WMQ				XP		14 48 44.7	
WMQ				PCP	PcP	14 53 18.6	+2.7
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.7s						
KKN	Kakani	14.43	123	eP	Pn	14 48 07.0	-2.7
	comp=Z,68nm,0.4s						
KKN				eS	Sn	14 50 40.4	-8.7
DMN	Daman	14.43	124	eP	Pn	14 48 09.1	-0.6
	comp=Z,79nm,0.6s						
DMN				eS	Sn	14 50 39.9	-9.2
PKI	Pulchoki	14.66	124	eP	Pn	14 48 11.5	-1.1
	comp=Z,70nm,0.4s						
PKI				eS	Sn	14 50 45.9	-8.7
GUN	Gumba	14.76	121	eP	Pn	14 48 12.5	-1.4
	comp=Z,80nm,0.4s						
GUN				eS	Sn	14 50 48.3	-8.8
KURK	Kurchatov	15.05	17	⇑P	Pn	14 48 15.1	-2.3
	comp=Z,10.0nm,0.8s						
KURK	Kurchatov	15.05	17	ePn	Pn	14 48 13.6	-3.7
	comp=Z,20nm,0.8s						
KURK				e		14 48 19.9	
KURK	Kurchatov	15.05	17	d iP	Pn	14 48 19.7	+2.4
JIRN	Jiri	15.13	122	eP	Pn	14 48 17.4	-1.1
	comp=Z,55nm,0.4s						
JIRN				eS	S	14 50 57.2	-17
AB31	Akbulak array	15.34	330	⇓P	Pn	14 48 15.1	-5.8
	comp=Z,11nm,0.5s,baz=142,slow=11,SNR=348						
AB31				⇑S	S	14 50 57.1	-21
	comp=Z,26nm,0.7s,baz=149,slow=22,SNR=21						
TAPN	Taplejung	16.38	119	eP	Pn	14 48 33.1	-0.9
	comp=Z,36nm,0.4s						
TAPN				eS	S	14 51 26.2	-11
ODAN	Odare	16.46	121	eP	Pn	14 48 34.5	-0.5
	comp=Z,25nm,0.4s						
ODAN				eS	S	14 51 27.8	-11
BRVK	Borovoye	16.57	357	ePn	Pn	14 48 33.4	-2.7
	comp=Z,20nm,0.6s						
BRVK	Borovoye	16.57	357	eP	Pn	14 48 33.4	-2.7
BRVK				pmax	pmax		
	comp=Z,20nm,0.6s						
AKTK	Aktyubinsk	17.04	329	P	Pn	14 48 39.7	-2.1
AKTK				S	S	14 51 35.9	-16
AKTO	Aktyubinsk	17.04	329	P	Pn	14 48 39.7	-2.1
AKTO				S	S	14 51 35.9	-16
AKTO				pmax	pmax		
	comp=Z,4.0nm,0.3s						
AKTO				smax			
	comp=N,2.0nm,0.3s						
AKTO	Aktyubinsk	17.04	329	P	Pn	14 48 39.7	-2.1
	comp=N,4.0nm,0.3s,baz=137,slow=11,SNR=47						
AKTO				S	S	14 51 35.9	-16
	comp=N,1.5nm,0.3s,baz=329,slow=21,SNR=7.1						
LSA	Lhasa	17.67	107	P	Pn	14 48 51.4	+1.8
LSA	Lhasa	17.67	107	eP	Pn	14 48 51.1	+1.6
	comp=N,8.0nm,0.6s						
LSA	Lhasa	17.67	107	eP	Pn	14 48 51.2	+1.6
LSA				pmax	pmax		
	comp=Z,8.0nm,0.6s						
ZAL	Zalesovo	19.67	24	P	P	14 49 11.2	+0.8
ZAL				S	S	14 52 44.6	-0.9
ZALV	Zalesovo Beam	19.69	24	P	P	14 49 11.2	+0.7
	comp=Z,14nm,0.3s,baz=219,slow=10,SNR=238						
ZALV				S	S	14 52 44.6	-1.2
	comp=Z,0.1nm,0.3s,baz=201,slow=16,SNR=3.0						
HYB	Hyderabad	19.97	160	eP	P	14 49 16.0	+2.1
HYB				eS	S	14 52 48.0	-4.0
HYB	Hyderabad	19.97	160	i P	P	14 49 16.0	+2.1
HYB				esP	sP	14 49 57.0	+5.7
HYB				eS	S	14 52 48.0	-4.0
NVS	Novosibirsk	19.98	20	i P	P	14 49 13.8	+0.1
NVS				eS	S	14 52 49.5	-2.1
NVS				pmax	pmax		
	comp=Z,32nm,1.0s						
NVS				pmax	pmax		
	comp=N,33nm,1.4s						
NVS				smax			
	comp=E,12nm,1.6s						
KBD	Kabd	21.39	257	eP	P	14 49 28.6	-0.6
KBD				AMb	AMB	14 49 29.7	
	comp=Z,58nm,0.5s,mb5.2						
MIB	Mutribah	21.41	259	eP	P	14 49 28.9	-0.3
MIB				AMb	AMB	14 49 30.2	
	comp=Z,50nm,0.8s,mb4.9						
QRN	Al-Qurain	21.41	256	eP	P	14 49 28.2	-1.1
RDF	Al-Radifah	21.62	256	eP	P	14 49 30.8	-0.7
RDF				AMb	AMB	14 49 32.2	
	comp=Z,48nm,0.8s,mb4.9						
NAY	Al-Naaiem	21.72	258	eP	P	14 49 31.9	-0.6
NAY				AMb	AMB	14 49 34.4	
	comp=Z,16nm,0.8s,mb4.4						
ARU	Arti	21.80	340	eP	P	14 49 32.3	-0.8
	comp=Z,18nm,0.8s,mb4.4						
ARU				eS	S	14 53 23.9	-2.6
ARU	Arti	21.80	340	⇑iP	P	14 49 33.0	-0.1
ARU				eS	S	14 53 27.2	+0.7
ARU				pmax	pmax		
	comp=Z,22nm,1.1s,mb4.4						
RST	Umm Al-Ruwaisa	21.80	258	eP	P	14 49 32.3	-1.1
RST				AMb	AMB	14 49 33.8	
	comp=Z,41nm,0.7s,mb4.9						
ZEI	Tsey	22.22	295	eP	P	14 49 38.4	+0.7
ZEI				e*PP		14 49 56.8	
ZEI				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.1						
GTA	Gaotai	22.35	74	⇑P	P	14 49 43.6	+4.5
GTA				AP		14 50 10.6	
GTA				PCP	PcP	14 53 30.7	+1.0
GTA				S	S	14 53 40.1	+4.3
GTA				XS	sS	14 54 29.0	+13
GTA				SCP	ScP	14 56 54.5	-1.4
GTA				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.3						
GTA				AMB	AMB		
	comp=Z,78nm,5.7s						
GTA				LR	LR		
	comp=N,42nm,15.2s						
GTA				LR	LR		
	comp=E,85nm,15.6s						
GTA				LR	LR		
	comp=Z,72nm,16.7s						
KIV	Kislovodsk	23.26	298	eP	P	14 49 44.1	-3.6
KIV				e*PP		14 50 06.8	
KIV				eS	S	14 53 48.1	-2.4
KIV				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb3.9						
MOY	Mondy	25.72	45	eP	P	14 50 16.5	+6.6
LZH	Lanzhou	25.88	81	eP	P	14 50 18.5	+7.0
LZH				AP	pP	14 50 43.5	+5.9
LZH				XP	sP	14 51 02.3	+11
LZH				PP		14 51 05.5	
LZH				eS	S	14 54 33.0	+0.6
LZH				XS	sS	14 55 23.0	+4.7
LZH				SS		14 55 49.5	
LZH				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.6						
LZH				AMB	AMB		
	comp=Z,120nm,4.0s						
LZH	Lanzhou	25.88	81	eP	P	14 50 18.5	+7.0
	comp=Z,25nm,1.0s,mb4.6						
LZH				pP	pP	14 50 43.5	+5.9
LZH				sP	sP	14 51 02.3	+11
LZH				PP		14 51 05.5	
LZH				eS	S	14 54 33.0	+0.6
LZH				sS	sS	14 55 23.0	+4.7
LZH				SS		14 55 49.5	
LZH	Lanzhou	25.88	81	eP	P	14 50 18.5	+7.0
LZH				*PP	pP	14 50 43.5	+5.9
LZH				*SP	sP	14 51 02.3	+11
LZH				eS	S	14 54 33.0	+0.6
LZH				SS		14 55 49.5	
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.6						
ANN	Anapa	27.10	298	eP	P	14 50 27.9	+5.5
ANN				e*PP	pP	14 50 51.8	+3.2
ANN				pmax	pmax		
	comp=Z,37nm,1.0s,mb4.9						
CD2	Chengdu	27.20	92	eP	P	14 50 25.6	+2.2
CD2				AP	pP	14 50 55.1	+5.5
CD2				XP	sP	14 51 11.7	+8.0
CD2				PP	PP	14 51 17.9	-9.2
CD2				S	S	14 54 50.9	-2.4
CD2				XS	sS	14 55 42.8	+3.5
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.5						
CD2				AMB	AMB		
	comp=Z,30nm,5.2s						
SONM	Songino Array	27.89	55	P	P	14 50 32.5	+3.1
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	27.89	55	P	P	14 50 32.5	+3.2
	comp=Z,0.5nm,0.6s,baz=264,slow=9.8,SNR=5.6						
KMI	Kunming	28.88	104	P	P	14 50 41.3	+2.9
KMI				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.2						
KMI				LR	LR		
	comp=Z,21nm,29.2s						
KMI	Kunming	28.88	104	P	P	14 50 41.3	+2.9
	comp=Z,6.0nm,1.0s,mb4.2						
KMI				LR	LR		
	comp=Z,20nm,29.2s						
BRTR	Keskin Array B	29.94	288	P	P	14 50 49.6	+1.9
BRTR				*PP	pP	14 51 12.6	-1.5
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BRTR	Keskin Array B	29.94	288	P	P	14 50 49.6	+1.9
	comp=Z,0.6nm,0.6s,mb3.4,baz=89,slow=11,SNR=4.3						
BRTR				pP	pP	14 51 12.6	-1.5
	comp=Z,1.6nm,0.6s,baz=96,slow=9.5,SNR=6.9						
OBN	Obninsk	30.28	319	i P	P	14 50 51.0	+0.5
OBN				pmax	pmax		
	comp=Z,16nm,0.5s,mb4.9						
HHC	Hu-ho-hao-te	31.26	70	eP	P	14 50 59.8	+0.6
HHC				AP	pP	14 51 29.8	+4.1
HHC				XP	sP	14 51 46.4	+6.6
HHC				PP	PP	14 52 06.1	-5.9
HHC				S	S	14 55 52.6	-4.2
HHC				XS	sS	14 56 45.3	+2.3
HHC				AMB	AMB		
	comp=Z,9.0nm,0.5s,mb4.8						
HHC				AMB	AMB		
	comp=Z,123nm,5.7s						
GYA	Guiyang	31.34	99	P	P	14 51 03.2	+3.1
GYA				AP	pP	14 51 34.2	+7.6
GYA				XP	sP	14 51 51.2	+11
GYA				PP	PP	14 52 11.8	-1.3
GYA				PCP	PcP	14 53 54.0	+2.8
GYA				S	S	14 55 57.4	-0.9
GYA				XS	sS	14 56 52.3	+7.7
GYA				SCP	ScP	14 57 22.2	-0.7
GYA				PCS	PcS	14 57 37.2	+1.5
GYA				SCS	ScS	15 01 18.3	-2.5
GYA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.7						
GYA				AMB	AMB		
	comp=Z,80nm,5.2s						
AKASG	Malin Array Be	33.36	309	P	P	14 51 17.3	-0.2
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.5s						
AKASG	Malin Array Be	33.36	309	P	P	14 51 17.2	-0.2
	comp=Z,5.4nm,0.5s,mb4.6,baz=80,slow=7.1,SNR=26						
KIEV	Kiev	33.37	309	eP	P	14 51 17.6	+0.1
	comp=Z,5.1nm,0.5s,mb4.6						
KIEV	Kiev	33.37	309	eP	P	14 51 17.6	+0.1
KIEV				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.6						
JOF	Joensuu	36.13	330	ep	P	14 51 41.4	+0.3
	comp=Z,4.7nm,0.4s,mb4.8						
JOF	Joensuu	36.13	330	eP	P	14 51 41.4	+0.3
JOF				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.8						
KOLS	Kolonicke sedl	37.71	305	eP	P	14 51 54.0	-0.7
FIA1	FINESS Array S	37.77	326	eP	P	14 51 55.5	+0.5
FINES	FINESS Array B	37.77	326	P	P	14 51 55.8	+0.8
FINES				*PP	pP	14 52 20.5	-1.6
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
FINES	FINESS Array B	37.77	326	P	P	14 51 55.8	+0.7
	comp=Z,3.1nm,0.7s,mb4.3,baz=260,slow=9.5,SNR=4.3						
FINES				pP	pP	14 52 20.5	-1.6
	comp=Z,2.3nm,0.7s,baz=131,slow=11,SNR=2.9						
STHS	Stebnicka Huta	38.39	306	eP	P	14 51 58.0	-2.3
VYHS	Vyhne	39.99	304	eP	P	14 52 12.3	-1.4
KEV	Kevo	40.99	338	ep	P	14 52 22.2	+0.6
CN2	Changchun	41.13	63	eP	P	14 52 22.1	-1.0
CN2				eXP	sP	14 53 09.6	+5.3
CN2				ePP	PP	14 54 01.6	+1.4
ARCES	ARCESS Array B	41.34	337	P	P	14 52 25.5	+1.0
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ARCES				MLR	MLR		
	comp=Z,97nm,19.0s						
ARCES	ARCESS Array B	41.34	337	P	P	14 52 25.5	+1.0
	comp=Z,2.2nm,0.4s,mb4.3,baz=110,slow=7.6,SNR=31						
ARCES				LR	LR	15 10 26.1	
	comp=Z,97nm,19.0s,baz=38,slow=37						
BRG	Berggiesshubel	43.04	308	eP	P	14 52 39.6	+1.1
	comp=Z,4.8nm,0.6s,mb4.4						
BRG				e		14 52 50.3	
	comp=Z,9.2nm,1.4s						
GERES	GERESS Array B	43.36	305	P	P	14 52 41.8	+0.7
	comp=Z,0.3nm,0.4s,mb3.4,baz=68,slow=4.6,SNR=3.2						
MDJ	Mudanjiang	43.93	61	P	P	14 52 43.8	-2.0
MDJ				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.3						
MDJ				AMB	AMB		

	comp=Z,55nm,6.2s						
KSRS	Korea Array	44.37	71	P	P	14 52 52.0	+2.6
	comp=Z,1.0nm,0.5s,mb3.8,baz=278,slow=7.0,SNR=9.0						
NB2	NORSAR Subarra	44.69	323	P	P	14 52 51.8	+0.2
	comp=Z,4.4nm,0.4s,mb4.5,baz=97,slow=7.9						
NOA	NORSAR Array B	44.69	323	P	P	14 52 52.1	+0.5
NOA				pmax	pmax		
	comp=Z,5.0nm,0.5s						
NOA	NORSAR Array B	44.69	323	P	P	14 52 52.1	+0.5
	comp=Z,5.0nm,0.5s,mb4.5,baz=96,slow=7.7,SNR=33						
HAU	Haudompre	48.33	305	eP	P	14 53 20.3	+0.2
LPG	La Plagne	48.60	302	eP	P	14 53 23.2	+1.0
LPL	La Plagne	48.61	302	eP	P	14 53 23.2	+0.9
MBDF	Montbardon	48.77	301	eP	P	14 53 23.7	+0.2
	comp=Z,5.0nm,0.7s,mb4.5						
MBDF	Montbardon	48.77	301	eP	P	14 53 23.7	+0.2
MBDF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
MBDF	Montbardon	48.77	301	eP	P	14 53 23.7	+0.2
	comp=Z,10.0nm,0.7s,mb4.5						
CABF	La Chapelle	48.80	303	eP	P	14 53 23.8	+0.1
FRF	La Foret Royal	49.15	299	eP	P	14 53 26.0	-0.4
VIVF	Saint-Julien-l	50.18	302	eP	P	14 53 34.6	+0.3
SMF	Signal de Mont	50.29	304	eP	P	14 53 35.3	+0.2
	comp=Z,6.0nm,0.8s,mb4.6						
SMF	Signal de Mont	50.29	304	eP	P	14 53 35.3	+0.2
SMF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
SMF	Signal de Mont	50.29	304	eP	P	14 53 35.3	+0.2
	comp=Z,12nm,0.8s,mb4.6						
SSF	Saint Saulge	50.41	305	eP	P	14 53 36.1	+0.1
AVF	Avril sur Loir	50.58	304	eP	P	14 53 37.4	+0.2
	comp=Z,7.9nm,0.9s,mb4.7						
AVF	Avril sur Loir	50.58	304	eP	P	14 53 37.4	+0.2
AVF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
AVF	Avril sur Loir	50.58	304	eP	P	14 53 37.4	+0.2
	comp=Z,16nm,0.9s,mb4.8						
LASF	Ste Croix	50.95	301	eP	P	14 53 40.2	+0.1
BGF	Bois d'Agland	50.98	304	eP	P	14 53 40.7	+0.5
TCF	Toulx Ste Croi	51.47	304	eP	P	14 53 44.5	+0.6
	comp=Z,2.2nm,0.6s,mb4.4						
TCF	Toulx Ste Croi	51.47	304	eP	P	14 53 44.5	+0.6
TCF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
TCF	Toulx Ste Croi	51.47	304	eP	P	14 53 44.5	+0.6
	comp=Z,4.4nm,0.6s,mb4.4						
RJF	Les Rejaudoux	52.21	303	eP	P	14 53 50.1	+0.7
MTLF	Montolieu	52.30	300	eP	P	14 53 50.6	+0.5
	comp=Z,2.7nm,0.6s,mb4.5						
MTLF	Montolieu	52.30	300	eP	P	14 53 50.6	+0.5
MTLF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
MTLF	Montolieu	52.30	300	eP	P	14 53 50.6	+0.5
	comp=Z,5.4nm,0.6s,mb4.4						
GRR	Gorron	52.92	307	eP	P	14 53 55.2	+0.6
MFF	Saint Martin d	52.95	305	eP	P	14 53 55.1	+0.2
	comp=Z,2.3nm,0.5s,mb4.5						
MFF	Saint Martin d	52.95	305	eP	P	14 53 55.1	+0.2
MFF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
MFF	Saint Martin d	52.95	305	eP	P	14 53 55.1	+0.2
	comp=Z,4.5nm,0.5s,mb4.4						
ETSF	Etsaut	54.37	301	eP	P	14 54 06.4	+1.2
	comp=Z,3.3nm,0.6s,mb4.5						
ETSF	Etsaut	54.37	301	eP	P	14 54 06.4	+1.2
ETSF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
ETSF	Etsaut	54.37	301	eP	P	14 54 06.4	+1.2
	comp=Z,6.6nm,0.6s,mb4.5						
ESDC	Sonseca Array	57.93	298	P	P	14 54 30.9	+0.4
	comp=Z,1.0nm,0.5s,mb4.1,baz=56,slow=8.1,SNR=4.9						
ESDC				pP	pP	14 54 57.0	-2.6
	comp=Z,0.2nm,0.3s,baz=53,slow=7.6,SNR=1.3						
TORD	Torodi Ar. Bea	66.25	269	P	P	14 55 24.9	-1.6
TORD	Torodi Ar. Bea	66.25	269	P	P	14 55 24.9	-1.6
	comp=Z,2.2nm,0.5s,mb4.2,baz=51,slow=5.8,SNR=19						
INK	Inuvik	73.81	9	eP	P	14 56 13.3	+1.5
YKA	Yellowknife Ar	81.21	3	P	P	14 56 54.3	+1.3
YKA				pP	pP	14 57 22.3	-1.5
YKA	Yellowknife Ar	81.21	3	P	P	14 56 54.3	+1.3
YKA				*PP	pP	14 57 22.3	-1.5
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	81.21	3	P	P	14 56 54.3	+1.3
	comp=Z,0.8nm,0.6s,mb3.7,baz=350,slow=5.4,SNR=14						
YKA				pP	pP	14 57 22.3	-1.5
	comp=Z,1.4nm,0.6s,baz=349,slow=5.4,SNR=8.6						
WRA	Warramunga Arr	81.54	122	P	P	14 56 56.5	+1.2
WRA				*PP	pP	14 57 26.4	+0.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	81.54	122	P	P	14 56 56.5	+1.1
	comp=Z,0.9nm,0.4s,mb3.9,baz=324,slow=4.8,SNR=32						
WRA				pP	pP	14 57 26.4	+0.2
	comp=Z,1.2nm,0.7s,baz=323,slow=4.9,SNR=3.7						
WB2	Warramunga Arr	81.55	122	eP	P	14 56 56.2	+0.8

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*CSEM **06** 15:44:15.7±0.1, 35.27N×37.79E, $h2^{km}$, Mc1.8, Error ellipse: s-maj=3.4km s-min=1.9km az=114.0*

*ISK **06** 15:44:16.6, 35.33N×37.79E, $h4^{km}$, MD3.3*

*ISCJB **06** 15:44:17.3±0.7, 35.35N±0.03×37.78E±0.05, $h10^{km}$, Error ellipse: s-maj=6.4km s-min=4.0km az=12.8*

*GRAL **06** 15:44:17.0±0.5, 35.53N×37.78E, $h34^{km}\pm137^{km}$, MD3.2*

*NSSC **06** 15:44:17.4, 35.34N×37.94E, $h25^{km}\pm4^{km}$*

ISC 06 15:44:17.2±0.7**, 35.34N**±0.03×**37.78E**±0.05**, $h10^{km}$, n27, $\sigma 1^{s}18$**/44**, 3D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SLMH	Al Salmeh	0.88	8	⇓P	Pg	15 44 33.5	-0.6
SLMH				⇓S	Sg	15 44 45.0	-0.7
SLMH	Al Salmeh	0.88	8	⇓iP	Pg	15 44 33.5	-0.7
RABH	Abou Rabah	1.02	208	⇑P	Pg	15 44 37.2	+0.5
RABH				⇑S	Sg	15 44 50.3	+0.4
RABH	Abou Rabah	1.02	208	⇑iP	Pg	15 44 37.2	+0.5
RABH				⇑iS	Sg	15 44 50.3	+0.4
WRDH	Warideh	1.13	279	⇑P	Pb	15 44 38.9	+0.1
WRDH	Warideh	1.13	279	⇑iP	Pb	15 44 38.8	0.0
ROOS	tl_alroos	1.23	199	⇑P	Pn	15 44 39.5	-0.9
ROOS				⇑S	Sb	15 44 56.1	-0.4
ROOS	tl_alroos	1.23	199	⇑iP	Pn	15 44 39.5	-1.0
ROOS				⇑iS	Sb	15 44 56.1	-0.4
SLNF	Slenfeh	1.29	282	⇑P	Pn	15 44 41.9	+0.6
SLNF				⇑S	Sb	15 44 59.4	+1.1
SLNF	Slenfeh	1.29	282	⇑iP	Pn	15 44 41.9	+0.6
SLNF				⇑iS	Sb	15 44 59.4	+1.1
HTY	Hatay	1.55	301	PN	Pg	15 44 45.9	-0.9
HTY				SN	Sg	15 45 07.4	+0.5
HTY	Hatay	1.55	301	ePn	Pg	15 44 45.9	-0.9
HTY				eSn	Sg	15 45 07.4	+0.5
ARNB	Al Arnab	1.56	290	⇑P	Pn	15 44 45.4	+0.4
ARNB				⇑S	Sn	15 45 06.1	+0.8
ARNB	Al Arnab	1.56	290	⇑iP	Pn	15 44 45.3	+0.3
ARNB				⇑iS	Sn	15 45 06.1	+0.9
HWQ	Hawqa	1.84	235	ePg	Pn	15 44 50.0	+1.2
HWQ				eSg	Sg	15 45 14.8	-1.6
HWQ	Hawqa	1.84	235	ePg	Pn	15 44 50.0	+1.2
HWQ				eSg	Sg	15 45 14.8	-1.6
GAZ	Gaziantep	1.89	346	PN	Pg	15 44 50.9	-2.4
GAZ				SN	Sg	15 45 15.7	-2.1
GAZ	Gaziantep	1.89	346	ePn	Pg	15 44 50.9	-2.4
GAZ				eSn	Sg	15 45 15.7	-2.1
URFA	Urfa	2.26	22	PN	Pn	15 44 55.9	+1.3
URFA	Urfa	2.26	22	ePn	Pn	15 44 55.9	+1.3
BHL	Bhannes	2.26	231	ePg	Pb	15 44 57.2	-0.9
BHL				eSg	Sb	15 45 26.6	+0.4
BHL	Bhannes	2.26	231	ePg	Pb	15 44 57.2	-0.9
BHL				eSg	Sb	15 45 26.6	+0.5
RCY	Rachaya	2.46	222	eSg	Sg	15 45 33.0	-3.1
RCY	Rachaya	2.46	222	eSg	Sg	15 45 33.0	-3.2
KOZT	Kozan	2.66	324	ePN	Pn	15 45 01.8	+1.8
MALT	Malatya	3.01	10	ePN	Pn	15 45 07.0	+2.1
MALT	Malatya	3.01	10	ePn	Pn	15 45 07.0	+2.1

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*IDC **06** 16:04:50.9±0.9, 14.43N×144.16E, $h0^{km}$, mb3.7/7, mb1 3.8/7, mb1mx3.7/20, mbtmp3.7/7, MS3.1/1, Ms1 3.1/1, ms1mx2.3/24, Error ellipse: s-maj=38.5km s-min=14.9km az=69.0*

*NEIC **06** 16:04:52.6±0.6, 14.41N×144.20E, $h10^{km}$, Error ellipse: s-maj=22.1km s-min=9.3km az=66.0*

*ISCJB **06** 16:04:53.7±6.8, 14.4N±0.1×144.2E±0.2, $h33^{km}\pm53^{km}$, mb3.6/7, Error ellipse: s-maj=34.0km s-min=11.0km az=152.9*

ISC 06 16:04:53.3±3.7**, 14.5N**±0.1×**144.3E**±0.2**, $h18^{km}\pm25^{km}$, n13, $\sigma 0^{s}66$**/12**, mb3.6**/7**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.02	147	eP	Pb	16 05 12.4	-0.1
GUMO				Sn	Sn	16 05 26.6	+0.1
GUMO	Guam	1.02	147	Pn	Pn	16 05 12.7	0.0
	40nm,0.3s,baz=265,slow=3.1,SNR=25						
GUMO				Sn	Sn	16 05 26.6	+0.1
	62nm,0.3s,baz=175,slow=23,SNR=11						
CBIJ	Chichi jima	12.73	351	LR	LR	16 12 01.7	
	comp=Z,82nm,19.1s,baz=3.4,slow=34						
MJAR	Matsushiro Arr	22.66	347	P	P	16 09 54.3	+0.7
	1.0nm,0.6s,mb3.4,baz=172,slow=9.5,SNR=3.8						
KSRS	Korea Array	27.15	331	P	P	16 10 34.4	-1.1
	1.1nm,0.8s,mb3.4,baz=154,slow=11,SNR=4.4						
WB2	Warramunga Arr	35.55	196	eP	P	16 11 49.9	+0.2
WRA	Warramunga Arr	35.56	196	P	P	16 11 49.6	0.0
	2.6nm,0.9s,mb4.2,baz=6.2,slow=9.8,SNR=11						
ASAR	Alice Springs	39.23	195	P	P	16 12 21.6	+0.9
	0.2nm,0.5s,mb3.1,baz=18,slow=13,SNR=7.2						
SONM	Songino Array	45.71	325	P	P	16 13 14.1	+0.8
	0.6nm,0.7s,mb3.6,baz=131,slow=9.6,SNR=5.2						
STKA	Stephens Creek	46.14	183	P	P	16 13 15.7	-1.0
	1.9nm,0.7s,mb4.1,baz=337,slow=13,SNR=3.9						
MKAR	Makanchi Array	60.49	316	P	P	16 15 01.7	-0.5
	0.3nm,0.5s,mb3.6,baz=114,slow=6.8,SNR=3.8						
LPAZ	La Paz	148.69	98	PKPbc	PKPbc	16 24 42.9	+2.5
LPAZ	La Paz	148.69	98	PKPbc	PKPbc	16 24 42.9	+2.5
	0.7nm,0.6s,baz=334,slow=6.5,SNR=4.4						

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*IDC **06** 16:07:02.4±4.9, 14.50N×145.26E, $h0^{km}$, mb3.7/5, mb1 3.9/5, mb1mx3.6/19, mbtmp3.7/5, MS3.2/1, Ms1 3.2/1, ms1mx2.3/22, Error ellipse: s-maj=197.9km s-min=22.6km az=79.0*

NEIC 06 16:07:02.2±0.9**, 14.61N×145.78E, $h10^{km}$, Error ellipse: s-maj=24.8km s-min=12.0km az=99.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.35	221	Pg	Pg	16 07 28.2	0.0
JNU	Nakatsue	22.87	326	LR	LR	16 18 43.6	
	comp=Z,62nm,21.2s,baz=346,slow=31						
WB2	Warramunga Arr	36.13	198	P	P	16 14 05.4	+0.7
WRA	Warramunga Arr	36.14	198	P	P	16 14 04.4	-0.3
	1.8nm,0.8s,baz=20,slow=9.4,SNR=8.5						
ASAR	Alice Springs	39.78	197	P	P	16 14 35.2	-0.2
	0.3nm,0.6s,baz=18,slow=13,SNR=3.9						
STKA	Stephens Creek	46.40	185	P	P	16 15 29.1	+0.2
	2.0nm,0.8s,baz=337,slow=12,SNR=3.2						
SONM	Songino Array	46.42	324	P	P	16 15 29.5	+0.5
	0.5nm,0.7s,baz=135,slow=7.5,SNR=4.7						
MKAR	Makanchi Array	61.38	316	P	P	16 17 18.3	-0.2
	0.3nm,0.4s,baz=99,slow=8.9,SNR=2.4						

KRSC 06 16:13:32.1±1.5**, 50.01N×157.66E, $h10^{km}\pm10^{km}$, ML3.6, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALID	Alaid	1.60	303	eP	Pn	16 13 57.0	-3.4
ALID				S	Sn	16 14 15.2	-5.9
MIPR	Malaya Ipel'ka	2.34	346	eP	Pn	16 14 09.7	-0.9
RUS	Russkaya	2.48	12	eP	Pn	16 14 14.4	+1.8
RUS				eS	Sn	16 14 45.5	+2.6
GRL	Gorelyy	2.56	6	eP	Pn	16 14 16.1	+2.5
GRL				S	Sn	16 14 48.1	+3.4
PET	Petropavlovsk	3.08	11	P	Pn	16 14 23.0	+2.2
PET				eS	Sn	16 15 00.1	+2.5
NLC	Nalytchevo	3.34	18	S	Sn	16 15 05.4	+1.5
SDLR	Sedlovina	3.36	13	eP	Pn	16 14 27.3	+2.7
SDLR				S	Sn	16 15 07.3	+2.8
SPN	Mys Shipunski	3.43	25	eP	Pn	16 14 28.3	+2.8
SPN				eS	Sn	16 15 09.8	+3.7
GNL	Ganaly	3.69	3	P	Pn	16 14 31.9	+2.7
MKZ	Mys Kozlova	5.19	27	eP	Pn	16 14 51.7	+2.0
MKZ				S	Sn	16 15 50.0	+0.4
KBTR	Krutoberegovo	6.94	25	eP	Pn	16 15 16.1	+2.4

IDC 06 16:13:42.6±1.6**, 2.84N×121.72E, $h0^{km}$, mb3.8**/3**, mb1 4.1**/3**, mb1mx3.5**/18**, mbtmp3.8**/3**, MS2.9**/1**, Ms1 2.9**/1**, ms1mx2.2**/22**, Error ellipse: s-maj=304.6km s-min=26.3km az=61.0, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	25.81	152	P	P	16 19 16.6	+1.0
	1.5nm,0.6s,baz=331,slow=9.6,SNR=26						
ASAR	Alice Springs	28.90	156	P	P	16 19 42.9	-0.5
	0.6nm,0.6s,baz=336,slow=10,SNR=11						
ASAR				PcP	PcP	16 22 51.8	-1.1
	0.1nm,0.5s,baz=345,slow=2.3,SNR=4.4						
CBIJ	Chichi jima	31.07	37	LR	LR	16 32 26.0	
	comp=Z,24nm,20.2s,baz=332,slow=36						
MKAR	Makanchi Array	55.54	328	P	P	16 23 19.9	+0.3
	0.4nm,0.6s,baz=138,slow=7.6,SNR=4.7						

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*ISCJB **06** 16:33:35.2±1.4, 21.99N±0.08×143.1E±0.2, $h215^{km}\pm11^{km}$, mb3.6/11, Error ellipse: s-maj=26.7km s-min=13.5km az=175.6*

*NEIC **06** 16:33:35.6±2.4, 22.01N×143.16E, $h206^{km}\pm22^{km}$, mb4.1/1, Error ellipse: s-maj=17.9km s-min=9.2km az=86.0*

*IDC **06** 16:33:35.7±2.0, 22.02N×143.21E, $h205^{km}\pm17^{km}$, mb3.4/10, mb1 3.5/12, mb1mx3.4/23, mbtmp3.4/12, Error ellipse: s-maj=22.3km s-min=12.1km az=86.0*

ISC 06 16:33:35.9±1.4**, 22.00N**±0.08×**143.2E**±0.2**, $h206^{km}\pm11^{km}$, n32, $\sigma 0^{s}76$**/33**, mb3.6**/11**, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHHJ	Haha-jima-NKT	4.70	349	P	Pn	16 34 47.3	+0.7
JHHJ				eS	Sn	16 35 41.2	-1.3
CBIJ	Chichi jima	5.16	350	P	Pn	16 34 52.4	0.0
CBIJ				eS	Sn	16 35 51.8	-1.1
CBIJ	Chichi jima	5.16	350	P	Pn	16 34 51.9	-0.5
	37nm,0.3s,baz=295,slow=19,SNR=58						
CBIJ				S	Sn	16 35 52.1	-0.8
	13nm,0.3s,baz=306,slow=19,SNR=3.7						
BSO1	Boso 1	12.76	352	P	Pn	16 36 30.4	+0.3
BSO3	Boso 3	12.97	350	P	Pn	16 36 32.9	+0.1
BSO4	Boso 4	13.18	350	P	Pn	16 36 36.7	+1.3
JKN2	Miekihoku	13.63	335	P	Pn	16 36 42.4	+1.4
JOD2	Odawara 2	13.70	346	P	Pn	16 36 41.7	-0.1
JNY	Yasuok	14.10	342	P	Pn	16 36 47.4	+0.6
JHU	Hanno	14.22	347	P	Pn	16 36 47.7	-0.5
JYT	Yasato	14.42	350	P	Pn	16 36 51.5	+0.8
JRY	Ryogami san	14.46	346	P	Pn	16 36 52.1	+0.9
JHO	Hitachi	14.74	352	P	Pn	16 36 55.0	+0.4
JAG	Ashikaga	14.74	348	P	Pn	16 36 54.1	-0.5
MJAR	Matsushiro Arr	15.12	344	P	Pn	16 36 58.4	-0.9
	0.4nm,0.3s,baz=252,slow=39,SNR=4.0						
KSRS	Korea Array	20.28	323	P	P	16 37 57.3	+1.5
	1.3nm,0.7s,baz=148,slow=8.9,SNR=6.6						
SONM	Songino Array	39.11	320	P	P	16 40 43.4	+0.2
	0.4nm,0.4s,mb3.3,baz=132,slow=6.8,SNR=9.7						
WB2	Warramunga Arr	42.57	192	eP	P	16 41 11.4	-0.3
WRA	Warramunga Arr	42.57	192	P	P	16 41 11.9	+0.2
	1.5nm,0.4s,mb3.8,baz=17,slow=9.0,SNR=149						
ASAR	Alice Springs	46.28	192	P	P	16 41 40.6	-0.4
	0.3nm,0.4s,mb3.0,baz=10,slow=7.3,SNR=18						
ZALV	Zalesovo Beam	53.98	322	P	P	16 42 37.8	-0.7
	1.2nm,0.4s,mb3.7,baz=110,slow=7.5,SNR=8.9						
MK31	Makanchi Array	54.50	312	eP	P	16 42 42.5	+0.1
MKAR	Makanchi Array	54.50	312	P	P	16 42 42.4	0.0
	0.4nm,0.5s,mb3.2,baz=84,slow=8.2,SNR=6.6						
MKAR				PcP	PcP	16 43 42.5	-0.6
	0.2nm,0.4s,baz=77,slow=2.3,SNR=4.2						
BRVK	Borovoye	62.51	319	eP	P	16 43 37.3	-0.2
	2.6nm,0.8s,mb3.9						
INK	Inuvik	67.29	24	eP	P	16 44 08.1	0.0
YKA	Yellowknife Ar	76.19	28	P	P	16 45 01.1	0.0
	0.8nm,0.4s,mb3.7,baz=292,slow=5.9,SNR=15						
ARCES	ARCESS Array B	78.64	341	P	P	16 45 14.2	-0.4
	3.6nm,0.9s,mb4.0,baz=67,slow=8.5,SNR=6.4						
JOF	Joensuu	80.05	334	ep	P	16 45 20.7	-1.6
	0.7nm,0.3s,mb3.8						
FINES	FINESS Array B	82.91	334	P	P	16 45 36.1	-1.2
	0.8nm,0.4s,mb3.9,baz=70,slow=5.3,SNR=11						
NVAR	Mina Array Bea	82.95	52	P	P	16 45 38.8	+0.8
	1.0nm,0.7s,mb3.7,baz=273,slow=4.2,SNR=8.2						
LPAZ	La Paz	149.90	85	PKPbc	PKPbc	16 53 02.6	+0.1
LPAZ	La Paz	149.90	85	PKPbc	PKPbc	16 53 02.6	0.0
	0.9nm,0.5s,baz=9.4,slow=3.0,SNR=4.7						

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*IDC **06** 17:16:16.8±0.8, 7.51N×124.80E, $h0^{km}$, mb4.1/10, mb1 4.2/10, mb1mx4.1/20, mbtmp4.0/10, MS3.8/12, Ms1 3.8/12, ms1mx3.6/23, Error ellipse: s-maj=56.8km s-min=14.5km az=73.0*

*MAN **06** 17:16:17, 7.69N×124.91E, $h6^{km}$, mb4.9, ML3.8, MS3.9*

MAN INTENSITY III - PRES ROXAS, MAGPET, NORTHERN COTABATO.

*BJI **06** 17:16:18.8, 7.51N×125.02E, $h27^{km}$, mB4.9, mb4.4, Ms4.1, Msz3.6*

*ISCJB **06** 17:16:18.7±0.5, 7.66N±0.03×124.91E±0.04, $h19^{km}\pm4^{km}$, mb4.3/33, MS3.8/17, Error ellipse: s-maj=6.4km s-min=4.1km az=166.8*

*NEIC **06** 17:16:19.9±0.5, 7.68N×125.09E, mb4.7/9, Error ellipse: s-maj=21.8km s-min=8.1km az=64.0*

NEIC Felt [III PIVS] at Kabacan, Magpet and President Roxas.

*MOS **06** 17:16:20.3±2.1, 7.54N×124.94E, $h33^{km}$, mb4.6/11, Error ellipse: s-maj=18.9km s-min=8.7km az=111.9*

ISC 06 17:16:19.3±0.5**, 7.67N**±0.02×**124.97E**±0.04**, $h14^{km}\pm3^{km}$, n89, $\sigma 1^{s}32$**/92**, mb4.3**/33**, MS3.8**/17**, 5C-3D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUKP	Musuan	0.23	24	eP	Pg	17 16 23.5	-0.9
BUKP				eS	Sg	17 16 28.7	+0.9
KCP	Kidapawan	0.66	169	⇑eP	Pg	17 16 30.5	-1.8
KCP				i S	Sg	17 16 42.2	+1.1
DMPH	Davao City--Mi	0.79	137	⇓iP	Pg	17 16 35.1	+0.5
DMPH				eS	Sg	17 16 48.7	+3.6
CGP	Cagayan de Oro	0.83	341	⇑iP	Pg	17 16 30.9	-4.6
CGP				i S	Sg	17 16 45.0	-1.4
CTBH	Cotabato--PC H	0.84	238	⇑iP	Pg	17 16 32.8	-2.8
CTBH				i S	Sg	17 16 48.1	+1.5
DAV	Davao City (W)	0.85	134	ePg	Pg	17 16 35.2	-0.6
DAV	Davao City (W)	0.85	134	⇓iP	Pg	17 16 35.5	-0.3
MATI	Mati	1.47	119	eP	Pn	17 16 45.3	-0.1
PAGZ	Pagadian	1.58	277	eP	Pn	17 16 45.3	-1.7
SCPH	Surigao	2.17	14	eP	Pn	17 16 53.9	-1.1
SCPH				eS	Sn	17 17 17.7	-4.1
TBP	Tagbilaran	2.29	332	eP	Pn	17 16 55.2	-1.6
SNPH	Sibulan	2.39	314	eP	Pn	17 16 59.0	+0.9
MSLP	Maasin	2.46	358	eP	Pn	17 16 58.6	-0.4
LLP	Lapu-Lapu	2.81	340	⇑eP	Pn	17 17 03.5	-0.5
LLP				eS	Sn	17 17 36.1	-1.7
ZMPH	Zamboanga City	2.96	256	⇑iP	Pn	17 17 05.2	-0.9
ZMPH				i S	Sn	17 17 38.0	-3.4
OCLP	Ormoc	3.38	354	eP	Pn	17 17 12.0	+0.2
PLP	Palo	3.48	0	eP	Pn	17 17 13.6	+0.5
GUIM	Jordan	3.76	322	eP	Pn	17 17 16.9	-0.1
RCP	Roxas	4.45	331	⇓eP	Pn	17 17 27.1	+0.6
CNP	Catarman	4.82	356	eP	Pn	17 17 34.4	+2.8
CUYO	Cuyo Island	5.02	309	eP	Pn	17 17 35.7	+1.4
OTRP	Odiongan	5.50	328	eP	Pn	17 17 42.9	+2.0
BUSP	Coron	6.38	313	eP	Pn	17 17 51.6	-1.3
ENPP	El Nido	6.50	303	eP	Pn	17 17 54.6	-0.1
CAUP	Cauayan	9.72	342	eP	Pn	17 18 41.2	+2.3
GUMO	Guam	20.42	72	LR	LR	17 27 20.3	
	comp=Z,176nm,22.0s,MS3.4,baz=253,slow=32						
KAKA	Kakadu	21.56	160	eP	P	17 21 06.3	-2.3
SSE	Sheshan	23.58	352	P	P	17 21 31.6	+1.7
SSE				AP		17 21 38.1	
SSE				S	S	17 25 42.7	-0.8
SSE				XS	sS	17 25 56.5	+6.2
SSE				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.7						
SSE				AMB	AMB		
	comp=Z,52nm,4.7s						
SSE				LR	LR		
	comp=N,116nm,25.7s,MS3.4						
SSE				LR	LR		
	comp=E,96nm,25.7s,MS3.4						
SSE				LR	LR		
	comp=Z,154nm,24.1s,MS3.4						
SSE	Sheshan	23.58	352	P	P	17 21 31.6	+1.7
	comp=Z,20nm,0.7s,mb4.7						
SSE				pP		17 21 38.1	
SSE				S	S	17 25 42.7	-0.8
SSE				sS	sS	17 25 56.5	+6.2
SSE				LR	LR		
	comp=Z,150nm,24.1s,MS3.4						
WHN	Wuhan	24.84	338	eP	P	17 21 40.2	-1.2
NJ2	Nanjing	24.92	348	eP	P	17 21 42.7	+0.6
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.5						
FITZ	Fitzroy Crossi	25.61	179	eP	P	17 21 46.7	-1.8
FITZ	Fitzroy Crossi	25.61	179	P	P	17 21 46.8	-1.7
	comp=Z,6.9nm,0.8s,mb4.3,baz=29,slow=9.3,SNR=15						
FITZ				LR	LR	17 32 16.7	
	comp=Z,105nm,18.1s,MS3.4,baz=22,slow=38						
JNU	Nakatsue	25.92	11	LR	LR	17 31 34.2	
	comp=Z,98nm,19.0s,MS3.4,baz=6.2,slow=35						
PSI	Prapat	26.37	261	P	P	17 21 57.8	+2.3
	comp=Z,4.8nm,0.3s,mb4.5,baz=153,slow=2.7,SNR=9.7						
KMI	Kunming	27.42	312	P	P	17 22 05.9	+1.1
KMI				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.2						
KMI				LR	LR		
	comp=Z,133nm,21.8s,MS3.5						
KMI	Kunming	27.42	312	P	P	17 22 05.9	+1.1
	comp=Z,8.0nm,0.9s,mb4.2						
KMI				LR	LR		
	comp=Z,130nm,21.8s,MS3.5						
WRA	Warramunga Arr	28.94	162	P	P	17 22 17.0	-1.4
	comp=Z,1.2nm,0.4s,mb4.0,baz=329,slow=11,SNR=9.7						
WB2	Warramunga Arr	28.95	162	eP	P	17 22 19.4	+1.0
KSRS	Korea Array	29.77	5	P	P	17 22 27.7	+2.1
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.6						
KSRS				MLR	MLR		
	comp=Z,150nm,19.4s,MS3.6						
KSRS	Korea Array	29.77	5	P	P	17 22 27.7	+2.1
	comp=Z,1.0nm,0.8s,mb3.6,baz=172,slow=9.7,SNR=4.5						
KSRS				LR	LR	17 33 35.3	
	comp=Z,150nm,19.4s,MS3.6,baz=0.1,slow=35						
MJAR	Matsushiro Arr	31.18	21	LR	LR	17 34 56.2	
	comp=Z,329nm,18.0s,MS4.0,baz=205,slow=36						
ASAR	Alice Springs	32.34	165	P	P	17 22 46.8	-1.6
	comp=Z,1.5nm,0.4s,mb4.2,baz=350,slow=12,SNR=22						
BJI	Beijing	33.18	348	P	P	17 22 54.7	-0.9
BJI				S	S	17 28 15.4	+0.5
BJI				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.4						
BJI				LR	LR		
	comp=N,120nm,18.5s						
BJI				LR	LR		
	comp=E,283nm,25.9s						
BJI				LR	LR		
	comp=Z,126nm,32.0s						
LZH	Lanzhou	34.25	329	eP	P	17 23 09.0	+4.1
LZH				AP	pP	17 23 14.1	+5.0
LZH				XP	sP	17 23 17.7	+6.9
LZH				AMB	AMB		
	comp=Z,25nm,1.0s,mb5.1						
LZH				AMB	AMB		
	comp=Z,120nm,4.2s						
LZH	Lanzhou	34.25	329	eP	P	17 23 09.0	+4.1
	comp=Z,25nm,1.0s,mb5.1						
LZH				pP	pP	17 23 14.1	+5.0
LZH				sP	sP	17 23 17.7	+6.9
FORT	Forrest	38.34	176	eP	P	17 23 40.8	+0.9
	comp=Z,16nm,0.8s,mb4.8						
LSA	Lhasa	38.57	309	P	P	17 23 44.2	+2.2
LSA	Lhasa	38.57	309	eP	P	17 23 40.3	-1.7
	comp=Z,2.2nm,0.6s,mb4.1						
LSA	Lhasa	38.57	309	eP	P	17 23 40.3	-1.7
LSA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
GTA	Gaotai	38.84	328	eP	P	17 23 44.3	+0.2
GTA				AP	pP	17 23 49.1	+0.7
GTA				AMB	AMB		

	comp=Z,2.0nm,1.4s,mb3.6						
GTA				AMB	AMB		
	comp=Z,75nm,5.3s						
GTA				LR	LR		
	comp=N,254nm,19.8s,MS4.2						
GTA				LR	LR		
	comp=E,203nm,19.8s,MS4.2						
GTA				LR	LR		
	comp=Z,120nm,18.6s,MS3.8						
TAPN	**Taplejung**	**40.34**	**304**	*e*P	**P**	**17 23 57.1**	**+0.3**
	comp=Z,23nm,0.9s,mb4.9						
ODAN	**Odare**	**40.42**	**303**	*e*P	**P**	**17 23 57.5**	**0.0**
	comp=Z,44nm,1.3s,mb5.0						
STKA	**Stephens Creek**	**42.41**	**159**	*e*P	**P**	**17 24 13.4**	**-0.2**
STKA	**Stephens Creek**	**42.41**	**159**	P	**P**	**17 24 12.8**	**-0.9**
	comp=Z,3.0nm,0.6s,mb4.1,baz=358,slow=6.8,SNR=7.7						
KKN	**Kakani**	**42.51**	**303**	*e*P	**P**	**17 24 15.4**	**+0.8**
	comp=Z,28nm,1.0s,mb4.9						
ULN	**Ulaanbaatar**	**42.86**	**342**	P	**P**	**17 24 14.9**	**-2.2**
	comp=Z,3.4nm,0.9s,mb4.1						
ULN	**Ulaanbaatar**	**42.86**	**342**	P	**P**	**17 24 14.9**	**-2.2**
ULN				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
SONM	**Songino Array**	**43.03**	**342**	P	**P**	**17 24 19.0**	**+0.5**
	comp=Z,0.7nm,0.8s,mb3.4,baz=161,slow=9.4,SNR=7.3						
GKN	**Gorkha**	**43.11**	**303**	*e*P	**P**	**17 24 19.8**	**+0.3**
KOLN	**Koldanda**	**43.90**	**302**	*e*P	**P**	**17 24 26.7**	**+0.9**
HYB	**Hyderabad**	**46.22**	**287**	*e*P	**P**	**17 24 47.0**	**+2.5**
HYB	**Hyderabad**	**46.22**	**287**	*i* P	**P**	**17 24 47.0**	**+2.5**
ZAK	**Zakamensk**	**46.26**	**341**	*e*P	**P**	**17 24 48.9**	**+4.7**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb3.8						
BOD	**Bodaibo**	**50.75**	**352**	*e*P	**P**	**17 25 17.9**	**-0.8**
BOD				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.2						
MK31	**Makanchi Array**	**53.35**	**325**	*e*P	**P**	**17 25 38.3**	**0.0**
MKAR	**Makanchi Array**	**53.35**	**325**	*i* P	**P**	**17 25 40.2**	**+1.9**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MKAR	**Makanchi Array**	**53.35**	**325**	P	**P**	**17 25 38.2**	**0.0**
	comp=Z,2.1nm,0.8s,mb4.2,baz=125,slow=8.6,SNR=13						
MKAR				LR	LR	17 47 19.5	
	comp=Z,81nm,19.9s,MS3.8,baz=336,slow=35						
YAK	**Yakutsk**	**54.37**	**3**	*e*P	**P**	**17 25 49.6**	**+4.2**
YAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
YAK				pmax	pmax		
	comp=N,3.0nm,1.5s						
MA2	**Magadan**	**55.37**	**16**	P	**P**	**17 25 56.1**	**+3.3**
MA2				*e*		17 33 36.9	
MA2				*e*		17 37 22.7	
MA2				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.6						
AAK	**Ala-Archa**	**56.29**	**317**	*i* P	**P**	**17 25 59.5**	**-0.2**
AAK				pmax	pmax		
	comp=Z,6.0nm,2.5s,mb4.2						
AAK				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.0						
ZALV	**Zalesovo Beam**	**56.31**	**333**	P	**P**	**17 25 58.0**	**-1.6**
	comp=Z,1.1nm,0.7s,mb4.0,baz=122,slow=7.2,SNR=6.1						
ZALV				LR	LR	17 52 51.3	
	comp=Z,54nm,18.1s,MS3.7,baz=263,slow=39						
ZAL	**Zalesovo**	**56.31**	**333**	P	**P**	**17 25 58.0**	**-1.6**
KURK	**Kurchatov**	**57.50**	**327**	*e*P	**P**	**17 26 07.9**	**-0.2**
	comp=Z,16nm,1.4s,mb4.8						
KURK	**Kurchatov**	**57.50**	**327**	*e*P	**P**	**17 26 07.9**	**-0.2**
KURK				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.9						
SEY	**Seymchan**	**58.65**	**14**	*i* P	**P**	**17 26 20.1**	**+4.2**
BRVK	**Borovoye**	**63.16**	**326**	*e*P	**P**	**17 26 46.1**	**-0.6**
	comp=Z,11nm,1.3s,mb4.8						
BRVK	**Borovoye**	**63.16**	**326**	*e*P	**P**	**17 26 46.2**	**-0.6**
BRVK				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.8						
TIXI	**Tiksi**	**63.97**	**1**	*e*P	**P**	**17 26 49.6**	**-2.2**
TIXI				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,102nm,19.0s,MS4.0						
BILL	**Bilibino**	**66.24**	**16**	*e*P	**P**	**17 27 09.6**	**+3.0**
BILL				*e*		17 27 41.0	
BILL				*e*		17 29 36.1	
BILL				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.8						
ARU	**Arti**	**70.70**	**327**	*e*P	**P**	**17 27 36.3**	**+1.6**
EGAK	**Eagle**	**84.78**	**25**	*e*P	**P**	**17 28 53.2**	**+0.2**
	comp=Z,4.1nm,0.9s,mb4.6						
ARCES	**ARCESS Array B**	**86.17**	**340**	LR	LR	18 15 55.1	
	comp=Z,110nm,18.8s,MS4.3,baz=33,slow=42						
BRTR	**Keskin Array B**	**86.18**	**309**	P	**P**	**17 29 01.8**	**+1.2**
	comp=Z,0.8nm,0.8s,mb4.0,baz=116,slow=5.6,SNR=4.7						
FINES	**FINESS Array B**	**87.56**	**332**	LR	LR	18 12 18.9	
	comp=Z,74nm,19.8s,MS4.1,baz=149,slow=38						
AKASG	**Malin Array Be**	**87.75**	**321**	LR	LR	18 11 13.6	
	comp=Z,64nm,20.7s,MS4.0,baz=50,slow=38						
KMBO	**Kilima Mbogo**	**87.88**	**269**	LR	LR	18 04 07.4	
	comp=Z,55nm,20.6s,MS4.0,baz=92,slow=33						
NOA	**NORSAR Array B**	**94.51**	**333**	LR	LR	18 16 10.9	
	comp=Z,70nm,18.5s,MS4.2,baz=10.0,slow=38						
YKA	**Yellowknife Ar**	**96.65**	**24**	P	**P**	**17 29 49.1**	**+0.2**
	comp=Z,0.5nm,0.7s,mb4.0,baz=301,slow=4.7,SNR=6.8						

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*ISCJB **06** 17:59:11.1±2.9, 369N±02×714E±03, h218^{km}±42^{km}, Error ellipse: s-maj=51.8km s-min=8.7km az=142.5*

*NNC **06** 17:59:20.6±6.1, 3761N×7160E, h248^{km}±70^{km}, mb2.0, mpv3.2, Error ellipse: s-maj=90.8km s-min=33.4km az=41.0*

ISC 06 17:59:12.3±3.2**, 370N**±02×**714E**±04**, h269**^{km}±33^{km}**, n16, σ0^{s}55**/19**, 2C-1D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	**Almayashu**	**5.45**	**19**	P	**Pn**	**18 00 33.3**	**-0.7**
	SNR=41						
UCH	**Uchtor**	**5.78**	**24**	P	**Pn**	**18 00 37.6**	**-0.4**
	SNR=13						
EKS2	**Erkin-Say**	**5.97**	**17**	P	**Pn**	**18 00 40.3**	**0.0**
	SNR=9.8						
AAK	**Ala-Archa**	**6.14**	**22**	P	**Pn**	**18 00 42.6**	**+0.2**
	SNR=14						
KK31	**Karatay Array**	**6.15**	**354**	P	**Pn**	**18 00 43.0**	**+0.5**
	1.6nm,0.2s,baz=175,slow=12,SNR=138						
KK31				⇑S	**S**	**18 01 49.5**	**-5.4**
	6.6nm,0.3s,baz=164,slow=19,SNR=18						
KBK	**Karagaybulak**	**6.31**	**25**	P	**Pn**	**18 00 43.9**	**-0.6**
	SNR=6.9						
CHMS	**Chumysh**	**6.55**	**22**	P	**Pn**	**18 00 47.3**	**-0.2**
	SNR=5.7						
USP	**Ospenovka**	**6.73**	**20**	P	**Pn**	**18 00 50.6**	**+1.0**
	SNR=6.4						
TKM2	**Tokmak 2**	**6.77**	**27**	P	**Pn**	**18 00 50.6**	**+0.4**
	SNR=12						
TKM2	**Tokmak 2**	**6.77**	**27**	⇑P	**Pn**	**18 00 50.3**	**+0.1**
	0.5nm,0.5s						
KOLN	**Koldanda**	**13.82**	**128**	*e*P	**Pn**	**18 02 17.0**	**-0.7**
	2.9nm,0.4s						
GKN	**Gorkha**	**14.33**	**125**	*e*P	**Pn**	**18 02 23.4**	**-0.4**
	4.4nm,0.4s						
AB31	**Akbulak array**	**14.81**	**330**	P	**Pn**	**18 02 34.0**	**+4.7**
	0.2nm,0.3s,baz=334,slow=29,SNR=13						
AB31				⇓S	**S**	**18 05 11.6**	**-0.2**
	0.9nm,0.5s,baz=153,slow=20,SNR=4.6						
KKN	**Kakani**	**14.90**	**124**	*e*P	**Pn**	**18 02 30.7**	**+0.1**
KKN				*e*S	**S**	**18 05 01.7**	**-12**
JIRN	**Jiri**	**15.59**	**122**	*e*P	**Pn**	**18 02 39.8**	**+1.0**
TAPN	**Taplejung**	**16.83**	**120**	*e*P	**P**	**18 02 55.5**	**+4.4**

IDC 06 18:08:14.5±2.9**, 380S×13041E, h0**^{km}**, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.6**/13**, mbtmp3.9**/3**, Error ellipse: s-maj=282.7km s-min=26.6km az=68.0, Seram**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**16.50**	**167**	Pn	Pn	18 12 01.5	-6.0
	0.2nm,0.3s,baz=353,slow=13,SNR=14						
WRA				Sn	Sn	18 14 59.5	-12
	0.3nm,0.3s,baz=354,slow=23,SNR=6.4						
ASAR	**Alice Springs**	**20.04**	**171**	P	P	18 12 49.1	-0.1
	2.4nm,0.6s,baz=353,slow=11,SNR=45						
STKA	**Stephens Creek**	**29.84**	**161**	P	P	18 14 23.7	+0.1
	2.3nm,0.9s,baz=352,slow=14,SNR=2.6						
MKAR	**Makanchi Array**	**65.80**	**326**	P	P	18 19 01.6	+0.1
	0.2nm,0.5s,baz=129,slow=8.3,SNR=6.0						

MAN 06 18:40:54, 782N×12502E, h23^{km}**, mb4.2, ML3.1, MS2.8, 2C-2D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BUKP	**Musuan**	**0.08**	**33**	*e*P	Pb	18 41 00.2	+2.0
BUKP				*e*S	Sb	18 41 05.9	+4.9
CGP	**Cagayan de Oro**	**0.71**	**333**	⇑*i*P	Pb	18 41 08.0	+0.3
CGP				*i* S	Sb	18 41 19.6	+2.5
KCP	**Kidapawan**	**0.80**	**175**	⇑*e*P	Pb	18 41 07.4	-1.9
KCP				*i* S	Sb	18 41 17.6	-2.2
DMPH	**Davao City--Mi**	**0.87**	**146**	⇓*i*P	Pb	18 41 10.6	+0.1
DMPH				*e*S	Sb	18 41 24.0	+2.2
CTBH	**Cotabato--PC H**	**0.97**	**232**	⇓*i*P	Pb	18 41 09.5	-2.6
CTBH				*i* S	Sb	18 41 21.0	-3.5
MATI	**Mati**	**1.50**	**125**	*e*P	Pn	18 41 20.9	+1.4
PAGZ	**Pagadian**	**1.62**	**271**	*e*P	Pn	18 41 21.9	+0.7

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*CSEM **06** 18:41:52.6±0.3, 4133N×2492E, h15^{km}, MD3.0, Error ellipse: s-maj=9.3km s-min=3.6km az=102.0*

*NEIC **06** 18:42:04.0, 4101N×2386E, h51^{km}, MD3.0(ATH), After ATH.*

*ATH **06** 18:42:04.9, 4090N×2408E, h18^{km}±12^{km}, MD3.0/4*

*ISCJB **06** 18:42:05.3±0.6, 4090N±003×2406E±005, h21^{km}±10^{km}, Error ellipse: s-maj=6.8km s-min=5.5km az=25.2*

*THE **06** 18:42:06.0, 4086N×2400E, h5^{km}, ML2.2*

ISC 06 18:42:05.0±0.6**, 4089N**±003×**2407E**±006**, h13**^{km}±12^{km}**, n22, σ0^{s}50**/32**, 1C, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRS	**Serrai**	**0.42**	**303**	*e*Pg	**Pg**	**18 42 13.4**	**0.0**
SRS				*e*Sg	**Sg**	**18 42 19.4**	**+0.3**
SRS	**Serrai**	**0.42**	**303**	*e*Pg	**Pg**	**18 42 13.4**	**0.0**
NVR	**Nevrokopi**	**0.49**	**342**	*e*P	**Pg**	**18 42 14.4**	**-0.2**
NVR				*e*S	**Sg**	**18 42 21.6**	**+0.5**
NVR	**Nevrokopi**	**0.49**	**342**	*e*PB	**Pg**	**18 42 14.4**	**-0.2**
NVR				*e*SB	**Sg**	**18 42 21.6**	**+0.5**
NVR	**Nevrokopi**	**0.49**	**342**	*e*S	**Sg**	**18 42 21.6**	**+0.5**
SOH	**Sokhos**	**0.54**	**263**	*e*Pg	**Pg**	**18 42 15.9**	**+0.2**
SOH				*e*Sg	**Sg**	**18 42 21.6**	**-1.2**
SOH	**Sokhos**	**0.54**	**263**	*e*Pg	**Pg**	**18 42 15.9**	**+0.3**
OUR	**Ouranopolis**	**0.56**	**187**	*e*Pg	**Pg**	**18 42 15.7**	**-0.2**
OUR	**Ouranopolis**	**0.56**	**187**	*e*Pg	**Pg**	**18 42 15.6**	**-0.3**
PLG	**Polygyros**	**0.70**	**223**	*e*Pg	**Pg**	**18 42 18.6**	**+0.1**
PLG				*e*Sg	**Sg**	**18 42 28.0**	**+0.3**
PLG	**Polygyros**	**0.70**	**223**	⇑*i*PN	**Pg**	**18 42 18.5**	**0.0**
PLG				*e*SN	**Sg**	**18 42 28.0**	**+0.3**
PLG	**Polygyros**	**0.70**	**223**	*e*Pg	**Pg**	**18 42 18.6**	**+0.1**
HORT	**Hortiatis**	**0.79**	**249**	*e*Pg	**Pg**	**18 42 20.6**	**+0.3**
HORT				*e*Sg	**Sg**	**18 42 30.8**	**+0.1**
HORT	**Hortiatis**	**0.79**	**249**	*e*Pg	**Pg**	**18 42 20.6**	**+0.3**
PAIG	**Paliouri**	**1.00**	**197**	*e*Pg	**Pg**	**18 42 23.8**	**-0.5**
PAIG				*e*Sg	**Sg**	**18 42 37.6**	**+0.1**
PAIG	**Paliouri**	**1.00**	**197**	*e*Pg	**Pg**	**18 42 23.8**	**-0.5**
RDO	**Rodhopi**	**1.14**	**76**	*e*P	**Pb**	**18 42 25.9**	**-0.6**
RDO	**Rodhopi**	**1.14**	**76**	*e*PN	**Pn**	**18 42 26.2**	**-0.4**
GRG	**Griva**	**1.26**	**274**	*e*Pg	**Pg**	**18 42 28.6**	**-0.7**
GRG				*e*Sg	**Sg**	**18 42 46.2**	**+0.5**
GRG	**Griva**	**1.26**	**274**	*e*Pg	**Pg**	**18 42 28.6**	**-0.7**
GRG				*e*Sg	**Sg**	**18 42 46.2**	**+0.5**
LIA	**Limnos Island**	**1.31**	**139**	*e*P	**Pg**	**18 42 30.5**	**+0.4**
LIA	**Limnos Island**	**1.31**	**139**	*e*PN	**Pn**	**18 42 29.8**	**+0.9**

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*ISCJB **06** 18:42:48.3±0.6, 4485N±003×2243E±005, h10^{km}±7^{km}, Error ellipse: s-maj=6.5km s-min=4.3km az=26.7*

*BUC **06** 18:42:49.6±0.7, 4493N×2252E, h16^{km}±2^{km}, MD2.5/3, Error ellipse: s-maj=6.3km s-min=3.0km az=331.0*

*BEO **06** 18:42:49.6±0.6, 4487N×2249E, h3^{km}±4^{km}, ML2.3/5*

ISC 06 18:42:49.0±0.6**, 4487N**±003×**2247E**±006**, h12**^{km}±7^{km}**, n10, σ0^{s}48**/19**, 2C-1D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DJES	**Djerdap**	**0.23**	**171**	*e*Pg	**Pg**	**18 42 54.2**	**+0.2**
DJES				*e*Sg	**Sg**	**18 42 57.3**	**0.0**
GZR	**Gura Zlata**	**0.57**	**22**	⇑*i*P	**Pg**	**18 43 00.3**	**+0.2**
GZR				*i* S	**Sg**	**18 43 08.1**	**+0.4**
BZS	**Buzias**	**0.96**	**321**	⇑*i*P	**Pg**	**18 43 07.5**	**-0.1**
BZS				*i* S	**Sg**	**18 43 19.3**	**-0.9**
BZS	**Buzias**	**0.96**	**321**	*i* Pg	**Pg**	**18 43 07.4**	**-0.2**
BZS				*e*Sg	**Sg**	**18 43 19.7**	**-0.5**
SVIS	**Svilajnac**	**1.06**	**238**	*e*Pg	**Pg**	**18 43 09.8**	**+0.3**
SVIS				*e*Sg	**Sg**	**18 43 23.8**	**+0.5**
GRUS	**Gruza**	**1.60**	**233**	*e*Pg	**Pg**	**18 43 19.4**	**-0.2**
GRUS				*e*Sg	**Sg**	**18 43 39.9**	**-0.4**
DRGR		**1.93**	**5**	⇓*i*P	**Pn**	**18 43 22.0**	**+0.3**
DRGR				*i* S	**Sn**	**18 43 45.8**	**-0.1**
DIVS	**Divcibare**	**1.94**	**248**	*e*Pn	**Pn**	**18 43 21.9**	**+0.2**
DIVS				*e*Sg	**Sg**	**18 43 51.3**	**+0.1**
BARS	**Barje**	**2.10**	**193**	*e*Pg	**Pg**	**18 43 27.9**	**-1.4**
BARS				*e*Sg	**Sg**	**18 43 56.6**	**+0.1**
BBLS	**Bajina Basta -**	**2.41**	**247**	*e*Sg	**Sg**	**18 44 07.2**	**+0.6**

IDC 06 18:49:38.8±4.2**, 254S×14120E, h0**^{km}**, mb3.5**/2**, mb1 3.8**/3**, mb1mx3.4**/13**, mbtmp3.6**/3**, ML3.7**/1**, Error ellipse: s-maj=147.3km s-min=30.5km az=89.0, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**18.55**	**201**	P	Pn	18 53 56.5	-0.9
	0.3nm,0.3s,baz=23,slow=11,SNR=7.3						
ASAR	**Alice Springs**	**22.16**	**198**	P	P	18 54 36.2	-0.2
	1.1nm,0.7s,baz=26,slow=9.9,SNR=9.7						
MKAR	**Makanchi Array**	**71.18**	**322**	P	P	19 01 00.1	+0.5
	0.8nm,1.0s,baz=106,slow=7.1,SNR=5.0						

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*BJI **06** 18:53:45.1, 1032S×124.14E, h10^{km}, mB5.1, mb4.7, Ms4.8, Msz4.4*

*MOS **06** 18:53:52.1±0.8, 929S×12385E, h10^{km}, mb4.6/13, Error ellipse: s-maj=26.0km s-min=9.6km az=109.1*

*ISCJB **06** 18:53:53.8±2.6, 930S±005×12396E±007, h23^{km}±18^{km}, mb4.6/30, MS3.2/4, Error ellipse: s-maj=13.0km s-min=6.6km az=155.0*

*IDC **06** 18:53:53.0±0.8, 933S×12355E, h0^{km}, mb4.4/7, mb1 4.5/9, mb1mx4.2/16, mbtmp4.4/9, ML4.4/2, MS3.1/5, Ms1 3.0/5, ms1mx2.8/19, Error ellipse: s-maj=46.5km s-min=16.3km az=74.0*

*NEIC **06** 18:53:54.2±0.4, 937S×12367E, h10^{km}, mb4.6/12, Error ellipse: s-maj=15.1km s-min=6.5km az=64.0*

ISC 06 18:53:58.3±1.6**, 941S**±005×**12389E**±009**, h44**^{km}±16^{km}**, n64, σ0^{s}91**/71**, mb4.6**/30**, MS3.2**/4**, 1C, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**8.81**	**169**	*e*P	**Pn**	**18 56 03.4**	**+0.3**
	23nm,0.4s						
FITZ				*e*S	**Sn**	**18 57 34.7**	**-6.4**
FITZ	**Fitzroy Crossi**	**8.81**	**169**	Pn	**Pn**	**18 56 03.2**	**+0.1**
	2.8nm,0.3s,baz=356,slow=9.8,SNR=118						
FITZ				Sn	**Sn**	**18 57 34.9**	**-6.2**
	9.3nm,0.3s,baz=15,slow=14,SNR=18						
FITZ				LR	LR	19 00 19.9	
	comp=Z,62nm,19.9s,baz=350,slow=43						
KAKA	**Kakadu**	**9.01**	**112**	*e*P	**Pn**	**18 56 10.1**	**+4.2**
	16nm,0.3s						
KAKA				*e*S	**Sn**	**18 57 45.5**	**-0.6**
WRA	**Warramunga Arr**	**14.55**	**137**	Pn	**Pn**	**18 57 20.2**	**-1.3**
WRA				Sn	**Sn**	**18 59 51.5**	**-10**
WRA				LR	LR	19 03 25.4	
WRA	**Warramunga Arr**	**14.55**	**137**	Pn	**Pn**	**18 57 20.2**	**-1.3**
	2.0nm,0.3s,baz=321,slow=14,SNR=87						
WRA				Sn	**Sn**	**18 59 51.5**	**-10**
	6.4nm,0.3s,baz=309,slow=24,SNR=6.1						
WRA				LR	LR	19 03 25.4	
	comp=Z,66nm,19.6s,baz=90,slow=39						
WB2	**Warramunga Arr**	**14.55**	**137**	*e*P	**Pn**	**18 57 20.9**	**-0.7**
WB2				*e*S	**Sn**	**18 59 51.5**	**-10**
ASAR	**Alice Springs**	**17.11**	**147**	P	**Pn**	**18 57 55.5**	**+1.2**
	1.5nm,0.3s,baz=319,slow=12,SNR=62						
ASAR				S	**S**	**19 00 52.7**	**-19**
	2.7nm,0.3s,baz=315,slow=23,SNR=16						
FORT	**Forrest**	**21.62**	**170**	*e*P	**P**	**18 58 44.4**	**-0.3**
	22nm,0.5s,mb4.8						
FORT				*e*S	**S**	**19 02 38.3**	**-3.4**
KLBR	**Kellerberrin**	**22.80**	**194**	*e*P	**P**	**18 58 57.7**	**+0.4**
	23nm,1.1s,mb4.5						
KLBR				*e*S	**S**	**19 03 02.0**	**-1.5**
MUN	**Mundaring**	**23.56**	**197**	*e*P	**P**	**18 59 05.5**	**+0.5**
MUN				*e*S	**S**	**19 03 25.2**	**+9.3**
CTA	**Charters Tower**	**24.06**	**119**	LR	LR	19 08 46.1	
	comp=Z,76nm,21.8s,MS3.1,baz=229,slow=37						
NWAO	**Narrogin (SRO)**	**24.20**	**194**	*e*P	**P**	**18 59 11.5**	**+0.8**
NWAO	**Narrogin (SRO)**	**24.20**	**194**	P	**P**	**18 59 11.2**	**+0.4**
NWAO				pmax	pmax		
	comp=Z,5.0nm,0.4s						
NWAO	**Narrogin (SRO)**	**24.20**	**194**	P	**P**	**18 59 11.2**	**+0.4**
	comp=Z,4.6nm,0.4s,mb4.2,baz=23,slow=9.0,SNR=14						
STKA	**Stephens Creek**	**27.74**	**146**	*e*P	**P**	**18 59 44.4**	**+1.6**
	comp=Z,6.8nm,0.4s,mb4.6						
STKA	**Stephens Creek**	**27.74**	**146**	P	**P**	**18 59 46.2**	**+3.4**
	comp=Z,6.5nm,0.7s,mb4.4,baz=319,slow=7.5,SNR=16						
STKA				LR	LR	19 12 22.6	
	comp=Z,74nm,18.7s,MS3.3,baz=26,slow=40						
CD2	**Chengdu**	**44.50**	**335**	*e*P	**P**	**19 02 07.1**	**+1.5**
CD2				XP	sP	19 02 14.2	-8.7
CD2				PP	PP	19 03 52.4	+2.3
CD2				S	**S**	**19 08 42.0**	**+4.1**
CD2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.0						
CD2				AMB	AMB		
	comp=Z,30nm,4.8s						
CD2				LR	LR		
	comp=N,100nm,10.8s						
CD2				LR	LR		
	comp=Z,80nm,15.6s,MS3.8						
KSRS	**Korea Array**	**46.77**	**4**	LR	LR	19 22 14.5	
	comp=Z,8.2nm,20.8s,MS2.7,baz=170,slow=36						
MJAR	**Matsushiro Arr**	**47.65**	**16**	P	**P**	**19 02 31.1**	**+0.8**
	comp=Z,0.5nm,0.3s,mb4.0,baz=180,slow=10.0,SNR=4.5						
LZH	**Lanzhou**	**49.03**	**338**	*e*P	**P**	**19 02 41.1**	**+0.2**
LZH				AP	pP	19 02 45.3	-8.0
LZH				XP	sP	19 02 48.5	-10
LZH				AMB	AMB		
	comp=Z,18nm,1.4s,mb4.9						
LZH	**Lanzhou**	**49.03**	**338**	*e*P	**P**	**19 02 41.1**	**+0.2**
	comp=Z,18nm,1.4s,mb4.9						
LZH				pP	pP	19 02 45.3	-8.0
LZH				sP	sP	19 02 48.5	-10
LSA	**Lhasa**	**50.05**	**322**	P	**P**	**19 02 49.8**	**+1.0**
LSA	**Lhasa**	**50.05**	**322**	*e*P	**P**	**19 02 49.5**	**+0.7**
	comp=Z,4.6nm,0.6s,mb4.7						
LSA	**Lhasa**	**50.05**	**322**	*e*P	**P**	**19 02 49.5**	**+0.7**
LSA				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
ODAN	**Odare**	**50.53**	**317**	*e*P	**P**	**19 02 52.2**	**-0.3**
	comp=Z,8.4nm,0.4s,mb5.0						
TAPN	**Taplejung**	**50.64**	**317**	*e*P	**P**	**19 02 53.3**	**0.0**
	comp=Z,15nm,0.5s,mb5.2						
JIRN	**Jiri**	**51.87**	**316**	*e*P	**P**	**19 03 02.5**	**0.0**
	comp=Z,5.7nm,0.3s,mb5.0						
PKI	**Pulchoki**	**52.34**	**316**	*e*P	**P**	**19 03 05.3**	**-0.8**
	comp=Z,20nm,0.4s,mb5.4						
KKN	**Kakani**	**52.57**	**316**	*e*P	**P**	**19 03 07.2**	**-0.5**
	comp=Z,18nm,0.8s,mb5.0						
GKN	**Gorkha**	**53.15**	**316**	*e*P	**P**	**19 03 11.2**	**-0.8**
	comp=Z,14nm,0.4s,mb5.2						
GTA	**Gaotai**	**53.47**	**337**	*e*P	**P**	**19 03 16.0**	**+1.9**
GTA				AP	pP	19 03 19.6	-7.0
GTA				XP	sP	19 03 21.7	-10
GTA				AMB	AMB		
	comp=Z,4.0nm,1.1s,mb4.3						
KOLN	**Koldanda**	**53.72**	**315**	*e*P	**P**	**19 03 15.5**	**-0.7**
	comp=Z,12nm,0.6s,mb5.0						
HIA	**Hailar**	**58.53**	**357**	*e*P	**P**	**19 03 49.8**	**-0.3**
	comp=Z,4.4nm,1.0s,mb4.4						
HIA	**Hailar**	**58.53**	**357**	*e*P	**P**	**19 03 49.8**	**-0.4**
HIA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
ULN	**Ulaanbaatar**	**58.94**	**347**	*e*P	**P**	**19 03 49.4**	**-3.6**
SONM	**Songino Array**	**59.06**	**346**	P	**P**	**19 03 54.1**	**+0.2**
	comp=Z,1.0nm,0.7s,mb3.9,baz=163,slow=7.9,SNR=10						
ZAK	**Zakamensk**	**62.19**	**345**	*e*P	**P**	**19 04 15.0**	**-0.1**
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.4						
MK31	**Makanchi Array**	**67.11**	**330**	*e*P	**P**	**19 04 47.0**	**-0.3**
MKAR	**Makanchi Array**	**67.11**	**330**	P	**P**	**19 04 47.5**	**+0.2**
	comp=Z,5.2nm,0.5s,mb4.8,baz=134,slow=7.1,SNR=155						
BOD	**Bodaibo**	**67.48**	**354**	*e*P	**P**	**19 04 49.4**	**0.0**
BOD				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.1						
KBL	**Kabul**	**67.83**	**313**	*e*P	**P**	**19 04 51.0**	**-1.1**
AAK	**Ala-Archa**	**68.63**	**323**	*e*P	**P**	**19 04 56.0**	**-1.0**
	comp=Z,8.3nm,1.2s,mb4.5						
AAK	**Ala-Archa**	**68.63**	**323**	*e*P	**P**	**19 04 56.0**	**-1.0**
AAK				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
ZAL	**Zalesovo**	**71.22**	**337**	P	**P**	**19 05 12.1**	**-0.5**
ZALV	**Zalesovo Beam**	**71.22**	**337**	P	**P**	**19 05 12.1**	**-0.5**
	comp=Z,5.8nm,0.5s,mb4.8,baz=138,slow=5.3,SNR=31						
YAK	**Yakutsk**	**71.36**	**3**	*i* P	**P**	**19 05 14.2**	**+0.9**
KURK	**Kurchatov**	**71.57**	**332**	*e*P	**P**	**19 05 14.8**	**0.0**
	comp=Z,2.8nm,0.4s,mb4.5						
KURK	**Kurchatov**	**71.57**	**332**	*e*P	**P**	**19 05 14.8**	**0.0**
KURK				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.6						
NVS	**Novosibirsk**	**72.51**	**337**	*e*P	**P**	**19 05 20.3**	**0.0**
SEY	**Seymchan**	**75.39**	**13**	*i* P	**P**	**19 05 38.1**	**+1.1**
BRVK	**Borovoye**	**77.06**	**330**	*e*P	**P**	**19 05 46.6**	**-0.1**
	comp=Z,1.4nm,0.7s,mb4.0						
BRVK	**Borovoye**	**77.06**	**330**	*e*P	**P**	**19 05 46.6**	**-0.1**
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
SYO	**Syowa Base**	**79.23**	**201**	⇑*e*P	**P**	**19 06 00.6**	**+2.1**
QSPA	**South Pole Qui**	**80.59**	**180**	*e*P	**P**	**19 06 07.8**	**+2.1**
	comp=Z,4.2nm,0.6s,mb4.5						
AKTK	**Aktyubinsk**	**82.35**	**324**	P	**P**	**19 06 14.8**	**-0.6**
AKTO	**Aktyubinsk**	**82.35**	**324**	P	**P**	**19 06 14.9**	**-0.6**
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
AKTO	**Aktyubinsk**	**82.35**	**324**	P	**P**	**19 06 14.8**	**-0.6**
	comp=Z,0.9nm,0.6s,mb3.9,baz=85,slow=3.6,SNR=5.5						
ARU	**Arti**	**84.62**	**330**	P	**P**	**19 06 26.4**	**-0.5**
	comp=Z,3.6nm,1.0s,mb4.5						
ARU	**Arti**	**84.62**	**330**	P	**P**	**19 06 26.4**	**-0.6**
ARU				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
KMBO	**Kilima Mbogo**	**86.50**	**269**	*e*P	**P**	**19 06 41.3**	**+3.9**
	comp=Z,3.3nm,1.1s,mb4.5						
KMBO	**Kilima Mbogo**	**86.50**	**269**	*e*P	**P**	**19 06 41.3**	**+4.0**
KMBO				pmax	pmax		
	comp=Z,3.0nm,1.1s						
OBN	**Obninsk**	**96.11**	**325**	*e*P	**P**	**19 07 20.3**	**-0.9**
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.8						
TORD	**Torodi Ar. Bea**	**123.29**	**280**	PKP	PKPdf	19 12 53.1	+1.6
TORD	**Torodi Ar. Bea**	**123.29**	**280**	PKP	PKPdf	19 12 53.1	+1.6
	comp=Z,0.6nm,0.6s,baz=40,slow=2.4,SNR=6.2						

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*CSEM **06** 19:13:17.4±0.1, 4000N×3424E, h10^{km}, MD3.0, Error ellipse: s-maj=2.2km s-min=1.6km az=26.0*

*ISK **06** 19:13:17.5, 4001N×3426E, h8^{km}, MD3.0*

*ISCJB **06** 19:13:18.3±0.5, 4002N±003×3423E±005, h8^{km}±6^{km}, Error ellipse: s-maj=6.2km s-min=4.3km az=161.9*

*DDA **06** 19:13:47.0, 3999N×3418E, h4^{km}, Md2.9*

ISC 06 19:13:18.9±0.5**, 4000N**±003×**3422E**±005**, h16**^{km}±5^{km}**, n23, σ0^{s}99**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CORM	**Corum**	**0.37**	**60**	*i* PG	**Pg**	**19 13 23.9**	**-2.6**
CORM	**Corum**	**0.37**	**60**	*i* Pg	**Pg**	**19 13 23.9**	**-2.6**
CDAG	**Cicekdag**	**0.39**	**162**	*i* P	**Pg**	**19 13 27.2**	**+0.3**
CDAG				*i* S	**Sg**	**19 13 33.8**	**+1.5**
KAMT	**Kaman**	**0.74**	**212**	PG	**Pg**	**19 13 32.6**	**-0.7**
KAMT	**Kaman**	**0.74**	**212**	*e*Pg	**Pg**	**19 13 32.6**	**-0.7**
CANT	**Cankiri**	**0.76**	**323**	PG	**Pg**	**19 13 33.1**	**-0.7**
CANT				SG	**Sg**	**19 13 44.0**	**+0.1**
CTKT	**Corum**	**0.77**	**35**	*i* P	**Pg**	**19 13 34.4**	**+0.5**
CTKT				*i* S	**Sg**	**19 13 45.6**	**+1.6**
YOZ	**Yozgat**	**0.92**	**112**	PG	**Pg**	**19 13 35.5**	**-1.3**
YOZ				SG	**Sg**	**19 13 48.1**	**-0.8**
YOZ	**Yozgat**	**0.92**	**112**	*e*Pg	**Pg**	**19 13 35.5**	**-1.3**
YOZ				*e*Sg	**Sg**	**19 13 48.1**	**-0.8**
ANTO	**Ankara**	**1.10**	**264**	*e*PN	**Pn**	**19 13 39.8**	**+0.1**
ANTO	**Ankara**	**1.10**	**264**	*e*Pn	**Pn**	**19 13 39.8**	**+0.1**
LOD	**Lodumlu**	**1.12**	**265**	*e*PN	**Pn**	**19 13 39.6**	**-0.4**

LOD	Lodumlu	1.12	265	*e*Pn	Pn	19 13 39.6	-0.4
AVNT	Avonos	1.31	158	*i* P	Pn	19 13 43.4	+0.8
AVNT				*i* S	Sg	19 14 04.9	+3.6
BOYT	Boyabat	1.52	20	*i* P	Pg	19 13 47.0	-1.1
BOYT				*i* S	Sg	19 14 09.1	+1.2
BNN	Bunyan	1.70	132	*e*PN	Pn	19 13 48.0	0.0
BNN	Bunyan	1.70	132	*e*Pn	Pn	19 13 48.0	0.0
SAFT	Safranbolu	1.70	317	*e*PN	Pn	19 13 48.3	+0.3
SAFT	Safranbolu	1.70	317	*e*Pn	Pn	19 13 48.3	+0.3
DIKM	Dikmen	1.83	25	*e*PN	Pn	19 13 49.8	+0.1
DIKM	Dikmen	1.83	25	*e*Pn	Pn	19 13 49.8	+0.1
SVSK	Karacayir	2.14	91	*e*PN	Pn	19 13 53.6	-0.4
SVSK	Karacayir	2.14	91	*e*Pn	Pn	19 13 53.6	-0.4

IDC 06 19:24:42.7±6.0, 328S×13262E, h0^{km}, mb3.4/2, mb1 3.7/3, mb1mx3.4/14, mbtmp3.5/3, ML3.4/1, Error ellipse: s-maj=381.7km s-min=29.0km az=75.0, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	16.65	174	Pn	Pn	19 28 35.5	-2.1
	0.1nm,0.3s,baz=354,slow=13,SNR=6.6						
WRA				Sn	Sn	19 31 29.9	-13
	0.1nm,0.3s,baz=192,slow=14,SNR=5.0						
ASAR	Alice Springs	20.31	177	P	P	19 29 21.3	+1.0
	0.9nm,0.3s,baz=355,slow=11,SNR=18						
MKAR	Makanchi Array	66.63	325	P	P	19 35 35.1	+0.1
	0.6nm,0.8s,baz=128,slow=7.9,SNR=6.7						

IGQ 06 19:36:58.5, 126S×7815W, h20^{km}±11^{km}, Mb4.0, Ms3.8, 24C-11D, Error ellipse: s-maj=1.7km s-min=0.8km az=25.6, Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PISA	Pisayambo	0.30	310	⇓P	Pb	19 37 05.9	+0.6
RUN5	Runtun	0.31	240	⇑P	Pb	19 37 05.6	+0.2
ULBA	Ulba	0.32	233	⇑P	Pb	19 37 05.6	0.0
RETU	Refugio	0.35	236	⇑P	Pb	19 37 06.3	+0.2
RETU	Refugio	0.35	236	⇑S	Sb	19 37 11.6	+0.4
JUIV	Juive	0.35	242	⇑P	Pb	19 37 06.1	0.0
JUIV	Juive	0.35	242	⇑S	Sb	19 37 10.8	-0.5
PATA	Patacocha	0.37	229	⇓P	Pb	19 37 06.7	+0.2
PATA	Patacocha	0.37	229	⇓S	Sb	19 37 15.1	+3.2
BILB	Tungurahua vol	0.39	242	P	Pb	19 37 06.7	-0.1
BILB	Tungurahua vol	0.39	242	S	Sb	19 37 12.1	-0.2
ARRY	Arrayan	0.39	230	⇑P	Pb	19 37 06.6	-0.2
IGUA	Igualata	0.54	244	⇑P	Pb	19 37 09.7	+0.4
IGUA	Igualata	0.54	244	⇑S	Sb	19 37 16.9	+0.3
TAMB	Tambo	0.60	339	⇑P	Pb	19 37 11.0	+0.7
TAMB	Tambo	0.60	339	⇑S	Sb	19 37 19.1	+0.8
VC1	Cotopaxi 1	0.66	338	⇓P	Pb	19 37 12.4	+1.1
VC1	Cotopaxi 1	0.66	338	⇓S	Sb	19 37 20.6	+0.5
CAMI	Rancho Maria	0.67	329	⇑P	Pb	19 37 12.6	+0.9
CAMI	Rancho Maria	0.67	329	⇑S	Sb	19 37 21.1	+0.5
ANTI	Antisana	0.80	360	⇑P	Pb	19 37 14.2	+0.4
ANTI	Antisana	0.80	360	⇑S	Sb	19 37 24.5	+0.4
JUA2	San Juan 2	1.13	336	P	Pn	19 37 20.5	+1.3
JUA2	San Juan 2	1.13	336	S	Sb	19 37 37.2	+3.6
GGP	Refugio Guagua	1.16	338	⇑P	Pn	19 37 20.6	+1.0
GGP	Refugio Guagua	1.16	338	⇑S	Sb	19 37 38.5	+3.9
TERV	Terraza Guagua	1.16	337	⇓P	Pn	19 37 21.5	+1.8
TERV	Terraza Guagua	1.16	337	⇓S	Sb	19 37 37.1	+2.4
PINO	Pino	1.18	337	⇑P	Pn	19 37 21.8	+1.9
YANA	Yana	1.20	340	⇓P	Pn	19 37 21.9	+1.7
YANA	Yana	1.20	340	⇓S	Sb	19 37 37.9	+2.1
LAV3	Lava3-Reventad	1.26	24	⇑P	Pn	19 37 22.4	+1.4
LAV3	Lava3-Reventad	1.26	24	⇑S	Sn	19 37 39.6	+2.1
CAYR	Refugio Cayamb	1.27	7	⇑P	Pn	19 37 23.2	+2.0
CAYR	Refugio Cayamb	1.27	7	⇑S	Sn	19 37 40.4	+2.8
CONE	Cono NE Rev Vo	1.28	23	⇓P	Pn	19 37 22.9	+1.6
CONE	Cono NE Rev Vo	1.28	23	⇓S	Sn	19 37 39.6	+1.7
CAYA	Cayambe	1.33	7	⇑P	Pn	19 37 24.0	+2.1
CAYA	Cayambe	1.33	7	⇑S	Sn	19 37 41.5	+2.5
COTA	Cotacachi	1.59	353	P	Pn	19 37 30.9	+5.3
COTA	Cotacachi	1.59	353	S	Sn	19 37 55.1	+10

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*ISCJB **06** 19:57:41.0±2.8, 58.4S±0.1×26.7W±0.2, h193^{km}±28^{km}, mb4.4/13, Error ellipse: s-maj=17.5km s-min=14.1km az=28.5*

*IDC **06** 19:57:44.3±1.6, 58.46S×26.87W, h211^{km}±13^{km}, mb3.9/6, mb1 3.9/7, mb1mx3.8/13, mbtmp3.8/7, Error ellipse: s-maj=16.6km s-min=14.4km az=53.0*

*NEIC **06** 19:57:45.8±2.0, 58.48S×26.81W, h229^{km}±20^{km}, mb4.4/9, Error ellipse: s-maj=11.3km s-min=9.2km az=211.0*

ISC 06 19:57:42.1±2.7, 58.45S±0.10×26.7W±0.2, h187^{km}±28^{km}, n46, σ0^{s}62/28, mb4.6/13, 1C, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA3	Neumayer Olymp	14.64	158	*e*P	Pn	20 01 00.4	+0.4
VNA3				*e*		20 01 02.4	
VNA3				*e*		20 01 09.4	
VNA2	Neumayer--Watz	14.88	155	*e*P	Pn	20 01 02.6	-0.3
	baz=313,slow=13						
VNA2				*e*		20 01 04.9	
VNA2				*e*		20 01 11.1	
SNAA	Sanae	16.45	153	P	Pn	20 01 21.1	-0.9
	0.4nm,0.3s,baz=324,slow=9.9,SNR=37						
SNAA				S	S	20 04 28.0	+4.4
	0.1nm,0.3s,baz=192,slow=20,SNR=4.6						
PMSA	Palmer Station	18.61	235	P	P	20 01 50.3	+5.3
	22nm,0.8s						
EFI	East Falkland	19.06	277	*e*P	P	20 01 51.0	+1.0
	48nm,0.8s						
SYO	Syowa Base	29.58	138	⇑*e*P	P	20 03 28.4	-0.5
QSPA	South Pole Qui	31.79	180	*e*P	P	20 03 48.8	+0.6
	22nm,0.4s,mb5.2						
MAW	Mawson	38.08	142	*e*P	P	20 04 42.0	0.0
	6.2nm,0.7s,mb4.3						
MAW	Mawson	38.08	142	P	P	20 04 42.0	0.0
	5.0nm,0.6s,mb4.3,baz=220,slow=6.9,SNR=6.7						
CFAA	Coronel Fontan	38.79	295	P	P	20 04 47.4	-1.0
	0.2nm,0.4s,baz=139,slow=10.0,SNR=4.0						
SUR	Sutherland	41.08	72	*e*P	P	20 05 08.6	+1.4
	8.8nm,0.9s,mb4.4						
SUR	Sutherland	41.08	72	P	P	20 05 08.6	+1.4
	4.8nm,0.7s,mb4.2,baz=169,slow=14,SNR=7.0						
VNDA	Vanda	44.18	183	*e*P	P	20 05 32.2	+0.6
	4.4nm,0.5s,mb4.3						
VNDA	Vanda	44.18	183	P	P	20 05 31.9	+0.4
	2.7nm,0.5s,mb4.2,baz=264,slow=4.8,SNR=11						
LBTB	Lobatse	49.50	71	*e*P	P	20 06 13.5	0.0
	9.3nm,0.6s,mb4.6						
LBTB	Lobatse	49.50	71	P	P	20 06 13.6	+0.2
	12nm,0.7s,mb4.6,baz=227,slow=7.9,SNR=36						
TSUM	Tsumeb	50.67	59	*e*P	P	20 06 22.0	-0.2
	5.3nm,0.7s,mb4.3						
LPAZ	La Paz	52.00	306	P	P	20 06 31.7	-0.4
LPAZ	La Paz	52.00	306	P	P	20 06 32.3	+0.2
	0.5nm,0.4s,mb3.5,baz=126,slow=7.1,SNR=3.7						
LSZ	Lusaka	59.03	67	*e*P	P	20 07 22.3	+0.1
	19nm,1.3s,mb4.8						
LIC	Lamto	66.79	24	*e*PKP2	P	20 08 13.3	0.0
	31nm,0.5s,mb5.4						
KIC	Kosan Boka	66.98	24	*e*PKP2	P	20 08 14.3	-0.2
	41nm,0.6s,mb5.4						
TIC	Toumodi	67.20	23	*e*PKP2	P	20 08 15.0	-0.9
	5.5nm,0.6s,mb4.6						
TOA0	Torodi Ar. Sit	75.03	29	*e*P	P	20 09 03.0	+0.2
TORD	Torodi Ar. Bea	75.03	29	P	P	20 09 03.2	+0.3
TORD	Torodi Ar. Bea	75.03	29	P	P	20 09 03.2	+0.3
	20nm,0.4s,mb5.1,baz=198,slow=6.4,SNR=338						
STKA	Stephens Creek	89.48	170	P	P	20 10 16.9	-0.7
	2.0nm,0.7s,mb4.2,baz=101,slow=11,SNR=5.3						
AKASG	Malin Array Be	117.98	37	PKP	PKPdf	20 16 03.2	-1.9
AKASG	Malin Array Be	117.98	37	PKP	PKPdf	20 16 03.2	-1.9
	0.2nm,0.4s,baz=254,slow=1.1,SNR=4.1						
NOA	NORSAR Array B	122.77	21	PKP	PKPdf	20 16 13.1	-0.9
NOA	NORSAR Array B	122.77	21	PKP	PKPdf	20 16 13.1	-0.9
	0.5nm,0.6s,baz=198,slow=2.0,SNR=2.9						
FINES	FINESS Array B	126.38	28	PKP	PKPdf	20 16 20.0	-0.9
FINES	FINESS Array B	126.38	28	PKP	PKPdf	20 16 20.0	-0.9
	1.9nm,0.6s,baz=129,slow=2.5,SNR=18						
JOF	Joensuu	128.97	30	*e*p	PKPdf	20 16 24.4	-1.4
ARCES	ARCESS Array B	133.08	22	PKP	PKPdf	20 16 32.5	-0.9
ARCES				SKPbc	SKPbc	20 19 40.0	-3.3
ARCES	ARCESS Array B	133.08	22	PKP	PKPdf	20 16 32.5	-0.9
	3.0nm,0.6s,baz=219,slow=1.6,SNR=12						
ARCES				SKPbc	SKPbc	20 19 40.0	-3.3
	2.8nm,0.8s,baz=232,slow=3.9,SNR=6.5						
MKAR	Makanchi Array	137.36	74	PKP		20 16 29.3	
MKAR				PKP	PKPdf	20 16 43.0	+0.9
MKAR				SKPbc	SKPbc	20 19 53.7	-3.8
MKAR	Makanchi Array	137.36	74	PKhKP		20 16 29.3	
	0.3nm,0.7s,baz=227,slow=2.8,SNR=3.2						
MKAR				PKP	PKPdf	20 16 43.0	+0.9
	0.6nm,0.8s,baz=242,slow=3.0,SNR=5.6						
MKAR				SKPbc	SKPbc	20 19 53.7	-3.8
	0.2nm,0.5s,baz=240,slow=3.9,SNR=6.6						
YKA	Yellowknife Ar	138.11	316	PKP	PKPdf	20 16 40.5	-2.4
YKA				SKPbc	SKPbc	20 19 54.4	-4.7
YKA	Yellowknife Ar	138.11	316	PKP	PKPdf	20 16 40.5	-2.4
	0.9nm,0.8s,baz=128,slow=2.4,SNR=12						
YKA				SKPbc	SKPbc	20 19 54.4	-4.7
	0.6nm,0.7s,baz=128,slow=2.7,SNR=11						
ZALV	Zalesovo Beam	143.14	66	PKP	PKPdf	20 16 48.0	-4.3
ZALV	Zalesovo Beam	143.14	66	PKhKP		20 16 48.0	
	3.5nm,0.4s,baz=235,slow=3.7,SNR=19						
SONM	Songino Array	150.53	90	PKPbc	PKPbc	20 17 09.8	-0.6
SONM	Songino Array	150.53	90	PKPbc	PKPbc	20 17 09.8	-0.6
	6.8nm,0.6s,baz=222,slow=2.9,SNR=70						
ULN	Ulaanbaatar	150.90	91	*e*PKPbc	PKPbc	20 17 09.7	-1.6
KSRS	Korea Array	153.27	131	PKPbc	PKPbc	20 17 15.9	-1.1
	0.8nm,0.6s,baz=144,slow=2.9,SNR=3.7						

IDC 06 20:09:41.7±2.0, 779S×12968E, h0^{km}, mb3.2/1, mb1 3.7/3, mb1mx3.4/13, mbtmp3.4/3, ML3.6/2, Error ellipse: s-maj=103.4km s-min=31.7km az=67.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	12.89	160	Pn	Pn	20 12 46.4	0.0
	0.4nm,0.3s,baz=339,slow=13,SNR=13						
WRA				Sn	Sn	20 15 01.6	-9.1
	0.5nm,0.3s,baz=336,slow=22,SNR=7.5						
ASAR	Alice Springs	16.30	166	Pn	Pn	20 13 32.2	+0.1
	0.2nm,0.3s,baz=338,slow=9.8,SNR=6.4						
ASAR				Sn	Sn	20 16 26.9	-6.7
	0.1nm,0.3s,baz=320,slow=16,SNR=4.6						
MKAR	Makanchi Array	68.71	327	P	P	20 20 47.4	+0.1
	0.2nm,0.7s,baz=123,slow=6.8,SNR=2.3						

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*NNC **06** 20:26:11.7±2.9, 44.19N×83.21E, h18^{km}±13^{km}, mb2.9, mpv2.6, Error ellipse: s-maj=19.3km s-min=9.7km az=116.0*

BJI 06 20:26:10.8, 4396N×8304E, h10^{km}, ML3.1, 1C-5D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MK31	Makanchi Array	2.88	350	Pn	Pn	20 26 56.7	0.0
	0.9nm,0.3s,baz=159,slow=13,SNR=220						
MK31				Lg		20 27 37.1	
	11nm,0.3s,baz=170,slow=28,SNR=14						
WMQ	Urumqi	3.37	91	*e*P	Pn	20 27 06.2	+2.8
WMQ				SG	Sg	20 27 52.2	-6.7
WMQ				Smax			
	comp=N,28nm,0.5s						
WMQ				Smax			
	comp=E,35nm,0.6s						
TKM2	Tokmak 2	5.52	262	⇓Pn	Pn	20 27 35.9	+2.9
	comp=E,0.1nm,0.5s						
TKM2				⇓Lg		20 29 11.7	
	comp=E,0.4nm,0.5s						
KURK	Kurchatov	7.39	338	⇓Pn	Pn	20 27 55.8	-2.9
	comp=E,1.5nm,1.4s						
KURK				⇓Sn	Sn	20 29 19.1	-3.4
	comp=E,0.9nm,0.6s						
KURK				⇑Lg		20 30 03.0	
	comp=E,8.2nm,0.7s						
KK31	Karatay Array	9.14	269	⇓Lg		20 31 05.6	
	comp=E,0.9nm,0.5s,baz=74,slow=29,SNR=4.6						

MAN 06 20:30:52, 775N×12510E, h31^{km}, mb4.6, ML3.5, MS3.4, 1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUKP	Musuan	0.14	346	*e*P	Pb	20 31 00.0	+2.3
BUKP				*e*S	Sb	20 31 04.6	+3.0
KCP	Kidapawan	0.73	180	⇓*e*P	Pn	20 31 07.1	+0.9
KCP				*i* S	Sb	20 31 17.6	+1.5
CGP	Cagayan de Oro	0.81	331	*e*P	Pn	20 31 08.2	+0.9
CGP				*i* S	Sb	20 31 19.8	+1.6
MATI	Mati	1.40	125	*e*P	Pn	20 31 17.1	+1.7
PAGZ	Pagadian	1.70	273	*e*P	Pn	20 31 21.5	+1.9

JMA 06 20:41:10.3±0.2, 4257N×14755E, h51^{km}, M3.7, Off southeast coast of Hokkaido

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	1.55	302	P	Pn	20 41 36.0	+0.6
NEM2				*e*S	Sn	20 41 55.2	+0.9
JAK	Akkeshi	2.14	282	P	Pn	20 41 44.5	+0.9
JAK				*e*S	Sn	20 42 09.4	+0.5
JRA	Rausu	2.24	308	P	Pn	20 41 45.8	+0.9
JRA				*e*S	Sn	20 42 12.7	+1.4
JNK	Nakash	2.31	297	P	Pn	20 41 46.4	+0.6
JNK				*e*S	Sn	20 42 12.8	-0.2
JOB	Onbets	2.76	278	P	Pn	20 41 53.1	+1.1
JAR	Ashorobuto	2.87	286	P	Pn	20 41 54.8	+1.3
JAR				*e*S	Sn	20 42 28.0	+1.2
JTKR	Abashiri--Toko	3.01	299	P	Pn	20 41 57.1	+1.7
JTKR				*e*S	Sn	20 42 32.3	+2.2
JCH	Churui	3.09	272	P	Pn	20 41 58.3	+1.7
JCH				*e*S	Sn	20 42 33.8	+1.5
JNBK	Urakawa-nobuka	3.56	267	P	Pn	20 42 04.2	+1.2
JFR	Furan	3.69	281	P	Pn	20 42 06.4	+1.6
JFR				*e*S	Sn	20 42 48.3	+1.3
JKK2	Kamakawa 2	3.74	292	P	Pn	20 42 08.6	+3.1
JKB	Kayabe	4.89	264	P	Pn	20 42 22.9	+1.7
JKB				*e*S	Sn	20 43 17.7	+1.3
JOT	Ohata	4.99	258	P	Pn	20 42 23.7	+1.1
JOT				*e*S	Sn	20 43 18.5	-0.4
JANG	Nango	5.04	246	P	Pn	20 42 22.9	-0.3
JANG				*e*S	Sn	20 43 17.8	-2.3

WEL 06 21:09:42.2±0.5, 3762S×17701E, h149^{km}±3^{km}, ML3.6/6, Error ellipse: s-maj=4.9km s-min=4.1km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	0.65	173	PN	Pn	21 10 04.1	-0.1
URZ				SN	Sn	21 10 21.0	-0.1
MWZ	Matawai	0.83	150	PN	Pn	21 10 05.4	-0.1
MWZ				SN	Sn	21 10 23.7	+0.4
KNZ	Kokohu	1.50	160	PN	Pn	21 10 11.9	+0.3
KNZ				SN	Sn	21 10 32.9	-1.3
BKZ	Black Stump Fm	1.60	194	PN	Pn	21 10 12.9	+0.2
BKZ				SN	Sn	21 10 36.5	+0.4
WNVZ	Wahianoa	2.03	212	PN	Pn	21 10 18.0	+0.4
MOVZ	Moawhango	2.04	208	PN	Pn	21 10 17.5	-0.2
PXZ	Pawanui	2.41	183	PN	Pn	21 10 22.0	-0.2
WAZ	Wanganui	2.66	216	PN	Pn	21 10 25.4	+0.3
BFZ	Birch Farm	3.12	191	PN	Pn	21 10 29.7	-1.2
MRZ	Mangatainoka R	3.24	200	PN	Pn	21 10 31.0	-1.5
KIW	Kapiti Island	3.63	206	PN	Pn	21 10 35.5	-1.9
MTW	Mount Morrison	3.72	198	PN	Pn	21 10 36.4	-2.3
CAW	Cannon Point	3.80	203	PN	Pn	21 10 37.4	-2.3
TRWZ	Traveller	3.91	195	PN	Pn	21 10 39.2	-2.0

MAN 06 21:29:59, 775N×12522E, h33^{km}, mb4.3, ML3.2, MS3.0, 2C, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUKP	Musuan	0.20	309	*e*P	Pb	21 30 07.1	+1.5
KCP	Kidapawan	0.75	190	⇑*e*P	Pn	21 30 14.3	+1.1
KCP				*i* S	Sn	21 30 24.4	+0.9
CGP	Cagayan de Oro	0.87	323	⇑*i*P	Pn	21 30 15.7	+0.8
CGP				*i* S	Sn	21 30 27.2	+0.7
PAGZ	Pagadian	1.82	273	*e*P	Pn	21 30 29.0	+0.9

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*BJI **06** 21:38:55.5, 27.85N×87.78E, h47^{km}, mB4.6, mb4.4, Ms4.1, Msz3.8*

*MOS **06** 21:38:57.2±0.7, 27.88N×87.59E, h57^{km}, mb4.6/10, Error ellipse: s-maj=15.9km s-min=8.7km az=80.7*

*NEIC **06** 21:38:59.3±0.9, 27.91N×87.62E, h59^{km}±10^{km}, mb4.3/5, Error ellipse: s-maj=8.7km s-min=7.5km az=111.0*

*ISCJB **06** 21:39:00.4±0.4, 27.94N±0.05×87.82E±0.04, h85^{km}±5^{km}, mb4.1/20, Error ellipse: s-maj=8.4km s-min=5.2km az=1.9*

*DMN **06** 21:39:02.0±0.6, 27.86N×87.65E, h55^{km}, Ml4.8/6, Error ellipse: s-maj=14.1km s-min=5.0km az=43.0*

*IDC **06** 21:39:02.6±3.5, 27.96N×87.75E, h90^{km}±32^{km}, mb3.7/11, mb1 3.8/12, mb1mx3.6/21, mbtmp3.7/12, Error ellipse: s-maj=26.0km s-min=12.2km az=64.0*

ISC 06 21:39:01.3±0.4, 2797N±005×8783E±004, h76^{km}±5^{km}, n68, σ0^{s}91/81, mb4.1/20, 2C, Nepal

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAPN	Taplejung	0.63	190	*e*Pg	Pn	21 39 15.7	-0.2
TAPN				*e*Sg	Sn	21 39 26.1	-0.6
	9µm,0.5s						
ODAN	Odare	1.17	199	*e*Pg	Pn	21 39 22.4	+0.1
ODAN				*e*Sg	Sn	21 39 37.4	-0.5
	7µm,0.4s						
JIRN	Jiri	1.48	258	*e*Pg	Pn	21 39 27.2	+1.0
JIRN				*e*Sg	Sn	21 39 45.8	+0.8
	3µm,0.4s						
GUN	Gumba	1.72	269	*e*Pn	Pn	21 39 30.4	+1.0
PKI	Pulchoki	2.18	260	*e*Pn	Pn	21 39 36.0	+0.5
KKN	Kakani	2.26	266	*e*Pn	Pn	21 39 37.5	+0.9
KKN				*e*Sn	Sn	21 40 04.2	+0.6
	2µm,0.3s						
DMN	Daman	2.44	262	*e*Pn	Pn	21 39 39.3	+0.3
DMN				*e*Sn	Sn	21 40 07.1	-0.7
	1µm,0.7s						
GKN	Gorkha	2.82	271	*e*Pn	Pn	21 39 44.3	+0.1
GKN				*e*Sn	Sn	21 40 17.4	+0.3
	2µm,0.5s						
LSA	Lhasa	3.39	59	P	Pn	21 39 52.8	+1.0
LSA	Lhasa	3.39	59	*e*Pn	Pn	21 39 52.6	+0.8
LSA	Lhasa	3.39	59	*e*P	Pn	21 39 52.6	+0.8
KOLN	Koldanda	3.75	268	*e*Pn	Pn	21 39 56.3	-0.5
KOLN				*e*Sn	Sn	21 40 38.3	-1.4
	466nm,0.3s						
HYB	Hyderabad	13.54	221	*e*P	Pn	21 42 05.5	-4.6
HYB				*e*S	Sn	21 44 24.0	-15
HYB	Hyderabad	13.54	221	*i* P	Pn	21 42 05.5	-4.6
HYB				*e*S	Sn	21 44 37.0	-2.0
CHCP	Chirah Chowk	13.73	298	P	Pn	21 42 08.2	-4.4
CD2	Chengdu	14.19	74	*e*P	Pn	21 42 16.1	-2.5
CD2				PP		21 42 29.5	
CD2				S	Sn	21 44 53.1	-1.5
CD2				SS		21 45 12.1	
CD2				AMB	AMB		
	comp=Z,10.0nm,1.0s						
CD2				AMB	AMB		
	comp=Z,30nm,4.2s						
CD2				LR	LR		
	comp=N,100nm,8.4s						
CD2				LR	LR		
	comp=Z,100nm,9.6s						
CEP	Cherat	14.85	297	P	Pn	21 42 22.1	-5.1
CEP				S	Sn	21 44 57.0	-14
GTA	Gaotai	15.14	38	*e*P	Pn	21 42 26.9	-3.9
DRP	Derazinda	15.75	288	P	Pn	21 42 33.9	-4.7
LZH	Lanzhou	15.80	55	*e*P	Pn	21 42 41.5	+2.3
LZH				AP	pP	21 42 50.5	-6.2
LZH				XP	sP	21 42 53.9	-12
LZH				AMB	AMB		
	comp=Z,32nm,1.3s						
LZH	Lanzhou	15.80	55	*e*P	Pn	21 42 41.5	+2.3
	comp=Z,32nm,1.3s						
LZH				pP	pP	21 42 50.5	-6.2
LZH				sP	sP	21 42 53.9	-12
KBL	Kabul	17.33	297	*e*P	Pn	21 42 54.5	-3.8
KBL				*e*S	S	21 45 49.4	-26
XAN	Xi’an	19.05	66	P	Pn	21 43 15.6	-3.4
XAN				AMB	AMB		
	comp=Z,12nm,1.0s						
MK31	Makanchi Array	19.29	348	*e*P	Pn	21 43 19.7	-1.9
MKAR	Makanchi Array	19.29	348	P	Pn	21 43 19.5	-2.1
MKAR	Makanchi Array	19.29	348	P	Pn	21 43 19.5	-2.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MKAR	Makanchi Array	19.29	348	P	Pn	21 43 19.5	-2.1
	comp=Z,0.5nm,0.3s,baz=184,slow=9.2,SNR=21						
PALK	Pallekele	21.66	199	*e*P	P	21 43 46.4	+0.6
	comp=Z,4.8nm,0.8s,mb3.9						
QIZ	Qiongzhong	22.04	109	*e*P	P	21 43 51.3	+1.6
QIZ				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb3.9						
QIZ				LR	LR		
	comp=N,389nm,13.6s						
QIZ				LR	LR		
	comp=E,164nm,14.3s						
QIZ				LR	LR		
	comp=Z,221nm,13.7s						
KURK	Kurchatov	23.77	345	*e*P	P	21 44 06.8	+0.2
	comp=Z,18nm,1.0s,mb4.3						
KURK	Kurchatov	23.77	345	*e*P	P	21 44 06.8	+0.2
KURK				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.3						
SONM	Songino Array	24.54	31	P	P	21 44 14.5	+0.8
SONM				pmax	pmax		
	comp=Z,11nm,0.6s						
SONM	Songino Array	24.54	31	P	P	21 44 14.5	+0.8
	comp=Z,11nm,0.6s,mb4.5,baz=220,slow=10.0,SNR=143						
ULN	Ulaanbaatar	24.87	32	*e*P	P	21 44 17.0	+0.3
	comp=Z,13nm,0.8s,mb4.4						
ULN	Ulaanbaatar	24.87	32	*e*P	P	21 44 17.0	+0.3
ULN				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.4						
ZAK	Zakamensk	25.29	24	⇑*i*P	P	21 44 21.1	+0.7
ZAK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.8						
MOY	Mondy	25.66	19	*e*P	P	21 44 25.0	+1.2
ZAL	Zalesovo	26.04	356	P	P	21 44 27.2	0.0
ZAL				*PP	pP	21 44 47.9	+3.1
ZAL				S	S	21 48 52.5	0.0
ZALV	Zalesovo Beam	26.05	356	P	P	21 44 27.2	-0.1
	comp=Z,2.4nm,0.3s,mb4.1,baz=182,slow=9.1,SNR=29						
ZALV				pP	pP	21 44 47.9	+3.0
	comp=Z,3.4nm,0.8s,baz=170,slow=9.0,SNR=4.8						
ZALV				S	S	21 48 52.4	-0.2
	comp=Z,0.4nm,0.6s,baz=186,slow=13,SNR=2.9						
BRVK	Borovoye	28.23	337	*e*P	P	21 44 47.2	+0.3
	comp=Z,2.1nm,0.6s,mb3.8						
BRVK	Borovoye	28.23	337	*e*P	P	21 44 47.2	+0.3
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.8						
CN2	Changchun	34.00	52	*e*P	P	21 45 37.9	+0.2
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
BOD	Bodaibo	35.02	24	⇑*i*P	P	21 45 46.7	+0.4
BOD				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
ARU	Arti	35.26	332	*e*P	P	21 45 48.7	+0.3
ARU	Arti	35.26	332	*e*P	P	21 45 48.7	+0.3
JOF	Joensuu	50.34	330	*e*p	P	21 47 50.1	-0.1
	comp=Z,2.6nm,0.5s,mb4.4						
JOF	Joensuu	50.34	330	*e*P	P	21 47 50.1	-0.1
JOF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
FINES	FINESS Array B	52.39	328	P	P	21 48 05.3	-0.1
FINES	FINESS Array B	52.39	328	P	P	21 48 05.3	-0.1
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
FINES	FINESS Array B	52.39	328	P	P	21 48 05.3	-0.1
	comp=Z,1.6nm,0.5s,mb4.3,baz=111,slow=7.5,SNR=13						
ARCES	ARCESS Array B	54.46	337	P	P	21 48 20.7	+0.2
ARCES	ARCESS Array B	54.46	337	P	P	21 48 20.7	+0.2
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ARCES	ARCESS Array B	54.46	337	P	P	21 48 20.7	+0.2
	comp=Z,1.3nm,0.6s,mb4.1,baz=103,slow=7.4,SNR=15						
GERES	GERESS Array B	59.33	312	P	P	21 48 54.8	-0.5
	comp=Z,0.2nm,0.5s,mb3.4,baz=62,slow=6.2,SNR=3.5						
NOA	NORSAR Array B	59.52	327	P	P	21 48 55.7	-0.7
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	NORSAR Array B	59.52	327	P	P	21 48 55.7	-0.7
	comp=Z,0.6nm,0.5s,mb3.9,baz=87,slow=6.7,SNR=2.9						
WRA	Warramunga Arr	65.51	131	P	P	21 49 37.1	+0.3

WRA				pmax	pmax		
	comp=Z,2.0nm,0.4s						
WRA	**Warramunga Arr**	65.51	131	P	P	21 49 37.1	+0.2
	comp=Z,2.2nm,0.4s,mb4.3,baz=326,slow=6.6,SNR=63						
ASAR	**Alice Springs**	67.89	135	P	P	21 49 52.4	+0.5
ASAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ASAR	**Alice Springs**	67.89	135	P	P	21 49 52.4	+0.4
	comp=Z,2.7nm,0.6s,mb4.2,baz=314,slow=6.3,SNR=30						
RES	**Resolute Bay**	77.59	1	*e*P	P	21 50 48.6	0.0
	comp=Z,31nm,0.4s						
RES	**Resolute Bay**	77.59	1	*e*P	P	21 50 48.6	0.0
RES				pmax	pmax		
	comp=Z,31nm,0.4s						
STKA	**Stephens Creek**	78.49	136	P	P	21 50 53.6	-0.6
	comp=Z,1.4nm,0.7s,mb3.8,baz=326,slow=7.3,SNR=3.3						
INK	**Inuvik**	79.27	14	*e*P	P	21 50 58.3	+0.3
	comp=Z,120nm,0.8s						
INK	**Inuvik**	79.27	14	*e*P	P	21 50 58.3	+0.3
INK				pmax	pmax		
	comp=Z,120nm,0.8s						
TORD	**Torodi Ar. Bea**	80.59	280	P	P	21 51 05.5	-0.5
	comp=Z,0.3nm,0.8s,mb3.2,baz=65,slow=3.8,SNR=3.9						
YKA	**Yellowknife Ar**	88.08	10	P	P	21 51 42.3	-0.7
YKA	**Yellowknife Ar**	88.08	10	P	P	21 51 42.3	-0.7
	comp=Z,0.3nm,0.7s,mb3.4,baz=336,slow=4.9,SNR=4.5						

NIED ***06*** *21:45:00, 21.30N×122.20E, h35^{km}, Mw4.4 Best double couple: M$_0$4.43000×10^{15} NP1:ϕ_s68.00000°, δ27.00000°, λ-147.00000°. NP2:ϕ_s309.00000°, δ76.00000°, λ-67.00000°.*

IDC ***06*** *21:45:14.6±0.7, 20.88N×121.71E, h0^{km}, mb4.1/12, mb1 4.2/13, mb1mx4.1/21, mbtmp4.1/13, ML3.6/1, MS3.5/8, Ms1 3.5/8, ms1mx3.3/30, Error ellipse: s-maj=28.4km s-min=15.6km az=71.0*

JMA ***06*** *21:45:17.7±0.6, 21.32N×122.15E, h0^{km}, M3.9*

ISCJB ***06*** *21:45:17.7±0.8, 21.09N±0.03×122.09E±0.05, h31^{km}±7^{km}, mb4.2/21, MS3.5/5, Error ellipse: s-maj=7.9km s-min=3.9km az=28.8*

MAN ***06*** *21:45:18, 20.89N×122.33E, h15^{km}, mb5.1, ML4.0, MS4.2*

BJI ***06*** *21:45:19.3, 20.89N×121.73E, h31^{km}, mB4.6, mb4.3, ML4.0, Ms4.0, Msz3.9*

NEIC ***06*** *21:45:20.1±0.7, 20.90N×121.81E, h35^{km}, mb4.4/9, Error ellipse: s-maj=15.8km s-min=11.8km az=77.0*

ISC 06 21:45:18.0±1.0, **21.08N**±0.03×**122.12E**±0.05, **h19**^{km}±7^{km}, **n55**, σ1^{s}**06**/63, **mb4.2**/21, **MS3.5**/5, **1C, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBP	**Basco**	0.65	193⇑	*i*P	Pg	21 45 29.6	-1.3
BBP				*i* S	Sg	21 45 38.8	-0.7
SGCP	**Mt. Cagua**	2.82	181	*e*P	Pn	21 46 04.8	+2.6
HATJ	**Hateruma jima**	3.35	27	P	Pn	21 46 09.5	+0.1
HATJ				*e*S	Sn	21 46 47.7	-1.0
CVP	**Callao Caves**	3.37	185	*e*P	Pn	21 46 09.8	+0.1
CVP				*e*S	Sn	21 46 49.5	+0.3
YOJ	**Yonaguni jima**	3.47	14	P	Pn	21 46 11.0	-0.1
YOJ				*e*S	Sn	21 46 52.2	+0.5
IRIF	**Iriomote-Funau**	3.57	24	P	Pn	21 46 12.7	+0.3
IRIF				*e*S	Sn	21 46 52.9	-1.2
JKRS	**Kuro-shima**	3.60	29	P	Pn	21 46 13.4	+0.5
JKRS				*e*S	Sn	21 46 53.9	-1.0
JIJ	**Ishigaki jima**	3.77	29	P	Pn	21 46 15.1	-0.1
JIJ				*e*S	Sn	21 46 57.6	-1.4
TATO	**Taipei**	3.92	352	*e*Pn	Pn	21 46 17.6	+0.2
JTJ	**Tarama**	4.27	33	P	Pn	21 46 24.0	+1.9
JTJ				*e*S	Sn	21 47 10.6	-0.9
JOGS	**Gusukube**	4.75	39	*e*S	Sn	21 47 24.9	+1.5
BOLP	**Bolinao**	5.12	205	*e*P	Pn	21 46 35.3	+1.5
BALP	**Baler**	5.33	186	*e*P	Pn	21 46 36.7	0.0
JOW	**Kunigami**	8.03	43	Pn	Pn	21 47 14.3	+0.5
JOW	**Kunigami**	8.03	43	Pn	Pn	21 47 14.3	+0.5
	2.3nm,0.3s,baz=199,slow=9.7,SNR=23						
GZH	**Guangzhou**	8.38	285	P	Pn	21 47 14.4	-4.2
GZH				S	Sn	21 48 42.4	-10
GZH				LR	LR		
	comp=N,327nm,13.7s						
GZH				LR	LR		
	comp=E,464nm,13.1s						
GZH				LR	LR		
	comp=Z,745nm,16.2s						
NJ2	**Nanjing**	11.31	346	*e*P	Pn	21 48 03.5	+4.7
NJ2				AP		21 48 10.8	
NJ2				XP		21 48 14.9	
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s						
NJ2				AMB	AMB		
	comp=Z,140nm,5.2s						
NJ2				LR	LR		
	comp=N,910nm,17.0s						
NJ2				LR	LR		
	comp=E,510nm,13.3s						
NJ2				LR	LR		
	comp=Z,940nm,14.0s						
QIZ	**Qiongzhong**	11.72	262	*e*P	Pn	21 47 59.4	-5.0
QIZ				S	Sn	21 50 14.6	-0.1
QIZ				LR	LR		
	comp=N,359nm,14.9s						
QIZ				LR	LR		
	comp=E,206nm,14.1s						
QIZ				LR	LR		
	comp=Z,370nm,12.9s						
QIZ	**Qiongzhong**	11.72	262	*e*Pn	Pn	21 47 58.2	-6.1
JNU	**Nakatsue**	14.30	31	LR	LR	21 54 20.4	
	comp=Z,208nm,18.7s,baz=18,slow=37						
KSRS	**Korea Array**	17.08	16	P	Pn	21 49 17.1	+1.3
	comp=Z,0.2nm,0.3s,baz=199,slow=12,SNR=12						
KSRS				LR	LR	21 57 16.6	
	comp=Z,121nm,18.4s,baz=186,slow=42						
CD2	**Chengdu**	19.17	304	*e*P	Pn	21 49 41.4	-0.1
CD2				AP	pP	21 49 49.3	+3.5
CD2				XP	sP	21 49 53.9	+5.7
CD2				PP		21 49 58.2	
CD2				S	Sn	21 53 08.4	-7.5
CD2				XS	sS	21 53 21.0	-4.6
CD2				SS		21 53 34.0	
CD2				AMB	AMB		
	comp=Z,20nm,0.8s						
CD2				AMB	AMB		
	comp=Z,40nm,4.4s						
CD2				LR	LR		
	comp=N,300nm,12.0s						
CD2				LR	LR		
	comp=E,760nm,12.0s						
CD2				LR	LR		
	comp=Z,340nm,13.2s						
CBIJ	**Chichi jima**	19.26	68	LR	LR	21 55 55.5	
	comp=Z,71nm,21.2s,baz=266,slow=32						
BJT	**Baijiatuau**	19.55	346	*e*P	Pn	21 49 50.0	+4.0
	comp=Z,8.3nm,0.6s						
BJI	**Beijing**	19.57	346	P	Pn	21 49 45.6	-0.7
BJI				S	Sn	21 53 31.3	+5.8
BJI				AMB	AMB		
	comp=Z,5.0nm,0.9s						
BJI				LR	LR		
	comp=N,211nm,13.7s						
BJI				LR	LR		
	comp=E,168nm,14.2s						
BJI				LR	LR		
	comp=Z,121nm,19.1s						
MJAR	**Matsushiro Arr**	20.84	39	P	P	21 50 03.0	+4.4
	comp=Z,2.8nm,0.8s,baz=243,slow=10,SNR=4.6						
LZH	**Lanzhou**	21.88	317	*e*P	P	21 50 11.9	+2.0
LZH				AP		21 50 16.2	
LZH				XP	sP	21 50 19.1	+1.5
LZH				AMB	AMB		
	comp=Z,23nm,1.2s,mb4.5						
LZH	**Lanzhou**	21.88	317	*e*P	P	21 50 11.9	+2.0
	comp=Z,23nm,1.2s,mb4.5						
LZH				pP		21 50 16.2	
LZH				sP	sP	21 50 19.1	+1.5
MDJ	**Mudanjiang**	24.28	13	P	P	21 50 36.2	+2.1
MDJ				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.1						
MDJ				AMB	AMB		
	comp=Z,40nm,3.8s						
MDJ	**Mudanjiang**	24.28	13	*e*P	P	21 50 37.0	+2.9
	comp=Z,13nm,1.1s,mb4.3						
GTA	**Gaotai**	26.44	319	*e*P	P	21 50 54.9	+1.1
GTA				AP	pP	21 51 00.9	+1.5
GTA				XP	sP	21 51 03.7	+2.0
GTA				AMB	AMB		
	comp=Z,3.0nm,0.9s,mb3.8						
ASAJ	**Asahikawa**	28.58	32	P	P	21 51 16.6	+3.7
	comp=Z,6.0nm,0.7s,mb4.4,baz=238,slow=28,SNR=5.1						
ASAJ				LR	LR	22 03 12.6	
	comp=Z,114nm,18.6s,MS3.5,baz=168,slow=37						
PSI	**Prapat**	28.98	234	LR	LR	22 02 06.1	
	comp=Z,113nm,18.0s,MS3.5,baz=239,slow=35						
LSA	**Lhasa**	29.20	293	*e*P	P	21 51 19.1	+0.5
	comp=Z,1.8nm,0.6s,mb4.0						
ULN	**Ulaanbaatar**	29.36	339	*e*P	P	21 51 19.5	-0.3
	comp=Z,6.6nm,0.9s,mb4.4						
ULN				*e*		21 51 29.4	
SONM	**Songino Array**	29.56	338	P	P	21 51 21.0	-0.6
	comp=Z,3.3nm,0.8s,mb4.1,baz=158,slow=11,SNR=34						
TLY	**Talaya**	33.77	339	*e*P	P	21 51 58.4	-0.2
	comp=Z,3.1nm,0.8s,mb4.3						
MK31	**Makanchi Array**	41.19	318	*e*P	P	21 53 02.0	+0.5
MKAR	**Makanchi Array**	41.19	318	P	P	21 53 01.9	+0.5
MKAR				LR	LR	22 11 29.4	
MKAR	**Makanchi Array**	41.19	318	P	P	21 53 01.9	+0.5
	comp=Z,2.2nm,0.5s,mb4.0,baz=111,slow=9.3,SNR=33						
MKAR				LR	LR	22 11 29.4	
	comp=Z,39nm,18.1s,MS3.3,baz=306,slow=38						
WRA	**Warramunga Arr**	42.48	163	P	P	21 53 10.4	-1.9
	comp=Z,1.2nm,0.9s,mb3.5,baz=342,slow=9.0,SNR=7.8						
ZALV	**Zalesovo Beam**	43.33	329	P	P	21 53 18.4	-0.4
	comp=Z,8.1nm,0.8s,mb4.5,baz=114,slow=7.2,SNR=44						
ZALV				LR	LR	22 12 48.6	
	comp=Z,23nm,19.1s,MS3.1,baz=60,slow=38						
KURK	**Kurchatov**	45.04	322	*e*P	P	21 53 31.6	-0.9
	comp=Z,3.6nm,0.8s,mb4.2						
ASAR	**Alice Springs**	45.93	165	P	P	21 53 40.2	+0.4
	comp=Z,0.7nm,0.6s,mb3.8,baz=350,slow=9.3,SNR=7.5						
BRVK	**Borovoye**	50.70	322	*e*P	P	21 54 16.5	+0.2
	comp=Z,5.1nm,1.0s,mb4.4						
STKA	**Stephens Creek**	55.86	160	*e*P	P	21 54 53.4	-1.1
STKA	**Stephens Creek**	55.86	160	P	P	21 54 52.9	-1.6
	comp=Z,3.2nm,0.8s,mb4.4,baz=315,slow=8.4,SNR=5.0						
ARU	**Arti**	58.11	324	*e*P	P	21 55 09.8	-0.4
	comp=Z,6.2nm,0.9s,mb4.6						
ARU				*e*		21 55 17.3	
FINES	**FINESS Array B**	74.56	330	P	P	21 56 53.2	-2.2
	comp=Z,2.3nm,0.8s,mb4.2,baz=161,slow=18,SNR=5.7						
BRTR	**Keskin Array B**	75.72	307	P	P	21 57 01.3	-1.3
	comp=Z,0.8nm,0.9s,mb3.7,baz=60,slow=8.5,SNR=3.3						
AKASG	**Malin Array Be**	75.77	319	P	P	21 57 01.3	-1.3
	comp=Z,1.9nm,0.8s,mb4.1,baz=60,slow=5.6,SNR=6.4						
INK	**Inuvik**	75.77	22	P	P	21 57 02.4	+0.1
	comp=Z,165nm,1.3s						
SIT	**Sitka**	79.13	33	P	P	21 57 25.4	+4.0
	comp=Z,55nm,1.2s,mb5.4						
NOA	**NORSAR Array B**	81.37	333	LR	LR	22 37 24.1	
	comp=Z,104nm,18.1s,MS4.2,baz=0.0,slow=38						
YKA	**Yellowknife Ar**	85.48	23	P	P	21 57 55.5	+1.0
	comp=Z,2.1nm,0.8s,mb4.3,baz=312,slow=4.7,SNR=32						

SZGRF ***06*** *22:07:25.3, 23.45S×179.19W, h33^{km}, South of Fiji Islands*

MOS ***06*** *22:08:29.6±3.0, 21.54S×179.72W, h538^{km}, mb4.8/7, Error ellipse: s-maj=11.5km s-min=10.4km az=176.2*

ISCJB ***06*** *22:08:29.5±0.7, 21.87S±0.07×179.49W±0.05, h578^{km}±10^{km}, mb4.6/40, Error ellipse: s-maj=11.6km s-min=6.2km az=152.7*

NEIC ***06*** *22:08:30.7±0.6, 21.86S×179.47W, h581^{km}±7^{km}, mb4.7/27, Error ellipse: s-maj=9.1km s-min=4.9km az=160.0*

IDC ***06*** *22:08:30.6±1.2, 21.93S×179.39W, h586^{km}±12^{km}, mb4.0/8, mb1 4.1/11, mb1mx3.9/17, mbtmp3.9/11, Error ellipse: s-maj=21.4km s-min=13.3km az=155.0*

BJI ***06*** *22:08:31.5, 21.28S×179.17W, h589^{km}, mB5.2, mb4.7*

ISC 06 22:08:30.6±0.8, **21.88S**±0.08×**179.47W**±0.05, **h578**^{km}±10^{km}, **n255**, σ0^{s}**78**/95, **mb4.6**/40, **25C-30D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	7.48	169	P	P	22 10 23.8	-0.2
	375nm,0.3s,baz=66,slow=21,SNR=6.0						
AFI	**Afiamalu**	10.79	44	P	P	22 10 55.9	-1.1
	4.7nm,0.3s,baz=151,slow=22,SNR=6.5						
AFI				S	S	22 12 53.1	-4.2
	4.2nm,0.3s,baz=37,slow=22,SNR=5.5						
DZM	**Mont Dzumac**	13.07	267	P	P	22 11 21.1	+1.0
	3.7nm,0.3s,baz=80,slow=18,SNR=19						
DZM				ScP	ScP	22 18 43.0	+0.4
	0.1nm,0.3s,baz=43,slow=17,SNR=5.9						
URZ	**Urewera**	16.59	189	P	P	22 11 52.8	-1.3
	1.4nm,0.3s,baz=312,slow=5.8,SNR=5.6						
URZ				S	S	22 14 31.2	-8.8
	0.7nm,0.3s,baz=24,slow=20,SNR=4.0						
SNZO	**South Karori**	19.99	193	*e*P	P	22 12 30.9	+5.9
EIDS	**Eidsvold**	27.18	257	*e*P	P	22 13 29.5	+0.4
ARMA	**Armidale**	27.24	246⇓	*i*P	P	22 13 31.2	+1.6
PAE	**Paea**	28.42	87	*e*P	P	22 13 40.4	+0.4
	116nm,1.5s,mb5.3						
PAE	**Paea**	28.42	87	*e*P	P	22 13 40.4	+0.4
PAE				pmax	pmax		
	comp=Z,116nm,1.5s,mb5.3						
TVO	**Taravao**	28.70	87	*e*P	P	22 13 42.7	+0.3
	comp=Z,52nm,0.7s,mb5.3						
TVO	**Taravao**	28.70	87	*e*P	P	22 13 42.7	+0.3
TVO				pmax	pmax		
	comp=Z,52nm,0.7s,mb5.3						
CNB	**Canberra Magne**	30.32	237	*e*P	P	22 13 57.4	+1.2
	comp=Z,32nm,0.6s,mb5.1						
PMOR	**Pomariorio Ree**	30.69	83	*e*P	P	22 14 00.0	+0.4
	comp=Z,61nm,1.1s,mb5.1						
PMOR				*e*pP		22 15 31.3	
VAH	**Vaihoa**	30.86	83	*e*P	P	22 14 01.2	+0.1
	comp=Z,47nm,0.9s,mb5.1						
CTA	**Charters Tower**	32.01	267⇓	*i*P	P	22 14 11.5	+0.6
	comp=Z,32nm,0.5s,mb5.2						
CTA	**Charters Tower**	32.01	267⇓	*i*P	P	22 14 11.5	+0.6
CTA				pmax	pmax		
	comp=Z,32nm,0.5s						
CTAO	**Charters Tower**	32.01	267	*e*P	P	22 14 11.4	+0.6
	comp=Z,34nm,0.4s,mb5.3						
CTAO	**Charters Tower**	32.01	267	*e*P	P	22 14 11.4	+0.5
CTAO				pmax	pmax		
	comp=Z,34nm,0.4s,mb5.3						
TOO	**Toolangi**	33.98	235⇓	*i*P	P	22 14 27.8	+0.6
	comp=Z,13nm,0.5s,mb4.8						
TOO	**Toolangi**	33.98	235⇓	*i*P	P	22 14 27.8	+0.6
TOO				pmax	pmax		
	comp=Z,13nm,0.5s,mb4.8						
PMG	**Port Moresby**	34.35	286	*e*P	P	22 14 31.0	+0.4
	comp=Z,46nm,0.6s,mb5.3						
PMG	**Port Moresby**	34.35	286	*e*P	P	22 14 31.0	+0.4
PMG				pmax	pmax		
	comp=Z,46nm,0.6s						
PMG	**Port Moresby**	34.35	286	P	P	22 14 31.0	+0.4
	comp=Z,62nm,0.7s,mb5.3,baz=87,slow=6.4,SNR=12						
TAU	**Tasmania Unive**	34.69	225	*e*P	P	22 14 33.1	+0.2
	comp=Z,3.8nm,0.6s,mb4.2						
TAU	**Tasmania Unive**	34.69	225	*e*P	P	22 14 33.1	+0.1
TAU				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.2						
STKA	**Stephens Creek**	35.96	246⇓	*i*P	P	22 14 44.4	+0.7
	comp=Z,16nm,0.4s,mb4.9						
STKA	**Stephens Creek**	35.96	246	P	P	22 14 44.4	+0.7
	comp=Z,24nm,0.5s,mb5.0,baz=91,slow=9.8,SNR=83						
ASAR	**Alice Springs**	42.88	258	P	P	22 15 39.3	0.0
ASAR						22 17 16.5	
ASAR				S	S	22 21 19.8	-3.2
ASAR	**Alice Springs**	42.88	258	P	P	22 15 39.2	0.0
	comp=Z,51nm,0.8s,mb5.1,baz=100,slow=8.1,SNR=479						
ASAR				PcP	PcP	22 17 16.5	-0.3
	comp=Z,5.3nm,0.8s,baz=110,slow=3.1,SNR=6.4						
ASAR				ScP	ScP	22 20 13.4	0.0
	comp=Z,3.8nm,1.2s,baz=94,slow=4.4,SNR=5.5						
ASAR				S	S	22 21 19.8	-3.2
	comp=Z,4.2nm,1.0s,baz=96,slow=15,SNR=14						
WB2	**Warramunga Arr**	43.06	264	*e*P	P	22 15 40.0	-0.7
WB2				*e*	pP	22 17 24.0	+1.5
WRA	**Warramunga Arr**	43.07	264	P	P	22 15 40.1	-0.7
	comp=Z,38nm,0.8s,mb5.0,baz=100,slow=7.5,SNR=305						
WRA				ScP	ScP	22 20 13.9	-0.3
	comp=Z,4.3nm,1.0s,baz=97,slow=4.2,SNR=7.6						
WRA				S	S	22 21 21.4	-4.3
	comp=Z,1.3nm,0.9s,baz=97,slow=11,SNR=2.8						
KAKA	**Kakadu**	46.65	273	*e*P	P	22 16 07.6	-0.7
	comp=Z,38nm,0.3s,mb5.4						
FORT	**Forrest**	47.50	248⇓	*i*P	P	22 16 13.6	-0.8
	comp=Z,54nm,0.6s,mb5.2						
GUMO	**Guam**	49.66	312	P	P	22 16 30.0	-0.5
MIDW	**Midway**	49.84	2	P	P	22 16 31.9	+0.3
FITZ	**Fitzroy Crossi**	51.50	264⇓	*i*P	P	22 16 43.6	-0.3
	comp=Z,17nm,0.9s,mb4.5						
KLBR	**Kellerberrin**	56.24	246	*e*P	P	22 17 16.2	-0.9
	comp=Z,22nm,0.8s,mb4.4						
NWAO	**Narrogin (SRO)**	56.53	244	*e*P	P	22 17 18.4	-0.7
	comp=Z,9.1nm,0.7s,mb4.1						
NWAO	**Narrogin (SRO)**	56.53	244	*e*P	P	22 17 18.4	-0.7
NWAO				pmax	pmax		
	comp=Z,9.0nm,0.7s						
MUN	**Mundaring**	57.50	245	*e*P	P	22 17 25.2	-0.5
CASY	**Casey**	62.14	205	P	P	22 17 55.4	-0.4
MJAR	**Matsushiro Arr**	70.52	325	P	P	22 18 47.7	-0.3
	comp=Z,10.0nm,0.9s,mb4.3,baz=159,slow=5.8,SNR=19						
MAJO	**Matsushiro**	70.52	325	*e*P	P	22 18 46.6	-1.4
	comp=Z,9.5nm,0.9s,mb4.3						
MAJO	**Matsushiro**	70.52	325	*e*P	P	22 18 46.6	-1.4
MAJO				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.3						
MAT	**Matsushiro**	70.52	325	P	P	22 18 47.8	-0.2
TATO	**Taipei**	73.85	306	*e*P	P	22 19 08.5	+1.0
YSS	**Yuzh-Sakhalins**	76.52	334	*e*P	P	22 19 19.8	-2.0
KSRS	**Korea Array**	77.02	320	P	P	22 19 25.5	+0.7
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
KSRS	**Korea Array**	77.02	320	P	P	22 19 25.4	+0.7
	comp=Z,1.6nm,0.6s,mb3.6,baz=142,slow=6.5,SNR=6.9						
NJ2	**Nanjing**	79.71	311	*e*P	P	22 19 39.9	+0.6
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.6						
COCO	**West Island**	79.78	261	P	P	22 19 38.9	-1.1
SAC	**San Andreas**	79.84	43	*e*P	P	22 19 38.8	-1.0
SAC				*e*PcP	PcP	22 19 44.3	-0.9
PMSA	**Palmer Station**	80.57	157	P	P	22 19 43.5	+0.3
MDJ	**Mudanjiang**	80.86	326	P	P	22 19 45.5	+0.6
MDJ				AMB	AMB		
	comp=Z,9.0nm,1.1s,mb4.1						
MDJ				AMB	AMB		
	comp=Z,49nm,4.4s						
MDJ	**Mudanjiang**	80.86	326	*e*P	P	22 19 44.2	-0.8
	comp=Z,3.8nm,0.4s,mb4.2						
HABR	**Khabarovsk**	80.97	331	*e*P	P	22 19 46.7	+1.3
HABR				*e*SS	SS	22 34 40.3	+0.9
CMB	**Columbia Colle**	81.40	43	P	P	22 19 48.2	+0.3
CN2	**Changchun**	82.56	323	*e*P	P	22 19 53.7	+0.1
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.3						
HUMO	**Hull Mountain**	82.62	38	*e*P	P	22 19 55.4	+1.5
	comp=Z,2.1nm,0.6s,mb3.8						
NVAR	**Mina Array Bea**	82.96	44	P	P	22 19 55.6	-0.2
	comp=Z,2.3nm,0.8s,mb3.8,baz=211,slow=6.3,SNR=12						
MOD	**Modoc**	83.75	40	*e*P	P	22 20 00.2	+0.6
	comp=Z,0.9nm,0.6s,mb3.5						
MA2	**Magadan**	84.75	345	*e*P	P	22 20 03.3	-0.7
MA2	**Magadan**	84.75	345	*e*P	P	22 20 03.7	-0.3
MA2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.5						
BJT	**Baijiatuau**	85.90	316	*e*P	P	22 20 10.4	+0.3
	comp=Z,5.3nm,0.5s,mb4.4						
BJT	**Baijiatuau**	85.90	316	*e*P	P	22 20 10.4	+0.3
BJT				pmax	pmax		
	comp=Z,5.0nm,0.5s						
BJI	**Beijing**	85.91	316	P	P	22 20 10.8	+0.7
BJI				AMB	AMB		
	comp=Z,9.0nm,0.6s,mb4.6						
SEY	**Seymchan**	87.40	348⇑	*e*P	P	22 20 16.5	-0.1
XAN	**Xi'an**	87.88	308	P	P	22 20 20.1	+0.6
XAN				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.6						
HLID	**Hailey**	88.26	41	*e*P	P	22 20 21.9	+0.9
	comp=Z,2.1nm,0.9s,mb3.9						
SPUT	**South Promonto**	88.31	44	*e*P	P	22 20 22.3	+1.0
MCK	**McKinley**	88.61	13	P	P	22 20 21.6	-0.5
MNTX	**Cornudas Mount**	88.66	55	*e*P	P	22 20 23.7	+0.5
	comp=Z,4.2nm,0.8s,mb4.3						
LTX	**Lajitas**	88.95	58	*e*P	P	22 20 23.8	-0.8
	comp=Z,2.1nm,0.9s,mb4.0						
LTX	**Lajitas**	88.95	58	*e*P	P	22 20 23.8	-0.8
LTX				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
TXAR	**Lajitas Array**	88.95	58	P	P	22 20 25.8	+1.2
TXAR	**Lajitas Array**	88.95	58	P	P	22 20 25.8	+1.2
	comp=Z,3.4nm,0.9s,mb4.2,baz=213,slow=6.1,SNR=24						
HWUT	**Hardware Ranch**	89.03	44	*e*P	P	22 20 25.1	+0.4
	comp=Z,2.8nm,0.4s,mb4.5						
ANMO	**Albuquerque**	89.33	52	*e*P	P	22 20 25.7	-0.5
CHTO	**Chiang Mai**	89.42	290	*e*P	P	22 20 28.1	+1.1
	comp=Z,16nm,1.0s,mb4.8						
CHTO	**Chiang Mai**	89.42	290	*e*P	P	22 20 28.1	+1.1
CHTO				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.8						
COLA	**College**	89.84	13	*e*P	P	22 20 26.4	-1.4
AHID	**Auburn Hatcher**	89.91	43	*e*P	P	22 20 28.0	-0.8
BILL	**Bilibino**	90.26	355	P	P	22 20 30.0	+0.2
BILL	**Bilibino**	90.26	355⇑	*e*P	P	22 20 29.7	0.0
BILL				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb4.3						
CHMT	**Chamberlain Mo**	90.74	39	*e*P	P	22 20 32.5	+0.1
BW06	**Boulder Array**	90.90	44	*e*P	P	22 20 33.3	0.0
SMCO	**Snowmass**	90.91	48	*e*P	P	22 20 33.6	+0.2
	comp=Z,1.6nm,0.3s,mb4.4						
SDCO	**Great Sand Dun**	91.29	50	*e*P	P	22 20 34.5	-0.7
	comp=Z,2.0nm,0.7s,mb4.2						
YAK	**Yakutsk**	92.88	339*c*	*i*P	P	22 20 41.3	-0.6
YAK				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.1						
ULN	**Ulaanbaatar**	95.50	320	*i* P	P	22 20 54.3	+0.1
LSA	**Lhasa**	100.01	298	Pdif	Pdif	22 21 14.8	+0.3
LPAZ	**La Paz**	102.79	113	Pdif	Pdif	22 21 26.4	-0.4
ZALV	**Zalesovo Beam**	110.69	321	PKPdf	PKiKP	22 25 55.5	-2.4
ZALV	**Zalesovo Beam**	110.69	321	PKiKP	PKiKP	22 25 55.5	-2.4
	comp=Z,0.8nm,0.6s,baz=360,slow=0.2,SNR=5.4						
ZAL	**Zalesovo**	110.70	321	PKIKP	PKiKP	22 25 55.5	-2.5
MKAR	**Makanchi Array**	111.14	313	Pdif	Pdif	22 22 07.5	+3.6
MKAR				PKPdf	PKiKP	22 25 55.9	-3.1
MKAR	**Makanchi Array**	111.14	313	Pdiff	Pdif	22 22 07.5	+3.6
	comp=Z,0.2nm,0.7s,baz=86,slow=5.2,SNR=3.8						
MKAR				PKiKP	PKiKP	22 25 55.9	-3.1
	comp=Z,0.4nm,0.5s,baz=111,slow=4.8,SNR=10						
KURK	**Kurchatov**	114.06	317	*e*PKiKP	PKiKP	22 26 02.5	-2.0
KURK	**Kurchatov**	114.06	317	*e*PKIKP	PKiKP	22 26 02.5	-2.0
AAK	**Ala-Archa**	116.06	308⇑	*i*PKIKP	PKPdf	22 26 07.3	-1.3
BRVK	**Borovoye**	119.30	320	*e*PKPdf	PKPdf	22 26 12.9	-1.6
BRVK	**Borovoye**	119.30	320	*e*PKIKP	PKPdf	22 26 12.9	-1.6
KBL	**Kabul**	119.33	298	*e*PKPdf	PKPdf	22 26 14.7	-0.5
ARU	**Arti**	125.53	325	*e*PKPdf	PKPdf	22 26 25.3	-1.0
ARU	**Arti**	125.53	325	*i* PKIKP	PKPdf	22 26 25.4	-1.0
ARU				*e*		22 28 26.6	
AKTK	**Aktyubinsk**	127.16	317	PKP	PKPdf	22 26 28.1	-1.5
AKTO	**Aktyubinsk**	127.16	317	PKIKP	PKPdf	22 26 28.1	-1.6
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKTO	**Aktyubinsk**	127.16	317	PKP	PKPdf	22 26 28.1	-1.5
	comp=Z,0.5nm,0.6s,baz=63,slow=1.0,SNR=5.2						
ARCES	**ARCESS Array B**	130.01	349	PKP	PKPdf	22 26 33.2	-1.4
ARCES	**ARCESS Array B**	130.01	349	PKIKP	PKPdf	22 26 33.2	-1.3
ARCES	**ARCESS Array B**	130.01	349	PKP	PKPdf	22 26 33.2	-1.4
	comp=Z,1.6nm,0.6s,baz=11,slow=1.2,SNR=9.5						
FINES	**FINESS Array B**	136.68	342	PKP		22 26 33.9	
FINES				PKP	PKPdf	22 26 47.5	+0.3
FINES				SKPbc	SKPbc	22 29 23.9	-2.2
FINES	**FINESS Array B**	136.68	342	PKHKP		22 26 33.9	
FINES						22 26 47.5	
FINES	**FINESS Array B**	136.68	342	PKhKP		22 26 33.9	
	comp=Z,0.7nm,0.7s,baz=200,slow=19,SNR=3.3						
FINES				PKP	PKPdf	22 26 47.5	+0.3
	comp=Z,0.8nm,0.4s,baz=120,slow=3.7,SNR=8.1						
FINES				SKPbc	SKPbc	22 29 23.9	-2.2
	comp=Z,0.7nm,0.7s,baz=95,slow=2.9,SNR=5.7						
OBN	**Obninsk**	137.28	330	*e*PKIKP	PKPdf	22 26 45.2	-3.3
OBN				pmax	pmax		
	comp=Z,2.0nm,0.8s						
KMBO	**Kilima Mbogo**	137.49	242	SKPbc	SKPbc	22 29 29.1	-1.0
	comp=Z,2.3nm,1.0s,baz=25,slow=16,SNR=4.1						
NB2	**NORSAR Subarra**	140.16	352	PKPa	PKPdf	22 26 46.1	-7.5
	comp=Z,0.7nm,0.6s,baz=9.5,slow=2.9						
NOA	**NORSAR Array B**	140.16	352	PKP	PKPdf	22 26 45.4	-8.3
NOA	**NORSAR Array B**	140.16	352	PKHKP		22 26 45.4	
NOA	**NORSAR Array B**	140.16	352	PKhKP		22 26 45.4	
	comp=Z,1.8nm,0.9s,baz=16,slow=4.7,SNR=4.2						
AKASG	**Malin Array Be**	143.51	329	PKP	PKPdf	22 26 57.2	-2.7
AKASG				SKPbc	SKPbc	22 29 41.8	-2.7
AKASG	**Malin Array Be**	143.51	329	PKHKP		22 26 57.2	
AKASG	**Malin Array Be**	143.51	329	PKP	PKPdf	22 26 57.2	-2.7
	comp=Z,6.0nm,0.4s,baz=41,slow=4.3,SNR=88						
AKASG				SKPbc	SKPbc	22 29 41.8	-2.7
	comp=Z,1.6nm,0.7s,baz=47,slow=2.1,SNR=7.5						

SUW	Suwalki	143.60	337	ePKP	PKPdf	22 26 58.0	-2.0
SUW	Suwalki	143.60	337	ePKP	PKPdf	22 26 58.0	-1.9
SUW	Suwalki	143.60	337	ePKHKP		22 26 58.0	
MALT	Malatya	143.64	305	ePKP	PKPdf	22 26 59.5	-1.1
MALT	Malatya	143.64	305	⇓PKHKP		22 26 59.6	
MALT	Malatya	143.64	305	⇓iP	PKPdf	22 26 59.6	-0.9
BRTR	Keskin Array B	146.70	310	PKP	PKPdf	22 27 02.6	-3.1
BRTR				PKPbc	PKPbc	22 27 07.8	-0.7
BRTR	Keskin Array B	146.70	310	PKHKP		22 27 02.6	
BRTR						22 27 07.8	
BRTR	Keskin Array B	146.70	310	PKP	PKPdf	22 27 02.6	-3.1
	comp=Z,0.9nm,0.8s,baz=260,slow=4.1,SNR=3.3						
BRTR				PKPbc	PKPbc	22 27 07.8	-0.7
	comp=Z,5.0nm,0.7s,baz=122,slow=4.2,SNR=30						
BSEG	Bad Segeberg	147.14	349	ePKPbc	PKPbc	22 27 09.1	0.0
BSEG				ePKPab	PKPab	22 27 12.3	-0.4
BSEG	Bad Segeberg	147.14	349	ePKIKP	PKPdf	22 27 09.1	+3.2
BSEG				e	PKPab	22 27 12.3	-0.4
BSEG	Bad Segeberg	147.14	349	ePKPbc	PKPbc	22 27 09.1	0.0
BSEG				ePKPab	PKPab	22 27 12.3	-0.4
KWP	Kalwaria	147.22	333	ePKP	PKPbc	22 27 09.1	-0.4
KWP	Kalwaria	147.22	333	ePKP	PKPbc	22 27 09.1	-0.4
KWP	Kalwaria	147.22	333	ePKIKP	PKPbc	22 27 09.1	-0.4
ANTO	Ankara	147.25	311	ePKP	PKPdf	22 27 09.2	+2.6
ANTO	Ankara	147.25	311	ePKIKP	PKPdf	22 27 09.2	+2.6
BURAR	Bucovina Array	147.54	328	⇓P	PKPbc	22 27 10.3	-0.1
BURAR	Bucovina Array	147.54	328	⇓PKIKP	PKPbc	22 27 10.3	-0.1
BURAR	Bucovina Array	147.54	328	⇓iP	PKPbc	22 27 10.3	-0.1
TIRR	Tirgusor	147.83	321	⇑PKIKP	PKPbc	22 27 11.1	-0.1
TIRR	Tirgusor	147.83	321	⇑iP	PKPbc	22 27 11.1	-0.1
OJC	Ojcow	147.90	336	ePKP	PKPbc	22 27 10.4	-0.8
OJC	Ojcow	147.90	336	ePKIKP	PKPbc	22 27 10.4	-0.8
KOLS	Kolonicke sedl	147.93	333	ePKP	PKPbc	22 27 11.6	+0.3
KOLS				e		22 27 16.2	
KOLS	Kolonicke sedl	147.93	333	ePKIKP	PKPbc	22 27 11.6	+0.3
KOLS				e		22 27 16.2	
KOLS	Kolonicke sedl	147.93	333	ePKP	PKPbc	22 27 11.6	+0.3
KOLS				e		22 27 16.2	
PLOR	Plostina	147.97	325	⇓iP	PKPab	22 27 17.0	+0.6
STHS	Stebnicka Huta	147.99	334	ePKP	PKPbc	22 27 11.5	+0.1
STHS	Stebnicka Huta	147.99	334	ePKIKP	PKPbc	22 27 11.5	+0.1
STHS	Stebnicka Huta	147.99	334	ePKP	PKPbc	22 27 11.5	+0.1
UZH	Uzhgorod	148.15	332	⇓iPKHKP	PKPbc	22 27 11.8	-0.1
UZH				i		22 27 15.8	
CRVS	Cervenica-Dubn	148.30	333	ePKP	PKPbc	22 27 12.1	-0.1
CRVS				e		22 27 17.9	
CRVS	Cervenica-Dubn	148.30	333	ePKHKP	PKPbc	22 27 12.1	-0.1
CRVS				e		22 27 17.9	
CRVS	Cervenica-Dubn	148.30	333	ePKP	PKPbc	22 27 12.1	-0.1
CRVS				e		22 27 17.9	
NIE	Niedzica	148.35	335	ePKP	PKPbc	22 27 12.6	+0.2
NIE	Niedzica	148.35	335	ePKHKP	PKPbc	22 27 12.6	+0.2
CSS	Prodhromos	148.49	302	ePKP	PKPdf	22 27 12.1	+3.4
MLR	Muntele Rosu	148.59	325	⇑P	PKPbc	22 27 12.2	-0.9
MLR	Muntele Rosu	148.59	325	⇑PKHKP	PKPbc	22 27 12.2	-0.9
MLR	Muntele Rosu	148.59	325	⇑iP	PKPbc	22 27 12.2	-0.9
OKC	Ostrava-Krasne	148.81	338	ePKP	PKPbc	22 27 13.3	-0.2
OKC				e		22 27 20.2	
OKC	Ostrava-Krasne	148.81	338	ePKHKP	PKPbc	22 27 13.3	-0.2
OKC				e		22 27 20.2	
OKC	Ostrava-Krasne	148.81	338	⇑ePKPB	PKPbc	22 27 13.3	-0.2
OKC				ePKPAB	PKPab	22 27 20.2	+0.5
UPC	Upice	148.94	341	ePKP	PKPbc	22 27 13.5	-0.3
UPC				e		22 27 20.6	
UPC	Upice	148.94	341	ePKHKP	PKPbc	22 27 13.5	-0.3
UPC				e		22 27 20.6	
UPC	Upice	148.94	341	⇑ePKPB	PKPbc	22 27 13.5	-0.3
UPC				ePKPAB	PKPab	22 27 20.6	+0.4
DPC	Dobruska-Polom	148.98	340	ePKP	PKPbc	22 27 13.9	0.0
DPC				e		22 27 21.0	
DPC	Dobruska-Polom	148.98	340	ePKHKP	PKPbc	22 27 13.9	0.0
DPC				e		22 27 21.0	
DPC	Dobruska-Polom	148.98	340	⇑ePKPB	PKPbc	22 27 13.9	0.0
DPC				ePKPAB	PKPab	22 27 21.0	+0.6
KECS	Kecovo	149.03	334	ePKP	PKPbc	22 27 14.2	+0.2
KECS				e		22 27 20.6	
KECS	Kecovo	149.03	334	ePKHKP	PKPbc	22 27 14.2	+0.2
KECS				e		22 27 20.6	
KECS	Kecovo	149.03	334	ePKP	PKPbc	22 27 14.2	+0.2
KECS				e		22 27 20.6	
CLL	Collm	149.05	345	⇓iPKP	PKPdf	22 27 13.5	+4.4
CLL	Collm	149.05	345	⇓iPKHKP		22 27 13.5	
CLL				i		22 27 20.2	
CLL	Collm	149.05	345	ePKPbc	PKPbc	22 27 13.9	-0.1
CLL				ePKPab	PKPab	22 27 20.3	-0.3
CLL	Collm	149.05	345	⇓iPKPbc	PKPbc	22 27 13.5	-0.5
	comp=Z,18nm,0.9s						
CLL				⇑iPKPab	PKPab	22 27 20.2	-0.4
	comp=Z,9.0nm,0.8s						
MORC	Moravsky Berou	149.08	338	⇓P	PKPbc	22 27 13.8	-0.4
MORC	Moravsky Berou	149.08	338	⇓PKHKP	PKPbc	22 27 13.8	-0.3
MORC	Moravsky Berou	149.08	338	⇓iP	PKPbc	22 27 13.8	-0.3
CLZ	Clausthal	149.13	348	ePKPbc	PKPbc	22 27 14.3	+0.1
CLZ	Clausthal	149.13	348	ePKHKP	PKPbc	22 27 14.3	+0.1
CLZ	Clausthal	149.13	348	ePKPbc	PKPbc	22 27 14.3	+0.1
BRG	Berggiesshubel	149.21	343	i PKP	PKPbc	22 27 14.1	-0.3
BRG				i	PKPab	22 27 21.0	-0.3
BRG	Berggiesshubel	149.21	343	i PKHKP	PKPbc	22 27 14.1	-0.3
BRG				i	PKPab	22 27 21.0	-0.3
BRG	Berggiesshubel	149.21	343	ePKPbc	PKPbc	22 27 14.3	-0.1
BRG				ePKPab	PKPab	22 27 20.9	-0.4
BRG	Berggiesshubel	149.21	343	i PKP	PKPdf	22 27 14.1	+4.7
	comp=Z,12nm,0.7s						
BRG				i		22 27 21.0	
	comp=Z,7.5nm,0.8s						
DRGR		149.33	329	⇓P	PKPbc	22 27 14.1	-0.8
DRGR		149.33	329	⇓PKHKP	PKPbc	22 27 14.1	-0.7
DRGR		149.33	329	⇓iP	PKPbc	22 27 14.1	-0.7
PVCC	Panska Ves	149.35	342	ePKP	PKPbc	22 27 14.8	+0.1
PVCC	Panska Ves	149.35	342	ePKHKP	PKPbc	22 27 14.8	+0.1
PVCC	Panska Ves	149.35	342	⇑ePKPB	PKPbc	22 27 14.8	+0.1
VYHS	Vyhne	149.68	336	ePKP	PKPbc	22 27 15.2	-0.4
VYHS				e		22 27 23.7	
VYHS	Vyhne	149.68	336	ePKHKP	PKPbc	22 27 15.2	-0.4
VYHS				e		22 27 23.7	
VYHS	Vyhne	149.68	336	ePKP	PKPbc	22 27 15.2	-0.4
VYHS				e		22 27 23.6	
PRU	Pruhonice	149.84	342	ePKP	PKPbc	22 27 15.5	-0.4
PRU				e		22 27 23.9	
PRU	Pruhonice	149.84	342	ePKHKP	PKPbc	22 27 15.5	-0.4
PRU				e		22 27 23.9	
PRU	Pruhonice	149.84	342	⇑ePKPB	PKPbc	22 27 15.5	-0.4
PRU				ePKPAB	PKPab	22 27 23.9	-0.1
MOX	Moxa	150.00	346	ePKP	PKPbc	22 27 15.8	-0.5
MOX				ePKPab	PKPab	22 27 23.4	-1.2
MOX	Moxa	150.00	346	ePKP	PKPdf	22 27 15.8	+5.2
MOX				e		22 27 23.4	
MOX	Moxa	150.00	346	ePKHKP	PKPbc	22 27 15.8	-0.5
MOX				e	PKPab	22 27 23.4	-1.2
MOX	Moxa	150.00	346	ePKPbc	PKPbc	22 27 16.0	-0.3
MOX				ePKPab	PKPab	22 27 24.0	-0.6
TANN	Tannenbergstha	150.01	345	ePKPbc	PKPbc	22 27 16.3	0.0
TREC	Trest	150.17	340	ePKHKP	PKPbc	22 27 16.2	-0.5
TREC				e	PKPab	22 27 25.5	+0.1
TREC	Trest	150.17	340	⇑ePKPB	PKPbc	22 27 16.2	-0.5
TREC				ePKPAB	PKPab	22 27 25.5	+0.1
NKC	Novy Kostel	150.18	345	ePKP	PKPbc	22 27 16.7	0.0
NKC				e	PKPab	22 27 25.5	+0.1
NKC	Novy Kostel	150.18	345	ePKHKP	PKPbc	22 27 16.7	0.0
NKC				e	PKPab	22 27 25.5	+0.1
NKC	Novy Kostel	150.18	345	⇑ePKPB	PKPbc	22 27 16.7	0.0
NKC				ePKPAB	PKPab	22 27 25.5	+0.1
GZR	Gura Zlata	150.30	327	⇓P	PKPdf	22 27 14.4	+3.2
GZR	Gura Zlata	150.30	327	⇓PKIKP	PKPdf	22 27 14.4	+3.1
GZR	Gura Zlata	150.30	327	⇓iP	PKPdf	22 27 14.4	+3.1
MANZ	Manzenberg	150.49	345	ePKPbc	PKPbc	22 27 17.4	0.0
MANZ				ePKPab	PKPab	22 27 26.5	-0.2
ROTZ	Rotzenmuhle	150.67	344	ePKPbc	PKPbc	22 27 17.6	-0.3
BZS	Buzias	150.71	329	⇑P	PKPbc	22 27 17.0	-1.1
BZS	Buzias	150.71	329	⇑PKIKP	PKPbc	22 27 17.0	-1.1
BZS	Buzias	150.71	329	⇑iP	PKPbc	22 27 17.0	-1.1
KHC	Kasperske Hory	150.89	342	ePKP	PKPbc	22 27 17.9	-0.5
KHC				e		22 27 28.7	
KHC	Kasperske Hory	150.89	342	ePKIKP	PKPbc	22 27 17.9	-0.5
KHC				e		22 27 28.7	
KHC	Kasperske Hory	150.89	342	⇑ePKPB	PKPbc	22 27 17.9	-0.5
KHC				ePKPAB	PKPab	22 27 28.7	+0.3
GRA1	Grafenberg Arr	150.98	346	ePKPbc	PKPbc	22 27 18.3	-0.3
GRA1				ePKPab	PKPab	22 27 29.3	+0.6
GRF	Grafenberg Arr	150.98	346	ePKP	PKPbc	22 27 18.3	-0.3
GRF				ePKP	PKPab	22 27 29.3	+0.6
GRF	Grafenberg Arr	150.98	346	ePKIKP	PKPbc	22 27 18.3	-0.3
GRF				e	PKPab	22 27 29.3	+0.6
GRF	Grafenberg Arr	150.98	346	ePKIKP	PKPbc	22 27 18.3	-0.3
GRF				e	PKPab	22 27 29.3	+0.6
GRF	Grafenberg Arr	150.98	346	ePKPbc	PKPbc	22 27 18.3	-0.3
GRF				ePKPab	PKPab	22 27 29.3	+0.6
TNS	Taunus Mts	151.03	349	ePKPbc	PKPbc	22 27 18.5	-0.2
TNS	Taunus Mts	151.03	349	ePKIKP	PKPbc	22 27 18.5	-0.2
TNS	Taunus Mts	151.03	349	ePKPbc	PKPbc	22 27 18.5	-0.2
WET	Wettzell	151.07	343	ePKPbc	PKPbc	22 27 18.6	-0.2
WET				ePKPab	PKPab	22 27 29.6	+0.5
WET	Wettzell	151.07	343	ePKIKP	PKPbc	22 27 18.6	-0.2
WET				e	PKPab	22 27 29.6	+0.5
WET	Wettzell	151.07	343	ePKPbc	PKPbc	22 27 18.6	-0.2
WET				ePKPab	PKPab	22 27 29.6	+0.5
GEC2	GERESS Array S	151.11	342	ePKPbc	PKPbc	22 27 18.6	-0.3
GEC2	GERESS Array S	151.11	342	ePKIKP	PKPbc	22 27 18.6	-0.3
GEC2	GERESS Array S	151.11	342	ePKPbc	PKPbc	22 27 18.6	-0.3
GERES	GERESS Array B	151.11	342	PKPbc	PKPbc	22 27 18.2	-0.7
GERES				PKPab	PKPab	22 27 29.1	-0.2
GERES	GERESS Array B	151.11	342	PKIKP	PKPbc	22 27 18.2	-0.7
GERES						22 27 29.1	
GERES	GERESS Array B	151.11	342	PKPbc	PKPbc	22 27 18.2	-0.7
	comp=Z,3.2nm,0.8s,baz=25,slow=2.2,SNR=19						
GERES				PKPab	PKPab	22 27 29.1	-0.2
	comp=Z,1.1nm,0.6s,baz=46,slow=3.9,SNR=5.7						
CONA	Conrad Observa	151.23	338	⇑iPKiKP	PKiKP	22 27 19.0	-0.5
	comp=Z,3.5nm,0.7s						
PKSM	Moragy	151.59	333	⇓P	PKPbc	22 27 18.5	-1.5
PKSM	Moragy	151.59	333	⇓PKIKP	PKPbc	22 27 18.5	-1.6
PKSM	Moragy	151.59	333	⇓iP	PKPbc	22 27 18.5	-1.6
BFO	Black Forest	152.87	349	ePKPab	PKPab	22 27 36.4	-0.4
BFO	Black Forest	152.87	349	ePKPab	PKPab	22 27 36.3	-0.5
WTTA	Wattenberg	153.13	343	⇑iP	PKPab	22 27 38.4	+0.5
	comp=Z,5.4nm,0.6s						
WTTA	Wattenberg	153.13	343	⇑iPKPab	PKPab	22 27 38.4	+0.5
	comp=Z,5.4nm,0.6s						
WTTA	Wattenberg	153.13	343	⇑iPKP2	PKPab	22 27 38.4	+0.5
VISS	Visnje	153.42	337	ePKPbc	PKPab	22 27 38.1	-1.1
VISS	Visnje	153.42	337	ePKPbc	PKPab	22 27 38.1	-1.1
JAVS	Javornik	153.61	338	i PKPbc	PKPab	22 27 39.2	-0.8
JAVS	Javornik	153.61	338	i PKPbc	PKPab	22 27 39.2	-0.8
TORD	Torodi Ar. Bea	171.25	188	PKP	PKPdf	22 27 31.6	-2.5
TORD	Torodi Ar. Bea	171.25	188	PKP	PKPdf	22 27 31.6	-2.5
	comp=Z,0.6nm,0.8s,baz=239,slow=1.1,SNR=3.6						

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*SZGRF **06** 22:48:56.2, 36.04N×71.66E, h205^{km}, mb4.6, Afghanistan-Tajikistan border region*

*MOS **06** 22:48:59.8±0.9, 36.45N×70.58E, h199^{km}, mb4.5/46, Error ellipse: s-maj=6.8km s-min=4.9km az=108.7*

*ISCJB **06** 22:49:00.3±0.2, 36.48N±0.02×70.56E±0.03, h205^{km}, mb4.3/79, Error ellipse: s-maj=3.3km s-min=3.0km az=16.6*

*BJI **06** 22:49:00.5, 36.62N×70.59E, h197^{km}, mB4.8, mb4.7*

*IDC **06** 22:49:01.6±0.5, 36.44N×70.60E, h208^{km}±4^{km}, mb3.9/28, mb1 4.1/30, mb1mx4.1/30, mbtmp4.0/30, Error ellipse: s-maj=10.1km s-min=7.0km az=9.0*

*NEIC **06** 22:49:01.8±0.2, 36.49N×70.58E, mb4.4/38, Error ellipse: s-maj=5.2km s-min=4.1km az=194.0*

*NNC **06** 22:49:04.6±2.9, 36.90N×70.33E, h204^{km}±30^{km}, mb4.2, mpv5.4, Error ellipse: s-maj=27.2km s-min=17.4km az=25.0*

ISC 06 22:49:01.9±0.2**, 36.48N**±0.02×**70.60E**±0.03**, h207**^{km}**,**
h207^{km}±2.0^{km}**:pP-P, n274,** σ1^{s}**00**/301**, mb4.3**/79**, 20C-17D,**
Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.32	214	ePn	Pn	22 49 43.4	-0.9
KBL				eSn	Sn	22 50 13.7	-3.7
CEP	Cherat	2.86	158	⇓P	Pn	22 49 50.0	-0.4
CHCP	Chirah Chowk	3.57	141	⇓P	Pn	22 49 58.6	-0.1
THW	Thamme Wali	3.80	165	P	Pn	22 50 00.8	-0.7
SBDP	Sheikh Budin	4.18	178	⇑P	Pn	22 50 04.7	-1.5
DRP	Derazinda	4.74	184	⇓P	Pn	22 50 12.1	-1.1
DRP				S	Sn	22 50 56.0	-13
SARP	Sargodha	4.86	159	⇓P	Pn	22 50 13.5	-1.3
KSH	Kashi	5.21	53	⇓iP	Pn	22 50 19.4	+0.3
KSH				S	Sn	22 51 17.3	-2.9
KSH				Smax			
	comp=N,3µm,0.2s						
KSH				Smax			
	comp=E,2µm,0.4s						
AML	Almayashu	6.13	22	P	Pn	22 50 29.7	-1.1
	SNR=3749						
UCH	Uchtor	6.49	27	P	Pn	22 50 34.8	-0.7
	SNR=912						
KK31	Karatay Array	6.61	359	⇓P	Pn	22 50 35.4	-1.6
	comp=E,129nm,0.3s						
KK31				⇑S	Sn	22 51 45.6	-7.1
	comp=E,301nm,0.7s,baz=188,slow=25,SNR=7.2						
EKS2	Erkin-Say	6.64	21	P	Pn	22 50 36.5	-0.9
	SNR=689						
KZA	Kyzart	6.65	31	P	Pn	22 50 36.3	-1.2
	SNR=252						
AAK	Ala-Archa	6.84	25	P	Pn	22 50 39.2	-0.7
	SNR=318						
AAK	Ala-Archa	6.84	25	ePn	Pn	22 50 38.0	-1.9
AAK	Ala-Archa	6.84	25	d iPN	Pn	22 50 38.2	-1.8
AAK				pmax	pmax		
	comp=Z,230nm,0.7s						
KBK	Karagaybulak	7.02	27	P	Pn	22 50 41.7	-0.6
	SNR=140						
FRU	Bishkek	7.06	25	⇓iPN	Pn	22 50 42.0	-0.8
FRU				i		22 52 05.5	
FRU				pmax	pmax		
	comp=Z,454nm,1.2s						
ULHL	Ulahol	7.22	35	P	Pn	22 50 43.6	-1.3
	SNR=134						
CHMS	Chumysh	7.25	25	P	Pn	22 50 44.0	-1.3
	SNR=400						
USP	Ospenovka	7.41	23	P	Pn	22 50 45.5	-1.9
	SNR=352						
TKM2	Tokmak 2	7.49	29	P	Pn	22 50 47.6	-0.9
	SNR=320						
TKM2	Tokmak 2	7.49	29	⇓P	Pn	22 50 47.6	-0.9
	comp=Z,48nm,0.5s						
KNDC	Almaty	8.32	34	⇓P	Pn	22 50 59.0	-0.1
	comp=Z,386nm,0.7s						
AAA	Alma-Ata	8.35	34	d iPN	Pn	22 50 59.0	-0.6
AAA				pmax	pmax		
	comp=Z,1µm,1.4s						
MK31	Makanchi Array	13.49	37	⇓P	Pn	22 52 05.5	+0.3
	comp=Z,43nm,0.7s,baz=227,slow=12,SNR=128						
MK31				⇓S	S	22 54 35.5	+0.2
	comp=Z,8.6nm,0.8s,baz=241,slow=21,SNR=7.1						
MK31	Makanchi Array	13.49	37	ePn	Pn	22 52 03.6	-1.5
MK31				eS	S	22 54 39.9	+4.6
MK31	Makanchi Array	13.49	37	eP	Pn	22 52 03.6	-1.5
MK31				eS	S	22 54 39.9	+4.6
MKAR	Makanchi Array	13.49	37	P	Pn	22 52 03.3	-1.8
MKAR				S	S	22 54 34.5	-0.8
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
MKAR	Makanchi Array	13.49	37	P	Pn	22 52 03.3	-1.8
	comp=Z,4.0nm,0.3s,baz=218,slow=13,SNR=195						
MKAR				S	S	22 54 34.5	-0.8
	baz=241,slow=21,SNR=1.7						
KOLN	Koldanda	14.02	125	eP	Pn	22 52 10.4	-1.4
	comp=Z,54nm,0.4s						
GKN	Gorkha	14.57	121	eP	Pn	22 52 17.3	-1.3
AB31	Akbulak array	14.94	332	P	Pn	22 52 19.9	-3.0
	comp=Z,12nm,0.4s,baz=145,slow=11,SNR=271						
AB31				⇑S	S	22 55 01.3	-7.3
	comp=Z,12nm,0.6s,baz=152,slow=22,SNR=5.9						
WMQ	Urumqi	14.97	55	P	Pn	22 52 23.5	+0.2
WMQ				S	S	22 55 09.2	-0.1
WMQ				AMB	AMB		
	comp=Z,32nm,0.9s						
WMQ				LR	LR		
	comp=N,62nm,16.2s						
WMQ				LR	LR		
	comp=Z,55nm,22.0s						
DMN	Daman	15.14	122	eP	Pn	22 52 25.3	-0.2
KKN	Kakani	15.14	121	eP	Pn	22 52 24.9	-0.7
	comp=Z,248nm,0.5s						
KURK	Kurchatov	15.35	20	⇑P	Pn	22 52 26.2	-1.6
	comp=Z,17nm,1.0s						
KURK	Kurchatov	15.35	20	ePn	Pn	22 52 25.6	-2.3
	comp=Z,29nm,0.9s						
KURK	Kurchatov	15.35	20	eP	Pn	22 52 25.6	-2.3
KURK				pmax	pmax		
	comp=Z,29nm,0.9s						
PKI	Pulchoki	15.37	121	eP	Pn	22 52 27.8	-0.5
	comp=Z,138nm,0.4s						
GUN	Gumba	15.49	119	eP	Pn	22 52 29.3	-0.5
	comp=Z,126nm,0.5s						
JIRN	Jiri	15.86	119	eP	Pn	22 52 34.3	+0.1
	comp=Z,180nm,0.3s						
BRVK	Borovoye	16.57	359	ePn	Pn	22 52 41.3	-1.2
	comp=Z,40nm,0.8s						
BRVK	Borovoye	16.57	359	eP	P	22 52 41.3	-0.1
BRVK				pmax	pmax		
	comp=Z,40nm,0.8s						
AKTK	Aktyubinsk	16.64	331	P	P	22 52 42.4	+0.3
AKTK				S	S	22 55 44.8	-0.3
AKTO	Aktyubinsk	16.64	331	P	P	22 52 42.4	+0.3
AKTO				S	S	22 55 44.8	-0.3
AKTO				pmax	pmax		
	comp=Z,4.0nm,0.3s						
AKTO				smax			
	comp=N,1.0nm,0.3s						
AKTO	Aktyubinsk	16.64	331	P	P	22 52 42.4	+0.3
	comp=N,4.3nm,0.3s,baz=140,slow=11,SNR=246						
AKTO				S	S	22 55 44.8	-0.3
	comp=N,0.8nm,0.3s,baz=195,slow=19,SNR=5.5						
TAPN	Taplejung	17.12	117	eP	P	22 52 49.8	+2.1
	comp=N,77nm,0.5s						
ODAN	Odare	17.19	119	eP	P	22 52 50.3	+1.8
	comp=N,130nm,0.6s						
LSA	Lhasa	18.48	106	P	P	22 53 05.4	+2.9
LSA	Lhasa	18.48	106	eP	P	22 53 05.3	+2.8
	comp=N,44nm,0.6s						
LSA				eS	S	22 56 26.3	+3.8
LSA	Lhasa	18.48	106	eP	P	22 53 05.3	+2.8
LSA				eS	S	22 56 26.3	+3.9
LSA				pmax	pmax		
	comp=Z,44nm,0.6s						
ZAL	Zalesovo	20.05	25	P	P	22 53 19.2	+0.2
ZAL				*SP	sP	22 54 19.0	-0.7
ZAL				S	S	22 56 51.4	-1.2
ZALV	Zalesovo Beam	20.07	25	P	P	22 53 19.2	0.0
	comp=Z,28nm,0.4s,baz=221,slow=11,SNR=111						
ZALV				sP	sP	22 54 19.0	-0.9
	comp=Z,12nm,0.6s,baz=218,slow=10,SNR=4.2						
ZALV				S	S	22 56 51.4	-1.5
	comp=Z,10nm,0.7s,baz=217,slow=20,SNR=5.5						
DGRG	David-gareji	20.20	292	P	P	22 53 27.7	+6.8
HYB	Hyderabad	20.25	158	eP	P	22 53 24.5	+2.9
HYB				eS	S	22 56 57.0	-0.2
HYB	Hyderabad	20.25	158	i P	P	22 53 24.5	+2.9
HYB				esP	sP	22 54 24.0	+1.9
HYB				eS	S	22 56 56.5	-0.7
NVS	Novosibirsk	20.31	21	eP	P	22 53 21.5	-0.3
NVS				i		22 54 21.3	
NVS				i S	S	22 56 56.8	-0.9
NVS				pmax	pmax		
	comp=Z,69nm,1.9s						
NVS				pmax	pmax		
	comp=N,61nm,1.8s						
NVS				pmax	pmax		
	comp=E,30nm,1.9s						
NVS				smax			
	comp=N,50nm,1.6s						
NVS				smax			
	comp=E,60nm,1.5s						
KBD	Kabd	20.55	256	eP	P	22 53 23.2	-1.4
KBD				AMb	AMB	22 53 27.7	
	comp=Z,74nm,0.4s						
MIB	Mutribah	20.56	258	eP	P	22 53 23.6	-1.2
MIB				AMb	AMB	22 53 27.9	
	comp=Z,27nm,0.7s						
MTA	Mtatsminda	20.66	292	P	P	22 53 27.0	+1.4
TBLG	Delisi	20.71	293	i P	P	22 53 27.1	+1.0
TBLG	Delisi	20.71	293	P	P	22 53 27.1	+1.0
RDF	Al-Radifah	20.78	255	eP	P	22 53 25.7	-1.3
RDF				AMb	AMB	22 53 30.5	
	comp=Z,32nm,0.7s						
NAY	Al-Naaiem	20.87	256	eP	P	22 53 26.9	-1.1
NAY				AMb	AMB	22 53 30.8	
	comp=Z,18nm,0.6s						
SVE	Sverdlovsk	21.42	345	eP	P	22 53 35.0	+1.5
ZEI	Tsey	21.45	295	eP	P	22 53 35.3	+1.3
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.1						
ARU	Arti	21.55	342	eP	P	22 53 34.5	-0.3
	comp=Z,20nm,0.8s,mb4.7						
ARU				eS	S	22 57 07.8	-11
ARU	Arti	21.55	342	⇑iP	P	22 53 35.6	+0.8
ARU				ePPP		22 54 05.7	
ARU				eS	S	22 57 21.1	+2.0
ARU				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.5						
ONI	Oni	21.76	295	P	P	22 53 39.3	+2.2
KIV	Kislovodsk	22.51	298	eP	P	22 53 40.4	-3.5
	comp=Z,13nm,0.7s,mb4.6						
KIV	Kislovodsk	22.51	298	eP	P	22 53 42.9	-1.1
KIV				e*SP	sP	22 54 44.0	-2.5
KIV				eS	S	22 57 32.3	-2.8
KIV				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.0						
GTA	Gaotai	23.18	74	P	P	22 53 52.1	+2.0
GTA				AP		22 54 33.1	
GTA				XP	sP	22 54 57.0	+3.3
GTA				AMB	AMB		
	comp=Z,29nm,1.2s,mb4.7						
GTA				AMB	AMB		
	comp=Z,110nm,6.8s						
GTA				LR	LR		
	comp=N,98nm,15.6s						
GTA				LR	LR		
	comp=E,54nm,16.0s						
GTA				LR	LR		
	comp=Z,75nm,15.6s						
SOC	Sochi	24.59	296	eP	P	22 54 02.3	-0.6
SOC				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.5						
MALT	Malatya	25.56	284	eP	P	22 54 06.1	-5.6
MOY	Mondy	26.35	45	eP	P	22 54 20.5	+1.9
MOY				e		22 55 14.9	
ANN	Anapa	26.36	299	eP	P	22 54 10.6	-8.2
ANN				e*PP	pP	22 54 50.2	-10
ANN				pmax	pmax		
	comp=Z,34nm,0.7s,mb5.1						
LZH	Lanzhou	26.73	81	eP	P	22 54 16.7	-5.5
	comp=Z,22nm,1.0s,mb4.7						
LZH				pP	pP	22 54 51.2	-13
LZH				PP	PP	22 55 12.1	-15
LZH				sP	sP	22 55 13.2	-15
LZH				eS	S	22 58 30.2	-12
LZH				sS	sS	22 59 48.5	-8.4
LZH				SS	SS	23 00 07.0	-37
LZH	Lanzhou	26.73	81	eP	P	22 54 16.7	-5.5
LZH				*SP	sP	22 55 13.2	-15
LZH				SS	SS	23 00 07.0	-37
LZH				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.7						
VRSR	Storozhevoye	26.76	313	eP	P	22 54 22.4	+0.1
VRSR				pmax	pmax		
	comp=N,3.0nm,1.0s						
VRSR				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.7						
VRSR				pmax	pmax		
	comp=E,3.0nm,0.8s						
ZAK	Zakamensk	27.25	49	⇑iP	P	22 54 28.1	+1.5
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.1						
ZAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.0						
TLY	Talaya	27.89	47	eP	P	22 54 34.8	+2.5
TLY	Talaya	27.89	47	c iP	P	22 54 34.3	+2.0
CD2	Chengdu	28.05	92	⇑iP	P	22 54 36.2	+2.2
CD2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.0						
SONM	Songino Array	28.61	55	P	P	22 54 39.9	+1.2
SONM				*PP	pP	22 55 23.4	+2.8
SONM				pmax	pmax		
	comp=Z,5.0nm,0.8s						
SONM				pmax	pmax		
	comp=Z,3.0nm,0.8s						
SONM	Songino Array	28.61	55	P	P	22 54 39.9	+1.2
	comp=Z,5.1nm,0.8s,mb4.2,baz=261,slow=9.3,SNR=46						
SONM				pP	pP	22 55 23.4	+2.8
	comp=Z,2.8nm,0.8s,baz=252,slow=10.0,SNR=4.8						
ULN	Ulaanbaatar	29.05	55	eP	P	22 54 44.1	+1.5

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       comp=Z,6.6nm,1.0s,mb4.2
ULN                                 e      pP      22 55 29.4 +4.9
ULN   Ulaanbaatar     29.05  55     eP     P       22 54 44.1 +1.5
ULN                                 e      pP      22 55 29.4 +4.8
ULN                                  pmax  pmax
       comp=Z,7.0nm,1.0s,mb4.2
BRTR  Keskin Array B  29.13 288      P     P       22 54 44.2 +0.7
BRTR                                 *PP   pP      22 55 26.0 +0.6
BRTR                                 pmax  pmax
       comp=Z,1.0nm,0.8s
BRTR                                 pmax  pmax
       comp=Z,3.0nm,0.9s
BRTR  Keskin Array B  29.13 288      P     P       22 54 44.1 +0.7
       comp=Z,1.1nm,0.8s,mb3.5,baz=90,slow=9.9,SNR=6.5
BRTR                                 pP    pP      22 55 25.9 +0.6
       comp=Z,2.9nm,0.9s,baz=86,slow=8.1,SNR=4.9
OBN   Obninsk         29.74 320     eP     P       22 54 48.2 -0.4
       comp=Z,14nm,0.6s,mb4.8
OBN   Obninsk         29.74 320c    iP     P       22 54 48.8 +0.2
OBN                                 e*PP   pP      22 55 29.4 -1.2
OBN                                 e*SP   sP      22 55 53.9 -0.7
OBN                                  pmax  pmax
       comp=Z,27nm,1.0s,mb4.8
CSS   Prodhromos      30.18 278      P     P       22 54 51.1 -1.6
PALK  Pallekele       30.50 160      P     P       22 54 56.2 +0.4
AKASG Malin Array Be  32.70 309      P     P       22 55 14.3 -0.3
AKASG                                *PP   pP      22 55 55.4 -1.5
AKASG                                pmax  pmax
       comp=Z,4.0nm,0.7s
AKASG                                pmax  pmax
       comp=Z,6.0nm,0.7s
AKASG Malin Array Be  32.70 309      P     P       22 55 14.3 -0.3
       comp=Z,3.7nm,0.7s,mb4.0,baz=87,slow=7.1,SNR=19
AKASG                                pP    pP      22 55 55.4 -1.5
       comp=Z,5.9nm,0.7s,baz=82,slow=7.1,SNR=6.0
CIT   Chita           33.91  49     eP     P       22 55 26.0 +1.0
CIT                                 e              22 56 03.3
CIT                                 e              22 56 31.9
MLR   Muntele Rosu    34.51 299      P     P       22 55 31.5 +1.3
MLR                                  pmax  pmax
       comp=Z,4.0nm,1.0s
MLR   Muntele Rosu    34.51 299      P     P       22 55 31.5 +1.3
       comp=Z,4.4nm,0.9s,mb4.0,baz=89,slow=8.9,SNR=5.6
MLR   Muntele Rosu    34.51 299⇓    iP     P       22 55 31.9 +1.7
MLR                                  S     pP      22 56 11.3 -1.5
BOD   Bodaibo         35.57  39⇑    iP     P       22 55 39.9 +0.8
BOD                                  pmax  pmax
       comp=Z,13nm,1.2s,mb4.3
JOF   Joensuu         35.72 330     ep     P       22 55 40.2 -0.2
       comp=Z,12nm,0.5s,mb4.7
JOF   Joensuu         35.72 330     eP     P       22 55 40.2 -0.2
JOF                                  pmax  pmax
       comp=Z,12nm,0.5s,mb4.7
KWP   Kalwaria        36.76 306     eP     P       22 55 50.4 +1.0
IDI   Anoyia          36.79 282      P     P       22 55 49.6 -0.2
       comp=Z,1.8nm,0.4s,mb3.9,baz=90,slow=7.1,SNR=4.7
KOLS  Kolonicke sedl  37.02 305     eP     P       22 55 53.1 +1.6
KOLS                                e      pP      22 56 36.0 +1.4
KOLS  Kolonicke sedl  37.02 305     eP     P       22 55 53.0 +1.5
KOLS                                epP    pP      22 56 36.0 +1.4
FIA1  FINESS Array S  37.32 326     eP     P       22 55 54.4 +0.6
FINES FINESS Array B  37.32 326      P     P       22 55 54.2 +0.4
FINES FINESS Array B  37.32 326      P     P       22 55 54.2 +0.4
FINES                                pmax  pmax
       comp=Z,9.0nm,0.6s
FINES FINESS Array B  37.32 326      P     P       22 55 54.2 +0.4
       comp=Z,8.9nm,0.6s,mb4.5,baz=116,slow=10,SNR=46
CRVS  Cervenica-Dubn  37.56 305     eP     P       22 55 58.1 +2.1
CRVS                                epP    pP      22 56 44.2 +5.0
HIA   Hailar          37.56  54     eP     P       22 55 56.2 +0.1
STHS  Stebnicka Huta  37.71 306     eP     P       22 55 57.0 -0.3
KECS  Kecovo          38.20 304     eP     P       22 55 59.7 -1.7
KECS                                e              22 56 30.2
VYHS  Vyhne           39.30 304     eP     P       22 56 05.6 -4.9
VYHS                                e              22 56 30.8
VYHS                                epP    pP      22 56 54.9 +0.9
NJ2   Nanjing         39.80  82     eP     P       22 56 17.5 +2.6
NJ2                                  AMB   AMB
       comp=Z,20nm,0.5s,mb4.8
MORC  Moravsky Berou  40.11 306     eP     P       22 56 18.6 +1.3
MORC                                epP    pP      22 57 01.1 +0.2
KEV   Kevo            40.70 338     ep     P       22 56 21.7  0.0
VRAC  Vranov          40.75 306      P     P       22 56 22.6 +0.2
VRAC                                 *PP   pP      22 57 05.8 -0.4
VRAC                                 pmax  pmax
       comp=Z,4.0nm,0.7s
VRAC                                 pmax  pmax
       comp=Z,4.0nm,0.7s
VRAC  Vranov          40.75 306      P     P       22 56 22.6 +0.2
       comp=Z,3.6nm,0.7s,mb3.9,baz=68,slow=2.9,SNR=6.6
VRAC                                 pP    pP      22 57 05.8 -0.4
       comp=Z,3.8nm,0.7s,baz=73,slow=5.6,SNR=3.9
ARCES ARCESS Array B  41.04 338      P     P       22 56 25.2 +0.7
ARCES                                *PP   pP      22 57 08.4 +0.1
ARCES                                pmax  pmax
       comp=Z,10.0nm,0.7s
ARCES                                pmax  pmax
       comp=Z,7.0nm,0.9s
ARCES ARCESS Array B  41.04 338      P     P       22 56 25.2 +0.7
       comp=Z,9.6nm,0.7s,mb4.4,baz=116,slow=7.8,SNR=34
ARCES                                pP    pP      22 57 08.4 +0.1
       comp=Z,6.6nm,0.8s,baz=121,slow=8.7,SNR=3.5
ARE0  ARCESS Array S  41.04 338     eP     P       22 56 25.4 +0.9
KTK1  Kautokeino      41.50 336     eP     P       22 56 28.6 +0.4
KTK1                                 AMb   AMB     22 56 36.9
       comp=Z,45nm,2.0s,mb4.6
KTK1                                epP    pP      22 57 12.7 +0.5
BRG   Berggiesshubel  42.38 308     eP     P       22 56 36.1 +0.5
BRG                                 e      pP      22 57 20.5 +0.8
BRG                                  pmax  pmax
       comp=Z,3.0nm,0.9s,mb3.7
BRG   Berggiesshubel  42.38 308     eP     P       22 56 36.1 +0.5
       comp=Z,5.7nm,0.9s,mb4.0
BRG                                 e      pP      22 57 20.5 +0.8
       comp=Z,3.8nm,0.8s
PSI   Prapat          42.49 135      P     P       22 56 36.4 -0.6
PSI   Prapat          42.49 135      P     P       22 56 36.4 -0.6
PSI                                  pmax  pmax
       comp=Z,7.0nm,0.6s,mb4.3
PSI   Prapat          42.49 135      P     P       22 56 36.4 -0.6
       comp=Z,6.6nm,0.6s,mb4.3,baz=317,slow=12,SNR=8.5
GERES GERESS Array B  42.68 305      P     P       22 56 38.1 +0.1
GERES                                *PP   pP      22 57 23.1 +0.9
GERES                                pmax  pmax
       comp=Z,1.0nm,0.9s
GERES                                pmax  pmax
       comp=Z,1.0nm,0.8s
GERES GERESS Array B  42.68 305      P     P       22 56 38.1  0.0
       comp=Z,0.9nm,0.9s,mb3.2,baz=78,slow=9.7,SNR=5.7
GERES                                pP    pP      22 57 23.1 +0.9
       comp=Z,1.3nm,0.8s,baz=87,slow=6.8,SNR=5.3
RGN   Rugen           42.70 314      P     P       22 56 37.2 -0.9
TRO   Tromso          43.15 336     eP     P       22 56 41.2 -0.4
MOR8  Moi Rana        43.67 331     eP     P       22 56 45.0 -0.7
MOR8                                 AMb   AMB     22 56 46.2
       comp=Z,46nm,0.7s,mb4.9
YAK   Yakutsk         44.17  35     eP     P       22 56 50.3 +0.6
YAK   Yakutsk         44.17  35     eP     P       22 56 50.1 +0.4
YAK                                 e              22 58 29.6
YAK                                 e              22 58 39.9
YAK                                 eS     S       23 03 06.8 +0.2
YAK                                  pmax  pmax
       comp=N,5.0nm,0.9s
YAK                                  pmax  pmax
       comp=Z,47nm,0.9s,mb4.8
YAK                                  pmax  pmax
       comp=E,10.0nm,1.3s
YAK                                  pmax  pmax
       comp=Z,18nm,0.8s,mb4.5
YAK                                  smax
       comp=E,38nm,1.4s
YAK                                  smax
       comp=N,69nm,3.9s
NB2   NORSAR Subarra  44.20 323      P     P       22 56 49.6 -0.4
       comp=Z,15nm,0.7s,mb4.4,baz=96,slow=7.9
NOA   NORSAR Array B  44.20 323      P     P       22 56 49.9 -0.1
NOA                                  *PP   pP      22 57 34.8 +0.4
NOA                                  pmax  pmax
       comp=Z,15nm,0.7s
NOA                                  pmax  pmax
       comp=Z,3.0nm,0.6s
NOA   NORSAR Array B  44.20 323      P     P       22 56 49.9 -0.1
       comp=Z,15nm,0.7s,mb4.4,baz=97,slow=7.8,SNR=46
NOA                                  pP    pP      22 57 34.8 +0.4
       comp=Z,2.5nm,0.6s,baz=98,slow=8.1,SNR=2.5
GRA1  Grafenberg Arr  44.21 307     eP     P       22 56 51.3 +1.0
       comp=Z,14nm,1.3s,mb4.1
GRA1                                epP    pP      22 57 35.4 +0.7
GRF   Grafenberg Arr  44.21 307     eP     P       22 56 51.3 +1.0
GRF                                 e*PP   pP      22 57 35.4 +0.7
GRF                                  pmax  pmax
       comp=Z,14nm,1.3s,mb4.1
GRF   Grafenberg Arr  44.21 307     eP     P       22 56 51.3 +1.0
GRF                                 e*PP   pP      22 57 35.4 +0.7
GRF                                  pmax  pmax
       comp=Z,14nm,1.3s,mb4.1
GRF   Grafenberg Arr  44.21 307     eP     P       22 56 51.3 +1.0
       comp=Z,14nm,1.3s,mb4.1
GRF                                 epP    pP      22 57 35.4 +0.7
NAO01 NORSAR Array S  44.34 323     eP     P       22 56 50.8 -0.3
LOF   Lofoten         44.51 333     eP     P       22 56 49.3 -3.1
LOF   Lofoten         44.51 333     eP     P       22 56 53.6 +1.2
MDJ   Mudanjiang      44.69  61      P     P       22 56 53.4 -0.8
YHNB  Yeheng          44.82  90      P     P       22 56 56.7 +1.3
FETA  Feichten        44.88 303⇑    iP     P       22 56 56.0 +0.4
       comp=Z,3.2nm,0.7s,mb3.8
KONO  Kongsberg       44.90 321     eP     P       22 56 55.9 +0.4
KSRS  Korea Array     45.19  71      P     P       22 56 58.4 +0.2
       comp=Z,2.2nm,0.5s,mb3.7,baz=274,slow=6.9,SNR=8.9
DAVA  Damuels         45.41 304⇑    iP     P       22 56 59.5 -0.3
       comp=Z,19nm,1.1s,mb4.3
DAVOX Davos/Dischmat  45.50 303      P     P       22 56 58.9 -1.5
DAVOX Davos/Dischmat  45.50 303      P     P       22 56 58.9 -1.5
       comp=Z,5.1nm,0.9s,mb3.9,baz=78,slow=3.1,SNR=4.7
TIXI  Tiksi           45.91  22     eP     P       22 57 03.8 +0.4
TIXI                                e      pP      22 57 47.6 -0.5
TIXI                                ePcP   PcP     22 58 36.0 -0.6
TIXI  Tiksi           45.91  22c    iP     P       22 57 03.7 +0.4
TIXI                                 pmax  pmax
       comp=Z,10.0nm,0.6s,mb4.3
CDF   Champ du Feu    46.96 305     eP     P       22 57 12.0 +0.2
PGF   Pioggiola       46.99 297     eP     P       22 57 12.8 +0.7
HINF  Hinteralfeld    47.34 305     eP     P       22 57 14.5 -0.3
       comp=Z,5.3nm,0.9s,mb3.9
HINF  Hinteralfeld    47.34 305     eP     P       22 57 14.5 -0.3
HINF                                 pmax  pmax
       comp=Z,5.0nm,0.9s,mb3.8
HINF  Hinteralfeld    47.34 305     eP     P       22 57 14.5 -0.3
       comp=Z,11nm,0.9s,mb3.9
WLF   Walferdange     47.48 307     eP     P       22 57 16.6 +0.9
       comp=Z,11nm,0.8s,mb4.2
WLF   Walferdange     47.48 307     eP     P       22 57 16.6 +0.8
WLF                                  pmax  pmax
       comp=Z,11nm,0.8s,mb4.2
VSL   Villasalto      47.53 293      P     P       22 57 15.9 -0.5
HAU   Haudompre       47.64 305     eP     P       22 57 16.9 -0.2
HABR  Khabarovsk      47.69  54     eP     P       22 57 17.1 -0.3
HABR                                eS     S       23 03 57.8 +0.7
HABR                                e              23 06 46.3
HABR                                eSS    SS      23 07 29.8 +2.0
HABR                                 pmax  pmax
       comp=Z,46nm,0.7s,mb4.9
LPG   La Plagne       47.88 302     eP     P       22 57 19.4 +0.5
       comp=Z,4.6nm,0.9s,mb3.8
LPG   La Plagne       47.88 302     eP     P       22 57 19.4 +0.5
LPG                                  pmax  pmax
       comp=Z,5.0nm,0.9s,mb3.8
LPG   La Plagne       47.88 302     eP     P       22 57 19.4 +0.5
       comp=Z,9.1nm,0.9s,mb3.8
LPL   La Plagne       47.89 302     eP     P       22 57 19.4 +0.4
       comp=Z,7.1nm,1.0s,mb4.0
LPL   La Plagne       47.89 302     eP     P       22 57 19.4 +0.4
LPL                                  pmax  pmax
       comp=Z,7.0nm,1.0s,mb4.0
LPL   La Plagne       47.89 302     eP     P       22 57 19.4 +0.4
       comp=Z,14nm,1.0s,mb4.0
CABF  La Chapelle     48.09 303     eP     P       22 57 20.9 +0.4
       comp=Z,5.3nm,0.8s,mb3.9
CABF  La Chapelle     48.09 303     eP     P       22 57 20.9 +0.4
CABF                                 pmax  pmax
       comp=Z,5.0nm,0.8s,mb3.9
CABF  La Chapelle     48.09 303     eP     P       22 57 20.9 +0.4
       comp=Z,11nm,0.8s,mb3.9
KMBO  Kilima Mbogo    48.58 227     eP     P       22 57 25.7 +1.0
KMBO  Kilima Mbogo    48.58 227      P     P       22 57 24.6  0.0
KMBO                                 pmax  pmax
       comp=Z,2.0nm,0.6s
KMBO  Kilima Mbogo    48.58 227      P     P       22 57 24.6 -0.1
       comp=Z,2.4nm,0.6s,mb3.7,baz=33,slow=12,SNR=7.8
ORIF  Oris-en-Rattie  48.61 301     eP     P       22 57 25.0 +0.5
KEST  Kesra           48.73 288      P     P       22 57 26.2 +0.6
       comp=Z,1.2nm,0.8s,mb3.3,baz=339,slow=2.1,SNR=7.6
JNU   Nakatsue        48.91  75      P     P       22 57 27.8 +0.8
       comp=Z,11nm,0.9s,mb4.2,baz=22,slow=3.2,SNR=7.1
JOW   Kunigami        49.39  84      P     P       22 57 30.6 -0.1
       comp=Z,7.5nm,0.4s,mb4.4,baz=309,slow=0.9,SNR=17
VIVF  Saint-Julien-l  49.46 301     eP     P       22 57 30.9 -0.1
SMF   Signal de Mont  49.59 304     eP     P       22 57 31.7 -0.2
       comp=Z,14nm,1.1s,mb4.2
SMF   Signal de Mont  49.59 304     eP     P       22 57 31.7 -0.2
SMF                                  pmax  pmax
       comp=Z,14nm,1.1s,mb4.2
SMF   Signal de Mont  49.59 304     eP     P       22 57 31.7 -0.2
       comp=Z,28nm,1.1s,mb4.2
SSF   Saint Saulge    49.72 304     eP     P       22 57 32.5 -0.4
AVF   Avril sur Loir  49.89 304⇑    iP     P       22 57 33.9 -0.2
       comp=Z,8.9nm,0.9s,mb4.1
AVF   Avril sur Loir  49.89 304⇑    iP     P       22 57 33.9 -0.2
AVF                                  pmax  pmax
       comp=Z,9.0nm,0.9s,mb4.1
AVF   Avril sur Loir  49.89 304⇑    iP     P       22 57 33.9 -0.2
       comp=Z,18nm,0.9s,mb4.1
LASF  Ste Croix       50.23 301     eP     P       22 57 37.0 +0.3
BGF   Bois d'Agland   50.28 304     eP     P       22 57 37.3 +0.2
TCF   Toulx Ste Croi  50.77 304     eP     P       22 57 40.9 +0.1
       comp=Z,8.8nm,1.0s,mb4.1
TCF   Toulx Ste Croi  50.77 304     eP     P       22 57 40.9 +0.1
TCF                                  pmax  pmax
       comp=Z,9.0nm,1.0s,mb4.2
TCF   Toulx Ste Croi  50.77 304     eP     P       22 57 40.9 +0.1
       comp=Z,18nm,1.0s,mb4.2
CAF   Calviac         51.23 302     eP     P       22 57 44.5 +0.3
       comp=Z,3.4nm,0.9s,mb3.8
CAF   Calviac         51.23 302     eP     P       22 57 44.5 +0.3
CAF                                  pmax  pmax
       comp=Z,3.0nm,0.9s,mb3.7
CAF   Calviac         51.23 302     eP     P       22 57 44.5 +0.3
       comp=Z,6.8nm,0.9s,mb3.8
RJF   Les Rejaudoux   51.50 303     eP     P       22 57 47.4 +1.2
MTLF  Montolieu       51.58 300     eP     P       22 57 46.6 -0.2
       comp=Z,4.6nm,1.0s,mb3.9
MTLF  Montolieu       51.58 300     eP     P       22 57 46.6 -0.2
MTLF                                 pmax  pmax
       comp=Z,5.0nm,1.0s,mb3.9
MTLF  Montolieu       51.58 300     eP     P       22 57 46.6 -0.2
       comp=Z,9.2nm,1.0s,mb3.9
FLN   La Foliniere    51.92 307     eP     P       22 57 48.6 -0.6
       comp=Z,6.5nm,0.8s,mb4.1
FLN   La Foliniere    51.92 307     eP     P       22 57 48.6 -0.6
FLN                                  pmax  pmax
       comp=Z,7.0nm,0.8s,mb4.1
FLN   La Foliniere    51.92 307     eP     P       22 57 48.6 -0.6
       comp=Z,13nm,0.8s,mb4.1
EKA   Eskdalemuir Ar  52.07 316      P     P       22 57 50.0 -0.3
EKA                                  *PP   pP      22 58 34.9 -1.2
EKA                                  pmax  pmax
       comp=Z,2.0nm,0.8s
EKA                                  pmax  pmax
       comp=Z,5.0nm,1.0s
EKA   Eskdalemuir Ar  52.07 316      P     P       22 57 50.0 -0.3
       comp=Z,2.4nm,0.8s,mb3.7,baz=95,slow=6.8,SNR=4.3
EKA                                  pP    pP      22 58 34.9 -1.2
       comp=Z,4.9nm,1.0s,baz=93,slow=6.7,SNR=3.7
LFF   La Frestale     52.13 302     eP     P       22 57 50.9  0.0
GRR   Gorron          52.26 307     eP     P       22 57 51.1 -0.6
       comp=Z,13nm,0.9s,mb4.3
GRR   Gorron          52.26 307     eP     P       22 57 51.1 -0.6
GRR                                  pmax  pmax
       comp=Z,13nm,0.9s,mb4.4
GRR   Gorron          52.26 307     eP     P       22 57 51.1 -0.6
       comp=Z,25nm,0.9s,mb4.3
YSS   Yuzh-Sakhalins  53.10  55     eP     P       22 57 59.0 +1.1
       comp=Z,16nm,0.3s,mb4.9
YSS   Yuzh-Sakhalins  53.10  55     eP     P       22 57 59.0 +1.1
YSS                                  pmax  pmax
       comp=Z,16nm,0.3s,mb4.9
MAJO  Matsushiro      53.26  68     eP     P       22 58 04.3 +5.0
MJAR  Matsushiro Arr  53.26  68      P     P       22 57 59.5 +0.2
MJAR                                 pmax  pmax
       comp=Z,8.0nm,0.5s
MJAR  Matsushiro Arr  53.26  68      P     P       22 57 59.5 +0.2
       comp=Z,7.7nm,0.5s,mb4.4,baz=149,slow=12,SNR=13
ETSF  Etsaut          53.65 300⇑    iP     P       22 58 02.1 +0.1
       comp=Z,3.8nm,0.6s,mb4.1
ETSF  Etsaut          53.65 300⇑    iP     P       22 58 02.1 +0.1
ETSF                                 pmax  pmax
       comp=Z,4.0nm,0.6s,mb4.1
ETSF  Etsaut          53.65 300⇑    iP     P       22 58 02.1 +0.1
       comp=Z,7.6nm,0.6s,mb4.1
MA2   Magadan         54.58  38     eP     P       22 58 09.4 +1.1
MA2   Magadan         54.58  38     eP     P       22 58 09.4 +1.0
MA2                                  pmax  pmax
       comp=Z,10.0nm,0.9s,mb4.3
SEY   Seymchan        54.61  34⇓    eP     P       22 58 09.9 +1.3
DAG   Danmarks Havn   54.66 344⇓    eP     P       22 58 09.3 +0.6
DAG                                  pmax  pmax
       comp=Z,9.0nm,0.8s,mb4.3
DAG   Danmarks Havn   54.66 344⇓    iP     P       22 58 09.3 +0.6
       comp=Z,9.0nm,0.8s,mb4.3
DAG                                 e              22 58 49.0
YUK   Yuzh-Kuril'sk   56.09  57      P     P       22 58 14.4 -5.0
YUK                                 eS     PcP     22 59 13.1 -1.8
ESDC  Sonseca Array   57.18 298      P     P       22 58 26.7 -0.5
       comp=Z,0.7nm,0.6s,mb3.5,baz=54,slow=7.5,SNR=6.3
ESDC                                 pP    pP      22 59 09.5 -4.4
       comp=Z,0.6nm,0.6s,baz=59,slow=7.4,SNR=2.6
BILL  Bilibino        58.76  26     eP     P       22 58 38.6 +0.9
       comp=Z,17nm,1.0s,mb4.6
BILL  Bilibino        58.76  26c    iP     P       22 58 38.6 +0.9
BILL                                e      pP      22 59 27.2 +2.5
BILL                                e              23 00 50.2
BILL                                 pmax  pmax
       comp=Z,13nm,0.9s,mb4.6
LSZ   Lusaka          65.21 226     eP     P       22 59 21.2 -0.1
       comp=Z,3.2nm,0.7s,mb4.1
LSZ   Lusaka          65.21 226     eP     P       22 59 21.2  0.0
LSZ                                  pmax  pmax
       comp=Z,3.0nm,0.7s,mb4.0
TOA0  Torodi Ar. Sit  65.39 268     eP     P       22 59 20.7 -1.9
TORD  Torodi Ar. Bea  65.39 268      P     P       22 59 20.7 -1.9
TORD                                 pP    pP      23 00 06.9 -3.7
TORD  Torodi Ar. Bea  65.39 268      P     P       22 59 20.7 -1.9
       comp=Z,6.1nm,0.5s,mb4.5,baz=48,slow=5.8,SNR=128
TORD                                 pP    pP      23 00 06.9 -3.7
       comp=Z,3.0nm,0.8s,baz=48,slow=5.7,SNR=3.5
RES   Resolute Bay    68.69 356     eP     P       22 59 42.8 +0.4
TNA   Tin City        68.70  22     eP     P       22 59 43.8 +1.2
IMA2  Indian Mountai  72.23  17     eP     P       23 00 03.9  0.0
INK   Inuvik          73.97   9     eP     P       23 00 15.2 +1.1
       comp=Z,634nm,1.1s
INK                                 epP    pP      23 01 05.0 +1.8
INK   Inuvik          73.97   9     eP     P       23 00 15.2 +1.1
INK                                 e*PP   pP      23 01 05.0 +1.8
INK                                  pmax  pmax
       comp=Z,635nm,1.1s
LBTB  Lobatse         74.45 222     eP     P       23 00 17.9 +0.6
       comp=Z,30nm,1.5s,mb4.7
LBTB                                epP    pP      23 01 08.6 +2.0
LBTB                                esP    sP      23 01 30.5 +1.9
LBTB  Lobatse         74.45 222     eP     P       23 00 18.0 +0.6
LBTB                                e*PP   pP      23 01 08.6 +2.0
LBTB                                e*SP   sP      23 01 30.5 +1.9
LBTB                                 pmax  pmax
       comp=Z,30nm,1.5s,mb4.7
COLA  College         74.58  16     eP     P       23 00 18.4 +0.7
       comp=Z,16nm,0.8s,mb4.7
COLA  College         74.58  16     eP     P       23 00 18.4 +0.8
COLA                                 pmax  pmax
       comp=Z,16nm,0.8s,mb4.7
TSUM  Tsumeb          74.65 232     eP     P       23 00 18.3 -0.3
       comp=Z,3.2nm,0.6s,mb4.1
LIC   Lamto           74.77 266     eP     P       23 00 18.6 -1.0
       comp=Z,7.3nm,0.6s,mb4.5
LIC   Lamto           74.77 266     eP     P       23 00 18.6 -1.0
       comp=Z,15nm,0.6s,mb4.5
FITZ  Fitzroy Crossi  75.14 126     eP     P       23 00 21.2 -0.3
       comp=Z,11nm,0.9s,mb4.5
MCK   McKinley        75.31  17     eP     P       23 00 22.4 +0.6
       comp=Z,3.9nm,0.5s,mb4.3
MCK   McKinley        75.31  17     eP     P       23 00 22.4 +0.6
MCK                                  pmax  pmax
       comp=Z,4.0nm,0.5s,mb4.3
KAKA  Kakadu          76.01 118     eP     P       23 00 25.4 -1.1
       comp=Z,14nm,0.6s,mb4.8
DAWY  Dawson          77.01  13     eP     P       23 00 32.1 +0.7
SML   Sawmill         77.10  18     eP     P       23 00 33.0 +1.1
YKW3  Yellowknife Ar  81.21   2     eP     P       23 00 53.9 -0.2
YKA   Yellowknife Ar  81.28   2      P     P       23 00 54.9 +0.4
YKA                                  pP    pP      23 01 44.9 +0.5
YKA                                  PKKPbc PKKPbc 23 19 25.2 -2.9
YKA   Yellowknife Ar  81.28   2      P     P       23 00 54.8 +0.3
YKA                                  *PP   pP      23 01 44.9 +0.4
YKA                                  pmax  pmax
       comp=Z,6.0nm,0.7s
YKA                                  pmax  pmax
       comp=Z,3.0nm,0.7s
YKA   Yellowknife Ar  81.28   2      P     P       23 00 54.8 +0.4
       comp=Z,5.6nm,0.7s,mb4.3,baz=350,slow=5.3,SNR=89
YKA                                  pP    pP      23 01 44.9 +0.5
       comp=Z,2.5nm,0.7s,baz=351,slow=5.5,SNR=5.1
YKA                                  PKKPbc PKKPbc 23 19 25.2 -2.9
       comp=Z,0.2nm,0.6s,baz=164,slow=2.4,SNR=3.8
NWAO  Narrogin (SRO)  81.65 142      P     P       23 00 57.7 +0.9
SCHQ  Schefferville   81.98 337      P     P       23 00 58.8 +0.5
SCHQ  Schefferville   81.98 337      P     P       23 00 57.9 -0.4
       comp=Z,1.7nm,0.6s,mb3.8,baz=252,slow=6.7,SNR=5.2
WRA   Warramunga Arr  82.26 122      P     P       23 00 58.9 -1.3
WRA                                  *PP   pP      23 01 50.7 +0.3
WRA                                  pmax  pmax
       comp=Z,12nm,0.8s
WRA                                  pmax  pmax
       comp=Z,2.0nm,0.8s
WRA   Warramunga Arr  82.26 122      P     P       23 00 58.9 -1.3
       comp=Z,12nm,0.8s,mb4.6,baz=322,slow=4.8,SNR=64
WRA                                  pP    pP      23 01 50.7 +0.4
       comp=Z,1.6nm,0.8s,baz=322,slow=5.0,SNR=2.3
WB2   Warramunga Arr  82.26 122     eP     P       23 00 58.9 -1.3
SUR   Sutherland      82.83 221     eP     P       23 01 04.1 +1.2
DLBC  Dease Lake      83.87  11     eP     P       23 01 09.4 +1.4
FCC   Fort Churchill  84.25 352     eP     P       23 01 09.5 -0.3
       comp=Z,2.7nm,0.6s,mb4.2
FCC   Fort Churchill  84.25 352     eP     P       23 01 09.5 -0.3
FCC                                  pmax  pmax
       comp=Z,3.0nm,0.6s,mb4.2
ASAR  Alice Springs   84.51 125      P     P       23 01 10.7 -0.9
ASAR                                 *PP   pP      23 02 01.4 -0.6
ASAR                                 pmax  pmax
       comp=Z,10.0nm,0.8s
ASAR                                 pmax  pmax
       comp=Z,1.0nm,0.7s
ASAR  Alice Springs   84.51 125      P     P       23 01 10.7 -0.9
       comp=Z,10nm,0.8s,mb4.6,baz=310,slow=5.0,SNR=81
ASAR                                 pP    pP      23 02 01.4 -0.7
       comp=Z,1.3nm,0.7s,baz=311,slow=5.1,SNR=2.6
FORT  Forrest         85.89 133     eP     P       23 01 17.7 -0.6
       comp=Z,22nm,0.7s,mb5.0
EDM   Edmonton        90.60   2     eP     P       23 01 41.3 +1.0
CTAO  Charters Tower  90.83 114     eP     P       23 01 41.3 -0.6
       comp=Z,18nm,1.0s,mb5.0
CTAO  Charters Tower  90.83 114     eP     P       23 01 41.3 -0.6
CTAO                                 pmax  pmax
       comp=Z,18nm,1.0s,mb5.0
ULM   Lac du Bonnet   92.82 351      P     P       23 01 50.0 -0.7
       comp=Z,1.3nm,0.8s,mb4.0,baz=15,slow=10,SNR=3.5
STKA  Stephens Creek  95.04 126      P     P       23 02 01.0  0.0
       comp=Z,2.0nm,0.9s,mb4.2,baz=338,slow=5.4,SNR=3.0
```

NIED ***06*** *22:58:00, 44.40N×149.40E, h23^{km}, Mw3.7   Best double couple: $M_0$4.58000×10^{14} NP1:ϕ_s214.00000°, δ27.00000°, λ80.00000°.   NP2:ϕ_s46.00000°, δ63.00000°, λ95.00000°.*

ISCJB ***06*** *22:58:02.5±0.9, 44.1N±0.1×149.4E±0.1, h33^{km}, mb3.8/17, Error ellipse: s-maj=23.8km s-min=5.4km az=151.8*

JMA ***06*** *22:58:03.0±0.9, 44.35N×149.38E, h30^{km}, M3.6*

IDC ***06*** *22:58:03.6±1.0, 44.90N×149.28E, h0^{km}, mb3.7/10, mb1 3.8/11, mb1mx3.7/23, mbtmp3.6/11, ML3.0/1, MS2.7/2, Ms1 2.7/2, ms1mx2.3/35, Error ellipse: s-maj=28.1km s-min=22.0km az=153.0*

NEIC ***06*** *22:58:05.0±0.5, 44.90N×149.25E, h10^{km}, mb4.0/6, Error ellipse: s-maj=12.6km s-min=7.9km az=158.0*

MOS ***06*** *22:58:06.5±0.9, 44.88N×149.22E, h33^{km}, mb4.1/12, Error ellipse: s-maj=16.9km s-min=13.5km az=102.4*

ISC 06 22:58:04.8±0.9**, 44.1N**±0.1×**149.4E**±0.1**, h35^{km}, n56,**

$\sigma 1^{s}01$/57,mb3.8/17,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	2.76	256	P	Pn	22 58 45.1	-1.4
NEM2				*e*S	Sn	22 59 15.3	-3.2
JRA	Rausu	3.10	268	P	Pn	22 58 51.3	+0.2
JNK	Nakash	3.43	263	P	Pn	22 58 54.9	-0.8
JAK	Akkeshi	3.60	254	P	Pn	22 58 56.6	-1.5
JTKR	Abashiri--Toko	3.97	270	P	Pn	22 59 03.5	+0.4
JAR	Ashorobuto	4.17	261	P	Pn	22 59 05.9	+0.1
JMP	Maruseppu	4.36	271	P	Pn	22 59 09.3	+0.8
JCH	Churui	4.65	253	P	Pn	22 59 12.9	+0.4
JCH				*e*S	Sn	23 00 04.6	-0.7
ASAJ	Asahikawa	4.90	272	PN	Pn	22 59 17.8	+1.8
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,85nm,21.2s						
ASAJ	Asahikawa	4.90	272	Pn	Pn	22 59 17.8	+1.8
	comp=Z,0.5nm,0.3s,baz=57,slow=17,SNR=3.2						
ASAJ				LR	LR	23 01 10.8	
	comp=Z,85nm,21.2s,baz=2.8,slow=39						
JEM	Erimo	5.03	248	P	Pn	22 59 18.3	+0.5
JFR	Furan	5.04	262	P	Pn	22 59 18.9	+1.1
JNBK	Urakawa-nobuka	5.20	252	P	Pn	22 59 21.7	+1.7
JBT2	Biratori 2	5.30	258	P	Pn	22 59 21.2	-0.2
JNB	Noboribetsu	6.32	258	P	Pn	22 59 35.5	0.0
JKB	Kayabe	6.53	253	P	Pn	22 59 37.8	-0.5
JYM2	Yakumo 2	6.91	256	P	Pn	22 59 43.3	-0.2
JTM	Tenmabayashi	7.00	245	P	Pn	22 59 44.0	-0.8
JOSM	Okushiri--Mats	7.55	258	P	Pn	22 59 52.4	+0.2
MDJ	Mudanjiang	14.19	279	Pn	Pn	23 01 22.9	-0.2
JNU	Nakatsue	18.12	239	LR	LR	23 09 04.0	
	comp=Z,26nm,18.8s,baz=209,slow=36						
INCN	Inchon	18.44	257	P	Pn	23 02 21.1	+3.7
SONM	Songino Array	29.84	293	P	P	23 04 08.6	+0.2
	comp=Z,0.4nm,0.8s,mb3.2,baz=79,slow=9.4,SNR=3.1						
MCK	McKinley	39.35	38	P	P	23 05 28.9	-1.3
COLA	College	39.82	36	*e*P	P	23 05 32.7	-1.4
	comp=Z,1.3nm,0.4s,mb4.0						
COLA	College	39.82	36	*e*P	P	23 05 32.7	-1.5
COLA				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
INK	Inuvik	45.27	31	P	P	23 06 15.8	-2.5
INK	Inuvik	45.27	31	P	P	23 06 15.8	-2.5
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	Inuvik	45.27	31	P	P	23 06 15.8	-2.5
	comp=Z,0.7nm,0.5s,mb3.7,baz=276,slow=9.5,SNR=3.6						
MK31	Makanchi Array	45.86	298	*e*P	P	23 06 23.6	+0.3
MKAR	Makanchi Array	45.86	298	P	P	23 06 23.4	+0.1
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	Makanchi Array	45.86	298	P	P	23 06 23.4	+0.1
	comp=Z,1.1nm,0.8s,mb3.8,baz=81,slow=9.0,SNR=10						
KURK	Kurchatov	46.68	304	*e*P	P	23 06 29.7	+0.1
	comp=Z,0.5nm,0.4s,mb3.8						
LSA	Lhasa	47.80	273	*e*P	P	23 06 42.0	+3.3
	comp=Z,0.9nm,0.4s,mb4.2						
LSA	Lhasa	47.80	273	*e*P	P	23 06 42.1	+3.3
LSA				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
BRVK	Borovoye	50.58	310	*e*P	P	23 06 57.9	-1.7
	comp=Z,0.6nm,0.3s,mb4.0						
BRVK	Borovoye	50.58	310	*e*P	P	23 06 57.9	-1.7
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
AAK	Ala-Archa	52.67	296	*e*P	P	23 07 14.9	-0.5
	comp=Z,0.9nm,0.6s,mb3.9						
AAK	Ala-Archa	52.67	296	*e*P	P	23 07 14.9	-0.5
AAK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
PMG	Port Moresby	53.30	183	*e*P	P	23 07 29.9	+10
	comp=Z,17nm,0.9s,mb5.0						
PMG	Port Moresby	53.30	183	*e*P	P	23 07 29.9	+10
PMG				pmax	pmax		
	comp=Z,17nm,0.9s						
YKA	Yellowknife Ar	54.59	35	P	P	23 07 30.0	+0.9
	comp=Z,0.1nm,0.4s,mb3.2,baz=296,slow=6.4,SNR=3.0						
FCC	Fort Churchill	64.89	31	*e*P	P	23 08 40.3	+0.3
WRA	Warramunga Arr	65.22	196	P	P	23 08 51.8	+9.3
WRA				pmax	pmax		
	comp=Z,1.0nm,1.1s						
WRA	Warramunga Arr	65.22	196	P	P	23 08 51.8	+9.2
	comp=Z,0.8nm,1.1s,mb3.7,baz=15,slow=7.0,SNR=2.3						
FINES	FINESS Array B	65.28	334	P	P	23 08 42.6	+0.1
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	FINESS Array B	65.28	334	P	P	23 08 42.6	0.0
	comp=Z,1.1nm,0.7s,mb4.0,baz=37,slow=4.8,SNR=5.1						
NB2	NORSAR Subarra	69.84	340	P	P	23 09 11.7	+0.4
	comp=Z,2.0nm,0.7s,mb4.2,baz=31,slow=6.5						
NOA	NORSAR Array B	69.84	340	P	P	23 09 11.5	+0.2
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	NORSAR Array B	69.84	340	P	P	23 09 11.5	+0.1
	comp=Z,1.5nm,0.8s,mb4.0,baz=32,slow=6.2,SNR=3.8						
KIV	Kislovodsk	70.73	313	*e*P	P	23 09 18.0	+0.9
	comp=Z,2.1nm,0.6s,mb4.2						
KIV	Kislovodsk	70.73	313	*e*P	P	23 09 18.0	+1.0
KIV				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
AKASG	Malin Array Be	72.24	325	P	P	23 09 26.1	+0.1
	comp=Z,0.3nm,0.5s,mb3.5,baz=36,slow=5.9,SNR=4.2						
GERES	GERESS Array B	79.62	332	P	P	23 10 08.5	+0.4
	comp=Z,0.4nm,0.6s,mb3.5,baz=46,slow=7.6,SNR=4.3						
TXAR	Lajitas Array	81.09	58	P	P	23 10 18.2	+1.8
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
TXAR	Lajitas Array	81.09	58	P	P	23 10 18.2	+1.9
	comp=Z,0.5nm,0.8s,mb3.5,baz=321,slow=4.2,SNR=4.6						

IDC 06 23:25:52.5±2.0,23.32S×169.26E,h0^{km},mb3.9/4, mb1 4.1/5,mb1mx4.0/12,mbtmp3.8/5,ML2.9/1,Error ellipse: s-maj=68.7km s-min=29.2km az=4.0,Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	2.88	295	*e*P	Pn	23 26 40.6	+0.9
DZM				*e*S	Sn	23 27 14.5	-0.6
DZM	Mont Dzumac	2.88	295	Pn	Pn	23 26 40.7	+1.1
	1.7nm,0.3s,baz=104,slow=14,SNR=46						
DZM				Sn	Sn	23 27 17.0	+2.0
	6.7nm,0.3s,baz=358,slow=16,SNR=6.1						
WRA	Warramunga Arr	32.59	269	P	P	23 32 24.7	-1.2
	0.4nm,0.5s,baz=100,slow=8.5,SNR=5.3						
MJAR	Matsushiro Arr	66.36	333	P	P	23 36 42.5	-0.6
	0.8nm,0.5s,baz=156,slow=9.3,SNR=4.1						
SONM	Songino Array	90.48	323	P	P	23 38 56.3	+0.4
	0.6nm,0.8s,baz=138,slow=5.3,SNR=5.5						
NVAR	Mina Array Bea	91.48	49	P	P	23 39 00.8	-0.1
	0.6nm,0.6s,baz=213,slow=6.5,SNR=3.9						
DPC	Dobruska-Polom	145.76	329	*e*P	PKPdf	23 45 34.5	+1.7
UPC	Upice	145.80	329	*e*P	PKPdf	23 45 31.0	-1.9
PVCC	Panska Ves	146.45	330	*e*P	PKPab	23 45 41.3	+5.1
BRG	Berggiesshubel	146.49	331	*e*P	PKPdf	23 45 36.4	+2.3
	5.0nm,0.9s						
PRU	Pruhonice	146.84	330	*e*P	PKPdf	23 45 37.2	+2.5
TREC	Trest	146.87	328	*e*P	PKPbc	23 45 38.1	+1.5
KHC	Kasperske Hory	147.89	329	*e*P	PKPbc	23 45 41.1	+1.7
GERES	GERESS Array B	148.03	329	PKPbc	PKPbc	23 45 40.7	+0.9
	0.9nm,0.8s,baz=17,slow=1.8,SNR=5.8						

MOS ***07*** *00:07:04.9±0.9,50.64N×157.20E,h63^{km},mb4.3/18,Error ellipse: s-maj=12.4km s-min=5.8km az=78.6*
KRSC ***07*** *00:07:05.3±0.5,50.61N×157.77E,h50^{km}±49^{km},ML4.8*
ISCJB ***07*** *00:07:06.6±0.6,50.67N±0.05×157.21E±0.06,h74^{km}±4^{km}, mb4.1/38,Error ellipse: s-maj=9.8km s-min=4.3km az=143.6*
IDC ***07*** *00:07:07.2±6.2,50.78N×157.14E,h62^{km}±56^{km},mb3.7/17, mb1 3.9/18,mb1mx3.9/24,mbtmp3.7/18,ML4.0/1,MS3.1/6, Ms1 3.1/6,ms1mx2.9/34,Error ellipse: s-maj=22.2km s-min=14.0km az=162.0*
NEIC ***07*** *00:07:09.1±1.1,50.85N×157.03E,h76^{km}±9^{km},mb4.3/21, Error ellipse: s-maj=9.0km s-min=4.6km az=159.0*
ISC 07 00:07:08.1±0.6,50.68N±0.05×157.14E±0.06,h70^{km}±4^{km}, n127,$\sigma 1^{s}12$/141,mb4.1/38,1C-2D,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	0.65	271	⇓*i*PN	Pn	00 07 21.5	-0.9
SKR				*i* S	Sn	00 07 32.5	-0.5
SKR				pmax	pmax		
	comp=N,290nm,0.5s						
SKR				pmax	pmax		
	comp=E,260nm,0.5s						
SKR				pmax	pmax		
	comp=Z,850nm,0.5s						
SKR				smax			
	comp=N,22μm,1.0s						
SKR				smax			
	comp=E,20μm,1.0s						
ALID	Alaid	1.03	281	*i* P	Pn	00 07 27.9	+1.0
ALID				*i* S	Sn	00 07 43.9	+3.0
MIPR	Malaya Ipel'ka	1.62	352	*i* P	Pn	00 07 34.8	+0.2
MIPR				*i* S	Sn	00 07 56.4	+1.8
RUS	Russkaya	1.95	25	*e*P	Pn	00 07 36.4	-2.7
RUS				*i* S	Sn	00 07 59.1	-3.5
GRL	Gorelyy	1.96	17	*e*P	Pn	00 07 38.2	-1.0
GRL				*i* S	Sn	00 08 01.5	-1.4
PET	Petropavlovsk	2.53	21	*e*Pn	Pn	00 07 45.0	-1.8
PET				*e*Sn	Sn	00 08 13.3	-3.3
PET	Petropavlovsk	2.53	21	PN	Pn	00 07 45.4	-1.4
PET				S	Sn	00 08 14.9	-1.6
PET	Petropavlovsk	2.53	21	*e*P	Pn	00 07 45.4	-1.4
PET				*i* S	Sn	00 08 14.9	-1.6
AVH	Avacha	2.77	20	*e*P	Pn	00 07 50.0	-0.1
AVH				*i* S	Sn	00 08 23.2	+0.8
NLC	Nalytchevo	2.84	28	*e*P	Pn	00 07 47.9	-3.2
NLC				*i* S	Sn	00 08 19.9	-4.3
SPN	Mys Shipunski	3.01	35	*e*P	Pn	00 07 51.1	-2.2
SPN				*i* S	Sn	00 08 24.0	-4.2
GNL	Ganaly	3.06	9	*e*P	Pn	00 07 54.6	+0.6
KII	Karymskiy	3.65	22	*e*P	Pn	00 08 02.0	0.0
KII				*i* S	Sn	00 08 44.8	+1.0
MKZ	Mys Kozlova	4.78	34	*e*P	Pn	00 08 14.7	-2.8
MKZ				*i* S	Sn	00 09 06.8	-4.8
TUMR	Tumrok	4.96	20	*e*P	Pn	00 08 20.6	+0.7
TUMR				*i* S	Sn	00 09 17.0	+1.2
KMNR	Kamenistaya	5.42	19	*e*P	Pn	00 08 27.3	+1.2
KPT	Kopyto	5.61	18	*e*P	Pn	00 08 30.3	+1.5
KIRR	Kirishev	5.62	19	*e*P	Pn	00 08 30.1	+1.2
KOZ	Kozyrevsk	5.63	16	*e*P	Pn	00 08 29.3	+0.2
BZMR	Bezymyannaya	5.63	20	*e*P	Pn	00 08 29.9	+0.8
KOZR	Kozyr	5.64	16	PN	Pn	00 08 29.3	+0.1
ZLN	Zelenaya	5.78	21	*e*P	Pn	00 08 32.2	+1.1
SRDR	Sredinnyy	5.85	14	*e*P	Pn	00 08 32.8	+0.7
CIRR	Tsirk	5.86	20	P	Pn	00 08 33.6	+1.4
KRSR	Krestovskiy	5.91	19	*e*P	Pn	00 08 33.6	+0.7
KLY	Klyuchi	6.02	19	*e*P	Pn	00 08 35.2	+0.8
BDR	Baidarnaya	6.38	21	*e*P	Pn	00 08 39.0	-0.3
SRKR	Sorokina	6.45	20	*e*P	Pn	00 08 40.2	0.0
SMKR	Semkarok	6.45	22	*e*P	Pn	00 08 39.6	-0.6
KBTR	Krutoberegovo	6.49	29	*e*P	Pn	00 08 39.3	-1.6
KBTR				*i* S	Sn	00 09 47.8	-5.6
MA2	Magadan	9.63	340	*e*Pn	Pn	00 09 24.9	+1.2
MA2	Magadan	9.63	340	*e*PN	Pn	00 09 25.1	+1.5
MA2				pmax	pmax		
	comp=N,10.0nm,0.6s						
MA2				pmax	pmax		
	comp=Z,20nm,0.6s						
ASAJ	Asahikawa	11.83	242	PN	Pn	00 09 59.2	+5.4
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,38nm,20.5s						
ASAJ	Asahikawa	11.83	242	P	Pn	00 09 59.2	+5.4
	comp=Z,2.3nm,0.3s,baz=85,slow=16,SNR=7.2						
ASAJ				LR	LR	00 14 16.6	
	comp=Z,38nm,20.5s,baz=208,slow=36						
SEY	Seymchan	12.55	350	*i* PN	Pn	00 10 06.8	+3.3
HABR	Khabarovsk	14.49	270	*e*P	Pn	00 10 33.7	+4.4
HABR				*e*S	Sn	00 13 17.7	+9.2
BILL	Bilibino	17.99	11	*e*P	Pn	00 11 11.2	-1.7
	comp=Z,1.9nm,0.3s						
BILL	Bilibino	17.99	11	*i* P	Pn	00 11 12.4	-0.5
BILL				pmax	pmax		
	comp=Z,3.0nm,1.0s						
YAK	Yakutsk	18.82	318	*e*P	Pn	00 11 19.2	-3.8
	comp=Z,22nm,0.3s						
YAK	Yakutsk	18.82	318	⇑*e*P	Pn	00 11 24.2	+1.2
YAK				pmax	pmax		
	comp=Z,18nm,0.6s						
YAK				MLR	MLR		
	comp=Z,100nm,15.0s						
MDJ	Mudanjiang	19.46	263	*e*P	Pn	00 11 29.3	-1.4
	comp=Z,2.8nm,0.4s						
MJAR	Matsushiro Arr	19.61	231	P	Pn	00 11 31.8	-0.8
MJAR				LR	LR	00 19 59.8	
MJAR	Matsushiro Arr	19.61	231	P	Pn	00 11 31.8	-0.7
	comp=Z,0.4nm,0.3s,baz=30,slow=10,SNR=6.6						
MJAR				LR	LR	00 19 59.8	
	comp=Z,51nm,19.0s,baz=35,slow=39						
MAJO	Matsushiro	19.61	231	*e*P	Pn	00 11 30.2	-2.3
	comp=Z,5.0nm,0.3s						
MAJO	Matsushiro	19.61	231	*e*P	Pn	00 11 30.2	-2.3
MAJO				pmax	pmax		
	comp=Z,5.0nm,0.3s						
TNA	Tin City	23.28	37	*e*P	P	00 12 08.4	-0.8
TIXI	Tiksi	24.60	339	*e*P	P	00 12 17.3	-3.8
TIXI				*e*		00 12 53.2	
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb3.8						
KSRS	Korea Array	24.62	249	P	P	00 12 24.9	+3.2
	comp=Z,0.7nm,0.5s,mb3.4,baz=50,slow=11,SNR=3.3						
KSRS				LR	LR	00 20 50.2	
	comp=Z,28nm,21.6s,baz=45,slow=33						
INCN	Inchon	25.37	250	*e*P	P	00 12 29.3	+0.8
BJT	Baijiatuau	30.34	265	*e*P	P	00 13 11.6	-1.3
	comp=Z,2.7nm,0.4s,mb4.2						
BJT	Baijiatuau	30.34	265	*e*P	P	00 13 11.6	-1.2
BJT				pmax	pmax		
	comp=Z,3.0nm,0.4s						
MCK	McKinley	30.95	44	*e*P	P	00 13 18.3	+0.3
	comp=Z,2.2nm,0.8s,mb3.9						
MCK	McKinley	30.95	44	*e*P	P	00 13 18.3	+0.4
MCK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
PMR	Palmer	30.95	49	*e*P	P	00 13 17.6	-0.4
COLA	College	31.41	42	*e*P	P	00 13 21.2	-0.8
	comp=Z,4.0nm,0.8s,mb4.2						
COLA	College	31.41	42	*e*P	P	00 13 21.2	-0.8
COLA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
ULN	Ulaanbaatar	32.30	285	*e*P	P	00 13 30.2	+0.2
	comp=Z,0.8nm,0.4s,mb3.8						
ULN	Ulaanbaatar	32.30	285	*e*P	P	00 13 30.2	+0.2
ULN				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
SONM	Songino Array	32.72	285	P	P	00 13 33.9	+0.3
SONM						00 16 17.8	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,28nm,19.6s						
SONM	Songino Array	32.72	285	P	P	00 13 33.9	+0.2
	comp=Z,0.4nm,0.4s,mb3.6,baz=57,slow=8.1,SNR=8.7						
SONM				PcP	PcP	00 16 17.8	+0.3
	comp=Z,0.5nm,0.8s,baz=112,slow=1.8,SNR=5.0						
SONM				LR	LR	00 27 37.5	
	comp=Z,28nm,19.6s,baz=240,slow=38						
TLY	Talaya	32.93	293	*e*P	P	00 13 35.7	+0.3
	comp=Z,4.5nm,0.3s,mb4.8						
TLY	Talaya	32.93	293	*e*P	P	00 13 35.7	+0.3
TLY				pmax	pmax		
	comp=Z,4.0nm,0.3s,mb4.7						
INK	Inuvik	36.90	35	*e*P	P	00 14 08.3	-1.1
	comp=Z,50nm,0.5s,mb5.7						
INK	Inuvik	36.90	35	P	P	00 14 08.1	-1.3
INK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
INK	Inuvik	36.90	35	P	P	00 14 08.1	-1.3
	comp=Z,1.7nm,0.6s,mb4.1,baz=299,slow=6.6,SNR=9.9						
ZALV	Zalesovo Beam	42.57	304	P	P	00 14 55.9	-0.7
ZALV				PcP	PcP	00 16 47.4	-0.2
ZALV	Zalesovo Beam	42.57	304	P	P	00 14 55.9	-0.7
	comp=Z,0.4nm,0.5s,mb3.4,baz=52,slow=9.3,SNR=2.9						
ZALV				PcP	PcP	00 16 47.4	-0.2
	comp=Z,0.4nm,0.4s,baz=45,slow=4.4,SNR=3.6						
ZAL	Zalesovo	42.58	304	P	P	00 14 55.9	-0.8
ZAL						00 16 47.4	
NVS	Novosibirsk	43.00	305	*e*P	P	00 15 01.2	+1.2
YKA	Yellowknife Ar	46.19	40	P	P	00 15 24.8	-0.5
YKA						00 16 59.6	
YKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	46.19	40	P	P	00 15 24.8	-0.5
	comp=Z,2.4nm,0.6s,mb4.1,baz=297,slow=7.5,SNR=31						
YKA				PcP	PcP	00 16 59.6	-0.3
	comp=Z,0.7nm,0.8s,baz=303,slow=3.6,SNR=6.7						
RES	Resolute Bay	46.24	20	*e*P	P	00 15 24.7	-0.9
	comp=Z,35nm,0.5s,mb5.3						
RES	Resolute Bay	46.24	20	*e*P	P	00 15 24.7	-0.9
RES				pmax	pmax		
	comp=Z,35nm,0.5s,mb5.3						
KURK	Kurchatov	47.47	302	*e*P	P	00 15 35.0	-0.5
	comp=Z,1.4nm,0.4s,mb4.0						
KURK	Kurchatov	47.47	302	*e*P	P	00 15 35.0	-0.4
KURK				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
MK31	Makanchi Array	47.56	296	*e*P	P	00 15 35.7	-0.5
MKAR	Makanchi Array	47.56	296	P	P	00 15 35.8	-0.4
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR				MLR	MLR		
	comp=Z,35nm,18.7s						
MKAR	Makanchi Array	47.56	296	P	P	00 15 35.8	-0.5
	comp=Z,0.6nm,0.5s,mb3.7,baz=67,slow=7.4,SNR=8.6						
MKAR				LR	LR	00 37 01.6	
	comp=Z,35nm,18.7s,baz=224,slow=38						
BRVK	Borovoye	50.49	309	*e*P	P	00 15 57.4	-1.1
	comp=Z,1.0nm,0.5s,mb4.0						
BRVK	Borovoye	50.49	309	*e*P	P	00 15 57.4	-1.1
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
EDM	Edmonton	51.70	50	*e*P	P	00 16 07.2	-0.4
ARU	Arti	53.93	317	*e*P	P	00 16 22.4	-1.5
ARU	Arti	53.93	317	⇓*i*P	P	00 16 22.2	-1.7
ARU				*e*		00 17 25.7	
ARU				*e*		00 18 22.4	
ARU				*e*PPP		00 19 31.6	
ARU				*e*S	S	00 23 53.3	-0.4
ARU				*e*SS	SS	00 27 34.2	-0.8
ARU				*e*SSS		00 29 34.8	
ARU				pmax	pmax		
	comp=Z,5.0nm,2.0s,mb4.2						
AAK	Ala-Archa	54.50	296	*e*P	P	00 16 27.4	-0.8
	comp=Z,1.0nm,0.4s,mb4.2						
AAK	Ala-Archa	54.50	296	*e*P	P	00 16 27.4	-0.9
AAK				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
CHMT	Chamberlain Mo	55.62	56	*e*P	P	00 16 36.2	0.0
FCC	Fort Churchill	56.51	36	*e*P	P	00 16 41.8	-0.6
	comp=Z,3.8nm,0.4s,mb4.8						
FCC	Fort Churchill	56.51	36	*e*P	P	00 16 41.8	-0.7
FCC				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.8						
BOZ	Bozeman (W)	57.30	56	*e*P	P	00 16 41.1	-7.2
	comp=Z,2.6nm,0.6s,mb4.4						
BOZ	Bozeman (W)	57.30	56	*e*P	P	00 16 41.1	-7.1
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
NVAR	Mina Array Bea	58.33	67	P	P	00 16 56.0	+0.4
NVAR	Mina Array Bea	58.33	67	P	P	00 16 56.0	+0.4
	comp=Z,0.3nm,0.3s,mb3.8,baz=311,slow=4.6,SNR=4.5						
IMW	Indian Meadow	58.83	58	*e*P	P	00 17 00.5	+1.6
	comp=Z,3.1nm,0.8s,mb4.4						
MOOW	Moose Ponds	59.03	58	*e*P	P	00 17 01.6	+1.3
	comp=Z,4.3nm,1.3s,mb4.3						
TPAW	Teton Pass	59.09	58	*e*P	P	00 17 02.3	+1.6
LOHW	Long Hollow	59.20	58	*e*P	P	00 17 03.0	+1.5
	comp=Z,4.3nm,1.1s,mb4.4						
BW06	Boulder Array	60.33	58	*e*P	P	00 17 09.7	+0.4
	comp=Z,4.2nm,0.8s,mb4.5						
PDAR	Pinedale Array	60.33	58	P	P	00 17 09.7	+0.4
	comp=Z,4.0nm,0.8s,mb4.5,baz=313,slow=2.7,SNR=35						
FINES	FINESS Array B	61.59	336	*i* P	P	00 17 20.7	+3.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FINES	FINESS Array B	61.59	336	P	P	00 17 15.1	-2.4
	comp=Z,0.7nm,0.8s,mb3.8,baz=36,slow=12,SNR=3.2						
SRU	San Rafael	62.32	61	*e*P	P	00 17 23.6	+0.8
PV10	Paradox Valley	63.66	61	*e*P	P	00 17 32.5	+0.8
SMCO	Snowmass	64.23	59	*e*P	P	00 17 36.3	+0.9
	comp=Z,3.5nm,0.8s,mb4.2						
ISCO	Idaho Springs	64.53	58	*e*P	P	00 17 38.6	+1.3
	comp=Z,3.9nm,0.8s,mb4.3						
ISCO	Idaho Springs	64.53	58	*e*P	P	00 17 38.6	+1.3
ISCO				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
NOA	NORSAR Array B	65.33	343	LR	LR	00 49 25.0	
	comp=Z,37nm,18.0s,baz=80,slow=39						
SDCO	Great Sand Dun	66.06	59	*e*P	P	00 17 48.1	+0.8
SCHQ	Schefferville	68.63	26	P	P	00 18 02.9	-0.4
SCHQ	Schefferville	68.63	26	P	P	00 18 02.1	-1.1
	comp=Z,2.1nm,0.4s,mb4.3,baz=320,slow=3.8,SNR=18						
AKASG	Malin Array Be	69.71	328	P	P	00 18 08.8	-1.1
	comp=Z,0.4nm,0.4s,mb3.6,baz=31,slow=6.8,SNR=2.7						
KIV	Kislovodsk	69.92	316	*e*P	P	00 18 10.6	-0.8
	comp=Z,1.5nm,0.6s,mb4.0						
KIV	Kislovodsk	69.92	316	*e*P	P	00 18 10.6	-0.7
KIV				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
WRA	Warramunga Arr	73.13	202	P	P	00 18 30.5	-0.3
WRA				*PP	pP	00 18 46.0	-3.6
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
WRA	Warramunga Arr	73.13	202	P	P	00 18 30.5	-0.3
	comp=Z,1.2nm,0.6s,mb3.9,baz=18,slow=6.1,SNR=12						
WRA				pP	pP	00 18 46.0	-3.6
	comp=Z,1.7nm,0.8s,baz=18,slow=6.1,SNR=5.1						
TXAR	Lajitas Array	73.30	64	P	P	00 18 32.0	+0.1
TXAR				pP	pP	00 18 46.9	-3.8
TXAR	Lajitas Array	73.30	64	P	P	00 18 32.1	+0.2
TXAR				*PP	pP	00 18 46.9	-3.8
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
TXAR	Lajitas Array	73.30	64	P	P	00 18 32.0	+0.1
	comp=Z,1.5nm,0.6s,mb4.0,baz=296,slow=5.2,SNR=21						
TXAR				pP	pP	00 18 46.9	-3.8
	comp=Z,1.5nm,0.6s,baz=298,slow=4.6,SNR=12						
MLR	Muntele Rosu	75.31	327	P	P	00 18 43.1	-0.2
MLR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
MLR	Muntele Rosu	75.31	327	P	P	00 18 43.1	-0.3
	comp=Z,1.7nm,0.9s,mb3.8						
GERES	GERESS Array B	76.02	336	P	P	00 18 46.7	-0.6
	comp=Z,0.2nm,0.4s,mb3.2,baz=39,slow=6.9,SNR=3.4						
BRTR	Keskin Array B	77.28	319	P	P	00 18 55.2	+0.6
BRTR						00 21 50.0	
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
BRTR	Keskin Array B	77.28	319	P	P	00 18 55.2	+0.6
	comp=Z,0.5nm,0.8s,mb3.3,baz=352,slow=7.5,SNR=3.6						
BRTR				PP	PP	00 21 50.0	+1.3
	comp=Z,0.7nm,0.9s,baz=37,slow=6.0,SNR=3.7						
ARMA	Armidale	80.89	185	P	P	00 19 17.4	+3.3
MMAI	Mount Meron Ar	82.12	314	P	P	00 19 20.9	+0.1
	comp=Z,5.8nm,0.8s,mb4.4,baz=26,slow=4.0,SNR=4.4						
KEST	Kesra	89.40	334	P	P	00 19 57.8	+0.9
	comp=Z,1.8nm,0.9s,mb4.1,baz=29,slow=10,SNR=3.2						
VNDA	Vanda	127.96	179	PKPdf	PKPdf	00 26 05.1	+1.1
VNDA	Vanda	127.96	179	PKIKP	PKPdf	00 26 05.1	+1.1

ISCJB ***07*** *00:44:57.0±0.3,41.13S±0.03×174.50E±0.05,h73^{km}±4^{km}, mb4.1/3,Error ellipse: s-maj=7.3km s-min=3.5km az=36.7*
IDC ***07*** *00:44:56.5±0.7,41.03S×174.37E,h45^{km}±5^{km},mb3.8/3, mb1 4.1/5,mb1mx3.9/11,mbtmp4.0/5,ML3.8/2,MS3.4/4, Ms1 3.4/4,ms1mx3.1/16,Error ellipse: s-maj=28.1km s-min=8.8km az=129.0*
WEL ***07*** *00:44:59.3±0.1,41.02S×174.48E,h52^{km}±1^{km},ML4.7/23, Error ellipse: s-maj=0.7km s-min=0.6km az=90.0,reported intensity MM 5.*
WEL Felt from Taranaki to Marlborough, and from Nelson to Wairarapa, maximum.
NEIC ***07*** *00:44:59.4,41.04S×174.49E,h52^{km},mb4.6/1, ML4.8(WEL),After WEL.*
NEIC Felt in the Wellington area.

ISC 07 00:44:58.1±0.3,**4111S**±003×**17450E**±005,**h64**^{km}±4^{km},
n137,σ0^{s}95/127,**mb4.2**/3,**13C-6D,Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRW	Makara Radio	0.19	128	P	Pn	00 45 08.1	+0.2
MRW				S	Sn	00 45 14.7	-0.3
MRW	Makara Radio	0.19	128	⇑PN	Pn	00 45 08.1	+0.2
MRW				SN	Sn	00 45 14.7	-0.3
TCW	Tory Channel	0.20	239	P	Pn	00 45 07.6	-0.3
TCW				S	Sn	00 45 14.1	-1.0
TCW	Tory Channel	0.20	239	⇑PN	Pn	00 45 07.6	-0.3
TCW				SN	Sn	00 45 14.1	-1.0
SNZO	South Karori	0.25	142	P	Pn	00 45 08.7	+0.5
SNZO	South Karori	0.25	142	PN	Pn	00 45 08.7	+0.4
WEL	Wellington	0.27	131	P	Pn	00 45 08.9	+0.6
WEL	Wellington	0.27	131	⇑PN	Pn	00 45 08.9	+0.6
WEL				SN	Sn	00 45 16.4	+0.6
KIW	Kapiti Island	0.40	51	P	Pn	00 45 08.8	-0.5
KIW	Kapiti Island	0.40	51	⇑PN	Pn	00 45 08.8	-0.5
KIW				SN	Sn	00 45 16.0	-1.6
BHW	Baring Head	0.41	137	P	Pn	00 45 10.2	+0.8
BHW	Baring Head	0.41	137	⇑PN	Pn	00 45 10.2	+0.7
CAW	Cannon Point	0.43	90	P	Pn	00 45 10.0	+0.4
CAW	Cannon Point	0.43	90	⇑PN	Pn	00 45 10.0	+0.3
TUWZ	Tuamarina	0.53	233	⇓PN	Pn	00 45 11.2	+0.6
DUWZ	D'Urville Isla	0.54	305	⇓PN	Pn	00 45 09.5	-1.2
MSWZ	Moikau Station	0.64	119	P	Pn	00 45 12.7	+0.9
MSWZ	Moikau Station	0.64	119	⇑PN	Pn	00 45 12.7	+0.9
CMWZ	Cape Campbell	0.67	199	P	Pn	00 45 14.3	+2.1
CMWZ	Cape Campbell	0.67	199	PN	Pn	00 45 14.2	+2.0
PAWZ	Paruwai Farm	0.75	111	P	Pn	00 45 13.9	+0.8
PAWZ	Paruwai Farm	0.75	111	⇑PN	Pn	00 45 13.8	+0.7
MTW	Mount Morrison	0.76	94	P	Pn	00 45 13.6	+0.4
MTW	Mount Morrison	0.76	94	⇑PN	Pn	00 45 13.6	+0.4
BSWZ	Blackbirch Sta	0.76	218	P	Pn	00 45 14.6	+1.3
BSWZ	Blackbirch Sta	0.76	218	⇓PN	Pn	00 45 14.6	+1.3
NNZ	Nelson	0.85	262	P	Pn	00 45 14.6	+0.2
NNZ	Nelson	0.85	262	PN	Pn	00 45 14.4	0.0
MRZ	Mangatainoka R	0.93	62	P	Pn	00 45 15.3	-0.1
MRZ	Mangatainoka R	0.93	62	PN	Pn	00 45 15.3	0.0
TRWZ	Traveller	0.94	108	⇑PN	Pn	00 45 16.1	+0.6
TIWZ	Tintock	1.10	73	⇑PN	Pn	00 45 17.5	0.0
THZ	Tophouse	1.37	241	P	Pn	00 45 21.8	+0.8
THZ	Tophouse	1.37	241	⇓PN	Pn	00 45 21.8	+0.8
BFZ	Birch Farm	1.39	73	P	Pn	00 45 20.9	-0.4
BFZ	Birch Farm	1.39	73	⇑PN	Pn	00 45 20.9	-0.4
WAZ	Wanganui	1.40	15	P	Pn	00 45 22.0	+0.5
KHZ	Kahutara	1.49	209	P	Pn	00 45 24.2	+1.5
KHZ	Kahutara	1.49	209	⇓PN	Pn	00 45 24.2	+1.5
QRZ	Quartz Range	1.52	280	P	Pn	00 45 23.1	0.0
QRZ	Quartz Range	1.52	280	⇑PN	Pn	00 45 23.1	0.0
TSZ	Takapari Road	1.53	47	P	Pn	00 45 22.6	-0.6
TSZ	Takapari Road	1.53	47	PN	Pn	00 45 22.6	-0.6
DFE	Dawson Falls	1.81	350	P	Pn	00 45 28.4	+1.4
RAEZ	Rainy Point	1.82	357	P	Pn	00 45 27.7	+0.5
RAEZ	Rainy Point	1.82	357	PN	Pn	00 45 27.7	+0.6
NEZ	North Egmont	1.86	350	P	Pn	00 45 28.1	+0.4
NEZ	North Egmont	1.86	350	PN	Pn	00 45 27.8	+0.1
MTVZ	Mangateitei	1.88	24	PN	Pn	00 45 28.2	+0.3
NWEZ	Newall Road	1.90	345	P	Pn	00 45 28.2	0.0
NWEZ	Newall Road	1.90	345	PN	Pn	00 45 28.2	0.0
PKVZ	Pokaka	1.93	20	*e*PN	Pn	00 45 28.8	+0.2
MOVZ	Moawhango	1.95	30	P	Pn	00 45 28.4	-0.5
MOVZ	Moawhango	1.95	30	PN	Pn	00 45 28.4	-0.5
PKE	Pukeiti	1.96	348	P	Pn	00 45 29.2	+0.3
PKE	Pukeiti	1.96	348	PN	Pn	00 45 29.2	+0.2
WNVZ	Wahianoa	1.97	26	P	Pn	00 45 29.4	+0.3
WNVZ	Wahianoa	1.97	26	PN	Pn	00 45 29.4	+0.3
TRVZ	Turoa	1.98	24	PN	Pn	00 45 29.7	+0.4
VRZ	Vera Road	1.99	6	P	Pn	00 45 29.5	0.0
VRZ	Vera Road	1.99	6	PN	Pn	00 45 29.5	+0.1
DRZ	Dome Shelter	2.01	24	P	Pn	00 45 30.9	+1.3
FWVZ	Far West T-bar	2.02	24	P	Pn	00 45 30.1	+0.3
FWVZ	Far West T-bar	2.02	24	PN	Pn	00 45 30.1	+0.3
TUVZ	Tukino	2.04	26	P	Pn	00 45 30.3	+0.2
TUVZ	Tukino	2.04	26	PN	Pn	00 45 30.3	+0.2
WPVZ	Whakapapa	2.07	23	P	Pn	00 45 30.7	+0.3
WPVZ	Whakapapa	2.07	23	PN	Pn	00 45 30.7	+0.2
PXZ	Pawanui	2.10	60	PN	Pn	00 45 29.7	-1.1
NGZ	Ngauruhoe	2.11	24	P	Pn	00 45 31.2	+0.2
NGZ	Ngauruhoe	2.11	24	PN	Pn	00 45 31.2	+0.2
DSZ	Denniston Nort	2.13	252	PN	Pn	00 45 31.9	+0.7
OTVZ	Oturere	2.14	25	PN	Pn	00 45 31.7	+0.2
TWVZ	Taurewa	2.16	20	P	Pn	00 45 31.6	-0.1
TWVZ	Taurewa	2.16	20	PN	Pn	00 45 31.6	-0.1
WTVZ	West Tongariro	2.16	23	P	Pn	00 45 31.8	+0.1
WTVZ	West Tongariro	2.16	23	PN	Pn	00 45 31.8	+0.1
KATZ	Kakaramea	2.32	24	P	Pn	00 45 34.2	+0.3
LTZ	Lake Taylor	2.36	224	P	Pn	00 45 35.1	+0.7
LTZ	Lake Taylor	2.36	224	PN	Pn	00 45 35.1	+0.7
RATZ	Rangitukua	2.44	24	P	Pn	00 45 36.2	+0.6
BKZ	Black Stump Fm	2.47	39	P	Pn	00 45 34.6	-1.3
BKZ	Black Stump Fm	2.47	39	PN	Pn	00 45 34.6	-1.4
HATZ	Hinemaiaia	2.53	29	P	Pn	00 45 38.4	+1.6
WATZ	Wairara	2.58	22	P	Pn	00 45 37.2	-0.2
WATZ	Wairara	2.58	22	PN	Pn	00 45 37.2	-0.3
HIZ	Hauiti	2.61	6	P	Pn	00 45 38.0	+0.2
HIZ	Hauiti	2.61	6	PN	Pn	00 45 38.0	+0.2
MQZ	McQueen's Vall	2.93	207	P	Pn	00 45 41.5	-0.7
MQZ	McQueen's Vall	2.93	207	PN	Pn	00 45 41.5	-0.7
KNZ	Kokohu	3.21	50	*e*P	Pn	00 45 43.3	-2.7
KNZ	Kokohu	3.21	50	PN	Pn	00 45 43.3	-2.7
TOZ	Tahuroa Road	3.46	13	*e*P	Pn	00 45 49.1	-0.4
URZ	Urewera	3.49	36	*e*P	Pn	00 45 46.9	-2.9
URZ	Urewera	3.49	36	P	Pn	00 45 46.9	-2.9
	4.3nm,0.3s,baz=227,slow=5.2,SNR=30						
URZ				S	Sn	00 46 28.5	-1.4
	24nm,0.3s,baz=248,slow=16,SNR=6.1						
URZ				LR	LR	00 47 33.8	
	comp=Z,359nm,18.7s,baz=274,slow=45						
URZ	Urewera	3.49	36	PN	Pn	00 45 46.9	-2.9
RPZ	Rata Peaks	3.65	223	*e*P	Pn	00 45 51.9	0.0
RPZ	Rata Peaks	3.65	223	P	Pn	00 45 51.0	-0.9
	16nm,0.3s,baz=35,slow=1.3,SNR=45						
RPZ				S	Sn	00 46 31.7	-1.9
	86nm,0.3s,baz=6.8,slow=6.4,SNR=14						
RPZ	Rata Peaks	3.65	223	⇓*e*PN	Pn	00 45 51.0	-0.9
WTAZ	Waiatarua	4.17	1	P	Pn	00 46 00.5	+1.3
LBZ	Lake Benmore	4.56	223	*e*P	Pn	00 46 03.7	-0.8
LBZ	Lake Benmore	4.56	223	PN	Pn	00 46 03.7	-0.8
ODZ	Otahua Downs	4.84	214	P	Pn	00 46 07.3	-1.0
ODZ	Otahua Downs	4.84	214	PN	Pn	00 46 07.3	-1.0
WCZ	Waipu Caves	5.17	359	*e*P	Pn	00 46 09.4	-3.4
JCZ	Jackson Bay	5.17	233	*e*P	Pn	00 46 11.6	-1.2
JCZ	Jackson Bay	5.17	233	PN	Pn	00 46 10.7	-2.1
WKZ	Wanaka	5.47	225	*e*P	Pn	00 46 14.7	-2.3
EAZ	Earnscleugh	5.60	221	*e*P	Pn	00 46 18.0	-0.7
TUZ	Tuapeka	6.00	215	*e*P	Pn	00 46 23.4	-0.7
TUZ	Tuapeka	6.00	215	PN	Pn	00 46 23.4	-0.7
RAO	Raoul Island	13.35	30	*e*Pn	Pn	00 48 02.7	-1.9
DZM	Mont Dzumac	20.17	338	P	P	00 49 27.2	-0.1
	3.8nm,0.8s,baz=136,slow=20,SNR=5.2						
DZM				LR	LR	00 55 41.7	
	comp=Z,122nm,20.9s,baz=123,slow=32						
TAU	Tasmania Unive	20.25	256	P	P	00 49 30.4	+2.5
STKA	Stephens Creek	27.88	279	P	P	00 50 41.2	-0.5
	2.5nm,1.0s,mb3.8,baz=150,slow=23,SNR=2.9						
STKA				LR	LR	01 00 34.7	
	comp=Z,60nm,21.4s,baz=76,slow=34						
VNDA	Vanda	36.90	185	LR	LR	01 06 41.5	
	comp=Z,125nm,18.4s,baz=342,slow=35						
PMG	Port Moresby	39.77	315	*e*P	P	00 52 26.0	+1.3
WB2	Warramunga Arr	40.05	290	*e*P	P	00 52 27.2	+0.1
WRA	Warramunga Arr	40.06	289	P	P	00 52 26.8	-0.4
	2.2nm,0.6s,mb4.1,baz=127,slow=8.4,SNR=32						
QSPA	South Pole Qui	49.02	180	P	P	00 53 42.3	+4.6
	5.7nm,0.8s,mb4.7						
YKA	Yellowknife Ar	117.73	30	PKP	PKPdf	01 03 35.9	+0.1
YKA				pPKP	pPKPdf	01 03 51.1	-3.3
YKA	Yellowknife Ar	117.73	30	PKP	PKPdf	01 03 35.9	+0.1
	0.1nm,0.5s,baz=256,slow=1.7,SNR=3.5						
YKA				pPKP	pPKPdf	01 03 51.1	-3.3
	0.7nm,0.8s,baz=256,slow=1.6,SNR=6.2						
BRVK	Borovoye	129.37	311	*e*PKPdf	PKPdf	01 04 01.0	+2.6
LIC	Lamto	145.26	181	*e*PKIKP	PKPdf	01 04 30.5	+1.6
	38nm,0.8s						
KIC	Kosan Boka	145.39	181	*e*PKIKP	PKPdf	01 04 31.0	+1.9
	55nm,0.7s						
TIC	Toumodi	145.68	181	*e*PKIKP	PKPdf	01 04 31.0	+1.4
	5.8nm,0.8s						
ARCES	ARCESS Array B	147.24	340	PKPbc	PKPbc	01 04 32.3	-0.5
ARCES				pPKPbc	pPKPbc	01 04 47.6	-3.7
ARCES	ARCESS Array B	147.24	340	PKPbc	PKPbc	01 04 32.3	-0.5
	1.3nm,0.4s,baz=31,slow=2.0,SNR=20						
ARCES				pPKPbc	pPKPbc	01 04 47.6	-3.7
	2.9nm,0.6s,baz=82,slow=2.9,SNR=3.2						
JOF	Joensuu	149.24	328	*e*p	PKPdf	01 04 36.5	+2.6
	1.0nm,0.4s						
BRTR	Keskin Array B	150.34	280	PKPbc	PKPbc	01 04 41.5	-0.1
BRTR				pPKPbc	pPKPbc	01 04 55.7	-4.5
BRTR	Keskin Array B	150.34	280	PKPbc	PKPbc	01 04 41.5	-0.1
	1.0nm,0.8s,baz=101,slow=5.2,SNR=5.5						
BRTR				pPKPbc	pPKPbc	01 04 55.7	-4.5
	1.6nm,0.6s,baz=257,slow=15,SNR=8.9						
TOA0	Torodi Ar. Sit	151.44	195	*e*PKP	PKPbc	01 04 46.4	+1.4
TORD	Torodi Ar. Bea	151.44	195	PKP	PKPdf	01 04 39.9	+1.0
TORD				PKPbc	PKPbc	01 04 46.2	+1.2
TORD				PKPab	PKPab	01 04 54.8	+1.5
TORD	Torodi Ar. Bea	151.44	195	PKP	PKPdf	01 04 39.9	+1.0
	1.3nm,1.0s,baz=332,slow=0.7,SNR=4.8						
TORD				PKPbc	PKPbc	01 04 46.2	+1.2
	2.9nm,0.7s,baz=127,slow=2.2,SNR=25						
TORD				PKPab	PKPab	01 04 54.8	+1.5
	3.6nm,0.4s,baz=163,slow=3.8,SNR=36						
KAF	Kangasniemi	151.65	329	*e*p	PKPdf	01 04 42.7	+5.0
FINES	FINESS Array B	152.10	327	PKPbc	PKPbc	01 04 44.6	-0.5
FINES				PKPab	PKPab	01 04 53.5	-1.3
FINES				pPKPbc	pPKPbc	01 04 58.4	-5.1
FINES	FINESS Array B	152.10	327	PKPbc	PKPbc	01 04 44.6	-0.5
	0.8nm,0.7s,baz=75,slow=2.2,SNR=5.9						
FINES				PKPab	PKPab	01 04 53.5	-1.3
	1.0nm,0.7s,baz=59,slow=4.9,SNR=4.9						
FINES				pPKPbc	pPKPbc	01 04 58.4	-5.1
	1.3nm,0.6s,baz=45,slow=5.7,SNR=3.1						

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*ISK **07** 01:02:44.4,3956N×2873E,h8^{km},MD3.2*
*ISCJB **07** 01:03:44.0±0.8,3955N±003×2874E±004,h2^{km}±6^{km}, Error ellipse: s-maj=5.0km s-min=4.5km az=154.7*
*CSEM **07** 01:03:44.1±0.1,3955N×2875E,h5^{km},MD3.4,Error ellipse: s-maj=1.4km s-min=1.2km az=120.0*
*NEIC **07** 01:03:44.0,3955N×2874E,h4^{km},MD3.4(ATH), MD3.0(ISK),After ISK.*
*THE **07** 01:03:45.3,3951N×2871E,h3^{km},ML3.6*
*ATH **07** 01:03:46.5,3975N×2838E,h10^{km},MD3.4/3*
ISC 07 01:03:44.7±0.7,**3953N**±003×**2874E**±004,**h5**^{km}±6^{km},**n88,**
σ0^{s}61/96,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GEMT	Gemlik	0.96	21	PG	Pg	01 04 03.1	-0.1
GEMT	Gemlik	0.96	21	Pg	Pg	01 04 02.8	-0.4
GEMT	Gemlik	0.96	21	Pg	Pg	01 04 02.8	-0.4
AKS	Akhisar	0.97	228	PG	Pg	01 04 03.6	+0.2
AKS	Akhisar	0.97	228	Pg	Pg	01 04 03.7	+0.3
AKS	Akhisar	0.97	228	Pg	Pg	01 04 03.7	+0.3
IZI	Iznik	0.98	35	PG	Pg	01 04 03.4	-0.1
IZI				SG	Sg	01 04 17.0	+0.8
IZI	Iznik	0.98	35	Pg	Pg	01 04 03.3	-0.2
IZI	Iznik	0.98	35	Pg	Pg	01 04 03.3	-0.2
BNT	Bandirma	1.04	323	PG	Pg	01 04 04.6	0.0
BNT				SG	Sg	01 04 18.8	+0.7
BNT	Bandirma	1.04	323	Pg	Pg	01 04 03.8	-0.8
BNT				Sg	Sg	01 04 18.8	+0.7
EDC	Edincik	1.06	320	PG	Pg	01 04 04.7	-0.3
EDC	Edincik	1.06	320	Pg	Pg	01 04 04.7	-0.3
EDC	Edincik	1.06	320	Pg	Pg	01 04 04.7	-0.3
YLV	Yalova	1.14	25	PN	Pn	01 04 05.7	-1.6
ALT	Altintas	1.16	114	PN	Pn	01 04 07.5	-0.1
ALT	Altintas	1.16	114	Pn	Pn	01 04 06.6	-1.0
ALT	Altintas	1.16	114	Pn	Pn	01 04 06.6	-1.0
ADVT	Abdulvahap	1.18	40	PN	Pn	01 04 06.8	-1.0
ADVT	Abdulvahap	1.18	40	Pn	Pn	01 04 06.9	-1.0
ADVT	Abdulvahap	1.18	40	Pn	Pn	01 04 06.9	-0.9
KHL	Karahalli	1.35	153	*e*PN	Pn	01 04 10.4	+0.2
KHL	Karahalli	1.35	153	Pn	Pn	01 04 10.4	+0.2
KHL	Karahalli	1.35	153	Pn	Pn	01 04 10.4	+0.2
MRMT	Marmara Adasi	1.39	321	*e*PN	Pn	01 04 09.6	-1.0
GPA	Golpazari	1.42	57	*e*PN	Pn	01 04 11.0	-0.1
GPA	Golpazari	1.42	57	Pn	Pn	01 04 11.5	+0.4
GPA	Golpazari	1.42	57	Pn	Pn	01 04 11.5	+0.4
HRT	Hereke	1.47	29	*e*PN	Pn	01 04 11.8	0.0
HRT	Hereke	1.47	29	Pn	Pn	01 04 11.8	0.0
HRT	Hereke	1.47	29	Pn	Pn	01 04 11.8	0.0
ISK	Istanbul-Kandi	1.55	9	*e*PN	Pn	01 04 13.0	+0.1
ISK	Istanbul-Kandi	1.55	9	Pn	Pn	01 04 13.0	+0.1
ISK	Istanbul-Kandi	1.55	9	*e*Pg	Pg	01 04 13.5	-0.9
ISK				*e*Sg	Sg	01 04 35.2	+0.7
ISK	Istanbul-Kandi	1.55	9	Pn	Pn	01 04 13.0	+0.1
ISK	Istanbul-Kandi	1.55	9	*e*Pg	Pg	01 04 13.5	-0.9
ISK				*e*Sg	Sg	01 04 35.2	+0.7
ESKT	Eskisehir	1.63	90	*e*PN	Pn	01 04 13.9	-0.1
ESKT	Eskisehir	1.63	90	Pn	Pn	01 04 14.3	+0.3
ESKT	Eskisehir	1.63	90	Pn	Pn	01 04 14.3	+0.3
CTT	Catalca	1.63	352	*e*PN	Pn	01 04 14.2	+0.2
CTT	Catalca	1.63	352	Pn	Pn	01 04 14.3	+0.2
CTT	Catalca	1.63	352	Pn	Pn	01 04 14.3	+0.3
RKY	Sarkoy-Tekirda	1.67	314	*e*PN	Pn	01 04 14.8	+0.3
RKY	Sarkoy-Tekirda	1.67	314	Pn	Pn	01 04 14.8	+0.3
RKY	Sarkoy-Tekirda	1.67	314	Pn	Pn	01 04 14.8	+0.3
MFT	Murefte	1.68	319	*e*PN	Pn	01 04 14.9	+0.2
SHUT	Suhut-Afyon	1.71	124	*e*PN	Pn	01 04 15.6	+0.4
KLYT	Kilyos	1.73	7	*e*PN	Pn	01 04 14.8	-0.6
KLYT	Kilyos	1.73	7	Pn	Pn	01 04 15.9	+0.5
KLYT	Kilyos	1.73	7	Pn	Pn	01 04 15.9	+0.5
LPK	Lapseki	1.74	299	*e*PN	Pn	01 04 15.9	+0.4
LPK	Lapseki	1.74	299	Pn	Pn	01 04 16.0	+0.5
LPK	Lapseki	1.74	299	Pn	Pn	01 04 16.0	+0.5
BLCB	Balcova	1.75	230	*e*PN	Pn	01 04 15.8	+0.1
BLCB	Balcova	1.75	230	Pn	Pn	01 04 16.1	+0.4
BLCB	Balcova	1.75	230	*e*Pb	Pn	01 04 14.8	-0.9
BLCB				*e*Sb	Sb	01 04 38.9	-0.7
BLCB	Balcova	1.75	230	Pn	Pn	01 04 16.1	+0.4
EZN	Ezine	1.89	280	*e*PN	Pn	01 04 17.4	-0.2
EZN	Ezine	1.89	280	Pn	Pn	01 04 17.8	+0.3
EZN	Ezine	1.89	280	Pn	Pn	01 04 17.8	+0.2
PRK	Paraskevi	1.94	262	*e*Pn	Pn	01 04 18.5	+0.3
PRK	Paraskevi	1.94	262	*e*PN	Pn	01 04 18.5	+0.3
PRK	Paraskevi	1.94	262	*e*Pn	Pn	01 04 18.5	+0.3
MDU	Mudurnu	2.11	63	*e*PN	Pn	01 04 21.0	+0.3
MDU	Mudurnu	2.11	63	Pn	Pn	01 04 21.1	+0.4
MDU	Mudurnu	2.11	63	Pn	Pn	01 04 21.0	+0.3
GADA	Gvkgeada	2.29	288	*e*PN	Pn	01 04 23.5	+0.5
GADA	Gvkgeada	2.29	288	Pn	Pn	01 04 23.6	+0.5
GADA	Gvkgeada	2.29	288	Pn	Pn	01 04 23.6	+0.6
SMG	Samos	2.36	220	*e*Pn	Pb	01 04 27.7	+0.1
SMG	Samos	2.36	220	*e*PN	Pb	01 04 27.7	+0.1
SMG	Samos	2.36	220	*e*Pn	Pb	01 04 27.7	+0.1
CHOS	Chios island	2.39	242	*e*Pn	Pn	01 04 24.2	-0.2
CHOS	Chios island	2.39	242	*e*Pn	Pn	01 04 24.2	-0.2
ALN	Alexandroupoli	2.48	304	*e*Pn	Pn	01 04 25.3	-0.3
ALN				*e*Sn	Sn	01 04 57.1	+0.9
ALN	Alexandroupoli	2.48	304	*e*Pn	Pn	01 04 25.3	-0.3
ALN				*e*Sn	Sn	01 04 57.1	+0.9
KIZT	Kizilcal	2.52	104	*e*PN	Pn	01 04 26.5	+0.2
KIZT	Kizilcal	2.52	104	Pn	Pn	01 04 26.5	+0.3
KIZT	Kizilcal	2.52	104	Pn	Pn	01 04 26.5	+0.2
EDRB	Edirne	2.77	327	*e*PN	Pn	01 04 29.7	+0.1
EDRB	Edirne	2.77	327	Pn	Pn	01 04 29.8	+0.1
EDRB	Edirne	2.77	327	Pn	Pn	01 04 29.8	+0.2
ELL	Elmali	2.93	161	*e*PN	Pn	01 04 32.9	+1.0
ELL	Elmali	2.93	161	Pn	Pn	01 04 33.0	+1.1
ELL	Elmali	2.93	161	Pn	Pn	01 04 33.0	+1.1
RDO	Rodhopi	2.93	304	*e*Pn	Pn	01 04 30.8	-1.1
RDO	Rodhopi	2.93	304	*e*PN	Pn	01 04 30.8	-1.1
RDO	Rodhopi	2.93	304	*e*Pn	Pn	01 04 30.8	-1.1

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*CSEM **07** 01:07:07.6,34.15N×26.10E,h25^{km},MD3.5/3,After ATH*
ATH 07 01:07:07.6,3415N×**2610E,h25**^{km},**MD3.5**/3,**Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XRY	Khrisi	0.80	335	*e*PN	Pn	01 07 23.0	-0.2
XRY				*e*SN	Sn	01 07 34.5	+0.2
XRY	Khrisi	0.80	335	*e*Pn	Pn	01 07 23.0	-0.2
XRY				*e*Sn	Sn	01 07 34.5	+0.2
NPS	Neapolis	1.18	340	*e*PN	Pn	01 07 30.0	+1.5
NPS	Neapolis	1.18	340	*e*Pn	Pn	01 07 30.0	+1.5
KARP	Karpathos	1.65	32	*e*PN	Pn	01 07 36.9	+2.0
KARP	Karpathos	1.65	32	*e*Pn	Pn	01 07 36.9	+2.0

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*MOS **07** 01:24:14.9±1.5,4620N×14188E,h17^{km},mb4.0/5,Error ellipse: s-maj=18.6km s-min=9.8km az=81.6*
*JMA **07** 01:24:15.2±0.3,4631N×14201E,h14^{km}±3^{km},M3.4*
*IDC **07** 01:24:15.0±1.1,4625N×14194E,h0^{km},mb3.5/6, mb1 3.7/7,mb1mx3.5/22,mbtmp3.5/7,ML3.4/1,Error ellipse: s-maj=32.6km s-min=21.8km az=77.0*
*ISCJB **07** 01:24:16.7±0.8,4627N±003×14185E±008,h25^{km}±7^{km}, mb3.5/8,Error ellipse: s-maj=9.4km s-min=4.4km az=8.8*
*NEIC **07** 01:24:16.1±0.5,4623N×14190E,h10^{km},mb3.7/2,Error ellipse: s-maj=11.6km s-min=6.2km az=137.0*
ISC 07 01:24:17.1±1.0,**4623N**±003×**14193E**±008,**h16**^{km}±7^{km},
n35,σ0^{s}80/44,**mb3.5**/8,**1C,Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YSS	Yuzh-Sakhalins	0.92	38	*e*P	Pb	01 24 34.6	0.0
YSS				*e*S	Sg	01 24 49.2	+2.3
YSS	Yuzh-Sakhalins	0.92	38	⇑*i*PN	Pn	01 24 35.0	-0.3
YSS				*i* S	Sg	01 24 47.6	+0.7
YSS				pmax	pmax		
	comp=N,80nm,0.3s						
YSS				pmax	pmax		
	comp=Z,100nm,0.3s						
YSS				pmax	pmax		
	comp=N,180nm,0.8s						
YSS				pmax	pmax		
	comp=E,150nm,0.8s						
YSS				pmax	pmax		
	comp=Z,200nm,0.8s						
YSS				smax			
	comp=N,1µm,0.5s						
YSS				smax			
	comp=E,2µm,0.5s						
YSS				smax			
	comp=N,1µm,0.6s						
YSS				smax			
	comp=E,2µm,0.5s						
YSS				pmax	pmax		
	comp=Z,5µm,6.0s						
JWK2	Keihoku	0.92	182	P	Pb	01 24 33.7	-0.9
JWK2				*e*S	Sg	01 24 47.1	+0.2
JRR	Rishiri	1.18	202	P	Pn	01 24 38.4	-0.5
JRR				*e*S	Sb	01 24 55.2	+1.1
JSE	Soyaes	1.35	160	P	Pn	01 24 40.3	-1.0
JSE				*e*S	Sn	01 24 58.5	-0.4
JSS	Shosan	1.83	182	P	Pn	01 24 48.1	+0.2
JSS				*e*S	Sn	01 25 12.0	+1.2
JYG	Yagishiri	1.84	191	P	Pn	01 24 47.9	-0.1
JYG				*e*S	Sn	01 25 10.3	-0.7
ASAJ	Asahikawa	2.17	167	P	Pn	01 24 52.1	-0.4
ASAJ				*e*S	Sn	01 25 19.3	+0.3
ASAJ	Asahikawa	2.17	167	PN	Pn	01 24 52.2	-0.3
ASAJ						01 25 22.5	
ASAJ				pmax	pmax		
	comp=Z,8.0nm,0.3s						
ASAJ				smax			
	comp=N,21nm,0.3s						
ASAJ	Asahikawa	2.17	167	Pn	Pn	01 24 52.2	-0.3
	comp=N,8.1nm,0.3s,baz=336,slow=8.9,SNR=23						
ASAJ				Sn	Sn	01 25 22.4	+3.4
	comp=N,21nm,0.3s,baz=273,slow=32,SNR=9.7						
MDJ	Mudanjiang	8.83	264	*e*Pn	Pn	01 26 23.3	-0.6
MAJO	Matsushiro	10.08	197	*e*Pn	Pn	01 26 40.7	-0.4
MAJO	Matsushiro	10.08	197	*e*PN	Pn	01 26 40.7	-0.4
PET	Petropavlovsk	12.78	52	*e*Pn	Pn	01 27 17.7	-0.2
PET	Petropavlovsk	12.78	52	*e*PN	Pn	01 27 17.7	-0.2
INCN	Inchon	14.35	238	*e*Pn	Pn	01 27 39.7	+0.3
MA2	Magadan	14.37	18	Pn	Pn	01 27 38.3	-1.3
YAK	Yakutsk	17.33	340	Pn	Pn	01 28 17.0	-1.0
BJT	Baijiatuau	19.76	261	*e*P	Pn	01 28 43.6	-4.1
SONM	Songino Array	24.15	287	P	P	01 29 31.6	-0.6
	comp=N,0.2nm,0.5s,mb2.9,baz=131,slow=5.9,SNR=2.8						
KURK	Kurchatov	41.08	300	*e*P	P	01 31 59.9	+0.3
	comp=N,0.4nm,0.4s,mb3.4						
LSA	Lhasa	42.55	265	P	P	01 32 13.5	+1.5
BRVK	Borovoye	45.10	306	*e*P	P	01 32 32.1	-0.1
	comp=N,0.4nm,0.3s,mb3.7						
INK	Inuvik	46.15	31	P	P	01 32 40.0	-0.3
INK				pmax	pmax		
	comp=Z,1.0nm,1.0s						
INK	Inuvik	46.15	31	P	P	01 32 40.0	-0.3
	comp=Z,0.9nm,1.0s,mb3.6,baz=312,slow=8.1,SNR=3.7						
PMG	Port Moresby	55.58	174	*e*P	P	01 33 50.8	-1.1
	comp=Z,20nm,0.9s						
PMG	Port Moresby	55.58	174	*e*P	P	01 33 50.8	-1.0
PMG				pmax	pmax		
	comp=Z,20nm,0.9s						
YKA	Yellowknife Ar	55.77	33	P	P	01 33 52.4	-0.3
	comp=Z,0.2nm,0.5s,mb3.4,baz=305,slow=6.9,SNR=6.1						
FINES	FINESS Array B	60.93	330	P	P	01 34 29.9	+1.2
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
FINES	FINESS Array B	60.93	330	P	P	01 34 29.9	+1.1
	comp=Z,1.9nm,0.8s,mb4.3,baz=55,slow=10.0,SNR=6.1						
NOA	NORSAR Array B	65.89	336	P	P	01 35 02.5	+0.9
NOA	NORSAR Array B	65.89	336	P	P	01 35 02.5	+1.0
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	65.89	336	P	P	01 35 02.5	+0.9
	comp=Z,0.7nm,0.7s,mb3.8,baz=38,slow=6.3,SNR=3.8						
IMW	Indian Meadow	69.54	48	P	P	01 35 25.3	+0.5
TXAR	Lajitas Array	84.24	53	P	P	01 36 49.0	+1.1
	comp=Z,0.2nm,0.9s,mb3.3,baz=288,slow=3.7,SNR=2.4						

IDC 07 01:26:11.9±1.5,**199N**×**12751E,h0**^{km},**mb3.7**/4,**mb1 3.8**/4,
mb1mx3.6/15,**mbtmp3.7**/4,**Error ellipse:**
s-maj=164.2km s-min=22.3km az=67.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.81	163	P	P	01 31 16.6	+0.2
	1.4nm,0.7s,baz=342,slow=11,SNR=6.1						
STKA	Stephens Creek	36.24	159	P	P	01 33 16.5	-0.3
	1.3nm,0.7s,baz=337,slow=8.4,SNR=3.3						
SONM	Songino Array	49.18	341	P	P	01 35 01.8	+0.1
	0.3nm,0.7s,baz=154,slow=7.3,SNR=2.1						
MKAR	Makanchi Array	59.42	325	P	P	01 36 16.4	+0.1
	0.7nm,0.4s,baz=116,slow=8.2,SNR=31						

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*ISCJB **07** 01:30:57.7±1.7,1939N±006×7802W±010,h7^{km}±11^{km}, Error ellipse: s-maj=16.3km s-min=8.1km az=21.8*
*JSN **07** 01:30:58.2±0.5,1940N×78.13W,h3^{km}±10^{km},MD3.5*
*SSNC **07** 01:31:03.4,1966N×7783W,h0^{km},MD3.1,ML2.1*
ISC 07 01:30:57.8±1.9,**1937N**±007×**7806W**±010,**h8**^{km}±12^{km},**n6,**
σ0^{s}45/10,**3D,Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LMGC	Las Mercedes	1.21	55	*e*PG	Pg	01 31 20.6	-0.5
	baz=235						
LMGC				*e*SG	Sg	01 31 37.4	+0.6
	comp=N,106nm,0.1s						
LMGC				*e*			
	comp=E,108nm,0.1s						
CVJ	Coleyville	1.25	156	⇓*e*P	Pn	01 31 21.1	-0.4
MCJ	Malvern	1.48	166	⇓*e*P	Pn	01 31 25.0	+0.1
MCJ				*e*S	Sn	01 31 44.5	+0.1
STH	Stony Hill	1.75	137	⇓*e*P	Pn	01 31 28.5	-0.1
STH				*e*S	Sn	01 31 51.7	+0.6
CCCC	Cccc	1.84	9	*e*P	Pn	01 31 30.3	+0.6
RCC	Rio Carpintero	2.31	74	*e*P	Pn	01 31 35.7	-0.6
	baz=252						
RCC				*e*S	Sn	01 32 04.5	-0.4
	comp=N,10nm,0.4s						
RCC				*e*			
	comp=E,9.6nm,0.3s						

IDC 07 02:11:32.7±7.0,**2271N**×**14331E,h0**^{km},**mb3.7**/5,
mb1 3.9/5,**mb1mx3.7**/18,**mbtmp3.7**/5,**MS4.3**/1,**Ms1 4.3**/1,
ms1mx2.5/43,**Error ellipse: s-maj=210.3km**
s-min=34.7km az=11.0,Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	38.64	320	P	P	02 18 58.4	+0.7
	0.7nm,0.5s,baz=128,slow=7.4,SNR=12						
CTA	Charters Tower	42.63	176	LR	LR	02 34 31.3	
	comp=Z,393nm,20.5s,baz=222,slow=32						
ZALV	Zalesovo Beam	53.50	321	P	P	02 20 54.1	-0.6
	0.6nm,0.4s,baz=104,slow=6.3,SNR=3.8						

MKAR	Makanchi Array	54.11	312	P	P	02 20 59.0	-0.3
	0.3nm,0.6s,baz=90,slow=9.1,SNR=4.2						
YKA	Yellowknife Ar	75.51	28	P	P	02 23 18.5	-0.1
	0.5nm,0.5s,baz=293,slow=5.9,SNR=7.8						
NVAR	Mina Array Bea	82.43	52	P	P	02 23 57.6	+0.6
	0.8nm,1.0s,baz=293,slow=5.6,SNR=4.6						

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*SZGRF **07** 02:28:14.4, 22.53S×178.11W, h33^{km}, South of Fiji Islands*
*MOS **07** 02:29:17.4±0.8, 20.81S×178.67W, h554^{km}, mb4.9/30, Error ellipse: s-maj=10.3km s-min=8.0km az=63.8*
*ISCJB **07** 02:29:18.0±0.7, 21.06S±0.04×178.69W±0.04, h567^{km}±9^{km}, mb4.7/98, Error ellipse: s-maj=7.1km s-min=4.5km az=146.3*
*IDC **07** 02:29:18.8±0.9, 20.91S×178.61W, h567^{km}±8^{km}, mb4.2/17, mb1 4.4/20, mb1mx4.4/21, mbtmp4.3/20, Error ellipse: s-maj=11.3km s-min=9.0km az=136.0*
*BJI **07** 02:29:21.3, 20.61S×178.31W, h607^{km}, mB4.9, mb5.0*
*BGS **07** 02:29:23.1, 21.00S×178.80W, h618^{km}, mb4.8(NEIC)*
*NEIC **07** 02:29:23.1±0.8, 21.00S×178.70W, h618^{km}±9^{km}, mb4.8/69, Error ellipse: s-maj=8.2km s-min=4.4km az=148.0*
*GCMT **07** 02:29:23.1±0.4, 20.85S×178.62W, h602^{km}±2^{km}, MW5.3/58, Moment Tensor Solution. s58,c78; Duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.65±.03; $M_{\theta\theta}$0.85±.05; $M_{\phi\phi}$-0.20±.06; $M_{r\theta}$-0.43±.05; $M_{\theta\phi}$-0.01±.05; $M_{\phi r}$-0.56±.06; Best double couple: $M_0$1.04000×10^{17} NP1:ϕ_s297.00000°, δ37.00000°, λ-39.00000°. NP2: ϕ_s60.00000°, δ68.00000°, λ-121.00000°. Principal axes: T 0.9840, Plg17.0000°, Azm172.0000°; N 0.1110, Plg28.0000°, Azm73.0000°; P -1.0950, Plg56.0000°, Azm289.0000°; nsta1 refers to body waves, cutoff=40s.*
ISC 07 02:29:18.5±0.7, **21.02S**±0.04×**178.66W**±0.04, **h560**^{km}±8^{km}, **h597**^{km}±3.8^{km}**:pP-P, n1008,** σ**0^{s}62**/510, **mb4.7**/98,
118C-174D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	8.23	175	P	P	02 31 20.0	+1.4
	137nm,0.3s,baz=40,slow=23,SNR=7.2						
RAO				S	S	02 32 57.8	+0.6
	359nm,0.3s,baz=51,slow=22,SNR=7.4						
AFI	Afiamalu	9.65	44	P	P	02 31 30.8	-2.4
	36nm,0.3s,baz=23,slow=2.8,SNR=66						
AFI				S	S	02 33 13.0	-11
	68nm,0.3s,baz=37,slow=23,SNR=20						
FUNA	Funafuti	12.59	350	eP	P	02 32 01.6	-1.7
	128nm,0.9s						
DZM	Mont Dzumac	13.90	263	eP	P	02 32 18.6	+1.9
DZM				eS	S	02 34 47.7	+4.5
DZM	Mont Dzumac	13.90	263	P	P	02 32 16.5	-0.1
	3.1nm,0.3s,baz=86,slow=17,SNR=37						
URZ	Urewera	17.57	191	P	P	02 32 49.7	-2.1
	17nm,0.3s,baz=325,slow=2.0,SNR=48						
URZ				S	S	02 35 41.1	-4.4
	4.3nm,0.3s,baz=83,slow=23,SNR=12						
URZ				ScP	ScP	02 39 39.0	-3.0
	1.2nm,0.3s,baz=294,slow=8.0,SNR=4.2						
URZ	Urewera	17.57	191	ePN	P	02 32 49.6	-2.2
MWZ	Matawai	17.57	190	ePN	P	02 32 50.9	-0.9
HIZ	Hauiti	18.31	196	PN	P	02 33 01.3	+2.7
BKZ	Black Stump Fm	18.56	192	ePN	P	02 32 59.4	-1.4
WNVZ	Wahianoa	18.90	194	ePN	P	02 33 03.7	-0.3
BFZ	Birch Farm	20.07	191	ePN	P	02 33 13.8	-0.8
MRZ	Mangatainoka R	20.19	193	PN	P	02 33 14.1	-1.5
KIW	Kapiti Island	20.52	194	ePN	P	02 33 18.0	-0.6
CAW	Cannon Point	20.72	193	ePN	P	02 33 19.8	-0.7
MRW	Makara Radio	20.92	194	ePN	P	02 33 21.8	-0.4
MSWZ	Moikau Station	20.98	193	ePN	P	02 33 21.7	-1.1
SNZO	South Karori	21.00	194	eP	P	02 33 22.4	-0.5
	120nm,0.8s						
QRZ	Quartz Range	21.12	199	PN	P	02 33 24.9	+0.9
NNZ	Nelson	21.24	197	PN	P	02 33 24.6	-0.5
THZ	Tophouse	21.88	197	ePN	P	02 33 30.4	-0.4
DSZ	Denniston Nort	22.18	199	ePN	P	02 33 33.8	+0.2
KHZ	Kahutara	22.32	195	PN	P	02 33 34.4	-0.4
LTZ	Lake Taylor	23.00	197	ePN	P	02 33 40.1	-0.7
WVZ	Waitaha Valley	23.72	200	PN	P	02 33 46.5	-0.7
MQZ	McQueen’s Vall	23.76	196	ePN	P	02 33 46.7	-0.8
RPZ	Rata Peaks	24.20	198	P	P	02 33 51.1	-0.4
	16nm,0.5s,mb4.9,baz=334,slow=1.3,SNR=15						
RPZ				S	S	02 37 30.0	-0.8
	11nm,0.8s,baz=175,slow=22,SNR=2.6						
FOZ	Fox Glacier	24.49	201	ePN	P	02 33 53.2	-0.9
LBZ	Lake Benmore	25.07	199	ePN	P	02 33 58.1	-1.1
JCZ	Jackson Bay	25.26	202	PN	P	02 34 01.0	+0.2
JCZ				pP		02 35 38.5	
ODZ	Otahua Downs	25.54	198	ePN	P	02 34 03.8	+0.5
WKZ	Wanaka	25.84	200	PN	P	02 34 05.5	-0.4
MLZ	Mavora Lakes	26.58	201	PN	P	02 34 13.5	+1.1
EIDS	Eidsvold	28.11	255	eP	P	02 34 27.3	+1.1
ARMA	Armidale	28.29	245	⇓iP	P	02 34 30.2	+2.6
CTA	Charters Tower	32.83	265	⇓iP	P	02 35 08.1	+1.4
	26nm,0.4s,mb5.1						
CTA	Charters Tower	32.83	265	P	P	02 35 07.6	+0.9
CTA						02 37 34.2	
CTA				pmax	pmax		
	comp=Z,29nm,0.4s						
CTA				pmax	pmax		
	comp=Z,8.0nm,0.6s						
CTA	Charters Tower	32.83	265	P	P	02 35 07.6	+0.9
	comp=Z,29nm,0.4s,mb5.2,baz=83,slow=12,SNR=23						
CTA				PcP	PcP	02 37 34.2	-0.7
	comp=Z,7.8nm,0.6s,baz=338,slow=3.3,SNR=4.4						
CTAO	Charters Tower	32.83	265	eP	P	02 35 07.7	+1.0
	comp=Z,30nm,0.4s,mb5.2						
CTAO	Charters Tower	32.83	265	eP	P	02 35 07.7	+1.0
CTAO				pmax	pmax		
	comp=Z,30nm,0.4s,mb5.2						
PMG	Port Moresby	34.86	284	⇓iP	P	02 35 24.5	+0.7
	comp=Z,201nm,0.9s,mb5.7						
PMG	Port Moresby	34.86	284	⇓iP	P	02 35 24.5	+0.7
PMG				pmax	pmax		
	comp=Z,201nm,0.9s						
PMG	Port Moresby	34.86	284	P	P	02 35 24.6	+0.8
	comp=Z,155nm,0.8s,mb5.6,baz=108,slow=4.2,SNR=26						
TOO	Toolangi	35.09	234	eP	P	02 35 27.0	+1.6
	comp=Z,8.4nm,0.7s,mb4.4						
TOO	Toolangi	35.09	234	eP	P	02 35 27.0	+1.6
TOO				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.4						
STKA	Stephens Creek	37.01	245	⇓iP	P	02 35 43.1	+1.8
	comp=Z,20nm,1.1s,mb4.6						
STKA				ePCP	PcP	02 37 47.5	+0.4
STKA				eSCP	ScP	02 40 42.0	+0.7
STKA	Stephens Creek	37.01	245	P	P	02 35 43.1	+1.8
	comp=Z,13nm,0.4s,mb4.8,baz=88,slow=9.1,SNR=36						
STKA				PcP	PcP	02 37 47.1	0.0
	comp=Z,5.9nm,0.6s,baz=121,slow=4.8,SNR=4.1						
STKA				ScP	ScP	02 40 41.0	-0.3
	comp=Z,6.5nm,0.9s,baz=63,slow=4.6,SNR=4.7						
WB2	Warramunga Arr	43.91	263	⇓iP	P	02 36 36.6	+0.2
WB2				eS	S	02 42 24.8	-3.0
WB2				eSCS	ScS	02 45 33.5	+0.2
WRA	Warramunga Arr	43.92	263	P	P	02 36 36.7	+0.2
	comp=Z,25nm,0.3s,mb5.3,baz=97,slow=7.4,SNR=370						
WRA				PcP	PcP	02 38 10.0	-0.1
	comp=Z,11nm,1.0s,baz=94,slow=3.4,SNR=5.7						
WRA				S	S	02 42 24.2	-3.7
	comp=Z,5.5nm,0.9s,baz=97,slow=13,SNR=9.0						
KAKA	Kakadu	47.37	272	⇓iP	P	02 37 03.0	+0.2
	comp=Z,57nm,0.8s,mb5.2						
FORT	Forrest	48.52	247	eP	P	02 37 11.5	+0.3
	comp=Z,62nm,0.6s,mb5.3						
FORT				e		02 38 27.7	
FORT				eSCP	ScP	02 41 28.2	+0.2
FORT				eS	S	02 43 30.1	-1.6
FITZ	Fitzroy Crossi	52.35	263	⇓iP	P	02 37 39.9	+0.6
	comp=Z,30nm,0.5s,mb4.9						
FITZ				eS	S	02 44 23.2	-0.4
FITZ	Fitzroy Crossi	52.35	263	S	S	02 44 23.1	-0.5
	comp=Z,3.3nm,1.0s,baz=270,slow=19,SNR=3.2						
KLBR	Kellerberrin	57.28	245	⇓iP	P	02 38 13.9	+0.4
	comp=Z,78nm,0.7s,mb5.0						
VNDA	Vanda	57.34	185	eP	P	02 38 15.2	+2.0
	comp=Z,8.2nm,0.6s,mb4.1						
VNDA	Vanda	57.34	185	eP	P	02 38 15.2	+2.1
VNDA				pmax	pmax		
	comp=Z,8.0nm,0.6s						
VNDA	Vanda	57.34	185	P	P	02 38 15.2	+2.1
	comp=Z,12nm,0.8s,mb4.2,baz=2.3,slow=7.4,SNR=19						
VNDA				ScP	ScP	02 42 05.4	-0.2
	comp=Z,11nm,0.8s,baz=339,slow=5.2,SNR=7.4						
NWAO	Narrogin (SRO)	57.58	244	eP	P	02 38 15.8	+0.2
	comp=Z,27nm,1.0s,mb4.4						
NWAO	Narrogin (SRO)	57.58	244	eP	P	02 38 15.8	+0.2
NWAO				pmax	pmax		
	comp=Z,27nm,1.0s						
MUN	Mundaring	58.54	245	eP	P	02 38 23.1	+1.0
CASY	Casey	63.23	205	eP	P	02 38 53.0	+0.8
	comp=Z,14nm,0.7s,mb4.5						
TGY	Tagaytay City	68.81	295	P	P	02 39 28.3	+0.6
	comp=Z,240nm,0.2s,baz=38,slow=19,SNR=3.7						
MJAR	Matsushiro Arr	70.26	324	P	P	02 39 34.6	-1.3
	comp=Z,18nm,0.7s,mb4.7,baz=157,slow=5.8,SNR=36						
MAJO	Matsushiro	70.26	324	eP	P	02 39 35.0	-0.9
	comp=Z,9.4nm,0.5s,mb4.6						
MAJO	Matsushiro	70.26	324	eP	P	02 39 35.0	-0.9
MAJO				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb4.6						
MAT	Matsushiro	70.26	324	P	P	02 39 35.2	-0.7
MAT				S	S	02 47 52.4	-11
YSS	Yuzh-Sakhalins	76.08	334	eP	P	02 40 09.0	+0.2
	comp=Z,92nm,1.5s,mb5.0						
YSS	Yuzh-Sakhalins	76.08	334	⇓iP	P	02 40 09.2	+0.3
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.7						
QZH	Quanzhou	76.18	304	⇓iP	P	02 40 11.5	+1.5
QZH				AMB	AMB		
	comp=Z,100nm,0.9s,mb5.2						
PET	Petropavlovsk	76.32	346	eP	P	02 40 08.7	-1.4
	comp=Z,15nm,0.6s,mb4.6						
PET	Petropavlovsk	76.32	346	i P	P	02 40 09.3	-0.7
PET				pmax	pmax		
	comp=Z,77nm,1.9s,mb4.8						
KSRS	Korea Array	76.87	319	P	P	02 40 13.8	+0.4
KSRS				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.3						
KSRS	Korea Array	76.87	319	P	P	02 40 13.8	+0.4
	comp=Z,10nm,0.8s,mb4.3,baz=137,slow=6.3,SNR=28						
SSE	Sheshan	77.55	310	P	P	02 40 17.1	-0.2
SSE				AMB	AMB		
	comp=Z,25nm,0.7s,mb4.7						
SSE				AMB	AMB		
	comp=Z,55nm,5.3s						
SSE	Sheshan	77.55	310	P	P	02 40 17.1	-0.2
	comp=Z,25nm,0.7s,mb4.7						
SSE				LR	LR		
	comp=Z,60nm,19.5s						
VLA	Vladivostok	78.35	325	⇓eP	P	02 40 21.7	+0.4
VLA				pmax	pmax		
	comp=Z,65nm,1.6s,mb4.7						
FARB	Farallon Islan	78.41	42	⇓P	P	02 40 22.0	+0.2
	baz=79						
V03C	Hunter Liggett	78.52	44	⇑P	P	02 40 22.8	+0.4
	baz=79						
V04C	Ramage Ranch,	78.53	45	⇑P	P	02 40 22.6	+0.2
	baz=79						
HAST	UC Hastings Re	78.54	44	P	P	02 40 23.0	+0.6
	baz=79,SNR=17						
SCI	San Clemente I	78.57	48	⇓P	P	02 40 23.0	+0.2
	baz=79						
BNLO	Ben Lomond (Sa	78.58	43	⇓P	P	02 40 22.2	-0.5
	baz=79						
SBC	Santa Barbara	78.61	46	⇑P	P	02 40 22.6	-0.2
	baz=79						
JRSC	Jasper Ridge	78.71	43	⇓P	P	02 40 23.6	+0.3
	baz=79						
MCCM	Marconi Confer	78.76	42	⇑P	P	02 40 24.5	+0.9
	baz=79						
PKM	Peak Mountain	78.80	46	⇓P	P	02 40 23.9	+0.1
	baz=79						
SAO	San Andreas Ge	78.83	43	eP	P	02 40 24.0	0.0
	comp=Z,22nm,1.0s,mb4.4						
SAO	San Andreas Ge	78.83	43	eP	P	02 40 24.0	0.0
SAO				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.4						
LRV	Little Rabbit	78.90	44	eP	P	02 40 24.9	+0.5
CIS	Catalina Islan	78.91	48	⇓P	P	02 40 24.8	+0.3
	baz=79						
SMMC	Simmler	78.92	45	⇓P	P	02 40 25.1	+0.6
	baz=79						
PKD	Parkfield	78.93	45	P	P	02 40 24.6	+0.1
	baz=79,SNR=7.6						
U04C	Hernandez Rese	79.02	44	⇑P	P	02 40 25.8	+0.8
	baz=79,SNR=7.5						
PACP	Pacheco Peak	79.08	43	⇓P	P	02 40 25.4	+0.1
	baz=79						
CVS	Carmenet Viney	79.14	42	⇑P	P	02 40 25.6	-0.1
	baz=79						
WENL	Wente Brothers	79.14	43	⇑P	P	02 40 26.0	+0.3
	baz=79						
HOPS	Hopland	79.16	41	eP	P	02 40 25.7	-0.1
	comp=Z,37nm,1.0s,mb4.7						
HOPS	Hopland	79.16	41	⇓P	P	02 40 25.7	0.0
	baz=79						
P01C	Double 8 Ranch	79.30	40	⇓P	P	02 40 26.5	+0.1
	baz=80						
S04C	Ingram Canyon,	79.35	43	⇑P	P	02 40 26.9	+0.2
	baz=80,SNR=7.5						
O01C	Eel River Cons	79.43	40	⇓P	P	02 40 27.6	+0.6
	baz=80,SNR=10						
GZH	Guangzhou	79.44	300	P	P	02 40 25.6	-1.9
GZH				S	S	02 49 37.7	-5.7
DECC	Green Verdugo	79.44	47	⇑P	P	02 40 28.0	+0.7
	baz=80						
MNRC	McLaughlin Nat	79.48	41	P	P	02 40 28.2	+0.8
	baz=80,SNR=9.8						
109C	Camp Elliot, M	79.53	49	⇑P	P	02 40 27.6	-0.2
	baz=80						
ARVC	Arvin	79.59	46	⇑P	P	02 40 28.0	-0.1
	baz=80						
Q03C	Winters	79.60	42	⇑P	P	02 40 29.0	+1.0
	baz=80						
NJ2	Nanjing	79.73	310	eP	P	02 40 29.1	+0.2
NJ2				AMB	AMB		
	comp=Z,100nm,1.0s,mb5.1						
GASB	Alder Springs	79.78	41	P	P	02 40 30.3	+1.3
	baz=80,SNR=9.3						
VES	Vestal, Richgr	79.83	45	P	P	02 40 29.3	0.0
	baz=80,SNR=9.1						
MURC	Murrieta	79.86	48	P	P	02 40 29.6	+0.1
	baz=80,SNR=5.6						
BFSC	Mount Baldy St	79.89	47	P	P	02 40 29.8	+0.1
	baz=80,SNR=5.4						
S05C	Merced	79.89	44	⇓P	P	02 40 29.8	+0.2
	baz=80						
RCTC	Rector, Farmer	80.00	45	⇓P	P	02 40 30.6	+0.4
	baz=80						
MONP	Monument Peak	80.02	49	⇑P	P	02 40 30.5	+0.2
	baz=80,SNR=17						
EDW2	Edwards Air Fo	80.02	47	P	P	02 40 30.4	+0.1
	baz=80,SNR=20						
O02C	Red Bluff	80.07	40	P	P	02 40 31.4	+0.9
	baz=80,SNR=14						
T06C	Millerton Lake	80.09	44	P	P	02 40 30.4	-0.2
	baz=80,SNR=19						
SUTB	Sutter Butte	80.10	41	⇓P	P	02 40 30.3	-0.4
	baz=80						
DVTC	Desert V Tower	80.12	49	⇑P	P	02 40 31.0	+0.1
	baz=80,SNR=8.1						
Q04C	Lincoln	80.12	42	⇓P	P	02 40 30.4	-0.3
	baz=80						
ISA	Isabella	80.14	46	⇑P	P	02 40 31.0	+0.1
	baz=80,SNR=19						
CMB	Columbia Colle	80.26	43	eP	P	02 40 30.6	-0.9
	comp=Z,29nm,1.3s,mb4.5						
CMB	Columbia Colle	80.26	43	eP	P	02 40 30.6	-0.9
CMB				pmax	pmax		
	comp=Z,29nm,1.3s,mb4.5						
CMB	Columbia Colle	80.26	43	P	P	02 40 31.4	-0.1
	baz=80,SNR=15						
OHCM	Honcut	80.35	41	eP	P	02 40 31.7	-0.3
HELL	Mitchell Peak,	80.36	45	P	P	02 40 31.7	-0.4
	baz=80,SNR=14						
PFO	Pinyon Flat Ob	80.38	48	P	P	02 40 32.1	-0.1
	comp=Z,5.3nm,0.8s,mb3.9,baz=257,slow=3.3,SNR=9.0						
PFO	Pinyon Flat Ob	80.38	48	⇑P	P	02 40 31.7	-0.5
	baz=81						
O03C	Acorn Hollow,	80.42	41	⇓P	P	02 40 32.2	-0.1
	baz=81						
LAVA	Lava Cap Winer	80.47	42	⇑P	P	02 40 32.1	-0.4
	baz=81						
WDC	Whiskeytown Da	80.47	40	⇓iP	P	02 40 32.6	+0.1
	comp=Z,49nm,1.4s,mb4.6						
WDC	Whiskeytown Da	80.47	40	⇓iP	P	02 40 32.7	+0.2
WDC				pmax	pmax		
	comp=Z,49nm,1.4s,mb4.6						
WDC	Whiskeytown Da	80.47	40	P	P	02 40 32.8	+0.3
	baz=81,SNR=14						
ORV	Oroville	80.47	41	P	P	02 40 32.6	0.0
	baz=81,SNR=15						
SWSC	Sam W. Stewart	80.48	49	P	P	02 40 33.0	+0.2
	baz=81,SNR=6.8						
S06C	San Francisco	80.52	43	P	P	02 40 32.6	-0.2
	baz=81,SNR=13						
KCC	Kaiser Creek	80.53	44	P	P	02 40 33.2	+0.2
	baz=81,SNR=13						
MDJ	Mudanjiang	80.59	325	P	P	02 40 33.5	+0.5
MDJ				XP	sP	02 43 40.6	+11
MDJ				S	S	02 49 54.7	+0.4
MDJ				SS	SS	02 55 26.3	+2.4
MDJ				AMB	AMB		
	comp=Z,51nm,1.1s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,193nm,6.0s						
MDJ	Mudanjiang	80.59	325	⇓iP	P	02 40 33.2	+0.2
	comp=Z,49nm,1.0s,mb4.9						
HABR	Khabarovsk	80.59	331	eP	P	02 40 33.0	+0.1
HABR				eS	S	02 49 52.2	-1.9
HABR				pmax	pmax		
	comp=Z,108nm,1.7s,mb5.0						
M02C	Callahan	80.78	39	⇓P	P	02 40 34.8	+0.7
	baz=81,SNR=14						
R05C	Kirkwood Meado	80.85	43	⇓P	P	02 40 34.7	+0.1
	baz=81,SNR=14						
MAW	Mawson	80.87	200	P	P	02 40 34.7	+0.5
	comp=Z,3.2nm,0.6s,mb3.9,baz=80,slow=8.3,SNR=5.0						
BELC	Belle Mtn.	80.91	48	⇓P	P	02 40 35.1	+0.2
	baz=81,SNR=16						
MLAC	Mammoth Lakes	81.02	44	⇓P	P	02 40 35.8	+0.3
	baz=81						
MPMC	Manual Prospec	81.02	46	P	P	02 40 35.7	+0.3
	baz=81,SNR=20						
MTUM	Tungsten Hills	81.04	44	eP	P	02 40 35.8	+0.2
GSC	Goldstone	81.06	47	P	P	02 40 35.8	+0.1
	baz=81,SNR=6.3						
DAC	Darwin (Calif)	81.07	46	⇓iP	P	02 40 35.5	-0.2
	comp=Z,5.8nm,0.7s,mb4.1						
DAC	Darwin (Calif)	81.07	46	⇓iP	P	02 40 35.6	-0.2
DAC				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.1						
O05C	Quincy	81.08	41	P	P	02 40 36.0	+0.3
	baz=81,SNR=7.7						
YBH	Yreka Blue Hor	81.08	39	eP	P	02 40 36.1	+0.4
	comp=Z,27nm,0.8s,mb4.7						
YBH	Yreka Blue Hor	81.08	39	eP	P	02 40 36.1	+0.5
YBH				pmax	pmax		
	comp=Z,27nm,0.8s						
YBH	Yreka Blue Hor	81.08	39	⇓P	P	02 40 36.1	+0.4
	baz=81,SNR=15						
TIN	Tinemaha	81.09	45	⇓P	P	02 40 35.9	+0.1
	baz=81,SNR=8.9						
BC3	Big Chuckw Mtn	81.11	49	⇑P	P	02 40 36.1	+0.1
	baz=81,SNR=6.7						
HEC	Hector,Ludlow	81.13	48	P	P	02 40 36.1	0.0
	baz=81,SNR=13						
R06C	Coleville	81.14	43	P	P	02 40 36.6	+0.6
	baz=81,SNR=11						
M03C	McCloud	81.14	40	P	P	02 40 36.5	+0.5
	baz=81,SNR=14						
R07C	Lee Vining	81.15	44	⇑P	P	02 40 36.4	+0.3
	baz=81						
O04C	Chester	81.19	41	P	P	02 40 36.6	+0.4
	baz=81,SNR=16						
HATC	Hat Creek Radi	81.26	40	P	P	02 40 37.1	+0.5
	baz=81,SNR=8.6						
K02A	Glendale	81.28	38	⇓P	P	02 40 36.5	-0.1
	baz=82						
LBCM	Butte Creek Ri	81.34	40	P	P	02 40 37.1	+0.1
BEKR	Beckwourth	81.36	41	P	P	02 40 37.4	+0.2
	baz=82,SNR=13						
S08C	White Mtn Res	81.38	44	P	P	02 40 38.0	+0.7
	baz=82,SNR=47						
WCN	Washoe City	81.41	42	P	P	02 40 37.9	+0.5
	baz=82,SNR=6.3						
KDAK	Kodiak Island	81.46	14	P	P	02 40 36.2	-1.0
	comp=Z,9.8nm,0.6s,mb4.4,baz=260,slow=14,SNR=7.1						
HUMO	Hull Mountain	81.48	38	eP	P	02 40 38.3	+0.6
	comp=Z,37nm,1.1s,mb4.7						
HUMO	Hull Mountain	81.48	38	P	P	02 40 38.5	+0.8
	baz=82,SNR=14						
P06A	Stead Airport,	81.54	42	⇓P	P	02 40 38.4	+0.4
	baz=82						
GMRC	Granite Mounta	81.57	48	P	P	02 40 38.5	+0.2
	baz=82,SNR=8.9						
ELFS	Eagle Lake Fie	81.58	41	P	P	02 40 38.7	+0.4
	baz=82,SNR=9.0						
IRM	Iron Mountain	81.59	49	⇓P	P	02 40 38.9	+0.4
	baz=82,SNR=12						
J02A	Umpqua	81.61	37	P	P	02 40 39.1	+0.8
	baz=82,SNR=5.8						
M04C	Macdoel	81.62	39	P	P	02 40 39.0	+0.6
	baz=82,SNR=8.8						
GRAC	Grapevine Rang	81.63	45	P	P	02 40 38.9	+0.4
	baz=82,SNR=22						
FURC	Furnace Creek,	81.67	46	P	P	02 40 38.8	-0.1
	baz=82,SNR=7.1						
DL2	Dalian	81.68	317	P	P	02 40 39.3	+0.5
DL2				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.5						
TUQ	Turquoise Mtn.	81.74	47	⇓P	P	02 40 39.2	0.0
	baz=82,SNR=7.8						
SHOC	Shoshone	81.75	47	⇑P	P	02 40 38.8	-0.4
	baz=82						
M05C	Lookout	81.78	40	P	P	02 40 39.6	+0.4
	baz=82,SNR=18						
Y12C	Blythe	81.81	49	P	P	02 40 39.9	+0.3
	baz=82,SNR=12						
NVAR	Mina Array Bea	81.83	44	P	P	02 40 39.7	+0.1
NVAR				PKKPbc	PKKPbc	02 59 06.7	-0.4
NVAR	Mina Array Bea	81.83	44	P	P	02 40 39.7	+0.1
	comp=Z,13nm,0.6s,mb4.5,baz=213,slow=6.2,SNR=125						
NVAR				PKKPbc	PKKPbc	02 59 06.7	-0.4
	comp=Z,0.4nm,0.6s,baz=48,slow=5.9,SNR=4.8						
L04A	Klamath Falls	81.83	39	⇓P	P	02 40 39.7	+0.2
	baz=82,SNR=9.8						
I02A	Mapleton	81.87	37	⇑P	P	02 40 40.0	+0.4
	baz=82						
O06A	Flanigan	81.87	41	P	P	02 40 40.0	+0.2
	baz=82,SNR=29						
PAHR	Pah Rah Range	81.88	42	⇓iP	P	02 40 39.7	-0.1
	comp=Z,36nm,1.2s,mb4.7						
R08A	Mina	81.91	44	P	P	02 40 40.2	+0.3
	baz=82,SNR=7.4						
J03A	Ideyld Park	81.95	37	⇓P	P	02 40 40.5	+0.4
	baz=82						
U10A	Ash Meadows, A	82.00	46	P	P	02 40 41.0	+0.5
	baz=82,SNR=12						
M06C	Likely Place G	82.09	40	P	P	02 40 41.3	+0.5
	baz=82,SNR=16						
P07A	Fallon	82.09	42	⇑P	P	02 40 40.8	-0.1
	baz=82						
S09A	Goldfield	82.13	45	P	P	02 40 40.9	-0.3
	baz=82,SNR=10						
I03A	Eugene	82.16	37	⇓P	P	02 40 41.3	+0.2
	baz=82						
K04A	Chilquin	82.19	39	⇓P	P	02 40 41.7	+0.3
	baz=82						
N06A	Buffalo Meadow	82.21	41	P	P	02 40 41.5	+0.1
	baz=82,SNR=17						
WHN	Wuhan	82.25	307	⇑P	P	02 40 42.7	+0.8
WHN				AMB	AMB		
	comp=Z,124nm,1.4s,mb5.2						
V11A	Goodsprings	82.30	47	⇑P	P	02 40 42.1	+0.1
	baz=82,SNR=5.2						
Q08A	Gabbs	82.31	43	⇓P	P	02 40 41.8	-0.2
	baz=82,SNR=29						
TPH	Tonopah	82.33	44	eP	P	02 40 42.0	0.0
	comp=Z,46nm,1.2s,mb4.8						
TPH	Tonopah	82.33	44	eP	P	02 40 42.1	0.0
TPH				pmax	pmax		
	comp=Z,46nm,1.2s,mb4.8						
CN2	Changchun	82.33	323	⇓P	P	02 40 41.9	-0.1
CN2				eAP	pP	02 42 49.9	+8.1
CN2				AMB	AMB		
	comp=Z,50nm,1.2s,mb4.8						
CN2				AMB	AMB		
	comp=Z,200nm,6.0s						
Y13A	Salome	82.34	49	⇓P	P	02 40 42.7	+0.4
	baz=82,SNR=11						
J04A	Umpqua Nationa	82.36	38	P	P	02 40 42.6	+0.5
	baz=82,SNR=16						
PDMCI	Parker Dam,Lak	82.38	49	P	P	02 40 42.8	+0.3
	baz=82,SNR=12						
L05A	Lakeview	82.38	40	P	P	02 40 43.0	+0.8
	baz=83,SNR=16						

W12A	Cal Nev Ari	82.39	48	P	P	02 40 44.2	+1.7
	baz=83,SNR=11						
O07A	Toulon	82.46	42	P	P	02 40 42.8	+0.1
	baz=83,SNR=38						
R09A	Tonopah	82.52	44	P	P	02 40 43.1	+0.1
	baz=83,SNR=5.7						
I04A	Tendick Farm,	82.53	37	P	P	02 40 42.6	-0.3
	baz=83,SNR=9.4						
H03A	Soap Creek Ran	82.59	36	⇑P	P	02 40 43.8	+0.5
	baz=83,SNR=7.2						
MOD	Modoc	82.61	40	⇑*i*P	P	02 40 43.5	0.0
	comp=Z,8.9nm,0.8s,mb4.3						
MOD	Modoc	82.61	40	P	P	02 40 43.7	+0.3
	baz=83,SNR=22						
HBO	Huckleberry Mo	82.61	37	P	P	02 40 43.6	+0.2
V12A	Nelson	82.63	47	⇑P	P	02 40 43.8	+0.1
	baz=83,SNR=12						
U11A	Corn Creek	82.64	47	⇓P	P	02 40 43.8	+0.1
	baz=83						
S10A	Tonopah Range,	82.65	45	P	P	02 40 43.9	+0.2
	baz=83,SNR=70						
KLR	Kul'dur	82.66	330	*e*P	P	02 40 40.2	-3.3
KLR				pmax	pmax		
	comp=E,24nm,1.4s						
KLR				pmax	pmax		
	comp=Z,45nm,1.4s,mb4.8						
P08A	Dixie Valley	82.69	43	⇑P	P	02 40 44.7	+0.8
	baz=83						
Z14A	Wintersburg	82.74	50	⇑P	P	02 40 44.7	+0.4
	baz=83,SNR=9.9						
X13A	Yucca	82.75	49	⇓P	P	02 40 44.5	+0.3
	baz=83,SNR=9.7						
K05A	Summer Lake	82.75	39	⇓P	P	02 40 44.7	+0.5
	baz=83,SNR=21						
N07B	Gerlach	82.76	41	P	P	02 40 44.2	+0.1
	baz=83,SNR=7.5						
Q09A	Carvers	82.78	44	⇓P	P	02 40 44.5	+0.1
	baz=83						
J05A	Fort Rock	82.89	38	⇑P	P	02 40 45.2	+0.4
	baz=83,SNR=47						
115A	Sonoran Desert	82.92	51	⇑P	P	02 40 45.5	+0.2
	baz=83,SNR=12						
W13A	Hualapai Mount	82.97	48	P	P	02 40 45.9	+0.4
	baz=83,SNR=19						
O08A	Rochester Mine	82.98	42	⇓P	P	02 40 45.9	+0.5
	baz=83						
Y14A	Wickenburg	82.99	50	P	P	02 40 45.7	+0.2
	baz=83,SNR=20						
G03A	Yamhill	83.00	36	⇓P	P	02 40 45.1	-0.2
	baz=83						
R10A	Warm Springs	83.05	45	P	P	02 40 46.1	+0.4
	baz=83,SNR=30						
SSOR	Sweet Springs	83.17	37	P	P	02 40 46.0	-0.1
K06A	Valley Falls	83.18	39	P	P	02 40 46.6	+0.4
	baz=83,SNR=29						
P09A	Austin	83.21	43	⇑P	P	02 40 46.4	-0.1
	baz=83						
H04A	Detroit Lake	83.21	37	P	P	02 40 46.2	-0.2
	baz=83,SNR=15						
U12A	Valley of Fire	83.22	47	⇓P	P	02 40 46.9	+0.2
	baz=83,SNR=7.1						
116A	Eloy	83.23	51	P	P	02 40 47.2	+0.4
	baz=83,SNR=9.3						
F03A	Seaside	83.24	35	⇓P	P	02 40 46.6	+0.1
	baz=83						
L07A	Adell	83.26	40	P	P	02 40 47.2	+0.6
	baz=83,SNR=21						
T12A	Moapa	83.26	47	⇑P	P	02 40 47.3	+0.5
	baz=83						
N08A	GE Springer Mi	83.28	42	P	P	02 40 46.9	+0.1
	baz=84,SNR=23						
X14A	Yava	83.34	49	⇑P	P	02 40 47.6	+0.3
	baz=84,SNR=26						
G04A	Mulino	83.37	36	⇓P	P	02 40 47.1	0.0
	baz=84						
I05A	Bend	83.41	38	⇑P	P	02 40 47.7	+0.4
	baz=84,SNR=7.8						
J06A	Christmas Vall	83.50	39	P	P	02 40 47.8	-0.1
	baz=84,SNR=21						
M08A	Happy Creek Ra	83.51	41	⇑P	P	02 40 48.1	+0.2
	baz=84,SNR=14						
O09A	Fish Creek Ran	83.52	43	P	P	02 40 48.1	+0.1
	baz=84,SNR=10						
W14A	Seligman	83.59	49	⇓P	P	02 40 48.9	+0.4
	baz=84,SNR=28						
E03A	Lebam	83.63	35	P	P	02 40 48.7	+0.3
	baz=84,SNR=8.2						
BMN	Battle Mountai	83.65	42	*e*P	P	02 40 48.5	-0.2
	comp=Z,28nm,1.2s,mb4.7						
BMN	Battle Mountai	83.65	42	*e*P	P	02 40 48.5	-0.2
BMN				pmax	pmax		
	comp=Z,28nm,1.2s,mb4.7						
P10A	Eureka	83.68	43	P	P	02 40 48.9	+0.1
	baz=84,SNR=5.8						
N09A	Rock Creek Ran	83.70	42	P	P	02 40 49.2	+0.3
	baz=84,SNR=7.0						
K07A	Rock Creek Ran	83.71	40	P	P	02 40 49.2	+0.4
	baz=84,SNR=21						
H05A	Madras	83.73	37	⇓P	P	02 40 48.9	-0.1
	baz=84,SNR=5.2						
Q11A	Duckwater	83.78	44	P	P	02 40 49.2	-0.1
	baz=84,SNR=14						
TUC	Tucson	83.78	52	⇓*i*P	P	02 40 50.0	+0.5
	comp=Z,20nm,1.0s,mb4.6						
TUC	Tucson	83.78	52	⇓*i*P	P	02 40 50.0	+0.5
TUC				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.6						
X15A	Humboldt	83.82	50	⇓P	P	02 40 50.0	+0.4
	baz=84,SNR=24						
F04A	Amboy	83.86	36	P	P	02 40 49.5	0.0
	baz=84,SNR=7.2						
D03A	Wishkah Elem.	83.88	34	⇑P	P	02 40 49.9	+0.3
	baz=84						
I06A	Prineville	83.88	38	⇓P	P	02 40 50.2	+0.5
	baz=84,SNR=41						
PSI	Prapat	83.92	275	P	P	02 40 50.0	-0.7
	comp=Z,42nm,0.9s,mb5.0,baz=132,slow=1.8,SNR=26						
WVOR	Wild Horse Val	83.92	40	⇓*i*P	P	02 40 49.8	-0.1
	comp=Z,20nm,1.0s,mb4.6						
WVOR	Wild Horse Val	83.92	40	⇓*i*P	P	02 40 49.8	-0.2
WVOR				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.6						
L08A	Fields	83.96	40	P	P	02 40 50.4	+0.3
	baz=84,SNR=24						
T13A	Saint George	83.96	47	⇑P	P	02 40 50.5	+0.2
	baz=84						
VIPM	Ingram Point	83.99	38	P	P	02 40 50.4	+0.1
C03A	Quillayute Air	84.01	33	⇑P	P	02 40 50.5	+0.3
	baz=84						
O10A	Cortez Mining,	84.03	43	P	P	02 40 50.7	+0.1
	baz=84,SNR=5.7						
G05A	Wamic	84.04	37	⇑P	P	02 40 50.5	0.0
	baz=84						
M09A	Marrel Ranch,	84.07	42	⇑P	P	02 40 51.1	+0.4
	baz=84,SNR=8.3						
J07A	Hines	84.07	39	P	P	02 40 51.0	+0.3
	baz=84,SNR=11						
P11A	Circle Ranch,	84.10	44	⇓P	P	02 40 50.8	-0.1
	baz=84						
E04A	Onalaska	84.11	35	⇓P	P	02 40 51.5	+0.8
	baz=84						
MA2	Magadan	84.12	345	*e*P	P	02 40 49.0	-1.4
	comp=Z,51nm,1.4s,mb4.9						
MA2	Magadan	84.12	345	*e*P	P	02 40 49.1	-1.4
MA2				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.0						
W15A	Williams	84.15	49	⇓P	P	02 40 51.9	+0.7
	baz=84						
K08A	Mann Creek Ran	84.19	40	P	P	02 40 51.5	+0.3
	baz=84,SNR=25						
R12A	Pony Springs,	84.19	45	P	P	02 40 51.5	+0.2
	baz=84,SNR=10						
N10A	Dunphy	84.26	42	⇑P	P	02 40 51.6	0.0
	baz=84						
L09A	Wilkinson Ranc	84.27	41	P	P	02 40 51.8	+0.1
	baz=84,SNR=8.4						
H06A	Lindquist Farm	84.29	38	P	P	02 40 51.8	+0.1
	baz=84,SNR=36						
F05A	White Salmon	84.36	36	⇑P	P	02 40 51.8	-0.2
	baz=84						
I07A	Izee	84.38	38	P	P	02 40 52.5	+0.4
	baz=85,SNR=24						
D04A	Dobbs Creek Ra	84.39	35	⇑P	P	02 40 52.1	-0.1
	baz=85						
G06A	Carlson Farm,	84.42	37	P	P	02 40 52.2	-0.1
	baz=85,SNR=11						
Q12A	Willow Creek R	84.42	45	⇑P	P	02 40 52.5	0.0
	baz=85						
SLKM	Skilak Lake	84.45	14	*e*P	P	02 40 51.0	-1.1
O11A	Cowboy Ranch,	84.48	43	P	P	02 40 52.9	+0.2
	baz=85,SNR=11						
T14A	Hurricane	84.55	47	⇑P	P	02 40 53.1	0.0
	baz=85,SNR=8.9						
J08A	Circle Bar Ran	84.56	39	⇑P	P	02 40 53.1	+0.1
	baz=85,SNR=17						
P12A	McGill	84.61	44	⇓P	P	02 40 53.3	-0.1
	baz=85,SNR=6.9						
E05A	Randle	84.61	35	P	P	02 40 53.0	-0.3
	baz=85,SNR=12						
CCUT	Cedar City	84.61	46	*e*P	P	02 40 53.3	-0.2
B04A	Port Angeles	84.62	34	⇓P	P	02 40 53.4	+0.2
	baz=85,SNR=5.4						
K09A	Rome	84.63	40	⇓P	P	02 40 53.3	-0.1
	baz=85,SNR=24						
F06A	Goldendale	84.66	37	P	P	02 40 53.5	+0.1
	baz=85,SNR=7.3						
ARUT	Antelope Range	84.68	46	*e*P	P	02 40 53.7	-0.1
C04A	Brinnon	84.69	34	P	P	02 40 53.9	+0.3
	baz=85,SNR=8.5						
GAMB	Gambell	84.69	3	*e*P	P	02 40 52.5	-0.7
M10A	I.L. Ranch, Tu	84.69	42	P	P	02 40 54.2	+0.4
	baz=85,SNR=13						
N11A	Elko Archery C	84.80	43	⇓P	P	02 40 54.2	-0.2
	baz=85						
I08A	Drewsey	84.82	39	⇑P	P	02 40 54.3	0.0
	baz=85,SNR=9.2						
S14A	Cedar City	84.85	46	⇓P	P	02 40 55.1	+0.5
	baz=85						
D05A	Enumclaw	84.87	35	⇓P	P	02 40 54.8	+0.3
	baz=85,SNR=9.2						
WUAZ	Wupatki	84.95	49	⇓*i*P	P	02 40 55.2	0.0
	comp=Z,12nm,1.0s,mb4.4						
WUAZ	Wupatki	84.95	49	⇑P	P	02 40 55.4	+0.2
	baz=85,SNR=9.0						
J09A	Fry Pan Ranch,	84.98	40	P	P	02 40 55.2	+0.1
	baz=85,SNR=26						
G07A	Ruggs Ranch, H	84.98	37	P	P	02 40 55.0	-0.1
	baz=85,SNR=22						
E06A	Yakima	85.02	36	P	P	02 40 55.5	+0.3
	baz=85,SNR=14						
PGC	Sidney	85.03	33	⇓*i*P	P	02 40 54.9	-0.3
	comp=Z,70nm,1.2s,mb5.1						
L10A	Juniper Basin	85.04	41	P	P	02 40 55.5	+0.1
	baz=85,SNR=19						
ELK	Elko	85.08	43	*e*P	P	02 40 55.4	-0.2
	comp=Z,7.1nm,0.9s,mb4.2						
ELK	Elko	85.08	43	*e*P	P	02 40 55.4	-0.3
ELK				pmax	pmax		
	comp=Z,7.0nm,0.9s						
M11A	Holland Ranch,	85.11	42	⇓P	P	02 40 56.0	+0.2
	baz=85,SNR=5.3						
H08A	Prairie City	85.12	38	⇓P	P	02 40 55.7	0.0
	baz=85,SNR=9.2						
O12A	Currie	85.14	44	⇓P	P	02 40 56.1	+0.1
	baz=85,SNR=8.6						
K10A	MacKenzie Ranc	85.19	41	P	P	02 40 56.2	+0.1
	baz=85,SNR=13						
F07A	Phinny Hill Vi	85.21	37	P	P	02 40 56.2	0.0
	baz=85,SNR=10						
N12A	Clover Valley,	85.27	43	⇓P	P	02 40 56.4	-0.2
	baz=85,SNR=14						
I09A	Lost Marbles R	85.35	39	P	P	02 40 56.8	-0.1
	baz=86,SNR=7.3						
C05A	Tolt Reservoir	85.35	35	P	P	02 40 56.7	-0.1
	baz=86,SNR=11						
G08A	Pilot Rock	85.40	38	P	P	02 40 57.2	+0.1
	baz=86,SNR=47						
A04A	Legoe Bay, Lum	85.46	33	⇑P	P	02 40 57.3	0.0
	baz=86,SNR=13						
B05A	Bryant	85.49	34	P	P	02 40 57.4	0.0
	baz=86,SNR=15						
D06A	Cle Elum	85.49	35	⇑P	P	02 40 57.4	0.0
	baz=86,SNR=8.4						
L11A	Cat Creek Ranc	85.53	42	⇓P	P	02 40 57.7	-0.2
	baz=86,SNR=15						
CMW	Cultus Mountai	85.58	34	P	P	02 40 58.0	+0.2
J10A	Berg Farm, Mel	85.62	40	⇑P	P	02 40 58.1	-0.1
	baz=86						
M12A	Wells	85.65	43	P	P	02 40 58.5	+0.1
	baz=86,SNR=10						
E07A	Sunnyside	85.65	36	⇓P	P	02 40 58.1	-0.2
	baz=86,SNR=29						
PMR	Palmer	85.66	14	*e*P	P	02 40 56.3	-1.6
	comp=Z,62nm,1.4s,mb5.0						
PMR	Palmer	85.66	14	*e*P	P	02 40 56.3	-1.6
PMR				pmax	pmax		
	comp=Z,62nm,1.4s,mb5.0						
H09A	Durkee	85.79	39	P	P	02 40 58.9	-0.1
	baz=86,SNR=16						
N13A	Wendover, West	85.80	43	⇑P	P	02 40 58.9	-0.2
	baz=86,SNR=7.0						
F08A	Pendleton	85.80	37	P	P	02 40 59.0	0.0
	baz=86,SNR=19						
BJT	Baijiatuau	85.82	316	*e*P	P	02 40 59.1	-0.1
	comp=Z,58nm,1.4s,mb5.0						
BJT	Baijiatuau	85.82	316	*e*P	P	02 40 59.1	-0.1
BJT				pmax	pmax		
	comp=Z,58nm,1.4s						
BJI	Beijing	85.83	316	P	P	02 40 59.4	+0.2
BJI				AP	pP	02 43 07.6	+7.2
BJI				XP	sP	02 44 07.7	+11
BJI				PP	PP	02 44 30.6	+1.0
BJI				XS	sS	02 54 33.8	+12
BJI				AMB	AMB		
	comp=Z,27nm,0.8s,mb4.9						
BJI	Beijing	85.83	316	P	P	02 40 59.4	+0.2
BJI				pP	pP	02 43 07.6	+7.2
BJI				sP	sP	02 44 07.7	+11
BJI				PP	PP	02 44 30.6	+1.0
BJI				S	S	02 50 15.2	-31
BJI				sS	sS	02 54 33.8	+12
BJI				SS	SS	02 56 31.4	-9.2
BJI				LR	LR		
	comp=Z,70nm,27.8s						
BJI	Beijing	85.83	316	P	P	02 40 59.4	+0.2
BJI						02 44 30.6	
BJI				MLR	MLR		
	comp=Z,70nm,27.8s						
MSU	Marysvale	85.91	46	*e*P	P	02 41 00.1	+0.4
C06A	Tall Timber Ra	85.91	35	⇓P	P	02 40 58.8	-0.6
	baz=86						
A05A	Maple Falls	85.95	33	⇓P	P	02 40 59.2	-0.4
	baz=86						
B06A	Marblemount	85.97	34	⇑P	P	02 40 59.4	-0.3
	baz=86						
D07A	Quincy	85.97	36	P	P	02 40 59.8	0.0
	baz=86,SNR=11						
I10A	Payette	85.97	40	⇓P	P	02 41 00.2	+0.4
	baz=86,SNR=9.7						
L12A	House Creek Ra	85.98	42	P	P	02 41 00.2	+0.3
	baz=86,SNR=7.2						
E08A	Dider Farm, El	86.05	37	⇓P	P	02 40 59.9	-0.3
	baz=86						
M13A	Montello	86.09	43	P	P	02 41 00.4	-0.1
	baz=86,SNR=17						
BMO	Blue Mountains	86.11	39	⇓*i*P	P	02 40 59.9	-0.5
	comp=Z,14nm,0.8s,mb4.7						
MFID	Camas Ranch	86.18	41	P	P	02 41 00.8	0.0
	baz=86,SNR=16						
C07A	Waterville	86.22	35	P	P	02 41 00.6	-0.3
	baz=86,SNR=21						
F09A	S2 Ranch, Elgi	86.25	38	P	P	02 41 01.1	0.0
	baz=86,SNR=9.6						
WTV	Waterville	86.28	35	P	P	02 41 00.9	-0.3
H10A	Noah's Angus R	86.28	39	P	P	02 41 01.0	-0.3
	baz=86,SNR=44						
K12A	Draper Farm, C	86.32	42	P	P	02 41 01.6	+0.1
	baz=86,SNR=8.7						
DUG	Dugway	86.36	44	*e*P	P	02 41 01.4	-0.4
	comp=Z,2.2nm,0.8s,mb3.8						
DUG	Dugway	86.36	44	*e*P	P	02 41 01.4	-0.4
DUG				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.8						
DUG	Dugway	86.36	44	⇓P	P	02 41 02.5	+0.8
	baz=86						
GYA	Guiyang	86.37	300	⇓*i*P	P	02 41 03.4	+1.3
GYA				AP	pP	02 43 12.4	+8.9
GYA				XP	sP	02 44 11.2	+11
GYA				PP	PP	02 44 38.2	+4.1
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.4						
GYA				AMB	AMB		
	comp=Z,70nm,5.8s						
I11A	Placerville	86.38	40	P	P	02 41 01.7	0.0
	baz=86,SNR=28						
D08A	Wollman Farm,	86.46	36	P	P	02 41 02.2	+0.1
	baz=87,SNR=25						
J12A	Stokes Ranch,	86.53	41	P	P	02 41 02.8	+0.3
	baz=87,SNR=18						
E09A	Wood Farm, Sta	86.58	37	P	P	02 41 02.3	-0.4
	baz=87,SNR=20						
L13A	Double Diamond	86.62	42	⇓P	P	02 41 03.5	+0.6
	baz=87						
B07A	Winthrop	86.65	35	P	P	02 41 02.6	-0.3
	baz=87,SNR=25						
TNA	Tin City	86.69	4	*e*P	P	02 41 01.8	-1.0
	comp=Z,6.4nm,0.8s,mb4.3						
SEY	Seymchan	86.74	347	⇓*e*P	P	02 41 02.3	-0.7
OD2	Odessa Site #2	86.78	36	P	P	02 41 03.4	-0.1
H11A	Donnelly	86.78	39	P	P	02 41 03.6	0.0
	baz=87,SNR=55						
F10A	Beach Ranch, E	86.79	38	P	P	02 41 03.2	-0.5
	baz=87,SNR=62						
D09A	Jones Farm, Ri	86.81	37	P	P	02 41 03.6	-0.1
	baz=87,SNR=23						
C08A	Higginbotham F	86.82	36	P	P	02 41 03.5	-0.3
	baz=87,SNR=18						
K13A	Stover Farm, H	86.83	42	P	P	02 41 04.3	+0.4
	baz=87,SNR=8.3						
A07A	Ashnola River,	86.86	34	P	P	02 41 04.0	+0.1
	baz=87,SNR=7.3						
B08A	Colville Reser	87.01	35	P	P	02 41 04.0	-0.6
	baz=87,SNR=33						
G11A	Walters Elk Ra	87.02	39	P	P	02 41 04.5	-0.2
	baz=87,SNR=72						
HLID	Hailey	87.12	41	⇓*i*P	P	02 41 05.4	+0.1
	comp=Z,19nm,1.0s,mb4.7						
HLID	Hailey	87.12	41	P	P	02 41 05.7	+0.5
	baz=87,SNR=38						
E10A	Myers Farm, Un	87.15	37	P	P	02 41 05.4	+0.1
	baz=87,SNR=11						
SPUT	South Promonto	87.17	44	*e*P	P	02 41 05.6	0.0
J13A	Cove Ranch, Pi	87.18	41	P	P	02 41 06.0	+0.4
	baz=87,SNR=36						
SRU	San Rafael	87.33	46	*e*P	P	02 41 05.9	-0.4
	comp=Z,18nm,0.8s,mb4.8						
SRU	San Rafael	87.33	46	*e*P	P	02 41 05.9	-0.5
SRU				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.8						
K14A	Jones Ranch, D	87.35	42	⇓P	P	02 41 06.6	+0.2
	baz=88						
F11A	Grangeville	87.36	38	P	P	02 41 04.9	-1.4
	baz=88,SNR=15						
D10A	Wagner Farm, O	87.38	37	P	P	02 41 05.9	-0.5
	baz=88,SNR=34						
H12A	Diamond D Ranc	87.39	40	P	P	02 41 06.4	-0.1
	baz=88,SNR=60						
A08A	Turner Farm, O	87.39	35	⇓P	P	02 41 06.1	-0.3
	baz=88						
LAZ	Ladron	87.46	52	*e*P	P	02 41 07.2	+0.1
LENM	Lemitar	87.47	52	*e*P	P	02 41 07.1	-0.1
DAU	Daniels Canyon	87.49	45	*e*P	P	02 41 07.0	0.0
I13A	Wildhorse Cree	87.49	41	P	P	02 41 07.3	+0.3
	baz=88,SNR=17						
MNTX	Cornudas Mount	87.56	55	*e*P	P	02 41 07.7	+0.1
	comp=Z,20nm,1.0s,mb4.8						
MNTX				*e*pP	pP	02 43 13.4	+4.0
E11A	Bogner Ranch,	87.59	38	P	P	02 41 06.1	-1.3
	baz=88,SNR=15						
MCK	McKinley	87.61	13	⇓*i*P	P	02 41 05.5	-1.6
	comp=Z,17nm,0.8s,mb4.8						
MCK	McKinley	87.61	13	⇓*i*P	P	02 41 05.5	-1.6
MCK				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.8						
VNA3	Neumayer Olymp	87.67	176	*e*P	P	02 41 07.0	-0.4
VNA3				*e*		02 41 11.5	
VNA3				*e*		02 41 14.6	
B09A	Rice	87.69	35	P	P	02 41 07.5	-0.3
	baz=88,SNR=31						
BNM	Barren Site	87.72	52	*e*P	P	02 41 08.3	-0.1
H13A	Challis	87.76	40	P	P	02 41 08.4	+0.2
	baz=88,SNR=24						
A09A	Danville	87.77	35	P	P	02 41 08.1	-0.1
	baz=88,SNR=17						
LPM	Los Pinos Moun	87.79	52	*e*P	P	02 41 08.5	-0.2
C10A	Spilker Farm,	87.80	36	⇑P	P	02 41 07.7	-0.6
	baz=88						
MVCO	Mesa Verde	87.80	49	⇑P	P	02 41 08.1	-0.5
	baz=88						
F12A	Elk City	87.81	39	P	P	02 41 08.2	-0.3
	baz=88,SNR=58						
LTX	Lajitas	87.86	58	⇓*i*P	P	02 41 09.3	+0.2
	comp=Z,24nm,1.1s,mb4.8						
LTX	Lajitas	87.86	58	⇓*i*P	P	02 41 09.3	+0.2
LTX				pmax	pmax		
	comp=Z,24nm,1.1s,mb4.8						
TXAR	Lajitas Array	87.86	58	P	P	02 41 09.4	+0.3
	comp=Z,14nm,0.9s,mb4.7,baz=219,slow=5.8,SNR=116						
TXAR				PKKPbc	PKKPbc	02 58 52.5	0.0
	comp=Z,0.9nm,0.7s,baz=106,slow=2.4,SNR=10						
HWUT	Hardware Ranch	87.89	44	*e*P	P	02 41 08.7	-0.3
	comp=Z,3.5nm,0.8s,mb4.1						
D11A	Klaveano Farm,	87.91	37	P	P	02 41 08.1	-0.8
	baz=88,SNR=19						
XAN	Xi'an	87.95	308	P	P	02 41 09.9	+0.5
XAN				AMB	AMB		
	comp=Z,58nm,1.1s,mb5.2						
G13A	Cobalt	88.05	40	⇑P	P	02 41 09.4	-0.2
	baz=88,SNR=34						
VNA2	Neumayer--Watz	88.10	177	*e*P	P	02 41 09.5	0.0
VNA2				*e*		02 41 14.2	
VNA2				*e*		02 41 17.5	
B10A	Chitwood Farm,	88.12	36	⇓P	P	02 41 09.9	+0.1
	baz=88						
NEW	Newport	88.15	36	*e*P	P	02 41 09.0	-1.0
PV01	Paradox Valley	88.19	48	*e*P	P	02 41 09.8	-0.6
ANMO	Albuquerque	88.21	51	⇓*i*P	P	02 41 10.2	-0.4
	comp=Z,18nm,1.2s,mb4.7						
ANMO				*e*pP	pP	02 43 16.4	+3.8
ANMO	Albuquerque	88.21	51	⇓*i*P	P	02 41 10.2	-0.4
ANMO				*e**PP	pP	02 43 16.4	+3.8
ANMO				pmax	pmax		
	comp=Z,18nm,1.2s						
NANT	Nan	88.29	291	⇑P	P	02 41 09.5	-1.8
	comp=Z,190nm,0.9s,mb5.8						
A10A	Northport	88.33	35	P	P	02 41 10.4	-0.3
	baz=88,SNR=9.2						
F13A	Darby	88.37	39	P	P	02 41 10.6	-0.5
	baz=88,SNR=25						
G14A	Jackson	88.60	40	P	P	02 41 12.2	+0.1
	baz=89,SNR=11						
B11A	Sandpoint	88.67	36	P	P	02 41 12.1	-0.2
	baz=89,SNR=17						
MCMT	McKenzie Canyo	88.75	40	*e*P	P	02 41 12.9	+0.1
MCMT				*e*pP	pP	02 43 19.3	+4.3
HIA	Hailar	88.75	325	*e*P	P	02 41 11.8	-1.0
	comp=Z,28nm,1.1s,mb5.0						
HIA	Hailar	88.75	325	*e*P	P	02 41 11.8	-1.0
HIA				pmax	pmax		
	comp=Z,28nm,1.1s						
AHID	Auburn Hatcher	88.78	43	*e*P	P	02 41 13.1	+0.1
	comp=Z,10nm,0.8s,mb4.7						
E13A	Victor	88.81	39	P	P	02 41 12.2	-0.8
	baz=89,SNR=6.6						
COLA	College	88.84	13	⇓*i*P	P	02 41 10.8	-2.0
	comp=Z,41nm,0.8s,mb5.3						
COLA	College	88.84	13	⇓*i*P	P	02 41 10.8	-2.0
COLA				pmax	pmax		
	comp=Z,41nm,0.8s,mb5.3						
IMA2	Indian Mountai	88.86	10	*e*P	P	02 41 11.9	-0.9
F14A	Wisdom	88.95	39	⇓P	P	02 41 13.6	-0.2
	baz=89						
A11A	Hall Mountain,	88.96	36	P	P	02 41 13.9	+0.2
	baz=89,SNR=22						
D13A	Huson	89.00	38	P	P	02 41 12.9	-1.0
	baz=89,SNR=7.8						
KMI	Kunming	89.03	297	P	P	02 41 15.9	+1.3
KMI				LR	LR		
	comp=Z,180nm,10.7s						
B12A	Libby	89.11	36	P	P	02 41 14.4	0.0
	baz=89,SNR=13						
DCID1	Drake Creek	89.14	42	*e*P	P	02 41 15.1	+0.4
G15A	Dillon	89.14	40	P	P	02 41 14.8	+0.1
	baz=89,SNR=27						
MSO	Missoula	89.16	38	*e*P	P	02 41 13.5	-1.2
	comp=Z,2.7nm,0.9s,mb4.1						
DLMT	Dillon	89.18	40	*e*P	P	02 41 14.7	-0.1
	comp=Z,20nm,1.2s,mb4.8						
BDT	Bhumibol Dam	89.20	289	P	P	02 41 16.5	+1.0
	comp=Z,20nm,0.9s,mb5.0						
E14A	Clinton	89.20	39	P	P	02 41 14.5	-0.4
	baz=89,SNR=11						

REDW	**Red Top Meadow**	**89.23**	**42**	⇓*i*P	**P**	**02 41 15.2**	**+0.1**
	comp=Z,30nm,0.9s,mb5.1						
TPAW	**Teton Pass**	**89.23**	**42**	⇓*i*P	**P**	**02 41 15.1**	**-0.1**
	comp=Z,28nm,1.1s,mb5.0						
C13A	**Hot Springs**	**89.25**	**37**	⇑P	**P**	**02 41 14.8**	**-0.3**
	baz=89						
HHC	**Hu-ho-hao-te**	**89.27**	**315**	*e*P	**P**	**02 41 15.8**	**+0.4**
HHC				AP	pP	02 43 26.2	+8.5
HHC				XP	sP	02 44 25.7	+12
HHC				PP	PP	02 45 00.2	+3.5
HHC				SKS		02 50 49.1	
HHC				XS	sS	02 55 06.0	+10
HHC				AMB	AMB		
	comp=Z,26nm,1.2s,mb4.9						
HHC				AMB	AMB		
	comp=Z,131nm,6.3s						
A12A	**Yaak River Ran**	**89.34**	**36**	P	**P**	**02 41 15.4**	**-0.1**
	baz=90,SNR=20						
IMW	**Indian Meadow**	**89.45**	**42**	⇓*i*P	**P**	**02 41 16.2**	**+0.1**
	comp=Z,27nm,0.8s,mb5.1						
BILL	**Bilibino**	**89.49**	**354**	*e*P	**P**	**02 41 15.2**	**-0.5**
BILL	**Bilibino**	**89.49**	**354**	*i* P	**P**	**02 41 15.7**	**0.0**
F15A	**Butte**	**89.49**	**40**	P	**P**	**02 41 16.1**	**-0.2**
	baz=90,SNR=10						
MOOW	**Moose Ponds**	**89.49**	**42**	*e*P	**P**	**02 41 15.9**	**-0.5**
	comp=Z,4.8nm,0.8s,mb4.4						
CHRT	**Chiangrai**	**89.50**	**291**	⇓P	**P**	**02 41 18.0**	**+1.1**
	comp=Z,355nm,1.0s						
LOHW	**Long Hollow**	**89.51**	**42**	⇓*i*P	**P**	**02 41 16.2**	**-0.2**
	comp=Z,15nm,0.6s,mb5.0						
D14A	**Greenough**	**89.54**	**38**	P	**P**	**02 41 15.5**	**-1.0**
	baz=90,SNR=8.5						
CHMT	**Chamberlain Mo**	**89.60**	**39**	*e*P	**P**	**02 41 16.0**	**-0.8**
QLMT	**Earthquake Lak**	**89.61**	**41**	*e*P	**P**	**02 41 17.6**	**+0.7**
B13A	**Whitefish**	**89.69**	**37**	⇓P	**P**	**02 41 16.6**	**-0.5**
	baz=90						
E15A	**Deer Lodge**	**89.70**	**39**	⇓P	**P**	**02 41 17.6**	**+0.3**
	baz=90						
BW06	**Boulder Array**	**89.76**	**43**	⇓*i*P	**P**	**02 41 16.7**	**-0.9**
	comp=Z,17nm,0.8s,mb4.9						
PDAR	**Pinedale Array**	**89.76**	**43**	P	**P**	**02 41 16.9**	**-0.6**
	comp=Z,15nm,0.6s,mb5.0,baz=212,slow=3.3,SNR=148						
PDAR				PKKPbc	PKKPbc	02 58 47.1	-1.3
	comp=Z,0.6nm,0.8s,baz=93,slow=3.0,SNR=5.5						
SMCO	**Snowmass**	**89.78**	**48**	*e*P	**P**	**02 41 17.6**	**-0.2**
	comp=Z,3.1nm,0.5s,mb4.4						
YMR	**Madison River**	**89.82**	**41**	*e*P	**P**	**02 41 18.5**	**+0.7**
	comp=Z,9.8nm,0.9s,mb4.6						
CHG	**Chiang Mai**	**89.84**	**290**	⇓P	**P**	**02 41 19.5**	**+1.0**
	comp=Z,41nm,0.9s,mb5.3						
CHTO	**Chiang Mai**	**89.84**	**290**	⇓*i*P	**P**	**02 41 19.5**	**+1.0**
	comp=Z,34nm,0.8s,mb5.2						
CHTO	**Chiang Mai**	**89.84**	**290**	⇓*i*P	**P**	**02 41 19.5**	**+1.0**
CHTO				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.2						
BOZ	**Bozeman (W)**	**89.91**	**40**	*e*P	**P**	**02 41 17.9**	**-0.3**
BOZ				*e*pP	pP	02 43 28.9	+8.2
BOZ	**Bozeman (W)**	**89.91**	**40**	P	**P**	**02 41 17.9**	**-0.3**
	baz=90,SNR=16						
A13A	**Flathead Natio**	**90.02**	**36**	P	**P**	**02 41 18.3**	**-0.4**
	baz=90,SNR=7.3						
D15A	**Lincoln**	**90.10**	**39**	P	**P**	**02 41 18.6**	**-0.4**
	baz=90,SNR=9.2						
LKWY	**Lake**	**90.11**	**42**	*e*P	**P**	**02 41 20.5**	**+1.3**
	comp=Z,13nm,1.2s,mb4.6						
LKWY	**Lake**	**90.11**	**42**	*e*P	**P**	**02 41 20.5**	**+1.3**
LKWY				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.6						
DAWY	**Dawson**	**90.13**	**16**	⇓*i*P	**P**	**02 41 17.9**	**-0.8**
SDCO	**Great Sand Dun**	**90.16**	**49**	*e*P	**P**	**02 41 19.3**	**-0.3**
	comp=Z,10nm,1.0s,mb4.6						
EGAK	**Eagle**	**90.26**	**15**	⇓*i*P	**P**	**02 41 18.2**	**-1.1**
	comp=Z,27nm,0.9s,mb5.1						
WALA	**Waterton Lakes**	**90.37**	**37**	*e*P	**P**	**02 41 19.9**	**-0.3**
	comp=Z,14nm,1.1s,mb4.7						
CD2	**Chengdu**	**90.55**	**303**	P	**P**	**02 41 21.9**	**+0.4**
CD2				AP	pP	02 43 32.5	+8.5
CD2				XP	sP	02 44 31.3	+11
CD2				PP	PP	02 45 09.9	+3.0
CD2				SKS		02 50 55.8	
CD2				S	S	02 51 24.9	-4.9
CD2				XS	sS	02 55 16.0	+7.2
CD2				SS	SS	02 57 48.2	-0.6
CD2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.9						
CD2				AMB	AMB		
	comp=Z,40nm,8.4s						
GCMT	**Greycliff**	**91.17**	**41**	*e*P	**P**	**02 41 23.9**	**-0.1**
GCMT				*e*pP	pP	02 43 35.3	+8.7
JCT	**Junction City**	**91.38**	**58**	*e*P	**P**	**02 41 24.2**	**-1.2**
	comp=Z,6.5nm,0.8s,mb4.6						
JCT	**Junction City**	**91.38**	**58**	*e*P	**P**	**02 41 24.2**	**-1.2**
JCT				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
AMTX	**Amarillo**	**91.72**	**53**	*e*P	**P**	**02 41 25.6**	**-1.2**
EGMT	**Eagleton**	**92.21**	**39**	⇓P	**P**	**02 41 28.1**	**-0.7**
	baz=92						
YAK	**Yakutsk**	**92.36**	**338**	*e*P	**P**	**02 41 27.5**	**-1.6**
YAK	**Yakutsk**	**92.36**	**338**	*d* *i*P	**P**	**02 41 27.4**	**-1.7**
YAK				pmax	pmax		
	comp=Z,24nm,0.5s,mb5.5						
LZH	**Lanzhou**	**92.59**	**308**	*e*P	**P**	**02 41 31.6**	**+0.8**
LZH				AMB	AMB		
	comp=Z,38nm,1.0s,mb5.4						
LZH				AMB	AMB		
	comp=Z,130nm,4.0s						
EDM	**Edmonton**	**92.88**	**33**	*e*P	**P**	**02 41 30.6**	**-1.1**
CBKS	**Cedar Bluff**	**94.72**	**50**	*e*P	**P**	**02 41 39.8**	**-0.7**
INK	**Inuvik**	**94.93**	**15**	*e*P	**P**	**02 41 38.8**	**-1.9**
	comp=Z,435nm,1.4s						
INK	**Inuvik**	**94.93**	**15**	*e*P	**P**	**02 41 38.8**	**-1.9**
INK				pmax	pmax		
	comp=Z,435nm,1.4s						
ULN	**Ulaanbaatar**	**95.35**	**319**	*e*P	**P**	**02 41 42.4**	**-0.7**
	comp=Z,3.5nm,0.8s,mb4.5						
ULN	**Ulaanbaatar**	**95.35**	**319**	*e*P	**P**	**02 41 42.4**	**-0.7**
ULN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
SONM	**Songino Array**	**95.74**	**319**	P	**P**	**02 41 43.7**	**-1.1**
	comp=Z,1.2nm,0.9s,mb4.1,baz=106,slow=1.9,SNR=9.2						
SONM				PP	PP	02 45 35.7	-11
	comp=Z,0.6nm,0.9s,baz=90,slow=5.9,SNR=2.7						
GTA	**Gaotai**	**96.82**	**309**	*e*P	**P**	**02 41 50.4**	**+0.5**
GTA				AP	pP	02 44 01.8	+8.8
GTA				XP	sP	02 45 00.4	+12
GTA				PP	PP	02 45 58.5	+3.6
GTA				AMB	AMB		
	comp=Z,8.0nm,1.4s,mb4.8						
GTA				AMB	AMB		
	comp=Z,95nm,7.2s						
YKA	**Yellowknife Ar**	**97.24**	**25**	P	**P**	**02 41 49.2**	**-1.9**
YKA				pP	pP	02 43 56.4	+2.1
YKA	**Yellowknife Ar**	**97.24**	**25**	P	**P**	**02 41 49.2**	**-1.9**
	comp=Z,1.6nm,0.7s,mb4.3,baz=243,slow=4.6,SNR=34						
YKA				pP	pP	02 43 56.4	+2.1
	comp=Z,0.5nm,0.9s,baz=242,slow=4.5,SNR=4.3						
YKA				PKiKP	PKiKP	02 46 20.7	-2.0
	comp=Z,0.5nm,0.8s,baz=250,slow=1.4,SNR=6.3						
ZAK	**Zakamensk**	**98.63**	**321**	*e*P	Pdif	02 41 56.2	-1.7
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb4.2						
TIXI	**Tiksi**	**99.09**	**345**	*i* P	Pdif	02 41 58.0	-1.9
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.5						
ULM	**Lac du Bonnet**	**101.42**	**41**	PKiKP	PKiKP	02 46 27.7	-2.9
	comp=Z,1.1nm,0.9s,baz=243,slow=2.3,SNR=2.4						
RES	**Resolute Bay**	**108.47**	**16**	*e*PKP	PKiKP	02 46 41.0	-1.9
SIV	**San Ignacio**	**108.58**	**116**	PKKPbc	PKKPbc	02 57 53.7	-1.7
	comp=Z,1.2nm,0.6s,baz=61,slow=4.5,SNR=6.4						
ZALV	**Zalesovo Beam**	**110.50**	**321**	PKPdf	PKiKP	02 46 45.1	-2.2
ZALV	**Zalesovo Beam**	**110.50**	**321**	PKiKP	PKiKP	02 46 45.1	-2.2
	comp=Z,5.8nm,0.6s,baz=144,slow=0.9,SNR=32						
MKAR	**Makanchi Array**	**111.10**	**313**	Pdif	Pdif	02 42 54.6	+1.3
MKAR				PKPdf	PKiKP	02 46 46.2	-2.5
MKAR	**Makanchi Array**	**111.10**	**313**	Pdiff	Pdif	02 42 54.6	+1.3
	comp=Z,0.9nm,0.7s,baz=94,slow=6.3,SNR=5.5						
MKAR				PKiKP	PKiKP	02 46 46.2	-2.5
	comp=Z,2.2nm,0.4s,baz=141,slow=0.6,SNR=55						
NVS	**Novosibirsk**	**111.53**	**322**	*e*PKIKP	PKiKP	02 46 46.7	-2.6
KURK	**Kurchatov**	**113.95**	**317**	*e*PKP	PKiKP	02 46 52.0	-2.1
KURK	**Kurchatov**	**113.95**	**317**	*e*PKIKP	PKiKP	02 46 52.0	-2.0
AAK	**Ala-Archa**	**116.13**	**308**	*e*PKPdf	PKPdf	02 46 55.7	-2.7
AAK	**Ala-Archa**	**116.13**	**308**	⇑*i*PKIKP	PKPdf	02 46 56.5	-2.0
SJG	**San Juan**	**116.77**	**80**	*e*PKPdf	PKPdf	02 46 57.9	-2.5
SJG	**San Juan**	**116.77**	**80**	*e*PKIKP	PKPdf	02 46 57.9	-2.5
BRVK	**Borovoye**	**119.14**	**320**	*e*PKPdf	PKPdf	02 47 02.2	-1.7
BRVK	**Borovoye**	**119.14**	**320**	*e*PKIKP	PKPdf	02 47 02.2	-1.7
SCHQ	**Schefferville**	**119.46**	**38**	PKP	PKPdf	02 47 02.0	-2.4
SCHQ	**Schefferville**	**119.46**	**38**	PKP	PKPdf	02 47 02.0	-2.4
	comp=Z,3.6nm,1.0s,baz=284,slow=4.2,SNR=5.2						
KBL	**Kabul**	**119.59**	**299**	*e*PKPdf	PKPdf	02 47 04.7	-0.7
SUR	**Sutherland**	**123.73**	**200**	*e*PKPdf	PKPdf	02 47 13.3	-0.2
SUR	**Sutherland**	**123.73**	**200**	PKP	PKPdf	02 47 11.1	-2.5
	comp=Z,15nm,0.8s,baz=186,slow=1.4,SNR=12						
SOKR	**Solikamsk**	**125.21**	**329**	*c* *i*PKIKP	PKPdf	02 47 14.2	-1.2
SOKR				pmax	pmax		
	comp=Z,50nm,1.4s						
ARU	**Arti**	**125.27**	**325**	*e*PKPdf	PKPdf	02 47 14.4	-1.2
ARU	**Arti**	**125.27**	**325**	*d* *i*PKIKP	PKPdf	02 47 14.5	-1.1
AKTK	**Aktyubinsk**	**127.04**	**318**	PKP	PKPdf	02 47 16.4	-2.8
AKTO	**Aktyubinsk**	**127.04**	**318**	PKIKP	PKPdf	02 47 16.4	-2.8
AKTO				pmax	pmax		
	comp=Z,11nm,0.7s						
AKTO	**Aktyubinsk**	**127.04**	**318**	PKP	PKPdf	02 47 16.4	-2.8
	comp=Z,11nm,0.7s,baz=89,slow=3.7,SNR=48						
LBTB	**Lobatse**	**128.53**	**208**	*e*PKPdf	PKPdf	02 47 22.1	-0.8
LBTB	**Lobatse**	**128.53**	**208**	PKIKP	PKPdf	02 47 22.2	-0.7
LBTB				pmax	pmax		
	comp=Z,3.0nm,0.6s						
LBTB				pmax	pmax		
	comp=N,4.0nm,1.0s						
LBTB	**Lobatse**	**128.53**	**208**	PKP	PKPdf	02 47 22.2	-0.7
	comp=N,2.9nm,0.6s,baz=190,slow=3.8,SNR=8.3						
LBTB				SKPbc		02 49 50.2	
	comp=N,4.4nm,1.0s,baz=144,slow=4.4,SNR=4.0						
KEV	**Kevo**	**128.86**	**349**	*e*pkp	PKPdf	02 47 19.7	-2.4
KEV	**Kevo**	**128.86**	**349**	*e*PKP	PKPdf	02 47 19.7	-2.4
KEV	**Kevo**	**128.86**	**349**	*e*PKIKP	PKPdf	02 47 19.7	-2.4
APA	**Apatity**	**129.28**	**345**	⇓*i*PKIKP	PKPdf	02 47 21.7	-1.2
APA				pmax	pmax		
	comp=Z,13nm,0.6s						
ARCES	**ARCESS Array B**	**129.31**	**349**	PKP	PKPdf	02 47 21.4	-1.6
ARCES				SKPbc	SKPbc	02 49 51.1	-1.4
ARCES	**ARCESS Array B**	**129.31**	**349**	PKIKP	PKPdf	02 47 21.4	-1.5
ARCES	**ARCESS Array B**	**129.31**	**349**	PKP	PKPdf	02 47 21.4	-1.6
	comp=Z,11nm,0.6s,baz=52,slow=0.9,SNR=59						
ARCES				SKPbc	SKPbc	02 49 51.1	-1.4
	comp=Z,3.1nm,0.8s,baz=15,slow=5.0,SNR=4.2						
ARE0	**ARCESS Array S**	**129.31**	**349**	*e*PKPdf	PKPdf	02 47 21.3	-1.7
JOF	**Joensuu**	**133.43**	**342**	*e*pkp	PKPdf	02 47 27.7	-3.2
JOF	**Joensuu**	**133.43**	**342**	*e*PKP	PKPdf	02 47 27.7	-3.2
JOF	**Joensuu**	**133.43**	**342**	*e*PKIKP	PKPdf	02 47 27.7	-3.2
LSZ	**Lusaka**	**135.32**	**218**	*e*PKPdf	PKPdf	02 47 35.3	-0.5
LSZ				*e*SKP		02 50 13.7	
LSZ				*e*PP	PP	02 50 19.4	+0.3
LSZ	**Lusaka**	**135.32**	**218**	*e*PKIKP	PKPdf	02 47 35.3	-0.6
LSZ				*e*		02 50 19.4	
LSZ	**Lusaka**	**135.32**	**218**	PKP	PKPdf	02 47 35.6	-0.3
	comp=Z,7.2nm,0.7s,baz=145,slow=1.9,SNR=17						
LSZ				SKPbc	SKPbc	02 50 13.5	-1.3
	comp=Z,2.2nm,0.6s,baz=130,slow=1.9,SNR=4.9						
KAF	**Kangasniemi**	**135.47**	**344**	*e*pkp	PKPdf	02 47 30.9	-3.8
KAF	**Kangasniemi**	**135.47**	**344**	*e*PKP	PKPdf	02 47 30.9	-3.8
KAF	**Kangasniemi**	**135.47**	**344**	*e*PKIKP	PKPdf	02 47 30.9	-3.8
FIA1	**FINESS Array S**	**136.09**	**343**	*e*PKPdf	PKPdf	02 47 33.1	-2.7
FIA1				*e*SKP		02 50 13.7	
FINES	**FINESS Array B**	**136.09**	**343**	PKP		02 47 22.1	
FINES				PKP	PKPdf	02 47 32.7	-3.2
FINES				SKPbc	SKPbc	02 50 13.7	-1.9
FINES	**FINESS Array B**	**136.09**	**343**	PKHKP		02 47 22.1	
FINES						02 47 32.7	
FINES	**FINESS Array B**	**136.09**	**343**	PKhKP		02 47 22.1	
	comp=Z,0.6nm,0.5s,baz=50,slow=3.2,SNR=5.2						
FINES				PKP	PKPdf	02 47 32.7	-3.2
	comp=Z,5.6nm,0.6s,baz=81,slow=2.5,SNR=11						
FINES				SKPbc	SKPbc	02 50 13.7	-1.9
	comp=Z,10nm,0.7s,baz=64,slow=4.4,SNR=19						
VRHR	**Novokhopersk**	**136.56**	**324**	*e*PKIKP	PKPdf	02 47 37.4	+0.3
VRHR				pmax	pmax		
	comp=N,9.0nm,0.4s						
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.4s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.5s						
OBN	**Obninsk**	**136.91**	**331**	⇓*i*PKIKP	PKPdf	02 47 36.0	-1.6
OBN				pmax	pmax		
	comp=Z,18nm,0.9s						
TSUM	**Tsumeb**	**136.98**	**203**	*e*PKPdf	PKPdf	02 47 40.1	+1.2
KMBO	**Kilima Mbogo**	**138.55**	**242**	PKP		02 47 33.2	
KMBO				*e*PKPdf	PKPdf	02 47 43.5	+1.6
KMBO				*e*SKP		02 50 24.7	
KMBO	**Kilima Mbogo**	**138.55**	**242**	PKHKP		02 47 33.3	
KMBO				*e*		02 47 43.5	
KMBO	**Kilima Mbogo**	**138.55**	**242**	PKhKP		02 47 33.2	
	comp=Z,1.5nm,0.7s,baz=69,slow=21,SNR=5.8						
KMBO				PKP	PKPdf	02 47 42.7	+0.8
	comp=Z,5.0nm,0.9s,baz=54,slow=4.2,SNR=9.3						
KMBO				SKPbc	SKPbc	02 50 24.8	+0.4
	comp=Z,2.1nm,0.8s,baz=160,slow=0.7,SNR=5.8						
KIV	**Kislovodsk**	**138.86**	**314**	*i* PKIKP	PKPdf	02 47 40.8	-0.7
NB2	**NORSAR Subarra**	**139.42**	**353**	PKPa		02 47 32.2	
	comp=Z,1.8nm,0.5s,baz=10,slow=3.2						
NOA	**NORSAR Array B**	**139.42**	**353**	PKP		02 47 32.6	
NOA				PKP	PKPdf	02 47 41.3	-0.7
NOA				SKPbc	SKPbc	02 50 23.3	-1.8
NOA	**NORSAR Array B**	**139.42**	**353**	PKHKP		02 47 32.6	
NOA						02 47 41.3	
NOA	**NORSAR Array B**	**139.42**	**353**	PKhKP		02 47 32.6	
	comp=Z,7.2nm,0.7s,baz=12,slow=2.3,SNR=25						
NOA				PKP	PKPdf	02 47 41.3	-0.7
	comp=Z,4.5nm,0.7s,baz=18,slow=4.2,SNR=11						
NOA				SKPbc	SKPbc	02 50 23.3	-1.8
	comp=Z,4.5nm,0.8s,baz=16,slow=4.5,SNR=8.0						
NAO01	**NORSAR Array S**	**139.65**	**353**	*e*PKPpre		02 47 35.3	
HFS	**Hagfors**	**139.95**	**350**	PKP		02 47 33.7	
HFS				SKPbc	SKPbc	02 50 23.8	-2.7
HFS	**Hagfors**	**139.95**	**350**	PKHKP		02 47 33.7	
HFS	**Hagfors**	**139.95**	**350**	PKhKP		02 47 33.7	
	comp=Z,9.6nm,0.4s,baz=66,slow=3.6,SNR=76						
HFS				SKPbc	SKPbc	02 50 23.8	-2.7
	comp=Z,7.2nm,0.8s,baz=116,slow=3.4,SNR=8.3						
KONO	**Kongsberg**	**140.96**	**353**	⇑*i*PKHKP		02 47 39.6	
MVH1	**Achvaich**	**142.92**	**5**	*e*P	PKPdf	02 47 44.2	-4.2
SUW	**Suwalki**	**143.10**	**339**	*i* PKPd	PKPdf	02 47 45.7	-3.1
SUW				*e*		02 47 47.8	
SUW	**Suwalki**	**143.10**	**339**	⇓*i*PKP	PKPdf	02 47 45.7	-3.1
SUW				*e*		02 47 47.8	
SUW	**Suwalki**	**143.10**	**339**	⇓*i*PKIKP	PKPdf	02 47 45.7	-3.1
AKASG	**Malin Array Be**	**143.16**	**330**	PKP	PKPdf	02 47 45.4	-3.6
AKASG				SKPbc	SKPbc	02 50 32.6	-2.2
AKASG	**Malin Array Be**	**143.16**	**330**	PKHKP		02 47 45.4	
AKASG	**Malin Array Be**	**143.16**	**330**	PKP	PKPdf	02 47 45.4	-3.6
	comp=Z,102nm,0.7s,baz=42,slow=4.2,SNR=422						
AKASG				SKPbc	SKPbc	02 50 32.6	-2.2
	comp=Z,5.3nm,0.9s,baz=36,slow=2.1,SNR=11						
AKBB	**Malin Array Si**	**143.16**	**330**	*e*PKPdf	PKPdf	02 47 45.3	-3.7
AKBB	**Malin Array Si**	**143.16**	**330**	*e*PKHKP		02 47 45.3	
KIEV	**Kiev**	**143.17**	**330**	*e*PKPdf	PKPdf	02 47 45.3	-3.8
KIEV	**Kiev**	**143.17**	**330**	*e*PKHKP		02 47 45.3	
KAC	**Achnashellach**	**143.24**	**6**	*e*P	PKPdf	02 47 45.4	-3.5
MCD	**Coleburn Disti**	**143.33**	**4**	*e*P	PKPdf	02 47 45.1	-3.9
KPL	**Plockton**	**143.36**	**6**	*e*P	PKPdf	02 47 45.8	-3.4
MDO	**Dochfour**	**143.38**	**5**	*e*P	PKPdf	02 47 45.5	-3.7
KSB	**Sheil Bridge**	**143.51**	**6**	*e*P	PKPdf	02 47 45.6	-3.8
MALT	**Malatya**	**143.75**	**307**	*e*PKPdf	PKPdf	02 47 49.7	-0.7
MALT	**Malatya**	**143.75**	**307**	*e*PKIKP	PKPdf	02 47 49.7	-0.7
MALT	**Malatya**	**143.75**	**307**	⇓*i*P	PKPdf	02 47 49.7	-0.7
SIM	**Simferopol’**	**143.98**	**319**	*i* PKIKP	PKPdf	02 47 49.5	-1.1
SIM				pmax	pmax		
	comp=Z,159nm,0.9s						
MUD	**Monsted U’grnd**	**144.14**	**353**	⇓*i*PKIKP	PKPdf	02 47 48.9	-1.6
MUD				pmax	pmax		
	comp=Z,180nm,1.2s						
MUD	**Monsted U’grnd**	**144.14**	**353**	⇓*i*P	PKPdf	02 47 48.9	-1.6
	comp=Z,179nm,1.2s						
COP	**Copenhagen**	**144.40**	**349**	*i* PKIKP	PKPdf	02 47 49.7	-1.3
COP				pmax	pmax		
	comp=Z,64nm,1.0s						
COP	**Copenhagen**	**144.40**	**349**	*i* P	PKPdf	02 47 49.7	-1.3
	comp=Z,64nm,1.0s						
BSD	**Bornholm Skovb**	**144.45**	**347**	⇓*i*PKIKP	PKPdf	02 47 49.6	-1.5
BSD				pmax	pmax		
	comp=Z,140nm,1.1s						
BSD	**Bornholm Skovb**	**144.45**	**347**	⇓*i*P	PKPdf	02 47 49.6	-1.5
	comp=Z,144nm,1.1s						
EAB	**Aberfoyle**	**144.63**	**5**	*e*P	PKPdf	02 47 49.5	-1.9
EDI	**Edinburgh**	**144.98**	**4**	*e*P	PKPdf	02 47 51.1	-0.9
PGBU	**Gleniffferbraes**	**144.99**	**6**	*e*P	PKPdf	02 47 50.8	-1.2
WAR	**Warsaw**	**145.30**	**339**	*i* PKPd	PKPdf	02 47 53.3	+0.7
WAR				*e*		02 47 54.7	
WAR	**Warsaw**	**145.30**	**339**	⇓*i*PKP	PKPdf	02 47 53.3	+0.7
WAR				*e*		02 47 54.7	
WAR	**Warsaw**	**145.30**	**339**	⇓*i*PKP2	PKPab	02 47 53.3	-1.7
GMK	**Mull of Kintyr**	**145.33**	**7**	*e*P	PKPdf	02 47 52.0	-0.6
XSO	**Sourhope Farm**	**145.47**	**4**	*e*P	PKPdf	02 47 52.4	-0.4
GCL	**Cushendall**	**145.53**	**8**	*e*P	PKPdf	02 47 53.4	+0.4
GKP	**Gorka Klasztor**	**145.56**	**343**	*i* PKPd	PKPdf	02 47 53.8	+0.7
GKP				*e*		02 47 55.1	
GKP				*e*		02 47 57.5	
GKP	**Gorka Klasztor**	**145.56**	**343**	⇓*i*PKP	PKPdf	02 47 53.8	+0.7
GKP				*e*		02 47 55.1	
GKP				*e*		02 47 57.5	
GKP	**Gorka Klasztor**	**145.56**	**343**	⇓*i*PKIKP	PKPdf	02 47 53.8	+0.7
GKP				*e*		02 47 55.1	
EKA	**Eskdalemuir Ar**	**145.57**	**5**	PKPbc	PKPbc	02 47 52.2	-2.2
EKA	**Eskdalemuir Ar**	**145.57**	**5**	PKIKP	PKPdf	02 47 52.3	-0.7
EKA	**Eskdalemuir Ar**	**145.57**	**5**	PKPbc	PKPbc	02 47 52.2	-2.2
	comp=Z,22nm,0.8s,baz=359,slow=2.4,SNR=34						
ESK	**Eskdalemuir**	**145.58**	**5**	*e*P	PKPdf	02 47 51.6	-1.4
ESK	**Eskdalemuir**	**145.58**	**5**	*e*PKPbc	PKPbc	02 47 52.7	-1.8
ESK	**Eskdalemuir**	**145.58**	**5**	*e*PKIKP	PKPdf	02 47 52.7	-0.3
ECK	**Cauldkaine Hil**	**145.72**	**5**	*e*P	PKPdf	02 47 52.5	-0.8
GAL1	**Galloway**	**145.90**	**6**	*e*P	PKPdf	02 47 53.7	+0.1
LVV	**L’vov**	**146.09**	**333**	*e*PKIKP	PKPdf	02 47 54.4	+0.3
XAL	**Allendale**	**146.10**	**4**	*e*P	PKPdf	02 47 54.3	+0.3
BDL	**Dobcross Hall**	**146.11**	**4**	*e*P	PKPdf	02 47 54.9	+0.9
CKE	**Keswick**	**146.31**	**5**	*e*P	PKPdf	02 47 54.4	+0.1
IAS	**Iasi**	**146.34**	**327**	P	PKPdf	02 47 56.1	+1.5
IAS	**Iasi**	**146.34**	**327**	PKP2	PKPab	02 47 56.1	-3.2
GMM	**Mts of Mourne**	**146.37**	**8**	*e*P	PKPdf	02 47 55.7	+1.3
BSEG	**Bad Segeberg**	**146.43**	**350**	*e*PKPbc	PKPbc	02 47 56.2	-0.7
BSEG	**Bad Segeberg**	**146.43**	**350**	*e*PKP2	PKPbc	02 47 56.2	-0.7
BSEG	**Bad Segeberg**	**146.43**	**350**	*e*PKPbc	PKPbc	02 47 56.2	-0.7
ASF	**Jabal al Asfar**	**146.46**	**297**	PKPbc	PKPbc	02 47 56.5	-1.2
ASF	**Jabal al Asfar**	**146.46**	**297**	PKIKP	PKPdf	02 47 56.5	+1.2
ASF	**Jabal al Asfar**	**146.46**	**297**	PKPbc	PKPbc	02 47 56.5	-1.2
	comp=Z,26nm,0.8s,baz=344,slow=1.9,SNR=34						
DMUB	**Kingscourt**	**146.57**	**9**	*e*P	PKPdf	02 47 55.4	+0.7
WIM	**Isle of Man**	**146.61**	**6**	*e*P	PKPdf	02 47 55.7	+0.9
BR131	**Keskin Array S**	**146.72**	**311**	*e*PKPbc	PKPbc	02 47 57.3	-0.9
BR131				*e*PKPab	PKPab	02 48 01.2	+0.1
BRTR	**Keskin Array B**	**146.72**	**311**	PKP	PKPdf	02 47 53.7	-1.8
BRTR				PKPbc	PKPbc	02 47 57.2	-0.9
BRTR	**Keskin Array B**	**146.72**	**311**	PKHKP		02 47 53.7	
BRTR	**Keskin Array B**	**146.72**	**311**	PKP	PKPdf	02 47 53.7	-1.8
	comp=Z,21nm,0.7s,baz=112,slow=2.5,SNR=95						
BRTR				PKPbc	PKPbc	02 47 57.2	-0.9
	comp=Z,22nm,0.7s,baz=123,slow=4.2,SNR=114						
KWP	**Kalwaria**	**146.78**	**334**	*i* PKPd	PKPdf	02 47 57.4	+2.2
KWP				*e*		02 48 00.3	
KWP	**Kalwaria**	**146.78**	**334**	⇓*i*PKP	PKPdf	02 47 57.4	+2.2
KWP				*e*		02 48 00.3	
KWP	**Kalwaria**	**146.78**	**334**	⇓*i*PKP2	PKPbc	02 47 57.4	-0.6
DCN	**Croghan**	**147.06**	**10**	*e*P	PKPdf	02 47 56.8	+1.2
RCY	**Rachaya**	**147.08**	**299**	*e*P	PKPbc	02 47 59.5	+0.2
BHL	**Bhannes**	**147.12**	**300**	*e*P	PKPbc	02 47 59.1	-0.3
RUE	**Ruedersdorf**	**147.15**	**346**	*e*PKPbc	PKPbc	02 47 57.9	-1.0
RUE	**Ruedersdorf**	**147.15**	**346**	*e*PKPbc	PKPbc	02 47 58.2	-0.7
BURAR	**Bucovina Array**	**147.20**	**330**	⇓P	PKPdf	02 47 54.2	-1.8
BURAR	**Bucovina Array**	**147.20**	**330**	⇓PKHKP		02 47 54.2	
BURAR	**Bucovina Array**	**147.20**	**330**	⇓*i*P	PKPdf	02 47 54.2	-1.8
DLF	**Lyons Farm**	**147.22**	**9**	*e*P	PKPdf	02 47 57.2	+1.4
ANTO	**Ankara**	**147.25**	**312**	*e*PKPdf	PKPdf	02 47 55.2	-1.2
ANTO				*e*PKPbc	PKPbc	02 47 59.0	-0.6
ANTO	**Ankara**	**147.25**	**312**	*e*PKIKP	PKPdf	02 47 55.2	-1.1
WCB1	**Church Bay**	**147.38**	**7**	*e*P	PKPdf	02 47 57.2	+1.1
OJC	**Ojcow**	**147.41**	**338**	*e*PKP	PKPdf	02 47 58.6	+2.4
OJC	**Ojcow**	**147.41**	**338**	*e*PKP2	PKPdf	02 47 58.6	+2.4
LHO	**Holmfirth**	**147.44**	**4**	*e*P	PKPdf	02 47 57.9	+1.7
WLF1	**Llynfaes**	**147.49**	**6**	*e*P	PKPdf	02 47 57.5	+1.3
YRC	**Rhoscolyn**	**147.50**	**7**	*e*P	PKPdf	02 47 57.9	+1.6
KOLS	**Kolonicke sedl**	**147.51**	**334**	*e*P	PKPdf	02 47 56.1	-0.3
KOLS				*e*PKP	PKPbc	02 47 59.8	-0.1
KOLS				*e*	PKPab	02 48 04.8	+0.8
KOLS	**Kolonicke sedl**	**147.51**	**334**	*e*PKIKP	PKPdf	02 47 56.1	-0.3
KOLS				*e*		02 48 04.8	
KOLS	**Kolonicke sedl**	**147.51**	**334**	*e*PKP	PKPdf	02 47 56.1	-0.3
KOLS				*e*		02 47 59.8	
KOLS				*e*		02 48 04.8	
MMAI	**Mount Meron Ar**	**147.53**	**299**	PKPbc	PKPbc	02 48 00.5	-0.1
	comp=Z,49nm,0.6s,baz=70,slow=7.2,SNR=108						
MMAI				PKPab	PKPab	02 48 04.8	+0.2
	comp=Z,41nm,0.8s,baz=44,slow=5.0,SNR=13						
STHS	**Stebnicka Huta**	**147.53**	**336**	*e*PKP	PKPbc	02 47 59.6	-0.4
STHS				*e*		02 48 05.2	
STHS	**Stebnicka Huta**	**147.53**	**336**	*e*PKP2	PKPbc	02 47 59.6	-0.4
STHS	**Stebnicka Huta**	**147.53**	**336**	*e*PKP	PKPbc	02 47 59.6	-0.4
STHS				*e*		02 48 05.1	
TIRR	**Tirgusor**	**147.63**	**322**	⇓P	PKPbc	02 47 59.6	-0.9
TIRR	**Tirgusor**	**147.63**	**322**	⇓PKP2	PKPbc	02 47 59.6	-0.8
TIRR	**Tirgusor**	**147.63**	**322**	⇓*i*P	PKPbc	02 47 59.6	-0.8
VRI	**Vrincioaia**	**147.65**	**326**	⇑P	PKPdf	02 47 59.4	+2.6
VRI	**Vrincioaia**	**147.65**	**326**	⇑PKIKP	PKPdf	02 47 59.4	+2.6
VRI	**Vrincioaia**	**147.65**	**326**	⇑*i*P	PKPdf	02 47 59.3	+2.5
PLOR	**Plostina**	**147.71**	**326**	⇓*i*P	PKPdf	02 47 59.4	+2.5
UZH	**Uzhgorod**	**147.74**	**334**	*e*PKHKP		02 47 53.4	
KBI1	**Birley Grange**	**147.75**	**3**	*e*P	PKPdf	02 47 58.4	+1.7
NRDL	**Niedersach Rie**	**147.85**	**350**	*e*PKPbc	PKPbc	02 47 59.9	-0.8
CRVS	**Cervenica-Dubn**	**147.86**	**335**	*e*P	PKPdf	02 47 56.1	-0.9
CRVS				*e*PKP	PKPbc	02 48 00.1	-0.8
CRVS				*e*		02 48 05.4	
CRVS	**Cervenica-Dubn**	**147.86**	**335**	*e*PKHKP		02 47 56.1	
CRVS				*e*		02 48 05.4	
CRVS	**Cervenica-Dubn**	**147.86**	**335**	*e*PKP	PKPdf	02 47 56.1	-0.9
CRVS				*e*	PKPbc	02 48 00.1	-0.8
CRVS				*e*		02 48 05.4	
NIE	**Niedzica**	**147.89**	**336**	*e*PKP	PKPbc	02 48 00.7	-0.2
NIE	**Niedzica**	**147.89**	**336**	*e*PKP2	PKPbc	02 48 00.7	-0.2
KWE	**Weaver Farm**	**147.96**	**4**	*e*P	PKPdf	02 47 59.1	+2.0
SBD1	**Bryn Du**	**147.97**	**5**	*e*P	PKPdf	02 47 59.6	+2.5
KSP	**Ksiaz**	**148.00**	**342**	*i* PKPd	PKPbc	02 48 00.8	-0.3
KSP				*e*		02 48 02.5	
KSP				*e*		02 48 05.7	
KSP	**Ksiaz**	**148.00**	**342**	*e*PKPdf	PKPbc	02 48 00.6	-0.5
KSP				*e*PKPab	PKPab	02 48 05.1	-0.8
KSP	**Ksiaz**	**148.00**	**342**	*e*PKP2	PKPbc	02 48 00.6	-0.5
OKC	**Ostrava-Krasne**	**148.30**	**339**	*e*PKP	PKPbc	02 48 01.1	-0.8
OKC				*e*		02 48 06.9	
OKC	**Ostrava-Krasne**	**148.30**	**339**	*e*PKHKP	PKPbc	02 48 01.1	-0.8
OKC				*e*		02 48 06.9	
OKC	**Ostrava-Krasne**	**148.30**	**339**	⇑*e*PKPB	PKPbc	02 48 01.1	-0.8
OKC				*e*PKPAB	PKPab	02 48 06.9	-0.3
MLR	**Muntele Rosu**	**148.31**	**326**	PKP	PKPdf	02 47 56.2	-1.7
MLR				PKPbc	PKPbc	02 48 00.7	-1.4
MLR	**Muntele Rosu**	**148.31**	**326**	PKHKP		02 48 01.3	
MLR	**Muntele Rosu**	**148.31**	**326**	PKP	PKPdf	02 47 56.2	-1.7
	comp=Z,46nm,1.3s,baz=302,slow=3.7,SNR=4.6						
MLR				PKPbc	PKPbc	02 48 00.7	-1.4
	comp=Z,32nm,0.6s,baz=258,slow=4.5,SNR=65						
MLR	**Muntele Rosu**	**148.31**	**326**	⇓*i*P	PKPbc	02 48 01.1	-1.0
UPC	**Upice**	**148.38**	**342**	*e*PKP	PKPdf	02 47 57.0	-0.8
UPC				*e*	PKPbc	02 48 01.6	-0.5
UPC	**Upice**	**148.38**	**342**	*e*PKHKP		02 47 57.0	
UPC	**Upice**	**148.38**	**342**	*e*PKPDF	PKPdf	02 47 57.0	-0.8
UPC				⇑*e*PKPB	PKPbc	02 48 01.6	-0.5
HLM1	**Long Mynd**	**148.39**	**5**	*e*P	PKPdf	02 47 56.3	-1.4
CLL	**Collm**	**148.42**	**346**	*e*PKP	PKPdf	02 47 57.0	-0.8
CLL				⇓*i*PKP	PKPbc	02 48 01.2	-1.0
CLL				⇑*i*PKP	PKPab	02 48 06.6	-1.0
CLL				*e*pPKP	pPKPdf	02 50 17.0	+8.1
CLL	**Collm**	**148.42**	**346**	*e*PKHKP	PKPdf	02 47 57.0	-0.8
CLL				*i*	PKPab	02 48 06.6	-1.0
CLL	**Collm**	**148.42**	**346**	*e*PKPdf	PKPdf	02 47 56.9	-0.9
	comp=Z,18nm,1.4s						
CLL				*i* PKPbc	PKPbc	02 48 01.3	-0.9
	comp=Z,81nm,0.9s						
CLL				*i* PKPab	PKPab	02 48 06.6	-1.0
	comp=Z,48nm,0.8s						
CLL				*e*pPKPbc	pPKPbc	02 50 17.8	+6.4
CLL	**Collm**	**148.42**	**346**	*e*PKPdf	PKPdf	02 47 57.0	-0.8
CLL				⇓*i*PKPbc	PKPbc	02 48 01.2	-1.0
	comp=Z,81nm,0.9s						
CLL				⇑*i*PKPab	PKPab	02 48 06.6	-1.0
	comp=Z,47nm,0.8s						
CLL				*e*pPKPbc	pPKPbc	02 50 17.0	+5.6
DPC	**Dobruska-Polom**	**148.43**	**342**	*e*PKP	PKPdf	02 47 57.1	-0.8
DPC				*e*		02 48 01.9	
DPC				*e*		02 48 07.8	
DPC	**Dobruska-Polom**	**148.43**	**342**	*e*PKHKP	PKPdf	02 47 57.1	-0.8

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DPC                                  e                    02 48 07.8
DPC   Dobruska-Polom  148.43 342  ePKPDF     PKPdf     02 47 57.1  -0.8
DPC                              ⇑ePKPB      PKPbc     02 48 01.9  -0.3
DPC                               ePKPAB     PKPab     02 48 07.8  +0.1
CLZ   Clausthal       148.44 349  ePKPbc     PKPbc     02 48 01.7  -0.5
CLZ   Clausthal       148.44 349  ePKP2      PKPbc     02 48 01.7  -0.5
CLZ   Clausthal       148.44 349  ePKPbc     PKPbc     02 48 01.7  -0.5
EIL   Elat            148.51 293   PKPbc     PKPbc     02 48 02.6  -0.5
EIL                                PKPab     PKPab     02 48 09.0  +0.2
EIL   Elat            148.51 293   PKPbc     PKPbc     02 48 02.6  -0.5
      comp=Z,33nm,0.9s,baz=36,slow=1.4,SNR=21
EIL                                PKPab     PKPab     02 48 09.0  +0.2
      comp=Z,30nm,0.8s,baz=9.0,slow=6.2,SNR=12
MORC  Moravsky Berou  148.55 340  ePKPdf     PKPdf     02 47 56.6  -1.5
MORC                              ePKPbc     PKPbc     02 48 01.7  -0.8
MORC                              ePKPab     PKPab     02 48 07.8  -0.4
MORC  Moravsky Berou  148.55 340  ⇑PKHKP     PKPbc     02 48 01.7  -0.8
MORC  Moravsky Berou  148.55 340⇑iP          PKPbc     02 48 01.7  -0.8
KECS  Kecovo          148.58 335  ePKP       PKPbc     02 48 02.2  -0.5
KECS                              e                    02 48 08.2
KECS                              e                    02 57 22.8
KECS  Kecovo          148.58 335  ePKHKP     PKPbc     02 48 02.2  -0.5
KECS                              e                    02 48 08.2
KECS  Kecovo          148.58 335  ePKP       PKPbc     02 48 02.2  -0.5
KECS                              e                    02 48 08.2
KECS                              e                    02 57 22.8
BRG   Berggiesshubel  148.60 345  ePKP       PKPdf     02 47 57.5  -0.7
BRG                               i          PKPbc     02 48 01.8  -0.8
BRG                               i          PKPab     02 48 07.3  -1.0
BRG                               epPKP      pPKPdf    02 50 16.9  +7.7
BRG   Berggiesshubel  148.60 345  ePKHKP     PKPdf     02 47 57.5  -0.7
BRG   Berggiesshubel  148.60 345  ePKPbc     PKPbc     02 48 02.0  -0.6
BRG                               ePKPab     PKPab     02 48 07.8  -0.6
BRG   Berggiesshubel  148.60 345  ePKP       PKPdf     02 47 57.5  -0.7
      comp=Z,13nm,1.3s
BRG                               i                    02 48 01.8
BRG                               i                    02 48 07.3
      comp=Z,30nm,0.9s
BRG                               epPKP      pPKPdf    02 50 16.9  +7.7
      comp=Z,6.0nm,1.1s
CSS   Prodhromos      148.67 303  ePKPbc     PKPbc     02 48 02.1  -1.3
CSS                               ePKPab     PKPab     02 48 09.0  -0.2
FBE   Freiberg        148.70 345  ePKPbc     PKPbc     02 48 02.4  -0.5
FBE                               ePKPab     PKPab     02 48 08.4  -0.4
PVCC  Panska Ves      148.75 344  ePKP       PKPdf     02 47 57.4  -1.0
PVCC                              e                    02 48 02.5
PVCC  Panska Ves      148.75 344  ePKIKP     PKPdf     02 47 57.4  -1.0
PVCC  Panska Ves      148.75 344  ePKPDF     PKPdf     02 47 57.4  -1.0
PVCC                             ⇑ePKPB      PKPbc     02 48 02.5  -0.5
VOIR                  148.81 327  ⇓PKHKP     PKPbc     02 48 02.5  -0.8
VOIR                  148.81 327⇓iP          PKPbc     02 48 02.5  -0.8
MCH1  Michaelchurch   148.90   5  eP         PKPdf     02 48 01.4  +2.9
DRGR                  148.97 331  ⇑P         PKPbc     02 48 02.8  -0.9
DRGR                  148.97 331  ⇑PKHKP     PKPbc     02 48 02.8  -0.9
DRGR                  148.97 331⇑iP          PKPbc     02 48 02.8  -0.9
VYHS  Vyhne           149.20 337  eP         PKPdf     02 47 58.1  -1.1
VYHS                              ePKP       PKPbc     02 48 03.5  -0.7
VYHS                              e          PKPab     02 48 10.8  -0.1
VYHS  Vyhne           149.20 337  ePKIKP     PKPdf     02 47 58.1  -1.1
VYHS                              e                    02 48 10.8
VYHS  Vyhne           149.20 337  ePKP       PKPdf     02 47 58.1  -1.1
VYHS                              e                    02 48 03.5
VYHS                              e                    02 48 10.8
PRA   Prague          149.21 343  ⇑PKPB      PKPbc     02 48 03.0  -1.1
PRU   Pruhonice       149.25 343  ePKP       PKPbc     02 48 03.4  -0.8
PRU                               e          PKPab     02 48 10.2  -0.9
PRU                               e                    02 49 42.7
PRU   Pruhonice       149.25 343  ePKHKP     PKPbc     02 48 03.4  -0.8
PRU                               e                    02 48 10.2
PRU   Pruhonice       149.25 343⇑ePKPB       PKPbc     02 48 03.4  -0.8
PRU                               ePKPAB     PKPab     02 48 10.2  -0.9
PRU                               epPKP      pPKPdf    02 49 42.7   -28
VRAC  Vranov          149.26 340   P         PKPbc     02 48 03.5  -0.8
VRAC  Vranov          149.26 340   PKHKP     PKPbc     02 48 03.1  -1.2
VRAC                                                   02 48 10.6
VRAC                               pmax      pmax
      comp=Z,18nm,0.8s
VRAC                               pmax      pmax
      comp=Z,29nm,0.9s
VRAC  Vranov          149.26 340   PKPbc     PKPbc     02 48 03.1  -1.2
      comp=Z,18nm,0.8s,baz=79,slow=1.2,SNR=21
VRAC                               PKPab     PKPab     02 48 10.6  -0.6
      comp=Z,29nm,0.9s,baz=47,slow=3.0,SNR=19
VRAC  Vranov          149.26 340⇑iP          PKPbc     02 48 03.7  -0.6
HGH   Gray Hill       149.27   5  eP         PKPdf     02 48 01.9  +2.7
PSZ   Piszkesteto     149.27 335  ePKPbc     PKPbc     02 48 03.5  -0.9
PSZ                               ePKPab     PKPab     02 48 10.5  -0.8
PSZ   Piszkesteto     149.27 335  ePKHKP     PKPbc     02 48 03.5  -0.9
PSZ                               e                    02 48 10.5
PSZ   Piszkesteto     149.27 335⇓iP          PKPbc     02 48 03.5  -0.9
SKP1  Kophill         149.31   3  eP         PKPdf     02 48 02.5  +3.2
MOX   Moxa            149.34 347  ePKP       PKPbc     02 48 03.6  -0.8
MOX   Moxa            149.34 347  ePKP       PKPdf     02 48 03.6  +4.3
      comp=Z,71nm,1.4s
MOX   Moxa            149.34 347  ePKHKP     PKPbc     02 48 03.6  -0.8
MOX   Moxa            149.34 347  ePKPbc     PKPbc     02 48 03.6  -0.8
TANN  Tannenbergstha  149.38 346  ePKPbc     PKPbc     02 48 03.9  -0.6
WERD  Werda           149.38 346  ePKPbc     PKPbc     02 48 03.9  -0.6
WERD                              ePKPab     PKPab     02 48 11.1  -0.5
GUNZ  Gunzen          149.45 346  ePKPbc     PKPbc     02 48 04.3  -0.4
GUNZ                              ePKPab     PKPab     02 48 11.7  -0.2
WERN  Wernitzgruen    149.51 346  ePKPbc     PKPbc     02 48 04.5  -0.4
WERN                              ePKPab     PKPab     02 48 12.0  -0.2
NKC   Novy Kostel     149.55 346  ePKP       PKPdf     02 47 58.9  -0.8
NKC                               e                    02 48 04.4
NKC                               e                    02 48 11.7
NKC   Novy Kostel     149.55 346  ePKIKP     PKPdf     02 47 58.9  -0.8
NKC                               e                    02 48 11.7
NKC   Novy Kostel     149.55 346  ePKPDF     PKPdf     02 47 58.9  -0.8
NKC                              ⇑ePKPB      PKPbc     02 48 04.4  -0.5
NKC                               ePKPAB     PKPab     02 48 11.7  -0.6
TREC  Trest           149.61 342  ePKHKP               02 48 04.4
TREC  Trest           149.61 342⇑ePKPB       PKPbc     02 48 04.4  -0.7
SMOL  Smolenice       149.68 339  eP         PKPdf     02 48 00.1  +0.2
SMOL                              ePKP       PKPbc     02 48 05.4  +0.1
SMOL                              e                    02 48 13.3
SMOL  Smolenice       149.68 339  ePKHKP               02 48 00.1
SMOL                              e                    02 48 13.3
SMOL  Smolenice       149.68 339  ePKP       PKPdf     02 48 00.1  +0.2
SMOL                              e                    02 48 05.4
SMOL                              e                    02 48 13.3
HEX   Exmoor          149.74   6  eP         PKPdf     02 48 03.5  +3.5
SZH   Strazhica       149.77 323  i P        PKPbc     02 48 05.2  -0.5
ZIMR                  149.84 324   P         PKPbc     02 48 05.0  -0.9
ZIMR                  149.84 324   PKHKP     PKPbc     02 48 05.0  -0.8
MANZ  Manzenberg      149.86 346  ePKPbc     PKPbc     02 48 05.0  -0.7
GZR   Gura Zlata      149.97 329  ⇑P         PKPbc     02 48 05.0  -1.1
GZR   Gura Zlata      149.97 329  ⇑PKIKP     PKPbc     02 48 05.0  -1.1
GZR   Gura Zlata      149.97 329⇑iP          PKPbc     02 48 05.0  -1.1
ROTZ  Rotzenmuhle     150.04 346  ePKPbc     PKPbc     02 48 05.2  -0.9
ZST   Bratislava      150.06 339  ePKP       PKPbc     02 48 05.9  -0.3
ZST                               e                    02 48 15.2
ZST   Bratislava      150.06 339  ePKHKP     PKPbc     02 48 05.9  -0.3
ZST   Bratislava      150.06 339  ePKP       PKPbc     02 48 05.9  -0.3
ZST                               e                    02 48 15.2
BEBN  Eben Emael      150.09 354   PKPbc     PKPbc     02 48 05.1  -1.1
BEBN                               PKPab     PKPab     02 48 13.5  -1.1
PVL   Pavlikeni       150.14 323  i P        PKPbc     02 48 06.5  -0.1
UCC   Uccle           150.19 356   PKPbc     PKPbc     02 48 05.8  -0.6
UCC                                PKPab     PKPab     02 48 13.6  -1.4
CRAR  CRAIOVA         150.22 326   PKIKP     PKPbc     02 48 06.5  -0.2
MEM   Membach         150.24 354   PKPbc     PKPbc     02 48 05.6  -1.0
MEM                                PKPab     PKPab     02 48 14.3  -0.9
KHC   Kasperske Hory  150.29 344  ePKP       PKPdf     02 48 00.0  -0.9
KHC                               e                    02 48 06.1
KHC                               e                    02 48 15.2
KHC   Kasperske Hory  150.29 344  ePKIKP     PKPdf     02 48 00.0  -0.9
KHC                               e                    02 48 15.2
KHC   Kasperske Hory  150.29 344  ePKPDF     PKPdf     02 48 00.0  -0.9
KHC                              ⇑ePKPB      PKPbc     02 48 06.1  -0.6
KHC                               ePKPAB     PKPab     02 48 15.2  -0.3
CSA1  St Austell      150.31   8  eP         PKPbc     02 48 05.1  -1.7
TNS   Taunus Mts      150.32 351  ePKPbc     PKPbc     02 48 06.1  -0.6
TNS                               ePKPab     PKPab     02 48 14.5  -1.0
TNS   Taunus Mts      150.32 351  ePKIKP     PKPbc     02 48 06.1  -0.6
TNS   Taunus Mts      150.32 351  ePKPbc     PKPbc     02 48 06.1  -0.6
TNS                               ePKPab     PKPab     02 48 14.5  -1.0
GRA1  Grafenberg Arr  150.33 347  ePKPbc     PKPbc     02 48 06.2  -0.6
GRA1                              ePKPab     PKPab     02 48 15.5  -0.1
GRF   Grafenberg Arr  150.33 347  ePKP       PKPbc     02 48 06.2  -0.6
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GRF                               ePKP       PKPab     02 48 15.5  -0.1
GRF   Grafenberg Arr  150.33 347  ePKPbc     PKPbc     02 48 06.2  -0.6
GRF                               ePKPab     PKPab     02 48 15.5  -0.1
BZS   Buzias          150.35 331   P         PKPbc     02 48 06.1  -0.9
BZS   Buzias          150.35 331   PKIKP     PKPbc     02 48 06.1  -0.9
BZS   Buzias          150.35 331⇓iP          PKPbc     02 48 05.9  -1.1
DYA   Yadsworthy      150.35   7  eP         PKPdf     02 48 04.8  +3.9
WET   Wettzell        150.46 345  ePKPbc     PKPbc     02 48 06.3  -0.8
WET                               ePKPab     PKPab     02 48 15.9  -0.3
WET   Wettzell        150.46 345  ePKPbc     PKPbc     02 48 06.3  -0.8
WET                               ePKPab     PKPab     02 48 15.9  -0.3
SNF   Seneffe         150.48 356   PKPbc     PKPbc     02 48 05.2  -1.9
SNF                                PKPab     PKPab     02 48 15.2  -1.0
BCLA  Clavier         150.49 355   PKPbc     PKPbc     02 48 06.1  -1.0
BCLA                               PKPab     PKPab     02 48 15.0  -1.2
MENF  Mencas          150.51 359   PKP       PKPbc     02 48 05.8  -1.4
MENF  Mencas          150.51 359   PKP       PKPbc     02 48 05.8  -1.4
GEC2  GERESS Array S  150.52 343  ePKPbc     PKPbc     02 48 06.5  -0.8
GEC2                              ePKPab     PKPab     02 48 16.0  -0.4
GEC2  GERESS Array S  150.52 343  ePKPbc     PKPbc     02 48 06.5  -0.8
GEC2                              ePKPab     PKPab     02 48 16.0  -0.4
GERES GERESS Array B  150.52 343   PKP       PKPdf     02 48 00.2  -1.0
GERES                              PKPbc     PKPbc     02 48 06.1  -1.2
GERES                              PKPab     PKPab     02 48 15.5  -1.0
GERES GERESS Array B  150.52 343   PKIKP     PKPdf     02 48 00.2  -1.0
GERES                                                  02 48 15.5
GERES GERESS Array B  150.52 343   PKP       PKPdf     02 48 00.2  -1.0
      comp=Z,1.1nm,0.8s,baz=90,slow=1.3,SNR=11
GERES                              PKPbc     PKPbc     02 48 06.1  -1.2
      comp=Z,22nm,0.8s,baz=25,slow=2.6,SNR=128
GERES                              PKPab     PKPab     02 48 15.5  -1.0
      comp=Z,3.0nm,0.9s,baz=2.6,slow=2.9,SNR=7.6
CONA  Conrad Observa  150.71 340⇓iPKPdf      PKPdf     02 48 01.1  -0.5
      comp=Z,3.7nm,1.1s,SNR=25
CONA                            ⇓iPKiKP      PKiKP     02 48 07.2  -0.9
      comp=Z,27nm,0.7s
CONA                            ⇓iPKPab      PKPab     02 48 17.9  +0.7
      comp=Z,33nm,1.6s
ABH   Alteburg        150.78 352   PKP       PKPbc     02 48 07.0  -0.8
GIVF  Givet           150.85 355  ePKIKP     PKPdf     02 48 00.6  -1.1
GIVF  Givet           150.85 355  ePKPdf     PKPdf     02 48 00.6  -1.1
GIVF  Givet           150.85 355  ePKIKP     PKPdf     02 48 00.6  -1.1
TOD   Tromm           150.86 350   PKP       PKPbc     02 48 07.0  -1.0
TOD   Tromm           150.86 350   PKIKP     PKPbc     02 48 07.0  -1.0
DOU   Dourbes         150.87 356   PKPbc     PKPbc     02 48 07.1  -0.9
DOU                                PKPab     PKPab     02 48 16.6  -1.3
RUP   Ruppelstein     151.02 352   PKP       PKPbc     02 48 07.9  -0.5
RUP   Ruppelstein     151.02 352   PKIKP     PKPbc     02 48 07.9  -0.5
KDZ   Kurdzhali       151.08 321  i P        PKPbc     02 48 07.6  -1.2
WLF   Walferdange     151.16 354  ePKPbc     PKPbc     02 48 08.3  -0.4
WLF                               ePKPab     PKPab     02 48 18.2  -0.8
WLF   Walferdange     151.16 354  ePKIKP     PKPbc     02 48 08.3  -0.4
WLF                               e                    02 48 18.3
WLF   Walferdange     151.16 354   PKPbc     PKPbc     02 48 08.6  -0.1
WLF                                PKPab     PKPab     02 48 18.4  -0.7
WLF   Walferdange     151.16 354  ePKPbc     PKPbc     02 48 08.4  -0.3
PKSM  Moragy          151.16 335  ⇑P         PKPbc     02 48 07.5  -1.3
PKSM  Moragy          151.16 335  ⇑PKIKP     PKPbc     02 48 07.5  -1.3
PKSM  Moragy          151.16 335⇑iP          PKPbc     02 48 07.5  -1.3
MOA   Molln           151.27 342⇑iP          PKPdf     02 48 00.9  -1.5
      comp=Z,4.1nm,1.1s
MOA   Molln           151.27 342⇓i           PKPbc     02 48 07.9  -1.1
      comp=Z,12nm,0.6s
MOA   Molln           151.27 342⇑i           PKPab     02 48 19.7  +0.1
      comp=Z,26nm,1.4s
MOA   Molln           151.27 342⇑iPKPdf      PKPdf     02 48 00.9  -1.5
      comp=Z,4.1nm,1.1s
MOA                             ⇓iPKiKP      PKiKP     02 48 07.9  -1.4
      comp=Z,12nm,0.6s
MOA                             ⇑iPKPab      PKPab     02 48 19.7  +0.1
      comp=Z,26nm,1.4s
STU   Stuttgart       151.60 349  ePKPbc     PKPbc     02 48 08.9  -0.8
STU                               ePKPab     PKPab     02 48 20.1  -0.9
LANF  Langenberg      151.62 351   PKP       PKPbc     02 48 08.7  -1.0
LANF  Langenberg      151.62 351   PKP       PKPbc     02 48 08.7  -1.0
LANF  Langenberg      151.62 351   PKIKP     PKPbc     02 48 08.7  -1.0
VTS   Vitosha         151.73 324  ⇓PKIKP     PKPbc     02 48 09.5  -0.7
VTS   Vitosha         151.73 324  i P        PKPbc     02 48 09.8  -0.4
VTS   Vitosha         151.73 324⇓iP          PKPbc     02 48 09.5  -0.7
FUR   Furstenfeldbru  151.76 346  ePKIKP     PKPbc     02 48 09.2  -0.9
FUR   Furstenfeldbru  151.76 346  ePKPbc     PKPbc     02 48 09.2  -0.9
FUR                               ePKPab     PKPab     02 48 21.4  -0.3
KOGS  Kog             151.86 338  ePKPbc     PKPbc     02 48 08.8  -1.5
KOGS                              i PKPab    PKPab     02 48 21.1  -1.0
KOGS  Kog             151.86 338  ePKPbc     PKPbc     02 48 08.8  -1.5
KOGS                              i PKPab    PKPab     02 48 21.1  -1.0
STR   Strasbourg      152.02 351   PKP       PKPbc     02 48 10.0  -0.6
STR   Strasbourg      152.02 351   PKP       PKPbc     02 48 10.0  -0.6
STR   Strasbourg      152.02 351   PKIKP     PKPbc     02 48 10.0  -0.6
PERS  Pernice         152.09 339  i PKPbc    PKPbc     02 48 09.3  -1.5
PERS                              i PKPab    PKPab     02 48 22.5  -0.6
PERS  Pernice         152.09 339  i PKPbc    PKPbc     02 48 09.3  -1.5
PERS                              i PKPab    PKPab     02 48 22.5  -0.6
MMB   Musomiste       152.10 322  i P        PKPbc     02 48 10.0  -1.1
BFO   Black Forest    152.18 350  ePKPbc     PKPbc     02 48 09.8  -1.2
BFO                               ePKPab     PKPab     02 48 22.5  -0.9
BFO   Black Forest    152.18 350  ePKPbc     PKPbc     02 48 09.8  -1.2
BFO                               ePKPab     PKPab     02 48 22.5  -0.9
KBA   Koelnbreinsper  152.23 342⇓iP          PKPdf     02 48 02.9  -1.0
      comp=Z,4.0nm,0.9s,SNR=8.6
KBA   Koelnbreinsper  152.23 342⇑i           PKPbc     02 48 10.0  -1.1
      comp=Z,26nm,1.0s
KBA   Koelnbreinsper  152.23 342⇑i           PKPab     02 48 24.4  +0.7
      comp=Z,25nm,1.4s
KBA   Koelnbreinsper  152.23 342⇓iPKPdf      PKPdf     02 48 02.9  -1.0
      comp=Z,4.0nm,0.9s,SNR=8.6
KBA                             ⇑iPKiKP      PKiKP     02 48 10.0  -1.3
      comp=Z,26nm,1.0s
KBA                             ⇑iPKPab      PKPab     02 48 24.4  +0.7
      comp=Z,25nm,1.4s
KBA   Koelnbreinsper  152.23 342⇓iPKIKP      PKPdf     02 48 02.9  -1.0
KBA                               i                    02 48 10.0
FLN   La Foliniere    152.28   3  ePKIKP     PKPdf     02 48 02.8  -1.1
FLN   La Foliniere    152.28   3  ePKPdf     PKPdf     02 48 02.8  -1.1
FLN   La Foliniere    152.28   3  ePKIKP     PKPdf     02 48 02.8  -1.1
KKB   Krupnik         152.28 323  i P        PKPbc     02 48 11.4   0.0
DOBS  Dobrina         152.39 339  i PKP      PKPbc     02 48 10.1  -1.5
DOBS  Dobrina         152.39 339  i PKPbc    PKPbc     02 48 10.1  -1.5
MEZF  Maizieres J'vi  152.42 355  ePKIKP     PKPdf     02 48 03.6  -0.5
MEZF  Maizieres J'vi  152.42 355  ePKPdf     PKPdf     02 48 03.6  -0.5
LDF   La Druitiere    152.46   2  ePKIKP     PKPdf     02 48 03.0  -1.1
LDF   La Druitiere    152.46   2  ePKPdf     PKPdf     02 48 03.0  -1.1
LDF   La Druitiere    152.46   2  ePKIKP     PKPdf     02 48 03.0  -1.1
WATA  Walderalm       152.46 345⇑iP          PKPdf     02 48 00.9  -3.3
      comp=Z,2.2nm,0.7s,SNR=8.0
WATA  Walderalm       152.46 345⇑i           PKPbc     02 48 10.8  -0.9
      comp=Z,10nm,0.5s
WATA  Walderalm       152.46 345⇓i           PKPab     02 48 24.4  -0.2
      comp=Z,9.6nm,0.7s
WATA  Walderalm       152.46 345⇑iPKPdf      PKPdf     02 48 00.9  -3.3
      comp=Z,2.2nm,0.7s,SNR=8.0
WATA                            ⇑iPKiKP      PKiKP     02 48 10.8  -1.0
      comp=Z,10nm,0.5s
WATA                            ⇓iPKPab      PKPab     02 48 24.4  -0.2
      comp=Z,9.6nm,0.7s
RETA  Reutte          152.51 346⇑iPKPdf      PKPdf     02 48 03.0  -1.3
      comp=Z,5.8nm,1.1s
RETA                            ⇑iPKiKP      PKiKP     02 48 11.0  -0.9
      comp=Z,8.8nm,0.6s
RETA                            ⇑iPKPab      PKPab     02 48 24.3  -0.6
      comp=Z,33nm,1.2s
WTTA  Wattenberg      152.52 345⇑iP          PKPdf     02 48 03.4  -0.9
      comp=Z,11nm,1.3s
WTTA  Wattenberg      152.52 345⇓i           PKPbc     02 48 11.0  -0.8
      comp=Z,36nm,0.8s
WTTA  Wattenberg      152.52 345⇑i           PKPab     02 48 24.7  -0.2
      comp=Z,33nm,0.7s
WTTA  Wattenberg      152.52 345⇑iPKPdf      PKPdf     02 48 03.4  -0.9
      comp=Z,11nm,1.3s
WTTA                            ⇓iPKiKP      PKiKP     02 48 11.0  -0.9
      comp=Z,36nm,0.8s
WTTA                            ⇑iPKPab      PKPab     02 48 24.7  -0.2
      comp=Z,33nm,0.7s
MOTA  Moosalm         152.57 345⇑iP          PKPdf     02 48 02.8  -1.5
      comp=Z,7.2nm,1.1s
MOTA  Moosalm         152.57 345⇓i           PKPbc     02 48 10.5  -1.3
      comp=Z,21nm,0.8s
MOTA  Moosalm         152.57 345⇑i           PKPab     02 48 24.5  -0.6
      comp=Z,19nm,0.7s
MOTA  Moosalm         152.57 345⇑iPKPdf      PKPdf     02 48 02.8  -1.5
      comp=Z,7.2nm,1.1s
MOTA                            ⇓iPKPbc      PKPbc     02 48 10.5  -1.3
      comp=Z,21nm,0.8s
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MOTA                            ⇑iPKPab      PKPab     02 48 24.5  -0.6
      comp=Z,19nm,0.7s
MOTA  Moosalm         152.57 345⇑iPKIKP      PKPdf     02 48 02.8  -1.5
MOTA                              i                    02 48 10.6
MOTA                              i                    02 48 24.5
GCIS  Gornji Cirnik   152.58 338  ePKPbc     PKPbc     02 48 10.9  -1.1
GCIS  Gornji Cirnik   152.58 338  ePKPbc     PKPbc     02 48 10.9  -1.1
THEF  They Montfort   152.60 353   PKP       PKPbc     02 48 10.7  -1.2
THEF  They Montfort   152.60 353   PKP       PKPbc     02 48 10.7  -1.2
THEF  They Montfort   152.60 353   PKIKP     PKPbc     02 48 10.7  -1.2
GRR   Gorron          152.64   3  ePKIKP     PKPdf     02 48 03.4  -1.0
GRR   Gorron          152.64   3  ePKPdf     PKPdf     02 48 03.4  -1.0
GRR   Gorron          152.64   3  ePKIKP     PKPdf     02 48 03.4  -1.0
SGMF  Saint Gilles    152.65   6  ePKIKP     PKPdf     02 48 03.5  -0.9
SGMF  Saint Gilles    152.65   6  ePKPdf     PKPdf     02 48 03.5  -0.9
SGMF  Saint Gilles    152.65   6  ePKIKP     PKPdf     02 48 03.5  -0.9
SQTA  Sankt Quirin    152.66 345  i P        PKPdf     02 48 03.4  -1.1
      comp=Z,5.3nm,0.9s
SQTA  Sankt Quirin    152.66 345  i          PKPbc     02 48 11.4  -0.7
      comp=Z,22nm,0.8s
SQTA  Sankt Quirin    152.66 345  i          PKPab     02 48 25.6  +0.1
      comp=Z,12nm,0.8s
SQTA  Sankt Quirin    152.66 345  i PKPdf    PKPdf     02 48 03.4  -1.1
      comp=Z,5.3nm,0.9s
SQTA                              i PKiKP    PKiKP     02 48 11.4  -0.8
      comp=Z,22nm,0.8s
SQTA                              i PKPab    PKPab     02 48 25.6  +0.1
      comp=Z,12nm,0.8s
FELD  Feldberg im Sc  152.67 350   PKP       PKPbc     02 48 10.7  -1.4
ABTA  Abfaltersbach   152.77 343⇑iPKPdf      PKPdf     02 47 59.9  -4.8
      comp=Z,8.7nm,0.9s
ABTA                            ⇓iPKPbc      PKPbc     02 48 10.9  -1.5
      comp=Z,28nm,0.6s
ABTA                            ⇓iPKPab      PKPab     02 48 24.6  -1.4
      comp=Z,17nm,0.9s
HAU   Haudompre       152.77 353  ePKIKP     PKPdf     02 48 03.4  -1.2
HAU   Haudompre       152.77 353  ePKPdf     PKPdf     02 48 03.4  -1.2
HAU   Haudompre       152.77 353  ePKIKP     PKPdf     02 48 03.4  -1.2
LJU   Ljubljana       152.80 340  i PKPbc    PKPbc     02 48 11.1  -1.3
LJU   Ljubljana       152.80 340  i PKIKP    PKPbc     02 48 11.1  -1.3
LJU   Ljubljana       152.80 340  i PKPbc    PKPbc     02 48 11.1  -1.3
DAVA  Damuels         152.89 347⇑iP          PKPdf     02 48 07.3  +2.5
      comp=Z,6.9nm,1.1s
DAVA  Damuels         152.89 347⇓i           PKPbc     02 48 12.6   0.0
      comp=Z,24nm,1.1s
DAVA  Damuels         152.89 347⇑i           PKPab     02 48 26.1  -0.4
      comp=Z,21nm,0.9s
DAVA  Damuels         152.89 347⇓ePKPdf      PKPdf     02 48 02.7  -2.2
      comp=Z,6.9nm,1.1s
DAVA                            ⇓iPKPbc      PKPbc     02 48 11.0  -1.5
      comp=Z,24nm,1.1s
DAVA                            ⇑iPKPab      PKPab     02 48 26.1  -0.4
      comp=Z,21nm,0.9s
HINF  Hinteralfeld    152.90 352  ePKIKP     PKPdf     02 48 03.5  -1.3
HINF  Hinteralfeld    152.90 352  ePKPdf     PKPdf     02 48 03.5  -1.3
HINF  Hinteralfeld    152.90 352  ePKIKP     PKPdf     02 48 03.5  -1.3
VAY   Valandovo       152.93 323  ePKP       PKPbc     02 48 10.0  -2.9
FETA  Feichten        152.96 346⇑iPKPdf      PKPdf     02 48 04.2  -0.7
      comp=Z,13nm,1.0s
FETA                            ⇑iPKiKP      PKiKP     02 48 12.2  -0.6
      comp=Z,20nm,0.9s
FETA                            ⇓iPKPab      PKPab     02 48 26.9  +0.1
      comp=Z,21nm,1.1s
BOJS  Bojanci         153.03 338  i PKPbc    PKPbc     02 48 12.0  -0.9
BOJS  Bojanci         153.03 338  i PKPbc    PKPbc     02 48 12.0  -0.9
SKO   Skopje          153.10 325  ePKP       PKPdf     02 48 09.8  +4.6
DAVOX Davos/Dischmat  153.38 347   PKP       PKPdf     02 48 04.3  -1.2
DAVOX                              PKPbc     PKPbc     02 48 13.0  -0.7
DAVOX                              PKPab     PKPab     02 48 27.7  -0.9
DAVOX Davos/Dischmat  153.38 347   PKP       PKPdf     02 48 04.3  -1.2
      comp=Z,5.6nm,0.9s,baz=37,slow=12,SNR=4.4
DAVOX                              PKPbc     PKPbc     02 48 13.0  -0.7
      comp=Z,23nm,0.6s,baz=208,slow=2.4,SNR=34
DAVOX                              PKPab     PKPab     02 48 27.7  -0.9
      comp=Z,18nm,0.8s,baz=9.5,slow=7.9,SNR=7.7
KRUS  Krusevo         153.63 325  ePKP       PKPbc     02 48 12.8  -1.5
LOR   Lormes          153.73 356  ePKIKP     PKPdf     02 48 05.4  -0.6
      comp=Z,14nm,0.9s
LOR   Lormes          153.73 356  ePKPdf     PKPdf     02 48 05.4  -0.6
LOR   Lormes          153.73 356  ePKIKP     PKPdf     02 48 05.4  -0.6
SSF   Saint Saulge    153.96 357  ePKIKP     PKPdf     02 48 05.7  -0.6
      comp=Z,15nm,0.9s
SSF   Saint Saulge    153.96 357  ePKPdf     PKPdf     02 48 05.7  -0.6
SSF   Saint Saulge    153.96 357  ePKIKP     PKPdf     02 48 05.7  -0.6
CABF  La Chapelle     154.18 352  ePKIKP     PKPdf     02 48 05.9  -0.7
      comp=Z,20nm,0.9s
CABF  La Chapelle     154.18 352  ePKPdf     PKPdf     02 48 05.9  -0.7
CABF  La Chapelle     154.18 352  ePKIKP     PKPdf     02 48 05.9  -0.7
AVF   Avril sur Loir  154.24 357  ePKIKP     PKPdf     02 48 05.9  -0.8
AVF   Avril sur Loir  154.24 357  ePKPdf     PKPdf     02 48 05.9  -0.8
AVF   Avril sur Loir  154.24 357  ePKIKP     PKPdf     02 48 05.9  -0.8
SMF   Signal de Mont  154.35 356  ePKIKP     PKPdf     02 48 05.4  -1.5
SMF   Signal de Mont  154.35 356  ePKPdf     PKPdf     02 48 05.4  -1.5
SMF   Signal de Mont  154.35 356  ePKIKP     PKPdf     02 48 05.4  -1.5
MFF   Saint Martin d  154.45   2  ePKIKP     PKPdf     02 48 06.0  -1.0
      comp=Z,44nm,1.3s
MFF   Saint Martin d  154.45   2  ePKPdf     PKPdf     02 48 06.0  -1.0
MFF   Saint Martin d  154.45   2  ePKIKP     PKPdf     02 48 06.0  -1.0
BGF   Bois d'Agland   154.50 358  ePKIKP     PKPdf     02 48 06.0  -1.1
BGF   Bois d'Agland   154.50 358  ePKPdf     PKPdf     02 48 06.0  -1.1
BGF   Bois d'Agland   154.50 358  ePKIKP     PKPdf     02 48 06.0  -1.1
TCF   Toulx Ste Croi  154.78 359  ePKIKP     PKPdf     02 48 06.8  -0.7
      comp=Z,17nm,1.1s
TCF   Toulx Ste Croi  154.78 359  ePKPdf     PKPdf     02 48 06.8  -0.7
TCF   Toulx Ste Croi  154.78 359  ePKIKP     PKPdf     02 48 06.8  -0.7
IDI   Anoyia          154.92 310   PKP       PKPdf     02 48 07.1  -0.9
IDI                                PKPbc     PKPdf     02 48 16.6  +8.6
IDI   Anoyia          154.92 310   PKP       PKPdf     02 48 07.1  -0.9
      comp=Z,14nm,1.0s,baz=90,slow=9.1,SNR=3.2
IDI                                PKPbc     PKPdf     02 48 16.7  +8.6
      comp=Z,8.6nm,0.8s,baz=72,slow=13,SNR=6.2
BNI   Bardonecchia    155.63 351  ePKPab     PKPab     02 48 37.9  -0.3
BNI   Bardonecchia    155.63 351  ePKP2      PKPab     02 48 37.9  -0.4
RJF   Les Rejaudoux   155.78 360  ePKIKP     PKPdf     02 48 07.6  -1.2
RJF   Les Rejaudoux   155.78 360  ePKPdf     PKPdf     02 48 07.6  -1.2
RJF   Les Rejaudoux   155.78 360  ePKIKP     PKPdf     02 48 07.6  -1.2
MBDF  Montbardon      155.93 350  ePKIKP     PKPdf     02 48 08.1  -1.0
MBDF  Montbardon      155.93 350  ePKPdf     PKPdf     02 48 08.1  -1.0
MBDF  Montbardon      155.93 350  ePKIKP     PKPdf     02 48 08.1  -1.0
VIVF  Saint-Julien-l  156.07 354  ePKIKP     PKPdf     02 48 08.3  -0.9
      comp=Z,6.6nm,0.9s
VIVF  Saint-Julien-l  156.07 354  ePKPdf     PKPdf     02 48 08.3  -0.9
VIVF  Saint-Julien-l  156.07 354  ePKIKP     PKPdf     02 48 08.3  -0.9
LFF   La Frestale     156.14   1  ePKIKP     PKPdf     02 48 08.4  -0.9
LFF   La Frestale     156.14   1  ePKPdf     PKPdf     02 48 08.4  -0.9
LFF   La Frestale     156.14   1  ePKIKP     PKPdf     02 48 08.4  -0.9
AQU   L'Aquila        156.43 337  ePKPab     PKPab     02 48 41.1  -0.8
AQU   L'Aquila        156.43 337  ePKP2      PKPab     02 48 41.1  -0.8
SBF   Sospel          156.66 349  ePKIKP     PKPdf     02 48 08.9  -1.1
      comp=Z,20nm,0.8s
SBF   Sospel          156.66 349  ePKPdf     PKPdf     02 48 08.9  -1.1
SBF   Sospel          156.66 349  ePKIKP     PKPdf     02 48 08.9  -1.1
LASF  Ste Croix       156.91 355  ePKIKP     PKPdf     02 48 09.3  -1.0
LASF  Ste Croix       156.91 355  ePKPdf     PKPdf     02 48 09.3  -1.0
LMR   La Mourre       157.33 350  ePKIKP     PKPdf     02 48 09.6  -1.3
LMR   La Mourre       157.33 350  ePKPdf     PKPdf     02 48 09.6  -1.3
LMR   La Mourre       157.33 350  ePKIKP     PKPdf     02 48 09.6  -1.3
TIP   Timpagrande     157.57 327  ePKPdf     PKPdf     02 48 09.9  -1.4
TIP                               ePKPab     PKPab     02 48 46.5  -0.5
MTLF  Montolieu       157.73 358  ePKIKP     PKPdf     02 48 10.4  -1.0
MTLF  Montolieu       157.73 358  ePKPdf     PKPdf     02 48 10.4  -1.0
MTLF  Montolieu       157.73 358  ePKIKP     PKPdf     02 48 10.4  -1.0
PBRG  Braganca        158.18  16  ePKPab     PKPab     02 48 48.8  -0.7
EBIE  Bielsa          158.37   2   P         PKPab     02 48 48.7  -1.5
PVRL  Vila Real       158.40  19  ePKPab     PKPab     02 48 49.3  -1.1
MVO   Moncorvo        158.70  18  ePKPdf     PKPdf     02 48 11.9  -0.7
MVO   Moncorvo        158.70  18  ePKPab     PKPab     02 48 50.9  -0.8
MTE   Manteigas       159.25  19  ePKPdf     PKPdf     02 48 13.3  +0.1
MTE   Manteigas       159.25  19  ePKPab     PKPab     02 48 53.4  -0.8
PTOM  Tomar           159.67  22  ePKPdf     PKPdf     02 48 13.1  -0.6
PTOM  Tomar           159.67  22  ePKPab     PKPab     02 48 54.9  -1.1
EPOB  Poblet          159.73   1   P         PKPab     02 48 54.0  -2.2
PCBR  Castelo Branco  159.78  20  ePKPdf     PKPdf     02 48 13.7  -0.2
PMAFR Mafra           159.92  25  ePKPab     PKPab     02 48 56.5  -0.7
ETOR  Torete          160.05   8   P         PKPab     02 48 55.4  -2.3
ETOR  Torete          160.05   8   PKP2      PKPab     02 48 55.4  -2.2
PESTR Estremoz        160.62  21  ePKPdf     PKPdf     02 48 14.2  -0.6
PESTR Estremoz        160.62  21  ePKPab     PKPab     02 48 59.0  -1.2
EMOS  Mosqueruela     160.65   4   P         PKPab     02 48 58.8  -1.5
MOE   Montemor        160.66  23  ePKPab     PKPab     02 48 59.5  -0.9
ESDC  Sonseca Array   160.86  13   PKP       PKPdf     02 48 13.5  -1.5
ESDC                               PKPab     PKPab     02 48 59.7  -1.5
ESDC  Sonseca Array   160.86  13   PKP       PKPdf     02 48 13.5  -1.5
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	comp=Z,1.3nm,0.8s,baz=0.0,slow=3.6,SNR=5.1						
ESDC				PKPab	PKPab	02 48 59.7	-1.5
	comp=Z,7.4nm,1.0s,baz=346,slow=4.2,SNR=16						
EBAD	Badajoz	160.91	20	P	PKPab	02 48 59.2	-2.4
PBEJ	Beja	161.27	23	*e*PKPdf	PKPdf	02 48 15.3	-0.2
PBEJ	Beja	161.27	23	*e*PKPab	PKPab	02 49 01.8	-1.3
MORF	Marmelete	161.59	26	*e*PKPdf	PKPdf	02 48 15.8	-0.1
MORF	Marmelete	161.59	26	*e*PKPab	PKPab	02 49 04.2	-0.4
EGRO	El Granado	161.85	23	P	PKPab	02 49 03.1	-2.6
PVAQ	Vaqueiros	161.88	24	*e*PKPdf	PKPdf	02 48 15.6	-0.6
PVAQ	Vaqueiros	161.88	24	*e*PKPab	PKPab	02 49 04.7	-1.1
EMIN	Mina Concepcio	161.92	21	P	PKPab	02 49 04.4	-1.6
EVIA	Vianos	162.13	10	P	PKPab	02 49 06.1	-0.7
EVIA	Vianos	162.13	10	PKP2	PKPab	02 49 06.1	-0.7
EADA	Adamuz	162.16	15	P	PKPab	02 49 05.5	-1.5
ETOB	Tobarra	162.26	7	P	PKPab	02 49 06.2	-1.2
EMIJ	Mijas	163.62	18	P	PKPab	02 49 13.0	-0.4
KEST	Kesra	163.75	336	PKPab	PKPab	02 49 13.1	-1.0
	comp=Z,4.4nm,0.9s,baz=289,slow=5.7,SNR=11						
LIC	Lamto	164.05	156	*e*PKIKP	PKPdf	02 48 16.9	-2.0
	comp=Z,26nm,1.0s						
LIC	Lamto	164.05	156	*e*PKIKP	PKPdf	02 48 17.2	-1.7
	comp=Z,58nm,1.5s						
LIC	Lamto	164.05	156	*e*PKPdf	PKPdf	02 48 16.9	-2.0
KIC	Kosan Boka	164.28	157	*e*PKIKP	PKPdf	02 48 17.4	-1.7
	comp=Z,65nm,0.8s						
TIC	Toumodi	164.44	156	*e*PKIKP	PKPdf	02 48 17.5	-1.8
	comp=Z,9.1nm,0.8s						
MDT	Midelt	167.11	23	PKP	PKPdf	02 48 19.1	-1.7
MDT				PKPab	PKPab	02 49 28.3	-0.6
MDT	Midelt	167.11	23	PKP	PKPdf	02 48 19.1	-1.7
	comp=Z,7.0nm,1.0s,baz=314,slow=2.2,SNR=12						
MDT				PKPab	PKPab	02 49 28.3	-0.6
	comp=Z,2.3nm,0.7s,baz=324,slow=5.7,SNR=8.7						
TOA0	Torodi Ar. Sit	172.17	183	*e*PKPdf	PKPdf	02 48 22.4	-1.8
TOA0				*e*PKPab	PKPab	02 49 51.5	-0.2
TORD	Torodi Ar. Bea	172.17	183	PKP	PKPdf	02 48 22.2	-2.1
TORD				PKPab	PKPab	02 49 51.1	-0.5
TORD	Torodi Ar. Bea	172.17	183	PKP	PKPdf	02 48 22.2	-2.1
	comp=Z,7.0nm,0.9s,baz=322,slow=1.1,SNR=36						
TORD				PKPab	PKPab	02 49 51.1	-0.5
	comp=Z,2.2nm,0.9s,baz=161,slow=3.9,SNR=6.9						

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*NNC **07** 02:30:47.0±2.9, 41.17N×72.22E, h0^{km}, mb4.2, mpv3.9, Error ellipse: s-maj=27.8km s-min=9.8km az=2.0*

*IDC **07** 02:30:48.4±1.7, 40.99N×72.26E, h30^{km}±5^{km}, mb3.8/8, mb1 3.8/11, mb1mx3.7/22, mbtmp3.7/11, ML3.2/3, Error ellipse: s-maj=34.8km s-min=14.7km az=160.0*

*ISCJB **07** 02:30:50.7±0.7, 41.21N±0.06×72.08E±0.09, h57^{km}±11^{km}, mb3.7/9, Error ellipse: s-maj=12.8km s-min=7.3km az=34.5*

*NEIC **07** 02:30:51.7±0.9, 41.27N×72.17E, h47^{km}±12^{km}, Error ellipse: s-maj=15.0km s-min=9.0km az=131.0*

*MOS **07** 02:30:52.3±0.8, 41.46N×72.06E, h54^{km}, mb4.1/4, Error ellipse: s-maj=19.3km s-min=14.2km az=69.9*

ISC 07 02:30:52.3±0.6**, 41.27N**±0.05×**72.07E**±0.07**, h49**^{km}±10^{km}**, h38**^{km}±5.6^{km}**:pP-P, n43, σ0^{s}88**/49**, mb3.7**/9**, 9C, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	1.49	54	P	Pn	02 31 15.2	-1.4
	SNR=270						
EKS2	Erkin-Say	1.89	42	P	Pn	02 31 22.6	+0.6
	SNR=84						
UCH	Uchtor	2.06	62	P	Pn	02 31 24.0	-0.4
	SNR=354						
KK31	Karatay Array	2.17	328	Pn	Pn	02 31 28.1	+2.3
	9.9nm,0.4s,baz=138,slow=11,SNR=1913						
KK31				⇑Pg	Pn	02 31 31.2	+5.3
	56nm,0.3s						
KK31				⇑Lg		02 32 00.0	
	397nm,0.6s,baz=142,slow=30,SNR=16						
AAK	Ala-Archa	2.27	52	P	Pn	02 31 27.5	+0.3
	SNR=188						
AAK	Ala-Archa	2.27	52	*e*Pn	Pn	02 31 26.2	-1.0
AAK				*e*Sn	Sn	02 31 56.3	+2.4
AAK	Ala-Archa	2.27	52	*e*PN	Pn	02 31 26.2	-1.0
AAK				*e*		02 31 56.3	
FRU	Bishkek	2.46	50	*e*PN	Pn	02 31 30.5	+0.7
FRU				*i* S	Sn	02 32 05.0	+6.4
FRU				pmax	pmax		
	comp=Z,140nm,2.0s						
FRU				smax			
	comp=E,1700µm,2.0s						
KZA	Kyzart	2.52	70	P	Pn	02 31 30.2	-0.4
	SNR=294						
KBK	Karagaybulak	2.56	56	P	Pn	02 31 32.0	+0.9
	SNR=30						
CHMS	Chumysh	2.64	48	P	Pn	02 31 33.0	+0.7
	SNR=21						
USP	Ospenovka	2.69	41	P	Pn	02 31 33.2	+0.2
	SNR=29						
TKM2	Tokmak 2	3.10	57	P	Pn	02 31 38.8	+0.1
	SNR=16						
TKM2	Tokmak 2	3.10	57	⇑Pn	Pn	02 31 38.7	+0.1
	comp=E,10.0nm,0.8s						
TKM2				⇑Lg		02 32 21.7	
	comp=E,27nm,0.5s						
ULHL	Ulahol	3.27	71	P	Pn	02 31 40.5	-0.4
	SNR=17						
KNDC	Almaty	4.12	60	⇑Pn	Pn	02 31 53.5	+0.9
	comp=E,38nm,0.4s						
KNDC				⇑Lg		02 32 56.4	
	comp=E,510nm,1.1s						
KBL	Kabul	7.13	201	*e*Pn	Pn	02 32 34.2	+0.3
KBL				*e*Sn	Sn	02 33 53.6	+0.1
MK31	Makanchi Array	9.20	50	Pn	Pn	02 33 01.6	-0.6
	comp=E,2.6nm,0.6s,baz=230,slow=12,SNR=19						
MK31				⇑Lg		02 35 33.1	
	comp=E,5.5nm,0.7s,baz=220,slow=24,SNR=4.5						
MKAR	Makanchi Array	9.20	50	Pn	Pn	02 33 01.1	-1.1
MKAR				Sn	Sn	02 34 59.8	+16
MKAR				Lg		02 35 36.5	
MKAR	Makanchi Array	9.20	50	Pn	Pn	02 33 01.1	-1.1
	comp=E,0.2nm,0.3s,baz=226,slow=13,SNR=10						
MKAR				Sn	Sn	02 34 59.8	+16
	comp=E,0.3nm,0.3s,baz=243,slow=13,SNR=2.7						
MKAR				Lg		02 35 36.5	
	comp=E,0.7nm,0.3s,baz=230,slow=28,SNR=5.8						
AB31	Akbulak array	11.69	317	Pn	Pn	02 33 35.0	-1.2
	comp=E,2.0nm,0.5s,baz=131,slow=11,SNR=38						
AB31				⇑Sn	Sn	02 35 52.8	+7.8
	comp=E,6.9nm,0.8s						
AKTK	Aktyubinsk	13.39	318	Pn	Pn	02 33 59.2	-0.2
AKTO	Aktyubinsk	13.39	318	P	Pn	02 33 59.3	-0.2
AKTO	Aktyubinsk	13.39	318	Pn	Pn	02 33 59.2	-0.2
	comp=E,0.1nm,0.3s,baz=122,slow=15,SNR=3.2						
ZAL	Zalesovo	15.27	30	P	Pn	02 34 23.3	-1.2
ZALV	Zalesovo Beam	15.29	30	Pn	Pn	02 34 23.3	-1.4
ZALV				Sn	Sn	02 37 34.6	+22
ZALV				Lg		02 38 57.8	
ZALV	Zalesovo Beam	15.29	30	Pn	Pn	02 34 23.3	-1.4
	comp=E,0.1nm,0.3s,baz=30,slow=28,SNR=1.9						
ZALV				Sn	Sn	02 37 34.6	+22
	comp=E,0.1nm,0.3s,baz=225,slow=23,SNR=3.4						
ZALV				Lg		02 38 57.8	
	comp=E,0.1nm,0.3s,baz=247,slow=28,SNR=2.2						
ARU	Arti	17.53	334	⇑*i*P	Pn	02 35 02.0	+9.1
ARU				pmax	pmax		
	comp=Z,7.0nm,1.5s						
ZAK	Zakamensk	23.43	57	*e*P	P	02 36 04.5	+7.5
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.2s,mb3.1						
SONM	Songino Array	25.18	63	pP	pP	02 36 19.4	-5.9
	comp=Z,1.2nm,1.0s,baz=269,slow=9.1,SNR=8.9						
BRTR	Keskin Array B	29.11	280	P	P	02 36 48.9	+0.6
	comp=Z,0.4nm,0.6s,mb3.3,baz=114,slow=9.5,SNR=5.8						
FINES	FINESS Array B	34.12	322	P	P	02 37 32.8	+0.8
FINES				*PP	pP	02 37 45.3	+0.6
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	34.12	322	P	P	02 37 32.8	+0.9
	comp=Z,0.9nm,0.3s,mb4.1,baz=115,slow=10,SNR=10						
FINES				sP	sP	02 37 45.3	-5.2
	comp=Z,0.9nm,0.6s,baz=121,slow=11,SNR=2.4						
ARCES	ARCESS Array B	37.12	335	P	P	02 37 57.9	+0.3
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ARCES	ARCESS Array B	37.12	335	P	P	02 37 57.9	+0.3
	comp=Z,1.1nm,0.4s,mb4.0,baz=99,slow=8.0,SNR=12						
GERES	GERESS Array B	41.02	301	P	P	02 38 32.0	+1.5
	comp=Z,0.4nm,0.4s,mb3.4,baz=67,slow=8.6,SNR=6.6						
NB2	NORSAR Subarra	41.18	320	P	P	02 38 32.0	+0.4
	comp=Z,1.0nm,0.7s,mb3.5,baz=90,slow=8.6						
NOA	NORSAR Array B	41.18	320	P	P	02 38 31.5	-0.1
NOA				*PP	pP	02 38 41.9	-2.6
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	41.18	320	P	P	02 38 31.4	-0.1
	comp=Z,1.4nm,0.6s,mb3.7,baz=90,slow=8.2,SNR=5.7						
NOA				pP	pP	02 38 41.9	-2.6
	comp=Z,0.9nm,0.7s,baz=90,slow=8.1,SNR=3.0						
DAVOX	Davos/Dischmat	44.03	299	P	P	02 38 54.6	-0.2
	comp=Z,2.7nm,0.7s,mb4.1,baz=135,slow=17,SNR=3.9						
TORD	Torodi Ar. Bea	66.73	267	P	P	02 41 37.5	-1.0
	comp=Z,1.9nm,0.7s,mb4.2,baz=50,slow=5.3,SNR=26						
YKA	Yellowknife Ar	76.45	3	P	P	02 42 35.9	-0.4
YKA				*PP	pP	02 42 45.1	-5.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	76.45	3	P	P	02 42 35.9	-0.4
	comp=Z,0.7nm,0.6s,mb3.8,baz=349,slow=6.0,SNR=12						
YKA				pP	pP	02 42 45.1	-5.1
	comp=Z,0.6nm,0.8s,baz=352,slow=6.0,SNR=5.9						

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*CSEM **07** 02:36:32.4±0.1, 37.14N×30.47E, h80^{km}, Mw3.1, Error ellipse: s-maj=2.1km s-min=1.1km az=53.0*

*ISCJB **07** 02:36:33.7±0.4, 37.10N±0.03×30.41E±0.04, h109^{km}±8^{km}, Error ellipse: s-maj=6.5km s-min=4.6km az=141.6*

*ISK **07** 02:36:35.2, 37.22N×30.35E, h82^{km}, MD3.5*

*NIC **07** 02:36:37.4±0.3, 37.00N×30.53E, h36^{km}, ML3.4, MW3.2*

*GII **07** 02:36:40.5±0.4, 36.56N×30.85E, h7^{km}±30^{km}, ML3.7/3, Mw3.0/1*

*HLW **07** 02:36:48.3, 36.14N×31.07E, h33^{km}, Mb4.0*

ISC 07 02:36:35.0±0.4**, 37.11N**±0.03×**30.42E**±0.04**, h97**^{km}±10^{km}**, n91, σ0^{s}84**/114**, 2C-5D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ANTB	Antalya	0.28	138	PG	Pn	02 36 49.7	+0.5
ELL	Elmali	0.55	228	PG	Pn	02 36 52.9	+2.1
ISP	Isparta	0.73	6	PG	Pn	02 36 51.6	-0.9
FETY	Fethiye	1.17	246	PN	Pn	02 36 57.0	-0.1
FETY				SN	Sn	02 37 13.5	-0.3
FETY	Fethiye	1.17	246	*e*Pn	Pn	02 36 57.0	-0.1
FETY				*e*Sn	Sn	02 37 13.5	-0.3
DENT	Denizli	1.27	301	PN	Pn	02 36 56.9	-1.4
DENT	Denizli	1.27	301	*e*Pn	Pn	02 36 56.9	-1.4
KHL	Karahalli	1.40	330	PN	Pn	02 36 58.6	-1.3
KHL	Karahalli	1.40	330	*e*Pn	Pn	02 36 58.6	-1.3
SHUT	Suhut-Afyon	1.44	4	PN	Pn	02 36 59.3	-1.1
SHUT	Suhut-Afyon	1.44	4	*e*Pn	Pn	02 36 59.3	-1.1
DALT	Dalyan (Mudla)	1.47	257	PN	Pn	02 37 00.6	-0.1
DALT	Dalyan (Mudla)	1.47	257	*e*Pn	Pn	02 37 00.6	-0.1
YER	Yerkesik	1.71	271	PN	Pn	02 37 04.1	+0.4
YER	Yerkesik	1.71	271	*e*Pn	Pn	02 37 04.1	+0.4
KONT	Konya--Tatoy	1.75	61	PN	Pn	02 37 05.2	+0.9
KONT	Konya--Tatoy	1.75	61	*e*Pn	Pn	02 37 05.2	+0.9
ALT	Altintas	1.95	353	PN	Pn	02 37 06.1	-0.7
ALT	Altintas	1.95	353	*e*Pn	Pn	02 37 06.1	-0.7
KIZT	Kizilcal	2.11	33	PN	Pn	02 37 08.8	0.0
KIZT	Kizilcal	2.11	33	*e*Pn	Pn	02 37 08.8	0.0
MLSB	Milas	2.12	276	PN	Pn	02 37 09.5	+0.6
MLSB	Milas	2.12	276	*e*Pn	Pn	02 37 09.5	+0.6
DAT	Datca	2.31	261	PN	Pn	02 37 12.2	+0.8
DAT	Datca	2.31	261	*e*Pn	Pn	02 37 12.2	+0.8
ESKT	Eskisehir	2.43	8	PN	Pn	02 37 12.8	-0.2
ESKT	Eskisehir	2.43	8	*e*Pn	Pn	02 37 12.8	-0.2
BODT	Bodrum	2.49	270	PN	Pn	02 37 13.9	+0.1
BODT	Bodrum	2.49	270	*e*Pn	Pn	02 37 13.9	+0.1
ALFC	Alevga	2.63	137	P	Pn	02 37 15.7	0.0
	7.6nm,0.2s						
ALFC				S	Sn	02 37 45.4	-1.6
AKS	Akhisar	2.71	311	PN	Pn	02 37 16.6	-0.2
AKS	Akhisar	2.71	311	*e*Pn	Pn	02 37 16.6	-0.2
PPCY	Paphos	2.72	144	P	Pn	02 37 17.0	+0.1
IKL	Isikli	2.77	107	PN	Pn	02 37 19.9	+2.4
BLCB	Balcova	2.96	296	*e*PN	Pn	02 37 20.5	+0.4
BLCB	Balcova	2.96	296	*e*Pn	Pn	02 37 20.5	+0.4
MAMC	Mammari	2.98	130	P	Pn	02 37 20.9	+0.5
SZAC	Souni-Zanaja	3.09	139	P	Pn	02 37 21.7	-0.1
SZAC				S	Sn	02 37 57.5	-0.4
CSS	Prodhromos	3.19	131	P	Pn	02 37 25.6	+2.4
MERS	Mersin	3.29	93	*e*PN	Pn	02 37 27.0	+2.4
IZI	Iznik	3.30	347	*e*PN	Pn	02 37 24.9	+0.2
IZI	Iznik	3.30	347	*e*Pn	Pn	02 37 24.9	+0.2
ADVT	Abdulvahap	3.36	351	*e*PN	Pn	02 37 25.4	0.0
ADVT	Abdulvahap	3.36	351	*e*Pn	Pn	02 37 25.4	0.0
GEMT	Gemlik	3.45	344	*e*PN	Pn	02 37 26.4	-0.3
GEMT	Gemlik	3.45	344	*e*Pn	Pn	02 37 26.4	-0.3
HWQ	Hawqa	5.31	121	*e*Pn	Pn	02 37 52.4	+0.5
HWQ	Hawqa	5.31	121	*e*Pn	Pn	02 37 52.4	+0.5
BHL	Bhannes	5.34	125	*e*Pn	Pn	02 37 51.8	-0.5
BHL	Bhannes	5.34	125	*e*Pn	Pn	02 37 51.8	-0.4
HNTI	Hanita	5.60	134	Pn	Pn	02 37 55.5	-0.3
HNTI				Sn	Sn	02 38 54.1	-4.7
HNTI	Hanita	5.60	134	Pn	Pn	02 37 55.6	-0.2
HNTI				Sn	Sn	02 38 54.1	-4.7
RCY	Rachaya	5.71	128	*e*Pn	Pn	02 37 57.6	+0.3
RCY	Rachaya	5.71	128	*e*Pn	Pn	02 37 57.6	+0.3
MMA3	Mount Meron ar	5.78	134	Pn	Pn	02 37 58.0	-0.3
MMA3				Sn	Sn	02 38 58.4	-4.8
MMA3	Mount Meron ar	5.78	134	Pn	Pn	02 37 58.0	-0.3
MMA3				Sn	Sn	02 38 58.4	-4.8
KSDI	Kefar Szold	5.81	131	Pn	Pn	02 37 58.6	0.0
KSDI				Sn	Sn	02 38 59.5	-4.4
KSDI	Kefar Szold	5.81	131	Pn	Pn	02 37 58.7	+0.1
KSDI				Sn	Sn	02 38 59.5	-4.4
OFRI	‘Ofer	5.84	139	Pn	Pn	02 37 58.7	-0.4
OFRI				Sn	Sn	02 39 00.2	-4.6
OFRI	‘Ofer	5.84	139	Pn	Pn	02 37 58.7	-0.4
OFRI				Sn	Sn	02 39 00.2	-4.6
SLTI	Sal’it	6.17	141	Pn	Pn	02 38 02.8	-0.8
SLTI				Sn	Sn	02 39 07.9	-4.9
SLTI	Sal’it	6.17	141	Pn	Pn	02 38 02.8	-0.8
SLTI				Sn	Sn	02 39 07.9	-4.9
MMLI	Mount Malkishu	6.22	137	Pn	Pn	02 38 04.1	-0.1
MMLI				Sn	Sn	02 39 08.4	-5.5
MMLI	Mount Malkishu	6.22	137	Pn	Pn	02 38 04.3	0.0
MMLI	Mount Malkishu	6.22	137	Pn	Pn	02 38 04.1	-0.1
MMLI				Sn	Sn	02 39 08.4	-5.5
AMAG	Maghara	6.86	159	⇓P	Pn	02 38 11.8	-1.2
DRGI	Dragot	6.87	142	Pn	Pn	02 38 14.0	+0.9
DRGI	Dragot	6.87	142	Pn	Pn	02 38 14.0	+0.9
DSI	Dead Sea	6.88	142	Pn	Pn	02 38 13.8	+0.6
DSI	Dead Sea	6.88	142	Pn	Pn	02 38 13.8	+0.5
KZIT	Kziot	7.02	151	Pn	Pn	02 38 14.6	-0.4
KZIT				Sn	Sn	02 39 29.6	-3.8
KZIT	Kziot	7.02	151	Pn	Pn	02 38 14.6	-0.5
KZIT				Sn	Sn	02 39 29.6	-3.7
MZDA	Masada	7.09	143	Pn	Pn	02 38 16.4	+0.3
MZDA				Sn	Sn	02 39 30.4	-4.7
MZDA	Masada	7.09	143	Pn	Pn	02 38 16.4	+0.3
MZDA				Sn	Sn	02 39 30.4	-4.7
MASH	Mash‘abbe Sade	7.09	148	Pn	Pn	02 38 16.5	+0.3
MASH	Mash‘abbe Sade	7.09	148	Pn	Pn	02 38 16.5	+0.3
HHAG	Hagoal	7.28	168	P	Pn	02 38 18.6	-0.1
HMYD	Mayadein	7.30	177	⇓P	Pn	02 38 19.8	+0.8
FYM	Al Fayyum	7.42	176	⇓P	Pn	02 38 21.4	+0.9
HNAT	Natroun	7.46	179	⇑P	Pn	02 38 21.6	+0.5
HNAT	Natroun	7.46	179	P	Pn	02 38 21.6	+0.4
SUZ		7.53	164	⇓P	Pn	02 38 21.3	-0.8
GLL	Jalalah	7.59	171	⇑P	Pn	02 38 22.5	-0.5
GLL				S	Sn	02 39 32.2	-15
PRNI	Paran	7.75	149	Pn	Pn	02 38 25.1	+0.1
PRNI	Paran	7.75	149	Pn	Pn	02 38 25.1	+0.1
PRNI	Paran	7.75	149	Pn	Pn	02 38 25.1	+0.1
KRMI	Paran Flat	7.85	152	Pn	Pn	02 38 26.8	+0.5
KRMI	Paran Flat	7.85	152	Pn	Pn	02 38 26.8	+0.4
ZNM		7.99	164	⇓P	Pn	02 38 27.9	-0.3
HRFI	Mount Harif	8.04	150	Pn	Pn	02 38 28.7	-0.3
HRFI				Sn	Sn	02 39 54.9	-3.4
HRFI	Mount Harif	8.04	150	Pn	Pn	02 38 28.7	-0.3
HRFI				Sn	Sn	02 39 54.9	-3.4

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*BJI **07** 02:41:39.3, 5.05N×95.04E, h30^{km}, mb4.3, Ms4.4, Msz3.9*

*IDC **07** 02:41:41.1±0.8, 5.84N×95.14E, h0^{km}, mb4.1/14, mb1 4.2/14, mb1mx4.1/22, mbtmp4.1/14, MS3.5/6, Ms1 3.4/6, ms1mx3.2/34, Error ellipse: s-maj=39.4km s-min=15.8km az=47.0*

*ISCJB **07** 02:41:45.3±2.2, 5.65N±0.08×94.89E±0.08, h45^{km}±22^{km}, mb4.2/21, MS3.5/5, Error ellipse: s-maj=14.2km s-min=12.8km az=39.9*

*NEIC **07** 02:41:45.9±0.6, 5.76N×94.99E, h30^{km}, mb4.4/4, Error ellipse: s-maj=28.5km s-min=10.3km az=51.0*

NEIC Felt [III] at Sabang.

ISC 07 02:41:48.6±1.9**, 5.76N**±0.08×**95.06E**±0.08**, h52**^{km}±19^{km}**, n33, σ1^{s}20**/32**, mb4.2**/21**, MS3.5**/5**, 1C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	4.85	127	Pn	Pn	02 42 59.4	+0.3
PSI				Lg		02 44 20.1	
PSI				LR	LR	02 44 57.6	
PSI	Prapat	4.85	127	Pn	Pn	02 42 59.4	+0.3
	2.7nm,0.3s,baz=297,slow=11,SNR=8.9						
PSI				Lg		02 44 20.1	
	3.6nm,0.3s,baz=188,slow=8.8,SNR=5.4						
PSI				LR	LR	02 44 57.6	
	comp=Z,272nm,22.0s,baz=242,slow=40						
CHTO	Chiang Mai	13.51	16	*e*Pn	Pn	02 45 03.4	+5.8
	4.9nm,0.8s						
QIZ	Qiongzhong	19.53	46	P	Pn	02 46 12.1	-1.4
QIZ				S	S	02 49 49.5	-0.3
QIZ				AMB	AMB		
	comp=Z,11nm,1.8s						
QIZ				LR	LR		
	comp=N,728nm,14.7s						
QIZ				LR	LR		
	comp=E,398nm,14.2s						
QIZ				LR	LR		
	comp=Z,311nm,12.0s						
GYA	Guiyang	23.37	27	⇑*i*P	P	02 46 54.1	+1.3
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
LSA	Lhasa	24.09	352	P	P	02 47 00.4	+1.1
LSA	Lhasa	24.09	352	*e*P	P	02 47 00.2	+0.9
	comp=Z,8.8nm,0.9s,mb4.2						
XAN	Xi’an	30.93	23	P	P	02 48 02.2	+1.6
XAN				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.7						
GTA	Gaotai	33.77	7	*e*P	P	02 48 27.0	+1.6
GTA				AP	pP	02 48 35.9	-2.9
GTA				XP	sP	02 48 39.6	-5.4
GTA				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.4						
FITZ	Fitzroy Crossi	38.38	129	P	P	02 49 03.3	-1.7
	comp=Z,3.2nm,0.5s,mb4.3,baz=336,slow=10,SNR=12						
BJT	Baijiatuau	39.04	26	*e*P	P	02 49 12.1	+1.8
	comp=Z,6.1nm,0.6s,mb4.5						
AAK	Ala-Archa	40.99	337	*e*P	P	02 49 26.0	-0.4
	comp=Z,4.5nm,1.0s,mb4.0						
MKAR	Makanchi Array	42.34	347	P	P	02 49 34.9	-2.5
	comp=Z,0.9nm,0.6s,mb3.6,baz=163,slow=9.7,SNR=6.8						
ULN	Ulaanbaatar	43.19	12	*e*P	P	02 49 44.6	+0.3
	comp=Z,18nm,0.7s,mb4.9						
KSRS	Korea Array	43.49	39	P	P	02 49 46.7	-0.2
	comp=Z,1.3nm,0.9s,mb3.7,baz=215,slow=9.6,SNR=4.6						
KSRS				LR	LR	03 07 20.1	
	comp=Z,33nm,19.0s,MS3.3,baz=220,slow=36						
WRA	Warramunga Arr	46.31	125	P	P	02 50 07.8	-1.7
	comp=Z,5.9nm,0.5s,mb4.8,baz=304,slow=8.8,SNR=32						
WB2	Warramunga Arr	46.32	125	*e*P	P	02 50 10.8	+1.2
CN2	Changchun	46.35	30	*e*P	P	02 50 08.1	-1.4
ZALV	Zalesovo Beam	48.76	352	P	P	02 50 27.1	-0.9
	comp=Z,1.3nm,0.5s,mb4.2,baz=180,slow=6.6,SNR=5.3						
ZALV				LR	LR	03 16 29.2	
	comp=Z,32nm,18.2s,MS3.4,baz=26,slow=43						
AKTK	Aktyubinsk	54.23	332	P	P	02 51 07.8	-1.1
AKTO	Aktyubinsk	54.23	332	P	P	02 51 07.8	-1.1
	comp=Z,2.5nm,0.7s,mb4.3,baz=117,slow=6.8,SNR=6.4						
ASAJ	Asahikawa	56.43	40	LR	LR	03 16 01.9	
	comp=Z,42nm,20.1s,MS3.5,baz=84,slow=37						
CTA	Charters Tower	56.49	119	LR	LR	03 15 50.2	
	comp=Z,68nm,20.1s,MS3.7,baz=44,slow=36						
STKA	Stephens Creek	58.00	133	P	P	02 51 37.5	+1.3
	comp=Z,2.0nm,0.6s,mb4.3,baz=299,slow=11,SNR=3.5						
STKA				LR	LR	03 16 20.0	
	comp=Z,68nm,18.4s,MS3.8,baz=207,slow=36						
BRTR	Keskin Array B	64.50	311	P	P	02 52 19.6	-0.5
	comp=Z,1.0nm,0.6s,mb4.0,baz=126,slow=7.2,SNR=4.6						
AKASG	Malin Array Be	70.37	322	P	P	02 52 55.7	-1.2
AKASG	Malin Array Be	70.37	322	P	P	02 52 55.7	-1.2
	comp=Z,0.9nm,0.5s,mb4.0,baz=87,slow=5.1,SNR=5.1						
FINES	FINESS Array B	74.99	332	P	P	02 53 23.8	-0.4
	comp=Z,1.6nm,0.8s,mb4.0,baz=104,slow=5.9,SNR=11						
KAF	Kangasniemi	75.08	333	*e*p	P	02 53 16.0	-8.6
ARCES	ARCESS Array B	77.55	340	P	P	02 53 39.4	+0.8
	comp=Z,3.2nm,1.0s,mb4.2,baz=100,slow=5.3,SNR=4.9						
GERES	GERESS Array B	80.00	318	P	P	02 53 53.3	+0.9
	comp=Z,0.9nm,0.6s,mb3.9,baz=98,slow=5.5,SNR=8.7						
HFS	Hagfors	80.73	330	P	P	02 53 56.2	+0.1
	comp=Z,2.3nm,0.8s,mb4.2,baz=132,slow=6.2,SNR=5.6						
TORD	Torodi Ar. Bea	91.97	283	P	P	02 54 54.5	+2.1
	comp=Z,0.5nm,0.8s,mb3.9,baz=79,slow=4.8,SNR=6.1						

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*IDC **07** 02:52:45.7±2.3, 40.89N×72.09E, h0^{km}, mb3.7/6, mb1 3.8/8, mb1mx3.5/22, mbtmp3.6/8, ML3.2/2, Error ellipse: s-maj=54.5km s-min=18.6km az=158.0*

*NNC **07** 02:52:49.5±5.4, 41.11N×72.18E, h0^{km}, mb3.5, mpv3.1, Error ellipse: s-maj=52.8km s-min=19.1km az=6.0*

*NEIC **07** 02:52:51.4±3.1, 40.88N×72.26E, h48^{km}±31^{km}, Error ellipse: s-maj=40.6km s-min=28.0km az=148.0*

*ISCJB **07** 02:52:52.0±1.8, 41.0N±0.1×72.2E±0.1, h62^{km}±15^{km}, mb3.7/6, Error ellipse: s-maj=22.6km s-min=12.2km az=14.7*

ISC 07 02:52:53.0±1.9**, 41.0N**±0.1×**72.23E**±0.10**, h56**^{km}±16^{km}**, n26, σ0^{s}74**/30**, mb3.7**/6**, 8C-1D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	1.59	43	P	Pn	02 53 17.3	-1.6
	SNR=135						
EKS2	Erkin-Say	2.04	34	P	Pn	02 53 24.6	-0.3
	SNR=40						
UCH	Uchtor	2.12	53	P	Pn	02 53 26.1	0.0
	SNR=96						
AAK	Ala-Archa	2.37	45	P	Pn	02 53 29.6	+0.2
	SNR=66						
AAK	Ala-Archa	2.37	45	*e*Pn	Pn	02 53 28.0	-1.4
AAK				*e*Sn	Sn	02 53 57.5	+0.3
KK31	Karatay Array	2.48	329	Pn	Pn	02 53 30.1	-0.9
	1.5nm,0.2s,baz=125,slow=12,SNR=722						
KK31				⇑Pg	Pn	02 53 33.2	+2.2
	20nm,0.3s						
KK31				⇑Lg		02 53 59.6	
	44nm,0.3s,baz=142,slow=29,SNR=16						
KZA	Kyzart	2.52	63	P	Pn	02 53 32.5	+1.0
	SNR=143						
KBK	Karagaybulak	2.63	50	P	Pn	02 53 34.0	+0.9
	SNR=29						
CHMS	Chumysh	2.76	42	P	Pn	02 53 40.9	+6.1
	SNR=8.3						
USP	Ospenovka	2.84	36	P	Pn	02 53 35.2	-0.7
	SNR=14						
TKM2	Tokmak 2	3.17	51	P	Pn	02 53 40.7	+0.3
	SNR=9.5						
TKM2	Tokmak 2	3.17	51	⇑Pn	Pn	02 53 40.8	+0.4
	1.1nm,0.4s						
TKM2				⇑Lg		02 54 25.1	
	8.7nm,0.6s						
ULHL	Ulahol	3.26	66	P	Pn	02 53 48.0	+6.3
	SNR=12						
MK31	Makanchi Array	9.30	48	⇑Pn	Pn	02 55 04.5	+0.3
	1.6nm,0.8s,baz=234,slow=14,SNR=5.1						
MK31				⇑Sn	Sn	02 56 57.8	+11
	1.0nm,0.6s,baz=234,slow=26						
MK31				⇑Lg		02 57 40.0	
	1.3nm,0.5s,baz=244,slow=28						
MKAR	Makanchi Array	9.30	48	Pn	Pn	02 55 03.7	-0.5
MKAR				Lg		02 57 46.9	
MKAR	Makanchi Array	9.30	48	Pn	Pn	02 55 03.7	-0.5
	0.1nm,0.3s,baz=232,slow=16,SNR=6.5						
MKAR				Lg		02 57 46.9	
	0.2nm,0.3s,baz=234,slow=25,SNR=4.1						
AB31	Akbulak array	11.98	318	⇑Pn	Pn	02 55 36.7	-4.2
	0.3nm,0.3s,baz=127,slow=14,SNR=10						

AB31				⇓Sn	Sn	02 57 53.1	+0.2
	0.7nm,0.5s						
ZALV	Zalesovo Beam	15.48	29	Pn	Pn	02 56 28.4	+0.8
ZALV	Zalesovo Beam	15.48	29	Pn	Pn	02 56 28.4	+0.8
	0.2nm,0.3s,baz=230,slow=13,SNR=3.3						
FINES	FINESS Array B	34.42	322	P	P	02 59 34.6	0.0
	0.3nm,0.4s,mb3.6,baz=117,slow=9.5,SNR=6.0						
ARCES	ARCESS Array B	37.44	335	P	P	02 59 59.9	-0.4
	2.1nm,0.8s,mb4.0,baz=100,slow=8.1,SNR=5.0						
HFS	Hagfors	40.24	319	P	P	03 00 23.5	-0.4
	3.3nm,0.9s,mb4.1,baz=111,slow=12,SNR=5.5						
GERES	GERESS Array B	41.28	301	P	P	03 00 33.4	+0.8
	0.2nm,0.4s,mb3.1,baz=47,slow=7.8,SNR=2.7						
TORD	Torodi Ar. Bea	66.83	267	P	P	03 03 39.0	-0.1
	0.7nm,0.7s,mb3.8,baz=54,slow=4.8,SNR=10						
YKA	Yellowknife Ar	76.73	3	P	P	03 04 37.4	-0.3
YKA				pP	pP	03 04 47.4	-6.1
YKA	Yellowknife Ar	76.73	3	P	P	03 04 37.4	-0.3
	0.3nm,0.5s,mb3.5,baz=349,slow=5.5,SNR=6.0						
YKA				pP	pP	03 04 47.4	-6.1
	0.2nm,0.7s,baz=8.9,slow=5.0,SNR=1.8						

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*ISCJB **07** 02:59:09.2±0.9, 26.93N±0.08×54.59E±0.07, h10^{km}, Error ellipse: s-maj=13.7km s-min=5.0km az=35.8*
*KISR **07** 02:59:09.3±0.9, 27.13N×54.37E, h34^{km}±999^{km}, ML3.1*
*CSEM **07** 02:59:12.0±0.3, 26.94N×54.63E, h40^{km}, mb2.5/6, Error ellipse: s-maj=11.0km s-min=4.0km az=46.0*
ISC 07 02:59:10.7±0.9, **26.91N**±0.08×**54.68E**±0.07, **h10**^{km}**, n16, σ0^s.96**/23**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BANOM	Banah	1.76	124	P	Pn	02 59 38.7	-2.4
BANOM				S	Sn	02 59 57.0	-6.6
NAZ	Nazwa, Dubai	2.11	155	P	Pn	02 59 46.3	+0.3
FAQ	Al Faqa, Dubai	2.31	159	P	Pn	02 59 49.4	+0.6
ASUD	Al Ashush, Dub	2.35	165	P	Pn	02 59 51.2	+1.9
HATD	Hatta, Dubai	2.46	147	P	Pn	02 59 50.2	-0.6
ASHO	Ashiyiah	2.54	150	P	Pn	02 59 51.6	-0.4
BTHS		4.49	231	P	Pn	03 00 19.6	+0.9
HRDDS		6.18	231	S	Sn	03 01 51.3	-1.4
HRDDS		6.18	231	P	Pn	03 00 42.5	+0.6
RDF	Al-Radifah	6.62	289	eP	Pn	03 00 49.0	+1.0
RDF				eS	Sn	03 02 03.2	-0.3
RDF				AML	AML	03 02 05.1	
	comp=Z,3.7nm,0.3s						
RDF	Al-Radifah	6.62	289	eP	Pn	03 00 49.0	+1.0
RDF				eS	Sn	03 02 03.2	-0.3
UMR	Umm Al-Rimmam	6.68	295	eP	Pn	03 00 49.0	+0.2
UMR				eS	Sn	03 02 04.8	-0.2
UMR				AML	AML	03 02 07.5	
	comp=Z,9.7nm,0.3s						
UMR	Umm Al-Rimmam	6.68	295	eP	Pn	03 00 49.0	+0.1
UMR				eS	Sn	03 02 04.8	-0.3
NAY	Al-Naaiem	6.97	291	eP	Pn	03 00 53.8	+1.0
NAY				eS	Sn	03 02 11.6	-0.5
NAY				AML	AML	03 02 15.5	
	comp=Z,2.9nm,0.5s						
NAY	Al-Naaiem	6.97	291	eP	Pn	03 00 53.8	+1.0
NAY				eS	Sn	03 02 11.6	-0.6
ASYS		9.22	276	P	Pn	03 01 22.9	-0.9

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*ISCJB **07** 03:03:45.7±0.8, 10.30N±0.04×62.31W±0.03, h9^{km}±7^{km}, Error ellipse: s-maj=6.9km s-min=4.5km az=165.7*
*TRN **07** 03:03:47.5, 10.36N×62.22W, h3^{km}, MD3.1*
*NEIC **07** 03:03:47.5, 10.36N×62.22W, h3^{km}, MD3.1(TRN), After TRN.*
*FUNV **07** 03:03:47.1, 10.36N×62.26W, h15^{km}, MW2.4*
ISC 07 03:03:46.8±0.6, **10.35N**±0.04×**62.30W**±0.03, **h15**^{km}±5^{km}**, n17, σ0^s.94**/23**, 1D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	Guiria	0.30	14	eP	Pg	03 03 52.8	-0.4
GUIV				eS	Sg	03 03 57.7	+0.2
TCE	Chacachacare	0.64	57	eP	Pg	03 03 58.6	-0.7
TCE				eS	Sg	03 04 06.5	-1.2
GUNV	Guanoco	0.66	254	⇓eP	Pg	03 03 59.4	-0.4
GUNV				eS	Sg	03 04 10.2	+1.6
TPP	Pointe-a-Pierr	0.83	92	eP	Pg	03 04 04.7	+1.7
TRN	Trinidad (W)	0.93	71	eP	Pb	03 04 03.3	-1.3
TRN				eS	Sb	03 04 16.8	0.0
CRUV	Carupano	0.98	289	eP	Pb	03 04 04.2	-1.3
CRUV				eS	Sb	03 04 17.7	-0.5
TBH	Brigand Hill	1.22	84	eP	Pn	03 04 10.2	+0.9
ITEV	Isla Los Testi	1.29	321	eP	Pn	03 04 10.2	-0.2
ITEV				eS	Sb	03 04 27.6	+0.4
TPR	Prospect	1.71	61	eP	Pn	03 04 17.5	+1.4
GRW	Mount Saint Ca	1.90	19	eP	Pn	03 04 21.0	+2.3
PCRV	Puerto La Cruz	2.31	266	eP	Pn	03 04 24.3	0.0
RIOV	Rio Grande	2.32	168	eP	Pn	03 04 24.4	0.0
PRGV	PARIAGUAN	2.80	236	eP	Pn	03 04 31.5	+0.4
CUPV	Cœpira	3.45	265	eP	Pn	03 04 39.6	-0.4
BIRV	Birongo	3.91	272	eP	Pn	03 04 46.2	-0.1
LUEV	Luepa	4.55	169	eP	Pn	03 04 54.0	-1.2
CAOV	Caicara del Or	4.99	233	eP	Pn	03 05 00.6	-0.5

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*IDC **07** 03:05:08.3±1.4, 10.68N×125.98E, h0^{km}, mb4.0/5, mb1 4.1/5, mb1mx3.7/18, mbtmp4.0/5, MS3.6/1, Ms1 3.6/1, ms1mx2.4/27, Error ellipse: s-maj=168.4km s-min=22.9km az=67.0*
*ISCJB **07** 03:05:15.0±1.4, 10.48N±0.07×125.9E±0.1, h61^{km}±12^{km}, mb4.0/5, Error ellipse: s-maj=20.4km s-min=10.8km az=164.3*
*MAN **07** 03:05:17, 10.50N×125.69E, h21^{km}, mb4.7, ML3.6, MS3.5*
ISC 07 03:05:15.8±1.7, **10.49N**±0.07×**125.9E**±0.1, **h53**^{km}±15^{km}**, n9, σ0^s.90**/12**, mb4.0**/5**, Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	Surigao	0.81	210	eP	Pn	03 05 31.1	0.0
SCPH				eS	Sn	03 05 40.7	-1.5
PLP	Palo	1.12	307	i P	Pn	03 05 35.8	+0.6
PLP				i S	Sn	03 05 49.5	-0.2
TBP	Tagbilaran	2.15	249	eP	Pn	03 05 50.7	+1.4
TBP				eS	Sn	03 06 15.1	+0.3
CNP	Catarman	2.34	329	eS	Sn	03 06 24.5	+5.1
WRA	Warramunga Arr	31.36	165	P	P	03 11 31.6	-0.1
	0.7nm,0.5s,mb3.8,baz=346,slow=9.3,SNR=7.3						
STKA	Stephens Creek	44.73	161	P	P	03 13 25.6	+1.6
	2.5nm,0.9s,mb4.0,baz=333,slow=9.0,SNR=3.7						
MKAR	Makanchi Array	51.63	323	P	P	03 14 16.3	-0.7
	0.3nm,0.3s,mb3.7,baz=129,slow=8.1,SNR=7.6						
ARCES	ARCESS Array B	83.86	340	P	P	03 17 39.2	-0.3
	3.4nm,1.0s,mb4.4,baz=73,slow=6.1,SNR=3.0						
FINES	FINESS Array B	85.52	332	P	P	03 17 46.8	-1.1
	0.4nm,0.5s,mb3.9,baz=64,slow=4.4,SNR=5.3						

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*IDC **07** 03:16:51.8±2.0, 46.35N×155.38E, h0^{km}, mb3.7/7, mb1 4.0/8, mb1mx3.7/23, mbtmp3.7/8, ML3.4/1, Error ellipse: s-maj=64.9km s-min=23.8km az=176.0*
*ISCJB **07** 03:16:53.8±1.2, 46.1N±0.2×155.2E±0.1, h33^{km}, mb3.8/12, Error ellipse: s-maj=30.3km s-min=11.4km az=167.5*
*NEIC **07** 03:16:53.3±1.7, 46.36N×155.38E, h10^{km}, mb4.0/2, Error ellipse: s-maj=53.2km s-min=13.8km az=181.0*
*MOS **07** 03:16:56.1±1.2, 46.50N×155.03E, h33^{km}, mb4.1/9, Error ellipse: s-maj=20.8km s-min=17.0km az=99.0*
ISC 07 03:16:56.6±1.1, **46.2N**±0.2×**155.3E**±0.1, **h35**^{km}**, n24, σ0^s.72**/24**, mb3.8**/12**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YSS	Yuzh-Sakhalins	8.65	279	ePN	Pn	03 18 57.2	-1.9
ASAJ	Asahikawa	9.20	261	PN	Pn	03 19 07.1	+0.4
ASAJ	Asahikawa	9.20	261	Pn	Pn	03 19 07.0	+0.4
	0.4nm,0.3s,baz=82,slow=19,SNR=2.3						
BILL	Bilibino	22.59	11	eP	P	03 21 53.1	-0.4
BILL				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.2						
TIXI	Tiksi	28.39	343	eP	P	03 22 48.1	+1.0
TIXI				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.4						
INK	Inuvik	41.29	32	P	P	03 24 38.1	+0.1
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	Inuvik	41.29	32	P	P	03 24 38.1	+0.2
	comp=Z,0.6nm,0.6s,mb3.4,baz=286,slow=4.5,SNR=5.5						
MKAR	Makanchi Array	48.50	299	P	P	03 25 36.5	+0.9
MKAR	Makanchi Array	48.50	299	P	P	03 25 36.4	+0.8
	comp=Z,0.3nm,0.6s,mb3.5,baz=64,slow=8.5,SNR=4.7						
KURK	Kurchatov	48.89	305	eP	P	03 25 38.9	+0.3
	comp=Z,0.8nm,0.5s,mb4.0						
KURK	Kurchatov	48.89	305	eP	P	03 25 38.9	+0.4
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
YKA	Yellowknife Ar	50.44	37	P	P	03 25 49.3	-0.9
YKA	Yellowknife Ar	50.44	37	P	P	03 25 48.6	-1.5
	comp=Z,0.3nm,0.6s,mb3.5,baz=296,slow=7.3,SNR=4.1						
BRVK	Borovoye	52.37	311	eP	P	03 26 05.0	+0.3
	comp=Z,1.6nm,0.6s,mb4.1						
BRVK	Borovoye	52.37	311	eP	P	03 26 05.0	+0.3
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
ARU	Arti	56.39	319	eP	P	03 26 34.1	+0.2
ARU				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.2						
NVAR	Mina Array Bea	61.34	63	P	P	03 27 08.5	-0.1
	comp=Z,0.6nm,0.7s,mb3.8,baz=310,slow=5.4,SNR=5.8						
PDAR	Pinedale Array	63.83	55	P	P	03 27 25.0	-0.1
	comp=Z,0.6nm,0.8s,mb3.7,baz=288,slow=6.1,SNR=5.2						
FINES	FINESS Array B	65.13	336	P	P	03 27 33.0	-0.3
FINES	FINESS Array B	65.13	336	P	P	03 27 33.0	-0.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	FINESS Array B	65.13	336	P	P	03 27 33.0	-0.3
	comp=Z,1.1nm,0.7s,mb4.0,baz=53,slow=9.8,SNR=5.4						
WRA	Warramunga Arr	68.54	201	i P	P	03 28 00.4	+5.0
TXAR	Lajitas Array	76.43	62	P	P	03 28 42.9	+0.4
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
TXAR	Lajitas Array	76.43	62	P	P	03 28 42.9	+0.4
	comp=Z,1.5nm,0.6s,mb4.1,baz=307,slow=4.7,SNR=28						

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*BJI **07** 03:35:53.3, 3.07N×128.66E, h98^{km}, mB5.1, mb4.6*
*MOS **07** 03:35:53.8±0.9, 3.93N×128.12E, h33^{km}, mb4.8/11, Error ellipse: s-maj=25.1km s-min=9.5km az=104.4*
*IDC **07** 03:35:57.8±6.5, 3.93N×128.28E, h60^{km}±63^{km}, mb4.1/11, mb1 4.1/11, mb1mx4.0/18, mbtmp4.0/11, MS3.4/9, Ms1 3.4/9, ms1mx3.2/29, Error ellipse: s-maj=45.8km s-min=15.0km az=84.0*
*ISCJB **07** 03:35:59.5±1.6, 3.90N±0.07×128.3E±0.1, h88^{km}±14^{km}, mb4.5/37, Error ellipse: s-maj=17.5km s-min=9.9km az=162.5*
*NEIC **07** 03:36:02.0±3.8, 3.89N×128.38E, h99^{km}±36^{km}, mb4.5/15, Error ellipse: s-maj=18.3km s-min=9.1km az=71.0*
*MAN **07** 03:37:03, 8.20N×124.80E, h25^{km}, mb4.9, ML3.8, MS3.8*
ISC 07 03:36:00.6±1.5, **3.86N**±0.07×**128.3E**±0.1, **h82**^{km}±13^{km}**, n71, σ1^s.00**/64**, mb4.5**/37**, 3D, North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	Kidapawan	4.50	314	⇓eP	Pn	03 37 07.5	+1.2
KCP				i S	Sn	03 38 03.0	+5.6
SCPH	Surigao	6.53	335	eP	Pn	03 37 32.1	-1.9
GUMO	Guam	18.98	58	LR	LR	03 46 22.7	
	comp=Z,122nm,21.2s,baz=116,slow=33						
FITZ	Fitzroy Crossi	21.98	187	eP	P	03 40 48.4	+0.5
	22nm,1.9s,mb4.2						
FITZ	Fitzroy Crossi	21.98	187	P	P	03 40 47.2	-0.7
	3.1nm,0.8s,mb3.7,baz=347,slow=20,SNR=12						
PMG	Port Moresby	22.93	125	LR	LR	03 49 31.2	
	comp=Z,155nm,18.3s,baz=217,slow=35						
WRA	Warramunga Arr	24.38	166	P	P	03 41 11.5	+0.3
	10nm,0.6s,mb4.3,baz=345,slow=10,SNR=74						
WB2	Warramunga Arr	24.38	166	eP	P	03 41 10.7	-0.5
JNU	Nakatsue	29.21	4	P	P	03 41 52.9	-1.6
	4.4nm,0.7s,mb4.2,baz=243,slow=4.3,SNR=3.8						
JNU				LR	LR	03 53 13.2	
	comp=Z,20nm,18.6s,baz=300,slow=36						
PSI	Prapat	29.38	269	LR	LR	03 56 05.8	
	comp=Z,84nm,18.2s,baz=96,slow=41						
NJ2	Nanjing	29.43	343	eP	P	03 41 57.0	+0.6
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.8						
CTA	Charters Tower	29.60	144	LR	LR	03 55 19.7	
	comp=Z,74nm,18.3s,baz=54,slow=39						
WHN	Wuhan	29.65	335	eP	P	03 42 00.2	+1.8
CHTO	Chiang Mai	32.34	300	eP	P	03 42 21.7	-0.5
	comp=Z,3.1nm,0.6s,mb4.2						
CHTO	Chiang Mai	32.34	300	eP	P	03 42 21.7	-0.6
CHTO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
KSRS	Korea Array	33.44	359	P	P	03 42 30.4	-1.2
KSRS				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
KSRS				MLR	MLR		
	comp=Z,39nm,19.5s						
KSRS	Korea Array	33.44	359	P	P	03 42 30.4	-1.2
	comp=Z,4.3nm,0.8s,mb4.4,baz=177,slow=9.0,SNR=11						
KSRS				LR	LR	03 56 49.9	
	comp=Z,39nm,19.5s,baz=10,slow=38						
MJAR	Matsushiro Arr	33.77	14	P	P	03 42 33.5	-1.1
	comp=Z,2.3nm,0.7s,mb4.1,baz=185,slow=9.8,SNR=7.3						
XAN	Xi'an	35.05	331	P	P	03 42 45.5	-0.1
XAN				AMB	AMB		
	comp=Z,19nm,0.8s,mb5.0						
BJT	Baijiatuau	37.64	345	eP	P	03 43 07.6	0.0
	comp=Z,3.7nm,0.4s,mb4.6						
BJT	Baijiatuau	37.64	345	eP	P	03 43 07.6	0.0
BJT				pmax	pmax		
	comp=Z,4.0nm,0.4s						
STKA	Stephens Creek	37.71	161	eP	P	03 43 08.7	+0.4
	comp=Z,4.6nm,0.9s,mb4.3						
STKA	Stephens Creek	37.71	161	P	P	03 43 08.2	-0.1
	comp=Z,3.3nm,0.6s,mb4.3,baz=334,slow=7.1,SNR=9.1						
LZH	Lanzhou	39.22	328	eP	P	03 43 22.5	+1.6
LZH				AMB	AMB		
	comp=Z,34nm,1.2s,mb5.0						
LZH				AMB	AMB		
	comp=Z,135nm,4.5s						
LZH				LR	LR		
	comp=E,430nm,16.8s						
LZH				LR	LR		
	comp=Z,550nm,18.0s						
LZH	Lanzhou	39.22	328	eP	P	03 43 22.5	+1.6
	comp=Z,34nm,1.2s,mb5.0						
LZH				pP	pP	03 43 27.5	-13
LZH				sP	sP	03 43 41.0	-9.0
LZH				LR	LR		
	comp=Z,550nm,18.0s						
LSA	Lhasa	43.57	310	eP	P	03 43 58.9	+2.3
	comp=Z,5.6nm,0.6s,mb4.5						
LSA	Lhasa	43.57	310	eP	P	03 43 58.9	+2.3
LSA				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
GTA	Gaotai	43.83	328	eP	P	03 43 59.5	+1.0
GTA				AMB	AMB		
	comp=Z,8.0nm,1.3s,mb4.3						
TAPN	Taplejung	45.24	305	eP	P	03 44 09.7	-0.3
	comp=Z,11nm,0.5s,mb4.8						
ODAN	Odare	45.31	305	eP	P	03 44 11.4	+0.9
	comp=Z,21nm,0.6s,mb5.0						
GUN	Gumba	46.95	305	eP	P	03 44 22.9	-0.5
	comp=Z,19nm,0.6s,mb5.0						
DMN	Daman	47.47	304	eP	P	03 44 27.9	+0.4
	comp=Z,9.1nm,0.5s,mb4.7						
ULN	Ulaanbaatar	47.51	341	eP	P	03 44 27.8	+0.3
	comp=Z,9.2nm,1.0s,mb4.6						
ULN	Ulaanbaatar	47.51	341	eP	P	03 44 27.8	+0.4
ULN				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
SONM	Songino Array	47.71	340	LR	LR	04 06 24.8	
	comp=Z,37nm,18.2s,baz=100,slow=38						
GKN	Gorkha	48.00	305	eP	P	03 44 31.0	-0.6
	comp=Z,4.5nm,0.4s,mb4.7						
KOLN	Koldanda	48.77	304	eP	P	03 44 36.9	-0.6
	comp=Z,20nm,0.6s,mb5.2						
CIT	Chita	49.56	348	eP	P	03 44 42.8	-0.2
ZAK	Zakamensk	50.95	340	eP	P	03 44 52.8	-0.8
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.4s,mb3.6						
BOD	Bodaibo	54.98	351	eP	P	03 45 22.4	-0.7
BOD				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.9						
YAK	Yakutsk	58.05	1	i P	P	03 45 45.6	+0.8
YAK				pmax	pmax		
	comp=Z,18nm,0.4s,mb5.5						
MA2	Magadan	58.20	13	eP	P	03 45 47.7	+1.8
MA2				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
MK31	Makanchi Array	58.37	324	eP	P	03 45 47.1	-0.2
MKAR	Makanchi Array	58.37	324	P	P	03 45 47.3	0.0
	comp=Z,4.7nm,0.5s,mb4.8,baz=116,slow=8.2,SNR=111						
MKAR				LR	LR	04 11 33.8	
	comp=Z,36nm,19.7s,baz=154,slow=37						
TKM2	Tokmak 2	60.72	318	eP	P	03 46 03.6	0.0
	comp=Z,3.3nm,0.7s,mb4.5						
TKM2	Tokmak 2	60.72	318	eP	P	03 46 03.6	0.0
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
UCH	Uchtor	61.17	317	eP	P	03 46 07.3	+0.6
	comp=Z,5.5nm,0.8s,mb4.6						
ZALV	Zalesovo Beam	61.21	332	P	P	03 46 05.2	-1.4
ZALV	Zalesovo Beam	61.21	332	P	P	03 46 05.2	-1.4
	comp=Z,1.1nm,0.4s,mb4.2,baz=116,slow=6.8,SNR=6.0						
ZAL	Zalesovo	61.21	332	P	P	03 46 05.2	-1.5
AAK	Ala-Archa	61.34	317	eP	P	03 46 07.0	-0.8
	comp=Z,2.9nm,0.9s,mb4.3						
AAK	Ala-Archa	61.34	317	i P	P	03 46 12.5	+4.7
SEY	Seymchan	61.56	12	⇓eP	P	03 46 11.2	+2.3
EKS2	Erkin-Say	61.84	317	eP	P	03 46 11.4	+0.3
	comp=Z,4.1nm,0.8s,mb4.5						
KURK	Kurchatov	62.50	327	eP	P	03 46 15.2	-0.2
	comp=Z,9.3nm,0.8s,mb4.8						
KURK	Kurchatov	62.50	327	eP	P	03 46 15.2	-0.2
KURK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
KBL	Kabul	62.72	307	eP	P	03 46 16.6	-0.6
TIXI	Tiksi	67.70	0	eP	P	03 46 48.4	-0.3
	comp=Z,7.9nm,0.6s,mb4.7						
TIXI	Tiksi	67.70	0	⇓eP	P	03 46 48.6	-0.1
TIXI				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.7						
BRVK	Borovoye	68.16	327	eP	P	03 46 52.0	+0.1
	comp=Z,4.3nm,0.8s,mb4.3						
BRVK	Borovoye	68.16	327	eP	P	03 46 52.0	+0.1
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
ARU	Arti	75.69	327	eP	P	03 47 37.5	+0.6
ARU				e		03 50 27.1	
ARU				eS	S	03 57 17.0	+5.3
ARU				eSS	SS	04 02 04.4	-0.3
MCK	McKinley	83.34	26	eP	P	03 48 19.1	+0.9
	comp=Z,3.5nm,0.9s,mb4.2						
MCK	McKinley	83.34	26	eP	P	03 48 19.1	+0.9
MCK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
COLA	College	83.90	25	i P	P	03 48 22.1	+1.0
ARCES	ARCESS Array B	90.88	340	P	P	03 48 53.2	-1.5
	comp=Z,2.6nm,0.9s,mb4.4,baz=79,slow=6.4,SNR=6.4						
FINES	FINESS Array B	92.47	332	P	P	03 48 59.6	-2.6
	comp=Z,2.4nm,1.0s,mb4.4,baz=68,slow=5.2,SNR=3.0						
YKA	Yellowknife Ar	98.72	25	P	P	03 49 30.8	+0.2
	comp=Z,0.3nm,0.6s,mb4.0,baz=290,slow=3.9,SNR=5.6						
NOA	NORSAR Array B	99.38	334	LR	LR	04 34 57.4	
	comp=Z,41nm,20.1s,baz=275,slow=36						
TORD	Torodi Ar. Bea	124.40	289	PKP	PKPdf	03 54 51.2	+0.1
TORD	Torodi Ar. Bea	124.40	289	PKP	PKPdf	03 54 51.2	+0.1
	comp=Z,1.4nm,0.9s,baz=32,slow=1.9,SNR=9.8						

IDC 07 03:42:58.1±1.5**, 1.02N×125.68E, h0**^{km}**, mb3.9**/3**, mb1 4.1**/4**, mb1mx3.8**/15**, mbtmp3.9**/4**, ML3.4**/1**, Error ellipse: s-maj=106.9km s-min=23.2km az=67.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.00	180	P	Pn	03 47 22.2	+0.1
	0.1nm,0.3s,baz=340,slow=12,SNR=2.5						
WRA	Warramunga Arr	22.50	158	P	P	03 47 58.0	-1.3
	4.4nm,0.7s,baz=336,slow=11,SNR=7.9						
STKA	Stephens Creek	36.03	157	P	P	03 50 02.1	+0.9
	1.1nm,0.4s,baz=338,slow=7.9,SNR=3.6						
MKAR	Makanchi Array	59.20	327	P	P	03 53 00.9	-0.1
	0.5nm,0.6s,baz=118,slow=7.9,SNR=8.3						
TORD	Torodi Ar. Bea	122.71	286	PKP	PKPdf	04 01 56.9	-0.2
	0.4nm,0.8s,baz=96,slow=0.3,SNR=4.1						

MAN 07 03:46:50, 11.05N×122.04E, h5^{km}**, mb3.9, ML2.6, MS2.2, Panay**

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*ISCJB **07** 04:07:46.4±0.8, 28.05S±0.03×71.3W±0.1, h55^{km}±9^{km}, mb3.8/6, Error ellipse: s-maj=16.4km s-min=5.0km az=3.0*
*NEIC **07** 04:07:47.6±0.9, 28.02S×71.28W, h50^{km}±9^{km}, mb4.1/1, Error ellipse: s-maj=21.1km s-min=7.1km az=93.0*
*GUC **07** 04:07:48.3±1.1, 28.31S×70.35W, h80^{km}±39^{km}, ML4.8*
*IDC **07** 04:07:49.4±1.0, 27.96S×71.00W, h62^{km}±7^{km}, mb3.5/5, mb1 3.8/7, mb1mx3.7/15, mbtmp3.6/7, Error ellipse: s-maj=43.9km s-min=12.8km az=64.0*
ISC 07 04:07:47.2±0.8, **28.03S**±0.03×**71.36W**±0.10, **h43**^{km}±10^{km}**, n28, σ0^s.93**/35**, mb3.8**/6**, 1C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VACH	Vallenar	0.76	136	eP	Pn	04 08 02.0	+0.6
VACH				i S	Sn	04 08 12.1	+0.3
VACH	Vallenar	0.76	136	eP	Pn	04 08 02.0	+0.6
VACH				i S	Sn	04 08 12.1	+0.3
VACH				AML	AML	04 08 14.1	
	comp=N,79µm,0.4s						
CDCH	Caldera	1.07	26	⇓iP	Pn	04 08 05.6	-0.1
CDCH				i S	Sn	04 08 18.8	-0.5
CPCH	Copiapo	1.12	53	⇓iP	Pn	04 08 07.0	+0.6
CPCH				i S	Sn	04 08 21.0	+0.4
CPCH	Copiapo	1.12	53	⇓iP	Pn	04 08 07.0	+0.6
CPCH				i S	Sn	04 08 21.0	+0.4
CPCH				AML	AML	04 08 21.8	
	comp=E,77µm,0.1s						
LCO	Las Campanas	1.13	149	ePn	Pn	04 08 06.9	+0.3
LCO				eSn	Sn	04 08 19.4	-1.5
TLL	Tololo Astrono	2.18	167	eP	Pn	04 08 22.3	+1.3
TLL				i S	Sn	04 08 46.4	-0.3
TLL	Tololo Astrono	2.18	167	eP	Pn	04 08 22.3	+1.3
TLL				i S	Sn	04 08 46.4	-0.3
TLL				AML	AML	04 08 48.6	
	comp=E,4µm,0.1s						
OVCH	Ovalle	2.57	177	⇓eP	Pn	04 08 26.1	-0.2
OVCH				i S	Sn	04 08 54.7	-1.6
CMCH	Combarbala	3.15	174	⇑iP	Pn	04 08 34.2	0.0
CPN1	Cerro Paranal	3.50	14	eP	Pn	04 08 38.2	-0.9
CHNG	Los Chungos	3.84	182	eP	Pn	04 08 33.0	-11
CHNG				i S	Sn	04 09 14.4	-13
CFAA	Coronel Fontan	4.47	143	P	Pn	04 08 54.0	+1.5
	comp=E,4.8nm,0.3s,baz=319,slow=12,SNR=119						
CFAA				S	Sn	04 09 43.8	+0.5
	comp=E,3.5nm,0.3s,baz=109,slow=19,SNR=7.1						
CEN1	Los Morros	4.74	13	eP	Pn	04 08 51.2	-5.0
PEL	Peldehue	5.13	174	eP	Pn	04 09 00.9	-0.5
FCH	Farellones	5.36	170	eP	Pn	04 09 05.9	+1.3
LPAZ	La Paz	12.06	15	P	Pn	04 10 35.2	-1.3
	comp=E,0.7nm,0.3s,baz=201,slow=7.8,SNR=16						
SIV	San Ignacio	15.30	41	P	Pn	04 11 12.5	-7.8
	comp=E,1.1nm,0.3s,baz=235,slow=11,SNR=20						
SNAA	Sanae	56.91	159	P	P	04 17 26.0	-1.4
	comp=E,1.0nm,0.6s,mb4.0,baz=251,slow=9.0,SNR=7.8						
TXAR	Lajitas Array	64.88	329	P	P	04 18 23.3	+1.3
	comp=E,0.4nm,0.5s,mb3.7,baz=151,slow=9.1,SNR=6.4						
HWUT	Hardware Ranch	78.64	330	eP	P	04 19 45.2	+0.8
	comp=E,1.9nm,0.8s,mb4.1						
PDAR	Pinedale Array	78.74	332	P	P	04 19 45.9	+1.0
	comp=E,0.5nm,0.6s,mb3.6,baz=117,slow=5.0,SNR=4.9						
TORD	Torodi Ar. Bea	81.64	70	P	P	04 20 00.1	-1.1
	comp=E,0.5nm,0.7s,mb3.6,baz=254,slow=4.7,SNR=7.8						
TORD				pP	pP	04 20 16.1	+2.0
	comp=E,1.6nm,0.6s,baz=233,slow=7.0,SNR=9.7						
YKA	Yellowknife Ar	96.61	341	P	P	04 21 11.3	-0.5
	comp=E,0.2nm,0.7s,mb3.7,baz=138,slow=4.4,SNR=5.5						
ZALV	Zalesovo Beam	148.77	27	PKPbc	PKPbc	04 27 28.8	-0.7
ZALV				pPKPbc	pPKPbc	04 27 45.5	+2.7
ZALV	Zalesovo Beam	148.77	27	PKPbc	PKPbc	04 27 28.8	-0.7
	comp=E,1.6nm,0.5s,baz=298,slow=5.3,SNR=7.6						
ZALV				pPKPbc	pPKPbc	04 27 45.6	+2.7
	comp=E,1.3nm,0.5s,baz=345,slow=3.3,SNR=1.1						
MKAR	Makanchi Array	152.12	41	PKPbc	PKPbc	04 27 36.9	-0.8
MKAR				pPKPbc	pPKPbc	04 27 56.2	+5.1
MKAR	Makanchi Array	152.12	41	PKPbc	PKPbc	04 27 36.9	-0.8
	comp=E,0.7nm,0.7s,baz=315,slow=1.8,SNR=9.6						
MKAR				pPKPbc	pPKPbc	04 27 56.2	+5.1
	comp=E,0.6nm,0.7s,baz=294,slow=1.7,SNR=4.5						

WEL 07 04:23:45.3±0.4,3704S×17755E,h168^{km}±3^{km},ML3.5/9, 1D,Error ellipse: s-maj=5.4km s-min=4.7km az=0.0,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUZ	**Puketiti**	**1.18**	**152**	*e*PN	Pn	04 24 13.0	-0.3
PUZ				SN	Sn	04 24 34.3	-0.6
URZ	**Urewera**	**1.27**	**196**	⇓PN	Pn	04 24 14.3	+0.2
URZ				SN	Sn	04 24 36.5	+0.1
MWZ	**Matawai**	**1.30**	**181**	PN	Pn	04 24 14.6	+0.3
MWZ				SN	Sn	04 24 36.8	0.0
KNZ	**Kokohu**	**1.98**	**177**	PN	Pn	04 24 21.6	+0.3
BKZ	**Black Stump Fm**	**2.29**	**201**	PN	Pn	04 24 25.0	+0.2
BFZ	**Birch Farm**	**3.78**	**195**	*e*PN	Pn	04 24 42.1	-1.0
MRZ	**Mangatainoka R**	**3.93**	**202**	PN	Pn	04 24 43.6	-1.5
MRZ				SN	Sn	04 25 30.3	-1.6
TIWZ	**Tintock**	**3.96**	**199**	PN	Pn	04 24 44.3	-1.0
KIW	**Kapiti Island**	**4.34**	**207**	PN	Pn	04 24 48.4	-1.9
CAW	**Cannon Point**	**4.50**	**205**	PN	Pn	04 24 50.2	-2.2
TCW	**Tory Channel**	**4.89**	**210**	PN	Pn	04 24 55.0	-2.4
NNZ	**Nelson**	**5.29**	**217**	PN	Pn	04 25 00.8	-1.8
THZ	**Tophouse**	**5.93**	**216**	*e*PN	Pn	04 25 08.5	-2.7

IDC 07 04:28:14.2±1.7,3438N×2554E,h0^{km},mb3.5/3,mb1 3.6/5, mb1mx3.4/17,mbtmp3.5/5,ML4.3/1,Error ellipse: s-maj=47.5km s-min=24.7km az=123.0

CSEM 07 04:28:18.5±0.1,3437N×2544E,h52^{km}±1^{km},MD3.8,Error ellipse: s-maj=3.0km s-min=2.5km az=39.0

ISCJB 07 04:28:19.0±0.4,3439N±004×2543E±005,h57^{km}±8^{km}, mb3.6/3,Error ellipse: s-maj=7.5km s-min=5.7km az=161.7

ATH 07 04:28:19.1,3446N×2531E,h30^{km}±3^{km},MD3.8/8

NEIC 07 04:28:19.1,3446N×2531E,h30^{km},MD3.8(ATH),After ATH.

HLW 07 04:28:23.5,3471N×2616E,h33^{km},Mb3.6

ISC 07 04:28:20.4±0.4,3443N±003×2539E±005,h46^{km}±9^{km},n47, σ0^{s}96/53,mb3.6/3,2C-1D,Crete

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XRY	**Khrisi**	**0.51**	**30**	*e*Pn	**Pn**	**04 28 30.0**	**-1.5**
XRY	**Khrisi**	**0.51**	**30**	*e*PN	**Pn**	**04 28 30.0**	**-1.5**
XRY	**Khrisi**	**0.51**	**30**	*e*Pn	**Pn**	**04 28 30.0**	**-1.5**
LAST	**Lasithi**	**0.73**	**6**	P	**Pn**	**04 28 32.9**	**-1.4**
NPS	**Neapolis**	**0.85**	**13**	*e*Pn	**Pn**	**04 28 35.5**	**-0.4**
NPS				*e*Sn	**Sn**	**04 28 47.7**	**+0.4**
NPS	**Neapolis**	**0.85**	**13**	*e*PN	**Pn**	**04 28 35.5**	**-0.4**
NPS				*e*SN	**Sn**	**04 28 47.7**	**+0.4**
NPS	**Neapolis**	**0.85**	**13**	*e*Pn	**Pn**	**04 28 35.5**	**-0.4**
NPS				*e*Sn	**Sn**	**04 28 47.7**	**+0.4**
IDI	**Anoyia**	**0.94**	**335**	P	**Pn**	**04 28 36.7**	**-0.5**
ZKR	**Zakros**	**0.96**	**45**	P	**Pn**	**04 28 38.7**	**+1.2**
GVD	**Gavdhos**	**1.15**	**291**	*e*Pn	**Pn**	**04 28 40.0**	**+0.1**
GVD	**Gavdhos**	**1.15**	**291**	*e*PN	**Pn**	**04 28 40.0**	**+0.1**
GVD	**Gavdhos**	**1.15**	**291**	*e*Pn	**Pn**	**04 28 40.0**	**+0.1**
VAM	**Vamos**	**1.38**	**315**	*e*Pn	**Pn**	**04 28 43.0**	**-0.1**
VAM	**Vamos**	**1.38**	**315**	*e*PN	**Pn**	**04 28 43.0**	**-0.1**
VAM	**Vamos**	**1.38**	**315**	*e*Pn	**Pn**	**04 28 43.0**	**-0.1**
KARP	**Karpathos**	**1.83**	**52**	*e*Pb	**Pn**	**04 28 51.6**	**+2.3**
KARP	**Karpathos**	**1.83**	**52**	*e*PB	**Pn**	**04 28 51.6**	**+2.3**
APE	**Apeiranthos**	**2.63**	**3**	*e*Pn	**Pn**	**04 29 00.8**	**+0.5**
APE	**Apeiranthos**	**2.63**	**3**	*e*PN	**Pn**	**04 29 00.8**	**+0.5**
APE	**Apeiranthos**	**2.63**	**3**	*e*Pn	**Pn**	**04 29 00.8**	**+0.5**
KYTH	**Kithira**	**2.66**	**314**	*e*Pn	**Pn**	**04 29 02.0**	**+1.3**
KYTH	**Kithira**	**2.66**	**314**	*e*PN	**Pn**	**04 29 02.0**	**+1.3**
KYTH	**Kithira**	**2.66**	**314**	*e*Pn	**Pn**	**04 29 02.0**	**+1.3**
LTBQ	**Tobruq**	**2.67**	**208**	*i* P	**Pn**	**04 29 02.2**	**+1.3**
	SNR=76						
LTBQ				*e*S	**Sn**	**04 29 30.8**	**-1.2**
	59nm,0.8s,SNR=76						
VLI	**Veliai**	**3.03**	**319**	*e*Pn	**Pn**	**04 29 06.0**	**+0.2**
VLI	**Veliai**	**3.03**	**319**	*e*PN	**Pn**	**04 29 06.0**	**+0.2**
VLI	**Veliai**	**3.03**	**319**	*e*Pn	**Pn**	**04 29 06.0**	**+0.2**
LJBD	**Adjabya**	**5.61**	**233**	*i* P	**Pn**	**04 29 41.2**	**0.0**
	SNR=76						
LJBD				*e*S	**Sn**	**04 30 37.8**	**-6.5**
	45nm,0.5s,SNR=76						
HMYD	**Mayadein**	**6.52**	**134**	⇑P	**Pn**	**04 29 54.0**	**+0.3**
HNAT	**Natroun**	**6.53**	**136**	P	**Pn**	**04 29 54.6**	**+0.7**
HNAT				S	**Sn**	**04 31 01.6**	**-5.4**
AYT	**Al ‘Ayyat**	**6.79**	**132**	P	**Pn**	**04 29 58.3**	**+0.8**
GLL	**Jalalah**	**7.23**	**130**	⇑P	**Pn**	**04 30 03.4**	**0.0**
HHAG	**Hagoal**	**7.23**	**126**	P	**Pn**	**04 30 03.0**	**-0.5**
AMAG	**Maghara**	**7.61**	**118**	⇓P	**Pn**	**04 30 06.7**	**-2.0**
SUZ		**7.80**	**124**	P	**Pn**	**04 30 10.9**	**-0.3**
ZAF		**7.97**	**128**	P	**Pn**	**04 30 13.8**	**+0.2**
AKASG	**Malin Array Be**	**16.50**	**9**	Pn	**Pn**	**04 32 08.0**	**-0.3**
AKASG	**Malin Array Be**	**16.50**	**9**	Pn	**Pn**	**04 32 08.0**	**-0.3**
	1.2nm,0.3s,baz=197,slow=10,SNR=6.7						
AKASG	**Malin Array Be**	**16.50**	**9**	Pn	**Pn**	**04 32 08.0**	**-0.3**
GERES	**GERESS Array B**	**16.81**	**332**	Pn	**Pn**	**04 32 13.1**	**+0.8**
GERES	**GERESS Array B**	**16.81**	**332**	Pn	**Pn**	**04 32 13.1**	**+0.8**
	baz=146,slow=9.5,SNR=2.6						
GERES	**GERESS Array B**	**16.81**	**332**	Pn	**Pn**	**04 32 13.1**	**+0.8**
CLL	**Collm**	**19.11**	**336**	*e*P	**Pn**	**04 32 38.0**	**-2.3**
TORD	**Torodi Ar. Bea**	**30.17**	**231**	P	**P**	**04 34 26.9**	**+0.7**
	0.6nm,0.5s,mb3.5,baz=34,slow=8.7,SNR=17						
ARCES	**ARCESS Array B**	**35.15**	**0**	P	**P**	**04 35 09.3**	**+0.1**
ARCES	**ARCESS Array B**	**35.15**	**0**	P	**P**	**04 35 09.3**	**+0.1**
	2.6nm,1.0s,mb4.1,baz=185,slow=9.9,SNR=5.0						
MKAR	**Makanchi Array**	**44.02**	**56**	P	**P**	**04 36 22.6**	**-0.7**
	0.2nm,0.5s,mb3.1,baz=259,slow=9.9,SNR=3.7						

MOS 07 04:50:38.5±0.9,3608N×7082E,h160^{km},mb3.9/4,Error ellipse: s-maj=35.6km s-min=17.2km az=94.3

IDC 07 04:50:42.9±6.8,3624N×7110E,h186^{km}±58^{km},mb3.5/6, mb1 3.6/8,mb1mx3.3/20,mbtmp3.4/8,Error ellipse: s-maj=45.4km s-min=28.8km az=146.0

ISCJB 07 04:50:46.1±0.4,3660N±003×7114E±006,h214^{km}±6^{km}, mb3.6/6,Error ellipse: s-maj=7.7km s-min=5.0km az=173.8

NEIC 07 04:50:46.5±1.2,3654N×7117E,h210^{km}±13^{km},mb4.0/1, Error ellipse: s-maj=33.5km s-min=13.1km az=131.0

NNC 07 04:50:48.2±8.1,3713N×7078E,h0^{km},mb3.7,mpv3.3, Error ellipse: s-maj=65.4km s-min=54.8km az=16.0

ISC 07 04:50:47.0±0.4,3662N±003×7114E±006,h205^{km}±5^{km}, n42,σ0^{s}97/48,mb3.6/6,4C-2D,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**2.69**	**220**	*e*Pn	**Pn**	**04 51 33.4**	**0.0**
KBL				*e*Sn	**Sn**	**04 52 08.3**	**-1.1**
CEP	**Cherat**	**2.86**	**167**	⇑P	**Pn**	**04 51 36.2**	**+0.9**
CEP				S	**Sn**	**04 52 13.0**	**0.0**
CHCP	**Chirah Chowk**	**3.43**	**149**	P	**Pn**	**04 51 43.3**	**+1.3**
THW	**Thamme Wali**	**3.85**	**172**	P	**Pn**	**04 51 47.4**	**+0.3**
SBDP	**Sheikh Budin**	**4.32**	**184**	P	**Pn**	**04 51 51.4**	**-1.6**
DRP	**Derazinda**	**4.92**	**189**	P	**Pn**	**04 52 02.2**	**+1.6**
AML	**Almayashu**	**5.85**	**19**	P	**Pn**	**04 52 12.6**	**+0.3**
	SNR=23						
UCH	**Uchtor**	**6.18**	**24**	P	**Pn**	**04 52 16.8**	**+0.3**
	SNR=26						
KZA	**Kyzart**	**6.31**	**29**	P	**Pn**	**04 52 18.3**	**0.0**
	SNR=12						
EKS2	**Erkin-Say**	**6.37**	**18**	P	**Pn**	**04 52 19.4**	**+0.4**
	SNR=5.0						
KK31	**Karatay Array**	**6.50**	**356**	⇑P	**Pn**	**04 52 20.7**	**+0.1**
	2.8nm,0.3s,baz=174,slow=12,SNR=121						
KK31				⇓S	**Sn**	**04 53 28.8**	**-6.2**
	6.2nm,0.4s,baz=164,slow=15,SNR=15						
AAK	**Ala-Archa**	**6.54**	**22**	P	**Pn**	**04 52 21.9**	**+0.7**
	SNR=6.0						
AAK	**Ala-Archa**	**6.54**	**22**	*e*Pn	**Pn**	**04 52 20.4**	**-0.8**
	4.5nm,0.4s						
AAK				*e*Sn	**Sn**	**04 53 35.5**	**-0.5**
AAK	**Ala-Archa**	**6.54**	**22**	*e*PN	**Pn**	**04 52 20.4**	**-0.8**
AAK				pmax	pmax		
	comp=Z,5.0nm,0.4s						
TKM2	**Tokmak 2**	**7.17**	**27**	P	**Pn**	**04 52 29.9**	**+0.6**
	SNR=8.6						
TKM2	**Tokmak 2**	**7.17**	**27**	⇑Pn	**Pn**	**04 52 29.2**	**-0.1**
	comp=Z,0.7nm,0.8s						
TKM2				⇑Sn	**Sn**	**04 53 49.3**	**-1.4**
	comp=Z,0.4nm,0.7s						
MKAR	**Makanchi Array**	**13.13**	**36**	P	**Pn**	**04 53 46.4**	**+0.7**
MKAR	**Makanchi Array**	**13.13**	**36**	P	**Pn**	**04 53 46.4**	**+0.7**
	comp=Z,0.4nm,0.3s,baz=207,slow=11,SNR=15						
KOLN	**Koldanda**	**13.74**	**126**	*e*P	**Pn**	**04 53 53.5**	**-0.1**
	comp=Z,7.8nm,0.2s						
GKN	**Gorkha**	**14.27**	**123**	*e*P	**Pn**	**04 53 58.8**	**-1.3**
DMN	**Daman**	**14.84**	**123**	*e*P	**Pn**	**04 54 06.9**	**-0.2**
	comp=Z,20nm,0.4s						
KKN	**Kakani**	**14.84**	**122**	*e*P	**Pn**	**04 54 06.3**	**-0.8**
	comp=Z,31nm,0.6s						
AB31	**Akbulak array**	**15.04**	**331**	Pn	**Pn**	**04 54 11.0**	**+1.7**
	comp=Z,0.4nm,0.3s,baz=134,slow=12,SNR=23						
AB31				⇓Sn	**S**	**04 56 52.3**	**-3.6**
	comp=Z,0.6nm,0.5s,baz=165,slow=23,SNR=4.6						
PKI	**Pulchoki**	**15.07**	**123**	*e*P	**Pn**	**04 54 09.6**	**-0.3**
GUN	**Gumba**	**15.18**	**121**	*e*P	**Pn**	**04 54 10.3**	**-0.9**
	comp=Z,21nm,0.4s						
JIRN	**Jiri**	**15.55**	**121**	*e*P	**Pn**	**04 54 14.5**	**-1.2**
AKTK	**Aktyubinsk**	**16.74**	**330**	P	**P**	**04 54 29.0**	**+0.6**
AKTO	**Aktyubinsk**	**16.74**	**330**	P	**P**	**04 54 29.0**	**+0.5**
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO	**Aktyubinsk**	**16.74**	**330**	P	**P**	**04 54 29.0**	**+0.6**
	comp=Z,1.0nm,0.3s,baz=134,slow=8.8,SNR=17						
TAPN	**Taplejung**	**16.80**	**119**	*e*P	**P**	**04 54 31.0**	**+1.6**
	comp=Z,19nm,0.6s						
ODAN	**Odare**	**16.88**	**121**	*e*P	**P**	**04 54 32.6**	**+2.3**
AKASG	**Malin Array Be**	**32.96**	**309**	P	**P**	**04 57 01.8**	**-0.4**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	**Malin Array Be**	**32.96**	**309**	P	**P**	**04 57 01.8**	**-0.3**
	comp=Z,0.7nm,0.4s,mb3.5,baz=80,slow=7.5,SNR=4.9						
FINES	**FINESS Array B**	**37.45**	**326**	P	**P**	**04 57 40.3**	**0.0**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	**FINESS Array B**	**37.45**	**326**	P	**P**	**04 57 40.3**	**0.0**
	comp=Z,1.3nm,0.5s,mb3.7,baz=124,slow=9.5,SNR=9.8						
ARCES	**ARCESS Array B**	**41.08**	**338**	P	**P**	**04 58 10.6**	**+0.4**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARCES	**ARCESS Array B**	**41.08**	**338**	P	**P**	**04 58 10.6**	**+0.4**
	comp=Z,1.5nm,0.6s,mb3.6,baz=118,slow=8.9,SNR=20						
NB2	**NORSAR Subarra**	**44.36**	**323**	P	**P**	**04 58 35.9**	**-0.7**
	comp=Z,1.4nm,0.5s,mb3.5,baz=97,slow=7.9						
NOA	**NORSAR Array B**	**44.36**	**323**	P	**P**	**04 58 36.2**	**-0.4**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	**NORSAR Array B**	**44.36**	**323**	P	**P**	**04 58 36.2**	**-0.4**
	comp=Z,2.2nm,0.6s,mb3.7,baz=97,slow=7.7,SNR=9.6						
TORD	**Torodi Ar. Bea**	**65.84**	**269**	P	**P**	**05 01 08.3**	**-2.4**
	comp=Z,1.0nm,0.4s,mb3.8,baz=52,slow=6.1,SNR=34						
YKA	**Yellowknife Ar**	**81.12**	**3**	P	**P**	**05 02 39.1**	**+0.1**
	comp=Z,0.4nm,0.4s,mb3.4,baz=351,slow=5.3,SNR=10						

CSEM 07 05:14:24.7±1.5,3994N×4181E,h18^{km}±7^{km},MD3.0,Error ellipse: s-maj=87.5km s-min=6.5km az=8.0

ISK 07 05:14:25.9,3971N×4179E,h3^{km},MD3.0

ISCJB 07 05:14:26.6±0.6,3965N±004×4177E±004,h3^{km},Error ellipse: s-maj=6.7km s-min=3.9km az=19.9

DDA 07 05:14:26.8,3978N×4182E,h8^{km},Md2.6

ISC 07 05:14:27.3±0.6,3966N±005×4176E±004,h3^{km}±17^{km},n8, σ0^{s}83/14,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ERZM	**Erzurum**	**0.39**	**309**	*i* P	**Pg**	**05 14 34.0**	**-0.8**
ERZM				*i* S	**Sg**	**05 14 41.0**	**+1.1**
EZM	**Erzurum**	**0.39**	**308**	PG	**Pg**	**05 14 34.2**	**-0.7**
EZM				SG	**Sg**	**05 14 40.1**	**+0.1**
BNGL	**BINGOL**	**0.85**	**214**	*i* P	**Pg**	**05 14 45.0**	**+1.4**
BNGL				*i* S	**Sg**	**05 14 54.0**	**-0.7**
TUTA	**Tutak**	**0.85**	**107**	*i* P	**Pg**	**05 14 43.0**	**-0.7**
TUTA				*i* S	**Sg**	**05 14 55.6**	**+0.9**
AGRB	**Hanur-Agry**	**0.95**	**95**	*e*PG	**Pg**	**05 14 44.4**	**-1.2**
AGRB				*e*SG	**Sg**	**05 14 58.5**	**+0.6**
AGRB	**Hanur-Agry**	**0.95**	**95**	*e*Pg	**Pg**	**05 14 44.4**	**-1.2**
AGRB				*e*Sg	**Sg**	**05 14 58.5**	**+0.6**
PTK	**Pertek**	**1.99**	**248**	*e*PN	**Pn**	**05 15 02.0**	**+0.1**
PTK	**Pertek**	**1.99**	**248**	*e*Pn	**Pn**	**05 15 02.0**	**+0.1**

CSEM 07 05:25:11.8±0.1,3638N×2997E,h30^{km},MD3.7,Error ellipse: s-maj=1.7km s-min=1.0km az=82.0

MOS 07 05:25:12.3±1.9,3647N×3007E,h33^{km},mb4.1/7,Error ellipse: s-maj=11.2km s-min=8.3km az=135.7

ISCJB 07 05:25:13.3±0.2,3639N±002×2998E±002,h61^{km}±3^{km}, mb4.5/17,Error ellipse: s-maj=3.1km s-min=2.9km az=137.4

ATH 07 05:25:13.4,3652N×2992E,h83^{km}±1^{km}

DDA 07 05:25:13.9,3655N×2998E,h29^{km},Md3.4

ISK 07 05:25:14.5,3655N×2994E,h52^{km},MD3.7

NEIC 07 05:25:14.0,3657N×2995E,h28^{km},mb4.1/2,MD3.6(ISK), ML3.7(ATH),After ISK.

IDC 07 05:25:15.9±1.6,3650N×2993E,h67^{km}±17^{km},mb3.9/7, mb1 4.0/12,mb1mx3.8/22,mbtmp3.9/12,MS3.1/2, Ms1 3.1/2,ms1mx2.5/30,Error ellipse: s-maj=20.1km s-min=12.6km az=133.0

HLW 07 05:25:22.4,3582N×3028E,h33^{km},Mb3.9

ISC 07 05:25:14.8±0.2,3640N±002×2996E±002,h56^{km}±3^{km}, n203,σ0^{s}97/235,mb4.5/17,MS3.0/2,4C-8D,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKAS	**Kas**	**0.33**	**240**	*i* P	**Pn**	**05 25 23.8**	**-1.0**
AKAS				*i* S	**Sn**	**05 25 31.6**	**-0.3**
AKAS	**Kas**	**0.33**	**240**	*i* P	**Pn**	**05 25 23.8**	**-0.9**
AKAS				*i* S	**Sn**	**05 25 31.5**	**-0.4**
ELL	**Elmali**	**0.35**	**354**	*i* PG	**Pn**	**05 25 22.9**	**-2.1**
ELL	**Elmali**	**0.35**	**354**	*i* Pg	**Pn**	**05 25 22.9**	**-2.1**
FETY	**Fethiye**	**0.74**	**289**	PG	**Pn**	**05 25 29.1**	**-0.2**
FETY	**Fethiye**	**0.74**	**289**	*e*Pg	**Pn**	**05 25 29.1**	**-0.2**
ANTB	**Antalya**	**0.75**	**48**	*i* PG	**Pn**	**05 25 28.8**	**-0.7**
ANTB				*i* SG	**Sn**	**05 25 39.0**	**-1.2**
ANTB	**Antalya**	**0.75**	**48**	*i* Pg	**Pn**	**05 25 28.8**	**-0.7**
ANTB				*i* Sg	**Sn**	**05 25 39.0**	**-1.2**
GOLH	**Golhisar**	**0.89**	**339**	*i* P	**Pn**	**05 25 31.5**	**+0.2**
GOLH				*i* S	**Sn**	**05 25 40.4**	**-3.0**
DALT	**Dalyan (Mudla)**	**1.12**	**290**	PG	**Pn**	**05 25 34.6**	**+0.3**
DALT	**Dalyan (Mudla)**	**1.12**	**290**	*e*Pg	**Pn**	**05 25 34.6**	**+0.3**
ARG	**Arkhangelos**	**1.49**	**263**	*e*P	**Pn**	**05 25 39.5**	**+0.3**
ARG				*e*S	**Sn**	**05 25 59.0**	**+1.4**
ARG	**Arkhangelos**	**1.49**	**263**	⇑*i*P	**Pn**	**05 25 39.2**	**0.0**
ISP	**Isparta**	**1.51**	**17**	PN	**Pn**	**05 25 38.9**	**-0.6**
ISP	**Isparta**	**1.51**	**17**	*e*Pn	**Pn**	**05 25 39.4**	**-0.1**
ISP				*e*Pg	**Pn**	**05 25 45.6**	**+6.1**
ISP	**Isparta**	**1.51**	**17**	*e*P	**Pn**	**05 25 39.4**	**-0.1**
ISP				*e*		05 25 45.6	
YER	**Yerkesik**	**1.53**	**299**	PN	**Pn**	**05 25 40.1**	**+0.3**
YER	**Yerkesik**	**1.53**	**299**	*e*Pn	**Pn**	**05 25 40.1**	**+0.3**
DENT	**Denizli**	**1.54**	**332**	PN	**Pn**	**05 25 39.4**	**-0.5**
DENT	**Denizli**	**1.54**	**332**	*e*Pn	**Pn**	**05 25 39.4**	**-0.5**
DAT	**Datca**	**1.94**	**280**	PN	**Pn**	**05 25 45.5**	**+0.1**
DAT	**Datca**	**1.94**	**280**	*e*Pn	**Pn**	**05 25 45.5**	**+0.1**
KHL	**Karahalli**	**1.95**	**350**	PN	**Pn**	**05 25 44.8**	**-0.7**
KHL	**Karahalli**	**1.95**	**350**	*e*Pn	**Pn**	**05 25 44.8**	**-0.7**
MLSB	**Milas**	**1.96**	**298**	PN	**Pn**	**05 25 46.2**	**+0.6**
MLSB	**Milas**	**1.96**	**298**	*e*Pn	**Pn**	**05 25 46.2**	**+0.6**
BDRM	**Kayabasi**	**2.12**	**289**	*i* P	**Pn**	**05 25 48.3**	**+0.5**
BDRM				*i* S	**Sn**	**05 26 13.6**	**+0.5**
SHUT	**Suhut-Afyon**	**2.20**	**12**	PN	**Pn**	**05 25 48.8**	**-0.1**
SHUT	**Suhut-Afyon**	**2.20**	**12**	*e*Pn	**Pn**	**05 25 48.8**	**-0.1**
BODT	**Bodrum**	**2.23**	**288**	PN	**Pn**	**05 25 49.7**	**+0.5**
BODT	**Bodrum**	**2.23**	**288**	*e*Pn	**Pn**	**05 25 49.7**	**+0.5**
NISR	**Nisiros**	**2.29**	**276**	*e*P	**Pn**	**05 25 50.5**	**+0.4**
ERMK	**Ermenek**	**2.40**	**83**	*i* P	**Pn**	**05 25 54.7**	**+3.1**
ERMK				*i* S	**Sn**	**05 26 24.3**	**+4.6**
KARP	**Karpathos**	**2.42**	**250**	*e*P	**Pn**	**05 25 52.8**	**+0.9**
KARP	**Karpathos**	**2.42**	**250**	⇑*i*P	**Pn**	**05 25 52.7**	**+0.8**
KONT	**Konya--Tatoy**	**2.46**	**51**	PN	**Pn**	**05 25 53.3**	**+0.8**
KONT	**Konya--Tatoy**	**2.46**	**51**	*e*Pn	**Pn**	**05 25 53.3**	**+0.8**
ALT	**Altintas**	**2.65**	**3**	PN	**Pn**	**05 25 54.1**	**-1.0**
ALT	**Altintas**	**2.65**	**3**	*e*Pn	**Pn**	**05 25 54.1**	**-1.0**
GDZ	**Gediz**	**2.71**	**352**	*i* P	**Pn**	**05 25 55.3**	**-0.6**
GDZ				*i* S	**Sn**	**05 26 23.7**	**-3.8**
KDHN	**Kadinhani**	**2.73**	**38**	*i* P	**Pn**	**05 25 56.8**	**+0.7**
KDHN				*i* S	**Sn**	**05 26 30.4**	**+2.5**
SMG	**Samos**	**2.82**	**299**	*e*P	**Pn**	**05 25 56.9**	**-0.4**
SMG	**Samos**	**2.82**	**299**	*e*P	**Pn**	**05 25 56.8**	**-0.5**
KIZT	**Kizilcal**	**2.91**	**31**	PN	**Pn**	**05 25 58.7**	**+0.1**
KIZT	**Kizilcal**	**2.91**	**31**	*e*Pn	**Pn**	**05 25 58.7**	**+0.1**
KDAG	**Bornova**	**2.93**	**314**	*i* P	**Pn**	**05 25 58.3**	**-0.6**
KDAG				*i* S	**Sn**	**05 26 24.6**	**-8.2**
AKS	**Akhisar**	**3.00**	**326**	PN	**Pn**	**05 25 58.8**	**-1.1**
AKS	**Akhisar**	**3.00**	**326**	*e*Pn	**Pn**	**05 25 58.8**	**-1.1**
IKL	**Isikli**	**3.02**	**92**	PN	**Pn**	**05 26 00.9**	**+0.8**
IKL	**Isikli**	**3.02**	**92**	*e*Pn	**Pn**	**05 26 00.9**	**+0.8**
BLCB	**Balcova**	**3.05**	**311**	PN	**Pn**	**05 25 59.8**	**-0.7**
BLCB	**Balcova**	**3.05**	**311**	*e*Pn	**Pn**	**05 25 59.8**	**-0.7**
ESKT	**Eskisehir**	**3.19**	**13**	PN	**Pn**	**05 26 02.1**	**-0.4**
ESKT	**Eskisehir**	**3.19**	**13**	*i* P	**Pn**	**05 26 02.1**	**-0.4**
ESKT				*i* S	**Sn**	**05 26 39.1**	**-0.2**
ESKT	**Eskisehir**	**3.19**	**13**	*e*Pn	**Pn**	**05 26 02.1**	**-0.4**
SEYT	**Eskypehyr**	**3.19**	**13**	*i* P	**Pn**	**05 26 02.1**	**-0.4**
SEYT				*i* S	**Sn**	**05 26 39.2**	**-0.1**
ZKR	**Zakros**	**3.30**	**248**	P	**Pn**	**05 26 05.4**	**+1.5**
APE	**Apeiranthos**	**3.62**	**282**	*e*P	**Pn**	**05 26 08.4**	**+0.1**
APE				*e*S	**Sn**	**05 26 48.4**	**-1.3**
APE	**Apeiranthos**	**3.62**	**282**	*e*P	**Pn**	**05 26 08.5**	**+0.2**
MERS	**Mersin**	**3.70**	**81**	PN	**Pn**	**05 26 10.4**	**+0.9**
MERS	**Mersin**	**3.70**	**81**	*e*Pn	**Pn**	**05 26 10.4**	**+0.9**
NPS	**Neapolis**	**3.71**	**253**	*e*P	**Pn**	**05 26 09.9**	**+0.4**
NPS	**Neapolis**	**3.71**	**253**	⇓*i*P	**Pn**	**05 26 09.8**	**+0.3**
ULDT	**Uludag**	**3.79**	**350**	*i* P	**Pn**	**05 26 10.1**	**-0.6**
LAST	**Lasithi**	**3.84**	**253**	P	**Pn**	**05 26 12.3**	**+0.9**
GPA	**Golpazari**	**3.89**	**4**	PN	**Pn**	**05 26 11.4**	**-0.7**
GPA	**Golpazari**	**3.89**	**4**	*e*Pn	**Pn**	**05 26 11.4**	**-0.7**
IZI	**Iznik**	**3.95**	**355**	PN	**Pn**	**05 26 12.2**	**-0.6**
IZI	**Iznik**	**3.95**	**355**	*e*Pn	**Pn**	**05 26 12.2**	**-0.6**
ADVT	**Abdulvahap**	**4.03**	**358**	*e*PN	**Pn**	**05 26 13.6**	**-0.3**
ADVT	**Abdulvahap**	**4.03**	**358**	*e*Pn	**Pn**	**05 26 13.6**	**-0.3**
KCT	**Karacabey**	**4.06**	**342**	PN	**Pn**	**05 26 13.4**	**-0.9**
KCT	**Karacabey**	**4.06**	**342**	*e*Pn	**Pn**	**05 26 13.4**	**-0.9**
GEMT	**Gemlik**	**4.07**	**352**	*e*PN	**Pn**	**05 26 14.1**	**-0.4**
GEMT	**Gemlik**	**4.07**	**352**	*e*Pn	**Pn**	**05 26 14.1**	**-0.4**
NIG	**Nigde**	**4.09**	**64**	*e*PN	**Pn**	**05 26 16.3**	**+1.6**
NIG	**Nigde**	**4.09**	**64**	*e*Pn	**Pn**	**05 26 16.3**	**+1.6**
ANTO	**Ankara**	**4.12**	**32**	*e*PN	**Pn**	**05 26 15.7**	**+0.5**
ANTO	**Ankara**	**4.12**	**32**	*e*Pn	**Pn**	**05 26 15.9**	**+0.7**
ANTO				*e*Pg	**Pn**	**05 26 32.3**	**+17**
ANTO	**Ankara**	**4.12**	**32**	*e*P	**Pn**	**05 26 15.9**	**+0.7**
ANTO	**Ankara**	**4.12**	**32**	*e*Pn	**Pn**	**05 26 15.7**	**+0.5**
ANTO	**Ankara**	**4.12**	**32**	*e*Pg	**Pn**	**05 26 32.3**	**+17**
LOD	**Lodumlu**	**4.13**	**32**	*e*PN	**Pn**	**05 26 15.4**	**+0.1**
LOD	**Lodumlu**	**4.13**	**32**	*e*Pn	**Pn**	**05 26 15.4**	**+0.1**
YLV	**Yalova**	**4.19**	**354**	*e*PN	**Pn**	**05 26 15.6**	**-0.5**
YLV	**Yalova**	**4.19**	**354**	*e*Pn	**Pn**	**05 26 15.6**	**-0.5**
KAMT	**Kaman**	**4.20**	**44**	*e*PN	**Pn**	**05 26 16.7**	**+0.5**
KAMT	**Kaman**	**4.20**	**44**	*e*Pn	**Pn**	**05 26 16.7**	**+0.5**
IDI	**Anoyia**	**4.26**	**256**	P	**Pn**	**05 26 17.1**	**-0.1**
	16nm,0.3s,baz=60,slow=14,SNR=65						
IDI				S	**Sn**	**05 27 02.9**	**-2.7**
	6.9nm,0.3s,baz=161,slow=18,SNR=2.3						
IDI	**Anoyia**	**4.26**	**256**	P	**Pn**	**05 26 17.0**	**-0.1**
IDI				S	**Sn**	**05 27 02.9**	**-2.6**
BNT	**Bandirma**	**4.26**	**339**	*e*PN	**Pn**	**05 26 16.7**	**-0.4**
BNT	**Bandirma**	**4.26**	**339**	*e*Pn	**Pn**	**05 26 16.7**	**-0.4**
EDC	**Edincik**	**4.27**	**338**	*e*PN	**Pn**	**05 26 17.0**	**-0.2**
EDC	**Edincik**	**4.27**	**338**	*e*Pn	**Pn**	**05 26 17.0**	**-0.2**
BR131	**Keskin Array S**	**4.41**	**40**	*e*Pn	**Pn**	**05 26 19.3**	**+0.2**
BR131				*e*Sn	**Sn**	**05 27 10.6**	**+1.4**
BR131	**Keskin Array S**	**4.41**	**40**	*e*Pn	**Pn**	**05 26 19.3**	**+0.1**
BR131				*e*Sn	**Sn**	**05 27 10.6**	**+1.4**
BRTR	**Keskin Array B**	**4.41**	**40**	P	**Pn**	**05 26 19.5**	**+0.3**
BRTR				S	**Sn**	**05 27 10.9**	**+1.7**
BRTR				pmax	pmax		
	comp=Z,8.0nm,0.3s						
BRTR				smax			
	comp=N,10.0nm,0.3s						
BRTR	**Keskin Array B**	**4.41**	**40**	P	**Pn**	**05 26 19.5**	**+0.3**
	comp=N,7.5nm,0.3s,baz=345,slow=9.5,SNR=240						
BRTR				S	**Sn**	**05 27 10.8**	**+1.6**
	comp=N,10nm,0.3s,baz=211,slow=24,SNR=14						
HRT	**Hereke**	**4.42**	**357**	*e*PN	**Pn**	**05 26 18.8**	**-0.5**
HRT	**Hereke**	**4.42**	**357**	*e*Pn	**Pn**	**05 26 18.8**	**-0.5**
EZN	**Ezine**	**4.46**	**321**	*e*PN	**Pn**	**05 26 20.2**	**+0.4**
EZN	**Ezine**	**4.46**	**321**	*e*Pn	**Pn**	**05 26 20.2**	**+0.4**
SGKT	**Sivrigoynuk**	**4.48**	**21**	*i* P	**Pn**	**05 26 21.2**	**+1.1**
SGKT				*i* S	**Sn**	**05 27 12.4**	**+1.5**
LPK	**Lapseki**	**4.69**	**329**	*e*PN	**Pn**	**05 26 23.2**	**+0.2**
LPK	**Lapseki**	**4.69**	**329**	*e*Pn	**Pn**	**05 26 23.2**	**+0.2**
CDAG	**Cicekdag**	**4.75**	**46**	*i* P	**Pn**	**05 26 24.9**	**+1.2**
CDAG				*i* S	**Sn**	**05 27 16.1**	**-1.3**
VAM	**Vamos**	**4.78**	**260**	*e*P	**Pn**	**05 26 25.3**	**+1.1**
VAM	**Vamos**	**4.78**	**260**	*e*P	**Pn**	**05 26 25.2**	**+1.0**
RKY	**Sarkoy-Tekirda**	**4.80**	**334**	*e*PN	**Pn**	**05 26 24.3**	**-0.2**
RKY	**Sarkoy-Tekirda**	**4.80**	**334**	*e*Pn	**Pn**	**05 26 24.3**	**-0.2**
MFT	**Murefte**	**4.86**	**335**	*e*PN	**Pn**	**05 26 24.7**	**-0.5**
MFT	**Murefte**	**4.86**	**335**	*e*Pn	**Pn**	**05 26 24.7**	**-0.5**
KLYT	**Kilyos**	**4.90**	**352**	*e*PN	**Pn**	**05 26 25.7**	**-0.1**
KLYT	**Kilyos**	**4.90**	**352**	*e*Pn	**Pn**	**05 26 25.7**	**-0.1**
GADA	**Gvkgeada**	**4.95**	**321**	*e*PN	**Pn**	**05 26 26.5**	**0.0**
GADA	**Gvkgeada**	**4.95**	**321**	*e*Pn	**Pn**	**05 26 26.5**	**0.0**
GVD	**Gavdhos**	**5.03**	**254**	*e*Pn	**Pn**	**05 26 28.4**	**+0.8**
	comp=N,54nm,0.6s						
GVD	**Gavdhos**	**5.03**	**254**	*e*Pn	**Pn**	**05 26 28.4**	**+0.8**
	comp=N,54nm,0.6s						
KDZE	**Karadeniz Ereo**	**5.04**	**13**	*e*PN	**Pn**	**05 26 27.8**	**0.0**
KDZE	**Karadeniz Ereo**	**5.04**	**13**	*e*Pn	**Pn**	**05 26 27.8**	**0.0**
COBT	**Iskenderun**	**5.08**	**87**	*i* P	**Pn**	**05 26 29.0**	**+0.7**
CANT	**Cankiri**	**5.09**	**33**	*e*PN	**Pn**	**05 26 28.7**	**+0.3**
LIA	**Limnos Island**	**5.13**	**314**	P	**Pn**	**05 26 32.1**	**+3.1**
BHL	**Bhannes**	**5.29**	**116**	*e*Pn	**Pn**	**05 26 30.8**	**-0.5**
BHL	**Bhannes**	**5.29**	**116**	*e*Pn	**Pn**	**05 26 30.8**	**-0.4**
HWQ	**Hawqa**	**5.33**	**112**	*e*Pn	**Pn**	**05 26 32.8**	**+1.0**
HWQ	**Hawqa**	**5.33**	**112**	*e*Pn	**Pn**	**05 26 32.8**	**+1.0**
KYTH	**Kithira**	**5.59**	**271**	*e*P	**Pn**	**05 26 36.0**	**+0.7**
KYTH	**Kithira**	**5.59**	**271**	*e*P	**Pn**	**05 26 37.0**	**+1.7**
MMAI	**Mount Meron Ar**	**5.62**	**125**	P	**Pn**	**05 26 35.0**	**-0.7**
	comp=N,8.3nm,0.3s,baz=307,slow=12,SNR=24						
MMAI				S	**Sn**	**05 27 36.0**	**-2.8**
	comp=N,9.6nm,0.3s,baz=313,slow=29,SNR=6.4						
TOS	**Tosya**	**5.62**	**33**	*e*PN	**Pn**	**05 26 36.3**	**+0.6**
TOS	**Tosya**	**5.62**	**33**	*e*Pn	**Pn**	**05 26 36.3**	**+0.6**
RCY	**Rachaya**	**5.62**	**119**	*e*Pn	**Pn**	**05 26 35.3**	**-0.5**
VLI	**Veliai**	**5.66**	**275**	*e*P	**Pn**	**05 26 36.3**	**+0.1**
VLI	**Veliai**	**5.66**	**275**	⇓*i*P	**Pn**	**05 26 37.5**	**+1.3**
CTKT	**Corum**	**5.67**	**40**	*i* P	**Pn**	**05 26 37.5**	**+1.1**
CTKT				*i* S	**Sn**	**05 27 39.0**	**-1.1**
NEO	**Neokhori**	**6.07**	**301**	P	**Pn**	**05 26 43.7**	**+1.9**
AMAG	**Maghara**	**6.35**	**154**	P	**Pn**	**05 26 45.5**	**-0.3**
ITM	**Ithomi**	**6.49**	**279**	*e*P	**Pn**	**05 26 50.1**	**+2.5**
SQR		**6.58**	**171**	P	**Pn**	**05 26 48.7**	**-0.2**
LTBQ	**Tobruq**	**6.61**	**231**	*i* P	**Pn**	**05 26 47.8**	**-1.6**
	SNR=46						
LTBQ				*e*S	**Sn**	**05 28 00.3**	**-3.0**
	comp=N,10nm,0.8s,SNR=46						
HMYD	**Mayadein**	**6.62**	**174**	⇓P	**Pn**	**05 26 49.7**	**+0.2**
HHAG	**Hagoal**	**6.67**	**164**	P	**Pn**	**05 26 50.1**	**-0.1**
FYM	**Al Fayyum**	**6.75**	**172**	P	**Pn**	**05 26 51.4**	**+0.2**
FYM	**Al Fayyum**	**6.75**	**172**	P	**Pn**	**05 26 51.4**	**+0.1**
	comp=N,5µm,0.1s						
AYT	**Al ‘Ayyat**	**6.75**	**171**	⇓P	**Pn**	**05 26 51.3**	**0.0**
HNAT	**Natroun**	**6.77**	**175**	⇓P	**Pn**	**05 26 51.4**	**-0.2**
HNAT	**Natroun**	**6.77**	**175**	P	**Pn**	**05 26 51.3**	**-0.2**
HSAF	**As Saff**	**6.89**	**168**	P	**Pn**	**05 26 53.2**	**0.0**
GLL	**Jalalah**	**6.96**	**167**	P	**Pn**	**05 26 53.7**	**-0.5**
GLL				S	**Sn**	**05 28 00.9**	**-11**
SUZ		**6.97**	**159**	⇓P	**Pn**	**05 26 54.1**	**-0.2**
SUZ		**6.97**	**159**	P	**Pn**	**05 26 54.1**	**-0.2**
	comp=N,870nm,0.0s						
MALT	**Malatya**	**7.01**	**72**	*e*Pn	**Pn**	**05 26 54.8**	**0.0**
	comp=N,4.5nm,0.8s						
MALT	**Malatya**	**7.01**	**72**	*e*P	**Pn**	**05 26 54.8**	**0.0**
MALT				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MALT	**Malatya**	**7.01**	**72**	⇓*i*P	**Pn**	**05 26 56.7**	**+1.9**
MALT	**Malatya**	**7.01**	**72**	*e*P	**Pn**	**05 26 54.8**	**0.0**
	comp=Z,5.0nm,0.8s						
ASF	**Jabal al Asfar**	**7.13**	**124**	P	**Pn**	**05 26 59.0**	**+2.6**
ASF				S	**Sn**	**05 28 13.5**	**-2.4**
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF	**Jabal al Asfar**	**7.13**	**124**	P	**Pn**	**05 26 59.0**	**+2.6**
	comp=Z,1.1nm,0.3s,baz=133,slow=3.3,SNR=8.4						
ASF				S	**Sn**	**05 28 13.5**	**-2.4**
	baz=348,slow=20,SNR=1.9						
HNKL	**Nakhl**	**7.28**	**151**	P	**Pn**	**05 26 58.1**	**-0.4**
VLS	**Valsamata**	**7.67**	**286**	P	**Pn**	**05 27 07.9**	**+4.1**
EIL	**Elat**	**7.91**	**147**	P	**Pn**	**05 27 08.4**	**+1.3**
	comp=Z,1.2nm,0.3s,baz=352,slow=16,SNR=10						
EIL				S	**Sn**	**05 28 30.5**	**-4.8**
	comp=Z,2.4nm,0.3s,baz=299,slow=19,SNR=5.6						

TIRR	Tirgusor	8.13	352	⇑*i*P	Pn	05 27 10.0	-0.1
GRB	Gharib	8.45	163	P	Pn	05 27 13.8	-0.7
MLR	Muntele Rosu	9.57	343	P	Pn	05 27 30.0	+0.2
	comp=Z,0.3nm,0.3s,baz=224,slow=11,SNR=4.7						
MLR				S	Sn	05 29 20.5	+4.7
	comp=Z,0.2nm,0.3s,baz=24,slow=20,SNR=2.6						
MLR	Muntele Rosu	9.57	343	⇑*i*P	Pn	05 27 34.0	+4.2
VRI	Vrincioaia	9.77	347	⇓*i*P	Pn	05 27 35.1	+2.7
LJBD	Adjabya	9.80	239	*i* P	Pn	05 27 28.4	-4.5
	SNR=46						
LJBD				*e*S	Sn	05 29 12.1	-9.4
	comp=Z,55nm,0.4s,SNR=46						
TIP	Timpagrande	10.81	289	*e*Pn	Pn	05 27 45.7	-0.9
LJFR	Jufra	13.94	243	*i* P	Pn	05 28 27.5	-1.9
	SNR=53						
AKTK	Aktyubinsk	24.56	46	P	P	05 30 28.5	-0.6
AKTO	Aktyubinsk	24.56	46	P	P	05 30 28.5	-0.6
AKTO				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.2						
AKTO	Aktyubinsk	24.56	46	P	P	05 30 28.5	-0.6
	comp=Z,3.5nm,0.5s,mb4.2,baz=241,slow=8.9,SNR=20						
FINES	FINESS Array B	25.19	356	P	P	05 30 33.3	-1.3
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
FINES	FINESS Array B	25.19	356	P	P	05 30 33.3	-1.3
	comp=Z,2.4nm,0.7s,mb3.8,baz=163,slow=14,SNR=8.3						
NOA	NORSAR Array B	27.38	340	LR	LR	05 43 42.4	
	comp=Z,29nm,18.1s,MS2.9,baz=50,slow=41						
ARCES	ARCESS Array B	33.28	357	P	P	05 31 45.2	-1.2
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	ARCESS Array B	33.28	357	P	P	05 31 45.2	-1.2
	comp=Z,1.7nm,0.8s,mb4.0,baz=159,slow=7.7,SNR=3.1						
TOA0	Torodi Ar. Sit	34.33	235	*e*P	P	05 31 57.7	+1.6
TORD	Torodi Ar. Bea	34.33	235	P	P	05 31 57.7	+1.6
TORD	Torodi Ar. Bea	34.33	235	P	P	05 31 57.7	+1.6
	comp=Z,2.9nm,0.6s,mb4.4,baz=32,slow=8.9,SNR=58						
AAK	Ala-Archa	34.61	66	*e*P	P	05 31 57.7	-0.5
	comp=Z,1.3nm,0.5s,mb4.1						
AAK	Ala-Archa	34.61	66	*e*P	P	05 31 57.7	-0.6
AAK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
KURK	Kurchatov	37.36	52	*e*P	P	05 32 21.1	-0.6
	comp=Z,14nm,0.8s,mb4.8						
KURK	Kurchatov	37.36	52	*e*P	P	05 32 21.1	-0.6
KURK				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.8						
MK31	Makanchi Array	39.83	58	*e*P	P	05 32 42.1	-0.3
MKAR	Makanchi Array	39.83	58	P	P	05 32 42.1	-0.3
MKAR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MKAR				MLR	MLR		
	comp=Z,28nm,18.9s						
MKAR	Makanchi Array	39.83	58	P	P	05 32 42.1	-0.3
	comp=Z,7.3nm,0.6s,mb4.6,baz=281,slow=6.8,SNR=104						
MKAR				LR	LR	05 49 34.0	
	comp=Z,28nm,18.9s,MS3.1,baz=354,slow=37						
ZAL	Zalesovo	41.31	47	P	P	05 32 53.7	-0.8
ZALV	Zalesovo Beam	41.32	47	P	P	05 32 53.7	-0.9
	comp=Z,3.3nm,0.5s,mb4.2,baz=262,slow=8.2,SNR=16						
KOLN	Koldanda	45.76	85	*e*P	P	05 33 31.1	+0.4
	comp=Z,7.7nm,0.5s,mb4.9						
GKN	Gorkha	46.50	84	*e*P	P	05 33 36.8	+0.3
	comp=Z,15nm,0.7s,mb5.0						
DMN	Daman	47.04	84	*e*P	P	05 33 41.3	+0.5
	comp=Z,26nm,0.8s,mb5.2						
KKN	Kakani	47.10	84	*e*P	P	05 33 41.4	+0.2
	comp=Z,12nm,0.6s,mb5.0						
PKI	Pulchoki	47.30	84	*e*P	P	05 33 43.5	+0.7
GUN	Gumba	47.53	84	*e*P	P	05 33 44.9	+0.3
	comp=Z,5.3nm,0.4s,mb4.9						
ODAN	Odare	49.20	84	*e*P	P	05 33 57.1	-0.3
	comp=Z,4.4nm,0.5s,mb4.7						
TAPN	Taplejung	49.24	83	*e*P	P	05 33 57.6	-0.1
ZAK	Zakamensk	52.98	50	*e*P	P	05 34 24.9	-0.5
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
ULN	Ulaanbaatar	56.08	52	*e*P	P	05 34 47.1	-0.8
	comp=Z,1.4nm,0.6s,mb4.2						
ULN	Ulaanbaatar	56.08	52	*e*P	P	05 34 47.1	-0.8
ULN				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
YKA	Yellowknife Ar	77.40	344	P	P	05 37 03.2	-0.2
YKA	Yellowknife Ar	77.40	344	P	P	05 37 03.2	-0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	77.40	344	P	P	05 37 03.2	-0.2
	comp=Z,0.5nm,0.6s,mb3.6,baz=31,slow=5.4,SNR=9.6						

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*NEIC **07** 05:35:22.8±3.2, 33.67S×178.91W, h19^{km}±18^{km}, mb5.2/6, Error ellipse: s-maj=14.5km s-min=8.6km az=99.0*

*MOS **07** 05:35:25.1±1.5, 33.50S×179.15W, h33^{km}, mb5.4/2, Error ellipse: s-maj=22.4km s-min=18.8km az=83.3*

*IDC **07** 05:35:26.8±2.8, 33.52S×179.06W, h41^{km}±22^{km}, mb4.3/8, mb1 4.5/10, mb1mx4.3/16, mbtmp4.4/10, ML4.7/3, MS4.0/11, Ms1 4.0/11, ms1mx3.8/15, Error ellipse: s-maj=24.4km s-min=16.5km az=111.0*

*ISCJB **07** 05:35:27.9±1.4, 33.87S±0.05×179.5W±0.1, h47^{km}±12^{km}, mb4.7/11, MS4.0/10, Error ellipse: s-maj=17.5km s-min=8.5km az=10.4*

ISC 07 05:35:29.1±1.2,**33.78S**±0.06×**179.4W**±0.1,**h42**^{km}±10^{km}, **n151**,σ**1^{s}40**/83,**mb4.7**/11,**MS4.0**/10,**South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	4.21	205	*e*P	Pn	05 36 34.3	+3.7
MXZ	Matakaoa Point	4.21	205	*e*PN	Pn	05 36 32.6	+2.0
PUZ	Puketiti	4.68	203	*e*P	Pn	05 36 40.4	+3.3
PUZ				S	Sn	05 37 38.8	+8.6
PUZ	Puketiti	4.68	203	*e*PN	Pn	05 36 40.0	+2.9
PUZ				*e*SN	Sn	05 37 38.8	+8.6
RAO	Raoul Island	4.69	16	P	Pn	05 36 29.2	-8.2
	227nm,0.3s,baz=242,slow=23,SNR=6.1						
RAO				S	Sn	05 37 17.9	-13
	388nm,0.3s,baz=128,slow=23,SNR=4.4						
KUZ	Kuaotunu	4.96	232	*e*PN	Pn	05 36 46.7	+5.8
MWZ	Matawai	5.17	208	*e*P	Pn	05 36 46.7	+2.8
MWZ				S	Sn	05 37 49.9	+7.6
MWZ	Matawai	5.17	208	PN	Pn	05 36 46.6	+2.7
MWZ				*e*SN	Sn	05 37 49.6	+7.3
URZ	Urewera	5.28	211	P	Pn	05 36 48.0	+2.6
	30nm,0.3s,baz=60,slow=4.6,SNR=57						
URZ				S	Sn	05 37 52.0	+7.0
	16nm,0.3s,baz=168,slow=20,SNR=3.7						
URZ	Urewera	5.28	211	*e*PN	Pn	05 36 47.0	+1.6
URZ				*e*SN	Sn	05 37 52.4	+7.4
KNZ	Kokohu	5.73	203	*e*P	Pn	05 36 52.1	+0.5
KNZ	Kokohu	5.73	203	*e*PN	Pn	05 36 52.3	+0.7
BKZ	Black Stump Fm	6.30	210	*e*P	Pn	05 37 00.9	+1.5
BKZ	Black Stump Fm	6.30	210	*e*PN	Pn	05 37 00.3	+0.9
BKZ				*e*SN	Sn	05 38 16.8	+6.7
HIZ	Hauiti	6.62	223	*e*P	Pn	05 37 08.7	+5.0
HIZ	Hauiti	6.62	223	*e*PN	Pn	05 37 08.5	+4.9
MOVZ	Moawhango	6.83	213	P	Pn	05 37 09.0	+2.4
WNVZ	Wahianoa	6.83	214	P	Pn	05 37 10.2	+3.5
BFZ	Birch Farm	7.71	205	*e*P	Pn	05 37 17.4	-1.3
BFZ	Birch Farm	7.71	205	*e*PN	Pn	05 37 18.8	+0.2
BFZ				SN	Sn	05 38 45.4	+0.8
MRZ	Mangatainoka R	7.94	209	*e*P	Pn	05 37 21.3	-0.6
MRZ	Mangatainoka R	7.94	209	*e*PN	Pn	05 37 21.0	-0.9
MRZ				*e*SN	Sn	05 38 51.1	+0.8
KIW	Kapiti Island	8.39	211	P	Pn	05 37 26.7	-1.3
KIW	Kapiti Island	8.39	211	*e*PN	Pn	05 37 25.9	-2.0
KIW				SN	Sn	05 39 02.5	+1.2
CAW	Cannon Point	8.53	209	P	Pn	05 37 29.1	-0.8
SNZO	South Karori	8.84	210	*e*Pn	Pn	05 37 31.7	-2.6
	69nm,1.0s						
SNZO				*e*Sn	Sn	05 39 13.2	+0.7
SNZO	South Karori	8.84	210	PN	Pn	05 37 32.9	-1.3
SNZO				SN	Sn	05 39 11.7	-0.8
TCW	Tory Channel	8.95	212	P	Pn	05 37 34.2	-1.5
NNZ	Nelson	9.37	216	*e*P	Pn	05 37 40.4	-1.0
NNZ	Nelson	9.37	216	PN	Pn	05 37 40.3	-1.1
NNZ				*e*SN	Sn	05 39 24.7	-0.7
QRZ	Quartz Range	9.52	220	*e*P	Pn	05 37 42.1	-1.3
QRZ	Quartz Range	9.52	220	*e*PN	Pn	05 37 42.1	-1.3
THZ	Tophouse	10.02	215	*e*P	Pn	05 37 48.6	-1.7
THZ	Tophouse	10.02	215	*e*PN	Pn	05 37 48.6	-1.7
THZ				*e*SN	Sn	05 39 40.8	-0.5
KHZ	Kahutara	10.25	211	*e*P	Pn	05 37 52.0	-1.5
KHZ	Kahutara	10.25	211	*e*PN	Pn	05 37 52.2	-1.3
LTZ	Lake Taylor	11.10	214	SN	Sn	05 40 04.4	-3.5
MQZ	McQueen's Vall	11.68	210	*e*SN	Sn	05 40 16.2	-5.8
RPZ	Rata Peaks	12.39	214	P	Pn	05 38 19.0	-3.7
	1.4nm,0.3s,baz=285,slow=0.2,SNR=8.7						
RPZ				S	Sn	05 40 34.7	-4.6
	2.4nm,0.3s,baz=139,slow=20,SNR=5.4						
JCZ	Jackson Bay	13.78	218	*e*PN	Pn	05 38 40.9	-0.8
DZM	Mont Dzumac	17.07	309	*e*P	Pn	05 39 27.2	+2.6
DZM	Mont Dzumac	17.07	309	P	Pn	05 39 25.1	+0.5
	0.3nm,0.3s,baz=112,slow=15,SNR=22						
DZM				LR	LR	05 44 42.0	
	comp=Z,843nm,19.5s,baz=20,slow=32						
NOUC	Port Laguerre	17.14	309	*e*P	Pn	05 39 27.4	+1.9
NOUC	Port Laguerre	17.14	309	*e*P	Pn	05 39 27.4	+1.9
RAR	Rarotonga	21.41	59	LR	LR	05 45 32.2	
	comp=Z,555nm,19.8s,MS4.0,baz=227,slow=29						
HNR	Honiara	30.78	317	LR	LR	05 51 50.3	
	comp=Z,156nm,21.4s,MS3.6,baz=178,slow=32						
PAE	Paea	31.16	66	*e*T		06 13 24.9	
	70nm,0.2s						
PPT	Papeete	31.22	66	*e*LR	LR	05 49 39.7	
	803nm,26.5s,baz=235						
PPT	Papeete	31.22	66	*e*T		06 13 29.1	
	25nm,0.4s						
PPT	Papeete	31.22	66	LR	LR	05 50 55.3	
	comp=Z,315nm,20.0s,MS4.0,baz=270,slow=30						
TVO	Taravao	31.34	67	*e*T		06 13 38.7	
	10nm,0.4s						
STKA	Stephens Creek	32.69	262	P	P	05 41 59.2	+1.8
STKA				LR	LR	05 54 42.9	
STKA	Stephens Creek	32.69	262	P	P	05 41 59.2	+1.8
	1.7nm,0.7s,mb4.1,baz=81,slow=13,SNR=2.5						
STKA				LR	LR	05 54 42.9	
	comp=Z,524nm,18.4s,MS4.3,baz=282,slow=35						
CTA	Charters Tower	33.34	285	*e*P	P	05 42 04.8	+1.7
	25nm,0.6s,mb5.3						
CTA	Charters Tower	33.34	285	*e*P	P	05 42 04.8	+1.7
CTA				pmax	pmax		
	comp=Z,25nm,0.6s						
CTA	Charters Tower	33.34	285	P	P	05 42 04.8	+1.7
	comp=Z,28nm,0.6s,mb5.3,baz=102,slow=10.0,SNR=31						
CTAO	Charters Tower	33.34	285	*e*P	P	05 42 04.0	+0.9
	comp=Z,18nm,0.6s,mb5.2						
CTAO	Charters Tower	33.34	285	*e*P	P	05 42 04.0	+0.9
CTAO				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
PMOR	Pomariorio Ree	34.06	64	*e*T		06 17 00.6	
	comp=Z,4.4nm,0.3s						
VAH	Vaihoa	34.12	65	*e*T		06 17 04.9	
	comp=Z,39nm,0.3s						
RKT	Rikitea	40.23	87	*e*LR	LR	05 53 58.6	
	comp=Z,768nm,27.0s,baz=243						
WB2	Warramunga Arr	43.14	277	*e*P	P	05 43 25.6	0.0
WB2	Warramunga Arr	43.14	277	*e*P	P	05 43 25.0	-0.6
WRA	Warramunga Arr	43.15	277	P	P	05 43 25.3	-0.3
	comp=Z,4.7nm,0.3s,mb4.6,baz=115,slow=8.1,SNR=30						
WRA				LR	LR	06 00 20.4	
	comp=Z,146nm,21.9s,MS3.8,baz=115,slow=34						
TAOE	Nuku Hiva Isla	43.79	65	*e*LR	LR	05 55 26.9	
	comp=Z,1μm,26.8s						
KAKA	Kakadu	48.44	284	*e*P	P	05 44 06.5	-1.0
	comp=Z,19nm,0.8s,mb5.2						
FITZ	Fitzroy Crossi	51.25	273	*e*P	P	05 44 28.6	-0.2
	comp=Z,16nm,0.8s,mb5.0						
FITZ	Fitzroy Crossi	51.25	273	P	P	05 44 28.3	-0.5
	comp=Z,2.8nm,0.3s,mb4.7,baz=127,slow=9.5,SNR=17						
CASY	Casey	51.60	209	*e*P	P	05 44 31.7	+1.0
	comp=Z,40nm,1.1s,mb5.3						
NWAO	Narrogin (SRO)	52.15	252	P	P	05 44 34.2	-1.1
	comp=Z,7.6nm,0.7s,mb4.7,baz=106,slow=3.8,SNR=5.8						
KLBR	Kellerberrin	52.19	254	*e*P	P	05 44 34.3	-1.3
	comp=Z,44nm,1.4s,mb5.2						
MAW	Mawson	68.73	201	P	P	05 46 28.2	+0.3
	comp=Z,14nm,1.1s,mb4.8,baz=124,slow=7.6,SNR=8.6						
MAW				LR	LR	06 15 22.8	
	comp=Z,152nm,19.0s,MS4.2,baz=243,slow=35						
VNA3	Neumayer Olymp	75.02	177	*e*	P	05 47 06.6	+1.0
VNA3				*e*		05 47 12.4	
MAIT	Maitri	75.44	184	*e*P	P	05 47 11.9	+3.9
VNA2	Neumayer--Watz	75.44	177	*e*	P	05 47 09.3	+1.3
	baz=182,slow=4.0						
VNA2				*e*		05 47 14.8	
KSRS	Korea Array	86.16	321	P	P	05 48 02.3	-3.3
	comp=Z,1.1nm,0.6s,mb4.2,baz=150,slow=5.5,SNR=3.5						
KSRS				LR	LR	06 23 06.7	
	comp=Z,33nm,18.3s,MS3.8,baz=140,slow=33						
YSS	Yuzh-Sakhalins	87.28	335	*e*P	P	05 48 11.0	+0.2
NVAR	Mina Array Bea	91.52	43	P	P	05 48 28.2	-2.7
	comp=Z,0.5nm,0.8s,mb3.9,baz=217,slow=6.8,SNR=4.6						
TXAR	Lajitas Array	95.21	58	LR	LR	06 21 35.4	
	comp=Z,72nm,19.3s,MS4.2,baz=15,slow=29						
LPAZ	La Paz	97.83	115	LR	LR	06 23 51.2	
	comp=Z,40nm,18.5s,MS3.9,baz=32,slow=30						
PDAR	Pinedale Array	99.39	44	LR	LR	06 24 24.2	
	comp=Z,95nm,21.0s,MS4.3,baz=251,slow=30						
YKA	Yellowknife Ar	109.00	26	PKPdf	PKiKP	05 53 50.8	-2.3
YKA				PKKPbc	PKKPbc	06 04 59.4	-2.7
YKA	Yellowknife Ar	109.00	26	PKiKP	PKiKP	05 53 50.8	-2.3
	comp=Z,0.2nm,0.6s,baz=256,slow=1.6,SNR=4.3						
YKA				PKKPbc	PKKPbc	06 04 59.4	-2.7
	comp=Z,0.8nm,0.7s,baz=45,slow=3.1,SNR=12						
FCC	Fort Churchill	115.91	35	*e*PKPdf	PKPdf	05 54 03.8	-2.5
FCC	Fort Churchill	115.91	35	*e*PKIKP	PKPdf	05 54 03.8	-2.5
MK31	Makanchi Array	118.99	309	*e*PKPdf	PKPdf	05 54 09.5	-3.2
MK31	Makanchi Array	118.99	309	*e*PKIKP	PKPdf	05 54 09.5	-3.1
MKAR	Makanchi Array	118.99	309	PKP	PKPdf	05 54 09.4	-3.2
MKAR	Makanchi Array	118.99	309	PKIKP	PKPdf	05 54 09.4	-3.2
MKAR	Makanchi Array	118.99	309	PKP	PKPdf	05 54 09.4	-3.2
	comp=Z,0.9nm,0.7s,baz=229,slow=0.5,SNR=10						
ZALV	Zalesovo Beam	119.72	317	PKP	PKPdf	05 54 11.1	-2.8
ZALV	Zalesovo Beam	119.72	317	PKP	PKPdf	05 54 11.1	-2.8
	comp=Z,1.3nm,0.5s,baz=109,slow=1.8,SNR=6.1						
ZAL	Zalesovo	119.73	317	PKIKP	PKPdf	05 54 11.1	-2.7
RES	Resolute Bay	120.82	18	*e*PKPdf	PKPdf	05 54 12.3	-3.1
RES	Resolute Bay	120.82	18	*e*PKIKP	PKPdf	05 54 12.3	-3.1
TKM2	Tokmak 2	122.25	303	*e*PKPdf	PKPdf	05 54 16.3	-2.7
TKM2	Tokmak 2	122.25	303	*e*PKIKP	PKPdf	05 54 16.3	-2.8
KURK	Kurchatov	122.47	313	*e*PKPdf	PKPdf	05 54 16.4	-2.8
KURK				*e*		05 54 30.4	
KURK	Kurchatov	122.47	313	*e*PKIKP	PKPdf	05 54 16.4	-2.8
KURK				*e*		05 54 30.4	
UCH	Uchtor	122.80	302	*e*PKPdf	PKPdf	05 54 18.4	-1.8
UCH				*e*pPKPdf	pPKPdf	05 54 32.1	-1.3
AML	Almayashu	123.36	302	*e*PKPdf	PKPdf	05 54 19.4	-1.8
AML				*e*pPKPdf	pPKPdf	05 54 31.3	-3.1
EKS2	Erkin-Say	123.45	302	*e*PKPdf	PKPdf	05 54 19.4	-1.9
KBL	Kabul	124.39	291	*e*PKPdf	PKPdf	05 54 21.8	-1.6
LSZ	Lusaka	124.57	213	*e*PKPdf	PKPdf	05 54 23.6	-0.8
LSZ	Lusaka	124.57	213	*e*PKIKP	PKPdf	05 54 23.6	-0.8
BRVK	Borovoye	128.00	314	*e*PKPdf	PKPdf	05 54 27.4	-2.3
BRVK				*e*		05 54 39.5	
BRVK	Borovoye	128.00	314	*e*PKIKP	PKPdf	05 54 27.4	-2.3
BRVK				*e*		05 54 39.5	
ARU	Arti	134.87	318	*e*PKPdf	PKPdf	05 54 40.4	-2.2
ARU	Arti	134.87	318	*e*PKIKP	PKPdf	05 54 40.4	-2.2
KEV	Kevo	141.12	346	*e*pkp	PKPdf	05 54 49.1	-4.6
KEV	Kevo	141.12	346	*e*PKP	PKPdf	05 54 49.1	-4.6
KEV	Kevo	141.12	346	*e*PKIKP	PKPdf	05 54 49.1	-4.6
ARCES	ARCESS Array B	141.60	346	PKP	PKPdf	05 54 45.3	-9.3
ARCES	ARCESS Array B	141.60	346	PKHKP		05 54 45.3	
ARCES	ARCESS Array B	141.60	346	PKhKP		05 54 45.3	
	comp=Z,2.3nm,0.7s,baz=40,slow=1.8,SNR=8.1						
JOF	Joensuu	145.06	336	*e*pkp	PKPdf	05 54 56.6	-4.3
JOF	Joensuu	145.06	336	*e*PKP	PKPdf	05 54 56.6	-4.3
JOF	Joensuu	145.06	336	*e*PKIKP	PKPdf	05 54 56.6	-4.3
OBN	Obninsk	147.16	322	*i* PKP2	PKPab	05 55 05.2	-3.5
OBN				pmax	pmax		
	comp=Z,21nm,1.1s						
KAF	Kangasniemi	147.27	338	*e*pkp	PKPdf	05 55 00.3	-4.3
KAF	Kangasniemi	147.27	338	*e*PKP	PKPdf	05 55 00.3	-4.3
KAF	Kangasniemi	147.27	338	*e*PKHKP		05 55 00.3	
FIA1	FINESS Array S	147.84	337	*e*PKPbc	PKPbc	05 55 05.3	-3.2
FIA1				*e*pPKPdf	pPKPdf	05 55 19.8	+1.0
FINES	FINESS Array B	147.84	337	PKPbc	PKPbc	05 55 05.5	-3.1
FINES	FINESS Array B	147.84	337	PKP2	PKPbc	05 55 05.5	-3.1
FINES	FINESS Array B	147.84	337	PKPbc	PKPbc	05 55 05.5	-3.1
	comp=Z,13nm,0.6s,baz=50,slow=3.8,SNR=47						
MALT	Malatya	149.21	289	*e*PKPbc	PKPbc	05 55 10.6	-2.3
MALT				*e*pPKPdf	pPKPdf	05 55 24.4	+2.6
MALT	Malatya	149.21	289	*e*PKP2	PKPbc	05 55 10.6	-2.3
NB2	NORSAR Subarra	151.87	349	PKPa	PKPdf	05 55 15.7	+3.7
	comp=Z,16nm,0.7s,baz=16,slow=2.6						
NOA	NORSAR Array B	151.87	349	PKPbc	PKPbc	05 55 15.9	-2.6
NOA	NORSAR Array B	151.87	349	PKIKP	PKPbc	05 55 15.9	-2.5
NOA	NORSAR Array B	151.87	349	PKPbc	PKPbc	05 55 15.9	-2.6
	comp=Z,9.8nm,0.7s,baz=19,slow=4.6,SNR=58						
LIC	Lamto	152.09	168	*e*PKIKP	PKPbc	05 55 23.6	+3.2
	comp=Z,62nm,0.7s						
NAO01	NORSAR Array S	152.10	349	*e*PKPbc	PKPbc	05 55 16.1	-2.9
NAO01				*e*pPKPdf	pPKPdf	05 55 28.7	+3.1
KIC	Kosan Boka	152.27	169	*e*PKIKP	PKPbc	05 55 24.0	+3.1
	comp=Z,69nm,0.6s						
TIC	Toumodi	152.50	168	*e*PKIKP	PKPbc	05 55 24.4	+3.0
	comp=Z,9.2nm,0.8s						
BRTR	Keskin Array B	152.96	292	PKPbc	PKPbc	05 55 18.9	-2.7
BRTR	Keskin Array B	152.96	292	PKIKP	PKPbc	05 55 18.9	-2.7
BRTR	Keskin Array B	152.96	292	PKPbc	PKPbc	05 55 18.9	-2.7
	comp=Z,2.2nm,0.7s,baz=127,slow=3.3,SNR=13						
AKASG	Malin Array Be	153.12	318	PKPbc	PKPbc	05 55 18.6	-3.0
AKASG	Malin Array Be	153.12	318	PKIKP	PKPbc	05 55 18.6	-3.0
AKASG	Malin Array Be	153.12	318	PKPbc	PKPbc	05 55 18.6	-3.0
	comp=Z,2.6nm,0.6s,baz=65,slow=2.3,SNR=14						
AKBB	Malin Array Si	153.12	318	*e*PKPbc	PKPbc	05 55 18.7	-2.8
AKBB	Malin Array Si	153.12	318	*e*PKIKP	PKPbc	05 55 18.7	-2.9
TOA0	Torodi Ar. Sit	159.44	183	*e*PKPdf	PKPdf	05 55 20.8	-2.7
TOA0				*e*		05 56 14.1	
TORD	Torodi Ar. Bea	159.44	183	PKP	PKPdf	05 55 20.6	-2.9
TORD				PKPab	PKPab	05 56 01.5	+0.3
TORD	Torodi Ar. Bea	159.44	183	PKP	PKPdf	05 55 20.6	-2.9
	comp=Z,1.8nm,1.0s,baz=280,slow=1.9,SNR=6.2						
TORD				PKPab	PKPab	05 56 01.5	+0.3
	comp=Z,5.7nm,0.9s,baz=169,slow=3.8,SNR=13						
CLL	Collm	160.28	336	*e*PKPab	PKPab	05 56 03.0	-1.0
	comp=Z,5.0nm,0.9s						
CLL				*e*x	x	05 56 14.0	
GERES	GERESS Array B	162.05	331	PKP	PKPdf	05 55 23.2	-2.1
GERES				PKPab	PKPab	05 56 09.5	-2.3
GERES	GERESS Array B	162.05	331	PKIKP	PKPdf	05 55 23.2	-2.1
GERES						05 56 09.5	
GERES	GERESS Array B	162.05	331	PKP	PKPdf	05 55 23.2	-2.1
	comp=Z,0.5nm,0.6s,baz=110,slow=2.0,SNR=5.1						
GERES				PKPab	PKPab	05 56 09.5	-2.3
	comp=Z,0.5nm,0.6s,baz=40,slow=7.7,SNR=3.1						

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*ISCJB **07** 06:49:44.8±0.5, 40.79N±0.03×32.01E±0.04, h8^{km}±6^{km}, Error ellipse: s-maj=5.6km s-min=4.7km az=35.1*

*CSEM **07** 06:49:44.0±0.1, 40.75N×32.03E, h10^{km}, MD2.7, Error ellipse: s-maj=4.1km s-min=3.4km az=140.0*

*ISK **07** 06:49:44.5, 40.83N×32.01E, h19^{km}, MD2.9*

*DDA **07** 06:49:46.9, 40.79N×32.00E, h2^{km}, Md2.7*

ISC 07 06:49:45.4±0.5,**40.79N**±0.03×**32.02E**±0.04,**h11**^{km}±5^{km},**n21**, σ**0^{s}96**/30,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SGKT	Sivrigoynuk	0.22	173	*i* P	Pg	06 49 50.4	+0.4
SGKT				*i* S	Sg	06 49 53.0	-0.2
SAFT	Safranbolu	0.68	48	PG	Pg	06 49 58.5	0.0
SAFT				SG	Sg	06 50 07.3	-0.1
SAFT	Safranbolu	0.68	48	*e*Pg	Pg	06 49 58.5	0.0
SAFT				*e*Sg	Sg	06 50 07.3	-0.1
KDZE	Karadeniz Ereo	0.68	320	PG	Pg	06 49 58.3	-0.3
KDZE				SG	Sg	06 50 06.8	-0.7
KDZE	Karadeniz Ereo	0.68	320	*e*Pg	Pg	06 49 58.3	-0.3
KDZE				*e*Sg	Sg	06 50 06.8	-0.7
MDU	Mudurnu	0.69	242	PG	Pg	06 49 58.7	-0.1
MDU	Mudurnu	0.69	242	*e*Pg	Pg	06 49 58.7	-0.1
ANTO	Ankara	1.09	147	*e*PN	Pn	06 50 05.3	-1.3
ANTO	Ankara	1.09	147	*e*Pn	Pn	06 50 05.3	-1.3
ELDT	Eldivan	1.11	105	*i* P	Pb	06 50 08.8	+2.2
ELDT				*i* S	Sb	06 50 20.9	-0.2
GULT	Gulveren	1.20	253	*e*PN	Pn	06 50 07.2	-0.8
GULT	Gulveren	1.20	253	*e*Pn	Pn	06 50 07.2	-0.8
BALT	Daday	1.27	54	*i* P	Pn	06 50 10.5	+1.5
BALT				*i* S	Sb	06 50 26.9	+1.2
ESKT	Eskisehir	1.55	216	*e*PN	Pn	06 50 12.4	-0.5
ESKT	Eskisehir	1.55	216	*i* P	Pg	06 50 15.9	+0.7
ESKT				*i* S	Sg	06 50 37.8	+2.4
ESKT	Eskisehir	1.55	216	*e*Pn	Pn	06 50 12.4	-0.5
KIZT	Kizilcal	1.91	183	*e*PN	Pn	06 50 17.5	-0.3
KIZT	Kizilcal	1.91	183	*e*Pn	Pn	06 50 17.5	-0.3
CORM	Corum	2.08	106	*e*PN	Pn	06 50 19.4	-0.8
CORM	Corum	2.08	106	*e*Pn	Pn	06 50 19.4	-0.8
CDAG	Cicekdag	2.15	122	*i* P	Pg	06 50 25.9	-0.7
CDAG				*i* S	Sg	06 50 53.3	-1.1

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*IDC **07** 06:50:23.7±3.4, 46.23N×155.44E, h0^{km}, mb3.6/6, mb1 4.0/6, mb1mx3.6/21, mbtmp3.6/6, MS3.0/1, Ms1 3.0/1, ms1mx2.2/29, Error ellipse: s-maj=110.1km s-min=29.4km az=7.0*

*ISCJB **07** 06:50:27.0±2.2, 46.3N±0.5×155.4E±0.2, h33^{km}, mb3.6/7, Error ellipse: s-maj=74.8km s-min=14.7km az=177.9*

*MOS **07** 06:50:27.4±0.5, 46.37N×155.33E, h33^{km}, mb4.2/3, Error ellipse: s-maj=49.5km s-min=36.2km az=33.0*

ISC 07 06:50:29.7±2.2,**46.4N**±0.5×**155.4E**±0.2,**h35**^{km},**n12**, σ**0^{s}40**/12,**mb3.6**/7,**East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YSS	Yuzh-Sakhalins	8.73	278	*e*PN	Pn	06 52 33.3	-0.1
HIA	Hailar	24.00	290	*e*P	P	06 55 45.1	+4.3
MKAR	Makanchi Array	48.53	299	*i* P	P	06 59 09.6	+0.6
MKAR	Makanchi Array	48.53	299	P	P	06 59 08.4	-0.5
	0.2nm,0.5s,mb3.4,baz=65,slow=8.1,SNR=4.1						
YKA	Yellowknife Ar	50.27	37	P	P	06 59 21.7	-0.4
	0.4nm,0.6s,mb3.6,baz=298,slow=7.4,SNR=3.9						
BRVK	Borovoye	52.37	311	*e*P	P	06 59 37.5	-0.4
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
NVAR	Mina Array Bea	61.19	63	P	P	07 00 40.6	-0.1
	comp=Z,0.3nm,0.8s,mb3.5,baz=311,slow=5.5,SNR=5.0						
PDAR	Pinedale Array	63.67	55	P	P	07 00 57.2	0.0
	comp=Z,0.2nm,0.7s,mb3.2,baz=266,slow=2.4,SNR=3.4						
FINES	FINESS Array B	65.06	336	P	P	07 01 06.5	+0.6
FINES				pmax	pmax		
	comp=Z,2.0nm,1.0s						
FINES	FINESS Array B	65.06	336	P	P	07 01 06.5	+0.6
	comp=Z,1.6nm,1.0s,mb4.0,baz=44,slow=9.0,SNR=4.4						
TXAR	Lajitas Array	76.28	62	P	P	07 02 15.0	+0.2
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	76.28	62	P	P	07 02 15.0	+0.2
	comp=Z,0.9nm,0.5s,mb3.9,baz=304,slow=4.5,SNR=24						

IDC 07 07:01:50.3±1.9,**21.93N**×**121.80E**,**h0**^{km},**mb3.6**/4, **mb1 3.7**/4,**mb1mx3.5**/18,**mbtmp3.6**/4,**MS3.2**/1,**Ms1 3.2**/1, **ms1mx2.0**/25,**Error ellipse: s-maj=165.8km s-min=24.4km az=65.0,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	23.46	107	LR	LR	07 14 27.8	
	comp=Z,67nm,21.1s,baz=64,slow=32						
SONM	Songino Array	28.66	338	P	P	07 07 48.9	+0.3
	0.4nm,0.5s,baz=155,slow=9.8,SNR=5.0						
MKAR	Makanchi Array	40.36	318	P	P	07 09 30.0	+0.3
	0.4nm,0.6s,baz=120,slow=8.5,SNR=5.6						
ZALV	Zalesovo Beam	42.45	328	P	P	07 09 46.2	-0.5
	1.2nm,0.4s,baz=109,slow=7.1,SNR=5.4						
WRA	Warramunga Arr	43.38	163	P	P	07 09 54.5	-0.1
	0.3nm,0.6s,baz=342,slow=8.5,SNR=3.3						

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*MOS **07** 07:02:32.3±1.1, 42.64N×145.70E, h90^{km}, mb3.7/2, Error ellipse: s-maj=64.4km s-min=31.1km az=118.9*

*ISCJB **07** 07:02:36.7±0.9, 43.04N±0.07×145.38E±0.07, h92^{km}±5^{km}, mb3.4/3, Error ellipse: s-maj=11.7km s-min=7.0km az=151.1*

*JMA **07** 07:02:37.6±0.1, 43.02N×145.38E, h86^{km}±1^{km}, M3.3*

*IDC **07** 07:02:43.6±6.4, 43.62N×145.11E, h109^{km}±34^{km}, mb3.3/3, mb1 3.4/3, mb1mx3.0/20, mbtmp3.3/3, MS3.1/2, Ms1 3.1/2, ms1mx2.3/16, Error ellipse: s-maj=85.7km s-min=53.7km az=178.0*

ISC 07 07:02:37.7±0.9,**43.04N**±0.06×**145.37E**±0.07,**h86**^{km}±5^{km}, **n20**,σ**0^{s}50**/30,**mb3.4**/3,**Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	0.42	39	P	Pn	07 02 51.4	0.0
NEM2				*e*S	Sn	07 03 01.4	-0.2
JAK	Akkeshi	0.50	265	P	Pn	07 02 52.0	0.0
JAK				*e*S	Sn	07 03 02.6	0.0

JNK	**Nakash**	**0.73**	**319**	P	**Pn**	**07 02 53.8**	**-0.3**
JNK				*e*S	**Sn**	**07 03 06.0**	**-0.3**
JRA	**Rausu**	**0.92**	**349**	P	**Pn**	**07 02 56.5**	**+0.4**
JRA				*e*S	**Sn**	**07 03 10.3**	**+0.4**
YUK	**Yuzh-Kuril'sk**	**1.06**	**19**	*e*PN	**Pn**	**07 02 57.4**	**-0.4**
YUK				*i* S	**Sn**	**07 03 12.5**	**-0.3**
YUK				pmax	pmax		
	comp=Z,890nm,0.3s						
YUK				pmax	pmax		
	comp=Z,2µm,0.3s						
YUK				smax			
	comp=N,4µm,0.8s						
YUK				smax			
	comp=E,4µm,0.6s						
YUK				smax			
	comp=N,2µm,0.5s						
YUK				smax			
	comp=E,2µm,0.5s						
JOB	**Onbets**	**1.14**	**264**	P	**Pn**	**07 02 58.8**	**+0.1**
JOB				*e*S	**Sn**	**07 03 14.8**	**+0.3**
JAR	**Ashorobuto**	**1.20**	**283**	P	**Pn**	**07 02 59.7**	**+0.2**
JAR				S	**Sn**	**07 03 16.1**	**+0.2**
JTKR	**Abashiri--Toko**	**1.42**	**312**	P	**Pn**	**07 03 02.4**	**+0.2**
JTKR				*e*S	**Sn**	**07 03 21.0**	**+0.4**
JCH	**Churui**	**1.54**	**255**	P	**Pn**	**07 03 03.6**	**-0.1**
JCH				*e*S	**Sn**	**07 03 22.7**	**-0.7**
JMP	**Maruseppu**	**1.76**	**304**	P	**Pn**	**07 03 07.0**	**+0.5**
JMP				*e*S	**Sn**	**07 03 28.5**	**+0.1**
ASAJ	**Asahikawa**	**2.29**	**299**	PN	**Pn**	**07 03 14.8**	**+1.3**
ASAJ				S	**Sn**	**07 03 39.5**	**-1.5**
ASAJ				pmax	pmax		
	comp=Z,23nm,0.3s						
ASAJ				smax			
	comp=N,6.0nm,0.3s						
ASAJ	**Asahikawa**	**2.29**	**299**	P	**Pn**	**07 03 14.8**	**+1.3**
	comp=N,23nm,0.3s,baz=126,slow=7.6,SNR=100						
ASAJ				S	**Sn**	**07 03 39.5**	**-1.5**
	comp=N,5.8nm,0.3s,baz=124,slow=15,SNR=7.7						
JNU	**Nakatsue**	**15.09**	**234**	LR	LR	07 12 45.4	
	comp=N,30nm,19.1s,baz=120,slow=39						
SONM	**Songino Array**	**27.56**	**294**	P	**P**	**07 08 16.9**	**+0.6**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	**Songino Array**	**27.56**	**294**	P	**P**	**07 08 16.9**	**+0.6**
	comp=Z,0.5nm,0.5s,mb3.3,baz=85,slow=9.3,SNR=6.1						
MKAR	**Makanchi Array**	**43.77**	**298**	P	**P**	**07 10 33.9**	**-0.6**
MKAR	**Makanchi Array**	**43.77**	**298**	P	**P**	**07 10 33.9**	**-0.5**
	comp=Z,0.3nm,0.6s,mb3.2,baz=71,slow=7.6,SNR=2.6						
WRA	**Warramunga Arr**	**63.48**	**192**	LR	LR	07 38 00.6	
	comp=Z,34nm,21.4s,baz=190,slow=33						
FINES	**FINESS Array B**	**64.92**	**332**	P	**P**	**07 13 07.1**	**-0.4**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	**64.92**	**332**	P	**P**	**07 13 07.1**	**-0.4**
	comp=Z,0.8nm,0.6s,mb3.8,baz=48,slow=7.3,SNR=6.8						

MAN 07 07:53:22, 772N×12487E, h1^{km}, mb4.6, ML3.5, MS3.4, 1C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KCP	**Kidapawan**	**0.74**	**163**	⇓*i*P	Pg	07 53 37.5	+1.3
KCP				*i* S	Sg	07 53 49.0	+3.3
CGP	**Cagayan de Oro**	**0.75**	**346**	⇑*i*P	Pg	07 53 36.6	+0.1
CGP				*i* S	Sg	07 53 48.0	+1.8
SCPH	**Surigao**	**2.14**	**17**	*e*P	Pn	07 53 59.2	+0.4
TBP	**Tagbilaran**	**2.20**	**333**	*e*P	Pn	07 54 01.7	+2.0
SNPH	**Sibulan**	**2.29**	**315**	*e*P	Pn	07 54 03.0	+2.1

NEIC 07 08:03:14.4, 6181N×14905W, h35^{km}, ML3.5(PMR), **ML3.1**(AEIC)**, After AEIC., Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GHO	**Glory Hole Cre**	**0.07**	**124**	P	Pb	08 03 19.9	-0.3
PMR	**Palmer**	**0.22**	**191**	P	Pb	08 03 20.0	-1.4
PMR				S	Sb	08 03 26.0	-0.1
SML	**Sawmill**	**0.34**	**90**	P	Pb	08 03 21.7	-1.1
SML				S	Sb	08 03 28.7	+0.2
KNK	**Knik Glacier**	**0.49**	**145**	P	Pn	08 03 23.7	-1.2
KNK				S	Sb	08 03 31.8	-0.2
RC01	**Rabbit Creek A**	**0.80**	**205**	P	Pn	08 03 27.7	-1.4
RC01				S	Sn	08 03 39.5	-0.2
FIB	**Fire Island**	**0.84**	**220**	P	Pn	08 03 29.3	-0.4
FIB				S	Sn	08 03 42.6	+1.7
SLKM	**Skilak Lake**	**1.43**	**204**	P	Pn	08 03 37.2	-0.5
SEW	**Seward**	**1.73**	**187**	P	Pn	08 03 41.4	-0.4
TRF	**Thorofare Moun**	**1.74**	**341**	P	Pn	08 03 41.6	-0.5
MCK	**McKinley**	**1.93**	**1**	P	Pn	08 03 44.6	-0.1
KTH	**Kantishna Hill**	**1.95**	**334**	P	Pn	08 03 44.8	-0.1
PAX	**Paxson**	**2.03**	**53**	P	Pn	08 03 46.2	+0.2
EYAK	**Cordova Ski Ar**	**2.04**	**127**	P	Pn	08 03 45.8	-0.4
BMRM	**Bremner River**	**2.30**	**110**	P	Pn	08 03 48.9	-0.8
RAGM	**Ragged Mountai**	**2.56**	**122**	P	Pn	08 03 53.4	+0.1
MENT	**Mentasta**	**2.73**	**63**	*e*P	Pn	08 03 57.5	+1.9
MID	**Middleton Isla**	**2.74**	**150**	*e*P	Pn	08 03 56.4	+0.6
COLA	**College**	**3.12**	**9**	P	Pn	08 04 00.4	-0.6
IL1	**Eielson Array**	**3.13**	**17**	P	Pn	08 04 00.6	-0.5
SVW2	**Sparrevohn**	**3.22**	**260**	*e*P	Pn	08 04 01.1	-1.2
EGAK	**Eagle**	**4.64**	**47**	*e*Pn	Pn	08 04 21.0	-0.8
IM3	**Indian Mountai**	**4.67**	**336**	P	Pn	08 04 22.1	-0.2
IMA2	**Indian Mountai**	**4.74**	**336**	*e*P	Pn	08 04 22.9	-0.3
DAWY	**Dawson**	**4.96**	**59**	*e*Pn	Pn	08 04 27.5	+1.4
SKAG	**Skagway**	**7.14**	**103**	*e*P	Pn	08 04 56.6	+0.4
TNA	**Tin City**	**9.17**	**302**	*e*Pn	Pn	08 05 24.5	+0.5
	2.3nm,0.6s						
TNA				*e*pPn		08 05 32.2	
TNA				*e*Sn	Sn	08 07 05.0	-0.8
NSHM	**Saint Helena R**	**28.43**	**133**	*e*P	P	08 09 03.6	-1.9

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*CSEM **07** 08:19:04.4, 2920N×5923E, h36^{km}, ML3.5, After TEH*

TEH 07 08:19:04.4, 2920N×5923E, h36^{km}, ML3.5, 1D, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IKOO		**3.22**	**357**	⇓*e*Pn	Pn	08 19 49.8	-2.7
IDAH		**3.58**	**9**	*e*Pn	Pn	08 19 57.3	0.0
IDAH				*e*Sn	Sn	08 20 33.7	-4.6
ITEG		**3.71**	**354**	*e*Pn	Pn	08 19 56.1	-3.1
ITEG				*e*Sn	Sn	08 20 36.1	-5.6
IBAF	**Bafgh**	**3.96**	**308**	*e*Pn	Pn	08 19 59.1	-3.5
IBAF				*e*Sn	Sn	08 20 42.5	-5.3
IBAF				*e*		08 20 52.3	
	comp=Z,705nm,0.2s						
IBAF	**Bafgh**	**3.96**	**308**	*e*Pn	Pn	08 19 59.1	-3.5
IBAF				*e*Sn	Sn	08 20 42.5	-5.3
IMON		**4.00**	**5**	*e*Pn	Pn	08 19 59.3	-3.9
IMON				*e*Sn	Sn	08 20 42.7	-6.1
IMEH	**Mehriz**	**4.55**	**300**	*e*Pn	Pn	08 20 07.1	-3.6
IMEH				*e*		08 21 08.8	
	comp=Z,372nm,0.2s						
IMEH	**Mehriz**	**4.55**	**300**	*e*Pn	Pn	08 20 07.1	-3.6

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*CASC **07** 08:20:08.0±3.7, 1136N×8778W, h136^{km}±65^{km}, MD4.1, ML4.0*

*ISCJB **07** 08:20:11.9±1.1, 1120N±006×8761W±009, h33^{km}, mb3.7/5, Error ellipse: s-maj=12.6km s-min=7.6km az=157.4*

*IDC **07** 08:20:14.9±5.2, 1210N×8685W, h0^{km}, mb3.6/4, mb1 3.9/4, mb1mx3.7/16, mbtmp3.6/4, Error ellipse: s-maj=102.7km s-min=55.7km az=4.0*

*NEIC **07** 08:20:15.8±0.8, 1201N×8683W, h10^{km}, Error ellipse: s-maj=31.0km s-min=10.5km az=55.0*

ISC 07 08:20:16.2±0.8**, 1135N**±006×**8732W**±007**, h35^{km}, n35, σ0^{s}91**/33**, mb3.7**/5**, 9C-5D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COPN	**Copaltepe**	**1.09**	**41**	⇓*e*P	**Pn**	**08 20 35.4**	**+0.4**
COPN				⇑*i*		08 20 57.3	
	comp=Z,2µm,0.5s						
XAVN	**Gruta Xavier**	**1.26**	**51**	⇓*i*P	**Pn**	**08 20 37.5**	**+0.3**
TICN	**Ticuantepe**	**1.27**	**58**	*e*P	**Pn**	**08 20 38.0**	**+0.6**
TICN				*e*S	**Sn**	**08 21 04.3**	**+11**
APYN	**Apoyeque**	**1.29**	**47**	*e*P	**Pn**	**08 20 37.9**	**+0.1**
CNGN	**Cerro Negro**	**1.29**	**28**	*e*P	**Pn**	**08 20 37.0**	**-0.8**
CNGN				⇓*e*P		08 20 40.2	
TISN	**Laguna Tiscapa**	**1.30**	**53**	⇓*e*P	**Pn**	**08 20 37.8**	**0.0**
MOMJ	**Momotombo**	**1.30**	**36**	⇑*e*P	**Pn**	**08 20 38.1**	**+0.3**
TEL3	**Telica 3**	**1.30**	**21**	⇑*e*P	**Pn**	**08 20 38.2**	**+0.4**
MGAN	**Managua**	**1.32**	**53**	⇑*e*P	**Pn**	**08 20 38.1**	**0.0**
MGAN				*e*S	**Sn**	**08 21 01.6**	**+7.2**
APON	**Apoyo**	**1.35**	**65**	⇑*e*P	**Pn**	**08 20 38.5**	**-0.1**
SSNN	**San Juan del S**	**1.45**	**92**	⇑*e*P	**Pn**	**08 20 39.5**	**-0.3**
HUEN		**1.49**	**49**	⇑*e*P	**Pn**	**08 20 40.5**	**0.0**
HUEN				*e*S	**Sn**	**08 21 07.8**	**+9.0**
MADN	**Villa Maderas**	**1.76**	**88**	*e*P	**Pn**	**08 20 43.9**	**-0.2**
CNCH	**Conchagua**	**1.98**	**345**	⇑*e*P	x	08 21 00.8	
CNCH				*e*S	x	08 21 25.4	
LIM1	**Limonal**	**2.13**	**108**	*e*P	**Pn**	**08 20 48.1**	**-1.2**
LIM1				*e*S	**Sn**	**08 21 23.7**	**+9.1**
CUI		**2.22**	**108**	*e*P	**Pn**	**08 20 49.1**	**-1.4**
JTS	**JuntasAbangare**	**2.56**	**114**	*e*Pn	**Pn**	**08 20 56.5**	**+1.4**
JCR	**Jicaral**	**2.64**	**124**	*e*P	**Pn**	**08 20 55.0**	**-1.3**
TGUH	**Tegucigalpa,Un**	**2.69**	**1**	*e*Pn	**Pn**	**08 20 51.0**	**-5.9**
LCBS	**La Ceiba**	**2.80**	**325**	*e*P	x	08 21 12.2	
LCBS				*e*S	x	08 21 45.2	
LFRS	**El Faro**	**2.82**	**323**	*e*P	x	08 21 12.5	
LFRS				*e*S	x	08 21 46.6	
PRS1	**Puriscal**	**3.26**	**114**	*e*P	**Pn**	**08 21 05.5**	**+0.7**
RTR	**El Retiro**	**3.40**	**318**	⇑*i*P	x	08 21 21.4	
RTR				*e*S	x	08 22 01.3	
LAJ	**Bijagual**	**3.48**	**115**	⇓*e*P	**Pn**	**08 21 04.4**	**-3.4**
LCR2	**La Lucha 2**	**3.64**	**116**	*e*P	**Pn**	**08 21 10.8**	**+0.8**
QCR	**Quepos**	**3.65**	**121**	*e*P	**Pn**	**08 21 10.0**	**-0.1**
URSC	**Urasca**	**3.80**	**113**	*e*P	**Pn**	**08 21 14.3**	**+2.1**
BAR1		**4.47**	**118**	*e*P	**Pn**	**08 21 21.7**	**+0.3**
TXAR	**Lajitas Array**	**23.50**	**322**	P	**P**	**08 25 24.1**	**+1.0**
	comp=Z,0.9nm,0.7s,mb3.3,baz=147,slow=10,SNR=25						
PDAR	**Pinedale Array**	**36.79**	**332**	P	**P**	**08 27 21.0**	**+0.4**
	comp=Z,0.3nm,0.5s,mb3.4,baz=128,slow=10,SNR=6.2						
REDW	**Red Top Meadow**	**37.85**	**332**	*e*P	**P**	**08 27 30.1**	**+0.5**
	comp=Z,3.1nm,0.4s,mb4.4						
SCHQ	**Schefferville**	**46.29**	**16**	P	**P**	**08 28 36.0**	**-2.2**
	comp=Z,1.5nm,0.7s,mb4.0,baz=220,slow=7.9,SNR=6.5						
YKA	**Yellowknife Ar**	**54.70**	**345**	P	**P**	**08 29 40.3**	**-1.2**
	comp=Z,0.3nm,0.7s,mb3.5,baz=136,slow=7.7,SNR=7.8						
WRA	**Warramunga Arr**	**139.07**	**253**	PKP	PKPdf	08 39 45.8	+5.7
WRA	**Warramunga Arr**	**139.07**	**253**	PKP	PKPdf	08 39 45.8	+5.7
	comp=Z,0.3nm,0.5s,baz=89,slow=1.7,SNR=7.0						

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*NEIC **07** 08:37:57.2, 3726S×17780E, h45^{km}, ML3.7(WEL), After WEL.*

WEL 07 08:37:57.5±0.3**, 3732S×17781E, h48^{km}**±3^{km}**, ML3.7**/7**, 2D, Error ellipse: s-maj=2.0km s-min=1.6km az=0.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**0.47**	**122**	*e*P	Pn	08 38 07.6	-0.6
MXZ				S	Sn	08 38 15.8	-0.1
MXZ	**Matakaoa Point**	**0.47**	**122**	*e*P*	Pn	08 38 07.6	-0.6
MXZ				S*	Sn	08 38 15.7	-0.2
WIZ	**White Island**	**0.54**	**246**	P*	Pn	08 38 09.4	+0.4
PUZ	**Puketiti**	**0.84**	**155**	P	Pn	08 38 13.2	+0.2
PUZ				S	Sn	08 38 27.6	+3.4
PUZ	**Puketiti**	**0.84**	**155**	PN	Pn	08 38 13.2	+0.2
MWZ	**Matawai**	**1.04**	**192**	P	Pn	08 38 15.4	-0.3
MWZ	**Matawai**	**1.04**	**192**	⇓P*	Pn	08 38 15.3	-0.4
URZ	**Urewera**	**1.09**	**210**	P	Pn	08 38 16.1	-0.3
URZ	**Urewera**	**1.09**	**210**	⇓P*	Pn	08 38 16.1	-0.4
URZ				S*	Sn	08 38 30.3	-0.1
MARZ	**Manawahe**	**1.12**	**233**	P	Pn	08 38 16.7	-0.1
MARZ				S	Sn	08 38 30.4	-0.7
MARZ	**Manawahe**	**1.12**	**233**	P*	Pn	08 38 16.7	-0.1
MARZ				*e*S*	Sn	08 38 30.2	-0.9
EDRZ	**Edgecumbe**	**1.16**	**227**	P	Pn	08 38 17.3	0.0
EDRZ	**Edgecumbe**	**1.16**	**227**	P*	Pn	08 38 17.3	0.0
TGRZ	**Tauranga**	**1.30**	**251**	P	Pn	08 38 19.1	-0.1
TGRZ	**Tauranga**	**1.30**	**251**	P*	Pn	08 38 19.1	-0.1
KNZ	**Kokohu**	**1.71**	**183**	*e*P	Pn	08 38 24.1	-0.7
KNZ	**Kokohu**	**1.71**	**183**	PN	Pn	08 38 24.1	-0.6
KUZ	**Kuaotunu**	**1.76**	**288**	*e*P	Pn	08 38 25.0	-0.6
KUZ	**Kuaotunu**	**1.76**	**288**	PN	Pn	08 38 25.0	-0.5
KUZ				SN	Sn	08 38 46.0	-0.8
BKZ	**Black Stump Fm**	**2.12**	**209**	P	Pn	08 38 30.9	+0.5
BKZ	**Black Stump Fm**	**2.12**	**209**	P*	Pn	08 38 30.9	+0.4
TUVZ	**Tukino**	**2.58**	**220**	P	Pn	08 38 37.7	+0.9
MOVZ	**Moawhango**	**2.64**	**217**	P	Pn	08 38 37.5	-0.1
MOVZ	**Moawhango**	**2.64**	**217**	P*	Pn	08 38 37.5	-0.1
WNVZ	**Wahianoa**	**2.66**	**220**	P	Pn	08 38 38.5	+0.7
WNVZ	**Wahianoa**	**2.66**	**220**	P*	Pn	08 38 38.5	+0.7
MTVZ	**Mangateitei**	**2.77**	**221**	P*	Pn	08 38 40.0	+0.7
PXZ	**Pawanui**	**2.81**	**195**	PN	Pn	08 38 38.0	-2.0
WCZ	**Waipu Caves**	**3.10**	**295**	*e*P	Pn	08 38 43.5	-0.4
WAZ	**Wanganui**	**3.29**	**221**	*e*P	Pn	08 38 47.7	+1.2
BFZ	**Birch Farm**	**3.58**	**199**	*e*P	Pn	08 38 47.7	-2.7
BFZ	**Birch Farm**	**3.58**	**199**	PN	Pn	08 38 47.7	-2.7
MRZ	**Mangatainoka R**	**3.77**	**207**	*e*P	Pn	08 38 50.2	-2.8
MRZ	**Mangatainoka R**	**3.77**	**207**	PN	Pn	08 38 50.2	-2.9
TIWZ	**Tintock**	**3.77**	**203**	PN	Pn	08 38 50.2	-2.8
KIW	**Kapiti Island**	**4.20**	**212**	P	Pn	08 38 56.2	-2.8
KIW	**Kapiti Island**	**4.20**	**212**	PN	Pn	08 38 56.2	-2.7
MTW	**Mount Morrison**	**4.24**	**204**	P	Pn	08 38 55.8	-3.7
MTW	**Mount Morrison**	**4.24**	**204**	PN	Pn	08 38 55.8	-3.7
CAW	**Cannon Point**	**4.34**	**208**	P	Pn	08 38 57.7	-3.3
CAW	**Cannon Point**	**4.34**	**208**	PN	Pn	08 38 57.7	-3.2
SNZO	**South Karori**	**4.66**	**210**	P	Pn	08 39 01.5	-3.8
SNZO	**South Karori**	**4.66**	**210**	PN	Pn	08 39 01.5	-3.7
TCW	**Tory Channel**	**4.76**	**214**	P	Pn	08 39 03.1	-3.6
NNZ	**Nelson**	**5.20**	**220**	*e*P	Pn	08 39 11.6	-1.0
QRZ	**Quartz Range**	**5.40**	**228**	*e*P	Pn	08 39 13.7	-1.7
QRZ	**Quartz Range**	**5.40**	**228**	PN	Pn	08 39 13.7	-1.7
THZ	**Tophouse**	**5.84**	**219**	*e*P	Pn	08 39 18.6	-2.8
THZ	**Tophouse**	**5.84**	**219**	PN	Pn	08 39 18.6	-2.8
LTZ	**Lake Taylor**	**6.92**	**216**	*e*P	Pn	08 39 32.1	-4.1

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*ISCJB **07** 08:42:26.5±0.8, 41.12N±0.05×40.67E±0.04, h6^{km}±8^{km}, Error ellipse: s-maj=9.3km s-min=4.9km az=168.2*

*ISK **07** 08:42:26.7, 41.08N×40.71E, h6^{km}, MD3.3*

*CSEM **07** 08:42:27.8±0.3, 41.11N×40.80E, h15^{km}, MD3.3, Error ellipse: s-maj=10.2km s-min=5.4km az=166.0*

*DDA **07** 08:42:29.3, 41.11N×40.80E, h8^{km}±1^{km}, Md2.6*

ISC 07 08:42:27.7±0.8**, 4113N**±006×**4071E**±004**, h15^{km}**±7^{km}**, n11, σ0^{s}85**/18**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MACK	**Trabzon**	**0.73**	**256**	*i* P	**Pb**	**08 42 43.7**	**+1.5**
MACK				*i* S	**Sg**	**08 42 55.5**	**+3.8**
BCA	**Borcka**	**0.76**	**65**	PG	**Pg**	**08 42 42.3**	**-0.1**
BCA				SG	**Sg**	**08 42 53.0**	**+0.6**
BCA	**Borcka**	**0.76**	**65**	*e*Pg	**Pg**	**08 42 42.3**	**-0.1**
BCA				*e*Sg	**Sg**	**08 42 53.0**	**+0.6**
ARTV	**Artvin**	**0.92**	**86**	*i* P	**Pb**	**08 42 45.0**	**-0.4**
ARTV				*i* S	**Sb**	**08 42 56.9**	**-0.5**
GUMT	**Gumushane**	**1.15**	**235**	PN	**Pn**	**08 42 48.7**	**-0.6**
GUMT				SN	**Sn**	**08 43 04.2**	**-0.5**
GUMT	**Gumushane**	**1.15**	**235**	*e*Pn	**Pn**	**08 42 48.7**	**-0.6**
EZM	**Erzurum**	**1.32**	**158**	PN	**Pn**	**08 42 51.6**	**0.0**
ERZM	**Erzurum**	**1.32**	**158**	*i* P	**Pn**	**08 42 51.9**	**+0.2**
ERZM				*i* S	**Sg**	**08 43 10.4**	**+0.1**
GRSN	**GIRESUNGRSN**	**1.86**	**264**	*i* P	**Pg**	**08 43 01.6**	**-1.7**
GRSN				*i* S	**Sg**	**08 43 27.0**	**-0.5**
SVSK	**Karacayir**	**3.08**	**248**	*e*PN	**Pn**	**08 43 17.1**	**+1.3**
SVSK	**Karacayir**	**3.08**	**248**	*e*Pn	**Pn**	**08 43 17.1**	**+1.3**

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*IDC **07** 08:48:40.7±9.8, 31.56S×179.19W, h218^{km}±101^{km}, mb3.4/2, mb1 3.5/3, mb1mx3.3/12, mbtmp3.3/3, Error ellipse: s-maj=95.7km s-min=44.6km az=177.0*

ISC 07 08:48:48.5±2.5**, 3244S**±02×**1789W**±05**, h337^{km}**±18^{km}**, n13, σ1^{s}22**/14**, mb3.3**/2**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUZ	**Puketiti**	**6.16**	**202**	*e*PN	**Pn**	**08 50 18.9**	**-1.8**
PUZ				SN	**S**	**08 51 37.3**	**+2.0**
MWZ	**Matawai**	**6.65**	**205**	*e*SN	**S**	**08 51 46.2**	**+0.6**
URZ	**Urewera**	**6.74**	**208**	P	**Pn**	**08 50 27.2**	**-0.2**
	0.5nm,0.3s,baz=60,slow=17,SNR=4.9						
URZ				S	**S**	**08 51 46.6**	**-1.0**
	4.2nm,0.3s,baz=201,slow=22,SNR=13						
BFZ	**Birch Farm**	**9.18**	**204**	SN	**S**	**08 52 44.3**	**+3.2**
MRZ	**Mangatainoka R**	**9.41**	**207**	*e*SN	**S**	**08 52 45.5**	**-0.6**
TCW	**Tory Channel**	**10.40**	**210**	*e*SN	**S**	**08 53 08.1**	**0.0**
NNZ	**Nelson**	**10.80**	**213**	*e*SN	**S**	**08 53 16.4**	**-0.5**
THZ	**Tophouse**	**11.45**	**213**	*e*SN	**S**	**08 53 29.9**	**-1.4**
KHZ	**Kahutara**	**11.71**	**209**	*e*SN	**S**	**08 53 38.0**	**+1.0**
MQZ	**McQueen's Vall**	**13.14**	**208**	*e*SN	**S**	**08 54 07.4**	**-0.4**
STKA	**Stephens Creek**	**33.35**	**260**	P	**P**	**08 54 58.5**	**+2.4**
	0.7nm,0.4s,mb3.3,baz=102,slow=11,SNR=6.2						
WRA	**Warramunga Arr**	**43.47**	**275**	P	**P**	**08 56 19.1**	**-0.5**
	1.1nm,0.5s,mb3.3,baz=113,slow=8.0,SNR=21						
FINES	**FINESS Array B**	**146.71**	**338**	PKPbc	PKPbc	09 07 52.4	+2.2
	0.4nm,0.5s,baz=40,slow=2.4,SNR=6.3						

IDC 07 08:55:07.8±2.5**, 1171S×16779E, h0^{km}, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.6**/14**, mbtmp3.7**/3**, Error ellipse: s-maj=129.0km s-min=37.7km az=137.0, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**31.39**	**226**	P	P	09 01 31.1	+0.6
	2.2nm,0.9s,baz=58,slow=9.2,SNR=4.3						
WRA	**Warramunga Arr**	**33.16**	**251**	P	P	09 01 45.7	-0.5
	0.3nm,0.4s,baz=84,slow=8.8,SNR=6.4						
YKA	**Yellowknife Ar**	**94.65**	**27**	P	P	09 08 30.2	-0.1
	0.2nm,0.6s,baz=255,slow=5.1,SNR=4.2						

IDC 07 09:25:16.3±6.0**, 1740S×17937W, h664^{km}**±91^{km}**, mb3.1**/7**, mb1 3.5**/8**, mb1mx3.3**/14**, mbtmp3.1**/8**, Error ellipse: s-maj=56.6km s-min=22.0km az=0.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**11.87**	**174**	P	P	09 27 53.8	+0.5
	461nm,0.3s,baz=66,slow=20,SNR=6.6						
DZM	**Mont Dzumac**	**14.14**	**249**	P	P	09 28 14.8	+0.6
	0.4nm,0.3s,baz=90,slow=16,SNR=6.2						
STKA	**Stephens Creek**	**38.08**	**240**	P	P	09 31 42.0	+0.4
	0.6nm,0.3s,baz=88,slow=11,SNR=7.4						
WRA	**Warramunga Arr**	**43.83**	**259**	P	P	09 32 26.6	-0.3
	0.8nm,0.2s,baz=88,slow=8.0,SNR=56						
MJAR	**Matsushiro Arr**	**66.96**	**324**	P	P	09 35 06.2	+0.6
	2.0nm,0.6s,baz=158,slow=6.5,SNR=6.0						
NVAR	**Mina Array Bea**	**79.70**	**44**	P	P	09 36 17.2	-0.2
	1.2nm,0.7s,baz=213,slow=6.6,SNR=14						
TXAR	**Lajitas Array**	**86.50**	**58**	P	P	09 36 52.3	+1.0
	1.4nm,0.8s,baz=215,slow=6.3,SNR=19						
PDAR	**Pinedale Array**	**87.62**	**44**	P	P	09 36 56.4	+0.2
	1.0nm,0.5s,baz=214,slow=3.1,SNR=14						
YKA	**Yellowknife Ar**	**94.26**	**25**	P	P	09 37 26.4	+0.1
	0.4nm,0.6s,baz=244,slow=4.5,SNR=8.2						

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*ISCJB **07** 09:35:20.4±0.6, 10.65N±0.05×62.43W±0.03, h70^{km}±7^{km}, Error ellipse: s-maj=8.7km s-min=4.4km az=163.6*

*FUNV **07** 09:35:22.8, 10.65N×62.39W, h54^{km}, MW2.8*

*TRN **07** 09:35:24.2, 10.76N×62.33W, h43^{km}, MD3.0*

*NEIC **07** 09:35:24.2, 10.76N×62.33W, h43^{km}, MD3.0(TRN), After TRN.*

ISC 07 09:35:21.6±0.6**, 1067N**±005×**6243W**±003**, h61^{km}**±8^{km}**, n18, σ1^{s}04**/28**, 2D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	**Guiria**	**0.20**	**95**	*e*S	**Sn**	**09 35 37.6**	**-0.5**
TCE	**Chacachacare**	**0.67**	**87**	*e*P	**Pn**	**09 35 36.4**	**+0.9**
TCE				*e*S	**Sn**	**09 35 44.5**	**-1.1**
GUNV	**Guanoco**	**0.71**	**225**	⇓*i*P	**Pn**	**09 35 37.1**	**+1.1**
GUNV				*e*S	**Sn**	**09 35 48.1**	**+1.5**
CRUV	**Carupano**	**0.79**	**271**	⇓*i*P	**Pn**	**09 35 36.8**	**-0.3**
CRUV				*e*S	**Sn**	**09 35 48.5**	**+0.1**
TRN	**Trinidad (W)**	**1.01**	**91**	*e*P	**Pn**	**09 35 40.9**	**+1.2**
TRN				*e*S	**Sn**	**09 35 53.2**	**0.0**
TBH	**Brigand Hill**	**1.35**	**98**	*e*P	**Pn**	**09 35 45.4**	**+1.1**
TBH				*e*S	**Sn**	**09 36 01.2**	**-0.1**
GRW	**Mount Saint Ca**	**1.67**	**27**	*e*P	**Pn**	**09 35 45.2**	**-3.3**
GRW				*e*S	**Sn**	**09 36 07.8**	**-1.1**
TPR	**Prospect**	**1.70**	**72**	*e*P	**Pn**	**09 35 50.1**	**+1.1**
TPR				*e*S	**Sn**	**09 36 09.1**	**-0.7**
PCRV	**Puerto La Cruz**	**2.23**	**258**	*e*P	**Pn**	**09 35 57.3**	**+1.2**
PCRV				*e*S	**Sn**	**09 36 21.5**	**-1.0**
RIOV	**Rio Grande**	**2.65**	**167**	*e*P	**Pn**	**09 36 02.5**	**+0.6**
PRGV	**PARIAGUAN**	**2.89**	**229**	*e*P	**Pn**	**09 36 05.7**	**+0.5**
PRGV				*e*S	**Sn**	**09 36 37.3**	**-1.5**
GURV	**El Guri**	**2.96**	**193**	*e*S	**Sn**	**09 36 38.3**	**-2.2**
CUPV	**Cœpira**	**3.36**	**260**	*e*P	**Pn**	**09 36 13.2**	**+1.6**
CUPV				*e*S	**Sn**	**09 36 49.1**	**-1.2**
BIRV	**Birongo**	**3.78**	**267**	*e*P	**Pn**	**09 36 18.5**	**+1.2**
MERV	**Las Mercedes**	**4.06**	**250**	*e*P	**Pn**	**09 36 20.9**	**-0.3**
LUEV	**Luepa**	**4.89**	**169**	*e*P	**Pn**	**09 36 31.6**	**-1.0**
CAOV	**Caicara del Or**	**5.08**	**230**	*e*P	**Pn**	**09 36 35.3**	**+0.1**
BAUV	**El Baul**	**5.79**	**253**	*e*P	**Pn**	**09 36 44.3**	**-0.6**

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*GCMT **07** 09:41:04.0±0.4, 55.99S×123.34W, h21^{km}±2^{km}, MW4.8/49, Moment Tensor Solution. s17,c19; s49,c64; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.07±.14; $M_{\theta\theta}$1.34±.13; $M_{\phi\phi}$-1.26±.11; $M_{r\theta}$-0.22±.22; $M_{\theta\phi}$1.52±.09; $M_{\phi r}$0.39±.21; Best double couple: $M_0$2.05100×10^{16} NP1:ϕ_s201.00000°,δ80.00000°,λ-172.00000°. NP2: ϕ_s110.00000°,δ82.00000°,λ-10.00000°. Principal axes: T 2.0410, Plg1.0000°, Azm155.0000°; N 0.0290, Plg77.0000°, Azm250.0000°; P -2.0620, Plg13.0000°, Azm65.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC 07 09:41:00.7±1.4**, 5628S×12341W, h0^{km}, mb3.8**/3**, mb1 4.2**/3**, mb1mx4.0**/10**, mbtmp3.8**/3**, MS3.8**/6**, Ms1 3.8**/6**, ms1mx3.6**/12 **Error ellipse: s-maj=106.4km s-min=31.8km az=152.0, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMSA	**Palmer Station**	**29.34**	**131**	LR	LR	09 56 22.3	
	comp=Z,112nm,18.8s,baz=237,slow=31						
RKT	**Rikitea**	**34.19**	**341**	*e*LR	LR	09 56 39.6	
	384nm,29.5s						
RKT	**Rikitea**	**34.19**	**341**	*e*T		10 23 00.7	
	4.8nm,0.4s						
URZ	**Urewera**	**42.71**	**269**	LR	LR	10 02 09.5	
	comp=Z,153nm,21.4s,baz=72,slow=30						
TVO	**Taravao**	**43.09**	**323**	*e*T		10 34 27.7	
	2.7nm,0.3s						
PPT	**Papeete**	**43.40**	**322**	*e*S	S	09 55 16.6	-17
	67nm,25.8s						
PPT				*e*LQ		09 58 49.7	
	514nm,27.2s						
PPT				*e*LR	LR	10 01 03.4	
	300nm,25.2s,baz=168						
VAH	**Vaihoa**	**44.94**	**326**	*e*T		10 36 45.1	
	48nm,0.3s						
PMOR	**Pomariorio Ree**	**45.24**	**326**	*e*T		10 37 08.6	
	5.8nm,0.3s						
MAW	**Mawson**	**56.35**	**183**	LR	LR	10 13 33.3	
	comp=Z,204nm,18.2s,baz=209,slow=35						
LPAZ	**La Paz**	**57.56**	**69**	P	P	09 50 52.6	+0.7
	1.2nm,0.8s,baz=225,slow=4.5,SNR=4.7						
LPAZ				LR	LR	10 09 47.5	
	comp=Z,31nm,20.7s,baz=305,slow=30						
STKA	**Stephens Creek**	**66.74**	**247**	LR	LR	10 14 14.9	
	comp=Z,85nm,18.7s,baz=204,slow=30						
WRA	**Warramunga Arr**	**80.21**	**249**	P	P	09 53 12.9	0.0
	1.9nm,0.9s,baz=146,slow=4.8,SNR=8.1						
WRA				LR	LR	10 23 35.6	
	comp=Z,46nm,19.0s,baz=150,slow=32						
TXAR	**Lajitas Array**	**86.91**	**17**	P	P	09 53 47.0	+0.2
	0.3nm,0.9s,baz=185,slow=6.3,SNR=2.5						
MKAR	**Makanchi Array**	**161.51**	**250**	PKPab	PKPab	10 01 46.9	-0.1
	0.3nm,0.7s,baz=151,slow=3.3,SNR=3.7						

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*NEIC **07** 09:44:31.5, 38.43S×175.97E, h171^{km}, MG4.2(WEL), After WEL.*

WEL 07 09:44:32.3±0.3**, 3846S×17597E, h164^{km}**±2^{km}**, ML4.2**/24**, 14C, Error ellipse: s-maj=2.0km s-min=1.9km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHTZ	**Whakaora**	**0.21**	**183**	P	Pn	09 44 54.5	+0.3
WHTZ	**Whakaora**	**0.21**	**183**	PN	Pn	09 44 54.5	+0.3
WATZ	**Wairara**	**0.32**	**217**	P	Pn	09 44 54.6	+0.2
WATZ	**Wairara**	**0.32**	**217**	PN	Pn	09 44 54.6	+0.1
RATZ	**Rangitukua**	**0.44**	**201**	P	Pn	09 44 54.9	0.0
RATZ	**Rangitukua**	**0.44**	**201**	⇑PN	Pn	09 44 54.9	+0.1

HATZ	Hinemaiaia	0.45	168	P	Pn	09 44 54.9	0.0
HATZ	Hinemaiaia	0.45	168	⇑PN	Pn	09 44 54.9	0.0
HATZ				SN	Sn	09 45 11.6	-0.7
KARZ	Kaharoa	0.48	26	P	Pn	09 44 54.9	-0.2
KARZ	Kaharoa	0.48	26	PN	Pn	09 44 54.9	-0.2
RITZ	Rihia Road	0.53	190	P	Pn	09 44 55.8	+0.5
RITZ	Rihia Road	0.53	190	PN	Pn	09 44 55.8	+0.5
KATZ	Kakaramea	0.56	203	P	Pn	09 44 55.6	+0.2
KATZ	Kakaramea	0.56	203	PN	Pn	09 44 55.6	+0.2
MARZ	Manawahe	0.72	50	P	Pn	09 44 56.3	-0.1
MARZ	Manawahe	0.72	50	PN	Pn	09 44 56.3	-0.1
WTVZ	West Tongariro	0.72	204	P	Pn	09 44 56.4	0.0
WTVZ	West Tongariro	0.72	204	⇑PN	Pn	09 44 56.4	+0.1
TWVZ	Taurewa	0.74	214	P	Pn	09 44 56.6	+0.1
TWVZ	Taurewa	0.74	214	⇑PN	Pn	09 44 56.6	+0.1
OTVZ	Oturere	0.75	199	PN	Pn	09 44 56.6	+0.1
NGZ	Ngauruhoe	0.78	202	P	Pn	09 44 57.0	+0.3
NGZ	Ngauruhoe	0.78	202	PN	Pn	09 44 57.0	+0.3
BKZ	Black Stump Fm	0.82	150	P	Pn	09 44 57.3	+0.3
BKZ	Black Stump Fm	0.82	150	PN	Pn	09 44 57.2	+0.2
BKZ				SN	Sn	09 45 15.4	-0.6
WPVZ	Whakapapa	0.82	204	P	Pn	09 44 57.2	+0.2
WPVZ	Whakapapa	0.82	204	PN	Pn	09 44 57.2	+0.2
TUVZ	Tukino	0.85	197	P	Pn	09 44 57.5	+0.3
TUVZ	Tukino	0.85	197	⇑PN	Pn	09 44 57.5	+0.3
FWVZ	Far West T-bar	0.86	202	P	Pn	09 44 57.3	0.0
FWVZ	Far West T-bar	0.86	202	PN	Pn	09 44 57.3	0.0
DRZ	Dome Shelter	0.88	201	P	Pn	09 44 58.5	+1.1
DRZ	Dome Shelter	0.88	201	PN	Pn	09 44 58.5	+1.1
HIZ	Hauiti	0.88	266	P	Pn	09 44 57.1	-0.3
HIZ	Hauiti	0.88	266	⇑PN	Pn	09 44 57.1	-0.3
HIZ				eSN	Sn	09 45 16.6	0.0
TRVZ	Turoa	0.91	201	PN	Pn	09 44 57.7	+0.2
URZ	Urewera	0.92	78	P	Pn	09 44 57.2	-0.5
URZ	Urewera	0.92	78	⇑PN	Pn	09 44 57.2	-0.5
WNVZ	Wahianoa	0.92	198	P	Pn	09 44 57.9	+0.2
WNVZ	Wahianoa	0.92	198	⇑PN	Pn	09 44 57.9	+0.3
MOVZ	Moawhango	0.97	190	P	Pn	09 44 58.0	-0.1
MOVZ	Moawhango	0.97	190	⇑PN	Pn	09 44 58.0	-0.1
PKVZ	Pokaka	0.97	210	⇑PN	Pn	09 44 58.1	0.0
MTVZ	Mangateitei	1.01	203	⇑PN	Pn	09 44 58.4	0.0
VRZ	Vera Road	1.16	234	P	Pn	09 44 59.5	-0.2
VRZ				S	Sn	09 45 21.2	+0.5
VRZ	Vera Road	1.16	234	⇑PN	Pn	09 44 59.5	-0.2
VRZ				SN	Sn	09 45 21.2	+0.5
MWZ	Matawai	1.23	85	P	Pn	09 45 00.2	-0.1
MWZ				S	Sn	09 45 20.5	-1.2
MWZ	Matawai	1.23	85	⇑PN	Pn	09 45 00.2	-0.1
MWZ				SN	Sn	09 45 20.5	-1.2
KNZ	Kokohu	1.45	114	P	Pn	09 45 02.6	+0.3
KNZ	Kokohu	1.45	114	PN	Pn	09 45 02.7	+0.4
RAEZ	Rainy Point	1.49	236	P	Pn	09 45 03.0	+0.3
RAEZ	Rainy Point	1.49	236	PN	Pn	09 45 03.0	+0.3
WAZ	Wanganui	1.51	210	P	Pn	09 45 02.6	-0.3
WAZ	Wanganui	1.51	210	⇑PN	Pn	09 45 02.6	-0.3
TSZ	Takapari Road	1.60	180	P	Pn	09 45 03.8	-0.1
TSZ	Takapari Road	1.60	180	PN	Pn	09 45 03.8	-0.1
NEZ	North Egmont	1.68	240	P	Pn	09 45 04.8	+0.1
NEZ	North Egmont	1.68	240	PN	Pn	09 45 04.8	+0.1
PKE	Pukeiti	1.72	244	P	Pn	09 45 04.8	-0.3
PKE	Pukeiti	1.72	244	PN	Pn	09 45 04.8	-0.3
PXZ	Pawanui	1.72	157	PN	Pn	09 45 05.3	+0.2
PUZ	Puketiti	1.84	79	eP	Pn	09 45 06.0	-0.4
PUZ	Puketiti	1.84	79	PN	Pn	09 45 06.0	-0.4
MRZ	Mangatainoka R	2.22	188	P	Pn	09 45 09.6	-1.2
MRZ	Mangatainoka R	2.22	188	PN	Pn	09 45 09.6	-1.1
MRZ				SN	Sn	09 45 38.0	-2.6
BFZ	Birch Farm	2.23	175	P	Pn	09 45 10.1	-0.7
BFZ	Birch Farm	2.23	175	PN	Pn	09 45 10.1	-0.8
TIWZ	Tintock	2.32	182	PN	Pn	09 45 10.8	-1.0
KIW	Kapiti Island	2.54	199	P	Pn	09 45 12.7	-1.8
KIW	Kapiti Island	2.54	199	PN	Pn	09 45 12.7	-1.8
MTW	Mount Morrison	2.72	188	P	Pn	09 45 14.8	-1.9
MTW	Mount Morrison	2.72	188	PN	Pn	09 45 14.8	-1.9
CAW	Cannon Point	2.74	194	P	Pn	09 45 15.1	-1.8
CAW	Cannon Point	2.74	194	PN	Pn	09 45 15.1	-1.9
DUWZ	D'Urville Isla	2.83	213	PN	Pn	09 45 15.8	-2.2
MRW	Makara Radio	2.94	199	P	Pn	09 45 17.1	-2.3
MRW	Makara Radio	2.94	199	PN	Pn	09 45 17.1	-2.2
TRWZ	Traveller	2.95	184	PN	Pn	09 45 17.6	-1.9
PAWZ	Paruwai Farm	2.95	188	P	Pn	09 45 17.4	-2.1
PAWZ	Paruwai Farm	2.95	188	PN	Pn	09 45 17.4	-2.1
WEL	Wellington	2.98	198	P	Pn	09 45 17.6	-2.2
WEL	Wellington	2.98	198	PN	Pn	09 45 17.6	-2.2
MSWZ	Moikau Station	3.01	190	P	Pn	09 45 18.0	-2.2
MSWZ	Moikau Station	3.01	190	PN	Pn	09 45 18.0	-2.2
SNZO	South Karori	3.01	198	P	Pn	09 45 17.9	-2.4
SNZO	South Karori	3.01	198	PN	Pn	09 45 17.9	-2.4
TCW	Tory Channel	3.05	205	PN	Pn	09 45 18.3	-2.4
BHW	Baring Head	3.07	196	P	Pn	09 45 18.6	-2.4
BHW	Baring Head	3.07	196	PN	Pn	09 45 18.6	-2.4
TUWZ	Tuamarina	3.36	207	PN	Pn	09 45 21.8	-2.8
NNZ	Nelson	3.41	215	P	Pn	09 45 22.3	-2.9
NNZ	Nelson	3.41	215	PN	Pn	09 45 22.3	-2.9
CMWZ	Cape Campbell	3.56	202	P	Pn	09 45 25.0	-2.1
CMWZ	Cape Campbell	3.56	202	PN	Pn	09 45 25.0	-2.1
QRZ	Quartz Range	3.56	227	eP	Pn	09 45 23.7	-3.5
QRZ	Quartz Range	3.56	227	PN	Pn	09 45 23.7	-3.5
BSWZ	Blackbirch Sta	3.63	206	P	Pn	09 45 25.4	-2.7
BSWZ	Blackbirch Sta	3.63	206	PN	Pn	09 45 25.4	-2.7
THZ	Tophouse	4.06	214	eP	Pn	09 45 30.1	-3.4
THZ	Tophouse	4.06	214	PN	Pn	09 45 30.1	-3.4
KHZ	Kahutara	4.37	204	P	Pn	09 45 34.6	-3.0
KHZ	Kahutara	4.37	204	PN	Pn	09 45 34.6	-3.0
DSZ	Denniston Nort	4.58	223	eP	Pn	09 45 36.2	-4.2
DSZ	Denniston Nort	4.58	223	PN	Pn	09 45 36.2	-4.2
LTZ	Lake Taylor	5.16	212	eP	Pn	09 45 43.3	-4.6
LTZ	Lake Taylor	5.16	212	PN	Pn	09 45 43.3	-4.6
MQZ	McQueen's Vall	5.81	204	P	Pn	09 45 51.6	-4.9
MQZ	McQueen's Vall	5.81	204	PN	Pn	09 45 51.6	-4.9
WVZ	Waitaha Valley	6.09	219	eP	Pn	09 45 55.2	-5.0
WVZ	Waitaha Valley	6.09	219	PN	Pn	09 45 55.1	-5.1
RPZ	Rata Peaks	6.43	214	eP	Pn	09 46 00.5	-4.2
RPZ	Rata Peaks	6.43	214	PN	Pn	09 46 00.5	-4.2
FOZ	Fox Glacier	6.97	221	eP	Pn	09 46 05.4	-6.4
FOZ	Fox Glacier	6.97	221	ePN	Pn	09 46 05.4	-6.4
LBZ	Lake Benmore	7.35	214	eP	Pn	09 46 12.3	-4.5
LBZ	Lake Benmore	7.35	214	PN	Pn	09 46 12.3	-4.6
ODZ	Otahua Downs	7.69	209	eP	Pn	09 46 17.0	-4.4
ODZ	Otahua Downs	7.69	209	PN	Pn	09 46 17.0	-4.4
JCZ	Jackson Bay	7.81	222	eP	Pn	09 46 18.4	-4.6
JCZ	Jackson Bay	7.81	222	PN	Pn	09 46 18.4	-4.6
WKZ	Wanaka	8.22	217	eP	Pn	09 46 22.7	-5.7
WKZ	Wanaka	8.22	217	PN	Pn	09 46 22.7	-5.7
EAZ	Earnscleugh	8.40	214	eP	Pn	09 46 25.4	-5.3
EAZ	Earnscleugh	8.40	214	ePN	Pn	09 46 24.8	-6.0
TUZ	Tuapeka	8.85	210	ePN	Pn	09 46 32.5	-4.1
MLZ	Mavora Lakes	9.01	218	eP	Pn	09 46 34.2	-4.6
WHZ	Wether Hill Ro	9.52	216	eP	Pn	09 46 40.6	-5.0

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*CSEM **07** 09:48:43.9, 37.86N×20.77E, h22^{km}, MD3.5/4, After ATH*

ATH 07 09:48:43.9, 37.86N×20.77E, h22^{km}±1^{km}, MD3.5/4, Ionian Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.35	336	ePB	Pb	09 48 51.7	+0.2
VLS				eSB	Sb	09 48 57.8	+1.2
VLS	Valsamata	0.35	336	ePb	Pb	09 48 51.7	+0.2
VLS				eSb	Sb	09 48 57.8	+1.2
ITM	Ithomi	1.14	126	ePN	Pn	09 49 05.7	+1.1
ITM				eSN	Sn	09 49 21.5	+2.0
ITM	Ithomi	1.14	126	ePn	Pn	09 49 05.7	+1.1
ITM				eSn	Sn	09 49 21.5	+2.0
EVR	Evrytania	1.33	37	ePN	Pn	09 49 09.2	+2.0
EVR	Evrytania	1.33	37	ePn	Pn	09 49 09.2	+2.0
THL	Klokotos Trika	1.96	29	ePN	Pn	09 49 18.1	+2.3
THL	Klokotos Trika	1.96	29	ePn	Pn	09 49 18.1	+2.3

IDC 07 10:25:26.3±6.6, 24.12S×179.76E, h545^{km}±73^{km}, mb3.2/4, mb1 3.4/5, mb1mx3.2/13, mbtmp3.2/5, Error ellipse: s-maj=102.0km s-min=33.3km az=157.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	12.42	277	P	P	10 28 09.6	+0.4
	0.3nm,0.3s,baz=72,slow=19,SNR=4.5						
STKA	Stephens Creek	34.44	248	P	P	10 31 28.4	-0.2
	1.4nm,0.6s,baz=92,slow=9.5,SNR=7.0						
WRA	Warramunga Arr	42.17	266	P	P	10 32 31.3	-0.3
	1.9nm,0.4s,baz=104,slow=8.3,SNR=79						
FITZ	Fitzroy Crossi	50.59	266	P	P	10 33 35.6	+0.3
	1.4nm,0.6s,baz=84,slow=9.2,SNR=4.0						
TXAR	Lajitas Array	90.73	58	P	P	10 37 31.5	+0.1
	0.6nm,0.7s,baz=212,slow=6.7,SNR=8.2						

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*IDC **07** 10:34:06.5±5.0, 7.65S×127.43E, h85^{km}±46^{km}, mb3.7/4, mb1 3.9/6, mb1mx3.7/13, mbtmp3.8/6, ML4.0/2, Error ellipse: s-maj=88.1km s-min=19.9km az=63.0*

*ISCJB **07** 10:34:07.6±3.7, 7.7S±0.2×127.7E±0.2, h118^{km}±41^{km}, mb3.9/4, Error ellipse: s-maj=34.5km s-min=24.2km az=34.3*

*NEIC **07** 10:34:09.3±2.5, 7.73S×127.46E, h114^{km}±25^{km}, mb4.0/1, Error ellipse: s-maj=34.4km s-min=20.3km az=65.0*

ISC 07 10:34:10.1±3.2, 7.8S±0.2×127.6E±0.2, h125^{km}±37^{km}, n15, σ1^{s}08/12, mb3.9/4, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.80	136	eP	Pn	10 35 49.5	+2.1
	8.8nm,0.2s						
KAKA				eP		10 35 49.8	
KAKA				eS	Sn	10 37 02.1	-1.4
FITZ	Fitzroy Crossi	10.43	191	eP	Pn	10 36 36.8	+0.5
	13nm,0.6s						
FITZ				eS	Sx	10 38 26.6	
FITZ	Fitzroy Crossi	10.43	191	P	Pn	10 36 35.3	-1.0
	0.7nm,0.3s,baz=14,slow=12,SNR=40						
FITZ				S	Sx	10 38 26.5	
	3.6nm,0.3s,baz=227,slow=19,SNR=7.0						
WRA	Warramunga Arr	13.72	152	P	Pn	10 37 18.6	-0.9
	0.7nm,0.3s,baz=324,slow=14,SNR=29						
WRA				S	Sx	10 39 43.9	
	2.1nm,0.3s,baz=342,slow=20,SNR=12						
WB2	Warramunga Arr	13.72	152	eP	Pn	10 37 19.7	+0.2
WB2				eS	Sx	10 39 44.1	
STKA	Stephens Creek	27.27	153	eP	P	10 39 46.0	+3.3
	1.7nm,0.4s,mb3.9						
STKA	Stephens Creek	27.27	153	P	P	10 39 44.9	+2.2
	2.0nm,0.4s,mb4.0,baz=333,slow=6.6,SNR=11						
SONM	Songino Array	58.48	343	P	P	10 43 53.0	+0.1
	0.7nm,0.8s,mb3.8,baz=150,slow=6.6,SNR=4.7						
MK31	Makanchi Array	67.62	328	eP	P	10 44 53.2	-0.1
MKAR	Makanchi Array	67.62	328	P	P	10 44 53.3	0.0
	1.0nm,0.6s,mb3.8,baz=128,slow=7.8,SNR=14						
ZALV	Zalesovo Beam	71.27	335	P	P	10 45 14.7	-0.9
	0.7nm,0.3s,mb3.9,baz=135,slow=7.3,SNR=4.8						
TORD	Torodi Ar. Bea	126.66	281	PKP	PKPdf	10 52 59.4	-0.3
TORD	Torodi Ar. Bea	126.66	281	PKP	PKPdf	10 52 59.4	-0.3
	1.0nm,0.8s,baz=85,slow=1.6,SNR=5.0						
LPAZ	La Paz	151.44	147	PKPbc	PKPbc	10 53 52.7	+2.5
LPAZ				PKPab	PKPab	10 54 02.5	+3.7
LPAZ	La Paz	151.44	147	PKPbc	PKPbc	10 53 52.7	+2.5
	0.4nm,0.3s,baz=180,slow=2.0,SNR=3.3						
LPAZ				PKPab	PKPab	10 54 02.5	+3.7
	0.8nm,0.5s,baz=191,slow=5.8,SNR=5.3						

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*BJI **07** 10:42:00.8, 29.64N×139.30E, h401^{km}, mB4.6, mb4.5*

*NIED **07** 10:42:00, 29.80N×139.50E, h400^{km}, Mw4.3 Best double couple: M$_0$3.60000×10^{15} NP1:φ$_s$33.00000°, δ25.00000°, λ-162.00000°. NP2:φ$_s$286.00000°, δ83.00000°, λ-66.00000°.*

*MOS **07** 10:42:03.2±0.9, 29.83N×138.96E, h400^{km}, mb4.2/28, Error ellipse: s-maj=11.9km s-min=6.2km az=97.7*

*JMA **07** 10:42:03.8±0.2, 29.83N×139.45E, h413^{km}±4^{km}, M4.4*

*ISCJB **07** 10:42:03.1±0.3, 29.78N±0.03×138.99E±0.03, h394^{km}±2^{km}, mb4.2/58, Error ellipse: s-maj=4.6km s-min=4.4km az=15.0*

*NEIC **07** 10:42:04.7±0.2, 29.84N×139.06E, mb4.4/21, Error ellipse: s-maj=6.5km s-min=5.4km az=115.0*

*IDC **07** 10:42:04.5±0.6, 29.80N×139.04E, h402^{km}±5^{km}, mb3.7/22, mb1 3.9/27, mb1mx3.8/32, mbtmp3.7/27, Error ellipse: s-maj=12.1km s-min=7.7km az=91.0*

ISC 07 10:42:04.1±0.3, 29.78N±0.03×139.07E±0.03, h391^{km}±2^{km}, h404^{km}±7.1^{km}:pP-P, n366, σ0^{s}77/380, mb4.2/58, 81C-75D, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	3.39	11	P	Pn	10 43 11.3	+1.5
JHJ2				eS	S	10 44 03.4	+0.4
JHJ	Hachijo jima 2	3.39	10	P	Pn	10 43 11.3	+1.6
	73nm,0.3s,baz=88,slow=17,SNR=17						
JHJ				S	S	10 44 03.2	+0.2
	71nm,0.3s,baz=68,slow=22,SNR=7.9						
CBIJ	Chichi jima	3.83	133	P	Pn	10 43 13.5	-0.5
CBIJ	Chichi jima	3.83	133	P	Pn	10 43 13.8	-0.2
	26nm,0.3s,baz=248,slow=5.4,SNR=25						
CBIJ				S	S	10 44 07.8	-2.7
	369nm,0.3s,baz=288,slow=19,SNR=44						
JHHJ	Haha-jima-NKT	4.17	138	P	Pn	10 43 16.9	-0.3
JHHJ				eS	S	10 44 14.2	-2.3
JIE	Ise	5.02	337	P	Pn	10 43 29.0	+3.3
JIE				eS	S	10 44 35.0	+2.9
BSO1	Boso 1	5.12	18	P	Pn	10 43 27.0	+0.2
BSO1				S	S	10 44 32.9	-1.2
JOD2	Odawara 2	5.47	0	P	Pn	10 43 31.4	+0.9
JOD2				S	S	10 44 38.3	-2.5
JRY	Ryogami san	6.22	359	P	Pn	10 43 39.2	+0.5
JRY				eS	S	10 44 51.6	-4.2
MJAR	Matsushiro Arr	6.79	354	P	Pn	10 43 44.6	-0.3
MJAR				S	S	10 45 04.7	-2.5
MJAR				pmax	pmax		
	comp=Z,5.0nm,0.3s						
MJAR				smax			
	comp=N,3.0nm,0.3s						
MJAR	Matsushiro Arr	6.79	354	P	Pn	10 43 44.6	-0.3
	comp=N,5.1nm,0.3s,baz=171,slow=10,SNR=47						
MJAR				S	S	10 45 04.7	-2.6
	comp=N,2.9nm,0.3s,baz=164,slow=13,SNR=7.8						
MAJO	Matsushiro	6.79	354	ePn	Pn	10 43 45.2	+0.2
MAT	Matsushiro	6.79	354	P	Pn	10 43 44.8	-0.1
MAT				S	S	10 45 05.4	-1.9
JHS	Saijyo	7.24	318	P	Pn	10 43 53.0	+2.9
JNU	Nakatsue	7.75	298	P	Pn	10 43 59.0	+3.0
	comp=N,0.7nm,0.3s,baz=209,slow=29,SNR=6.3						
JSJ	Shimokoshiki	8.27	286	P	Pn	10 44 05.2	+3.2
JMK	Ichinoseki	9.32	10	P	Pn	10 44 14.1	+0.1
JMK				eS	S	10 45 56.1	-4.7
JOW	Kunigami	9.96	255	P	Pn	10 44 25.4	+3.8
JOW	Kunigami	9.96	255	P	Pn	10 44 24.7	+3.1
	comp=N,3.8nm,0.3s,baz=100,slow=11,SNR=26						
JKE	Kume jima 2	11.38	255	P	Pn	10 44 39.9	+1.7
JOT	Ohata	11.69	7	P	Pn	10 44 41.2	-0.4
KSRS	Korea Array	12.03	312	P	P	10 44 46.1	+1.8
	comp=N,1.2nm,0.3s,baz=125,slow=11,SNR=42						
KS15	Wonju Array Si	12.05	312	ePn	Pn	10 44 44.5	-1.3
JKB	Kayabe	12.19	7	P	P	10 44 46.4	+0.4
ERM	Erimo	12.65	14	eP	P	10 44 51.3	+0.2
VLA	Vladivostok	14.51	339	eP	P	10 45 11.3	-0.1
NEM2	Nemuro 2	14.57	20	P	P	10 45 12.7	+0.6
ASAJ	Asahikawa	14.59	10	P	P	10 45 13.1	+0.9
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ	Asahikawa	14.59	10	P	P	10 45 13.1	+0.8
	comp=Z,4.1nm,0.3s,baz=217,slow=13,SNR=37						
JTKR	Abashiri--Toko	14.68	14	P	P	10 45 14.3	+1.0
JWK2	Keihoku	15.67	7	P	P	10 45 25.8	+1.8
MDJ	Mudanjiang	16.61	336	P	P	10 45 34.4	+0.4
MDJ				AMB	AMB		
	comp=Z,42nm,0.9s						
MDJ				AMB	AMB		
	comp=Z,74nm,4.2s						
SNY	Shenyang	17.36	318	⇓P	P	10 45 42.2	+0.1
SNY				S	S	10 48 45.7	+3.1
SNY				AMB	AMB		
	comp=Z,12nm,1.1s						
YSS	Yuzh-Sakhalins	17.39	8	eP	P	10 45 42.0	-0.3
YSS	Yuzh-Sakhalins	17.39	8	⇑eP	P	10 45 42.0	-0.3
YSS				pmax	pmax		
	comp=Z,40nm,0.8s						
NJ2	Nanjing	17.50	283	eP	P	10 45 43.9	+0.2
NJ2				AMB	AMB		
	comp=Z,50nm,0.9s						
CN2	Changchun	17.71	326	eP	P	10 45 46.4	+0.6
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s						
HABR	Khabarovsk	18.93	352	⇑eP	P	10 45 58.3	-0.2
HABR				pmax	pmax		
	comp=Z,48nm,1.0s						
KLR	Kul'dur	20.21	346	eP	P	10 46 06.8	-4.0
KLR				pmax	pmax		
	comp=E,21nm,1.2s						
KLR				pmax	pmax		
	comp=Z,34nm,1.2s						
WHN	Wuhan	21.38	278	P	P	10 46 24.0	+2.2
HIA	Hailar	24.39	328	eP	P	10 46 48.9	+0.2
XAN	Xi'an	25.90	287	P	P	10 47 01.8	-0.5
XAN				AMB	AMB		
	comp=Z,16nm,0.9s,mb4.5						
GYA	Guiyang	28.72	271	⇑iP	P	10 47 26.8	-0.6
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.5						
CIT	Chita	29.16	327	eP	P	10 47 31.2	+0.4
LZH	Lanzhou	30.12	291	eP	P	10 47 38.7	-0.8
LZH				AP	pP	10 48 54.5	+3.5
LZH				XP	sP	10 49 42.0	+5.5
LZH				AMB	AMB		
	comp=Z,23nm,1.0s,mb4.5						
LZH				AMB	AMB		
	comp=Z,80nm,4.0s						
LZH	Lanzhou	30.12	291	eP	P	10 47 38.7	-0.8
	comp=Z,23nm,1.0s,mb4.5						
LZH				pP	pP	10 48 54.5	+3.5
LZH				sP	sP	10 49 42.0	+5.5
LZH	Lanzhou	30.12	291	eP	P	10 47 38.7	-0.8
LZH				*PP	pP	10 48 54.5	+3.5
LZH				*SP	sP	10 49 42.0	+5.5
LZH				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.5						
CD2	Chengdu	30.42	281	eP	P	10 47 40.2	-2.0
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.2						
CD2				AMB	AMB		
	comp=Z,30nm,4.8s						
ULN	Ulaanbaatar	30.50	315	eP	P	10 47 42.0	-0.6
MA2	Magadan	30.84	12	eP	P	10 47 45.2	-0.2
MA2	Magadan	30.84	12	c iP	P	10 47 45.1	-0.3
MA2				pmax	pmax		
	comp=N,20nm,0.6s						
MA2				pmax	pmax		
	comp=E,10.0nm,0.6s						
MA2				pmax	pmax		
	comp=Z,40nm,0.6s,mb4.9						
SONM	Songino Array	30.89	315	P	P	10 47 46.1	+0.1
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM				pmax	pmax		
	comp=N,2.0nm,0.8s						
SONM	Songino Array	30.89	315	P	P	10 47 46.1	+0.1
	comp=N,0.9nm,0.5s,mb3.3,baz=129,slow=9.0,SNR=11						
SONM				ScP	ScP	10 53 33.8	-2.7
	comp=N,1.5nm,0.8s,baz=150,slow=3.0,SNR=10						
YAK	Yakutsk	32.85	352	eP	P	10 48 01.8	-0.9
YAK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.1						
BOD	Bodaibo	32.98	335	eP	P	10 47 58.7	-5.2
BOD				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb3.8						
ZAK	Zakamensk	33.79	318	eP	P	10 48 10.9	0.0
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.8s						
TLY	Talaya	34.13	320	eP	P	10 48 14.0	+0.2
TLY				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.7						
SEY	Seymchan	34.27	11	eP	P	10 48 14.9	+0.1
NANT	Nan	36.49	261	P	P	10 48 31.5	-2.6
CHG	Chiang Mai	37.99	263	⇓P	P	10 48 46.6	0.0
	comp=Z,19nm,0.6s,mb4.6						
CHTO	Chiang Mai	37.99	263	eP	P	10 48 46.5	-0.1
	comp=Z,12nm,0.8s,mb4.3						
CHTO	Chiang Mai	37.99	263	eP	P	10 48 46.5	-0.1
CHTO				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.3						
BILL	Bilibino	41.52	15	eP	P	10 49 14.3	-0.3
	comp=Z,22nm,0.8s,mb4.5						
BILL	Bilibino	41.52	15	⇓iP	P	10 49 14.2	-0.4
BILL				pmax	pmax		
	comp=Z,41nm,1.2s,mb4.6						
TIXI	Tiksi	42.30	355	eP	P	10 49 19.5	-1.2
TIXI	Tiksi	42.30	355	eP	P	10 49 18.6	-2.1
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.8						
KAKA	Kakadu	42.72	190	eP	P	10 49 25.0	+0.3
	comp=Z,23nm,0.8s,mb4.6						
WMQ	Urumqi	42.80	304	eP	P	10 49 23.8	-1.3
TAPN	Taplejung	44.87	280	eP	P	10 49 41.9	+0.3
	comp=Z,16nm,0.4s,mb4.8						
ODAN	Odare	45.28	279	eP	P	10 49 44.6	-0.2
	comp=Z,27nm,0.5s,mb4.8						
ZALV	Zalesovo Beam	45.67	318	P	P	10 49 48.1	+0.7
	comp=Z,0.5nm,0.4s,mb3.2,baz=74,slow=11,SNR=2.6						
ZALV				PcP	PcP	10 51 16.1	-1.8
	comp=Z,1.0nm,0.5s,baz=111,slow=4.2,SNR=4.2						
ZALV				ScP	ScP	10 54 28.9	-3.8
	comp=Z,1.0nm,0.5s,baz=119,slow=4.1,SNR=3.6						
ZAL	Zalesovo	45.68	318	P	P	10 49 48.1	+0.6
ZAL						10 51 16.1	
JIRN	Jiri	46.09	281	eP	P	10 49 51.8	+0.8
	comp=Z,28nm,0.3s,mb5.1						
GUN	Gumba	46.29	281	eP	P	10 49 53.3	+0.7
	comp=Z,38nm,0.4s,mb5.0						
PSI	Prapat	46.55	243	P	P	10 49 54.9	+0.2
PSI	Prapat	46.55	243	P	P	10 49 54.9	+0.2
PSI				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.0						
PSI	Prapat	46.55	243	P	P	10 49 54.9	+0.2
	comp=Z,6.4nm,0.8s,mb4.0,baz=300,slow=6.5,SNR=3.8						
MK31	Makanchi Array	46.66	308	eP	P	10 49 54.7	-0.5
MK31				ePcP	PcP	10 51 20.8	-0.8
MKAR	Makanchi Array	46.66	308	P	P	10 49 54.5	-0.6
MKAR				PcP	PcP	10 51 20.6	-0.9
MKAR				ScP	ScP	10 54 33.7	-3.4
MKAR	Makanchi Array	46.66	308	P	P	10 49 54.5	-0.7
MKAR						10 51 20.7	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR				pmax	pmax		
	comp=N,2.0nm,0.8s						
MKAR	Makanchi Array	46.66	308	P	P	10 49 54.5	-0.6
	comp=N,0.6nm,0.3s,mb3.4,baz=85,slow=10,SNR=17						
MKAR				PcP	PcP	10 51 20.6	-0.9
	comp=N,1.1nm,0.7s,baz=85,slow=3.5,SNR=6.9						
MKAR				ScP	ScP	10 54 33.7	-3.4
	comp=N,1.6nm,0.8s,baz=84,slow=4.8,SNR=11						
PKI	Pulchoki	46.78	281	eP	P	10 49 56.3	0.0
KKN	Kakani	46.83	281	eP	P	10 49 56.8	+0.1
DMN	Daman	47.03	281	eP	P	10 49 58.4	+0.2
	comp=N,18nm,0.4s,mb4.8						
GKN	Gorkha	47.32	282	eP	P	10 50 00.4	0.0
	comp=N,13nm,0.3s,mb4.7						
TNA	Tin City	48.17	26	eP	P	10 50 06.0	-0.3
KOLN	Koldanda	48.27	282	eP	P	10 50 07.9	+0.3
	comp=N,49nm,0.8s,mb4.9						
KURK	Kurchatov	49.16	313	eP	P	10 50 13.0	-0.9
FITZ	Fitzroy Crossi	49.33	197	eP	P	10 50 15.6	0.0
	comp=N,18nm,0.6s,mb4.6						
WB2	Warramunga Arr	49.64	186	eP	P	10 50 17.0	-0.8
WRA	Warramunga Arr	49.64	186	P	P	10 50 17.4	-0.4
WRA					pP	10 51 32.4	-4.4
WRA				*PP	pP	10 51 38.5	+1.7
WRA				S	S	10 56 52.0	-4.0
WRA				pmax	pmax		
	comp=Z,12nm,0.6s						
WRA				pmax	pmax		
	comp=Z,2.0nm,0.4s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA				pmax	pmax		
	comp=N,1.0nm,0.7s						
WRA				smax			
	comp=N,1.0nm,1.0s						
WRA	Warramunga Arr	49.64	186	P	P	10 50 17.4	-0.5
	comp=N,12nm,0.6s,mb4.4,baz=1.2,slow=7.7,SNR=269						
WRA				PcP	PcP	10 51 32.4	-0.2
	comp=N,1.6nm,0.4s,baz=359,slow=3.9,SNR=5.7						
WRA				pP	pP	10 51 38.5	+1.7
	comp=N,1.0nm,0.8s,baz=2.9,slow=9.0,SNR=2.2						
WRA				ScP	ScP	10 54 47.4	-2.5
	comp=N,0.9nm,0.7s,baz=1.1,slow=5.1,SNR=5.4						

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WRA                                S      S      10 56 52.0 -4.0
      comp=N,0.9nm,1.0s,baz=354,slow=13,SNR=4.3
AAK   Ala-Archa        52.49 303  eP     P      10 50 37.2 -1.4
AAK                               eP            10 50 37.7
AAK   Ala-Archa        52.49 303  eP     P      10 50 36.5 -2.1
AAK                                pmax   pmax
      comp=Z,1.0nm,0.9s
KDAK  Kodiak Island    53.91  38   P     P      10 50 48.1 -0.4
      comp=Z,15nm,0.3s,mb4.7,baz=298,slow=4.3,SNR=70
PMR   Palmer           55.68  33  eP     P      10 51 00.8 -0.3
      comp=Z,14nm,0.9s,mb4.3
PMR   Palmer           55.68  33  eP     P      10 51 00.8 -0.2
PMR                                pmax   pmax
      comp=Z,13nm,0.9s,mb4.3
MCK   McKinley         55.80  31  eP     P      10 51 01.6 -0.2
COLA  College          56.30  29  eP     P      10 51 05.3  0.0
      comp=Z,6.5nm,0.8s,mb4.0
COLA  College          56.30  29  eP     P      10 51 05.3  0.0
COLA                               pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.0
DZM   Mont Dzumac      57.89 150   P     P      10 51 18.1 +1.3
      comp=Z,1.9nm,0.6s,mb3.6,baz=78,slow=20,SNR=4.0
EGAK  Eagle            59.16  29  eP     P      10 51 23.9 -1.1
      comp=Z,4.3nm,0.6s,mb4.0
EGAK                              ePcP   PcP    10 52 07.1 -1.6
DAWY  Dawson           60.00  30  eP     P      10 51 30.4 -0.2
ARU   Arti             60.63 321  eP     P      10 51 34.1 -0.8
ARU                               e             10 53 49.8
ARU                               eS     S      10 59 33.7 +14
ARMA  Armidale         61.04 168  eP     P      10 51 38.8 +0.8
FORT  Forrest          61.12 191  eP     P      10 51 38.5  0.0
      comp=Z,44nm,0.5s,mb5.1
STKA  Stephens Creek   61.36 178  eP     P      10 51 39.9 -0.1
      comp=Z,5.8nm,0.4s,mb4.4
STKA  Stephens Creek   61.36 178  eP     P      10 51 40.2 +0.2
STKA  Stephens Creek   61.36 178   P     P      10 51 40.0  0.0
      comp=Z,6.7nm,0.4s,mb4.4,baz=358,slow=6.0,SNR=56
INK   Inuvik           61.75  25  eP     P      10 51 41.5 -0.7
      comp=Z,259nm,0.6s
INK   Inuvik           61.75  25   P     P      10 51 41.5 -0.7
INK                                pmax   pmax
      comp=Z,7.0nm,0.5s
INK   Inuvik           61.75  25   P     P      10 51 41.5 -0.7
      comp=Z,7.2nm,0.5s,mb4.5,baz=296,slow=5.8,SNR=77
AKTK  Aktyubinsk       62.20 314   P     P      10 51 44.3 -1.2
AKTO  Aktyubinsk       62.20 314   P     P      10 51 44.3 -1.2
AKTO                               pmax   pmax
      comp=Z,3.0nm,0.6s,mb4.0
AKTO  Aktyubinsk       62.20 314   P     P      10 51 44.3 -1.2
      comp=Z,2.6nm,0.6s,mb4.0,baz=86,slow=13
MORW  Morawa           62.51 203  eP     P      10 51 47.2 -0.5
      comp=Z,11nm,0.5s,mb4.6
NWAO  Narrogin (SRO)   65.70 200   P     P      10 52 08.1 -0.1
NWAO  Narrogin (SRO)   65.70 200   P     P      10 52 08.1  0.0
NWAO                               pmax   pmax
      comp=Z,30nm,0.7s
NWAO  Narrogin (SRO)   65.70 200   P     P      10 52 08.1 -0.1
      comp=Z,30nm,0.7s,mb5.1,baz=24,slow=6.5,SNR=28
KEV   Kevo             69.54 340  ep     P      10 52 28.9 -2.5
      comp=Z,3.3nm,0.6s,mb4.0
KEV   Kevo             69.54 340  eP     P      10 52 28.9 -2.5
KEV                                pmax   pmax
      comp=Z,3.0nm,0.6s,mb4.0
RES   Resolute Bay     70.10  13  eP     P      10 52 34.2 -0.5
ARCES ARCESS Array B   70.11 340   P     P      10 52 34.2 -0.6
ARCES ARCESS Array B   70.11 340   P     P      10 52 34.2 -0.6
ARCES                              pmax   pmax
      comp=Z,3.0nm,0.4s
ARCES ARCESS Array B   70.11 340   P     P      10 52 34.2 -0.5
      comp=Z,2.9nm,0.4s,mb4.1,baz=68,slow=8.8,SNR=36
YKA   Yellowknife Ar   71.09  28   P     P      10 52 39.6 -1.1
YKA                                *PP    pP    10 54 09.2 +2.7
YKA                                pmax   pmax
      comp=Z,2.0nm,0.4s
YKA   Yellowknife Ar   71.09  28   P     P      10 52 39.6 -1.1
      comp=Z,1.9nm,0.4s,mb4.0,baz=296,slow=6.0,SNR=46
YKA                                pP     pP    10 54 09.2 +2.7
      comp=Z,0.4nm,0.8s,baz=299,slow=6.5,SNR=3.9
JOF   Joensuu          71.46 333  ep     P      10 52 41.3 -1.6
      comp=Z,2.9nm,0.6s,mb4.0
JOF   Joensuu          71.46 333  eP     P      10 52 41.3 -1.6
JOF                                pmax   pmax
      comp=Z,3.0nm,0.6s,mb4.0
OBN   Obninsk          72.77 324  eP     P      10 52 50.2 -0.5
OBN                                pmax   pmax
      comp=Z,19nm,0.4s,mb5.0
B05A  Bryant           73.84  43  ⇑P     P      10 52 56.1 -1.0
      baz=74
KAF   Kangasniemi      73.87 333  ep     P      10 52 54.6 -2.3
      comp=Z,0.9nm,0.4s,mb3.8,baz=52,slow=5.5
KAF   Kangasniemi      73.87 333  eP     P      10 52 54.6 -2.3
KAF                                pmax   pmax
      comp=Z,1.0nm,0.4s,mb3.8
E04A  Onalaska         74.20  45  ⇑P     P      10 52 58.9 -0.3
      baz=74
FINES FINESS Array B   74.33 333   P     P      10 52 58.5 -1.1
FINES FINESS Array B   74.33 333  i P    P      10 52 58.9 -0.7
FINES                              pmax   pmax
      comp=Z,1.0nm,0.4s
FINES FINESS Array B   74.33 333   P     P      10 52 58.5 -1.1
      comp=Z,0.9nm,0.4s,mb3.8,baz=72,slow=5.6,SNR=13
C05A  Tolt Reservoir   74.34  44  ⇓P     P      10 52 59.7 -0.2
      baz=74
A07A  Ashnola River,   74.49  42  ⇓P     P      10 53 00.5 -0.3
      baz=74
F04A  Amboy            74.69  46  ⇑P     P      10 53 00.4 -1.6
      baz=74
C06A  Tall Timber Ra   74.71  43  ⇓P     P      10 53 01.7 -0.4
      baz=74
B07A  Winthrop         74.92  43  ⇑P     P      10 53 03.0 -0.2
      baz=75
I03A  Eugene           75.03  48  ⇓P     P      10 53 03.2 -0.7
      baz=75
D06A  Cle Elum         75.08  44  ⇑P     P      10 53 03.7 -0.4
      baz=75
E06A  Yakima           75.30  45  ⇑P     P      10 53 05.5 +0.1
      baz=75
F05A  White Salmon     75.31  45  ⇑P     P      10 53 05.5 +0.1
      baz=75
C07A  Waterville       75.31  43   P     P      10 53 05.3 -0.1
      baz=75,SNR=6.6
H04A  Detroit Lake     75.41  47  ⇑P     P      10 53 05.4 -0.7
      baz=75
B08A  Colville Reser   75.43  42   P     P      10 53 06.2 +0.1
      baz=75,SNR=5.2
A09A  Danville         75.57  42  ⇓P     P      10 53 06.7 -0.2
      baz=75
D07A  Quincy           75.60  44  ⇑P     P      10 53 06.6 -0.5
      baz=75
I04A  Tendick Farm,    75.67  48  ⇓P     P      10 53 06.8 -0.8
      baz=76
C08A  Higginbotham F   75.87  43   P     P      10 53 08.6  0.0
      baz=76,SNR=6.6
E07A  Sunnyside        75.97  44  ⇑P     P      10 53 09.0 -0.2
      baz=76
H05A  Madras           76.03  46  ⇓P     P      10 53 09.1 -0.4
      baz=76
B09A  Rice             76.09  42   P     P      10 53 09.9 +0.2
      baz=76,SNR=5.3
G06A  Carlson Farm,    76.12  46  ⇑P     P      10 53 10.0 -0.1
      baz=76
J04A  Umpqua Nationa   76.12  48  ⇓P     P      10 53 10.3 +0.2
      baz=76
A10A  Northport        76.16  41  ⇑P     P      10 53 10.2 +0.1
      baz=76
I05A  Bend             76.23  47  ⇓P     P      10 53 11.1 +0.4
      baz=76
F07A  Phinny Hill Vi   76.25  45  ⇑P     P      10 53 09.9 -0.8
      baz=76
EDM   Edmonton         76.30  36  eP     P      10 53 10.7 -0.2
D08A  Wollman Farm,    76.30  44   P     P      10 53 11.0  0.0
      baz=76,SNR=5.8
C09A  Chrisman Ranch   76.32  43  ⇑P     P      10 53 11.3 +0.2
      baz=76
O01C  Eel River Cons   76.42  51  ⇓P     P      10 53 10.3 -1.5
      baz=76
YBH   Yreka Blue Hor   76.43  50  ⇑P     P      10 53 12.0 +0.2
      baz=76
E08A  Dider Farm, El   76.49  44  ⇑P     P      10 53 12.0  0.0
      baz=76
M02C  Callahan         76.49  50  ⇑P     P      10 53 11.8 -0.4
      baz=76
H06A  Lindquist Farm   76.55  46  ⇓P     P      10 53 11.9 -0.5
      baz=76
D09A  Jones Farm, Ri   76.66  43  ⇑P     P      10 53 12.6 -0.4
      baz=76
J05A  Fort Rock        76.67  48   P     P      10 53 14.0 +0.9
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      baz=76,SNR=6.4
G07A  Ruggs Ranch, H   76.71  45  ⇑P     P      10 53 12.6 -0.7
      baz=76
NEW   Newport          76.76  42   P     P      10 53 13.3 -0.2
NEW   Newport          76.76  42   P     P      10 53 13.3 -0.2
NEW                                pmax   pmax
      comp=Z,4.0nm,0.8s
NEW   Newport          76.76  42   P     P      10 53 13.3 -0.2
      comp=Z,3.9nm,0.8s,mb4.1,baz=302,slow=5.5,SNR=13
A11A  Hall Mountain,   76.85  41  ⇑P     P      10 53 14.1 +0.1
      baz=77
C10A  Spilker Farm,    76.88  42  ⇓P     P      10 53 14.3 +0.1
      baz=77
M04C  Macdoel          76.98  49  ⇓P     P      10 53 14.7 -0.1
      baz=77
I06A  Prineville       77.00  47  ⇓P     P      10 53 14.8 -0.1
      baz=77
E09A  Wood Farm, Sta   77.03  44  ⇓P     P      10 53 14.9 -0.1
      baz=77
M03C  McCloud          77.04  50  ⇓P     P      10 53 14.6 -0.6
      baz=77
WDC   Whiskeytown Da   77.08  51  ⇑P     P      10 53 14.4 -1.0
      baz=77
O02C  Red Bluff        77.11  51  ⇑P     P      10 53 15.6  0.0
      baz=77
B11A  Sandpoint        77.11  41  ⇑P     P      10 53 15.3 -0.2
      baz=77,SNR=5.4
G08A  Pilot Rock       77.13  45  ⇓P     P      10 53 15.6  0.0
      baz=77
K05A  Summer Lake      77.15  48  ⇓P     P      10 53 16.4 +0.6
      baz=77
A12A  Yaak River Ran   77.27  41  ⇓P     P      10 53 16.5 +0.2
      baz=77
D10A  Wagner Farm, O   77.28  43  ⇑P     P      10 53 15.9 -0.5
      baz=77
J06A  Christmas Vall   77.38  47  ⇑P     P      10 53 17.2 +0.2
      baz=77
I07A  Izee             77.38  46  ⇓P     P      10 53 17.0  0.0
      baz=77
K06A  Valley Falls     77.53  48  ⇑P     P      10 53 17.7 -0.1
      baz=77
B12A  Libby            77.54  41  ⇓P     P      10 53 18.0 +0.2
      baz=77
F09A  S2 Ranch, Elgi   77.57  44  ⇑P     P      10 53 18.3 +0.3
      baz=77
E10A  Myers Farm, Un   77.66  43  ⇓P     P      10 53 19.0 +0.5
      baz=78
H08A  Prairie City     77.69  46   P     P      10 53 19.5 +0.8
      baz=78,SNR=5.4
D11A  Klaveano Farm,   77.84  43  ⇑P     P      10 53 19.2 -0.2
      baz=78,SNR=5.8
F10A  Beach Ranch, E   77.85  44  ⇑P     P      10 53 19.4 -0.2
      baz=78
J07A  Hines            77.85  47   P     P      10 53 20.4 +0.8
      baz=78,SNR=9.8
MOD   Modoc            77.93  49  ⇓P     P      10 53 20.0 -0.1
      baz=78
MNRC  McLaughlin Nat   77.95  52  ⇑P     P      10 53 20.3  0.0
      baz=78
I08A  Drewsey          78.06  46  ⇑P     P      10 53 20.9 +0.2
      baz=78
FARB  Farallon Islan   78.13  53  ⇑P     P      10 53 19.3 -1.9
      baz=78
M06C  Likely Place G   78.16  49  ⇓P     P      10 53 20.9 -0.5
      baz=78
O04C  Chester          78.18  50  ⇓P     P      10 53 21.8 +0.4
      baz=78
WALA  Waterton Lakes   78.18  40  eP     P      10 53 20.9 -0.4
      comp=Z,9.5nm,1.2s,mb4.3
K07A  Rock Creek Ran   78.23  48   P     P      10 53 22.1 +0.4
      baz=78,SNR=6.5
B13A  Whitefish        78.23  41  ⇓P     P      10 53 21.8 +0.2
      baz=78
SUTB  Sutter Butte     78.23  52  ⇑P     P      10 53 21.0 -0.8
      baz=78
E11A  Bogner Ranch,    78.27  43  ⇓P     P      10 53 21.6 -0.2
      baz=78
ORV   Oroville         78.27  51  ⇓P     P      10 53 21.3 -0.6
      baz=78
ELFS  Eagle Lake Fie   78.28  50  ⇑P     P      10 53 22.0  0.0
      baz=78
Q03C  Winters          78.36  52  ⇑P     P      10 53 23.1 +0.6
      baz=78
J08A  Circle Bar Ran   78.39  47  ⇑P     P      10 53 23.1 +0.6
      baz=78
O05C  Quincy           78.47  51  ⇓P     P      10 53 23.0 -0.1
      baz=78
L07A  Adell            78.50  48   P     P      10 53 24.0 +0.8
      baz=78,SNR=16
C13A  Hot Springs      78.54  41  ⇓P     P      10 53 23.1 -0.1
      baz=78
I09A  Lost Marbles R   78.54  46  ⇓P     P      10 53 23.5 +0.1
      baz=78
K08A  Mann Creek Ran   78.70  47   P     P      10 53 24.7 +0.5
      baz=78,SNR=12
G11A  Walters Elk Ra   78.72  44   P     P      10 53 24.1 -0.1
      baz=78,SNR=6.8
WVOR  Wild Horse Val   78.75  48  eP     P      10 53 24.6 +0.1
      comp=Z,2.2nm,0.6s,mb4.0
WVOR  Wild Horse Val   78.75  48  eP     P      10 53 24.6 +0.1
WVOR                               pmax   pmax
      comp=Z,2.0nm,0.6s,mb3.9
N06A  Buffalo Meadow   78.81  49  ⇓P     P      10 53 24.5 -0.3
      baz=79
H10A  Noah’s Angus R   78.84  45   P     P      10 53 24.8 -0.2
      baz=79,SNR=8.2
J09A  Fry Pan Ranch,   78.85  46   P     P      10 53 25.4 +0.3
      baz=79,SNR=5.6
BEKR  Beckwourth       78.89  50  ⇑P     P      10 53 25.6 +0.3
      baz=79
M07A  Soldier Meadow   78.92  49  ⇓P     P      10 53 25.7 +0.3
      baz=79
C14A  Swan Lake        78.96  41  ⇑P     P      10 53 25.3 -0.2
      baz=79
L08A  Fields           79.06  48   P     P      10 53 26.9 +0.7
      baz=79,SNR=19
O06A  Flanigan         79.10  50  ⇓P     P      10 53 26.1 -0.3
      baz=79
F12A  Elk City         79.14  43   P     P      10 53 27.1 +0.6
      baz=79,SNR=8.9
LAVA  Lava Cap Winer   79.18  52  ⇓P     P      10 53 26.7 -0.1
      baz=79
K09A  Rome             79.20  47  ⇑P     P      10 53 25.9 -1.0
      baz=79
H11A  Donnelly         79.23  45  ⇓P     P      10 53 27.5 +0.5
      baz=79
M08A  Happy Creek Ra   79.41  48  ⇓P     P      10 53 27.6 -0.4
      baz=79
E13A  Victor           79.41  42  ⇑P     P      10 53 28.3 +0.3
      baz=79
J10A  Berg Farm, Mel   79.43  46  ⇑P     P      10 53 27.9 -0.2
      baz=79
L09A  Wilkinson Ranc   79.58  48  ⇓P     P      10 53 29.8 +0.8
      baz=79
R05C  Kirkwood Meado   79.66  51   P     P      10 53 29.8 +0.4
      baz=80,SNR=5.8
PACP  Pacheco Peak     79.66  53  ⇑P     P      10 53 29.5 +0.1
      baz=80
F13A  Darby            79.68  43  ⇓P     P      10 53 28.2 -1.1
      baz=80
I11A  Placerville      79.68  45  ⇓P     P      10 53 29.1 -0.3
      baz=80
K10A  MacKenzie Ranc   79.70  47   P     P      10 53 30.1 +0.5
      baz=80,SNR=9.2
O07A  Toulon           79.73  50  ⇑P     P      10 53 29.8  0.0
      baz=80
CMB   Columbia Colle   79.77  52  eP     P      10 53 30.0 -0.1
      comp=Z,3.7nm,0.6s,mb4.2
CMB   Columbia Colle   79.77  52  eP     P      10 53 30.0 -0.1
CMB                                pmax   pmax
      comp=Z,4.0nm,0.6s,mb4.2
CMB   Columbia Colle   79.77  52   P     P      10 53 30.1 +0.1
      baz=80,SNR=6.9
HAST  UC Hastings Re   79.77  54  ⇑P     P      10 53 28.4 -1.7
      baz=80
E14A  Clinton          79.83  42  ⇑P     P      10 53 30.9 +0.7
      baz=80
HFS   Hagfors          79.87 336   P     P      10 53 29.1 -1.0
HFS                                pmax   pmax
      comp=Z,2.0nm,0.6s
HFS   Hagfors          79.87 336   P     P      10 53 29.1 -1.1
      comp=Z,1.9nm,0.6s,mb3.9,baz=123,slow=2.5,SNR=6.0
H12A  Diamond D Ranc   80.02  44  ⇓P     P      10 53 30.7 -0.6
      baz=80
MFID  Camas Ranch      80.02  46   P     P      10 53 31.6 +0.3
      baz=80,SNR=5.9
M09A  Marrel Ranch,    80.02  48  ⇓P     P      10 53 32.3 +1.0
      baz=80
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NOA   NORSAR Array B   80.10 337   P     P      10 53 30.1 -1.2
NOA                                pmax   pmax
      comp=Z,2.0nm,0.7s
NOA   NORSAR Array B   80.10 337   P     P      10 53 30.1 -1.2
      comp=Z,1.5nm,0.7s,mb3.8,baz=43,slow=5.3,SNR=5.4
G13A  Cobalt           80.11  44  ⇓P     P      10 53 30.6 -1.0
      baz=80
S05C  Merced           80.15  53   P     P      10 53 32.0 -0.1
      baz=80,SNR=6.6
R06C  Coleville        80.17  51   P     P      10 53 32.7 +0.5
      baz=80,SNR=5.5
S06C  San Francisco    80.22  52  ⇑P     P      10 53 32.4 -0.1
      baz=80
N09A  Rock Creek Ran   80.27  48  ⇑P     P      10 53 33.0 +0.4
      baz=80
L10A  Juniper Basin    80.31  47  ⇑P     P      10 53 33.5 +0.6
      baz=80
E15A  Deer Lodge       80.32  42  ⇓P     P      10 53 32.8 +0.1
      baz=80
H13A  Challis          80.38  44   P     P      10 53 33.3 +0.2
      baz=80,SNR=6.3
M10A  I.L. Ranch, Tu   80.56  48  ⇑P     P      10 53 33.9 -0.2
      baz=80
R07C  Lee Vining       80.66  51  ⇑P     P      10 53 35.7 +1.0
      baz=80
PKD   Parkfield        80.70  54  ⇓P     P      10 53 34.3 -0.7
      baz=80
L11A  Cat Creek Ranc   80.72  47   P     P      10 53 35.8 +0.8
      baz=80,SNR=6.8
F15A  Butte            80.73  42   P     P      10 53 35.1 +0.2
      baz=80,SNR=9.5
T06C  Millerton Lake   80.75  53   P     P      10 53 35.2  0.0
      baz=81,SNR=5.6
LRM   Limekiln Ridge   80.77  42  eP     P      10 53 34.7 -0.4
U05C  Westside ANR,    80.80  53  ⇓P     P      10 53 35.8 +0.3
      baz=81
I13A  Wildhorse Cree   80.81  44  ⇑P     P      10 53 36.1 +0.7
      baz=81
HLID  Hailey           80.81  45  eP     P      10 53 36.0 +0.6
      comp=Z,1.5nm,0.8s,mb3.8
HLID  Hailey           80.81  45  ⇓P     P      10 53 35.7 +0.3
      baz=81
O09A  Fish Creek Ran   80.84  49  ⇓P     P      10 53 36.3 +0.7
      baz=81
KCC   Kaiser Creek     80.86  52  ⇑P     P      10 53 35.9 +0.1
      baz=81
NVAR  Mina Array Bea   80.99  51   P     P      10 53 37.0 +0.5
NVAR  Mina Array Bea   80.99  51   P     P      10 53 37.0 +0.5
      comp=Z,2.6nm,0.6s,mb4.2,baz=301,slow=4.1,SNR=31
Q08A  Gabbs            81.02  50  ⇑P     P      10 53 36.1 -0.5
      baz=81
MLAC  Mammoth Lakes    81.04  52  ⇑P     P      10 53 37.0 +0.3
      baz=81
J13A  Cove Ranch, Pi   81.05  45   P     P      10 53 37.3 +0.6
      baz=81,SNR=7.8
EGMT  Eagleton         81.06  39  ⇑P     P      10 53 36.8 +0.2
      baz=81
M11A  Holland Ranch,   81.08  47  ⇑P     P      10 53 37.7 +0.8
      baz=81
G15A  Dillon           81.10  43  ⇓P     P      10 53 37.3 +0.4
      baz=81
R08A  Mina             81.17  51  ⇓P     P      10 53 37.2 -0.2
      baz=81
P09A  Austin           81.19  49  ⇓P     P      10 53 38.2 +0.8
      baz=81
L12A  House Creek Ra   81.20  46  ⇓P     P      10 53 37.8 +0.3
      baz=81
BOZ   Bozeman (W)      81.34  42  ⇓P     P      10 53 37.6 -0.5
      baz=81
MTUM  Tungsten Hills   81.36  52  eP     P      10 53 38.2 -0.2
HELL  Mitchell Peak,   81.39  53  ⇓P     P      10 53 37.5 -1.1
      baz=81
SMMC  Simmler          81.40  54  ⇑P     P      10 53 38.1 -0.6
      baz=81
K13A  Stover Farm, H   81.51  46  ⇓P     P      10 53 39.6 +0.5
      baz=81
S08C  White Mtn Res    81.56  52   P     P      10 53 40.2 +0.8
      baz=81,SNR=9.4
P10A  Eureka           81.60  49  ⇓P     P      10 53 40.2 +0.6
      baz=81
M12A  Wells            81.65  47   P     P      10 53 41.0 +1.2
      baz=82,SNR=5.7
O11A  Cowboy Ranch,    81.86  48  ⇑P     P      10 53 41.4 +0.4
      baz=82
N12A  Clover Valley,   81.87  47  ⇓P     P      10 53 41.7 +0.7
      baz=82
L13A  Double Diamond   81.90  46  ⇑P     P      10 53 42.0 +0.9
      baz=82
R09A  Tonopah          81.92  51   P     P      10 53 41.5 +0.3
      baz=82,SNR=10.0
S09A  Goldfield        82.08  51   P     P      10 53 42.5 +0.3
      baz=82,SNR=6.1
K14A  Jones Ranch, D   82.13  45  ⇑P     P      10 53 43.3 +1.1
      baz=82
M13A  Montello         82.16  47  ⇓P     P      10 53 43.3 +0.9
      baz=82
BRTR  Keskin Array B   82.18 311   P     P      10 53 42.2 -0.4
BRTR                               pmax   pmax
      comp=Z,2.0nm,0.7s
BRTR  Keskin Array B   82.18 311   P     P      10 53 42.2 -0.4
      comp=Z,1.7nm,0.7s,mb3.9,baz=94,slow=4.2,SNR=10
ISA   Isabella         82.30  53  ⇑P     P      10 53 41.8 -1.4
      baz=82
GRAC  Grapevine Rang   82.36  52  ⇓P     P      10 53 43.5 -0.1
      baz=82
O12A  Currie           82.38  48   P     P      10 53 44.1 +0.6
      baz=82,SNR=8.4
S10A  Tonopah Range,   82.41  51   P     P      10 53 44.1 +0.4
      baz=82,SNR=5.8
R10A  Warm Springs     82.41  50  ⇓P     P      10 53 44.1 +0.3
      baz=82
Q11A  Duckwater        82.54  49  ⇓P     P      10 53 44.5  0.0
      baz=82
LKWY  Lake             82.67  42  eP     P      10 53 44.8 -0.2
      comp=Z,5.9nm,1.0s,mb4.3
LKWY  Lake             82.67  42  eP     P      10 53 44.8 -0.2
LKWY                               pmax   pmax
      comp=Z,6.0nm,1.0s,mb4.3
P12A  McGill           82.70  49   P     P      10 53 45.7 +0.4
      baz=82,SNR=6.0
MPMC  Manual Prospec   82.77  53   P     P      10 53 46.5 +0.8
      baz=83,SNR=5.7
LRMC  Laurel Mountai   82.94  53  ⇓P     P      10 53 46.8 +0.2
      baz=83
Q12A  Willow Creek R   82.98  49  ⇑P     P      10 53 47.2 +0.5
      baz=83
FURC  Furnace Creek,   82.99  52   P     P      10 53 47.2 +0.5
      baz=83,SNR=7.8
EDW2  Edwards Air Fo   83.04  54  ⇑P     P      10 53 47.2 +0.1
      baz=83
S11A  Rachel           83.12  51  ⇑P     P      10 53 48.7 +1.3
      baz=83
U10A  Ash Meadows, A   83.38  52   P     P      10 53 49.5 +0.8
      baz=83,SNR=6.1
R12A  Pony Springs,    83.51  49  ⇓P     P      10 53 49.5 +0.2
      baz=83
GSC   Goldstone        83.64  53  ⇓P     P      10 53 50.6 +0.5
      baz=84
HWUT  Hardware Ranch   83.65  45  eP     P      10 53 50.7 +0.7
DUG   Dugway           83.65  47  eP     P      10 53 50.5 +0.5
      comp=Z,5.5nm,0.7s,mb4.4
DUG   Dugway           83.65  47  eP     P      10 53 50.5 +0.5
DUG                                pmax   pmax
      comp=Z,5.0nm,0.7s,mb4.3
DUG   Dugway           83.65  47  ⇓P     P      10 53 50.7 +0.7
      baz=84
SHOC  Shoshone         83.69  52  ⇓P     P      10 53 49.9 -0.4
      baz=84
SHPR  Sheep Range      84.13  51  eP     P      10 53 52.2 -0.3
TUQ   Turquoise Mtn.   84.18  52   P     P      10 53 53.2 +0.5
      baz=84,SNR=5.1
BW06  Boulder Array    84.20  44  eP     P      10 53 52.3 -0.5
PDAR  Pinedale Array   84.21  44   P     P      10 53 52.2 -0.5
      comp=Z,1.7nm,0.9s,mb3.8,baz=330,slow=1.1,SNR=12
HEC   Hector,Ludlow    84.22  53   P     P      10 53 53.2 +0.2
      baz=84,SNR=7.9
MURC  Murrieta         84.27  55  ⇑P     P      10 53 52.7 -0.5
      baz=84
JLU   Jordanelle       84.29  46  eP     P      10 53 53.3 +0.1
V11A  Goodsprings      84.31  52  ⇑P     P      10 53 54.0 +0.6
      baz=84
U12A  Valley of Fire   84.59  51  ⇓P     P      10 53 55.3 +0.5
      baz=84
T13A  Saint George     84.69  50  ⇑P     P      10 53 56.3 +1.1
      baz=84
109C  Camp Elliot, M   84.71  55  ⇑P     P      10 53 54.8 -0.6
      baz=85
GMRC  Granite Mounta   84.72  53  ⇑P     P      10 53 55.9 +0.4
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	baz=84						
V12A	Nelson	84.76	52	⇑P	P	10 53 56.4	+0.7
	baz=85						
S14A	Cedar City	84.77	49	⇓P	P	10 53 56.2	+0.5
	baz=85						
PFO	Pinyon Flat Ob	84.79	54	*e*P	P	10 53 55.8	0.0
	comp=Z,4.7nm,0.6s,mb4.4						
PFO	Pinyon Flat Ob	84.79	54	*e*P	P	10 53 55.8	0.0
PFO				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
PFO	Pinyon Flat Ob	84.79	54	P	P	10 53 55.9	+0.1
	baz=85,SNR=5.2						
BELC	Belle Mtn.	84.90	54	P	P	10 53 56.4	+0.1
	baz=85,SNR=5.1						
T14A	Hurricane	85.22	50	⇑P	P	10 53 59.1	+1.3
	baz=85						
IRM	Iron Mountain	85.41	53	⇑P	P	10 53 58.9	0.0
	baz=85						
BC3	Big Chuckw Mtn	85.47	54	⇓P	P	10 53 59.4	+0.2
	baz=85						
SWSC	Sam W. Stewart	85.61	55	⇑P	P	10 53 59.2	-0.7
	baz=86						
SRU	San Rafael	85.72	47	*e*P	P	10 53 59.5	-0.8
PDMCI	Parker Dam,Lak	86.03	53	⇓P	P	10 54 01.9	0.0
	baz=86						
Y12C	Blythe	86.06	53	⇑P	P	10 54 02.2	+0.2
	baz=86						
X13A	Yucca	86.08	52	⇑P	P	10 54 02.8	+0.7
	baz=86						
W14A	Seligman	86.25	51	⇓P	P	10 54 03.9	+1.0
	baz=86						
ULM	Lac du Bonnet	86.66	32	P	P	10 54 03.9	-0.7
	comp=Z,0.8nm,0.5s,mb3.7,baz=325,slow=9.0,SNR=4.8						
X14A	Yava	86.79	52	⇑P	P	10 54 07.1	+1.6
	baz=87						
Y14A	Wickenburg	87.01	52	⇓P	P	10 54 07.7	+1.1
	baz=87						
PV10	Paradox Valley	87.09	47	*e*P	P	10 54 06.0	-0.9
X15A	Humboldt	87.23	52	⇑P	P	10 54 08.2	+0.6
	baz=87						
PV01	Paradox Valley	87.53	47	*e*P	P	10 54 08.6	-0.3
ANMO	Albuquerque	90.81	48	*e*P	P	10 54 25.3	+1.1
TXAR	Lajitas Array	96.14	51	P	P	10 54 48.8	0.0
TXAR				pP	pP	10 56 20.9	+1.5
TXAR				PP	PP	10 58 52.7	+5.7
TXAR	Lajitas Array	96.14	51	P	P	10 54 48.8	0.0
TXAR				*PP	pP	10 56 20.9	+1.4
TXAR						10 58 52.7	
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	96.14	51	P	P	10 54 48.8	0.0
	comp=Z,0.7nm,0.6s,mb4.0,baz=289,slow=3.3,SNR=13						
TXAR				pP	pP	10 56 20.9	+1.5
	comp=Z,0.4nm,0.7s,baz=297,slow=2.9,SNR=4.9						
TXAR				PP	PP	10 58 52.7	+5.7
	comp=Z,0.4nm,0.8s,baz=289,slow=5.6,SNR=4.4						
TORD	Torodi Ar. Bea	120.76	310	PKP	PKPdf	11 00 09.1	-2.0
TORD	Torodi Ar. Bea	120.76	310	PKP	PKPdf	11 00 09.1	-2.0
	comp=Z,0.2nm,0.5s,baz=10.0,slow=1.6,SNR=4.3						

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*PRU **07** 10:51:38.4,4179N×1935E,h0^{km}*
*CSEM **07** 10:51:42.5±0.1,4202N×2048E,h10^{km},ML3.8,Error ellipse: s-maj=1.7km s-min=1.1km az=36.0*
*ISCJB **07** 10:51:43.1±0.2,4202N±001×2050E±002,h10^{km},mb3.6/5, Error ellipse: s-maj=2.4km s-min=1.5km az=39.9*
*PDG **07** 10:51:43.1±0.9,4203N×2051E,h0^{km}±1^{km},MD3.5/9, ML3.4/9,Error ellipse: s-maj=1.5km s-min=1.8km az=0.0*
*NEIC **07** 10:51:43.1,4203N×2051E,h0^{km},ML3.4(PDG), ML2.9(BUC),After PDG.*
*SKO **07** 10:51:43.2,4196N×2055E,h22^{km},M2.8,ML3.0*
*THE **07** 10:51:43.9,4203N×2057E,h3^{km},ML3.8*
*BEO **07** 10:51:44.7±0.2,4200N×2054E,h9^{km}±2^{km},ML3.1/15*
*MOS **07** 10:51:45.8±1.0,4209N×2042E,h34^{km},mb4.1/1,Error ellipse: s-maj=7.3km s-min=5.1km az=95.6*
*IDC **07** 10:51:49.1±2.9,4209N×2043E,h44^{km}±26^{km},mb3.4/6, mb1 3.6/10,mb1mx3.5/21,mbtmp3.5/10,ML3.3/4,Error ellipse: s-maj=28.5km s-min=15.0km az=167.0*
ISC 07 10:51:44.8±0.2**,4201N**±001×**2053E**±002**,h10**^{km}**,n202,** σ**1**^{s}**36**/284**,mb3.6**/5**,42C-23D,Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKO	Skopje	0.68	93	*e*Pg	Pg	10 51 56.8	-1.1
SKO				*e*Sg	Sg	10 52 08.3	+1.6
SKO	Skopje	0.68	93	⇓*i*Pg	Pg	10 51 56.7	-1.1
SKO				*e*Sg	Sg	10 52 07.9	+1.2
SKO				*e*Lg		10 52 08.8	
	comp=N,601nm,0.4s						
SKO				*e*Lg		10 52 09.1	
	comp=E,551nm,0.7s						
SKO	Skopje	0.68	93	*i* Pg	Pg	10 51 56.7	-1.1
SKO				*e*Sg	Sg	10 52 07.7	+1.0
SKO	Skopje	0.68	93	⇓*i*Pg	Pg	10 51 56.7	-1.1
SKO				*e*Sg	Sg	10 52 08.3	+1.6
PVY	Plav	0.72	325	⇓*i*Pg	Pg	10 51 55.5	-3.1
PVY				*e*Sg	Sg	10 52 06.6	-1.4
PVY	Plav	0.72	325	⇓*i*Pg	Pg	10 51 55.5	-3.1
PVY				*e*Sg	Sg	10 52 06.6	-1.4
PVY	Plav	0.72	325	⇓*i*Pg	Pg	10 51 55.5	-3.1
PVY				*e*Sg	Sg	10 52 06.6	-1.4
TIR	Tirane	0.83	217	*e*Pg	Pg	10 51 59.1	-1.7
TIR				*e*Sg	Sg	10 52 14.4	+2.9
TIR	Tirane	0.83	217	*i* Pg	Pg	10 51 58.9	-1.9
TIR				*e*Sg	Sg	10 52 12.9	+1.3
TIR	Tirane	0.83	217	*e*Pg	Pg	10 51 59.1	-1.7
KRUS	Krusevo	0.83	140	*i* Pg	Pg	10 51 59.3	-1.5
KRUS				*e*Sg	Sg	10 52 11.6	-0.2
KRUS	Krusevo	0.83	140	*i* Pg	Pg	10 51 59.3	-1.5
KRUS				*e*Sg	Sg	10 52 11.5	-0.2
OHR	Ohrid	0.92	167	*e*Pg	Pg	10 52 00.4	-2.0
OHR				*e*Sg	Sg	10 52 13.8	-0.6
OHR				*e*Lg		10 52 15.1	
	comp=N,1µm,0.8s						
OHR				*e*Lg		10 52 15.5	
	comp=E,2µm,0.7s						
OHR	Ohrid	0.92	167	*i* Pg	Pg	10 51 59.9	-2.6
OHR				*e*Sg	Sg	10 52 15.5	+1.1
OHR	Ohrid	0.92	167	*e*Pg	Pg	10 52 00.4	-2.1
OHR				*e*Sg	Sg	10 52 15.2	+0.8
ULC	Ulcinj	0.96	268	*e*Pg	Pg	10 52 00.5	-2.7
ULC				*e*Sg	Sg	10 52 15.5	-0.2
ULC	Ulcinj	0.96	268	*e*Pg	Pg	10 52 00.5	-2.7
ULC				*e*Sg	Sg	10 52 15.5	-0.2
ULC	Ulcinj	0.96	268	*e*Pg	Pg	10 52 00.5	-2.7
ULC				*e*Sg	Sg	10 52 15.5	-0.2
BEY	Berane	0.98	332	⇑*i*Pg	Pg	10 52 00.4	-3.2
BEY				*e*Sg	Sg	10 52 15.4	-1.0
IVA	Berane	0.98	332	⇑*i*Pg	Pg	10 52 00.4	-3.2
IVA				*e*Sg	Sg	10 52 15.4	-1.0
IVA	Berane	0.98	332	⇑*i*Pg	Pg	10 52 00.4	-3.2
IVA				*e*Sg	Sg	10 52 15.4	-1.0
IVA	Berane	0.98	332	⇑*i*Pg	Pg	10 52 00.4	-3.2
IVA				*e*Sg	Sg	10 52 15.4	-1.0
PDG	Podgorica	1.03	294	⇑*i*Pg	Pg	10 52 01.1	-3.6
PDG				*e*Sg	Sg	10 52 17.5	-0.6
TTG	Podgorica	1.03	294	⇑*i*Pg	Pg	10 52 01.1	-3.6
TTG				*e*Sg	Sg	10 52 17.5	-0.6
TTG	Podgorica	1.03	294	⇑*i*Pg	Pg	10 52 01.1	-3.6
TTG				*e*Sg	Sg	10 52 17.5	-0.6
TTG	Podgorica	1.03	294	⇑*i*Pg	Pg	10 52 01.1	-3.6
TTG				*e*Sg	Sg	10 52 17.5	-0.6
BIA	Bitola	1.15	149	*e*Pg	Pg	10 52 04.8	-2.1
BIA				*e*Sg	Sg	10 52 22.6	+0.7
BIA	Bitola	1.15	149	*e*Pg	Pg	10 52 05.1	-1.9
BIA				*e*Sg	Sg	10 52 20.8	-1.1
BIA				*e*Lg		10 52 23.6	
	comp=N,216nm,0.7s						
BIA				*e*Lg		10 52 25.4	
	comp=E,391nm,0.6s						
BIA	Bitola	1.15	149	*i* Pg	Pg	10 52 05.2	-1.7
BIA				*e*Sg	Sg	10 52 22.4	+0.5
BIA	Bitola	1.15	149	*e*Pg	Pg	10 52 04.8	-2.1
BIA				*e*Sg	Sg	10 52 22.6	+0.7
BUM	Brajici-Budva	1.25	284	⇓*i*Pg	Pg	10 52 05.9	-2.9
BUM				*e*Sg	Sg	10 52 24.9	-0.1
BUM	Brajici-Budva	1.25	284	⇓*i*Pg	Pg	10 52 05.9	-2.9
BUM				*e*Sg	Sg	10 52 24.9	-0.1
BUM	Brajici-Budva	1.25	284	⇓*i*Pg	Pg	10 52 05.9	-2.9
BUM				*e*Sg	Sg	10 52 24.9	-0.1
BARS	Barje	1.25	49	*i* Pg	Pg	10 52 07.2	-1.6
BARS				*e*Sg	Sg	10 52 26.8	+1.7
BARS	Barje	1.25	49	Pg	Pg	10 52 07.2	-1.6
BARS				Sg	Sg	10 52 26.7	+1.6
STIP	Stip	1.27	104	*e*Pg	Pg	10 52 06.4	-2.8
STIP				*e*Sg	Sg	10 52 26.1	+0.4
STIP	Stip	1.27	104	*e*Pg	Pg	10 52 07.0	-2.2
STIP				*e*Sg	Sg	10 52 24.3	-1.4
STIP				*e*Lg		10 52 25.7	
	comp=N,97nm,0.6s						
STIP				*e*Lg		10 52 25.8	
	comp=E,88nm,0.8s						
STIP	Stip	1.27	104	*i* Pg	Pg	10 52 06.5	-2.7
STIP				*e*Sg	Sg	10 52 26.3	+0.5
STIP	Stip	1.27	104	*e*Pg	Pg	10 52 07.0	-2.2
STIP				*e*Sg	Sg	10 52 24.3	-1.5
SJES	Sjenica	1.33	341	*i* Pg	Pg	10 52 07.4	-2.9
SJES				*e*Sg	Sg	10 52 26.5	-1.1
FNA	Florina	1.38	152	*e*Pg	Pg	10 52 08.0	-3.2
FNA				*e*Sg	Sg	10 52 31.2	+2.1
FNA	Florina	1.38	152	*e*Pg	Pg	10 52 08.0	-3.2
NKY	Niksic	1.39	306	⇑*i*Pg	Pg	10 52 08.1	-3.4
NKY				*e*Sg	Sg	10 52 29.9	+0.4
NKY	Niksic	1.39	306	⇑*i*Pg	Pg	10 52 08.1	-3.4
NKY				*e*Sg	Sg	10 52 29.9	+0.4
NKY	Niksic	1.39	306	⇑*i*Pg	Pg	10 52 08.1	-3.4
NKY				*e*Sg	Sg	10 52 29.9	+0.4
PLE	Pljevlja	1.56	328	⇑*i*Pg	Pg	10 52 11.5	-3.3
PLE				*e*Sg	Sg	10 52 35.7	+0.6
PLE	Pljevlja	1.56	328	⇑*i*Pg	Pg	10 52 11.5	-3.3
PLE				*e*Sg	Sg	10 52 35.7	+0.6
PLE	Pljevlja	1.56	328	⇑*i*Pg	Pg	10 52 11.5	-3.3
PLE				*e*Sg	Sg	10 52 35.7	+0.6
HCY	Herceg Novi	1.57	287	⇓*i*Pg	Pg	10 52 11.5	-3.5
HCY				*e*Sg	Sg	10 52 35.9	+0.5
HCY	Herceg Novi	1.57	287	⇓*i*Pg	Pg	10 52 11.5	-3.5
HCY				*e*Sg	Sg	10 52 35.9	+0.5
VAY	Valandovo	1.67	114	*e*Pb	Pb	10 52 13.7	-1.9
VAY				*e*Sb	Sb	10 52 37.9	+1.2
VAY	Valandovo	1.67	114	*e*Pn	Pn	10 52 13.0	-1.1
VAY				*e*Sg	Sg	10 52 36.9	-1.7
VAY				*e*Lg		10 52 38.5	
	comp=E,249nm,0.8s						
VAY				*e*Lg		10 52 38.6	
	comp=N,297nm,0.7s						
VAY	Valandovo	1.67	114	*e*Pg	Pg	10 52 13.1	-3.8
VAY				*e*Sg	Sg	10 52 37.4	-1.2
VAY	Valandovo	1.67	114	*e*Pn	Pn	10 52 12.9	-1.2
VAY				*e*Sg	Sg	10 52 36.9	-1.7
UPM	Unac-Piva	1.69	315	⇑*i*Pn	Pn	10 52 13.9	-0.4
UPM				*e*Sn	Sn	10 52 39.6	+3.6
UPM	Unac-Piva	1.69	315	⇑*i*Pn	Pn	10 52 13.9	-0.4
UPM				*e*Sn	Sn	10 52 39.6	+3.6
UPM	Unac-Piva	1.69	315	⇑*i*Pn	Pn	10 52 13.9	-0.4
UPM				*e*Sn	Sn	10 52 39.6	+3.6
BRY	Bratogost	1.72	302	⇑*i*Pn	Pn	10 52 14.0	-0.7
BRY				*e*Sn	Sn	10 52 40.2	+3.4
BRY	Bratogost	1.72	302	⇑*i*Pn	Pn	10 52 14.0	-0.7
BRY				*e*Sn	Sn	10 52 40.2	+3.4
BRY	Bratogost	1.72	302	⇑*i*Pn	Pn	10 52 14.0	-0.7
BRY				*e*Sn	Sn	10 52 40.2	+3.4
GRG	Griva	1.75	126	*e*Pb	Pb	10 52 15.5	-1.5
GRG				*e*Sb	Sb	10 52 46.0	+7.0
GRG	Griva	1.75	126	*e*Pb	Pb	10 52 15.5	-1.5
GRUS	Gruza	1.88	4	*i* Pn	Pn	10 52 15.1	-1.9
GRUS				*e*Sn	Sn	10 52 42.8	+2.1
KKB	Krupnik	1.91	93	*i* P	Pn	10 52 19.0	+1.7
KZN	Kozani	1.94	151	*e*P	Pn	10 52 18.9	+1.1
BBLS	Bajina Basta -	2.03	336	*i* Pn	Pn	10 52 18.5	-0.5
BBLS				*e*Sg	Sg	10 52 51.5	+1.4
BBLS	Bajina Basta -	2.03	336	Pn	Pn	10 52 18.6	-0.4
VTS	Vitosha	2.07	73	*e*Pn	Pn	10 52 19.5	0.0
VTS	Vitosha	2.07	73	*i* P	Pn	10 52 19.5	0.0
VTS	Vitosha	2.07	73	*i* P	Pn	10 52 19.5	0.0
VTS	Vitosha	2.07	73	⇑*i*P	Pn	10 52 19.9	+0.4
VTS	Vitosha	2.07	73	*i* Pg	Pg	10 52 19.4	-5.0
VTS	Vitosha	2.07	73	*e*Pn	Pn	10 52 19.5	0.0
BOLS	Boljevac	2.10	29	Pn	Pn	10 52 22.6	+2.7
DIVS	Divcibare	2.12	349	*e*Pn	Pn	10 52 19.0	-1.3
DIVS				*e*Sn	Sn	10 52 48.6	+1.9
DIVS	Divcibare	2.12	349	*i* Pn	Pn	10 52 18.8	-1.5
DIVS				*e*Sg	Sg	10 52 54.6	+1.6
DIVS	Divcibare	2.12	349	Pn	Pn	10 52 19.2	-1.1
DIVS				*e*Sn	Sn	10 52 48.6	+1.9
STON	Ston	2.27	293	*e*Pn	Pn	10 52 20.5	-1.8
STON				Sn	Sg	10 52 57.8	+0.2
SVIS	Svilajnac	2.34	12	*i* Pn	Pn	10 52 26.6	+3.4
SVIS				*e*Sg	Sg	10 52 58.3	-1.6
KEK	Kerkira	2.36	194	*e*P	Pn	10 52 26.0	+2.4
JAN	Janina	2.36	174	*e*P	Pn	10 52 27.0	+3.4
LIT	Litokhoron	2.41	142	*e*Pn	Pn	10 52 24.9	+0.7
MMB	Musomiste	2.42	99	*i* P	Pn	10 52 25.3	+0.9
NVR	Nevrokopi	2.58	104	*e*P	Pn	10 52 27.0	+0.5
THL	Klokotos Trika	2.69	155	*e*P	Pn	10 52 29.0	+0.9
PLG	Polygyros	2.74	126	*e*P	Pn	10 52 27.7	-1.0
DJES	Djerdap	3.00	28	*e*Pn	Pn	10 52 32.8	+0.5
DJES				*e*Sn	Sn	10 53 07.7	-0.5
DJES	Djerdap	3.00	28	Pn	Pn	10 52 32.9	+0.6
DJES				Sn	Sn	10 53 07.8	-0.4
OUR	Ouranopolis	3.10	122	*e*Pn	Pn	10 52 33.8	+0.1
OUR	Ouranopolis	3.10	122	*e*Pn	Pn	10 52 33.8	+0.2
PAIG	Paliouri	3.16	130	*e*Pn	Pn	10 52 35.0	+0.4
PAIG				*e*Sn	Sn	10 53 13.8	+1.5
PAIG	Paliouri	3.16	130	*e*Pn	Pn	10 52 35.0	+0.4
FGSL	Fruska Gora	3.19	351	*i* Pn	Pn	10 52 33.6	-1.3
FGSL				*e*Sn	Sn	10 53 15.8	+2.8
FGSL	Fruska Gora	3.19	351	Pn	Pn	10 52 33.7	-1.2
EVR	Evrytania	3.24	162	*e*P	Pg	10 52 48.0	+1.2
AGG	Agios Georgios	3.28	155	*e*Pn	Pn	10 52 37.2	+1.0
KDZ	Kurdzhali	3.67	94	*i* P	Pb	10 52 49.4	-0.2
KDZ	Kurdzhali	3.67	94	*i* P	Pb	10 52 49.4	-0.2
BZS	Buzias	3.69	12	⇑*i*P	Pn	10 52 40.6	-1.2
BZS	Buzias	3.69	12	*e*Pn	Pn	10 52 40.2	-1.6
PVL	Pavlikeni	3.74	70	*i* P	Pb	10 52 50.0	-0.9
PVL	Pavlikeni	3.74	70	*i* P	Pb	10 52 50.0	-0.9
GZR	Gura Zlata	3.75	25	⇓P	Pn	10 52 42.3	-0.4
GZR	Gura Zlata	3.75	25	⇓*i*P	Pn	10 52 42.3	-0.4
TIP	Timpagrande	4.03	227	*e*Pn	Pn	10 52 46.3	-0.3
TIP	Timpagrande	4.03	227	*e*Pn	Pn	10 52 46.3	-0.2
SZH	Strazhica	4.18	71	*i* P	Pb	10 52 57.7	-0.6
SZH	Strazhica	4.18	71	*i* P	Pb	10 52 57.7	-0.6
PKSM	Moragy	4.42	343	⇓P	Pn	10 52 50.1	-1.7
PKSM	Moragy	4.42	343	⇓*i*P	Pn	10 52 50.1	-1.7
PKSM	Moragy	4.42	343	*e*Pn	Pn	10 52 50.2	-1.6
PKSM				*e*Sn	Sn	10 53 43.8	+0.6
VOIR		4.74	42	⇑P	Pn	10 52 56.9	+0.7
VOIR		4.74	42	⇑*i*P	Pn	10 52 56.9	+0.7
NVLJ	Novalja	4.86	304	Sg	Sg	10 54 16.0	-4.7
NVLJ	Novalja	4.86	304	Sg	Sg	10 54 16.0	-4.7
DRGR		5.03	17	⇓*i*P	Pb	10 53 16.5	+3.7
MLR	Muntele Rosu	5.24	47	⇑P	Pn	10 53 04.4	+1.3
MLR	Muntele Rosu	5.24	47	P	Pn	10 53 05.1	+2.0
MLR				S	Sn	10 54 04.3	+0.8
MLR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MLR	Muntele Rosu	5.24	47	P	Pn	10 53 05.1	+2.0
	comp=Z,1.5nm,0.3s,baz=152,slow=22,SNR=9.1						
MLR				S	Sn	10 54 04.3	+0.8
	comp=Z,0.4nm,0.3s,baz=102,slow=21,SNR=3.9						
MLR	Muntele Rosu	5.24	47	⇑*i*P	Pn	10 53 04.4	+1.3
MLR	Muntele Rosu	5.24	47	⇑P	Pn	10 53 04.4	+1.3
MLR				S	Sn	10 54 04.3	+0.8
AQU	L'Aquila	5.31	276	⇑P	Pn	10 53 05.6	+1.5
AQU	L'Aquila	5.31	276	⇑*i*P	Pn	10 53 05.6	+1.5
BUD	Budapest	5.58	349	⇓*e*PP		10 53 06.8	
CEY	Cerknica	5.78	312	⇑*i*Pn	Pn	10 53 12.1	+1.6
CEY	Cerknica	5.78	312	⇑*i*Pn	Pn	10 53 12.1	+1.6
PLOR	Plostina	5.85	47	⇑*i*P	Pn	10 53 12.6	+1.1
SKDS	Skadanscina	5.90	309	*i* Pn	Pn	10 53 12.5	+0.4
SKDS				*e*Sn	Sn	10 54 20.2	+0.5
VRI	Vrincioaia	5.90	47	⇓P	Pn	10 53 13.1	+0.9
VRI	Vrincioaia	5.90	47	⇓*i*P	Pn	10 53 13.1	+0.9
LJU	Ljubljana	5.92	315	*i* Pn	Pn	10 53 14.6	+2.2
PSZ	Piszkesteto	5.92	356	⇓*e*	Pn	10 53 11.6	-0.9
PSZ	Piszkesteto	5.92	356	⇓*i*P	Pn	10 53 11.4	-1.1
PSZ	Piszkesteto	5.92	356	P	Pn	10 53 11.5	-1.0
JAVS	Javornik	6.07	312	*e*Pn	Pn	10 53 15.7	+1.2
JAVS				*e*Sn	Sn	10 54 25.1	+1.1
JAVS							
	comp=Z,105nm,0.9s						
JAVS	Javornik	6.07	312	*e*Pn	Pn	10 53 15.7	+1.2
OBKA	Obir	6.22	318	⇑*i*Pn	Pn	10 53 19.4	+2.8
OBKA				⇑*i*Sn	Sn	10 54 31.4	+3.8
APE	Apeiranthos	6.26	140	*e*P	Pn	10 53 18.9	+1.7
KECS	Kecovo	6.47	360	*e*P	Pn	10 53 19.9	-0.1
KECS				*e*		10 54 28.0	
KECS	Kecovo	6.47	360	*e*PN	Pn	10 53 19.9	-0.1
KECS				*e*		10 53 26.6	
KECS				*e*		10 54 28.0	
BURAR	Bucovina Array	6.52	29	⇑P	Pn	10 53 21.3	+0.7
BURAR	Bucovina Array	6.52	29	⇑*i*P	Pn	10 53 21.3	+0.7
ROBS	Robic	6.59	312	*i* Pn	Pn	10 53 22.4	+0.8
VYHS	Vyhne	6.59	350	*e*P	Pn	10 53 21.1	-0.6
VYHS				*e*		10 54 30.8	
VYHS	Vyhne	6.59	350	*e*PN	Pn	10 53 21.1	-0.6
VYHS				*e*		10 53 38.1	
VYHS	Vyhne	6.59	350	*e*SN	Sn	10 54 30.8	-6.0
MYKA	Terra Mystica	6.76	315	⇓*i*Pn	Pn	10 53 25.3	+1.3
MYKA	Terra Mystica	6.76	315	Pn	Pn	10 53 25.3	+1.3
CRVS	Cervenica-Dubn	6.92	5	*e*P	Pn	10 53 25.9	-0.3
CRVS				*e*		10 54 34.7	
CRVS				MLR	MLR		
	comp=Z,200nm,4.4s						
CRVS	Cervenica-Dubn	6.92	5	*e*PN	Pn	10 53 25.9	-0.3
CRVS				*e*PB	Pb	10 53 43.8	-1.3
CRVS				*e*		10 54 34.7	
CRVS	Cervenica-Dubn	6.92	5	*e*SG	Sg	10 55 27.0	+0.2
KOLS	Kolonicke sedl	7.03	9	*e*PN	Pn	10 53 29.0	+1.3
KOLS				*e*SN	Sn	10 54 44.0	-3.6
KOLS				*e*SG	Sg	10 55 40.0	+10
KOLS	Kolonicke sedl	7.03	9	*e*P	Pn	10 53 29.0	+1.3
KOLS				*e*Sn	Sn	10 54 44.1	-3.5
STHS	Stebnicka Huta	7.42	4	*e*PN	Pn	10 53 32.0	-1.1
STHS				*e*		10 53 43.0	
ABTA	Abfaltersbach	7.45	312	⇑*i*Pn	Pn	10 53 34.1	+0.8
	SNR=7.8						
WTTA	Wattenberg	8.23	313	⇑*i*Pn	Pn	10 53 45.6	+1.4
WTTA	Wattenberg	8.23	313	⇑*i*Pn	Pn	10 53 45.6	+1.4
WTTA	Wattenberg	8.23	313	Pn	Pn	10 53 45.6	+1.4
GERES	GERESS Array B	8.35	327	P	Pn	10 53 46.1	+0.3
	comp=Z,0.2nm,0.3s,baz=154,slow=13,SNR=6.0						
MOTA	Moosalm	8.57	312	⇓*i*Pn	Pn	10 53 50.4	+1.5
	SNR=7.2						
MOTA	Moosalm	8.57	312	⇑*i*Sn	Sn	10 55 30.3	+4.7
MOTA	Moosalm	8.57	312	⇓*i*Pn	Pn	10 53 50.4	+1.5
	SNR=7.2						
MOTA				⇑*i*Sn	Sn	10 55 30.3	+4.7
MOTA	Moosalm	8.57	312	Pn	Pn	10 53 50.4	+1.5
	comp=Z,7.0nm,2.0s						
FETA	Feichten	8.61	309	⇑*i*Pn	Pn	10 53 50.5	+1.2
FETA	Feichten	8.61	309	Pn	Pn	10 53 50.5	+1.2
KHC	Kasperske Hory	8.63	328	*e*Pn	Pn	10 53 50.5	+0.9
KHC	Kasperske Hory	8.63	328	*e*PN	Pn	10 53 50.5	+0.9
DAVOX	Davos/Dischmat	8.99	306	P	Pn	10 53 55.1	+0.5
	comp=Z,2.2nm,0.3s,baz=176,slow=20,SNR=20						
DAVOX				S	Sn	10 55 36.8	+0.9
	comp=Z,0.2nm,0.3s,baz=91,slow=23,SNR=4.5						
MBDF	Montbardon	10.38	290	*e*P	Pn	10 54 12.1	-1.5
	comp=Z,7.6nm,0.7s						
LPG	La Plagne	10.56	294	*e*P	Pn	10 54 18.2	+2.1
	comp=Z,9.9nm,0.6s						
LPL	La Plagne	10.58	294	*e*P	Pn	10 54 18.1	+1.8
	comp=Z,9.6nm,0.7s						
HINF	Hinteralfeld	11.30	306	*e*P	Pn	10 54 24.4	-1.8
	comp=Z,11nm,0.7s						
HINF	Hinteralfeld	11.30	306	*e*P	Pn	10 54 24.4	-1.8
HINF				pmax	pmax		
	comp=Z,6.0nm,0.7s						
HINF	Hinteralfeld	11.30	306	*e*P	Pn	10 54 24.4	-1.8
HINF				pmax	pmax		
	comp=Z,6.0nm,0.7s						
HINF	Hinteralfeld	11.30	306	*e*P	Pn	10 54 24.4	-1.8
	comp=Z,6.0nm,0.7s						
CDF	Champ du Feu	11.32	309	*e*P	Pn	10 54 26.2	-0.3
HAU	Haudompre	11.69	306	*e*P	Pn	10 54 31.4	-0.1
	comp=Z,7.7nm,0.6s						
HAU	Haudompre	11.69	306	*e*P	Pn	10 54 31.4	-0.1
HAU				pmax	pmax		
	comp=Z,4.0nm,0.6s						
HAU	Haudompre	11.69	306	*e*P	Pn	10 54 31.4	-0.1
HAU				pmax	pmax		
	comp=Z,4.0nm,0.6s						
HAU	Haudompre	11.69	306	*e*P	Pn	10 54 31.4	-0.1
	comp=Z,4.0nm,0.6s						
ANN	Anapa	12.60	72	*e*P	Pn	10 54 43.7	-0.3
ANN				pmax	pmax		
	comp=Z,75nm,1.3s						
ANN	Anapa	12.60	72	*e*P	Pn	10 54 43.7	-0.3
	comp=Z,75nm,1.3s						
SMF	Signal de Mont	12.81	297	*e*P	Pn	10 54 45.7	-1.2
	comp=Z,7.3nm,0.7s						
LOR	Lormes	12.98	300	*e*P	Pn	10 54 47.8	-1.3
SSF	Saint Saulge	13.15	298	*e*P	Pn	10 54 49.6	-1.8
AVF	Avril sur Loir	13.18	297	*e*P	Pn	10 54 51.9	+0.1
	comp=Z,9.2nm,0.8s						
KIV	Kislovodsk	16.32	76	*e*P	Pn	10 55 31.1	-2.8
KIV				pmax	pmax		
	comp=Z,4.0nm,0.7s						
VSU	Vasula	16.93	11	*e*P	Pn	10 55 42.8	+1.3
FINES	FINESS Array B	19.75	8	P	Pn	10 56 13.1	-2.8
	comp=Z,0.1nm,0.3s,baz=192,slow=13,SNR=3.4						
EKA	Eskdalemuir Ar	20.42	319	P	P	10 56 20.0	-1.8
	comp=Z,1.8nm,0.8s,baz=116,slow=7.5,SNR=4.4						
TORD	Torodi Ar. Bea	33.09	215	P	P	10 58 20.5	-0.3
	comp=Z,0.8nm,0.8s,mb3.7,baz=21,slow=8.2,SNR=5.2						
KURK	Kurchatov	40.08	57	*e*P	P	10 59 18.7	-1.4
NVS	Novosibirsk	42.13	50	*e*P	P	10 59 37.6	+0.7
ZAL	Zalesovo	43.19	51	P	P	10 59 45.7	+0.2
ZALV	Zalesovo Beam	43.20	51	P	P	10 59 45.7	+0.1
ZALV	Zalesovo Beam	43.20	51	P	P	10 59 45.7	+0.1
	comp=Z,1.5nm,0.5s,mb4.0,baz=277,slow=9.3,SNR=5.6						
MKAR	Makanchi Array	43.38	62	P	P	10 59 47.5	+0.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	43.38	62	P	P	10 59 47.5	+0.3
	comp=Z,0.7nm,0.5s,mb3.6,baz=281,slow=8.2,SNR=12						
SONM	Songino Array	58.06	52	P	P	11 01 38.7	+0.8
	comp=Z,0.1nm,0.3s,mb3.4,baz=286,slow=7.3,SNR=2.9						
YKA	Yellowknife Ar	69.80	340	P	P	11 02 53.4	-1.4
YKA	Yellowknife Ar	69.80	340	P	P	11 02 53.4	-1.4
	comp=Z,0.3nm,0.7s,mb3.4,baz=34,slow=5.3,SNR=6.2						
YKA	Yellowknife Ar	69.80	340	P	P	11 02 53.4	-1.4

IDC 07 11:12:20.3±2.7**,1973S**×**17744W,h610**^{km}±36^{km}**,mb3.5**/3**, mb1 3.5**/5**,mb1mx3.1**/16**,mbtmp3.5**/5**,Error ellipse: s-maj=104.4km s-min=28.3km az=150.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	7.93	44	P	P	11 14 19.3	-0.1
	1.5nm,0.3s,baz=170,slow=11,SNR=3.4						
DZM	Mont Dzumac	15.24	258	P	P	11 15 31.5	+1.2
	1.4nm,0.3s,baz=94,slow=19,SNR=24						
CTA	Charters Tower	34.09	263	P	P	11 18 16.2	0.0
	7.9nm,0.4s,baz=86,slow=9.0,SNR=3.2						
STKA	Stephens Creek	38.60	243	P	P	11 18 52.6	-0.3
	3.5nm,0.8s,baz=103,slow=8.7,SNR=9.2						
WRA	Warramunga Arr	45.23	261	P	P	11 19 44.9	-0.1
	3.7nm,0.5s,baz=97,slow=7.8,SNR=156						
AKASG	Malin Array Be	142.59	332	PKP	PKPdf	11 30 44.4	-0.3
	0.4nm,0.4s,baz=41,slow=4.3,SNR=5.2						

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*ATH **07** 11:35:12.1,3948N×2287E,h23^{km}±16^{km},MD3.1/4*
*ISCJB **07** 11:35:13.4±0.5,3936N±004×2285E±005,h26^{km}±6^{km}, Error ellipse: s-maj=7.7km s-min=5.2km az=35.8*
*CSEM **07** 11:35:13.3±0.2,3937N×2286E,h30^{km},ML3.0,Error ellipse: s-maj=5.9km s-min=3.9km az=116.0*
*THE **07** 11:35:13.8,3940N×2285E,h13^{km},ML3.0*
ISC 07 11:35:13.5±0.6**,3936N**±004×**2285E**±005**,h23**^{km}±6^{km}**,n25,** σ**0**^{s}**89**/40**,Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XOR	Xorichti	0.27	89	*e*Pg	Pb	11 35 19.2	-0.6
XOR	Xorichti	0.27	89	*e*Pg	Pb	11 35 19.2	-0.6
NEO	Neokhori	0.29	100	*e*PB	Pb	11 35 19.8	-0.5
NEO				*e*SB	Sb	11 35 24.7	-0.2
NEO	Neokhori	0.29	100	*e*Pb	Pb	11 35 19.8	-0.5
NEO				*e*Sb	Sb	11 35 24.7	-0.2
AGG	Agios Georgios	0.53	230	*e*Pg	Pb	11 35 23.4	-0.7
AGG				*e*Sg	Sb	11 35 33.4	+2.2

AGG	Agios Georgios	0.53	230	*e*Pg	Pb	11 35 23.4	-0.6
AGG				*e*Sg	Sb	11 35 33.4	+2.2
THL	Klokotos Trika	0.68	288	*e*PN	Pn	11 35 25.1	-2.6
THL	Klokotos Trika	0.68	288	*e*Pn	Pn	11 35 25.1	-2.6
LKR	Lokris	0.72	171	*e*PN	Pn	11 35 28.0	-0.2
LKR	Lokris	0.72	171	*e*Pn	Pn	11 35 28.0	-0.2
LIT	Litokhoron	0.79	340	*e*Pg	Pb	11 35 27.3	-1.2
LIT				*e*Sg	Sb	11 35 39.5	+0.6
LIT	Litokhoron	0.79	340	*e*Pg	Pb	11 35 27.3	-1.2
LIT				*e*Sg	Sb	11 35 39.5	+0.7
PAIG	Paliouri	0.86	48	*e*Pg	Pb	11 35 29.8	+0.1
PAIG				*e*Sg	Sb	11 35 41.9	+1.2
PAIG	Paliouri	0.86	48	*e*Pg	Pb	11 35 29.8	+0.1
PAIG				*e*Sg	Sb	11 35 41.9	+1.2
EVR	Evrytania	0.92	242	*e*PN	Pn	11 35 31.5	+0.5
EVR	Evrytania	0.92	242	*e*Pn	Pn	11 35 31.5	+0.5
PLG	Polygyros	1.11	24	*e*Pg	Pn	11 35 33.7	0.0
PLG				*e*Sg	Sb	11 35 47.9	-0.2
PLG	Polygyros	1.11	24	*e*Pg	Pn	11 35 33.7	0.0
PLG				*e*Sg	Sb	11 35 47.8	-0.3
HORT	Hortiatis	1.25	9	*e*Pg	Pn	11 35 35.5	-0.1
HORT				*e*Sg	Sn	11 35 51.8	+0.1
HORT	Hortiatis	1.25	9	*e*Pg	Pn	11 35 35.5	-0.1
HORT				*e*Sg	Sn	11 35 51.8	+0.1
OUR	Ouranopolis	1.31	42	*e*Pg	Pn	11 35 36.3	0.0
OUR	Ouranopolis	1.31	42	*e*Pg	Pn	11 35 36.3	0.0
SOH	Sokhos	1.51	15	*e*Pg	Pn	11 35 39.8	+0.7
SOH				*e*Sg	Sn	11 35 59.0	+1.0
SOH	Sokhos	1.51	15	*e*Pg	Pn	11 35 39.8	+0.7
SOH				*e*Sg	Sn	11 35 59.0	+0.9
GRG	Griva	1.63	348	*e*Sg	Sn	11 35 59.7	-1.4
GRG				*e*Sg	Sn	11 36 06.9	+5.9

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*IDC **07** 12:01:59.8±9.6, 6.98S×129.36E, h73^{km}±97^{km}, mb3.6/3, mb1 3.8/4, mb1mx3.6/12, mbtmp3.7/4, ML4.1/1, Error ellipse: s-maj=87.5km s-min=34.9km az=65.0*

*ISCJB **07** 12:02:08.6±2.0, 7.23S±0.09×129.5E±0.1, h183^{km}±21^{km}, mb3.7/3, Error ellipse: s-maj=20.7km s-min=14.1km az=163.7*

*NEIC **07** 12:02:12.1±3.1, 7.37S×129.60E, h213^{km}±40^{km}, mb4.2/3, Error ellipse: s-maj=32.5km s-min=29.7km az=101.0*

ISC 07 12:02:13.2±1.8**, 7.50S**±0.09×**129.5E**±0.1**, h225**^{km}±21^{km}**, n10, σ0.79**/15**, mb3.6**/3**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	5.91	151	*e*P	Pn	12 03 39.6	-0.2
	31nm,0.4s						
KAKA				*e*S	S	12 04 48.1	-0.6
KAKA	Kakadu	5.91	151	*e*P	Pn	12 03 39.6	-0.2
	31nm,0.4s						
KAKA				*e*P		12 03 40.0	
KAKA				*e*S	S	12 04 48.1	-0.7
FITZ	Fitzroy Crossi	11.20	199	*e*P	Pn	12 04 48.5	+1.1
	11nm,1.3s						
FITZ				*e*S	S	12 06 51.9	-0.7
WRA	Warramunga Arr	13.21	160	P	Pn	12 05 13.0	+0.4
	1.1nm,0.3s,baz=338,slow=13,SNR=64						
WRA				S	S	12 07 40.8	+1.1
	1.9nm,0.3s,baz=345,slow=24,SNR=8.7						
WB2	Warramunga Arr	13.22	160	*e*P	Pn	12 05 13.6	+0.9
WB2				*e*S	S	12 07 38.6	-1.2
STKA	Stephens Creek	26.73	157	*e*P	P	12 07 37.6	+5.5
	1.0nm,0.3s,mb3.9						
STKA	Stephens Creek	26.73	157	P	P	12 07 37.7	+5.6
	1.2nm,0.5s,mb3.8,baz=333,slow=9.4,SNR=4.9						
SONM	Songino Array	58.77	342	P	P	12 11 47.5	-0.2
	0.4nm,0.7s,mb3.1,baz=167,slow=7.1,SNR=2.8						
MKAR	Makanchi Array	68.39	327	P	P	12 12 50.0	-0.6
MKAR	Makanchi Array	68.39	327	P	P	12 12 50.0	-0.6
	1.2nm,0.5s,mb3.8,baz=124,slow=7.4,SNR=28						

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*IDC **07** 12:03:28.2±0.9, 21.28S×174.47W, h0^{km}, mb4.0/9, mb1 4.2/10, mb1mx4.2/16, mbtmp4.0/10, ML3.2/1, MS3.6/7, Ms1 3.6/7, ms1mx3.3/22, Error ellipse: s-maj=40.0km s-min=20.6km az=146.0*

*NEIC **07** 12:03:30.9±0.7, 20.97S×174.57W, h15^{km}, Error ellipse: s-maj=30.5km s-min=11.3km az=147.0*

*ISCJB **07** 12:03:31.6±0.7, 21.3S±0.2×174.5W±0.1, h33^{km}, mb3.9/9, MS3.7/5, Error ellipse: s-maj=28.0km s-min=13.5km az=148.4*

ISC 07 12:03:33.5±0.7**, 21.2S**±0.2×**174.5W**±0.1**, h35**^{km}**, n35, σ0.74**/17**, mb3.9**/9**, MS3.7**/5**, 1C, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.71	20	Pn	Pn	12 05 18.7	-4.7
AFI				Sn	Sn	12 06 36.8	-13
AFI	Afiamalu	7.71	20	Pn	Pn	12 05 18.7	-4.7
	9.8nm,0.3s,baz=90,slow=6.7,SNR=12						
AFI				Sn	Sn	12 06 36.8	-13
	10nm,0.3s,baz=207,slow=22,SNR=6.0						
AFI				LR	LR	12 07 57.2	
	comp=Z,233nm,18.8s,baz=207,slow=35						
RAR	Rarotonga	13.74	93	Pn	Pn	12 06 34.9	-11
	6.4nm,0.3s,baz=242,slow=6.2,SNR=12						
RAR				LR	LR	12 10 38.0	
	comp=Z,215nm,20.9s,baz=258,slow=31						
DZM	Mont Dzumac	17.73	264	P	Pn	12 07 37.8	+0.1
	0.1nm,0.3s,baz=65,slow=19,SNR=2.1						
PAE	Paea	23.76	86	*e*T		12 32 35.5	
	9.4nm,0.4s						
PPT	Papeete	23.79	86	*e*LR	LR	12 14 15.2	
	238nm,26.8s						
PPT	Papeete	23.79	86	LR	LR	12 15 42.8	
	comp=Z,93nm,18.5s,MS3.3,baz=267,slow=31						
RPZ	Rata Peaks	25.46	205	P	P	12 08 57.6	-0.5
	2.5nm,0.6s,mb3.9,baz=90,slow=5.1,SNR=2.7						
HNR	Honiara	27.23	292	LR	LR	12 19 01.1	
	comp=Z,75nm,18.4s,MS3.3,baz=180,slow=34						
RKT	Rikitea	36.59	101	*e*LR	LR	12 20 09.9	
	160nm,30.5s						
STKA	Stephens Creek	40.44	245	P	P	12 11 08.7	0.0
	1.3nm,0.6s,mb3.9,baz=95,slow=19,SNR=4.0						
WRA	Warramunga Arr	47.74	262	P	P	12 12 06.2	-1.1
	1.9nm,0.6s,mb4.3,baz=97,slow=7.4,SNR=5.6						
WRA				PcP	PcP	12 13 36.9	+0.7
	1.4nm,0.8s,baz=94,slow=3.2,SNR=4.1						
MJAR	Matsushiro Arr	72.75	322	P	P	12 14 58.8	+0.6
	3.8nm,0.8s,mb4.3,baz=156,slow=6.6,SNR=8.4						
LRV	Little Rabbit	76.40	42	*e*P	P	12 15 19.0	-0.4
NVAR	Mina Array Bea	79.34	42	P	P	12 15 36.8	+1.1
	1.3nm,0.6s,mb4.0,baz=212,slow=6.5,SNR=22						
KSRS	Korea Array	79.61	317	P	P	12 15 38.4	+1.2
	0.5nm,0.5s,mb3.7,baz=222,slow=47,SNR=4.6						
KDAK	Kodiak Island	80.80	12	LR	LR	12 47 58.1	
	comp=Z,75nm,20.0s,MS4.0,baz=91,slow=33						
TXAR	Lajitas Array	84.72	56	P	P	12 16 04.9	+0.7
	0.1nm,0.7s,mb3.1,baz=208,slow=11,SNR=2.8						
PDAR	Pinedale Array	87.27	42	P	P	12 16 15.6	-0.8
	0.3nm,0.6s,mb3.7,baz=183,slow=1.8,SNR=2.7						
PDAR				LR	LR	12 51 09.3	
	comp=Z,51nm,18.6s,MS4.0,baz=252,slow=33						
YKA	Yellowknife Ar	95.82	24	P	P	12 16 55.9	+0.3
YKA	Yellowknife Ar	95.82	24	P	P	12 16 55.9	+0.3
	0.3nm,0.8s,mb3.8,baz=239,slow=4.4,SNR=4.3						
LPAZ	La Paz	98.77	111	LR	LR	12 53 07.2	
	comp=Z,27nm,20.8s,MS3.7,baz=345,slow=30						
ARCES	ARCESS Array B	130.17	351	PKP	PKPdf	12 22 39.2	+0.1
ARCES	ARCESS Array B	130.17	351	PKP	PKPdf	12 22 39.2	+0.1
	1.9nm,0.7s,baz=352,slow=7.4,SNR=4.5						
AKASG	Malin Array Be	145.16	333	PKPbc	PKPbc	12 23 06.3	-0.4
AKASG	Malin Array Be	145.16	333	PKPbc	PKPbc	12 23 06.3	-0.4
	2.2nm,0.5s,baz=39,slow=4.2,SNR=16						
EKA	Eskdalemuir Ar	145.31	9	PKPbc	PKPbc	12 23 06.8	-0.2
EKA	Eskdalemuir Ar	145.31	9	PKPbc	PKPbc	12 23 06.8	-0.2
	1.8nm,0.6s,baz=300,slow=3.0,SNR=7.0						
BRG	Berggiesshubel	149.66	349	*e*(P)	PKPab	12 23 30.6	+6.2
	5.2nm,1.2s						
BRTR	Keskin Array B	149.71	314	PKPbc	PKPbc	12 23 20.2	+0.5
BRTR	Keskin Array B	149.71	314	PKPbc	PKPbc	12 23 20.2	+0.5
	1.5nm,0.7s,baz=90,slow=4.9,SNR=7.1						
KHC	Kasperske Hory	151.41	349	*e*P	PKPbc	12 23 23.5	+0.1
KHC	Kasperske Hory	151.41	349	⇑*e*PKPB	PKPbc	12 23 23.5	+0.1
GERES	GERESS Array B	151.66	349	PKPbc	PKPbc	12 23 24.7	+0.7
GERES	GERESS Array B	151.66	349	PKPbc	PKPbc	12 23 24.7	+0.7
	0.4nm,0.4s,baz=180,slow=0.3,SNR=4.3						

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*ISCJB **07** 12:13:59.2±0.5, 51.17N±0.03×5.89E±0.04, h20^{km}±4^{km}, Error ellipse: s-maj=5.5km s-min=3.4km az=137.3*

*CSEM **07** 12:14:00.4±0.1, 51.14N×5.92E, h5^{km}, ML3.0/20, Error ellipse: s-maj=1.6km s-min=1.2km az=169.0*

*UCC **07** 12:14:00.3±0.3, 51.15N×5.96E, h15^{km}, ML2.1*

*LDG **07** 12:14:00.9±0.1, 51.12N×5.98E, h10^{km}, Md3.0/2, Ml2.9/19, Error ellipse: s-maj=1.7km s-min=1.2km az=168.0*

*BNS **07** 12:14:00.8±1.0, 51.14N×5.98E, h11^{km}±6^{km}, ML2.2*

*BGR **07** 12:14:00.1±1.1, 51.12N×6.04E, h10^{km}, ML2.5/4, Error ellipse: s-maj=13.3km s-min=4.4km az=110.0*

*NEIC **07** 12:14:00.9, 51.12N×5.98E, h10^{km}, ML2.9(LDG), After LDG.*

ISC 07 12:13:59.5±0.4**, 51.11N**±0.02×**5.98E**±0.04**, h20**^{km}±2^{km}**, n97, σ1.22**/181**, 7C-4D, The Netherlands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RODG	Roetgen-Dahlhe	0.13	76	⇑*e*Pg	Pg	12 14 03.8	+0.1
RODG				*i* Sg	Sg	12 14 06.0	-0.5
RODG	Roetgen-Dahlhe	0.13	76	Pg	Pg	12 14 03.8	+0.1
RODG				Sg	Sg	12 14 06.1	-0.4
BD11	Borschemich	0.29	96	⇑*e*Pg	Pg	12 14 06.7	+0.8
BD11				*i* Sg	Sg	12 14 10.7	+0.4
BD09	Hochneukirch	0.31	93	*e*Pg	Pg	12 14 06.4	+0.1
HGN	Heimansgroeve	0.35	185	⇑*i*Pg	Pg	12 14 07.8	+0.8
HGN				*i* Sg	Sg	12 14 12.9	+0.8
BEBN	Eben Emael	0.37	211	⇑P	Pg	12 14 08.2	+0.9
BEBN				S	Sg	12 14 13.7	+1.1
	comp=N,103nm,0.2s						
BEBN	Eben Emael	0.37	211	P	Pg	12 14 08.1	+0.8
DREG	Dreilaegerbach	0.48	160	⇑*e*Pg	Pg	12 14 10.3	+1.1
DREG				*e*Sg	Sg	12 14 17.7	+1.9
	comp=N,111nm,0.3s						
DREG	Dreilaegerbach	0.48	160	Pg	Pg	12 14 10.3	+1.1
DREG				Sg	Sg	12 14 17.7	+1.9
	comp=N,111nm,0.3s						
MEM	Membach	0.51	178	⇓P	Pg	12 14 10.7	+1.0
MEM				S	Sg	12 14 17.8	+1.3
	comp=E,41nm,0.2s						
MEM	Membach	0.51	178	P	Pg	12 14 10.6	+0.9
KLL	Kalltalsperre	0.51	156	*e*Pg	Pg	12 14 10.8	+1.0
KLL				*e*Sg	Sg	12 14 18.9	+2.1
	comp=E,70nm,0.1s						
KLL	Kalltalsperre	0.51	156	Pg	Pg	12 14 10.8	+1.0
KLL				Sg	Sg	12 14 18.9	+2.1
	comp=E,70nm,0.1s						
STB	Steinbach	0.76	133	⇓*e*Pg	Pg	12 14 15.6	+1.3
STB				*e*Sg	Sg	12 14 25.7	+1.4
	comp=E,77nm,0.2s						
STB	Steinbach	0.76	133	Pg	Pg	12 14 15.6	+1.3
STB				Sg	Sg	12 14 25.7	+1.4
	comp=E,77nm,0.2s						
BCLA	Clavier	0.82	212	⇓P	Pb	12 14 16.3	+1.4
BCLA				S	Sb	12 14 27.3	+1.8
	comp=N,27nm,0.1s						
BCLA	Clavier	0.82	212	P	Pb	12 14 16.3	+1.4
BCLA				S	Sb	12 14 27.2	+1.7
	comp=N,27nm,0.1s						
HOBG	Hohbusch	0.87	98	⇑*e*Pg	Pg	12 14 17.1	+0.7
HOBG				*e*Sg	Sg	12 14 26.5	-1.3
	comp=N,111nm,0.7s						
HOBG	Hohbusch	0.87	98	Pg	Pg	12 14 17.1	+0.7
HOBG				Sg	Sg	12 14 26.5	-1.3
	comp=N,111nm,0.7s						
BUG	Bochum--Univer	0.88	68	*e*Pg	Pg	12 14 16.5	0.0
	SNR=5.6						
BUG				*e*Sg	Sg	12 14 27.7	-0.4
	SNR=14						
WTSB	Winterswijk	1.00	31	⇑*i*Pg	Pg	12 14 18.2	-0.6
	comp=N,19nm,0.1s						
WTSB				*i* Sg	Sg	12 14 30.6	-1.4
SNF	Seneffe	1.23	241	⇓P	Pn	12 14 22.7	+1.2
GIVF	Givet	1.25	216	*e*Pn	Pn	12 14 23.2	+1.4
GIVF				*e*Sg	Sg	12 14 40.6	+0.6
	comp=N,58nm,0.2s						
GIVF	Givet	1.25	216	*e*Pn	Pn	12 14 23.2	+1.4
GIVF				*e*Sg	Sg	12 14 40.6	+0.6
GIVF	Givet	1.25	216	*e*Pn	Pn	12 14 23.2	+1.4
GIVF				*e*Sg	Sg	12 14 40.6	+0.6
	comp=N,29nm,0.2s						
BGG	Burgeitz	1.25	136	*e*Pg	Pg	12 14 22.8	-0.9
BGG				*e*Sg	Sg	12 14 40.1	-0.1
	comp=N,80nm,0.1s						
BGG	Burgeitz	1.25	136	Pg	Pg	12 14 22.8	-0.9
BGG				Sg	Sg	12 14 40.1	0.0
	comp=N,80nm,0.1s						
DOU	Dourbes	1.35	221	P	Pn	12 14 24.5	+1.4
WLF	Walferdange	1.46	176	*e*Sg	Sg	12 14 46.3	-0.2
	SNR=3.4						
BAIF	Baives	1.54	228	*e*Pn	Pn	12 14 27.0	+1.2
BAIF				*e*Sn	Sn	12 14 45.6	+0.4
	comp=N,14nm,0.3s						
BAIF				*e*Sg	Sg	12 14 49.6	+0.2
BAIF	Baives	1.54	228	*e*Pn	Pn	12 14 27.0	+1.2
BAIF				*e*Sn	Sn	12 14 45.6	+0.4
BAIF				*e*Sg	Sg	12 14 49.6	+0.2
BAIF	Baives	1.54	228	*e*Pn	Pn	12 14 27.0	+1.2
BAIF				*e*Sn	Sn	12 14 45.6	+0.4
	comp=N,6.9nm,0.3s						
BAIF				*e*Sg	Sg	12 14 49.6	+0.2
IBBN	Ibbenburen	1.63	42	*e*Sg	Sg	12 14 50.5	-1.5
	SNR=2.2						
TNS	Taunus Mts	1.81	119	*e*Sg	Sg	12 14 56.4	-1.3
	SNR=3.7						
RFYF	Reffroy	2.51	188	*e*Pn	Pn	12 14 39.5	+0.4
	baz=5.0						
RFYF				*e*Sg	Sg	12 15 19.7	-0.4
	comp=N,13nm,0.2s						
RFYF	Reffroy	2.51	188	*e*Pn	Pn	12 14 39.5	+0.4
RFYF				*e*Sg	Sg	12 15 19.7	-0.4
RFYF	Reffroy	2.51	188	*e*Pn	Pn	12 14 39.5	+0.4
RFYF				*e*Sg	Sg	12 15 19.7	-0.4
	comp=N,6.4nm,0.2s						
MEZF	Maizieres J'vi	2.68	193	*e*Pn	Pn	12 14 42.3	+0.9
	baz=16						
MEZF				*e*Sg	Sg	12 15 25.0	-0.7
	comp=N,15nm,0.3s						
MEZF	Maizieres J'vi	2.68	193	*e*Pn	Pn	12 14 42.3	+0.9
MEZF				*e*Sg	Sg	12 15 25.0	-0.7
MEZF	Maizieres J'vi	2.68	193	*e*Pn	Pn	12 14 42.3	+0.9
MEZF				*e*Sg	Sg	12 15 25.0	-0.7
	comp=N,7.5nm,0.3s						
CDF	Champ du Feu	2.83	162	*e*Pn	Pn	12 14 45.2	+1.7
CDF				*e*Sg	Sg	12 15 30.2	-0.2
	comp=N,2.6nm,0.3s						
CDF	Champ du Feu	2.83	162	*e*Pn	Pn	12 14 45.2	+1.7
CDF				*e*Sg	Sg	12 15 30.2	-0.2
CDF	Champ du Feu	2.83	162	*e*Pn	Pn	12 14 45.2	+1.7
CDF				*e*Sg	Sg	12 15 30.2	-0.2
	comp=N,1.3nm,0.3s						
CLZ	Clausthal	2.84	73	*e*Pg	Pg	12 14 52.4	-1.5
	SNR=1.9						
CLZ				*e*Sg	Sg	12 15 28.2	-2.6
	SNR=3.3						
SFTF	Sexfontaines	2.98	192	*e*Pn	Pn	12 14 46.5	+1.0
	baz=7.1						
SFTF	Sexfontaines	2.98	192	*e*Pg	Pg	12 14 55.8	-0.7
SFTF				*e*Sg	Sg	12 15 33.6	-1.4
	comp=N,12nm,0.2s						
SFTF	Sexfontaines	2.98	192	*e*Pn	Pn	12 14 46.5	+1.0
SFTF				*e*Pg	Pg	12 14 55.8	-0.7
SFTF				*e*Sg	Sg	12 15 33.6	-1.4
SFTF	Sexfontaines	2.98	192	*e*Pn	Pn	12 14 46.5	+1.0
SFTF	Sexfontaines	2.98	192	*e*Pg	Pg	12 14 55.8	-0.7
SFTF				*e*Sg	Sg	12 15 33.6	-1.4
	comp=N,6.1nm,0.2s						
HAU	Haudompre	3.12	175	*e*Pn	Pn	12 14 48.6	+1.1
HAU	Haudompre	3.12	175	*e*Pg	Pg	12 14 58.8	-0.4
HAU				*e*Sg	Sg	12 15 37.7	-2.0
	comp=N,6.3nm,0.3s						
HAU	Haudompre	3.12	175	*e*Pn	Pn	12 14 48.6	+1.1
HAU				*e*Pg	Pg	12 14 58.8	-0.4
HAU				*e*Sg	Sg	12 15 37.7	-2.0
HAU	Haudompre	3.12	175	*e*Pn	Pn	12 14 48.6	+1.1
HAU	Haudompre	3.12	175	*e*Pg	Pg	12 14 58.8	-0.4
HAU				*e*Sg	Sg	12 15 37.7	-2.0
	comp=N,3.2nm,0.3s						
HINF	Hinteralfeld	3.35	170	*e*Pn	Pn	12 14 51.4	+0.8
HINF	Hinteralfeld	3.35	170	*e*Pg	Pg	12 15 02.5	-1.1
HINF				*e*Sg	Sg	12 15 44.9	-2.1
	comp=N,6.2nm,0.4s						
HINF	Hinteralfeld	3.35	170	*e*Pn	Pn	12 14 51.4	+0.8
HINF				*e*Pg	Pg	12 15 02.5	-1.1
HINF				*e*Sg	Sg	12 15 44.9	-2.1
HINF	Hinteralfeld	3.35	170	*e*Pn	Pn	12 14 51.4	+0.8
HINF	Hinteralfeld	3.35	170	*e*Pg	Pg	12 15 02.5	-1.1
HINF				*e*Sg	Sg	12 15 44.9	-2.1
	comp=N,3.1nm,0.4s						
LOR	Lormes	4.09	201	*e*Pn	Pn	12 15 02.1	+1.3
	baz=23						
LOR	Lormes	4.09	201	*e*Pg	Pg	12 15 17.0	-0.8
	baz=16						
LOR				*e*Sn	Sn	12 15 46.6	-1.5
LOR				*e*Sg	Sg	12 16 09.6	-1.2
	comp=N,7.6nm,0.3s						
LOR	Lormes	4.09	201	*e*Pn	Pn	12 15 02.1	+1.3
LOR				*e*Pg	Pg	12 15 17.0	-0.8
LOR				*e*Sn	Sn	12 15 46.6	-1.5
LOR				*e*Sg	Sg	12 16 09.6	-1.2
LOR	Lormes	4.09	201	*e*Pn	Pn	12 15 02.1	+1.3
LOR	Lormes	4.09	201	*e*Pg	Pg	12 15 17.0	-0.8
LOR				*e*Sn	Sn	12 15 46.6	-1.5
LOR				*e*Sg	Sg	12 16 09.6	-1.2
	comp=N,3.8nm,0.3s						
SSF	Saint Saulge	4.37	203	*e*Pn	Pn	12 15 05.6	+1.0
SSF				*e*Sn	Sn	12 15 53.3	-1.6
SSF				*e*Sg	Sg	12 16 17.0	-2.6
	comp=N,4.6nm,0.3s						
SSF	Saint Saulge	4.37	203	*e*Pn	Pn	12 15 05.6	+1.0
SSF				*e*Sn	Sn	12 15 53.3	-1.6
SSF				*e*Sg	Sg	12 16 17.0	-2.6
SSF	Saint Saulge	4.37	203	*e*Pn	Pn	12 15 05.6	+1.0
SSF				*e*Sn	Sn	12 15 53.3	-1.6
SSF				*e*Sg	Sg	12 16 17.0	-2.6
	comp=N,2.3nm,0.3s						
AVF	Avril sur Loir	4.66	203	*e*Pn	Pn	12 15 09.3	+0.7
AVF				*e*Sn	Sn	12 16 00.4	-1.6
AVF				*e*Sg	Sg	12 16 25.9	-3.0
	comp=N,1.2nm,0.3s						
AVF	Avril sur Loir	4.66	203	*e*Pn	Pn	12 15 09.3	+0.7
AVF				*e*Sn	Sn	12 16 00.4	-1.6
AVF				*e*Sg	Sg	12 16 25.9	-3.0
AVF	Avril sur Loir	4.66	203	*e*Pn	Pn	12 15 09.3	+0.7
AVF				*e*Sn	Sn	12 16 00.4	-1.6
AVF				*e*Sg	Sg	12 16 25.9	-3.0
	comp=N,0.6nm,0.3s						
LDF	La Druitiere	4.68	240	*e*Pn	Pn	12 15 09.7	+0.8
LDF				*e*Sn	Sn	12 16 00.8	-1.8
	comp=N,2.1nm,0.3s						
LDF	La Druitiere	4.68	240	*e*Pn	Pn	12 15 09.7	+0.8
LDF				*e*Sn	Sn	12 16 00.8	-1.8
LDF	La Druitiere	4.68	240	*e*Pn	Pn	12 15 09.7	+0.8
LDF				*e*Sn	Sn	12 16 00.8	-1.8
	comp=N,1.0nm,0.3s						
SMF	Signal de Mont	4.69	198	*e*Pn	Pn	12 15 10.0	+1.0
SMF	Signal de Mont	4.69	198	*e*Pg	Pg	12 15 27.5	-1.7
SMF				*e*Sg	Sg	12 16 28.1	-1.8
	comp=N,3.0nm,0.3s						
SMF	Signal de Mont	4.69	198	*e*Pn	Pn	12 15 10.0	+1.0
SMF				*e*Pg	Pg	12 15 27.5	-1.7
SMF				*e*Sg	Sg	12 16 28.1	-1.8
SMF	Signal de Mont	4.69	198	*e*Pn	Pn	12 15 10.0	+1.0
SMF	Signal de Mont	4.69	198	*e*Pg	Pg	12 15 27.5	-1.7
SMF				*e*Sg	Sg	12 16 28.1	-1.8
	comp=N,1.5nm,0.3s						
FLN	La Foliniere	4.79	243	*e*Pn	Pn	12 15 10.9	+0.5
	baz=61						
FLN				*e*Sn	Sn	12 16 03.1	-2.1
	comp=N,3.3nm,0.2s						
FLN	La Foliniere	4.79	243	*e*Pn	Pn	12 15 10.9	+0.5
FLN				*e*Sn	Sn	12 16 03.1	-2.1
FLN	La Foliniere	4.79	243	*e*Pn	Pn	12 15 10.9	+0.5
FLN				*e*Sn	Sn	12 16 03.1	-2.1
	comp=N,1.6nm,0.2s						
BGF	Bois d'Agland	5.01	206	*e*Sg		12 16 37.4	
	comp=N,8.6nm,0.5s						
BGF	Bois d'Agland	5.01	206	*e*Sg		12 16 37.4	
	comp=N,4.3nm,0.5s						
GRR	Gorron	5.20	241	*e*Pn	Pn	12 15 16.7	+0.6
GRR				*e*Sn	Sn	12 16 12.7	-2.7
	comp=N,6.3nm,0.2s						
GRR	Gorron	5.20	241	*e*Pn	Pn	12 15 16.7	+0.6
GRR				*e*Sn	Sn	12 16 12.7	-2.7
GRR	Gorron	5.20	241	*e*Pn	Pn	12 15 16.7	+0.6
GRR				*e*Sn	Sn	12 16 12.7	-2.7
	comp=N,3.2nm,0.2s						
TCF	Toulx Ste Croi	5.43	209	*e*Pn	Pn	12 15 19.7	+0.4
TCF	Toulx Ste Croi	5.43	209	*e*Pn	Pn	12 15 19.7	+0.4
TCF	Toulx Ste Croi	5.43	209	*e*Pn	Pn	12 15 19.7	+0.4
MFF	Saint Martin d	6.06	224	*e*Pn	Pn	12 15 28.4	+0.6
MFF	Saint Martin d	6.06	224	*e*Pn	Pn	12 15 28.4	+0.6
MFF	Saint Martin d	6.06	224	*e*Pn	Pn	12 15 28.4	+0.6
SGMF	Saint Gilles	6.23	246	*e*Pn	Pn	12 15 30.4	+0.2
SGMF				*e*Sn	Sn	12 16 37.5	-3.3
	comp=N,1.3nm,0.2s						
SGMF	Saint Gilles	6.23	246	*e*Pn	Pn	12 15 30.4	+0.2
SGMF				*e*Sn	Sn	12 16 37.5	-3.3
SGMF	Saint Gilles	6.23	246	*e*Pn	Pn	12 15 30.4	+0.2
SGMF				*e*Sn	Sn	12 16 37.5	-3.3
	comp=N,0.6nm,0.2s						
VRAC	Vranov	7.05	101	*e*Pn	Pn	12 15 44.9	+3.5
STHS	Stebnicka Huta	9.93	94	*e*	Pn	12 16 25.0	+4.2
STHS				*e*		12 17 12.3	

MAN 07 12:25:43, 18.45N×120.54E, h39^{km}**, mb3.8, ML2.5, MS2.1, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	Pasuquin	0.15	151	*e*P	Pn	12 25 49.6	-0.2
PIP				*i* S	Sn	12 25 53.8	-0.6
ABRA	Dolores	0.82	169	*e*P	Pn	12 25 59.1	+1.1
APYP	Conner	0.89	131	*e*P	Pn	12 26 00.0	+1.0
APYP				*e*S	Sn	12 26 12.2	+1.6

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*NEIC **07** 12:51:29.7, 37.07S×177.49E, h154^{km}, MG3.8(WEL), After WEL.*

WEL 07 12:51:30.8±0.2**, 37.03S×177.51E, h138**^{km}±2^{km}**, ML3.8**/6**, Error ellipse: s-maj=2.9km s-min=2.9km az=0.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	0.83	130	P	Pn	12 51 53.1	+0.1
MXZ				S	Sn	12 52 11.5	+1.6
MXZ	Matakaoa Point	0.83	130	PN	Pn	12 51 53.1	+0.1
MXZ				SN	Sn	12 52 09.9	0.0
PUZ	Puketiti	1.20	151	P	Pn	12 51 56.3	0.0
PUZ				S	Sn	12 52 15.6	-0.2
PUZ	Puketiti	1.20	151	PN	Pn	12 51 56.3	0.0
PUZ				*e*SN	Sn	12 52 15.2	-0.7
URZ	Urewera	1.27	194	P	Pn	12 51 57.0	0.0
URZ	Urewera	1.27	194	PN	Pn	12 51 57.0	0.0
URZ				SN	Sn	12 52 17.4	+0.3
MWZ	Matawai	1.31	179	P	Pn	12 51 57.3	-0.1
MWZ	Matawai	1.31	179	PN	Pn	12 51 57.3	0.0
MWZ				SN	Sn	12 52 18.1	+0.4
KNZ	Kokohu	2.00	176	*e*P	Pn	12 52 04.4	-0.7
KNZ	Kokohu	2.00	176	PN	Pn	12 52 04.4	-0.7
KNZ				*e*SN	Sn	12 52 30.4	-1.1
BKZ	Black Stump Fm	2.28	200	*e*P	Pn	12 52 08.2	-0.4
BKZ	Black Stump Fm	2.28	200	PN	Pn	12 52 08.2	-0.3
WNVZ	Wahianoa	2.75	213	P	Pn	12 52 14.6	+0.2
PXZ	Pawanui	3.04	189	PN	Pn	12 52 16.2	-2.0
WAZ	Wanganui	3.37	215	PN	Pn	12 52 21.7	-0.7
BFZ	Birch Farm	3.78	195	*e*P	Pn	12 52 25.0	-2.8
MRZ	Mangatainoka R	3.93	202	*e*P	Pn	12 52 26.5	-3.2
MRZ	Mangatainoka R	3.93	202	*e*PN	Pn	12 52 25.4	-4.4
TIWZ	Tintock	3.96	198	PN	Pn	12 52 27.2	-2.8
TCW	Tory Channel	4.88	210	P	Pn	12 52 38.9	-3.4
THZ	Tophouse	5.92	216	*e*P	Pn	12 52 52.7	-3.5

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*ISCJB **07** 13:25:56.7±0.4, 58.61N±0.04×141.42W±0.07, h10^{km}, Error ellipse: s-maj=6.6km s-min=4.0km az=32.7*

*NEIC **07** 13:25:57.7±1.6, 58.62N×141.39W, h3^{km}±12^{km}, ML3.5(AEIC), MW4.4(PGC), Error ellipse: s-maj=7.8km s-min=3.8km az=203.0*

*PGC **07** 13:26:00.1±2.1, 58.63N×141.42W, h10^{km}, ML3.8/2, 132km Wsw of Yakutat, Ak Off Coast Of Southeastern Alaska*

ISC 07 13:25:58.6±0.4**, 58.64N**±0.03×**141.31W**±0.06**, h10**^{km}**, n39, σ1.02**/51**, Off coast of southeastern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YKU2	Yakutat	1.22	43	eP	Pn	13 26 21.8	+0.2
PNL	Peninsula	1.43	43	P	Pn	13 26 24.3	-0.2
PNL				S	Sn	13 26 42.0	-1.3
MID	Middleton Isla	2.72	289	P	Pn	13 26 41.9	-0.4
MID				eP		13 26 42.1	
BMRM	Bremner River	2.87	326	P	Pn	13 26 43.3	-1.1
HYT	Haines Junctio	2.92	40	Trac			
HYT	Haines Junctio	2.92	40	Pn	Pn	13 26 45.7	+0.7
EYAK	Cordova Ski Ar	2.96	312	P	Pn	13 26 45.1	-0.5
SKAG	Skagway	3.20	72	eP	Pn	13 26 49.5	+0.7
SIT	Sitka	3.57	114	P	Pn	13 26 53.9	0.0
WHY	Whitehorse	3.84	55	P	Pn	13 26 58.6	+1.0
WHY	Whitehorse	3.84	55	Trac			
WHY	Whitehorse	3.84	55	Pn	Pn	13 26 58.5	+0.9
SEW	Seward	4.42	293	P	Pn	13 27 05.6	+0.1
BCA3	Beaver Creek A	4.45	357	P	Pn	13 27 06.2	+0.2
MENT	Mentasta	4.48	346	eP	Pn	13 27 07.3	+0.9
SLKM	Skilak Lake	4.91	296	P	Pn	13 27 12.1	-0.2
SLKM				ePn	Pn	13 27 13.3	+1.0
SLKM				eSn	Sn	13 28 03.1	-5.8
PMR	Palmer	4.91	310	eP	Pn	13 27 11.9	-0.4
PMR				P		13 27 12.2	
PMR				ePn	Pn	13 27 12.5	+0.2
RC01	Rabbit Creek A	4.91	304	P	Pn	13 27 11.9	-0.4
GHO	Glory Hole Cre	4.93	313	P	Pn	13 27 13.1	+0.5
DOT	Dot Lake	5.21	346	P	Pn	13 27 16.0	-0.4
WRAK	Wrangell Islan	5.31	111	ePn	Pn	13 27 20.3	+2.4
CRAG	Craig	5.48	122	P	Pn	13 27 20.5	+0.4
CRAG				eP		13 27 20.7	
DAWY	Dawson	5.53	9	P	Pn	13 27 21.7	+1.0
DAWY				ePn	Pn	13 27 21.8	+1.1
DAWY				eSg	Sg	13 28 55.8	0.0
DAWY	Dawson	5.53	9	Pn	Pn	13 27 21.9	+1.1
DLBC	Dease Lake	5.91	87	ePn	Pn	13 27 28.1	+2.0
DLBC	Dease Lake	5.91	87	Pn	Pn	13 27 27.9	+1.9
DLBC				Sn	Sn	13 28 32.1	-1.7
EGAK	Eagle	6.17	1	ePn	Pn	13 27 30.8	+1.3
	18nm,0.6s						
EGAK				eSg	Sg	13 29 16.1	-0.2
MCK	McKinley	6.30	327	P	Pn	13 27 29.6	-1.8
TRF	Thorofare Moun	6.50	322	P	Pn	13 27 33.5	-0.6
NDB	Naden	6.61	132	Pn	Pn	13 27 36.0	+0.5
NDB				Sn	Sn	13 28 48.9	-2.0
IL1	Eielson Array	6.70	339	P	Pn	13 27 36.4	-0.5
KTH	Kantishna Hill	6.78	321	P	Pn	13 27 37.2	-0.8
COLA	College	6.99	336	P	Pn	13 27 40.8	0.0
VIB	Van Inlet	7.30	134	Pn	Pn	13 27 46.4	+1.3
VIB				Sn	Sn	13 29 03.8	-4.1
DIB	Dawson Inlet,	7.36	134	Pn	Pn	13 27 46.7	+0.8
DIB				Sn	Sn	13 29 05.2	-4.2
RUBB	Prince Rupert	7.49	120	Pn	Pn	13 27 48.2	+0.6
RUBB				Sn	Sn	13 29 09.8	-2.8
MOBC	Moresby Island	7.59	132	Pn	Pn	13 27 50.1	+1.1
MOBC				Sn	Sn	13 29 12.4	-2.6
SVW2	Sparrevohn	7.60	295	eP	Pn	13 27 49.0	-0.1
SVW2				ePn	Pn	13 27 49.5	+0.3
BM3	Burnt Mountain	8.94	352	P	Pn	13 28 07.2	-0.4

IDC 07 13:26:24.0±6.7**, 20.28S×67.48W, h194**^{km}±46^{km}**, mb3.4**/2**, mb1 3.4**/4**, mb1mx3.2**/16**, mbtmp3.3**/4**, Error ellipse: s-maj=76.1km s-min=23.2km az=16.0, Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	4.01	351	P	Pn	13 27 26.4	+0.6
	0.3nm,0.3s,baz=190,slow=6.4,SNR=5.4						
LPAZ				S	Sn	13 28 15.9	+1.7
	0.1nm,0.3s,baz=284,slow=14,SNR=3.6						
SIV	San Ignacio	7.44	56	P	Pn	13 28 09.6	-0.4
	4.0nm,0.3s,baz=253,slow=11,SNR=66						
SIV				S	Sn	13 29 34.7	+0.8
	baz=330,slow=20,SNR=3.9						
TORD	Torodi Ar. Bea	75.69	70	P	P	13 37 48.6	+0.1
	0.8nm,0.4s,baz=256,slow=5.6,SNR=19						
YKA	Yellowknife Ar	90.49	340	P	P	13 39 03.1	-0.1
	0.1nm,0.4s,baz=135,slow=4.6,SNR=4.0						

IDC 07 13:44:31.2±5.6**, 13.14N×143.46E, h109**^{km}±82^{km}**, mb3.0**/3**, mb1 3.2**/3**, mb1mx3.0**/19**, mbtmp3.0**/3**, Error ellipse: s-maj=102.8km s-min=25.3km az=86.0, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.44	72	P	Pn	13 44 58.3	+1.0
	26nm,0.3s,baz=279,slow=16,SNR=41						
GUMO				S	Sn	13 45 16.8	-0.3
	89nm,0.3s,baz=185,slow=24,SNR=9.0						
WRA	Warramunga Arr	34.07	195	P	P	13 51 05.2	-0.2
	0.6nm,0.6s,baz=5.9,slow=9.6,SNR=7.2						
SONM	Songino Array	46.32	326	P	P	13 52 46.6	+0.6
	0.3nm,0.5s,baz=145,slow=9.3,SNR=3.5						
MKAR	Makanchi Array	60.87	316	P	P	13 54 31.9	-0.4
	0.2nm,0.5s,baz=87,slow=8.6,SNR=6.0						

*NEIC **07** 13:55:08.0, 17.92N×99.59W, h58^{km}, MD3.6(MEX), After MEX.*

MEX 07 13:55:06.2±1.2**, 17.85N×99.60W, h67**^{km}±10^{km}**, MD3.6, 1D, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MEIG	Mezcala	0.08	346	eP	Pn	13 55 15.5	-0.6
MEIG				i S	Sn	13 55 21.8	-1.4
PLIG	Platanillo	0.55	10	i P	Pn	13 55 18.1	-1.2
PLIG				i S	Sn	13 55 26.0	-2.8
PLIG	Platanillo	0.55	10	⇓iP	Pn	13 55 18.1	-1.2
PLIG				i S	Sn	13 55 26.3	-2.5
CAIG	El Cayaco	1.02	219	eP	Pn	13 55 24.9	+0.1
CAIG				i S	Sn	13 55 38.5	-0.1
CAIG	El Cayaco	1.02	219	eP	Pn	13 55 24.0	-0.8
CAIG				i S	Sn	13 55 37.7	-0.9
ACX	Acapulco	1.02	197	eP	Pn	13 55 22.3	-2.5
ACX				eS	Sn	13 55 36.0	-2.7
ACX	Acapulco	1.02	197	eP	Pn	13 55 22.5	-2.3
ACX				eS	Sn	13 55 36.0	-2.7
SZVM	Salazar	1.48	8	eP	Pn	13 55 30.3	-0.6
SZVM				i S	Sn	13 55 48.6	-0.7
UTMO	Huajuapan	1.71	90	i P	Pn	13 55 36.8	+3.0
UTMO				i S	Sn	13 55 53.8	-1.0
IIO	Organos	1.92	25	i P	Pn	13 55 33.1	-3.6
IIO				i S	Sn	13 55 53.4	-6.6

MOS 07 13:58:45.4±1.5**, 42.32N×48.12E, h10**^{km}**, mb3.8**/1**, Error ellipse: s-maj=35.1km s-min=19.4km az=93.5, Caspian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DRN	Derbent	0.33	152	ePG	Pg	13 58 52.4	+0.5
DRN				i S	Sg	13 58 58.7	+2.5
URKR	Urkarakh	0.39	248	i PG	Pg	13 58 54.0	+0.9
URKR				eS	Sg	13 59 01.5	+3.2
URKR				pmax	pmax		
	comp=Z,238nm,0.1s						
KSMR	Kasumkent	0.71	180	i PG	Pg	13 59 02.0	+2.8
KSMR				i S	Sg	13 59 13.0	+4.5
KSMR				pmax	pmax		
	comp=Z,129nm,0.1s						
AKT	Akhty	0.89	199	i PG	Pg	13 59 02.0	-0.4
AKT				eS	Sg	13 59 15.0	+1.0
AKT				pmax	pmax		
	comp=Z,51nm,0.2s						
DBC	Dubki	1.18	307	i PG	Pg	13 59 07.8	-0.3
DBC				i S	Sb	13 59 24.0	+0.7

*IDC **07** 14:04:24.9±1.0, 2.40S×139.84E, h0^{km}, mb4.1/5, mb1 4.4/8, mb1mx4.2/14, mbtmp4.3/8, ML4.0/3, MS3.6/4, Ms1 3.6/4, ms1mx3.1/17, Error ellipse: s-maj=40.4km s-min=18.6km az=74.0*

*NEIC **07** 14:04:26.2±0.4, 2.45S×139.83E, h10^{km}, mb4.2/3, Error ellipse: s-maj=11.2km s-min=6.4km az=73.0*

*ISCJB **07** 14:04:27.6±0.6, 2.54S±0.06×139.82E±0.10, h33^{km}, mb4.0/5, MS3.5/3, Error ellipse: s-maj=13.9km s-min=8.2km az=177.2*

ISC 07 14:04:30.3±0.6**, 2.58S**±0.06×**139.69E**±0.09**, h35**^{km}**, n28,** σ**1**^{s}**00**/28**, mb4.0**/5**, MS3.5**/3**, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	10.06	133	ePn	Pn	14 06 50.2	-2.1
PMG	Port Moresby	10.06	133	Pn	Pn	14 06 51.1	-1.2
	0.7nm,0.3s,baz=4.8,slow=12,SNR=3.5						
COEN	Coen	11.82	163	ePn	Pn	14 07 16.2	-0.2
KAKA	Kakadu	12.36	215	eP	Pn	14 07 24.2	+0.4
	48nm,0.5s						
KAKA				eS	Sn	14 09 39.0	-1.4
KAKA	Kakadu	12.36	215	ePn	Pn	14 07 25.0	+1.2
KAKA				eSn	Sn	14 09 38.8	-1.6
WB2	Warramunga Arr	18.02	196	eP	Pn	14 08 39.6	+1.5
WB2				eS	S	14 11 46.3	-17
WB2	Warramunga Arr	18.02	196	eP	Pn	14 08 38.3	+0.2
WB2				eS	S	14 11 46.3	-17
WRA	Warramunga Arr	18.03	196	P	Pn	14 08 38.8	+0.6
	1.5nm,0.3s,baz=20,slow=12,SNR=80						
WRA				S	S	14 11 55.5	-8.0
	0.3nm,0.3s,baz=9.1,slow=23,SNR=5.1						
CTA	Charters Tower	18.54	160	P	Pn	14 08 44.9	+0.4
	0.5nm,0.3s,baz=344,slow=7.7,SNR=5.6						
CTA				LR	LR	14 16 29.4	
	comp=Z,281nm,20.0s,baz=50,slow=39						
CTAO	Charters Tower	18.54	160	eP	Pn	14 08 44.4	-0.1
FITZ	Fitzroy Crossi	20.68	221	eP	P	14 09 09.1	+1.7
	24nm,0.8s						
FITZ				eS	S	14 12 54.7	-2.0
FITZ	Fitzroy Crossi	20.68	221	P	P	14 09 09.2	+1.8
	19nm,0.9s,baz=45,slow=11,SNR=22						
FITZ				S	S	14 12 54.3	-2.4
	5.2nm,0.9s,baz=203,slow=17,SNR=4.1						
EIDS	Eidsvold	25.17	155	eP	P	14 09 52.6	+0.1
STKA	Stephens Creek	29.20	177	eP	P	14 10 29.7	+1.1
	2.9nm,0.9s,mb4.0						
STKA	Stephens Creek	29.20	177	P	P	14 10 30.2	+1.6
	1.1nm,0.6s,mb3.8,baz=4.4,slow=10,SNR=4.1						
STKA				LR	LR	14 23 31.3	
	comp=Z,165nm,19.3s,MS3.7,baz=22,slow=39						
JNU	Nakatsue	36.47	348	LR	LR	14 23 51.0	
	comp=Z,58nm,18.9s,MS3.4,baz=154,slow=32						
KSRS	Korea Array	41.30	346	LR	LR	14 28 20.7	
	comp=Z,50nm,19.4s,MS3.4,baz=344,slow=35						
SONM	Songino Array	58.02	334	P	P	14 14 19.5	-0.2
	0.4nm,0.7s,mb3.6,baz=146,slow=5.3,SNR=3.7						
MK31	Makanchi Array	70.28	322	eP	P	14 15 40.2	+0.1
MKAR	Makanchi Array	70.28	322	P	P	14 15 40.5	+0.4
MKAR	Makanchi Array	70.28	322	P	P	14 15 40.5	+0.4
	3.2nm,0.8s,mb4.3,baz=112,slow=8.1,SNR=30						
ZALV	Zalesovo Beam	72.32	330	P	P	14 15 51.2	-1.0
	1.3nm,0.6s,mb4.0,baz=104,slow=6.3,SNR=8.1						
BRVK	Borovoye	79.84	325	eP	P	14 16 34.5	-0.6
	1.8nm,0.6s,mb4.2						
KIC	Kosan Boka	144.35	277	ePKP1	PKPdf	14 24 01.6	-2.3
	20nm,0.6s						
TIC	Toumodi	144.60	278	ePKP1	PKPdf	14 24 01.5	-2.8
	6.5nm,0.7s						
LIC	Lamto	144.64	277	ePKP1	PKPdf	14 24 02.4	-2.0
	48nm,1.3s						
LPAZ	La Paz	146.73	125	PKPbc	PKPbc	14 24 09.2	-0.3
LPAZ	La Paz	146.73	125	PKPbc	PKPbc	14 24 09.2	-0.3
	1.1nm,0.6s,baz=222,slow=10,SNR=5.7						

MAN 07 14:29:02, 7.88N×124.98E, h20^{km}**, mb4.3, ML3.1, MS2.9, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CGP	Cagayan de Oro	0.64	334	⇑iP	Pb	14 29 15.4	+0.9
CGP				i S	Sb	14 29 26.5	+3.5

PRE 07 14:45:18.0±1.5**, 26.38S×27.46E, h2**^{km}**, ML4.0, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KLOF	Kloof	0.14	78	eP	Pg	14 45 21.0	+0.4
KLOF				eS	Sg	14 45 23.2	+0.9
KLOF				AML	AML	14 45 24.2	
	comp=Z,26µm,0.2s						
KSR	Koster	0.73	316	eP	Pg	14 45 31.4	-0.6
KSR				eS	Sg	14 45 42.3	+0.9
KSR				AML	AML	14 45 49.5	
	comp=Z,1µm,0.1s						
SLR	Silverton	0.97	49	eP	Pg	14 45 36.4	-0.4
SLR				eS	Sg	14 45 50.0	+0.7
SLR				AML	AML	14 45 55.0	
	comp=Z,2µm,0.2s						
SEK	Senekal	1.94	176	eP	Pn	14 45 52.2	+0.1
SEK				eS	Sn	14 46 17.6	+0.5
SEK				AML	AML	14 46 22.9	
	comp=Z,333nm,0.2s						
LBTB	Lobatse	2.16	308	eP	Pn	14 45 55.9	+0.9
LBTB				eS	Sn	14 46 23.2	+0.8
LBTB				AML	AML	14 46 25.5	
	comp=Z,781nm,0.4s						
KSD	Kokstad	4.49	158	eP	Pn	14 46 26.9	-0.1
KSD				eS	Sn	14 47 19.2	-0.7
KSD				AML	AML	14 47 39.0	
	comp=Z,90nm,0.4s						
PKA	Prieska	5.30	231	eP	Pn	14 46 38.0	-0.1
PKA				eS	Sn	14 47 38.8	-0.9
PKA				AML	AML	14 48 05.5	
	comp=Z,174nm,0.4s						
UPI	Upington	5.87	249	eP	Pn	14 46 47.3	+1.4
UPI				eS	Sn	14 47 52.0	-1.8
UPI				AML	AML	14 48 23.9	
	comp=Z,139nm,0.4s						
GRM	Grahamstown	6.96	187	eP	Pn	14 47 02.1	+1.1
GRM				eS	Sn	14 48 17.7	-3.1
GRM				AML	AML	14 48 58.6	
	comp=Z,42nm,0.6s						
SUR	Sutherland	8.33	223	eP	Pn	14 47 20.4	+0.6
SUR				eS	Sn	14 48 50.8	-3.8
CVNA	Calvinia	8.45	231	eP	Pn	14 47 23.4	+2.0
CVNA				eS	Sn	14 48 53.4	-4.0
CVNA				AML	AML	14 49 41.9	
	comp=Z,118nm,0.5s						
KOMG	Komaggas	9.45	247	eP	Pn	14 47 36.8	+1.7
KOMG				eS	Sn	14 49 17.6	-4.4
KOMG				AML	AML	14 50 12.7	
	comp=Z,18nm,0.6s						

IDC 07 14:51:01.4±1.8**, 0.24N×125.76E, h0**^{km}**, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.6**/16**, mbtmp3.8**/3**, Error ellipse: s-maj=169.8km s-min=26.9km az=63.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	21.75	158	P	P	14 55 54.7	0.0
	3.3nm,0.7s,baz=336,slow=11,SNR=15						
STKA	Stephens Creek	35.29	156	P	P	14 57 58.1	0.0
	0.9nm,0.7s,baz=331,slow=11,SNR=3.0						
MKAR	Makanchi Array	59.89	327	P	P	15 01 09.1	0.0
	0.3nm,0.4s,baz=122,slow=7.6,SNR=5.4						

*CSEM **07** 14:57:35.5±0.2, 39.78N×28.77E, h5^{km}, MD2.9, Error ellipse: s-maj=4.3km s-min=2.9km az=144.0*

*ISK **07** 14:57:36.3, 39.80N×28.77E, h5^{km}, MD2.9*

*ISCJB **07** 14:57:37.2±1.2, 39.84N±0.08×28.76E±0.05, h5^{km}±19^{km}, Error ellipse: s-maj=13.9km s-min=5.7km az=8.6*

*DDA **07** 14:58:19.5, 39.92N×28.37E, h8^{km}, Md2.8*

ISC 07 14:57:38.0±0.8**, 39.87N**±0.09×**28.76E**±0.05**, h17**^{km}±15^{km}**, n16,** σ**0**^{s}**91**/24**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ULDT	Uludag	0.40	47	i P	Pg	14 57 45.6	-0.5
ULDT				i S	Sg	14 57 51.2	-0.4
KCT	Karacabey	0.50	322	i PG	Pg	14 57 47.2	-0.8
KCT	Karacabey	0.50	322	i Pg	Pg	14 57 47.2	-0.8
IZI	Iznik	0.72	49	PG	Pg	14 57 51.2	-0.8
IZI				SG	Sg	14 58 01.9	+0.3
IZI	Iznik	0.72	49	ePg	Pg	14 57 51.2	-0.8
IZI				eSg	Sg	14 58 01.9	+0.3
BNT	Bandirma	0.81	307	PG	Pg	14 57 53.9	+0.2
BNT				SG	Sg	14 58 06.2	+1.9
BNT	Bandirma	0.81	307	ePg	Pg	14 57 53.9	+0.2
BNT				eSg	Sg	14 58 06.2	+1.9
YLV	Yalova	0.84	34	PG	Pg	14 57 54.1	-0.2
YLV	Yalova	0.84	34	ePg	Pg	14 57 54.1	-0.2
GDZ	Gediz	0.96	144	i P	Pb	14 57 55.1	-1.0
GDZ				i S	Sb	14 58 09.5	+1.0
AKS	Akhisar	1.23	217	ePN	Pn	14 57 59.0	-1.4
AKS	Akhisar	1.23	217	ePn	Pn	14 57 59.0	-1.4
ESKT	Eskisehir	1.65	102	ePN	Pn	14 58 06.6	+0.5
ESKT	Eskisehir	1.65	102	i P	Pn	14 58 07.4	+1.2
ESKT				i S	Sg	14 58 32.1	+0.9
ESKT	Eskisehir	1.65	102	ePn	Pn	14 58 06.6	+0.5
SEYT	Eskypehyr	1.65	102	i P	Pn	14 58 07.4	+1.3
SEYT				i S	Sg	14 58 32.2	+1.0

*ISCJB **07** 15:03:50.7±0.3, 38.02N±0.02×28.19E±0.03, h6^{km}, Error ellipse: s-maj=3.3km s-min=2.8km az=163.0*

*CSEM **07** 15:03:50.1±0.1, 38.00N×28.20E, h5^{km}, MD3.2, Error ellipse: s-maj=1.5km s-min=1.2km az=82.0*

*ISK **07** 15:03:50.2, 38.01N×28.19E, h5^{km}, MD3.2*

*ATH **07** 15:03:54.5, 37.39N×25.77E, h10^{km}, MD3.4/3*

*DDA **07** 15:03:58.7, 37.99N×28.23E, h6^{km}, Md3.0*

ISC 07 15:03:51.1±0.5**, 38.01N**±0.02×**28.20E**±0.03**, h4**^{km}±5^{km}**, n57,** σ**0**^{s}**83**/72**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DENT	Denizli	0.70	111	PG	Pg	15 04 04.0	-0.6
DENT				SG	Sg	15 04 14.4	+0.7
DENT	Denizli	0.70	111	ePg	Pg	15 04 04.0	-0.6
DENT				eSg	Sg	15 04 14.4	+0.7
MLSB	Milas	0.79	206	PG	Pg	15 04 06.2	0.0
MLSB				SG	Sg	15 04 17.2	+0.8
MLSB	Milas	0.79	206	ePg	Pg	15 04 06.2	0.0
MLSB				eSg	Sg	15 04 17.2	+0.8
KDAG	Bornova	0.84	298	i P	Pg	15 04 06.9	-0.2
KDAG				i S	Sg	15 04 18.7	+0.8
IZM	Izmir	0.84	298	PG	Pg	15 04 06.8	-0.3
IZM				SG	Sg	15 04 17.7	-0.3
IZM	Izmir	0.84	298	ePg	Pg	15 04 06.8	-0.3
IZM				eSg	Sg	15 04 17.7	-0.3
YER	Yerkesik	0.88	176	PG	Pg	15 04 07.6	-0.2
YER				SG	Sg	15 04 20.0	+0.8
YER	Yerkesik	0.88	176	ePg	Pg	15 04 07.6	-0.2
YER				eSg	Sg	15 04 20.0	+0.8
AKS	Akhisar	0.92	341	PG	Pg	15 04 07.6	-1.1
AKS	Akhisar	0.92	341	ePg	Pg	15 04 07.6	-1.1
BLCB	Balcova	0.99	293	PG	Pg	15 04 09.7	-0.3
BLCB	Balcova	0.99	293	ePg	Pg	15 04 09.7	-0.3
KHL	Karahalli	1.09	73	PN	Pn	15 04 12.0	-1.0
KHL	Karahalli	1.09	73	ePn	Pn	15 04 12.0	-1.0
BDRM	Kayabasi	1.12	213	i P	Pg	15 04 12.1	-0.4
BDRM				i S	Sg	15 04 28.7	+1.7
SMG	Samos	1.12	255	ePB	Pb	15 04 11.7	-1.3
SMG	Samos	1.12	255	ePb	Pb	15 04 11.7	-1.3
BODT	Bodrum	1.18	217	PN	Pn	15 04 12.9	-1.4
BODT	Bodrum	1.18	217	ePn	Pn	15 04 12.9	-1.4
DALT	Dalyan (Mudla)	1.28	164	PN	Pn	15 04 15.0	-0.7
DALT	Dalyan (Mudla)	1.28	164	ePn	Pn	15 04 15.0	-0.7
GOLH	Golhisar	1.32	125	i P	Pn	15 04 15.0	-1.3
GOLH				i S	Sg	15 04 37.4	+3.7
DAT	Datca	1.37	201	PN	Pn	15 04 16.3	-0.6
DAT	Datca	1.37	201	ePn	Pn	15 04 16.3	-0.6
GDZ	Gediz	1.47	43	i P	Pn	15 04 17.9	-0.5
GDZ				i S	Sn	15 04 37.9	-0.1
FETY	Fethiye	1.54	153	ePN	Pn	15 04 18.8	-0.5
FETY	Fethiye	1.54	153	ePn	Pn	15 04 18.8	-0.5
DST	Dursunbey	1.63	12	ePN	Pn	15 04 20.8	+0.3
DST	Dursunbey	1.63	12	ePn	Pn	15 04 20.8	+0.3
AYVA	Ayvalik	1.76	318	i P	Pn	15 04 23.8	+1.5
AYVA				i S	Sn	15 04 46.9	+1.9
ELL	Elmali	1.85	132	ePN	Pn	15 04 23.8	+0.3
ELL	Elmali	1.85	132	ePn	Pn	15 04 23.8	+0.3
SHUT	Suhut-Afyon	1.93	73	ePN	Pn	15 04 24.9	+0.3
SHUT	Suhut-Afyon	1.93	73	ePn	Pn	15 04 24.9	+0.3
AKAS	Kas	2.10	147	i P	Pn	15 04 27.3	+0.4
AKAS				i S	Sg	15 05 03.2	+4.8
ULDT	Uludag	2.25	19	i P	Pn	15 04 29.9	+0.9
ULDT				i S	Sg	15 05 02.8	-0.6
KCT	Karacabey	2.26	3	ePN	Pn	15 04 29.0	-0.1
KCT	Karacabey	2.26	3	ePn	Pn	15 04 29.0	-0.1
EZN	Ezine	2.33	322	ePN	Pn	15 04 30.1	0.0
EZN	Ezine	2.33	322	ePn	Pn	15 04 30.1	0.0
BNT	Bandirma	2.35	355	ePN	Pn	15 04 30.8	+0.3
BNT	Bandirma	2.35	355	ePn	Pn	15 04 30.8	+0.3
IZI	Iznik	2.52	23	ePN	Pn	15 04 32.7	-0.1
IZI	Iznik	2.52	23	ePn	Pn	15 04 32.7	-0.1
ESKT	Eskisehir	2.56	53	ePN	Pn	15 04 34.4	+1.1
ESKT	Eskisehir	2.56	53	ePn	Pn	15 04 34.4	+1.1
KARP	Karpathos	2.60	199	ePN	Pn	15 04 32.7	-1.1
KARP	Karpathos	2.60	199	ePn	Pn	15 04 32.7	-1.1
YLV	Yalova	2.71	19	ePN	Pn	15 04 36.0	+0.6
YLV	Yalova	2.71	19	ePn	Pn	15 04 36.0	+0.6
MFT	Murefte	2.86	346	ePN	Pn	15 04 38.1	+0.6
MFT	Murefte	2.86	346	ePn	Pn	15 04 38.1	+0.6
KIZT	Kizilcal	3.02	72	ePN	Pn	15 04 40.2	+0.7
KIZT	Kizilcal	3.02	72	ePn	Pn	15 04 40.2	+0.7
NVR	Nevrokopi	4.73	316	ePN	Pn	15 05 01.9	-1.2
NVR	Nevrokopi	4.73	316	ePn	Pn	15 05 01.9	-1.2

*NIED **07** 15:18:00, 23.80N×123.80E, h32^{km}, Mw4.3 Best double couple: $M_0$2.81000×10^{15} NP1:ϕ_s31.00000°, δ60.00000°, λ168.00000°. NP2:ϕ_s127.00000°, δ80.00000°, λ31.00000°.*

*IDC **07** 15:18:23.8±1.0, 23.95N×123.78E, h0^{km}, mb4.2/11, mb1 4.2/14, mb1mx4.1/22, mbtmp4.1/14, ML3.2/3, MS3.6/7, Ms1 3.6/7, ms1mx3.2/36, Error ellipse: s-maj=23.2km s-min=22.0km az=174.0*

*BJI **07** 15:18:24.2, 23.91N×124.06E, h22^{km}, mB4.5, mb4.4, ML3.8, Ms3.8*

*MOS **07** 15:18:26.9±1.2, 24.01N×123.76E, h33^{km}, mb4.5/12, Error ellipse: s-maj=16.5km s-min=8.1km az=100.2*

*ISCJB **07** 15:18:28.2±0.7, 23.93N±0.07×123.80E±0.03, h47^{km}±3^{km}, mb4.2/24, MS3.6/5, Error ellipse: s-maj=12.7km s-min=4.7km az=171.5*

*JMA **07** 15:18:28.4±0.2, 23.84N×123.83E, h30^{km}±1^{km}, M4.6*

JMA Felt I J1.

*NEIC **07** 15:18:29.6±1.4, 23.96N×123.83E, h41^{km}±11^{km}, mb4.3/5, Error ellipse: s-maj=17.0km s-min=10.6km az=182.0*

NEIC Recorded [1 JMA] on Iriomote-jima and Ishigaki-jima.

ISC 07 15:18:28.9±0.8**, 23.91N**±0.07×**123.81E**±0.03**, h37**^{km}±4^{km}**, n69,** σ**1**^{s}**09**/78**, mb4.2**/24**, MS3.6**/5**, 3C, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HATJ	Hateruma jima	0.15	0	P	Pn	15 18 34.6	-0.9
HATJ				eS	Sn	15 18 39.2	-0.8
JKRS	Kuro-shima	0.38	30	P	Pn	15 18 37.7	-0.2
JKRS				eS	Sn	15 18 43.8	-0.3
IRIF	Iriomote-Funau	0.43	351	P	Pn	15 18 38.6	0.0
IRIF				eS	Sn	15 18 45.5	+0.2
JIJ	Ishigaki jima	0.55	34	P	Pn	15 18 39.8	-0.4
JIJ				S	Sn	15 18 47.8	-0.4
YOJ	Yonaguni jima	0.91	307	P	Pn	15 18 46.3	+1.1
YOJ				eS	Sn	15 18 58.8	+1.7
JTJ	Tarama	1.10	48	P	Pn	15 18 48.0	+0.3
JTJ				eS	Sn	15 19 03.0	+1.3
JMJ	Miyako jima 2	1.63	56	P	Pn	15 18 55.8	+0.7
JMJ				eS	Sn	15 19 16.3	+1.5
JOGS	Gusukube	1.69	60	P	Pn	15 18 56.3	+0.4
TATO	Taipei	2.36	297	ePn	Pn	15 19 06.7	+1.6
TATO				eSn	Sn	15 19 32.0	-1.0
JKE	Kume jima 2	3.62	48	P	Pn	15 19 22.2	-0.2
JKE				eS	Sn	15 20 05.6	+1.7
JAGN	Aguni-jima	4.10	49	P	Pn	15 19 29.2	+0.2
QZH	Quanzhou	4.86	283	⇑iP	Pn	15 19 41.9	+2.4
QZH				S	Sn	15 20 33.9	-0.7
QZH				Smax			
	comp=N,90nm,0.8s						
QZH				Smax			
	comp=E,80nm,0.8s						
JOW	Kunigami	4.98	53	Pn	Pn	15 19 39.7	-1.5
JOW				Sn	Sn	15 20 38.6	+1.1
JOW	Kunigami	4.98	53	P	Pn	15 19 39.6	-1.6

JOW	Kunigami	4.98	53	Pn	Pn	15 19 39.7	-1.5
	comp=E,1.1nm,0.3s,baz=271,slow=20,SNR=11						
JOW				Sn	Sn	15 20 38.6	+1.1
	comp=E,3.2nm,0.3s,baz=108,slow=20,SNR=3.3						
JTK	Tokunoshima	6.03	49	P	Pn	15 19 53.9	-1.7
JAM	Amami Oshima	6.87	48	P	Pn	15 20 04.8	-2.4
JMZ	Minamidaito 2	7.00	73	P	Pn	15 20 05.6	-3.3
KSRS	Korea Array	13.96	14	P	Pn	15 21 44.0	-0.1
KSRS				MLR	MLR		
	comp=Z,129nm,20.1s						
KSRS	Korea Array	13.96	14	Pn	Pn	15 21 44.0	-0.1
	comp=Z,0.1nm,0.3s,baz=191,slow=13,SNR=7.8						
KSRS				LR	LR	15 27 20.8	
	comp=Z,129nm,20.1s,baz=190,slow=39						
JHJ	Hachijo jima 2	16.76	53	LR	LR	15 27 41.8	
	comp=Z,118nm,19.9s,baz=304,slow=33						
MJAR	Matsushiro Arr	17.68	41	P	Pn	15 22 33.5	+1.3
	comp=Z,0.3nm,0.3s,baz=229,slow=11,SNR=6.6						
CN2	Changchun	19.89	4	eP	Pn	15 22 56.8	-2.0
ASAJ	Asahikawa	25.36	33	P	P	15 23 51.6	-0.8
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.5s						
ASAJ				MLR	MLR		
	comp=Z,78nm,21.5s						
ASAJ	Asahikawa	25.36	33	P	P	15 23 51.5	-0.9
	comp=Z,2.5nm,0.5s,mb4.0,baz=232,slow=11,SNR=4.9						
ASAJ				LR	LR	15 33 36.5	
	comp=Z,78nm,21.5s,MS3.2,baz=152,slow=36						
GTA	Gaotai	25.50	313	eP	P	15 23 54.7	+1.0
GTA				AP	pP	15 23 59.7	-4.4
GTA				XP	sP	15 24 02.4	-6.2
GTA				AMB	AMB		
	comp=Z,4.0nm,1.4s,mb3.8						
HIA	Hailar	25.51	354	eP	P	15 23 50.2	-3.5
HABR	Khabarovsk	26.08	17	eP	P	15 23 58.8	-0.1
ULN	Ulaanbaatar	27.37	335	eP	P	15 24 11.4	+1.0
SONM	Songino Array	27.60	334	P	P	15 24 12.8	+0.2
	comp=Z,1.2nm,0.8s,mb3.6,baz=150,slow=9.2,SNR=11						
SONM				LR	LR	15 36 30.5	
	comp=Z,96nm,19.1s,MS3.4,baz=163,slow=39						
YAK	Yakutsk	38.31	4	⇑eP	P	15 25 43.9	-1.8
YAK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
MK31	Makanchi Array	40.21	315	eP	P	15 26 02.0	+0.2
MKAR	Makanchi Array	40.21	315	P	P	15 26 02.2	+0.4
MKAR	Makanchi Array	40.21	315	P	P	15 26 02.2	+0.4
	comp=Z,1.8nm,0.3s,mb4.2,baz=98,slow=9.3,SNR=84						
ZALV	Zalesovo Beam	41.79	326	P	P	15 26 13.6	-1.1
	comp=Z,2.2nm,0.5s,mb4.1,baz=110,slow=8.3,SNR=9.8						
ZALV				LR	LR	15 45 11.6	
	comp=Z,52nm,19.6s,MS3.4,baz=16,slow=38						
ZAL	Zalesovo	41.80	326	P	P	15 26 13.6	-1.1
SEY	Seymchan	43.45	19	eP	P	15 26 28.0	+0.1
KURK	Kurchatov	43.85	319	eP	P	15 26 30.9	-0.4
	comp=Z,2.1nm,0.6s,mb4.0						
KURK	Kurchatov	43.85	319	eP	P	15 26 30.9	-0.4
KURK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
WRA	Warramunga Arr	44.78	166	P	P	15 26 39.7	+0.7
	comp=Z,0.6nm,0.6s,mb3.6,baz=348,slow=9.2,SNR=2.5						
TIXI	Tiksi	47.85	2	eP	P	15 26 59.8	-2.8
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
BRVK	Borovoye	49.48	320	eP	P	15 27 15.6	+0.3
	comp=Z,1.2nm,0.3s,mb4.4						
BRVK	Borovoye	49.48	320	eP	P	15 27 15.6	+0.2
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.3						
BILL	Bilibino	51.15	19	eP	P	15 27 26.7	-1.1
BILL				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
ARU	Arti	56.77	323	eP	P	15 28 07.8	-1.2
ARU				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.2						
KIV	Kislovodsk	67.62	309	⇑eP	P	15 29 23.2	+1.3
KIV				pmax	pmax		
	comp=Z,12nm,1.7s,mb4.7						
OBN	Obninsk	69.19	322	eP	P	15 29 30.9	-0.7
OBN				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.7						
JOF	Joensuu	70.12	331	ep	P	15 29 36.2	-0.9
	comp=Z,4.4nm,0.6s,mb4.6						
KEV	Kevo	70.12	338	ep	P	15 29 35.0	-2.0
ARCES	ARCESS Array B	70.68	338	P	P	15 29 40.8	+0.3
	comp=Z,5.5nm,0.9s,mb4.5,baz=81,slow=7.9,SNR=7.3						
EGAK	Eagle	70.75	27	eP	P	15 29 42.1	+1.1
	comp=Z,2.5nm,0.5s,mb4.4						
DAWY	Dawson	71.68	27	eP	P	15 29 47.7	+1.1
MALT	Malatya	72.13	305	eP	P	15 29 50.8	+1.0
	comp=Z,3.5nm,0.9s,mb4.3						
MALT	Malatya	72.13	305	eP	P	15 29 50.8	+1.0
MALT				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
KAF	Kangasniemi	72.57	331	ep	P	15 29 50.8	-1.1
	comp=Z,2.4nm,0.5s,mb4.4,baz=70,slow=5.8						
KAF	Kangasniemi	72.57	331	eP	P	15 29 50.8	-1.1
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
FIA1	FINESS Array S	72.88	330	eP	P	15 29 54.1	+0.3
FINES	FINESS Array B	72.88	330	i P	P	15 29 54.0	+0.2
FINES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
FINES	FINESS Array B	72.88	330	P	P	15 29 54.1	+0.3
	comp=Z,2.7nm,0.6s,mb4.4,baz=60,slow=6.0,SNR=26						
AKASG	Malin Array Be	74.66	319	P	P	15 30 04.3	-0.1
AKASG	Malin Array Be	74.66	319	P	P	15 30 04.3	-0.1
AKASG	Malin Array Be	74.66	319	P	P	15 30 04.3	-0.1
	comp=Z,0.3nm,0.4s,mb3.6,baz=69,slow=6.1,SNR=3.7						
BRTR	Keskin Array B	75.26	307	P	P	15 30 09.4	+1.3
	comp=Z,0.8nm,0.8s,mb3.7,baz=100,slow=6.4,SNR=5.9						
MMAI	Mount Meron Ar	76.11	300	LR	LR	16 12 11.5	
	comp=Z,31nm,20.5s,MS3.6,baz=0.0,slow=42						
URZ	Urewera	79.51	140	LR	LR	15 59 17.2	
	comp=Z,252nm,19.8s,MS4.6,slow=31						
NB2	NORSAR Subarra	79.58	333	P	P	15 30 32.3	+0.5
	comp=Z,1.2nm,0.5s,mb4.1,baz=56,slow=5.6						
NOA	NORSAR Array B	79.58	333	P	P	15 30 32.3	+0.5
	comp=Z,2.4nm,0.7s,mb4.2,baz=56,slow=5.6,SNR=8.1						
YKA	Yellowknife Ar	82.28	24	P	P	15 30 47.0	+0.8
YKA	Yellowknife Ar	82.28	24	P	P	15 30 47.0	+0.8
	comp=Z,2.2nm,0.7s,mb4.2,baz=308,slow=5.2,SNR=29						

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*NEIC **07** 15:23:15.5, 38.46S×175.89E, h157^{km}, MG3.7(WEL), After WEL.*

WEL 07 15:23:16.2±0.4**, 38.49S×175.89E, h151**^{km}±3^{km}**, ML3.5**/7**, Error ellipse: s-maj=2.1km s-min=2.1km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WPVZ	Whakapapa	0.77	200	PN	Pn	15 23 39.7	+0.4
TUVZ	Tukino	0.80	193	P	Pn	15 23 40.0	+0.5
TUVZ	Tukino	0.80	193	PN	Pn	15 23 40.0	+0.5
HIZ	Hauiti	0.81	268	P	Pn	15 23 39.4	-0.2
HIZ	Hauiti	0.81	268	PN	Pn	15 23 39.4	-0.2
BKZ	Black Stump Fm	0.83	146	eP	Pn	15 23 40.1	+0.4
BKZ				S	Sn	15 23 57.9	+0.2
BKZ	Black Stump Fm	0.83	146	PN	Pn	15 23 40.1	+0.5
BKZ				SN	Sn	15 23 57.6	0.0
WNVZ	Wahianoa	0.87	195	P	Pn	15 23 40.5	+0.5
WNVZ				S	Sn	15 24 00.2	+1.9
WNVZ	Wahianoa	0.87	195	PN	Pn	15 23 40.5	+0.5
PKVZ	Pokaka	0.91	208	PN	Pn	15 23 40.5	+0.2
MOVZ	Moawhango	0.93	187	P	Pn	15 23 40.5	+0.1
MOVZ	Moawhango	0.93	187	PN	Pn	15 23 40.5	0.0
MTVZ	Mangateitei	0.96	200	PN	Pn	15 23 41.0	+0.3
URZ	Urewera	0.98	77	eP	Pn	15 23 40.7	-0.2
URZ	Urewera	0.98	77	PN	Pn	15 23 40.7	-0.2
URZ				SN	Sn	15 23 59.6	-0.2
VRZ	Vera Road	1.09	234	PN	Pn	15 23 41.7	-0.1
MWZ	Matawai	1.29	84	eP	Pn	15 23 43.8	+0.1
MWZ	Matawai	1.29	84	PN	Pn	15 23 43.8	+0.1
MWZ				SN	Sn	15 24 04.6	-0.1
WAZ	Wanganui	1.45	209	eP	Pn	15 23 44.9	-0.4
WAZ	Wanganui	1.45	209	PN	Pn	15 23 44.9	-0.4
KNZ	Kokohu	1.49	112	eP	Pn	15 23 46.1	+0.4
KNZ	Kokohu	1.49	112	PN	Pn	15 23 46.1	+0.4
TSZ	Takapari Road	1.57	178	P	Pn	15 23 46.3	-0.3
TSZ				S	Sn	15 24 09.3	-0.7
TSZ	Takapari Road	1.57	178	PN	Pn	15 23 46.2	-0.4
TSZ				SN	Sn	15 24 09.0	-1.0
PXZ	Pawanui	1.72	154	PN	Pn	15 23 48.3	+0.1
PUZ	Puketiti	1.91	78	eP	Pn	15 23 49.8	-0.5
PUZ	Puketiti	1.91	78	PN	Pn	15 23 49.8	-0.5
MRZ	Mangatainoka R	2.19	186	P	Pn	15 23 51.9	-1.6
MRZ	Mangatainoka R	2.19	186	PN	Pn	15 23 51.9	-1.6
BFZ	Birch Farm	2.21	173	eP	Pn	15 23 52.6	-1.2
BFZ	Birch Farm	2.21	173	PN	Pn	15 23 52.6	-1.2
TIWZ	Tintock	2.29	180	PN	Pn	15 23 53.3	-1.4
KIW	Kapiti Island	2.49	197	P	Pn	15 23 55.0	-2.2
KIW	Kapiti Island	2.49	197	PN	Pn	15 23 55.0	-2.2
MTW	Mount Morrison	2.69	186	P	Pn	15 23 57.2	-2.4
MTW	Mount Morrison	2.69	186	PN	Pn	15 23 57.2	-2.4
CAW	Cannon Point	2.70	193	P	Pn	15 23 57.3	-2.4
CAW	Cannon Point	2.70	193	PN	Pn	15 23 57.3	-2.4
DUWZ	D'Urville Isla	2.77	213	PN	Pn	15 23 57.9	-2.7
MRW	Makara Radio	2.89	198	P	Pn	15 23 59.5	-2.6
MRW	Makara Radio	2.89	198	PN	Pn	15 23 59.5	-2.7
PAWZ	Paruwai Farm	2.92	187	P	Pn	15 23 59.8	-2.6
PAWZ	Paruwai Farm	2.92	187	PN	Pn	15 23 59.8	-2.6
TRWZ	Traveller	2.92	183	PN	Pn	15 24 00.0	-2.4
WEL	Wellington	2.93	197	P	Pn	15 23 59.8	-2.8
WEL	Wellington	2.93	197	PN	Pn	15 23 59.8	-2.8
SNZO	South Karori	2.96	198	P	Pn	15 24 00.1	-3.0
SNZO	South Karori	2.96	198	PN	Pn	15 24 00.1	-2.9
MSWZ	Moikau Station	2.97	189	P	Pn	15 24 00.3	-2.8
MSWZ	Moikau Station	2.97	189	PN	Pn	15 24 00.3	-2.8
TCW	Tory Channel	3.00	204	P	Pn	15 24 00.6	-2.8
TCW	Tory Channel	3.00	204	PN	Pn	15 24 00.6	-2.9
BHW	Baring Head	3.02	195	P	Pn	15 24 00.8	-3.0
BHW	Baring Head	3.02	195	PN	Pn	15 24 00.8	-3.0
TUWZ	Tuamarina	3.30	206	PN	Pn	15 24 04.0	-3.4
NNZ	Nelson	3.34	215	eP	Pn	15 24 04.4	-3.5
NNZ	Nelson	3.34	215	PN	Pn	15 24 04.4	-3.5
QRZ	Quartz Range	3.49	227	eP	Pn	15 24 05.6	-4.2
QRZ	Quartz Range	3.49	227	PN	Pn	15 24 05.6	-4.2
BSWZ	Blackbirch Sta	3.58	205	P	Pn	15 24 07.9	-3.0
BSWZ	Blackbirch Sta	3.58	205	PN	Pn	15 24 07.9	-3.0
THZ	Tophouse	4.00	214	eP	Pn	15 24 12.3	-4.0
THZ	Tophouse	4.00	214	PN	Pn	15 24 12.3	-4.0
KHZ	Kahutara	4.32	204	P	Pn	15 24 16.9	-3.6
KHZ	Kahutara	4.32	204	PN	Pn	15 24 16.9	-3.6
DSZ	Denniston Nort	4.52	223	eP	Pn	15 24 18.5	-4.7
DSZ	Denniston Nort	4.52	223	PN	Pn	15 24 18.5	-4.7
LTZ	Lake Taylor	5.10	212	eP	Pn	15 24 25.7	-5.1
LTZ	Lake Taylor	5.10	212	PN	Pn	15 24 25.7	-5.1
MQZ	McQueen's Vall	5.76	204	eP	Pn	15 24 33.7	-5.9
MQZ	McQueen's Vall	5.76	204	PN	Pn	15 24 33.7	-5.9
ODZ	Otahua Downs	7.64	209	ePN	Pn	15 24 59.0	-5.6

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*NEIC **07** 15:38:31.7±1.2, 51.46N×16.20E, h5^{km}, ML2.8(SZGRF), ML2.6(BRA), Error ellipse: s-maj=13.3km s-min=5.6km az=193.0*

*ISCJB **07** 15:38:32.2±0.7, 51.32N±0.03×16.12E±0.03, h0^{km}, Error ellipse: s-maj=5.1km s-min=2.6km az=14.1*

*IPEC **07** 15:38:32.7±0.3, 51.42N×16.21E, h4^{km}±1^{km}, ML2.1/3, Error ellipse: s-maj=2.2km s-min=0.8km az=25.0*

*WAR **07** 15:38:32.7, 51.45N×16.18E, ML2.6, Mining Induced*

*PRU **07** 15:38:33.7, 51.36N×16.15E, h0^{km}*

*CSEM **07** 15:38:33.1±0.1, 51.39N×16.13E, h0^{km}, ML3.2/6, Error ellipse: s-maj=2.3km s-min=1.3km az=17.0*

*VIE **07** 15:38:34.3±0.4, 51.22N×16.11E, h0^{km}, mb2.1/1, ML2.7/4, Error ellipse: s-maj=2.6km s-min=2.3km az=174.0, Suspected Mining induced.*

ISC 07 15:38:32.6±0.7**, 51.40N**±0.03×**16.12E**±0.03**, h0**^{km}**, n64, σ1^{s}09**/114**, 4C-3D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.57	169	ePg	Pg	15 38 44.0	+0.5
KSP				eSg	Sg	15 38 52.2	+1.5
KSP	Ksiaz	0.57	169	ePg	Pg	15 38 43.9	+0.5
KSP				eSg	Sg	15 38 51.9	+1.1
KSP	Ksiaz	0.57	169	ePg	Pg	15 38 43.8	+0.4
KSP				eSg	Sg	15 38 51.5	+0.7
UPC	Upice	0.90	184	ePg	Pg	15 38 50.3	+0.6
UPC	Upice	0.90	184	ePG	Pg	15 38 50.3	+0.6
UPC	Upice	0.90	184	ePg	Pg	15 38 50.3	+0.6
DPC	Dobruska-Polom	1.06	173	ePg	Pg	15 38 52.8	0.0
DPC				eSg	Sg	15 39 07.0	+0.5
DPC	Dobruska-Polom	1.06	173	ePG	Pg	15 38 52.8	0.0
DPC				eSG	Sg	15 39 07.0	+0.5
	27nm,0.3s						
DPC	Dobruska-Polom	1.06	173	ePg	Pg	15 38 52.8	0.0
DPC				eSg	Sg	15 39 07.0	+0.5
PVCC	Panska Ves	1.31	229	ePg	Pg	15 38 57.9	+0.2
PVCC				eSg	Sg	15 39 16.4	+1.7
PVCC	Panska Ves	1.31	229	ePG	Pg	15 38 57.9	+0.2
PVCC				eSG	Sg	15 39 16.4	+1.7
	128nm,0.4s						
PVCC	Panska Ves	1.31	229	ePg	Pg	15 38 57.9	+0.2
PVCC	Panska Ves	1.31	229	ePn	Pn	15 38 58.4	+0.3
PVCC				eSg	Sg	15 39 16.4	+1.7
	128nm,0.4s						
BRG	Berggiesshubel	1.47	250	Pn	Pn	15 39 00.1	-0.1
BRG				Pg	Pg	15 39 00.8	+0.1
BRG				Sg	Sg	15 39 21.2	+1.4
BRG	Berggiesshubel	1.47	250	Pn	Pn	15 39 00.1	-0.2
BRG	Berggiesshubel	1.47	250	Pg	Pg	15 39 00.8	+0.1
BRG				eSg	Sg	15 39 20.9	+1.2
BRG	Berggiesshubel	1.47	250	PN	Pn	15 39 00.1	-0.1
BRG				PG	Pg	15 39 00.8	+0.1
BRG				SG	Sg	15 39 21.2	+1.4
	42nm,0.5s						
PRU	Pruhonice	1.73	216	ePg	Pg	15 39 04.9	-0.9
PRU				eSg	Sg	15 39 28.1	-0.1
PRU	Pruhonice	1.73	216	ePG	Pg	15 39 04.9	-0.9
PRU				eSG	Sg	15 39 28.1	-0.1
	27nm,0.4s						
PRU	Pruhonice	1.73	216	ePg	Pg	15 39 04.9	-0.9
PRU	Pruhonice	1.73	216	ePn	Pn	15 39 05.0	+1.1
PRU				eSg	Sg	15 39 28.6	+0.4
MORC	Moravsky Berou	1.86	150	ePn	Pn	15 39 04.6	-1.0
MORC				eSn	Sn	15 39 31.3	+1.5
MORC	Moravsky Berou	1.86	150	ePn	Pn	15 39 04.6	-1.0
MORC				eSg	Sg	15 39 29.7	-2.6
MORC				eSn	Sn	15 39 31.3	+1.5
OKC	Ostrava-Krasne	2.03	140	ePg	Pg	15 39 11.2	-0.2
OKC				eSg	Sg	15 39 35.7	-2.0
OKC	Ostrava-Krasne	2.03	140	ePG	Pg	15 39 11.2	-0.2
OKC				eSG	Sg	15 39 35.7	-2.0
	28nm,0.6s						
OKC	Ostrava-Krasne	2.03	140	ePg	Pg	15 39 11.2	-0.2
OKC				eSg	Sg	15 39 35.7	-2.0
	28nm,0.6s						
VRAC	Vranov	2.12	172	ePn	Pn	15 39 09.9	+0.8
VRAC				eSg	Sg	15 39 39.7	-0.8
	14nm,0.4s						
TREC	Trest	2.15	191	ePG	Pg	15 39 13.0	-0.7
TREC	Trest	2.15	191	ePg	Pg	15 39 13.0	-0.7
KRUC	Moravsky	2.35	176	ePn	Pn	15 39 13.1	+0.8
KRUC				eSg	Sg	15 39 47.1	-0.8
	7.2nm,0.4s						
NKC	Novy Kostel	2.60	245	ePn	Pn	15 39 15.9	0.0
NKC				ePg	Pg	15 39 21.8	-0.7
NKC				eSg	Sg	15 39 56.1	-0.1
NKC	Novy Kostel	2.60	245	ePN	Pn	15 39 15.9	0.0
NKC				ePG	Pg	15 39 21.8	-0.7
NKC				eSG	Sg	15 39 56.1	-0.1
	21nm,0.4s						
NKC	Novy Kostel	2.60	245	ePn	Pn	15 39 15.8	-0.1
OJC	Ojcow	2.62	115	ePg	Pg	15 39 20.5	-2.2
OJC				eSg	Sg	15 39 55.8	-0.8
OJC	Ojcow	2.62	115	ePg	Pg	15 39 20.5	-2.2
OJC				eSg	Sg	15 39 55.8	-0.8
KHC	Kasperske Hory	2.80	217	ePn	Pn	15 39 18.6	+0.1
KHC				ePg	Pg	15 39 24.6	-1.5
KHC				eSn	Sn	15 39 52.5	-0.4
KHC				eSg	Sg	15 40 01.2	-1.1
KHC	Kasperske Hory	2.80	217	ePN	Pn	15 39 18.6	+0.1
KHC				ePG	Pg	15 39 24.6	-1.5
KHC				eSN	Sn	15 39 52.5	-0.4
KHC				eSG	Sg	15 40 01.2	-1.1
	8.6nm,0.4s						
KHC	Kasperske Hory	2.80	217	ePn	Pn	15 39 18.7	+0.2
MOX	Moxa	2.94	257	ePg	Pg	15 39 28.5	-0.4
MOX				eSg	Sg	15 40 08.1	+1.1
MOX	Moxa	2.94	257	ePg	Pg	15 39 28.5	-0.4
MOX				eSg	Sg	15 40 06.9	-0.1
GEC2	GERESS Array S	2.99	212	Pn	Pn	15 39 22.2	+0.9
GEC2				ePg	Pg	15 39 29.4	-0.5
GEC2				eSg	Sg	15 40 06.8	-1.9
GEC2	GERESS Array S	2.99	212	Pn	Pn	15 39 22.2	+1.0
GEC2	GERESS Array S	2.99	212	ePg	Pg	15 39 29.4	-0.5
WET	Wettzell	3.07	224	ePn	Pn	15 39 22.6	+0.3
WET	Wettzell	3.07	224	ePn	Pn	15 39 22.6	+0.3
MODS	Modra-Piesok	3.12	166	eP	Pg	15 39 35.3	+3.0
MODS				eSg	Sg	15 40 14.6	+1.8
MODS	Modra-Piesok	3.12	166	e	Pg	15 39 35.3	+3.0
MODS	Modra-Piesok	3.12	166	eSG	Sg	15 40 14.6	+1.8
MODS	Modra-Piesok	3.12	166	eSg	Sg	15 40 14.6	+1.8
VYHS	Vyhne	3.40	148	eP	Pg	15 39 41.0	+3.4
VYHS				eSg	Sg	15 40 23.4	+1.8
VYHS	Vyhne	3.40	148	e	Pg	15 39 41.0	+3.4
VYHS	Vyhne	3.40	148	eSG	Sg	15 40 23.4	+1.8
VYHS	Vyhne	3.40	148	eSg	Sg	15 40 23.4	+1.8
CONA	Conrad Observa	3.48	183	⇓iPn	Pn	15 39 27.2	-0.7
CONA				⇑iSg	Sg	15 40 23.4	-0.9
	5.8nm,0.3s						
CONA	Conrad Observa	3.48	183	Pn	Pn	15 39 27.2	-0.7
CONA				Sg	Sg	15 40 23.4	-0.9
	5.8nm,0.3s						
MOA	Molln	3.75	199	⇑iPn	Pn	15 39 31.2	-0.5
MOA				⇓iSg	Sg	15 40 33.0	-0.1
	comp=Z,7.7nm,0.4s						
MOA	Molln	3.75	199	⇑iPn	Pn	15 39 31.1	-0.5
MOA				i Sg	Sg	15 40 33.0	-0.1
MOA	Molln	3.75	199	⇑iPn	Pn	15 39 31.2	-0.5
MOA				⇓iSg	Sg	15 40 33.0	-0.1
	7.7nm,0.4s						
MOA	Molln	3.75	199	Pn	Pn	15 39 31.2	-0.4
MOA				Sg	Sg	15 40 33.0	0.0
	7.7nm,0.4s						
STHS	Stebnicka Huta	3.83	119	eP	Pg	15 39 45.0	-1.0
STHS				eSg	Sg	15 40 38.3	+2.7
STHS	Stebnicka Huta	3.83	119	e	Pg	15 39 45.0	-1.0
STHS	Stebnicka Huta	3.83	119	eSG	Sg	15 40 38.3	+2.7
STHS	Stebnicka Huta	3.83	119	eSg	Sg	15 40 38.3	+2.7
KECS	Kecovo	4.06	134	eSG	Sg	15 40 43.6	+0.7

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*BJI **07** 15:42:22.2, 10.33S×124.03E, h21^{km}, mB5.1, mb4.9, Ms4.3, Msz4.3*

*IDC **07** 15:42:22.9±0.6, 10.30S×123.60E, h0^{km}, mb4.7/10, mb1 4.7/11, mb1mx4.6/15, mbtmp4.7/11, ML4.9/1, MS4.0/8, Ms1 4.0/8, ms1mx3.7/20, Error ellipse: s-maj=29.0km s-min=14.7km az=71.0*

*ISCJB **07** 15:42:24.5±0.3, 10.27S±0.05×123.88E±0.05, h27^{km}, mb5.0/49, MS4.0/8, Error ellipse: s-maj=7.8km s-min=5.3km az=136.1*

*NEIC **07** 15:42:24.7±0.3, 10.20S×123.72E, h10^{km}, mb5.0/23, Error ellipse: s-maj=10.3km s-min=6.4km az=62.0*

*MOS **07** 15:42:25.4±1.0, 10.01S×123.76E, h21^{km}, mb5.1/24, Error ellipse: s-maj=16.9km s-min=8.1km az=108.9*

ISC 07 15:42:26.6±0.3**, 10.34S**±0.05×**123.82E**±0.05**, h29**^{km}**, h29**^{km}±3.9^{km}**:pP-P, n153, σ0^{s}98**/133**, mb5.0**/49**, MS4.0**/8**, 7C-2D, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	Waingapu	3.53	281	P	Pn	15 43 25.7	+6.1
	1µm,0.6s						
AAI	Ambon	7.91	34	P	Pn	15 44 23.5	+3.8
	148nm,0.9s						
FITZ	Fitzroy Crossi	7.91	167	eP	Pn	15 44 18.1	-1.7
	221nm,0.4s						
FITZ				eS	Sn	15 45 43.1	-5.3
FITZ	Fitzroy Crossi	7.91	167	Pn	Pn	15 44 18.5	-1.3
	13nm,0.3s,baz=5.7,slow=12,SNR=161						
FITZ				Sn	Sn	15 45 43.3	-5.1
	38nm,0.3s,baz=141,slow=20,SNR=20						
FITZ				LR	LR	15 47 58.1	
	comp=Z,510nm,20.6s,baz=346,slow=42						
KAKA	Kakadu	8.77	106	eP	Pn	15 44 32.6	+1.1
	72nm,0.5s						
KAKA				eS	Sn	15 46 09.1	-0.4
PCI	Palu	10.18	337	P	Pn	15 44 56.7	+5.8
	100nm,1.3s						
KRKI	Karangkates	11.43	280	P	Pn	15 45 16.7	+8.7
	177nm,0.7s						
WRA	Warramunga Arr	13.93	134	Pn	Pn	15 45 38.7	-3.5
WRA				Sn	Sn	15 48 05.4	-10
WRA				Lg		15 49 46.4	
WRA				LR	LR	15 51 39.7	
WRA	Warramunga Arr	13.93	134	Pn	Pn	15 45 38.7	-3.5
	2.4nm,0.3s,baz=301,slow=14,SNR=84						
WRA				Sn	Sn	15 48 05.4	-10
	16nm,0.3s,baz=307,slow=24,SNR=12						
WRA				Lg		15 49 46.3	
	baz=312,slow=29,SNR=3.3						
WRA				LR	LR	15 51 39.7	
	comp=Z,595nm,18.8s,baz=320,slow=39						
WB2	Warramunga Arr	13.94	134	eP	Pn	15 45 38.5	-3.8
WB2				eS	Sn	15 48 06.3	-10
BJII	Banjamegara	14.26	281	P	Pn	15 45 55.7	+9.0
	63nm,0.8s						
BAKI	Biak	15.22	54	P	Pn	15 46 01.5	+1.8
	608nm,1.2s						
LEM	Lembang	16.40	281	P	Pn	15 46 19.3	+4.4
	367nm,0.7s						
CBJI	Citeko	17.23	282	P	Pn	15 46 26.4	+1.0
	414nm,0.9s						
COEN	Coen	19.26	103	eP	Pn	15 46 51.2	+1.1
KLI	Kotabumi	19.56	285	P	Pn	15 46 57.1	+3.3
	115nm,1.2s						
FORT	Forrest	20.71	170	⇓iP	P	15 47 06.0	+1.3
	93nm,0.5s						
FORT				eS	S	15 50 46.6	-8.1
KLBR	Kellerberrin	21.88	194	eP	P	15 47 19.3	+2.0
	39nm,0.8s,mb4.9						
KLBR				eS	S	15 51 10.2	-7.4
MUN	Mundaring	22.65	197	eP	P	15 47 28.8	+3.3
MUN				eS	S	15 51 29.6	-2.6
PMG	Port Moresby	23.01	90	eP	P	15 47 28.7	-0.8
	92nm,1.3s,mb5.0						
PMG	Port Moresby	23.01	90	eP	P	15 47 28.7	-0.8
PMG				pmax	pmax		
	comp=Z,92nm,1.3s						
PMG	Port Moresby	23.01	90	P	P	15 47 29.1	-0.4
	comp=Z,13nm,0.9s,mb4.3,baz=225,slow=11,SNR=2.4						
NWAO	Narrogin (SRO)	23.28	194	P	P	15 47 31.5	-0.7
	comp=Z,19nm,0.6s,mb4.7						
NWAO	Narrogin (SRO)	23.28	194	P	P	15 47 31.5	-0.6
NWAO				pmax	pmax		
	comp=Z,19nm,0.6s						
NWAO	Narrogin (SRO)	23.28	194	P	P	15 47 30.9	-1.2
	comp=Z,14nm,1.1s,mb4.3,baz=27,slow=6.8,SNR=3.8						
NWAO				LR	LR	15 57 01.0	
	comp=Z,319nm,20.2s,MS3.8,baz=8.7,slow=38						
CTA	Charters Tower	23.69	117	eP	P	15 47 39.8	+3.6
	comp=Z,15nm,0.8s,mb4.5						
CTA	Charters Tower	23.69	117	eP	P	15 47 39.8	+3.6
CTA				pmax	pmax		
	comp=Z,15nm,0.8s						
CTA	Charters Tower	23.69	117	P	P	15 47 38.0	+1.8
	comp=Z,9.6nm,0.6s,mb4.4,baz=276,slow=13,SNR=11						
TGY	Tagaytay City	24.45	353	P	P	15 47 43.9	+0.7
	comp=Z,227nm,0.8s,mb5.6,baz=195,slow=12,SNR=6.3						
STKA	Stephens Creek	27.01	145	eP	P	15 48 08.6	+2.3
	comp=Z,7.2nm,0.6s,mb4.4						
STKA				eS	S	15 53 06.9	+25
STKA	Stephens Creek	27.01	145	P	P	15 48 08.7	+2.4
	comp=Z,9.1nm,0.6s,mb4.5,baz=312,slow=9.0,SNR=31						
STKA				LR	LR	15 59 13.3	
	comp=Z,510nm,20.8s,MS4.1,baz=98,slow=37						
QIZ	Qiongzhong	32.27	335	P	P	15 48 49.2	-3.8
QIZ				AMB	AMB		
	comp=Z,10.0nm,1.7s,mb4.4						
QIZ				LR	LR		
	comp=E,140nm,20.1s						
QIZ				LR	LR		
	comp=Z,216nm,20.1s,MS3.8						
TOO	Toolangi	33.40	148	eP	P	15 49 07.0	+4.3
	comp=Z,9.8nm,0.6s,mb4.9						
TOO	Toolangi	33.40	148	eP	P	15 49 07.0	+4.3
TOO				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
BDT	Bhumibol Dam	36.78	318	P	P	15 49 32.0	-0.1
CM31	Chiang Mai Arr	37.70	319	eP	P	15 49 39.7	-0.2
CHG	Chiang Mai	37.96	320	⇑P	P	15 49 41.4	-0.7
	comp=Z,14nm,0.6s,mb4.8						
CHTO	Chiang Mai	37.96	320	eP	P	15 49 41.4	-0.6
	comp=Z,7.8nm,0.6s,mb4.6						
CHTO	Chiang Mai	37.96	320	eP	P	15 49 41.4	-0.7

CHTO				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.6						
CHRT	**Chiangrai**	**38.23**	**322**	⇓P	**P**	**15 49 44.5**	**+0.2**
	comp=Z,118nm,1.0s,mb5.6						
KMI	**Kunming**	**40.80**	**330**	P	**P**	**15 50 06.5**	**+0.8**
KMI				AP	pP	15 50 18.1	+3.8
KMI				AMB	AMB		
	comp=Z,15nm,1.2s,mb4.5						
KMI				LR	LR		
	comp=N,122nm,15.4s						
KMI				LR	LR		
	comp=E,138nm,22.4s						
KMI				LR	LR		
	comp=Z,126nm,18.6s,MS3.8						
KMI	**Kunming**	**40.80**	**330**	P	**P**	**15 50 06.5**	**+0.8**
	comp=Z,15nm,1.2s,mb4.5						
KMI				pP	pP	15 50 18.1	+3.8
KMI				S	**S**	**15 56 28.2**	**+13**
KMI				LR	LR		
	comp=Z,130nm,18.6s,MS3.8						
WHN	**Wuhan**	**41.66**	**348**	P	**P**	**15 50 12.8**	**+0.2**
CD2	**Chengdu**	**45.31**	**335**	P	**P**	**15 50 41.8**	**-0.3**
CD2				AP	pP	15 50 46.4	-4.4
CD2				XP	sP	15 50 49.0	-5.2
CD2				PP	PP	15 52 28.8	+0.3
CD2				S	**S**	**15 57 21.9**	**+0.9**
CD2				XS	sS	15 57 29.5	-5.8
CD2				SS	SS	16 00 36.6	-8.5
CD2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.4						
CD2				AMB	AMB		
	comp=Z,210nm,5.8s						
CD2				LR	LR		
	comp=N,220nm,20.4s						
CD2				LR	LR		
	comp=Z,250nm,14.4s						
XAN	**Xi'an**	**46.35**	**343**	P	**P**	**15 50 48.9**	**-1.3**
XAN				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
KSRS	**Korea Array**	**47.70**	**4**	P	**P**	**15 51 00.7**	**0.0**
	comp=Z,4.9nm,0.9s,mb4.5,baz=178,slow=8.9,SNR=14						
KSRS				PcP	PcP	15 52 32.0	+2.3
	comp=Z,1.6nm,0.5s,baz=182,slow=3.4,SNR=12						
KSRS				LR	LR	16 10 21.5	
	comp=Z,41nm,19.8s,MS3.4,baz=180,slow=35						
MJAR	**Matsushiro Arr**	**48.56**	**15**	P	**P**	**15 51 06.8**	**-0.6**
	comp=Z,9.7nm,0.9s,mb4.8,baz=189,slow=7.9,SNR=13						
MAJO	**Matsushiro**	**48.56**	**15**	*e*P	**P**	**15 51 06.6**	**-0.8**
	comp=Z,7.7nm,0.6s,mb4.9						
MAJO	**Matsushiro**	**48.56**	**15**	*e*P	**P**	**15 51 06.6**	**-0.8**
MAJO				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
MAT	**Matsushiro**	**48.56**	**15**	P	**P**	**15 51 06.4**	**-1.0**
LZH	**Lanzhou**	**49.87**	**339**	*e*P	**P**	**15 51 17.4**	**0.0**
LZH				AP	pP	15 51 24.1	-2.1
LZH				XP	sP	15 51 28.5	-1.1
LZH				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.3						
LZH	**Lanzhou**	**49.87**	**339**	*e*P	**P**	**15 51 17.4**	**0.0**
	comp=Z,30nm,1.0s,mb5.3						
LZH				pP	pP	15 51 24.1	-2.1
LZH				sP	sP	15 51 28.5	-1.1
LSA	**Lhasa**	**50.75**	**323**	P	**P**	**15 51 24.0**	**-0.2**
LSA				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.2						
LSA	**Lhasa**	**50.75**	**323**	*e*P	**P**	**15 51 24.9**	**+0.7**
	comp=Z,15nm,0.6s,mb5.1						
LSA	**Lhasa**	**50.75**	**323**	*e*P	**P**	**15 51 24.9**	**+0.7**
LSA				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
ODAN	**Odare**	**51.16**	**317**	*e*P	**P**	**15 51 27.3**	**-0.1**
	comp=Z,18nm,0.5s,mb5.2						
TAPN	**Taplejung**	**51.28**	**318**	*e*P	**P**	**15 51 28.0**	**-0.2**
	comp=Z,63nm,0.5s,mb5.8						
JIRN	**Jiri**	**52.49**	**317**	*e*P	**P**	**15 51 36.8**	**-0.5**
HYB	**Hyderabad**	**52.55**	**301**	*e*P	**P**	**15 51 34.5**	**-3.3**
HYB	**Hyderabad**	**52.55**	**301**	*i* P	**P**	**15 51 34.5**	**-3.3**
GUN	**Gumba**	**52.87**	**317**	*e*P	**P**	**15 51 39.7**	**-0.3**
	comp=Z,38nm,0.6s,mb5.5						
PKI	**Pulchoki**	**52.96**	**316**	*e*P	**P**	**15 51 39.9**	**-0.8**
	comp=Z,40nm,0.5s,mb5.6						
KKN	**Kakani**	**53.19**	**316**	*e*P	**P**	**15 51 42.4**	**0.0**
DMN	**Daman**	**53.19**	**316**	*e*P	**P**	**15 51 42.2**	**-0.2**
	comp=Z,43nm,0.8s,mb5.5						
VLA	**Vladivostok**	**53.71**	**7**	*e*P	**P**	**15 51 45.7**	**-0.2**
GKN	**Gorkha**	**53.77**	**316**	*e*P	**P**	**15 51 45.8**	**-0.8**
	comp=Z,42nm,0.5s,mb5.7						
GTA	**Gaotai**	**54.30**	**337**	P	**P**	**15 51 50.4**	**+0.1**
GTA				AP	pP	15 51 55.8	-3.3
GTA				XP	sP	15 51 59.2	-3.4
GTA				AMB	AMB		
	comp=Z,13nm,1.1s,mb4.8						
KOLN	**Koldanda**	**54.33**	**315**	*e*P	**P**	**15 51 49.0**	**-1.8**
MDJ	**Mudanjiang**	**54.95**	**5**	P	**P**	**15 51 55.4**	**+0.5**
MDJ				AMB	AMB		
	comp=Z,35nm,1.1s,mb5.3						
MDJ				AMB	AMB		
	comp=Z,129nm,6.1s						
HIA	**Hailar**	**59.46**	**357**	*e*P	**P**	**15 52 26.8**	**+0.1**
	comp=Z,8.8nm,0.9s,mb4.8						
HIA	**Hailar**	**59.46**	**357**	*e*P	**P**	**15 52 26.8**	**+0.1**
HIA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
KLR	**Kul'dur**	**59.72**	**6**	*e*P	**P**	**15 52 25.8**	**-2.7**
ULN	**Ulaanbaatar**	**59.83**	**347**	*e*P	**P**	**15 52 29.3**	**0.0**
	comp=Z,3.7nm,0.3s,mb4.9						
ULN	**Ulaanbaatar**	**59.83**	**347**	*e*P	**P**	**15 52 29.3**	**0.0**
ULN				pmax	pmax		
	comp=Z,4.0nm,0.3s,mb4.9						
SONM	**Songino Array**	**59.95**	**347**	P	**P**	**15 52 30.3**	**+0.2**
	comp=Z,5.3nm,0.5s,mb4.8,baz=163,slow=8.3,SNR=44						
ZAK	**Zakamensk**	**63.07**	**345**	*e*P	**P**	**15 52 50.0**	**-1.1**
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.6						
WMQ	**Urumqi**	**63.11**	**331**	P	**P**	**15 52 52.1**	**+0.5**
WMQ				AP	pP	15 53 01.1	+0.6
WMQ				XP	sP	15 53 04.1	+0.2
WMQ				AMB	AMB		
	comp=Z,27nm,0.8s,mb5.4						
TLY	**Talaya**	**64.18**	**346**	*e*P	**P**	**15 52 59.1**	**+0.7**
	comp=Z,5.4nm,0.8s,mb4.6						
TLY	**Talaya**	**64.18**	**346**	*e*P	**P**	**15 52 58.8**	**+0.4**
TLY				*e*		16 02 01.2	
TLY				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
MOY	**Mondy**	**64.83**	**345**	*e*P	**P**	**15 53 03.5**	**+0.8**
MOY				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.0						
MK31	**Makanchi Array**	**67.88**	**331**	*e*P	**P**	**15 53 21.9**	**-0.4**
MKAR	**Makanchi Array**	**67.88**	**331**	P	**P**	**15 53 22.3**	**-0.1**
MKAR				LR	LR	16 26 12.0	
MKAR	**Makanchi Array**	**67.88**	**331**	P	**P**	**15 53 22.3**	**-0.1**
	comp=Z,22nm,0.5s,mb5.4,baz=137,slow=7.1,SNR=300						
MKAR				LR	LR	16 26 12.0	
	comp=Z,67nm,19.8s,MS3.9,baz=337,slow=39						
ULHL	**Ulahol**	**68.08**	**324**	P	**P**	**15 53 24.2**	**+0.6**
	SNR=5.7						
BOD	**Bodaibo**	**68.39**	**354**	*e*P	**P**	**15 53 24.6**	**-0.7**
BOD				pmax	pmax		
	comp=Z,7.0nm,1.5s,mb4.5						
KBL	**Kabul**	**68.42**	**314**	*e*P	**P**	**15 53 24.8**	**-1.2**
KZA	**Kyzart**	**68.55**	**323**	P	**P**	**15 53 27.4**	**+0.7**
	SNR=20						
TKM2	**Tokmak 2**	**68.87**	**324**	P	**P**	**15 53 28.8**	**+0.2**
	SNR=9.3						
UCH	**Uchtor**	**69.08**	**323**	P	**P**	**15 53 31.0**	**+1.1**
	SNR=7.7						
KBK	**Karagaybulak**	**69.08**	**323**	P	**P**	**15 53 31.0**	**+1.1**
	SNR=9.8						
AAK	**Ala-Archa**	**69.33**	**323**	P	**P**	**15 53 32.0**	**+0.6**
	SNR=15						
AAK	**Ala-Archa**	**69.33**	**323**	*e*P	**P**	**15 53 30.8**	**-0.8**
	comp=Z,10nm,0.6s,mb4.9						
AAK	**Ala-Archa**	**69.33**	**323**	⇑*e*P	**P**	**15 53 31.0**	**-0.5**
AAK				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
AML	**Almayashu**	**69.51**	**322**	P	**P**	**15 53 33.2**	**+0.6**
	SNR=19						
MAW	**Mawson**	**69.64**	**201**	LR	LR	16 21 03.3	
	comp=Z,348nm,18.8s,MS4.6,baz=178,slow=33						
USP	**Ospenovka**	**69.71**	**324**	P	**P**	**15 53 34.4**	**+0.5**
	SNR=5.0						
EKS2	**Erkin-Say**	**69.78**	**323**	P	**P**	**15 53 34.8**	**+0.6**
	SNR=17						
VNDA	**Vanda**	**69.96**	**172**	LR	LR	16 22 56.1	
	comp=Z,275nm,18.7s,MS4.5,baz=342,slow=35						
ZAL	**Zalesovo**	**72.05**	**337**	P	**P**	**15 53 46.9**	**-0.9**
ZALV	**Zalesovo Beam**	**72.05**	**337**	P	**P**	**15 53 46.9**	**-0.9**
ZALV	**Zalesovo Beam**	**72.05**	**337**	P	**P**	**15 53 46.9**	**-0.9**
	comp=Z,28nm,0.4s,mb5.5,baz=134,slow=4.8,SNR=127						
YAK	**Yakutsk**	**72.29**	**3**	*e*P	**P**	**15 53 49.3**	**+0.2**
	comp=Z,62nm,1.0s,mb5.5						
YAK	**Yakutsk**	**72.29**	**3**	*e*P	**P**	**15 53 49.4**	**+0.4**
YAK				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.4						
YAK				pmax	pmax		
	comp=N,25nm,1.1s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.0s						
KURK	**Kurchatov**	**72.36**	**332**	*e*P	**P**	**15 53 49.3**	**-0.4**
	comp=E,34nm,1.0s,mb5.2						
KURK	**Kurchatov**	**72.36**	**332**	*e*P	**P**	**15 53 49.3**	**-0.4**
KURK				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.2						
MA2	**Magadan**	**72.97**	**14**	*e*P	**P**	**15 53 53.8**	**+0.6**
	comp=Z,36nm,1.1s,mb5.2						
MA2	**Magadan**	**72.97**	**14**	*e*P	**P**	**15 53 54.0**	**+0.9**
MA2				*e*		15 54 08.2	
MA2				*e*S	S	16 03 07.3	-11
MA2				pmax	pmax		
	comp=N,20nm,1.1s						
MA2				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.4						
NVS	**Novosibirsk**	**73.33**	**337**	⇑*i*P	**P**	**15 53 54.3**	**-1.1**
NVS				*e*S	S	16 03 13.3	-8.9
NVS				pmax	pmax		
	comp=N,17nm,1.2s						
NVS				pmax	pmax		
	comp=E,11nm,1.2s						
NVS				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.1						
NVS				smax			
	comp=N,10.0nm,2.0s						
NVS				smax			
	comp=E,12nm,2.0s						
SEY	**Seymchan**	**76.30**	**13**	⇑*e*P	**P**	**15 54 12.9**	**+0.5**
BRVK	**Borovoye**	**77.83**	**330**	*e*P	**P**	**15 54 20.9**	**-0.3**
	comp=E,6.3nm,0.9s,mb4.5						
BRVK	**Borovoye**	**77.83**	**330**	*e*P	**P**	**15 54 21.0**	**-0.2**
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
TIXI	**Tiksi**	**81.88**	**2**	*e*P	**P**	**15 54 41.8**	**-0.9**
	comp=Z,26nm,1.1s,mb5.1						
TIXI	**Tiksi**	**81.88**	**2**	⇑*e*P	**P**	**15 54 42.5**	**-0.2**
TIXI				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
BILL	**Bilibino**	**83.81**	**15**	*e*P	**P**	**15 54 53.6**	**+0.7**
	comp=Z,6.0nm,1.0s,mb4.7						
BILL	**Bilibino**	**83.81**	**15**	*e*P	**P**	**15 54 53.4**	**+0.6**
BILL				pmax	pmax		
	comp=Z,13nm,2.4s,mb4.6						
SVE	**Sverdlovsk**	**84.55**	**330**	*e*P	**P**	**15 54 56.0**	**-0.8**
ARU	**Arti**	**85.38**	**330**	*e*P	**P**	**15 55 01.3**	**+0.3**
	comp=Z,6.3nm,0.6s,mb4.9						
ARU	**Arti**	**85.38**	**330**	⇑*e*P	**P**	**15 55 01.2**	**+0.2**
ARU				pmax	pmax		
	comp=Z,15nm,1.3s,mb5.0						
KMBO	**Kilima Mbogo**	**86.42**	**270**	P	**P**	**15 55 07.3**	**+0.1**
	comp=Z,1.2nm,0.6s,mb4.3,baz=78,slow=7.6,SNR=4.8						
ZEI	**Tsey**	**89.65**	**314**	*e*P	**P**	**15 55 24.5**	**+2.6**
ZEI				pmax	pmax		
	comp=Z,11nm,1.2s,mb5.1						
VNA2	**Neumayer--Watz**	**92.56**	**194**	*e*P	**P**	**15 55 39.9**	**+4.9**
	baz=129,slow=3.4						
VNA2				*e*		15 55 42.2	
VNA2				*e*	pP	15 55 50.4	+6.1
VNA3	**Neumayer Olymp**	**92.88**	**194**	*e*P	**P**	**15 55 37.8**	**+1.4**
VNA3				*e*		15 55 40.8	
VNA3				*e*	pP	15 55 48.3	+2.5
BRTR	**Keskin Array B**	**96.66**	**309**	P	**P**	**15 55 54.7**	**+0.4**
	comp=Z,0.5nm,0.6s,mb4.1,baz=67,slow=4.8,SNR=2.6						
OBN	**Obninsk**	**96.83**	**325**	*e*P	**P**	**15 55 53.9**	**-0.8**
OBN				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb5.0						
AKASG	**Malin Array Be**	**100.82**	**320**	P	Pdif	15 56 12.4	-0.2
	comp=Z,0.3nm,0.4s,baz=76,slow=3.9,SNR=3.5						
ARCES	**ARCESS Array B**	**102.53**	**339**	P	Pdif	15 56 19.2	-1.1
	comp=Z,2.8nm,0.9s,baz=100,slow=4.7,SNR=3.9						
YKA	**Yellowknife Ar**	**113.40**	**26**	PKPdf	PKiKP	16 01 02.6	+1.2
YKA	**Yellowknife Ar**	**113.40**	**26**	PKIKP	PKiKP	16 01 02.6	+1.2
YKA	**Yellowknife Ar**	**113.40**	**26**	PKiKP	PKiKP	16 01 02.6	+1.2
	comp=Z,0.3nm,0.5s,baz=295,slow=1.9,SNR=6.9						
NVAR	**Mina Array Bea**	**118.15**	**52**	PKP	PKPdf	16 01 11.1	-0.2
NVAR	**Mina Array Bea**	**118.15**	**52**	PKP	PKPdf	16 01 11.1	-0.2
	comp=Z,0.6nm,0.7s,baz=310,slow=0.9,SNR=4.5						
TORD	**Torodi Ar. Bea**	**123.37**	**279**	PKP	PKPdf	16 01 23.2	+1.3
TORD	**Torodi Ar. Bea**	**123.37**	**279**	PKP	PKPdf	16 01 23.2	+1.3
	comp=Z,1.0nm,0.5s,baz=46,slow=1.7,SNR=16						
PDAR	**Pinedale Array**	**123.57**	**45**	PKP	PKPdf	16 01 24.0	+2.4
PDAR	**Pinedale Array**	**123.57**	**45**	PKP	PKPdf	16 01 24.0	+2.4
	comp=Z,0.8nm,0.6s,baz=352,slow=1.8,SNR=7.2						
ANMO	**Albuquerque**	**128.19**	**54**	⇑*i*PKIKP	PKPdf	16 01 35.4	+4.8
ULM	**Lac du Bonnet**	**128.52**	**32**	PKP	PKPdf	16 01 33.5	+2.7
ULM	**Lac du Bonnet**	**128.52**	**32**	PKP	PKPdf	16 01 33.5	+2.7
	comp=Z,1.2nm,0.6s,baz=277,slow=8.1,SNR=3.1						
SCHQ	**Schefferville**	**134.83**	**9**	PKP	PKPdf	16 01 46.2	+3.7
SCHQ	**Schefferville**	**134.83**	**9**	PKP	PKPdf	16 01 46.2	+3.7
	comp=Z,0.9nm,0.4s,baz=338,slow=2.2,SNR=5.2						
TKL	**Tuckaleechee C**	**144.46**	**40**	PKP	PKPdf	16 02 01.6	+1.0
TKL	**Tuckaleechee C**	**144.46**	**40**	PKIKP	PKPdf	16 02 01.7	+1.0
TKL	**Tuckaleechee C**	**144.46**	**40**	PKP	PKPdf	16 02 01.6	+1.0
	comp=Z,4.0nm,0.5s,baz=160,slow=3.6,SNR=9.5						
MVL	**Millersville**	**145.46**	**28**	*e*PKPdf	PKPdf	16 02 03.3	+1.1
BLA	**Blacksburg**	**145.46**	**35**	*e*PKP	PKPdf	16 02 04.3	+1.9
BLA	**Blacksburg**	**145.46**	**35**	*e*PKIKP	PKPdf	16 02 04.3	+1.9
PAL	**Palisades**	**145.68**	**24**	*e*PKP	PKPdf	16 02 05.2	+2.6
PAL	**Palisades**	**145.68**	**24**	*e*PKIKP	PKPdf	16 02 05.2	+2.6
TEIG	**Tepich**	**147.57**	**69**	PKPbc	PKPbc	16 02 09.8	+0.7
TEIG	**Tepich**	**147.57**	**69**	PKPbc	PKPbc	16 02 09.7	+0.7
	comp=Z,9.9nm,0.7s,baz=344,slow=1.6,SNR=4.6						
LPAZ	**La Paz**	**151.02**	**156**	*e*PKPbc	PKPbc	16 02 20.7	+2.9
LPAZ	**La Paz**	**151.02**	**156**	*e*PKIKP	PKPbc	16 02 20.7	+2.9
LPAZ	**La Paz**	**151.02**	**156**	PKPbc	PKPbc	16 02 20.5	+2.7
	comp=Z,4.5nm,0.9s,baz=172,slow=4.1,SNR=8.1						

WEL 07 15:44:15.5±0.3**,3842S×17603E,h154**^{km}±2^{km}**,ML3.7**/21**,**
3C,Error ellipse: s-maj=2.9km s-min=2.3km az=0.0,
North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WTVZ	**West Tongariro**	**0.78**	**206**	PN	Pn	15 44 39.1	+0.2
OTVZ	**Oturere**	**0.80**	**201**	PN	Pn	15 44 39.4	+0.4
BKZ	**Black Stump Fm**	**0.83**	**155**	⇑PN	Pn	15 44 39.6	+0.4
BKZ				SN	Sn	15 44 57.1	-0.4
NGZ	**Ngauruhoe**	**0.83**	**204**	PN	Pn	15 44 39.5	+0.3
URZ	**Urewera**	**0.86**	**80**	PN	Pn	15 44 39.5	0.0
URZ				SN	Sn	15 44 57.6	-0.1
WPVZ	**Whakapapa**	**0.88**	**206**	PN	Pn	15 44 39.8	+0.2
TUVZ	**Tukino**	**0.90**	**199**	PN	Pn	15 44 40.0	+0.3
FWVZ	**Far West T-bar**	**0.92**	**204**	PN	Pn	15 44 40.5	+0.7
TRVZ	**Turoa**	**0.96**	**203**	PN	Pn	15 44 40.7	+0.4
WNVZ	**Wahianoa**	**0.97**	**200**	PN	Pn	15 44 40.5	+0.2
MOVZ	**Moawhango**	**1.01**	**192**	PN	Pn	15 44 40.5	-0.2
PKVZ	**Pokaka**	**1.02**	**211**	PN	Pn	15 44 40.7	-0.1
MTVZ	**Mangateitei**	**1.06**	**204**	PN	Pn	15 44 41.0	0.0
MWZ	**Matawai**	**1.18**	**87**	PN	Pn	15 44 42.4	+0.3
MWZ				SN	Sn	15 45 02.2	-0.2
VRZ	**Vera Road**	**1.22**	**234**	PN	Pn	15 44 42.3	-0.3
VRZ				SN	Sn	15 45 04.2	+0.9
KNZ	**Kokohu**	**1.42**	**116**	*e*PN	Pn	15 44 44.8	+0.4
WAZ	**Wanganui**	**1.57**	**211**	PN	Pn	15 44 41.8	-4.2
TSZ	**Takapari Road**	**1.64**	**182**	⇑PN	Pn	15 44 46.3	-0.4
PXZ	**Pawanui**	**1.74**	**159**	PN	Pn	15 44 47.8	0.0
PUZ	**Puketiti**	**1.78**	**80**	PN	Pn	15 44 48.0	-0.3
BFZ	**Birch Farm**	**2.27**	**176**	PN	Pn	15 44 52.7	-1.2
MRZ	**Mangatainoka R**	**2.27**	**189**	⇑PN	Pn	15 44 52.3	-1.6
MRZ				SN	Sn	15 45 20.3	-3.4
TIWZ	**Tintock**	**2.36**	**183**	PN	Pn	15 44 53.6	-1.4
KIW	**Kapiti Island**	**2.59**	**199**	PN	Pn	15 44 55.5	-2.3
MTW	**Mount Morrison**	**2.77**	**188**	PN	Pn	15 44 57.5	-2.5
CAW	**Cannon Point**	**2.79**	**195**	PN	Pn	15 44 57.9	-2.4
DUWZ	**D'Urville Isla**	**2.89**	**214**	PN	Pn	15 44 58.7	-2.8
MRW	**Makara Radio**	**2.99**	**200**	PN	Pn	15 44 60.0	-2.8
TRWZ	**Traveller**	**2.99**	**185**	PN	Pn	15 45 00.5	-2.3
PAWZ	**Paruwai Farm**	**3.00**	**189**	PN	Pn	15 45 00.2	-2.6
WEL	**Wellington**	**3.03**	**198**	PN	Pn	15 45 00.4	-2.9
MSWZ	**Moikau Station**	**3.06**	**191**	PN	Pn	15 45 00.9	-2.7
SNZO	**South Karori**	**3.07**	**199**	PN	Pn	15 45 00.7	-3.0
TCW	**Tory Channel**	**3.10**	**205**	PN	Pn	15 45 01.3	-2.9
BHW	**Baring Head**	**3.12**	**196**	PN	Pn	15 45 01.3	-3.1
TUWZ	**Tuamarina**	**3.41**	**207**	PN	Pn	15 45 04.8	-3.3
NNZ	**Nelson**	**3.46**	**215**	PN	Pn	15 45 05.4	-3.4
QRZ	**Quartz Range**	**3.62**	**227**	PN	Pn	15 45 06.7	-4.2
THZ	**Tophouse**	**4.12**	**215**	PN	Pn	15 45 13.2	-4.1
KHZ	**Kahutara**	**4.43**	**205**	PN	Pn	15 45 17.6	-3.7
LTZ	**Lake Taylor**	**5.22**	**212**	PN	Pn	15 45 26.5	-5.2
MQZ	**McQueen's Vall**	**5.87**	**205**	PN	Pn	15 45 34.6	-5.8

MAN 07 15:50:57,1007N×12605E,h92^{km}**,mb4.0,ML2.8,MS2.5,**
Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	**Surigao**	**0.62**	**243**	*e*P	Pn	15 51 09.8	-3.1
SCPH				*e*S	Sn	15 51 19.5	-5.3
PLP	**Palo**	**1.52**	**316**	*e*P	Pn	15 51 24.4	+1.3
PLP				*e*S	Sn	15 51 24.4	-18
CNP	**Catarman**	**2.79**	**331**	*e*P	Pn	15 51 41.9	+2.2

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*IDC **07** 16:01:04.4±1.4,2600N×11040W,h0^{km},mb3.0/1,*
mb1 3.7/4,mb1mx3.6/20,mbtmp3.3/4,ML3.5/3,MS3.6/6,
Ms1 3.6/6,ms1mx3.3/10,Error ellipse: s-maj=21.5km
s-min=12.4km az=98.0

*ISCJB **07** 16:01:05.4±0.9,2607N±008×11030W±008,h10^{km},*
mb2.9/1,MS3.5/5,Error ellipse: s-maj=11.6km
s-min=10.5km az=142.2

*NEIC **07** 16:01:07.2±1.0,2596N×11023W,h10^{km},mb3.8/1,Error*
ellipse: s-maj=16.5km s-min=12.7km az=86.0

ISC 07 16:01:07.1±0.9**,2596N**±008×**11032W**±008**,h10**^{km}**,n21,**
σ**1**^{s}**35**/19**,mb2.9**/1**,MS3.5**/5**,Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	**La Paz**	**1.85**	**180**	Pn	**Pn**	**16 01 39.5**	**+0.6**
LPIG				Lg		16 02 03.4	
LPIG				LR	LR	16 02 23.4	
LPIG	**La Paz**	**1.85**	**180**	Pn	**Pn**	**16 01 39.5**	**+0.6**
	13nm,0.3s,baz=334,slow=5.0,SNR=4.9						
LPIG				Lg		16 02 03.4	
	64nm,0.3s,baz=218,slow=0.9,SNR=9.4						
LPIG				LR	LR	16 02 23.4	
	comp=Z,824nm,20.2s,baz=340,slow=42						
TUC	**Tucson**	**6.34**	**356**	Pn	**Pn**	**16 02 37.6**	**-3.0**
	6.6nm,1.0s						
LTX	**Lajitas**	**6.78**	**59**	*e*Pn	**Pn**	**16 02 46.6**	**-0.1**
	24nm,1.3s						
TXAR	**Lajitas Array**	**6.78**	**59**	Pn	**Pn**	**16 02 45.7**	**-1.0**
TXAR				Pg	**Pg**	**16 03 03.6**	**-13**
TXAR				Sn	**Sn**	**16 04 05.1**	**+1.1**
TXAR				Lg		16 04 39.3	
TXAR	**Lajitas Array**	**6.78**	**59**	Pn	**Pn**	**16 02 45.7**	**-1.0**
	0.5nm,0.3s,baz=233,slow=13,SNR=8.8						
TXAR				Pg	**Pg**	**16 03 03.6**	**-13**
	0.4nm,0.3s,baz=232,slow=14,SNR=4.2						
TXAR				Sn	**Sn**	**16 04 05.1**	**+1.1**
	0.6nm,0.3s,baz=356,slow=28,SNR=5.9						
TXAR				Lg		16 04 39.3	
	1.6nm,0.3s,baz=257,slow=22,SNR=6.4						
PFO	**Pinyon Flat Ob**	**9.30**	**326**	Lg		16 06 03.2	
	0.1nm,0.3s,baz=232,slow=14,SNR=3.6						
ANMO	**Albuquerque**	**9.55**	**19**	Lg		16 06 02.9	
	0.2nm,0.3s,baz=108,slow=20,SNR=3.2						
ANMO				LR	LR	16 06 32.6	
	comp=Z,281nm,20.0s,baz=52,slow=34						
WUAZ	**Wupatki**	**9.57**	**355**	P	**Pn**	**16 03 26.1**	**+1.3**
WMOK	**Wichita Mounta**	**13.24**	**46**	*e*P	**Pn**	**16 04 13.7**	**-1.5**
	45nm,1.8s						
NVAR	**Mina Array Bea**	**14.14**	**333**	Pn	**Pn**	**16 04 27.0**	**-0.4**
NVAR	**Mina Array Bea**	**14.14**	**333**	Pn	**Pn**	**16 04 27.0**	**-0.4**
	0.1nm,0.3s,baz=144,slow=12,SNR=5.6						
BW06	**Boulder Array**	**16.77**	**2**	*e*P	**Pn**	**16 05 03.7**	**+1.6**
	9.2nm,1.3s						
PDAR	**Pinedale Array**	**16.77**	**2**	Pn	**Pn**	**16 05 03.9**	**+1.9**
PDAR	**Pinedale Array**	**16.77**	**2**	Pn	**Pn**	**16 05 03.9**	**+1.9**
	0.0nm,0.3s,baz=182,slow=9.9,SNR=9.0						
TEIG	**Tepich**	**21.05**	**101**	LR	LR	16 15 16.8	
	comp=Z,96nm,19.8s,MS3.2,baz=274,slow=40						
NEW	**Newport**	**22.89**	**348**	LR	LR	16 15 37.0	
	comp=Z,142nm,18.8s,MS3.4,baz=24,slow=38						
TKL	**Tuckaleechee C**	**24.69**	**61**	LR	LR	16 16 59.7	
	comp=Z,160nm,18.5s,MS3.5,baz=359,slow=39						
BBB	**Bella Bella**	**29.44**	**337**	LR	LR	16 18 45.0	
	comp=Z,84nm,18.5s,MS3.4,baz=180,slow=36						
YKA	**Yellowknife Ar**	**36.64**	**357**	P	**P**	**16 08 11.7**	**-1.7**
YKA				LR	LR	16 23 48.9	
YKA	**Yellowknife Ar**	**36.64**	**357**	P	**P**	**16 08 11.7**	**-1.7**
	0.1nm,0.5s,mb2.9,baz=175,slow=8.5,SNR=4.6						
YKA				LR	LR	16 23 48.9	
	comp=Z,148nm,18.5s,MS3.8,baz=180,slow=37						

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*NEIC **07** 16:07:19.5,1660N×9953W,h25^{km},MD3.7(MEX),After*
MEX.

MEX 07 16:07:19.5±0.6**,1672N**×**9948W,h25**^{km}±36^{km}**,MD3.7,**
Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	**Acapulco**	**0.44**	**290**	*i* P	Pb	16 07 22.0	-6.8
ACX				*i* S	Sb	16 07 25.8	-9.2
ACX	**Acapulco**	**0.44**	**290**	*i* P	Pb	16 07 22.0	-6.8
ACX				*i* S	Sb	16 07 28.0	-7.0
CAIG	**El Cayaco**	**0.82**	**294**	*i* P	Pb	16 07 32.7	-2.4
CAIG				*i* S	Sb	16 07 44.1	-1.7
CAIG	**El Cayaco**	**0.82**	**294**	*i* P	Pb	16 07 32.7	-2.4
CAIG				*i* S	Sb	16 07 42.6	-3.2
MEIG	**Mezcala**	**1.21**	**354**	*e*P	Pn	16 07 38.4	-2.3
MEIG				*i* S	Sn	16 07 52.6	-3.8
PNIG	**Pinotepa**	**1.34**	**104**	*i* P	Pn	16 07 39.9	-2.7
PNIG				*i* S	Sn	16 07 57.4	-2.2
PNIG	**Pinotepa**	**1.34**	**104**	*i* P	Pn	16 07 39.9	-2.7
PNIG				*i* S	Sn	16 07 55.9	-3.8
PLIG	**Platanillo**	**1.66**	**359**	*e*P	Pn	16 07 46.5	-0.6
PLIG				*i* S	Sn	16 08 08.2	+0.5
PLIG	**Platanillo**	**1.66**	**359**	*e*P	Pn	16 07 44.5	-2.5
PLIG				*i* S	Sn	16 08 03.9	-3.7
UTMO	**Huajuapan**	**1.95**	**55**	*i* P	Pn	16 07 49.6	-1.4
UTMO				*i* S	Sn	16 08 11.6	-3.0
SZVM	**Salazar**	**2.59**	**2**	*e*P	Pn	16 07 59.5	-0.3
SZVM				*i* S	Sn	16 08 30.9	+0.4
TPIG	**Tehuac#an**	**2.64**	**50**	*i* S	Sn	16 08 31.6	0.0
VHO	**Vista Hermosa**	**2.66**	**82**	*i* P	Pn	16 08 01.3	+0.6
VHO				*i* S	Sn	16 08 32.9	+0.8
IIO	**Organos**	**2.95**	**14**	*e*P	Pn	16 08 11.5	+6.8
IIO				*i* S	Sn	16 08 39.9	+0.6
MMIG	**Aquila**	**4.00**	**294**	*i* P	Pn	16 08 19.5	+0.3
MMIG				*i* S	Sn	16 09 06.5	+1.1

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*IDC **07** 16:32:43.4±1.4,6262N×14858W,h0^{km},mb3.5/6,*
mb1 3.8/7,mb1mx3.6/21,mbtmp3.6/7,ML3.6/1,Error
ellipse: s-maj=43.1km s-min=19.3km az=28.0

*ISCJB **07** 16:32:49.5±0.3,6287N±003×14829W±007,h63^{km}±6^{km},*
mb3.5/7,Error ellipse: s-maj=5.5km s-min=4.4km
az=175.5

*NEIC **07** 16:32:50.0,6286N×14831W,h62^{km},ML3.5(AEIC),After*
AEIC.

ISC 07 16:32:50.7±0.3**,6287N**±003×**14829W**±007**,h50**^{km}±7^{km}**,**
n41,σ**0**^{s}**81**/47**,mb3.5**/7**,Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MCK	**McKinley**	**0.92**	**342**	P	**Pn**	**16 33 07.5**	**+0.2**
MCK				S	**Sn**	**16 33 20.4**	**+0.9**
SML	**Sawmill**	**1.06**	**181**	P	**Pn**	**16 33 08.8**	**-0.4**
SML				S	**Sn**	**16 33 23.5**	**+0.7**
TRF	**Thorofare Moun**	**1.08**	**304**	P	**Pn**	**16 33 09.3**	**-0.2**
TRF				S	**Sn**	**16 33 24.3**	**+1.0**
GHO	**Glory Hole Cre**	**1.14**	**195**	P	**Pn**	**16 33 09.9**	**-0.3**
GHO				S	**Sn**	**16 33 25.2**	**+0.6**
PAX	**Paxson**	**1.29**	**84**	P	**Pn**	**16 33 12.6**	**+0.3**
PAX				S	**Sn**	**16 33 30.1**	**+1.7**
PMR	**Palmer**	**1.34**	**198**	*e*Pn	**Pn**	**16 33 12.2**	**-0.6**
PMR				*e*Sn	**Sn**	**16 33 27.5**	**-2.0**
KTH	**Kantishna Hill**	**1.38**	**301**	P	**Pn**	**16 33 13.7**	**+0.2**
KNK	**Knik Glacier**	**1.46**	**183**	P	**Pn**	**16 33 14.8**	**+0.2**
RC01	**Rabbit Creek A**	**1.91**	**202**	P	**Pn**	**16 33 20.9**	**+0.2**
FIB	**Fire Island**	**1.92**	**208**	P	**Pn**	**16 33 22.1**	**+1.2**

IL1	Eielson Array	2.01	17	P	Pn	16 33 21.0	-1.1
COLA	College	2.03	5	P	Pn	16 33 21.7	-0.6
DOT	Dot Lake	2.07	66	P	Pn	16 33 23.1	+0.2
MENT	Mentasta	2.09	86	*e*P	Pn	16 33 23.6	+0.4
SLKM	Skilak Lake	2.54	202	P	Pn	16 33 29.7	+0.4
BMRM	Bremner River	2.58	136	P	Pn	16 33 30.1	+0.2
EYAK	Cordova Ski Ar	2.62	151	*e*Pn	Pn	16 33 30.0	-0.4
EYAK				*e*Sn	Sn	16 34 06.9	+5.9
SEW	Seward	2.83	192	P	Pn	16 33 33.9	+0.6
BCA3	Beaver Creek A	2.98	83	P	Pn	16 33 35.2	-0.1
MID	Middleton Isla	3.58	164	*e*P	Pn	16 33 43.9	+0.4
EGAK	Eagle	3.70	56	*e*Pn	Pn	16 33 44.9	-0.3
SVW2	Sparrevohn	3.87	246	P	Pn	16 33 46.9	-0.6
IM3	Indian Mountai	3.92	325	P	Pn	16 33 48.0	-0.3
IMA2	Indian Mountai	3.98	326	*e*Pn	Pn	16 33 48.3	-0.6
DAWY	Dawson	4.17	69	P	Pn	16 33 51.6	0.0
COLD	Coldfoot	4.46	350	P	Pn	16 33 55.5	-0.1
BM3	Burnt Mountain	4.83	17	P	Pn	16 34 00.5	-0.2
PNL	Peninsula	5.36	123	P	Pn	16 34 07.9	0.0
INK	Inuvik	8.18	42	*e*Pn	Pn	16 34 45.2	-1.3
	92nm,0.5s						
TNA	Tin City	8.96	296	P	Pn	16 34 56.2	-1.0
YKA	Yellowknife Ar	15.37	76	Pn	Pn	16 36 22.3	-1.6
YKA	Yellowknife Ar	15.37	76	Pn	Pn	16 36 22.3	-1.6
	0.3nm,0.3s,baz=286,slow=10,SNR=13						
PDAR	Pinedale Array	30.16	113	P	P	16 38 55.0	-0.6
	0.8nm,0.9s,mb3.4,baz=340,slow=4.8,SNR=6.1						
TXAR	Lajitas Array	44.10	118	P	P	16 40 53.4	-0.2
	0.2nm,0.5s,mb3.1,baz=324,slow=5.9,SNR=2.7						
KSRS	Korea Array	54.72	284	pP	pP	16 42 28.6	+0.4
	0.5nm,0.6s,baz=17,slow=5.9,SNR=2.8						
SONM	Songino Array	54.89	307	P	P	16 42 16.4	+0.8
	0.4nm,0.7s,mb3.5,baz=14,slow=6.2,SNR=3.6						
SONM				pP	pP	16 42 29.6	+0.3
	0.5nm,0.7s,baz=23,slow=5.6,SNR=4.5						
FINES	FINESS Array B	55.94	3	P	P	16 42 24.7	+1.8
	0.6nm,0.6s,mb3.8,baz=350,slow=5.3,SNR=4.8						
EKA	Eskdalemuir Ar	59.05	22	P	P	16 42 49.4	+4.5
	0.7nm,0.5s,mb3.9,baz=332,slow=5.9,SNR=4.2						
MKAR	Makanchi Array	63.53	324	P	P	16 43 14.2	-1.1
	0.3nm,0.5s,mb3.5,baz=50,slow=8.2,SNR=3.2						
AKASG	Malin Array Be	66.76	2	P	P	16 43 37.7	+1.6
AKASG	Malin Array Be	66.76	2	P	P	16 43 37.7	+1.6
	0.2nm,0.4s,mb3.5,baz=1.1,slow=6.4,SNR=4.9						

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*ISCJB **07** 16:48:32.7±1.0, 16.8S±0.1×177.87W±0.07, h368^{km}±9^{km}, mb4.2/25, Error ellipse: s-maj=20.6km s-min=7.1km az=157.5*

*MOS **07** 16:48:33.8±1.2, 16.57S×177.88W, h372^{km}, mb4.3/6, Error ellipse: s-maj=20.0km s-min=18.1km az=83.0*

*BJI **07** 16:48:34.4, 17.12S×177.73W, h405^{km}, mB5.0, mb4.4*

*IDC **07** 16:48:34.0±1.6, 17.04S×177.61W, h380^{km}±17^{km}, mb3.7/10, mb1 3.9/12, mb1mx3.8/17, mbtmp3.7/12, Error ellipse: s-maj=21.1km s-min=10.9km az=138.0*

*NEIC **07** 16:48:37.4±2.6, 17.09S×177.70W, h416^{km}±28^{km}, mb4.4/8, Error ellipse: s-maj=20.1km s-min=14.9km az=154.0*

ISC 07 16:48:33.8±1.0**, 16.7S**±0.1×**177.88W**±0.07**, h363**^{km}±10^{km}**, h403**^{km}±4.2^{km}**:pP-P, n279,** σ**0.65**/188**, mb4.2**/25**, 75C-69D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	6.51	66	*e*Pn	Pn	16 50 10.8	-0.1
	87nm,0.6s						
AFI				*e*Sn	S	16 51 25.9	-3.9
AFI	Afiamalu	6.51	66	P	Pn	16 50 11.3	+0.4
AFI				S	S	16 51 28.6	-1.3
AFI				pmax	pmax		
	comp=Z,20nm,0.3s						
AFI				smax			
	comp=N,5.0nm,0.3s						
AFI	Afiamalu	6.51	66	P	Pn	16 50 11.3	+0.4
	comp=N,20nm,0.3s,baz=38,slow=5.7,SNR=35						
AFI				S	S	16 51 28.6	-1.3
	comp=N,5.4nm,0.3s,baz=52,slow=22,SNR=2.9						
DZM	Mont Dzumac	15.72	248	P	P	16 51 57.8	+2.1
	comp=N,0.4nm,0.3s,baz=76,slow=18,SNR=10						
URZ	Urewera	21.92	191	P	P	16 52 53.5	-4.7
	comp=N,13nm,0.6s,mb4.3,baz=58,slow=4.2,SNR=11						
RPZ	Rata Peaks	28.51	197	P	P	16 53 54.9	-2.2
RPZ	Rata Peaks	28.51	197	P	P	16 53 54.9	-2.2
	comp=N,3.4nm,0.5s,mb3.9,baz=324,slow=0.6,SNR=5.8						
STKA	Stephens Creek	39.66	240	*e*P	P	16 55 31.5	-0.5
	comp=N,3.1nm,0.5s,mb3.8						
STKA	Stephens Creek	39.66	240	P	P	16 55 31.9	-0.1
	comp=N,3.6nm,0.5s,mb3.9,baz=92,slow=9.2,SNR=20						
WB2	Warramunga Arr	45.34	258	*e*P	P	16 56 17.9	+0.4
WRA	Warramunga Arr	45.35	258	*i* P	P	16 56 17.2	-0.4
WRA				pmax	pmax		
	comp=Z,1.0nm,0.3s						
WRA	Warramunga Arr	45.35	258	P	P	16 56 17.3	-0.2
	comp=Z,1.2nm,0.3s,mb3.5,baz=86,slow=7.9,SNR=66						
KAKA	Kakadu	48.12	268	*e*P	P	16 56 39.5	+0.7
	comp=Z,8.7nm,0.5s,mb4.2						
FITZ	Fitzroy Crossi	53.73	260	*e*P	P	16 57 20.8	+0.6
	comp=Z,8.9nm,1.1s,mb4.0						
MJAR	Matsushiro Arr	67.25	323	P	P	16 58 50.9	+0.6
	comp=Z,0.6nm,0.5s,mb3.6,baz=151,slow=5.5,SNR=7.2						
KSRS	Korea Array	74.15	318	P	P	16 59 33.6	+2.2
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.6						
KSRS	Korea Array	74.15	318	P	P	16 59 33.6	+2.2
	comp=Z,1.2nm,0.7s,mb3.8,baz=125,slow=6.4,SNR=6.9						
V03C	Hunter Liggett	74.94	45	⇑P	P	16 59 35.3	-0.6
	baz=75						
PACP	Pacheco Peak	75.46	44	⇑P	P	16 59 39.5	+0.6
	baz=76						
O02C	Red Bluff	76.31	40	⇑P	P	16 59 44.8	+1.2
	baz=76						
EDW2	Edwards Air Fo	76.55	47	⇑P	P	16 59 45.5	+0.4
	baz=77						
CMB	Columbia Colle	76.62	43	⇓P	P	16 59 44.4	-0.9
	baz=77						
ISA	Isabella	76.62	46	⇓P	P	16 59 45.3	-0.1
	baz=77						
MONP	Monument Peak	76.66	49	⇓P	P	16 59 46.0	+0.3
	baz=77						
YBH	Yreka Blue Hor	77.28	39	⇑P	P	16 59 50.0	+1.0
	baz=78						
M03C	McCloud	77.37	40	⇑P	P	16 59 50.2	+0.8
	baz=78						
R06C	Coleville	77.51	43	⇑P	P	16 59 51.0	+0.8
	baz=78						
MPMC	Manual Prospec	77.51	46	⇓P	P	16 59 51.2	+0.8
	baz=78						
NJ2	Nanjing	77.57	309	*e*P	P	16 59 50.2	-0.5
NJ2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.8						
GSC	Goldstone	77.60	47	⇓P	P	16 59 50.0	-0.8
	baz=78						
HEC	Hector,Ludlow	77.69	48	⇑P	P	16 59 51.6	+0.2
	baz=78						
BC3	Big Chuckw Mtn	77.74	49	⇑P	P	16 59 51.3	-0.3
	baz=78						
S08C	White Mtn Res	77.81	45	⇓P	P	16 59 52.5	+0.6
	baz=78						
M05C	Lookout	78.02	40	⇑P	P	16 59 53.7	+0.8
	baz=78						
GRAC	Grapevine Rang	78.08	45	⇓P	P	16 59 54.1	+0.6
	baz=78						
GMRC	Granite Mounta	78.15	48	⇑P	P	16 59 54.2	+0.4
	baz=78						
O06A	Flanigan	78.17	42	⇑P	P	16 59 54.2	+0.4
	baz=78						
IRM	Iron Mountain	78.21	49	⇓P	P	16 59 54.9	+0.7
	baz=78						
NVAR	Mina Array Bea	78.21	44	P	P	16 59 53.6	-0.5
	comp=Z,2.7nm,0.7s,mb4.1,baz=215,slow=7.4,SNR=17						
TUQ	Turquoise Mtn.	78.29	47	⇑P	P	16 59 54.0	-0.6
	baz=78						
M06C	Likely Place G	78.34	40	⇓P	P	16 59 54.8	0.0
	baz=78						
Y12C	Blythe	78.46	49	⇓P	P	16 59 55.8	+0.2
	baz=79						
N06A	Buffalo Meadow	78.49	41	⇓P	P	16 59 56.0	+0.4
	baz=79						
U10A	Ash Meadows, A	78.50	46	⇑P	P	16 59 56.2	+0.5
	baz=79						
S09A	Goldfield	78.56	45	⇑P	P	16 59 56.1	+0.1
	baz=79						
L05A	Lakeview	78.60	40	⇓P	P	16 59 56.7	+0.6
	baz=79						
H03A	Soap Creek Ran	78.70	36	⇑P	P	16 59 56.5	-0.1
	baz=79						
O07A	Toulon	78.77	42	⇑P	P	16 59 57.4	+0.3
	baz=79						
MOD	Modoc	78.84	40	⇓P	P	16 59 57.6	+0.2
	baz=79						
R09A	Tonopah	78.93	44	⇑P	P	16 59 58.4	+0.4
	baz=79						
K05A	Summer Lake	78.95	39	⇑P	P	16 59 58.2	+0.2
	baz=79						
Y13A	Salome	79.00	50	⇑P	P	16 59 58.9	+0.4
	baz=79						
PDMCI	Parker Dam,Lak	79.00	49	⇑P	P	16 59 58.7	+0.3
	baz=79						
P08A	Dixie Valley	79.04	43	⇑P	P	16 59 58.8	+0.2
	baz=79						
N07B	Gerlach	79.05	41	⇑P	P	16 59 59.0	+0.4
	baz=79						
J05A	Fort Rock	79.07	38	⇑P	P	16 59 59.3	+0.7
	baz=79						
S10A	Tonopah Range,	79.09	45	⇑P	P	16 59 59.3	+0.4
	baz=79						
CN2	Changchun	79.38	322	*e*P	P	17 00 00.1	-0.2
K06A	Valley Falls	79.38	39	⇑P	P	17 00 00.4	+0.1
	baz=80						
R10A	Warm Springs	79.48	45	⇓P	P	17 00 01.8	+0.9
	baz=80						
L07A	Adell	79.50	40	⇓P	P	17 00 01.8	+0.8
	baz=80						
Y14A	Wickenburg	79.66	50	⇓P	P	17 00 02.6	+0.6
	baz=80						
U12A	Valley of Fire	79.76	47	⇓P	P	17 00 03.0	+0.6
	baz=80						
M08A	Happy Creek Ra	79.79	41	⇓P	P	17 00 03.1	+0.6
	baz=80						
O09A	Fish Creek Ran	79.87	43	⇓P	P	17 00 03.2	+0.3
	baz=80						
K07A	Rock Creek Ran	79.94	40	P	P	17 00 03.8	+0.5
	baz=80,SNR=5.0						
X14A	Yava	79.99	49	⇑P	P	17 00 04.4	+0.6
	baz=80						
N09A	Rock Creek Ran	80.02	42	⇓P	P	17 00 04.0	+0.3
	baz=80						
I06A	Prineville	80.06	38	⇑P	P	17 00 03.9	+0.1
	baz=80						
MA2	Magadan	80.18	344	P	P	17 00 03.5	-0.6
MA2				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
Q11A	Duckwater	80.20	45	⇓P	P	17 00 05.0	+0.2
	baz=80						
W14A	Seligman	80.20	49	⇓P	P	17 00 05.5	+0.6
	baz=80						
L08A	Fields	80.22	41	P	P	17 00 05.0	+0.2
	baz=80,SNR=7.0						
M09A	Marrel Ranch,	80.37	42	⇓P	P	17 00 06.5	+0.9
	baz=80						
K08A	Mann Creek Ran	80.42	40	P	P	17 00 06.1	+0.3
	baz=81,SNR=7.0						
H06A	Lindquist Farm	80.44	38	⇓P	P	17 00 06.1	+0.2
	baz=81						
F05A	White Salmon	80.46	36	⇓P	P	17 00 05.3	-0.6
	baz=81						
X15A	Humboldt	80.48	50	⇓P	P	17 00 07.3	+1.0
	baz=81						
I07A	Izee	80.56	38	⇑P	P	17 00 06.8	+0.3
	baz=81						
R12A	Pony Springs,	80.65	45	⇑P	P	17 00 07.6	+0.4
	baz=81						
E05A	Randle	80.69	35	⇑P	P	17 00 06.7	-0.4
	baz=81						
C04A	Brinnon	80.72	34	⇓P	P	17 00 06.7	-0.6
	baz=81						
J08A	Circle Bar Ran	80.78	40	⇓P	P	17 00 07.6	-0.1
	baz=81						
O11A	Cowboy Ranch,	80.85	43	⇑P	P	17 00 08.5	+0.3
	baz=81						
K09A	Rome	80.88	40	P	P	17 00 08.3	+0.1
	baz=81,SNR=6.6						
M10A	I.L. Ranch, Tu	81.00	42	⇓P	P	17 00 09.4	+0.5
	baz=81						
I08A	Drewsey	81.02	39	⇓P	P	17 00 09.2	+0.3
	baz=81						
T14A	Hurricane	81.08	47	⇑P	P	17 00 10.4	+1.0
	baz=81						
E06A	Yakima	81.11	36	⇓P	P	17 00 09.4	0.0
	baz=81						
G07A	Ruggs Ranch, H	81.13	37	⇑P	P	17 00 09.3	-0.2
	baz=81						
J09A	Fry Pan Ranch,	81.21	40	P	P	17 00 10.3	+0.4
	baz=81,SNR=5.4						
L10A	Juniper Basin	81.33	41	⇑P	P	17 00 10.8	+0.2
	baz=82						
C05A	Tolt Reservoir	81.40	35	⇑P	P	17 00 10.7	-0.1
	baz=82						
K10A	MacKenzie Ranc	81.45	41	⇑P	P	17 00 11.5	+0.2
	baz=82						
B05A	Bryant	81.52	34	⇑P	P	17 00 11.1	-0.3
	baz=82						
O12A	Currie	81.52	44	⇑P	P	17 00 11.3	-0.3
	baz=82						
G08A	Pilot Rock	81.56	38	⇑P	P	17 00 12.2	+0.5
	baz=82						
I09A	Lost Marbles R	81.56	39	⇓P	P	17 00 11.6	-0.2
	baz=82						
D06A	Cle Elum	81.57	35	⇓P	P	17 00 11.9	+0.2
	baz=82						
WUAZ	Wupatki	81.58	49	⇑P	P	17 00 13.0	+0.9
	baz=82						
N12A	Clover Valley,	81.62	43	⇓P	P	17 00 12.1	0.0
	baz=82						
E07A	Sunnyside	81.76	36	⇑P	P	17 00 12.4	-0.3
	baz=82						
L11A	Cat Creek Ranc	81.84	42	⇑P	P	17 00 13.5	+0.2
	baz=82						
C06A	Tall Timber Ra	81.97	35	⇑P	P	17 00 13.3	-0.4
	baz=82						
H09A	Durkee	81.98	39	⇑P	P	17 00 13.8	-0.1
	baz=82						
M12A	Wells	81.99	43	⇓P	P	17 00 14.3	+0.3
	baz=82						
D07A	Quincy	82.05	36	⇑P	P	17 00 14.0	-0.2
	baz=82						
E08A	Dider Farm, El	82.17	37	⇑P	P	17 00 14.7	-0.1
	baz=82						
N13A	Wendover, West	82.17	43	⇓P	P	17 00 15.2	+0.2
	baz=82						
I10A	Payette	82.19	40	⇑P	P	17 00 15.2	+0.2
	baz=82						
C07A	Waterville	82.29	35	⇑P	P	17 00 15.1	-0.3
	baz=82						
L12A	House Creek Ra	82.30	42	⇑P	P	17 00 16.0	+0.4
	baz=82						
F09A	S2 Ranch, Elgi	82.40	38	⇓P	P	17 00 16.4	+0.4
	baz=83						
MFID	Camas Ranch	82.44	40	⇓P	P	17 00 16.4	+0.1
	baz=83						
M13A	Montello	82.45	43	⇑P	P	17 00 16.7	+0.4
	baz=83						
H10A	Noah's Angus R	82.49	39	P	P	17 00 16.2	-0.3
	baz=83,SNR=7.1						
D08A	Wollman Farm,	82.57	36	⇓P	P	17 00 16.6	-0.3
	baz=83						
I11A	Placerville	82.62	40	P	P	17 00 17.4	+0.3
	baz=83,SNR=5.8						
K12A	Draper Farm, C	82.62	42	⇑P	P	17 00 17.5	+0.3
	baz=83						
B07A	Winthrop	82.70	35	⇓P	P	17 00 17.0	-0.5
	baz=83						
E09A	Wood Farm, Sta	82.71	37	⇓P	P	17 00 16.8	-0.8
	baz=83						
SEY	Seymchan	82.72	347	*e*P	P	17 00 17.0	-0.3
DUG	Dugway	82.78	44	⇑P	P	17 00 17.8	-0.3
	baz=83						
J12A	Stokes Ranch,	82.81	41	⇑P	P	17 00 18.4	+0.2
	baz=83						
C08A	Higginbotham F	82.91	36	⇓P	P	17 00 18.1	-0.4
	baz=83						
D09A	Jones Farm, Ri	82.92	36	⇓P	P	17 00 18.3	-0.3
	baz=83						
F10A	Beach Ranch, E	82.95	38	⇑P	P	17 00 18.5	-0.3
	baz=83						
L13A	Double Diamond	82.96	42	⇓P	P	17 00 18.9	-0.1
	baz=83						
H11A	Donnelly	83.00	39	⇑P	P	17 00 18.9	-0.1
	baz=83						
B08A	Colville Reser	83.07	35	⇓P	P	17 00 18.7	-0.6
	baz=83						
K13A	Stover Farm, H	83.15	42	⇓P	P	17 00 20.2	+0.3
	baz=83						
G11A	Walters Elk Ra	83.21	39	P	P	17 00 19.8	-0.3
	baz=83,SNR=15						
BJI	Beijing	83.29	315	P	P	17 00 20.8	+0.1
BJI				AP	pP	17 01 51.3	+7.2
BJI				XP	sP	17 02 33.2	+11
BJI				PP	PP	17 03 38.1	-0.4
BJI				XS	sS	17 12 50.7	+12
BJI				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.4						
BJI				AMB	AMB		
	comp=Z,165nm,5.6s						
C09A	Chrisman Ranch	83.35	36	⇓P	P	17 00 20.3	-0.5
	baz=84						
HLID	Hailey	83.40	41	*e*P	P	17 00 21.4	+0.3
	comp=Z,4.4nm,0.8s,mb4.3						
HLID	Hailey	83.40	41	⇓P	P	17 00 21.8	+0.6
	baz=84						
J13A	Cove Ranch, Pi	83.46	41	⇑P	P	17 00 22.2	+0.7
	baz=84						
D10A	Wagner Farm, O	83.50	37	⇓P	P	17 00 20.8	-0.8
	baz=84						
F11A	Grangeville	83.53	38	⇑P	P	17 00 20.4	-1.3
	baz=84						
H12A	Diamond D Ranc	83.62	40	⇓P	P	17 00 22.4	+0.1
	baz=84						
K14A	Jones Ranch, D	83.68	42	⇓P	P	17 00 22.7	+0.1
	baz=84						
E11A	Bogner Ranch,	83.75	38	⇑P	P	17 00 22.5	-0.4
	baz=84						
I13A	Wildhorse Cree	83.76	41	⇓P	P	17 00 23.1	+0.2
	baz=84						
B09A	Rice	83.76	35	⇑P	P	17 00 22.1	-0.8
	baz=84						
SRU	San Rafael	83.83	46	*e*P	P	17 00 23.1	-0.3
	comp=Z,8.6nm,1.1s,mb4.5						
SRU	San Rafael	83.83	46	*e*P	P	17 00 23.1	-0.3
SRU				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.5						
A09A	Danville	83.83	35	⇓P	P	17 00 22.2	-1.0
	baz=84						
H13A	Challis	84.00	40	⇑P	P	17 00 24.9	+0.7
	baz=84						
F12A	Elk City	84.00	39	P	P	17 00 23.8	-0.4
	baz=84,SNR=13						
D11A	Klaveano Farm,	84.04	37	⇓P	P	17 00 23.4	-0.9
	baz=84						
G13A	Cobalt	84.28	40	⇑P	P	17 00 24.7	-0.8
	baz=84						
A10A	Northport	84.39	35	⇓P	P	17 00 25.3	-0.7
	baz=85						
COLA	College	84.50	12	*e*P	P	17 00 25.2	-0.9
	comp=Z,6.4nm,0.8s,mb4.5						
COLA	College	84.50	12	*e*P	P	17 00 25.2	-0.9
COLA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
F13A	Darby	84.57	39	P	P	17 00 26.5	-0.4
	baz=85,SNR=6.9						
B11A	Sandpoint	84.76	36	⇓P	P	17 00 27.0	-0.8
	baz=85						
G14A	Jackson	84.83	40	⇓P	P	17 00 27.8	-0.5
	baz=85						
GYA	Guiyang	84.88	299	P	P	17 00 29.7	+0.7
GYA				AP	pP	17 02 01.9	+9.2
GYA				XP	sP	17 02 42.8	+12
GYA				PP	PP	17 03 55.4	+3.7
GYA				SKS		17 10 13.2	
GYA				S	S	17 10 24.3	-2.2
GYA				XS	sS	17 13 05.6	+11
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
TXAR	Lajitas Array	84.93	58	P	P	17 00 29.6	+0.4
	comp=Z,4.4nm,0.8s,mb4.3,baz=219,slow=6.8,SNR=40						
A11A	Hall Mountain,	85.05	36	⇓P	P	17 00 28.9	-0.4
	baz=85						
D13A	Huson	85.16	38	⇑P	P	17 00 28.8	-1.1
	baz=85						
F14A	Wisdom	85.17	39	⇑P	P	17 00 29.7	-0.2
	baz=85						
BILL	Bilibino	85.29	354	*e*P	P	17 00 29.8	-0.2
	comp=Z,7.6nm,0.9s,mb4.5						
BILL	Bilibino	85.29	354	*e*P	P	17 00 28.8	-1.2
BILL				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
G15A	Dillon	85.39	40	⇑P	P	17 00 31.6	+0.6
	baz=86						
C13A	Hot Springs	85.39	37	⇑P	P	17 00 30.2	-0.7
	baz=86						
E14A	Clinton	85.39	39	⇑P	P	17 00 30.9	-0.1
	baz=86						
A12A	Yaak River Ran	85.43	36	⇓P	P	17 00 30.1	-1.0
	baz=86						
HIA	Hailar	85.69	324	*e*P	P	17 00 32.2	-0.1
F15A	Butte	85.72	40	⇓P	P	17 00 32.1	-0.5
	baz=86						
D14A	Greenough	85.72	38	⇓P	P	17 00 31.4	-1.2
	baz=86						
CHMT	Chamberlain Mo	85.78	38	*e*P	P	17 00 31.3	-1.6
B13A	Whitefish	85.81	37	⇑P	P	17 00 32.1	-0.9
	baz=86						
QLMT	Earthquake Lak	85.89	41	*e*P	P	17 00 34.0	+0.5
E15A	Deer Lodge	85.91	39	⇑P	P	17 00 33.7	+0.2
	baz=86						
PDAR	Pinedale Array	86.14	43	P	P	17 00 34.0	-0.7
	comp=Z,1.2nm,0.7s,mb3.8,baz=216,slow=3.2,SNR=10						
BOZ	Bozeman (W)	86.15	40	⇑P	P	17 00 33.9	-0.8
	baz=86						
D15A	Lincoln	86.28	39	⇓P	P	17 00 34.8	-0.5
	baz=86						
HHC	Hu-ho-hao-te	86.80	314	*e*P	P	17 00 38.4	+0.5
HHC				AP	pP	17 02 13.8	+12
HHC				XP	sP	17 02 56.0	+16
HHC				PP	PP	17 04 09.7	+3.0
HHC				S	S	17 10 41.0	-3.3
HHC				XS	sS	17 13 28.7	+15
HHC				SS	SS	17 16 38.4	+2.0
HHC				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.5						
HHC				AMB	AMB		
	comp=Z,143nm,5.4s						
KMI	Kunming	87.73	297	P	P	17 00 41.2	-1.5
KMI				AMB	AMB		
	comp=Z,6.0nm,1.1s,mb4.3						
CD2	Chengdu	88.84	303	*e*P	P	17 00 45.7	-2.1
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
CD2				AMB	AMB		
	comp=Z,30nm,8.2s						
LZH	Lanzhou	90.56	308	*e*P	P	17 00 54.5	-1.1
LZH				XP	sP	17 03 11.2	+13
LZH				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.8						
LZH				AMB	AMB		
	comp=Z,50nm,4.1s						
ULN	Ulaanbaatar	92.57	319	*e*P	P	17 01 04.5	-0.1
YKA	Yellowknife Ar	93.03	25	P	P	17 01 04.3	-2.1
	comp=Z,0.6nm,0.5s,mb3.9,baz=244,slow=4.5,SNR=17						
GTA	Gaotai	94.66	310	*e*P	P	17 01 14.9	+0.5
GTA				AP	pP	17 02 47.0	+7.6
GTA				XP	sP	17 03 27.7	+11
GTA				PP	PP	17 05 12.5	+4.0
GTA				S	S	17 11 52.4	-2.9
GTA				XS	sS	17 14 38.9	+12
GTA				AMB	AMB		
	comp=Z,2.0nm,0.9s,mb4.2						
GTA				AMB	AMB		
	comp=Z,64nm,6.1s						
MKAR	Makanchi Array	108.66	314	PKPdf	PKiKP	17 06 16.6	-3.3
MKAR	Makanchi Array	108.66	314	PKiKP	PKiKP	17 06 16.6	-3.3
	comp=Z,0.4nm,0.7s,baz=95,slow=1.3,SNR=6.0						
ARCES	ARCESS Array B	125.22	350	PKP	PKPdf	17 06 49.7	-1.3
ARCES	ARCESS Array B	125.22	350	PKIKP	PKPdf	17 06 49.7	-1.3
ARCES	ARCESS Array B	125.22	350	PKP	PKPdf	17 06 49.7	-1.3
	comp=Z,3.3nm,0.8s,baz=358,slow=3.6,SNR=6.6						
FINES	FINESS Array B	132.17	345	PKP	PKPdf	17 07 03.2	-1.2
FINES	FINESS Array B	132.17	345	PKIKP	PKPdf	17 07 03.2	-1.2
FINES	FINESS Array B	132.17	345	PKP	PKPdf	17 07 03.2	-1.2
	comp=Z,0.6nm,0.5s,baz=111,slow=4.3,SNR=4.3						
KWP	Kalwaria	143.17	338	*e*PKP	PKPdf	17 07 22.4	-2.5
KWP	Kalwaria	143.17	338	*e*PKP	PKPdf	17 07 22.4	-2.5
KWP	Kalwaria	143.17	338	*e*PKIKP	PKPdf	17 07 22.4	-2.5
STHS	Stebnicka Huta	143.87	339	*e*PKP	PKPdf	17 07 25.0	-1.2
STHS				*e*		17 07 28.4	
STHS	Stebnicka Huta	143.87	339	*e*PKIKP	PKPdf	17 07 25.0	-1.2
STHS	Stebnicka Huta	143.87	339	*e*PKP	PKPdf	17 07 25.0	-1.2
STHS				*e*		17 07 28.4	
STHS				sPDIF		19 09 27.0	
KOLS	Kolonicke sedl	143.90	337	*e*PKP	PKPdf	17 07 24.9	-1.4

KOLS	Kolonicke sedl	143.90	337	*e*PKIKP	PKPdf	17 07 24.9	-1.4
KOLS	Kolonicke sedl	143.90	337	*e*PKP	PKPdf	17 07 24.9	-1.4
KSP	Ksiaz	144.10	345	*e*PKP	PKPdf	17 07 25.8	-0.8
KSP	Ksiaz	144.10	345	*e*PKP	PKPdf	17 07 25.4	-1.1
KSP	Ksiaz	144.10	345	*e*PKIKP	PKPdf	17 07 25.4	-1.1
UZH	Uzhgorod	144.15	337	⇓*i*PKIKP	PKPdf	17 07 25.6	-1.1
CRVS	Cervenica-Dubn	144.22	338	*e*PKP	PKPdf	17 07 23.9	-2.9
CRVS				*e*		17 07 26.0	
CRVS	Cervenica-Dubn	144.22	338	*e*PKIKP	PKPdf	17 07 23.9	-2.9
CRVS	Cervenica-Dubn	144.22	338	*e*PKP	PKPdf	17 07 23.9	-2.9
CRVS				*e*		17 07 26.0	
CRVS				pPDIF		19 09 19.0	
BRTR	Keskin Array B	144.28	316	PKP	PKPdf	17 07 26.4	-0.8
BRTR	Keskin Array B	144.28	316	PKIKP	PKPdf	17 07 26.5	-0.7
BRTR	Keskin Array B	144.28	316	PKP	PKPdf	17 07 26.4	-0.8
	comp=Z,1.9nm,0.5s,baz=128,slow=4.9,SNR=14						
CLL	Collm	144.40	348	⇓*i*PKP	PKPdf	17 07 25.6	-1.4
CLL	Collm	144.40	348	⇓*i*PKIKP	PKPdf	17 07 25.6	-1.4
CLL	Collm	144.40	348	⇓*i*PKPbc	PKPdf	17 07 25.6	-1.4
	comp=Z,14nm,1.1s						
UPC	Upice	144.48	345	*e*PKIKP	PKPdf	17 07 25.5	-1.7
UPC	Upice	144.48	345	*e*PKP	PKPdf	17 07 25.5	-1.7
OKC	Ostrava-Krasne	144.50	342	*e*PKIKP	PKPdf	17 07 26.0	-1.3
OKC	Ostrava-Krasne	144.50	342	*e*PKP	PKPdf	17 07 26.0	-1.3
DPC	Dobruska-Polom	144.54	344	*e*PKIKP	PKPdf	17 07 26.8	-0.5
DPC	Dobruska-Polom	144.54	344	*e*PKP	PKPdf	17 07 26.8	-0.5
BRG	Berggiesshubel	144.62	347	*i* PKIKP	PKPdf	17 07 26.5	-0.9
BRG				pmax	pmax		
	comp=Z,5.0nm,0.9s						
BRG	Berggiesshubel	144.62	347	*i* PKP	PKPdf	17 07 26.5	-0.9
	comp=Z,8.7nm,0.9s						
PVCC	Panska Ves	144.81	346	*e*PKIKP	PKPdf	17 07 27.5	-0.3
PVCC	Panska Ves	144.81	346	*e*PKP	PKPdf	17 07 27.5	-0.3
KECS	Kecovo	144.93	339	*e*PKP	PKPdf	17 07 28.1	+0.1
KECS	Kecovo	144.93	339	*e*PKIKP	PKPdf	17 07 28.1	+0.1
KECS	Kecovo	144.93	339	*e*PKP	PKPdf	17 07 28.1	+0.1
KECS				pPDIF		19 09 15.7	
PRU	Pruhonice	145.31	346	*e*PKP2	PKPab	17 07 28.8	-1.1
PRU	Pruhonice	145.31	346	*e*PKP	PKPdf	17 07 28.8	+0.1
VYHS	Vyhne	145.47	340	*e*PKP	PKPdf	17 07 29.8	+0.8
VYHS				*e*		17 07 35.9	
VYHS	Vyhne	145.47	340	*e*PKP2	PKPab	17 07 29.8	-0.8
VYHS	Vyhne	145.47	340	*e*PKP	PKPdf	17 07 29.8	+0.8
VYHS				*e*		17 07 35.9	
VYHS				pPDIF		19 09 09.8	
NKC	Novy Kostel	145.53	348	*e*PKP2	PKPab	17 07 29.4	-1.4
NKC	Novy Kostel	145.53	348	*e*PKP	PKPdf	17 07 29.4	+0.4
MODS	Modra-Piesok	146.06	342	*e*P	PKPdf	17 07 31.9	+1.9
MODS	Modra-Piesok	146.06	342	*e*PKP2	PKPab	17 07 31.9	-1.0
MODS	Modra-Piesok	146.06	342	*e*PKP	PKPdf	17 07 31.9	+1.9
MODS				pPDIF		19 09 05.1	
KHC	Kasperske Hory	146.34	346	*e*PKP2	PKPab	17 07 31.9	-2.1
KHC	Kasperske Hory	146.34	346	*e*PKP	PKPdf	17 07 31.9	+1.5
GERES	GERESS Array B	146.58	346	PKPbc	PKPbc	17 07 31.5	-1.5
GERES	GERESS Array B	146.58	346	PKIKP	PKPdf	17 07 31.5	+0.7
GERES	GERESS Array B	146.58	346	PKPbc	PKPbc	17 07 31.5	-1.5
	comp=Z,1.4nm,0.7s,baz=29,slow=3.0,SNR=9.7						
GIVF	Givet	146.62	357	*e*PKP1	PKPbc	17 07 31.8	-1.2
BAIF	Baives	146.69	358	*e*PKP1	PKPbc	17 07 32.2	-1.1
CONA	Conrad Observa	146.88	343	⇑*i*PKiKP	PKiKP	17 07 33.9	-2.1
	comp=Z,3.4nm,0.7s						
FLN	La Foliniere	147.96	3	*e*PKP1	PKPbc	17 07 35.1	-1.6
	comp=Z,50nm,1.1s						
CDF	Champ du Feu	148.10	353	*e*PKP1	PKPbc	17 07 35.9	-1.2
	comp=Z,16nm,1.0s						
LDF	La Druitiere	148.15	3	*e*PKP1	PKPbc	17 07 35.4	-1.8
	comp=Z,9.0nm,0.7s						
SGMF	Saint Gilles	148.31	6	*e*PKP1	PKPbc	17 07 35.9	-1.7
GRR	Gorron	148.31	4	*e*PKP1	PKPbc	17 07 36.1	-1.5
	comp=Z,15nm,0.8s						
WTTA	Wattenberg	148.53	348	⇓*i*P	PKPbc	17 07 37.2	-1.0
	comp=Z,6.9nm,0.7s						
WTTA	Wattenberg	148.53	348	⇓*i*PKiKP	PKiKP	17 07 37.2	-2.2
	comp=Z,6.9nm,0.7s						
WTTA	Wattenberg	148.53	348	⇓*i*PKP2	PKPbc	17 07 37.2	-1.0
MOTA	Moosalm	148.56	348	⇑*i*P	PKPbc	17 07 37.3	-1.0
	comp=Z,2.8nm,0.6s						
MOTA	Moosalm	148.56	348	⇑*i*PKiKP	PKiKP	17 07 37.3	-2.2
	comp=Z,2.8nm,0.6s						
MOTA	Moosalm	148.56	348	⇑*i*PKP2	PKPbc	17 07 37.3	-1.0
HAU	Haudompre	148.59	355	*e*PKP1	PKPbc	17 07 36.6	-1.7
HINF	Hinteralfeld	148.73	354	*e*PKP1	PKPbc	17 07 37.2	-1.5
ABTA	Abfaltersbach	148.83	346	⇑*i*PKPbc	PKPbc	17 07 37.7	-1.2
	comp=Z,4.6nm,0.6s						
LOR	Lormes	149.49	358	*e*PKP1	PKPbc	17 07 39.4	-1.1
	comp=Z,14nm,0.7s						
SSF	Saint Saulge	149.71	358	*e*PKP1	PKPbc	17 07 40.0	-1.1
	comp=Z,13nm,0.7s						
AVF	Avril sur Loir	149.98	358	*e*PKP1	PKPbc	17 07 40.1	-1.6
	comp=Z,7.0nm,0.7s						
CABF	La Chapelle	150.00	355	*e*PKP1	PKPbc	17 07 41.3	-0.5
	comp=Z,36nm,1.0s						
MFF	Saint Martin d	150.13	3	*e*PKP1	PKPbc	17 07 40.6	-1.5
BGF	Bois d’Agland	150.23	359	*e*PKP1	PKPbc	17 07 41.0	-1.3
TCF	Toulx Ste Croi	150.50	360	*e*PKP1	PKPbc	17 07 41.6	-1.4
	comp=Z,9.1nm,0.8s						
LPL	La Plagne	151.02	353	*e*PKP1	PKPbc	17 07 43.7	-0.5
LPG	La Plagne	151.03	353	*e*PKP1	PKPbc	17 07 43.8	-0.4
RJF	Les Rejaudoux	151.48	1	*e*PKP1	PKPbc	17 07 43.8	-1.5
ORIF	Oris-en-Rattie	151.70	354	*e*PKP1	PKPbc	17 07 44.0	-1.8
MBDF	Montbardon	151.79	353	*e*PKP1	PKPbc	17 07 44.9	-1.1
	comp=Z,9.6nm,0.7s						
LFF	La Frestale	151.83	2	*e*PKP1	PKPbc	17 07 44.5	-1.6
VIVF	Saint-Julien-l	151.85	356	*e*PKP1	PKPbc	17 07 44.3	-1.8
	comp=Z,5.9nm,0.8s						
CAF	Calviac	151.87	0	*e*PKP1	PKPbc	17 07 44.7	-1.4
SMRF	Simiane la Rot	152.66	355	*e*PKP1	PKPbc	17 07 47.1	-0.8
FRF	La Foret Royal	152.96	353	*e*PKP1	PKPbc	17 07 47.1	-1.5
	comp=Z,25nm,1.2s						
TORD	Torodi Ar. Bea	176.44	173	PKP	PKPdf	17 07 59.0	-2.7
TORD	Torodi Ar. Bea	176.44	173	PKP	PKPdf	17 07 59.0	-2.7
	comp=Z,1.6nm,1.0s,baz=300,slow=2.8,SNR=5.8						

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*IDC **07** 16:59:38.7±1.3, 21.02N×122.15E, h0^{km}, mb3.8/6, mb1 3.9/7, mb1mx3.7/19, mbtmp3.8/7, ML3.5/1, MS3.0/2, Ms1 3.0/2, ms1mx2.6/25, Error ellipse: s-maj=41.6km s-min=26.4km az=62.0*

*JMA **07** 16:59:42.8±0.4, 21.12N×122.18E, h86^{km}*

*ISCJB **07** 16:59:43.3±1.9, 21.10N±0.09×122.3E±0.1, h47^{km}±17^{km}, mb3.7/7, MS3.1/1, Error ellipse: s-maj=19.7km s-min=14.2km az=21.0*

*NEIC **07** 16:59:46.0±2.7, 21.10N×122.31E, h58^{km}±24^{km}, mb3.8/1, Error ellipse: s-maj=33.0km s-min=17.9km az=51.0*

ISC 07 16:59:44.8±1.9**, 21.09N**±0.09×**122.3E**±0.1**, h44**^{km}±18^{km}**, n22,** σ**0^{s}.92**/23**, mb3.7**/7**, MS3.1**/1**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HATJ	Hateruma jima	3.27	25	*e*S	Sn	17 01 11.3	0.0
YOJ	Yonaguni jima	3.42	11	P	Pn	17 00 34.9	-0.7
YOJ				*e*S	Sn	17 01 14.3	-0.6
IRIF	Iriomote-Funau	3.50	22	P	Pn	17 00 36.3	-0.4
IRIF				*e*S	Sn	17 01 16.1	-0.7
JIJ	Ishigaki jima	3.68	28	P	Pn	17 00 38.6	-0.6
JIJ				*e*S	Sn	17 01 22.2	+0.8
TATO	Taipei	3.93	350	*e*P	Pn	17 00 44.8	+2.2
JTJ	Tarama	4.18	32	*e*S	Sn	17 01 33.8	+0.1
JOW	Kunigami	7.92	43	Pn	Pn	17 01 37.8	+0.4
JOW	Kunigami	7.92	43	Pn	Pn	17 01 37.8	+0.4
	1.3nm,0.3s,baz=172,slow=18,SNR=5.9						
JNU	Nakatsue	14.21	31	LR	LR	17 08 34.2	
	comp=Z,36nm,20.1s,baz=30,slow=37						
KSRS	Korea Array	17.02	16	P	Pn	17 03 42.9	+3.2
	0.1nm,0.3s,baz=198,slow=11,SNR=5.3						
ASAJ	Asahikawa	28.49	32	LR	LR	17 15 31.9	
	comp=Z,50nm,20.7s,MS3.1,baz=21,slow=33						
ULN	Ulaanbaatar	29.39	339	P	P	17 05 42.0	-1.9
	2.1nm,1.0s,mb3.8						
SONM	Songino Array	29.59	338	P	P	17 05 44.9	-0.7
	0.8nm,0.7s,mb3.6,baz=164,slow=9.9,SNR=7.7						
MK31	Makanchi Array	41.27	318	*e*P	P	17 07 26.1	+0.3
MKAR	Makanchi Array	41.27	318	P	P	17 07 26.0	+0.3
MKAR	Makanchi Array	41.27	318	P	P	17 07 26.0	+0.3
	0.6nm,0.5s,mb3.5,baz=109,slow=9.8,SNR=16						
WRA	Warramunga Arr	42.46	163	P	P	17 07 35.1	-0.6
	0.6nm,0.9s,mb3.2,baz=344,slow=9.0,SNR=3.4						
ZALV	Zalesovo Beam	43.38	328	P	P	17 07 42.4	-0.4
ZALV	Zalesovo Beam	43.38	328	P	P	17 07 42.4	-0.4
	1.3nm,0.5s,mb3.9,baz=124,slow=7.4,SNR=9.0						
FINES	FINESS Array B	74.61	330	P	P	17 11 19.9	+0.8
	1.0nm,0.9s,mb3.7,baz=106,slow=10,SNR=3.3						
YKA	Yellowknife Ar	85.41	23	P	P	17 12 18.3	+1.0
YKA	Yellowknife Ar	85.41	23	P	P	17 12 18.3	+1.0
	0.7nm,0.6s,mb4.0,baz=312,slow=4.7,SNR=18						

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*ATH **07** 17:01:50.8, 38.00N×26.53E, h55^{km}, MD3.2/3*

*ISCJB **07** 17:01:51.8±0.6, 38.14N±0.03×26.61E±0.04, h10^{km}±5^{km}, Error ellipse: s-maj=5.1km s-min=4.7km az=163.2*

*CSEM **07** 17:01:51.8±0.1, 38.13N×26.69E, h10^{km}, ML3.3, Error ellipse: s-maj=1.5km s-min=1.3km az=36.0*

*ISK **07** 17:01:51.9, 38.13N×26.68E, h5^{km}, MD3.0*

*THE **07** 17:01:52.0, 38.14N×26.66E, h9^{km}, ML3.3*

ISC 07 17:01:52.3±0.6**, 38.14N**±0.03×**26.62E**±0.04**, h12**^{km}±5^{km}**, n29,** σ**0^{s}.75**/42**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLCB	Balcova	0.41	54	*i* PG	Pg	17 01 59.8	-0.6
BLCB				*i* SG	Sg	17 02 05.6	-0.3
BLCB	Balcova	0.41	54	*e*Pg	Pg	17 02 00.0	-0.4
BLCB				*e*Sg	Sg	17 02 05.3	-0.6
BLCB	Balcova	0.41	54	*i* Pg	Pg	17 01 59.8	-0.6
BLCB				*i* Sg	Sg	17 02 05.6	-0.3
SMG	Samos	0.47	158	*e*P	Pg	17 02 01.6	+0.2
CHOS	Chios island	0.51	299	*e*Pg	Pg	17 02 02.6	+0.4
CHOS				*e*Sg	Sg	17 02 10.4	+1.4
CHOS	Chios island	0.51	299	*e*Pg	Pg	17 02 02.6	+0.3
CHOS				*e*Sg	Sg	17 02 10.4	+1.4
IZM	Izmir	0.57	63	PG	Pg	17 02 02.8	-0.5
IZM				SG	Sg	17 02 11.1	+0.3
PRK	Paraskevi	1.14	346	*e*P	Pb	17 02 13.2	-0.7
PRK				*e*S	Sb	17 02 29.6	+1.0
AKS	Akhisar	1.19	51	PN	Pn	17 02 14.8	0.0
AKS	Akhisar	1.19	51	*e*Pn	Pn	17 02 14.8	0.0
BODT	Bodrum	1.21	153	PN	Pn	17 02 14.7	-0.3
BODT				SN	Sn	17 02 31.4	+0.1
BODT	Bodrum	1.21	153	*e*Pn	Pn	17 02 14.7	-0.3
BODT				*e*Sn	Sn	17 02 31.4	+0.1
MLSB	Milas	1.25	132	*e*PN	Pn	17 02 15.3	-0.2
MLSB	Milas	1.25	132	*e*Pn	Pn	17 02 15.3	-0.2
APE	Apeiranthos	1.38	219	*e*Pg	Pn	17 02 15.6	-1.7
APE				*e*Sg	Sg	17 02 35.7	-0.9
APE	Apeiranthos	1.38	219	*e*P	Pn	17 02 12.8	-4.6
APE	Apeiranthos	1.38	219	*e*Pg	Pn	17 02 15.6	-1.8
APE				*e*Sg	Sg	17 02 35.7	-0.9
DAT	Datca	1.60	151	*e*PN	Pn	17 02 21.4	+0.9
DAT	Datca	1.60	151	*e*Pn	Pn	17 02 21.4	+0.9
YER	Yerkesik	1.66	127	*e*PN	Pn	17 02 22.3	+1.1
YER	Yerkesik	1.66	127	*e*Pn	Pn	17 02 22.3	+1.1
DALT	Dalyan (Mudla)	2.11	130	*e*PN	Pn	17 02 28.4	+1.0
DALT	Dalyan (Mudla)	2.11	130	*e*Pn	Pn	17 02 28.4	+1.0
LOS	Limnos	2.15	327	*e*Pn	Pn	17 02 28.0	-0.1
LOS	Limnos	2.15	327	*e*Pn	Pn	17 02 28.0	-0.1
KHL	Karahalli	2.29	85	*e*PN	Pn	17 02 30.4	+0.5
KHL	Karahalli	2.29	85	*e*Pn	Pn	17 02 30.4	+0.5
ALN	Alexandroupoli	2.79	351	*e*Pn	Pn	17 02 35.7	-1.1
ALN				*e*Sn	Sn	17 03 09.6	-0.8
ALN	Alexandroupoli	2.79	351	*e*Pn	Pn	17 02 35.7	-1.1
ALN				*e*Sn	Sn	17 03 09.6	-0.7

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*NEIC **07** 17:50:05.1, 15.50N×94.76W, h16^{km}, MD4.1(MEX), After MEX.*

MEX 07 17:50:05.1±0.7**, 15.50N×94.76W, h16**^{km}±13^{km}**, MD4.1, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	Huatulco	1.33	282	*i* P	Pn	17 50 25.6	-3.4
HUIG				*i* S	Sn	17 50 40.7	-5.7
CMIG	Matias Romero	1.58	356	*i* P	Pn	17 50 29.2	-3.4
CMIG				*i* S	Sn	17 50 47.5	-5.2
SCX	San Cristobal	2.38	59	*e*P	Pn	17 50 39.5	-4.0
VHO	Vista Hermosa	2.46	310	*i* P	Pn	17 50 42.1	-2.4
VHO				*i* S	Sn	17 51 11.2	-3.1
CCIG	Comitan	2.64	73	*e*P	Pn	17 50 45.5	-1.5
CCIG				*i* S	Sn	17 51 13.5	-5.2
UTMO	Huajuapan	3.73	309	*i* P	Pn	17 51 01.6	-0.4
UTMO				*i* S	Sn	17 51 42.2	-3.4
TEIG	Tepich	7.75	52	*i* P	Pn	17 51 54.1	-3.3

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*IDC **07** 17:57:54.3±1.3, 35.02N×72.50E, h0^{km}, mb3.5/4, mb1 3.6/6, mb1mx3.4/22, mbtmp3.5/6, ML3.1/2, Error ellipse: s-maj=31.4km s-min=26.6km az=126.0*

*ISCJB **07** 17:57:57.2±0.5, 35.08N±0.06×72.96E±0.06, h33^{km}, mb3.5/3, Error ellipse: s-maj=8.3km s-min=6.1km az=22.3*

*NEIC **07** 17:58:01.2±1.6, 35.11N×72.66E, h50^{km}±18^{km}, Error ellipse: s-maj=18.4km s-min=13.8km az=165.0*

ISC 07 17:57:59.5±0.5**, 35.05N**±0.05×**72.89E**±0.06**, h35**^{km}**, n21,** σ**1^{s}.37**/24**, mb3.5**/3**, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	3.20	262	*e*P	Pn	17 58 47.6	+0.3
KBL				*e*S	Sn	17 59 27.1	+2.9
AAK	Ala-Archa	7.67	9	*e*Pn	Pn	17 59 44.9	-3.8
KOLN	Koldanda	11.68	126	*e*P	Pn	18 00 44.2	+0.6
	5.7nm,0.3s						
GKN	Gorkha	12.24	122	*e*P	Pn	18 00 51.1	-0.1
	7.6nm,0.3s						
DMN	Daman	12.80	122	*e*P	Pn	18 00 59.3	+0.3
KKN	Kakani	12.82	121	*e*P	Pn	18 00 58.6	-0.6
	9.1nm,0.5s						
PKI	Pulchoki	13.04	121	*e*P	Pn	18 01 02.9	+0.7
	11nm,0.4s						
GUN	Gumba	13.17	119	*e*P	Pn	18 01 03.1	-0.9
JIRN	Jiri	13.54	119	*e*P	Pn	18 01 08.3	-0.7
	6.9nm,0.3s						
MKAR	Makanchi Array	13.70	28	Pn	Pn	18 01 13.2	+2.1
MKAR				Sn	Sn	18 03 42.9	+0.9
MKAR	Makanchi Array	13.70	28	Pn	Pn	18 01 13.2	+2.1
	0.0nm,0.3s,baz=217,slow=14,SNR=4.2						
MKAR				Sn	Sn	18 03 42.9	+0.9
	0.3nm,0.3s,baz=187,slow=24,SNR=12						
TAPN	Taplejung	14.82	117	*e*P	Pn	18 01 24.7	-1.8
	8.6nm,0.4s						
ODAN	Odare	14.87	119	*e*P	Pn	18 01 26.1	-1.1
LSA	Lhasa	16.32	104	*e*P	Pn	18 01 48.6	+2.7
AKTK	Aktyubinsk	18.80	329	P	Pn	18 02 14.6	-1.8
AKTO	Aktyubinsk	18.80	329	P	Pn	18 02 14.6	-1.8
	0.3nm,0.3s,baz=148,slow=12,SNR=6.9						
ZALV	Zalesovo Beam	20.67	20	P	P	18 02 35.5	-0.6
	0.8nm,0.5s,baz=212,slow=10,SNR=6.5						
SONM	Songino Array	27.95	53	P	P	18 03 50.3	+3.9
	0.2nm,0.3s,mb3.2,baz=250,slow=7.5,SNR=4.5						
TORD	Torodi Ar. Bea	67.24	270	P	P	18 08 48.8	-1.9
	0.7nm,0.8s,mb3.7,baz=41,slow=5.1,SNR=4.0						
WRA	Warramunga Arr	79.92	123	P	P	18 10 06.3	+1.4
	0.3nm,0.4s,mb3.6,baz=324,slow=5.0,SNR=9.9						
WB2	Warramunga Arr	79.93	123	*e*P	P	18 10 06.4	+1.5

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*NEIC **07** 18:41:25.5, 42.05S×178.43E, h40^{km}, ML4.4(WEL), After WEL.*

WEL 07 18:41:30.8±0.6**, 41.93S×177.88E, h33**^{km}**, ML4.3**/53**, Error ellipse: s-maj=5.9km s-min=3.5km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRWZ	Traveller	1.72	287	PN	Pn	18 41 57.4	-1.0
TRWZ				*e*SN	Sn	18 42 18.2	-1.0
BFZ	Birch Farm	1.75	315	P	Pn	18 41 58.0	-0.8
BFZ				S	Sn	18 42 14.0	-5.9
BFZ	Birch Farm	1.75	315	PN	Pn	18 41 58.0	-0.8
BFZ				SN	Sn	18 42 18.6	-1.4
TIWZ	Tintock	1.89	307	PN	Pn	18 42 00.2	-0.5
TIWZ				SN	Sn	18 42 21.1	-2.3
PAWZ	Paruwai Farm	1.92	286	P	Pn	18 42 00.0	-1.1
PAWZ	Paruwai Farm	1.92	286	PN	Pn	18 42 00.0	-1.0
MTW	Mount Morrison	1.94	293	P	Pn	18 42 00.7	-0.7
MTW	Mount Morrison	1.94	293	PN	Pn	18 42 00.7	-0.7
MSWZ	Moikau Station	2.03	284	P	Pn	18 42 01.6	-1.1
MSWZ	Moikau Station	2.03	284	PN	Pn	18 42 01.6	-1.0
PXZ	Pawanui	2.05	338	PN	Pn	18 42 01.2	-1.6
MRZ	Mangatainoka R	2.15	305	P	Pn	18 42 03.2	-1.0
MRZ	Mangatainoka R	2.15	305	PN	Pn	18 42 03.6	-0.6
MRZ				SN	Sn	18 42 27.5	-2.2
CAW	Cannon Point	2.26	290	P	Pn	18 42 05.3	-0.5
CAW	Cannon Point	2.26	290	PN	Pn	18 42 05.3	-0.6
BHW	Baring Head	2.31	282	P	Pn	18 42 05.5	-1.0
BHW	Baring Head	2.31	282	PN	Pn	18 42 05.5	-1.0
TSZ	Takapari Road	2.37	322	P	Pn	18 42 06.7	-0.6
TSZ	Takapari Road	2.37	322	PN	Pn	18 42 06.7	-0.6
WEL	Wellington	2.42	284	P	Pn	18 42 07.3	-0.7
WEL	Wellington	2.42	284	PN	Pn	18 42 07.3	-0.7
SNZO	South Karori	2.46	284	P	Pn	18 42 07.6	-0.9
SNZO	South Karori	2.46	284	PN	Pn	18 42 07.6	-0.9
KIW	Kapiti Island	2.47	295	P	Pn	18 42 08.6	-0.1
KIW	Kapiti Island	2.47	295	PN	Pn	18 42 08.6	-0.1
MRW	Makara Radio	2.48	285	P	Pn	18 42 08.3	-0.6
MRW	Makara Radio	2.48	285	PN	Pn	18 42 08.3	-0.6
CMWZ	Cape Campbell	2.74	273	P	Pn	18 42 12.5	+0.1
CMWZ	Cape Campbell	2.74	273	PN	Pn	18 42 12.5	0.0
TCW	Tory Channel	2.79	284	P	Pn	18 42 12.8	-0.3
TCW	Tory Channel	2.79	284	PN	Pn	18 42 12.8	-0.4
KNZ	Kokohu	2.91	357	P	Pn	18 42 11.6	-3.2
KNZ	Kokohu	2.91	357	PN	Pn	18 42 11.6	-3.2
BKZ	Black Stump Fm	2.96	339	P	Pn	18 42 13.9	-1.5
BKZ	Black Stump Fm	2.96	339	PN	Pn	18 42 13.9	-1.5
BKZ				SN	Sn	18 42 44.2	-5.5
TUWZ	Tuamarina	2.99	278	PN	Pn	18 42 15.1	-0.7
MOVZ	Moawhango	2.99	327	P	Pn	18 42 15.7	-0.2
MOVZ	Moawhango	2.99	327	PN	Pn	18 42 15.7	-0.2
BSWZ	Blackbirch Sta	3.00	273	P	Pn	18 42 15.6	-0.3
BSWZ	Blackbirch Sta	3.00	273	PN	Pn	18 42 15.6	-0.4
WNVZ	Wahianoa	3.12	326	P	Pn	18 42 18.0	+0.3
WNVZ	Wahianoa	3.12	326	PN	Pn	18 42 18.0	+0.3
MTVZ	Mangateitei	3.13	323	PN	Pn	18 42 18.4	+0.6
TUVZ	Tukino	3.15	327	P	Pn	18 42 18.3	+0.2
TUVZ	Tukino	3.15	327	PN	Pn	18 42 18.3	+0.2
TRVZ	Turoa	3.17	325	PN	Pn	18 42 18.7	+0.4
DUWZ	D’Urville Isla	3.18	289	PN	Pn	18 42 18.9	+0.4
FWVZ	Far West T-bar	3.20	326	P	Pn	18 42 18.9	+0.1
FWVZ	Far West T-bar	3.20	326	PN	Pn	18 42 18.9	+0.1
OTVZ	Oturere	3.24	328	PN	Pn	18 42 19.1	-0.1
WPVZ	Whakapapa	3.25	326	P	Pn	18 42 19.4	0.0
WPVZ	Whakapapa	3.25	326	PN	Pn	18 42 19.4	0.0
NGZ	Ngauruhoe	3.25	327	P	Pn	18 42 19.3	-0.1
NGZ	Ngauruhoe	3.25	327	PN	Pn	18 42 19.3	-0.1
KHZ	Kahutara	3.26	260	*e*P	Pn	18 42 18.6	-0.9
KHZ	Kahutara	3.26	260	PN	Pn	18 42 18.6	-0.9
PKVZ	Pokaka	3.27	323	PN	Pn	18 42 19.8	+0.2
WTVZ	West Tongariro	3.31	327	P	Pn	18 42 20.0	-0.2
WTVZ	West Tongariro	3.31	327	PN	Pn	18 42 20.0	-0.2
RITZ	Rihia Road	3.33	332	P	Pn	18 42 18.5	-2.0
HATZ	Hinemaiaia	3.33	335	P	Pn	18 42 19.4	-1.1
HATZ	Hinemaiaia	3.33	335	PN	Pn	18 42 19.4	-1.0
KATZ	Kakaramea	3.39	330	P	Pn	18 42 21.1	-0.2
KATZ	Kakaramea	3.39	330	PN	Pn	18 42 21.1	-0.2
TWVZ	Taurewa	3.41	326	P	Pn	18 42 21.2	-0.4
TWVZ	Taurewa	3.41	326	PN	Pn	18 42 21.2	-0.4
NNZ	Nelson	3.45	280	*e*P	Pn	18 42 22.0	-0.1
NNZ	Nelson	3.45	280	PN	Pn	18 42 22.0	-0.2
RATZ	Rangitukua	3.46	332	P	Pn	18 42 21.6	-0.6
WHTZ	Whakaora	3.57	335	P	Pn	18 42 23.0	-0.9
MWZ	Matawai	3.60	356	P	Pn	18 42 21.2	-3.1
MWZ	Matawai	3.60	356	PN	Pn	18 42 21.2	-3.1
WATZ	Wairara	3.61	332	P	Pn	18 42 22.9	-1.5
WATZ	Wairara	3.61	332	PN	Pn	18 42 22.9	-1.4
VRZ	Vera Road	3.67	319	P	Pn	18 42 25.4	+0.2
VRZ	Vera Road	3.67	319	PN	Pn	18 42 25.4	+0.2
URZ	Urewera	3.71	351	P	Pn	18 42 23.1	-2.7
URZ	Urewera	3.71	351	PN	Pn	18 42 23.1	-2.7
THZ	Tophouse	3.72	271	*e*P	Pn	18 42 25.1	-0.7
THZ	Tophouse	3.72	271	PN	Pn	18 42 25.1	-0.8
RAEZ	Rainy Point	3.74	314	P	Pn	18 42 27.5	+1.3
RAEZ	Rainy Point	3.74	314	PN	Pn	18 42 27.5	+1.3
PATZ	Paeroa	3.76	340	P	Pn	18 42 24.9	-1.5
TAZ	Tarawera	3.84	344	P	Pn	18 42 26.0	-1.5
PUZ	Puketiti	3.86	4	*e*P	Pn	18 42 23.7	-4.2
PUZ	Puketiti	3.86	4	PN	Pn	18 42 23.7	-4.1
NEZ	North Egmont	3.92	311	P	Pn	18 42 30.3	+1.7
NEZ	North Egmont	3.92	311	PN	Pn	18 42 30.3	+1.7
PKE	Pukeiti	4.03	311	P	Pn	18 42 31.5	+1.4
PKE	Pukeiti	4.03	311	PN	Pn	18 42 31.5	+1.4
HIZ	Hauiti	4.12	325	P	Pn	18 42 30.7	-0.7
HIZ	Hauiti	4.12	325	PN	Pn	18 42 30.7	-0.7
QRZ	Quartz Range	4.17	284	P	Pn	18 42 32.5	+0.4
QRZ	Quartz Range	4.17	284	PN	Pn	18 42 32.5	+0.4
MQZ	McQueen’s Vall	4.23	243	*e*P	Pn	18 42 31.5	-1.4
MQZ	McQueen’s Vall	4.23	243	PN	Pn	18 42 31.5	-1.4
LTZ	Lake Taylor	4.24	257	*e*P	Pn	18 42 31.9	-1.1
LTZ	Lake Taylor	4.24	257	PN	Pn	18 42 31.9	-1.1
DSZ	Denniston Nort	4.54	270	P	Pn	18 42 36.8	-0.3
DSZ	Denniston Nort	4.54	270	PN	Pn	18 42 36.8	-0.3
RPZ	Rata Peaks	5.33	248	*e*P	Pn	18 42 47.0	-0.9
RPZ	Rata Peaks	5.33	248	PN	Pn	18 42 47.0	-0.9
WVZ	Waitaha Valley	5.40	255	*e*P	Pn	18 42 48.6	-0.4
WVZ	Waitaha Valley	5.40	255	PN	Pn	18 42 48.6	-0.4
ODZ	Otahua Downs	6.11	237	*e*P	Pn	18 42 56.1	-2.6
ODZ	Otahua Downs	6.11	237	PN	Pn	18 42 56.1	-2.6
LBZ	Lake Benmore	6.14	244	*e*P	Pn	18 42 58.6	-0.5
LBZ	Lake Benmore	6.14	244	PN	Pn	18 42 58.6	-0.4
FOZ	Fox Glacier	6.25	252	*e*P	Pn	18 42 59.4	-1.1
FOZ	Fox Glacier	6.25	252	PN	Pn	18 42 59.4	-1.1
JCZ	Jackson Bay	7.02	249	*e*P	Pn	18 43 10.9	-0.3
JCZ	Jackson Bay	7.02	249	PN	Pn	18 43 10.9	-0.2
EAZ	Earnscleugh	7.04	239	*e*P	Pn	18 43 11.4	-0.1
EAZ	Earnscleugh	7.04	239	PN	Pn	18 43 11.4	-0.1
WKZ	Wanaka	7.07	243	*e*P	Pn	18 43 09.3	-2.6
TUZ	Tuapeka	7.18	233	*e*P	Pn	18 43 13.7	+0.3
TUZ	Tuapeka	7.18	233	PN	Pn	18 43 13.7	+0.3
MLZ	Mavora Lakes	7.82	241	*e*P	Pn	18 43 22.4	+0.2

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*ISCJB **07** 18:54:58.8±0.1, 17.76S±0.03×71.06W±0.03, h64^{km}, mb5.5/198, Error ellipse: s-maj=4.8km s-min=3.2km az=37.4*

*MOS **07** 18:54:59.6±1.0, 17.52S×71.21W, h64^{km}, mb5.7/79, MS4.9/11, Error ellipse: s-maj=9.0km s-min=5.5km az=82.0*

*BJI **07** 18:54:59.1, 17.07S×71.10W, h52^{km}, mB5.4, Ms5.4, Msz5.3*

*GCMT **07** 18:55:00.4±0.1, 17.92S×71.28W, h81^{km}±1^{km}, MW5.5/89, Moment Tensor Solution. s89,c164; s82,c145; Duration: 1^{s}.4 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.83±.04; $M_{\theta\theta}$-0.08±.04; $M_{\phi\phi}$0.90±.05; $M_{r\theta}$1.48±.02; $M_{\theta\phi}$-0.36±.04; $M_{\phi r}$-1.40±.03; Best double couple: $M_0$2.24300×10^{17} NP1:ϕ_s186.00000°, δ16.00000°, λ-42.00000°. NP2:ϕ_s316.00000°, δ79.00000°, λ-102.00000°. Principal axes: T 2.2240, Plg33.0000°, Azm57.0000°; N 0.0370, Plg12.0000°, Azm319.0000°; P -2.2610, Plg54.0000°, Azm211.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*LDG **07** 18:55:00.8±0.3, 17.39S×70.84W, h62^{km}, Mb5.4/35, Ms4.7/9 Error ellipse: s-maj=20.3km s-min=9.7km az=43.0*

*IDC **07** 18:55:00.5±0.4, 17.67S×70.98W, h67^{km}±2^{km}, mb4.7/27, mb1 4.8/31, mb1mx4.8/32, mbtmp4.7/31, MS4.5/21, Ms1 4.5/21, ms1mx4.4/24, Error ellipse: s-maj=14.3km s-min=9.1km az=61.0*

*NEIC **07** 18:55:00.4±0.1, 17.71S×71.08W, mb5.5/158, MW5.4, Error ellipse: s-maj=4.7km s-min=3.5km az=41.0, Moment Tensor Solution. s7 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.19; $M_{\theta\theta}$0.57; $M_{\phi\phi}$-0.37; $M_{r\theta}$1.27; $M_{\theta\phi}$-0.46; $M_{\phi r}$-1.04; Best double couple: $M_0$1.70000×10^{17} NP1:ϕ_s67.00000°, δ15.00000°, λ-155.00000°. NP2:ϕ_s313.00000°, δ84.00000°, λ-76.00000°. Principal axes: T 1.9500, Plg37.0000°, Azm31.0000°; N -0.4300, Plg14.0000°, Azm131.0000°; P -1.5300, Plg49.0000°, Azm238.0000°;*

NEIC Felt [IV] at Arequipa, [III] at Ilo and [II] at Mollendo. Felt at Pacocha and Tacna. Also felt [IV] at Arica and Putre; [III] at Iquique; [II] at Maria Elena and Tocopilla, Chile. Felt at La Paz, Bolivia.

*SZGRF **07** 18:55:10.2, 16.89S×68.80W, h65^{km}, mb5.7, Peru-Bolivia border region*

ISC 07 18:55:00.8±0.1**, 17.76S**±0.03×**70.99W**±0.03**, h66**^{km}**, h66**^{km}±.4^{km}**:pP-P, n854,** σ**0^{s}.78**/696**, mb5.3**/196**, 136C-107D, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARE	Arequipa	1.38	340	⇓*i*P	Pn	18 55 24.0	0.0
ARE				*e*S	Sn	18 55 42.0	+0.5

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LPAZ  La Paz              3.10  62   Pn     Pn     18 55 53.4 +6.1
LPAZ  La Paz              3.10  62⇑ ePn     Pn     18 55 53.5 +6.2
LPAZ  La Paz              3.10  62⇑ eP      Pn     18 55 53.6 +6.3
LPAZ  La Paz              3.10  62   P      Pn     18 55 53.5 +6.2
      99nm,0.3s,baz=248,slow=10,SNR=2416
LPAZ                                 S      Sn     18 56 34.2  +11
      30nm,0.3s,baz=281,slow=7.9,SNR=4.1
LPAZ                                 LR     LR     18 57 00.8
      comp=Z,6µm,20.5s,baz=158,slow=39
CEN1  Los Morros          5.65 173⇓ eP      Pn     18 56 20.7 -1.4
CEN1                                i S     Sn     18 57 19.1 -6.5
ANCH  Antofagasta         5.92 175  eP      Pn     18 56 21.8 -4.0
ANCH                                i S     Sn     18 57 20.9  -11
ANCH  Antofagasta         5.92 175  eP      Pn     18 56 21.8 -4.0
ANCH                                i S     Sn     18 57 20.6  -12
CPN1  Cerro Paranal       6.85 176⇓ iP      Pn     18 56 34.6 -4.0
CPN1                                i S     Sn     18 57 44.5  -11
NNA   Nana                8.06 315  ePn     Pn     18 56 52.3 -2.9
      257nm,0.8s
NNA   Nana                8.06 315   P      Pn     18 56 53.5 -1.7
      10nm,0.3s,baz=138,slow=9.7,SNR=15
NNA                                  S      Sn     18 58 26.1 +1.2
      26nm,0.3s,baz=188,slow=16,SNR=3.0
NNA                                  LR     LR     19 00 12.3
      comp=Z,2µm,20.9s,baz=159,slow=39
SIV   San Ignacio         9.65  81   P      Pn     18 57 17.1 +0.1
      12nm,0.3s,baz=269,slow=11,SNR=250
SIV                                  S      Sn     18 59 00.9 -3.0
      2.3nm,0.3s,baz=316,slow=18,SNR=1.8
LCO   Las Campanas       11.20 179  ePn     Pn     18 57 33.7 -4.3
      102nm,0.9s
LCO                                 eSn     Sn     18 59 32.4 -9.2
TLL   Tololo Astrono     12.35 179⇓ eP      Pn     18 57 53.1 -0.6
TLL   Tololo Astrono     12.35 179  eP      Pn     18 57 48.7 -5.0
ATAH  Atahualpa          12.91 325   P      Pn     18 58 00.3 -1.1
      0.5nm,0.3s,baz=119,slow=16,SNR=4.0
ATAH                                 LR     LR     19 03 43.3
      comp=Z,1µm,19.2s,baz=140,slow=41
CFAA  Coronel Fontan     14.01 170   P      Pn     18 58 16.2 +0.2
      0.2nm,0.3s,baz=343,slow=13,SNR=55
CFAA                                 LR     LR     19 03 41.1
      comp=Z,308nm,21.7s,baz=352,slow=37
FCH   Farellones         15.51 178  eP      Pn     18 58 32.3 -3.3
NICH  Los Niches         17.17 181  eP      Pn     18 58 54.4 -1.9
CCHI  Chillan            18.79 183  eP      Pn     18 59 13.5 -2.5
ROSC  El Rosal           22.71 351  eP      P      18 59 55.8 -1.4
ROSC  El Rosal           22.71 351   P      P      18 59 55.3 -1.9
      17nm,0.5s,mb4.6,baz=92,slow=10,SNR=14
ROSC                                 LR     LR     19 09 46.1
      comp=Z,2µm,20.4s,baz=189,slow=39
CAM4  Nova Friburgo      27.07 104⇓ iP      P      19 00 38.1 +0.8
CAM4                                i              19 00 39.4
CAM4                                i              19 00 46.3
CAM4                                i              19 00 59.0
BCIP  Isla Barro Col     28.15 341   P      P      19 00 47.4 +0.4
PCRV  Puerto La Cruz     28.46  13   P      P      19 00 48.2 -1.5
      25nm,0.8s,mb4.8,baz=35,slow=0.8,SNR=6.2
PCRV                                 LR     LR     19 13 09.3
      comp=Z,6µm,18.1s,baz=13,slow=38
JTS   JuntasAbangare     31.10 333   P      P      19 01 13.5 +0.4
      3.9nm,0.8s,mb4.2,baz=269,slow=21,SNR=2.1
GRGR  Grenville          31.10  18  eP      P      19 01 11.8 -1.2
TBG   Guadaloupe-3       34.65  16  eP      P      19 01 40.5 -3.5
HMG   Houelmont          34.76  16  eP      P      19 01 41.9 -3.1
MGG   Marie-Galante      34.80  16  eP      P      19 01 40.9 -4.4
DEG   La Desirade        35.24  17  eP      P      19 01 44.9 -4.3
TGUH  Tegucigalpa,Un     35.47 332  eP      P      19 01 48.9 -2.2
      101nm,1.0s,mb5.6
CPD   Cerro la Pandu     35.92   8  eP      P      19 01 52.3 -2.7
CPD   Cerro la Pandu     35.92   8   P      P      19 01 52.6 -2.3
SJG   San Juan           35.96   8  eP      P      19 01 52.4 -2.9
      140nm,0.9s,mb5.9
SJG   San Juan           35.96   8   P      P      19 01 52.8 -2.5
SJG                                  pmax   pmax
      comp=Z,140nm,1.0s
MTP   Monte Pirata       36.03   9  eP      P      19 01 52.5 -3.4
RCBR  Riachuelo          36.26  75  eP      P      19 01 58.3 +0.3
      comp=Z,105nm,0.8s,mb5.8
SDDR  Presa de Saban     36.52 360  eP      P      19 01 58.0 -2.0
      comp=Z,74nm,1.3s,mb5.5
RPN   Rapa Nui           36.52 248   P      P      19 01 58.1 -2.0
      comp=Z,36nm,0.8s,mb5.4,baz=74,slow=7.4,SNR=3.0
USHA  Ushuaia            37.05 178   P      P      19 02 04.3 +0.1
      comp=Z,70nm,0.8s,mb5.6,baz=355,slow=5.5,SNR=17
TEIG  Tepich             41.39 335  eP      P      19 02 40.0 -0.7
      comp=Z,209nm,1.5s,mb5.7
TEIG  Tepich             41.39 335   P      P      19 02 39.7 -1.0
      comp=Z,15nm,0.6s,mb5.0,baz=154,slow=4.0,SNR=10
TEIG                                 pP     pP     19 02 56.7 -0.4
      comp=Z,34nm,0.8s,baz=162,slow=7.5,SNR=6.7
TEIG                                 LR     LR     19 19 23.3
      comp=Z,488nm,21.9s,baz=333,slow=35
CMIG  Matias Romero      41.87 325   P      P      19 02 43.6 -1.0
      comp=Z,11nm,1.0s,mb4.5,baz=137,slow=5.1,SNR=6.7
CMIG                                 pP     pP     19 03 01.5 +0.4
      comp=Z,17nm,0.9s,baz=136,slow=4.8,SNR=6.6
IIO   Organos            46.04 322  i P     P      19 03 19.3 +1.2
DWPF  Disney             46.71 347  eP      P      19 03 23.8 +0.6
      comp=Z,95nm,1.3s,mb5.4
PMSA  Palmer Station     47.21 176   P      P      19 03 27.2 +0.6
      comp=Z,78nm,1.0s,mb5.4
PMSA  Palmer Station     47.21 176   P      P      19 03 26.7 +0.1
      comp=Z,96nm,1.1s,mb5.5,baz=350,slow=7.4,SNR=7.1
BRAL  Brewton            50.89 342  eP      P      19 03 54.2 -1.1
      comp=Z,164nm,1.1s,mb6.0
BRAL                                epP     pP     19 04 12.0 -0.1
BRAL                                esP     sP     19 04 20.5 +1.0
NHSC  New Hope           51.34 350  eP      P      19 03 58.6 +0.1
      comp=Z,242nm,1.1s,mb6.1
NHSC                                epP     pP     19 04 14.7 -0.7
COW   Cow Castle Cre     51.69 350  eP      P      19 04 00.6 -0.5
COW                                 epP     pP     19 04 17.4 -0.7
KVTX  Kingsville         52.04 329  eP      P      19 04 04.5 +0.5
      comp=Z,220nm,1.2s,mb6.1
KVTX                                epP     pP     19 04 21.4 +0.6
GOGA  Godfrey            52.26 347  eP      P      19 04 04.2 -1.2
      comp=Z,41nm,1.0s,mb5.4
GOGA                                epP     pP     19 04 20.8 -1.6
GOGA  Godfrey            52.26 347  eP      P      19 04 04.3 -1.1
GOGA                                e*PP    pP     19 04 20.8 -1.6
GOGA                                 pmax   pmax
      comp=Z,41nm,1.0s,mb5.4
JSC   Jenkinsville       52.67 349  eP      P      19 04 08.1 -0.3
JSC                                 epP     pP     19 04 24.8 -0.6
LRAL  Lakeview Retre     52.78 343  eP      P      19 04 08.1 -1.2
      comp=Z,77nm,1.1s,mb5.7
LRAL                                epP     pP     19 04 24.6 -1.6
LHS   Liberty Hill       52.78 350  eP      P      19 04 09.3 +0.1
LHS                                 epP     pP     19 04 25.1 -1.1
CNNC  Cliffs of the      53.11 353  eP      P      19 04 10.7 -1.0
HKT   Hockley            53.14 333  eP      P      19 04 11.0 -0.9
      comp=Z,18nm,1.4s,mb4.9
HKT                                 epP     pP     19 04 28.4 -0.6
HKT   Hockley            53.14 333  eP      P      19 04 11.0 -0.9
HKT                                 e*PP    pP     19 04 28.4 -0.5
HKT                                  pmax   pmax
      comp=Z,18nm,1.4s,mb4.9
NATX  Nacogdoches        54.22 335  eP      P      19 04 20.1 +0.3
      comp=Z,342nm,1.7s,mb6.1
NATX                                epP     pP     19 04 36.2 -0.7
CPCT  Cooper Cave        54.45 346  eP      P      19 04 19.4 -2.0
CPCT                                epP     pP     19 04 36.8 -1.7
TKL   Tuckaleechee C     54.49 347   P      P      19 04 20.2 -1.5
      comp=Z,23nm,1.0s,mb5.2,baz=154,slow=9.4,SNR=10.0
TKL                                  pP     pP     19 04 37.2 -1.6
      comp=Z,44nm,0.9s,baz=169,slow=8.5,SNR=9.7
SWET  Sewanee            54.56 345  eP      P      19 04 20.7 -1.6
SWET                                epP     pP     19 04 37.4 -1.9
OXF   Oxford             54.86 341  eP      P      19 04 22.2 -2.2
      comp=Z,56nm,1.3s,mb5.4
OXF                                 epP     pP     19 04 38.5 -3.0
OXF   Oxford             54.86 341   P      P      19 04 23.0 -1.4
OXF                                 e       pP     19 04 39.4 -2.1
OXF                                  pmax   pmax
      comp=Z,140nm,1.0s,mb6.0
PLAL  Pickwick Lake      54.91 343  eP      P      19 04 22.2 -2.5
      comp=Z,41nm,1.0s,mb5.4
PLAL                                epP     pP     19 04 38.8 -3.0
PLAL                                esP     sP     19 04 47.8 -1.4
BLA   Blacksburg         55.40 351  eP      P      19 04 28.8 +0.5
      comp=Z,407nm,1.5s,mb6.2
BLA                                 epP     pP     19 04 44.9 -0.4
BLA   Blacksburg         55.40 351  eP      P      19 04 28.8 +0.6
BLA                                 e*PP    pP     19 04 44.9 -0.4
BLA                                  pmax   pmax
      comp=Z,407nm,1.5s,mb6.2
JCT   Junction City      55.40 330  eP      P      19 04 27.1 -1.3
      comp=Z,70nm,1.1s,mb5.6
JCT                                 epP     pP     19 04 44.5 -1.1
JCT   Junction City      55.40 330  eP      P      19 04 27.1 -1.3
JCT                                 e*PP    pP     19 04 44.5 -1.0
JCT                                  pmax   pmax
      comp=Z,70nm,1.1s,mb5.6
ELN   Prospectdale       55.46 351  eP      P      19 04 28.8 +0.1
ELN                                 epP     pP     19 04 45.3 -0.5
WVT   Waverly            55.92 344  eP      P      19 04 29.8 -2.1
      comp=Z,62nm,1.0s,mb5.6
WVT                                 epP     pP     19 04 46.1 -3.0
WVT                                 esP     sP     19 04 54.8 -1.7
WVT   Waverly            55.92 344  eP      P      19 04 29.8 -2.2
WVT                                 e*PP    pP     19 04 46.1 -3.0
WVT                                 e*SP    sP     19 04 54.8 -1.7
WVT                                  pmax   pmax
      comp=Z,62nm,1.0s,mb5.6
UALR  University of      56.05 339  eP      P      19 04 31.2 -1.8
      comp=Z,33nm,1.1s,mb5.3
UALR                                epP     pP     19 04 48.7 -1.4
HALT  Halls              56.14 342  epP     pP     19 04 47.6 -3.1
MIAR  Mount Ida          56.28 338  eP      P      19 04 33.1 -1.5
      comp=Z,124nm,1.0s,mb5.9
MIAR                                epP     pP     19 04 49.2 -2.5
MIAR  Mount Ida          56.28 338  eP      P      19 04 33.1 -1.5
MIAR                                e*PP    pP     19 04 49.2 -2.5
MIAR                                 pmax   pmax
      comp=Z,124nm,1.0s,mb5.9
UTMT  University of      56.40 343  epP     pP     19 04 50.9 -1.7
      comp=Z,201nm,1.0s
LTX   Lajitas            56.45 326  eP      P      19 04 34.8 -1.2
      comp=Z,14nm,1.2s,mb4.9
LTX                                 epP     pP     19 04 52.0 -1.1
LTX   Lajitas            56.45 326  eP      P      19 04 34.8 -1.2
LTX                                 e*PP    pP     19 04 52.0 -1.1
LTX                                  pmax   pmax
      comp=Z,14nm,1.2s,mb4.9
TXAR  Lajitas Array      56.45 326   P      P      19 04 34.5 -1.4
TXAR                                 pP     pP     19 04 51.9 -1.2
TXAR                                 LR     LR     19 26 15.2
TXAR  Lajitas Array      56.45 326   P      P      19 04 34.5 -1.5
TXAR                                 *PP    pP     19 04 51.9 -1.2
TXAR  Lajitas Array      56.45 326   P      P      19 04 34.5 -1.4
      comp=Z,5.2nm,0.8s,mb4.6,baz=147,slow=8.5,SNR=45
TXAR                                 pP     pP     19 04 51.9 -1.2
      comp=Z,15nm,1.1s,baz=148,slow=7.4,SNR=15
TXAR                                 LR     LR     19 26 15.2
      comp=Z,171nm,21.8s,baz=355,slow=33
LPIG  La Paz             56.59 316   P      P      19 04 36.1 -0.9
LPIG                                 pP     pP     19 04 55.0 +0.8
LPIG  La Paz             56.59 316   P      P      19 04 36.1 -0.9
      comp=Z,21nm,0.4s,mb5.6,baz=104,slow=4.2,SNR=7.0
LPIG                                 pP     pP     19 04 55.0 +0.8
      comp=Z,13nm,0.4s,baz=17,slow=11,SNR=1.5
PARMO Parma              56.96 342  eP      P      19 04 38.3 -1.1
PARMO                               epP     pP     19 04 55.2 -1.3
PARMO                               esP     sP     19 05 03.0 -0.9
SDMD  Soldier's Deli     57.13 355  eP      P      19 04 39.9 -0.7
WCI   Wyandotte Cave     57.52 346  eP      P      19 04 41.6 -1.7
      comp=Z,24nm,0.8s,mb5.3
WCI                                 epP     pP     19 04 58.5 -2.0
WCI                                 esP     sP     19 05 06.5 -1.4
WCI   Wyandotte Cave     57.52 346  eP      P      19 04 41.6 -1.7
WCI                                 e*PP    pP     19 04 58.5 -2.0
WCI                                 e*SP    sP     19 05 06.5 -1.4
WCI                                  pmax   pmax
      comp=Z,24nm,0.8s,mb5.3
USIN  University of      57.60 344  eP      P      19 04 42.5 -1.4
      comp=Z,31nm,0.6s,mb5.5
USIN                                epP     pP     19 04 59.0 -2.1
USIN                                esP     sP     19 05 07.7 -0.8
MVL   Millersville       57.68 355  eP      P      19 04 44.0 -0.4
MVL                                 esP     sP     19 05 09.3 +0.3
MCWV  Mont Chateau       57.72 352  eP      P      19 04 44.5 -0.1
      comp=Z,211nm,0.9s,mb6.2
MCWV                                epP     pP     19 05 01.4 -0.5
SIUC  Southern Illin     57.78 343  eP      P      19 04 43.5 -1.7
      comp=Z,324nm,0.9s,mb6.4
SIUC                                epP     pP     19 05 00.8 -1.6
SIUC                                esP     sP     19 05 09.8  0.0
FVM   French Village     58.38 342  eP      P      19 04 48.1 -1.3
      comp=Z,114nm,0.9s,mb5.9
FVM                                 epP     pP     19 05 05.6 -1.0
FVM   French Village     58.38 342  eP      P      19 04 48.1 -1.2
FVM                                 e*PP    pP     19 05 05.6 -1.0
FVM                                  pmax   pmax
      comp=Z,114nm,0.9s,mb5.9
SSPA  Standing Stone     58.45 354  eP      P      19 04 48.8 -1.0
      comp=Z,272nm,1.6s,mb6.0
BLO   Bloomington        58.47 346  eP      P      19 04 47.7 -2.2
      comp=Z,12nm,0.5s,mb5.2
BLO                                 epP     pP     19 05 04.4 -2.8
BLO                                 esP     sP     19 05 13.1 -1.4
BLO   Bloomington        58.47 346   P      P      19 04 48.7 -1.2
BLO                                 e       pP     19 05 05.4 -1.8
BLO                                  pmax   pmax
      comp=Z,67nm,1.0s,mb5.6
WMOK  Wichita Mounta     58.52 333  eP      P      19 04 48.6 -1.7
      comp=Z,48nm,1.1s,mb5.4
WMOK                                epP     pP     19 05 05.3 -2.3
WMOK  Wichita Mounta     58.52 333  eP      P      19 04 48.7 -1.6
WMOK                                e*PP    pP     19 05 05.3 -2.3
WMOK                                 pmax   pmax
      comp=Z,48nm,1.1s,mb5.4
PAL   Palisades          58.53 357  eP      P      19 04 48.4 -1.9
      comp=Z,60nm,1.3s,mb5.5
PAL   Palisades          58.53 357   P      P      19 04 49.7 -0.6
PAL                                  pmax   pmax
      comp=Z,60nm,1.2s,mb5.5
ACSO  Alum Creek Sta     58.77 349  eP      P      19 04 50.2 -1.7
      comp=Z,161nm,1.0s,mb6.0
ACSO                                epP     pP     19 05 07.0 -2.2
ACSO                                esP     sP     19 05 16.1 -0.5
SLM   Saint Louis        58.93 342  eP      P      19 04 51.0 -2.1
      comp=Z,157nm,1.3s,mb5.9
SLM                                 epP     pP     19 05 08.7 -1.7
SLM   Saint Louis        58.93 342  eP      P      19 04 51.0 -2.1
SLM                                 e*PP    pP     19 05 08.7 -1.7
SLM                                  pmax   pmax
      comp=Z,157nm,1.3s,mb5.9
MNTX  Cornudas Mount     59.22 326  eP      P      19 04 53.2 -2.1
      comp=Z,74nm,1.3s,mb5.5
MNTX                                epP     pP     19 05 11.0 -1.5
ALLY  Alegheny Colle     59.71 352  eP      P      19 04 58.5  0.0
ALLY                                epP     pP     19 05 15.5 -0.3
RKT   Rikitea            59.79 253  eS      S      19 13 06.4 +0.2
      comp=Z,294nm,32.0s
RKT                                 eLQ            19 20 07.5
      comp=Z,453nm,35.0s
RKT                                 eLR     LR     19 22 33.4
      comp=Z,1µm,30.8s
BINY  Binghamton         59.84 356  eP      P      19 04 59.1 -0.2
      comp=Z,150nm,0.9s,mb6.0
BINY                                epP     pP     19 05 16.0 -0.6
HRV   Harvard--Oak R     59.97 360  eP      P      19 04 59.8 -0.4
      comp=Z,102nm,0.9s,mb5.8
HRV   Harvard--Oak R     59.97 360   P      P      19 05 00.0 -0.2
HRV                                 e       pP     19 05 16.3 -1.2
HRV                                  pmax   pmax
      comp=Z,100nm,1.0s,mb5.8
HDIL  Hopedale           60.47 344  eP      P      19 05 01.2 -2.5
      comp=Z,86nm,0.8s,mb5.8
HDIL                                epP     pP     19 05 18.4 -2.6
HDIL                                esP     sP     19 05 26.4 -1.9
ACCN  Adirondack Com     60.89 358  eP      P      19 05 06.4 -0.1
ACCN                                epP     pP     19 05 22.0 -1.8
AAM   Ann Arbor          60.89 349   P      P      19 05 05.9 -0.7
AAM   Ann Arbor          60.89 349   P      P      19 05 04.1 -2.4
KSU1  Kansas State U     61.44 337  eP      P      19 05 08.5 -1.7
      comp=Z,8.6nm,0.6s,mb5.0
KSU1                                epP     pP     19 05 26.0 -1.6
NCB   Newcomb            61.50 357  eP      P      19 05 10.0 -0.5
      comp=Z,56nm,1.2s,mb5.5
LBNH  Lisbon             61.70 359  eP      P      19 05 12.0  0.0
      comp=Z,77nm,1.0s,mb5.7
LBNH  Lisbon             61.70 359   P      P      19 05 12.5 +0.6
LBNH                                 pmax   pmax
      comp=Z,77nm,1.0s,mb5.7
BNM   Barren Site        61.78 327  eP      P      19 05 12.5 -0.2
BNM                                 epP     pP     19 05 30.2 +0.1
LPM   Los Pinos Moun     61.91 327  eP      P      19 05 12.8 -0.8
LPM                                 epP     pP     19 05 30.7 -0.2
LENM  Lemitar            61.98 327  eP      P      19 05 13.9 -0.1
LENM                                epP     pP     19 05 30.8 -0.6
LONY  Lake Ozonia        62.16 357  eP      P      19 05 14.9 -0.1
      comp=Z,57nm,0.9s,mb5.6
LAZ   Ladron             62.24 327  eP      P      19 05 15.9 +0.1
LAZ                                 epP     pP     19 05 32.9 -0.3
ANMO  Albuquerque        62.32 327  eP      P      19 05 16.0 -0.3
      comp=Z,24nm,1.1s,mb5.1
ANMO  Albuquerque        62.32 327  eP      P      19 05 16.0 -0.3
ANMO                                 pmax   pmax
      comp=Z,24nm,1.1s
ANMO  Albuquerque        62.32 327   P      P      19 05 15.9 -0.4
      comp=Z,7.2nm,0.9s,mb4.7,baz=144,slow=7.9,SNR=10
FRNY  Flat Rock          62.34 358  eP      P      19 05 15.8 -0.4
FRNY                                epP     pP     19 05 41.8 +8.2
CBKS  Cedar Bluff        62.39 335  eP      P      19 05 15.6 -1.1
      comp=Z,234nm,1.5s,mb6.0
CBKS                                epP     pP     19 05 33.0 -1.1
CBKS  Cedar Bluff        62.39 335  eP      P      19 05 15.6 -1.1
CBKS                                e*PP    pP     19 05 33.0 -1.1
CBKS                                 pmax   pmax
      comp=Z,234nm,1.5s,mb6.0
MSNY  Massena            62.55 357  eP      P      19 05 17.5 -0.1
MSNY                                epP     pP     19 05 34.5 -0.5
SADO  Sadowa             62.67 353   P      P      19 05 17.6 -0.8
      baz=190,slow=8.8
SADO                                 pP     pP     19 05 35.1 -0.7
SADO                                 sP     sP     19 05 42.8 -0.3
TUC   Tucson             62.70 322  eP      P      19 05 17.8 -1.0
      comp=Z,1.7nm,0.8s,mb4.0
TUC                                 epP     pP     19 05 35.1 -1.1
TUC   Tucson             62.70 322  eP      P      19 05 17.8 -1.1
TUC                                 e*PP    pP     19 05 35.2 -1.1
TUC                                  pmax   pmax
      comp=Z,2.0nm,0.8s,mb4.1
PKME  Peaks-Kenny Pk     62.74   1  eP      P      19 05 18.7 -0.2
      comp=Z,100nm,1.0s,mb5.7
SCIA  State Center       62.83 341  eP      P      19 05 17.6 -1.9
      comp=Z,17nm,0.4s,mb5.3
SCIA                                epP     pP     19 05 33.8 -3.1
116A  Eloy               63.42 322⇑  P      P      19 05 23.6 -0.1
      baz=64
115A  Sonoran Desert     63.82 322⇑  P      P      19 05 26.4 +0.1
      baz=64
VNA3  Neumayer Olymp     64.22 162  eP      P      19 05 28.6 +0.2
VNA3                                e              19 05 30.5
VNA3                                e       pP     19 05 48.6 +2.7
VNA3                                e              19 05 54.0
VNA1  Neumayer--Stat     64.44 161  eP      P      19 05 29.6 -0.2
VNA1                                e              19 05 31.0
VNA1                                e              19 05 55.4
Z14A  Wintersburg        64.72 322⇓  P      P      19 05 32.1  0.0
      baz=65
VNA2  Neumayer--Watz     64.81 161  eP      P      19 05 32.4 +0.2
      baz=277,slow=6.5
VNA2                                e              19 05 34.6
VNA2                                e       pP     19 05 51.6 +1.9
VNA2                                e              19 05 57.7
MVCO  Mesa Verde         65.11 328⇑  P      P      19 05 34.4 -0.2
      baz=65
X15A  Humboldt           65.11 323⇓  P      P      19 05 34.9 +0.2
      baz=65,SNR=6.4
Y14A  Wickenburg         65.16 322⇑  P      P      19 05 34.9 -0.1
      baz=65,SNR=5.7
WUAZ  Wupatki            65.37 324  eP      P      19 05 35.9 -0.4
      comp=Z,5.5nm,0.5s,mb4.6
WUAZ                                epP     pP     19 05 54.0 +0.2
WUAZ  Wupatki            65.37 324⇑  P      P      19 05 36.6 +0.3
      baz=66
X14A  Yava               65.47 323   P      P      19 05 37.0  0.0
      baz=66,SNR=8.6
Y13A  Salome             65.56 322⇓  P      P      19 05 37.5 -0.1
      baz=66
W15A  Williams           65.62 324⇓  P      P      19 05 38.5 +0.5
      baz=66
COWI  Conover            65.65 346  eP      P      19 05 36.6 -1.3
      comp=Z,94nm,1.3s,mb5.5
COWI                                epP     pP     19 05 53.9 -1.6
PV01  Paradox Valley     65.85 328  eP      P      19 05 39.7 +0.3
Y12C  Blythe             65.93 321⇑  P      P      19 05 40.0  0.0
      baz=66
PDMCI Parker Dam,Lak     66.08 322⇓  P      P      19 05 41.2 +0.2
      baz=66
X13A  Yucca              66.11 322   P      P      19 05 41.2 +0.1
      baz=66,SNR=6.1
W14A  Seligman           66.11 323⇑  P      P      19 05 41.5 +0.4
      baz=66,SNR=9.4
DVTC  Desert V Tower     66.14 319⇓  P      P      19 05 41.6 +0.2
      baz=66
SWSC  Sam W. Stewart     66.14 320⇓  P      P      19 05 41.5 +0.1
      baz=66
PV10  Paradox Valley     66.28 328   P      P      19 05 40.3 -1.8
PV10                                epP     pP     19 05 59.2 -0.4
BC3   Big Chuckw Mtn     66.42 320⇑  P      P      19 05 43.2  0.0
      baz=67,SNR=7.0
W13A  Hualapai Mount     66.49 323   P      P      19 05 44.1 +0.6
      baz=67,SNR=8.3
MONP  Monument Peak      66.50 319⇑  P      P      19 05 44.0 +0.3
      baz=67
IRM   Iron Mountain      66.58 321   P      P      19 05 44.4 +0.2
      baz=67,SNR=10
NEE2  Needles Airpor     66.69 322⇓  P      P      19 05 45.4 +0.5
      baz=67
109C  Camp Elliot, M     66.93 319⇓  P      P      19 05 46.4  0.0
      baz=67
BELC  Belle Mtn.         66.99 320⇓  P      P      19 05 47.1 +0.4
      baz=67
PFO   Pinyon Flat Ob     67.00 320  eP      P      19 05 47.6 +0.7
      comp=Z,9.5nm,1.2s,mb4.5
PFO                                 epP     pP     19 06 04.8 +0.4
PFO   Pinyon Flat Ob     67.00 320  eP      P      19 05 47.6 +0.8
PFO                                 e*PP    pP     19 06 04.8 +0.4
PFO                                  pmax   pmax
      comp=Z,10.0nm,1.2s,mb4.5
PFO   Pinyon Flat Ob     67.00 320   P      P      19 05 47.2 +0.4
      comp=Z,5.8nm,0.8s,mb4.5,baz=153,slow=5.0,SNR=9.9
PFO                                  pP     pP     19 06 05.5 +1.1
      comp=Z,11nm,0.9s,baz=116,slow=3.4,SNR=6.0
PFO   Pinyon Flat Ob     67.00 320⇑  P      P      19 05 47.1 +0.2
      baz=67
W12A  Cal Nev Ari        67.21 322⇓  P      P      19 05 48.1  0.0
      baz=67
GMRC  Granite Mounta     67.32 321   P      P      19 05 49.2 +0.4
      baz=68,SNR=10
T14A  Hurricane          67.44 324⇑  P      P      19 05 50.1 +0.6
      baz=68,SNR=7.2
MURC  Murrieta           67.46 319⇑  P      P      19 05 50.2 +0.5
      baz=68
V12A  Nelson             67.49 322⇑  P      P      19 05 50.0 +0.1
      baz=68,SNR=6.5
TAOE  Nuku Hiva Isla     67.58 268  eP      P      19 05 50.2 -0.8
      comp=Z,603nm,1.2s,mb6.3
TAOE  Nuku Hiva Isla     67.58 268  eLR     LR     19 26 16.9
      comp=Z,4µm,31.3s
BBRC  Big Bear Sol-O     67.73 320⇑  P      P      19 05 52.1 +0.7
      baz=68
HEC   Hector,Ludlow      67.75 321⇓  P      P      19 05 52.1 +0.5
      baz=68,SNR=5.2
U12A  Valley of Fire     67.81 323⇓  P      P      19 05 52.1 +0.3
      baz=68,SNR=9.8
T13A  Saint George       67.87 324⇓  P      P      19 05 52.8 +0.6
      baz=68
V11A  Goodsprings        67.91 322⇓  P      P      19 05 52.7 +0.2
      baz=68
TUQ   Turquoise Mtn.     67.92 322⇓  P      P      19 05 52.8 +0.2
      baz=68
EYMN  Ely                67.94 345  eP      P      19 05 50.9 -1.5
      comp=Z,94nm,1.1s,mb5.5
EYMN                                epP     pP     19 06 08.5 -1.5
CCUT  Cedar City         67.94 325  eP      P      19 05 53.5 +0.8
CCUT                                epP     pP     19 06 11.1 +0.8
S14A  Cedar City         67.99 325⇓  P      P      19 05 53.5 +0.6
      baz=68
CIS   Catalina Islan     68.08 318⇓  P      P      19 05 53.8 +0.1
      baz=68
T12A  Moapa              68.11 323⇑  P      P      19 05 54.1 +0.3
      baz=68
BFSC  Mount Baldy St     68.17 320⇑  P      P      19 05 54.3 +0.1
      baz=68
U11A  Corn Creek         68.29 323⇓  P      P      19 05 55.6 +0.7
      baz=68
GSC   Goldstone          68.36 321⇑  P      P      19 05 55.7 +0.4
      baz=68,SNR=6.6
SHOC  Shoshone           68.45 322⇑  P      P      19 05 55.9 -0.1
      baz=69
DECC  Green Verdugo      68.59 319⇓  P      P      19 05 57.0 +0.2
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      baz=69
EDW2  Edwards Air Fo     68.80 320 ⇓P     P        19 05 57.9 -0.2
      baz=69,SNR=6.2
MPU   Maple Canyon       68.83 328 eP     P        19 05 58.3 +0.1
      comp=Z,94nm,1.1s,mb5.5
MPU                                epP    pP       19 06 15.4 -0.4
U10A  Ash Meadows, A     68.84 322 ⇓P     P        19 05 58.7 +0.4
      baz=69
LRMC  Laurel Mountai     69.01 320 ⇓P     P        19 05 59.6 +0.2
      baz=69
NLU   North Lily Min     69.01 327 eP     P        19 05 59.4 +0.1
NLU                                epP    pP       19 06 17.4 +0.4
OSI   Osito Adit         69.08 319 ⇑P     P        19 05 59.7 -0.1
      baz=69
FURC  Furnace Creek,     69.18 322 ⇑P     P        19 06 00.8 +0.4
      baz=69,SNR=14
R12A  Pony Springs,      69.19 325 ⇓P     P        19 06 01.0 +0.6
      baz=69,SNR=17
EGOM  La Gomera          69.22  50  P     P        19 06 04.1 +3.3
      comp=Z,89nm,1.1s,mb5.5
BSC   Santa Cruz Isl     69.25 318 ⇑P     P        19 06 00.9  0.0
      baz=69
MPMC  Manual Prospec     69.28 321  P     P        19 06 01.2 +0.1
      baz=69,SNR=8.5
LIC   Lamto              69.31  76 eP     P        19 06 00.5 -1.3
      comp=Z,206nm,1.2s,mb5.5
LIC                                eMLR   MLR
      comp=Z,556nm,20.5s
LIC   Lamto              69.31  76 eP     P        19 06 01.0 -0.8
      comp=Z,217nm,1.2s,mb5.8
LIC   Lamto              69.31  76 eP     P        19 06 00.5 -1.3
      comp=Z,103nm,1.2s,mb5.5
LIC                                 LR    LR
      comp=Z,280nm,20.5s
S11A  Rachel             69.35 323 ⇓P     P        19 06 02.3 +0.9
      baz=70
AGMN  Agassiz Refuge     69.42 343 eP     P        19 06 00.3 -1.3
      comp=Z,17nm,0.8s,mb4.9
AGMN                               epP    pP       19 06 16.7 -2.6
TIC   Toumodi            69.47  76 eP     P        19 06 02.2 -0.6
      comp=Z,40nm,0.8s,mb5.3
DAC   Darwin (Calif)     69.49 321 eP     P        19 06 02.5 +0.1
      comp=Z,69nm,1.4s,mb5.3
DAC                                epP    pP       19 06 21.1 +1.1
DAC   Darwin (Calif)     69.49 321  P     P        19 06 02.5 +0.2
DAC                                 pmax  pmax
      comp=Z,69nm,1.4s,mb5.3
DUG   Dugway             69.57 327 ⇓P     P        19 06 03.0 +0.2
      baz=70,SNR=5.1
ISA   Isabella           69.61 320 ⇓P     P        19 06 03.3 +0.2
      baz=70,SNR=14
KIC   Kosan Boka         69.63  76 eP     P        19 06 03.0 -0.7
      comp=Z,618nm,1.1s,mb6.3
CCAN  Las Canadas        69.69  50  P     P        19 06 05.3 +1.5
      comp=Z,20nm,0.8s,mb5.0
TRCR  Troy Canyon        69.75 324 eP     P        19 06 04.1 +0.2
TRCR                               epP    pP       19 06 21.9 +0.4
Q12A  Willow Creek R     69.81 325 ⇑P     P        19 06 04.6 +0.3
      baz=70,SNR=7.4
GRAC  Grapevine Rang     69.84 322 ⇑P     P        19 06 05.4 +0.9
      baz=70
CWC   Cottonwood Cre     69.89 321 ⇑P     P        19 06 05.3 +0.5
      baz=70,SNR=5.0
PDAR  Pinedale Array     69.91 331  P     P        19 06 04.8  0.0
      comp=Z,4.3nm,0.7s,mb4.4,baz=185,slow=9.8,SNR=2.1
PDAR                                pP    pP       19 06 22.6 +0.2
      comp=Z,29nm,1.2s,baz=149,slow=6.9,SNR=4.8
PDAR                                PKPPKP         19 34 07.0
      comp=Z,1.3nm,1.1s,baz=323,slow=2.2,SNR=6.6
PDAR                                LR    LR       19 37 36.2
      comp=Z,257nm,21.3s,baz=142,slow=37
PKM   Peak Mountain      69.94 319 ⇓P     P        19 06 05.5 +0.3
      baz=70,SNR=9.5
S10A  Tonopah Range,     70.02 323 ⇑P     P        19 06 05.9 +0.3
      baz=70,SNR=12
VES   Vestal, Richgr     70.10 320 ⇑P     P        19 06 06.2 +0.1
      baz=70
R10A  Warm Springs       70.11 323 ⇑P     P        19 06 07.1 +1.0
      baz=70,SNR=15
Q11A  Duckwater          70.13 324  P     P        19 06 06.8 +0.6
      baz=70,SNR=16
P12A  McGill             70.17 325 ⇑P     P        19 06 06.9 +0.5
      baz=70,SNR=15
BGU   Big Grassy Mou     70.22 327 eP     P        19 06 06.6 -0.1
BGU                                epP    pP       19 06 23.5 -0.9
S09A  Goldfield          70.25 323 ⇓P     P        19 06 07.0  0.0
      baz=70,SNR=18
SMMC  Simmler            70.32 319 ⇓P     P        19 06 07.8 +0.3
      baz=70
TIN   Tinemaha           70.39 321 ⇓P     P        19 06 08.2 +0.4
      baz=70
TPH   Tonopah            70.49 323 eP     P        19 06 09.3 +0.9
      comp=Z,65nm,1.3s,mb5.3
TPH                                epP    pP       19 06 26.4 +0.3
TPH   Tonopah            70.49 323 eP     P        19 06 09.4 +1.0
TPH                                e*PP   pP       19 06 26.4 +0.3
TPH                                 pmax  pmax
      comp=Z,65nm,1.3s,mb5.3
RCTC  Rector, Farmer     70.50 320 ⇑P     P        19 06 08.4 -0.1
      baz=71
R09A  Tonopah            70.51 323 ⇑P     P        19 06 09.0 +0.5
      baz=71
HELL  Mitchell Peak,     70.61 321  P     P        19 06 09.3 +0.1
      baz=71,SNR=13
O12A  Currie             70.64 326 ⇑P     P        19 06 09.6 +0.3
      baz=71,SNR=9.7
S08C  White Mtn Res      70.65 322 ⇑P     P        19 06 10.0 +0.6
      baz=71,SNR=5.8
P11A  Circle Ranch,      70.68 325 ⇑P     P        19 06 09.9 +0.3
      baz=71
N13A  Wendover, West     70.78 327 ⇑P     P        19 06 10.1 -0.1
      baz=71
MTUM  Tungsten Hills     70.79 321 eP     P        19 06 10.9 +0.6
MTUM                               epP    pP       19 06 28.5 +0.6
MAIT  Maitri             70.97 160 eP     P        19 06 10.1 -0.8
Q09A  Carvers            70.98 323 ⇓P     P        19 06 11.6 +0.2
      baz=71
NVL   N'lazarevskaya     71.00 160d iP    P        19 06 12.2 +1.1
NVL                                 pmax  pmax
      comp=E,51nm,1.3s
NVL                                 pmax  pmax
      comp=Z,122nm,1.3s,mb5.6
O11A  Cowboy Ranch,      71.04 325 ⇑P     P        19 06 11.8 +0.1
      baz=71,SNR=12
PKD   Parkfield          71.07 319 ⇑P     P        19 06 11.9 -0.1
      baz=71,SNR=5.5
V04C  Ramage Ranch,      71.08 319 ⇓P     P        19 06 12.1 +0.1
      baz=71
P10A  Eureka             71.12 324 ⇓P     P        19 06 12.9 +0.7
      baz=71,SNR=6.2
M13A  Montello           71.12 327 ⇑P     P        19 06 11.9 -0.3
      baz=71
MLAC  Mammoth Lakes      71.13 322 ⇓P     P        19 06 13.0 +0.6
      baz=71
ULM   Lac du Bonnet      71.19 343 eP     P        19 06 10.5 -1.9
      comp=Z,92nm,1.0s,mb5.6
ULM                                epP    pP       19 06 28.0 -2.1
ULM   Lac du Bonnet      71.19 343  P     P        19 06 10.2 -2.2
      comp=Z,13nm,0.6s,mb5.0,baz=164,slow=6.1,SNR=18
ULM                                 pP    pP       19 06 29.0 -1.1
      comp=Z,37nm,0.8s,baz=154,slow=6.4,SNR=10
ULM                                 sP    sP       19 06 35.7 -1.7
      comp=Z,33nm,0.8s,baz=178,slow=5.0,SNR=7.2
ULM                                 LR    LR       19 42 28.9
      comp=Z,187nm,18.4s,baz=125,slow=40
KCC   Kaiser Creek       71.22 321 ⇑P     P        19 06 13.1 +0.2
      baz=71
N12A  Clover Valley,     71.22 326 ⇓P     P        19 06 12.7 -0.1
      baz=71
T06C  Millerton Lake     71.24 321 ⇓P     P        19 06 12.9 -0.2
      baz=71
ELK   Elko               71.25 326 eP     P        19 06 13.2 +0.2
      comp=Z,19nm,1.4s,mb4.7
ELK                                epP    pP       19 06 30.7  0.0
ELK   Elko               71.25 326  P     P        19 06 13.5 +0.5
ELK                                e      pP       19 06 31.2 +0.5
ELK                                e               19 06 38.8
ELK                                 pmax  pmax
      comp=Z,60nm,1.3s
NVAR  Mina Array Bea     71.35 322  P     P        19 06 13.4 -0.2
      comp=Z,6.6nm,0.9s,mb4.5,baz=135,slow=7.4,SNR=32
NVAR                                pP    pP       19 06 31.4 -0.1
      comp=Z,12nm,0.8s,baz=136,slow=7.2,SNR=16
Q08A  Gabbs              71.43 323 ⇑P     P        19 06 14.5 +0.4
      baz=72
P09A  Austin             71.45 324 ⇓P     P        19 06 14.6 +0.4
      baz=72
U04C  Hernandez Rese     71.48 319 ⇓P     P        19 06 14.9 +0.4
      baz=72,SNR=6.0
K14A  Jones Ranch, D     71.49 328 ⇑P     P        19 06 14.5 +0.1
      baz=72
L13A  Double Diamond     71.54 328 ⇓P     P        19 06 14.9 +0.2
      baz=72,SNR=8.7
V03C  Hunter Liggett     71.55 319 ⇓P     P        19 06 15.4 +0.5
      baz=72
M12A  Wells              71.56 327 ⇓P     P        19 06 14.4 -0.4
      baz=72,SNR=6.5
N11A  Elko Archery C     71.56 326 ⇓P     P        19 06 14.8 -0.1
      baz=72
O10A  Cortez Mining,     71.61 325 ⇓P     P        19 06 15.5 +0.4
      baz=72,SNR=8.3
LRV   Little Rabbit      71.67 319 eP     P        19 06 16.8 +1.1
LRV                                epP    pP       19 06 34.6 +1.2
T05C  Eagle Field, D     71.76 320 ⇓P     P        19 06 16.6 +0.5
      baz=72
S05C  Merced             71.84 320 ⇑P     P        19 06 17.0 +0.3
      baz=72,SNR=7.7
O09A  Fish Creek Ran     71.91 324 ⇓P     P        19 06 17.1 +0.1
      baz=72
N10A  Dunphy             71.91 325 ⇑P     P        19 06 16.9 -0.1
      baz=72
HAST  UC Hastings Re     71.98 319 ⇓P     P        19 06 17.9 +0.4
      baz=72
K13A  Stover Farm, H     72.02 328 ⇓P     P        19 06 17.6  0.0
      baz=72
M11A  Holland Ranch,     72.03 326  P     P        19 06 18.1 +0.4
      baz=72,SNR=17
P08A  Dixie Valley       72.08 324 ⇓P     P        19 06 18.5 +0.5
      baz=72,SNR=6.2
R06C  Coleville          72.09 322 ⇓P     P        19 06 18.7 +0.7
      baz=72,SNR=7.0
BMN   Battle Mountai     72.10 325 epP    pP       19 06 36.5 +0.6
      comp=Z,15nm,1.1s
L12A  House Creek Ra     72.13 327 ⇑P     P        19 06 18.5 +0.3
      baz=72,SNR=13
PACP  Pacheco Peak       72.21 320 ⇑P     P        19 06 19.4 +0.5
      baz=72
CMB   Columbia Colle     72.32 321 eP     P        19 06 19.6 +0.1
      comp=Z,38nm,1.3s,mb5.1
CMB                                epP    pP       19 06 37.2 -0.1
CMB   Columbia Colle     72.32 321 eP     P        19 06 19.6 +0.1
CMB                                e*PP   pP       19 06 37.2 -0.1
CMB                                 pmax  pmax
      comp=Z,38nm,1.3s,mb5.1
CMB   Columbia Colle     72.32 321 ⇑P     P        19 06 19.7 +0.2
      baz=72
SCHQ  Schefferville      72.39   3 eP     P        19 06 17.6 -1.9
      comp=Z,54nm,1.1s,mb5.3
SCHQ                               epP    pP       19 06 35.5 -1.8
SCHQ  Schefferville      72.39   3  P     P        19 06 18.3 -1.2
      comp=Z,13nm,0.9s,mb4.8,baz=195,slow=4.0,SNR=15
SCHQ                                pP    pP       19 06 36.2 -1.0
      comp=Z,16nm,0.9s,baz=194,slow=7.7,SNR=5.5
SCHQ                                LR    LR       19 35 47.2
      comp=Z,407nm,20.6s,baz=226,slow=34
QSPA  South Pole Qui     72.41 180 eP     P        19 06 19.7 +0.3
      comp=Z,140nm,1.2s,mb5.7
K12A  Draper Farm, C     72.42 328  P     P        19 06 20.7 +0.7
      baz=73,SNR=15
M10A  I.L. Ranch, Tu     72.49 326 ⇑P     P        19 06 20.7 +0.3
      baz=73,SNR=5.7
L11A  Cat Creek Ranc     72.53 327 ⇓P     P        19 06 21.2 +0.6
      baz=73,SNR=15
S04C  Ingram Canyon,     72.55 320 ⇑P     P        19 06 21.1 +0.3
      baz=73
N09A  Rock Creek Ran     72.56 325 ⇑P     P        19 06 21.3 +0.4
      baz=73
R05C  Kirkwood Meado     72.57 322 ⇓P     P        19 06 21.6 +0.6
      baz=73,SNR=5.9
J13A  Cove Ranch, Pi     72.61 328 ⇑P     P        19 06 21.3 +0.3
      baz=73,SNR=5.6
PMPS  Porto Santo        72.64  46 epP    pP       19 06 39.5 +0.2
PAHR  Pah Rah Range      72.83 323 eP     P        19 06 23.1 +0.6
      comp=Z,219nm,1.4s,mb5.8
PAHR                               epP    pP       19 06 40.6 +0.4
BNLO  Ben Lomond (Sa     72.83 319 ⇓P     P        19 06 22.7 +0.2
      baz=73
L10A  Juniper Basin      72.84 326  P     P        19 06 23.0 +0.5
      baz=73,SNR=19
O07A  Toulon             72.85 323 ⇑P     P        19 06 22.5  0.0
      baz=73,SNR=10
HLID  Hailey             72.85 328 eP     P        19 06 23.3 +0.8
HLID  Hailey             72.85 328 ⇓P     P        19 06 23.1 +0.6
      baz=73,SNR=8.6
N08A  GE Springer Mi     72.85 324 ⇓P     P        19 06 22.8 +0.3
      baz=73
WENL  Wente Brothers     72.89 320 ⇑P     P        19 06 23.2 +0.3
      baz=73
M09A  Marrel Ranch,      72.91 325 ⇑P     P        19 06 22.9  0.0
      baz=73,SNR=11
I13A  Wildhorse Cree     72.96 329 ⇑P     P        19 06 23.9 +0.7
      baz=73,SNR=9.3
J12A  Stokes Ranch,      72.97 328 ⇑P     P        19 06 23.6 +0.4
      baz=73,SNR=6.4
LAVA  Lava Cap Winer     73.00 321 ⇓P     P        19 06 23.7 +0.2
      baz=73
MCMT  McKenzie Canyo     73.02 330 eP     P        19 06 23.4 -0.1
MCMT                               epP    pP       19 06 41.9 +0.6
VAH   Vaihoa             73.04 259 eP     P        19 06 23.5 -0.8
      comp=Z,119nm,1.0s,mb5.7
N07B  Gerlach            73.31 324 ⇓P     P        19 06 25.3  0.0
      baz=74,SNR=14
PMOR  Pomariorio Ree     73.34 259 eP     P        19 06 25.3 -0.8
      comp=Z,128nm,1.1s,mb5.7
O06A  Flanigan           73.39 323 ⇑P     P        19 06 26.1 +0.3
      baz=74
Q04C  Lincoln            73.43 321 ⇑P     P        19 06 26.6 +0.6
      baz=74
M08A  Happy Creek Ra     73.44 325 ⇓P     P        19 06 26.1  0.0
      baz=74
L09A  Wilkinson Ranc     73.44 326 ⇑P     P        19 06 26.1 +0.1
      baz=74
MFID  Camas Ranch        73.46 328 ⇓P     P        19 06 26.5 +0.4
      baz=74,SNR=17
BEKR  Beckwourth         73.50 322  P     P        19 06 27.0 +0.6
      baz=74,SNR=6.6
H13A  Challis            73.50 329 ⇑P     P        19 06 26.5 +0.2
      baz=74,SNR=5.5
K10A  MacKenzie Ranc     73.55 327  P     P        19 06 27.0 +0.4
      baz=74,SNR=13
G14A  Jackson            73.62 330 ⇓P     P        19 06 28.0 +1.0
      baz=74
Q03C  Winters            73.69 321 ⇑P     P        19 06 28.2 +0.6
      baz=74
CVS   Carmenet Viney     73.77 320 ⇓P     P        19 06 28.2 +0.1
      baz=74
N06A  Buffalo Meadow     73.78 323  P     P        19 06 28.2 +0.2
      baz=74,SNR=29
H12A  Diamond D Ranc     73.78 329 ⇓P     P        19 06 28.3 +0.3
      baz=74,SNR=6.9
OHCM  Honcut             73.82 321 eP     P        19 06 28.6 +0.3
OHCM                               epP    pP       19 06 46.0 -0.1
M07A  Soldier Meadow     73.84 324 ⇑P     P        19 06 28.5 +0.1
      baz=74
I11A  Placerville        73.88 328 ⇓P     P        19 06 28.8 +0.3
      baz=74
G13A  Cobalt             73.88 330  P     P        19 06 29.2 +0.7
      baz=74,SNR=8.8
O05C  Quincy             73.89 322 ⇑P     P        19 06 29.2 +0.5
      baz=74,SNR=6.6
L08A  Fields             73.93 325  P     P        19 06 29.0 +0.1
      baz=74,SNR=13
SUTB  Sutter Butte       73.93 321 ⇑P     P        19 06 28.7 -0.2
      baz=74
TVO   Taravao            73.94 256 eP     P        19 06 29.1 -0.4
      comp=Z,217nm,1.3s,mb5.7
TVO   Taravao            73.94 256 eP     P        19 06 29.1 -0.4
TVO                                 pmax  pmax
      comp=Z,217nm,1.3s,mb5.7
K09A  Rome               73.94 326  P     P        19 06 29.1 +0.2
      baz=74,SNR=19
J10A  Berg Farm, Mel     73.95 327 ⇓P     P        19 06 28.8 -0.2
      baz=74
ORV   Oroville           73.97 322 ⇓P     P        19 06 29.2 +0.1
      baz=74,SNR=20
ELFS  Eagle Lake Fie     74.21 323 ⇑P     P        19 06 30.9 +0.4
      baz=74,SNR=17
O04C  Chester            74.22 322 ⇓P     P        19 06 30.8 +0.2
      baz=74,SNR=5.4
PPT   Papeete            74.29 256 eS     S        19 16 00.6 -0.3
      comp=Z,487nm,24.5s
PPT                                eLQ             19 26 13.8
      comp=Z,240nm,28.5s
PPT                                eLR    LR       19 29 22.6
      comp=Z,1μm,28.5s
PPT   Papeete            74.29 256 eP     P        19 06 30.1 -1.5
      comp=Z,98nm,1.4s,mb5.3
PPT                                eS     S        19 16 00.6 -0.3
PPT                                eLQ             19 26 13.8
PPT   Papeete            74.29 256 eP     P        19 06 30.1 -1.5
PPT                                eS     S        19 16 00.6 -0.3
PPT                                 pmax  pmax
      comp=Z,98nm,1.4s
PPT   Papeete            74.29 256  LR    LR       19 30 47.9
      comp=Z,620nm,18.2s,baz=90,slow=29
L07A  Adell              74.35 325 ⇑P     P        19 06 32.0 +0.6
      baz=74
K08A  Mann Creek Ran     74.37 326 ⇑P     P        19 06 32.0 +0.5
      baz=74
J09A  Fry Pan Ranch,     74.41 327 ⇑P     P        19 06 31.6  0.0
      baz=75,SNR=9.9
F13A  Darby              74.44 330 ⇑P     P        19 06 32.1 +0.3
      baz=75,SNR=6.6
M06C  Likely Place G     74.45 323 ⇑P     P        19 06 32.3 +0.4
      baz=75,SNR=11
H11A  Donnelly           74.47 328 ⇓P     P        19 06 31.7 -0.2
      baz=75
GASB  Alder Springs      74.75 321 ⇑P     P        19 06 34.7 +1.0
      baz=75
H10A  Noah's Angus R     74.76 328 ⇑P     P        19 06 33.9 +0.3
      baz=75
K07A  Rock Creek Ran     74.76 325 ⇓P     P        19 06 34.0 +0.4
      baz=75
HATC  Hat Creek Radi     74.76 323 ⇓P     P        19 06 34.0 +0.3
      baz=75
J08A  Circle Bar Ran     74.80 326 ⇑P     P        19 06 34.0 +0.1
      baz=75
MOD   Modoc              74.81 324 eP     P        19 06 33.8 -0.2
      comp=Z,73nm,1.3s,mb5.2
MOD                                epP    pP       19 06 52.6 +0.7
MOD   Modoc              74.81 324 ⇑P     P        19 06 34.1 +0.1
      baz=75,SNR=16
I09A  Lost Marbles R     74.83 327 ⇓P     P        19 06 33.9 -0.2
      baz=75
E13A  Victor             74.85 331 ⇓P     P        19 06 34.5 +0.4
      baz=75,SNR=9.0
F12A  Elk City           74.86 330 ⇑P     P        19 06 34.3 +0.1
      baz=75,SNR=8.0
M05C  Lookout            74.93 323 ⇑P     P        19 06 34.6 -0.1
      baz=75,SNR=13
D14A  Greenough          75.01 331 ⇑P     P        19 06 35.2 +0.2
      baz=75
MSO   Missoula           75.02 331 eP     P        19 06 34.8 -0.3
      comp=Z,11nm,1.1s,mb4.5
MSO                                epP    pP       19 06 52.6 -0.3
G11A  Walters Elk Ra     75.09 329  P     P        19 06 35.7 +0.2
      baz=75,SNR=20
L05A  Lakeview           75.20 324 ⇑P     P        19 06 36.9 +0.6
      baz=75,SNR=11
I08A  Drewsey            75.22 327 ⇓P     P        19 06 36.6 +0.3
      baz=75
BMO   Blue Mountains     75.22 328 eP     P        19 06 35.2 -1.1
      comp=Z,53nm,1.1s,mb5.2
BMO                                 pP    pP       19 06 53.6 -0.6
BMO                                e               19 07 02.0
WDC   Whiskeytown Da     75.24 322 eP     P        19 06 35.1 -1.4
      comp=Z,34nm,1.3s,mb4.9
WDC                                epP    pP       19 06 52.3 -2.1
WDC   Whiskeytown Da     75.24 322 eP     P        19 06 35.1 -1.4
WDC                                e*PP   pP       19 06 52.3 -2.1
WDC                                 pmax  pmax
      comp=Z,34nm,1.3s,mb4.9
J07A  Hines              75.25 326 ⇑P     P        19 06 36.8 +0.3
      baz=75
H09A  Durkee             75.28 328 ⇓P     P        19 06 36.5 -0.1
      baz=75
K06A  Valley Falls       75.38 325  P     P        19 06 38.0 +0.8
      baz=76,SNR=24
F11A  Grangeville        75.39 329  P     P        19 06 37.1 -0.1
      baz=76,SNR=12
M03C  McCloud            75.44 323 ⇑P     P        19 06 37.2 -0.4
      baz=76
D13A  Huson              75.46 331 ⇑P     P        19 06 37.7 +0.1
      baz=76,SNR=7.1
M04C  Macdoel            75.60 323 ⇑P     P        19 06 38.5  0.0
      baz=76,SNR=5.7
J06A  Christmas Vall     75.62 325 ⇓P     P        19 06 38.9 +0.2
      baz=76,SNR=16
K05A  Summer Lake        75.68 324 ⇑P     P        19 06 39.9 +0.9
      baz=76,SNR=11
H08A  Prairie City       75.69 327 ⇑P     P        19 06 39.6 +0.6
      baz=76,SNR=12
LHEM  Herd Peak          75.72 323  P     P        19 06 39.6 +0.4
E11A  Bogner Ranch,      75.75 330 ⇑P     P        19 06 39.1 -0.1
      baz=76
I07A  Izee               75.83 326  P     P        19 06 40.5 +0.6
      baz=76,SNR=14
L04A  Klamath Falls      75.88 323 ⇓P     P        19 06 40.4 +0.2
      baz=76
M02C  Callahan           75.94 322 ⇓P     P        19 06 40.3 -0.2
      baz=76
C13A  Hot Springs        75.94 331  P     P        19 06 40.7 +0.4
      baz=76,SNR=8.2
F10A  Beach Ranch, E     75.97 329  P     P        19 06 40.9 +0.3
      baz=76,SNR=9.0
YBH   Yreka Blue Hor     76.07 323 eP     P        19 06 39.9 -1.3
      comp=Z,11nm,1.1s,mb4.5
YBH                                epP    pP       19 06 55.1 -4.0
YBH   Yreka Blue Hor     76.07 323 eP     P        19 06 39.9 -1.3
YBH                                e      pP       19 06 56.1 -3.0
YBH                                 pmax  pmax
      comp=Z,41nm,1.1s
YBH   Yreka Blue Hor     76.07 323  P     P        19 06 40.2 -1.0
      baz=76,SNR=5.5
K04A  Chilquin           76.08 324 ⇓P     P        19 06 41.6 +0.4
      baz=76
I06A  Prineville         76.12 326  P     P        19 06 42.4 +1.0
      baz=76,SNR=28
KHMM  Horse Mountain     76.12 322 eP     P        19 06 38.9 -2.7
KHMM                               epP    pP       19 06 57.7 -1.7
F09A  S2 Ranch, Elgi     76.13 328  P     P        19 06 41.6 +0.1
      baz=76,SNR=17
J05A  Fort Rock          76.24 325  P     P        19 06 42.8 +0.6
      baz=76,SNR=11
E10A  Myers Farm, Un     76.28 329 ⇑P     P        19 06 42.3  0.0
      baz=76
D11A  Klaveano Farm,     76.30 330 ⇑P     P        19 06 42.9 +0.5
      baz=76
G08A  Pilot Rock         76.37 327 ⇓P     P        19 06 43.1 +0.2
      baz=76
B13A  Whitefish          76.40 332 ⇓P     P        19 06 43.3 +0.3
      baz=77
KTRM  Thompson Ridge     76.56 323  P     P        19 06 44.8 +0.8
KRMB  Red Mountain       76.63 322 eP     P        19 06 44.7 +0.3
KRMB                               epP    pP       19 07 02.9 +0.6
WALA  Waterton Lakes     76.67 333 eP     P        19 06 44.4  0.0
      comp=Z,96nm,1.3s,mb5.4
WALA                               epP    pP       19 07 01.9 -0.4
J04A  Umpqua Nationa     76.69 324 ⇓P     P        19 06 45.1 +0.4
      baz=77
H06A  Lindquist Farm     76.71 326 ⇑P     P        19 06 45.6 +0.8
      baz=77,SNR=20
VIPM  Ingram Point       76.71 326  P     P        19 06 45.7 +0.9
G07A  Ruggs Ranch, H     76.72 327 ⇑P     P        19 06 45.7 +0.8
      baz=77,SNR=18
D10A  Wagner Farm, O     76.76 329  P     P        19 06 44.7 -0.3
      baz=77,SNR=12
HUMO  Hull Mountain      76.77 323 eP     P        19 06 44.4 -0.7
      comp=Z,32nm,1.3s,mb4.9
E09A  Wood Farm, Sta     76.81 329 ⇓P     P        19 06 45.2  0.0
      baz=77,SNR=12
I05A  Bend               76.83 325 ⇑P     P        19 06 46.4 +0.9
      baz=77
L02A  Cave Junction      76.85 323 ⇓P     P        19 06 46.1 +0.4
      baz=77
FFC   Flin Flon          76.89 342 eP     P        19 06 44.1 -1.4
      comp=Z,9.5nm,0.9s,mb4.5
FFC                                epP    pP       19 07 01.9 -1.5
FFC   Flin Flon          76.89 342 eP     P        19 06 44.1 -1.4
FFC                                e*PP   pP       19 07 01.9 -1.5
FFC                                 pmax  pmax
      comp=Z,10.0nm,0.9s,mb4.5
B12A  Libby              76.98 331  P     P        19 06 46.8 +0.6
      baz=77,SNR=6.5
K02A  Glendale           77.17 323 ⇑P     P        19 06 47.6 +0.2
      baz=77,SNR=8.3
HBO   Huckleberry Mo     77.20 325  P     P        19 06 47.8 +0.2
G06A  Carlson Farm,      77.21 326 ⇓P     P        19 06 48.1 +0.5
      baz=77,SNR=5.9
I04A  Tendick Farm,      77.22 325 ⇑P     P        19 06 47.7  0.0
      baz=77
E08A  Dider Farm, El     77.25 328 ⇑P     P        19 06 47.6 -0.2
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          baz=77
J03A  Ideyld Park      77.26 324 ⇑P      P        19 06 48.2 +0.3
          baz=77
D09A  Jones Farm, Ri   77.27 329  P      P        19 06 48.1 +0.2
          baz=77,SNR=12
F07A  Phinny Hill Vi   77.28 327 ⇓P      P        19 06 48.5 +0.5
          baz=77
B11A  Sandpoint        77.32 331 ⇓P      P        19 06 48.3 +0.2
          baz=78
C10A  Spilker Farm,    77.32 330 ⇑P      P        19 06 48.3 +0.2
          baz=78
A12A  Yaak River Ran   77.35 332  P      P        19 06 48.6 +0.3
          baz=78,SNR=8.9
HAWA  Hanford          77.42 328 eP      P        19 06 49.2 +0.5
          comp=Z,184nm,1.4s,mb5.6
HAWA                             epP     pP       19 07 06.9 +0.2
NEW   Newport          77.55 330 eP      P        19 06 49.0 -0.4
          comp=Z,29nm,1.3s,mb4.8
NEW                              epP     pP       19 07 06.5 -0.9
NEW   Newport          77.55 330 eP      P        19 06 49.0 -0.4
NEW                              e*PP    pP       19 07 06.5 -0.8
NEW                               pmax   pmax
          comp=Z,29nm,1.3s
NEW   Newport          77.55 330  P      P        19 06 48.6 -0.8
          comp=Z,1.2nm,0.4s,mb4.0,baz=125,slow=11,SNR=3.7
NEW                               pP     pP       19 07 06.5 -0.8
          comp=Z,16nm,1.1s,baz=116,slow=4.9,SNR=6.5
BROR  Big Rock Looko   77.55 325  P      P        19 06 49.4  0.0
D08A  Wollman Farm,    77.57 329  P      P        19 06 50.2 +0.7
          baz=78,SNR=5.5
G05A  Wamic            77.57 326 ⇑P      P        19 06 50.3 +0.7
          baz=78
J02A  Umpqua           77.60 324 ⇑P      P        19 06 50.4 +0.6
          baz=78
H04A  Detroit Lake     77.67 325  P      P        19 06 50.0 -0.2
          baz=78,SNR=5.9
A11A  Hall Mountain,   77.69 331  P      P        19 06 50.6 +0.5
          baz=78,SNR=5.3
E07A  Sunnyside        77.69 328 ⇑P      P        19 06 50.7 +0.5
          baz=78,SNR=6.3
OD2   Odessa Site #2   77.70 329  P      P        19 06 50.8 +0.5
VFP   Flag Point       77.70 326  P      P        19 06 51.4 +1.1
C09A  Chrisman Ranch   77.77 330 ⇑P      P        19 06 50.9 +0.3
          baz=78,SNR=6.1
I03A  Eugene           77.82 324 ⇑P      P        19 06 51.1 +0.2
          baz=78
MXC   Moxie City       77.93 328  P      P        19 06 52.5 +0.9
TOA0  Torodi Ar. Sit   78.01  72 eP      P        19 06 51.4 -1.3
TOA0                             epP     pP       19 07 09.2 -1.5
TORD  Torodi Ar. Bea   78.01  72  P      P        19 06 51.4 -1.3
          comp=Z,72nm,0.9s,mb5.4,baz=257,slow=5.2,SNR=218
TORD                              pP     pP       19 07 09.5 -1.1
          comp=Z,113nm,0.9s,baz=259,slow=5.3,SNR=12
TORD                              PP     PP       19 09 52.7 +2.9
          comp=Z,5.2nm,1.1s,baz=248,slow=6.2,SNR=4.0
TORD                              LR     LR       19 40 25.8
          comp=Z,2µm,18.1s,baz=245,slow=35
F05A  White Salmon     78.07 327 ⇑P      P        19 06 52.8 +0.4
          baz=78
C08A  Higginbotham F   78.13 329 ⇑P      P        19 06 52.9 +0.3
          baz=78,SNR=5.8
B09A  Rice             78.14 330 ⇑P      P        19 06 52.6 -0.1
          baz=78,SNR=6.6
G04A  Mulino           78.17 326 ⇑P      P        19 06 53.0 +0.1
          baz=78
D07A  Quincy           78.19 328 ⇓P      P        19 06 53.5 +0.6
          baz=78,SNR=7.5
COR   Corvallis        78.22 325  P      P        19 06 51.4 -1.8
          comp=Z,191nm,1.4s,mb5.6
COR                              epP     pP       19 07 11.6 +0.4
COR   Corvallis        78.22 325  P      P        19 06 51.4 -1.8
COR                              e*PP    pP       19 07 11.6 +0.4
COR                               pmax   pmax
          comp=Z,191nm,1.4s,mb5.6
A10A  Northport        78.26 331 ⇑P      P        19 06 53.5 +0.2
          baz=78
E06A  Yakima           78.26 327 ⇑P      P        19 06 53.7 +0.4
          baz=78,SNR=5.8
H03A  Soap Creek Ran   78.27 325 ⇓P      P        19 06 54.1 +0.6
          baz=78
WTV   Waterville       78.52 329  P      P        19 06 55.4 +0.6
C07A  Waterville       78.57 329  P      P        19 06 55.4 +0.3
          baz=79,SNR=17
FCC   Fort Churchill   78.58 348 eP      P        19 06 53.8 -1.1
          comp=Z,94nm,1.3s,mb5.5
FCC                              epP     pP       19 07 12.0 -0.8
FCC   Fort Churchill   78.58 348 eP      P        19 06 53.8 -1.0
FCC                              e*PP    pP       19 07 12.0 -0.8
FCC                               pmax   pmax
          comp=Z,94nm,1.3s,mb5.5
F04A  Amboy            78.61 326 ⇑P      P        19 06 55.3 -0.1
          baz=79,SNR=6.1
D06A  Cle Elum         78.62 328 ⇑P      P        19 06 55.6 +0.2
          baz=79
WPW   White Pass       78.66 327  P      P        19 06 56.1 +0.6
B08A  Colville Reser   78.67 329  P      P        19 06 55.2 -0.4
          baz=79,SNR=6.3
E05A  Randle           78.67 327 ⇑P      P        19 06 55.7  0.0
          baz=79
A09A  Danville         78.74 330 ⇑P      P        19 06 55.8 -0.1
          baz=79
B07A  Winthrop         79.12 329  P      P        19 06 58.0 -0.1
          baz=79,SNR=8.7
C06A  Tall Timber Ra   79.14 328 ⇑P      P        19 06 58.1 -0.1
          baz=79
D05A  Enumclaw         79.21 327 ⇓P      P        19 06 58.6  0.0
          baz=79,SNR=7.4
EDM   Edmonton         79.56 336 eP      P        19 06 59.6 -0.8
E03A  Lebam            79.61 326 ⇑P      P        19 07 01.2 +0.5
          baz=80
A07A  Ashnola River,   79.65 329  P      P        19 07 01.5 +0.6
          baz=80,SNR=6.7
B06A  Marblemount      79.83 329 ⇑P      P        19 07 01.3 -0.6
          baz=80
B05A  Bryant           79.97 328 ⇑P      P        19 07 02.1 -0.5
          baz=80
PFVI  Vila Bisbo       80.02  46 eP      P        19 07 00.6 -2.6
          comp=Z,107nm,1.6s,mb5.4
PFVI                             epP     pP       19 07 21.8 +0.6
PFVI  Vila Bisbo       80.02  46 eLR     LR       19 33 30.8
          comp=Z,381nm,22.0s
C04A  Brinnon          80.06 327 ⇓P      P        19 07 03.4 +0.3
          baz=80
D03A  Wishkah Elem.    80.09 326 ⇑P      P        19 07 03.9 +0.6
          baz=80
VNDA  Vanda            80.17 190 eP      P        19 07 04.0 +0.5
          comp=Z,107nm,1.5s,mb5.5
VNDA  Vanda            80.17 190 eP      P        19 07 04.0 +0.6
VNDA                              pmax   pmax
          comp=Z,110nm,1.5s
VNDA  Vanda            80.17 190  P      P        19 07 04.2 +0.7
          comp=Z,28nm,0.9s,mb5.1,baz=127,slow=5.8,SNR=16
VNDA                              LR     LR       19 37 52.1
          comp=Z,281nm,19.9s,baz=121,slow=32
MORF  Marmelete        80.22  46 eP      P        19 07 03.7 -0.6
          comp=Z,98nm,1.7s,mb5.4
MORF                             epP     pP       19 07 23.2 +0.8
PTEO  Sao Teotonio     80.30  46 eP      P        19 07 06.4 +1.7
          comp=Z,168nm,1.5s,mb5.7
PTEO                             epP     pP       19 07 23.9 +1.1
NLWA  Neilton Lookou   80.31 327 eP      P        19 07 05.2 +0.6
          comp=Z,192nm,1.4s,mb5.7
NLWA                             epP     pP       19 07 22.3 -0.3
A05A  Maple Falls      80.45 329 ⇓P      P        19 07 04.8 -0.5
          baz=81,SNR=5.7
A04A  Legoe Bay, Lum   80.57 328 ⇓P      P        19 07 06.0 +0.1
          baz=81
PMAFR Mafra            80.66  44 eS      S        19 17 12.9 +4.0
PMAFR Mafra            80.66  44 eLR     LR       19 33 49.3
          comp=Z,840nm,18.0s
SYO   Syowa Base       80.67 160⇑eP      P        19 07 01.0 -5.2
SYO   Syowa Base       80.67 160⇓iP      P        19 07 06.0 -0.2
PBDV  Barranco-do-Ve   80.69  46 eP      P        19 07 07.1 +0.3
          comp=Z,108nm,1.9s,mb5.3
PBDV                             epP     pP       19 07 25.3 +0.4
PBDV  Barranco-do-Ve   80.69  46 eLR     LR       19 33 42.7
          comp=Z,359nm,24.0s
PGC   Sidney           80.90 328 eP      P        19 07 07.8 +0.1
          comp=Z,118nm,1.4s,mb5.5
PGC                              epP     pP       19 07 26.1 +0.3
PVAQ  Vaqueiros        80.91  46 eP      P        19 07 13.7 +5.7
          comp=Z,100nm,1.9s,mb5.3
PVAQ                             epP     pP       19 07 26.9 +0.8
PVAQ                             eS      S        19 17 15.9 +4.2
PVAQ  Vaqueiros        80.91  46 eLR     LR       19 34 05.3
          comp=Z,383nm,22.0s
MOE   Montemor         81.06  45 eP      P        19 07 10.8 +2.1
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MOE                              epP     pP       19 07 27.9 +1.1
PBEJ  Beja             81.13  45 eP      P        19 07 08.9 -0.2
          comp=Z,86nm,1.8s,mb5.3
PBEJ                             epP     pP       19 07 27.4 +0.2
EGRO  El Granado       81.14  46  P      P        19 07 10.4 +1.2
          comp=Z,51nm,1.2s,mb5.2
PTOM  Tomar            81.58  44 eP      P        19 07 12.5 +1.0
          comp=Z,100nm,1.5s,mb5.4
PTOM                             epP     pP       19 07 29.8 +0.2
PTOM                             eLR     LR       19 07 39.2
PESTR Estremoz         81.74  45 eP      P        19 07 12.4  0.0
          comp=Z,85nm,1.5s,mb5.3
PESTR                            epP     pP       19 07 30.0 -0.5
PESTR                            eS      S        19 17 23.4 +3.2
PESTR Estremoz         81.74  45 eLR     LR       19 34 18.3
          comp=Z,388nm,22.0s
EMIN  Mina Concepcio   81.81  46  P      P        19 07 12.7  0.0
          comp=Z,25nm,1.3s,mb4.9
ESPR  Espera           81.94  47  P      P        19 07 13.4  0.0
          comp=Z,67nm,1.4s,mb5.3
EJIF  Jimena Fronter   82.01  48  P      P        19 07 15.0 +1.1
          comp=Z,11nm,0.7s,mb4.8
EJIF  Jimena Fronter   82.01  48  P      P        19 07 15.0 +1.2
EJIF                              pmax   pmax
          comp=Z,11nm,0.7s,mb4.8
EBAD  Badajoz          82.08  45  P      P        19 07 14.9 +0.8
          comp=Z,61nm,1.2s,mb5.3
PCBR  Castelo Branco   82.31  44 eP      P        19 07 15.7 +0.4
          comp=Z,23nm,1.2s,mb4.9
PCBR                             epP     pP       19 07 32.8 -0.6
MTE   Manteigas        82.55  44 eP      P        19 07 17.2 +0.6
MTE                              epP     pP       19 07 35.5 +0.8
MTE   Manteigas        82.55  44 eS      S        19 17 36.5 +8.1
MTE   Manteigas        82.55  44 eLR     LR       19 35 04.3
          comp=Z,883nm,20.0s
EMIJ  Mijas            82.56  48  P      P        19 07 16.9 +0.2
          comp=Z,15nm,0.8s,mb4.9
RAR   Rarotonga        82.65 250  LR     LR       19 34 34.4
          comp=Z,314nm,18.3s,baz=213,slow=29
PVRL  Vila Real        82.89  43 eP      P        19 07 19.3 +1.0
          comp=Z,83nm,1.4s,mb5.4
PVRL                             epP     pP       19 07 36.8 +0.4
STS   Santiago         83.19  41  P      P        19 07 20.8 +1.0
          comp=Z,42nm,1.4s,mb5.1
STS   Santiago         83.19  41  P      P        19 07 20.8 +1.0
STS                               pmax   pmax
          comp=Z,42nm,1.4s,mb5.1
ELOJ  Sierra Loja      83.27  48  P      P        19 07 21.6 +1.3
          comp=Z,62nm,1.1s,mb5.3
ELOJ  Sierra Loja      83.27  48  P      P        19 07 21.6 +1.2
ELOJ                              pmax   pmax
          comp=Z,62nm,1.1s,mb5.3
MVO   Moncorvo         83.28  43 eP      P        19 07 20.2 -0.1
          comp=Z,102nm,2.0s,mb5.3
MVO                              epP     pP       19 07 38.7 +0.3
MVO   Moncorvo         83.28  43 eLR     LR       19 35 30.5
          comp=Z,742nm,20.0s
ELUQ  Luque            83.38  47  P      P        19 07 22.3 +1.3
          comp=Z,93nm,1.4s,mb5.4
ELUQ  Luque            83.38  47  P      P        19 07 22.3 +1.4
ELUQ                              pmax   pmax
          comp=Z,93nm,1.4s,mb5.4
ERON  Agron            83.45  48  P      P        19 07 22.0 +0.6
          comp=Z,16nm,0.9s,mb4.9
EADA  Adamuz           83.45  47  P      P        19 07 21.3  0.0
          comp=Z,70nm,1.3s,mb5.3
EALB  Alboran          83.51  49  P      P        19 07 22.6 +1.0
          comp=Z,188nm,1.2s,mb5.8
ECOG  Cogollos-Vega    83.74  48  P      P        19 07 23.6 +0.8
          comp=Z,9.1nm,0.7s,mb4.7
ECOG  Cogollos-Vega    83.74  48  P      P        19 07 23.6 +0.8
ECOG                              pmax   pmax
          comp=Z,9.0nm,0.7s,mb4.7
PBRG  Braganca         83.79  43 eP      P        19 07 23.8 +0.9
          comp=Z,85nm,1.9s,mb5.2
PBRG                             epP     pP       19 07 41.5 +0.4
ERUA  La Rua           83.83  42  P      P        19 07 23.8 +0.7
          comp=Z,55nm,1.0s,mb5.3
ERUA  La Rua           83.83  42  P      P        19 07 23.8 +0.7
ERUA                              pmax   pmax
          comp=Z,55nm,1.0s,mb5.3
ECAL  Calabor          83.86  43  P      P        19 07 23.8 +0.6
          comp=Z,116nm,1.7s,mb5.4
EBAN  Banos Encina     84.00  47  P      P        19 07 24.9 +0.8
          comp=Z,39nm,1.0s,mb5.2
EBAN  Banos Encina     84.00  47  P      P        19 07 24.9 +0.8
EBAN                              pmax   pmax
          comp=Z,39nm,1.0s,mb5.2
EBER  Berja            84.05  48  P      P        19 07 24.6 +0.3
          comp=Z,146nm,1.9s,mb5.5
PAB   San Pablo        84.27  46 eP      P        19 07 26.2 +0.8
          comp=Z,72nm,1.0s,mb5.5
PAB                              epP     pP       19 07 43.6  0.0
PAB   San Pablo        84.27  46  P      P        19 07 26.4 +1.0
PAB                              e       pP       19 07 44.2 +0.6
PAB                               pmax   pmax
          comp=Z,170nm,1.1s,mb5.8
EQES  Quesada          84.33  48  P      P        19 07 25.7 -0.1
          comp=Z,53nm,1.2s,mb5.2
ENIJ  Nijar            84.57  49  P      P        19 07 26.9 -0.1
          comp=Z,43nm,1.2s,mb5.2
ENIJ  Nijar            84.57  49  P      P        19 07 26.9 -0.1
ENIJ                              pmax   pmax
          comp=Z,43nm,1.2s,mb5.2
ESDC  Sonseca Array    84.59  46  P      P        19 07 27.2 +0.2
          comp=Z,45nm,0.9s,mb5.4
ESDC  Sonseca Array    84.59  46  P      P        19 07 27.8 +0.7
          comp=Z,27nm,0.9s,mb5.2,baz=250,slow=5.4,SNR=62
ESDC                              pP     pP       19 07 45.9 +0.7
          comp=Z,63nm,0.9s,baz=251,slow=5.3,SNR=21
ESDC                              LR     LR       19 40 13.6
          comp=Z,426nm,21.9s,baz=265,slow=32
ESLA  Sonseca Array    84.59  46 eP      P        19 07 27.8 +0.8
          comp=Z,74nm,1.3s,mb5.5
ESLA                             epP     pP       19 07 45.4 +0.1
GUD   Guadarrama       84.92  45  P      P        19 07 29.0 +0.3
          comp=Z,14nm,0.7s,mb5.0
GUD   Guadarrama       84.92  45  P      P        19 07 29.0 +0.3
GUD                               pmax   pmax
          comp=Z,14nm,0.7s,mb5.0
EVIA  Vianos           85.12  47  P      P        19 07 30.5 +0.8
          comp=Z,36nm,1.0s,mb5.2
EVIA  Vianos           85.12  47  P      P        19 07 30.5 +0.8
EVIA                              pmax   pmax
          comp=Z,36nm,1.0s,mb5.3
BBB   Bella Bella      85.44 329  pP     pP       19 07 49.2 +0.1
          comp=Z,16nm,0.9s,baz=148,slow=6.7,SNR=3.6
ETOB  Tobarra          85.79  47  P      P        19 07 33.0  0.0
          comp=Z,77nm,1.0s,mb5.6
SFJD  Kangerlussuaq    85.85   8 eP      P        19 07 34.0 +1.3
SFJD                             i                19 07 59.9
SFJD                              pmax   pmax
          comp=Z,26nm,0.9s,mb5.2
SFJD  Kangerlussuaq    85.85   8 i P     P        19 07 34.0 +1.3
          comp=Z,26nm,0.9s,mb5.2
SFJD                             i                19 07 59.9
ETOR  Torete           86.42  45  P      P        19 07 36.1 +0.1
          comp=Z,52nm,1.5s,mb5.2
ETOR  Torete           86.42  45  P      P        19 07 36.2 +0.1
ETOR                              pmax   pmax
          comp=Z,52nm,1.5s,mb5.2
ECHE  Chera            86.61  47  P      P        19 07 36.9 -0.1
          comp=Z,11nm,0.8s,mb4.8
ECHE  Chera            86.61  47  P      P        19 07 36.9 -0.2
ECHE                              pmax   pmax
          comp=Z,11nm,0.8s,mb4.8
ECRI  Cripan           86.93  43  P      P        19 07 39.5 +1.0
          comp=Z,18nm,0.9s,mb5.0
ECRI  Cripan           86.93  43  P      P        19 07 39.5 +1.0
ECRI                              pmax   pmax
          comp=Z,18nm,0.9s,mb5.0
BOSA  Boshof           86.94 119 eP      P        19 07 38.9 -0.2
          comp=Z,9.1nm,0.9s,mb4.7
BOSA  Boshof           86.94 119 eP      P        19 07 38.9 -0.2
BOSA                              pmax   pmax
          comp=Z,9.0nm,0.9s,mb4.7
BOSA  Boshof           86.94 119  P      P        19 07 39.6 +0.5
          comp=Z,3.3nm,0.9s,mb4.2,baz=266,slow=10,SNR=3.6
BOSA                              LR     LR       19 43 25.8
          comp=Z,390nm,20.2s,baz=255,slow=33
YKA   Yellowknife Ar   87.03 341  P      P        19 07 37.6 -1.0
YKA                               *PP    pP       19 07 55.9 -0.9
YKA                                               19 11 02.9
YKA   Yellowknife Ar   87.03 341  P      P        19 07 37.6 -1.0
          comp=Z,12nm,0.6s,mb5.0,baz=135,slow=4.9,SNR=211
YKA                               pP     pP       19 07 55.8 -1.0
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          comp=Z,56nm,0.9s,baz=137,slow=4.9,SNR=23
YKA                               PP     PP       19 11 02.8 -0.1
          comp=Z,2.9nm,1.0s,baz=131,slow=7.8,SNR=4.0
YKA                               PKKPbc PKKPbc   19 25 32.4 -1.6
          comp=Z,0.1nm,0.5s,baz=280,slow=2.0,SNR=4.0
YKA                               LR     LR       19 49 28.7
          comp=Z,190nm,19.2s,baz=130,slow=38
ELIZ  Elizondo         87.82  43  P      P        19 07 42.2 -0.7
          comp=Z,36nm,1.2s,mb5.3
ELIZ  Elizondo         87.82  43  P      P        19 07 42.2 -0.6
ELIZ                              pmax   pmax
          comp=Z,36nm,1.2s,mb5.3
SJPF  Ste Jean         88.00  43 eP      P        19 07 44.2 +0.5
          comp=Z,53nm,1.1s,mb5.2
SJPF                             epP     pP       19 08 01.5 -0.5
SJPF  Ste Jean         88.00  43 eP      P        19 07 44.2 +0.5
          comp=Z,26nm,1.0s,mb5.2
SJPF                             epP     pP       19 08 01.5 -0.5
SJPF  Ste Jean         88.00  43 eP      P        19 07 44.2 +0.5
SJPF                             e*PP    pP       19 08 01.5 -0.5
SJPF                              pmax   pmax
          comp=Z,26nm,1.0s,mb5.2
ERTA  Horta de San J   88.10  46  P      P        19 07 44.2  0.0
          comp=Z,34nm,1.5s,mb5.2
ETSF  Etsaut           88.34  44 eP      P        19 07 46.0 +0.7
          comp=Z,73nm,1.3s,mb5.3
ETSF  Etsaut           88.34  44 eP      P        19 07 46.0 +0.7
          comp=Z,36nm,1.3s,mb5.2
ETSF  Etsaut           88.34  44 eP      P        19 07 46.0 +0.7
ETSF                              pmax   pmax
          comp=Z,36nm,1.3s,mb5.2
MAW   Mawson           88.45 164 eP      P        19 07 44.8 -0.7
          comp=Z,101nm,0.9s,mb5.8
MAW   Mawson           88.45 164  P      P        19 07 45.2 -0.3
MAW                               pmax   pmax
          comp=Z,100nm,1.0s
MAW   Mawson           88.45 164  P      P        19 07 45.5 +0.1
          comp=Z,97nm,1.0s,mb5.8,baz=215,slow=6.1,SNR=40
MAW                               LR     LR       19 45 46.7
          comp=Z,349nm,19.0s,baz=73,slow=34
EBIE  Bielsa           88.72  44  P      P        19 07 47.7 +0.6
          comp=Z,34nm,1.2s,mb5.2
QUIF  Quistinic        88.99  39 eP      P        19 07 47.7 -0.5
          comp=Z,40nm,0.9s,mb5.2
QUIF  Quistinic        88.99  39 eP      P        19 07 47.7 -0.5
          comp=Z,20nm,0.9s,mb5.2
QUIF  Quistinic        88.99  39 eP      P        19 07 47.7 -0.5
QUIF                              pmax   pmax
          comp=Z,20nm,0.9s,mb5.2
EPF   Esparros         89.00  44 eP      P        19 07 48.8 +0.4
          comp=Z,40nm,1.0s,mb5.1
EPF   Esparros         89.00  44 eP      P        19 07 48.8 +0.4
          comp=Z,20nm,1.0s,mb5.1
EPF   Esparros         89.00  44 eP      P        19 07 48.8 +0.4
EPF                               pmax   pmax
          comp=Z,20nm,1.0s,mb5.1
ROSF  Rostrenen        89.12  38 eP      P        19 07 48.4 -0.4
          comp=Z,76nm,1.2s,mb5.3
ROSF                             epP     pP       19 08 05.6 -1.6
ROSF  Rostrenen        89.12  38 eP      P        19 07 48.4 -0.4
          comp=Z,38nm,1.2s,mb5.3
ROSF                             epP     pP       19 08 05.6 -1.6
ROSF  Rostrenen        89.12  38 eP      P        19 07 48.4 -0.4
ROSF                             e*PP    pP       19 08 05.6 -1.6
ROSF                              pmax   pmax
          comp=Z,38nm,1.2s,mb5.3
SALF  Salau            89.44  45 eP      P        19 07 51.2 +0.7
SGMF  Saint Gilles     89.51  38 eP      P        19 07 50.0 -0.6
          comp=Z,34nm,1.0s,mb5.1
SGMF  Saint Gilles     89.51  38 eP      P        19 07 50.0 -0.6
          comp=Z,17nm,1.0s,mb5.1
SGMF  Saint Gilles     89.51  38 eP      P        19 07 50.0 -0.6
SGMF                              pmax   pmax
          comp=Z,17nm,1.0s,mb5.1
DLBC  Dease Lake       90.00 333 eP      P        19 07 53.0 +0.3
DLBC                             epP     pP       19 08 10.9 -0.1
LFF   La Frestale      90.07  42 eP      P        19 07 53.3 -0.1
          comp=Z,58nm,0.9s,mb5.4
LFF                              epP     pP       19 08 10.4 -1.3
LFF   La Frestale      90.07  42 eP      P        19 07 53.3 -0.1
          comp=Z,29nm,0.9s,mb5.4
LFF                              epP     pP       19 08 10.4 -1.3
LFF   La Frestale      90.07  42 eP      P        19 07 53.3 -0.1
LFF                              e*PP    pP       19 08 10.4 -1.3
LFF                               pmax   pmax
          comp=Z,29nm,0.9s,mb5.4
MFF   Saint Martin d   90.23  41 eP      P        19 07 53.7 -0.3
          comp=Z,92nm,1.2s,mb5.5
MFF   Saint Martin d   90.23  41 eP      P        19 07 53.7 -0.3
          comp=Z,46nm,1.2s,mb5.5
MFF   Saint Martin d   90.23  41 eP      P        19 07 53.7 -0.3
MFF                               pmax   pmax
          comp=Z,46nm,1.2s,mb5.5
FILF  Fillols          90.28  45 eP      P        19 07 53.9 -0.5
MTLF  Montolieu        90.37  44 eP      P        19 07 54.6 -0.2
          comp=Z,43nm,1.0s,mb5.2
MTLF  Montolieu        90.37  44 eP      P        19 07 54.6 -0.2
          comp=Z,22nm,1.0s,mb5.2
MTLF  Montolieu        90.37  44 eP      P        19 07 54.6 -0.2
MTLF                              pmax   pmax
          comp=Z,22nm,1.0s,mb5.2
GRR   Gorron           90.58  39 eP      P        19 07 54.9 -0.7
          comp=Z,54nm,0.8s,mb5.4
GRR                              epP     pP       19 08 12.2 -1.8
GRR   Gorron           90.58  39 eP      P        19 07 54.9 -0.7
          comp=Z,27nm,0.8s,mb5.4
GRR                              epP     pP       19 08 12.2 -1.8
GRR   Gorron           90.58  39 eP      P        19 07 54.9 -0.7
GRR                              e*PP    pP       19 08 12.2 -1.8
GRR                               pmax   pmax
          comp=Z,27nm,0.8s,mb5.4
RJF   Les Rejaudoux    90.72  42 eP      P        19 07 56.0 -0.4
          comp=Z,32nm,1.0s,mb5.1
RJF                              eMLR    MLR
          comp=Z,1µm,22.5s
RJF   Les Rejaudoux    90.72  42 eP      P        19 07 56.0 -0.4
          comp=Z,16nm,1.0s,mb5.1
RJF                               LR     LR
          comp=Z,1µm,22.5s
RJF   Les Rejaudoux    90.72  42 eP      P        19 07 56.0 -0.4
RJF                               pmax   pmax
          comp=Z,16nm,1.0s,mb5.1
RJF                               MLR    MLR
          comp=Z,1µm,22.5s
CAF   Calviac          90.92  43 eP      P        19 07 57.2 -0.1
          comp=Z,69nm,1.3s,mb5.3
CAF                              epP     pP       19 08 14.5 -1.1
CAF   Calviac          90.92  43 eP      P        19 07 57.2 -0.1
          comp=Z,34nm,1.3s,mb5.3
CAF                              epP     pP       19 08 14.5 -1.1
CAF   Calviac          90.92  43 eP      P        19 07 57.2 -0.1
CAF                              e*PP    pP       19 08 14.5 -1.1
CAF                               pmax   pmax
          comp=Z,35nm,1.3s,mb5.3
FLN   La Foliniere     90.97  39 eP      P        19 07 57.0 -0.4
          comp=Z,32nm,0.8s,mb5.2
FLN                              epP     pP       19 08 14.1 -1.7
FLN                              eMLR    MLR
          comp=Z,381nm,21.5s
FLN   La Foliniere     90.97  39 eP      P        19 07 57.0 -0.4
          comp=Z,16nm,0.8s,mb5.2
FLN                              epP     pP       19 08 14.1 -1.7
FLN                               LR     LR
          comp=Z,380nm,21.5s
FLN   La Foliniere     90.97  39 eP      P        19 07 57.0 -0.4
FLN                              e*PP    pP       19 08 14.1 -1.7
FLN                               pmax   pmax
          comp=Z,16nm,0.8s,mb5.2
FLN                               MLR    MLR
          comp=Z,380nm,21.5s
LDF   La Druitiere     91.11  39 eP      P        19 07 57.4 -0.7
          comp=Z,91nm,1.1s,mb5.5
LDF   La Druitiere     91.11  39 eP      P        19 07 57.4 -0.7
          comp=Z,45nm,1.1s,mb5.5
LDF   La Druitiere     91.11  39 eP      P        19 07 57.4 -0.7
LDF                               pmax   pmax
          comp=Z,45nm,1.1s,mb5.5
TCF   Toulx Ste Croi   91.57  42 eP      P        19 07 59.7 -0.6
          comp=Z,36nm,1.2s,mb5.2
TCF                              epP     pP       19 08 17.0 -1.6
TCF   Toulx Ste Croi   91.57  42 eP      P        19 07 59.7 -0.6
          comp=Z,18nm,1.3s,mb5.1
TCF                              epP     pP       19 08 17.0 -1.6
TCF   Toulx Ste Croi   91.57  42 eP      P        19 07 59.7 -0.6
TCF                              e*PP    pP       19 08 17.0 -1.6
TCF                               pmax   pmax
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                 comp=Z,18nm,1.3s,mb5.1
LASF  Ste Croix          91.75  44 eP       P        19 08 01.6 +0.4
                 comp=Z,35nm,1.1s,mb5.2
LBL   Lubilhac           91.81  43 eP       P        19 08 02.5 +1.1
AGO   Saint Agoulin      92.06  42 eP       P        19 08 02.7 +0.1
BGF   Bois d'Agland      92.08  42 eP       P        19 08 02.2 -0.5
                 comp=Z,48nm,1.0s,mb5.4
BGF                                eP       pP       19 08 19.5 -1.5
BGF   Bois d'Agland      92.08  42 eP       P        19 08 02.2 -0.5
                 comp=Z,24nm,1.0s,mb5.4
BGF                                epP      pP       19 08 19.5 -1.5
BGF   Bois d'Agland      92.08  42 eP       P        19 08 02.2 -0.5
BGF                                e*PP     pP       19 08 19.5 -1.5
BGF                                 pmax    pmax
                 comp=Z,24nm,1.0s,mb5.4
PLDF  La Plantade        92.34  42 eP       P        19 08 03.2 -0.7
AVF   Avril sur Loir     92.50  41 eP       P        19 08 03.8 -0.8
VIVF  Saint-Julien-l     92.59  44 eP       P        19 08 05.4 +0.3
                 comp=Z,60nm,1.4s,mb5.5
VIVF                               epP      pP       19 08 22.7 -0.7
VIVF  Saint-Julien-l     92.59  44 eP       P        19 08 05.4 +0.3
                 comp=Z,30nm,1.4s,mb5.4
VIVF                               epP      pP       19 08 22.7 -0.7
VIVF  Saint-Julien-l     92.59  44 eP       P        19 08 05.4 +0.3
VIVF                               e*PP     pP       19 08 22.7 -0.7
VIVF                                pmax    pmax
                 comp=Z,30nm,1.4s,mb5.4
KEST  Kesra              92.64  53  P       P        19 08 05.5 -0.1
                 comp=Z,3.5nm,0.9s,mb4.7,baz=199,slow=2.2,SNR=12
KEST                                pP      pP       19 08 25.2 +1.3
                 comp=Z,13nm,0.9s,baz=246,slow=5.9,SNR=13
KEST                                LR      LR       19 47 53.5
                 comp=Z,236nm,21.5s,baz=87,slow=34
SSF   Saint Saulge       92.70  41 eP       P        19 08 04.6 -0.9
                 comp=Z,34nm,1.2s,mb5.2
SSF                                epP      pP       19 08 21.8 -2.0
SSF   Saint Saulge       92.70  41 eP       P        19 08 04.6 -0.9
                 comp=Z,17nm,1.2s,mb5.2
SSF                                epP      pP       19 08 21.8 -2.0
SSF   Saint Saulge       92.70  41 eP       P        19 08 04.6 -0.9
SSF                                e*PP     pP       19 08 21.8 -2.0
SSF                                 pmax    pmax
                 comp=Z,17nm,1.2s,mb5.2
SMF   Signal de Mont     92.75  42 eP       P        19 08 05.3 -0.4
                 comp=Z,49nm,1.1s,mb5.5
SMF                                epP      pP       19 08 22.6 -1.5
SMF   Signal de Mont     92.75  42 eP       P        19 08 05.3 -0.4
                 comp=Z,25nm,1.1s,mb5.5
SMF                                epP      pP       19 08 22.6 -1.5
SMF   Signal de Mont     92.75  42 eP       P        19 08 05.3 -0.4
SMF                                e*PP     pP       19 08 22.6 -1.5
SMF                                 pmax    pmax
                 comp=Z,25nm,1.1s,mb5.5
SMRF  Simiane la Rot     92.86  45 eP       P        19 08 07.0 +0.7
                 comp=Z,133nm,1.7s,mb5.7
SMRF  Simiane la Rot     92.86  45 eP       P        19 08 07.0 +0.7
                 comp=Z,133nm,1.7s,mb6.0
LOR   Lormes             93.00  41 eP       P        19 08 06.0 -0.9
LOR                                eMLR     MLR
                 comp=Z,592nm,21.0s
LOR   Lormes             93.00  41 eP       P        19 08 06.0 -0.9
LOR                                 MLR     MLR
                 comp=Z,590nm,21.0s
LMR   La Mourre          93.26  46 eP       P        19 08 08.3 +0.1
                 comp=Z,39nm,1.0s,mb5.4
LMR                                epP      pP       19 08 25.5 -1.0
LMR   La Mourre          93.26  46 eP       P        19 08 08.3 +0.1
                 comp=Z,20nm,1.0s,mb5.4
LMR                                epP      pP       19 08 25.5 -1.0
LMR   La Mourre          93.26  46 eP       P        19 08 08.3 +0.1
LMR                                e*PP     pP       19 08 25.5 -1.0
LMR                                 pmax    pmax
                 comp=Z,20nm,1.0s,mb5.4
ORIF  Oris-en-Rattie     93.41  44 eP       P        19 08 09.5 +0.7
                 comp=Z,64nm,1.1s,mb5.6
ORIF                               eMLR     MLR
                 comp=Z,1µm,22.5s
ORIF  Oris-en-Rattie     93.41  44 eP       P        19 08 09.5 +0.7
                 comp=Z,32nm,1.1s,mb5.6
ORIF  Oris-en-Rattie     93.41  44 eP       P        19 08 09.5 +0.7
ORIF                                pmax    pmax
                 comp=Z,32nm,1.1s,mb5.6
FRF   La Foret Royal     93.43  45 eP       P        19 08 08.8 -0.2
                 comp=Z,118nm,1.6s,mb5.7
FRF   La Foret Royal     93.43  45 eP       P        19 08 08.8 -0.2
                 comp=Z,59nm,1.6s,mb5.7
FRF   La Foret Royal     93.43  45 eP       P        19 08 08.8 -0.2
FRF                                 pmax    pmax
                 comp=Z,59nm,1.6s,mb5.7
LSZ   Lusaka             93.86 107 eP       P        19 08 13.1 +1.4
                 comp=Z,26nm,1.4s,mb5.4
LSZ                                epP      pP       19 08 29.5 -0.4
LSZ   Lusaka             93.86 107 eP       P        19 08 13.1 +1.5
LSZ                                e*PP     pP       19 08 29.5 -0.5
LSZ                                 pmax    pmax
                 comp=Z,26nm,1.4s,mb5.4
MBDF  Montbardon         93.94  44 eP       P        19 08 11.7 +0.4
                 comp=Z,52nm,1.4s,mb5.4
MBDF                               epP      pP       19 08 29.1 -0.5
MBDF  Montbardon         93.94  44 eP       P        19 08 11.7 +0.4
                 comp=Z,26nm,1.4s,mb5.4
MBDF                               epP      pP       19 08 29.1 -0.5
MBDF  Montbardon         93.94  44 eP       P        19 08 11.7 +0.4
MBDF                               e*PP     pP       19 08 29.1 -0.5
MBDF                                pmax    pmax
                 comp=Z,26nm,1.4s,mb5.4
SBF   Sospel             94.07  45 eP       P        19 08 12.1 +0.2
CABF  La Chapelle        94.17  42 eP       P        19 08 12.2 -0.1
                 comp=Z,22nm,0.9s,mb5.2
CABF  La Chapelle        94.17  42 eP       P        19 08 12.2 -0.1
                 comp=Z,11nm,0.9s,mb5.2
CABF  La Chapelle        94.17  42 eP       P        19 08 12.2 -0.1
CABF                                pmax    pmax
                 comp=Z,11nm,0.9s,mb5.2
LPL   La Plagne          94.19  44 eP       P        19 08 13.1 +0.7
                 comp=Z,28nm,1.0s,mb5.2
LPL   La Plagne          94.19  44 eP       P        19 08 13.1 +0.7
                 comp=Z,14nm,1.0s,mb5.2
LPL   La Plagne          94.19  44 eP       P        19 08 13.1 +0.7
LPL                                 pmax    pmax
                 comp=Z,14nm,1.0s,mb5.2
LPG   La Plagne          94.20  44 eP       P        19 08 13.3 +0.9
                 comp=Z,46nm,1.2s,mb5.4
LPG                                epP      pP       19 08 30.7 -0.1
LPG   La Plagne          94.20  44 eP       P        19 08 13.3 +0.9
                 comp=Z,23nm,1.2s,mb5.4
LPG                                epP      pP       19 08 30.7 -0.1
LPG   La Plagne          94.20  44 eP       P        19 08 13.3 +0.9
LPG                                e*PP     pP       19 08 30.7 -0.1
LPG                                 pmax    pmax
                 comp=Z,23nm,1.2s,mb5.4
BAIF  Baives             94.30  39 eP       P        19 08 12.1 -0.7
                 comp=Z,25nm,1.3s,mb5.1
BAIF  Baives             94.30  39 eP       P        19 08 12.1 -0.7
                 comp=Z,13nm,1.3s,mb5.1
BAIF  Baives             94.30  39 eP       P        19 08 12.1 -0.7
BAIF                                pmax    pmax
                 comp=Z,13nm,1.3s,mb5.1
GIVF  Givet              94.68  39 eP       P        19 08 14.3 -0.2
GIVF                               epP      pP       19 08 31.5 -1.4
HAU   Haudompre          94.84  41 eP       P        19 08 14.8 -0.5
                 comp=Z,17nm,1.1s,mb5.1
HAU                                eMLR     MLR
                 comp=Z,334nm,19.8s
HAU   Haudompre          94.84  41 eP       P        19 08 14.8 -0.5
                 comp=Z,8.4nm,1.1s,mb5.1
HAU                                 LR      LR
                 comp=Z,330nm,19.8s
HAU   Haudompre          94.84  41 eP       P        19 08 14.8 -0.5
HAU                                 pmax    pmax
                 comp=Z,8.0nm,1.1s,mb5.1
HAU                                 MLR     MLR
                 comp=Z,330nm,19.8s
HINF  Hinteralfeld       95.09  41 eP       P        19 08 15.8 -0.7
WLF   Walferdange        95.32  40 eP       P        19 08 17.8 +0.3
                 comp=Z,89nm,1.4s,mb6.0
WLF                                epP      pP       19 08 35.2 -0.6
ECH   Echery             95.42  41 eP       P        19 08 20.4 +2.4
CDF   Champ du Feu       95.56  41 eP       P        19 08 18.2 -0.4
                 comp=Z,26nm,1.2s,mb5.3
CDF                                epP      pP       19 08 35.5 -1.5
CDF   Champ du Feu       95.56  41 eP       P        19 08 18.2 -0.4
                 comp=Z,13nm,1.2s,mb5.2
CDF                                epP      pP       19 08 35.5 -1.5
CDF   Champ du Feu       95.56  41 eP       P        19 08 18.2 -0.4
CDF                                e*PP     pP       19 08 35.5 -1.5
CDF                                 pmax    pmax
                 comp=Z,13nm,1.2s,mb5.2
RUP   Ruppelstein        95.88  40 eP       P        19 08 25.0 +5.0
LANF  Langenberg         96.09  41 eP       P        19 08 20.2 -0.8
BFO   Black Forest       96.20  41 eSKSac   SKSac    19 18 56.8 +4.6
BFO                                eL                19 47 49.2
BUG   Bochum--Univer     96.61  38 eP       P        19 08 23.0 -0.3
                 comp=Z,65nm,1.3s,mb5.9
BUG                                epP      pP       19 08 40.7 -1.0
INK   Inuvik             96.78 341 eP       P        19 08 22.0 -1.7
                 comp=Z,1µm,1.2s
INK                                epP      pP       19 08 39.8 -2.2
INK   Inuvik             96.78 341 eP       P        19 08 22.0 -1.7
INK                                e*PP     pP       19 08 39.8 -2.3
INK                                 pmax    pmax
                 comp=Z,1µm,1.2s
INK   Inuvik             96.78 341  P       P        19 08 21.8 -1.9
                 comp=Z,2.2nm,0.9s,mb4.6,baz=121,slow=4.5,SNR=7.1
INK                                 pP      pP       19 08 41.2 -0.9
                 comp=Z,19nm,1.1s,baz=128,slow=6.0,SNR=16
DAWY  Dawson             96.78 336 eP       P        19 08 21.8 -1.9
DAVA  Damuels            96.84  43⇑i        pP       19 08 42.2 -0.6
                 comp=Z,29nm,1.1s
DAVA  Damuels            96.84  43⇑iP       P        19 08 25.4 +0.9
                 comp=Z,14nm,1.0s,mb5.3
DAVA                               i        pP       19 08 42.2 -0.6
DAVA  Damuels            96.84  43⇑iPcP     PcP      19 08 25.4 +0.8
                 comp=Z,14nm,1.1s
DAVA                              ⇑ipP      pP       19 08 42.2 -0.6
                 comp=Z,29nm,1.1s
STU   Stuttgart          96.89  41 epP      pP       19 08 42.0 -1.0
STU                                eSKSac   SKSac    19 19 00.2 +4.5
TNS   Taunus Mts         96.90  40 eP       P        19 08 24.9 +0.3
TNS                                epP      pP       19 08 42.6 -0.4
TNS                                eSKSac   SKSac    19 19 00.9 +5.1
TNS                                 LR      LR
                 comp=Z,400nm,21.5s
TNS   Taunus Mts         96.90  40 eP       P        19 08 24.9 +0.3
                 comp=Z,26nm,1.0s,mb5.6
TNS                                epP      pP       19 08 42.6 -0.4
TNS                                eSKSac   SKSac    19 19 00.9 +5.1
TNS                                eL                19 49 56.3
IBBN  Ibbenburen         97.19  37 eP       P        19 08 26.1 +0.2
                 comp=Z,67nm,1.3s,mb5.9
IBBN                               epP      pP       19 08 43.5 -0.8
MOTA  Moosalm            97.65  43⇑i        pP       19 08 45.8 -0.7
                 comp=Z,34nm,1.2s
MOTA  Moosalm            97.65  43⇑iP       P        19 08 28.1  0.0
                 comp=Z,15nm,1.2s,mb5.4
MOTA                              ⇑ipP      pP       19 08 45.8 -0.7
                 comp=Z,34nm,1.2s
MOTA  Moosalm            97.65  43⇑iP       P        19 08 28.1  0.0
MOTA                               i        pP       19 08 45.8 -0.7
MOTA                                pmax    pmax
                 comp=Z,15nm,1.2s,mb5.4
SQTA  Sankt Quirin       97.68  43⇓i        pP       19 08 46.1 -0.6
                 comp=Z,38nm,1.1s
SQTA  Sankt Quirin       97.68  43⇑iP       P        19 08 28.4 +0.1
                 comp=Z,9.5nm,1.0s,mb5.3
SQTA                              ⇓ipP      pP       19 08 46.1 -0.6
                 comp=Z,38nm,1.1s
SQTA  Sankt Quirin       97.68  43⇑iP       P        19 08 28.4 +0.2
SQTA                               i        pP       19 08 46.1 -0.5
SQTA                                pmax    pmax
                 comp=Z,10.0nm,1.0s,mb5.3
AQU   L'Aquila           97.73  48 eP       P        19 08 29.8 +1.2
WTTA  Wattenberg         97.97  43⇑i        pP       19 08 47.8 -0.2
                 comp=Z,44nm,0.9s
WTTA  Wattenberg         97.97  43⇑iP       P        19 08 30.6 +1.1
                 comp=Z,19nm,0.9s,mb5.6
WTTA                               i        pP       19 08 47.8 -0.2
WTTA  Wattenberg         97.97  43⇑iPcP     PcP      19 08 30.6 +1.0
                 comp=Z,19nm,0.9s
WTTA                              ⇑ipP      pP       19 08 47.8 -0.2
                 comp=Z,44nm,0.9s
WTTA  Wattenberg         97.97  43⇑iP       P        19 08 30.6 +1.1
WTTA                               i        pP       19 08 47.8 -0.1
WTTA                                pmax    pmax
                 comp=Z,19nm,0.9s,mb5.6
FUR   Furstenfeldbru     98.01  42 epP      pP       19 08 47.6 -0.5
FUR                                eSKSac   SKSac    19 19 05.7 +4.2
UBBA  Unterbreizbach     98.03  39 epP      pP       19 08 47.3 -0.8
UBBA                               eSKSac   SKSac    19 19 07.5 +6.0
ABTA  Abfaltersbach      98.39  44⇑iPdiff   P        19 08 32.2 +0.7
                 comp=Z,8.7nm,1.1s,mb5.2
ABTA                              ⇑ipP      pP       19 08 48.7 -1.2
                 comp=Z,29nm,1.2s
GRA1  Grafenberg Arr     98.44  41 eP       P        19 08 31.4 -0.2
                 comp=Z,35nm,1.3s,mb5.7
GRA1                               epP      pP       19 08 49.6 -0.4
GRA1                               eSKSac   SKSac    19 19 08.4 +4.8
GRA1                                LR      LR
                 comp=Z,400nm,21.8s
GRF   Grafenberg Arr     98.44  41 eP       P        19 08 31.4 -0.2
                 comp=Z,35nm,1.3s,mb5.7
GRF                                epP      pP       19 08 49.6 -0.4
GRF                                eSKS              19 19 08.4
GRF                                 LR      LR
                 comp=Z,400nm,21.8s
GRF   Grafenberg Arr     98.44  41 eP       P        19 08 31.4 -0.2
GRF                                e*PP     pP       19 08 49.6 -0.4
GRF                                e                 19 19 08.4
GRF                                 pmax    pmax
                 comp=Z,35nm,1.3s,mb5.7
GRF                                 MLR     MLR
                 comp=Z,400nm,21.8s
GRF   Grafenberg Arr     98.44  41 eP       P        19 08 31.4 -0.2
                 comp=Z,35nm,1.3s,mb5.7
GRF                                epP      pP       19 08 49.6 -0.4
GRF                                eSKSac   SKSac    19 19 08.4 +4.8
GRF                                eL                19 48 55.7
CLZ   Clausthal          98.57  38 eP       P        19 08 32.9 +0.8
                 comp=Z,35nm,1.1s,mb5.8
CLZ                                epP      pP       19 08 50.1 -0.4
NRDL  Niedersach Rie     98.61  38 eP       P        19 08 33.1 +0.8
                 comp=Z,31nm,1.2s,mb5.7
NRDL                               epP      pP       19 08 50.4 -0.3
NRDL                               eSKSac   SKSac    19 19 10.8 +6.4
MOX   Moxa               98.96  40 epP      pP       19 08 51.7 -0.6
MOX                                eSKSac   SKSac    19 19 11.4 +5.2
KBA   Koelnbreinsper     99.03  44⇓i        pP       19 08 52.2 -0.5
                 comp=Z,13nm,1.1s
KBA   Koelnbreinsper     99.03  44⇓iP       P        19 08 34.4 +0.1
                 comp=Z,6.5nm,1.2s,mb5.0
KBA                                i        pP       19 08 52.2 -0.5
KBA   Koelnbreinsper     99.03  44⇓iPdiff   P        19 08 34.4 +0.1
                 comp=Z,6.5nm,1.2s,mb5.0
KBA                               ⇓ipPdiff  pP       19 08 52.2 -0.5
                 comp=Z,13nm,1.1s
KBA   Koelnbreinsper     99.03  44⇓iP       P        19 08 34.4 +0.1
KBA                                i        pP       19 08 52.2 -0.5
KBA                                 pmax    pmax
                 comp=Z,7.0nm,1.2s,mb5.1
ROTZ  Rotzenmuhle        99.07  41 eP       P        19 08 34.7 +0.3
                 comp=Z,24nm,1.2s,mb5.6
ROTZ                               epP      pP       19 08 52.2 -0.6
ROTZ                               eSKSac   SKSac    19 19 11.1 +4.3
BSEG  Bad Segeberg       99.17  36 eP       P        19 08 35.5 +0.8
BSEG                               e*PP     pP       19 08 52.6 -0.5
BSEG  Bad Segeberg       99.17  36 eP       P        19 08 35.5 +0.8
                 comp=Z,28nm,1.0s,mb5.8
BSEG                               epP      pP       19 08 52.6 -0.5
BSEG                               eSKSac   SKSac    19 19 12.9 +5.8
MUD   Monsted U'grnd     99.31  34 i P      pP       19 08 53.6 -0.1
                 comp=Z,60nm,1.1s
WET   Wettzell           99.31  41 eP       P        19 08 36.0 +0.5
WET                                e*PP     pP       19 08 53.3 -0.6
WET   Wettzell           99.31  41 eP       P        19 08 36.0 +0.5
                 comp=Z,25nm,1.3s,mb5.6
WET                                epP      pP       19 08 53.3 -0.6
WET                                eSKSac   SKSac    19 19 11.5 +3.5
NKC   Novy Kostel        99.35  40 ePdif    P        19 08 34.6 -1.0
NKC                                e        pP       19 08 53.3 -0.7
NKC   Novy Kostel        99.35  40 i P      P        19 08 34.6 -1.0
NKC                                e        pP       19 08 53.3 -0.7
NKC   Novy Kostel        99.35  40 ePDIF    P        19 08 34.6 -1.0
NKC                                epP      pP       19 08 53.3 -0.7
TANN  Tannenbergstha     99.41  40 eP       P        19 08 37.1 +1.2
                 comp=Z,44nm,1.5s,mb5.8
TANN                               epP      pP       19 08 54.1 -0.2
TANN                               eSKSac   SKSac    19 19 12.2 +3.7
KHC   Kasperske Hory     99.75  42 ePdif    Pdif     19 08 36.7 -0.8
KHC                                e                 19 08 55.0
KHC   Kasperske Hory     99.75  42 ePDIF    Pdif     19 08 36.7 -0.8
KHC                                epP      pP       19 08 55.0 -0.9
GEC2  GERESS Array S     99.75  42 eP       Pdif     19 08 37.7 +0.2
GEC2                               e*PP     pP       19 08 55.0 -0.9
GEC2  GERESS Array S     99.75  42 eP       Pdif     19 08 37.7 +0.2
                 comp=Z,14nm,1.0s
GEC2                               epP      pP       19 08 55.0 -0.9
GEC2                               eSKSac   SKSac    19 19 13.4 +3.2
GERES GERESS Array B     99.75  42  P       Pdif     19 08 37.2 -0.3
GERES                               *PP     pP       19 08 55.3 -0.6
GERES GERESS Array B     99.75  42  P       Pdif     19 08 37.2 -0.3
                 comp=Z,1.7nm,0.8s,baz=238,slow=2.5,SNR=12
GERES                               pP      pP       19 08 55.3 -0.5
                 comp=Z,6.2nm,0.9s,baz=249,slow=3.7,SNR=13
GERES                               PKKPbc  PKKPbc   19 24 57.8 -1.9
                 comp=Z,0.1nm,0.2s,baz=153,slow=37,SNR=4.2
GERES                               LR      LR       19 51 22.5
                 comp=Z,217nm,19.1s,baz=257,slow=34
MOA   Molln              99.85  43⇑i                 19 08 55.3
                 comp=Z,9.9nm,0.9s
MOA   Molln              99.85  43⇓iP       Pdif     19 08 37.9 -0.1
                 comp=Z,5.9nm,1.0s
MOA                                i                 19 08 55.3
MOA   Molln              99.85  43⇓iPdiff   Pdif     19 08 37.9 -0.1
                 comp=Z,5.9nm,1.0s
MOA                               ⇑ipPdiff           19 08 55.3
                 comp=Z,9.9nm,0.9s
CLL   Collm              99.99  39 ePdif    Pdif     19 08 39.0 +0.4
CLL                                i                 19 08 56.8
CLL                                 LR      LR
                 comp=Z,900nm,20.7s
CLL   Collm              99.99  39 eP       Pdif     19 08 38.9 +0.3
                 comp=Z,17nm,1.1s
CLL                                epP               19 08 56.5
CLL                                eSKSac   SKSac    19 19 15.4 +4.1
CLL   Collm              99.99  39 ePdif    Pdif     19 08 39.0 +0.4
CLL                                i pPdif           19 08 56.8
                 comp=Z,17nm,1.1s
BRG   Berggiesshubel    100.44  40 eP       Pdif     19 08 43.9 +3.3
                 comp=Z,14nm,1.7s
BRG                                e                 19 08 58.6
BRG                                 LR      LR
                 comp=Z,630nm,35.0s
BRG   Berggiesshubel    100.44  40 epP               19 08 58.6
BRG                                eSKSac   SKSac    19 19 17.2 +3.7
BRG   Berggiesshubel    100.44  40 eP       Pdif     19 08 43.9 +3.3
                 comp=Z,24nm,1.7s
BRG                                e                 19 08 58.6
                 comp=Z,28nm,1.6s
BRG
                 comp=N,397nm,27.3s
BRG
                 comp=E,630nm,22.2s
BRG
                 comp=Z,1µm,35.0s
PRU   Pruhonice         100.58  41 ePdif    Pdif     19 08 43.9 +2.7
PRU                                e                 19 08 57.8
PRU                                 LR      LR
                 comp=Z,600nm,35.8s
PRU   Pruhonice         100.58  41 ePDIF    Pdif     19 08 43.9 +2.7
PRU                                epP               19 08 57.8
PRU                                 AMS     AMS      19 45 40.0
                 comp=Z,600nm,35.8s
PVCC  Panska Ves        100.74  40  AMS     AMS      19 45 50.0
                 comp=Z,700nm,25.0s
TREC  Trest             101.00  42 i P      Pdif     19 08 43.6 +0.5
TREC  Trest             101.00  42 ePDIF    Pdif     19 08 43.6 +0.5
TREC                               epP               19 09 00.9
UPC   Upice             101.62  41 ePdif    Pdif     19 08 46.1 +0.3
UPC   Upice             101.62  41 i P      Pdif     19 08 46.1 +0.3
UPC   Upice             101.62  41 ePDIF    Pdif     19 08 46.1 +0.3
NOA   NORSAR Array B    101.65  29  P       Pdif     19 08 46.7 +0.7
                 comp=Z,0.6nm,0.7s,baz=161,slow=12,SNR=2.8
NOA                                 pP               19 09 02.9
                 comp=Z,2.4nm,1.0s,baz=253,slow=4.6,SNR=4.7
DPC   Dobruska-Polom    101.78  41 ePdif    Pdif     19 08 48.5 +2.0
DPC                                e                 19 09 04.9
DPC                                 LR      LR
                 comp=Z,800nm,41.7s
DPC   Dobruska-Polom    101.78  41 i P      Pdif     19 08 48.5 +2.0
DPC                                 MLR     MLR
                 comp=Z,800nm,41.7s
DPC   Dobruska-Polom    101.78  41 ePDIF    Pdif     19 08 48.5 +2.0
DPC                                epP               19 09 04.9
DPC                                 AMS     AMS      19 46 30.0
                 comp=Z,800nm,41.7s
MORC  Moravsky Berou    102.42  42 ePdif    Pdif     19 08 49.6 +0.3
                 comp=Z,8.4nm,1.2s
MORC                               e                 19 09 07.8
MORC  Moravsky Berou    102.42  42 eP       Pdif     19 08 49.6 +0.2
MORC                                pmax    pmax
                 comp=Z,8.0nm,1.2s
AKASG Malin Array Be    109.97  42  PP      PP       19 13 53.5 -4.9
                 comp=Z,3.0nm,1.0s,baz=257,slow=7.4,SNR=6.8
AKASG                               PKKPbc  PKKPbc   19 24 26.5 -2.2
                 comp=Z,0.4nm,0.6s,baz=70,slow=3.7,SNR=4.1
BRTR  Keskin Array B    112.25  54  PKPdf   PKiKP    19 13 29.4 +0.2
BRTR                                PP      PP       19 14 15.1 -0.1
BRTR                                PKKPbc  PKKPbc   19 24 19.4 -1.4
BRTR  Keskin Array B    112.25  54  PKIKP   PKiKP    19 13 29.4 +0.2
BRTR                                                 19 14 15.1
BRTR  Keskin Array B    112.25  54  PKiKP   PKiKP    19 13 29.4 +0.2
                 comp=Z,0.8nm,0.8s,baz=20,slow=4.1,SNR=3.9
BRTR                                PP      PP       19 14 15.1 -0.1
                 comp=Z,1.8nm,0.9s,baz=256,slow=5.0,SNR=3.8
BRTR                                PKKPbc  PKKPbc   19 24 19.4 -1.4
                 comp=Z,0.5nm,0.9s,baz=161,slow=4.6,SNR=3.7
OBN   Obninsk           114.41  37 ePKIKP   PKiKP    19 13 31.2 -1.6
PRGR  Permogore         118.05  29 ePKIKP   PKPdf    19 13 46.1 +6.5
BILL  Bilibino          118.35 339 ePKIKP   PKPdf    19 13 38.8 -1.2
KIV   Kislovodsk        119.08  49  PKPdf   PKPdf    19 13 42.1 -0.1
KIV                                epPKPdf  pPKPdf   19 14 01.3 +0.1
KIV   Kislovodsk        119.08  49 i PKIKP  PKPdf    19 13 40.0 -2.2
KIV                                e                 19 15 01.1
KIV                                ePPP              19 17 32.4
KIV                                eSP      SP       19 24 47.1 +3.8
KIV                                eSS      SS       19 31 23.9 +4.9
KIV                                 pmax    pmax
                 comp=Z,7.0nm,1.1s
ZEI   Tsey              120.03  50 ePKIKP   PKPdf    19 13 43.9 -0.1
ZEI                                i                 19 14 03.2
ZEI                                e                 19 15 06.4
STKA  Stephens Creek    121.59 213 eP       PKPdf    19 13 46.2 -1.3
                 comp=Z,4.9nm,0.9s
STKA  Stephens Creek    121.59 213  PKP     PKPdf    19 13 46.2 -1.3
                 comp=Z,5.3nm,0.8s,baz=184,slow=1.5,SNR=9.3
STKA                                pPKP    pPKPdf   19 14 06.7 +0.2
                 comp=Z,2.9nm,0.8s,baz=300,slow=1.8,SNR=3.5
NAY   Al-Naaiem         122.77  66 eP       pPKPdf   19 14 07.7 -1.1
NAY                                 AMb     AMB      19 14 10.7
                 comp=Z,34nm,1.3s
MIB   Mutribah          122.89  66 eP       pPKPdf   19 14 07.4 -1.5
MIB                                 AMb     AMB      19 14 10.9
                 comp=Z,80nm,1.2s
RDF   Al-Radifah        123.02  67 eP       pPKPdf   19 14 07.7 -1.5
RDF                                 AMb     AMB      19 14 15.2
                 comp=Z,80nm,1.5s
UMR   Umm Al-Rimmam     123.20  66 eP       pPKPdf   19 14 08.3 -1.3
UMR                                 AMb     AMB      19 14 11.7
                 comp=Z,140nm,1.1s
TIXI  Tiksi             124.86 352 i PKIKP  PKPdf    19 13 50.4 -2.1
TIXI                               e                 19 14 09.4
TIXI                                pmax    pmax
                 comp=Z,4.0nm,0.9s
SEY   Seymchan          125.91 337 ePKIKP   PKPdf    19 13 51.9 -2.8
ARU   Arti              126.10  32 ePKPdf   PKPdf    19 13 55.5 +0.3
ARU                                epPKPdf  pPKPdf   19 14 14.3  0.0
ARU   Arti              126.10  32 i PKIKP  PKPdf    19 13 54.8 -0.5
ARU                                e                 19 20 57.8
ARU                                eSS      SS       19 32 46.7 -0.3
ARU                                 MLR     MLR
                 comp=Z,500nm,24.0s
ARU                                 MLR     MLR
                 comp=E,400nm,25.0s
FORT  Forrest           128.38 201 eP       PKPdf    19 13 59.3 -1.2
                 comp=E,22nm,0.8s
MA2   Magadan           128.52 334 ePKPdf   PKPdf    19 13 59.3 -0.4
MA2   Magadan           128.52 334 i PKIKP  PKPdf    19 13 56.1 -3.7
MA2                                eSSS              19 38 05.8
MA2                                 pmax    pmax
                 comp=Z,200nm,1.0s
KLBR  Kellerberrin      130.22 190 eP       PKPdf    19 14 03.1 -0.9
                 comp=Z,32nm,1.0s
YAK   Yakutsk           133.45 347 i PKIKP  PKPdf    19 14 06.7 -2.4
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YAK				*e*SS	SS	19 34 07.8	-8.6
YAK				pmax	pmax		
	comp=Z,231nm,5.2s						
YAK				pmax	pmax		
	comp=N,69nm,4.7s						
YAK				pmax	pmax		
	comp=E,82nm,4.8s						
YAK				pmax	pmax		
	comp=Z,160nm,4.8s						
YAK				pmax	pmax		
	comp=N,94nm,4.7s						
YAK				pmax	pmax		
	comp=E,166nm,4.9s						
BRVK	**Borovoye**	**133.67**	**31**	*e*PKPdf	PKPdf	19 14 07.8	-1.9
BRVK				*e*pP		19 14 28.9	
BRVK	**Borovoye**	**133.67**	**31**	*e*PKIKP	PKPdf	19 14 07.8	-1.9
BRVK				*e**PP		19 14 28.9	
WB2	**Warramunga Arr**	**135.03**	**215**	*e*P	PKPdf	19 14 12.4	-1.0
WB2				*e*S	SKPbc	19 17 42.3	+3.9
WRA	**Warramunga Arr**	**135.03**	**215**	PKP		19 13 59.6	
WRA				PKP	PKPdf	19 14 12.3	-1.1
WRA				pPKP	pPKPdf	19 14 31.4	-1.0
WRA	**Warramunga Arr**	**135.03**	**215**	PKHKP		19 13 59.6	
WRA						19 14 12.3	
WRA						19 14 31.4	
WRA	**Warramunga Arr**	**135.03**	**215**	PKhKP		19 13 59.6	
	comp=E,1.3nm,1.0s,baz=125,slow=1.1,SNR=5.0						
WRA				PKP	PKPdf	19 14 12.3	-1.1
	comp=E,18nm,0.9s,baz=148,slow=1.7,SNR=58						
WRA				pPKP	pPKPdf	19 14 31.4	-1.0
	comp=E,6.1nm,0.8s,baz=134,slow=1.6,SNR=3.6						
NVS	**Novosibirsk**	**138.05**	**22**	*i* PKIKP	PKPdf	19 14 18.0	+0.2
NVS				*i*		19 17 05.3	
NVS				pmax	pmax		
	comp=Z,42nm,1.1s						
NVS				pmax	pmax		
	comp=N,8.0nm,1.2s						
NVS				pmax	pmax		
	comp=E,12nm,1.2s						
KURK	**Kurchatov**	**139.17**	**29**	*e*PKPdf	PKPdf	19 14 19.6	-0.4
KURK	**Kurchatov**	**139.17**	**29**	*e*PKIKP	PKPdf	19 14 19.6	-0.4
ZALV	**Zalesovo Beam**	**139.32**	**22**	PKP		19 14 09.8	
ZALV				PKP	PKPdf	19 14 17.9	-2.3
ZALV				pPKP	pPKPdf	19 14 37.8	-1.4
ZALV	**Zalesovo Beam**	**139.32**	**22**	PKhKP		19 14 09.8	
	comp=E,1.0nm,0.6s,baz=323,slow=4.4,SNR=4.5						
ZALV				PKP	PKPdf	19 14 17.9	-2.3
	comp=E,11nm,0.8s,baz=306,slow=2.4,SNR=36						
ZALV				pPKP	pPKPdf	19 14 37.8	-1.4
	comp=E,32nm,0.8s,baz=309,slow=2.1,SNR=14						
ZAL	**Zalesovo**	**139.32**	**22**	PKHKP		19 14 09.8	
ZAL						19 14 17.9	
ZAL						19 14 37.8	
YSS	**Yuzh-Sakhalins**	**139.79**	**324**	*e*PKIKP	PKPdf	19 14 21.0	-0.3
YSS				*e*		19 14 41.2	
BOD	**Bodaibo**	**139.83**	**356**	*e*PKHKP		19 14 11.2	
BOD				pmax	pmax		
	comp=Z,13nm,1.6s						
KBL	**Kabul**	**140.72**	**57**	PKPdf	PKPdf	19 14 24.7	+1.4
FITZ	**Fitzroy Crossi**	**140.79**	**205**	*e*P		19 14 13.9	
	comp=Z,16nm,0.9s						
FRU	**Bishkek**	**141.61**	**42**	*e*PKIKP	PKPdf	19 14 25.5	+0.8
FRU				*i*		19 14 45.0	
FRU				pmax	pmax		
	comp=Z,80nm,1.8s						
AAK	**Ala-Archa**	**141.63**	**42**	*e*PKPpre		19 14 21.1	
AAK	**Ala-Archa**	**141.63**	**42**	*e*PKIKP	PKPdf	19 14 21.1	-3.6
HABR	**Khabarovsk**	**142.76**	**331**	*i* PKIKP	PKPdf	19 14 26.7	+0.1
HABR				*e*		19 14 46.0	
HABR				*e*SS	SS	19 36 08.1	+1.0
KLR	**Kul’dur**	**143.62**	**335**	*e*PKHKP		19 14 22.3	
KLR				*e*		19 17 48.0	
KLR				pmax	pmax		
	comp=Z,28nm,1.4s						
MK31	**Makanchi Array**	**143.62**	**31**	*e*PKPpre		19 14 25.2	
MK31	**Makanchi Array**	**143.62**	**31**	*e*PKIKP	PKPdf	19 14 25.2	-2.9
MKAR	**Makanchi Array**	**143.62**	**31**	PKP	PKPdf	19 14 24.8	-3.3
MKAR				pPKP	pPKPdf	19 14 43.6	-3.5
MKAR	**Makanchi Array**	**143.62**	**31**	PKIKP	PKPdf	19 14 24.8	-3.3
MKAR						19 14 43.7	
MKAR	**Makanchi Array**	**143.62**	**31**	PKP	PKPdf	19 14 24.8	-3.3
	comp=Z,2.6nm,0.7s,baz=320,slow=4.0,SNR=33						
MKAR				pPKP	pPKPdf	19 14 43.6	-3.5
	comp=Z,9.9nm,0.8s,baz=312,slow=3.2,SNR=14						
KSH	**Kashi**	**144.10**	**46**	*i* PKP	PKPdf	19 14 29.0	-0.2
KSH				*e*APKP		19 14 38.9	
KSH				*e*PKS		19 18 03.0	
KSH				*e*SKS	SKSdf	19 21 32.2	-0.9
KSH				PP	PP		
	comp=Z,390nm,4.6s						
KSH				LR	LR		
	comp=N,414nm,7.1s						
KSH				LR	LR		
	comp=E,414nm,4.5s						
KSH				LR	LR		
	comp=Z,448nm,5.8s						
IRK	**Irkutsk**	**145.39**	**5**	*e*PKIKP	PKPdf	19 14 30.2	-0.8
IRK				*e*		19 14 49.2	
IRK				*e*		19 17 46.0	
IRK				pmax	pmax		
	comp=Z,67nm,1.1s						
MOY	**Mondy**	**145.58**	**9**	*e*PKIKP	PKPdf	19 14 32.6	+1.2
MOY				*e*		19 14 50.8	
MOY				pmax	pmax		
	comp=Z,498nm,1.5s						
CIT	**Chita**	**145.63**	**355**	*e*PKIKP	PKPdf	19 14 32.2	+0.8
CIT				*e*		19 14 51.5	
CIT				*e*		19 14 58.1	
CIT				pmax	pmax		
	comp=Z,489nm,1.4s						
TLY	**Talaya**	**145.89**	**6**	*e*PKPdf	PKPdf	19 14 32.3	+0.4
TLY				*e*pPKPdf	pPKPdf	19 14 51.9	+0.9
TLY	**Talaya**	**145.89**	**6**	*i* PKP2	PKPab	19 14 33.6	+0.5
TLY				pmax	pmax		
	comp=Z,33nm,1.3s						
TLY				MLR	MLR		
	comp=Z,258nm,25.0s						
ZAK	**Zakamensk**	**147.13**	**7**	*e*PKP2	PKPab	19 14 34.7	-3.3
ZAK				pmax	pmax		
	comp=Z,70nm,1.2s						
ZAK				pmax	pmax		
	comp=Z,277nm,1.2s						
HIA	**Hailar**	**147.40**	**347**	*e*PKPdf	PKPdf	19 14 34.4	-0.2
HIA	**Hailar**	**147.40**	**347**	*e*PKIKP	PKPdf	19 14 34.4	-0.1
VLA	**Vladivostok**	**148.14**	**327**	*e*PKHKP		19 14 33.5	
VLA				pmax	pmax		
	comp=Z,79nm,1.6s						
MDJ	**Mudanjiang**	**148.14**	**332**	PKP	PKPdf	19 14 37.2	+1.3
MDJ				PP	PP	19 18 08.7	+1.5
MDJ				SS	SS	19 37 07.4	-1.0
MDJ				PP	PP		
	comp=Z,96nm,5.7s						
MDJ				LR	LR		
	comp=N,174nm,36.9s						
MDJ				LR	LR		
	comp=E,161nm,42.2s						
MDJ				LR	LR		
	comp=Z,234nm,33.4s						
MJAR	**Matsushiro Arr**	**148.18**	**312**	PKPbc	PKPbc	19 14 38.2	-1.4
MJAR				pPKPbc	pPKPbc	19 14 58.2	-0.3
MJAR	**Matsushiro Arr**	**148.18**	**312**	PKP2	PKPab	19 14 38.2	-4.4
MJAR	**Matsushiro Arr**	**148.18**	**312**	PKPbc	PKPbc	19 14 38.2	-1.4
	comp=Z,106nm,0.9s,baz=62,slow=1.4,SNR=206						
MJAR				pPKPbc	pPKPbc	19 14 58.2	-0.3
	comp=Z,143nm,1.1s,baz=14,slow=0.4,SNR=11						
MAJO	**Matsushiro**	**148.18**	**312**	*e*PKPbc	PKPbc	19 14 38.9	-0.6
MAJO				*e*pPKPdf	pPKPdf	19 14 57.6	+2.3
MAJO	**Matsushiro**	**148.18**	**312**	*e*PKP2	PKPab	19 14 38.9	-3.7
MAT	**Matsushiro**	**148.18**	**312**	PKP	PKPdf	19 14 35.7	-0.5
WMQ	**Urumqi**	**148.41**	**30**	PKP	PKPdf	19 14 38.6	+2.2
WMQ				APKP		19 14 49.3	
WMQ				XPKP		19 14 53.0	
WMQ				PP	PP	19 18 14.8	+6.0
WMQ				PP	PP		
	comp=Z,79nm,10.7s						
WMQ				LR	LR		
	comp=N,428nm,23.6s						
WMQ				LR	LR		
	comp=E,523nm,26.3s						
WMQ				LR	LR		
	comp=Z,543nm,26.3s						
SONM	**Songino Array**	**149.93**	**4**	PKP	PKPdf	19 14 39.3	+0.6
SONM				PKPbc	PKPbc	19 14 43.9	+0.3
SONM				pPKPbc	pPKPbc	19 15 02.0	-0.5
SONM	**Songino Array**	**149.93**	**4**	PKHKP		19 14 39.3	
SONM	**Songino Array**	**149.93**	**4**	PKP	PKPdf	19 14 39.3	+0.6
	comp=Z,11nm,0.7s,baz=343,slow=0.8,SNR=55						
SONM				PKPbc	PKPbc	19 14 43.9	+0.3
	comp=Z,11nm,0.7s,baz=332,slow=1.8,SNR=85						
SONM				pPKPbc	pPKPbc	19 15 02.0	-0.5
	comp=Z,52nm,0.9s,baz=346,slow=1.6,SNR=19						
ULN	**Ulaanbaatar**	**149.94**	**3**	*e*PKPdf	PKPdf	19 14 38.8	+0.1
ULN	**Ulaanbaatar**	**149.94**	**3**	*e*PKHKP		19 14 38.8	
CN2	**Changchun**	**150.57**	**335**	*e*PKP	PKPdf	19 14 43.2	+3.4
CN2				PP	PP		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,200nm,18.0s						
CN2				LR	LR		
	comp=E,200nm,18.0s						
CN2				LR	LR		
	comp=Z,400nm,21.0s						
HYB	**Hyderabad**	**150.98**	**86**	*e*P	PKPdf	19 14 41.5	+0.3
HYB				*e*P		19 15 06.5	
HYB	**Hyderabad**	**150.98**	**86**	*e*PKIKP	PKPdf	19 14 41.5	+0.3
HYB				*e*		19 15 06.5	
HYB	**Hyderabad**	**150.98**	**86**	*i* PKP	PKPdf	19 14 41.5	+0.3
HYB				*e*pPKP	pPKPdf	19 15 06.5	+6.2
KSRS	**Korea Array**	**154.29**	**324**	PKP	PKPdf	19 14 45.0	-0.5
	comp=Z,9.8nm,1.0s,baz=36,slow=0.8,SNR=32						
KSRS				PKPbc	PKPbc	19 14 53.8	0.0
	comp=Z,13nm,1.0s,baz=33,slow=1.3,SNR=18						
KSRS				pPKP	pPKPdf	19 15 04.4	-0.2
	comp=Z,7.5nm,1.1s,baz=28,slow=1.5,SNR=3.7						
KSRS				pPKPbc	pPKPbc	19 15 12.4	-0.3
	comp=Z,12nm,0.8s,baz=12,slow=1.9,SNR=7.0						
KOLN	**Koldanda**	**154.59**	**62**	*e*P	PKPdf	19 14 46.0	-0.2
	comp=Z,83nm,1.2s						
GKN	**Gorkha**	**155.38**	**61**	*e*P	PKPdf	19 14 46.4	-0.9
DMN	**Daman**	**155.90**	**62**	*e*P	PKPdf	19 14 47.2	-0.8
	comp=Z,93nm,1.1s						
KKN	**Kakani**	**155.99**	**61**	*e*P	PKPdf	19 14 47.5	-0.6
HHC	**Hu-ho-hao-te**	**156.89**	**355**	*e*PKP	PKPdf	19 14 47.8	-1.1
HHC				PP	PP	19 18 59.0	+2.7
HHC				SKS	SKSdf	19 21 47.9	-1.4
HHC				SKKS	SKKSac	19 25 42.2	+1.4
HHC				SS	SS	19 38 42.0	-1.4
HHC				PP	PP		
	comp=Z,99nm,5.7s						
HHC				LR	LR		
	comp=N,211nm,23.8s						
HHC				LR	LR		
	comp=E,150nm,27.4s						
HHC				LR	LR		
	comp=Z,264nm,22.0s						
BJI	**Beijing**	**156.95**	**346**	PKP	PKPdf	19 14 49.4	+0.4
BJI				PP	PP	19 18 53.1	-3.6
BJI				LR	LR		
	comp=N,205nm,31.8s						
BJI				LR	LR		
	comp=E,286nm,31.8s						
BJI				LR	LR		
	comp=Z,271nm,24.8s						
BJI	**Beijing**	**156.95**	**346**	PKP	PKPdf	19 14 49.4	+0.4
BJI				PP	PP	19 18 53.1	-3.6
BJI				SS	SS	19 38 47.0	+2.7
BJI				LR	LR		
	comp=Z,270nm,24.8s						
BJI	**Beijing**	**156.95**	**346**	PKIKP	PKPdf	19 14 49.4	+0.4
BJI						19 18 53.1	
BJI				SS	SS	19 38 47.0	+2.7
BJI				MLR	MLR		
	comp=Z,270nm,24.8s						
GTA	**Gaotai**	**157.00**	**18**	PKP	PKPdf	19 14 49.9	+0.8
GTA				APKP		19 15 00.5	
GTA				XPKP		19 15 04.5	
GTA				PKS		19 18 22.3	
GTA				SKS	SKSdf	19 21 50.5	+1.0
GTA				PP	PP		
	comp=Z,91nm,6.8s						
GTA				LR	LR		
	comp=N,200nm,22.8s						
GTA				LR	LR		
	comp=E,184nm,20.5s						
GTA				LR	LR		
	comp=Z,313nm,22.4s						
ODAN	**Odare**	**158.07**	**62**	*e*P	PKPdf	19 14 50.3	-0.5
TAPN	**Taplejung**	**158.16**	**60**	*e*P	PKPdf	19 14 50.2	-0.7
	comp=Z,76nm,1.4s						
LSA	**Lhasa**	**159.82**	**51**	PKP	PKPdf	19 14 54.2	+1.4
LSA	**Lhasa**	**159.82**	**51**	*e*PKPdf	PKPdf	19 14 53.5	+0.7
LSA				*e*pPKPdf	pPKPdf	19 15 12.1	+0.2
LSA	**Lhasa**	**159.82**	**51**	*e*PKIKP	PKPdf	19 14 53.5	+0.7
LSA				*e*		19 15 12.1	
LZH	**Lanzhou**	**161.18**	**13**	*e*PKP	PKPdf	19 14 55.5	+1.4
LZH				PKP2	PKPab	19 15 39.2	+1.6
LZH				PP	PP		
	comp=Z,140nm,6.2s						
LZH				LR	LR		
	comp=E,275nm,18.5s						
LZH				LR	LR		
	comp=Z,480nm,21.0s						
LZH	**Lanzhou**	**161.18**	**13**	*e*PKP	PKPdf	19 14 55.5	+1.4
LZH				pPKP	pPKPdf	19 15 14.0	+0.8
LZH				sPKP		19 15 22.0	
LZH	**Lanzhou**	**161.18**	**13**	*e*PKIKP	PKPdf	19 14 55.5	+1.4
LZH						19 15 14.0	
LZH						19 15 22.0	
SSE	**Sheshan**	**162.73**	**322**	PKP	PKPdf	19 14 56.6	+0.8
SSE				LR	LR		
	comp=N,118nm,40.8s						
SSE				LR	LR		
	comp=E,101nm,40.8s						
SSE				LR	LR		
	comp=Z,147nm,35.2s						
SSE	**Sheshan**	**162.73**	**322**	PKP	PKPdf	19 14 56.6	+0.8
SSE				SS	SS	19 39 49.3	+2.7
SSE				LR	LR		
	comp=Z,150nm,35.2s						
NJ2	**Nanjing**	**163.22**	**330**	*e*PKP	PKPdf	19 14 53.6	-2.7
NJ2				PP	PP	19 19 32.0	+0.9
NJ2				SKS	SKSdf	19 21 53.0	-2.4
NJ2				SKKS	SKKSac	19 26 16.0	+1.8
NJ2				PP	PP		
	comp=Z,280nm,6.6s						
NJ2				LR	LR		
	comp=N,820nm,25.8s						
NJ2				LR	LR		
	comp=E,470nm,27.6s						
NJ2				LR	LR		
	comp=Z,480nm,27.6s						
XAN	**Xi’an**	**163.79**	**0**	PKP	PKPdf	19 14 56.8	+0.1
CD2	**Chengdu**	**166.07**	**19**	*e*PKP	PKPdf	19 14 59.2	+0.4
CD2				PKP2	PKPab	19 16 01.4	+2.2
CD2				PP	PP	19 19 49.7	+4.1
CD2				PP	PP		
	comp=Z,240nm,10.8s						
CD2				LR	LR		
	comp=N,360nm,27.6s						
CD2				LR	LR		
	comp=E,440nm,27.8s						
CD2				LR	LR		
	comp=Z,260nm,26.4s						
WHN	**Wuhan**	**166.38**	**340**	⇑PKP	PKPdf	19 14 59.2	+0.2
WHN				XPKP		19 15 18.5	
WHN				LR	LR		
	comp=Z,651nm,24.2s						
KMI	**Kunming**	**170.63**	**37**	PKP	PKPdf	19 15 01.5	-0.5
KMI				XPKP		19 15 20.1	
KMI				PKP2	PKPab	19 16 19.5	-0.2
KMI				PP	PP	19 20 09.0	-0.4
KMI				SKKS	SKKSac	19 26 50.6	-0.8
KMI				SS	SS	19 41 04.3	-2.2
KMI				PP	PP		
	comp=Z,220nm,6.8s						
KMI				LR	LR		
	comp=N,239nm,21.5s						
KMI				LR	LR		
	comp=E,134nm,22.4s						
KMI				LR	LR		
	comp=Z,318nm,22.8s						
KMI	**Kunming**	**170.63**	**37**	PKP	PKPdf	19 15 01.5	-0.5
KMI				sPKP		19 15 20.1	
KMI	**Kunming**	**170.63**	**37**	PKIKP	PKPdf	19 15 01.5	-0.5
KMI						19 15 20.1	
GYA	**Guiyang**	**171.08**	**14**	*i* PKP	PKPdf	19 15 02.1	-0.1
GYA				PKP2	PKPab	19 16 22.6	+1.2
GYA				PP	PP	19 20 13.8	+2.9
GYA				SKS	SKSdf	19 22 01.4	+1.2
GYA				PP	PP		
	comp=Z,1μm,8.9s						
GYA				LR	LR		
	comp=N,2μm,21.4s						
GYA				LR	LR		
	comp=E,2μm,24.8s						
GYA				LR	LR		
	comp=Z,2μm,23.6s						
QIZ	**Qiongzhong**	**178.51**	**328**	PKP	PKPdf	19 15 04.1	-0.5
QIZ				PP	PP	19 20 48.0	+0.8
QIZ				SKKS	SKKSac	19 27 29.7	+0.9
QIZ				SS	SS	19 42 18.2	-3.6
QIZ				PP	PP		
	comp=Z,338nm,15.6s						
QIZ				LR	LR		
	comp=E,142nm,26.0s						
QIZ				LR	LR		
	comp=Z,302nm,28.4s						

IDC 07 19:15:58.0±1.2, 418N×12737E, h0^{km}, mb3.7/5, mb1 3.8/5, mb1mx3.6/17, mbtmp3.7/5, Error ellipse: s-maj=129.3km s-min=19.8km az=67.0, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**24.93**	**164**	P	P	19 21 23.0	-0.2
	1.7nm,0.7s,baz=345,slow=10.0,SNR=12						
STKA	**Stephens Creek**	**38.33**	**160**	P	P	19 23 20.9	+0.2
	1.1nm,0.5s,baz=346,slow=7.3,SNR=8.7						
SONM	**Songino Array**	**47.08**	**341**	P	P	19 24 32.1	+0.6
	0.4nm,0.5s,baz=152,slow=8.3,SNR=2.6						
MKAR	**Makanchi Array**	**57.55**	**325**	P	P	19 25 48.8	-0.6
	0.3nm,0.3s,baz=112,slow=7.5,SNR=10						
ZALV	**Zalesovo Beam**	**60.48**	**333**	P	P	19 26 10.1	+0.5
	0.4nm,0.4s,baz=131,slow=7.9,SNR=3.6						

CSEM ***07*** *19:17:30.1, 3157N×5764E, h29^{km}, ML3.9, After TEH*
TEH ***07*** *19:18:10.0, 3157N×5764E, h29^{km}, ML3.9*
ISCJB ***07*** *19:18:17.2±2.1, 3153N±006×5745E±006, h33^{km}±21^{km}, Error ellipse: s-maj=10.1km s-min=7.8km az=147.2*
ISC 07 19:18:16.7±2.1, 3153N±006×5756E±006, h19^{km}±15^{km}, n32, σ1^{s}15/35, Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IKOO		**1.52**	**54**	*e*Pn	**Pn**	**19 18 42.6**	**-0.3**
ITEG		**1.70**	**36**	*e*Pn	**Pn**	**19 18 46.2**	**+0.9**
IBAF	**Bafgh**	**1.70**	**273**	*e*Pn	**Pn**	**19 18 40.8**	**-4.5**
IBAF				*e*		19 19 08.8	
	comp=Z,12μm,0.1s						
IBAF	**Bafgh**	**1.70**	**273**	*e*Pn	**Pn**	**19 18 40.8**	**-4.5**
IDAH		**2.30**	**58**	*e*Pn	**Pn**	**19 18 53.1**	**-0.5**
IMON		**2.44**	**47**	*e*Pn	**Pn**	**19 18 55.6**	**+0.1**
IMEH	**Mehriz**	**2.52**	**268**	*e*Pn	**Pn**	**19 18 51.5**	**-5.1**
IMEH				*e*Sn	**Sn**	**19 19 28.3**	**+1.5**
IMEH				*e*		19 19 33.0	
	comp=Z,5μm,0.2s						
IMEH	**Mehriz**	**2.52**	**268**	*e*Pn	**Pn**	**19 18 51.5**	**-5.1**
IMEH				*e*Sn	**Sn**	**19 19 28.3**	**+1.5**
ICHK	**Chekchek**	**2.77**	**286**	*e*Pn	**Pn**	**19 18 57.3**	**-2.8**
ICHK				*e*		19 19 59.0	
	comp=Z,5μm,0.2s						
ICHK	**Chekchek**	**2.77**	**286**	*e*Pn	**Pn**	**19 18 57.3**	**-2.8**
IBND		**4.16**	**193**	*e*Pn	**Pn**	**19 19 20.6**	**+1.4**
IBND				*e*Sn	**Sn**	**19 20 05.9**	**-1.4**
ISRV	**Sarvestan**	**4.39**	**242**	*e*Pn	**Pn**	**19 19 24.0**	**+1.6**
ISRV				*e*		19 20 42.4	
	comp=N,2μm,0.4s						
ISRV	**Sarvestan**	**4.39**	**242**	*e*Pn	**Pn**	**19 19 24.0**	**+1.6**
IGAR	**Garneh**	**4.62**	**280**	*e*	**Sg**	**19 20 51.1**	**+6.2**
	comp=N,306nm,0.2s						
IANJ	**Anjiloo**	**4.97**	**323**	*e*Pn	**Pb**	**19 19 42.6**	**-0.5**
IANJ				*e*		19 21 19.6	
	comp=Z,568nm,0.3s						
IANJ	**Anjiloo**	**4.97**	**323**	*e*Pn	**Pb**	**19 19 42.6**	**-0.5**
ISFB	**Sefidab**	**5.29**	**304**	*e*Pn	**Pn**	**19 19 34.0**	**-0.7**
ISFB				*e*		19 21 24.8	
	comp=Z,752nm,0.4s						
ISFB	**Sefidab**	**5.29**	**304**	*e*Pn	**Pn**	**19 19 34.0**	**-0.7**
IKRD	**Kardeh**	**5.29**	**8**	*e*Pn	**Pn**	**19 19 38.6**	**+3.9**
IKRD				*e*		19 21 34.4	
	comp=Z,191nm,0.3s						
IKLH	**Kalahroud**	**5.36**	**291**	*e*Pn	**Pn**	**19 19 33.6**	**-2.1**
IKLH				*e*		19 21 20.6	
	comp=Z,542nm,0.3s						
IKLH	**Kalahroud**	**5.36**	**291**	*e*Pn	**Pn**	**19 19 33.6**	**-2.1**
ILAS	**Lasjerd**	**5.43**	**316**	*e*Pn	**Pg**	**19 20 01.0**	**+0.3**
ILAS				*e*		19 21 47.9	
	comp=Z,495nm,0.3s						
ILAS	**Lasjerd**	**5.43**	**316**	*e*Pn	**Pg**	**19 20 01.0**	**+0.3**
ISHM	**Shahmirzad**	**5.55**	**321**	*e*Pn	**Pg**	**19 19 57.4**	**-5.6**
ISHM				*e*		19 21 48.9	
	comp=Z,794nm,0.3s						
ISHM	**Shahmirzad**	**5.55**	**321**	*e*Pn	**Pg**	**19 19 57.4**	**-5.6**
IFIR	**Firoozkooh**	**5.74**	**317**	*e*Pn	**Pn**	**19 19 41.2**	**+0.4**
IFIR				*e*		19 20 18.4	
	comp=Z,199nm,0.2s						
IFIR	**Firoozkooh**	**5.74**	**317**	*e*Pn	**Pn**	**19 19 41.2**	**+0.4**
IPIR	**Pirpir**	**5.77**	**283**	*e*Pn	**Pn**	**19 19 40.0**	**-1.3**
IPIR				*e*		19 21 32.7	
	comp=Z,211nm,0.3s						
IPIR	**Pirpir**	**5.77**	**283**	*e*Pn	**Pn**	**19 19 40.0**	**-1.3**
IGLO	**Galoogah**	**5.84**	**326**	*e*Pn	**Pn**	**19 19 42.0**	**-0.3**
IGLO				*e*		19 21 58.6	
	comp=Z,838nm,0.4s						
IGLO	**Galoogah**	**5.84**	**326**	*e*Pn	**Pn**	**19 19 42.0**	**-0.3**
IPRN	**Paran-Amol**	**6.45**	**318**	*e*Pn	**Pn**	**19 19 51.2**	**+0.5**
IPRN				*e*		19 22 04.2	
	comp=Z,605nm,0.3s						

IDC 07 19:20:18.6±10.0, 617S×15462E, h367^{km}±112^{km}, mb3.2/6, mb1 3.4/6, mb1mx3.2/14, mbtmp3.2/6, Error ellipse: s-maj=60.0km s-min=28.4km az=97.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**24.00**	**233**	P	P	19 25 02.2	+0.4
	0.9nm,0.4s,baz=62,slow=9.0,SNR=22						
STKA	**Stephens Creek**	**28.33**	**204**	*e*P	P	19 25 40.5	+0.4
	0.9nm,0.4s						
STKA	**Stephens Creek**	**28.33**	**204**	P	P	19 25 40.5	+0.4
	1.2nm,0.4s,baz=21,slow=12,SNR=10						
FITZ	**Fitzroy Crossi**	**30.66**	**245**	*e*P	P	19 26 00.0	-0.8
	3.0nm,0.3s						
FITZ	**Fitzroy Crossi**	**30.66**	**245**	P	P	19 25 59.9	-0.9
	1.7nm,0.3s,baz=53,slow=10,SNR=26						
MJAR	**Matsushiro Arr**	**45.18**	**341**	P	P	19 27 59.9	-0.5
	1.2nm,0.5s,baz=162,slow=7.8,SNR=5.1						
SONM	**Songino Array**	**68.44**	**327**	P	P	19 30 42.6	+0.6
	0.2nm,0.5s,baz=142,slow=5.1,SNR=1.8						
MKAR	**Makanchi Array**	**82.54**	**319**	P	P	19 32 01.3	0.0
	0.7nm,0.7s,baz=104,slow=6.1,SNR=8.4						

ISCJB ***07*** *19:35:25.1±0.8, 3259N±009×1384E±0.1, h357^{km}±8^{km}, mb2.8/4, Error ellipse: s-maj=17.6km s-min=13.9km az=174.2*
JMA ***07*** *19:35:26.2±0.2, 3270N×13833E, h353^{km}, M3.3*
IDC ***07*** *19:35:27.2±0.9, 3252N×13810E, h350^{km}±25^{km}, mb2.8/4, mb1 2.9/6, mb1mx2.7/22, mbtmp2.8/6, Error ellipse: s-maj=64.3km s-min=14.7km az=65.0*
ISC 07 19:35:26.3±0.8, 3261N±009×1384E±01, h350^{km}±8^{km}, n21, σ1^{s}00/30, mb2.8/4, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	**Hachijo jima 2**	**1.29**	**67**	P	**Pn**	**19 36 13.9**	**+0.6**
	16nm,0.3s,baz=254,slow=18,SNR=10						
JHJ				S	**S**	**19 36 55.6**	**+4.6**
	15nm,0.3s,baz=63,slow=21,SNR=3.5						
JHJ2	**Mitsune**	**1.32**	**67**	P	**Pn**	**19 36 14.4**	**+1.0**
JIE	**Ise**	**2.25**	**322**	P	**Pn**	**19 36 18.9**	**-0.5**
HMMJ	**Hamamatsu 2**	**2.30**	**347**	P	**Pn**	**19 36 19.8**	**+0.1**
JOD2	**Odawara 2**	**2.71**	**13**	P	**Pn**	**19 36 23.4**	**+0.3**
JOD2				S	**S**	**19 37 10.0**	**+1.3**
JNY	**Yasuok**	**2.77**	**351**	P	**Pn**	**19 36 24.1**	**+0.5**
JWY	**Kouya**	**2.82**	**305**	P	**Pn**	**19 36 22.8**	**-1.2**
JYN	**Shimob**	**2.88**	**3**	P	**Pn**	**19 36 25.9**	**+1.4**
JHU	**Hanno**	**3.32**	**13**	P	**Pn**	**19 36 28.5**	**0.0**

JHU				S	S	19 37 17.1	-1.5
JRY	Ryogami san	3.43	7	P	Pn	19 36 30.4	+0.9
JRY				S	S	19 37 19.9	-0.6
JWT	Wachi	3.63	318	P	Pn	19 36 30.9	-0.6
JAG	Ashikaga	3.91	13	P	Pn	19 36 33.7	-0.6
JAG				S	S	19 37 26.0	-3.1
JYT	Yasato	3.91	22	P	Pn	19 36 33.8	-0.5
JYT				S	S	19 37 25.8	-3.4
MJAR	Matsushiro Arr	3.92	358	P	Pn	19 36 34.6	+0.2
	2.6nm,0.3s,baz=173,slow=11,SNR=38						
MJAR				S	S	19 37 30.4	+1.0
	0.3nm,0.3s,baz=168,slow=41,SNR=2.9						
MAT	Matsushiro	3.93	358	P	Pn	19 36 34.7	+0.3
MAT				S	S	19 37 30.7	+1.3
JHO	Hitachi	4.38	24	P	Pn	19 36 38.1	-1.1
JHO				S	S	19 37 32.7	-5.4
KSRS	Korea Array	9.83	302	P	Pn	19 37 41.1	-1.1
	0.2nm,0.3s,baz=124,slow=11,SNR=4.3						
SONM	Songino Array	28.51	312	P	P	19 40 52.5	+1.9
	0.6nm,0.7s,mb3.0,baz=102,slow=7.3,SNR=5.7						
ZALV	Zalesovo Beam	43.20	316	P	P	19 42 54.3	+0.6
	0.3nm,0.3s,mb2.9,baz=110,slow=6.4,SNR=2.6						
MKAR	Makanchi Array	44.49	306	P	P	19 43 03.8	-0.3
	0.7nm,0.6s,mb3.0,baz=85,slow=9.6,SNR=16						
WRA	Warramunga Arr	52.40	185	P	P	19 44 03.0	-0.9
	0.1nm,0.4s,mb2.5,baz=360,slow=7.5,SNR=5.6						

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*ISCJB **07** 20:32:32.9±2.0, 6.1N±0.1×126.7E±0.3, h149^{km}±15^{km}, mb3.9/10, Error ellipse: s-maj=54.0km s-min=12.7km az=160.3*
*MAN **07** 20:32:32, 5.94N×126.43E, h149^{km}, mb4.8, ML3.7, MS3.8*
*IDC **07** 20:32:33.9±10.0, 6.01N×126.40E, h134^{km}±93^{km}, mb3.7/8, mb1 3.8/8, mb1mx3.5/19, mbtmp3.7/8, Error ellipse: s-maj=74.6km s-min=20.0km az=71.0*
*NEIC **07** 20:32:34.9±1.3, 5.99N×126.36E, h145^{km}±9^{km}, mb4.2/2, Error ellipse: s-maj=52.8km s-min=9.3km az=73.0*
ISC 07 20:32:33.4±2.0**, 6.1N**±0.1×**126.8E**±0.3**, h137**^{km}±15^{km}**, n17, σ0^{s}.88**/17**, mb3.9**/10**, 2C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DAV	Davao City (W)	1.54	307	eP	Pn	20 33 02.3	-0.1
GSPH	General Santos	1.86	268	⇓eP	Pn	20 32 60.0	-6.1
KCP	Kidapawan	1.92	297	⇑iP	Pn	20 33 10.8	+4.0
KCP				i S	Sn	20 33 33.5	+1.1
CGP	Cagayan de Oro	3.12	318	⇑eP	Pn	20 33 20.4	-1.3
CGP				eS	Sn	20 33 58.8	-0.3
FITZ	Fitzroy Crossi	24.12	183	P	P	20 37 35.1	-1.5
	1.1nm,0.4s,mb3.7,baz=162,slow=18,SNR=8.2						
WRA	Warramunga Arr	26.96	164	P	P	20 38 03.1	+0.9
	0.7nm,0.4s,mb3.6,baz=349,slow=9.9,SNR=10						
NWAO	Narrogin (SRO)	39.91	193	P	P	20 39 53.3	-0.7
	4.4nm,0.5s,mb4.3,baz=5.3,slow=7.2,SNR=7.1						
STKA	Stephens Creek	40.35	160	P	P	20 39 58.7	+1.0
	1.3nm,0.7s,mb3.7,baz=349,slow=13,SNR=2.8						
MKAR	Makanchi Array	55.65	324	P	P	20 41 55.5	+0.3
	1.3nm,0.5s,mb4.0,baz=118,slow=7.8,SNR=39						
ZALV	Zalesovo Beam	58.49	332	P	P	20 42 14.8	-0.2
ZALV	Zalesovo Beam	58.49	332	P	P	20 42 14.8	-0.2
	0.3nm,0.3s,mb3.5,baz=101,slow=7.5,SNR=2.9						
KURK	Kurchatov	59.77	327	eP	P	20 42 23.4	-0.6
	2.6nm,0.6s,mb4.2						
BRVK	Borovoye	65.44	326	eP	P	20 43 02.0	+0.6
	1.8nm,0.7s,mb4.0						
ARCES	ARCESS Array B	88.23	340	P	P	20 45 10.0	+1.2
	3.8nm,0.9s,mb4.2,baz=80,slow=6.5,SNR=4.7						
FINES	FINESS Array B	89.76	332	P	P	20 45 15.4	-0.6
	1.4nm,1.0s,mb3.8,baz=94,slow=2.7,SNR=3.5						
TORD	Torodi Ar. Bea	122.22	290	PKP	PKPdf	20 51 13.1	0.0
TORD	Torodi Ar. Bea	122.22	290	PKP	PKPdf	20 51 13.1	0.0
	0.3nm,0.3s,baz=69,slow=1.7,SNR=18						

IDC 07 21:14:21.6±1.4**, 46.58N×155.83E, h0**^{km}**, mb3.7**/3**, mb1 4.0**/3**, mb1mx3.4**/21**, mbtmp3.7**/3**, Error ellipse: s-maj=58.1km s-min=38.3km az=105.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FINES	FINESS Array B	64.98	336	P	P	21 25 02.6	-0.1
	0.4nm,0.6s,baz=45,slow=6.5,SNR=3.9						
WRA	Warramunga Arr	69.00	202	P	P	21 25 28.8	+0.2
	0.4nm,1.0s,baz=24,slow=7.0,SNR=4.6						
TXAR	Lajitas Array	75.93	62	P	P	21 26 10.4	+0.3
	0.2nm,0.6s,baz=305,slow=4.4,SNR=3.7						

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*NEIC **07** 21:17:11.3, 16.88N×99.77W, h10^{km}, MD3.4(MEX), After MEX.*
MEX 07 21:17:10.9±0.7**, 16.87N×99.79W, h13**^{km}±17^{km}**, MD3.5, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ACX	Acapulco	0.12	270	i S	Sg	21 17 13.3	-3.2
ACX	Acapulco	0.12	270	i P	Pg	21 17 09.8	-4.3
ACX				i S	Sg	21 17 13.3	-3.2
CAIG	El Cayaco	0.49	291	i P	Pg	21 17 20.1	-0.5
CAIG				i S	Sg	21 17 28.4	+1.1
CAIG	El Cayaco	0.49	291	i P	Pg	21 17 20.2	-0.5
CAIG				i S	Sg	21 17 25.6	-1.6
MEIG	Mezcala	1.06	9	i P	Pb	21 17 27.5	-3.7
MEIG				i S	Sb	21 17 41.4	-3.7
PLIG	Platanillo	1.54	10	i P	Pn	21 17 35.5	-2.6
PLIG				i S	Sn	21 17 54.5	-3.5
PLIG	Platanillo	1.54	10	eP	Pn	21 17 34.1	-4.1
PLIG				i S	Sn	21 17 53.6	-4.4
UTMO	Huajuapan	2.12	63	i P	Pn	21 17 43.3	-2.8
UTMO				i S	Sn	21 18 07.8	-4.6
IIO	Organos	2.89	20	i P	Pn	21 17 53.4	-3.3

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*TEH **07** 21:58:48.2, 27.20N×52.86E, h29^{km}, ML3.7*
*CSEM **07** 21:59:15.5±0.1, 27.28N×53.03E, h20^{km}, ML3.7, Error ellipse: s-maj=2.7km s-min=1.9km az=106.0*
*ISCJB **07** 21:59:16.3±0.5, 27.32N±0.03×52.98E±0.04, h41^{km}±8^{km}, mb3.6/10, Error ellipse: s-maj=5.9km s-min=4.5km az=0.9*
*IDC **07** 21:59:19.2±9.1, 27.34N×52.92E, h48^{km}±82^{km}, mb3.4/11, mb1 3.5/11, mb1mx3.4/22, mbtmp3.4/11, Error ellipse: s-maj=47.5km s-min=21.2km az=166.0*
ISC 07 21:59:18.2±0.4**, 27.32N**±0.03×**52.97E**±0.04**, h40**^{km}±7^{km}**, n45, σ0^{s}.87**/60**, mb3.6**/10**, 3C-1D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ISRV	Sarvestan	2.06	3	ePn	Pn	21 59 52.1	+1.7
ISRV				e		22 00 46.4	
	comp=N,7µm,0.3s						
ISRV	Sarvestan	2.06	3	ePn	Pn	21 59 52.1	+1.7
SHI	Shiraz	2.35	350	ePn	Pn	22 00 00.9	+6.6
SHI				e		22 00 43.9	
	comp=E,3µm,0.2s						
IBND		3.18	87	ePn	Pn	22 00 05.8	+0.1
IBND				eSn	Sn	22 00 42.9	+0.6
SLWS		3.27	220	P	Pn	22 00 07.4	+0.5
BANOM	Banah	3.29	114	P	Pn	22 00 07.0	-0.2
	SNR=19						
ASUD	Al Ashush, Dub	3.42	141	P	Pn	22 00 09.7	+0.7
	SNR=13						
BOQSS		3.53	247	P	Pn	22 00 11.2	+0.7
BOQSS		3.53	247	P	Pn	22 00 11.2	+0.8
BTHS		3.78	211	P	Pn	22 00 14.2	+0.3
BTHS				S	Sn	22 00 58.6	+1.4
BTHS		3.78	211	P	Pn	22 00 14.2	+0.3
ASHO	Ashiyiah	3.82	133	P	Pn	22 00 14.3	-0.3
	SNR=16						
ASHO				⇑S	Sn	22 00 57.8	-0.3
ASHO	Ashiyiah	3.82	133	P	Pn	22 00 14.3	-0.2
	SNR=16						
ASHO				S	Sn	22 00 57.8	-0.4
IMEH	Mehriz	4.31	19	ePn	Pn	22 00 22.5	+1.3
IMEH				e		22 00 23.3	
	comp=Z,561nm,0.1s						
IMEH				eSn	Sn	22 01 11.0	+0.9
IMEH	Mehriz	4.31	19	ePn	Pn	22 00 22.5	+1.3
IMEH				eSn	Sn	22 01 11.0	+0.9
IBAF	Bafgh	4.82	27	ePn	Pn	22 00 28.9	+0.6
IBAF				e		22 00 29.7	
	comp=Z,2µm,0.1s						
IBAF				eSn	Sn	22 01 22.3	-0.6
IBAF	Bafgh	4.82	27	ePn	Pn	22 00 28.9	+0.6
IBAF				eSn	Sn	22 01 22.3	-0.6
ICHK	Chekchek	5.07	14	ePn	Pn	22 00 32.6	+1.0
ICHK				e		22 00 32.9	
	comp=Z,658nm,0.2s						
ICHK				eSn	Sn	22 01 29.0	+0.1
ICHK	Chekchek	5.07	14	ePn	Pn	22 00 32.6	+1.0
ICHK				eSn	Sn	22 01 29.0	+0.1
ARQ	Araqi	5.10	140	P	Pn	22 00 31.8	-0.3
	SNR=10						
ARQ				⇑S	Sn	22 01 29.7	-0.1
HRDDS		5.40	217	P	Pn	22 00 35.5	-0.7
HOQ	Hoqain	5.41	132	⇓P	Pn	22 00 35.3	-1.0
IPIR	Pirpir	5.64	342	ePn	Pn	22 00 40.4	+0.8
IPIR				e		22 01 53.3	
	comp=Z,146nm,0.1s						
IPIR	Pirpir	5.64	342	ePn	Pn	22 00 40.4	+0.8
IKLH	Kalahroud	6.10	349	ePn	Pn	22 00 45.2	-0.6
IKLH				e		22 01 27.0	
	comp=Z,111nm,0.1s						
IKLH				eSn	Sn	22 01 51.6	-2.8
IKLH	Kalahroud	6.10	349	ePn	Pn	22 00 45.2	-0.6
IKLH				eSn	Sn	22 01 51.6	-2.8
SMDO	Samad	6.25	132	P	Pn	22 00 47.5	-0.5
	SNR=7.5						
JMDO	Jabal Madar	6.78	135	⇑P	Pn	22 00 53.9	-1.3
ISFB	Sefidab	7.04	355	ePn	Pn	22 00 57.2	-1.6
ISFB				e		22 01 10.5	
	comp=Z,48nm,0.2s						
ISFB				eSn	Sn	22 02 14.5	-3.0
ISFB	Sefidab	7.04	355	ePn	Pn	22 00 57.2	-1.6
ISFB				eSn	Sn	22 02 14.5	-3.0
ASYS		7.67	273	P	Pn	22 01 05.8	-1.6
IANJ	Anjiloo	8.17	5	ePn	Pn	22 01 23.4	+9.2
IANJ				e		22 01 52.1	
	comp=Z,66nm,0.3s						
IRAZ	Razeghan	8.47	343	ePn	Pn	22 01 18.3	0.0
IRAZ	Razeghan	8.47	343	ePn	Pn	22 01 18.3	0.0
BRTR	Keskin Array B	20.27	313	P	P	22 03 51.0	+0.8
	comp=Z,1.0nm,0.7s,baz=127,slow=14,SNR=5.6						
AKTO	Aktyubinsk	23.41	8	P	P	22 04 24.0	+0.5
	comp=Z,0.5nm,0.3s,mb3.4,baz=180,slow=12,SNR=3.5						
AKASG	Malin Array Be	29.52	329	P	P	22 05 18.0	-0.6
	comp=Z,0.8nm,0.5s,mb3.7,baz=117,slow=6.6,SNR=3.6						
MKAR	Makanchi Array	30.16	42	P	P	22 05 24.4	+0.2
	comp=Z,0.4nm,0.6s,mb3.3,baz=236,slow=12,SNR=7.2						
MKAR				PcP	PcP	22 08 24.9	+0.1
	comp=Z,0.2nm,0.6s,baz=211,slow=1.9,SNR=2.9						
ZALV	Zalesovo Beam	35.42	33	P	P	22 06 10.0	-0.2
	comp=Z,0.6nm,0.4s,mb3.9,baz=234,slow=11,SNR=4.9						
FINES	FINESS Array B	38.59	340	P	P	22 06 36.8	-0.2
	comp=Z,0.4nm,0.4s,mb3.5,baz=152,slow=9.9,SNR=6.0						
NOA	NORSAR Array B	43.80	332	P	P	22 07 19.6	-0.1
	comp=Z,0.8nm,0.8s,mb3.5,baz=121,slow=8.2,SNR=3.4						
ARCES	ARCESS Array B	45.17	347	P	P	22 07 30.3	-0.3
	comp=Z,1.6nm,0.8s,mb3.9,baz=147,slow=5.2,SNR=3.5						
SONM	Songino Array	46.01	49	P	P	22 07 38.3	+0.8
	comp=Z,0.2nm,0.5s,mb3.3,baz=278,slow=10.0,SNR=3.0						
TORD	Torodi Ar. Bea	49.81	264	P	P	22 08 07.0	-0.4
	comp=Z,0.6nm,0.7s,mb3.7,baz=72,slow=7.1,SNR=8.9						
YKA	Yellowknife Ar	89.95	354	P	P	22 12 13.1	+0.2
	comp=Z,0.2nm,0.5s,mb3.7,baz=8.2,slow=5.2,SNR=4.7						

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*ISCJB **07** 22:18:41.8±0.4, 51.15N±0.02×5.89E±0.03, h10^{km}, Error ellipse: s-maj=3.8km s-min=2.3km az=143.3*
*BGR **07** 22:18:43.6±1.1, 51.12N×6.04E, h10^{km}, ML2.3/4, Error ellipse: s-maj=14.5km s-min=5.6km az=110.0*
*CSEM **07** 22:18:43.9±0.1, 51.14N×5.93E, h5^{km}, ML2.7/17, Error ellipse: s-maj=1.9km s-min=1.3km az=155.0*
*NEIC **07** 22:18:44.6, 51.11N×5.98E, h10^{km}, ML2.6(LDG), After LDG.*
*BNS **07** 22:18:44.5±0.6, 51.14N×5.97E, h10^{km}±4^{km}, ML1.9*
*UCC **07** 22:18:44.0±0.4, 51.15N×5.97E, h16^{km}±1^{km}, ML1.7*
*LDG **07** 22:18:44.6±0.1, 51.11N×5.98E, h10^{km}, Md2.7/1, Ml2.6/15, Error ellipse: s-maj=2.1km s-min=1.3km az=159.0*
ISC 07 22:18:42.7±0.4**, 51.14N**±0.02×**5.89E**±0.03**, h10**^{km}**, n71, σ1^{s}.31**/135**, 6C-5D, The Netherlands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RODG	Roetgen-Dahlhe	0.18	89	⇑iPg	Pg	22 18 47.5	+0.9
RODG				i Sg	Sg	22 18 49.7	+0.5
RODG	Roetgen-Dahlhe	0.18	89	Pg	Pg	22 18 47.5	+0.9
RODG				Sg	Sg	22 18 49.7	+0.5
BD11	Borschemich	0.34	100	⇑iPg	Pg	22 18 50.4	+0.9
BD11				eSg	Sg	22 18 54.7	+0.6
BEBN	Eben Emael	0.37	202	⇓P	Pg	22 18 51.9	+1.9
BEBN				S	Sg	22 18 57.2	+2.3
	comp=N,50nm,0.2s						
HGN	Heimansgroeve	0.38	176	⇑ePg	Pg	22 18 51.4	+1.3
	comp=N,3.9nm,0.1s						
HGN				i Sg	Sg	22 18 56.6	+1.5
DREG	Dreilaegerbach	0.53	156	ePg	Pg	22 18 54.1	+1.2
DREG				eSg	Sg	22 19 01.3	+1.5
	comp=N,55nm,0.3s						
DREG	Dreilaegerbach	0.53	156	Pg	Pg	22 18 54.1	+1.2
DREG				Sg	Sg	22 19 01.3	+1.5
	comp=N,55nm,0.3s						
MEM	Membach	0.54	172	⇓P	Pg	22 18 54.3	+1.2
MEM				S	Sg	22 19 01.5	+1.3
	comp=E,18nm,0.2s						
KLL	Kalltalsperre	0.56	152	ePg	Pg	22 18 54.5	+0.9
KLL				eSg	Sg	22 19 02.6	+1.6
	comp=E,42nm,0.1s						
KLL	Kalltalsperre	0.56	152	Pg	Pg	22 18 54.5	+0.9
KLL				Sg	Sg	22 19 02.6	+1.7
	comp=E,42nm,0.1s						
STB	Steinbach	0.81	132	ePg	Pg	22 18 59.3	+1.0
STB				eSg	Sg	22 19 09.7	+0.8
	comp=E,39nm,0.2s						
STB	Steinbach	0.81	132	Pg	Pg	22 18 59.3	+1.0
STB				Sg	Sg	22 19 09.7	+0.8
	comp=E,39nm,0.2s						
BCLA	Clavier	0.81	208	⇓P	Pg	22 19 00.0	+1.7
BCLA				S	Sg	22 19 10.8	+1.9
	comp=N,17nm,0.1s						
BNS	Bensberg	0.83	102	⇑ePg	Pg	22 18 59.1	+0.5
BNS				eSg	Sg	22 19 09.0	-0.4
	comp=N,102nm,0.6s						
BNS	Bensberg	0.83	102	Pg	Pg	22 18 59.1	+0.5
BNS				Sg	Sg	22 19 09.0	-0.4
	comp=N,102nm,0.6s						
BUG	Bochum--Univer	0.92	70	ePg	Pg	22 19 00.1	-0.2
	SNR=5.2						
BUG				eSg	Sg	22 19 11.0	-1.2
	SNR=13						
HOBG	Hohbusch	0.92	99	⇑ePg	Pg	22 19 00.8	+0.3
HOBG				eSg	Sg	22 19 11.8	-0.6
	comp=N,56nm,0.6s						
HOBG	Hohbusch	0.92	99	Pg	Pg	22 19 00.8	+0.4
HOBG				Sg	Sg	22 19 11.8	-0.6
	comp=N,56nm,0.6s						
WTSB	Winterswijk	1.00	34	ePg	Pg	22 19 02.1	+0.2
	comp=N,9.2nm,0.5s						
WTSB				eSg	Sg	22 19 14.4	-0.5
SNF	Seneffe	1.20	239	⇓P	Pb	22 19 06.4	+0.9
SNF	Seneffe	1.20	239	P	Pb	22 19 06.3	+0.8
GIVF	Givet	1.24	214	ePn	Pn	22 19 06.9	+0.8
GIVF				eSg	Sg	22 19 24.3	+1.6
	comp=N,31nm,0.2s						
GIVF	Givet	1.24	214	ePn	Pn	22 19 06.9	+0.8
GIVF				eSg	Sg	22 19 24.3	+1.6
GIVF	Givet	1.24	214	ePn	Pn	22 19 06.9	+0.8
GIVF				eSg	Sg	22 19 24.3	+1.6
	comp=N,15nm,0.2s						
BGG	Burgeitz	1.31	135	⇑ePg	Pg	22 19 06.3	-1.5
BGG	Burgeitz	1.31	135	Pg	Pg	22 19 06.3	-1.6
DOU	Dourbes	1.33	219	⇓P	Pn	22 19 08.4	+1.1
WLF	Walferdange	1.49	173	eSg	Sg	22 19 29.5	-1.0
	SNR=3.6						
BAIF	Baives	1.52	225	ePn	Pn	22 19 10.7	+0.8
BAIF				eSn	Sn	22 19 29.2	-0.6
	comp=N,10nm,0.3s						
BAIF				eSg	Sg	22 19 33.4	+1.7
BAIF	Baives	1.52	225	ePn	Pn	22 19 10.7	+0.8
BAIF				eSn	Sn	22 19 29.2	-0.6
BAIF				eSg	Sg	22 19 33.4	+1.7
BAIF	Baives	1.52	225	ePn	Pn	22 19 10.7	+0.8
BAIF				eSn	Sn	22 19 29.2	-0.6
	comp=N,5.2nm,0.3s						
BAIF				eSg	Sg	22 19 33.4	+1.7
IBBN	Ibbenburen	1.65	44	eSg	Sg	22 19 34.2	-1.3
	SNR=3.1						
TNS	Taunus Mts	1.87	119	eSg	Sg	22 19 40.4	-2.3
	SNR=2.7						
RFYF	Reffroy	2.53	186	ePn	Pn	22 19 23.3	-0.5
RFYF				eSg	Sg	22 20 03.3	-0.6
	comp=N,8.3nm,0.2s,baz=6.9						
RFYF	Reffroy	2.53	186	ePn	Pn	22 19 23.3	-0.5
RFYF				eSg	Sg	22 20 03.3	-0.6
RFYF	Reffroy	2.53	186	ePn	Pn	22 19 23.3	-0.5
RFYF				eSg	Sg	22 20 03.3	-0.6
	comp=N,4.2nm,0.2s						
MEZF	Maizieres J’vi	2.70	192	eSg	Sg	22 20 08.9	-0.4
	comp=N,2.9nm,0.2s						
MEZF	Maizieres J’vi	2.70	192	eSg	Sg	22 20 08.9	-0.4
	comp=N,1.5nm,0.2s						
CDF	Champ du Feu	2.88	161	eSg	Sg	22 20 13.7	-1.3
	comp=N,1.1nm,0.2s						
CDF	Champ du Feu	2.88	161	eSg	Sg	22 20 13.7	-1.3
	comp=N,0.6nm,0.2s						
CLZ	Clausthal	2.89	74	eSg	Sg	22 20 11.2	-4.1
	SNR=3.0						
SFTF	Sexfontaines	2.99	191	ePn	Pn	22 19 30.1	0.0
	baz=9.2						
SFTF	Sexfontaines	2.99	191	ePg	Pg	22 19 39.2	-0.8
SFTF				eSg	Sg	22 20 16.9	-1.8
	comp=N,5.6nm,0.2s						
SFTF	Sexfontaines	2.99	191	ePn	Pn	22 19 30.1	0.0
SFTF				ePg	Pg	22 19 39.2	-0.8
SFTF				eSg	Sg	22 20 16.9	-1.8
SFTF	Sexfontaines	2.99	191	ePn	Pn	22 19 30.1	0.0
SFTF	Sexfontaines	2.99	191	ePg	Pg	22 19 39.2	-0.8
SFTF				eSg	Sg	22 20 16.9	-1.8
	comp=N,2.8nm,0.2s						
HAU	Haudompre	3.15	174	ePg	Pg	22 19 42.3	-0.8
HAU				eSg	Sg	22 20 21.2	-2.7
	comp=N,4.7nm,0.4s						
HAU	Haudompre	3.15	174	ePg	Pg	22 19 42.3	-0.8
HAU				eSg	Sg	22 20 21.2	-2.7
	comp=N,2.3nm,0.4s						
HINF	Hinteralfeld	3.39	169	eSg	Sg	22 20 28.7	-2.7
	comp=N,1.8nm,0.2s						
HINF	Hinteralfeld	3.39	169	eSg	Sg	22 20 28.7	-2.7
	comp=N,0.9nm,0.2s						
LOR	Lormes	4.10	200	ePn	Pn	22 19 45.8	+0.5
	baz=24						
LOR				eSn	Sn	22 20 30.3	-3.0
LOR				eSg	Sg	22 20 53.4	-0.8
	comp=N,1.9nm,0.2s,baz=16						
LOR	Lormes	4.10	200	ePn	Pn	22 19 45.8	+0.5
LOR				eSn	Sn	22 20 30.3	-3.0
LOR				eSg	Sg	22 20 53.4	-0.8
LOR	Lormes	4.10	200	ePn	Pn	22 19 45.8	+0.5
LOR				eSn	Sn	22 20 30.3	-3.0
LOR				eSg	Sg	22 20 53.4	-0.8
	comp=N,0.9nm,0.2s						
SSF	Saint Saulge	4.37	202	ePn	Pn	22 19 49.2	+0.1
SSF				eSn	Sn	22 20 36.8	-3.3
SSF				eSg	Sg	22 21 00.7	-2.3
	comp=N,1.3nm,0.2s						
SSF	Saint Saulge	4.37	202	ePn	Pn	22 19 49.2	+0.1
SSF				eSn	Sn	22 20 36.8	-3.3
SSF				eSg	Sg	22 21 00.7	-2.3
SSF	Saint Saulge	4.37	202	ePn	Pn	22 19 49.2	+0.1
SSF				eSn	Sn	22 20 36.8	-3.3
SSF				eSg	Sg	22 21 00.7	-2.3
	comp=N,0.6nm,0.2s						
LDF	La Druitiere	4.65	239	ePn	Pn	22 19 53.4	+0.5
LDF				eSn	Sn	22 20 44.4	-2.5
	comp=N,1.7nm,0.4s						
LDF	La Druitiere	4.65	239	ePn	Pn	22 19 53.4	+0.5
LDF				eSn	Sn	22 20 44.4	-2.5
LDF	La Druitiere	4.65	239	ePn	Pn	22 19 53.4	+0.5
LDF				eSn	Sn	22 20 44.4	-2.5
	comp=N,0.9nm,0.4s						
AVF	Avril sur Loir	4.67	202	ePn	Pn	22 19 53.0	-0.1
AVF				eSn	Sn	22 20 44.0	-3.2
AVF				eSg	Sg	22 21 09.7	-2.7
	comp=N,0.5nm,0.3s						
AVF	Avril sur Loir	4.67	202	ePn	Pn	22 19 53.0	-0.1
AVF				eSn	Sn	22 20 44.0	-3.2
AVF				eSg	Sg	22 21 09.7	-2.7
AVF	Avril sur Loir	4.67	202	ePn	Pn	22 19 53.0	-0.1
AVF				eSn	Sn	22 20 44.0	-3.2
AVF				eSg	Sg	22 21 09.7	-2.7
	comp=N,0.2nm,0.3s						
SMF	Signal de Mont	4.70	198	ePn	Pn	22 19 53.6	0.0
SMF	Signal de Mont	4.70	198	ePn	Pn	22 19 53.6	0.0
SMF	Signal de Mont	4.70	198	ePn	Pn	22 19 53.6	0.0
FLN	La Foliniere	4.75	242	ePn	Pn	22 19 54.5	+0.2
	baz=61						
FLN				eSn	Sn	22 20 47.1	-2.3
	comp=N,2.3nm,0.3s						
FLN	La Foliniere	4.75	242	ePn	Pn	22 19 54.5	+0.2
FLN				eSn	Sn	22 20 47.1	-2.3
FLN	La Foliniere	4.75	242	ePn	Pn	22 19 54.5	+0.2
FLN				eSn	Sn	22 20 47.1	-2.3
	comp=N,1.1nm,0.3s						
GRR	Gorron	5.17	240	ePn	Pn	22 20 00.4	+0.4
GRR				eSn	Sn	22 20 56.4	-3.3
	comp=N,3.8nm,0.2s						
GRR	Gorron	5.17	240	ePn	Pn	22 20 00.4	+0.4
GRR				eSn	Sn	22 20 56.4	-3.3
GRR	Gorron	5.17	240	ePn	Pn	22 20 00.4	+0.4
GRR				eSn	Sn	22 20 56.4	-3.3
	comp=N,1.9nm,0.2s						

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*NIED **07** 22:19:00, 24.90N×124.10E, h74^{km}, Mw3.7 Best double couple: $M_0$3.53000×10^{14} NP1:φ$_s$153.00000°, δ22.00000°, λ-176.00000°. NP2:φ$_s$59.00000°, δ88.00000°, λ-68.00000°.*
*MOS **07** 22:19:01.8±0.7, 24.92N×123.87E, h94^{km}, mb4.2/3, Error ellipse: s-maj=37.1km s-min=14.4km az=116.5*
*IDC **07** 22:19:02.8±4.2, 25.03N×124.07E, h89^{km}±40^{km}, mb3.5/7, mb1 3.6/8, mb1mx3.5/21, mbtmp3.5/8, MS3.9/1, Ms1 3.8/1, ms1mx2.5/31, Error ellipse: s-maj=31.1km s-min=19.9km az=58.0*
*ISCJB **07** 22:19:02.9±0.3, 24.99N±0.06×124.06E±0.04, h104^{km}±4^{km}, mb3.8/9, Error ellipse: s-maj=10.5km s-min=4.7km az=160.9*
*NEIC **07** 22:19:03.8±0.9, 24.96N×124.04E, h98^{km}±9^{km}, mb4.3/2, Error ellipse: s-maj=12.0km s-min=9.9km az=194.0*
*JMA **07** 22:19:04.8±0.1, 24.92N×124.07E, h96^{km}±2^{km}, M3.6*
ISC 07 22:19:04.0±0.3**, 24.98N**±0.06×**124.05E**±0.04**, h99**^{km}±4^{km}**, n35, σ0^{s}.65**/46**, mb3.8**/9**, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JIJ	Ishigaki jima	0.62	172	P	Pn	22 19 20.4	-0.2
JIJ				S	Sn	22 19 31.9	-1.1
JTJ	Tarama	0.68	120	P	Pn	22 19 21.4	+0.3
JTJ				S	Sn	22 19 33.9	-0.1
IRIF	Iriomote-Funau	0.71	204	P	Pn	22 19 21.3	-0.1
IRIF				S	Sn	22 19 34.4	0.0
JKRS	Kuro-shima	0.74	183	P	Pn	22 19 21.8	+0.1
JKRS				S	Sn	22 19 34.6	-0.3
HATJ	Hateruma jima	0.95	194	P	Pn	22 19 23.8	0.0
HATJ				S	Sn	22 19 38.7	+0.1
YOJ	Yonaguni jima	1.08	241	P	Pn	22 19 25.9	+0.7
YOJ				S	Sn	22 19 41.3	+0.2
JMJ	Miyako jima 2	1.14	98	P	Pn	22 19 26.4	+0.6
JMJ				S	Sn	22 19 42.5	+0.1
JOGS	Gusukube	1.25	100	P	Pn	22 19 27.8	+0.7
JOGS				S	Sn	22 19 45.2	+0.6
TATO	Taipei	2.33	270	ePn	Pn	22 19 41.2	+0.5
TATO				eSn	Sn	22 20 09.0	+0.1
JKE	Kume jima 2	2.81	61	P	Pn	22 19 47.6	+0.5
JAGN	Aguni-jima	3.29	60	P	Pn	22 19 53.8	+0.2
JAGN				S	Sn	22 20 31.8	-0.1
JIH	Iheya	4.07	59	P	Pn	22 20 03.8	-0.3
JOW	Kunigami	4.23	63	P	Pn	22 20 05.3	-0.8
JOW				S	Sn	22 20 55.2	+0.8
JOW	Kunigami	4.23	63	P	Pn	22 20 05.3	-0.8
	6.0nm,0.3s,baz=158,slow=11,SNR=33						
JOW				S	Sn	22 20 52.8	-1.7
	2.7nm,0.3s,baz=106,slow=25,SNR=4.4						
JTK	Tokunoshima	5.21	57	P	Pn	22 20 18.1	-1.3
KSRS	Korea Array	12.86	14	P	Pn	22 22 10.4	+7.4
	0.1nm,0.3s,baz=197,slow=12,SNR=5.0						
YSS	Yuzh-Sakhalins	26.51	29	P	P	22 24 33.7	+1.6
SONM	Songino Array	26.75	333	P	P	22 24 34.4	+0.3
	0.6nm,0.6s,mb3.3,baz=151,slow=11,SNR=7.9						

TLY	Talaya	30.88	335	P	P	22 25 11.6	+0.8
MK31	Makanchi Array	39.62	314	eP	P	22 26 25.5	-0.3
MKAR	Makanchi Array	39.62	314	P	P	22 26 25.4	-0.3
	1.0nm,0.3s,mb4.1,baz=99,slow=9.3,SNR=30						
ZALV	Zalesovo Beam	41.03	325	P	P	22 26 36.0	-1.3
	1.1nm,0.4s,mb4.0,baz=108,slow=8.3,SNR=11						
ZAL	Zalesovo	41.04	325	P	P	22 26 36.1	-1.2
KURK	Kurchatov	43.19	319	eP	P	22 26 54.6	-0.2
	1.7nm,0.3s,mb4.2						
KURK	Kurchatov	43.19	319	eP	P	22 26 54.7	-0.2
KURK				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.3						
WRA	Warramunga Arr	45.76	166	P	P	22 27 15.6	0.0
	comp=Z,1.4nm,0.7s,mb3.8,baz=348,slow=9.0,SNR=11						
WB2	Warramunga Arr	45.77	166	eP	P	22 27 15.1	-0.6
BRVK	Borovoye	48.80	320	eP	P	22 27 38.5	-0.4
	comp=Z,1.3nm,0.3s,mb4.3						
BRVK	Borovoye	48.80	320	eP	P	22 27 38.5	-0.4
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
STKA	Stephens Creek	58.97	163	LR	LR	22 52 37.4	
	comp=Z,96nm,19.9s,baz=26,slow=34						
FINES	FINESS Array B	72.07	330	P	P	22 30 16.8	-0.3
	comp=Z,0.5nm,0.5s,mb3.6,baz=66,slow=6.5,SNR=6.1						
BRTR	Keskin Array B	74.79	307	P	P	22 30 34.1	+0.6
	comp=Z,0.3nm,0.5s,mb3.3,baz=116,slow=4.7,SNR=3.8						
YKA	Yellowknife Ar	81.21	24	P	P	22 31 08.5	0.0
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	81.21	24	P	P	22 31 08.5	0.0
	comp=Z,0.5nm,0.7s,mb3.5,baz=304,slow=5.2,SNR=8.4						
SPUT	South Promonto	95.81	39	P	P	22 32 20.6	+1.3

MAN **07** *22:22:58, 5.59N×126.65E, h53km, mb5.2, ML4.1, MS4.3*
ISCJB **07** *22:22:59.6±1.0, 5.68N±0.05×126.61E±0.10, h77km±8km, mb4.3/24, Error ellipse: s-maj=16.5km s-min=7.2km az=167.0*
IDC **07** *22:22:59.6±8.7, 5.68N×126.53E, h58km±81km, mb4.0/11, mb1 4.1/11, mb1mx3.9/20, mbtmp4.0/11, Error ellipse: s-maj=42.5km s-min=16.9km az=67.0*
NEIC **07** *22:23:00.3±0.8, 5.67N×126.53E, h65km±8km, mb4.5/14, Error ellipse: s-maj=10.2km s-min=4.0km az=78.0*
ISC 07 22:23:00.6±1.0, 5.65N±0.05×126.59E±0.10, h69km±8km, n51, σ0.79/53, mb4.3/24, 1C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSPH	General Santos	1.69	285	eP	Pn	22 23 23.4	-4.6
DAV	Davao City (W)	1.73	325	ePn	Pn	22 23 27.6	-1.1
DAV				eSn	Sn	22 23 49.7	-0.2
KCP	Kidapawan	2.01	312	⇑iP	Pn	22 23 37.4	+5.0
KCP				i S	Sn	22 24 03.0	+6.4
CGP	Cagayan de Oro	3.36	326	⇓eP	Pn	22 23 49.3	-1.5
CGP				eS	Sn	22 24 30.9	+1.4
PAGZ	Pagadian	3.86	305	eP	Pn	22 23 57.7	+0.1
SCPH	Surigao	4.25	345	eP	Pn	22 24 05.1	+2.3
SCPH				eS	Sn	22 24 51.6	+0.4
KAKA	Kakadu	19.14	162	eP	Pn	22 27 18.0	-1.9
	14nm,0.6s						
TATO	Taipei	19.83	346	eP	Pn	22 27 24.9	-3.1
	13nm,0.4s						
FITZ	Fitzroy Crossi	23.62	182	eP	P	22 28 06.0	+0.5
	11nm,0.6s,mb4.4						
FITZ	Fitzroy Crossi	23.62	182	P	P	22 28 06.3	+0.8
	3.5nm,0.4s,mb4.0,baz=14,slow=7.1,SNR=15						
WRA	Warramunga Arr	26.55	164	P	P	22 28 31.8	-0.3
	4.2nm,0.5s,mb4.2,baz=344,slow=10.0,SNR=35						
WB2	Warramunga Arr	26.55	163	eP	P	22 28 33.1	+1.0
PSI	Prapat	27.73	265	P	P	22 28 42.6	-0.3
	4.3nm,0.6s,mb4.2,baz=199,slow=2.7,SNR=6.3						
ENH	Enshi	29.32	329	eP	P	22 28 57.0	+0.2
	0.4nm,0.5s,mb3.3						
INCN	Inchon	31.69	0	P	P	22 29 17.6	0.0
MAJO	Matsushiro	32.54	18	P	P	22 29 24.3	-0.8
BJT	Baijiatuau	35.48	346	eP	P	22 29 51.5	+1.0
	4.7nm,0.5s,mb4.6						
FORT	Forrest	36.25	178	eP	P	22 29 57.8	+0.6
	14nm,0.8s,mb5.0						
KLBR	Kellerberrin	37.98	192	eP	P	22 30 11.8	0.0
	16nm,1.0s,mb4.8						
MUN	Mundaring	38.70	194	eP	P	22 30 18.0	+0.1
NWAO	Narrogin (SRO)	39.38	192	eP	P	22 30 24.4	+0.9
	4.1nm,0.4s,mb4.6						
NWAO	Narrogin (SRO)	39.38	192	P	P	22 30 24.1	+0.5
	5.1nm,0.4s,mb4.7,baz=18,slow=6.1,SNR=12						
STKA	Stephens Creek	39.96	160	eP	P	22 30 29.1	+0.7
	4.4nm,0.6s,mb4.5						
STKA	Stephens Creek	39.96	160	P	P	22 30 29.3	+0.9
	3.2nm,0.4s,mb4.5,baz=336,slow=9.4,SNR=9.8						
LSA	Lhasa	41.09	310	eP	P	22 30 36.7	-1.2
	0.9nm,0.5s,mb3.9						
TAPN	Taplejung	42.80	305	eP	P	22 30 53.1	+1.3
ODAN	Odare	42.87	304	eP	P	22 30 52.8	+0.4
	9.0nm,0.7s,mb4.6						
GUN	Gumba	44.51	305	eP	P	22 31 05.7	+0.2
	11nm,0.7s,mb4.7						
ULN	Ulaanbaatar	45.27	342	eP	P	22 31 11.2	+0.1
	1.1nm,0.6s,mb3.8						
SONM	Songino Array	45.45	341	P	P	22 31 13.1	+0.5
	0.7nm,0.6s,mb3.5,baz=152,slow=9.3,SNR=8.1						
KOLN	Koldanda	46.34	303	eP	P	22 31 19.5	-0.5
	4.2nm,0.3s,mb4.7						
TLY	Talaya	49.68	341	P	P	22 31 45.7	+0.4
MK31	Makanchi Array	55.92	325	eP	P	22 32 31.1	-0.3
MKAR	Makanchi Array	55.92	325	P	P	22 32 31.2	-0.2
	1.1nm,0.6s,mb4.1,baz=125,slow=7.8,SNR=16						
YAK	Yakutsk	56.31	2	P	P	22 32 34.5	+0.6
MA2	Magadan	56.89	14	P	P	22 32 37.4	-0.7
ZALV	Zalesovo Beam	58.83	333	P	P	22 32 51.2	-0.6
	1.0nm,0.6s,mb4.1,baz=116,slow=6.8,SNR=5.3						
AAK	Ala-Archa	58.86	317	eP	P	22 32 52.0	-0.3
	6.4nm,1.8s,mb4.3						
KURK	Kurchatov	60.06	327	eP	P	22 32 59.9	-0.5
	3.2nm,0.6s,mb4.5						
KURK				e	pP	22 33 15.4	-2.9
BRVK	Borovoye	65.72	327	eP	P	22 33 37.3	-0.6
	6.4nm,1.1s,mb4.4						
ARU	Arti	73.25	327	eP	P	22 34 23.7	-0.5
	1.7nm,0.5s,mb4.1						
KIV	Kislovodsk	81.72	313	P	P	22 35 11.5	-0.4
MCK	McKinley	82.52	27	eP	P	22 35 16.1	+0.5
COLA	College	83.03	25	P	P	22 35 18.4	+0.2
ARCES	ARCESS Array B	88.61	340	P	P	22 35 45.4	-0.2
ARCES	ARCESS Array B	88.61	340	P	P	22 35 45.4	-0.2
	7.6nm,1.1s,mb4.7,baz=86,slow=7.3,SNR=3.3						
BRTR	Keskin Array B	88.70	310	P	P	22 35 46.8	+0.1
	0.7nm,0.9s,mb3.7,baz=44,slow=11,SNR=2.9						
FINES	FINESS Array B	90.09	332	P	P	22 35 53.0	+0.2
FINES	FINESS Array B	90.09	332	P	P	22 35 53.0	+0.3
	2.0nm,1.0s,mb4.2,baz=72,slow=8.9,SNR=4.6						
TORD	Torodi Ar. Bea	122.18	289	PKP	PKPdf	22 41 48.7	+0.2
TORD	Torodi Ar. Bea	122.18	289	PKP	PKPdf	22 41 48.7	+0.2
	0.7nm,0.6s,baz=73,slow=1.3,SNR=10						

CSEM **07** *22:40:56.7±0.1, 69.75N×15.76W, h10km, mb4.3/17, Mw4.6, Error ellipse: s-maj=4.1km s-min=2.5km az=131.0*
ISCJB **07** *22:40:56.9±0.4, 69.75N±0.04×15.9W±0.2, h10km, mb3.9/22, MS3.6/12, Error ellipse: s-maj=8.2km s-min=5.4km az=30.9*
IDC **07** *22:40:57.7±0.8, 69.86N×15.71W, h0km, mb3.7/12, mb1 3.9/15, mb1mx3.8/24, mbtmp3.8/15, ML2.9/3, MS3.8/18, Ms1 3.8/18, ms1mx3.6/36, Error ellipse: s-maj=22.3km s-min=15.5km az=26.0*
MOS **07** *22:40:57.4±1.1, 69.86N×15.71W, h10km, mb4.4/13, Error ellipse: s-maj=21.4km s-min=11.0km az=100.8*
GCMT **07** *22:40:59.3±0.4, 69.82N×15.68W, h13km±1km, MW4.6/60, Moment Tensor Solution. s6,c7; s60,c84; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.09±.12; $M_{\theta\theta}$0.04±.07; $M_{\phi\phi}$1.05±.08; $M_{r\theta}$-0.08±.26; $M_{\theta\phi}$0.07±.04; $M_{\phi r}$-0.24±.18; Best double couple: $M_0$1.10300×10^{16} NP1:ϕ_s181.00000°, δ39.00000°, λ-95.00000°. NP2: ϕ_s7.00000°, δ52.00000°, λ-86.00000°. Principal axes: T 1.0840, Plg7.0000°, Azm95.0000°; N 0.0420, Plg3.0000°, Azm185.0000°; P -1.1220, Plg83.0000°, Azm301.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
NEIC **07** *22:40:59.3±0.4, 69.85N×15.69W, h10km, mb4.4/11 Error ellipse: s-maj=7.9km s-min=6.8km az=70.0*
REY **07** *22:41:01.4, 69.41N×14.87W, h17km, ML3.3, ML3.7*
SZGRF **07** *22:41:11.1, 69.28N×13.90W, h33km, mb4.6, Jan Mayen Island region*
ISC 07 22:40:58.7±0.4, 69.73N±0.04×15.9W±0.2, h10km, n91, σ1.14/81, mb3.9/22, MS3.6/12, Jan Mayen Island region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JMIC	Jan Mayen	2.79	60	LR	LR	22 42 28.2	
	comp=Z,2μm,19.2s,baz=241,slow=34						
IGRI	Grimsey	3.30	195	P	Pn	22 41 49.8	-0.5
ILEI	Leirhofn	3.35	184	P	Pn	22 41 49.0	-2.0
IFLA	Flatey	3.66	192	P	Pn	22 41 55.0	-0.3
IGIL	Gilhagi	3.68	183	P	Pn	22 41 53.4	-2.1
IHED	Heoinshofoi	3.71	189	P	Pn	22 41 54.7	-1.2
ISIG	Siglufjorour	3.79	199	P	Pn	22 41 57.3	+0.2
IHRN	Hraun	3.97	206	P	Pn	22 42 00.5	+1.0
IGRS	Grimsstaoir	4.12	181	P	Pn	22 41 59.7	-1.8
IREN	Reynihlio	4.12	186	P	Pn	22 42 01.3	-0.3
BORG	Borgarnes	5.43	205	ePn	Pn	22 42 23.3	+3.8
	80nm,1.0s						
BORG				LR	LR	22 44 08.7	
BORG	Borgarnes	5.43	205	Pn	Pn	22 42 22.4	+2.9
	1.1nm,0.3s,baz=23,slow=7.2,SNR=6.3						
BORG				LR	LR	22 44 08.7	
	comp=Z,1μm,19.3s,baz=220,slow=34						
KBS	Kingsbay	11.70	26	P	Pn	22 43 43.9	-1.5
KBS	Kingsbay	11.70	26	P	Pn	22 43 43.9	-1.5
SPB4	Spitsbergen Ar	12.05	32	Pn	Pn	22 43 47.8	-2.4
SPB4	Spitsbergen Ar	12.05	32	Pn	Pn	22 43 47.8	-2.4
SFJD	Kangerlussuaq	12.98	274	LR	LR	22 48 50.7	
	comp=Z,2μm,19.9s,baz=42,slow=36						
NOA	NORSAR Array B	14.12	115	LR	LR	22 49 07.7	
	comp=Z,202nm,21.2s,baz=310,slow=35						
NAO01	NORSAR Array S	14.17	116	ePn	Pn	22 44 20.9	+1.8
ARCES	ARCESS Array B	14.22	71	LR	LR	22 48 29.1	
	comp=Z,524nm,21.9s,baz=11,slow=32						
KEV	Kevo	14.64	70	ep	Pn	22 44 26.8	+1.4
	3.6nm,0.9s						
KEV	Kevo	14.64	70	eP	Pn	22 44 26.8	+1.4
KEV				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KONO	Kongsberg	14.72	121	Pn	Pn	22 44 26.3	-0.3
KONO	Kongsberg	14.72	121	P	Pn	22 44 26.3	-0.2
HFS	Hagfors	15.61	113	Pn	Pn	22 44 38.1	-0.3
HFS				LR	LR	22 49 52.5	
HFS	Hagfors	15.61	113	P	Pn	22 44 38.1	-0.3
HFS				MLR	MLR		
	comp=Z,458nm,20.5s						
HFS	Hagfors	15.61	113	Pn	Pn	22 44 38.1	-0.3
	comp=Z,0.1nm,0.3s,baz=316,slow=14,SNR=3.8						
HFS				LR	LR	22 49 52.5	
	comp=Z,458nm,20.5s,baz=249,slow=34						
KAF	Kangasniemi	18.45	93	ep	Pn	22 45 13.6	-0.4
	comp=Z,13nm,1.0s,baz=310,slow=13						
KAF	Kangasniemi	18.45	93	eP	Pn	22 45 13.6	-0.4
KAF				pmax	pmax		
	comp=Z,13nm,1.0s						
FINES	FINESS Array B	18.83	95	P	Pn	22 45 17.4	-1.2
FINES				LR	LR	22 51 40.4	
FINES	FINESS Array B	18.83	95	P	Pn	22 45 17.4	-1.2
	comp=Z,0.1nm,0.3s,baz=316,slow=8.0,SNR=10.0						
FINES				LR	LR	22 51 40.4	
	comp=Z,594nm,19.3s,baz=331,slow=34						
JOF	Joensuu	19.66	87	ep	Pn	22 45 26.1	-2.5
	comp=Z,4.1nm,0.8s						
JOF	Joensuu	19.66	87	eP	Pn	22 45 26.1	-2.5
JOF				pmax	pmax		
	comp=Z,4.0nm,0.8s						
CLL	Collm	22.91	129	i P	P	22 46 03.5	+1.3
	comp=Z,15nm,1.4s,mb4.2						
CLL				LR	LR		
	comp=Z,200nm,23.2s,MS3.5						
CLL	Collm	22.91	129	i P	P	22 46 03.5	+1.3
CLL				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.2						
CLL				MLR	MLR		
	comp=Z,200nm,23.2s,MS3.5						
GRA1	Grafenberg Arr	23.91	133	eP	P	22 46 13.6	+1.3
	comp=Z,31nm,1.7s,mb4.5						
GRF	Grafenberg Arr	23.91	133	eP	P	22 46 13.6	+1.3
GRF				pmax	pmax		
	comp=Z,31nm,1.7s,mb4.5						
GRF	Grafenberg Arr	23.91	133	eP	P	22 46 13.6	+1.3
GRF				pmax	pmax		
	comp=Z,31nm,1.7s,mb4.5						
GRF	Grafenberg Arr	23.91	133	eP	P	22 46 13.6	+1.3
	comp=Z,31nm,1.7s,mb4.5						
GERES	GERESS Array B	25.34	130	P	P	22 46 26.7	+1.5
GERES				pmax	pmax		
	comp=Z,3.0nm,1.1s						
GERES				MLR	MLR		
	comp=Z,180nm,21.4s						
GERES	GERESS Array B	25.34	130	P	P	22 46 26.7	+1.4
	comp=Z,2.8nm,1.1s,mb3.7,baz=339,slow=7.1,SNR=12						
GERES				LR	LR	22 54 41.2	
	comp=Z,180nm,21.4s,MS3.6,baz=308,slow=32						
MORC	Moravsky Berou	25.56	124	eP	P	22 46 27.3	+0.1
	comp=Z,15nm,1.4s,mb4.3						
MORC	Moravsky Berou	25.56	124	eP	P	22 46 27.3	+0.1
MORC				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.3						
MORC	Moravsky Berou	25.56	124	eP	P	22 46 27.3	+0.1
	comp=Z,15nm,1.4s,mb4.3						
VRAC	Vranov	25.71	126	P	P	22 46 28.9	+0.3
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.8s						
VRAC				MLR	MLR		
	comp=Z,263nm,19.1s						
VRAC	Vranov	25.71	126	P	P	22 46 28.9	+0.3
	comp=Z,2.0nm,0.8s,mb3.7,baz=334,slow=10,SNR=4.6						
VRAC				LR	LR	22 56 21.1	
	comp=Z,263nm,19.1s,MS3.8,baz=329,slow=36						
DAVOX	Davos/Dischmat	26.29	138	LR	LR	22 56 59.3	
	comp=Z,211nm,19.3s,MS3.7,baz=254,slow=36						
SCHQ	Schefferville	26.93	263	LR	LR	22 56 28.4	
	comp=Z,252nm,21.3s,MS3.8,baz=277,slow=34						
KWP	Kalwaria	27.23	118	P	P	22 46 41.5	-0.8
	comp=Z,16nm,1.3s,mb4.4						
KWP	Kalwaria	27.23	118	P	P	22 46 41.6	-0.7
KWP				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.4						
KWP	Kalwaria	27.23	118	P	P	22 46 41.6	-0.7
	comp=Z,16nm,1.3s,mb4.4						
OBN	Obninsk	27.23	95	eP	P	22 46 42.0	-0.3
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.9						
OBN	Obninsk	27.23	95	eP	P	22 46 42.0	-0.3
	comp=Z,3.0nm,0.8s,mb3.9						
AKASG	Malin Array Be	28.39	109	P	P	22 46 52.3	-0.4
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.8s						
AKASG	Malin Array Be	28.39	109	P	P	22 46 52.3	-0.4
	comp=Z,1.3nm,0.8s,mb3.6,baz=328,slow=9.4,SNR=7.3						
ESDC	Sonseca Array	30.78	162	LR	LR	22 59 27.0	
	comp=Z,106nm,21.0s,MS3.5,baz=40,slow=36						
ESLA	Sonseca Array	30.78	162	P	P	22 47 15.0	+1.1
ESLA	Sonseca Array	30.78	162	P	P	22 47 15.0	+1.1
AQU	L'Aquila	31.31	136	eP	P	22 47 17.9	-0.7
	comp=Z,5.4nm,0.7s,mb4.5						
AQU	L'Aquila	31.31	136	eP	P	22 47 17.9	-0.7
AQU				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
AQU	L'Aquila	31.31	136	eP	P	22 47 17.9	-0.7
	comp=Z,5.3nm,0.7s,mb4.5						
INK	Inuvik	35.90	326	LR	LR	23 01 35.5	
	comp=Z,124nm,21.8s,MS3.6,baz=42,slow=34						
YKA	Yellowknife Ar	36.32	309	P	P	22 48 01.6	-0.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA				MLR	MLR		
	comp=Z,107nm,19.1s						
YKA	Yellowknife Ar	36.32	309	P	P	22 48 01.6	-0.3
	comp=Z,0.9nm,0.9s,mb3.7,baz=37,slow=8.6,SNR=7.4						
YKA				LR	LR	23 03 09.5	
	comp=Z,106nm,19.1s,MS3.6,baz=160,slow=37						
KEST	Kesra	36.74	145	LR	LR	23 03 36.0	
	comp=Z,42nm,18.8s,MS3.2,baz=211,slow=37						
BRTR	Keskin Array B	39.55	113	P	P	22 48 31.2	+1.8
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	39.55	113	P	P	22 48 31.2	+1.8
	comp=Z,0.5nm,0.8s,mb3.3,baz=344,slow=12,SNR=2.9						
ULM	Lac du Bonnet	40.75	284	LR	LR	23 05 42.2	
	comp=Z,163nm,19.4s,MS3.9,baz=354,slow=36						
MALT	Malatya	42.39	109	eP	P	22 48 54.2	+1.4
	comp=Z,3.4nm,1.0s,mb3.9						
MALT	Malatya	42.39	109	eP	P	22 48 54.2	+1.4
MALT				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.9						
MALT	Malatya	42.39	109	eP	P	22 48 54.2	+1.4
	comp=Z,3.4nm,1.0s,mb3.9						
ZALV	Zalesovo Beam	44.13	57	P	P	22 49 06.8	+0.2
	comp=Z,0.3nm,0.3s,mb3.5,baz=345,slow=5.1,SNR=2.2						
ZALV				LR	LR	23 09 15.4	
	comp=Z,77nm,21.4s,MS3.6,baz=150,slow=39						
ZAL	Zalesovo	44.14	57	P	P	22 49 06.9	+0.2
KURK	Kurchatov	45.08	64	eP	P	22 49 15.4	+1.1
	comp=Z,1.5nm,0.7s,mb3.9						
KURK	Kurchatov	45.08	64	eP	P	22 49 15.4	+1.1
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.1						
KURK	Kurchatov	45.08	64	eP	P	22 49 15.4	+1.1
	comp=Z,1.5nm,0.7s,mb3.9						
YAK	Yakutsk	46.28	22	eP	P	22 49 22.9	-0.7
	comp=Z,10nm,0.4s,mb5.1						
YAK	Yakutsk	46.28	22	eP	P	22 49 22.9	-0.7
YAK				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.1						
YAK	Yakutsk	46.28	22	eP	P	22 49 22.9	-0.7
	comp=Z,10nm,0.4s,mb5.1						
MKAR	Makanchi Array	49.69	63	P	P	22 49 50.4	+0.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR				MLR	MLR		
	comp=Z,115nm,18.6s						
MKAR	Makanchi Array	49.69	63	P	P	22 49 50.4	+0.2
	comp=Z,0.7nm,0.9s,mb3.7,baz=341,slow=7.1,SNR=6.5						
MKAR				LR	LR	23 12 31.5	
	comp=Z,115nm,18.6s,MS3.9,baz=354,slow=38						
AAK	Ala-Archa	50.89	72	eP	P	22 49 59.8	+0.5
	comp=Z,5.1nm,1.4s,mb4.3						
AAK	Ala-Archa	50.89	72	eP	P	22 49 59.8	+0.5
AAK				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.2						
AAK	Ala-Archa	50.89	72	eP	P	22 49 59.8	+0.5
	comp=Z,5.1nm,1.4s,mb4.3						
PDAR	Pinedale Array	51.85	291	P	P	22 50 08.0	+1.5
	comp=Z,1.0nm,1.0s,mb3.7,baz=46,slow=4.3,SNR=4.8						
SONM	Songino Array	55.45	44	P	P	22 50 32.5	-0.2
	comp=Z,0.3nm,0.9s,mb3.3,baz=339,slow=3.7,SNR=3.4						
ULN	Ulaanbaatar	55.57	43	P	P	22 50 34.0	+0.3
ULN	Ulaanbaatar	55.57	43	P	P	22 50 34.0	+0.3
TORD	Torodi Ar. Bea	57.63	160	P	P	22 50 48.7	+0.1
	comp=Z,2.6nm,1.1s,mb4.2,baz=344,slow=4.3,SNR=8.5						
TXAR	Lajitas Array	62.05	279	P	P	22 51 20.7	+1.8
	comp=Z,0.2nm,0.5s,mb3.5,baz=46,slow=3.6,SNR=4.0						
MJAR	Matsushiro Arr	72.35	22	P	P	22 52 22.9	-1.3
	comp=Z,0.3nm,0.3s,mb3.7,baz=324,slow=7.5,SNR=2.8						

IDC **07** *22:51:27.1±1.5, 17.04N×147.76E, h0km, mb3.5/7, mb1 3.7/7, mb1mx3.6/19, mbtmp3.6/7, Error ellipse: s-maj=49.7km s-min=25.2km az=84.0*
ISCJB **07** *22:51:30.5±1.2, 17.1N±0.1×147.6E±0.2, h33km, mb3.6/9, Error ellipse: s-maj=32.2km s-min=19.1km az=177.2*
NEIC **07** *22:51:32.4±0.9, 17.06N×147.69E, h35km, mb4.0/2, Error ellipse: s-maj=27.3km s-min=15.5km az=88.0*
ISC 07 22:51:32.5±1.2, 17.1N±0.1×147.7E±0.2, h35km, n14, σ0.81/14, mb3.6/9, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MJAR	Matsushiro Arr	21.13	338	P	P	22 56 14.6	+0.3
	2.6nm,0.7s,mb3.7,baz=164,slow=9.7,SNR=7.9						
MAJO	Matsushiro	21.13	338	eP	P	22 56 13.9	-0.4
	7.9nm,0.9s,mb4.0						
KSRS	Korea Array	26.73	323	P	P	22 57 07.6	-1.2
	0.5nm,0.4s,mb3.4,baz=142,slow=8.0,SNR=3.5						
INCN	Inchon	27.50	322	P	P	22 57 14.3	-1.4
PET	Petropavlovsk	36.90	11	P	P	22 58 37.5	-0.1
WRA	Warramunga Arr	39.04	200	P	P	22 58 55.8	-0.3
	0.6nm,0.6s,mb3.5,baz=26,slow=9.4,SNR=4.4						
ULN	Ulaanbaatar	45.20	322	P	P	22 59 46.3	+0.2
SONM	Songino Array	45.58	322	P	P	22 59 50.8	+1.8
	0.2nm,0.5s,mb3.3,baz=117,slow=5.0,SNR=3.2						
ZALV	Zalesovo Beam	60.44	323	P	P	23 01 38.4	-0.1
	0.3nm,0.4s,mb3.6,baz=116,slow=6.6,SNR=2.6						
MKAR	Makanchi Array	60.94	314	P	P	23 01 43.2	+1.2
	0.3nm,0.6s,mb3.6,baz=92,slow=8.6,SNR=5.6						
KURK	Kurchatov	63.73	319	P	P	23 02 01.1	+0.5
BRVK	Borovoye	68.98	321	eP	P	23 02 33.8	-0.4
	0.6nm,0.5s,mb3.8						
YKA	Yellowknife Ar	78.54	28	P	P	23 03 30.1	0.0
YKA	Yellowknife Ar	78.54	28	P	P	23 03 30.1	0.0
	0.4nm,0.6s,mb3.5,baz=286,slow=5.8,SNR=4.8						

ISCJB **07** *23:00:00.8±1.0, 69.8N±0.1×15.7W±0.4, h10km, mb3.5/4, Error ellipse: s-maj=20.7km s-min=17.0km az=153.2*
IDC **07** *23:00:00.9±1.4, 69.74N×15.76W, h0km, mb3.5/4, mb1 3.7/5, mb1mx3.4/21, mbtmp3.5/5, ML2.7/1, MS3.8/1, Ms1 3.8/1, ms1mx3.0/6, Error ellipse: s-maj=44.6km s-min=26.5km az=36.0*
NEIC **07** *23:00:02.7±0.9, 69.83N×15.61W, h10km, Error ellipse: s-maj=19.0km s-min=16.1km az=150.0*
ISC 07 23:00:02.7±1.0, 69.8N±0.1×15.6W±0.4, h10km, n8, σ0.58/7, mb3.5/4, Jan Mayen Island region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BORG	Borgarnes	5.57	206	ePn	Pn	23 01 26.1	+0.5
BORG	Borgarnes	5.57	206	LR	LR	23 02 23.7	
	comp=Z,982nm,21.4s,baz=44,slow=26						
FINES	FINESS Array B	18.73	96	P	Pn	23 04 22.0	+0.5
	0.1nm,0.3s,baz=320,slow=8.5,SNR=4.6						
GERES	GERESS Array B	25.32	131	P	P	23 05 29.3	+0.2
	0.6nm,0.8s,mb3.2,baz=318,slow=8.1,SNR=3.7						
YKA	Yellowknife Ar	36.34	309	P	P	23 07 06.2	+0.1
	1.1nm,0.9s,mb3.8,baz=38,slow=8.9,SNR=5.1						
MKAR	Makanchi Array	49.54	63	P	P	23 08 53.0	-0.1
MKAR	Makanchi Array	49.54	63	P	P	23 08 53.0	-0.1
	0.4nm,0.8s,mb3.5,baz=350,slow=4.9,SNR=3.7						
TORD	Torodi Ar. Bea	57.69	160	P	P	23 09 51.9	-1.2
	1.0nm,1.1s,mb3.8,baz=345,slow=5.2,SNR=3.7						

BJI **07** *23:00:27.3, 69.90N×15.40W, h10km, mb4.1*
CSEM **07** *23:00:27.7±0.1, 69.71N×15.80W, h13km, mb4.4/19, Mw4.8, Error ellipse: s-maj=2.9km s-min=2.0km az=108.0*
IDC **07** *23:00:28.2±0.6, 69.87N×15.49W, h0km, mb3.9/14, mb1 4.2/18, mb1mx4.0/27, mbtmp4.0/18, ML3.4/4, MS4.2/4, Ms1 4.2/4, ms1mx3.6/11, Error ellipse: s-maj=19.0km s-min=13.0km az=31.0*
MOS **07** *23:00:28.5±1.2, 69.88N×15.57W, h10km, mb4.5/22, MS4.0/10, Error ellipse: s-maj=19.2km s-min=7.1km az=108.1*
ISCJB **07** *23:00:28.5±1.3, 69.64N±0.03×15.92W±0.10, h13km±8km, mb4.3/48, MS4.2/12, Error ellipse: s-maj=5.8km s-min=4.0km az=19.4*
GCMT **07** *23:00:29.9±0.3, 69.79N×15.78W, h12km, MW4.8/70, Moment Tensor Solution. s13,c15; s70,c117; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.81±.06; $M_{\theta\theta}$0.06±.06; $M_{\phi\phi}$1.74±.05; $M_{r\theta}$-0.49±.31; $M_{\theta\phi}$0.12±.05; $M_{\phi r}$0.06±.23; Best double couple: $M_0$1.84100×10^{16} NP1:ϕ_s18.00000°, δ46.00000°, λ-71.00000°. NP2: ϕ_s171.00000°, δ47.00000°, λ-109.00000°. Principal axes: T 1.7490, Plg0.0000°, Azm274.0000°; N 0.1760, Plg14.0000°, Azm184.0000°; P -1.9320, Plg76.0000°, Azm5.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
NEIC **07** *23:00:30.1±0.3, 69.90N×15.49W, h10km, mb4.5/32 Error ellipse: s-maj=7.2km s-min=5.3km az=42.0*
REY **07** *23:00:31.3, 69.40N×14.64W, h16km, ML3.5, ML3.8*
NAO **07** *23:00:32.9±22.0, 69.87N×15.80W, h39km±99km*
SZGRF **07** *23:00:42.5, 68.99N×14.22W, h33km, mb5.2, MS3.8, Iceland region*
ISC 07 23:00:28.7±1.4, 69.64N±0.03×15.86W±0.10, h3km±9km, n187, σ1.36/201, mb4.3/48, MS4.2/12, 5C-4D, Jan Mayen Island region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JMIC	Jan Mayen	2.83	58	Pn	Pn	23 01 10.6	-4.1
JMIC	Jan Mayen	2.83	58	Pn	Pn	23 01 10.6	-4.1
	15nm,0.3s,baz=326,slow=7.1,SNR=4.1						

JMIC	Jan Mayen	2.83	58	Pn	Pn	23 01 10.6	-4.0
IGRI	Grimsey	3.22	196	P	Pn	23 01 20.0	+0.1
IGRI				S	Sn	23 01 56.0	-2.7
ILEI	Leirhofn	3.26	184	P	Pn	23 01 19.2	-1.3
IFLA	Flatey	3.58	193	P	Pn	23 01 25.1	+0.2
IFLA				S	Sn	23 02 07.9	+0.4
IGIL	Gilhagi	3.59	183	P	Pn	23 01 23.8	-1.2
IGIL				S	Sn	23 02 05.5	-2.3
IHED	Heoinshofoi	3.62	189	P	Pn	23 01 24.8	-0.7
IHED				S	Sn	23 02 06.3	-2.3
ISIG	Siglufjorour	3.71	200	P	Pn	23 01 27.5	+0.8
IGRA	Granastaoir	3.80	191	P	Pn	23 01 27.6	-0.3
IGRA				S	Sn	23 02 13.8	+0.8
IHLA	Hella	3.84	196	P	Pn	23 01 29.0	+0.6
IHLA				S	Sn	23 02 12.0	-1.9
IHRN	Hraun	3.90	206	P	Pn	23 01 31.1	+1.8
IKVO	Krokottuvotn	3.96	186	P	Pn	23 01 29.5	-0.7
IGRS	Grimsstaoir	4.02	182	P	Pn	23 01 29.7	-1.3
IREN	Reynihlio	4.03	186	P	Pn	23 01 31.0	-0.1
ISVA	Svartarkot	4.36	188	P	Pn	23 01 35.5	-0.1
IADA	Aoalbol	4.65	179	P	Pn	23 01 38.3	-1.2
IGLU	Glumsstadir	4.69	176	P	Pn	23 01 38.9	-1.3
IHVA	Hvannstoosfjol	4.71	180	P	Pn	23 01 39.6	-0.8
IVSH	V-Sauoahnukur	4.86	179	P	Pn	23 01 41.5	-0.9
BORG	Borgarnes	5.35	206	Pn	Pn	23 01 52.6	+3.4
BORG	Borgarnes	5.35	206	Pn	Pn	23 01 52.6	+3.4
	4.4nm,0.3s,baz=49,slow=6.6,SNR=18						
BORG	Borgarnes	5.35	206	Pn	Pn	23 01 52.7	+3.4
KBS	Kingsbay	11.78	26	*e*Pn	Pn	23 03 11.5	-5.7
KBS	Kingsbay	11.78	26	*e*Pn	Pn	23 03 11.5	-5.7
SPB4	Spitsbergen Ar	12.13	32	*e*Pn	Pn	23 03 16.6	-5.3
SPB4	Spitsbergen Ar	12.13	32	*e*Pn	Pn	23 03 16.6	-5.3
SPA0	Spitsbergen Ar	12.13	32	Pn	Pn	23 03 19.3	-2.6
	baz=233,slow=14						
NB2	NORSAR Subarra	14.07	114	P	Pn	23 03 50.9	+2.4
NOA	NORSAR Array B	14.07	114	Pn	Pn	23 03 51.1	+2.5
NOA				LR	LR	23 08 37.1	
NOA	NORSAR Array B	14.07	114	P	Pn	23 03 51.1	+2.6
NOA				MLR	MLR		
	comp=Z,374nm,21.4s						
NOA	NORSAR Array B	14.07	114	Pn	Pn	23 03 51.1	+2.5
	comp=Z,0.1nm,0.3s,baz=326,slow=13,SNR=3.3						
NOA				LR	LR	23 08 37.1	
	comp=Z,374nm,21.4s,baz=320,slow=35						
KEV	Kevo	14.65	69	*e*p	Pn	23 04 03.0	+6.6
	comp=Z,3.5nm,0.7s						
KEV	Kevo	14.65	69	*e*P	Pn	23 04 03.0	+6.6
KEV				pmax	pmax		
	comp=Z,4.0nm,0.7s						
EKA	Eskdalemuir Ar	15.45	152	Pn	Pn	23 04 09.3	+2.1
EKA	Eskdalemuir Ar	15.45	152	Pn	Pn	23 04 09.3	+2.1
	comp=Z,0.1nm,0.3s,baz=46,slow=14,SNR=3.2						
EKA	Eskdalemuir Ar	15.45	152	Pn	Pn	23 04 09.3	+2.1
HFS	Hagfors	15.56	113	P	Pn	23 04 09.7	+1.2
	baz=323,slow=10						
HFS	Hagfors	15.56	113	Pn	Pn	23 04 08.4	-0.1
HFS	Hagfors	15.56	113	Pn	Pn	23 04 08.4	-0.1
	comp=Z,0.1nm,0.3s,baz=317,slow=8.3,SNR=6.3						
APA0	Apatity Array	17.54	73	P	Pn	23 04 33.4	-0.3
	baz=292,slow=11						
KAF	Kangasniemi	18.43	93	*e*p	Pn	23 04 42.7	-1.9
	comp=Z,18nm,0.9s,baz=309,slow=11						
KAF	Kangasniemi	18.43	93	*e*P	Pn	23 04 42.7	-1.9
KAF				pmax	pmax		
	comp=Z,18nm,0.9s						
FIA0	FINESS Array S	18.80	95	P	Pn	23 04 48.5	-0.8
	baz=323,slow=6.9						
FINES	FINESS Array B	18.80	95	P	Pn	23 04 48.2	-1.1
FINES	FINESS Array B	18.80	95	P	Pn	23 04 48.2	-1.0
	comp=Z,0.2nm,0.3s,baz=316,slow=11,SNR=9.8						
JOF	Joensuu	19.65	87	*e*p	Pn	23 04 56.7	-2.7
	comp=Z,9.5nm,0.8s						
JOF	Joensuu	19.65	87	*e*P	Pn	23 04 56.7	-2.7
JOF				pmax	pmax		
	comp=Z,10.0nm,0.8s						
VSU	Vasula	21.20	100	*e*P	P	23 05 18.1	+3.3
BAIF	Baives	21.86	144	*e*P	P	23 05 14.7	-7.3
	comp=Z,72nm,1.5s,mb4.6						
BAIF	Baives	21.86	144	*e*P	P	23 05 14.7	-7.3
	comp=Z,36nm,1.5s,mb4.6						
GIVF	Givet	21.95	143	*e*P	P	23 05 15.7	-7.3
FLN	La Foliniere	22.23	152	*e*P	P	23 05 19.5	-6.5
ROSF	Rostrenen	22.24	157	*e*P	P	23 05 19.9	-6.1
	comp=Z,456nm,1.9s,mb5.3						
ROSF	Rostrenen	22.24	157	*e*P	P	23 05 19.9	-6.1
	comp=Z,228nm,1.8s,mb5.3						
SGMF	Saint Gilles	22.41	156	*e*P	P	23 05 20.7	-7.2
	comp=Z,124nm,1.4s,mb4.9						
SGMF	Saint Gilles	22.41	156	*e*P	P	23 05 20.7	-7.2
	comp=Z,62nm,1.4s,mb4.8						
LDF	La Druitiere	22.46	152	*e*P	P	23 05 21.6	-6.8
	comp=Z,85nm,1.4s,mb4.7						
LDF	La Druitiere	22.46	152	*e*P	P	23 05 21.6	-6.8
	comp=Z,43nm,1.4s,mb4.7						
CLL	Collm	22.84	129	*i* P	P	23 05 33.6	+1.2
	comp=Z,14nm,0.9s,mb4.4						
CLL				LR	LR		
	comp=Z,400nm,24.7s,MS3.8						
CLL	Collm	22.84	129	*i* P	P	23 05 33.6	+1.2
CLL				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.4						
CLL				MLR	MLR		
	comp=Z,400nm,24.7s,MS3.8						
RES	Resolute Bay	22.96	318	*e*P	P	23 05 33.9	+0.3
	comp=Z,75nm,0.9s,mb5.1						
RES	Resolute Bay	22.96	318	*e*P	P	23 05 33.9	+0.3
RES				pmax	pmax		
	comp=Z,75nm,0.9s,mb5.1						
MOX	Moxa	23.07	131	*e*P	P	23 05 33.1	-1.7
	comp=Z,59nm,2.1s,mb4.7						
MOX							
	comp=Z,300nm,15.0s						
MOX	Moxa	23.07	131	*e*P	P	23 05 33.1	-1.7
MOX				pmax	pmax		
	comp=Z,59nm,2.1s,mb4.7						
MOX				MLR	MLR		
	comp=Z,300nm,15.0s,MS3.9						
BRG	Berggiesshubel	23.49	128	*e*P	P	23 05 41.1	+1.9
BRG				pmax	pmax		
	comp=Z,30nm,1.8s,mb4.4						
BRG				MLR	MLR		
	comp=N,243nm,16.1s,MS3.9						
BRG				MLR	MLR		
	comp=E,219nm,15.4s,MS3.9						
BRG				MLR	MLR		
	comp=Z,368nm,16.8s,MS3.9						
BRG	Berggiesshubel	23.49	128	*e*P	P	23 05 41.1	+1.9
	comp=Z,50nm,1.8s,mb4.6						
BRG							
	comp=N,406nm,16.1s						
BRG							
	comp=E,366nm,15.4s						
BRG							
	comp=Z,615nm,16.8s						
MEZF	Maizieres J’vi	23.51	143	*e*P	P	23 05 30.4	-9.1
NKC	Novy Kostel	23.66	131	*e*P	P	23 05 39.8	-1.2
GRA1	Grafenberg Arr	23.84	133	*e*P	P	23 05 43.7	+1.1
	comp=Z,160nm,2.2s,mb5.1						
GRA1				LR	LR		
	comp=Z,300nm,18.3s,MS3.8						
GRF	Grafenberg Arr	23.84	133	*e*P	P	23 05 43.7	+1.1
GRF				pmax	pmax		
	comp=Z,160nm,2.2s,mb5.1						
GRF				MLR	MLR		
	comp=Z,300nm,18.3s,MS3.8						
GRF	Grafenberg Arr	23.84	133	*e*P	P	23 05 43.7	+1.1
GRF				pmax	pmax		
	comp=Z,160nm,2.2s,mb5.1						
GRF				MLR	MLR		
	comp=Z,300nm,18.3s,MS3.8						
GRF	Grafenberg Arr	23.84	133	*e*P	P	23 05 43.7	+1.1
	comp=Z,160nm,2.2s,mb5.1						
GRF				*e*L		23 15 34.8	
	comp=Z,315nm,18.3s						
PVCC	Panska Ves	23.97	127	*e*P	P	23 05 44.7	+0.9
KSP	Ksiaz	24.18	125	*e*P	P	23 05 45.6	-0.1
HAU	Haudompre	24.26	142	*e*P	P	23 05 38.5	-7.9
UPC	Upice	24.40	125	*e*P	P	23 05 47.2	-0.5
BFO	Black Forest	24.40	139	*e*P	P	23 05 44.2	-3.5
	comp=Z,21nm,1.3s,mb4.4						
LOR	Lormes	24.45	146	*e*P	P	23 05 40.5	-7.7
	comp=Z,15nm,0.9s,mb4.1						
LOR	Lormes	24.45	146	*e*P	P	23 05 40.5	-7.7
	comp=Z,7.4nm,0.9s,mb4.1						
PRU	Pruhonice	24.45	128	*e*P	P	23 05 49.1	+0.9
PRU				AMS	AMS	23 16 10.0	
DPC	Dobruska-Polom	24.63	125	*e*P	P	23 05 51.6	+1.8
DPC				AMS	AMS	23 14 30.0	
KHC	Kasperske Hory	24.97	130	*e*P	P	23 05 55.4	+2.5
KHC				AMS	AMS	23 14 40.0	
SMF	Signal de Mont	25.05	147	*e*P	P	23 05 45.4	-8.2
	comp=Z,189nm,1.8s,mb5.0						
GEC2	GERESS Array S	25.26	130	*e*P	P	23 05 57.5	+2.0
GEC2	GERESS Array S	25.26	130	*e*P	P	23 05 57.5	+1.9
GERES	GERESS Array B	25.26	130	P	P	23 05 57.5	+1.9
GERES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
GERES	GERESS Array B	25.26	130	P	P	23 05 57.5	+2.0
	comp=Z,3.1nm,0.8s,mb3.9,baz=339,slow=7.1,SNR=9.3						
TREC	Trest	25.34	127	*e*P	P	23 05 58.5	+2.2
PRGR	Permogore	25.47	77	*i* P	P	23 06 06.8	+9.5
MORC	Moravsky Berou	25.49	124	*e*P	P	23 05 58.1	+0.5
	comp=Z,32nm,1.5s,mb4.6						
MORC	Moravsky Berou	25.49	124	⇑*i*P	P	23 05 59.0	+1.4
MORC	Moravsky Berou	25.49	124	*e*P	P	23 05 58.2	+0.6
	comp=Z,32nm,1.5s,mb4.6						
OKC	Ostrava-Krasne	25.61	123	*e*P	P	23 05 59.4	+0.7
OKC				AMS	AMS	23 15 00.0	
VRAC	Vranov	25.64	126	P	P	23 06 00.2	+1.2
VRAC				pmax	pmax		
	comp=Z,4.0nm,0.8s						
VRAC	Vranov	25.64	126	P	P	23 06 00.2	+1.2
	comp=Z,4.3nm,0.8s,mb4.0,baz=345,slow=9.5,SNR=6.3						
MODS	Modra-Piesok	26.68	126	*e*P	P	23 06 12.1	+3.7
STHS	Stebnicka Huta	26.91	120	*e*P	P	23 06 12.5	+2.0
STHS				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.7						
STHS	Stebnicka Huta	26.91	120	*e*P	P	23 06 12.5	+2.0
	comp=Z,3.0nm,1.1s,mb3.7						
SCHQ	Schefferville	26.93	263	P	P	23 06 12.0	+1.4
SCHQ	Schefferville	26.93	263	P	P	23 06 12.0	+1.4
VYHS	Vyhne	27.02	124	*e*P	P	23 06 12.1	+0.7
VYHS				pmax	pmax		
	comp=Z,24nm,2.2s,mb4.3						
VYHS	Vyhne	27.02	124	*e*P	P	23 06 12.1	+0.7
	comp=Z,24nm,2.2s,mb4.3						
KWP	Kalwaria	27.18	117	*e*P	P	23 06 16.3	+3.5
	comp=Z,22nm,1.2s,mb4.6						
KWP	Kalwaria	27.18	117	*e*P	P	23 06 16.3	+3.5
	comp=Z,22nm,1.2s,mb4.6						
OBN	Obninsk	27.21	95	*e*P	P	23 06 13.9	+0.8
	comp=Z,10.0nm,1.1s,mb4.3						
OBN				*i*		23 07 06.1	
OBN				*e*S	S	23 10 41.4	-11
OBN				LR	LR		
	comp=Z,300nm,15.0s,MS4.0						
OBN	Obninsk	27.21	95	*e*P	P	23 06 13.9	+0.8
OBN				*i*		23 07 06.1	
OBN				*e*S	S	23 10 41.4	-11
OBN				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.3						
OBN				MLR	MLR		
	comp=Z,300nm,15.0s,MS4.0						
CRVS	Cervenica-Dubn	27.44	120	*e*P	P	23 06 20.1	+4.9
KECS	Kecovo	27.52	121	*e*P	P	23 06 17.3	+1.4
	comp=Z,1.7nm,0.8s,mb3.7						
KECS				*e*		23 06 22.6	
KECS	Kecovo	27.52	121	*e*P	P	23 06 17.3	+1.4
KECS				*e*		23 06 22.6	
KECS				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.8						
KECS	Kecovo	27.52	121	*e*P	P	23 06 17.3	+1.4
KECS				*e*pP	pP	23 06 22.5	+5.6
SJPF	Ste Jean	27.64	156	*e*P	P	23 06 10.4	-6.6
	comp=Z,79nm,1.4s,mb4.8						
KOLS	Kolonicke sedl	27.66	119	*e*P	P	23 06 20.9	+3.7
PSZ	Piszkesteto	27.85	123	*e*P	P	23 06 19.1	+0.3
	comp=Z,4.7nm,1.0s,mb4.1						
PSZ	Piszkesteto	27.85	123	*e*P	P	23 06 19.1	+0.2
PSZ				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.1						
PSZ	Piszkesteto	27.85	123	*e*P	P	23 06 19.1	+0.2
	comp=Z,4.7nm,1.0s,mb4.1						
UZH	Uzhgorod	27.93	119	*e*P	P	23 06 19.8	+0.2
UZH				*e*S	S	23 10 58.0	-5.6
UZH				*e*SS		23 12 30.0	
UZH				LR	LR		
	comp=Z,600nm,14.0s,MS4.3						
ETSF	Etsaut	27.95	156	*e*P	P	23 06 12.7	-7.1
	comp=Z,31nm,1.3s,mb4.5						
AKASG	Malin Array Be	28.35	108	P	P	23 06 23.2	-0.1
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.8s						
AKASG	Malin Array Be	28.35	108	P	P	23 06 23.1	-0.1
	comp=Z,1.7nm,0.8s,mb3.7,baz=328,slow=8.8,SNR=7.3						
BURAR	Bucovina Array	29.74	116	⇓*i*P	P	23 06 37.8	+2.1
BZS	Buzias	30.43	123	⇓*i*P	P	23 06 45.8	+4.0
ESLA	Sonseca Array	30.69	162	P	P	23 06 46.2	+2.1
ARU	Arti	33.79	74	*e*P	P	23 07 08.7	-2.4
	comp=Z,11nm,1.3s,mb4.6						
ARU				⇓*i*P		23 07 15.3	
ARU				*e*		23 08 26.8	
ARU				*e*		23 09 51.4	
ARU				*e*S	S	23 12 37.4	+2.4
ARU				*e*SS	SS	23 14 36.7	-24
ARU				LR	LR		
	comp=Z,500nm,19.0s,MS4.3						
ARU	Arti	33.79	74	⇓*i*P	P	23 07 15.3	+4.2
ARU				*e*		23 08 26.8	
ARU				*e*		23 09 51.4	
ARU				*e*S	S	23 12 37.4	+2.4
ARU				*e*SS	SS	23 14 36.7	-24
ARU				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
ARU				MLR	MLR		
	comp=Z,500nm,19.0s,MS4.3						
ARU				MLR	MLR		
	comp=N,400nm,20.0s,MS4.2						
ARU				MLR	MLR		
	comp=E,200nm,17.0s,MS4.2						
ARU	Arti	33.79	74	*e*P	P	23 07 08.7	-2.4
	comp=E,11nm,1.3s,mb4.6						
INK	Inuvik	35.98	326	P	P	23 07 28.4	-1.5
INK	Inuvik	35.98	326	P	P	23 07 28.4	-1.5
INK				pmax	pmax		
	comp=Z,3.0nm,0.4s						
INK	Inuvik	35.98	326	P	P	23 07 28.4	-1.5
	comp=Z,2.7nm,0.4s,mb4.5,baz=135,slow=8.8,SNR=16						
ANN	Anapa	36.22	105	*e*P	P	23 07 32.4	+0.2
	comp=Z,97nm,1.2s						
ANN				*e*S	S	23 13 11.1	-1.6
ANN				LR	LR		
	comp=Z,640nm,15.0s,MS4.5						
ANN	Anapa	36.22	105	*e*P	P	23 07 32.4	+0.2
ANN				*e*S	S	23 13 11.1	-1.6
ANN				pmax	pmax		
	comp=Z,97nm,1.2s						
ANN				MLR	MLR		
	comp=Z,640nm,15.0s,MS4.5						
ANN	Anapa	36.22	105	*e*P	P	23 07 32.4	+0.2
	comp=Z,97nm,1.2s						
ANN				*e*S	S	23 13 11.1	-1.6
YKA	Yellowknife Ar	36.39	309	P	P	23 07 33.7	+0.2
YKA	Yellowknife Ar	36.39	309	P	P	23 07 33.7	+0.2
YKA				pmax	pmax		
	comp=Z,3.0nm,1.0s						
YKA	Yellowknife Ar	36.39	309	P	P	23 07 33.7	+0.2
	comp=Z,3.3nm,1.0s,mb4.2,baz=36,slow=8.9,SNR=10.0						
TIXI	Tiksi	37.06	18	⇑*e*P	P	23 07 38.3	-0.8
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb3.7						
TIXI	Tiksi	37.06	18	⇑*e*P	P	23 07 38.3	-0.8
	comp=Z,2.0nm,1.6s,mb3.7						
MDT	Midelt	37.41	164	P	P	23 07 43.2	+0.7
	comp=Z,2.1nm,1.0s,mb3.9,baz=0.3,slow=13,SNR=3.7						
KIV	Kislovodsk	38.76	100	*e*P	P	23 07 54.0	+0.3
	comp=Z,7.0nm,1.0s,mb4.3						
KIV				*e*		23 09 24.0	
KIV				*e*S	S	23 13 51.3	+0.1
KIV				LR	LR		
	comp=Z,420nm,17.0s,MS4.3						
KIV	Kislovodsk	38.76	100	*e*P	P	23 07 54.0	+0.3
KIV				*e*		23 09 24.0	
KIV				*e*S	S	23 13 51.3	+0.1
KIV				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.3						
KIV				MLR	MLR		
	comp=Z,417nm,17.0s,MS4.3						
BRTR	Keskin Array B	39.50	113	P	P	23 08 00.1	+0.1
BRTR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
BRTR	Keskin Array B	39.50	113	P	P	23 08 00.1	+0.1
	comp=Z,1.3nm,1.0s,mb3.6,baz=330,slow=4.7,SNR=3.6						
BRVK	Borovoye	40.44	68	*e*P	P	23 08 06.9	-0.7
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.7						
BRVK	Borovoye	40.44	68	*e*P	P	23 08 06.9	-0.7
	comp=Z,1.0nm,0.6s,mb3.7						
COLA	College	41.66	331	*e*P	P	23 08 17.1	-0.4
MALT	Malatya	42.35	109	*e*P	P	23 08 25.6	+2.2
	comp=Z,5.7nm,0.9s,mb4.2						
MALT	Malatya	42.35	109	*e*P	P	23 08 25.6	+2.1
	comp=Z,5.7nm,0.9s,mb4.2						
BILL	Bilibino	42.57	359	*e*P	P	23 08 25.3	+0.4
	comp=Z,1.0nm,0.8s,mb3.6						
BILL	Bilibino	42.57	359	*e*P	P	23 08 25.3	+0.4
BILL				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.6						
MCK	McKinley	42.90	331	P	P	23 08 27.4	-0.2
MCK	McKinley	42.90	331	P	P	23 08 27.4	-0.2
NVS	Novosibirsk	42.93	57	*i* P	P	23 08 28.0	0.0
NVS				pmax	pmax		
	comp=Z,27nm,1.9s,mb4.7						
NVS				pmax	pmax		
	comp=N,21nm,1.8s						
NVS				pmax	pmax		
	comp=E,9.0nm,1.8s						
NVS	Novosibirsk	42.93	57	*i* P	P	23 08 28.0	0.0
	comp=E,27nm,1.9s,mb4.7						
ZALV	Zalesovo Beam	44.17	56	P	P	23 08 36.0	-2.0
ZALV	Zalesovo Beam	44.17	56	P	P	23 08 36.0	-2.0
	comp=E,1.1nm,0.8s,mb3.7,baz=328,slow=5.4,SNR=2.9						
ZAL	Zalesovo	44.18	56	P	P	23 08 36.0	-2.0
KURK	Kurchatov	45.11	63	*e*P	P	23 08 44.9	-0.6
BLO	Bloomington	47.20	268	P	P	23 09 03.1	+0.9
SEY	Seymchan	47.45	7	⇑*e*P	P	23 09 04.5	+0.7
MK31	Makanchi Array	49.72	63	*e*P	P	23 09 21.0	-0.4
MK31	Makanchi Array	49.72	63	*e*P	P	23 09 21.0	-0.4
MKAR	Makanchi Array	49.72	63	P	P	23 09 19.6	-1.8
MKAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
MKAR	Makanchi Array	49.72	63	P	P	23 09 19.6	-1.9
	comp=Z,1.4nm,0.9s,mb4.0,baz=64,slow=2.8,SNR=7.8						
AAK	Ala-Archa	50.91	72	⇑*e*P	P	23 09 29.3	-1.2
AAK				pmax	pmax		
	comp=Z,17nm,2.5s,mb4.5						
TLY	Talaya	51.26	44	*e*P	P	23 09 31.2	-1.8
TLY				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
PDAR	Pinedale Array	51.89	291	P	P	23 09 38.3	+0.5
	comp=Z,1.2nm,1.0s,mb3.8,baz=46,slow=5.4,SNR=5.6						
DUG	Dugway	55.27	292	*e*P	P	23 10 02.3	-0.3
	comp=Z,7.9nm,1.4s,mb4.5						
DUG	Dugway	55.27	292	*e*P	P	23 10 02.3	-0.3
DUG				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.6						
DUG	Dugway	55.27	292	*e*P	P	23 10 02.3	-0.3
	comp=Z,7.8nm,1.4s,mb4.5						
SONM	Songino Array	55.50	44	P	P	23 10 01.7	-2.5
	comp=Z,0.3nm,0.8s,mb3.4,baz=340,slow=8.4,SNR=4.5						
SRU	San Rafael	55.50	290	*e*P	P	23 10 05.6	+1.3
	comp=Z,5.2nm,1.2s,mb4.4						
SRU	San Rafael	55.50	290	*e*P	P	23 10 05.6	+1.3
SRU				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.4						
SRU	San Rafael	55.50	290	*e*P	P	23 10 05.6	+1.3
	comp=Z,5.2nm,1.2s,mb4.4						
ULN	Ulaanbaatar	55.63	43	*e*P	P	23 10 03.4	-1.7
ULN				pmax	pmax		
	comp=Z,9.0nm,1.6s,mb4.5						
ULN	Ulaanbaatar	55.63	43	*e*P	P	23 10 03.4	-1.7
	comp=Z,8.9nm,1.6s,mb4.5						
TORD	Torodi Ar. Bea	57.54	160	P	P	23 10 19.2	+0.2
	comp=Z,3.0nm,1.0s,mb4.3,baz=344,slow=8.1,SNR=10						
CCUT	Cedar City	57.85	291	*e*P	P	23 10 23.6	+2.6
CCUT	Cedar City	57.85	291	*e*P	P	23 10 23.6	+2.6
NVAR	Mina Array Bea	58.63	296	P	P	23 10 28.0	+1.6
	comp=Z,0.4nm,0.6s,mb3.6,baz=3.5,slow=3.0,SNR=2.9						
NVAR	Mina Array Bea	58.63	296	P	P	23 10 28.0	+1.5
GTA	Gaotai	61.65	53	*e*P	P	23 10 44.2	-3.0
GTA				AP	pP	23 10 48.2	0.0
GTA				XP	sP	23 10 50.9	+2.2
GTA				AMB	AMB		
	comp=Z,3.0nm,1.5s,mb4.2						
GTA	Gaotai	61.65	53	*e*P	P	23 10 44.2	-3.0
	comp=Z,3.0nm,1.5s,mb4.2						
GTA				pP	pP	23 10 48.2	0.0
GTA				sP	sP	23 10 50.9	+2.2
GTA	Gaotai	61.65	53	*e*P	P	23 10 44.2	-3.0
	comp=Z,3.0nm,1.5s,mb4.2						
GTA				pP	pP	23 10 48.2	0.0
TXAR	Lajitas Array	62.08	279	P	P	23 10 50.7	+0.5
	comp=Z,0.4nm,0.8s,mb3.6,baz=74,slow=4.8,SNR=5.0						
TXAR				LR	LR	23 37 59.7	
	comp=Z,660nm,18.1s,MS4.8,baz=20,slow=36						
KMBO	Kilima Mbogo	78.95	125	*i* P	P	23 12 34.2	+1.0
KMBO	Kilima Mbogo	78.95	125	LR	LR	23 44 54.4	
	comp=Z,63nm,21.8s,MS3.9,baz=26,slow=34						
PSI	Prapat	95.80	66	LR	LR	23 58 56.5	
	comp=Z,158nm,19.9s,MS4.5,baz=147,slow=37						

NAO ***07*** *23:13:01.7, 37.48N×21.38E, h33^{km}, mb4.1*
TIR ***07*** *23:13:24.5±1.8, 39.96N×19.67E, h45^{km}±19^{km}, ML3.0*
IDC ***07*** *23:13:26.3±0.7, 40.24N×19.84E, h0^{km}, mb4.0/18, mb1 4.1/26, mb1mx4.1/30, mbtmp4.0/26, ML3.7/8, MS2.9/1, Ms1 3.0/1, ms1mx2.4/31, Error ellipse: s-maj=12.6km s-min=10.9km az=54.0*
PDG ***07*** *23:13:27.5±0.5, 40.16N×19.61E, h11^{km}±1^{km}, MD3.9/4, ML3.7/10, Error ellipse: s-maj=0.8km s-min=1.5km az=0.0*
ATH ***07*** *23:13:27.7, 40.11N×19.64E, h26^{km}±1^{km}, MD4.1/20, ML4.3*
ROM ***07*** *23:13:27.5±0.2, 40.12N×19.88E, h10^{km}, Ml3.8/17, Error ellipse: s-maj=4.3km s-min=2.3km az=100.0*
THE ***07*** *23:13:27.9, 40.16N×19.69E, h3^{km}, ML4.4*
NEIC ***07*** *23:13:27.7, 40.11N×19.64E, h26^{km}, mb3.9/1, ML4.3(ATH), ML3.8(ROM), After ATH.*
SKO ***07*** *23:13:27.6, 40.15N×19.71E, h0^{km}*
ISCJB ***07*** *23:13:28.3±0.3, 40.17N±0.01×19.70E±0.01, h17^{km}±3^{km}, mb4.0/20, Error ellipse: s-maj=2.3km s-min=1.8km az=19.6*
CSEM ***07*** *23:13:28.2±0.1, 40.17N×19.79E, h5^{km}, mb4.1/3, Error ellipse: s-maj=1.4km s-min=1.0km az=6.0*
PRU ***07*** *23:13:29.1, 40.24N×19.38E, h0^{km}, M3.9*
MOS ***07*** *23:13:29.3±1.3, 40.23N×19.66E, h33^{km}, mb4.2/15, Error ellipse: s-maj=5.2km s-min=3.3km az=99.9*
BEO ***07*** *23:13:39.2±1.0, 40.82N×19.84E, h30^{km}±5^{km}, ML3.8/7*
ISC 07 23:13:28.2±0.3, **40.17N**±0.01×**19.72E**±0.01, **h5^{km}**±2^{km}, **n537, σ1^{s}30**/688, **mb4.0**/20, **72C-16D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLO	Vlora	0.35	330	Pg	Pg	23 13 36.4	+1.5
VLO				Sg	Sg	23 13 44.1	+4.6
VLO	Vlora	0.35	330	*e*PG	Pg	23 13 36.4	+1.5
VLO				*i* SG	Sg	23 13 44.1	+4.6
VLO	Vlora	0.35	330	*e*PG	Pg	23 13 36.4	+1.5
VLO				*i* SG	Sg	23 13 44.1	+4.6
VLO	Vlora	0.35	330	Pg	Pg	23 13 36.4	+1.5
VLO				Sg	Sg	23 13 44.1	+4.6
SRN	Sarande	0.36	143	Pg	Pg	23 13 34.2	-0.9
SRN				Sg	Sg	23 13 40.3	+0.5
SRN	Sarande	0.36	143	Pg	Pg	23 13 34.2	-0.9
SRN				Sg	Sg	23 13 40.3	+0.5
KEK	Kerkira	0.46	173	*e*Pb	Pg	23 13 36.8	-0.2
KEK				*e*Sb	Sg	23 13 43.4	+0.4
KEK	Kerkira	0.46	173	*e*PB	Pg	23 13 36.8	-0.2
KEK				*e*SB	Sg	23 13 43.4	+0.4
KEK	Kerkira	0.46	173	Pg	Pg	23 13 36.3	-0.7
KEK				Sg	Sg	23 13 43.7	+0.7
KEK	Kerkira	0.46	173	Pg	Pg	23 13 36.3	-0.7
KEK	Kerkira	0.46	173	*e*Pb	Pg	23 13 36.8	-0.2
KEK				*e*Sb	Sg	23 13 43.4	+0.4
KEK				Sg	Sg	23 13 43.7	+0.7
LSK	Leskovik	0.67	91	*e*PG	Pg	23 13 39.5	-1.6
LSK	Leskovik	0.67	91	*e*PG	Pg	23 13 39.5	-1.6
IGT	Igoumenitsa	0.79	143	*e*Pg	Pg	23 13 42.0	-1.3
IGT				*e*Sg	Sg	23 13 55.1	+1.5
IGT	Igoumenitsa	0.79	143	*e*Pg	Pg	23 13 42.0	-1.3
IGT				*e*Sg	Sg	23 13 55.1	+1.5
KBN	Korca	0.93	60	Pg	Pg	23 13 44.9	-1.2
KBN				Sg	Sg	23 13 59.8	+1.6

KBN	Korca	0.93	60	*e*PG	Pg	23 13 44.9	-1.2
KBN				*i* SG	Sg	23 13 59.8	+1.6
KBN	Korca	0.93	60	*e*PG	Pg	23 13 44.9	-1.2
KBN				*i* SG	Sg	23 13 59.8	+1.6
KBN	Korca	0.93	60	Pg	Pg	23 13 44.9	-1.2
KBN				Sg	Sg	23 13 59.8	+1.6
SCTE	Santa Cesarea	0.97	265	Pn	Pn	23 13 48.2	-0.3
SCTE				Sn	Sn	23 14 03.6	+1.0
SCTE	Santa Cesarea	0.97	265	Pn	Pn	23 13 48.2	-0.3
SCTE				Sn	Sn	23 14 03.6	+1.0
JAN	Janina	1.01	120	*e*Pn	Pn	23 13 47.2	-1.8
JAN				*e*Sn	Sn	23 14 02.0	-1.6
JAN	Janina	1.01	120	*e*PN	Pn	23 13 47.2	-1.8
JAN				*e*SN	Sn	23 14 02.0	-1.6
JAN	Janina	1.01	120	*e*Pn	Pn	23 13 47.2	-1.8
JAN				*e*Sn	Sn	23 14 02.0	-1.6
TIR	Tirane	1.18	5	P	Pg	23 13 50.3	-0.6
TIR				Pg	Pg	23 13 51.0	+0.1
TIR	Tirane	1.18	5	*e*Pg	Pg	23 13 50.8	-0.1
TIR				*e*Sg	Sg	23 14 08.4	+2.1
TIR	Tirane	1.18	5	Pn	Pn	23 13 50.7	-0.8
TIR	Tirane	1.18	5	*e*PG	Pg	23 13 50.3	-0.6
TIR	Tirane	1.18	5	*e*PG	Pg	23 13 50.3	-0.6
TIR	Tirane	1.18	5	*e*Pg	Pg	23 13 50.8	-0.1
TIR				*e*Sg	Sg	23 14 08.4	+2.1
LCI	Lecce	1.24	278	Pn	Pn	23 13 52.3	0.0
LCI	Lecce	1.24	278	Pn	Pn	23 13 52.3	0.0
LCI	Lecce	1.24	278	Pn	Pn	23 13 52.3	0.0
OHR	Ohrid	1.25	41	*e*Pg	Pg	23 13 51.1	-1.1
OHR				*e*Sg	Sg	23 14 10.5	+2.1
OHR	Ohrid	1.25	41	*e*Pg	Pg	23 13 50.0	-2.1
OHR				*e*Sg	Sg	23 14 07.8	-0.6
OHR	Ohrid	1.25	41	*e*Pg	Pg	23 13 51.1	-1.1
OHR				*e*Sg	Sg	23 14 10.5	+2.2
FNA	Florina	1.40	63	*e*Pg	Pg	23 13 53.1	-2.0
FNA				*e*Sg	Sg	23 14 14.9	+1.6
FNA	Florina	1.40	63	*e*Pg	Pg	23 13 53.1	-2.0
FNA				*e*Sg	Sg	23 14 14.9	+1.6
BIA	Bitola	1.49	55	*e*Pg	Pg	23 13 53.9	-2.9
BIA				*e*Sg	Sg	23 14 17.7	+1.7
BIA	Bitola	1.49	55	*e*Pn	Pn	23 13 54.5	-1.1
BIA				*e*Sg	Sg	23 14 15.5	-0.5
BIA	Bitola	1.49	55	*e*Pg	Pg	23 13 53.8	-2.9
BIA	Bitola	1.49	55	*e*Pn	Pn	23 13 54.5	-1.1
BIA				*e*Sg	Sg	23 14 17.7	+1.7
KZN	Kozani	1.57	84	*e*Pn	Pn	23 13 57.0	+0.2
KZN	Kozani	1.57	84	*e*PN	Pn	23 13 57.0	+0.2
KZN	Kozani	1.57	84	*e*Pn	Pn	23 13 57.0	+0.2
LKD	Levkas	1.63	153	*e*Pb	Pb	23 13 57.2	-1.4
LKD				*e*Sb	Sb	23 14 19.7	+0.2
LKD	Levkas	1.63	153	*e*Pb	Pb	23 13 57.2	-1.5
LKD				*e*Sb	Sb	23 14 19.7	+0.2
KRUS	Krusevo	1.67	44	*e*Pn	Pn	23 13 59.4	+1.3
KRUS				*e*Sg	Sg	23 14 20.8	-1.0
KRUS	Krusevo	1.67	44	*e*Pn	Pn	23 13 59.3	+1.2
KRUS				*e*Sg	Sg	23 14 20.8	-1.0
ULC	Ulcinj	1.83	349	⇑*i*Pn	Pn	23 13 59.8	-0.5
ULC				*e*Sn	Sn	23 14 26.0	+2.1
ULC	Ulcinj	1.83	349	⇑*i*Pn	Pn	23 13 59.8	-0.5
ULC				*e*Sn	Sn	23 14 26.0	+2.1
ULC	Ulcinj	1.83	349	*i* PG	Pn	23 13 59.8	-0.5
ULC				*i* SG	Sg	23 14 26.4	-0.6
ULC	Ulcinj	1.83	349	*i* PG	Pn	23 13 59.8	-0.5
ULC				*i* SG	Sg	23 14 26.4	-0.6
ULC	Ulcinj	1.83	349	⇑*i*Pn	Pn	23 13 59.8	-0.5
ULC				*e*Sn	Sn	23 14 26.0	+2.1
THL	Klokotos Trika	1.86	108	*e*PN	Pn	23 14 00.8	0.0
THL	Klokotos Trika	1.86	108	*e*Pn	Pn	23 14 00.8	0.0
EVR	Evrytania	2.04	127	*e*Pb	Pb	23 14 03.7	-2.1
EVR	Evrytania	2.04	127	*e*PB	Pb	23 14 03.7	-2.1
EVR	Evrytania	2.04	127	*e*Pb	Pb	23 14 03.7	-2.1
VLS	Valsamata	2.10	161	*e*Pb	Pb	23 14 03.1	-3.7
VLS	Valsamata	2.10	161	*e*PB	Pb	23 14 03.1	-3.7
VLS	Valsamata	2.10	161	*e*Pb	Pb	23 14 03.1	-3.7
NOCI	Noci	2.12	288	Pn	Pn	23 14 04.7	+0.4
NOCI	Noci	2.12	288	Pn	Pn	23 14 04.7	+0.4
LIT	Litokhoron	2.12	91	*e*Pn	Pn	23 14 05.6	+1.2
LIT	Litokhoron	2.12	91	*e*Pn	Pn	23 14 05.6	+1.3
GRG	Griva	2.19	68	*e*Pn	Pn	23 14 06.2	+1.0
GRG				*e*Sn	Sn	23 14 34.1	+1.4
GRG	Griva	2.19	68	*e*Pn	Pn	23 14 06.2	+1.0
GRG				*e*Sn	Sn	23 14 34.1	+1.4
BUM	Brajici-Budva	2.22	344	⇑*i*Pn	Pn	23 14 05.2	-0.5
BUM				*e*Sn	Sn	23 14 34.6	+1.1
BUM	Brajici-Budva	2.22	344	⇑*i*Pn	Pn	23 14 05.2	-0.5
BUM				*e*Sn	Sn	23 14 34.6	+1.1
BUM	Brajici-Budva	2.22	344	*i* PG	Pn	23 14 05.2	-0.5
BUM				*i* SG	Sn	23 14 34.6	+1.1
BUM	Brajici-Budva	2.22	344	*i* PG	Pn	23 14 05.2	-0.5
BUM				*i* SG	Sn	23 14 34.6	+1.1
BUM	Brajici-Budva	2.22	344	⇑*i*Pn	Pn	23 14 05.2	-0.5
BUM				*e*Sn	Sn	23 14 34.6	+1.1
SKO	Skopje	2.22	35	*e*Pn	Pn	23 14 07.1	+1.4
SKO				*e*Sn	Sn	23 14 35.5	+1.9
SKO	Skopje	2.22	35	*e*Pn	Pn	23 14 06.8	+1.1
SKO				*e*Sg	Sg	23 14 40.0	+0.4
SKO	Skopje	2.22	35	*e*Pn	Pn	23 14 06.7	+1.0
SKO				*e*Sn	Sn	23 14 35.5	+2.0
SKO				*e*Sg	Sg	23 14 39.9	+0.3
PDG	Podgorica	2.29	351	*i* PG	Pn	23 14 06.1	-0.5
PDG				*i* SG	Sn	23 14 36.6	+1.4
PDG	Podgorica	2.29	351	*i* PG	Pn	23 14 06.1	-0.5
PDG				*i* SG	Sn	23 14 36.6	+1.4
PDG	Podgorica	2.29	351	⇑*i*Pn	Pn	23 14 06.1	-0.5
PDG				*e*Sn	Sn	23 14 36.6	+1.4
TTG	Podgorica	2.29	351	⇑*i*Pn	Pn	23 14 06.1	-0.5
TTG				*e*Sn	Sn	23 14 36.6	+1.4
TTG	Podgorica	2.29	351	⇑*i*Pn	Pn	23 14 06.1	-0.5
TTG				*e*Sn	Sn	23 14 36.6	+1.4
TTG	Podgorica	2.29	351	⇑*i*Pn	Pn	23 14 06.1	-0.5
TTG				*e*Sn	Sn	23 14 36.6	+1.4
AGG	Agios Georgios	2.32	119	*e*Pn	Pn	23 14 07.6	+0.6
AGG				*e*Sn	Sn	23 14 38.5	+2.6
AGG	Agios Georgios	2.32	119	*e*Pn	Pn	23 14 07.6	+0.6
AGG				*e*Sn	Sn	23 14 38.5	+2.6
BAI	Bari	2.36	294	*e*Pn	Pn	23 14 07.3	-0.3
STIP	Stip	2.41	50	*e*Pn	Pn	23 14 08.8	+0.5
STIP				*e*Sn	Sn	23 14 38.8	+0.6
STIP	Stip	2.41	50	*e*Pn	Pn	23 14 08.6	+0.3
STIP	Stip	2.41	50	*e*Pn	Pn	23 14 08.8	+0.5
STIP				*e*Sn	Sn	23 14 38.8	+0.6
SG1	Sgolgore (BA)	2.42	287	*e*Pn	Pn	23 14 08.1	-0.3
PVY	Plav	2.43	4	⇑*i*Pn	Pn	23 14 09.3	+0.7
PVY				*e*Sn	Sn	23 14 40.6	+1.8
PVY	Plav	2.43	4	⇑*i*Pn	Pn	23 14 09.3	+0.7
PVY				*e*Sn	Sn	23 14 40.6	+1.8
PVY	Plav	2.43	4	*i* PG	Pn	23 14 09.3	+0.7
PVY				*i* SG	Sn	23 14 40.6	+1.8
PVY	Plav	2.43	4	*i* PG	Pn	23 14 09.3	+0.7
PVY				*i* SG	Sn	23 14 40.6	+1.8
PVY	Plav	2.43	4	⇑*i*Pn	Pn	23 14 09.3	+0.7
PVY				*e*Sn	Sn	23 14 40.6	+1.8
VAY	Valandovo	2.45	61	*e*Pn	Pn	23 14 08.7	-0.2
VAY				*e*Sn	Sn	23 14 40.5	+1.3
VAY	Valandovo	2.45	61	*e*Pn	Pn	23 14 08.3	-0.5
VAY				*e*Sg	Sg	23 14 45.0	-1.9
VAY	Valandovo	2.45	61	*e*Pn	Pn	23 14 08.7	-0.2
VAY				*e*Sn	Sn	23 14 40.5	+1.3
VAY				*e*Sg	Sg	23 14 45.0	-1.9
HCY	Herceg Novi	2.46	338	⇑*i*Pn	Pn	23 14 07.9	-1.1
HCY				*e*Sn	Sn	23 14 39.8	+0.4
HCY	Herceg Novi	2.46	338	⇑*i*Pn	Pn	23 14 07.9	-1.1
HCY				*e*Sn	Sn	23 14 39.8	+0.4
HCY	Herceg Novi	2.46	338	*i* PG	Pn	23 14 07.9	-1.1
HCY				*i* SG	Sn	23 14 39.8	+0.4
HCY	Herceg Novi	2.46	338	*i* PG	Pn	23 14 07.9	-1.1
HCY				*i* SG	Sn	23 14 39.8	+0.4
HCY	Herceg Novi	2.46	338	⇑*i*Pn	Pn	23 14 07.9	-1.1
HCY				*e*Sn	Sn	23 14 39.8	+0.4
AMUR	Altamura	2.49	288	Pn	Pn	23 14 09.3	-0.1
AMUR	Altamura	2.49	288	Pn	Pn	23 14 09.3	-0.1
TIP	Timpagrande	2.49	248	Pn	Pn	23 14 10.1	+0.7
TIP	Timpagrande	2.49	248	Pn	Pn	23 14 10.1	+0.7
	246nm,0.8s						
TIP	Timpagrande	2.49	248	Pn	Pn	23 14 10.1	+0.7
	246nm,0.8s						
RLS	Riolos of Patr	2.51	147	*e*Pn	Pn	23 14 08.6	-1.0
RLS	Riolos of Patr	2.51	147	*e*PN	Pn	23 14 08.6	-1.0
RLS	Riolos of Patr	2.51	147	*e*Pn	Pn	23 14 08.6	-1.0
THE	Thessaloniki	2.52	78	*e*Pn	Pn	23 14 10.8	+1.0
THE				*e*Sn	Sn	23 14 41.1	+0.2
THE	Thessaloniki	2.52	78	*e*Pn	Pn	23 14 10.8	+1.0
THE				*e*Sn	Sn	23 14 41.1	+0.2
CRAC	Craco	2.52	276	Pn	Pn	23 14 11.2	+1.3
CRAC	Craco	2.52	276	Pn	Pn	23 14 11.2	+1.3
MIGL	Miglionico	2.54	281	Pn	Pn	23 14 10.6	+0.5
MIGL	Miglionico	2.54	281	Pn	Pn	23 14 10.6	+0.5
SERS	Sersale	2.60	245	Pn	Pn	23 14 10.5	-0.4
SERS	Sersale	2.60	245	Pn	Pn	23 14 10.5	-0.4
HORT	Hortiatis	2.62	79	*e*Pn	Pn	23 14 11.1	0.0
HORT				*e*Sn	Sn	23 14 46.8	+3.6
HORT	Hortiatis	2.62	79	*e*Pn	Pn	23 14 11.1	0.0
NKY	Niksic	2.70	349	⇑*i*Pn	Pn	23 14 12.2	-0.1
NKY				*e*Sn	Sn	23 14 46.8	+1.5
NKY	Niksic	2.70	349	⇑*i*Pn	Pn	23 14 12.2	-0.1
NKY				*e*Sn	Sn	23 14 46.8	+1.5
NKY	Niksic	2.70	349	*i* PG	Pn	23 14 12.2	-0.1
NKY				*i* SG	Sn	23 14 46.8	+1.5
NKY	Niksic	2.70	349	*i* PG	Pn	23 14 12.2	-0.1
NKY				*i* SG	Sn	23 14 46.8	+1.5
NKY	Niksic	2.70	349	⇑*i*Pn	Pn	23 14 12.2	-0.1
NKY				*e*Sn	Sn	23 14 46.8	+1.5
BEY	Berane	2.71	3	*i* PG	Pn	23 14 12.9	+0.5
BEY				*i* SG	Sn	23 14 46.8	+1.3
BEY	Berane	2.71	3	*i* PG	Pn	23 14 12.9	+0.5
BEY				*i* SG	Sn	23 14 46.8	+1.3
BEY	Berane	2.71	3	⇑*i*Pn	Pn	23 14 12.9	+0.5
BEY				*e*Sn	Sn	23 14 46.8	+1.3
IVA	Berane	2.71	3	⇑*i*Pn	Pn	23 14 12.9	+0.5
IVA				*e*Sn	Sn	23 14 46.8	+1.3
IVA	Berane	2.71	3	⇑*i*Pn	Pn	23 14 12.9	+0.5
IVA				*e*Sn	Sn	23 14 46.8	+1.3
IVA	Berane	2.71	3	⇑*i*Pn	Pn	23 14 12.9	+0.5
IVA				*e*Sn	Sn	23 14 46.8	+1.3
CDT	Castel del Mon	2.78	290	*e*Pn	Pn	23 14 13.3	-0.1
XOR	Xorichti	2.79	106	*e*Pn	Pn	23 14 13.4	-0.2
XOR	Xorichti	2.79	106	*e*Pn	Pn	23 14 13.4	-0.1
SCHR	S. Chirico Rap	2.79	272	Pn	Pn	23 14 15.3	+1.7
	171nm,0.7s						
SCHR	S. Chirico Rap	2.79	272	Pn	Pn	23 14 15.3	+1.7
	171nm,0.7s						
NEO	Neokhori	2.83	107	*e*Pn	Pn	23 14 14.2	+0.1
NEO	Neokhori	2.83	107	*e*PN	Pn	23 14 14.2	+0.1
NEO	Neokhori	2.83	107	*e*Pn	Pn	23 14 14.2	+0.1
SOH	Sokhos	2.84	76	*e*Pn	Pn	23 14 15.1	+0.8
SOH				*e*Sn	Sn	23 14 50.0	+1.1
SOH	Sokhos	2.84	76	*e*Pn	Pn	23 14 15.1	+0.8
SOH				*e*Sn	Sn	23 14 50.0	+1.1
CARO	Carolei	2.85	252	Pn	Pn	23 14 16.4	+2.0
CARO	Carolei	2.85	252	Pn	Pn	23 14 16.4	+2.0
PLG	Polygyros	2.86	85	*e*Pn	Pn	23 14 14.9	+0.5
PLG	Polygyros	2.86	85	*e*Pn	Pn	23 14 14.9	+0.5
PLG				*e*Sn	Sn	23 14 50.6	+1.5
PLG	Polygyros	2.86	85	*e*PN	Pn	23 14 14.9	+0.5
PLG	Polygyros	2.86	85	*e*Pn	Pn	23 14 14.9	+0.5
PLG				*e*Sn	Sn	23 14 50.7	+1.5
BRY	Bratogost	2.87	342	⇑*i*Pn	Pn	23 14 14.1	-0.5
BRY				*e*Sn	Sn	23 14 49.8	+0.2
BRY	Bratogost	2.87	342	⇑*i*Pn	Pn	23 14 14.1	-0.5
BRY				*e*Sn	Sn	23 14 49.8	+0.2
BRY	Bratogost	2.87	342	⇑*i*Pn	Pn	23 14 14.1	-0.5
BRY				*e*Sn	Sn	23 14 49.8	+0.2
GRI	Girifalco	2.89	243	Pn	Pn	23 14 15.4	+0.5
GRI	Girifalco	2.89	243	Pn	Pn	23 14 15.4	+0.5
	138nm,0.7s						
GRI	Girifalco	2.89	243	Pn	Pn	23 14 15.4	+0.5
	138nm,0.7s						
SIRI	Monte Sirino -	2.95	272	Pn	Pn	23 14 17.3	+1.5
	260nm,0.4s						
SIRI	Monte Sirino -	2.95	272	Pn	Pn	23 14 17.3	+1.5
	260nm,0.4s						
LKR	Lokris	2.96	120	*e*Pn	Pn	23 14 16.1	+0.3
LKR	Lokris	2.96	120	*e*PN	Pn	23 14 16.1	+0.3
LKR	Lokris	2.96	120	*e*Pn	Pn	23 14 16.1	+0.3
MCEL	Monticello	3.00	274	Pn	Pn	23 14 16.9	+0.4
	329nm,0.7s						
MCEL	Monticello	3.00	274	Pn	Pn	23 14 16.9	+0.4
	329nm,0.7s						
MTSN	Montesano sull	3.04	273	Pn	Pn	23 14 17.9	+0.9
	211nm,0.5s						
MTSN	Montesano sull	3.04	273	Pn	Pn	23 14 17.9	+0.9
	211nm,0.5s						
PAIG	Paliouri	3.05	93	*e*Pn	Pn	23 14 16.6	-0.5
PAIG				*e*Sn	Sn	23 14 55.3	+1.4
PAIG	Paliouri	3.05	93	*e*Pn	Pn	23 14 16.6	-0.5
PAIG				*e*Sn	Sn	23 14 55.3	+1.4
PLAC	Placanica	3.07	237	Pn	Pn	23 14 16.7	-0.7
PLAC	Placanica	3.07	237	Pn	Pn	23 14 16.7	-0.7
BARS	Barje	3.08	30	*i* Pn	Pn	23 14 18.5	+0.9
BARS				*e*Sg	Sn	23 14 58.5	+3.7
BARS	Barje	3.08	30	Pn	Pn	23 14 16.1	-1.5
SRS	Serrai	3.09	71	*e*Pn	Pn	23 14 18.1	+0.5
SRS				*e*Sn	Sn	23 14 57.5	+2.4
SRS	Serrai	3.09	71	*e*Pn	Pn	23 14 18.1	+0.4
SRS				*e*Sn	Sn	23 14 57.5	+2.5
UPM	Unac-Piva	3.09	349	⇑*i*Pn	Pn	23 14 17.8	+0.1
UPM				*e*Sn	Sn	23 14 55.9	+0.9
UPM	Unac-Piva	3.09	349	⇑*i*Pn	Pn	23 14 17.8	+0.1
UPM				*e*Sn	Sn	23 14 55.9	+0.9
UPM	Unac-Piva	3.09	349	⇑*i*Pn	Pn	23 14 17.8	+0.1
UPM				*e*Sn	Sn	23 14 55.9	+0.9
STON	Ston	3.10	331	*e*Pn	Pn	23 14 16.3	-1.4
STON				Sn	Sn	23 14 54.0	-1.2
STON	Ston	3.10	331	*e*Pn	Pn	23 14 16.3	-1.5
STON				Sn	Sn	23 14 54.0	-1.2
SJES	Sjenica	3.10	3	*i* Pn	Pn	23 14 18.3	+0.5
SJES				*e*Sg	Sn	23 14 57.8	+2.5
SJES	Sjenica	3.10	3	Pn	Pn	23 14 18.1	+0.3
PLE	Pljevlja	3.17	356	⇑*i*Pn	Pn	23 14 18.5	-0.2
PLE				*e*Sn	Sn	23 14 59.2	+2.3
PLE	Pljevlja	3.17	356	⇑*i*Pn	Pn	23 14 18.5	-0.2
PLE				*e*Sn	Sn	23 14 59.2	+2.3
PLE	Pljevlja	3.17	356	⇑*i*Pn	Pn	23 14 18.5	-0.2
PLE				*e*Sn	Sn	23 14 59.2	+2.3
MGR	Morigerati	3.20	271	Pn	Pn	23 14 20.5	+1.4
MGR	Morigerati	3.20	271	Pn	Pn	23 14 20.5	+1.4
MGR	Morigerati	3.20	271	Pn	Pn	23 14 20.5	+1.4
FGMS	Monte Sant'Ang	3.24	300	Pn	Pn	23 14 19.8	0.0
FGMS	Monte Sant'Ang	3.24	300	Pn	Pn	23 14 19.8	0.0
FGMS	Monte Sant'Ang	3.24	300	Pn	Pn	23 14 19.8	0.0
MS1	Monte Sant'Ang	3.25	299	*e*Pn	Pn	23 14 19.7	-0.1
MSAG	Monte S. Angel	3.27	299	Pn	Pn	23 14 20.1	-0.1
MSAG	Monte S. Angel	3.27	299	Pn	Pn	23 14 20.1	-0.1
MRLC	Muro Lucano	3.28	282	Pn	Pn	23 14 21.7	+1.4
MRLC	Muro Lucano	3.28	282	Pn	Pn	23 14 21.7	+1.4
	91nm,0.6s						
MRLC	Muro Lucano	3.28	282	Pn	Pn	23 14 21.7	+1.4
	91nm,0.6s						
FG4	Candela	3.34	288	Pn	Pn	23 14 23.4	+2.3
FG4	Candela	3.34	288	Pn	Pn	23 14 23.4	+2.3
FG4	Candela	3.34	288	Pn	Pn	23 14 23.4	+2.3
JOPP	Joppolo	3.36	244	Pn	Pn	23 14 21.3	0.0
JOPP	Joppolo	3.36	244	Pn	Pn	23 14 21.3	0.0
NVR	Nevrokopi	3.36	68	*e*Pn	Pn	23 14 22.3	+1.0
NVR	Nevrokopi	3.36	68	*e*PN	Pn	23 14 22.3	+1.0
NVR	Nevrokopi	3.36	68	*e*Pn	Pn	23 14 22.3	+1.0
AOS	Alonnisos	3.36	106	*e*Pn	Pn	23 14 21.3	0.0
AOS	Alonnisos	3.36	106	*e*Pn	Pn	23 14 21.3	-0.1
CMPR	Campora	3.39	274	Pn	Pn	23 14 22.9	+1.2
CMPR	Campora	3.39	274	Pn	Pn	23 14 22.9	+1.2
CDRU	Civita di Ruta	3.39	277	Pn	Pn	23 14 22.3	+0.5
	82nm,0.5s						
CDRU	Civita di Ruta	3.39	277	Pn	Pn	23 14 22.3	+0.5
	82nm,0.5s						
SGO	Sicignano	3.40	278	Pn	Pn	23 14 22.4	+0.5
SGO	Sicignano	3.40	278	Pn	Pn	23 14 22.4	+0.5
	137nm,0.6s						
SGO	Sicignano	3.40	278	Pn	Pn	23 14 22.4	+0.5
	137nm,0.6s						
SGRT	San Giovanni R	3.41	299	Pn	Pn	23 14 22.0	0.0
SGRT	San Giovanni R	3.41	299	Pn	Pn	23 14 22.0	0.0
ITM	Ithomi	3.45	149	*e*Pn	Pn	23 14 23.1	+0.5
ITM	Ithomi	3.45	149	*e*PN	Pn	23 14 23.1	+0.5
ITM	Ithomi	3.45	149	*e*Pn	Pn	23 14 23.1	+0.5
SGTA	Sant Agata di	3.45	288	Pn	Pn	23 14 24.8	+2.2
SGTA	Sant Agata di	3.45	288	Pn	Pn	23 14 24.8	+2.2
RGNG	Rignano Grg	3.48	297	Pn	Pn	23 14 22.8	-0.2
RGNG	Rignano Grg	3.48	297	Pn	Pn	23 14 22.8	-0.2
RGNG	Rignano Grg	3.48	297	Pn	Pn	23 14 22.8	-0.2
MGER	Gerania Oros	3.51	127	*e*Pn	Pn	23 14 23.0	-0.4
MGER	Gerania Oros	3.51	127	*e*PN	Pn	23 14 23.0	-0.4
MGER	Gerania Oros	3.51	127	*e*Pn	Pn	23 14 23.0	-0.4
MCRV	Calabrutti - M	3.53	281	Pn	Pn	23 14 24.3	+0.6
	138nm,0.6s						
MCRV	Calabrutti - M	3.53	281	Pn	Pn	23 14 24.3	+0.6
	138nm,0.6s						
SOI	Samo	3.54	235	Pn	Pn	23 14 23.3	-0.5
SOI	Samo	3.54	235	Pn	Pn	23 14 23.3	-0.5
	84nm,0.5s						
SOI	Samo	3.54	235	Pn	Pn	23 14 23.3	-0.5
	84nm,0.5s						
FG5	Orsara di Pugl	3.56	290	Pn	Pn	23 14 26.0	+1.8
FG5	Orsara di Pugl	3.56	290	Pn	Pn	23 14 26.0	+1.8
FG5	Orsara di Pugl	3.56	290	Pn	Pn	23 14 26.0	+1.8
VTS	Vitosha	3.57	46	*e*Pn	Pn	23 14 25.6	+1.4
VTS				*e*Sn	Sn	23 15 10.1	+3.4
VTS	Vitosha	3.57	46	⇓*i*P	Pn	23 14 25.6	+1.4
VTS	Vitosha	3.57	46	*i* Pn	Pn	23 14 25.7	+1.5
VTS	Vitosha	3.57	46	*e*Pn	Pn	23 14 25.6	+1.4
VTS				*e*Sn	Sn	23 15 10.1	+3.3
MPAZ	Palizzi	3.64	234	Pn	Pn	23 14 24.5	-0.7
	124nm,0.6s						
MPAZ	Palizzi	3.64	234	Pn	Pn	23 14 24.5	-0.7
	124nm,0.6s						
CSSN	Cassano Irpino	3.65	282	Pn	Pn	23 14 27.0	+1.7
CSSN	Cassano Irpino	3.65	282	Pn	Pn	23 14 27.0	+1.7
	27nm,0.3s						
CSSN	Cassano Irpino	3.65	282	Pn	Pn	23 14 27.0	+1.7
	27nm,0.3s						
BBLS	Bajina Basta -	3.71	356	*e*Pn	Pn	23 14 25.8	-0.3
BBLS				*e*Sg	Sb	23 15 16.6	-2.7
BBLS	Bajina Basta -	3.71	356	Pn	Pn	23 14 28.4	+2.3
MSRU	Castanea	3.79	241	Pn	Pn	23 14 26.2	-1.0
MSRU	Castanea	3.79	241	Pn	Pn	23 14 26.2	-1.0
GRUS	Gruza	3.79	11	*i* Pn	Pn	23 14 26.9	-0.4
GRUS				*e*Sg	Sb	23 15 18.4	-3.4
GRUS	Gruza	3.79	11	Pn	Pn	23 14 26.9	-0.4
NAIG	Nisos Aigina	3.79	128	*e*Pn	Pn	23 14 27.0	-0.3
NAIG	Nisos Aigina	3.79	128	*e*PN	Pn	23 14 27.0	-0.3
NAIG	Nisos Aigina	3.79	128	*e*Pn	Pn	23 14 27.0	-0.3
ATH	Athens Observa	3.80	124	*e*Pn	Pn	23 14 27.3	-0.2
ATH	Athens Observa	3.80	124	*e*PN	Pn	23 14 27.3	-0.2
ATH	Athens Observa	3.80	124	*e*Pn	Pn	23 14 27.3	-0.2
MTTG	Motta San Giov	3.81	237	Pn	Pn	23 14 26.9	-0.6
MTTG	Motta San Giov	3.81	237	Pn	Pn	23 14 26.9	-0.6
MTTG	Motta San Giov	3.81	237	Pn	Pn	23 14 26.9	-0.6
FG2	Serracapriola	3.82	297	Pn	Pn	23 14 28.1	+0.4
FG2	Serracapriola	3.82	297	Pn	Pn	23 14 28.1	+0.4
FG2	Serracapriola	3.82	297	Pn	Pn	23 14 28.1	+0.4
PTL	Penteli	3.85	122	*e*Pn	Pn	23 14 27.9	-0.3
PTL	Penteli	3.85	122	*e*PN	Pn	23 14 27.9	-0.3
PTL	Penteli	3.85	122	*e*Pn	Pn	23 14 27.9	-0.3
DIVS	Divcibare	3.93	3	*e*Pn	Pn	23 14 28.9	-0.4
DIVS	Divcibare	3.93	3	*i* Pn	Pn	23 14 28.7	-0.5
DIVS				*e*Sg	Sb	23 15 22.6	-3.3
DIVS	Divcibare	3.93	3	*e*Pn	Pn	23 14 28.9	-0.3
SACR	S. Croce Del S	4.00	289	Pn	Pn	23 14 31.6	+1.4
	240nm,0.9s						
SACR	S. Croce Del S	4.00	289	Pn	Pn	23 14 31.6	+1.4
	240nm,0.9s						
BOLS	Boljevac	4.02	24	Pn	Pn	23 14 31.0	+0.6
VPL	Vulcano Piano	4.09	246	Pn	Pn	23 14 30.8	-0.6
VPL	Vulcano Piano	4.09	246	Pn	Pn	23 14 30.8	-0.6
PTRJ	Pietraroja	4.12	289	Pn	Pn	23 14 34.4	+2.6
	199nm,0.7s						
PTRJ	Pietraroja	4.12	289	Pn	Pn	23 14 34.4	+2.6
	199nm,0.7s						
FRES	Fresagrandinar	4.22	297	Pn	Pn	23 14 34.5	+1.3
FRES	Fresagrandinar	4.22	297	Pn	Pn	23 14 34.5	+1.3
PLD	Plovdiv	4.23	61	*e*Pn	Pn	23 14 34.9	+1.6
PLD	Plovdiv	4.23	61	*e*Pn	Pn	23 14 34.9	+1.6
TRIV	Trivento	4.23	294	Pn	Pn	23 14 34.2	+0.9
TRIV	Trivento	4.23	294	Pn	Pn	23 14 34.2	+0.9
SGG	Gregorio Mates	4.24	288	Pn	Pn	23 14 35.5	+2.1
SGG	Gregorio Mates	4.24	288	Pn	Pn	23 14 35.5	+2.1
	156nm,0.6s						
SGG	Gregorio Mates	4.24	288	Pn	Pn	23 14 35.5	+2.1
	156nm,0.6s						
VLI	Veliai	4.27	143	*e*Pn	Pn	23 14 33.5	-0.4
VLI	Veliai	4.27	143	*e*PN	Pn	23 14 33.5	-0.4
VLI	Veliai	4.27	143	*e*Pn	Pn	23 14 33.5	-0.4
SVIS	Svilajnac	4.27	15	*i* Pn	Pn	23 14 32.9	-1.0
SVIS				*e*Sn	Sn	23 15 13.3	-11
SVIS	Svilajnac	4.27	15	Pn	Pn	23 14 32.8	-1.1
VAGA	Valle Agricola	4.35	288	Pn	Pn	23 14 36.4	+1.4
	255nm,0.8s						
VAGA	Valle Agricola	4.35	288	Pn	Pn	23 14 36.4	+1.4
	255nm,0.8s						
MIDA	Miranda	4.40	291	Pn	Pn	23 14 37.0	+1.4
MIDA	Miranda	4.40	291	Pn	Pn	23 14 37.0	+1.4
	119nm,0.7s						
MIDA	Miranda	4.40	291	Pn	Pn	23 14 37.0	+1.4
	119nm,0.7s						
RDO	Rodhopi	4.53	76	*e*Pn	Pn	23 14 39.2	+1.8
RDO	Rodhopi	4.53	76	*e*PN	Pn	23 14 39.2	+1.8
RDO	Rodhopi	4.53	76	*e*Pn	Pn	23 14 39.2	+1.8
CERA	Filignano	4.55	290	Pn	Pn	23 14 39.8	+2.0
	289nm,0.9s						
CERA	Filignano	4.55	290	Pn	Pn	23 14 39.8	+2.0
	289nm,0.9s						
KYTH	Kithira	4.68	145	*e*Pn	Pn	23 14 40.0	+0.5
KYTH	Kithira	4.68	145	*e*PN	Pn	23 14 40.0	+0.5
KYTH	Kithira	4.68	145	*e*Pn	Pn	23 14 40.0	+0.5
BEO	Belgrade	4.68	6	*e*Pn	Pn	23 14 38.0	-1.5
BEO				*e*Sn	Sn	23 15 24.4	-10
SDI	San Donato	4.74	291	Pn	Pn	23 14 41.5	+1.2
SDI	San Donato	4.74	291	Pn	Pn	23 14 41.5	+1.2
	28nm,0.4s						
SDI	San Donato	4.74	291	Pn	Pn	23 14 41.5	+1.2
	28nm,0.4s						
INTR	Introdacqua	4.77	295	Pn	Pn	23 14 41.3	+0.6
INTR	Introdacqua	4.77	295	Pn	Pn	23 14 41.3	+0.6
INTR	Introdacqua	4.77	295	Pn	Pn	23 14 41.3	+0.6
VVLD	Villa Vallelon	4.92	292	Pn	Pn	23 14 43.8	+1.0
VVLD	Villa Vallelon	4.92	292	Pn	Pn	23 14 43.8	+1.0
	132nm,0.7s						
VVLD	Villa Vallelon	4.92	292	Pn	Pn	23 14 43.8	+1.0
	132nm,0.7s						
DJES	Djerdap	4.92	24	*e*Pn	Pn	23 14 43.3	+0.5
DJES				*e*Sn	Sn	23 15 30.1	-10
DJES	Djerdap	4.92	24	Pn	Pn	23 14 41.1	-1.7
VAE	Valguarnera	4.94	239	Pn	Pn	23 14 42.0	-1.1
VAE	Valguarnera	4.94	239	Pn	Pn	23 14 42.0	-1.1
	0.5nm,0.3s,baz=144,slow=7.5,SNR=3.4						
VAE	Valguarnera	4.94	239	Pn	Pn	23 14 42.0	-1.1
VCEL	Villa Celiera	4.96	299	Pn	Pn	23 14 44.4	+1.1
VCEL	Villa Celiera	4.96	299	Pn	Pn	23 14 44.4	+1.1
FGSL	Fruska Gora	4.99	1	*i* Pn	Pn	23 14 42.5	-1.2
FGSL	Fruska Gora	4.99	1	Pn	Pn	23 14 42.5	-1.2
FAGN	Fagnano	5.08	296	Pn	Pn	23 14 46.9	+1.9
FAGN	Fagnano	5.08	296	Pn	Pn	23 14 46.9	+1.9
PTQR	Pietraquaria	5.12	293	Pn	Pn	23 14 47.7	+2.1
	36nm,0.6s						
PTQR	Pietraquaria	5.12	293	Pn	Pn	23 14 47.7	+2.1
	36nm,0.6s						
PTQR	Pietraquaria	5.12	293	Pn	Pn	23 14 47.7	+2.1
	36nm,0.6s						
TERO	Teramo	5.21	300	Pn	Pn	23 14 47.5	+0.7
TERO	Teramo	5.21	300	Pn	Pn	23 14 47.5	+0.7
TERO	Teramo	5.21	300	Pn	Pn	23 14 47.5	+0.7
AQU	L'Aquila	5.24	297	⇓P	Pn	23 14 47.7	+0.5
AQU	L'Aquila	5.24	297	⇓*i*P	Pn	23 14 47.7	+0.5
OFFI	Offida	5.31	303	Pn	Pn	23 14 49.6	+1.5
OFFI	Offida	5.31	303	Pn	Pn	23 14 49.6	+1.5
CAMP	Campotosto	5.31	299	Pn	Pn	23 14 49.0	+0.9
CAMP	Campotosto	5.31	299	Pn	Pn	23 14 49.0	+0.9
FIAM	Fiamignano	5.41	295	Pn	Pn	23 14 51.6	+2.1
	73nm,0.6s						
FIAM	Fiamignano	5.41	295	Pn	Pn	23 14 51.6	+2.1
	73nm,0.6s						
FIAM	Fiamignano	5.41	295	Pn	Pn	23 14 51.6	+2.1
	73nm,0.6s						
APE	Apeiranthos	5.50	122	P	Pn	23 14 50.6	-0.2
LNSS	Leonessa	5.58	298	Pn	Pn	23 14 53.5	+1.6
LNSS	Leonessa	5.58	298	Pn	Pn	23 14 53.5	+1.6
BZS	Buzias	5.62	14	⇑P	Pn	23 14 51.5	-0.9
BZS	Buzias	5.62	14	⇑*i*P	Pn	23 14 51.5	-0.9
BZS	Buzias	5.62	14	*i* Pn	Pn	23 14 51.6	-0.8
NRCA	Norcia	5.63	300	Pn	Pn	23 14 53.4	+0.8
NRCA	Norcia	5.63	300	Pn	Pn	23 14 53.4	+0.8
NRCA	Norcia	5.63	300	Pn	Pn	23 14 53.4	+0.8
JMB	Yambol	5.65	64	*e*Pn	Pn	23 14 52.7	-0.1
NVLJ	Novalja	5.67	322	*e*Pn	Pn	23 14 52.5	-0.6

NVLJ				Sn	Sn	23 15 56.8	-1.9
GZR	Gura Zlata	5.69	22	⇑P	Pn	23 14 54.1	+0.8
GZR	Gura Zlata	5.69	22	⇑iP	Pn	23 14 54.1	+0.8
KARN	Karanos	5.80	144	ePn	Pn	23 14 54.6	-0.3
KARN	Karanos	5.80	144	ePn	Pn	23 14 54.6	-0.3
CING	Cingoli	5.84	305	Pn	Pn	23 14 55.2	-0.2
CING	Cingoli	5.84	305	Pn	Pn	23 14 55.2	-0.2
CING	Cingoli	5.84	305	Pn	Pn	23 14 55.2	-0.2
CESI	CESI - Serrava	5.84	301	Pn	Pn	23 14 56.7	+1.2
VAM	Vamos	5.93	142	ePn	Pn	23 14 57.5	+0.8
VAM	Vamos	5.93	142	ePN	Pn	23 14 57.5	+0.8
VAM	Vamos	5.93	142	ePn	Pn	23 14 57.5	+0.8
SNTG	Esanatoglia	5.94	303	Pn	Pn	23 14 56.8	0.0
SNTG	Esanatoglia	5.94	303	Pn	Pn	23 14 56.8	0.0
SNTG	Esanatoglia	5.94	303	Pn	Pn	23 14 56.8	0.0
PKSM	Moragy	6.09	353	⇓P	Pn	23 14 59.2	+0.3
PKSM	Moragy	6.09	353	⇓iP	Pn	23 14 59.2	+0.3
PKSM	Moragy	6.09	353	iPn	Pn	23 14 58.4	-0.5
FSSB	Fossombrone	6.26	306	Pn	Pn	23 15 01.0	-0.2
FSSB	Fossombrone	6.26	306	Pn	Pn	23 15 01.0	-0.2
FSSB	Fossombrone	6.26	306	Pn	Pn	23 15 01.0	-0.2
IDI	Anoyia	6.36	138	Pn	Pn	23 14 59.6	-3.0
IDI				Sn	Sn	23 16 08.4	-7.3
IDI	Anoyia	6.36	138	Pn	Pn	23 14 59.6	-3.0
	2.0nm,0.3s,baz=317,slow=15,SNR=18						
IDI				Sn	Sn	23 16 08.4	-7.3
	4.3nm,0.3s,baz=140,slow=23,SNR=6.7						
IDI	Anoyia	6.36	138	Pn	Pn	23 14 59.6	-3.0
IDI				Sn	Sn	23 16 08.4	-7.3
MTUR	Matau	6.40	36	⇑P	Pn	23 15 04.0	+0.8
MTUR	Matau	6.40	36	⇑iP	Pn	23 15 04.0	+0.8
VOIR		6.56	35	⇑P	Pn	23 15 07.5	+2.1
VOIR		6.56	35	⇑iP	Pn	23 15 07.4	+2.1
VISS	Visnje	6.67	329	iPn	Pn	23 15 06.4	-0.4
VISS				iSn	Sn	23 16 20.4	-2.8
VISS	Visnje	6.67	329	iPn	Pn	23 15 06.4	-0.4
VISS				iSn	Sn	23 16 20.4	-2.8
SFI	Santa Sofia	6.95	305	Pn	Pn	23 15 11.9	+1.2
SFI	Santa Sofia	6.95	305	Pn	Pn	23 15 11.9	+1.2
SFI	Santa Sofia	6.95	305	Pn	Pn	23 15 11.9	+1.2
DRGR		6.97	17	⇑P	Pn	23 15 10.8	-0.1
DRGR		6.97	17	⇑iP	Pn	23 15 10.8	-0.1
MLR	Muntele Rosu	7.01	39	Pn	Pn	23 15 09.6	-1.9
MLR				⇓P		23 15 13.0	
MLR				Lg		23 17 23.9	
MLR	Muntele Rosu	7.01	39	Pn	Pn	23 15 09.6	-1.9
	0.1nm,0.3s,baz=168,slow=21,SNR=2.6						
MLR				Lg		23 17 23.9	
	0.1nm,0.3s,baz=265,slow=8.9,SNR=2.6						
MLR	Muntele Rosu	7.01	39	⇓iP	Pn	23 15 13.0	+1.5
VOY	Vojsko	7.25	326	ePn	Pn	23 15 14.0	-0.7
VOY				eSn	Sn	23 16 35.2	-2.2
VOY	Vojsko	7.25	326	ePn	Pn	23 15 14.0	-0.7
VOY				eSn	Sn	23 16 35.2	-2.2
OBKA	Obir	7.37	331	⇑iPn	Pn	23 15 15.6	-0.8
	SNR=12						
OBKA	Obir	7.37	331	⇑iPn	Pn	23 15 15.6	-0.8
OBKA				iSn	Sn	23 16 39.7	-0.8
OBKA	Obir	7.37	331	⇑iPn	Pn	23 15 15.6	-0.8
	SNR=12						
OBKA				⇑iSn	Sn	23 16 39.7	-0.8
PLOR	Plostina	7.62	40	⇑iP	Pn	23 15 20.9	+1.1
VRI	Vrincioaia	7.66	40	⇓P	Pn	23 15 22.6	+2.1
VRI	Vrincioaia	7.66	40	⇓iP	Pn	23 15 22.6	+2.1
ARSA	Arzberg	7.71	338	⇑iPn	Pn	23 15 20.4	-0.6
ARSA	Arzberg	7.71	338	⇑iPn	Pn	23 15 20.4	-0.6
ARSA				iSn	Sn	23 16 46.3	-2.3
ARSA	Arzberg	7.71	338	⇑iPn	Pn	23 15 20.4	-0.6
ARSA				⇓iSn	Sn	23 16 46.3	-2.3
TIRR	Tirgusor	7.74	54	⇓P	Pn	23 15 24.9	+3.5
TIRR	Tirgusor	7.74	54	⇓iP	Pn	23 15 24.9	+3.5
PSZ	Piszkesteto	7.75	1	ePn	Pn	23 15 19.0	-2.6
	7.7nm,0.9s						
PSZ	Piszkesteto	7.75	1	eP	Pn	23 15 19.0	-2.6
PSZ				pmax	pmax		
	comp=Z,8.0nm,0.9s						
PTCC	Patocco-Chiusa	7.77	325	Pn	Pn	23 15 20.7	-1.2
PTCC	Patocco-Chiusa	7.77	325	Pn	Pn	23 15 20.7	-1.2
PTCC	Patocco-Chiusa	7.77	325	Pn	Pn	23 15 20.7	-1.2
FVI	Forni Avoltri	8.17	324	Pn	Pn	23 15 27.0	-0.4
FVI	Forni Avoltri	8.17	324	Pn	Pn	23 15 27.0	-0.4
FVI	Forni Avoltri	8.17	324	Pn	Pn	23 15 27.0	-0.4
KBA	Koelnbreinsper	8.31	328	⇑iPn	Pn	23 15 28.9	-0.4
KBA	Koelnbreinsper	8.31	328	⇑iPn	Pn	23 15 28.9	-0.4
KBA				iSn	Sn	23 17 00.1	-3.4
KBA	Koelnbreinsper	8.31	328	⇑iPn	Pn	23 15 28.9	-0.4
KBA				⇑iSn	Sn	23 17 00.1	-3.4
CTI	Castel Tesino	8.33	318	Pn	Pn	23 15 28.3	-1.3
CTI	Castel Tesino	8.33	318	Pn	Pn	23 15 28.3	-1.3
CTI	Castel Tesino	8.33	318	Pn	Pn	23 15 28.3	-1.3
KECS	Kecovo	8.33	4	ePn	Pn	23 15 29.8	+0.2
KECS				e		23 15 38.0	
KECS				eSn	Sn	23 16 57.8	-6.2
KECS	Kecovo	8.33	4	ePN	Pn	23 15 29.8	+0.2
KECS				e		23 15 37.9	
KECS	Kecovo	8.33	4	eSN	Sn	23 16 57.8	-6.2
VYHS	Vyhne	8.35	356	ePn	Pn	23 15 30.9	+1.1
VYHS				e		23 15 42.8	
VYHS				eSn	Sn	23 16 59.7	-4.8
VYHS	Vyhne	8.35	356	ePN	Pn	23 15 30.9	+1.1
VYHS				e		23 15 42.8	
VYHS	Vyhne	8.35	356	eSN	Sn	23 16 59.7	-4.8
MODS	Modra-Piesok	8.39	349	eSN	Sn	23 17 00.6	-4.8
ABTA	Abfaltersbach	8.41	324	⇓iPn	Pn	23 15 29.7	-0.9
ABTA	Abfaltersbach	8.41	324	Pn	Pn	23 15 29.7	-1.0
BURAR	Bucovina Array	8.43	26	⇑P	Pn	23 15 33.0	+2.0
BURAR	Bucovina Array	8.43	26	⇑iP	Pn	23 15 33.0	+2.0
MOA	Molln	8.62	335	⇓iPn	Pn	23 15 33.6	-0.1
	SNR=9.7						
MOA	Molln	8.62	335	⇓iPn	Pn	23 15 33.6	-0.1
MOA				iSn	Sn	23 17 08.3	-2.9
MOA	Molln	8.62	335	⇓iPn	Pn	23 15 33.6	-0.1
	SNR=9.7						
MOA				⇑iSn	Sn	23 17 08.3	-2.9
CRVS	Cervenica-Dubn	8.82	8	ePn	Pn	23 15 36.9	+0.6
CRVS				e		23 15 45.4	
CRVS				e		23 40 54.3	
CRVS	Cervenica-Dubn	8.82	8	ePN	Pn	23 15 36.9	+0.6
CRVS				e		23 15 45.3	
CRVS				e		23 40 54.3	
CRVS	Cervenica-Dubn	8.82	8	ePn	Pn	23 15 36.9	+0.6
KOLS	Kolonicke sedl	8.95	11	ePn	Pn	23 15 39.0	+0.9
KOLS				e		23 15 52.0	
KOLS	Kolonicke sedl	8.95	11	ePN	Pn	23 15 39.0	+0.9
KOLS				e		23 15 52.0	
KOLS	Kolonicke sedl	8.95	11	ePn	Pn	23 15 39.0	+0.9
WTTA	Wattenberg	9.19	323	⇑iPn	Pn	23 15 40.0	-1.4
	SNR=8.5						
WTTA	Wattenberg	9.19	323	⇑iPn	Pn	23 15 40.0	-1.4
WTTA				iSn	Sn	23 17 22.0	-3.2
WTTA	Wattenberg	9.19	323	⇑iPn	Pn	23 15 40.0	-1.4
	SNR=8.5						
WTTA				⇑iSn	Sn	23 17 22.0	-3.2
WATA	Walderalm	9.27	323	⇑iPn	Pn	23 15 42.4	-0.1
	SNR=14						
WATA	Walderalm	9.27	323	⇑iPn	Pn	23 15 42.4	-0.1
WATA	Walderalm	9.27	323	⇑iPn	Pn	23 15 42.4	-0.1
	SNR=14						
STHS	Stebnicka Huta	9.31	6	ePn	Pn	23 15 48.3	+5.3
STHS				e		23 15 57.1	
STHS				eSn	Sn	23 17 30.2	+2.1
STHS	Stebnicka Huta	9.31	6	ePN	Pn	23 15 48.3	+5.3
STHS				e		23 15 57.1	
STHS	Stebnicka Huta	9.31	6	eSN	Sn	23 17 30.2	+2.1
STHS	Stebnicka Huta	9.31	6	eS	Sn	23 17 30.2	+2.1
SQTA	Sankt Quirin	9.36	322	⇑iPn	Pn	23 15 43.4	-0.3
	SNR=8.8						
SQTA	Sankt Quirin	9.36	322	⇑iPn	Pn	23 15 43.4	-0.3
SQTA				iSn	Sn	23 17 27.0	-2.4
SQTA	Sankt Quirin	9.36	322	⇑iPn	Pn	23 15 43.4	-0.3
	SNR=8.8						
SQTA				⇑iSn	Sn	23 17 27.0	-2.4
MOTA	Moosalm	9.50	322	⇑iPn	Pn	23 15 45.3	-0.3
	SNR=16						
MOTA	Moosalm	9.50	322	⇑iPn	Pn	23 15 45.3	-0.3
MOTA	Moosalm	9.50	322	⇑iPn	Pn	23 15 45.3	-0.3
	SNR=16						
GEC2	GERESS Array S	9.68	336	ePn	Pn	23 15 48.4	+0.4
GEC2				eSn	Sn	23 17 33.9	-3.2
GEC2	GERESS Array S	9.68	336	ePn	Pn	23 15 48.4	+0.3
GERES	GERESS Array B	9.68	336	Pn	Pn	23 15 46.9	-1.2
GERES				Sn	Sn	23 17 32.7	-4.4
GERES	GERESS Array B	9.68	336	P	Pn	23 15 46.9	-1.2
GERES						23 17 32.7	
GERES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GERES	GERESS Array B	9.68	336	Pn	Pn	23 15 46.9	-1.2
	comp=Z,0.9nm,0.3s,baz=162,slow=14,SNR=28						
GERES				Sn	Sn	23 17 32.7	-4.4
	comp=Z,0.3nm,0.3s,baz=145,slow=23,SNR=3.3						
DAVOX	Davos/Dischmat	9.73	316	Pn	Pn	23 15 49.2	+0.4
DAVOX				Sn	Sn	23 17 37.2	-1.3
DAVOX	Davos/Dischmat	9.73	316	Pn	Pn	23 15 49.2	+0.4
DAVOX				Sn	Sn	23 17 37.2	-1.3
DAVOX	Davos/Dischmat	9.73	316	Pn	Pn	23 15 49.2	+0.4
KHC	Kasperske Hory	9.97	336	eP	Pn	23 15 52.2	+0.2
KHC				ex	x	23 16 10.5	
KHC				eS	Sn	23 17 39.4	-4.8
MBDF	Montbardon	10.60	300	eP	Pn	23 15 58.2	-2.5
BRTR	Keskin Array B	10.70	88	Pn	Pn	23 16 04.0	+2.0
BRTR	Keskin Array B	10.70	88	Pn	Pn	23 16 04.0	+2.0
	comp=Z,0.1nm,0.3s,baz=225,slow=19,SNR=2.9						
BRTR	Keskin Array B	10.70	88	Pn	Pn	23 16 04.0	+2.0
LPG	La Plagne	10.91	303	eP	Pn	23 16 03.6	-1.3
	comp=Z,21nm,0.8s						
LPG	La Plagne	10.91	303	eP	Pn	23 16 03.6	-1.3
	comp=Z,11nm,0.8s						
LPG	La Plagne	10.91	303	eP	Pn	23 16 03.6	-1.3
LPG				pmax	pmax		
	comp=Z,11nm,0.8s						
LPL	La Plagne	10.93	304	eP	Pn	23 16 03.3	-1.9
	comp=Z,12nm,0.7s						
LPL	La Plagne	10.93	304	eP	Pn	23 16 03.3	-1.9
	comp=Z,6.2nm,0.7s						
LPL	La Plagne	10.93	304	eP	Pn	23 16 03.3	-1.9
LPL				pmax	pmax		
	comp=Z,6.0nm,0.7s						
ORIF	Oris-en-Rattie	11.26	299	eP	Pn	23 16 06.8	-2.9
CABF	La Chapelle	11.82	307	eP	Pn	23 16 11.4	-6.0
MOX	Moxa	11.92	334	eP	Pn	23 16 18.1	-0.6
	comp=Z,16nm,1.2s						
MOX	Moxa	11.92	334	eP	Pn	23 16 18.1	-0.6
MOX				pmax	pmax		
	comp=Z,16nm,1.2s						
HINF	Hinteralfeld	12.00	314	eP	Pn	23 16 17.3	-2.6
	comp=Z,5.6nm,0.5s						
HINF	Hinteralfeld	12.00	314	eP	Pn	23 16 17.3	-2.6
	comp=Z,2.8nm,0.5s						
HINF	Hinteralfeld	12.00	314	eP	Pn	23 16 17.3	-2.6
HINF				pmax	pmax		
	comp=Z,3.0nm,0.5s						
CDF	Champ du Feu	12.13	317	eP	Pn	23 16 15.5	-6.1
HAU	Haudompre	12.39	314	eP	Pn	23 16 22.7	-2.5
	comp=Z,6.2nm,0.4s						
HAU	Haudompre	12.39	314	eP	Pn	23 16 22.7	-2.5
	comp=Z,3.1nm,0.4s						
HAU	Haudompre	12.39	314	eP	Pn	23 16 22.7	-2.5
HAU				pmax	pmax		
	comp=Z,3.0nm,0.4s						
AKASG	Malin Array Be	12.46	29	Pn	Pn	23 16 24.4	-1.7
AKASG	Malin Array Be	12.46	29	Pn	Pn	23 16 24.4	-1.7
	comp=Z,0.2nm,0.3s,baz=216,slow=10,SNR=3.2						
AKASG	Malin Array Be	12.46	29	Pn	Pn	23 16 24.4	-1.6
SMF	Signal de Mont	13.23	305	eP	Pn	23 16 33.1	-3.5
LOR	Lormes	13.48	307	eP	Pn	23 16 36.9	-3.1
SSF	Saint Saulge	13.61	306	eP	Pn	23 16 38.7	-3.1
	comp=Z,11nm,0.9s						
SSF	Saint Saulge	13.61	306	eP	Pn	23 16 38.7	-3.1
	comp=Z,5.7nm,0.9s						
SSF	Saint Saulge	13.61	306	eP	Pn	23 16 38.7	-3.1
SSF				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ANN	Anapa	13.86	65	eP	Pn	23 16 42.8	-2.5
ANN				eS	Sn	23 19 17.2	-2.3
ANN				pmax	pmax		
	comp=Z,167nm,1.2s						
ANN				MLR	MLR		
	comp=Z,716nm,14.0s						
MMAI	Mount Meron Ar	14.47	115	Pn	Pn	23 16 49.7	-3.9
	comp=Z,1.0nm,0.3s,baz=306,slow=13,SNR=11						
EIL	Elat	16.28	125	Pn	Pn	23 17 16.8	-0.8
EIL	Elat	16.28	125	Pn	Pn	23 17 16.8	-0.8
	comp=Z,0.6nm,0.3s,baz=352,slow=14,SNR=5.0						
EIL	Elat	16.28	125	Pn	Pn	23 17 16.8	-0.8
KIV	Kislovodsk	17.45	70	eP	Pn	23 17 32.5	+0.2
KIV				eS	Sn	23 20 46.8	0.0
KIV				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KIV	Kislovodsk	17.45	70	eP	Pn	23 17 32.5	+0.2
	comp=Z,5.0nm,1.0s						
KIV				eS	Sn	23 20 46.8	0.0
ESDC	Sonseca Array	18.17	276	P	Pn	23 17 42.4	+1.2
	comp=Z,0.1nm,0.3s,baz=79,slow=11,SNR=6.3						
OBN	Obninsk	18.70	31	eP	Pn	23 17 45.0	-2.5
OBN				pmax	pmax		
	comp=Z,5.0nm,1.2s						
HFS	Hagfors	20.34	351	P	P	23 18 04.6	-0.5
HFS				pmax	pmax		
	comp=Z,4.0nm,0.5s						
HFS	Hagfors	20.34	351	P	P	23 18 04.6	-0.6
	comp=Z,3.6nm,0.5s,baz=172,slow=11,SNR=17						
EKA	Eskdalemuir Ar	21.46	323	P	P	23 18 17.1	-0.1
EKA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
EKA	Eskdalemuir Ar	21.46	323	P	P	23 18 17.1	-0.2
	comp=Z,2.7nm,0.7s,mb3.7,baz=126,slow=9.5,SNR=10						
NB2	NORSAR Subarra	21.55	349	P	P	23 18 16.4	-1.7
	comp=Z,4.0nm,0.6s,mb4.0,baz=160,slow=10						
NOA	NORSAR Array B	21.55	349	P	P	23 18 16.4	-1.7
NOA				LR	LR	23 27 01.5	
NOA	NORSAR Array B	21.55	349	P	P	23 18 16.4	-1.7
NOA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
NOA				MLR	MLR		
	comp=Z,33nm,19.5s						
NOA	NORSAR Array B	21.55	349	P	P	23 18 16.4	-1.7
	comp=Z,3.1nm,0.6s,mb3.9,baz=161,slow=9.8,SNR=12						
FINES	FINESS Array B	21.66	8	P	P	23 18 16.4	-2.9
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
FINES	FINESS Array B	21.66	8	P	P	23 18 16.4	-2.9
	comp=Z,2.0nm,0.5s,mb3.8,baz=173,slow=9.3,SNR=14						
FIA1	FINESS Array S	21.66	8	eP	P	23 18 18.4	-0.9
KAF	Kangasniemi	22.34	8	ep	P	23 18 23.3	-3.3
	comp=Z,2.5nm,0.6s,mb3.8,baz=190,slow=10						
KAF	Kangasniemi	22.34	8	eP	P	23 18 23.3	-3.3
KAF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
JOF	Joensuu	23.82	13	ep	P	23 18 38.2	-3.7
	comp=Z,3.0nm,0.6s,mb3.9						
JOF	Joensuu	23.82	13	eP	P	23 18 38.2	-3.7
JOF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
AKTK	Aktyubinsk	28.53	56	P	P	23 19 21.3	-3.3
AKTO	Aktyubinsk	28.53	56	P	P	23 19 21.3	-3.3
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
AKTO	Aktyubinsk	28.53	56	P	P	23 19 21.3	-3.3
	comp=Z,1.0nm,0.4s,mb3.9,baz=239,slow=6.5,SNR=4.5						
ARCES	ARCESS Array B	29.59	4	P	P	23 19 30.6	-3.1
ARCES	ARCESS Array B	29.59	4	P	P	23 19 30.6	-3.1
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARCES	ARCESS Array B	29.59	4	P	P	23 19 30.6	-3.1
	comp=Z,1.6nm,0.6s,mb3.9,baz=202,slow=9.4,SNR=7.4						
TORD	Torodi Ar. Bea	31.24	216	P	P	23 19 47.8	-1.0
	comp=Z,0.7nm,0.8s,mb3.6,baz=15,slow=9.7,SNR=8.1						
AAK	Ala-Archa	40.56	68	⇑eP	P	23 21 05.2	-3.2
AAK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
MK31	Makanchi Array	44.81	60	eP	P	23 21 40.6	-2.3
MK31				e		23 23 22.9	
MK31	Makanchi Array	44.81	60	ePcP	PcP	23 23 22.9	-1.9
MKAR	Makanchi Array	44.81	60	P	P	23 21 40.7	-2.2
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
MKAR	Makanchi Array	44.81	60	P	P	23 21 40.7	-2.2
	comp=Z,3.7nm,0.6s,mb4.4,baz=285,slow=7.5,SNR=66						
ZAL	Zalesovo	44.84	50	P	P	23 21 41.1	-1.9
ZAA0	Zalesovo Array	44.85	49	e	P	23 21 41.6	-1.5
ZALV	Zalesovo Beam	44.85	49	P	P	23 21 41.1	-2.0
	comp=Z,2.2nm,0.5s,mb4.3,baz=281,slow=8.4,SNR=13						
SCHQ	Schefferville	56.59	316	P	P	23 23 10.5	-1.1
SCHQ	Schefferville	56.59	316	P	P	23 23 10.5	-1.1
	comp=Z,1.8nm,0.6s,mb4.3,baz=232,slow=4.5,SNR=4.1						
SONM	Songino Array	59.69	51	P	P	23 23 32.0	-1.4
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	Songino Array	59.69	51	P	P	23 23 32.0	-1.4
	comp=Z,0.8nm,0.8s,mb3.8,baz=287,slow=8.2,SNR=8.3						
BOSA	Boshof	68.62	175	P	P	23 24 31.3	-0.8
BOSA				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
BOSA	Boshof	68.62	175	P	P	23 24 31.3	-0.8
	comp=Z,4.6nm,1.1s,mb4.3,baz=6.4,slow=16,SNR=3.7						
YKA	Yellowknife Ar	71.31	339	P	P	23 24 47.7	-0.7
YKA	Yellowknife Ar	71.31	339	P	P	23 24 47.7	-0.7
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	71.31	339	P	P	23 24 47.7	-0.7
	comp=Z,0.8nm,0.8s,mb3.7,baz=34,slow=5.3,SNR=10						
ULM	Lac du Bonnet	73.74	323	P	P	23 25 02.2	-0.8
	comp=Z,1.5nm,0.6s,mb4.1,baz=23,slow=7.7,SNR=4.9						
KSRS	Korea Array	78.55	50	P	P	23 25 28.7	-1.9
	comp=Z,1.1nm,0.5s,mb4.0,baz=310,slow=4.4,SNR=3.6						
MJAR	Matsushiro Arr	85.03	45	P	P	23 26 03.7	-1.2
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MJAR	Matsushiro Arr	85.03	45	P	P	23 26 03.7	-1.2
	comp=Z,0.8nm,0.5s,mb4.1,baz=324,slow=5.4,SNR=3.4						
PDAR	Pinedale Array	85.56	325	P	P	23 26 07.1	-0.3
	comp=Z,0.3nm,0.6s,mb3.7,baz=57,slow=5.5,SNR=4.5						
TXAR	Lajitas Array	93.16	313	P	P	23 26 44.0	+0.4
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	93.16	313	P	P	23 26 44.0	+0.3
	comp=Z,0.8nm,0.7s,mb4.2,baz=70,slow=3.8,SNR=8.9						

NEIC ***07*** *23:30:58.0±0.6, 8.41S×118.93E, h35^{km}, mb3.9/3, Error ellipse: s-maj=24.7km s-min=9.9km az=54.0*

IDC ***07*** *23:31:04.6±6.7, 8.35S×119.22E, h96^{km}±69^{km}, mb3.5/4, mb1 3.5/6, mb1mx3.4/17, mbtmp3.4/6, ML3.6/2, Error ellipse: s-maj=137.3km s-min=28.8km az=56.0*

ISCJB ***07*** *23:31:07.8±3.1, 8.5S±0.2×119.4E±0.2, h153^{km}±32^{km}, mb3.7/7, Error ellipse: s-maj=38.3km s-min=12.7km az=139.0*

ISC 07 23:31:03.6±3.5**, 8.5S**±0.2×**119.1E**±0.2**, h90**^{km}±35^{km}**, n12,** σ**1^{s}13**/14**, mb3.8**/7**, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.47	147	P	Pn	23 33 46.1	+1.7
	0.1nm,0.3s,baz=4.1,slow=14,SNR=3.1						
FITZ				S	Sn	23 35 49.1	-1.5
	0.4nm,0.3s,baz=188,slow=22,SNR=11						
WRA	Warramunga Arr	18.63	129	P	Pn	23 35 14.5	-1.0
	0.3nm,0.3s,baz=304,slow=13,SNR=17						
WRA				S	S	23 38 30.7	-11
	0.1nm,0.3s,baz=296,slow=21,SNR=6.4						
WB2	Warramunga Arr	18.64	129	eP	Pn	23 35 14.7	-0.9
NWAO	Narrogin (SRO)	24.36	184	eP	P	23 36 13.8	+0.7
	9.9nm,0.9s,mb4.1						
PMG	Port Moresby	27.74	94	P	P	23 36 45.5	+1.6
STKA	Stephens Creek	31.28	141	P	P	23 37 16.3	+1.2
STKA	Stephens Creek	31.28	141	P	P	23 37 16.3	+1.3
	1.8nm,0.3s,mb4.3,baz=326,slow=7.5,SNR=4.5						
SONM	Songino Array	57.21	350	P	P	23 40 41.5	+0.3
	0.3nm,0.5s,mb3.5,baz=168,slow=7.5,SNR=4.0						
MKAR	Makanchi Array	64.06	333	P	P	23 41 28.4	+0.7
	0.5nm,0.5s,mb3.6,baz=147,slow=8.2,SNR=6.8						
KURK	Kurchatov	68.59	334	eP	P	23 41 56.1	-0.6
	0.3nm,0.3s,mb3.6						
ZALV	Zalesovo Beam	68.61	339	P	P	23 41 54.9	-1.8
	0.4nm,0.4s,mb3.6,baz=148,slow=5.2,SNR=3.1						
BRVK	Borovoye	73.97	332	eP	P	23 42 28.6	-0.5
	0.5nm,0.4s,mb3.6						

NIED ***07*** *23:55:00, 31.70N×132.00E, h26^{km}, Mw3.8 Best double couple: $M_0$5.13000×10^{14} NP1:ϕ_s218.00000°, δ29.00000°, λ97.00000°. NP2:ϕ_s30.00000°, δ62.00000°, λ86.00000°.*

JMA 07 23:55:57.5±0.1**, 31.73N×131.97E, h26**^{km}±1^{km}**, M3.6, 2C-2D, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNAR	Kushima--Naru	0.63	251	⇓P	Pb	23 56 09.7	-0.2
JNAR				eS	Sb	23 56 18.5	+0.2
JTSN	Tsuno	0.65	323	⇓P	Pb	23 56 09.9	-0.3
JTSN				eS	Sb	23 56 18.7	-0.2
JTZ	Takazaki	0.77	283	⇑P	Pb	23 56 11.9	-0.4
JTZ				S	Sb	23 56 22.1	-0.2
JZO	Okuchi	1.24	290	P	Pn	23 56 19.2	+0.1
JZO				eS	Sn	23 56 36.1	+1.2
JIU2	Izumi 2	1.27	310	⇑P	Pn	23 56 20.2	+0.6
JTN	Tanegashima 3	1.37	219	P	Pn	23 56 20.9	0.0
JTN				S	Sn	23 56 39.1	+1.0

NEIC ***07*** *23:56:43.5±1.4, 2.52N×95.45E, h30^{km}, mb4.2/2, Error ellipse: s-maj=38.4km s-min=12.2km az=220.0*

ISCJB ***07*** *23:56:45.7±8.1, 2.7N±0.4×95.6E±0.6, h61^{km}±55^{km}, mb3.9/6, Error ellipse: s-maj=116.4km s-min=20.2km az=142.0*

IDC ***07*** *23:56:47.7±11.0, 2.76N×95.72E, h49^{km}±85^{km}, mb3.5/4, mb1 3.6/5, mb1mx3.3/21, mbtmp3.5/5, ML3.0/1, Error ellipse: s-maj=158.2km s-min=29.1km az=57.0*

ISC 07 23:56:47.6±7.9**, 2.7N**±0.4×**95.7E**±0.6**, h58**^{km}±54^{km}**, n12,** σ**0^{s}76**/12**, mb3.9**/6**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.24	88	P	Pn	23 57 35.9	-0.1
PSI	Prapat	3.24	88	P	Pn	23 57 35.9	-0.1
	1.7nm,0.3s,baz=341,slow=8.0,SNR=5.9						
LSA	Lhasa	27.22	351	eP	P	00 02 27.0	+0.8
	2.2nm,0.3s,mb4.2						
WRA	Warramunga Arr	44.09	122	P	P	00 04 51.2	+0.7
	0.4nm,0.8s,mb3.2,baz=299,slow=9.6,SNR=3.1						
MK31	Makanchi Array	45.47	347	eP	P	00 05 01.2	+0.3
MKAR	Makanchi Array	45.47	347	P	P	00 05 01.3	+0.4
MKAR	Makanchi Array	45.47	347	P	P	00 05 01.3	+0.4
	2.2nm,0.7s,mb4.1,baz=164,slow=7.8,SNR=22						
SONM	Songino Array	45.93	10	P	P	00 05 04.8	+0.2
	0.3nm,0.5s,mb3.5,baz=195,slow=9.2,SNR=3.7						
SONM				PcP	PcP	00 06 42.2	+1.6
	0.2nm,0.5s,baz=206,slow=3.5,SNR=2.5						
KURK	Kurchatov	50.00	346	P	P	00 05 33.8	-2.1
ZALV	Zalesovo Beam	51.89	352	P	P	00 05 50.3	+0.2
	2.4nm,0.7s,mb4.2,baz=179,slow=5.8,SNR=10						
PMG	Port Moresby	52.67	104	P	P	00 05 55.9	-0.7
BRVK	Borovoye	54.44	341	eP	P	00 06 08.7	-0.1
	0.7nm,0.4s,mb3.9						

ISCJB ***08*** *01:03:27.3±0.8, 45.48N±0.07×42.5E±0.1, h33^{km}, Error ellipse: s-maj=13.4km s-min=5.4km az=139.0*

MOS ***08*** *01:03:29.8±1.0, 45.24N×42.16E, h77^{km}, mb4.3/1, Error ellipse: s-maj=99.9km s-min=11.4km az=115.4*

ISC 08 01:03:29.5±0.8**, 45.46N**±0.06×**42.58E**±0.10**, h35**^{km}**, n13,** σ**0^{s}91**/23**, 7C-2D, Ukraine - Moldova - Southwestern Russia region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PRTR	Priterechnaya	2.10	144	⇑iP	Pn	01 04 01.5	-0.6
PRTR				iS	Sn	01 04 27.0	+0.1
LSNR	Lesken	2.36	157	⇑iP	Pn	01 04 05.9	+0.2
LSNR				eS	Sn	01 04 32.9	-0.5
KMSR	Komsomolskaya	2.42	149	eP	Pn	01 04 07.9	+1.3
KMSR				eS	Sn	01 04 35.7	+0.8
ARNR	Ardon	2.58	151	eP	Pn	01 04 09.8	+1.1
ARNR				iS	Sn	01 04 38.9	+0.2
KORR	Kora	2.60	155	eP	Pn	01 04 09.8	+0.8
KORR				eS	Sn	01 04 38.9	-0.5
DIGR	Digorskoe uzhe	2.66	164	⇓iP	Pn	01 04 09.8	0.0
DIGR				iS	Sn	01 04 38.9	-1.9
ZEI	Tsey	2.85	160	⇑iP	Pn	01 04 12.5	0.0
ZEI				eS	Sn	01 04 43.7	-1.8
LACR	Lac	2.91	154	eP	Pn	01 04 14.0	+0.8
LACR				eS	Sn	01 04 46.2	-0.7
ONI	Oni	2.95	167	P	Pn	01 04 15.5	+1.7
ONI				S	Sn	01 04 48.6	+0.7
TIRR	Tirgusor	10.09	269	⇑iP	Pn	01 05 51.1	-0.7
MLR	Muntele Rosu	11.68	276	⇑iP	Pn	01 06 14.0	+0.4
BURAR	Bucovina Array	12.15	286	⇓iP	Pn	01 06 19.3	-0.6
AB31	Akbulak array	12.37	66	⇑Pn	Pn	01 06 21.8	-1.1
	0.5nm,0.6s,baz=253,slow=12						

AB31				⇑Sn	Sn	01 08 33.5	-5.8
	0.4nm,0.3s,baz=260,slow=22						

MOS ***08*** *01:32:55.6±0.9, 4286N×13.11E, h10^{km}, mb4.2/7, Error ellipse: s-maj=4.6km s-min=3.2km az=101.3*

CSEM ***08*** *01:32:55.9±0.0, 4281N×13.17E, h12^{km}, mb4.0/3, ML3.9/9, Error ellipse: s-maj=1.2km s-min=0.8km az=53.0*

ISCJB ***08*** *01:32:56.7±0.2, 4283N±001×13.13E±001, h19^{km}±2^{km}, mb3.9/12, Error ellipse: s-maj=2.1km s-min=1.5km az=31.9*

ROM ***08*** *01:32:56.5±0.2, 4279N×13.18E, h10^{km}±2^{km}, Ml3.8/42, Error ellipse: s-maj=1.6km s-min=1.5km az=114.0*

NEIC ***08*** *01:32:56.5, 4279N×13.18E, h10^{km}, mb4.2/2, ML3.8(ROM), ML3.7(LDG), After ROM.*

IDC ***08*** *01:32:56.2±0.8, 4294N×1305E, h0^{km}, mb3.8/11, mb1 3.9/21, mb1mx3.8/30, mbtmp3.7/21, ML3.5/9, MS3.1/2, Ms1 3.1/2, ms1mx2.4/35, Error ellipse: s-maj=14.3km s-min=11.4km az=87.0*

PDG ***08*** *01:32:57.0±0.8, 4292N×13.18E, h8^{km}±1^{km}, ML3.9/10, Error ellipse: s-maj=1.1km s-min=1.4km az=0.0*

BEO ***08*** *01:32:57.2±1.1, 4271N×1320E, ML4.2/4*

PRU ***08*** *01:32:57.2, 4298N×1307E, h0^{km}, M4.2*

LDG ***08*** *01:32:57.8±0.2, 4289N×1330E, h10^{km}, Ml3.7/19, Error ellipse: s-maj=5.0km s-min=3.8km az=39.0*

SZGRF ***08*** *01:32:58.3, 4288N×1328E, h10^{km}, mb3.8, Central Italy*

GEN ***08*** *01:32:59.4, 4298N×1321E, h94^{km}, ML3.0*

THE ***08*** *01:33:03.3, 4271N×1360E, h12^{km}, ML4.2*

ISC 08 01:32:56.9±0.2, **4281N**±001×**1311E**±001, **h7**^{km}±1^{km}, **n588, σ1^{s}12**/806, **mb3.9**/12, **79C-36D, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NRCA	**Norcia**	0.02	6	Pg	Pg	01 32 59.5	+1.3
NRCA	**Norcia**	0.02	6	Pg	Pg	01 32 59.5	+1.3
NRCA	**Norcia**	0.02	6	Pg	Pg	01 32 59.5	+1.3
LNSS	**Leonessa**	0.21	194	⇑*i*Pg	Pg	01 33 01.9	+0.8
LNSS				Sg	Sg	01 33 05.5	+1.5
	45μm,0.3s						
LNSS	**Leonessa**	0.21	194	⇑*i*Pg	Pg	01 33 01.9	+0.8
LNSS				Sg	Sg	01 33 05.5	+1.5
	45μm,0.3s						
CESI	**CESI - Serrava**	0.25	322	Pg	Pg	01 33 02.7	+0.9
CESI				Sg	Sg	01 33 07.3	+2.2
	15μm,0.2s						
CAMP	**Campotosto**	0.35	141	Pg	Pg	01 33 03.0	-0.7
CAMP				Sg	Sg	01 33 08.1	-0.2
	3μm,0.4s						
CAMP	**Campotosto**	0.35	141	Pg	Pg	01 33 03.0	-0.7
CAMP				Sg	Sg	01 33 08.1	-0.2
	3μm,0.4s						
TERO	**Teramo**	0.41	117	Pg	Pg	01 33 03.6	-1.2
TERO				Sg	Sg	01 33 09.2	-0.9
TERO	**Teramo**	0.41	117	Pg	Pg	01 33 03.6	-1.2
TERO				Sg	Sg	01 33 09.2	-0.9
	11μm,0.6s						
TERO	**Teramo**	0.41	117	Pg	Pg	01 33 03.6	-1.2
TERO				Sg	Sg	01 33 09.2	-0.9
	11μm,0.6s						
ASS	**Assisi**	0.42	307	Pg	Pg	01 33 05.8	+0.8
ASS	**Assisi**	0.42	307	Pg	Pg	01 33 05.8	+0.8
ASS	**Assisi**	0.42	307	Pg	Pg	01 33 05.8	+0.8
OFFI	**Offida**	0.44	73	⇑*i*Pg	Pg	01 33 05.0	-0.4
OFFI				Sg	Sg	01 33 12.1	+0.9
	23μm,0.5s						
OFFI	**Offida**	0.44	73	⇑*i*Pg	Pg	01 33 05.0	-0.4
OFFI				Sg	Sg	01 33 12.1	+0.9
	23μm,0.5s						
SNTG	**Esanatoglia**	0.46	344	⇑*i*Pg	Pg	01 33 05.8	0.0
SNTG	**Esanatoglia**	0.46	344	⇑*i*Pg	Pg	01 33 05.8	0.0
SNTG	**Esanatoglia**	0.46	344	⇑*i*Pg	Pg	01 33 05.8	0.0
AQU	**L'Aquila**	0.50	155	⇑*i*Pg	Pg	01 33 05.8	-0.8
AQU	**L'Aquila**	0.50	155	⇑*i*Pg	Pg	01 33 05.8	-0.8
	9μm,0.7s						
AQU	**L'Aquila**	0.50	155	⇑*i*Pg	Pg	01 33 05.8	-0.8
	9μm,0.7s						
MNS	**Montasola**	0.53	217	⇑*i*Pg	Pg	01 33 07.5	+0.4
MNS				Sg	Sg	01 33 16.6	+2.6
MNS	**Montasola**	0.53	217	⇑*i*Pg	Pg	01 33 07.5	+0.4
MNS				Sg	Sg	01 33 16.6	+2.6
	8μm,0.5s						
MNS	**Montasola**	0.53	217	⇑*i*Pg	Pg	01 33 07.5	+0.4
MNS				Sg	Sg	01 33 16.6	+2.6
	8μm,0.5s						
FIAM	**Fiamignano**	0.54	180	⇑*i*Pg	Pg	01 33 06.9	-0.4
FIAM				Sg	Sg	01 33 15.7	+1.4
FIAM	**Fiamignano**	0.54	180	⇑*i*Pg	Pg	01 33 06.9	-0.4
FIAM				Sg	Sg	01 33 15.7	+1.4
	7μm,0.8s						
FIAM	**Fiamignano**	0.54	180	⇑*i*Pg	Pg	01 33 06.9	-0.4
FIAM				Sg	Sg	01 33 15.7	+1.4
	7μm,0.8s						
CING	**Cingoli**	0.57	6	⇑*e*Pg	Pg	01 33 07.2	-0.7
CING				Sg	Sg	01 33 16.2	+0.9
CING	**Cingoli**	0.57	6	⇑*e*Pg	Pg	01 33 07.2	-0.7
CING				Sg	Sg	01 33 16.2	+0.9
CING	**Cingoli**	0.57	6	⇑*e*Pg	Pg	01 33 07.2	-0.7
CING				Sg	Sg	01 33 16.2	+0.9
TRTR	**Tortoreto Alta**	0.59	90	Pg	Pg	01 33 07.9	-0.3
TRTR				Sg	Sg	01 33 17.5	+1.6
	23μm,0.9s						
MURB	**Monte Urbino**	0.62	317	Pg	Pg	01 33 09.5	+0.6
MURB				Sg	Sg	01 33 21.1	+4.1
MURB	**Monte Urbino**	0.62	317	Pg	Pg	01 33 09.5	+0.6
MURB				Sg	Sg	01 33 21.1	+4.1
	11μm,0.3s						
MURB	**Monte Urbino**	0.62	317	Pg	Pg	01 33 09.5	+0.6
MURB				Sg	Sg	01 33 21.1	+4.1
	11μm,0.3s						
FAGN	**Fagnano**	0.65	147	Pg	Pg	01 33 08.8	-0.5
	11μm,0.7s						
FAGN	**Fagnano**	0.65	147	Pg	Pg	01 33 08.8	-0.5
	11μm,0.7s						
VCEL	**Villa Celiera**	0.68	127	Pg	Pg	01 33 08.9	-1.0
VCEL				Sg	Sg	01 33 18.7	-0.1
	5μm,0.6s						
VCEL	**Villa Celiera**	0.68	127	Pg	Pg	01 33 08.9	-1.0
VCEL				Sg	Sg	01 33 18.7	-0.1
	5μm,0.6s						
PTQR	**Pietraquaria**	0.82	165	Pg	Pg	01 33 11.1	-1.4
PTQR	**Pietraquaria**	0.82	165	Pg	Pg	01 33 11.1	-1.4
AOI	**Ancona**	0.82	26	⇑*i*Pg	Pg	01 33 11.6	-1.1
AOI				Sg	Sg	01 33 25.3	+1.9
AOI	**Ancona**	0.82	26	⇑*i*Pg	Pg	01 33 11.6	-1.1
AOI				Sg	Sg	01 33 25.3	+1.9
	3μm,0.4s						
MTCE	**Montecelio**	0.83	199	Pg	Pg	01 33 12.0	-0.8
MTCE	**Montecelio**	0.83	199	Pg	Pg	01 33 12.0	-0.8
	4μm,0.8s						
CERT	**Cerreto**	0.86	186	Pg	Pg	01 33 13.3	-0.2
CERT	**Cerreto**	0.86	186	Pg	Pg	01 33 13.3	-0.2
	5μm,0.5s						
SACS	**San Casciano d**	0.89	273	Pg	Pg	01 33 15.9	+2.1
	5μm,1.1s						
SACS	**San Casciano d**	0.89	273	Pg	Pg	01 33 15.9	+2.1
	5μm,1.1s						
CDCA	**Citt' di Caste**	0.91	316	Pg	Pg	01 33 15.5	+1.1
CDCA	**Citt' di Caste**	0.91	316	Pg	Pg	01 33 15.5	+1.1
	594nm,0.5s						
CDCA	**Citt' di Caste**	0.91	316	Pg	Pg	01 33 15.5	+1.1
	594nm,0.5s						
FSSB	**Fossombrone**	0.92	345	Pg	Pg	01 33 13.9	-0.5
FSSB				Sg	Sg	01 33 28.7	+2.4
FSSB	**Fossombrone**	0.92	345	Pg	Pg	01 33 13.9	-0.5
FSSB				Sg	Sg	01 33 28.7	+2.4
	11μm,0.3s						
FSSB	**Fossombrone**	0.92	345	Pg	Pg	01 33 13.9	-0.5
FSSB				Sg	Sg	01 33 28.7	+2.4
	11μm,0.3s						
BADI	**Badiali**	0.94	318	Pg	Pg	01 33 15.0	0.0
BADI	**Badiali**	0.94	318	Pg	Pg	01 33 15.0	0.0
	3μm,0.5s						
BADI	**Badiali**	0.94	318	Pg	Pg	01 33 15.0	0.0
	3μm,0.5s						
INTR	**Introdacqua**	0.99	143	Pg	Pg	01 33 12.8	-3.1
INTR	**Introdacqua**	0.99	143	Pg	Pg	01 33 12.8	-3.1
	6μm,0.8s						
GUAR	**Guarcino**	1.02	172	Pg	Pg	01 33 15.5	-1.0
GUAR	**Guarcino**	1.02	172	Pg	Pg	01 33 15.5	-1.0
	3μm,0.7s						
ROM9	**Roma**	1.07	204	Pg	Pg	01 33 17.0	-0.5
ROM9	**Roma**	1.07	204	Pg	Pg	01 33 17.0	-0.5
	2μm,0.6s						
ROM9	**Roma**	1.07	204	Pg	Pg	01 33 17.0	-0.5
	2μm,0.6s						
CAFR	**Castel Frentan**	1.08	122	Pg	Pg	01 33 15.4	-2.2
RDP	**Rocca di Papa**	1.09	196	Pg	Pg	01 33 15.6	-2.2
RDP	**Rocca di Papa**	1.09	196	Pg	Pg	01 33 15.6	-2.2
	7μm,0.6s						
TOLF	**Tolfa**	1.11	228	Pg	Pg	01 33 18.0	-0.1
TOLF	**Tolfa**	1.11	228	Pg	Pg	01 33 18.0	-0.1
	2μm,0.7s						
TOLF	**Tolfa**	1.11	228	Pg	Pg	01 33 18.0	-0.1
	2μm,0.7s						
PESA	**Pesaro**	1.15	350	Pg	Pg	01 33 18.7	-0.2
PESA	**Pesaro**	1.15	350	Pg	Pg	01 33 18.7	-0.2
	5μm,0.4s						
PESA	**Pesaro**	1.15	350	Pg	Pg	01 33 18.7	-0.2
	5μm,0.4s						
LAV9	**Lanuvio**	1.17	195	Pg	Pg	01 33 17.1	-2.2
LAV9	**Lanuvio**	1.17	195	Pg	Pg	01 33 17.1	-2.2
	1μm,0.3s						
CRE	**Caprese Michel**	1.17	314	Pg	Pg	01 33 19.1	-0.3
CRE	**Caprese Michel**	1.17	314	Pg	Pg	01 33 19.1	-0.3
	430nm,0.4s						
CRE	**Caprese Michel**	1.17	314	Pg	Pg	01 33 19.1	-0.3
	430nm,0.4s						
ARCI	**Arcidosso**	1.20	273	Pg	Pg	01 33 20.8	+0.9
	512nm,0.7s						
ARCI	**Arcidosso**	1.20	273	Pg	Pg	01 33 20.8	+0.9
	512nm,0.7s						
SDI	**San Donato**	1.22	154	Pg	Pg	01 33 18.5	-1.7
SDI	**San Donato**	1.22	154	Pg	Pg	01 33 18.5	-1.7
RSM	**Repubblica di**	1.22	337	Pg	Pg	01 33 20.3	0.0
RSM	**Repubblica di**	1.22	337	Pg	Pg	01 33 20.3	0.0
	520nm,0.3s						
RSM	**Repubblica di**	1.22	337	Pg	Pg	01 33 20.3	0.0
	520nm,0.3s						
GIUL	**Giuliano Di Ro**	1.25	175	Pg	Pg	01 33 19.0	-1.9
	2μm,0.8s						
FRES	**Fresagrandinar**	1.43	125	Pg	Pg	01 33 23.5	-0.7
FRES	**Fresagrandinar**	1.43	125	Pg	Pg	01 33 23.5	-0.7
SFI	**Santa Sofia**	1.43	320	Pg	Pg	01 33 23.0	-1.3
SFI	**Santa Sofia**	1.43	320	Pg	Pg	01 33 23.0	-1.3
	488nm,0.5s						
SFI	**Santa Sofia**	1.43	320	Pg	Pg	01 33 23.0	-1.3
	488nm,0.5s						
MIDA	**Miranda**	1.44	144	Pg	Pn	01 33 22.0	-1.3
MIDA	**Miranda**	1.44	144	Pg	Pn	01 33 22.0	-1.3
	2μm,1.1s						
MIDA	**Miranda**	1.44	144	Pg	Pn	01 33 22.0	-1.3
	2μm,1.1s						
CSNT	**Castellina Chi**	1.49	297	Pg	Pg	01 33 24.2	-1.2
CSNT	**Castellina Chi**	1.49	297	Pg	Pg	01 33 24.2	-1.2
	436nm,0.7s						
CSNT	**Castellina Chi**	1.49	297	Pg	Pg	01 33 24.2	-1.2
	436nm,0.7s						
TRIV	**Trivento**	1.49	134	Pg	Pn	01 33 22.8	-1.2
TRIV	**Trivento**	1.49	134	Pg	Pn	01 33 22.8	-1.2
MAON	**Monte Argentar**	1.51	256	Pg	Pg	01 33 24.8	-1.0
MAON	**Monte Argentar**	1.51	256	Pg	Pg	01 33 24.8	-1.0
	821nm,1.2s						
MAON	**Monte Argentar**	1.51	256	Pg	Pg	01 33 24.8	-1.0
	821nm,1.2s						
GRFL	**Gerfalco**	1.60	283	Pg	Pn	01 33 25.7	+0.2
GRFL	**Gerfalco**	1.60	283	Pg	Pn	01 33 25.7	+0.2
GRFL	**Gerfalco**	1.60	283	Pg	Pn	01 33 25.7	+0.2
VMG	**Vicchio**	1.62	316	Pg	Pn	01 33 25.9	+0.1
VMG	**Vicchio**	1.62	316	Pg	Pn	01 33 25.9	+0.1
	509nm,0.5s						
VMG	**Vicchio**	1.62	316	Pg	Pn	01 33 25.9	+0.1
	509nm,0.5s						
RFI	**Roccamonfina**	1.64	156	Pg	Pg	01 33 27.5	-0.8
RFI	**Roccamonfina**	1.64	156	Pg	Pg	01 33 27.5	-0.8
RFI	**Roccamonfina**	1.64	156	Pg	Pg	01 33 27.5	-0.8
SGG	**Gregorio Mates**	1.71	146	Pg	Pg	01 33 28.7	-0.9
SGG	**Gregorio Mates**	1.71	146	Pg	Pg	01 33 28.7	-0.9
SGG	**Gregorio Mates**	1.71	146	Pg	Pg	01 33 28.7	-0.9
PTRJ	**Pietraroja**	1.79	143	Pg	Pn	01 33 29.1	+1.0
PTRJ	**Pietraroja**	1.79	143	Pg	Pn	01 33 29.1	+1.0
FG2	**Serracapriola**	1.82	123	Pg	Pn	01 33 28.8	+0.3
FG2	**Serracapriola**	1.82	123	Pg	Pn	01 33 28.8	+0.3
FG2	**Serracapriola**	1.82	123	Pg	Pn	01 33 28.8	+0.3
CRMI	**Carmignano**	1.84	303	Pg	Pn	01 33 29.4	+0.6
	97nm,0.6s						
CRMI	**Carmignano**	1.84	303	Pg	Pn	01 33 29.4	+0.6
	97nm,0.6s						
FNVD	**Fontana Vidola**	1.98	314	Pg	Pb	01 33 32.5	-0.7
FNVD	**Fontana Vidola**	1.98	314	Pg	Pb	01 33 32.5	-0.7
	887nm,0.7s						
FNVD	**Fontana Vidola**	1.98	314	Pg	Pb	01 33 32.5	-0.7
	887nm,0.7s						
NVLJ	**Novalja**	2.17	35	*e*Pn	Pn	01 33 31.8	-1.5
NVLJ				Sn	Sn	01 33 59.0	-1.4
NVLJ	**Novalja**	2.17	35	*e*Pn	Pn	01 33 31.7	-1.6
NVLJ				Sn	Sn	01 33 59.0	-1.4
MAIM		2.21	301	Pg	Pn	01 33 34.1	+0.3
MAIM		2.21	301	Pg	Pn	01 33 34.1	+0.3
	245nm,0.7s						
MAIM		2.21	301	Pg	Pn	01 33 34.1	+0.3
	245nm,0.7s						
MAIM				S	Sn	01 33 57.6	-3.7
BDI	**Bagni Di Lucca**	2.22	305	Pg	Pn	01 33 33.9	-0.1
BDI	**Bagni Di Lucca**	2.22	305	Pg	Pn	01 33 33.9	-0.1
	329nm,0.7s						
BDI	**Bagni Di Lucca**	2.22	305	Pg	Pn	01 33 33.9	-0.1
	329nm,0.7s						
SGRT	**San Giovanni R**	2.22	117	Pg	Pn	01 33 34.0	0.0
SGRT	**San Giovanni R**	2.22	117	Pg	Pn	01 33 34.0	0.0
MSAG	**Monte S. Angel**	2.35	117	Pg	Pn	01 33 35.9	+0.1
MSAG	**Monte S. Angel**	2.35	117	Pg	Pn	01 33 35.9	+0.1
SGTA	**Sant Agata di**	2.37	134	Pg	Pn	01 33 37.7	+1.6
SGTA	**Sant Agata di**	2.37	134	Pg	Pn	01 33 37.7	+1.6
MS1	**Monte Sant'Ang**	2.37	117	*e*Pn	Pn	01 33 36.9	+0.8
GSCL	**Gusciola**	2.40	311	Pg	Pn	01 33 37.1	+0.7
GSCL	**Gusciola**	2.40	311	Pg	Pn	01 33 37.1	+0.7
	60nm,0.4s						
GSCL	**Gusciola**	2.40	311	Pg	Pn	01 33 37.1	+0.7
	60nm,0.4s						
VLC	**Villacollemand**	2.40	305	*e*Pn	Pn	01 33 36.5	+0.1
VLC				*e*Sn	Sn	01 34 04.4	-1.7
VLC	**Villacollemand**	2.40	305	*e*Pn	Pn	01 33 36.5	0.0
VLC				*e*Sn	Sn	01 34 04.4	-1.6
SARO	**Sassorosso**	2.40	306	P	Pn	01 33 36.5	0.0
MCRV	**Calabrutti - M**	2.54	142	Pg	Pn	01 33 39.2	+0.8
MCRV	**Calabrutti - M**	2.54	142	Pg	Pn	01 33 39.2	+0.8
VALM		2.59	307	P	Pn	01 33 39.1	0.0
BACM		2.65	305	P	Pn	01 33 40.2	+0.2
GRAM		2.78	308	P	Pn	01 33 41.8	+0.1
SKDS	**Skadanscina**	2.81	13	*i* Pn	Pn	01 33 40.8	-1.3
SKDS				*i* Sn	Sn	01 34 15.4	-0.8
CDRU	**Civita di Ruta**	2.84	144	Pg	Pn	01 33 43.4	+0.8
CDRU	**Civita di Ruta**	2.84	144	Pg	Pn	01 33 43.4	+0.8
CODM		2.85	305	P	Pn	01 33 42.7	+0.1
KNDS	**Knezji Dol**	2.87	18	*e*Pn	Pn	01 33 42.1	-0.8
KNDS				*e*Sn	Sn	01 34 18.3	+0.7
KNDS	**Knezji Dol**	2.87	18	*e*Pn	Pn	01 33 42.1	-0.8
KNDS				*e*Sn	Sn	01 34 18.3	+0.7
KNDS							
	comp=Z,341nm,0.8s						
KNDS	**Knezji Dol**	2.87	18	*e*Pn	Pn	01 33 42.1	-0.8
KNDS				*e*Sn	Sn	01 34 18.3	+0.7
	comp=Z,341nm,0.8s						
CDT	**Castel del Mon**	2.92	125	*e*Pn	Pn	01 33 43.9	+0.2
PGF	**Pioggiola**	3.04	266	*e*Pn	Pn	01 33 45.0	-0.3
	SNR=1.0						
PGF				*e*Sn	Sn	01 34 21.8	-0.1
	comp=Z,31nm,0.5s,SNR=1.0						
PGF	**Pioggiola**	3.04	266	*e*Pn	Pn	01 33 45.0	-0.3
PGF				*e*Sn	Sn	01 34 21.8	-0.1
PGF	**Pioggiola**	3.04	266	*e*Pn	Pn	01 33 45.0	-0.3
	SNR=1.0						
PGF				*e*Sn	Sn	01 34 21.8	-0.1
	comp=Z,16nm,0.5s,SNR=1.0						
BOJS	**Bojanci**	3.10	29	*i* Pn	Pn	01 33 46.1	-0.1
BOJS				*e*Sn	Sn	01 34 26.2	+2.8
BOJS	**Bojanci**	3.10	29	*i* Pn	Pn	01 33 46.1	-0.1
BOJS				*e*Sn	Sn	01 34 26.2	+2.8
BOJS							
	comp=Z,167nm,0.5s						
BOJS	**Bojanci**	3.10	29	*i* Pn	Pn	01 33 46.1	0.0
TLI	**Talmassons**	3.11	360	⇓*i*Pn	Pn	01 33 45.8	-0.5
TLI	**Talmassons**	3.11	360	*i* Pn	Pn	01 33 45.8	-0.5
JAVS	**Javornik**	3.16	12	*i* Pn	Pn	01 33 45.7	-1.2
JAVS				*e*Sn	Sn	01 34 25.6	+0.8
JAVS	**Javornik**	3.16	12	*i* Pn	Pn	01 33 45.7	-1.2
JAVS				*e*Sn	Sn	01 34 25.6	+0.8
JAVS							
	comp=Z,200nm,0.6s						
JAVS	**Javornik**	3.16	12	*i* Pn	Pn	01 33 45.7	-1.2
JAVS				*e*Sn	Sn	01 34 25.6	+0.8
	comp=Z,200nm,0.6s						
AMUR	**Altamura**	3.23	125	Pg	Pn	01 33 47.1	-0.8
AMUR	**Altamura**	3.23	125	Pg	Pn	01 33 47.1	-0.8
CAE	**Caneva**	3.23	352	⇑*i*Pn	Pn	01 33 48.1	+0.2
CAE	**Caneva**	3.23	352	*i* Pn	Pn	01 33 48.2	+0.3
VOY	**Vojsko**	3.27	10	*e*Pn	Pn	01 33 47.3	-1.1
VOY				Sn	Sn	01 34 29.5	+2.0
VOY				*e*		01 34 43.0	
VOY	**Vojsko**	3.27	10	*e*Pn	Pn	01 33 47.3	-1.1
VOY				*e*(Sn)	Sn	01 34 29.5	+2.0
VOY				*e*		01 34 43.0	
VOY	**Vojsko**	3.27	10	*e*Pn	Pn	01 33 47.3	-1.1
BAI	**Bari**	3.29	120	*e*Pn	Pn	01 33 48.3	-0.3
BOB	**Bobbio (Coli)**	3.30	308	Pg	Pn	01 33 51.7	+2.9
BOB	**Bobbio (Coli)**	3.30	308	Pg	Pn	01 33 51.7	+2.9
SG1	**Sgolgore (BA)**	3.31	125	*e*Pn	Pn	01 33 49.0	0.0
COLI	**Coloredo**	3.33	3	⇑*i*Pn	Pn	01 33 46.1	-3.1
COLI	**Coloredo**	3.33	3	*i* Pn	Pn	01 33 46.1	-3.1
MLNI	**Malnisio**	3.36	354	⇓*i*Pn	Pn	01 33 49.6	0.0
MLNI	**Malnisio**	3.36	354	*i* Pn	Pn	01 33 49.6	-0.1
SALO	**Salr**	3.37	327	Pg	Pn	01 33 51.7	+1.9
	comp=Z,395nm,0.8s						
SALO	**Salr**	3.37	327	Pg	Pn	01 33 51.7	+1.9
	comp=Z,395nm,0.8s						
STON	**Ston**	3.38	87	*e*Pn	Pn	01 33 48.8	-1.1
STON				Sn	Sn	01 34 27.9	-2.2
STON	**Ston**	3.38	87	*e*Pn	Pn	01 33 48.8	-1.1
STON				Sn	Sn	01 34 27.9	-2.2
DRE	**Drenchia**	3.38	6	⇑*i*Pn	Pn	01 33 49.0	-1.0
DRE	**Drenchia**	3.38	6	*i* Pn	Pn	01 33 49.0	-1.0
LJU	**Ljubljana**	3.39	17	⇑*e*Pn	Pn	01 33 49.6	-0.5
LJU				*e*		01 34 01.4	
LJU				*e*Sn	Sn	01 34 31.5	+1.0
CTI	**Castel Tesino**	3.40	343	Pg	Pn	01 33 48.8	-1.5
CTI	**Castel Tesino**	3.40	343	Pg	Pn	01 33 48.8	-1.5
	comp=Z,127nm,0.6s						
CTI	**Castel Tesino**	3.40	343	Pg	Pn	01 33 48.8	-1.5
	comp=Z,127nm,0.6s						
BUA	**Buia**	3.41	0	⇑*i*Pn	Pn	01 33 50.0	-0.4
BUA	**Buia**	3.41	0	*i* Pn	Pn	01 33 50.0	-0.3
MPRI	**Monte Prat**	3.43	359	⇑*i*Pn	Pn	01 33 50.4	-0.3
MPRI	**Monte Prat**	3.43	359	*i* Pn	Pn	01 33 50.4	-0.3
MAGA	**Magasa**	3.46	330	Pg	Pn	01 33 49.6	-1.4
	comp=Z,1μm,0.5s						
MAGA	**Magasa**	3.46	330	Pg	Pn	01 33 49.6	-1.4
	comp=Z,1μm,0.5s						
GMNA	**Gemona**	3.47	1	⇑*i*Pg	Pn	01 33 50.5	-0.6
GMNA	**Gemona**	3.47	1	⇑*i*Pg	Pn	01 33 50.5	-0.6
	comp=Z,788nm,0.8s						
GMNA	**Gemona**	3.47	1	⇑*i*Pg	Pn	01 33 50.5	-0.6
	comp=Z,788nm,0.8s						
CSO	**Casso**	3.51	351	⇓*i*Pn	Pn	01 33 51.6	-0.1
CSO	**Casso**	3.51	351	*i* Pn	Pn	01 33 51.6	-0.1
BOO	**Bordano**	3.51	360	⇑*i*Pn	Pn	01 33 51.0	-0.7
BOO	**Bordano**	3.51	360	*i* Pn	Pn	01 33 51.0	-0.7
FAU	**Forcella Aurin**	3.51	347	⇑*i*Pn	Pn	01 33 50.9	-0.9
FAU	**Forcella Aurin**	3.51	347	*i* Pn	Pn	01 33 50.9	-0.9
SISC	**Sisak**	3.55	40	*e*Pg	Pb	01 33 58.5	-1.3
SISC	**Sisak**	3.55	40	*e*Pg	Pb	01 33 58.5	-1.4
NOCI	**Noci**	3.58	123	Pg	Pn	01 33 52.5	-0.2
NOCI	**Noci**	3.58	123	Pg	Pn	01 33 52.5	-0.2
PTCC	**Patocco-Chiusa**	3.60	3	Pg	Pn	01 33 51.8	-1.2
PTCC	**Patocco-Chiusa**	3.60	3	Pg	Pn	01 33 51.8	-1.2
PTCC	**Patocco-Chiusa**	3.60	3	Pg	Pn	01 33 51.8	-1.2
DGI	**Dorgali Grotta**	3.62	228	Pg	Pn	01 33 53.9	+0.6
DGI	**Dorgali Grotta**	3.62	228	Pg	Pn	01 33 53.9	+0.6
	comp=Z,118nm,1.5s						
DGI	**Dorgali Grotta**	3.62	228	Pg	Pn	01 33 53.9	+0.6
	comp=Z,118nm,1.5s						
LSR	**Lussari**	3.68	4	⇑*i*Pn	Pn	01 33 53.4	-0.6
LSR	**Lussari**	3.68	4	*i* Pn	Pn	01 33 53.4	-0.6
CSMI	**Casera Mimoias**	3.72	355	⇑*i*Pn	Pn	01 33 54.6	0.0
CSMI	**Casera Mimoias**	3.72	355	*i* Pn	Pn	01 33 54.6	0.0
ORI	**Oriolo Calabro**	3.72	136	Pg	Pn	01 33 57.1	+2.5
ORI	**Oriolo Calabro**	3.72	136	Pg	Pn	01 33 57.1	+2.5
	comp=Z,194nm,0.6s						
ORI	**Oriolo Calabro**	3.72	136	Pg	Pn	01 33 57.1	+2.5
	comp=Z,194nm,0.6s						
PCP	**Pian Castagno**	3.74	299	P	Pn	01 33 55.1	+0.2
MABI	**Malga Bissina**	3.74	331	Pg	Pn	01 33 56.2	+1.3
MABI	**Malga Bissina**	3.74	331	Pg	Pn	01 33 56.2	+1.3
	comp=Z,25nm,0.4s						
MABI	**Malga Bissina**	3.74	331	Pg	Pn	01 33 56.2	+1.3
	comp=Z,25nm,0.4s						
PLRO	**Paularo**	3.74	0	⇑*i*Pn	Pn	01 33 54.3	-0.6
PLRO	**Paularo**	3.74	0	*i* Pn	Pn	01 33 54.3	-0.6
ZOU	**Zoufplan**	3.75	359	⇑*i*Pn	Pn	01 33 54.6	-0.4
ZOU	**Zoufplan**	3.75	359	*i* Pn	Pn	01 33 54.6	-0.4
FVI	**Forni Avoltri**	3.79	357	Pg	Pn	01 33 55.3	-0.3
FVI	**Forni Avoltri**	3.79	357	Pg	Pn	01 33 55.3	-0.3
	comp=Z,174nm,0.7s						
FVI	**Forni Avoltri**	3.79	357	Pg	Pn	01 33 55.3	-0.3
	comp=Z,174nm,0.7s						
PE1	**Pezze di Greco**	3.79	120	*e*Pn	Pn	01 33 55.4	-0.3
FIN	**Finale Ligure**	3.83	293	Pg	Pn	01 33 56.7	+0.6
FIN	**Finale Ligure**	3.83	293	Pg	Pn	01 33 56.7	+0.6
	comp=Z,29nm,0.4s						
FIN	**Finale Ligure**	3.83	293	Pg	Pn	01 33 56.7	+0.6
	comp=Z,29nm,0.4s						
OBKA	**Obir**	3.84	15	⇑*i*Pn	Pn	01 33 55.2	-1.0
	SNR=16						
OBKA	**Obir**	3.84	15	⇑*i*Pn	Pn	01 33 55.2	-1.0
OBKA				*i* Sn	Sn	01 34 40.7	-0.8
OBKA				*i* Sg	Sg	01 35 03.4	+3.3
OBKA	**Obir**	3.84	15	⇑*i*Pn	Pn	01 33 55.2	-1.0
	SNR=16						
OBKA				⇑*i*Sn	Sn	01 34 40.7	-0.8
OBKA				⇓*i*Sg	Sg	01 35 03.4	+3.3
	comp=Z,294nm,0.6s						
OBKA	**Obir**	3.84	15	Pn	Pn	01 33 55.2	-1.0
OBKA				Sn	Sn	01 34 40.7	-0.9
OBKA				Sg	Sg	01 35 03.4	+3.3
	comp=Z,294nm,0.6s						
MDI	**Monti di Nese**	3.84	322	Pg	Pn	01 33 57.0	+0.7
	comp=Z,85nm,0.5s						
MDI	**Monti di Nese**	3.84	322	Pg	Pn	01 33 57.0	+0.7
	comp=Z,85nm,0.5s						
RORO		3.90	291	P	Pn	01 33 56.8	-0.2
APPI	**Appiano**	3.91	341	Pg	Pn	01 33 58.3	+1.1
APPI	**Appiano**	3.91	341	Pg	Pn	01 33 58.3	+1.1
	comp=Z,165nm,0.3s						
APPI	**Appiano**	3.91	341	Pg	Pn	01 33 58.3	+1.1
	comp=Z,165nm,0.3s						
ABTA	**Abfaltersbach**	3.96	354	⇑*i*Pn	Pn	01 33 58.4	+0.5
	SNR=122						
ABTA	**Abfaltersbach**	3.96	354	Pn	Pn	01 33 58.4	+0.5
	SNR=122						
SEST	**Monte Rota**	3.99	351	Pg	Pn	01 33 59.3	+1.0
SEST	**Monte Rota**	3.99	351	Pg	Pn	01 33 59.3	+1.0
	comp=Z,244nm,0.7s						
SEST	**Monte Rota**	3.99	351	Pg	Pn	01 33 59.3	+1.0
	comp=Z,244nm,0.7s						
HCY	**Herceg Novi**	3.99	93	⇑*i*Pn	Pn	01 33 59.3	+0.9
HCY				*e*Sn	Sn	01 34 46.5	+1.2
HCY	**Herceg Novi**	3.99	93	⇑*i*Pn	Pn	01 33 59.3	+0.9
HCY				*e*Sn	Sn	01 34 46.5	+1.2
HCY	**Herceg Novi**	3.99	93	⇑*i*Pn	Pn	01 33 59.3	+0.9
HCY				*e*Sn	Sn	01 34 46.5	+1.2
BRY	**Bratogost**	4.00	87	⇑*i*Pn	Pn	01 33 58.6	+0.2
BRY				*e*Sn	Sn	01 34 46.3	+0.9
BRY	**Bratogost**	4.00	87	⇑*i*Pn	Pn	01 33 58.6	+0.2
BRY				*e*Sn	Sn	01 34 46.3	+0.9
BRY	**Bratogost**	4.00	87	⇑*i*Pn	Pn	01 33 58.6	+0.2
BRY				*e*Sn	Sn	01 34 46.3	+0.9
NEGI	**Negi**	4.08	287	P	Pn	01 33 59.3	-0.3
PERS	**Pernice**	4.08	20	*i* Pn	Pn	01 33 59.1	-0.5
PERS	**Pernice**	4.08	20	*i* Pn	Pn	01 33 59.1	-0.5
PERS	**Pernice**	4.08	20	*i* Pn	Pn	01 33 59.1	-0.5
MONE	**Monesi**	4.10	290	P	Pn	01 34 00.4	+0.5
BRMO	**Bormio**	4.15	333	Pg	Pn	01 34 03.0	+2.4
BRMO	**Bormio**	4.15	333	Pg	Pn	01 34 03.0	+2.4
	comp=Z,49nm,0.7s						
BRMO	**Bormio**	4.15	333	Pg	Pn	01 34 03.0	+2.4
	comp=Z,49nm,0.7s						
UPM	**Unac-Piva**	4.27	83	*e*Pn	Pn	01 34 03.0	+0.8
UPM				*e*Sn	Sn	01 34 52.2	0.0
UPM	**Unac-Piva**	4.27	83	*e*Pn	Pn	01 34 03.0	+0.8

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UPM                                 eSn   Sn    01 34 52.2  0.0
UPM   Unac-Piva           4.27  83  ePn   Pn    01 34 03.0 +0.8
UPM                                 eSn   Sn    01 34 52.2  0.0
KBA   Koelnbreinsper      4.27   2  i Pn  Pn    01 34 02.3 +0.1
      SNR=46
KBA   Koelnbreinsper      4.27   2  i Pn  Pn    01 34 02.3 +0.1
KBA                                 i Sn  Sn    01 34 51.5 -0.7
KBA   Koelnbreinsper      4.27   2  i Pn  Pn    01 34 02.3 +0.1
      SNR=46
KBA                                ⇑iSn   Sn    01 34 51.6 -0.7
KBA   Koelnbreinsper      4.27   2  ePn   Pn    01 34 02.0 -0.2
KBA   Koelnbreinsper      4.27   2   Pn   Pn    01 34 02.3 +0.1
      comp=Z,46nm,5.0s
KBA                                 i Sn  Sn    01 34 51.5 -0.7
SBF   Sospel              4.27 286  ePn   Pn    01 34 02.6 +0.4
      SNR=1.0
SBF                                 eSn   Sn    01 34 50.5 -1.7
      comp=Z,60nm,0.5s
SBF   Sospel              4.27 286  ePn   Pn    01 34 02.6 +0.4
SBF                                 eSn   Sn    01 34 50.5 -1.7
SBF   Sospel              4.27 286  ePn   Pn    01 34 02.6 +0.4
      SNR=1.0
SBF                                 eSn   Sn    01 34 50.5 -1.7
      comp=Z,30nm,0.5s
BUM   Brajici-Budva       4.31  95⇑iPn    Pn    01 34 03.0 +0.3
BUM                                 eSn   Sn    01 34 53.8 +0.7
BUM   Brajici-Budva       4.31  95⇑iPn    Pn    01 34 03.0 +0.3
BUM                                 eSn   Sn    01 34 53.8 +0.7
BUM   Brajici-Budva       4.31  95⇑iPn    Pn    01 34 03.0 +0.3
BUM                                 eSn   Sn    01 34 53.8 +0.7
NKY   Niksic              4.33  88⇑iPn    Pn    01 34 03.3 +0.3
NKY                                 eSn   Sn    01 34 54.5 +0.8
NKY   Niksic              4.33  88⇑iPn    Pn    01 34 03.3 +0.3
NKY                                 eSn   Sn    01 34 54.5 +0.8
NKY   Niksic              4.33  88⇑iPn    Pn    01 34 03.3 +0.3
NKY                                 eSn   Sn    01 34 54.5 +0.8
VSL   Villasalto          4.35 222   Pg   Pn    01 34 04.8 +1.6
VSL   Villasalto          4.35 222   Pg   Pn    01 34 04.8 +1.6
VSL   Villasalto          4.35 222   Pg   Pn    01 34 04.8 +1.6
ENR   Entracque           4.37 291   P    Pn    01 34 04.7 +1.1
STV   Sta Anna Valdi      4.45 291   P    Pn    01 34 05.4 +0.8
FETA  Feichten            4.54 339⇓iPn    Pn    01 34 07.8 +1.9
      SNR=44
FETA  Feichten            4.54 339   Pn   Pn    01 34 07.8 +1.9
      SNR=44
PDG   Podgorica           4.55  93⇑iPn    Pn    01 34 06.3 +0.2
PDG                                 eSn   Sn    01 35 00.0 +0.8
TTG   Podgorica           4.55  93⇑iPn    Pn    01 34 06.3 +0.2
TTG                                 eSn   Sn    01 35 00.0 +0.8
TTG   Podgorica           4.55  93⇑iPn    Pn    01 34 06.3 +0.2
TTG                                 eSn   Sn    01 35 00.0 +0.8
TTG   Podgorica           4.55  93⇑iPn    Pn    01 34 06.3 +0.2
TTG                                 eSn   Sn    01 35 00.0 +0.8
WTTA  Wattenberg          4.58 347  i Pn  Pn    01 34 08.2 +1.8
      SNR=29
WTTA  Wattenberg          4.58 347  i Pn  Pn    01 34 08.2 +1.8
WTTA                                i Sn  Sn    01 35 02.4 +2.7
WTTA  Wattenberg          4.58 347  i Pn  Pn    01 34 08.2 +1.8
      SNR=29
WTTA                               ⇑iSn   Sn    01 35 02.4 +2.7
WTTA  Wattenberg          4.58 347  ePn   Pn    01 34 07.5 +1.1
WTTA  Wattenberg          4.58 347   Pn   Pn    01 34 08.2 +1.8
      comp=Z,28nm,6.0s
WTTA                                 Sn   Sn    01 35 02.4 +2.7
DAVOX Davos/Dischmat      4.59 331   Pn   Pn    01 34 06.6 +0.1
DAVOX                                Sn   Sn    01 35 02.3 +2.2
DAVOX Davos/Dischmat      4.59 331   Pn   Pn    01 34 06.6 +0.1
      baz=156,slow=18
DAVOX                                Sn   Sn    01 35 02.3 +2.2
      comp=Z,3.8nm,0.3s,baz=6.4,slow=22,SNR=2.3
DAVOX Davos/Dischmat      4.59 331   Pn   Pn    01 34 06.6 +0.1
DAVOX                                Sn   Sn    01 35 02.3 +2.3
SQTA  Sankt Quirin        4.61 344⇓iPn    Pn    01 34 08.1 +1.2
      SNR=17
SQTA  Sankt Quirin        4.61 344⇓iPn    Pn    01 34 08.1 +1.2
SQTA                                i Sn  Sn    01 35 04.1 +3.5
SQTA  Sankt Quirin        4.61 344⇓iPn    Pn    01 34 08.1 +1.2
      SNR=17
SQTA                               ⇑iSn   Sn    01 35 04.1 +3.5
SQTA  Sankt Quirin        4.61 344   Pn   Pn    01 34 08.1 +1.2
      comp=Z,17nm,2.0s
SQTA                                 Sn   Sn    01 35 04.1 +3.5
ULC   Ulcinj              4.62  98  ePn   Pn    01 34 07.7 +0.6
ULC                                 eSn   Sn    01 35 02.3 +1.3
ULC   Ulcinj              4.62  98  ePn   Pn    01 34 07.7 +0.6
ULC                                 eSn   Sn    01 35 02.3 +1.3
ULC   Ulcinj              4.62  98  ePn   Pn    01 34 07.7 +0.6
ULC                                 eSn   Sn    01 35 02.3 +1.3
PLE   Pljevlja            4.63  81  ePn   Pn    01 34 07.8 +0.6
PLE                                 eSn   Sn    01 35 01.2 +0.1
PLE   Pljevlja            4.63  81  ePn   Pn    01 34 07.8 +0.6
PLE                                 eSn   Sn    01 35 01.2 +0.1
PLE   Pljevlja            4.63  81  ePn   Pn    01 34 07.8 +0.6
PLE                                 eSn   Sn    01 35 01.2 +0.1
WATA  Walderalm           4.66 347⇑iPn    Pn    01 34 09.4 +1.9
      SNR=66
WATA  Walderalm           4.66 347⇑iPn    Pn    01 34 09.4 +1.9
WATA                                i Sn  Sn    01 35 05.2 +3.5
WATA  Walderalm           4.66 347⇑iPn    Pn    01 34 09.4 +1.9
      SNR=66
WATA                               ⇓iSn   Sn    01 35 05.1 +3.5
WATA  Walderalm           4.66 347   Pn   Pn    01 34 09.4 +1.9
      comp=Z,65nm,9.0s
WATA                                 Sn   Sn    01 35 05.1 +3.4
TRAV                      4.71 307   P    Pn    01 34 07.1 -1.1
BBLS  Bajina Basta -      4.71  75  ePn   Pn    01 34 08.2 -0.1
BBLS                                eSn   Sn    01 35 02.0 -1.2
BBLS  Bajina Basta -      4.71  75   P    Pn    01 34 10.7 +2.4
MOTA  Moosalm             4.75 343⇓iPn    Pn    01 34 10.4 +1.6
      SNR=20
MOTA  Moosalm             4.75 343⇓iPn    Pn    01 34 10.4 +1.6
MOTA                                i Sn  Sn    01 35 08.3 +4.2
MOTA  Moosalm             4.75 343⇓iPn    Pn    01 34 10.4 +1.6
      SNR=20
MOTA                               ⇓iSn   Sn    01 35 08.3 +4.2
MOTA  Moosalm             4.75 343   Pn   Pn    01 34 10.4 +1.6
      comp=Z,19nm,9.0s
MOTA                                 Sn   Sn    01 35 08.3 +4.2
ARSA  Arzberg             4.76  20⇓iPn    Pn    01 34 07.3 -1.6
      SNR=17
ARSA  Arzberg             4.76  20⇓iPn    Pn    01 34 07.3 -1.6
ARSA                                i Sn  Sn    01 35 00.9 -3.3
ARSA  Arzberg             4.76  20⇓iPn    Pn    01 34 07.3 -1.6
      SNR=17
ARSA                               ⇓iSn   Sn    01 35 00.9 -3.3
ARSA  Arzberg             4.76  20  ePn   Pn    01 34 07.2 -1.7
ARSA  Arzberg             4.76  20   Pn   Pn    01 34 07.3 -1.6
      comp=Z,16nm,6.0s
ARSA                                 Sn   Sn    01 35 00.9 -3.3
FRF   La Foret Royal      4.79 281  ePn   Pn    01 34 09.5 +0.2
      SNR=1.0
FRF                                 eSn   Sn    01 35 02.7 -2.2
      SNR=1.0
FRF                                 eSg   Sg    01 35 29.7 -0.8
      comp=Z,10nm,0.6s,SNR=1.0
FRF   La Foret Royal      4.79 281  ePn   Pn    01 34 09.5 +0.2
FRF                                 eSn   Sn    01 35 02.7 -2.2
FRF                                 eSg   Sg    01 35 29.7 -0.8
FRF   La Foret Royal      4.79 281  eP    Pn    01 34 09.5 +0.2
FRF                                 e           01 35 02.7
FRF   La Foret Royal      4.79 281  ePn   Pn    01 34 09.5 +0.2
      SNR=1.0
FRF                                 eSn   Sn    01 35 02.7 -2.2
      SNR=1.0
FRF                                 eSg   Sg    01 35 29.7 -0.8
      comp=Z,5.2nm,0.6s,SNR=1.0
LMR   La Mourre           4.87 278  ePn   Pn    01 34 10.1 -0.3
      SNR=1.0
LMR                                 eSn   Sn    01 35 05.0 -1.9
      comp=Z,14nm,0.6s
LMR   La Mourre           4.87 278  ePn   Pn    01 34 10.1 -0.3
LMR                                 eSn   Sn    01 35 05.0 -1.9
LMR   La Mourre           4.87 278  ePn   Pn    01 34 10.1 -0.3
      SNR=1.0
LMR                                 eSn   Sn    01 35 05.0 -1.9
      comp=Z,7.0nm,0.6s
RETA  Reutte              4.96 341  i Pn  Pn    01 34 13.8 +2.1
      SNR=24
RETA                               ⇓iSn   Sn    01 35 12.3 +3.1
RETA  Reutte              4.96 341   Pn   Pn    01 34 13.8 +2.1
      SNR=24
MBDF  Montbardon          4.97 295  ePn   Pn    01 34 11.8 -0.1
      SNR=1.0
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MBDF                                eSn   Sn    01 35 06.6 -3.0
      comp=Z,37nm,0.8s
MBDF  Montbardon          4.97 295  ePn   Pn    01 34 11.8 -0.1
MBDF                                eSn   Sn    01 35 06.6 -3.0
MBDF  Montbardon          4.97 295  ePn   Pn    01 34 11.8 -0.1
      SNR=1.0
MBDF                                eSn   Sn    01 35 06.6 -3.0
      comp=Z,19nm,0.8s
BEY   Berane              4.99  87⇑iPn    Pn    01 34 12.8 +0.7
BEY                                 eSn   Sn    01 35 10.6 +0.6
IVA   Berane              4.99  87⇑iPn    Pn    01 34 12.8 +0.7
IVA                                 eSn   Sn    01 35 10.6 +0.6
IVA   Berane              4.99  87⇑iPn    Pn    01 34 12.8 +0.7
IVA                                 eSn   Sn    01 35 10.6 +0.6
IVA   Berane              4.99  87⇑iPn    Pn    01 34 12.8 +0.7
IVA                                 eSn   Sn    01 35 10.6 +0.6
DAVA  Damuels             5.03 334⇓iPn    Pn    01 34 14.8 +2.3
      SNR=22
DAVA  Damuels             5.03 334⇓iPn    Pn    01 34 14.8 +2.3
DAVA                                i Sn  Sn    01 35 13.3 +2.5
DAVA  Damuels             5.03 334⇓iPn    Pn    01 34 14.8 +2.3
      SNR=22
DAVA                               ⇑iSn   Sn    01 35 13.3 +2.5
DAVA  Damuels             5.03 334  ePn   Pn    01 34 14.6 +2.0
DAVA  Damuels             5.03 334   Pn   Pn    01 34 14.8 +2.2
      comp=Z,21nm,5.0s
DAVA                                 Sn   Sn    01 35 13.3 +2.4
SJES  Sjenica             5.03  82  ePn   Pn    01 34 12.9 +0.3
SJES  Sjenica             5.03  82   P    Pn    01 34 13.8 +1.2
PVY   Plav                5.06  90  ePn   Pn    01 34 14.2 +1.1
PVY                                 eSn   Sn    01 35 11.9 +0.2
PVY   Plav                5.06  90  ePn   Pn    01 34 14.2 +1.1
PVY                                 eSn   Sn    01 35 11.9 +0.2
PVY   Plav                5.06  90  ePn   Pn    01 34 14.2 +1.1
PVY                                 eSn   Sn    01 35 11.9 +0.2
MOA   Molln               5.11   9  i Pn  Pn    01 34 13.5 -0.2
      SNR=22
MOA   Molln               5.11   9  i Pn  Pn    01 34 13.5 -0.2
MOA                                 i Sn  Sn    01 35 12.0 -0.7
MOA   Molln               5.11   9  i Pn  Pn    01 34 13.5 -0.2
      SNR=22
MOA                                ⇓iSn   Sn    01 35 12.0 -0.7
MOA   Molln               5.11   9  ePn   Pn    01 34 13.3 -0.3
MOA                                 eSn   Sn    01 35 12.0 -0.8
MOA   Molln               5.11   9   Pn   Pn    01 34 13.5 -0.1
      comp=Z,22nm,1.0s
MOA                                  Sn   Sn    01 35 12.0 -0.8
BNI   Bardonecchia        5.16 298  ePn   Pn    01 34 16.2 +1.8
      comp=Z,35nm,1.0s
BNI                                 eSn   Sn    01 35 16.5 +2.4
BNI   Bardonecchia        5.16 298  eP    Pn    01 34 16.2 +1.8
BNI                                 e           01 35 16.5
BNI                                  pmax pmax
      comp=Z,35nm,1.0s
BNI   Bardonecchia        5.16 298  ePn   Pn    01 34 16.2 +1.8
      comp=Z,35nm,1.0s
BNI                                 eSn   Sn    01 35 16.5 +2.4
DIVS  Divcibare           5.17  73  ePn   Pn    01 34 15.1 +0.5
DIVS                                eSn   Sn    01 35 10.8 -3.6
DIVS  Divcibare           5.17  73  ePn   Pn    01 34 15.1 +0.5
DIVS                                eSn   Sn    01 35 13.5 -0.9
DIVS  Divcibare           5.17  73   P    Pn    01 34 14.2 -0.4
DIVS  Divcibare           5.17  73  ePn   Pn    01 34 15.1 +0.5
DIVS                                eSn   Sn    01 35 10.8 -3.6
PKSM  Moragy              5.22  47 ⇑P     Pn    01 34 13.8 -1.4
PKSM  Moragy              5.22  47⇑iP     Pn    01 34 13.8 -1.4
PKSM  Moragy              5.22  47  eP    Pn    01 34 16.7 +1.5
TIR   Tirane              5.23 104  ePn   Pn    01 34 15.5 +0.1
TIR   Tirane              5.23 104  ePn   Pn    01 34 15.5 +0.1
LPG   La Plagne           5.31 303  ePn   Pn    01 34 17.0 +0.6
      SNR=1.0
LPG                                 eSn   Sn    01 35 14.4 -3.3
      comp=Z,35nm,0.6s
LPG   La Plagne           5.31 303  ePn   Pn    01 34 17.0 +0.6
LPG                                 eSn   Sn    01 35 14.4 -3.3
LPG   La Plagne           5.31 303  ePn   Pn    01 34 17.0 +0.6
      SNR=1.0
LPG                                 eSn   Sn    01 35 14.4 -3.3
      comp=Z,18nm,0.6s
LPL   La Plagne           5.33 303  ePg   Pg    01 34 37.9 -0.9
LPL                                 eSn   Sn    01 35 15.0 -3.2
      comp=Z,20nm,0.4s
LPL   La Plagne           5.33 303  ePn   Pn    01 34 17.1 +0.4
LPL                                 ePg   Pg    01 34 37.9 -0.9
LPL                                 eSn   Sn    01 35 15.0 -3.2
LPL   La Plagne           5.33 303  eP    Pn    01 34 17.1 +0.4
LPL                                 e           01 35 15.0
LPL   La Plagne           5.33 303  ePn   Pn    01 34 17.1 +0.4
LPL   La Plagne           5.33 303  ePg   Pg    01 34 37.9 -0.9
LPL                                 eSn   Sn    01 35 15.0 -3.2
      comp=Z,9.8nm,0.4s
FGSL  Fruska Gora         5.37  62  eP    Pn    01 34 17.9 +0.6
FGSL  Fruska Gora         5.37  62   P    Pn    01 34 12.8 -4.5
VAE   Valguarnera         5.42 169   Pn   Pn    01 34 27.0 +9.0
VAE   Valguarnera         5.42 169   Pn   Pn    01 34 27.0 +9.0
      comp=Z,0.2nm,0.3s,baz=135,slow=19,SNR=2.5
SOP   Sopron              5.45  25⇓ePn    Pn    01 34 17.7 -0.6
CONA  Conrad Observa      5.47  20⇓iPn    Pn    01 34 17.9 -0.8
      SNR=30
CONA                               ⇑iSn   Sn    01 35 20.5 -1.3
SMRF  Simiane la Rot      5.61 285  ePn   Pn    01 34 21.3 +0.7
      SNR=1.0
SMRF  Simiane la Rot      5.61 285  ePn   Pn    01 34 21.3 +0.7
SMRF  Simiane la Rot      5.61 285  ePn   Pn    01 34 21.3 +0.7
      SNR=1.0
ORIF  Oris-en-Rattie      5.64 294  ePn   Pn    01 34 21.1 +0.2
      SNR=1.0
ORIF  Oris-en-Rattie      5.64 294  ePn   Pn    01 34 21.1 +0.2
ORIF  Oris-en-Rattie      5.64 294  ePn   Pn    01 34 21.1 +0.2
      SNR=1.0
GRUS  Gruza               5.65  76  ePn   Pn    01 34 20.4 -0.7
GEC2  GERESS Array S      6.05   4  ePn   Pn    01 34 25.2 -1.4
GEC2                                eSn   Sn    01 35 32.7 -3.3
GEC2  GERESS Array S      6.05   4  ePn   Pn    01 34 25.2 -1.4
GEC2                                eSn   Sn    01 35 32.7 -3.3
GERES GERESS Array B      6.05   4   Pn   Pn    01 34 25.6 -1.1
GERES                                Sn   Sn    01 35 34.0 -2.1
GERES                                Lg         01 36 13.2
GERES GERESS Array B      6.05   4   P    Pn    01 34 25.6 -1.0
GERES                                           01 35 34.0
GERES                                pmax pmax
      comp=Z,1.0nm,0.3s
GERES                                smax
      comp=N,5.0nm,0.3s
GERES GERESS Array B      6.05   4   Pn   Pn    01 34 25.6 -1.1
      comp=N,1.4nm,0.3s,baz=182,slow=13,SNR=40
GERES                                Sn   Sn    01 35 34.0 -2.1
      comp=N,5.3nm,0.3s,baz=162,slow=22,SNR=8.6
GERES                                Lg         01 36 13.2
      baz=195,slow=34,SNR=2.7
ZST   Bratislava          6.07  26  ePn   Pn    01 34 25.8 -1.1
ZST                                 eSn   Sn    01 35 33.1 -3.5
ZST   Bratislava          6.07  26  ePN   Pn    01 34 25.8 -1.1
ZST                                 eSN   Sn    01 35 33.1 -3.5
ZST   Bratislava          6.07  26  ePn   Pn    01 34 25.8 -1.1
ZST                                 eSn   Sn    01 35 33.1 -3.5
SVIS  Svilajnac           6.08  73  ePn   Pn    01 34 27.3 +0.3
KRUS  Krusevo             6.22 101  ePn   Pn    01 34 29.4 +0.3
KRUS                                eSg   Sn    01 35 36.9 -3.5
SKO   Skopje              6.22  95  ePn   Pn    01 34 30.0 +1.0
SKO   Skopje              6.22  95  ePn   Pn    01 34 29.1  0.0
SKO   Skopje              6.22  95  ePn   Pn    01 34 30.0 +1.0
BUD   Budapest            6.27  40⇑ePB    Pb    01 34 53.0 +6.8
CABF  La Chapelle         6.28 310  ePn   Pn    01 34 29.5 -0.3
      SNR=1.0
CABF                                eSn   Sn    01 35 37.5 -4.3
      comp=N,34nm,0.7s
CABF  La Chapelle         6.28 310  ePn   Pn    01 34 29.5 -0.3
CABF                                eSn   Sn    01 35 37.5 -4.3
MODS  Modra-Piesok        6.28  26  ePn   Pn    01 34 28.1 -1.7
MODS                                eSn   Sn    01 35 38.6 -3.2
MODS  Modra-Piesok        6.28  26  ePN   Pn    01 34 28.1 -1.7
MODS                                eSN   Sn    01 35 38.6 -3.2
MODS  Modra-Piesok        6.28  26  ePn   Pn    01 34 28.1 -1.7
MODS                                eSn   Sn    01 35 38.6 -3.2
KHC   Kasperske Hory      6.33   3  ePn   Pn    01 34 29.3 -1.2
KHC                                 eSn   Sn    01 35 38.3 -4.6
KHC   Kasperske Hory      6.33   3  ePN   Pn    01 34 29.3 -1.2
KHC                                 eSN   Sn    01 35 38.3 -4.6
KHC   Kasperske Hory      6.33   3  ePn   Pn    01 34 29.3 -1.2
KHC                                 eSn   Sn    01 35 38.3 -4.6
WET   Wettzell            6.34 359  ePn   Pn    01 34 29.4 -1.2
WET                                 eSn   Sn    01 35 38.3 -4.8
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WET   Wettzell            6.34 359  ePn   Pn    01 34 29.4 -1.2
WET                                 eSn   Sn    01 35 38.3 -4.8
IGT   Igoumenitsa         6.36 119  ePn   Pn    01 34 31.4 +0.5
IGT                                 eSn   Sn    01 35 40.0 -3.6
IGT   Igoumenitsa         6.36 119  ePn   Pn    01 34 31.4 +0.6
IGT                                 eSn   Sn    01 35 40.0 -3.6
BIA   Bitola              6.38 104  ePn   Pn    01 34 31.8 +0.6
BIA                                 eSn   Sn    01 35 39.7 -4.5
BIA   Bitola              6.38 104  ePn   Pn    01 34 30.7 -0.5
BIA   Bitola              6.38 104  ePn   Pn    01 34 31.8 +0.6
BIA                                 eSn   Sn    01 35 39.7 -4.6
BARS  Barje               6.41  87  ePn   Pn    01 34 31.8 +0.2
VIVF  Saint-Julien-l      6.44 291  ePn   Pn    01 34 31.8 -0.1
      SNR=1.0
VIVF  Saint-Julien-l      6.44 291  ePn   Pn    01 34 31.8 -0.1
VIVF  Saint-Julien-l      6.44 291  ePn   Pn    01 34 31.8 -0.1
      SNR=1.0
SMOL  Smolenice           6.46  26  ePn   Pn    01 34 30.9 -1.3
SMOL                                eSn   Sn    01 35 37.3 -8.7
SMOL  Smolenice           6.46  26  ePN   Pn    01 34 30.9 -1.3
SMOL                                eSN   Sn    01 35 37.3 -8.7
BFO   Black Forest        6.46 330  ePn   Pn    01 34 32.7 +0.5
      comp=N,13nm,0.6s
BFO                                 eSn   Sn    01 35 45.6 -0.5
BFO   Black Forest        6.46 330  eP    Pn    01 34 32.7 +0.5
BFO                                 e           01 35 45.6
BFO                                  pmax pmax
      comp=Z,13nm,0.6s
BFO   Black Forest        6.46 330  ePn   Pn    01 34 32.7 +0.5
      comp=Z,13nm,0.6s
BFO                                 eS    Sn    01 35 45.6 -0.5
FNA   Florina             6.50 105  ePn   Pn    01 34 33.9 +1.1
FNA                                 eSn   Sn    01 35 41.6 -5.5
FNA   Florina             6.50 105  ePn   Pn    01 34 33.9 +1.1
FNA                                 eSn   Sn    01 35 41.7 -5.5
HINF  Hinteralfeld        6.67 321  ePn   Pn    01 34 34.5 -0.6
      SNR=1.0
HINF                                eSn   Sn    01 35 46.5 -4.8
      comp=Z,57nm,0.4s,SNR=1.0
HINF  Hinteralfeld        6.67 321  ePn   Pn    01 34 34.5 -0.6
HINF                                eSn   Sn    01 35 46.5 -4.8
BZS   Buzias              6.72  62 ⇑P     Pn    01 34 36.2 +0.3
BZS   Buzias              6.72  62⇑iP     Pn    01 34 36.2 +0.3
BZS   Buzias              6.72  62  eP    Pn    01 34 36.4 +0.5
STIP  Stip                6.83  96  ePn   Pn    01 34 38.2 +0.9
STIP  Stip                6.83  96  ePn   Pn    01 34 36.7 -0.6
STIP  Stip                6.83  96  ePn   Pn    01 34 38.2 +0.9
LASF  Ste Croix           6.85 284  ePn   Pn    01 34 37.7  0.0
LASF                                eSn   Sn    01 35 51.8 -4.1
      comp=Z,5.7nm,0.7s,SNR=1.0
LASF  Ste Croix           6.85 284  ePn   Pn    01 34 37.7  0.0
LASF                                eSn   Sn    01 35 51.8 -4.1
LASF  Ste Croix           6.85 284  ePn   Pn    01 34 37.7  0.0
CDF   Champ du Feu        6.94 326  ePn   Pn    01 34 37.9 -0.9
      SNR=1.0
CDF                                 eSn   Sn    01 35 51.8 -6.0
      comp=Z,30nm,0.6s
CDF   Champ du Feu        6.94 326  ePn   Pn    01 34 37.9 -0.9
CDF                                 eSn   Sn    01 35 51.8 -6.0
CDF   Champ du Feu        6.94 326  ePn   Pn    01 34 37.9 -0.9
      SNR=1.0
CDF                                 eSn   Sn    01 35 51.8 -6.0
      comp=Z,15nm,0.6s
VRAC  Vranov              6.94  19 ⇓P     Pn    01 34 38.0 -0.7
VRAC  Vranov              6.94  19   P    Pn    01 34 37.4 -1.4
VRAC                                            01 35 53.2
VRAC                                 pmax pmax
      comp=Z,1.0nm,0.3s
VRAC                                 smax
      comp=N,2.0nm,0.3s
VRAC  Vranov              6.94  19   Pn   Pn    01 34 37.4 -1.4
      comp=N,0.6nm,0.3s,baz=210,slow=15,SNR=4.4
VRAC                                 Sn   Sn    01 35 53.2 -4.6
      comp=N,1.5nm,0.3s,baz=277,slow=11,SNR=4.2
VRAC  Vranov              6.94  19⇓iP     Pn    01 34 38.0 -0.8
VRAC  Vranov              6.94  19  ePn   Pn    01 34 37.6 -1.2
VRAC  Vranov              6.94  19 ⇓P     Pn    01 34 38.0 -0.8
VYHS  Vyhne               6.96  33  ePn   Pn    01 34 38.5 -0.5
VYHS                                eSn   Sn    01 35 55.9 -2.4
VYHS  Vyhne               6.96  33  ePN   Pn    01 34 38.5 -0.5
VYHS                                eSN   Sn    01 35 55.9 -2.4
VYHS  Vyhne               6.96  33  ePn   Pn    01 34 38.5 -0.5
VYHS                                eSn   Sn    01 35 55.9 -2.4
PSZ   Piszkesteto         6.99  41 ⇓P     Pn    01 34 38.8 -0.8
PSZ   Piszkesteto         6.99  41⇑ePn    Pn    01 34 38.9 -0.7
PSZ   Piszkesteto         6.99  41⇓iP     Pn    01 34 38.8 -0.8
GRF   Grafenberg Arr      7.01 350  eSn   Sn    01 35 54.4 -5.2
LKD   Levkas              7.04 123  ePn   Pn    01 34 40.0 -0.2
LKD   Levkas              7.04 123  ePn   Pn    01 34 40.0 -0.2
HAU   Haudompre           7.04 320  ePn   Pn    01 34 39.7 -0.6
      SNR=1.0
HAU                                 eSn   Sn    01 35 55.0 -5.5
      comp=N,55nm,0.5s,SNR=1.0
HAU   Haudompre           7.04 320  ePn   Pn    01 34 39.7 -0.6
HAU                                 eSn   Sn    01 35 55.0 -5.5
HAU   Haudompre           7.04 320  ePn   Pn    01 34 39.7 -0.6
      SNR=1.0
HAU                                 eSn   Sn    01 35 55.0 -5.5
      comp=N,28nm,0.5s,SNR=1.0
GRG   Griva               7.18 102  ePn   Pn    01 34 41.6 -0.5
GRG   Griva               7.18 102  ePn   Pn    01 34 41.6 -0.5
VAY   Valandovo           7.20  99  ePn   Pn    01 34 41.0 -1.4
VAY   Valandovo           7.20  99  ePn   Pn    01 34 41.0 -1.4
PRU   Pruhonice           7.25   7  ePn   Pn    01 34 42.9 -0.2
PRU                                 eSn   Sn    01 35 59.6 -5.9
PRU   Pruhonice           7.25   7  ePN   Pn    01 34 42.9 -0.2
PRU                                 eSN   Sn    01 35 59.6 -5.9
GZR   Gura Zlata          7.42  66⇑iP     Pn    01 34 45.9 +0.5
NKC   Novy Kostel         7.44 357  ePn   Pn    01 34 45.8 +0.1
NKC                                 eSn   Sn    01 36 04.7 -5.5
NKC   Novy Kostel         7.44 357  ePN   Pn    01 34 45.8 +0.1
NKC                                 eSN   Sn    01 36 04.7 -5.5
VTS   Vitosha             7.44  88  eP    Pn    01 34 45.5 -0.2
MORC  Moravsky Berou      7.61  22 ⇓P     Pn    01 34 47.4 -0.7
MORC  Moravsky Berou      7.61  22⇓iP     Pn    01 34 47.4 -0.7
TANN  Tannenbergstha      7.62 357  ePn   Pn    01 34 47.6 -0.6
SMF   Signal de Mont      7.63 303  ePn   Pn    01 34 48.0 -0.3
SMF                                 eSn   Sn    01 36 10.3 -4.7
      comp=N,11nm,0.5s,SNR=1.0
SMF   Signal de Mont      7.63 303  ePn   Pn    01 34 48.0 -0.3
SMF                                 eSn   Sn    01 36 10.3 -4.7
KEST  Kesra               7.65 204   Pn   Pn    01 34 52.0 +3.4
      comp=N,0.4nm,0.3s,baz=303,slow=5.2,SNR=28
KEST                                 Sn   Sn    01 36 16.6 +1.2
      baz=351,slow=19,SNR=1.6
KECS  Kecovo              7.67  40  ePn   Pn    01 34 50.9 +2.0
KECS  Kecovo              7.67  40  ePN   Pn    01 34 50.9 +2.0
SFTF  Sexfontaines        7.82 316  ePn   Pn    01 34 50.1 -0.9
      baz=132
SFTF                                eSn   Sn    01 36 14.2 -5.5
      comp=N,12nm,0.5s
SFTF  Sexfontaines        7.82 316  ePn   Pn    01 34 50.1 -0.9
SFTF                                eSn   Sn    01 36 14.2 -5.5
SFTF  Sexfontaines        7.82 316  ePn   Pn    01 34 50.1 -0.9
RFYF  Reffroy             7.90 320  ePn   Pn    01 34 50.4 -1.6
RFYF                                eSn   Sn    01 36 16.3 -5.2
      comp=N,35nm,0.6s
RFYF  Reffroy             7.90 320  ePn   Pn    01 34 50.4 -1.6
RFYF                                eSn   Sn    01 36 16.3 -5.2
RFYF  Reffroy             7.90 320  ePn   Pn    01 34 50.4 -1.6
DRGR                      7.90  56 ⇑P     Pn    01 34 52.3 +0.3
DRGR                      7.90  56⇑iP     Pn    01 34 52.3 +0.3
MOX   Moxa                7.91 353  ePn   Pn    01 34 51.5 -0.6
MOX                                 eSn   Sn    01 36 17.2 -4.5
MOX   Moxa                7.91 353  ePN   Pn    01 34 51.5 -0.6
MOX                                 eSN   Sn    01 36 17.2 -4.5
MOX   Moxa                7.91 353  eSn   Sn    01 36 16.5 -5.2
LOR   Lormes              7.92 307  ePn   Pn    01 34 52.2 -0.1
      baz=121
LOR                                 eSn   Sn    01 36 16.9 -5.2
      comp=N,12nm,0.4s
LOR   Lormes              7.92 307  ePn   Pn    01 34 52.2 -0.1
LOR                                 eSn   Sn    01 36 16.9 -5.2
UPC   Upice               7.95  14  ePn   Pn    01 34 50.0 -2.7
UPC   Upice               7.95  14  ePN   Pn    01 34 50.0 -2.7
UPC   Upice               7.95  14  ePn   Pn    01 34 50.0 -2.7
SRS   Serrai              7.99  99  ePn   Pn    01 34 53.4 +0.1
SRS   Serrai              7.99  99  ePn   Pn    01 34 53.4 +0.1
MTLF  Montolieu           7.99 278  ePn   Pn    01 34 53.4 +0.1
MTLF                                eSn   Sn    01 36 19.3 -4.6
      comp=N,4.0nm,0.8s,SNR=1.0
MTLF  Montolieu           7.99 278  ePn   Pn    01 34 53.4 +0.1
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MTLF				eSn	Sn	01 36 19.3	-4.6
AVF	Avril sur Loir	8.00	303	ePn	Pn	01 34 53.5	+0.1
AVF	Avril sur Loir	8.00	303	ePn	Pn	01 34 53.5	+0.1
AVF	Avril sur Loir	8.00	303	ePn	Pn	01 34 53.5	+0.1
MEZF	Maizieres J'vi	8.01	318	ePn	Pn	01 34 53.0	-0.6
	baz=137						
MEZF				eSn	Sn	01 36 17.0	-7.4
	comp=N,18nm,0.6s						
MEZF	Maizieres J'vi	8.01	318	ePn	Pn	01 34 53.0	-0.6
MEZF				eSn	Sn	01 36 17.0	-7.4
MEZF	Maizieres J'vi	8.01	318	ePn	Pn	01 34 53.0	-0.6
MEZF				eSn	Sn	01 36 17.0	-7.4
	comp=N,8.9nm,0.6s						
SSF	Saint Saulge	8.03	305	ePn	Pn	01 34 53.2	-0.6
SSF	Saint Saulge	8.03	305	ePn	Pn	01 34 53.2	-0.6
SSF	Saint Saulge	8.03	305	ePn	Pn	01 34 53.2	-0.6
BRG	Berggiesshubel	8.09	4	Pn	Pn	01 34 55.9	+1.4
	comp=N,16nm,1.0s						
BRG				Pg	Pg	01 35 32.6	+1.0
BRG				Sn	Sn	01 36 18.3	-7.8
BRG				Sg	Sg	01 37 13.2	-3.1
BRG	Berggiesshubel	8.09	4	P	Pn	01 34 55.9	+1.4
BRG						01 36 18.3	
BRG				smax			
	comp=N,16nm,1.1s						
BRG	Berggiesshubel	8.09	4	P	Pn	01 34 55.9	+1.4
BRG	Berggiesshubel	8.09	4	PN	Pn	01 34 55.9	+1.4
BRG				PG	Pg	01 35 32.6	+1.0
BRG				SN	Sn	01 36 18.3	-7.8
BRG				SG	Sg	01 37 13.2	-3.1
	comp=N,27nm,1.1s						
BGF	Bois d'Agland	8.22	301	ePn	Pn	01 34 56.2	-0.2
BGF	Bois d'Agland	8.22	301	ePn	Pn	01 34 56.2	-0.2
BGF	Bois d'Agland	8.22	301	ePn	Pn	01 34 56.2	-0.2
CAF	Calviac	8.26	289	ePn	Pn	01 34 57.3	+0.4
	SNR=1.0						
CAF	Calviac	8.26	289	ePn	Pn	01 34 57.3	+0.4
CAF	Calviac	8.26	289	ePn	Pn	01 34 57.3	+0.4
	SNR=1.0						
XOR	Xorichti	8.35	111	ePn	Pn	01 34 58.3	+0.1
XOR	Xorichti	8.35	111	ePn	Pn	01 34 58.3	0.0
CLL	Collm	8.50	360	ePn	Pn	01 34 59.0	-1.2
CLL				eSn	Sn	01 36 32.0	-4.3
CLL				eSg	Sn	01 37 39.0	+63
CLL	Collm	8.50	360	eP	Pn	01 34 59.0	-1.2
CLL				e		01 36 32.0	
CLL	Collm	8.50	360	ePn	Pn	01 34 59.0	-1.2
CLL				i x	x	01 35 03.9	
CLL				eSn	Sn	01 36 32.0	-4.3
CLL				eSg	Sn	01 37 39.0	+63
STHS	Stebnicka Huta	8.69	38	ePn	Pn	01 35 06.8	+4.0
STHS				e		01 35 10.2	
STHS				e		01 36 41.4	
STHS	Stebnicka Huta	8.69	38	ePN	Pn	01 35 06.8	+4.0
STHS				e		01 35 10.2	
STHS	Stebnicka Huta	8.69	38	eSN	Sn	01 36 41.4	+0.5
STHS	Stebnicka Huta	8.69	38	eP	Pn	01 35 06.8	+4.0
STHS				eS	Sn	01 36 41.4	+0.5
VOIR		8.98	69	⇓P	Pn	01 35 08.7	+1.9
VOIR		8.98	69	⇓iP	Pn	01 35 08.7	+1.9
KWP	Kalwaria	9.52	41	ePn	Pn	01 35 14.7	+0.4
	comp=N,7.9nm,0.8s						
KWP	Kalwaria	9.52	41	eP	Pn	01 35 14.7	+0.5
KWP				pmax	pmax		
	comp=Z,8.0nm,0.8s						
KWP	Kalwaria	9.52	41	eP	Pn	01 35 14.7	+0.5
	comp=Z,8.0nm,0.8s						
MLR	Muntele Rosu	9.61	69	⇓P	Pn	01 35 17.0	+1.6
MLR	Muntele Rosu	9.61	69	P	Pn	01 35 16.5	+1.1
MLR				MLR	MLR		
	comp=Z,88nm,20.9s						
MLR	Muntele Rosu	9.61	69	Pn	Pn	01 35 16.5	+1.1
	comp=Z,0.2nm,0.3s,baz=279,slow=15,SNR=6.8						
MLR				LR	LR	01 39 06.8	
	comp=Z,88nm,20.9s,baz=260,slow=39						
MLR	Muntele Rosu	9.61	69	⇓iP	Pn	01 35 17.0	+1.6
BURAR	Bucovina Array	9.80	56	⇑iP	Pn	01 35 19.9	+1.9
IDI	Anoyia	11.84	125	Pn	Pn	01 35 49.0	+3.1
IDI				Sn	Sn	01 37 55.1	-3.1
IDI	Anoyia	11.84	125	Pn	Pn	01 35 49.1	+3.1
	comp=Z,0.4nm,0.3s,baz=306,slow=16,SNR=4.6						
IDI				Sn	Sn	01 37 55.1	-3.1
	comp=Z,0.3nm,0.3s,baz=292,slow=20,SNR=2.9						
IDI	Anoyia	11.84	125	Pn	Pn	01 35 49.0	+3.1
AKASG	Malin Array Be	13.56	49	Pn	Pn	01 36 09.6	+0.2
AKASG	Malin Array Be	13.56	49	Pn	Pn	01 36 09.6	+0.2
	comp=Z,0.2nm,0.3s,baz=233,slow=13,SNR=3.7						
AKASG	Malin Array Be	13.56	49	Pn	Pn	01 36 09.6	+0.2
BRTR	Keskin Array B	15.74	94	Pn	Pn	01 36 40.3	+1.5
BRTR	Keskin Array B	15.74	94	Pn	Pn	01 36 40.3	+1.5
	comp=Z,0.0nm,0.3s,baz=320,slow=15,SNR=2.3						
EKA	Eskdalemuir Ar	16.40	325	Pn	Pn	01 36 48.5	+1.3
EKA	Eskdalemuir Ar	16.40	325	Pn	Pn	01 36 48.5	+1.3
	comp=Z,0.1nm,0.3s,baz=24,slow=31,SNR=2.7						
HFS	Hagfors	17.35	1	P	Pn	01 36 59.5	+0.3
	comp=Z,0.1nm,0.3s,baz=180,slow=36,SNR=1.8						
HFS				LR	LR	01 43 23.0	
	comp=Z,68nm,18.5s,baz=71,slow=36						
VSU	Vasula	17.84	24	eP	Pn	01 37 08.8	+3.6
NB2	NORSAR Subarra	18.30	357	P	Pn	01 37 12.0	+1.2
	comp=Z,4.2nm,1.2s,baz=173,slow=11						
NOA	NORSAR Array B	18.30	357	P	Pn	01 37 09.6	-1.3
	comp=Z,0.1nm,0.3s,baz=174,slow=9.9,SNR=3.1						
OBN	Obninsk	19.60	43	eP	Pn	01 37 26.3	-0.4
OBN				pmax	pmax		
	comp=Z,4.0nm,0.8s						
OBN	Obninsk	19.60	43	eP	Pn	01 37 26.3	-0.4
	comp=Z,4.0nm,0.8s						
MMAI	Mount Meron Ar	20.07	112	P	P	01 37 31.9	+1.3
	comp=Z,4.6nm,0.7s,baz=329,slow=11,SNR=10						
FINES	FINESS Array B	20.22	18	P	P	01 37 31.4	-0.6
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
FINES	FINESS Array B	20.22	18	P	P	01 37 31.4	-0.6
	comp=Z,1.9nm,0.8s,baz=210,slow=22,SNR=3.8						
KIV	Kislovodsk	21.48	77	ePn	P	01 37 42.8	-3.0
	comp=Z,12nm,1.0s,mb4.2						
KIV	Kislovodsk	21.48	77	eP	P	01 37 46.1	+0.3
KIV				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.1						
KIV	Kislovodsk	21.48	77	eP	P	01 37 46.1	+0.3
	comp=Z,12nm,1.1s,mb4.1						
ASF	Jabal al Asfar	21.59	112	P	P	01 37 49.0	+1.9
ASF				pmax	pmax		
	comp=Z,3.0nm,1.0s						
ASF	Jabal al Asfar	21.59	112	P	P	01 37 49.0	+2.0
	comp=Z,3.1nm,1.0s,mb3.7,baz=269,slow=1.2,SNR=4.7						
ZEI	Tsey	22.54	80	eP	P	01 38 00.4	+3.3
ZEI				e*PP		01 38 07.2	
TORD	Torodi Ar. Bea	31.16	202	P	P	01 39 16.4	+0.1
	comp=Z,2.4nm,1.1s,mb4.0,baz=14,slow=8.5,SNR=12						
ARU	Arti	31.81	49	⇓iP	P	01 39 20.7	-1.0
ARU				e		01 40 22.8	
ARU				e		01 42 08.3	
ARU				eS	S	01 44 30.0	-2.0
ARU				eSS	SS	01 46 18.0	-30
ARU				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
BRVK	Borovoye	38.68	54	eP	P	01 40 21.4	+0.6
	comp=Z,4.1nm,0.8s,mb4.2						
BRVK	Borovoye	38.68	54	eP	P	01 40 21.4	+0.6
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
ZAL	Zalesovo	46.94	50	P	P	01 41 28.8	+1.0
ZALV	Zalesovo Beam	46.95	50	P	P	01 41 28.8	+0.9
ZALV	Zalesovo Beam	46.95	50	P	P	01 41 28.8	+0.9
	comp=Z,0.7nm,0.4s,mb3.9,baz=288,slow=8.1,SNR=5.3						
MKAR	Makanchi Array	47.80	60	P	P	01 41 35.1	+0.5
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	47.80	60	P	P	01 41 35.1	+0.5
	comp=Z,0.8nm,0.5s,mb4.0,baz=283,slow=7.1,SNR=14						
SONM	Songino Array	61.84	50	P	P	01 43 16.8	+0.5
SONM				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SONM	Songino Array	61.84	50	P	P	01 43 16.8	+0.6
	comp=Z,1.6nm,0.9s,mb4.2,baz=295,slow=8.4,SNR=9.3						
YKA	Yellowknife Ar	67.00	336	P	P	01 43 49.2	-0.6
YKA	Yellowknife Ar	67.00	336	i P	P	01 43 50.0	+0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	67.00	336	P	P	01 43 49.2	-0.6
	comp=Z,0.7nm,0.5s,mb3.9,baz=41,slow=6.0,SNR=16						
YKA	Yellowknife Ar	67.00	336	i P	P	01 43 50.0	+0.2
	comp=Z,1.0nm,0.5s,mb4.1						
ULM	Lac du Bonnet	68.57	319	P	P	01 43 59.6	-0.3
	comp=Z,0.7nm,0.6s,mb3.8,baz=35,slow=12,SNR=3.3						
PDAR	Pinedale Array	80.47	321	P	P	01 45 09.3	+0.1
	comp=Z,0.5nm,0.9s,mb3.5,baz=72,slow=6.4,SNR=3.4						
TXAR	Lajitas Array	87.68	309	P	P	01 45 47.0	+0.8
	comp=Z,0.1nm,0.4s,mb3.4,baz=81,slow=5.3,SNR=4.4						

*NEIC **08** 01:41:42.2±0.4, 5.21N×94.64E, h30^{km}, mb4.5/5, Error ellipse: s-maj=13.1km s-min=6.4km az=224.0*

*IDC **08** 01:41:45.5±3.6, 5.26N×94.79E, h59^{km}±31^{km}, mb3.9/12, mb1 4.0/13, mb1mx3.8/22, mbtmp3.9/13, ML4.1/1, MS2.9/1, Ms1 2.9/1, ms1mx2.5/31, Error ellipse: s-maj=34.1km s-min=13.8km az=54.0*

*ISCJB **08** 01:41:46.6±2.0, 5.32N±0.10×94.9E±0.1, h82^{km}±18^{km}, mb4.2/23, Error ellipse: s-maj=25.2km s-min=8.8km az=146.0*

ISC 08 01:41:47.3±1.9, **5.34N**±0.10×**94.9E**±0.1, **h71**^{km}±17^{km}**, n54,** σ0^{s}.76/50, **mb4.2**/23, **2C-4D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	4.75	122	P	Pn	01 42 57.2	+0.7
PSI				S	Sn	01 43 51.2	+0.9
PSI				LR	LR	01 45 09.2	
PSI	Prapat	4.75	122	P	Pn	01 42 57.2	+0.7
	7.0nm,0.3s,baz=303,slow=10,SNR=26						
PSI				S	Sn	01 43 51.2	+0.9
	1.6nm,0.3s,baz=23,slow=20,SNR=2.5						
PSI				LR	LR	01 45 09.2	
	comp=Z,133nm,18.1s,baz=278,slow=42						
KULM	Kulim	5.74	90	ePn	Pn	01 43 08.9	-1.1
CHTO	Chiang Mai	13.97	16	Pn	Pn	01 45 00.3	-1.7
	6.1nm,0.6s						
CHTO				e		01 45 07.6	
ODAN	Odare	22.57	342	eP	P	01 46 40.7	-1.0
	7.7nm,0.5s,mb4.3						
TAPN	Taplejung	22.93	343	eP	P	01 46 45.4	-0.2
	9.2nm,0.4s,mb4.5						
JIRN	Jiri	23.69	341	eP	P	01 46 52.8	+0.1
GUN	Gumba	24.03	340	eP	P	01 46 55.6	-0.2
	5.6nm,0.3s,mb4.3						
KKN	Kakani	24.13	339	eP	P	01 46 56.4	-0.3
LSA	Lhasa	24.49	352	eP	P	01 47 01.2	+1.3
	10nm,0.6s,mb4.3						
GKN	Gorkha	24.56	338	eP	P	01 47 00.4	-0.2
	10nm,0.3s,mb4.8						
KOLN	Koldanda	24.76	336	eP	P	01 47 02.4	0.0
	20nm,0.8s,mb4.6						
ENH	Enshi	28.37	27	P	P	01 47 36.3	+1.4
FITZ	Fitzroy Crossi	38.25	128	P	P	01 48 59.7	-1.1
	1.6nm,0.7s,mb4.0,baz=97,slow=18,SNR=6.2						
FITZ				PcP	PcP	01 51 13.2	-0.7
	1.6nm,0.8s,baz=128,slow=19,SNR=4.1						
ULHL	Ulahol	40.32	338	P	P	01 49 18.5	+0.7
	SNR=6.0						
UCH	Uchtor	40.96	337	P	P	01 49 23.6	+0.6
	SNR=10						
TKM2	Tokmak 2	41.14	338	P	P	01 49 25.4	+0.8
	SNR=9.1						
KBK	Karagaybulak	41.16	338	P	P	01 49 25.9	+1.2
	SNR=19						
AML	Almayashu	41.21	336	P	P	01 49 26.2	+1.1
	SNR=11						
AAK	Ala-Archa	41.31	337	P	P	01 49 27.8	+1.9
	SNR=6.8						
AAK	Ala-Archa	41.31	337	eP	P	01 49 26.1	+0.1
	3.0nm,0.5s,mb4.4						
EKS2	Erkin-Say	41.62	336	P	P	01 49 29.4	+1.0
	SNR=6.0						
USP	Ospenovka	41.85	338	P	P	01 49 30.6	+0.3
	SNR=17						
MK31	Makanchi Array	42.71	347	eP	P	01 49 37.1	-0.1
MK31				ePcP	PcP	01 51 27.9	+0.1
MKAR	Makanchi Array	42.71	347	P	P	01 49 37.0	-0.2
	2.3nm,0.4s,mb4.2,baz=166,slow=7.5,SNR=63						
MKAR				PcP	PcP	01 51 28.2	+0.4
	0.5nm,0.5s,baz=194,slow=4.4,SNR=5.0						
SONM	Songino Array	43.48	11	P	P	01 49 43.4	-0.1
	2.2nm,0.6s,mb4.1,baz=190,slow=8.1,SNR=24						
SONM				PcP	PcP	01 51 31.0	+0.6
	0.8nm,0.4s,baz=195,slow=3.9,SNR=12						
KSRS	Korea Array	43.93	39	P	P	01 49 47.1	-0.2
	1.6nm,0.5s,mb4.0,baz=224,slow=10,SNR=5.5						
WRA	Warramunga Arr	46.21	124	P	P	01 50 04.9	-0.7
	6.2nm,0.7s,mb4.5,baz=301,slow=9.7,SNR=54						
WRA				PcP	PcP	01 51 38.8	-1.6
	0.2nm,0.5s,baz=310,slow=3.1,SNR=2.9						
WB2	Warramunga Arr	46.22	124	eP	P	01 50 05.6	0.0
KURK	Kurchatov	47.24	346	eP	P	01 50 13.6	+0.5
	5.5nm,0.6s,mb4.5						
KURK				ePcP	PcP	01 51 43.6	+0.2
ZALV	Zalesovo Beam	49.15	352	P	P	01 50 27.8	0.0
	9.2nm,0.4s,mb5.0,baz=177,slow=7.3,SNR=85						
ZALV				PcP	PcP	01 51 49.2	-1.0
	0.7nm,0.6s,baz=162,slow=4.7,SNR=1.9						
BRVK	Borovoye	51.68	341	eP	P	01 50 46.8	-0.1
	7.3nm,1.0s,mb4.7						
STKA	Stephens Creek	57.84	133	P	P	01 51 32.0	+0.2
	1.7nm,0.8s,mb4.2,baz=313,slow=10,SNR=3.4						
ARU	Arti	58.50	337	P	P	01 51 35.3	-0.7
KIV	Kislovodsk	59.69	319	P	P	01 51 44.2	-0.3
BRTR	Keskin Array B	64.65	312	P	P	01 52 16.1	-1.6
	0.6nm,0.5s,mb3.7,baz=132,slow=6.8,SNR=6.0						
VRI	Vrincioaia	71.04	317	⇑iP	P	01 52 58.0	+0.2
MLR	Muntele Rosu	71.50	316	⇓P	P	01 53 00.5	0.0
MLR	Muntele Rosu	71.50	316	⇓iP	P	01 53 00.5	-0.1
BURAR	Bucovina Array	72.42	318	⇑iP	P	01 53 06.1	+0.1
JOF	Joensuu	73.44	335	ep	P	01 53 10.6	-1.2
	2.0nm,0.6s,mb4.1						
DRGR		73.95	317	⇓P	P	01 53 15.0	-0.1
DRGR		73.95	317	⇓iP	P	01 53 15.0	0.0
FINES	FINESS Array B	75.29	332	P	P	01 53 21.7	-0.8
	0.6nm,0.4s,mb3.7,baz=104,slow=5.6,SNR=9.7						
KAF	Kangasniemi	75.37	333	ep	P	01 53 19.3	-3.7
	1.3nm,0.4s,mb4.0						
ARCES	ARCESS Array B	77.89	340	P	P	01 53 36.9	-0.2
	2.4nm,0.7s,mb4.0,baz=98,slow=5.9,SNR=15						
GERES	GERESS Array B	80.20	319	P	P	01 53 49.9	-0.2
	1.4nm,0.6s,mb4.0,baz=109,slow=5.6,SNR=16						
KEST	Kesra	83.30	305	P	P	01 54 07.0	+0.3
	0.5nm,0.4s,mb3.7,baz=9.4,slow=10,SNR=12						
NVAR	Mina Array Bea	126.68	32	PKP	PKPdf	02 00 43.3	+0.2
NVAR	Mina Array Bea	126.68	32	PKP	PKPdf	02 00 43.3	+0.2
	0.3nm,0.5s,baz=258,slow=2.5,SNR=4.2						
PDAR	Pinedale Array	127.23	23	PKP	PKPdf	02 00 44.0	0.0
PDAR	Pinedale Array	127.23	23	PKP	PKPdf	02 00 44.0	0.0
	0.5nm,0.6s,baz=110,slow=2.6,SNR=7.8						
TXAR	Lajitas Array	141.19	26	PKP	PKPdf	02 01 04.9	-5.5
TXAR				PKP	PKPdf	02 01 10.6	+0.1
TXAR	Lajitas Array	141.19	26	PKhKP		02 01 04.9	
	0.2nm,0.6s,baz=57,slow=1.4,SNR=3.6						
TXAR				PKP	PKPdf	02 01 10.6	+0.1
	0.3nm,0.4s,baz=7.3,slow=0.4,SNR=6.9						

*IDC **08** 01:54:49.7±0.6, 2.72N×95.57E, h0^{km}, mb4.5/21, mb1 4.5/22, mb1mx4.4/28, mbtmp4.5/22, ML4.0/1, MS4.2/13, Ms1 4.2/13, ms1mx3.9/32, Error ellipse: s-maj=20.1km s-min=13.9km az=44.0*

*ISCJB **08** 01:54:52.2±0.3, 2.72N±0.04×95.56E±0.03, h25^{km}, mb4.9/82, MS4.5/33, Error ellipse: s-maj=5.7km s-min=3.9km az=22.7*

*BJI **08** 01:54:52.4, 2.61N×95.68E, h35^{km}, mB5.0, mb5.1, Ms4.7, Msz4.7*

*MOS **08** 01:54:53.3±1.1, 2.77N×95.61E, h33^{km}, mb5.2/26, MS4.7/7, Error ellipse: s-maj=10.6km s-min=5.9km az=97.7*

*NEIC **08** 01:54:54.5±0.2, 2.70N×95.65E, h30^{km}, mb5.1/17, Error ellipse: s-maj=6.5km s-min=5.5km az=62.0*

ISC 08 01:54:54.4±0.3, **2.72N**±0.04×**95.56E**±0.03, **h26**^{km}, **h26**^{km}±1.4^{km}**:pP-P, n207,** σ0^{s}.97/200, **mb4.9**/82, **MS4.5**/33, **32C-13D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	2.77	355	P	Pn	01 55 34.6	-2.5
	681nm,0.9s						
TSI	Tuntungan	3.10	76	P	Pn	01 55 42.3	+0.7
	1µm,0.7s						
PSI	Prapat	3.36	89	Pn	Pn	01 55 45.1	-0.2
PSI	Prapat	3.36	89	Pn	Pn	01 55 45.1	-0.2
	17nm,0.3s,baz=286,slow=7.1,SNR=78						
KULM	Kulim	5.68	63	⇓P	Pn	01 56 17.2	0.0
IPM	Ipoh	5.73	72	⇑P	Pn	01 56 18.0	+0.2
PPI	Padang Panjang	5.78	123	P	Pn	01 56 18.3	-0.2
	138nm,1.0s						
FRIM	Kepong	6.08	85	⇓P	Pn	01 56 23.4	+0.8
SNG	Songkhla	6.71	49	P	Pn	01 56 31.0	-0.2
	276nm,0.8s						
KGM	Kluang	7.79	95	⇓P	Pn	01 56 47.1	+1.0
KTGM	Kuala Trenggan	7.99	71	⇓P	Pn	01 56 49.3	+0.4
MYKOM	Kota Tinggi	8.34	96	⇑P	Pn	01 56 54.8	+1.1
KSM	Kuching	14.79	95	⇑P	Pn	01 58 23.8	+1.8
COCO	West Island	14.87	175	Pn	Pn	01 58 22.1	-1.0
PALK	Pallekele	15.47	288	ePn	Pn	01 58 32.9	+1.9
CHG	Chiang Mai	16.33	11	⇓P	Pn	01 58 41.1	-0.9
	45nm,1.0s						
CHTO	Chiang Mai	16.33	11	ePn	Pn	01 58 40.7	-1.3
	84nm,1.3s						
CHTO	Chiang Mai	16.33	11	eP	Pn	01 58 40.7	-1.3
CHTO				pmax	pmax		
	comp=Z,84nm,1.3s						
SBUM	Sibu	16.65	91	⇑P	Pn	01 58 46.3	+0.2
NANT	Nan	16.75	17	⇓P	Pn	01 58 46.0	-1.4
	comp=Z,241nm,1.0s						
BTM	Bintulu	17.51	88	⇑P	Pn	01 58 59.2	+2.3
KKM	Kota Kinabalu	20.86	80	⇑P	P	01 59 35.5	+0.9
QIZ	Qiongzhong	21.40	40	P	P	01 59 40.0	-0.3
QIZ				AP		01 59 50.4	
QIZ				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.2						
QIZ				LR	LR		
	comp=E,1µm,13.6s						
QIZ				LR	LR		
	comp=Z,1µm,12.0s,MS4.5						
QIZ	Qiongzhong	21.40	40	eP	P	01 59 39.8	-0.5
	comp=Z,46nm,1.1s,mb4.7						
KDM	Kudat	21.60	78	⇑P	P	01 59 42.9	+0.4
SDKM	Sandakan	21.77	82	⇓P	P	01 59 44.7	+0.3
HYB	Hyderabad	22.18	312	eP	P	01 59 52.5	+3.8
HYB				eS	S	02 03 50.0	-1.9
HYB	Hyderabad	22.18	312	i P	P	01 59 50.0	+1.3
HYB				eS	S	02 03 50.0	-1.9
TSM	Tawau	22.33	85	⇑P	P	01 59 52.0	+1.7
MYLDM	Lahad Datu	23.02	83	⇑P	P	01 59 58.4	+0.7
KMI	Kunming	23.32	17	P	P	02 00 01.0	+0.3
KMI				AP		02 00 08.8	
KMI				XP	sP	02 00 11.6	+0.3
KMI				AMB	AMB		
	comp=Z,74nm,1.0s,mb5.1						
KMI				AMB	AMB		
	comp=Z,237nm,4.6s						
KMI				LR	LR		
	comp=N,2µm,13.7s,MS4.7						
KMI				LR	LR		
	comp=E,751nm,14.7s,MS4.7						
KMI				LR	LR		
	comp=Z,2µm,13.7s,MS4.8						
KMI	Kunming	23.32	17	P	P	02 00 01.0	+0.3
	comp=Z,74nm,1.0s,mb5.1						
KMI				pP		02 00 08.8	
KMI				sP	sP	02 00 11.6	+0.3
KMI				PP		02 00 39.7	
KMI				PPP		02 00 51.7	
KMI				S	S	02 04 18.7	+7.1
KMI				sS	sS	02 04 34.4	+10
KMI				SS		02 05 21.3	
KMI				SSS		02 05 37.9	
KMI				LR	LR		
	comp=Z,2µm,13.7s,MS4.8						
PCI	Palu	24.54	98	P	P	02 00 11.8	-0.4
	comp=Z,98nm,1.1s,mb5.2						
ODAN	Odare	25.24	343	eP	P	02 00 19.0	+0.6
	comp=Z,108nm,0.8s,mb5.5						
TAPN	Taplejung	25.61	344	eP	P	02 00 22.2	+0.4
	comp=Z,194nm,0.8s,mb5.7						
GYA	Guiyang	25.89	23	⇑iP	P	02 00 23.6	-0.7
GYA				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.1						
GYA				AMB	AMB		
	comp=Z,120nm,3.6s						
GYA				LR	LR		
	comp=N,1µm,16.3s,MS4.6						
GYA				LR	LR		
	comp=E,850nm,18.8s,MS4.6						
GYA				LR	LR		
	comp=Z,1µm,15.3s,MS4.6						
JIRN	Jiri	26.36	341	eP	P	02 00 29.4	+0.8
PKI	Pulchoki	26.55	340	eP	P	02 00 30.7	+0.5
DMN	Daman	26.69	339	eP	P	02 00 32.3	+0.8
	comp=Z,26nm,0.6s,mb5.0						
GUN	Gumba	26.70	341	eP	P	02 00 32.1	+0.5
	comp=Z,88nm,0.7s,mb5.4						
KKN	Kakani	26.79	339	eP	P	02 00 33.0	+0.6
	comp=Z,84nm,0.7s,mb5.4						
LSA	Lhasa	27.15	352	P	P	02 00 37.2	+1.6
LSA	Lhasa	27.15	352	eP	P	02 00 36.9	+1.2
	comp=Z,39nm,0.7s,mb5.0						
LSA	Lhasa	27.15	352	eP	P	02 00 36.9	+1.3
LSA				pmax	pmax		
	comp=Z,39nm,0.7s,mb5.0						
GKN	Gorkha	27.21	339	eP	P	02 00 36.5	+0.3
	comp=Z,140nm,0.8s,mb5.5						
KOLN	Koldanda	27.40	336	eP	P	02 00 38.3	+0.4
	comp=Z,92nm,0.8s,mb5.4						
WHN	Wuhan	32.89	31	⇓P	P	02 01 26.9	+0.4
WHN				AP	pP	02 01 33.6	-0.6
WHN				S	S	02 06 44.6	+1.9
WHN				AMB	AMB		
	comp=Z,59nm,0.8s,mb5.6						
WHN				LR	LR		
	comp=Z,2µm,14.3s,MS5.0						
XAN	Xi'an	33.56	20	P	P	02 01 30.8	-1.4
XAN				S	S	02 06 56.7	+3.7
XAN				AMB	AMB		
	comp=Z,114nm,0.7s,mb5.9						
XAN				LR	LR		
	comp=N,332nm,14.1s,MS4.5						
XAN				LR	LR		
	comp=E,620nm,14.0s,MS4.5						
XAN				LR	LR		
	comp=Z,957nm,13.0s,MS4.7						
LZH	Lanzhou	34.07	12	⇑P	P	02 01 35.7	-1.0
LZH				AP	pP	02 01 43.3	-1.2
LZH				XP	sP	02 01 49.9	+2.2
LZH				PP	PP	02 02 50.0	-4.1
LZH				eS	S	02 07 02.0	+1.1
LZH				XS	sS	02 07 18.0	+4.3
LZH				SS	SS	02 09 12.5	-16
LZH				AMB	AMB		
	comp=Z,65nm,1.2s,mb5.4						
LZH				AMB	AMB		
	comp=Z,190nm,5.0s						
LZH				LR	LR		
	comp=E,621nm,12.0s						
LZH				LR	LR		
	comp=Z,952nm,13.0s,MS4.7						
LZH	Lanzhou	34.07	12	⇑P	P	02 01 35.7	-1.0
	comp=Z,65nm,1.2s,mb5.4						
LZH				pP	pP	02 01 43.3	-1.2
LZH				sP	sP	02 01 49.9	+2.2
LZH				PP	PP	02 02 50.0	-4.1
LZH				eS	S	02 07 02.0	+1.1
LZH				sS	sS	02 07 18.0	+4.3
LZH				SS	SS	02 09 12.5	-16
LZH				LR	LR		
	comp=Z,950nm,13.0s,MS4.7						
LZH	Lanzhou	34.07	12	⇑P	P	02 01 35.7	-1.0
LZH				*PP	pP	02 01 43.3	-1.2
LZH				*SP	sP	02 01 49.9	+2.2
LZH						02 02 50.0	
LZH				eS	S	02 07 02.0	+1.1
LZH				*SS	sS	02 07 18.0	+4.3
LZH				SS	SS	02 09 12.5	-16
LZH				pmax	pmax		
	comp=Z,65nm,1.2s,mb5.4						
LZH				MLR	MLR		
	comp=Z,950nm,13.0s,MS4.7						
FITZ	Fitzroy Crossi	36.15	126	P	P	02 01 52.7	-2.1
	comp=Z,3.6nm,0.8s,mb4.4,baz=231,slow=7.2,SNR=7.7						
FITZ				LR	LR	02 19 33.8	
	comp=Z,303nm,18.4s,MS4.1,baz=311,slow=41						
NJ2	Nanjing	36.49	34	eP	P	02 01 57.7	+0.2
NJ2				AP	pP	02 02 09.9	+4.5
NJ2				XP	sP	02 02 15.1	+6.5
NJ2				S	S	02 07 30.0	-8.1

NJ2				XS	sS	02 07 51.0	0.0
NJ2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,240nm,6.9s						
NJ2				LR	LR		
	comp=N,1µm,16.0s,MS4.9						
NJ2				LR	LR		
	comp=E,1µm,14.8s,MS4.9						
NJ2				LR	LR		
	comp=Z,1µm,14.8s,MS4.8						
GTA	**Gaotai**	**36.72**	**6**	P	**P**	**02 01 58.6**	**-0.8**
GTA				AP	pP	02 02 06.1	-1.1
GTA				XP	sP	02 02 09.3	-1.1
GTA				AMB	AMB		
	comp=Z,23nm,1.6s,mb4.8						
GTA				AMB	AMB		
	comp=Z,185nm,6.5s						
GTA				LR	LR		
	comp=N,459nm,14.8s,MS4.5						
GTA				LR	LR		
	comp=E,350nm,13.7s,MS4.5						
GTA				LR	LR		
	comp=Z,651nm,14.8s,MS4.5						
SSE	**Sheshan**	**37.17**	**38**	P	**P**	**02 02 02.8**	**-0.6**
SSE				XP	sP	02 02 15.6	+1.2
SSE				PP	PP	02 03 28.0	-0.4
SSE				S	**S**	**02 07 49.3**	**+0.7**
SSE				XS	sS	02 08 05.1	+3.6
SSE				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,116nm,6.8s						
SSE				LR	LR		
	comp=N,186nm,12.4s,MS4.4						
SSE				LR	LR		
	comp=E,325nm,12.4s,MS4.4						
SSE				LR	LR		
	comp=Z,488nm,12.9s,MS4.5						
SSE	**Sheshan**	**37.17**	**38**	P	**P**	**02 02 02.8**	**-0.6**
	comp=Z,25nm,0.7s,mb5.2						
SSE				sP	sP	02 02 15.6	+1.2
SSE				PP	PP	02 03 28.0	-0.4
SSE				S	**S**	**02 07 49.3**	**+0.7**
SSE				sS	sS	02 08 05.1	+3.6
SSE				LR	LR		
	comp=Z,490nm,12.9s,MS4.5						
BTO	**Baotou**	**39.91**	**17**	*e*P	**P**	**02 02 26.0**	**-0.3**
KBL	**Kabul**	**40.14**	**325**	*e*P	**P**	**02 02 27.9**	**-0.4**
HHC	**Hu-ho-hao-te**	**40.61**	**19**	*e*P	**P**	**02 02 33.2**	**+1.2**
HHC				AP	pP	02 02 42.9	+3.0
HHC				XP	sP	02 02 47.0	+3.9
HHC				PP	PP	02 04 10.9	+5.0
HHC				PCP	PcP	02 04 36.1	+2.3
HHC				SCP	ScP	02 08 23.1	+1.3
HHC				PCS	PcS	02 08 25.3	+0.9
HHC				S	**S**	**02 08 41.1**	**+0.9**
HHC				XS	sS	02 08 56.3	+3.1
HHC				SS	SS	02 11 36.8	-4.1
HHC				SCS	ScS	02 12 34.1	-2.0
HHC				AMB	AMB		
	comp=Z,41nm,1.2s,mb4.9						
HHC				AMB	AMB		
	comp=Z,180nm,4.4s						
HHC				LR	LR		
	comp=N,1µm,14.4s						
HHC				LR	LR		
	comp=E,979nm,21.2s						
HHC				LR	LR		
	comp=Z,971nm,14.7s,MS4.8						
KSH	**Kashi**	**40.72**	**337**	*e*P	**P**	**02 02 33.0**	**0.0**
KSH				*e*AP	pP	02 02 42.0	+1.1
KSH				*e*XP	sP	02 02 46.1	+2.0
KSH				*e*PP	PP	02 04 10.0	+2.9
KSH				*e*PCP	PcP	02 04 36.1	+1.9
KSH				*e*SCP	ScP	02 08 21.0	-1.2
KSH				*e*PCS	PcS	02 08 25.1	+0.2
KSH				*e*S	**S**	**02 08 38.5**	**-3.3**
KSH				*e*XS	sS	02 08 55.2	+0.4
KSH				*e*SCS	ScS	02 12 34.1	-2.7
KSH				AMB	AMB		
	comp=Z,100nm,2.7s,mb5.0						
KSH				LR	LR		
	comp=N,604nm,5.9s						
KSH				LR	LR		
	comp=E,598nm,6.0s						
KSH				LR	LR		
	comp=Z,429nm,6.0s						
NWAO	**Narrogin (SRO)**	**40.96**	**152**	P	**P**	**02 02 35.0**	**-0.1**
	comp=Z,13nm,1.1s,mb4.5,baz=287,slow=9.3,SNR=3.2						
WMQ	**Urumqi**	**41.51**	**351**	P	**P**	**02 02 39.8**	**+0.4**
WMQ				AP	pP	02 02 44.8	-2.5
WMQ				AMB	AMB		
	comp=Z,45nm,0.8s,mb5.2						
WMQ				AMB	AMB		
	comp=Z,46nm,9.0s						
WMQ				LR	LR		
	comp=N,232nm,23.0s,MS4.3						
WMQ				LR	LR		
	comp=E,406nm,22.3s,MS4.3						
WMQ				LR	LR		
	comp=Z,212nm,23.0s,MS4.0						
BJT	**Baijiatuau**	**41.56**	**24**	*e*P	**P**	**02 02 40.9**	**+1.0**
	comp=Z,21nm,0.6s,mb4.9						
BJT				*e*	pP	02 02 47.8	0.0
BJT	**Baijiatuau**	**41.56**	**24**	*e*P	**P**	**02 02 40.9**	**+1.0**
BJT				*e*	pP	02 02 47.8	0.0
BJT				pmax	pmax		
	comp=Z,21nm,0.6s						
BJI	**Beijing**	**41.58**	**24**	P	**P**	**02 02 41.2**	**+1.1**
BJI				AMB	AMB		
	comp=Z,54nm,1.2s,mb5.0						
BJI				AMB	AMB		
	comp=Z,244nm,3.7s						
BJI				LR	LR		
	comp=N,239nm,19.4s						
BJI				LR	LR		
	comp=E,724nm,14.2s						
BJI				LR	LR		
	comp=Z,215nm,17.6s,MS4.1						
BJI	**Beijing**	**41.58**	**24**	P	**P**	**02 02 41.2**	**+1.1**
	comp=Z,0.1nm,1.2s						
BJI				P	pP	02 02 47.7	-0.3
BJI				PP	PP	02 04 10.5	-6.0
BJI				S	**S**	**02 09 02.4**	**+7.8**
BJI				SS	SS	02 12 36.7	+36
ULHL	**Ulahol**	**42.98**	**339**	P	**P**	**02 02 52.3**	**+0.9**
	SNR=8.9						
DL2	**Dalian**	**43.15**	**30**	P	**P**	**02 02 53.2**	**+0.4**
DL2				AP	pP	02 03 00.0	-0.8
DL2				S	**S**	**02 09 21.8**	**+4.0**
DL2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.3						
DL2				AMB	AMB		
	comp=Z,150nm,4.0s						
DL2				LR	LR		
	comp=N,270nm,17.7s,MS4.3						
DL2				LR	LR		
	comp=E,170nm,13.3s,MS4.3						
DL2				LR	LR		
	comp=Z,260nm,15.3s,MS4.2						
KZA	**Kyzart**	**43.20**	**338**	P	**P**	**02 02 55.2**	**+2.0**
	SNR=9.9						
UCH	**Uchtor**	**43.61**	**337**	P	**P**	**02 02 58.0**	**+1.5**
	SNR=26						
UCH	**Uchtor**	**43.61**	**337**	*e*P	**P**	**02 02 57.7**	**+1.2**
	comp=Z,1µm,1.0s						
TKM2	**Tokmak 2**	**43.80**	**339**	P	**P**	**02 02 59.7**	**+1.7**
	SNR=10.0						
TKM2	**Tokmak 2**	**43.80**	**339**	*e*P	**P**	**02 02 59.3**	**+1.3**
	comp=Z,31nm,0.6s,mb5.2						
TKM2	**Tokmak 2**	**43.80**	**339**	*e*P	**P**	**02 02 59.3**	**+1.3**
TKM2				pmax	pmax		
	comp=Z,31nm,0.6s,mb5.2						
KBK	**Karagaybulak**	**43.81**	**338**	P	**P**	**02 02 59.7**	**+1.5**
	SNR=20						
AML	**Almayashu**	**43.85**	**336**	P	**P**	**02 02 59.7**	**+1.2**
	SNR=21						
AML	**Almayashu**	**43.85**	**336**	*e*P	**P**	**02 02 59.7**	**+1.2**
AAK	**Ala-Archa**	**43.97**	**338**	P	**P**	**02 03 01.2**	**+1.8**
	SNR=8.8						
AAK	**Ala-Archa**	**43.97**	**338**	*e*P	**P**	**02 03 00.1**	**+0.7**
AAK	**Ala-Archa**	**43.97**	**338**	⇑*e*P	**P**	**02 02 59.5**	**+0.1**
AAK				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.5						
FRU	**Bishkek**	**44.09**	**338**	P	**P**	**02 03 01.0**	**+0.7**
FRU				*e*		02 03 13.6	
WRA	**Warramunga Arr**	**44.23**	**122**	P	**P**	**02 03 00.6**	**-1.2**
	comp=Z,4.5nm,0.6s,mb4.4,baz=298,slow=9.4,SNR=38						
WRA				LR	LR	02 22 05.0	
	comp=Z,361nm,20.3s,MS4.3,baz=295,slow=37						
WB2	**Warramunga Arr**	**44.24**	**122**	*e*P	**P**	**02 03 01.3**	**-0.6**
EKS2	**Erkin-Say**	**44.27**	**337**	P	**P**	**02 03 03.1**	**+1.4**
	SNR=13						
EKS2	**Erkin-Say**	**44.27**	**337**	*e*P	**P**	**02 03 03.2**	**+1.4**
	comp=Z,47nm,0.7s,mb5.3						
USP	**Ospenovka**	**44.51**	**338**	P	**P**	**02 03 04.5**	**+0.8**
	SNR=31						
JNU	**Nakatsue**	**44.80**	**44**	P	**P**	**02 03 05.2**	**-1.0**
	comp=Z,5.4nm,0.6s,mb4.5,baz=292,slow=5.4,SNR=3.6						
MK31	**Makanchi Array**	**45.39**	**347**	*e*P	**P**	**02 03 10.9**	**+0.3**
MKAR	**Makanchi Array**	**45.39**	**347**	P	**P**	**02 03 10.8**	**+0.2**
	comp=Z,37nm,0.6s,mb5.4,baz=160,slow=8.7,SNR=497						
MKAR				LR	LR	02 24 58.0	
	comp=Z,258nm,21.3s,MS4.1,baz=161,slow=40						
KSRS	**Korea Array**	**45.57**	**37**	P	**P**	**02 03 11.3**	**-0.9**
	comp=Z,5.1nm,0.6s,mb4.6,baz=218,slow=8.6,SNR=16						
KSRS				LR	LR	02 24 43.7	
	comp=Z,386nm,18.4s,MS4.4,baz=16,slow=39						
SONM	**Songino Array**	**45.90**	**10**	P	**P**	**02 03 14.3**	**-0.4**
SONM						02 04 52.1	
SONM	**Songino Array**	**45.90**	**10**	P	**P**	**02 03 14.3**	**-0.4**
	comp=Z,9.8nm,0.7s,mb4.9,baz=189,slow=8.9,SNR=86						
SONM				PcP	PcP	02 04 52.1	+0.6
	comp=Z,4.6nm,0.6s,baz=190,slow=3.7,SNR=12						
SONM				LR	LR	02 23 49.8	
	comp=Z,426nm,21.6s,MS4.3,baz=186,slow=38						
ULN	**Ulaanbaatar**	**46.05**	**11**	*e*P	**P**	**02 03 15.3**	**-0.5**
	comp=Z,16nm,1.1s,mb4.8						
ULN	**Ulaanbaatar**	**46.05**	**11**	*e*P	**P**	**02 03 15.3**	**-0.5**
ULN				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
SNY	**Shenyang**	**46.34**	**29**	⇑P	**P**	**02 03 17.6**	**-0.6**
SNY				AMB	AMB		
	comp=Z,23nm,1.7s,mb4.8						
SNY				AMB	AMB		
	comp=Z,124nm,5.5s						
SNY				LR	LR		
	comp=N,551nm,18.0s,MS4.6						
SNY				LR	LR		
	comp=E,286nm,15.5s,MS4.6						
SNY				LR	LR		
	comp=Z,638nm,14.7s,MS4.7						
ZAK	**Zakamensk**	**47.94**	**7**	⇑*i*P	**P**	**02 03 30.3**	**-0.2**
ZAK				*e*		02 04 59.2	
ZAK				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.5						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
CN2	**Changchun**	**48.73**	**29**	*e*P	**P**	**02 03 35.8**	**-1.0**
CN2				*e*AP	pP	02 03 43.2	-1.6
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
MOY	**Mondy**	**48.99**	**4**	*e*P	**P**	**02 03 39.1**	**+0.5**
TLY	**Talaya**	**49.26**	**7**	*e*P	**P**	**02 03 40.9**	**+0.2**
TLY	**Talaya**	**49.26**	**7**	*e*P	**P**	**02 03 41.1**	**+0.4**
TLY				*e*	pP	02 03 48.4	-0.3
TLY				*e*		02 05 30.0	
TLY				*e*S	**S**	**02 10 44.4**	**-0.6**
TLY				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.9						
TLY				MLR	MLR		
	comp=Z,286nm,16.0s,MS4.4						
IRK	**Irkutsk**	**49.88**	**7**	*e*P	**P**	**02 03 45.2**	**-0.2**
IRK				*e*		02 06 41.4	
IRK				pmax	pmax		
	comp=Z,38nm,1.2s,mb5.3						
KURK	**Kurchatov**	**49.92**	**346**	*e*P	**P**	**02 03 46.0**	**+0.3**
	comp=Z,25nm,0.8s,mb5.3						
KURK	**Kurchatov**	**49.92**	**346**	*e*P	**P**	**02 03 46.0**	**+0.3**
KURK				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.3						
HIA	**Hailar**	**50.76**	**20**	*e*P	**P**	**02 03 51.4**	**-0.7**
	comp=Z,17nm,1.0s,mb4.9						
HIA	**Hailar**	**50.76**	**20**	*e*P	**P**	**02 03 51.4**	**-0.7**
HIA				pmax	pmax		
	comp=Z,17nm,1.0s						
MDJ	**Mudanjiang**	**51.38**	**31**	*e*P	**P**	**02 03 57.3**	**+0.4**
CIT	**Chita**	**51.38**	**14**	*e*P	**P**	**02 03 57.4**	**+0.7**
CIT				*e*	pP	02 04 04.2	-0.6
CIT				*e*		02 05 12.6	
CIT				pmax	pmax		
	comp=Z,37nm,1.9s,mb5.0						
MJAR	**Matsushiro Arr**	**51.71**	**44**	P	**P**	**02 03 57.7**	**-1.8**
MJAR				PcP	PcP	02 05 13.5	+0.8
MJAR	**Matsushiro Arr**	**51.71**	**44**	P	**P**	**02 03 57.7**	**-1.8**
	comp=Z,1.0nm,0.3s,mb4.2,baz=246,slow=8.0,SNR=3.0						
MJAR				PcP	PcP	02 05 13.5	+0.8
	comp=Z,1.1nm,0.5s,baz=234,slow=4.4,SNR=5.0						
ZAL	**Zalesovo**	**51.81**	**352**	P	**P**	**02 03 59.9**	**0.0**
ZALV	**Zalesovo Beam**	**51.82**	**352**	P	**P**	**02 03 59.9**	**-0.1**
	comp=Z,36nm,0.7s,mb5.4,baz=177,slow=7.0,SNR=175						
QRN	**Al-Qurain**	**52.15**	**305**	*e*P	**P**	**02 04 03.1**	**+0.2**
QRN				AMb	AMB	02 04 05.9	
	comp=Z,79nm,1.1s,mb5.6						
UMR	**Umm Al-Rimmam**	**52.60**	**306**	*e*P	**P**	**02 04 06.7**	**+0.4**
UMR				AMb	AMB	02 04 09.0	
	comp=Z,58nm,0.6s,mb5.7						
NAY	**Al-Naaiem**	**52.88**	**305**	*e*P	**P**	**02 04 08.5**	**+0.1**
NAY				AMb	AMB	02 04 13.8	
	comp=Z,28nm,1.4s,mb5.0						
NVS	**Novosibirsk**	**52.91**	**351**	⇑*i*P	**P**	**02 04 07.3**	**-0.8**
NVS				*e**PP	pP	02 04 25.2	+9.0
NVS				*i* S	**S**	**02 11 35.3**	**-0.2**
NVS				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.1						
NVS				pmax	pmax		
	comp=N,20nm,1.2s						
NVS				pmax	pmax		
	comp=E,9.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,17nm,2.2s,mb4.6						
NVS				pmax	pmax		
	comp=N,10.0nm,2.3s						
NVS				pmax	pmax		
	comp=E,24nm,2.3s						
NVS				smax			
	comp=N,21nm,1.8s						
NVS				smax			
	comp=E,27nm,1.8s						
MIB	**Mutribah**	**53.00**	**306**	*e*P	**P**	**02 04 09.3**	**+0.1**
MIB				AMb	AMB	02 04 11.5	
	comp=Z,43nm,0.6s,mb5.6						
BRVK	**Borovoye**	**54.35**	**342**	P	**P**	**02 04 18.0**	**-0.6**
	comp=Z,158nm,0.8s,mb6.0,SNR=16						
BRVK	**Borovoye**	**54.35**	**342**	*e*P	**P**	**02 04 18.0**	**-0.6**
	comp=Z,21nm,0.8s,mb5.1						
BRVK	**Borovoye**	**54.35**	**342**	*e*P	**P**	**02 04 18.0**	**-0.6**
BRVK				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
CTA	**Charters Tower**	**54.65**	**117**	LR	LR	02 30 49.7	
	comp=Z,226nm,19.6s,MS4.2,baz=51,slow=40						
STKA	**Stephens Creek**	**55.59**	**132**	P	**P**	**02 04 27.3**	**-0.7**
	comp=Z,1.2nm,0.3s,mb4.3,baz=292,slow=8.7,SNR=4.2						
STKA				LR	LR	02 27 49.0	
	comp=Z,171nm,20.6s,MS4.1,baz=276,slow=36						
KLR	**Kul'dur**	**55.66**	**28**	*e*P	**P**	**02 04 24.7**	**-3.5**
KLR				pmax	pmax		
	comp=Z,100nm,2.2s,mb5.5						
HABR	**Khabarovsk**	**56.76**	**30**	*e*P	**P**	**02 04 33.9**	**-2.1**
HABR				*e*S	**S**	**02 12 27.0**	**-0.4**
HABR				*e*		02 14 20.1	
HABR				*e*SS	SS	02 16 17.2	+1.6
BOD	**Bodaibo**	**56.84**	**12**	*e*P	**P**	**02 04 35.7**	**-0.8**
BOD				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
KMBO	**Kilima Mbogo**	**58.41**	**267**	*e*P	**P**	**02 04 50.3**	**+2.0**
	comp=Z,4.6nm,0.3s,mb5.0						
KMBO	**Kilima Mbogo**	**58.41**	**267**	*e*P	**P**	**02 04 50.3**	**+1.9**
KMBO				pmax	pmax		
	comp=Z,5.0nm,0.3s						
KMBO	**Kilima Mbogo**	**58.41**	**267**	LR	LR	02 28 41.2	
	comp=Z,361nm,18.0s,MS4.5,baz=94,slow=35						
ASAJ	**Asahikawa**	**58.46**	**38**	P	**P**	**02 04 48.0**	**-0.2**
	comp=Z,11nm,1.0s,mb4.8,baz=291,slow=24,SNR=2.9						
CLNS	**Chul'man**	**58.80**	**18**	*e*P	**P**	**02 04 48.7**	**-1.5**
CLNS				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.1						
CLNS				pmax	pmax		
	comp=N,10.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,8.0nm,0.8s						
CLNS				MLR	MLR		
	comp=Z,1µm,14.0s,MS5.1						
CLNS				MLR	MLR		
	comp=N,300nm,13.0s,MS4.8						
CLNS				MLR	MLR		
	comp=E,400nm,13.0s,MS4.8						
YSS	**Yuzh-Sakhalins**	**60.04**	**35**	⇑*e*P	**P**	**02 04 58.6**	**-0.4**
YSS				pmax	pmax		
	comp=Z,26nm,1.6s,mb5.0						
SVE	**Sverdlovsk**	**60.68**	**339**	*e*P	**P**	**02 05 03.0**	**-0.2**
ZEI	**Tsey**	**60.78**	**319**	*e*P	**P**	**02 05 02.5**	**-1.6**
ZEI				*e**PP	pP	02 05 11.6	-0.7
ARU	**Arti**	**61.15**	**338**	*e*P	**P**	**02 05 05.8**	**-0.7**
ARU	**Arti**	**61.15**	**338**	⇑*i*P	**P**	**02 05 04.8**	**-1.6**
ARU				*e*		02 07 16.7	
ARU				*e*S	**S**	**02 13 23.9**	**-0.2**
ARU				*e*		02 14 51.1	
ARU				*e*SS	SS	02 17 20.8	-3.6
ARU				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.1						
KIV	**Kislovodsk**	**62.09**	**319**	*e*P	**P**	**02 05 13.7**	**+0.7**
KIV	**Kislovodsk**	**62.09**	**319**	*e*P	**P**	**02 05 12.5**	**-0.5**
KIV				*e*S	**S**	**02 13 32.7**	**-3.8**
KIV				*e*SS	SS	02 17 36.9	-2.7
KIV				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.9						
KIV				MLR	MLR		
	comp=Z,103nm,17.0s,MS4.1						
MALT	**Malatya**	**62.90**	**312**	*e*P	**P**	**02 05 19.0**	**+0.5**
MALT	**Malatya**	**62.90**	**312**	⇓*i*P	**P**	**02 05 19.3**	**+0.8**
SOC	**Sochi**	**63.90**	**318**	*e*P	**P**	**02 05 23.3**	**-1.7**
SOC				*e**PP	pP	02 05 28.9	-4.3
SOC				*e*		02 05 54.6	
SOC				*e*S	**S**	**02 14 01.5**	**+2.4**
SOC				*e**SS	sS	02 14 21.0	+8.3
SOC				*e*SS	SS	02 18 04.9	-2.9
SOC				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.3						
SOKR	**Solikamsk**	**64.08**	**339**	*c* *i*P	**P**	**02 05 25.7**	**-0.2**
SOKR				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.3						
YAK	**Yakutsk**	**64.44**	**17**	*e*P	**P**	**02 05 28.1**	**-0.1**
YAK	**Yakutsk**	**64.44**	**17**	*e*P	**P**	**02 05 27.2**	**-1.0**
YAK				pmax	pmax		
	comp=N,15nm,0.9s						
YAK				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.5						
YAK				pmax	pmax		
	comp=E,19nm,1.3s						
YAK				MLR	MLR		
	comp=N,431nm,17.0s,MS4.8						
YAK				MLR	MLR		
	comp=E,316nm,17.0s,MS4.8						
YAK				MLR	MLR		
	comp=Z,709nm,17.0s,MS4.9						
BRTR	**Keskin Array B**	**66.88**	**312**	P	**P**	**02 05 43.7**	**-0.7**
	comp=Z,1.0nm,0.8s,mb3.9,baz=90,slow=6.3,SNR=5.5						
VRSR	**Storozhevoye**	**67.38**	**325**	*e*P	**P**	**02 05 46.4**	**-0.9**
VRSR				pmax	pmax		
	comp=N,1.0nm,0.9s						
VRSR				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.7s						
MATP	**Matopo**	**69.59**	**247**	P	**P**	**02 06 02.0**	**+0.3**
	comp=E,5.2nm,1.1s,mb4.4,baz=69,slow=7.1,SNR=6.2						
PRGR	**Permogore**	**69.60**	**337**	*i* P	**P**	**02 06 00.5**	**-0.5**
PRGR				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.3						
MOS	**Moscow**	**70.19**	**329**	*e*P	pP	02 06 16.5	+3.4
MOS				pmax	pmax		
	comp=Z,54nm,1.7s,mb5.2						
OBN	**Obninsk**	**70.47**	**329**	⇑*e*P	**P**	**02 06 05.2**	**-1.3**
OBN				*e*	pP	02 06 13.4	-1.4
OBN				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.7						
MA2	**Magadan**	**70.69**	**26**	*e*P	**P**	**02 06 07.2**	**-0.5**
	comp=Z,7.2nm,0.8s,mb4.7						
MA2	**Magadan**	**70.69**	**26**	*e*P	**P**	**02 06 07.0**	**-0.7**
MA2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
TIRR	**Tirgusor**	**71.89**	**316**	⇑P	pP	02 06 27.8	+4.2
TIRR	**Tirgusor**	**71.89**	**316**	⇑*i*P	pP	02 06 27.8	+4.1
PET	**Petropavlovsk**	**71.90**	**35**	*e*P	pP	02 06 26.7	+3.2
PET				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.5						
SEY	**Seymchan**	**73.02**	**24**	⇑*e*P	**P**	**02 06 19.0**	**-2.7**
AKASG	**Malin Array Be**	**73.06**	**322**	P	**P**	**02 06 20.7**	**-1.4**
	comp=Z,0.5nm,0.3s,mb3.9,baz=91,slow=4.5,SNR=11						
LBTB	**Lobatse**	**73.10**	**243**	*e*P	**P**	**02 06 23.7**	**+0.8**
	comp=Z,7.6nm,1.0s,mb4.6						
LBTB	**Lobatse**	**73.10**	**243**	*e*P	**P**	**02 06 23.7**	**+0.8**
LBTB				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
VRI	**Vrincioaia**	**73.39**	**317**	⇓P	**P**	**02 06 24.9**	**+0.7**
VRI	**Vrincioaia**	**73.39**	**317**	⇓*i*P	**P**	**02 06 24.9**	**+0.7**
MAW	**Mawson**	**73.83**	**192**	P	**P**	**02 06 25.9**	**-0.4**
MAW	**Mawson**	**73.83**	**192**	LR	LR	02 32 31.4	
	comp=Z,114nm,18.8s,MS4.2,baz=252,slow=31						
MLR	**Muntele Rosu**	**73.84**	**317**	⇑P	**P**	**02 06 27.7**	**+0.9**
MLR	**Muntele Rosu**	**73.84**	**317**	⇑*i*P	**P**	**02 06 27.7**	**+0.8**
BOSA	**Boshof**	**74.12**	**239**	LR	LR	02 36 56.2	
	comp=Z,219nm,19.3s,MS4.5,baz=244,slow=34						
BURAR	**Bucovina Array**	**74.80**	**319**	⇑P	**P**	**02 06 33.1**	**+0.7**
BURAR	**Bucovina Array**	**74.80**	**319**	⇑*i*P	**P**	**02 06 33.1**	**+0.7**
JOF	**Joensuu**	**76.08**	**335**	*e*p	**P**	**02 06 37.2**	**-2.2**
	comp=Z,4.7nm,0.7s,mb4.5						
JOF	**Joensuu**	**76.08**	**335**	*e*P	**P**	**02 06 37.2**	**-2.2**
JOF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
DRGR		**76.31**	**317**	⇑P	**P**	**02 06 40.5**	**-0.6**
DRGR		**76.31**	**317**	⇑*i*P	**P**	**02 06 40.5**	**-0.6**
FINES	**FINESS Array B**	**77.90**	**333**	*i* P	**P**	**02 06 50.0**	**+0.3**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES	**FINESS Array B**	**77.90**	**333**	P	**P**	**02 06 48.5**	**-1.2**
	comp=Z,3.1nm,0.7s,mb4.3,baz=93,slow=6.5,SNR=11						
KAF	**Kangasniemi**	**77.99**	**333**	*e*p	**P**	**02 06 49.2**	**-1.0**
	comp=Z,10nm,0.9s,mb4.8,baz=104,slow=5.2						
KAF	**Kangasniemi**	**77.99**	**333**	*e*P	**P**	**02 06 49.2**	**-1.0**
KAF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
PKSM	**Moragy**	**78.99**	**316**	⇑P	**P**	**02 06 56.0**	**-0.1**
PKSM	**Moragy**	**78.99**	**316**	⇑*i*P	**P**	**02 06 56.0**	**-0.1**
MORC	**Moravsky Berou**	**80.19**	**320**	⇓P	**P**	**02 07 03.0**	**+0.5**
MORC	**Moravsky Berou**	**80.19**	**320**	⇓*i*P	**P**	**02 07 03.0**	**+0.5**
BILL	**Bilibino**	**80.34**	**21**	*e*P	**P**	**02 07 02.1**	**-0.9**
BILL	**Bilibino**	**80.34**	**21**	*e*P	**P**	**02 07 00.7**	**-2.2**
BILL				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
BILL				MLR	MLR		
	comp=Z,300nm,19.0s,MS4.7						
ARCES	**ARCESS Array B**	**80.56**	**340**	P	**P**	**02 07 02.9**	**-1.2**
	comp=Z,3.8nm,0.6s,mb4.5,baz=82,slow=4.3,SNR=15						
ARCES				LR	LR	02 47 47.4	
	comp=Z,245nm,20.2s,MS4.5,baz=5.9,slow=39						
GERES	**GERESS Array B**	**82.59**	**319**	P	**P**	**02 07 15.4**	**+0.2**
	comp=Z,1.1nm,0.7s,mb4.0,baz=93,slow=5.7,SNR=10						
HFS	**Hagfors**	**83.59**	**330**	P	**P**	**02 07 20.1**	**-0.1**
	comp=Z,2.1nm,0.6s,mb4.5,baz=100,slow=6.2,SNR=9.0						
NOA	**NORSAR Array B**	**84.89**	**331**	P	**P**	**02 07 26.4**	**-0.3**
	comp=Z,0.8nm,0.8s,mb3.9,baz=90,slow=1.8,SNR=3.0						
NOA				LR	LR	02 49 27.6	
	comp=Z,95nm,20.0s,MS4.2,baz=60,slow=39						
DAVOX	**Davos/Dischmat**	**85.06**	**317**	P	**P**	**02 07 27.8**	**-0.2**
DAVOX	**Davos/Dischmat**	**85.06**	**317**	P	**P**	**02 07 27.8**	**-0.2**
	comp=Z,4.7nm,0.8s,mb4.7,baz=146,slow=8.0,SNR=3.9						
KEST	**Kesra**	**85.35**	**305**	LR	LR	02 49 26.2	
	comp=Z,56nm,19.0s,MS4.0,baz=234,slow=38						
TORD	**Torodi Ar. Bea**	**93.15**	**283**	P	**P**	**02 08 08.1**	**+1.1**
	comp=Z,0.6nm,0.9s,mb4.0,baz=92,slow=6.1,SNR=3.2						
ULM	**Lac du Bonnet**	**126.33**	**9**	PKP	PKPdf	02 13 54.5	-0.3
ULM	**Lac du Bonnet**	**126.33**	**9**	PKP	PKPdf	02 13 54.5	-0.3
	comp=Z,1.2nm,0.6s,baz=225,slow=1.4,SNR=4.3						
PDAR	**Pinedale Array**	**129.35**	**24**	PKP	PKPdf	02 14 01.0	0.0
PDAR	**Pinedale Array**	**129.35**	**24**	PKP	PKPdf	02 14 01.0	0.0
	comp=Z,0.3nm,0.7s,baz=123,slow=3.3,SNR=4.0						
ISCO	**Idaho Springs**	**133.43**	**23**	*e*PKPdf	PKPdf	02 14 08.5	-0.2
ISCO	**Idaho Springs**	**133.43**	**23**	*e*PKIKP	PKPdf	02 14 08.5	-0.2
WMOK	**Wichita Mounta**	**140.38**	**19**	*e*PKPdf	PKPdf	02 14 23.2	+1.5
WMOK	**Wichita Mounta**	**140.38**	**19**	*e*PKIKP	PKPdf	02 14 23.2	+1.5
LTX	**Lajitas**	**143.19**	**29**	*e*PKPdf	PKPdf	02 14 25.6	-1.3
LTX	**Lajitas**	**143.19**	**29**	*e*PKIKP	PKPdf	02 14 25.6	-1.3
TXAR	**Lajitas Array**	**143.19**	**29**	PKP	PKPdf	02 14 24.2	-2.7

TXAR	Lajitas Array	143.19	29	PKIKP	PKPdf	02 14 24.2	-2.7
TXAR	Lajitas Array	143.19	29	PKP	PKPdf	02 14 24.2	-2.7
	comp=Z,0.5nm,0.6s,baz=67,slow=1.5,SNR=8.8						
JCT	Junction City	143.87	23	ePKPdf	PKPdf	02 14 26.0	-2.1
JCT	Junction City	143.87	23	ePKIKP	PKPdf	02 14 26.0	-2.1
LPAZ	La Paz	159.04	229	ePKPdf	PKPdf	02 14 52.1	+1.0
LPAZ	La Paz	159.04	229	ePKIKP	PKPdf	02 14 52.2	+1.0
JTS	JuntasAbangare	167.06	2	ePKPdf	PKPdf	02 14 57.7	-1.3
JTS	JuntasAbangare	167.06	2	ePKIKP	PKPdf	02 14 57.7	-1.3

IDC ***08*** *02:14:29.1±0.9, 1.05N×126.49E, h0^{km}, mb4.0/5, mb1 4.2/6, mb1mx4.0/16, mbtmp4.0/6, ML3.5/1, Error ellipse: s-maj=90.2km s-min=17.9km az=70.0*

NEIC ***08*** *02:14:30.6±0.5, 1.04N×126.48E, h10^{km}, mb4.3/2, Error ellipse: s-maj=39.7km s-min=7.6km az=70.0*

ISCJB ***08*** *02:14:32.0±0.8, 1.0N±0.2×126.3E±0.4, h33^{km}, mb4.1/7, Error ellipse: s-maj=66.2km s-min=11.1km az=160.4*

ISC 08 02:14:34.3±0.8**, 1.0N**±0.2×**126.4E**±0.4**, h35^{km}, n16, σ0^s.40**/12**, mb4.1**/7**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	18.97	182	eP	Pn	02 18 53.4	-0.2
	7.8nm,0.9s						
FITZ	Fitzroy Crossi	18.97	182	P	Pn	02 18 53.9	+0.3
	0.1nm,0.3s,baz=53,slow=13,SNR=3.9						
WRA	Warramunga Arr	22.20	160	P	P	02 19 27.7	+0.1
	24nm,0.8s,mb4.7,baz=340,slow=11,SNR=82						
WB2	Warramunga Arr	22.20	160	eP	P	02 19 28.0	+0.3
STKA	Stephens Creek	35.70	158	P	P	02 21 29.1	-0.5
	5.4nm,0.7s,mb4.6,baz=323,slow=9.7,SNR=12						
SONM	Songino Array	49.80	342	P	P	02 23 23.5	0.0
	0.5nm,0.8s,mb3.6,baz=152,slow=6.4,SNR=4.7						
MK31	Makanchi Array	59.63	326	eP	P	02 24 35.1	+0.2
MKAR	Makanchi Array	59.63	326	P	P	02 24 34.0	-0.9
MKAR	Makanchi Array	59.63	326	P	P	02 24 34.0	-0.9
	0.6nm,0.5s,mb3.9,baz=117,slow=10,SNR=6.3						
ZALV	Zalesovo Beam	62.89	334	P	P	02 24 57.3	+0.6
	0.4nm,0.4s,mb3.9,baz=123,slow=5.5,SNR=4.8						
KURK	Kurchatov	63.88	328	eP	P	02 25 03.2	-0.2
	2.3nm,0.8s,mb4.3						
BRVK	Borovoye	69.52	328	eP	P	02 25 39.6	+0.3
	0.8nm,0.6s,mb3.8						
TORD	Torodi Ar. Bea	123.41	286	PKP	PKPdf	02 33 29.5	+0.7
TORD	Torodi Ar. Bea	123.41	286	PKP	PKPdf	02 33 29.5	+0.7
	0.6nm,0.6s,baz=46,slow=5.4,SNR=10						
TXAR	Lajitas Array	123.53	53	PKP	PKPdf	02 33 29.3	+0.6
TXAR	Lajitas Array	123.53	53	PKP	PKPdf	02 33 29.3	+0.6
	0.3nm,0.7s,baz=112,slow=0.7,SNR=4.0						

IDC ***08*** *02:40:05.1±1.0, 1.06N×126.35E, h0^{km}, mb4.0/5, mb1 4.2/6, mb1mx4.0/16, mbtmp4.0/6, ML3.4/1, Error ellipse: s-maj=90.7km s-min=18.2km az=70.0*

NEIC ***08*** *02:40:06.6±0.5, 1.07N×126.48E, h10^{km}, mb4.4/2, Error ellipse: s-maj=41.6km s-min=7.6km az=69.0*

ISCJB ***08*** *02:40:07.8±0.7, 1.0N±0.2×126.4E±0.4, h33^{km}, mb4.1/6, Error ellipse: s-maj=63.8km s-min=10.4km az=158.9*

ISC 08 02:40:10.1±0.7**, 1.0N**±0.2×**126.5E**±0.4**, h35^{km}, n16, σ0^s.63**/12**, mb4.1**/6**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	14.87	157	ePn	Pn	02 43 36.5	-1.4
FITZ	Fitzroy Crossi	19.01	182	P	Pn	02 44 29.8	-0.1
	0.1nm,0.3s,baz=14,slow=14,SNR=3.1						
WRA	Warramunga Arr	22.21	160	P	P	02 45 04.1	+0.5
	14nm,0.5s,mb4.6,baz=341,slow=11,SNR=105						
WB2	Warramunga Arr	22.22	160	eP	P	02 45 04.2	+0.5
WB2	Warramunga Arr	22.22	160	eP	P	02 45 04.2	+0.6
STKA	Stephens Creek	35.72	158	eP	P	02 47 06.4	+1.0
	4.0nm,0.7s,mb4.5						
STKA	Stephens Creek	35.72	158	P	P	02 47 05.8	+0.4
	4.8nm,0.7s,mb4.6,baz=331,slow=10.0,SNR=10.0						
SONM	Songino Array	49.78	342	P	P	02 48 58.8	-0.4
	0.2nm,0.4s,mb3.5,baz=342,slow=42,SNR=2.8						
MK31	Makanchi Array	59.64	326	eP	P	02 50 10.6	0.0
MKAR	Makanchi Array	59.64	326	P	P	02 50 09.9	-0.7
	1.0nm,0.7s,mb4.0,baz=122,slow=8.7,SNR=16						
ZALV	Zalesovo Beam	62.88	334	P	P	02 50 32.7	+0.2
	0.2nm,0.3s,mb3.7,baz=87,slow=7.6,SNR=3.6						
KURK	Kurchatov	63.88	328	eP	P	02 50 39.9	+0.7
	0.9nm,0.4s,mb4.2						
TXAR	Lajitas Array	123.44	53	PKP	PKPdf	02 59 05.8	+1.4
TXAR	Lajitas Array	123.44	53	PKP	PKPdf	02 59 05.8	+1.4
	0.1nm,0.4s,baz=75,slow=1.4,SNR=3.4						
TORD	Torodi Ar. Bea	123.47	286	PKP	PKPdf	02 59 05.3	+0.6
TORD	Torodi Ar. Bea	123.47	286	PKP	PKPdf	02 59 05.3	+0.6
	0.6nm,1.1s,baz=56,slow=5.0,SNR=3.0						

IDC 08 02:46:43.4±2.6**, 13.83S**×**167.66E, h0^{km}, mb4.3**/4**, mb1 4.4**/4**, mb1mx3.9**/15**, mbtmp4.2**/4**, Error ellipse: s-maj=88.2km s-min=38.7km az=133.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	29.86	229	P	P	02 52 52.9	+0.1
	5.5nm,0.4s,baz=53,slow=8.8,SNR=26						
WRA	Warramunga Arr	32.42	255	P	P	02 53 15.0	-0.3
	1.3nm,0.4s,baz=86,slow=9.3,SNR=18						
FITZ	Fitzroy Crossi	40.56	258	P	P	02 54 25.1	+0.1
	1.2nm,0.5s,baz=90,slow=9.1,SNR=7.5						
MKAR	Makanchi Array	96.81	316	P	P	03 00 16.9	+0.6
	0.4nm,0.8s,baz=96,slow=5.5,SNR=3.9						
ARCES	ARCESS Array B	119.48	346	PKP	PKPdf	03 05 33.8	-0.6
	4.1nm,0.9s,baz=46,slow=2.5,SNR=7.2						

CASC 08 02:47:41.6±3.5**, 11.17N**×**87.87W, h39^{km}**±999^{km}**, MD4.0, 4C-10D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COPN	Copaltepe	1.60	51	⇓eP	Pn	02 48 07.2	-0.2
COPN				eS	Sn	02 48 29.1	+2.2
MOMJ	Momotombo	1.79	47	⇑eP	Pn	02 48 09.4	-0.6
TICN	Ticuantepe	1.82	62	⇑eP	Pn	02 48 10.4	0.0
TICN				eS	Sn	02 48 33.5	+1.2
TISN	Laguna Tiscapa	1.84	58	eP	Pn	02 48 10.4	-0.3
TISN				eS	Sn	02 48 34.1	+1.3
MGAN	Managua	1.86	58	⇓eP	Pn	02 48 10.9	-0.1
MGAN				eS	Sn	02 48 33.1	-0.2
APON	Apoyo	1.92	67	⇓eP	Pn	02 48 10.8	-1.0
APON				eS	Sn	02 48 36.2	+1.6
SSNN	San Juan del S	1.98	86	eP	Pn	02 48 12.2	-0.5
SSNN				eS	Sn	02 48 37.8	+1.4
HUEN		2.03	55	⇓eP	Pn	02 48 13.2	-0.1
HUEN				eS	Sn	02 48 38.6	+1.3
CNCH	Conchagua	2.09	1	⇓eP	x	02 48 35.7	
CNCH				eS	x	02 49 00.5	
CONN	Concepcion	2.23	80	eP	Pn	02 48 14.9	-1.2
BLLM	Bellamira	2.29	351	⇓eP	x	02 48 38.1	
BLLM				eS	x	02 49 03.0	
MADN	Villa Maderas	2.30	84	eP	Pn	02 48 16.8	-0.3
LCBS	La Ceiba	2.69	336	eP	x	02 48 44.0	
LCBS				eS	x	02 49 15.6	
LFRS	El Faro	2.70	335	eP	x	02 48 43.9	
LFRS				eS	x	02 49 16.3	
SNET	Serv Nac Est T	2.83	332	eP	x	02 48 38.6	
SNET				eS	x	02 49 09.3	
LFU	La Fuente	2.83	335	eP	x	02 48 46.2	
LFU				eS	x	02 49 21.6	
JCR	Jicaral	3.01	116	eP	Pn	02 48 26.8	0.0
JCR				eS	Sn	02 49 01.0	-0.7
SBLS	San Blas	3.16	327	⇓eP	x	02 48 51.2	
SBLS				eS	x	02 49 29.5	
CGA2	Cerro Gallo 2	3.54	109	eP	Pn	02 48 35.9	+1.9
CGA2				eS	Sn	02 49 16.1	+1.4
PRS1	Puriscal	3.69	108	eP	Pn	02 48 39.5	+3.3
LAJ	Bijagual	3.91	109	⇓eP	Pn	02 48 35.7	-3.5
LAJ				eS	Sn	02 49 14.5	-9.3
QCR	Quepos	4.04	115	⇓eP	Pn	02 48 42.2	+1.3
QCR				eS	Sn	02 49 26.3	-0.7
LCR2	La Lucha 2	4.06	110	⇑eP	Pn	02 48 43.0	+1.7
LCR2				eS	Sn	02 49 29.0	+1.4
URSC	Urasca	4.24	108	⇑eP	Pn	02 48 46.4	+2.7
URSC				eS	Sn	02 49 35.3	+3.4
BAR1		4.88	113	⇓eP	Pn	02 48 54.0	+1.5
BAR1				eS	Sn	02 49 47.0	-0.8

WEL 08 02:53:56.5±0.6**, 35.86S**×**179.49E, h33^{km}, ML3.7**/3**, Error ellipse: s-maj=11.7km s-min=5.3km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUZ	Puketiti	2.42	204	PN	Pn	02 54 33.5	-0.1
PUZ				SN	Sn	02 55 00.9	-1.1
MWZ	Matawai	2.92	212	P*	Pb	02 54 40.9	-7.0
MWZ				S*	Sb	02 55 14.2	-9.0
URZ	Urewera	3.06	218	P*	Pb	02 54 42.8	-7.4
KNZ	Kokohu	3.47	204	PN	Pn	02 54 47.7	-0.4

ISCJB ***08*** *03:12:03.6±0.3, 32.72N±0.02×116.03W±0.02, h19^{km}±3^{km}, Error ellipse: s-maj=3.7km s-min=2.9km az=156.8*

ECX ***08*** *03:12:04.8±0.7, 32.72N×116.05W, h4^{km}±1^{km}, MD3.3, ML3.5*

ISC 08 03:12:03.8±0.3**, 32.72N**±0.02×**116.05W**±0.02**, h15^{km}**±2^{km}**, n39, σ0^s.53**/64**, 27C-24D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVTC	Desert V Tower	0.08	217	⇑P	Pg	03 12 06.5	-0.4
	baz=0.1						
DVTC				⇑S	Sg	03 12 08.0	-0.8
	baz=0.1						
RMX	La Rumorosa	0.12	193	eS	Sg	03 12 09.0	-0.6
YUH	Yuha Desert	0.13	125	⇑iP	Pg	03 12 07.0	-0.4
CRR	Carrizo Plain	0.18	21	⇓iP	Pg	03 12 08.3	+0.2
SGL	Mount Signal	0.28	105	⇑iP	Pg	03 12 10.0	+0.3
COK	Cook Ranch	0.30	64	⇑iP	Pg	03 12 10.8	+0.7
SWSC	Sam W. Stewart	0.30	44	P	Pg	03 12 10.6	+0.4
	baz=0.3,SNR=742						
SWSC				⇑S	Sg	03 12 14.6	+0.2
	baz=0.3						
MONP	Monument Peak	0.36	298	⇑P	Pg	03 12 11.5	+0.3
	baz=0.3						
MONP				⇑S	Sg	03 12 16.0	0.0
	baz=0.3						
CBX	Cerro Bola	0.66	232	⇑eP	Pg	03 12 16.7	0.0
CBX				eS	Sg	03 12 25.4	-0.1
CPBX	Cerro Prieto	0.69	116	⇑eP	Pg	03 12 17.4	+0.1
CPBX				eS	Sg	03 12 26.9	+0.3
CPBX				⇑e		03 12 37.9	
	comp=N,6µm,0.5s						
109C	Camp Elliot, M	0.91	281	⇓P	Pb	03 12 20.7	-0.5
	baz=0.8						
109C				⇓S	Sb	03 12 32.6	-0.5
	baz=0.8						
PFO	Pinyon Flat Ob	0.95	339	P	Pb	03 12 21.9	0.0
	baz=0.9,SNR=471						
PFO				⇓S	Sb	03 12 34.6	+0.3
	baz=0.9						
ENX	Ensenada	0.99	212	eP	Pb	03 12 21.9	-0.6
ENX				eS	Sb	03 12 35.4	+0.1
BC3	Big Chuckw Mtn	1.06	28	⇓P	Pb	03 12 23.0	-0.7
	baz=1.1,SNR=44						
BC3				⇑S	Sb	03 12 37.3	-0.1
	baz=1.1						
PBX	Punta Banda	1.13	211	eP	Pb	03 12 24.8	-0.2
PBX				eS	Sb	03 12 39.7	+0.2
ECNX	Esteban Cantu	1.16	204	eP	Pn	03 12 25.0	-0.4
ECNX				eP		03 12 22.3	
ECNX				eS	Sb	03 12 35.4	-4.9
ECNX				eS	Sb	03 12 40.4	+0.1
BELC	Belle Mtn.	1.28	2	P	Pn	03 12 26.6	-0.4
	baz=1.3,SNR=32						
BELC				⇑S	Sb	03 12 42.5	-1.2
	baz=1.3						
MURC	Murrieta	1.31	312	⇑P	Pn	03 12 27.6	+0.2
	baz=1.2,SNR=91						
MURC				⇓S	Sb	03 12 44.8	+0.3
	baz=1.2						
IRM	Iron Mountain	1.62	27	⇑P	Pn	03 12 31.4	-0.3
	baz=1.6,SNR=8.6						
Y12C	Blythe	1.64	51	⇓P	Pn	03 12 31.5	-0.5
	baz=1.7,SNR=22						
Y12C				⇓S	Sn	03 12 52.4	-0.3
	baz=1.7						
GMRC	Granite Mounta	2.08	9	⇓P	Pn	03 12 37.9	-0.1
	baz=2.1,SNR=40						
GMRC				⇓S	Sn	03 13 03.1	-0.5
	baz=2.1						
CIS	Catalina Islan	2.10	290	⇑P	Pn	03 12 39.1	+0.9
	baz=2.0,SNR=92						
CIS				⇓S	Sn	03 13 04.0	0.0
	baz=2.0						
HEC	Hector,Ludlow	2.12	354	⇓P	Pn	03 12 38.6	0.0
	baz=2.1,SNR=26						
HEC				⇓S	Sn	03 13 04.4	-0.2
	baz=2.1						
SCI	San Clemente I	2.12	278	⇑P	Pn	03 12 39.0	+0.4
	baz=2.0						
Y13A	Salome	2.15	59	⇑P	Pn	03 12 39.0	0.0
	baz=2.2						
Y13A				⇓S	Sn	03 13 05.0	-0.5
	baz=2.2						
PDMCI	Parker Dam,Lak	2.24	45	⇑P	Pn	03 12 40.3	+0.1
	baz=2.3						
PDMCI				⇑S	Sn	03 13 07.3	-0.3
	baz=2.3						
X13A	Yucca	2.63	44	⇓P	Pn	03 12 45.9	+0.3
	baz=2.7,SNR=15						
X13A				⇑S	Sn	03 13 16.9	-0.3
	baz=2.7						
Z14A	Wintersburg	2.68	75	⇓S	Sn	03 13 17.8	-0.7
	baz=2.7						
Y14A	Wickenburg	2.82	64	⇑P	Pn	03 12 48.7	+0.5
	baz=2.9						
Y14A				⇑S	Sn	03 13 21.5	-0.4
	baz=2.9						
SNCC	San Nicolas Is	2.97	281	⇓S	Sn	03 13 25.5	-0.1
	baz=2.9						
W13A	Hualapai Mount	2.98	37	⇑P	Pn	03 12 51.0	+0.6
	baz=3.0,SNR=20						
V11A	Goodsprings	3.15	9	⇑P	Pn	03 12 53.2	+0.4
	baz=3.2						
V12A	Nelson	3.16	18	⇑P	Pn	03 12 53.8	+0.9
	baz=3.2,SNR=6.7						
X14A	Yava	3.16	56	⇓P	Pn	03 12 53.4	+0.6
	baz=3.2,SNR=18						
X14A				⇓S	Sn	03 13 29.9	-0.4
	baz=3.2						
115A	Sonoran Desert	3.22	89	⇑P	Pn	03 12 54.4	+0.7
	baz=3.3						
W14A	Seligman	3.50	44	⇓P	Pn	03 12 58.7	+1.2
	baz=3.5,SNR=11						
W14A				⇓S	Sn	03 13 38.3	-0.4
	baz=3.5						
MPMC	Manual Prospec	3.54	341	⇓P	Pn	03 12 59.2	+1.1
	baz=3.5						
X15A	Humboldt	3.63	60	P	Pn	03 13 00.3	+0.9
	baz=3.7,SNR=41						
X15A				⇓S	Sn	03 13 40.7	-1.3
	baz=3.7						
116A	Eloy	3.67	91	⇓P	Pn	03 13 00.9	+1.0
	baz=3.7						

NNC 08 03:26:43.0±3.8**, 37.24N**×**70.15E, h0^{km}, mb3.7, mpv3.4, 2C-3D, Error ellipse: s-maj=33.4km s-min=28.7km az=89.0, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	5.87	3	⇓Pn	Pn	03 28 14.3	+3.1
	1.5nm,0.4s,baz=184,slow=13,SNR=26						
KK31				⇑Sn	Sn	03 29 25.5	+6.4
	1.1nm,0.5s,baz=194,slow=25,SNR=5.8						
TKM2	Tokmak 2	7.05	35	⇓Pn	Pn	03 28 25.3	-2.2
TKM2				⇓Sn	Sn	03 29 51.3	+3.1
	0.8nm,1.1s						
AB31	Akbulak array	14.11	332	Pn	Pn	03 30 05.5	+1.4
	0.7nm,0.6s,baz=157,slow=13,SNR=11						
AB31				⇑Sn	Sn	03 32 42.1	+0.8
	0.3nm,0.4s						

NEIC ***08*** *04:08:12.6, 38.58N×20.10E, h25^{km}, MD3.5(ATH), After ATH.*

ATH ***08*** *04:08:12.6, 38.58N×20.10E, h25^{km}±2^{km}, MD3.5/8*

ISCJB ***08*** *04:08:13.8±1.2, 38.57N±0.03×20.31E±0.07, h9^{km}±5^{km}, Error ellipse: s-maj=9.8km s-min=5.4km az=166.5*

CSEM ***08*** *04:08:14.5±0.2, 38.62N×20.25E, h10^{km}, ML3.3, Error ellipse: s-maj=5.0km s-min=2.6km az=74.0*

THE ***08*** *04:08:15.8, 38.62N×20.35E, h3^{km}, ML3.3*

SKO ***08*** *04:08:20.6, 39.11N×20.32E, h0^{km}*

ISC 08 04:08:15.5±1.0**, 38.64N**±0.03×**20.35E**±0.07**, h9^{km}**±5^{km}**, n38, σ0^s.85**/56**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LKD	Levkas	0.25	73	ePg	Pg	04 08 19.7	-0.9
LKD				eSg	Sg	04 08 23.6	-0.4
VLS	Valsamata	0.50	157	ePn	Pg	04 08 24.3	-0.9
VLS				eSn	Sg	04 08 32.6	+0.9
VLS	Valsamata	0.50	157	ePN	Pg	04 08 24.3	-0.9
VLS				eSN	Sg	04 08 32.6	+0.9
VLS	Valsamata	0.50	157	ePn	Pg	04 08 24.3	-0.9
VLS				eSn	Sg	04 08 32.6	+0.9
IGT	Igoumenitsa	0.90	359	ePg	Pg	04 08 31.8	-1.0
IGT				eSg	Sg	04 08 46.8	+2.4
IGT	Igoumenitsa	0.90	359	ePg	Pg	04 08 31.8	-1.0
IGT				eSg	Sg	04 08 46.8	+2.3
RLS	Riolos of Patr	1.05	123	ePn	Pn	04 08 35.8	-0.7
RLS	Riolos of Patr	1.05	123	ePN	Pn	04 08 35.8	-0.7
RLS	Riolos of Patr	1.05	123	ePn	Pn	04 08 35.8	-0.7
JAN	Janina	1.09	21	ePn	Pn	04 08 35.9	-1.1
JAN				eSn	Sn	04 08 52.7	+0.4
JAN	Janina	1.09	21	ePN	Pn	04 08 35.9	-1.1
JAN				eSN	Sn	04 08 52.7	+0.4
JAN	Janina	1.09	21	ePn	Pn	04 08 35.9	-1.1
JAN				eSn	Sn	04 08 52.7	+0.4
EVR	Evrytania	1.18	76	ePn	Pn	04 08 38.0	-0.2
EVR	Evrytania	1.18	76	ePN	Pn	04 08 38.0	-0.2
EVR	Evrytania	1.18	76	ePn	Pn	04 08 38.0	-0.2
THL	Klokotos Trika	1.60	54	ePB	Pn	04 08 43.7	-0.2
THL	Klokotos Trika	1.60	54	ePb	Pn	04 08 43.7	-0.2
AGG	Agios Georgios	1.60	75	ePg	Pg	04 08 45.3	-0.9
AGG				eSg	Sg	04 09 07.9	+1.0
AGG	Agios Georgios	1.60	75	ePg	Pg	04 08 45.3	-0.9
AGG				eSg	Sg	04 09 07.9	+1.0
KZN	Kozani	2.00	33	ePn	Pn	04 08 49.1	-0.4
KZN	Kozani	2.00	33	ePN	Pn	04 08 49.1	-0.4
KZN	Kozani	2.00	33	ePn	Pn	04 08 49.1	-0.4
LKR	Lokris	2.08	89	ePn	Pn	04 08 50.9	+0.3
LKR	Lokris	2.08	89	ePN	Pn	04 08 50.9	+0.3
LKR	Lokris	2.08	89	ePn	Pn	04 08 50.9	+0.3
LIT	Litokhoron	2.21	48	ePn	Pn	04 08 54.2	+1.7
LIT				eSn	Sb	04 09 23.1	-0.2
LIT	Litokhoron	2.21	48	ePn	Pn	04 08 54.2	+1.8
LIT				eSn	Sb	04 09 23.1	-0.2
FNA	Florina	2.29	20	ePn	Pn	04 08 54.1	+0.6
FNA				eSn	Sb	04 09 25.0	-0.4
FNA	Florina	2.29	20	ePn	Pn	04 08 54.1	+0.6
XOR	Xorichti	2.33	71	ePn	Pn	04 08 54.7	+0.6
XOR	Xorichti	2.33	71	ePn	Pn	04 08 54.7	+0.6
NEO	Neokhori	2.34	72	ePn	Pn	04 08 54.8	+0.6
NEO	Neokhori	2.34	72	ePN	Pn	04 08 54.8	+0.6
NEO	Neokhori	2.34	72	ePn	Pn	04 08 54.8	+0.6
BIA	Bitola	2.50	17	ePn	Pn	04 08 56.5	+0.1
BIA				eSg	Sn	04 09 26.3	-0.6
BIA	Bitola	2.50	17	ePn	Pn	04 08 56.4	+0.1
BIA				eSg	Sn	04 09 26.2	-0.7
KRUS	Krusevo	2.82	14	ePn	Pn	04 09 01.6	+0.9
KRUS				eSg	Sn	04 09 33.9	-0.9
KRUS	Krusevo	2.82	14	ePn	Pn	04 09 01.6	+0.9
KRUS				eSg	Sn	04 09 33.9	-0.9

IDC ***08*** *04:16:36.1±1.4, 9.93S×107.89E, h0^{km}, mb4.2/6, mb1 4.2/7, mb1mx4.0/17, mbtmp4.1/7, ML3.5/1, MS3.4/2, Ms1 3.4/2, ms1mx2.8/23, Error ellipse: s-maj=70.2km s-min=18.4km az=48.0*

ISCJB ***08*** *04:16:38.7±1.0, 10.04S±0.08×107.82E±0.06, h34^{km}±8^{km}, mb4.3/21, MS3.4/2, Error ellipse: s-maj=14.0km s-min=9.1km az=20.7*

BJI ***08*** *04:16:38.6, 9.51S×108.57E, h13^{km}, mB5.2, mb4.8*

MOS ***08*** *04:16:39.2±0.9, 9.78S×108.07E, h33^{km}, mb4.6/9, Error ellipse: s-maj=34.3km s-min=12.4km az=109.5*

NEIC ***08*** *04:16:41.5±0.6, 10.08S×107.74E, mb4.3/6, Error ellipse: s-maj=18.8km s-min=10.9km az=216.0*

ISC 08 04:16:40.5±2.4**, 10.06S**±0.08×**107.80E**±0.06**, h33^{km}**±17^{km}**, h43^{km}**±5.4^{km}**:pP-P, n50, σ0^s.97**/47**, mb4.3**/21**, MS3.4**/2**, 4C-2D, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XMIS	Christmas Isla	2.15	259	ePn	Pn	04 17 13.4	-0.6
XMIS				eSn	Sn	04 17 35.6	-4.0
LEM	Lembang	3.22	357	P	Pn	04 17 28.5	-0.3
	203nm,0.8s						
JCJI	Jatiwangi	3.58	8	P	Pn	04 17 31.6	-2.1
	299nm,1.0s						
CBJI	Citeko	3.74	345	P	Pn	04 17 30.6	-5.3
	958nm,0.7s						
KRKI	Karangkates	4.97	68	P	Pn	04 17 53.1	+0.3
	410nm,0.7s						
NBBI	Negara	6.94	77	P	Pn	04 18 21.3	+1.4
	260nm,0.6s						
KSI	Kapahiang	8.20	321	P	Pn	04 18 37.4	+0.2
	147nm,0.3s						
FITZ	Fitzroy Crossi	19.05	117	P	Pn	04 21 00.3	-0.7
	0.1nm,0.3s,baz=260,slow=6.1,SNR=4.4						
BSI	Banda Aceh	19.85	321	P	Pn	04 21 11.1	+0.5
	80nm,1.1s						
WRA	Warramunga Arr	27.41	114	P	P	04 22 22.6	-0.7
	1.1nm,0.8s,mb3.4,baz=285,slow=11,SNR=7.6						
WRA				PcP	PcP	04 25 42.4	+0.6
	0.3nm,0.7s,baz=296,slow=2.4,SNR=3.1						
CHTO	Chiang Mai	29.99	343	eP	P	04 22 43.5	-2.6
	6.6nm,0.9s,mb4.4						
CHTO				epP	pP	04 22 58.5	+2.7
CHTO	Chiang Mai	29.99	343	eP	P	04 22 43.5	-2.7
CHTO				e*PP	pP	04 22 58.5	+2.7
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
STKA	Stephens Creek	38.05	130	P	P	04 23 57.4	+1.4
	comp=Z,3.9nm,0.9s,mb4.1,baz=292,slow=6.4,SNR=5.6						
STKA				LR	LR	04 39 58.0	
	comp=Z,69nm,20.8s,MS3.4,baz=27,slow=37						
ODAN	Odare	41.71	332	eP	P	04 24 26.6	+0.2
TAPN	Taplejung	41.98	333	eP	P	04 24 29.7	+1.1
	comp=Z,23nm,1.1s,mb4.7						
LSA	Lhasa	42.66	338	P	P	04 24 36.0	+1.9
LSA	Lhasa	42.66	338	eP	P	04 24 35.5	+1.4
	comp=Z,4.5nm,0.6s,mb4.4						
LSA	Lhasa	42.66	338	eP	P	04 24 35.5	+1.4
LSA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.3						
NJ2	Nanjing	43.19	14	eP	P	04 24 34.4	-3.9
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
PKI	Pulchoki	43.25	330	eP	P	04 24 39.8	+0.9
GUN	Gumba	43.30	331	eP	P	04 24 40.3	+1.0
	comp=Z,13nm,0.6s,mb4.8						
DMN	Daman	43.43	330	eP	P	04 24 41.0	+0.7
KKN	Kakani	43.49	330	eP	P	04 24 41.3	+0.5
GKN	Gorkha	43.98	330	eP	P	04 24 45.4	+0.6
KOLN	Koldanda	44.31	329	eP	P	04 24 47.9	+0.5
	comp=Z,9.6nm,0.6s,mb4.7						
KSRS	Korea Array	50.89	21	LR	LR	04 48 06.3	
	comp=Z,29nm,18.5s,MS3.3,baz=85,slow=37						
SONM	Songino Array	57.65	359	P	P	04 26 27.8	+0.4
	comp=Z,3.5nm,0.6s,mb4.6,baz=177,slow=8.2,SNR=38						
ZAK	Zakamensk	60.32	357	⇓iP	P	04 26 45.9	+0.1
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.1s,mb3.8						
AAK	Ala-Archa	60.64	332	eP	P	04 26 48.0	-0.2
	comp=Z,1.8nm,0.8s,mb4.2						
AAK				epP	pP	04 27 01.8	+3.4
AAK	Ala-Archa	60.64	332	eP	P	04 26 48.0	-0.2
AAK				e*PP	pP	04 27 01.8	+3.4
AAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
MK31	Makanchi Array	61.02	340	eP	P	04 26 50.9	+0.2
MK31				epP	pP	04 27 02.6	+1.7
MKAR	Makanchi Array	61.02	340	P	P	04 26 51.0	+0.4
	comp=Z,1.7nm,0.7s,mb4.3,baz=144,slow=7.8,SNR=22						
KLR	Kul’dur	62.68	17	eP	P	04 26 55.0	-6.8
KURK	Kurchatov	65.63	340	eP	P	04 27 21.0	-0.1
	comp=Z,3.3nm,0.9s,mb4.4						
KURK				epP	pP	04 27 33.4	+2.0

KURK	**Kurchatov**	**65.63**	**340**	*e*P	**P**	**04 27 21.0**	**-0.1**
KURK				*e**PP	pP	04 27 33.4	+2.0
KURK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
ZAL	**Zalesovo**	**66.67**	**345**	P	**P**	**04 27 27.3**	**-0.4**
ZALV	**Zalesovo Beam**	**66.68**	**345**	P	**P**	**04 27 27.3**	**-0.4**
	comp=Z,0.5nm,0.3s,mb4.0,baz=124,slow=4.2,SNR=3.3						
BRVK	**Borovoye**	**70.54**	**337**	*e*P	**P**	**04 27 52.0**	**+0.1**
	comp=Z,2.1nm,0.6s,mb4.2						
BRVK	**Borovoye**	**70.54**	**337**	*e*P	**P**	**04 27 52.0**	**+0.1**
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
MA2	**Magadan**	**77.45**	**21**⇑	*e*P	**P**	**04 28 31.5**	**-0.7**
MA2				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.0						
ARU	**Arti**	**77.71**	**334**	*e*P	**P**	**04 28 34.2**	**+0.5**
	comp=Z,15nm,1.3s,mb4.8						
ARU	**Arti**	**77.71**	**334**⇓	*i*P	**P**	**04 28 33.2**	**-0.5**
ARU				*e*	pP	04 28 40.8	-3.4
ARU				*e*		04 31 27.1	
ARU				*e*S	S	04 38 21.0	-2.3
ARU				*e*SS	SS	04 43 16.7	-7.4
ARU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
SEY	**Seymchan**	**80.42**	**19**⇑	*e*P	**P**	**04 28 46.7**	**-1.7**
TIXI	**Tiksi**	**82.74**	**7**⇑	*e*P	**P**	**04 28 58.7**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.3						
BRTR	**Keskin Array B**	**84.44**	**312**	P	**P**	**04 29 11.1**	**+1.1**
	comp=Z,1.4nm,0.7s,mb4.2,baz=127,slow=6.7,SNR=9.1						
OBN	**Obninsk**	**87.71**	**327**⇑	*e*P	**P**	**04 29 25.7**	**0.0**
OBN				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.7						
JOF	**Joensuu**	**92.81**	**334**	*e*p	**P**	**04 29 47.4**	**-1.9**
	comp=Z,0.7nm,0.3s,mb4.6						
TXAR	**Lajitas Array**	**144.90**	**52**	PKP	PKPdf	04 36 13.6	-1.2
TXAR	**Lajitas Array**	**144.90**	**52**	PKIKP	PKPdf	04 36 13.6	-1.2
TXAR	**Lajitas Array**	**144.90**	**52**	PKP	PKPdf	04 36 13.6	-1.2
	comp=Z,1.0nm,0.8s,baz=285,slow=1.9,SNR=11						

IDC 08 04:39:30.8±2.0**,2185S×17977W,h0**^{km}**,mb4.1**/3**,mb1 4.4**/3**,mb1mx4.0**/12**,mbtmp4.1**/3**,Error ellipse: s-maj=144.0km s-min=32.6km az=158.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**35.72**	**245**	P	P	04 46 30.0	-1.2
	2.3nm,0.8s,baz=83,slow=9.6,SNR=3.9						
WRA	**Warramunga Arr**	**42.79**	**264**	P	P	04 47 31.4	+0.9
	5.2nm,0.7s,baz=96,slow=8.3,SNR=81						
TXAR	**Lajitas Array**	**89.17**	**58**	P	P	04 52 29.1	+0.4
	0.4nm,0.8s,baz=213,slow=4.9,SNR=6.1						
AKASG	**Malin Array Be**	**143.35**	**329**	PKhKP		04 58 59.9	
	0.4nm,0.4s,baz=42,slow=4.3,SNR=6.2						
BRTR	**Keskin Array B**	**146.47**	**310**	PKPbc	PKPbc	04 59 12.8	-1.3
	0.7nm,0.8s,baz=67,slow=3.2,SNR=3.9						

IDC 08 04:50:37.8±7.3**,1866S×6834W,h273**^{km}±55^{km}**,mb3.1**/1**,mb1 2.8**/2**,mb1mx2.7**/16**,mbtmp2.7**/2**,Error ellipse: s-maj=133.7km s-min=86.9km az=170.0,Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	**La Paz**	**2.36**	**5**	P	Pn	04 51 26.0	+0.5
	0.2nm,0.3s,baz=190,slow=7.7,SNR=6.0						
LPAZ				S	S	04 52 05.0	+1.7
	0.2nm,0.3s,baz=193,slow=11,SNR=4.1						
TORD	**Torodi Ar. Bea**	**75.91**	**71**	P	P	05 01 55.0	-0.1
	0.9nm,1.2s,baz=245,slow=5.7,SNR=4.4						
MKAR	**Makanchi Array**	**143.01**	**34**	PKP	PKPdf	05 09 38.9	-0.1
	0.6nm,0.8s,baz=327,slow=3.6,SNR=5.5						

IGIL ***08*** *05:01:49.4,3694N×1390W,h2*^{km}*,ML3.6*
NEIC ***08*** *05:01:55.0,3722N×1353W,h0*^{km}*,MG4.4(MDD),After MDD.*
CNRM ***08*** *05:01:54.4,3704N×1366W,h32*^{km}*,MD3.9*
INMG ***08*** *05:01:56.0±1.3,3697N×1391W,h10*^{km}*±15*^{km}*,MD3.1, ML3.4,Error ellipse: s-maj=6.0km s-min=3.8km az=123.0*
MDD ***08*** *05:01:57.8±1.5,37.11N×1332W,h90*^{km}*±29*^{km}*,mb3.7/21, Error ellipse: s-maj=11.2km s-min=10.0km az=30.0, PRXIMO*

CSEM 08 05:01:51.3±0.1**,3690N×1381W,h20**^{km}**,ML4.4**/16**,Error ellipse: s-maj=4.2km s-min=2.3km az=138.0, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	**4.00**	**85**	*e*Pn	Pn	05 02 52.4	+1.0
PFVI				*e*Sn	Sn	05 03 33.8	-3.8
PFVI				A		05 03 37.4	
	34nm,0.2s						
PFVI	**Vila Bisbo**	**4.00**	**85**	P	Pn	05 02 52.4	+1.0
PFVI				S	Sn	05 03 33.8	-3.8
	17nm,0.2s						
PTEO	**Sao Teotonio**	**4.11**	**79**	*e*Pn	Pn	05 02 54.0	+1.0
PTEO				*e*Sn	Sn	05 03 36.1	-4.4
PTEO				A		05 03 40.6	
	53nm,0.3s						
PTEO	**Sao Teotonio**	**4.11**	**79**	P	Pn	05 02 54.0	+1.0
PTEO				S	Sn	05 03 36.1	-4.4
	26nm,0.3s						
PMAFR	**Mafra**	**4.13**	**59**	*e*Pn	Pn	05 02 54.1	+0.9
PMAFR				*e*Sn	Sn	05 03 36.6	-4.3
PMAFR				A		05 03 41.8	
	144nm,0.2s						
PMAFR	**Mafra**	**4.13**	**59**	P	Pn	05 02 54.1	+0.9
PMAFR				S	Sn	05 03 36.6	-4.3
	72nm,0.2s						
PMPS	**Porto Santo**	**4.35**	**209**	*e*Pn	Pn	05 02 55.1	-1.2
PMPS				*e*Sn	Sn	05 03 39.3	-7.1
PMPS				A		05 03 42.8	
	68nm,0.2s						
PMPS	**Porto Santo**	**4.35**	**209**	*e*Pn	Pn	05 02 55.1	-1.2
PMPS				*e*Sn	Sn	05 03 39.3	-7.1
	68nm,0.2s						
MOE	**Montemor**	**4.62**	**68**	*e*Pn	Pn	05 03 01.0	+1.0
MOE				*e*Sn	Sn	05 03 47.7	-5.4
ALMR	**Almeirim**	**4.71**	**60**	*e*P	Pn	05 03 01.7	+0.6
ALMR				*e*S	Sn	05 03 50.0	-5.1
ALMR				*e*S	Sn	05 03 50.0	-5.1
ALMR				AML	AML	05 03 52.6	
	comp=E,89nm,0.3s						
ALMR	**Almeirim**	**4.71**	**60**	*e*P	Pn	05 03 01.7	+0.5
ALMR				*e*S	Sn	05 03 50.0	-5.2
PBDV	**Barranco-do-Ve**	**4.72**	**84**	*e*Pn	Pn	05 03 02.6	+1.3
PBDV				*e*Sn	Sn	05 03 51.3	-4.1
PBDV				A		05 03 55.6	
	comp=E,31nm,0.1s						
PBDV	**Barranco-do-Ve**	**4.72**	**84**	P	Pn	05 03 02.6	+1.3
PBDV				S	Sn	05 03 51.3	-4.1
	comp=E,16nm,0.1s						
PBEJ	**Beja**	**4.86**	**75**	*e*Pn	Pn	05 03 04.6	+1.3
PBEJ				*e*Sn	Sn	05 03 54.1	-4.9
PBEJ				A		05 03 56.8	
	comp=E,36nm,0.2s						
PBEJ	**Beja**	**4.86**	**75**	P	Pn	05 03 04.6	+1.3
PBEJ				S	Sn	05 03 54.1	-4.9
	comp=E,18nm,0.2s						
PMAR	**Madeira**	**4.88**	**212**	*e*Pn	Pn	05 03 03.2	-0.4
PMAR				*e*Sn	Sn	05 03 54.1	-5.4
PMAR				A		05 03 59.9	
	comp=E,83nm,0.3s						
PMAR	**Madeira**	**4.88**	**212**	*e*Pn	Pn	05 03 03.2	-0.4
PMAR				*e*Sn	Sn	05 03 54.1	-5.4
	comp=E,83nm,0.3s						
PVAQ	**Vaqueiros**	**4.90**	**82**	*e*Pn	Pn	05 03 05.3	+1.6
PVAQ				*e*Sn	Sn	05 03 55.0	-4.8
PVAQ				A		05 04 00.8	
	comp=E,25nm,0.1s						
PVAQ	**Vaqueiros**	**4.90**	**82**	P	Pn	05 03 05.3	+1.6
PVAQ				S	Sn	05 03 55.0	-4.8
	comp=E,12nm,0.1s						
PTOM	**Tomar**	**5.04**	**56**	*e*Pn	Pn	05 03 06.7	+0.9
PTOM				*e*Sn	Sn	05 03 58.8	-4.6
PTOM				A		05 04 02.3	
	comp=E,60nm,0.1s						
PTOM	**Tomar**	**5.04**	**56**	P	Pn	05 03 06.7	+0.9
PTOM				S	Sn	05 03 58.8	-4.6
	comp=E,30nm,0.1s						
EGRO	**El Granado**	**5.09**	**81**	P	Pn	05 03 07.5	+1.1
	comp=E,5.8nm,0.5s,SNR=16						
EGRO				S	Sn	05 04 00.8	-3.8
	comp=E,22nm,0.2s						
EGRO	**El Granado**	**5.09**	**81**	Pn	Pn	05 03 07.5	+1.1
	comp=E,5.8nm,0.5s,SNR=16						
EGRO				Sn	Sn	05 04 00.8	-3.8
	comp=E,22nm,0.2s						
PESTR	**Estremoz**	**5.30**	**66**	*e*Pn	Pn	05 03 10.2	+0.9
PESTR				*e*Sn	Sn	05 04 04.6	-5.1
PESTR				A		05 04 10.4	
	comp=E,25nm,0.2s						
EBAD	**Badajoz**	**5.69**	**69**	Pn	Pn	05 03 15.6	+0.9
EBAD				Sn	Sn	05 04 12.7	-6.7
EBAD	**Badajoz**	**5.69**	**69**	P	Pn	05 03 15.1	+0.4
	comp=E,2.5nm,0.6s,SNR=15						
EBAD				S	Sn	05 04 13.4	-6.0
	comp=E,15nm,0.2s						
EBAD	**Badajoz**	**5.69**	**69**	Pn	Pn	05 03 15.6	+0.9
	comp=E,2.5nm,0.6s,SNR=15						
EMIN	**Mina Concepcio**	**5.76**	**79**	Pn	Pn	05 03 16.9	+1.3
EMIN				Sn	Sn	05 04 15.1	-5.9
EMIN	**Mina Concepcio**	**5.76**	**79**	P	Pn	05 03 16.4	+0.8
	comp=E,1.9nm,0.3s,SNR=17						
EMIN				S	Sn	05 04 17.6	-3.4
	comp=E,12nm,0.4s						
EMIN	**Mina Concepcio**	**5.76**	**79**	Pn	Pn	05 03 16.9	+1.4
	comp=E,1.9nm,0.3s,SNR=17						
PCBR	**Castelo Branco**	**5.78**	**58**	*e*Pn	Pn	05 03 16.1	+0.2
PCBR				*e*Sn	Sn	05 04 15.7	-5.9
PCBR				A		05 04 19.5	
	comp=E,28nm,0.1s						
PCBR	**Castelo Branco**	**5.78**	**58**	*e*Pn	Pn	05 03 16.1	+0.2
PCBR				*e*Sn	Sn	05 04 15.7	-5.9
	comp=E,28nm,0.1s						
PTO	**Porto**	**5.86**	**42**	*e*Pn	Pn	05 03 16.7	-0.3
PTO				*e*Sn	Sn	05 04 16.6	-7.0
PTO				A		05 04 19.7	
	comp=E,48nm,0.1s						
PTO	**Porto**	**5.86**	**42**	*e*Pn	Pn	05 03 16.7	-0.3
PTO				*e*Sn	Sn	05 04 16.6	-7.0
	comp=E,48nm,0.1s						
PVIS	**Viseu**	**5.99**	**49**	*e*Pn	Pn	05 03 18.6	-0.2
PVIS				*e*Sn	Sn	05 04 21.1	-5.6
PVIS				A		05 04 24.2	
	comp=E,11nm,0.1s						
PVIS	**Viseu**	**5.99**	**49**	P	Pn	05 03 18.6	-0.2
PVIS				S	Sn	05 04 21.1	-5.6
	comp=E,5.5nm,0.1s						
MTE	**Manteigas**	**6.02**	**53**	*e*Pn	Pn	05 03 19.9	+0.7
MTE				*e*Sn	Sn	05 04 22.2	-5.4
MTE				A		05 04 26.5	
	comp=E,39nm,0.2s						
MTE	**Manteigas**	**6.02**	**53**	P	Pn	05 03 19.9	+0.7
MTE				S	Sn	05 04 22.2	-5.4
	comp=E,20nm,0.2s						
ESPR	**Espera**	**6.38**	**88**	P	Pn	05 03 25.2	+1.1
	comp=E,9.5nm,0.2s,SNR=7.9						
ESPR				S	Sn	05 04 33.7	-2.6
	comp=E,110nm,0.3s,SNR=7.9						
ESPR	**Espera**	**6.38**	**88**	Pn	Pn	05 03 25.2	+1.1
	comp=E,9.5nm,0.2s,SNR=7.9						
ESPR				Sn	Sn	05 04 33.8	-2.5
PVRL	**Vila Real**	**6.45**	**45**	*e*Pn	Pn	05 03 24.6	-0.5
PVRL				*e*Sn	Sn	05 04 31.3	-6.7
PVRL				A		05 04 34.9	
	comp=E,16nm,0.2s						
PVRL	**Vila Real**	**6.45**	**45**	P	Pn	05 03 24.6	-0.5
PVRL				S	Sn	05 04 31.3	-6.7
	comp=E,7.8nm,0.2s						
EZAM	**Zamans**	**6.57**	**35**	Pn	Pn	05 03 25.5	-1.2
EZAM				Sn	Sn	05 04 33.5	-7.5
EZAM	**Zamans**	**6.57**	**35**	P	Pn	05 03 26.7	0.0
	comp=E,9.6nm,0.2s,SNR=7.9						
EZAM				S	Sn	05 04 33.5	-7.5
	comp=E,14nm,0.2s,SNR=7.9						
EZAM	**Zamans**	**6.57**	**35**	Pn	Pn	05 03 25.5	-1.2
	comp=E,9.6nm,0.2s,SNR=7.9						
PCAB	**Cabril**	**6.57**	**41**	*e*Pn	Pn	05 03 26.3	-0.5
PCAB				*e*Sn	Sn	05 04 33.9	-7.2
PCAB				A		05 04 37.4	
	comp=E,16nm,0.1s						
PCAB	**Cabril**	**6.57**	**41**	P	Pn	05 03 26.3	-0.5
PCAB				S	Sn	05 04 33.9	-7.2
	comp=E,7.8nm,0.1s						
ELOB	**Lobios**	**6.67**	**40**	Pn	Pn	05 03 27.4	-0.7
ELOB				Sn	Sn	05 04 34.6	-8.8
ELOB	**Lobios**	**6.67**	**40**	P	Pn	05 03 28.0	-0.1
	comp=E,6.3nm,0.5s,SNR=17						
ELOB				S	Sn	05 04 37.0	-6.4
	comp=E,46nm,1.2s						
ELOB	**Lobios**	**6.67**	**40**	Pn	Pn	05 03 27.4	-0.7
	comp=E,6.3nm,0.5s,SNR=17						
EJIF	**Jimena Fronter**	**6.72**	**91**	Pn	Pn	05 03 31.1	+2.3
EJIF				Sn	Sn	05 04 40.2	-4.5
EJIF	**Jimena Fronter**	**6.72**	**91**	P	Pn	05 03 29.9	+1.1
	comp=E,0.3nm,0.4s,SNR=7.9						
EJIF				S	Sn	05 04 40.2	-4.5
	comp=E,0.7nm,0.2s,SNR=7.9						
EJIF	**Jimena Fronter**	**6.72**	**91**	Pn	Pn	05 03 31.1	+2.3
	comp=E,0.3nm,0.4s,SNR=7.9						
EJIF				Sn	Sn	05 04 40.2	-4.6
	comp=E,0.7nm,0.2s,SNR=7.9						
CIA	**Chichaoua**	**6.77**	**140**	S	Sn	05 04 44.0	-1.9
CIA	**Chichaoua**	**6.77**	**140**	*i* P	Pn	05 03 32.0	+2.5
MVO	**Moncorvo**	**6.78**	**49**	*e*Pn	Pn	05 03 29.7	0.0
MVO				*e*Sn	Sn	05 04 39.6	-6.7
MVO				A		05 04 42.4	
	comp=E,22nm,0.3s						
MVO	**Moncorvo**	**6.78**	**49**	P	Pn	05 03 29.7	0.0
MVO				S	Sn	05 04 39.6	-6.7
	comp=E,11nm,0.3s						
EMAZ	**Mazaricos**	**7.09**	**30**	P	Pn	05 03 33.7	-0.1
	comp=E,7.2nm,0.3s,SNR=18						
EMAZ				S	Sn	05 04 44.2	-10
	comp=E,15nm,0.3s,SNR=7.9						
EMAZ	**Mazaricos**	**7.09**	**30**	Pn	Pn	05 03 33.7	-0.2
	comp=E,7.2nm,0.3s,SNR=18						
STS	**Santiago**	**7.22**	**32**	Pn	Pn	05 03 35.1	-0.5
STS				Sn	Sn	05 04 45.9	-11
STS	**Santiago**	**7.22**	**32**	P	Pn	05 03 35.5	-0.1
	comp=E,7.6nm,0.4s,SNR=14						
STS				S	Sn	05 04 47.3	-10
	comp=E,16nm,0.9s						
STS	**Santiago**	**7.22**	**32**	Pn	Pn	05 03 35.1	-0.5
	comp=E,7.6nm,0.4s,SNR=14						
EMIJ	**Mijas**	**7.27**	**90**	Pn	Pn	05 03 37.1	+0.8
EMIJ				Sn	Sn	05 04 53.6	-4.6
EMIJ	**Mijas**	**7.27**	**90**	P	Pn	05 03 37.1	+0.8
	comp=E,0.6nm,0.2s,SNR=7.9						
EMIJ				S	Sn	05 04 54.4	-3.8
	comp=E,5.4nm,0.3s,SNR=4.6						
EMIJ	**Mijas**	**7.27**	**90**	Pn	Pn	05 03 37.1	+0.8
	comp=E,0.6nm,0.2s,SNR=7.9						
EMIJ				Sn	Sn	05 04 53.6	-4.6
	comp=E,5.4nm,0.3s,SNR=4.6						
PBRG	**Braganca**	**7.35**	**46**	*e*Pn	Pn	05 03 37.0	-0.4
PBRG				*e*Sn	Sn	05 04 52.7	-7.5
PBRG				A		05 04 56.1	
	comp=E,12nm,0.2s						
PBRG	**Braganca**	**7.35**	**46**	P	Pn	05 03 37.0	-0.4
PBRG				S	Sn	05 04 52.7	-7.5
	comp=E,5.8nm,0.2s						
ECAL	**Calabor**	**7.44**	**45**	Pn	Pn	05 03 38.4	-0.2
ECAL				Sn	Sn	05 04 54.0	-8.3
ECAL	**Calabor**	**7.44**	**45**	P	Pn	05 03 38.4	-0.2
	comp=E,9.7nm,0.4s,SNR=7.0						
ECAL				S	Sn	05 04 55.9	-6.5
	comp=E,14nm,0.3s						
ECAL	**Calabor**	**7.44**	**45**	Pn	Pn	05 03 38.4	-0.2
	comp=E,9.7nm,0.4s,SNR=7.0						
EADA	**Adamuz**	**7.45**	**77**	Pn	Pn	05 03 39.9	+1.1
EADA				Sn	Sn	05 04 55.5	-7.1
EADA	**Adamuz**	**7.45**	**77**	P	Pn	05 03 39.5	+0.7
	comp=E,2.2nm,0.2s,SNR=14						
EADA				S	Sn	05 04 57.8	-4.8
	comp=E,11nm,0.5s,SNR=10						
EADA	**Adamuz**	**7.45**	**77**	Pn	Pn	05 03 39.9	+1.1
	comp=E,2.2nm,0.2s,SNR=14						
ELUQ	**Luque**	**7.64**	**82**	S	Sn	05 05 03.7	-3.7
	comp=E,6.0nm,0.2s,SNR=7.9						
ELUQ	**Luque**	**7.64**	**82**	Sn	Sn	05 05 03.7	-3.8
	comp=E,6.0nm,0.2s,SNR=7.9						
TZC	**Tazercounte**	**7.68**	**126**	S	Sn	05 05 06.0	-2.3
TZC	**Tazercounte**	**7.68**	**126**	*e*P	Pn	05 03 44.5	+2.6
KIB	**El Ksiba**	**7.71**	**122**	S	Sn	05 05 05.0	-4.2
KIB	**El Ksiba**	**7.71**	**122**	*i* P	Pn	05 03 43.5	+1.0
EFAM	**Famara**	**7.75**	**178**	S	Sn	05 05 01.2	-9.0
	comp=E,7.2nm,0.5s,SNR=7.9						
EBAN	**Banos Encina**	**8.07**	**78**	Pn	Pn	05 03 48.6	+1.3
EBAN				Sn	Sn	05 05 11.2	-6.7
EBAN	**Banos Encina**	**8.07**	**78**	P	Pn	05 03 47.6	+0.3
	comp=E,0.7nm,0.1s,SNR=7.9						
EBAN				S	Sn	05 05 11.9	-6.0
	comp=E,10nm,0.2s,SNR=7.9						
EBAN	**Banos Encina**	**8.07**	**78**	Pn	Pn	05 03 48.6	+1.3
	comp=E,0.7nm,0.1s,SNR=7.9						
CZD	**Col de Zad**	**8.16**	**116**	P	Pn	05 03 51.0	+2.4
CZD				S	Sn	05 05 16.0	-4.3
CZD	**Col de Zad**	**8.16**	**116**	*e*P	Pn	05 03 51.0	+2.4
ECOG	**Cogollos-Vega**	**8.20**	**84**	S	Sn	05 05 17.3	-3.8
	comp=E,2.8nm,0.2s,SNR=7.9						
ECOG	**Cogollos-Vega**	**8.20**	**84**	Sn	Sn	05 05 17.3	-3.8
	comp=E,2.8nm,0.2s,SNR=7.9						
EPON	**Pontenova**	**8.20**	**36**	P	Pn	05 03 48.0	-1.1
	comp=E,7.7nm,0.4s,SNR=7.0						
EPON				S	Sn	05 05 12.5	-8.6
	comp=E,40nm,1.2s,SNR=4.8						
EPON	**Pontenova**	**8.20**	**36**	Pn	Pn	05 03 48.0	-1.1
	comp=E,7.7nm,0.4s,SNR=7.0						
EGUA	**Guajares**	**8.21**	**87**	Pn	Pn	05 03 51.3	+2.0
EGUA				Sn	Sn	05 05 17.2	-4.3
EGUA	**Guajares**	**8.21**	**87**	P	Pn	05 03 49.7	+0.4
	comp=E,0.7nm,0.5s,SNR=7.9						
EGUA				S	Sn	05 05 17.2	-4.3
	comp=E,0.6nm,0.2s,SNR=7.9						
EGUA	**Guajares**	**8.21**	**87**	Pn	Pn	05 03 51.3	+2.0
	comp=E,0.7nm,0.5s,SNR=7.9						
EGUA				Sn	Sn	05 05 17.2	-4.3
	comp=E,0.6nm,0.2s,SNR=7.9						
ESDC	**Sonseca Array**	**8.23**	**67**	Pn	Pn	05 03 49.6	+0.2
ESDC				Sn	Sn	05 05 14.7	-7.1
ESDC	**Sonseca Array**	**8.23**	**67**	P	Pn	05 03 50.0	+0.5
	comp=E,1.3nm,0.3s,baz=254,slow=13,SNR=32						
ESDC				S	Sn	05 05 14.7	-7.1
	baz=256,slow=23,SNR=7.9						
ESDC	**Sonseca Array**	**8.23**	**67**	Pn	Pn	05 03 49.6	+0.1
	comp=E,1.3nm,0.3s,SNR=32						
CFUE	**Fuerteventura**	**8.23**	**181**	P	Pn	05 03 48.7	-0.8
	comp=E,1.3nm,0.1s,SNR=7.9						
CFUE				S	Sn	05 05 12.2	-10
	comp=E,5.1nm,0.1s,SNR=7.9						
CFUE	**Fuerteventura**	**8.23**	**181**	Pn	Pn	05 03 48.7	-0.8
	comp=E,1.3nm,0.1s,SNR=7.9						
GUD	**Guadarrama**	**8.42**	**61**	Pn	Pn	05 03 52.5	+0.4
GUD				Sn	Sn	05 05 22.0	-4.5
GUD	**Guadarrama**	**8.42**	**61**	P	Pn	05 03 52.0	-0.1
	comp=E,0.8nm,0.2s,SNR=7.9						
GUD				S	Sn	05 05 22.0	-4.5
	comp=E,7.4nm,0.4s,SNR=7.9						
GUD	**Guadarrama**	**8.42**	**61**	Pn	Pn	05 03 52.5	+0.4
	comp=E,0.8nm,0.2s,SNR=7.9						
GUD				Sn	Sn	05 05 22.0	-4.5
	comp=E,7.4nm,0.4s,SNR=7.9						
CFTV	**Fuerteventura**	**8.46**	**182**	P	Pn	05 03 52.0	-0.8
	comp=E,1.2nm,0.2s,SNR=7.9						
CFTV				S	Sn	05 05 18.6	-9.0
	comp=E,1.9nm,0.2s,SNR=7.9						
CFTV	**Fuerteventura**	**8.46**	**182**	Pn	Pn	05 03 52.0	-0.7
	comp=E,1.2nm,0.2s,SNR=7.9						
CFTV				Sn	Sn	05 05 18.6	-9.1
	comp=E,1.9nm,0.2s,SNR=7.9						
EQES	**Quesada**	**8.60**	**81**	Pn	Pn	05 03 56.1	+1.5
EQES				Sn	Sn	05 05 25.4	-5.6
EQES	**Quesada**	**8.60**	**81**	P	Pn	05 03 55.1	+0.5
	comp=E,8.8nm,1.2s,SNR=6.0						
EQES				S	Sn	05 05 26.8	-4.3
	comp=E,7.6nm,0.4s						
EQES	**Quesada**	**8.60**	**81**	Pn	Pn	05 03 56.1	+1.5
	comp=E,8.8nm,1.2s,SNR=6.0						
EOSO	**Osorio**	**8.92**	**190**	Pn	Pn	05 03 55.4	-3.7
	comp=E,0.9nm,1.7s,SNR=7.9						
EOSO				S	Sn	05 05 26.3	-13
	comp=E,0.1nm,0.3s,SNR=7.9						
EVIA	**Vianos**	**9.12**	**76**	Pn	Pn	05 04 03.0	+1.2
EVIA				Sn	Sn	05 05 35.8	-8.1
EVIA	**Vianos**	**9.12**	**76**	P	Pn	05 04 03.0	+1.2
	comp=E,2.6nm,0.3s,SNR=4.0						
EVIA				S	Sn	05 05 38.0	-5.8
	comp=E,2.3nm,0.2s,SNR=7.9						
EVIA	**Vianos**	**9.12**	**76**	Pn	Pn	05 04 03.0	+1.2
	comp=E,2.6nm,0.3s,SNR=4.0						
EGOM	**La Gomera**	**9.17**	**199**	S	Sn	05 05 32.9	-12
	SNR=7.9						
EARI	**Arriondas**	**9.18**	**43**	Pn	Pn	05 04 01.6	-0.9
EARI				Sn	Sn	05 05 38.1	-7.1
EARI	**Arriondas**	**9.18**	**43**	P	Pn	05 04 01.6	-0.9
	comp=E,21nm,1.1s,SNR=8.5						
EARI				S	Sn	05 05 39.8	-5.4
	comp=E,0.5nm,0.3s,SNR=7.9						
EARI	**Arriondas**	**9.18**	**43**	Pn	Pn	05 04 01.6	-0.9
	comp=E,21nm,1.1s,SNR=8.5						
ETOB	**Tobarra**	**9.87**	**76**	Pn	Pn	05 04 12.0	0.0
ETOB				Sn	Sn	05 05 54.4	-7.7
ETOB	**Tobarra**	**9.87**	**76**	P	Pn	05 04 11.7	-0.3
	comp=E,4.7nm,0.7s,SNR=6.7						
ETOB				S	Sn	05 05 56.1	-6.0
	comp=E,1.1nm,0.5s,SNR=7.9						
ETOB	**Tobarra**	**9.87**	**76**	Pn	Pn	05 04 12.0	+0.1
ETOR	**Torete**	**9.97**	**63**	Pn	Pn	05 04 14.3	+1.0
ETOR				Sn	Sn	05 05 56.8	-7.8
ETOR	**Torete**	**9.97**	**63**	P	Pn	05 04 13.3	0.0
	comp=E,7.1nm,0.3s,SNR=20						
ETOR				S	Sn	05 05 56.8	-7.8
	comp=E,3.7nm,0.2s						
ETOR	**Torete**	**9.97**	**63**	Pn	Pn	05 04 14.3	+1.0
ELAN	**Lanestosa**	**10.16**	**48**	Pn	Pn	05 04 16.4	+0.5
ELAN				Sn	Sn	05 06 03.3	-5.9
ELAN	**Lanestosa**	**10.16**	**48**	P	Pn	05 04 15.5	-0.4
	comp=E,8.1nm,0.8s,SNR=6.0						
ELAN				S	Sn	05 06 03.3	-5.9
	comp=E,0.5nm,0.5s,SNR=7.9						
ELAN	**Lanestosa**	**10.16**	**48**	Pn	Pn	05 04 16.4	+0.5
ELAN				Sn	Sn	05 06 03.3	-5.9
EMOS	**Mosqueruela**	**10.99**	**68**	Pn	Pn	05 04 28.4	+1.0
	comp=E,0.6nm,0.2s						
EMOS				Sn	Sn	05 06 23.7	-6.0
EMOS	**Mosqueruela**	**10.99**	**68**	P	Pn	05 04 27.1	-0.2
	comp=E,0.6nm,0.2s,SNR=7.9						
EMOS				S	Sn	05 06 24.1	-5.6
	comp=E,3.8nm,0.3s,SNR=7.9						
EMOS	**Mosqueruela**	**10.99**	**68**	Pn	Pn	05 04 28.4	+1.0
	comp=E,0.6nm,0.2s						
EMOS				Sn	Sn	05 06 23.7	-6.0
ESAC	**San Caprasio**	**11.40**	**61**	Pn	Pn	05 04 34.0	+1.0
	comp=E,4.6nm,0.4s						
ESAC				Sn	Sn	05 06 33.6	-6.1
ESAC	**San Caprasio**	**11.40**	**61**	P	Pn	05 04 32.6	-0.4
	comp=E,4.6nm,0.4s,SNR=4.0						
ESAC				S	Sn	05 06 33.6	-6.1
	comp=E,40nm,0.4s,SNR=7.9						
ESAC	**San Caprasio**	**11.40**	**61**	Pn	Pn	05 04 34.0	+1.1
	comp=E,4.6nm,0.4s						
ESAC				Sn	Sn	05 06 33.6	-6.1
ERTA	**Horta de San J**	**11.74**	**65**	Pn	Pn	05 04 38.1	+0.6
ERTA				Sn	Sn	05 06 41.1	-6.8
ERTA	**Horta de San J**	**11.74**	**65**	P	Pn	05 04 36.9	-0.6
	comp=E,0.1nm,0.2s,SNR=4.0						
ERTA				S	Sn	05 06 42.3	-5.6
	comp=E,3.0nm,0.4s,SNR=7.9						
ERTA	**Horta de San J**	**11.74**	**65**	Pn	Pn	05 04 38.1	+0.6
EBIE	**Bielsa**	**12.19**	**57**	Pn	Pn	05 04 45.0	+1.4
	comp=E,5.1nm,0.5s						
EBIE				Sn	Sn	05 06 51.5	-7.4
EBIE	**Bielsa**	**12.19**	**57**	P	Pn	05 04 43.2	-0.4
	comp=E,5.1nm,0.5s,SNR=9.0						
EBIE				S	Sn	05 06 52.7	-6.1
	comp=E,2.6nm,0.4s,SNR=7.9						
EBIE	**Bielsa**	**12.19**	**57**	Pn	Pn	05 04 45.0	+1.3
	comp=E,5.1nm,0.5s						
EBIE				Sn	Sn	05 06 51.5	-7.4

IDC 08 05:12:40.6±1.6**,112N×12622E,h0**^{km}**,mb3.9**/3**,mb1 4.0**/4**,mb1mx3.6**/16**,mbtmp3.8**/4**,ML3.0**/1**,Error ellipse: s-maj=104.7km s-min=22.8km az=67.0,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**19.10**	**182**	P	Pn	05 17 06.5	+0.6
	0.0nm,0.3s,baz=337,slow=15,SNR=2.7						

WRA	Warramunga Arr	22.39	160	P	P	05 17 39.0	-1.7
	2.4nm,0.4s,baz=337,slow=11,SNR=42						
STKA	Stephens Creek	35.90	157	P	P	05 19 43.2	+0.6
	0.6nm,0.3s,baz=340,slow=12,SNR=3.2						
MKAR	Makanchi Array	59.42	326	P	P	05 22 45.0	0.0
	0.5nm,0.4s,baz=116,slow=7.5,SNR=11						

WEL 08 05:50:29.5±0.1, 37.77S×176.79E, h5^{km}, ML3.6/11, 4C, Error ellipse: s-maj=1.0km s-min=1.0km az=90.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARZ	Manawahe	0.23	202	⇑PG	Pg	05 50 34.3	+0.2
MARZ				SG	Sg	05 50 38.1	+0.9
EDRZ	Edgecumbe	0.34	187	⇑PG	Pg	05 50 36.3	+0.2
LIRZ	Lichensteins R	0.40	233	PG	Pg	05 50 37.7	+0.5
WIZ	White Island	0.40	53	PG	Pg	05 50 37.6	+0.4
TGRZ	Tauranga	0.42	275	⇑PG	Pg	05 50 38.0	+0.4
MKRZ	Makatiti	0.45	214	PG	Pg	05 50 38.9	+0.7
KARZ	Kaharoa	0.50	239	PG	Pg	05 50 39.5	+0.4
TAZ	Tarawera	0.51	205	PG	Pg	05 50 40.3	+1.0
URZ	Urewera	0.55	153	⇑PG	Pg	05 50 40.0	-0.2
UTU	Utuhina	0.62	229	P*	Pb	05 50 43.1	+0.3
MYRZ	Mayor Island	0.65	318	P*	Pb	05 50 42.5	-0.8
PATZ	Paeroa	0.74	214	P*	Pb	05 50 44.6	-0.2
MWZ	Matawai	0.81	134	P*	Pb	05 50 45.0	-1.1
TOZ	Tahuroa Road	1.02	272	P*	Pb	05 50 48.4	-1.2
PUZ	Puketiti	1.20	105	P*	Pb	05 50 52.1	-0.6
KUZ	Kuaotunu	1.33	320	P*	Pb	05 50 53.1	-1.7
BKZ	Black Stump Fm	1.42	189	P*	Pb	05 50 53.7	-2.6
KNZ	Kokohu	1.43	151	PN	Pn	05 50 55.7	-0.4
HIZ	Hauiti	1.70	243	PN	Pn	05 50 58.8	-1.0
WCZ	Waipu Caves	2.68	312	PN	Pn	05 51 11.2	-2.0

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*MOS **08** 06:13:21.3±1.2, 47.81N×147.05E, h420^{km}, mb3.6/9, Error ellipse: s-maj=17.5km s-min=13.2km az=82.7*

*BJI **08** 06:13:21.7, 47.90N×146.83E, h401^{km}, mB4.6, mb4.4*

*ISCJB **08** 06:13:22.1±0.6, 47.52N±0.08×147.0E±0.1, h433^{km}±7^{km}, mb3.7/20, Error ellipse: s-maj=13.2km s-min=10.1km az=139.7*

*NEIC **08** 06:13:23.3±0.8, 47.77N×146.99E, h424^{km}±11^{km}, mb4.2/3, Error ellipse: s-maj=15.1km s-min=12.2km az=165.0*

*IDC **08** 06:13:23.8±1.6, 47.80N×146.91E, h428^{km}±19^{km}, mb3.1/12, mb1 3.3/15, mb1mx3.2/24, mbtmp3.1/15, Error ellipse: s-maj=17.4km s-min=12.6km az=164.0*

ISC 08 06:13:22.9±0.6, 47.56N±0.08×147.1E±0.1, h426^{km}±7^{km}, n65, σ1^{s}16/73, mb3.7/20, 2C, Northwest of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YSS	Yuzh-Sakhalins	3.02	260	eP	P	06 14 29.2	+1.1
YSS	Yuzh-Sakhalins	3.02	260	⇑iPN	P	06 14 29.0	+0.9
YSS				pmax	pmax		
	comp=Z,140nm,0.5s						
YUK	Yuzh-Kuril'sk	3.63	194	PN	P	06 14 33.2	-0.1
YUK				eS	S	06 15 31.0	+0.6
YUK				smax			
	comp=N,220nm,0.5s						
YUK				smax			
	comp=E,220nm,0.5s						
JRA	Rausu	3.88	202	P	P	06 14 35.7	+0.2
JSE	Soyaes	4.07	232	P	P	06 14 38.6	+1.4
JTKR	Abashiri--Toko	4.23	213	P	P	06 14 38.9	+0.2
JWK2	Keihoku	4.24	240	P	P	06 14 40.7	+2.0
NEM2	Nemuro 2	4.31	193	P	P	06 14 37.4	-2.0
NEM2				eS	S	06 15 35.8	-5.8
ASAJ	Asahikawa	4.67	224	PN	P	06 14 44.0	+1.2
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ	Asahikawa	4.67	224	P	P	06 14 44.0	+1.2
	comp=Z,2.5nm,0.3s,baz=102,slow=5.0,SNR=10						
JAR	Ashorobuto	4.87	210	P	P	06 14 44.7	-0.1
JAK	Akkeshi	4.87	201	P	P	06 14 43.0	-1.8
JAK				eS	S	06 15 47.2	-4.3
JHR	Hokuryu	5.36	227	P	P	06 14 51.2	+1.5
JFR	Furan	5.42	217	P	P	06 14 51.1	+0.7
JCH	Churui	5.61	209	P	P	06 14 50.6	-1.7
JCH				eS	S	06 15 58.6	-6.6
JNBK	Urakawa-nobuka	6.12	212	P	P	06 14 56.4	-1.2
JNBK				eS	S	06 16 09.3	-5.6
JEW	Eniwo	6.18	222	P	P	06 14 59.0	+0.7
ERM	Erimo	6.21	208	eP	P	06 14 58.5	-0.2
	comp=Z,44nm,0.4s						
ERM				eS	S	06 16 10.5	-6.3
ERM	Erimo	6.21	208	ePN	P	06 14 58.5	-0.1
ERM				pmax	pmax		
	comp=Z,44nm,0.4s						
JKB	Kayabe	7.13	219	P	P	06 15 07.4	-1.1
JOT	Ohata	7.54	217	P	P	06 15 12.3	-0.7
JOT				eS	S	06 16 36.3	-6.8
JOSM	Okushiri--Mats	7.70	227	P	P	06 15 14.6	-0.1
JANG	Nango	8.23	211	P	P	06 15 20.2	-0.4
JANG				eS	S	06 16 51.1	-6.1
JOM	Ohasama	9.12	210	eS	S	06 17 11.8	-3.3
KLR	Kul'dur	10.34	285	ePN	P	06 15 41.2	-2.4
MDJ	Mudanjiang	12.50	263	P	P	06 16 08.0	+0.6
MDJ				AMB	AMB		
	comp=Z,12nm,1.3s						
MDJ				AMB	AMB		
	comp=Z,68nm,7.6s						
MJAR	Matsushiro Arr	12.83	214	PN	P	06 16 13.9	+2.8
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	12.83	214	P	P	06 16 13.9	+2.9
	comp=Z,0.5nm,0.3s,baz=15,slow=14,SNR=4.4						
CN2	Changchun	15.58	264	⇑P	P	06 16 39.9	-0.7
CN2				AMB	AMB		
	comp=Z,30nm,0.7s						
KSRS	Korea Array	17.33	241	P	P	06 17 01.2	+1.9
	comp=Z,0.4nm,0.3s,baz=50,slow=9.6,SNR=8.8						
SONM	Songino Array	27.17	286	P	P	06 18 29.3	-0.5
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	27.17	286	P	P	06 18 29.3	-0.5
	comp=Z,0.9nm,0.6s,mb3.4,baz=78,slow=8.3,SNR=5.4						
LZH	Lanzhou	33.80	266	eP	P	06 19 29.0	+1.6
LZH				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.2						
GTA	Gaotai	34.80	274	eP	P	06 19 37.1	+1.3
GTA				AMB	AMB		
	comp=Z,2.0nm,0.9s,mb3.5						
ZALV	Zalesovo Beam	38.77	303	P	P	06 20 07.4	-1.1
	comp=Z,0.4nm,0.3s,mb3.2,baz=69,slow=7.9,SNR=3.2						
ZAL	Zalesovo	38.78	303	P	P	06 20 07.4	-1.2
MK31	Makanchi Array	42.89	294	eP	P	06 20 41.2	-0.4
MKAR	Makanchi Array	42.89	294	P	P	06 20 41.3	-0.4
	comp=Z,2.1nm,0.5s,mb3.7,baz=68,slow=7.1,SNR=25						
MKAR				ScP	ScP	06 25 31.7	-1.1
	comp=Z,0.2nm,0.6s,baz=62,slow=4.1,SNR=2.9						
INK	Inuvik	43.16	32	P	P	06 20 42.5	-1.1
INK	Inuvik	43.16	32	P	P	06 20 42.5	-1.0
INK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
INK	Inuvik	43.16	32	P	P	06 20 42.5	-1.1
	comp=Z,0.6nm,0.3s,mb3.4,baz=282,slow=7.2,SNR=9.2						
AAK	Ala-Archa	49.76	293	eP	P	06 21 33.8	-0.5
	comp=Z,1.2nm,0.7s,mb3.3						
AAK	Ala-Archa	49.76	293	eP	P	06 21 33.8	-0.5
AAK				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.2						
TAPN	Taplejung	49.98	268	eP	P	06 21 36.0	-0.2
	comp=Z,6.9nm,0.6s,mb4.1						
ODAN	Odare	50.52	268	eP	P	06 21 39.5	-0.6
JIRN	Jiri	50.81	270	eP	P	06 21 42.6	+0.3
GUN	Gumba	50.86	270	eP	P	06 21 43.5	+0.8
	comp=Z,5.9nm,0.4s,mb4.1						
DMN	Daman	51.58	270	eP	P	06 21 49.0	+1.1
	comp=Z,16nm,0.9s,mb4.2						
GKN	Gorkha	51.65	271	eP	P	06 21 49.2	+0.8
	comp=Z,13nm,0.6s,mb4.3						
KOLN	Koldanda	52.50	272	eP	P	06 21 55.7	+1.1
	comp=Z,9.5nm,0.7s,mb4.1						
YKA	Yellowknife Ar	52.68	35	P	P	06 21 54.5	-0.8
	comp=Z,0.2nm,0.5s,mb2.6,baz=302,slow=7.2,SNR=3.4						
FINES	FINESS Array B	61.47	332	P	P	06 22 54.4	-1.6
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
FINES	FINESS Array B	61.47	332	P	P	06 22 54.4	-1.6
	comp=Z,1.8nm,0.5s,mb3.7,baz=39,slow=7.6,SNR=13						
NVAR	Mina Array Bea	65.62	59	P	P	06 23 24.8	+1.6
NVAR	Mina Array Bea	65.62	59	P	P	06 23 24.8	+1.7
	comp=Z,0.6nm,0.7s,mb3.3,baz=312,slow=4.5,SNR=6.3						
NOA	NORSAR Array B	66.04	338	P	P	06 23 24.2	-1.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	66.04	338	P	P	06 23 24.2	-1.1
	comp=Z,0.9nm,0.6s,mb3.5,baz=30,slow=6.5,SNR=3.7						
DCID1	Drake Creek	66.07	51	eP	P	06 23 31.0	+5.1
PDAR	Pinedale Array	67.50	51	P	P	06 23 35.8	+1.0
	comp=Z,1.5nm,0.7s,mb3.7,baz=294,slow=2.1,SNR=12						
WRA	Warramunga Arr	68.16	193	P	P	06 23 40.3	+1.3
WRA				pmax	pmax		
	comp=Z,1.0nm,1.2s						
WRA	Warramunga Arr	68.16	193	P	P	06 23 40.3	+1.3
	comp=Z,0.9nm,1.2s,mb3.3,baz=6.6,slow=6.4,SNR=4.3						
AKASG	Malin Array Be	68.50	323	P	P	06 23 39.3	-1.4
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	68.50	323	P	P	06 23 39.3	-1.4
	comp=Z,2.0nm,0.7s,mb3.9,baz=34,slow=6.2,SNR=6.8						
TXAR	Lajitas Array	80.58	57	P	P	06 24 50.7	+1.1
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	80.58	57	P	P	06 24 50.7	+1.1
	comp=Z,0.7nm,0.5s,mb3.7,baz=293,slow=3.4,SNR=20						

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*NEIC **08** 06:21:48.2, 39.13S×177.80E, h31^{km}, ML3.9(WEL), After WEL.*

NEIC Felt at Wairoa.

WEL 08 06:21:48.5±0.2, 39.10S×177.76E, h31^{km}, ML3.5/18, 3C-1D, Error ellipse: s-maj=2.3km s-min=1.3km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KNZ	Kokohu	0.10	317	P	Pb	06 21 54.0	0.0
KNZ				S	Sb	06 21 58.1	+0.4
KNZ	Kokohu	0.10	317	⇓P*	Pb	06 21 54.0	0.0
KNZ				S*	Sb	06 21 58.1	+0.4
MWZ	Matawai	0.78	346	P	Pn	06 22 02.9	-0.5
MWZ				S	Sb	06 22 13.7	-0.2
MWZ	Matawai	0.78	346	⇑PN	Pn	06 22 02.9	-0.5
MWZ				SN	Sn	06 22 13.7	-0.3
URZ	Urewera	0.98	328	P	Pn	06 22 05.4	-0.7
URZ	Urewera	0.98	328	⇑PN	Pn	06 22 05.4	-0.7
URZ				SN	Sn	06 22 18.6	-0.4
BKZ	Black Stump Fm	0.99	266	P	Pn	06 22 05.4	-0.9
BKZ	Black Stump Fm	0.99	266	⇑PN	Pn	06 22 05.4	-0.9
PUZ	Puketiti	1.09	21	eP	Pn	06 22 07.2	-0.5
PUZ	Puketiti	1.09	21	PN	Pn	06 22 07.2	-0.5
PUZ				SN	Sn	06 22 21.6	-0.1
PXZ	Pawanui	1.17	216	PN	Pn	06 22 07.1	-1.6
EDRZ	Edgecumbe	1.27	321	P	Pn	06 22 09.9	-0.3
EDRZ	Edgecumbe	1.27	321	PN	Pn	06 22 09.3	-0.9
TAZ	Tarawera	1.31	311	P	Pn	06 22 10.5	-0.1
TAZ	Tarawera	1.31	311	PN	Pn	06 22 10.5	-0.1
HATZ	Hinemaiaia	1.32	278	P	Pn	06 22 10.2	-0.6
HATZ	Hinemaiaia	1.32	278	PN	Pn	06 22 10.2	-0.6
PATZ	Paeroa	1.38	301	P	Pn	06 22 10.9	-0.7
PATZ	Paeroa	1.38	301	PN	Pn	06 22 10.9	-0.7
MKRZ	Makatiti	1.39	313	P	Pn	06 22 12.5	+0.7
MKRZ	Makatiti	1.39	313	PN	Pn	06 22 12.5	+0.6
RATZ	Rangitukua	1.57	278	P	Pn	06 22 13.7	-0.5
RATZ	Rangitukua	1.57	278	PN	Pn	06 22 13.7	-0.5
MOVZ	Moawhango	1.59	258	P	Pn	06 22 14.2	-0.3
MOVZ	Moawhango	1.59	258	PN	Pn	06 22 14.2	-0.3
KATZ	Kakaramea	1.62	274	P	Pn	06 22 14.4	-0.5
KATZ	Kakaramea	1.62	274	PN	Pn	06 22 14.4	-0.5
WATZ	Wairara	1.63	283	P	Pn	06 22 14.3	-0.8
WATZ	Wairara	1.63	283	PN	Pn	06 22 14.3	-0.7
OTVZ	Oturere	1.63	267	PN	Pn	06 22 14.8	-0.3
TUVZ	Tukino	1.65	263	P	Pn	06 22 15.1	-0.2
TUVZ	Tukino	1.65	263	PN	Pn	06 22 15.1	-0.3
KRVZ	Karewarewa	1.65	269	PN	Pn	06 22 15.0	-0.4
NGZ	Ngauruhoe	1.68	267	P	Pn	06 22 15.4	-0.4
NGZ	Ngauruhoe	1.68	267	PN	Pn	06 22 15.4	-0.4
WTVZ	West Tongariro	1.69	269	P	Pn	06 22 15.8	-0.1
WTVZ	West Tongariro	1.69	269	PN	Pn	06 22 15.8	-0.1
TSZ	Takapari Road	1.69	235	P	Pn	06 22 14.5	-1.4
TSZ	Takapari Road	1.69	235	PN	Pn	06 22 14.5	-1.4
WNVZ	Wahianoa	1.70	261	P	Pn	06 22 15.6	-0.4
WNVZ	Wahianoa	1.70	261	PN	Pn	06 22 15.6	-0.4
WPVZ	Whakapapa	1.73	266	eP	Pn	06 22 16.0	-0.4
WPVZ	Whakapapa	1.73	266	PN	Pn	06 22 16.0	-0.4
TRVZ	Turoa	1.73	263	PN	Pn	06 22 16.1	-0.4
TWVZ	Taurewa	1.81	270	P	Pn	06 22 17.2	-0.3
TWVZ	Taurewa	1.81	270	PN	Pn	06 22 17.2	-0.4
BFZ	Birch Farm	1.97	216	eP	Pn	06 22 17.3	-2.4
BFZ	Birch Farm	1.97	216	PN	Pn	06 22 17.3	-2.4
TIWZ	Tintock	2.21	220	PN	Pn	06 22 21.1	-2.0
WAZ	Wanganui	2.25	252	P	Pn	06 22 24.5	+0.9
WAZ	Wanganui	2.25	252	PN	Pn	06 22 24.5	+0.9
MRZ	Mangatainoka R	2.30	226	P	Pn	06 22 22.1	-2.1
MRZ	Mangatainoka R	2.30	226	PN	Pn	06 22 22.1	-2.1
TRWZ	Traveller	2.79	214	PN	Pn	06 22 27.8	-3.3
KIW	Kapiti Island	2.81	230	P	Pn	06 22 29.1	-2.2
KIW	Kapiti Island	2.81	230	PN	Pn	06 22 29.1	-2.3
CAW	Cannon Point	2.88	225	P	Pn	06 22 29.5	-2.8
CAW	Cannon Point	2.88	225	PN	Pn	06 22 29.5	-2.8
PAWZ	Paruwai Farm	2.90	217	P	Pn	06 22 29.4	-3.1
PAWZ	Paruwai Farm	2.90	217	PN	Pn	06 22 29.4	-3.1
PKE	Pukeiti	2.94	267	P	Pn	06 22 33.6	+0.5
PKE	Pukeiti	2.94	267	PN	Pn	06 22 33.6	+0.6
MSWZ	Moikau Station	3.01	219	P	Pn	06 22 30.5	-3.6
MSWZ	Moikau Station	3.01	219	PN	Pn	06 22 30.5	-3.6
MRW	Makara Radio	3.17	227	P	Pn	06 22 33.6	-2.6
MRW	Makara Radio	3.17	227	PN	Pn	06 22 33.6	-2.7
SNZO	South Karori	3.22	226	eP	Pn	06 22 33.3	-3.6
SNZO	South Karori	3.22	226	PN	Pn	06 22 33.3	-3.7
TCW	Tory Channel	3.41	231	P	Pn	06 22 36.7	-2.8
TCW	Tory Channel	3.41	231	PN	Pn	06 22 36.7	-2.8
DUWZ	D'Urville Isla	3.41	239	PN	Pn	06 22 37.8	-1.7
TUWZ	Tuamarina	3.74	230	PN	Pn	06 22 40.8	-3.2
QRZ	Quartz Range	4.38	245	eP	Pn	06 22 49.5	-3.3
QRZ	Quartz Range	4.38	245	PN	Pn	06 22 49.5	-3.4
THZ	Tophouse	4.57	233	eP	Pn	06 22 53.2	-2.2
THZ	Tophouse	4.57	233	PN	Pn	06 22 51.7	-3.7
KHZ	Kahutara	4.61	223	eP	Pn	06 22 52.8	-3.3
KHZ	Kahutara	4.61	223	PN	Pn	06 22 52.8	-3.3
DSZ	Denniston Nort	5.26	238	eP	Pn	06 23 01.6	-3.4
DSZ	Denniston Nort	5.26	238	PN	Pn	06 23 01.6	-3.4
LTZ	Lake Taylor	5.55	227	eP	Pn	06 23 06.2	-2.8
LTZ	Lake Taylor	5.55	227	PN	Pn	06 23 06.2	-2.8

WEL 08 06:22:09.8±0.6, 39.03S×177.80E, h27^{km}±2^{km}, ML4.0/7, Error ellipse: s-maj=6.4km s-min=4.0km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KNZ	Kokohu	0.10	274	P*	Pb	06 22 14.4	-0.2
KNZ				S*	Sb	06 22 18.8	+0.8
MWZ	Matawai	0.72	343	P*	Pb	06 22 23.3	-0.4
MWZ				S*	Sb	06 22 34.2	+0.9
URZ	Urewera	0.94	325	PN	Pn	06 22 26.2	-0.9
URZ				SN	Sn	06 22 38.9	-0.7
PUZ	Puketiti	1.02	21	SN	Sn	06 22 41.9	+0.3
HATZ	Hinemaiaia	1.33	275	PN	Pn	06 22 32.3	-0.2

IDC 08 06:23:42.3±1.7, 0.38S×126.73E, h0^{km}, mb3.2/3, mb1 3.4/3, mb1mx3.3/16, mbtmp3.2/3, Error ellipse: s-maj=139.0km s-min=29.1km az=67.0, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.82	159	P	P	06 28 25.6	0.0
	0.5nm,0.5s,baz=339,slow=11,SNR=9.4						
SONM	Songino Array	51.17	343	P	P	06 32 47.6	+0.5
	0.3nm,0.6s,baz=163,slow=6.0,SNR=3.6						
MKAR	Makanchi Array	60.93	327	P	P	06 33 56.9	-0.2
	0.1nm,0.5s,baz=122,slow=5.2,SNR=2.6						

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*IDC **08** 06:30:46.9±2.2, 0.46S×16.01W, h0^{km}, mb4.0/7, mb1 4.1/7, mb1mx3.8/23, mbtmp4.0/7, MS3.6/4, Ms1 3.7/4, ms1mx3.3/25, Error ellipse: s-maj=64.0km s-min=25.7km az=75.0*

*NEIC **08** 06:30:48.1±1.1, 0.47S×16.02W, h10^{km}, mb4.6/1, Error ellipse: s-maj=28.0km s-min=15.9km az=83.0*

ISC 08 06:30:48.7±1.6, 0.4S±0.2×16.0W±0.3, h10^{km}, n16, σ0^{s}49/11, mb4.1/8, MS3.6/4, North of Ascension Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TOA0	Torodi Ar. Sit	22.12	52	eP	P	06 35 45.0	+0.4
TORD	Torodi Ar. Bea	22.12	52	P	P	06 35 44.1	-0.5
	3.5nm,0.7s,mb3.9,baz=236,slow=10,SNR=18						
TORD				LR	LR	06 43 03.5	
	comp=Z,100nm,20.3s,MS3.2,baz=245,slow=33						
LBTB	Lobatse	47.01	125	P	P	06 39 21.2	+0.8
	2.6nm,0.7s,mb4.3,baz=287,slow=9.8,SNR=4.6						
BOSA	Boshof	48.33	129	P	P	06 39 30.0	-0.8
	3.3nm,0.8s,mb4.4,baz=316,slow=4.2,SNR=6.2						
KMBO	Kilima Mbogo	53.23	91	LR	LR	07 02 32.8	
	comp=Z,78nm,18.6s,MS3.8,baz=117,slow=36						
LPAZ	La Paz	53.74	250	LR	LR	07 01 25.9	
	comp=Z,56nm,20.0s,MS3.6,baz=251,slow=34						
GERES	GERESS Array B	55.38	23	P	P	06 40 23.0	+0.1
	0.7nm,0.6s,mb3.9,baz=206,slow=5.8,SNR=5.4						
ROSC	El Rosal	58.52	276	LR	LR	07 01 39.1	
	comp=Z,60nm,18.9s,MS3.7,baz=74,slow=32						
AKASG	Malin Array Be	63.76	30	P	P	06 41 21.0	+0.2
	0.1nm,0.3s,mb3.4,baz=228,slow=7.1,SNR=6.3						
NB2	NORSAR Subarra	64.78	14	P	P	06 41 27.2	0.0
	comp=Z,2.4nm,1.0s,mb4.2,baz=210,slow=6.2						
NOA	NORSAR Array B	64.78	14	P	P	06 41 26.7	-0.5
NOA	NORSAR Array B	64.78	14	P	P	06 41 26.7	-0.5
	comp=Z,1.8nm,0.9s,mb4.1,baz=210,slow=6.4,SNR=3.9						
FINES	FINESS Array B	69.51	20	P	P	06 41 57.8	+0.5
	comp=Z,1.2nm,0.5s,mb4.1,baz=218,slow=4.5,SNR=9.1						
KAF	Kangasniemi	70.06	20	ep	P	06 42 00.3	-0.3
	comp=Z,5.1nm,1.0s,mb4.4						
WRA	Warramunga Arr	144.56	127	PKP	PKPdf	06 50 25.1	-1.4
WRA	Warramunga Arr	144.56	127	PKP	PKPdf	06 50 25.1	-1.4
	comp=Z,0.6nm,0.7s,baz=240,slow=3.0,SNR=14						

MOS 08 06:54:15.1±0.4, 43.41N×45.25E, h9^{km}, mb3.5/1, Error ellipse: s-maj=49.7km s-min=13.0km az=144.8, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNJR	Sundja	0.47	224	ePG	Pg	06 54 25.0	+0.9
SNJR				eS	Sg	06 54 34.2	+3.9
ARNR	Ardon	0.74	253	ePG	Pg	06 54 29.9	+0.5
ARNR				eS	Sg	06 54 42.7	+3.6
LACR	Lac	0.91	231	ePG	Pg	06 54 33.2	+0.6
LACR				eS	Sg	06 54 48.4	+4.0
KORR	Kora	0.92	250	ePG	Pg	06 54 33.2	+0.4
KORR				eS	Sg	06 54 48.5	+3.7
LSNR	Lesken	1.06	263	ePG	Pg	06 54 35.2	-0.2
LSNR				eS	Sg	06 54 51.8	+2.7
ZEI	Tsey	1.18	238	ePG	Pg	06 54 37.4	-0.3
ZEI				eS	Sb	06 54 56.0	+3.1
DIGR	Digorskoe uzhe	1.32	248	ePG	Pg	06 54 40.1	-0.4
DIGR				eS	Sb	06 55 00.4	+3.3

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*IDC **08** 07:04:21.3±0.9, 69.74N×15.52W, h0^{km}, mb3.6/7, mb1 3.8/9, mb1mx3.6/22, mbtmp3.6/9, ML3.0/2, MS3.1/3, Ms1 3.1/3, ms1mx2.8/37, Error ellipse: s-maj=25.7km s-min=19.5km az=23.0*

*NEIC **08** 07:04:22.9±0.7, 69.78N×15.58W, h10^{km}, Error ellipse: s-maj=15.9km s-min=12.6km az=184.0*

*ISCJB **08** 07:04:23.3±2.3, 69.70N±0.05×15.6W±0.2, h27^{km}±18^{km}, mb3.6/7, Error ellipse: s-maj=14.0km s-min=7.0km az=22.6*

*CSEM **08** 07:04:23.4±0.1, 69.71N×15.56W, h30^{km}, ML3.7, Error ellipse: s-maj=5.1km s-min=2.9km az=110.0*

*REY **08** 07:04:23.4, 69.56N×14.68W, h16^{km}, ML2.9, ML3.7*

ISC 08 07:04:23.8±2.3, 69.70N±0.05×15.6W±0.2, h16^{km}±16^{km}, n24, σ0^{s}78/28, mb3.6/7, Jan Mayen Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGRI	Grimsey	3.30	197	P	Pn	07 05 14.7	0.0
IGRI				S	Sn	07 05 53.6	0.0
ILEI	Leirhofn	3.33	186	P	Pn	07 05 13.9	-1.2
IGIL	Gilhagi	3.65	185	P	Pn	07 05 18.2	-1.3
IGIL				S	Sn	07 06 02.1	-0.1
IFLA	Flatey	3.66	195	P	Pn	07 05 20.1	+0.5
IFLA				S	Sn	07 06 02.8	+0.5
IHED	Heoinshofoi	3.69	191	P	Pn	07 05 19.5	-0.6
IHED				S	Sn	07 06 03.0	-0.2
ISIG	Siglufjorour	3.80	201	P	Pn	07 05 21.7	+0.1
IHRN	Hraun	3.99	208	P	Pn	07 05 25.5	+1.3
IGRS	Grimsstaoir	4.08	183	P	Pn	07 05 24.8	-0.7
IGRS				S	Sn	07 06 13.0	+0.1
IREN	Reynihlio	4.10	188	P	Pn	07 05 25.4	-0.3
BORG	Borgarnes	5.45	207	Pn	Pn	07 05 45.4	+1.1
BORG	Borgarnes	5.45	207	Pn	Pn	07 05 45.4	+1.1
	1.5nm,0.3s,baz=18,slow=8.2,SNR=6.2						
NOA	NORSAR Array B	14.00	115	LR	LR	07 12 10.8	
	comp=Z,51nm,20.6s,baz=45,slow=34						
HFS	Hagfors	15.49	114	Pn	Pn	07 08 02.6	+1.4
HFS				LR	LR	07 13 47.8	
HFS	Hagfors	15.49	114	Pn	Pn	07 08 02.6	+1.4
	0.1nm,0.3s,baz=339,slow=7.7,SNR=2.2						
HFS				LR	LR	07 13 47.8	
	comp=Z,106nm,18.7s,baz=253,slow=37						
HFS	Hagfors	15.49	114	Pn	Pn	07 08 02.6	+1.4
FINES	FINESS Array B	18.71	95	P	Pn	07 08 41.4	-0.1
FINES				LR	LR	07 15 13.1	
FINES	FINESS Array B	18.71	95	P	Pn	07 08 41.4	-0.1
	0.1nm,0.3s,baz=316,slow=5.8,SNR=2.9						
FINES				LR	LR	07 15 13.1	
	comp=Z,52nm,18.5s,baz=333,slow=35						
GERES	GERESS Array B	25.22	131	P	P	07 09 49.0	+0.6
	0.7nm,0.8s,mb3.3,baz=337,slow=9.6,SNR=4.0						
AKASG	Malin Array Be	28.27	109	P	P	07 10 16.6	+0.8
	0.4nm,0.5s,mb3.3,baz=331,slow=9.0,SNR=3.2						
YKA	Yellowknife Ar	36.44	309	P	P	07 11 26.9	-0.2
	1.1nm,0.8s,mb3.8,baz=35,slow=7.9,SNR=3.8						
MKAR	Makanchi Array	49.60	63	P	P	07 13 13.9	+0.2
	1.1nm,1.0s,mb3.8,baz=14,slow=5.4,SNR=6.5						
SONM	Songino Array	55.39	44	P	P	07 13 55.1	-1.4
	0.5nm,0.9s,mb3.6,baz=19,slow=5.0,SNR=3.9						
TORD	Torodi Ar. Bea	57.55	160	P	P	07 14 11.0	-1.3
	0.6nm,0.8s,mb3.6,baz=3.8,slow=8.7,SNR=3.3						
TXAR	Lajitas Array	62.17	279	P	P	07 14 44.7	+0.8
	0.3nm,0.8s,mb3.5,baz=45,slow=6.0,SNR=3.8						

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*CSEM **08** 07:08:03.4±0.9, 37.75N×43.89E, h25^{km}, MD3.2, Error ellipse: s-maj=23.7km s-min=13.1km az=94.0*

*ISCJB **08** 07:08:04.9±1.1, 37.76N±0.04×43.77E±0.07, h10^{km}, Error ellipse: s-maj=8.6km s-min=5.7km az=165.3*

*ISK **08** 07:08:06.5, 37.65N×43.74E, h16^{km}, MD3.2*

*DDA **08** 07:08:34.4, 38.30N×43.33E, h22^{km}, Md3.0*

ISC 08 07:08:05.0±1.2, 37.76N±0.04×43.82E±0.08, h10^{km}, n9, σ1^{s}22/16, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HKR	Hakkari	0.19	198	i PG	Pg	07 08 09.4	+0.3
HKR				i SG	Sg	07 08 12.6	+0.7
HKR	Hakkari	0.19	198	i Pg	Pg	07 08 09.4	+0.3
HKR				i Sg	Sg	07 08 12.6	+0.7
CUKT	Cukurca	0.54	198	PG	Pg	07 08 15.4	-0.1
CUKT	Cukurca	0.54	198	ePg	Pg	07 08 15.4	-0.1
TVAN	Van	0.83	337	i P	Pg	07 08 19.9	-1.1
TVAN				i S	Sg	07 08 33.0	+1.1
SIRT	Sirnak	1.12	257	PG	Pg	07 08 28.0	+1.4
SIRT				SG	Sg	07 08 41.4	+0.2
SIRT	Sirnak	1.12	257	ePg	Pg	07 08 28.0	+1.4
SIRT				eSg	Sg	07 08 41.4	+0.2
BEST	Besiri	2.02	274	i P	Pg	07 08 42.5	-1.3
BEST				i S	Sg	07 09 12.1	+2.1
MARD	Mardin	2.46	260	i P	Pg	07 08 50.9	-1.2
MARD				i S	Sg	07 09 21.6	-2.3

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*NIED **08** 07:15:00, 46.50N×153.50E, h17^{km}, Mw5.0 Best double couple: $M_0$3.99000×10^{16} NP1:ϕ_s138.00000°, δ67.00000°, λ1.00000°. NP2:ϕ_s48.00000°, δ89.00000°, λ157.00000°.*

*ISCJB **08** 07:15:02.9±0.1, 46.41N±0.02×153.36E±0.02, h10^{km}, mb5.4/267, MS4.8/168, Error ellipse: s-maj=3.5km*

s-min=1.5km az=166.1

*BJI **08** 07:15:02.9, 46.66N×153.14E, h7^{km}, mB5.4, mb5.4, Ms5.0, Msz4.8*

*IDC **08** 07:15:02.4±0.5, 46.43N×153.30E, h0^{km}, mb5.3/34, mb1 5.4/35, mb1mx5.4/36, mbtmp5.3/35, ML4.3/1, MS4.7/23, Ms1 4.7/23, ms1mx4.5/30, Error ellipse: s-maj=14.6km s-min=11.3km az=148.0*

*NEIC **08** 07:15:04.7±0.1, 46.48N×153.24E, h10^{km}, mb5.5/165, MS4.7/111, Error ellipse: s-maj=4.3km s-min=2.4km az=168.0*

*GCMT **08** 07:15:04.7±0.2, 46.50N×153.54E, h19^{km}, MW5.2/88, Moment Tensor Solution. s52,c86; s88,c150; Duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.71±.02; M$_{\theta\theta}$-0.28±.02; M$_{\phi\phi}$-0.43±.02; M$_{r\theta}$0.15±.03; M$_{\theta\phi}$-0.39±.01; M$_{\phi r}$0.40±.03; Best double couple: M$_{0}$0.84600×10^{17} NP1:ϕ_s229.00000°, δ31.00000°, λ107.00000°. NP2: ϕ_s30.00000°, δ60.00000°, λ80.00000°. Principal axes: T 0.8370, Plg73.0000°, Azm276.0000°; N 0.0180, Plg9.0000°, Azm35.0000°; P -0.8550, Plg15.0000°, Azm127.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*JMA **08** 07:15:04.8±0.8, 46.53N×153.46E, h30^{km}, M5.6*

*SKHL **08** 07:15:06.2±2.1, 46.42N×153.50E, h66^{km}±2^{km}, mb5.9/1, mbh5.6/1, Ms5.2/5, msh5.9/4*

*MOS **08** 07:15:07.8±0.9, 46.65N×153.27E, h37^{km}, mb5.6/116, MS4.9/54, Error ellipse: s-maj=6.6km s-min=3.4km az=105.3*

*SZGRF **08** 07:15:17.1, 48.01N×152.04E, h33^{km}, mb5.6, MS4.9, Kuril Islands, Russia*

ISC 08 07:15:05.5±0.8**, 46.51N**±0.03×**153.28E**±0.02**, h13**^{km}±5^{km}**, h16**^{km}±1.3^{km}**:pP-P, n1212, σ0^{s}83**/1169**, mb5.4**/267**, MS4.8**/168**, 263C-133D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril’sk**	**3.99**	**253**	b *i*PN	**Pn**	**07 16 07.4**	**+1.1**
KUR				pmax	pmax		
	comp=E,4μm,1.0s						
KUR				pmax	pmax		
	comp=Z,10μm,1.0s						
KUR				pmax	pmax		
	comp=N,1μm,0.6s						
KUR				pmax	pmax		
	comp=E,760nm,0.6s						
KUR				pmax	pmax		
	comp=Z,5μm,0.6s						
KUR				MLR	MLR		
	comp=N,28μm,16.0s						
KUR				MLR	MLR		
	comp=E,28μm,16.0s						
KUR				MLR	MLR		
	comp=Z,21μm,16.0s						
KUR	**Kuril’sk**	**3.99**	**253**	*i* P	**Pn**	**07 16 07.4**	**+1.1**
KUR				AMB	AMB	07 16 08.4	
	comp=Z,4μm,1.0s						
KUR				AMB	AMB	07 16 08.4	
	comp=Z,10μm,1.0s						
KUR				AMB	AMB	07 16 09.5	
	comp=Z,1μm,0.6s						
KUR				AMB	AMB	07 16 09.5	
	comp=Z,760nm,0.6s						
KUR				AMB	AMB	07 16 09.5	
	comp=Z,5μm,0.6s						
KUR				*i* S	**Sn**	**07 16 52.5**	**-0.4**
KUR				A		07 16 58.0	
	comp=Z,22μm,2.0s						
KUR				A		07 16 58.0	
	comp=Z,9μm,2.0s						
KUR				A		07 17 09.0	
	comp=Z,6μm,0.8s						
KUR				A		07 17 09.0	
	comp=Z,6μm,0.8s						
KUR				AMS	AMS	07 17 40.0	
	comp=Z,28μm,16.0s						
KUR				AMS	AMS	07 17 40.0	
	comp=Z,21μm,16.0s						
SKR	**Severo-Kuril’s**	**4.58**	**23**	*e*P	**Pn**	**07 16 14.5**	**+0.2**
SKR				AMB	AMB	07 16 19.5	
	comp=Z,390nm,1.0s						
SKR				AMB	AMB	07 16 19.5	
	comp=Z,1μm,1.0s						
SKR				AMB	AMB	07 16 19.5	
	comp=Z,2μm,1.0s						
SKR				*e*S	**Sn**	**07 17 04.0**	**-3.4**
SKR				A		07 17 18.0	
	comp=Z,15μm,8.0s						
SKR				A		07 17 27.4	
	comp=Z,2μm,1.0s						
SKR				A		07 17 27.4	
	comp=Z,690nm,1.0s						
SKR				AMS	AMS	07 18 12.0	
	comp=Z,5μm,14.0s						
SKR				AMS	AMS	07 18 12.0	
	comp=Z,17μm,14.0s						
SKR				AMS	AMS	07 18 12.0	
	comp=Z,8μm,14.0s						
YUK	**Yuzh-Kuril’sk**	**5.79**	**247**	⇑*i*PN	**Pn**	**07 16 32.2**	**+1.2**
YUK				pmax	pmax		
	comp=N,570nm,0.5s						
YUK				pmax	pmax		
	comp=E,950nm,0.5s						
YUK				pmax	pmax		
	comp=Z,950nm,0.5s						
YUK				pmax	pmax		
	comp=N,2μm,1.0s						
YUK				pmax	pmax		
	comp=E,4μm,1.0s						
YUK				pmax	pmax		
	comp=Z,3μm,1.0s						
YUK				MLR	MLR		
	comp=N,11μm,14.0s						
YUK				MLR	MLR		
	comp=Z,8μm,14.0s						
YUK				MLR	MLR		
	comp=E,8μm,12.0s						
YUK	**Yuzh-Kuril’sk**	**5.79**	**247**	*i* P	**Pn**	**07 16 32.2**	**+1.2**
YUK				AMB	AMB	07 16 38.6	
	comp=E,570nm,0.5s						
YUK				AMB	AMB	07 16 38.6	
	comp=E,950nm,0.5s						
YUK				AMB	AMB	07 16 40.0	
	comp=E,2μm,1.0s						
YUK				AMB	AMB	07 16 40.0	
	comp=E,4μm,1.0s						
YUK				AMB	AMB	07 16 40.0	
	comp=E,3μm,1.0s						
YUK				*i* S	**Sn**	**07 17 38.5**	**+1.2**
YUK				A		07 17 50.5	
	comp=E,12μm,3.0s						
YUK				A		07 17 50.5	
	comp=E,10μm,3.0s						
YUK				A		07 17 53.5	
	comp=E,4μm,0.8s						
YUK				A		07 17 53.5	
	comp=E,5μm,0.8s						
YUK				AMS	AMS	07 19 21.0	
	comp=E,11μm,14.0s						
YUK				AMS	AMS	07 19 21.0	
	comp=E,8μm,14.0s						
YUK				AMS	AMS	07 19 21.0	
	comp=E,8μm,14.0s						
NEM2	**Nemuro 2**	**6.21**	**242**	⇑P	**Pn**	**07 16 35.0**	**-1.7**
NEM2				*e*S	**Sn**	**07 17 41.5**	**-6.0**
JRA	**Rausu**	**6.31**	**249**	⇑P	**Pn**	**07 16 39.2**	**+1.1**
JNK	**Nakash**	**6.73**	**247**	P	**Pn**	**07 16 44.1**	**+0.2**
JAK	**Akkeshi**	**7.05**	**243**	P	**Pn**	**07 16 46.7**	**-1.6**
JTKR	**Abashiri--Toko**	**7.09**	**252**	⇑P	**Pn**	**07 16 50.4**	**+1.6**
YSS	**Yuzh-Sakhalins**	**7.25**	**277**	*e*P	**Pn**	**07 16 55.5**	**+4.5**
YSS	**Yuzh-Sakhalins**	**7.25**	**277**	α *i*PN	**Pn**	**07 16 55.2**	**+4.2**
YSS				*e*S	**Sn**	**07 18 19.0**	**+5.9**
YSS				pmax	pmax		
	comp=Z,160nm,1.0s						
YSS				MLR	MLR		
	comp=Z,9μm,17.0s						
YSS				MLR	MLR		
	comp=N,2μm,15.0s						
YSS				MLR	MLR		
	comp=E,8μm,16.0s						
YSS	**Yuzh-Sakhalins**	**7.25**	**277**	*i* P	**Pn**	**07 16 55.2**	**+4.2**
YSS				AMB	AMB	07 16 56.7	
	comp=E,160nm,1.0s						
YSS				AMS	AMS	07 19 34.0	
	comp=E,2μm,16.0s						
YSS				AMS	AMS	07 19 34.0	
	comp=E,8μm,16.0s						
YSS				AMS	AMS	07 19 34.0	
	comp=E,9μm,16.0s						
PET	**Petropavlovsk**	**7.39**	**26**	⇓*i*PN	**Pn**	**07 16 51.6**	**-1.3**
PET				pmax	pmax		
	comp=Z,800nm,1.7s						
PET				pmax	pmax		
	comp=Z,437nm,1.2s						
PET				MLR	MLR		
	comp=Z,3μm,15.0s						
PET	**Petropavlovsk**	**7.39**	**26**	*e*P	**Pn**	**07 16 53.1**	**+0.2**
JMP	**Maruseppu**	**7.43**	**254**	⇑P	**Pn**	**07 16 55.2**	**+1.6**
JAR	**Ashorobuto**	**7.48**	**248**	P	**Pn**	**07 16 54.7**	**+0.5**
JOB	**Onbets**	**7.63**	**245**	P	**Pn**	**07 16 55.6**	**-0.7**
JSE	**Soyaes**	**7.64**	**262**	P	**Pn**	**07 17 00.1**	**+3.7**
JKK2	**Kamakawa 2**	**7.89**	**254**	P	**Pn**	**07 17 02.1**	**+2.2**
ASAJ	**Asahikawa**	**7.90**	**256**	P	**Pn**	**07 17 02.7**	**+2.7**
ASAJ	**Asahikawa**	**7.90**	**256**	PN	**Pn**	**07 17 02.8**	**+2.8**
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,5μm,18.6s						
ASAJ	**Asahikawa**	**7.90**	**256**	Pn	**Pn**	**07 17 02.8**	**+2.8**
	comp=Z,7.2nm,0.3s,baz=87,slow=14,SNR=112						
ASAJ				LR	LR	07 19 54.6	
	comp=Z,5μm,18.6s,baz=268,slow=37						
UGL	**Uglegorsk**	**7.97**	**293**	*e*PN	**Pn**	**07 17 06.0**	**+5.0**
UGL				*e*S	**Sn**	**07 18 40.5**	**+10**
UGL				pmax	pmax		
	comp=N,180nm,1.0s						
UGL				pmax	pmax		
	comp=E,180nm,1.0s						
UGL				pmax	pmax		
	comp=Z,582nm,1.0s						
UGL				pmax	pmax		
	comp=Z,2μm,6.0s						
UGL				smax			
	comp=N,112nm,0.7s						
UGL				smax			
	comp=E,140nm,0.7s						
UGL				smax			
	comp=E,2μm,8.0s						
UGL				smax			
	comp=N,2μm,10.0s						
UGL				MLR	MLR		
	comp=Z,9μm,16.0s						
UGL				MLR	MLR		
	comp=N,3μm,12.0s						
UGL				MLR	MLR		
	comp=E,5μm,15.0s						
JWK2	**Keihoku**	**8.03**	**266**	P	**Pn**	**07 17 06.8**	**+5.1**
JCH	**Churui**	**8.08**	**245**	P	**Pn**	**07 17 01.5**	**-0.9**
JCH				*e*S	**Sn**	**07 18 27.7**	**-5.9**
JFR	**Furan**	**8.30**	**250**	P	**Pn**	**07 17 05.1**	**-0.3**
JAB	**Ashibetsu**	**8.39**	**253**	⇑P	**Pn**	**07 17 09.1**	**+2.4**
ERM	**Erimo**	**8.54**	**242**	Pn	**Pn**	**07 17 09.9**	**+1.2**
	comp=E,3μm,1.0s,SNR=15						
ERM	**Erimo**	**8.54**	**242**	*e*Pn	**Pn**	**07 17 09.0**	**+0.2**
	comp=E,296nm,0.6s						
ERM				*e*Sn	**Sn**	**07 18 31.8**	**-13**
ERM	**Erimo**	**8.54**	**242**	*e*PN	**Pn**	**07 17 09.0**	**+0.3**
JEM	**Erimo**	**8.54**	**242**	P	**Pn**	**07 17 08.6**	**-0.1**
JHR	**Hokuryu**	**8.63**	**255**	P	**Pn**	**07 17 12.6**	**+2.7**
JBT2	**Biratori 2**	**8.63**	**248**	P	**Pn**	**07 17 09.4**	**-0.6**
JNBK	**Urakawa-nobuka**	**8.64**	**244**	P	**Pn**	**07 17 08.1**	**-2.0**
JNBK				*e*S	**Sn**	**07 18 39.4**	**-8.0**
JEW	**Eniwo**	**9.19**	**251**	P	**Pn**	**07 17 18.8**	**+1.1**
JNB	**Noboribetsu**	**9.63**	**250**	P	**Pn**	**07 17 24.1**	**+0.4**
OKH	**Okha**	**9.68**	**320**	*i* PN	**Pn**	**07 17 26.0**	**+1.6**
OKH				*e*S	**Sn**	**07 19 18.0**	**+5.1**
OKH				pmax	pmax		
	comp=Z,4μm,6.0s						
OKH				smax			
	comp=N,1μm,5.0s						
OKH				MLR	MLR		
	comp=Z,8μm,14.0s						
OKH	**Okha**	**9.68**	**320**	*i* P	**Pn**	**07 17 26.0**	**+1.6**
OKH				AMB	AMB	07 17 28.4	
	comp=Z,2μm,9.0s						
OKH				AMB	AMB	07 17 28.4	
	comp=Z,2μm,9.0s						
OKH				AMB	AMB	07 17 28.4	
	comp=Z,4μm,9.0s						
OKH				*e*S	**Sn**	**07 19 18.0**	**+5.1**
OKH				A		07 19 24.0	
	comp=Z,1μm,5.0s						
OKH				A		07 19 24.0	
	comp=Z,1μm,5.0s						
OKH				AMS	AMS	07 22 20.2	
	comp=Z,8μm,14.0s						
OKH				AMS	AMS	07 22 20.2	
	comp=Z,10μm,14.0s						
JKB	**Kayabe**	**9.93**	**247**	P	**Pn**	**07 17 26.3**	**-1.5**
JKB				*e*S	**Sn**	**07 19 10.1**	**-9.0**
JSH	**Shimam**	**10.20**	**252**	P	**Pn**	**07 17 31.7**	**+0.2**
JYM2	**Yakumo 2**	**10.24**	**249**	P	**Pn**	**07 17 31.4**	**-0.6**
JSR	**Shiriuchi**	**10.51**	**246**	P	**Pn**	**07 17 33.3**	**-2.5**
JANG	**Nango**	**10.52**	**239**	P	**Pn**	**07 17 32.1**	**-3.8**
JANG				*e*S	**Sn**	**07 19 21.7**	**-12**
JTM	**Tenmabayashi**	**10.53**	**241**	P	**Pn**	**07 17 33.1**	**-2.9**
JTM				*e*S	**Sn**	**07 19 22.3**	**-12**
JTH	**Tanohata**	**10.60**	**236**	P	**Pn**	**07 17 32.9**	**-4.1**
JTH				*e*S	**Sn**	**07 19 22.9**	**-13**
JOSM	**Okushiri--Mats**	**10.84**	**251**	P	**Pn**	**07 17 39.3**	**-0.9**
OFUJ	**Ofunato**	**11.30**	**233**	P	**Pn**	**07 17 42.2**	**-4.4**
OFUJ				*e*S	**Sn**	**07 19 39.6**	**-13**
JRG	**Rokugo**	**11.67**	**237**	P	**Pn**	**07 17 47.8**	**-3.8**
JIO	**Ouri**	**11.92**	**232**	P	**Pn**	**07 17 50.1**	**-5.0**
JIO				*e*S	**Sn**	**07 19 52.7**	**-15**
HABR	**Khabarovsk**	**12.48**	**286**	⇓*i*PN	**Pn**	**07 18 08.9**	**+6.2**
HABR				*e*		07 20 29.8	
HABR				pmax	pmax		
	comp=Z,102nm,1.5s						
HABR				MLR	MLR		
	comp=Z,5μm,15.7s						
JYA	**Atsumi**	**12.74**	**236**	P	**Pn**	**07 18 02.4**	**-3.9**
JFK	**Kawauchi**	**12.98**	**230**	P	**Pn**	**07 18 05.2**	**-4.3**
JFK				*e*S	**Sn**	**07 20 18.0**	**-16**
MA2	**Magadan**	**13.17**	**354**	*e*P	**Pn**	**07 18 12.5**	**+0.5**
MA2	**Magadan**	**13.17**	**354**	*c i*PN	**Pn**	**07 18 12.5**	**+0.5**
MA2				*e*S	**Sn**	**07 20 40.6**	**+2.4**
MA2				pmax	pmax		
	comp=Z,100nm,0.9s						
MA2				MLR	MLR		
	comp=Z,2μm,15.0s						
JFY	**Yanaizu**	**13.58**	**233**	P	**Pn**	**07 18 14.1**	**-3.6**
MAJO	**Matsushiro**	**15.03**	**234**	*e*Pn	**Pn**	**07 18 33.6**	**-3.9**
	comp=Z,85nm,0.6s						
MAT	**Matsushiro**	**15.03**	**234**	P	**Pn**	**07 18 34.1**	**-3.4**
MAT				S	**Sn**	**07 21 29.0**	**+5.3**
MJAR	**Matsushiro Arr**	**15.03**	**234**	Pn	**Pn**	**07 18 34.2**	**-3.3**
MJAR				LR	LR	07 24 15.0	
MJAR	**Matsushiro Arr**	**15.03**	**234**	P	**Pn**	**07 18 34.2**	**-3.3**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	**Matsushiro Arr**	**15.03**	**234**	Pn	**Pn**	**07 18 34.2**	**-3.2**
	comp=Z,1.2nm,0.3s,baz=26,slow=12,SNR=25						
MJAR				LR	LR	07 24 15.0	
	comp=Z,551nm,21.1s,baz=35,slow=37						
JNG	**Nsakai**	**15.19**	**234**	P	**Pn**	**07 18 37.2**	**-2.3**
VLA	**Vladivostok**	**15.54**	**265**	*e*P	**Pn**	**07 18 45.3**	**+1.1**
VLA	**Vladivostok**	**15.54**	**265**	*e*P	**Pn**	**07 18 45.2**	**+1.0**
VLA				pmax	pmax		
	comp=Z,147nm,1.4s						
VLA				MLR	MLR		
	comp=Z,2μm,16.0s						
JGN	**Niukaw**	**15.76**	**235**	P	**Pn**	**07 18 44.3**	**-2.7**
JNY	**Yasuok**	**16.09**	**232**	P	**Pn**	**07 18 49.2**	**-2.1**
JGF	**Kuroka**	**16.19**	**233**	P	**Pn**	**07 18 51.1**	**-1.4**
SEY	**Seymchan**	**16.46**	**359**	*e*P	**Pn**	**07 18 54.8**	**-1.1**
JAO	**Obara**	**16.49**	**233**	P	**Pn**	**07 18 54.3**	**-2.1**
MDJ	**Mudanjiang**	**16.68**	**272**	P	**Pn**	**07 18 58.5**	**-0.3**
MDJ				AP	pP	07 19 03.7	-1.0
MDJ				XP	sP	07 19 05.1	-1.3
MDJ				S	**Sn**	**07 22 04.0**	**+0.2**
MDJ				PCS	PcS	07 27 23.5	+0.1
MDJ				AMB	AMB		
	comp=Z,36nm,1.3s						
MDJ				AMB	AMB		
	comp=Z,591nm,7.5s						
MDJ				LR	LR		
	comp=N,2μm,16.9s						
MDJ				LR	LR		
	comp=E,2μm,18.1s						
MDJ				LR	LR		
	comp=Z,3μm,17.3s						
MDJ	**Mudanjiang**	**16.68**	**272**	*e*Pn	**Pn**	**07 18 59.0**	**+0.2**
	comp=Z,127nm,1.0s						
JHJ	**Hachijo jima 2**	**16.89**	**222**	Pn	**Pn**	**07 19 03.0**	**+1.5**
	comp=Z,19nm,0.3s,baz=236,slow=18,SNR=5.0						
CN2	**Changchun**	**19.77**	**272**	*e*P	**Pn**	**07 19 32.3**	**-4.4**
CN2				*e*XP	sP	07 19 40.7	+0.3
CN2				*e*S	**Sn**	**07 23 07.1**	**-11**
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,2μm,15.0s						
CN2				LR	LR		
	comp=E,2μm,15.0s						
CN2				LR	LR		
	comp=Z,3μm,16.0s						
CLNS	**Chul’man**	**20.26**	**311**	*e*P	**P**	**07 19 39.7**	**-0.6**
CLNS				*e*		07 19 49.4	
CLNS				*e*PPP		07 19 56.9	
CLNS				*e*S	**S**	**07 23 18.4**	**-8.7**
CLNS				*e*		07 23 51.6	
CLNS				pmax	pmax		
	comp=Z,75nm,0.9s						
CLNS				pmax	pmax		
	comp=N,61nm,1.3s						
CLNS				pmax	pmax		
	comp=E,49nm,1.2s						
CLNS				smax			
	comp=E,17nm,1.1s						
CLNS				smax			
	comp=Z,13nm,0.9s						
CLNS				smax			
	comp=N,28nm,1.2s						
CLNS				MLR	MLR		
	comp=E,5μm,15.0s,MS5.0						
CLNS				MLR	MLR		
	comp=Z,6μm,15.0s,MS5.1						
CLNS				MLR	MLR		
	comp=N,2μm,14.0s,MS5.0						
ADK	**Adak**	**20.26**	**64**	*e*P	**P**	**07 19 41.6**	**+1.2**
	comp=N,221nm,1.5s						
ADK				LR	LR		
	comp=Z,2μm,20.0s,MS4.4						
NRGR	**Nerungri**	**20.29**	**310**	*e*P	**P**	**07 19 43.1**	**+2.4**
YAK	**Yakutsk**	**20.58**	**328**	*e*P	**P**	**07 19 43.5**	**-0.3**
	comp=Z,83nm,0.6s						
YAK				LR	LR		
	comp=Z,2μm,20.0s,MS4.5						
YAK	**Yakutsk**	**20.58**	**328**	*e*P	**P**	**07 19 44.4**	**+0.6**
YAK				*e*		07 20 01.1	
YAK				*e*S	**S**	**07 23 33.3**	**-0.1**
YAK				*e*		07 23 54.5	
YAK				*e*SS		07 23 54.5	
YAK				*e*SSS		07 24 08.8	
YAK				*e*		07 31 11.1	
YAK				pmax	pmax		
	comp=E,46nm,1.0s						
YAK				pmax	pmax		
	comp=Z,134nm,1.0s						
YAK				pmax	pmax		
	comp=N,41nm,1.1s						
YAK				pmax	pmax		
	comp=Z,88nm,0.9s						
YAK				pmax	pmax		
	comp=N,88nm,1.0s						
YAK				pmax	pmax		
	comp=E,193nm,2.2s						
YAK				smax			
	comp=E,483nm,3.6s						
YAK				smax			
	comp=N,240nm,1.9s						
YAK				MLR	MLR		
	comp=E,2μm,14.0s,MS4.8						
YAK				MLR	MLR		
	comp=Z,2μm,14.0s,MS4.7						
YAK				MLR	MLR		
	comp=N,2μm,16.0s,MS4.8						
KSRS	**Korea Array**	**20.84**	**253**	P	**P**	**07 19 47.2**	**+0.5**
	comp=N,60nm,0.9s,baz=58,slow=10,SNR=131						
KSRS				PcP	PcP	07 23 54.4	-0.6
	comp=N,5.1nm,1.0s,baz=21,slow=0.8,SNR=5.7						
KSRS				LR	LR	07 26 45.8	
	comp=N,1μm,20.6s,MS4.3,baz=63,slow=34						
KS15	**Wonju Array Si**	**20.87**	**253**	*e*Pn	**P**	**07 19 48.3**	**+1.2**
JUS	**Usuki**	**21.22**	**238**	P	**P**	**07 19 52.0**	**+1.1**
INCN	**Inchon**	**21.68**	**255**	*e*P	**P**	**07 19 56.8**	**+1.0**
	comp=N,200nm,0.8s,mb5.6						
INCN				LR	LR		
	comp=Z,918nm,19.0s,MS4.2						
JNU	**Nakatsue**	**21.70**	**240**	P	**P**	**07 19 56.1**	**+0.1**
	comp=Z,69nm,0.9s,mb5.1,baz=65,slow=8.1,SNR=11						
JNU				LR	LR	07 28 27.3	
	comp=Z,1μm,20.8s,MS4.2,baz=34,slow=37						
SNY	**Shenyang**	**21.74**	**268**	⇑P	**P**	**07 19 55.4**	**-1.1**
SNY				AP		07 19 59.7	
SNY				XP	sP	07 20 04.9	+3.2
SNY				PP		07 20 24.1	
SNY				S	**S**	**07 23 52.9**	**-3.7**
SNY				XS	sS	07 23 59.6	-2.8
SNY				AMB	AMB		
	comp=Z,91nm,1.0s,mb5.2						
SNY				AMB	AMB		
	comp=Z,753nm,10.1s						
SNY				LR	LR		
	comp=N,1μm,13.2s,MS4.7						
SNY				LR	LR		
	comp=E,2μm,16.2s,MS4.7						
SNY				LR	LR		
	comp=Z,2μm,17.1s,MS4.6						
JUR	**Ureshino**	**22.28**	**241**	P	**P**	**07 20 03.1**	**+0.9**
HIA	**Hailar**	**22.55**	**289**	*e*P	**P**	**07 20 02.0**	**-3.0**
	comp=Z,40nm,0.8s,mb4.9						
HIA				LR	LR		
	comp=Z,3μm,19.0s,MS4.7						
HIA	**Hailar**	**22.55**	**289**	*e*P	**P**	**07 20 02.0**	**-3.0**
HIA				pmax	pmax		
	comp=Z,40nm,0.8s						
HIA				MLR	MLR		
	comp=Z,3μm,19.0s						
BILL	**Bilibino**	**22.60**	**13**	⇑*i*P	**P**	**07 20 04.5**	**-0.8**
BILL				*i*		07 20 14.4	
BILL				*i* S	**S**	**07 24 12.4**	**-0.3**
BILL				pmax	pmax		
	comp=Z,55nm,0.6s,mb5.2						
BILL				MLR	MLR		
	comp=Z,2μm,14.0s,MS4.6						
DL2	**Dalian**	**24.35**	**263**	⇑*i*P	**P**	**07 20 23.0**	**+0.1**
DL2				PP		07 20 58.8	
DL2				S	**S**	**07 24 43.9**	**+2.1**
DL2				AMB	AMB		
	comp=Z,80nm,1.0s,mb5.1						
DL2				AMB	AMB		
	comp=Z,660nm,5.9s						
DL2				LR	LR		
	comp=N,420nm,14.5s,MS4.3						
DL2				LR	LR		
	comp=E,500nm,14.5s,MS4.3						
DL2				LR	LR		
	comp=Z,580nm,15.4s,MS4.2						
BOD	**Bodaibo**	**26.23**	**310**	*e*P	**P**	**07 20 37.7**	**-2.1**
BOD				pmax	pmax		
	comp=Z,34nm,1.2s,mb4.8						
CIT	**Chita**	**26.25**	**297**	*e*P	**P**	**07 20 39.0**	**-1.1**
CIT				*e*		07 20 47.4	
CIT				*e*		07 24 06.6	
CIT				pmax	pmax		
	comp=Z,81nm,1.0s,mb5.2						
UNV	**Unalaska Valle**	**26.48**	**59**	PFAKE		07 20 50.0	+7.9
UNV				LR	LR		
	comp=Z,3μm,20.0s,MS4.8						
BJI	**Beijing**	**27.59**	**270**	P	**P**	**07 20 52.1**	**-0.1**
BJI				XP	sP	07 20 56.3	-1.4
BJI				AMB	AMB		
	comp=Z,92nm,0.9s,mb5.4						
BJI				AMB	AMB		
	comp=Z,968nm,5.4s						
BJI				LR	LR		
	comp=N,873nm,17.4s,MS4.9						
BJI				LR	LR		
	comp=E,3μm,16.6s,MS4.9						
BJI				LR	LR		
	comp=Z,2μm,17.4s,MS4.8						
BJI	**Beijing**	**27.59**	**270**	P	**P**	**07 20 52.1**	**-0.1**
	comp=Z,0.1nm,0.9s						

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BJI                              sP      sP     07 20 56.3  -1.4
BJI                              S       S      07 25 53.1   +20
BJI                              LR      LR
      comp=Z,2µm,17.4s,MS4.8
BJT   Baijiatuau       27.60 270 eP      P      07 20 52.7  +0.3
      comp=Z,79nm,0.9s,mb5.3
BJT                              LR      LR
      comp=Z,3µm,19.0s,MS4.9
TIXI  Tiksi            27.73 344 eP      P      07 20 50.8  -2.4
      comp=Z,18nm,0.8s,mb4.8
TIXI                             LR      LR
      comp=Z,2µm,19.0s,MS4.6
TIXI  Tiksi            27.73 344 eP      P      07 20 50.3  -2.8
TIXI                             e              07 21 38.4
TIXI                             eS      S      07 25 30.5  -4.3
TIXI                             pmax    pmax
      comp=Z,18nm,0.8s,mb4.8
TIXI                             MLR     MLR
      comp=Z,2µm,14.0s,MS4.9
JOW   Kunigami         27.88 234 P       P      07 20 53.6  -1.3
      comp=Z,64nm,0.9s,mb5.2,baz=47,slow=7.6,SNR=9.3
TNA   Tin City         28.17  34 eP      P      07 20 57.6  +0.5
      comp=Z,24nm,0.8s,mb4.9
TNA                              LR      LR
      comp=Z,580nm,19.0s,MS4.2
TIA   Tai’an           28.80 262 P       P      07 21 03.1  +0.1
TIA                              S       S      07 25 55.8  +3.5
TIA                              LR      LR
      comp=N,470nm,17.4s,MS4.3
TIA                              LR      LR
      comp=E,500nm,18.9s,MS4.3
SSE   Sheshan          29.12 249 P       P      07 21 03.8  -2.1
SSE                              AP      pP     07 21 07.0  -2.8
SSE                              S       S      07 25 53.4  -4.1
SSE                              AMB     AMB
      comp=Z,22nm,0.7s,mb5.0
SSE                              AMB     AMB
      comp=Z,237nm,9.0s
SSE                              LR      LR
      comp=N,414nm,14.8s,MS4.5
SSE                              LR      LR
      comp=E,821nm,14.7s,MS4.5
SSE                              LR      LR
      comp=Z,728nm,15.5s,MS4.4
SSE   Sheshan          29.12 249 P       P      07 21 03.8  -2.1
      comp=Z,22nm,0.7s,mb5.0
SSE                              pP      pP     07 21 07.0  -2.8
SSE                              sP      sP     07 21 08.2  -3.2
SSE                              S       S      07 25 53.4  -4.1
SSE                              sS      sS     07 25 58.8  -5.1
SSE                              LR      LR
      comp=Z,730nm,15.5s,MS4.4
NJ2   Nanjing          30.04 254 eP      P      07 21 14.7  +0.6
NJ2                              AP      pP     07 21 19.2  +1.3
NJ2                              XP      sP     07 21 21.7  +2.2
NJ2                              PP      PP     07 22 12.9  -8.9
NJ2                              S       S      07 26 12.0  +0.1
NJ2                              XS      sS     07 26 18.0  -0.3
NJ2                              AMB     AMB
      comp=Z,60nm,1.0s,mb5.3
NJ2                              AMB     AMB
      comp=Z,400nm,8.8s
NJ2                              LR      LR
      comp=N,3µm,25.2s,MS4.8
NJ2                              LR      LR
      comp=E,2µm,26.1s,MS4.8
NJ2                              LR      LR
      comp=Z,2µm,26.1s,MS4.6
HHC   Hu-ho-hao-te     30.43 275 eP      P      07 21 18.1  +0.7
HHC                              XP      sP     07 21 26.0  +3.1
HHC                              PP      PP     07 22 16.5  -9.5
HHC                              PCP     PcP    07 24 19.6  +2.9
HHC                              S       S      07 26 15.6  -2.2
HHC                              XS      sS     07 26 23.6  -0.6
HHC                              SS      SS     07 27 55.5   -32
HHC                              PCS     PcS    07 28 01.6  +1.3
HHC                              AMB     AMB
      comp=Z,174nm,0.8s,mb5.8
HHC                              AMB     AMB
      comp=Z,477nm,4.3s
HHC                              LR      LR
      comp=N,2µm,17.2s,MS4.9
HHC                              LR      LR
      comp=E,2µm,18.4s,MS4.9
HHC                              LR      LR
      comp=Z,2µm,17.2s,MS4.9
ULN   Ulaanbaatar      31.09 290 eP      P      07 21 22.5  -0.7
      comp=Z,38nm,0.9s,mb5.2
ULN                              LR      LR
      comp=Z,2µm,19.0s,MS4.8
ULN   Ulaanbaatar      31.09 290 eP      P      07 21 22.5  -0.6
ULN                              pmax    pmax
      comp=Z,38nm,0.9s,mb5.2
ULN                              MLR     MLR
      comp=Z,2µm,19.0s,MS4.8
TIY   Taiyuan          31.25 269⇑eP      P      07 21 23.8  -0.9
TIY                              PP      PP     07 22 29.8  -5.4
TIY                              S       S      07 26 24.7  -6.1
TIY                              LR      LR
      comp=N,1µm,21.6s,MS4.8
TIY                              LR      LR
      comp=E,2µm,20.7s,MS4.8
SONM  Songino Array    31.52 290 P       P      07 21 26.3  -0.7
SONM                             PcP     PcP    07 24 18.7  -0.7
SONM                             LR      LR     07 35 11.2
SONM  Songino Array    31.52 290 P       P      07 21 26.3  -0.7
      comp=E,11nm,0.9s,mb4.7,baz=69,slow=8.5,SNR=86
SONM                             PcP     PcP    07 24 18.7  -0.7
      comp=E,9.4nm,0.8s,baz=106,slow=2.5,SNR=8.9
SONM                             LR      LR     07 35 11.2
      comp=E,3µm,18.6s,MS5.0,baz=52,slow=38
SONM                             PKPPKP         07 55 16.1
      comp=E,0.2nm,0.4s,baz=141,slow=6.0,SNR=6.5
BTO   Baotou           31.59 275 eP      P      07 21 28.0  +0.3
TLY   Talaya           32.39 298 P       P      07 21 33.9  -0.7
      comp=E,213nm,0.9s,mb6.0,SNR=11
TLY   Talaya           32.39 298 eP      P      07 21 33.8  -0.7
TLY                              LR      LR
      comp=Z,3µm,20.0s,MS4.9
TLY   Talaya           32.39 298 eP      P      07 21 33.6  -1.0
TLY                              e              07 22 45.1
TLY                              ePPP           07 22 59.8
TLY                              pmax    pmax
      comp=Z,41nm,1.0s,mb5.2
TLY                              MLR     MLR
      comp=Z,4µm,15.0s,MS5.2
TLY   Talaya           32.39 298 P       P      07 21 33.7  -0.9
      SNR=19
SVW2  Sparrevohn       32.58  45 eP      P      07 21 36.6  +0.5
ZAK   Zakamensk        32.88 295⇑iP      P      07 21 38.3  -0.6
ZAK                              pmax    pmax
      comp=Z,20nm,1.0s,mb5.0
TATO  Taipei           33.23 241 PFAKE          07 21 50.0  +7.8
TATO                             LR      LR
      comp=Z,1µm,19.0s,MS4.6
IMA2  Indian Mountai   33.93  36 eP      P      07 21 47.9  +0.1
WHN   Wuhan            33.98 256 ⇑P      P      07 21 49.1  +0.4
WHN                              S       S      07 27 14.9  +1.5
WHN                              AMB     AMB
      comp=Z,102nm,0.7s,mb5.9
WHN                              LR      LR
      comp=Z,2µm,16.4s,MS5.0
MOY   Mondy            34.01 298 eP      P      07 21 47.7  -1.0
MOY                              pmax    pmax
      comp=Z,26nm,2.5s,mb4.7
KDAK  Kodiak Island    34.16  51 P       P      07 21 48.9  -1.1
KDAK                             PcP     PcP    07 24 25.6  -1.0
KDAK                             LR      LR
      comp=Z,310nm,19.0s,MS4.1
KDAK  Kodiak Island    34.16  51 P       P      07 21 48.9  -1.0
      comp=Z,28nm,1.1s,mb5.1,baz=58,slow=1.1,SNR=8.3
KDAK                             PcP     PcP    07 24 25.6  -1.0
      comp=Z,18nm,1.1s,baz=255,slow=6.1,SNR=4.0
QZH   Quanzhou         35.03 244 P       P      07 22 00.1  +2.3
QZH                              S       S      07 27 30.5  +0.8
QZH                              AMB     AMB
      comp=Z,220nm,1.5s,mb5.9
QZH                              AMB     AMB
      comp=Z,960nm,8.0s
QZH                              LR      LR
      comp=N,940nm,15.3s
QZH                              LR      LR
      comp=E,2µm,22.2s
QZH                              LR      LR
      comp=Z,1µm,27.1s
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SLKM  Skilak Lake      35.21  46 eP      P      07 21 57.6  -1.3
SLKM  Skilak Lake      35.21  46 P       P      07 21 58.2  -0.7
XAN   Xi’an            35.61 266 P       P      07 22 02.9  +0.2
XAN                              S       S      07 27 46.4  +8.0
XAN                              AMB     AMB
      comp=Z,54nm,1.5s,mb5.3
XAN                              AMB     AMB
      comp=Z,348nm,7.4s
XAN                              LR      LR
      comp=N,518nm,15.7s,MS4.7
XAN                              LR      LR
      comp=E,975nm,16.1s,MS4.7
XAN                              LR      LR
      comp=Z,1µm,16.1s,MS4.7
PMR   Palmer           35.69  44 eP      P      07 22 02.7  -0.4
      comp=Z,50nm,1.3s,mb5.3
PMR                              LR      LR
      comp=Z,500nm,20.0s,MS4.3
PMR   Palmer           35.69  44 eP      P      07 22 02.7  -0.4
PMR                              pmax    pmax
      comp=Z,51nm,1.3s,mb5.3
PMR                              MLR     MLR
      comp=Z,500nm,20.0s,MS4.3
MCK   McKinley         35.76  40 eP      P      07 22 03.8  +0.1
      comp=Z,18nm,1.2s,mb4.9
MCK                              LR      LR
      comp=Z,496nm,19.0s,MS4.3
SML   Sawmill          36.06  43 eP      P      07 22 06.5  +0.2
COLA  College          36.25  38⇑iP      P      07 22 08.1  +0.2
COLA                             LR      LR
      comp=Z,678nm,19.0s,MS4.4
DIV   Divide           37.34  44 PFAKE          07 22 30.0   +13
DIV                              LR      LR
      comp=Z,2µm,21.0s,MS5.0
LZH   Lanzhou          38.01 272 ⇑P      P      07 22 24.5  +1.4
LZH                              AP      pP     07 22 27.7  +0.6
LZH                              XP      sP     07 22 29.5  +0.9
LZH                              PP      PP     07 23 53.0  +3.1
LZH                              PCP     PcP    07 24 39.2  +0.7
LZH                              eS      S      07 28 14.2  -0.8
LZH                              SS      SS     07 30 49.0   -13
LZH                              AMB     AMB
      comp=Z,264nm,1.5s,mb5.8
LZH                              AMB     AMB
      comp=Z,752nm,4.0s
LZH                              LR      LR
      comp=E,1µm,14.7s
LZH                              LR      LR
      comp=Z,2µm,15.4s,MS5.0
LZH   Lanzhou          38.01 272 ⇑P      P      07 22 24.5  +1.4
      comp=Z,264nm,1.5s,mb5.8
LZH                              pP      pP     07 22 27.7  +0.6
LZH                              sP      sP     07 22 29.5  +0.9
LZH                              PP      PP     07 23 53.0  +3.1
LZH                              PcP     PcP    07 24 39.2  +0.7
LZH                              eS      S      07 28 14.2  -0.8
LZH                              sS      sS     07 28 19.0  -2.4
LZH                              SS      SS     07 30 49.0   -13
LZH                              LR      LR
      comp=Z,2µm,15.4s,MS5.0
LZH   Lanzhou          38.01 272 ⇑P      P      07 22 24.5  +1.4
LZH                                             07 23 53.0
LZH                                             07 24 39.2
LZH                              eS      S      07 28 14.2  -0.8
LZH                              SS      SS     07 30 49.0   -13
LZH                              pmax    pmax
      comp=Z,264nm,1.5s,mb5.8
LZH                              MLR     MLR
      comp=Z,2µm,15.4s,MS5.0
EGAK  Eagle            39.12  38 PFAKE          07 22 40.0  +7.9
EGAK                             LR      LR
      comp=Z,754nm,20.0s,MS4.5
GTA   Gaotai           39.12 279 P       P      07 22 32.8  +0.4
GTA                              AP      pP     07 22 37.3  +0.9
GTA                              XP      sP     07 22 40.6  +2.7
GTA                              PP      PP     07 24 07.1  +5.1
GTA                              PCP     PcP    07 24 43.0  +1.1
GTA                              S       S      07 28 28.7  -3.0
GTA                              PCS     PcS    07 28 32.7  +1.2
GTA                              XS      sS     07 28 39.3  +1.1
GTA                              SS      SS     07 31 14.8  -9.2
GTA                              SCS     ScS    07 32 40.6  -0.6
GTA                              AMB     AMB
      comp=Z,84nm,1.4s,mb5.3
GTA                              AMB     AMB
      comp=Z,522nm,6.9s
GTA                              LR      LR
      comp=N,956nm,15.6s,MS4.9
GTA                              LR      LR
      comp=E,1µm,14.8s,MS4.9
GTA                              LR      LR
      comp=Z,1µm,14.1s,MS4.9
DAWY  Dawson           39.95  39 eP      P      07 22 39.1  +0.1
CD2   Chengdu          40.97 266⇑iP      P      07 22 48.2  +0.3
CD2                              AP      pP     07 22 52.7  +0.8
CD2                              XP      sP     07 22 55.6  +2.2
CD2                              PP      PP     07 24 25.8  +3.5
CD2                              PCP     PcP    07 24 49.8  +1.8
CD2                              PCS     PcS    07 28 40.5  +1.5
CD2                              S       S      07 28 58.6  -1.0
CD2                              XS      sS     07 29 05.9  -0.2
CD2                              SS      SS     07 31 54.5  -6.8
CD2                              SCS     ScS    07 32 50.7  -1.8
CD2                              AMB     AMB
      comp=Z,130nm,1.0s,mb5.5
CD2                              AMB     AMB
      comp=Z,600nm,7.2s
CD2                              LR      LR
      comp=N,900nm,15.6s,MS4.9
CD2                              LR      LR
      comp=E,940nm,16.8s,MS4.9
CD2                              LR      LR
      comp=Z,1µm,16.8s,MS4.8
GYA   Guiyang          41.78 258⇑iP      P      07 22 55.0  +0.5
GYA                              AP      pP     07 22 59.4  +0.9
GYA                              XP      sP     07 23 02.8  +2.8
GYA                              SCP     ScP    07 28 41.6  +1.2
GYA                              S       S      07 29 11.5   0.0
GYA                              SS      SS     07 32 10.0  -7.3
GYA                              SCS     ScS    07 32 56.6  -0.8
GYA                              AMB     AMB
      comp=Z,190nm,1.0s,mb5.7
GYA                              AMB     AMB
      comp=Z,480nm,5.7s
GYA                              LR      LR
      comp=N,2µm,17.8s,MS5.2
GYA                              LR      LR
      comp=E,2µm,18.2s,MS5.2
GYA                              LR      LR
      comp=Z,2µm,17.6s,MS5.0
INK   Inuvik           41.79  32 eP      P      07 22 54.7  +0.6
      comp=Z,754nm,0.7s
INK   Inuvik           41.79  32 P       P      07 22 54.4  +0.3
INK                              pmax    pmax
      comp=Z,25nm,0.8s
INK   Inuvik           41.79  32 P       P      07 22 54.4  +0.3
      comp=Z,25nm,0.8s,mb4.9,baz=289,slow=6.9,SNR=90
SKAG  Skagway          42.75  45 eP      P      07 23 02.7  +0.6
      comp=Z,30nm,0.9s,mb5.0
ZALV  Zalesovo Beam    42.84 306 P       P      07 23 01.1  -1.8
      comp=Z,17nm,0.8s,mb4.8,baz=64,slow=7.4,SNR=85
ZALV                             PcP     PcP    07 24 53.3  -0.4
      comp=Z,28nm,0.9s,baz=82,slow=3.1,SNR=16
ZALV                             LR      LR     07 42 03.1
      comp=Z,2µm,19.3s,MS5.1,baz=76,slow=38
ZAL   Zalesovo         42.86 306 P       P      07 23 01.1  -1.9
ZAL                                             07 24 53.3
NVS   Novosibirsk      43.42 308 i P     P      07 23 05.9  -1.7
NVS                              i              07 24 54.7
NVS                              eS      S      07 29 27.6  -7.6
NVS                              eSS     SS     07 33 00.6   +12
NVS                              pmax    pmax
      comp=Z,53nm,1.9s,mb5.0
NVS                              pmax    pmax
      comp=N,26nm,1.8s
NVS                              pmax    pmax
      comp=E,49nm,1.8s
NVS                              smax
      comp=N,36nm,2.2s
NVS                              smax
      comp=E,8.0nm,1.7s
QIZ   Qiongzhong       44.86 247 P       P      07 23 18.6  -0.9
QIZ                              XP      sP     07 23 22.8  -2.2
QIZ                              PP      PP     07 25 04.3   0.0
QIZ                              S       S      07 29 55.9  -0.9
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QIZ                              AMB     AMB
      comp=Z,23nm,1.6s,mb4.8
QIZ                              AMB     AMB
      comp=Z,369nm,6.5s
QIZ                              LR      LR
      comp=N,597nm,19.9s,MS4.7
QIZ                              LR      LR
      comp=E,492nm,16.2s,MS4.7
QIZ                              LR      LR
      comp=Z,588nm,18.9s,MS4.5
QIZ   Qiongzhong       44.86 247 eP      P      07 23 21.1  +1.6
      comp=Z,12nm,1.0s,mb4.7
QIZ                              LR      LR
      comp=Z,614nm,20.0s,MS4.5
WMQ   Urumqi           45.12 292 ⇑P      P      07 23 22.2  +0.9
WMQ                              AP      pP     07 23 26.7  +1.4
WMQ                              XP      sP     07 23 29.2  +2.4
WMQ                              PCP     PcP    07 25 03.6  +2.0
WMQ                              PP      PP     07 25 08.3  +1.7
WMQ                              SCP     ScP    07 28 54.3  +0.5
WMQ                              S       S      07 30 00.3  +0.2
WMQ                              SS      SS     07 33 12.9  -9.2
WMQ                              SCS     ScS    07 33 16.5  -1.3
WMQ                              AMB     AMB
      comp=Z,37nm,0.9s,mb5.2
WMQ                              AMB     AMB
      comp=Z,84nm,10.5s
WMQ                              LR      LR
      comp=N,1µm,17.0s,MS5.0
WMQ                              LR      LR
      comp=E,953nm,17.0s,MS5.0
WMQ                              LR      LR
      comp=Z,1µm,17.0s,MS4.9
KMI   Kunming          45.31 260 P       P      07 23 23.6  +0.6
KMI                              AP      pP     07 23 26.6  -0.4
KMI                              XP      sP     07 23 27.8  -0.8
KMI                              PP      PP     07 25 13.0  +4.0
KMI                              S       S      07 30 04.2  +0.9
KMI                              XS      sS     07 30 09.0  -0.8
KMI                              SS      SS     07 33 18.0  -8.5
KMI                              AMB     AMB
      comp=Z,89nm,0.9s,mb5.6
KMI                              AMB     AMB
      comp=Z,363nm,3.5s
KMI                              LR      LR
      comp=N,881nm,15.8s,MS4.9
KMI                              LR      LR
      comp=E,384nm,14.2s,MS4.9
KMI                              LR      LR
      comp=Z,726nm,15.0s,MS4.7
KMI   Kunming          45.31 260 P       P      07 23 23.6  +0.6
      comp=Z,89nm,0.9s,mb5.6
KMI                              pP      pP     07 23 26.6  -0.4
KMI                              sP      sP     07 23 27.8  -0.8
KMI                              PP      PP     07 25 13.0  +4.0
KMI                              PPP            07 25 46.9
KMI                              S       S      07 30 04.2  +0.9
KMI                              sS      sS     07 30 09.0  -0.8
KMI                              SS      SS     07 33 18.0  -8.5
KMI                              SSS            07 34 16.2
KMI                              LR      LR
      comp=Z,730nm,15.0s,MS4.7
KMI   Kunming          45.31 260 P       P      07 23 23.6  +0.6
KMI                                             07 25 13.0
KMI                              PPP            07 25 46.9
KMI                              S       S      07 30 04.2  +0.9
KMI                              *SS     sS     07 30 09.0  -0.8
KMI                              SS      SS     07 33 18.0  -8.5
KMI                              SSS            07 34 16.2
KMI                              pmax    pmax
      comp=Z,89nm,0.9s,mb5.6
KMI                              MLR     MLR
      comp=Z,730nm,15.0s,MS4.7
DLBC  Dease Lake       45.68  46 eP      P      07 23 26.7  +1.1
DAV   Davao City (W)   45.95 220 PFAKE          07 23 40.0   +12
DAV                              LR      LR
      comp=Z,377nm,20.0s,MS4.3
MK31  Makanchi Array   47.15 298 eP      P      07 23 36.3  -1.0
MK31                             ePcP    PcP    07 25 08.6  -0.1
MKAR  Makanchi Array   47.15 298 P       P      07 23 36.3  -1.0
MKAR                                            07 25 07.9
MKAR                             pmax    pmax
      comp=Z,75nm,0.9s
MKAR                             MLR     MLR
      comp=Z,4µm,18.1s
MKAR  Makanchi Array   47.15 298 P       P      07 23 36.2  -1.0
      comp=Z,75nm,0.9s,mb5.6,baz=66,slow=7.2,SNR=473
MKAR                             PcP     PcP    07 25 07.9  -0.8
      comp=Z,14nm,0.8s,baz=64,slow=5.5,SNR=4.5
MKAR                             LR      LR     07 44 36.0
      comp=Z,4µm,18.1s,MS5.4,baz=70,slow=38
KURK  Kurchatov        47.59 304 P       P      07 23 39.7  -0.9
      comp=Z,697nm,0.8s,SNR=78
KURK  Kurchatov        47.59 304 eP      P      07 23 39.0  -1.6
      comp=Z,66nm,0.7s,mb5.8
KURK                             LR      LR
      comp=Z,2µm,19.0s,MS5.2
KURK  Kurchatov        47.59 304c iP     P      07 23 39.3  -1.3
KURK  Kurchatov        47.59 304 P       P      07 23 39.4  -1.2
      SNR=29
POHA  Pohakuloa        49.41 105 eP      P      07 23 54.3  -0.7
      comp=Z,109nm,0.8s,mb5.9
ALE   Alert            49.97   6 P       P      07 23 58.0  -0.5
      comp=Z,300nm,1.1s,mb6.2,SNR=29
LSA   Lhasa            50.40 273 P       P      07 24 04.6  +2.2
LSA                              AP      pP     07 24 13.3  +6.8
LSA                              PP      PP     07 26 03.2  +5.3
LSA                              PCS     PcS    07 29 13.5  -4.5
LSA                              S       S      07 31 23.0  +7.6
LSA                              SCS     ScS    07 33 52.0  -1.3
LSA                              AMB     AMB
      comp=Z,80nm,0.7s,mb5.9
LSA                              LR      LR
      comp=N,270nm,16.3s,MS4.7
LSA                              LR      LR
      comp=E,600nm,18.5s,MS4.7
LSA                              LR      LR
      comp=Z,890nm,18.5s,MS4.8
LSA   Lhasa            50.40 273 eP      P      07 24 04.7  +2.2
      comp=Z,60nm,0.7s,mb5.7
LSA                              LR      LR
      comp=Z,846nm,20.0s,MS4.8
LSA   Lhasa            50.40 273 eP      P      07 24 04.7  +2.3
LSA                              pmax    pmax
      comp=Z,60nm,0.7s,mb5.7
LSA                              MLR     MLR
      comp=Z,846nm,20.0s,MS4.8
CHRT  Chiangrai        50.87 257 ⇑P      P      07 24 07.0  +0.9
      comp=Z,632nm,0.7s
YKW3  Yellowknife Ar   51.01  37 eP      P      07 24 06.6   0.0
RES   Resolute Bay     51.02  19 eP      P      07 24 06.9  +0.3
      comp=Z,1µm,0.9s
YKA   Yellowknife Ar   51.05  37 P       P      07 24 06.9   0.0
YKA                              LR      LR     07 48 06.1
YKA   Yellowknife Ar   51.05  37 P       P      07 24 06.9  +0.1
YKA                              pmax    pmax
      comp=Z,35nm,0.8s
YKA                              MLR     MLR
      comp=Z,176nm,18.4s
YKA   Yellowknife Ar   51.05  37 P       P      07 24 06.9   0.0
      comp=Z,35nm,0.8s,mb5.4,baz=296,slow=7.0,SNR=194
YKA                              LR      LR     07 48 06.1
      comp=Z,176nm,18.4s,MS4.1,baz=235,slow=39
BRVK  Borovoye         51.14 310 P       P      07 24 06.0  -1.7
      comp=Z,479nm,0.7s,SNR=44
BRVK  Borovoye         51.14 310 eP      P      07 24 06.7  -1.0
      comp=Z,67nm,0.8s,mb5.6
BRVK                             LR      LR
      comp=Z,2µm,19.0s,MS5.1
BRVK  Borovoye         51.14 310 P       P      07 24 06.9  -0.8
      SNR=23
KKTK  Khon Kaen        51.37 251 P       P      07 24 10.0  +0.2
      comp=Z,679nm,0.5s
CHG   Chiang Mai       52.17 257 ⇑P      P      07 24 16.8  +1.0
      comp=Z,139nm,0.9s,mb5.9
CHTO  Chiang Mai       52.17 257 eP      P      07 24 16.6  +0.8
      comp=Z,115nm,0.9s,mb5.8
CHTO                             LR      LR
      comp=Z,478nm,21.0s,MS4.5
CHTO  Chiang Mai       52.17 257 P       P      07 24 16.7  +0.9
CHTO                             pmax    pmax
      comp=Z,120nm,0.9s,mb5.8
CM31  Chiang Mai Arr   52.43 257 PFAKE          07 24 30.0   +12
CM31                             LR      LR
      comp=Z,323nm,19.0s,MS4.4
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KBS	**Kingsbay**	52.75	351	PFAKE		07 24 30.0	+11
KBS				LR	LR		
	comp=Z,466nm,19.0s,MS4.5						
KBS	**Kingsbay**	52.75	351	AMS	AMS	07 47 24.5	
	comp=Z,208nm,18.8s,MS4.2						
ULHL	**Ulahol**	53.17	295	P	P	07 24 23.8	+0.8
	SNR=7.5						
TKM2	**Tokmak 2**	53.21	296	P	P	07 24 23.3	+0.1
	SNR=43						
BDT	**Bhumibol Dam**	53.24	256	P	P	07 24 25.0	+1.2
NST	**Nakhon Sawan**	53.62	253	P	P	07 24 27.5	+1.0
CHMS	**Chumysh**	53.69	297	P	P	07 24 26.7	0.0
	SNR=21						
USP	**Ospenovka**	53.70	297	P	P	07 24 26.8	0.0
	SNR=109						
KBK	**Karagaybulak**	53.75	296	P	P	07 24 27.2	0.0
	SNR=22						
B04A	**Port Angeles**	53.77	56	⇑P	P	07 24 27.8	+0.5
	baz=54						
FRU	**Bishkek**	53.86	297	⇑eP	P	07 24 27.6	-0.4
FRU				pmax	pmax		
	comp=Z,80nm,1.2s,mb5.5						
FRU				MLR	MLR		
	comp=N,3µm,16.0s,MS5.5						
FRU				MLR	MLR		
	comp=E,2µm,16.0s,MS5.5						
FRU				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.5						
A04A	**Legoe Bay, Lum**	53.87	55	⇑P	P	07 24 29.0	+1.0
	baz=54						
KZA	**Kyzart**	53.88	296	P	P	07 24 29.0	+0.9
	SNR=99						
AAK	**Ala-Archa**	54.04	297	P	P	07 24 28.5	-0.8
	comp=Z,456nm,0.9s,SNR=67						
AAK	**Ala-Archa**	54.04	297	P	P	07 24 29.3	0.0
	SNR=86						
AAK	**Ala-Archa**	54.04	297	⇑iP	P	07 24 28.2	-1.1
AAK				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
AAK	**Ala-Archa**	54.04	297	c iP	P	07 24 28.1	-1.2
AAK				pmax	pmax		
	comp=Z,66nm,0.8s,mb5.6						
AAK				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
AAK	**Ala-Archa**	54.04	297	P	P	07 24 28.6	-0.7
	SNR=26						
A05A	**Maple Falls**	54.08	54	⇓P	P	07 24 30.2	+0.7
	baz=54						
SVE	**Sverdlovsk**	54.08	317	eP	P	07 24 28.0	-1.4
SVE				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.6						
SVE				MLR	MLR		
	comp=N,1µm,14.0s,MS5.2						
SVE				MLR	MLR		
	comp=E,1µm,14.0s,MS5.2						
SVE				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.2						
TAPN	**Taplejung**	54.23	274	eP	P	07 24 31.9	+1.0
	comp=Z,181nm,0.8s,mb6.0						
C04A	**Brinnon**	54.25	56	⇓P	P	07 24 31.7	+0.9
	baz=54						
UCH	**Uchtor**	54.25	296	P	P	07 24 31.8	+0.9
	SNR=15						
SOKR	**Solikamsk**	54.35	322	⇓iP	P	07 24 30.1	-1.2
SOKR				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
SOKR				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.0						
GNW	**Green Mountain**	54.42	56	eP	P	07 24 34.6	+2.6
B05A	**Bryant**	54.46	55	⇑P	P	07 24 32.7	+0.4
	baz=54,SNR=5.8						
EKS2	**Erkin-Say**	54.47	297	P	P	07 24 32.1	-0.3
	SNR=76						
B06A	**Marblemount**	54.67	54	⇓P	P	07 24 33.9	+0.1
	baz=54						
ODAN	**Odare**	54.76	273	eP	P	07 24 35.6	+0.8
	comp=Z,165nm,1.1s,mb6.0						
AML	**Almayashu**	54.81	296	P	P	07 24 35.6	+0.7
	SNR=47						
KSH	**Kashi**	54.85	293	eP	P	07 24 36.0	+0.8
KSH				eAP	pP	07 24 40.1	+0.8
KSH				eXP	sP	07 24 43.1	+2.2
KSH				ePCP	PcP	07 25 38.0	+0.6
KSH				ePP	PP	07 26 40.0	+2.2
KSH				eSCP	ScP	07 29 34.0	-1.5
KSH				ePCS	PcS	07 29 36.0	-1.1
KSH				eS	S	07 32 13.6	-2.4
KSH				eXS	sS	07 32 22.1	-0.5
KSH				AMB	AMB		
	comp=Z,299nm,3.2s						
KSH				LR	LR		
	comp=N,2µm,15.1s,MS5.6						
KSH				LR	LR		
	comp=E,3µm,15.4s,MS5.6						
KSH				LR	LR		
	comp=Z,3µm,16.9s,MS5.5						
A07A	**Ashnola River,**	54.99	53	⇓P	P	07 24 35.7	-0.5
	baz=55						
C05A	**Tolt Reservoir**	55.00	55	⇓P	P	07 24 36.8	+0.6
	baz=55						
E04A	**Onalaska**	55.01	57	⇓P	P	07 24 37.4	+1.1
	baz=55						
JIRN	**Jiri**	55.08	275	eP	P	07 24 38.3	+1.2
	comp=Z,22nm,0.3s,mb5.6						
D05A	**Enumclaw**	55.10	56	⇑P	P	07 24 38.2	+1.3
	baz=55						
GUN	**Gumba**	55.14	275	eP	P	07 24 38.4	+0.9
	comp=Z,193nm,0.9s,mb6.1						
ARU	**Arti**	55.26	318	P	P	07 24 36.4	-1.6
	comp=Z,475nm,0.7s,SNR=9.9						
ARU	**Arti**	55.26	318	eP	P	07 24 34.3	-3.7
	comp=Z,46nm,0.6s,mb5.7						
ARU				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
ARU	**Arti**	55.26	318	⇑iP	P	07 24 36.5	-1.5
ARU				e		07 25 36.5	
ARU				eS	S	07 32 18.7	-2.3
ARU				pmax	pmax		
	comp=Z,57nm,0.8s,mb5.7						
ARU				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.9						
ARU				MLR	MLR		
	comp=N,1µm,18.0s,MS5.0						
ARU				MLR	MLR		
	comp=E,500nm,19.0s,MS5.0						
C06A	**Tall Timber Ra**	55.32	55	⇓P	P	07 24 38.9	+0.4
	baz=55						
B07A	**Winthrop**	55.46	54	⇓P	P	07 24 39.6	+0.1
	baz=55						
F04A	**Amboy**	55.54	57	⇓P	P	07 24 40.6	+0.4
	baz=55						
E05A	**Randle**	55.58	56	⇓P	P	07 24 39.6	-0.8
	baz=55						
KKN	**Kakani**	55.62	276	eP	P	07 24 42.0	+1.0
	comp=E,203nm,0.7s,mb6.3						
PKI	**Pulchoki**	55.67	275	eP	P	07 24 42.3	+1.0
	comp=E,208nm,1.1s,mb6.1						
D06A	**Cle Elum**	55.75	55	⇑P	P	07 24 41.5	-0.1
	baz=56,SNR=5.2						
DMN	**Daman**	55.86	276	eP	P	07 24 43.9	+1.2
	comp=E,255nm,0.8s,mb6.3						
C07A	**Waterville**	55.92	55	⇓P	P	07 24 42.4	-0.5
	baz=56,SNR=5.1						
GKN	**Gorkha**	55.93	276	eP	P	07 24 44.2	+1.0
	comp=E,216nm,0.6s,mb6.3						
PMG	**Port Moresby**	55.93	187	PFAKE		07 24 50.0	+6.8
PMG				LR	LR		
	comp=Z,454nm,21.0s,MS4.5						
B08A	**Colville Reser**	55.95	54	P	P	07 24 42.8	-0.3
	baz=56,SNR=12						
WTV	**Waterville**	55.97	54	P	P	07 24 45.9	+2.7
HNR	**Honiara**	56.01	172	PFAKE		07 25 00.0	+16
HNR				LR	LR		
	comp=Z,530nm,19.0s,MS4.7						
A09A	**Danville**	56.03	53	P	P	07 24 43.5	0.0
	baz=56,SNR=15						
E06A	**Yakima**	56.03	56	⇓P	P	07 24 43.8	+0.1
	baz=56						
EBG	**Ellensburg**	56.07	56	P	P	07 24 47.1	+3.3
I03A	**Eugene**	56.13	60	⇑P	P	07 24 44.3	-0.1
	baz=56						
D07A	**Quincy**	56.24	55	⇑P	P	07 24 45.3	+0.1
	baz=56						
J02A	**Umpqua**	56.30	61	⇑P	P	07 24 45.4	-0.2
	baz=56						
HOOD	**Mount Hood Mea**	56.33	58	eP	P	07 24 48.0	+2.2
H04A	**Detroit Lake**	56.38	59	⇑P	P	07 24 46.1	-0.1
	baz=56,SNR=6.7						
EDM	**Edmonton**	56.40	46	eP	P	07 24 46.0	-0.2
C08A	**Higginbotham F**	56.44	54	P	P	07 24 46.3	-0.2
	baz=56,SNR=8.1						
G05A	**Wamic**	56.57	58	⇓P	P	07 24 47.3	-0.2
	baz=56						
B09A	**Rice**	56.57	53	⇓P	P	07 24 47.4	-0.1
	baz=56						
A10A	**Northport**	56.58	52	⇓P	P	07 24 46.7	-0.9
	baz=56						
F06A	**Goldendale**	56.58	57	⇑P	P	07 24 47.4	-0.2
	baz=56						
J03A	**Ideyld Park**	56.66	60	⇓P	P	07 24 47.4	-0.8
	baz=56						
E07A	**Sunnyside**	56.67	56	⇑P	P	07 24 47.7	-0.5
	baz=56						
K02A	**Glendale**	56.69	61	⇑P	P	07 24 48.3	-0.1
	baz=56						
IRO	**Indian Ridge**	56.72	59	P	P	07 24 48.8	+0.1
I04A	**Tendick Farm,**	56.75	60	⇑P	P	07 24 48.4	-0.4
	baz=57						
KOLN	**Koldanda**	56.79	277	eP	P	07 24 50.5	+1.2
	comp=Z,216nm,0.8s,mb6.2						
OD2	**Odessa Site #2**	56.84	54	P	P	07 24 51.8	+2.3
DAG	**Danmarks Havn**	56.89	358	⇓iP	P	07 24 48.6	-0.7
DAG				pmax	pmax		
	comp=Z,46nm,0.7s,mb5.6						
DAG	**Danmarks Havn**	56.89	358	⇓iP	P	07 24 48.6	-0.7
	comp=Z,46nm,0.7s,mb5.6						
CROR	**Criterion Ridg**	56.91	58	P	P	07 24 51.0	+1.1
D08A	**Wollman Farm,**	56.91	55	⇓P	P	07 24 49.8	-0.1
	baz=57						
H05A	**Madras**	56.96	58	⇓P	P	07 24 50.2	-0.1
	baz=57						
L02A	**Cave Junction**	56.97	62	⇓P	P	07 24 50.0	-0.4
	baz=57						
G06A	**Carlson Farm,**	56.97	57	⇑P	P	07 24 49.9	-0.5
	baz=57						
F07A	**Phinny Hill Vi**	57.00	56	⇑P	P	07 24 50.6	+0.1
	baz=57						
LVZ	**Lovozero**	57.03	337	eP	P	07 24 49.8	-0.6
LVZ				LR	LR		
	comp=Z,809nm,20.0s,MS4.8						
LVZ	**Lovozero**	57.03	337	eP	P	07 24 49.7	-0.7
LVZ				pmax	pmax		
	comp=Z,85nm,1.8s,mb5.5						
LVZ				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.0						
HUMO	**Hull Mountain**	57.10	61	PFAKE		07 25 00.0	+8.7
HUMO				LR	LR		
	comp=Z,387nm,20.0s,MS4.5						
HUMO	**Hull Mountain**	57.10	61	⇑P	P	07 24 51.1	-0.2
	baz=57						
B10A	**Chitwood Farm,**	57.15	53	⇓P	P	07 24 51.1	-0.5
	baz=57						
E08A	**Dider Farm, El**	57.16	55	⇑P	P	07 24 50.9	-0.8
	baz=57						
I05A	**Bend**	57.21	59	⇓P	P	07 24 51.8	-0.3
	baz=57						
NEW	**Newport**	57.23	53	PFAKE		07 25 00.0	+7.9
NEW				LR	LR		
	comp=Z,455nm,20.0s,MS4.6						
J04A	**Umpqua Nationa**	57.24	60	⇓P	P	07 24 51.4	-0.9
	baz=57						
A11A	**Hall Mountain,**	57.25	52	⇑P	P	07 24 51.9	-0.3
	baz=57,SNR=9.8						
D09A	**Jones Farm, Ri**	57.26	54	⇓P	P	07 24 51.7	-0.7
	baz=57						
C10A	**Spilker Farm,**	57.38	53	⇓P	P	07 24 52.4	-0.8
	baz=57						
VIPM	**Ingram Point**	57.40	58	P	P	07 24 54.3	+0.9
H06A	**Lindquist Farm**	57.43	58	⇓P	P	07 24 53.2	-0.4
	baz=57,SNR=8.5						
G07A	**Ruggs Ranch, H**	57.51	57	⇓P	P	07 24 54.1	-0.1
	baz=57						
B11A	**Sandpoint**	57.54	52	⇑P	P	07 24 54.0	-0.3
	baz=57						
APA	**Apatity**	57.60	337	⇑iP	P	07 24 53.5	-1.0
APA				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.1						
APA				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.2						
KEV	**Kevo**	57.60	341	PFAKE		07 25 10.0	+16
KEV				LR	LR		
	comp=Z,833nm,20.0s,MS4.8						
PRGR	**Permogore**	57.63	327	⇑iP	P	07 24 54.1	-0.6
PRGR				eS	S	07 32 52.9	+0.7
PRGR				smax			
	comp=N,28nm,1.6s						
KHMM	**Horse Mountain**	57.63	63	eP	P	07 24 56.7	+1.6
A12A	**Yaak River Ran**	57.64	51	⇑P	P	07 24 54.7	-0.3
	baz=57						
E09A	**Wood Farm, Sta**	57.66	55	⇓P	P	07 24 54.8	-0.5
	baz=58,SNR=6.0						
J05A	**Fort Rock**	57.74	59	⇓P	P	07 24 55.7	-0.1
	baz=58						
YBH	**Yreka Blue Hor**	57.76	62	eP	P	07 24 57.1	+1.1
	comp=N,18nm,1.1s,mb5.0						
YBH	**Yreka Blue Hor**	57.76	62	eP	P	07 24 57.1	+1.1
YBH				pmax	pmax		
	comp=Z,18nm,1.1s						
YBH	**Yreka Blue Hor**	57.76	62	⇑P	P	07 24 55.7	-0.2
	baz=58,SNR=7.8						
K04A	**Chilquin**	57.83	60	⇑P	P	07 24 56.6	+0.1
	baz=58						
D10A	**Wagner Farm, O**	57.84	54	⇑P	P	07 24 56.0	-0.5
	baz=58						
M02C	**Callahan**	57.87	62	⇓P	P	07 24 56.5	-0.2
	baz=58,SNR=6.1						
G08A	**Pilot Rock**	57.91	56	⇑P	P	07 24 57.0	+0.1
	baz=58,SNR=6.6						
I06A	**Prineville**	57.96	58	⇑P	P	07 24 56.9	-0.4
	baz=58,SNR=6.4						
L04A	**Klamath Falls**	57.99	61	⇓P	P	07 24 57.5	-0.1
	baz=58						
ARCES	**ARCESS Array B**	58.12	341	P	P	07 24 57.5	-0.5
	comp=Z,30nm,0.9s,mb5.3,baz=56,slow=9.0,SNR=21						
ARCES				PcP	PcP	07 25 48.6	-1.0
	comp=Z,7.8nm,1.0s,baz=320,slow=3.6,SNR=3.5						
ARCES				LR	LR	07 55 53.3	
	comp=Z,858nm,18.2s,MS4.9,baz=25,slow=42						
ARE0	**ARCESS Array S**	58.12	341	eP	P	07 24 57.4	-0.7
M04C	**Macdoel**	58.26	61	⇓P	P	07 24 59.4	-0.1
	baz=58,SNR=5.7						
E10A	**Myers Farm, Un**	58.26	54	⇓P	P	07 24 59.5	0.0
	baz=58						
F09A	**S2 Ranch, Elgi**	58.26	55	⇓P	P	07 24 59.5	0.0
	baz=58						
K05A	**Summer Lake**	58.27	60	⇓P	P	07 24 59.8	+0.3
	baz=58,SNR=7.5						
I07A	**Izee**	58.30	58	⇓P	P	07 25 00.1	+0.4
	baz=58,SNR=7.7						
D11A	**Klaveano Farm,**	58.37	53	⇑P	P	07 24 58.6	-1.5
	baz=58						
M03C	**McCloud**	58.38	62	⇑P	P	07 24 59.8	-0.6
	baz=58						
J06A	**Christmas Vall**	58.40	59	⇓P	P	07 25 00.2	-0.3
	baz=58,SNR=7.9						
KSM	**Kuching**	58.42	233	P	P	07 25 01.5	+0.6
F10A	**Beach Ranch, E**	58.50	55	⇓P	P	07 25 00.6	-0.5
	baz=58						
WALA	**Waterton Lakes**	58.50	50	eP	P	07 25 01.1	+0.1
	comp=Z,31nm,1.0s,mb5.3						
H08A	**Prairie City**	58.52	57	⇓P	P	07 25 01.4	+0.1
	baz=58,SNR=9.3						
WDC	**Whiskeytown Da**	58.54	63	PFAKE		07 25 10.0	+8.6
WDC				LR	LR		
	comp=Z,264nm,19.0s,MS4.4						
WDC	**Whiskeytown Da**	58.54	63	⇑P	P	07 25 02.3	+0.8
	baz=58,SNR=6.3						
B13A	**Whitefish**	58.61	51	⇑P	P	07 25 02.0	+0.2
	baz=58,SNR=14						
K06A	**Valley Falls**	58.61	59	⇓P	P	07 25 02.0	+0.1
	baz=58,SNR=5.2						
O02C	**Red Bluff**	58.62	63	⇑P	P	07 25 01.3	-0.7
	baz=58						
L05A	**Lakeview**	58.70	60	⇑P	P	07 25 02.7	+0.1
	baz=58						
BSMT	**Bassoo Peak**	58.74	52	eP	P	07 25 03.5	+0.7
J07A	**Hines**	58.83	58	⇑P	P	07 25 03.1	-0.3
	baz=59						
E11A	**Bogner Ranch,**	58.84	54	⇓P	P	07 25 02.8	-0.7
	baz=59						
M05C	**Lookout**	58.92	61	⇑P	P	07 25 04.4	+0.3
	baz=59,SNR=6.8						
I08A	**Drewsey**	58.94	57	⇓P	P	07 25 05.0	+0.8
	baz=59,SNR=16						
C13A	**Hot Springs**	58.96	52	⇑P	P	07 25 03.9	-0.3
	baz=59						
AKTK	**Aktyubinsk**	58.97	312	P	P	07 25 03.0	-1.3
AKTK				PcP	PcP	07 25 52.6	-0.6
AKTK				LR	LR	07 52 59.0	
AKTO	**Aktyubinsk**	58.97	312	P	P	07 25 03.0	-1.3
AKTO						07 25 52.7	
AKTO				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
AKTO				MLR	MLR		
	comp=Z,3µm,18.3s,MS5.5						
AKTO	**Aktyubinsk**	58.97	312	P	P	07 25 03.0	-1.3
	comp=Z,13nm,0.8s,mb5.0,baz=61,slow=6.5,SNR=38						
AKTO				PcP	PcP	07 25 52.6	-0.6
	comp=Z,14nm,0.9s,baz=34,slow=4.9,SNR=4.6						
AKTO				LR	LR	07 52 59.0	
	comp=Z,3µm,18.2s,MS5.5,baz=46,slow=39						
GASB	**Alder Springs**	58.98	64	⇓P	P	07 25 04.5	0.0
	baz=59						
KTK1	**Kautokeino**	59.03	341	eP	P	07 25 05.1	+0.7
	comp=Z,64nm,1.9s,mb5.3						
KTK1	**Kautokeino**	59.03	341	eP	P	07 25 05.1	+0.7
KTK1				AMb	AMB	07 25 09.2	
	comp=Z,64nm,1.9s,mb5.3						
HATC	**Hat Creek Radi**	59.06	62	⇑P	P	07 25 05.2	+0.1
	baz=59						
MOD	**Modoc**	59.11	60	eP	P	07 25 06.4	+1.0
	comp=Z,8.6nm,1.0s,mb4.7						
MOD				LR	LR		
	comp=Z,262nm,19.0s,MS4.4						
MOD	**Modoc**	59.11	60	⇑P	P	07 25 05.5	+0.1
	baz=59,SNR=6.6						
BMO	**Blue Mountains**	59.11	56	eP	P	07 25 05.3	-0.1
	comp=Z,58nm,1.5s,mb5.4						
F11A	**Grangeville**	59.15	54	P	P	07 25 05.5	-0.1
	baz=59,SNR=14						
O03C	**Acorn Hollow,**	59.20	63	⇓P	P	07 25 05.8	-0.2
	baz=59						
K07A	**Rock Creek Ran**	59.27	59	⇓P	P	07 25 06.4	-0.1
	baz=59,SNR=11						
J08A	**Circle Bar Ran**	59.33	58	⇑P	P	07 25 06.9	+0.1
	baz=59,SNR=11						
C14A	**Swan Lake**	59.36	52	⇑P	P	07 25 06.7	-0.3
	baz=59						
D13A	**Huson**	59.37	53	⇓P	P	07 25 07.0	-0.2
	baz=59						
G11A	**Walters Elk Ra**	59.38	55	⇑P	P	07 25 06.9	-0.3
	baz=59,SNR=20						
I09A	**Lost Marbles R**	59.39	57	⇓P	P	07 25 07.3	+0.1
	baz=59,SNR=5.9						
M06C	**Likely Place G**	59.42	61	⇓P	P	07 25 07.5	-0.1
	baz=59						
TRO	**Tromso**	59.44	343	eP	P	07 25 05.9	-1.4
TRO				AMS	AMS	07 55 31.0	
	comp=Z,458nm,18.4s,MS4.6						
FUNA	**Funafuti**	59.48	150	PFAKE		07 25 20.0	+12
FUNA				LR	LR		
	comp=Z,4µm,20.0s,MS5.6						
SGF	**Sodankyl**	59.48	339	P	P	07 25 07.3	-0.3
O04C	**Chester**	59.58	62	⇑P	P	07 25 08.5	-0.2
	baz=59,SNR=6.3						
H10A	**Noah's Angus R**	59.59	56	P	P	07 25 09.1	+0.4
	baz=59,SNR=19						
MNRC	**McLaughlin Nat**	59.61	64	⇑P	P	07 25 08.9	0.0
	baz=59						
L07A	**Adell**	59.62	60	⇓P	P	07 25 08.8	-0.1
	baz=59						
ELFS	**Eagle Lake Fie**	59.62	62	⇑P	P	07 25 08.9	-0.1
	baz=59						
K08A	**Mann Creek Ran**	59.69	59	⇓P	P	07 25 09.2	-0.3
	baz=60,SNR=21						
F12A	**Elk City**	59.73	54	⇑P	P	07 25 09.5	-0.1
	baz=60,SNR=18						
J09A	**Fry Pan Ranch,**	59.75	58	⇓P	P	07 25 09.5	-0.3
	baz=60,SNR=19						
WVOR	**Wild Horse Val**	59.78	59	PFAKE		07 25 20.0	+10
WVOR				LR	LR		
	comp=Z,329nm,21.0s,MS4.4						
ORV	**Oroville**	59.79	63	⇑P	P	07 25 09.7	-0.4
	baz=60						
SUTB	**Sutter Butte**	59.81	64	⇓P	P	07 25 09.7	-0.6
	baz=60						
MSO	**Missoula**	59.82	53	eP	P	07 25 10.1	-0.1
	comp=Z,46nm,1.3s,mb5.3						
I10A	**Payette**	59.86	56	⇑P	P	07 25 10.2	-0.3
	baz=60						
D14A	**Greenough**	59.90	52	P	P	07 25 10.8	0.0
	baz=60,SNR=22						
O05C	**Quincy**	59.90	62	⇑P	P	07 25 10.8	0.0
	baz=60						
E13A	**Victor**	59.91	53	⇑P	P	07 25 10.7	-0.2
	baz=60,SNR=10						
OHCM	**Honcut**	59.93	63	eP	P	07 25 13.7	+2.6
H11A	**Donnelly**	59.94	55	P	P	07 25 11.2	+0.1
	baz=60,SNR=20						
N06A	**Buffalo Meadow**	60.08	61	⇓P	P	07 25 11.9	-0.2
	baz=60						
M07A	**Soldier Meadow**	60.10	60	⇓P	P	07 25 12.3	+0.1
	baz=60,SNR=29						
L08A	**Fields**	60.10	59	⇑P	P	07 25 12.7	+0.4
	baz=60,SNR=15						
CHMT	**Chamberlain Mo**	60.14	52	eP	P	07 25 11.2	-1.3
K09A	**Rome**	60.16	58	⇓P	P	07 25 13.0	+0.4
	baz=60						
J10A	**Berg Farm, Mel**	60.28	57	⇓P	P	07 25 13.8	+0.4
	baz=60						
BEKR	**Beckwourth**	60.30	62	⇑P	P	07 25 13.1	-0.6
	baz=60,SNR=13						
E14A	**Clinton**	60.31	53	P	P	07 25 13.6	0.0
	baz=60,SNR=17						
O06A	**Flanigan**	60.44	62	⇓P	P	07 25 14.9	+0.3
	baz=60						
I11A	**Placerville**	60.45	56	⇑P	P	07 25 14.3	-0.3
	baz=60						
D15A	**Lincoln**	60.46	52	⇓P	P	07 25 14.4	-0.2
	baz=60,SNR=6.4						
M08A	**Happy Creek Ra**	60.53	60	⇓P	P	07 25 15.6	+0.4
	baz=60						
N07B	**Gerlach**	60.59	61	⇑P	P	07 25 16.2	+0.6
	baz=60,SNR=7.4						
L09A	**Wilkinson Ranc**	60.61	59	⇓P	P	07 25 15.8	+0.1
	baz=60						
K10A	**MacKenzie Ranc**	60.61	58	⇓P	P	07 25 16.3	+0.6
	baz=60,SNR=19						
H12A	**Diamond D Ranc**	60.69	55	⇑P	P	07 25 16.1	-0.1
	baz=60						
G13A	**Cobalt**	60.71	54	⇑P	P	07 25 16.0	-0.3
	baz=60						
LAVA	**Lava Cap Winer**	60.74	63	⇓P	P	07 25 16.3	-0.4
	baz=61						
F14A	**Wisdom**	60.75	53	⇑P	P	07 25 16.3	-0.3
	baz=60,SNR=7.3						
E15A	**Deer Lodge**	60.77	52	⇑P	P	07 25 16.8	0.0
	baz=60,SNR=17						
MFID	**Camas Ranch**	60.83	57	⇑P	P	07 25 17.1	-0.1
	baz=61,SNR=5.5						
FFC	**Flin Flon**	60.85	40	P	P	07 25 17.9	+0.8
	comp=Z,309nm,0.7s,SNR=25						
FFC	**Flin Flon**	60.85	40	eP	P	07 25 17.2	+0.1
	comp=Z,32nm,0.8s,mb5.5						
FFC				LR	LR		
	comp=Z,472nm,20.0s,MS4.6						
WCN	**Washoe City**	61.01	62	⇑P	P	07 25 18.3	-0.2
	baz=61						
O07A	**Toulon**	61.02	61	⇑P	P	07 25 18.6	+0.1
	baz=61,SNR=12						
H13A	**Challis**	61.02	55	P	P	07 25 18.2	-0.2
	baz=61,SNR=17						
G14A	**Jackson**	61.05	54	⇓P	P	07 25 18.1	-0.5
	baz=61						
KULM	**Kulim**	61.08	245	P	P	07 25 19.6	+0.4
M09A	**Marrel Ranch,**	61.10	59	⇑P	P	07 25 19.3	+0.3
	baz=61						
R05C	**Kirkwood Meado**	61.19	63	⇑P	P	07 25 19.8	+0.1
	baz=61,SNR=6.5						
F15A	**Butte**	61.21	53	P	P	07 25 20.0	+0.2
	baz=61,SNR=18						
LRM	**Limekiln Ridge**	61.25	53	eP	P	07 25 20.3	+0.3
L10A	**Juniper Basin**	61.28	58	⇑P	P	07 25 20.3	+0.1
	baz=61						
EGMT	**Eagleton**	61.33	49	eP	P	07 25 20.2	-0.3
	comp=Z,50nm,1.0s,mb5.6						
EGMT				LR	LR		
	comp=Z,471nm,20.0s,MS4.6						
J12A	**Stokes Ranch,**	61.35	56	⇓P	P	07 25 20.9	+0.2
	baz=61,SNR=16						
FCC	**Fort Churchill**	61.40	33	eP	P	07 25 20.3	-0.5
CMB	**Columbia Colle**	61.41	64	PFAKE		07 25 30.0	+8.8

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CMB                               LR     LR
      comp=Z,371nm,21.0s,MS4.5
CMB   Columbia Colle    61.41  64 ⇑P     P      07 25 21.2  0.0
      baz=61
N09A  Rock Creek Ran    61.41  60 ⇓P     P      07 25 21.2 +0.1
      baz=61,SNR=9.7
DLMT  Dillon            61.45  53 eP     P      07 25 22.7 +1.3
      comp=Z,32nm,1.3s,mb5.3
OUL   Oulu              61.48 337  P     P      07 25 20.1 -1.1
PACP  Pacheco Peak      61.48  65 ⇑P     P      07 25 21.9 +0.2
      baz=61
I13A  Wildhorse Cree    61.50  55 ⇓P     P      07 25 22.1 +0.4
      baz=61,SNR=20
HLID  Hailey            61.55  56 eP     P      07 25 22.1 +0.1
      comp=Z,26nm,1.3s,mb5.2
HLID                              LR     LR
      comp=Z,211nm,19.0s,MS4.3
M10A  I.L. Ranch, Tu    61.58  59 ⇑P     P      07 25 22.7 +0.4
      baz=61,SNR=15
JOF   Joensuu           61.60 334 ep     P      07 25 20.5 -1.6
      comp=Z,8.3nm,0.5s,mb5.1
JOF   Joensuu           61.60 334 eP     P      07 25 20.5 -1.6
JOF                               pmax   pmax
      comp=Z,8.0nm,0.5s,mb5.1
G15A  Dillon            61.63  53 ⇑P     P      07 25 22.3 -0.3
      baz=61,SNR=12
L11A  Cat Creek Ranc    61.64  58 ⇓P     P      07 25 23.1 +0.4
      baz=61,SNR=17
R06C  Coleville         61.68  63 ⇑P     P      07 25 23.0  0.0
      baz=62,SNR=10
WAKR  Walker            61.70  63 eP     P      07 25 23.9 +0.7
LOF   Lofoten           61.77 344 eP     P      07 25 24.7 +1.6
J13A  Cove Ranch, Pi    61.79  56 ⇓P     P      07 25 23.5 -0.1
      baz=62,SNR=16
BOZ   Bozeman (W)       61.81  52 eP     P      07 25 24.3 +0.6
      comp=Z,53nm,1.2s,mb5.5
BOZ                               LR     LR
      comp=Z,253nm,19.0s,MS4.4
BOZ   Bozeman (W)       61.81  52 ⇑P     P      07 25 23.8  0.0
      baz=62,SNR=22
S06C  San Francisco     61.83  64 ⇓P     P      07 25 23.7 -0.4
      baz=62,SNR=11
K12A  Draper Farm, C    61.84  57 ⇑P     P      07 25 23.6 -0.5
      baz=62,SNR=12
BMN   Battle Mountai    61.85  60 eP     P      07 25 25.0 +0.8
      comp=Z,17nm,0.9s,mb5.2
BMN                               LR     LR
      comp=Z,379nm,22.0s,MS4.5
BMN   Battle Mountai    61.85  60 eP     P      07 25 25.2 +1.1
BMN                               e             07 25 36.5
S05C  Merced            61.87  64 ⇓P     P      07 25 24.1 -0.2
      baz=62
O09A  Fish Creek Ran    62.03  60 ⇓P     P      07 25 25.3 -0.1
      baz=62,SNR=9.6
M11A  Holland Ranch,    62.08  58 ⇓P     P      07 25 26.2 +0.6
      baz=62,SNR=13
L12A  House Creek Ra    62.08  57 ⇑P     P      07 25 25.9 +0.2
      baz=62,SNR=20
R07C  Lee Vining        62.20  63 ⇓P     P      07 25 26.8 +0.3
      baz=62
KBL   Kabul             62.26 292 eP     P      07 25 26.4 -0.6
K13A  Stover Farm, H    62.31  56 ⇑P     P      07 25 27.4 +0.2
      baz=62
O10A  Cortez Mining,    62.37  60 ⇓P     P      07 25 28.1 +0.4
      baz=62
Q08A  Gabbs             62.40  62 ⇑P     P      07 25 28.0 +0.1
      baz=62
QLMT  Earthquake Lak    62.43  53 eP     P      07 25 28.9 +0.9
NVAR  Mina Array Bea    62.44  62  P     P      07 25 28.5 +0.3
      comp=Z,5.8nm,0.7s,mb4.8,baz=299,slow=5.8,SNR=29
P09A  Austin            62.45  61 ⇑P     P      07 25 28.6 +0.5
      baz=62
T06C  Millerton Lake    62.47  64 ⇓P     P      07 25 28.2 -0.2
      baz=62,SNR=5.4
N11A  Elko Archery C    62.49  59 ⇓P     P      07 25 28.7 +0.3
      baz=62
KCC   Kaiser Creek      62.51  64 ⇓P     P      07 25 28.6  0.0
      baz=62
M12A  Wells             62.60  58 ⇑P     P      07 25 29.2 +0.1
      baz=62,SNR=15
V04C  Ramage Ranch,     62.60  66 ⇓P     P      07 25 29.4 +0.2
      baz=62
PKD   Parkfield         62.61  66 ⇑P     P      07 25 28.6 -0.7
      baz=62
R08A  Mina              62.61  62 ⇓P     P      07 25 30.0 +0.7
      baz=62
MLAC  Mammoth Lakes     62.62  63 ⇓P     P      07 25 29.1 -0.2
      baz=62
L13A  Double Diamond    62.74  57 ⇑P     P      07 25 30.0 -0.1
      baz=62,SNR=12
YMR   Madison River     62.79  53  PFAKE        07 25 40.0  +10
YMR                                LR    LR
      comp=Z,759nm,19.0s,MS4.9
P10A  Eureka            62.81  60 ⇓P     P      07 25 31.0 +0.5
      baz=63
ELK   Elko              62.83  59  PFAKE        07 25 40.0 +9.3
ELK                                LR    LR
      comp=Z,436nm,21.0s,MS4.6
Q09A  Carvers           62.87  61 ⇑P     P      07 25 31.5 +0.5
      baz=63
N12A  Clover Valley,    62.88  58 ⇑P     P      07 25 31.3 +0.3
      baz=63
K14A  Jones Ranch, D    62.89  56  P     P      07 25 31.8 +0.7
      baz=63,SNR=21
YNR   Norris Junctio    62.92  53 eP     P      07 25 31.6 +0.4
MTUM  Tungsten Hills    62.96  63 eP     P      07 25 32.4 +0.7
O11A  Cowboy Ranch,     62.97  59 ⇓P     P      07 25 31.7 +0.1
      baz=63
YFT   Old Faithful      63.00  53 eP     P      07 25 33.7 +2.0
M13A  Montello          63.07  58 ⇓P     P      07 25 32.4 +0.1
      baz=63
HELL  Mitchell Peak,    63.10  64  P     P      07 25 32.3 -0.2
      baz=63,SNR=19
S08C  White Mtn Res     63.11  63 ⇓P     P      07 25 32.9 +0.3
      baz=63,SNR=6.3
LKWY  Lake              63.17  53 eP     P      07 25 35.1 +2.2
      comp=Z,21nm,1.0s,mb5.2
LKWY                               LR    LR
      comp=Z,389nm,20.0s,MS4.6
RCTC  Rector, Farmer    63.20  65 ⇓P     P      07 25 33.2  0.0
      baz=63
P11A  Circle Ranch,     63.28  60 ⇓P     P      07 25 34.0 +0.3
      baz=63
MOR8  Moi Rana          63.28 343 eP     P      07 25 31.3 -2.0
      comp=Z,170nm,1.2s,mb6.0
MOR8  Moi Rana          63.28 343 eP     P      07 25 31.3 -2.0
MOR8                               AMb   AMB    07 25 32.8
      comp=Z,170nm,1.2s,mb6.0
IMW   Indian Meadow     63.30  54 eP     P      07 25 35.1 +1.3
      comp=Z,48nm,1.3s,mb5.5
R09A  Tonopah           63.31  62  P     P      07 25 34.4 +0.4
      baz=63,SNR=26
TPH   Tonopah           63.33  62 eP     P      07 25 35.3 +1.3
      comp=Z,22nm,1.0s,mb5.2
TPH                                LR    LR
      comp=Z,250nm,19.0s,MS4.4
TPH   Tonopah           63.33  62 eP     P      07 25 35.3 +1.3
TPH                               e             07 25 46.3
TPH                                pmax  pmax
      comp=Z,39nm,1.2s,mb5.4
DCID1 Drake Creek       63.35  54 eP     P      07 25 36.0 +1.9
SMMC  Simmler           63.36  66 ⇓P     P      07 25 34.5 +0.2
      baz=63
TIN   Tinemaha          63.36  63 ⇓P     P      07 25 34.7 +0.5
      baz=63
N13A  Wendover, West    63.37  58 ⇓P     P      07 25 34.3 +0.1
      baz=63
RLMT  Red Lodge         63.43  52  PFAKE        07 25 50.0  +15
RLMT                               LR    LR
      comp=Z,338nm,19.0s,MS4.5
MOOW  Moose Ponds       63.50  54 eP     P      07 25 35.8 +0.7
      comp=Z,47nm,1.3s,mb5.5
S09A  Goldfield         63.55  62 ⇓P     P      07 25 35.6 +0.1
      baz=63
TPAW  Teton Pass        63.55  54 eP     P      07 25 36.9 +1.5
      comp=Z,94nm,1.2s,mb5.7
VES   Vestal, Richgr    63.60  65 ⇑P     P      07 25 35.3 -0.5
      baz=63
HVU   Hansel Valley     63.61  56 eP     P      07 25 36.2 +0.4
      comp=Z,14nm,1.0s,mb5.0
HVU   Hansel Valley     63.61  56 eP     P      07 25 36.2 +0.4
HVU                                pmax  pmax
      comp=Z,14nm,1.0s,mb5.0
LOHW  Long Hollow       63.66  54 eP     P      07 25 37.0 +0.9
      comp=Z,56nm,1.3s,mb5.4
REDW  Red Top Meadow    63.69  54 eP     P      07 25 37.1 +0.8
      comp=Z,66nm,1.0s,mb5.6
KAF   Kangasniemi       63.71 335 ep     P      07 25 34.5 -1.6
      comp=Z,74nm,0.8s,mb5.8,baz=37,slow=6.2
R10A  Warm Springs      63.75  61 ⇑P     P      07 25 36.8  0.0
      baz=64
Q11A  Duckwater         63.79  60 ⇑P     P      07 25 36.8 -0.2
      baz=64
S10A  Tonopah Range,    63.81  62 ⇑P     P      07 25 37.2  0.0
      baz=64,SNR=13
P12A  McGill            63.83  60 ⇓P     P      07 25 37.6 +0.3
      baz=64
CWC   Cottonwood Cre    63.84  64 ⇑P     P      07 25 37.6 +0.2
      baz=64
DGMT  Dagmar            63.89  46  PFAKE        07 25 50.0  +12
DGMT                               LR    LR
      comp=Z,788nm,19.0s,MS4.9
GRAC  Grapevine Rang    63.92  63 ⇓P     P      07 25 38.3 +0.4
      baz=64,SNR=11
AHID  Auburn Hatcher    63.93  55  P     P      07 25 37.7 -0.2
      comp=Z,15nm,0.9s,mb5.0
AHID                               LR    LR
      comp=Z,274nm,20.0s,MS4.4
LAO   LASA Array        64.03  49 eP     P      07 25 39.2 +0.7
      comp=Z,48nm,1.0s,mb5.5
LAO                                LR    LR
      comp=Z,765nm,19.0s,MS4.9
ISA   Isabella          64.09  65 ⇓P     P      07 25 38.6 -0.5
      baz=64
SPUT  South Promonto    64.10  57 eP     P      07 25 39.9 +0.8
Q12A  Willow Creek R    64.16  60 ⇑P     P      07 25 39.8 +0.3
      baz=64
ARVC  Arvin             64.21  65 ⇑P     P      07 25 39.8 -0.2
      baz=64
DAC   Darwin (Calif)    64.24  64 eP     P      07 25 40.3 +0.2
      comp=Z,5.0nm,0.8s,mb4.6
DAC                                LR    LR
      comp=Z,338nm,20.0s,MS4.5
FIA1  FINESS Array S    64.30 335 eP     P      07 25 39.1 -1.0
FINES FINESS Array B    64.30 335  P     P      07 25 39.3 -0.7
FINES                              LR    LR     07 56 40.7
FINES FINESS Array B    64.30 335  P     P      07 25 39.3 -0.8
FINES                              pmax  pmax
      comp=Z,62nm,0.8s
FINES                              MLR   MLR
      comp=Z,887nm,18.9s
FINES FINESS Array B    64.30 335  P     P      07 25 39.3 -0.8
      comp=Z,62nm,0.8s,mb5.7,baz=46,slow=8.2,SNR=170
FINES                              LR    LR     07 56 40.7
      comp=Z,887nm,18.9s,MS5.0,baz=27,slow=39
HWUT  Hardware Ranch    64.41  56 eP     P      07 25 41.3 +0.1
      comp=Z,29nm,1.2s,mb5.2
HWUT                               LR    LR
      comp=Z,210nm,19.0s,MS4.3
MPMC  Manual Prospec    64.45  64  P     P      07 25 42.0 +0.5
      baz=64,SNR=22
S11A  Rachel            64.50  62 ⇑P     P      07 25 42.2 +0.5
      baz=64
FURC  Furnace Creek,    64.57  63  P     P      07 25 42.9 +0.6
      baz=64,SNR=25
DUG   Dugway            64.61  58 eP     P      07 25 43.0 +0.6
      comp=Z,39nm,1.0s,mb5.4
DUG                                LR    LR
      comp=Z,356nm,21.0s,MS4.5
OSI   Osito Adit        64.61  66 ⇑P     P      07 25 41.7 -0.8
      baz=64
LRMC  Laurel Mountai    64.70  65 ⇓P     P      07 25 43.0 -0.1
      baz=64
MOS   Moscow            64.70 326 eP     P      07 25 39.4 -3.4
MOS                                pmax  pmax
      comp=Z,51nm,1.3s,mb5.4
MOS                                MLR   MLR
      comp=Z,1µm,17.0s,MS5.1
NOQ   North Oquirrh     64.71  57 eP     P      07 25 43.6 +0.5
      comp=Z,56nm,1.2s,mb5.5
R12A  Pony Springs,     64.75  60 ⇓P     P      07 25 43.1 -0.2
      baz=64
BW06  Boulder Array     64.80  54 eP     P      07 25 43.5 -0.1
      comp=Z,48nm,1.3s,mb5.4
BW06                               LR    LR
      comp=Z,342nm,19.0s,MS4.6
PDAR  Pinedale Array    64.80  54  P     P      07 25 43.5 -0.1
      comp=Z,10nm,0.8s,mb4.9,baz=283,slow=2.4,SNR=38
PDAR                               LR    LR     07 51 33.2
      comp=Z,161nm,20.5s,MS4.2,baz=343,slow=34
EDW2  Edwards Air Fo    64.90  65  P     P      07 25 44.8 +0.4
      baz=65,SNR=16
CTU   Camp Tracy        64.90  57 eP     P      07 25 46.1 +1.8
U10A  Ash Meadows, A    64.93  63 ⇓P     P      07 25 44.9 +0.3
      baz=65,SNR=12
SNCC  San Nicolas Is    64.98  67 ⇓P     P      07 25 45.0 +0.1
      baz=65
DECC  Green Verdugo     65.09  66 ⇓P     P      07 25 44.8 -0.9
      baz=65
JLU   Jordanelle        65.13  57 eP     P      07 25 46.1 +0.3
NLU   North Lily Min    65.19  58 eP     P      07 25 47.4 +1.2
NSS   Namsos            65.23 343 eP     P      07 25 44.4 -1.7
      comp=Z,71nm,0.9s,mb5.7
NSS   Namsos            65.23 343 eP     P      07 25 44.4 -1.7
NSS                                AMb   AMB    07 25 45.8
      comp=Z,71nm,0.9s,mb5.7
SHOC  Shoshone          65.30  63 ⇑P     P      07 25 46.8 -0.2
      baz=65
GSC   Goldstone         65.36  64 ⇑P     P      07 25 47.4  0.0
      baz=65
SFJD  Kangerlussuaq     65.36  10 i P    P      07 25 46.6 -0.3
SFJD                               pmax  pmax
      comp=Z,22nm,0.9s,mb5.2
SFJD                               MLR   MLR
      comp=Z,480nm,20.0s,MS4.7
SFJD  Kangerlussuaq     65.36  10 i P    P      07 25 46.6 -0.3
      comp=Z,22nm,0.9s,mb5.2
SFJD
      comp=Z,480nm,20.0s
DAU   Daniels Canyon    65.37  57 eP     P      07 25 48.4 +1.0
MPU   Maple Canyon      65.41  57 eP     P      07 25 47.8 +0.2
      comp=Z,24nm,1.0s,mb5.2
MPU                                LR    LR
      comp=Z,931nm,21.0s,MS5.0
U11A  Corn Creek        65.51  62 ⇓P     P      07 25 48.9 +0.5
      baz=65
BFSC  Mount Baldy St    65.52  66 ⇑P     P      07 25 48.3 -0.1
      baz=65
OBN   Obninsk           65.57 326 eP     P      07 25 47.6 -0.8
      comp=Z,39nm,0.6s,mb5.6
OBN                                LR    LR
      comp=Z,892nm,19.0s,MS5.0
OBN   Obninsk           65.57 326c iP    P      07 25 47.1 -1.3
OBN                               e             07 26 19.5
OBN                               e             07 28 11.4
OBN                                pmax  pmax
      comp=Z,45nm,0.7s,mb5.6
OBN                                MLR   MLR
      comp=Z,1µm,14.0s,MS5.2
SHPR  Sheep Range       65.59  62 eP     P      07 25 49.1 +0.2
T12A  Moapa             65.72  62 ⇓P     P      07 25 49.5 -0.2
      baz=66
MEF   Metsahovi         65.78 335  P     P      07 25 47.9 -1.8
TUQ   Turquoise Mtn.    65.82  64 ⇓P     P      07 25 50.4  0.0
      baz=66
V11A  Goodsprings       65.86  63 ⇓P     P      07 25 50.5 -0.2
      baz=66,SNR=7.4
HEC   Hector,Ludlow     65.97  64  P     P      07 25 51.7 +0.4
      baz=66,SNR=16
BBRC  Big Bear Sol-O    65.97  65 ⇑P     P      07 25 51.0 -0.3
      baz=66
S14A  Cedar City        65.98  60 ⇓P     P      07 25 51.0 -0.4
      baz=66
T13A  Saint George      66.02  61 ⇑P     P      07 25 52.1 +0.5
      baz=66,SNR=13
U12A  Valley of Fire    66.02  62 ⇓P     P      07 25 51.3 -0.4
      baz=66
MSU   Marysvale         66.08  59 eP     P      07 25 52.4 +0.4
GSI   Gunungsitoli      66.08 245  P     P      07 25 51.9 -0.4
TMUT  Trail Mountain    66.13  58 eP     P      07 25 52.4 +0.1
MURC  Murrieta          66.22  66 ⇓P     P      07 25 52.4 -0.6
      baz=66
V12A  Nelson            66.29  63 ⇓P     P      07 25 53.4  0.0
      baz=66,SNR=6.1
VRHR  Novokhopersk      66.38 320 eP     P      07 25 52.7 -1.0
VRHR                               pmax  pmax
      comp=Z,30nm,0.5s,mb5.6
VRHR                               pmax  pmax
      comp=N,4.0nm,0.3s
VRHR                               pmax  pmax
      comp=E,6.0nm,0.4s
GMRC  Granite Mounta    66.41  64  P     P      07 25 54.4 +0.2
      baz=66,SNR=12
VSU   Vasula            66.48 333⇑iP     P      07 25 53.6 -0.6
T14A  Hurricane         66.49  61 ⇑P     P      07 25 54.8 +0.1
      baz=66,SNR=13
W12A  Cal Nev Ari       66.56  63 ⇓P     P      07 25 54.9 -0.2
      baz=66
ULM   Lac du Bonnet     66.63  41 eP     P      07 25 54.3 -1.0
      comp=E,16nm,0.9s,mb5.1
ULM   Lac du Bonnet     66.63  41  P     P      07 25 54.3 -1.0
      comp=E,11nm,0.9s,mb4.9,baz=303,slow=7.2,SNR=22
ULM                                LR    LR     07 54 03.1
      comp=E,181nm,18.4s,MS4.3,baz=302,slow=35
SRU   San Rafael        66.65  57 eP     P      07 25 55.5 -0.1
PFO   Pinyon Flat Ob    66.69  65 eP     P      07 25 55.8 -0.1
      comp=E,4.6nm,0.9s,mb4.5
PFO                                LR    LR
      comp=Z,307nm,22.0s,MS4.5
PFO   Pinyon Flat Ob    66.69  65 ⇑P     P      07 25 55.4 -0.5
      baz=66
BELC  Belle Mtn.        66.72  65 ⇑P     P      07 25 55.5 -0.7
      baz=66
109C  Camp Elliot, M    66.75  66 ⇓P     P      07 25 55.7 -0.6
      baz=67
RWWY  Rawlins           66.81  53 eP     P      07 25 56.6  0.0
      comp=Z,23nm,1.0s,mb5.2
ABKT  Ailbek            66.82 301  P     P      07 25 57.6 +0.8
      comp=Z,351nm,0.9s,SNR=8.7
RSSD  Black Hills       66.89  50  PFAKE        07 26 10.0  +13
RSSD                               LR    LR
      comp=Z,164nm,22.0s,MS4.2
HYB   Hyderabad         67.12 271 eP     P      07 25 59.0 +0.1
      comp=Z,50nm,1.0s,mb5.5
HYB   Hyderabad         67.12 271 eP     P      07 25 59.0 +0.1
HYB                                pmax  pmax
      comp=Z,50nm,1.0s,mb5.5
HYB   Hyderabad         67.12 271 i P    P      07 25 59.0 +0.1
      comp=Z,50nm,1.0s,mb5.5
HYB                               ePcP   PcP    07 26 27.0  0.0
HYB                               ePP    PP     07 28 26.0 -0.6
HYB                               eS     S      07 34 56.0 +3.2
IRM   Iron Mountain     67.14  64  P     P      07 25 59.0 +0.1
      baz=67,SNR=12
BC3   Big Chuckw Mtn    67.28  65 ⇓P     P      07 25 59.3 -0.5
      baz=67
W13A  Hualapai Mount    67.30  63 ⇓P     P      07 25 59.8  0.0
      baz=67
VRSR  Storozhevoye      67.36 322 eP     P      07 25 59.0 -0.9
VRSR                               pmax  pmax
      comp=N,10.0nm,0.8s
VRSR                               pmax  pmax
      comp=E,9.0nm,0.8s
VRSR                               pmax  pmax
      comp=Z,9.0nm,0.8s,mb4.8
VRSR                               MLR   MLR
      comp=E,120nm,19.0s,MS4.3
VRSR                               MLR   MLR
      comp=Z,180nm,19.0s,MS4.3
VRSR                               MLR   MLR
      comp=N,140nm,20.0s,MS4.3
VORD  Divnogorie        67.50 321 eP     P      07 25 59.9 -0.9
VORD                               pmax  pmax
      comp=N,30nm,0.8s
VORD                               pmax  pmax
      comp=E,30nm,0.8s
VORD                               pmax  pmax
      comp=Z,50nm,0.8s,mb5.6
DVTC  Desert V Tower    67.54  66 ⇓P     P      07 26 00.9 -0.5
      baz=67
X13A  Yucca             67.67  63  P     P      07 26 02.4 +0.2
      baz=68,SNR=13
PDMCI Parker Dam,Lak    67.67  63  P     P      07 26 02.3 +0.1
      baz=68,SNR=11
W14A  Seligman          67.71  62 ⇑P     P      07 26 02.9 +0.5
      baz=68,SNR=22
Y12C  Blythe            67.80  64 ⇑P     P      07 26 02.9 -0.2
      baz=68
AGMN  Agassiz Refuge    68.03  42 eP     P      07 26 03.2 -1.0
      comp=Z,40nm,1.1s,mb5.4
DOMB  Dombas            68.05 343 eP     P      07 26 03.6 -0.5
      comp=Z,119nm,0.9s,mb5.9
DOMB  Dombas            68.05 343 eP     P      07 26 03.6 -0.5
DOMB                               AMb   AMB    07 26 05.3
      comp=Z,119nm,0.9s,mb5.9
Y13A  Salome            68.19  64 ⇓P     P      07 26 05.3 -0.2
      baz=68
W15A  Williams          68.23  62 ⇑P     P      07 26 05.9 +0.1
      baz=68,SNR=11
WB2   Warramunga Arr    68.32 199 eP     P      07 26 04.4 -1.8
WRA   Warramunga Arr    68.33 199  P     P      07 26 04.6 -1.6
      comp=Z,14nm,0.9s,mb5.0,baz=18,slow=6.8,SNR=49
WRA                                LR    LR     07 51 00.1
      comp=Z,130nm,21.9s,MS4.1,baz=40,slow=32
X14A  Yava              68.33  63  P     P      07 26 07.0 +0.7
      baz=68,SNR=12
NB2   NORSAR Subarra    68.49 341  P     P      07 26 06.5 -0.4
      comp=Z,75nm,0.7s,mb5.8,baz=28,slow=6.5
NB2   NORSAR Subarra    68.49 341  P     P      07 26 06.4 -0.5
NOA   NORSAR Array B    68.49 341  P     P      07 26 06.5 -0.4
NOA                                pmax  pmax
      comp=Z,62nm,0.7s
NOA                                MLR   MLR
      comp=Z,622nm,18.1s
NOA   NORSAR Array B    68.49 341  P     P      07 26 06.5 -0.4
      comp=Z,62nm,0.7s,mb5.7,baz=28,slow=6.3,SNR=201
NOA                                LR    LR     08 00 35.5
      comp=Z,622nm,18.1s,MS4.9,baz=45,slow=40
WUAZ  Wupatki           68.55  61  PFAKE        07 26 20.0  +12
WUAZ                               LR    LR
      comp=Z,260nm,19.0s,MS4.5
Y14A  Wickenburg        68.61  63  P     P      07 26 08.3 +0.2
      baz=68,SNR=12
SMCO  Snowmass          68.65  55 eP     P      07 26 08.4 +0.2
      comp=Z,27nm,1.0s,mb5.1
HFA0  Hagfors New Ar    68.71 340  P     P      07 26 07.1 -1.2
X15A  Humboldt          68.72  62 ⇓P     P      07 26 08.7  0.0
      baz=68,SNR=18
HFS   Hagfors           68.72 340  P     P      07 26 07.7 -0.6
HFS                                pmax  pmax
      comp=Z,130nm,0.8s
HFS   Hagfors           68.72 340  P     P      07 26 07.7 -0.7
      comp=Z,130nm,0.8s,mb5.9,baz=44,slow=5.1,SNR=139
NAO01 NORSAR Array S    68.74 341 eP     P      07 26 08.1 -0.3
ISCO  Idaho Springs     68.99  54 eP     P      07 26 10.8 +0.5
      comp=Z,28nm,1.1s,mb5.1
ISCO                               LR    LR
      comp=Z,312nm,19.0s,MS4.6
FITZ  Fitzroy Crossi    68.99 208 eP     P      07 26 09.6 -0.8
      comp=Z,26nm,0.9s,mb5.2
BORG  Borgarnes         69.00 358 eP     P      07 26 12.0 +2.0
      comp=Z,73nm,0.9s,mb5.6
Z14A  Wintersburg       69.03  63 ⇑P     P      07 26 10.4 -0.3
      baz=69
MVCO  Mesa Verde        69.11  58  PFAKE        07 26 20.0 +8.9
MVCO                               LR    LR
      comp=Z,248nm,20.0s,MS4.5
MAK   Makhachkala       69.31 311 eP     P      07 26 06.5 -5.8
MAK                                MLR   MLR
      comp=Z,2µm,14.0s,MS5.6
115A  Sonoran Desert    69.93  63 ⇓P     P      07 26 16.5 +0.2
      baz=70,SNR=6.4
KONO  Kongsberg         70.10 341 eP     P      07 26 17.0 +0.2
      comp=Z,53nm,0.7s,mb5.6
KONO                               LR    LR
      comp=Z,711nm,20.0s,MS4.9
EYMN  Ely               70.28  40 eP     P      07 26 17.1 -1.0
      comp=Z,31nm,1.0s,mb5.2
116A  Eloy              70.34  63 ⇓P     P      07 26 18.5 -0.3
      baz=70
SDCO  Great Sand Dun    70.47  56 eP     P      07 26 19.6 +0.1
      comp=Z,17nm,1.3s,mb4.8
ECSD  EROS,Sioux Fal    70.97  46  PFAKE        07 26 30.0 +7.5
ECSD                               LR    LR
      comp=Z,602nm,20.0s,MS4.8
BLS5  Blasjo            70.97 343 eP     P      07 26 23.1 +0.9
      comp=Z,66nm,0.9s,mb5.6
BLS5  Blasjo            70.97 343 eP     P      07 26 23.1 +0.9
BLS5                               AMb   AMB    07 26 24.7
      comp=Z,66nm,0.9s,mb5.6
KIV   Kislovodsk        71.05 314  P     P      07 26 24.4 +1.5
      comp=Z,263nm,1.0s,mb6.1,SNR=6.9
KIV   Kislovodsk        71.05 314 eP     P      07 26 23.5 +0.5
      comp=Z,44nm,0.9s,mb5.4
KIV                                LR    LR
      comp=Z,1µm,19.0s,MS5.2
KIV   Kislovodsk        71.05 314 eP     P      07 26 23.5 +0.6
KIV                               e             07 26 43.5
KIV                               e             07 29 00.8
KIV                               eS     S      07 35 37.6 -1.1
KIV                                pmax  pmax
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      comp=Z,29nm,0.7s,mb5.3
KIV                                pmax    pmax
      comp=Z,51nm,2.9s,mb5.0
KIV                                MLR     MLR
      comp=Z,2µm,18.0s,MS5.4
KIV   Kislovodsk        71.05 314  P       P          07 26 23.8 +0.9
      SNR=11
TUC   Tucson            71.08  63  P       P          07 26 22.5 -0.8
TUC                                LR      LR
      comp=Z,181nm,21.0s,MS4.3
SUW   Suwalki           71.26 332 i Pc     P          07 26 22.9 -1.1
      comp=Z,300nm,1.1s,mb6.1
SUW                               epP      pP         07 26 28.3 +0.2
SUW                               eS       S          07 35 46.6 +5.8
SUW                               eSKS                07 36 22.6
SUW                                LMZ                08 01 17.5
      comp=Z,800nm,18.8s
SUW   Suwalki           71.26 332⇑iP       P          07 26 22.9 -1.1
SUW                               epP      pP         07 26 28.3 +0.1
SUW                               eS       S          07 35 46.6 +5.8
SUW                               eSKS                07 36 22.6
SUW   Suwalki           71.26 332⇑iP       P          07 26 22.9 -1.1
SUW                               e                   07 36 22.6
SUW                                pmax    pmax
      comp=Z,300nm,1.1s,mb6.1
SUW                                MLR     MLR
      comp=Z,800nm,18.8s,MS5.0
ZEI   Tsey              71.30 313 eP       P          07 26 23.9 -0.6
ZEI                               e*PP     pP         07 26 34.5 +5.9
ZEI                                pmax    pmax
      comp=Z,31nm,1.1s,mb5.2
MTA   Mtatsminda        71.62 312  P       P          07 26 27.1 +0.6
TBLG  Delisi            71.63 312 i P      P          07 26 27.9 +1.4
TBLG  Delisi            71.63 312  P       P          07 26 27.9 +1.4
ONI   Oni               71.67 313  P       P          07 26 27.4 +0.7
AKASG Malin Array Be    71.81 326  P       P          07 26 26.6 -0.8
AKASG                              pmax    pmax
      comp=Z,129nm,0.7s
AKASG                              MLR     MLR
      comp=Z,702nm,18.1s
AKASG Malin Array Be    71.81 326  P       P          07 26 26.6 -0.8
      comp=Z,129nm,0.7s,mb5.9,baz=33,slow=6.2,SNR=419
AKASG                              LR      LR         08 00 48.7
      comp=Z,702nm,18.1s,MS5.0,baz=25,slow=38
AKBB  Malin Array Si    71.81 326 eP       P          07 26 26.6 -0.7
KIEV  Kiev              71.82 326 eP       P          07 26 26.5 -1.0
      comp=Z,153nm,0.8s,mb6.0
KIEV                               LR      LR
      comp=Z,904nm,19.0s,MS5.1
ANMO  Albuquerque       71.86  58 eP       P          07 26 28.0  0.0
      comp=Z,10nm,0.9s,mb4.8
ANMO                               LR      LR
      comp=Z,323nm,21.0s,MS4.6
ANMO  Albuquerque       71.86  58 eP       P          07 26 28.0  0.0
ANMO                               pmax    pmax
      comp=Z,10.0nm,0.9s
ANMO                               MLR     MLR
      comp=Z,323nm,21.0s
LENM  Lemitar           72.10  59 eP       P          07 26 29.9 +0.4
BNM   Barren Site       72.32  59 eP       P          07 26 30.7  0.0
SOC   Sochi             72.77 316 i P      P          07 26 34.2 +0.9
SOC   Sochi             72.77 316c iP      P          07 26 33.7 +0.4
SOC                               e                   07 26 50.0
SOC                               ePPP                07 30 56.5
SOC                               eS       S          07 35 57.8 -0.7
SOC                               eSS      SS         07 40 34.1 -3.1
SOC                                pmax    pmax
      comp=Z,79nm,1.0s,mb5.6
SOC                                MLR     MLR
      comp=Z,1µm,18.0s,MS5.3
PALK  Pallekele         72.78 262  P       P          07 26 34.8 +1.1
      comp=Z,321nm,0.9s,mb6.2,SNR=12
PALK  Pallekele         72.78 262 eP       P          07 26 33.9 +0.1
      comp=Z,59nm,1.0s,mb5.5
PALK                               LR      LR
      comp=Z,253nm,20.0s,MS4.5
PALK  Pallekele         72.78 262  P       P          07 26 34.2 +0.5
      SNR=7.9
BSD   Bornholm Skovb    72.82 336 i P      P          07 26 33.4  0.0
BSD                                pmax    pmax
      comp=Z,96nm,0.9s,mb5.7
BSD   Bornholm Skovb    72.82 336 i P      P          07 26 33.4  0.0
      comp=Z,96nm,0.9s,mb5.7
CBKS  Cedar Bluff       72.91  51 eP       P          07 26 32.8 -1.4
      comp=Z,46nm,1.2s,mb5.3
CBKS  Cedar Bluff       72.91  51 eP       P          07 26 32.8 -1.4
CBKS                               pmax    pmax
      comp=Z,45nm,1.2s,mb5.3
ANN   Anapa             72.93 318 eP       P          07 26 36.8 +2.6
ANN                                pmax    pmax
      comp=Z,161nm,1.4s,mb5.8
COP   Copenhagen        72.98 338  P       P          07 26 34.9 +0.6
COP   Copenhagen        72.98 338⇓iP       P          07 26 35.0 +0.7
COP                                pmax    pmax
      comp=Z,92nm,0.9s,mb5.7
COP   Copenhagen        72.98 338⇓iP       P          07 26 35.0 +0.7
      comp=Z,92nm,0.9s,mb5.7
DIGO  Kars              73.29 311 i P      P          07 26 37.8 +1.4
ARTV  Artvin            73.46 313 i P      P          07 26 37.9 +0.5
SCHQ  Schefferville     73.48  23 eP       P          07 26 36.7 -0.6
      comp=Z,28nm,1.1s,mb5.1
SCHQ                               LR      LR
      comp=Z,930nm,19.0s,MS5.1
SCHQ  Schefferville     73.48  23  P       P          07 26 36.6 -0.7
      comp=Z,13nm,0.9s,mb4.8,baz=335,slow=7.9,SNR=9.7
SCHQ                               LR      LR         08 03 03.8
      comp=Z,318nm,18.8s,MS4.6,baz=312,slow=39
GKP   Gorka Klasztor    73.76 334 eP       P          07 26 38.5 -0.4
GKP                               epP      pP         07 26 43.2 +0.1
GKP                               eSKS                07 36 41.8
GKP                                LMZ                08 03 37.0
      comp=Z,2µm,19.0s
GKP   Gorka Klasztor    73.76 334 eP       P          07 26 38.5 -0.5
GKP                               epP      pP         07 26 43.2 +0.1
GKP                               eSKS                07 36 41.8
GKP                                LR      LR
      comp=Z,2µm,19.0s,MS5.3
DYDN  Diyadin           73.77 311 i P      P          07 26 40.9 +1.7
SIM   Simferopol'       74.32 320ceP       P          07 26 42.3 -0.1
SIM                                pmax    pmax
      comp=Z,91nm,0.9s,mb5.7
SIM                                MLR     MLR
      comp=Z,790nm,14.0s,MS5.2
TUTA  Tutak             74.33 311 i P      P          07 26 44.1 +1.6
KSU1  Kansas State U    74.37  49 eP       P          07 26 40.6 -2.1
      comp=Z,22nm,0.8s,mb5.1
KSU1                               LR      LR
      comp=Z,654nm,20.0s,MS4.9
LVV   L'vov             74.46 329 eP       P          07 26 42.7 -0.4
TVAN  Van               74.66 310 i P      P          07 26 46.2 +1.7
AMTX  Amarillo          74.67  55 eP       P          07 26 44.2 -0.4
      comp=Z,20nm,0.8s,mb5.1
ERZM  Erzurum           74.70 312 i P      P          07 26 46.1 +1.5
MNTX  Cornudas Mount    74.79  60 eP       P          07 26 44.8 -0.5
      comp=Z,21nm,1.2s,mb5.0
MNTX                               LR      LR
      comp=Z,235nm,19.0s,MS4.5
KIS   Kishinev          74.94 324αiP       P          07 26 44.0 -1.9
KIS                               eS       S          07 36 16.0 -6.9
KIS                                pmax    pmax
      comp=Z,400nm,1.0s,mb6.3
KIS                                MLR     MLR
      comp=N,1µm,15.0s
KIS                                MLR     MLR
      comp=Z,1µm,15.0s,MS5.4
KIS                                MLR     MLR
      comp=Z,2µm,16.0s
KIS   Kishinev          74.94 324⇑iP       P          07 26 44.0 -1.9
      comp=Z,400nm,1.0s,mb6.3
KIS   Kishinev          74.94 324 i PcP    P          07 26 48.5 +2.6
KIS                               eS       S          07 36 16.0 -6.9
KIS                                LRM                08 02 48.0
      comp=Z,2µm,16.0s
GDL2  Guadalupe Moun    75.04  59 eP       P          07 26 46.8 +0.1
KWP   Kalwaria          75.09 329 i Pc     P          07 26 47.0 +0.3
      comp=Z,400nm,1.2s,mb6.2
KWP                               epP      pP         07 26 51.8 +0.9
KWP                               ePcP     PcP        07 26 57.4 -2.9
KWP                                LMZ                08 03 04.6
      comp=Z,1µm,18.4s
KWP   Kalwaria          75.09 329⇑iP       P          07 26 47.0 +0.3
KWP                               epP      pP         07 26 51.7 +0.8
KWP                               ePcP     PcP        07 26 57.4 -2.9
KWP   Kalwaria          75.09 329⇑iP       P          07 26 47.0 +0.3
KWP                               e                   07 26 57.4
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KWP                                pmax    pmax
      comp=Z,400nm,1.2s,mb6.2
KWP                                MLR     MLR
      comp=Z,1µm,18.4s,MS5.2
BSEG  Bad Segeberg      75.09 338 eP       P          07 26 46.6 -0.1
BSEG                               pmax    pmax
      comp=Z,62nm,0.9s,mb5.5
BSEG  Bad Segeberg      75.09 338 eP       P          07 26 46.6 -0.1
      comp=Z,62nm,0.9s,mb5.5
HAKT  HAKKARI           75.22 309 i P      P          07 26 48.9 +1.2
RUE   Ruedersdorf       75.47 336 eP       P          07 26 48.8  0.0
      comp=Z,83nm,0.9s,mb5.7
RUE   Ruedersdorf       75.47 336 eP       P          07 26 48.5 -0.3
      comp=Z,84nm,0.9s,mb5.7
GRSN  GIRESUNGRSN       75.48 315 i P      P          07 26 49.0 -0.1
OJC   Ojcow             75.58 331⇑iP       P          07 26 49.6  0.0
STHS  Stebnicka Huta    75.78 330 eP       P          07 26 51.3 +0.6
      comp=Z,28nm,0.8s,mb5.2
STHS                              ePcP     PcP        07 27 08.4 +5.1
STHS  Stebnicka Huta    75.78 330 eP       P          07 26 51.3 +0.6
STHS                               pmax    pmax
      comp=Z,28nm,0.8s,mb5.2
KOLS  Kolonicke sedl    75.83 329 eP       P          07 26 50.9 -0.1
KOLS                              ePP      PP         07 29 40.9 +0.6
BURAR Bucovina Array    75.85 327 ⇑P       P          07 26 51.0 -0.2
BURAR Bucovina Array    75.85 327⇑iP       P          07 26 51.0 -0.1
UZH   Uzhgorod          76.08 329⇓iP       P          07 26 52.0 -0.4
NIE   Niedzica          76.09 331⇑eP       P          07 26 52.9 +0.4
CRVS  Cervenica-Dubn    76.14 330 eP       P          07 26 52.9 +0.1
CRVS                              ePCP     PcP        07 27 10.0 +5.1
KSP   Ksiaz             76.17 334 ePc      P          07 26 52.2 -0.7
KSP                               epP      pP         07 26 56.6 -0.5
KSP                               ePcP     PcP        07 27 03.6 -1.4
KSP                               eS       S          07 36 33.2 -3.1
KSP                               eSKS                07 36 58.1
KSP                                LMZ                08 05 12.8
      comp=Z,2µm,18.3s
KSP   Ksiaz             76.17 334 eP       P          07 26 52.7 -0.2
KSP                               epP      pP         07 26 56.5 -0.6
KSP                               ePcP     PcP        07 27 04.0 -1.0
KSP                                LR      LR
      comp=Z,3µm,18.3s,MS5.6
BEST  Besiri            76.26 311 i P      P          07 26 55.6 +2.0
WMOK  Wichita Mounta    76.41  54 eP       P          07 26 54.0 -0.6
      comp=Z,14nm,0.9s,mb4.9
NRDL  Niedersach Rie    76.45 338 eP       P          07 26 54.2 -0.3
      comp=Z,47nm,0.9s,mb5.4
OKC   Ostrava-Krasne    76.45 332⇑iP       P          07 26 54.6 +0.1
MSL   Mosul             76.49 309 eP       x          07 26 56.0
UPC   Upice             76.55 334⇑eP       P          07 26 55.0  0.0
DPC   Dobruska-Polom    76.59 333⇑iP       P          07 26 55.5 +0.2
DPC                                AMS     AMS        08 04 40.0
      comp=Z,1µm,19.8s
EKA   Eskdalemuir Ar    76.60 346  P       P          07 26 54.5 -0.7
EKA                                pmax    pmax
      comp=Z,12nm,0.9s
EKA   Eskdalemuir Ar    76.60 346  P       P          07 26 54.5 -0.7
      comp=Z,12nm,0.9s,mb4.8,baz=20,slow=4.9,SNR=14
BIDO  Bidbid            76.70 290  P       P          07 26 57.8 +1.4
      SNR=6.6
MORC  Moravsky Berou    76.70 332 eP       P          07 26 56.1 +0.2
      comp=Z,45nm,0.8s,mb5.5
MORC  Moravsky Berou    76.70 332⇑iP       P          07 26 56.1 +0.2
VRI   Vrincioaia        76.70 325  P       P          07 26 57.2 +1.1
BOYT  Boyabat           76.72 317 i P      P          07 26 57.6 +1.4
CLL   Collm             76.73 336⇑iP       P          07 26 55.4 -0.7
      comp=Z,104nm,0.7s,mb5.9
CLL                               e        pP         07 27 00.0 -0.2
CLL                               eS       S          07 36 42.0 -0.4
CLL                                LR      LR
      comp=Z,700nm,17.8s,MS5.0
CLL   Collm             76.73 336⇑iP       P          07 26 55.4 -0.7
CLL                               eS       S          07 36 42.0 -0.4
CLL                                pmax    pmax
      comp=Z,104nm,0.7s,mb5.9
CLL                                MLR     MLR
      comp=Z,700nm,17.8s,MS5.0
CLL   Collm             76.73 336⇑iP       P          07 26 55.4 -0.7
      comp=Z,104nm,0.7s,mb5.9
CLL                               esP      sP         07 27 00.0 -1.8
CLL                               ePcP     PcP        07 27 07.0 -0.4
CLL                               eS       S          07 36 42.0 -0.4
CLL                               eSS      SS         07 42 00.0 +23
CLL                                LmH                08 04 00.0
      comp=N,200nm,20.4s
CLL                                LmH                08 04 00.0
      comp=E,600nm,18.7s
PLOR  Plostina          76.75 325  P       P          07 26 57.6 +1.3
PLOR  Plostina          76.75 325⇓iP       P          07 26 56.5 +0.2
WBK   Wadi Bani Khal    76.79 289  P       P          07 26 59.3 +2.4
      SNR=5.8
KECS  Kecovo            76.84 330 eP       P          07 26 56.8 +0.1
      comp=E,21nm,0.9s,mb5.1
KECS                              ePcP     PcP        07 27 08.8 +0.9
KECS  Kecovo            76.84 330 eP       P          07 26 56.8 +0.1
KECS                               pmax    pmax
      comp=Z,21nm,0.9s,mb5.1
BRG   Berggiesshubel    76.84 335 eP       P          07 26 56.3 -0.4
BRG                                pmax    pmax
      comp=Z,15nm,0.9s,mb4.9
BRG                                MLR     MLR
      comp=N,326nm,19.5s,MS4.8
BRG                                MLR     MLR
      comp=E,383nm,20.6s,MS4.8
BRG                                MLR     MLR
      comp=Z,634nm,17.9s,MS5.0
BRG   Berggiesshubel    76.84 335 eP       P          07 26 56.2 -0.5
      comp=Z,26nm,0.9s,mb5.2
BRG   Berggiesshubel    76.84 335 eP       P          07 26 56.3 -0.4
      comp=Z,25nm,0.9s,mb5.1
BRG
      comp=N,544nm,19.5s
BRG
      comp=E,640nm,20.6s
BRG
      comp=Z,1µm,17.9s
MARD  Mardin            76.95 311 i P      P          07 26 58.8 +1.2
PVCC  Panska Ves        76.97 334⇑iP       P          07 26 57.4  0.0
CLZ   Clausthal         76.97 337 eP       P          07 26 57.6 +0.2
CLZ                                pmax    pmax
      comp=Z,98nm,0.9s,mb5.7
CLZ   Clausthal         76.97 337 eP       P          07 26 57.6 +0.2
      comp=Z,98nm,0.9s,mb5.7
FBE   Freiberg          76.97 335 eP       P          07 26 57.1 -0.3
      comp=Z,56nm,0.8s,mb5.5
ELZG  Elazig            76.97 313 i P      P          07 26 59.4 +1.7
HATD  Hatta, Dubai      77.06 292  P       P          07 26 59.2 +0.8
      SNR=11
SMDO  Samad             77.08 290  P       P          07 26 59.7 +1.2
      SNR=6.6
TIRR  Tirgusor          77.17 323  P       P          07 26 59.5 +0.8
TIRR  Tirgusor          77.17 323⇑iP       P          07 26 58.5 -0.2
HOQ   Hoqain            77.18 291  P       P          07 26 59.1  0.0
      SNR=15
ASHO  Ashiyiah          77.21 292  P       P          07 26 59.6 +0.4
      SNR=7.6
IBBN  Ibbenburen        77.22 339 eP       P          07 26 58.6 -0.2
      comp=Z,91nm,0.9s,mb5.7
MLR   Muntele Rosu      77.33 325  P       P          07 27 00.5 +1.0
MLR   Muntele Rosu      77.33 325  P       P          07 27 00.1 +0.6
MLR                                pmax    pmax
      comp=Z,60nm,0.7s
MLR   Muntele Rosu      77.33 325  P       P          07 27 00.1 +0.6
      comp=Z,60nm,0.7s,mb5.7,baz=188,slow=2.6,SNR=91
MLR   Muntele Rosu      77.33 325⇑iP       P          07 26 59.8 +0.3
BALT  Daday             77.33 318 i P      P          07 27 00.9 +1.2
VYHS  Vyhne             77.39 331 eP       P          07 27 00.2 +0.4
      comp=Z,27nm,1.0s,mb5.1
VYHS                              ePcP     PcP        07 27 15.7 +5.4
VYHS  Vyhne             77.39 331 eP       P          07 27 00.2 +0.4
VYHS                               pmax    pmax
      comp=Z,27nm,1.0s,mb5.1
CTKT  Corum             77.39 317 i P      P          07 27 00.5 +0.5
MALT  Malatya           77.40 313  P       P          07 27 01.6 +1.5
MALT                               pmax    pmax
      comp=Z,71nm,0.9s,mb5.6
MALT  Malatya           77.40 313⇑iP       P          07 27 01.1 +1.0
PRA   Prague            77.41 334 ⇑P       P          07 27 00.0 +0.1
VRAC  Vranov            77.42 333  P       P          07 27 00.1 +0.1
VRAC                               pmax    pmax
      comp=Z,56nm,0.8s
VRAC  Vranov            77.42 333  P       P          07 27 00.1 +0.2
      comp=Z,56nm,0.8s,mb5.5,baz=35,slow=5.6,SNR=40
VRAC  Vranov            77.42 333⇑iP       P          07 27 00.4 +0.4
PRU   Pruhonice         77.45 334⇑eP       P          07 27 00.0 -0.1
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PRU                                AMS     AMS        08 04 40.0
      comp=Z,900nm,11.7s
JAVC  Velka Javorina    77.46 332  P       P          07 27 01.4 +1.2
DRGR                    77.48 328  P       P          07 27 00.7 +0.4
DRGR                    77.48 328⇓iP       P          07 26 59.9 -0.4
LTX   Lajitas           77.51  61 eP       P          07 27 00.5 -0.4
      comp=Z,22nm,0.7s,mb5.2
LTX                                LR      LR
      comp=Z,332nm,19.0s,MS4.7
TXAR  Lajitas Array     77.51  61  P       P          07 27 00.4 -0.5
      comp=Z,18nm,0.6s,mb5.2,baz=301,slow=3.6,SNR=132
TXAR                               PKKPbc  PKKPbc     07 46 02.3 -0.2
      comp=Z,0.3nm,0.8s,baz=154,slow=5.0,SNR=3.6
PSZ   Piszkesteto       77.52 330 eP       P          07 27 00.5 -0.1
      comp=Z,45nm,0.9s,mb5.4
PSZ   Piszkesteto       77.52 330  P       P          07 27 01.3 +0.7
PSZ   Piszkesteto       77.52 330 ePc      P          07 27 01.0 +0.4
PSZ   Piszkesteto       77.52 330⇑iP       P          07 27 00.8 +0.2
JMDO  Jabal Madar       77.53 289  P       P          07 27 02.2 +1.2
      SNR=12
TANN  Tannenbergstha    77.68 336 eP       P          07 27 01.3 -0.1
      comp=Z,28nm,1.2s,mb5.1
KRUC  Moravsky          77.69 333  P       P          07 27 01.7 +0.2
WERD  Werda             77.70 336 eP       P          07 27 01.3 -0.2
      comp=Z,30nm,1.0s,mb5.2
MOX   Moxa              77.71 336 eP       P          07 27 01.3 -0.3
      comp=Z,59nm,1.1s,mb5.4
MOX
      comp=Z,400nm,21.0s
MOX   Moxa              77.71 336 eP       P          07 27 01.3 -0.3
MOX                                pmax    pmax
      comp=Z,59nm,1.1s,mb5.4
MOX                                MLR     MLR
      comp=Z,400nm,21.0s,MS4.7
MOX   Moxa              77.71 336 eP       P          07 27 01.4 -0.2
      comp=Z,51nm,0.9s,mb5.5
VOIR                    77.72 326  P       P          07 27 02.5 +0.8
VOIR                    77.72 326⇓iP       P          07 27 02.3 +0.6
GUNZ  Gunzen            77.77 336 eP       P          07 27 01.8 -0.1
      comp=Z,47nm,0.9s,mb5.4
TREC  Trest             77.77 333⇑eP       P          07 27 01.9 -0.1
WERN  Wernitzgruen      77.82 336 eP       P          07 27 02.2  0.0
      comp=Z,60nm,0.9s,mb5.5
SMOL  Smolenice         77.84 332 eP       P          07 27 03.1 +0.8
SMOL                              epP      pP         07 27 09.2 +2.7
NKC   Novy Kostel       77.85 335⇑eP       P          07 27 02.3 -0.1
BSY   Bisya             77.85 290  P       P          07 27 03.9 +1.1
      SNR=16
ARQ   Araqi             77.87 291  P       P          07 27 04.0 +1.1
      SNR=12
PSN   Preselentsi       77.90 323 eP       P          07 27 02.6 -0.2
UBBA  Unterbreizbach    78.00 337 eP       P          07 27 03.0 -0.2
      comp=Z,15nm,0.9s,mb4.9
MODS  Modra-Piesok      78.01 332 eP       P          07 27 04.2 +0.9
      comp=Z,26nm,0.9s,mb5.2
MODS                              ePcP     PcP        07 27 11.9 -1.1
MODS                              ePP      PP         07 29 56.1 -2.6
MODS  Modra-Piesok      78.01 332 eP       P          07 27 04.2 +0.9
MODS                               pmax    pmax
      comp=Z,26nm,0.9s,mb5.2
BHD   Baghdad           78.03 306 eP       x          07 27 00.5
BUG   Bochum--Univer    78.13 339  P       P          07 27 03.4 -0.5
BUG   Bochum--Univer    78.13 339 eP       P          07 27 03.8 -0.1
      comp=Z,85nm,1.0s,mb5.6
ELDT  Eldivan           78.14 317 i P      P          07 27 05.0 +0.8
AAM   Ann Arbor         78.15  39 eP       P          07 27 01.8 -2.3
      comp=Z,9.3nm,0.4s,mb5.1
AAM                                LR      LR
      comp=Z,501nm,22.0s,MS4.8
AAM   Ann Arbor         78.15  39 eP       P          07 27 01.8 -2.4
AAM                                pmax    pmax
      comp=Z,9.0nm,0.4s,mb5.0
AAM                                MLR     MLR
      comp=Z,501nm,22.0s,MS4.8
MANZ  Manzenberg        78.17 336 eP       P          07 27 03.9 -0.2
      comp=Z,43nm,1.0s,mb5.3
BUD   Budapest          78.20 330  P       P          07 27 04.5 +0.1
BUD   Budapest          78.20 330⇑eP       P          07 27 04.9 +0.6
ZST   Bratislava        78.22 332 eP       P          07 27 05.6 +1.1
      comp=Z,46nm,0.9s,mb5.4
ZST   Bratislava        78.22 332 eP       P          07 27 05.6 +1.1
ZST                                pmax    pmax
      comp=Z,46nm,0.9s,mb5.4
ROTZ  Rotzenmuhle       78.34 335 eP       P          07 27 05.1  0.0
      comp=Z,54nm,0.9s,mb5.5
CDAG  Cicekdag          78.37 316 i P      P          07 27 06.1 +0.6
FVM   French Village    78.38  46 eP       P          07 27 04.4 -1.2
      comp=Z,14nm,0.6s,mb5.0
KHC   Kasperske Hory    78.50 334⇑eP       P          07 27 06.2 +0.2
KHC                                AMS     AMS        08 05 00.0
      comp=Z,900nm,15.0s
GZT   Gaziantep         78.57 313 i P      P          07 27 07.7 +1.1
GZR   Gura Zlata        78.63 327  P       P          07 27 06.8  0.0
GZR   Gura Zlata        78.63 327⇑iP       P          07 27 06.5 -0.3
BR131 Keskin Array S    78.64 317 eP       P          07 27 07.5 +0.5
      comp=Z,17nm,0.3s,mb5.5
BR131                              LR      LR
      comp=Z,590nm,20.0s,MS4.9
BRTR  Keskin Array B    78.64 317  P       P          07 27 07.4 +0.5
BRTR                                                  07 30 06.1
BRTR                               pmax    pmax
      comp=Z,32nm,1.0s
BRTR                               pmax    pmax
      comp=Z,5.0nm,0.8s
BRTR  Keskin Array B    78.64 317  P       P          07 27 07.3 +0.4
      comp=Z,32nm,1.0s,mb5.2,baz=55,slow=4.7,SNR=73
BRTR                               PP      PP         07 30 06.1 +1.9
      comp=Z,4.9nm,0.8s,baz=52,slow=6.7,SNR=5.0
GRA1  Grafenberg Arr    78.68 336 eP       P          07 27 07.4 +0.4
      comp=Z,124nm,0.9s,mb5.8
GRA1                               LR      LR
      comp=Z,500nm,18.4s,MS4.9
GRF   Grafenberg Arr    78.68 336 eP       P          07 27 07.4 +0.4
GRF                                pmax    pmax
      comp=Z,124nm,0.9s,mb5.8
GRF                                MLR     MLR
      comp=Z,500nm,18.4s,MS4.9
GRF   Grafenberg Arr    78.68 336 eP       P          07 27 07.4 +0.4
GRF                                pmax    pmax
      comp=Z,124nm,0.9s,mb5.8
GRF                                MLR     MLR
      comp=Z,500nm,18.4s,MS4.9
GRF   Grafenberg Arr    78.68 336 eP       P          07 27 07.4 +0.4
      comp=Z,124nm,0.9s,mb5.8
GRF                               eL                  08 04 21.8
      comp=Z,522nm,18.4s
GRFO  Grafenberg        78.68 336  P       P          07 27 07.5 +0.5
WET   Wettzell          78.70 335 eP       P          07 27 07.4 +0.3
WET                                pmax    pmax
      comp=Z,59nm,0.9s,mb5.5
WET   Wettzell          78.70 335 eP       P          07 27 07.4 +0.3
      comp=Z,59nm,0.9s,mb5.5
SGKT  Sivrigoynuk       78.70 318 i P      P          07 27 08.4 +1.1
GEC2  GERESS Array S    78.72 334 eP       P          07 27 07.0 -0.2
GEC2                               pmax    pmax
      comp=Z,29nm,0.9s,mb5.2
GEC2  GERESS Array S    78.72 334 eP       P          07 27 07.0 -0.2
      comp=Z,29nm,0.9s,mb5.2
GERES GERESS Array B    78.72 334  P       P          07 27 07.0 -0.2
GERES                              pmax    pmax
      comp=Z,21nm,0.8s
GERES                              MLR     MLR
      comp=Z,878nm,18.4s
GERES GERESS Array B    78.72 334  P       P          07 27 07.0 -0.2
      comp=Z,21nm,0.8s,mb5.1,baz=33,slow=4.7,SNR=89
GERES                              LR      LR         08 05 42.5
      comp=Z,878nm,18.4s,MS5.1,baz=276,slow=39
STKA  Stephens Creek    78.74 190 eP       P          07 27 06.4 -0.9
      comp=Z,4.7nm,0.8s,mb4.5
STKA  Stephens Creek    78.74 190  P       P          07 27 06.0 -1.3
      comp=Z,5.2nm,0.8s,mb4.5,baz=341,slow=7.5,SNR=8.1
STKA                               LR      LR         08 02 28.0
      comp=Z,218nm,19.0s,MS4.5,baz=24,slow=36
AVNT  Avonos            78.80 316 i P      P          07 27 08.4 +0.5
SOP   Sopron            78.85 332  P       P          07 27 08.2 +0.3
SOP   Sopron            78.85 332⇓eP       P          07 27 09.0 +1.1
CONA  Conrad Observa    78.86 332⇑ipP      pP         07 27 08.6 -3.6
      comp=Z,36nm,0.8s,SNR=10
BZS   Buzias            78.88 328  P       P          07 27 08.0 -0.1
BZS   Buzias            78.88 328⇑iP       P          07 27 07.7 -0.4
MIB   Mutribah          78.89 302 eP       P          07 27 09.0 +0.5
MIB                                AMb     AMB        07 27 11.3
      comp=Z,414nm,0.8s
ANTO  Ankara            78.92 317 eP       P          07 27 09.3 +0.8
      comp=Z,48nm,0.8s,mb5.5
ANTO                               LR      LR
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	comp=Z,488nm,19.0s,MS4.9						
ANTO	Ankara	78.92	317	P	P	07 27 09.5	+1.0
ANTO				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.4						
TNS	Taunus Mts	78.95	338	*e*P	P	07 27 08.5	0.0
TNS				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.6						
TNS	Taunus Mts	78.95	338	*e*P	P	07 27 08.5	0.0
	comp=Z,70nm,0.9s,mb5.6						
JCT	Junction City	78.96	57	*e*P	P	07 27 08.2	-0.7
	comp=Z,26nm,1.0s,mb5.1						
JCT				LR	LR		
	comp=Z,293nm,20.0s,MS4.6						
JCT	Junction City	78.96	57	*e*P	P	07 27 08.2	-0.7
JCT				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
JCT				MLR	MLR		
	comp=Z,293nm,20.0s,MS4.6						
ZIMR		79.08	324	P	P	07 27 09.3	+0.1
KBD	Kabd	79.14	301	*e*P	P	07 27 10.7	+0.8
KBD				AMb	AMB	07 27 13.0	
	comp=Z,681nm,1.0s						
SZH	Strazhica	79.17	324	P	P	07 27 09.4	-0.4
SIUC	Southern Illin	79.19	46	*e*P	P	07 27 09.3	-0.6
	comp=Z,29nm,0.8s,mb5.3						
MEM	Membach	79.21	339	P	P	07 27 10.1	+0.3
	comp=Z,70nm,1.0s,mb5.5						
QRN	Al-Qurain	79.32	300	*e*P	P	07 27 11.7	+0.8
QRN				AMb	AMB	07 27 13.5	
	comp=Z,307nm,0.8s,mb6.3						
BLO	Bloomington	79.34	43	*e*P	P	07 27 10.0	-0.8
	comp=Z,21nm,0.8s,mb5.1						
BLO	Bloomington	79.34	43	*e*P	P	07 27 10.0	-0.8
BLO				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
NAY	Al-Naaiem	79.35	301	*e*P	P	07 27 11.4	+0.4
NAY				AMb	AMB	07 27 14.0	
	comp=Z,154nm,0.9s,mb5.9						
MIAR	Mount Ida	79.39	51	PFAKE		07 27 20.0	+8.9
MIAR				LR	LR		
	comp=Z,627nm,20.0s,MS5.0						
RDF	Al-Radifah	79.40	301	*e*P	P	07 27 12.1	+0.8
RDF				AMb	AMB	07 27 14.6	
	comp=Z,295nm,1.0s,mb6.2						
TOD	Tromm	79.42	337	*e*P	P	07 27 10.9	-0.1
PKSM	Moragy	79.43	330	P	P	07 27 10.7	-0.5
PKSM	Moragy	79.43	330	⇑*i*P	P	07 27 10.3	-0.8
MOA	Molln	79.43	333	*i* P	P	07 27 11.3	+0.2
	comp=Z,47nm,0.9s,mb5.4,SNR=14						
MOA	Molln	79.43	333	*i* pP	pP	07 27 11.3	-4.0
	comp=Z,47nm,0.9s,SNR=14						
SIND	Sindeldorf	79.44	337	P	P	07 27 11.1	0.0
ABH	Alteburg	79.50	338	*e*P	P	07 27 11.3	-0.1
BCLA	Clavier	79.55	340	P	P	07 27 11.8	+0.1
	comp=Z,51nm,1.2s,mb5.3						
SWS	Schriesheim-Wi	79.56	337	P	P	07 27 12.9	+1.1
ARSA	Arzberg	79.56	332	*i* P	P	07 27 12.2	+0.3
	comp=Z,27nm,0.8s,mb5.2,SNR=12						
ARSA	Arzberg	79.56	332	*i* pP	pP	07 27 12.2	-3.9
	comp=Z,27nm,0.8s,SNR=12						
JMB	Yambol	79.56	323	P	P	07 27 12.5	+0.6
SNF	Seneffe	79.71	340	P	P	07 27 12.6	0.0
	comp=Z,31nm,2.4s,mb4.8						
PARMO	Parma	79.74	47	*e*P	P	07 27 12.4	-0.6
USIN	University of	79.75	45	*e*P	P	07 27 12.4	-0.6
	comp=Z,35nm,0.8s,mb5.3						
RUP	Ruppelstein	79.79	338	*e*P	P	07 27 12.6	-0.4
COBT	Iskenderun	79.88	313	*i* P	P	07 27 14.9	+1.1
LONY	Lake Ozonia	79.90	33	PFAKE		07 27 30.0	+16
LONY				LR	LR		
	comp=Z,471nm,19.0s,MS4.8						
GIVF	Givet	79.96	340	⇑*i*P	P	07 27 13.5	-0.5
	comp=Z,82nm,1.1s,mb5.2						
GIVF	Givet	79.96	340	⇑*i*P	P	07 27 13.5	-0.5
	comp=Z,41nm,1.1s,mb5.3						
GIVF	Givet	79.96	340	⇑*i*P	P	07 27 13.5	-0.5
GIVF				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.3						
HDH	Heidenheim-Cha	79.97	336	P	P	07 27 14.7	+0.7
KOGS	Kog	80.03	331	P	P	07 27 14.7	+0.3
FUR	Furstenfeldbru	80.05	335	*e*P	P	07 27 14.7	+0.3
FUR				pmax	pmax		
	comp=Z,98nm,1.0s,mb5.7						
FUR	Furstenfeldbru	80.05	335	*e*P	P	07 27 14.7	+0.3
	comp=Z,98nm,1.0s,mb5.7						
WLF	Walferdange	80.05	339	*e*P	P	07 27 14.3	-0.1
	comp=Z,16nm,0.8s,mb5.0						
WLF	Walferdange	80.05	339	*e*P	P	07 27 14.3	-0.1
WLF				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
WLF	Walferdange	80.05	339	*e*P	P	07 27 14.6	+0.2
	comp=Z,44nm,1.2s,mb5.3						
STU	Stuttgart	80.08	337	*e*P	P	07 27 14.7	+0.1
	comp=Z,69nm,1.0s,mb5.5						
BAIF	Baives	80.15	340	⇑*i*P	P	07 27 14.8	-0.2
	comp=Z,66nm,1.1s,mb5.2						
BAIF	Baives	80.15	340	⇑*i*P	P	07 27 14.8	-0.2
	comp=Z,33nm,1.1s,mb5.2						
BAIF	Baives	80.15	340	⇑*i*P	P	07 27 14.8	-0.2
BAIF				pmax	pmax		
	comp=Z,33nm,1.1s,mb5.2						
ALLY	Alegheny Colle	80.19	38	*e*P	P	07 27 14.8	-0.5
WCI	Wyandotte Cave	80.20	44	*e*P	P	07 27 14.7	-0.7
	comp=Z,24nm,0.8s,mb5.2						
WCI	Wyandotte Cave	80.20	44	P	P	07 27 14.7	-0.8
WCI				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.2						
PERS	Pernice	80.24	332	*i* P	P	07 27 15.4	-0.1
FORT	Forrest	80.24	202	*e*P	P	07 27 15.3	-0.2
	comp=Z,28nm,0.8s,mb5.2						
LANF	Langenberg	80.26	338	*e*P	P	07 27 15.4	-0.2
LBG	Lerchenberg	80.29	337	P	P	07 27 16.3	+0.6
KDHN	Kadinhani	80.31	317	*i* P	P	07 27 16.1	0.0
BUCH	Bad Urach	80.33	337	P	P	07 27 16.6	+0.6
DIM	Dimitrovgrad	80.34	323	*e*P	P	07 27 16.5	+0.3
ULDT	Uludag	80.37	320	*i* P	P	07 27 16.8	+0.4
KBA	Koelnbreinsper	80.40	334	⇓*i*P	P	07 27 17.1	+0.7
	comp=Z,130nm,0.9s,mb5.8,SNR=42						
KBA	Koelnbreinsper	80.40	334	⇓*i*pP	pP	07 27 17.1	-3.5
	comp=Z,130nm,0.9s,SNR=42						
KBA	Koelnbreinsper	80.40	334	⇓*i*P	P	07 27 17.1	+0.7
KBA				pmax	pmax		
	comp=Z,130nm,0.9s,mb5.9						
OBKA	Obir	80.53	332	⇑*i*P	P	07 27 16.9	-0.2
	comp=Z,26nm,1.1s,mb5.1,SNR=9.1						
PLD	Plovdiv	80.64	324	*e*P	P	07 27 17.1	-0.6
WATA	Walderalm	80.71	335	⇑*i*P	P	07 27 18.5	+0.5
	comp=Z,114nm,1.0s,mb5.7,SNR=13						
WATA	Walderalm	80.71	335	⇑*i*pP	pP	07 27 18.5	-3.7
	comp=Z,114nm,1.0s,SNR=13						
WATA	Walderalm	80.71	335	⇑*i*P	P	07 27 18.5	+0.5
WATA				pmax	pmax		
	comp=Z,114nm,1.0s,mb5.8						
MYKA	Terra Mystica	80.71	333	⇑*i*P	P	07 27 17.6	-0.5
	comp=Z,36nm,0.9s,mb5.3						
BFO	Black Forest	80.72	337	P	P	07 27 18.6	+0.5
	comp=Z,375nm,0.9s,mb6.3,SNR=15						
BFO	Black Forest	80.72	337	*e*P	P	07 27 18.1	0.0
BFO				pmax	pmax		
	comp=Z,66nm,1.0s,mb5.5						
BFO	Black Forest	80.72	337	*e*P	P	07 27 18.1	0.0
	comp=Z,66nm,1.0s,mb5.5						
KDZ	Kurdzhali	80.73	323	P	P	07 27 18.7	+0.5
GUT	Gutenstein	80.74	337	P	P	07 27 18.6	+0.4
TAOE	Nuku Hiva Isla	80.75	113	*e*LR	LR	07 52 09.4	
	comp=Z,2µm,22.3s						
WTTA	Wattenberg	80.75	335	⇑*i*P	P	07 27 18.9	+0.7
	comp=Z,158nm,1.0s,mb5.9,SNR=32						
WTTA	Wattenberg	80.75	335	⇑*i*pP	pP	07 27 18.9	-3.5
	comp=Z,158nm,1.0s,SNR=32						
WTTA	Wattenberg	80.75	335	⇑*i*P	P	07 27 18.9	+0.6
WTTA				pmax	pmax		
	comp=Z,158nm,1.0s,mb5.9						
DIVS	Divcibare	80.77	328	*e*P	P	07 27 17.9	-0.5
SPAK	Spaichingen-Ko	80.80	337	*e*P	P	07 27 18.5	0.0
RETA	Reutte	80.81	335	⇓*i*pP	pP	07 27 18.9	-3.9
	comp=Z,61nm,1.1s,SNR=15						
UBR	Ueberruh	80.82	336	P	P	07 27 19.8	+1.2
VTS	Vitosha	80.83	325	*e*P	P	07 27 18.9	+0.1
VTS	Vitosha	80.83	325	⇑*i*P	P	07 27 18.8	0.0
MOTA	Moosalm	80.84	335	⇑*i*P	P	07 27 19.0	+0.3
	comp=Z,130nm,1.0s,mb5.8,SNR=33						
MOTA	Moosalm	80.84	335	⇑*i*pP	pP	07 27 19.0	-3.9
	comp=Z,130nm,1.0s,SNR=33						
MOTA	Moosalm	80.84	335	⇑*i*P	P	07 27 19.1	+0.4
MOTA				pmax	pmax		
	comp=Z,130nm,1.0s,mb5.8						
NATX	Nacogdoches	80.92	53	*e*P	P	07 27 19.1	-0.3
	comp=Z,51nm,0.8s,mb5.5						
SQTA	Sankt Quirin	80.92	335	⇑*i*P	P	07 27 19.6	+0.5
	comp=Z,82nm,0.9s,mb5.7,SNR=23						
SQTA	Sankt Quirin	80.92	335	⇑*i*pP	pP	07 27 19.6	-3.7
	comp=Z,82nm,0.9s,SNR=23						
SQTA	Sankt Quirin	80.92	335	⇑*i*P	P	07 27 19.6	+0.4
SQTA				pmax	pmax		
	comp=Z,82nm,0.9s,mb5.7						
CDF	Champ du Feu	80.92	338	⇑*i*P	P	07 27 19.0	-0.1
	comp=Z,142nm,1.1s,mb5.5						
CDF	Champ du Feu	80.92	338	⇑*i*P	P	07 27 19.0	-0.1
	comp=Z,71nm,1.1s,mb5.5						
CDF	Champ du Feu	80.92	338	⇑*i*P	P	07 27 19.0	-0.1
CDF				pmax	pmax		
	comp=Z,71nm,1.1s,mb5.5						
LJU	Ljubljana	80.95	332	P	P	07 27 20.0	+0.6
ABTA	Abfaltersbach	80.95	334	⇑*i*pP	pP	07 27 19.8	-3.8
	comp=Z,39nm,1.0s,SNR=9.9						
PTCC	Patocco-Chiusa	81.00	333	P	P	07 27 18.6	-1.0
FVI	Forni Avoltri	81.01	334	P	P	07 27 20.5	+0.9
GDZ	Gediz	81.07	319	*i* P	P	07 27 20.0	-0.2
ALN	Alexandroupoli	81.09	322	*e*P	P	07 27 19.9	-0.3
RDO	Rodhopi	81.10	323	*e*P	P	07 27 20.7	+0.5
WVT	Waverly	81.12	46	*e*P	P	07 27 19.4	-1.0
	comp=Z,17nm,0.8s,mb5.0						
WVT				LR	LR		
	comp=Z,624nm,19.0s,MS5.0						
WVT	Waverly	81.12	46	*e*P	P	07 27 19.4	-1.0
WVT				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
WVT				MLR	MLR		
	comp=Z,624nm,19.0s,MS5.0						
ECH	Echery	81.13	338	*e*P	P	07 27 20.0	-0.3
SISB	Singen-Schiene	81.13	336	P	P	07 27 20.7	+0.4
GMNA	Gemona	81.16	333	P	P	07 27 19.9	-0.5
KIZ	Kirchzarten	81.17	337	P	P	07 27 20.5	0.0
BOJS	Bojanci	81.19	332	*i* P	P	07 27 20.2	-0.4
LBNH	Lisbon	81.20	31	PFAKE		07 27 30.0	+9.3
LBNH				LR	LR		
	comp=Z,519nm,21.0s,MS4.9						
FELD	Feldberg im Sc	81.22	337	*e*P	P	07 27 20.4	-0.3
JAVS	Javornik	81.23	333	*i* P	P	07 27 19.6	-1.2
FETA	Feichten	81.24	335	*i* pP	pP	07 27 21.3	-3.8
	comp=Z,40nm,0.9s,SNR=12						
DAVA	Damuels	81.24	336	⇑*i*P	P	07 27 21.2	+0.4
	comp=Z,59nm,0.9s,mb5.5,SNR=16						
DAVA	Damuels	81.24	336	⇑*i*pP	pP	07 27 21.2	-3.8
	comp=Z,59nm,0.9s,SNR=16						
CEY	Cerknica	81.26	332	*i* P	P	07 27 20.0	-1.0
MEZF	Maizieres J’vi	81.40	339	*e*P	P	07 27 21.7	0.0
	comp=Z,153nm,0.9s,mb5.6						
MEZF	Maizieres J’vi	81.40	339	*e*P	P	07 27 21.7	0.0
	comp=Z,153nm,0.9s,mb5.9						
THEF	They Montfort	81.42	339	*e*P	P	07 27 21.7	-0.1
MMB	Musomiste	81.47	324	P	P	07 27 22.5	+0.3
MOF	Molkenrain	81.47	338	*e*P	P	07 27 21.9	-0.2
KKB	Krupnik	81.49	325	P	P	07 27 22.5	+0.2
HAU	Haudompre	81.53	338	⇑*i*P	P	07 27 22.0	-0.4
	comp=Z,131nm,1.1s,mb5.5						
HAU				*e*MLR	MLR		
	comp=Z,723nm,17.5s,MS4.8						
HAU	Haudompre	81.53	338	⇑*i*P	P	07 27 22.0	-0.4
	comp=Z,66nm,1.1s,mb5.5						
HAU				LR	LR		
	comp=Z,720nm,17.5s,MS5.1						
HAU	Haudompre	81.53	338	⇑*i*P	P	07 27 22.0	-0.4
HAU				pmax	pmax		
	comp=Z,66nm,1.1s,mb5.5						
HAU				MLR	MLR		
	comp=Z,720nm,17.5s,MS5.1						
HINF	Hinteralfeld	81.58	338	⇑*i*P	P	07 27 22.1	-0.6
	comp=Z,58nm,1.0s,mb5.2						
HINF	Hinteralfeld	81.58	338	⇑*i*P	P	07 27 22.1	-0.6
	comp=Z,29nm,1.0s,mb5.2						
HINF	Hinteralfeld	81.58	338	⇑*i*P	P	07 27 22.1	-0.6
HINF				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
OXF	Oxford	81.59	48	*e*P	P	07 27 21.6	-1.3
	comp=Z,41nm,0.9s,mb5.3						
OXF				LR	LR		
	comp=Z,407nm,19.0s,MS4.8						
OXF	Oxford	81.59	48	*e*P	P	07 27 21.7	-1.3
OXF				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.4						
OXF				MLR	MLR		
	comp=Z,407nm,19.0s,MS4.8						
ISP	Isparta	81.61	318	*e*P	P	07 27 23.2	+0.2
ISP	Isparta	81.61	318	*e*P	P	07 27 24.2	+1.2
ISP				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.2						
NVR	Nevrokopi	81.61	324	*e*P	P	07 27 23.0	0.0
PLE	Pljevlja	81.66	328	⇑*i*P	P	07 27 23.6	+0.5
DAVOX	Davos/Dischmat	81.70	336	P	P	07 27 23.5	+0.2
	comp=Z,32nm,0.9s,mb5.2,baz=21,slow=5.0,SNR=19						
BBS	Basel-Blauen	81.73	337	*e*P	P	07 27 23.4	-0.1
BRMO	Bormio	81.84	335	P	P	07 27 24.8	+0.8
CTI	Castel Tesino	81.84	334	P	P	07 27 23.6	-0.5
IVA	Berane	81.86	327	⇑*i*P	P	07 27 23.7	-0.5
PLAL	Pickwick Lake	81.90	47	*e*P	P	07 27 23.3	-1.3
	comp=Z,17nm,0.8s,mb5.0						
SRS	Serrai	81.92	324	*e*P	P	07 27 24.0	-0.6
PPT	Papeete	81.93	126	*e*S	S	07 37 26.1	-12
	comp=Z,56nm,23.2s						
PPT				*e*SS	SS	07 42 44.8	-13
	comp=Z,50nm,25.0s						
PPT				*e*LR	LR	07 52 41.8	
	comp=Z,986nm,24.5s,baz=328						
PPT	Papeete	81.93	126	LR	LR	08 01 03.7	
	comp=Z,328nm,18.0s,MS4.7,baz=270,slow=34						
UPM	Unac-Piva	81.94	328	⇑*i*P	P	07 27 23.3	-1.4
MCWV	Mont Chateau	81.97	39	*e*P	P	07 27 24.1	-0.7
	comp=Z,30nm,1.0s,mb5.2						
MCWV				LR	LR		
	comp=Z,689nm,19.0s,MS5.0						
STIP	Stip	81.99	325	*e*P	P	07 27 24.0	-0.9
STIP	Stip	81.99	325	*e*P	P	07 27 20.8	-4.1
LOMF	Lomont	82.02	338	*e*P	P	07 27 25.2	+0.2
SKO	Skopje	82.05	326	*e*P	P	07 27 25.7	+0.5
SKO	Skopje	82.05	326	*e*P	P	07 27 22.5	-2.7
PVY	Plav	82.07	327	⇑*i*P	P	07 27 24.1	-1.3
VAY	Valandovo	82.16	325	*e*P	P	07 27 25.2	-0.7
VAY	Valandovo	82.16	325	*e*P	P	07 27 23.3	-2.5
NKY	Niksic	82.25	328	⇑*i*P	P	07 27 24.5	-1.8
SOH	Sokhos	82.27	324	P	P	07 27 26.4	0.0
LIA	Limnos Island	82.28	322	*e*P	P	07 27 27.9	+1.4
LOS	Limnos	82.30	322	P	P	07 27 27.0	+0.4
BRY	Bratogost	82.34	328	⇑*i*P	P	07 27 24.6	-2.1
PRK	Paraskevi	82.36	321	*e*P	P	07 27 27.1	+0.2
FLN	La Foliniere	82.39	343	⇑*i*P	P	07 27 26.5	-0.4
	comp=Z,77nm,0.9s,mb5.3						
FLN				*e*MLR	MLR		
	comp=Z,640nm,18.2s,MS4.7						
FLN	La Foliniere	82.39	343	⇑*i*P	P	07 27 26.5	-0.4
	comp=Z,39nm,0.9s,mb5.3						
FLN				LR	LR		
	comp=Z,640nm,18.3s,MS5.0						
FLN	La Foliniere	82.39	343	⇑*i*P	P	07 27 26.5	-0.4
FLN				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.3						
FLN				MLR	MLR		
	comp=Z,640nm,18.3s,MS5.0						
MAGA	Magasa	82.40	335	P	P	07 27 26.3	-0.7
LDF	La Druitiere	82.48	343	⇑*i*P	P	07 27 26.9	-0.5
	comp=Z,74nm,1.0s,mb5.3						
LDF	La Druitiere	82.48	343	⇑*i*P	P	07 27 26.9	-0.5
	comp=Z,37nm,1.0s,mb5.3						
LDF	La Druitiere	82.48	343	⇑*i*P	P	07 27 26.9	-0.5
LDF				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.3						
TTG	Podgorica	82.48	328	⇑*i*P	P	07 27 26.0	-1.5
GRG	Griva	82.54	325	*e*P	P	07 27 27.4	-0.4
HORT	Hortiatis	82.56	324	*e*P	P	07 27 27.4	-0.6
CSS	Prodhromos	82.57	314	*e*P	P	07 27 27.7	-0.3
PLG	Polygyros	82.61	324	*e*P	P	07 27 26.9	-1.3
PLG	Polygyros	82.61	324	*e*P	P	07 27 27.4	-0.8
KDAG	Bornova	82.63	320	*i* P	P	07 27 28.4	+0.1
KRUS	Krusevo	82.64	326	*e*P	P	07 27 26.0	-2.3
STON	Ston	82.67	329	P	P	07 27 28.5	0.0
BUM	Brajici-Budva	82.73	328	⇑*i*P	P	07 27 27.6	-1.2
HCY	Herceg Novi	82.75	328	⇑*i*P	P	07 27 27.2	-1.7
SWET	Sewanee	82.78	45	*e*P	P	07 27 27.9	-1.2
GRR	Gorron	82.83	343	⇑*i*P	P	07 27 29.0	-0.2
	comp=Z,184nm,1.0s,mb5.8						
GRR	Gorron	82.83	343	⇑*i*P	P	07 27 29.0	-0.2
	comp=Z,92nm,1.0s,mb5.8						
GRR	Gorron	82.83	343	⇑*i*P	P	07 27 29.0	-0.2
GRR				pmax	pmax		
	comp=Z,92nm,1.0s,mb5.8						
LOR	Lormes	82.84	340	⇑*i*P	P	07 27 29.0	-0.3
	comp=Z,107nm,1.0s,mb5.5						
LOR				*e*MLR	MLR		
	comp=Z,526nm,17.8s,MS4.7						
LOR	Lormes	82.84	340	⇑*i*P	P	07 27 29.0	-0.3
	comp=Z,54nm,1.0s,mb5.5						
LOR				LR	LR		
	comp=Z,530nm,17.8s,MS5.0						
LOR	Lormes	82.84	340	⇑*i*P	P	07 27 29.0	-0.3
LOR				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.5						
LOR				MLR	MLR		
	comp=Z,530nm,17.8s,MS5.0						
VAI	Varese	82.85	336	P	P	07 27 29.4	0.0
TZTN	Tazewell	82.85	43	PFAKE		07 27 40.0	+10
TZTN				LR	LR		
	comp=Z,701nm,19.0s,MS5.0						
PAIG	Paliouri	82.89	323	*e*P	P	07 27 28.6	-1.0
ULC	Ulcinj	82.89	327	⇑*i*P	P	07 27 28.5	-1.1
CABF	La Chapelle	82.89	338	⇑*i*P	P	07 27 29.6	0.0
	comp=Z,56nm,1.0s,mb5.2						
CABF	La Chapelle	82.89	338	⇑*i*P	P	07 27 29.6	0.0
	comp=Z,28nm,1.0s,mb5.2						
CABF	La Chapelle	82.89	338	⇑*i*P	P	07 27 29.6	0.0
CABF				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
BIA	Bitola	82.91	325	*e*P	P	07 27 26.8	-3.0
ASF	Jabal al Asfar	82.94	310	P	P	07 27 30.6	+0.6
ASF				pmax	pmax		
	comp=Z,23nm,0.9s						
ASF	Jabal al Asfar	82.94	310	P	P	07 27 30.6	+0.5
	comp=Z,23nm,0.9s,mb5.2,baz=337,slow=1.6,SNR=22						
WES	Weston	83.03	32	PFAKE		07 27 40.0	+10
WES				LR	LR		
	comp=Z,949nm,20.0s,MS5.2						
OHR	Ohrid	83.03	326	*e*P	P	07 27 27.0	-3.4
MMAI	Mount Meron Ar	83.06	312	P	P	07 27 30.9	+0.3
	comp=Z,52nm,0.8s,mb5.6,baz=37,slow=7.6,SNR=41						
FNA	Florina	83.09	325	*e*P	P	07 27 30.0	-0.6
SSF	Saint Saulge	83.12	340	⇑*i*P	P	07 27 30.5	-0.2
	comp=Z,58nm,0.9s,mb5.3						
SSF	Saint Saulge	83.12	340	⇑*i*P	P	07 27 30.5	-0.2
	comp=Z,29nm,0.9s,mb5.3						
SSF	Saint Saulge	83.12	340	⇑*i*P	P	07 27 30.5	-0.2
SSF				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.3						
TIR	Tirane	83.19	327	P	P	07 27 32.6	+1.4
CPCT	Cooper Cave	83.28	44	*e*P	P	07 27 31.0	-0.7
SGMF	Saint Gilles	83.29	344	*e*P	P	07 27 31.3	-0.3
	comp=Z,297nm,1.1s,mb5.9						
SGMF	Saint Gilles	83.29	344	*e*P	P	07 27 31.3	-0.3
	comp=Z,148nm,1.1s,mb5.9						
SGMF	Saint Gilles	83.29	344	*e*P	P	07 27 31.3	-0.3
SGMF				pmax	pmax		
	comp=Z,148nm,1.1s,mb5.9						
ORO	Oropa	83.29	336	P	P	07 27 31.8	+0.2
KZN	Kozani	83.34	325	*e*P	P	07 27 31.4	-0.6
ROSF	Rostrenen	83.34	344	*e*P	P	07 27 31.7	-0.2
	comp=Z,153nm,0.9s,mb5.7						
ROSF	Rostrenen	83.34	344	*e*P	P	07 27 31.7	-0.2
	comp=Z,76nm,0.9s,mb5.7						
ROSF	Rostrenen	83.34	344	*e*P	P	07 27 31.7	-0.2
ROSF				pmax	pmax		
	comp=Z,76nm,0.9s,mb5.7						
AVF	Avril sur Loir	83.41	340	⇑*i*P	P	07 27 32.1	-0.1
	comp=Z,154nm,1.0s,mb5.7						
AVF	Avril sur Loir	83.41	340	⇑*i*P	P	07 27 32.1	-0.1
	comp=Z,77nm,1.0s,mb5.7						
AVF	Avril sur Loir	83.41	340	⇑*i*P	P	07 27 32.1	-0.1
AVF				pmax	pmax		
	comp=Z,77nm,1.0s,mb5.7						
SMF	Signal de Mont	83.43	339	⇑*i*P	P	07 27 32.3	0.0
	comp=Z,338nm,1.0s,mb6.0						
SMF	Signal de Mont	83.43	339	⇑*i*P	P	07 27 32.3	0.0
	comp=Z,169nm,1.0s,mb6.0						
SMF	Signal de Mont	83.43	339	⇑*i*P	P	07 27 32.3	0.0
SMF				pmax	pmax		
	comp=Z,169nm,1.0s,mb6.0						
AOS	Alonnisos	83.44	323	*e*P	P	07 27 31.5	-1.1
MMLI	Mount Malkishu	83.50	311	P	P	07 27 33.3	+0.3
RSM	Repubblica di	83.50	333	P	P	07 27 33.9	+1.1
WHFO	Wadi Hawf	83.54	289	P	P	07 27 32.9	-0.4
	SNR=22						
XOR	Xorichti	83.56	323	*e*P	P	07 27 31.9	-1.2
ELN	Prospectdale	83.58	41	*e*P	P	07 27 31.5	-1.7
HMDT	Nahal Hemdat	83.59	311	P	P	07 27 33.7	+0.3
NEO	Neokhori	83.60	323	*e*P	P	07 27 32.7	-0.6
FSSB	Fossombrone	83.61	332	P	P	07 27 33.5	+0.2
BDRM	Kayabasi	83.65	319	*i* P	P	07 27 33.8	+0.1
ERBM	Eremo	83.69	334	P	P	07 27 35.0	+1.3
GSCL	Gusciola	83.70	334	P	P	07 27 35.0	+1.2
SFI	Santa Sofia	83.72	333	P	P	07 27 34.7	+0.8
QUIF	Quistinic	83.73	344	*e*P	P	07 27 33.5	-0.3
	comp=Z,159nm,1.4s,mb5.7						
QUIF	Quistinic	83.73	344	*e*P	P	07 27 33.5	-0.3
	comp=Z,80nm,1.4s,mb5.7						
QUIF	Quistinic	83.73	344	*e*P	P	07 27 33.5	-0.3
QUIF				pmax	pmax		
	comp=Z,80nm,1.4s,mb5.7						
SEI	Scarperia	83.73	333	P	P	07 27 35.4	+1.5
LPL	La Plagne	83.73	337	⇑*i*P	P	07 27 34.6	+0.7
	comp=Z,51nm,0.9s,mb5.4						
LPL	La Plagne	83.73	337	⇑*i*P	P	07 27 34.6	+0.7
	comp=Z,26nm,0.9s,mb5.3						
LPL	La Plagne	83.73	337	⇑*i*P	P	07 27 34.6	+0.7
LPL				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.4						
BLA	Blacksburg	83.74	40	*e*P	P	07 27 33.0	-1.1
	comp=Z,23nm,0.9s,mb5.3						
BLA	Blacksburg	83.74	40	*e*P	P	07 27 33.0	-1.1
BLA				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.3						
LPG	La Plagne	83.75	337	⇑*i*P	P	07 27 34.8	+0.8
	comp=Z,80nm,1.0s,mb5.5						
LPG	La Plagne	83.75	337	⇑*i*P	P	07 27 34.8	+0.8
	comp=Z,40nm,1.0s,mb5.5						
LPG	La Plagne	83.75	337	⇑*i*P	P	07 27 34.8	+0.8
LPG				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.5						
BGF	Bois d’Agland	83.75	340	*e*P	P	07 27 33.9	-0.1
VMG	Vicchio	83.76	333	P	P	07 27 34.9	+0.8
SLTI	Sal’it	83.86	311	P	P	07 27 34.8	0.0
CRE	Caprese Michel	83.94	333	P	P	07 27 35.7	+0.7
SNTG	Esanatoglia	83.95	332	P	P	07 27 35.3	+0.2
LRAL	Lakeview Retre	83.99	47	*e*P	P	07 27 33.8	-1.7
	comp=Z,8.1nm,0.9s,mb4.8						
MURB	Monte Urbino	84.08	332	P	P	07 27 37.3	+1.6
PLDF	La Plantade	84.11	339	*e*P	P	07 27 36.8	+1.0
TCF	Toulx Ste Croi	84.15	340	⇑*i*P	P	07 27 36.1	+0.1
	comp=Z,58nm,0.9s,mb5.4						
TCF	Toulx Ste Croi	84.15	340	⇑*i*P	P	07 27 36.1	+0.1
	comp=Z,29nm,0.9s,mb5.4						
TCF	Toulx Ste Croi	84.15	340	⇑*i*P	P	07 27 36.1	+0.1
TCF				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.4						
AGO	Saint Agoulin	84.15	340	*e*P	P	07 27 36.9	+0.9
BNI	Bardonecchia	84.18	337	*e*P	P	07 27 36.7	+0.5
	comp=Z,33nm,1.0s,mb5.4						
BNI	Bardonecchia	84.18	337	*e*P	P	07 27 36.7	+0.5
BNI				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.4						
DRGI	Dragot	84.18	311	P	P	07 27 36.4	-0.1
GDM	Grand’Maison	84.19	337	*e*P	P	07 27 36.9	+0.7
CBN	Corbin	84.23	38	PFAKE		07 27 50.0	+13
CBN				LR	LR		
	comp=Z,476nm,21.0s,MS4.8						
LKR	Lokris	84.25	323	*e*P	P	07 27 34.7	-2.0
GRN	Grenoble	84.25	338	*e*P	P	07 27 37.4	+0.8
ABTO	Aybut	84.26	289	P	P	07 27 37.4	+0.4
	SNR=11						
JAN	Janina	84.26	325	*e*P	P	07 27 36.4	-0.3
NRCA	Norcia	84.27	332	P	P	07 27 37.2	+0.5
TERO	Teramo	84.30	331	P	P	07 27 36.9	0.0
MFF	Saint Martin d	84.38	342	*e*P	P	07 27 36.6	-0.6
	comp=Z,29nm,0.8s,mb5.2						
MFF	Saint Martin d	84.38	342	*e*P	P	07 27 36.6	-0.6
	comp=Z,15nm,0.8s,mb5.2						
MFF	Saint Martin d	84.38	342	*e*P	P	07 27 36.6	-0.6
MFF				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.2						

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PTL   Penteli            84.39 322  eP       P        07 27 35.5 -1.9
MBDF  Montbardon         84.45 337⇑iP       P        07 27 37.7 +0.1
      comp=Z,59nm,0.9s,mb5.4
MBDF  Montbardon         84.45 337⇑iP       P        07 27 37.7 +0.1
      comp=Z,30nm,0.9s,mb5.4
MBDF  Montbardon         84.45 337⇑iP       P        07 27 37.7 +0.1
MBDF                                pmax     pmax
      comp=Z,30nm,0.9s,mb5.4
PYM   Petit Puy Mans     84.47 340  eP       P        07 27 38.2 +0.6
ORIF  Oris-en-Rattie     84.52 337⇑iP       P        07 27 38.5 +0.6
      comp=Z,94nm,0.9s,mb5.6
ORIF                               eMLR      MLR
      comp=Z,569nm,20.0s,MS4.7
ORIF  Oris-en-Rattie     84.52 337⇑iP       P        07 27 38.5 +0.6
      comp=Z,47nm,0.9s,mb5.6
ORIF  Oris-en-Rattie     84.52 337⇑iP       P        07 27 38.5 +0.6
ORIF                                pmax     pmax
      comp=Z,47nm,0.9s,mb5.6
AQU   L'Aquila           84.61 331  eP       P        07 27 38.7 +0.3
      comp=Z,50nm,0.8s,mb5.7
AQU   L'Aquila           84.61 331  eP       P        07 27 38.7 +0.3
AQU                                 pmax     pmax
      comp=Z,50nm,0.8s,mb5.7
AQU   L'Aquila           84.61 331⇑iP       P        07 27 39.8 +1.4
KVR   Kavouri            84.62 322  eP       P        07 27 31.0 -7.6
SURF  Saint Ours         84.67 337  eP       P        07 27 39.1 +0.4
FIAM  Fiamignano         84.78 331   P       P        07 27 39.7 +0.4
VIVF  Saint-Julien-l     84.89 338  eP       P        07 27 40.2 +0.4
      comp=Z,93nm,1.0s,mb5.6
VIVF  Saint-Julien-l     84.89 338  eP       P        07 27 40.2 +0.4
      comp=Z,46nm,1.0s,mb5.6
VIVF  Saint-Julien-l     84.89 338  eP       P        07 27 40.2 +0.4
VIVF                                pmax     pmax
      comp=Z,47nm,1.0s,mb5.6
LBL   Lubilhac           84.90 339  eP       P        07 27 41.5 +1.7
PTQR  Pietraquaria       84.90 331   P       P        07 27 40.4 +0.5
FG5   Orsara di Pugl     84.92 330   P       P        07 27 40.6 +0.6
AUTN  L'Aution           84.95 336  eP       P        07 27 39.5 -0.6
FG4   Candela            84.97 329   P       P        07 27 40.2 -0.1
TOUF  Mont Tournerai     84.98 336  eP       P        07 27 39.9 -0.4
KAP   Karpathos          85.02 319  eP       P        07 27 40.6  0.0
SDI   San Donato         85.05 331   P       P        07 27 40.5 -0.1
SBF   Sospel             85.07 336⇑iP       P        07 27 40.2 -0.5
      comp=Z,144nm,1.1s,mb5.7
SBF   Sospel             85.07 336⇑iP       P        07 27 40.2 -0.5
      comp=Z,72nm,1.1s,mb5.7
SBF   Sospel             85.07 336⇑iP       P        07 27 40.2 -0.5
SBF                                 pmax     pmax
      comp=Z,72nm,1.1s,mb5.7
SVTA  Shivta             85.11 311   P       P        07 27 41.1 -0.1
ZFRI  Zfri               85.11 310   P       P        07 27 41.3 +0.1
REVF  Revere             85.20 336  eP       P        07 27 40.7 -0.7
RJF   Les Rejaudoux      85.24 340⇑iP       P        07 27 41.1 -0.4
      comp=Z,74nm,1.1s,mb5.4
RJF                                eMLR      MLR
      comp=Z,721nm,20.2s,MS4.8
RJF   Les Rejaudoux      85.24 340⇑iP       P        07 27 41.1 -0.4
      comp=Z,37nm,1.1s,mb5.4
RJF                                 LR       LR
      comp=Z,720nm,20.3s,MS5.0
RJF   Les Rejaudoux      85.24 340⇑iP       P        07 27 41.1 -0.4
RJF                                 pmax     pmax
      comp=Z,37nm,1.1s,mb5.4
RJF                                 MLR      MLR
      comp=Z,720nm,20.3s,MS5.0
KZIT  Kziot              85.24 311   P       P        07 27 42.7 +0.9
PRNI  Paran              85.36 310   P       P        07 27 42.7 +0.3
GOGA  Godfrey            85.44  45  eP       P        07 27 42.1 -0.7
GOGA                                LR       LR
      comp=Z,293nm,20.0s,MS4.7
CAF   Calviac            85.47 340  eP       P        07 27 42.4 -0.3
      comp=Z,70nm,1.0s,mb5.4
CAF   Calviac            85.47 340  eP       P        07 27 42.4 -0.3
      comp=Z,35nm,1.0s,mb5.4
CAF   Calviac            85.47 340  eP       P        07 27 42.4 -0.3
CAF                                 pmax     pmax
      comp=Z,35nm,1.0s,mb5.4
SMRF  Simiane la Rot     85.47 337⇑iP       P        07 27 43.5 +0.8
      comp=Z,65nm,1.1s,mb5.4
SMRF  Simiane la Rot     85.47 337⇑iP       P        07 27 43.5 +0.8
      comp=Z,65nm,1.0s,mb5.7
FRF   La Foret Royal     85.57 336⇑iP       P        07 27 43.0 -0.2
      comp=Z,86nm,1.2s,mb5.5
FRF   La Foret Royal     85.57 336⇑iP       P        07 27 43.0 -0.2
      comp=Z,43nm,1.2s,mb5.6
FRF   La Foret Royal     85.57 336⇑iP       P        07 27 43.0 -0.2
FRF                                 pmax     pmax
      comp=Z,43nm,1.2s,mb5.5
BRAL  Brewton            85.57  48  eP       P        07 27 43.1 -0.4
      comp=Z,26nm,0.6s,mb5.6
TAVF  Tavernes           85.67 337  eP       P        07 27 44.3 +0.6
PRAF  Pradon             85.74 337  eP       P        07 27 45.2 +1.1
LFF   La Frestale        85.76 341  eP       P        07 27 43.6 -0.6
      comp=Z,58nm,0.9s,mb5.5
LFF   La Frestale        85.76 341  eP       P        07 27 43.6 -0.6
      comp=Z,29nm,0.9s,mb5.5
LFF   La Frestale        85.76 341  eP       P        07 27 43.6 -0.6
LFF                                 pmax     pmax
      comp=Z,29nm,0.9s,mb5.5
JSC   Jenkinsville       85.77  43  eP       P        07 27 43.7 -0.7
LMR   La Mourre          85.81 336  eP       P        07 27 44.4  0.0
      comp=Z,174nm,1.0s,mb5.9
LMR   La Mourre          85.81 336  eP       P        07 27 44.4  0.0
      comp=Z,87nm,1.0s,mb5.9
LMR   La Mourre          85.81 336  eP       P        07 27 44.4  0.0
LMR                                 pmax     pmax
      comp=Z,87nm,1.0s,mb5.9
PGF   Pioggiola          85.82 334⇑iP       P        07 27 44.1 -0.4
      comp=Z,95nm,1.1s,mb5.6
PGF   Pioggiola          85.82 334⇑iP       P        07 27 44.1 -0.4
      comp=Z,48nm,1.1s,mb5.6
PGF   Pioggiola          85.82 334⇑iP       P        07 27 44.1 -0.4
PGF                                 pmax     pmax
      comp=Z,48nm,1.1s,mb5.6
ZKR   Zakros             85.82 319  eP       P        07 27 43.3 -1.3
LASF  Ste Croix          85.83 338  eP       P        07 27 44.3 -0.2
      comp=Z,94nm,1.4s,mb5.5
EIL   Elat               85.93 310   P       P        07 27 45.4 +0.1
EIL   Elat               85.93 310   P       P        07 27 45.3  0.0
      comp=Z,72nm,0.9s,mb5.9,baz=6.8,slow=4.0,SNR=24
TDS   Terranova Siba     85.98 328   P       P        07 27 45.7 +0.4
CORF  Corte              86.00 334  eP       P        07 27 45.6 +0.2
GELF  Grande-Etoile      86.06 337  eP       P        07 27 46.5 +0.8
LAST  Lasithi            86.11 320  eP       P        07 27 44.6 -1.5
KYTH  Kithira            86.24 322  eP       P        07 27 45.0 -1.7
TIP   Timpagrande        86.24 328  eP       P        07 27 46.4 -0.2
XRY   Khrisi             86.26 319  eP       P        07 27 46.5 -0.3
IDI   Anoyia             86.27 320   P       P        07 27 45.8 -1.1
      baz=25,slow=8.3
MTLF  Montolieu          86.92 339  eP       P        07 27 49.4 -0.5
      comp=Z,57nm,1.2s,mb5.4
MTLF  Montolieu          86.92 339  eP       P        07 27 49.4 -0.5
      comp=Z,28nm,1.2s,mb5.4
MTLF  Montolieu          86.92 339  eP       P        07 27 49.4 -0.5
MTLF                                pmax     pmax
      comp=Z,28nm,1.2s,mb5.4
GVD   Gavdhos            87.00 320  eP       P        07 27 50.5 +0.1
NHSC  New Hope           87.25  42   PFAKE            07 28 00.0 +8.3
NHSC                                LR       LR
      comp=Z,392nm,22.0s,MS4.8
SOI   Samo               87.48 328   P       P        07 27 52.3 -0.4
EPF   Esparros           87.66 340  eP       P        07 27 54.8 +1.3
SJPF  Ste Jean           87.94 342  eP       P        07 27 54.0 -0.8
      comp=Z,50nm,1.2s,mb5.3
SJPF  Ste Jean           87.94 342  eP       P        07 27 54.0 -0.8
      comp=Z,25nm,1.2s,mb5.3
SJPF  Ste Jean           87.94 342  eP       P        07 27 54.0 -0.8
SJPF                                pmax     pmax
      comp=Z,25nm,1.2s,mb5.3
ETSF  Etsaut             87.99 341  eP       P        07 27 54.2 -0.9
      comp=Z,30nm,1.0s,mb5.2
ETSF  Etsaut             87.99 341  eP       P        07 27 54.2 -0.9
      comp=Z,15nm,1.0s,mb5.2
ETSF  Etsaut             87.99 341  eP       P        07 27 54.2 -0.9
ETSF                                pmax     pmax
      comp=Z,15nm,1.0s,mb5.2
VSL   Villasalto         88.49 333  eP       P        07 27 57.2 -0.3
      comp=Z,31nm,0.9s,mb5.5
PBRG  Braganca           90.29 345  eP       P        07 28 04.9 -0.9
      comp=Z,38nm,1.5s,mb5.5
PCAB  Cabril             90.60 346  eP       P        07 28 06.9 -0.4
DWPF  Disney             90.77  46   PFAKE            07 28 20.0 +12
DWPF                                LR       LR
      comp=Z,368nm,20.0s,MS4.8
MVO   Moncorvo           90.96 345  eP       P        07 28 05.5 -3.5
      comp=Z,58nm,1.4s,mb5.7
PVRL  Vila Real          90.97 346  eP       P        07 28 08.2 -0.8
      comp=Z,59nm,1.6s,mb5.7
PVIS  Viseu              91.54 346  eP       P        07 28 10.3 -1.4
MTE   Manteigas          91.79 345  eP       P        07 28 12.5 -0.4
      comp=Z,37nm,0.9s,mb5.7
ESDC  Sonseca Array      91.81 343   P       P        07 28 11.6 -1.4
      comp=Z,6.3nm,0.8s,mb5.0,baz=13,slow=4.2,SNR=15
ESDC                                LR       LR       08 17 33.5
      comp=Z,352nm,19.1s,MS4.8,baz=25,slow=41
ESLA  Sonseca Array      91.81 343   PFAKE            07 28 20.0 +7.0
ESLA                                LR       LR
      comp=Z,4µm,19.0s,MS5.8
KEST  Kesra              91.93 331   P       P        07 28 13.8 +0.2
      comp=Z,8.2nm,0.8s,mb5.1,baz=326,slow=5.3,SNR=14
KEST                                LR       LR       08 14 32.8
      comp=Z,210nm,18.3s,MS4.6,baz=338,slow=39
PAB   San Pablo          92.02 343   PFAKE            07 28 30.0 +16
PAB                                 LR       LR
      comp=Z,555nm,19.0s,MS5.0
PCBR  Castelo Branco     92.32 345  eP       P        07 28 14.2 -1.1
PESTR Estremoz           93.29 345  eP       P        07 28 19.1 -0.7
TEIG  Tepich             93.46  56   PFAKE            07 28 30.0 +9.1
TEIG                                LR       LR
      comp=Z,210nm,21.0s,MS4.6
PBEJ  Beja               94.16 345  eP       P        07 28 22.9 -0.9
RKT   Rikitea            94.77 119  eLR      LR       07 58 45.5
ATD   Arta Tunnel        95.32 293   P       P        07 28 29.1 -0.4
ATD                                 LR       LR       08 16 48.5
ATD   Arta Tunnel        95.32 293   P       P        07 28 29.1 -0.4
      comp=Z,3.2nm,0.3s,mb5.2,baz=210,slow=20,SNR=5.2
ATD                                 LR       LR       08 16 48.5
      comp=Z,630nm,18.8s,MS5.1,baz=31,slow=39
MSEY  Mahe Island        98.74 272   PFAKE            07 29 00.0 +15
MSEY                                LR       LR
      comp=Z,245nm,20.0s,MS4.7
TGUH  Tegucigalpa,Un     98.91  59   PFAKE            07 29 00.0 +14
TGUH                                LR       LR
      comp=Z,218nm,21.0s,MS4.6
JTS   JuntasAbangare    103.27  59   PFAKE            07 29 20.0 +15
JTS                                 LR       LR
      comp=Z,136nm,19.0s,MS4.5
KMBO  Kilima Mbogo      108.49 289   PFAKE            07 33 50.0 +16
KMBO                                LR       LR
      comp=Z,348nm,22.0s,MS4.9
OTAV  Otavalo           115.14  60   PFAKE            07 34 00.0 +13
OTAV                                LR       LR
      comp=Z,64nm,19.0s,MS4.2
TOA0  Torodi Ar. Sit    115.36 329  ePKPdf   PKPdf    07 33 45.9 -1.2
TORD  Torodi Ar. Bea    115.36 329   PKP     PKPdf    07 33 45.5 -1.6
TORD                                PKKPbc   PKKPbc   07 44 23.6 +4.1
TORD  Torodi Ar. Bea    115.36 329   PKP     PKPdf    07 33 45.5 -1.6
      comp=Z,4.3nm,0.7s,baz=10,slow=1.8,SNR=22
TORD                                PKKPbc   PKKPbc   07 44 23.6 +4.1
      comp=Z,0.4nm,0.7s,baz=225,slow=2.7,SNR=3.9
CASY  Casey             117.14 198   PFAKE            07 34 00.0 +11
CASY                                LR       LR
      comp=Z,626nm,20.0s,MS5.2
TIC   Toumodi           123.66 334  ePKIKP   PKPdf    07 34 02.1 -1.1
      comp=Z,18nm,1.0s
KIC   Kosan Boka        123.84 333  ePKIKP   PKPdf    07 34 02.1 -1.4
      comp=Z,92nm,0.8s
VNDA  Vanda             123.87 178   PKP     PKPdf    07 33 59.9 -1.7
VNDA  Vanda             123.87 178   PKIKP   PKPdf    07 33 59.9 -1.7
VNDA                                pmax     pmax
      comp=Z,5.0nm,1.1s
VNDA  Vanda             123.87 178   PKP     PKPdf    07 33 59.9 -1.6
      comp=Z,5.2nm,1.1s,baz=9.2,slow=2.8,SNR=3.1
LIC   Lamto             124.06 334  ePKIKP   PKPdf    07 34 01.9 -2.0
      comp=Z,53nm,1.1s
LIC                                 eMLR     MLR
      comp=Z,239nm,21.0s,MS4.5
LIC   Lamto             124.06 334  ePKIKP   PKPdf    07 34 02.5 -1.4
      comp=Z,62nm,1.1s
LIC   Lamto             124.06 334  ePKPdf   PKPdf    07 34 01.9 -2.0
LIC                                 LR       LR
      comp=Z,120nm,21.0s,MS4.5
LSZ   Lusaka            124.93 286  ePKPdf   PKPdf    07 34 05.4  0.0
LSZ                                 LR       LR
      comp=Z,620nm,19.0s,MS5.3
LSZ   Lusaka            124.93 286  ePKIKP   PKPdf    07 34 05.4  0.0
LSZ                                 MLR      MLR
      comp=Z,620nm,19.0s,MS5.3
LSZ   Lusaka            124.93 286   PKP     PKPdf    07 34 04.2 -1.2
      comp=Z,8.2nm,0.9s,baz=28,slow=2.5,SNR=14
MAW   Mawson            132.06 211   PKP     PKPdf    07 34 16.5 -0.9
MAW   Mawson            132.06 211   PKIKP   PKPdf    07 34 16.5 -0.9
MAW                                 pmax     pmax
      comp=Z,5.0nm,0.9s
MAW   Mawson            132.06 211   PKP     PKPdf    07 34 16.5 -0.9
      comp=Z,5.2nm,0.8s,baz=117,slow=2.3,SNR=4.0
LBTB  Lobatse           133.40 279  ePKPdf   PKPdf    07 34 20.9 -0.4
LBTB  Lobatse           133.40 279  ePKIKP   PKPdf    07 34 20.9 -0.4
LPAZ  La Paz            134.35  63  ePKPdf   PKPdf    07 34 23.6 +0.3
LPAZ                                LR       LR
      comp=Z,111nm,20.0s,MS4.6
LPAZ  La Paz            134.35  63   PKIKP   PKPdf    07 34 23.2 -0.1
LPAZ                                pmax     pmax
      comp=Z,3.0nm,0.7s
LPAZ                                pmax     pmax
      comp=N,3.0nm,1.1s
LPAZ  La Paz            134.35  63   PKP     PKPdf    07 34 23.2 -0.1
      comp=N,2.5nm,0.7s,baz=358,slow=5.3,SNR=16
LPAZ                                SKPab             07 37 55.0
      comp=N,2.7nm,1.1s,baz=277,slow=6.7,SNR=4.8
TSUM  Tsumeb            134.71 292   PFAKE            07 34 40.0 +16
TSUM                                LR       LR
      comp=Z,511nm,20.0s,MS5.2
BOSA  Boshof            135.94 275   PKP     PKPdf    07 34 22.5 -3.4
BOSA  Boshof            135.94 275   PKIKP   PKPdf    07 34 22.5 -3.4
BOSA                                pmax     pmax
      comp=Z,7.0nm,1.0s
BOSA  Boshof            135.94 275   PKhKP            07 34 22.5
      comp=Z,6.9nm,1.0s,baz=144,slow=2.9,SNR=4.3
QSPA  South Pole Qui    136.25 180  ePKPdf   PKPdf    07 34 24.7 -0.2
QSPA                                LR       LR
      comp=Z,354nm,21.0s,MS5.1
SYO   Syowa Base        140.77 211⇓eX                 07 34 30.8
SUR   Sutherland        141.26 274   PFAKE            07 34 50.0 +14
SUR                                 LR       LR
      comp=Z,2µm,21.0s,MS5.7
LCO   Las Campanas      141.65  79  ePKPdf   PKPdf    07 34 37.0 +0.6
NVL   N'lazarevskaya    149.47 204⇓iPKP2    PKPab    07 34 52.9 -5.0
NVL                                 pmax     pmax
      comp=Z,39nm,1.6s
MAIT  Maitri            149.49 204  ePKPdf   PKPdf    07 34 50.2 +1.8
SNAA  Sanae             152.36 196   PKIKP   PKPbc    07 34 56.9 -2.7
SNAA                                pmax     pmax
      comp=Z,7.0nm,1.0s
SNAA  Sanae             152.36 196   PKPbc   PKPbc    07 34 56.9 -2.7
      comp=Z,6.5nm,1.0s,baz=115,slow=1.2,SNR=17
VNA2  Neumayer--Watz    153.80 194  ePKPdf   PKPbc    07 35 01.5 -1.3
VNA2                                e                 07 35 07.2
VNA2                                e                 07 35 14.7
VNA2                                e                 07 35 18.3
VNA2                                e                 07 35 21.5
VNA2                                e                 07 35 25.5
VNA3  Neumayer Olymp    153.89 192  ePKPdf   PKPbc    07 35 01.8 -1.2
VNA3                                e                 07 35 06.7
VNA3                                e                 07 35 15.7
VNA3                                e                 07 35 18.3
VNA3                                e                 07 35 20.7
VNA3                                e                 07 35 26.1
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*IDC **08** 07:21:18.1±0.8, 35.38N×26.63E, h0^{km}, mb4.2/7, mb1 4.1/12, mb1mx4.0/24, mbtmp4.0/12, ML3.8/5, MS3.2/1, Ms1 3.2/1, ms1mx2.4/37, Error ellipse: s-maj=24.9km s-min=12.1km az=171.0*

*ISK **08** 07:21:18.9, 35.69N×26.41E, h5^{km}, MD3.9*

*HLW **08** 07:21:19.6, 35.54N×26.56E, h33^{km}, Mb3.9*

*ISCJB **08** 07:21:20.2±0.5, 35.32N±0.03×26.61E±0.02, h28^{km}±5^{km}, mb4.2/8, Error ellipse: s-maj=4.6km s-min=3.2km az=179.7*

*CSEM **08** 07:21:20.4±0.1, 35.35N×26.71E, h30^{km}, ML4.2, Error ellipse: s-maj=2.0km s-min=1.4km az=41.0*

*NEIC **08** 07:21:20.0, 35.52N×26.57E, h22^{km}, ML4.2(ATH), After ATH.*

*ATH **08** 07:21:20.0, 35.52N×26.57E, h22^{km}±1^{km}, MD3.9/19, ML4.2*

*MOS **08** 07:21:21.8±1.4, 35.36N×26.68E, h33^{km}, mb4.9/4, Error ellipse: s-maj=10.6km s-min=7.5km az=78.7*

ISC 08 07:21:20.7±0.5, **35.39N**±0.03×**26.59E**±0.02, **h15**^{km}±4^{km},

n139, $\sigma 1^{s}06$/168, mb4.2/8, 7D, Crete

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Code  Station Name        Δ°   AZ°     Phase ID          Time       Res
                                       Op       ISC      h  m  s    ISC
KARP  Karpathos          0.49  72⇓iPb      Pg       07 21 30.2 -0.3
KARP                               eSb      Sg       07 21 36.8 -0.3
KARP  Karpathos          0.49  72⇓iPB      Pg       07 21 30.2 -0.3
KARP                               eSB      Sg       07 21 36.8 -0.3
KARP  Karpathos          0.49  72⇓iPb      Pg       07 21 30.2 -0.3
KARP                               eSb      Sg       07 21 36.8 -0.3
NPS   Neapolis           0.81 261  ePn      Pg       07 21 36.1 -0.3
NPS                                eSn      Sg       07 21 47.4 +0.3
NPS   Neapolis           0.81 261  ePN      Pg       07 21 36.1 -0.3
NPS                                eSN      Sg       07 21 47.4 +0.3
NPS   Neapolis           0.81 261  ePn      Pg       07 21 36.1 -0.3
NPS                                eSn      Sg       07 21 47.4 +0.3
XRY   Khrisi             0.90 235  ePn      Pn       07 21 38.4 -0.4
XRY   Khrisi             0.90 235  ePN      Pn       07 21 38.4 -0.4
XRY   Khrisi             0.90 235  ePn      Pn       07 21 38.4 -0.4
NISR  Nisiros            1.29  20  ePn      Pn       07 21 42.5 -1.8
NISR  Nisiros            1.29  20  ePN      Pn       07 21 42.5 -1.8
NISR  Nisiros            1.29  20  ePn      Pn       07 21 42.5 -1.8
SANT  Santorini          1.34 317  ePn      Pn       07 21 44.1 -0.7
SANT  Santorini          1.34 317  ePn      Pn       07 21 44.2 -0.7
IDI   Anoyia             1.39 266   Pn      Pn       07 21 45.6  0.0
IDI                                 Sn      Sg       07 22 07.2 +1.6
IDI   Anoyia             1.39 266   Pn      Pn       07 21 45.6 -0.1
      134nm,0.3s,baz=77,slow=13,SNR=197
IDI                                 Sn      Sg       07 22 07.2 +1.6
      293nm,0.3s,baz=300,slow=22,SNR=13
IDI   Anoyia             1.39 266   Pn      Pn       07 21 45.6  0.0
IDI                                 Sn      Sg       07 22 07.2 +1.6
ARG   Arkhangelos        1.50  56  ePn      Pn       07 21 46.6 -0.5
ARG                                eSn      Sn       07 22 06.4 +0.1
ARG   Arkhangelos        1.50  56  ePN      Pn       07 21 46.6 -0.5
ARG                                eSN      Sn       07 22 06.4 +0.1
DAT   Datca              1.56  31   PN      Pn       07 21 46.8 -1.1
DAT   Datca              1.56  31  ePn      Pn       07 21 46.8 -1.1
BODT  Bodrum             1.76  19  ePN      Pn       07 21 49.2 -1.6
BODT  Bodrum             1.76  19  ePn      Pn       07 21 49.2 -1.6
BDRM  Kayabasi           1.81  22  i P      Pn       07 21 52.1 +0.8
BDRM                               i S      Sg       07 22 19.0 +0.2
APE   Apeiranthos        1.88 333  ePn      Pn       07 21 51.2 -1.1
APE                                eSn      Sn       07 22 13.8 -1.9
APE   Apeiranthos        1.88 333  ePN      Pn       07 21 51.2 -1.1
APE                                eSN      Sn       07 22 13.8 -1.9
APE   Apeiranthos        1.88 333  ePn      Pn       07 21 51.2 -1.1
APE                                eSn      Sn       07 22 13.8 -1.9
VAM   Vamos              1.95 271   P       Pg       07 21 58.2  0.0
VAM   Vamos              1.95 271  ePN      Pn       07 21 53.9 +0.6
VAM   Vamos              1.95 271  ePn      Pn       07 21 53.9 +0.6
GVD   Gavdhos            2.12 256  ePn      Pb       07 21 58.0 -0.9
GVD   Gavdhos            2.12 256  ePN      Pn       07 21 57.5 +1.8
MLSB  Milas              2.13  26  ePN      Pn       07 21 54.0 -1.7
MLSB  Milas              2.13  26  ePn      Pn       07 21 54.0 -1.7
DALT  Dalyan (Mudla)     2.15  50  ePN      Pn       07 21 57.0 +0.9
DALT  Dalyan (Mudla)     2.15  50  ePn      Pn       07 21 57.0 +0.9
YER   Yerkesik           2.21  38  ePN      Pn       07 21 55.6 -1.3
YER                                eSN      Sn       07 22 23.6 -0.4
YER   Yerkesik           2.21  38  ePn      Pn       07 21 55.6 -1.3
YER                                eSn      Sn       07 22 23.6 -0.4
SMG   Samos              2.32   5  ePn      Pn       07 21 57.3 -1.1
SMG   Samos              2.32   5  ePN      Pn       07 21 57.3 -1.1
SMG   Samos              2.32   5  ePn      Pn       07 21 57.3 -1.1
FETY  Fethiye            2.37  58  ePN      Pn       07 22 00.4 +1.3
FETY  Fethiye            2.37  58  ePn      Pn       07 22 00.4 +1.3
KSL   Kastellorizon      2.55  72  ePb      Pn       07 22 03.0 +1.5
KSL   Kastellorizon      2.55  72  ePB      Pn       07 22 03.0 +1.5
KSL   Kastellorizon      2.55  72  ePb      Pn       07 22 03.0 +1.5
AKAS  Kas                2.59  70  i P      Pn       07 22 04.0 +1.8
AKAS                               i S      Sn       07 22 34.9 +1.5
BLCB  Balcova            3.01   7  ePN      Pn       07 22 06.1 -1.7
BLCB  Balcova            3.01   7  ePn      Pn       07 22 06.1 -1.7
ELL   Elmali             3.01  62  ePN      Pn       07 22 09.8 +1.9
ELL   Elmali             3.01  62  ePn      Pn       07 22 09.8 +1.9
KYTH  Kithira            3.02 288  ePn      Pn       07 22 08.0  0.0
KYTH  Kithira            3.02 288  ePN      Pn       07 22 08.0  0.0
KYTH  Kithira            3.02 288  ePn      Pn       07 22 08.0  0.0
GOLH  Golhisar           3.02  52  i P      Pn       07 22 09.6 +1.5
GOLH                               i S      Sg       07 22 55.9 -2.0
KDAG  Bornova            3.05  10  i P      Pn       07 22 10.1 +1.6
KDAG                               i S      Sg       07 23 05.1 +6.4
DENT  Denizli            3.07  39  ePN      Pn       07 22 07.9 -0.8
DENT  Denizli            3.07  39  ePn      Pn       07 22 07.9 -0.8
VLI   Veliai             3.24 295  ePn      Pn       07 22 11.3 +0.3
VLI                                eSn      Sn       07 22 48.5 -0.8
VLI   Veliai             3.24 295  ePN      Pn       07 22 11.3 +0.3
VLI                                eSN      Sn       07 22 48.5 -0.8
VLI   Veliai             3.24 295  ePn      Pn       07 22 11.3 +0.3
VLI                                eSn      Sn       07 22 48.5 -0.8
KVR   Kavouri            3.32 318  ePN      Pn       07 22 13.0 +0.8
NAIG  Nisos Aigina       3.43 314  ePn      Pn       07 22 14.0 +0.3
NAIG  Nisos Aigina       3.43 314  ePN      Pn       07 22 14.0 +0.3
NAIG  Nisos Aigina       3.43 314  ePn      Pn       07 22 14.0 +0.3
PTL   Penteli            3.44 321  ePn      Pn       07 22 13.5 -0.2
PTL   Penteli            3.44 321  ePN      Pn       07 22 13.5 -0.2
PTL   Penteli            3.44 321  ePn      Pn       07 22 13.5 -0.2
ATH   Athens Observa     3.46 319  ePn      Pn       07 22 13.6 -0.4
ATH   Athens Observa     3.46 319  ePN      Pn       07 22 13.6 -0.4
ATH   Athens Observa     3.46 319  ePn      Pn       07 22 13.6 -0.4
AKS   Akhisar            3.61  15  ePN      Pn       07 22 14.2 -2.0
AKS   Akhisar            3.61  15  ePn      Pn       07 22 14.2 -2.0
MGER  Gerania Oros       3.72 315  ePn      Pn       07 22 18.0 +0.4
MGER  Gerania Oros       3.72 315  ePN      Pn       07 22 18.0 +0.4
MGER  Gerania Oros       3.72 315  ePn      Pn       07 22 18.0 +0.4
PRK   Paraskevi          3.85 356  ePn      Pn       07 22 18.9 -0.6
PRK   Paraskevi          3.85 356  ePN      Pn       07 22 18.9 -0.6
PRK   Paraskevi          3.85 356  ePn      Pn       07 22 18.9 -0.6
ISP   Isparta            3.99  51  eP       Pn       07 22 23.0 +1.6
ITM   Ithomi             4.17 297  ePn      Pn       07 22 24.7 +0.9
ITM   Ithomi             4.17 297  ePN      Pn       07 22 24.7 +0.9
ITM   Ithomi             4.17 297  ePn      Pn       07 22 24.7 +0.9
SHUT  Suhut-Afyon        4.47  44  ePN      Pn       07 22 28.6 +0.6
SHUT  Suhut-Afyon        4.47  44  ePn      Pn       07 22 28.6 +0.6
EVR   Evrytania          5.19 314  ePn      Pn       07 22 39.2 +1.4
EVR   Evrytania          5.19 314  ePN      Pn       07 22 39.2 +1.4
EVR   Evrytania          5.19 314  ePn      Pn       07 22 39.2 +1.4
ERMK  Ermenek            5.28  75  i P      Pn       07 22 42.2 +3.1
ERMK                               i S      Sn       07 23 41.0 +1.5
KONT  Konya--Tatoy       5.29  60  ePN      Pn       07 22 41.2 +2.0
KONT  Konya--Tatoy       5.29  60  ePn      Pn       07 22 41.2 +2.0
ESKT  Eskisehir          5.33  38  ePN      Pn       07 22 39.8  0.0
ESKT  Eskisehir          5.33  38  ePn      Pn       07 22 39.8  0.0
IZI   Iznik              5.44  24  ePN      Pn       07 22 39.9 -1.3
BRTR  Keskin Array B     7.07  50   P       Pn       07 23 04.7 +1.0
BRTR                                                 07 24 25.3
BRTR                                pmax    pmax
      comp=Z,1.0nm,0.3s
BRTR  Keskin Array B     7.07  50   Pn      Pn       07 23 04.7 +1.0
      comp=Z,0.8nm,0.3s,baz=221,slow=13,SNR=16
BRTR                                Sn      Sn       07 24 25.3 +1.5
      baz=220,slow=23,SNR=2.6
HHAG  Hagoal             7.14 138 ⇓P       Pn       07 23 03.6 -1.1
AMAG  Maghara            7.30 129   P       Pn       07 23 06.0 -0.9
SUZ                      7.64 135 ⇓P       Pn       07 23 11.0 -0.6
MMAI  Mount Meron Ar     7.68 105   Pn      Pn       07 23 10.9 -1.1
      comp=Z,4.4nm,0.3s,baz=310,slow=12,SNR=14
MMAI                                Sn      Sn       07 24 38.0 -0.7
      comp=Z,7.7nm,0.3s,baz=294,slow=36,SNR=7.2
HNKL  Nakhl              8.28 129 ⇓P       Pn       07 23 19.7 -0.5
HFRF  Wahat Farafira     8.35 169   P       Pn       07 23 21.3 +0.1
EIL   Elat               9.08 127   Pn      Pn       07 23 30.3 -0.9
EIL                                 Sn      Sn       07 25 06.5 -6.7
EIL   Elat               9.08 127   Pn      Pn       07 23 30.3 -0.9
      comp=Z,1.1nm,0.3s,baz=36,slow=17,SNR=14
EIL                                 Sn      Sn       07 25 06.5 -6.7
      comp=Z,3.2nm,0.3s,baz=287,slow=20,SNR=8.0
EIL   Elat               9.08 127   Pn      Pn       07 23 30.3 -0.9
EIL                                 Sn      Sn       07 25 06.4 -6.7
ASF   Jabal al Asfar     9.16 108   Pn      Pn       07 23 32.4 +0.1
ASF   Jabal al Asfar     9.16 108   Pn      Pn       07 23 32.4 +0.1
      comp=Z,0.4nm,0.3s,baz=328,slow=19,SNR=3.1
HBST  Basata             9.24 130 ⇓P       Pn       07 23 33.5  0.0
MLR   Muntele Rosu      10.10 357   Pn      Pn       07 23 50.9 +5.8
MLR                                 LR      LR       07 27 22.1
MLR   Muntele Rosu      10.10 357   P       Pn       07 23 50.9 +5.8
MLR                                 MLR     MLR
      comp=Z,135nm,18.7s
MLR   Muntele Rosu      10.10 357   Pn      Pn       07 23 50.9 +5.8
      comp=Z,0.2nm,0.3s,baz=294,slow=20,SNR=2.1
MLR                                 LR      LR       07 27 22.1
```

	comp=Z,135nm,18.7s,baz=284,slow=36						
HHRG	**Al Ghardaqah**	**10.10**	**142**	P	**Pn**	**07 23 44.7**	**-0.5**
ANN	**Anapa**	**12.53**	**38**	*e*P	**Pn**	**07 24 19.1**	**+0.7**
ANN				pmax	pmax		
	comp=Z,161nm,1.1s						
ANN	**Anapa**	**12.53**	**38**	*e*P	**Pn**	**07 24 19.1**	**+0.7**
	comp=Z,161nm,1.1s						
KIV	**Kislovodsk**	**15.04**	**51**	*e*P	**Pn**	**07 24 53.3**	**+0.7**
KIV				pmax	pmax		
	comp=Z,4.0nm,0.6s						
KIV	**Kislovodsk**	**15.04**	**51**	*e*P	**Pn**	**07 24 53.3**	**+0.7**
	comp=Z,4.0nm,0.6s						
AKASG	**Malin Array Be**	**15.42**	**6**	Pn	**Pn**	**07 25 00.5**	**+3.0**
AKASG	**Malin Array Be**	**15.42**	**6**	P	**Pn**	**07 25 00.5**	**+2.9**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.3s						
AKASG	**Malin Array Be**	**15.42**	**6**	Pn	**Pn**	**07 25 00.5**	**+3.0**
	comp=Z,2.1nm,0.3s,baz=195,slow=11,SNR=14						
AKASG	**Malin Array Be**	**15.42**	**6**	P	**Pn**	**07 25 00.5**	**+2.9**
	comp=Z,2.0nm,0.3s						
GERES	**GERESS Array B**	**16.46**	**329**	Pn	**Pn**	**07 25 12.8**	**+1.8**
GERES	**GERESS Array B**	**16.46**	**329**	Pn	**Pn**	**07 25 12.8**	**+1.8**
	comp=Z,0.2nm,0.3s,baz=139,slow=12,SNR=7.9						
KHC	**Kasperske Hory**	**16.73**	**329**	*e*P	**Pn**	**07 25 15.7**	**+1.2**
OBN	**Obninsk**	**20.89**	**16**	*e*P	**P**	**07 26 01.9**	**-0.4**
OBN				pmax	pmax		
	comp=Z,21nm,0.7s						
OBN	**Obninsk**	**20.89**	**16**	*e*P	**P**	**07 26 01.9**	**-0.4**
	comp=Z,21nm,0.7s						
VSU	**Vasula**	**23.08**	**0**	*e*P	**P**	**07 26 26.1**	**+0.6**
MUD	**Monsted U'grnd**	**24.16**	**336**	*i* P	**P**	**07 26 35.4**	**-0.7**
MUD				pmax	pmax		
	comp=Z,57nm,0.8s,mb5.0						
MUD	**Monsted U'grnd**	**24.16**	**336**	*i* P	**P**	**07 26 35.4**	**-0.7**
	comp=Z,57nm,0.8s,mb5.0						
ESDC	**Sonseca Array**	**24.54**	**289**	P	**P**	**07 26 39.4**	**-0.3**
	comp=Z,0.9nm,0.4s,mb3.6,baz=78,slow=10,SNR=4.8						
MDT	**Midelt**	**25.91**	**273**	P	**P**	**07 26 51.7**	**-0.6**
	comp=Z,2.5nm,0.9s,mb3.7,baz=243,slow=15,SNR=3.5						
TORD	**Torodi Ar. Bea**	**31.54**	**232**	P	**P**	**07 27 42.5**	**0.0**
	comp=Z,1.7nm,0.6s,mb4.1,baz=34,slow=8.6,SNR=16						
KURK	**Kurchatov**	**40.13**	**51**	*e*P	**P**	**07 28 55.3**	**-0.4**
MKAR	**Makanchi Array**	**42.67**	**57**	P	**P**	**07 29 16.6**	**-0.1**
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.4s						
MKAR	**Makanchi Array**	**42.67**	**57**	P	**P**	**07 29 16.6**	**-0.1**
	comp=Z,3.8nm,0.4s,mb4.5,baz=269,slow=8.5,SNR=55						
ZAL	**Zalesovo**	**43.99**	**46**	P	**P**	**07 29 26.1**	**-1.1**
ZALV	**Zalesovo Beam**	**44.00**	**46**	P	**P**	**07 29 26.1**	**-1.2**
	comp=Z,1.8nm,0.4s,mb4.2,baz=264,slow=9.8,SNR=9.2						
SONM	**Songino Array**	**58.43**	**51**	P	**P**	**07 31 15.6**	**-0.1**
SONM				pmax	pmax		
	comp=Z,2.0nm,0.5s						
SONM	**Songino Array**	**58.43**	**51**	P	**P**	**07 31 15.6**	**-0.1**
	comp=Z,2.0nm,0.5s,mb4.4,baz=288,slow=7.6,SNR=14						
KSRS	**Korea Array**	**77.21**	**53**	P	**P**	**07 33 13.5**	**-0.7**
	comp=Z,0.7nm,0.5s,mb3.8,baz=299,slow=4.2,SNR=3.7						

IDC 08 07:54:56.4±2.1**, 46.35N×153.19E, h0^{km}, mb3.6**/7**, mb1 3.8**/7**, mb1mx3.6**/21**, mbtmp3.6**/7**, Error ellipse: s-maj=59.5km s-min=26.3km az=165.0, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAJ	**Asahikawa**	**7.81**	**257**	Pn	Pn	07 56 56.0	+4.9
	0.5nm,0.3s,baz=17,slow=20,SNR=3.3						
KSRS	**Korea Array**	**20.73**	**254**	P	P	07 59 38.7	+0.3
	1.0nm,0.8s,baz=42,slow=14,SNR=2.1						
MKAR	**Makanchi Array**	**47.17**	**298**	P	P	08 03 30.7	+0.3
	0.6nm,0.8s,baz=60,slow=7.2,SNR=7.0						
YKA	**Yellowknife Ar**	**51.21**	**37**	P	P	08 04 01.1	0.0
	0.2nm,0.4s,baz=299,slow=7.1,SNR=4.2						
FINES	**FINESS Array B**	**64.42**	**335**	P	P	08 05 33.6	-0.3
	0.5nm,0.4s,baz=23,slow=6.2,SNR=7.4						
NB2	**NORSAR Subarra**	**68.62**	**341**	P	P	08 06 00.9	+0.1
	comp=Z,0.1nm,0.6s,baz=32,slow=6.5						
NOA	**NORSAR Array B**	**68.62**	**341**	P	P	08 06 01.1	+0.3
	comp=Z,0.6nm,0.6s,baz=28,slow=6.4,SNR=3.9						
AKASG	**Malin Array Be**	**71.91**	**326**	P	P	08 06 21.1	0.0
	comp=Z,1.2nm,0.5s,baz=33,slow=6.5,SNR=7.7						
TXAR	**Lajitas Array**	**77.64**	**61**	P	P	08 06 54.9	+0.2
	comp=Z,0.2nm,0.5s,baz=292,slow=4.8,SNR=5.0						

NIED ***08*** *07:55:00, 33.50N×132.10E, h62^{km}, Mw3.5 Best double couple: M₀2.21000×10^{14} NP1:φₛ322.00000°, δ45.00000°, λ-138.00000°. NP2:φₛ200.00000°, δ62.00000°, λ-53.00000°.*

ISCJB ***08*** *07:55:42.0±1.2, 33.49N±0.05×132.09E±0.06, h57^{km}±10^{km}, Error ellipse: s-maj=9.8km s-min=7.1km az=139.4*

JMA ***08*** *07:55:42.3, 33.52N×132.08E, h56^{km}±1^{km}, M3.6 Broadband fault plane solution: P waves. NP1: φₛ302.00000°, δ58.00000°, λ-156.00000°. NP2: φₛ199.00000°, δ70.00000°, λ-34.00000°. Principal axes: T Plg8.0000°, Azm253.0000°; N Plg51.0000°, Azm353.0000°; P Plg38.0000°, Azm157.0000°;*

JMA Felt I J1.

ISC 08 07:55:42.6±1.2**, 33.49N**±0.05×**132.08E**±0.06**, h53**^{km}±11^{km}**, n9, σ0^s.37**/17**, 5C-3D, Shikoku**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNA	**Nagahama**	**0.34**	**78**	⇑P	**Pn**	**07 55 52.3**	**0.0**
JNA				S	**Sn**	**07 55 59.4**	**0.0**
JKI	**Kunimi**	**0.45**	**289**	⇓P	**Pn**	**07 55 53.4**	**-0.1**
JKI				S	**Sn**	**07 56 01.5**	**+0.2**
UWA2	**Uwa jima 2**	**0.53**	**121**	⇑P	**Pn**	**07 55 54.3**	**-0.1**
UWA2				S	**Sn**	**07 56 03.4**	**+0.5**
JHM	**Kurahashi**	**0.75**	**30**	⇑P	**Pn**	**07 55 56.7**	**-0.4**
JHM				S	**Sn**	**07 56 07.5**	**-0.2**
JKU	**Kubokawa**	**0.84**	**102**	⇑P	**Pn**	**07 55 57.9**	**-0.3**
JKU				*e*S	**Sn**	**07 56 10.1**	**+0.4**
JET	**Tanbara**	**0.86**	**70**	⇑P	**Pn**	**07 55 58.1**	**-0.4**
JET				*e*S	**Sn**	**07 56 09.8**	**-0.4**
JTO	**Tosashimizu**	**0.87**	**136**	⇓P	**Pn**	**07 55 58.5**	**-0.1**
JTO				*e*S	**Sn**	**07 56 10.1**	**-0.3**
JHT	**Toyohira**	**1.21**	**13**	⇓P	**Pn**	**07 56 03.1**	**0.0**
JHT				*e*S	**Sn**	**07 56 18.7**	**+0.2**
MAT	**Matsushiro**	**5.88**	**57**	P	**Pn**	**07 57 08.1**	**+1.0**

IDC 08 08:02:14.2±3.0**, 7.34S×106.42E, h0^{km}, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.6**/18**, mbtmp3.8**/3**, Error ellipse: s-maj=175.1km s-min=26.3km az=51.0, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**29.83**	**118**	P	P	08 08 23.2	-0.1
	0.4nm,0.6s,baz=289,slow=12,SNR=4.6						
STKA	**Stephens Creek**	**40.85**	**131**	P	P	08 09 58.2	+0.2
	3.9nm,0.5s,baz=307,slow=6.7,SNR=22						
MKAR	**Makanchi Array**	**58.01**	**341**	P	P	08 12 08.9	+0.2
	0.2nm,0.5s,baz=161,slow=9.1,SNR=2.6						
TXAR	**Lajitas Array**	**144.22**	**48**	PKP	PKPdf	08 21 51.3	-1.6
	0.1nm,0.3s,baz=279,slow=1.7,SNR=3.7						

ISCJB ***08*** *08:24:03.4±2.6, 25.27S±0.09×179.7E±0.1, h439^{km}±34^{km}, mb3.8/8, Error ellipse: s-maj=19.5km s-min=13.4km az=25.4*

IDC ***08*** *08:24:06.6±3.0, 25.35S×179.76E, h470^{km}±36^{km}, mb3.3/5, mb1 3.6/7, mb1mx3.4/13, mbtmp3.3/7, Error ellipse: s-maj=26.6km s-min=19.5km az=146.0*

NEIC ***08*** *08:24:07.1±1.4, 25.42S×180.00W, h492^{km}±20^{km}, mb4.4/4, Error ellipse: s-maj=21.5km s-min=16.0km az=136.0*

ISC 08 08:24:06.9±1.4**, 25.43S**±0.09×**179.9E**±0.1**, h476**^{km}±21^{km}**, n18, σ1^s.22**/15**, mb3.9**/8**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**12.77**	**282**	P	**P**	**08 26 56.7**	**+2.8**
	0.6nm,0.3s,baz=67,slow=21,SNR=8.8						
URZ	**Urewera**	**13.01**	**190**	P	**P**	**08 26 57.5**	**+1.3**
	0.8nm,0.3s,baz=53,slow=5.1,SNR=5.0						
URZ				S	**S**	**08 29 15.3**	**-0.5**
	0.5nm,0.3s,baz=72,slow=20,SNR=3.3						
AFI	**Afiamalu**	**13.88**	**36**	P	**P**	**08 27 03.8**	**-2.0**
	1.1nm,0.3s,baz=156,slow=10.0,SNR=2.3						
SNZO	**South Karori**	**16.41**	**194**	P	**P**	**08 27 31.2**	**-0.9**
	27nm,1.4s						
CTAO	**Charters Tower**	**31.42**	**273**	*e*P	**P**	**08 29 49.0**	**+0.9**
	4.7nm,0.4s,mb4.3						
STKA	**Stephens Creek**	**34.09**	**250**	P	**P**	**08 30 10.4**	**-0.2**
	1.0nm,0.6s,mb3.5,baz=90,slow=13,SNR=4.4						
WB2	**Warramunga Arr**	**42.22**	**268**	*e*P	**P**	**08 31 16.4**	**-0.9**
WRA	**Warramunga Arr**	**42.23**	**268**	P	**P**	**08 31 16.8**	**-0.6**
	4.3nm,0.6s,mb4.0,baz=101,slow=7.3,SNR=115						
KAKA	**Kakadu**	**46.37**	**277**	*e*P	**P**	**08 31 48.4**	**-1.2**
	5.1nm,0.4s,mb4.3						
FITZ	**Fitzroy Crossi**	**50.63**	**267**	*e*P	**P**	**08 32 21.3**	**-0.1**
	4.5nm,0.5s,mb4.0						
MJAR	**Matsushiro Arr**	**73.10**	**326**	P	**P**	**08 34 47.0**	**-0.9**
	0.6nm,0.4s,mb3.4,baz=158,slow=10,SNR=3.0						
NVAR	**Mina Array Bea**	**85.91**	**44**	P	**P**	**08 35 57.1**	**+1.5**
	1.2nm,0.7s,mb3.6,baz=209,slow=6.7,SNR=11						
TXAR	**Lajitas Array**	**91.32**	**58**	P	**P**	**08 36 22.9**	**+1.8**
TXAR	**Lajitas Array**	**91.32**	**58**	P	**P**	**08 36 22.9**	**+1.8**
	0.8nm,0.8s,mb3.7,baz=219,slow=6.8,SNR=9.8						
NB2	**NORSAR Subarra**	**143.57**	**351**	PKPa	PKPdf	08 42 43.5	-2.6
	comp=Z,1.0nm,0.6s,baz=19,slow=3.7						
NOA	**NORSAR Array B**	**143.57**	**351**	PKP	PKPdf	08 42 44.2	-1.9
NOA	**NORSAR Array B**	**143.57**	**351**	PKP	PKPdf	08 42 44.2	-1.9
	comp=Z,1.8nm,0.7s,baz=16,slow=2.5,SNR=5.7						
TORD	**Torodi Ar. Bea**	**167.66**	**188**	PKPab	PKPab	08 44 27.3	-0.5
	comp=Z,0.6nm,0.9s,baz=160,slow=4.6,SNR=2.7						

MEX 08 08:27:30.8±0.6**, 15.93N×98.92W, h22**^{km}±24^{km}**, MD4.0, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.89**	**59**	*e*P	Pb	08 27 45.0	-2.5
PNIG				*i* S	Sb	08 27 55.5	-3.4
MEIG	**Mezcala**	**2.10**	**341**	*i* P	Pn	08 28 02.1	-2.5
MEIG				*i* S	Sn	08 28 26.9	-3.1
UTMO	**Huajuapan**	**2.17**	**29**	*i* P	Pn	08 28 01.9	-3.7
UTMO				*i* S	Sn	08 28 29.2	-2.6
VHO	**Vista Hermosa**	**2.38**	**61**	*i* P	Pn	08 28 06.7	-1.8
VHO				*i* S	Sn	08 28 35.7	-1.4
TPIG	**Tehuac#an**	**2.89**	**31**	*i* P	Pn	08 28 11.8	-3.7
TPIG				*i* S	Sn	08 28 45.3	-4.2

IDC ***08*** *08:35:14.3±1.4, 23.41N×126.26E, h0^{km}, mb3.7/3, mb1 3.8/4, mb1mx3.5/19, mbtmp3.7/4, ML3.1/1, Error ellipse: s-maj=41.8km s-min=24.6km az=82.0*

ISCJB ***08*** *08:35:18.2±1.0, 23.33N±0.06×125.82E±0.06, h33^{km}, mb3.5/3, Error ellipse: s-maj=9.0km s-min=7.7km az=10.9*

JMA ***08*** *08:35:19.3±0.3, 23.40N×125.69E, h18^{km}, M3.1*

ISC 08 08:35:19.6±1.0**, 23.38N**±0.06×**125.83E**±0.06**, h35**^{km}**, n13, σ1^s.09**/21**, mb3.5**/3**, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOGS	**Gusukube**	**1.42**	**344**	P	**Pn**	**08 35 43.7**	**+0.7**
JOGS				*e*S	**Sn**	**08 36 02.4**	**+1.9**
JMJ	**Miyako jima 2**	**1.51**	**341**	S	**Sn**	**08 36 03.8**	**+1.2**
JTJ	**Tarama**	**1.62**	**321**	P	**Pn**	**08 35 45.9**	**+0.2**
JTJ				S	**Sn**	**08 36 05.4**	**0.0**
JIJ	**Ishigaki jima**	**1.82**	**303**	P	**Pn**	**08 35 49.4**	**+0.9**
JIJ				S	**Sn**	**08 36 09.7**	**-0.7**
JKRS	**Kuro-shima**	**1.87**	**297**	P	**Pn**	**08 35 49.5**	**+0.4**
JKRS				S	**Sn**	**08 36 11.3**	**-0.2**
HATJ	**Hateruma jima**	**1.97**	**290**	P	**Pn**	**08 35 50.7**	**+0.2**
HATJ				S	**Sn**	**08 36 13.1**	**-0.9**
IRIF	**Iriomote-Funau**	**2.14**	**297**	S	**Sn**	**08 36 17.8**	**-0.4**
YOJ	**Yonaguni jima**	**2.79**	**293**	P	**Pn**	**08 36 02.2**	**+0.4**
YOJ				S	**Sn**	**08 36 32.6**	**-1.7**
JKE	**Kume jima 2**	**3.06**	**16**	P	**Pn**	**08 36 04.3**	**-1.2**
JKE				S	**Sn**	**08 36 38.6**	**-2.2**
JOW	**Kunigami**	**4.09**	**32**	Pn	**Pn**	**08 36 15.3**	**-4.4**
	2.8nm,0.3s,baz=193,slow=11,SNR=5.8						
JOW				Sn	**Sn**	**08 37 01.6**	**-4.6**
	2.3nm,0.3s,baz=106,slow=19,SNR=4.9						
MKAR	**Makanchi Array**	**41.89**	**315**	P	**P**	**08 43 08.6**	**+2.0**
	0.5nm,0.6s,mb3.3,baz=103,slow=10.0,SNR=6.9						
ZALV	**Zalesovo Beam**	**43.27**	**326**	P	**P**	**08 43 18.9**	**+1.3**
	0.6nm,0.6s,mb3.5,baz=111,slow=11,SNR=2.4						
WRA	**Warramunga Arr**	**43.85**	**168**	P	**P**	**08 43 21.9**	**-0.8**
	1.4nm,0.8s,mb3.8,baz=349,slow=8.5,SNR=7.2						

ISCJB ***08*** *08:58:29.0±0.3, 38.34N±0.02×112.61W±0.03, h10^{km}, Error ellipse: s-maj=3.7km s-min=2.0km az=28.2*

NEIC ***08*** *08:58:28.0, 38.30N×112.60W, h0^{km}, ML3.1(SLC), After SLC.*

NEIC Felt [III] at Beaver and [II] at Syracuse. Also felt at Sandy.

ISC 08 08:58:29.5±0.2**, 38.28N**±0.01×**112.55W**±0.02**, h10**^{km}**, n88, σ1^s.08**/118**, 32C-19D, Utah**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSU	**Marysvale**	**0.37**	**51**	⇑*i*Pg	**Pg**	**08 58 36.4**	**-0.4**
S14A	**Cedar City**	**0.71**	**224**	⇓P	**Pg**	**08 58 42.9**	**-0.4**
	baz=0.7,SNR=143						
S14A				⇓S	**Sg**	**08 58 52.5**	**0.0**
	baz=0.7						
ARUT	**Antelope Range**	**0.86**	**236**	*e*Pg	**Pg**	**08 58 44.8**	**-1.2**
CCUT	**Cedar City**	**0.97**	**222**	*e*Pg	**Pg**	**08 58 47.5**	**-0.7**
CCUT				*e*Sg	**Sg**	**08 59 00.6**	**-0.1**
T14A	**Hurricane**	**1.29**	**199**	⇑P	**Pn**	**08 58 53.5**	**0.0**
	baz=1.3,SNR=267						
T14A				⇓S	**Sb**	**08 59 11.0**	**+0.7**
	baz=1.3						
TMUT	**Trail Mountain**	**1.46**	**45**	*e*Pn	**Pn**	**08 58 55.7**	**-0.2**
TMUT				*e*Sn	**Sn**	**08 59 17.0**	**+1.9**
R12A	**Pony Springs,**	**1.62**	**272**	⇓P	**Pn**	**08 58 58.0**	**-0.1**
	baz=1.6,SNR=665						
R12A				⇑S	**Sn**	**08 59 20.4**	**+1.3**
	baz=1.6						
T13A	**Saint George**	**1.66**	**221**	⇓P	**Pn**	**08 58 59.2**	**+0.6**
	baz=1.7,SNR=747						
T13A				⇑S	**Sn**	**08 59 21.1**	**+1.2**
	baz=1.7						
NLU	**North Lily Min**	**1.71**	**12**	*e*Pn	**Pn**	**08 59 00.6**	**+1.2**
NLU				*e*Sn	**Sn**	**08 59 23.0**	**+1.6**
SRU	**San Rafael**	**1.79**	**62**	*e*Pn	**Pn**	**08 59 01.9**	**+1.5**
SRU				*e*Sn	**Sn**	**08 59 24.9**	**+1.8**
MPU	**Maple Canyon**	**1.88**	**22**	*e*Pn	**Pn**	**08 59 02.1**	**+0.5**
MPU				*e*Sn	**Sn**	**08 59 27.7**	**+2.3**
DUG	**Dugway**	**1.93**	**354**	*e*Pn	**Pn**	**08 59 01.3**	**-0.9**
DUG				*e*Sg	**Sg**	**08 59 29.7**	**-1.7**
Q12A	**Willow Creek R**	**1.94**	**294**	⇓P	**Pn**	**08 59 02.3**	**-0.2**
	baz=1.9,SNR=755						
P12A	**McGill**	**2.19**	**304**	⇓P	**Pn**	**08 59 05.6**	**-0.4**
	baz=2.1,SNR=57						
DAU	**Daniels Canyon**	**2.36**	**25**	*e*Pg	**Pg**	**08 59 13.5**	**-1.1**
DAU				*e*Sg	**Sg**	**08 59 45.3**	**+0.1**
TRCR	**Troy Canyon**	**2.39**	**273**	*e*Pn	**Pn**	**08 59 07.9**	**-0.7**
TRCR				*e*Sg	**Sg**	**08 59 44.1**	**-2.1**
NOQ	**North Oquirrh**	**2.40**	**8**	*e*Pn	**Pn**	**08 59 08.9**	**+0.1**
NOQ				*e*Sn	**Sn**	**08 59 41.5**	**+3.4**
U12A	**Valley of Fire**	**2.43**	**221**	⇑P	**Pn**	**08 59 09.6**	**+0.4**
	baz=2.4,SNR=9.2						
JLU	**Jordanelle**	**2.47**	**20**	*e*Pg	**Pg**	**08 59 14.7**	**-2.1**
JLU				*e*Sg	**Sg**	**08 59 47.5**	**-1.4**
CTU	**Camp Tracy**	**2.49**	**14**	*e*Pg	**Pg**	**08 59 15.9**	**-1.3**
CTU				*e*Sn	**Sn**	**08 59 41.9**	**+1.4**
Q11A	**Duckwater**	**2.50**	**284**	⇓P	**Pn**	**08 59 10.4**	**+0.2**
	baz=2.5,SNR=35						
BGU	**Big Grassy Mou**	**2.67**	**352**	*e*Pn	**Pn**	**08 59 11.5**	**-1.0**
BGU				*e*Sn	**Sn**	**08 59 50.3**	**+5.3**
PV10	**Paradox Valley**	**2.76**	**87**	*e*Pn	**Pn**	**08 59 18.9**	**+5.1**
PV10				*e*Sg	**Sg**	**08 59 58.1**	**-0.1**
N13A	**Wendover, West**	**2.88**	**334**	⇑P	**Pn**	**08 59 14.0**	**-1.3**
	baz=2.8						
R10A	**Warm Springs**	**2.95**	**271**	⇓P	**Pn**	**08 59 16.2**	**-0.2**
	baz=2.9,SNR=13						
SPUT	**South Promonto**	**3.03**	**1**	*e*Pn	**Pn**	**08 59 17.5**	**+0.1**
SPUT				*e*Pg	**Sg**	**09 00 07.0**	**+0.3**
O11A	**Cowboy Ranch,**	**3.04**	**308**	⇑P	**Pn**	**08 59 17.8**	**+0.2**
	baz=3.0,SNR=15						
W14A	**Seligman**	**3.09**	**188**	⇑Pb	**Pb**	**08 59 24.0**	**-0.5**
	baz=3.1						
W15A	**Williams**	**3.10**	**176**	⇑Pb	**Pb**	**08 59 24.6**	**-0.1**
	baz=3.1						
PV01	**Paradox Valley**	**3.14**	**91**	*e*Pn	**Pn**	**08 59 23.3**	**+4.4**
PV01				*e*Sn	**Sn**	**09 00 03.6**	**+7.2**
V12A	**Nelson**	**3.14**	**217**	⇑P	**Pn**	**08 59 19.9**	**+0.9**
	baz=3.2,SNR=9.5						
N12A	**Clover Valley,**	**3.21**	**324**	⇓P	**Pn**	**08 59 19.5**	**-0.4**
	baz=3.2						
S10A	**Tonopah Range,**	**3.21**	**265**	⇓P	**Pn**	**08 59 19.7**	**-0.3**
	baz=3.2,SNR=35						
ELK	**Elko**	**3.23**	**321**	*e*Pg	**Pg**	**08 59 28.4**	**-2.8**
ELK				*e*Sn	**Sn**	**09 00 02.9**	**+4.3**
M13A	**Montello**	**3.32**	**338**	⇑P	**Pn**	**08 59 21.5**	**0.0**
	baz=3.3						
P10A	**Eureka**	**3.33**	**295**	⇓P	**Pn**	**08 59 21.5**	**-0.2**
	baz=3.3						
V11A	**Goodsprings**	**3.35**	**224**	⇓P	**Pn**	**08 59 22.2**	**+0.3**
	baz=3.4						
HWUT	**Hardware Ranch**	**3.41**	**12**	*e*Pn	**Pn**	**08 59 24.0**	**+1.4**
HWUT				*e*Sg	**Sg**	**09 00 19.2**	**+0.2**
HVU	**Hansel Valley**	**3.50**	**357**	*e*Pn	**Pn**	**08 59 23.9**	**-0.1**
HVU				*e*Sg	**Sg**	**09 00 21.3**	**-0.7**
U10A	**Ash Meadows, A**	**3.54**	**240**	⇓P	**Pn**	**08 59 24.2**	**-0.3**
	baz=3.5,SNR=7.5						
R09A	**Tonopah**	**3.56**	**271**	⇑P	**Pn**	**08 59 24.1**	**-0.7**
	baz=3.5,SNR=17						
M12A	**Wells**	**3.62**	**331**	⇓P	**Pn**	**08 59 24.4**	**-1.2**
	baz=3.6						
O10A	**Cortez Mining,**	**3.67**	**304**	⇑P	**Pn**	**08 59 26.4**	**+0.1**
	baz=3.6						
TPH	**Tonopah**	**3.69**	**268**	*e*Pn	**Pn**	**08 59 26.7**	**+0.2**
TPH				*e*Sg	**Sg**	**09 00 24.2**	**-3.8**
S09A	**Goldfield**	**3.73**	**263**	P	**Pn**	**08 59 27.1**	**0.0**
	baz=3.7,SNR=7.8						
P09A	**Austin**	**3.80**	**291**	⇑P	**Pn**	**08 59 27.8**	**-0.3**
	baz=3.8						
X13A	**Yucca**	**3.82**	**196**	⇑Pb	**Pb**	**08 59 36.8**	**-0.2**
	baz=3.8						
TUQ	**Turquoise Mtn.**	**3.92**	**225**	⇑P	**Pn**	**08 59 30.5**	**+0.8**
	baz=3.9						
L13A	**Double Diamond**	**3.95**	**345**	⇑P	**Pn**	**08 59 30.6**	**+0.5**
	baz=3.9						
M11A	**Holland Ranch,**	**4.02**	**323**	⇑P	**Pn**	**08 59 30.9**	**-0.2**
	baz=4.0						
GRAC	**Grapevine Rang**	**4.03**	**253**	P	**Pn**	**08 59 31.6**	**+0.4**
	baz=4.0,SNR=22						
BMN	**Battle Mountai**	**4.21**	**302**	*e*Pn	**Pn**	**08 59 34.2**	**+0.5**
GMRC	**Granite Mounta**	**4.30**	**217**	⇑P	**Pn**	**08 59 35.2**	**+0.3**
	baz=4.3						
R08A	**Mina**	**4.37**	**273**	⇑P	**Pn**	**08 59 36.8**	**+0.9**
	baz=4.3,SNR=17						
SMCO	**Snowmass**	**4.45**	**77**	*e*Pg	**Pg**	**08 59 52.7**	**-2.0**
M10A	**I.L. Ranch, Tu**	**4.46**	**318**	⇑P	**Pn**	**08 59 37.7**	**+0.5**
	baz=4.4,SNR=8.4						
DAC	**Darwin (Calif)**	**4.49**	**245**	*e*Pg	**Pg**	**08 59 51.8**	**-3.8**
DAC				*e*Sg	**Sg**	**09 00 51.0**	**-2.7**
S08C	**White Mtn Res**	**4.52**	**262**	P	**Pn**	**08 59 38.5**	**+0.6**
	baz=4.5,SNR=6.9						
K13A	**Stover Farm, H**	**4.52**	**345**	⇑P	**Pn**	**08 59 39.0**	**+1.1**
	baz=4.5						
MPMC	**Manual Prospec**	**4.53**	**242**	⇓P	**Pn**	**08 59 38.6**	**+0.6**
	baz=4.5,SNR=8.8						
L11A	**Cat Creek Ranc**	**4.59**	**329**	⇑P	**Pn**	**08 59 38.9**	**0.0**
	baz=4.5						
N09A	**Rock Creek Ran**	**4.63**	**305**	⇑P	**Pn**	**08 59 39.9**	**+0.5**
	baz=4.6						
L10A	**Juniper Basin**	**4.84**	**323**	⇑P	**Pn**	**08 59 42.5**	**+0.1**
	baz=4.8,SNR=8.1						
MTUM	**Tungsten Hills**	**4.85**	**261**	*e*Pg	**Pg**	**08 59 59.1**	**-3.4**
RRI2	**Red Ridge**	**5.15**	**10**	*e*Sn	**Sn**	**09 00 31.4**	**-15**
REDW	**Red Top Meadow**	**5.24**	**14**	*e*Pn	**Pb**	**09 00 01.2**	**+0.1**
O07A	**Toulon**	**5.26**	**293**	⇓P	**Pn**	**08 59 48.7**	**+0.5**
	baz=5.2,SNR=14						
TPAW	**Teton Pass**	**5.35**	**13**	*e*Pn	**Pb**	**09 00 03.0**	**0.0**
DCID1	**Drake Creek**	**5.41**	**11**	*e*Pg	**Pg**	**09 00 10.8**	**-2.3**
DCID1				*e*Sg	**Sg**	**09 01 23.5**	**+0.4**
ISA	**Isabella**	**5.42**	**243**	⇑P	**Pn**	**08 59 50.9**	**+0.7**
	baz=5.4						
N07B	**Gerlach**	**5.56**	**299**	⇓P	**Pn**	**08 59 52.9**	**+0.7**
	baz=5.5						
K10A	**MacKenzie Ranc**	**5.57**	**325**	⇓P	**Pn**	**08 59 53.7**	**+1.3**
	baz=5.5						
SDCO	**Great Sand Dun**	**5.59**	**93**	*e*Pg	**Pg**	**09 00 14.7**	**-1.9**
	12nm,0.8s						
SDCO				*e*Sg	**Sg**	**09 01 28.7**	**-0.2**
ISCO	**Idaho Springs**	**5.61**	**72**	*e*Pg	**Pg**	**09 00 14.3**	**-2.6**
	7.5nm,0.5s						
WCN	**Washoe City**	**5.72**	**283**	⇑S	**Sn**	**09 01 02.6**	**+2.4**
	baz=5.7						
IMW	**Indian Meadow**	**5.74**	**12**	Pn	**Pn**	**09 00 00.4**	**+5.6**
	3.1nm,0.5s						
LAZ	**Ladron**	**5.83**	**130**	*e*Pg	**Pg**	**09 00 19.4**	**-1.7**
ANMO	**Albuquerque**	**5.92**	**122**	*e*Pn	**Pn**	**09 00 00.1**	**+3.0**
	7.0nm,0.7s						
ANMO				*e*Sg	**Sg**	**09 01 32.2**	**-7.2**
O06A	**Flanigan**	**5.96**	**291**	⇑P	**Pn**	**08 59 59.1**	**+1.4**
	baz=5.9						
M07A	**Soldier Meadow**	**5.97**	**303**	⇑P	**Pn**	**08 59 59.1**	**+1.2**
	baz=5.9						
LENM	**Lemitar**	**6.09**	**131**	*e*Sg	**Sg**	**09 01 36.2**	**-8.9**
TUC	**Tucson**	**6.13**	**166**	*e*Pg	**Pg**	**09 00 25.9**	**-0.9**
	3.6nm,0.6s						
TUC				*e*Sg	**Sg**	**09 01 46.3**	**+0.1**
N06A	**Buffalo Meadow**	**6.15**	**296**	⇑P	**Pn**	**09 00 01.3**	**+1.0**
	baz=6.1						
CMB	**Columbia Colle**	**6.18**	**270**	*e*Pg	**Pg**	**09 00 23.3**	**-4.5**
	4.3nm,0.7s						
CMB				*e*Sg	**Sg**	**09 01 42.8**	**-5.1**
LPM	**Los Pinos Moun**	**6.20**	**128**	*e*Pg	**Pg**	**09 00 23.6**	**-4.6**
BEKR	**Beckwourth**	**6.28**	**287**	⇑P	**Pn**	**09 00 02.3**	**+0.1**
	baz=6.2						
ELFS	**Eagle Lake Fie**	**6.75**	**293**	⇑P	**Pn**	**09 00 09.8**	**+1.2**
	baz=6.7						
MOD	**Modoc**	**6.96**	**304**	*e*Pg	**Pg**	**09 00 39.7**	**-3.0**
	4.4nm,0.6s						
MOD				*e*Sg	**Sg**	**09 02 09.6**	**-3.2**

SSNC ***08*** *08:58:40.5, 19.57N×78.24W, h19^{km}, MD3.0, ML2.0*

JSN ***08*** *08:58:40.9±0.5, 19.35N×78.12W, h0^{km}±6^{km}, MD3.2*

ISC 08 08:58:39.8±2.3**, 19.40N**±0.08×**78.0W**±0.2**, h8**^{km}±7^{km}**, n6, σ0^s.53**/11**, 4D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBJ	**Montego Bay**	**1.01**	**172**	⇓*e*P	**Pg**	**08 58 58.7**	**-0.5**
MBJ				*i* S	**Sg**	**08 59 12.0**	**-0.3**
LMGC	**Las Mercedes**	**1.15**	**55**	*e*PG	**Pg**	**08 59 01.8**	**-0.1**
	baz=247						
LMGC				*e*SG	**Sg**	**08 59 17.6**	**+0.7**
	comp=N,52nm,0.1s						
LMGC				*e*			
	comp=E,60nm,0.1s						
BBJ	**Bamboo Saint A**	**1.23**	**145**	⇓*i*P	**Pn**	**08 59 03.5**	**+0.1**
MCJ	**Malvern**	**1.50**	**168**	⇓*i*P	**Pn**	**08 59 07.4**	**+0.3**
MCJ				*e*S	**Sn**	**08 59 26.5**	**-0.3**
PCJ	**Portland Cotta**	**1.84**	**154**	⇓*i*P	**Pn**	**08 59 12.2**	**+0.5**
PCJ				*e*S	**Sn**	**08 59 36.1**	**+0.9**
RCC	**Rio Carpintero**	**2.26**	**75**	*e*P	**Pn**	**08 59 17.3**	**-0.2**
	baz=261						
RCC				*e*S	**Sn**	**08 59 44.5**	**-1.0**
	comp=N,2.4nm,0.2s						
RCC				*e*			
	comp=E,2.9nm,0.2s						

JSN ***08*** *09:07:17.1±0.5, 19.60N×78.15W, h30^{km}±999^{km}, MD3.4*

SSNC ***08*** *09:07:18.5, 19.24N×77.54W, h0^{km}, MD3.0, ML2.1*

ISC 08 09:07:16.0±3.3**, 19.40N**±0.06×**78.2W**±0.2**, h5**^{km}±15^{km}**, n5, σ0^s.15**/9**, 1C-2D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LMGC	**Las Mercedes**	**1.26**	**58**	*e*PG	**Pg**	**09 07 40.4**	**+0.2**
	baz=212						
LMGC				*e*SG	**Sg**	**09 07 56.6**	**0.0**
	comp=N,51nm,0.1s						
LMGC				*e*			
	comp=E,68nm,0.2s						
BBJ	**Bamboo Saint A**	**1.31**	**140**	⇓*e*P	**Pn**	**09 07 40.8**	**-0.2**
BBJ				*e*S	**Sg**	**09 07 58.2**	**-0.1**
MCJ	**Malvern**	**1.53**	**163**	⇑*e*P	**Pn**	**09 07 44.0**	**-0.2**
MCJ				*e*S	**Sn**	**09 08 04.6**	**+0.2**
PCJ	**Portland Cotta**	**1.90**	**150**	⇓*i*P	**Pn**	**09 07 49.4**	**+0.2**
PCJ				*e*S	**Sn**	**09 08 13.5**	**0.0**
RCC	**Rio Carpintero**	**2.38**	**75**	*e*P	**Pn**	**09 07 55.7**	**-0.1**
	baz=225						
RCC				*e*			
	comp=E,11nm,0.6s						

IDC ***08*** *09:07:38.1±6.2, 6.76S×129.59E, h110^{km}±58^{km}, mb4.0/5, mb1 4.2/7, mb1mx4.0/15, mbtmp4.1/7, Error ellipse: s-maj=54.5km s-min=20.6km az=54.0*

NEIC ***08*** *09:07:41.4±2.7, 6.92S×129.36E, h140^{km}±27^{km}, mb4.3/2,* *Error ellipse: s-maj=29.2km s-min=18.0km az=48.0*

*ISCJB **08** 09:07:43.2±1.9, 7.16S±0.08×129.4E±0.1, h188^{km}±21^{km}, mb4.3/9, Error ellipse: s-maj=20.2km s-min=12.3km az=156.3*

ISC 08 09:07:36.3±3.1**, 68S**±02×**1295E**±02**, h88**^{km}±32^{km}**, n24, σ0^{s}77**/25**, mb4.4**/10**, 1C, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**6.61**	**154**	*e*P	**Pn**	**09 09 15.9**	**+5.0**
	196nm,0.5s						
KAKA				*e*S	**Sn**	**09 10 24.0**	**-0.8**
FITZ	**Fitzroy Crossi**	**11.88**	**198**	*e*P	**Pn**	**09 10 23.9**	**+1.2**
	30nm,0.3s						
FITZ				*e*S	**Sn**	**09 12 25.3**	**-8.1**
FITZ	**Fitzroy Crossi**	**11.88**	**198**	P	**Pn**	**09 10 23.9**	**+1.2**
	5.3nm,0.3s,baz=30,slow=11,SNR=100						
FITZ				S	**Sn**	**09 12 26.7**	**-6.7**
	3.6nm,0.3s,baz=73,slow=20,SNR=4.0						
WRA	**Warramunga Arr**	**13.94**	**161**	P	**Pn**	**09 10 49.3**	**-0.7**
	3.9nm,0.3s,baz=347,slow=13,SNR=102						
WRA				S	**Sn**	**09 13 17.1**	**-6.4**
	9.0nm,0.3s,baz=332,slow=23,SNR=14						
WB2	**Warramunga Arr**	**13.95**	**161**	⇑*i*P	**Pn**	**09 10 49.6**	**-0.5**
WB2				*e*S	**Sn**	**09 13 16.5**	**-7.1**
CTA	**Charters Tower**	**21.01**	**131**	P	**P**	**09 12 15.4**	**+2.5**
	3.3nm,0.4s,mb4.0,baz=319,slow=9.3,SNR=3.3						
FORT	**Forrest**	**23.94**	**183**	*e*P	**P**	**09 12 42.2**	**-0.2**
	9.5nm,0.5s,mb4.4						
FORT				*e*S	S	09 17 14.7	+22
STKA	**Stephens Creek**	**27.45**	**157**	*e*P	**P**	**09 13 14.3**	**+0.2**
	2.0nm,0.5s,mb3.9						
STKA	**Stephens Creek**	**27.45**	**157**	P	**P**	**09 13 13.8**	**-0.2**
	5.3nm,0.9s,mb4.1,baz=340,slow=7.7,SNR=11						
PSI	**Prapat**	**31.92**	**286**	P	**P**	**09 13 54.9**	**+0.9**
	6.3nm,0.7s,mb4.5,baz=120,slow=5.5,SNR=5.4						
ODAN	**Odare**	**52.69**	**311**	*e*P	**P**	**09 16 42.1**	**0.0**
	7.5nm,0.6s,mb4.9						
TAPN	**Taplejung**	**52.72**	**312**	*e*P	**P**	**09 16 41.9**	**-0.4**
	7.6nm,0.5s,mb5.0						
JIRN	**Jiri**	**54.02**	**311**	*e*P	**P**	**09 16 51.8**	**0.0**
GUN	**Gumba**	**54.38**	**311**	*e*P	**P**	**09 16 54.5**	**0.0**
	7.3nm,0.4s,mb5.1						
GKN	**Gorkha**	**55.36**	**311**	*e*P	**P**	**09 17 00.7**	**-0.9**
KOLN	**Koldanda**	**56.03**	**310**	*e*P	**P**	**09 17 06.3**	**0.0**
SONM	**Songino Array**	**58.04**	**342**	P	**P**	**09 17 20.5**	**+0.4**
	0.7nm,0.7s,mb3.8,baz=160,slow=6.2,SNR=5.8						
MKAR	**Makanchi Array**	**67.72**	**327**	P	**P**	**09 18 24.4**	**0.0**
MKAR	**Makanchi Array**	**67.72**	**327**	P	**P**	**09 18 24.4**	**0.0**
	3.3nm,0.4s,mb4.5,baz=120,slow=8.1,SNR=52						
ZALV	**Zalesovo Beam**	**71.12**	**334**	P	**P**	**09 18 44.2**	**-0.9**
	1.1nm,0.5s,mb3.9,baz=123,slow=4.7,SNR=8.2						
TXAR	**Lajitas Array**	**125.26**	**59**	PKP	PKPdf	09 26 26.0	-1.5
TXAR	**Lajitas Array**	**125.26**	**59**	PKP	PKPdf	09 26 26.0	-1.5
	0.3nm,1.0s,baz=270,slow=2.7,SNR=3.4						
TORD	**Torodi Ar. Bea**	**128.23**	**281**	PKP	PKPdf	09 26 31.9	-1.7
TORD	**Torodi Ar. Bea**	**128.23**	**281**	PKP	PKPdf	09 26 31.9	-1.7
	0.5nm,0.6s,baz=93,slow=1.6,SNR=5.4						

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*SGS **08** 09:48:37.5, 31.16N×3452E, h3^{km}*

*ISCJB **08** 09:48:41.0±0.4, 3083N±002×3500E±004, h0^{km}, Error ellipse: s-maj=5.3km s-min=3.5km az=8.0*

*CSEM **08** 09:48:40.8±0.1, 3081N×3500E, h1^{km}, ML2.8, Error ellipse: s-maj=2.6km s-min=1.8km az=98.0, Mining explosion.*

*HLW **08** 09:48:40.9, 3109N×35.12E, h20^{km}, Mb3.7*

*GII **08** 09:48:40.9±0.2, 3086N×3500E, h0^{km}±1^{km}, ML2.8/2*

ISC 08 09:48:41.4±0.4**, 3084N**±003×**3500E**±004**, h0**^{km}**, n37, σ0^{s}84**/44**, 1C, Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MASH	**Mash'abbe Sade**	**0.24**	**311**	Pg	**Pg**	**09 48 46.8**	**+0.7**
MASH	**Mash'abbe Sade**	**0.24**	**311**	Pg	**Pg**	**09 48 46.8**	**+0.7**
SVTA	**Shivta**	**0.34**	**286**	Pg	**Pg**	**09 48 48.7**	**+0.8**
SVTA	**Shivta**	**0.34**	**286**	Pg	**Pg**	**09 48 48.7**	**+0.8**
PRNI	**Paran**	**0.48**	**180**	Pg	**Pg**	**09 48 51.9**	**+1.2**
PRNI	**Paran**	**0.48**	**180**	Pg	**Pg**	**09 48 51.9**	**+1.2**
KZIT	**Kziot**	**0.52**	**278**	Pg	**Pg**	**09 48 52.0**	**+0.6**
KZIT				Sg	**Sg**	**09 48 59.6**	**+1.4**
KZIT	**Kziot**	**0.52**	**278**	Pg	**Pg**	**09 48 52.0**	**+0.6**
KZIT				Sg	**Sg**	**09 48 59.6**	**+1.4**
MZDA	**Masada**	**0.56**	**33**	Pg	**Pg**	**09 48 52.4**	**+0.1**
MZDA				Sg	**Sg**	**09 49 00.2**	**+0.7**
MZDA	**Masada**	**0.56**	**33**	Pg	**Pg**	**09 48 52.4**	**+0.1**
MZDA				Sg	**Sg**	**09 49 00.2**	**+0.6**
DRGI	**Dragot**	**0.82**	**24**	Pg	**Pg**	**09 48 57.9**	**+0.6**
DRGI	**Dragot**	**0.82**	**24**	Pg	**Pg**	**09 48 57.9**	**+0.7**
AQBJ	**Aqaba**	**1.11**	**178**	Pg	**Pg**	**09 49 03.2**	**+0.7**
EIL	**Elat**	**1.16**	**182**	Pg	**Pg**	**09 49 04.2**	**+0.5**
EIL	**Elat**	**1.16**	**182**	Pg	**Pg**	**09 49 04.2**	**+0.5**
HNKL	**Nakhl**	**1.26**	**225**	⇑P	**Pg**	**09 49 05.2**	**-0.4**
HMDT	**Nahal Hemdat**	**1.48**	**17**	Pn	**Pn**	**09 49 08.4**	**-0.9**
HMDT	**Nahal Hemdat**	**1.48**	**17**	Pn	**Pn**	**09 49 08.5**	**-0.8**
HQLS		**1.53**	**178**	P	**Pn**	**09 49 09.5**	**-0.5**
HQLS				S	**Sn**	**09 49 31.4**	**+0.8**
HQLS		**1.53**	**178**	P	**Pn**	**09 49 09.5**	**-0.5**
AMAG	**Maghara**	**1.56**	**263**	P	**Pn**	**09 49 08.8**	**-1.5**
HBST	**Basata**	**1.63**	**188**	P	**Pn**	**09 49 11.6**	**+0.2**
MMLI	**Mount Malkishu**	**1.64**	**13**	Pn	**Pn**	**09 49 10.9**	**-0.6**
MMLI	**Mount Malkishu**	**1.64**	**13**	Pn	**Pn**	**09 49 10.9**	**-0.5**
OFRI	**'Ofer**	**1.78**	**360**	Pn	**Pn**	**09 49 13.2**	**-0.2**
OFRI	**'Ofer**	**1.78**	**360**	Pn	**Pn**	**09 49 13.2**	**-0.2**
SUZ		**2.12**	**243**	P	**Pn**	**09 49 17.3**	**-0.8**
HDHB	**Dhahab**	**2.13**	**189**	P	**Pn**	**09 49 17.6**	**-0.6**
JLOS		**2.14**	**168**	P	**Pn**	**09 49 17.9**	**-0.4**
JLOS				S	**Sn**	**09 49 48.4**	**+2.9**
JLOS		**2.14**	**168**	P	**Pn**	**09 49 17.9**	**-0.4**
ZNM		**2.35**	**232**	P	**Pn**	**09 49 20.8**	**-0.4**
HKAT	**Jabal Katrina**	**2.47**	**201**	P	**Pn**	**09 49 22.6**	**-0.2**
RSHS		**2.53**	**184**	P	**Pn**	**09 49 22.2**	**-1.6**
RSHS				S	**Sn**	**09 49 55.6**	**+0.2**
RSHS		**2.53**	**184**	P	**Pn**	**09 49 22.2**	**-1.6**
ZAF		**2.63**	**235**	P	**Pn**	**09 49 24.0**	**-1.1**
TR1		**2.96**	**198**	P	**Pn**	**09 49 29.1**	**-0.6**
HHRG	**Al Ghardaqah**	**3.82**	**200**	P	**Pn**	**09 49 41.2**	**-0.2**

IDC 08 10:12:52.2±0.9**, 3339S**×**7773E, h0**^{km}**, mb4.1**/6**, mb1 4.2**/6**, mb1mx3.9**/17**, mbtmp4.1**/6**, MS4.0**/10**, Ms1 4.0**/10**, ms1mx3.7**/25**, Error ellipse: s-maj=33.6km s-min=27.6km az=147.0, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NWAO	**Narrogin (SRO)**	**32.94**	**100**	LR	LR	10 29 35.1	
	comp=Z,216nm,19.6s,baz=107,slow=30						
MAW	**Mawson**	**35.33**	**190**	LR	LR	10 30 47.9	
	comp=Z,189nm,18.4s,baz=254,slow=30						
BOSA	**Boshof**	**44.84**	**261**	LR	LR	10 35 07.2	
	comp=Z,192nm,19.7s,baz=248,slow=30						
FITZ	**Fitzroy Crossi**	**45.37**	**83**	LR	LR	10 35 44.5	
	comp=Z,72nm,21.9s,baz=310,slow=30						
MATP	**Matopo**	**45.37**	**274**	P	P	10 21 13.9	+1.4
	1.0nm,0.4s,baz=119,slow=10,SNR=3.5						
WRA	**Warramunga Arr**	**51.77**	**90**	P	P	10 22 02.6	+0.8
	2.8nm,0.8s,baz=245,slow=7.5,SNR=15						
WRA				LR	LR	10 40 53.1	
	comp=Z,107nm,21.0s,baz=45,slow=32						
STKA	**Stephens Creek**	**53.03**	**107**	LR	LR	10 42 07.6	
	comp=Z,127nm,18.1s,baz=206,slow=33						
SNAA	**Sanae**	**55.73**	**202**	P	P	10 22 29.5	-0.6
	0.5nm,0.6s,baz=135,slow=7.1,SNR=4.5						
VNDA	**Vanda**	**56.41**	**165**	LR	LR	10 45 32.7	
	comp=Z,71nm,18.7s,baz=66,slow=35						
CTA	**Charters Tower**	**61.65**	**96**	LR	LR	10 47 55.8	
	comp=Z,168nm,19.6s,baz=231,slow=34						
PMG	**Port Moresby**	**67.73**	**87**	LR	LR	10 50 23.7	
	comp=Z,132nm,19.6s,baz=222,slow=33						
MKAR	**Makanchi Array**	**79.92**	**3**	P	P	10 25 02.4	-0.2
	1.5nm,0.8s,baz=183,slow=5.6,SNR=11						
BRTR	**Keskin Array B**	**83.41**	**327**	P	P	10 25 24.1	+3.0
	0.7nm,0.7s,baz=165,slow=5.1,SNR=4.8						
TORD	**Torodi Ar. Bea**	**85.82**	**289**	P	P	10 25 33.8	-0.1
	1.2nm,0.8s,baz=123,slow=3.6,SNR=6.6						
ZALV	**Zalesovo Beam**	**87.20**	**4**	P	P	10 25 40.0	+0.2
	3.6nm,0.8s,baz=190,slow=4.1,SNR=12						
MLR	**Muntele Rosu**	**91.45**	**326**	LR	LR	11 04 44.5	
	comp=Z,212nm,18.2s,baz=323,slow=34						
YKA	**Yellowknife Ar**	**149.84**	**11**	PKPbc	PKPbc	10 32 42.2	-1.1
	1.0nm,0.6s,baz=324,slow=3.3,SNR=14						

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*SZGRF **08** 10:21:41.8, 662N×4070W, h26^{km}, mb5.0, MS4.3, North Atlantic Ocean*

*BJI **08** 10:21:50.0, 870N×3950W, h10^{km}, mB5.6, Ms5.2, Msz4.9*

*ISCJB **08** 10:21:55.5±0.3, 874N±006×3946W±005, h10^{km}, mb4.8/47, MS4.8/137, Error ellipse: s-maj=8.9km s-min=6.4km az=174.6*

*IDC **08** 10:21:55.3±0.5, 876N×3945W, h0^{km}, mb4.2/19, mb1 4.3/19, mb1mx4.3/24, mbtmp4.2/19, MS4.5/22, Ms1 4.5/22, ms1mx4.4/29, Error ellipse: s-maj=17.3km s-min=13.6km az=153.0*

*MOS **08** 10:21:55.6±0.8, 879N×3952W, h10^{km}, mb5.2/15, MS4.8/8, Error ellipse: s-maj=12.0km s-min=10.9km az=80.8*

*GCMT **08** 10:21:57.1±0.2, 864N×3943W, h12^{km}, MW5.2/94, Moment Tensor Solution. s49,c67; s94,c165; Duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.75±.01; $M_{\theta\theta}$-0.03±.01; $M_{\phi\phi}$0.78±.01; $M_{r\theta}$-0.13±.04; $M_{\theta\phi}$0.09±.01; $M_{\phi r}$-0.09±.04; Best double couple: $M_0$0.78700×10^{17} NP1:ϕ_s15.00000°,δ49.00000°,λ-78.00000°. NP2: ϕ_s177.00000°,δ42.00000°,λ-104.00000°. Principal axes: T 0.7960, Plg4.0000°, Azm97.0000°; N -0.0180, Plg9.0000°, Azm187.0000°; P -0.7780, Plg80.0000°, Azm345.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **08** 10:21:57.1±0.3, 869N×3947W, h10^{km}, mb5.2/30, MS4.8/113 Error ellipse: s-maj=8.3km s-min=6.5km az=171.0*

ISC 08 10:21:57.3±0.3**, 872N**±006×**3949W**±005**, h10**^{km}**, (h20**^{km}±1.0^{km}**:pP-P), n408, σ0^{s}62**/295**, mb4.8**/47**, MS4.8**/137**, 77C-109D, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RCBR	**Riachuelo**	**14.88**	**166**	Pn	**Pn**	**10 25 27.0**	**-1.0**
BBGH	**Gun Hill**	**20.18**	**284**	PFAKE		10 26 50.0	+18
BBGH				LR	LR		
	comp=Z,3µm,20.0s,MS4.6						
PCRV	**Puerto La Cruz**	**24.84**	**275**	LR	LR	10 38 11.6	
	comp=Z,2µm,19.0s,MS4.5,baz=78,slow=39						
SJG	**San Juan**	**27.53**	**293**	PFAKE		10 28 00.0	+16
SJG				LR	LR		
	comp=Z,2µm,20.0s,MS4.7						
SJG	**San Juan**	**27.53**	**293**	LR	LR	10 36 43.5	
	comp=Z,2µm,20.8s,MS4.7,baz=97,slow=32						
ASCN	**Ascension**	**30.01**	**123**	PFAKE		10 28 20.0	+13
ASCN				LR	LR		
	comp=Z,1µm,19.0s,MS4.5						
SDDR	**Presa de Saban**	**32.46**	**292**	*e*P	**P**	**10 28 28.9**	**+0.8**
	comp=Z,76nm,1.5s,mb5.3						
SDDR				LR	LR		
	comp=Z,2µm,22.0s,MS4.7						
SIV	**San Ignacio**	**32.55**	**221**	P	**P**	**10 28 29.3**	**+0.5**
	comp=Z,6.3nm,1.0s,mb4.5,baz=67,slow=9.0,SNR=16						
BBSR	**BB Station**	**33.16**	**319**	PFAKE		10 28 50.0	+16
BBSR				LR	LR		
	comp=Z,2µm,19.0s,MS4.8						
ROSC	**El Rosal**	**34.80**	**266**	P	**P**	**10 28 50.0**	**+1.5**
	comp=Z,3.7nm,0.3s,mb4.7,baz=86,slow=20,SNR=7.2						
ROSC				LR	LR	10 43 01.5	
	comp=Z,1µm,20.9s,MS4.7,baz=10,slow=36						
LPAZ	**La Paz**	**37.69**	**229**	*e*P	**P**	**10 29 13.6**	**+0.3**
	comp=Z,12nm,0.9s,mb4.6						
LPAZ				LR	LR		
	comp=Z,731nm,22.0s,MS4.4						
LPAZ	**La Paz**	**37.69**	**229**	*e*P	**P**	**10 29 13.6**	**+0.4**
LPAZ				pmax	pmax		
	comp=Z,12nm,0.9s						
LPAZ				MLR	MLR		
	comp=Z,731nm,22.0s						
LPAZ	**La Paz**	**37.69**	**229**	P	**P**	**10 29 14.0**	**+0.8**
	comp=Z,8.9nm,1.1s,mb4.4,baz=37,slow=9.4,SNR=15						
LPAZ				LR	LR	10 44 11.5	
	comp=Z,538nm,20.9s,MS4.3,baz=65,slow=35						
OTAV	**Otavalo**	**39.71**	**260**	*e*P	**P**	**10 29 32.0**	**+1.7**
OTAV				LR	LR		
	comp=Z,769nm,22.0s,MS4.5						
TOA0	**Torodi Ar. Sit**	**40.64**	**80**	*e*P	**P**	**10 29 32.8**	**-5.2**
TORD	**Torodi Ar. Bea**	**40.64**	**80**	P	**P**	**10 29 35.7**	**-2.3**
TORD				LR	LR	10 44 52.0	
TORD	**Torodi Ar. Bea**	**40.64**	**80**	P	**P**	**10 29 35.7**	**-2.3**
	comp=Z,1.0nm,0.6s,baz=273,slow=9.6,SNR=13						
TORD				LR	LR	10 44 52.0	
	comp=Z,2µm,18.1s,MS5.0,baz=265,slow=34						
ATAH	**Atahualpa**	**41.80**	**249**	P	**P**	**10 29 48.1**	**+0.6**
	comp=Z,5.7nm,0.8s,mb4.2,baz=86,slow=8.3,SNR=6.2						
NNA	**Nana**	**42.45**	**242**	PFAKE		10 30 00.0	+7.2
NNA				LR	LR		
	comp=Z,994nm,21.0s,MS4.7						
WES	**Weston**	**43.66**	**326**	PFAKE		10 30 10.0	+7.8
WES				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
CNNC	**Cliffs of the**	**43.89**	**313**	PFAKE		10 30 20.0	+16
CNNC				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
PAB	**San Pablo**	**43.90**	**40**	PFAKE		10 30 20.0	+16
PAB				LR	LR		
	comp=Z,874nm,19.0s,MS4.7						
DWPF	**Disney**	**43.93**	**302**	PFAKE		10 30 20.0	+15
DWPF				LR	LR		
	comp=Z,684nm,21.0s,MS4.5						
ESDC	**Sonseca Array**	**44.22**	**40**	LR	LR	10 45 28.2	
	comp=Z,572nm,19.6s,MS4.5,baz=240,slow=32						
ESLA	**Sonseca Array**	**44.22**	**40**	PFAKE		10 30 20.0	+13
ESLA				LR	LR		
	comp=Z,5µm,20.0s,MS5.4						
NHSC	**New Hope**	**44.68**	**309**	PFAKE		10 30 20.0	+9.4
NHSC				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
JTS	**JuntasAbangare**	**44.84**	**276**	PFAKE		10 30 20.0	+7.9
JTS				LR	LR		
	comp=Z,621nm,19.0s,MS4.6						
CBN	**Corbin**	**44.97**	**317**	PFAKE		10 30 20.0	+7.2
CBN				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
BINY	**Binghamton**	**46.27**	**322**	PFAKE		10 30 30.0	+7.0
BINY				LR	LR		
	comp=Z,1µm,21.0s,MS4.9						
SSPA	**Standing Stone**	**46.58**	**319**	PFAKE		10 30 40.0	+14
SSPA				LR	LR		
	comp=Z,776nm,20.0s,MS4.7						
BLA	**Blacksburg**	**46.61**	**314**	PFAKE		10 30 40.0	+14
BLA				LR	LR		
	comp=Z,1µm,21.0s,MS4.9						
TGUH	**Tegucigalpa,Un**	**47.08**	**281**	*e*P	**P**	**10 30 32.6**	**+2.8**
	comp=Z,30nm,1.0s,mb5.2						
TGUH				LR	LR		
	comp=Z,493nm,20.0s,MS4.5						
GOGA	**Godfrey**	**47.34**	**308**	PFAKE		10 30 40.0	+8.4
GOGA				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
MCWV	**Mont Chateau**	**47.37**	**317**	PFAKE		10 30 40.0	+8.3
MCWV				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
LCO	**Las Campanas**	**48.09**	**218**	PFAKE		10 30 50.0	+13
LCO				LR	LR		
	comp=Z,875nm,19.0s,MS4.8						
TEIG	**Tepich**	**48.44**	**289**	PFAKE		10 30 50.0	+10
TEIG				LR	LR		
	comp=Z,610nm,22.0s,MS4.5						
TZTN	**Tazewell**	**48.59**	**312**	PFAKE		10 30 50.0	+8.8
TZTN				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
CFAA	**Coronel Fontan**	**48.62**	**213**	P	**P**	**10 30 39.8**	**-1.6**
	comp=Z,1.2nm,1.1s,mb3.9,baz=51,slow=5.5,SNR=8.2						
BRAL	**Brewton**	**49.47**	**304**	PFAKE		10 31 00.0	+12
BRAL				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
SWET	**Sewanee**	**49.89**	**309**	*e*P	**P**	**10 30 52.5**	**+1.3**
LRAL	**Lakeview Retre**	**50.01**	**306**	PFAKE		10 31 00.0	+7.9
LRAL				LR	LR		
	comp=Z,981nm,20.0s,MS4.8						
SCHQ	**Schefferville**	**50.89**	**340**	P	**P**	**10 30 58.5**	**+0.2**
	comp=Z,7.1nm,1.0s,mb4.6,baz=125,slow=11,SNR=4.9						
SCHQ				LR	LR	10 48 01.4	
	comp=Z,475nm,19.9s,MS4.5,baz=149,slow=31						
TRQA	**Tornquist**	**51.05**	**203**	PFAKE		10 31 10.0	+10
TRQA				LR	LR		
	comp=Z,827nm,19.0s,MS4.8						
AAM	**Ann Arbor**	**51.17**	**318**	PFAKE		10 31 10.0	+9.3
AAM				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
WCI	**Wyandotte Cave**	**51.26**	**313**	PFAKE		10 31 10.0	+8.5
WCI				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
PAYG	**Puerto Ayora**	**51.46**	**262**	PFAKE		10 31 20.0	+17
PAYG				LR	LR		
	comp=Z,439nm,20.0s,MS4.5						
PLAL	**Pickwick Lake**	**51.47**	**308**	*e*P	**P**	**10 31 03.4**	**+0.3**
	comp=Z,41nm,1.6s,mb5.1						
PLAL				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
WVT	**Waverly**	**51.66**	**310**	PFAKE		10 31 20.0	+16
WVT				LR	LR		
	comp=Z,1µm,21.0s,MS4.9						
KEST	**Kesra**	**51.91**	**51**	LR	LR	10 52 47.5	
	comp=Z,271nm,18.6s,MS4.3,baz=11,slow=36						
OXF	**Oxford**	**52.37**	**307**	*e*P	**P**	**10 31 11.0**	**+1.2**
	comp=Z,48nm,1.2s,mb5.3						
OXF				LR	LR		
	comp=Z,970nm,21.0s,MS4.8						
OXF	**Oxford**	**52.37**	**307**	*e*P	**P**	**10 31 11.0**	**+1.2**
OXF				pmax	pmax		
	comp=Z,48nm,1.2s,mb5.3						
OXF				MLR	MLR		
	comp=Z,970nm,21.0s,MS4.8						
SIUC	**Southern Illin**	**53.24**	**311**	*e*P	**P**	**10 31 16.6**	**+0.5**
	comp=Z,26nm,1.0s,mb5.1						
FVM	**French Village**	**54.23**	**311**	*e*P	**P**	**10 31 23.0**	**-0.5**
	comp=Z,10nm,1.0s,mb4.7						
FVM	**French Village**	**54.23**	**311**	*e*P	**P**	**10 31 23.0**	**-0.4**
FVM				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
MIAR	**Mount Ida**	**55.69**	**306**	PFAKE		10 31 50.0	+16
MIAR				LR	LR		
	comp=Z,1µm,22.0s,MS4.9						
NATX	**Nacogdoches**	**55.96**	**302**	PFAKE		10 31 50.0	+14
NATX				LR	LR		
	comp=Z,627nm,19.0s,MS4.7						
HKT	**Hockley**	**56.61**	**300**	PFAKE		10 31 50.0	+9.2
HKT				LR	LR		
	comp=Z,627nm,20.0s,MS4.7						
DAVA	**Damuels**	**56.73**	**38**	⇑*i*P	**P**	**10 31 40.4**	**-0.9**
	comp=Z,28nm,1.1s,mb5.2						
SCIA	**State Center**	**57.53**	**314**	PFAKE		10 32 00.0	+13
SCIA				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
WTTA	**Wattenberg**	**57.80**	**39**	⇓*i*P	**P**	**10 31 48.4**	**-0.4**
	comp=Z,24nm,1.2s,mb5.1						
WTTA	**Wattenberg**	**57.80**	**39**	⇓*i*P	**P**	**10 31 48.4**	**-0.5**
WTTA				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.1						
KVTX	**Kingsville**	**58.05**	**297**	PFAKE		10 32 00.0	+9.0
KVTX				LR	LR		
	comp=Z,668nm,20.0s,MS4.8						
ABTA	**Abfaltersbach**	**58.14**	**40**	⇑*i*pP	pP	10 31 53.3	-1.2
	comp=Z,16nm,1.0s						
GRA1	**Grafenberg Arr**	**58.60**	**36**	*e*P	**P**	**10 31 53.6**	**-0.8**
	comp=Z,48nm,1.8s,mb5.2						
GRA1				*e*pP	pP	10 32 00.7	+3.1
GRF	**Grafenberg Arr**	**58.60**	**36**	*e*P	**P**	**10 31 53.6**	**-0.8**
	comp=Z,48nm,1.8s,mb5.2						
GRF				*e*pP	pP	10 32 00.7	+3.1
GRF				*e*L		10 52 12.5	
	comp=Z,202nm,20.7s						
EYMN	**Ely**	**58.63**	**322**	PFAKE		10 32 10.0	+15
EYMN				LR	LR		
	comp=Z,629nm,22.0s,MS4.7						
KBA	**Koelnbreinsper**	**58.80**	**40**	⇓*i*P	**P**	**10 31 57.2**	**+1.4**
	comp=Z,31nm,1.4s,mb5.1						
KBA	**Koelnbreinsper**	**58.80**	**40**	⇓*i*P	**P**	**10 31 57.2**	**+1.4**
KBA				pmax	pmax		
	comp=Z,31nm,1.4s,mb5.2						
JAVS	**Javornik**	**58.81**	**41**	*i* P	**P**	**10 32 03.4**	**+7.5**
KSU1	**Kansas State U**	**59.19**	**310**	PFAKE		10 32 10.0	+11
KSU1				LR	LR		
	comp=Z,1µm,22.0s,MS4.9						
VISS	**Visnje**	**59.28**	**41**	*i* P	**P**	**10 32 06.2**	**+7.0**
OBKA	**Obir**	**59.35**	**41**	⇓*i*P	**P**	**10 32 00.4**	**+0.8**
	comp=Z,26nm,1.4s,mb5.1						
BOJS	**Bojanci**	**59.45**	**42**	*i* P	**P**	**10 32 07.9**	**+7.5**
NKC	**Novy Kostel**	**59.55**	**36**	*e*P	**P**	**10 32 02.3**	**+1.4**
NKC				*e*pP	pP	10 32 08.1	+3.9
GERES	**GERESS Array B**	**59.71**	**38**	P	**P**	**10 32 01.6**	**-0.6**
	comp=Z,0.3nm,0.4s,mb3.7,baz=226,slow=8.1,SNR=4.5						
GERES				LR	LR	10 52 44.3	
	comp=Z,319nm,21.1s,MS4.4,baz=253,slow=31						
KHC	**Kasperske Hory**	**59.76**	**37**	*e*P	**P**	**10 32 04.1**	**+1.7**
KHC				*e*pP	pP	10 32 09.0	+3.4
WMOK	**Wichita Mounta**	**59.92**	**305**	PFAKE		10 32 20.0	+16
WMOK				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
JCT	**Junction City**	**60.09**	**300**	PFAKE		10 32 20.0	+15
JCT				LR	LR		
	comp=Z,455nm,20.0s,MS4.6						
CLL	**Collm**	**60.33**	**35**	*e*P	**P**	**10 32 12.0**	**+5.7**
CLL	**Collm**	**60.33**	**35**	*e*(P)	**P**	**10 32 09.0**	**+2.7**
CLL				*e*S	**S**	**10 40 16.0**	**-4.8**
CLL				*e*SS	SS	10 44 06.0	-12
CLL				*e*SSS		10 46 58.0	
ECSD	**EROS,Sioux Fal**	**60.48**	**316**	PFAKE		10 32 20.0	+13
ECSD				LR	LR		
	comp=Z,812nm,20.0s,MS4.9						
PRU	**Pruhonice**	**60.67**	**37**	*e*P	**P**	**10 32 10.2**	**+1.5**
PRU				*e*pP	pP	10 32 15.7	+3.8
BRG	**Berggiesshubel**	**60.68**	**36**	*e*P	**P**	**10 32 15.3**	**+6.6**
BRG				pmax	pmax		
	comp=Z,18nm,1.7s,mb4.9						
BRG	**Berggiesshubel**	**60.68**	**36**	*e*P	**P**	**10 32 15.3**	**+6.6**
	comp=Z,30nm,1.7s,mb5.2						
PVCC	**Panska Ves**	**60.91**	**36**	*e*P	**P**	**10 32 10.9**	**+0.7**
TREC	**Trest**	**60.97**	**38**	*e*P	**P**	**10 32 11.1**	**+0.4**
TREC				*e*pP	pP	10 32 17.5	+3.6
AGMN	**Agassiz Refuge**	**61.47**	**321**	PFAKE		10 32 30.0	+16
AGMN				LR	LR		
	comp=Z,760nm,21.0s,MS4.8						
CBKS	**Cedar Bluff**	**61.49**	**309**	PFAKE		10 32 30.0	+16
CBKS				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
UPC	**Upice**	**61.74**	**37**	*e*P	**P**	**10 32 17.4**	**+1.5**
UPC				*e*pP	pP	10 32 22.8	+3.6
DPC	**Dobruska-Polom**	**61.87**	**37**	*e*P	**P**	**10 32 18.1**	**+1.3**
DPC				*e*pP	pP	10 32 23.6	+3.6
ULM	**Lac du Bonnet**	**62.17**	**323**	P	**P**	**10 32 17.4**	**-1.5**
	comp=Z,4.0nm,0.7s,mb4.7,baz=104,slow=7.3,SNR=13						
ULM				LR	LR	10 57 46.4	
	comp=Z,254nm,18.8s,MS4.4,baz=252,slow=35						
AMTX	**Amarillo**	**62.30**	**305**	PFAKE		10 32 30.0	+10
AMTX				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
TSUM	**Tsumeb**	**62.70**	**117**	PFAKE		10 32 30.0	+7.1
TSUM				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
LTX	**Lajitas**	**63.30**	**298**	PFAKE		10 32 40.0	+13
LTX				LR	LR		
	comp=Z,453nm,21.0s,MS4.6						
TXAR	**Lajitas Array**	**63.30**	**298**	P	**P**	**10 32 26.6**	**-0.1**
	comp=Z,1.1nm,0.6s,mb4.2,baz=102,slow=6.7,SNR=23						
TXAR				LR	LR	10 58 42.7	
	comp=Z,367nm,21.6s,MS4.5,baz=285,slow=35						
NOA	**NORSAR Array B**	**64.14**	**25**	LR	LR	10 55 58.4	
	comp=Z,204nm,19.4s,MS4.3,baz=230,slow=32						
FCC	**Fort Churchill**	**64.72**	**332**	*e*P	**P**	**10 32 34.8**	**-0.7**
MNTX	**Cornudas Mount**	**64.98**	**301**	*e*P	**P**	**10 32 36.9**	**-0.9**
	comp=Z,10nm,1.3s,mb4.7						
MNTX				LR	LR		
	comp=Z,447nm,21.0s,MS4.6						
SDCO	**Great Sand Dun**	**65.77**	**307**	*e*P	**P**	**10 32 43.4**	**+0.6**
	comp=Z,11nm,1.1s,mb4.8						
SDCO				LR	LR		
	comp=Z,754nm,20.0s,MS4.9						
ISCO	**Idaho Springs**	**66.15**	**310**	*e*P	**P**	**10 32 45.1**	**-0.1**
	comp=Z,26nm,1.6s,mb5.0						
ISCO				LR	LR		
	comp=Z,951nm,20.0s,MS5.0						
ISCO	**Idaho Springs**	**66.15**	**310**	*e*P	**P**	**10 32 45.1**	**-0.1**
ISCO				pmax	pmax		
	comp=Z,26nm,1.6s,mb5.0						
ISCO				MLR	MLR		
	comp=Z,951nm,20.0s,MS5.0						
ANMO	**Albuquerque**	**66.20**	**304**	*e*P	**P**	**10 32 45.7**	**+0.2**
	comp=Z,24nm,1.8s,mb4.9						
ANMO				LR	LR		
	comp=Z,714nm,20.0s,MS4.9						
ANMO	**Albuquerque**	**66.20**	**304**	*e*P	**P**	**10 32 45.7**	**+0.1**
ANMO				pmax	pmax		
	comp=Z,23nm,1.8s						
ANMO				MLR	MLR		
	comp=Z,714nm,20.0s						

LAZ	Ladron	66.70	304	eP	P	10 32 49.5	+0.7
DGMT	Dagmar	66.83	319	PFAKE		10 33 00.0	+11
DGMT				LR	LR		
	comp=Z,746nm,22.0s,MS4.9						
FFC	Flin Flon	67.20	326	eP	P	10 32 50.6	-0.9
	comp=Z,28nm,1.3s,mb5.1						
FFC	Flin Flon	67.20	326	eP	P	10 32 50.6	-0.9
FFC				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.1						
LAO	LASA Array	67.79	317	eP	P	10 32 55.0	-0.5
LAO				LR	LR		
	comp=Z,730nm,20.0s,MS4.9						
PV01	Paradox Valley	68.23	308	eP	P	10 32 59.4	+1.0
BW06	Boulder Array	69.51	312	PFAKE		10 33 20.0	+14
BW06				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
TUC	Tucson	69.60	301	PFAKE		10 33 20.0	+13
TUC				LR	LR		
	comp=Z,456nm,19.0s,MS4.7						
RLMT	Red Lodge	69.62	315	PFAKE		10 33 20.0	+13
RLMT				LR	LR		
	comp=Z,564nm,21.0s,MS4.8						
KIEV	Kiev	69.84	39	PFAKE		10 33 20.0	+12
KIEV				LR	LR		
	comp=Z,340nm,19.0s,MS4.6						
SRU	San Rafael	69.84	308	eP	P	10 33 08.2	-0.2
AKASG	Malin Array Be	69.85	39	P	P	10 33 07.2	-1.0
AKASG				LR	LR	11 00 30.4	
AKASG	Malin Array Be	69.85	39	P	P	10 33 07.2	-1.0
	comp=Z,0.8nm,0.6s,mb3.8,baz=251,slow=7.3,SNR=11						
AKASG				LR	LR	11 00 30.4	
	comp=Z,292nm,21.6s,MS4.5,baz=255,slow=33						
GCMT	Greycliff	69.99	316	eP	P	10 33 10.2	+1.0
WUAZ	Wupatki	70.25	305	PFAKE		10 33 20.0	+9.0
WUAZ				LR	LR		
	comp=Z,623nm,22.0s,MS4.8						
LKWY	Lake	70.34	314	eP	P	10 33 14.1	+2.7
LKWY				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
LOHW	Long Hollow	70.37	313	eP	P	10 33 11.2	-0.3
	comp=Z,40nm,1.9s,mb5.0						
EGMT	Eagleton	70.39	318	PFAKE		10 33 20.0	+8.5
EGMT				LR	LR		
	comp=Z,868nm,22.0s,MS5.0						
116A	Eloy	70.39	301	⇑P	P	10 33 11.8	-0.1
	baz=71						
TMUT	Trail Mountain	70.39	309	eP	P	10 33 12.1	+0.4
MOOW	Moose Ponds	70.49	313	eP	P	10 33 12.4	+0.2
	comp=Z,19nm,1.6s,mb4.8						
REDW	Red Top Meadow	70.52	313	eP	P	10 33 12.7	+0.2
	comp=Z,37nm,1.7s,mb5.0						
DAU	Daniels Canyon	70.52	310	eP	P	10 33 12.3	-0.3
TPAW	Teton Pass	70.61	313	eP	P	10 33 13.5	+0.5
	comp=Z,31nm,1.5s,mb5.0						
AHID	Auburn Hatcher	70.64	312	PFAKE		10 33 30.0	+17
AHID				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
IMW	Indian Meadow	70.65	313	eP	P	10 33 13.4	+0.2
	comp=Z,36nm,1.6s,mb5.0						
JLU	Jordanelle	70.69	310	eP	P	10 33 14.3	+0.7
YMR	Madison River	70.75	314	eP	P	10 33 14.9	+1.0
	comp=Z,52nm,1.4s,mb5.3						
YMR				LR	LR		
	comp=Z,853nm,20.0s,MS5.0						
MPU	Maple Canyon	70.78	309	eP	P	10 33 13.7	-0.5
MPU				LR	LR		
	comp=Z,811nm,21.0s,MS5.0						
DCID1	Drake Creek	70.79	313	eP	P	10 33 13.8	-0.4
FINES	FINESS Array B	70.82	28	LR	LR	11 00 17.9	
	comp=Z,183nm,19.6s,MS4.3,baz=206,slow=32						
115A	Sonoran Desert	70.83	302	⇓P	P	10 33 14.6	0.0
	baz=71						
HWUT	Hardware Ranch	70.87	311	eP	P	10 33 14.9	+0.2
	comp=Z,30nm,1.4s,mb5.0						
HWUT				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
ANTO	Ankara	70.87	51	PFAKE		10 33 30.0	+15
ANTO				LR	LR		
	comp=Z,143nm,21.0s,MS4.2						
X15A	Humboldt	70.91	303	⇑P	P	10 33 15.1	+0.1
	baz=71,SNR=5.9						
W15A	Williams	70.97	304	⇑P	P	10 33 15.4	0.0
	baz=71						
QLMT	Earthquake Lak	71.10	314	eP	P	10 33 15.4	-0.6
LSZ	Lusaka	71.16	109	PFAKE		10 33 30.0	+13
LSZ				LR	LR		
	comp=Z,799nm,22.0s,MS4.9						
BOZ	Bozeman (W)	71.34	315	PFAKE		10 33 30.0	+13
BOZ				LR	LR		
	comp=Z,410nm,19.0s,MS4.7						
BOZ	Bozeman (W)	71.34	315	⇓P	P	10 33 17.6	+0.2
	baz=72						
X14A	Yava	71.45	303	⇓P	P	10 33 18.6	+0.3
	baz=72						
Z14A	Wintersburg	71.46	302	⇓P	P	10 33 18.7	+0.3
	baz=72						
SPUT	South Promonto	71.50	311	eP	P	10 33 18.6	+0.1
BRTR	Keskin Array B	71.51	51	P	P	10 33 18.4	-0.2
	comp=Z,1.4nm,0.8s,mb3.9,baz=255,slow=7.6,SNR=10						
Y14A	Wickenburg	71.52	303	⇓P	P	10 33 19.1	+0.3
	baz=72						
W14A	Seligman	71.64	304	⇓P	P	10 33 20.0	+0.5
	baz=72						
LBTB	Lobatse	71.67	120	PFAKE		10 33 30.0	+10
LBTB				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
DUG	Dugway	71.69	309	eP	P	10 33 19.2	-0.4
	comp=Z,45nm,1.8s,mb5.1						
DUG				LR	LR		
	comp=Z,813nm,21.0s,MS5.0						
DUG	Dugway	71.69	309	eP	P	10 33 19.3	-0.4
DUG				pmax	pmax		
	comp=Z,45nm,1.8s,mb5.1						
DUG				MLR	MLR		
	comp=Z,813nm,21.0s,MS5.0						
S14A	Cedar City	71.82	307	⇑P	P	10 33 20.4	-0.1
	baz=72						
G15A	Dillon	71.89	315	⇑P	P	10 33 20.7	0.0
	baz=72,SNR=12						
BGU	Big Grassy Mou	71.91	310	eP	P	10 33 21.2	+0.3
LRM	Limekiln Ridge	71.93	315	eP	P	10 33 20.4	-0.6
F15A	Butte	71.96	315	⇓P	P	10 33 21.3	+0.2
	baz=72						
DLMT	Dillon	71.98	315	eP	P	10 33 21.8	+0.5
ARUT	Antelope Range	72.04	307	eP	P	10 33 22.5	+0.7
MCMT	McKenzie Canyo	72.11	314	eP	P	10 33 22.6	+0.5
D15A	Lincoln	72.11	317	⇓P	P	10 33 21.9	-0.2
	baz=72						
E15A	Deer Lodge	72.12	316	⇑P	P	10 33 22.2	0.0
	baz=72						
K14A	Jones Ranch, D	72.14	312	⇓P	P	10 33 22.1	-0.2
	baz=72						
Y13A	Salome	72.21	303	⇑P	P	10 33 23.4	+0.6
	baz=72						
X13A	Yucca	72.23	303	⇓P	P	10 33 23.5	+0.5
	baz=72						
EIL	Elat	72.25	62	LR	LR	11 03 42.0	
	comp=Z,619nm,21.0s,MS4.9,baz=271,slow=35						
W13A	Hualapai Mount	72.29	304	⇓P	P	10 33 23.5	+0.2
	baz=72						
T13A	Saint George	72.37	306	⇓P	P	10 33 24.3	+0.5
	baz=73						
PDMCI	Parker Dam,Lak	72.48	303	⇓P	P	10 33 24.6	+0.1
	baz=73						
F14A	Wisdom	72.57	315	⇑P	P	10 33 25.2	+0.5
	baz=73						
G14A	Jackson	72.58	315	⇑P	P	10 33 24.7	-0.1
	baz=73						
CHMT	Chamberlain Mo	72.59	316	eP	P	10 33 24.2	-0.7
BOSA	Boshof	72.60	124	P	P	10 33 25.6	+0.4
	comp=Z,2.9nm,0.9s,mb4.2,baz=288,slow=9.6,SNR=2.9						
BOSA				LR	LR	10 58 43.9	
	comp=Z,640nm,21.2s,MS4.9,baz=297,slow=30						
MMAI	Mount Meron Ar	72.66	58	LR	LR	11 05 57.2	
	comp=Z,176nm,20.6s,MS4.3,baz=170,slow=36						
L13A	Double Diamond	72.68	311	⇓P	P	10 33 25.7	+0.2
	baz=73						
E14A	Clinton	72.71	316	⇑P	P	10 33 25.7	+0.1
	baz=73						
Y12C	Blythe	72.78	303	⇑P	P	10 33 26.8	+0.5
	baz=73						
D14A	Greenough	72.78	317	⇓P	P	10 33 26.1	0.0
	baz=73,SNR=7.0						
N13A	Wendover, West	72.79	310	⇓P	P	10 33 26.2	-0.1
	baz=73						
M13A	Montello	72.80	311	⇑P	P	10 33 26.1	-0.1
	baz=73,SNR=9.5						
K13A	Stover Farm, H	72.82	312	⇓P	P	10 33 26.5	+0.2
	baz=73						
U12A	Valley of Fire	72.86	305	⇓P	P	10 33 26.9	+0.2
	baz=73						
NEE2	Needles Airpor	72.88	304	⇑P	P	10 33 27.2	+0.3
	baz=73						
I13A	Wildhorse Cree	72.93	313	⇑P	P	10 33 27.0	0.0
	baz=73						
J13A	Cove Ranch, Pi	72.94	313	⇓P	P	10 33 27.3	+0.3
	baz=73,SNR=5.4						
R12A	Pony Springs,	72.98	307	⇑P	P	10 33 27.4	0.0
	baz=73						
T12A	Moapa	73.01	306	⇑P	P	10 33 27.8	+0.2
	baz=73						
C14A	Swan Lake	73.02	317	⇓P	P	10 33 27.5	+0.1
	baz=73						
MSO	Missoula	73.06	316	eP	P	10 33 30.1	+2.4
MSO				LR	LR		
	comp=Z,553nm,20.0s,MS4.8						
V12A	Nelson	73.09	305	⇑P	P	10 33 28.0	-0.1
	baz=73						
G13A	Cobalt	73.11	314	⇓P	P	10 33 28.1	+0.1
	baz=73,SNR=10						
HLID	Hailey	73.12	313	PFAKE		10 33 40.0	+12
HLID				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
Q12A	Willow Creek R	73.18	308	⇑P	P	10 33 28.8	+0.2
	baz=73						
E13A	Victor	73.19	316	⇓P	P	10 33 28.4	0.0
	baz=73						
WALA	Waterton Lakes	73.26	319	eP	P	10 33 28.1	-0.7
P12A	McGill	73.26	309	⇓P	P	10 33 29.5	+0.5
	baz=74						
ARCES	ARCESS Array B	73.27	19	LR	LR	11 00 40.8	
	comp=Z,240nm,21.3s,MS4.5,baz=358,slow=32						
IRM	Iron Mountain	73.31	303	⇑P	P	10 33 29.5	+0.1
	baz=74						
M12A	Wells	73.36	311	⇑P	P	10 33 29.8	+0.2
	baz=74						
EDM	Edmonton	73.41	323	eP	P	10 33 28.6	-1.0
K12A	Draper Farm, C	73.42	312	⇓P	P	10 33 30.3	+0.4
	baz=74						
N12A	Clover Valley,	73.43	310	⇑P	P	10 33 30.0	0.0
	baz=74,SNR=9.9						
D13A	Huson	73.43	316	⇓P	P	10 33 29.5	-0.4
	baz=74						
L12A	House Creek Ra	73.48	311	⇑P	P	10 33 30.3	+0.1
	baz=74						
H12A	Diamond D Ranc	73.51	314	⇓P	P	10 33 30.6	+0.2
	baz=74						
U11A	Corn Creek	73.54	305	⇓P	P	10 33 30.8	+0.1
	baz=74						
B13A	Whitefish	73.56	318	⇓P	P	10 33 30.5	-0.1
	baz=74						
BC3	Big Chuckw Mtn	73.56	302	⇑P	P	10 33 31.0	+0.1
	baz=74						
C13A	Hot Springs	73.56	317	P	P	10 33 30.6	0.0
	baz=74,SNR=10						
V11A	Goodsprings	73.57	305	⇑P	P	10 33 31.2	+0.3
	baz=74						
ELK	Elko	73.57	310	PFAKE		10 33 40.0	+9.2
ELK				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
J12A	Stokes Ranch,	73.60	312	⇓P	P	10 33 30.9	0.0
	baz=74,SNR=8.2						
GMRC	Granite Mounta	73.74	304	⇑P	P	10 33 32.1	+0.2
	baz=74						
Q11A	Duckwater	73.82	308	⇑P	P	10 33 32.5	+0.2
	baz=74						
SWSC	Sam W. Stewart	73.84	302	⇓P	P	10 33 32.7	+0.1
	baz=74						
S11A	Rachel	73.86	307	⇑P	P	10 33 32.9	+0.3
	baz=74						
O11A	Cowboy Ranch,	73.87	309	⇓P	P	10 33 32.9	+0.3
	baz=74						
F12A	Elk City	73.88	315	⇑P	P	10 33 32.6	+0.1
	baz=74,SNR=10						
ASF	Jabal al Asfar	73.91	59	LR	LR	11 10 24.6	
	comp=Z,158nm,18.2s,MS4.3,baz=331,slow=39						
P11A	Circle Ranch,	73.92	309	⇑P	P	10 33 33.0	+0.1
	baz=74						
TUQ	Turquoise Mtn.	73.96	304	⇓P	P	10 33 33.6	+0.4
	baz=74						
BELC	Belle Mtn.	74.01	303	⇓P	P	10 33 33.9	+0.4
	baz=74						
M11A	Holland Ranch,	74.02	311	⇓P	P	10 33 33.8	+0.3
	baz=74						
L11A	Cat Creek Ranc	74.03	311	⇓P	P	10 33 33.5	+0.1
	baz=74,SNR=7.5						
MFID	Camas Ranch	74.14	313	⇓P	P	10 33 34.4	+0.3
	baz=74						
SHOC	Shoshone	74.26	305	⇑P	P	10 33 35.0	0.0
	baz=74						
B12A	Libby	74.31	318	⇑P	P	10 33 34.9	-0.1
	baz=74						
R10A	Warm Springs	74.31	307	⇑P	P	10 33 35.2	0.0
	baz=74						
H11A	Donnelly	74.34	314	⇑P	P	10 33 35.0	-0.2
	baz=74						
MONP	Monument Peak	74.37	302	⇑P	P	10 33 36.0	+0.3
	baz=75						
A12A	Yaak River Ran	74.39	318	⇓P	P	10 33 34.8	-0.6
	baz=75,SNR=8.3						
PFO	Pinyon Flat Ob	74.39	302	eP	P	10 33 36.0	+0.2
PFO	Pinyon Flat Ob	74.39	302	⇓P	P	10 33 35.3	-0.5
	baz=75						
P10A	Eureka	74.47	309	⇓P	P	10 33 35.9	-0.2
	baz=75						
F11A	Grangeville	74.51	315	⇑P	P	10 33 35.6	-0.6
	baz=75						
N10A	Dunphy	74.53	310	⇑P	P	10 33 36.3	-0.2
	baz=75						
S10A	Tonopah Range,	74.54	307	⇑P	P	10 33 36.6	0.0
	baz=75						
L10A	Juniper Basin	74.55	311	⇑P	P	10 33 36.2	-0.4
	baz=75						
G11A	Walters Elk Ra	74.56	315	⇑P	P	10 33 36.0	-0.6
	baz=75						
E11A	Bogner Ranch,	74.58	316	⇓P	P	10 33 35.7	-0.9
	baz=75,SNR=6.6						
M10A	I.L. Ranch, Tu	74.58	311	⇓P	P	10 33 36.4	-0.3
	baz=75						
GSC	Goldstone	74.68	304	⇑P	P	10 33 36.6	-0.8
	baz=75						
D11A	Klaveano Farm,	74.71	316	⇓P	P	10 33 36.7	-0.6
	baz=75						
BBRC	Big Bear Sol-O	74.78	303	⇓P	P	10 33 37.6	-0.4
	baz=75						
B11A	Sandpoint	74.82	318	⇓P	P	10 33 37.5	-0.5
	baz=75						
A11A	Hall Mountain,	74.86	318	⇑P	P	10 33 37.8	-0.3
	baz=75						
H10A	Noah’s Angus R	74.86	314	⇓P	P	10 33 37.8	-0.4
	baz=75						
R09A	Tonopah	74.92	307	⇓P	P	10 33 38.4	-0.4
	baz=75						
OBN	Obninsk	74.93	35	PFAKE		10 33 50.0	+12
OBN				LR	LR		
	comp=Z,323nm,21.0s,MS4.6						
109C	Camp Elliot, M	74.94	302	⇑P	P	10 33 38.8	-0.2
	baz=75						
P09A	Austin	74.99	309	⇓P	P	10 33 38.8	-0.4
	baz=75						
MURC	Murrieta	75.02	302	⇓P	P	10 33 39.3	-0.1
	baz=75						
S09A	Goldfield	75.03	307	⇑P	P	10 33 39.2	-0.2
	baz=75						
TPH	Tonopah	75.03	307	PFAKE		10 33 50.0	+11
TPH				LR	LR		
	comp=Z,712nm,21.0s,MS4.9						
O09A	Fish Creek Ran	75.04	309	⇓P	P	10 33 39.0	-0.4
	baz=75						
BMN	Battle Mountai	75.07	309	PFAKE		10 33 50.0	+10
BMN				LR	LR		
	comp=Z,788nm,21.0s,MS5.0						
GRAC	Grapevine Rang	75.14	306	⇑P	P	10 33 39.9	-0.2
	baz=75						
E10A	Myers Farm, Un	75.21	316	⇓P	P	10 33 39.9	-0.3
	baz=75						
MPMC	Manual Prospec	75.24	305	⇑P	P	10 33 40.4	-0.2
	baz=76						
F10A	Beach Ranch, E	75.27	315	⇓P	P	10 33 40.3	-0.3
	baz=76						
M09A	Marrel Ranch,	75.27	310	⇑P	P	10 33 40.4	-0.3
	baz=76						
BMO	Blue Mountains	75.27	314	eP	P	10 33 40.7	+0.1
	comp=Z,35nm,2.0s,mb4.9						
BMO				LR	LR		
	comp=Z,554nm,19.0s,MS4.9						
BMO	Blue Mountains	75.27	314	eP	P	10 33 40.7	+0.1
BMO				pmax	pmax		
	comp=Z,35nm,2.0s,mb4.9						
BMO				MLR	MLR		
	comp=Z,554nm,19.0s,MS4.9						
N09A	Rock Creek Ran	75.31	310	⇑P	P	10 33 40.5	-0.4
	baz=76						
NEW	Newport	75.31	318	PFAKE		10 33 50.0	+9.2
NEW				LR	LR		
	comp=Z,885nm,22.0s,MS5.0						
DAC	Darwin (Calif)	75.32	305	eP	P	10 33 42.4	+1.3
	comp=Z,32nm,1.9s,mb4.9						
DAC				LR	LR		
	comp=Z,671nm,22.0s,MS4.9						
DAC	Darwin (Calif)	75.32	305	eP	P	10 33 42.4	+1.3
DAC				pmax	pmax		
	comp=Z,32nm,1.9s,mb4.9						
DAC				MLR	MLR		
	comp=Z,671nm,22.0s,MS4.9						
D10A	Wagner Farm, O	75.35	316	⇓P	P	10 33 40.4	-0.7
	baz=76						
B10A	Chitwood Farm,	75.39	318	⇓P	P	10 33 40.5	-0.7
	baz=76						
BFSC	Mount Baldy St	75.39	303	⇓P	P	10 33 41.7	+0.2
	baz=76						
C10A	Spilker Farm,	75.41	317	⇑P	P	10 33 40.8	-0.6
	baz=76						
YKA	Yellowknife Ar	75.45	332	P	P	10 33 40.0	-1.3
YKA				LR	LR	11 05 17.6	
YKA	Yellowknife Ar	75.45	332	P	P	10 33 40.0	-1.3
	comp=Z,1.3nm,0.7s,mb4.0,baz=102,slow=5.7,SNR=15						
YKA				LR	LR	11 05 17.6	
	comp=Z,252nm,18.5s,MS4.5,baz=45,slow=34						
K09A	Rome	75.50	312	⇓P	P	10 33 42.4	+0.4
	baz=76,SNR=14						
H09A	Durkee	75.52	314	⇓P	P	10 33 41.8	-0.3
	baz=76						
J09A	Fry Pan Ranch,	75.54	312	⇓P	P	10 33 42.2	0.0
	baz=76						
I09A	Lost Marbles R	75.55	313	⇓P	P	10 33 42.4	+0.1
	baz=76,SNR=5.0						
Q08A	Gabbs	75.60	308	⇑P	P	10 33 42.3	-0.4
	baz=76						
A10A	Northport	75.64	318	⇓P	P	10 33 42.2	-0.5
	baz=76						
EDW2	Edwards Air Fo	75.66	304	⇑P	P	10 33 42.8	-0.2
	baz=76						
CWC	Cottonwood Cre	75.72	305	⇑P	P	10 33 42.5	-0.8
	baz=76						
P08A	Dixie Valley	75.72	309	⇓P	P	10 33 43.3	0.0
	baz=76						
F09A	S2 Ranch, Elgi	75.73	315	⇑P	P	10 33 42.8	-0.5
	baz=76						
S08C	White Mtn Res	75.78	306	⇓P	P	10 33 44.3	+0.6
	baz=76,SNR=9.0						
NVAR	Mina Array Bea	75.89	307	P	P	10 33 43.9	-0.4
NVAR	Mina Array Bea	75.89	307	P	P	10 33 43.9	-0.4
	comp=Z,0.6nm,0.7s,baz=95,slow=6.5,SNR=7.4						
E09A	Wood Farm, Sta	75.92	316	⇓P	P	10 33 44.0	-0.3
	baz=76						
L08A	Fields	75.95	311	⇓P	P	10 33 44.4	-0.2
	baz=76						
M08A	Happy Creek Ra	75.97	311	⇑P	P	10 33 44.8	+0.1
	baz=76						
B09A	Rice	76.01	318	⇓P	P	10 33 44.4	-0.4
	baz=76						
ISA	Isabella	76.04	305	⇑P	P	10 33 45.0	-0.3
	baz=76						
D09A	Jones Farm, Ri	76.06	316	⇑P	P	10 33 44.7	-0.4
	baz=76						
K08A	Mann Creek Ran	76.06	312	⇑P	P	10 33 45.2	0.0
	baz=76						
J08A	Circle Bar Ran	76.07	312	⇓P	P	10 33 45.2	0.0
	baz=76						
I08A	Drewsey	76.15	313	⇓P	P	10 33 45.3	-0.3
	baz=76						
SCI	San Clemente I	76.15	302	⇓P	P	10 33 45.8	-0.2
	baz=76						
WVOR	Wild Horse Val	76.17	312	PFAKE		10 34 00.0	+14
WVOR				LR	LR		
	comp=Z,997nm,20.0s,MS5.1						
H08A	Prairie City	76.23	314	⇓P	P	10 33 46.1	-0.1
	baz=76,SNR=5.0						
O07A	Toulon	76.33	309	⇑P	P	10 33 46.0	-0.9
	baz=77						
P07A	Fallon	76.34	309	⇑P	P	10 33 46.2	-0.7
	baz=77						
N07B	Gerlach	76.41	310	⇓P	P	10 33 46.6	-0.6
	baz=77						
G08A	Pilot Rock	76.46	314	⇓P	P	10 33 46.4	-1.0
	baz=77						
HELL	Mitchell Peak,	76.47	306	⇓P	P	10 33 47.4	-0.3
	baz=77						
D08A	Wollman Farm,	76.48	316	⇓P	P	10 33 47.7	+0.2
	baz=77						
VES	Vestal, Richgr	76.53	305	⇓P	P	10 33 48.1	0.0
	baz=77						
E08A	Dider Farm, El	76.56	316	⇑P	P	10 33 47.5	-0.4
	baz=77						
K07A	Rock Creek Ran	76.62	312	⇓P	P	10 33 48.3	-0.1
	baz=77,SNR=6.7						
RCTC	Rector, Farmer	76.65	305	⇑P	P	10 33 48.8	+0.1
	baz=77						
J07A	Hines	76.68	312	⇑P	P	10 33 49.0	+0.3
	baz=77						
L07A	Adell	76.69	311	⇑P	P	10 33 48.7	-0.1
	baz=77						
WAKR	Walker	76.78	307	eP	P	10 33 48.8	-0.6
R06C	Coleville	76.79	307	⇓P	P	10 33 49.8	+0.3
	baz=77						
I07A	Izee	76.83	313	⇑P	P	10 33 49.9	+0.4
	baz=77						
HAWA	Hanford	76.88	316	PFAKE		10 34 00.0	+10
HAWA				LR	LR		
	comp=Z,542nm,21.0s,MS4.8						
G07A	Ruggs Ranch, H	76.96	314	⇓P	P	10 33 49.5	-0.7
	baz=77						
T06C	Millerton Lake	77.02	306	⇑P	P	10 33 51.3	+0.6
	baz=77						
KMBO	Kilima Mbogo	77.07	93	PFAKE		10 34 00.0	+8.5
KMBO				LR	LR		
	comp=Z,523nm,21.0s,MS4.8						
KMBO	Kilima Mbogo	77.07	93	P	P	10 33 52.1	+0.6
	comp=Z,0.6nm,0.6s,mb3.7,baz=278,slow=6.3,SNR=6.9						
KMBO				LR	LR	11 06 17.4	
	comp=Z,386nm,18.4s,MS4.8,baz=96,slow=35						
E07A	Sunnyside	77.11	316	⇑P	P	10 33 51.0	0.0
	baz=77						
S06C	San Francisco	77.11	307	⇓P	P	10 33 51.3	0.0
	baz=77						
F07A	Phinny Hill Vi	77.15	315	⇑P	P	10 33 50.9	-0.4
	baz=77						
PKM	Peak Mountain	77.16	304	⇓P	P	10 33 51.3	-0.3
	baz=77						
D07A	Quincy	77.20	316	⇓P	P	10 33 50.8	-0.7
	baz=77						
C07A	Waterville	77.27	317	⇓P	P	10 33 51.3	-0.6
	baz=77						
R05C	Kirkwood Meado	77.27	308	⇓P	P	10 33 52.2	0.0
	baz=78,SNR=5.6						
J06A	Christmas Vall	77.29	312	⇓P	P	10 33 51.6	-0.6
	baz=78						
SMMC	Simmler	77.29	304	⇓P	P	10 33 52.6	+0.3
	baz=78						
B07A	Winthrop	77.32	318	⇑P	P	10 33 51.6	-0.6
	baz=78						
K06A	Valley Falls	77.36	312	⇑P	P	10 33 52.3	-0.3
	baz=78						
MOD	Modoc	77.41	311	eP	P	10 33 53.6	+0.8
	comp=Z,28nm,1.5s,mb5.0						
MOD				LR	LR		
	comp=Z,462nm,19.0s,MS4.8						
MOD	Modoc	77.41	311	⇓P	P	10 33 53.2	+0.4
	baz=78						
H06A	Lindquist Farm	77.42	314	⇑P	P	10 33 51.8	-1.0
	baz=78,SNR=5.3						
BEKR	Beckwourth	77.47	309	⇓P	P	10 33 53.8	+0.5
	baz=78						
A07A	Ashnola River,	77.51	318	⇓P	P	10 33 52.7	-0.5
	baz=78						
CMB	Columbia Colle	77.53	307	PFAKE		10 34 10.0	+16
CMB				LR	LR		
	comp=Z,984nm,19.0s,MS5.2						
CMB	Columbia Colle	77.53	307	⇓P	P	10 33 54.2	+0.5
	baz=78						
M06C	Likely Place G	77.55	310	⇑P	P	10 33 54.1	+0.5

	baz=78						
G06A	Carlson Farm,	77.64	314	⇓P	P	10 33 53.9	-0.1
	baz=78,SNR=5.3						
PKD	Parkfield	77.72	305	⇓P	P	10 33 55.2	+0.5
	baz=78						
F06A	Goldendale	77.74	315	⇑P	P	10 33 55.1	+0.5
	baz=78						
ELFS	Eagle Lake Fie	77.74	310	⇓P	P	10 33 54.6	-0.1
	baz=78						
D06A	Cle Elum	77.79	316	⇓P	P	10 33 55.3	+0.4
	baz=78						
LAVA	Lava Cap Winer	77.79	308	⇓P	P	10 33 54.0	-1.0
	baz=78						
L05A	Lakeview	77.80	311	⇓P	P	10 33 54.9	-0.1
	baz=78						
K05A	Summer Lake	77.84	312	⇓P	P	10 33 56.0	+0.8
	baz=78						
E06A	Yakima	77.88	316	⇓P	P	10 33 54.6	-0.8
	baz=78						
U04C	Hernandez Rese	77.90	305	⇓P	P	10 33 55.9	+0.2
	baz=78						
O05C	Quincy	77.90	309	⇑P	P	10 33 55.5	-0.1
	baz=78						
M05C	Lookout	78.05	310	⇓P	P	10 33 56.3	-0.1
	baz=78						
H05A	Madras	78.06	314	⇓P	P	10 33 56.6	+0.1
	baz=78						
LRV	Little Rabbit	78.08	305	eP	P	10 33 56.0	-0.7
I05A	Bend	78.09	313	⇓P	P	10 33 57.1	+0.5
	baz=78						
F05A	White Salmon	78.22	315	⇑P	P	10 33 56.7	-0.5
	baz=78						
Q04C	Lincoln	78.29	308	⇓P	P	10 33 58.0	+0.2
	baz=78						
ORV	Oroville	78.36	309	⇑P	P	10 33 57.4	-0.8
	baz=79						
KIV	Kislovodsk	78.39	47	PFAKE		10 34 10.0	+12
KIV				LR	LR		
	comp=Z,205nm,20.0s,MS4.5						
KIV	Kislovodsk	78.39	47	eP	P	10 33 49.9	-8.3
KIV				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
SAO	San Andreas Ge	78.42	306	PFAKE		10 34 10.0	+11
SAO				LR	LR		
	comp=Z,531nm,19.0s,MS4.9						
M04C	Macdoel	78.56	311	⇓P	P	10 33 59.1	-0.2
	baz=79						
A05A	Maple Falls	78.63	318	⇓P	P	10 33 58.9	-0.6
	baz=79						
J04A	Umpqua Nationa	78.72	312	⇑P	P	10 34 00.2	+0.1
	baz=79						
H04A	Detroit Lake	78.75	314	⇓P	P	10 33 59.7	-0.5
	baz=79						
Q03C	Winters	78.79	308	⇓P	P	10 34 01.3	+0.7
	baz=79						
WDC	Whiskeytown Da	79.12	310	PFAKE		10 34 10.0	+7.6
WDC				LR	LR		
	comp=Z,503nm,20.0s,MS4.8						
YBH	Yreka Blue Hor	79.21	311	PFAKE		10 34 10.0	+7.2
YBH				LR	LR		
	comp=Z,750nm,19.0s,MS5.0						
HUMO	Hull Mountain	79.36	312	PFAKE		10 34 20.0	+16
HUMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
MCCM	Marconi Confer	79.49	307	PFAKE		10 34 20.0	+16
MCCM				LR	LR		
	comp=Z,668nm,21.0s,MS5.0						
HOPS	Hopland	79.60	308	eP	P	10 34 04.3	-0.7
	comp=Z,63nm,1.5s,mb5.3						
HOPS				LR	LR		
	comp=Z,539nm,22.0s,MS4.8						
ATD	Arta Tunnel	80.85	80	LR	LR	11 07 35.9	
	comp=Z,408nm,21.1s,MS4.8,baz=99,slow=34						
DLBC	Dease Lake	82.92	328	eP	P	10 34 20.5	-1.7
DLBC	Dease Lake	82.92	328	P	P	10 34 23.0	+0.7
	baz=120,slow=5.3						
INK	Inuvik	83.46	338	P	P	10 34 24.9	+0.1
	comp=Z,14nm,1.2s,mb4.9,baz=104,slow=5.6,SNR=11						
SNAA	Sanae	83.79	169	P	P	10 34 26.4	0.0
	comp=Z,2.2nm,0.9s,mb4.3,baz=319,slow=11,SNR=4.1						
DAWY	Dawson	86.53	334	eP	P	10 34 39.7	-0.6
EGAK	Eagle	87.11	335	PFAKE		10 34 50.0	+6.8
EGAK				LR	LR		
	comp=Z,139nm,19.0s,MS4.4						
ARU	Arti	87.23	33	PFAKE		10 34 50.0	+6.1
ARU				LR	LR		
	comp=Z,342nm,19.0s,MS4.8						
AKTK	Aktyubinsk	88.10	39	P	P	10 34 48.8	+0.6
AKTO	Aktyubinsk	88.10	39	P	P	10 34 48.8	+0.6
	comp=Z,5.7nm,1.3s,mb4.7,baz=256,slow=1.7,SNR=7.6						
COLA	College	89.82	336	i P	P	10 34 54.4	-1.6
DIV	Divide	90.17	332	PFAKE		10 35 10.0	+12
DIV				LR	LR		
	comp=Z,717nm,19.0s,MS5.1						
BRVK	Borovoye	94.69	35	PFAKE		10 35 30.0	+11
BRVK				LR	LR		
	comp=Z,410nm,21.0s,MS4.9						
MSEY	Mahe Island	95.60	94	PFAKE		10 35 30.0	+6.2
MSEY				LR	LR		
	comp=Z,388nm,19.0s,MS4.9						
TNA	Tin City	96.82	341	PFAKE		10 35 40.0	+12
TNA				LR	LR		
	comp=Z,237nm,19.0s,MS4.7						
KURK	Kurchatov	100.36	35	PFAKE		10 36 00.0	+16
KURK				LR	LR		
	comp=Z,251nm,19.0s,MS4.7						
AAK	Ala-Archa	101.24	43	PFAKE		10 36 00.0	+12
AAK				LR	LR		
	comp=Z,221nm,20.0s,MS4.7						
BILL	Bilibino	101.27	350	PFAKE		10 36 00.0	+12
BILL				LR	LR		
	comp=Z,223nm,20.0s,MS4.7						
MAW	Mawson	102.72	157	PFAKE		10 36 10.0	+15
MAW				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
MA2	Magadan	111.44	354	PFAKE		10 40 40.0	+8.4
MA2				LR	LR		
	comp=Z,124nm,19.0s,MS4.5						
PPT	Papeete	111.66	255	ePS	PS	10 50 49.3	+1.4
	comp=Z,136nm,26.2s						
PPT	Papeete	111.66	255	eSS	SS	10 56 51.1	-0.3
	comp=Z,100nm,26.5s						
PPT				eLR	LR	11 14 01.9	
	comp=Z,417nm,25.2s						
TLY	Talaya	112.00	24	PFAKE		10 40 40.0	+7.1
TLY				LR	LR		
	comp=Z,183nm,19.0s,MS4.7						
ULN	Ulaanbaatar	116.36	24	PFAKE		10 40 50.0	+8.6
ULN				LR	LR		
	comp=Z,151nm,20.0s,MS4.6						
PALK	Pallekele	118.31	77	PFAKE		10 41 00.0	+14
PALK				LR	LR		
	comp=Z,227nm,20.0s,MS4.8						
LSA	Lhasa	119.08	49	PFAKE		10 41 00.0	+13
LSA				LR	LR		
	comp=Z,316nm,21.0s,MS4.9						
HIA	Hailar	119.46	15	PFAKE		10 41 00.0	+13
HIA				LR	LR		
	comp=Z,263nm,21.0s,MS4.8						
LZH	Lanzhou	123.64	36	ePKP	PKPdf	10 40 42.9	-13
LZH				XPKP		10 40 50.3	
LZH				PP	PP		
	comp=Z,110nm,5.5s						
LZH				LR	LR		
	comp=E,173nm,18.9s						
LZH				LR	LR		
	comp=Z,330nm,20.0s,MS5.0						
HHC	Hu-ho-hao-te	123.93	26	ePKP	PKPdf	10 40 48.9	-7.3
HHC				PP	PP	10 42 36.4	-2.2
HHC				PKS		10 44 24.6	
HHC				SKS	SKSdf	10 47 55.7	-13
HHC				SKKS	SKKSac	10 49 24.9	-14
HHC				PP	PP		
	comp=Z,134nm,11.9s						
HHC				LR	LR		
	comp=N,190nm,22.0s,MS4.9						
HHC				LR	LR		
	comp=E,195nm,20.8s,MS4.9						
HHC				LR	LR		
	comp=Z,159nm,20.2s,MS4.7						
MDJ	Mudanjiang	126.01	10	PKP	PKPdf	10 40 54.3	-5.7
MDJ	Mudanjiang	126.01	10	PFAKE		10 41 10.0	+10
MDJ				LR	LR		
	comp=Z,86nm,19.0s,MS4.4						
BJT	Baijiatuau	126.53	23	PFAKE		10 41 10.0	+8.8
BJT				LR	LR		
	comp=Z,255nm,20.0s,MS4.9						
CD2	Chengdu	127.15	40	ePKP	PKPdf	10 40 54.5	-8.1
CD2				XPKP		10 40 59.6	
CD2				PP	PP	10 42 55.8	-4.7
CD2				PKS		10 44 29.8	
CD2				SKS	SKSdf	10 48 01.1	-14
CD2				SKKS	SKKSac	10 49 43.8	-16
CD2				PP	PP		
	comp=Z,140nm,10.2s						
CD2				LR	LR		
	comp=N,540nm,23.4s,MS5.3						
CD2				LR	LR		
	comp=E,360nm,21.4s,MS5.3						
CD2				LR	LR		
	comp=Z,250nm,18.4s,MS4.9						
KMI	Kunming	130.15	47	PKP	PKPdf	10 40 59.8	-8.7
KMI				XPKP		10 41 09.7	
KMI				PP	PP	10 43 17.6	-2.9
KMI				SS	SS	11 00 37.4	-9.3
KMI				LR	LR		
	comp=N,126nm,20.0s,MS4.8						
KMI				LR	LR		
	comp=E,154nm,20.0s,MS4.8						
KMI				LR	LR		
	comp=Z,107nm,21.7s,MS4.5						
CHTO	Chiang Mai	130.72	56	PFAKE		10 41 20.0	+10
CHTO				LR	LR		
	comp=Z,167nm,21.0s,MS4.7						
GYA	Guiyang	132.02	42	PDIF	Pdif	10 37 57.6	-7.4
GYA				PKP	PKPdf	10 41 05.8	-6.2
GYA				PP	PP	10 43 28.4	-4.0
GYA				PKS		10 44 40.2	
GYA				SKS	SKSdf	10 48 14.2	-10
GYA				SKKS	SKKSac	10 50 18.6	-11
GYA				SS	SS	11 00 59.2	-10
GYA				PP	PP		
	comp=Z,130nm,8.7s						
GYA				LR	LR		
	comp=N,240nm,21.8s,MS5.0						
GYA				LR	LR		
	comp=E,240nm,20.2s,MS5.0						
GYA				LR	LR		
	comp=Z,270nm,21.6s,MS4.9						
INCN	Inchon	132.24	15	PFAKE		10 41 20.0	+7.9
INCN				LR	LR		
	comp=Z,148nm,20.0s,MS4.7						
NJ2	Nanjing	134.49	26	ePKP	PKPdf	10 41 06.8	-10
QIZ	Qiongzhong	139.08	47	PKP	PKPdf	10 41 21.5	-3.8
QIZ				PP	PP	10 44 11.6	-5.6
QIZ				LR	LR		
	comp=N,72nm,27.2s,MS4.5						
QIZ				LR	LR		
	comp=E,82nm,25.1s,MS4.5						
QIZ				LR	LR		
	comp=Z,107nm,26.9s,MS4.5						
QIZ	Qiongzhong	139.08	47	PFAKE		10 41 40.0	+15
QIZ				LR	LR		
	comp=Z,141nm,19.0s,MS4.7						

IDC 08 10:26:51.5±1.1**,107N**×**12649E,h0**^{km}**,mb4.2**/4**,mb1 4.3**/5**, mb1mx3.9**/17**,mbtmp4.1**/5**,ML3.4**/1**,MS3.4**/2**,Ms1 3.4**/2**, ms1mx2.7**/28**,Error ellipse: s-maj=80.2km s-min=19.6km az=67.0,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.07	182	P	Pn	10 31 15.2	-1.2
	0.1nm,0.3s,baz=17,slow=11,SNR=2.4						
GUMO	Guam	22.04	55	LR	LR	10 39 18.0	
	comp=Z,97nm,19.0s,baz=126,slow=34						
WRA	Warramunga Arr	22.26	160	P	P	10 31 50.0	-0.2
	15nm,0.6s,baz=340,slow=11,SNR=90						
WB2	Warramunga Arr	22.26	160	eP	P	10 31 49.3	-1.0
STKA	Stephens Creek	35.76	158	P	P	10 33 52.5	+0.1
	2.2nm,0.3s,baz=342,slow=13,SNR=8.2						
KSRS	Korea Array	36.23	2	LR	LR	10 50 33.2	
	comp=Z,46nm,18.1s,baz=36,slow=39						
MKAR	Makanchi Array	59.60	326	P	P	10 36 56.2	-1.0
	0.5nm,0.5s,baz=119,slow=7.5,SNR=15						
AKTO	Aktyubinsk	75.59	322	P	P	10 38 39.3	+1.1
	0.7nm,0.5s,baz=126,slow=8.7,SNR=3.2						
TXAR	Lajitas Array	123.39	53	PKP	PKPdf	10 45 52.1	+0.6
	0.2nm,0.6s,baz=256,slow=1.0,SNR=3.9						

ISCJB ***08*** *10:31:33.2±1.2,29.88N±0.04×36.28E±0.08,h0*^{km}*,Error ellipse: s-maj=10.2km s-min=6.0km az=6.4*
GII ***08*** *10:31:33.7±1.5,29.83N×36.22E,h0*^{km}
CSEM ***08*** *10:31:34.9±0.3,29.79N×36.11E,h2*^{km}*,ML2.5,Error ellipse: s-maj=6.9km s-min=4.0km az=100.0,Mining explosion.*
SGS ***08*** *10:31:34.4,30.02N×36.19E,h6*^{km}
ISC 08 10:31:33.2±1.3**,2987N**±004×**3631E**±008**,h0**^{km}**,n24, σ0**^{s}**92**/29**,Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HRFI	Mount Harif	1.12	279	Pg	Pg	10 31 54.1	-0.6
HRFI	Mount Harif	1.12	279	Pg	Pg	10 31 54.1	-0.6
ZFRI	Zfri	1.20	305	Pg	Pg	10 31 55.7	-0.5
ZFRI	Zfri	1.20	305	Pg	Pg	10 31 55.7	-0.5
EIL	Elat	1.20	261	Pg	Pg	10 31 55.5	-0.7
EIL				Sg	Sg	10 32 13.6	+1.8
EIL	Elat	1.20	261	Pg	Pg	10 31 55.5	-0.7
MBH	Mount Berech	1.22	267	Pg	Pg	10 31 56.7	+0.2
MBH	Mount Berech	1.22	267	Pg	Pg	10 31 56.7	+0.2
HQLS		1.23	243	P	Pg	10 31 55.9	-0.8
HQLS				S	Sg	10 32 12.1	-0.5
HQLS		1.23	243	P	Pg	10 31 55.9	-0.8
PRNI	Paran	1.23	294	Pg	Pg	10 31 56.4	-0.5
PRNI	Paran	1.23	294	Pg	Pg	10 31 56.4	-0.5
JLOS		1.33	213	P	Pg	10 31 58.8	0.0
JLOS				S	Sg	10 32 17.0	+0.9
JLOS		1.33	213	P	Pg	10 31 58.8	0.0
KRMI	Paran Flat	1.40	281	Pn	Pn	10 31 59.5	-0.5
KRMI				Sn	Sn	10 32 18.1	-1.0
KRMI	Paran Flat	1.40	281	Pn	Pn	10 31 59.5	-0.5
KRMI				Sn	Sn	10 32 18.1	-1.1
MZDA	Masada	1.66	331	Pn	Pn	10 32 03.8	+0.2
MZDA	Masada	1.66	331	Pn	Pn	10 32 03.8	+0.3
YTIR	Yattir	1.81	326	Sn	Sn	10 32 33.0	+3.5
DSI	Dead Sea	1.88	335	Pn	Pn	10 32 07.8	+1.2
DSI	Dead Sea	1.88	335	Pn	Pn	10 32 07.8	+1.2
KZIT	Kziot	1.95	303	Sn	Sn	10 32 33.3	+0.5
RSHS		2.05	221	P	Pn	10 32 08.2	-0.7
RSHS		2.05	221	S	Sn	10 32 38.6	+3.5

ISCJB ***08*** *10:49:10.9±1.0,25.69S±0.03×71.4W±0.1,h50*^{km}*,Error ellipse: s-maj=18.6km s-min=4.2km az=3.0*
NEIC ***08*** *10:49:12.9,25.70S×71.18W,h50*^{km}*,MD4.3(GUC),After GUC.*
GUC ***08*** *10:49:12.9±0.9,25.70S×71.18W,h50*^{km}*,MD4.3,ML4.3*
IDC ***08*** *10:49:27.3±2.9,24.69S×70.48W,h0*^{km}*,mb4.1/1,mb1 4.4/2, mb1mx3.9/14,mbtmp4.3/2,ML4.6/1,Error ellipse: s-maj=111.8km s-min=61.3km az=91.0*
ISC 08 10:49:12.6±1.0**,2570S**±003×**713W**±02**,h50**^{km}**,n16, σ1**^{s}**08**/23**,4C-3D,Off coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPN1	Cerro Paranal	1.35	38	⇑iP	Pn	10 49 36.1	+1.0
CPN1				i S	Sn	10 49 52.7	+0.9
CPN1				AML	AML	10 49 54.0	
	comp=E,3µm,0.4s						
CDCH	Caldera	1.44	163	⇑iP	Pn	10 49 35.8	-0.4
CDCH				i S	Sn	10 49 52.2	-1.7
CPCH	Copiapo	1.86	153	eP	Pn	10 49 42.3	+0.3
CPCH				i S	Sn	10 50 04.2	-0.2
CPCH	Copiapo	1.86	153	eP	Pn	10 49 42.3	+0.3
CPCH				i S	Sn	10 50 04.2	-0.2
CPCH				AML	AML	10 50 06.4	
	comp=N,15µm,0.1s						
ANCH	Antofagasta	2.17	22	⇑iP	Pn	10 49 46.5	+0.2
ANCH				S	Sn	10 50 10.6	-1.3
ANCH	Antofagasta	2.17	22	⇑iP	Pn	10 49 46.5	+0.2
ANCH				eS	Sn	10 50 10.6	-1.3
ANCH				AML	AML	10 50 12.0	
	comp=N,1µm,0.7s						
CEN1	Los Morros	2.51	24	⇓iP	Pn	10 49 48.0	-2.9
CEN1				i S	Sn	10 50 13.9	-6.4
VACH	Vallenar	2.91	170	⇓iP	Pn	10 49 57.2	+0.8
VACH				i S	Sn	10 50 30.4	+0.4
VACH	Vallenar	2.91	170	⇓iP	Pn	10 49 57.2	+0.8
VACH				i S	Sn	10 50 30.4	+0.4
VACH				AML	AML	10 50 32.7	
	comp=E,2µm,0.2s						
LCO	Las Campanas	3.34	171	ePn	Pn	10 50 02.8	+0.4
LCO				eSn	Sn	10 50 41.2	+0.3
ARE	Arequipa	9.19	359	eP	Pn	10 51 22.0	-0.6
LPAZ	La Paz	9.82	18	ePn	Pn	10 51 33.9	+2.6
	comp=E,9.8nm,0.4s						
LPAZ	La Paz	9.82	18	Pn	Pn	10 51 34.2	+2.9
	comp=E,3.3nm,0.3s,baz=183,slow=5.9,SNR=88						
TORD	Torodi Ar. Bea	80.83	71	P	pP	11 01 37.9	+1.9
	comp=E,1.0nm,0.6s,baz=261,slow=5.0,SNR=5.5						
ZALV	Zalesovo Beam	146.67	26	PKPbc	pPKPbc	11 09 06.5	+3.0
	comp=E,4.7nm,0.9s,baz=304,slow=4.0,SNR=8.0						
MKAR	Makanchi Array	150.30	38	PKPbc	pPKPbc	11 09 16.3	+3.2
	comp=E,0.9nm,0.7s,baz=328,slow=2.1,SNR=6.1						

TIF ***08*** *10:52:27.1,41.25N×44.11E,h7*^{km}*±2*^{km}
CSEM ***08*** *10:52:27.1,41.37N×44.03E,h11*^{km}*,mb3.5,After OBN*
MOS ***08*** *10:52:27.7±0.4,41.37N×44.03E,h11*^{km}*,mb3.5/1,Error ellipse: s-maj=46.2km s-min=13.2km az=85.7*
ISC 08 10:52:26.2±2.1**,4129N**±008×**4390E**±010**,h3**^{km}±8^{km}**,n13, σ0**^{s}**19**/24**,Turkey-Georgia-Armenia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBLG	Delisi	0.77	55	ePG	Pg	10 52 41.0	+0.1
TBLG				i S	Sg	10 52 50.8	-0.1
TBLG	Delisi	0.77	55	ePg	Pg	10 52 41.0	+0.1
TBLG				i Sg	Sg	10 52 50.8	-0.1
DGRG	David-gareji	1.12	81	P	Pg	10 52 47.7	0.0
DGRG				S	Sg	10 53 02.4	+0.1
ZEI	Tsey	1.48	0	ePG	Pg	10 52 54.0	-0.5
ZEI				eS	Sg	10 53 13.9	+0.3
ZEI	Tsey	1.48	0	ePg	Pg	10 52 54.0	-0.5
ZEI				eSg	Sg	10 53 13.9	+0.3
LACR	Lac	1.56	11	ePG	Pn	10 52 54.7	-0.1
LACR				i S	Sn	10 53 15.3	-0.1
LACR	Lac	1.56	11	ePg	Pn	10 52 54.7	-0.1
LACR				i Sg	Sn	10 53 15.3	-0.1
DIGR	Digorskoe uzhe	1.62	352	ePG	Pn	10 52 55.8	+0.2
DIGR				eS	Sn	10 53 17.2	+0.2
DIGR	Digorskoe uzhe	1.62	352	ePg	Pn	10 52 55.8	+0.2
DIGR				eSg	Sn	10 53 17.2	+0.2
KORR	Kora	1.80	4	ePN	Pn	10 52 58.0	0.0
KORR				eS	Sn	10 53 21.1	-0.2
KORR	Kora	1.80	4	ePn	Pn	10 52 58.0	0.0
KORR				eSg	Sn	10 53 21.1	-0.2
ARNR	Ardon	1.92	8	ePN	Pn	10 52 59.7	+0.1
ARNR	Ardon	1.92	8	ePn	Pn	10 52 59.7	+0.1

MAN 08 11:10:22,779N×**12487E,h35**^{km}**,mb4.3,ML3.2,MS3.0, 1C,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CGP	Cagayan de Oro	0.68	345	⇑iP	Pn	11 10 37.3	+2.1
CGP				i S	Sn	11 10 46.6	+2.0

IDC 08 11:23:45.0±1.1**,4649N**×**15543E,h0**^{km}**,mb3.8**/5**, mb1 4.0**/5**,mb1mx3.6**/21**,mbtmp3.8**/5**,Error ellipse: s-maj=33.4km s-min=30.9km az=46.0,East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	48.48	299	P	P	11 32 28.5	-0.5
	0.4nm,0.7s,baz=48,slow=7.2,SNR=4.0						
AKTO	Aktyubinsk	60.09	313	P	P	11 33 54.0	+0.5
	0.8nm,0.6s,baz=63,slow=4.5,SNR=4.1						
FINES	FINESS Array B	64.95	336	P	P	11 34 25.9	0.0
	1.1nm,0.7s,baz=38,slow=7.5,SNR=7.5						
WRA	Warramunga Arr	68.81	201	P	P	11 34 51.0	+0.1
	0.3nm,0.8s,baz=23,slow=8.9,SNR=2.6						
TXAR	Lajitas Array	76.22	62	P	P	11 35 35.4	+0.2
	0.8nm,0.6s,baz=302,slow=4.6,SNR=15						

IDC 08 11:26:22.1±7.8**,1080N**×**4061W,h0**^{km}**,mb3.7**/4**, mb1 4.0**/4**,mb1mx3.6**/18**,mbtmp3.7**/4**,Error ellipse: s-maj=218.7km s-min=40.7km az=172.0,Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GERES	GERESS Array B	58.78	39	P	P	11 36 22.2	+0.2
	0.5nm,0.5s,baz=294,slow=9.6,SNR=4.0						
ULM	Lac du Bonnet	59.86	322	P	P	11 36 30.0	+0.5
	2.5nm,0.9s,baz=90,slow=9.1,SNR=4.3						
TXAR	Lajitas Array	61.35	298	P	P	11 36 40.3	+0.2
	0.2nm,0.6s,baz=111,slow=6.3,SNR=3.6						
YKA	Yellowknife Ar	73.11	332	P	P	11 37 53.5	-0.5
	0.6nm,0.7s,baz=100,slow=5.9,SNR=8.5						

IDC 08 11:29:47.4±1.4**,891N**×**3975W,h0**^{km}**,mb3.8**/5**,mb1 4.0**/5**, mb1mx3.7**/18**,mbtmp3.8**/5**,MS3.6**/2**,Ms1 3.6**/2**, ms1mx2.9**/25**,Error ellipse: s-maj=39.3km s-min=31.1km az=166.0,Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	37.62	228	P	P	11 37 04.6	+0.4
	1.8nm,0.9s,baz=33,slow=9.3,SNR=5.2						
TORD	Torodi Ar. Bea	40.87	80	P	P	11 37 31.6	+0.1
	0.5nm,0.8s,baz=279,slow=8.0,SNR=3.9						
ATAH	Atahualpa	41.63	249	LR	LR	11 53 17.7	
	comp=Z,76nm,19.6s,baz=1.9,slow=34						
TEIG	Tepich	48.13	289	LR	LR	11 54 40.8	
	comp=Z,56nm,19.0s,baz=22,slow=31						
ULM	Lac du Bonnet	61.86	323	P	P	11 40 08.3	-0.1
	1.4nm,0.7s,baz=106,slow=7.1,SNR=4.1						
TXAR	Lajitas Array	62.98	298	P	P	11 40 17.3	+1.0
	0.6nm,1.0s,baz=99,slow=5.8,SNR=4.9						
YKA	Yellowknife Ar	75.16	332	P	P	11 41 30.9	-0.4
	0.6nm,0.7s,baz=102,slow=5.7,SNR=9.6						

IDC 08 11:39:53.2±1.0**,870N**×**3943W,h0**^{km}**,mb3.8**/7**,mb1 4.0**/7**, mb1mx3.8**/20**,mbtmp3.8**/7**,MS3.8**/2**,Ms1 3.8**/2**, ms1mx3.2**/23**,Error ellipse: s-maj=37.6km s-min=22.1km az=146.0,Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SIV	San Ignacio	32.57	221	P	P	11 46 26.9	+0.4
	0.9nm,0.7s,baz=46,slow=12,SNR=4.8						
LPAZ	La Paz	37.73	229	P	P	11 47 11.2	+0.2
	5.5nm,1.2s,baz=43,slow=8.4,SNR=8.4						
LPAZ				LR	LR	12 02 07.3	
	comp=Z,74nm,19.5s,baz=98,slow=35						
TORD	Torodi Ar. Bea	40.59	80	P	P	11 47 34.9	-0.1
	1.0nm,0.9s,baz=249,slow=8.6,SNR=4.0						
TORD				LR	LR	12 02 22.0	
	comp=Z,185nm,20.1s,baz=260,slow=33						
TXAR	Lajitas Array	63.35	298	P	P	11 50 25.5	+0.8
	0.3nm,0.5s,baz=99,slow=6.7,SNR=5.4						
BRTR	Keskin Array B	71.48	51	P	P	11 51 15.6	-0.4
	0.6nm,0.5s,baz=308,slow=7.1,SNR=3.7						
YKA	Yellowknife Ar	75.49	332	P	P	11 51 38.4	-0.7
	0.7nm,0.8s,baz=100,slow=6.3,SNR=7.1						
AKTO	Aktyubinsk	88.08	39	P	P	11 52 47.1	+1.4
	0.4nm,0.3s,baz=231,slow=4.0,SNR=3.8						

CSEM ***08*** *12:04:47.2,14.87N×42.49E,h6*^{km}*,ML3.7,After DHMR*
DHMR 08 12:04:47.2±1.5**,1487N**×**4249E,h6**^{km}±17^{km}**,ML3.7,1C-1D, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HAJJ	Hajjah	1.35	52	i P	Pn	12 05 11.9	-0.7
HAJJ				i S	Sb	12 05 31.7	+1.2
HAJJ				AML	AML	12 05 41.6	
	comp=Z,2µm,0.5s						
HAJJ	Hajjah	1.35	52	i P	Pn	12 05 11.9	-0.7
HAJJ				i S	Sb	12 05 31.7	+1.2
UDYN	Al ‘Udayn	1.69	122	⇑iP	Pn	12 05 18.5	+1.3
UDYN				i S	Sn	12 05 42.7	+3.4

DHBB	**Dhamar BB**	1.86	99	*i* P	Pn	12 05 21.7	+2.1
DHBB				*i* S	Sn	12 05 47.1	+3.6
TRBA	**At Turbah**	2.27	136	⇓*i*P	Pn	12 05 26.3	+1.0
TRBA				*i* S	Sn	12 05 58.1	+4.5
TRBA				AML	AML	12 06 18.5	
	comp=N,347nm,0.5s						
LBOS		2.85	110	*i* P	Pn	12 05 36.6	+3.3
LBOS				*i* S	Sn	12 06 13.8	+5.8
BDHA	**Al Bayda’**	3.11	106	*i* P	Pn	12 05 40.1	+3.2
BDHA				*i* S	Sn	12 06 21.3	+6.9
BDHA				AML	AML	12 06 39.5	
	comp=N,747nm,0.5s						
BDHA	**Al Bayda’**	3.11	106	*i* P	Pn	12 05 40.1	+3.2
BDHA				*i* S	Sn	12 06 21.3	+6.9

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*SZGRF **08** 12:05:07.5, 7.20N×41.32W, h33^{km}, mb4.7, MS4.2, North Atlantic Ocean*

*ISCJB **08** 12:05:17.8±0.7, 8.8N±0.1×39.30W±0.09, h10^{km}, mb4.3/26, MS4.4/20, Error ellipse: s-maj=18.2km s-min=11.9km az=162.9*

*IDC **08** 12:05:17.5±0.9, 8.94N×39.41W, h0^{km}, mb3.9/11, mb1 4.1/11, mb1mx4.0/19, mbtmp3.9/11, MS4.4/20, Ms1 4.4/20, ms1mx4.2/29, Error ellipse: s-maj=30.2km s-min=17.4km az=148.0*

*GCMT **08** 12:05:19.5±0.2, 8.73N×39.39W, h12^{km}, MW5.2/87, Moment Tensor Solution. s48,c62; s87,c151; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-6.29±.10; $M_{\theta\theta}$-0.33±.10; $M_{\phi\phi}$6.61±.11; $M_{r\theta}$0.14±.31; $M_{\theta\phi}$0.40±.09; $M_{\phi r}$-1.54±.29; Best double couple: $M_0$6.64400×10^{16} NP1:ϕ_s185.00000°,δ38.00000°,λ-87.00000°. NP2: ϕ_s1.00000°,δ52.00000°,λ-93.00000°. Principal axes: T 6.8110, Plg7.0000°, Azm93.0000°; N -0.3420, Plg2.0000°, Azm3.0000°; P -6.4770, Plg83.0000°, Azm256.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **08** 12:05:19.4±0.6, 8.70N×39.31W, h10^{km}, mb4.7/17 Error ellipse: s-maj=15.7km s-min=9.6km az=164.0*

ISC 08 12:05:19.6±0.7, **8.7N**±0.1×**39.27W**±0.09, **h10^{km}, n70, σ0$\overset{s}{.}$89**/57, **mb4.3**/26, **MS4.4**/20, **Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCRV	**Puerto La Cruz**	25.06	275	LR	LR	12 21 49.9	
	comp=Z,1μm,18.9s,MS4.5,baz=76,slow=40						
SJG	**San Juan**	27.72	292	LR	LR	12 20 00.7	
	comp=Z,2μm,21.4s,MS4.6,baz=98,slow=32						
SIV	**San Ignacio**	32.70	221	P	P	12 11 52.6	0.0
	4.4nm,1.1s,mb4.3,baz=83,slow=7.7,SNR=8.7						
ROSC	**El Rosal**	35.01	266	P	P	12 12 11.9	-0.8
ROSC				LR	LR	12 26 39.9	
ROSC	**El Rosal**	35.01	266	P	P	12 12 11.9	-0.8
	4.7nm,0.4s,mb4.8,baz=78,slow=22,SNR=3.7						
ROSC				LR	LR	12 26 39.9	
	comp=Z,1μm,20.1s,MS4.6,baz=13,slow=37						
LPAZ	**La Paz**	37.87	229	*e*P	P	12 12 37.3	+0.2
	7.8nm,1.2s,mb4.3						
LPAZ	**La Paz**	37.87	229	P	P	12 12 37.3	+0.2
	7.3nm,1.2s,mb4.3,baz=25,slow=11,SNR=11						
LPAZ				LR	LR	12 28 10.9	
	comp=Z,420nm,19.0s,MS4.3,baz=278,slow=36						
TORD	**Torodi Ar. Bea**	40.43	80	P	P	12 12 58.4	-0.2
	0.4nm,0.7s,mb3.3,baz=260,slow=5.9,SNR=3.6						
ESDC	**Sonseca Array**	44.06	40	P	P	12 13 28.2	+0.3
	0.4nm,0.4s,mb3.5,baz=344,slow=15,SNR=2.7						
ESDC				LR	LR	12 29 43.3	
	comp=Z,538nm,18.2s,MS4.5,baz=235,slow=33						
SWET	**Sewanee**	50.04	309	P	P	12 14 14.7	0.0
SCHQ	**Schefferville**	50.94	340	LR	LR	12 31 37.6	
	comp=Z,239nm,21.5s,MS4.2,baz=253,slow=31						
PLAL	**Pickwick Lake**	51.62	308	*e*P	P	12 14 22.3	-4.3
	27nm,1.4s,mb5.0						
KEST	**Kesra**	51.73	51	LR	LR	12 36 24.6	
	comp=Z,271nm,18.1s,MS4.3,baz=182,slow=36						
WVT	**Waverly**	51.81	309	*e*P	P	12 14 28.4	+0.4
	6.0nm,1.0s,mb4.5						
NATX	**Nacogdoches**	56.12	302	*e*P	P	12 14 59.2	-0.4
	16nm,1.2s,mb4.9						
GRA1	**Grafenberg Arr**	58.45	36	*e*P	P	12 15 17.6	+1.9
	14nm,1.1s,mb4.9						
GRF	**Grafenberg Arr**	58.45	36	*e*P	P	12 15 17.6	+1.9
	comp=Z,14nm,1.1s,mb4.9						
GRF				*e*L		12 40 17.8	
	comp=Z,179nm,18.5s						
GERES	**GERESS Array B**	59.57	38	LR	LR	12 40 27.5	
	comp=Z,275nm,18.8s,MS4.4,baz=23,slow=36						
JCT	**Junction City**	60.26	300	*e*P	P	12 15 28.4	-0.2
	comp=Z,3.3nm,0.7s,mb4.5						
ULM	**Lac du Bonnet**	62.28	323	P	P	12 15 38.5	-3.4
	comp=Z,1.8nm,0.9s,mb4.2,baz=126,slow=8.7,SNR=2.8						
ULM				LR	LR	12 41 24.9	
	comp=Z,187nm,18.7s,MS4.3,baz=68,slow=35						
TXAR	**Lajitas Array**	63.47	298	P	P	12 15 47.9	-2.4
	comp=Z,0.3nm,0.6s,mb3.6,baz=111,slow=6.6,SNR=5.0						
TXAR				LR	LR	12 41 46.4	
	comp=Z,216nm,21.2s,MS4.3,baz=5.0,slow=35						
NOA	**NORSAR Array B**	64.03	25	LR	LR	12 39 35.5	
	comp=Z,178nm,18.6s,MS4.3,baz=235,slow=32						
FCC	**Fort Churchill**	64.81	332	*e*P	P	12 15 58.3	-0.1
	comp=Z,8.0nm,1.2s,mb4.6						
MNTX	**Cornudas Mount**	65.15	301	*e*P	P	12 16 00.4	-0.8
SDCO	**Great Sand Dun**	65.93	307	P	P	12 16 06.8	+0.7
ISCO	**Idaho Springs**	66.31	310	*e*P	P	12 16 07.8	-0.7
	comp=Z,3.6nm,1.2s,mb4.3						
LAZ	**Ladron**	66.87	304	*e*P	P	12 16 12.4	+0.2
DGMT	**Dagmar**	66.95	319	*e*P	P	12 16 12.6	+0.1
	comp=Z,12nm,1.1s,mb4.8						
SMCO	**Snowmass**	67.26	309	*e*P	P	12 16 14.7	+0.1
FFC	**Flin Flon**	67.30	326	*e*P	P	12 16 14.1	-0.5
	comp=Z,7.3nm,1.0s,mb4.7						
USHA	**Ushuaia**	67.89	198	LR	LR	12 45 02.3	
	comp=Z,239nm,18.6s,MS4.5,baz=215,slow=35						
LAO	**LASA Array**	67.92	317	*e*P	P	12 16 17.0	-1.6
PV01	**Paradox Valley**	68.38	307	P	P	12 16 21.4	-0.3
LPIG	**La Paz**	69.21	292	LR	LR	12 47 49.8	
	comp=Z,155nm,18.1s,MS4.3,baz=273,slow=37						
BW06	**Boulder Array**	69.65	312	P	P	12 16 31.6	+2.1
AKASG	**Malin Array Be**	69.70	39	P	P	12 16 28.6	-1.0
	comp=Z,0.2nm,0.3s,mb3.5,baz=263,slow=5.7,SNR=4.6						
AKASG				LR	LR	12 44 39.7	
	comp=Z,231nm,20.1s,MS4.4,baz=255,slow=34						
SRU	**San Rafael**	70.00	308	*e*P	P	12 16 33.0	+1.2
GCMT	**Greycliff**	70.13	316	*e*P	P	12 16 31.5	-0.9
WUAZ	**Wupatki**	70.42	305	*e*P	P	12 16 33.7	-0.6
	comp=Z,11nm,1.4s,mb4.6						
EGMT	**Eagleton**	70.51	318	*e*P	P	12 16 34.5	-0.2
LOHW	**Long Hollow**	70.51	313	*e*P	P	12 16 35.0	+0.2
MOOW	**Moose Ponds**	70.63	313	*e*P	P	12 16 35.0	-0.5
REDW	**Red Top Meadow**	70.66	313	*e*P	P	12 16 35.8	+0.1
FINES	**FINESS Array B**	70.70	28	LR	LR	12 46 47.6	
	comp=Z,227nm,18.5s,MS4.5,baz=162,slow=35						
IMW	**Indian Meadow**	70.79	313	*e*P	P	12 16 35.4	-1.0
JLU	**Jordanelle**	70.84	310	*e*P	P	12 16 36.6	-0.2
YMR	**Madison River**	70.89	314	*e*P	P	12 16 37.6	+0.5
	comp=Z,6.6nm,1.1s,mb4.5						
DCID1	**Drake Creek**	70.93	313	*e*P	P	12 16 37.7	+0.4
HWUT	**Hardware Ranch**	71.01	311	*e*P	P	12 16 37.5	-0.4
	comp=Z,3.1nm,0.9s,mb4.2						
BRTR	**Keskin Array B**	71.33	51	P	P	12 16 38.5	-1.4
	comp=Z,0.9nm,0.9s,mb3.7,baz=222,slow=1.7,SNR=4.6						
DUG	**Dugway**	71.84	309	*e*P	P	12 16 43.6	+0.6
	comp=Z,16nm,1.6s,mb4.7						
BGU	**Big Grassy Mou**	72.06	310	*e*P	P	12 16 44.0	-0.2
ARUT	**Antelope Range**	72.19	307	*e*P	P	12 16 45.5	+0.5
CHMT	**Chamberlain Mo**	72.73	316	*e*P	P	12 16 48.4	+0.3
ARCES	**ARCESS Array B**	73.18	19	LR	LR	12 44 38.5	
	comp=Z,165nm,21.3s,MS4.3,baz=359,slow=32						
HLID	**Hailey**	73.27	313	*e*P	P	12 16 52.6	+1.2
	comp=Z,3.8nm,1.1s,mb4.2						
EDM	**Edmonton**	73.52	323	*e*P	P	12 16 51.7	-0.9
BMO	**Blue Mountains**	75.41	314	*e*P	P	12 17 04.5	+0.7
YKA	**Yellowknife Ar**	75.53	332	P	P	12 17 02.7	-1.4
YKA				LR	LR	12 47 34.1	
YKA	**Yellowknife Ar**	75.53	332	P	P	12 17 02.7	-1.4
	comp=Z,1.0nm,1.0s,mb3.7,baz=99,slow=5.7,SNR=10						
YKA				LR	LR	12 47 34.1	
	comp=Z,170nm,18.7s,MS4.4,baz=135,slow=34						
PMSA	**Palmer Station**	75.62	191	LR	LR	12 50 35.0	
	comp=Z,76nm,19.5s,MS4.0,baz=144,slow=36						
NVAR	**Mina Array Bea**	76.04	307	P	P	12 17 07.5	0.0
	comp=Z,0.2nm,0.5s,mb3.3,baz=304,slow=1.1,SNR=4.0						
KMBO	**Kilima Mbogo**	76.86	93	LR	LR	12 50 03.8	
	comp=Z,346nm,18.2s,MS4.7,baz=98,slow=35						
WAKR	**Walker**	76.93	307	*e*P	P	12 17 14.8	+2.2
MOD	**Modoc**	77.56	311	*e*P	P	12 17 17.0	+1.0
	comp=Z,7.9nm,1.4s,mb4.5						
LRV	**Little Rabbit**	78.25	305	*e*P	P	12 17 21.4	+1.5
ATD	**Arta Tunnel**	80.63	80	LR	LR	12 53 49.1	
	comp=Z,306nm,18.1s,MS4.7,baz=191,slow=36						
DLBC	**Dease Lake**	83.02	328	*e*P	P	12 17 45.7	+0.6
INK	**Inuvik**	83.52	338	*e*P	P	12 17 47.8	+0.3
	comp=Z,878nm,1.8s						
DAWY	**Dawson**	86.61	334	*e*P	P	12 18 03.5	+0.5

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*ISCJB **08** 12:05:34.6±0.7, 8.8N±0.1×39.48W±0.07, h10^{km}, mb5.0/29, MS4.8/3, Error ellipse: s-maj=20.6km s-min=9.8km az=174.4*

*MOS **08** 12:05:35.9±0.9, 9.03N×39.65W, h10^{km}, mb5.1/16, Error ellipse: s-maj=15.5km s-min=11.7km az=134.9*

*NEIC **08** 12:05:35.9±0.6, 8.76N×39.42W, h10^{km}, mb5.0/24, Error ellipse: s-maj=18.2km s-min=9.2km az=180.0*

ISC 08 12:05:36.7±0.7, **8.8N**±0.1×**39.50W**±0.07, **h10^{km}, n89, σ0$\overset{s}{.}$97**/82, **mb5.0**/29, **MS4.8**/3, **9C, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SDDR	**Presa de Saban**	32.41	292	P	P	12 12 05.3	-1.8
ROSC	**El Rosal**	34.79	266	*e*P	P	12 12 28.5	+0.6
ROSC				*e*		12 12 34.5	
LPAZ	**La Paz**	37.74	229	*e*P	P	12 12 53.7	+0.7
TOA0	**Torodi Ar. Sit**	40.64	80	P	P	12 13 14.3	-3.0
WVT	**Waverly**	51.59	309	*e*P	P	12 14 43.0	-0.4
WVT				*e*		12 14 48.9	
SIUC	**Southern Illin**	53.17	311	*e*P	P	12 14 54.7	-0.3
	36nm,0.8s,mb5.3						
SIUC				*e*		12 15 01.0	
FVM	**French Village**	54.16	311	*e*P	P	12 15 01.7	-0.6
	8.4nm,0.6s,mb4.8						
FVM				*e*		12 15 08.1	
FVM	**French Village**	54.16	311	*e*P	P	12 15 01.7	-0.6
FVM				*e*		12 15 08.1	
FVM				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
NATX	**Nacogdoches**	55.90	302	*e*P	P	12 15 15.1	+0.1
	comp=Z,52nm,1.3s,mb5.4						
BFO	**Black Forest**	56.22	37	*e*P	P	12 15 16.3	-0.7
	comp=Z,14nm,1.2s,mb4.9						
BFO				*e*		12 15 27.2	
BFO	**Black Forest**	56.22	37	*e*P	P	12 15 16.3	-0.7
BFO				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.9						
FETA	**Feichten**	57.08	39	⇑*i*P	P	12 15 19.2	-3.9
	comp=Z,10nm,1.4s,mb4.7						
RETA	**Reutte**	57.30	38	⇑*i*P	P	12 15 25.2	+0.5
	comp=Z,18nm,1.3s,mb5.0						
WTTA	**Wattenberg**	57.74	39	⇑*i*P	P	12 15 28.2	+0.4
	comp=Z,16nm,1.1s,mb5.0						
WTTA	**Wattenberg**	57.74	39	⇑*i*P	P	12 15 28.2	+0.4
WTTA				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.0						
KBA	**Koelnbreinsper**	58.73	40	⇑*i*P	P	12 15 36.2	+1.4
	comp=Z,28nm,1.6s,mb5.0						
KBA	**Koelnbreinsper**	58.73	40	⇑*i*pP	pP	12 15 36.2	-1.8
	comp=Z,28nm,1.6s						
KBA	**Koelnbreinsper**	58.73	40	⇑*i*P	P	12 15 36.2	+1.4
KBA				pmax	pmax		
	comp=Z,28nm,1.6s,mb5.0						
KSU1	**Kansas State U**	59.12	310	*e*P	P	12 15 35.5	-2.1
	comp=Z,16nm,0.8s,mb5.1						
OBKA	**Obir**	59.29	41	⇑*i*P	P	12 15 35.1	-3.5
	comp=Z,20nm,1.4s,mb5.0						
OBKA	**Obir**	59.29	41	⇑*i*P	P	12 15 35.1	-3.5
	comp=Z,20nm,1.4s,mb5.0						
KHC	**Kasperske Hory**	59.69	37	*e*P	P	12 15 41.1	-0.2
WMOK	**Wichita Mounta**	59.86	305	*e*P	P	12 15 41.2	-1.6
	comp=Z,3.2nm,0.6s,mb4.5						
WMOK	**Wichita Mounta**	59.86	305	*e*P	P	12 15 41.2	-1.6
WMOK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
JCT	**Junction City**	60.03	300	*e*P	P	12 15 43.4	-0.7
JCT				*e*		12 15 48.4	
CLL	**Collm**	60.26	35	*e*S	S	12 24 09.0	+10
CLL				*e*SSS		12 30 39.0	
CLL				Lm		12 39 00.0	
	comp=N,100nm,19.5s						
CLL				Lm		12 39 00.0	
	comp=E,300nm,18.7s						
CLL				Lm		12 39 00.0	
	comp=Z,300nm,20.1s						
LTX	**Lajitas**	63.24	298	P	P	12 16 04.3	-1.5
	comp=Z,4.5nm,0.8s,mb4.7						
LTX	**Lajitas**	63.24	298	P	P	12 16 04.3	-1.4
LTX				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
MNTX	**Cornudas Mount**	64.92	301	*e*P	P	12 16 15.8	-1.0
MNTX				*e*		12 16 21.7	
SDCO	**Great Sand Dun**	65.70	307	*e*P	P	12 16 21.3	-0.4
SDCO				*e*		12 16 28.1	
ISCO	**Idaho Springs**	66.09	310	*e*P	P	12 16 24.6	+0.4
	comp=Z,12nm,1.6s,mb4.7						
ISCO				*e*		12 16 30.4	
ISCO	**Idaho Springs**	66.09	310	*e*P	P	12 16 24.6	+0.5
ISCO				*e*		12 16 30.4	
ISCO				pmax	pmax		
	comp=Z,12nm,1.6s,mb4.7						
ANMO	**Albuquerque**	66.14	304	*e*P	P	12 16 23.9	-0.7
	comp=Z,46nm,2.2s,mb5.1						
ANMO	**Albuquerque**	66.14	304	*e*P	P	12 16 23.9	-0.7
ANMO				pmax	pmax		
	comp=Z,46nm,2.2s						
LAZ	**Ladron**	66.64	304	*e*P	P	12 16 28.0	+0.2
LAZ				*e*		12 16 35.0	
FFC	**Flin Flon**	67.11	326	*e*P	P	12 16 30.2	-0.2
	comp=Z,31nm,1.2s,mb5.2						
FFC	**Flin Flon**	67.11	326	*e*P	P	12 16 30.2	-0.2
FFC				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.2						
MVCO	**Mesa Verde**	68.01	307	*e*P	P	12 16 37.2	+0.7
	comp=Z,39nm,1.7s,mb5.2						
PV01	**Paradox Valley**	68.16	307	*e*P	P	12 16 38.5	+1.1
SRU	**San Rafael**	69.78	308	*e*P	P	12 16 48.0	+0.6
AKASG	**Malin Array Be**	69.79	39	*i* P	P	12 16 47.9	+0.7
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
GCMT	**Greycliff**	69.92	316	*e*P	P	12 16 48.6	+0.5
WUAZ	**Wupatki**	70.19	305	*e*P	P	12 16 51.6	+1.6
WUAZ				*e*		12 16 57.2	
LKWY	**Lake**	70.27	314	*e*P	P	12 16 51.3	+1.0
EGMT	**Eagleton**	70.31	318	*e*P	P	12 16 49.1	-1.4
	comp=Z,6.7nm,1.1s,mb4.5						
IMW	**Indian Meadow**	70.57	313	*e*P	P	12 16 52.5	+0.3
	comp=Z,13nm,1.0s,mb4.8						
YMR	**Madison River**	70.68	314	*e*P	P	12 16 53.6	+0.7
	comp=Z,82nm,1.4s,mb5.5						
DCID1	**Drake Creek**	70.72	313	*e*P	P	12 16 52.4	-0.6
HWUT	**Hardware Ranch**	70.80	311	*e*P	P	12 16 52.8	-0.8
QLMT	**Earthquake Lak**	71.03	314	*e*P	P	12 16 56.8	+1.8
LSZ	**Lusaka**	71.20	109	P	P	12 16 54.5	-2.0
	comp=Z,7.8nm,1.2s,mb4.5						
LSZ	**Lusaka**	71.20	109	P	P	12 16 54.5	-2.0
LSZ				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
BOZ	**Bozeman (W)**	71.26	315	*e*P	P	12 16 55.7	-0.7
BOZ				*e*		12 17 02.3	
SPUT	**South Promonto**	71.43	311	P	P	12 16 59.6	+2.1
DUG	**Dugway**	71.62	309	*e*P	P	12 16 59.1	+0.4
BGU	**Big Grassy Mou**	71.84	310	*e*P	P	12 17 00.4	+0.5
DLMT	**Dillon**	71.91	315	P	P	12 17 00.5	+0.3
	comp=Z,21nm,1.0s,mb5.0						
ARUT	**Antelope Range**	71.97	307	*e*P	P	12 17 01.6	+0.8
MCMT	**McKenzie Canyo**	72.03	314	*e*P	P	12 17 00.9	-0.1
CHMT	**Chamberlain Mo**	72.52	316	*e*P	P	12 17 03.9	+0.1
RES	**Resolute Bay**	72.79	347	*e*P	P	12 17 04.9	-0.1
	comp=Z,375nm,1.1s						
RES	**Resolute Bay**	72.79	347	*e*P	P	12 17 04.9	-0.1
RES				pmax	pmax		
	comp=Z,375nm,1.1s						
HLID	**Hailey**	73.05	313	*e*P	P	12 17 07.3	+0.2
WALA	**Waterton Lakes**	73.18	319	*e*P	P	12 17 07.2	-0.6
	comp=Z,19nm,1.3s,mb4.9						
WALA				*e*		12 17 13.0	
EDM	**Edmonton**	73.33	323	*e*P	P	12 17 07.7	-0.8
EDM				*e*		12 17 13.7	
ANN	**Anapa**	74.58	46	*e*P	P	12 17 24.0	+8.0
ANN				pmax	pmax		
	comp=Z,143nm,1.3s,mb5.7						
MALT	**Malatya**	75.14	53	*e*P	P	12 17 20.4	+1.0
	comp=Z,42nm,1.9s,mb5.0						
MALT				*e*		12 17 32.1	
MALT	**Malatya**	75.14	53	*e*P	P	12 17 20.4	+1.0
MALT				*e*		12 17 32.1	
MALT				pmax	pmax		
	comp=Z,42nm,1.9s,mb5.0						
NEW	**Newport**	75.24	318	*e*P	P	12 17 19.1	-0.7
	comp=Z,15nm,1.1s,mb4.8						
NEW	**Newport**	75.24	318	*e*P	P	12 17 19.1	-0.7
NEW				pmax	pmax		
	comp=Z,15nm,1.1s						
DAC	**Darwin (Calif)**	75.26	305	*e*P	P	12 17 21.3	+1.2
	comp=Z,8.6nm,1.1s,mb4.6						
DAC				*e*		12 17 27.4	
DAC	**Darwin (Calif)**	75.26	305	*e*P	P	12 17 21.3	+1.2
DAC				*e*		12 17 27.4	
DAC				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
SOC	**Sochi**	76.18	47	*e*P	P	12 17 28.6	+3.3
SOC				*e*PPP		12 22 02.3	
SOC				*e*S	S	12 27 01.1	-8.4
SOC				*e*		12 27 39.7	
SOC				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
MOD	**Modoc**	77.34	311	*e*P	P	12 17 32.4	+0.6
MOD				*e*		12 17 37.9	
LRV	**Little Rabbit**	78.02	305	*e*P	P	12 17 36.7	+0.9
LRV				*e*		12 17 42.7	
OHCM	**Honcut**	78.29	308	*e*P	P	12 17 37.6	+0.4
KIV	**Kislovodsk**	78.33	47	*e*P	P	12 17 43.2	+5.9
KIV				*e*S	S	12 27 27.6	-5.3
KIV				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
GOF	**Gofitskoye**	78.56	46	*e*P	P	12 17 31.5	-7.1
DLBC	**Dease Lake**	82.84	328	*e*P	P	12 18 01.5	+0.3
DLBC				*e*		12 18 07.4	
INK	**Inuvik**	83.37	338	*e*P	P	12 18 03.2	-0.5
INK				*e*		12 18 09.8	
DAWY	**Dawson**	86.44	334	*e*P	P	12 18 18.8	-0.5
DAWY				*e*		12 18 25.4	
COLA	**College**	89.73	336	*e*P	P	12 18 34.2	-0.8
	comp=Z,7.2nm,1.0s,mb5.0						
COLA	**College**	89.73	336	*e*P	P	12 18 34.2	-0.7
COLA				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
LZH	**Lanzhou**	123.58	35	*e*PKP	PKPdf	12 24 34.8	-0.2
LZH				pPKP	pPKPdf	12 24 38.0	-0.4
LZH				sPKP		12 24 40.3	
LZH				PP	PP	12 26 10.5	-5.4
LZH				SKKS	SKKSac	12 32 58.5	-17
LZH				SS	SS	12 42 39.8	-23
LZH				LR	LR		
	comp=Z,310nm,18.2s,MS5.0						
LZH	**Lanzhou**	123.58	35	*e*PKIKP	PKPdf	12 24 34.8	-0.2
LZH						12 24 38.0	
LZH						12 24 40.3	
LZH				MLR	MLR		
	comp=Z,310nm,18.2s,MS5.0						
BJI	**Beijing**	126.44	23	PKP	PKPdf	12 24 40.2	-0.2
BJI				LR	LR		
	comp=Z,110nm,17.9s,MS4.6						
BJI	**Beijing**	126.44	23	PKIKP	PKPdf	12 24 40.2	-0.2
BJI				MLR	MLR		
	comp=Z,110nm,17.9s,MS4.6						
KMI	**Kunming**	130.10	47	PKP	PKPdf	12 24 51.3	+3.5
KMI				sPKP		12 25 01.9	
KMI				PP	PP	12 27 00.2	+0.6
KMI				SS	SS	12 44 13.8	-12
KMI				SSS		12 49 02.6	
KMI				LR	LR		
	comp=Z,200nm,16.7s,MS4.9						
KMI	**Kunming**	130.10	47	PKIKP	PKPdf	12 24 51.3	+3.5
KMI						12 27 00.2	
KMI				MLR	MLR		
	comp=Z,200nm,16.7s,MS4.9						

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*HLW **08** 12:14:47.9, 29.83N×36.75E, h21^{km}, Mb3.0*

*ISCJB **08** 12:14:48.5±1.2, 29.85N±0.05×36.31E±0.09, h0^{km}, Error ellipse: s-maj=11.1km s-min=5.9km az=16.9*

*CSEM **08** 12:14:49.7±0.2, 29.80N×36.25E, h2^{km}, ML2.3, Error ellipse: s-maj=4.3km s-min=2.1km az=105.0, Mining explosion.*

*SGS **08** 12:14:50.6, 29.94N×36.22E, h6^{km}*

*GII **08** 12:14:51.1±0.7, 29.96N×36.14E, h0^{km}±8^{km}*

ISC 08 12:14:48.5±1.1, **29.85N**±0.05×**36.36E**±0.08, **h0^{km}, n24, σ0$\overset{s}{.}$51**/30, **5D, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AQBJ	**Aqaba**	1.14	264	Pg	Pg	12 15 10.5	+0.1
EIL	**Elat**	1.24	262	Pg	Pg	12 15 12.0	-0.2
EIL				Sg	Sg	12 15 28.9	+0.7
EIL	**Elat**	1.24	262	Pg	Pg	12 15 12.0	-0.2
EIL				Sg	Sg	12 15 28.9	+0.7
ZFRI	**Zfri**	1.24	305	Pg	Pg	12 15 11.1	-1.2
ZFRI	**Zfri**	1.24	305	Pg	Pg	12 15 11.1	-1.2
HQLS		1.25	245	P	Pg	12 15 12.1	-0.4
HQLS				S	Sg	12 15 28.0	-0.7
HQLS		1.25	245	S	Sg	12 15 28.0	-0.8
HQLS		1.25	245	P	Pg	12 15 12.1	-0.4
JLOS		1.34	215	P	Pg	12 15 14.4	+0.2
JLOS				S	Sg	12 15 32.0	+0.5
JLOS		1.34	215	P	Pg	12 15 14.4	+0.3
HBST	**Basata**	1.55	247	⇓P	Pn	12 15 17.1	-0.2
MZDA	**Masada**	1.69	330	Pn	Pn	12 15 19.3	0.0
MZDA	**Masada**	1.69	330	Pn	Pn	12 15 19.3	0.0
SVTA	**Shivta**	1.85	306	Pn	Pn	12 15 21.4	0.0
SVTA	**Shivta**	1.85	306	Pn	Pn	12 15 21.4	-0.1
HDHB	**Dhahab**	1.89	234	P	Pn	12 15 21.5	-0.4
DRGI	**Dragot**	1.93	335	Pn	Pn	12 15 22.9	+0.3
DRGI	**Dragot**	1.93	335	Pn	Pn	12 15 22.8	+0.2
RSHS		2.06	222	P	Pn	12 15 23.6	-0.7
RSHS				S	Sn	12 15 50.5	-0.2
RSHS		2.06	222	P	Pn	12 15 23.6	-0.7
HNKL	**Nakhl**	2.07	273	⇓P	Pn	12 15 25.1	+0.7
HKAT	**Jabal Katrina**	2.45	238	⇓P	Pn	12 15 29.9	+0.1
HKAT				S	Sn	12 16 00.6	+0.2
AMAG	**Maghara**	2.84	287	⇓P	Pn	12 15 35.7	+0.7
SUZ		3.06	271	⇓P	Pn	12 15 38.8	+0.7

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*MOS **08** 12:31:21.4±1.2, 22.00N×143.65E, h61^{km}, mb4.9/31, Error ellipse: s-maj=11.2km s-min=6.3km az=94.2*

*BJI **08** 12:31:26.7, 21.90N×143.91E, h125^{km}, mB4.9, mb4.7*

*NEIC **08** 12:31:28.2±0.2, 22.12N×143.68E, mb4.6/46, Error ellipse: s-maj=6.5km s-min=5.7km az=54.0*

*ISCJB **08** 12:31:28.2±0.9, 22.18N±0.04×143.62E±0.04, h113^{km}±7^{km}, mb4.6/82, Error ellipse: s-maj=7.2km s-min=6.0km az=5.4*

*IDC **08** 12:31:28.1±0.8, 22.08N×143.60E, h110^{km}±6^{km}, mb4.1/20, mb1 4.3/23, mb1mx4.2/28, mbtmp4.2/23, MS3.1/4, Ms1 3.1/4, ms1mx2.6/33, Error ellipse: s-maj=17.2km s-min=10.8km az=81.0*

*JMA **08** 12:31:30.7±0.3, 22.51N×144.16E, h130^{km}±4^{km}, M5.0*

ISC 08 12:31:29.2±0.8, **22.17N**±0.04×**143.68E**±0.04, **h109^{km}**±6^{km}, **h109^{km}**±2.0^{km}**:pP-P, n427, σ0$\overset{s}{.}$66**/435, **mb4.6**/82, **107C-84D, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHHJ	**Haha-jima-NKT**	4.64	343	P	Pn	12 32 37.9	+0.8
JHHJ				*e*S	Sn	12 33 29.8	-0.2
CBIJ	**Chichi jima**	5.09	345	P	Pn	12 32 43.1	0.0
CBIJ				*e*S	Sn	12 33 39.2	-1.5
CBIJ	**Chichi jima**	5.09	345	P	Pn	12 32 43.2	+0.1
	203nm,0.3s,baz=164,slow=2.7,SNR=110						
CBIJ				S	Sn	12 33 39.5	-1.2
	37nm,0.3s,baz=284,slow=23,SNR=6.6						
CBIJ				LR	LR	12 34 09.7	
	comp=Z,69nm,19.6s,baz=152,slow=31						
GUMO	**Guam**	8.61	172	*e*Pn	Pn	12 33 32.1	+1.0
GUMO	**Guam**	8.61	172	P	Pn	12 33 32.5	+1.5
GUMO				pmax	pmax		
	comp=Z,5.0nm,0.3s						
GUMO	**Guam**	8.61	172	P	Pn	12 33 32.5	+1.5
	comp=Z,5.4nm,0.3s,baz=196,slow=1.8,SNR=7.8						

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JHJ   Hachijo jima 2     11.44 343   P      Pn        12 34 09.9 +0.9
      comp=Z,9.7nm,0.3s,baz=146,slow=3.6,SNR=3.3
JHJ                                  LR     LR        12 38 32.9
      comp=Z,68nm,18.0s,baz=119,slow=37
JMZ   Minamidaito 2      11.95 290   P      Pn        12 34 21.3 +5.3
BSO1  Boso 1             12.66 350   P      Pn        12 34 26.1 +0.9
BSO3  Boso 3             12.88 348   P      Pn        12 34 27.3 -0.9
BSO4  Boso 4             13.10 348   P      Pn        12 34 30.8 -0.2
JIE   Ise                13.63 335   P      Pn        12 34 38.9 +1.0
JOD2  Odawara 2          13.65 344   P      Pn        12 34 36.7 -1.4
JKN2  Miekihoku          13.67 333   P      Pn        12 34 39.1 +0.6
JNY   Yasuok             14.09 340   P      Pn        12 34 42.8 -1.0
JHU   Hanno              14.16 345   P      Pn        12 34 42.7 -2.0
JHU                                 eS      Sn        12 37 13.2 -7.6
JAO   Obara              14.20 338   P      Pn        12 34 44.9 -0.4
JRY   Ryogami san        14.41 344   P      Pn        12 34 46.2 -1.7
JRY                                 eS      Sn        12 37 19.9 -6.9
JHO   Hitachi            14.64 350   P      Pn        12 34 49.8 -1.0
JOW   Kunigami           14.77 291   P      Pn        12 34 58.0 +5.4
JOW   Kunigami           14.77 291   P      Pn        12 34 55.5 +3.0
      comp=Z,2.6nm,0.3s,baz=116,slow=12,SNR=9.1
MJAR  Matsushiro Arr     15.09 343   P      Pn        12 34 54.7 -1.8
      comp=Z,1.5nm,0.3s,baz=160,slow=11,SNR=22
MAJO  Matsushiro         15.09 343  eP      Pn        12 34 55.3 -1.2
      comp=Z,49nm,0.9s
MAJO  Matsushiro         15.09 343  eP      Pn        12 34 55.3 -1.2
MAJO                                 pmax   pmax
      comp=Z,49nm,0.9s
MAT   Matsushiro         15.09 343   P      Pn        12 34 54.8 -1.7
MAT   Matsushiro         15.09 343   P      Pn        12 34 55.4 -1.1
JFK   Kawauchi           15.33 352   P      Pn        12 35 00.3 +0.7
JNU   Nakatsue           15.72 317   P      Pn        12 35 07.1 +2.6
      comp=Z,0.4nm,0.3s,baz=154,slow=36,SNR=4.2
JHS   Saijyo             15.78 326   P      Pn        12 35 08.8 +3.6
JMK   Ichinoseki         16.86 353   P      Pn        12 35 19.0 +0.6
KSRS  Korea Array        20.42 322   P      P         12 35 57.7 +0.1
KSRS                                 pmax   pmax
      comp=Z,17nm,0.5s
KSRS  Korea Array        20.42 322   P      P         12 35 57.6  0.0
      comp=Z,17nm,0.5s,baz=146,slow=8.7,SNR=53
KS15  Wonju Array Si     20.43 322  eP      P         12 35 58.6 +0.8
ASAJ  Asahikawa          21.90 358   P      P         12 36 14.9 +1.5
ASAJ                                 pmax   pmax
      comp=Z,5.0nm,0.5s
ASAJ                                 MLR    MLR
      comp=Z,54nm,19.5s
ASAJ  Asahikawa          21.90 358   P      P         12 36 14.9 +1.5
      comp=Z,5.2nm,0.5s,mb4.1,baz=147,slow=17,SNR=9.4
ASAJ                                 LR     LR        12 44 30.4
      comp=Z,54nm,19.4s,baz=205,slow=36
VLA   Vladivostok        23.08 338  eP      P         12 36 25.9 +0.6
VLA                                  pmax   pmax
      comp=Z,94nm,0.9s,mb5.1
NJ2   Nanjing            24.14 299  eP      P         12 36 36.4 +1.3
NJ2                                  AMB    AMB
      comp=Z,40nm,1.0s,mb4.7
YSS   Yuzh-Sakhalins     24.73 358  eP      P         12 36 41.4 +1.1
      comp=Z,20nm,0.8s,mb4.6
YSS   Yuzh-Sakhalins     24.73 358  eP      P         12 36 41.3 +1.0
YSS                                  pmax   pmax
      comp=Z,41nm,1.8s,mb4.6
DL2   Dalian             25.17 316   P      P         12 36 45.8 +1.4
DL2                                  AMB    AMB
      comp=Z,30nm,0.7s,mb4.8
MDJ   Mudanjiang         25.21 336   P      P         12 36 45.9 +1.2
MDJ                                  PCS    PcS       12 43 56.0 +0.2
MDJ                                  AMB    AMB
      comp=Z,5.0nm,1.2s,mb3.8
MDJ                                  AMB    AMB
      comp=Z,50nm,4.1s
MDJ                                  LR     LR
      comp=N,68nm,5.3s
MDJ                                  LR     LR
      comp=E,75nm,5.1s
MDJ                                  LR     LR
      comp=Z,98nm,6.0s
SNY   Shenyang           25.86 324 ⇑P       P         12 36 51.9 +1.3
SNY                                  AMB    AMB
      comp=Z,36nm,0.6s,mb5.0
WHN   Wuhan              27.51 294   P      P         12 37 06.3 +0.8
KLR   Kul'dur            28.61 344  eP      P         12 37 12.8 -2.3
HHC   Hu-ho-hao-te       32.85 312  eP      P         12 37 54.6 +2.1
HHC                                  PP     PP        12 39 05.4 -3.4
HHC                                  S      S         12 43 11.7  +10
HHC                                  PCS    PcS       12 44 20.7 +0.5
HHC                                  AMB    AMB
      comp=Z,8.0nm,0.6s,mb4.7
HHC                                  AMB    AMB
      comp=Z,117nm,5.3s
HHC                                  LR     LR
      comp=N,186nm,14.3s
HHC                                  LR     LR
      comp=E,145nm,14.3s
HHC                                  LR     LR
      comp=Z,182nm,14.9s
PET   Petropavlovsk      32.87  17  eP      P         12 37 53.2 +0.7
      comp=Z,18nm,0.6s,mb5.1
PET   Petropavlovsk      32.87  17  eP      P         12 37 53.9 +1.4
PET                                  pmax   pmax
      comp=Z,24nm,0.6s,mb5.2
GYA   Guiyang            33.92 285⇑iP       P         12 38 03.2 +1.2
GYA                                  PP     PP        12 39 18.4 -2.5
GYA                                  PCP    PcP       12 40 39.9 +1.7
GYA                                  S      S         12 43 27.5 +8.6
GYA                                  PCS    PcS       12 44 25.8 +1.3
GYA                                  SS     SS        12 45 36.0  -14
GYA                                  AMB    AMB
      comp=Z,20nm,1.0s,mb4.9
GYA                                  AMB    AMB
      comp=Z,110nm,4.9s
GYA                                  LR     LR
      comp=N,1µm,16.6s
GYA                                  LR     LR
      comp=E,860nm,18.5s
GYA                                  LR     LR
      comp=Z,2µm,15.9s
CD2   Chengdu            36.60 292  eP      P         12 38 25.0 +0.1
CD2                                  PP     PP        12 39 51.5 +1.2
CD2                                  S      S         12 44 08.5 +8.6
CD2                                  SS     SS        12 46 38.3 -4.5
CD2                                  AMB    AMB
      comp=Z,20nm,1.0s,mb5.0
CD2                                  AMB    AMB
      comp=Z,50nm,5.8s
CD2                                  LR     LR
      comp=N,230nm,19.8s
CD2                                  LR     LR
      comp=E,130nm,12.0s
CD2                                  LR     LR
      comp=Z,100nm,14.4s
LZH   Lanzhou            37.19 301  eP      P         12 38 31.0 +1.1
LZH                                  PP     PP        12 39 59.0 +2.2
LZH                                 eS      S         12 44 18.0 +9.3
LZH                                  SS     SS        12 46 51.0 -5.0
LZH                                  AMB    AMB
      comp=Z,27nm,1.4s,mb5.0
LZH                                  AMB    AMB
      comp=Z,120nm,4.6s
LZH                                  LR     LR
      comp=E,475nm,14.5s
LZH                                  LR     LR
      comp=Z,680nm,15.3s
LZH   Lanzhou            37.19 301  eP      P         12 38 31.0 +1.1
      comp=Z,27nm,1.4s,mb5.0
LZH                                  pP     pP        12 38 36.6  -18
LZH                                  sP     sP        12 38 39.5  -27
LZH                                  PP     PP        12 39 59.0 +2.2
LZH                                 eS      S         12 44 18.0 +9.3
LZH                                  sS     sS        12 44 28.0  -23
LZH                                  SS     SS        12 46 51.0 -5.0
LZH                                  LR     LR
      comp=Z,680nm,15.3s
LZH   Lanzhou            37.19 301  eP      P         12 38 31.0 +1.1
LZH                                                   12 39 59.0
LZH                                 eS      S         12 44 18.0 +9.3
LZH                                  SS     SS        12 46 51.0 -5.0
LZH                                  pmax   pmax
      comp=Z,27nm,1.4s,mb5.0
LZH                                  MLR    MLR
      comp=Z,680nm,15.3s
KMI   Kunming            37.52 283   P      P         12 38 32.4 -0.4
KMI                                  PP     PP        12 40 02.3 +1.8
KMI                                  SS     SS        12 46 56.0 -6.8
KMI                                  AMB    AMB
      comp=Z,4.0nm,1.1s,mb4.2
KMI                                  AMB    AMB
      comp=Z,43nm,4.2s
KMI                                  LR     LR
      comp=N,105nm,14.4s
KMI                                  LR     LR
      comp=E,84nm,20.1s
KMI                                  LR     LR
      comp=Z,66nm,19.7s
KMI   Kunming            37.52 283   P      P         12 38 32.4 -0.4
      comp=Z,4.0nm,1.1s,mb4.2
KMI                                  pP     pP        12 38 38.6  -19
KMI                                  sP     sP        12 38 41.8  -28
KMI                                  PP     PP        12 40 02.3 +1.8
KMI                                  S      S         12 44 23.1 +9.2
KMI                                  sS     sS        12 44 32.3  -24
KMI                                  SS     SS        12 46 56.0 -6.8
KMI                                  SSS              12 47 29.2
KMI                                  LR     LR
      comp=Z,70nm,19.7s
KMI   Kunming            37.52 283   P      P         12 38 32.4 -0.4
KMI                                                   12 40 02.3
KMI                                  S      S         12 44 23.1 +9.2
KMI                                  SS     SS        12 46 56.0 -6.8
KMI                                  SSS              12 47 29.2
KMI                                  pmax   pmax
      comp=Z,4.0nm,1.1s,mb4.2
KMI                                  MLR    MLR
      comp=Z,70nm,19.7s
MA2   Magadan            37.71   6  eP      P         12 38 34.5 +0.6
      comp=Z,7.8nm,0.8s,mb4.6
MA2   Magadan            37.71   6  eP      P         12 38 34.6 +0.8
MA2                                  pmax   pmax
      comp=Z,10.0nm,0.7s,mb4.8
ULN   Ulaanbaatar        38.89 320  eP      P         12 38 44.5 +0.5
      comp=Z,4.4nm,0.6s,mb4.5
ULN   Ulaanbaatar        38.89 320  eP      P         12 38 44.5 +0.5
ULN                                  pmax   pmax
      comp=Z,4.0nm,0.6s,mb4.4
SONM  Songino Array      39.27 320   P      P         12 38 46.9 -0.2
      comp=Z,3.6nm,0.5s,mb4.5,baz=135,slow=8.0,SNR=36
SONM                                 pP     pP        12 39 10.2 -1.6
      comp=Z,1.0nm,0.6s,baz=137,slow=8.1,SNR=2.1
GTA   Gaotai             40.98 305  eP      P         12 39 02.8 +1.5
GTA                                  PCP    PcP       12 41 02.1 +2.6
GTA                                  S      S         12 45 15.3  +10
GTA                                  SS     SS        12 48 14.6 +3.2
GTA                                  AMB    AMB
      comp=Z,5.0nm,0.9s,mb4.3
GTA                                  AMB    AMB
      comp=Z,35nm,5.7s
GTA                                  LR     LR
      comp=N,201nm,6.9s
GTA                                  LR     LR
      comp=E,113nm,7.3s
GTA                                  LR     LR
      comp=Z,120nm,6.1s
YAK   Yakutsk            40.98 350  eP      P         12 39 00.8 -0.2
      comp=Z,15nm,0.6s,mb5.0
YAK   Yakutsk            40.98 350  eP      P         12 39 01.1 +0.1
YAK                                 eS      S         12 45 02.2 -2.6
YAK                                  pmax   pmax
      comp=Z,12nm,0.9s,mb4.7
YAK                                  smax
      comp=N,35nm,1.5s
YAK                                  smax
      comp=E,83nm,4.8s
YAK                                  smax
      comp=E,2.0nm,0.8s
YAK                                  smax
      comp=N,3.0nm,1.0s
YAK                                  smax
      comp=E,17nm,0.9s
YAK                                  smax
      comp=N,6.0nm,1.1s
YAK                                  smax
      comp=Z,6.0nm,1.1s
SEY   Seymchan           41.16   6⇑iP       P         12 39 03.6 +1.1
CM31  Chiang Mai Arr     42.01 273  eP      P         12 39 17.9 +7.9
CTA   Charters Tower     42.08 176   P      P         12 39 08.6 -1.8
      comp=Z,3.6nm,0.6s,mb4.3,baz=13,slow=14,SNR=3.6
ZAK   Zakamensk          42.25 322⇑iP       P         12 39 11.7 +0.1
ZAK                                  pmax   pmax
      comp=Z,3.0nm,1.0s,mb4.0
WRA   Warramunga Arr     42.84 193  i P     P         12 39 15.3 -1.3
WRA                                  pmax   pmax
      comp=Z,1.0nm,0.5s
WRA   Warramunga Arr     42.84 193   P      P         12 39 14.7 -1.9
      comp=Z,1.4nm,0.5s,mb4.0,baz=15,slow=9.2,SNR=39
WRA                                  ScP    ScP       12 44 44.0 -3.0
      comp=Z,2.3nm,0.8s,baz=9.2,slow=4.4,SNR=9.9
WRA                                  LR     LR        12 55 22.8
      comp=Z,53nm,18.1s,baz=50,slow=34
FITZ  Fitzroy Crossi     43.75 205   P      P         12 39 22.2 -1.7
      comp=Z,2.4nm,0.6s,mb4.1,baz=46,slow=13,SNR=6.5
LSA   Lhasa              47.50 291  eP      P         12 39 55.2 +1.7
      comp=Z,3.6nm,0.6s,mb4.3
LSA   Lhasa              47.50 291  eP      P         12 39 55.2 +1.7
LSA                                  pmax   pmax
      comp=Z,4.0nm,0.6s,mb4.3
BILL  Bilibino           47.97  11  eP      P         12 39 56.8 +0.3
      comp=Z,3.7nm,0.4s,mb4.6
BILL  Bilibino           47.97  11⇑eP       P         12 39 56.5  0.0
BILL                                 pmax   pmax
      comp=Z,5.0nm,0.8s,mb4.4
DZM   Mont Dzumac        49.26 152   P      P         12 40 06.3 -0.7
      comp=Z,7.9nm,1.0s,mb4.6,baz=254,slow=6.4,SNR=5.7
TIXI  Tiksi              50.23 354  eP      P         12 40 13.3 -0.4
      comp=Z,3.5nm,0.6s,mb4.5
TIXI  Tiksi              50.23 354  eP      P         12 40 13.2 -0.5
TIXI                                 pmax   pmax
      comp=Z,7.0nm,1.2s,mb4.5
WMQ   Urumqi             50.64 309  eP      P         12 40 19.3 +2.1
WMQ                                  AMB    AMB
      comp=Z,7.0nm,0.6s,mb4.9
WMQ                                  LR     LR
      comp=N,172nm,19.0s
WMQ                                  LR     LR
      comp=E,163nm,17.8s
WMQ                                  LR     LR
      comp=Z,143nm,19.0s
TAPN  Taplejung          50.74 288  eP      P         12 40 18.1 -0.1
      comp=Z,7.4nm,0.6s,mb4.9
GAMB  Gambell            51.00  24  eP      P         12 40 20.2 +0.7
ODAN  Odare              51.08 287  eP      P         12 40 20.6 -0.2
      comp=Z,14nm,0.7s,mb5.1
JIRN  Jiri               52.04 288  eP      P         12 40 28.1 +0.2
GUN   Gumba              52.28 289  eP      P         12 40 29.5 -0.2
      comp=Z,12nm,0.5s,mb5.2
SDPT  Sand Point         52.75  36  eP      P         12 40 31.8 -0.9
      comp=Z,56nm,0.7s,mb5.7
KKN   Kakani             52.82 289  eP      P         12 40 33.7  0.0
TNA   Tin City           53.33  23  eP      P         12 40 36.7 -0.1
      comp=Z,4.0nm,0.8s,mb4.5
GKN   Gorkha             53.35 289  eP      P         12 40 36.9 -0.7
STKA  Stephens Creek     53.78 182   P      P         12 40 39.0 -1.5
      comp=Z,1.9nm,0.7s,mb4.2,baz=356,slow=19,SNR=3.8
ZALV  Zalesovo Beam      54.13 321   P      P         12 40 42.2 -0.6
ZALV                                 pP     pP        12 41 08.7 -0.1
ZALV                                 PcP    PcP       12 41 43.8 -2.3
ZALV  Zalesovo Beam      54.13 321   P      P         12 40 42.2 -0.6
      comp=Z,2.8nm,0.5s,mb4.6,baz=110,slow=8.1,SNR=24
ZALV                                 pP     pP        12 41 08.7 -0.1
      comp=Z,1.1nm,0.5s,baz=100,slow=6.1,SNR=2.5
ZALV                                 PcP    PcP       12 41 43.8 -2.3
      comp=Z,2.8nm,0.7s,baz=111,slow=3.4,SNR=4.8
ZAL   Zalesovo           54.14 321   P      P         12 40 42.2 -0.7
ZAL                                  *PP    pP        12 41 08.7 -0.2
ZAL                                                   12 41 43.8
KOLN  Koldanda           54.30 289  eP      P         12 40 43.0 -1.5
      comp=Z,12nm,0.9s,mb4.9
MK31  Makanchi Array     54.72 312  eP      P         12 40 46.9 -0.3
MKAR  Makanchi Array     54.72 312   P      P         12 40 46.9 -0.3
      comp=Z,2.2nm,0.5s,mb4.4,baz=89,slow=9.1,SNR=43
MKAR                                 pP     pP        12 41 12.2 -1.0
      comp=Z,1.6nm,0.7s,baz=88,slow=9.4,SNR=4.5
MKAR                                 PcP    PcP       12 41 47.6 -1.0
      comp=Z,1.2nm,0.5s,baz=96,slow=1.2,SNR=4.5
SVW2  Sparrevohn         56.76  30  eP      P         12 41 02.1 +0.5
KURK  Kurchatov          57.44 317  eP      P         12 41 06.1 -0.4
      comp=Z,2.9nm,0.6s,mb4.5
KURK  Kurchatov          57.44 317  eP      P         12 41 06.1 -0.4
KURK                                 pmax   pmax
      comp=Z,3.0nm,0.6s,mb4.5
KDAK  Kodiak Island      57.55  35   P      P         12 41 07.0 -0.1
      comp=Z,7.9nm,0.5s,mb5.0,baz=265,slow=4.2,SNR=23
PMR   Palmer             59.91  31  eP      P         12 41 22.2 -1.1
      comp=Z,7.8nm,0.7s,mb4.8
PMR   Palmer             59.91  31  eP      P         12 41 22.3 -1.1
PMR                                  pmax   pmax
      comp=Z,8.0nm,0.7s,mb4.9
SML   Sawmill            60.32  30  eP      P         12 41 25.6 -0.6
MCK   McKinley           60.35  28  eP      P         12 41 25.3 -1.1
      comp=Z,3.4nm,0.8s,mb4.4
MCK   McKinley           60.35  28  eP      P         12 41 25.3 -1.1
MCK                                  pmax   pmax
      comp=Z,3.0nm,0.8s,mb4.4
COLA  College            61.02  27  eP      P         12 41 30.1 -0.8
BRVK  Borovoye           62.67 319  eP      P         12 41 42.8 +0.6
      comp=Z,3.7nm,0.8s,mb4.4
BRVK  Borovoye           62.67 319  eP      P         12 41 42.8 +0.6
BRVK                                 pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.4
EGAK  Eagle              63.85  27  eP      P         12 41 48.7 -1.1
      comp=Z,4.0nm,0.7s,mb4.4
DAWY  Dawson             64.58  28  eP      P         12 41 54.5 -0.1
KBL   Kabul              65.51 299  eP      P         12 42 01.3 +0.2
INK   Inuvik             66.95  24  eP      P         12 42 09.3 -0.4
      comp=Z,375nm,0.9s
INK   Inuvik             66.95  24  eP      P         12 42 09.3 -0.4
INK                                  pmax   pmax
      comp=Z,375nm,0.9s
ARU   Arti               69.16 324   P      P         12 42 22.7 -1.0
      comp=Z,11nm,1.5s,mb4.5
ARU   Arti               69.16 324⇑iP       P         12 42 22.2 -1.5
ARU                                 ePPP              12 46 34.7
ARU                                 eS      S         12 51 17.0 -3.6
ARU                                  pmax   pmax
      comp=Z,5.0nm,1.3s,mb4.2
DLBC  Dease Lake         69.47  34  eP      P         12 42 26.0 +0.4
B04A  Port Angeles       75.66  44 ⇓P       P         12 43 02.8 +0.4
      baz=76
YKW3  Yellowknife Ar     75.79  28  eP      P         12 43 02.3 -0.6
YKA   Yellowknife Ar     75.82  28   P      P         12 43 02.5 -0.6
YKA                                  pmax   pmax
      comp=Z,4.0nm,0.4s
YKA   Yellowknife Ar     75.82  28   P      P         12 43 02.5 -0.5
      comp=Z,4.2nm,0.4s,mb4.5,baz=293,slow=5.8,SNR=77
B05A  Bryant             76.49  43 ⇑P       P         12 43 07.9 +0.7
      baz=76
RES   Resolute Bay       76.51  13  eP      P         12 43 06.6 -0.2
      comp=Z,184nm,0.8s
RES   Resolute Bay       76.51  13  eP      P         12 43 06.6 -0.2
RES                                  pmax   pmax
      comp=Z,184nm,0.8s
E04A  Onalaska           76.61  45 ⇑P       P         12 43 08.5 +0.6
      baz=76
B06A  Marblemount        76.80  43 ⇓P       P         12 43 09.0 +0.1
      baz=77
H03A  Soap Creek Ran     76.82  47 ⇑P       P         12 43 09.6 +0.5
      baz=77
D05A  Enumclaw           76.90  44 ⇓P       P         12 43 10.1 +0.7
      baz=77
C05A  Tolt Reservoir     76.93  44 ⇓P       P         12 43 09.7  0.0
      baz=77
F04A  Amboy              77.01  46 ⇑P       P         12 43 09.8 -0.4
      baz=77
J02A  Umpqua             77.03  48 ⇓P       P         12 43 10.6 +0.3
      baz=77
I03A  Eugene             77.05  48 ⇑P       P         12 43 10.7 +0.3
      baz=77
M01C  Crescent City      77.12  50 ⇑P       P         12 43 10.4 -0.4
      baz=77
G04A  Mulino             77.20  46 ⇑P       P         12 43 11.6 +0.4
      baz=77
C06A  Tall Timber Ra     77.37  43 ⇓P       P         12 43 12.0 -0.1
      baz=77
H04A  Detroit Lake       77.57  47 ⇓P       P         12 43 13.1 -0.1
      baz=77
D06A  Cle Elum           77.64  44 ⇑P       P         12 43 13.6  0.0
      baz=78
F05A  White Salmon       77.67  45 ⇓P       P         12 43 13.7 -0.1
      baz=78
B07A  Winthrop           77.68  43   P      P         12 43 14.1 +0.3
      baz=78,SNR=5.5
I04A  Tendick Farm,      77.70  48 ⇓P       P         12 43 13.5 -0.5
      baz=78
HUMO  Hull Mountain      77.70  49  eP      P         12 43 14.6 +0.5
      comp=Z,13nm,1.2s,mb4.5
HUMO  Hull Mountain      77.70  49 ⇓P       P         12 43 14.5 +0.4
      baz=78
E06A  Yakima             77.76  45 ⇑P       P         12 43 14.6 +0.3
      baz=78
C07A  Waterville         77.97  43 ⇑P       P         12 43 15.1 -0.3
      baz=78
J04A  Umpqua Nationa     78.09  48 ⇓P       P         12 43 16.2  0.0
      baz=78
YBH   Yreka Blue Hor     78.16  50  eP      P         12 43 16.9 +0.3
      comp=Z,5.7nm,0.7s,mb4.4
YBH   Yreka Blue Hor     78.16  50  eP      P         12 43 16.9 +0.3
YBH                                  pmax   pmax
      comp=Z,6.0nm,0.7s
YBH   Yreka Blue Hor     78.16  50 ⇓P       P         12 43 17.0 +0.4
      baz=78
M02C  Callahan           78.17  50 ⇓P       P         12 43 17.3 +0.6
      baz=78
D07A  Quincy             78.20  44 ⇑P       P         12 43 16.3 -0.4
      baz=78
B08A  Colville Reser     78.21  43   P      P         12 43 16.6 -0.1
      baz=78,SNR=13
H05A  Madras             78.23  47 ⇓P       P         12 43 16.9  0.0
      baz=78
I05A  Bend               78.36  47 ⇓P       P         12 43 17.9 +0.2
      baz=78
G06A  Carlson Farm,      78.42  46 ⇑P       P         12 43 17.8 -0.2
      baz=78
A09A  Danville           78.46  42 ⇑P       P         12 43 18.2 +0.1
      baz=78,SNR=5.8
E07A  Sunnyside          78.49  44 ⇑P       P         12 43 18.7 +0.4
      baz=78
K04A  Chilquin           78.56  49 ⇓P       P         12 43 19.1 +0.3
      baz=78
L04A  Klamath Falls      78.59  49 ⇓P       P         12 43 19.3 +0.3
      baz=78
O02C  Red Bluff          78.62  51 ⇓P       P         12 43 19.6 +0.4
      baz=78
ARCES ARCESS Array B     78.62 342   P      P         12 43 18.1 -0.5
      comp=Z,5.5nm,0.6s,mb4.5,baz=67,slow=7.0,SNR=18
WDC   Whiskeytown Da     78.66  51 ⇑P       P         12 43 19.5  0.0
      baz=78
F07A  Phinny Hill Vi     78.67  45 ⇑P       P         12 43 19.4 +0.1
      baz=78
J05A  Fort Rock          78.68  48   P      P         12 43 20.2 +0.8
      baz=78,SNR=12
M03C  McCloud            78.73  50 ⇓P       P         12 43 19.9 +0.2
      baz=79,SNR=6.1
M04C  Macdoel            78.76  49 ⇓P       P         12 43 20.2 +0.2
      baz=79
H06A  Lindquist Farm     78.80  46 ⇓P       P         12 43 20.2 +0.2
      baz=79
D08A  Wollman Farm,      78.92  44 ⇑P       P         12 43 20.7  0.0
      baz=79
B09A  Rice               78.92  42 ⇓P       P         12 43 20.8 +0.1
      baz=79,SNR=5.1
E08A  Dider Farm, El     79.03  44 ⇑P       P         12 43 21.3  0.0
      baz=79
G07A  Ruggs Ranch, H     79.06  46 ⇓P       P         12 43 21.6 +0.2
      baz=79
A10A  Northport          79.09  42 ⇓P       P         12 43 21.8 +0.2
      baz=79,SNR=10.0
K05A  Summer Lake        79.10  48 ⇓P       P         12 43 22.2 +0.4
      baz=79,SNR=7.8
O03C  Acorn Hollow,      79.22  51 ⇑P       P         12 43 22.2 -0.2
      baz=79
MNRC  McLaughlin Nat     79.30  52 ⇓P       P         12 43 23.6 +0.6
      baz=79
D09A  Jones Farm, Ri     79.31  44 ⇓P       P         12 43 22.9 +0.1
      baz=79,SNR=5.8
HATC  Hat Creek Radi     79.36  50 ⇓P       P         12 43 23.4 +0.2
      baz=79,SNR=5.1
L05A  Lakeview           79.38  49 ⇓P       P         12 43 23.5 +0.2
      baz=79
M05C  Lookout            79.39  50 ⇑P       P         12 43 23.5 +0.1
      baz=79
J06A  Christmas Vall     79.43  48 ⇑P       P         12 43 23.6 +0.1
      baz=79
G08A  Pilot Rock         79.52  45 ⇓P       P         12 43 24.3 +0.3
      baz=79
K06A  Valley Falls       79.52  48 ⇑P       P         12 43 24.2 +0.2
      baz=79
B10A  Chitwood Farm,     79.54  42 ⇑P       P         12 43 24.5 +0.5
      baz=79
I07A  Izee               79.58  47 ⇓P       P         12 43 24.9 +0.5
      baz=79
E09A  Wood Farm, Sta     79.61  44   P      P         12 43 24.7 +0.3
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      baz=79,SNR=5.8
NEW   Newport          79.62  42 eP     P      12 43 24.2 -0.3
      comp=Z,7.9nm,0.8s,mb4.6
NEW   Newport          79.62  42 eP     P      12 43 24.2 -0.3
NEW                              pmax   pmax
      comp=Z,8.0nm,0.8s
SUTB  Sutter Butte     79.66  52 ⇑P     P      12 43 24.6 -0.3
      baz=80
C10A  Spilker Farm,    79.67  43 ⇑P     P      12 43 24.8 +0.1
      baz=80,SNR=9.3
Q03C  Winters          79.70  53 ⇑P     P      12 43 25.1  0.0
      baz=80
ORV   Oroville         79.76  52 ⇑P     P      12 43 25.3 -0.1
      baz=80
O04C  Chester          79.79  51 ⇑P     P      12 43 25.9 +0.3
      baz=80,SNR=9.7
MOD   Modoc            79.80  49 eP     P      12 43 25.7 +0.2
MOD   Modoc            79.80  49 ⇓P     P      12 43 25.7 +0.1
      baz=80,SNR=5.9
A11A  Hall Mountain,   79.83  41 ⇓P     P      12 43 26.3 +0.7
      baz=80
M06C  Likely Place G   79.92  50 ⇑P     P      12 43 26.6 +0.4
      baz=80
ELFS  Eagle Lake Fie   79.95  50 ⇓P     P      12 43 26.9 +0.5
      baz=80,SNR=6.9
J07A  Hines            79.96  47 ⇑P     P      12 43 26.9 +0.5
      baz=80,SNR=11
D10A  Wagner Farm, O   79.97  43 ⇓P     P      12 43 26.6 +0.2
      baz=80
H08A  Prairie City     79.98  46 ⇓P     P      12 43 26.6 +0.1
      baz=80
B11A  Sandpoint        80.02  42 ⇓P     P      12 43 27.0 +0.4
      baz=80
O05C  Quincy           80.04  51 ⇓P     P      12 43 26.8 -0.1
      baz=80,SNR=5.9
F09A  S2 Ranch, Elgi   80.06  45 ⇑P     P      12 43 26.9 +0.1
      baz=80
JOF   Joensuu          80.09 335 ep     P      12 43 24.2 -2.5
      comp=Z,4.2nm,0.4s,mb4.6
K07A  Rock Creek Ran   80.25  48  P     P      12 43 28.3 +0.3
      baz=80,SNR=9.2
I08A  Drewsey          80.27  47 ⇓P     P      12 43 28.2 +0.1
      baz=80,SNR=9.9
A12A  Yaak River Ran   80.27  41 ⇑P     P      12 43 28.5 +0.6
      baz=80,SNR=8.1
E10A  Myers Farm, Un   80.29  44 ⇓P     P      12 43 28.2 +0.1
      baz=80
F10A  Beach Ranch, E   80.40  44 ⇓P     P      12 43 29.3 +0.6
      baz=80
L07A  Adell            80.43  49  P     P      12 43 29.7 +0.7
      baz=80,SNR=12
BEKR  Beckwourth       80.48  51  P     P      12 43 29.3 +0.1
      baz=80,SNR=25
B12A  Libby            80.49  42 ⇑P     P      12 43 29.6 +0.5
      baz=80
N06A  Buffalo Meadow   80.54  50 ⇑P     P      12 43 29.4 -0.2
      baz=80,SNR=6.3
J08A  Circle Bar Ran   80.54  47 ⇑P     P      12 43 29.5  0.0
      baz=80,SNR=10
D11A  Klaveano Farm,   80.57  43  P     P      12 43 29.4 -0.2
      baz=80,SNR=10
LAVA  Lava Cap Winer   80.59  52  P     P      12 43 29.9  0.0
      baz=80,SNR=9.1
S04C  Ingram Canyon,   80.60  53 ⇓P     P      12 43 29.9  0.0
      baz=80
O06A  Flanigan         80.75  50 ⇑P     P      12 43 30.6 -0.1
      baz=81
K08A  Mann Creek Ran   80.76  48  P     P      12 43 30.9 +0.3
      baz=81,SNR=9.3
WVOR  Wild Horse Val   80.76  48 eP     P      12 43 30.4 -0.3
      comp=Z,5.6nm,0.9s,mb4.4
WVOR  Wild Horse Val   80.76  48 eP     P      12 43 30.4 -0.3
WVOR                             pmax   pmax
      comp=Z,6.0nm,0.9s,mb4.4
BMO   Blue Mountains   80.77  45 eP     P      12 43 30.8 +0.1
      comp=Z,8.1nm,0.8s,mb4.6
BMO   Blue Mountains   80.77  45 eP     P      12 43 30.8 +0.1
BMO                              pmax   pmax
      comp=Z,8.0nm,0.8s,mb4.6
M07A  Soldier Meadow   80.77  49 ⇑P     P      12 43 31.2 +0.4
      baz=81,SNR=5.4
PACP  Pacheco Peak     80.81  54 ⇓P     P      12 43 31.1 +0.1
      baz=81
I09A  Lost Marbles R   80.81  46 ⇑P     P      12 43 30.7 -0.2
      baz=81,SNR=6.2
HAST  UC Hastings Re   80.83  55 ⇑P     P      12 43 31.1 -0.1
      baz=81
P06A  Stead Airport,   80.87  51 ⇑P     P      12 43 31.7 +0.3
      baz=81
E11A  Bogner Ranch,    80.91  44  P     P      12 43 31.2 -0.3
      baz=81,SNR=8.5
J09A  Fry Pan Ranch,   81.03  47  P     P      12 43 32.4 +0.3
      baz=81,SNR=8.2
L08A  Fields           81.06  48  P     P      12 43 32.8 +0.5
      baz=81,SNR=13
R05C  Kirkwood Meado   81.10  52 ⇓P     P      12 43 32.6  0.0
      baz=81
CMB   Columbia Colle   81.11  53 eP     P      12 43 32.5 -0.2
      comp=Z,12nm,0.6s,mb4.9
CMB   Columbia Colle   81.11  53 eP     P      12 43 32.5 -0.2
CMB                              pmax   pmax
      comp=Z,12nm,0.6s,mb4.9
CMB   Columbia Colle   81.11  53  P     P      12 43 32.7 +0.1
      baz=81,SNR=14
F11A  Grangeville      81.13  44 ⇑P     P      12 43 32.2 -0.4
      baz=81
N07B  Gerlach          81.14  50  P     P      12 43 33.1 +0.4
      baz=81,SNR=7.2
B13A  Whitefish        81.22  41  P     P      12 43 33.5 +0.5
      baz=81,SNR=7.1
BSMT  Bassoo Peak      81.23  42 eP     P      12 43 32.2 -0.9
H10A  Noah’s Angus R   81.24  45  P     P      12 43 32.7 -0.5
      baz=81,SNR=14
G11A  Walters Elk Ra   81.24  45  P     P      12 43 32.7 -0.5
      baz=81,SNR=12
WALA  Waterton Lakes   81.28  41 eP     P      12 43 33.9 +0.6
      comp=Z,9.3nm,0.8s,mb4.7
K09A  Rome             81.29  48 ⇓P     P      12 43 33.5 -0.1
      baz=81
M08A  Happy Creek Ra   81.31  49 ⇓P     P      12 43 33.5 -0.1
      baz=81
I10A  Payette          81.39  46 ⇑P     P      12 43 33.8 -0.2
      baz=81
S05C  Merced           81.40  53 ⇑P     P      12 43 33.9 -0.4
      baz=81
U04C  Hernandez Rese   81.41  54 ⇑P     P      12 43 34.3  0.0
      baz=81
C13A  Hot Springs      81.43  42  P     P      12 43 34.3 +0.2
      baz=81,SNR=12
O07A  Toulon           81.43  50 ⇓P     P      12 43 34.2 -0.1
      baz=81
S06C  San Francisco    81.56  53 ⇑P     P      12 43 34.9 -0.2
      baz=81
L09A  Wilkinson Ranc   81.59  48 ⇑P     P      12 43 35.4 +0.3
      baz=81,SNR=7.4
V04C  Ramage Ranch,    81.61  55 ⇓P     P      12 43 35.2 -0.2
      baz=81
R06C  Coleville        81.62  52  P     P      12 43 35.8 +0.5
      baz=81,SNR=8.2
J10A  Berg Farm, Mel   81.67  47 ⇓P     P      12 43 35.6 +0.1
      baz=82
H11A  Donnelly         81.68  45  P     P      12 43 35.1 -0.4
      baz=82,SNR=9.9
D13A  Huson            81.73  43 ⇓P     P      12 43 35.3 -0.5
      baz=82
PKD   Parkfield        81.75  55 ⇓P     P      12 43 36.2 +0.1
      baz=82,SNR=6.4
F12A  Elk City         81.76  44  P     P      12 43 36.3 +0.4
      baz=82,SNR=5.0
K10A  MacKenzie Ranc   81.84  47  P     P      12 43 36.8 +0.4
      baz=82,SNR=7.6
C14A  Swan Lake        81.90  42 ⇑P     P      12 43 36.8 +0.2
      baz=82
U05C  Westside ANR,    81.92  54 ⇓P     P      12 43 37.5 +0.5
      baz=82
M09A  Marrel Ranch,    81.96  49 ⇓P     P      12 43 37.3 +0.3
      baz=82
T06C  Millerton Lake   81.98  53  P     P      12 43 37.0 -0.2
      baz=82,SNR=14
I11A  Placerville      82.02  46 ⇑P     P      12 43 36.9 -0.4
      baz=82
R07C  Lee Vining       82.07  52 ⇑P     P      12 43 38.2 +0.4
      baz=82
PTRM  Twissleman Ran   82.10  55 eP     P      12 43 37.5 -0.4
N09A  Rock Creek Ran   82.13  49 ⇑P     P      12 43 38.1 +0.1
      baz=82,SNR=6.5
KCC   Kaiser Creek     82.16  53 ⇑P     P      12 43 37.5 -0.7
      baz=82
E13A  Victor           82.16  43 ⇑P     P      12 43 37.8 -0.2
      baz=82
MFID  Camas Ranch      82.30  46 ⇑P     P      12 43 38.9 +0.1
      baz=82,SNR=5.5
L10A  Juniper Basin    82.39  48  P     P      12 43 39.3  0.0
      baz=82,SNR=5.4
MLAC  Mammoth Lakes    82.40  53 ⇑P     P      12 43 39.5 +0.1
      baz=82
KAF   Kangasniemi      82.49 335 ep     P      12 43 37.0 -2.4
      comp=Z,3.0nm,0.5s,mb4.4
KAF   Kangasniemi      82.49 335 eP     P      12 43 37.0 -2.4
KAF                              pmax   pmax
      comp=Z,3.0nm,0.5s,mb4.4
NVAR  Mina Array Bea   82.49  52  P     P      12 43 39.9  0.0
NVAR  Mina Array Bea   82.49  52  P     P      12 43 39.9  0.0
      comp=Z,8.9nm,0.6s,mb4.8,baz=287,slow=4.0,SNR=117
H12A  Diamond D Ranc   82.50  45 ⇓P     P      12 43 39.8  0.0
      baz=82,SNR=5.5
M10A  I.L. Ranch, Tu   82.56  48 ⇑P     P      12 43 40.3 +0.1
      baz=82
RCTC  Rector, Farmer   82.59  54 ⇓P     P      12 43 40.5  0.0
      baz=82
Q08A  Gabbs            82.59  51 ⇓P     P      12 43 40.0 -0.4
      baz=82
HELL  Mitchell Peak,   82.62  54  P     P      12 43 40.2 -0.4
      baz=82,SNR=8.2
O09A  Fish Creek Ran   82.62  50 ⇑P     P      12 43 40.8 +0.2
      baz=82,SNR=5.4
PKM   Peak Mountain    82.68  55 ⇑P     P      12 43 41.0 +0.1
      baz=82,SNR=5.6
G13A  Cobalt           82.68  44  P     P      12 43 40.3 -0.5
      baz=82,SNR=21
MTUM  Tungsten Hills   82.70  53 eP     P      12 43 40.1 -0.9
L11A  Cat Creek Ranc   82.84  47 ⇑P     P      12 43 41.6 -0.1
      baz=83
J12A  Stokes Ranch,    82.86  46 ⇑P     P      12 43 41.5 -0.2
      baz=83
VES   Vestal, Richgr   82.89  54 ⇑P     P      12 43 41.3 -0.7
      baz=83
N10A  Dunphy           82.89  49 ⇑P     P      12 43 42.3 +0.4
      baz=83
P09A  Austin           82.90  50 ⇑P     P      12 43 42.3 +0.3
      baz=83
S08C  White Mtn Res    82.94  52 ⇑P     P      12 43 42.6 +0.4
      baz=83,SNR=12
F14A  Wisdom           82.94  43 ⇓P     P      12 43 42.4 +0.4
      baz=83
FINES FINESS Array B   82.95 335 i P    P      12 43 40.2 -1.6
FINES                            pmax   pmax
      comp=Z,4.0nm,0.4s
FINES FINESS Array B   82.95 335  P     P      12 43 39.9 -1.9
      comp=Z,4.3nm,0.4s,mb4.6,baz=80,slow=4.8,SNR=70
O10A  Cortez Mining,   83.06  49 ⇑P     P      12 43 43.1 +0.3
      baz=83
TIN   Tinemaha         83.06  53 ⇑P     P      12 43 43.2 +0.3
      baz=83
M11A  Holland Ranch,   83.11  48 ⇓P     P      12 43 43.4 +0.4
      baz=83
G14A  Jackson          83.12  44 ⇑P     P      12 43 42.8 -0.2
      baz=83
E15A  Deer Lodge       83.15  43  P     P      12 43 43.0 -0.1
      baz=83,SNR=12
Q09A  Carvers          83.15  51 ⇓P     P      12 43 43.2 -0.1
      baz=83
HLID  Hailey           83.19  46 eP     P      12 43 42.9 -0.5
      comp=Z,1.8nm,0.6s,mb4.1
K12A  Draper Farm, C   83.23  47 ⇓P     P      12 43 43.9 +0.2
      baz=83
I13A  Wildhorse Cree   83.24  45 ⇑P     P      12 43 44.0 +0.4
      baz=83,SNR=6.1
P10A  Eureka           83.35  50 ⇑P     P      12 43 44.1 -0.2
      baz=83
L12A  House Creek Ra   83.35  47 ⇑P     P      12 43 44.3 +0.1
      baz=83
N11A  Elko Archery C   83.39  49 ⇑P     P      12 43 44.6 +0.1
      baz=83
CWC   Cottonwood Cre   83.41  53 ⇓P     P      12 43 44.6 -0.1
      baz=83
ISA   Isabella         83.41  54 ⇑P     P      12 43 43.7 -1.1
      baz=83
J13A  Cove Ranch, Pi   83.41  46 ⇓P     P      12 43 44.9 +0.3
      baz=83,SNR=6.0
R09A  Tonopah          83.46  51 ⇑P     P      12 43 45.0 +0.1
      baz=83,SNR=9.4
F15A  Butte            83.49  43  P     P      12 43 44.9  0.0
      baz=83,SNR=7.3
LRM   Limekiln Ridge   83.52  43 eP     P      12 43 43.9 -1.2
HRY   Holter Researc   83.53  42 eP     P      12 43 45.2 +0.1
S09A  Goldfield        83.55  52  P     P      12 43 45.3  0.0
      baz=83,SNR=15
OSI   Osito Adit       83.62  55 ⇓P     P      12 43 45.6 -0.2
      baz=83
M12A  Wells            83.72  48 ⇑P     P      12 43 46.7 +0.6
      baz=84,SNR=5.7
GRAC  Grapevine Rang   83.72  53 ⇓P     P      12 43 46.4 +0.2
      baz=84
O11A  Cowboy Ranch,    83.72  49 ⇑P     P      12 43 46.1  0.0
      baz=84
G15A  Dillon           83.78  44 ⇑P     P      12 43 46.8 +0.5
      baz=84
K13A  Stover Farm, H   83.78  46 ⇓P     P      12 43 46.8 +0.3
      baz=84
N12A  Clover Valley,   83.86  48 ⇓P     P      12 43 47.1 +0.2
      baz=84,SNR=5.9
P11A  Circle Ranch,    83.88  50 ⇑P     P      12 43 47.2 +0.2
      baz=84
S10A  Tonopah Range,   83.93  52  P     P      12 43 47.3  0.0
      baz=84,SNR=12
R10A  Warm Springs     83.99  51 ⇑P     P      12 43 47.7 +0.1
      baz=84,SNR=6.8
MPMC  Manual Prospec   84.00  54 ⇑P     P      12 43 47.7  0.0
      baz=84,SNR=13
LRMC  Laurel Mountai   84.07  54 ⇓P     P      12 43 47.9 -0.1
      baz=84,SNR=11
EDW2  Edwards Air Fo   84.08  55 ⇑P     P      12 43 48.0 -0.1
      baz=84
L13A  Double Diamond   84.11  47  P     P      12 43 48.7 +0.6
      baz=84,SNR=10
BOZ   Bozeman (W)      84.12  43 eP     P      12 43 47.5 -0.5
BOZ   Bozeman (W)      84.12  43  P     P      12 43 48.3 +0.2
      baz=84,SNR=5.1
Q11A  Duckwater        84.24  50 ⇑P     P      12 43 48.7 -0.1
      baz=84
M13A  Montello         84.26  48 ⇑P     P      12 43 49.0 +0.1
      baz=84
FURC  Furnace Creek,   84.30  53 ⇓P     P      12 43 48.9 -0.3
      baz=84,SNR=5.1
CIS   Catalina Islan   84.33  56 ⇑P     P      12 43 48.8 -0.7
      baz=84
K14A  Jones Ranch, D   84.43  46 ⇓P     P      12 43 50.1 +0.4
      baz=84
N13A  Wendover, West   84.44  48 ⇓P     P      12 43 50.1 +0.3
      baz=84
P12A  McGill           84.51  50 ⇓P     P      12 43 50.1 -0.1
      baz=84,SNR=5.8
BFSC  Mount Baldy St   84.58  55 ⇓P     P      12 43 50.3 -0.4
      baz=84
QLMT  Earthquake Lak   84.60  44 eP     P      12 43 51.0 +0.4
S11A  Rachel           84.65  52 ⇑P     P      12 43 50.9  0.0
      baz=84
U10A  Ash Meadows, A   84.72  53 ⇓P     P      12 43 51.5 +0.2
      baz=84,SNR=5.7
Q12A  Willow Creek R   84.75  50 ⇑P     P      12 43 51.6 +0.2
      baz=85,SNR=6.4
GSC   Goldstone        84.81  54 ⇑P     P      12 43 51.6 -0.1
      baz=85,SNR=6.6
YMR   Madison River    84.97  44 eP     P      12 43 53.1 +0.7
      comp=Z,16nm,1.0s,mb4.9
YNR   Norris Junctio   85.13  44 eP     P      12 43 55.5 +2.3
MURC  Murrieta         85.18  56 ⇑P     P      12 43 53.2 -0.5
      baz=85
FFC   Flin Flon        85.18  32 eP     P      12 43 53.2  0.0
      comp=Z,17nm,0.6s,mb5.1
FFC   Flin Flon        85.18  32 eP     P      12 43 53.2  0.0
FFC                              pmax   pmax
      comp=Z,17nm,0.6s,mb5.2
R12A  Pony Springs,    85.20  51 ⇑P     P      12 43 53.6 -0.1
      baz=85,SNR=8.5
GCMT  Greycliff        85.28  42 eP     P      12 43 54.0  0.0
HEC   Hector,Ludlow    85.35  54 ⇑P     P      12 43 54.3 -0.2
      baz=85
LKWY  Lake             85.37  44 eP     P      12 43 56.1 +1.7
      comp=Z,6.2nm,0.9s,mb4.5
LKWY  Lake             85.37  44 eP     P      12 43 56.1 +1.7
LKWY                             pmax   pmax
      comp=Z,6.0nm,0.9s,mb4.5
TUQ   Turquoise Mtn.   85.41  54 ⇑P     P      12 43 54.7 -0.1
      baz=85
U11A  Corn Creek       85.41  53 ⇓P     P      12 43 55.0 +0.2
      baz=85
SPUT  South Promonto   85.45  47 eP     P      12 43 54.7 -0.2
TPAW  Teton Pass       85.50  45 eP     P      12 43 55.5 +0.5
      comp=Z,2.0nm,0.5s,mb4.3
MOOW  Moose Ponds      85.52  44 eP     P      12 43 54.4 -0.8
SHPR  Sheep Range      85.54  52 eP     P      12 43 54.7 -0.7
V11A  Goodsprings      85.62  53 ⇓P     P      12 43 55.9 +0.1
      baz=85
LOHW  Long Hollow      85.67  45 eP     P      12 43 55.9  0.0
      comp=Z,5.8nm,1.1s,mb4.4
DUG   Dugway           85.68  48 eP     P      12 43 55.6 -0.4
      comp=Z,9.5nm,0.6s,mb4.9
DUG   Dugway           85.68  48 eP     P      12 43 55.6 -0.4
DUG                              pmax   pmax
      comp=Z,10.0nm,0.6s,mb4.9
PFO   Pinyon Flat Ob   85.75  56 eP     P      12 43 55.5 -1.0
      comp=Z,7.9nm,0.9s,mb4.6
PFO   Pinyon Flat Ob   85.75  56 eP     P      12 43 55.5 -1.0
PFO                              pmax   pmax
      comp=Z,8.0nm,0.9s,mb4.7
PFO   Pinyon Flat Ob   85.75  56  P     P      12 43 56.2 -0.3
      baz=86,SNR=5.3
T12A  Moapa            85.78  52 ⇓P     P      12 43 56.5 -0.1
      baz=86
RLMT  Red Lodge        85.84  43 eP     P      12 43 56.9 +0.1
      comp=Z,10nm,0.6s,mb4.9
GMRC  Granite Mounta   85.88  54 ⇑P     P      12 43 56.9 -0.2
      baz=86,SNR=6.0
HWUT  Hardware Ranch   85.92  47 eP     P      12 43 56.6 -0.6
      comp=Z,8.8nm,0.8s,mb4.7
BELC  Belle Mtn.       85.94  55 ⇑P     P      12 43 57.0 -0.4
      baz=86,SNR=7.6
U12A  Valley of Fire   86.03  52 ⇓P     P      12 43 57.8 -0.1
      baz=86
MONP  Monument Peak    86.06  56 ⇓P     P      12 43 57.7 -0.4
      baz=86
V12A  Nelson           86.09  53 ⇓P     P      12 43 58.2  0.0
      baz=86,SNR=9.5
CTU   Camp Tracy       86.19  48 eP     P      12 43 57.7 -0.9
T13A  Saint George     86.25  52 ⇓P     P      12 43 59.2 +0.3
      baz=86,SNR=10
W12A  Cal Nev Ari      86.25  53 ⇑P     P      12 43 58.7 -0.2
      baz=86
ARUT  Antelope Range   86.26  51 eP     P      12 43 58.8 -0.1
DVTC  Desert V Tower   86.40  56 ⇑P     P      12 43 59.4 -0.4
      baz=86
FCC   Fort Churchill   86.41  26 eP     P      12 43 58.2 -1.0
      comp=Z,7.9nm,0.6s,mb4.8
FCC   Fort Churchill   86.41  26 eP     P      12 43 58.2 -1.0
FCC                              pmax   pmax
      comp=Z,8.0nm,0.6s,mb4.8
JLU   Jordanelle       86.44  48 eP     P      12 43 59.5 -0.2
S14A  Cedar City       86.47  51 ⇓P     P      12 44 00.1 +0.1
      baz=86
BC3   Big Chuckw Mtn   86.49  55  P     P      12 44 00.0 -0.1
      baz=86,SNR=8.9
IRM   Iron Mountain    86.51  55  P     P      12 44 00.1 -0.2
      baz=86,SNR=6.1
SWSC  Sam W. Stewart   86.52  56 ⇑P     P      12 43 60.0 -0.4
      baz=86
MPU   Maple Canyon     86.57  48 eP     P      12 43 59.5 -0.9
BW06  Boulder Array    86.73  45 eP     P      12 44 00.5 -0.6
      comp=Z,3.2nm,1.0s,mb4.2
T14A  Hurricane        86.83  51 ⇑P     P      12 44 02.0 +0.3
      baz=87,SNR=8.9
MSU   Marysvale        86.85  50 eP     P      12 44 01.8  0.0
LAO   LASA Array       86.97  40 eP     P      12 44 02.3 +0.1
      comp=Z,13nm,0.7s,mb5.0
W13A  Hualapai Mount   87.07  53 ⇓P     P      12 44 03.0 +0.1
      baz=87,SNR=7.2
Y12C  Blythe           87.16  55 ⇑P     P      12 44 03.3  0.0
      baz=87
PDMCI Parker Dam,Lak   87.22  54  P     P      12 44 03.6  0.0
      baz=87,SNR=6.3
X13A  Yucca            87.33  54  P     P      12 44 04.2  0.0
      baz=87,SNR=8.3
AKASG Malin Array Be   87.39 325 i P    P      12 44 01.9 -2.2
AKASG                            pmax   pmax
      comp=Z,1.0nm,0.4s
AKASG Malin Array Be   87.39 325  P     P      12 44 01.6 -2.5
      comp=Z,1.0nm,0.4s,mb4.1,baz=53,slow=5.1,SNR=12
W14A  Seligman         87.62  53  P     P      12 44 06.0 +0.5
      baz=87,SNR=16
Y13A  Salome           87.66  54 ⇑P     P      12 44 05.9 +0.1
      baz=88,SNR=6.5
SRU   San Rafael       87.74  49 eP     P      12 44 05.6 -0.5
      comp=Z,8.0nm,0.5s,mb5.0
SRU   San Rafael       87.74  49 eP     P      12 44 05.6 -0.5
SRU                              pmax   pmax
      comp=Z,8.0nm,0.5s,mb5.0
X14A  Yava             88.08  54  P     P      12 44 08.3 +0.6
      baz=88,SNR=12
Y14A  Wickenburg       88.22  54  P     P      12 44 08.6 +0.2
      baz=88,SNR=15
W15A  Williams         88.23  53 ⇓P     P      12 44 09.1 +0.7
      baz=88
Z14A  Wintersburg      88.51  55 ⇑P     P      12 44 09.9 +0.1
      baz=88
X15A  Humboldt         88.56  53 ⇑P     P      12 44 10.6 +0.6
      baz=88,SNR=17
NOA   NORSAR Array B   88.67 339  P     P      12 44 07.7 -2.3
      comp=Z,1.0nm,0.8s,mb3.9,baz=57,slow=4.2,SNR=3.0
NOA                              pP     pP     12 44 36.6 -1.6
      comp=Z,1.2nm,0.7s,baz=47,slow=4.6,SNR=3.6
WUAZ  Wupatki          88.74  52 eP     P      12 44 11.4 +0.5
      comp=Z,8.9nm,0.9s,mb4.8
PV10  Paradox Valley   89.11  49 eP     P      12 44 12.4 -0.2
115A  Sonoran Desert   89.34  55 ⇑P     P      12 44 14.3 +0.5
      baz=89,SNR=12
PV01  Paradox Valley   89.55  49 eP     P      12 44 14.3 -0.3
RSSD  Black Hills      89.59  42 eP     P      12 44 14.0 -0.7
      comp=Z,2.9nm,0.7s,mb4.5
RSSD  Black Hills      89.59  42 eP     P      12 44 14.0 -0.7
RSSD                             pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.5
116A  Eloy             89.80  55 ⇑P     P      12 44 16.1 +0.2
      baz=90
SMCO  Snowmass         90.15  47 eP     P      12 44 17.4  0.0
      comp=Z,6.3nm,0.6s,mb4.9
ISCO  Idaho Springs    90.76  46 eP     P      12 44 20.5 +0.3
      comp=Z,2.4nm,0.7s,mb4.4
ISCO  Idaho Springs    90.76  46 eP     P      12 44 20.5 +0.3
ISCO                             pmax   pmax
      comp=Z,2.0nm,0.7s,mb4.4
ULM   Lac du Bonnet    90.79  34  P     P      12 44 18.6 -1.6
      comp=Z,2.8nm,0.7s,mb4.5,baz=302,slow=4.2,SNR=7.4
SDCO  Great Sand Dun   91.86  48 eP     P      12 44 25.6 +0.2
      comp=Z,7.1nm,1.1s,mb4.8
ANMO  Albuquerque      92.56  51  P     P      12 44 28.8 +0.2
      comp=Z,0.9nm,0.3s,mb4.5,baz=259,slow=2.2,SNR=6.4
Y22C  IRIS PASSCAL I   92.65  52 ⇓P     P      12 44 29.7 +0.6
      baz=92
LPIG  La Paz           94.66  62  P     P      12 44 39.1 +0.5
      comp=Z,7.2nm,0.3s,mb5.5,baz=112,slow=1.2,SNR=3.7
MNTX  Cornudas Mount   94.94  53 eP     P      12 44 39.1 -0.6
      comp=Z,1.1nm,0.6s,mb4.5
TXAR  Lajitas Array    97.40  54  P     P      12 44 50.1 -0.8
      comp=Z,0.3nm,0.5s,mb4.0,baz=309,slow=1.9,SNR=8.1
TORD  Torodi Ar. Bea  128.80 310 PKP    PKPdf  12 50 22.6 -2.1
TORD  Torodi Ar. Bea  128.80 310 PKP    PKPdf  12 50 22.6 -2.1
      comp=Z,0.2nm,0.5s,baz=62,slow=1.1,SNR=5.2
LCO   Las Campanas    148.33 110 ePKPbc PKPbc  12 51 02.5 -0.8
LPAZ  La Paz          149.44  85 ePKPdf PKPdf  12 51 01.8  0.0
LPAZ                             ePKPbc PKPbc  12 51 06.2 -0.2
LPAZ  La Paz          149.44  85 ePKHKP        12 51 01.8
LPAZ  La Paz          149.44  85 PKP    PKPdf  12 51 01.3 -0.5
      comp=Z,3.0nm,1.1s,baz=344,slow=1.9,SNR=4.4
LPAZ                             PKPbc  PKPbc  12 51 06.0 -0.3
      comp=Z,5.1nm,0.5s,baz=333,slow=2.2,SNR=3.9
CFAA  Coronel Fontan  150.11 115 PKPbc  PKPbc  12 51 05.3 -2.3
      comp=Z,1.4nm,0.7s,baz=263,slow=2.9,SNR=20
```

IDC 08 12:36:06.9±0.8**, 883N×3947W, h0^{km}, mb3.8**/11**,**
mb1 4.0/11**, mb1mx3.9**/20**, mbtmp3.8**/11**, MS3.8**/9**,**
Ms1 3.8/9**, ms1mx3.5**/31**, Error ellipse: s-maj=28.5km**
s-min=17.5km az=134.0, Central Mid-Atlantic Ridge

```
Code  Station Name        Δ°   AZ°  Phase ID        Time      Res
                                    Op     ISC      h  m  s   ISC
SJG   San Juan         27.50 292 LR     LR     12 50 55.1
      comp=Z,232nm,19.9s,baz=100,slow=32
SIV   San Ignacio      32.64 221 P      P      12 42 41.6 +0.8
      2.9nm,1.0s,baz=78,slow=7.0,SNR=8.8
ROSC  El Rosal         34.82 266 LR     LR     12 57 14.0
      comp=Z,175nm,19.1s,baz=16,slow=36
```

LPAZ	La Paz	37.78	229	P	P	12 43 25.4	+0.3
	2.4nm,0.9s,baz=47,slow=8.8,SNR=6.1						
LPAZ				LR	LR	12 58 03.6	
	comp=Z,60nm,20.0s,baz=283,slow=35						
MDT	Midelt	40.08	48	LR	LR	12 58 08.8	
	comp=Z,87nm,20.5s,baz=154,slow=33						
TORD	Torodi Ar. Bea	40.61	80	P	P	12 43 47.5	-1.4
	0.9nm,0.8s,baz=268,slow=7.9,SNR=3.9						
TORD				LR	LR	12 59 13.1	
	comp=Z,234nm,18.2s,baz=265,slow=34						
ATAH	Atahualpa	41.86	249	LR	LR	13 03 05.9	
	comp=Z,124nm,19.1s,baz=136,slow=39						
NNA	Nana	42.52	242	LR	LR	13 01 44.4	
	comp=Z,99nm,19.0s,baz=342,slow=36						
TKL	Tuckaleechee C	48.36	310	LR	LR	13 00 51.2	
	comp=Z,176nm,18.1s,baz=239,slow=31						
CFAA	Coronel Fontan	48.72	213	P	P	12 44 53.3	-0.1
	0.1nm,0.3s,baz=114,slow=2.3,SNR=3.0						
CFAA				LR	LR	13 06 11.5	
	comp=Z,8.2nm,21.0s,baz=176,slow=37						
SCHQ	Schefferville	50.79	340	P	P	12 45 08.9	+0.1
	4.4nm,0.9s,baz=130,slow=9.4,SNR=4.0						
KEST	Kesra	51.82	51	LR	LR	13 06 49.4	
	comp=Z,51nm,18.6s,baz=201,slow=36						
GERES	GERESS Array B	59.62	38	P	P	12 46 13.7	+1.0
	0.3nm,0.2s,baz=262,slow=3.0,SNR=2.8						
ULM	Lac du Bonnet	62.10	323	P	P	12 46 29.1	-0.5
	2.6nm,1.0s,baz=127,slow=12,SNR=3.8						
TXAR	Lajitas Array	63.26	298	P	P	12 46 37.8	+0.1
	0.3nm,0.6s,baz=108,slow=7.1,SNR=5.5						
AKASG	Malin Array Be	69.76	39	P	P	12 47 19.3	+0.4
	0.2nm,0.3s,baz=256,slow=6.3,SNR=5.0						
BRTR	Keskin Array B	71.43	51	P	P	12 47 29.8	+0.4
	0.5nm,0.4s,baz=246,slow=6.2,SNR=3.8						
YKA	Yellowknife Ar	75.36	332	P	P	12 47 51.8	-0.3
	0.4nm,0.8s,baz=96,slow=6.5,SNR=5.3						

BJI ***08*** *12:49:20.8, 2.86S×67.52E, h10^{km}, mB5.2, mb4.9, Ms4.7, Msz4.4*

ISCJB ***08*** *12:49:26.5±1.7, 2.21S±0.06×68.06E±0.05, h4^{km}±10^{km}, mb4.8/67, MS4.2/20, Error ellipse: s-maj=10.4km s-min=8.4km az=168.7*

MOS ***08*** *12:49:27.9±1.1, 2.05S×68.06E, h10^{km}, mb5.0/26, MS4.2/6, Error ellipse: s-maj=10.5km s-min=6.5km az=81.0*

IDC ***08*** *12:49:27.8±0.5, 2.10S×68.18E, h0^{km}, mb4.4/19, mb1 4.5/19, mb1mx4.4/23, mbtmp4.4/19, MS4.0/9, Ms1 4.0/9, ms1mx3.6/30, Error ellipse: s-maj=16.7km s-min=14.8km az=173.0*

NEIC ***08*** *12:49:29.3±0.2, 2.15S×68.09E, h10^{km}, mb4.9/27, MS4.1/3, Error ellipse: s-maj=7.2km s-min=6.0km az=163.0*

ISC 08 12:49:30.2±2.0**, 2.22S**±0.06×**68.06E**±0.05**, h15**^{km}±12^{km}**, h17**^{km}±1.5^{km}**: pP-P, n182, σ0^{s}.98**/147**, mb4.8**/67**, MS4.2**/20**, 4C-2D, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	15.75	53	eP	Pn	12 53 09.3	-2.4
	7.5nm,0.6s						
HYB	Hyderabad	22.09	28	eP	P	12 54 24.0	-1.0
HYB	Hyderabad	22.09	28	i P	P	12 54 24.0	-1.0
HYB				eS	S	12 58 32.0	+3.8
ATD	Arta Tunnel	28.55	299	LR	LR	13 04 11.0	
	comp=Z,89nm,19.2s,MS3.4,baz=92,slow=31						
KMBO	Kilima Mbogo	30.82	272	eP	P	12 55 48.2	+2.3
	5.6nm,1.3s,mb4.2						
KMBO	Kilima Mbogo	30.82	272	P	P	12 55 47.5	+1.7
	2.0nm,0.9s,mb4.0,baz=48,slow=18,SNR=4.5						
KMBO				LR	LR	13 04 43.8	
	comp=Z,247nm,21.2s,MS3.8,baz=101,slow=30						
KOLN	Koldanda	33.36	26	eP	P	12 56 08.3	+0.3
	92nm,1.2s,mb5.6						
DMN	Daman	33.89	28	eP	P	12 56 13.5	+0.8
	124nm,1.0s,mb5.8						
PKI	Pulchoki	34.00	28	eP	P	12 56 14.2	+0.6
	65nm,1.0s,mb5.5						
GKN	Gorkha	34.02	27	eP	P	12 56 14.3	+0.6
	185nm,1.0s						
KKN	Kakani	34.13	28	eP	P	12 56 15.4	+0.7
	104nm,1.0s,mb5.7						
ODAN	Odare	34.40	32	eP	P	12 56 18.0	+0.9
	115nm,1.1s,mb5.7						
JIRN	Jiri	34.45	29	eP	P	12 56 18.0	+0.5
GUN	Gumba	34.51	29	eP	P	12 56 18.9	+0.9
	205nm,1.1s						
TAPN	Taplejung	34.97	31	eP	P	12 56 22.9	+0.9
	84nm,1.1s,mb5.6						
KBL	Kabul	36.58	1	eP	P	12 56 36.9	+1.2
CM31	Chiang Mai Arr	36.69	55	eP	P	12 56 37.5	+0.6
	2.2nm,0.4s,mb4.3						
CHTO	Chiang Mai	36.87	54	eP	P	12 56 38.5	+0.1
	24nm,1.1s,mb4.9						
CHTO	Chiang Mai	36.87	54	eP	P	12 56 38.5	+0.1
CHTO				pmax	pmax		
	comp=Z,24nm,1.1s,mb4.9						
LSA	Lhasa	38.66	33	P	P	12 56 55.0	+1.6
LSA	Lhasa	38.66	33	eP	P	12 56 55.0	+1.5
	comp=Z,46nm,1.2s,mb5.1						
LSA	Lhasa	38.66	33	eP	P	12 56 55.0	+1.6
LSA				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.1						
LSZ	Lusaka	41.39	249	eP	P	12 57 17.6	+1.3
	comp=Z,14nm,1.1s,mb4.5						
LSZ	Lusaka	41.39	249	eP	P	12 57 17.6	+1.3
LSZ				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.5						
LSZ	Lusaka	41.39	249	P	P	12 57 17.6	+1.3
	comp=Z,5.5nm,0.7s,mb4.3,baz=91,slow=6.8,SNR=5.6						
MATP	Matopo	42.62	242	P	P	12 57 27.1	+0.8
	comp=Z,2.2nm,0.7s,mb4.0,baz=73,slow=12,SNR=3.9						
KMI	Kunming	43.23	49	P	P	12 57 31.7	+0.6
KMI				AP	pP	12 57 35.1	-0.7
KMI				XP	sP	12 57 37.2	-0.5
KMI				PP	PP	12 59 15.4	+3.7
KMI				S	S	13 03 58.6	+0.8
KMI				SS	SS	13 07 10.5	-0.7
KMI				AMB	AMB		
	comp=Z,9.0nm,1.3s,mb4.3						
KMI				AMB	AMB		
	comp=Z,65nm,6.5s						
KMI				LR	LR		
	comp=N,151nm,18.8s,MS4.1						
KMI				LR	LR		
	comp=E,169nm,18.1s,MS4.1						
KMI				LR	LR		
	comp=Z,204nm,19.6s,MS4.0						
KMI	Kunming	43.23	49	P	P	12 57 31.7	+0.6
	comp=Z,9.0nm,1.3s,mb4.3						
KMI				pP	pP	12 57 35.1	-0.7
KMI				sP	sP	12 57 37.2	-0.5
KMI				PP	PP	12 59 15.4	+3.7
KMI				S	S	13 03 58.6	+0.8
KMI				sS	sS	13 04 05.8	+0.3
KMI				SS	SS	13 07 10.5	-0.7
KMI				LR	LR		
	comp=Z,200nm,19.6s,MS4.0						
KMI	Kunming	43.23	49	P	P	12 57 31.7	+0.6
KMI				*PP	pP	12 57 35.1	-0.7
KMI				*SP	sP	12 57 37.2	-0.5
KMI						12 59 15.4	
KMI				S	S	13 03 58.6	+0.8
KMI				*SS	sS	13 04 05.8	+0.3
KMI				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.3						
KMI				MLR	MLR		
	comp=Z,200nm,19.6s,MS4.0						
AML	Almayashu	44.44	6	P	P	12 57 41.7	+1.2
	SNR=8.3						
KZA	Kyzart	44.57	8	P	P	12 57 43.1	+1.5
	SNR=42						
UCH	Uchtor	44.62	7	P	P	12 57 43.7	+1.7
	SNR=14						
ULHL	Ulahol	44.87	9	P	P	12 57 45.1	+1.1
	SNR=9.8						
EKS2	Erkin-Say	44.97	6	P	P	12 57 46.1	+1.3
	SNR=22						
AAK	Ala-Archa	45.02	7	P	P	12 57 46.5	+1.3
	SNR=11						
AAK	Ala-Archa	45.02	7	eP	P	12 57 45.2	0.0
	comp=Z,29nm,1.1s,mb5.0						
AAK	Ala-Archa	45.02	7	d iP	P	12 57 45.3	+0.1
AAK				pmax	pmax		
	comp=Z,23nm,1.7s,mb4.7						
KBK	Karagaybulak	45.10	7	P	P	12 57 47.5	+1.6
	SNR=15						
FRU	Bishkek	45.23	7	eP	P	12 57 48.0	+1.1
FRU				pmax	pmax		
	comp=Z,50nm,2.0s,mb5.0						
TKM2	Tokmak 2	45.45	8	P	P	12 57 49.2	+0.6
	SNR=22						
USP	Ospenovka	45.65	7	P	P	12 57 50.2	0.0
	SNR=12						
GYA	Guiyang	46.92	50	⇑iP	P	12 58 01.4	+0.9
GYA				AP	pP	12 58 05.7	+0.4
GYA				XP	sP	12 58 08.4	+1.3
GYA				PCP	PcP	12 59 34.2	+1.1
GYA				PP	PP	12 59 51.8	+0.8
GYA				SCP	ScP	13 03 26.6	0.0
GYA				S	S	13 04 52.9	+1.6
GYA				SCS	ScS	13 07 53.6	-1.5
GYA				SS	SS	13 08 13.2	-5.1
GYA				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.3						
GYA				AMB	AMB		
	comp=Z,480nm,5.7s						
GYA				LR	LR		
	comp=N,2µm,16.8s,MS5.4						
GYA				LR	LR		
	comp=E,3µm,18.3s,MS5.4						
GYA				LR	LR		
	comp=Z,3µm,15.6s,MS5.3						
CD2	Chengdu	47.33	43	⇑iP	P	12 58 03.3	-0.3
CD2				AP	pP	12 58 07.8	-0.6
CD2				XP	sP	12 58 10.8	+0.6
CD2				PP	PP	12 59 54.2	-0.7
CD2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
CD2				AMB	AMB		
	comp=Z,60nm,5.0s						
CD2				LR	LR		
	comp=N,320nm,19.2s,MS4.6						
CD2				LR	LR		
	comp=E,580nm,20.4s,MS4.6						
CD2				LR	LR		
	comp=Z,220nm,14.4s						
BOSA	Boshof	48.48	233	P	P	12 58 14.2	+1.5
	comp=Z,3.6nm,0.7s,mb4.5,baz=72,slow=12,SNR=6.7						
BOSA				LR	LR	13 17 01.3	
	comp=Z,152nm,18.0s,MS4.0,baz=330,slow=34						
MALT	Malatya	48.74	329	eP	P	12 58 15.8	+1.4
	comp=Z,7.2nm,0.9s,mb4.7						
MALT	Malatya	48.74	329	eP	P	12 58 15.8	+1.4
MALT				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
WMQ	Urumqi	49.10	19	eP	P	12 58 18.5	+1.4
WMQ				AP	pP	12 58 23.0	+1.1
WMQ				XP	sP	12 58 25.5	+1.8
WMQ				PCP	PcP	12 59 42.5	+1.9
WMQ				PP	PP	13 00 12.2	+1.3
WMQ				AMB	AMB		
	comp=Z,16nm,0.9s,mb5.0						
WMQ				LR	LR		
	comp=N,307nm,21.4s,MS4.3						
WMQ				LR	LR		
	comp=E,162nm,20.6s,MS4.3						
WMQ				LR	LR		
	comp=Z,256nm,20.1s,MS4.2						
ZEI	Tsey	49.81	337	eP	P	12 58 22.7	+0.2
ZEI				i		12 58 30.6	
MK31	Makanchi Array	50.39	13	eP	P	12 58 26.2	-0.6
MKAR	Makanchi Array	50.39	13	P	P	12 58 26.1	-0.7
	comp=Z,6.6nm,0.8s,mb4.7,baz=195,slow=7.4,SNR=61						
MKAR				PcP	PcP	12 59 45.5	+0.3
	comp=Z,2.3nm,0.9s,baz=224,slow=5.1,SNR=4.9						
LZH	Lanzhou	50.65	38	eP	P	12 58 29.0	0.0
LZH				AP	pP	12 58 35.5	+1.7
LZH				XP	sP	12 58 38.5	+2.8
LZH				PP	PP	13 00 26.0	+0.9
LZH				eS	S	13 05 40.5	-3.0
LZH				SS	SS	13 09 17.0	-1.1
LZH				AMB	AMB		
	comp=Z,39nm,1.2s,mb5.2						
LZH				AMB	AMB		
	comp=Z,147nm,5.0s						
LZH				LR	LR		
	comp=E,475nm,14.5s						
LZH				LR	LR		
	comp=Z,680nm,15.3s,MS4.8						
LZH	Lanzhou	50.65	38	eP	P	12 58 29.0	0.0
	comp=Z,39nm,1.2s,mb5.2						
LZH				pP	pP	12 58 35.5	+1.7
LZH				sP	sP	12 58 38.5	+2.8
LZH				PP	PP	13 00 26.0	+0.9
LZH				eS	S	13 05 40.5	-3.0
LZH				sS	sS	13 05 45.0	-6.4
LZH				SS	SS	13 09 17.0	-1.1
LZH				LR	LR		
	comp=Z,680nm,15.3s,MS4.8						
LZH	Lanzhou	50.65	38	eP	P	12 58 29.0	0.0
LZH				*PP	pP	12 58 35.5	+1.7
LZH						13 00 26.0	
LZH				eS	S	13 05 40.5	-3.0
LZH				*SS	sS	13 05 45.0	-6.4
LZH				SS	SS	13 09 17.0	-1.1
LZH				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.2						
LZH				MLR	MLR		
	comp=Z,680nm,15.3s,MS4.8						
GTA	Gaotai	50.66	32	eP	P	12 58 29.0	0.0
GTA				AP	pP	12 58 33.0	-0.8
GTA				XP	sP	12 58 36.2	+0.5
GTA				PCP	PcP	12 59 47.4	+1.0
GTA				PP	PP	13 00 26.0	+0.9
GTA				S	S	13 05 43.9	+0.4
GTA				XS	sS	13 06 00.4	+9.0
GTA				AMB	AMB		
	comp=Z,9.0nm,1.2s,mb4.6						
GTA				AMB	AMB		
	comp=Z,169nm,8.0s						
GTA				LR	LR		
	comp=N,258nm,20.2s,MS4.3						
GTA				LR	LR		
	comp=E,188nm,18.0s,MS4.3						
GTA				LR	LR		
	comp=Z,350nm,24.1s						
KIV	Kislovodsk	51.29	337	eP	P	12 58 31.2	-2.4
KIV				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
BRTR	Keskin Array B	52.32	327	P	P	12 58 41.4	-0.1
	comp=Z,1.9nm,0.8s,mb4.1,baz=131,slow=12,SNR=10						
BRTR				PcP	PcP	12 59 53.6	+1.0
	comp=Z,0.8nm,0.7s,baz=96,slow=6.2,SNR=2.8						
XAN	Xi’an	52.69	43	P	P	12 58 43.2	-1.1
XAN				AMB	AMB		
	comp=Z,36nm,1.0s,mb5.3						
AKTO	Aktyubinsk	53.15	352	LR	LR	13 20 23.5	
	comp=Z,101nm,20.1s,MS3.9,baz=359,slow=35						
KURK	Kurchatov	53.50	8	eP	P	12 58 49.4	-0.5
	comp=Z,13nm,0.9s,mb4.9						
KURK	Kurchatov	53.50	8	eP	P	12 58 49.4	-0.5
KURK				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
WHN	Wuhan	54.81	50	P	P	12 58 59.6	-0.3
BRVK	Borovoye	55.11	2	eP	P	12 59 01.1	-0.5
	comp=Z,22nm,1.2s,mb5.1						
BRVK	Borovoye	55.11	2	eP	P	12 59 01.1	-0.5
BRVK				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.1						
NWAO	Narrogin (SRO)	55.23	129	eP	P	12 59 03.4	+0.4
	comp=Z,20nm,0.9s,mb5.2						
NWAO	Narrogin (SRO)	55.23	129	P	P	12 59 03.1	+0.2
NWAO				pmax	pmax		
	comp=Z,13nm,0.8s						
NWAO	Narrogin (SRO)	55.23	129	P	P	12 59 03.1	+0.2
	comp=Z,13nm,0.8s,mb5.0,baz=254,slow=6.3,SNR=5.2						
ZAL	Zalesovo	57.67	12	P	P	12 59 18.9	-1.0
ZALV	Zalesovo Beam	57.69	12	P	P	12 59 18.9	-1.1
	comp=Z,7.8nm,0.8s,mb4.8,baz=210,slow=7.1,SNR=40						
ZALV				LR	LR	13 25 12.1	
	comp=Z,78nm,18.9s,MS3.8,baz=334,slow=37						
NVS	Novosibirsk	58.23	10	i P	P	12 59 22.6	-1.2
NVS				pmax	pmax		
	comp=N,30nm,1.8s						
NVS				pmax	pmax		
	comp=E,18nm,1.8s						
NVS				pmax	pmax		
	comp=Z,31nm,1.8s,mb5.0						
HHC	Hu-ho-hao-te	58.35	38	eP	P	12 59 25.7	+0.8
HHC				XP	sP	12 59 32.5	+0.9
HHC				PP	PP	13 01 36.8	+2.6
HHC				PCS	PcS	13 04 16.2	-1.0
HHC				S	S	13 07 27.6	+0.6
HHC				SCS	ScS	13 09 12.3	-2.0
HHC				SS	SS	13 11 21.6	+2.2
HHC				AMB	AMB		
	comp=Z,11nm,0.6s,mb5.1						
HHC				AMB	AMB		
	comp=Z,157nm,5.9s						
HHC				LR	LR		
	comp=N,187nm,18.4s,MS4.4						
HHC				LR	LR		
	comp=E,189nm,17.2s,MS4.4						
HHC				LR	LR		
	comp=Z,222nm,18.4s,MS4.3						
VORD	Divnogorie	58.39	339	eP	P	12 59 24.1	-0.9
VORD				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
VORD				pmax	pmax		
	comp=N,10.0nm,0.7s						
VORD				pmax	pmax		
	comp=E,30nm,0.9s						
FITZ	Fitzroy Crossi	58.57	110	eP	P	12 59 27.1	+0.2
	comp=E,13nm,1.0s,mb4.9						
VRSR	Storozhevoye	58.64	339	eP	P	12 59 25.9	-0.8
VRSR				e*PP	pP	12 59 32.9	+1.3
VRSR				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
VRSR				pmax	pmax		
	comp=N,4.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,3.0nm,0.9s						
NJ2	Nanjing	58.93	50	eP	P	12 59 29.3	+0.2
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.3						
ARU	Arti	58.97	354	eP	P	12 59 27.9	-1.0
	comp=Z,9.2nm,0.9s,mb4.8						
ARU	Arti	58.97	354	⇓iP	P	12 59 28.3	-0.6
ARU				e		13 01 34.2	
ARU				eS	S	13 07 30.3	-4.2
ARU				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
SVE	Sverdlovsk	59.16	355	eP	P	12 59 30.0	-0.2
SONM	Songino Array	60.02	29	P	P	12 59 36.4	+0.1
	comp=Z,10.0nm,0.8s,mb4.9,baz=220,slow=6.9,SNR=64						
SONM				LR	LR	13 25 17.2	
	comp=Z,278nm,18.7s,MS4.4,baz=344,slow=36						
ULN	Ulaanbaatar	60.36	29	eP	P	12 59 38.7	0.0
	comp=Z,4.1nm,0.8s,mb4.5						
ULN	Ulaanbaatar	60.36	29	eP	P	12 59 38.7	0.0
ULN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
ZAK	Zakamensk	60.46	25	⇑eP	P	12 59 38.8	-0.5
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.1						
MOY	Mondy	60.51	23	eP	P	12 59 39.6	0.0
BJT	Baijiatuau	60.80	41	eP	P	12 59 41.5	-0.4
BJI	Beijing	60.82	41	P	P	12 59 42.2	+0.2
BJI				S	S	13 08 04.0	+5.0
BJI				AMB	AMB		
	comp=Z,16nm,0.8s,mb5.2						
BJI				LR	LR		
	comp=Z,105nm,18.6s,MS4.0						
TLY	Talaya	61.58	24	eP	P	12 59 47.4	+0.5
	comp=Z,23nm,1.7s,mb5.0						
TLY	Talaya	61.58	24	eP	P	12 59 47.2	+0.3
TLY				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
IRK	Irkutsk	62.26	24	eP	P	12 59 53.4	+2.0
IRK				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.3						
AKASG	Malin Array Be	62.27	333	P	P	12 59 49.8	-1.8
	comp=Z,2.5nm,0.7s,mb4.5,baz=128,slow=5.7,SNR=16						
AKASG				PcP	PcP	13 00 31.2	-0.1
	comp=Z,0.8nm,0.5s,baz=124,slow=3.3,SNR=4.5						
OBN	Obninsk	62.74	340	eP	P	12 59 54.0	-0.6
OBN				e		13 00 00.8	
OBN				pmax	pmax		
	comp=Z,27nm,1.6s,mb5.1						
KOLS	Kolonicke sedl	64.50	328	eP	P	13 00 08.3	+2.0
KOLS				epP	pP	13 00 12.0	+0.8
KAKA	Kakadu	64.53	103	eP	P	13 00 06.7	-0.5
	comp=Z,14nm,0.8s,mb5.0						
CRVS	Cervenica-Dubn	64.90	328	eP	P	13 00 08.8	-0.2
CRVS				epP	pP	13 00 15.0	+1.1
KECS	Kecovo	65.18	327	eP	P	13 00 08.9	-1.9
STHS	Stebnicka Huta	65.33	328	eP	P	13 00 10.4	-1.3
MAW	Mawson	65.36	182	LR	LR	13 20 59.0	
	comp=Z,236nm,20.8s,MS4.4,baz=71,slow=29						
VYHS	Vyhne	66.08	327	eP	P	13 00 15.6	-1.0
	comp=Z,2.4nm,0.9s,mb4.2						
VYHS				e		13 00 22.6	
VYHS	Vyhne	66.08	327	eP	P	13 00 15.6	-1.0
VYHS				e		13 00 22.6	
VYHS				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
CIT	Chita	66.26	29	eP	P	13 00 16.8	-0.9
CIT				pmax	pmax		
	comp=Z,42nm,2.3s,mb5.1						
MODS	Modra-Piesok	66.89	326	eP	P	13 00 20.8	-1.0
	comp=Z,3.0nm,1.0s,mb4.3						
MODS				e	pP	13 00 27.0	+0.3
MODS	Modra-Piesok	66.89	326	eP	P	13 00 20.8	-1.0
MODS				e	pP	13 00 27.0	+0.3
MODS				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
ZST	Bratislava	66.89	326	eP	P	13 00 21.2	-0.6
WRA	Warramunga Arr	66.97	111	P	P	13 00 22.5	-0.3
	comp=Z,8.2nm,0.8s,mb4.8,baz=283,slow=6.1,SNR=44						
WB2	Warramunga Arr	66.98	111	eP	P	13 00 23.1	+0.2
TORD	Torodi Ar. Bea	67.57	285	P	P	13 00 27.4	+0.6
	comp=Z,3.6nm,1.2s,mb4.3,baz=85,slow=3.5,SNR=7.6						
HIA	Hailar	67.86	34	eP	P	13 00 28.0	0.0
	comp=Z,28nm,1.3s,mb5.1						
HIA	Hailar	67.86	34	eP	P	13 00 28.0	+0.1
HIA				pmax	pmax		
	comp=Z,28nm,1.3s						
KSRS	Korea Array	67.91	48	P	P	13 00 27.1	-1.4
KSRS				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
KSRS				MLR	MLR		
	comp=Z,105nm,18.8s,MS4.1						
KSRS	Korea Array	67.91	48	P	P	13 00 27.1	-1.4
	comp=Z,3.1nm,0.8s,mb4.4,baz=249,slow=7.0,SNR=9.2						
KSRS				LR	LR	13 29 51.5	
	comp=Z,105nm,18.8s,MS4.1,baz=64,slow=36						
CN2	Changchun	68.69	41	eP	P	13 00 32.7	-0.5
CN2				eAP	pP	13 00 39.1	+0.9
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
CN2				LR	LR		
	comp=Z,200nm,16.0s,MS4.5						
JNU	Nakatsue	68.77	53	LR	LR	13 31 11.2	
	comp=Z,132nm,19.1s,MS4.2,baz=99,slow=36						
VSU	Vasula	68.80	338	eP	P	13 00 32.7	-0.9
BOD	Bodaibo	70.16	24	eP	P	13 00 40.1	-1.9
BOD				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
CLL	Collm	70.78	327	eP	P	13 00 46.0	+0.1
CLL				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
CLL				MLR	MLR		
	comp=Z,200nm,18.5s,MS4.4						
CLL	Collm	70.78	327	eP	P	13 00 46.0	+0.1
	comp=Z,6.0nm,1.0s,mb4.5						
CLL				Lm		13 33 00.0	
	comp=Z,200nm,18.5s						
FINES	FINESS Array B	71.14	340	P	P	13 00 46.7	-1.2
FINES	FINESS Array B	71.14	340	i P	P	13 00 48.0	0.0
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	FINESS Array B	71.14	340	P	P	13 00 46.7	-1.2
	comp=Z,2.1nm,0.8s,mb4.1,baz=155,slow=6.3,SNR=3.7						
MDJ	Mudanjiang	71.74	41	P	P	13 00 51.5	-0.4
MDJ				AP	pP	13 00 54.8	-2.1
MDJ				XP	sP	13 00 56.0	-2.7
MDJ				PP	PP	13 03 30.9	-0.5
MDJ				S	S	13 10 12.8	+1.2
MDJ				SCS	ScS	13 10 55.5	-1.5
MDJ				SS	SS	13 14 49.9	+2.2
MDJ				AMB	AMB		
	comp=Z,11nm,1.4s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,168nm,4.2s						
MDJ				LR	LR		
	comp=N,30nm,7.0s						

MDJ				LR	LR		
	comp=E,67nm,7.0s						
MDJ				LR	LR		
	comp=Z,163nm,5.8s						
MDJ	Mudanjiang	71.74	41	eP	P	13 00 52.1	+0.2
	comp=Z,18nm,1.2s,mb4.9						
VLA	Vladivostok	72.75	43	eP	P	13 00 57.2	-0.8
VLA				pmax	pmax		
	comp=Z,28nm,2.1s,mb4.8						
KLR	Kul'dur	74.85	38	eP	P	13 01 05.8	-4.4
STKA	Stephens Creek	74.86	122	eP	P	13 01 10.8	+0.2
	comp=Z,5.1nm,0.8s,mb4.5						
STKA	Stephens Creek	74.86	122	P	P	13 01 09.5	-1.2
	comp=Z,5.6nm,0.7s,mb4.6,baz=295,slow=7.4,SNR=12						
MAT	Matsushiro	75.49	51	P	P	13 01 14.0	-0.2
MJAR	Matsushiro Arr	75.49	51	P	P	13 01 13.3	-0.8
	comp=Z,2.5nm,0.7s,mb4.2,baz=248,slow=4.6,SNR=9.5						
NB2	NORSAR Subarra	76.56	335	P	P	13 01 18.8	-0.9
	comp=Z,6.6nm,1.2s,mb4.4,baz=121,slow=5.9						
NOA	NORSAR Array B	76.56	335	P	P	13 01 18.8	-0.9
	comp=Z,3.0nm,1.0s,mb4.2,baz=113,slow=6.0,SNR=4.6						
HABR	Khabarovsk	76.63	39	P	P	13 01 22.0	+1.6
HABR				eS	S	13 11 07.2	+0.8
HABR				e		13 11 31.6	
HABR				eSS	SS	13 15 58.5	-3.5
ARCES	ARCESS Array B	77.12	346	P	P	13 01 22.5	-0.3
	comp=Z,6.7nm,0.9s,mb4.6,baz=147,slow=2.5,SNR=5.6						
ESDC	Sonseca Array	77.67	311	P	P	13 01 26.4	0.0
	comp=Z,2.5nm,0.7s,mb4.2,baz=79,slow=5.2,SNR=7.9						
CTA	Charters Tower	78.15	110	eP	P	13 01 29.7	+0.2
YSS	Yuzh-Sakhalins	81.22	42	eP	P	13 01 45.0	-0.7
	comp=Z,59nm,1.3s,mb5.4						
YSS	Yuzh-Sakhalins	81.22	42	c iP	P	13 01 44.8	-0.8
YSS				pmax	pmax		
	comp=Z,45nm,1.7s,mb5.1						
TIXI	Tiksi	83.23	16	eP	P	13 01 54.5	-1.1
	comp=Z,14nm,0.8s,mb5.0						
TIXI	Tiksi	83.23	16	eP	P	13 01 53.9	-1.7
TIXI				e	pP	13 02 00.0	-0.7
TIXI				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.1						
TIXI				MLR	MLR		
	comp=Z,134nm,17.0s,MS4.4						
MA2	Magadan	88.20	30	eP	P	13 02 19.7	-0.9
	comp=Z,3.0nm,0.6s,mb4.7						
MA2	Magadan	88.20	30	eP	P	13 02 19.7	-0.8
MA2				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.7						
SEY	Seymchan	89.37	27	eP	P	13 02 25.7	-0.3
PET	Petropavlovsk	92.11	37	eP	P	13 02 37.1	-1.9
YKA	Yellowknife Ar	119.84	1	PKP	PKPdf	13 08 18.4	-1.3
YKA	Yellowknife Ar	119.84	1	i PKIKP	PKPdf	13 08 19.0	-0.7
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA	Yellowknife Ar	119.84	1	PKP	PKPdf	13 08 18.4	-1.3
	comp=Z,1.5nm,0.7s,baz=354,slow=2.0,SNR=25						
CFAA	Coronel Fontan	126.61	227	PKP	PKPdf	13 08 33.0	-0.6
CFAA	Coronel Fontan	126.61	227	PKP	PKPdf	13 08 33.0	-0.6
	comp=Z,0.2nm,0.4s,baz=208,slow=2.0,SNR=4.3						
ULM	Lac du Bonnet	130.24	347	PKP	PKPdf	13 08 40.5	+0.6
ULM	Lac du Bonnet	130.24	347	PKP	PKPdf	13 08 40.5	+0.5
	comp=Z,1.4nm,0.7s,baz=302,slow=1.0,SNR=3.0						
TPAW	Teton Pass	138.90	359	ePKPdf	PKPdf	13 08 55.8	-0.6
REDW	Red Top Meadow	139.02	359	ePKPdf	PKPdf	13 08 56.1	-0.5
BW06	Boulder Array	139.57	357	ePKPdf	PKPdf	13 08 57.8	+0.2
HWUT	Hardware Ranch	140.79	360	ePKPdf	PKPdf	13 08 59.9	0.0
NVAR	Mina Array Bea	143.50	8	PKP	PKPdf	13 09 04.3	-0.5
NVAR	Mina Array Bea	143.50	8	PKP	PKPdf	13 09 04.3	-0.5
	comp=Z,1.4nm,0.7s,baz=27,slow=2.9,SNR=12						
MSU	Marysvale	143.88	0	ePKPdf	PKPdf	13 09 04.2	-1.3
MSU	Marysvale	143.88	0	ePKIKP	PKPdf	13 09 04.2	-1.3
PV10	Paradox Valley	143.92	356	ePKPdf	PKPdf	13 09 04.2	-1.3
PV01	Paradox Valley	144.12	355	ePKPdf	PKPdf	13 09 04.5	-1.4
MTUM	Tungsten Hills	144.51	9	ePKPdf	PKPdf	13 09 06.4	-0.2
ARUT	Antelope Range	144.58	2	ePKPdf	PKPdf	13 09 05.9	-0.8
ARUT	Antelope Range	144.58	2	ePKIKP	PKPdf	13 09 05.9	-0.8
CCUT	Cedar City	144.82	2	ePKPdf	PKPdf	13 09 07.3	+0.1
ATAH	Atahualpa	145.29	254	PKPbc	PKPbc	13 09 10.5	+2.1
	comp=Z,6.0nm,0.6s,baz=112,slow=5.2,SNR=4.3						
WMOK	Wichita Mounta	145.40	341	ePKPdf	PKPdf	13 09 08.2	0.0
WMOK	Wichita Mounta	145.40	341	ePKIKP	PKPdf	13 09 08.2	0.0
DAC	Darwin (Calif)	145.71	8	ePKPdf	PKPdf	13 09 09.9	+1.1
DAC	Darwin (Calif)	145.71	8	ePKIKP	PKPdf	13 09 09.9	+1.2
SHPR	Sheep Range	145.75	5	ePKPdf	PKPdf	13 09 08.3	-0.5
AMTX	Amarillo	146.13	345	ePKPbc	PKPbc	13 09 09.8	-0.6
OTAV	Otavalo	146.47	267	ePKPab	PKPab	13 09 13.8	+0.9
WUAZ	Wupatki	146.87	359	ePKPdf	PKPdf	13 09 11.6	+0.9
ANMO	Albuquerque	147.04	352	ePKPbc	PKPbc	13 09 12.6	-0.5
ANMO	Albuquerque	147.04	352	ePKP2	PKPab	13 09 12.6	-1.8
BNM	Barren Site	147.85	352	ePKPdf	PKPdf	13 09 12.2	-0.2
PFO	Pinyon Flat Ob	148.49	7	ePKPbc	PKPbc	13 09 17.2	+0.2
PFO	Pinyon Flat Ob	148.49	7	ePKP2	PKPab	13 09 17.2	-3.0
JCT	Junction City	149.63	339	ePKPbc	PKPbc	13 09 19.7	-0.2
JCT	Junction City	149.63	339	ePKP2	PKPab	13 09 19.7	-5.2
MNTX	Cornudas Mount	150.03	349	ePKPdf	PKPdf	13 09 16.9	+0.9
MNTX				ePKPbc	PKPbc	13 09 21.3	+0.4
MNTX				ePKPab	PKPab	13 09 27.9	+1.4
LTX	Lajitas	151.91	345	ePKPbc	PKPbc	13 09 25.2	-0.2
LTX	Lajitas	151.91	345	ePKIKP	PKPbc	13 09 25.2	-0.2
TXAR	Lajitas Array	151.91	345	PKP	PKPdf	13 09 19.4	+0.5
TXAR				PKPbc	PKPbc	13 09 25.6	+0.2
TXAR	Lajitas Array	151.91	345	PKIKP	PKPdf	13 09 19.5	+0.6
TXAR						13 09 25.6	
TXAR	Lajitas Array	151.91	345	PKP	PKPdf	13 09 19.4	+0.5
	comp=Z,0.8nm,0.9s,baz=221,slow=1.2,SNR=7.5						
TXAR				PKPbc	PKPbc	13 09 25.6	+0.2
	comp=Z,6.6nm,0.8s,baz=78,slow=1.3,SNR=61						

MAN 08 12:53:08, 8.79N×123.16E, h1^{km}, mb3.9, ML2.7, MS2.3, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNPH	Sibulan	0.56	8	eP	Pg	12 53 17.0	-1.7
BUKP	Musuan	2.09	115	eP	Pn	12 53 46.9	+2.7
CUYO	Cuyo Island	2.94	314	eP	Pn	12 53 57.2	+1.4

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*TRN **08** 12:53:24.4, 9.16N×63.47W, h5^{km}, MD4.3*
*ISCJB **08** 12:53:25.3±1.0, 9.14N±0.03×63.51W±0.03, h19^{km}±9^{km}, mb3.9/8, Error ellipse: s-maj=5.5km s-min=3.7km az=146.0*
*NEIC **08** 12:53:25.7, 9.14N×63.44W, h4^{km}, mb3.8/1, After CAR.*
*FUNV **08** 12:53:25.9, 9.15N×63.44W, h6^{km}, MW4.6*
*IDC **08** 12:53:29.9±1.6, 9.44N×63.29W, h69^{km}±14^{km}, mb3.7/8, mb1 4.0/9, mb1mx3.7/20, mbtmp3.8/9, MS4.2/1, Ms1 4.2/1, ms1mx3.0/24, Error ellipse: s-maj=15.3km s-min=11.0km az=135.0*

ISC 08 12:53:26.1±0.8, 9.15N±0.03×63.47W±0.02, h16^{km}±6^{km}, n60, σ1^{s}04/79, mb3.9/8, 11C-11D, Venezuela

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUNV	Guanoco	1.13	27	⇑iP	Pn	12 53 46.8	-0.5
GUNV				eS	Sb	12 54 01.6	-0.2
GUNV	Guanoco	1.13	27	⇑iP	Pn	12 53 46.8	-0.5
GUNV				eS	Sb	12 54 01.6	-0.2
PRGV	PARIAGUAN	1.23	252	⇑eP	Pn	12 53 49.0	+0.4
PRGV				eS	Sb	12 54 06.8	+2.3
GURV	El Guri	1.43	165	⇓eP	Pn	12 53 51.6	+0.2
GURV				eS	Sn	12 54 11.6	+1.7
CAIV	Caiguire	1.48	332	⇑eP	Sg	12 54 17.5	+3.5
CRUV	Carupano	1.53	9	⇑eP	Pn	12 53 53.4	+0.6
CRUV				eS	Sn	12 54 12.9	+0.4
CRUV	Carupano	1.53	9	⇑eP	Pn	12 53 53.4	+0.6
CRUV				eS	Sn	12 54 12.9	+0.4
PCRV	Puerto La Cruz	1.54	312	⇓eP	Pn	12 53 52.9	0.0
PCRV				eS	Sn	12 54 13.5	+0.9
PCRV	Puerto La Cruz	1.54	312	P	Pn	12 53 53.0	+0.1
	292nm,0.3s,baz=143,slow=6.6,SNR=241						
PCRV				S	Sn	12 54 13.2	+0.6
	360nm,0.3s,baz=332,slow=15,SNR=23						
GUIV	Guiria	1.93	39	⇑iP	Pn	12 53 58.3	0.0
GUIV				eS	Sn	12 54 23.1	+0.9
RIOV	Rio Grande	1.96	123	⇓eP	Pn	12 53 58.8	+0.2
RIOV	Rio Grande	1.96	123	⇓eP	Pn	12 53 58.6	0.0
BUAY	Buenos Aires	2.00	61	eP	Pg	12 54 03.4	-1.0
ALNG	Atlantic LNG	2.03	60	eP	Pg	12 54 05.7	+0.6
TCE	Chacachacare	2.28	48	⇑iP	Pn	12 54 03.4	+0.2
TCE				eS	Sn	12 54 26.3	-4.7
TPP	Pointe-a-Pierr	2.30	60	eP	Pn	12 54 03.9	+0.5
TPP				eS	Sg	12 54 40.2	0.0
CUPV	Cœpira	2.46	292	⇓eP	Pn	12 54 05.4	-0.2
CUPV				eS	Sn	12 54 35.2	-0.1
TRN	Trinidad (W)	2.52	54	eP	Pn	12 54 06.2	-0.2
TRN				eS	Sn	12 54 35.9	-0.9
TBH	Brigand Hill	2.71	61	⇑eP	Pn	12 54 09.3	+0.3
MERV	Las Mercedes	2.80	272	⇓iP	Pn	12 54 10.0	-0.2
IBAV	Isla La Blanqu	2.87	338	⇑eP	Pn	12 54 10.4	-0.9
IBAV	Isla La Blanqu	2.87	338	eP	Pn	12 54 10.3	-1.0
BIRV	Birongo	3.06	296	eP	Pn	12 54 14.2	+0.4
BIRV	Birongo	3.06	296	eP	Pn	12 54 14.4	+0.6
TPR	Prospect	3.33	52	eP	Pn	12 54 15.2	-2.3
TPR				eS	Sn	12 54 44.2	-13
CAOV	Caicara del Or	3.36	238	⇑eP	Pn	12 54 17.5	-0.4
GRGR	Grenville	3.46	31	ePn	Pn	12 54 18.7	-0.6
GRGR				eS	Sn	12 55 03.7	+3.7
GRW	Mount Saint Ca	3.48	31	eP	Pn	12 54 20.5	+0.9
GRW				eS	Sn	12 54 52.3	-8.2
FUNV	FUNVISIS	3.55	292	⇓iP	Pn	12 54 20.8	+0.2
GRSS	Sisters	3.62	30	eP	Pn	12 54 21.9	+0.4
GRSS				eS	Sn	12 55 02.5	-1.6
GRSS	Sisters	3.62	30	eP	Pn	12 54 22.0	+0.5
GRSS				eS	Sn	12 55 02.5	-1.6
ORCV	Isla La Orchil	3.77	315	eP	Pn	12 54 23.7	+0.1
LUEV	Luepa	3.84	149	⇓eP	Pn	12 54 24.0	-0.6
TURV	Turiamo	4.50	287	eP	Pn	12 54 33.5	-0.1
BAUV	El Baul	4.52	268	eP	Pn	12 54 33.3	-0.6
BAUV	El Baul	4.52	268	eP	Pn	12 54 33.3	-0.6
SVB	Belmont	4.64	28	eS	Sn	12 55 29.4	+0.3
SSV	Crater Summit	4.71	28	eS	Sn	12 55 33.5	+2.6
JACV	Jacura	5.62	290	eP	Pn	12 54 49.1	0.0
TEPV	Terepaima	5.70	279	eP	Pn	12 54 49.7	-0.5
SANV	Sanarito	6.00	274	eP	Pn	12 54 54.5	+0.2
SIQV	Siquisique	6.42	284	eP	Pn	12 54 59.6	-0.5
SIQV	Siquisique	6.42	284	eP	Pn	12 54 59.0	-1.1
CURV	Curarigua	6.46	278	⇓eP	Pn	12 55 00.0	-0.6
TBG	Guadaloupe-3	6.90	15	eP	Pn	12 55 09.6	+3.0
SOCV	Socops	7.36	264	⇓eP	Pn	12 55 11.5	-1.4
DEG	La Desirade	7.50	18	eP	Pn	12 55 16.6	+1.7
VIGV	El Vigia	7.81	268	eP	Pn	12 55 18.5	-0.6
CAPV	Capacho	8.84	262	⇓iP	Pn	12 55 32.7	-0.6
ROSC	El Rosal	11.59	249	ePn	Pn	12 56 16.6	+5.5
ROSC	El Rosal	11.59	249	P	Pn	12 56 17.3	+6.2
	3.1nm,0.3s,baz=94,slow=23,SNR=3.0						
ROSC				S	Sn	12 58 38.4	+18
	1.6nm,0.3s,baz=92,slow=20,SNR=2.5						
ATAH	Atahualpa	21.88	223	P	P	12 58 22.3	+3.8
	15nm,0.9s,mb4.4,baz=46,slow=7.0,SNR=9.6						
SIV	San Ignacio	25.09	175	P	P	12 58 50.5	+0.3
	7.2nm,0.7s,mb4.3,baz=13,slow=9.2,SNR=31						
LPAZ	La Paz	25.69	190	eP	P	12 58 57.5	+1.9
	1.2nm,0.6s,mb3.6						
LPAZ	La Paz	25.69	190	P	P	12 58 57.5	+1.8
	1.8nm,0.9s,mb3.6,baz=5.1,slow=6.1,SNR=4.3						
TXAR	Lajitas Array	42.65	304	P	P	13 01 20.5	-1.6
	0.6nm,0.8s,mb3.4,baz=132,slow=8.1,SNR=8.9						
ULM	Lac du Bonnet	48.98	333	P	P	13 02 06.5	-5.3
	6.1nm,0.6s,mb4.8,baz=126,slow=7.6,SNR=20						
NVAR	Mina Array Bea	57.02	310	P	P	13 03 08.3	-3.0
	0.2nm,0.5s,mb3.4,baz=138,slow=4.1,SNR=3.5						
YKA	Yellowknife Ar	64.69	336	P	P	13 03 59.3	-3.8
	0.8nm,0.6s,mb4.0,baz=111,slow=7.4,SNR=7.8						
GERES	GERESS Array B	74.72	42	P	P	13 05 02.3	-2.9
	0.5nm,0.6s,mb3.6,baz=231,slow=5.7,SNR=3.4						

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*ISCJB **08** 13:00:13.1±0.8, 9.2N±0.2×39.5W±0.1, h10^{km}, mb4.3/18, MS4.2/13, Error ellipse: s-maj=24.6km s-min=15.2km az=160.4*
*VIE **08** 13:00:13.0, 9.23N×39.44W, h0^{km}, mb4.0, Ms4.2*
*IDC **08** 13:00:13.0±1.1, 9.23N×39.44W, h0^{km}, mb4.0/11, mb1 4.2/11, mb1mx4.1/19, mbtmp4.0/11, MS4.2/12, Ms1 4.2/12, ms1mx4.0/20, Error ellipse: s-maj=32.4km s-min=21.3km az=170.0*
*NEIC **08** 13:00:14.8±0.8, 9.14N×39.47W, h10^{km}, mb4.8/6, Error ellipse: s-maj=24.6km s-min=16.0km az=162.0*
*GCMT **08** 13:00:16.0±0.2, 8.79N×39.36W, h12^{km}, MW5.0/73, Moment Tensor Solution. s30,c38; s73,c115; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.26±.08; $M_{\theta\theta}$-0.10±.08; $M_{\phi\phi}$3.36±.07; $M_{r\theta}$0.70±.25; $M_{\theta\phi}$-0.35±.07; $M_{\phi r}$-1.06±.23; Best double couple: $M_0$3.56400×10^{16} NP1:ϕ_s184.00000°,δ36.00000°,λ-74.00000°. NP2: ϕ_s345.00000°,δ55.00000°,λ-101.00000°. Principal axes: T 3.5830, Plg9.0000°, Azm83.0000°; N -0.0370, Plg9.0000°, Azm351.0000°; P -3.5450, Plg77.0000°, Azm217.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*CSEM **08** 13:00:17.0±0.1, 9.33N×39.67W, h33^{km}, mb4.8/8, Ms4.2, Mw5.0 Error ellipse: s-maj=7.1km s-min=4.4km az=137.0*
*SZGRF **08** 13:00:27.0, 9.87N×38.40W, h33^{km}, mb4.7, MS4.0, Central Mid-Atlantic Ridge*

ISC 08 13:00:15.5±0.9, 9.3N±0.2×39.6W±0.1, h10^{km}, n31, σ0^{s}85/23, mb4.3/18, MS4.2/13, 5C-1D, Central Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCRV	Puerto La Cruz	24.70	274	LR	LR	13 16 38.0	
	comp=Z,604nm,18.5s,MS4.1,baz=76,slow=40						
SJG	San Juan	27.23	292	LR	LR	13 14 39.1	
	comp=Z,743nm,21.1s,MS4.2,baz=93,slow=32						
ROSC	El Rosal	34.73	265	LR	LR	13 21 19.2	
	comp=Z,535nm,21.0s,MS4.3,baz=18,slow=36						
LPAZ	La Paz	37.96	228	LR	LR	13 22 30.0	
	comp=Z,237nm,20.5s,MS4.0,baz=70,slow=35						
MDT	Midelt	39.90	49	LR	LR	13 22 22.9	
	comp=Z,310nm,18.6s,MS4.2,baz=161,slow=33						
TORD	Torodi Ar. Bea	40.66	81	P	P	13 07 52.4	-3.9
	1.2nm,0.8s,mb3.5,baz=269,slow=8.5,SNR=5.1						
TORD				LR	LR	13 23 17.3	
	comp=Z,788nm,18.4s,MS4.6,baz=265,slow=34						
CFAA	Coronel Fontan	49.01	213	P	P	13 09 02.8	+0.2
	0.4nm,0.7s,mb3.5,baz=62,slow=7.2,SNR=3.7						
SCHQ	Schefferville	50.35	340	P	P	13 09 12.1	-0.5
SCHQ	Schefferville	50.35	340	P	P	13 09 12.1	-0.4
	8.3nm,1.0s,mb4.7,baz=178,slow=9.8,SNR=6.2						
KEST	Kesra	51.66	51	P	P	13 09 22.2	-0.4
	2.6nm,0.9s,mb4.2,baz=140,slow=3.7,SNR=3.0						
FETA	Feichten	56.80	39	⇑iP	P	13 10 01.3	+1.4
	7.6nm,1.0s,mb4.7						
MOTA	Moosalm	57.16	39	⇑iP	P	13 10 03.6	+1.1
	comp=Z,3.9nm,0.7s,mb4.5						
SQTA	Sankt Quirin	57.18	39	⇑iP	P	13 10 02.9	+0.3
	comp=Z,16nm,1.2s,mb4.9						
WTTA	Wattenberg	57.46	39	⇓iP	P	13 10 05.4	+0.8
	comp=Z,17nm,1.1s,mb5.0						
ABTA	Abfaltersbach	57.80	40	⇑iP	P	13 10 07.6	+0.6
	13nm,1.2s,mb4.8						
GRA1	Grafenberg Arr	58.23	36	eP	P	13 10 10.3	+0.3
	11nm,1.3s,mb4.7						
GRA1				LR	LR		
	comp=Z,100nm,21.1s,MS3.9						
GRF	Grafenberg Arr	58.23	36	eP	P	13 10 10.3	+0.3
	comp=Z,11nm,1.3s,mb4.7						
GRF				eL		13 30 27.3	
	comp=Z,122nm,21.1s						
OBKA	Obir	59.02	41	⇑iP	P	13 10 16.3	+0.8
	comp=Z,15nm,1.0s,mb5.0						
GERES	GERESS Array B	59.36	38	P	P	13 10 17.4	-0.5
	comp=Z,1.2nm,0.9s,mb3.9,baz=281,slow=7.7,SNR=5.5						
ULM	Lac du Bonnet	61.69	323	P	P	13 10 33.6	-0.1
	comp=Z,2.3nm,0.9s,mb4.3,baz=117,slow=11,SNR=4.2						
ULM				LR	LR	13 35 53.6	
	comp=Z,122nm,18.3s,MS4.1,baz=68,slow=35						
TXAR	Lajitas Array	62.95	298	P	P	13 10 42.9	+0.3
TXAR				LR	LR	13 36 48.1	
TXAR	Lajitas Array	62.95	298	P	P	13 10 42.9	+0.3
	comp=Z,0.5nm,0.5s,mb3.9,baz=94,slow=6.0,SNR=7.2						
TXAR				LR	LR	13 36 48.1	
	comp=Z,151nm,18.4s,MS4.2,baz=5.0,slow=35						
NOA	NORSAR Array B	63.70	25	P	P	13 10 45.9	-1.0
	comp=Z,1.9nm,0.9s,mb4.1,baz=238,slow=6.7,SNR=2.6						
AKASG	Malin Array Be	69.51	39	P	P	13 11 22.7	-1.6
	comp=Z,1.1nm,0.6s,mb4.0,baz=258,slow=6.0,SNR=5.9						
BRTR	Keskin Array B	71.26	51	P	P	13 11 34.1	-1.2
	comp=Z,1.3nm,0.9s,mb3.9,baz=302,slow=5.7,SNR=5.8						
ARCES	ARCESS Array B	72.81	20	LR	LR	13 36 45.8	
	comp=Z,104nm,20.9s,MS4.1,baz=8.0,slow=30						
EDM	Edmonton	72.92	323	P	P	13 11 45.9	+0.9
EDM	Edmonton	72.92	323	P	P	13 11 45.8	+0.9
BOSA	Boshof	72.98	124	LR	LR	13 36 48.7	
	comp=Z,261nm,19.6s,MS4.5,baz=290,slow=30						
YKA	Yellowknife Ar	74.93	332	P	P	13 11 55.6	-0.9
	comp=Z,3.2nm,1.1s,mb4.2,baz=99,slow=6.1,SNR=12						
YKA				LR	LR	13 39 47.0	
	comp=Z,80nm,20.9s,MS4.0,baz=315,slow=32						
KMBO	Kilima Mbogo	77.21	93	LR	LR	13 41 50.9	
	comp=Z,184nm,20.4s,MS4.4,baz=281,slow=32						

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*MOS **08** 13:10:43.8±0.6, 46.37N×155.95E, h33^{km}, mb4.2/5, Error ellipse: s-maj=61.7km s-min=49.1km az=108.2*
*IDC **08** 13:10:44.1±1.0, 46.90N×155.80E, h0^{km}, mb3.8/7, mb1 4.1/7, mb1mx3.8/21, mbtmp3.8/7, Error ellipse: s-maj=31.0km s-min=21.2km az=161.0*
*ISCJB **08** 13:10:47.2±1.0, 46.9N±0.2×155.8E±0.2, h33^{km}, mb3.8/7, Error ellipse: s-maj=27.8km s-min=18.2km az=168.3*

ISC 08 13:10:49.4±1.0, 47.0N±0.2×155.8E±0.2, h35^{km}, n14, σ0^{s}76/14, mb3.8/7, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	3.74	3	ePN	Pn	13 12 02.1	+17
SONM	Songino Array	32.98	290	P	P	13 17 19.9	-0.8
	0.3nm,0.6s,mb3.4,baz=46,slow=4.2,SNR=2.6						
INK	Inuvik	40.50	33	P	P	13 18 24.4	0.0
INK				pmax	pmax		
	comp=Z,3.0nm,0.7s						
INK	Inuvik	40.50	33	P	P	13 18 24.4	0.0
	comp=Z,3.0nm,0.7s,mb4.0,baz=292,slow=7.0,SNR=14						
ZALV	Zalesovo Beam	43.96	306	P	P	13 18 52.5	-0.2
	comp=Z,0.2nm,0.3s,mb3.3,baz=64,slow=6.6,SNR=2.1						
ZAL	Zalesovo	43.98	306	P	P	13 18 52.5	-0.4
MKAR	Makanchi Array	48.45	298	P	P	13 19 29.9	+1.8
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR	Makanchi Array	48.45	298	P	P	13 19 29.9	+1.7
	comp=Z,1.1nm,0.9s,mb3.9,baz=62,slow=9.9,SNR=3.6						
YKA	Yellowknife Ar	49.67	38	P	P	13 19 36.5	-0.7
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	Yellowknife Ar	49.67	38	P	P	13 19 36.5	-0.7
	comp=Z,1.3nm,0.9s,mb4.0,baz=297,slow=7.6,SNR=8.7						
WRA	Warramunga Arr	69.33	202	P	P	13 21 52.9	-0.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	Warramunga Arr	69.33	202	P	P	13 21 52.9	-0.2
	comp=Z,1.1nm,0.8s,mb3.8,baz=21,slow=6.8,SNR=3.9						
TXAR	Lajitas Array	75.80	62	P	P	13 22 32.5	+0.7
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
TXAR	Lajitas Array	75.80	62	P	P	13 22 32.5	+0.7
	comp=Z,2.3nm,0.9s,mb4.1,baz=300,slow=4.1,SNR=23						

NEIC 08 13:26:14.0, 37.90S×176.81E, h9^{km}, ML3.8(WEL), After WEL., North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MARZ	Manawahe	0.14	231	P	Pg	13 26 17.3	+0.2
MARZ				S	Sg	13 26 19.7	+0.5
EDRZ	Edgecumbe	0.21	195	P	Pg	13 26 19.2	+0.8
EDRZ				S	Sg	13 26 22.4	+1.0
KARZ	Kaharoa	0.46	255	P	Pg	13 26 23.3	+0.3
TGRZ	Tauranga	0.47	291	P	Pg	13 26 23.4	+0.3
TGRZ				S	Sg	13 26 30.6	+1.4
MWZ	Matawai	0.71	128	P	Pg	13 26 27.3	-0.5

CASC 08 13:35:50.8±1.8, 8.32N×82.79W, h20^{km}±6^{km}, MD3.7, 1C-3D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DVD	David	0.35	72	⇓iP	Pb	13 35 58.4	0.0
BRU2	Volcan	0.48	12	⇓iP	Pb	13 36 00.3	-0.2
TBS2		0.48	16	eP	Pb	13 36 07.8	+7.2
TBS2				eS	Sb	13 36 16.0	+8.7
BRU	Baru	0.53	25	eP	Pb	13 36 01.3	-0.1
CTCR	Cotoan	0.57	3	⇓eP	Pb	13 36 01.7	-0.4
CTCR				eS	Sb	13 36 10.3	+0.5
BAR1		1.05	331	eP	Pb	13 36 10.4	+0.1
BAR1				eS	Sb	13 36 22.9	-0.6
CNI	Changuinola	1.12	14	eP	Pn	13 36 10.3	-1.1
QCR	Quepos	1.75	309	eP	Pn	13 36 19.9	-0.1
URSC	Urasca	1.79	327	eP	Pn	13 36 20.5	-0.1
URSC				eS	Sn	13 36 44.0	+1.2
LCR2	La Lucha 2	1.85	320	eP	Pn	13 36 22.2	+0.8
LCR2				eS	Sn	13 36 45.0	+0.8
PRS1	Puriscal	2.23	318	eP	Pn	13 36 26.6	-0.1
PRS1				eS	Sn	13 36 54.0	+0.4
PTP	Ponta Puerca	19.38	58	⇑iP		13 35 55.3	

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*NEIC **08** 13:39:12.3, 18.68N×64.89W, h62^{km}, MD3.2(RSPR), After RSPR.*

RSPR 08 13:39:12.3, 18.68N×64.89W, h62^{km}±6^{km}, MD3.2/3, MD3.2/3, 14C-4D, Virgin Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STVI	Saint Thomas	0.33	191	eS	Sn	13 39 30.8	+0.2
STVI	Saint Thomas	0.33	191	⇑eP	Pn	13 39 22.5	-0.4
STVI	Saint Thomas	0.33	191	⇑eP	Pn	13 39 22.5	-0.4
STVI				eS	Sn	13 39 30.4	-0.2
STVI	Saint Thomas	0.33	191	⇓eP	Pn	13 39 22.5	-0.4
STVI				eS	Sn	13 39 30.8	+0.2
TBVI	Tortola	0.37	135	eS	Sn	13 39 29.6	-1.6
TBVI	Tortola	0.37	135	⇑eP	Pn	13 39 23.1	-0.1
TBVI				eS	Sn	13 39 29.6	-1.6
ABV	Anegada	0.53	84	⇑eP	Pn	13 39 24.9	0.0
ABV	Anegada	0.53	84	eS	Sn	13 39 33.4	-0.5
MTP	Monte Pirata	0.85	228	eS	Sn	13 39 40.2	-0.4
MTP	Monte Pirata	0.85	228	⇑eP	Pn	13 39 27.6	-1.0
MTP	Monte Pirata	0.85	228	eS	Sn	13 39 41.0	+0.4
MTP	Monte Pirata	0.85	228	⇑eP	Pn	13 39 27.6	-1.0
MTP				eS	Sn	13 39 40.2	-0.4
MTP	Monte Pirata	0.85	228	⇓eP	Pn	13 39 27.7	-0.9
MTP				eS	Sn	13 39 41.0	+0.4
CBYP	Canovanas	1.00	246	eS	Sn	13 39 43.2	-0.7
CBYP	Canovanas	1.00	246	⇑eP	Pn	13 39 29.3	-1.2
CBYP	Canovanas	1.00	246	eS	Sn	13 39 43.1	-0.9
CBYP	Canovanas	1.00	246	⇑eP	Pn	13 39 29.3	-1.2
CBYP				eS	Sn	13 39 43.1	-0.9
CBYP	Canovanas	1.00	246	⇓eP	Pn	13 39 29.4	-1.1
CBYP				eS	Sn	13 39 43.2	-0.7
HUMP	Col San Antoni	1.05	240	⇑eP	Pn	13 39 29.4	-1.8
HUMP	Col San Antoni	1.05	240	⇓eP	Pn	13 39 30.2	-1.0
HUMP				eS	Sn	13 39 44.8	-0.4
HUMP	Col San Antoni	1.05	240	⇑eP	Pn	13 39 29.4	-1.8
HUMP				eS	Sn	13 39 44.2	-1.0
CPD	Cerro la Pandu	1.16	237	eS	Sn	13 39 47.6	-0.1
CPD	Cerro la Pandu	1.16	237	⇑eP	Pn	13 39 32.0	-0.6
CPD	Cerro la Pandu	1.16	237	eS	Sn	13 39 47.6	-0.1
CPD	Cerro la Pandu	1.16	237	⇑eP	Pn	13 39 32.0	-0.6
CPD				eS	Sn	13 39 47.6	-0.1
CPD	Cerro la Pandu	1.16	237	⇑eP	Pn	13 39 32.1	-0.5
CPD				eS	Sn	13 39 47.6	-0.1
CRPR	Cabo Rojo, PR	2.21	253	⇑eP	Pn	13 39 45.4	-1.4

IDC 08 13:46:02.4±1.7, 2.17S×68.34E, h0^{km}, mb3.9/4, mb1 4.0/4, mb1mx3.6/20, mbtmp3.9/4, Error ellipse: s-maj=61.2km s-min=34.6km az=65.0, Carlsberg Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	Makanchi Array	50.28	12	P	P	13 55 00.3	-0.2
	0.8nm,0.7s,baz=188,slow=5.8,SNR=6.8						
ZALV	Zalesovo Beam	57.58	11	P	P	13 55 53.5	-0.4
	1.0nm,0.8s,baz=235,slow=5.1,SNR=4.7						
SONM	Songino Array	59.84	29	P	P	13 56 10.2	+0.5
	1.6nm,0.8s,baz=219,slow=6.7,SNR=12						
WRA	Warramunga Arr	66.73	111	P	P	13 56 56.0	+0.1
	1.2nm,0.8s,baz=282,slow=6.2,SNR=8.4						
YKA	Yellowknife Ar	119.78	2	PKP	PKPdf	14 04 54.1	-0.2
	0.3nm,0.7s,baz=351,slow=2.1,SNR=4.2						
TXAR	Lajitas Array	151.93	345	PKPbc	PKPbc	14 05 59.8	-0.4
	1.1nm,0.8s,baz=64,slow=1.9,SNR=9.8						
TXAR				PKPab	PKPab	14 06 09.8	+0.7
	0.3nm,0.7s,baz=352,slow=2.5,SNR=3.5						

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*NEIC **08** 14:08:20.2, 15.76N×99.02W, h10^{km}, MD4.1(MEX), After*

MEX.

MEX 08 14:08:20.5±0.8**,15.86N×99.01W,h5^{km}±13^{km},MD4.1,Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	1.00	58	*e*P	Pg	14 08 37.1	-2.6
PNIG				*i* S	Sg	14 08 50.9	-1.9
CAIG	El Cayaco	1.69	315	*e*P	Pn	14 08 47.9	-2.7
CAIG				*i* S	Sn	14 09 10.1	-2.6
CAIG	El Cayaco	1.69	315	*e*P	Pn	14 08 47.9	-2.7
CAIG				*i* S	Sn	14 09 07.6	-5.0
MEIG	Mezcala	2.13	344	*i* P	Pn	14 08 52.7	-4.1
MEIG				*i* S	Sn	14 09 19.7	-4.0
UTMO	Huajuapan	2.27	30	*i* P	Pn	14 08 55.2	-3.6
UTMO				*i* S	Sn	14 09 23.2	-3.9
VHO	Vista Hermosa	2.50	61	*i* P	Pn	14 08 59.9	-1.9
VHO				*i* S	Sn	14 09 28.9	-3.7
VHO	Vista Hermosa	2.50	61	*i* P	Pn	14 08 59.8	-2.0
VHO				*i* S	Sn	14 09 28.6	-4.1
PLIG	Platanillo	2.56	350	*i* P	Pn	14 09 01.7	-0.9
PLIG				*i* S	Sn	14 09 31.6	-2.7
PLIG	Platanillo	2.56	350	*i* P	Pn	14 08 59.1	-3.5
PLIG				*i* S	Sn	14 09 31.1	-3.2
HUIG	Huatulco	2.80	92	*i* P	Pn	14 09 04.1	-1.8
HUIG				*i* S	Sn	14 09 35.4	-4.7
HUIG	Huatulco	2.80	92	*e*P	Pn	14 09 03.1	-2.8
HUIG				*i* S	Sn	14 09 35.4	-4.7
ZIIG	Zihuatanejo	2.92	307	*i* S	Sn	14 09 38.3	-4.8
ZIIG	Zihuatanejo	2.92	307	*i* S	Sn	14 09 38.3	-4.8
YAIG	Yautepec	2.98	359	*e*P	Pn	14 09 09.7	+1.2
YAIG				*i* S	Sn	14 09 42.1	-2.6
YAIG	Yautepec	2.98	359	*e*P	Pn	14 09 05.7	-2.8
YAIG				*i* S	Sn	14 09 40.9	-3.7
TPIG	Tehuac#an	2.99	32	*i* P	Pn	14 09 05.4	-3.3
TPIG				*i* S	Sn	14 09 41.9	-3.1
SZVM	Salazar	3.46	354	*e*P	Pn	14 09 20.3	+5.3
SZVM				*i* S	Sn	14 09 54.3	-2.1
PTVM	Pico Tres Padr	3.71	359	*i* P	Pn	14 09 22.4	+3.9
PTVM				*i* S	Sn	14 10 00.3	-2.3
IIO	Organos	3.72	4	*e*P	Pn	14 09 20.8	+2.2
IIO				*i* S	Sn	14 09 58.9	-4.0
CMIG	Matias Romero	4.15	72	*e*P	Pn	14 09 28.7	+4.2
CMIG				*i* S	Sn	14 10 09.2	-4.2
CMIG	Matias Romero	4.15	72	*e*P	Pn	14 09 22.2	-2.3
CMIG				*i* S	Sn	14 10 09.2	-4.2
MOIG	Morelia	4.32	332	*i* S	Sn	14 10 22.9	+5.1
MOIG	Morelia	4.32	332	*i* S	Sn	14 10 17.2	-0.5
LVIG	Laguna Verde	4.57	32	*i* S	Sn	14 10 14.9	-8.9
LVIG	Laguna Verde	4.57	32	*i* S	Sn	14 10 14.9	-8.9

IDC 08 14:12:10.4±1.5**,2.71N×100.72E,h0^{km},mb3.6**/3**,mb1 3.7**/3**, mb1mx3.4**/20**,mbtmp3.6**/3**,Error ellipse: s-maj=40.4km s-min=26.7km az=33.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	1.80	273	Pn	Pn	14 12 43.0	+0.3
	0.6nm,0.3s,baz=111,slow=8.6,SNR=9.3						
WRA	Warramunga Arr	39.94	126	P	P	14 19 46.7	-0.1
	0.3nm,0.5s,baz=304,slow=8.9,SNR=5.0						
MKAR	Makanchi Array	46.75	343	P	P	14 20 40.5	-0.8
	0.5nm,0.5s,baz=165,slow=9.2,SNR=9.7						
ZALV	Zalesovo Beam	52.72	348	P	P	14 21 27.6	+0.8
	0.7nm,0.5s,baz=170,slow=7.3,SNR=5.5						

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*IDC **08** 14:32:07.3±0.8, 8.39N×39.35W, h0^{km}, mb3.9/13, mb1 4.0/13, mb1mx4.0/19, mbtmp3.9/13, MS4.1/17, Ms1 4.1/17, ms1mx4.0/19, Error ellipse: s-maj=30.4km s-min=15.1km az=154.0*

*MOS **08** 14:32:09.4±2.1, 8.12N×39.66W, h10^{km}, mb5.0/15, Error ellipse: s-maj=13.8km s-min=13.3km az=28.1*

*ISCJB **08** 14:32:09.7±0.5, 8.1N±0.1×39.51W±0.06, h10^{km}, mb4.5/38, MS4.3/23, Error ellipse: s-maj=16.1km s-min=8.7km az=169.9*

*NEIC **08** 14:32:10.0±0.6, 8.16N×39.29W, h10^{km}, mb5.0/21, Error ellipse: s-maj=19.2km s-min=11.5km az=175.0*

*GCMT **08** 14:32:10.0±0.2, 8.58N×39.42W, h12^{km}, MW5.1/89, Moment Tensor Solution. s45,c58; s89,c153; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-5.74±.10; $M_{\theta\theta}$-0.24±.10; $M_{\phi\phi}$5.98±.11; $M_{r\theta}$0.63±.32; $M_{\theta\phi}$0.85±.09; $M_{\phi r}$-0.26±.29; Best double couple: $M_0$5.96000×10^{16} NP1:ϕ_s194.00000°,δ45.00000°,λ-80.00000°. NP2: ϕ_s1.00000°,δ46.00000°,λ-100.00000°. Principal axes: T 6.0960, Plg1.0000°, Azm98.0000°; N -0.2690, Plg7.0000°, Azm7.0000°; P -5.8230, Plg83.0000°, Azm195.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **08** 14:32:10.0, 8.20N×39.30W, h10^{km}, mB5.5, Ms5.5, Msz5.0*

*SZGRF **08** 14:32:18.7, 9.70N×40.55W, h33^{km}, mb4.9, MS4.1, Central Mid-Atlantic Ridge*

ISC 08 14:32:12.1±0.5**,8.1N**±0.1×**39.59W**±0.07**,h10^{km},n111,** σ**1§24**/86**,mb4.5**/38**,MS4.3**/23**,6C-5D,Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCRV	Puerto La Cruz	24.81	277	LR	LR	14 48 47.6	
	comp=Z,561nm,18.5s,MS4.1,baz=85,slow=40						
SJG	San Juan	27.67	294	LR	LR	14 46 59.2	
	comp=Z,630nm,21.2s,MS4.2,baz=95,slow=32						
SIV	San Ignacio	32.02	222	P	P	14 38 37.7	-1.3
	0.7nm,0.7s,mb3.6,baz=268,slow=21,SNR=3.6						
SDDR	Presa de Saban	32.59	293	P	P	14 38 43.0	-1.0
	57nm,1.4s,mb5.3						
SDDR				*e*		14 38 56.5	
ROSC	El Rosal	34.66	267	P	P	14 39 04.6	+2.4
ROSC				*e*		14 39 13.3	
ROSC	El Rosal	34.66	267	P	P	14 39 02.7	+0.6
	1.7nm,0.3s,mb4.5,baz=101,slow=19,SNR=1.9						
ROSC				LR	LR	14 53 37.3	
	comp=Z,450nm,18.5s,MS4.2,baz=14,slow=37						
LPAZ	La Paz	37.22	229	P	P	14 39 24.3	+0.3
	3.8nm,0.9s,mb4.2,baz=58,slow=9.7,SNR=7.2						
LPAZ				LR	LR	14 54 58.2	
	comp=Z,209nm,20.3s,MS3.9,baz=79,slow=36						
MDT	Midelt	40.65	48	P	P	14 39 46.5	-6.1
	1.9nm,0.8s,mb3.8,baz=268,slow=8.7,SNR=2.7						
TOA0	Torodi Ar. Sit	40.85	79	*e*P	P	14 39 50.7	-3.8
TOA0				*e*		14 40 06.1	
TORD	Torodi Ar. Bea	40.85	79	P	P	14 39 49.1	-5.4
	1.2nm,0.9s,mb3.5,baz=256,slow=5.8,SNR=3.6						
TORD				LR	LR	14 55 19.3	
	comp=Z,604nm,18.5s,MS4.5,baz=265,slow=34						
ATAH	Atahualpa	41.50	250	P	P	14 40 01.4	+1.6
	4.8nm,0.7s,mb4.3,baz=18,slow=5.2,SNR=3.7						
ESDC	Sonseca Array	44.75	40	LR	LR	14 55 45.4	
	comp=Z,218nm,19.4s,MS4.1,baz=235,slow=32						
SCHQ	Schefferville	51.42	340	P	P	14 41 09.9	-7.2
	4.9nm,1.0s,mb4.4,baz=165,slow=12,SNR=2.6						
SCHQ				LR	LR	14 58 27.9	
	comp=Z,215nm,18.9s,MS4.2,baz=115,slow=31						
WVT	Waverly	51.97	310	P	P	14 41 18.1	-3.5
	11nm,1.0s,mb4.7						
WVT				*e*		14 41 32.5	
WVT	Waverly	51.97	310	P	P	14 41 18.1	-3.5
WVT				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
KEST	Kesra	52.37	51	LR	LR	15 00 43.8	
	comp=Z,132nm,21.1s,MS4.0,baz=196,slow=33						
OXF	Oxford	52.66	307	P	P	14 41 28.7	+2.0
	comp=Z,46nm,1.1s,mb5.3						
OXF				*e*		14 41 37.8	
OXF	Oxford	52.66	307	P	P	14 41 28.7	+2.0
OXF				*e*		14 41 37.8	
OXF				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.3						
NATX	Nacogdoches	56.20	303	P	P	14 41 59.1	+6.6
DAVOX	Davos/Dischmat	57.05	38	P	P	14 41 56.8	-1.5
	comp=Z,3.0nm,0.8s,mb4.4,baz=210,slow=9.5,SNR=3.4						
FETA	Feichten	57.68	39	⇑*i*pP	pP	14 42 01.3	-4.6
	comp=Z,11nm,1.3s						
RETA	Reutte	57.90	38	⇓*i*pP	pP	14 42 03.4	-4.1
	comp=Z,12nm,1.4s						
ABTA	Abfaltersbach	58.67	39	⇑*i*pP	pP	14 42 09.7	-3.3
	comp=Z,14nm,1.4s						
GRA1	Grafenberg Arr	59.15	36	*e*P	P	14 42 11.8	-1.2
	comp=Z,17nm,1.3s,mb4.9						
GRA1				LR	LR		
	comp=Z,100nm,21.2s,MS3.9						
GRF	Grafenberg Arr	59.15	36	*e*P	P	14 42 11.8	-1.2
GRF				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.9						
GRF				MLR	MLR		
	comp=Z,100nm,21.2s,MS3.9						
GRF	Grafenberg Arr	59.15	36	*e*P	P	14 42 11.8	-1.2
	comp=Z,17nm,1.3s,mb4.9						
GRF				*e*L		14 59 58.6	
	comp=Z,143nm,21.2s						
KBA	Koelnbreinsper	59.33	39	⇓*i*P	P	14 42 15.0	+0.7
	comp=Z,13nm,1.2s,mb4.8						
KBA	Koelnbreinsper	59.33	39	⇓*i*pP	pP	14 42 15.0	-2.5
	comp=Z,13nm,1.2s						
KBA	Koelnbreinsper	59.33	39	⇓*i*P	P	14 42 15.0	+0.7
KBA				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.8						
MYKA	Terra Mystica	59.34	40	⇑*i*pP	pP	14 42 14.8	-2.8
	comp=Z,26nm,1.2s						
OBKA	Obir	59.88	40	⇑*i*P	P	14 42 18.6	+0.6
	comp=Z,13nm,1.4s,mb4.8						
OBKA	Obir	59.88	40	⇑*i*pP	pP	14 42 18.6	-2.6
	comp=Z,13nm,1.4s						
GERES	GERESS Array B	60.26	38	P	P	14 42 15.8	-4.8
	comp=Z,0.2nm,0.2s,mb3.7,baz=7.8,slow=11,SNR=2.2						
GERES				LR	LR	15 03 10.9	
	comp=Z,157nm,21.4s,MS4.1,baz=258,slow=31						
KHC	Kasperske Hory	60.30	37	*e*P	P	14 42 24.2	+3.3
CLL	Collm	60.88	35	*e*S	S	14 50 48.0	+5.3
CLL				LmV		14 03 00.0	
	comp=Z,200nm,18.3s						
CLL				*e*SSS		14 57 20.0	
BRG	Berggiesshubel	61.23	36	*e*P	P	14 42 33.3	+6.0
BRG				*e*		14 42 41.7	
BRG				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
BRG				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.7						
BRG	Berggiesshubel	61.23	36	*e*P	P	14 42 33.3	+6.0
	comp=Z,5.8nm,1.0s,mb4.7						
BRG				*e*		14 42 41.7	
	comp=Z,15nm,1.4s						
ULM	Lac du Bonnet	62.60	323	P	P	14 42 32.5	-3.9
	comp=Z,4.7nm,0.9s,mb4.6,baz=114,slow=4.0,SNR=6.5						
ULM				LR	LR	15 04 16.9	
	comp=Z,167nm,21.1s,MS4.2,baz=66,slow=31						
LTX	Lajitas	63.50	299	P	P	14 42 41.2	-1.6
	comp=Z,7.9nm,1.1s,mb4.8						
LTX				*e*		14 42 53.8	
LTX	Lajitas	63.50	299	P	P	14 42 41.3	-1.5
LTX				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.8						
TXAR	Lajitas Array	63.50	299	P	P	14 42 38.5	-4.3
	comp=Z,0.3nm,0.7s,mb3.5,baz=153,slow=8.1,SNR=2.8						
TXAR				LR	LR	15 09 20.3	
	comp=Z,134nm,21.3s,MS4.1,baz=185,slow=35						
NOA	NORSAR Array B	64.73	25	P	P	14 42 47.7	-2.7
	comp=Z,0.7nm,0.8s,mb3.7,baz=314,slow=24,SNR=2.5						
NOA				LR	LR	15 04 25.4	
	comp=Z,85nm,21.9s,MS3.9,baz=240,slow=30						
UZH	Uzhgorod	65.52	40	*e*P	P	14 43 01.3	+5.6
SDCO	Great Sand Dun	66.06	308	*e*	P	14 43 00.0	+0.6
SDCO				*e*		14 43 11.5	
ANMO	Albuquerque	66.46	305	P	P	14 43 00.9	-1.1
	comp=Z,7.9nm,1.3s,mb4.6						
ANMO				*e*		14 43 13.4	
ANMO	Albuquerque	66.46	305	P	P	14 43 00.9	-1.1
ANMO				pmax	pmax		
	comp=Z,8.0nm,1.3s						
LAZ	Ladron	66.95	304	*e*P	P	14 43 05.8	+0.6
LAZ				*e*		14 43 17.6	
FFC	Flin Flon	67.65	326	*e*P	P	14 43 07.5	-1.6
	comp=Z,30nm,1.3s,mb5.2						
FFC				*e*		14 43 19.4	
FFC	Flin Flon	67.65	326	*e*P	P	14 43 07.5	-1.7
FFC				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.2						
PV01	Paradox Valley	68.52	308	*e*P	P	14 43 15.9	+1.0
PV01				*e*		14 43 21.4	
PV01				*e*		14 43 26.8	
ISP	Isparta	69.37	53	P	P	14 43 21.2	+0.9
	comp=Z,27nm,1.5s,mb5.0						
ISP	Isparta	69.37	53	P	P	14 43 21.2	+0.9
ISP				pmax	pmax		
	comp=Z,27nm,1.5s,mb5.0						
GCMT	Greycliff	70.36	316	P	P	14 43 28.4	+2.2
GCMT				*e*		14 43 37.6	
AKASG	Malin Array Be	70.39	39	P	P	14 43 22.1	-4.1
	comp=Z,0.2nm,0.3s,mb3.5,baz=260,slow=6.4,SNR=5.1						
AKASG				LR	LR	15 10 57.5	
	comp=Z,112nm,21.6s,MS4.1,baz=265,slow=33						
LKWY	Lake	70.69	314	*e*P	P	14 43 29.0	+0.7
	comp=Z,36nm,1.8s,mb5.0						
LKWY	Lake	70.69	314	*e*P	P	14 43 29.0	+0.7
LKWY				pmax	pmax		
	comp=Z,36nm,1.8s,mb5.0						
SGKT	Sivrigoynuk	70.84	50	*i* P	P	14 43 33.1	+3.9
JLU	Jordanelle	71.00	310	*e*P	P	14 43 30.3	0.0
JLU				*e*		14 43 42.3	
LSZ	Lusaka	71.05	109	P	P	14 43 28.6	-2.4
LSZ				*e*		14 43 39.8	
YMR	Madison River	71.11	314	*e*P	P	14 43 31.4	+0.6
	comp=Z,68nm,1.4s,mb5.4						
YMR				*e*		14 43 38.6	
YMR				*e*		14 43 43.4	
YMR				*e*		14 43 47.6	
DCID1	Drake Creek	71.13	313	*e*P	P	14 43 31.0	+0.1
DCID1				*e*		14 43 43.0	
HWUT	Hardware Ranch	71.19	311	*e*P	P	14 43 30.8	-0.6
	comp=Z,25nm,1.3s,mb5.0						
HWUT				*e*		14 43 43.0	
MSU	Marysvale	71.38	308	P	P	14 43 33.4	+0.8
MSU				*e*		14 43 39.1	
MSU				*e*		14 43 45.1	
MSU				*e*		14 43 49.3	
MSU	Marysvale	71.38	308	P	P	14 43 33.4	+0.8
MSU				*e*		14 43 39.1	
MSU				*e*		14 43 49.3	
FINES	FINESS Array B	71.41	28	LR	LR	15 09 48.3	
	comp=Z,82nm,21.7s,MS4.0,baz=166,slow=32						
QLMT	Earthquake Lak	71.46	315	*e*P	P	14 43 33.5	+0.6
SPUT	South Promonto	71.82	311	*e*P	P	14 43 32.5	-2.7
SPUT				*e*		14 43 41.4	
SPUT				*e*		14 43 47.1	
ELDT	Eldivan	71.87	50	*i* P	P	14 43 35.8	+0.3
HRY	Holter Researc	71.97	316	*e*P	P	14 43 35.4	-0.6
HRY				*e*		14 43 47.5	
HRY				*e*		14 43 51.8	
BRTR	Keskin Array B	71.97	51	P	P	14 43 29.6	-6.6
	comp=Z,0.4nm,0.7s,mb3.4,baz=242,slow=7.8,SNR=2.5						
DUG	Dugway	72.00	310	*e*P	P	14 43 35.5	-0.8
	comp=Z,4.1nm,1.1s,mb4.3						
DUG				*e*		14 43 43.5	
DUG				*e*		14 43 48.6	
DUG	Dugway	72.00	310	*e*P	P	14 43 35.5	-0.8
DUG				*e*		14 43 43.5	
DUG				*e*		14 43 48.6	
DUG				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
BGU	Big Grassy Mou	72.22	310	*e*P	P	14 43 37.7	+0.1
BGU				*e*		14 43 44.8	
BGU				*e*		14 43 49.8	
BGU				*e*		14 43 54.4	
ARUT	Antelope Range	72.32	307	P	P	14 43 38.0	-0.2
ARUT				*e*		14 43 44.9	
ARUT				*e*		14 43 50.7	
DLMT	Dillon	72.34	315	*e*P	P	14 43 38.7	+0.5
	comp=Z,55nm,1.3s,mb5.3						
DLMT				*e*		14 43 50.3	
DLMT				*e*		14 43 55.8	
BOSA	Boshof	72.35	123	LR	LR	15 08 34.2	
	comp=Z,264nm,19.0s,MS4.5,baz=295,slow=30						
MCMT	McKenzie Canyo	72.46	314	P	P	14 43 38.8	-0.2
MCMT				*e*		14 43 51.1	
CHMT	Chamberlain Mo	72.97	317	*e*P	P	14 43 41.1	-0.8
CHMT				*e*		14 43 47.8	
CHMT				*e*		14 43 53.5	
EDM	Edmonton	73.83	323	P	P	14 43 45.6	-1.3
EDM				*e*		14 43 57.6	
EDM				*e*		14 44 02.6	
GZT	Gaziantep	74.93	54	*i* P	P	14 43 55.1	+1.5
OBN	Obninsk	75.48	35	*e*P	P	14 43 57.6	+1.2
OBN				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
DAC	Darwin (Calif)	75.59	305	*e*P	P	14 43 58.5	+1.0
	comp=Z,10nm,1.3s,mb4.6						
DAC				*e*		14 44 04.6	
DAC				*e*		14 44 10.1	
DAC				*e*		14 44 15.4	
DAC	Darwin (Calif)	75.59	305	*e*P	P	14 43 58.5	+1.1
DAC				*e*		14 44 04.6	
DAC				*e*		14 44 10.1	
DAC				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
MALT	Malatya	75.63	53	*e*P	P	14 43 57.1	-0.5
	comp=Z,22nm,1.5s,mb4.9						
MALT				*e*		14 44 14.2	
MALT	Malatya	75.63	53	*e*P	P	14 43 57.1	-0.5
MALT				*e*		14 44 14.2	
MALT				pmax	pmax		
	comp=Z,22nm,1.5s,mb4.9						
YKA	Yellowknife Ar	75.94	332	P	P	14 43 54.2	-4.6
YKA				LR	LR	15 16 03.9	
YKA	Yellowknife Ar	75.94	332	P	P	14 43 54.2	-4.6
	comp=Z,2.0nm,0.9s,mb4.0,baz=106,slow=6.0,SNR=6.7						
YKA				LR	LR	15 16 03.9	
	comp=Z,92nm,20.5s,MS4.1,baz=115,slow=35						
NVAR	Mina Array Bea	76.18	308	P	P	14 43 59.6	-1.2
	comp=Z,0.2nm,0.4s,mb3.4,baz=102,slow=5.7,SNR=4.7						
MTUM	Tungsten Hills	76.38	306	*e*P	P	14 43 58.7	-3.2
MTUM				*e*		14 44 08.6	
MTUM				*e*		14 44 14.2	
KMBO	Kilima Mbogo	77.14	93	LR	LR	15 16 44.8	
	comp=Z,142nm,18.5s,MS4.3,baz=276,slow=35						
MOD	Modoc	77.73	311	*e*P	P	14 44 09.8	+0.3
	comp=Z,23nm,1.3s,mb4.9						
MOD				*e*		14 44 16.8	
MOD				*e*		14 44 22.0	
MOD				*e*		14 44 26.6	
ERZM	Erzurum	77.92	51	*i* P	P	14 44 12.9	+2.4
LRV	Little Rabbit	78.35	305	*e*P	P	14 44 14.2	+1.2
LRV				*e*		14 44 20.9	
LRV				*e*		14 44 26.1	
LRV				*e*		14 44 30.5	
OHCM	Honcut	78.65	308	*e*P	P	14 44 15.1	+0.5
OHCM				*e*		14 44 21.6	
OHCM				*e*		14 44 26.5	
OHCM				*e*		14 44 31.0	
KIV	Kislovodsk	78.88	47	*e*P	P	14 44 16.7	+1.0
KIV				pmax	pmax		
	comp=Z,13nm,1.5s,mb4.6						
DLBC	Dease Lake	83.39	328	P	P	14 44 39.6	+0.2
DLBC				*e*		14 44 46.8	
DLBC				*e*		14 44 51.6	
DLBC				*e*		14 44 56.6	
DAWY	Dawson	87.04	334	*e*P	P	14 44 55.9	-1.7
DAWY				*e*		14 45 04.0	
DAWY				*e*		14 45 08.8	
DAWY				*e*		14 45 13.7	
ARU	Arti	87.80	33	⇓*i*P	P	14 45 02.0	+0.6
ARU				*e*		14 48 29.0	
ARU				*e*PPP		14 50 26.8	
ARU				*e*S	S	14 55 30.2	-14
ARU				*e*SS	SS	15 01 36.0	+5.7
ARU				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb4.7						
COLA	College	90.33	336	*e*P	P	14 45 17.5	+4.3
SYO	Syowa Base	93.65	159	⇑*e*PP	PP	14 49 12.8	-0.5
LZH	Lanzhou	124.20	36	*e*PKP	PKPdf	14 51 05.8	-5.8
LZH				XPKP		14 51 11.0	
LZH				PP	PP		
	comp=Z,120nm,5.8s						
LZH				LR	LR		
	comp=E,213nm,17.9s						
LZH				LR	LR		
	comp=Z,361nm,18.2s,MS5.1						
LZH	Lanzhou	124.20	36	*e*PKP	PKPdf	14 51 05.8	-5.8
LZH				pPKP	pPKPdf	14 51 09.0	-6.0
LZH				sPKP		14 51 11.0	
LZH				PP	PP	14 52 50.4	-5.1
LZH				SKKS	SKKSac	14 59 38.0	-17
LZH				SS	SS	15 10 30.6	+44
LZH				LR	LR		
	comp=Z,360nm,18.2s,MS5.1						
LZH	Lanzhou	124.20	36	*e*PKIKP	PKPdf	14 51 05.8	-5.8
LZH						14 51 09.0	
LZH						14 51 11.0	
LZH				MLR	MLR		
	comp=Z,360nm,18.2s,MS5.1						
HHC	Hu-ho-hao-te	124.52	26	*e*PKP	PKPdf	14 51 10.2	-1.9
HHC				PP	PP	14 52 58.7	+1.4
HHC				SKS	SKSdf	14 58 17.4	-6.9
HHC				SKKS	SKKSac	14 59 46.6	-11
HHC				PP	PP		
	comp=Z,156nm,14.3s						
HHC				LR	LR		
	comp=N,155nm,26.2s,MS4.7						
HHC				LR	LR		
	comp=E,158nm,25.0s,MS4.7						
HHC				LR	LR		
	comp=Z,192nm,20.2s,MS4.8						
MDJ	Mudanjiang	126.62	10	PKP	PKPdf	14 51 12.9	-3.1
CD2	Chengdu	127.67	40	*e*PKP	PKPdf	14 51 14.9	-3.5
CD2				XPKP		14 51 19.9	
CD2				PP	PP	14 53 17.0	-1.8
CD2				PKS		14 54 50.1	
CD2				SKS	SKSdf	14 58 21.5	-9.1
CD2				SKKS	SKKSac	15 00 05.0	-13
CD2				PP	PP		
	comp=Z,100nm,10.8s						
CD2				LR	LR		
	comp=N,170nm,18.0s,MS5.2						
CD2				LR	LR		
	comp=E,400nm,15.5s,MS5.2						
CD2				LR	LR		
	comp=Z,70nm,13.2s,MS4.5						
KMI	Kunming	130.64	47	PKP	PKPdf	14 51 23.5	-0.7
KMI				PP	PP	14 53 38.6	+0.1
KMI				SS	SS	15 11 03.6	-3.9
KMI				LR	LR		
	comp=N,100nm,21.6s,MS4.7						
KMI				LR	LR		
	comp=E,116nm,18.4s,MS4.7						
KMI	Kunming	130.64	47	PKP	PKPdf	14 51 23.5	-0.7
KMI				pPKP	pPKPdf	14 51 31.7	+4.1
KMI				sPKP		14 51 35.0	
KMI				PP	PP	14 53 38.6	+0.1
KMI				SS	SS	15 11 03.6	-3.9
KMI				SSS		15 15 47.3	
KMI				LR	LR		
	comp=Z,70nm,20.5s,MS4.3						
KMI	Kunming	130.64	47	PKIKP	PKPdf	14 51 23.5	-0.7
KMI						14 51 31.7	
KMI						14 53 38.6	
KMI				SS	SS	15 11 03.6	-3.9
KMI				MLR	MLR		
	comp=Z,70nm,20.5s,MS4.3						
GYA	Guiyang	132.53	43	PDIF	Pdif	14 48 19.0	-3.1
GYA				PKP	PKPdf	14 51 25.8	-1.9
GYA				PP	PP	14 53 50.6	+0.1
GYA				PKS		14 55 01.2	
GYA				SKS	SKSdf	14 58 34.7	-4.9
GYA				SKKS	SKKSac	15 00 40.8	-7.1
GYA				SS	SS	15 11 23.6	-6.7
GYA				PP	PP		
	comp=Z,120nm,8.4s						
GYA				LR	LR		
	comp=N,210nm,21.2s,MS5.0						
GYA				LR	LR		
	comp=E,220nm,20.8s,MS5.0						
GYA				LR	LR		
	comp=Z,240nm,21.4s,MS4.9						
NJ2	Nanjing	135.07	26	*e*PKP	PKPdf	14 51 26.7	-5.7

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*CSEM **08** 14:34:38.5, 15.00N×42.34E, h6^{km}, ML3.6, After DHMR*

DHMR 08 14:34:38.5±1.7**,15.00N×42.34E,h6^{km}**±16^{km}**,ML3.6,4C, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HAJJ	Hajjah	1.40	60	*i* P	Pn	14 35 03.9	-0.6
HAJJ				*i* S	Sb	14 35 24.7	+1.6
HAJJ				AML	AML	14 35 34.5	
	comp=Z,2µm,0.4s						
HAJJ	Hajjah	1.40	60	*i* P	Pn	14 35 03.9	-0.7
HAJJ				*i* S	Sb	14 35 23.1	0.0

HAJJ				AML	AML	14 35 34.5	
	comp=Z,2µm,0.4s						
HAJJ	**Hajjah**	1.40	60	*i*P	Pn	14 35 03.9	-0.7
HAJJ				*i*S	Sb	14 35 24.7	+1.5
	comp=Z,860nm,0.4s						
UDYN	**Al ‘Udayn**	1.89	123⇑	*i*P	Pn	14 35 13.1	+1.9
UDYN				*i*S	Sn	14 35 38.3	+2.9
UDYN				AML	AML	14 35 54.2	
	comp=N,434nm,0.7s						
UDYN	**Al ‘Udayn**	1.89	123	*i*P	Pn	14 35 12.3	+1.0
UDYN				*i*S	Sn	14 35 37.3	+1.9
DHBB	**Dhamar BB**	2.03	102⇑	*i*P	Pn	14 35 14.8	+1.6
DHBB				*i*S	Sn	14 35 43.7	+4.8
TRBA	**At Turbah**	2.47	135⇑	*i*P	Pn	14 35 20.7	+1.5
TRBA				*i*S	Sn	14 35 55.8	+6.1
TRBA				AML	AML	14 36 14.2	
	comp=E,449nm,0.6s						
TRBA	**At Turbah**	2.47	135⇑	*i*P	Pn	14 35 20.8	+1.6
TRBA				*i*S	Sn	14 35 52.9	+3.2
TRBA				AML	AML	14 36 14.3	
	comp=E,449nm,0.6s						
LBOS		3.04	111	*i*P	Pn	14 35 30.1	+3.0
LBOS				*i*S	Sn	14 36 10.2	+6.4
LBOS		3.04	111	*i*P	Pn	14 35 29.6	+2.5
LBOS				*i*S	Sn	14 36 08.0	+4.2
BDHA	**Al Bayda’**	3.29	108	*i*P	Pn	14 35 34.3	+3.7
BDHA				*i*S	Sn	14 36 16.0	+5.9
BDHA				AML	AML	14 36 34.3	
	comp=N,403nm,0.6s						
BDHA	**Al Bayda’**	3.29	108	*i*P	Pn	14 35 33.0	+2.4
BDHA				*i*S	Sn	14 36 14.2	+4.2
BDHA	**Al Bayda’**	3.29	108	*i*P	Pn	14 35 34.3	+3.7
BDHA				*i*S	Sn	14 36 16.0	+5.9
	comp=N,201nm,0.6s						

ISK 08 15:13:25.8, 40.16N×35.44E, h10^{km}, MD3.1
ISCJB 08 15:13:26.6±1.4, 40.08N±0.03×35.65E±0.10, h5^{km}±9^{km}, Error ellipse: s-maj=12.7km s-min=5.3km az=168.8
CSEM 08 15:13:29.5±0.2, 40.00N×35.21E, h5^{km}, MD3.1, Error ellipse: s-maj=7.7km s-min=3.5km az=71.0
DDA 08 15:13:29.5, 40.02N×35.45E, h3^{km}, Md2.8
ISC 08 15:13:27.2±1.3, 40.08N±0.04×35.68E±0.10, h12^{km}±8^{km}, n13, σ1^{s}07/22, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOZ	**Yozgat**	0.52	212	PG	Pg	15 13 37.1	-0.2
YOZ				SG	Sg	15 13 44.0	-0.2
YOZ	**Yozgat**	0.52	212	*e*Pg	Pg	15 13 37.1	-0.2
YOZ				*e*Sg	Sg	15 13 44.0	-0.2
CORM	**Corum**	0.81	277	*e*PG	Pg	15 13 38.1	-4.8
CORM				*e*SG	Sg	15 13 47.0	-6.4
CORM	**Corum**	0.81	277	*e*Pg	Pg	15 13 38.1	-4.8
CORM				*e*Sg	Sg	15 13 47.0	-6.4
CTKT	**Corum**	0.87	309	*i*P	Pb	15 13 44.4	+0.2
CTKT				*i*S	Sb	15 13 55.9	+0.1
CDAG	**Cicekdag**	1.10	246	*i*P	Pb	15 13 46.9	-1.3
CDAG				*i*S	Sb	15 14 04.7	+2.3
BNN	**Bunyan**	1.23	174	*e*PN	Pn	15 13 50.3	+0.1
BNN	**Bunyan**	1.23	174	*e*Pn	Pn	15 13 50.3	+0.1
AVNT	**Avonos**	1.44	206	*i*P	Pg	15 13 54.3	-0.6
AVNT				*i*S	Sg	15 14 15.8	+2.1
BOYT	**Boyabat**	1.46	337	*i*P	Pg	15 13 56.6	+1.3
BOYT				*i*S	Sn	15 14 12.8	+0.3
KAMT	**Kaman**	1.67	246	*e*PN	Pn	15 13 55.0	-1.2
KAMT	**Kaman**	1.67	246	*e*Pn	Pn	15 13 55.0	-1.2
ELDT	**Eldivan**	1.77	284	*i*P	Pg	15 13 59.6	-1.6
ELDT				*i*S	Sg	15 14 24.1	0.0

NIED 08 15:25:00, 30.90N×142.10E, h5^{km}, Mw4.2   Best double couple: M$_0$2.59000×10^{15} NP1:ϕ_s208.00000°, δ13.00000°, λ145.00000°.   NP2:ϕ_s333.00000°, δ82.00000°, λ79.00000°.
IDC 08 15:25:37.5±0.8, 30.80N×142.01E, h0^{km}, mb4.0/12, mb1 4.1/17, mb1mx4.0/23, mbtmp4.0/17, ML3.7/5, MS3.2/3, Ms1 3.2/3, ms1mx2.7/34, Error ellipse: s-maj=24.7km s-min=17.0km az=64.0
JMA 08 15:25:37.1±0.2, 30.87N×142.09E, h7^{km}, M4.4
MOS 08 15:25:40.7±1.0, 30.87N×142.01E, h32^{km}, mb4.3/17, Error ellipse: s-maj=23.1km s-min=8.1km az=118.1
ISCJB 08 15:25:40.7±0.4, 30.82N±0.04×141.94E±0.08, h33^{km}, mb4.2/26, MS3.6/3, Error ellipse: s-maj=10.8km s-min=4.2km az=159.0
BJI 08 15:25:40.2, 30.80N×141.93E, h31^{km}, mB4.7, mb4.2, Ms4.0, Msz3.8
NEIC 08 15:25:43.0±0.6, 30.74N×141.86E, h35^{km}, mb4.4/7, Error ellipse: s-maj=17.3km s-min=11.4km az=37.0
ISC 08 15:25:42.6±0.4, 30.77N±0.04×141.92E±0.08, h35^{km}, (h37^{km}±4.6^{km}:pP-P), n76, σ1^{s}02/88, mb4.2/26, MS3.6/3, 1C, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	**Mitsune**	2.94	323	P	Pn	15 26 25.6	-1.3
JHJ2				*e*S	Sn	15 27 01.0	0.0
JHJ	**Hachijo jima 2**	2.97	323	Pn	Pn	15 26 25.7	-1.5
	9.1nm,0.3s,baz=262,slow=23,SNR=7.0						
JHJ				Sn	Sn	15 27 00.4	-1.2
	54nm,0.3s,baz=250,slow=23,SNR=7.6						
CBIJ	**Chichi jima**	3.66	176	P	Pn	15 26 37.0	+0.2
CBIJ	**Chichi jima**	3.66	176	Pn	Pn	15 26 37.0	+0.2
	13nm,0.3s,baz=161,slow=20,SNR=11						
CBIJ				Sn	Sn	15 27 16.8	-2.0
	14nm,0.3s,baz=295,slow=20,SNR=6.1						
CBIJ				LR	LR	15 27 57.8	
	comp=Z,341nm,18.3s,baz=299,slow=38						
BSO1	**Boso 1**	3.96	349	P	Pn	15 26 38.2	-2.6
BSO1				S	Sn	15 27 25.8	-0.2
BSO3	**Boso 3**	4.20	344	P	Pn	15 26 43.5	-0.6
JOD2	**Odawara 2**	5.08	333	P	Pn	15 26 56.2	0.0
JOD2				*e*S	Sn	15 27 54.5	+0.9
JIE	**Ise**	5.70	311	P	Pn	15 27 05.7	+1.0
JRY	**Ryogami san**	5.81	335	P	Pn	15 27 06.5	+0.2
JRY				*e*S	Sn	15 28 11.3	-0.4
MJAR	**Matsushiro Arr**	6.54	333	Pn	Pn	15 27 16.1	-0.1
MJAR				Sn	Sn	15 28 30.3	+0.7
MJAR	**Matsushiro Arr**	6.54	333	P	Pn	15 27 16.1	-0.2
MJAR						15 28 30.3	
MJAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
MJAR				smax			
	comp=N,1.0nm,0.3s						
MJAR	**Matsushiro Arr**	6.54	333	Pn	Pn	15 27 16.1	-0.1
	comp=N,4.2nm,0.3s,baz=154,slow=10,SNR=60						
MJAR				Sn	Sn	15 28 30.3	+0.7
	comp=N,1.2nm,0.3s,baz=162,slow=17,SNR=4.8						
MAJO	**Matsushiro**	6.54	333	*e*Pn	Pn	15 27 16.3	0.0
	comp=N,22nm,0.6s						
MAJO				*e*Sn	Sn	15 28 29.3	-0.3
MAJO	**Matsushiro**	6.54	333	*e*P	Pn	15 27 16.3	0.0
MAJO				*e*		15 28 29.3	
MAJO				pmax	pmax		
	comp=Z,21nm,0.6s						
MAT	**Matsushiro**	6.54	333	P	Pn	15 27 16.1	-0.2
MAT				S	Sn	15 28 32.8	+3.2
MAT	**Matsushiro**	6.54	333	P	Pn	15 27 16.3	0.0
MAT				*e*S	Sn	15 28 30.7	+1.1
JMK	**Ichinoseki**	8.19	356	P	Pn	15 27 36.6	-2.3
JMK				*e*S	Sn	15 29 01.7	-8.4
JNU	**Nakatsue**	9.67	287	LR	LR	15 31 35.9	
	comp=Z,91nm,18.1s,baz=219,slow=37						
ASAJ	**Asahikawa**	13.34	2	P	Pn	15 28 46.8	-2.6
ASAJ						15 31 06.5	
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,104nm,19.5s						
ASAJ	**Asahikawa**	13.34	2	Pn	Pn	15 28 46.8	-2.6
	comp=Z,0.7nm,0.3s,baz=191,slow=10,SNR=6.2						
ASAJ				Sn	Sn	15 31 06.5	-10
	comp=Z,0.3nm,0.3s,baz=75,slow=20,SNR=2.7						
ASAJ				LR	LR	15 34 45.2	
	comp=Z,104nm,19.5s,baz=46,slow=41						
KSRS	**Korea Array**	13.37	304	Pn	Pn	15 28 50.9	+1.0
	comp=Z,0.2nm,0.3s,baz=112,slow=13,SNR=6.5						
MDJ	**Mudanjiang**	16.89	328	P	Pn	15 29 37.3	+1.1
MDJ				AP	pP	15 29 47.4	+0.3
MDJ				XP	sP	15 29 51.6	0.0
MDJ				S	S	15 32 42.5	-10
MDJ				SCP	ScP	15 37 57.8	+3.8
MDJ				PCS	PcS	15 38 01.3	+3.5
MDJ				AMB	AMB		
	comp=Z,7.0nm,1.8s						
MDJ				AMB	AMB		
	comp=Z,117nm,4.7s						
MDJ				LR	LR		
	comp=N,81nm,6.7s						
MDJ				LR	LR		
	comp=E,82nm,11.2s						
MDJ				LR	LR		
	comp=Z,170nm,5.8s						
CN2	**Changchun**	18.42	319	*e*P	Pn	15 29 53.4	-1.7
CN2				AMB	AMB		
	comp=Z,10.0nm,1.2s						
NJ2	**Nanjing**	19.73	280	*e*P	Pn	15 30 09.9	-1.0
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s						
KLR	**Kul’dur**	19.99	340	*e*P	Pn	15 30 08.4	-5.4
BJI	**Beijing**	22.87	301	P	P	15 30 41.8	-1.1
BJI				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.2						
BJI				LR	LR		
	comp=Z,86nm,18.2s,MS3.2						
HIA	**Hailar**	24.94	324	*e*P	P	15 31 02.5	+0.1
	comp=Z,7.2nm,0.9s,mb4.2						
HIA				*e*		15 31 21.5	
HIA	**Hailar**	24.94	324	*e*P	P	15 31 02.5	0.0
HIA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
HHC	**Hu-ho-hao-te**	26.48	301	*e*P	P	15 31 15.0	-1.5
HHC				AP	pP	15 31 23.4	-3.1
HHC				XP	sP	15 31 28.7	-2.0
HHC				PP		15 31 56.1	
HHC				S	S	15 35 41.5	-6.6
HHC				XS	sS	15 35 57.5	-7.2
HHC				PCS	PcS	15 38 23.8	+1.9
HHC				SCS	ScS	15 42 07.4	-0.9
HHC				AMB	AMB		
	comp=Z,15nm,0.5s,mb4.8						
HHC				AMB	AMB		
	comp=Z,144nm,5.8s						
HHC				LR	LR		
	comp=N,193nm,15.5s,MS3.9						
HHC				LR	LR		
	comp=E,158nm,16.7s,MS3.9						
HHC				LR	LR		
	comp=Z,192nm,14.9s,MS3.8						
CIT	**Chita**	29.75	324	*e*P	P	15 31 46.8	+1.3
ULN	**Ulaanbaatar**	31.59	313	*e*P	P	15 32 03.5	+1.7
	comp=Z,7.7nm,1.2s,mb4.4						
ULN	**Ulaanbaatar**	31.59	313	*e*P	P	15 32 03.5	+1.7
ULN				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.4						
SONM	**Songino Array**	31.99	312	P	P	15 32 07.1	+1.7
SONM				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SONM	**Songino Array**	31.99	312	P	P	15 32 07.1	+1.7
	comp=Z,2.3nm,0.8s,mb4.1,baz=105,slow=8.8,SNR=17						
CD2	**Chengdu**	32.66	280	*e*P	P	15 32 11.0	-0.5
CD2				XP	sP	15 32 24.2	-1.6
CD2				PP	PP	15 33 18.2	-7.4
CD2				S	S	15 37 19.7	-5.6
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
CD2				AMB	AMB		
	comp=Z,30nm,4.8s						
CD2				LR	LR		
	comp=N,120nm,12.8s,MS3.9						
CD2				LR	LR		
	comp=E,100nm,14.2s,MS3.9						
CD2				LR	LR		
	comp=Z,120nm,14.6s,MS3.7						
BOD	**Bodaibo**	33.17	333	*e*P	P	15 32 14.9	-0.7
BOD				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
ZAK	**Zakamensk**	34.77	315⇑	*i*P	P	15 32 30.7	+1.2
ZAK				*e*		15 32 48.9	
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.2						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
TLY	**Talaya**	35.01	318	*e*P	P	15 32 33.1	+1.5
	comp=Z,8.6nm,1.1s,mb4.6						
TLY	**Talaya**	35.01	318	*e*P	P	15 32 33.1	+1.5
TLY				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
GTA	**Gaotai**	35.26	296	*e*P	P	15 32 33.4	-0.5
GTA				AMB	AMB		
	comp=Z,3.0nm,1.0s,mb4.2						
WMQ	**Urumqi**	44.32	303	*e*P	P	15 33 50.2	+1.1
WMQ				AP	pP	15 34 00.2	+0.7
WMQ				XP	sP	15 34 04.2	+0.5
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.6s,mb4.7						
ZALV	**Zalesovo Beam**	46.61	317	P	P	15 34 07.5	+0.4
	comp=Z,0.6nm,0.3s,mb4.0,baz=99,slow=9.2,SNR=6.4						
ZAL	**Zalesovo**	46.62	317	P	P	15 34 07.5	+0.3
MK31	**Makanchi Array**	48.02	307	*e*P	P	15 34 18.5	+0.3
MKAR	**Makanchi Array**	48.02	307	P	P	15 34 18.6	+0.4
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MKAR	**Makanchi Array**	48.02	307	P	P	15 34 18.6	+0.4
	comp=Z,3.1nm,0.7s,mb4.5,baz=90,slow=9.6,SNR=39						
KURK	**Kurchatov**	50.30	312	*e*P	P	15 34 35.7	+0.1
	comp=Z,4.9nm,0.9s,mb4.5						
KURK				*e*	pP	15 34 47.6	+1.6
KURK	**Kurchatov**	50.30	312	*e*P	P	15 34 35.7	+0.1
KURK				*e*	pP	15 34 47.6	+1.6
KURK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
WRA	**Warramunga Arr**	50.94	189	P	P	15 34 40.9	+0.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA	**Warramunga Arr**	50.94	189	P	P	15 34 40.9	+0.3
	comp=Z,1.4nm,0.4s,mb4.2,baz=5.2,slow=7.6,SNR=24						
PMR	**Palmer**	53.50	34	*e*P	P	15 35 06.0	+6.8
BRVK	**Borovoye**	55.29	316	*e*P	P	15 35 12.7	+0.3
	comp=Z,2.1nm,0.8s,mb4.2						
BRVK	**Borovoye**	55.29	316	*e*P	P	15 35 12.7	+0.4
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
INK	**Inuvik**	59.81	25	P	P	15 35 44.2	+0.2
INK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	**Inuvik**	59.81	25	P	P	15 35 44.2	+0.3
	comp=Z,0.9nm,0.7s,mb3.9,baz=284,slow=1.7,SNR=3.8						
ARU	**Arti**	61.41	321	*e*P	P	15 35 54.6	-0.4
	comp=Z,6.8nm,0.8s,mb4.8						
ARU	**Arti**	61.41	321	*e*P	P	15 35 55.4	+0.4
YKA	**Yellowknife Ar**	69.04	29	P	P	15 36 44.5	+0.1
	comp=Z,0.1nm,0.3s,mb3.2,baz=294,slow=5.6,SNR=4.0						
FINES	**FINESS Array B**	74.57	333	P	P	15 37 18.1	+0.5
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	**FINESS Array B**	74.57	333	P	P	15 37 18.1	+0.5
	comp=Z,2.0nm,0.9s,mb4.0,baz=90,slow=1.9,SNR=5.1						
NVAR	**Mina Array Bea**	78.45	52	P	P	15 37 40.8	+0.8
	comp=Z,0.3nm,0.5s,mb3.4,baz=294,slow=4.8,SNR=3.6						
FFC	**Flin Flon**	78.76	32	P	P	15 37 44.9	+3.6
	comp=Z,3.1nm,1.0s,mb4.2						
FFC	**Flin Flon**	78.76	32	P	P	15 37 44.9	+3.5
FFC				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
AKASG	**Malin Array Be**	79.54	323	P	P	15 37 44.6	-1.1
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	**Malin Array Be**	79.54	323	P	P	15 37 44.6	-1.1
	comp=Z,0.6nm,0.4s,mb3.9,baz=47,slow=5.8,SNR=8.6						
NOA	**NORSAR Array B**	80.13	338	P	P	15 37 49.0	+0.3
NOA	**NORSAR Array B**	80.13	338	P	P	15 37 49.0	+0.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NOA	**NORSAR Array B**	80.13	338	P	P	15 37 49.0	+0.3
	comp=Z,1.1nm,0.8s,mb3.8,baz=43,slow=5.4,SNR=3.2						
BRTR	**Keskin Array B**	83.35	313	P	P	15 38 06.9	+0.8
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	**Keskin Array B**	83.35	313	P	P	15 38 06.9	+0.8
	comp=Z,0.8nm,0.8s,mb3.8,baz=64,slow=2.9,SNR=4.9						
TXAR	**Lajitas Array**	93.59	53	P	P	15 38 56.2	+0.7
TXAR	**Lajitas Array**	93.59	53	P	P	15 38 56.2	+0.8
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
TXAR	**Lajitas Array**	93.59	53	P	P	15 38 56.2	+0.7
	comp=Z,0.5nm,0.9s,mb4.0,baz=320,slow=3.7,SNR=5.3						
LPAZ	**La Paz**	149.03	69	PKPbc	PKPbc	15 45 27.4	-0.2
LPAZ	**La Paz**	149.03	69	PKP2	PKPbc	15 45 27.4	-0.2
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPAZ	**La Paz**	149.03	69	PKPbc	PKPbc	15 45 27.4	-0.2
	comp=Z,0.8nm,0.7s,baz=347,slow=6.1,SNR=4.1						

IDC 08 15:52:19.3±2.9, 29.99S×177.77W, h0^{km}, mb4.2/4, mb1 4.3/4, mb1mx4.1/12, mbtmp4.2/4, Error ellipse: s-maj=135.6km s-min=43.8km az=162.0, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	33.93	278	P	P	15 59 05.1	+0.7
	3.1nm,0.8s,baz=212,slow=0.0						
STKA	**Stephens Creek**	34.77	256	P	P	15 59 11.8	+0.3
	3.9nm,0.7s,baz=103,slow=12,SNR=9.1						
WRA	**Warramunga Arr**	44.28	272	P	P	16 00 30.1	-0.9
	1.1nm,0.3s,baz=110,slow=8.1,SNR=49						
FITZ	**Fitzroy Crossi**	52.56	269	P	P	16 01 34.6	-0.2
	2.5nm,1.0s,baz=128,slow=12,SNR=2.4						
FINES	**FINESS Array B**	144.82	340	PKP	PKPdf	16 11 57.0	-0.4
	1.3nm,0.3s,baz=56,slow=2.5,SNR=26						
AKASG	**Malin Array Be**	151.09	323	PKPbc	PKPbc	16 12 13.7	-0.2
	0.4nm,0.4s,baz=45,slow=3.0,SNR=5.5						

NEIC 08 16:02:17.1±0.3, 1.21N×126.53E, h10^{km}, mb4.5/15, Error ellipse: s-maj=14.8km s-min=6.3km az=71.0
ISCJB 08 16:02:19.3±2.7, 1.21N±0.07×126.5E±0.1, h39^{km}±25^{km}, mb4.4/28, MS4.0/1, Error ellipse: s-maj=20.5km s-min=10.4km az=161.7
IDC 08 16:02:21.0±4.6, 1.23N×126.66E, h37^{km}±38^{km}, mb4.0/11, mb1 4.1/12, mb1mx4.0/18, mbtmp4.0/12, ML3.6/1, Error ellipse: s-maj=38.5km s-min=11.5km az=72.0
BJI 08 16:02:25.4, 1.46N×126.53E, h76^{km}, mb4.5, mB4.8, Ms4.4, Msz4.2
ISC 08 16:02:21.1±2.3, 1.19N±0.06×126.6E±0.1, h38^{km}±22^{km}, n42, σ1^{s}02/41, mb4.4/28, MS4.0/1, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	14.98	157	*e*P	Pn	16 05 57.1	+6.8
	13nm,0.6s						
FITZ	**Fitzroy Crossi**	19.20	183	*e*P	Pn	16 06 41.9	-1.1
	6.7nm,0.8s						
FITZ	**Fitzroy Crossi**	19.20	183	P	Pn	16 06 42.7	-0.3
	0.1nm,0.3s,baz=16,slow=13,SNR=6.1						
WRA	**Warramunga Arr**	22.34	161	P	P	16 07 16.1	+0.3
	16nm,0.8s,mb4.5,baz=340,slow=11,SNR=124						
WRA				S	S	16 11 19.5	+0.1
	1.6nm,1.0s,baz=331,slow=22,SNR=4.0						
WB2	**Warramunga Arr**	22.34	160	*e*P	P	16 07 15.6	-0.1
PMG	**Port Moresby**	23.03	118	P	P	16 07 22.7	-0.5
	30nm,1.2s,mb4.6,baz=262,slow=12,SNR=3.1						
JOW	**Kunigami**	25.54	3	P	P	16 07 45.6	-0.8
	8.5nm,0.7s,mb4.4,baz=117,slow=13,SNR=4.5						
NWAO	**Narrogin (SRO)**	35.07	194	P	P	16 09 10.7	+0.1
	6.2nm,0.8s,mb4.6						
STKA	**Stephens Creek**	35.83	158	*e*P	P	16 09 17.2	0.0
	2.9nm,0.8s,mb4.3						
STKA	**Stephens Creek**	35.83	158	*e*P	P	16 09 15.7	-1.5
STKA	**Stephens Creek**	35.83	158	P	P	16 09 16.8	-0.3
	4.3nm,0.8s,mb4.4,baz=310,slow=3.6,SNR=7.6						
KSRS	**Korea Array**	36.10	2	P	P	16 09 18.8	-0.7
	1.1nm,0.9s,mb3.8,baz=79,slow=16,SNR=3.0						
CD2	**Chengdu**	36.63	326	*e*P	P	16 09 25.5	+1.5
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
MJAR	**Matsushiro Arr**	36.78	16	P	P	16 09 24.6	-0.6
	comp=Z,1.5nm,0.8s,mb3.9,baz=185,slow=11,SNR=4.5						
HHC	**Hu-ho-hao-te**	41.76	343	*e*P	P	16 10 09.4	+2.7
HHC				PCS	PcS	16 15 53.7	-0.3
HHC				S	S	16 16 18.4	-3.0
HHC				SS	SS	16 19 24.3	-4.0
HHC				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.5						
HHC				AMB	AMB		
	comp=Z,95nm,5.7s						
HHC				LR	LR		
	comp=N,170nm,17.2s,MS4.1						
HHC				LR	LR		
	comp=E,132nm,19.0s,MS4.1						
HHC				LR	LR		
	comp=Z,145nm,19.6s,MS3.9						
MDJ	**Mudanjiang**	43.32	3	P	P	16 10 23.0	+3.7
MDJ				PP	PP	16 12 06.8	+6.2
MDJ				SCP	ScP	16 15 48.4	-7.9
MDJ				PCS	PcS	16 16 01.2	+1.1
MDJ				S	S	16 16 43.9	-0.4
MDJ				AMB	AMB		
	comp=Z,7.0nm,1.3s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,58nm,5.4s						
MDJ				LR	LR		
	comp=N,74nm,7.2s						
MDJ				LR	LR		
	comp=E,103nm,6.3s						
MDJ				LR	LR		
	comp=Z,106nm,6.7s						
MDJ	**Mudanjiang**	43.32	3	P	P	16 10 20.3	+1.0
	comp=Z,9.7nm,1.1s,mb4.5						
LSA	**Lhasa**	44.04	313	*e*P	P	16 10 26.0	+0.6
	comp=Z,2.7nm,0.6s,mb4.2						
HIA	**Hailar**	48.25	354	P	P	16 10 58.3	+0.1
	comp=Z,4.0nm,0.9s,mb4.5						
KOLN	**Koldanda**	48.88	307	*e*P	P	16 11 01.8	-1.7
	comp=Z,40nm,0.7s,mb5.6						
SONM	**Songino Array**	49.65	342	P	P	16 11 08.6	-0.3
	comp=Z,0.9nm,0.7s,mb3.9,baz=152,slow=8.2,SNR=4.3						
WMQ	**Urumqi**	54.73	326	*e*P	P	16 11 48.5	+1.7
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.5						
MK31	**Makanchi Array**	59.56	326	*e*P	P	16 12 19.8	-1.1
MK31				*e*PcP	PcP	16 13 12.0	+4.0
MKAR	**Makanchi Array**	59.56	326	P	P	16 12 20.1	-0.8
	comp=Z,1.6nm,0.5s,mb4.3,baz=124,slow=8.8,SNR=16						
MA2	**Magadan**	61.18	14	*e*P	P	16 12 33.4	+1.7
	comp=Z,4.8nm,0.8s,mb4.7						
TKM2	**Tokmak 2**	61.56	320	*e*P	P	16 12 33.5	-1.1
	comp=Z,1.8nm,0.6s,mb4.4						
UCH	**Uchtor**	61.95	318	*e*P	P	16 12 37.9	+0.6
	comp=Z,2.0nm,0.8s,mb4.3						
AAK	**Ala-Archa**	62.15	319	*e*P	P	16 12 37.9	-0.6
	comp=Z,1.0nm,0.7s,mb4.0						
EKS2	**Erkin-Say**	62.63	319	*e*P	P	16 12 41.8	0.0
	comp=Z,1.9nm,0.7s,mb4.3						
ZALV	**Zalesovo Beam**	62.78	334	P	P	16 12 42.1	-0.4
	comp=Z,0.6nm,0.4s,mb4.1,baz=90,slow=4.4,SNR=5.5						
KBL	**Kabul**	62.97	309	*e*P	P	16 12 43.7	-0.5
KURK	**Kurchatov**	63.80	328	*e*P	P	16 12 48.5	-0.9
	comp=Z,8.9nm,0.8s,mb4.8						
BRVK	**Borovoye**	69.44	328	*e*P	P	16 13 25.4	+0.1
	comp=Z,4.1nm,0.8s,mb4.4						
ARU	**Arti**	77.00	328	*e*P	P	16 14 09.2	-0.7
	comp=Z,6.5nm,0.9s,mb4.6						
VNDA	**Vanda**	80.94	173	P	P	16 14 32.4	+1.2
	comp=Z,10nm,1.0s,mb4.7						
VNDA	**Vanda**	80.94	173	P	P	16 14 31.9	+0.8
	comp=Z,5.6nm,0.8s,mb4.5,baz=333,slow=4.0,SNR=4.4						
MALT	**Malatya**	87.83	308	*e*P	P	16 15 08.2	+1.5
	comp=Z,3.2nm,1.0s,mb4.5						
FINES	**FINESS Array B**	93.99	332	P	P	16 15 36.8	+1.8
	comp=Z,0.7nm,0.5s,mb4.3,baz=64,slow=4.4,SNR=5.3						
TXAR	**Lajitas Array**	123.23	53	PKP	PKPdf	16 21 15.7	+1.0
TXAR	**Lajitas Array**	123.23	53	PKP	PKPdf	16 21 15.7	+1.0
	comp=Z,0.4nm,0.9s,baz=33,slow=3.0,SNR=3.5						
TORD	**Torodi Ar. Bea**	123.54	287	PKP	PKPdf	16 21 15.4	-0.1
TORD	**Torodi Ar. Bea**	123.54	287	PKP	PKPdf	16 21 15.4	-0.1
	comp=Z,1.1nm,0.7s,baz=73,slow=1.1,SNR=6.1						

ISCJB 08 16:03:24.9±0.5, 6.59S±0.08×105.15E±0.09, h10^{km}, mb4.5/28, MS3.6/3, Error ellipse: s-maj=14.7km s-min=9.2km az=145.8
NEIC 08 16:03:25.9±0.6, 6.53S×105.19E, h10^{km}, mb4.5/10, Error ellipse: s-maj=19.0km s-min=12.4km az=69.0
IDC 08 16:03:26.1±0.7, 6.18S×105.36E, h0^{km}, mb4.3/11, mb1 4.4/11, mb1mx4.2/18, mbtmp4.3/11, MS3.6/4, Ms1 3.6/4, ms1mx3.3/27, Error ellipse: s-maj=35.1km s-min=16.3km az=57.0

ISC 08 16:03:31.7±2.8**,6.6S**±0.1×**105.1E**±0.1**,h48**^{km}±30^{km}**,n37,**
σ1^{s}15/33**,mb4.5**/28**,MS3.6**/3**,Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XMIS	**Christmas Isla**	**3.91**	**172**	*e*Pn	**Pn**	**16 04 23.1**	**-6.2**
COCO	**West Island**	**9.90**	**235**	Pn	**Pn**	**16 05 50.6**	**-0.9**
	131nm,0.9s						
PSI	**Prapat**	**11.19**	**326**	LR	LR	16 11 18.6	
	comp=Z,233nm,19.0s,baz=255,slow=43						
FITZ	**Fitzroy Crossi**	**23.05**	**122**	P	**P**	**16 08 34.1**	**+1.0**
	1.9nm,0.7s,mb3.7,baz=352,slow=16,SNR=4.9						
NWAO	**Narrogin (SRO)**	**28.53**	**158**	LR	LR	16 21 10.4	
	comp=Z,101nm,18.9s,MS3.5,baz=119,slow=37						
WRA	**Warramunga Arr**	**31.31**	**118**	P	**P**	**16 09 46.8**	**-0.8**
	0.5nm,0.3s,mb3.8,baz=302,slow=11,SNR=5.0						
ODAN	**Odare**	**37.42**	**333**	*e*P	**P**	**16 10 41.2**	**+0.9**
	14nm,0.6s,mb5.0						
TAPN	**Taplejung**	**37.70**	**334**	*e*P	**P**	**16 10 44.0**	**+1.3**
LSA	**Lhasa**	**38.49**	**340**	*e*P	**P**	**16 10 50.2**	**+0.9**
	4.2nm,0.7s,mb4.3						
JIRN	**Jiri**	**38.65**	**333**	*e*P	**P**	**16 10 51.7**	**+1.0**
	5.6nm,0.2s,mb5.0						
GUN	**Gumba**	**39.01**	**332**	*e*P	**P**	**16 10 54.4**	**+0.8**
	15nm,0.4s,mb5.1						
DMN	**Daman**	**39.11**	**331**	*e*P	**P**	**16 10 55.0**	**+0.4**
	8.1nm,0.4s,mb4.8						
KKN	**Kakani**	**39.18**	**332**	*e*P	**P**	**16 10 55.9**	**+0.8**
	4.3nm,0.2s,mb4.9						
GKN	**Gorkha**	**39.67**	**331**	*e*P	**P**	**16 10 59.6**	**+0.4**
	12nm,0.4s,mb5.0						
PMG	**Port Moresby**	**41.70**	**97**	P	**P**	**16 11 15.9**	**-0.3**
	15nm,0.7s,mb4.7						
STKA	**Stephens Creek**	**42.30**	**131**	*e*P	**P**	**16 11 21.8**	**+0.9**
STKA				LR	LR	16 28 32.9	
STKA	**Stephens Creek**	**42.30**	**131**	P	**P**	**16 11 22.1**	**+1.2**
	8.6nm,0.5s,mb4.7,baz=308,slow=8.1,SNR=18						
STKA				LR	LR	16 28 32.9	
	comp=Z,107nm,18.4s,MS3.8,baz=206,slow=36						
KSRS	**Korea Array**	**48.70**	**24**	P	**P**	**16 12 12.7**	**+1.3**
	0.4nm,0.4s,mb3.9,baz=213,slow=7.9,SNR=5.6						
TAU	**Tasmania Unive**	**51.83**	**141**	*e*P	**P**	**16 12 35.3**	**+0.3**
	29nm,1.2s,mb5.1						
SONM	**Songino Array**	**54.19**	**1**	P	**P**	**16 12 52.0**	**-0.2**
	0.9nm,0.5s,mb4.0,baz=182,slow=9.9,SNR=5.5						
SONM				PcP	PcP	16 13 57.1	+0.9
	0.5nm,0.3s,baz=190,slow=4.4,SNR=5.5						
ULN	**Ulaanbaatar**	**54.23**	**2**	P	**P**	**16 12 49.7**	**-2.8**
	2.3nm,1.0s,mb4.1						
TKM2	**Tokmak 2**	**56.10**	**334**	*e*P	**P**	**16 13 03.6**	**-2.5**
	2.9nm,0.9s,mb4.3						
EKS2	**Erkin-Say**	**56.70**	**333**	*e*P	**P**	**16 13 09.5**	**-0.9**
	6.1nm,1.0s,mb4.6						
MKAR	**Makanchi Array**	**56.88**	**341**	P	**P**	**16 13 08.7**	**-2.9**
	0.8nm,0.3s,mb4.2,baz=155,slow=8.3,SNR=6.1						
ZALV	**Zalesovo Beam**	**62.68**	**347**	P	**P**	**16 13 50.2**	**-1.0**
	1.3nm,0.2s,mb4.6,baz=153,slow=5.7,SNR=8.3						
ZALV				LR	LR	16 43 23.6	
	comp=Z,39nm,19.4s,MS3.6,baz=90,slow=38						
BRVK	**Borovoye**	**66.33**	**338**	P	**P**	**16 14 15.2**	**+0.1**
	2.8nm,0.7s,mb4.4						
MAW	**Mawson**	**67.24**	**196**	P	**P**	**16 14 25.3**	**+4.6**
	10nm,0.3s,mb5.3,baz=63,slow=4.5,SNR=16						
ARU	**Arti**	**73.45**	**335**	*e*P	**P**	**16 14 58.5**	**-0.3**
	12nm,1.1s,mb4.7						
MA2	**Magadan**	**75.19**	**22**	P	**P**	**16 15 06.3**	**-2.6**
	2.1nm,0.4s,mb4.4						
BRTR	**Keskin Array B**	**80.17**	**312**	P	**P**	**16 15 36.8**	**-0.2**
	1.5nm,0.8s,mb4.0,baz=116,slow=5.6,SNR=8.0						
BILL	**Bilibino**	**85.70**	**19**	P	**P**	**16 16 03.0**	**-2.0**
	1.5nm,0.7s,mb4.3						
AKASG	**Malin Array Be**	**86.21**	**322**	P	**P**	**16 16 08.9**	**+1.0**
	0.2nm,0.3s,mb3.8,baz=83,slow=4.3,SNR=5.7						
FINES	**FINESS Array B**	**90.52**	**332**	P	**P**	**16 16 29.1**	**+0.9**
	0.8nm,0.6s,mb4.2,baz=180,slow=0.1,SNR=3.1						
ARCES	**ARCESS Array B**	**92.50**	**340**	P	**P**	**16 16 38.0**	**+0.8**
ARCES	**ARCESS Array B**	**92.50**	**340**	P	**P**	**16 16 38.0**	**+0.8**
	3.0nm,0.9s,mb4.6,baz=104,slow=5.3,SNR=9.0						
TXAR	**Lajitas Array**	**144.66**	**47**	PKP	PKPdf	16 23 04.3	+0.5
TXAR	**Lajitas Array**	**144.66**	**47**	PKP	PKPdf	16 23 04.3	+0.5
	2.2nm,0.6s,baz=330,slow=1.0,SNR=37						

IDC 08 16:21:55.6±1.1**,8.83N**×**39.40W,h0**^{km}**,mb3.8**/7**,mb1 4.0**/7**,**
mb1mx3.7/18**,mbtmp3.8**/7**,Error ellipse: s-maj=39.2km**
s-min=21.4km az=165.0,Central Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	**El Rosal**	**34.90**	**266**	P	P	16 28 51.3	+2.1
	3.8nm,0.4s,baz=115,slow=19,SNR=4.8						
LPAZ	**La Paz**	**37.84**	**229**	P	P	16 29 13.6	-0.7
	1.2nm,0.7s,baz=57,slow=7.3,SNR=5.4						
TORD	**Torodi Ar. Bea**	**40.53**	**80**	P	P	16 29 37.9	+1.0
	0.5nm,0.6s,baz=274,slow=8.3,SNR=3.7						
ULM	**Lac du Bonnet**	**62.14**	**323**	P	P	16 32 17.4	-1.1
	0.9nm,0.5s,baz=145,slow=6.0,SNR=3.1						
TXAR	**Lajitas Array**	**63.32**	**298**	P	P	16 32 27.1	+0.3
	0.2nm,0.7s,baz=102,slow=5.7,SNR=3.9						
BRTR	**Keskin Array B**	**71.37**	**51**	P	P	16 33 17.2	-0.4
	0.3nm,0.4s,baz=266,slow=7.7,SNR=2.5						
YKA	**Yellowknife Ar**	**75.39**	**332**	P	P	16 33 41.1	+0.2
	0.4nm,0.6s,baz=102,slow=5.8,SNR=7.7						

*ISCJB **08** 16:25:55.3±0.6, 51.40N±0.03×16.14E±0.03, h0^{km}, Error ellipse: s-maj=4.8km s-min=2.6km az=24.2*
*NEIC **08** 16:25:55.2±0.7, 51.51N×16.20E, h5^{km}, ML2.5(CLL), Error ellipse: s-maj=7.6km s-min=6.8km az=213.0*
*IDC **08** 16:25:56.9±0.8, 51.43N×16.11E, h0^{km}, mb1 3.3/6, mb1mx3.1/21, mbtmp3.2/6, ML2.8/6, Error ellipse: s-maj=13.2km s-min=7.5km az=117.0*
*IPEC **08** 16:25:56.6±0.3, 51.43N×16.20E, h2^{km}±1^{km}, ML2.3/4, Error ellipse: s-maj=1.8km s-min=0.7km az=29.0*
*WAR **08** 16:25:57.0, 51.45N×16.18E, ML2.6, Mining Induced*
*CSEM **08** 16:25:57.1±0.1, 51.39N×16.13E, h0^{km}, ML3.2/9, Error ellipse: s-maj=3.1km s-min=1.5km az=14.0*
*PRU **08** 16:25:58.4, 51.38N×16.08E, h0^{km}, Felt In Harrachov*
*VIE **08** 16:25:59.1±0.6, 51.20N×16.09E, h0^{km}, mb2.1/2, ML2.8/5, Error ellipse: s-maj=3.3km s-min=3.0km az=172.0, Suspected Mining induced.*

ISC 08 16:25:56.2±0.5**,51.42N**±0.03×**16.15E**±0.03**,h0**^{km}**,n78,**
σ1^{s}11/135**,6C-4D,Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.59**	**171**	*e*Pg	**Pg**	**16 26 08.2**	**+0.7**
KSP				*e*Sg	**Sg**	**16 26 16.6**	**+1.6**
KSP	**Ksiaz**	**0.59**	**171**	⇓*i*Pg	**Pg**	**16 26 08.1**	**+0.7**
KSP				*e*Sg	**Sg**	**16 26 16.0**	**+0.9**
KSP				*e*		16 26 20.8	
KSP	**Ksiaz**	**0.59**	**171**	*e*Pg	**Pg**	**16 26 08.1**	**+0.7**
KSP				*e*Sg	**Sg**	**16 26 15.7**	**+0.6**
UPC	**Upice**	**0.92**	**185**	*e*Pg	**Pg**	**16 26 14.3**	**+0.5**
UPC	**Upice**	**0.92**	**185**	*e*PG	**Pg**	**16 26 14.3**	**+0.5**
UPC	**Upice**	**0.92**	**185**	*e*Pg	**Pg**	**16 26 14.3**	**+0.5**
DPC	**Dobruska-Polom**	**1.08**	**174**	*e*Pg	**Pg**	**16 26 17.0**	**+0.1**
DPC				*e*Sg	**Sg**	**16 26 30.9**	**+0.1**
DPC	**Dobruska-Polom**	**1.08**	**174**	*e*PG	**Pg**	**16 26 17.0**	**+0.1**
DPC				*e*SG	**Sg**	**16 26 30.9**	**+0.1**
	44nm,0.3s						
DPC	**Dobruska-Polom**	**1.08**	**174**	*e*Pg	**Pg**	**16 26 17.0**	**+0.1**
DPC				*e*Sg	**Sg**	**16 26 30.8**	**0.0**
PVCC	**Panska Ves**	**1.34**	**229**	*e*Pg	**Pg**	**16 26 22.0**	**+0.1**
PVCC				*e*Sg	**Sg**	**16 26 40.4**	**+1.2**
PVCC	**Panska Ves**	**1.34**	**229**	*e*PG	**Pg**	**16 26 22.0**	**+0.1**
PVCC				*e*SG	**Sg**	**16 26 40.4**	**+1.2**
	164nm,0.2s						
PVCC	**Panska Ves**	**1.34**	**229**	*e*Pg	**Pg**	**16 26 22.0**	**+0.1**
PVCC	**Panska Ves**	**1.34**	**229**	*e*Pn	**Pn**	**16 26 22.4**	**+0.3**
PVCC				*e*Sg	**Sg**	**16 26 40.4**	**+1.2**
BRG	**Berggiesshubel**	**1.49**	**249**	Pn	**Pn**	**16 26 23.4**	**-0.8**
BRG				Pg	**Pg**	**16 26 24.6**	**-0.2**
BRG				Sg	**Sg**	**16 26 45.4**	**+1.3**
BRG	**Berggiesshubel**	**1.49**	**249**	*e*Pn	**Pn**	**16 26 24.4**	**+0.2**
BRG	**Berggiesshubel**	**1.49**	**249**	Pg	**Pg**	**16 26 24.6**	**-0.2**
BRG				*e*Sg	**Sg**	**16 26 44.6**	**+0.5**
BRG	**Berggiesshubel**	**1.49**	**249**	PN	**Pn**	**16 26 23.4**	**-0.8**
BRG				PG	**Pg**	**16 26 24.6**	**-0.2**
BRG				SG	**Sg**	**16 26 45.4**	**+1.3**
	73nm,0.3s						
PRU	**Pruhonice**	**1.76**	**216**	*e*Pg	**Pg**	**16 26 29.3**	**-0.6**
PRU				*e*Sg	**Sg**	**16 26 52.7**	**-0.1**
PRU	**Pruhonice**	**1.76**	**216**	*e*PG	**Pg**	**16 26 29.3**	**-0.6**
PRU				*e*SG	**Sg**	**16 26 52.7**	**-0.1**
	53nm,0.4s						
PRU	**Pruhonice**	**1.76**	**216**	*e*Pn	**Pn**	**16 26 28.5**	**+0.6**
PRU	**Pruhonice**	**1.76**	**216**	*e*Pg	**Pg**	**16 26 29.3**	**-0.6**
PRU				*e*Sg	**Sg**	**16 26 52.7**	**-0.1**
MORC	**Moravsky Berou**	**1.87**	**151**	*e*Pn	**Pn**	**16 26 28.9**	**-0.5**
MORC				*e*Sg	**Sg**	**16 26 54.5**	**-1.8**
	14nm,0.3s						
CLL	**Collm**	**1.98**	**268**	*e*Pg	**Pg**	**16 26 33.0**	**-1.0**
CLL				*i* Sg	**Sg**	**16 27 00.1**	**+0.5**
CLL	**Collm**	**1.98**	**268**	*e*Pg	**Pg**	**16 26 33.0**	**-1.0**
CLL				*i* x	x	16 26 36.2	
CLL				*i* Sg	**Sg**	**16 27 00.1**	**+0.5**
	comp=Z,20nm,0.5s						
CLL	**Collm**	**1.98**	**268**	*e*Pn	**Pn**	**16 26 32.1**	**+1.3**
CLL	**Collm**	**1.98**	**268**	*e*Pg	**Pg**	**16 26 33.0**	**-1.0**
CLL				*i* Sg	**Sg**	**16 27 00.1**	**+0.5**
OKC	**Ostrava-Krasne**	**2.04**	**141**	*e*Pg	**Pg**	**16 26 35.0**	**-0.2**
OKC				*e*Sg	**Sg**	**16 26 59.2**	**-2.3**
OKC	**Ostrava-Krasne**	**2.04**	**141**	*e*PG	**Pg**	**16 26 35.0**	**-0.2**
OKC				*e*SG	**Sg**	**16 26 59.2**	**-2.3**
	comp=Z,25nm,0.6s						
OKC	**Ostrava-Krasne**	**2.04**	**141**	*e*Pg	**Pg**	**16 26 35.0**	**-0.2**
OKC				*e*Sg	**Sg**	**16 26 59.2**	**-2.3**
	comp=Z,25nm,0.6s						
VRAC	**Vranov**	**2.14**	**172**	Pn	**Pn**	**16 26 34.5**	**+1.5**
VRAC				Lg		16 27 04.1	
VRAC	**Vranov**	**2.14**	**172**	Pn	**Pn**	**16 26 34.5**	**+1.5**
	comp=Z,2.8nm,0.3s,baz=342,slow=14,SNR=7.6						
VRAC				Lg		16 27 04.1	
	comp=Z,5.4nm,0.3s,baz=82,slow=22,SNR=13						
VRAC	**Vranov**	**2.14**	**172**	*e*Pn	**Pn**	**16 26 34.0**	**+1.0**
VRAC				*e*Sg	**Sg**	**16 27 03.6**	**-1.2**
	comp=Z,22nm,0.4s						
TREC	**Trest**	**2.17**	**191**	*e*PN	**Pn**	**16 26 33.7**	**+0.2**
TREC				*e*PG	**Pg**	**16 26 36.9**	**-0.9**
TREC	**Trest**	**2.17**	**191**	*e*Pn	**Pn**	**16 26 34.9**	**+1.4**
TREC	**Trest**	**2.17**	**191**	*e*Pg	**Pg**	**16 26 36.9**	**-0.9**
TREC				*e*Sg	**Sg**	**16 27 05.3**	**-0.6**
KRUC	**Moravsky**	**2.37**	**176**	*e*Pn	**Pn**	**16 26 37.2**	**+1.0**
KRUC				*e*Sg	**Sg**	**16 27 11.7**	**-0.6**
	comp=Z,12nm,0.4s						
OJC	**Ojcow**	**2.61**	**116**	*e*Pg	**Pg**	**16 26 46.0**	**-0.2**
OJC				*e*Sg	**Sg**	**16 27 20.4**	**+0.4**
NKC	**Novy Kostel**	**2.63**	**244**	*e*Pn	**Pn**	**16 26 39.7**	**-0.1**
NKC				*e*Pg	**Pg**	**16 26 46.3**	**-0.3**
NKC				*e*Sg	**Sg**	**16 27 21.2**	**+0.6**
NKC	**Novy Kostel**	**2.63**	**244**	*e*PN	**Pn**	**16 26 39.7**	**-0.1**
NKC				*e*PG	**Pg**	**16 26 46.3**	**-0.3**
NKC				*e*SG	**Sg**	**16 27 21.2**	**+0.6**
	comp=Z,33nm,0.3s						
NKC	**Novy Kostel**	**2.63**	**244**	*e*Pn	**Pn**	**16 26 39.7**	**-0.1**
JAVC	**Velka Javorina**	**2.75**	**159**	*e*Sg	**Sg**	**16 27 25.6**	**+1.2**
	comp=Z,14nm,0.6s						
KHC	**Kasperske Hory**	**2.83**	**217**	*e*Pn	**Pn**	**16 26 42.7**	**+0.2**
KHC				*e*Pg	**Pg**	**16 26 48.6**	**-1.7**
KHC				*e*Sg	**Sg**	**16 27 25.2**	**-1.7**
KHC	**Kasperske Hory**	**2.83**	**217**	*e*PN	**Pn**	**16 26 42.7**	**+0.2**
KHC				*e*PG	**Pg**	**16 26 48.6**	**-1.7**
KHC				*e*SG	**Sg**	**16 27 25.2**	**-1.7**
	comp=Z,11nm,0.4s						
KHC	**Kasperske Hory**	**2.83**	**217**	*e*Pn	**Pn**	**16 26 42.7**	**+0.2**
KHC	**Kasperske Hory**	**2.83**	**217**	*e*Pg	**Pg**	**16 26 48.6**	**-1.7**
KHC				*e*Sg	**Sg**	**16 27 24.8**	**-2.1**
MOX	**Moxa**	**2.97**	**257**	*e*PG	**Pg**	**16 26 53.7**	**+0.7**
MOX				*e*SG	**Sg**	**16 27 33.4**	**+2.0**
MOX	**Moxa**	**2.97**	**257**	*e*Pg	**Pg**	**16 26 52.5**	**-0.5**
MOX				*e*Sg	**Sg**	**16 27 31.0**	**-0.4**
GERES	**GERESS Array B**	**3.02**	**212**	Pn	**Pn**	**16 26 46.1**	**+0.9**
GERES				Pg	**Pg**	**16 26 51.9**	**-2.1**
GERES				Sn	**Sn**	**16 27 21.9**	**-0.2**
GERES				Lg		16 27 31.2	
GERES	**GERESS Array B**	**3.02**	**212**	Pn	**Pn**	**16 26 46.1**	**+0.9**
	comp=Z,0.5nm,0.3s,baz=27,slow=13,SNR=12						
GERES				Pg	**Pg**	**16 26 51.9**	**-2.1**
	comp=Z,2.8nm,0.3s,baz=32,slow=17,SNR=38						
GERES				Sn	**Sn**	**16 27 21.9**	**-0.2**
	comp=Z,2.0nm,0.3s,baz=30,slow=26,SNR=5.8						
GERES				Lg		16 27 31.2	
	comp=Z,5.6nm,0.3s,baz=34,slow=29,SNR=14						
GERES	**GERESS Array B**	**3.02**	**212**	Pn	**Pn**	**16 26 46.1**	**+0.9**
GERES	**GERESS Array B**	**3.02**	**212**	Pg	**Pg**	**16 26 51.9**	**-2.2**
SMOL	**Smolenice**	**3.03**	**164**	*e*SG	**Sg**	**16 27 37.1**	**+3.7**
SMOL	**Smolenice**	**3.03**	**164**	*e*Sg	**Sg**	**16 27 37.1**	**+3.7**
WET	**Wettzell**	**3.10**	**224**	*e*Pn	**Pn**	**16 26 46.0**	**-0.3**
MODS	**Modra-Piesok**	**3.14**	**166**	*e*PG	**Pg**	**16 26 59.8**	**+3.5**
MODS				*e*SG	**Sg**	**16 27 40.5**	**+3.5**
MODS	**Modra-Piesok**	**3.14**	**166**	*e*Pg	**Pg**	**16 26 59.8**	**+3.5**
MODS				*e*Sg	**Sg**	**16 27 40.5**	**+3.5**
ZST	**Bratislava**	**3.29**	**169**	*e*PG	**Pg**	**16 26 59.2**	**0.0**
ZST				*e*SG	**Sg**	**16 27 45.7**	**+3.9**
ZST	**Bratislava**	**3.29**	**169**	*e*Pg	**Pg**	**16 26 59.2**	**0.0**
ZST				*e*Sg	**Sg**	**16 27 45.7**	**+3.9**
VYHS	**Vyhne**	**3.41**	**148**	*e*PG	**Pg**	**16 27 03.9**	**+2.5**
VYHS				*e*SG	**Sg**	**16 27 46.8**	**+1.2**
VYHS	**Vyhne**	**3.41**	**148**	*e*Pg	**Pg**	**16 27 03.9**	**+2.5**
VYHS				*e*Sg	**Sg**	**16 27 46.8**	**+1.2**
CONA	**Conrad Observa**	**3.50**	**183**	⇓*i*Pn	**Pn**	**16 26 53.1**	**+1.2**
CONA				⇑*i*Sg	**Sg**	**16 27 47.3**	**-1.4**
	comp=Z,10nm,0.3s						
CONA	**Conrad Observa**	**3.50**	**183**	Pn	**Pn**	**16 26 53.1**	**+1.3**
CONA				Sg	**Sg**	**16 27 47.3**	**-1.4**
	comp=Z,10nm,0.3s						
MOA	**Molln**	**3.78**	**200**	⇑*i*Pn	**Pn**	**16 26 56.1**	**+0.5**
MOA				⇓*i*Sg	**Sg**	**16 27 56.6**	**-1.0**
	comp=Z,11nm,0.5s						
MOA	**Molln**	**3.78**	**200**	⇑*i*Pn	**Pn**	**16 26 56.1**	**+0.5**
MOA				*i* Sg	**Sg**	**16 27 56.6**	**-1.0**
MOA	**Molln**	**3.78**	**200**	⇑*i*Pn	**Pn**	**16 26 56.1**	**+0.5**
MOA				⇓*i*Sg	**Sg**	**16 27 56.6**	**-1.0**
	comp=Z,11nm,0.5s						
MOA	**Molln**	**3.78**	**200**	Pn	**Pn**	**16 26 56.1**	**+0.5**
MOA				Sg	**Sg**	**16 27 56.6**	**-1.0**
	comp=Z,11nm,0.5s						
STHS	**Stebnicka Huta**	**3.83**	**120**	*e*PG	**Pg**	**16 27 10.6**	**+1.1**
STHS				*e*SG	**Sg**	**16 28 07.1**	**+8.0**
STHS	**Stebnicka Huta**	**3.83**	**120**	*e*Pg	**Pg**	**16 27 10.6**	**+1.1**
ARSA	**Arzberg**	**4.20**	**186**	⇑*i*Sg	**Sg**	**16 28 09.9**	**-1.0**
	comp=Z,10nm,0.6s						
ARSA	**Arzberg**	**4.20**	**186**	⇑*i*Sg	**Sg**	**16 28 09.9**	**-1.0**
	comp=Z,10nm,0.6s						
ARSA	**Arzberg**	**4.20**	**186**	Sg	**Sg**	**16 28 09.9**	**-1.0**
	comp=Z,10nm,0.6s						
AKASG	**Malin Array Be**	**8.27**	**90**	Pn	**Pn**	**16 27 54.0**	**-3.3**
AKASG				Lg		16 30 20.8	
AKASG	**Malin Array Be**	**8.27**	**90**	Pn	**Pn**	**16 27 54.0**	**-3.3**
	comp=Z,0.4nm,0.3s,baz=280,slow=12,SNR=2.5						
AKASG				Lg		16 30 20.8	
	baz=286,slow=30,SNR=2.5						
HFS	**Hagfors**	**8.84**	**352**	Pn	**Pn**	**16 28 02.9**	**-2.1**
HFS	**Hagfors**	**8.84**	**352**	Pn	**Pn**	**16 28 02.9**	**-2.1**
	comp=Z,0.1nm,0.3s,baz=134,slow=6.2,SNR=3.2						
HFS	**Hagfors**	**8.84**	**352**	Pn	**Pn**	**16 28 02.9**	**-2.1**
FINES	**FINESS Array B**	**11.43**	**25**	Pn	**Pn**	**16 28 36.9**	**-3.5**
	comp=Z,0.1nm,0.3s,baz=211,slow=12,SNR=5.4						
ARCES	**ARCESS Array B**	**18.70**	**10**	Pn	**Pn**	**16 30 11.1**	**-4.9**
	comp=Z,0.2nm,0.3s,baz=195,slow=13,SNR=6.3						

*SZGRF **08** 16:27:55.7, 6.79N×40.75W, h33^{km}, mb5.1, MS4.4, North Atlantic Ocean*
*ISCJB **08** 16:28:06.6±0.3, 8.67N±0.06×39.38W±0.03, h10^{km}, mb5.1/115, MS4.8/84, Error ellipse: s-maj=8.9km s-min=4.4km az=173.6*
*IDC **08** 16:28:06.3±0.6, 8.71N×39.48W, h0^{km}, mb4.2/22, mb1 4.4/22, mb1mx4.3/26, mbtmp4.2/22, MS4.6/18, Ms1 4.6/18, ms1mx4.6/18, Error ellipse: s-maj=19.9km s-min=13.4km az=149.0*
*GCMT **08** 16:28:08.0±0.1, 8.62N×39.44W, h12^{km}, MW5.3/97, Moment Tensor Solution. s60,c96; s97,c186; Duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.22±.02; $M_{\theta\theta}$-0.05±.01; $M_{\phi\phi}$1.27±.02; $M_{r\theta}$0.15±.05; $M_{\theta\phi}$0.16±.01; $M_{\phi r}$0.02±.04; Best double couple: $M_0$1.26400×10^{17} NP1:ϕ_s360.00000°,δ45.00000°,λ-100.00000°. NP2: ϕ_s194.00000°,δ46.00000°,λ-80.00000°. Principal axes: T 1.2890, Plg1.0000°, Azm277.0000°; N -0.0510, Plg7.0000°, Azm7.0000°; P -1.2380, Plg83.0000°, Azm180.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **08** 16:28:08.0±0.3, 8.60N×39.43W, h10^{km}, mb5.3/97, MS4.8/69 Error ellipse: s-maj=9.0km s-min=4.2km az=174.0*
*BJI **08** 16:28:08.0, 8.60N×39.40W, h10^{km}, mB5.6, Ms5.4, Msz5.0*
*MOS **08** 16:28:09.7±1.7, 9.60N×39.34W, h10^{km}, mb5.4/70, MS4.7/30, Error ellipse: s-maj=7.7km s-min=5.5km az=55.0*
*CSEM **08** 16:28:13.1±0.1, 9.73N×39.13W, h33^{km}, mb5.3/55, Ms4.4, Error ellipse: s-maj=7.2km s-min=2.4km az=171.0*

ISC 08 16:28:08.4±0.3**,8.64N**±0.06×**39.39W**±0.03**,h10**^{km}**,n555,**
σ0^{s}78/483**,mb5.1**/115**,MS4.8**/84**,70C-82D,Central**
Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCRV	**Puerto La Cruz**	**24.95**	**276**	LR	LR	16 44 33.3	
	comp=Z,2µm,19.2s,MS4.6,baz=79,slow=40						
CPD	**Cerro la Pandu**	**27.41**	**293**	P	**P**	**16 33 53.9**	**-0.5**
CPD				*e*		16 34 04.3	
CPD	**Cerro la Pandu**	**27.41**	**293**	P	**P**	**16 33 53.9**	**-0.5**
SJG	**San Juan**	**27.64**	**293**	P	**P**	**16 33 59.4**	**+2.9**
SJG				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
SJG	**San Juan**	**27.64**	**293**	LR	LR	16 42 44.5	
	comp=Z,2µm,21.9s,MS4.7,baz=95,slow=32						
SJG	**San Juan**	**27.64**	**293**	P	**P**	**16 33 59.4**	**+2.9**
	comp=Z,2µm,20.0s						
SIV	**San Ignacio**	**32.55**	**221**	P	**P**	**16 34 39.6**	**-0.4**
	comp=Z,8.7nm,1.0s,mb4.6,baz=65,slow=8.4,SNR=19						
SDDR	**Presa de Saban**	**32.58**	**292**	*e*P	**P**	**16 34 40.4**	**+0.2**
	comp=Z,166nm,1.6s,mb5.7						
SDDR				*e*		16 34 50.5	
SDDR				LR	LR		
	comp=Z,2µm,22.0s,MS4.8						
BBSR	**BB Station**	**33.28**	**319**	P	**P**	**16 34 50.8**	**+4.6**
	comp=Z,76nm,1.2s,mb5.5						
TIC	**Toumodi**	**34.12**	**91**	*e*P	**P**	**16 35 01.3**	**+7.5**
	comp=Z,5.6nm,0.2s,mb5.2						
LIC	**Lamto**	**34.15**	**92**	*e*P	**P**	**16 35 02.2**	**+8.1**
	comp=Z,149nm,1.3s,mb5.5						
LIC				*e*MLR	MLR		
	comp=Z,1µm,21.2s,MS4.4						
LIC	**Lamto**	**34.15**	**92**	*e*P	**P**	**16 35 02.2**	**+8.1**
	comp=Z,75nm,1.3s,mb5.5						
LIC				LR	LR		
	comp=Z,720nm,21.3s,MS4.4						
KIC	**Kosan Boka**	**34.42**	**91**	*e*P	**P**	**16 35 05.2**	**+8.8**
	comp=Z,245nm,1.4s,mb5.9						
ROSC	**El Rosal**	**34.89**	**266**	*e*P	**P**	**16 35 00.1**	**-0.3**
ROSC				*e*		16 35 14.0	
ROSC	**El Rosal**	**34.89**	**266**	LR	LR	16 49 22.8	
	comp=Z,2µm,21.9s,MS4.7,baz=14,slow=37						
LPAZ	**La Paz**	**37.72**	**229**	*e*P	**P**	**16 35 24.8**	**+0.3**
	comp=Z,99nm,1.4s,mb5.3						
LPAZ				*e*		16 35 35.1	
LPAZ				LR	LR		
	comp=Z,786nm,20.0s,MS4.5						
LPAZ	**La Paz**	**37.72**	**229**	*e*P	**P**	**16 35 24.8**	**+0.3**
LPAZ				pmax	pmax		
	comp=Z,99nm,1.4s						
LPAZ				MLR	MLR		
	comp=Z,786nm,20.0s						
LPAZ	**La Paz**	**37.72**	**229**	P	**P**	**16 35 24.7**	**+0.2**
	comp=Z,22nm,1.2s,mb4.8,baz=39,slow=9.9,SNR=24						
LPAZ				LR	LR	16 50 52.1	
	comp=Z,711nm,18.7s,MS4.5,baz=72,slow=36						
LPAZ	**La Paz**	**37.72**	**229**	*e*P	**P**	**16 35 24.8**	**+0.3**
	comp=Z,786nm,20.0s						
MDT	**Midelt**	**40.15**	**48**	LR	LR	16 49 23.1	
	comp=Z,1µm,19.8s,MS4.7,baz=65,slow=32						
TOA0	**Torodi Ar. Sit**	**40.56**	**80**	*e*P	**P**	**16 35 47.5**	**-0.9**
TOA0				*e*		16 35 58.0	
TOA0				*e*		16 36 03.2	
TORD	**Torodi Ar. Bea**	**40.56**	**80**	P	**P**	**16 35 46.9**	**-1.5**
	comp=Z,1.7nm,1.0s,baz=274,slow=7.5,SNR=6.1						
TORD				LR	LR	16 50 54.8	
	comp=Z,2µm,20.2s,MS5.0,baz=265,slow=34						
NNA	**Nana**	**42.50**	**242**	PFAKE		16 36 20.0	+16
NNA				LR	LR		
	comp=Z,915nm,20.0s,MS4.7						
WES	**Weston**	**43.78**	**326**	PFAKE		16 36 30.0	+16
WES				LR	LR		
	comp=Z,794nm,21.0s,MS4.6						
HRV	**Harvard--Oak R**	**43.99**	**325**	PFAKE		16 36 30.0	+14
HRV				LR	LR		
	comp=Z,409nm,19.0s,MS4.4						
DWPF	**Disney**	**44.05**	**302**	PFAKE		16 36 30.0	+13
DWPF				LR	LR		
	comp=Z,776nm,20.0s,MS4.6						
ESDC	**Sonseca Array**	**44.21**	**40**	P	**P**	**16 36 19.0**	**+1.2**
	comp=Z,0.4nm,0.4s,baz=215,slow=9.4,SNR=3.5						
ESDC				LR	LR	16 52 39.2	
	comp=Z,758nm,18.3s,MS4.7,baz=235,slow=33						
ESLA	**Sonseca Array**	**44.21**	**40**	PFAKE		16 36 30.0	+12
ESLA				LR	LR		
	comp=Z,7µm,19.0s,MS5.6						
BRNJ	**Basking Ridge**	**44.63**	**321**	P	**P**	**16 36 16.2**	**-5.0**
JTS	**JuntasAbangare**	**44.94**	**276**	*e*P	**P**	**16 36 32.8**	**+8.7**
	comp=Z,24nm,1.3s,mb4.9						
JTS				LR	LR		
	comp=Z,706nm,20.0s,MS4.6						
JTS	**JuntasAbangare**	**44.94**	**276**	*e*P	**P**	**16 36 32.8**	**+8.8**
JTS				pmax	pmax		
	comp=Z,24nm,1.3s						
JTS				MLR	MLR		
	comp=Z,706nm,20.0s						
JTS	**JuntasAbangare**	**44.94**	**276**	*e*P	**P**	**16 36 32.8**	**+8.8**
	comp=Z,706nm,20.0s						
LBNH	**Lisbon**	**45.33**	**327**	PFAKE		16 36 40.0	+13
LBNH				LR	LR		
	comp=Z,666nm,19.0s,MS4.6						
BINY	**Binghamton**	**46.38**	**322**	PFAKE		16 36 50.0	+15
BINY				LR	LR		
	comp=Z,960nm,20.0s,MS4.8						
ELN	**Prospectdale**	**46.97**	**314**	P	**P**	**16 36 41.3**	**+1.5**
ELN				*e*		16 36 50.2	
TGUH	**Tegucigalpa,Un**	**47.19**	**281**	*e*P	**P**	**16 36 41.8**	**+0.1**
	comp=Z,45nm,1.0s,mb5.3						
TGUH				*e*		16 36 52.8	
GOGA	**Godfrey**	**47.47**	**308**	P	**P**	**16 36 44.1**	**+0.5**
	comp=Z,16nm,1.1s,mb4.9						
GOGA				*e*		16 36 53.8	
GOGA	**Godfrey**	**47.47**	**308**	P	**P**	**16 36 44.1**	**+0.5**
GOGA				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
GOGA	**Godfrey**	**47.47**	**308**	P	**P**	**16 36 44.1**	**+0.5**
	comp=Z,16nm,1.1s,mb4.9						
MCWV	**Mont Chateau**	**47.49**	**317**	PFAKE		16 37 00.0	+16
MCWV				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
ETSF	**Etsaut**	**48.15**	**38**	*e*P	**P**	**16 36 45.5**	**-3.2**
	comp=Z,164nm,1.8s,mb5.5						
ETSF	**Etsaut**	**48.15**	**38**	*e*P	**P**	**16 36 45.5**	**-3.2**
ETSF				pmax	pmax		
	comp=Z,82nm,1.8s,mb5.5						
ETSF	**Etsaut**	**48.15**	**38**	*e*P	**P**	**16 36 45.5**	**-3.2**
	comp=Z,82nm,1.8s,mb5.5						
TEIG	**Tepich**	**48.55**	**289**	*e*P	**P**	**16 36 51.6**	**-0.6**
	comp=Z,27nm,1.3s,mb5.1						
TEIG				*e*		16 37 02.5	
TEIG				LR	LR		
	comp=Z,649nm,22.0s,MS4.6						
CFAA	**Coronel Fontan**	**48.61**	**213**	P	**P**	**16 36 51.9**	**-0.6**
	comp=Z,1.2nm,1.0s,mb3.9,baz=48,slow=7.6,SNR=9.5						
EPF	**Esparros**	**48.77**	**39**	*e*P	**P**	**16 36 50.4**	**-3.2**
	comp=Z,38nm,1.0s,mb5.1						
EPF	**Esparros**	**48.77**	**39**	*e*P	**P**	**16 36 50.4**	**-3.2**
EPF				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
EPF	**Esparros**	**48.77**	**39**	*e*P	**P**	**16 36 50.4**	**-3.2**
	comp=Z,19nm,1.0s,mb5.1						
SWET	**Sewanee**	**50.01**	**309**	*e*P	**P**	**16 37 03.9**	**+0.7**
SWET				*e*		16 37 14.0	
MFF	**Saint Martin d**	**50.50**	**34**	*e*P	**P**	**16 37 02.0**	**-4.7**
	comp=Z,109nm,1.3s,mb5.4						
MFF	**Saint Martin d**	**50.50**	**34**	*e*P	**P**	**16 37 02.0**	**-4.7**
MFF				pmax	pmax		
	comp=Z,54nm,1.3s,mb5.4						
MFF	**Saint Martin d**	**50.50**	**34**	*e*P	**P**	**16 37 02.0**	**-4.7**
	comp=Z,54nm,1.3s,mb5.4						
RJF	**Les Rejaudoux**	**50.72**	**37**	*e*P	**P**	**16 37 03.9**	**-4.5**
	comp=Z,50nm,1.2s,mb5.0						
RJF				*e*MLR	MLR		
	comp=Z,638nm,20.2s,MS4.3						
RJF	**Les Rejaudoux**	**50.72**	**37**	*e*P	**P**	**16 37 03.9**	**-4.5**
	comp=Z,25nm,1.2s,mb5.0						

RJF				LR	LR		
	comp=Z,640nm,20.3s,MS4.6						
RJF	**Les Rejaudoux**	50.72	37	*e*P	P	16 37 03.9	-4.5
RJF				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.0						
RJF				MLR	MLR		
	comp=Z,640nm,20.3s,MS4.6						
CAF	**Calviac**	50.84	37	*e*P	P	16 37 05.0	-4.3
	comp=Z,88nm,1.3s,mb5.2						
CAF	**Calviac**	50.84	37	*e*P	P	16 37 05.0	-4.3
CAF				pmax	pmax		
	comp=Z,44nm,1.3s,mb5.2						
CAF	**Calviac**	50.84	37	*e*P	P	16 37 05.0	-4.3
	comp=Z,44nm,1.3s,mb5.2						
SCHQ	**Schefferville**	50.99	340	*e*P	P	16 37 09.7	-0.6
	comp=Z,31nm,1.0s,mb5.2						
SCHQ				*e*		16 37 20.2	
SCHQ				LR	LR		
	comp=Z,627nm,19.0s,MS4.7						
SCHQ	**Schefferville**	50.99	340	P	P	16 37 09.9	-0.3
	comp=Z,12nm,1.1s,mb4.7,baz=118,slow=9.6,SNR=4.9						
SCHQ				LR	LR	16 54 59.8	
	comp=Z,390nm,20.6s,MS4.4,baz=155,slow=32						
TRQA	**Tornquist**	51.02	203	PFAKE		16 37 20.0	+9.4
TRQA				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
FCH	**Farellones**	51.04	214	*e*P	P	16 37 11.3	+0.3
AAM	**Ann Arbor**	51.29	318	*e*P	P	16 37 12.9	+0.3
	comp=Z,97nm,1.5s,mb5.5						
AAM				*e*		16 37 24.4	
AAM				LR	LR		
	comp=Z,1µm,22.0s,MS4.9						
AAM	**Ann Arbor**	51.29	318	*e*P	P	16 37 13.0	+0.3
AAM				pmax	pmax		
	comp=Z,97nm,1.5s,mb5.5						
AAM				MLR	MLR		
	comp=Z,1µm,22.0s,MS4.9						
AAM	**Ann Arbor**	51.29	318	*e*P	P	16 37 13.0	+0.3
	comp=Z,1µm,22.0s						
LASF	**Ste Croix**	51.50	39	*e*P	P	16 37 10.4	-3.8
	comp=Z,110nm,1.4s,mb5.3						
LASF	**Ste Croix**	51.50	39	*e*P	P	16 37 10.4	-3.8
	comp=Z,55nm,1.4s,mb5.3						
PAYG	**Puerto Ayora**	51.54	262	PFAKE		16 37 30.0	+15
PAYG				LR	LR		
	comp=Z,679nm,22.0s,MS4.6						
PLAL	**Pickwick Lake**	51.59	308	*e*P	P	16 37 14.7	-0.4
	comp=Z,55nm,1.6s,mb5.2						
PLAL				*e*		16 37 25.6	
TCF	**Toulx Ste Croi**	51.66	36	*e*P	P	16 37 11.3	-4.1
	comp=Z,171nm,1.8s,mb5.4						
TCF	**Toulx Ste Croi**	51.66	36	*e*P	P	16 37 11.3	-4.1
TCF				pmax	pmax		
	comp=Z,86nm,1.8s,mb5.4						
TCF	**Toulx Ste Croi**	51.66	36	*e*P	P	16 37 11.3	-4.1
	comp=Z,86nm,1.8s,mb5.4						
WVT	**Waverly**	51.78	310	*e*P	P	16 37 16.0	-0.5
	comp=Z,25nm,1.1s,mb5.1						
WVT				*e*		16 37 26.3	
WVT				LR	LR		
	comp=Z,786nm,21.0s,MS4.7						
WVT	**Waverly**	51.78	310	*e*P	P	16 37 16.0	-0.5
WVT				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
WVT				MLR	MLR		
	comp=Z,786nm,21.0s,MS4.7						
WVT	**Waverly**	51.78	310	*e*P	P	16 37 16.0	-0.5
	comp=Z,786nm,21.0s						
KEST	**Kesra**	51.88	51	P	P	16 37 18.3	+1.1
	comp=Z,1.5nm,1.0s,mb3.9,baz=218,slow=6.3,SNR=3.3						
KEST				LR	LR	16 59 20.7	
	comp=Z,354nm,18.4s,MS4.4,baz=340,slow=36						
BGF	**Bois d'Agland**	52.18	36	*e*P	P	16 37 15.1	-4.2
	comp=Z,234nm,1.5s,mb5.6						
BGF	**Bois d'Agland**	52.18	36	*e*P	P	16 37 15.1	-4.2
BGF				pmax	pmax		
	comp=Z,117nm,1.5s,mb5.6						
BGF	**Bois d'Agland**	52.18	36	*e*P	P	16 37 15.1	-4.2
	comp=Z,117nm,1.5s,mb5.6						
VIVF	**Saint-Julien-l**	52.39	39	*e*P	P	16 37 17.6	-3.3
	comp=Z,111nm,1.4s,mb5.3						
VIVF	**Saint-Julien-l**	52.39	39	*e*P	P	16 37 17.6	-3.3
VIVF				pmax	pmax		
	comp=Z,55nm,1.4s,mb5.3						
VIVF	**Saint-Julien-l**	52.39	39	*e*P	P	16 37 17.6	-3.3
	comp=Z,55nm,1.4s,mb5.3						
OXF	**Oxford**	52.49	307	*e*P	P	16 37 20.7	-1.1
	comp=Z,82nm,1.3s,mb5.5						
OXF				*e*		16 37 31.5	
OXF				LR	LR		
	comp=Z,1µm,22.0s,MS4.9						
OXF	**Oxford**	52.49	307	*e*P	P	16 37 20.7	-1.1
OXF				pmax	pmax		
	comp=Z,82nm,1.3s,mb5.5						
OXF				MLR	MLR		
	comp=Z,1µm,22.0s,MS4.9						
SMRF	**Simiane la Rot**	52.53	40	*e*P	P	16 37 18.0	-3.9
	comp=Z,172nm,1.8s,mb5.4						
SMRF	**Simiane la Rot**	52.53	40	*e*P	P	16 37 18.0	-3.9
	comp=Z,86nm,1.8s,mb5.4						
AVF	**Avril sur Loir**	52.60	36	*e*P	P	16 37 18.1	-4.3
	comp=Z,59nm,1.3s,mb5.0						
AVF	**Avril sur Loir**	52.60	36	*e*P	P	16 37 18.1	-4.3
AVF				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.0						
AVF	**Avril sur Loir**	52.60	36	*e*P	P	16 37 18.1	-4.3
	comp=Z,29nm,1.3s,mb5.0						
SMF	**Signal de Mont**	52.81	36	*e*P	P	16 37 19.6	-4.3
	comp=Z,97nm,1.5s,mb5.2						
SMF	**Signal de Mont**	52.81	36	*e*P	P	16 37 19.6	-4.3
SMF				pmax	pmax		
	comp=Z,49nm,1.5s,mb5.2						
SMF	**Signal de Mont**	52.81	36	*e*P	P	16 37 19.6	-4.3
	comp=Z,48nm,1.5s,mb5.2						
SSF	**Saint Saulge**	52.83	36	*e*P	P	16 37 19.7	-4.4
	comp=Z,55nm,1.4s,mb5.0						
SSF	**Saint Saulge**	52.83	36	*e*P	P	16 37 19.7	-4.4
SSF				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.0						
SSF	**Saint Saulge**	52.83	36	*e*P	P	16 37 19.7	-4.4
	comp=Z,28nm,1.4s,mb5.0						
LMR	**La Mourre**	52.83	41	*e*P	P	16 37 20.8	-3.4
	comp=Z,99nm,1.4s,mb5.2						
LMR	**La Mourre**	52.83	41	*e*P	P	16 37 20.8	-3.4
LMR				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.2						
LMR	**La Mourre**	52.83	41	*e*P	P	16 37 20.8	-3.4
	comp=Z,50nm,1.4s,mb5.2						
GLAT	**Glass**	52.94	309	P	P	16 37 24.6	-0.5
GLAT				*e*		16 37 34.4	
FRF	**La Foret Royal**	53.02	41	*e*P	P	16 37 21.3	-4.3
LOR	**Lormes**	53.15	36	*e*P	P	16 37 21.8	-4.6
	comp=Z,99nm,1.4s,mb5.2						
LOR				*e*MLR	MLR		
	comp=Z,478nm,19.5s,MS4.2						
LOR	**Lormes**	53.15	36	*e*P	P	16 37 21.8	-4.6
	comp=Z,49nm,1.4s,mb5.2						
LOR				LR	LR		
	comp=Z,480nm,19.5s,MS4.6						
LOR	**Lormes**	53.15	36	*e*P	P	16 37 21.8	-4.6
LOR				pmax	pmax		
	comp=Z,49nm,1.4s,mb5.2						
LOR				MLR	MLR		
	comp=Z,480nm,19.5s,MS4.6						
ORIF	**Oris-en-Rattie**	53.17	39	*e*P	P	16 37 23.4	-3.3
	comp=Z,55nm,1.4s,mb5.0						
ORIF				*e*MLR	MLR		
	comp=Z,1µm,19.8s,MS4.6						
ORIF	**Oris-en-Rattie**	53.17	39	*e*P	P	16 37 23.4	-3.3
ORIF				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.0						
ORIF	**Oris-en-Rattie**	53.17	39	*e*P	P	16 37 23.4	-3.3
	comp=Z,28nm,1.4s,mb5.0						
SIUC	**Southern Illin**	53.36	311	*e*P	P	16 37 27.4	-0.7
	comp=Z,52nm,0.9s,mb5.5						
SIUC				*e*		16 37 39.5	
PARMO	**Parma**	53.42	310	P	P	16 37 32.7	+4.1
PARMO				*e*		16 37 38.3	
MBDF	**Montbardon**	53.64	40	*e*P	P	16 37 26.6	-3.5
	comp=Z,86nm,1.3s,mb5.2						
MBDF	**Montbardon**	53.64	40	*e*P	P	16 37 26.6	-3.5
MBDF				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.2						
MBDF	**Montbardon**	53.64	40	*e*P	P	16 37 26.6	-3.5
	comp=Z,43nm,1.3s,mb5.2						
SBF	**Sospel**	53.67	41	*e*P	P	16 37 26.3	-4.1
	comp=Z,209nm,1.3s,mb5.6						
SBF	**Sospel**	53.67	41	*e*P	P	16 37 26.3	-4.1
SBF				pmax	pmax		
	comp=Z,105nm,1.3s,mb5.6						
SBF	**Sospel**	53.67	41	*e*P	P	16 37 26.3	-4.1
	comp=Z,104nm,1.3s,mb5.6						
LPL	**La Plagne**	53.98	39	*e*P	P	16 37 29.3	-3.3
	comp=Z,52nm,1.4s,mb5.0						
LPL	**La Plagne**	53.98	39	*e*P	P	16 37 29.3	-3.3
LPL				pmax	pmax		
	comp=Z,26nm,1.4s,mb5.0						
LPL	**La Plagne**	53.98	39	*e*P	P	16 37 29.3	-3.3
	comp=Z,26nm,1.4s,mb5.0						
LPG	**La Plagne**	53.99	39	*e*P	P	16 37 29.5	-3.1
	comp=Z,55nm,1.4s,mb5.0						
LPG	**La Plagne**	53.99	39	*e*P	P	16 37 29.5	-3.1
LPG				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.0						
LPG	**La Plagne**	53.99	39	*e*P	P	16 37 29.5	-3.1
	comp=Z,28nm,1.4s,mb5.0						
CABF	**La Chapelle**	54.12	37	*e*P	P	16 37 29.9	-3.7
	comp=Z,97nm,1.5s,mb5.2						
CABF	**La Chapelle**	54.12	37	*e*P	P	16 37 29.9	-3.7
CABF				pmax	pmax		
	comp=Z,49nm,1.5s,mb5.2						
CABF	**La Chapelle**	54.12	37	*e*P	P	16 37 29.9	-3.7
	comp=Z,49nm,1.5s,mb5.2						
FVM	**French Village**	54.35	311	*e*P	P	16 37 35.1	-0.3
	comp=Z,37nm,1.3s,mb5.2						
FVM				*e*		16 37 45.5	
FVM	**French Village**	54.35	311	*e*P	P	16 37 35.1	-0.3
FVM				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.2						
FVM	**French Village**	54.35	311	*e*P	P	16 37 35.1	-0.3
	comp=Z,37nm,1.3s,mb5.2						
MEZF	**Maizieres J'vi**	54.48	35	*e*P	P	16 37 31.7	-4.5
EKA	**Eskdalemuir Ar**	54.67	24	P	P	16 37 37.6	+0.2
	comp=Z,3.6nm,1.0s,mb4.3,baz=226,slow=8.6,SNR=4.2						
BAIF	**Baives**	54.85	33	*e*P	P	16 37 34.2	-4.7
	comp=Z,132nm,1.5s,mb5.4						
BAIF	**Baives**	54.85	33	*e*P	P	16 37 34.2	-4.7
BAIF				pmax	pmax		
	comp=Z,66nm,1.5s,mb5.4						
BAIF	**Baives**	54.85	33	*e*P	P	16 37 34.2	-4.7
	comp=Z,66nm,1.5s,mb5.4						
HAU	**Haudompre**	54.97	36	*e*P	P	16 37 35.0	-4.7
	comp=Z,118nm,1.4s,mb5.4						
HAU				*e*MLR	MLR		
	comp=Z,448nm,21.2s,MS4.2						
HAU	**Haudompre**	54.97	36	*e*P	P	16 37 35.0	-4.7
	comp=Z,59nm,1.4s,mb5.4						
HAU				LR	LR		
	comp=Z,450nm,21.3s,MS4.5						
HAU	**Haudompre**	54.97	36	*e*P	P	16 37 35.0	-4.7
HAU				pmax	pmax		
	comp=Z,59nm,1.4s,mb5.4						
HAU				MLR	MLR		
	comp=Z,450nm,21.3s,MS4.5						
HINF	**Hinteralfeld**	55.17	36	*e*P	P	16 37 36.6	-4.6
	comp=Z,76nm,1.4s,mb5.2						
HINF	**Hinteralfeld**	55.17	36	*e*P	P	16 37 36.6	-4.6
HINF				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.2						
HINF	**Hinteralfeld**	55.17	36	*e*P	P	16 37 36.6	-4.6
	comp=Z,38nm,1.4s,mb5.2						
GIVF	**Givet**	55.21	33	*e*P	P	16 37 36.6	-4.8
	comp=Z,108nm,1.3s,mb5.4						
GIVF	**Givet**	55.21	33	*e*P	P	16 37 36.6	-4.8
GIVF				pmax	pmax		
	comp=Z,54nm,1.3s,mb5.4						
GIVF	**Givet**	55.21	33	*e*P	P	16 37 36.6	-4.8
	comp=Z,54nm,1.3s,mb5.4						
CDF	**Champ du Feu**	55.71	36	*e*P	P	16 37 40.3	-4.8
	comp=Z,64nm,1.4s,mb5.2						
CDF	**Champ du Feu**	55.71	36	*e*P	P	16 37 40.3	-4.8
CDF				pmax	pmax		
	comp=Z,32nm,1.4s,mb5.2						
CDF	**Champ du Feu**	55.71	36	*e*P	P	16 37 40.3	-4.8
	comp=Z,32nm,1.4s,mb5.2						
NATX	**Nacogdoches**	56.08	302	*e*P	P	16 37 47.3	-0.7
	comp=Z,58nm,1.0s,mb5.6						
NATX				*e*		16 37 57.4	
BFO	**Black Forest**	56.28	36	*e*P	P	16 37 48.0	-1.1
	comp=Z,47nm,1.2s,mb5.4						
BFO				*e*		16 38 01.2	
BFO	**Black Forest**	56.28	36	*e*P	P	16 37 48.1	-1.1
BFO				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.4						
BFO	**Black Forest**	56.28	36	*e*P	P	16 37 48.1	-1.1
	comp=Z,47nm,1.2s,mb5.4						
DAVA	**Damuels**	56.73	38	⇓*i*P	P	16 37 54.0	+1.6
	comp=Z,21nm,1.2s,mb5.1						
FETA	**Feichten**	57.14	39	⇓*i*P	P	16 37 56.4	+1.1
	comp=Z,15nm,1.2s,mb4.9						
MOTA	**Moosalm**	57.51	38	⇓*i*P	P	16 37 58.3	+0.5
	comp=Z,12nm,1.3s,mb4.8						
MOTA	**Moosalm**	57.51	38	⇓*i*P	P	16 37 58.3	+0.4
MOTA				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.8						
MOTA	**Moosalm**	57.51	38	*i* P	P	16 37 58.3	+0.4
	comp=Z,12nm,1.3s,mb4.8						
SQTA	**Sankt Quirin**	57.52	39	⇑*i*P	P	16 37 58.2	+0.3
	comp=Z,7.2nm,1.1s,mb4.6						
SQTA	**Sankt Quirin**	57.52	39	⇑*i*P	P	16 37 58.3	+0.3
SQTA				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
SQTA	**Sankt Quirin**	57.52	39	*i* P	P	16 37 58.3	+0.3
	comp=Z,7.0nm,1.1s,mb4.6						
WATA	**Walderalm**	57.80	39	⇓*i*P	P	16 38 00.7	+0.8
	comp=Z,17nm,1.3s,mb4.9						
WATA	**Walderalm**	57.80	39	⇓*i*P	P	16 38 00.7	+0.8
WATA				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.9						
WTTA	**Wattenberg**	57.80	39	⇓*i*P	P	16 38 01.2	+1.2
	comp=Z,10nm,1.0s,mb4.8						
WTTA				*i*		16 38 11.8	
WTTA	**Wattenberg**	57.80	39	⇓*i*P	P	16 38 01.2	+1.2
WTTA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
WTTA	**Wattenberg**	57.80	39	*i* P	P	16 38 01.2	+1.2
	comp=Z,10.0nm,1.0s,mb4.8						
GRA1	**Grafenberg Arr**	58.60	36	*e*P	P	16 38 05.8	+0.3
	comp=Z,45nm,1.3s,mb5.3						
GRA1				LR	LR		
	comp=Z,300nm,20.9s,MS4.4						
GRF	**Grafenberg Arr**	58.60	36	*e*P	P	16 38 05.8	+0.3
GRF				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.3						
GRF				MLR	MLR		
	comp=Z,300nm,20.9s,MS4.4						
GRF	**Grafenberg Arr**	58.60	36	*e*P	P	16 38 05.8	+0.3
GRF				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.3						
GRF				MLR	MLR		
	comp=Z,300nm,20.9s,MS4.4						
GRF	**Grafenberg Arr**	58.60	36	*e*P	P	16 38 05.8	+0.3
	comp=Z,45nm,1.3s,mb5.3						
GRF				*e*L		17 03 41.7	
	comp=Z,281nm,20.9s						
KBA	**Koelnbreinsper**	58.79	39	⇓*i*P	P	16 38 07.9	+1.0
	comp=Z,16nm,1.1s,mb5.0						
KBA				*i*		16 38 19.3	
KBA	**Koelnbreinsper**	58.79	39	⇓*i*P	P	16 38 07.9	+1.0
KBA				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.0						
KBA	**Koelnbreinsper**	58.79	39	*i* P	P	16 38 07.9	+1.0
	comp=Z,16nm,1.1s,mb5.0						
MYKA	**Terra Mystica**	58.81	40	⇓*i*P	P	16 38 08.1	+1.1
	comp=Z,60nm,1.4s,mb5.4						
MOX	**Moxa**	59.26	35	*e*P	P	16 38 10.4	+0.4
	comp=Z,37nm,1.3s,mb5.2						
MOX				*e*		16 38 21.6	
MOX				LR	LR		
	comp=Z,300nm,21.0s,MS4.4						
MOX	**Moxa**	59.26	35	*e*P	P	16 38 10.4	+0.4
MOX				*e*		16 38 21.6	
	comp=Z,37nm,1.3s						
MOX							
	comp=Z,300nm,21.0s						
KSU1	**Kansas State U**	59.31	310	*e*P	P	16 38 08.9	-1.7
	comp=Z,36nm,1.1s,mb5.3						
KSU1				*e*		16 38 19.8	
KSU1				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
OBKA	**Obir**	59.34	40	⇓*i*P	P	16 38 12.4	+1.7
	comp=Z,21nm,1.3s,mb5.0						
OBKA				*i*		16 38 21.6	
NKC	**Novy Kostel**	59.55	36	*e*P	P	16 38 12.9	+0.8
NKC				*e*x	x	16 38 23.5	
MOA	**Molln**	59.67	39	⇓*i*P	P	16 38 13.5	+0.6
	comp=Z,16nm,1.3s,mb4.9						
GEC2	**GERESS Array S**	59.72	38	*e*P	P	16 38 11.3	-2.0
GEC2				*e*		16 38 23.7	
GEC2	**GERESS Array S**	59.72	38	*e*P	P	16 38 11.3	-1.9
GERES	**GERESS Array B**	59.72	38	P	P	16 38 11.3	-1.9
	comp=Z,1.2nm,0.9s,mb3.9,baz=231,slow=8.0,SNR=6.2						
KHC	**Kasperske Hory**	59.76	37	*e*P	P	16 38 14.1	+0.6
KHC				*e*x	x	16 38 24.7	
WMOK	**Wichita Mounta**	60.04	305	*e*P	P	16 38 14.1	-1.6
	comp=Z,15nm,1.1s,mb4.9						
WMOK				*e*		16 38 24.1	
WMOK				LR	LR		
	comp=Z,936nm,20.0s,MS4.9						
WMOK	**Wichita Mounta**	60.04	305	*e*P	P	16 38 14.1	-1.7
WMOK				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.9						
WMOK				MLR	MLR		
	comp=Z,936nm,20.0s,MS4.9						
WMOK	**Wichita Mounta**	60.04	305	*e*P	P	16 38 14.1	-1.7
	comp=Z,936nm,20.0s						
CLL	**Collm**	60.34	35	*e*P	P	16 38 18.0	+0.6
CLL				*i* pP	pP	16 38 29.6	+8.9
	comp=Z,25nm,1.5s						
CLL				*i* sP	sP	16 38 35.0	+13
CLL				*e*S	S	16 46 52.0	+20
CLL				*e*SSS		16 53 26.0	
CLL				Lm		17 02 00.0	
	comp=N,200nm,19.3s						
CLL				Lm		17 02 00.0	
	comp=E,400nm,18.5s						
CLL				Lm		17 02 00.0	
	comp=Z,500nm,18.1s						
PRU	**Pruhonice**	60.68	37	*e*P	P	16 38 19.5	-0.3
PRU				*e*x	x	16 38 31.3	
PVCC	**Panska Ves**	60.91	36	*e*P	P	16 38 22.9	+1.5
PVCC				*e*x	x	16 38 33.0	
TREC	**Trest**	60.97	38	*e*P	P	16 38 22.2	+0.4
TREC				*e*x	x	16 38 33.7	
ZST	**Bratislava**	61.57	39	*e*P	P	16 38 26.5	+0.6
	comp=Z,13nm,1.2s,mb4.9						
ZST				*e*		16 38 37.8	
ZST	**Bratislava**	61.57	39	*e*P	P	16 38 26.5	+0.6
ZST				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.9						
CBKS	**Cedar Bluff**	61.61	309	*e*P	P	16 38 25.7	-0.7
	comp=Z,76nm,1.2s,mb5.7						
CBKS				*e*		16 38 36.4	
CBKS				LR	LR		
	comp=Z,908nm,20.0s,MS4.9						
CBKS	**Cedar Bluff**	61.61	309	*e*P	P	16 38 25.7	-0.7
CBKS				pmax	pmax		
	comp=Z,76nm,1.2s,mb5.7						
CBKS				MLR	MLR		
	comp=Z,908nm,20.0s,MS4.9						
CBKS	**Cedar Bluff**	61.61	309	*e*P	P	16 38 25.7	-0.7
	comp=Z,908nm,20.0s						
UPC	**Upice**	61.75	37	*e*P	P	16 38 27.5	+0.4
UPC				*e*x	x	16 38 38.3	
DPC	**Dobruska-Polom**	61.87	37	*e*P	P	16 38 28.7	+0.8
DPC				*e*x	x	16 38 40.5	
ULM	**Lac du Bonnet**	62.29	323	*e*P	P	16 38 28.2	-2.5
	comp=Z,34nm,1.1s,mb5.4						
ULM				*e*		16 38 38.4	
ULM				*e*		16 38 44.2	
ULM	**Lac du Bonnet**	62.29	323	P	P	16 38 28.4	-2.3
	comp=Z,4.7nm,0.8s,mb4.7,baz=130,slow=8.7,SNR=8.4						
ULM				LR	LR	17 01 04.6	
	comp=Z,253nm,20.8s,MS4.4,baz=77,slow=32						
AMTX	**Amarillo**	62.42	305	P	P	16 38 30.3	-1.6
	comp=Z,16nm,1.1s,mb5.0						
AMTX				*e*		16 38 40.8	
TSUM	**Tsumeb**	62.58	117	PFAKE		16 38 50.0	+17
TSUM				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
OKC	**Ostrava-Krasne**	62.78	38	*e*P	P	16 38 33.9	-0.1
OKC				*e*x	x	16 38 46.0	
PSZ	**Piszkesteto**	63.25	40	⇓P	P	16 38 31.7	-5.5
PSZ	**Piszkesteto**	63.25	40	⇓*i*P	P	16 38 31.7	-5.4
LTX	**Lajitas**	63.41	298	*e*P	P	16 38 38.0	-0.6
	comp=Z,30nm,1.5s,mb5.2						
LTX				*e*		16 38 46.0	
LTX				LR	LR		
	comp=Z,554nm,21.0s,MS4.7						
LTX	**Lajitas**	63.41	298	*e*P	P	16 38 38.0	-0.6
LTX				*e*		16 38 46.0	
LTX				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.2						
LTX				MLR	MLR		
	comp=Z,554nm,21.0s,MS4.7						
LTX	**Lajitas**	63.41	298	*e*P	P	16 38 38.0	-0.6
	comp=Z,30nm,1.5s,mb5.2						
TXAR	**Lajitas Array**	63.41	298	P	P	16 38 37.2	-1.4
TXAR				LR	LR	17 05 04.6	
TXAR	**Lajitas Array**	63.41	298	P	P	16 38 37.2	-1.4
	comp=Z,1.4nm,1.0s,mb4.0,baz=81,slow=7.7,SNR=8.1						
TXAR				LR	LR	17 05 04.6	
	comp=Z,402nm,21.9s,MS4.6,baz=75,slow=35						
NOA	**NORSAR Array B**	64.16	25	LR	LR	17 01 30.6	
	comp=Z,248nm,18.5s,MS4.4,baz=235,slow=31						
CRVS	**Cervenica-Dubn**	64.54	40	*e*P	P	16 38 46.8	+1.2
STHS	**Stebnicka Huta**	64.55	39	*e*P	P	16 38 50.2	+4.5
STHS				*e*		16 39 05.9	
FCC	**Fort Churchill**	64.83	332	*e*P	P	16 38 45.8	-1.5
	comp=Z,45nm,1.2s,mb5.4						
FCC				*e*		16 38 56.9	
FCC				*e*		16 39 02.5	
FCC	**Fort Churchill**	64.83	332	*e*P	P	16 38 45.8	-1.6
FCC				pmax	pmax		
	comp=Z,45nm,1.2s,mb5.4						
FCC	**Fort Churchill**	64.83	332	*e*P	P	16 38 45.8	-1.6
	comp=Z,45nm,1.2s,mb5.4						
UZH	**Uzhgorod**	64.99	40	*e*P	P	16 38 49.7	+1.1
UZH				*e*S	S	16 47 27.4	-3.1
UZH				*e*ScS	ScS	16 48 36.0	-7.7
MNTX	**Cornudas Mount**	65.10	301	*e*P	P	16 38 48.2	-1.4
	comp=Z,21nm,1.2s,mb5.0						
MNTX				*e*		16 38 58.9	
MNTX				*e*		16 39 05.6	
KWP	**Kalwaria**	65.53	39	*e*P	P	16 38 53.1	+1.0
	comp=Z,32nm,1.2s,mb5.2						
KWP				*e*		16 39 03.6	
KWP	**Kalwaria**	65.53	39	*e*P	P	16 38 53.1	+1.1
KWP				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.2						
KWP	**Kalwaria**	65.53	39	*e*P	P	16 38 53.1	+1.1
	comp=Z,32nm,1.2s,mb5.2						
RSSD	**Black Hills**	65.89	315	P	P	16 38 53.2	-1.2
	comp=Z,7.8nm,1.3s,mb4.6						
RSSD	**Black Hills**	65.89	315	P	P	16 38 53.3	-1.2
RSSD				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.6						
RSSD	**Black Hills**	65.89	315	P	P	16 38 53.3	-1.2
	comp=Z,8.0nm,1.3s,mb4.6						
SDCO	**Great Sand Dun**	65.89	307	*e*P	P	16 38 54.8	+0.2
	comp=Z,26nm,1.1s,mb5.2						
SDCO				*e*		16 39 04.8	
SDCO				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
ISCO	**Idaho Springs**	66.28	310	*e*P	P	16 38 57.4	+0.3
	comp=Z,32nm,1.3s,mb5.2						
ISCO				*e*		16 39 06.9	
ISCO	**Idaho Springs**	66.28	310	*e*P	P	16 38 57.4	+0.3
ISCO				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.2						
ISCO	**Idaho Springs**	66.28	310	*e*P	P	16 38 57.4	+0.3
	comp=Z,32nm,1.3s,mb5.2						
ANMO	**Albuquerque**	66.32	304	P	P	16 38 57.3	-0.1
ANMO				*e*		16 39 07.8	
ANMO				LR	LR		
	comp=Z,801nm,20.0s,MS4.9						
ANMO	**Albuquerque**	66.32	304	P	P	16 38 57.3	-0.2
	comp=Z,801nm,20.0s						
LPM	**Los Pinos Moun**	66.39	304	*e*P	P	16 38 58.6	+0.7
LPM				*e*		16 39 08.7	
MLR	**Muntele Rosu**	66.65	44	⇓P	P	16 39 01.2	+1.8
MLR	**Muntele Rosu**	66.65	44	P	P	16 38 59.5	+0.1
	comp=Z,12nm,1.2s,mb4.8,baz=304,slow=6.4,SNR=9.5						
MLR	**Muntele Rosu**	66.65	44	⇓*i*P	P	16 39 01.2	+1.8
LAZ	**Ladron**	66.82	304	*e*P	P	16 39 01.1	+0.4
LAZ				*e*		16 39 11.9	
LAZ				*e*		16 39 17.9	
VRI	**Vrincioaia**	67.27	44	⇑P	P	16 39 00.1	-3.2
VRI	**Vrincioaia**	67.27	44	⇑*i*P	P	16 39 00.1	-3.2

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FFC    Flin Flon         67.31 326  P      P      16 39 02.4 -1.0
       comp=Z,94nm,1.6s,mb5.6,SNR=6.8
FFC    Flin Flon         67.31 326 eP      P      16 39 02.2 -1.2
       comp=Z,45nm,1.1s,mb5.4
FFC                                e              16 39 12.7
FFC    Flin Flon         67.31 326 eP      P      16 39 02.2 -1.2
FFC                                 pmax   pmax
       comp=Z,45nm,1.1s,mb5.4
FFC    Flin Flon         67.31 326 eP      P      16 39 02.2 -1.2
       comp=Z,45nm,1.1s,mb5.4
PV01   Paradox Valley    68.35 308 eP      P      16 39 10.9 +0.7
PV01                               e              16 39 20.8
PV10   Paradox Valley    68.74 308  P      P      16 39 03.4 -9.3
DAG    Danmarks Havn     69.01   5 eP      P      16 39 08.0 -5.7
DAG    Danmarks Havn     69.01   5 i P     P      16 39 08.0 -5.7
AKASG  Malin Array Be    69.85  39  P      P      16 39 17.5 -1.8
       comp=Z,0.2nm,0.3s,baz=261,slow=5.6,SNR=8.4
AKASG                               LR     LR     17 07 37.0
       comp=Z,316nm,20.0s,MS4.6,baz=250,slow=34
SRU    San Rafael        69.97 308 eP      P      16 39 20.1 -0.2
       comp=Z,49nm,1.7s,mb5.2
SRU                                e              16 39 30.1
SRU    San Rafael        69.97 308 eP      P      16 39 20.1 -0.2
SRU                                 pmax   pmax
       comp=Z,49nm,1.7s,mb5.2
SRU    San Rafael        69.97 308 eP      P      16 39 20.1 -0.2
       comp=Z,49nm,1.7s,mb5.2
GCMT   Greycliff         70.11 316 eP      P      16 39 20.7 -0.4
GCMT                               e              16 39 31.5
LKWY   Lake              70.46 314 eP      P      16 39 24.2 +1.0
       comp=Z,75nm,1.8s,mb5.3
LKWY                               e              16 39 35.5
LKWY   Lake              70.46 314 eP      P      16 39 24.2 +1.0
LKWY                                pmax   pmax
       comp=Z,75nm,1.8s,mb5.3
LKWY   Lake              70.46 314 eP      P      16 39 24.2 +1.0
       comp=Z,75nm,1.8s,mb5.3
116A   Eloy              70.51 301 ⇑P      P      16 39 24.6 +0.8
       baz=70
REDW   Red Top Meadow    70.64 313 eP      P      16 39 23.9 -0.5
       comp=Z,110nm,1.9s,mb5.5
REDW                               e              16 39 34.8
DAU    Daniels Canyon    70.64 310 eP      P      16 39 24.7 +0.3
DAU                                e              16 39 34.9
DAU    Daniels Canyon    70.64 310 eP      P      16 39 24.7 +0.3
TPAW   Teton Pass        70.73 313 eP      P      16 39 24.7 -0.2
       comp=Z,64nm,1.5s,mb5.3
TPAW                               e              16 39 35.6
TPAW                               e              16 39 41.7
YFT    Old Faithful      70.76 314 eP      P      16 39 26.3 +1.3
YFT                                e              16 39 37.1
AHID   Auburn Hatcher    70.76 312  PFAKE         16 39 40.0  +15
AHID                                LR     LR
       comp=Z,1μm,22.0s,MS5.2
IMW    Indian Meadow     70.77 313 eP      P      16 39 25.1  0.0
       comp=Z,89nm,1.6s,mb5.4
IMW                                e              16 39 35.5
JLU    Jordanelle        70.81 310 eP      P      16 39 25.8 +0.4
JLU                                e              16 39 35.4
FINES  FINESS Array B    70.84  28  LR     LR     17 09 43.3
       comp=Z,204nm,18.7s,MS4.4,baz=3.4,slow=35
YMR    Madison River     70.88 314 eP      P      16 39 26.3 +0.6
       comp=Z,146nm,1.3s,mb5.8
YMR                                e              16 39 38.0
DCID1  Drake Creek       70.91 313 eP      P      16 39 25.8 -0.1
DCID1                              e              16 39 37.0
115A   Sonoran Desert    70.95 302 ⇑P      P      16 39 27.0 +0.5
       baz=71
CSS    Prodhromos        70.95  56 eP      P      16 39 25.5 -0.9
       comp=Z,53nm,1.5s,mb5.2
CSS                                e              16 39 38.3
HWUT   Hardware Ranch    70.99 311 eP      P      16 39 26.1 -0.4
       comp=Z,41nm,1.2s,mb5.2
HWUT                               e              16 39 37.4
HWUT                                LR     LR
       comp=Z,1μm,20.0s,MS5.1
X15A   Humboldt          71.03 303 ⇑P      P      16 39 27.4 +0.6
       baz=71
LSZ    Lusaka            71.04 109 eP      P      16 39 27.3 +0.1
       comp=Z,41nm,1.6s,mb5.1
LSZ                                e              16 39 37.2
LSZ                                 LR     LR
       comp=Z,642nm,19.0s,MS4.9
LSZ    Lusaka            71.04 109 eP      P      16 39 27.3 +0.1
LSZ                                 pmax   pmax
       comp=Z,41nm,1.6s,mb5.1
LSZ                                 MLR    MLR
       comp=Z,642nm,19.0s,MS4.9
LSZ    Lusaka            71.04 109 eP      P      16 39 27.3 +0.1
       comp=Z,642nm,19.0s
W15A   Williams          71.09 304 ⇑P      P      16 39 27.5 +0.3
       baz=71
MSU    Marysvale         71.21 308 eP      P      16 39 28.4 +0.5
MSU                                e              16 39 38.4
MSU    Marysvale         71.21 308 eP      P      16 39 28.4 +0.5
QLMT   Earthquake Lak    71.22 314 eP      P      16 39 29.4 +1.6
QLMT                               e              16 39 39.6
QLMT                               e              16 39 45.3
NLU    North Lily Min    71.23 309 eP      P      16 39 28.8 +0.8
NLU                                e              16 39 37.9
BOZ    Bozeman (W)       71.46 315 eP      P      16 39 29.1 -0.1
       comp=Z,10nm,1.1s,mb4.7
BOZ                                e              16 39 40.2
BOZ    Bozeman (W)       71.46 315 eP      P      16 39 29.1 -0.1
BOZ                                 pmax   pmax
       comp=Z,11nm,1.1s,mb4.7
BOZ    Bozeman (W)       71.46 315 ⇑P      P      16 39 29.4 +0.2
       baz=71
BOZ    Bozeman (W)       71.46 315 eP      P      16 39 29.1 -0.1
       comp=Z,11nm,1.1s,mb4.7
BR131  Keskin Array S    71.48  51  P      P      16 39 29.6 +0.1
       comp=Z,10nm,0.9s,mb4.8
BR131                              e              16 39 41.2
BR131                               LR     LR
       comp=Z,162nm,19.0s,MS4.3
BRTR   Keskin Array B    71.48  51  P      P      16 39 29.1 -0.4
       comp=Z,2.0nm,0.7s,mb4.2,baz=252,slow=6.4,SNR=15
LBTB   Lobatse           71.55 120  P      P      16 39 34.9 +4.8
       comp=Z,30nm,1.8s,mb4.9
LBTB                                LR     LR
       comp=Z,2μm,20.0s,MS5.3
LBTB   Lobatse           71.55 120  P      P      16 39 34.9 +4.8
LBTB                                pmax   pmax
       comp=Z,30nm,1.8s,mb4.9
LBTB                                MLR    MLR
       comp=Z,2μm,20.0s,MS5.3
LBTB   Lobatse           71.55 120  P      P      16 39 34.9 +4.8
       comp=Z,2μm,20.0s
X14A   Yava              71.57 303 ⇓P      P      16 39 30.7 +0.6
       baz=72,SNR=7.0
Z14A   Wintersburg       71.58 302 ⇓P      P      16 39 30.1 -0.1
       baz=72
SPUT   South Promonto    71.62 311 eP      P      16 39 30.1 -0.2
SPUT                               e              16 39 40.4
Y14A   Wickenburg        71.64 303 ⇑P      P      16 39 30.2 -0.4
       baz=72
W14A   Seligman          71.75 304 ⇑P      P      16 39 31.2  0.0
       baz=72,SNR=6.8
DUG    Dugway            71.81 309 eP      P      16 39 31.6 +0.1
       comp=Z,67nm,1.6s,mb5.3
DUG                                e              16 39 42.0
DUG                                 LR     LR
       comp=Z,930nm,22.0s,MS5.0
DUG    Dugway            71.81 309 eP      P      16 39 31.6 +0.1
DUG                                 pmax   pmax
       comp=Z,67nm,1.6s,mb5.3
DUG                                 MLR    MLR
       comp=Z,930nm,22.0s,MS5.0
DUG    Dugway            71.81 309 eP      P      16 39 31.6 +0.1
       comp=Z,930nm,22.0s
T14A   Hurricane         71.84 306 ⇓P      P      16 39 31.1 -0.6
       baz=72
HVU    Hansel Valley     71.91 311 eP      P      16 39 30.0 -2.0
       comp=Z,35nm,1.5s,mb5.1
HVU                                e              16 39 41.5
HVU    Hansel Valley     71.91 311 eP      P      16 39 30.0 -2.0
HVU                                 pmax   pmax
       comp=Z,35nm,1.5s,mb5.1
HVU    Hansel Valley     71.91 311 eP      P      16 39 30.0 -2.0
       comp=Z,35nm,1.5s,mb5.1
S14A   Cedar City        71.94 307 ⇑P      P      16 39 32.0 -0.3
       baz=72
G15A   Dillon            72.01 315 ⇑P      P      16 39 32.9 +0.4
       baz=72,SNR=6.4
BGU    Big Grassy Mou    72.03 310 eP      P      16 39 32.8 +0.1
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BGU                                e              16 39 43.4
F15A   Butte             72.08 315  P      P      16 39 33.6 +0.6
       baz=72,SNR=5.3
CCUT   Cedar City        72.08 307 eP      P      16 39 33.9 +0.7
CCUT                               e              16 39 43.7
DLMT   Dillon            72.10 315 eP      P      16 39 34.0 +0.9
       comp=Z,90nm,1.3s,mb5.5
DLMT                               e              16 39 43.8
ARUT   Antelope Range    72.16 307 eP      P      16 39 34.0 +0.4
ARUT                               e              16 39 44.1
ARUT   Antelope Range    72.16 307 eP      P      16 39 34.0 +0.4
EIL    Elat              72.20  62  P      P      16 39 34.6 +0.6
       comp=Z,2.7nm,0.7s,mb4.3,baz=12,slow=4.5,SNR=6.7
MCMT   McKenzie Canyo    72.23 314 eP      P      16 39 34.0 +0.1
MCMT                               e              16 39 45.3
D15A   Lincoln           72.23 317  P      P      16 39 34.1 +0.3
       baz=72,SNR=5.6
E15A   Deer Lodge        72.25 316 ⇑P      P      16 39 34.1 +0.2
       baz=72
K14A   Jones Ranch, D    72.26 312 ⇑P      P      16 39 33.6 -0.5
       baz=72
Y13A   Salome            72.33 303 ⇑P      P      16 39 34.0 -0.7
       baz=72
X13A   Yucca             72.35 303 ⇓P      P      16 39 34.4 -0.4
       baz=72,SNR=6.9
W13A   Hualapai Mount    72.41 304 ⇓P      P      16 39 35.3 +0.2
       baz=72
BOSA   Boshof            72.48 124 eP      P      16 39 34.7 -0.9
       comp=Z,38nm,1.4s,mb5.1
BOSA                               e              16 39 45.1
BOSA                                LR     LR
       comp=Z,1μm,19.0s,MS5.1
BOSA   Boshof            72.48 124 eP      P      16 39 34.7 -0.9
BOSA                                pmax   pmax
       comp=Z,38nm,1.4s,mb5.1
BOSA                                MLR    MLR
       comp=Z,1μm,19.0s,MS5.1
BOSA   Boshof            72.48 124  P      P      16 39 35.4 -0.2
       comp=Z,2.2nm,0.6s,mb4.3,baz=278,slow=7.1,SNR=3.3
BOSA                                LR     LR     17 05 35.6
       comp=Z,541nm,18.8s,MS4.8,baz=298,slow=31
BOSA   Boshof            72.48 124 eP      P      16 39 34.7 -0.9
       comp=Z,1μm,19.0s
T13A   Saint George      72.49 306 ⇑P      P      16 39 35.6  0.0
       baz=72
PDMCI  Parker Dam,Lak    72.60 303 ⇓P      P      16 39 36.2 -0.1
       baz=73
MMAI   Mount Meron Ar    72.61  58  P      P      16 39 36.5  0.0
       comp=Z,5.8nm,1.0s,mb4.5,baz=252,slow=5.1,SNR=5.4
F14A   Wisdom            72.69 315 ⇑P      P      16 39 36.8 +0.2
       baz=73
G14A   Jackson           72.70 315 ⇑P      P      16 39 37.1 +0.5
       baz=73
CHMT   Chamberlain Mo    72.71 316 eP      P      16 39 36.6 -0.1
CHMT                               e              16 39 47.0
L13A   Double Diamond    72.80 311 ⇓P      P      16 39 37.4 +0.1
       baz=73
E14A   Clinton           72.83 316 ⇓P      P      16 39 37.3 -0.1
       baz=73
D14A   Greenough         72.90 317 ⇓P      P      16 39 37.7 -0.1
       baz=73
Y12C   Blythe            72.90 303 ⇑P      P      16 39 37.9 -0.2
       baz=73
N13A   Wendover, West    72.92 310 ⇑P      P      16 39 37.8 -0.3
       baz=73
M13A   Montello          72.92 311 ⇓P      P      16 39 38.0 -0.1
       baz=73
K13A   Stover Farm, H    72.94 312 ⇑P      P      16 39 37.7 -0.4
       baz=73
RES    Resolute Bay      72.98 347 eP      P      16 39 37.1 -0.7
       comp=Z,2μm,2.0s
RES                                e              16 39 48.0
RES    Resolute Bay      72.98 347 eP      P      16 39 37.1 -0.7
RES                                e              16 39 48.1
RES                                 pmax   pmax
       comp=Z,2μm,2.0s
RES    Resolute Bay      72.98 347 eP      P      16 39 37.1 -0.7
       comp=Z,2μm,2.0s
RES    Resolute Bay      72.98 347 ePcP    PcP    16 39 48.1 -6.6
U12A   Valley of Fire    72.98 305 ⇓P      P      16 39 38.0 -0.6
       baz=73
I13A   Wildhorse Cree    73.06 313 ⇓P      P      16 39 38.9 +0.1
       baz=73
J13A   Cove Ranch, Pi    73.06 313 ⇓P      P      16 39 38.2 -0.6
       baz=73
R12A   Pony Springs,     73.10 307 ⇓P      P      16 39 39.2  0.0
       baz=73
C14A   Swan Lake         73.14 317  P      P      16 39 39.3 +0.1
       baz=73,SNR=13
MSO    Missoula          73.18 316  PFAKE         16 39 50.0  +11
MSO                                 LR     LR
       comp=Z,599nm,20.0s,MS4.9
G13A   Cobalt            73.23 314 ⇑P      P      16 39 40.0 +0.2
       baz=73,SNR=7.5
Q12A   Willow Creek R    73.31 308 ⇑P      P      16 39 40.5 +0.1
       baz=73
ARCES  ARCESS Array B    73.31  19  LR     LR     17 09 51.7
       comp=Z,174nm,20.0s,MS4.3,baz=268,slow=34
E13A   Victor            73.31 316 ⇑P      P      16 39 40.3  0.0
       baz=73
WALA   Waterton Lakes    73.38 319 eP      P      16 39 39.5 -1.1
       comp=Z,35nm,1.3s,mb5.1
WALA                               e              16 39 50.1
P12A   McGill            73.38 309 ⇓P      P      16 39 41.5 +0.6
       baz=73
IRM    Iron Mountain     73.43 303 ⇑P      P      16 39 41.4 +0.1
       baz=73,SNR=6.3
M12A   Wells             73.48 311 ⇑P      P      16 39 41.7 +0.3
       baz=74
EDM    Edmonton          73.53 323 eP      P      16 39 40.9 -0.5
EDM                                e              16 39 51.1
EDM    Edmonton          73.53 323 eP      P      16 39 40.9 -0.5
EDM    Edmonton          73.53 323 ePcP    PcP    16 39 51.1 -6.3
K12A   Draper Farm, C    73.54 312 ⇓P      P      16 39 41.6 -0.1
       baz=74
N12A   Clover Valley,    73.55 310 ⇑P      P      16 39 41.3 -0.5
       baz=74,SNR=7.6
D13A   Huson             73.55 317 ⇓P      P      16 39 41.9 +0.2
       baz=74
L12A   House Creek Ra    73.60 311 ⇓P      P      16 39 42.0 -0.1
       baz=74
H12A   Diamond D Ranc    73.63 314  P      P      16 39 42.7 +0.5
       baz=74,SNR=7.6
B13A   Whitefish         73.68 318 ⇑P      P      16 39 42.2 -0.1
       baz=74
BC3    Big Chuckw Mtn    73.68 302 ⇓P      P      16 39 42.9 +0.1
       baz=74
C13A   Hot Springs       73.68 317 ⇓P      P      16 39 42.9 +0.4
       baz=74
ELK    Elko              73.69 310 eP      P      16 39 42.9 +0.2
       comp=Z,45nm,1.4s,mb5.2
ELK                                e              16 39 52.9
ELK                                 LR     LR
       comp=Z,971nm,21.0s,MS5.1
ELK    Elko              73.69 310 eP      P      16 39 42.9 +0.2
ELK                                e              16 39 52.9
ELK                                 pmax   pmax
       comp=Z,45nm,1.4s
ELK                                 MLR    MLR
       comp=Z,971nm,21.0s
ELK    Elko              73.69 310 eP      P      16 39 42.9 +0.2
       comp=Z,45nm,1.4s,mb5.2
ELK    Elko              73.69 310 ePcP    PcP    16 39 52.9 -5.5
       comp=Z,971nm,21.0s
J12A   Stokes Ranch,     73.72 312  P      P      16 39 43.4 +0.6
       baz=74,SNR=8.9
GMRC   Granite Mounta    73.86 304 ⇑P      P      16 39 43.7  0.0
       baz=74,SNR=5.7
ASF    Jabal al Asfar    73.87  59  P      P      16 39 44.8 +0.9
       comp=Z,3.8nm,1.0s,mb4.3,baz=263,slow=2.9,SNR=6.2
TRCR   Troy Canyon       73.87 307 eP      P      16 39 43.5 -0.3
TRCR                               e              16 39 54.3
Q11A   Duckwater         73.94 308 ⇓P      P      16 39 44.4 +0.2
       baz=74
SWSC   Sam W. Stewart    73.96 302 ⇓P      P      16 39 43.9 -0.5
       baz=74
O11A   Cowboy Ranch,     73.99 309 ⇑P      P      16 39 44.5 +0.1
       baz=74
P11A   Circle Ranch,     74.04 309 ⇑P      P      16 39 44.6 -0.1
       baz=74
TUQ    Turquoise Mtn.    74.08 304 ⇑P      P      16 39 45.0  0.0
       baz=74
BELC   Belle Mtn.        74.13 303 ⇑P      P      16 39 45.5 +0.1
       baz=74
M11A   Holland Ranch,    74.14 311 ⇓P      P      16 39 45.9 +0.7
       baz=74
L11A   Cat Creek Ranc    74.15 311 ⇑P      P      16 39 45.2 -0.1
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       baz=74,SNR=7.3
DVTC   Desert V Tower    74.22 301 ⇑P      P      16 39 45.8 -0.1
       baz=74
MFID   Camas Ranch       74.26 313 ⇑P      P      16 39 46.1 +0.1
       baz=74
HEC    Hector,Ludlow     74.41 304 ⇑P      P      16 39 47.7 +0.8
       baz=74
B12A   Libby             74.43 318 ⇓P      P      16 39 47.0 +0.2
       baz=74
R10A   Warm Springs      74.43 307 ⇑P      P      16 39 47.4 +0.4
       baz=74
H11A   Donnelly          74.46 314 ⇓P      P      16 39 46.5 -0.6
       baz=74
MONP   Monument Peak     74.49 302 ⇓P      P      16 39 47.0 -0.4
       baz=74
A12A   Yaak River Ran    74.51 318 ⇑P      P      16 39 47.5 +0.2
       baz=74
PFO    Pinyon Flat Ob    74.51 302  PFAKE         16 40 00.0  +12
PFO                                 LR     LR
       comp=Z,317nm,19.0s,MS4.6
P10A   Eureka            74.59 309 ⇑P      P      16 39 48.2 +0.2
       baz=75
F11A   Grangeville       74.63 315 ⇓P      P      16 39 47.8 -0.2
       baz=75
S10A   Tonopah Range,    74.66 307  P      P      16 39 49.3 +0.9
       baz=75,SNR=9.9
L10A   Juniper Basin     74.67 311  P      P      16 39 49.0 +0.7
       baz=75,SNR=6.5
E11A   Bogner Ranch,     74.70 316  P      P      16 39 47.8 -0.6
       baz=75,SNR=6.5
M10A   I.L. Ranch, Tu    74.71 311 ⇑P      P      16 39 48.2 -0.3
       baz=75
GSC    Goldstone         74.80 304 ⇑P      P      16 39 49.2  0.0
       baz=75
D11A   Klaveano Farm,    74.83 316 ⇑P      P      16 39 49.3 +0.2
       baz=75
FURC   Furnace Creek,    74.85 305 ⇑P      P      16 39 49.5  0.0
       baz=75
OBN    Obninsk           74.93  35  PFAKE         16 40 00.0  +10
OBN                                 LR     LR
       comp=Z,432nm,20.0s,MS4.8
OBN    Obninsk           74.93  35 ePcP    PcP    16 40 07.2 +3.8
B11A   Sandpoint         74.94 318 ⇓P      P      16 39 50.0 +0.2
       baz=75
A11A   Hall Mountain,    74.98 318  P      P      16 39 50.4 +0.4
       baz=75,SNR=5.6
H10A   Noah’s Angus R    74.98 314 ⇓P      P      16 39 49.3 -0.8
       baz=75
R09A   Tonopah           75.04 307  P      P      16 39 51.2 +0.7
       baz=75,SNR=5.3
MURC   Murrieta          75.14 302 ⇓P      P      16 39 51.5 +0.3
       baz=75
S09A   Goldfield         75.15 307 ⇑P      P      16 39 51.2  0.0
       baz=75
TPH    Tonopah           75.16 307  P      P      16 39 49.6 -1.6
       comp=Z,51nm,1.5s,mb5.2
TPH                                e              16 40 01.4
TPH    Tonopah           75.16 307  P      P      16 39 49.6 -1.6
TPH                                e              16 40 01.4
TPH                                 pmax   pmax
       comp=Z,51nm,1.5s,mb5.2
TPH    Tonopah           75.16 307  P      P      16 39 49.6 -1.6
       comp=Z,51nm,1.5s,mb5.2
TPH    Tonopah           75.16 307 ePcP    PcP    16 40 01.4 -3.4
O09A   Fish Creek Ran    75.16 309 ⇑P      P      16 39 50.7 -0.5
       baz=75
BMN    Battle Mountai    75.19 309 eP      P      16 39 51.6 +0.2
       comp=Z,47nm,1.5s,mb5.2
BMN                                e              16 40 01.7
BMN    Battle Mountai    75.19 309 eP      P      16 39 51.6 +0.2
BMN                                e              16 40 01.7
BMN                                 pmax   pmax
       comp=Z,47nm,1.5s,mb5.2
BMN    Battle Mountai    75.19 309 eP      P      16 39 51.6 +0.2
       comp=Z,47nm,1.5s,mb5.2
BMN    Battle Mountai    75.19 309 ePcP    PcP    16 40 01.7 -3.2
GRAC   Grapevine Rang    75.27 306 ⇑P      P      16 39 51.3 -0.6
       baz=75
MPMC   Manual Prospec    75.36 305 ⇑P      P      16 39 52.4  0.0
       baz=75
BMO    Blue Mountains    75.39 314 eP      P      16 39 51.9 -0.5
       comp=Z,26nm,1.5s,mb4.9
BMO                                e              16 40 01.9
BMO                                 LR     LR
       comp=Z,669nm,20.0s,MS4.9
BMO    Blue Mountains    75.39 314 eP      P      16 39 51.9 -0.5
BMO                                e              16 40 01.9
BMO                                 pmax   pmax
       comp=Z,26nm,1.5s,mb4.9
BMO                                 MLR    MLR
       comp=Z,669nm,20.0s,MS4.9
BMO    Blue Mountains    75.39 314 eP      P      16 39 51.9 -0.5
       comp=Z,26nm,1.5s,mb4.9
BMO    Blue Mountains    75.39 314 ePcP    PcP    16 40 01.9 -3.7
       comp=Z,669nm,20.0s
N09A   Rock Creek Ran    75.43 310 ⇑P      P      16 39 53.0 +0.2
       baz=75
DAC    Darwin (Calif)    75.44 305 eP      P      16 39 52.6 -0.3
       comp=Z,3.6nm,1.0s,mb4.3
DAC                                e              16 40 03.6
DAC                                 LR     LR
       comp=Z,741nm,21.0s,MS5.0
DAC    Darwin (Calif)    75.44 305 eP      P      16 39 52.6 -0.3
DAC                                e              16 40 03.6
DAC                                 pmax   pmax
       comp=Z,4.0nm,1.0s,mb4.3
DAC                                 MLR    MLR
       comp=Z,741nm,21.0s,MS5.0
DAC    Darwin (Calif)    75.44 305 eP      P      16 39 52.6 -0.3
       comp=Z,4.0nm,1.0s,mb4.3
DAC    Darwin (Calif)    75.44 305 ePcP    PcP    16 40 03.6 -2.4
       comp=Z,741nm,21.0s
D10A   Wagner Farm, O    75.47 316 ⇓P      P      16 39 52.6 -0.2
       baz=75
BFSC   Mount Baldy St    75.51 303 ⇓P      P      16 39 53.5 +0.1
       baz=76
LRMC   Laurel Mountai    75.52 304 ⇓P      P      16 39 53.9 +0.5
       baz=76
YKA    Yellowknife Ar    75.56 332  P      P      16 39 51.6 -1.4
       comp=Z,4.0nm,0.9s,mb4.3,baz=98,slow=5.7,SNR=28
YKA                                 LR     LR     17 11 40.5
       comp=Z,271nm,18.3s,MS4.6,baz=145,slow=35
MOS    Moscow            75.60  35 ePcP    PcP    16 40 11.2 +4.9
K09A   Rome              75.62 312  P      P      16 39 54.6 +0.8
       baz=76,SNR=9.2
H09A   Durkee            75.64 314 ⇑P      P      16 39 53.8 -0.1
       baz=76
J09A   Fry Pan Ranch,    75.66 312 ⇑P      P      16 39 53.9 -0.1
       baz=76
I09A   Lost Marbles R    75.67 313 ⇓P      P      16 39 54.0 -0.1
       baz=76
A10A   Northport         75.76 318 ⇓P      P      16 39 54.5  0.0
       baz=76
EDW2   Edwards Air Fo    75.78 304  P      P      16 39 55.6 +0.7
       baz=76,SNR=5.2
CWC    Cottonwood Cre    75.84 305 ⇑P      P      16 39 55.3 +0.2
       baz=76
F09A   S2 Ranch, Elgi    75.85 315 ⇓P      P      16 39 55.2 +0.1
       baz=76
S08C   White Mtn Res     75.90 306 ⇓P      P      16 39 56.1 +0.6
       baz=76,SNR=7.5
NVAR   Mina Array Bea    76.01 307  P      P      16 39 56.5 +0.4
       comp=Z,1.1nm,0.9s,mb3.8,baz=96,slow=6.6,SNR=7.0
L08A   Fields            76.07 311 ⇓P      P      16 39 56.6 +0.3
       baz=76
ISA    Isabella          76.16 305 ⇓P      P      16 39 57.4 +0.3
       baz=76,SNR=5.2
D09A   Jones Farm, Ri    76.18 316 ⇑P      P      16 39 56.9  0.0
       baz=76
K08A   Mann Creek Ran    76.19 312 ⇓P      P      16 39 57.5 +0.5
       baz=76
J08A   Circle Bar Ran    76.19 312 ⇓P      P      16 39 57.1 +0.1
       baz=76
MTUM   Tungsten Hills    76.22 306 eP      P      16 39 57.8 +0.5
MTUM                               e              16 40 07.6
I08A   Drewsey           76.27 313 ⇑P      P      16 39 58.0 +0.5
       baz=76
H08A   Prairie City      76.35 314 ⇓P      P      16 39 57.9 -0.1
       baz=76
O07A   Toulon            76.45 309 ⇓P      P      16 39 58.4 -0.2
       baz=76
N07B   Gerlach           76.53 310 ⇓P      P      16 39 58.9 -0.2
       baz=76
G08A   Pilot Rock        76.58 314 ⇓P      P      16 39 58.0 -1.2
       baz=76
HELL   Mitchell Peak,    76.59 306 ⇓P      P      16 39 59.0 -0.4
       baz=77,SNR=5.5
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D08A	Wollman Farm,	76.60	316	⇑P	P	16 39 58.6	-0.6
	baz=77						
E08A	Dider Farm, El	76.67	316	⇓P	P	16 39 59.5	-0.2
	baz=77						
J07A	Hines	76.80	312	⇑P	P	16 40 00.8	+0.3
	baz=77						
L07A	Adell	76.81	311	⇓P	P	16 40 01.2	+0.6
	baz=77						
R06C	Coleville	76.91	308	⇓P	P	16 40 01.6	+0.4
	baz=77						
KMBO	Kilima Mbogo	76.97	93	P	P	16 40 04.5	+2.5
	comp=Z,48nm,2.1s,mb5.1						
KMBO				*e*		16 40 14.5	
KMBO				LR	LR		
	comp=Z,589nm,20.0s,MS4.9						
KMBO	Kilima Mbogo	76.97	93	P	P	16 40 04.6	+2.6
KMBO				*e*		16 40 14.5	
KMBO				pmax	pmax		
	comp=Z,48nm,2.1s						
KMBO				MLR	MLR		
	comp=Z,589nm,20.0s						
KMBO	Kilima Mbogo	76.97	93	P	P	16 40 03.2	+1.2
	comp=Z,0.3nm,0.3s,mb3.8,baz=207,slow=22,SNR=2.5						
KMBO				LR	LR	17 12 38.6	
	comp=Z,527nm,19.1s,MS4.9,baz=278,slow=35						
KMBO	Kilima Mbogo	76.97	93	P	P	16 40 04.6	+2.6
	comp=Z,48nm,2.1s,mb5.1						
KMBO	Kilima Mbogo	76.97	93	*e*PcP	PcP	16 40 14.5	+1.4
	comp=Z,589nm,20.0s						
G07A	Ruggs Ranch, H	77.08	314	⇓P	P	16 40 01.9	-0.1
	baz=77						
O06A	Flanigan	77.18	309	⇑P	P	16 40 02.4	-0.4
	baz=77						
E07A	Sunnyside	77.23	316	⇑P	P	16 40 03.0	+0.1
	baz=77						
S06C	San Francisco	77.23	307	⇓P	P	16 40 03.2	+0.2
	baz=77						
F07A	Phinny Hill Vi	77.27	315	⇑P	P	16 40 03.4	+0.3
	baz=77						
PKM	Peak Mountain	77.28	304	⇓P	P	16 40 03.5	+0.1
	baz=77,SNR=5.7						
D07A	Quincy	77.32	316	⇑P	P	16 40 03.1	-0.2
	baz=77						
R05C	Kirkwood Meado	77.39	308	⇑P	P	16 40 04.1	+0.2
	baz=77,SNR=5.2						
J06A	Christmas Vall	77.41	312	P	P	16 40 04.5	+0.6
	baz=77,SNR=9.0						
K06A	Valley Falls	77.48	312	⇓P	P	16 40 05.0	+0.6
	baz=78						
MOD	Modoc	77.53	311	*e*P	P	16 40 04.8	+0.2
	comp=Z,38nm,1.3s,mb5.2						
MOD				*e*		16 40 15.4	
MOD				*e*		16 40 22.0	
MOD				LR	LR		
	comp=Z,551nm,22.0s,MS4.8						
MOD	Modoc	77.53	311	P	P	16 40 05.7	+1.1
	baz=78,SNR=11						
H06A	Lindquist Farm	77.55	314	P	P	16 40 05.5	+0.9
	baz=78,SNR=7.4						
BEKR	Beckwourth	77.59	309	P	P	16 40 05.6	+0.6
	baz=78,SNR=5.2						
A07A	Ashnola River,	77.63	318	⇓P	P	16 40 05.2	+0.2
	baz=78						
CMB	Columbia Colle	77.65	307	P	P	16 40 05.2	-0.2
	comp=Z,16nm,1.3s,mb4.8						
CMB				*e*		16 40 15.3	
CMB				LR	LR		
	comp=Z,959nm,20.0s,MS5.1						
CMB	Columbia Colle	77.65	307	P	P	16 40 05.2	-0.2
CMB				*e*		16 40 15.3	
CMB				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.8						
CMB				MLR	MLR		
	comp=Z,959nm,20.0s,MS5.1						
CMB	Columbia Colle	77.65	307	⇓P	P	16 40 05.2	-0.2
	baz=78						
CMB	Columbia Colle	77.65	307	P	P	16 40 05.2	-0.2
	comp=Z,16nm,1.3s,mb4.8						
CMB	Columbia Colle	77.65	307	*e*PcP	PcP	16 40 15.3	-0.3
	comp=Z,959nm,20.0s						
M06C	Likely Place G	77.67	310	⇓P	P	16 40 05.8	+0.4
	baz=78						
G06A	Carlson Farm,	77.76	314	⇓P	P	16 40 05.7	-0.1
	baz=78						
ELFS	Eagle Lake Fie	77.86	310	⇓P	P	16 40 07.3	+0.8
	baz=78						
L05A	Lakeview	77.92	311	⇓P	P	16 40 08.0	+1.2
	baz=78						
K05A	Summer Lake	77.96	312	⇑P	P	16 40 07.6	+0.6
	baz=78						
U04C	Hernandez Rese	78.02	305	P	P	16 40 08.2	+0.7
	baz=78,SNR=6.3						
M05C	Lookout	78.17	310	⇓P	P	16 40 09.0	+0.8
	baz=78						
LRV	Little Rabbit	78.20	305	*e*P	P	16 40 09.2	+0.7
LRV				*e*		16 40 19.1	
F05A	White Salmon	78.34	315	⇓P	P	16 40 09.5	+0.5
	baz=78						
A06A	Chilliwack	78.35	318	⇓P	P	16 40 08.4	-0.6
	baz=78						
KIV	Kislovodsk	78.37	47	*e*P	P	16 40 10.1	+0.8
	comp=Z,56nm,1.4s,mb5.3						
KIV				LR	LR		
	comp=Z,218nm,20.0s,MS4.5						
KIV	Kislovodsk	78.37	47	*e*ScS	ScS	16 50 20.3	-10
OHCM	Honcut	78.48	308	*e*P	P	16 40 09.9	0.0
OHCM				*e*		16 40 20.0	
ORV	Oroville	78.48	309	⇑P	P	16 40 09.8	-0.2
	baz=78						
GOF	Gofitskoye	78.60	46	*e*P	P	16 40 03.3	-7.2
GOF				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.2						
GOF	Gofitskoye	78.60	46	*e*P	P	16 40 03.3	-7.2
	comp=Z,40nm,1.3s,mb5.2						
M04C	Macdoel	78.68	311	⇓P	P	16 40 10.8	-0.2
	baz=79						
J04A	Umpqua Nationa	78.84	312	⇑P	P	16 40 11.5	-0.3
	baz=79						
H04A	Detroit Lake	78.87	314	⇓P	P	16 40 12.2	+0.3
	baz=79						
M03C	McCloud	78.91	310	⇓P	P	16 40 12.5	+0.2
	baz=79						
WDC	Whiskeytown Da	79.25	310	PFAKE		16 40 30.0	+16
WDC				LR	LR		
	comp=Z,723nm,20.0s,MS5.0						
YBH	Yreka Blue Hor	79.33	311	PFAKE		16 40 30.0	+15
YBH				LR	LR		
	comp=Z,517nm,22.0s,MS4.8						
HUMO	Hull Mountain	79.48	312	PFAKE		16 40 30.0	+15
HUMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
PGC	Sidney	79.65	318	*e*P	P	16 40 16.3	+0.1
	comp=Z,63nm,1.2s,mb5.4						
COR	Corvallis	79.67	314	PFAKE		16 40 30.0	+14
COR				LR	LR		
	comp=Z,151nm,19.0s,MS4.4						
HOPS	Hopland	79.72	308	PFAKE		16 40 30.0	+13
HOPS				LR	LR		
	comp=Z,498nm,21.0s,MS4.8						
K02A	Glendale	79.87	312	⇑P	P	16 40 16.3	-1.1
	baz=80						
L02A	Cave Junction	79.98	311	⇑P	P	16 40 17.7	-0.4
	baz=80						
I02A	Mapleton	80.06	313	⇑P	P	16 40 18.4	-0.2
	baz=80						
VNA3	Neumayer Olymp	82.15	171	*e*P	P	16 40 28.9	-0.1
VNA3				*e*		16 40 39.8	
VNA3				*e*		16 40 49.6	
VNA3				*e*		16 40 57.8	
VNA2	Neumayer--Watz	82.26	170	*e*P	P	16 40 29.3	-0.2
VNA2				*e*		16 40 40.3	
VNA2				*e*		16 40 50.2	
VNA2				*e*		16 40 58.4	
DLBC	Dease Lake	83.04	328	*e*P	P	16 40 34.6	+0.7
DLBC				*e*		16 40 45.2	
INK	Inuvik	83.56	338	*e*P	P	16 40 34.8	-1.7
	comp=Z,2µm,1.4s						
INK				*e*		16 40 46.7	
INK				*e*		16 40 53.1	
INK	Inuvik	83.56	338	*e*P	P	16 40 34.8	-1.7
INK				pmax	pmax		
	comp=Z,2µm,1.4s						
INK	Inuvik	83.56	338	*e*P	P	16 40 34.8	-1.7
	comp=Z,2µm,1.4s						
SIT	Sitka	86.03	327	PFAKE		16 41 00.0	+11
SIT				LR	LR		
	comp=Z,740nm,19.0s,MS5.1						
MAIT	Maitri	86.29	165	*e*P	P	16 40 59.1	+9.1
DAWY	Dawson	86.64	334	*e*P	P	16 40 51.8	-0.2
DAWY				*e*		16 41 02.4	
DAWY				*e*		16 41 09.0	
ARU	Arti	87.24	33	*e*P	P	16 40 53.3	-1.8
	comp=Z,22nm,1.3s,mb5.2						
ARU				*e*		16 41 06.8	
ARU	Arti	87.24	33	*e*S	S	16 51 34.3	-0.7
ARU				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.7						
ARU				MLR	MLR		
	comp=N,200nm,20.0s,MS4.8						
ARU				MLR	MLR		
	comp=E,300nm,18.0s,MS4.8						
ARU	Arti	87.24	33	*e*S	S	16 51 34.3	-0.7
	comp=E,200nm,20.0s						
AKTK	Aktyubinsk	88.10	39	P	P	16 40 59.9	+0.6
AKTO	Aktyubinsk	88.10	39	P	P	16 40 59.9	+0.6
	comp=E,4.3nm,1.1s,mb4.6,baz=286,slow=7.0,SNR=7.3						
COLA	College	89.92	336	P	P	16 41 07.5	0.0
	comp=E,7.2nm,1.1s,mb4.9						
COLA				*e*		16 41 17.4	
COLA				*e*		16 41 23.9	
COLA				LR	LR		
	comp=Z,318nm,19.0s,MS4.8						
COLA	College	89.92	336	P	P	16 41 07.5	-0.1
COLA				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.9						
COLA				MLR	MLR		
	comp=Z,318nm,19.0s,MS4.8						
COLA	College	89.92	336	P	P	16 41 07.5	-0.1
	comp=Z,318nm,19.0s						
DIV	Divide	90.28	332	PFAKE		16 41 20.0	+11
DIV				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
MCK	McKinley	90.77	335	PFAKE		16 41 20.0	+8.4
MCK				LR	LR		
	comp=Z,197nm,20.0s,MS4.5						
PMR	Palmer	91.64	333	*e*P	P	16 41 15.8	+0.2
	comp=Z,4.1nm,0.6s,mb4.9						
PMR				LR	LR		
	comp=Z,333nm,21.0s,MS4.8						
PMR	Palmer	91.64	333	*e*P	P	16 41 15.8	+0.2
PMR				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.9						
PMR				MLR	MLR		
	comp=Z,333nm,21.0s,MS4.8						
PMR	Palmer	91.64	333	*e*P	P	16 41 15.8	+0.2
	comp=Z,333nm,21.0s						
SYO	Syowa Base	94.08	159⇑	*e*P	P	16 41 25.0	-1.6
SYO	Syowa Base	94.08	159⇑	*e*P	P	16 41 35.6	+9.0
BRVK	Borovoye	94.70	35	PFAKE		16 41 40.0	+10
BRVK				LR	LR		
	comp=Z,457nm,20.0s,MS4.9						
KDAK	Kodiak Island	94.73	330	PFAKE		16 41 40.0	+10
KDAK				LR	LR		
	comp=Z,116nm,19.0s,MS4.4						
TNA	Tin City	96.92	341	PFAKE		16 41 50.0	+10
TNA				LR	LR		
	comp=Z,266nm,19.0s,MS4.7						
QSPA	South Pole Qui	98.66	180	PFAKE		16 42 00.0	+13
QSPA				LR	LR		
	comp=Z,23µm,21.0s						
TIXI	Tiksi	99.50	4	PFAKE		16 42 00.0	+8.8
TIXI				LR	LR		
	comp=Z,200nm,20.0s,MS4.6						
YAK	Yakutsk	109.03	5	PFAKE		16 46 50.0	+12
YAK				LR	LR		
	comp=Z,221nm,22.0s,MS4.7						
ULN	Ulaanbaatar	116.39	25	PFAKE		16 47 00.0	+7.5
ULN				LR	LR		
	comp=Z,202nm,20.0s,MS4.7						
PET	Petropavlovsk	116.68	348	PFAKE		16 47 00.0	+7.1
PET				LR	LR		
	comp=Z,229nm,19.0s,MS4.8						
LSA	Lhasa	119.06	49	*e*PKPdf	PKPdf	16 46 59.1	+0.9
LSA	Lhasa	119.06	49	*e*PKIKP	PKPdf	16 46 59.1	+0.9
LZH	Lanzhou	123.65	36	*e*PKP	PKPdf	16 47 00.3	-6.6
LZH				XPKP		16 47 05.6	
LZH				PP	PP		
	comp=Z,130nm,4.8s						
LZH				LR	LR		
	comp=E,213nm,17.9s						
LZH				LR	LR		
	comp=Z,340nm,18.2s,MS5.0						
LZH	Lanzhou	123.65	36	*e*PKP	PKPdf	16 47 00.3	-6.6
LZH				pPKP	pPKPdf	16 47 03.5	-6.8
LZH				sPKP		16 47 05.6	
LZH				pP		16 47 23.4	
LZH				sP		16 47 26.9	
LZH				PP	PP	16 48 45.8	-2.3
LZH				SKKS	SKKSac	16 55 34.1	-14
LZH				SS	SS	17 05 27.0	-8.8
LZH				LR	LR		
	comp=Z,340nm,18.2s,MS5.0						
LZH	Lanzhou	123.65	36	*e*PKIKP	PKPdf	16 47 00.3	-6.6
LZH						16 47 03.5	
LZH						16 47 05.6	
LZH						16 48 45.8	
LZH				SS	SS	17 05 27.0	-8.8
LZH				MLR	MLR		
	comp=Z,340nm,18.2s,MS5.0						
MDJ	Mudanjiang	126.06	10	PKP	PKPdf	16 47 06.1	-5.1
CD2	Chengdu	127.14	40	*e*PKP	PKPdf	16 47 10.9	-2.8
CD2				XPKP		16 47 15.9	
CD2				PP	PP	16 49 13.0	+1.4
CD2				PKS		16 50 46.1	
CD2				SKS	SKSdf	16 54 17.5	-8.4
CD2				SKKS	SKKSac	16 56 01.0	-10
CD2				PP	PP		
	comp=Z,130nm,10.8s						
CD2				LR	LR		
	comp=N,1µm,19.2s,MS5.6						
CD2				LR	LR		
	comp=E,300nm,19.2s,MS5.6						
CD2				LR	LR		
	comp=Z,290nm,20.4s,MS5.0						
KMI	Kunming	130.13	47	PKP	PKPdf	16 47 19.4	-0.2
KMI				PP	PP	16 49 33.9	+2.4
KMI				SS	SS	17 06 56.9	-0.7
KMI				LR	LR		
	comp=Z,122nm,29.3s,MS4.4						
KMI	Kunming	130.13	47	PKP	PKPdf	16 47 19.4	-0.2
KMI				sPKP		16 47 28.9	
KMI				PP	PP	16 49 33.9	+2.4
KMI				SS	SS	17 06 56.9	-0.7
KMI				LR	LR		
	comp=Z,120nm,29.3s,MS4.4						
KMI	Kunming	130.13	47	PKIKP	PKPdf	16 47 19.4	-0.2
KMI						16 49 33.9	
KMI				SS	SS	17 06 56.9	-0.7
KMI				MLR	MLR		
	comp=Z,120nm,29.3s,MS4.4						
NJ2	Nanjing	134.51	26	*e*PKP	PKPdf	16 47 23.1	-4.5
MUN	Mundaring	147.56	139	*e*PKP	PKPab	16 48 02.5	+6.9
MUN	Mundaring	147.56	139	*e*PKP	PKPab	16 48 02.5	+6.9
MUN	Mundaring	147.56	139	*e*PKP2	PKPab	16 48 02.5	+6.9
KLBR	Kellerberrin	148.80	140	*e*PKP	PKPab	16 48 06.8	+6.2
	comp=Z,33nm,1.2s						
KLBR	Kellerberrin	148.80	140	*e*PKP	PKPab	16 48 06.8	+6.2
TOO	Toolangi	150.86	188	*e*PKP	PKPab	16 48 09.6	+0.9
	comp=Z,9.4nm,1.3s						
TOO	Toolangi	150.86	188	*e*PKP	PKPab	16 48 09.6	+0.9
TOO	Toolangi	150.86	188	*e*PKIKP	PKPab	16 48 09.6	+0.9
CNB	Canberra Magne	152.27	196	*e*PKP	PKPab	16 48 15.5	+0.8
	comp=Z,28nm,1.0s						
CNB	Canberra Magne	152.27	196	*e*PKP	PKPab	16 48 15.5	+0.8

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*ISCJB **08** 16:30:20.7±1.4, 8.96S±0.04×118.86E±0.04, h11^{km}±8^{km}, mb4.8/68, MS4.3/17, Error ellipse: s-maj=8.4km s-min=5.5km az=142.6*

*MOS **08** 16:30:24.6±1.6, 8.90S×118.92E, h34^{km}, mb5.1/26, Error ellipse: s-maj=13.2km s-min=8.1km az=121.5*

*GCMT **08** 16:30:24.3±0.2, 9.11S×118.63E, h24^{km}±1^{km}, MW5.2/82, Moment Tensor Solution. s48,c68; s82,c133; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.12±.17; M$_{\theta\theta}$1.51±.13; M$_{\phi\phi}$-1.63±.18; M$_{r\theta}$0.58±.32; M$_{\theta\phi}$-6.16±.12; M$_{\phi r}$-0.82±.37; Best double couple: M$_0$6.43700×10^{16} NP1:ϕ_s83.00000°,δ82.00000°,λ176.00000°. NP2: ϕ_s173.00000°,δ86.00000°,λ8.00000°. Principal axes: T 6.4430, Plg9.0000°, Azm38.0000°; N -0.0150, Plg81.0000°, Azm201.0000°; P -6.4300, Plg3.0000°, Azm308.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **08** 16:30:24.2, 9.00S×118.80E, h25^{km}, mB5.0, mb4.7, Ms4.6, Msz4.3*

*IDC **08** 16:30:24.0±3.2, 8.94S×118.77E, h21^{km}±19^{km}, mb4.2/17, mb1 4.4/19, mb1mx4.3/24, mbtmp4.3/19, ML4.7/2, MS4.3/7, Ms1 4.3/7, ms1mx3.9/24, Error ellipse: s-maj=18.3km s-min=12.2km az=55.0*

*NEIC **08** 16:30:24.3±3.3, 9.01S×118.82E, h25^{km}±23^{km}, mb5.0/32, MS4.3/1, Error ellipse: s-maj=10.7km s-min=7.2km az=65.0*

NEIC Felt [IV] at Bima.

ISC 08 16:30:24.5±1.3**, 9.07S**±0.04×**118.80E**±0.04**, h24**^{km}±9^{km}**,**
h24^{km}±1.4^{km}**:pP-P, n161,** σ1^{s}**37**/160**, mb4.8**/68**, MS4.3**/17**,**
3C-2D, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WSI	Waingapu	1.59	112	P	Pn	16 30 51.7	+0.6
	28µm,1.0s						
DNP	Denpasar	3.57	276	P	Pn	16 31 19.2	+0.9
	8µm,0.8s						
KMMI	Kalianget	5.19	292	P	Pn	16 31 41.6	+1.0
	323nm,0.9s						
KRKI	Karangkates	6.34	278	P	Pn	16 31 59.2	+2.7
	2µm,1.1s						
PCI	Palu	8.17	7	P	Pn	16 32 26.7	+5.0
	749nm,1.0s						
BJII	Banjamegara	9.16	280	P	Pn	16 32 39.2	+4.0
	123nm,0.8s						
AAI	Ambon	10.76	61	P	Pn	16 33 07.4	+10
	206nm,1.3s						
FITZ	Fitzroy Crossi	11.17	144	*e*P	Pn	16 33 02.1	-0.6
	100nm,0.7s						
FITZ				*e*S	Sn	16 35 02.0	-4.9
FITZ	Fitzroy Crossi	11.17	144	Pn	Pn	16 33 02.3	-0.4
	6.2nm,0.3s,baz=329,slow=12,SNR=134						
FITZ				Sn	Sn	16 35 02.6	-4.3
	10nm,0.3s,baz=177,slow=18,SNR=9.8						
FITZ				LR	LR	16 38 10.3	
	comp=Z,1µm,18.6s,baz=317,slow=41						
LEM	Lembang	11.30	281	P	Pn	16 33 04.3	-0.2
	96nm,1.0s						
CBJI	Citeko	12.13	282	P	Pn	16 33 14.0	-1.9
	148nm,0.8s						
TPI	Tanjungpandan	12.73	299	P	Pn	16 33 33.8	+10
	53nm,1.3s						
KAKA	Kakadu	13.87	106	*e*P	Pn	16 33 39.1	-0.6
	107nm,0.8s						
KAKA				*e*S	Sn	16 36 02.9	-10
WRA	Warramunga Arr	18.51	127	P	Pn	16 34 38.5	-0.8
WRA				S	Sn	16 37 58.1	-7.5
WRA	Warramunga Arr	18.51	127	P	Pn	16 34 38.5	-0.8
	2.3nm,0.3s,baz=298,slow=13,SNR=134						
WRA				S	Sn	16 37 58.1	-7.5
	1.4nm,0.3s,baz=304,slow=23,SNR=4.6						
WRA				LR	LR	16 43 14.8	
	comp=Z,963nm,18.9s,baz=305,slow=41						
WB2	Warramunga Arr	18.52	127	*e*P	Pn	16 34 39.2	-0.3
WB2				*e*S	Sn	16 37 55.7	-10
BAKI	Biak	18.92	67	P	Pn	16 34 55.8	+11
	212nm,1.5s						
KLBR	Kellerberrin	22.43	182	*e*P	P	16 35 22.7	+1.2
	44nm,1.0s,mb4.8						
KLBR				*e*S	S	16 39 15.6	-11
MUN	Mundaring	22.92	186	*e*P	P	16 35 35.9	+9.2
MUN				*e*S	S	16 39 32.3	-3.1
PSI	Prapat	23.05	300	P	P	16 35 27.1	-1.2
	5.4nm,0.5s,mb4.3,baz=176,slow=11,SNR=10						
TGY	Tagaytay City	23.12	5	P	P	16 35 33.3	+4.4
	82nm,0.4s,mb5.5,baz=186,slow=10,SNR=2.8						
FORT	Forrest	23.27	159	*e*P	P	16 35 31.1	+0.7
	70nm,0.7s,mb5.2						
FORT				*e*S	S	16 39 46.0	+5.0
NWAO	Narrogin (SRO)	23.79	183	*e*P	P	16 35 34.3	-1.1
	90nm,1.3s,mb5.0						
NWAO				*e*S	S	16 39 48.7	-0.8
NWAO	Narrogin (SRO)	23.79	183	*e*P	P	16 35 34.3	-1.1
NWAO				*e*S	S	16 39 48.7	-0.8
NWAO				pmax	pmax		
	comp=Z,90nm,1.3s						
NWAO	Narrogin (SRO)	23.79	183	P	P	16 35 34.7	-0.7
	comp=Z,16nm,0.9s,mb4.5,baz=345,slow=12,SNR=12						
NWAO				LR	LR	16 44 19.7	
	comp=Z,660nm,21.8s,MS4.1,baz=209,slow=35						
PMG	Port Moresby	27.99	93	P	P	16 36 14.8	+1.2
	comp=Z,50nm,1.3s,mb5.0						
PMG	Port Moresby	27.99	93	P	P	16 36 14.8	+1.1
PMG				pmax	pmax		
	comp=Z,50nm,1.3s						
PMG	Port Moresby	27.99	93	P	P	16 36 15.1	+1.5
	comp=Z,9.8nm,0.8s,mb4.5,baz=252,slow=9.7,SNR=2.8						
CTA	Charters Tower	28.69	115	*e*P	P	16 36 22.4	+2.6
	comp=Z,13nm,1.0s,mb4.6						
CTA	Charters Tower	28.69	115	*e*P	P	16 36 22.4	+2.6
CTA				pmax	pmax		
	comp=Z,13nm,1.0s						
CTA	Charters Tower	28.69	115	P	P	16 36 19.9	+0.1
	comp=Z,4.7nm,0.8s,mb4.3,baz=301,slow=12,SNR=3.7						
CTA				LR	LR	16 49 22.9	
	comp=Z,2µm,19.6s,MS4.7,baz=86,slow=40						
CTAO	Charters Tower	28.69	115	*e*P	P	16 36 19.9	+0.1
	comp=Z,62nm,1.4s,mb5.2						
CTAO	Charters Tower	28.69	115	*e*P	P	16 36 19.9	+0.1
CTAO				pmax	pmax		
	comp=Z,63nm,1.4s,mb5.2						
QIZ	Qiongzhong	29.28	342	P	P	16 36 24.8	-0.2
QIZ				S	S	16 41 19.1	+2.3
QIZ				XS	sS	16 41 29.6	+0.8
QIZ				AMB	AMB		
	comp=Z,8.0nm,1.7s,mb4.2						
QIZ				LR	LR		
	comp=E,659nm,22.5s						
QIZ				LR	LR		
	comp=Z,485nm,22.2s,MS4.1						
STKA	Stephens Creek	31.03	140	*e*P	P	16 36 41.5	+1.1
	comp=Z,34nm,0.7s,mb5.3						
STKA	Stephens Creek	31.03	140	P	P	16 36 42.6	+2.2
	comp=Z,39nm,0.7s,mb5.4,baz=312,slow=9.1,SNR=125						
STKA				LR	LR	16 50 01.8	
	comp=Z,1µm,19.1s,MS4.6,baz=113,slow=38						
CM31	Chiang Mai Arr	33.65	324	*e*P	P	16 37 05.8	+2.3
	comp=Z,3.4nm,0.6s,mb4.5						
CHTO	Chiang Mai	33.93	325	P	P	16 37 06.9	+1.0
	comp=Z,7.7nm,1.0s,mb4.6						
CHTO	Chiang Mai	33.93	325	P	P	16 37 06.9	+1.0
CHTO				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
GYA	Guiyang	37.23	342⇑	*i*P	P	16 37 37.0	+2.8
GYA				AP	pP	16 37 43.8	+2.3
GYA				XP	sP	16 37 47.6	+3.1
GYA				PP	PP	16 39 04.8	+5.4
GYA				PCP	PcP	16 39 56.2	+2.4
GYA				S	S	16 43 23.8	+3.9
GYA				XS	sS	16 43 34.4	+2.3
GYA				SCP	ScP	16 43 41.0	+1.5
GYA				SS	SS	16 45 55.8	-7.9
GYA				SCS	ScS	16 47 47.6	+0.2
GYA				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.2						
GYA				AMB	AMB		
	comp=Z,140nm,6.4s						
GYA				LR	LR		
	comp=N,1µm,16.8s,MS4.8						
GYA				LR	LR		
	comp=E,880nm,18.2s,MS4.8						
GYA				LR	LR		
	comp=Z,2µm,16.0s,MS4.9						
TOO	Toolangi	37.23	144	*e*P	P	16 37 37.5	+3.4
	comp=Z,16nm,1.0s,mb4.8						
TOO	Toolangi	37.23	144	*e*P	P	16 37 37.5	+3.4
TOO				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.8						
ARMA	Armidale	37.27	129	*e*P	P	16 37 38.3	+3.7
CNB	Canberra Magne	38.22	138	*e*P	P	16 37 41.3	-1.2
	comp=Z,74nm,1.4s,mb5.2						
SSE	Sheshan	40.00	3	P	P	16 37 57.8	+0.4
SSE				AP	pP	16 38 06.7	+1.9
SSE				XP	sP	16 38 10.5	+2.7
SSE				S	S	16 44 03.4	+1.8
SSE				XS	sS	16 44 18.9	+5.1
SSE				AMB	AMB		
	comp=Z,22nm,0.7s,mb5.0						

SSE				AMB	AMB		
	comp=Z,22nm,3.3s						
SSE				LR	LR		
	comp=N,63nm,16.7s,MS4.2						
SSE				LR	LR		
	comp=E,291nm,16.7s,MS4.2						
SSE				LR	LR		
	comp=Z,144nm,17.7s,MS3.9						
SSE	**Sheshan**	**40.00**	**3**	P	**P**	**16 37 57.8**	**+0.4**
	comp=Z,22nm,0.7s,mb5.0						
SSE				pP	pP	16 38 06.7	+1.9
SSE				sP	sP	16 38 10.5	+2.7
SSE				S	**S**	**16 44 03.4**	**+1.8**
SSE				sS	sS	16 44 18.9	+5.1
SSE				SS	SS	16 47 02.8	+3.5
SSE				LR	LR		
	comp=Z,140nm,17.7s,MS3.9						
HNR	**Honiara**	**40.60**	**94**	*e*P	**P**	**16 38 03.7**	**+1.1**
	comp=Z,219nm,1.0s,mb5.7						
HNR	**Honiara**	**40.60**	**94**	*e*P	**P**	**16 38 03.7**	**+1.0**
HNR				pmax	pmax		
	comp=Z,219nm,1.0s,mb5.7						
HNR	**Honiara**	**40.60**	**94**	P	**P**	**16 38 10.0**	**+7.4**
	comp=Z,107nm,0.8s,mb5.5,baz=248,slow=8.2,SNR=11						
NJ2	**Nanjing**	**40.89**	**0**	*e*P	**P**	**16 38 05.6**	**+0.9**
NJ2				AP	pP	16 38 13.0	+0.9
NJ2				XP	sP	16 38 16.5	+1.4
NJ2				PP	PP	16 39 43.3	+4.0
NJ2				S	**S**	**16 44 15.0**	**+0.2**
NJ2				XS	sS	16 44 27.0	-0.1
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
NJ2				AMB	AMB		
	comp=Z,230nm,4.7s						
NJ2				LR	LR		
	comp=N,370nm,27.2s,MS4.2						
NJ2				LR	LR		
	comp=E,300nm,25.2s,MS4.2						
NJ2				LR	LR		
	comp=Z,300nm,25.2s,MS4.0						
CD2	**Chengdu**	**42.29**	**341**	*e*P	**P**	**16 38 19.2**	**+3.0**
CD2				AP	pP	16 38 25.2	+1.6
CD2				XP	sP	16 38 28.5	+1.9
CD2				PP	PP	16 40 00.9	+6.4
CD2				PCP	PcP	16 40 11.9	+2.1
CD2				S	**S**	**16 44 40.8**	**+5.1**
CD2				XS	sS	16 44 50.7	+2.8
CD2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.1						
CD2				AMB	AMB		
	comp=Z,120nm,6.8s						
CD2				LR	LR		
	comp=N,380nm,18.0s,MS4.7						
CD2				LR	LR		
	comp=E,730nm,19.2s,MS4.7						
CD2				LR	LR		
	comp=Z,480nm,24.0s,MS4.3						
LSA	**Lhasa**	**46.84**	**326**	*e*P	**P**	**16 38 53.9**	**+1.3**
	comp=Z,28nm,1.0s,mb5.1						
LSA	**Lhasa**	**46.84**	**326**	*e*P	**P**	**16 38 53.9**	**+1.3**
LSA				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.1						
ODAN	**Odare**	**46.95**	**320**	*e*P	**P**	**16 38 51.9**	**-1.6**
	comp=Z,60nm,1.0s,mb5.5						
KSRS	**Korea Array**	**47.06**	**10**	P	**P**	**16 38 54.3**	**+0.1**
	comp=Z,8.5nm,1.2s,mb4.6,baz=191,slow=8.2,SNR=11						
KSRS				LR	LR	16 58 54.7	
	comp=Z,208nm,21.0s,MS4.1,baz=195,slow=36						
TAPN	**Taplejung**	**47.10**	**321**	*e*P	**P**	**16 38 53.5**	**-1.2**
	comp=Z,84nm,1.1s,mb5.6						
HYB	**Hyderabad**	**47.69**	**303**	*e*P	**P**	**16 39 03.5**	**+4.1**
HYB	**Hyderabad**	**47.69**	**303**	*i* P	**P**	**16 39 03.5**	**+4.1**
JIRN	**Jiri**	**48.27**	**320**	*e*P	**P**	**16 39 02.6**	**-1.1**
	comp=Z,2.7nm,0.2s,mb4.9						
GUN	**Gumba**	**48.64**	**320**	*e*P	**P**	**16 39 05.2**	**-1.4**
	comp=Z,49nm,0.7s,mb5.6						
MAJO	**Matsushiro**	**48.90**	**21**	*e*P	**P**	**16 39 11.9**	**+3.4**
	comp=Z,24nm,1.3s,mb5.1						
MAJO	**Matsushiro**	**48.90**	**21**	*e*P	**P**	**16 39 11.9**	**+3.5**
MAJO				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.1						
MAT	**Matsushiro**	**48.90**	**21**	P	**P**	**16 39 06.5**	**-1.9**
MAT				*e*S	**S**	**16 46 16.0**	**+5.2**
MJAR	**Matsushiro Arr**	**48.90**	**21**	P	**P**	**16 39 05.8**	**-2.6**
	comp=Z,5.0nm,1.1s,mb4.5,baz=200,slow=8.4,SNR=8.2						
MJAR				LR	LR	16 58 19.6	
	comp=Z,176nm,21.3s,MS4.0,baz=235,slow=34						
BJI	**Beijing**	**48.92**	**357**	P	**P**	**16 39 10.5**	**+2.0**
BJI				XP	sP	16 39 18.0	-1.0
BJI				PP	PP	16 41 03.5	+1.3
BJI				S	**S**	**16 46 13.2**	**+2.2**
BJI				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.7						
BJI				LR	LR		
	comp=N,267nm,18.7s,MS4.5						
BJI				LR	LR		
	comp=E,291nm,16.8s,MS4.5						
BJI				LR	LR		
	comp=Z,321nm,19.6s,MS4.3						
BJI	**Beijing**	**48.92**	**357**	P	**P**	**16 39 10.5**	**+2.0**
BJI				sP	sP	16 39 18.0	-1.0
BJI				PP	PP	16 41 03.5	+1.3
BJI				S	**S**	**16 46 13.2**	**+2.2**
BJI				SS	SS	16 49 47.3	+5.1
BJI				LR	LR		
	comp=Z,320nm,19.6s,MS4.3						
DMN	**Daman**	**48.92**	**319**	*e*P	**P**	**16 39 06.9**	**-1.9**
	comp=Z,51nm,1.0s,mb5.5						
KKN	**Kakani**	**48.94**	**320**	*e*P	**P**	**16 39 07.8**	**-1.1**
	comp=Z,29nm,0.9s,mb5.3						
GKN	**Gorkha**	**49.50**	**319**	*e*P	**P**	**16 39 11.3**	**-1.9**
	comp=Z,42nm,0.8s,mb5.5						
KOLN	**Koldanda**	**50.02**	**318**	*e*P	**P**	**16 39 15.0**	**-2.1**
	comp=Z,25nm,0.8s,mb5.3						
HHC	**Hu-ho-hao-te**	**50.11**	**353**	*e*P	**P**	**16 39 20.3**	**+2.7**
HHC				AP	pP	16 39 26.3	+1.1
HHC				XP	sP	16 39 29.3	+1.2
HHC				PCP	PcP	16 40 39.5	+2.5
HHC				PP	PP	16 41 17.5	+4.4
HHC				SCP	ScP	16 44 32.4	+1.0
HHC				PCS	PcS	16 44 34.7	+0.8
HHC				S	**S**	**16 46 32.4**	**+4.7**
HHC				XS	sS	16 46 41.5	+1.4
HHC				SCS	ScS	16 49 07.7	+0.3
HHC				SS	SS	16 50 01.5	+0.1
HHC				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.7						
HHC				AMB	AMB		
	comp=Z,114nm,3.2s						
HHC				LR	LR		
	comp=N,328nm,20.2s,MS4.5						
HHC				LR	LR		
	comp=E,251nm,19.0s,MS4.5						
HHC				LR	LR		
	comp=Z,186nm,22.6s,MS4.0						
SNY	**Shenyang**	**50.83**	**5**	⇑P	**P**	**16 39 27.9**	**+4.9**
SNY				AP	pP	16 39 35.1	+4.5
SNY				XS	sS	16 46 57.0	+6.9
SNY				SS	SS	16 50 07.9	-4.9
SNY				AMB	AMB		
	comp=Z,15nm,1.2s,mb4.8						
SNY				AMB	AMB		
	comp=Z,106nm,5.3s						
SNY				LR	LR		
	comp=N,236nm,19.6s						
SNY				LR	LR		
	comp=Z,242nm,20.6s,MS4.2						
GTA	**Gaotai**	**51.35**	**341**	*e*P	**P**	**16 39 29.0**	**+2.0**
GTA				AP	pP	16 39 36.1	+1.5
GTA				XP	sP	16 39 39.3	+1.8
GTA				PCP	PcP	16 40 43.4	+1.8
GTA				PP	PP	16 41 29.5	+5.2
GTA				SCP	ScP	16 44 37.3	+0.5
GTA				S	**S**	**16 46 50.8**	**+5.9**
GTA				XS	sS	16 47 03.8	+6.4
GTA				AMB	AMB		
	comp=Z,4.0nm,1.4s,mb4.2						
GTA				AMB	AMB		
	comp=Z,128nm,6.9s						
GTA				LR	LR		
	comp=N,327nm,22.2s,MS4.5						
GTA				LR	LR		
	comp=E,371nm,23.7s,MS4.5						
GTA				LR	LR		
	comp=Z,228nm,22.2s,MS4.2						
CN2	**Changchun**	**52.96**	**6**	*e*P	**P**	**16 39 42.5**	**+3.6**
CN2				*e*AP	pP	16 39 50.0	+3.5
CN2				*e*S	**S**	**16 47 10.3**	**+3.4**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.6						
CN2				LR	LR		
	comp=N,200nm,18.0s,MS4.4						
CN2				LR	LR		
	comp=E,200nm,18.0s,MS4.4						
CN2				LR	LR		
	comp=Z,200nm,17.0s,MS4.2						
VLA	**Vladivostok**	**53.29**	**12**	*e*P	pP	16 39 53.0	+4.1
VLA				pmax	pmax		
	comp=Z,23nm,1.5s,mb4.9						
MDJ	**Mudanjiang**	**54.32**	**9**	P	**P**	**16 39 47.5**	**-1.3**
MDJ				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,71nm,4.8s						
MDJ				LR	LR		
	comp=N,79nm,33.8s,MS3.8						
MDJ				LR	LR		
	comp=E,107nm,36.8s,MS3.8						
MDJ				LR	LR		
	comp=Z,175nm,34.4s,MS3.9						
MDJ	**Mudanjiang**	**54.32**	**9**	P	**P**	**16 39 48.1**	**-0.6**
	comp=Z,24nm,1.0s,mb5.1						
ULN	**Ulaanbaatar**	**57.63**	**351**	*e*P	**P**	**16 40 12.1**	**-0.4**
	comp=Z,18nm,1.0s,mb5.1						
ULN	**Ulaanbaatar**	**57.63**	**351**	*e*P	**P**	**16 40 12.1**	**-0.4**
ULN				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
SONM	**Songino Array**	**57.71**	**350**	P	**P**	**16 40 12.4**	**-0.6**
	comp=Z,2.1nm,0.6s,mb4.3,baz=167,slow=6.9,SNR=13						
HIA	**Hailar**	**58.09**	**1**	P	**P**	**16 40 12.1**	**-3.6**
HIA	**Hailar**	**58.09**	**1**	*e*P	**P**	**16 40 12.3**	**-3.3**
KLR	**Kul'dur**	**59.15**	**10**	*e*P	**P**	**16 40 18.3**	**-4.8**
WMQ	**Urumqi**	**59.73**	**334**	*e*P	**P**	**16 40 26.6**	**-0.6**
WMQ				AP	pP	16 40 32.8	-2.0
WMQ				PCP	PcP	16 41 13.1	-0.8
WMQ				PP	PP	16 42 39.6	+0.3
WMQ				S	**S**	**16 48 34.6**	**-2.1**
WMQ				SCS	ScS	16 50 12.1	-3.9
WMQ				SS	SS	16 52 31.6	-1.5
WMQ				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,17nm,9.6s						
WMQ				LR	LR		
	comp=N,228nm,26.0s,MS4.4						
WMQ				LR	LR		
	comp=E,324nm,24.6s,MS4.4						
WMQ				LR	LR		
	comp=Z,233nm,20.8s,MS4.3						
ZAK	**Zakamensk**	**60.73**	**349**	*e*P	**P**	**16 40 33.8**	**0.0**
ZAK				*e*		16 40 44.3	
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.3						
CIT	**Chita**	**61.01**	**356**	*e*P	**P**	**16 40 35.5**	**-0.2**
CIT				*e*		16 41 25.4	
CIT				pmax	pmax		
	comp=Z,29nm,3.2s						
TLY	**Talaya**	**61.90**	**349**	*e*P	pP	16 40 55.0	+5.5
TLY				*e*		16 49 02.0	
TLY				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
IRK	**Irkutsk**	**62.33**	**350**	*e*P	**P**	**16 40 52.5**	**+7.9**
IRK				*e*		16 41 04.7	
IRK				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.2						
KBL	**Kabul**	**64.00**	**315**	*e*P	**P**	**16 40 51.2**	**-5.0**
MK31	**Makanchi Array**	**64.43**	**333**	*e*P	**P**	**16 40 58.5**	**-0.2**
MKAR	**Makanchi Array**	**64.43**	**333**	*i* P	**P**	**16 41 01.7**	**+3.1**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	**64.43**	**333**	P	**P**	**16 40 57.5**	**-1.1**
	comp=Z,0.7nm,0.5s,mb4.0,baz=146,slow=7.3,SNR=8.3						
AAK	**Ala-Archa**	**65.42**	**325**	*e*P	**P**	**16 41 05.5**	**+0.3**
	comp=Z,12nm,1.2s,mb4.8						
AAK	**Ala-Archa**	**65.42**	**325**	*e*P	**P**	**16 41 05.5**	**+0.3**
AAK				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.8						
EKS2	**Erkin-Say**	**65.84**	**325**	*e*P	**P**	**16 41 08.2**	**+0.2**
	comp=Z,35nm,0.6s,mb5.6						
CLNS	**Chul'man**	**65.86**	**4**	*e*P	**P**	**16 41 15.3**	**+7.6**
CLNS				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
CLNS				pmax	pmax		
	comp=N,13nm,1.0s						
CLNS				pmax	pmax		
	comp=E,8.0nm,0.9s						
BOD	**Bodaibo**	**66.77**	**357**	*e*P	**P**	**16 41 12.0**	**-1.5**
BOD				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.8						
KURK	**Kurchatov**	**68.97**	**334**	*e*P	**P**	**16 41 27.4**	**-0.2**
	comp=Z,18nm,1.1s,mb4.9						
KURK	**Kurchatov**	**68.97**	**334**	*e*P	**P**	**16 41 27.4**	**-0.1**
KURK				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
ZAL	**Zalesovo**	**69.03**	**339**	P	**P**	**16 41 26.3**	**-1.6**
ZALV	**Zalesovo Beam**	**69.03**	**339**	P	**P**	**16 41 26.3**	**-1.6**
ZALV	**Zalesovo Beam**	**69.03**	**339**	P	**P**	**16 41 26.3**	**-1.6**
	comp=Z,1.9nm,0.5s,mb4.2,baz=140,slow=4.6,SNR=11						
MAW	**Mawson**	**69.11**	**200**	*e*P	**P**	**16 41 27.1**	**-1.1**
	comp=Z,9.8nm,0.9s,mb4.7						
MAW	**Mawson**	**69.11**	**200**	*e*P	**P**	**16 41 27.1**	**-1.1**
MAW				pmax	pmax		
	comp=Z,10.0nm,0.9s						
OPO	**Ambohidratompo**	**69.81**	**254**	P	**P**	**16 41 33.9**	**+0.4**
	comp=Z,4.6nm,0.9s,mb4.4,baz=63,slow=6.8,SNR=3.1						
NVS	**Novosibirsk**	**70.30**	**339**	*e*P	**P**	**16 41 42.4**	**+6.7**
YAK	**Yakutsk**	**71.39**	**5**	*e*P	**P**	**16 41 40.3**	**-1.8**
	comp=Z,12nm,0.6s,mb5.0						
YAK	**Yakutsk**	**71.39**	**5**	*e*P	**P**	**16 41 40.4**	**-1.7**
YAK				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
YAK				pmax	pmax		
	comp=N,11nm,1.3s						
VNDA	**Vanda**	**71.95**	**171**	P	**P**	**16 41 46.8**	**+1.4**
	comp=N,12nm,1.0s,mb4.8						
VNDA	**Vanda**	**71.95**	**171**	P	**P**	**16 41 46.8**	**+1.4**
VNDA				pmax	pmax		
	comp=Z,12nm,1.0s						
VNDA	**Vanda**	**71.95**	**171**	P	**P**	**16 41 47.0**	**+1.6**
	comp=Z,2.4nm,0.5s,mb4.4,baz=309,slow=6.4,SNR=16						
MA2	**Magadan**	**73.04**	**16**	*e*P	**P**	**16 41 50.5**	**-1.6**
	comp=Z,3.9nm,0.6s,mb4.5						
MA2	**Magadan**	**73.04**	**16**	*e*P	**P**	**16 41 50.5**	**-1.6**
MA2				*e*		16 42 01.4	
MA2				pmax	pmax		
	comp=Z,30nm,0.4s,mb5.6						
BRVK	**Borovoye**	**74.33**	**332**	P	**P**	**16 42 07.4**	**+7.6**
	comp=Z,7.9nm,1.1s,mb4.6						
BRVK	**Borovoye**	**74.33**	**332**	P	**P**	**16 42 07.4**	**+7.6**
BRVK				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
SEY	**Seymchan**	**76.28**	**15**	*e*P	**P**	**16 42 09.8**	**-1.0**
SYO	**Syowa Base**	**77.72**	**201**	⇑*e*P	**P**	**16 42 21.6**	**+2.7**
SYO	**Syowa Base**	**77.72**	**201**	⇓*e*pP	pP	16 42 24.6	-2.2
SYO	**Syowa Base**	**77.72**	**201**	⇓*e*sP	sP	16 42 27.9	-1.8
AKTK	**Aktyubinsk**	**79.17**	**325**	P	**P**	**16 42 26.7**	**-0.4**
AKTO	**Aktyubinsk**	**79.17**	**325**	P	**P**	**16 42 26.7**	**-0.4**
	comp=Z,1.5nm,0.6s,mb4.1,baz=124,slow=7.3,SNR=2.1						
TIXI	**Tiksi**	**80.82**	**3**	*e*P	**P**	**16 42 33.5**	**-2.2**
	comp=Z,12nm,0.9s,mb4.8						
TIXI	**Tiksi**	**80.82**	**3**	*e*P	**P**	**16 42 33.5**	**-2.2**
TIXI				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
QSPA	**South Pole Qui**	**80.93**	**180**	*e*P	**P**	**16 42 37.8**	**+1.6**
	comp=Z,14nm,0.9s,mb4.9						
KMBO	**Kilima Mbogo**	**81.48**	**270**	*e*P	**P**	**16 42 40.2**	**-0.3**
	comp=Z,17nm,1.1s,mb4.9						
KMBO	**Kilima Mbogo**	**81.48**	**270**	*e*P	**P**	**16 42 40.2**	**-0.3**
KMBO				pmax	pmax		
	comp=Z,17nm,1.1s						
KMBO	**Kilima Mbogo**	**81.48**	**270**	P	**P**	**16 42 40.7**	**+0.2**
	comp=Z,3.5nm,1.0s,mb4.2,baz=48,slow=2.1,SNR=6.6						
GOF	**Gofitskoye**	**86.46**	**317**	*e*P	pP	16 43 16.5	+3.3
MAIT	**Maitri**	**87.03**	**198**	*e*P	**P**	**16 43 15.5**	**+8.0**
ASF	**Jabal al Asfar**	**87.99**	**303**	P	**P**	**16 43 13.1**	**+0.2**
	comp=Z,1.0nm,0.4s,mb4.4,baz=136,slow=3.3,SNR=1.8						
MALT	**Malatya**	**88.09**	**309**	*e*P	**P**	**16 43 16.4**	**+3.2**
	comp=Z,4.5nm,1.0s,mb4.7						
MALT	**Malatya**	**88.09**	**309**	*e*P	**P**	**16 43 16.4**	**+3.2**
MALT				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.6						
LSZ	**Lusaka**	**88.23**	**255**	*e*P	**P**	**16 43 14.2**	**-0.2**
	comp=Z,10nm,0.8s,mb5.1						
LSZ	**Lusaka**	**88.23**	**255**	*e*P	**P**	**16 43 14.2**	**-0.2**
LSZ				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.1						
BOSA	**Boshof**	**88.80**	**241**	P	**P**	**16 43 17.5**	**+0.6**
	comp=Z,1.5nm,0.6s,mb4.5,baz=120,slow=3.6,SNR=5.6						
PPT	**Papeete**	**88.84**	**107**	*e*LR	LR	17 11 40.8	
	comp=Z,363nm,25.0s						
LBTB	**Lobatse**	**89.10**	**245**	*e*P	**P**	**16 43 22.4**	**+4.1**
	comp=Z,28nm,1.1s,mb5.5						
LBTB	**Lobatse**	**89.10**	**245**	*e*P	**P**	**16 43 22.4**	**+4.1**
LBTB				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.5						
MMAI	**Mount Meron Ar**	**89.40**	**303**	P	**P**	**16 43 19.3**	**-0.2**
	comp=Z,0.4nm,0.4s,mb4.1,baz=99,slow=7.6,SNR=3.2						
BRTR	**Keskin Array B**	**92.03**	**310**	P	**P**	**16 43 31.5**	**-0.1**
	comp=Z,0.6nm,0.8s,mb4.0,baz=162,slow=10,SNR=2.5						
MCK	**McKinley**	**99.07**	**27**	P	**P**	**16 44 02.0**	**-1.0**
	comp=Z,2.4nm,1.0s,mb4.7						
MCK	**McKinley**	**99.07**	**27**	P	**P**	**16 44 02.1**	**-1.0**
MCK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.6						
TAOE	**Nuku Hiva Isla**	**99.39**	**101**	*e*LR	LR	17 16 30.7	
	comp=Z,1µm,28.1s						
YKA	**Yellowknife Ar**	**114.33**	**24**	PKP	PKiKP	16 49 00.9	-0.8
YKA	**Yellowknife Ar**	**114.33**	**24**	PKIKP	PKiKP	16 49 00.9	-0.8
YKA	**Yellowknife Ar**	**114.33**	**24**	PKP	PKiKP	16 49 00.9	-0.8
	comp=Z,0.3nm,0.7s,baz=311,slow=1.9,SNR=4.9						
TORD	**Torodi Ar. Bea**	**118.28**	**280**	PKP	PKPdf	16 49 09.8	-0.9
TORD	**Torodi Ar. Bea**	**118.28**	**280**	PKP	PKPdf	16 49 09.8	-0.9
	comp=Z,0.9nm,0.4s,baz=47,slow=2.1,SNR=12						
NVAR	**Mina Array Bea**	**121.21**	**50**	PKP	PKPdf	16 49 16.7	+0.9
NVAR	**Mina Array Bea**	**121.21**	**50**	PKP	PKPdf	16 49 16.7	+0.9
	comp=Z,0.3nm,0.4s,baz=261,slow=4.1,SNR=3.1						
TXAR	**Lajitas Array**	**135.44**	**57**	PKP	PKPdf	16 49 43.8	+0.7
TXAR				SKPbc	SKPbc	16 53 11.6	-1.2
TXAR	**Lajitas Array**	**135.44**	**57**	PKIKP	PKPdf	16 49 43.8	+0.7
TXAR	**Lajitas Array**	**135.44**	**57**	PKP	PKPdf	16 49 43.8	+0.7
	comp=Z,0.6nm,0.8s,baz=270,slow=1.3,SNR=5.7						
TXAR				SKPbc	SKPbc	16 53 11.6	-1.2
	comp=Z,1.0nm,0.9s,baz=262,slow=2.5,SNR=6.2						
SSPA	**Standing Stone**	**145.24**	**23**	*e*PKPdf	PKPdf	16 49 59.1	-1.4
MCWV	**Mont Chateau**	**145.28**	**26**	*e*PKPdf	PKPdf	16 49 59.8	-0.7
PAL	**Palisades**	**146.25**	**17**	*e*PKPdf	PKPdf	16 50 02.8	+0.6
PAL	**Palisades**	**146.25**	**17**	*e*PKP2	PKPab	16 50 02.8	-1.1
LRAL	**Lakeview Retre**	**146.30**	**41**	*e*PKPdf	PKPdf	16 50 02.6	+0.1
LPAZ	**La Paz**	**153.89**	**165**	*e*PKPbc	PKPbc	16 50 26.7	+4.0
LPAZ	**La Paz**	**153.89**	**165**	*e*PKIKP	PKPbc	16 50 26.7	+3.9
LPAZ	**La Paz**	**153.89**	**165**	PKPbc	PKPbc	16 50 26.1	+3.4
	comp=Z,0.7nm,0.5s,baz=106,slow=1.1,SNR=4.1						
LPAZ				PKPab	PKPab	16 50 35.9	+0.2
	comp=Z,4.3nm,1.0s,baz=122,slow=2.3,SNR=6.4						

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*NEIC **08** 16:44:45.1, 37.11S×17764E, h96^{km}, ML4.5(WEL), After WEL.*

WEL 08 16:44:45.9±0.5**, 3712S×17760E, h87^{km}**±5^{km}**, ML4.4**/23**, 2C-7D, Error ellipse: s-maj=2.6km s-min=2.4km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WIZ	**White Island**	**0.53**	**218**	P*	Pn	16 44 59.9	-0.6
MXZ	**Matakaoa Point**	**0.72**	**129**	P	Pn	16 45 01.9	-0.4
MXZ				S	Sn	16 45 14.9	+0.4
MXZ	**Matakaoa Point**	**0.72**	**129**	P*	Pn	16 45 01.9	-0.4
MXZ				S*	Sn	16 45 14.9	+0.5
PUZ	**Puketiti**	**1.09**	**152**	P	Pn	16 45 06.2	-0.2
PUZ				S	Sn	16 45 22.9	+1.1
PUZ	**Puketiti**	**1.09**	**152**	PN	Pn	16 45 06.2	-0.2
PUZ				SN	Sn	16 45 22.9	+1.2
MYRZ	**Mayor Island**	**1.10**	**261**	⇓P*	Pn	16 45 06.8	+0.3
MARZ	**Manawahe**	**1.14**	**220**	P	Pn	16 45 06.8	-0.2
MARZ	**Manawahe**	**1.14**	**220**	⇓P*	Pn	16 45 06.8	-0.1
EDRZ	**Edgecumbe**	**1.20**	**214**	P	Pn	16 45 07.7	-0.1
EDRZ	**Edgecumbe**	**1.20**	**214**	⇓P*	Pn	16 45 07.7	0.0
URZ	**Urewera**	**1.21**	**199**	P	Pn	16 45 07.5	-0.3
URZ	**Urewera**	**1.21**	**199**	⇓P*	Pn	16 45 07.5	-0.3
URZ				S*	Sn	16 45 24.0	-0.3
MWZ	**Matawai**	**1.22**	**183**	P	Pn	16 45 07.9	-0.1
MWZ	**Matawai**	**1.22**	**183**	⇑P*	Pn	16 45 07.9	0.0
MWZ				S*	Sn	16 45 24.7	+0.2
TGRZ	**Tauranga**	**1.23**	**240**	P	Pn	16 45 08.0	-0.1
TGRZ	**Tauranga**	**1.23**	**240**	⇓P*	Pn	16 45 08.0	0.0
MKRZ	**Makatiti**	**1.36**	**221**	P	Pn	16 45 10.4	+0.7
MKRZ	**Makatiti**	**1.36**	**221**	P*	Pn	16 45 10.4	+0.7
KARZ	**Kaharoa**	**1.41**	**230**	P	Pn	16 45 10.3	0.0
KARZ	**Kaharoa**	**1.41**	**230**	⇓P*	Pn	16 45 10.3	0.0
UTU	**Utuhina**	**1.54**	**226**	P	Pn	16 45 12.8	+0.8
UTU	**Utuhina**	**1.54**	**226**	P*	Pn	16 45 12.8	+0.8
KUZ	**Kuaotunu**	**1.55**	**283**	P	Pn	16 45 12.0	-0.1
KUZ	**Kuaotunu**	**1.55**	**283**	⇓PN	Pn	16 45 12.0	-0.1
PATZ	**Paeroa**	**1.65**	**220**	P	Pn	16 45 13.8	+0.4
PATZ	**Paeroa**	**1.65**	**220**	P*	Pn	16 45 13.8	+0.5
TOZ	**Tahuroa Road**	**1.78**	**249**	P	Pn	16 45 15.2	+0.1
TOZ	**Tahuroa Road**	**1.78**	**249**	⇑P*	Pn	16 45 15.2	+0.2
KNZ	**Kokohu**	**1.90**	**178**	P	Pn	16 45 15.4	-1.3
KNZ	**Kokohu**	**1.90**	**178**	PN	Pn	16 45 15.4	-1.3
KNZ				SN	Sn	16 45 38.9	-1.2
WHTZ	**Whakaora**	**2.02**	**219**	P	Pn	16 45 19.0	+0.8
WHTZ	**Whakaora**	**2.02**	**219**	PN	Pn	16 45 19.0	+0.8
HATZ	**Hinemaiaia**	**2.14**	**213**	P	Pn	16 45 19.7	0.0
HATZ	**Hinemaiaia**	**2.14**	**213**	PN	Pn	16 45 19.7	0.0
WATZ	**Wairara**	**2.17**	**222**	P	Pn	16 45 20.5	+0.3
WATZ	**Wairara**	**2.17**	**222**	PN	Pn	16 45 20.5	+0.3
BKZ	**Black Stump Fm**	**2.23**	**203**	*e*P	Pn	16 45 20.1	-0.8
BKZ	**Black Stump Fm**	**2.23**	**203**	PN	Pn	16 45 20.1	-0.8
RATZ	**Rangitukua**	**2.27**	**219**	P	Pn	16 45 22.0	+0.5
RATZ	**Rangitukua**	**2.27**	**219**	PN	Pn	16 45 22.0	+0.5
RITZ	**Rihia Road**	**2.31**	**216**	P	Pn	16 45 23.0	+0.9
RITZ	**Rihia Road**	**2.31**	**216**	PN	Pn	16 45 23.0	+0.9
KATZ	**Kakaramea**	**2.39**	**218**	P	Pn	16 45 24.2	+1.1
KATZ	**Kakaramea**	**2.39**	**218**	PN	Pn	16 45 24.2	+1.1
KRVZ	**Karewarewa**	**2.51**	**217**	PN	Pn	16 45 25.5	+0.8
WTVZ	**West Tongariro**	**2.55**	**218**	P	Pn	16 45 25.9	+0.6
WTVZ	**West Tongariro**	**2.55**	**218**	PN	Pn	16 45 25.9	+0.6
OTVZ	**Oturere**	**2.55**	**216**	PN	Pn	16 45 25.6	+0.3
HIZ	**Hauiti**	**2.58**	**236**	P	Pn	16 45 26.4	+0.7
HIZ	**Hauiti**	**2.58**	**236**	PN	Pn	16 45 26.4	+0.7
NGZ	**Ngauruhoe**	**2.59**	**217**	PN	Pn	16 45 26.2	+0.3
TWVZ	**Taurewa**	**2.59**	**220**	P	Pn	16 45 26.5	+0.7
TWVZ	**Taurewa**	**2.59**	**220**	PN	Pn	16 45 26.5	+0.7
TUVZ	**Tukino**	**2.64**	**215**	P	Pn	16 45 26.5	0.0
TUVZ	**Tukino**	**2.64**	**215**	PN	Pn	16 45 26.5	0.0
WPVZ	**Whakapapa**	**2.64**	**217**	P	Pn	16 45 27.1	+0.6
WPVZ	**Whakapapa**	**2.64**	**217**	PN	Pn	16 45 27.1	+0.6
FWVZ	**Far West T-bar**	**2.68**	**216**	P	Pn	16 45 27.6	+0.6
FWVZ	**Far West T-bar**	**2.68**	**216**	PN	Pn	16 45 27.6	+0.7
MOVZ	**Moawhango**	**2.71**	**212**	P	Pn	16 45 26.5	-0.9
MOVZ	**Moawhango**	**2.71**	**212**	PN	Pn	16 45 26.5	-0.9
TRVZ	**Turoa**	**2.71**	**216**	PN	Pn	16 45 27.6	+0.1
WNVZ	**Wahianoa**	**2.71**	**215**	P	Pn	16 45 27.3	-0.2
WNVZ	**Wahianoa**	**2.71**	**215**	PN	Pn	16 45 27.3	-0.2
MTVZ	**Mangateitei**	**2.82**	**216**	PN	Pn	16 45 28.7	-0.2
WCZ	**Waipu Caves**	**2.87**	**293**	*e*P	Pn	16 45 29.6	0.0
WCZ	**Waipu Caves**	**2.87**	**293**	PN	Pn	16 45 29.6	0.0
PXZ	**Pawanui**	**2.97**	**191**	PN	Pn	16 45 28.1	-2.8
VRZ	**Vera Road**	**3.01**	**227**	*e*P	Pn	16 45 32.5	+1.1
VRZ	**Vera Road**	**3.01**	**227**	PN	Pn	16 45 32.5	+1.1
TSZ	**Takapari Road**	**3.21**	**203**	*e*P	Pn	16 45 31.8	-2.3
TSZ	**Takapari Road**	**3.21**	**203**	PN	Pn	16 45 31.8	-2.3
RAEZ	**Rainy Point**	**3.33**	**228**	P	Pn	16 45 37.5	+1.8
RAEZ	**Rainy Point**	**3.33**	**228**	PN	Pn	16 45 37.5	+1.8
WAZ	**Wanganui**	**3.34**	**217**	P	Pn	16 45 35.8	-0.1
WAZ	**Wanganui**	**3.34**	**217**	PN	Pn	16 45 35.8	-0.1
NEZ	**North Egmont**	**3.50**	**231**	P	Pn	16 45 39.7	+1.6
NEZ	**North Egmont**	**3.50**	**231**	PN	Pn	16 45 39.7	+1.6
PKE	**Pukeiti**	**3.52**	**233**	P	Pn	16 45 39.8	+1.4
PKE	**Pukeiti**	**3.52**	**233**	PN	Pn	16 45 39.8	+1.4
NWEZ	**Newall Road**	**3.65**	**233**	P	Pn	16 45 42.0	+2.0
NWEZ	**Newall Road**	**3.65**	**233**	PN	Pn	16 45 42.0	+2.0
BFZ	**Birch Farm**	**3.71**	**196**	*e*P	Pn	16 45 37.4	-3.5
BFZ	**Birch Farm**	**3.71**	**196**	PN	Pn	16 45 37.4	-3.5
MRZ	**Mangatainoka R**	**3.88**	**203**	*e*P	Pn	16 45 39.3	-3.8
MRZ	**Mangatainoka R**	**3.88**	**203**	PN	Pn	16 45 39.3	-3.8
TIWZ	**Tintock**	**3.89**	**200**	PN	Pn	16 45 40.2	-3.2
MTW	**Mount Morrison**	**4.35**	**201**	P	Pn	16 45 45.1	-4.5
MTW	**Mount Morrison**	**4.35**	**201**	PN	Pn	16 45 45.1	-4.5

CAW	Cannon Point	4.45	206	P	Pn	16 45 47.2	-3.7
CAW	Cannon Point	4.45	206	PN	Pn	16 45 47.2	-3.7
TRWZ	Traveller	4.53	199	PN	Pn	16 45 47.6	-4.4
PAWZ	Paruwai Farm	4.58	201	P	Pn	16 45 48.2	-4.5
PAWZ	Paruwai Farm	4.58	201	PN	Pn	16 45 48.2	-4.5
MSWZ	Moikau Station	4.67	202	P	Pn	16 45 49.3	-4.6
MSWZ	Moikau Station	4.67	202	PN	Pn	16 45 49.3	-4.5
DUWZ	D'Urville Isla	4.67	217	PN	Pn	16 45 50.6	-3.3
MRW	Makara Radio	4.69	208	P	Pn	16 45 50.5	-3.6
MRW	Makara Radio	4.69	208	PN	Pn	16 45 50.5	-3.6
SNZO	South Karori	4.75	207	P	Pn	16 45 50.7	-4.4
SNZO	South Karori	4.75	207	PN	Pn	16 45 50.7	-4.3
BHW	Baring Head	4.78	205	P	Pn	16 45 51.3	-4.1
BHW	Baring Head	4.78	205	PN	Pn	16 45 51.3	-4.1
TCW	Tory Channel	4.84	211	P	Pn	16 45 52.2	-4.0
TCW	Tory Channel	4.84	211	PN	Pn	16 45 52.2	-4.0
TUWZ	Tuamarina	5.16	212	PN	Pn	16 45 56.5	-4.1
NNZ	Nelson	5.25	217	eP	Pn	16 45 58.2	-3.6
NNZ	Nelson	5.25	217	PN	Pn	16 45 58.2	-3.6
QRZ	Quartz Range	5.42	225	eP	Pn	16 46 01.0	-3.1
QRZ	Quartz Range	5.42	225	PN	Pn	16 46 01.0	-3.1
BSWZ	Blackbirch Sta	5.42	211	P	Pn	16 46 00.3	-3.9
BSWZ	Blackbirch Sta	5.42	211	PN	Pn	16 46 00.3	-3.9
THZ	Tophouse	5.89	217	eP	Pn	16 46 06.4	-4.2
THZ	Tophouse	5.89	217	PN	Pn	16 46 06.4	-4.2
KHZ	Kahutara	6.15	209	eP	Pn	16 46 09.2	-4.9
KHZ	Kahutara	6.15	209	PN	Pn	16 46 09.2	-4.9
DSZ	Denniston Nort	6.44	222	eP	Pn	16 46 13.6	-4.5
DSZ	Denniston Nort	6.44	222	PN	Pn	16 46 13.6	-4.5
LTZ	Lake Taylor	6.98	214	eP	Pn	16 46 19.6	-5.8
LTZ	Lake Taylor	6.98	214	PN	Pn	16 46 19.6	-5.8
MQZ	McQueen's Vall	7.59	208	eP	Pn	16 46 27.1	-6.6
MQZ	McQueen's Vall	7.59	208	PN	Pn	16 46 27.1	-6.6
WVZ	Waitaha Valley	7.94	219	eP	Pn	16 46 33.4	-5.1
WVZ	Waitaha Valley	7.94	219	PN	Pn	16 46 33.4	-5.1
RPZ	Rata Peaks	8.27	215	eP	Pn	16 46 37.8	-5.1
RPZ	Rata Peaks	8.27	215	PN	Pn	16 46 37.8	-5.1
FOZ	Fox Glacier	8.83	221	eP	Pn	16 46 43.4	-7.1
FOZ	Fox Glacier	8.83	221	PN	Pn	16 46 43.4	-7.1
LBZ	Lake Benmore	9.18	215	eP	Pn	16 46 49.9	-5.5
LBZ	Lake Benmore	9.18	215	PN	Pn	16 46 49.9	-5.5
ODZ	Otahua Downs	9.50	211	eP	Pn	16 46 53.5	-6.2
ODZ	Otahua Downs	9.50	211	PN	Pn	16 46 53.5	-6.2
WHZ	Wether Hill Ro	11.36	216	eP	Pn	16 47 18.9	-6.1
WHZ	Wether Hill Ro	11.36	216	PN	Pn	16 47 18.9	-6.1

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*ATH **08** 18:03:26.8, 40.85N×22.83E, h22km±2km, MD3.3/6*
*THE **08** 18:03:26.7, 40.85N×22.84E, h9km, ML2.7*
*NEIC **08** 18:03:26.8, 40.85N×22.83E, h22km, MD3.3(ATH), After ATH.*
*ISCJB **08** 18:03:26.2±0.3, 40.85N±0.02×22.83E±0.03, h11km±4km, Error ellipse: s-maj=4.2km s-min=2.7km az=32.4*
*SKO **08** 18:03:27.6, 40.87N×22.77E, h8km*
*CSEM **08** 18:03:27.1±0.1, 40.85N×22.83E, h5km, ML2.7, Error ellipse: s-maj=1.6km s-min=1.2km az=25.0*
ISC 08 18:03:26.8±0.3**, 40.85N**±0.02×**22.83E**±0.03**, h12**km±4km**, n48, σ0ˢ70**/80**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THE	Thessaloniki	0.24	155	ePg	Pg	18 03 31.7	-0.2
THE				eSg	Sg	18 03 35.1	-0.2
THE	Thessaloniki	0.24	155	ePg	Pg	18 03 31.7	-0.2
THE				eSg	Sg	18 03 35.1	-0.2
HORT	Hortiatis	0.32	141	ePg	Pg	18 03 33.3	-0.1
HORT				eSg	Sg	18 03 37.0	-0.7
HORT	Hortiatis	0.32	141	ePg	Pg	18 03 33.3	-0.1
HORT				eSg	Sg	18 03 37.0	-0.8
GRG	Griva	0.34	288	ePg	Pg	18 03 33.7	-0.1
GRG				eSg	Sg	18 03 38.5	+0.1
GRG	Griva	0.34	288	ePg	Pg	18 03 33.7	0.0
GRG				eSg	Sg	18 03 38.5	+0.1
SOH	Sokhos	0.40	94	ePg	Pg	18 03 35.1	+0.4
SOH				eSg	Sg	18 03 39.2	-0.8
SOH	Sokhos	0.40	94	ePg	Pg	18 03 35.1	+0.4
SOH				eSg	Sg	18 03 39.2	-0.8
VAY	Valandovo	0.51	337	ePg	Pg	18 03 36.5	-0.4
VAY				eSg	Sg	18 03 43.8	+0.2
VAY	Valandovo	0.51	337	ePg	Pg	18 03 36.7	-0.1
VAY				eSg	Sg	18 03 43.8	+0.2
VAY	Valandovo	0.51	337	ePg	Pg	18 03 36.7	-0.1
VAY				eSg	Sg	18 03 43.8	+0.2
SRS	Serrai	0.63	65	ePg	Pg	18 03 39.0	-0.1
SRS				eSg	Sg	18 03 48.0	+0.6
SRS	Serrai	0.63	65	ePg	Pg	18 03 39.0	-0.1
SRS				eSg	Sg	18 03 48.0	+0.5
PLG	Polygyros	0.67	135	ePb	Pb	18 03 39.4	-0.9
PLG				eSn	Sg	18 03 48.9	+0.4
PLG	Polygyros	0.67	135	ePg	Pg	18 03 39.9	+0.1
PLG				eSg	Sg	18 03 49.8	+1.3
PLG	Polygyros	0.67	135	ePB	Pb	18 03 39.4	-0.9
PLG				eSN	Sg	18 03 48.9	+0.4
PLG	Polygyros	0.67	135	ePb	Pb	18 03 39.4	-0.9
PLG	Polygyros	0.67	135	ePg	Pg	18 03 39.9	+0.1
PLG				eSg	Sg	18 03 49.8	+1.3
LIT	Litokhoron	0.79	199	ePg	Pg	18 03 42.0	-0.1
LIT				eSg	Sg	18 03 53.2	+0.7
LIT	Litokhoron	0.79	199	ePg	Pg	18 03 42.0	-0.2
LIT				eSg	Sg	18 03 53.2	+0.6
NVR	Nevrokopi	0.92	57	ePn	Pn	18 03 44.7	-0.8
NVR	Nevrokopi	0.92	57	ePN	Pn	18 03 44.7	-0.8
NVR	Nevrokopi	0.92	57	ePn	Pn	18 03 44.7	-0.8
STIP	Stip	0.97	330	ePg	Pg	18 03 45.9	+0.3
STIP				eSg	Sg	18 03 59.1	+0.8
STIP	Stip	0.97	330	ePg	Pg	18 03 45.9	+0.3
STIP				eSg	Sg	18 03 59.0	+0.7
KZN	Kozani	0.97	236	ePb	Pb	18 03 44.8	-0.8
KZN				eSn	Sn	18 03 59.9	-0.1
KZN	Kozani	0.97	236	ePB	Pb	18 03 44.8	-0.8
KZN				eSN	Sn	18 03 59.9	-0.1
KZN	Kozani	0.97	236	ePb	Pb	18 03 44.8	-0.8
KZN				eSn	Sn	18 03 59.9	-0.1
OUR	Ouranopolis	1.01	120	ePg	Pg	18 03 45.9	-0.5
OUR	Ouranopolis	1.01	120	ePg	Pg	18 03 45.9	-0.5
FNA	Florina	1.11	267	ePg	Pg	18 03 47.5	-0.7
FNA				eSg	Sg	18 04 03.9	+1.3
FNA	Florina	1.11	267	ePg	Pg	18 03 47.5	-0.6
FNA				eSg	Sg	18 04 03.9	+1.3
PAIG	Paliouri	1.13	145	ePg	Pg	18 03 47.9	-0.6
PAIG				eSg	Sg	18 04 04.5	+1.3
PAIG	Paliouri	1.13	145	ePg	Pg	18 03 47.9	-0.6
PAIG				eSg	Sg	18 04 04.5	+1.3
BIA	Bitola	1.16	279	ePg	Pg	18 03 47.6	-1.4
BIA				eSg	Sg	18 04 04.4	+0.3
BIA	Bitola	1.16	279	ePg	Pg	18 03 49.3	+0.2
BIA				eSg	Sg	18 04 03.2	-0.9
BIA	Bitola	1.16	279	ePg	Pg	18 03 49.2	+0.1
KRUS	Krusevo	1.30	294	ePg	Pg	18 03 51.6	-0.2
KRUS				eSg	Sg	18 04 08.2	-0.6
KRUS	Krusevo	1.30	294	ePg	Pg	18 03 51.6	-0.3
KRUS				eSg	Sg	18 04 08.2	-0.6
THL	Klokotos Trika	1.43	206	ePN	Pn	18 03 53.4	+0.9
THL	Klokotos Trika	1.43	206	ePn	Pn	18 03 53.4	+0.9
XOR	Xorichti	1.51	169	ePg	Pn	18 03 52.4	-1.2
NEO	Neokhori	1.57	169	ePn	Pn	18 03 55.4	+1.0
NEO	Neokhori	1.57	169	ePN	Pn	18 03 55.4	+1.0
NEO	Neokhori	1.57	169	ePn	Pn	18 03 55.4	+1.0
RDO	Rodhopi	2.07	81	ePn	Pn	18 04 02.7	+1.4
RDO	Rodhopi	2.07	81	ePN	Pn	18 04 02.7	+1.4
RDO	Rodhopi	2.07	81	ePn	Pn	18 04 02.7	+1.4

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*ISCJB **08** 18:07:19.4±0.6, 69.87N±0.10×156W±02, h10km, mb3.5/7, MS3.3/6, Error ellipse: s-maj=14.3km s-min=9.8km az=8.8*
*IDC **08** 18:07:20.0±0.9, 69.80N×155.0W, h0km, mb3.5/7, mb1 3.8/11, mb1mx3.6/23, mbtmp3.7/11, ML3.0/3, MS3.4/10, Ms1 3.4/10, ms1mx3.2/27, Error ellipse: s-maj=25.6km s-min=17.1km az=19.0*
*CSEM **08** 18:07:22.2, 69.85N×158.0W, h10km, mb4.0/2, After NEIC*
*NEIC **08** 18:07:22.2±0.7, 69.85N×158.0W, h10km, mb4.0/2, Error ellipse: s-maj=14.1km s-min=12.6km az=183.0*
ISC 08 18:07:21.5±0.6**, 69.88N**±0.10×**155W**±02**, h10**km**, n31, σ1ˢ18**/26**, mb3.5**/7**, MS3.3**/6**, 2D, Jan Mayen Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BORG	Borgarnes	5.62	206	Pn	Pn	18 08 44.6	-0.4
BORG	Borgarnes	5.62	206	Pn	Pn	18 08 44.6	-0.4
	baz=20,slow=7.6						
BORG	Borgarnes	5.62	206	Pn	Pn	18 08 44.6	-0.4
SFJD	Kangerlussuaq	13.10	274	Pn	Pn	18 10 26.4	-0.9
SFJD				LR	LR	18 14 52.3	
SFJD	Kangerlussuaq	13.10	274	Pn	Pn	18 10 26.4	-0.9
	0.3nm,0.3s,baz=110,slow=15,SNR=3.9						
SFJD				LR	LR	18 14 52.3	
	comp=Z,242nm,18.8s,baz=73,slow=34						
SFJD	Kangerlussuaq	13.10	274	Pn	Pn	18 10 26.4	-0.9
SFJD				LR	LR	18 14 52.3	
ARCES	ARCESS Array B	14.04	72	Pn	Pn	18 10 44.2	+4.1
ARCES	ARCESS Array B	14.04	72	Pn	Pn	18 10 44.2	+4.1
	0.1nm,0.3s,baz=302,slow=14,SNR=2.1						
ARCES	ARCESS Array B	14.04	72	Pn	Pn	18 10 44.2	+4.1
NOA	NORSAR Array B	14.06	116	LR	LR	18 15 30.6	
	comp=Z,57nm,19.9s,baz=80,slow=35						
HFS	Hagfors	15.54	114	Pn	Pn	18 10 58.5	-1.8
HFS				LR	LR	18 16 24.4	
HFS	Hagfors	15.54	114	Pn	Pn	18 10 58.5	-1.8
	0.1nm,0.3s,baz=327,slow=10,SNR=2.8						
HFS				LR	LR	18 16 24.5	
	comp=Z,147nm,18.6s,baz=249,slow=35						
HFS	Hagfors	15.54	114	Pn	Pn	18 10 58.5	-1.8
HFS				LR	LR	18 16 24.5	
EKA	Eskdalemuir Ar	15.61	153	Pn	Pn	18 11 03.7	+2.5
EKA	Eskdalemuir Ar	15.61	153	Pn	Pn	18 11 03.7	+2.5
	0.1nm,0.3s,baz=346,slow=11,SNR=3.2						
EKA	Eskdalemuir Ar	15.61	153	Pn	Pn	18 11 03.7	+2.5
KAF	Kangasniemi	18.32	94	ep	Pn	18 11 27.2	-8.1
	3.8nm,0.6s						
FINES	FINESS Array B	18.70	96	P	Pn	18 11 38.8	-1.2
	0.1nm,0.3s,baz=316,slow=6.9,SNR=8.6						
FINES				LR	LR	18 18 01.0	
	comp=Z,121nm,19.7s,baz=332,slow=34						
CLL	Collm	22.89	130	⇓iP	P	18 12 26.8	+1.9
CLL				i		18 12 37.1	
CLL	Collm	22.89	130	⇓iP	P	18 12 26.8	+1.9
CLL				i pP		18 12 37.1	
GERES	GERESS Array B	25.33	131	P	P	18 12 48.6	+0.6
	0.8nm,0.8s,mb3.3,baz=319,slow=7.1,SNR=6.0						
GERES				LR	LR	18 21 50.1	
	comp=Z,79nm,18.5s,MS3.3,baz=290,slow=34						
VRAC	Vranov	25.68	127	LR	LR	18 23 30.2	
	comp=Z,67nm,19.4s,MS3.2,baz=157,slow=38						
DAVOX	Davos/Dischmat	26.31	138	LR	LR	18 24 26.9	
	comp=Z,90nm,19.6s,MS3.3,baz=258,slow=39						
AKASG	Malin Array Be	28.31	109	P	P	18 13 13.8	-1.0
	0.2nm,0.3s,mb3.2,baz=329,slow=9.1,SNR=4.8						
MLR	Muntele Rosu	31.86	118	LR	LR	18 24 54.9	
	comp=Z,70nm,20.8s,MS3.3,baz=358,slow=33						
YKA	Yellowknife Ar	36.34	309	P	P	18 14 25.9	+1.1
	1.0nm,0.9s,mb3.8,baz=34,slow=8.6,SNR=9.5						
ZALV	Zalesovo Beam	43.94	57	LR	LR	18 35 56.8	
	comp=Z,35nm,18.6s,MS3.3,baz=271,slow=39						
MKAR	Makanchi Array	49.50	64	P	P	18 16 12.2	+0.6
	0.5nm,0.8s,mb3.6,baz=350,slow=5.9,SNR=4.9						
MKAR				LR	LR	18 37 14.5	
	comp=Z,37nm,21.0s,MS3.4,baz=175,slow=36						
SONM	Songino Array	55.24	44	P	P	18 16 54.4	+0.3
	0.5nm,0.9s,mb3.5,baz=343,slow=4.6,SNR=3.9						
TORD	Torodi Ar. Bea	57.72	160	P	P	18 17 11.1	-1.0
	0.6nm,0.8s,mb3.7,baz=339,slow=3.6,SNR=2.8						
TXAR	Lajitas Array	62.16	279	P	P	18 17 42.4	-0.1
	0.1nm,0.5s,mb3.2,baz=51,slow=3.6,SNR=2.7						

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*ISCJB **08** 18:13:11.5±0.3, 67.81N±0.02×20.20E±0.06, h0km, Error ellipse: s-maj=3.6km s-min=3.0km az=10.4*
*IDC **08** 18:13:12.9±1.0, 67.87N×20.44E, h0km, mb1 3.0/4, mb1mx2.9/21, mbtmp2.9/4, ML2.6/4, Error ellipse: s-maj=16.3km s-min=5.8km az=124.0*
*CSEM **08** 18:13:12.4±0.1, 67.84N×20.41E, h1km, ML2.6, Error ellipse: s-maj=2.7km s-min=2.6km az=65.0, Suspected Mining explosion.*
*UPP **08** 18:13:12.8, 67.83N×20.20E, h0km, ML2.6, Suspected Mining explosion.*
*NAO **08** 18:13:13.8±1.1, 67.77N×20.58E, ML2.5*
*HEL **08** 18:13:13.5±0.1, 67.84N×20.21E, h0km, ML2.3, ML2.6(UPP), ML2.2(BER), Suspected explosion*
*BER **08** 18:13:15.5±3.5, 67.81N×20.29E, h0km, ML2.2, ML2.5(NAO), Suspected explosion*
ISC 08 18:13:12.8±0.3**, 67.82N**±0.02×**20.25E**±0.06**, h0**km**, n59, σ0ˢ89**/101**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	Kurravaara	0.14	14	i P	Pg	18 13 15.6	+0.3
KUA				i S	Sg	18 13 17.5	+0.4
NIKU	Nikkaluokta	0.46	276	i P	Pg	18 13 21.3	-0.4
NIKU	Nikkaluokta	0.46	276	P	Pg	18 13 21.2	-0.5
LANU	Lannavaara	0.69	70	i P	Pg	18 13 26.2	+0.1
DUNU	Dundret	0.72	170	i P	Pg	18 13 26.4	-0.1
MASU	Masugnsbyn	0.76	118	i P	Pg	18 13 27.5	+0.1
SALU	Saltoluokta	0.80	237	i P	Pg	18 13 27.7	-0.5
KIF	Kilpisjarvi	1.20	9	eP	Pg	18 13 35.5	-0.3
KIF				eS	Sg	18 13 50.5	-0.9
PAJU	Pajala	1.37	125	eP	Pg	18 13 38.2	-0.7
HEF	Hetta	1.41	64	eP	Pn	18 13 38.9	-0.8
HEF				eS	Sg	18 13 56.5	-1.4
HEF	Hetta	1.41	64	P	Pn	18 13 38.8	-0.8
HEF				S	Sg	18 13 56.4	-1.5
ERTU	Ertsjaerv	1.48	148	eP	Pn	18 13 40.2	-0.5
ERTU	Ertsjaerv	1.48	148	P	Pn	18 13 40.1	-0.5
KTK1	Kautokeino	1.63	41	eP	Pn	18 13 43.4	+0.7
KTK1				eS	Sn	18 14 05.0	+0.7
KTK1				AML	AML	18 14 09.5	
	comp=Z,30nm,0.3s						
KTK1	Kautokeino	1.63	41	P	Pn	18 13 43.3	+0.7
KTK1				S	Sn	18 14 04.9	+0.7
	comp=Z,30nm,0.3s						
TRO	Tromso	1.88	346	eP	Pn	18 13 45.6	-0.5
TRO				eS	Sn	18 14 10.2	-0.3
TRO				AML	AML	18 14 13.1	
	comp=Z,41nm,0.5s						
TRO	Tromso	1.88	346	eP	Pn	18 13 45.6	-0.5
	SNR=50						
TRO				S	Sn	18 14 10.2	-0.3
	comp=Z,41nm,0.5s						
SJUU	Sjulsmark	2.39	166	eP	Pn	18 13 54.4	+1.3
SJUU	Sjulsmark	2.39	166	P	Pn	18 13 54.3	+1.2
SGF	Sodankyl	2.43	96	eP	Pn	18 13 54.6	+0.9
SGF				eS	Sn	18 14 24.4	+0.4
SGF				MSG		18 14 30.7	
	comp=Z,15nm,0.2s						
SGF	Sodankyl	2.43	96	P	Pn	18 13 54.6	+0.9
SGF				S	Sn	18 14 24.4	+0.4
	comp=Z,15nm,0.2s						
LOF	Lofoten	2.55	280	eP	Pn	18 13 56.9	+1.6
LOF				eSG	Sg	18 14 34.5	0.0
LOF				AML	AML	18 14 42.0	
	comp=Z,23nm,0.5s						
LOF	Lofoten	2.55	280	P	Pn	18 13 56.8	+1.5
LOF				Sg	Sg	18 14 34.5	0.0
ARA0	ARCESS Array S	2.58	46	Pn	Pn	18 13 56.2	+0.5
	baz=228,slow=14						
ARA0				Sn	Sn	18 14 28.7	+1.0
	baz=226,slow=28						
ARA0	ARCESS Array S	2.58	46	eP	Pn	18 13 56.2	+0.5
ARA0				eS	Sn	18 14 28.7	+1.0
ARA0	ARCESS Array S	2.58	46	Pn	Pn	18 13 56.2	+0.5
	baz=228,slow=14						
ARA0				Sn	Sn	18 14 28.7	+1.0
	baz=226,slow=28						
ARA0	ARCESS Array S	2.58	46	Pn	Pn	18 13 56.2	+0.5
	SNR=50						
ARA0				Sn	Sn	18 14 28.7	+1.1
	SNR=50						
ARCES	ARCESS Array B	2.58	46	Pn	Pn	18 13 54.8	-0.9
	comp=Z,1.6nm,0.3s,baz=227,slow=13,SNR=77						
ARCES				Sn	Sn	18 14 26.8	-0.9
	comp=Z,7.7nm,0.3s,baz=230,slow=24,SNR=13						
ARCES				Lg		18 14 31.6	
	comp=Z,7.7nm,0.3s,baz=234,slow=28,SNR=19						
MOR8	Moi Rana	2.82	237	eSG	Sg	18 14 36.7	-6.6
MOR8				AML	AML	18 14 38.0	
	comp=Z,46nm,0.4s						
MOR8	Moi Rana	2.82	237	eSg	Sg	18 14 36.7	-6.6
MOR8				AML	AML	18 14 38.0	
	comp=Z,46nm,0.4s						
KEV	Kevo	3.13	49	eP	Pn	18 14 03.4	+0.1
KEV				eS	Sn	18 14 41.6	+0.4
KEV				MSG		18 14 49.8	
	comp=Z,13nm,0.3s						
KEV	Kevo	3.13	49	P	Pn	18 14 03.3	0.0
KEV				S	Sn	18 14 41.6	+0.3
	comp=Z,13nm,0.3s						
OUL	Oulu	3.56	138	eP	Pn	18 14 11.2	+2.0
OUL				eS	Sn	18 14 52.4	+0.5
OUL				MSG		18 15 08.5	
	comp=Z,9.2nm,0.3s						
OUL	Oulu	3.56	138	P	Pn	18 14 11.2	+2.0
OUL				S	Sn	18 14 52.4	+0.5
	comp=Z,9.2nm,0.3s						
MSF	Maaselka	3.96	115	eP	Pn	18 14 16.1	+1.4
MSF				eS	Sn	18 15 02.1	+0.3
MSF				MSG		18 15 16.5	
	comp=Z,4.0nm,0.3s						
KU6	Riekki	4.20	111	eP	Pn	18 14 18.5	+0.6
KU6				eSG	Sg	18 15 22.9	-4.7
KU6	Riekki	4.20	111	P	Pn	18 14 18.5	+0.5
KU6				Sg	Sg	18 15 22.8	-4.8
APA0	Apatity Array	4.86	87	Pn	Pn	18 14 26.3	-0.6
	baz=285,slow=11						
APA0				Sn	Sn	18 15 21.6	-2.2
	baz=273,slow=22						
APA0				Lg		18 15 42.1	
	baz=286,slow=37						
APA0	Apatity Array	4.86	87	eP	Pn	18 14 26.3	-0.6
APA0				eS	Sn	18 15 21.6	-2.2
APA0				eSG	Sg	18 15 42.1	-6.5
APA0	Apatity Array	4.86	87	Pn	Pn	18 14 26.3	-0.6
	baz=285,slow=11						
APA0				Sn	Sn	18 15 21.6	-2.2
	baz=273,slow=22						
APA0				Lg		18 15 42.1	
	baz=286,slow=37						
APA0	Apatity Array	4.86	87	Pn	Pn	18 14 26.3	-0.7
	SNR=50						
APA0				Sn	Sn	18 15 21.6	-2.2
	SNR=50						
VAF	Ylistaro	4.91	167	eP	Pn	18 14 28.6	+0.9
VAF				eS	Sn	18 15 24.7	-0.4
VAF				MSG		18 15 46.8	
	comp=Z,3.2nm,0.3s						
VAF	Ylistaro	4.91	167	P	Pn	18 14 28.6	+0.9
VAF				S	Sn	18 15 24.6	-0.5
	comp=Z,3.2nm,0.3s						
FIA0	FINESS Array S	6.87	156	Pn	Pn	18 14 55.5	+0.8
	baz=354,slow=12						
FIA0				Sn	Sn	18 16 11.4	-2.0
	baz=350,slow=28						
FIA0				Lg		18 16 45.5	
	baz=338,slow=28						
FIA0	FINESS Array S	6.87	156	eP	Pn	18 14 55.5	+0.8
FIA0				eS	Sn	18 16 11.4	-2.0
FIA0				eSG	Sg	18 16 45.5	-7.8
FIA0	FINESS Array S	6.87	156	Pn	Pn	18 14 55.5	+0.8
	baz=354,slow=12						
FIA0				Sn	Sn	18 16 11.4	-2.0
	baz=350,slow=28						
FIA0				Lg		18 16 45.5	
	baz=338,slow=28						
FIA0	FINESS Array S	6.87	156	Pn	Pn	18 14 55.5	+0.8
	SNR=50						
FIA0				Sg	Sg	18 16 45.5	-7.8
FINES	FINESS Array B	6.87	156	Pn	Pn	18 14 54.4	-0.3
	comp=Z,0.1nm,0.3s,baz=347,slow=11,SNR=5.0						
FINES				Sn	Sn	18 16 13.4	0.0
	comp=Z,0.3nm,0.3s,baz=348,slow=24,SNR=6.9						
FINES				Lg		18 16 48.4	
	comp=Z,0.9nm,0.3s,baz=341,slow=25,SNR=9.7						
NB2	NORSAR Subarra	7.84	214	eP	Pn	18 15 08.3	+0.4
NB2				eSG	Sg	18 17 16.9	-7.5
NB2	NORSAR Subarra	7.84	214	Pn	Pn	18 15 08.3	+0.4
NB2				Lg		18 17 16.9	
NB2	NORSAR Subarra	7.84	214	Pn	Pn	18 15 08.3	+0.4
	SNR=50						
NB2				Sg	Sg	18 17 16.8	-7.5
NOA	NORSAR Array B	7.84	214	Pn	Pn	18 15 08.2	+0.2
	comp=Z,0.2nm,0.3s,baz=16,slow=13,SNR=2.5						
NOA				Sn	Sn	18 16 33.2	-4.1
	comp=Z,0.2nm,0.3s,baz=220,slow=24,SNR=3.3						
NOA				Lg		18 17 21.0	
	comp=Z,0.7nm,0.3s,baz=64,slow=19,SNR=5.5						
HFS	Hagfors	8.23	204	Sn	Sn	18 16 44.5	-2.5
	baz=20,slow=28						
HFS				Lg		18 17 29.8	
	baz=12,slow=28						
HFS	Hagfors	8.23	204	eS	Sn	18 16 44.5	-2.5
HFS				eSG	Sg	18 17 29.8	-7.1
HFS	Hagfors	8.23	204	Sn	Sn	18 16 44.5	-2.5
	baz=20,slow=28						
HFS				Lg		18 17 29.8	
	baz=12,slow=28						
HFS	Hagfors	8.23	204	Pn	Pn	18 15 12.9	-0.4
	comp=Z,0.1nm,0.3s,baz=30,slow=9.2,SNR=4.6						
HFS				Sn	Sn	18 16 43.7	-3.2
	comp=Z,0.3nm,0.3s,baz=22,slow=21,SNR=6.1						
HFS				Lg		18 17 33.5	
	comp=Z,0.7nm,0.3s,baz=16,slow=28,SNR=6.1						
SPA0	Spitsbergen Ar	10.47	356	Pn	Pn	18 15 44.1	+0.3
	baz=162,slow=7.9						
SPA0	Spitsbergen Ar	10.47	356	eP	Pn	18 15 44.1	+0.3
SPA0	Spitsbergen Ar	10.47	356	P	Pn	18 15 44.1	+0.3
	baz=162,slow=7.9						

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*SKO **08** 18:16:02.2, 40.85N×22.87E, h16km*
*NEIC **08** 18:16:02.5, 40.86N×22.79E, h8km, MD3.2(ATH), After ATH.*
*ISCJB **08** 18:16:02.6±0.3, 40.85N±0.02×22.81E±0.02, h8km, Error ellipse: s-maj=3.3km s-min=2.3km az=30.9*
*ATH **08** 18:16:02.5, 40.86N×22.79E, h8km±2km, MD3.2/6*
*CSEM **08** 18:16:03.2±0.1, 40.85N×22.82E, h2km, ML2.6, Error ellipse: s-maj=1.8km s-min=1.2km az=40.0*
*THE **08** 18:16:03.2, 40.85N×22.83E, h8km, ML2.6*
ISC 08 18:16:03.3±0.3**, 40.84N**±0.02×**22.82E**±0.02**, h3**km±6km**, n48, σ0ˢ69**/82**, 8D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THE	Thessaloniki	0.24	152	ePg	Pg	18 16 07.8	0.0
THE				eSg	Sg	18 16 11.0	+0.1
THE	Thessaloniki	0.24	152	ePg	Pg	18 16 07.8	0.0
THE				eSg	Sg	18 16 11.0	+0.1
HORT	Hortiatis	0.32	139	ePg	Pg	18 16 09.3	-0.2
HORT				eSg	Sg	18 16 14.4	+0.8
HORT	Hortiatis	0.32	139	ePg	Pg	18 16 09.3	-0.2
HORT				eSg	Sg	18 16 14.4	+0.7
GRG	Griva	0.34	290	ePg	Pg	18 16 09.8	0.0
GRG				eSg	Sg	18 16 14.7	+0.5
GRG	Griva	0.34	290	ePg	Pg	18 16 09.8	0.0
GRG				eSg	Sg	18 16 14.7	+0.6
SOH	Sokhos	0.41	93	ePg	Pg	18 16 11.2	+0.1
SOH				eSg	Sg	18 16 16.9	+0.6
SOH	Sokhos	0.41	93	ePg	Pg	18 16 11.2	+0.2
SOH				eSg	Sg	18 16 16.9	+0.6
VAY	Valandovo	0.51	338	ePg	Pg	18 16 12.6	-0.6
VAY				eSg	Sg	18 16 20.0	+0.2
VAY	Valandovo	0.51	338	ePg	Pg	18 16 12.8	-0.3
VAY				eSg	Sg	18 16 20.4	+0.5
VAY	Valandovo	0.51	338	ePg	Pg	18 16 12.8	-0.3
VAY				eSg	Sg	18 16 20.3	+0.5
SRS	Serrai	0.65	65	ePg	Pg	18 16 15.2	-0.5
SRS				eSg	Sg	18 16 24.6	+0.6
SRS	Serrai	0.65	65	ePg	Pg	18 16 15.1	-0.5
SRS				eSg	Sg	18 16 24.6	+0.6
PLG	Polygyros	0.67	134	ePb	Pg	18 16 15.5	-0.6
PLG				eSb	Sg	18 16 24.8	+0.1
PLG	Polygyros	0.67	134	ePg	Pg	18 16 15.7	-0.4
PLG				eSg	Sg	18 16 24.8	+0.1
PLG	Polygyros	0.67	134	ePB	Pg	18 16 15.5	-0.6
PLG				eSB	Sg	18 16 24.8	+0.1
PLG	Polygyros	0.67	134	ePg	Pg	18 16 15.7	-0.4
PLG				eSg	Sg	18 16 24.8	+0.1
LIT	Litokhoron	0.78	199	ePg	Pg	18 16 18.0	-0.3
LIT				eSg	Sg	18 16 29.2	+0.8
LIT	Litokhoron	0.78	199	ePg	Pg	18 16 18.0	-0.3
LIT				eSg	Sg	18 16 29.2	+0.8
NVR	Nevrokopi	0.94	57	⇓iPb	Pg	18 16 20.6	-0.6
NVR	Nevrokopi	0.94	57	⇓iPB	Pg	18 16 20.6	-0.6
NVR	Nevrokopi	0.94	57	⇓iPb	Pg	18 16 20.6	-0.6
KZN	Kozani	0.96	237	ePb	Pg	18 16 20.7	-1.0
KZN	Kozani	0.96	237	ePB	Pg	18 16 20.7	-1.0
KZN	Kozani	0.96	237	ePb	Pg	18 16 20.7	-1.0

STIP	Stip	0.98	331	*e*Pg	Pg	18 16 21.6	-0.4
STIP				*e*Sg	Sg	18 16 35.2	+0.5
STIP	Stip	0.98	331	*e*Pg	Pg	18 16 21.6	-0.4
STIP				*e*Sg	Sg	18 16 35.1	+0.4
OUR	Ouranopolis	1.02	119	*e*Pg	Pg	18 16 21.9	-0.9
OUR	Ouranopolis	1.02	119	*e*Pg	Pg	18 16 22.0	-0.8
FNA	Florina	1.10	267	*e*Pg	Pg	18 16 24.4	+0.1
FNA				*e*Sg	Sg	18 16 40.8	+2.2
FNA	Florina	1.10	267	*e*Pg	Pg	18 16 24.5	+0.2
PAIG	Paliouri	1.12	144	*e*Pg	Pg	18 16 24.1	-0.8
PAIG				*e*Sg	Sg	18 16 40.5	+1.1
PAIG	Paliouri	1.12	144	*e*Pg	Pg	18 16 24.1	-0.7
PAIG				*e*Sg	Sg	18 16 40.5	+1.1
BIA	Bitola	1.15	279	*e*Pg	Pg	18 16 25.5	+0.2
BIA				*e*Sg	Sg	18 16 40.5	+0.3
BIA	Bitola	1.15	279	*e*Pg	Pg	18 16 25.6	+0.3
BIA				*e*Sg	Sg	18 16 39.3	-0.8
BIA	Bitola	1.15	279	*e*Pg	Pg	18 16 25.5	+0.2
BIA				*e*Sg	Sg	18 16 39.3	-0.8
KRUS	Krusevo	1.30	294	*e*Pg	Pg	18 16 27.9	-0.3
KRUS				*e*Sg	Sg	18 16 44.6	-0.4
KRUS	Krusevo	1.30	294	*e*Pg	Pg	18 16 27.8	-0.4
KRUS				*e*Sg	Sg	18 16 44.5	-0.5
THL	Klokotos Trika	1.42	206	⇓*i*PG	Pg	18 16 28.9	-1.5
THL				*e*SB	Sb	18 16 49.2	+0.4
THL	Klokotos Trika	1.42	206	⇓*i*Pg	Pg	18 16 28.9	-1.5
THL				*e*Sb	Sb	18 16 49.2	+0.4
XOR	Xorichti	1.50	169	*e*Pg	Pn	18 16 30.6	-0.6
XOR	Xorichti	1.50	169	*e*Pg	Pn	18 16 30.5	-0.6
NEO	Neokhori	1.56	168	⇓*i*Pg	Pn	18 16 31.6	-0.4
NEO	Neokhori	1.56	168	⇓*i*PG	Pn	18 16 31.6	-0.4
NEO	Neokhori	1.56	168	⇓*i*Pg	Pn	18 16 31.6	-0.4
RDO	Rodhopi	2.08	81	*e*Pn	Pn	18 16 40.2	+1.1
RDO				*e*Sn	Sb	18 17 07.7	-0.2
RDO	Rodhopi	2.08	81	*e*PN	Pn	18 16 40.2	+1.1
RDO				*e*SN	Sb	18 17 07.7	-0.2
RDO	Rodhopi	2.08	81	*e*Pn	Pn	18 16 40.2	+1.1
RDO				*e*Sn	Sb	18 17 07.7	-0.2

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*ISCJB **08** 18:20:57.3±0.7, 11.66N±0.03×62.23W±0.05, h133^{km}±7^{km}, Error ellipse: s-maj=8.4km s-min=4.8km az=25.8*
*TRN **08** 18:20:59.9, 11.68N×61.82W, h138^{km}, MD3.3*
*NEIC **08** 18:20:59.9, 11.68N×61.82W, h138^{km}, MD3.3(TRN), After TRN.*
*FUNV **08** 18:21:00.2, 11.53N×62.12W, h127^{km}, MW3.4*
ISC 08 18:20:58.0±0.8**, 11.65N**±0.03×**62.21W**±0.05**, h131**^{km}±7^{km}**, n22,** σ1^{s}14/38**, 3C, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRW	Mount Saint Ca	0.74	47	*e*P	Pn	18 21 20.1	+1.2
GRW				*e*S	Sn	18 21 38.8	+4.2
GRHS	Sauteurs	0.80	44	*e*P	Pn	18 21 20.2	+0.9
GRHS				*e*S	Sn	18 21 35.0	-0.4
GRSS	Sisters	0.87	42	*e*P	Pn	18 21 19.8	-0.1
GRSS				*e*S	Sn	18 21 37.3	+0.8
GRIC	Isle de Caille	0.88	44	*e*P	Pn	18 21 18.5	-1.5
GRIC				*e*S	Sn	18 21 35.7	-0.9
ITEV	Isla Los Testi	0.95	252	*e*P	Pn	18 21 22.2	+1.7
GUIV	Guiria	1.00	181	*e*P	Pn	18 21 21.6	+0.5
GUIV				*e*S	Sn	18 21 36.8	-1.7
TCE	Chacachacare	1.05	155	⇑*i*P	Pn	18 21 23.1	+1.5
TCE				*e*S	Sn	18 21 41.1	+1.6
TRN	Trinidad (W)	1.28	141	⇑*i*P	Pn	18 21 24.8	+0.9
TRN				*e*S	Sn	18 21 41.8	-1.6
CRUV	Carupano	1.40	226	*e*P	Pn	18 21 26.2	+1.1
CRUV				*e*S	Sn	18 21 45.4	-0.3
TPR	Prospect	1.48	108	*e*P	Pn	18 21 24.5	-1.5
TPR				*e*S	Sn	18 21 43.3	-4.1
TPP	Pointe-a-Pierr	1.52	151	*e*P	Pn	18 21 28.3	+1.8
TPP				*e*S	Sn	18 21 52.1	+3.9
TBH	Brigand Hill	1.62	136	*e*P	Pn	18 21 28.3	+0.7
TBH				*e*S	Sn	18 21 50.4	+0.4
GUNV	Guanoco	1.65	206	⇑*i*P	Pn	18 21 29.4	+1.5
GUNV				*e*S	Sn	18 21 49.1	-1.6
FCV	Fort Charlotte	1.77	32	*e*P	Pn	18 21 25.0	-4.4
FCV				*e*S	Sn	18 21 51.2	-2.0
SVB	Belmont	1.86	30	*e*P	Pn	18 21 30.3	-0.1
SVB				*e*S	Sn	18 21 55.4	+0.2
SLB	Belfond	2.44	28	*e*P	Pn	18 21 37.7	0.0
SLB				*e*S	Sn	18 22 08.3	+0.2
RIOV	Rio Grande	3.58	174	*e*P	Pn	18 21 52.0	-0.3
CUPV	Cœpira	3.85	246	*e*P	Pn	18 21 57.0	+1.0
CUPV				*e*S	Sn	18 22 39.9	-0.9
GURV	El Guri	3.96	193	*e*P	Pn	18 21 57.0	-0.4
LUEV	Luepa	5.82	173	*e*P	Pn	18 22 20.0	-2.2
CAOV	Caicara del Or	5.91	224	*e*P	Pn	18 22 22.9	-0.5
BAUV	El Baul	6.34	245	*e*P	Pn	18 22 28.5	-0.6

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*ISCJB **08** 18:42:39.4±0.8, 62.8S±0.1×158.7W±0.4, h10^{km}, mb4.2/3, MS4.0/8, Error ellipse: s-maj=24.7km s-min=18.4km az=159.1*
*IDC **08** 18:42:39.5±1.3, 62.22S×158.37W, h0^{km}, mb4.1/3, mb1 4.3/4, mb1mx4.2/8, mbtmp4.1/4, ML4.1/1, MS3.9/9, Ms1 3.9/9, ms1mx3.7/13, Error ellipse: s-maj=48.3km s-min=30.2km az=8.0*
ISC 08 18:42:41.2±0.8**, 62.7S**±0.1×**158.6W**±0.4**, h10**^{km}**, n21,** σ0^s**82**/7**, mb4.2**/3**, MS4.0**/8**, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	Vanda	19.36	205	P	Pn	18 47 11.5	+4.0
	0.5nm,0.3s,baz=67,slow=15,SNR=17						
VNDA				LR	LR	18 52 36.3	
	comp=Z,287nm,21.4s,baz=64,slow=30						
RKT	Rikitea	42.66	33	*e*LR	LR	19 02 25.2	
	244nm,29.5s						
RKT	Rikitea	42.66	33	*e*T		19 35 55.0	
	15nm,0.3s						
VNA3	Neumayer Olymp	44.59	166	*e*	P	18 50 52.5	-0.2
VNA3				*e*	pP	18 50 57.1	+1.3
VNA2	Neumayer--Watz	45.13	167	*e*	P	18 50 56.4	-0.6
	baz=211,slow=5.4						
VNA2				*e*	pP	18 51 00.6	+0.4
TVO	Taravao	45.36	12	*e*T		19 39 15.4	
	22nm,0.3s						
MEH	Mehetia	45.39	14	*e*T		19 39 23.4	
	199nm,0.3s						
PAE	Paea	45.44	12	*e*T		19 39 26.2	
	36nm,0.3s						
PPT	Papeete	45.54	12	*e*S	S	18 57 42.4	-0.2
	93nm,24.5s						
PPT				*e*LR	LR	19 03 33.2	
	409nm,27.8s,baz=184						
PPT	Papeete	45.54	12	LR	LR	19 07 04.1	
	comp=Z,191nm,18.1s,MS4.1,baz=90,slow=32						
MAW	Mawson	46.58	200	LR	LR	19 10 00.4	
	comp=Z,96nm,18.6s,MS3.8,baz=250,slow=35						
VAH	Vaihoa	48.05	14	*e*T		19 42 40.8	
	335nm,0.3s						
PMOR	Pomariorio Ree	48.25	14	*e*T		19 42 50.0	
	11nm,0.4s						
STKA	Stephens Creek	48.45	281	P	P	18 51 24.4	+0.9
	4.9nm,1.1s,mb4.5,baz=136,slow=11,SNR=4.3						
STKA				LR	LR	19 09 08.3	
	comp=Z,110nm,18.4s,MS3.9,baz=203,slow=33						
CTA	Charters Tower	56.62	292	LR	LR	19 13 37.0	
	comp=Z,73nm,18.5s,MS3.8,baz=346,slow=33						
WRA	Warramunga Arr	62.00	281	P	P	18 53 00.2	-1.1
	1.9nm,0.9s,mb4.2,baz=153,slow=5.5,SNR=8.6						
FITZ	Fitzroy Crossi	67.57	274	LR	LR	19 19 38.0	
	comp=Z,76nm,18.6s,MS4.0,baz=150,slow=33						
LPAZ	La Paz	75.87	98	P	P	18 54 28.2	+0.7
	1.2nm,0.8s,mb3.9,baz=293,slow=7.7,SNR=6.0						
LPAZ				LR	LR	19 18 32.4	
	comp=Z,43nm,20.3s,MS3.7,baz=336,slow=28						
BOSA	Boshof	88.94	183	LR	LR	19 33 57.1	
	comp=Z,147nm,18.2s,MS4.4,baz=167,slow=34						
ROSC	El Rosal	91.62	83	LR	LR	19 27 52.7	
	comp=Z,47nm,18.7s,MS4.0,baz=197,slow=30						
MKAR	Makanchi Array	143.05	274	PKP	PKPdf	19 02 15.7	+1.7
	1.7nm,0.3s,baz=116,slow=3.4,SNR=3.5						

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*CSEM **08** 19:00:31.8, 14.98N×42.44E, h8^{km}, ML3.8, After DHMR*
*DHMR **08** 19:00:31.8±1.5, 14.98N×42.44E, h8^{km}±18^{km}, ML3.8*
*ISCJB **08** 19:00:32.5±1.4, 15.11N±0.07×42.36E±0.07, h10^{km}, Error ellipse: s-maj=12.1km s-min=7.0km az=140.0*
ISC 08 19:00:33.3±1.4**, 15.15N**±0.07×**42.39E**±0.07**, h10**^{km}**, n9,** σ1^s**34**/17**, 4C-1D, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HAJJ	Hajjah	1.29	65	⇑*i*P	Pn	19 00 55.7	-1.6
HAJJ				*i* S	Sb	19 01 15.6	+1.4
HAJJ				AML	AML	19 01 26.4	
	comp=Z,2µm,0.3s						
HAJJ	Hajjah	1.29	65	⇑*i*P	Pn	19 00 55.7	-1.6
HAJJ				*i* S	Sb	19 01 15.6	+1.4
UDYN	Al ‘Udayn	1.93	127	⇑*i*P	Pn	19 01 05.0	-1.2
UDYN				*i* S	Sn	19 01 28.9	-1.6
UDYN				AML	AML	19 01 46.9	
	comp=N,680nm,0.8s						
DHBB	Dhamar BB	2.02	106	⇓*i*P	Pn	19 01 06.8	-0.7
DHBB				*i* S	Sn	19 01 33.6	+0.9
TRBA	At Turbah	2.54	139	⇑*i*P	Pn	19 01 12.7	-1.8
TRBA				*i* S	Sn	19 01 45.7	+0.1
TRBA				AML	AML	19 02 07.8	
	comp=N,824nm,0.5s						
LBOS		3.05	114	*i* P	Pn	19 01 21.5	-0.1
BDHA	Al Bayda’	3.29	110	*i* P	Pn	19 01 25.8	+0.9
BDHA				*i* S	Sn	19 02 06.6	+2.4
BDHA				AML	AML	19 02 26.5	
	comp=N,770nm,0.4s						
BDHA	Al Bayda’	3.29	110	*i* P	Pn	19 01 25.8	+0.9
BDHA				*i* S	Sn	19 02 06.6	+2.4
DESE	Dese	4.82	214	*e*P	Pn	19 01 52.7	+6.7
DESE				S	Sn	19 02 43.7	+1.7

IDC 08 19:32:49.2±2.4**, 7.33S×111.23E, h0**^{km}**, mb3.7**/3**, mb1 3.9**/4**, mb1mx3.6**/17**, mbtmp3.7**/4**, ML3.6**/1**, Error ellipse: s-maj=149.8km s-min=24.1km az=51.0, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.65	129	*e*P	Pn	19 36 57.7	+1.1
	6.6nm,1.2s						
FITZ				*e*S	Sn	19 40 04.7	-9.3
FITZ	Fitzroy Crossi	17.65	129	P	Pn	19 36 57.6	+1.0
	0.1nm,0.3s,baz=321,slow=13,SNR=6.3						
FITZ				S	Sn	19 40 05.9	-8.1
	0.1nm,0.3s,baz=186,slow=19,SNR=3.0						
WRA	Warramunga Arr	25.67	122	P	P	19 38 21.5	+0.5
	0.5nm,0.3s,baz=297,slow=11,SNR=11						
WB2	Warramunga Arr	25.68	122	*e*P	P	19 38 21.7	+0.6
STKA	Stephens Creek	37.37	135	*e*P	P	19 40 02.7	-1.0
	3.4nm,0.4s						
STKA	Stephens Creek	37.37	135	P	P	19 40 03.0	-0.7
	4.5nm,0.5s,baz=312,slow=10,SNR=22						
MKAR	Makanchi Array	59.71	337	P	P	19 42 55.7	+0.1
	0.1nm,0.6s,baz=150,slow=8.0,SNR=2.1						

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*NIED **08** 19:49:00, 46.80N×153.40E, h32^{km}, Mw4.0 Best double couple: M$_0$1.11000×10^{15} NP1:φ$_s$218.00000°, δ74.00000°, λ177.00000°. NP2:φ$_s$309.00000°, δ87.00000°, λ16.00000°.*
*NEIC **08** 19:49:38.9±0.9, 47.35N×152.80E, h10^{km}, mb4.5/1, Error ellipse: s-maj=24.7km s-min=12.3km az=146.0*
*ISCJB **08** 19:49:39.4±1.1, 46.6N±0.1×153.0E±0.1, h55^{km}±9^{km}, mb4.1/18, MS3.1/3, Error ellipse: s-maj=27.1km s-min=7.7km az=144.7*
*MOS **08** 19:49:39.9±1.5, 46.65N×153.08E, h65^{km}, mb4.4/13, Error ellipse: s-maj=14.2km s-min=11.6km az=47.8*
*IDC **08** 19:49:45.6±3.9, 46.95N×152.83E, h82^{km}±37^{km}, mb3.6/15, mb1 3.8/17, mb1mx3.7/27, mbtmp3.6/17, MS3.1/4, Ms1 3.1/4, ms1mx2.8/39, Error ellipse: s-maj=33.9km s-min=18.7km az=169.0*
ISC 08 19:49:41.4±1.0**, 46.7N**±0.1×**153.0E**±0.2**, h55**^{km}±8^{km}**, n70,** σ1^s**19**/74**, mb4.1**/18**, MS3.1**/3**, 3C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril’sk	3.89	250	⇑*i*PN	Pn	19 50 38.0	-0.6
KUR				*e*S	Sn	19 51 28.4	+5.5
KUR				pmax	pmax		
	comp=Z,170nm,0.8s						
KUR				smax			
	comp=N,780nm,0.9s						
KUR				smax			
	comp=E,330nm,0.9s						
SKR	Severo-Kuril’s	4.47	26	*e*PN	Pn	19 50 46.5	-0.1
SKR				pmax	pmax		
	comp=Z,30nm,0.5s						
YUK	Yuzh-Kuril’sk	5.71	245	PN	Pn	19 51 04.0	+0.4
YUK				*e*S	Sn	19 52 09.5	+1.8
YUK				pmax	pmax		
	comp=Z,200nm,0.5s						
YUK				smax			
	comp=N,450nm,0.8s						
YUK				smax			
	comp=E,600nm,0.8s						
NEM2	Nemuro 2	6.15	240	P	Pn	19 51 07.6	-2.0
NEM2				*e*S	Sn	19 52 15.5	-2.9
JRA	Rausu	6.22	246	P	Pn	19 51 11.5	+0.9
JNK	Nakash	6.65	245	P	Pn	19 51 16.6	+0.1
JNK				*e*S	Sn	19 52 30.6	-0.2
JTKR	Abashiri--Toko	6.98	250	P	Pn	19 51 22.2	+1.2
JAK	Akkeshi	6.99	241	P	Pn	19 51 19.2	-1.8
JAK				*e*S	Sn	19 52 36.9	-2.1
YSS	Yuzh-Sakhalins	7.05	276	*e*PN	Pn	19 51 25.8	+3.9
JMP	Maruseppu	7.33	252	P	Pn	19 51 28.1	+2.4
JAR	Ashorobuto	7.39	246	P	Pn	19 51 26.7	+0.1
JAR				*e*S	Sn	19 52 49.2	+0.2
JOB	Onbets	7.56	243	P	Pn	19 51 28.8	-0.1
ASAJ	Asahikawa	7.78	254	P	Pn	19 51 34.7	+2.8
ASAJ	Asahikawa	7.78	254	PN	Pn	19 51 34.8	+2.9
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	7.78	254	P	Pn	19 51 34.8	+2.9
	comp=Z,1.5nm,0.3s,baz=96,slow=19,SNR=5.5						
JKK2	Kamakawa 2	7.78	252	P	Pn	19 51 33.3	+1.4
JCH	Churui	8.01	243	P	Pn	19 51 33.8	-1.3
JCH				*e*S	Sn	19 52 59.3	-4.9
ERM	Erimo	8.48	240	*e*PN	Pn	19 51 41.1	-0.4
JBT2	Biratori 2	8.54	246	P	Pn	19 51 41.5	-0.9
MJAR	Matsushiro Arr	15.01	233	P	Pn	19 53 15.6	+5.6
	comp=Z,0.3nm,0.3s,baz=41,slow=8.9,SNR=9.6						
MJAR				LR	LR	19 59 04.1	
	comp=Z,37nm,19.8s,baz=30,slow=37						
YAK	Yakutsk	20.33	327	*e*P	P	19 54 20.6	+8.0
YAK				pmax	pmax		
	comp=Z,8.0nm,0.7s						
KSRS	Korea Array	20.73	253	P	P	19 54 19.1	+1.9
	comp=Z,1.5nm,0.7s,baz=59,slow=12,SNR=5.1						
JNU	Nakatsue	21.65	239	LR	LR	20 03 13.6	
	comp=Z,21nm,18.1s,MS2.6,baz=58,slow=37						
ULN	Ulaanbaatar	30.86	289	*e*P	P	19 55 50.1	-2.0
SONM	Songino Array	31.29	289	P	P	19 55 56.0	+0.1
	comp=Z,0.3nm,0.8s,mb3.2,baz=73,slow=4.8,SNR=3.1						
INK	Inuvik	41.72	32	*e*P	P	19 57 25.2	+0.8
INK	Inuvik	41.72	32	P	P	19 57 25.1	+0.7
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	Inuvik	41.72	32	P	P	19 57 25.1	+0.7
	comp=Z,0.8nm,0.6s,mb3.5,baz=278,slow=8.7,SNR=4.6						
ZALV	Zalesovo Beam	42.59	306	P	P	19 57 30.2	-1.4
ZALV				PcP	PcP	19 59 23.2	+0.2
ZALV				LR	LR	20 16 20.5	
ZALV	Zalesovo Beam	42.59	306	P	P	19 57 30.2	-1.4
	comp=Z,0.4nm,0.6s,mb3.3,baz=76,slow=6.1,SNR=2.5						
ZALV				PcP	PcP	19 59 23.2	+0.2
	comp=Z,0.6nm,0.6s,baz=64,slow=3.4,SNR=4.5						
ZALV				LR	LR	20 16 20.5	
	comp=Z,31nm,18.4s,MS3.2,baz=73,slow=38						
ZAL	Zalesovo	42.60	306	P	P	19 57 30.3	-1.5
ZAL						19 59 23.2	
MKAR	Makanchi Array	46.91	297	P	P	19 58 05.2	-0.9
MKAR				PcP	PcP	19 59 38.2	+0.2
MKAR	Makanchi Array	46.91	297	P	P	19 58 05.2	-0.9
MKAR						19 59 38.2	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	Makanchi Array	46.91	297	P	P	19 58 05.2	-0.9
	comp=Z,0.4nm,0.7s,mb3.5,baz=70,slow=7.3,SNR=6.1						
MKAR				PcP	PcP	19 59 38.2	+0.2
	comp=Z,0.5nm,0.8s,baz=62,slow=5.6,SNR=4.2						
LSA	Lhasa	50.22	273	*e*P	P	19 58 33.7	+1.9
	comp=Z,4.8nm,0.8s,mb4.6						
LSA	Lhasa	50.22	273	*e*P	P	19 58 33.7	+1.9
LSA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
YKA	Yellowknife Ar	51.00	37	P	P	19 58 37.5	+0.4
YKA	Yellowknife Ar	51.00	37	P	P	19 58 37.5	+0.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	51.00	37	P	P	19 58 37.5	+0.4
	comp=Z,1.0nm,0.8s,mb3.8,baz=297,slow=7.2,SNR=9.2						
TAPN	Taplejung	54.04	273	*e*P	P	19 59 01.3	+1.1
ODAN	Odare	54.57	273	*e*P	P	19 59 05.5	+1.4
GUN	Gumba	54.95	275	*e*P	P	19 59 06.5	-0.2
KKN	Kakani	55.43	275	*e*P	P	19 59 10.7	+0.4
	comp=Z,7.6nm,0.6s,mb4.9						
GKN	Gorkha	55.74	276	*e*P	P	19 59 13.0	+0.6
	comp=Z,44nm,1.5s						
PMG	Port Moresby	56.10	187	LR	LR	20 19 59.3	
	comp=Z,48nm,21.8s,MS3.5,baz=44,slow=32						
KOLN	Koldanda	56.59	276	*e*P	P	19 59 19.1	+0.5
	comp=Z,5.1nm,0.7s,mb4.7						
FINES	FINESS Array B	64.06	335	P	P	20 00 08.1	-0.9
FINES	FINESS Array B	64.06	335	P	P	20 00 08.1	-0.9
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	64.06	335	P	P	20 00 08.1	-0.9
	comp=Z,0.7nm,0.5s,mb4.0,baz=29,slow=8.7,SNR=6.3						
NB2	NORSAR Subarra	68.25	341	P	P	20 00 35.4	-0.4
	comp=Z,1.5nm,0.6s,mb4.2,baz=27,slow=6.5						
NOA	NORSAR Array B	68.25	341	P	P	20 00 35.5	-0.3
NOA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NOA	NORSAR Array B	68.25	341	P	P	20 00 35.5	-0.3
	comp=Z,3.2nm,0.8s,mb4.4,baz=27,slow=6.4,SNR=8.0						
HFS	Hagfors	68.48	339	P	P	20 00 36.3	-1.0
HFS				pmax	pmax		
	comp=Z,5.0nm,0.7s						
HFS	Hagfors	68.48	339	P	P	20 00 36.3	-1.0
	comp=Z,5.1nm,0.7s,mb4.7,baz=90,slow=5.9,SNR=9.0						
AKASG	Malin Array Be	71.55	326	P	P	20 00 55.1	-1.2
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	71.55	326	P	P	20 00 55.1	-1.2
	comp=Z,1.3nm,0.5s,mb4.1,baz=33,slow=5.7,SNR=9.1						
ANMO	Albuquerque	71.91	58	P	P	20 00 55.3	-3.4
ANMO				pmax	pmax		
	comp=Z,4.0nm,0.5s						
ANMO	Albuquerque	71.91	58	P	P	20 00 55.3	-3.4
	comp=Z,3.7nm,0.5s,mb4.6,baz=320,slow=5.0,SNR=9.8						
BURAR	Bucovina Array	75.59	327	⇑P	P	20 01 20.2	+0.2
BURAR	Bucovina Array	75.59	327	⇑*i*P	P	20 01 20.2	+0.2
EKA	Eskdalemuir Ar	76.37	346	P	P	20 01 25.6	+1.3
EKA				pmax	pmax		
	comp=Z,4.0nm,1.1s						
EKA	Eskdalemuir Ar	76.37	346	P	P	20 01 25.6	+1.3
	comp=Z,4.2nm,1.1s,mb4.3,baz=269,slow=24,SNR=3.5						
MLR	Muntele Rosu	77.07	325	P	P	20 01 29.1	+0.7
MLR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MLR	Muntele Rosu	77.07	325	P	P	20 01 29.1	+0.6
	comp=Z,2.0nm,0.7s,mb4.2,baz=51,slow=4.5,SNR=5.7						
TXAR	Lajitas Array	77.57	60	P	P	20 01 32.1	+0.6
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	77.57	60	P	P	20 01 32.0	+0.5
	comp=Z,0.6nm,0.5s,mb3.8,baz=300,slow=4.4,SNR=8.7						
BRTR	Keskin Array B	78.38	317	P	P	20 01 36.2	+0.3
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
BRTR	Keskin Array B	78.38	317	P	P	20 01 36.1	+0.3
	comp=Z,1.1nm,0.9s,mb3.8,baz=76,slow=5.2,SNR=4.8						
MMAI	Mount Meron Ar	82.80	311	P	P	20 01 58.5	-1.1
	comp=Z,1.2nm,0.6s,mb4.1,baz=5.7,slow=7.2,SNR=3.0						
CFAA	Coronel Fontan	145.06	79	PKPbc	PKPbc	20 09 12.0	+0.2
	comp=Z,0.2nm,0.5s,baz=258,slow=4.5,SNR=3.7						

NEIC 08 20:00:56.3, 37.95S×176.77E, h0^{km}**, ML3.8**(WEL)**, After WEL., North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARZ	Manawahe	0.08	244	P	Pg	20 00 59.2	+1.3
MARZ				S	Sg	20 01 01.5	+2.5
EDRZ	Edgecumbe	0.16	189	P	Pg	20 00 58.7	-0.7
EDRZ				S	Sg	20 01 04.8	+3.3
MKRZ	Makatiti	0.31	231	P	Pg	20 01 03.7	+1.5
MKRZ				S	Sg	20 01 09.3	+3.2
TAZ	Tarawera	0.35	216	P	Pg	20 01 06.6	+3.6
URZ	Urewera	0.41	139	*e*P	Pg	20 01 05.7	+1.5
KARZ	Kaharoa	0.42	260	P	Pg	20 01 05.0	+0.6
MWZ	Matawai	0.71	123	*e*P	Pg	20 01 11.5	+1.6
MWZ				S	Sg	20 01 21.7	+2.6

IDC 08 20:16:43.5±3.3**, 11.42S×117.64E, h0**^{km}**, mb3.8**/3**, mb1 4.1**/5**, mb1mx3.9**/15**, mbtmp3.9**/5**, ML4.2**/2**, Error ellipse: s-maj=169.5km s-min=26.0km az=47.0, South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	10.19	132	*e*P	Pn	20 19 11.7	+0.5
	16nm,0.4s						
FITZ				*e*S	Sn	20 20 57.1	-9.2
FITZ	Fitzroy Crossi	10.19	132	Pn	Pn	20 19 11.8	+0.7
	3.1nm,0.3s,baz=329,slow=9.8,SNR=65						
FITZ				Sn	Sn	20 20 54.8	-11
	0.6nm,0.3s,baz=11,slow=21,SNR=3.1						
WRA	Warramunga Arr	18.16	120	P	Pn	20 20 57.0	-0.3
	0.6nm,0.3s,baz=292,slow=13,SNR=33						
WRA				S	Sn	20 24 04.3	-16
	0.2nm,0.3s,baz=290,slow=19,SNR=4.8						
WB2	Warramunga Arr	18.17	120	*e*P	Pn	20 20 57.4	0.0
WB2				*e*S	Sn	20 24 06.4	-15
SONM	Songino Array	59.83	351	P	P	20 26 51.0	+0.4
	0.5nm,0.6s,baz=171,slow=7.2,SNR=7.6						
MKAR	Makanchi Array	66.01	334	P	P	20 27 32.3	+0.5
	0.3nm,0.5s,baz=142,slow=7.2,SNR=10						
ZALV	Zalesovo Beam	70.83	340	P	P	20 28 01.2	-0.6
	1.1nm,0.5s,baz=152,slow=4.7,SNR=6.7						

MAN 08 20:51:40, 10.07N×125.00E, h40^{km}**, mb4.0, ML2.7, MS2.4, Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSLP	Maasin	0.15	294	*e*P	Pn	20 51 48.3	+1.4
MSLP				*e*S	Sn	20 51 54.0	+2.3
SCPH	Surigao	0.57	121	*e*P	Pn	20 51 53.8	+2.2
SCPH				*e*S	Sn	20 52 00.2	+0.4
OCLP	Ormoc	1.04	339	*e*P	Pn	20 52 00.3	+2.1
OCLP				*e*S	Sn	20 52 15.2	+3.7
PLP	Palo	1.08	359	*e*P	Pn	20 51 59.4	+0.7
PLP				*e*S	Sn	20 52 12.4	-0.2

IDC 08 21:10:06.9±1.9**, 1.35N×126.85E, h0**^{km}**, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.5**/15**, mbtmp3.8**/3**, Error ellipse: s-maj=167.4km s-min=25.3km az=64.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.40	161	P	P	21 15 06.9	-0.3
	4.4nm,0.8s,baz=340,slow=11,SNR=27						
STKA	Stephens Creek	35.88	158	P	P	21 17 09.0	+0.2
	1.4nm,0.7s,baz=319,slow=11,SNR=3.3						
MKAR	Makanchi Array	59.57	326	P	P	21 20 12.5	+0.1
	0.2nm,0.5s,baz=119,slow=7.4,SNR=6.4						

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*ISCJB **08** 22:05:01.3±2.5, 12.1N±0.1×141.4E±0.1, h90^{km}±26^{km}, mb3.9/9, Error ellipse: s-maj=24.8km s-min=18.2km az=19.2*
*NEIC **08** 22:05:03.6±1.9, 12.07N×141.39E, h97^{km}±19^{km}, mb4.4/1, Error ellipse: s-maj=20.3km s-min=13.9km az=95.0*
*IDC **08** 22:05:03.1±2.9, 12.09N×141.46E, h92^{km}±28^{km}, mb3.6/8, mb1 3.7/8, mb1mx3.6/18, mbtmp3.6/8, MS3.5/3, Ms1 3.6/3, ms1mx2.8/22, Error ellipse: s-maj=23.3km s-min=18.4km az=102.0*
ISC 08 22:05:03.5±2.3**, 12.1N**±0.1×**141.5E**±0.2**, h96**^{km}±24^{km}**, n17,** σ0^s**76**/15**, mb3.9**/9**, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	3.65	65	P	Pn	22 05 58.8	+0.9
	20nm,0.3s,baz=213,slow=5.2,SNR=17						

GUMO				S	**Sn**	**22 06 39.2**	**-0.8**
	23nm,0.3s,baz=28,slow=22,SNR=3.0						
GUMO				LR	LR	22 07 21.0	
	comp=Z,441nm,18.5s,baz=275,slow=38						
WRA	**Warramunga Arr**	**32.59**	**192**	P	**P**	**22 11 25.7**	**-0.3**
	2.1nm,0.8s,mb4.0,baz=12,slow=9.7,SNR=9.7						
PSI	**Prapat**	**43.11**	**261**	P	**P**	**22 12 54.0**	**-0.8**
PSI	**Prapat**	**43.11**	**261**	P	**P**	**22 12 54.0**	**-0.8**
	2.8nm,0.3s,mb4.4,baz=59,slow=9.1,SNR=4.3						
STKA	**Stephens Creek**	**43.71**	**180**	P	**P**	**22 12 59.6**	**+0.5**
	0.7nm,0.5s,mb3.7,baz=344,slow=15,SNR=3.3						
SONM	**Songino Array**	**46.12**	**328**	P	**P**	**22 13 18.9**	**+0.7**
	0.3nm,0.5s,mb3.3,baz=143,slow=7.9,SNR=4.8						
MKAR	**Makanchi Array**	**60.29**	**317**	P	**P**	**22 15 02.5**	**+0.4**
	1.2nm,0.9s,mb3.9,baz=97,slow=9.9,SNR=6.7						
ZALV	**Zalesovo Beam**	**60.94**	**326**	P	**P**	**22 15 06.5**	**+0.2**
	0.4nm,0.4s,mb3.8,baz=121,slow=8.1,SNR=3.9						
KURK	**Kurchatov**	**63.61**	**321**	*e*P	**P**	**22 15 24.2**	**0.0**
	5.4nm,1.0s,mb4.3						
MCK	**McKinley**	**70.25**	**26**	P	**P**	**22 16 11.5**	**+5.4**
YKA	**Yellowknife Ar**	**85.71**	**27**	P	**P**	**22 17 31.6**	**0.0**
YKA				LR	LR	22 52 50.0	
YKA	**Yellowknife Ar**	**85.71**	**27**	P	**P**	**22 17 31.5**	**-0.1**
	0.6nm,0.7s,mb3.7,baz=291,slow=5.3,SNR=7.9						
YKA				LR	LR	22 52 50.0	
	comp=Z,33nm,20.3s,baz=195,slow=34						
FINES	**FINESS Array B**	**91.09**	**334**	P	**P**	**22 17 55.4**	**-1.8**
	0.4nm,0.4s,mb3.9,baz=83,slow=6.0,SNR=5.6						
NLU	**North Lily Min**	**94.59**	**48**	*e*P	**P**	**22 18 14.8**	**+0.9**
NOA	**NORSAR Array B**	**97.23**	**338**	LR	LR	23 04 50.8	
	comp=Z,25nm,19.9s,baz=30,slow=37						
MNTX	**Cornudas Mount**	**102.66**	**53**	*e*Pdif	Pdif	22 18 52.5	+2.8
LPAZ	**La Paz**	**151.03**	**102**	PKPbc	PKPbc	22 24 47.2	+0.9
	3.4nm,0.6s,baz=275,slow=3.3,SNR=14						

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*NEIC **08** 22:14:59.8, 3073S×7126W, h43^{km}, MD4.0(GUC), After GUC.*

GUC 08 22:14:59.8±0.9**, 3073S×7126W, h43**^{km}±2^{km}**, MD4.0, ML3.6, 7C-7D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OVCH	**Ovalle**	**0.14**	**21**	⇑*i*P	Pn	22 15 06.9	-0.1
OVCH				*i* S	Sn	22 15 12.8	+0.9
OVCH	**Ovalle**	**0.14**	**21**	⇑*i*P	Pn	22 15 06.9	-0.1
OVCH				*i* S	Sn	22 15 12.8	+0.9
OVCH				AML	AML	22 15 13.4	
	comp=N,15µm,0.2s						
CMCH	**Combarbala**	**0.49**	**153**	⇑*i*P	Pn	22 15 10.5	0.0
CMCH				*i* S	Sn	22 15 19.2	+1.0
CMCH	**Combarbala**	**0.49**	**153**	⇑*i*P	Pn	22 15 10.5	0.0
CMCH				*i* S	Sn	22 15 19.2	+1.0
CMCH				AML	AML	22 15 20.7	
	comp=E,21µm,0.6s						
TLL	**Tololo Astrono**	**0.69**	**35**	⇓*i*P	Pn	22 15 13.8	+0.7
TLL				*i* S	Sn	22 15 24.7	+2.0
TLL	**Tololo Astrono**	**0.69**	**35**	⇓*i*P	Pn	22 15 13.8	+0.7
TLL				*i* S	Sn	22 15 24.7	+2.0
TLL				AML	AML	22 15 26.6	
	comp=N,2µm,0.4s						
CHNG	**Los Chungos**	**1.16**	**190**	⇓*i*P	Pn	22 15 08.3	-11
CHNG				*i* S	Sn	22 15 23.2	-11
CHNG				AML	AML	22 15 26.3	
	comp=N,457nm,0.5s						
PTCH	**Petorca**	**1.55**	**170**	⇓*i*P	Pn	22 15 25.4	+0.5
PTCH				*i* S	Sn	22 15 45.9	+2.1
PTCH	**Petorca**	**1.55**	**170**	⇓*i*P	Pn	22 15 25.4	+0.5
PTCH				*i* S	Sn	22 15 45.9	+2.1
PTCH				AML	AML	22 15 47.1	
	comp=N,1µm,0.2s						
LCO	**Las Campanas**	**1.78**	**16**	*e*Pn	Pn	22 15 28.6	+0.5
LCO				*e*Sn	Sn	22 15 50.7	+1.2
VACH	**Vallenar**	**2.19**	**12**	⇑*i*P	Pn	22 15 34.8	+1.1
VACH				*i* S	Sn	22 16 00.9	+1.2
VACH	**Vallenar**	**2.19**	**12**	⇑*i*P	Pn	22 15 34.8	+1.1
VACH				*i* S	Sn	22 16 00.9	+1.2
VACH				AML	AML	22 16 13.9	
	comp=N,2µm,0.5s						
FCH	**Farellones**	**2.71**	**163**	⇓*i*P	Pn	22 15 43.2	+2.3
FCH				AML	AML	22 16 24.2	
	comp=E,193nm,0.2s						
RCDM	**Rinconada Maip**	**2.77**	**172**	*e*P	Pn	22 15 42.3	+0.6
RCDM				*i* S	Sn	22 16 15.2	+1.3
RCDM	**Rinconada Maip**	**2.77**	**172**	*e*P	Pn	22 15 42.3	+0.6
RCDM				*i* S	Sn	22 16 15.2	+1.3
RCDM				AMP		22 16 23.1	
	comp=E,223nm,0.1s						
TACH	**Talagante**	**2.92**	**175**	⇑*i*P	Pn	22 15 44.4	+0.6
TACH				*i* S	Sn	22 16 18.6	+1.0
CHCH	**Chadas Angostu**	**3.23**	**171**	⇓*i*P	Pn	22 15 49.1	+1.1

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*IDC **08** 22:41:38.2±0.8, 2101S×17403W, h0^{km}, mb4.4/10, mb1 4.5/11, mb1mx4.4/18, mbtmp4.4/11, ML4.4/1, MS3.9/9, Ms1 3.9/9, ms1mx3.6/25, Error ellipse: s-maj=30.9km s-min=18.5km az=129.0*

*BJI **08** 22:41:39.8, 2120S×17470W, h10^{km}, mB5.4, mb4.8, Msz4.2*

*ISCJB **08** 22:41:41.2±0.5, 212S±01×1739W±01, h33^{km}, mb4.6/18, MS3.9/8, Error ellipse: s-maj=20.1km s-min=10.0km az=139.5*

*NEIC **08** 22:41:44.8±0.5, 2115S×17473W, h10^{km}, mb4.9/9, Error ellipse: s-maj=32.4km s-min=15.5km az=152.0*

ISC 08 22:41:43.1±0.6**, 212S**±01×**1738W**±01**, h35**^{km}**, n111, σ1^{s}03**/38**, mb4.6**/18**, MS3.9**/8**, 21C-5D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**7.48**	**15**	*e*Pn	**Pn**	**22 43 20.9**	**-8.8**
AFI				*e*Sn	**Sn**	**22 44 33.0**	**-20**
AFI	**Afiamalu**	**7.48**	**15**	Pn	**Pn**	**22 43 20.0**	**-10**
	4.3nm,0.3s,baz=166,slow=17,SNR=4.1						
AFI				Sn	**Sn**	**22 44 36.1**	**-17**
	3.6nm,0.3s,baz=161,slow=22,SNR=2.5						
RAO	**Raoul Island**	**8.86**	**204**	LR	LR	22 46 36.6	
	comp=Z,299nm,20.6s,baz=87,slow=33						
RAR	**Rarotonga**	**13.09**	**93**	Pn	**Pn**	**22 44 39.9**	**-6.7**
RAR				Sn	**Sn**	**22 46 53.1**	**-18**
RAR				LR	LR	22 49 07.1	
RAR	**Rarotonga**	**13.09**	**93**	Pn	**Pn**	**22 44 39.8**	**-6.7**
	3.8nm,0.3s,baz=242,slow=7.8,SNR=7.3						
RAR				Sn	**Sn**	**22 46 53.1**	**-18**
	1.6nm,0.3s,baz=320,slow=13,SNR=2.4						
RAR				LR	LR	22 49 07.1	
	comp=Z,625nm,18.2s,baz=260,slow=34						
DZM	**Mont Dzumac**	**18.39**	**264**	P	**Pn**	**22 45 56.7**	**+1.3**
	0.6nm,0.3s,baz=66,slow=20,SNR=11						
URZ	**Urewera**	**18.75**	**203**	P	**Pn**	**22 45 59.6**	**0.0**
	1.2nm,0.3s,baz=12,slow=13,SNR=4.2						
PPT	**Papeete**	**23.13**	**85**	LR	LR	22 54 13.1	
	comp=Z,353nm,18.8s,MS3.8,baz=269,slow=32						
RPZ	**Rata Peaks**	**25.77**	**206**	P	**P**	**22 47 10.7**	**+0.2**
	3.8nm,0.7s,mb4.0,baz=28,slow=21,SNR=2.9						
CTA	**Charters Tower**	**37.33**	**264**	*e*P	**P**	**22 48 52.9**	**+0.6**
	7.6nm,1.2s,mb4.4						
STKA	**Stephens Creek**	**41.06**	**245**	*e*P	**P**	**22 49 22.6**	**-0.7**
	3.3nm,0.9s,mb4.0						
STKA	**Stephens Creek**	**41.06**	**245**	*e*P	**P**	**22 49 22.2**	**-1.1**
STKA	**Stephens Creek**	**41.06**	**245**	P	**P**	**22 49 22.1**	**-1.3**
	4.0nm,0.8s,mb4.1,baz=84,slow=10,SNR=9.4						
WB2	**Warramunga Arr**	**48.38**	**262**	*e*P	**P**	**22 50 20.2**	**-1.7**
WRA	**Warramunga Arr**	**48.39**	**262**	P	**P**	**22 50 19.9**	**-2.1**
	3.3nm,0.8s,mb4.4,baz=98,slow=8.5,SNR=35						
KAKA	**Kakadu**	**51.91**	**270**	*e*P	**P**	**22 50 49.1**	**+0.4**
	34nm,1.5s,mb5.1						
FORT	**Forrest**	**52.64**	**247**	*e*P	**P**	**22 50 53.0**	**-0.9**
	16nm,0.6s,mb5.1						
GUMO	**Guam**	**53.30**	**307**	LR	LR	23 09 34.3	
	comp=Z,84nm,20.6s,MS3.8,baz=108,slow=32						
FITZ	**Fitzroy Crossi**	**56.82**	**262**	*e*P	**P**	**22 51 23.5**	**-0.9**
	7.6nm,1.3s,mb4.6						
FITZ	**Fitzroy Crossi**	**56.82**	**262**	P	**P**	**22 51 23.4**	**-1.0**
	3.0nm,1.0s,mb4.3,baz=132,slow=12,SNR=4.8						
KLBR	**Kellerberrin**	**61.32**	**245**	*e*P	**P**	**22 51 56.1**	**+0.7**
	10nm,0.6s,mb5.1						
NWAO	**Narrogin (SRO)**	**61.57**	**243**	P	**P**	**22 51 57.6**	**+0.5**
	4.0nm,0.5s,mb4.8,baz=145,slow=12,SNR=2.6						
MUN	**Mundaring**	**62.57**	**244**	*e*P	**P**	**22 52 05.0**	**+1.2**
CBIJ	**Chichi jima**	**64.17**	**317**	LR	LR	23 15 47.7	
	comp=Z,41nm,18.3s,MS3.6,baz=334,slow=32						
QSPA	**South Pole Qui**	**68.90**	**180**	*e*P	**P**	**22 52 48.0**	**+4.2**
	12nm,1.1s,mb4.8						
MJAR	**Matsushiro Arr**	**73.13**	**321**	P	**P**	**22 53 08.9**	**-1.1**
	3.3nm,0.6s,mb4.5,baz=157,slow=6.4,SNR=11						
JNU	**Nakatsue**	**75.50**	**315**	LR	LR	23 22 02.2	
	comp=Z,38nm,18.6s,MS3.7,baz=296,slow=32						
MTUM	**Tungsten Hills**	**78.05**	**42**	*e*P	**P**	**22 53 39.4**	**+1.3**
NVAR	**Mina Array Bea**	**78.88**	**41**	P	**P**	**22 53 43.7**	**+0.9**
NVAR	**Mina Array Bea**	**78.88**	**41**	P	**P**	**22 53 43.7**	**+0.9**
	4.7nm,0.9s,mb4.4,baz=211,slow=6.8,SNR=14						
KSRS	**Korea Array**	**80.03**	**317**	P	**P**	**22 53 50.2**	**+1.1**
	2.5nm,1.0s,mb4.1,baz=140,slow=5.9,SNR=5.8						
KSRS				LR	LR	23 23 48.8	
	comp=Z,50nm,18.6s,MS3.9,baz=143,slow=32						
WVOR	**Wild Horse Val**	**81.19**	**38**	*e*P	**P**	**22 53 55.8**	**+0.7**
	5.7nm,1.1s,mb4.4						
MAW	**Mawson**	**82.23**	**199**	LR	LR	23 31 31.0	
	comp=Z,161nm,18.3s,MS4.4,baz=244,slow=36						
TXAR	**Lajitas Array**	**84.15**	**56**	LR	LR	23 24 50.0	
	comp=Z,108nm,19.6s,MS4.2,baz=25,slow=31						
HLID	**Hailey**	**84.33**	**39**	*e*P	**P**	**22 54 10.7**	**-0.7**
	8.7nm,1.1s,mb4.8						
MCMT	**McKenzie Canyo**	**85.98**	**39**	*e*P	**P**	**22 54 19.6**	**0.0**
PSI	**Prapat**	**88.46**	**274**	P	**P**	**22 54 32.5**	**0.0**
	6.1nm,0.8s,mb4.9,baz=196,slow=5.7,SNR=8.6						
DAWY	**Dawson**	**89.08**	**14**	*e*P	**P**	**22 54 32.7**	**-1.3**
KMI	**Kunming**	**93.17**	**296**	P	**P**	**22 54 55.8**	**+1.8**
KMI				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.8						
KMI				LR	LR		
	comp=Z,44nm,29.0s,MS3.8						
KMI	**Kunming**	**93.17**	**296**	P	**P**	**22 54 55.8**	**+1.8**
	comp=Z,5.0nm,1.2s,mb4.8						
KMI				LR	LR		
	comp=Z,40nm,29.0s,MS3.7						
YKA	**Yellowknife Ar**	**95.52**	**24**	P	**P**	**22 55 03.0**	**-0.9**
	comp=Z,0.5nm,0.6s,mb4.1,baz=240,slow=4.3,SNR=9.3						
MKAR	**Makanchi Array**	**114.52**	**313**	PKP	PKiKP	23 00 17.9	-1.5
MKAR	**Makanchi Array**	**114.52**	**313**	PKP	PKiKP	23 00 17.9	-1.5
	comp=Z,0.7nm,0.8s,baz=62,slow=2.8,SNR=6.6						
AKASG	**Malin Array Be**	**145.42**	**334**	PKPbc	PKPbc	23 01 16.6	-0.5
AKASG	**Malin Array Be**	**145.42**	**334**	PKPbc	PKPbc	23 01 16.6	-0.5
	comp=Z,4.9nm,0.6s,baz=39,slow=4.1,SNR=50						
AKBB	**Malin Array Si**	**145.42**	**334**	*e*PKPdf	PKPdf	23 01 16.8	-0.4
KIEV	**Kiev**	**145.43**	**334**	*e*PKPdf	PKPdf	23 01 16.4	-0.7
MALT	**Malatya**	**147.43**	**309**	⇑P	PKPbc	23 01 25.8	+2.3
MALT	**Malatya**	**147.43**	**309**	⇑*i*P	PKPbc	23 01 25.8	+2.3
OJC	**Ojcow**	**149.09**	**343**	*e*P	PKPbc	23 01 27.9	+0.5
STHS	**Stebnicka Huta**	**149.38**	**341**	*e*P	PKPdf	23 01 26.6	+2.8
STHS	**Stebnicka Huta**	**149.38**	**341**	*e*PKP	PKPdf	23 01 26.6	+2.8
CLL	**Collm**	**149.46**	**352**	*i* P	PKPbc	23 01 28.6	+0.3
CLL				*i*		23 01 33.2	
CLL	**Collm**	**149.46**	**352**	*i* PKPbc	PKPbc	23 01 28.6	+0.3
	comp=Z,12nm,1.0s						
CLL				*i* pPKPbc	pPKPbc	23 01 33.2	-6.5
BURAR	**Bucovina Array**	**149.48**	**334**	⇑P	PKPbc	23 01 29.9	+1.4
BURAR				⇓P		23 01 31.9	
BURAR				⇑P		23 01 32.3	
BURAR	**Bucovina Array**	**149.48**	**334**	⇑*i*P	PKPbc	23 01 29.9	+1.4
NIE	**Niedzica**	**149.66**	**342**	*e*P	PKPbc	23 01 30.6	+1.7
UPC	**Upice**	**149.72**	**348**	*e*PKP	PKPbc	23 01 30.8	+1.8
UPC	**Upice**	**149.72**	**348**	*e*PKP	PKPbc	23 01 30.8	+1.8
BRG	**Berggiesshubel**	**149.74**	**350**	*i* PKP	PKPbc	23 01 30.5	+1.5
BRG	**Berggiesshubel**	**149.74**	**350**	*i* PKP	PKPbc	23 01 30.5	+1.5
	comp=Z,9.5nm,1.2s						
CRVS	**Cervenica-Dubn**	**149.76**	**340**	*e*P	PKPbc	23 01 30.4	+1.3
CRVS	**Cervenica-Dubn**	**149.76**	**340**	*e*PKP	PKPbc	23 01 30.4	+1.3
DPC	**Dobruska-Polom**	**149.81**	**347**	*e*PKP	PKPbc	23 01 30.2	+1.0
DPC	**Dobruska-Polom**	**149.81**	**347**	*e*PKP	PKPbc	23 01 30.2	+1.0
PVCC	**Panska Ves**	**149.97**	**349**	*e*PKP	PKPbc	23 01 30.9	+1.3
PVCC	**Panska Ves**	**149.97**	**349**	*e*PKP	PKPbc	23 01 30.9	+1.3
MORC	**Moravsky Berou**	**150.07**	**345**	⇑P	PKPbc	23 01 31.2	+1.4
MORC	**Moravsky Berou**	**150.07**	**345**	⇑*i*P	PKPbc	23 01 31.2	+1.3
BRTR	**Keskin Array B**	**150.16**	**314**	PKPbc	PKPbc	23 01 30.9	+0.6
BRTR	**Keskin Array B**	**150.16**	**314**	PKPbc	PKPbc	23 01 30.9	+0.6
	comp=Z,4.3nm,0.9s,baz=93,slow=4.8,SNR=18						
VRI	**Vrincioaia**	**150.18**	**330**	⇓P	PKPbc	23 01 31.3	+1.1
VRI	**Vrincioaia**	**150.18**	**330**	⇓*i*P	PKPbc	23 01 31.3	+1.0
MOX	**Moxa**	**150.28**	**353**	*e*P	PKPdf	23 01 28.7	+3.5
	comp=Z,21nm,1.7s						
KECS	**Kecovo**	**150.44**	**341**	*e*P	PKPbc	23 01 32.4	+1.6
KECS				*e*		23 01 48.4	
KECS	**Kecovo**	**150.44**	**341**	*e*PKP	PKPbc	23 01 32.4	+1.6
KECS				*e*		23 01 48.4	
PRU	**Pruhonice**	**150.50**	**349**	*e*PKP	PKPbc	23 01 31.1	+0.2
PRU	**Pruhonice**	**150.50**	**349**	*e*PKP	PKPbc	23 01 31.1	+0.2
NKC	**Novy Kostel**	**150.58**	**352**	*e*PKP	PKPbc	23 01 31.9	+0.8
NKC	**Novy Kostel**	**150.58**	**352**	*e*PKP	PKPbc	23 01 31.9	+0.8
ANTO	**Ankara**	**150.64**	**315**	PKPdf	PKPdf	23 01 28.4	+2.4
VRAC	**Vranov**	**150.73**	**346**	⇑P	PKPbc	23 01 32.5	+1.1
VRAC	**Vranov**	**150.73**	**346**	⇑*i*P	PKPbc	23 01 32.5	+1.1
MLR	**Muntele Rosu**	**150.82**	**331**	⇑P	PKPbc	23 01 32.7	+0.9
MLR	**Muntele Rosu**	**150.82**	**331**	⇑*i*P	PKPbc	23 01 32.7	+0.9
VYHS	**Vyhne**	**150.92**	**343**	*e*P	PKPbc	23 01 33.1	+1.2
VYHS				*e*		23 01 45.1	
VYHS	**Vyhne**	**150.92**	**343**	*e*PKP	PKPbc	23 01 33.1	+1.2
VYHS				*e*		23 01 45.1	
TREC	**Trest**	**150.98**	**347**	*e*PKP	PKPbc	23 01 33.1	+1.1
SNX	**Sinaia**	**151.12**	**331**	⇑P	PKPdf	23 01 24.0	-2.6
SNX	**Sinaia**	**151.12**	**331**	⇑*i*P	PKPdf	23 01 24.0	-2.6
PSZ	**Piszkesteto**	**151.12**	**341**	⇑P	PKPbc	23 01 32.1	-0.3
PSZ	**Piszkesteto**	**151.12**	**341**	⇑*i*P	PKPbc	23 01 32.1	-0.3
DRGR		**151.13**	**336**	⇑P	PKPbc	23 01 33.6	+1.1
DRGR		**151.13**	**336**	⇑*i*P	PKPbc	23 01 33.6	+1.1
GRA1	**Grafenberg Arr**	**151.27**	**353**	*e*PKP	PKPbc	23 01 33.7	+1.0
GRF	**Grafenberg Arr**	**151.27**	**353**	*e*PKP	PKPbc	23 01 33.7	+1.0
VOIR		**151.27**	**332**	⇑P	PKPbc	23 01 33.0	+0.2
VOIR		**151.27**	**332**	⇑*i*P	PKPbc	23 01 33.0	+0.2
MODS	**Modra-Piesok**	**151.44**	**344**	*e*P	PKPbc	23 01 34.1	+1.0
MODS				*e*		23 01 47.1	
MODS	**Modra-Piesok**	**151.44**	**344**	*e*PKP	PKPbc	23 01 34.1	+1.0
MODS				*e*		23 01 47.1	
KHC	**Kasperske Hory**	**151.49**	**350**	*e*PKP	PKPbc	23 01 34.3	+1.1
KHC	**Kasperske Hory**	**151.49**	**350**	*e*PKP	PKPbc	23 01 34.3	+1.1
ZST	**Bratislava**	**151.65**	**345**	*e*P	PKPbc	23 01 32.7	-0.9
ZST	**Bratislava**	**151.65**	**345**	*e*PKP	PKPbc	23 01 32.7	-0.9
GERES	**GERESS Array B**	**151.75**	**349**	PKPbc	PKPbc	23 01 34.2	+0.3
GERES	**GERESS Array B**	**151.75**	**349**	PKPbc	PKPbc	23 01 34.2	+0.3
	comp=Z,1.9nm,0.7s,baz=20,slow=3.1,SNR=13						
BZS	**Buzias**	**152.53**	**336**	⇓P	PKPbc	23 01 36.1	+0.4
BZS	**Buzias**	**152.53**	**336**	⇓*i*P	PKPbc	23 01 36.1	+0.4
PKSM	**Moragy**	**153.03**	**341**	⇑P	PKPbc	23 01 37.5	+0.7
PKSM	**Moragy**	**153.03**	**341**	⇑*i*P	PKPbc	23 01 37.5	+0.7
TORD	**Torodi Ar. Bea**	**170.93**	**151**	PKPab	PKPab	23 03 09.9	+3.0
	comp=Z,1.1nm,1.0s,baz=199,slow=2.0,SNR=3.7						

IDC 08 22:45:53.3±3.6**, 496S×10309E, h0**^{km}**, mb3.6**/4**, mb1 3.7**/4**, mb1mx3.5**/18**, mbtmp3.6**/4**, Error ellipse: s-maj=152.3km s-min=27.7km az=52.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**33.86**	**119**	P	P	22 52 37.7	-0.1
	0.1nm,0.3s,baz=305,slow=9.2,SNR=3.2						
SONM	**Songino Array**	**52.65**	**3**	P	P	22 55 11.0	+1.9
	0.5nm,1.0s,baz=185,slow=8.5,SNR=5.4						
MKAR	**Makanchi Array**	**54.72**	**343**	P	P	22 55 23.8	-0.6
	0.3nm,0.4s,baz=152,slow=8.9,SNR=12						
ZALV	**Zalesovo Beam**	**60.66**	**348**	P	P	22 56 05.5	-0.5
	0.7nm,0.5s,baz=165,slow=6.0,SNR=5.7						
TXAR	**Lajitas Array**	**144.95**	**43**	PKP	PKPdf	23 05 32.3	-1.0
	0.1nm,0.5s,baz=249,slow=1.1,SNR=4.1						

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*IDC **08** 22:51:49.4±3.0, 305N×12440E, h354^{km}±32^{km}, mb3.7/7, mb1 3.9/7, mb1mx3.5/19, mbtmp3.7/7, Error ellipse: s-maj=64.9km s-min=11.8km az=68.0*

*ISCJB **08** 22:51:52.7±5.4, 29N±02×1243E±02, h413^{km}±68^{km}, mb4.2/16, Error ellipse: s-maj=44.7km s-min=14.5km az=144.9*

*BJI **08** 22:51:52.3, 300N×12440E, h402^{km}, mb4.2*

*NEIC **08** 22:51:53.4±4.4, 299N×12443E, h403^{km}±55^{km}, mb4.3/6, Error ellipse: s-maj=57.2km s-min=13.5km az=66.0*

ISC 08 22:51:52.5±4.7**, 29N**±02×**1242E**±02**, h390**^{km}±59^{km}**, n26, σ0^{s}72**/26**, mb4.2**/16**, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**17.53**	**152**	*e*P	**P**	**22 55 32.3**	**-0.3**
	12nm,0.6s						
FITZ	**Fitzroy Crossi**	**20.91**	**176**	*e*P	**P**	**22 56 06.7**	**+0.7**
	8.2nm,0.3s						
FITZ	**Fitzroy Crossi**	**20.91**	**176**	P	**P**	**22 56 06.8**	**+0.8**
	4.2nm,0.3s,baz=10,slow=8.3,SNR=33						
WRA	**Warramunga Arr**	**24.78**	**157**	P	**P**	**22 56 39.6**	**-1.4**
	9.3nm,0.5s,mb4.5,baz=338,slow=9.8,SNR=98						
WB2	**Warramunga Arr**	**24.78**	**157**	*e*P	**P**	**22 56 40.7**	**-0.3**
LZH	**Lanzhou**	**38.02**	**333**	*e*P	**P**	**22 58 36.0**	**+0.9**
LZH				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.2						
STKA	**Stephens Creek**	**38.32**	**156**	*e*P	**P**	**22 58 39.3**	**+1.7**
	comp=Z,4.9nm,0.7s,mb4.0						
STKA	**Stephens Creek**	**38.32**	**156**	P	**P**	**22 58 39.0**	**+1.4**
	comp=Z,6.7nm,0.6s,mb4.1,baz=330,slow=8.6,SNR=19						
LSA	**Lhasa**	**41.15**	**314**	P	**P**	**22 59 02.6**	**+1.9**
LSA	**Lhasa**	**41.15**	**314**	*e*P	**P**	**22 59 02.1**	**+1.5**
	comp=Z,4.8nm,0.6s,mb4.0						
TAPN	**Taplejung**	**42.52**	**308**	*e*P	**P**	**22 59 11.1**	**-0.6**
ODAN	**Odare**	**42.54**	**308**	*e*P	**P**	**22 59 11.8**	**-0.1**
	comp=Z,11nm,0.7s,mb4.3						
GTA	**Gaotai**	**42.58**	**332**	*e*P	**P**	**22 59 12.4**	**+0.5**
GTA				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb3.8						
JIRN	**Jiri**	**43.85**	**308**	*e*P	**P**	**22 59 22.3**	**+0.1**
GUN	**Gumba**	**44.21**	**308**	*e*P	**P**	**22 59 25.3**	**+0.2**
	comp=Z,32nm,0.7s,mb4.8						
KKN	**Kakani**	**44.63**	**308**	*e*P	**P**	**22 59 28.5**	**+0.2**
	comp=Z,16nm,0.8s,mb4.4						
DMN	**Daman**	**44.69**	**307**	*e*P	**P**	**22 59 28.0**	**-0.8**
	comp=Z,13nm,0.7s,mb4.4						
GKN	**Gorkha**	**45.24**	**308**	*e*P	**P**	**22 59 32.4**	**-0.6**
	comp=Z,12nm,0.8s,mb4.3						
KOLN	**Koldanda**	**45.96**	**307**	*e*P	**P**	**22 59 38.2**	**-0.4**
	comp=Z,30nm,0.7s,mb4.8						
SONM	**Songino Array**	**47.34**	**344**	P	**P**	**22 59 48.9**	**+0.1**
	comp=Z,1.1nm,0.7s,mb3.3,baz=155,slow=9.2,SNR=9.7						
MK31	**Makanchi Array**	**56.84**	**327**	*e*P	**P**	**23 00 57.5**	**-0.4**
MK31				*e*PcP	PcP	23 01 48.7	+0.3
MKAR	**Makanchi Array**	**56.84**	**327**	P	**P**	**23 00 57.9**	**0.0**
	comp=Z,5.0nm,0.5s,mb4.1,baz=119,slow=8.0,SNR=88						
MKAR				PcP	PcP	23 01 48.7	+0.3
	comp=Z,0.4nm,0.6s,baz=122,slow=4.4,SNR=2.4						
MKAR				ScP	ScP	23 05 13.4	+3.5
	comp=Z,0.2nm,0.8s,baz=108,slow=3.9,SNR=4.9						
ZALV	**Zalesovo Beam**	**60.22**	**334**	P	**P**	**23 01 19.9**	**-0.9**
	comp=Z,1.1nm,0.4s,mb3.7,baz=132,slow=6.4,SNR=8.0						
KURK	**Kurchatov**	**61.12**	**329**	*e*P	**P**	**23 01 26.2**	**-0.7**
	comp=Z,19nm,0.8s,mb4.6						
AKTK	**Aktyubinsk**	**72.76**	**322**	P	**P**	**23 02 39.8**	**+0.4**
AKTO	**Aktyubinsk**	**72.76**	**322**	P	**P**	**23 02 39.8**	**+0.4**
	comp=Z,2.8nm,0.4s,mb4.2,baz=108,slow=7.1,SNR=17						

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*ISCJB **08** 23:51:46.8±3.3, 1508S±008×759W±01, h3^{km}±21^{km}, mb4.3/11, MS4.2/7, Error ellipse: s-maj=23.5km s-min=8.7km az=152.4*

*IDC **08** 23:51:48.1±0.9, 1505S×7567W, h0^{km}, mb4.2/9, mb1 4.3/13, mb1mx4.3/17, mbtmp4.1/13, ML3.4/3, MS4.0/10, Ms1 4.0/10, ms1mx3.8/18, Error ellipse: s-maj=39.4km s-min=16.1km az=57.0*

*NEIC **08** 23:51:53.1±0.5, 1518S×7572W, h35^{km}, mb4.9/4, Error ellipse: s-maj=19.2km s-min=8.4km az=63.0*

ISC 08 23:51:50.2±3.1**, 1497S**±008×**7557W**±009**, h11**^{km}±20^{km}**, n46, σ1^{s}14**/38**, mb4.3**/11**, MS4.2**/7**, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	**Nana**	**3.21**	**337**	Pn	**Pn**	**23 52 39.2**	**-1.4**
NNA				Sn	**Sn**	**23 53 18.6**	**-0.3**
NNA				Lg		23 53 31.2	
NNA				LR	LR	23 54 14.1	
NNA	**Nana**	**3.21**	**337**	Pn	**Pn**	**23 52 39.2**	**-1.4**
	1.7nm,0.3s,baz=167,slow=15,SNR=4.2						
NNA				Sn	**Sn**	**23 53 18.6**	**-0.3**
	76nm,0.3s,baz=217,slow=16,SNR=4.7						
NNA				Lg		23 53 31.2	
	237nm,0.3s,baz=213,slow=21,SNR=8.9						
NNA				LR	LR	23 54 14.1	
	comp=Z,2µm,18.4s,baz=3.8,slow=45						
ARE	**Arequipa**	**4.20**	**111**	*e*P	**Pn**	**23 52 55.0**	**+0.8**
ARE				*e*S	**Sn**	**23 53 42.0**	**-1.3**
LPAZ	**La Paz**	**7.29**	**101**	Pn	**Pn**	**23 53 42.9**	**+6.3**
LPAZ				Sn	**Sn**	**23 55 12.4**	**+13**
LPAZ				Lg		23 55 52.6	
LPAZ				LR	LR	23 56 00.1	
LPAZ	**La Paz**	**7.29**	**101**	Pn	**Pn**	**23 53 42.9**	**+6.3**
	3.5nm,0.3s,baz=281,slow=10,SNR=78						
LPAZ				Sn	**Sn**	**23 55 12.4**	**+13**
	baz=347,slow=19,SNR=1.1						
LPAZ				Lg		23 55 52.6	
	baz=37,slow=20,SNR=1.1						
LPAZ				LR	LR	23 56 00.1	
	comp=Z,141nm,21.4s,baz=281,slow=34						
ATAH	**Atahualpa**	**8.39**	**340**	Pn	**Pn**	**23 53 51.5**	**-0.3**
	0.4nm,0.3s,baz=88,slow=15,SNR=1.7						
ATAH				Sn	**Sn**	**23 55 23.6**	**-2.9**
	baz=140,slow=16,SNR=2.4						
ATAH				Lg		23 56 01.7	
	4.5nm,0.3s,baz=287,slow=15,SNR=4.8						
ATAH				LR	LR	23 56 26.4	
	comp=Z,275nm,21.0s,baz=190,slow=34						
SIV	**San Ignacio**	**14.02**	**96**	Pn	**Pn**	**23 55 07.6**	**-1.2**
SIV	**San Ignacio**	**14.02**	**96**	Pn	**Pn**	**23 55 07.6**	**-1.2**
	0.3nm,0.3s,baz=271,slow=13,SNR=20						
LCO	**Las Campanas**	**14.68**	**163**	*e*Pn	**Pn**	**23 55 18.1**	**+0.3**
	12nm,0.9s						
OTAV	**Otavalo**	**15.38**	**349**	*e*Pn	**Pn**	**23 55 31.7**	**+4.5**
	14nm,0.8s						
CFAA	**Coronel Fontan**	**17.86**	**159**	P	**Pn**	**23 55 57.4**	**-1.3**
CFAA	**Coronel Fontan**	**17.86**	**159**	P	**Pn**	**23 55 57.4**	**-1.3**
	baz=334,slow=9.8,SNR=8.8						
ROSC	**El Rosal**	**19.74**	**4**	*e*P	**Pn**	**23 56 24.2**	**+2.7**
ROSC	**El Rosal**	**19.74**	**4**	P	**Pn**	**23 56 24.3**	**+2.8**
	1.4nm,0.3s,baz=268,slow=19,SNR=2.5						
JTS	**JuntasAbangare**	**26.77**	**339**	LR	LR	00 07 13.6	
	comp=Z,364nm,19.7s,MS3.9,baz=165,slow=34						
TXAR	**Lajitas Array**	**51.73**	**328**	P	**P**	**00 00 57.6**	**0.0**
	0.9nm,0.6s,mb3.9,baz=148,slow=8.7,SNR=8.1						
RWWY	**Rawlins**	**63.50**	**334**	P	**P**	**00 02 24.2**	**+3.9**
	26nm,0.4s						
PDAR	**Pinedale Array**	**65.39**	**333**	P	**P**	**00 02 34.2**	**+1.6**
	0.6nm,0.6s,mb3.8,baz=126,slow=10,SNR=4.3						
SPUT	**South Promonto**	**65.57**	**330**	P	**P**	**00 02 29.3**	**-4.5**
REDW	**Red Top Meadow**	**66.43**	**333**	*e*P	**P**	**00 02 39.9**	**+0.6**
	3.9nm,0.3s,mb4.9						
NVAR	**Mina Array Bea**	**66.50**	**324**	P	**P**	**00 02 39.9**	**0.0**
	0.6nm,0.5s,mb3.9,baz=106,slow=6.7,SNR=4.3						
LOHW	**Long Hollow**	**66.52**	**333**	*e*P	**P**	**00 02 44.0**	**+4.1**
	5.5nm,0.6s,mb4.8						
ULM	**Lac du Bonnet**	**67.35**	**346**	P	**P**	**00 02 43.8**	**-1.3**
	2.7nm,0.8s,mb4.3,baz=174,slow=11,SNR=5.4						
ULM				LR	LR	00 35 33.9	
	comp=Z,118nm,18.3s,MS4.1,baz=55,slow=39						
MCMT	**McKenzie Canyo**	**68.47**	**332**	P	**P**	**00 02 56.8**	**+4.5**
SCHQ	**Schefferville**	**69.92**	**5**	P	**P**	**00 03 01.2**	**+0.2**
	3.5nm,1.0s,mb4.3,baz=131,slow=18,SNR=3.0						
EDM	**Edmonton**	**75.27**	**338**	*e*P	**P**	**00 03 32.3**	**-0.6**
TOA0	**Torodi Ar. Sit**	**81.41**	**74**	*e*P	**P**	**00 04 08.8**	**+1.1**
TORD	**Torodi Ar. Bea**	**81.41**	**74**	P	**P**	**00 04 08.6**	**+0.9**
TORD				LR	LR	00 38 43.0	
TORD	**Torodi Ar. Bea**	**81.41**	**74**	P	**P**	**00 04 08.6**	**+0.9**
	14nm,0.8s,mb5.0,baz=259,slow=4.7,SNR=82						
TORD				LR	LR	00 38 43.0	
	comp=Z,272nm,20.2s,MS4.6,baz=150,slow=34						
YKA	**Yellowknife Ar**	**83.04**	**343**	P	**P**	**00 04 14.8**	**-0.4**
	1.7nm,0.6s,mb4.2,baz=140,slow=5.3,SNR=28						
YKA				LR	LR	00 44 60.0	
	comp=Z,73nm,19.3s,MS4.1,baz=205,slow=38						
ESDC	**Sonseca Array**	**85.87**	**47**	P	**P**	**00 04 31.7**	**+1.6**
	1.6nm,0.9s,mb4.2,baz=260,slow=5.4,SNR=3.6						
ESDC				LR	LR	00 43 20.8	
	comp=Z,114nm,19.4s,MS4.3,baz=250,slow=36						
BOSA	**Boshof**	**92.14**	**120**	P	**P**	**00 04 59.5**	**-0.7**
BOSA	**Boshof**	**92.14**	**120**	P	**P**	**00 04 59.5**	**-0.7**
	1.3nm,0.9s,mb4.3,baz=256,slow=4.2,SNR=3.3						
AFI	**Afiamalu**	**92.30**	**255**	LR	LR	00 37 16.4	
	comp=Z,161nm,18.6s,MS4.5,baz=16,slow=30						
KEST	**Kesra**	**94.57**	**54**	LR	LR	00 48 22.1	
	comp=Z,62nm,20.7s,MS4.1,baz=326,slow=36						
WRA	**Warramunga Arr**	**134.51**	**221**	PKP	PKPdf	00 11 08.3	-1.1
WRA	**Warramunga Arr**	**134.51**	**221**	PKP	PKPdf	00 11 08.3	-1.1
	1.1nm,0.6s,baz=140,slow=1.7,SNR=10.0						
ZALV	**Zalesovo Beam**	**138.18**	**17**	PKP	PKPdf	00 11 15.5	+0.3
ZALV	**Zalesovo Beam**	**138.18**	**17**	PKP	PKPdf	00 11 15.5	+0.3
	4.1nm,0.9s,baz=299,slow=3.1,SNR=12						
MK31	**Makanchi Array**	**143.29**	**26**	*e*PKPdf	PKPdf	00 11 22.1	-2.5
MKAR	**Makanchi Array**	**143.29**	**26**	PKP	PKPdf	00 11 21.4	-3.2
MKAR				PKP	PKPdf	00 11 23.5	-1.1

MKAR	Makanchi Array	143.29	26	PKhKP		00 11 21.4	
	1.5nm,0.8s,baz=318,slow=1.6,SNR=7.4						
MKAR				PKP	PKPdf	00 11 23.5	-1.1
	1.5nm,0.8s,baz=318,slow=1.9,SNR=11						
ULN	Ulaanbaatar	147.13	357	*e*PKPdf	PKPdf	00 11 31.5	+0.3
SONM	Songino Array	147.19	358	PKP	PKPdf	00 11 30.5	-0.7
SONM				PKPbc	PKPbc	00 11 33.8	+0.3
SONM	Songino Array	147.19	358	PKP	PKPdf	00 11 30.5	-0.7
	5.2nm,0.8s,baz=284,slow=1.3,SNR=40						
SONM				PKPbc	PKPbc	00 11 33.8	+0.3
	5.3nm,0.9s,baz=343,slow=1.5,SNR=37						
KSRS	Korea Array	149.41	321	PKP	PKPdf	00 11 34.5	-0.7
	1.5nm,0.8s,baz=138,slow=3.0,SNR=2.7						
KSRS				PKPbc	PKPbc	00 11 39.3	-0.3
	0.5nm,0.3s,baz=73,slow=4.2,SNR=3.3						

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*IDC **08** 23:55:41.3±0.8, 1.01N×126.03E, h0^{km}, mb4.1/8, mb1 4.2/9, mb1mx4.1/18, mbtmp4.1/9, ML3.8/1, MS4.1/1, Ms1 4.1/1, ms1mx2.8/23, Error ellipse: s-maj=34.0km s-min=15.8km az=76.0*

*NEIC **08** 23:55:42.6±0.5, 1.07N×126.11E, h10^{km}, mb4.6/1, Error ellipse: s-maj=23.6km s-min=9.2km az=74.0*

*ISCJB **08** 23:55:44.1±0.6, 1.03N±0.08×126.0E±0.2, h33^{km}, mb4.1/8, Error ellipse: s-maj=24.5km s-min=9.8km az=167.1*

ISC 08 23:55:46.3±0.6, **1.01N**±0.08×**126.1E**±0.2, **h35**^{km}, **n21**, σ**0^{s}.91**/18, **mb4.1**/8, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	15.02	155	*e*P	Pn	23 59 23.3	+7.1
	14nm,0.6s						
FITZ	Fitzroy Crossi	19.00	181	P	Pn	00 00 05.0	-1.0
	0.2nm,0.3s,baz=7.0,slow=11,SNR=9.5						
WRA	Warramunga Arr	22.34	159	P	P	00 00 40.7	-0.6
	12nm,0.6s,mb4.5,baz=337,slow=11,SNR=84						
WB2	Warramunga Arr	22.35	159	*e*P	P	00 00 41.0	-0.3
PSI	Prapat	27.20	274	P	P	00 01 26.5	-0.6
PSI	Prapat	27.20	274	P	P	00 01 26.5	-0.6
	1.8nm,0.5s,mb3.9,baz=101,slow=10,SNR=5.6						
FORT	Forrest	31.67	177	*e*P	P	00 02 07.1	+0.6
KLBR	Kellerberrin	33.38	193	*e*P	P	00 02 22.9	+1.5
JHJ	Hachijo jima 2	34.43	21	LR	LR	00 14 50.1	
	comp=Z,323nm,19.5s,baz=62,slow=33						
STKA	Stephens Creek	35.86	157	*e*P	P	00 02 43.3	+0.4
STKA	Stephens Creek	35.86	157	P	P	00 02 43.4	+0.5
	9.0nm,0.8s,mb4.8,baz=326,slow=8.1,SNR=22						
KSRS	Korea Array	36.30	2	P	P	00 02 47.4	+0.8
	0.8nm,0.6s,mb3.8,baz=168,slow=10.0,SNR=3.7						
MJAR	Matsushiro Arr	37.09	16	P	P	00 02 52.6	-0.8
	0.5nm,0.3s,mb3.8,baz=188,slow=7.5,SNR=3.5						
HYB	Hyderabad	49.48	292	*e*P	P	00 04 38.5	+4.8
SONM	Songino Array	49.67	343	P	P	00 04 34.0	-0.6
	0.9nm,0.8s,mb3.9,baz=158,slow=7.7,SNR=8.3						
SONM				PcP	PcP	00 05 56.6	+1.0
	0.3nm,0.6s,baz=155,slow=6.0,SNR=2.6						
MK31	Makanchi Array	59.43	326	*e*P	P	00 05 45.2	-0.3
MKAR	Makanchi Array	59.43	326	P	P	00 05 44.7	-0.8
MKAR	Makanchi Array	59.43	326	P	P	00 05 44.7	-0.8
	1.5nm,0.6s,mb4.2,baz=121,slow=8.5,SNR=12						
ZALV	Zalesovo Beam	62.72	334	P	P	00 06 09.8	+2.2
	0.4nm,0.4s,mb3.9,baz=126,slow=7.3,SNR=3.2						
TORD	Torodi Ar. Bea	123.11	286	PKP	PKPdf	00 14 39.8	-0.5
TORD	Torodi Ar. Bea	123.11	286	PKP	PKPdf	00 14 39.8	-0.5
	0.4nm,0.8s,baz=102,slow=1.5,SNR=3.8						

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*IDC **08** 23:58:24.4±0.7, 0.92N×125.88E, h0^{km}, mb4.3/10, mb1 4.5/11, mb1mx4.3/18, mbtmp4.3/11, ML4.0/1, MS3.9/6, Ms1 3.9/6, ms1mx3.6/21, Error ellipse: s-maj=43.6km s-min=14.4km az=78.0*

*NEIC **08** 23:58:25.8±0.5, 0.90N×125.86E, h10^{km}, mb4.6/2, Error ellipse: s-maj=29.7km s-min=9.5km az=77.0*

*ISCJB **08** 23:58:27.3±0.5, 0.87N±0.08×125.8E±0.2, h33^{km}, mb4.4/12, MS3.9/6, Error ellipse: s-maj=30.5km s-min=8.9km az=167.3*

*MOS **08** 23:58:31.7±1.4, 1.05N×126.58E, h72^{km}, mb4.6/3, Error ellipse: s-maj=35.8km s-min=13.2km az=103.9*

ISC 08 23:58:29.6±0.5, **0.86N**±0.07×**125.9E**±0.2, **h35**^{km}, **n35**, σ**1^{s}.16**/27, **mb4.4**/12, **MS3.9**/6, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	14.96	155	*e*P	Pn	00 02 04.6	+6.0
	39nm,0.9s						
FITZ	Fitzroy Crossi	18.85	181	*e*P	Pn	00 02 46.4	-1.1
	11nm,0.6s						
FITZ	Fitzroy Crossi	18.85	181	P	Pn	00 02 47.3	-0.2
	0.4nm,0.3s,baz=16,slow=14,SNR=11						
WRA	Warramunga Arr	22.27	159	P	P	00 03 22.9	-0.8
	51nm,0.7s,mb5.0,baz=338,slow=11,SNR=52						
WB2	Warramunga Arr	22.27	159	*e*P	P	00 03 23.7	-0.1
JOW	Kunigami	25.92	5	P	P	00 03 58.7	+0.1
	13nm,0.9s,mb4.5,baz=81,slow=29,SNR=2.9						
CBIJ	Chichi jima	30.40	30	LR	LR	00 14 45.7	
	comp=Z,91nm,18.5s,MS3.5,baz=114,slow=32						
STKA	Stephens Creek	35.79	157	*e*P	P	00 05 26.3	+0.7
	17nm,0.9s,mb5.0						
STKA	Stephens Creek	35.79	157	P	P	00 05 26.2	+0.6
	17nm,0.7s,mb5.1,baz=331,slow=8.6,SNR=32						
KSRS	Korea Array	36.46	3	P	P	00 05 32.2	+1.0
KSRS				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
KSRS	Korea Array	36.46	3	P	P	00 05 32.2	+1.0
	comp=Z,1.3nm,0.6s,mb4.0,baz=178,slow=8.5,SNR=4.4						
MJAR	Matsushiro Arr	37.28	16	P	P	00 05 36.5	-1.7
	comp=Z,1.8nm,0.6s,mb4.1,baz=188,slow=8.7,SNR=4.0						
KLR	Kul'dur	48.44	5	*e*P	P	00 07 04.8	-3.6
HYB	Hyderabad	49.38	292	*e*P	P	00 07 21.5	+5.3
SONM	Songino Array	49.76	343	P	P	00 07 17.5	-1.0
SONM						00 08 40.1	
SONM	Songino Array	49.76	343	P	P	00 07 17.5	-1.0
	comp=Z,1.4nm,0.8s,mb4.0,baz=155,slow=8.5,SNR=11						
SONM				PcP	PcP	00 08 40.1	+1.0
	comp=Z,0.6nm,0.7s,baz=147,slow=2.8,SNR=3.4						
SONM				LR	LR	00 29 23.6	
	comp=Z,115nm,21.7s,MS3.8,baz=176,slow=37						
ZAK	Zakamensk	52.96	342	*e*P	P	00 07 43.8	+1.3
ZAK				*e*		00 08 52.1	
BOD	Bodaibo	57.57	352	*e*P	P	00 08 16.6	+1.0
BOD				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
MK31	Makanchi Array	59.46	327	*e*P	P	00 08 28.3	-0.6
MKAR	Makanchi Array	59.46	327	P	P	00 08 26.9	-2.1
	comp=Z,1.2nm,0.4s,mb4.2,baz=121,slow=8.4,SNR=13						
MKAR				LR	LR	00 33 51.7	
	comp=Z,120nm,18.2s,MS4.1,baz=174,slow=36						
ZALV	Zalesovo Beam	62.77	334	P	P	00 08 51.0	-0.3
	comp=Z,0.8nm,0.5s,mb4.1,baz=123,slow=5.5,SNR=5.3						
ZALV				LR	LR	00 37 52.5	
	comp=Z,46nm,18.0s,MS3.7,baz=248,slow=38						
ZAL	Zalesovo	62.78	334	P	P	00 08 51.0	-0.3
NVS	Novosibirsk	64.06	334	*i* P	P	00 09 01.3	+1.5
TIXI	Tiksi	70.70	1	*e*P	P	00 09 40.1	-1.4
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
ARU	Arti	76.92	328	*e*P	P	00 10 17.5	-0.7
VNDA	Vanda	80.71	173	P	P	00 10 39.4	+0.8
	comp=Z,4.8nm,0.7s,mb4.5,baz=319,slow=9.6,SNR=6.0						
MAW	Mawson	80.80	200	LR	LR	00 40 09.4	
	comp=Z,138nm,20.8s,MS4.3,baz=72,slow=31						
SVW2	Sparrevohn	83.69	29	*e*P	P	00 10 56.1	+1.5
BRTR	Keskin Array B	91.21	310	P	P	00 11 33.6	+2.2
	comp=Z,0.2nm,0.4s,mb3.8,baz=293,slow=34,SNR=2.9						
FINES	FINESS Array B	93.95	332	LR	LR	00 58 42.2	
	comp=Z,90nm,19.4s,MS4.2,baz=151,slow=38						
TORD	Torodi Ar. Bea	122.98	286	PKP	PKPdf	00 17 23.8	+0.5
TORD	Torodi Ar. Bea	122.98	286	PKP	PKPdf	00 17 23.8	+0.5
	comp=Z,0.7nm,0.8s,baz=68,slow=1.8,SNR=5.1						
TXAR	Lajitas Array	123.97	53	PKP	PKPdf	00 17 25.7	+0.9
TXAR	Lajitas Array	123.97	53	PKIKP	PKPdf	00 17 25.7	+0.8
TXAR	Lajitas Array	123.97	53	PKP	PKPdf	00 17 25.7	+0.9
	comp=Z,0.4nm,0.7s,baz=219,slow=1.4,SNR=5.3						

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*ISCJB **08** 23:59:39.4±1.2, 20.9S±0.1×178.6W±0.1, h574^{km}±17^{km}, mb4.1/17, Error ellipse: s-maj=20.0km s-min=11.9km az=141.0*

*NEIC **08** 23:59:40.2±1.0, 20.88S×178.57W, h576^{km}±11^{km}, mb4.4/6, Error ellipse: s-maj=17.1km s-min=9.9km az=141.0*

*IDC **08** 23:59:42.9±2.5, 21.05S×178.66W, h601^{km}±29^{km}, mb3.5/12, mb1 3.6/14, mb1mx3.6/18, mbtmp3.5/14, Error ellipse: s-maj=23.9km s-min=16.4km az=167.0*

ISC 08 23:59:40.2±1.1, **20.9S**±0.1×**178.6W**±0.1, **h569**^{km}±15^{km}, **n45**, σ**0^{s}.91**/26, **mb4.1**/17, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	9.53	44	P	P	00 01 52.8	-0.9
	8.0nm,0.3s,baz=107,slow=6.1,SNR=4.3						
AFI				S	S	00 03 36.6	-6.8
	2.9nm,0.3s,baz=12,slow=22,SNR=5.5						
DZM	Mont Dzumac	13.96	263	P	P	00 02 39.9	+1.1
	1.1nm,0.3s,baz=113,slow=23,SNR=9.0						
URZ	Urewera	17.69	191	P	P	00 03 12.2	-2.0
	2.7nm,0.3s,baz=308,slow=4.8,SNR=12						
URZ				S	S	00 05 59.1	-9.1
	0.5nm,0.3s,baz=131,slow=15,SNR=2.3						
RPZ	Rata Peaks	24.33	198	P	P	00 04 14.3	+0.5
	6.7nm,0.8s,mb4.3,baz=184,slow=16,SNR=4.2						
CTA	Charters Tower	32.88	265	P	P	00 05 29.1	+0.8
	17nm,0.4s,mb4.9,baz=93,slow=11,SNR=30						
TOO	Toolangi	35.20	234	*e*P	P	00 05 48.4	+1.0
	4.8nm,0.7s,mb4.1						
STKA	Stephens Creek	37.10	245	P	P	00 06 04.0	+0.9
	5.0nm,0.6s,mb4.2,baz=86,slow=11,SNR=5.2						
WB2	Warramunga Arr	43.97	263	*e*P	P	00 06 57.5	-0.4
WRA	Warramunga Arr	43.98	263	P	P	00 06 57.5	-0.5
	8.3nm,0.3s,mb4.7,baz=97,slow=7.5,SNR=183						
WRA				S	S	00 12 46.7	-2.6
	0.6nm,0.9s,baz=92,slow=13,SNR=3.9						
KAKA	Kakadu	47.41	272	*e*P	P	00 07 24.0	-0.1
	8.9nm,0.3s,mb4.8						
FORT	Forrest	48.61	247	*e*P	P	00 07 32.3	-0.6
	22nm,0.6s,mb4.9						
FITZ	Fitzroy Crossi	52.41	263	*e*P	P	00 08 00.6	-0.1
	8.6nm,0.5s,mb4.3						
FITZ	Fitzroy Crossi	52.41	263	P	P	00 08 00.8	+0.1
	4.6nm,0.5s,mb4.0,baz=123,slow=5.5,SNR=24						
KLBR	Kellerberrin	57.37	245	*e*P	P	00 08 34.6	-0.4
	15nm,0.8s,mb4.3						
NWAO	Narrogin (SRO)	57.68	244	P	P	00 08 36.5	-0.6
	6.3nm,0.8s,mb3.9,baz=134,slow=11,SNR=4.9						
QSPA	South Pole Qui	69.17	180	*e*P	P	00 09 50.6	+1.0
	12nm,1.2s,mb4.3						
MJAR	Matsushiro Arr	70.19	324	P	P	00 09 55.9	-0.5
	1.1nm,0.3s,mb3.8,baz=156,slow=5.0,SNR=6.2						
KSRS	Korea Array	76.81	319	P	P	00 10 35.3	+1.3
	1.0nm,0.6s,mb3.4,baz=124,slow=4.7,SNR=3.7						
PSI	Prapat	83.96	275	P	P	00 11 10.5	-1.2
	3.4nm,0.8s,mb3.9,baz=84,slow=10,SNR=3.7						
TXAR	Lajitas Array	87.75	58	P	P	00 11 30.6	+1.2
	0.3nm,0.9s,mb3.0,baz=221,slow=1.3,SNR=3.3						
PDAR	Pinedale Array	89.64	43	P	P	00 11 38.5	+0.7
	0.5nm,0.6s,mb3.5,baz=225,slow=4.0,SNR=5.1						
DAWY	Dawson	90.00	16	P	P	00 11 38.7	-0.2
YKA	Yellowknife Ar	97.11	25	P	P	00 12 10.8	-0.6
	0.1nm,0.4s,mb3.4,baz=242,slow=4.0,SNR=3.7						
ZALV	Zalesovo Beam	110.44	321	PKPdf	PKiKP	00 17 05.9	-2.0
ZALV	Zalesovo Beam	110.44	321	PKiKP	PKiKP	00 17 05.9	-2.0
	0.4nm,0.5s,baz=145,slow=5.3,SNR=2.9						
MKAR	Makanchi Array	111.06	313	PKPdf	PKiKP	00 17 07.6	-1.7
MKAR	Makanchi Array	111.06	313	PKiKP	PKiKP	00 17 07.6	-1.7
	0.2nm,0.4s,baz=113,slow=0.6,SNR=7.4						
FINES	FINESS Array B	135.99	343	PKP	PKPdf	00 17 56.6	+0.2
FINES	FINESS Array B	135.99	343	PKP	PKPdf	00 17 56.6	+0.2
	1.0nm,0.8s,baz=45,slow=2.6,SNR=4.8						
AKASG	Malin Array Be	143.08	330	PKP	PKPdf	00 18 06.2	-3.4
AKASG	Malin Array Be	143.08	330	PKhKP		00 18 06.2	
	4.3nm,0.4s,baz=42,slow=4.3,SNR=38						
ASF	Jabal al Asfar	146.45	297	PKPbc	PKPbc	00 18 18.0	-0.4
ASF	Jabal al Asfar	146.45	297	PKPbc	PKPbc	00 18 18.0	-0.4
	2.9nm,0.9s,baz=13,slow=5.6,SNR=5.8						
BRTR	Keskin Array B	146.68	311	PKPbc	PKPbc	00 18 17.9	-1.0
BRTR	Keskin Array B	146.68	311	PKPbc	PKPbc	00 18 17.9	-1.0
	1.7nm,0.7s,baz=122,slow=5.2,SNR=13						
MMAI	Mount Meron Ar	147.51	299	PKPbc	PKPbc	00 18 21.4	+0.2
	3.0nm,0.5s,baz=70,slow=7.2,SNR=19						
MLR	Muntele Rosu	148.24	326	PKPbc	PKPbc	00 18 22.0	-0.7
MLR	Muntele Rosu	148.24	326	PKPbc	PKPbc	00 18 22.0	-0.7
	1.9nm,0.5s,baz=326,slow=8.8,SNR=13						
EIL	Elat	148.51	293	PKPbc	PKPbc	00 18 24.1	+0.3
EIL	Elat	148.51	293	PKPbc	PKPbc	00 18 24.1	+0.3
	2.0nm,0.6s,baz=276,slow=12,SNR=3.4						
GRA1	Grafenberg Arr	150.22	347	*e*PKP	PKPbc	00 18 26.2	-1.1
GRF	Grafenberg Arr	150.22	347	*e*PKP	PKPbc	00 18 26.2	-1.1
GEC2	GERESS Array S	150.42	343	*e*PKP	PKPbc	00 18 27.1	-0.6
GERES	GERESS Array B	150.42	343	PKPbc	PKPbc	00 18 27.2	-0.6
GERES	GERESS Array B	150.42	343	PKPbc	PKPbc	00 18 27.2	-0.6
	1.0nm,0.6s,baz=12,slow=1.9,SNR=11						

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*TEH **09** 00:14:21.6, 36.77N×54.48E, h30^{km}, ML3.9*

*ISCJB **09** 00:14:34.5±1.2, 36.95N±0.03×54.43E±0.04, h2^{km}±9^{km}, mb3.8/14, Error ellipse: s-maj=5.8km s-min=5.1km az=170.5*

*IDC **09** 00:14:35.0±1.6, 36.75N×54.42E, h0^{km}, mb3.8/11, mb1 4.0/13, mb1mx3.8/24, mbtmp3.8/13, ML3.5/2, MS3.0/1, Ms1 3.0/1, ms1mx2.5/27, Error ellipse: s-maj=30.7km s-min=16.6km az=150.0*

*CSEM **09** 00:14:38.8±0.1, 36.84N×54.41E, h45^{km}, ML3.9, Error ellipse: s-maj=2.5km s-min=2.0km az=38.0*

*NEIC **09** 00:14:38.7, 36.77N×54.48E, h10^{km}, mb4.1/6, MN3.9(TEH), After TEH.*

*MOS **09** 00:14:43.4±1.3, 37.52N×54.22E, h33^{km}, mb4.1/8, Error ellipse: s-maj=12.3km s-min=8.0km az=116.0*

ISC 09 00:14:37.7±1.0, **36.95N**±0.03×**54.46E**±0.04, **h14**^{km}±7^{km}, **n114**, σ**1^{s}.16**/124, **mb3.8**/14, **5C-3D**, **Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IMIN	Minoodasht	0.65	72	Pg	Sg	00 14 58.0	-0.9
IMIN	Minoodasht	0.65	72	*e*Pg	Sg	00 14 58.0	-0.9
IANJ	Anjiloo	1.54	197	*e*Pg	Px	00 14 44.0	
IANJ				*e*	Pg	00 15 09.3	+2.0
	comp=Z,13µm,0.2s						
IFIR	Firoozkooh	1.90	227	Pn	Pn	00 15 09.7	+0.1
IFIR				Lg		00 15 34.7	
IFIR	Firoozkooh	1.90	227	*e*Pn	Pn	00 15 09.8	+0.2
IFIR				*e*		00 15 38.3	
	comp=Z,27µm,0.1s						
IFIR	Firoozkooh	1.90	227	Pn	Pn	00 15 09.7	+0.1
ISFR	Esferayen	2.84	87	Pn	Pn	00 15 23.3	+0.8
ISFR	Esferayen	2.84	87	*e*Pn	Pn	00 15 23.4	+0.9
ISFR	Esferayen	2.84	87	*e*Pn	Pn	00 15 23.4	+0.9
ISFB	Sefidab	3.16	216	Pn	Pn	00 15 25.7	-1.3
ISFB	Sefidab	3.16	216	*e*Pn	Pn	00 15 25.8	-1.2
ISFB				*e*		00 16 20.1	
	comp=Z,3µm,0.2s						
ISFB	Sefidab	3.16	216	*e*Pn	Pn	00 15 25.8	-1.2
IKRD	Kardeh	3.26	92	Pn	Pg	00 15 40.1	-0.1
IKRD	Kardeh	3.26	92	*e*Pn	Pg	00 15 40.2	0.0
IKRD				*e*		00 16 58.4	
	comp=Z,1µm,0.4s						
IQHU	Quchan	3.27	87	Pn	Pn	00 15 30.1	+1.6
IQHU	Quchan	3.27	87	*e*Pn	Pn	00 15 30.1	+1.6
IQHU	Quchan	3.27	87	*e*Pn	Pn	00 15 30.1	+1.6
IMHD	Mahdasht	3.31	249	Pn	Pn	00 15 30.5	+1.5
IMHD	Mahdasht	3.31	249	*e*Pn	Pn	00 15 30.6	+1.6
IMHD				*e*		00 15 42.1	
	comp=Z,4µm,0.2s						
IMHD	Mahdasht	3.31	249	Pn	Pn	00 15 30.5	+1.5
IKLH	Kalahroud	4.32	214	Pn	Pn	00 15 41.8	-1.2
IKLH	Kalahroud	4.32	214	*e*Pn	Pn	00 15 41.9	-1.1
IKLH				*e*		00 17 02.8	
	comp=Z,2µm,0.3s						
IKLH	Kalahroud	4.32	214	Pn	Pn	00 15 41.8	-1.2
IMYA	Miamay	4.58	96	Pn	Pn	00 15 46.8	+0.3
IMYA	Miamay	4.58	96	*e*Pn	Pn	00 15 46.8	+0.3
IMYA				*e*		00 17 17.7	
	comp=Z,874nm,0.4s						
IMYA	Miamay	4.58	96	*e*Pn	Pn	00 15 46.8	+0.3
ICHK	Chekchek	4.69	181	Pn	Pn	00 15 46.6	-1.5
ICHK	Chekchek	4.69	181	*e*Pn	Pn	00 15 46.7	-1.4
ICHK				*e*		00 17 04.5	
	comp=Z,925nm,0.3s						
ICHK	Chekchek	4.69	181	*e*Pn	Pn	00 15 46.7	-1.4
IPIR	Pirpir	5.17	216	Pn	Pn	00 15 55.9	+1.3
IPIR	Pirpir	5.17	216	*e*Pn	Pn	00 15 56.0	+1.4
IPIR				*e*		00 17 27.7	
	comp=Z,973nm,0.3s						
IPIR	Pirpir	5.17	216	Pn	Pn	00 15 55.9	+1.3
ITEG		5.36	138	*e*Pn	Pn	00 15 56.8	-0.5
IBAF	Bafgh	5.42	170	Pn	Pn	00 15 56.3	-1.8
IBAF	Bafgh	5.42	170	*e*Pn	Pn	00 15 56.3	-1.8
IBAF				*e*		00 17 25.8	
	comp=Z,987nm,0.5s						
IBAF	Bafgh	5.42	170	*e*Pn	Pn	00 15 56.3	-1.8
IMEH	Mehriz	5.55	179	Pn	Pn	00 15 58.2	-1.6
IMEH	Mehriz	5.55	179	*e*Pn	Pn	00 15 58.2	-1.6
IMEH				*e*		00 17 39.8	
	comp=Z,2µm,0.6s						
IMEH	Mehriz	5.55	179	*e*Pn	Pn	00 15 58.2	-1.6
IMON		5.68	130	*e*Pn	Pn	00 16 01.0	-0.6
IKOO		5.86	139	*e*Pn	Pn	00 16 03.2	-1.0
IDAH		6.12	132	*e*Pn	Pn	00 16 07.4	-0.2
IKOM	Komasi	6.30	246	Pn	Pn	00 16 10.4	+0.3
IKOM	Komasi	6.30	246	*e*Pn	Pn	00 16 10.4	+0.3
IKOM				*e*		00 16 45.7	
	comp=Z,348nm,0.3s						
IKOM	Komasi	6.30	246	*e*Pn	Pn	00 16 10.4	+0.3
DGRG	David-gareji	8.36	305	P	Pn	00 16 38.4	0.0
HAKT	HAKKARI	8.60	277	*i* P	Pn	00 16 44.1	+2.5
MTA	Mtatsminda	8.86	305	P	Pn	00 16 43.8	-1.4
DIGO	Kars	9.33	295	*i* P	Pn	00 16 53.4	+1.7
ZEI	Tsey	9.98	309	*e*P	Pn	00 17 00.0	-0.6
ZEI				*e*S	Sn	00 18 50.5	-1.8
ONI	Oni	10.17	307	P	Pn	00 17 03.6	+0.5
ERZM	Erzurum	10.69	290	*i* P	Pn	00 17 14.6	+4.3
KIV	Kislovodsk	11.37	312	P	Pn	00 17 20.0	+0.4
KIV				*e*S	Sn	00 19 22.6	-3.7
KIV				smax			
	comp=E,12nm,0.7s						
GOF	Gofitskoye	11.83	317	*e*P	Pn	00 17 20.8	-5.0
GOF				*e*S	Sn	00 19 28.0	-10
GOF				pmax	pmax		
	comp=Z,30nm,0.8s						
GOF				smax			
	comp=N,40nm,0.7s						
GOF				smax			
	comp=E,30nm,0.7s						
AB31	Akbulak array	12.93	16	⇑P	Pn	00 17 39.0	-1.9
	comp=E,1.0nm,0.5s,baz=203,slow=12,SNR=15						
AB31				⇑S	Sn	00 19 56.7	-7.8
	comp=E,3.7nm,0.6s,baz=203,slow=24						
AKTK	Aktyubinsk	13.72	10	Pn	Pn	00 17 51.0	-0.7
AKTK				Sn	Sn	00 20 18.2	-5.6
AKTK				LR	LR	00 24 50.6	
AKTK	Aktyubinsk	13.72	10	Pn	Pn	00 17 51.0	-0.7
AKTO	Aktyubinsk	13.72	10	P	Pn	00 17 51.0	-0.7
AKTO						00 20 18.2	
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO				MLR	MLR		
	comp=Z,65nm,19.0s						
AKTO	Aktyubinsk	13.72	10	Pn	Pn	00 17 51.0	-0.7
	comp=Z,0.7nm,0.3s,baz=173,slow=16,SNR=18						
AKTO				Sn	Sn	00 20 18.2	-5.6
	comp=Z,0.3nm,0.3s,baz=207,slow=11,SNR=3.7						
AKTO				LR	LR	00 24 50.6	
	comp=Z,64nm,19.0s,baz=332,slow=44						
ANN	Anapa	15.06	307	*e*P	Pn	00 18 09.3	-0.6
ANN				*e*S	Sn	00 20 50.5	-6.0
ANN				pmax	pmax		
	comp=Z,87nm,1.8s						
ANN	Anapa	15.06	307	*e*P	Pn	00 18 09.3	-0.6
	comp=Z,87nm,1.8s						
BOYT	Boyabat	15.80	292	*i* P	Pn	00 18 14.8	-4.9
AAK	Ala-Archa	16.40	64	*e*Pn	Pn	00 18 30.5	+3.1
	comp=Z,2.4nm,0.9s						
AAK	Ala-Archa	16.40	64	*e*P	Pn	00 18 34.0	+6.7
AAK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
BRTR	Keskin Array B	16.57	286	Pn	Pn	00 18 29.4	-0.1
BRTR	Keskin Array B	16.57	286	Pn	Pn	00 18 29.4	-0.1
	comp=Z,0.1nm,0.3s,baz=142,slow=6.3,SNR=2.6						
VRHR	Novokhopersk	16.85	331	*e*P	Pn	00 18 30.0	-3.0
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.5s						
VRHR				pmax	pmax		
	comp=N,9.0nm,0.4s						
VRHR				pmax	pmax		
	comp=E,2.0nm,0.4s						
BALT	Daday	16.95	292	*i* P	Pn	00 18 33.0	-1.2
BALT	Daday	16.95	292	*i* P	Pn	00 18 33.0	-1.2
BRVK	Borovoye	19.54	29	⇑P	Pn	00 19 05.2	-0.7
	comp=E,1.6nm,0.8s						
BRVK	Borovoye	19.54	29	*e*P	Pn	00 19 05.8	-0.2
	comp=E,5.4nm,0.8s						
BRVK	Borovoye	19.54	29	*e*P	Pn	00 19 05.8	-0.1
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s						
BRVK	Borovoye	19.54	29	*e*P	Pn	00 19 05.8	-0.1
	comp=Z,5.4nm,0.8s						
ARU	Arti	19.68	7	*e*P	Pn	00 19 06.8	-0.7
	comp=Z,7.3nm,0.4s						
ARU				S	Sn	00 22 52.0	+3.8
ARU	Arti	19.68	7	⇓*i*P	Pn	00 19 06.3	-1.3
ARU				*e*S	Sn	00 22 33.8	-14
ARU				pmax	pmax		
	comp=Z,19nm,1.7s						
ARU	Arti	19.68	7	*e*P	Pn	00 19 06.8	-0.8
	comp=Z,7.3nm,0.4s						
OBN	Obninsk	21.89	332	*e*P	P	00 19 30.0	0.0
	comp=Z,20nm,0.8s,mb4.6						
OBN	Obninsk	21.89	332	*e*P	P	00 19 30.3	+0.3
OBN				*e*		00 19 48.2	
OBN				S	S	00 23 21.0	-10
OBN				pmax	pmax		
	comp=Z,57nm,2.1s,mb4.6						
OBN	Obninsk	21.89	332	*e*P	P	00 19 30.0	0.0
MOS	Moscow	21.99	334	*e*P	P	00 19 31.2	+0.1
KURK	Kurchatov	22.08	44	*e*P	P	00 19 32.8	+0.7
	comp=Z,4.6nm,0.8s,mb4.0						
KURK	Kurchatov	22.08	44	*e*P	P	00 19 32.8	+0.7
KURK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.0						
KURK	Kurchatov	22.08	44	*e*P	P	00 19 32.8	+0.7
AKASG	Malin Array Be	22.67	315	P	P	00 19 37.9	-0.5
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	Malin Array Be	22.67	315	P	P	00 19 37.9	-0.5
	comp=Z,2.4nm,0.5s,mb3.9,baz=121,slow=10,SNR=14						
KIEV	Kiev	22.68	315	*e*P	P	00 19 37.8	-0.6
	comp=Z,7.7nm,0.6s,mb4.3						
KIEV	Kiev	22.68	315	*e*P	P	00 19 37.8	-0.6
KIEV				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.3						
KIEV	Kiev	22.68	315	*e*P	P	00 19 37.8	-0.6
MK31	Makanchi Array	22.84	56	*e*P	P	00 19 40.8	+0.7
MK31	Makanchi Array	22.84	56	*e*P	P	00 19 40.8	+0.6
MKAR	Makanchi Array	22.84	56	P	P	00 19 41.2	+1.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR	Makanchi Array	22.84	56	P	P	00 19 41.1	+1.0
	comp=Z,1.3nm,0.9s,mb3.4,baz=251,slow=12,SNR=11						
MLR	Muntele Rosu	22.99	301	P	P	00 19 43.3	+1.5
MLR				pmax	pmax		
	comp=Z,11nm,0.8s						
MLR	Muntele Rosu	22.99	301	P	P	00 19 43.3	+1.5
	comp=Z,11nm,0.8s,mb4.3,baz=90,slow=7.5,SNR=14						
MLR	Muntele Rosu	22.99	301	⇑*i*P	P	00 19 43.8	+2.0
IDI	Anoyia	23.90	275	P	P	00 19 51.4	+0.4
	comp=Z,7.1nm,0.8s,mb4.1,baz=45,slow=8.6,SNR=4.9						
BURAR	Bucovina Array	23.98	306	⇓*i*P	P	00 19 52.2	+0.6
DRGR		25.45	303	⇓*i*P	P	00 20 06.8	+1.8
BZS	Buzias	26.01	300	⇑*i*P	P	00 20 11.2	+1.2
ZAL	Zalesovo	26.94	41	P	P	00 20 19.7	+1.4
ZALV	Zalesovo Beam	26.95	41	P	P	00 20 19.7	+1.2
	comp=Z,1.3nm,0.7s,mb3.6,baz=252,slow=10,SNR=6.7						
FINES	FINESS Array B	30.28	333	P	P	00 20 50.2	+2.2
FINES	FINESS Array B	30.28	333	P	P	00 20 50.2	+2.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	FINESS Array B	30.28	333	P	P	00 20 50.2	+2.2
	comp=Z,0.7nm,0.8s,mb3.5,baz=347,slow=14,SNR=2.6						
GERES	GERESS Array B	31.77	305	P	P	00 21 01.7	+0.4
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	GERESS Array B	31.77	305	P	P	00 21 01.7	+0.5
	comp=Z,0.8nm,0.7s,mb3.7,baz=80,slow=9.6,SNR=7.0						
NB2	NORSAR Subarra	36.21	326	P	P	00 21 39.7	0.0
	comp=Z,0.5nm,0.6s,mb3.6,baz=108,slow=7.9						
NOA	NORSAR Array B	36.21	326	P	P	00 21 38.5	-1.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	36.21	326	P	P	00 21 38.5	-1.1
	comp=Z,0.8nm,0.6s,mb3.8,baz=132,slow=5.0,SNR=3.5						
ESDC	Sonseca Array	45.22	292	P	P	00 22 53.9	-0.4

	comp=Z,1.0nm,0.6s,mb3.9,baz=62,slow=7.5,SNR=8.3						
TORD	Torodi Ar. Bea	52.59	258	P	P	00 23 49.5	-1.7
	comp=Z,0.4nm,0.8s,mb3.4,baz=47,slow=6.3,SNR=4.5						
YKA	Yellowknife Ar	80.51	355	P	P	00 26 49.2	+0.4
YKA	Yellowknife Ar	80.51	355	*i* P	P	00 26 51.5	+2.6
YKA	Yellowknife Ar	80.51	355	P	P	00 26 49.2	+0.4
	comp=Z,0.3nm,0.6s,mb3.4,baz=5.3,slow=5.1,SNR=6.3						

ISCJB **09** *00:16:06.2±6.8, 3.2N±0.2×93.4E±0.1, h31^{km}±49^{km}, mb4.0/6, Error ellipse: s-maj=39.3km s-min=13.9km az=24.5*
NEIC **09** *00:16:07.9±1.3, 3.20N×93.44E, h30^{km}, mb4.5/1, Error ellipse: s-maj=34.3km s-min=12.8km az=219.0*
IDC **09** *00:16:10.5±6.9, 3.29N×93.53E, h50^{km}±61^{km}, mb3.7/5, mb1 3.8/6, mb1mx3.5/21, mbtmp3.7/6, ML3.7/1, Error ellipse: s-maj=61.4km s-min=25.4km az=55.0*
ISC 09 00:16:07.4±7.0**, 3.2N**±0.2×**93.4E**±0.1**, h27**^{km}±50^{km}**, n8, σ0^{s}56**/10**, mb4.0**/6**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	5.55	93	P	Pn	00 17 28.3	0.0
PSI				S	Sn	00 18 31.4	+0.2
PSI	Prapat	5.55	93	P	Pn	00 17 28.3	0.0
	2.5nm,0.3s,baz=343,slow=23,SNR=9.0						
PSI				S	Sn	00 18 31.4	+0.2
	1.9nm,0.3s,baz=354,slow=20,SNR=5.0						
LSA	Lhasa	26.49	356	*e*P	P	00 21 43.5	+1.0
	7.5nm,0.6s,mb4.4						
LSA				*e*		00 21 54.3	
LSA				PcP	PcP	00 25 09.5	+2.3
MKAR	Makanchi Array	44.53	349	P	P	00 24 16.1	-0.5
	1.5nm,0.5s,mb4.1,baz=169,slow=8.5,SNR=29						
SONM	Songino Array	45.91	12	P	P	00 24 27.0	-0.6
	0.9nm,0.7s,mb3.8,baz=189,slow=8.7,SNR=11						
WRA	Warramunga Arr	46.30	121	P	P	00 24 30.9	-0.3
	0.4nm,0.4s,mb3.7,baz=300,slow=8.9,SNR=7.2						
WRA				pP	pP	00 24 40.7	+1.4
	2.1nm,1.2s,baz=303,slow=8.8,SNR=4.6						
ZALV	Zalesovo Beam	51.12	354	P	P	00 25 07.1	-0.5
	2.0nm,0.5s,mb4.3,baz=173,slow=7.3,SNR=14						
ZALV				pP	pP	00 25 18.3	+2.4
	0.4nm,0.5s,baz=169,slow=7.0,SNR=1.8						
GERES	GERESS Array B	80.84	319	P	P	00 28 19.6	+0.7
	0.3nm,0.3s,mb3.7,baz=102,slow=4.5,SNR=9.6						

NEIC **09** *00:22:14.5±2.5, 2.44S×140.36E, h10^{km}, Error ellipse: s-maj=82.2km s-min=14.0km az=92.0*
IDC **09** *00:22:14.2±4.2, 2.40S×139.96E, h0^{km}, mb3.7/3, mb1 3.8/4, mb1mx3.6/12, mbtmp3.7/4, ML3.6/1, Error ellipse: s-maj=139.1km s-min=28.0km az=98.0*
ISCJB **09** *00:22:15.9±3.1, 2.5S±0.1×140.4E±0.7, h33^{km}, mb3.7/3, Error ellipse: s-maj=98.2km s-min=14.8km az=1.9*
ISC 09 00:22:17.9±2.8**, 2.5S**±0.1×**140.4E**±0.6**, h35**^{km}**, n8, σ0^{s}99**/8**, mb3.7**/3**, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WB2	Warramunga Arr	18.32	198	*e*P	Pn	00 26 30.7	+1.3
WRA	Warramunga Arr	18.32	198	P	Pn	00 26 28.8	-0.6
	0.2nm,0.3s,baz=17,slow=12,SNR=12						
FITZ	Fitzroy Crossi	21.23	222	P	P	00 26 59.9	-1.0
	0.8nm,0.5s,mb3.3,baz=53,slow=15,SNR=2.8						
LSA	Lhasa	56.92	308	P	P	00 32 01.4	+1.5
MK31	Makanchi Array	70.68	322	*e*P	P	00 33 30.1	0.0
MKAR	Makanchi Array	70.68	322	P	P	00 33 30.3	+0.1
MKAR	Makanchi Array	70.68	322	P	P	00 33 30.3	+0.1
	1.6nm,0.8s,mb4.0,baz=113,slow=8.0,SNR=15						
ZALV	Zalesovo Beam	72.62	329	P	P	00 33 40.5	-1.3
	0.3nm,0.3s,mb3.7,baz=134,slow=4.2,SNR=3.6						

IDC **09** *00:51:02.3±2.5, 18.98N×81.45W, h0^{km}, mb3.2/3, mb1 3.7/4, mb1mx3.5/18, mbtmp3.4/4, ML4.3/2, MS2.9/5, Ms1 2.9/5, ms1mx2.7/18, Error ellipse: s-maj=55.2km s-min=34.5km az=87.0*
ISCJB **09** *00:51:03.5±0.7, 18.86N±0.07×81.35W±0.05, h33^{km}, mb3.2/3, Error ellipse: s-maj=9.5km s-min=6.2km az=178.3*
NEIC **09** *00:51:03.2±0.7, 18.95N×81.42W, h10^{km}, Error ellipse: s-maj=14.2km s-min=11.3km az=193.0*
SSNC **09** *00:51:10.2, 20.14N×81.43W, h5^{km}, MD4.0, ML3.3*
ISC 09 00:51:06.2±0.7**, 18.92N**±0.07×**81.41W**±0.04**, h35**^{km}**, n23, σ1^{s}28**/25**, mb3.2**/3**, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MGV	Manicaragua	3.45	23	*e*PG	Pn	00 51 57.8	+0.4
MGV				*e*SG	Sn	00 52 36.0	-1.0
	comp=N,336nm,0.4s						
MGV				*e*			
	comp=E,218nm,0.2s						
CCCC	Cccc	4.11	56	*e*P	Pn	00 52 10.4	+3.9
CCCC				*e*S	Sn	00 52 30.0	-23
	comp=N,1.1nm,0.2s						
CCCC				*e*			
	comp=E,1.2nm,0.2s						
SOR	Soroa	4.13	339	*e*P	Pn	00 52 08.8	+2.0
SOR				*e*S	Sn	00 52 25.4	-29
	comp=N,6.1nm,0.5s						
SOR				*e*			
	comp=E,6.0nm,0.5s						
LMGC	Las Mercedes	4.31	74	*e*P	Pn	00 52 07.8	-1.5
LMGC				*e*S	Sn	00 52 51.5	-6.9
	comp=N,157nm,0.3s						
LMGC				*e*			
	comp=E,167nm,0.3s						
RCC	Rio Carpintero	5.50	78	*e*P	Pn	00 52 21.9	-3.7
RCC				*e*S	Sn	00 53 20.0	-7.7
	comp=N,28nm,0.6s						
RCC				*e*			
	comp=E,28nm,0.3s						
GTMO	Guantanamo	6.03	78	*e*P	Pn	00 52 37.2	+4.3
GTMO				*e*S	Sn	00 53 31.7	-9.0
	comp=N,2.0nm,0.5s						
GTMO				*e*			
	comp=E,1.9nm,0.5s						
MOAC	Moa	6.32	73	*e*P	Pn	00 52 34.0	-2.9
MOAC				*e*S	Sn	00 54 39.9	+52
	comp=N,56nm,0.8s						
MOAC				*e*			
	comp=E,57nm,1.4s						
TEIG	Tepich	6.60	283	Pn	Pn	00 52 39.6	-1.1
TEIG				Sn	Sn	00 53 51.1	-3.7
TEIG				LR	LR	00 55 23.6	
TEIG	Tepich	6.60	283	Pn	Pn	00 52 39.6	-1.1
	comp=E,23nm,0.3s,baz=65,slow=2.7,SNR=111						
TEIG				Sn	Sn	00 53 51.1	-3.7
	comp=E,2.8nm,0.3s,baz=8.3,slow=22,SNR=6.2						
TEIG				LR	LR	00 55 23.6	
	comp=E,70nm,21.8s,baz=136,slow=40						
MASC	Masc	6.89	78	*e*P	Pn	00 52 46.2	+1.5
MASC				*e*S	Sn	00 54 01.9	0.0
	comp=N,0.6nm,0.3s						
MASC				*e*			
	comp=E,0.7nm,0.3s						
JTS	JuntasAbangare	9.23	202	Pn	Pn	00 53 16.9	0.0
JTS	JuntasAbangare	9.23	202	Pn	Pn	00 53 16.9	0.0
	comp=E,1.0nm,0.3s,baz=354,slow=22,SNR=3.8						
SDDR	Presa de Saban	9.58	88	*e*Pn	Pn	00 53 21.3	-0.3
	comp=E,9.8nm,0.5s						
SDDR				*e*Sn	Sn	00 55 09.4	+1.2
CMIG	Matias Romero	12.94	264	LR	LR	00 59 46.6	
	comp=E,38nm,20.0s,baz=254,slow=41						
SJG	San Juan	14.50	91	LR	LR	00 59 10.7	
	comp=E,57nm,19.4s,baz=267,slow=34						
ROSC	El Rosal	15.59	153	LR	LR	01 00 18.7	
	comp=E,65nm,19.6s,baz=171,slow=36						
PCRV	Puerto La Cruz	18.41	116	LR	LR	01 01 26.1	
	comp=E,46nm,21.8s,baz=190,slow=34						
TXAR	Lajitas Array	22.77	301	P	P	00 56 06.4	+0.9
	comp=E,0.6nm,0.8s,mb3.0,baz=110,slow=7.8,SNR=4.3						
PDAR	Pinedale Array	33.62	321	P	P	00 57 44.6	+1.3
	comp=E,0.3nm,0.6s,mb3.4,baz=113,slow=15,SNR=4.4						
YKA	Yellowknife Ar	49.21	340	P	P	00 59 50.5	-0.2
YKA	Yellowknife Ar	49.21	340	P	P	00 59 50.5	-0.2
	comp=E,0.1nm,0.5s,mb3.1,baz=131,slow=8.2,SNR=4.3						
WRA	Warramunga Arr	146.31	262	PKPbc	PKPbc	01 10 45.3	+1.3
WRA	Warramunga Arr	146.31	262	PKPbc	PKPbc	01 10 45.3	+1.3
	comp=E,0.6nm,0.8s,baz=87,slow=3.9,SNR=4.9						

ISK **09** *01:35:31.4, 38.43N×38.99E, h5^{km}, MD3.6*
CSEM **09** *01:35:32.6±0.1, 38.42N×38.95E, h10^{km}, MD3.0, Error ellipse: s-maj=3.2km s-min=3.0km az=157.0*
DDA **09** *01:35:32.5, 38.35N×39.11E, h7^{km}±6^{km}, Md3.0*
ISCJB **09** *01:35:33.3±0.5, 38.40N±0.03×38.98E±0.04, h11^{km}±4^{km}, Error ellipse: s-maj=6.8km s-min=3.7km az=136.9*
ISC 09 01:35:33.7±0.5**, 38.41N**±0.03×**38.99E**±0.04**, h11**^{km}±4^{km}**, n29, σ1^{s}01**/39**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.09	357	*i* P	Pg	01 35 35.8	-0.4
ELZG				*i* S	Sg	01 35 40.0	+1.8
MYA	Malataya	0.45	259	*i* PG	Pg	01 35 42.0	-0.6
MYA	Malataya	0.45	259	*i* Pg	Pg	01 35 42.0	-0.6
MALT	Malatya	0.45	258	*i* PG	Pg	01 35 41.3	-1.3
MALT				*i* SG	Sg	01 35 48.7	+0.1
MALT	Malatya	0.45	258	*i* Pg	Pg	01 35 41.3	-1.3
MALT				*i* Sg	Sg	01 35 48.7	+0.1
PTK	Pertek	0.57	33	PG	Pg	01 35 43.1	-1.7
PTK	Pertek	0.57	33	*e*Pg	Pg	01 35 43.1	-1.7
URFA	Urfa	0.98	188	PG	Pg	01 35 51.6	-0.9
URFA				SG	Sg	01 36 06.4	+1.2
URFA	Urfa	0.98	188	*e*Pg	Pg	01 35 51.6	-0.9
URFA				*e*Sg	Sg	01 36 06.4	+1.2
ATAB	Bozova	1.09	211	*e*P	Pb	01 35 54.1	-0.4
ATAB				*i* S	Sb	01 36 08.8	+0.1
DIY	Diyarbakir	1.10	117	PN	Pn	01 35 53.4	-1.6
DIY	Diyarbakir	1.10	117	*e*Pn	Pn	01 35 53.4	-1.6
BINT	Bingol	1.26	68	PN	Pn	01 35 56.3	-0.9
BINT	Bingol	1.26	68	*e*Pn	Pn	01 35 56.3	-0.9
GZT	Gaziantep	1.54	227	*i* P	Pn	01 36 00.8	-0.3
GZT				*i* S	Sg	01 36 24.8	+1.5
MARD	Mardin	1.79	127	*i* P	Pn	01 36 04.3	-0.1
MARD				*i* S	Sn	01 36 27.6	+0.5
GAZ	Gaziantep	1.88	229	*e*PN	Pn	01 36 06.6	+1.0
GAZ	Gaziantep	1.88	229	*e*Pn	Pn	01 36 06.6	+1.0
BTMT	Batman	1.98	96	PN	Pn	01 36 06.4	-0.6
GUMT	Gumushane	2.08	10	*e*PN	Pn	01 36 09.5	+1.0
EZM	Erzurum	2.37	50	*e*PN	Pn	01 36 13.3	+0.8
ERZM	Erzurum	2.37	50	*i* P	Pb	01 36 16.7	+0.3
ERZM				*e*S	Sg	01 36 53.9	+4.0
BNN	Bunyan	2.50	281	*e*PN	Pn	01 36 14.1	-0.1
BNN	Bunyan	2.50	281	*e*Pn	Pn	01 36 14.1	-0.1
SIRT	Sirnak	2.87	107	*e*PN	Pn	01 36 20.9	+1.6
SIRT	Sirnak	2.87	107	*e*Pn	Pn	01 36 20.9	+1.6
COBT	Iskenderun	2.88	230	*e*P	Pg	01 36 26.6	-2.2
COBT				*e*S	Sg	01 37 06.4	+0.2
YOZ	Yozgat	3.11	294	*e*PN	Pn	01 36 23.1	+0.5
YOZ	Yozgat	3.11	294	*e*Pn	Pn	01 36 23.1	+0.5

GII **09** *02:22:24.3±0.0, 41.08N×39.92E, h15^{km}±1^{km}, mb5.6/4, ML5.8/4*
BJI **09** *02:22:55.0, 38.14N×38.65E, h21^{km}, mB5.6, mb5.3, Ms5.5, Msz5.3*
NEIC **09** *02:22:55.0, 38.39N×39.04E, h3^{km}, mb5.1/156, MS5.1/149, MW5.4, ML5.3(ISK), Moment Tensor Solution. s10 Moment tensor: Scale 10^{17}Nm; M_{rr}0.05; $M_{\theta\theta}$-0.12; $M_{\phi\phi}$0.07; $M_{r\theta}$0.11; $M_{\theta\phi}$1.30; $M_{\phi r}$-0.95; Best double couple: $M_0$1.60000×10^{17} NP1:ϕ_s267.00000°, δ54.00000°, λ0.00000°. NP2:ϕ_s177.00000°, δ90.00000°, λ144.00000°. Principal axes: T 1.5600, Plg25.0000°, Azm126.0000°; N 0.1000, Plg54.0000°, Azm357.0000°; P -1.6600, Plg25.0000°, Azm228.0000°; After ISK.*
GCMT **09** *02:22:55.0±0.1, 38.49N×39.02E, h24^{km}, MW5.5/98, Moment Tensor Solution. s73,c120; s98,c205; Duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.28±.03; $M_{\theta\theta}$-1.06±.03; $M_{\phi\phi}$1.34±.03; $M_{r\theta}$0.47±.04; $M_{\theta\phi}$1.27±.02; $M_{\phi r}$-0.73±.04; Best double couple: $M_0$1.96400×10^{17} NP1:ϕ_s247.00000°, δ63.00000°, λ-9.00000°. NP2:ϕ_s340.00000°, δ82.00000°, λ-153.00000°. Principal axes: T 1.9970, Plg13.0000°, Azm111.0000°; N -0.0690, Plg62.0000°, Azm355.0000°; P -1.9310, Plg24.0000°, Azm207.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
ISK **09** *02:22:55.6, 38.42N×39.03E, h5^{km}, ML5.4*
SZGRF **09** *02:22:55.2, 38.11N×39.39E, h10^{km}, mb5.1, MS4.4, Turkey*
ISCJB **09** *02:22:56.5±0.1, 38.35N±0.01×39.11E±0.01, h5^{km}, mb5.2/218, MS5.0/198, Error ellipse: s-maj=1.5km s-min=1.2km az=172.5*
DDA **09** *02:22:56.2, 38.34N×39.17E, h23^{km}±2^{km}, Md4.7, Ml5.0*
MOS **09** *02:22:56.6±1.0, 38.38N×39.10E, h6^{km}, mb5.2/91, MS4.8/69, Error ellipse: s-maj=4.2km s-min=2.4km az=129.0*
CRAAG **09** *02:22:56.6, 38.31N×39.06E, Mw5.1*
IDC **09** *02:22:57.4±0.5, 38.43N×39.02E, h0^{km}, mb4.7/23, mb1 4.8/32, mb1mx4.8/32, mbtmp4.7/32, ML4.2/9, MS4.9/30, Ms1 4.9/30, ms1mx4.8/35, Error ellipse: s-maj=10.9km s-min=9.7km az=109.0*
NSSC **09** *02:22:58.2, 38.47N×39.07E, h25^{km}±6^{km}*
NAO **09** *02:22:58.5, 39.11N×41.53E, h33^{km}, mb4.6*
CSEM **09** *02:22:58.8±0.0, 38.37N×39.09E, h25^{km}, mb5.1/48, Ms4.9, Mw5.1, Error ellipse: s-maj=1.0km s-min=0.9km az=155.0*
ISC 09 02:22:57.5±0.3**, 38.343N**±0.010×**39.12E**±0.01**, h0**^{km}±2^{km}**, n1187, σ1^{s}13**/1243**, mb5.2**/218**, MS5.0**/198**, 89C-47D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MALT	Malatya	0.55	267	*i* PG	Pg	02 23 05.6	-2.3
MALT				*i* SG	Sg	02 23 14.0	-1.0
MALT	Malatya	0.55	267	*e*Pg	Pg	02 23 06.2	-1.8
MALT				*e*Sg	Sg	02 23 15.4	+0.4
MALT	Malatya	0.55	267	*e*Pg	Pg	02 23 06.2	-1.7
MALT				*e*Sg	Sg	02 23 15.4	+0.4
MYA	Malataya	0.55	268	*i* PG	Pg	02 23 06.3	-1.7
PTK	Pertek	0.59	21	*i* PG	Pg	02 23 07.4	-1.4
URFA	Urfa	0.93	195	*i* PG	Pg	02 23 16.3	+1.0
URFA	Urfa	0.93	195	*i* Pg	Pg	02 23 16.3	+1.0
DIY	Diyarbakir	0.98	117	*i* PN	Pn	02 23 17.8	-0.7
DIY	Diyarbakir	0.98	117	*i* Pn	Pn	02 23 17.8	-0.7
ATAB	Bozova	1.09	217	⇓*i*P	Pg	02 23 18.1	-0.3
ATAB				*i* S	Sg	02 23 33.5	+1.1
BINT	Bingol	1.20	63	*i* PN	Pn	02 23 19.5	-2.0
BINT	Bingol	1.20	63	*i* Pn	Pn	02 23 19.5	-2.0
EZC	Erzincan	1.50	21	PN	Pn	02 23 22.1	-3.6
GZT	Gaziantep	1.58	232	*i* P	Pn	02 23 25.1	-1.6
MARD	Mardin	1.67	128	⇑*i*P	Pn	02 23 27.5	-0.5
MARD				*i* S	Sn	02 23 48.2	-1.8
KBSD	Kabsdagh	1.75	139	⇑P	Pn	02 23 28.2	-0.9
KBSD	Kabsdagh	1.75	139	⇑*i*P	Pn	02 23 28.2	-0.9
BTMT	Batman	1.87	94	PN	Pn	02 23 29.5	-1.2
GAZ	Gaziantep	1.91	233	PN	Pn	02 23 29.7	-1.6
GAZ	Gaziantep	1.91	233	*e*Pn	Pn	02 23 29.7	-1.6
SFNV	Sufian	2.08	157	⇑P	Pn	02 23 33.4	-0.2
SFNV				⇑S	Sn	02 24 00.6	+0.5
SFNV	Sufian	2.08	157	⇑*i*P	Pn	02 23 33.4	-0.2
SFNV				⇑*i*S	Sn	02 24 00.6	+0.5
GUMT	Gumushane	2.13	7	PN	Pn	02 23 33.3	-1.0
GUMT	Gumushane	2.13	7	*e*Pn	Pn	02 23 33.3	-1.0
SLMH	Al Salmeh	2.33	204	⇓P	Pn	02 23 36.3	-0.7
SLMH				⇑S	Sn	02 24 05.5	-0.8
SLMH	Al Salmeh	2.33	204	⇓*i*P	Pn	02 23 36.3	-0.7
SLMH				⇑*i*S	Sn	02 24 05.5	-0.8
EZM	Erzurum	2.34	48	PN	Pn	02 23 37.4	+0.2
ERZM	Erzurum	2.34	48	⇓*i*P	Pn	02 23 37.2	0.0
ERZM				*i* S	Sg	02 24 14.8	+2.1
KSRV	Kasrt alli	2.48	182	⇑P	Pg	02 23 47.0	+2.1
DRWC	Darouich	2.60	229	⇓P	Pn	02 23 39.0	-1.7
DRWC				⇑S	Sn	02 24 12.4	-0.6
DRWC	Darouich	2.60	229	⇓*i*P	Pn	02 23 39.0	-1.8
DRWC				⇑*i*S	Sn	02 24 12.4	-0.6
BNN	Bunyan	2.61	282	PN	Pn	02 23 39.5	-1.5
BNN	Bunyan	2.61	282	*e*Pn	Pn	02 23 39.5	-1.5
MACK	Trabzon	2.65	11	⇓*i*P	Pn	02 23 40.9	-0.5
MACK				*i* S	Sg	02 24 20.2	-2.2
GRSN	GIRESUNGRSN	2.66	346	*i* P	Pn	02 23 40.8	-0.8
GRSN				*i* S	Sg	02 24 22.7	-0.2
JHLN	Al Jahlan	2.72	192	⇑P	Pn	02 23 42.5	+0.1
JHLN				⇓S	Sn	02 24 16.4	+0.5
JHLN	Al Jahlan	2.72	192	⇑*i*P	Pn	02 23 42.5	+0.1
JHLN				⇓*i*S	Sn	02 24 16.4	+0.4
BSHR	Al Beshri	2.73	168	⇑P	Pn	02 23 45.6	+3.1
KOZT	Kozan	2.74	253	PN	Pn	02 23 40.9	-1.8
SIRT	Sirnak	2.76	107	PN	Pn	02 23 43.2	+0.3
SIRT	Sirnak	2.76	107	*e*Pn	Pn	02 23 43.2	+0.3
MZRK	Al-Mazaregh	2.79	154	⇓P	Pn	02 23 43.3	-0.2
MZRK	Al-Mazaregh	2.79	154	⇓*i*P	Pn	02 23 43.3	-0.1
TOKT	Tokat	2.81	315	PN	Pn	02 23 42.4	-1.2
TOKT	Tokat	2.81	315	*e*Pn	Pn	02 23 42.4	-1.2
COBT	Iskenderun	2.92	232	⇑*i*P	Pn	02 23 43.4	-1.7
COBT				*i* S	Sg	02 24 30.6	-0.6
CEYT	Ceyhan	2.99	245	PN	Pn	02 23 45.6	-0.5
CEYT	Ceyhan	2.99	245	*e*Pn	Pn	02 23 45.6	-0.5
TUTA	Tutak	3.07	69	⇑*i*P	Pn	02 23 47.6	+0.4
TUTA				*i* S	Sg	02 24 36.7	+0.5
BTCH	Batrach	3.13	224	⇑P	Pn	02 23 47.2	-0.9
BTCH				⇑S	Sn	02 24 26.1	0.0
BTCH	Batrach	3.13	224	⇑*i*P	Pn	02 23 47.2	-0.9
BTCH				⇑*i*S	Sn	02 24 26.1	0.0
YOZ	Yozgat	3.23	295	*e*PN	Pn	02 23 48.9	-0.5
YOZ	Yozgat	3.23	295	*e*Pn	Pn	02 23 48.9	-0.5
HTY	Hatay	3.25	228	*e*PN	Pn	02 23 48.8	-0.9
HTY	Hatay	3.25	228	*e*Pn	Pn	02 23 48.8	-0.9
AGRB	Hanur-Agry	3.26	67	*e*PN	Pn	02 23 50.8	+1.0
AGRB	Hanur-Agry	3.26	67	*e*Pn	Pn	02 23 50.8	+1.0
VANT	Van	3.36	87	*e*PN	Pn	02 23 50.8	-0.4
VANB	Van	3.36	84	*e*PN	Pn	02 23 51.9	+0.7
VANB	Van	3.36	84	*e*Pn	Pn	02 23 51.9	+0.7
TVAN	Van	3.37	86	⇑*i*P	Pn	02 23 51.9	+0.5
KARA	Karaisali	3.40	253	*e*PN	Pn	02 23 50.4	-1.3
KARA	Karaisali	3.40	253	*e*Pn	Pn	02 23 50.4	-1.3
KRTS	Karatas	3.46	240	*e*PN	Pn	02 23 51.4	-1.2
KRTS	Karatas	3.46	240	*e*Pn	Pn	02 23 51.4	-1.2
ARNB	Al Arnab	3.53	226	⇑P	Pn	02 23 52.8	-0.7
ARNB				⇑S	Sn	02 24 34.5	-1.5
ARNB	Al Arnab	3.53	226	⇑*i*P	Pn	02 23 52.8	-0.8
ARNB				⇑*i*S	Sn	02 24 34.5	-1.5
NIG	Nigde	3.56	268	*e*PN	Pn	02 23 53.4	-0.5
NIG	Nigde	3.56	268	*e*Pn	Pn	02 23 53.4	-0.5
WRDH	Warideh	3.56	218	⇑P	Pn	02 23 53.4	-0.7
WRDH				⇑S	Sn	02 24 35.7	-1.1
WRDH	Warideh	3.56	218	⇑*i*P	Pn	02 23 53.4	-0.6
WRDH				⇑*i*S	Sn	02 24 35.7	-1.1
ARTV	Artvin	3.57	36	⇑*i*P	Pn	02 23 54.2	+0.1
ARTV				*i* S	Sg	02 24 51.1	-1.1
SLNF	Slenfeh	3.59	221	⇑P	Pn	02 23 53.7	-0.6
SLNF				⇓S	Sn	02 24 36.4	-1.1
SLNF	Slenfeh	3.59	221	⇑*i*P	Pn	02 23 53.7	-0.7
SLNF				⇓*i*S	Sn	02 24 36.4	-1.1
KVT	Kavak	3.62	320	*e*PN	Pn	02 23 54.1	-0.6
KVT	Kavak	3.62	320	*e*Pn	Pn	02 23 54.1	-0.6
BCA	Borcka	3.65	31	*e*PN	Pn	02 23 55.4	+0.2
BCA	Borcka	3.65	31	*e*Pn	Pn	02 23 55.4	+0.2
HAKT	HAKKARI	3.71	101	⇑*i*P	Pn	02 23 55.9	-0.1
HAKT				*i* S	Sg	02 24 55.2	-1.5
HKR	Hakkari	3.73	100	*e*PN	Pn	02 23 56.9	+0.6
HKR	Hakkari	3.73	100	*e*Pn	Pn	02 23 56.9	+0.6
DYDN	Diyadin	3.76	70	⇑*i*P	Pn	02 23 57.0	+0.4
DYDN				*i* S	Sb	02 24 55.4	+4.6
DYDN	Diyadin	3.76	70	*i* P	Pn	02 23 57.0	+0.3
MSL	Mosul	3.77	122	*i* Pn	x	02 23 57.5	
MSL				*i* Pb	x	02 24 06.0	
MSL				*i* Pg	x	02 24 11.0	
MSL				*i* Sn	x	02 24 45.5	
MSL				*i* Sb	x	02 24 57.0	
MSL				*i* Sg	x	02 25 05.5	
MSL	Mosul	3.77	122	*i* Pn	x	02 23 57.5	
KARS	Kars	3.82	52	*e*PN	Pn	02 23 58.7	+1.2
KARS	Kars	3.82	52	*e*Pn	Pn	02 23 58.7	+1.2
DIGO	Kars	3.89	57	⇑*i*P	Pn	02 23 59.3	+0.8
DIGO				*i* S	Sg	02 25 04.6	+2.1
CDAG	Cicekdag	3.91	291	⇓*i*P	Pn	02 23 58.0	-0.8
CDAG				*i* S	Sb	02 24 53.5	-1.8
MERS	Mersin	3.94	249	*e*PN	Pn	02 23 59.1	0.0
MERS	Mersin	3.94	249	*e*Pn	Pn	02 23 59.1	0.0
CORM	Corum	3.94	299	*e*PN	Pn	02 23 57.1	-2.0
CORM	Corum	3.94	299	*e*Pn	Pn	02 23 57.1	-2.0
BIDA	Albida	4.01	215	⇑P	Pn	02 23 59.4	-0.8
BIDA				⇑S	Sn	02 24 46.3	-1.6
BIDA	Albida	4.01	215	⇑*i*P	Pn	02 23 59.4	-0.8
BIDA				⇑*i*S	Sn	02 24 46.3	-1.6
CTKT	Corum	4.05	306	⇓*i*P	Pn	02 24 00.9	+0.2
CTKT				*i* S	Sn	02 24 49.8	+1.0
KAMT	Kaman	4.34	285	*e*PN	Pn	02 24 04.4	-0.3
KAMT	Kaman	4.34	285	*e*Pn	Pn	02 24 04.4	-0.3
ROOS	tl_alroos	4.42	200	⇑P	Pn	02 24 05.4	-0.3
ROOS				⇓S	Sn	02 24 58.7	+0.7
ROOS	tl_alroos	4.42	200	⇑*i*P	Pn	02 24 05.4	-0.4
ROOS				⇓*i*S	Sn	02 24 58.7	+0.8
DIKM	Dikmen	4.44	319	*e*PN	Pn	02 24 05.0	-1.0
DIKM	Dikmen	4.44	319	*e*Pn	Pn	02 24 05.0	-1.0
BOYT	Boyabat	4.47	315	⇑*i*P	Pn	02 24 05.5	-0.9
BOYT				*i* S	Sn	02 25 08.2	+9.2
BR131	Keskin Array S	4.49	290	*e*Pn	Pn	02 24 06.1	-0.6
BR131	Keskin Array S	4.49	290	*e*Pn	Pn	02 24 06.1	-0.6
BRTR	Keskin Array B	4.49	290	Pn	Pn	02 24 05.8	-0.9
BRTR				Lg		02 25 25.9	
BRTR				LR	LR	02 26 14.3	
BRTR	Keskin Array B	4.49	290	P	Pn	02 24 05.8	-0.9
BRTR				pmax	pmax		
	comp=Z,21nm,0.3s						
BRTR				MLR	MLR		
	comp=Z,17μm,21.1s						
BRTR	Keskin Array B	4.49	290	Pn	Pn	02 24 05.8	-0.9
	comp=Z,21nm,0.3s,baz=108,slow=15,SNR=282						
BRTR				Lg		02 25 25.9	
	comp=Z,22nm,0.3s,baz=122,slow=28,SNR=3.9						
BRTR				LR	LR	02 26 14.3	
	comp=Z,17μm,21.1s,baz=115,slow=45						
TOS	Tosya	4.76	306	*e*PN	Pn	02 24 10.4	-0.1
TOS	Tosya	4.76	306	*e*Pn	Pn	02 24 10.4	-0.1
HWQ	Hawqa	4.80	213	*e*Pn	Pn	02 24 10.3	-0.6
HWQ	Hawqa	4.80	213	*e*Pn	Pn	02 24 10.3	-0.7
IKL	Isikli	4.81	246	*e*PN	Pn	02 24 11.2	0.0
IKL	Isikli	4.81	246	*e*Pn	Pn	02 24 11.2	0.0
CANT	Cankiri	4.82	300	*e*PN	Pn	02 24 10.7	-0.5
ELDT	Eldivan	4.90	298	⇑*i*P	Pn	02 24 12.0	-0.4
ELDT				*i* S	Sg	02 25 30.0	-4.9
ANTO	Ankara	5.15	289	*e*PN	Pn	02 24 15.6	-0.2
ANTO	Ankara	5.15	289	*e*Pn	Pn	02 24 15.3	-0.5
	comp=Z,838nm,1.1s						
ANTO				*e*Pg	Pg	02 24 32.2	-4.0
ANTO	Ankara	5.15	289	*e*P	Pn	02 24 15.3	-0.5
ANTO				pmax	pmax		
	comp=Z,838nm,1.1s						
ANTO	Ankara	5.15	289	Pn	Pn	02 24 16.3	+0.5
	SNR=47						
ANTO	Ankara	5.15	289	Pn	Pn	02 24 16.3	+0.5
	SNR=47						
ANTO	Ankara	5.15	289	*e*Pg	Pg	02 24 32.2	-4.0
LOD	Lodumlu	5.18	289	*e*PN	Pn	02 24 15.9	-0.3
LOD	Lodumlu	5.18	289	*e*Pn	Pn	02 24 15.9	-0.3
ERMK	Ermenek	5.22	253	*i* P	Pn	02 24 18.4	+1.6
ERMK				*i* S	Sb	02 25 32.1	-0.7
BHL	Bhannes	5.24	213	*e*Pn	Pn	02 24 16.4	-0.7
BHL	Bhannes	5.24	213	*e*Pn	Pn	02 24 16.4	-0.7
SOC	Sochi	5.25	5	*ce*P	Pn	02 24 15.0	-2.2
SOC				*e*		02 25 23.7	
SOC				pmax	pmax		
	comp=Z,129nm,1.0s						
SOC				pmax	pmax		
	comp=Z,1μm,1.0s						
SOC				MLR	MLR		
	comp=Z,13μm,12.0s						
SOC	Sochi	5.25	5	*i* P	Pn	02 24 17.4	+0.2
GOR	Gori	5.28	45	P	Pn	02 24 18.7	+1.2
GOR	Gori	5.28	45	P	Pb	02 24 31.0	+0.5
BZK	Bozkurt	5.33	314	*e*PN	Pn	02 24 18.0	-0.3
BZK	Bozkurt	5.33	314	*e*Pn	Pn	02 24 18.0	-0.3
KONT	Konya--Tatoy	5.34	268	*e*PN	Pn	02 24 18.5	0.0
KONT	Konya--Tatoy	5.34	268	*e*Pn	Pn	02 24 18.5	0.0
ONI	Oni	5.37	37	P	Pn	02 24 19.0	+0.2
ONI				S	Sg	02 25 44.2	-5.7
ONI	Oni	5.37	37	P	Pb	02 24 31.5	-0.7
BALT	Daday	5.44	308	⇑*i*P	Pn	02 24 19.7	-0.1
BALT				*i* S	Sg	02 25 42.5	-10
MTA	Mtatsminda	5.49	51	P	Pn	02 24 21.4	+0.9
MTA				S	Sg	02 25 47.5	-6.4
MTA	Mtatsminda	5.49	51	P	Pb	02 24 36.8	+2.6
KDHN	Kadinhani	5.50	274	⇓*i*P	Pn	02 24 20.5	-0.1
KDHN				*i* S	Sg	02 25 50.7	-3.5
RCY	Rachaya	5.54	210	*e*Pn	Pn	02 24 21.6	+0.4
RCY	Rachaya	5.54	210	*e*Pn	Pn	02 24 21.5	+0.4

MAMC	Mammari	5.70	238	P	Pn	02 24 20.1	-3.2
DGRG	David-gareji	5.72	55	P	Pn	02 24 25.7	+2.0
DGRG				S	Sg	02 26 07.9	+6.5
DGRG	David-gareji	5.72	55	P	Pb	02 24 40.1	+1.9
ZEI	Tsey	5.73	38	iP	Pn	02 24 25.5	+1.8
ZEI				pmax	pmax		
	comp=Z,71nm,0.6s						
ZEI				pmax	pmax		
	comp=Z,277nm,0.8s						
ZEI	Tsey	5.73	38	iP	Pn	02 24 25.5	+1.8
	comp=Z,277nm,0.8s						
SAFT	Safranbolu	5.74	302	ePN	Pn	02 24 23.0	-0.8
SAFT	Safranbolu	5.74	302	ePn	Pn	02 24 23.0	-0.8
MATL	Matirih	5.74	214	ePn	Pn	02 24 23.9	0.0
MATL	Matirih	5.74	214	ePn	Pn	02 24 23.9	0.0
CSS	Prodhromos	5.75	236	P	Pn	02 24 24.9	+0.9
CSS	Prodhromos	5.75	236	ePn	Pn	02 24 24.0	0.0
	comp=Z,133nm,0.6s						
CSS	Prodhromos	5.75	236	ePn	Pn	02 24 24.0	0.0
	comp=Z,133nm,0.6s						
SGKT	Sivrigoynuk	5.90	294	eP	Pn	02 24 25.1	-1.0
KSHT	Keshet	5.99	208	Pn	Pn	02 24 29.2	+1.9
KSHT				Sn	Sg	02 26 07.9	-2.0
KSHT	Keshet	5.99	208	Pn	Pn	02 24 29.2	+1.9
MMA0	Mount Meron ar	6.12	211	Pn	Pn	02 24 30.2	+1.2
MMA0	Mount Meron ar	6.12	211	Pn	Pn	02 24 30.3	+1.2
MMAI	Mount Meron Ar	6.12	211	Pn	Pn	02 24 31.0	+1.9
	comp=Z,21nm,0.3s,baz=19,slow=13,SNR=53						
MMAI				Lg		02 26 12.5	
	comp=Z,46nm,0.3s,baz=31,slow=25,SNR=2.8						
MMAI				LR	LR	02 27 15.3	
	comp=Z,16µm,18.6s,baz=75,slow=42						
ALFC	Alevga	6.12	241	P	Pn	02 24 25.9	-3.3
	comp=Z,7.3nm,0.7s						
SZAC	Souni-Zanaja	6.17	236	P	Pn	02 24 30.8	+1.0
	comp=Z,18nm,0.9s						
KIV	Kislovodsk	6.22	25	Pn	Pn	02 24 32.6	+2.1
	comp=Z,1µm,0.6s,SNR=44						
KIV	Kislovodsk	6.22	25	ePn	Pn	02 24 32.1	+1.7
KIV	Kislovodsk	6.22	25b	iP	Pn	02 24 31.2	+0.7
KIV				pmax	pmax		
	comp=Z,161nm,1.0s						
KIV				MLR	MLR		
	comp=Z,15µm,15.0s						
KIV	Kislovodsk	6.22	25	Pn	Pn	02 24 31.8	+1.3
	SNR=70						
KIV	Kislovodsk	6.22	25	iP	Pn	02 24 31.2	+0.7
	comp=Z,15µm,15.0s						
AKMC	Akamas	6.38	241	P	Pn	02 24 32.4	-0.3
ASF	Jabal al Asfar	6.42	197	Pn	Pn	02 24 34.7	+1.4
ASF				Lg		02 26 22.3	
ASF	Jabal al Asfar	6.42	197	P	Pn	02 24 34.7	+1.4
ASF				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASF	Jabal al Asfar	6.42	197	Pn	Pn	02 24 34.7	+1.4
	comp=Z,1.5nm,0.3s,baz=259,slow=6.3,SNR=51						
ASF				Lg		02 26 22.3	
	comp=Z,34nm,0.3s,baz=43,slow=16,SNR=3.8						
PPCY	Paphos	6.45	240	P	Pn	02 24 32.7	-1.0
MDU	Mudurnu	6.48	292	ePN	Pn	02 24 33.7	-0.3
MDU	Mudurnu	6.48	292	ePn	Pn	02 24 33.7	-0.3
ESKT	Eskisehir	6.55	283	ePN	Pn	02 24 35.4	+0.3
ESKT	Eskisehir	6.55	283	iP	Pn	02 24 35.2	+0.2
ESKT	Eskisehir	6.55	283	ePn	Pn	02 24 35.4	+0.3
SEYT	Eskypehyr	6.55	283	iP	Pn	02 24 35.2	+0.1
ANN	Anapa	6.57	349	eP	Pn	02 24 35.2	-0.1
ANN				eS	Sn	02 25 52.3	+1.3
ANN				pmax	pmax		
	comp=Z,76nm,1.0s						
ANN				MLR	MLR		
	comp=N,8µm,12.0s						
ANN				MLR	MLR		
	comp=E,2µm,12.0s						
ANN				MLR	MLR		
	comp=Z,7µm,12.0s						
ANN	Anapa	6.57	349	eP	Pn	02 24 35.6	+0.3
ANN				eS	Sn	02 25 52.3	+1.3
KDZE	Karadeniz Ereo	6.61	299	ePN	Pn	02 24 35.5	-0.4
KDZE	Karadeniz Ereo	6.61	299	ePn	Pn	02 24 35.5	-0.4
MMLI	Mount Malkishu	6.62	208	Pn	Pn	02 24 37.7	+1.7
MMLI				Sn	Sg	02 26 24.5	-5.6
MMLI	Mount Malkishu	6.62	208	Pn	Pn	02 24 37.7	+1.7
BHD	Baghdad	6.62	138	iPn	x	02 24 32.0	
BHD				iPg	x	02 25 00.0	
BHD				iSn	x	02 25 46.0	
BHD				iSb	x	02 26 07.0	
BHD				iSg	x	02 26 25.0	
BHD	Baghdad	6.62	138	iPn	x	02 24 32.0	
OFRI	‘Ofer	6.63	212	Pn	Pn	02 24 37.8	+1.7
OFRI	‘Ofer	6.63	212	Pn	Pn	02 24 37.8	+1.7
SHUT	Suhut-Afyon	6.73	274	ePN	Pn	02 24 37.7	+0.2
SHUT	Suhut-Afyon	6.73	274	ePn	Pn	02 24 37.7	+0.2
ISP	Isparta	6.81	268	ePN	Pn	02 24 39.9	+1.3
ISP	Isparta	6.81	268	ePn	Pn	02 24 39.8	+1.2
ISP	Isparta	6.81	268	iP	Pn	02 24 39.2	+0.6
ISP	Isparta	6.81	268	ePn	Pn	02 24 39.9	+1.3
ANTB	Antalya	6.87	260	ePN	Pn	02 24 39.3	-0.2
ANTB	Antalya	6.87	260	ePn	Pn	02 24 39.3	-0.2
BORA	Eskisehir	6.91	286	⇓iP	Pn	02 24 39.9	-0.1
BORA				iS	Sg	02 26 37.8	-1.6
SLTI	Sal’it	6.94	210	Pn	Pn	02 24 42.0	+1.6
SLTI	Sal’it	6.94	210	Pn	Pn	02 24 42.0	+1.6
GULT	Gulveren	6.98	290	ePN	Pn	02 24 40.5	-0.5
GULT	Gulveren	6.98	290	ePn	Pn	02 24 40.5	-0.5
ALT	Altintas	7.08	279	ePN	Pn	02 24 42.1	-0.2
ALT	Altintas	7.08	279	ePn	Pn	02 24 42.1	-0.2
GPA	Golpazari	7.10	289	ePN	Pn	02 24 42.5	-0.1
GPA	Golpazari	7.10	289	ePn	Pn	02 24 42.5	-0.1
YAL	Yalta	7.18	330	eP	Pn	02 24 45.8	+2.1
SUDU	Sudak	7.23	336	eP	Pn	02 24 45.8	+1.4
ALU	Alushta	7.25	332	eP	Pn	02 24 45.0	+0.3
ALU				eS	Sn	02 26 09.3	+1.6
GOF	Gofitskoye	7.32	22	eP	Pn	02 24 43.8	-1.8
GOF				pmax	pmax		
	comp=Z,100nm,0.7s						
DRGI	Dragot	7.39	206	Pn	Pn	02 24 49.1	+2.4
SEV	Sevastopol’	7.42	328	eP	Pn	02 24 46.3	-0.7
SEV				pmax	pmax		
	comp=Z,5.0nm,0.2s						
SEV	Sevastopol’	7.42	328	eP	Pn	02 24 46.3	-0.7
	comp=Z,5.0nm,0.2s						
ELL	Elmali	7.49	261	ePN	Pn	02 24 49.2	+1.3
ELL	Elmali	7.49	261	ePn	Pn	02 24 49.2	+1.3
KHL	Karahalli	7.54	273	ePN	Pn	02 24 48.7	0.0
KHL	Karahalli	7.54	273	ePn	Pn	02 24 48.7	0.0
ADVT	Abdulvahap	7.56	289	ePN	Pn	02 24 49.5	+0.6
ADVT	Abdulvahap	7.56	289	ePn	Pn	02 24 49.5	+0.6
GDZ	Gediz	7.57	279	iP	Pn	02 24 50.2	+1.1
GDZ				iS	Sb	02 26 38.2	-2.3
SIM	Simferopol’	7.59	332	eP	Pn	02 24 49.0	-0.3
SIM				eS	Sn	02 26 17.0	+1.1
SIM				smax			
	comp=E,120nm,1.0s						
SIM				MLR	MLR		
	comp=Z,4µm,15.0s						
SIM	Simferopol’	7.59	332	eP	Pn	02 24 49.0	-0.3
SIM				eS	Sn	02 26 17.0	+1.1
	comp=Z,4µm,15.0s						
GOLH	Golhisar	7.65	265	iP	Pn	02 24 52.4	+2.3
GOLH				iS	Sg	02 26 58.9	-4.2
MZDA	Masada	7.67	205	Pn	Pn	02 24 52.8	+2.5
MZDA	Masada	7.67	205	Pn	Pn	02 24 52.8	+2.4
HRT	Hereke	7.71	292	ePN	Pn	02 24 50.8	-0.1
HRT	Hereke	7.71	292	ePn	Pn	02 24 50.8	-0.1
IZI	Iznik	7.74	288	ePN	Pn	02 24 50.6	-0.7
IZI	Iznik	7.74	288	ePn	Pn	02 24 50.6	-0.7
YLV	Yalova	7.86	289	ePN	Pn	02 24 53.1	+0.1
YLV	Yalova	7.86	289	ePn	Pn	02 24 53.1	+0.1
MAK	Makhachkala	7.87	51c	iP	Pn	02 24 57.0	+3.9
MAK				eS	Sn	02 26 24.7	+1.9
MAK				pmax	pmax		
	comp=Z,307nm,1.7s						
MAK				MLR	MLR		
	comp=Z,64µm,13.0s						
MAK	Makhachkala	7.87	51	iP	Pn	02 24 57.0	+3.9
	comp=Z,307nm,1.7s						
MAK				eS	Sn	02 26 24.7	+1.9
	comp=Z,64µm,13.0s						
AKAS	Kas	7.87	257	iP	Pn	02 24 55.0	+1.8
GEMT	Gemlik	7.97	288	ePN	Pn	02 24 53.7	-0.8
FETY	Fethiye	8.16	261	ePN	Pn	02 24 57.4	+0.3
FETY	Fethiye	8.16	261	ePn	Pn	02 24 57.4	+0.3
ISK	Istanbul-Kandi	8.22	292	ePN	Pn	02 24 57.6	-0.3
ISK	Istanbul-Kandi	8.22	292	ePn	Pn	02 24 57.6	-0.3
KLYT	Kilyos	8.28	294	ePN	Pn	02 24 58.5	-0.3
KLYT	Kilyos	8.28	294	ePn	Pn	02 24 58.5	-0.3
KZIT	Kziot	8.38	209	Pn	Pn	02 25 02.2	+2.1
KZIT	Kziot	8.38	209	Pn	Pn	02 25 02.2	+2.1
ZFRI	Zfri	8.42	204	Pn	Pn	02 25 03.2	+2.4
ZFRI	Zfri	8.42	204	Pn	Pn	02 25 03.2	+2.4
HRFI	Mount Harif	8.95	203	Pn	Pn	02 25 09.5	+1.5
HRFI	Mount Harif	8.95	203	Pn	Pn	02 25 09.5	+1.5
EIL	Elat	9.31	203	Pn	Pn	02 25 14.6	+1.6
EIL				LR	LR	02 29 18.3	
EIL	Elat	9.31	203	Pn	Pn	02 25 14.6	+1.6
	comp=Z,1.3nm,0.3s,baz=5.1,slow=11,SNR=11						
EIL				LR	LR	02 29 18.3	
	comp=Z,12µm,21.2s,baz=360,slow=41						
EIL	Elat	9.31	203	Pn	Pn	02 25 16.1	+3.1
EIL	Elat	9.31	203	Pn	Pn	02 25 14.6	+1.6
BLCB	Balcova	9.49	274	eP	Pn	02 25 18.4	+3.0
PSN	Preselentsi	9.83	306	eP	Pn	02 25 21.9	+1.9
KARP	Karpathos	9.97	257	eP	Pn	02 25 21.5	-0.5
PRK	Paraskevi	10.07	279	eP	Pn	02 25 24.7	+1.4
TIRR	Tirgusor	10.10	311	⇑P	Pn	02 25 22.9	-0.7
TIRR	Tirgusor	10.10	311	⇑iP	Pn	02 25 22.9	-0.7
CHOS	Chios island	10.26	274	eP	Pn	02 25 29.0	+3.0
JMB	Yambol	10.41	297	eP	Pn	02 25 31.1	+3.2
RDO	Rodhopi	10.83	289	eP	Pn	02 25 32.9	-0.8
APE	Apeiranthos	10.84	267	eP	Pn	02 25 37.7	+3.8
APE	Apeiranthos	10.84	267	eP	Pn	02 25 38.2	+4.3
APE	Apeiranthos	10.84	267	eP	Pn	02 25 34.4	+0.5
MIB	Mutribah	10.90	139	eP	Pn	02 25 34.1	-0.6
MIB				eS	Sn	02 27 36.8	-0.7
MIB				AML	AML	02 27 44.7	
	comp=Z,189nm,0.8s						
NPS	Neapolis	11.26	258	eP	Pn	02 25 32.9	-6.7
UMR	Umm Al-Rimmam	11.30	138	eP	Pn	02 25 39.5	-0.7
UMR				eS	Sn	02 27 46.4	-0.8
UMR				AML	AML	02 27 51.0	
	comp=Z,113nm,0.7s						
NAY	Al-Naaiem	11.30	141	eP	Pn	02 25 40.0	-0.3
NAY				eS	Sn	02 27 47.7	+0.4
NAY				AML	AML	02 27 53.5	
	comp=Z,23nm,0.6s						
NAY	Al-Naaiem	11.30	141	eP	Pn	02 25 40.0	-0.3
NAY				eS	Sn	02 27 47.7	+0.4
XRY	Khrisi	11.33	256	eP	Pn	02 25 40.0	-0.6
LAST	Lasithi	11.39	258	eP	Pn	02 25 41.4	-0.1
KIS	Kishinev	11.49	322	eP	Pn	02 25 40.0	-2.7
KIS				eS	Sn	02 27 56.0	+4.2
KIS				MLR	MLR		
	comp=Z,6µm,20.0s						
KIS				MLR	MLR		
	comp=N,4µm,17.0s						
KIS				MLR	MLR		
	comp=E,5µm,20.0s						
KIS				MLR	MLR		
	comp=Z,6µm,20.0s						
KIS	Kishinev	11.49	322	eP	Pn	02 25 40.0	-2.7
KIS				eS	Sn	02 27 56.0	+4.2
KIS				eLi		02 28 30.0	
KIS				eLQ		02 29 06.0	
KIS				LRM		02 31 10.0	
	comp=Z,5µm,20.0s						
PVL	Pavlikeni	11.53	299	eP	Pn	02 25 47.3	+4.1
RZN	Rozhen	11.54	291	eP	Pn	02 25 46.6	+3.2
KBD	Kabd	11.59	140	eP	Pn	02 25 43.8	-0.4
KBD				eS	Sn	02 27 54.2	-0.2
KBD				AML	AML	02 28 12.0	
	comp=Z,321nm,0.5s						
PLD	Plovdiv	11.64	293	eP	Pn	02 25 48.9	+4.1
PLD	Plovdiv	11.64	293	eP	Pn	02 25 49.3	+4.5
ZIMR		11.66	301	P	Pn	02 25 46.8	+1.7
ZIMR		11.66	301	P	Pn	02 25 46.9	+1.8
RDF	Al-Radifah	11.72	141	eP	Pn	02 25 45.5	-0.4
IDI	Anoyia	11.80	259	Pn	Pn	02 25 47.4	+0.3
IDI				LR	LR	02 31 09.0	
IDI	Anoyia	11.80	259	Pn	Pn	02 25 47.4	+0.3
	comp=Z,2.3nm,0.3s,baz=94,slow=12,SNR=30						
IDI				LR	LR	02 31 09.0	
	comp=Z,9µm,20.9s,baz=238,slow=42						
IDI	Anoyia	11.80	259	Pn	Pn	02 25 47.4	+0.3
VRI	Vrincioaia	11.87	313	⇑P	Pn	02 25 48.0	0.0
VRI	Vrincioaia	11.87	313	⇑iP	Pn	02 25 48.0	0.0
PLOR	Plostina	11.91	313	P	Pn	02 25 48.2	-0.3
PTL	Penteli	12.01	273	eP	Pn	02 25 53.5	+3.6
NVR	Nevrokopi	12.11	289	eP	Pn	02 25 52.5	+1.3
KVR	Kavouri	12.11	272	eP	Pn	02 25 50.0	-1.2
MLR	Muntele Rosu	12.13	310	⇑P	Pn	02 25 52.5	+1.1
MLR	Muntele Rosu	12.13	310	Pn	Pn	02 25 52.8	+1.3
	comp=Z,0.3nm,0.3s,baz=65,slow=3.8,SNR=11						
MLR				LR	LR	02 31 08.3	
	comp=Z,7µm,21.3s,baz=123,slow=41						
MLR	Muntele Rosu	12.13	310	⇑iP	Pn	02 25 52.5	+1.1
ATH	Athens Observa	12.13	273	eP	Pn	02 25 54.3	+2.7
PGB	Panagyurishte	12.14	295	eP	Pn	02 25 54.2	+2.6
MMB	Musomiste	12.25	290	iP	Pn	02 25 54.0	+0.9
SRS	Serrai	12.27	288	eP	Pn	02 25 52.9	-0.5
VAM	Vamos	12.30	261	eP	Pn	02 25 58.0	+4.1
PLG	Polygyros	12.30	284	eP	Pn	02 25 55.2	+1.3
PLG	Polygyros	12.30	284	eP	Pn	02 25 55.0	+1.1
NAIG	Nisos Aigina	12.34	272	eP	Pn	02 25 57.0	+2.6
SOH	Sokhos	12.41	286	eP	Pn	02 25 58.4	+3.0
SOH	Sokhos	12.41	286	eP	Pn	02 25 58.3	+2.9
NEO	Neokhori	12.44	279	eP	Pn	02 25 54.9	-0.8
XOR	Xorichti	12.46	280	eP	Pn	02 25 57.6	+1.6
MGER	Gerania Oros	12.49	273	eP	Pn	02 26 00.0	+3.6
KARN	Karanos	12.52	261	eP	Pn	02 25 57.9	+1.0
GVD	Gavdhos	12.58	258	ePn	Pn	02 25 59.7	+2.1
	comp=Z,102nm,0.8s						
GVD	Gavdhos	12.58	258	eP	Pn	02 26 03.1	+5.5
HORT	Hortiatis	12.58	285	eP	Pn	02 26 00.7	+3.0
LKR	Lokris	12.64	276	eP	Pn	02 26 02.5	+4.1
VOIR		12.64	309	⇑iP	Pn	02 26 00.1	+1.6
VOIR		12.64	309	P	Pn	02 26 00.8	+2.3
THE	Thessaloniki	12.69	285	eP	Pn	02 26 01.7	+2.5
KKB	Krupnik	12.77	291	eP	Pn	02 26 01.6	+1.4
VTS	Vitosha	12.84	294	eP	Pn	02 26 02.8	+1.6
VTS	Vitosha	12.84	294	eP	Pn	02 25 58.0	-3.1
VTS	Vitosha	12.84	294	⇑iP	Pn	02 26 02.8	+1.7
VRSR	Storozhevoye	12.87	0	eP	Pn	02 26 01.7	+0.1
VRSR				eS	Sn	02 28 23.9	-1.5
VRSR				pmax	pmax		
	comp=N,10.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,3.0nm,1.0s						
VRSR				pmax	pmax		
	comp=Z,6.0nm,1.0s						
VRSR				smax			
	comp=N,10.0nm,2.9s						
VRSR				smax			
	comp=Z,20nm,2.0s						
VRSR				smax			
	comp=E,30nm,1.5s						
VRSR				MLR	MLR		
	comp=N,420nm,17.0s						
VRSR				MLR	MLR		
	comp=Z,340nm,17.0s						
VRSR				MLR	MLR		
	comp=E,360nm,22.0s						
VRHR	Novokhopersk	12.87	7	eP	Pn	02 26 02.5	+0.9
VRHR				pmax	pmax		
	comp=Z,70nm,0.7s						
VRHR				pmax	pmax		
	comp=N,160nm,1.1s						
VRHR				pmax	pmax		
	comp=E,50nm,0.7s						
VRHR				MLR	MLR		
	comp=Z,6µm,13.0s						
VRHR				MLR	MLR		
	comp=N,5µm,12.0s						
VRHR				MLR	MLR		
	comp=E,670nm,8.0s						
VRHR	Novokhopersk	12.87	7	eP	Pn	02 26 02.5	+0.9
	comp=E,5µm,12.0s						
VLI	Veliai	12.95	268	eP	Pn	02 26 04.4	+1.7
KYTH	Kithira	12.97	266	eP	Pn	02 26 05.5	+2.5
LIT	Litokhoron	13.02	283	eP	Pn	02 26 06.0	+2.3
LIT	Litokhoron	13.02	283	eP	Pn	02 26 05.9	+2.3
VAY	Valandovo	13.06	288	eP	Pn	02 26 08.7	+4.5
VAY	Valandovo	13.06	288	eP	Pn	02 26 04.9	+0.6
VAY	Valandovo	13.06	288	eP	Pn	02 26 04.8	+0.5
AGG	Agios Georgios	13.14	278	eP	Pn	02 26 10.2	+4.9
GRG	Griva	13.15	287	eP	Pn	02 26 07.9	+2.5
THL	Klokotos Trika	13.37	281	eP	Pn	02 26 08.6	+0.1
VOR	Voronezh	13.39	0	eP	Pn	02 26 10.0	+1.4
VOR				pmax	pmax		
	comp=Z,220nm,1.0s						
VOR	Voronezh	13.39	0	eP	Pn	02 26 10.0	+1.4
	comp=Z,220nm,1.0s						
STIP	Stip	13.40	290	eP	Pn	02 26 10.5	+1.6
EVR	Evrytania	13.55	278	eP	Pn	02 26 16.3	+5.4
KZN	Kozani	13.58	284	eP	Pn	02 26 16.0	+4.8
ITM	Ithomi	13.66	270	eP	Pn	02 26 14.7	+2.3
ITM	Ithomi	13.66	270	P	Pn	02 26 13.9	+1.5
BURAR	Bucovina Array	13.74	317	⇓P	Pn	02 26 12.7	-0.8
BURAR	Bucovina Array	13.74	317	⇓iP	Pn	02 26 12.7	-0.8
RLS	Riolos of Patr	13.89	274	eP	Pn	02 26 20.3	+4.8
FNA	Florina	13.91	286	eP	Pn	02 26 17.0	+1.3
BIA	Bitola	13.96	287	eP	Pn	02 26 18.2	+1.6
BIA	Bitola	13.96	287	P	Pn	02 26 19.2	+2.7
SKO	Skopje	14.00	291	eP	Pn	02 26 20.5	+3.5
SKO	Skopje	14.00	291	eP	Pn	02 26 20.6	+3.6
GZR	Gura Zlata	14.05	305	⇓iP	Pn	02 26 22.2	+4.5
KRUS	Krusevo	14.06	288	eP	Pn	02 26 19.5	+1.7
KRUS	Krusevo	14.06	288	eP	Pn	02 26 19.4	+1.6
AKASG	Malin Array Be	14.21	334	Pn	Pn	02 26 17.4	-2.5
AKASG	Malin Array Be	14.21	334	P	Pn	02 26 17.4	-2.5
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.3s						
AKASG	Malin Array Be	14.21	334	Pn	Pn	02 26 17.4	-2.5
	comp=Z,3.3nm,0.3s,baz=142,slow=14,SNR=15						
AKASG	Malin Array Be	14.21	334	Pn	Pn	02 26 17.4	-2.5
AKBB	Malin Array Si	14.21	334	ePn	Pn	02 26 17.4	-2.4
AKBB	Malin Array Si	14.21	334	ePn	Pn	02 26 17.4	-2.5
KIEV	Kiev	14.21	334	ePn	Pn	02 26 17.4	-2.4
	comp=Z,33nm,0.8s						
KIEV	Kiev	14.21	334	eP	Pn	02 26 17.5	-2.3
KIEV				pmax	pmax		
	comp=Z,33nm,0.8s						
KIEV	Kiev	14.21	334	eP	Pn	02 26 17.5	-2.3
	comp=Z,33nm,0.8s						
JAN	Janina	14.27	281	eP	Pn	02 26 22.9	+2.2
OHR	Ohrid	14.37	287	eP	Pn	02 26 25.9	+3.9
OHR	Ohrid	14.37	287	eP	Pn	02 26 25.1	+3.0
LKD	Levkas	14.47	277	eP	Pn	02 26 27.7	+4.3
VLS	Valsamata	14.56	275	eP	Pn	02 26 25.0	+0.3
IGT	Igoumenitsa	14.67	281	eP	Pn	02 26 31.9	+5.7
DRGR		14.72	310	⇑iP	Pn	02 26 26.9	0.0
DRGR		14.72	310	P	Pn	02 26 27.5	+0.6
BZS	Buzias	14.89	305	⇓P	Pn	02 26 29.1	0.0
BZS	Buzias	14.89	305	⇓iP	Pn	02 26 29.1	-0.1
ABKT	Ailbek	14.96	86	Pn	Pn	02 26 28.6	-1.6
	comp=Z,411nm,1.3s,SNR=21						
TIR	Tirane	15.09	288	eP	Pn	02 26 31.7	-0.2
SJES	Sjenica	15.32	295	P	Pn	02 26 35.4	+0.4
DIVS	Divcibare	15.49	298	eP	Pn	02 26 39.4	+2.3
DIVS	Divcibare	15.49	298	P	Pn	02 26 38.7	+1.6
LVV	L’vov	15.75	322	eP	Pn	02 26 39.2	-1.3
LVV				eS	Sn	02 29 37.0	+1.4
LVV				MLR	MLR		
	comp=Z,2µm,15.6s						
LVV	L’vov	15.75	322	eP	Pn	02 26 39.2	-1.3
	comp=Z,2µm,15.6s						
FGSL	Fruska Gora	15.92	301	P	Pn	02 26 44.2	+1.5
UZH	Uzhgorod	15.93	316d	iP	Pn	02 26 47.0	+4.2
UZH				iS	Sn	02 29 49.0	+9.0
UZH				MLR	MLR		
	comp=Z,2µm,14.0s						
KOLS	Kolonicke sedl	16.11	316	eP	Pn	02 26 49.2	+4.0
KOLS				e		02 26 53.6	
KOLS				e		02 26 58.0	
KOLS				eS	Sn	02 30 00.3	+16
KWP	Kalwaria	16.29	319	eP	Pn	02 26 50.9	+3.3
KWP				epP	pP	02 26 55.7	+5.0
KWP				LMZ		02 34 13.8	
	comp=Z,2µm,19.5s						
KWP	Kalwaria	16.29	319	ePn	Pn	02 26 47.0	-0.5
	comp=Z,86nm,1.0s						
KWP				epP	pP	02 26 55.7	+5.0
KWP	Kalwaria	16.29	319	eP	Pn	02 26 47.1	-0.4
KWP				pmax	pmax		
	comp=Z,86nm,1.0s						
KWP	Kalwaria	16.29	319	eP	Pn	02 26 47.1	-0.4
	comp=Z,86nm,1.0s						
KWP				epP	pP	02 26 55.7	+5.0
LCI	Lecce	16.37	284	P	Pn	02 26 48.2	-0.4
CRVS	Cervenica-Dubn	16.54	315	eP	Pn	02 26 51.2	+0.5
CRVS				e		02 26 54.0	
CRVS				e		02 26 59.0	
CRVS				eS	Sn	02 30 11.0	+16
OBN	Obninsk	16.87	355	ePn	Pn	02 26 52.3	-2.5
	comp=Z,68nm,0.8s						
OBN	Obninsk	16.87	355	⇑eP	Pn	02 26 52.9	-1.9
OBN				eS	Sn	02 30 00.3	-2.3
OBN				pmax	pmax		
	comp=Z,81nm,1.1s						
OBN				MLR	MLR		
	comp=Z,4µm,19.0s						
OBN	Obninsk	16.87	355	eP	Pn	02 26 52.9	-1.9
	comp=Z,81nm,1.1s						
KECS	Kecovo	16.87	313	eP	Pn	02 26 57.8	+2.9
	comp=Z,21nm,0.9s						
KECS				e		02 27 01.3	
KECS	Kecovo	16.87	313	eP	Pn	02 26 57.8	+2.9
KECS				pmax	pmax		
	comp=Z,21nm,0.9s						
KECS	Kecovo	16.87	313	eP	Pn	02 26 57.8	+2.9
KECS				e		02 27 01.2	
STON	Ston	16.87	292	iP	Pn	02 26 51.5	-3.5
STHS	Stebnicka Huta	16.94	317	eP	Pn	02 26 58.4	+2.6
	comp=Z,38nm,1.4s						
STHS				e		02 27 04.2	
STHS				e		02 27 08.7	
STHS	Stebnicka Huta	16.94	317	eP	Pn	02 26 58.4	+2.6
STHS				pmax	pmax		
	comp=Z,38nm,1.4s						
PSZ	Piszkesteto	16.95	311	ePn	Pn	02 26 54.7	-1.1
	comp=Z,58nm,1.0s						
PSZ	Piszkesteto	16.95	311	eP	Pn	02 26 54.7	-1.1
PSZ				pmax	pmax		
	comp=Z,58nm,1.0s						
PSZ	Piszkesteto	16.95	311	⇑iPP		02 26 59.4	
PSZ	Piszkesteto	16.95	311	⇑iP	Pn	02 26 59.2	+3.4
PSZ	Piszkesteto	16.95	311	eP	Pn	02 26 54.7	-1.1
	comp=Z,58nm,1.0s						
PKSM	Moragy	17.04	304	⇓iP	Pn	02 26 54.9	-2.1
PKSM	Moragy	17.04	304	P	Pn	02 26 56.7	-0.3
NOCI	Noci	17.18	285	P	Pn	02 26 57.0	-1.8
RHK3	Tenkes	17.19	303	⇑eP	Pn	02 26 59.5	+0.6
BUD	Budapest	17.28	308	⇑iPP		02 27 03.4	
BUD	Budapest	17.28	308	P	Pn	02 27 01.5	+1.4
MOS	Moscow	17.43	357	eP	Pn	02 26 56.9	-4.9
MOS				eS	Sn	02 30 05.4	-11
MOS				pmax	pmax		
	comp=Z,114nm,1.4s						
MOS				MLR	MLR		
	comp=N,4µm,14.0s						
MOS				MLR	MLR		
	comp=Z,5µm,14.0s						
NIE	Niedzica	17.45	315	eP	Pn	02 27 03.7	+1.6
TIP	Timpagrande	17.46	280	ePn	Pn	02 27 01.0	-1.3
TIP	Timpagrande	17.46	280	P	Pn	02 27 04.1	+1.8
AMUR	Altamura	17.53	285	P	Pn	02 27 01.3	-1.9
VYHS	Vyhne	17.84	311	eP	Pn	02 27 07.4	+0.5
	comp=Z,127nm,1.9s						
VYHS				e		02 27 10.6	
VYHS				e		02 27 15.0	
VYHS				eS	Sn	02 30 43.6	+17
VYHS	Vyhne	17.84	311	eP	Pn	02 27 07.4	+0.5
VYHS				pmax	pmax		
	comp=Z,127nm,1.9s						
VYHS				MLR	MLR		
	comp=Z,2µm,30.3s						
VYHS	Vyhne	17.84	311	eP	Pn	02 27 07.4	+0.5
VYHS				e		02 27 10.6	
VYHS				e		02 27 15.0	
VYHS				eS	Sn	02 30 43.6	+17
VYHS	Vyhne	17.84	311	eP	Pn	02 27 07.4	+0.5
	comp=Z,127nm,1.9s						
AKTK	Aktyubinsk	18.06	42	P	Pn	02 27 08.0	-1.7
AKTK				LR	LR	02 35 55.3	
AKTK	Aktyubinsk	18.06	42	P	Pn	02 27 08.0	-1.7
AKTO	Aktyubinsk	18.06	42	P	Pn	02 27 08.0	-1.7
	comp=Z,0.4nm,0.3s,baz=234,slow=13,SNR=41						
AKTO				LR	LR	02 35 55.3	
	comp=Z,9µm,18.6s,baz=76,slow=43						
SOI	Samo	18.12	276	P	Pn	02 27 10.2	-0.4

OJC	Ojcow	18.17	317	eP	Pn	02 27 11.7	+0.7
OJC				eS	Sn	02 30 38.9	+4.7
OJC	Ojcow	18.17	317	eP	Pn	02 27 11.7	+0.7
OJC				eS	Sn	02 30 38.9	+4.7
OJC				MLR	MLR		
	comp=Z,4µm,16.5s						
RGNG	Rignano Grg	18.32	288	P	Pn	02 27 13.8	+0.9
MGR	Morigerati	18.33	283	P	Pn	02 27 14.9	+1.8
SCLL	Scilla	18.37	277	P	Pn	02 27 14.8	+1.3
	comp=Z,64nm,1.1s						
NE53	Naroch’	18.55	337	eS	Sn	02 30 35.3	-8.2
NE53	Naroch’	18.55	337	ePcP	PcP	02 31 40.7	-4.2
CAFE	Carife	18.56	286	P	Pn	02 27 16.7	+0.8
KOGS	Kog	18.69	303	eP	Pn	02 27 17.6	+0.2
KOGS				eS	Sn	02 30 53.6	+6.8
SMOL	Smolenice	18.69	310	eP	Pn	02 27 18.6	+1.2
SMOL				e		02 27 21.8	
MODS	Modra-Piesok	18.72	309	eP	Pn	02 27 17.9	+0.1
	comp=Z,36nm,1.2s						
MODS				e		02 27 23.3	
MODS				e		02 27 33.5	
MODS				eS	Sn	02 30 54.1	+6.5
MODS	Modra-Piesok	18.72	309	eP	Pn	02 27 17.9	+0.1
MODS				pmax	pmax		
	comp=Z,36nm,1.2s						
MODS				MLR	MLR		
	comp=Z,1µm,28.5s						
MODS	Modra-Piesok	18.72	309	eP	Pn	02 27 17.9	+0.1
MODS				e		02 27 23.3	
MODS				e		02 27 33.5	
MODS				eS	Sn	02 30 54.1	+6.5
MODS	Modra-Piesok	18.72	309	eP	Pn	02 27 17.9	+0.1
	comp=Z,36nm,1.2s						
ZST	Bratislava	18.76	309	eP	Pn	02 27 18.3	+0.1
	comp=Z,41nm,0.7s						
ZST				e		02 27 23.6	
ZST				e		02 27 28.9	
ZST				eS	Sn	02 30 58.6	+10
ZST	Bratislava	18.76	309	eP	Pn	02 27 18.3	+0.1
ZST				pmax	pmax		
	comp=Z,41nm,0.7s						
ZST				MLR	MLR		
	comp=Z,1µm,20.4s						
ZST	Bratislava	18.76	309	eP	Pn	02 27 18.3	+0.1
ZST				e		02 27 23.6	
ZST				e		02 27 28.9	
ZST				eS	Sn	02 30 58.6	+10
ZST	Bratislava	18.76	309	eP	Pn	02 27 18.3	+0.1
	comp=Z,41nm,0.7s						
WAR	Warsaw	18.77	324	eP	Pn	02 27 18.5	+0.2
WAR				eS	Sn	02 30 51.9	+3.0
WAR				esS	sS	02 30 57.7	+5.3
WAR				LMZ		02 36 16.8	
	comp=Z,3µm,19.4s						
WAR	Warsaw	18.77	324	eP	Pn	02 27 18.5	+0.1
WAR				eS	Sn	02 30 51.9	+3.1
WAR				eSS		02 30 57.7	
WAR	Warsaw	18.77	324	eP	Pn	02 27 18.5	+0.1
WAR				eS	Sn	02 30 51.9	+3.1
WAR				MLR	MLR		
	comp=Z,3µm,19.4s						
OKC	Ostrava-Krasne	18.88	314	eP	Pn	02 27 18.4	-1.2
OKC				eS	Sn	02 30 54.1	+2.8
OKC	Ostrava-Krasne	18.88	314	eP	Pn	02 27 18.4	-1.2
OKC				eS	Sn	02 30 54.1	+2.8
OKC				AMS	AMS	02 36 10.0	
	comp=Z,4µm,13.7s						
SOP	Sopron	18.90	307	ePP		02 27 20.4	
SOP	Sopron	18.90	307	P	Pn	02 27 19.5	-0.4
IDID	Didziasalis	18.92	338	eP	Pn	02 27 19.0	-1.1
IDID				AMb	AMB	02 27 26.7	
	comp=Z,32nm,1.3s						
IDID	Didziasalis	18.92	338	eP	Pn	02 27 19.0	-1.1
	comp=Z,32nm,1.3s,SNR=33						
LLI	Lipari	18.94	278	P	Pn	02 27 20.0	-0.5
RAC	Raciborz	18.97	315	eP	Pn	02 27 21.6	+0.8
RAC				MLR	MLR		
	comp=N,6µm,17.4s						
RAC				MLR	MLR		
	comp=Z,3µm,18.5s						
RAC				MLR	MLR		
	comp=E,5µm,16.8s						
CRES	Cresnjev	19.04	301	P	Pn	02 27 21.9	+0.2
SUW	Suwalki	19.09	330	eP	Pn	02 27 20.6	-1.6
SUW				epP	pP	02 27 23.7	+2.1
SUW				eS	Sn	02 30 54.0	-2.6
SUW				esS	sS	02 30 59.2	+0.4
SUW				LMZ		02 36 25.2	
	comp=E,2µm,21.9s						
SUW	Suwalki	19.09	330	eP	Pn	02 27 20.6	-1.6
SUW				epP	pP	02 27 23.7	+2.1
SUW				eS	Sn	02 30 54.0	-2.6
SUW				eSS		02 30 59.2	
SUW	Suwalki	19.09	330	eP	Pn	02 27 20.6	-1.6
SUW				eS	Sn	02 30 54.0	-2.6
SUW				MLR	MLR		
	comp=Z,2µm,21.9s						
SUW	Suwalki	19.09	330	eP	Pn	02 27 20.6	-1.6
SUW				epP	pP	02 27 23.7	+2.1
BOJS	Bojanci	19.11	300	i P	Pn	02 27 22.6	+0.2
BOJS				eS	Sn	02 31 05.5	+8.5
IIGN	Ignalina	19.11	337	eP	Pn	02 27 20.4	-2.0
IIGN	Ignalina	19.11	337	eP	Pn	02 27 20.4	-2.0
	SNR=33						
NVLJ	Novalja	19.17	297	iP	Pn	02 27 17.8	-5.5
MORC	Moravsky Berou	19.19	314	eP	Pn	02 27 22.1	-1.3
	comp=Z,22nm,0.8s						
MORC	Moravsky Berou	19.19	314	eP	Pn	02 27 22.1	-1.3
MORC				pmax	pmax		
	comp=Z,22nm,0.8s						
MORC	Moravsky Berou	19.19	314	⇓iP	Pn	02 27 22.7	-0.7
MORC	Moravsky Berou	19.19	314	eP	Pn	02 27 22.1	-1.3
	comp=Z,22nm,0.8s						
MIDA	Miranda	19.32	288	P	Pn	02 27 25.9	+0.9
	comp=Z,229nm,1.1s						
HVZN	Vizzini	19.32	274	P	Pn	02 27 23.7	-1.4
NAZ	Nazwa, Dubai	19.34	129	P	Pn	02 27 25.4	0.0
	SNR=5.5						
ARSA	Arzberg	19.41	305	⇓iP	Pn	02 27 24.9	-1.2
	comp=Z,13nm,0.8s						
CONA	Conrad Observa	19.43	307	⇓iP	Pn	02 27 25.7	-0.6
	comp=Z,34nm,0.9s,SNR=15						
IZAR	Zarasai	19.44	338	eP	Pn	02 27 24.0	-2.3
IZAR				AMb	AMB	02 27 37.6	
	comp=Z,31nm,1.0s						
IZAR	Zarasai	19.44	338	eP	Pn	02 27 24.0	-2.4
	comp=Z,31nm,1.0s,SNR=28						
PERS	Pernice	19.49	303	i P	Pn	02 27 26.8	-0.3
PERS				eS	Sn	02 31 09.8	+3.6
VAE	Valguarnera	19.50	275	P	Pn	02 27 27.4	+0.1
	comp=Z,0.2nm,0.3s,baz=70,slow=4.4,SNR=6.8						
VAE				LR	LR	02 36 17.1	
	comp=Z,2µm,18.9s,baz=339,slow=41						
VRAC	Vranov	19.53	311	⇑P	Pn	02 27 27.1	-0.4
VRAC	Vranov	19.53	311	P	Pn	02 27 27.7	+0.2
	comp=Z,0.9nm,0.3s,baz=122,slow=9.2,SNR=14						
VRAC				LR	LR	02 36 05.5	
	comp=Z,3µm,19.8s,baz=111,slow=41						
VRAC	Vranov	19.53	311	⇑iP	Pn	02 27 27.1	-0.4
KRUC	Moravsky	19.54	311	P	Pn	02 27 26.6	-1.0
CSLB	Castelbuono	19.70	277	P	Pn	02 27 32.1	+2.4
LJU	Ljubljana	19.73	301	eP	Pn	02 27 30.0	+0.1
LJU				eS	Sn	02 31 15.7	+3.8
HATD	Hatta, Dubai	19.75	128	P	Pn	02 27 29.5	-0.8
	SNR=11						
ASHO	Ashiyiah	19.80	129	P	Pn	02 27 30.6	-0.3
	SNR=6.8						
OBKA	Obir	19.83	302	⇑iP	Pn	02 27 30.8	-0.3
	comp=Z,25nm,0.8s,SNR=6.1						
AQU	L’Aquila	19.98	290	eP	Pn	02 27 31.8	-1.2
	comp=Z,421nm,1.1s						
AQU	L’Aquila	19.98	290	eP	Pn	02 27 31.8	-1.1
AQU				pmax	pmax		
	comp=Z,421nm,1.1s						
AQU	L’Aquila	19.98	290	⇑iP	Pn	02 27 31.9	-1.0
AQU	L’Aquila	19.98	290	eP	Pn	02 27 31.8	-1.1
	comp=Z,421nm,1.1s						
JAVS	Javornik	20.00	300	eP	P	02 27 31.3	-0.2
VOY	Vojsko	20.15	300	eP	P	02 27 33.7	+0.6
VOY				e		02 27 48.1	
VOY				e		02 28 07.2	
VOY	Vojsko	20.15	300	eP	P	02 27 33.7	+0.6
VOY				e		02 27 48.1	
VOY				e		02 28 07.2	
VOY				e		02 28 28.7	
DPC	Dobruska-Polom	20.15	314	eP	P	02 27 32.8	-0.3
DPC				eS	S	02 31 24.0	+4.0
DPC				AMS	AMS	02 37 00.0	
	comp=Z,3µm,11.5s						
TREC	Trest	20.18	310	eP	P	02 27 33.5	+0.1
TREC				eS	S	02 31 26.3	+5.7
TREC				AMS	AMS	02 41 20.0	
	comp=Z,2µm,18.2s						
TREC	Trest	20.18	310	eP	P	02 27 33.5	+0.1
	comp=Z,2µm,18.2s						
CING	Cingoli	20.21	293	P	P	02 27 32.8	-0.9
CADS	Cadrg	20.30	301	eP	P	02 27 35.6	+0.8
SNTG	Esanatoglia	20.38	292	P	P	02 27 35.7	+0.1
UPC	Upice	20.40	314	eP	P	02 27 36.1	+0.3
KSP	Ksiaz	20.40	315	eP	P	02 27 36.8	+1.0
KSP				epP		02 27 40.8	
KSP				eS	S	02 31 25.5	+0.5
KSP				esS	sS	02 31 32.1	+7.0
KSP				LMZ		02 35 30.8	
	comp=Z,4µm,26.4s						
KSP	Ksiaz	20.40	315	eP	P	02 27 36.1	+0.3
KSP				e*PP		02 27 39.8	
KSP				eS	S	02 31 24.8	-0.2
MOA	Molln	20.41	306	⇑iP	P	02 27 36.5	+0.6
	comp=Z,51nm,0.8s,SNR=17						
MTCE	Montecelio	20.45	289	P	P	02 27 37.4	+0.9
	comp=Z,140nm,1.2s						
MA9	Marino	20.51	288	P	P	02 27 38.2	+1.1
MNS	Montasola	20.51	290	P	P	02 27 37.4	+0.3
KBA	Koelnbreinsper	20.78	303	⇑iP	P	02 27 39.9	-0.1
	comp=Z,81nm,0.9s,SNR=27						
KBA	Koelnbreinsper	20.78	303	⇑iP	P	02 27 39.9	-0.1
KBA				pmax	pmax		
	comp=Z,81nm,0.9s						
BADI	Badiali	20.91	293	P	P	02 27 42.9	+1.5
PRU	Pruhonice	21.02	312	eP	P	02 27 42.1	-0.4
PRU				eS	S	02 31 40.7	+3.4
PRU				AMS	AMS	02 38 40.0	
	comp=Z,2µm,15.8s						
FVI	Forni Avoltri	21.04	302	P	P	02 27 42.9	+0.2
ARQ	Araqi	21.09	130	P	P	02 27 44.3	+0.9
	SNR=31						
GEC2	GERESS Array S	21.10	308	eP	P	02 27 42.9	-0.4
GEC2				eS	S	02 31 42.8	+4.0
GEC2				pmax	pmax		
	comp=Z,54nm,1.1s,mb4.8						
GEC2	GERESS Array S	21.10	308	eP	P	02 27 42.9	-0.4
	comp=Z,54nm,1.1s,mb4.8						
GEC2				eS	S	02 31 42.8	+4.0
GERES	GERESS Array B	21.10	308	P	P	02 27 42.9	-0.4
GERES				pmax	pmax		
	comp=Z,22nm,0.7s						
GERES				MLR	MLR		
	comp=Z,2µm,21.3s						
GERES	GERESS Array B	21.10	308	P	P	02 27 42.9	-0.4
	comp=Z,22nm,0.7s,mb4.6,baz=112,slow=10,SNR=77						
GERES				LR	LR	02 36 37.3	
	comp=Z,2µm,21.3s,MS4.4,baz=109,slow=39						
PRA	Prague	21.12	312	P	P	02 27 45.0	+1.4
GKP	Gorka Klasztor	21.22	322	eP	P	02 27 45.5	+0.9
GKP				epP		02 27 47.8	
GKP				eS	S	02 31 36.9	-4.2
GKP				esS	sS	02 31 43.7	+2.6
GKP				LMZ		02 37 49.8	
	comp=Z,4µm,19.1s						
GKP	Gorka Klasztor	21.22	322	eP	P	02 27 45.5	+0.9
GKP				e*PP		02 27 47.8	
GKP				eS	S	02 31 36.9	-4.2
GKP				e*SS	sS	02 31 43.7	+2.5
GKP				MLR	MLR		
	comp=Z,4µm,19.1s,MS4.8						
SFI	Santa Sofia	21.23	294	P	P	02 27 46.3	+1.4
PVCC	Panska Ves	21.23	313	eP	P	02 27 44.2	-0.6
PVCC				AMS	AMS	02 37 50.0	
	comp=Z,3µm,13.1s						
ABTA	Abfaltersbach	21.25	302	⇑iPn	P	02 27 43.8	-1.2
	comp=Z,16nm,0.8s,mb4.4						
ABTA	Abfaltersbach	21.25	302	Pn	P	02 27 43.8	-1.2
	comp=Z,16nm,0.8s,mb4.4						
KHC	Kasperske Hory	21.27	309	eP	P	02 27 44.4	-0.8
KHC				e		02 27 48.0	
KHC				eS	S	02 31 44.4	+2.1
KHC				MLR	MLR		
	comp=Z,3µm,14.8s,MS4.8						
KHC	Kasperske Hory	21.27	309	eP	P	02 27 44.4	-0.8
KHC				epP		02 27 48.0	
KHC				ex	x	02 27 59.5	
KHC				eS	S	02 31 44.4	+2.1
KHC				AMS	AMS	02 38 30.0	
	comp=Z,3µm,14.8s						
HOQ	Hoqain	21.39	128	P	P	02 27 47.6	+1.0
	SNR=17						
SEST	Monte Rota	21.45	302	P	P	02 27 48.5	+1.3
VMG	Vicchio	21.46	294	P	P	02 27 49.0	+1.7
VSU	Vasula	21.68	342	i P	P	02 27 48.2	-1.3
WET	Wettzell	21.71	308	eP	P	02 27 49.6	-0.3
WET				eS	S	02 31 53.0	+2.2
WET				pmax	pmax		
	comp=Z,106nm,1.8s,mb5.0						
WET	Wettzell	21.71	308	eP	P	02 27 49.6	-0.3
	comp=Z,106nm,1.8s,mb5.0						
WET				eS	S	02 31 53.0	+2.2
BRG	Berggiesshubel	21.74	313	eP	P	02 27 50.8	+0.5
	comp=Z,50nm,1.8s,mb4.7						
BRG				i		02 27 56.9	
BRG				S	S	02 31 56.0	+4.5
BRG				LR	LR		
	comp=Z,2µm,16.8s,MS4.5						
BRG	Berggiesshubel	21.74	313	eP	P	02 27 50.8	+0.5
BRG				i		02 27 56.9	
BRG				S	S	02 31 56.0	+4.5
BRG				pmax	pmax		
	comp=Z,50nm,1.8s,mb4.6						
BRG				pmax	pmax		
	comp=Z,26nm,1.3s,mb4.5						
BRG				MLR	MLR		
	comp=N,1µm,13.5s						
BRG				MLR	MLR		
	comp=E,2µm,19.3s						
BRG				MLR	MLR		
	comp=Z,2µm,16.8s,MS4.5						
BRG	Berggiesshubel	21.74	313	eP	P	02 27 48.2	-2.1
	comp=Z,84nm,1.8s,mb4.9						
BRG				eS	S	02 31 55.2	+3.7
BRG	Berggiesshubel	21.74	313	eP	P	02 27 50.8	+0.5
	comp=Z,84nm,1.8s,mb4.9						
BRG				i		02 27 56.9	
	comp=Z,44nm,1.3s						
BRG				S	S	02 31 56.0	+4.5
BRG							
	comp=N,2µm,13.5s						
BRG							
	comp=E,3µm,19.3s						
BRG							
	comp=Z,3µm,16.8s						
FNVD	Fontana Vidola	21.78	294	P	P	02 27 52.6	+1.9
BIDO	Bidbid	21.94	127	P	P	02 27 56.3	+3.7
	SNR=17						
BSY	Bisya	21.94	130	P	P	02 27 53.1	+0.4
	SNR=41						
WTTA	Wattenberg	21.95	303	⇑iP	P	02 27 53.2	+0.6
	comp=Z,53nm,0.8s,mb5.0,SNR=22						
WTTA	Wattenberg	21.95	303	⇑ipP	pP	02 27 53.2	+0.5
	comp=Z,53nm,0.8s,SNR=22						
WTTA	Wattenberg	21.95	303	⇑iP	P	02 27 53.2	+0.6
WTTA				pmax	pmax		
	comp=Z,53nm,0.8s,mb5.0						
WATA	Walderalm	22.01	303	⇓iP	P	02 27 54.0	+0.8
	comp=Z,41nm,1.0s,mb4.8,SNR=24						
WATA	Walderalm	22.01	303	⇓ipP	pP	02 27 54.0	+0.7
	comp=Z,41nm,1.0s,SNR=24						
WATA	Walderalm	22.01	303	⇓iP	P	02 27 54.0	+0.8
WATA				pmax	pmax		
	comp=Z,41nm,1.0s,mb4.8						
APPI	Appiano	22.05	301	P	P	02 27 55.4	+1.7
FBE	Freiberg	22.10	313	eP	P	02 27 54.6	+0.5
	comp=Z,80nm,1.2s,mb5.0						
PUL	Pulkovo	22.17	348	eP	P	02 27 53.6	-1.1
GSCL	Gusciola	22.18	295	P	P	02 27 55.7	+0.7
SMDO	Samad	22.23	128	P	P	02 27 56.2	+0.5
	SNR=32						
SQTA	Sankt Quirin	22.23	302	⇑iP	P	02 27 54.9	-0.6
	comp=Z,35nm,0.9s,mb4.8,SNR=22						
SQTA	Sankt Quirin	22.23	302	⇑ipP	pP	02 27 54.9	-0.7
	comp=Z,35nm,0.9s,SNR=22						
SQTA	Sankt Quirin	22.23	302	⇑iP	P	02 27 54.9	-0.6
SQTA				pmax	pmax		
	comp=Z,35nm,0.9s,mb4.8						
ARU	Arti	22.24	29	P	P	02 27 54.4	-1.1
	comp=Z,796nm,0.8s,mb6.2,SNR=28						
ARU	Arti	22.24	29	eP	P	02 27 53.8	-1.7
	comp=Z,106nm,0.8s,mb5.3						
ARU				LR	LR		
	comp=Z,3µm,21.0s,MS4.7						
ARU	Arti	22.24	29	⇓iP	P	02 27 54.3	-1.2
ARU				ePPP		02 28 21.5	
ARU				eS	S	02 31 59.9	-1.1
ARU				eSS		02 32 28.2	
ARU				eSSS		02 32 44.9	
ARU				pmax	pmax		
	comp=Z,85nm,0.9s,mb5.2						
ARU				MLR	MLR		
	comp=N,1µm,15.0s,MS4.8						
ARU				MLR	MLR		
	comp=E,3µm,15.0s,MS4.8						
ARU				MLR	MLR		
	comp=Z,3µm,15.0s,MS4.8						
ERBM	Eremo	22.31	295	P	P	02 27 57.6	+1.2
BERN	Bernov	22.32	311	⇑P	P	02 28 03.3	+6.8
MOTA	Moosalm	22.33	303	⇑iP	P	02 27 55.7	-0.9
	comp=Z,70nm,1.0s,mb5.1,SNR=29						
MOTA	Moosalm	22.33	303	⇑ipP	pP	02 27 55.7	-0.9
	comp=Z,70nm,1.0s,SNR=29						
MOTA	Moosalm	22.33	303	⇑iP	P	02 27 55.7	-0.9
MOTA				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.0						
ROTZ	Rotzenmuhle	22.34	309	eP	P	02 27 56.3	-0.3
	comp=Z,150nm,1.0s,mb5.4						
ROTZ				eS	S	02 32 02.7	-0.3
NKC	Novy Kostel	22.36	311	eP	P	02 27 57.9	+1.0
NKC				eS	S	02 32 06.4	+2.9
NKC	Novy Kostel	22.36	311	eP	P	02 27 57.9	+1.0
NKC				eS	S	02 32 06.4	+2.9
NKC				AMS	AMS	02 39 20.0	
	comp=Z,4µm,17.0s						
TANN	Tannenbergstha	22.42	311	eP	P	02 27 57.2	-0.3
	comp=Z,101nm,1.6s,mb5.0						
TANN				eS	S	02 32 05.7	+1.1
FUR	Furstenfeldbru	22.42	305	eP	P	02 27 56.7	-0.8
FUR				eS	S	02 32 05.6	+0.9
FUR				pmax	pmax		
	comp=Z,188nm,0.9s,mb5.5						
FUR	Furstenfeldbru	22.42	305	eP	P	02 27 56.7	-0.8
	comp=Z,188nm,0.9s,mb5.5						
FUR				eS	S	02 32 05.6	+0.9
WERN	Wernitzgruen	22.42	311	eP	P	02 27 57.6	+0.1
	comp=Z,158nm,1.4s,mb5.2						
VALM		22.42	295	P	P	02 27 58.6	+1.0
MABI	Malga Bissina	22.46	299	P	P	02 27 59.8	+1.8
CLL	Collm	22.46	314	i P	P	02 27 57.6	-0.4
	comp=Z,98nm,2.1s,mb4.9						
CLL				i		02 28 02.8	
CLL				eS	S	02 32 05.0	-0.5
CLL				LR	LR		
	comp=Z,2µm,16.1s,MS4.7						
CLL	Collm	22.46	314	i P	P	02 27 57.6	-0.4
CLL				i		02 28 02.8	
CLL				eS	S	02 32 05.0	-0.5
CLL				pmax	pmax		
	comp=Z,98nm,2.1s,mb4.9						
CLL				MLR	MLR		
	comp=Z,2µm,16.1s,MS4.7						
CLL	Collm	22.46	314	eP	P	02 27 58.0	0.0
	comp=Z,60nm,1.0s,mb5.0						
CLL				eS	S	02 32 05.0	-0.5
CLL	Collm	22.46	314	i P	P	02 27 57.6	-0.4
	comp=Z,98nm,2.1s,mb4.9						
CLL				i pP		02 28 00.0	
CLL				i x	x	02 28 02.8	
CLL				i x	x	02 28 08.1	
	comp=Z,60nm,1.0s						
CLL				i x	x	02 28 12.7	
CLL				eS	S	02 32 05.0	-0.5
	comp=N,2µm,22.9s						
CLL				eS	S	02 32 05.0	-0.5
	comp=E,1µm,10.1s						
CLL				eS	S	02 32 05.0	-0.5
	comp=Z,1µm,20.4s						
CLL				ex	x	02 33 03.0	
MANZ	Manzenberg	22.47	310	eP	P	02 27 58.4	+0.3
	comp=Z,67nm,1.0s,mb5.0						
MANZ				eS	S	02 32 07.3	+1.6
GUNZ	Gunzen	22.48	311	eP	P	02 27 58.3	+0.2
	comp=Z,132nm,1.5s,mb5.1						
FETA	Feichten	22.50	302	⇑ipP	pP	02 27 57.7	-0.7
	comp=Z,47nm,0.8s,SNR=27						
WERD	Werda	22.52	311	eP	P	02 27 58.8	+0.2
	comp=Z,73nm,1.3s,mb5.0						
BACM		22.54	295	P	P	02 28 00.1	+1.2
RUE	Ruedersdorf	22.57	317	eP	P	02 27 57.7	-1.4
	comp=Z,78nm,1.1s,mb5.2						
RUE	Ruedersdorf	22.57	317	eP	P	02 27 58.2	-0.8
	comp=Z,155nm,1.5s,mb5.3						
RUE				eS	S	02 32 05.8	-1.6
RETA	Reutte	22.59	303	⇓ipP	pP	02 27 57.6	-1.8
	comp=Z,33nm,0.7s,SNR=15						
BRMO	Bormio	22.63	300	P	P	02 28 00.5	+0.7
JMDO	Jabal Madar	22.77	129	P	P	02 28 01.3	-0.2
	SNR=20						
GRA1	Grafenberg Arr	22.91	309	eP	P	02 28 02.2	-0.5
	comp=Z,187nm,1.1s,mb5.5						
GRA1				eS	S	02 32 14.3	+0.7
GRA1				LR	LR		
	comp=Z,2µm,26.8s,MS4.4						
GRF	Grafenberg Arr	22.91	309	eP	P	02 28 02.2	-0.5
GRF				eS	S	02 32 14.3	+0.7
GRF				pmax	pmax		
	comp=Z,187nm,1.1s,mb5.5						
GRF				MLR	MLR		
	comp=Z,2µm,26.8s,MS4.4						
GRF	Grafenberg Arr	22.91	309	eP	P	02 28 02.2	-0.5
GRF				eS	S	02 32 14.3	+0.7
GRF				pmax	pmax		
	comp=Z,187nm,1.1s,mb5.5						
GRF				MLR	MLR		
	comp=Z,2µm,26.8s,MS4.4						
GRF	Grafenberg Arr	22.91	309	eP	P	02 28 02.2	-0.5
	comp=Z,187nm,1.1s,mb5.5						
GRF				eS	S	02 32 14.3	+0.7
GRF				eL		02 36 34.4	
	comp=Z,2µm,26.8s						
GRFO	Grafenberg	22.91	309	eP	P	02 28 01.7	-1.0
	comp=Z,151nm,1.0s,mb5.5						
GRFO				LR	LR		
	comp=Z,2µm,20.0s,MS4.5						
GRFO	Grafenberg	22.91	309	eP	P	02 28 01.7	-1.0
GRFO				pmax	pmax		
	comp=Z,151nm,1.0s,mb5.5						
GRFO				MLR	MLR		
	comp=Z,2µm,20.0s,MS4.5						
GRFO	Grafenberg	22.91	309	eS	S	02 32 14.3	+0.7
MOX	Moxa	23.01	311	eP	P	02 28 06.3	+2.6
	comp=Z,40nm,1.3s,mb4.8						
MOX				eS	S	02 32 17.0	+1.8
MOX				LR	LR		
	comp=Z,3µm,20.0s,MS4.8						
MOX	Moxa	23.01	311	eP	P	02 28 06.3	+2.6
MOX				pmax	pmax		
	comp=Z,40nm,1.3s,mb4.8						
MOX				MLR	MLR		
	comp=Z,3µm,20.0s,MS4.8						
MOX	Moxa	23.01	311	eP	P	02 28 03.8	+0.1
	comp=Z,38nm,1.2s,mb4.8						
MOX				eS	S	02 32 16.7	+1.5
DAVOX	Davos/Dischmat	23.02	301	P	P	02 28 03.1	-0.8
	comp=Z,19nm,0.7s,mb4.7,baz=71,slow=8.3,SNR=22						
BOB	Bobbio (Coli)	23.03	296	P	P	02 28 04.3	+0.2
UBR	Ueberruh	23.06	303	P	P	02 28 03.9	-0.4
DAVA	Damuels	23.12	302	⇓iP	P	02 28 03.6	-1.5
	comp=Z,63nm,0.7s,mb5.3,SNR=34						
DAVA	Damuels	23.12	302	⇓ipP	pP	02 28 03.6	-1.5
	comp=Z,63nm,0.7s,SNR=34						
VSL	Villasalto	23.12	282	eP	P	02 28 04.8	-0.3
	comp=Z,105nm,1.3s,mb5.2						
CORF	Corte	23.13	289	eP	P	02 28 04.5	-0.6
WBK	Wadi Bani Khal	23.13	127	P	P	02 28 11.5	+6.2
	SNR=16						
HDH	Heidenheim-Cha	23.22	305	P	P	02 28 07.0	+1.0
PGF	Pioggiola	23.24	290	eP	P	02 28 05.4	-0.9
	comp=Z,373nm,1.1s,mb5.5						

PGF	Pioggiola	23.24	290	eP	P	02 28 05.4	-0.9
PGF				pmax	pmax		
	comp=Z,187nm,1.1s,mb5.5						
PGF	Pioggiola	23.24	290	eP	P	02 28 05.4	-0.9
	comp=Z,187nm,1.1s,mb5.5						
VDL	Val di Lei	23.26	300	⇓P	P	02 28 06.5	0.0
TUE	Stuetta	23.33	300	P	P	02 28 06.2	-1.0
SVE	Sverdlovsk	23.33	31	⇑eP	P	02 28 06.0	-1.1
SVE				eS	S	02 32 21.0	+0.6
SVE				pmax	pmax		
	comp=Z,760nm,2.0s,mb5.9						
SVE				MLR	MLR		
	comp=E,6µm,16.0s						
SVE				MLR	MLR		
	comp=Z,5µm,16.0s,MS5.1						
GENL	Genova Univers	23.34	295	P	P	02 28 07.0	-0.3
BSD	Bornholm Skovb	23.41	324	eP	P	02 28 10.0	+2.1
BSD				i S	S	02 32 19.3	-2.3
BSD				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.6						
BSD	Bornholm Skovb	23.41	324	i P	P	02 28 10.0	+2.1
BSD				i S	S	02 32 19.3	-2.3
BSD							
	comp=Z,2µm,18.0s						
LLS	Linth-Limmern	23.63	301	⇑P	P	02 28 08.4	-1.9
VAI	Varese	23.64	298	P	P	02 28 09.7	-0.7
PCP	Pian Castagno	23.65	295	P	P	02 28 09.2	-1.3
PRGR	Permogore	23.67	8	i P	P	02 28 08.8	-1.7
BUCH	Bad Urach	23.73	305	P	P	02 28 10.2	-1.0
WILA	Wila	23.80	302	⇑P	P	02 28 11.1	-0.7
GUT	Gutenstein	23.80	304	P	P	02 28 10.4	-1.4
SIND	Sindeldorf	23.81	307	P	P	02 28 12.1	+0.2
SISB	Singen-Schiene	23.82	303	P	P	02 28 11.7	-0.3
RGN	Rugen	23.85	321	eS	S	02 32 30.0	+1.1
KEST	Kesra	23.86	273	P	P	02 28 12.0	-0.5
	comp=Z,29nm,0.8s,mb4.8,baz=1.9,slow=2.9,SNR=27						
KEST				LR	LR	02 38 30.2	
	comp=Z,895nm,21.9s,MS4.2,baz=278,slow=39						
MUO	Muotathal	23.90	301	⇓P	P	02 28 11.4	-1.3
STU	Stuttgart	23.92	306	P	P	02 28 10.4	-2.5
STU	Stuttgart	23.92	306	eP	P	02 28 10.9	-2.0
	comp=Z,68nm,1.0s,mb5.1						
STU				eS	S	02 32 30.0	0.0
RORO		23.97	294	P	P	02 28 12.2	-1.2
ZUR	Degenried	24.01	302	⇑P	P	02 28 13.1	-0.6
SPAK	Spaichingen-Ko	24.02	304	eP	P	02 28 13.5	-0.4
UBBA	Unterbreizbach	24.03	311	eP	P	02 28 13.3	-0.6
UBBA				eS	S	02 32 34.7	+2.9
WHFO	Wadi Hawf	24.04	144	P	P	02 28 14.5	+0.2
	SNR=21						
SOKR	Solikamsk	24.06	22c	iP	P	02 28 13.3	-0.7
SOKR				S	S	02 32 35.3	+3.3
SOKR				pmax	pmax		
	comp=Z,290nm,1.6s,mb5.6						
SOKR				MLR	MLR		
	comp=Z,2µm,13.0s,MS4.8						
SLE	Schleitheim	24.14	303	⇑P	P	02 28 13.1	-1.9
CLZ	Clausthal	24.18	313	eP	P	02 28 14.4	-0.9
CLZ				eS	S	02 32 36.8	+2.6
CLZ				pmax	pmax		
	comp=Z,32nm,1.0s,mb4.8						
CLZ	Clausthal	24.18	313	eP	P	02 28 14.4	-0.9
	comp=Z,32nm,1.0s,mb4.8						
CLZ				eS	S	02 32 36.8	+2.6
MONE	Monesi	24.19	294	P	P	02 28 14.1	-1.3
NEGI	Negi	24.22	293	P	P	02 28 14.4	-1.3
TRAV		24.31	297	P	P	02 28 13.4	-3.1
KBL	Kabul	24.32	90	eP	P	02 28 17.6	+0.9
ABTO	Aybut	24.32	145	P	P	02 28 17.3	+0.5
	SNR=40						
SAOF	Saorge	24.33	293	eP	P	02 28 14.6	-2.1
SULZ	Cheisacher	24.35	302	⇑P	P	02 28 16.5	-0.4
BFO	Black Forest	24.37	304	P	P	02 28 18.1	+1.1
	comp=Z,173nm,1.1s,mb5.5,SNR=5.1						
BFO	Black Forest	24.37	304	eP	P	02 28 16.5	-0.5
BFO				eS	S	02 32 38.7	+1.3
BFO				pmax	pmax		
	comp=Z,48nm,1.1s,mb4.9						
BFO	Black Forest	24.37	304	eP	P	02 28 16.5	-0.5
	comp=Z,48nm,1.1s,mb4.9						
BFO				eS	S	02 32 38.7	+1.3
TOD	Tromm	24.38	307	eP	P	02 28 16.7	-0.4
SBF	Sospel	24.41	293	eP	P	02 28 16.5	-1.0
	comp=Z,449nm,1.2s,mb5.6						
SBF	Sospel	24.41	293	eP	P	02 28 16.5	-1.0
SBF				pmax	pmax		
	comp=Z,225nm,1.2s,mb5.6						
SBF	Sospel	24.41	293	eP	P	02 28 16.5	-1.0
	comp=Z,224nm,1.2s,mb5.6						
SWS	Schriesheim-Wi	24.41	307	P	P	02 28 17.5	+0.1
AUTN	L'Aution	24.42	294	eP	P	02 28 18.3	+0.7
LUCF	Luceram	24.48	293	eP	P	02 28 18.0	-0.1
FELD	Feldberg im Sc	24.49	303	eP	P	02 28 18.0	-0.1
LKBD	Leukerbad	24.49	299	⇑P	P	02 28 16.7	-1.5
STV	Sta Anna Valdi	24.51	294	P	P	02 28 16.6	-1.7
FIA1	FINESS Array S	24.51	345	eP	P	02 28 17.2	-1.0
FINES	FINESS Array B	24.51	345	P	P	02 28 17.5	-0.6
FINES				LR	LR	02 40 11.5	
FINES	FINESS Array B	24.51	345	P	P	02 28 17.5	-0.7
FINES				pmax	pmax		
	comp=Z,10.0nm,0.6s						
FINES				MLR	MLR		
	comp=Z,2µm,19.2s						
FINES	FINESS Array B	24.51	345	P	P	02 28 17.5	-0.6
	comp=Z,9.6nm,0.6s,mb4.7,baz=149,slow=9.8,SNR=32						
FINES				LR	LR	02 40 11.5	
	comp=Z,2µm,19.1s,MS4.6,baz=149,slow=42						
TOUF	Mont Tournerai	24.55	294	eP	P	02 28 19.5	+0.8
KIZ	Kirchzarten	24.56	303	P	P	02 28 18.8	0.0
RBK	Rabkut	24.61	143	P	P	02 28 20.1	+0.8
	SNR=14						
DIX	Grande Dixence	24.61	299	⇓P	P	02 28 17.9	-1.3
RSP	Reno Superiore	24.62	296	P	P	02 28 15.8	-3.5
MVIF	Mont Vial	24.62	293	eP	P	02 28 19.6	+0.3
BBS	Basel-Blauen	24.74	302	eP	P	02 28 20.4	0.0
TNS	Taunus Mts	24.78	309	eP	P	02 28 20.7	0.0
TNS				pmax	pmax		
	comp=Z,98nm,1.5s,mb5.3						
TNS	Taunus Mts	24.78	309	eP	P	02 28 20.7	0.0
	comp=Z,98nm,1.5s,mb5.3						
TNS				eS	S	02 32 57.7	+14
CALN	Calern	24.80	293	eP	P	02 28 22.0	+1.0
LANF	Langenberg	24.86	305	eP	P	02 28 20.8	-0.7
SURF	Saint Ours	24.89	295	eP	P	02 28 22.0	+0.2
COP	Copenhagen	24.90	323	i P	P	02 28 27.0	+5.2
COP				i S	S	02 32 36.0	-10
COP							
	comp=Z,860nm,19.0s						
MBDF	Montbardon	24.93	295	⇑iP	P	02 28 22.0	-0.2
	comp=Z,148nm,1.0s,mb5.4						
MBDF	Montbardon	24.93	295	⇑iP	P	02 28 22.0	-0.2
MBDF				pmax	pmax		
	comp=Z,74nm,1.0s,mb5.4						
MBDF	Montbardon	24.93	295	⇑iP	P	02 28 22.0	-0.2
	comp=Z,74nm,1.0s,mb5.4						
FRF	La Foret Royal	24.98	292	eP	P	02 28 21.4	-1.2
	comp=Z,142nm,1.1s,mb5.3						
FRF	La Foret Royal	24.98	292	eP	P	02 28 21.4	-1.2
FRF				pmax	pmax		
	comp=Z,71nm,1.1s,mb5.3						
FRF	La Foret Royal	24.98	292	eP	P	02 28 21.4	-1.2
	comp=Z,71nm,1.1s,mb5.3						
LPG	La Plagne	25.00	297	⇑iP	P	02 28 21.4	-1.4
	comp=Z,64nm,0.8s,mb5.1						
LPG	La Plagne	25.00	297	⇑iP	P	02 28 21.4	-1.4
LPG				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.1						
LPG	La Plagne	25.00	297	⇑iP	P	02 28 21.4	-1.4
	comp=Z,32nm,0.8s,mb5.1						
BNI	Bardonecchia	25.02	296	eP	P	02 28 21.9	-1.0
	comp=Z,116nm,1.0s,mb5.6						
BNI	Bardonecchia	25.02	296	eP	P	02 28 21.9	-1.1
BNI				pmax	pmax		
	comp=Z,116nm,1.0s,mb5.6						
LPL	La Plagne	25.02	297	eP	P	02 28 21.5	-1.5
	comp=Z,82nm,1.1s,mb5.1						
LPL	La Plagne	25.02	297	eP	P	02 28 21.5	-1.5
LPL				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.1						
LPL	La Plagne	25.02	297	eP	P	02 28 21.5	-1.5
	comp=Z,41nm,1.1s,mb5.1						
MOF	Molkenrain	25.06	303	eP	P	02 28 21.1	-2.2
MOF	Molkenrain	25.06	303	P	P	02 28 25.0	+1.7
JOF	Joensuu	25.06	352	ep	P	02 28 21.1	-2.1
	comp=Z,58nm,0.8s,mb5.4						
JOF	Joensuu	25.06	352	eP	P	02 28 21.1	-2.1
JOF				pmax	pmax		
	comp=Z,58nm,0.8s,mb5.4						
KAF	Kangasniemi	25.07	346	ep	P	02 28 21.8	-1.5
	comp=Z,28nm,0.7s,mb5.1						
KAF	Kangasniemi	25.07	346	eP	P	02 28 21.8	-1.5
KAF				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.1						
LMR	La Mourre	25.07	292	eP	P	02 28 22.2	-1.3
	comp=Z,202nm,1.2s,mb5.4						
LMR	La Mourre	25.07	292	eP	P	02 28 22.2	-1.3
LMR				pmax	pmax		
	comp=Z,101nm,1.2s,mb5.4						
LMR	La Mourre	25.07	292	eP	P	02 28 22.2	-1.3
	comp=Z,101nm,1.2s,mb5.4						
CDF	Champ du Feu	25.07	304	eP	P	02 28 21.8	-1.6
	comp=Z,56nm,0.9s,mb5.0						
CDF	Champ du Feu	25.07	304	eP	P	02 28 21.8	-1.6
CDF				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.0						
CDF	Champ du Feu	25.07	304	eP	P	02 28 21.8	-1.6
	comp=Z,28nm,0.9s,mb5.0						
BSEG	Bad Segeberg	25.09	318	eP	P	02 28 24.8	+1.3
BSEG				eS	S	02 32 53.0	+4.2
BSEG				pmax	pmax		
	comp=Z,70nm,1.4s,mb5.2						
BSEG	Bad Segeberg	25.09	318	eP	P	02 28 24.8	+1.3
	comp=Z,70nm,1.4s,mb5.2						
BSEG				eS	S	02 32 53.0	+4.2
ECH	Echery	25.11	303	eP	P	02 28 23.0	-0.8
CMAH	Djebel Manchou	25.15	276	P	P	02 28 24.0	-0.3
LOMF	Lomont	25.18	301	eP	P	02 28 24.1	-0.3
HINF	Hinteralfeld	25.24	302	⇑iP	P	02 28 24.0	-1.0
	comp=Z,64nm,0.8s,mb5.1						
HINF	Hinteralfeld	25.24	302	⇑iP	P	02 28 24.0	-1.0
HINF				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.1						
HINF	Hinteralfeld	25.24	302	⇑iP	P	02 28 24.0	-1.0
	comp=Z,32nm,0.8s,mb5.1						
TAVF	Tavernes	25.40	293	eP	P	02 28 27.5	+1.0
GDM	Grand'Maison	25.43	296	eP	P	02 28 26.4	-0.3
RUP	Ruppelstein	25.50	307	eP	P	02 28 27.5	+0.2
STOF	St-Etienne Org	25.52	293	eP	P	02 28 29.6	+2.1
CAEH	'Ain El Ouahch	25.56	277	P	P	02 28 28.0	0.0
ORIF	Oris-en-Rattie	25.57	296	eP	P	02 28 27.3	-0.7
	comp=Z,128nm,1.1s,mb5.2						
ORIF				eMLR	MLR		
	comp=Z,3µm,19.5s,MS4.5						
ORIF	Oris-en-Rattie	25.57	296	eP	P	02 28 27.3	-0.7
ORIF				pmax	pmax		
	comp=Z,64nm,1.1s,mb5.2						
ORIF	Oris-en-Rattie	25.57	296	eP	P	02 28 27.3	-0.7
	comp=Z,64nm,1.1s,mb5.2						
CABF	La Chapelle	25.58	299	eP	P	02 28 26.5	-1.5
	comp=Z,134nm,0.8s,mb5.3						
CABF	La Chapelle	25.58	299	eP	P	02 28 26.5	-1.5
CABF				pmax	pmax		
	comp=Z,67nm,0.8s,mb5.3						
CABF	La Chapelle	25.58	299	eP	P	02 28 26.5	-1.5
	comp=Z,67nm,0.8s,mb5.3						
HAU	Haudompre	25.61	303	eP	P	02 28 27.6	-0.7
	comp=Z,56nm,0.9s,mb4.9						
HAU				eMLR	MLR		
	comp=Z,2µm,22.8s,MS4.4						
HAU	Haudompre	25.61	303	eP	P	02 28 27.6	-0.7
	comp=Z,28nm,0.9s,mb4.9						
HAU				LR	LR		
	comp=Z,2µm,22.8s,MS4.7						
HAU	Haudompre	25.61	303	eP	P	02 28 27.6	-0.7
HAU				pmax	pmax		
	comp=Z,28nm,0.9s,mb4.9						
HAU				MLR	MLR		
	comp=Z,2µm,22.8s,MS4.7						
VILF	Villemus	25.66	293	eP	P	02 28 30.1	+1.3
PUYF	Puyloubier	25.66	292	eP	P	02 28 28.4	-0.5
BERF	Bertagne	25.67	292	eP	P	02 28 30.0	+1.1
GRN	Grenoble	25.69	296	eP	P	02 28 30.6	+1.5
CKFL	Kef-Lekhel	25.75	276	P	P	02 28 30.0	+0.3
SMRF	Simiane la Rot	25.76	293	eP	P	02 28 29.3	-0.4
	comp=Z,233nm,1.2s,mb5.4						
SMRF	Simiane la Rot	25.76	293	eP	P	02 28 29.3	-0.4
	comp=Z,116nm,1.2s,mb5.4						
BUG	Bochum--Univer	25.86	311	eP	P	02 28 31.0	+0.5
	comp=Z,68nm,1.1s,mb5.2						
GELF	Grande-Etoile	25.86	292	eP	P	02 28 35.0	+4.3
TREF	Trevaresse	25.89	293	eP	P	02 28 35.3	+4.4
CASM	Ain Smara	25.97	276	P	P	02 28 33.0	+1.3
BRVK	Borovoye	26.01	45	P	P	02 28 32.0	+0.1
	comp=Z,349nm,1.2s,mb5.9,SNR=25						
BRVK	Borovoye	26.01	45	eP	P	02 28 31.3	-0.6
	comp=Z,107nm,1.3s,mb5.3						
BRVK				LR	LR		
	comp=Z,7µm,20.0s,MS5.2						
BRVK	Borovoye	26.01	45	eP	P	02 28 31.3	-0.6
BRVK				pmax	pmax		
	comp=Z,107nm,1.3s,mb5.3						
BRVK				MLR	MLR		
	comp=Z,7µm,20.0s,MS5.2						
BRVK	Borovoye	26.01	45	P	P	02 28 32.8	+0.9
	SNR=37						
PRAF	Pradon	26.05	293	eP	P	02 28 32.0	-0.4
WLF	Walferdange	26.07	306	eP	P	02 28 32.5	+0.1
	comp=Z,22nm,0.8s,mb4.8						
WLF	Walferdange	26.07	306	eP	P	02 28 32.5	+0.1
WLF				pmax	pmax		
	comp=Z,23nm,0.8s,mb4.9						
WLF	Walferdange	26.07	306	eP	P	02 28 32.0	-0.4
	comp=Z,38nm,1.0s,mb5.0						
WLF	Walferdange	26.07	306	P	P	02 28 32.8	+0.4
	comp=Z,27nm,1.4s,mb4.7						
CTEI	Djebel Teioual	26.08	275	P	P	02 28 35.0	+2.3
DFRA	Djebel Bou Aff	26.38	276	P	P	02 28 36.0	+0.6
MEM	Membach	26.39	308	P	P	02 28 35.3	0.0
VIVF	Saint-Julien-l	26.43	295	⇑iP	P	02 28 34.5	-1.3
	comp=Z,85nm,1.0s,mb5.0						
VIVF	Saint-Julien-l	26.43	295	⇑iP	P	02 28 34.5	-1.3
VIVF				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.0						
VIVF	Saint-Julien-l	26.43	295	⇑iP	P	02 28 34.5	-1.3
	comp=Z,42nm,1.0s,mb5.0						
MEZF	Maizieres J'vi	26.55	304	eP	P	02 28 35.1	-1.7
	comp=Z,90nm,1.0s,mb5.2						
MEZF	Maizieres J'vi	26.55	304	eP	P	02 28 35.1	-1.7
	comp=Z,45nm,1.0s,mb5.2						
AML	Almayashu	26.55	71	P	P	02 28 38.0	+1.1
	SNR=27						
AML	Almayashu	26.55	71	eP	P	02 28 37.9	+1.0
	comp=Z,308nm,1.8s,mb5.7						
EKS2	Erkin-Say	26.59	70	P	P	02 28 38.4	+1.1
	SNR=53						
EKS2	Erkin-Say	26.59	70	eP	P	02 28 38.0	+0.8
	comp=Z,86nm,0.9s,mb5.5						
CMER	Merouana	26.60	274	P	P	02 28 37.0	-0.4
CKHR	Kef el Ahmar	26.80	275	P	P	02 28 40.0	+0.8
SET	Setif	26.84	276	P	P	02 28 40.0	+0.5
MUD	Monsted U'grnd	26.86	322	i P	P	02 28 40.1	+0.6
MUD				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.1						
MUD				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.6						
MUD	Monsted U'grnd	26.86	322	i P	P	02 28 40.1	+0.6
	comp=Z,33nm,0.9s,mb5.1						
MUD				i S	S	02 33 36.8	+20
MUD							
	comp=Z,1µm,18.0s						
ATD	Arta Tunnel	26.91	172	LR	LR	02 39 22.9	
	comp=Z,2µm,18.5s,MS4.7,baz=360,slow=36						
LASF	Ste Croix	27.00	294	eP	P	02 28 40.4	-0.5
	comp=Z,151nm,1.3s,mb5.3						
LASF	Ste Croix	27.00	294	eP	P	02 28 40.4	-0.5
	comp=Z,75nm,1.3s,mb5.3						
GIVF	Givet	27.00	307	eP	P	02 28 40.8	-0.1
	comp=Z,110nm,1.3s,mb5.1						
GIVF	Givet	27.00	307	eP	P	02 28 40.8	-0.1
GIVF				pmax	pmax		
	comp=Z,55nm,1.3s,mb5.1						
GIVF	Givet	27.00	307	eP	P	02 28 40.8	-0.1
	comp=Z,55nm,1.3s,mb5.1						
HFS	Hagfors	27.09	332	P	P	02 28 40.5	-1.0
HFS				pmax	pmax		
	comp=Z,13nm,0.5s						
HFS				MLR	MLR		
	comp=Z,4µm,18.2s						
HFS	Hagfors	27.09	332	P	P	02 28 40.5	-1.0
	comp=Z,13nm,0.5s,mb4.9,baz=138,slow=11,SNR=18						
HFS				LR	LR	02 41 50.3	
	comp=Z,4µm,18.2s,MS5.0,baz=132,slow=42						
USP	Ospenovka	27.10	68	P	P	02 28 42.1	+0.3
	SNR=12						
AAK	Ala-Archa	27.12	70	P	P	02 28 42.7	+0.7
	comp=Z,314nm,1.2s,mb5.9,SNR=34						
AAK	Ala-Archa	27.12	70	P	P	02 28 43.3	+1.2
	SNR=36						
AAK	Ala-Archa	27.12	70	eP	P	02 28 42.1	+0.1
	comp=Z,108nm,1.2s,mb5.5						
AAK				LR	LR		
	comp=Z,3µm,19.0s,MS4.8						
AAK	Ala-Archa	27.12	70c	iP	P	02 28 42.2	+0.2
AAK				pmax	pmax		
	comp=Z,138nm,1.8s,mb5.4						
AAK				MLR	MLR		
	comp=Z,4µm,15.0s,MS5.2						
AAK	Ala-Archa	27.12	70	P	P	02 28 42.6	+0.6
	SNR=52						
SMF	Signal de Mont	27.12	299	eP	P	02 28 42.2	+0.2
	comp=Z,79nm,1.1s,mb5.1						
SMF	Signal de Mont	27.12	299	eP	P	02 28 42.2	+0.2
SMF				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.0						
SMF	Signal de Mont	27.12	299	eP	P	02 28 42.2	+0.2
	comp=Z,39nm,1.1s,mb5.1						
DOU	Dourbes	27.14	307	P	P	02 28 41.6	-0.6
	comp=Z,21nm,2.7s,mb4.4						
UCH	Uchtor	27.16	70	P	P	02 28 43.3	+0.9
	SNR=12						
UCH	Uchtor	27.16	70	eP	P	02 28 43.0	+0.7
	comp=Z,29nm,1.0s,mb5.0						
LOR	Lormes	27.17	301	⇑iP	P	02 28 42.6	+0.2
	comp=Z,51nm,0.9s,mb4.9						
LOR				eMLR	MLR		
	comp=Z,3µm,20.0s,MS4.5						
LOR	Lormes	27.17	301	⇑iP	P	02 28 42.6	+0.2
	comp=Z,26nm,0.9s,mb5.0						
LOR				LR	LR		
	comp=Z,3µm,20.0s,MS4.8						
LOR	Lormes	27.17	301	⇑iP	P	02 28 42.6	+0.2
LOR				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.0						
LOR				MLR	MLR		
	comp=Z,3µm,20.0s,MS4.8						
FRU	Bishkek	27.20	69	i P	P	02 28 43.0	+0.3
FRU				pmax	pmax		
	comp=Z,550nm,1.8s,mb6.0						
FRU				pmax	pmax		
	comp=Z,2µm,3.0s						
FRU				MLR	MLR		
	comp=E,6µm,14.0s						
FRU				MLR	MLR		
	comp=Z,6µm,14.0s,MS5.3						
CHMS	Chumysh	27.29	69	P	P	02 28 44.4	+0.9
	SNR=35						
BAIF	Baives	27.38	307	eP	P	02 28 43.1	-1.2
	comp=Z,146nm,1.6s,mb5.2						
BAIF	Baives	27.38	307	eP	P	02 28 43.1	-1.2
BAIF				pmax	pmax		
	comp=Z,73nm,1.6s,mb5.2						
BAIF	Baives	27.38	307	eP	P	02 28 43.1	-1.2
	comp=Z,73nm,1.6s,mb5.2						
SSF	Saint Saulge	27.39	300	⇑iP	P	02 28 44.0	-0.4
	comp=Z,53nm,1.0s,mb4.9						
SSF	Saint Saulge	27.39	300	⇑iP	P	02 28 44.0	-0.4
SSF				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.9						
SSF	Saint Saulge	27.39	300	⇑iP	P	02 28 44.0	-0.4
	comp=Z,27nm,1.0s,mb4.9						
UCC	Uccle	27.45	308	P	P	02 28 44.3	-0.6
	comp=Z,73nm,3.8s						
UCC	Uccle	27.45	308	P	P	02 28 44.2	-0.7
	comp=Z,73nm,3.8s						
KBK	Karagaybulak	27.45	70	P	P	02 28 46.4	+1.4
	SNR=58						
LBL	Lubilhac	27.45	296	eP	P	02 28 46.6	+1.6
AVF	Avril sur Loir	27.47	299	⇑iP	P	02 28 44.4	-0.7
	comp=Z,89nm,1.2s,mb5.1						
AVF	Avril sur Loir	27.47	299	⇑iP	P	02 28 44.4	-0.7
AVF				pmax	pmax		
	comp=Z,45nm,1.2s,mb5.1						
AVF	Avril sur Loir	27.47	299	⇑iP	P	02 28 44.4	-0.7
	comp=Z,45nm,1.2s,mb5.1						
AGO	Saint Agoulin	27.57	298	eP	P	02 28 46.6	+0.6
KZA	Kyzart	27.71	71	P	P	02 28 49.0	+1.6
	SNR=46						
EJON	La Jonquera	27.76	290	P	P	02 28 47.4	-0.3
	comp=Z,23nm,1.1s,mb4.9						
BGF	Bois d'Agland	27.80	299	eP	P	02 28 47.5	-0.6
	comp=Z,20nm,0.9s,mb4.7						
BGF	Bois d'Agland	27.80	299	eP	P	02 28 47.5	-0.6
BGF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
BGF	Bois d'Agland	27.80	299	eP	P	02 28 47.5	-0.6
	comp=Z,10nm,0.9s,mb4.7						
TKM2	Tokmak 2	27.91	69	P	P	02 28 49.9	+0.8
	SNR=28						
TKM2	Tokmak 2	27.91	69	eP	P	02 28 49.6	+0.4
	comp=Z,126nm,1.3s,mb5.6						
TKM2	Tokmak 2	27.91	69	eP	P	02 28 49.6	+0.5
TKM2				pmax	pmax		
	comp=Z,125nm,1.3s,mb5.6						
ETOS	Mallorca	28.11	284	P	P	02 28 51.3	+0.4
	comp=Z,40nm,0.8s,mb5.3						
MTLF	Montolieu	28.20	292	eP	P	02 28 51.4	-0.3
	comp=Z,52nm,1.2s,mb4.9						
MTLF	Montolieu	28.20	292	eP	P	02 28 51.4	-0.3
MTLF				pmax	pmax		
	comp=Z,26nm,1.3s,mb4.9						
MTLF	Montolieu	28.20	292	eP	P	02 28 51.4	-0.3
	comp=Z,26nm,1.2s,mb4.9						
TCF	Toulx Ste Croi	28.22	298	eP	P	02 28 51.7	-0.1
	comp=Z,119nm,1.3s,mb5.2						
TCF	Toulx Ste Croi	28.22	298	eP	P	02 28 51.7	-0.1
TCF				pmax	pmax		
	comp=Z,59nm,1.3s,mb5.3						
TCF	Toulx Ste Croi	28.22	298	eP	P	02 28 51.7	-0.1
	comp=Z,59nm,1.3s,mb5.2						
CAF	Calviac	28.28	295	eP	P	02 28 52.5	+0.1
	comp=Z,80nm,1.4s,mb5.0						
CAF	Calviac	28.28	295	eP	P	02 28 52.5	+0.1
CAF				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.1						
CAF	Calviac	28.28	295	eP	P	02 28 52.5	+0.1
	comp=Z,40nm,1.4s,mb5.0						
ADJB	Djebel Djouab	28.38	277	P	P	02 28 52.7	-0.7
KONO	Kongsberg	28.39	328	PFAKE		02 29 00.0	+6.8
KONO				LR	LR		
	comp=Z,2µm,19.0s,MS4.6						
ULHL	Ulahol	28.43	70	P	P	02 28 55.3	+1.5
	SNR=32						
ABA	Alger-Bouzarea	28.53	278	P	P	02 28 48.9	-5.8
KSH	Kashi	28.57	76	⇑iP	P	02 28 56.4	+1.4
KSH				eAP		02 29 00.5	
KSH				eXP	sP	02 29 03.5	+8.4
KSH				ePP	PP	02 29 46.6	-13
KSH				eS	S	02 33 42.5	-1.6
KSH				AMB	AMB		
	comp=Z,651nm,3.0s						
KSH				LR	LR		
	comp=N,2µm,6.7s						
KSH				LR	LR		
	comp=E,2µm,7.2s						
KSH				LR	LR		
	comp=Z,2µm,11.1s,MS4.8						
NAO01	NORSAR Array S	28.61	331	eP	P	02 28 53.6	-1.5
	comp=Z,15nm,0.8s,mb4.9						
NAO01				LR	LR		
	comp=Z,3µm,19.0s,MS4.9						
NB2	NORSAR Subarra	28.61	332	P	P	02 28 53.5	-1.6
	comp=Z,7.7nm,1.0s,mb4.5,baz=126,slow=9.3						
NOA	NORSAR Array B	28.61	332	P	P	02 28 53.3	-1.8
NOA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,2µm,19.8s						
NOA	NORSAR Array B	28.61	332	P	P	02 28 53.2	-1.9
	comp=Z,4.4nm,0.8s,mb4.3,baz=126,slow=9.4,SNR=7.1						
NOA				LR	LR	02 42 37.4	
	comp=Z,2µm,19.8s,MS4.8,baz=135,slow=41						
RJF	Les Rejaudoux	28.68	296	eP	P	02 28 54.4	-1.5
	comp=Z,53nm,1.0s,mb5.0						
RJF				eMLR	MLR		
	comp=Z,3µm,17.8s,MS4.6						
RJF	Les Rejaudoux	28.68	296	eP	P	02 28 54.4	-1.5
	comp=Z,27nm,1.0s,mb5.0						

RJF				LR	LR		
	comp=Z,3µm,17.8s,MS4.9						
RJF	Les Rejaudoux	28.68	296	eP	P	02 28 54.4	-1.5
RJF				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.0						
RJF				MLR	MLR		
	comp=Z,3µm,17.8s,MS4.9						
EMIR	Miracle	28.81	289	P	P	02 28 58.5	+1.3
	comp=Z,217nm,4.8s						
AAA	Alma-Ata	28.88	68	eP	P	02 28 59.0	+1.2
AAA				pmax	pmax		
	comp=Z,850nm,3.7s						
AAA				MLR	MLR		
	comp=Z,4µm,16.7s,MS5.1						
EPOB	Poblet	29.21	288	P	P	02 29 01.8	+1.2
	comp=Z,184nm,3.2s						
LFF	La Frestale	29.22	295	eP	P	02 29 00.6	-0.2
	comp=Z,42nm,0.9s,mb5.0						
LFF	La Frestale	29.22	295	eP	P	02 29 00.6	-0.2
LFF				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.0						
LFF	La Frestale	29.22	295	eP	P	02 29 00.6	-0.2
	comp=Z,21nm,0.9s,mb5.0						
APA	Apatity	29.45	356⇓	iP	P	02 29 02.7	+0.2
APA				i		02 29 59.4	
APA				eS	S	02 33 53.0	-4.3
APA				pmax	pmax		
	comp=Z,28nm,1.3s,mb4.9						
EPF	Esparros	29.59	292	eP	P	02 29 03.8	-0.3
	comp=Z,50nm,1.3s,mb4.9						
EPF	Esparros	29.59	292	eP	P	02 29 03.8	-0.3
EPF				pmax	pmax		
	comp=Z,25nm,1.3s,mb4.9						
EPF	Esparros	29.59	292	eP	P	02 29 03.8	-0.3
	comp=Z,25nm,1.3s,mb4.9						
RESF	Ens	29.61	291	eP	P	02 29 02.7	-1.5
LVZ	Lovozero	29.71	357	PFAKE		02 29 10.0	+5.2
LVZ				LR	LR		
	comp=Z,1µm,19.0s,MS4.6						
EBIE	Bielsa	29.76	291	P	P	02 29 07.6	+2.0
	comp=Z,12nm,0.8s,mb4.8						
ERTA	Horta de San J	29.82	287	P	P	02 29 07.1	+1.1
	comp=Z,28nm,1.0s,mb5.0						
FLN	La Foliniere	30.22	303	eP	P	02 29 09.8	+0.3
	comp=Z,52nm,1.2s,mb4.9						
FLN				eMLR	MLR		
	comp=Z,2µm,18.5s,MS4.5						
FLN	La Foliniere	30.22	303	eP	P	02 29 09.8	+0.3
	comp=Z,26nm,1.2s,mb4.9						
FLN				LR	LR		
	comp=Z,2µm,18.5s,MS4.8						
FLN	La Foliniere	30.22	303	eP	P	02 29 09.8	+0.3
FLN				pmax	pmax		
	comp=Z,26nm,1.2s,mb4.9						
FLN				MLR	MLR		
	comp=Z,2µm,18.5s,MS4.8						
ETSF	Etsaut	30.26	291	eP	P	02 29 09.8	-0.2
	comp=Z,27nm,0.9s,mb4.8						
ETSF	Etsaut	30.26	291	eP	P	02 29 09.8	-0.2
ETSF				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.8						
ETSF	Etsaut	30.26	291	eP	P	02 29 09.8	-0.2
	comp=Z,14nm,0.9s,mb4.8						
ESAC	San Caprasio	30.32	289	P	P	02 29 12.0	+1.5
	comp=Z,28nm,0.8s,mb5.2						
KURK	Kurchatov	30.39	53	P	P	02 29 11.8	+0.8
	comp=Z,864nm,1.1s,mb6.5,SNR=35						
KURK	Kurchatov	30.39	53	eP	P	02 29 11.1	0.0
	comp=Z,157nm,1.0s,mb5.8						
KURK				LR	LR		
	comp=Z,12µm,20.0s,MS5.5						
KURK	Kurchatov	30.39	53	eP	P	02 29 11.1	+0.1
KURK				pmax	pmax		
	comp=Z,157nm,1.0s,mb5.8						
KURK				MLR	MLR		
	comp=Z,12µm,20.0s,MS5.5						
KURK	Kurchatov	30.39	53	P	P	02 29 11.7	+0.7
	SNR=68						
GRR	Gorron	30.44	302	eP	P	02 29 11.9	+0.4
EMOS	Mosqueruela	30.51	286	P	P	02 29 11.8	-0.4
	comp=Z,50nm,0.8s,mb5.5						
EBEN	Beniarda	30.62	283	P	P	02 29 13.8	+0.5
	comp=Z,53nm,0.8s,mb5.5						
SJPF	Ste Jean	30.73	292	eP	P	02 29 14.0	-0.1
	comp=Z,60nm,1.2s,mb5.1						
SJPF	Ste Jean	30.73	292	eP	P	02 29 14.0	-0.1
SJPF				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.1						
SJPF	Ste Jean	30.73	292	eP	P	02 29 14.0	-0.1
	comp=Z,30nm,1.2s,mb5.1						
ECHE	Chera	31.02	285	P	P	02 29 16.2	-0.5
	comp=Z,442nm,3.7s						
ECHE	Chera	31.02	285	P	P	02 29 16.2	-0.5
ECHE				pmax	pmax		
	comp=Z,442nm,3.7s						
ETOR	Torete	31.63	288	P	P	02 29 23.0	+1.0
	comp=Z,9.5nm,0.9s,mb4.7						
ETOR	Torete	31.63	288	P	P	02 29 23.0	+0.9
ETOR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
ETOB	Tobarra	31.65	283	P	P	02 29 22.5	+0.3
	comp=Z,68nm,1.1s,mb5.5						
ARCES	ARCESS Array B	32.10	351	P	P	02 29 24.0	-1.9
ARCES				pmax	pmax		
	comp=Z,17nm,1.0s						
ARCES				MLR	MLR		
	comp=Z,2µm,20.2s						
ARCES	ARCESS Array B	32.10	351	P	P	02 29 24.0	-1.9
	comp=Z,17nm,1.0s,mb4.9,baz=160,slow=6.9,SNR=21						
ARCES				LR	LR	02 43 36.7	
	comp=Z,2µm,20.1s,MS4.8,baz=156,slow=39						
KEV	Kevo	32.14	352	PFAKE		02 29 40.0	+14
KEV				LR	LR		
	comp=Z,2µm,21.0s,MS4.8						
EVIA	Vianos	32.38	284	P	P	02 29 29.1	+0.4
	comp=Z,27nm,0.7s,mb5.3						
EVIA	Vianos	32.38	284	P	P	02 29 29.1	+0.4
EVIA				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.3						
MK31	Makanchi Array	32.55	61	eP	P	02 29 30.5	+0.4
MKAR	Makanchi Array	32.55	61	P	P	02 29 30.6	+0.5
MKAR				pmax	pmax		
	comp=Z,46nm,0.9s						
MKAR				MLR	MLR		
	comp=Z,2µm,18.0s						
MKAR	Makanchi Array	32.55	61	P	P	02 29 30.6	+0.5
	comp=Z,46nm,0.9s,mb5.4,baz=268,slow=7.0,SNR=93						
MKAR				LR	LR	02 44 27.2	
	comp=Z,2µm,18.0s,MS4.8,baz=262,slow=40						
ENIJ	Nijar	32.55	281	P	P	02 29 30.4	+0.2
	comp=Z,48nm,0.8s,mb5.5						
ENIJ	Nijar	32.55	281	P	P	02 29 30.4	+0.2
ENIJ				pmax	pmax		
	comp=Z,48nm,0.8s,mb5.5						
EKA	Eskdalemuir Ar	32.92	315	P	P	02 29 32.2	-1.0
EKA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
EKA	Eskdalemuir Ar	32.92	315	P	P	02 29 32.1	-1.1
	comp=Z,3.5nm,0.8s,mb4.3,baz=103,slow=8.6,SNR=8.4						
ESK	Eskdalemuir	32.94	315	eP	P	02 29 32.3	-1.1
	comp=Z,100nm,1.6s,mb5.5						
ESK				LR	LR		
	comp=Z,3µm,19.0s,MS5.0						
ESK	Eskdalemuir	32.94	315	eP	P	02 29 32.3	-1.1
ESK				pmax	pmax		
	comp=Z,100nm,1.6s,mb5.5						
ESK				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.0						
EQES	Quesada	33.01	282	P	P	02 29 33.3	-0.9
	comp=Z,107nm,0.9s,mb5.8						
EBER	Berja	33.10	281	P	P	02 29 34.1	-0.9
	comp=Z,283nm,2.1s,mb5.8						
GUD	Guadarrama	33.23	288	P	P	02 29 36.7	+0.6
	comp=Z,26nm,1.7s,mb4.9						
GUD	Guadarrama	33.23	288	P	P	02 29 36.7	+0.6
GUD				pmax	pmax		
	comp=Z,26nm,1.7s,mb4.9						
ESDC	Sonseca Array	33.27	286	P	P	02 29 37.3	+0.8
	comp=Z,6.7nm,0.6s,mb4.8						
ESDC	Sonseca Array	33.27	286	P	P	02 29 34.3	-2.2
	comp=Z,9.1nm,0.8s,mb4.8,baz=68,slow=8.6,SNR=19						
ESDC				LR	LR	02 44 29.3	
	comp=Z,791nm,18.3s,MS4.5,baz=85,slow=39						
ESLA	Sonseca Array	33.27	286	eP	P	02 29 37.2	+0.7
	comp=Z,4.4nm,0.8s,mb4.4						
ESLA				LR	LR		
	comp=Z,9µm,20.0s,MS5.5						
EBAN	Banos Encina	33.47	283	P	P	02 29 36.9	-1.3
	comp=Z,100nm,0.8s,mb5.8						
EBAN	Banos Encina	33.47	283	P	P	02 29 36.9	-1.3
EBAN				pmax	pmax		
	comp=Z,100nm,0.8s,mb5.8						
ECOG	Cogollos-Vega	33.52	282	P	P	02 29 36.9	-1.8
	comp=Z,279nm,2.5s,mb5.8						
ECOG	Cogollos-Vega	33.52	282	P	P	02 29 36.9	-1.8
ECOG				pmax	pmax		
	comp=Z,279nm,2.5s,mb5.8						
ZAI	Zaio	33.55	277	iP	P	02 29 39.0	0.0
PAB	San Pablo	33.59	286	eP	P	02 29 38.5	-0.7
	comp=Z,47nm,1.4s,mb5.2						
PAB				LR	LR		
	comp=Z,968nm,20.0s,MS4.5						
PAB	San Pablo	33.59	286	eP	P	02 29 38.5	-0.7
PAB				pmax	pmax		
	comp=Z,47nm,1.4s,mb5.2						
PAB				MLR	MLR		
	comp=Z,968nm,20.0s,MS4.5						
EARI	Arriondas	33.61	293	P	P	02 29 39.7	+0.4
	comp=Z,242nm,1.8s,mb5.8						
EGUA	Guajares	33.64	281	P	P	02 29 39.1	-0.7
	comp=Z,33nm,2.2s,mb4.9						
EGUA	Guajares	33.64	281	P	P	02 29 39.1	-0.6
EGUA				pmax	pmax		
	comp=Z,33nm,2.2s,mb4.9						
ERON	Agron	33.78	281	P	P	02 29 40.1	-0.9
	comp=Z,46nm,0.9s,mb5.4						
NVS	Novosibirsk	33.85	46	iP	P	02 29 43.5	+2.2
NVS				iS	S	02 35 07.8	+1.6
NVS				pmax	pmax		
	comp=N,86nm,1.3s						
NVS				pmax	pmax		
	comp=E,79nm,1.3s						
NVS				pmax	pmax		
	comp=Z,179nm,1.3s,mb5.8						
NVS				smax			
	comp=N,78nm,2.4s						
NVS				smax			
	comp=E,20nm,1.9s						
ELUQ	Luque	33.99	282	P	P	02 29 42.3	-0.4
	comp=E,4.5nm,0.3s,mb4.9						
ELUQ	Luque	33.99	282	P	P	02 29 42.3	-0.5
ELUQ				pmax	pmax		
	comp=Z,5.0nm,0.3s,mb4.9						
EADA	Adamuz	34.07	284	P	P	02 29 43.0	-0.5
	comp=Z,27nm,0.6s,mb5.3						
ZAL	Zalesovo	34.61	48	P	P	02 29 47.3	-0.6
ZALV	Zalesovo Beam	34.62	48	P	P	02 29 47.3	-0.8
	comp=Z,10nm,0.5s,mb5.0,baz=262,slow=8.6,SNR=33						
ZALV				LR	LR	02 46 02.0	
	comp=Z,3µm,18.9s,MS5.0,baz=258,slow=40						
EMIJ	Mijas	34.65	281	P	P	02 29 45.5	-3.0
	comp=Z,118nm,0.9s,mb5.8						
EJIF	Jimena Fronter	35.22	281	P	P	02 29 53.3	-0.1
	comp=Z,29nm,2.0s,mb4.9						
EJIF	Jimena Fronter	35.22	281	P	P	02 29 53.3	-0.1
EJIF				pmax	pmax		
	comp=Z,29nm,2.0s,mb4.9						
MVO	Moncorvo	35.27	289	eS	S	02 35 29.1	+0.6
MVO				eLR	LR	02 41 11.2	
	comp=Z,879nm,18.0s						
MVO	Moncorvo	35.27	289	eS	S	02 35 29.1	+0.6
ESPR	Espera	35.40	282	P	P	02 29 54.9	0.0
	comp=Z,35nm,1.1s,mb5.2						
TGT	Taghat	35.64	277	iP	P	02 29 56.0	-1.1
MDT	Midelt	35.74	275	P	P	02 29 58.1	+0.1
	comp=Z,23nm,0.9s,mb5.0,baz=94,slow=10,SNR=5.6						
EMIN	Mina Concepcio	35.78	284	P	P	02 29 57.4	-0.8
	comp=Z,37nm,1.0s,mb5.2						
EBAD	Badajoz	35.78	285	P	P	02 29 57.9	-0.4
	comp=Z,188nm,1.8s,mb5.6						
ZFT	Errachidia	35.83	273	iP	P	02 29 57.0	-1.7
PCBR	Castelo Branco	35.88	287	eP	P	02 29 59.9	+0.8
	comp=Z,55nm,1.1s,mb5.3						
PESTR	Estremoz	36.19	286	eP	P	02 30 00.6	-1.2
	comp=Z,97nm,1.3s,mb5.5						
PESTR				eS	S	02 35 45.4	+2.7
PESTR				eLR	LR	02 40 29.5	
	comp=Z,1µm,16.0s						
PESTR	Estremoz	36.19	286	eP	P	02 30 00.6	-1.2
	comp=Z,97nm,1.3s,mb5.5						
PESTR				eS	S	02 35 45.4	+2.7
EGRO	El Granado	36.46	284	P	P	02 30 04.9	+0.9
	comp=Z,136nm,2.0s,mb5.4						
WMQ	Urumqi	36.60	66⇑	iP	P	02 30 06.2	+1.1
WMQ				AP		02 30 10.7	
WMQ				XP	sP	02 30 13.2	+8.0
WMQ				PP	PP	02 31 30.7	+2.5
WMQ				PCP	PcP	02 32 29.6	+1.2
WMQ				S	S	02 35 48.0	-0.8
WMQ				SS	SS	02 38 14.2	-14
WMQ				SCS	ScS	02 40 19.8	-2.8
WMQ				AMB	AMB		
	comp=Z,164nm,1.2s,mb5.6						
WMQ				AMB	AMB		
	comp=Z,91nm,6.1s						
WMQ				LR	LR		
	comp=N,3µm,15.0s,MS5.2						
WMQ				LR	LR		
	comp=E,1µm,15.0s,MS5.2						
WMQ				LR	LR		
	comp=Z,2µm,14.6s,MS5.0						
PBEJ	Beja	36.62	285	eP	P	02 30 07.1	+1.7
	comp=Z,92nm,1.4s,mb5.3						
PTOM	Tomar	36.63	287	eP	P	02 30 05.0	-0.5
	comp=Z,111nm,1.4s,mb5.4						
PVAQ	Vaqueiros	36.67	283	eP	P	02 30 06.0	+0.1
	comp=Z,133nm,1.4s,mb5.5						
PVAQ				eS	S	02 35 50.8	+0.7
PVAQ				eLR	LR	02 41 34.3	
	comp=Z,448nm,18.0s						
PVAQ	Vaqueiros	36.67	283	eP	P	02 30 06.0	+0.1
	comp=Z,133nm,1.4s,mb5.5						
PVAQ				eS	S	02 35 50.8	+0.7
PBDV	Barranco-do-Ve	36.88	283	eP	P	02 30 07.7	0.0
	comp=Z,201nm,1.3s,mb5.7						
PBDV				eS	S	02 35 59.3	+6.0
PBDV				eLR	LR	02 42 05.8	
	comp=Z,562nm,18.0s						
PBDV	Barranco-do-Ve	36.88	283	eP	P	02 30 07.7	0.0
	comp=Z,201nm,1.3s,mb5.7						
PBDV				eS	S	02 35 59.3	+6.0
MORF	Marmelete	37.42	284	eP	P	02 30 14.3	+2.1
	comp=Z,80nm,1.5s,mb5.2						
MORF				eS	S	02 36 08.2	+6.8
MORF				eLR	LR	02 41 57.8	
	comp=Z,760nm,20.0s						
MORF	Marmelete	37.42	284	eP	P	02 30 14.3	+2.1
	comp=Z,80nm,1.5s,mb5.2						
MORF				eS	S	02 36 08.2	+6.8
PMAFR	Mafra	37.45	286	eS	S	02 36 05.3	+3.4
PMAFR				eLR	LR	02 41 26.8	
	comp=Z,937nm,16.0s						
PMAFR	Mafra	37.45	286	eS	S	02 36 05.3	+3.4
PFVI	Vila Bisbo	37.60	283	eP	P	02 30 14.4	+0.6
	comp=Z,198nm,1.2s,mb5.7						
PFVI	Vila Bisbo	37.60	283	eLR	LR	02 42 04.6	
	comp=Z,793nm,20.0s						
AVE	Averroes	37.76	277	P	P	02 30 13.0	-2.1
KOLN	Koldanda	38.42	92	eP	P	02 30 20.5	-0.3
	comp=Z,185nm,1.6s,mb5.6						
GKN	Gorkha	39.13	91	eP	P	02 30 26.3	-0.4
KMBO	Kilima Mbogo	39.31	183	eP	P	02 30 29.1	+0.9
	comp=Z,9.1nm,1.2s,mb4.3						
KMBO				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
KMBO	Kilima Mbogo	39.31	183	eP	P	02 30 29.2	+0.9
KMBO				pmax	pmax		
	comp=Z,9.0nm,1.2s						
KMBO				MLR	MLR		
	comp=Z,2µm,19.0s						
KMBO	Kilima Mbogo	39.31	183	P	P	02 30 29.5	+1.2
	comp=Z,3.8nm,0.9s,mb4.0,baz=25,slow=9.5,SNR=11						
KMBO				LR	LR	02 46 07.6	
	comp=Z,2µm,18.7s,MS5.0,baz=133,slow=35						
CIA	Chichaoua	39.47	275	iP	P	02 30 30.0	+0.5
MBAR	Mbarara	39.52	193	eP	P	02 30 28.2	-1.8
DMN	Daman	39.68	92	eP	P	02 30 31.1	-0.2
	comp=Z,135nm,1.0s,mb5.5						
KKN	Kakani	39.73	91	eP	P	02 30 31.2	-0.6
PKI	Pulchoki	39.93	92	eP	P	02 30 33.4	0.0
	comp=Z,95nm,1.0s,mb5.4						
GUN	Gumba	40.15	91	eP	P	02 30 35.1	-0.1
	comp=Z,115nm,0.9s,mb5.5						
HYB	Hyderabad	40.22	110	eP	P	02 30 35.0	-0.9
HYB				ePP	PP	02 32 14.0	+5.8
HYB				eS	S	02 36 36.0	-7.9
HYB	Hyderabad	40.22	110	iP	P	02 30 35.0	-0.9
HYB				ePP	PP	02 32 14.0	+5.8
HYB				eS	S	02 36 36.0	-7.9
SPB4	Spitsbergen Ar	41.06	353	eP	P	02 30 42.0	-0.1
TOA0	Torodi Ar. Sit	41.59	243	eP	P	02 30 44.7	-2.5
TORD	Torodi Ar. Bea	41.59	243	P	P	02 30 45.1	-2.1
	comp=Z,6.6nm,1.1s,mb4.3,baz=41,slow=5.4,SNR=25						
TORD				PcP	PcP	02 32 44.7	+0.3
	comp=Z,3.0nm,0.7s,baz=47,slow=3.0,SNR=3.7						
TORD				LR	LR	02 52 03.4	
	comp=Z,1µm,19.1s,MS4.8,baz=30,slow=42						
ODAN	Odare	41.82	91	eP	P	02 30 48.9	-0.1
	comp=Z,344nm,1.6s,mb5.8						
TAPN	Taplejung	41.85	90	eP	P	02 30 48.8	-0.4
	comp=Z,53nm,0.7s,mb5.4						
KBS	Kingsbay	42.15	352	PFAKE		02 31 00.0	+8.9
KBS				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
LSA	Lhasa	43.49	85	P	P	02 31 03.4	+0.8
LSA	Lhasa	43.49	85	eP	P	02 31 02.9	+0.3
	comp=Z,19nm,0.6s,mb5.0						
LSA				LR	LR		
	comp=Z,3µm,22.0s,MS5.1						
LSA	Lhasa	43.49	85	eP	P	02 31 02.9	+0.3
LSA				pmax	pmax		
	comp=Z,19nm,0.6s,mb5.0						
LSA				MLR	MLR		
	comp=Z,3µm,22.0s,MS5.1						
EFAM	Famara	44.23	274	P	P	02 31 09.2	+0.7
	comp=Z,70nm,3.2s						
MOY	Mondy	44.42	52	eP	P	02 31 11.3	+1.6
MOY				pmax	pmax		
	comp=Z,265nm,2.6s,mb5.5						
CFTV	Fuerteventura	44.98	274	P	P	02 31 16.1	+1.6
	comp=Z,27nm,0.8s,mb5.2						
PMAR	Madeira	45.35	281	eP	P	02 31 16.7	-0.8
	comp=Z,159nm,1.9s,mb5.6						
MSEY	Mahe Island	45.41	157	PFAKE		02 31 30.0	+12
MSEY				LR	LR		
	comp=Z,891nm,20.0s,MS4.7						
DAG	Danmarks Havn	45.75	344⇓	iP	P	02 31 20.0	0.0
DAG				pmax	pmax		
	comp=Z,33nm,1.2s,mb5.2						
DAG	Danmarks Havn	45.75	344⇓	iP	P	02 31 20.0	0.0
	comp=Z,33nm,1.2s,mb5.2						
TLY	Talaya	46.05	51	P	P	02 31 24.7	+2.0
	comp=Z,384nm,0.9s,mb6.4,SNR=20						
TLY	Talaya	46.05	51⇑	iP	P	02 31 23.5	+0.8
TLY				LR	LR		
	comp=Z,2µm,19.0s,MS5.1						
TLY	Talaya	46.05	51	eP	P	02 31 23.0	+0.3
TLY				e		02 33 09.7	
TLY				eS	S	02 38 14.0	+5.2
TLY				eSS	SS	02 41 24.6	-8.7
TLY				pmax	pmax		
	comp=Z,140nm,1.4s,mb5.8						
TLY				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.1						
TLY	Talaya	46.05	51	P	P	02 31 24.3	+1.6
	SNR=35						
ZAK	Zakamensk	46.05	53	eP	P	02 31 23.6	+0.9
ZAK				e		02 33 00.0	
ZAK				pmax	pmax		
	comp=Z,36nm,1.7s,mb5.1						
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.7						
EOSO	Osorio	46.29	274	P	P	02 31 26.6	+1.7
	comp=Z,85nm,2.0s,mb5.4						
IRK	Irkutsk	46.34	50⇓	iP	P	02 31 25.4	+0.4
IRK				e		02 33 02.5	
IRK				pmax	pmax		
	comp=Z,301nm,2.0s,mb6.0						
GTA	Gaotai	46.46	69	P	P	02 31 26.2	+0.1
GTA				AP		02 31 30.4	
GTA				XP	sP	02 31 33.5	+7.3
GTA				PP	PP	02 33 14.9	0.0
GTA				PCS	PcS	02 36 55.8	+0.4
GTA				S	S	02 38 14.0	-1.1
GTA				SCS	ScS	02 41 16.4	-6.2
GTA				SS	SS	02 41 28.4	-12
GTA				AMB	AMB		
	comp=Z,32nm,1.4s,mb5.2						
GTA				AMB	AMB		
	comp=Z,841nm,5.4s						
GTA				LR	LR		
	comp=N,2µm,22.9s,MS5.0						
GTA				LR	LR		
	comp=E,1µm,18.0s,MS5.0						
GTA				LR	LR		
	comp=Z,1µm,18.3s,MS5.0						
EBAJ	Bajamar	46.70	275	P	P	02 31 29.9	+1.8
	comp=Z,138nm,2.1s,mb5.7						
CCAN	Las Canadas	47.05	275	P	P	02 31 32.5	+1.7
	comp=Z,87nm,2.2s,mb5.5						
EGOM	La Gomera	47.55	275	P	P	02 31 36.2	+1.5
	comp=Z,111nm,2.0s,mb5.7						
PALK	Pallekele	48.61	119	eP	P	02 31 43.7	+0.6
	comp=Z,35nm,1.3s,mb5.2						
PALK				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
SONM	Songino Array	48.61	56	P	P	02 31 43.5	+0.8
SONM						02 33 09.8	
SONM				pmax	pmax		
	comp=Z,11nm,0.8s						
SONM				pmax	pmax		
	comp=Z,6.0nm,0.9s						
SONM				MLR	MLR		
	comp=Z,18µm,18.6s						
SONM	Songino Array	48.61	56	P	P	02 31 43.5	+0.9
	comp=Z,11nm,0.8s,mb4.9,baz=286,slow=7.3,SNR=30						
SONM				PcP	PcP	02 33 09.8	+1.6
	comp=Z,6.4nm,0.9s,baz=268,slow=2.8,SNR=5.7						
SONM				LR	LR	02 54 38.3	
	comp=Z,18µm,18.6s,MS6.1,baz=290,slow=39						
LZH	Lanzhou	50.64	71 ⇑	P	P	02 31 59.0	+0.7
LZH				AP		02 32 03.5	
LZH				XP	sP	02 32 06.2	+7.8
LZH				PCP	PcP	02 33 18.6	+2.7
LZH				PP	PP	02 33 55.9	+1.9
LZH				S	S	02 39 11.3	-2.8
LZH				SS	SS	02 42 42.1	-5.9
LZH				AMB	AMB		
	comp=Z,89nm,1.2s,mb5.6						
LZH				AMB	AMB		
	comp=Z,403nm,5.6s						
LZH				LR	LR		
	comp=E,3µm,14.7s						
LZH				LR	LR		
	comp=Z,4µm,16.2s,MS5.5						
LZH	Lanzhou	50.64	71 ⇑	P	P	02 31 59.0	+0.7
	comp=Z,89nm,1.2s,mb5.6						
LZH				pP		02 32 03.5	
LZH				sP	sP	02 32 06.2	+7.8
LZH				PcP	PcP	02 33 18.6	+2.7
LZH				PP	PP	02 33 55.9	+1.9
LZH				PcS	PcS	02 37 17.5	+4.3
LZH				S	S	02 39 11.3	-2.8
LZH				sS	sS	02 39 18.5	+4.3
LZH				SS	SS	02 42 42.1	-5.9
LZH				LR	LR		
	comp=Z,4µm,16.2s,MS5.5						
LZH	Lanzhou	50.64	71 ⇑	P	P	02 31 59.0	+0.7
LZH				*PP		02 32 03.5	
LZH						02 33 18.6	
LZH						02 33 55.9	
LZH				S	S	02 39 11.3	-2.8
LZH				*SS	sS	02 39 18.5	+4.3
LZH				SS	SS	02 42 42.1	-5.9
LZH				pmax	pmax		
	comp=Z,89nm,1.2s,mb5.6						
LZH				MLR	MLR		
	comp=Z,4µm,16.2s,MS5.5						
BOD	Bodaibo	50.83	42	eP	P	02 31 58.0	-1.4
BOD				pmax	pmax		
	comp=Z,75nm,1.1s,mb5.5						
TIC	Toumodi	50.83	243	eP	P	02 31 57.7	-2.3
	comp=Z,18nm,1.0s,mb5.0						
KIC	Kosan Boka	50.84	243	eP	P	02 31 57.7	-2.3
	comp=Z,94nm,0.8s,mb5.8						
LIC	Lamto	51.13	243	eP	P	02 31 58.8	-3.5
	comp=Z,37nm,0.9s,mb5.0						
LIC				eMLR	MLR		

	comp=Z,1µm,18.0s,MS4.7						
LIC	**Lamto**	**51.13**	**243**	*e*P	**P**	**02 31 59.9**	**-2.4**
	comp=Z,54nm,0.9s,mb5.5						
LIC	**Lamto**	**51.13**	**243**	*e*P	**P**	**02 31 58.8**	**-3.5**
	comp=Z,18nm,0.9s,mb5.0						
LIC				LR	LR		
	comp=Z,600nm,18.0s,MS4.7						
CIT	**Chita**	**51.97**	**49**	*e*P	**P**	**02 32 08.5**	**+0.5**
CIT				*e*		02 33 25.9	
CIT				*e*		02 34 08.0	
CIT				pmax	pmax		
	comp=Z,234nm,1.8s,mb5.8						
CD2	**Chengdu**	**52.75**	**77**	P	**P**	**02 32 13.5**	**-0.7**
CD2				AP		02 32 18.3	
CD2				XP	sP	02 32 20.6	+6.3
CD2				PP	PP	02 34 11.8	-1.5
CD2				S	**S**	**02 39 37.4**	**-6.0**
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
CD2				AMB	AMB		
	comp=Z,230nm,3.5s						
CD2				LR	LR		
	comp=N,1µm,16.2s						
CD2				LR	LR		
	comp=Z,1µm,15.6s,MS5.1						
BTO	**Baotou**	**53.39**	**64**	*e*P	**P**	**02 32 19.7**	**+1.0**
TIXI	**Tiksi**	**54.05**	**23**	*e*P	**P**	**02 32 22.6**	**-0.5**
	comp=Z,90nm,1.6s,mb5.5						
TIXI				LR	LR		
	comp=Z,1µm,22.0s,MS4.9						
TIXI	**Tiksi**	**54.05**	**23**	⇓*i*P	**P**	**02 32 21.7**	**-1.4**
TIXI				*e*		02 34 22.7	
TIXI				*e*S	**S**	**02 40 00.1**	**+0.2**
TIXI				*e*		02 42 11.6	
TIXI				*e*SS	SS	02 43 34.9	-5.7
TIXI				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.3						
LSZ	**Lusaka**	**54.31**	**193**	*e*P	**P**	**02 32 25.7**	**+0.1**
	comp=Z,18nm,1.1s,mb5.0						
LSZ				LR	LR		
	comp=Z,2µm,19.0s,MS5.1						
LSZ	**Lusaka**	**54.31**	**193**	*e*P	**P**	**02 32 25.7**	**+0.1**
LSZ				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
LSZ				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.1						
LSZ	**Lusaka**	**54.31**	**193**	P	**P**	**02 32 26.1**	**+0.5**
	comp=Z,7.6nm,1.0s,mb4.7,baz=19,slow=6.4,SNR=10.0						
HHC	**Hu-ho-hao-te**	**54.38**	**63**	*e*P	**P**	**02 32 26.4**	**+0.4**
HHC				XP	sP	02 32 33.1	+7.0
HHC				PP	PP	02 34 29.6	+1.9
HHC				PCS	PcS	02 37 28.7	-0.6
HHC				S	**S**	**02 40 01.9**	**-3.3**
HHC				SCS	ScS	02 42 11.7	-4.9
HHC				AMB	AMB		
	comp=Z,88nm,1.0s,mb5.7						
HHC				AMB	AMB		
	comp=Z,1µm,3.6s						
HHC				LR	LR		
	comp=N,2µm,17.8s,MS5.5						
HHC				LR	LR		
	comp=E,3µm,17.8s,MS5.5						
HHC				LR	LR		
	comp=Z,4µm,16.9s,MS5.5						
KMI	**Kunming**	**54.72**	**84**	P	**P**	**02 32 27.7**	**-1.0**
KMI				AP		02 32 32.2	
KMI				PP	PP	02 34 32.6	+1.5
KMI				S	**S**	**02 40 04.8**	**-5.4**
KMI				SS	SS	02 43 46.3	-6.6
KMI				AMB	AMB		
	comp=Z,21nm,1.4s,mb5.0						
KMI				AMB	AMB		
	comp=Z,299nm,3.3s						
KMI				LR	LR		
	comp=N,800nm,18.1s,MS5.0						
KMI				LR	LR		
	comp=E,777nm,16.8s,MS5.0						
KMI				LR	LR		
	comp=Z,769nm,16.8s,MS4.8						
KMI	**Kunming**	**54.72**	**84**	P	**P**	**02 32 27.7**	**-1.0**
	comp=Z,21nm,1.4s,mb5.0						
KMI				pP		02 32 32.2	
KMI				sP	sP	02 32 33.8	+5.0
KMI				PP	PP	02 34 32.6	+1.5
KMI				PPP		02 35 42.8	
KMI				S	**S**	**02 40 04.8**	**-5.4**
KMI				sS	sS	02 40 11.5	+1.2
KMI				ScS	ScS	02 42 17.7	-1.8
KMI				SS	SS	02 43 46.3	-6.6
KMI				SSS		02 45 37.4	
KMI				LR	LR		
	comp=Z,770nm,16.8s,MS4.8						
KMI	**Kunming**	**54.72**	**84**	P	**P**	**02 32 27.7**	**-1.0**
KMI				*PP		02 32 32.2	
KMI				*SP	sP	02 32 33.8	+5.0
KMI						02 34 32.6	
KMI				PPP		02 35 42.8	
KMI				S	**S**	**02 40 04.8**	**-5.4**
KMI				*SS	sS	02 40 11.5	+1.2
KMI						02 42 17.7	
KMI				SS	SS	02 43 46.3	-6.6
KMI				pmax	pmax		
	comp=Z,21nm,1.4s,mb5.0						
KMI				MLR	MLR		
	comp=Z,770nm,16.8s,MS4.8						
CHG	**Chiang Mai**	**55.08**	**93**	⇑P	**P**	**02 32 30.1**	**-1.3**
	comp=Z,46nm,0.9s,mb5.5						
CHTO	**Chiang Mai**	**55.08**	**93**	*e*P	**P**	**02 32 29.7**	**-1.7**
	comp=Z,13nm,0.8s,mb5.0						
CHTO				LR	LR		
	comp=Z,484nm,19.0s,MS4.6						
CHTO	**Chiang Mai**	**55.08**	**93**	*e*P	**P**	**02 32 29.7**	**-1.7**
CHTO				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
CHTO				MLR	MLR		
	comp=Z,484nm,19.0s,MS4.6						
CHTO	**Chiang Mai**	**55.08**	**93**	P	**P**	**02 32 30.5**	**-0.8**
	SNR=14						
XAN	**Xi’an**	**55.27**	**71**	P	**P**	**02 32 31.0**	**-1.6**
XAN				AP		02 32 36.4	
XAN				S	**S**	**02 40 12.5**	**-4.9**
XAN				AMB	AMB		
	comp=Z,36nm,1.5s,mb5.2						
XAN				AMB	AMB		
	comp=Z,154nm,4.5s						
XAN				LR	LR		
	comp=N,1µm,16.5s,MS5.2						
XAN				LR	LR		
	comp=E,2µm,18.9s,MS5.2						
XAN				LR	LR		
	comp=Z,2µm,18.8s,MS5.3						
CM31	**Chiang Mai Arr**	**55.28**	**93**	PFAKE		02 32 40.0	+7.2
CM31				LR	LR		
	comp=Z,623nm,19.0s,MS4.7						
BDT	**Bhumibol Dam**	**56.01**	**94**	P	**P**	**02 32 37.5**	**-0.6**
TIY	**Taiyuan**	**56.26**	**66**	⇑*i*P	**P**	**02 32 38.8**	**-0.8**
TIY				PP	PP	02 34 45.8	+1.1
TIY				S	**S**	**02 40 32.6**	**+2.1**
TIY				LR	LR		
	comp=N,2µm,16.1s,MS5.2						
TIY				LR	LR		
	comp=E,1µm,18.5s,MS5.2						
NANT	**Nan**	**56.47**	**92**	⇑P	**P**	**02 32 40.0**	**-1.3**
	comp=E,225nm,0.9s,mb6.2						
HIA	**Hailar**	**56.58**	**51**	*e*P	**P**	**02 32 42.5**	**+0.8**
	comp=E,83nm,1.2s,mb5.6						
HIA				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
HIA	**Hailar**	**56.58**	**51**	*e*P	**P**	**02 32 42.5**	**+0.8**
HIA				pmax	pmax		
	comp=Z,83nm,1.2s						
HIA				MLR	MLR		
	comp=Z,3µm,19.0s						
CLNS	**Chul’man**	**56.77**	**41**	*e*P	**P**	**02 32 45.9**	**+3.0**
CLNS				*e**PP		02 32 53.3	
CLNS				*e*		02 34 51.4	
CLNS				*e*PS		02 40 31.2	
CLNS				pmax	pmax		
	comp=N,13nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.3						
CLNS				pmax	pmax		
	comp=E,8.0nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
CLNS				pmax	pmax		
	comp=N,3.0nm,0.5s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.9s						
CLNS				smax			
	comp=N,103nm,13.0s						
CLNS				smax			
	comp=E,321nm,14.7s						
CLNS				smax			
	comp=Z,91nm,14.7s						
CLNS				MLR	MLR		
	comp=N,700nm,14.0s,MS5.1						
CLNS				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.3						
CLNS				MLR	MLR		
	comp=E,700nm,11.0s,MS5.1						
GYA	**Guiyang**	**57.11**	**81**	⇑*i*P	**P**	**02 32 44.9**	**-0.9**
GYA				AP		02 32 49.1	
GYA				PCP	PcP	02 33 42.4	+1.7
GYA				SCP	ScP	02 37 40.7	-0.9
GYA				S	**S**	**02 40 41.9**	**-0.1**
GYA				SCS	ScS	02 42 33.4	-3.3
GYA				AMB	AMB		
	comp=Z,30nm,1.3s,mb5.2						
GYA				AMB	AMB		
	comp=Z,280nm,5.4s						
GYA				LR	LR		
	comp=N,590nm,18.6s,MS4.8						
GYA				LR	LR		
	comp=E,500nm,18.6s,MS4.8						
GYA				LR	LR		
	comp=Z,530nm,17.8s,MS4.7						
YAK	**Yakutsk**	**57.24**	**34**	*e*P	**P**	**02 32 47.0**	**+0.9**
YAK				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
YAK	**Yakutsk**	**57.24**	**34**	*e*P	**P**	**02 32 48.4**	**+2.2**
YAK				*e**PP		02 32 50.5	
YAK				*e*S	**S**	**02 40 46.4**	**+3.8**
YAK				*e*		02 42 37.3	
YAK				*e*SS	SS	02 44 35.3	+4.4
YAK				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.3						
YAK				pmax	pmax		
	comp=N,11nm,1.1s						
YAK				pmax	pmax		
	comp=E,21nm,1.2s						
YAK				pmax	pmax		
	comp=Z,67nm,2.2s,mb5.3						
YAK				pmax	pmax		
	comp=N,72nm,3.4s						
YAK				pmax	pmax		
	comp=E,103nm,3.4s						
YAK				smax			
	comp=N,228nm,3.6s						
YAK				smax			
	comp=E,166nm,4.4s						
YAK				smax			
	comp=Z,120nm,4.4s						
YAK				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.0						
YAK				MLR	MLR		
	comp=N,1µm,15.0s						
YAK				MLR	MLR		
	comp=E,1µm,20.0s						
BJI	**Beijing**	**57.92**	**62**	P	**P**	**02 32 51.7**	**+0.4**
BJI				PCP	PcP	02 33 40.0	-3.6
BJI				PP	PP	02 35 04.8	+5.5
BJI				S	**S**	**02 40 54.4**	**+2.1**
BJI				AMB	AMB		
	comp=Z,41nm,1.3s,mb5.3						
BJI				AMB	AMB		
	comp=Z,703nm,4.6s						
BJI				LR	LR		
	comp=N,3µm,18.9s,MS5.5						
BJI				LR	LR		
	comp=E,2µm,18.2s,MS5.5						
BJI				LR	LR		
	comp=Z,2µm,18.9s,MS5.2						
BJI	**Beijing**	**57.92**	**62**	P	**P**	**02 32 51.7**	**+0.4**
BJI				sP	sP	02 32 54.6	+3.2
BJI				PcP	PcP	02 33 40.0	-3.6
BJI				PP	PP	02 35 04.8	+5.5
BJI				S	**S**	**02 40 54.4**	**+2.1**
BJI				SS	SS	02 44 52.1	+9.5
BJI				LR	LR		
	comp=Z,2µm,18.9s,MS5.2						
BJT	**Baijiatuau**	**57.92**	**62**	*e*P	**P**	**02 32 51.4**	**+0.1**
	comp=Z,230nm,1.7s,mb5.9						
BJT				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
BJT	**Baijiatuau**	**57.92**	**62**	*e*P	**P**	**02 32 51.4**	**0.0**
BJT				pmax	pmax		
	comp=Z,230nm,1.7s						
BJT				MLR	MLR		
	comp=Z,3µm,20.0s						
KKTK	**Khon Kaen**	**59.52**	**93**	P	**P**	**02 33 02.5**	**-0.3**
	comp=Z,309nm,0.9s,mb6.3						
TIA	**Tai’an**	**60.30**	**66**	*e*P	**P**	**02 33 07.4**	**-0.5**
TSUM	**Tsumeb**	**60.71**	**203**	PFAKE		02 33 20.0	+9.3
TSUM				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
WHN	**Wuhan**	**60.97**	**73**	⇑P	**P**	**02 33 12.0**	**-0.5**
WHN				LR	LR		
	comp=Z,4µm,16.0s,MS5.6						
SNY	**Shenyang**	**62.15**	**57**	⇑P	**P**	**02 33 22.8**	**+2.5**
SNY				PP	PP	02 35 38.5	+1.8
SNY				S	**S**	**02 41 46.5**	**-0.1**
SNY				SS	SS	02 45 52.2	+3.4
SNY				AMB	AMB		
	comp=Z,303nm,5.7s						
SNY				LR	LR		
	comp=N,4µm,21.2s,MS5.6						
SNY				LR	LR		
	comp=E,2µm,22.4s,MS5.6						
SNY				LR	LR		
	comp=Z,667nm,26.9s,MS4.7						
DL2	**Dalian**	**62.20**	**61**	P	**P**	**02 33 21.0**	**+0.3**
DL2				PP	PP	02 35 38.7	+1.5
DL2				S	**S**	**02 41 47.4**	**+0.1**
DL2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.8						
DL2				AMB	AMB		
	comp=Z,240nm,4.7s						
DL2				LR	LR		
	comp=N,740nm,16.3s,MS5.0						
DL2				LR	LR		
	comp=E,490nm,14.7s,MS5.0						
DL2				LR	LR		
	comp=Z,970nm,15.3s,MS5.1						
CN2	**Changchun**	**62.45**	**55**	*e*P	**P**	**02 33 22.3**	**0.0**
CN2				*e*XP	sP	02 33 32.9	+11
CN2				PP	PP	02 35 41.6	+2.3
CN2				*e*S	**S**	**02 41 45.4**	**-4.9**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.9						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,4µm,20.0s,MS5.7						
CN2				LR	LR		
	comp=E,3µm,20.0s,MS5.7						
CN2				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
RES	**Resolute Bay**	**63.23**	**348**	*e*P	**P**	**02 33 27.1**	**0.0**
	comp=Z,153nm,0.9s,mb6.1						
RES	**Resolute Bay**	**63.23**	**348**	*e*P	**P**	**02 33 27.1**	**0.0**
RES				pmax	pmax		
	comp=Z,153nm,0.9s,mb6.1						
QIZ	**Qiongzhong**	**63.53**	**86**	⇑P	**P**	**02 33 29.3**	**-0.5**
QIZ				AP		02 33 33.7	
QIZ				S	**S**	**02 42 03.3**	**-1.2**
QIZ				SCS	ScS	02 43 21.2	-3.5
QIZ				SS	SS	02 46 14.2	+2.9
QIZ				AMB	AMB		
	comp=Z,20nm,1.7s,mb5.1						
QIZ				LR	LR		
	comp=E,823nm,17.5s						
QIZ				LR	LR		
	comp=Z,685nm,21.4s,MS4.8						
QIZ	**Qiongzhong**	**63.53**	**86**	*e*P	**P**	**02 33 29.6**	**-0.3**
	comp=Z,14nm,0.9s,mb5.2						
QIZ				LR	LR		
	comp=Z,728nm,21.0s,MS4.8						
NJ2	**Nanjing**	**63.56**	**69**	*e*P	**P**	**02 33 31.4**	**+1.5**
NJ2				AP		02 33 36.1	
NJ2				XP	sP	02 33 38.5	+8.5
NJ2				PP	PP	02 35 53.1	+3.7
NJ2				S	**S**	**02 42 06.0**	**+1.4**
NJ2				XS	sS	02 42 16.0	+11
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.7						
NJ2				AMB	AMB		
	comp=Z,400nm,7.2s						
NJ2				LR	LR		
	comp=N,2µm,22.4s						
NJ2				LR	LR		
	comp=E,2µm,15.7s						
NJ2				LR	LR		
	comp=Z,2µm,15.7s						
KLR	**Kul’dur**	**63.71**	**47**	*e*P	**P**	**02 33 30.0**	**-0.6**
KLR				*e*PPP		02 37 24.0	
KLR				*e*S	**S**	**02 42 03.5**	**-2.5**
KLR				*e*		02 43 23.0	
GZH	**Guangzhou**	**64.04**	**80**	P	**P**	**02 33 32.3**	**-0.9**
GZH				S	**S**	**02 42 07.4**	**-3.4**
GZH				LR	LR		
	comp=N,1µm,17.9s,MS5.2						
GZH				LR	LR		
	comp=E,1µm,18.8s,MS5.2						
GZH				LR	LR		
	comp=Z,2µm,15.3s,MS5.5						
LBTB	**Lobatse**	**64.29**	**194**	*e*P	**P**	**02 33 33.6**	**-0.9**
	comp=Z,10nm,0.8s,mb5.1						
LBTB				LR	LR		
	comp=Z,998nm,19.0s,MS5.0						
LBTB	**Lobatse**	**64.29**	**194**	*e*P	**P**	**02 33 33.6**	**-0.9**
LBTB				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.1						
LBTB				MLR	MLR		
	comp=Z,998nm,19.0s,MS5.0						
MDJ	**Mudanjiang**	**64.67**	**52**	P	**P**	**02 33 37.3**	**+0.3**
MDJ				AP		02 33 40.5	
MDJ				PCP	PcP	02 34 11.7	+0.9
MDJ				PP	PP	02 35 58.6	-0.2
MDJ				S	**S**	**02 42 15.3**	**-2.7**
MDJ				SCS	ScS	02 43 30.8	-1.9
MDJ				SS	SS	02 46 26.3	-1.8
MDJ				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,220nm,5.2s						
MDJ				LR	LR		
	comp=N,1µm,26.2s						
MDJ				LR	LR		
	comp=E,1µm,19.7s						
MDJ				LR	LR		
	comp=Z,2µm,18.7s						
MDJ	**Mudanjiang**	**64.67**	**52**	PFAKE		02 33 50.0	+13
MDJ				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
PSI	**Prapat**	**64.85**	**107**	LR	LR	03 06 20.7	
	comp=Z,676nm,18.8s,MS4.9,baz=298,slow=40						
SSE	**Sheshan**	**65.76**	**69**	*e*P	**P**	**02 33 43.4**	**-0.9**
SSE				S	S	02 42 25.9	-5.9
SSE				SCS	ScS	02 43 39.0	-2.5
SSE				AMB	AMB		
	comp=Z,43nm,0.9s,mb5.7						
SSE				AMB	AMB		
	comp=Z,57nm,3.8s						
SSE				LR	LR		
	comp=N,429nm,26.5s,MS4.8						
SSE				LR	LR		
	comp=E,622nm,26.5s,MS4.8						
SSE				LR	LR		
	comp=Z,751nm,20.0s						
SSE	**Sheshan**	**65.76**	**69**	*e*P	**P**	**02 33 43.4**	**-0.9**
	comp=Z,43nm,0.9s,mb5.7						
SSE				sP	sP	02 33 48.3	+3.9
SSE				S	S	02 42 25.9	-5.9
SSE				sS	sS	02 42 30.8	-1.0
SSE				ScS	ScS	02 43 39.0	-2.5
SSE				LR	LR		
	comp=Z,750nm,20.0s,MS4.9						
SEY	**Seymchan**	**65.97**	**27**	⇑*i*P	**P**	**02 33 45.2**	**+0.1**
HABR	**Khabarovsk**	**65.98**	**46**	*e*P	**P**	**02 33 45.4**	**0.0**
HABR				*e*		02 36 11.2	
HABR				*e*S	S	02 42 35.2	+1.3
HABR				*e*		02 43 40.6	
HABR				*e*SS	SS	02 46 52.7	+4.5
HABR				pmax	pmax		
	comp=Z,18nm,0.3s,mb5.8						
HABR				MLR	MLR		
	comp=Z,2µm,15.3s,MS5.3						
BILL	**Bilibino**	**66.81**	**19**	*e*P	**P**	**02 33 50.0**	**-0.4**
	comp=Z,99nm,1.6s,mb5.8						
BILL				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
BILL	**Bilibino**	**66.81**	**19**	*i* P	**P**	**02 33 50.0**	**-0.4**
BILL				pmax	pmax		
	comp=Z,42nm,1.3s,mb5.5						
VLA	**Vladivostok**	**66.87**	**53**	*e*P	**P**	**02 33 49.3**	**-1.9**
VLA				*e**PP		02 33 52.5	
VLA				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.6						
VLA				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.4						
KSRS	**Korea Array**	**67.22**	**60**	P	**P**	**02 33 53.5**	**-0.1**
	comp=Z,62nm,0.9s,mb5.8,baz=295,slow=6.0,SNR=34						
KSRS				LR	LR	03 06 57.2	
	comp=Z,3µm,20.8s,MS5.5,baz=306,slow=39						
MA2	**Magadan**	**67.41**	**31**	*e*P	**P**	**02 33 54.5**	**+0.2**
	comp=Z,221nm,2.0s,mb6.0						
MA2				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
MA2	**Magadan**	**67.41**	**31**	*e*P	**P**	**02 33 54.6**	**+0.3**
MA2				*e*PPP		02 38 07.2	
MA2				*e*S	S	02 42 45.3	-5.6
MA2				pmax	pmax		
	comp=Z,90nm,1.5s,mb5.8						
MA2				MLR	MLR		
	comp=Z,3µm,23.5s,MS5.4						
SCHQ	**Schefferville**	**67.74**	**323**	*e*P	**P**	**02 33 57.3**	**+0.8**
	comp=Z,22nm,0.9s,mb5.4						
SCHQ				LR	LR		
	comp=Z,828nm,19.0s,MS5.0						
SCHQ	**Schefferville**	**67.74**	**323**	P	**P**	**02 33 54.7**	**-1.8**
	comp=Z,9.2nm,0.6s,mb5.2,baz=52,slow=8.0,SNR=19						
SCHQ				LR	LR	03 02 50.6	
	comp=Z,465nm,21.7s,MS4.7,baz=46,slow=35						
BOSA	**Boshof**	**67.86**	**193**	*e*P	**P**	**02 33 56.5**	**-1.0**
	comp=Z,5.5nm,0.7s,mb4.9						
BOSA				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
BOSA	**Boshof**	**67.86**	**193**	P	**P**	**02 33 56.7**	**-0.7**
BOSA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.7						
BOSA				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.1						
BOSA	**Boshof**	**67.86**	**193**	P	**P**	**02 33 56.7**	**-0.7**
	comp=Z,4.1nm,0.8s,mb4.7,baz=8.4,slow=6.0,SNR=7.6						
BOSA				LR	LR	03 04 40.4	
	comp=Z,1µm,18.0s,MS5.1,baz=199,slow=37						
TATO	**Taipei**	**69.26**	**74**	PFAKE		02 34 20.0	+13
TATO				LR	LR		
	comp=Z,490nm,19.0s,MS4.8						
YHNB	**Yeheng**	**69.34**	**74**	*e*P	**P**	**02 34 06.3**	**-0.7**
YSS	**Yuzh-Sakhalins**	**71.15**	**45**	*c i*P	**P**	**02 34 18.1**	**+0.3**
YSS				pmax	pmax		
	comp=Z,158nm,2.7s,mb5.7						
YSS				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
SUR	**Sutherland**	**72.40**	**196**	PFAKE		02 34 30.0	+4.8
SUR				LR	LR		
	comp=Z,991nm,22.0s,MS5.0						
INK	**Inuvik**	**73.53**	**357**	*e*P	**P**	**02 34 31.6**	**0.0**
	comp=Z,312nm,1.1s,mb6.2						
INK	**Inuvik**	**73.53**	**357**	*e*P	**P**	**02 34 31.6**	**0.0**
INK				pmax	pmax		
	comp=Z,312nm,1.1s						
TNA	**Tin City**	**74.31**	**11**	*e*P	**P**	**02 34 35.0**	**-1.2**
	comp=Z,5.4nm,0.9s,mb4.6						
TNA				LR	LR		
	comp=Z,370nm,21.0s,MS4.7						
ERM	**Erimo**	**74.35**	**49**	PFAKE		02 34 50.0	+13
ERM				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
MAJO	**Matsushiro**	**74.56**	**56**	*e*P	**P**	**02 34 38.2**	**0.0**
	comp=Z,63nm,1.1s,mb5.6						
MAJO				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
MAJO	**Matsushiro**	**74.56**	**56**	*e*P	**P**	**02 34 38.2**	**0.0**
MAJO				pmax	pmax		

	comp=Z,63nm,1.1s,mb5.6						
MAJO				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
MAT	**Matsushiro**	74.56	56	P	P	02 34 37.7	-0.5
MAT				S	S	02 44 09.0	-5.7
MJAR	**Matsushiro Arr**	74.56	56	P	P	02 34 38.7	+0.5
MJAR				pmax	pmax		
	comp=Z,21nm,1.0s						
MJAR				MLR	MLR		
	comp=Z,2µm,18.7s						
MJAR	**Matsushiro Arr**	74.56	56	P	P	02 34 38.7	+0.5
	comp=Z,21nm,1.0s,mb5.1,baz=309,slow=6.0,SNR=24						
MJAR				LR	LR	03 10 40.7	
	comp=Z,2µm,18.7s,MS5.5,baz=290,slow=38						
PET	**Petropavlovsk**	75.04	33	PFAKE		02 34 50.0	+9.4
PET				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
PET	**Petropavlovsk**	75.04	33	eP	P	02 34 36.7	-3.9
PET				pmax	pmax		
	comp=Z,200nm,8.0s						
PET				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.3						
IMA2	**Indian Mountai**	75.45	5	eP	P	02 34 42.6	-0.2
FCC	**Fort Churchill**	75.72	337	eP	P	02 34 43.6	-0.8
	comp=Z,21nm,1.0s,mb5.2						
FCC	**Fort Churchill**	75.72	337	eP	P	02 34 43.7	-0.7
FCC				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.2						
COLA	**College**	76.97	3	eP	P	02 34 51.0	-0.5
	comp=Z,21nm,1.1s,mb5.2						
COLA				LR	LR		
	comp=Z,535nm,22.0s,MS4.8						
EGAK	**Eagle**	77.22	0	eP	P	02 34 52.6	-0.2
	comp=Z,6.9nm,0.3s,mb5.3						
EGAK				LR	LR		
	comp=Z,590nm,21.0s,MS4.9						
YKA	**Yellowknife Ar**	77.30	348	P	P	02 34 52.8	-0.6
YKA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
YKA				MLR	MLR		
	comp=Z,347nm,20.4s						
YKA	**Yellowknife Ar**	77.30	348	P	P	02 34 52.8	-0.6
	comp=Z,4.9nm,0.8s,mb4.7,baz=21,slow=5.6,SNR=23						
YKA				LR	LR	03 10 50.6	
	comp=Z,347nm,20.4s,MS4.7,baz=160,slow=37						
FRNY	**Flat Rock**	77.40	318	eP	P	02 34 55.9	+1.6
HRV	**Harvard--Oak R**	77.84	315	PFAKE		02 35 10.0	+13
HRV				LR	LR		
	comp=Z,597nm,19.0s,MS4.9						
DAWY	**Dawson**	77.92	359	eP	P	02 34 55.9	-0.9
MCK	**McKinley**	78.06	4	eP	P	02 34 57.9	+0.4
	comp=Z,6.2nm,1.0s,mb4.7						
MCK				LR	LR		
	comp=Z,316nm,21.0s,MS4.6						
MCK	**McKinley**	78.06	4	eP	P	02 34 57.9	+0.3
MCK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
MCK				MLR	MLR		
	comp=Z,316nm,21.0s,MS4.6						
LONY	**Lake Ozonia**	78.07	318	PFAKE		02 35 10.0	+12
LONY				LR	LR		
	comp=Z,983nm,21.0s,MS5.1						
NCB	**Newcomb**	78.32	317	PFAKE		02 35 10.0	+11
NCB				LR	LR		
	comp=Z,825nm,19.0s,MS5.1						
SML	**Sawmill**	80.01	4	eP	P	02 35 08.0	-0.3
SVW2	**Sparrevohn**	80.19	7	eP	P	02 35 09.6	+0.4
PMR	**Palmer**	80.19	4	eP	P	02 35 08.2	-1.0
	comp=Z,7.7nm,0.9s,mb4.6						
PMR				LR	LR		
	comp=Z,618nm,20.0s,MS5.0						
PMR	**Palmer**	80.19	4	eP	P	02 35 08.2	-1.0
PMR				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
PMR				MLR	MLR		
	comp=Z,618nm,20.0s,MS5.0						
BINY	**Binghamton**	80.47	317	PFAKE		02 35 20.0	+8.9
BINY				LR	LR		
	comp=Z,728nm,19.0s,MS5.0						
DIV	**Divide**	80.80	2	PFAKE		02 35 20.0	+7.5
DIV				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
SMY	**Shemya**	81.24	26	PFAKE		02 35 20.0	+5.0
SMY				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
FFC	**Flin Flon**	81.47	338	eP	P	02 35 16.4	+0.1
	comp=Z,9.9nm,0.9s,mb4.8						
FFC				LR	LR		
	comp=Z,777nm,20.0s,MS5.1						
FFC	**Flin Flon**	81.47	338	eP	P	02 35 16.4	+0.1
FFC				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
FFC				MLR	MLR		
	comp=Z,777nm,20.0s,MS5.1						
RCBR	**Riachuelo**	81.96	256	PFAKE		02 35 30.0	+11
RCBR				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
SSPA	**Standing Stone**	82.59	317	PFAKE		02 35 30.0	+7.6
SSPA				LR	LR		
	comp=Z,790nm,19.0s,MS5.1						
DAV	**Davao City (W)**	82.89	87	PFAKE		02 35 30.0	+5.6
DAV				LR	LR		
	comp=Z,932nm,20.0s,MS5.2						
GLMI	**Grayling**	82.92	323	PFAKE		02 32 20.0	
GLMI				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
ULM	**Lac du Bonnet**	83.30	333	eP	P	02 35 24.8	-1.1
	comp=Z,22nm,1.2s,mb5.3						
ULM				LR	LR		
	comp=Z,853nm,19.0s,MS5.1						
ULM	**Lac du Bonnet**	83.30	333	P	P	02 35 25.2	-0.6
	comp=Z,7.6nm,0.9s,mb4.9,baz=30,slow=4.1,SNR=9.3						
ULM				LR	LR	03 17 18.4	
	comp=Z,484nm,18.0s,MS4.9,baz=229,slow=39						
EYMN	**Ely**	83.50	329	PFAKE		02 35 40.0	+13
EYMN				LR	LR		
	comp=Z,638nm,21.0s,MS5.0						
KDAK	**Kodiak Island**	83.73	6	PFAKE		02 35 40.0	+12
KDAK				LR	LR		
	comp=Z,149nm,19.0s,MS4.4						
COWI	**Conover**	83.98	327	PFAKE		02 35 40.0	+11
COWI				LR	LR		
	comp=Z,567nm,19.0s,MS5.0						
CBN	**Corbin**	84.02	315	PFAKE		02 35 40.0	+10
CBN				LR	LR		
	comp=Z,690nm,21.0s,MS5.0						
MCWV	**Mont Chateau**	84.33	317	eP	P	02 35 31.0	-0.4
	comp=Z,21nm,0.7s,mb5.5						
MCWV				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
SIT	**Sitka**	84.85	357	PFAKE		02 35 40.0	+6.4
SIT				LR	LR		
	comp=Z,665nm,19.0s,MS5.0						
AGMN	**Agassiz Refuge**	84.91	332	eP	P	02 35 34.6	+0.5
	comp=Z,9.9nm,1.0s,mb5.0						
WRAK	**Wrangell Islan**	85.33	355	PFAKE		02 35 40.0	+4.0
WRAK				LR	LR		
	comp=Z,476nm,19.0s,MS4.9						
ACSO	**Alum Creek Sta**	85.55	319	PFAKE		02 35 50.0	+12
ACSO				LR	LR		
	comp=Z,703nm,20.0s,MS5.0						
UNV	**Unalaska Valle**	85.55	15	PFAKE		02 35 50.0	+13
UNV				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
EDM	**Edmonton**	85.74	344	eP	P	02 35 38.6	+0.4
CNNC	**Cliffs of the**	86.41	313	PFAKE		02 35 50.0	+8.1
CNNC				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
BLA	**Blacksburg**	86.42	316	PFAKE		02 35 50.0	+8.2
BLA				LR	LR		
	comp=Z,611nm,21.0s,MS5.0						
DGMT	**Dagmar**	87.62	337	PFAKE		02 36 00.0	+13
DGMT				LR	LR		
	comp=Z,863nm,22.0s,MS5.1						
HDIL	**Hopedale**	88.40	323	PFAKE		02 36 00.0	+8.6
HDIL				LR	LR		
	comp=Z,608nm,20.0s,MS5.0						
TZTN	**Tazewell**	88.60	317	PFAKE		02 36 00.0	+7.6
TZTN				LR	LR		
	comp=Z,900nm,19.0s,MS5.2						
WCI	**Wyandotte Cave**	88.75	320	PFAKE		02 36 00.0	+7.0
WCI				LR	LR		
	comp=Z,131nm,20.0s,MS4.3						
ECSD	**EROS,Sioux Fal**	89.00	330	PFAKE		02 36 00.0	+5.9
ECSD				LR	LR		
	comp=Z,768nm,21.0s,MS5.1						
SCIA	**State Center**	89.09	327	PFAKE		02 36 00.0	+5.4
SCIA				LR	LR		
	comp=Z,786nm,21.0s,MS5.1						
NHSC	**New Hope**	89.26	313	PFAKE		02 36 00.0	+4.4
NHSC				LR	LR		
	comp=Z,976nm,22.0s,MS5.2						
EGMT	**Eagleton**	89.66	340	PFAKE		02 36 10.0	+13
EGMT				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
WALA	**Waterton Lakes**	89.75	343	eP	P	02 35 57.2	-0.4
	comp=Z,6.9nm,0.9s,mb4.9						
LAO	**LASA Array**	89.84	337	eP	P	02 35 57.6	-0.4
	comp=Z,20nm,0.8s,mb5.4						
LAO				LR	LR		
	comp=Z,864nm,20.0s,MS5.2						
SJG	**San Juan**	90.35	293	PFAKE		02 36 10.0	+9.2
SJG				LR	LR		
	comp=Z,352nm,22.0s,MS4.8						
SJG	**San Juan**	90.35	293	LR	LR	03 13 16.4	
	comp=Z,255nm,21.7s,MS4.6,baz=84,slow=34						
GOGA	**Godfrey**	90.90	315	PFAKE		02 36 10.0	+6.8
GOGA				LR	LR		
	comp=Z,533nm,20.0s,MS5.0						
WVT	**Waverly**	91.15	320	eP	P	02 36 03.8	-0.5
WVT				LR	LR		
	comp=Z,807nm,22.0s,MS5.1						
NEW	**Newport**	91.22	344	eP	P	02 36 04.4	0.0
	comp=Z,16nm,0.9s,mb5.3						
NEW				LR	LR		
	comp=Z,735nm,22.0s,MS5.1						
NEW	**Newport**	91.22	344	eP	P	02 36 04.4	0.0
NEW				pmax	pmax		
	comp=Z,16nm,0.9s						
NEW				MLR	MLR		
	comp=Z,735nm,22.0s						
NEW	**Newport**	91.22	344	LR	LR	03 19 59.0	
	comp=Z,509nm,20.1s,MS5.0,baz=45,slow=38						
RSSD	**Black Hills**	91.41	334	eP	P	02 36 05.0	-0.3
	comp=Z,5.1nm,1.2s,mb4.7						
RSSD	**Black Hills**	91.41	334	eP	P	02 36 05.1	-0.2
RSSD				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.7						
CHMT	**Chamberlain Mo**	91.59	341	eP	P	02 36 05.7	-0.4
MSO	**Missoula**	91.84	342	eP	P	02 36 07.8	+0.5
	comp=Z,5.7nm,1.3s,mb4.7						
MSO				LR	LR		
	comp=Z,599nm,20.0s,MS5.0						
PLAL	**Pickwick Lake**	92.16	319	PFAKE		02 36 20.0	+11
PLAL				LR	LR		
	comp=Z,643nm,21.0s,MS5.0						
RLMT	**Red Lodge**	92.17	338	eP	P	02 36 09.0	+0.2
	comp=Z,21nm,1.5s,mb5.2						
RLMT				LR	LR		
	comp=Z,845nm,20.0s,MS5.2						
BOZ	**Bozeman (W)**	92.35	340	eP	P	02 36 10.9	+1.3
	comp=Z,3.2nm,1.0s,mb4.6						
BOZ				LR	LR		
	comp=Z,868nm,19.0s,MS5.2						
BOZ	**Bozeman (W)**	92.35	340	eP	P	02 36 11.0	+1.3
BOZ				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.6						
BOZ				MLR	MLR		
	comp=Z,868nm,19.0s,MS5.2						
KSU1	**Kansas State U**	92.87	327	PFAKE		02 36 20.0	+7.8
KSU1				LR	LR		
	comp=Z,585nm,20.0s,MS5.0						
LKWY	**Lake**	93.00	339	PFAKE		02 36 20.0	+7.3
LKWY				LR	LR		
	comp=Z,855nm,21.0s,MS5.2						
YMR	**Madison River**	93.07	339	PFAKE		02 36 20.0	+7.0
YMR				LR	LR		
	comp=Z,777nm,20.0s,MS5.2						
LRAL	**Lakeview Retre**	93.10	317	PFAKE		02 36 20.0	+6.6
LRAL				LR	LR		
	comp=Z,902nm,22.0s,MS5.2						
OXF	**Oxford**	93.21	320	PFAKE		02 36 20.0	+6.1
OXF				LR	LR		
	comp=Z,520nm,20.0s,MS5.0						
NLWA	**Neilton Lookou**	93.30	349	PFAKE		02 36 20.0	+6.0
NLWA				LR	LR		
	comp=Z,831nm,19.0s,MS5.2						
SDDR	**Presa de Saban**	93.42	297	PFAKE		02 36 20.0	+4.9
SDDR				LR	LR		
	comp=Z,516nm,20.0s,MS5.0						
DWPF	**Disney**	93.64	310	PFAKE		02 36 20.0	+4.0
DWPF				LR	LR		
	comp=Z,103nm,20.0s,MS4.3						
IMW	**Indian Meadow**	93.77	339	eP	P	02 36 15.6	-0.6
	comp=Z,4.7nm,0.9s,mb4.8						
MOOW	**Moose Ponds**	93.85	339	eP	P	02 36 19.1	+2.5
	comp=Z,4.1nm,1.0s,mb4.7						
TPAW	**Teton Pass**	94.15	339	eP	P	02 36 18.0	+0.1
	comp=Z,16nm,1.5s,mb5.1						
BW06	**Boulder Array**	94.40	337	PFAKE		02 36 30.0	+11
BW06				LR	LR		
	comp=Z,830nm,21.0s,MS5.2						
PDAR	**Pinedale Array**	94.40	337	P	P	02 36 19.3	+0.2
	comp=Z,0.4nm,1.0s,mb3.7,baz=68,slow=9.8,SNR=2.7						
PDAR				LR	LR	03 19 43.8	
	comp=Z,635nm,21.8s,MS5.0,baz=30,slow=36						
CBKS	**Cedar Bluff**	94.42	329	PFAKE		02 36 30.0	+11
CBKS				LR	LR		
	comp=Z,571nm,20.0s,MS5.0						
BMO	**Blue Mountains**	94.50	343	PFAKE		02 36 30.0	+10
BMO				LR	LR		
	comp=Z,763nm,20.0s,MS5.2						
BRAL	**Brewton**	94.69	316	PFAKE		02 36 30.0	+9.3
BRAL				LR	LR		
	comp=Z,572nm,19.0s,MS5.1						
AHID	**Auburn Hatcher**	94.86	338	PFAKE		02 36 30.0	+8.8
AHID				LR	LR		
	comp=Z,690nm,22.0s,MS5.1						
HLID	**Hailey**	95.02	341	PFAKE		02 36 30.0	+8.0
HLID				LR	LR		
	comp=Z,815nm,20.0s,MS5.2						
ISCO	**Idaho Springs**	95.78	333	PFAKE		02 36 30.0	+4.5
ISCO				LR	LR		
	comp=Z,708nm,20.0s,MS5.1						
HWUT	**Hardware Ranch**	96.06	338	eP	P	02 36 26.6	-0.2
HWUT				LR	LR		
	comp=Z,732nm,19.0s,MS5.2						
WVOR	**Wild Horse Val**	97.09	344	PFAKE		02 36 40.0	+8.6
WVOR				LR	LR		
	comp=Z,651nm,22.0s,MS5.1						
WMOK	**Wichita Mounta**	97.47	326	eP	P	02 36 33.4	+0.1
	comp=Z,2.0nm,0.8s,mb4.8						
WMOK				LR	LR		
	comp=Z,509nm,19.0s,MS5.0						
MPU	**Maple Canyon**	97.54	338	PFAKE		02 36 40.0	+6.5
MPU				LR	LR		
	comp=Z,608nm,21.0s,MS5.1						
SDCO	**Great Sand Dun**	97.56	332	PFAKE		02 36 40.0	+6.3
SDCO				LR	LR		
	comp=Z,669nm,20.0s,MS5.1						
DUG	**Dugway**	97.72	339	eP	P	02 36 35.9	+1.6
	comp=Z,2.3nm,0.8s,mb5.0						
DUG				LR	LR		
	comp=Z,765nm,21.0s,MS5.2						
HUMO	**Hull Mountain**	97.80	347	PFAKE		02 36 40.0	+5.4
HUMO				LR	LR		
	comp=Z,610nm,21.0s,MS5.1						
ELK	**Elko**	97.87	341	PFAKE		02 36 40.0	+5.0
ELK				LR	LR		
	comp=Z,807nm,20.0s,MS5.2						
MOD	**Modoc**	97.96	345	PFAKE		02 36 40.0	+4.6
MOD				LR	LR		
	comp=Z,366nm,20.0s,MS4.9						
NATX	**Nacogdoches**	98.04	322	PFAKE		02 36 40.0	+4.1
NATX				LR	LR		
	comp=Z,686nm,22.0s,MS5.1						
YBH	**Yreka Blue Hor**	98.60	346	PFAKE		02 36 50.0	+12
YBH				LR	LR		
	comp=Z,447nm,20.0s,MS5.0						
BMN	**Battle Mountai**	98.67	342	PFAKE		02 36 50.0	+11
BMN				LR	LR		
	comp=Z,664nm,20.0s,MS5.1						
MVCO	**Mesa Verde**	99.10	334	PFAKE		02 36 50.0	+9.4
MVCO				LR	LR		
	comp=Z,792nm,21.0s,MS5.2						
WDC	**Whiskeytown Da**	99.68	346	PFAKE		02 36 50.0	+6.9
WDC				LR	LR		
	comp=Z,433nm,19.0s,MS5.0						
HKT	**Hockley**	100.10	321	PFAKE		02 36 50.0	+5.0
HKT				LR	LR		
	comp=Z,140nm,20.0s,MS4.5						
ANMO	**Albuquerque**	100.40	332	PFAKE		02 36 50.0	+3.7
ANMO				LR	LR		
	comp=Z,449nm,19.0s,MS5.0						
TPH	**Tonopah**	100.90	341	PFAKE		02 37 00.0	+11
TPH				LR	LR		
	comp=Z,833nm,22.0s,MS5.2						
HOPS	**Hopland**	101.32	346	PFAKE		02 37 00.0	+10
HOPS				LR	LR		
	comp=Z,683nm,21.0s,MS5.1						
NWAO	**Narrogin (SRO)**	101.42	123	PFAKE		02 37 00.0	+9.2
NWAO				LR	LR		
	comp=Z,534nm,20.0s,MS5.1						
JCT	**Junction City**	101.53	325	PFAKE		02 37 00.0	+8.7
JCT				LR	LR		
	comp=Z,486nm,20.0s,MS5.0						
WUAZ	**Wupatki**	101.59	336	PFAKE		02 37 00.0	+8.4
WUAZ				LR	LR		
	comp=Z,627nm,20.0s,MS5.1						
CMB	**Columbia Colle**	101.69	344	PFAKE		02 37 00.0	+8.0
CMB				LR	LR		
	comp=Z,539nm,22.0s,MS5.0						
DAC	**Darwin (Calif)**	102.69	341	PFAKE		02 37 00.0	+3.5
DAC				LR	LR		
	comp=Z,543nm,20.0s,MS5.1						
MNTX	**Cornudas Mount**	102.86	329	PFAKE		02 37 10.0	+13
MNTX				LR	LR		
	comp=Z,585nm,22.0s,MS5.1						
KVTX	**Kingsville**	103.09	322	PFAKE		02 37 10.0	+12
KVTX				LR	LR		
	comp=Z,425nm,20.0s,MS5.0						
TEIG	**Tepich**	103.66	310	PFAKE		02 37 10.0	+9.2
TEIG				LR	LR		
	comp=Z,308nm,20.0s,MS4.8						
LTX	**Lajitas**	104.22	327	PFAKE		02 37 10.0	+6.7
LTX				LR	LR		
	comp=Z,704nm,20.0s,MS5.2						
TXAR	**Lajitas Array**	104.22	327	Pdif	Pdif	02 37 03.3	0.0
TXAR	**Lajitas Array**	104.22	327	P	Pdif	02 37 03.3	0.0
TXAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
TXAR	**Lajitas Array**	104.22	327	Pdiff	Pdif	02 37 03.3	0.0
	comp=Z,0.5nm,1.0s,baz=116,slow=2.9,SNR=3.4						
TUC	**Tucson**	104.33	334	PFAKE		02 37 10.0	+6.2
TUC				LR	LR		
	comp=Z,655nm,22.0s,MS5.1						
PFO	**Pinyon Flat Ob**	104.90	339	PFAKE		02 37 10.0	+3.7
PFO				LR	LR		
	comp=Z,824nm,20.0s,MS5.3						
SYO	**Syowa Base**	107.03	180⇓	eP	Pdif	02 37 09.0	-6.8
SYO	**Syowa Base**	107.03	180⇓	ePdiff	Pdif	02 37 14.2	-1.6
MAW	**Mawson**	107.15	171	PFAKE		02 41 30.0	+5.7
MAW				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
TGUH	**Tegucigalpa,Un**	107.68	305	PFAKE		02 41 40.0	+13
TGUH				LR	LR		
	comp=Z,282nm,20.0s,MS4.8						
JTS	**JuntasAbangare**	108.90	300	PFAKE		02 41 40.0	+11
JTS				LR	LR		
	comp=Z,292nm,20.0s,MS4.8						
OTAV	**Otavalo**	111.19	288	PFAKE		02 41 40.0	+6.3
OTAV				LR	LR		
	comp=Z,193nm,20.0s,MS4.7						
LPAZ	**La Paz**	113.34	267	ePKP	PKiKP	02 41 36.7	-0.9
LPAZ				LR	LR		
	comp=Z,414nm,21.0s,MS5.0						
CTAO	**Charters Tower**	115.38	96	PFAKE		02 41 50.0	+8.6
CTAO				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
NNA	**Nana**	117.67	277	PFAKE		02 41 50.0	+4.0
NNA				LR	LR		
	comp=Z,262nm,20.0s,MS4.8						
STKA	**Stephens Creek**	117.98	110	PKP	PKPdf	02 41 46.9	+0.8
STKA	**Stephens Creek**	117.98	110	PKP	PKPdf	02 41 46.9	+0.8
	comp=Z,0.9nm,0.4s,baz=346,slow=4.2,SNR=3.5						
HNR	**Honiara**	119.88	78	PFAKE		02 42 00.0	+10
HNR				LR	LR		
	comp=Z,800nm,19.0s,MS5.4						
TRQA	**Tornquist**	119.92	243	PFAKE		02 42 00.0	+10
TRQA				LR	LR		
	comp=Z,457nm,20.0s,MS5.1						
LCO	**Las Campanas**	122.11	257	ePKPdf	PKPdf	02 41 53.3	-0.8
LCO				LR	LR		
	comp=Z,413nm,20.0s,MS5.1						
TAU	**Tasmania Unive**	126.84	119	PFAKE		02 42 10.0	+7.3
TAU				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
FUNA	**Funafuti**	133.43	61	PFAKE		02 42 20.0	+3.9
FUNA				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
VNDA	**Vanda**	134.07	165	PFAKE		02 42 20.0	+4.5
VNDA				LR	LR		
	comp=Z,703nm,19.0s,MS5.4						
SBA	**Scott Base**	134.87	166	PFAKE		02 42 30.0	+13
SBA				LR	LR		
	comp=Z,674nm,19.0s,MS5.4						
SNZO	**South Karori**	146.04	109	PFAKE		02 42 50.0	+12
SNZO				LR	LR		
	comp=Z,2µm,19.0s,MS6.0						

WEL 09 02:31:12.6±0.6, 35.79S×178.92E, h250^{km}±16^{km}, ML3.5/5, Error ellipse: s-maj=19.5km s-min=12.1km az=0.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUZ	**Puketiti**	2.34	193	PN	Pn	02 31 58.1	0.0
PUZ				eSN	S	02 32 33.1	-1.1
MWZ	**Matawai**	2.77	203	PN	Pn	02 32 03.4	+0.9
MWZ				SN	S	02 32 41.4	-0.8
URZ	**Urewera**	2.86	210	PN	Pn	02 32 03.7	+0.3
URZ				SN	S	02 32 43.6	-0.2
BKZ	**Black Stump Fm**	3.88	209	PN	Pn	02 32 15.9	+1.0
MRZ	**Mangatainoka R**	5.53	207	PN	Pn	02 32 34.8	+0.1

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*ISK **09** 02:33:42.4, 38.46N×39.10E, h3^{km}, MD3.0*
*ISCJB **09** 02:33:43.5±0.5, 38.43N±0.04×39.14E±0.03, h5^{km}, Error ellipse: s-maj=5.9km s-min=3.9km az=175.4*
*CSEM **09** 02:33:43.0±0.2, 38.44N×39.09E, h5^{km}, MD2.5*
*DDA **09** 02:33:44.3, 38.43N×39.17E, h5^{km}±5^{km}, Md2.5*
ISC 09 02:33:44.0±0.7, 38.44N±0.05×39.14E±0.05, h7^{km}±7^{km}, n18, σ0^{s}96/27, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.13	294	iP	Pg	02 33 46.8	+0.1
ELZG				iS	Sg	02 33 50.3	+1.6
MYA	**Malataya**	0.57	258	PG	Pg	02 33 54.1	-0.9
MYA				SG	Sg	02 34 02.4	-0.1
MYA	**Malataya**	0.57	258	ePg	Pg	02 33 54.1	-0.9
MYA				eSg	Sg	02 34 02.4	-0.1
MALT	**Malatya**	0.57	257	PG	Pg	02 33 53.6	-1.4
MALT				SG	Sg	02 34 01.8	-0.7
MALT	**Malatya**	0.57	257	ePg	Pg	02 33 53.6	-1.4
MALT				eSg	Sg	02 34 01.8	-0.7
DIY	**Diyarbakir**	1.02	122	PG	Pg	02 34 03.3	-0.2
DIY	**Diyarbakir**	1.02	122	ePg	Pg	02 34 03.3	-0.2
URFA	**Urfa**	1.03	194	ePG	Pg	02 34 03.0	-0.8
URFA	**Urfa**	1.03	194	ePg	Pg	02 34 03.0	-0.8
BINT	**Bingol**	1.14	67	ePN	Pn	02 34 05.2	-1.2
BINT	**Bingol**	1.14	67	ePn	Pn	02 34 05.2	-1.2
ATAB	**Bozova**	1.18	215	iP	Pb	02 34 06.2	-0.4
ATAB				iS	Sb	02 34 23.1	+0.9
ATAB	**Bozova**	1.18	215	iP	Pb	02 34 06.2	-0.4
ATAB				iS	Sb	02 34 23.0	+0.9
GZT	**Gaziantep**	1.65	229	iP	Pn	02 34 12.9	-0.5
GZT				iS	Sg	02 34 38.5	+1.4
MARD	**Mardin**	1.72	130	iP	Pn	02 34 14.6	+0.3
MARD				iS	Sn	02 34 37.5	+1.0
BTMT	**Batman**	1.86	97	ePN	Pn	02 34 15.4	-0.9
GUMT	**Gumushane**	2.03	7	ePN	Pn	02 34 18.6	0.0
ERZM	**Erzurum**	2.26	49	eP	Pn	02 34 23.9	+2.1

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*ISK **09** 02:38:14.4, 38.49N×39.01E, h5^{km}, MD2.8*
*ISCJB **09** 02:38:15.5±0.7, 38.44N±0.09×39.06E±0.06, h11^{km}±8^{km}, Error ellipse: s-maj=15.2km s-min=6.6km az=158.3*
*CSEM **09** 02:38:15.8±0.1, 38.43N×39.00E, h8^{km}, MD2.6, Error ellipse: s-maj=3.6km s-min=3.0km az=150.0*
*DDA **09** 02:38:15.8, 38.46N×39.14E, h8^{km}±4^{km}, Md2.6*
ISC 09 02:38:15.8±0.7, 38.46N±0.08×39.05E±0.06, h13^{km}±7^{km}, n13, σ0^{s}57/19, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.06	306	*i* P	Pg	02 38 18.5	+0.1
ELZG				*i* S	Sg	02 38 20.5	+0.2
MYA	Malataya	0.51	255	PG	Pg	02 38 25.3	-0.5
MYA				SG	Sg	02 38 33.1	+0.6
MYA	Malataya	0.51	255	*e*Pg	Pg	02 38 25.3	-0.5
MYA				*e*Sg	Sg	02 38 33.1	+0.6
MALT	Malatya	0.51	253	PG	Pg	02 38 24.7	-1.1
MALT	Malatya	0.51	253	*e*Pg	Pg	02 38 24.7	-1.1
URFA	Urfa	1.03	190	*e*PG	Pg	02 38 35.6	-0.1
URFA	Urfa	1.03	190	*e*Pg	Pg	02 38 35.6	-0.1
ATAB	Bozova	1.16	211	*i* P	Pb	02 38 38.3	+0.8
ATAB				*i* S	Sb	02 38 53.1	+0.7
BINT	Bingol	1.20	69	*e*PN	Pn	02 38 38.8	+0.6
BINT	Bingol	1.20	69	*e*Pn	Pn	02 38 38.8	+0.6
GZT	Gaziantep	1.61	227	*i* P	Pn	02 38 43.6	-0.3
GZT				*i* S	Sn	02 39 04.2	-0.3
MARD	Mardin	1.79	129	*i* P	Pn	02 38 45.1	-1.1
MARD				*i* S	Sn	02 39 08.7	0.0
BTMT	Batman	1.94	97	*e*PN	Pn	02 38 48.7	+0.4

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*CSEM **09** 02:42:21.8±0.3, 38.41N×39.02E, h8^{km}, MD2.7, Error ellipse: s-maj=8.6km s-min=4.6km az=134.0*

*ISK **09** 02:42:21.2, 38.43N×38.99E, h5^{km}, MD3.1*

*ISCJB **09** 02:42:23.2±0.5, 38.46N±0.05×38.98E±0.07, h19^{km}±6^{km}, Error ellipse: s-maj=11.3km s-min=5.3km az=136.6*

*DDA **09** 02:42:24.2, 38.46N×39.04E, h16^{km}±2^{km}, Md2.7*

ISC 09 02:42:23.2±0.6, **38.41N**±0.06×**39.01E**±0.07, **h13**^{km}±7^{km}, **n19**, σ**0^{s}97**/26, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.09	345	*i* P	Pg	02 42 25.8	-0.2
ELZG				*i* S	Sg	02 42 29.9	+1.8
MYA	Malataya	0.47	260	*i* PG	Pg	02 42 31.7	-0.7
MYA	Malataya	0.47	260	*i* Pg	Pg	02 42 31.7	-0.7
MALT	Malatya	0.47	259	*i* PG	Pg	02 42 30.9	-1.5
MALT				*i* SG	Sg	02 42 38.4	-0.3
MALT	Malatya	0.47	259	*i* Pg	Pg	02 42 30.9	-1.5
MALT				*i* Sg	Sg	02 42 38.4	-0.3
PTK	Pertek	0.57	31	PG	Pg	02 42 32.7	-1.6
PTK				SG	Sg	02 42 42.3	+0.5
PTK	Pertek	0.57	31	*e*Pg	Pg	02 42 32.7	-1.6
PTK				*e*Sg	Sg	02 42 42.3	+0.5
URFA	Urfa	0.98	189	PG	Pg	02 42 41.9	-0.1
URFA	Urfa	0.98	189	*e*Pg	Pg	02 42 41.9	-0.1
DIY	Diyarbakir	1.08	118	*e*PN	Pn	02 42 42.9	-1.2
DIY	Diyarbakir	1.08	118	*e*Pn	Pn	02 42 42.9	-1.2
ATAB	Bozova	1.10	212	*i* P	Pb	02 42 44.9	+0.9
ATAB				*i* S	Sb	02 42 59.0	+0.8
BINT	Bingol	1.25	67	*e*PN	Pn	02 42 45.4	-0.9
BINT	Bingol	1.25	67	*e*Pn	Pn	02 42 45.4	-0.9
GZT	Gaziantep	1.56	228	*i* P	Pn	02 42 51.0	+0.5
GZT				*i* S	Sn	02 43 15.7	+5.1
MARD	Mardin	1.77	127	*i* P	Pn	02 42 54.7	+1.1
BTMT	Batman	1.96	96	*e*PN	Pn	02 42 56.1	0.0
GUMT	Gumushane	2.08	10	*e*PN	Pn	02 42 58.8	+1.0
GUMT	Gumushane	2.08	10	*e*Pn	Pn	02 42 58.8	+1.0

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*ISK **09** 02:47:20.8, 38.48N×39.03E, h5^{km}, MD3.1*

*ISCJB **09** 02:47:21.9±0.4, 38.41N±0.03×39.10E±0.04, h6^{km}, Error ellipse: s-maj=4.9km s-min=3.9km az=151.6*

*CSEM **09** 02:47:21.9±0.2, 38.45N×39.05E, h6^{km}±1^{km}, MD3.1, Error ellipse: s-maj=4.4km s-min=2.9km az=140.0*

*DDA **09** 02:47:21.0, 38.44N×39.22E, h7^{km}±6^{km}, Md2.9*

ISC 09 02:47:22.3±0.7, **38.40N**±0.04×**39.10E**±0.05, **h5**^{km}±7^{km}, **n25**, σ**0^{s}97**/32, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.13	317	*i* P	Pg	02 47 25.0	0.0
ELZG				*i* S	Sg	02 47 27.7	+0.9
MYA	Malataya	0.54	262	*i* PG	Pg	02 47 31.9	-0.7
MYA	Malataya	0.54	262	*i* Pg	Pg	02 47 31.9	-0.7
MALT	Malatya	0.54	261	*i* PG	Pg	02 47 31.2	-1.4
MALT				*i* SG	Sg	02 47 39.3	-0.3
MALT	Malatya	0.54	261	*i* Pg	Pg	02 47 31.2	-1.4
MALT				*i* Sg	Sg	02 47 39.3	-0.3
PTK	Pertek	0.54	25	*i* PG	Pg	02 47 31.5	-1.2
PTK				*i* SG	Sg	02 47 39.9	+0.2
PTK	Pertek	0.54	25	*i* Pg	Pg	02 47 31.5	-1.2
PTK				*i* Sg	Sg	02 47 39.9	+0.2
URFA	Urfa	0.98	193	PG	Pg	02 47 41.9	+0.8
URFA	Urfa	0.98	193	*e*Pg	Pg	02 47 41.9	+0.8
DIY	Diyarbakir	1.02	119	PN	Pn	02 47 42.5	-0.7
DIY	Diyarbakir	1.02	119	*e*Pn	Pn	02 47 42.5	-0.7
ATAB	Bozova	1.13	215	*i* P	Pg	02 47 44.7	+0.9
ATAB				*i* S	Sg	02 47 59.0	+0.6
BINT	Bingol	1.19	66	PN	Pn	02 47 44.9	-0.6
BINT	Bingol	1.19	66	*e*Pn	Pn	02 47 44.9	-0.6
GZT	Gaziantep	1.60	230	*i* P	Pn	02 47 49.2	-2.0
MARD	Mardin	1.72	129	*i* P	Pn	02 47 50.0	-2.7
MARD				*i* S	Sn	02 48 15.6	+0.6
BTMT	Batman	1.89	96	PN	Pn	02 47 55.0	-0.2
GAZ	Gaziantep	1.94	231	PN	Pn	02 47 56.5	+0.7
GAZ	Gaziantep	1.94	231	*e*Pn	Pn	02 47 56.5	+0.7
EZM	Erzurum	2.31	49	PN	Pn	02 48 02.0	+1.0
BNN	Bunyan	2.59	281	*e*PN	Pn	02 48 05.1	+0.3
BNN	Bunyan	2.59	281	*e*Pn	Pn	02 48 05.1	+0.3
KOZT	Kozan	2.75	251	*e*PN	Pn	02 48 07.6	+0.7
AGRB	Hanur-Agry	3.25	68	*e*PN	Pn	02 48 15.4	+1.5
AGRB	Hanur-Agry	3.25	68	*e*Pn	Pn	02 48 15.4	+1.5

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*IDC **09** 02:52:27.5±0.9, 0.01S×126.19E, h0^{km}, mb4.0/7, mb1 4.1/8, mb1mx4.0/18, mbtmp4.0/8, ML3.7/1, Error ellipse: s-maj=69.5km s-min=17.2km az=72.0*

*NEIC **09** 02:52:29.1±0.5, 0.11S×126.06E, h10^{km}, mb3.8/2, Error ellipse: s-maj=42.9km s-min=7.7km az=71.0*

*ISCJB **09** 02:52:30.2±0.6, 0.1S±0.1×126.2E±0.3, h33^{km}, mb4.0/8, Error ellipse: s-maj=46.7km s-min=10.4km az=163.1*

ISC 09 02:52:32.5±0.6, **0.1S**±0.1×**126.2E**±0.3, **h35**^{km}, **n14**, σ**0^{s}55**/14, **mb4.0**/8, **Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.93	182	*e*P	Pn	02 56 38.6	-0.6
	3.2nm,0.6s						
FITZ	Fitzroy Crossi	17.93	182	P	Pn	02 56 39.4	+0.2
	0.2nm,0.3s,baz=342,slow=12,SNR=8.6						
WRA	Warramunga Arr	21.30	158	P	P	02 57 16.4	+0.1
	2.6nm,0.5s,mb3.8,baz=335,slow=11,SNR=42						
WB2	Warramunga Arr	21.30	158	*e*P	P	02 57 16.1	-0.2
WB2	Warramunga Arr	21.30	158	*e*P	P	02 57 15.8	-0.6
STKA	Stephens Creek	34.83	157	P	P	02 59 20.9	+0.6
	0.6nm,0.3s,mb4.0,baz=337,slow=13,SNR=2.6						
KSRS	Korea Array	37.37	2	P	P	02 59 40.9	-1.0
	2.3nm,0.7s,mb4.1,baz=184,slow=9.4,SNR=6.2						
ULN	Ulaanbaatar	50.56	343	*e*P	P	03 01 28.8	+1.2
	1.5nm,0.7s,mb4.0						
SONM	Songino Array	50.73	343	P	P	03 01 29.3	+0.5
	1.0nm,0.6s,mb3.9,baz=159,slow=8.4,SNR=8.4						
MK31	Makanchi Array	60.39	327	*e*P	P	03 02 38.2	-0.1
MKAR	Makanchi Array	60.39	327	P	P	03 02 38.1	-0.2
	1.3nm,0.7s,mb4.1,baz=128,slow=8.2,SNR=16						
ZALV	Zalesovo Beam	63.73	334	P	P	03 03 00.6	0.0
	1.1nm,0.8s,mb4.0,baz=112,slow=6.4,SNR=4.8						
AKTK	Aktyubinsk	76.31	322	P	P	03 04 17.6	-0.3
AKTO	Aktyubinsk	76.31	322	P	P	03 04 17.6	-0.3
	2.8nm,0.8s,mb4.2,baz=100,slow=7.1						

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*CSEM **09** 03:02:11.8±0.1, 38.43N×39.06E, h5^{km}, MD3.2, Error ellipse: s-maj=3.2km s-min=2.2km az=164.0*

*ISK **09** 03:02:11.6, 38.44N×39.05E, h4^{km}, MD3.5*

*ISCJB **09** 03:02:12.5±0.4, 38.40N±0.03×39.07E±0.03, h10^{km}, Error ellipse: s-maj=4.9km s-min=3.2km az=144.1*

*DDA **09** 03:02:13.2, 38.43N×39.17E, h8^{km}±3^{km}, Md3.2*

ISC 09 03:02:13.2±0.4, **38.41N**±0.03×**39.09E**±0.03, **h10**^{km}, **n32**, σ**1^{s}00**/42, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.12	317	*i* P	Pg	03 02 15.7	-0.4
ELZG				*i* S	Sg	03 02 19.7	+1.6
MALT	Malatya	0.53	259	*i* PG	Pg	03 02 21.9	-1.6
MALT				*i* SG	Sg	03 02 29.3	-1.1
MALT	Malatya	0.53	259	*i* Pg	Pg	03 02 21.9	-1.6
MALT				*i* Sg	Sg	03 02 29.3	-1.1
MYA	Malataya	0.53	261	*i* PG	Pg	03 02 22.5	-1.0
MYA	Malataya	0.53	261	*i* Pg	Pg	03 02 22.5	-1.0
PTK	Pertek	0.54	26	*i* PG	Pg	03 02 22.0	-1.7
PTK				*i* SG	Sg	03 02 30.5	-0.2
PTK	Pertek	0.54	26	*i* Pg	Pg	03 02 22.0	-1.7
PTK				*i* Sg	Sg	03 02 30.5	-0.2
URFA	Urfa	0.99	192	PG	Pg	03 02 32.0	-0.3
URFA	Urfa	0.99	192	*e*Pg	Pg	03 02 32.0	-0.3
DIY	Diyarbakir	1.04	120	PG	Pg	03 02 32.5	-0.7
DIY	Diyarbakir	1.04	120	*e*Pg	Pg	03 02 32.5	-0.7
ATAB	Bozova	1.13	214	*i* P	Pb	03 02 34.3	-0.6
ATAB				*i* S	Sb	03 02 50.6	+1.0
BINT	Bingol	1.19	67	PN	Pn	03 02 35.0	-0.9
BINT	Bingol	1.19	67	*e*Pn	Pn	03 02 35.0	-0.9
GZT	Gaziantep	1.60	229	*i* P	Pn	03 02 41.2	-0.4
GZT				*i* S	Sg	03 03 05.8	+1.1
MARD	Mardin	1.73	129	*i* P	Pn	03 02 43.0	-0.4
MARD				*i* S	Sn	03 03 07.0	+1.5
BTMT	Batman	1.90	96	PN	Pn	03 02 45.2	-0.5
GAZ	Gaziantep	1.93	231	PN	Pn	03 02 46.2	+0.1
GAZ	Gaziantep	1.93	231	*e*Pn	Pn	03 02 46.2	+0.1
GUMT	Gumushane	2.07	8	*e*PN	Pn	03 02 48.8	+0.8
GUMT	Gumushane	2.07	8	*e*Pn	Pn	03 02 48.8	+0.8
EZM	Erzurum	2.31	49	*e*PN	Pn	03 02 51.4	0.0
ERZM	Erzurum	2.32	49	*i* P	Pn	03 02 53.9	+2.5
COBT	Iskenderun	2.94	231	*i* P	Pg	03 03 09.5	-0.1
COBT				*i* S	Sg	03 03 48.1	+0.4
YOZ	Yozgat	3.18	294	*e*PN	Pn	03 03 04.4	+1.1
YOZ	Yozgat	3.18	294	*e*Pn	Pn	03 03 04.4	+1.1
AGRB	Hanur-Agry	3.26	68	*e*PN	Pn	03 03 05.7	+1.4
AGRB	Hanur-Agry	3.26	68	*e*Pn	Pn	03 03 05.7	+1.4
BCA	Borcka	3.60	32	*e*PN	Pn	03 03 09.5	+0.4
BCA	Borcka	3.60	32	*e*Pn	Pn	03 03 09.5	+0.4
HAKT	HAKKARI	3.75	102	*i* P	Pn	03 03 09.9	-1.2
HAKT				*i* S	Sg	03 04 09.1	-4.6
CTKT	Corum	3.99	305	*i* P	Pn	03 03 19.9	+5.5

IDC 09 03:14:39.4±1.4, **55.38S**×**129.33W**, **h0**^{km}, **mb3.9**/2, **mb1 4.3**/2, **mb1mx4.0**/11, **mbtmp3.9**/2, **MS4.7**/1, **Ms1 4.7**/1, **ms1mx3.2**/24, **Error ellipse: s-maj=102.5km s-min=44.2km az=149.0**, **Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	Rarotonga	41.02	314	LR	LR	03 37 08.3	
	comp=Z,1μm,18.9s,baz=284,slow=33						
WRA	Warramunga Arr	77.33	253	P	P	03 26 36.1	+0.3
	1.3nm,0.9s,baz=143,slow=5.7,SNR=7.0						
TXAR	Lajitas Array	87.20	22	P	P	03 27 27.3	+0.3
	0.6nm,0.9s,baz=199,slow=7.4,SNR=5.6						
TORD	Torodi Ar. Bea	123.40	118	PKP	PKPdf	03 33 38.1	-0.2
	0.6nm,1.0s,baz=228,slow=2.9,SNR=2.6						
SONM	Songino Array	145.42	281	PKP	PKPdf	03 34 17.3	-0.8
	0.7nm,0.8s,baz=134,slow=5.1,SNR=5.0						
MKAR	Makanchi Array	158.52	260	PKPab	PKPab	03 35 12.4	-0.4
	0.4nm,0.7s,baz=113,slow=4.0,SNR=5.5						

IDC 09 03:23:20.9±13.0, **23.00S**×**177.36W**, **h273**^{km}±121^{km}, **mb3.8**/3, **mb1 3.9**/5, **mb1mx3.5**/16, **mbtmp3.9**/5, **Error ellipse: s-maj=78.3km s-min=29.6km az=47.0**, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	15.00	270	P	Pn	03 26 41.0	+0.8
	0.4nm,0.3s,baz=92,slow=17,SNR=5.2						
URZ	Urewera	15.93	196	P	Pn	03 26 48.6	-2.5
	8.1nm,0.3s,baz=306,slow=3.3,SNR=22						
RPZ	Rata Peaks	22.77	202	P	P	03 28 00.0	+0.2
	8.5nm,0.5s,baz=315,slow=6.8,SNR=7.1						
CTA	Charters Tower	33.92	268	P	P	03 29 39.1	+0.4
	5.7nm,0.5s,baz=101,slow=10,SNR=9.6						
WRA	Warramunga Arr	44.90	264	P	P	03 31 08.3	-0.7
	1.0nm,0.6s,baz=95,slow=8.2,SNR=14						
AKASG	Malin Array Be	145.48	330	PKPbc	PKPbc	03 42 26.0	-0.8
	1.2nm,0.4s,baz=42,slow=4.0,SNR=15						
BRTR	Keskin Array B	148.93	310	PKPbc	PKPbc	03 42 36.4	-0.1
	0.6nm,0.7s,baz=76,slow=5.2,SNR=4.7						

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*IDC **09** 03:24:59.2±0.7, 30.70S×177.55W, h0^{km}, mb4.6/5, mb1 4.8/6, mb1mx4.6/11, mbtmp4.6/6, ML4.5/1, MS4.4/10, Ms1 4.4/10, ms1mx4.1/23, Error ellipse: s-maj=22.3km s-min=17.8km az=159.0*

*ISCJB **09** 03:25:01.6±1.8, 31.42S±0.09×177.2W±0.1, h42^{km}±18^{km}, mb5.0/12, MS4.5/10, Error ellipse: s-maj=19.8km s-min=11.5km az=41.7*

*MOS **09** 03:25:11.0±2.7, 31.64S×177.86W, h87^{km}, mb5.1/4, Error ellipse: s-maj=24.9km s-min=16.4km az=115.0*

*BJI **09** 03:25:12.4, 31.30S×177.70W, h104^{km}, mB5.5, mb4.9*

*NEIC **09** 03:25:12.4±1.5, 31.29S×177.65W, h104^{km}±11^{km}, mb5.0/6, Error ellipse: s-maj=19.2km s-min=12.9km az=131.0*

ISC 09 03:25:03.5±1.6, **31.4S**±0.1×**177.2W**±0.1, **h42**^{km}±17^{km}, **n174**, σ**1^{s}05**/42, **mb5.0**/12, **MS4.5**/10, **4C-5D**, **Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	2.18	344	*e*Pn	Sn	03 25 47.0	-16
RAO	Raoul Island	2.18	344	Pn	Pn	03 25 27.8	-10
	1μm,0.3s,baz=98,slow=6.6,SNR=30						
RAO				Sn	Sn	03 25 47.5	-16
	3μm,0.3s,baz=93,slow=23,SNR=48						
URZ	Urewera	8.32	213	Pn	Pn	03 27 02.6	+1.1
URZ				Sn	Sn	03 28 40.9	+6.7
URZ	Urewera	8.32	213	Pn	Pn	03 27 02.6	+1.1
	1.5nm,0.3s,baz=300,slow=9.0,SNR=6.1						
URZ				Sn	Sn	03 28 40.9	+6.7
	13nm,0.3s,baz=207,slow=19,SNR=12						
SNZO	South Karori	11.87	211	*e*Pn	Pn	03 27 55.0	+4.8
SNZO				*e*Sn	Sn	03 30 00.1	-1.2
RPZ	Rata Peaks	15.44	214	Pn	Pn	03 28 38.3	+0.1
RPZ				Sn	Sn	03 31 21.0	-7.0
RPZ	Rata Peaks	15.44	214	Pn	Pn	03 28 38.3	+0.1
	0.9nm,0.3s,baz=66,slow=2.8,SNR=3.7						
RPZ				Sn	Sn	03 31 21.0	-7.0
	1.1nm,0.3s,baz=334,slow=16,SNR=5.5						
DZM	Mont Dzumac	17.26	298	Pn	Pn	03 29 02.0	+0.5
DZM				LR	LR	03 32 56.5	
DZM	Mont Dzumac	17.26	298	Pn	Pn	03 29 02.0	+0.5
	0.2nm,0.3s,baz=95,slow=17,SNR=5.9						
DZM				LR	LR	03 32 56.5	
	comp=Z,804nm,18.5s,baz=151,slow=29						
RAR	Rarotonga	18.59	61	P	Pn	03 29 16.9	-0.9
	1.4nm,0.3s,baz=220,slow=6.2,SNR=7.3						
ARMA	Armidale	26.71	264	*e*P	P	03 30 42.5	+3.6
PPT	Papeete	28.56	68	*e*LR	LR	03 38 09.2	
	960nm,23.5s,baz=233						
HNR	Honiara	30.43	311	LR	LR	03 41 15.0	
	comp=Z,601nm,21.1s,MS4.2,baz=181,slow=33						
CTA	Charters Tower	34.62	280	*e*P	P	03 31 48.8	0.0
	7.6nm,0.6s,mb4.8						
CTA	Charters Tower	34.62	280	*e*P	P	03 31 48.8	0.0
CTA				pmax	pmax		
	comp=Z,8.0nm,0.6s						
CTA	Charters Tower	34.62	280	P	P	03 31 48.3	-0.5
	comp=Z,12nm,0.8s,mb4.9,baz=98,slow=9.7,SNR=12						
CTAO	Charters Tower	34.62	280	*e*P	P	03 31 48.7	-0.1
	comp=Z,9.9nm,0.6s,mb4.9						
CTAO	Charters Tower	34.62	280	*e*P	P	03 31 48.7	-0.1
CTAO				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
STKA	Stephens Creek	34.93	258	*e*P	P	03 31 52.9	+1.5
	comp=Z,35nm,1.2s,mb5.2						
STKA	Stephens Creek	34.93	258	P	P	03 31 52.7	+1.3
	comp=Z,17nm,0.7s,mb5.1,baz=90,slow=8.9,SNR=20						
STKA				LR	LR	03 45 17.1	
	comp=Z,2μm,18.6s,MS4.8,baz=284,slow=35						
RKT	Rikitea	38.26	88	*e*LR	LR	03 42 52.2	
	comp=Z,922nm,23.0s						
WB2	Warramunga Arr	44.80	273	*e*P	P	03 33 12.4	-1.1
WRA	Warramunga Arr	44.81	273	P	P	03 33 12.1	-1.4
WRA						03 34 56.4	
WRA				S	S	03 39 48.4	+0.3
WRA	Warramunga Arr	44.81	273	P	P	03 33 12.1	-1.4
	comp=Z,6.5nm,0.5s,mb4.7,baz=112,slow=7.6,SNR=42						
WRA				PcP	PcP	03 34 56.4	+1.4
	comp=Z,2.7nm,1.0s,baz=131,slow=3.1,SNR=2.6						
WRA				ScP	ScP	03 38 49.4	+5.5
	comp=Z,0.7nm,0.7s,baz=105,slow=3.8,SNR=5.0						
WRA				S	S	03 39 48.4	+0.3
	comp=Z,0.7nm,1.1s,baz=119,slow=14,SNR=3.4						
WRA				LR	LR	03 51 20.3	
	comp=Z,1μm,18.2s,MS4.9,baz=105,slow=36						
FORT	Forrest	46.46	256	*e*P	P	03 33 27.0	+0.5
	comp=Z,21nm,0.6s,mb5.2						
FITZ	Fitzroy Crossi	53.03	270	*e*P	P	03 34 16.4	-0.2
	comp=Z,8.8nm,0.7s,mb4.8						
KLBR	Kellerberrin	54.68	251	*e*P	P	03 34 28.9	+0.4
	comp=Z,34nm,1.3s,mb5.2						
MAW	Mawson	71.66	200	LR	LR	04 08 14.1	
	comp=Z,591nm,18.4s,MS4.9,baz=322,slow=36						
JHJ	Hachijo jima 2	75.91	324	LR	LR	04 04 26.5	
	comp=Z,33nm,19.4s,MS3.6,baz=78,slow=32						
MJAR	Matsushiro Arr	79.41	325	P	P	03 37 03.7	-1.4
MJAR	Matsushiro Arr	79.41	325	P	P	03 37 03.7	-1.4
	comp=Z,1.3nm,0.8s,mb3.9,baz=228,slow=45,SNR=3.2						
JNU	Nakatsue	80.72	318	LR	LR	04 07 27.0	
	comp=Z,89nm,21.7s,MS4.1,baz=315,slow=32						
KSRS	Korea Array	85.51	319	LR	LR	04 09 29.9	
	comp=Z,90nm,18.6s,MS4.2,baz=274,slow=32						
YSS	Yuzh-Sakhalins	85.90	334	*e*P	P	03 37 46.7	+8.1
YSS				pmax	pmax		
	comp=Z,55nm,1.3s,mb5.6						
NJ2	Nanjing	87.38	310	*e*P	P	03 37 52.7	+6.5
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.6						
CN2	Changchun	91.31	322	*e*P	P	03 38 04.0	-0.4
CN2				AMB	AMB		
	comp=Z,20nm,1.2s,mb5.3						
CN2				LR	LR		
	comp=Z,200nm,18.0s,MS4.6						
TXAR	Lajitas Array	92.34	57	P	P	03 38 11.8	+2.3
TXAR				LR	LR	04 14 40.9	
TXAR	Lajitas Array	92.34	57	P	P	03 38 11.8	+2.3
	comp=Z,2.0nm,1.2s,mb4.3,baz=204,slow=2.7,SNR=6.0						
TXAR				LR	LR	04 14 40.9	
	comp=Z,285nm,18.5s,MS4.8,baz=45,slow=32						
MA2	Magadan	94.39	344	P	P	03 38 26.1	+7.9
MA2				pmax	pmax		
	comp=Z,2.0nm,0.2s,mb5.2						
PDAR	Pinedale Array	96.36	43	LR	LR	04 19 12.5	
	comp=Z,225nm,18.3s,MS4.7,baz=233,slow=34						
SEY	Seymchan	97.06	347	*e*P	P	03 38 38.1	+7.8
HIA	Hailar	97.88	324	*e*P	P	03 38 41.4	+7.1
MK31	Makanchi Array	118.90	309	*e*PKPdf	PKPdf	03 43 48.3	+1.3
MK31	Makanchi Array	118.90	309	*e*PKIKP	PKPdf	03 43 48.3	+1.3
MKAR	Makanchi Array	118.90	309	PKP	PKPdf	03 43 47.5	+0.4
MKAR	Makanchi Array	118.90	309	PKIKP	PKPdf	03 43 47.5	+0.5
MKAR	Makanchi Array	118.90	309	PKP	PKPdf	03 43 47.5	+0.4
	comp=Z,0.2nm,0.5s,baz=96,slow=0.4,SNR=6.0						
ZALV	Zalesovo Beam	119.19	318	PKP	PKPdf	03 43 49.0	+1.7
ZALV	Zalesovo Beam	119.19	318	PKP	PKPdf	03 43 49.0	+1.7
	comp=Z,0.4nm,0.7s,baz=163,slow=1.5,SNR=2.3						
ZAL	Zalesovo	119.20	318	PKIKP	PKPdf	03 43 49.0	+1.6
KURK	Kurchatov	122.19	313	*e*PKPdf	PKPdf	03 43 53.4	+0.1
KURK	Kurchatov	122.19	313	*e*PKIKP	PKPdf	03 43 53.4	+0.2
AAK	Ala-Archa	123.20	303	*e*PKPdf	PKPdf	03 43 57.6	+2.1
AAK	Ala-Archa	123.20	303	*e*PKIKP	PKPdf	03 43 57.6	+2.1
KBL	Kabul	125.21	292	*e*PKPdf	PKPdf	03 44 01.9	+2.4
BRVK	Borovoye	127.62	315	*e*PKPdf	PKPdf	03 44 08.5	+5.0
BRVK	Borovoye	127.62	315	*e*PKIKP	PKPdf	03 44 08.5	+4.9
ARU	Arti	134.25	320	PKPdf	PKPdf	03 44 25.0	+9.0
ARU	Arti	134.25	320	*i* PKIKP	PKPdf	03 44 25.0	+9.0
ARU				*e*		03 46 55.4	
ARCES	ARCESS Array B	139.66	348	PKP	PKPdf	03 44 18.0	-7.7
ARCES	ARCESS Array B	139.66	348	PKHKP		03 44 18.0	
ARCES	ARCESS Array B	139.66	348	PKhKP		03 44 18.0	
	comp=Z,6.4nm,1.1s,baz=7.6,slow=3.7,SNR=4.3						
MOS	Moscow	145.50	325	PKHKP		03 44 36.1	
ZEI	Tsey	145.58	301	*e*PKIKP	PKPdf	03 44 38.8	+1.8
KAF	Kangasniemi	145.67	341	*e*p	PKPdf	03 44 34.6	-1.9
	comp=Z,11nm,0.6s,baz=39,slow=3.2						
KAF	Kangasniemi	145.67	341	*e*PKHKP		03 44 34.6	
KAF				pmax	pmax		
	comp=Z,11nm,0.6s						
GOF	Gofitskoye	145.90	305	*e*PKIKP	PKPdf	03 44 37.3	-0.1
GOF				pmax	pmax		
	comp=Z,70nm,1.2s						
FIA1	FINESS Array S	146.27	340	*e*PKPdf	PKPdf	03 44 38.9	+1.3
FINES	FINESS Array B	146.27	340	PKPbc	PKPbc	03 44 37.9	-0.8
FINES	FINESS Array B	146.27	340	PKHKP		03 44 37.9	
FINES	FINESS Array B	146.27	340	PKPbc	PKPbc	03 44 37.9	-0.8
	comp=Z,7.3nm,0.5s,baz=56,slow=4.2,SNR=56						
KIV	Kislovodsk	146.32	303	*e*PKPbc	PKPbc	03 44 40.4	+1.0
KIV	Kislovodsk	146.32	303κ	*i*PKP2	PKPab	03 44 41.7	+1.4
KIV				pmax	pmax		
	comp=Z,19nm,1.4s						
KIV				pmax	pmax		
	comp=Z,23nm,1.5s						
OBN	Obninsk	146.34	325	*e*PKPbc	PKPbc	03 44 40.0	+0.9
OBN	Obninsk	146.34	325*c*	*i*PKIKP	PKPdf	03 44 39.6	+1.7
OBN				pmax	pmax		
	comp=Z,153nm,2.2s						
OBN				pmax	pmax		
	comp=Z,159nm,1.5s						
VRSR	Storozhevoye	146.68	317	*e*PKIKP	PKPdf	03 44 41.3	+2.7
VRSR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
VRSR				pmax	pmax		
	comp=N,1.0nm,1.1s						
VRSR				pmax	pmax		
	comp=E,4.0nm,2.0s						
VORD	Divnogorie	146.71	317	*e*PKIKP	PKPdf	03 44 40.9	+2.3
VORD				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VORD				pmax	pmax		
	comp=N,5.0nm,0.8s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.8s						
SOC	Sochi	148.50	303	*i* PKP2	PKPab	03 44 57.0	+8.0
NB2	NORSAR Subarra	149.79	352	PKPa	PKPdf	03 44 49.1	+5.8
	comp=Z,21nm,1.1s,baz=15,slow=4.3						
NOA	NORSAR Array B	149.79	352	PKPbc	PKPbc	03 44 46.9	-1.3
NOA	NORSAR Array B	149.79	352	PKIKP	PKPdf	03 44 46.9	+3.6
NOA	NORSAR Array B	149.79	352	PKPbc	PKPbc	03 44 46.9	-1.3
	comp=Z,3.4nm,0.8s,baz=12,slow=4.5,SNR=9.2						
NAO01	NORSAR Array S	150.02	352	*e*PKPbc	PKPbc	03 44 50.7	+2.0
MALT	Malatya	150.07	293	*e*PKPbc	PKPbc	03 44 51.9	+2.3
MALT	Malatya	150.07	293	*e*PKP2	PKPab	03 44 51.9	-3.7
HFS	Hagfors	150.31	349	PKPbc	PKPbc	03 44 49.5	+0.1
HFS				PKPab	PKPab	03 44 59.2	+3.5
HFS	Hagfors	150.31	349	PKIKP	PKPbc	03 44 49.5	+0.1
HFS						03 44 59.3	
HFS	Hagfors	150.31	349	PKPbc	PKPbc	03 44 49.5	+0.1
	comp=Z,6.0nm,0.8s,baz=98,slow=2.1,SNR=7.8						
HFS				PKPab	PKPab	03 44 59.3	+3.5
	comp=Z,14nm,0.9s,baz=65,slow=3.9,SNR=13						
MNK	Minsk	150.77	330	*e*PKIKP	PKPbc	03 44 53.0	+2.3
ASF	Jabal al Asfar	151.05	281	PKPbc	PKPbc	03 44 54.4	+2.3
ASF	Jabal al Asfar	151.05	281	PKPbc	PKPbc	03 44 54.4	+2.3
	comp=Z,6.3nm,1.0s,baz=24,slow=2.6,SNR=9.7						
AKASG	Malin Array Be	152.47	322	PKPbc	PKPbc	03 44 53.7	-1.0
AKASG				PKPab	PKPab	03 45 04.3	-0.8
AKASG	Malin Array Be	152.47	322	PKPbc	PKPbc	03 44 53.7	-1.0
	comp=Z,2.5nm,0.6s,baz=48,slow=2.7,SNR=16						
AKASG				PKPab	PKPab	03 45 04.3	-0.8
	comp=Z,22nm,0.9s,baz=46,slow=3.4,SNR=29						
AKBB	Malin Array Si	152.47	322	*e*PKPbc	PKPbc	03 44 56.7	+2.1
KIEV	Kiev	152.48	322	*e*PKPbc	PKPbc	03 44 56.7	+1.9
KIEV				*e*PKPab	PKPab	03 45 04.5	-0.7
SUW	Suwalki	153.03	333	*e*PKP	PKPab	03 45 06.6	-0.7
SUW	Suwalki	153.03	333	*e*PKP	PKPab	03 45 06.6	-0.7
BRTR	Keskin Array B	153.64	297	PKPbc	PKPbc	03 44 59.1	+1.5
BRTR				PKPab	PKPab	03 45 07.9	-2.6
BRTR	Keskin Array B	153.64	297	PKPbc	PKPbc	03 44 59.1	+1.5
	comp=Z,1.8nm,0.9s,baz=115,slow=3.2,SNR=8.5						
BRTR				PKPab	PKPab	03 45 07.9	-2.6
	comp=Z,6.2nm,0.9s,baz=116,slow=2.9,SNR=20						
LIC	Lamto	153.95	162	*e*PKIKP	PKPdf	03 44 55.7	+4.6
	comp=Z,95nm,1.7s						
LIC	Lamto	153.95	162	*e*PKPdf	PKPdf	03 44 55.7	+4.6
ANTO	Ankara	154.26	298	*e*PKPbc	PKPbc	03 44 59.5	+0.6
ANTO				*e*PKPab	PKPab	03 45 08.9	-4.2
EKA	Eskdalemuir Ar	155.66	8	PKPab	PKPab	03 45 18.9	+0.5
EKA	Eskdalemuir Ar	155.66	8	PKP2	PKPab	03 45 18.9	+0.5
EKA	Eskdalemuir Ar	155.66	8	PKPab	PKPab	03 45 18.9	+0.5
	comp=Z,3.4nm,0.9s,baz=3.6,slow=2.7,SNR=3.6						
KOLS	Kolonicke sedl	157.09	326	*e*P	PKPab	03 45 31.1	+6.3
KOLS	Kolonicke sedl	157.09	326	*e*PKP	PKPab	03 45 31.1	+6.3
MLR	Muntele Rosu	157.12	315	PKPab	PKPab	03 45 24.2	-0.9
MLR	Muntele Rosu	157.12	315	PKP2	PKPab	03 45 24.2	-0.9
MLR	Muntele Rosu	157.12	315	PKPab	PKPab	03 45 24.2	-0.9

	comp=Z,2.4nm,0.9s,baz=46,slow=13,SNR=3.8						
STHS	**Stebnicka Huta**	157.23	328	*e*PKP	pPKPab	03 45 33.5	-4.8
STHS				*e*		03 45 36.3	
CRVS	**Cervenica-Dubn**	157.50	326	*e*P	PKPab	03 45 27.8	+1.2
CRVS	**Cervenica-Dubn**	157.50	326	*e*PKP2	PKPab	03 45 27.8	+1.2
CRVS	**Cervenica-Dubn**	157.50	326	*e*PKP	PKPab	03 45 27.8	+1.2
KECS	**Kecovo**	158.25	327	*e*PKP2	PKPab	03 45 31.6	+1.7
KECS				pmax	pmax		
	comp=Z,7.0nm,1.3s						
KECS	**Kecovo**	158.25	327	*e*PKP	PKPab	03 45 31.6	+1.7
UPC	**Upice**	158.47	337	*e*PKP	PKPab	03 45 31.9	+1.2
UPC	**Upice**	158.47	337	*e*PKP2	PKPab	03 45 31.9	+1.2
UPC	**Upice**	158.47	337	*e*PKPab	PKPab	03 45 31.9	+1.2
DPC	**Dobruska-Polom**	158.50	336	*e*PKP2	PKPab	03 45 34.9	+4.0
DPC	**Dobruska-Polom**	158.50	336	*e*PKPab	PKPab	03 45 34.9	+4.0
CLL	**Collm**	158.68	342	*e*PKPab	PKPab	03 45 38.5	+6.9
CLL	**Collm**	158.68	342	⇓*i*PKPab	PKPab	03 45 38.9	+7.3
	comp=Z,13nm,1.0s						
CLL				*i* x	x	03 45 41.9	
IBBN	**Ibbenburen**	158.75	352	*e*PKPab	PKPab	03 45 40.5	+8.7
CLZ	**Clausthal**	158.78	347	*e*PKPab	PKPab	03 45 40.6	+8.6
BRG	**Berggiesshubel**	158.81	340	*e*PKPab	PKPab	03 45 40.0	+7.8
BRG	**Berggiesshubel**	158.81	340	*e*P	PKPab	03 45 40.1	+8.0
	comp=Z,11nm,1.0s						
PVCC	**Panska Ves**	158.93	339	*e*PKPab	PKPab	03 45 40.5	+7.8
FBE	**Freiberg**	158.93	341	*e*PKPab	PKPab	03 45 40.7	+8.0
VYHS	**Vyhne**	158.99	329	*e*PKP2	PKPab	03 45 34.0	+0.9
VYHS				pmax	pmax		
	comp=Z,9.0nm,1.5s						
VYHS	**Vyhne**	158.99	329	*e*PKP	PKPab	03 45 34.0	+0.9
PRU	**Pruhonice**	159.41	338	*e*PKP	PKPab	03 45 33.7	-1.1
PRU	**Pruhonice**	159.41	338	*e*PKP2	PKPab	03 45 33.7	-1.1
PRU	**Pruhonice**	159.41	338	*e*PKPab	PKPab	03 45 33.7	-1.1
TANN	**Tannenbergstha**	159.63	342	*e*PKPab	PKPab	03 45 44.2	+8.4
MOX	**Moxa**	159.64	344	*e*PKP	PKPab	03 45 43.9	+8.1
MOX	**Moxa**	159.64	344	*e*PKPab	PKPab	03 45 43.8	+8.0
WERD	**Werda**	159.65	342	*e*PKPab	PKPab	03 45 44.2	+8.4
TREC	**Trest**	159.68	336	*e*PKPab	PKPab	03 45 44.3	+8.3
GUNZ	**Gunzen**	159.72	342	*e*PKPab	PKPab	03 45 44.4	+8.3
MODS	**Modra-Piesok**	159.75	331	*e*PKP	pPKPab	03 45 43.2	-6.0
WERN	**Wernitzgruen**	159.77	342	*e*PKPab	PKPab	03 45 44.8	+8.4
NKC	**Novy Kostel**	159.80	342	*e*PKPab	PKPab	03 45 42.8	+6.3
ZST	**Bratislava**	159.96	331	*e*PKP	pPKPab	03 45 45.3	-4.8
MANZ	**Manzenberg**	160.12	342	*e*PKPab	PKPab	03 45 46.1	+8.2
ROTZ	**Rotzenmuhle**	160.29	342	*e*PKPab	PKPab	03 45 47.5	+8.9
KHC	**Kasperske Hory**	160.46	338	*e*PKP2	PKPab	03 45 39.5	+0.1
KHC	**Kasperske Hory**	160.46	338	*e*PKPab	PKPab	03 45 39.5	+0.1
KHC				*e*x	x	03 45 44.0	
KHC				*e*x	x	03 45 49.0	
GRF	**Grafenberg Arr**	160.62	343	*e*PKPab	PKPab	03 45 48.1	+8.1
WET	**Wettzell**	160.66	340	*e*PKPab	PKPab	03 45 48.0	+7.7
GEC2	**GERESS Array S**	160.67	338	*e*PKPab	PKPab	03 45 48.2	+7.9
GERES	**GERESS Array B**	160.67	338	PKPab	PKPab	03 45 45.2	+4.9
	comp=Z,1.7nm,0.7s,baz=33,slow=5.1,SNR=10						
BAIF	**Baives**	161.28	357	*e*PKP2	PKPab	03 45 52.1	+9.2
MOA	**Molln**	161.34	335	⇑*i*P	PKPab	03 45 37.8	-5.5
	comp=Z,7.2nm,1.7s						
MOA	**Molln**	161.34	335	⇑*i*	pPKPab	03 45 52.1	-4.0
	comp=Z,12nm,1.3s						
MOA	**Molln**	161.34	335	⇑*i*PKPab	PKPab	03 45 37.8	-5.5
	comp=Z,7.2nm,1.7s						
MOA	**Molln**	161.34	335		pPKPab	03 45 52.1	-4.0
	comp=Z,12nm,1.3s						
TORD	**Torodi Ar. Bea**	161.85	177	PKP	PKPdf	03 45 03.6	+2.9
TORD				PKPab	PKPab	03 45 50.7	+4.5
TORD	**Torodi Ar. Bea**	161.85	177	PKP	PKPdf	03 45 03.6	+2.9
	comp=Z,1.7nm,1.2s,baz=221,slow=1.5,SNR=2.6						
TORD				PKPab	PKPab	03 45 50.7	+4.5
	comp=Z,1.3nm,0.7s,baz=173,slow=3.6,SNR=9.5						
STU	**Stuttgart**	161.94	346	*e*PKPab	PKPab	03 45 54.2	+8.4
FUR	**Furstenfeldbru**	162.01	341	*e*PKPab	PKPab	03 45 54.2	+8.0
BFO	**Black Forest**	162.53	348	*e*PKPab	PKPab	03 45 56.4	+8.0
WTTA	**Wattenberg**	162.72	339	⇓*i*P	PKPab	03 45 47.0	-2.3
	comp=Z,19nm,1.7s						
WTTA	**Wattenberg**	162.72	339	⇓*i*PKPab	PKPab	03 45 47.0	-2.3
	comp=Z,19nm,1.7s						
LOR	**Lormes**	164.09	357	*e*PKP2	PKPab	03 46 03.9	+8.6
SSF	**Saint Saulge**	164.30	358	*e*PKP2	PKPab	03 46 05.1	+8.8
	comp=Z,36nm,1.1s						
CABF	**La Chapelle**	164.55	351	*e*PKP2	PKPab	03 46 05.8	+8.4
AVF	**Avril sur Loir**	164.58	359	*e*PKP2	PKPab	03 46 06.1	+8.6
	comp=Z,19nm,1.1s						
SMF	**Signal de Mont**	164.71	357	*e*PKP2	PKPab	03 46 06.8	+8.8
	comp=Z,34nm,1.0s						
BGF	**Bois d’Agland**	164.82	360	*e*PKP2	PKPab	03 46 08.3	+10
	comp=Z,56nm,1.4s						
LPL	**La Plagne**	165.53	349	*e*PKP2	PKPab	03 46 10.7	+9.0
	comp=Z,11nm,1.0s						
LPG	**La Plagne**	165.54	349	*e*PKP2	PKPab	03 46 10.9	+9.1
	comp=Z,35nm,1.3s						
MBDF	**Montbardon**	166.29	348	*e*PKP2	PKPab	03 46 13.4	+8.3
	comp=Z,22nm,1.0s						
LMR	**La Mourre**	167.68	347	*e*PKP2	PKPab	03 46 19.3	+8.0
	comp=Z,112nm,1.5s						

*ISCJB **09** 03:33:42.5±0.2, 3325N±001×116.10W±002, h12^{km}, Error ellipse: s-maj=2.2km s-min=2.0km az=3.1*

*ECX **09** 03:33:44.5±0.8, 3321N×116.15W, h6^{km}±5^{km}, MD4.2, ML4.4*

*NEIC **09** 03:33:44.1, 3321N×116.15W, h12^{km}, ML4.2(PAS), After PAS.*

NEIC Felt [IV] at Aguanga, Calexico and Thermal; [III] at Alpine, Borrego Springs, Cathedral City, Chula Vista, Descanso, El Centro, Escondido, Imperial, Imperial Beach, Indian Wells, Jamul, Julian, Lake Elsinore, Lakeside, La Mesa, Moreno Valley, Murrieta, Palm Desert, Palm Springs, Pine Valley, Ramona, Rancho Mirage, Riverside, San Diego, San Jacinto, Santee, Sun City, Thousand Palms, Valley Center and Winchester; [II] at Bonsall, Cardiff by the Sea, Carlsbad, Coachella, Desert Hot Springs, El Cajon, Idyllwild, Indio, La Jolla, La Quinta, Menifee, Poway and Temecula. Felt at Aliso Viejo, Anza, Boulevard, Brawley, Campo, Corona, Encinitas, Fallbrook, Fontana, Homeland, Ladera Ranch, Loma Linda, Mecca, Mission Viejo, Mountain Center, Niland, Norco, Nuevo, Oceanside, Ocotillo, Perris, Potrero, Ranchita, San Bernardino, San Marcos, Spring Valley, Vista, Warner Springs and Wildomar.

ISC 09 03:33:42.8±0.2**, 3325N**±001×**11613W**±002**, h8**^{km}±2^{km}**, n91,** σ**1**^{s}**11**/143**, 36C-38D, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRR	**Carrizo Plain**	0.38	159	⇓*e*P	Pg	03 33 51.0	+0.7
SWSC	**Sam W. Stewart**	0.41	137	⇑P	Pg	03 33 51.5	+0.6
	baz=0.4,SNR=1000						
SWSC				⇓S	Sg	03 33 57.2	+0.8
	baz=0.4						
MONP	**Monument Peak**	0.43	214	⇓P	Pg	03 33 51.7	+0.5
	baz=0.4,SNR=1000						
MONP				⇓S	Sg	03 33 57.1	+0.3
	baz=0.4						
FRK	**Frink**	0.44	69	⇑*e*P	Pg	03 33 54.0	+2.6
PFO	**Pinyon Flat Ob**	0.45	324	*e*Pg	Pg	03 33 52.5	+0.9
PFO				*e*Sg	Sg	03 33 58.8	+1.2
PFO	**Pinyon Flat Ob**	0.45	324	P	Pg	03 33 52.9	+1.3
	baz=0.5,SNR=1000						
PFO				⇑S	Sg	03 33 59.3	+1.7
	baz=0.5						
COK	**Cook Ranch**	0.52	139	⇓*e*P	Pg	03 33 53.9	+0.9
DVTC	**Desert V Tower**	0.58	177	P	Pg	03 33 54.4	+0.3
	baz=0.6,SNR=1000						
DVTC				⇓S	Sg	03 34 02.1	+0.3
	baz=0.6						
YUH	**Yuha Desert**	0.62	163	⇓*e*P	Pg	03 33 55.0	+0.2
RMX	**La Rumorosa**	0.64	176	⇑*e*P	Pg	03 33 55.5	+0.3
RMX				*e*S	Sg	03 34 03.9	+0.3
SGL	**Mount Signal**	0.69	150	⇓*e*P	Pg	03 33 56.0	-0.1
BC3	**Big Chuckw Mtn**	0.70	54	⇓P	Pg	03 33 57.2	+0.9
	baz=0.8,SNR=1000						
BC3				⇓S	Sg	03 34 07.0	+1.5
	baz=0.8						
BAR	**Barrett**	0.72	219	⇓*e*P	Pg	03 33 56.8	+0.1
BELC	**Belle Mtn.**	0.76	8	⇓P	Pg	03 33 58.7	+1.2
	baz=0.8,SNR=1000						
BELC				⇓S	Sg	03 34 09.3	+1.9
	baz=0.8						
109C	**Camp Elliot, M**	0.89	247	⇓P	Pg	03 33 59.6	-0.3
	baz=0.8,SNR=799						
109C				⇓S	Sg	03 34 11.0	-0.5
	baz=0.8						
COA	**Coachella**	0.93	114	⇑*e*P	Pg	03 33 59.8	-0.9
MURC	**Murrieta**	0.96	292	⇓P	Pg	03 34 01.1	-0.1
	baz=0.9,SNR=1000						
MURC				⇓S	Sg	03 34 14.2	+0.5
	baz=0.9						
CBX	**Cerro Bola**	1.03	206	⇓*i*P	Pg	03 34 02.2	-0.4
CBX				*e*S	Sg	03 34 15.2	-0.7
CPBX	**Cerro Prieto**	1.08	140	*e*P	Pg	03 34 02.5	-1.0
CPBX				*e*S	Sg	03 34 17.1	-0.5
CPBX				⇓*e*		03 34 37.3	
	comp=E,33µm,0.6s						
BBRC	**Big Bear Sol-O**	1.21	327	⇓P	Pb	03 34 05.7	-0.2
	baz=1.2,SNR=194						
BBRC				⇑S	Sb	03 34 22.8	+1.1
	baz=1.2						
IRM	**Iron Mountain**	1.23	42	⇑P	Pn	03 34 05.2	-1.0
	baz=1.3,SNR=398						
IRM				⇑S	Sb	03 34 23.2	+1.0
	baz=1.3						
ENX	**Ensenada**	1.43	198	⇓*e*P	Pn	03 34 08.3	-0.7
ENX				*e*S	Sn	03 34 26.8	-1.1
ENX				*e*		03 34 31.8	
	comp=E,7µm,0.7s						
ENX				⇑*e*		03 34 32.0	
	comp=N,6µm,0.7s						
Y12C	**Blythe**	1.44	69	P	Pn	03 34 07.7	-1.4
	baz=1.5,SNR=310						
Y12C				⇓S	Sn	03 34 28.8	+0.6
	baz=1.5						
PBX	**Punta Banda**	1.58	199	⇓*e*P	Pn	03 34 11.0	-0.1
PBX				*e*S	Sn	03 34 31.7	+0.1
PBX				⇑*e*		03 34 34.8	
	comp=N,8µm,1.2s						
GMRC	**Granite Mounta**	1.58	14	P	Pn	03 34 10.6	-0.5
	baz=1.6,SNR=453						
HEC	**Hector,Ludlow**	1.59	354	⇑P	Pn	03 34 10.8	-0.4
	baz=1.6,SNR=301						
BFSC	**Mount Baldy St**	1.61	308	⇓P	Pn	03 34 10.9	-0.6
	baz=1.6,SNR=304						
ECNX	**Esteban Cantu**	1.63	194	*e*P	Pn	03 34 11.7	0.0
ECNX				⇓*e*P		03 34 08.6	
ECNX				*e*S	Sn	03 34 27.4	-5.5
ECNX				*e*S	Sn	03 34 33.1	+0.2
RRX	**Edison Barstow**	1.78	336	⇑Pb	Pb	03 34 16.6	+0.9
	baz=1.8						
FMP	**Fort Macarthur**	1.86	285	⇓P	Pn	03 34 14.7	-0.3
	baz=1.8						
CIS	**Catalina Islan**	1.91	275	P	Pn	03 34 15.3	-0.2
	baz=1.9,SNR=119						
PDMCI	**Parker Dam,Lak**	1.97	57	⇓P	Pn	03 34 15.6	-0.8
	baz=2.0						
NEE2	**Needles Airpor**	1.97	39	⇑P	Pn	03 34 16.4	0.0
	baz=2.0						
Y13A	**Salome**	2.01	73	⇓P	Pn	03 34 15.7	-1.2
	baz=2.1,SNR=46						
SCI	**San Clemente I**	2.04	263	⇓P	Pn	03 34 17.5	+0.1
	baz=2.0,SNR=60						
SCI				⇑S	Sn	03 34 42.9	-0.2
	baz=2.0						
DECC	**Green Verdugo**	2.09	299	⇑Pb	Pb	03 34 20.5	-0.3
	baz=2.1						
GSC	**Goldstone**	2.13	345	⇑P	Pn	03 34 18.5	-0.1
	baz=2.1,SNR=23						
TUQ	**Turquoise Mtn.**	2.19	4	⇑P	Pn	03 34 19.1	-0.3
	baz=2.2						
EDW2	**Edwards Air Fo**	2.24	317	⇑P	Pn	03 34 19.7	-0.5
	baz=2.2						
W12A	**Cal Nev Ari**	2.30	27	⇑P	Pg	03 34 26.7	-0.3
	baz=2.4						
X13A	**Yucca**	2.34	54	⇑P	Pn	03 34 21.4	-0.1
	baz=2.4,SNR=93						
OSI	**Osito Adit**	2.55	303	⇓Pb	Pb	03 34 28.7	-0.1
	baz=2.5						
BLG	**Laguna Peak**	2.59	290	⇑P	Pn	03 34 24.6	-0.4
	baz=2.6,SNR=7.4						
W13A	**Hualapai Mount**	2.63	45	⇑P	Pn	03 34 25.0	-0.5
	baz=2.7,SNR=20						
SHOC	**Shoshone**	2.65	357	⇓P	Pn	03 34 25.6	-0.2
	baz=2.7						
V11A	**Goodsprings**	2.65	12	⇓P	Pn	03 34 25.5	-0.3
	baz=2.7,SNR=19						
Z14A	**Wintersburg**	2.67	87	⇑P	Pn	03 34 24.6	-1.5
	baz=2.7,SNR=19						
V12A	**Nelson**	2.69	23	⇓P	Pn	03 34 26.4	0.0
	baz=2.7						
Y14A	**Wickenburg**	2.70	74	⇑P	Pn	03 34 26.0	-0.5
	baz=2.7,SNR=44						
SNCC	**San Nicolas Is**	2.84	271	⇓P	Pn	03 34 27.4	-1.0
	baz=2.8,SNR=8.6						
ARVC	**Arvin**	2.92	311	⇑P	Pn	03 34 28.9	-0.6
	baz=2.9						
X14A	**Yava**	2.96	65	⇑P	Pn	03 34 29.9	-0.1
	baz=3.0,SNR=208						
MPMC	**Manual Prospec**	3.02	339	⇑P	Pn	03 34 31.1	+0.2
	baz=3.0,SNR=230						
ISA	**Isabella**	3.09	322	⇓P	Pn	03 34 31.3	-0.5
	baz=3.1						
W14A	**Seligman**	3.20	51	P	Pn	03 34 33.4	0.0
	baz=3.3,SNR=28						
DAC	**Darwin (Calif)**	3.25	339	*e*Pn	Pn	03 34 34.4	+0.3
DAC				*e*Pg	Pg	03 34 44.5	-0.7
DAC				*e*Sg	Sg	03 35 26.3	-1.1
115A	**Sonoran Desert**	3.33	98	⇑P	Pn	03 34 34.2	-0.9
	baz=3.4,SNR=19						
U12A	**Valley of Fire**	3.44	22	⇑P	Pn	03 34 36.9	+0.3
	baz=3.5						
X15A	**Humboldt**	3.47	68	⇑P	Pn	03 34 37.0	0.0
	baz=3.5,SNR=135						
PKM	**Peak Mountain**	3.47	299	⇑P	Pn	03 34 37.5	+0.4
	baz=3.4,SNR=14						
W15A	**Williams**	3.74	58	⇑P	Pn	03 34 41.7	+1.0
	baz=3.8						
116A	**Eloy**	3.79	99	P	Pn	03 34 40.5	-0.9
	baz=3.8,SNR=8.1						
GRAC	**Grapevine Rang**	3.88	345	⇑P	Pn	03 34 43.4	+0.7
	baz=3.9,SNR=7.0						
PTRM	**Twissleman Ran**	4.14	307	*e*Pn	Pn	03 34 49.2	+3.0
PTRM				*e*Pg	Pg	03 35 03.6	+1.5
HELL	**Mitchell Peak,**	4.17	326	⇑P	Pn	03 34 47.0	+0.4
	baz=4.2						
T13A	**Saint George**	4.18	25	P	Pn	03 34 48.0	+1.1
	baz=4.2,SNR=28						
PKD	**Parkfield**	4.53	308	⇓P	Pn	03 34 51.4	-0.1
	baz=4.5,SNR=6.6						
WUAZ	**Wupatki**	4.54	59	*e*Pn	Pn	03 34 53.0	+1.2
WUAZ				*e*Pg	Pg	03 35 10.7	+0.9
WUAZ				*e*Sg	Sg	03 36 09.9	+1.3
T14A	**Hurricane**	4.55	32	⇑P	Pn	03 34 53.0	+1.0
	baz=4.6						
MTUM	**Tungsten Hills**	4.56	335	*e*Pn	Pn	03 34 53.9	+1.9
MTUM				*e*Pg	Pg	03 35 07.7	-2.4
MTUM				*e*Sg	Sg	03 36 09.7	+0.6
S09A	**Goldfield**	4.56	349	⇓P	Pn	03 34 53.0	+1.0
	baz=4.6						
S08C	**White Mtn Res**	4.56	339	⇑P	Pn	03 34 53.0	+1.0
	baz=4.6						
TUC	**Tucson**	4.60	100	*e*Pn	Pn	03 34 51.4	-1.2
TUC				*e*Pg	Pg	03 35 12.1	+1.2
TUC				*e*Sg	Sg	03 36 10.8	+0.3
CCUT	**Cedar City**	4.86	27	*e*Pn	Pn	03 34 57.3	+1.2
CCUT				*e*Pg	Pg	03 35 13.2	-2.6
CCUT				*e*Sg	Sg	03 36 17.1	-1.6
TPH	**Tonopah**	4.90	350	*e*Pn	Pn	03 34 59.4	+2.7
TPH				*e*Pg	Pg	03 35 13.9	-2.7
TPH				*e*Sg	Sg	03 36 19.7	-0.4
ARUT	**Antelope Range**	5.04	25	*e*Pn	Pn	03 35 01.6	+3.1
ARUT				*e*Pg	Pg	03 35 18.8	-0.5
ARUT				*e*Sg	Sg	03 36 25.9	+1.4
TRCR	**Troy Canyon**	5.11	5	*e*Pn	Pn	03 35 02.7	+3.0
TRCR				*e*Pg	Pg	03 35 19.0	-1.8
TRCR				*e*Sg	Sg	03 36 25.8	-1.2
HAST	**UC Hastings Re**	5.45	307	⇓P	Pn	03 35 03.3	-0.9
	baz=5.4						
CMB	**Columbia Colle**	5.90	325	*e*Pn	Pn	03 35 12.4	+1.9
	comp=N,16nm,1.0s						
CMB				*e*Pg	Pg	03 35 33.0	-2.8
CMB				*e*Sg	Sg	03 36 45.6	-6.7
MSU	**Marysvale**	6.16	30	*e*Pn	Pn	03 35 19.0	+5.0
MSU				*e*Pg	Pg	03 35 40.3	-0.5
PAHR	**Pah Rah Range**	6.96	339	*e*Pb	Pb	03 35 45.3	+1.4
	comp=N,13nm,0.8s						
PAHR				*e*Pg	Pg	03 35 53.7	-2.4
PAHR				*e*Sg	Sg	03 37 30.7	+4.5
BMN	**Battle Mountai**	7.23	353	*e*Pg	Pg	03 36 00.5	-0.6
	comp=N,8.2nm,0.9s						
BMN				*e*Sg	Sg	03 37 35.1	+0.4
MVCO	**Mesa Verde**	7.39	56	*e*Pn	Pn	03 35 33.6	+2.7
	comp=N,20nm,0.5s						
MVCO				*e*Pg	Pg	03 36 00.2	-4.1
MVCO				*e*Sg	Sg	03 37 38.2	-1.9
SRU	**San Rafael**	7.40	36	*e*Pn	Pn	03 35 28.5	-2.6
	comp=N,11nm,0.7s						
SRU				*e*Sg	Sg	03 37 32.7	-7.7
DUG	**Dugway**	7.43	20	*e*Pg	Pg	03 36 02.1	-3.0
DUG				*e*Sg	Sg	03 37 38.4	-2.9
LAZ	**Ladron**	7.57	79	*e*Pn	Pn	03 35 39.0	+5.6
LAZ				*e*Pg	Pg	03 36 09.9	+2.0
LAZ				*e*Sg	Sg	03 37 45.5	-0.4
PV10	**Paradox Valley**	7.71	46	*e*Pn	Pn	03 35 40.1	+4.9
PV10				*e*Pg	Pg	03 36 07.3	-3.1
PV10				*e*Sg	Sg	03 37 47.5	-2.6
PV01	**Paradox Valley**	7.85	49	*e*Pn	Pn	03 35 40.3	+3.1
PV01				*e*Pg	Pg	03 36 09.4	-3.7
PV01				*e*Sg	Sg	03 37 51.1	-3.7
BNM	**Barren Site**	7.97	81	*e*Pn	Pn	03 35 39.4	+0.5
BNM				*e*Sg	Sg	03 37 57.6	-1.1
BGU	**Big Grassy Mou**	8.06	17	*e*Pg	Px	03 36 14.0	
BGU				*e*Sg	Sx	03 37 56.6	
MNTX	**Cornudas Mount**	9.21	97	*e*Pn	Pn	03 35 55.4	-0.5
	comp=N,2.2nm,0.3s						

*IDC **09** 03:39:35.6±2.3, 5283N×17506W, h0^{km}, mb3.4/4, mb1 3.8/5, mb1mx3.5/24, mbtmp3.6/5, ML4.0/1, Error ellipse: s-maj=89.8km s-min=22.1km az=4.0*

NEIC 09 03:39:31.4, 5152N×17457W, h17^{km}**, ML2.6**(AEIC)**, After AEIC., Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATKA	**Atka Island**	0.72	19	P	Pb	03 39 44.2	-1.4
ATKA				S	Sg	03 39 53.7	-1.5
KDAK	**Kodiak Island**	14.15	55	Pn	Pn	03 42 51.0	+0.2
KDAK	**Kodiak Island**	14.15	55	Pn	Pn	03 42 51.0	+0.2
	0.7nm,0.3s,baz=117,slow=13,SNR=9.3						
PDAR	**Pinedale Array**	43.73	75	P	P	03 47 43.2	+7.7
	0.6nm,0.6s,baz=310,slow=3.9,SNR=5.1						
SONM	**Songino Array**	48.93	299	P	P	03 48 17.1	+0.8
	0.2nm,0.4s,baz=45,slow=6.3,SNR=2.7						
TXAR	**Lajitas Array**	56.01	84	P	P	03 49 16.2	+7.2
	0.3nm,0.7s,baz=292,slow=5.2,SNR=4.9						
MKAR	**Makanchi Array**	61.99	311	P	P	03 49 49.0	-1.2
	0.1nm,0.3s,baz=48,slow=7.5,SNR=5.6						

*CSEM **09** 04:01:20.3±0.3, 3957N×4158E, h15^{km}, MD2.8, Error ellipse: s-maj=8.6km s-min=2.4km az=27.0*

*DDA **09** 04:01:22.9, 3978N×4175E, h17^{km}, Md2.8*

*ISK **09** 04:01:22.4, 3985N×4177E, h5^{km}, MD2.8*

ISC 09 04:01:21.1±2.1**, 395N**±01×**415E**±01**, h18**^{km}±7^{km}**, n8,** σ**0**^{s}**42**/14**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ERZM	**Erzurum**	0.41	341	*i* P	Pg	04 01 29.6	+0.1
ERZM				*i* S	Sg	04 01 35.2	+0.1
EZM	**Erzurum**	0.41	340	PG	Pg	04 01 29.5	0.0
EZM				SG	Sg	04 01 35.5	+0.3
TUTA	**Tutak**	0.99	96	*i* P	Pb	04 01 39.8	+0.1
TUTA				*i* S	Sb	04 01 53.3	+0.9
AGRB	**Hanur-Agry**	1.12	87	PG	Pg	04 01 42.6	-0.2
AGRB				SG	Sg	04 01 57.1	-0.3
AGRB	**Hanur-Agry**	1.12	87	*e*Pg	Pg	04 01 42.6	-0.2
AGRB				*e*Sg	Sg	04 01 57.1	-0.3
DIGO	**Kars**	1.67	57	*i* P	Pn	04 01 48.4	-1.0
DIGO				*i* S	Sn	04 02 10.4	0.0
BCA	**Borcka**	1.93	2	*e*PN	Pn	04 01 53.0	0.0
BCA	**Borcka**	1.93	2	*e*Pn	Pn	04 01 53.0	0.0

*CSEM **09** 04:03:12.9±0.1, 3843N×3911E, h10^{km}, MD2.3, Error ellipse: s-maj=2.6km s-min=2.0km az=151.0*

*ISCJB **09** 04:03:13.8±0.6, 3844N±004×3910E±004, h10^{km}, Error ellipse: s-maj=5.1km s-min=4.0km az=3.5*

*ISK **09** 04:03:13.1, 3843N×3909E, h6^{km}, MD2.8*

*DDA **09** 04:03:16.8, 3849N×3904E, h2^{km}±7^{km}, Md2.1*

ISC 09 04:03:14.3±0.7**, 3845N**±004×**3911E**±004**, h0**^{km}±9^{km}**, n20,** σ**0**^{s}**92**/32**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	**Elazig**	0.11	298	*i* P	Pg	04 03 17.5	+1.0
ELZG				*i* S	Sg	04 03 19.0	+1.0
ELZG	**Elazig**	0.11	298	*i* P	Pg	04 03 17.4	+0.9
ELZG				*i* S	Sg	04 03 18.8	+0.8
PTK	**Pertek**	0.50	26	PG	Pg	04 03 23.8	-0.1
PTK	**Pertek**	0.50	26	*e*Pg	Pg	04 03 23.8	-0.1
MYA	**Malataya**	0.55	258	PG	Pg	04 03 24.2	-0.7
MYA	**Malataya**	0.55	258	*e*Pg	Pg	04 03 24.2	-0.7
MALT	**Malatya**	0.55	256	PG	Pg	04 03 24.0	-0.9
MALT				SG	Sg	04 03 31.6	-0.5
MALT	**Malatya**	0.55	256	*e*Pg	Pg	04 03 24.0	-0.9
MALT				*e*Sg	Sg	04 03 31.6	-0.5
URFA	**Urfa**	1.03	193	*e*PG	Pg	04 03 33.0	-1.0
URFA				*e*SG	Sg	04 03 48.1	+0.7
URFA	**Urfa**	1.03	193	*e*Pg	Pg	04 03 33.0	-1.0
URFA				*e*Sg	Sg	04 03 48.1	+0.7
DIY	**Diyarbakir**	1.04	122	*e*PG	Pg	04 03 33.1	-1.1
DIY	**Diyarbakir**	1.04	122	*e*Pg	Pg	04 03 33.1	-1.1
BINT	**Bingol**	1.16	68	*e*PN	Pn	04 03 35.8	-2.0
BINT	**Bingol**	1.16	68	*e*Pn	Pn	04 03 35.8	-2.0
ATAB	**Bozova**	1.17	214	*i* P	Pg	04 03 36.6	-0.1
ATAB				*i* S	Sg	04 03 51.4	-0.5
ATAB	**Bozova**	1.17	214	*i* P	Pg	04 03 37.1	+0.4
ATAB				*i* S	Sg	04 03 51.1	-0.7
GZT	**Gaziantep**	1.64	229	*i* P	Pg	04 03 47.0	+1.3
GZT				*i* S	Sg	04 04 07.0	+0.1
GZT	**Gaziantep**	1.64	229	*i* P	Pg	04 03 46.9	+1.2
GZT				*i* S	Sg	04 04 06.5	-0.4
MARD	**Mardin**	1.74	130	*i* P	Pn	04 03 47.0	+1.3
MARD				*i* S	Sn	04 04 09.1	+0.5
MARD	**Mardin**	1.74	130	*i* P	Pg	04 03 48.9	+1.3
MARD				*i* S	Sg	04 04 10.1	0.0

*ISCJB **09** 04:03:41.3±0.6, 3497N±005×13884E±007, h174^{km}±4^{km}, mb3.3/3, Error ellipse: s-maj=11.0km s-min=6.9km az=142.6*

*JMA **09** 04:03:41.9±0.1, 3494N×13888E, h169^{km}±1^{km}, M3.2*

*IDC **09** 04:03:42.5±1.0, 3501N×13893E, h177^{km}±10^{km}, mb3.0/3, mb1 3.2/5, mb1mx3.0/22, mbtmp3.1/5, Error ellipse: s-maj=44.7km s-min=11.8km az=67.0*

ISC 09 04:03:42.3±0.6**, 3497N**±005×**13884E**±007**, h170**^{km}±4^{km}**, n21,** σ**0**^{s}**69**/29**, mb3.3**/3**, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KTJJ	**Kamata 2**	0.19	104	P	Pn	04 04 04.6	-0.3
KTJJ				S	Sn	04 04 22.1	-0.1
JIZS	**Izushimoda**	0.26	174	P	Pn	04 04 04.7	-0.4
JIZS				S	Sn	04 04 21.7	-0.8
JOD2	**Odawara 2**	0.35	34	P	Pn	04 04 05.1	-0.2
SHZ3	**Shizuoka 3**	0.53	280	P	Pn	04 04 05.7	-0.3
SHZ3				S	Sn	04 04 24.1	-0.1
JIM2	**Oshima 3**	0.55	118	P	Pn	04 04 05.6	-0.5
JYN	**Shimob**	0.58	335	P	Pn	04 04 06.3	0.0
TK04	**Tokai 4**	0.99	234	P	Pn	04 04 09.0	+0.1
JRY	**Ryogami san**	1.04	3	P	Pn	04 04 09.7	+0.4
JRY				S	Sn	04 04 31.0	+0.8
JAG	**Ashikaga**	1.53	19	P	Pn	04 04 13.2	-0.5
TK01	**Tokai 1**	1.59	221	P	Pn	04 04 13.8	-0.5
MJAR	**Matsushiro Arr**	1.65	342	P	Pn	04 04 14.7	-0.2
	2.7nm,0.3s,baz=166,slow=11,SNR=19						
MAT	**Matsushiro**	1.65	342	P	Pn	04 04 14.8	-0.1
MAT				S	Sn	04 04 40.2	+0.1
BSO1	**Boso 1**	1.78	100	P	Pn	04 04 15.3	-1.0
BSO1				S	Sn	04 04 43.5	+1.0
JGM	**Miyama**	1.88	293	P	Pn	04 04 17.6	+0.2
JGM				S	Sn	04 04 43.9	-0.5
JHJ	**Hachijo jima 2**	2.00	157	P	Pn	04 04 18.4	-0.4
	51nm,0.3s,baz=228,slow=23,SNR=11						
JHJ				S	Sn	04 04 49.0	+2.2
	32nm,0.3s,baz=63,slow=21,SNR=10						
JHJ2	**Mitsune**	2.02	156	P	Pn	04 04 18.9	-0.1

JKG	**Kaga**	2.43	303	P	Pn	04 04 24.2	+0.7
KSRS	**Korea Array**	9.17	289	P	Pn	04 05 53.0	+2.1
	0.3nm,0.3s,baz=106,slow=14,SNR=4.7						
MKAR	**Makanchi Array**	43.48	304	P	P	04 11 28.4	-0.1
	0.4nm,0.5s,mb3.3,baz=86,slow=10,SNR=6.2						
WRA	**Warramunga Arr**	54.78	185	P	P	04 12 53.8	-0.6
	0.4nm,1.0s,mb3.1,baz=360,slow=7.6,SNR=5.3						
FINES	**FINESS Array B**	69.66	332	P	P	04 14 32.7	-0.2
	0.6nm,0.6s,mb3.5,baz=57,slow=7.0,SNR=4.3						

SKHL 09 04:25:04.6±0.5, 53.46N×142.79E, h10^{km}, mb4.0/3, 1C, Sakhalin Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKH	**Okha**	0.12	43	⇑*i*Pg	Pg	04 25 08.5	+1.0
OKH				AMB	AMB	04 25 09.1	
	4µm,0.5s						
OKH				*i* Sg	Sg	04 25 11.2	+1.6
OKH				A		04 25 11.9	
	10µm,0.4s						
OKH				A		04 25 11.9	
	9µm,0.4s						
NKL	**Nikolayevsk**	1.30	257	*i* P	Pn	04 25 28.8	0.0
NKL				AMB	AMB	04 25 29.1	
	8.0nm,0.4s						
NKL				AMB	AMB	04 25 29.1	
	9.0nm,0.4s						
NKL				*i* Pg	Pg	04 25 30.3	+0.7
NKL				*e*Sg	Sg	04 25 48.7	+2.2
NKL				A		04 25 52.0	
	210nm,0.6s						
NKL				A		04 25 52.0	
	110nm,0.6s						
EKMR	**Ekimchan**	5.92	270	*e*Pg	Pg	04 27 01.8	+3.9
EKMR				AMB	AMB	04 27 03.6	
	2.0nm,0.3s						
EKMR				*e*Sg	Sg	04 28 23.5	+9.1
EKMR				A		04 28 25.5	
	8.0nm,0.6s						
EKMR				A		04 28 25.5	
	7.0nm,0.6s						

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*CSEM **09** 04:31:47.7±0.1, 38.46N×39.08E, h15^{km}, MD2.9, Error ellipse: s-maj=3.2km s-min=2.4km az=145.0*
*ISCJB **09** 04:31:48.5±0.5, 38.41N±0.03×39.11E±0.03, h2^{km}, Error ellipse: s-maj=4.6km s-min=3.7km az=162.9*
*DDA **09** 04:31:48.8, 38.43N×39.17E, h2^{km}, Md2.9*
*ISK **09** 04:31:48.0, 38.44N×39.08E, h6^{km}, MD2.8*
ISC 09 04:31:49.1±0.5, **38.43N**±0.04×**39.11E**±0.06, **h4**^{km}±10^{km}, **n17, σ0^{s}71**/26, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.12	305	*i* P	Pg	04 31 51.9	+0.5
ELZG				*i* S	Sg	04 31 54.0	+0.9
PTK	**Pertek**	0.51	26	PG	Pg	04 31 58.3	-0.7
PTK				SG	Sg	04 32 06.1	+0.4
PTK	**Pertek**	0.51	26	*e*Pg	Pg	04 31 58.3	-0.7
PTK				*e*Sg	Sg	04 32 06.1	+0.4
MYA	**Malataya**	0.55	259	PG	Pg	04 31 59.1	-0.5
MYA	**Malataya**	0.55	259	*e*Pg	Pg	04 31 59.1	-0.5
MALT	**Malatya**	0.55	258	PG	Pg	04 31 58.1	-1.5
MALT				SG	Sg	04 32 06.4	-0.3
MALT	**Malatya**	0.55	258	*e*Pg	Pg	04 31 58.1	-1.5
MALT				*e*Sg	Sg	04 32 06.4	-0.3
URFA	**Urfa**	1.01	193	PG	Pg	04 32 08.1	-0.4
URFA	**Urfa**	1.01	193	*e*Pg	Pg	04 32 08.1	-0.4
DIY	**Diyarbakir**	1.03	121	PG	Pg	04 32 08.7	-0.2
DIY	**Diyarbakir**	1.03	121	*e*Pg	Pg	04 32 08.7	-0.2
ATAB	**Bozova**	1.15	214	*i* P	Pg	04 32 10.9	-0.3
ATAB				*i* S	Sg	04 32 26.3	+0.2
BINT	**Bingol**	1.17	67	*e*PN	Pn	04 32 11.3	-0.9
BINT	**Bingol**	1.17	67	*e*Pn	Pn	04 32 11.3	-0.9
GZT	**Gaziantep**	1.62	229	*i* P	Pg	04 32 20.1	-0.2
GZT				*i* S	Sg	04 32 42.8	+1.5
MARD	**Mardin**	1.73	130	*i* P	Pn	04 32 19.7	-0.3
MARD				*i* S	Sn	04 32 42.4	0.0
BEST	**Besiri**	1.79	107	*i* P	Pn	04 32 21.3	+0.5
BEST				*i* S	Sn	04 32 45.0	+1.1

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*ISCJB **09** 04:37:44.0±2.9, 32.71N±0.06×73.66E±0.07, h9^{km}±20^{km}, mb3.8/11, Error ellipse: s-maj=11.3km s-min=7.9km az=36.2*
*IDC **09** 04:37:44.2±2.0, 32.67N×73.68E, h0^{km}, mb3.8/11, mb1 3.9/12, mb1mx3.8/23, mbtmp3.8/12, ML3.2/1, Error ellipse: s-maj=43.6km s-min=23.2km az=154.0*
*NNC **09** 04:37:50.9±8.1, 32.75N×73.48E, h47^{km}±81^{km}, mb3.3, Error ellipse: s-maj=70.7km s-min=64.7km az=106.0*
*MOS **09** 04:37:50.0±0.8, 33.05N×73.57E, h33^{km}, mb4.0/8, Error ellipse: s-maj=23.9km s-min=11.8km az=90.2*
*NEIC **09** 04:37:50.0±5.8, 32.88N×73.71E, h32^{km}±35^{km}, mb3.5/1, Error ellipse: s-maj=35.2km s-min=10.9km az=161.0*
ISC 09 04:37:48.8±2.8, **32.82N**±0.06×**73.71E**±0.07, **h26**^{km}±23^{km}, **n40, σ0^{s}82**/43, **mb3.8**/11, **3C-1D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	4.25	295	*e*Pn	Pn	04 38 52.8	+0.9
KBL				*e*Sn	Sn	04 39 39.9	-0.7
KOLN	**Koldanda**	9.92	118	*e*P	Pn	04 40 11.5	+1.8
TKM2	**Tokmak 2**	10.20	8	⇑P	Pn	04 40 17.3	+3.9
	0.1nm,0.4s						
TKM2				⇑S	Sn	04 42 12.8	+5.9
	1.0nm,1.3s						
KK31	**Karatay Array**	10.57	347	⇑P	Pn	04 40 19.4	+0.8
	3.1nm,0.5s,baz=169,slow=12,SNR=59						
KK31				⇓S	Sn	04 42 16.1	0.0
	2.1nm,0.5s,baz=164,slow=22						
GKN	**Gorkha**	10.58	114	*e*P	Pn	04 40 18.8	0.0
	13nm,0.3s						
DMN	**Daman**	11.14	115	*e*P	Pn	04 40 26.8	+0.4
KKN	**Kakani**	11.18	114	*e*P	Pn	04 40 26.4	-0.6
PKI	**Pulchoki**	11.39	114	*e*P	Pn	04 40 29.8	0.0
	7.5nm,0.3s						
JIRN	**Jiri**	11.95	112	*e*P	Pn	04 40 36.9	-0.6
	5.8nm,0.2s						
TAPN	**Taplejung**	13.29	111	*e*P	Pn	04 40 54.1	-1.7
MK31	**Makanchi Array**	15.43	23	P	Pn	04 41 24.1	-0.4
	0.3nm,0.4s,baz=202,slow=12,SNR=7.5						
MK31	**Makanchi Array**	15.43	23	*e*P	Pn	04 41 24.1	-0.4
MKAR	**Makanchi Array**	15.43	23	Pn	Pn	04 41 24.2	-0.3
MKAR	**Makanchi Array**	15.43	23	Pn	Pn	04 41 24.2	-0.3
	0.1nm,0.3s,baz=205,slow=13,SNR=8.5						
KURK	**Kurchatov**	18.25	10	*e*P	Pn	04 41 58.7	-1.4
	4.3nm,1.2s						
KURK	**Kurchatov**	18.25	10	*e*P	Pn	04 41 58.7	-1.4
KURK				pmax	pmax		
	comp=Z,4.0nm,1.2s						
AB31	**Akbulak array**	19.38	332	P	Pn	04 42 12.7	-1.1
	comp=Z,0.3nm,0.4s,baz=142,slow=13,SNR=11						
AKTK	**Aktyubinsk**	21.08	331	P	P	04 42 30.9	0.0
AKTO	**Aktyubinsk**	21.08	331	P	P	04 42 30.9	0.0
AKTO				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb3.9						
AKTO	**Aktyubinsk**	21.08	331	P	P	04 42 30.9	0.0
	comp=Z,4.4nm,0.6s,mb4.0,baz=139,slow=10,SNR=14						
ZAL	**Zalesovo**	22.55	17	P	P	04 42 47.3	+0.7
ZALV	**Zalesovo Beam**	22.56	17	P	P	04 42 47.2	+0.5
	comp=Z,2.9nm,0.6s,mb3.9,baz=215,slow=11,SNR=12						
SONM	**Songino Array**	28.83	49	P	P	04 43 46.0	+1.2
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	**Songino Array**	28.83	49	P	P	04 43 46.0	+1.2
	comp=Z,0.6nm,0.8s,mb3.4,baz=236,slow=11,SNR=5.4						
BRTR	**Keskin Array B**	32.83	294	P	P	04 44 21.5	+1.4
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	**Keskin Array B**	32.83	294	P	P	04 44 21.5	+1.4
	comp=Z,0.6nm,0.7s,mb3.6,baz=107,slow=9.6,SNR=4.8						
AKASG	**Malin Array Be**	37.03	312	P	P	04 44 56.8	+0.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	**Malin Array Be**	37.03	312	P	P	04 44 56.8	+0.5
	comp=Z,0.6nm,0.4s,mb3.7,baz=83,slow=6.1,SNR=4.7						
FINES	**FINESS Array B**	41.78	328	P	P	04 45 35.9	+0.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FINES	**FINESS Array B**	41.78	328	P	P	04 45 35.9	+0.2
	comp=Z,1.3nm,0.8s,mb3.6,baz=115,slow=13,SNR=2.9						
ARCES	**ARCESS Array B**	45.39	338	P	P	04 46 04.5	-0.2
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	**ARCESS Array B**	45.39	338	P	P	04 46 04.5	-0.2
	comp=Z,2.8nm,0.9s,mb4.1,baz=90,slow=4.9,SNR=4.6						
HFS	**Hagfors**	47.34	324	P	P	04 46 20.0	-0.1
HFS				pmax	pmax		
	comp=Z,2.0nm,0.5s						
HFS	**Hagfors**	47.34	324	P	P	04 46 20.0	-0.2
	comp=Z,1.7nm,0.5s,mb4.2,baz=96,slow=12,SNR=8.9						
NB2	**NORSAR Subarra**	48.67	325	P	P	04 46 30.1	-0.3
	comp=Z,1.0nm,0.6s,mb4.0,baz=94,slow=7.9						
NOA	**NORSAR Array B**	48.67	325	P	P	04 46 29.8	-0.6
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	**NORSAR Array B**	48.67	325	P	P	04 46 29.8	-0.6
	comp=Z,0.6nm,0.6s,mb3.8,baz=96,slow=8.1,SNR=4.5						
TORD	**Torodi Ar. Bea**	67.96	272	P	P	04 48 44.7	-1.2
TORD	**Torodi Ar. Bea**	67.96	272	P	P	04 48 44.7	-1.2
	comp=Z,0.7nm,0.7s,mb3.8,baz=54,slow=5.8,SNR=16						
YKA	**Yellowknife Ar**	84.79	4	P	P	04 50 20.7	+0.3
	comp=Z,0.3nm,0.5s,mb3.7,baz=348,slow=5.2,SNR=7.0						

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*CSEM **09** 04:38:49.9±0.1, 38.38N×39.01E, h5^{km}, MD3.5, Error ellipse: s-maj=2.2km s-min=1.4km az=159.0*
*ISK **09** 04:38:49.6, 38.42N×39.01E, h5^{km}, MD3.9*
*ISCJB **09** 04:38:50.0±0.6, 38.37N±0.03×39.05E±0.03, h0^{km}±5^{km}, Error ellipse: s-maj=4.6km s-min=3.1km az=157.9*
*DDA **09** 04:38:51.5, 38.36N×39.01E, h2^{km}±3^{km}, Md3.5*
ISC 09 04:38:51.3±0.5, **38.37N**±0.02×**39.05E**±0.03, **h2**^{km}±4^{km}, **n69, σ0^{s}86**/82, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.13	338	*i* P	Pg	04 38 53.6	-0.3
ELZG				*i* S	Sg	04 38 57.6	+2.0
MALT	**Malatya**	0.49	263	*i* PG	Pg	04 38 59.2	-1.5
MALT				*i* SG	Sg	04 39 06.9	-0.2
MALT	**Malatya**	0.49	263	*i* Pg	Pg	04 38 59.2	-1.5
MALT				*i* Sg	Sg	04 39 06.9	-0.2
MYA	**Malataya**	0.49	265	*i* PG	Pg	04 39 00.1	-0.6
MYA	**Malataya**	0.49	265	*i* Pg	Pg	04 39 00.1	-0.6
PTK	**Pertek**	0.58	27	*i* PG	Pg	04 39 01.2	-1.3
PTK				*i* SG	Sg	04 39 10.2	+0.2
PTK	**Pertek**	0.58	27	*i* Pg	Pg	04 39 01.2	-1.3
PTK				*i* Sg	Sg	04 39 10.2	+0.2
URFA	**Urfa**	0.95	191	*i* PG	Pg	04 39 09.7	+0.3
URFA	**Urfa**	0.95	191	*i* Pg	Pg	04 39 09.7	+0.3
DIY	**Diyarbakir**	1.04	117	PN	Pn	04 39 11.5	-1.4
DIY	**Diyarbakir**	1.04	117	*e*Pn	Pn	04 39 11.5	-1.4
ATAB	**Bozova**	1.08	214	*i* P	Pg	04 39 11.8	-0.2
ATAB				*i* S	Sg	04 39 26.6	+0.6
BINT	**Bingol**	1.23	66	PN	Pn	04 39 14.1	-1.4
BINT	**Bingol**	1.23	66	*e*Pn	Pn	04 39 14.1	-1.4
EZC	**Erzincan**	1.50	23	PN	Pn	04 39 15.8	-3.3
GZT	**Gaziantep**	1.55	230	*i* P	Pn	04 39 18.8	-1.1
GZT				*i* S	Sn	04 39 42.7	+2.1
MARD	**Mardin**	1.73	127	*i* P	Pn	04 39 22.3	-0.1
MARD				*i* S	Sn	04 39 43.3	-1.7
GAZ	**Gaziantep**	1.89	231	PN	Pn	04 39 24.4	0.0
GAZ	**Gaziantep**	1.89	231	*e*Pn	Pn	04 39 24.4	0.0
BTMT	**Batman**	1.93	95	PN	Pn	04 39 23.7	-1.4
GUMT	**Gumushane**	2.11	9	PN	Pn	04 39 27.5	0.0
GUMT	**Gumushane**	2.11	9	*e*Pn	Pn	04 39 27.5	0.0
EZM	**Erzurum**	2.36	49	PN	Pn	04 39 31.6	+0.6
ERZM	**Erzurum**	2.36	49	*i* P	Pn	04 39 31.9	+0.9
BNN	**Bunyan**	2.55	282	PN	Pn	04 39 33.8	+0.2
BNN	**Bunyan**	2.55	282	*e*Pn	Pn	04 39 33.8	+0.2
GRSN	**GIRESUNGRSN**	2.62	347	*i* P	Pn	04 39 35.0	+0.5
GRSN				*i* S	Sg	04 40 14.7	-0.7
KOZT	**Kozan**	2.70	252	PN	Pn	04 39 34.8	-0.8
TOKT	**Tokat**	2.75	316	PN	Pn	04 39 35.8	-0.5
TOKT	**Tokat**	2.75	316	*e*Pn	Pn	04 39 35.8	-0.5
SIRT	**Sirnak**	2.82	107	*e*PN	Pn	04 39 38.0	+0.7
SIRT	**Sirnak**	2.82	107	*e*Pn	Pn	04 39 38.0	+0.7
CEYT	**Ceyhan**	2.95	244	*e*PN	Pn	04 39 38.4	-0.7
CEYT	**Ceyhan**	2.95	244	*e*Pn	Pn	04 39 38.4	-0.7
TUTA	**Tutak**	3.11	70	*e*P	Pn	04 39 44.1	+2.7
TUTA				*i* S	Sg	04 40 31.2	0.0
YOZ	**Yozgat**	3.17	295	*e*PN	Pn	04 39 41.6	-0.5
YOZ	**Yozgat**	3.17	295	*e*Pn	Pn	04 39 41.6	-0.5
HTY	**Hatay**	3.23	227	*e*PN	Pn	04 39 43.4	+0.4
HTY	**Hatay**	3.23	227	*e*Pn	Pn	04 39 43.4	+0.4
AGRB	**Hanur-Agry**	3.30	67	*e*PN	Pn	04 39 44.1	+0.2
AGRB	**Hanur-Agry**	3.30	67	*e*Pn	Pn	04 39 44.1	+0.2
KARA	**Karaisali**	3.35	252	*e*PN	Pn	04 39 44.9	+0.3
KARA	**Karaisali**	3.35	252	*e*Pn	Pn	04 39 44.9	+0.3
VANB	**Van**	3.41	85	*e*PN	Pn	04 39 46.2	+0.7
VANB	**Van**	3.41	85	*e*Pn	Pn	04 39 46.2	+0.7
KRTS	**Karatas**	3.43	240	*e*PN	Pn	04 39 45.6	-0.1
KRTS	**Karatas**	3.43	240	*e*Pn	Pn	04 39 45.6	-0.1
NIG	**Nigde**	3.50	267	*e*PN	Pn	04 39 46.5	-0.2
NIG	**Nigde**	3.50	267	*e*Pn	Pn	04 39 46.5	-0.2
KVT	**Kavak**	3.56	320	*e*PN	Pn	04 39 47.4	0.0
KVT	**Kavak**	3.56	320	*e*Pn	Pn	04 39 47.4	0.0
MACK	**Trabzon**	3.56	320	*i* S	Sn	04 40 16.4	-14
ARTV	**Artvin**	3.58	37	*i* P	Pn	04 39 47.7	0.0
ARTV				*e*S	Sg	04 40 51.2	+5.0
BCA	**Borcka**	3.65	32	*e*PN	Pn	04 39 48.5	-0.2
BCA	**Borcka**	3.65	32	*e*Pn	Pn	04 39 48.5	-0.2
HAKT	**HAKKARI**	3.77	101	*e*P	Pn	04 39 50.3	-0.1
HAKT				*i* S	Sg	04 40 53.8	+1.4
HKR	**Hakkari**	3.79	101	*e*PN	Pn	04 39 51.4	+0.7
HKR	**Hakkari**	3.79	101	*e*Pn	Pn	04 39 51.4	+0.7
CDAG	**Cicekdag**	3.85	290	*i* P	Pn	04 39 52.1	+0.6
CDAG				*i* S	Sg	04 40 55.3	+0.4
MERS	**Mersin**	3.90	249	*e*PN	Pn	04 39 51.9	-0.2
MERS	**Mersin**	3.90	249	*e*Pn	Pn	04 39 51.9	-0.2
DIKM	**Dikmen**	4.38	320	*e*PN	Pn	04 39 58.9	+0.2
DIKM	**Dikmen**	4.38	320	*e*Pn	Pn	04 39 58.9	+0.2
TOS	**Tosya**	4.70	306	*e*PN	Pn	04 40 03.4	+0.3
TOS	**Tosya**	4.70	306	*e*Pn	Pn	04 40 03.4	+0.3
HWQ	**Hawqa**	4.79	212	*e*Pn	Pn	04 40 05.0	+0.6
HWQ	**Hawqa**	4.79	212	*e*Pn	Pn	04 40 05.0	+0.6
BHL	**Bhannes**	5.24	213	*e*Pn	Pn	04 40 11.3	+0.8
BHL	**Bhannes**	5.24	213	*e*Pn	Pn	04 40 11.3	+0.8

IDC 09 04:40:11.5±4.7, **11.48S**×**116.12E, h0**^{km}, **mb3.7**/3, **mb1 3.6**/4, **mb1mx3.4**/14, **mbtmp3.5**/4, **ML2.9**/1, **Error ellipse: s-maj=205.9km s-min=33.4km az=44.0, South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	19.43	118	P	Pn	04 44 39.8	-0.9
	0.0nm,0.3s,baz=291,slow=12,SNR=3.4						
SONM	**Songino Array**	59.68	352	P	P	04 50 17.7	+0.1
	0.4nm,0.6s,baz=189,slow=6.2,SNR=5.9						
MKAR	**Makanchi Array**	65.43	335	P	P	04 50 56.2	+0.2
	0.2nm,0.5s,baz=137,slow=7.2,SNR=5.4						
ZALV	**Zalesovo Beam**	70.39	341	P	P	04 51 27.1	0.0
	0.8nm,0.5s,baz=148,slow=6.4,SNR=4.4						

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*ISCJB **09** 04:44:08.6±0.2, 45.34N±0.01×112.51W±0.02, h12^{km}, Error ellipse: s-maj=2.4km s-min=1.8km az=42.2*
*NEIC **09** 04:44:09.0, 45.37N×112.60W, h12^{km}, ML2.7(BUT), After BUT.*
ISC 09 04:44:08.5±0.3, **45.36N**±0.01×**112.56W**±0.02, **h2**^{km}±2^{km}, **n47, σ0^{s}89**/90, **17C-19D, Montana**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DLMT	**Dillon**	0.02	286	*e*Pg	Pg	04 44 11.0	+1.9
G15A	**Dillon**	0.20	164	⇓P	Pg	04 44 13.6	+1.3
	baz=0.2,SNR=1000						
G15A				⇓S	Sg	04 44 17.3	+2.5
	baz=0.2						
F15A	**Butte**	0.49	6	⇓P	Pg	04 44 18.6	+0.7
	baz=0.5,SNR=999						
F15A				⇓S	Sg	04 44 24.8	+0.6
	baz=0.5						
MCMT	**McKenzie Canyo**	0.57	201	*e*Pg	Pg	04 44 20.1	+0.8
G14A	**Jackson**	0.64	260	P	Pg	04 44 21.6	+0.7
	baz=0.6,SNR=168						
G14A				⇑S	Sg	04 44 29.6	+0.5
	baz=0.6						
BOZ	**Bozeman (W)**	0.72	66	*e*Pg	Pg	04 44 22.5	+0.2
BOZ				*e*Pn	Pg	04 44 25.6	+3.2
BOZ	**Bozeman (W)**	0.72	66	⇓P	Pg	04 44 22.6	+0.3
	baz=0.7						
BOZ				⇑S	Sg	04 44 32.8	+1.1
	baz=0.7						
F14A	**Wisdom**	0.73	309	⇑P	Pg	04 44 23.0	+0.5
	baz=0.7,SNR=145						
F14A				⇑S	Sg	04 44 32.3	+0.4
	baz=0.7						
QLMT	**Earthquake Lak**	0.96	123	*e*Pg	Pg	04 44 28.1	+1.2
QLMT				*e*Sg	Sg	04 44 40.8	+1.5
E15A	**Deer Lodge**	1.07	357	⇑P	Pg	04 44 29.2	+0.1
	baz=1.1,SNR=245						
E15A				⇑S	Sg	04 44 43.0	+0.1
	baz=1.1						
G13A	**Cobalt**	1.21	258	P	Pg	04 44 31.8	+0.1
	baz=1.2,SNR=1000						
G13A				⇓S	Sg	04 44 47.0	-0.4
	baz=1.2						
E14A	**Clinton**	1.24	329	⇑P	Pg	04 44 32.4	0.0
	baz=1.2,SNR=68						
E14A				⇑S	Sg	04 44 48.5	0.0
	baz=1.2						
F13A	**Darby**	1.31	290	⇓P	Pg	04 44 33.5	-0.2
	baz=1.3						
F13A				⇑S	Sg	04 44 49.8	-1.0
	baz=1.3						
YMR	**Madison River**	1.33	121	*e*Pn	Pn	04 44 34.9	+0.8
YMR				*e*Sn	Sn	04 44 52.2	-0.1
H13A	**Challis**	1.44	237	⇓P	Pn	04 44 35.5	-0.1
	baz=1.4,SNR=273						
H13A				⇑S	Sg	04 44 54.3	-0.4
	baz=1.4						
YNR	**Norris Junctio**	1.48	115	*e*Pn	Pn	04 44 37.3	+1.1
YNR				*e*Sn	Sn	04 44 56.2	+0.1
YFT	**Old Faithful**	1.52	126	*e*Pn	Pn	04 44 37.3	+0.5
YFT				*e*Sg	Sg	04 44 58.4	+0.9
E13A	**Victor**	1.57	314	⇑P	Pn	04 44 37.2	-0.2
	baz=1.5,SNR=145						
E13A				⇓S	Sn	04 44 58.1	-0.3
	baz=1.5						
CHMT	**Chamberlain Mo**	1.63	343	*e*Pn	Pn	04 44 38.2	-0.1
CHMT				*e*Sg	Sg	04 45 00.3	-0.6
D15A	**Lincoln**	1.69	1	⇓P	Pn	04 44 38.8	-0.2
	baz=1.7,SNR=308						
LKWY	**Lake**	1.73	116	*e*Pn	Pn	04 44 39.2	-0.3
LKWY				*e*Pg	Pg	04 44 42.3	+0.6
MSO	**Missoula**	1.76	327	*e*Pn	Pn	04 44 40.1	+0.1
MSO				*e*Pg	Pg	04 44 41.8	-0.5
MSO				*e*Sg	Sg	04 45 03.3	-1.7
H12A	**Diamond D Ranc**	1.82	244	⇑P	Pn	04 44 41.1	+0.3
	baz=1.8,SNR=97						
H12A				⇓S	Sn	04 45 04.8	+0.4
	baz=1.8						
I13A	**Wildhorse Cree**	1.82	218	⇓P	Pn	04 44 41.1	+0.3
	baz=1.8,SNR=63						
I13A				⇑S	Sn	04 45 05.4	+1.0
	baz=1.8						
D14A	**Greenough**	1.85	340	P	Pn	04 44 41.0	-0.2
	baz=1.8,SNR=87						
D14A				⇓S	Sn	04 45 05.5	+0.4
	baz=1.8						
IMW	**Indian Meadow**	1.86	141	*e*Pg	Pg	04 44 43.0	-1.3
IMW				*e*Sg	Sg	04 45 08.7	+0.4
F12A	**Elk City**	1.93	283	⇓P	Pn	04 44 42.5	+0.1
	baz=1.9,SNR=110						
DCID1	**Drake Creek**	2.02	150	*e*Pg	Pg	04 44 46.5	-0.7
DCID1				*e*Sg	Sg	04 45 14.3	+0.9
MOOW	**Moose Ponds**	2.07	140	*e*Pg	Pg	04 44 46.4	-1.7
MOOW				*e*Sg	Sg	04 45 13.8	-1.1
GCMT	**Greycliff**	2.08	77	*e*Pn	Pn	04 44 43.5	-0.9
GCMT				*e*Pg	Pg	04 44 47.6	-0.8
GCMT				*e*Sg	Sg	04 45 14.7	-0.7
D13A	**Huson**	2.18	324	⇑P	Pn	04 44 45.6	-0.2
	baz=2.2						
TPAW	**Teton Pass**	2.19	148	*e*Pg	Pg	04 44 49.1	-1.5
TPAW				*e*Sn	Sn	04 45 12.0	-1.7
TPAW				*e*Sg	Sg	04 45 18.6	-0.4
HLID	**Hailey**	2.23	217	*e*Pn	Pn	04 44 46.7	+0.3
HLID				*e*Pg	Pg	04 44 51.3	0.0
HLID				*e*Sn	Sn	04 45 13.7	-0.8
HLID				*e*Sg	Sg	04 45 19.9	-0.2
LOHW	**Long Hollow**	2.24	140	*e*Pn	Pn	04 44 45.4	-1.2
LOHW				*e*Pg	Pg	04 44 49.7	-1.7
LOHW				*e*Sg	Sg	04 45 19.8	-0.6
J13A	**Cove Ranch, Pi**	2.27	211	⇓P	Pn	04 44 48.0	+1.0
	baz=2.3,SNR=61						
REDW	**Red Top Meadow**	2.34	148	*e*Pn	Pn	04 44 48.4	+0.4
REDW				*e*Pg	Pg	04 44 51.5	-1.9
REDW				*e*Sg	Sg	04 45 23.8	+0.1
RLMT	**Red Lodge**	2.34	95	*e*Pn	Pn	04 44 49.3	+1.3
RLMT				*e*Pg	Pg	04 44 53.2	-0.2
RLMT				*e*Sg	Sg	04 45 23.5	-0.2
H11A	**Donnelly**	2.53	256	⇓P	Pn	04 44 50.7	+0.1
	baz=2.5,SNR=12						
C14A	**Swan Lake**	2.55	342	⇓P	Pn	04 44 50.8	0.0
	baz=2.5,SNR=17						
C13A	**Hot Springs**	2.71	330	⇑P	Pn	04 44 53.4	+0.4
	baz=2.7,SNR=11						
J12A	**Stokes Ranch,**	2.78	222	⇑P	Pn	04 44 54.9	+0.8
	baz=2.8,SNR=18						
K13A	**Stover Farm, H**	2.92	203	⇓P	Pn	04 44 56.8	+0.8
	baz=2.9						
MFID	**Camas Ranch**	3.04	231	⇑P	Pn	04 44 58.8	+1.2
	baz=3.0						
EGMT	**Eagleton**	3.29	35	*e*Pn	Pn	04 45 01.1	-0.1
EGMT				*e*Sg	Sg	04 45 50.9	-3.4
EGMT	**Eagleton**	3.29	35	⇓P	Pn	04 45 01.5	+0.4
	baz=3.3						
BMO	**Blue Mountains**	3.40	263	*e*Pn	Pn	04 45 02.4	-0.1
BMO				*e*Pg	Pg	04 45 10.9	-2.7
BMO				*e*Sg	Sg	04 45 53.5	-4.0
HVU	**Hansel Valley**	3.58	183	*e*Pg	Pg	04 45 16.0	-1.1
HVU				*e*Sn	Sn	04 45 46.5	-1.4

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*ISCJB **09** 04:48:24.6±0.6, 38.39N±0.03×39.09E±0.03, h1^{km}±7^{km}, Error ellipse: s-maj=5.6km s-min=3.8km az=167.8*
*CSEM **09** 04:48:24.2±0.1, 38.45N×39.05E, h10^{km}, MD2.5, Error ellipse: s-maj=3.1km s-min=1.8km az=135.0*
*ISK **09** 04:48:24.4, 38.43N×39.03E, h6^{km}, MD3.0*
*DDA **09** 04:48:25.3, 38.41N×39.13E, h2^{km}, Md2.5*
ISC 09 04:48:25.6±0.4, **38.44N**±0.04×**39.04E**±0.03, **h13**^{km}±4^{km}, **n24, σ1^{s}05**/33, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.07	323	*i* P	Pg	04 48 28.1	0.0
ELZG				*i* S	Sg	04 48 31.3	+1.2
MYA	**Malataya**	0.49	257	PG	Pg	04 48 34.7	-0.6
MYA	**Malataya**	0.49	257	*e*Pg	Pg	04 48 34.7	-0.6
MALT	**Malatya**	0.50	255	PG	Pg	04 48 33.9	-1.4
MALT				SG	Sg	04 48 41.6	-0.3
MALT	**Malatya**	0.50	255	*e*Pg	Pg	04 48 33.9	-1.4
MALT				*e*Sg	Sg	04 48 41.6	-0.3
PTK	**Pertek**	0.53	32	PG	Pg	04 48 35.0	-0.9
PTK				SG	Sg	04 48 43.7	+0.7
PTK	**Pertek**	0.53	32	*e*Pg	Pg	04 48 35.0	-0.9
URFA	**Urfa**	1.01	190	PG	Pg	04 48 44.2	-0.9
URFA	**Urfa**	1.01	190	*e*Pg	Pg	04 48 44.2	-0.9
DIY	**Diyarbakir**	1.08	120	*e*PN	Pn	04 48 44.9	-1.5
DIY	**Diyarbakir**	1.08	120	*e*Pn	Pn	04 48 44.9	-1.5
ATAB	**Bozova**	1.13	211	*i* P	Pb	04 48 46.6	-0.4
ATAB				*i* S	Sb	04 49 01.1	-0.6
BINT	**Bingol**	1.22	69	*e*PN	Pn	04 48 47.9	-0.4
BINT	**Bingol**	1.22	69	*e*Pn	Pn	04 48 47.9	-0.4
EZC	**Erzincan**	1.44	25	*e*PN	Pn	04 48 49.6	-1.7
GZT	**Gaziantep**	1.59	228	*i* P	Pn	04 48 55.8	+2.4
GZT				*i* S	Sg	04 49 17.7	+0.9
MARD	**Mardin**	1.78	129	*i* P	Pn	04 48 56.4	+0.4
MARD				*i* S	Sn	04 49 19.5	+1.0
BEST	**Besiri**	1.84	107	*i* P	Pn	04 48 58.1	+1.2
BEST				*i* S	Sg	04 49 23.7	-1.1
GAZ	**Gaziantep**	1.92	229	*e*PN	Pn	04 48 58.9	+0.9
GAZ	**Gaziantep**	1.92	229	*e*Pn	Pn	04 48 58.9	+0.9
BTMT	**Batman**	1.94	97	*e*PN	Pn	04 48 57.1	-1.2
BNN	**Bunyan**	2.53	280	*e*PN	Pn	04 49 07.2	+0.8
BNN	**Bunyan**	2.53	280	*e*Pn	Pn	04 49 07.2	+0.8
HAKT	**HAKKARI**	3.79	102	*e*P	Pb	04 49 32.6	+0.3
HAKT				*i* S	Sg	04 50 28.9	+1.5

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*SZGRF **09** 04:50:48.5, 19.02S×179.96E, h33^{km}, South of Fiji Islands*
*ISCJB **09** 04:51:01.5±1.9, 21.1S±0.1×177.0W±0.1, h213^{km}±18^{km},*

mb4.0/14, Error ellipse: s-maj=20.6km s-min=11.5km az=135.8
*NEIC **09** 04:51:03.9±1.3, 20.92S×176.96W, h225km±12km, mb4.1/7, Error ellipse: s-maj=15.6km s-min=8.1km az=143.0*
*IDC **09** 04:51:04.1±2.7, 20.94S×176.96W, h227km±25km, mb3.7/8, mb1 3.9/10, mb1mx3.8/16, mbtmp3.7/10, Error ellipse: s-maj=25.1km s-min=13.6km az=149.0*
ISC 09 04:51:03.2±1.8**, 20.9S**±0.1×**177.0W**±0.1**, h214km**±18km**, n76, σ0.46**/23**, mb4.0**/14**, 2C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	8.33	186	P	Pn	04 53 07.1	+6.4
	120nm,0.3s,baz=75,slow=20,SNR=3.6						
AFI	Afiamalu	8.56	36	P	Pn	04 53 03.7	0.0
	3.1nm,0.3s,baz=243,slow=9.0,SNR=2.6						
AFI				S	S	04 54 30.8	-10
	9.3nm,0.3s,baz=56,slow=22,SNR=5.4						
DZM	Mont Dzumac	15.48	263	P	Pn	04 54 22.9	-7.9
	0.1nm,0.3s,baz=270,slow=17,SNR=5.8						
URZ	Urewera	18.02	195	P	P	04 54 58.0	-0.2
	1.4nm,0.3s,baz=330,slow=15,SNR=6.3						
URZ				S	S	04 58 05.1	-8.4
	1.1nm,0.3s,baz=134,slow=22,SNR=5.3						
CTA	Charters Tower	34.41	265	P	P	04 57 30.9	+0.4
	5.1nm,0.9s,mb4.0,baz=100,slow=6.1,SNR=3.2						
PMG	Port Moresby	36.38	283	P	P	04 57 47.8	+0.5
	26nm,0.8s,mb4.8,baz=132,slow=15,SNR=4.0						
STKA	Stephens Creek	38.48	245	eP	P	04 58 05.5	+0.8
	1.7nm,0.4s,mb3.9						
STKA	Stephens Creek	38.48	245	P	P	04 58 04.6	-0.1
	2.3nm,0.5s,mb4.0,baz=86,slow=10,SNR=11						
WB2	Warramunga Arr	45.49	262	eP	P	04 59 01.5	0.0
WRA	Warramunga Arr	45.50	262	P	P	04 59 00.3	-1.3
	2.4nm,0.6s,mb3.7,baz=94,slow=7.6,SNR=20						
KAKA	Kakadu	48.95	271	eP	P	04 59 28.6	+0.3
	6.9nm,0.9s,mb4.0						
QSPA	South Pole Qui	69.15	180	eP	P	05 01 45.8	0.0
	1.9nm,0.4s,mb4.1						
NVAR	Mina Array Bea	80.67	43	P	P	05 02 52.8	+0.5
	0.7nm,0.6s,mb3.5,baz=208,slow=7.9,SNR=5.1						
MNTX	Cornudas Mount	86.21	54	eP	P	05 03 21.0	+0.3
	3.3nm,1.0s,mb4.0						
LTX	Lajitas	86.47	57	eP	P	05 03 22.1	+0.1
	1.7nm,0.7s,mb3.9						
TXAR	Lajitas Array	86.47	57	P	P	05 03 22.4	+0.3
	1.5nm,0.9s,mb3.7,baz=210,slow=7.2,SNR=14						
MCK	McKinley	87.18	12	eP	P	05 03 24.2	-0.3
	6.6nm,0.9s,mb4.4						
COLA	College	88.42	12	eP	P	05 03 29.8	-0.6
	9.7nm,0.6s,mb4.8						
PDAR	Pinedale Array	88.61	43	P	P	05 03 31.9	0.0
	0.6nm,1.0s,mb3.4,baz=116,slow=3.4,SNR=4.0						
YKA	Yellowknife Ar	96.50	24	P	P	05 04 07.2	-0.5
YKA	Yellowknife Ar	96.50	24	P	P	05 04 07.2	-0.5
	0.4nm,0.7s,mb3.7,baz=246,slow=4.6,SNR=6.0						
MKAR	Makanchi Array	112.19	313	PKPdf	PKiKP	05 09 10.4	-2.8
MKAR	Makanchi Array	112.19	313	PKiKP	PKiKP	05 09 10.4	-2.8
	0.4nm,0.7s,baz=185,slow=1.5,SNR=5.4						
KURK	Kurchatov	114.96	317	ePKP	PKiKP	05 09 16.6	-1.7
AKTK	Aktyubinsk	128.02	318	PKP	PKPdf	05 09 43.0	-0.4
AKTO	Aktyubinsk	128.02	318	PKP	PKPdf	05 09 43.0	-0.4
	0.4nm,0.4s,baz=233,slow=4.7,SNR=4.0						
ARCES	ARCESS Array B	129.51	350	PKP	PKPdf	05 09 44.3	-1.4
ARCES	ARCESS Array B	129.51	350	PKP	PKPdf	05 09 44.3	-1.4
	3.2nm,0.7s,baz=352,slow=1.4,SNR=16						
FINES	FINESS Array B	136.45	344	PKP	PKPdf	05 09 55.5	-3.4
FINES	FINESS Array B	136.45	344	PKP	PKPdf	05 09 55.5	-3.4
	1.0nm,0.7s,baz=103,slow=6.0,SNR=2.9						
NB2	NORSAR Subarra	139.51	354	PKPa	PKPdf	05 09 53.7	-11
	comp=Z,2.3nm,0.8s,baz=13,slow=3.8						
AKASG	Malin Array Be	143.85	332	PKP	PKPdf	05 10 08.6	-4.1
AKASG	Malin Array Be	143.85	332	PKhKP		05 10 08.6	
	comp=Z,2.1nm,0.5s,baz=42,slow=4.2,SNR=19						
BRTR	Keskin Array B	147.84	312	PKPbc	PKPbc	05 10 21.9	-1.1
BRTR	Keskin Array B	147.84	312	PKPbc	PKPbc	05 10 21.9	-1.1
	comp=Z,1.0nm,0.6s,baz=129,slow=4.4,SNR=7.3						
NRDL	Niedersach Rie	148.02	352	ePKPbc	PKPbc	05 10 22.7	-0.3
CLZ	Clausthal	148.62	351	ePKPbc	PKPbc	05 10 24.4	-0.2
CLZ	Clausthal	148.62	351	ePKPbc	PKPbc	05 10 24.4	-0.2
CLL	Collm	148.69	348	ePKPbc	PKPbc	05 10 24.3	-0.5
CLL	Collm	148.69	348	i PKPbc	PKPbc	05 10 24.4	-0.4
	comp=Z,19nm,0.9s						
DPC	Dobruska-Polom	148.81	343	eP	PKPbc	05 10 25.2	0.0
DPC	Dobruska-Polom	148.81	343	ePKPbc	PKPbc	05 10 25.2	0.0
BRG	Berggiesshubel	148.90	347	ePKPbc	PKPbc	05 10 25.0	-0.4
BRG	Berggiesshubel	148.90	347	i P	PKPbc	05 10 25.1	-0.2
	comp=Z,6.5nm,0.8s						
FBE	Freiberg	148.98	347	ePKPbc	PKPbc	05 10 25.2	-0.4
NEUB	Neuenburg	149.01	349	ePKPbc	PKPbc	05 10 25.2	-0.4
PVCC	Panska Ves	149.09	346	eP	PKPbc	05 10 25.8	0.0
PVCC	Panska Ves	149.09	346	ePKPbc	PKPbc	05 10 25.8	0.0
MOX	Moxa	149.58	349	ePKP	PKPbc	05 10 26.8	-0.2
MOX	Moxa	149.58	349	ePKP	PKPdf	05 10 26.8	+4.6
	comp=Z,35nm,1.9s						
MOX	Moxa	149.58	349	ePKPbc	PKPbc	05 10 26.8	-0.2
PRU	Pruhonice	149.60	345	eP	PKPbc	05 10 26.4	-0.7
PRU	Pruhonice	149.60	345	ePKPbc	PKPbc	05 10 26.4	-0.7
WERD	Werda	149.64	348	ePKPbc	PKPbc	05 10 26.8	-0.4
TANN	Tannenbergstha	149.64	348	ePKPbc	PKPbc	05 10 26.9	-0.3
GUNZ	Gunzen	149.72	348	ePKPbc	PKPbc	05 10 27.2	-0.2
TREC	Trest	150.00	344	ePKPbc	PKPbc	05 10 27.7	-0.4
MANZ	Manzenberg	150.12	348	ePKPbc	PKPbc	05 10 28.2	-0.2
MEM	Membach	150.28	356	PKPbc	PKPbc	05 10 28.2	-0.5
ROTZ	Rotzenmuhle	150.31	348	ePKPbc	PKPbc	05 10 28.6	-0.2
BCLA	Clavier	150.51	357	PKPbc	PKPbc	05 10 28.4	-0.9
GRA1	Grafenberg Arr	150.57	349	ePKPbc	PKPbc	05 10 30.2	+0.8
GRF	Grafenberg Arr	150.57	349	ePKP	PKPbc	05 10 30.2	+0.8
GRF	Grafenberg Arr	150.57	349	ePKPbc	PKPbc	05 10 30.2	+0.8
KHC	Kasperske Hory	150.62	346	eP	PKPbc	05 10 29.3	-0.3
KHC	Kasperske Hory	150.62	346	ePKPbc	PKPbc	05 10 29.3	-0.3
GEC2	GERESS Array S	150.86	345	ePKPbc	PKPbc	05 10 29.8	-0.3
GEC2	GERESS Array S	150.86	345	ePKPbc	PKPbc	05 10 29.8	-0.3
GERES	GERESS Array B	150.86	345	PKPbc	PKPbc	05 10 29.1	-1.0
GERES	GERESS Array B	150.86	345	PKPbc	PKPbc	05 10 29.1	-1.0
	comp=Z,3.4nm,0.8s,baz=45,slow=2.1,SNR=20						
DOU	Dourbes	150.87	358	PKPbc	PKPbc	05 10 29.9	-0.2
WLF	Walferdange	151.22	356	ePKPbc	PKPbc	05 10 30.9	0.0
WLF	Walferdange	151.22	356	PKPbc	PKPbc	05 10 31.2	+0.2
WTTA	Wattenberg	152.81	347	⇑iP	PKiKP	05 10 34.5	-0.3
	comp=Z,3.4nm,0.5s						
WTTA	Wattenberg	152.81	347	⇑iPKiKP	PKiKP	05 10 34.5	-0.3
	comp=Z,3.4nm,0.5s						
TORD	Torodi Ar. Bea	172.16	170	PKPab	PKPab	05 12 10.6	-1.0
	comp=Z,1.5nm,0.8s,baz=188,slow=4.3,SNR=6.5						

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*CSEM **09** 04:59:05.8, 34.88N×26.24E, h10km, MD3.5/6, After ATH*
*NEIC **09** 04:59:05.8, 34.88N×26.24E, h10km, MD3.5(ATH), After ATH.*
ATH 09 04:59:05.8, 34.88N×26.24E, h10km, MD3.5/6**, 9D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NPS	Neapolis	0.64	307	⇓iPb	Pb	04 59 17.8	-1.3
NPS				eSb	Sb	04 59 26.4	-1.7
NPS	Neapolis	0.64	307	⇓iPB	Pb	04 59 17.8	-1.3
NPS				eSB	Sb	04 59 26.4	-1.7
NPS	Neapolis	0.64	307	⇓iPb	Pb	04 59 17.8	-1.3
NPS				eSb	Sb	04 59 26.4	-1.7
KARP	Karpathos	1.01	48	ePb	Pb	04 59 24.9	-0.4
KARP	Karpathos	1.01	48	ePB	Pb	04 59 24.9	-0.4
KARP	Karpathos	1.01	48	ePb	Pb	04 59 24.9	-0.4
VAM	Vamos	1.75	288	ePg	Pg	04 59 38.4	-1.0
VAM				eSn	Sn	05 00 02.5	+3.9
VAM	Vamos	1.75	288	ePG	Pg	04 59 38.4	-1.0
VAM				eSN	Sn	05 00 02.5	+3.9
VAM	Vamos	1.75	288	ePg	Pg	04 59 38.4	-1.0
ARG	Arkhangelos	2.04	49	ePn	Pn	04 59 42.4	+2.3
ARG	Arkhangelos	2.04	49	ePN	Pn	04 59 42.4	+2.3
ARG	Arkhangelos	2.04	49	ePn	Pn	04 59 42.4	+2.3
APE	Apeiranthos	2.26	345	⇓ePn	Pn	04 59 45.4	+2.2
APE	Apeiranthos	2.26	345	⇓ePN	Pn	04 59 45.4	+2.2
APE	Apeiranthos	2.26	345	⇓ePn	Pn	04 59 45.4	+2.2
VLI	Veliai	3.25	305	⇓iPn	Pn	04 59 58.4	+1.6
VLI	Veliai	3.25	305	⇓iPN	Pn	04 59 58.4	+1.6
VLI	Veliai	3.25	305	⇓iPn	Pn	04 59 58.4	+1.6

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*ISCJB **09** 05:01:45.8±0.6, 38.43N±0.03×38.99E±0.05, h8km±7km, Error ellipse: s-maj=7.2km s-min=5.0km az=36.5*
*CSEM **09** 05:01:45.3±0.1, 38.40N×39.00E, h12km, MD3.1, Error ellipse: s-maj=2.6km s-min=2.0km az=146.0*
*ISK **09** 05:01:45.3, 38.40N×39.01E, h8km, MD3.1*
*DDA **09** 05:01:46.5, 38.40N×39.09E, h2km, Md2.9*
ISC 09 05:01:46.3±0.5**, 38.45N**±0.05×**38.98E**±0.05**, h14km**±5km**, n34, σ0.82**/56**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.05	0	i P	Pg	05 01 49.1	+0.1
ELZG				i S	Sg	05 01 51.3	+0.5
ELZG	Elazig	0.05	0	i P	Pg	05 01 49.1	+0.2
ELZG				i S	Sg	05 01 51.1	+0.2
ELZG	Elazig	0.05	0	i P	Pg	05 01 49.1	+0.2
ELZG				i S	Sg	05 01 51.1	+0.2
MYA	Malataya	0.46	255	PG	Pg	05 01 55.2	-0.1
MYA				SG	Sg	05 02 01.9	+0.5
MYA	Malataya	0.46	255	ePg	Pg	05 01 55.2	-0.1
MYA				eSg	Sg	05 02 01.9	+0.5
MALT	Malatya	0.46	254	PG	Pg	05 01 54.6	-0.8
MALT				SG	Sg	05 02 01.7	+0.2
MALT	Malatya	0.46	254	ePg	Pg	05 01 54.6	-0.8
MALT				eSg	Sg	05 02 01.7	+0.2
PTK	Pertek	0.55	35	PG	Pg	05 01 56.7	-0.4
PTK	Pertek	0.55	35	ePg	Pg	05 01 56.7	-0.4
URFA	Urfa	1.01	187	PG	Pg	05 02 04.7	-1.1
URFA	Urfa	1.01	187	ePg	Pg	05 02 04.7	-1.1
ATAB	Bozova	1.11	209	i P	Pb	05 02 08.0	+0.6
ATAB				i S	Sb	05 02 21.2	-0.5
ATAB	Bozova	1.11	209	i P	Pb	05 02 07.0	-0.3
ATAB				i S	Sb	05 02 21.1	-0.6
ATAB	Bozova	1.11	209	i P	Pb	05 02 07.0	-0.3
ATAB				i S	Sb	05 02 21.1	-0.6
ATAB	Bozova	1.11	209	i P	Pb	05 02 08.0	+0.6
ATAB				i S	Sb	05 02 21.2	-0.5
DIY	Diyarbakir	1.12	119	PN	Pn	05 02 06.4	-1.2
DIY	Diyarbakir	1.12	119	ePn	Pn	05 02 06.4	-1.2
EZC	Erzincan	1.45	26	PN	Pn	05 02 11.6	-0.6
GZT	Gaziantep	1.56	226	i P	Pg	05 02 16.4	+0.1
GZT				i S	Sg	05 02 37.0	+0.4
GZT	Gaziantep	1.56	226	i P	Pg	05 02 16.6	+0.3
GZT				i S	Sg	05 02 37.2	+0.6
GZT	Gaziantep	1.56	226	i P	Pg	05 02 16.6	+0.3
GZT				i S	Sg	05 02 37.2	+0.6
MARD	Mardin	1.81	128	i P	Pn	05 02 16.9	-0.1
MARD				i S	Sn	05 02 40.6	+0.7
MARD	Mardin	1.81	128	i P	Pn	05 02 18.2	+1.1
MARD				i S	Sn	05 02 39.9	0.0
MARD	Mardin	1.81	128	i P	Pn	05 02 18.2	+1.1
MARD				i S	Sn	05 02 39.9	0.0
BEST	Besiri	1.89	106	i P	Pn	05 02 19.4	+1.4
BEST				i S	Sb	05 02 44.2	+0.3
BEST	Besiri	1.89	106	i P	Pn	05 02 19.4	+1.4
BEST				i S	Sb	05 02 44.2	+0.3
GAZ	Gaziantep	1.89	228	ePN	Pn	05 02 18.0	-0.2
GAZ	Gaziantep	1.89	228	ePn	Pn	05 02 18.0	-0.2
BTMT	Batman	1.99	97	ePN	Pn	05 02 18.3	-1.2
SIRT	Sirnak	2.89	108	ePN	Pn	05 02 32.3	+0.4
SIRT	Sirnak	2.89	108	ePn	Pn	05 02 32.3	+0.4
HAKT	HAKKARI	3.83	102	eP	Pb	05 02 55.6	+1.9
HAKT				i S	Sg	05 03 46.0	-3.4
HAKT	HAKKARI	3.83	102	eP	Pb	05 02 55.6	+1.9
HAKT				i S	Sg	05 03 46.0	-3.4
HAKT	HAKKARI	3.83	102	eP	Pb	05 02 55.6	+1.9
HAKT				i S	Sg	05 03 46.0	-3.4

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*DDA **09** 05:08:49.0, 38.42N×39.16E, h7km±4km*
*ISCJB **09** 05:08:50.0±1.2, 38.49N±0.09×39.18E±0.04, h7km, Error ellipse: s-maj=12.5km s-min=4.8km az=3.8*
*CSEM **09** 05:08:50.2, 38.49N×39.16E, h9km, MD2.6, After ERD*
ISC 09 05:08:50.7±0.9**, 38.44N**±0.06×**39.15E**±0.05**, h0km**±9km**, n10, σ0.99**/20**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.14	295	i P	Pg	05 08 53.2	-0.1
ELZG				i S	Sg	05 08 54.9	-0.3
ELZG	Elazig	0.14	295	i P	Pg	05 08 53.2	-0.1
ELZG				i S	Sg	05 08 55.9	+0.7
ELZG	Elazig	0.14	295	i P	Pg	05 08 53.2	-0.1
ELZG				i S	Sg	05 08 55.9	+0.7
ATAB	Bozova	1.18	215	i P	Pg	05 09 13.1	-0.2
ATAB				i S	Sg	05 09 28.6	+0.1
GZT	Gaziantep	1.65	230	i P	Pn	05 09 20.1	-0.8
GZT				i S	Sn	05 09 42.9	+0.1
GZT	Gaziantep	1.65	230	eP	Pn	05 09 21.8	+0.9
GZT				i S	Sn	05 09 43.1	+0.3
MARD	Mardin	1.71	130	i P	Pn	05 09 21.3	-0.3
MARD				i S	Sn	05 09 44.0	-0.3
MARD	Mardin	1.71	130	i P	Pn	05 09 21.2	-0.4
MARD				i S	Sn	05 09 44.3	+0.1
HAKT	HAKKARI	3.71	102	eP	Pg	05 09 59.5	-2.3
HAKT				i S	Sg	05 10 52.0	+2.2
HAKT	HAKKARI	3.71	102	eP	Pg	05 09 59.5	-2.2
HAKT				i S	Sg	05 10 52.0	+2.2

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*NEIC **09** 05:19:02.1, 17.98N×97.50W, h71km, MD4.1(MEX), After MEX.*
MEX 09 05:19:02.2±1.0**, 17.98N×97.51W, h70km**±8km**, MD4.1, 1D, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UTMO	Huajuapan	0.32	242	⇓iP	Pn	05 19 12.3	-1.2
UTMO				i S	Sn	05 19 19.8	-2.1
TPIG	Tehuac#an	0.46	17	i P	Pn	05 19 13.8	-0.9
TPIG				i S	Sn	05 19 22.4	-1.4
VHO	Vista Hermosa	1.17	141	i P	Pn	05 19 21.8	-1.0
VHO				i S	Sn	05 19 36.7	-1.5
PNIG	Pinotepa	1.69	201	i P	Pn	05 19 27.8	-1.9
PNIG				i S	Sn	05 19 48.7	-1.7
PLIG	Platanillo	1.94	282	eP	Pn	05 19 33.4	+0.4
PLIG				i S	Sn	05 19 55.5	-1.1
IIO	Organos	1.97	324	eP	Pn	05 19 34.9	+1.4
IIO				i S	Sn	05 19 53.3	-4.1
MEIG	Mezcala	2.01	269	i P	Pn	05 19 34.0	-0.1
MEIG				i S	Sn	05 19 56.6	-1.7
LVIG	Laguna Verde	2.02	31	i P	Pn	05 19 32.0	-2.0
LVIG				i S	Sn	05 19 56.5	-1.8
LVIG	Laguna Verde	2.02	31	i P	Pn	05 19 32.1	-2.0
LVIG				i S	Sn	05 19 56.5	-1.8
PTVM	Pico Tres Padr	2.21	317	i P	Pn	05 19 43.2	+6.5
SZVM	Salazar	2.22	307	eP	Pn	05 19 32.5	-4.3
SZVM				i S	Sn	05 20 02.4	-1.0
ACX	Acapulco	2.56	245	i P	Pn	05 19 38.3	-3.1
HUIG	Huatulco	2.58	149	i P	Pn	05 19 41.5	-0.1
HUIG				i S	Sn	05 20 08.7	-3.3
CMIG	Matias Romero	2.65	109	i P	Pn	05 19 41.9	-0.8
CMIG				i S	Sn	05 20 11.4	-2.4
CAIG	El Cayaco	2.79	251	i P	Pn	05 19 42.1	-2.5
CAIG				i S	Sn	05 20 14.9	-2.3
TEIG	Tepich	9.01	74	i P	Pn	05 21 06.9	-2.6

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*ISCJB **09** 05:19:14.4±0.6, 39.5S±0.1×78.1E±0.1, h10km, mb4.2/13, MS4.2/16, Error ellipse: s-maj=18.1km s-min=14.8km az=0.6*
*IDC **09** 05:19:14.5±0.9, 39.39S×78.04E, h0km, mb4.1/8, mb1 4.2/8, mb1mx4.0/17, mbtmp4.1/8, MS4.1/16, Ms1 4.1/16, ms1mx4.0/22, Error ellipse: s-maj=36.4km s-min=20.2km az=177.0*
*NEIC **09** 05:19:16.0±0.4, 39.47S×78.04E, h10km, mb4.4/4, Error ellipse: s-maj=12.8km s-min=10.5km az=182.0*
*GCMT **09** 05:19:16.0±0.3, 39.36S×77.93E, h12km±1km, MW5.0/53, Moment Tensor Solution. s22,c24; s53,c78; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.29±.22; $M_{\theta\theta}$0.91±.13; $M_{\phi\phi}$2.37±.15; $M_{r\theta}$0.98±.43; $M_{\theta\phi}$-0.63±.09; $M_{\phi r}$1.20±.36; Best double couple: $M_0$3.25500×10^{16} NP1:ϕ_s327.00000°,δ39.00000°,λ-115.00000°. NP2: ϕ_s179.00000°,δ55.00000°,λ-71.00000°. Principal axes: T 2.7260, Plg9.0000°, Azm255.0000°; N 1.0520, Plg16.0000°, Azm348.0000°; P -3.7850, Plg72.0000°, Azm137.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
ISC 09 05:19:16.3±0.6**, 39.5S**±0.1×**78.0E**±0.1**, h10km, n27, σ0.66**/17**, mb4.2**/13**, MS4.2**/16**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAW	Mawson	29.40	192	LR	LR	05 34 40.0	
	comp=Z,540nm,18.3s,MS4.2,baz=41,slow=31						
NWAO	Narrogin (SRO)	32.12	91	LR	LR	05 35 46.9	
	comp=Z,693nm,19.0s,MS4.4,baz=308,slow=31						
BOSA	Boshof	44.49	267	P	P	05 27 28.2	+0.3
BOSA				LR	LR	05 41 49.5	
BOSA	Boshof	44.49	267	P	P	05 27 28.2	+0.3
	2.1nm,0.9s,mb3.9,baz=113,slow=10,SNR=3.8						
BOSA				LR	LR	05 41 49.5	
	comp=Z,471nm,20.7s,MS4.4,baz=131,slow=30						
LBTB	Lobatse	46.02	272	P	P	05 27 40.1	+0.1
	1.2nm,0.6s,mb4.0,baz=144,slow=8.7,SNR=2.8						
MATP	Matopo	46.30	279	P	P	05 27 42.3	0.0
	0.9nm,0.8s,mb3.8,baz=127,slow=9.6,SNR=3.7						
LSZ	Lusaka	49.65	285	eP	P	05 28 07.8	-0.4
	3.5nm,1.0s,mb4.3						
SNAA	Sanae	50.24	204	P	P	05 28 12.3	+0.3
	2.0nm,0.9s,mb4.2,baz=68,slow=11,SNR=3.2						
VNDA	Vanda	50.49	164	LR	LR	05 47 48.7	
	comp=Z,371nm,19.1s,MS4.4,baz=242,slow=34						
QSPA	South Pole Qui	50.68	180	eP	P	05 28 15.1	-0.2
	12nm,1.0s,mb4.8						
STKA	Stephens Creek	51.25	102	P	P	05 28 19.9	-0.3
	3.5nm,1.1s,mb4.2,baz=220,slow=7.9,SNR=3.7						
STKA				LR	LR	05 45 16.5	
	comp=Z,365nm,21.9s,MS4.4,baz=108,slow=30						
WRA	Warramunga Arr	51.79	85	P	P	05 28 24.2	-0.1
	7.6nm,1.1s,mb4.5,baz=235,slow=6.8,SNR=17						
WRA				LR	LR	05 47 41.8	
	comp=Z,405nm,19.9s,MS4.5,baz=210,slow=33						
KMBO	Kilima Mbogo	53.25	305	LR	LR	05 46 33.1	
	comp=Z,164nm,19.1s,MS4.1,baz=92,slow=31						
ATD	Arta Tunnel	60.38	319	LR	LR	05 50 12.4	
	comp=Z,61nm,20.6s,MS3.7,baz=112,slow=31						
KBL	Kabul	74.12	352	eP	P	05 30 52.4	-0.1
AAK	Ala-Archa	81.80	357	eP	P	05 31 34.1	-0.8
	4.7nm,1.3s,mb4.3						
MALT	Malatya	85.52	330	eP	P	05 31 54.4	+0.2
MKAR	Makanchi Array	85.98	3	P	P	05 31 55.5	-0.7
	1.4nm,0.9s,mb4.2,baz=175,slow=6.1,SNR=12						
MKAR				LR	LR	06 07 43.0	
	comp=Z,131nm,21.7s,MS4.3,baz=177,slow=34						
TORD	Torodi Ar. Bea	88.00	289	P	P	05 32 06.3	-0.5
	0.5nm,0.8s,mb3.8,baz=130,slow=4.5,SNR=2.8						
TORD				LR	LR	06 09 05.3	
	comp=Z,120nm,19.1s,MS4.3,baz=160,slow=34						
CBIJ	Chichi jima	89.21	53	LR	LR	06 13 11.0	
	comp=Z,60nm,18.2s,MS4.0,baz=79,slow=36						
KSRS	Korea Array	89.24	37	LR	LR	06 14 42.1	
	comp=Z,64nm,18.1s,MS4.1,baz=11,slow=37						
KURK	Kurchatov	89.82	0	eP	P	05 32 15.2	+0.7
	1.7nm,0.7s,mb4.5						
SONM	Songino Array	90.52	19	P	P	05 32 20.8	+3.0
SONM				LR	LR	06 15 28.7	
SONM	Songino Array	90.52	19	P	P	05 32 20.8	+3.0
	0.3nm,0.8s,mb3.7,baz=196,slow=4.1,SNR=3.3						
SONM				LR	LR	06 15 28.7	
	comp=Z,102nm,18.2s,MS4.3,baz=162,slow=37						
JHJ	Hachijo jima 2	92.12	48	LR	LR	06 10 51.8	
	comp=Z,70nm,19.5s,MS4.1,baz=78,slow=34						
MJAR	Matsushiro Arr	93.75	44	LR	LR	06 12 15.7	
	comp=Z,62nm,20.2s,MS4.1,baz=270,slow=34						
KEST	Kesra	98.01	310	LR	LR	06 20 34.0	
	comp=Z,36nm,18.1s,MS3.9,baz=226,slow=38						

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*ISK **09** 05:26:00.8, 38.46N×39.09E, h5km, MD3.7*
*ISCJB **09** 05:26:01.9±0.6, 38.42N±0.03×39.14E±0.03, h2km±6km, Error ellipse: s-maj=6.5km s-min=3.5km az=148.6*
*CSEM **09** 05:26:01.8±0.1, 38.43N×39.12E, h8km, MD3.4, Error ellipse: s-maj=2.5km s-min=1.9km az=171.0*
*DDA **09** 05:26:02.1, 38.50N×39.02E, h28km±2km, Md3.4*
ISC 09 05:26:02.4±0.5**, 38.41N**±0.03×**39.13E**±0.03**, h0km**±5km**, n42, σ0.92**/54**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.14	307	i P	Pg	05 26 05.7	+0.5
ELZG				i S	Sg	05 26 11.6	+4.5
PTK	Pertek	0.52	23	i PG	Pg	05 26 11.7	-0.7
PTK				i SG	Sg	05 26 19.3	+0.1
PTK	Pertek	0.52	23	i Pg	Pg	05 26 11.7	-0.7
PTK				i Sg	Sg	05 26 19.3	+0.1
MALT	Malatya	0.56	260	i PG	Pg	05 26 12.0	-1.1
MALT				i SG	Sg	05 26 21.1	+0.7
MALT	Malatya	0.56	260	i Pg	Pg	05 26 12.0	-1.1
MALT				i Sg	Sg	05 26 21.1	+0.7
MYA	Malataya	0.56	262	i PG	Pg	05 26 12.9	-0.2
MYA	Malataya	0.56	262	i Pg	Pg	05 26 12.9	-0.2
URFA	Urfa	1.00	194	PG	Pg	05 26 22.7	+1.2
URFA	Urfa	1.00	194	ePg	Pg	05 26 22.7	+1.2
DIY	Diyarbakir	1.00	120	PG	Pg	05 26 22.0	+0.4
DIY	Diyarbakir	1.00	120	ePg	Pg	05 26 22.0	+0.4
ATAB	Bozova	1.15	215	i P	Pg	05 26 24.6	+0.2
ATAB				i S	Sg	05 26 39.9	+0.6
ATAB	Bozova	1.15	215	i P	Pg	05 26 24.6	+0.2
ATAB				i S	Sg	05 26 39.8	+0.5
BINT	Bingol	1.16	66	PN	Pn	05 26 23.9	-1.9
BINT	Bingol	1.16	66	ePn	Pn	05 26 23.9	-1.9
EZC	Erzincan	1.44	22	PN	Pn	05 26 26.3	-3.4
GZT	Gaziantep	1.63	230	i P	Pn	05 26 31.3	-1.0
GZT				i S	Sn	05 26 55.5	+1.6
BTMT	Batman	1.87	96	PN	Pn	05 26 34.7	-0.9
GAZ	Gaziantep	1.96	232	PN	Pn	05 26 36.3	-0.5
GAZ	Gaziantep	1.96	232	ePn	Pn	05 26 36.3	-0.5
GUMT	Gumushane	2.06	7	PN	Pn	05 26 38.1	-0.2
GUMT	Gumushane	2.06	7	ePn	Pn	05 26 38.1	-0.2
EZM	Erzurum	2.29	49	PN	Pn	05 26 41.7	+0.3
ERZM	Erzurum	2.29	49	i P	Pn	05 26 42.5	+1.2
ERZM				i S	Sg	05 27 20.8	+4.8
ERZM	Erzurum	2.29	49	i P	Pn	05 26 42.5	+1.1
GRSN	GIRESUNGRSN	2.60	345	i P	Pn	05 26 46.6	+1.0
BNN	Bunyan	2.61	281	PN	Pn	05 26 45.9	+0.1
BNN	Bunyan	2.61	281	ePn	Pn	05 26 45.9	+0.1
SIRT	Sirnak	2.77	108	ePN	Pn	05 26 48.2	+0.3
SIRT	Sirnak	2.77	108	ePn	Pn	05 26 48.2	+0.3
TOKT	Tokat	2.77	314	ePN	Pn	05 26 47.3	-0.7
TOKT	Tokat	2.77	314	ePn	Pn	05 26 47.3	-0.7
KOZT	Kozan	2.77	251	ePN	Pn	05 26 47.2	-0.8
COBT	Iskenderun	2.97	231	eP	Pn	05 26 51.0	+0.3
COBT				i S	Sg	05 27 36.6	-1.0
TUTA	Tutak	3.04	70	eP	Pn	05 26 52.6	+0.9
TUTA				i S	Sg	05 27 41.9	+1.9
YOZ	Yozgat	3.21	294	ePN	Pn	05 26 54.2	+0.1
YOZ	Yozgat	3.21	294	ePn	Pn	05 26 54.2	+0.1
AGRB	Hanur-Agry	3.23	68	ePN	Pn	05 26 54.2	0.0
AGRB	Hanur-Agry	3.23	68	ePn	Pn	05 26 54.2	0.0
HTY	Hatay	3.31	227	ePN	Pn	05 26 55.1	-0.2
HTY	Hatay	3.31	227	ePn	Pn	05 26 55.1	-0.2
HAKT	HAKKARI	3.71	102	i P	Pn	05 27 01.3	+0.3
HAKT				eS	Sg	05 27 59.8	-1.8

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*DDA **09** 05:52:05.3, 38.44N×39.18E, h7km±6km, Md3.6*
*ISK **09** 05:52:05.8, 38.46N×39.10E, h5km, MD3.3*
*ISCJB **09** 05:52:07.0±0.4, 38.44N±0.03×39.14E±0.03, h5km, Error ellipse: s-maj=3.8km s-min=3.2km az=170.1*
*CSEM **09** 05:52:06.5±0.1, 38.44N×39.14E, h5km, MD3.6, Error ellipse: s-maj=1.7km s-min=1.5km az=108.0*
ISC 09 05:52:07.2±0.6**, 38.41N**±0.03×**39.15E**±0.03**, h1km**±5km**, n34, σ0.99**/50**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.15	303	i P	Pg	05 52 10.3	+0.1
ELZG				i S	Sg	05 52 10.9	-1.3
ELZG	Elazig	0.15	303	i P	Pg	05 52 10.3	+0.1
ELZG				i S	Sg	05 52 12.9	+0.7
PTK	Pertek	0.51	22	PG	Pg	05 52 16.2	-0.9
PTK				SG	Sg	05 52 24.4	+0.6
PTK	Pertek	0.51	22	ePg	Pg	05 52 16.2	-0.9
PTK				eSg	Sg	05 52 24.4	+0.6
MYA	Malataya	0.57	261	PG	Pg	05 52 17.6	-0.7
MYA	Malataya	0.57	261	ePg	Pg	05 52 17.6	-0.7
MALT	Malatya	0.58	260	PG	Pg	05 52 16.7	-1.6
MALT				SG	Sg	05 52 26.2	+0.5
MALT	Malatya	0.58	260	ePg	Pg	05 52 16.7	-1.6
MALT				eSg	Sg	05 52 26.2	+0.5
DIY	Diyarbakir	0.99	121	PG	Pg	05 52 26.6	+0.3
DIY	Diyarbakir	0.99	121	ePg	Pg	05 52 26.6	+0.3

URFA	Urfa	1.01	195	PG	Pg	05 52 26.8	+0.3
URFA	Urfa	1.01	195	ePg	Pg	05 52 26.8	+0.3
BINT	Bingol	1.15	66	PN	Pn	05 52 28.3	-2.1
BINT	Bingol	1.15	66	ePn	Pn	05 52 28.3	-2.1
ATAB	Bozova	1.16	216	iP	Pg	05 52 28.9	-0.6
ATAB				iS	Sg	05 52 45.8	+1.3
ATAB	Bozova	1.16	216	iP	Pg	05 52 29.2	-0.2
ATAB				iS	Sg	05 52 44.8	+0.3
EZC	Erzincan	1.43	21	PN	Pn	05 52 32.6	-1.7
GZT	Gaziantep	1.64	230	iP	Pn	05 52 36.1	-1.1
GZT				iS	Sn	05 52 59.9	+0.9
GZT	Gaziantep	1.64	230	iP	Pn	05 52 36.1	-1.1
GZT				iS	Sn	05 53 00.3	+1.3
MARD	Mardin	1.69	130	iP	Pn	05 52 37.6	-0.3
MARD				iS	Sn	05 52 60.0	-0.3
MARD	Mardin	1.69	130	iP	Pn	05 52 37.5	-0.4
MARD				iS	Sn	05 53 00.2	-0.1
BEST	Besiri	1.75	107	iP	Pn	05 52 38.3	-0.5
BEST				iS	Sn	05 53 01.9	+0.2
BTMT	Batman	1.85	96	PN	Pn	05 52 39.5	-0.7
GAZ	Gaziantep	1.97	232	PN	Pn	05 52 42.3	+0.5
GAZ	Gaziantep	1.97	232	ePn	Pn	05 52 42.3	+0.5
GUMT	Gumushane	2.06	7	PN	Pn	05 52 42.5	-0.5
EZM	Erzurum	2.28	48	PN	Pn	05 52 46.2	+0.2
GRSN	GIRESUNGRSN	2.60	345	iP	Pn	05 52 53.4	+3.0
GRSN				iS	Sg	05 53 32.6	+1.9
BNN	Bunyan	2.62	281	ePN	Pn	05 52 51.0	+0.3
BNN	Bunyan	2.62	281	ePn	Pn	05 52 51.0	+0.3
YOZ	Yozgat	3.22	294	ePN	Pn	05 52 59.2	+0.2
YOZ	Yozgat	3.22	294	ePn	Pn	05 52 59.2	+0.2
HAKT	HAKKARI	3.70	102	iP	Pn	05 53 07.6	+2.0
HAKT				iS	Sb	05 54 00.3	+1.5
HAKT	HAKKARI	3.70	102	eP	Pn	05 53 05.2	-0.4
HAKT				iS	Sg	05 54 06.4	+0.3

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*NEIC **09** 05:53:00.2, 34.06S×70.06W, h9^{km}, ML3.0(GUC), After GUC.*

GUC 09 05:53:00.2±0.7, 3406S×7006W, h9^{km}±3^{km}, MD4.0, ML3.0, 12C-6D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YECH	El Yeso	0.39	357	⇑iP	Pg	05 53 08.2	+0.4
YECH				iS	Sg	05 53 14.5	+1.4
CICH	Cipreses	0.40	229	⇑iP	Pg	05 53 08.0	0.0
CICH				iS	Sg	05 53 13.4	+0.2
CACH	El Canelo	0.45	262	⇓iP	Pg	05 53 08.8	-0.2
CACH				iS	Sg	05 53 15.3	+0.4
SJCH	San Jose de Ma	0.48	330	⇑iP	Pg	05 53 09.1	-0.5
SJCH				iS	Sg	05 53 16.0	+0.1
CHCH	Chadas Angostu	0.51	284	⇓iP	Pg	05 53 10.0	0.0
CHCH				iS	Sg	05 53 17.1	+0.5
PCH	Pirque	0.58	319	⇓iP	Pg	05 53 11.4	+0.1
PCH				iS	Sg	05 53 19.7	+0.8
ANTU	Antumapu	0.68	315	⇑iP	Pg	05 53 13.3	0.0
ANTU				iS	Sg	05 53 22.7	+0.5
ANTU	Antumapu	0.68	315	⇑iP	Pg	05 53 13.3	0.0
ANTU				iS	Sg	05 53 22.7	+0.5
ANTU				AML	AML	05 53 23.3	
	comp=N,2µm,0.2s						
FSR	Penalolen	0.70	326	⇑iP	Pg	05 53 13.6	-0.1
FSR				iS	Sg	05 53 23.3	+0.6
FCH	Farellones	0.75	345	⇑iP	Pg	05 53 14.6	-0.1
FCH				iS	Sg	05 53 25.4	+0.9
CLCH	Cerro Calan	0.77	329	⇑iP	Pg	05 53 15.6	+0.5
CLCH				iS	Sg	05 53 26.5	+1.5
CLCH	Cerro Calan	0.77	329	⇑iP	Pg	05 53 15.6	+0.5
CLCH				iS	Sg	05 53 26.5	+1.5
CLCH				AML	AML	05 53 28.4	
	comp=E,1µm,0.5s						
DSCH	Colegio Aleman	0.78	327	⇑iP	Pg	05 53 14.4	-0.9
DSCH				iS	Sg	05 53 25.4	-0.1
STL	Santa Lucia	0.79	322	⇑iP	Pg	05 53 14.2	-1.2
STL				iS	Sg	05 53 25.0	-0.6
TACH	Talagante	0.83	299	⇓iP	Pg	05 53 15.8	-0.5
TACH				iS	Sg	05 53 27.2	+0.1
RCDM	Rinconada Maip	0.84	312	iP	Pg	05 53 15.9	-0.4
RCDM				iS	Sg	05 53 27.6	+0.3
RCDM	Rinconada Maip	0.84	312	iP	Pg	05 53 15.9	-0.4
RCDM				iS	Sg	05 53 27.6	+0.3
RCDM				AML	AML	05 53 28.0	
	comp=E,1µm,0.5s						
SFDO	San Fernando	0.96	235	⇑iP	Pg	05 53 18.0	-0.7
PEL	Peldehue	1.05	330	⇓iP	Pg	05 53 19.5	-0.9
PEL				iS	Sg	05 53 34.1	+0.1
PEL				AML	AML	05 53 36.6	
	comp=E,433nm,0.5s						
LNV	Longovilo	1.13	275	⇓iP	Pg	05 53 20.4	-1.4
NICH	Los Niches	1.35	225	iP	Pn	05 53 24.7	-0.5

IDC 09 06:05:53.3±2.5, 2687N×5340E, h0^{km}, mb3.5/6, mb1 3.7/6, mb1mx3.5/21, mbtmp3.6/6, Error ellipse: s-maj=61.8km s-min=27.3km az=156.0, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRTR	Keskin Array B	20.86	313	P	P	06 10 38.1	+1.3
	0.8nm,0.6s,baz=126,slow=10,SNR=5.9						
MKAR	Makanchi Array	30.23	41	P	P	06 12 05.7	+0.1
	0.3nm,0.6s,baz=240,slow=9.7,SNR=3.9						
ZALV	Zalesovo Beam	35.59	32	P	P	06 12 52.7	+0.4
	0.6nm,0.5s,baz=238,slow=10.0,SNR=3.4						
FINES	FINESS Array B	39.15	340	P	P	06 13 21.3	-1.1
	0.6nm,0.4s,baz=153,slow=11,SNR=5.2						
TORD	Torodi Ar. Bea	50.15	265	P	P	06 14 50.8	-0.1
	0.4nm,0.6s,baz=54,slow=7.2,SNR=7.6						
YKA	Yellowknife Ar	90.44	354	P	P	06 18 56.4	-0.1
	0.1nm,0.5s,baz=6.8,slow=5.2,SNR=5.1						

MEX 09 06:06:35.4±0.5, 1668N×9993W, h13^{km}±5^{km}, MD3.5, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.19	3	iP	Pg	06 06 39.5	-0.1
ACX				iS	Sg	06 06 41.8	-0.8
CAIG	El Cayaco	0.49	319	iP	Pg	06 06 44.0	-1.1
CAIG				iS	Sg	06 06 50.8	-0.8
MEIG	Mezcala	1.27	13	eP	Pn	06 06 55.1	-3.9
MEIG				iS	Sb	06 07 10.3	-5.3
UTMO	Huajuapan	2.33	60	iP	Pn	06 07 11.0	-2.5
UTMO				iS	Sn	06 07 36.8	-5.2

MAN 09 06:30:43, 1262N×12518E, h21^{km}, mb4.2, ML3.1, MS2.8, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	1.46	188	eP	Pn	06 31 08.8	+0.6
PLP				eS	Sn	06 31 27.5	+0.9

IDC 09 06:34:33.7±4.4, 1607S×17810W, h0^{km}, mb3.8/2, mb1 4.0/2, mb1mx3.7/13, mbtmp3.8/2, Error ellipse: s-maj=187.4km s-min=48.5km az=137.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	39.80	239	P	P	06 42 08.4	-0.3
	1.0nm,0.4s,baz=89,slow=10.0,SNR=5.8						
WRA	Warramunga Arr	45.29	258	P	P	06 42 53.5	0.0
	0.4nm,0.5s,baz=92,slow=7.1,SNR=14						
GERES	GERESS Array B	145.91	346	PKPbc	PKPbc	06 54 14.5	-0.6
	0.7nm,0.5s,baz=3.8,slow=4.0,SNR=5.9						

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*CSEM **09** 06:40:40.5±0.1, 38.41N×39.10E, h12^{km}, MD2.7, Error ellipse: s-maj=3.8km s-min=2.8km az=138.0*
*ISK **09** 06:40:40.7, 38.42N×39.09E, h5^{km}, MD2.9*
*ISCJB **09** 06:40:41.2±0.5, 38.40N±0.03×39.15E±0.03, h4^{km}, Error ellipse: s-maj=4.6km s-min=3.7km az=7.7*
*DDA **09** 06:40:42.3, 38.45N×39.15E, h4^{km}, Md2.7*

ISC 09 06:40:41.8±0.5, 3843N±003×3911E±004, h10^{km}±7^{km}, n18, σ0^{s}91/27, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.12	305	iP	Pg	06 40 45.3	+0.4
ELZG				iS	Sg	06 40 48.1	+1.2
PTK	Pertek	0.51	25	PG	Pg	06 40 51.3	-0.6
PTK				SG	Sg	06 40 59.3	+0.6
PTK	Pertek	0.51	25	ePg	Pg	06 40 51.3	-0.6
PTK				eSg	Sg	06 40 59.3	+0.6
MYA	Malataya	0.55	260	PG	Pg	06 40 51.8	-0.7
MYA	Malataya	0.55	260	ePg	Pg	06 40 51.8	-0.7
MALT	Malatya	0.55	259	PG	Pg	06 40 51.1	-1.4
MALT				SG	Sg	06 40 59.2	-0.6
MALT	Malatya	0.55	259	ePg	Pg	06 40 51.1	-1.4
MALT				eSg	Sg	06 40 59.2	-0.6
URFA	Urfa	1.01	193	ePG	Pg	06 41 00.6	-0.6
URFA	Urfa	1.01	193	ePg	Pg	06 41 00.6	-0.6
DIY	Diyarbakir	1.02	121	ePG	Pg	06 41 00.6	-0.9
DIY	Diyarbakir	1.02	121	ePg	Pg	06 41 00.6	-0.9
ATAB	Bozova	1.15	214	iP	Pb	06 41 04.5	+0.7
ATAB				iS	Sg	06 41 20.2	+1.3
EZC	Erzincan	1.43	22	ePN	Pn	06 41 06.4	-1.4
GZT	Gaziantep	1.63	229	iP	Pg	06 41 13.1	+0.1
GZT				iS	Sg	06 41 39.3	+5.2
MARD	Mardin	1.72	130	iP	Pg	06 41 14.1	-0.8
MARD				iS	Sg	06 41 37.1	-0.1
BEST	Besiri	1.78	107	iP	Pn	06 41 14.5	+1.9
BEST				iS	Sg	06 41 39.6	+0.5
GAZ	Gaziantep	1.96	231	ePN	Pn	06 41 15.5	+0.5
GAZ	Gaziantep	1.96	231	ePn	Pn	06 41 15.5	+0.5

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*NEIC **09** 07:14:49.3, 30.51S×71.24W, h43^{km}, MG4.1(GUC), After GUC.*

GUC 09 07:14:49.3±0.9, 3051S×7124W, h43^{km}±3^{km}, MD4.4, ML4.1, 3C, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TLL	Tololo Astrono	0.51	48	eP	Pn	07 15 01.2	+1.0
TLL				iS	Sn	07 15 09.9	+1.9
CMCH	Combarbala	0.70	163	⇑iP	Pn	07 15 03.3	+0.6
CMCH				iS	Sn	07 15 13.5	+1.1
CMCH	Combarbala	0.70	163	⇑iP	Pn	07 15 03.3	+0.6
CMCH				iS	Sn	07 15 13.5	+1.1
CMCH				AML	AML	07 15 15.9	
	comp=E,12µm,0.6s						
CHNG	Los Chungos	1.39	189	eP	Pn	07 15 03.0	-9.2
CHNG				iS	Sn	07 15 21.0	-8.4
LCO	Las Campanas	1.56	18	ePn	Pn	07 15 15.1	+0.5
LCO				eSn	Sn	07 15 34.0	+0.4
PTCH	Petorca	1.77	171	eP	Pn	07 15 18.2	+0.8
PTCH				iS	Sn	07 15 39.7	+1.0
PTCH	Petorca	1.77	171	eP	Pn	07 15 18.2	+0.8
PTCH				iS	Sn	07 15 39.7	+1.0
PTCH				AML	AML	07 15 43.3	
	comp=N,3µm,0.3s						
VACH	Vallenar	1.97	12	eP	Pn	07 15 20.9	+0.7
VACH				iS	Sn	07 15 44.9	+1.3
VACH	Vallenar	1.97	12	eP	Pn	07 15 20.9	+0.7
VACH				iS	Sn	07 15 44.9	+1.3
VACH				AML	AML	07 15 54.2	
	comp=E,2µm,0.5s						
IHA	Instituto Hidr	2.53	188	eP	Pn	07 15 27.1	-0.8
PEL	Peldehue	2.67	170	eP	Pn	07 15 30.5	+0.7
PEL				iS	Sn	07 16 02.4	+1.5
PEL				AML	AML	07 16 13.5	
	comp=E,1µm,0.4s						
FCH	Farellones	2.93	164	eP	Pn	07 15 34.8	+1.5
FCH				iS	Sn	07 16 09.5	+2.3
FCH				AML	AML	07 16 20.2	
	comp=E,524nm,0.3s						
DSCH	Colegio Aleman	2.94	169	eP	Pn	07 15 35.2	+1.7
DSCH				iS	Sn	07 16 09.0	+1.5
STL	Santa Lucia	2.96	170	eP	Pn	07 15 35.0	+1.2
STL				iS	Sn	07 16 09.8	+1.6
RCDM	Rinconada Maip	3.00	173	eP	Pn	07 15 35.6	+1.4
RCDM				iS	Sn	07 16 10.4	+1.5
RCDM	Rinconada Maip	3.00	173	eP	Pn	07 15 35.6	+1.4
RCDM				iS	Sn	07 16 10.4	+1.5
RCDM				AML	AML	07 16 22.5	
	comp=E,566nm,0.2s						
ANTU	Antumapu	3.10	171	eP	Pn	07 15 36.5	+0.8
ANTU				iS	Sn	07 16 12.4	+1.0
ANTU	Antumapu	3.10	171	eP	Pn	07 15 36.5	+0.8
ANTU				iS	Sn	07 16 12.4	+1.0
ANTU				AML	AML	07 16 23.8	
	comp=E,542nm,0.4s						
TACH	Talagante	3.15	175	iP	Pn	07 15 37.8	+1.4
PCH	Pirque	3.17	169	iP	Pn	07 15 38.1	+1.5
LNV	Longovilo	3.44	182	⇑iP	Pn	07 15 40.9	+0.5
CHCH	Chadas Angostu	3.45	172	eP	Pn	07 15 42.1	+1.6
CICH	Cipreses	3.87	170	iP	Pn	07 15 48.3	+2.1

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*NIED **09** 07:35:00, 43.30N×146.10E, h53^{km}, Mw3.9 Best double couple: M$_0$8.85000×10^{14} NP1:φ$_s$225.00000°, δ27.00000°, λ106.00000°. NP2:φ$_s$28.00000°, δ64.00000°, λ82.00000°.*
*ISCJB **09** 07:35:21.0±0.7, 43.41N±0.05×146.15E±0.07, h62^{km}±4^{km}, mb3.7/13, Error ellipse: s-maj=10.3km s-min=5.9km az=138.6*
*MOS **09** 07:35:20.8±2.2, 43.30N×146.20E, h62^{km}, mb4.1/5, Error ellipse: s-maj=14.3km s-min=10.1km az=98.0*
*JMA **09** 07:35:22.0±0.1, 43.34N×146.14E, h50^{km}±1^{km}, M4.3*
JMA Felt III J1.
*IDC **09** 07:35:22.7±3.0, 43.41N×146.15E, h64^{km}±27^{km}, mb3.5/13, mb1 3.6/15, mb1mx3.6/24, mbtmp3.5/15, ML3.9/2, MS3.0/3, Ms1 3.0/3, ms1mx2.7/23, Error ellipse: s-maj=36.9km s-min=18.2km az=176.0*
*SKHL **09** 07:35:22.3±0.4, 43.41N×145.91E, h78^{km}±14^{km}, mb4.7/3*
*NEIC **09** 07:35:22.1±1.4, 43.51N×146.14E, h55^{km}±14^{km}, MG4.3(JMA), Error ellipse: s-maj=16.6km s-min=14.0km az=123.0*
NEIC Recorded [3 JMA] in eastern Hokkaido.

ISC 09 07:35:21.9±0.7, 4339N±005×14616E±007, h54^{km}±4^{km}, n45, σ0^{s}88/57, mb3.7/13, 1C-2D, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.30	265	P	Pn	07 35 31.0	-0.4
NEM2				eS	Sn	07 35 37.4	-0.9
YUK	Yuzh-Kuril'sk	0.68	341	⇓iPN	Pn	07 35 34.7	-0.8
YUK				iS	Sn	07 35 44.2	-1.2
YUK				pmax	pmax		
	comp=Z,4µm,0.8s						
YUK				pmax	pmax		
	comp=N,1µm,0.3s						
YUK				pmax	pmax		
	comp=E,920nm,0.3s						
YUK				pmax	pmax		
	comp=Z,2µm,0.3s						
YUK				smax			
	comp=N,59µm,0.6s						
YUK				smax			
	comp=E,20µm,0.6s						
YUK				smax			
	comp=N,14µm,0.4s						
YUK				smax			
	comp=E,9µm,0.2s						
YUK	Yuzh-Kuril'sk	0.68	341	iP	Pn	07 35 34.7	-0.8
YUK				AMB	AMB	07 35 35.4	
	comp=E,4µm,0.8s						
YUK				AMB	AMB	07 35 36.2	
	comp=E,1µm,0.3s						
YUK				AMB	AMB	07 35 36.2	
	comp=E,920nm,0.3s						
YUK				AMB	AMB	07 35 36.2	
	comp=E,2µm,0.3s						
YUK				iS	Sn	07 35 44.2	-1.2
YUK				A		07 35 48.0	
	comp=E,59µm,0.6s						
YUK				A		07 35 48.0	
	comp=E,20µm,0.6s						
YUK				A		07 35 48.3	
	comp=E,14µm,0.4s						
YUK				A		07 35 48.3	
	comp=E,9µm,0.4s						
JRA	Rausu	0.93	306	P	Pn	07 35 39.1	+0.4
JRA				eS	Sn	07 35 51.7	+0.5
JNK	Nakash	1.07	281	P	Pn	07 35 40.4	-0.1
JNK				eS	Sn	07 35 53.9	-0.5
JAK	Akkeshi	1.14	250	P	Pn	07 35 41.2	-0.3
JAK				eS	Sn	07 35 55.4	-0.8
JTKR	Abashiri--Toko	1.73	290	P	Pn	07 35 50.7	+1.1
JAR	Ashorobuto	1.75	268	P	Pn	07 35 50.3	+0.6
JAR				eS	Sn	07 36 11.5	+0.7
JOB	Onbets	1.77	255	P	Pn	07 35 50.2	+0.1
JOB				eS	Sn	07 36 11.3	-0.1
KUR	Kuril'sk	2.21	33	⇓iPN	Pn	07 35 57.8	+1.7
KUR				iS	Sn	07 36 22.6	+0.4
KUR				pmax	pmax		
	comp=Z,150nm,0.5s						
KUR				smax			
	comp=N,890nm,0.6s						
KUR				smax			
	comp=E,460nm,0.6s						
KUR	Kuril'sk	2.21	33	iP	Pn	07 35 57.8	+1.7
KUR				AMB	AMB	07 35 58.0	
	comp=E,150nm,0.5s						
KUR				iS	Sn	07 36 22.6	+0.4
KUR				A		07 36 30.0	
	comp=E,890nm,0.6s						
KUR				A		07 36 30.0	
	comp=E,460nm,0.6s						
ERM	Erimo	2.61	239	ePn	Pn	07 36 04.7	+3.2
ERM	Erimo	2.61	239	iPN	Pn	07 36 04.2	+2.7
ASAJ	Asahikawa	2.68	287	P	Pn	07 36 04.7	+2.2
	comp=E,23nm,0.3s,baz=109,slow=12,SNR=34						
ASAJ				S	Sn	07 36 40.8	+7.0
	comp=E,13nm,0.3s,baz=209,slow=32,SNR=3.7						
YSS	Yuzh-Sakhalins	4.30	327	ePn	Pn	07 36 23.1	-1.5
YSS	Yuzh-Sakhalins	4.30	327	⇑ePN	Pn	07 36 26.0	+1.4
YSS				eS	Sn	07 37 13.0	-0.5
YSS				pmax	pmax		
	comp=Z,20nm,0.8s						
YSS				smax			
	comp=E,20nm,0.6s						
YSS	Yuzh-Sakhalins	4.30	327	eP	Pn	07 36 26.0	+1.4
YSS				AMB	AMB	07 36 27.0	
	comp=E,20nm,0.8s						
YSS				eS	Sn	07 37 13.0	-0.5
YSS				A		07 37 16.5	
	comp=E,20nm,0.6s						
MJAR	Matsushiro Arr	9.16	224	P	Pn	07 37 30.5	-0.8
	comp=E,0.4nm,0.3s,baz=326,slow=17,SNR=4.3						
MJAR				LR	LR	07 41 19.8	
	comp=E,60nm,20.1s,baz=105,slow=39						
JNU	Nakatsue	15.76	235	LR	LR	07 44 21.0	
	comp=E,33nm,21.1s,baz=232,slow=34						
HIA	Hailar	19.11	297	iP	Pn	07 39 43.3	+2.0
BILL	Bilibino	26.91	17	iP	P	07 41 02.3	+5.0
SONM	Songino Array	27.95	293	P	P	07 41 06.8	-0.1
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,70nm,18.0s						
SONM	Songino Array	27.95	293	P	P	07 41 06.8	-0.1
	comp=Z,1.4nm,0.8s,mb3.6,baz=85,slow=8.1,SNR=6.9						
SONM				LR	LR	07 53 31.8	
	comp=Z,70nm,18.0s,baz=6.2,slow=39						
TIXI	Tiksi	29.57	349	iP	P	07 41 25.3	+4.3
ZALV	Zalesovo Beam	40.64	307	P	P	07 42 55.8	-0.4
ZALV				PcP	PcP	07 44 57.2	+0.1
ZALV	Zalesovo Beam	40.64	307	P	P	07 42 55.8	-0.4
	comp=Z,0.3nm,0.3s,mb3.4,baz=96,slow=10,SNR=2.7						
ZALV				PcP	PcP	07 44 57.2	+0.1
	comp=Z,1.1nm,0.6s,baz=83,slow=2.5,SNR=5.9						
ZAL	Zalesovo	40.66	307	P	P	07 42 55.8	-0.5
ZAL						07 44 57.2	
MKAR	Makanchi Array	44.11	298	P	P	07 43 24.0	-0.5
MKAR						07 45 08.2	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	Makanchi Array	44.11	298	P	P	07 43 23.9	-0.6
	comp=Z,0.5nm,0.6s,mb3.4,baz=80,slow=8.8,SNR=9.7						
MKAR				PcP	PcP	07 45 08.2	-0.5
	comp=Z,0.5nm,0.8s,baz=52,slow=2.4,SNR=3.1						
KURK	Kurchatov	45.13	304	iP	P	07 43 36.9	+4.3
INK	Inuvik	47.08	30	P	P	07 43 46.8	-0.8
INK				pmax	pmax		
	comp=Z,1.0nm,0.4s						
INK	Inuvik	47.08	30	P	P	07 43 46.8	-0.9
	comp=Z,0.5nm,0.4s,mb3.8,baz=305,slow=6.9,SNR=11						
YKA	Yellowknife Ar	56.50	33	P	P	07 44 57.4	-0.4
YKA	Yellowknife Ar	56.50	33	P	P	07 44 57.4	-0.4
	comp=Z,0.4nm,0.5s,mb3.7,baz=300,slow=6.8,SNR=9.0						
AKTK	Aktyubinsk	57.22	311	P	P	07 45 02.9	-0.2
AKTO	Aktyubinsk	57.22	311	P	P	07 45 02.9	-0.2
	comp=Z,0.3nm,0.3s,mb3.8,baz=57,slow=13,SNR=3.6						
FINES	FINESS Array B	64.87	333	P	P	07 45 54.3	-0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	64.87	333	P	P	07 45 54.3	-0.5
	comp=Z,1.2nm,0.5s,mb4.2,baz=47,slow=9.0,SNR=10						
NVAR	Mina Array Bea	68.38	57	P	P	07 46 17.7	+0.1
	comp=Z,0.1nm,0.3s,mb3.3,baz=350,slow=4.9,SNR=2.5						
NOA	NORSAR Array B	69.67	338	P	P	07 46 25.1	-0.1
	comp=Z,0.4nm,0.6s,mb3.5,baz=107,slow=2.8,SNR=2.6						
AKASG	Malin Array Be	71.44	323	P	P	07 46 34.7	-1.4
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	71.44	323	P	P	07 46 34.7	-1.4
	comp=Z,0.8nm,0.4s,mb4.0,baz=38,slow=5.9,SNR=5.4						
BRTR	Keskin Array B	77.27	313	P	P	07 47 10.7	+0.6
	comp=Z,0.4nm,0.5s,mb3.6,baz=45,slow=4.3,SNR=3.2						
SCHQ	Schefferville	78.20	19	P	P	07 47 14.8	-0.3
	comp=Z,1.9nm,0.8s,mb4.1,baz=263,slow=14,SNR=5.4						
TXAR	Lajitas Array	83.45	56	P	P	07 47 44.3	+0.7
	comp=Z,0.3nm,0.8s,mb3.4,baz=302,slow=2.0,SNR=3.3						

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*IDC **09** 07:51:41.9±6.0, 30.18S×177.78W, h0^{km}, mb3.7/2, mb1 3.9/2, mb1mx3.7/11, mbtmp3.7/2, Error ellipse: s-maj=232.1km s-min=58.2km az=150.0*
*ISCJB **09** 07:51:54.0±2.0, 29.0S±0.5×179.7W±0.3, h10^{km}, mb4.1/4, Error ellipse: s-maj=80.3km s-min=29.2km az=164.1*
*NEIC **09** 07:51:55.2±1.6, 28.95S×179.62W, h10^{km}, mb4.2/1, Error ellipse: s-maj=65.0km s-min=24.0km az=164.0*

ISC 09 07:51:55.6±2.0, 289S±05×1797W±03, h10^{km}, n6, σ0^{s}66/5, mb4.1/4, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	33.42	255	P	P	07 58 34.1	-0.5
	0.8nm,0.6s,mb3.9,baz=94,slow=13,SNR=4.0						
PMG	Port Moresby	36.67	295	eP	P	07 59 02.4	-0.3
	3.0nm,0.6s,mb4.3						
WB2	Warramunga Arr	42.59	271	eP	P	07 59 51.9	-0.1
WRA	Warramunga Arr	42.60	271	P	P	07 59 53.0	+0.9
	0.5nm,0.5s,mb3.5,baz=112,slow=8.0,SNR=6.7						
ISCO	Idaho Springs	96.97	48	eP	P	08 05 27.3	0.0
	3.2nm,0.8s,mb4.8						
FINES	FINESS Array B	143.27	340	PKPbc	PKPdf	08 11 19.1	-10
	1.1nm,0.8s,baz=54,slow=3.3,SNR=4.0						

JMA 09 07:57:00.7±0.2, 4365N×14789E, h20^{km}, M3.7, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	1.59	260	P	Pn	07 57 28.5	+0.9
NEM2				eS	Sn	07 57 48.5	+0.9
JRA	Rausu	2.02	279	P	Pn	07 57 34.5	+0.9
JRA				eS	Sn	07 57 59.6	+1.3
JNK	Nakash	2.30	269	P	Pn	07 57 38.2	+0.7
JNK				eS	Sn	07 58 05.9	+0.7
JAK	Akkeshi	2.42	255	P	Pn	07 57 40.2	+1.1
JAK				eS	Sn	07 58 09.2	+1.1
JTKR	Abashiri--Toko	2.90	278	P	Pn	07 57 46.9	+1.2
JAR	Ashorobuto	3.02	265	P	Pn	07 57 49.1	+1.8
JAR				eS	Sn	07 58 24.8	+1.9
JCH	Churui	3.47	254	P	Pn	07 57 55.1	+1.6
JCH				eS	Sn	07 58 35.2	+1.2
JNBK	Urakawa-nobuka	4.01	252	P	Pn	07 58 02.3	+1.3
JNBK				eS	Sn	07 58 47.5	+0.2
JKB	Kayabe	5.35	253	eS	Sn	07 59 19.4	-0.8
JOT	Ohata	5.54	248	eS	Sn	07 59 23.2	-1.8

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*ISCJB **09** 07:59:30.6±0.7, 38.43N±0.04×39.08E±0.04, h2^{km}±6^{km}, Error ellipse: s-maj=6.5km s-min=4.1km az=148.1*
*CSEM **09** 07:59:30.2±0.1, 38.44N×39.05E, h5^{km}, MD3.6, Error ellipse: s-maj=2.0km s-min=1.5km az=161.0*
*ISK **09** 07:59:30.1, 38.44N×39.05E, h4^{km}, MD3.6*

ISC 09 07:59:31.3±0.6**, 38.44N**±0.03×**39.07E**±0.04**, h3**^{km}±5^{km}**, n44, σ0^{s}.94**/49**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.09	312	*i* P	Pg	07 59 33.9	+0.7
ELZG				*i* S	Sg	07 59 42.5	+8.0
MYA	Malataya	0.52	258	*i* PG	Pg	07 59 41.0	-0.3
MYA	Malataya	0.52	258	*i* Pg	Pg	07 59 41.0	-0.3
PTK	Pertek	0.52	29	*i* PG	Pg	07 59 40.6	-0.7
PTK				*i* SG	Sg	07 59 48.9	+0.8
PTK	Pertek	0.52	29	*i* Pg	Pg	07 59 40.6	-0.7
PTK				*i* Sg	Sg	07 59 48.9	+0.8
MALT	Malatya	0.52	257	*i* PG	Pg	07 59 40.3	-1.0
MALT				*i* SG	Sg	07 59 47.8	-0.3
MALT	Malatya	0.52	257	*i* Pg	Pg	07 59 40.3	-1.0
MALT				*i* Sg	Sg	07 59 47.8	-0.3
URFA	Urfa	1.01	191	PG	Pg	07 59 50.3	-0.4
URFA	Urfa	1.01	191	*e*Pg	Pg	07 59 50.3	-0.4
DIY	Diyarbakir	1.06	120	PG	Pg	07 59 51.1	-0.5
DIY	Diyarbakir	1.06	120	*e*Pg	Pg	07 59 51.1	-0.5
ATAB	Bozova	1.14	213	*i* P	Pg	07 59 53.6	+0.4
ATAB				*i* S	Sg	08 00 09.3	+1.2
BINT	Bingol	1.19	68	PN	Pn	07 59 53.1	-1.8
BINT	Bingol	1.19	68	*e*Pn	Pn	07 59 53.1	-1.8
EZC	Erzincan	1.43	24	PN	Pn	07 59 56.0	-2.2
GZT	Gaziantep	1.61	228	*i* P	Pn	07 59 59.6	-1.0
MARD	Mardin	1.75	129	*i* P	Pn	08 00 01.7	-0.8
BTMT	Batman	1.92	97	PN	Pn	08 00 02.9	-1.9
GAZ	Gaziantep	1.94	230	PN	Pn	08 00 05.2	+0.1
GAZ	Gaziantep	1.94	230	*e*Pn	Pn	08 00 05.2	+0.1
GUMT	Gumushane	2.05	9	PN	Pn	08 00 06.8	+0.2
GUMT	Gumushane	2.05	9	*e*Pn	Pn	08 00 06.8	+0.2
EZM	Erzurum	2.31	50	PN	Pn	08 00 10.4	+0.2
ERZM	Erzurum	2.31	50	*i* P	Pn	08 00 11.3	+1.1
BNN	Bunyan	2.56	280	*e*PN	Pn	08 00 14.3	+0.7
BNN	Bunyan	2.56	280	*e*Pn	Pn	08 00 14.3	+0.7
TOKT	Tokat	2.72	315	PN	Pn	08 00 15.5	-0.3
TOKT	Tokat	2.72	315	*e*Pn	Pn	08 00 15.5	-0.3
KOZT	Kozan	2.74	251	*e*PN	Pn	08 00 15.4	-0.7
SIRT	Sirnak	2.82	108	*e*PN	Pn	08 00 18.3	+1.1
SIRT	Sirnak	2.82	108	*e*Pn	Pn	08 00 18.3	+1.1
YOZ	Yozgat	3.16	294	*e*PN	Pn	08 00 22.9	+1.0
YOZ	Yozgat	3.16	294	*e*Pn	Pn	08 00 22.9	+1.0
AGRB	Hanur-Agry	3.26	68	*e*PN	Pn	08 00 23.8	+0.5
AGRB	Hanur-Agry	3.26	68	*e*Pn	Pn	08 00 23.8	+0.5
HTY	Hatay	3.29	226	*e*PN	Pn	08 00 23.6	-0.1
HTY	Hatay	3.29	226	*e*Pn	Pn	08 00 23.6	-0.1
NIG	Nigde	3.53	266	*e*PN	Pn	08 00 27.5	+0.6
NIG	Nigde	3.53	266	*e*Pn	Pn	08 00 27.5	+0.6
CUKT	Cukurca	3.78	107	*e*PN	Pn	08 00 32.1	+1.7
CUKT	Cukurca	3.78	107	*e*Pn	Pn	08 00 32.1	+1.7
HKR	Hakkari	3.79	102	*e*PN	Pn	08 00 31.6	+1.1
HKR	Hakkari	3.79	102	*e*Pn	Pn	08 00 31.6	+1.1
MSL	Mosul	3.85	123	*e*Pn	x	08 00 36.0	
MSL				*e*Sn	x	08 01 33.0	

*NEIC **09** 08:20:03.6, 29.27S×69.39W, h102^{km}, MG4.3(GUC), After GUC.*

GUC 09 08:20:03.6±1.3**, 29.27S×69.39W, h102**^{km}±84^{km}**, ML4.3, 2C-4D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LCO	Las Campanas	1.17	282	*e*Pn	Pn	08 20 27.7	+1.6
LCO				*e*Sn	Sn	08 20 44.5	+1.4
VACH	Vallenar	1.38	300	⇓*i*P	Pn	08 20 29.6	+1.1
VACH				*i* S	Sn	08 20 47.7	+0.3
VACH	Vallenar	1.38	300	⇓*i*P	Pn	08 20 29.6	+1.1
VACH				*i* S	Sn	08 20 47.7	+0.3
VACH				AML	AML	08 20 49.0	
	comp=N,11µm,0.1s						
TLL	Tololo Astrono	1.52	234	P	Pn	08 20 32.3	+2.1
TLL				*i* S	Sn	08 20 52.1	+1.7
TLL	Tololo Astrono	1.52	234	⇑*i*P	Pn	08 20 32.3	+2.1
TLL				*i* S	Sn	08 20 52.1	+1.7
TLL				AML	AML	08 20 54.4	
	comp=N,1µm,0.5s						
CPCH	Copiapo	2.08	336	⇑*i*P	Pn	08 20 37.4	+0.1
CPCH				*i* S	Sn	08 21 02.0	-1.1
CMCH	Combarbala	2.35	216	⇓*i*P	Pn	08 20 41.5	+0.6
CMCH				*i* S	Sn	08 21 10.1	+0.7
CMCH	Combarbala	2.35	216	⇓*i*P	Pn	08 20 41.5	+0.6
CMCH				*i* S	Sn	08 21 10.1	+0.7
CMCH				AML	AML	08 21 11.6	
	comp=E,4µm,0.7s						
CDCH	Caldera	2.53	330	*e*P	Pn	08 20 43.4	+0.2
CDCH				*i* S	Sn	08 21 10.6	-2.9
CHNG	Los Chungos	3.18	214	*i* P	Pn	08 20 41.5	-10
CHNG				*i* S	Sn	08 21 17.1	-12
PEL	Peldehue	4.02	196	*e*P	Pn	08 21 03.7	+0.7
FCH	Farellones	4.12	191	*e*P	Pn	08 21 06.8	+2.5
CEN1	Los Morros	5.90	353	*e*P	Pn	08 21 23.8	-4.8

*NEIC **09** 08:29:52.4, 37.91S×176.24E, h172^{km}, MG3.9(WEL), After WEL.*

WEL 09 08:29:51.5±0.5**, 37.90S×176.28E, h182**^{km}±4^{km}**, ML3.9**/18**, Error ellipse: s-maj=5.6km s-min=5.2km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.75	119	P	Pn	08 30 17.5	-0.2
URZ	Urewera	0.75	119	PN	Pn	08 30 17.5	-0.2
URZ				SN	Sn	08 30 37.6	-0.2
MWZ	Matawai	1.08	114	P	Pn	08 30 20.3	+0.4
MWZ				S	Sn	08 30 41.9	0.0
MWZ	Matawai	1.08	114	PN	Pn	08 30 20.3	+0.4
MWZ				SN	Sn	08 30 41.9	+0.1
BKZ	Black Stump Fm	1.28	173	P	Pn	08 30 21.6	0.0
BKZ				S	Sn	08 30 43.2	-1.8
BKZ	Black Stump Fm	1.28	173	PN	Pn	08 30 21.6	+0.1
BKZ				SN	Sn	08 30 43.2	-1.8
OTVZ	Oturere	1.36	201	PN	Pn	08 30 22.8	+0.6
OTVZ				SN	Sn	08 30 47.4	+1.3
NGZ	Ngauruhoe	1.39	202	P	Pn	08 30 23.4	+0.9
NGZ	Ngauruhoe	1.39	202	PN	Pn	08 30 23.4	+0.9
WPVZ	Whakapapa	1.43	203	P	Pn	08 30 23.2	+0.3
WPVZ	Whakapapa	1.43	203	PN	Pn	08 30 23.2	+0.3
TUVZ	Tukino	1.46	199	PN	Pn	08 30 23.7	+0.6
TRVZ	Turoa	1.52	202	PN	Pn	08 30 24.4	+0.7
WNVZ	Wahianoa	1.53	200	P	Pn	08 30 24.0	+0.2
WNVZ	Wahianoa	1.53	200	PN	Pn	08 30 24.0	+0.2
MOVZ	Moawhango	1.57	195	P	Pn	08 30 23.8	-0.4
MOVZ	Moawhango	1.57	195	PN	Pn	08 30 23.8	-0.3
KNZ	Kokohu	1.57	136	*e*P	Pn	08 30 24.7	+0.5
KNZ	Kokohu	1.57	136	PN	Pn	08 30 24.7	+0.5
PUZ	Puketiti	1.57	97	*e*P	Pn	08 30 24.3	0.0
PUZ	Puketiti	1.57	97	PN	Pn	08 30 24.3	+0.1
PKVZ	Pokaka	1.57	207	PN	Pn	08 30 24.4	+0.2
MTVZ	Mangateitei	1.62	203	PN	Pn	08 30 24.9	+0.3
TSZ	Takapari Road	2.18	186	P	Pn	08 30 29.9	-0.6
TSZ	Takapari Road	2.18	186	PN	Pn	08 30 29.9	-0.7
PXZ	Pawanui	2.18	168	PN	Pn	08 30 30.5	-0.1
BFZ	Birch Farm	2.78	181	P	Pn	08 30 36.2	-1.3
BFZ	Birch Farm	2.78	181	PN	Pn	08 30 36.2	-1.3
MRZ	Mangatainoka R	2.82	191	P	Pn	08 30 36.3	-1.6
MRZ	Mangatainoka R	2.82	191	PN	Pn	08 30 36.3	-1.6
TIWZ	Tintock	2.90	186	PN	Pn	08 30 37.4	-1.5
MTW	Mount Morrison	3.31	190	P	Pn	08 30 41.6	-2.4
MTW	Mount Morrison	3.31	190	PN	Pn	08 30 41.6	-2.3
CAW	Cannon Point	3.34	196	P	Pn	08 30 42.1	-2.2
CAW	Cannon Point	3.34	196	PN	Pn	08 30 42.1	-2.2
TRWZ	Traveller	3.53	187	PN	Pn	08 30 44.4	-2.2
PAWZ	Paruwai Farm	3.54	190	P	Pn	08 30 44.3	-2.5
PAWZ	Paruwai Farm	3.54	190	PN	Pn	08 30 44.3	-2.5
MRW	Makara Radio	3.55	200	P	Pn	08 30 44.3	-2.6
MRW	Makara Radio	3.55	200	PN	Pn	08 30 44.3	-2.6
WEL	Wellington	3.58	199	P	Pn	08 30 44.5	-2.8
WEL	Wellington	3.58	199	PN	Pn	08 30 44.5	-2.8
MSWZ	Moikau Station	3.60	192	P	Pn	08 30 44.9	-2.7
MSWZ	Moikau Station	3.60	192	PN	Pn	08 30 44.9	-2.6
SNZO	South Karori	3.62	199	P	Pn	08 30 44.9	-2.9
SNZO	South Karori	3.62	199	PN	Pn	08 30 44.9	-2.9
TCW	Tory Channel	3.66	204	PN	Pn	08 30 45.5	-2.7
BHW	Baring Head	3.67	197	P	Pn	08 30 45.5	-2.9
BHW	Baring Head	3.67	197	PN	Pn	08 30 45.5	-2.9
TUWZ	Tuamarina	3.96	206	PN	Pn	08 30 49.3	-2.8
BSWZ	Blackbirch Sta	4.24	205	*e*P	Pn	08 30 52.8	-2.8
KHZ	Kahutara	4.98	204	*e*P	Pn	08 31 01.8	-3.3
DSZ	Denniston Nort	5.16	220	*e*P	Pn	08 31 05.3	-2.2
LTZ	Lake Taylor	5.76	211	*e*P	Pn	08 31 11.4	-3.9
MQZ	McQueen's Vall	6.42	204	*e*P	Pn	08 31 18.7	-5.2
ODZ	Otahua Downs	8.30	209	*e*P	Pn	08 31 44.2	-4.3

*CSEM **09** 08:43:20.3±0.1, 38.44N×39.06E, h10^{km}, MD3.0, Error ellipse: s-maj=1.9km s-min=1.5km az=160.0*
*ISK **09** 08:43:20.4, 38.44N×39.06E, h10^{km}, MD3.1*
*ISCJB **09** 08:43:21.0±0.5, 38.44N±0.03×39.06E±0.04, h11^{km}±4^{km}, Error ellipse: s-maj=6.2km s-min=4.0km az=145.0*
*DDA **09** 08:43:22.7, 38.37N×39.12E, h4^{km}±4^{km}, Md3.0*

ISC 09 08:43:21.6±0.5**, 38.42N**±0.03×**39.07E**±0.04**, h12**^{km}±4^{km}**, n25, σ1^{s}.10**/35**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.11	320	*i* P	Pg	08 43 23.9	-0.6
ELZG				*i* S	Sg	08 43 28.5	+1.9
MYA	Malataya	0.52	260	*i* PG	Pg	08 43 30.8	-0.8
MYA	Malataya	0.52	260	*i* Pg	Pg	08 43 30.8	-0.8
MALT	Malatya	0.52	259	*i* PG	Pg	08 43 30.6	-1.1
MALT				*i* SG	Sg	08 43 38.4	-0.1
MALT	Malatya	0.52	259	*i* Pg	Pg	08 43 30.6	-1.1
MALT				*i* Sg	Sg	08 43 38.4	-0.1
PTK	Pertek	0.54	28	PG	Pg	08 43 30.6	-1.5
PTK				SG	Sg	08 43 39.4	+0.2
PTK	Pertek	0.54	28	*e*Pg	Pg	08 43 30.6	-1.5
PTK				*e*Sg	Sg	08 43 39.4	+0.2
URFA	Urfa	0.99	192	PG	Pg	08 43 40.5	-0.2
URFA	Urfa	0.99	192	*e*Pg	Pg	08 43 40.5	-0.2
DIY	Diyarbakir	1.05	119	PG	Pg	08 43 41.0	-0.7
DIY	Diyarbakir	1.05	119	*e*Pg	Pg	08 43 41.0	-0.7
ATAB	Bozova	1.13	213	*i* P	Pb	08 43 42.5	-0.4
ATAB				*i* S	Sb	08 43 58.1	+0.6
BINT	Bingol	1.20	67	*e*PN	Pn	08 43 44.1	0.0
BINT	Bingol	1.20	67	*e*Pn	Pn	08 43 44.1	0.0
EZC	Erzincan	1.45	23	*e*PN	Pn	08 43 45.4	-2.2
GZT	Gaziantep	1.59	229	*i* P	Pn	08 43 51.6	+2.1
GZT				*i* S	Sn	08 44 09.8	-0.3
BNGL	BINGOL	1.71	71	*i* P	Pn	08 43 53.2	+2.0
BNGL				*i* S	Sg	08 44 19.5	+2.8
MARD	Mardin	1.74	129	*i* P	Pn	08 43 52.0	+0.4
MARD				*i* S	Sn	08 44 13.9	+0.2
BTMT	Batman	1.92	96	*e*PN	Pn	08 43 52.3	-1.7
GAZ	Gaziantep	1.93	230	*e*PN	Pn	08 43 54.9	+0.8
GAZ	Gaziantep	1.93	230	*e*Pn	Pn	08 43 54.9	+0.8
EZM	Erzurum	2.32	49	*e*PN	Pn	08 43 59.3	-0.2
GRSN	GIRESUNGRSN	2.58	346	*i* P	Pb	08 44 07.0	-0.8
GRSN				*i* S	Sg	08 44 45.2	+0.7
YOZ	Yozgat	3.17	294	*e*PN	Pn	08 44 11.8	+0.6
YOZ	Yozgat	3.17	294	*e*Pn	Pn	08 44 11.8	+0.6

*ISCJB **09** 08:47:35.1±0.8, 0.03S±0.10×123.3E±0.3, h33^{km}, mb4.2/8, Error ellipse: s-maj=38.9km s-min=11.4km az=167.0*
*NEIC **09** 08:47:37.4±0.6, 0.02N×123.43E, h35^{km}, mb3.6/1, Error ellipse: s-maj=31.0km s-min=9.1km az=75.0*
*IDC **09** 08:47:46.7±8.5, 0.25S×123.30E, h137^{km}±84^{km}, mb3.6/6, mb1 3.6/7, mb1mx3.4/18, mbtmp3.5/7, Error ellipse: s-maj=46.6km s-min=17.7km az=80.0*

ISC 09 08:47:37.4±0.8**, 0.06S**±0.10×**123.3E**±0.3**, h35**^{km}**, n13, σ1^{s}.03**/12**, mb4.2**/8**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	18.07	173	*e*P	Pn	08 51 46.8	+1.0
	4.5nm,0.9s						
FITZ	Fitzroy Crossi	18.07	173	P	Pn	08 51 46.1	+0.3
	0.2nm,0.3s,baz=36,slow=8.2,SNR=6.4						
WRA	Warramunga Arr	22.51	152	P	P	08 52 34.7	+0.6
	0.8nm,0.6s,mb3.3,baz=327,slow=11,SNR=10						
WB2	Warramunga Arr	22.52	152	*e*P	P	08 52 34.8	+0.7
CTAO	Charters Tower	30.00	133	*e*P	P	08 53 42.0	-0.9
	91nm,2.6s,mb5.0						
STKA	Stephens Creek	36.05	153	P	P	08 54 32.7	-2.9
STKA	Stephens Creek	36.05	153	P	P	08 54 32.7	-2.9
	1.0nm,0.8s,mb3.8,baz=342,slow=3.2,SNR=2.3						
MJAR	Matsushiro Arr	38.94	19	P	P	08 54 59.6	-0.4
	1.5nm,0.7s,mb3.8,baz=190,slow=9.5,SNR=4.6						
ASAJ	Asahikawa	47.21	19	P	P	08 56 08.7	+1.9
	1.5nm,0.4s,mb4.3,baz=252,slow=13,SNR=4.7						
SONM	Songino Array	49.92	345	P	P	08 56 27.5	0.0
	1.9nm,0.8s,mb4.2,baz=159,slow=9.1,SNR=11						
MKAR	Makanchi Array	58.84	328	P	P	08 57 32.0	-0.4
	1.0nm,0.3s,mb4.3,baz=127,slow=8.5,SNR=30						
MA2	Magadan	63.20	15	*e*P	P	08 58 01.3	-0.5
	4.4nm,0.8s,mb4.6						
TORD	Torodi Ar. Bea	120.75	285	PKP	PKPdf	09 06 23.4	-3.3
	0.3nm,0.6s,baz=89,slow=1.8,SNR=3.0						

*ISCJB **09** 08:51:48.8±0.6, 38.40N±0.03×39.09E±0.03, h1^{km}±5^{km}, Error ellipse: s-maj=5.4km s-min=3.4km az=149.0*
*CSEM **09** 08:51:48.8±0.1, 38.44N×39.06E, h8^{km}, MD3.8, Error ellipse: s-maj=2.1km s-min=1.3km az=175.0*
*ISK **09** 08:51:48.8, 38.45N×39.06E, h6^{km}, MD3.5*
*DDA **09** 08:51:51.0, 38.34N×39.09E, h2^{km}±3^{km}, Md3.8*

ISC 09 08:51:49.8±0.5**, 38.43N**±0.03×**39.08E**±0.03**, h3**^{km}±5^{km}**, n47, σ0^{s}.97**/58**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.10	313	*i* P	Pg	08 51 52.5	+0.6
ELZG				*i* S	Sg	08 51 57.2	+3.9
PTK	Pertek	0.53	27	*i* PG	Pg	08 51 58.9	-0.9
PTK				*i* SG	Sg	08 52 07.3	+0.6
PTK	Pertek	0.53	27	*i* Pg	Pg	08 51 58.9	-0.9
PTK				*i* Sg	Sg	08 52 07.3	+0.6
MYA	Malataya	0.53	259	*i* PG	Pg	08 51 59.5	-0.3
MYA	Malataya	0.53	259	*i* Pg	Pg	08 51 59.5	-0.3
MALT	Malatya	0.53	258	*i* PG	Pg	08 51 59.2	-0.7
MALT				*i* SG	Sg	08 52 07.0	+0.3
MALT	Malatya	0.53	258	*i* Pg	Pg	08 51 59.2	-0.7
MALT				*i* Sg	Sg	08 52 07.0	+0.3
URFA	Urfa	1.00	192	PG	Pg	08 52 08.8	-0.2
URFA	Urfa	1.00	192	*e*Pg	Pg	08 52 08.8	-0.2
DIY	Diyarbakir	1.05	120	PG	Pg	08 52 09.4	-0.4
DIY	Diyarbakir	1.05	120	*e*Pg	Pg	08 52 09.4	-0.4
ATAB	Bozova	1.14	213	*i* P	Pg	08 52 10.6	-0.9
ATAB				*i* S	Sg	08 52 26.1	-0.2
BINT	Bingol	1.19	67	PN	Pn	08 52 11.6	-1.6
BINT	Bingol	1.19	67	*e*Pn	Pn	08 52 11.6	-1.6
EZC	Erzincan	1.44	23	PN	Pn	08 52 13.9	-2.8
GZT	Gaziantep	1.61	229	*i* P	Pn	08 52 18.5	-0.4
GZT				*i* S	Sg	08 52 43.0	+1.6
BNGL	BINGOL	1.70	71	*i* P	Pn	08 52 21.6	+1.3
BNGL				*i* S	Sg	08 52 45.5	+1.1
MARD	Mardin	1.74	129	*i* P	Pn	08 52 20.2	-0.6
MARD				*i* S	Sn	08 52 43.2	-0.3
BTMT	Batman	1.91	96	PN	Pn	08 52 21.8	-1.3
GAZ	Gaziantep	1.94	230	PN	Pn	08 52 23.5	0.0
GAZ	Gaziantep	1.94	230	*e*Pn	Pn	08 52 23.5	0.0
GUMT	Gumushane	2.06	9	PN	Pn	08 52 24.2	-0.9
GUMT	Gumushane	2.06	9	*e*Pn	Pn	08 52 24.2	-0.9
EZM	Erzurum	2.31	49	PN	Pn	08 52 28.5	-0.1
BNN	Bunyan	2.57	281	*e*PN	Pn	08 52 31.7	-0.5
BNN	Bunyan	2.57	281	*e*Pn	Pn	08 52 31.7	-0.5
GRSN	GIRESUNGRSN	2.57	346	*i* P	Pn	08 52 33.5	+1.3
GRSN				*i* S	Sg	08 53 09.6	-2.8
TOKT	Tokat	2.73	315	PN	Pn	08 52 34.0	-0.4
TOKT	Tokat	2.73	315	*e*Pn	Pn	08 52 34.0	-0.4
KOZT	Kozan	2.74	251	*e*PN	Pn	08 52 34.5	-0.1
SIRT	Sirnak	2.81	108	*e*PN	Pn	08 52 36.2	+0.7
SIRT	Sirnak	2.81	108	*e*Pn	Pn	08 52 36.2	+0.7
COBT	Iskenderun	2.94	231	*i* P	Pg	08 52 45.6	-0.6
COBT				*i* S	Sg	08 53 24.5	+0.2
YOZ	Yozgat	3.17	294	*e*PN	Pn	08 52 40.7	+0.2
YOZ	Yozgat	3.17	294	*e*Pn	Pn	08 52 40.7	+0.2
AGRB	Hanur-Agry	3.26	68	*e*PN	Pn	08 52 42.3	+0.7
AGRB	Hanur-Agry	3.26	68	*e*Pn	Pn	08 52 42.3	+0.7
HTY	Hatay	3.29	226	*e*PN	Pn	08 52 42.1	0.0
HTY	Hatay	3.29	226	*e*Pn	Pn	08 52 42.1	0.0
KARA	Karaisali	3.39	251	*e*PN	Pn	08 52 43.6	+0.1
KARA	Karaisali	3.39	251	*e*Pn	Pn	08 52 43.6	+0.1
CUKT	Cukurca	3.77	107	*e*PN	Pn	08 52 50.1	+1.4
CUKT	Cukurca	3.77	107	*e*Pn	Pn	08 52 50.1	+1.4
HKR	Hakkari	3.78	102	*e*PN	Pn	08 52 49.6	+0.8
HKR	Hakkari	3.78	102	*e*Pn	Pn	08 52 49.6	+0.8
MSL	Mosul	3.84	122	*e*Pn	x	08 52 53.0	
MSL				*e*Sn	x	08 53 50.0	
CTKT	Corum	3.98	305	*i* P	Pn	08 52 53.9	+2.3
CTKT				*i* S	Sn	08 53 44.6	+5.9

*ISCJB **09** 08:57:55.1±1.6, 16.1S±0.2×174.2W±0.2, h139^{km}±21^{km}, mb4.2/9, Error ellipse: s-maj=38.9km s-min=19.7km az=141.9*
*NEIC **09** 08:57:57.6±1.4, 16.26S×174.01W, h156^{km}±25^{km}, mb4.5/6, Error ellipse: s-maj=28.1km s-min=24.2km az=99.0*
*IDC **09** 08:57:57.4±2.2, 16.25S×174.12W, h148^{km}±23^{km}, mb3.8/5, mb1 4.0/7, mb1mx3.7/17, mbtmp3.8/7, Error ellipse: s-maj=37.5km s-min=18.3km az=143.0*

ISC 09 08:57:56.2±1.6**, 16.2S**±0.2×**174.1W**±0.2**, h136**^{km}±21^{km}**, n16, σ0^{s}.86**/16**, mb4.2**/9**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	3.21	44	P	Pn	08 58 47.6	+1.8
	261nm,0.3s,baz=48,slow=2.0,SNR=371						
AFI				S	Sn	08 59 22.5	-1.5
	285nm,0.3s,baz=36,slow=22,SNR=13						
DZM	Mont Dzumac	19.28	249	P	P	09 02 11.5	+0.9
	0.3nm,0.3s,baz=59,slow=18,SNR=3.8						
URZ	Urewera	23.28	198	P	P	09 02 51.1	-0.7
	12nm,0.3s,mb4.7,baz=360,slow=2.3,SNR=22						
CNB	Canberra Magne	37.73	233	*e*P	P	09 04 59.1	+0.3
	11nm,1.1s,mb4.4						
STKA	Stephens Creek	43.05	241	*e*P	P	09 05 42.6	-0.1
	3.5nm,0.6s,mb4.2						
STKA	Stephens Creek	43.05	241	P	P	09 05 42.8	+0.1
	4.6nm,0.6s,mb4.3,baz=78,slow=8.4,SNR=15						
WB2	Warramunga Arr	49.00	258	*e*P	P	09 06 29.0	-0.5
WRA	Warramunga Arr	49.01	258	P	P	09 06 28.5	-1.1
	1.4nm,0.5s,mb3.8,baz=96,slow=7.2,SNR=31						
KAKA	Kakadu	51.78	266	*e*P	P	09 06 50.6	+0.2
	4.2nm,0.6s,mb4.2						
FORT	Forrest	54.45	244	*e*P	P	09 07 09.1	-0.7
	15nm,0.8s,mb4.8						
FITZ	Fitzroy Crossi	57.39	259	*e*P	P	09 07 31.4	+0.5
	2.6nm,0.6s,mb4.2						
FITZ	Fitzroy Crossi	57.39	259	P	P	09 07 31.0	+0.1
	1.9nm,0.9s,mb3.9,baz=157,slow=7.7,SNR=6.3						
KLBR	Kellerberrin	63.27	242	*e*P	P	09 08 10.3	-0.4
	10nm,0.7s,mb4.8						
MUN	Mundaring	64.56	242	*e*P	P	09 08 19.5	+0.4
TXAR	Lajitas Array	81.62	56	P	P	09 10 00.5	+1.0
	0.3nm,0.7s,mb3.1,baz=220,slow=8.1,SNR=5.2						
BRTR	Keskin Array B	146.36	320	PKPbc	PKPbc	09 17 19.5	-1.9
	0.3nm,0.8s,baz=63,slow=5.5,SNR=3.0						

*NIED **09** 08:58:00, 41.70N×143.80E, h32^{km}, Mw4.7 Best double couple: M$_0$1.36000×10^{16} NP1:φ$_s$216.00000°, δ24.00000°, λ110.00000°. NP2:φ$_s$15.00000°, δ67.00000°, λ81.00000°.*
*BJI **09** 08:58:36.9, 41.69N×143.67E, h28^{km}, mB4.8, mb4.7, Ms4.4, Msz4.2*
*SZGRF **09** 08:58:37.7, 40.59N×142.97E, h33^{km}, mb4.6, Near east coast of eastern Honshu, Japan*
*ISCJB **09** 08:58:38.0±0.5, 41.70N±0.03×143.77E±0.03, h34^{km}±4^{km}, mb4.6/86, MS4.1/29, Error ellipse: s-maj=6.2km s-min=3.5km az=149.1*
*MOS **09** 08:58:37.6±1.0, 41.72N×143.65E, h30^{km}, mb4.9/48, MS4.2/14, Error ellipse: s-maj=8.1km s-min=5.5km az=100.2*
*JMA **09** 08:58:38.7±0.2, 41.71N×143.85E, h48^{km}±3^{km}, M4.6*
JMA Felt I J1.
*NEIC **09** 08:58:39.1±0.2, 41.73N×143.70E, mb4.6/44, MW4.7(NIED), Error ellipse: s-maj=5.5km s-min=3.7km az=161.0*
NEIC Recorded [1 JMA] in south-central Hokkaido and in Aomori Prefecture, Honshu.
*IDC **09** 08:58:40.4±2.4, 41.67N×143.72E, h43^{km}±21^{km}, mb4.1/20, mb1 4.2/23, mb1mx4.1/27, mbtmp4.1/23, ML3.7/3, MS3.9/14, Ms1 4.0/14, ms1mx3.7/27, Error ellipse: s-maj=19.2km s-min=14.4km az=165.0*

ISC 09 08:58:39.7±0.7**, 41.76N**±0.03×**143.75E**±0.03**, h32**^{km}±4^{km}**, h32**^{km}±.7^{km}**:pP-P, n250, σ0^{s}.88**/262**, mb4.6**/86**, MS4.1**/29**, 14C-9D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ERM	Erimo	0.51	300	*e*Pn	Pn	08 58 50.6	-0.1
ERM	Erimo	0.51	300c	*i*P	Pb	08 58 50.6	+0.2
JEM	Erimo	0.51	300	⇓P	Pb	08 58 50.5	+0.1
JEM				*e*S	Sb	08 58 59.5	+1.7
JCH	Churui	0.90	342	⇑P	Pn	08 58 56.2	+0.1
JNBK	Urakawa-nobuka	0.91	305	⇑P	Pn	08 58 57.3	+1.1
JOB	Onbets	1.15	3	⇑P	Pn	08 58 59.6	+0.2
JAK	Akkeshi	1.42	29	⇑P	Pn	08 59 02.5	-0.7
JAK				*e*S	Sn	08 59 20.8	0.0
JBT2	Biratori 2	1.45	315	⇑P	Pn	08 59 03.9	+0.3
JAR	Ashorobuto	1.54	1	⇑P	Pn	08 59 04.6	-0.2
JAR				*e*S	Sn	08 59 24.0	+0.3
JFR	Furan	1.65	329	P	Pn	08 59 05.9	-0.4
ASAJ	Asahikawa	2.51	341	P	Pn	08 59 19.0	+0.9
ASAJ				pmax	pmax		
	comp=Z,15nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,4µm,19.4s						
ASAJ	Asahikawa	2.51	341	P	Pn	08 59 18.9	+0.8
	comp=Z,15nm,0.3s,baz=194,slow=13,SNR=32						
ASAJ				LR	LR	09 00 48.5	
	comp=Z,4µm,19.4s,baz=194,slow=50						
YUK	Yuzh-Kuril'sk	2.75	34	*e*P	Pn	08 59 20.5	-1.0
YUK				*i* S	Sn	08 59 53.4	-0.2
YUK				pmax	pmax		
	comp=N,320nm,0.4s						
YUK				pmax	pmax		
	comp=Z,320nm,0.4s						
YUK				smax			
	comp=N,8µm,1.0s						
YUK				smax			
	comp=N,3µm,0.6s						
YUK				smax			
	comp=E,2µm,0.5s						
KUR	Kuril'sk	4.59	39	*e*P	Pn	08 59 47.0	+0.3
KUR				*e*S	Sn	09 00 38.0	-0.8
KUR				pmax	pmax		
	comp=N,60nm,0.5s						
KUR				pmax	pmax		
	comp=E,120nm,0.5s						
KUR				pmax	pmax		
	comp=Z,170nm,0.5s						
KUR				smax			
	comp=N,300nm,0.8s						
KUR				smax			
	comp=E,490nm,0.8s						
YSS	Yuzh-Sakhalins	5.24	353	*e*Pn	Pn	08 59 55.5	-0.3
YSS	Yuzh-Sakhalins	5.24	353	P	Pn	08 59 55.2	-0.5
YSS				S	Sn	09 00 51.0	-4.0
YSS				smax			
	comp=N,50nm,0.8s						
YSS				MLR	MLR		
	comp=N,2µm,16.0s						
YSS				MLR	MLR		
	comp=Z,2µm,16.0s						
YSS				MLR	MLR		
	comp=E,1µm,15.0s						
MAJO	Matsushiro	6.76	221	*e*Pn	Pn	09 00 16.2	-0.4
MAT	Matsushiro	6.76	221	P	Pn	09 00 16.1	-0.4
MAT				*e*S	Sn	09 01 34.3	+2.0
MJAR	Matsushiro Arr	6.76	221	P	Pn	09 00 16.3	-0.2
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR				MLR	MLR		
	comp=Z,561nm,21.0s						
MJAR	Matsushiro Arr	6.76	221	P	Pn	09 00 16.3	-0.3
	comp=Z,1.2nm,0.3s,baz=32,slow=13,SNR=22						
MJAR				LR	LR	09 03 21.4	
	comp=Z,560nm,21.0s,baz=55,slow=42						
UGL	Uglegorsk	7.42	351	P	Pn	09 00 31.0	+5.5
UGL				MLR	MLR		
	comp=N,900nm,16.0s						
UGL				MLR	MLR		
	comp=E,500nm,16.0s						
UGL				MLR	MLR		
	comp=Z,1µm,16.0s						
VLA	Vladivostok	8.88	283	*e*P	Pn	09 00 43.4	-2.1
VLA				pmax	pmax		
	comp=Z,31nm,0.7s						

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HABR Khabarovsk         9.10 320 eP     Pn     09 00 55.5 +6.9
HABR                             e             09 02 40.6
JHJ  Hachijo jima 2     9.18 201  S     Sn     09 02 22.6 -9.3
     comp=Z,13nm,0.3s,baz=245,slow=23,SNR=6.5
JHJ                               LR    LR     09 04 33.8
     comp=Z,489nm,20.6s,baz=145,slow=39
MDJ  Mudanjiang        10.73 290  P     Pn     09 01 12.6 +1.7
MDJ                               AP           09 01 14.2
MDJ                               S     Sn     09 03 10.6 +0.8
MDJ                               PCP   PcP    09 07 11.1 -0.1
MDJ                               SCP   ScP    09 10 42.0 +0.9
MDJ                               AMB   AMB
     comp=Z,15nm,1.2s
MDJ                               AMB   AMB
     comp=Z,119nm,6.8s
MDJ                               LR    LR
     comp=N,146nm,10.2s
MDJ                               LR    LR
     comp=E,918nm,18.3s
MDJ                               LR    LR
     comp=Z,1µm,17.4s
MDJ  Mudanjiang        10.73 290 ePn    Pn     09 01 09.8 -1.1
     comp=Z,11nm,0.8s
KSRS Korea Array       12.94 256  P     Pn     09 01 41.8 +0.6
     comp=Z,0.2nm,0.3s,baz=70,slow=14,SNR=13
KSRS                              S     Sn     09 04 11.9 +8.0
     comp=Z,0.3nm,0.3s,baz=67,slow=24,SNR=3.4
KSRS                              LR    LR     09 06 30.2
     comp=Z,598nm,19.2s,baz=62,slow=36
CN2  Changchun         13.60 285 eP     Pn     09 01 50.1 -0.1
CN2                              eXP           09 02 03.2
CN2                               AMB   AMB
     comp=Z,10.0nm,1.2s
CN2                               LR    LR
     comp=N,500nm,16.0s
CN2                               LR    LR
     comp=E,1µm,16.0s
CN2                               LR    LR
     comp=Z,2µm,16.0s
PET  Petropavlovsk     15.09  37 ePn    Pn     09 02 10.1 -0.2
     comp=Z,8.3nm,0.8s
PET  Petropavlovsk     15.09  37 eP     Pn     09 02 10.1 -0.2
PET                               pmax  pmax
     comp=Z,8.0nm,0.8s
DL2  Dalian            17.10 268  P     Pn     09 02 35.8 -0.3
DL2                              eS     Sn     09 05 45.5 +0.3
DL2                               AMB   AMB
     comp=Z,20nm,0.9s
DL2                               LR    LR
     comp=N,170nm,13.7s
DL2                               LR    LR
     comp=E,170nm,13.3s
DL2                               LR    LR
     comp=Z,220nm,14.9s
MA2  Magadan           18.37  11 eP     Pn     09 02 49.2 -2.3
     comp=Z,6.5nm,0.6s
MA2  Magadan           18.37  11 eP     Pn     09 02 49.1 -2.4
MA2                               pmax  pmax
     comp=Z,6.0nm,0.6s
HIA  Hailar            18.37 302 eP     Pn     09 02 49.8 -2.0
     comp=Z,32nm,1.9s
HIA  Hailar            18.37 302 eP     Pn     09 02 49.8 -1.9
HIA                               pmax  pmax
     comp=Z,32nm,1.9s
CLNS Chul'man          19.36 328 eP     Pn     09 02 57.9 -5.7
CLNS                              pmax  pmax
     comp=N,9.0nm,1.1s
CLNS                              pmax  pmax
     comp=Z,22nm,1.1s
CLNS                              pmax  pmax
     comp=E,9.0nm,0.9s
BJI  Beijing           20.89 274  P     P      09 03 16.6 -2.4
BJI                               XP    sP     09 03 27.7 -4.0
BJI                               S     S      09 07 10.8 +0.8
BJI                               XS    sS     09 07 20.3 -3.5
BJI                               AMB   AMB
     comp=Z,12nm,0.9s
BJI                               LR    LR
     comp=N,261nm,17.4s,MS4.3
BJI                               LR    LR
     comp=E,983nm,15.2s,MS4.3
BJI                               LR    LR
     comp=Z,544nm,15.8s,MS4.0
BJT  Baijiatuau        20.89 274 eP     P      09 03 17.1 -2.0
     comp=Z,12nm,0.6s
BJT  Baijiatuau        20.89 274 eP     P      09 03 17.1 -2.0
BJT                               pmax  pmax
     comp=Z,12nm,0.6s
SSE  Sheshan           20.98 247 eP     P      09 03 18.1 -2.0
SSE                               AP           09 03 26.0
SSE                               XP    sP     09 03 30.2 -2.7
SSE                               S     S      09 07 09.8 -2.3
SSE                               XS    sS     09 07 22.9 -3.0
SSE                               SCS   ScS    09 14 42.3 -2.1
SSE                               AMB   AMB
     comp=Z,23nm,0.8s
SSE                               AMB   AMB
     comp=Z,73nm,3.8s
SSE                               LR    LR
     comp=N,215nm,19.2s,MS3.6
SSE                               LR    LR
     comp=E,58nm,19.3s,MS3.6
SSE                               LR    LR
     comp=Z,166nm,19.9s
SSE  Sheshan           20.98 247 eP     P      09 03 18.1 -2.0
     comp=Z,23nm,0.8s
SSE                               pP           09 03 26.0
SSE                               sP    sP     09 03 30.2 -2.7
SSE                               S     S      09 07 09.8 -2.3
SSE                               sS    sS     09 07 22.9 -3.0
SSE                               ScS   ScS    09 14 42.3 -2.1
SSE                               LR    LR
     comp=Z,170nm,19.9s
SEY  Seymchan          21.82  11⇑eP     P      09 03 25.9 -2.9
YAK  Yakutsk           21.99 342 eP     P      09 03 27.1 -3.5
     comp=Z,45nm,0.8s,mb5.0
YAK  Yakutsk           21.99 342 eP     P      09 03 26.2 -4.4
YAK                              e*PP          09 03 33.3
YAK                              eS     S      09 07 24.2 -7.0
YAK                              e*SS   sS     09 07 34.3  -11
YAK                               pmax  pmax
     comp=N,10.0nm,1.0s
YAK                               pmax  pmax
     comp=Z,35nm,1.0s,mb4.7
YAK                               pmax  pmax
     comp=E,4.0nm,0.9s
YAK                               pmax  pmax
     comp=Z,61nm,2.3s,mb4.6
YAK                               pmax  pmax
     comp=N,16nm,1.2s
YAK                               pmax  pmax
     comp=E,8.0nm,0.9s
YAK                               smax
     comp=N,44nm,1.3s
YAK                               smax
     comp=Z,47nm,2.0s
YAK                               smax
     comp=E,72nm,2.2s
YAK                               MLR   MLR
     comp=Z,478nm,16.0s,MS4.0
YAK                               MLR   MLR
     comp=N,358nm,17.0s,MS4.1
YAK                               MLR   MLR
     comp=E,461nm,16.0s,MS4.1
NJ2  Nanjing           22.07 252 eP     P      09 03 30.5 -1.3
NJ2                               AP           09 03 39.7
NJ2                               XP    sP     09 03 43.9 -0.7
NJ2                               PP           09 03 56.8
NJ2                               S     S      09 07 29.0 -4.4
NJ2                               XS    sS     09 07 44.0 -3.3
NJ2                               AMB   AMB
     comp=Z,60nm,1.1s,mb4.9
NJ2                               AMB   AMB
     comp=Z,130nm,6.5s
NJ2                               LR    LR
     comp=N,1µm,17.8s,MS4.4
NJ2                               LR    LR
     comp=E,550nm,15.6s,MS4.4
NJ2                               LR    LR
     comp=Z,550nm,16.0s,MS4.1
CIT  Chita             22.89 307 eP     P      09 03 38.5 -1.8
CIT                               pmax  pmax
     comp=Z,70nm,1.3s,mb4.9
HHC  Hu-ho-hao-te      24.13 279 eP     P      09 03 52.1 -0.3
HHC                               AP           09 04 01.4
HHC                               XP    sP     09 04 04.4 -1.2
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HHC                               PP           09 04 26.4
HHC                               S     S      09 08 04.0 -4.0
HHC                               XS    sS     09 08 18.6 -4.7
HHC                               SS           09 08 56.7
HHC                               AMB   AMB
     comp=Z,12nm,0.5s,mb4.6
HHC                               AMB   AMB
     comp=Z,111nm,6.1s
HHC                               LR    LR
     comp=N,286nm,16.7s,MS4.1
HHC                               LR    LR
     comp=E,514nm,18.4s,MS4.1
HHC                               LR    LR
     comp=Z,454nm,21.4s,MS3.9
BOD  Bodaibo           24.75 321 eP     P      09 03 54.3 -3.6
BOD                               pmax  pmax
     comp=Z,9.0nm,1.0s,mb4.2
WHN  Wuhan             26.12 254 ⇑P     P      09 04 10.0 -0.6
WHN                               AMB   AMB
     comp=Z,47nm,0.6s,mb5.2
SONM Songino Array     27.00 296  P     P      09 04 18.4  0.0
SONM                              pmax  pmax
     comp=Z,7.0nm,0.6s
SONM Songino Array     27.00 296  P     P      09 04 18.4  0.0
     comp=Z,6.5nm,0.6s,mb4.3,baz=74,slow=8.2,SNR=50
GUMO Guam              28.08 178 eP     P      09 04 27.4 -0.9
     comp=Z,236nm,1.3s,mb5.7
GUMO Guam              28.08 178 eP     P      09 04 27.4 -0.9
GUMO                              pmax  pmax
     comp=Z,236nm,1.3s,mb5.7
GUMO Guam              28.08 178  LR    LR     09 14 02.6
     comp=Z,112nm,20.2s,MS3.5,baz=33,slow=33
XAN  Xi'an             28.40 266  P     P      09 04 29.7 -1.3
XAN                               AMB   AMB
     comp=Z,4.0nm,1.0s,mb4.0
XAN                               AMB   AMB
     comp=Z,47nm,5.7s
XAN                               LR    LR
     comp=E,225nm,16.5s
XAN                               LR    LR
     comp=Z,47nm,5.7s
TLY  Talaya            28.90 304 eP     P      09 04 35.7 +0.5
     comp=Z,11nm,0.7s,mb4.7
TLY  Talaya            28.90 304 eP     P      09 04 35.8 +0.5
TLY                              e      pP     09 04 44.8 +0.2
TLY                              e             09 05 41.2
TLY                               pmax  pmax
     comp=Z,14nm,0.8s,mb4.7
TLY                               MLR   MLR
     comp=Z,627nm,19.0s,MS4.2
BILL Bilibino          28.99  17  P     P      09 04 36.0 +0.1
BILL                             e      pP     09 04 45.3 +0.1
BILL                             e             09 04 49.2
BILL                              MLR   MLR
     comp=Z,100nm,15.0s,MS3.5
ZAK  Zakamensk         29.06 301 eP     P      09 04 36.5 -0.3
ZAK                               pmax  pmax
     comp=Z,8.0nm,0.9s,mb4.5
MOY  Mondy             30.55 304 eP     P      09 04 50.0 +0.1
MOY                               pmax  pmax
     comp=Z,29nm,2.6s,mb4.7
TIXI Tiksi             30.87 351⇑eP     P      09 04 49.5 -3.0
TIXI                              pmax  pmax
     comp=Z,3.0nm,1.0s,mb4.1
TIXI                              MLR   MLR
     comp=Z,500nm,22.0s,MS4.1
LZH  Lanzhou           31.35 273 eP     P      09 04 57.5 +0.3
LZH                               AP    pP     09 05 07.2 +0.7
LZH                               XP    sP     09 05 11.0 +0.5
LZH                               PP    PP     09 06 00.7 -7.5
LZH                               AMB   AMB
     comp=Z,23nm,1.3s,mb4.8
LZH                               AMB   AMB
     comp=Z,72nm,4.9s
LZH                               LR    LR
     comp=N,576nm,13.2s
LZH                               LR    LR
     comp=Z,897nm,17.5s,MS4.5
LZH  Lanzhou           31.35 273 eP     P      09 04 57.5 +0.3
     comp=Z,23nm,1.3s,mb4.8
LZH                               pP    pP     09 05 07.2 +0.7
LZH                               sP    sP     09 05 11.0 +0.5
LZH                               PP    PP     09 06 00.7 -7.5
LZH                               LR    LR
     comp=Z,900nm,17.5s,MS4.5
LZH  Lanzhou           31.35 273 eP     P      09 04 57.5 +0.3
LZH                               *PP   pP     09 05 07.2 +0.7
LZH                               *SP   sP     09 05 11.0 +0.5
LZH                                            09 06 00.7
LZH                               pmax  pmax
     comp=Z,23nm,1.3s,mb4.8
LZH                               MLR   MLR
     comp=Z,900nm,17.5s,MS4.5
GTA  Gaotai            33.18 281 eP     P      09 05 13.3 +0.1
GTA                               AP    pP     09 05 19.1 -3.5
GTA                               XP    sP     09 05 22.2 -4.3
GTA                               PP    PP     09 06 22.9 -5.5
GTA                               PCP   PcP    09 07 56.1 +0.7
GTA                               S     S      09 10 31.3 +0.7
GTA                               XS    sS     09 10 40.9 -5.2
GTA                               PCS   PcS    09 11 41.6 +0.8
GTA                               SS    SS     09 12 31.7  -22
GTA                               AMB   AMB
     comp=Z,8.0nm,1.0s,mb4.6
GTA                               AMB   AMB
     comp=Z,87nm,6.1s
GTA                               LR    LR
     comp=N,279nm,15.7s,MS4.3
GTA                               LR    LR
     comp=E,470nm,16.8s,MS4.3
GTA                               LR    LR
     comp=Z,564nm,17.6s,MS4.3
CD2  Chengdu           33.72 264 eP     P      09 05 17.2 -0.7
CD2                               AP    pP     09 05 25.7 -1.6
CD2                               XP    sP     09 05 29.1 -2.1
CD2                               PP    PP     09 06 30.1 -4.3
CD2                               S     S      09 10 36.4 -2.6
CD2                               XS    sS     09 10 52.4 -2.2
CD2                               SS    SS     09 12 41.7  -24
CD2                               AMB   AMB
     comp=Z,20nm,0.8s,mb5.1
CD2                               AMB   AMB
     comp=Z,40nm,5.2s
CD2                               LR    LR
     comp=N,250nm,15.5s,MS4.4
CD2                               LR    LR
     comp=E,460nm,13.1s,MS4.4
CD2                               LR    LR
     comp=Z,320nm,15.4s,MS4.2
GYA  Guiyang           34.00 255  P     P      09 05 19.2 -1.2
GYA                               AP    pP     09 05 28.5 -1.3
GYA                               XP    sP     09 05 32.5 -1.2
GYA                               PCP   PcP    09 07 59.7 +1.8
GYA                               SCP   ScP    09 11 41.4 +1.2
GYA                               SCS   ScS    09 15 41.6 -0.7
GYA                               AMB   AMB
     comp=Z,10.0nm,0.9s,mb4.8
GYA                               AMB   AMB
     comp=Z,90nm,4.9s
GYA                               LR    LR
     comp=N,250nm,14.1s,MS4.4
GYA                               LR    LR
     comp=E,430nm,14.1s,MS4.4
GYA                               LR    LR
     comp=Z,480nm,14.3s,MS4.4
KMI  Kunming           37.63 257  P     P      09 05 51.2 -0.4
KMI                               AP    pP     09 05 58.7 -2.3
KMI                               XP    sP     09 06 03.8 -1.1
KMI                               S     S      09 11 39.1 -0.1
KMI                               XS    sS     09 11 54.5 -0.4
KMI                               AMB   AMB
     comp=Z,13nm,1.1s,mb4.6
KMI                               AMB   AMB
     comp=Z,84nm,4.0s
KMI                               LR    LR
     comp=N,238nm,15.3s,MS4.2
KMI                               LR    LR
     comp=E,201nm,19.7s,MS4.2
KMI                               LR    LR
     comp=Z,242nm,15.5s,MS4.1
KMI  Kunming           37.63 257  P     P      09 05 51.2 -0.4
     comp=Z,13nm,1.1s,mb4.6
KMI                               pP    pP     09 05 58.7 -2.3
KMI                               sP    sP     09 06 03.8 -1.1
KMI                               PPP          09 07 39.6
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KMI                               S     S      09 11 39.1 -0.1
KMI                               sS    sS     09 11 54.5 -0.4
KMI                               SSS          09 14 44.5
KMI                               LR    LR
     comp=Z,240nm,15.5s,MS4.1
KMI  Kunming           37.63 257  P     P      09 05 51.2 -0.4
KMI                               *PP   pP     09 05 58.7 -2.3
KMI                               *SP   sP     09 06 03.8 -1.1
KMI                               PPP          09 07 39.6
KMI                               S     S      09 11 39.1 -0.1
KMI                               *SS   sS     09 11 54.5 -0.4
KMI                               SSS          09 14 44.5
KMI                               pmax  pmax
     comp=Z,13nm,1.1s,mb4.6
KMI                               MLR   MLR
     comp=Z,240nm,15.5s,MS4.1
ZALV Zalesovo Beam     40.24 308  P     P      09 06 13.1 +0.1
     comp=Z,6.4nm,0.5s,mb4.6,baz=94,slow=8.9,SNR=16
ZALV                              PcP   PcP    09 08 16.4  0.0
     comp=Z,3.1nm,0.7s,baz=104,slow=3.1,SNR=3.9
ZAL  Zalesovo          40.25 308  P     P      09 06 13.1  0.0
ZAL                                            09 08 16.4
WMQ  Urumqi            40.52 292  P     P      09 06 17.4 +1.9
WMQ                               AP    pP     09 06 27.2 +2.2
WMQ                               XP    sP     09 06 31.2 +2.3
WMQ                               PP    PP     09 07 54.6 +5.7
WMQ                               PCP   PcP    09 08 20.4 +2.9
WMQ                              eS     S      09 12 23.8 +1.6
WMQ                               SS    SS     09 15 20.2 -2.0
WMQ                               SCS   ScS    09 16 18.3 -0.2
WMQ                               AMB   AMB
     comp=Z,19nm,0.9s,mb4.7
WMQ                               AMB   AMB
     comp=Z,14nm,7.6s
WMQ                               LR    LR
     comp=N,154nm,17.0s,MS4.4
WMQ                               LR    LR
     comp=E,473nm,18.2s,MS4.4
WMQ                               LR    LR
     comp=Z,582nm,18.2s,MS4.5
IMA2 Indian Mountai    41.72  33 eP     P      09 06 24.6 -0.5
KDAK Kodiak Island     42.44  45  P     P      09 06 30.3 -0.7
     comp=Z,1.9nm,0.5s,mb4.0,baz=285,slow=16,SNR=2.7
MK31 Makanchi Array    43.31 298 eP     P      09 06 37.7 -0.5
MKAR Makanchi Array    43.31 298  P     P      09 06 38.0 -0.2
MKAR Makanchi Array    43.31 298  P     P      09 06 38.0 -0.2
MKAR                              pmax  pmax
     comp=Z,8.0nm,0.8s
MKAR Makanchi Array    43.31 298  P     P      09 06 38.0 -0.2
     comp=Z,8.4nm,0.8s,mb4.5,baz=82,slow=9.2,SNR=96
MCK  McKinley          43.73  36 eP     P      09 06 41.7 +0.3
     comp=Z,7.5nm,1.2s,mb4.3
MCK  McKinley          43.73  36 eP     P      09 06 41.7 +0.3
MCK                               pmax  pmax
     comp=Z,7.0nm,1.2s,mb4.3
LSA  Lhasa             43.74 272  P     P      09 06 44.6 +2.7
LSA  Lhasa             43.74 272 eP     P      09 06 43.1 +1.2
     comp=Z,11nm,1.0s,mb4.5
LSA  Lhasa             43.74 272 eP     P      09 06 43.1 +1.2
LSA                               pmax  pmax
     comp=Z,11nm,1.0s,mb4.5
PMR  Palmer            43.80  40 eP     P      09 06 42.7 +0.8
     comp=Z,6.0nm,1.5s,mb4.1
PMR  Palmer            43.80  40 eP     P      09 06 42.7 +0.8
PMR                               pmax  pmax
     comp=Z,6.0nm,1.5s,mb4.1
COLA College           44.15  35 eP     P      09 06 45.4 +0.7
     comp=Z,9.9nm,0.8s,mb4.6
COLA College           44.15  35 eP     P      09 06 45.4 +0.7
COLA                              pmax  pmax
     comp=Z,10.0nm,0.8s,mb4.6
KURK Kurchatov         44.59 305 eP     P      09 06 48.0 -0.4
EGAK Eagle             47.00  34 eP     P      09 07 06.9 -0.4
     comp=Z,3.6nm,0.8s,mb4.3
EGAK                             epP    pP     09 07 15.5 -1.5
TAPN Taplejung         47.55 271 eP     P      09 07 12.9 +0.9
ODAN Odare             48.05 271 eP     P      09 07 16.6 +0.6
     comp=Z,21nm,0.8s,mb5.2
JIRN Jiri              48.52 272 eP     P      09 07 20.5 +1.0
GUN  Gumba             48.62 273 eP     P      09 07 21.0 +0.7
     comp=Z,148nm,0.8s
BRVK Borovoye          48.89 310 eP     P      09 07 22.1 +0.1
     comp=Z,14nm,1.0s,mb5.0
BRVK Borovoye          48.89 310 eP     P      09 07 22.2 +0.2
BRVK                              pmax  pmax
     comp=Z,14nm,1.0s,mb5.0
ULHL Ulahol            48.93 295  P     P      09 07 22.7 +0.1
     SNR=5.2
TKM2 Tokmak 2          49.10 296  P     P      09 07 24.5 +0.7
     SNR=18
KKN  Kakani            49.13 273 eP     P      09 07 24.6 +0.4
     comp=Z,54nm,0.8s,mb5.6
PKI  Pulchoki          49.15 273 eP     P      09 07 24.8 +0.4
DMN  Daman             49.36 273 eP     P      09 07 26.7 +0.7
     comp=Z,41nm,0.8s,mb5.5
INK  Inuvik            49.37  29 eP     P      09 07 25.8 +0.3
     comp=Z,472nm,1.0s
INK  Inuvik            49.37  29  P     P      09 07 25.8 +0.3
INK                               pmax  pmax
     comp=Z,5.0nm,0.4s
INK  Inuvik            49.37  29  P     P      09 07 25.8 +0.3
     comp=Z,5.0nm,0.4s,mb4.9,baz=295,slow=3.6,SNR=46
GKN  Gorkha            49.50 274 eP     P      09 07 27.2 +0.2
     comp=Z,31nm,0.7s,mb5.5
KBK  Karagaybulak      49.65 296  P     P      09 07 28.4 +0.4
     SNR=8.0
KZA  Kyzart            49.68 295  P     P      09 07 29.9 +1.7
     SNR=6.1
USP  Ospenovka         49.70 296  P     P      09 07 28.5 +0.1
     SNR=5.2
AAK  Ala-Archa         49.96 296 eP     P      09 07 29.2 -1.1
AAK  Ala-Archa         49.96 296⇓iP     P      09 07 29.3 -1.1
AAK                               pmax  pmax
     comp=Z,6.0nm,1.2s,mb4.5
AAK                               MLR   MLR
     comp=Z,300nm,15.0s,MS4.4
KOLN Koldanda          50.40 274 eP     P      09 07 34.2 +0.3
EKS2 Erkin-Say         50.43 296  P     P      09 07 34.4 +0.5
     SNR=9.2
AML  Almayashu         50.71 295  P     P      09 07 37.3 +1.3
     SNR=6.3
PMG  Port Moresby      51.01 176 eP     P      09 07 38.1 -0.3
     comp=Z,22nm,1.0s,mb5.0
PMG                              epP    pP     09 07 47.1 -1.1
PMG  Port Moresby      51.01 176 eP     P      09 07 38.1 -0.3
PMG                              e*PP   pP     09 07 47.1 -1.1
PMG                               pmax  pmax
     comp=Z,22nm,1.0s
DLBC Dease Lake        53.83  41 eP     P      09 07 59.6 +0.6
DLBC Dease Lake        53.83  41  P     P      09 08 00.2 +1.3
     baz=210,slow=20
ARU  Arti              54.09 317 eP     P      09 08 00.8 -0.1
     comp=Z,5.8nm,0.6s,mb4.7
ARU  Arti              54.09 317⇓iP     P      09 08 00.6 -0.3
ARU                              e             09 10 00.0
ARU                              ePPP          09 11 07.2
ARU                              eS     S      09 15 33.9 -0.9
ARU                              eSS    SS     09 19 17.0 +1.0
ARU                              eSSS          09 21 13.9
ARU                               pmax  pmax
     comp=Z,18nm,1.0s,mb5.0
AKTK Aktyubinsk        56.93 310  P     P      09 08 21.0 -0.4
AKTK                              LR    LR     09 32 12.2
AKTO Aktyubinsk        56.93 310  P     P      09 08 21.0 -0.4
     comp=Z,2.6nm,0.8s,mb4.3,baz=69,slow=6.2,SNR=8.5
AKTO                              LR    LR     09 32 12.2
     comp=Z,56nm,19.4s,MS3.7,baz=65,slow=35
KBL  Kabul             57.50 289 eP     P      09 08 24.8 -0.8
RES  Resolute Bay      57.58  16 eP     P      09 08 25.3 -0.3
     comp=Z,326nm,0.7s
RES  Resolute Bay      57.58  16 eP     P      09 08 25.3 -0.3
RES                               pmax  pmax
     comp=Z,326nm,0.7s
PRGR Permogore         57.83 326 eP     P      09 08 26.7 -0.8
PRGR                              pmax  pmax
     comp=Z,10.0nm,0.5s,mb5.1
YKA  Yellowknife Ar    58.84  32  P     P      09 08 34.2 -0.3
YKA                               LR    LR     09 37 32.3
YKA  Yellowknife Ar    58.84  32  P     P      09 08 34.2 -0.3
YKA                               pmax  pmax
     comp=Z,1.0nm,0.6s
YKA                               MLR   MLR
     comp=Z,45nm,18.5s
YKA  Yellowknife Ar    58.84  32  P     P      09 08 34.2 -0.3
     comp=Z,0.6nm,0.6s,mb3.8,baz=301,slow=6.4,SNR=8.1
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YKA				LR	LR	09 37 32.3	
	comp=Z,45nm,18.4s,MS3.6,baz=245,slow=40						
KEV	Kevo	59.68	339	*e*p	P	09 08 40.1	-0.2
	comp=Z,9.4nm,0.8s,mb4.9						
KEV	Kevo	59.68	339	*e*P	P	09 08 40.1	-0.2
KEV				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
ARCES	ARCESS Array B	60.23	339	P	P	09 08 45.3	+1.3
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ARCES				MLR	MLR		
	comp=Z,222nm,18.8s						
ARCES	ARCESS Array B	60.23	339	P	P	09 08 45.3	+1.3
	comp=Z,2.1nm,0.5s,mb4.4,baz=42,slow=7.2,SNR=13						
ARCES				LR	LR	09 39 23.9	
	comp=Z,222nm,18.8s,MS4.3,baz=5.5,slow=40						
WRA	Warramunga Arr	62.00	190	P	P	09 08 55.2	-1.4
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA				MLR	MLR		
	comp=Z,53nm,18.3s						
WRA	Warramunga Arr	62.00	190	P	P	09 08 55.2	-1.4
	comp=Z,0.9nm,0.7s,mb4.0,baz=6.6,slow=6.7,SNR=6.7						
WRA				LR	LR	09 36 32.4	
	comp=Z,53nm,18.3s,MS3.7,baz=5.0,slow=37						
JOF	Joensuu	62.66	332	*e*p	P	09 08 59.3	-1.3
	comp=Z,8.3nm,0.5s,mb5.1						
JOF	Joensuu	62.66	332	*e*P	P	09 08 59.3	-1.3
JOF				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb5.1						
KAF	Kangasniemi	64.95	333	*e*p	P	09 09 14.4	-1.2
	comp=Z,8.5nm,0.7s,mb4.9,baz=46,slow=6.1						
KAF	Kangasniemi	64.95	333	*e*P	P	09 09 14.4	-1.2
KAF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
OBN	Obninsk	65.42	323	⇓*e*P	P	09 09 18.5	-0.3
OBN				*e*	pP	09 09 27.8	-1.0
OBN						09 09 49.0	
OBN				*e*		09 18 39.9	
OBN				pmax	pmax		
	comp=Z,21nm,1.4s,mb5.0						
OBN				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.4						
FINES	FINESS Array B	65.49	332	P	P	09 09 18.7	-0.4
FINES				pmax	pmax		
	comp=Z,10.0nm,0.7s						
FINES				MLR	MLR		
	comp=Z,253nm,19.3s						
FINES	FINESS Array B	65.49	332	P	P	09 09 18.7	-0.4
	comp=Z,10nm,0.7s,mb5.0,baz=56,slow=7.0,SNR=64						
FINES				LR	LR	09 40 23.3	
	comp=Z,253nm,19.3s,MS4.4,baz=183,slow=38						
NEW	Newport	65.52	46	*e*P	P	09 09 19.7	+0.1
	comp=Z,4.6nm,1.1s,mb4.4						
NEW	Newport	65.52	46	*e*P	P	09 09 19.7	+0.1
NEW				pmax	pmax		
	comp=Z,5.0nm,1.1s						
WALA	Waterton Lakes	66.76	44	*e*P	P	09 09 28.0	+0.5
	comp=Z,14nm,1.7s,mb4.7						
FCC	Fort Churchill	68.98	28	*e*P	P	09 09 40.9	-0.4
	comp=Z,4.1nm,0.9s,mb4.4						
FCC	Fort Churchill	68.98	28	*e*P	P	09 09 40.9	-0.4
FCC				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
KIV	Kislovodsk	69.19	311	*e*P	P	09 09 42.9	0.0
	comp=Z,15nm,0.6s,mb5.1						
KIV	Kislovodsk	69.19	311	κ*e*P	P	09 09 44.3	+1.4
KIV				*e*	pP	09 09 53.5	+0.5
KIV				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
ZEI	Tsey	69.23	309	*e*P	P	09 09 42.4	-0.7
ZEI				*i*	pP	09 09 52.2	-1.0
ZEI				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
CMB	Columbia Colle	69.71	57	*e*P	P	09 09 48.0	+1.8
	comp=Z,15nm,2.0s,mb4.6						
CMB	Columbia Colle	69.71	57	*e*P	P	09 09 48.0	+1.8
CMB				pmax	pmax		
	comp=Z,15nm,2.0s,mb4.6						
HLID	Hailey	69.88	49	*e*P	P	09 09 47.8	+0.7
	comp=Z,1.4nm,0.9s,mb3.9						
BOZ	Bozeman (W)	70.10	46	*e*P	P	09 09 49.3	+0.9
	comp=Z,1.6nm,0.6s,mb4.1						
BOZ	Bozeman (W)	70.10	46	*e*P	P	09 09 49.3	+0.9
BOZ				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
NB2	NORSAR Subarra	70.53	338	P	P	09 09 50.0	-0.8
	comp=Z,2.0nm,0.8s,mb4.1,baz=35,slow=6.5						
NOA	NORSAR Array B	70.53	338	P	P	09 09 50.4	-0.4
NOA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,150nm,19.5s						
NOA	NORSAR Array B	70.53	338	P	P	09 09 50.4	-0.4
	comp=Z,4.3nm,0.8s,mb4.4,baz=35,slow=6.1,SNR=12						
NOA				LR	LR	09 44 40.0	
	comp=Z,150nm,19.5s,MS4.3,baz=0.0,slow=39						
NVAR	Mina Array Bea	70.77	55	P	P	09 09 53.7	+1.0
NVAR	Mina Array Bea	70.77	55	P	P	09 09 53.7	+1.0
	comp=Z,0.4nm,0.4s,mb3.7,baz=279,slow=7.6,SNR=4.2						
IMW	Indian Meadow	71.60	47	*e*P	P	09 09 57.5	-0.1
	comp=Z,2.9nm,0.7s,mb4.3						
AKASG	Malin Array Be	71.67	322	P	P	09 09 57.4	-0.5
AKASG				pmax	pmax		
	comp=Z,8.0nm,0.6s						
AKASG	Malin Array Be	71.67	322	P	P	09 09 57.4	-0.5
	comp=Z,7.7nm,0.6s,mb4.8,baz=43,slow=5.9,SNR=33						
AKBB	Malin Array Si	71.67	322	*e*P	P	09 09 57.5	-0.4
AKBB				*e*pP	pP	09 10 06.9	-1.0
KIEV	Kiev	71.68	322	*e*P	P	09 09 57.4	-0.5
MOOW	Moose Ponds	71.81	47	*e*P	P	09 09 59.7	+0.9
HWUT	Hardware Ranch	72.74	49	*e*P	P	09 10 05.2	+0.7
	comp=Z,2.0nm,1.1s,mb4.0						
DUG	Dugway	72.94	51	*e*P	P	09 10 05.9	+0.2
	comp=Z,0.9nm,0.7s,mb3.8						
DUG				*e*pP	pP	09 10 16.0	+0.2
DUG	Dugway	72.94	51	*e*P	P	09 10 05.9	+0.2
DUG				*e**PP	pP	09 10 16.0	+0.2
DUG				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
BW06	Boulder Array	73.11	47	*e*P	P	09 10 06.7	+0.1
	comp=Z,0.9nm,0.6s,mb3.9						
BW06				*e*pP	pP	09 10 15.8	-0.9
PDAR	Pinedale Array	73.11	47	P	P	09 10 07.0	+0.5
	comp=Z,1.0nm,0.7s,mb3.9,baz=237,slow=1.1,SNR=11						
ULM	Lac du Bonnet	74.58	35	P	P	09 10 14.1	-1.1
	comp=Z,0.8nm,0.6s,mb3.8,baz=263,slow=8.1,SNR=3.2						
SRU	San Rafael	74.98	51	*e*P	P	09 10 18.0	+0.3
	comp=Z,5.0nm,0.9s,mb4.4						
SRU				*e*pP	pP	09 10 27.9	+0.1
SRU	San Rafael	74.98	51	*e*P	P	09 10 18.0	+0.4
SRU				*e**PP	pP	09 10 27.9	+0.1
SRU				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
MALT	Malatya	75.28	308	*e*P	P	09 10 19.5	+0.1
	comp=Z,6.7nm,1.1s,mb4.5						
MALT	Malatya	75.28	308	*e*P	P	09 10 19.5	+0.1
MALT				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
PV10	Paradox Valley	76.34	51	*e*P	P	09 10 27.4	+2.0
PV10				*e*PcP	PcP	09 10 36.1	-1.0
PV01	Paradox Valley	76.77	51	*e*P	P	09 10 28.2	+0.4
BRTR	Keskin Array B	77.06	312	P	P	09 10 29.3	-0.2
BRTR						09 13 25.8	
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	77.06	312	P	P	09 10 29.2	-0.2
	comp=Z,1.3nm,0.8s,mb3.9,baz=64,slow=4.3,SNR=6.3						
BRTR				PP	PP	09 13 25.8	+3.2
	comp=Z,1.1nm,0.8s,baz=58,slow=10,SNR=6.0						
BRTR				LR	LR	09 51 42.5	
	comp=Z,84nm,20.5s,MS4.0,baz=139,slow=41						
ISCO	Idaho Springs	77.30	48	*e*P	P	09 10 30.9	+0.1
	comp=Z,2.5nm,1.1s,mb4.1						
ISCO	Idaho Springs	77.30	48	*e*P	P	09 10 30.9	+0.1
ISCO				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.0						
MORC	Moravsky Berou	77.37	328	*e*P	P	09 10 29.3	-1.7
	comp=Z,6.6nm,1.1s,mb4.5						
MORC	Moravsky Berou	77.37	328	*e*P	P	09 10 29.3	-1.7
MORC				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
CLL	Collm	77.88	331	⇓*i*P	P	09 10 33.8	0.0
	comp=Z,8.0nm,0.7s,mb4.8						
CLL				*i*	pP	09 10 43.2	-0.8
CLL	Collm	77.88	331	⇓*i*P	P	09 10 33.8	0.0
CLL				*i*	pP	09 10 43.2	-0.8
CLL				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
CLL	Collm	77.88	331	⇓*i*P	P	09 10 33.8	0.0
	comp=Z,8.0nm,0.7s,mb4.8						
CLL				*i* pP	pP	09 10 43.2	-0.8
SDCO	Great Sand Dun	78.80	49	*e*P	P	09 10 37.4	-1.7
	comp=Z,2.2nm,1.1s,mb4.0						
KHC	Kasperske Hory	79.44	329	*e*P	P	09 10 43.0	+0.6
KHC				*e*pP	pP	09 10 52.5	-0.2
GERES	GERESS Array B	79.63	329	P	P	09 10 43.2	-0.3
GERES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
GERES				MLR	MLR		
	comp=Z,210nm,19.5s						
GERES	GERESS Array B	79.63	329	P	P	09 10 43.2	-0.2
	comp=Z,1.3nm,0.8s,mb3.9,baz=46,slow=5.8,SNR=6.7						
GERES				LR	LR	09 49 56.5	
	comp=Z,210nm,19.5s,MS4.5,baz=61,slow=39						
GRA1	Grafenberg Arr	79.86	331	*e*P	P	09 10 45.6	+0.9
	comp=Z,5.0nm,0.8s,mb4.5						
GRF	Grafenberg Arr	79.86	331	*e*P	P	09 10 45.6	+0.9
GRF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
GRF	Grafenberg Arr	79.86	331	*e*P	P	09 10 45.6	+0.9
GRF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
GRF	Grafenberg Arr	79.86	331	*e*P	P	09 10 45.6	+0.9
	comp=Z,5.0nm,0.8s,mb4.5						
ANMO	Albuquerque	80.20	52	*e*P	P	09 10 47.4	+0.6
	comp=Z,1.9nm,0.9s,mb4.0						
ANMO	Albuquerque	80.20	52	*e*P	P	09 10 47.4	+0.6
ANMO				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SCHQ	Schefferville	80.30	17	P	P	09 10 47.0	0.0
SCHQ	Schefferville	80.30	17	P	P	09 10 47.0	0.0
	comp=Z,5.1nm,1.0s,mb4.4,baz=10,slow=7.8,SNR=5.7						
MMAI	Mount Meron Ar	80.68	306	P	P	09 10 50.5	+1.0
	comp=Z,1.2nm,0.4s,mb4.2,baz=45,slow=9.5,SNR=4.6						
GIVF	Givet	81.70	335	*e*P	P	09 10 55.8	+1.3
MOTA	Moosalm	81.85	330	⇑*i*P	P	09 10 55.4	0.0
	comp=Z,7.3nm,0.9s,mb4.6						
MOTA	Moosalm	81.85	330	⇑*i*P	P	09 10 55.4	0.0
	comp=Z,7.3nm,0.9s,mb4.6						
MOTA	Moosalm	81.85	330	⇑*i*P	P	09 10 55.4	0.0
MOTA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
FETA	Feichten	82.26	330	⇑*i*P	P	09 10 58.0	+0.5
	comp=Z,6.9nm,1.0s,mb4.5						
HAU	Haudompre	83.01	333	*e*P	P	09 11 01.9	+0.5
HAU				*e*MLR	MLR		
	comp=Z,182nm,21.2s,MS4.1						
HAU	Haudompre	83.01	333	*e*P	P	09 11 01.9	+0.5
HAU				MLR	MLR		
	comp=Z,180nm,21.3s,MS4.4						
CABF	La Chapelle	84.30	332	*e*P	P	09 11 08.8	+0.8
	comp=Z,34nm,1.2s,mb5.0						
CABF	La Chapelle	84.30	332	*e*P	P	09 11 08.8	+0.8
	comp=Z,17nm,1.2s,mb5.0						
CABF	La Chapelle	84.30	332	*e*P	P	09 11 08.8	+0.8
CABF				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
LOR	Lormes	84.48	334	*e*P	P	09 11 08.7	-0.3
LOR				*e*MLR	MLR		
	comp=Z,108nm,19.8s,MS3.9						
LOR	Lormes	84.48	334	*e*P	P	09 11 08.7	-0.3
LOR				MLR	MLR		
	comp=Z,110nm,19.8s,MS4.2						
PMOR	Pomariorio Ree	84.49	116	*e*T		10 44 18.9	
	comp=Z,10nm,0.2s						
WMOK	Wichita Mounta	84.71	47	*e*P	P	09 11 10.6	+0.2
	comp=Z,2.8nm,1.2s,mb4.3						
WMOK				*e*pP	pP	09 11 20.8	+0.2
WMOK	Wichita Mounta	84.71	47	*e*P	P	09 11 10.6	+0.2
WMOK				*e**PP	pP	09 11 20.8	+0.1
WMOK				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.3						
SSF	Saint Saulge	84.78	334	*e*P	P	09 11 11.0	+0.5
	comp=Z,12nm,0.9s,mb4.7						
SSF	Saint Saulge	84.78	334	*e*P	P	09 11 11.0	+0.5
	comp=Z,6.1nm,0.9s,mb4.7						
SSF	Saint Saulge	84.78	334	*e*P	P	09 11 11.0	+0.5
SSF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
LPL	La Plagne	85.01	331	*e*P	P	09 11 12.0	+0.3
LPG	La Plagne	85.02	331	*e*P	P	09 11 12.4	+0.7
	comp=Z,31nm,1.2s,mb5.0						
LPG	La Plagne	85.02	331	*e*P	P	09 11 12.4	+0.7
	comp=Z,15nm,1.2s,mb5.0						
LPG	La Plagne	85.02	331	*e*P	P	09 11 12.4	+0.7
LPG				pmax	pmax		
	comp=Z,15nm,1.2s,mb5.0						
SMF	Signal de Mont	85.04	334	*e*P	P	09 11 11.8	0.0
	comp=Z,11nm,0.8s,mb4.7						
SMF	Signal de Mont	85.04	334	*e*P	P	09 11 11.8	0.0
	comp=Z,5.7nm,0.8s,mb4.8						
SMF	Signal de Mont	85.04	334	*e*P	P	09 11 11.8	0.0
SMF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
AVF	Avril sur Loir	85.07	334	*e*P	P	09 11 12.0	+0.1
PPT	Papeete	85.20	118	*e*LR	LR	09 38 11.0	
	comp=Z,106nm,24.0s						
PPT	Papeete	85.20	118	*e*T		10 45 14.1	
	comp=Z,3.4nm,0.2s						
PPT	Papeete	85.20	118	LR	LR	09 42 08.7	
	comp=Z,115nm,21.9s,MS4.2,baz=180,slow=31						
MBDF	Montbardon	85.68	331	*e*P	P	09 11 15.4	+0.4
ORIF	Oris-en-Rattie	85.83	331	*e*P	P	09 11 16.1	+0.3
	comp=Z,7.2nm,0.7s,mb4.7						
ORIF				*e*MLR	MLR		
	comp=Z,115nm,19.0s,MS4.0						
ORIF	Oris-en-Rattie	85.83	331	*e*P	P	09 11 16.1	+0.3
	comp=Z,3.6nm,0.6s,mb4.8						
ORIF	Oris-en-Rattie	85.83	331	*e*P	P	09 11 16.1	+0.3
ORIF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.8						
LTX	Lajitas	85.84	54	*e*P	P	09 11 16.4	+0.3
	comp=Z,0.2nm,1.0s						
LTX				*e*pP	pP	09 11 26.1	-0.3
TXAR	Lajitas Array	85.84	54	P	P	09 11 16.8	+0.7
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	85.84	54	P	P	09 11 16.8	+0.7
	comp=Z,0.5nm,0.6s,mb3.9,baz=294,slow=3.2,SNR=7.7						
SBF	Sospel	86.17	330	*e*P	P	09 11 17.5	0.0
	comp=Z,22nm,0.8s,mb5.2						
SBF	Sospel	86.17	330	*e*P	P	09 11 17.5	0.0
	comp=Z,11nm,0.8s,mb5.2						
SBF	Sospel	86.17	330	*e*P	P	09 11 17.5	0.0
SBF				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.1						
VIVF	Saint-Julien-l	86.31	332	*e*P	P	09 11 18.4	+0.3
FRF	La Foret Royal	86.72	330	*e*P	P	09 11 21.8	+1.6
CAF	Calviac	87.14	334	*e*P	P	09 11 23.0	+0.8
HBAR	Harrisburg	88.34	42	*e*P	P	09 11 28.2	+0.2
HBAR				*e*pP	pP	09 11 37.8	-0.6
MCWV	Mont Chateau	89.80	32	*e*P	P	09 11 33.4	-1.5
	comp=Z,17nm,0.4s,mb5.7						
MCWV				*e*pP	pP	09 11 43.3	-1.9
CNNC	Cliffs of the	94.39	33	*e*P	P	09 11 56.1	-0.1
	comp=Z,43nm,0.3s						
TORD	Torodi Ar. Bea	115.14	319	PKP	PKiKP	09 17 16.3	-1.6
	comp=Z,0.2nm,0.5s,baz=3.3,slow=1.8,SNR=3.5						
QSPA	South Pole Qui	131.49	180	*e*PKPdf	PKPdf	09 17 47.5	+0.3
NNA	Nana	133.85	62	*e*PKPdf	PKPdf	09 17 53.1	-0.6
LPAZ	La Paz	142.66	57	PKPdf	PKPdf	09 18 09.8	+0.1
LPAZ	La Paz	142.66	57	PKIKP	PKPdf	09 18 09.8	+0.1
SIV	San Ignacio	146.59	47	PKPbc	PKPbc	09 18 16.7	-1.4
	comp=Z,1.7nm,0.8s,baz=327,slow=4.0,SNR=9.2						

MAN 09 08:58:54,7.51N×126.38E,h65^{km},mb4.5,ML3.3,MS3.2, 2C,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	0.58	192	*e*P	Pn	08 59 09.2	+2.0
MATI				*e*S	Sn	08 59 21.0	+4.2
BIPH	Bislig	0.67	359	⇑*i*P	Sn	08 59 19.3	+0.7
CGP	Cagayan de Oro	1.91	299	⇑*i*P	Pn	08 59 24.4	+0.1
CGP				*i* S	Sn	08 59 50.6	+3.1
SCPH	Surigao	2.42	339	*e*P	Pn	08 59 33.2	+2.0

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*ISCJB **09** 09:07:48.0±2.5,6.9N±0.2×72.8W±0.2,h159^{km}±28^{km}, mb3.8/10,Error ellipse: s-maj=40.5km s-min=15.3km az=136.6*

*NEIC **09** 09:07:48.9±1.6,6.90N×72.80W,h150^{km}±18^{km},mb4.1/5, Error ellipse: s-maj=24.9km s-min=8.9km az=46.0*

*IDC **09** 09:07:50.3±4.0,6.80N×73.00W,h159^{km}±32^{km},mb3.1/4, mb1 3.5/6,mb1mx3.3/19,mbtmp3.2/6,Error ellipse: s-maj=64.2km s-min=26.9km az=81.0*

ISC 09 09:07:49.0±2.5,**6.9N**±0.2×**72.8W**±0.2,**h150**^{km}±28^{km},**n15, σ0^{s}.51**/15,**mb3.8**/10,**Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	El Rosal	2.51	217	P	Pn	09 08 31.4	+1.1
	31nm,0.3s,baz=273,slow=21,SNR=171						
ROSC				S	Sn	09 09 01.6	-0.5
	71nm,0.3s,baz=90,slow=18,SNR=20						
JTS	JuntasAbangare	12.47	287	*e*Pn	Pn	09 10 40.4	-1.1
TEIG	Tepich	20.02	313	P	P	09 12 10.2	-0.1
	0.2nm,0.3s,baz=41,slow=4.5,SNR=3.4						
MIAR	Mount Ida	33.54	328	*e*P	P	09 14 14.3	-0.2
	5.3nm,1.4s,mb4.1						
LTX	Lajitas	36.65	311	*e*P	P	09 14 41.7	+0.5
	0.7nm,0.6s,mb3.5						
TXAR	Lajitas Array	36.65	311	P	P	09 14 41.2	0.0
	0.2nm,0.4s,mb3.1,baz=132,slow=8.8,SNR=6.4						
RCBR	Riachuelo	38.94	108	*e*P	P	09 14 59.8	-0.8
	14nm,1.0s,mb4.6						
SDCO	Great Sand Dun	42.70	321	*e*P	P	09 15 31.3	+0.2
	0.5nm,0.6s,mb3.3						
TRQA	Tornquist	45.83	168	*e*P	P	09 15 56.0	+0.1
	37nm,2.1s,mb4.7						
ULM	Lac du Bonnet	47.34	340	P	P	09 16 07.3	-0.2
	1.0nm,0.5s,mb3.7,baz=136,slow=8.1,SNR=5.0						
PDAR	Pinedale Array	48.21	324	P	P	09 16 14.8	+0.5
	0.2nm,0.5s,mb3.0,baz=122,slow=9.6,SNR=3.5						
GCMT	Greycliff	50.15	327	P	P	09 16 28.9	-0.1
YKA	Yellowknife Ar	63.32	340	P	P	09 18 02.0	+0.4
	0.6nm,0.5s,mb3.6,baz=133,slow=6.7,SNR=17						
ESK	Eskdalemuir	72.82	34	*e*P	P	09 19 01.1	0.0
	40nm,1.5s,mb4.9						
WRA	Warramunga Arr	150.63	241	PKPbc	PKPbc	09 27 23.8	-0.4
	0.3nm,0.5s,baz=108,slow=2.3,SNR=4.0						

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*IDC **09** 09:13:49.2±3.0,32.43N×73.91E,h0^{km},mb3.5/5,mb1 3.6/6, mb1mx3.5/22,mbtmp3.5/6,ML2.8/1,Error ellipse: s-maj=68.3km s-min=29.4km az=139.0*

ISC 09 09:13:57.2±4.5,**32.8N**±0.2×**73.8E**±0.2,**h41**^{km}±38^{km},**n7, σ1^{s}.20**/8,**mb3.5**/5,**2C,Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KK31	Karatay Array	10.60	347	⇑P	Pn	09 16 27.0	+0.5
	1.9nm,0.5s,baz=173,slow=13,SNR=25						
KK31				⇑S	Sn	09 18 23.3	-0.6
	0.8nm,0.6s,baz=179,slow=27						
MKAR	Makanchi Array	15.42	23	Pn	Pn	09 17 30.8	-0.9
	0.0nm,0.3s,baz=215,slow=14,SNR=4.8						
AKTO	Aktyubinsk	21.12	331	P	P	09 18 38.6	+0.4
	2.1nm,0.6s,mb3.7,baz=132,slow=11,SNR=11						
ZALV	Zalesovo Beam	22.56	17	P	P	09 18 54.8	+1.2
	1.3nm,0.6s,mb3.6,baz=214,slow=10,SNR=7.6						
BRTR	Keskin Array B	32.88	294	P	P	09 20 28.1	+0.9
	0.5nm,0.7s,mb3.6,baz=72,slow=9.3,SNR=3.2						
TORD	Torodi Ar. Bea	68.02	272	P	P	09 24 51.2	-1.4
	0.3nm,0.5s,mb3.5,baz=46,slow=6.2,SNR=3.0						
YKA	Yellowknife Ar	84.80	4	P	P	09 26 26.8	-0.1
	0.1nm,0.5s,mb3.2,baz=350,slow=5.3,SNR=4.4						

IDC 09 09:37:00.9±2.0,**6.65S**×**155.23E**,**h0**^{km},**mb3.5**/3,**mb1 3.7**/3, **mb1mx3.5**/12,**mbtmp3.4**/3,**Error ellipse: s-maj=86.1km s-min=38.4km az=129.0,Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	24.21	235	P	P	09 42 19.8	+0.4
	0.3nm,0.5s,baz=60,slow=9.7,SNR=6.8						
WRA				PcP	PcP	09 45 59.6	-0.7
	0.1nm,0.4s,baz=68,slow=2.7,SNR=4.5						
MKAR	Makanchi Array	83.30	319	P	P	09 49 29.8	+0.2
	0.1nm,0.5s,baz=99,slow=4.1,SNR=2.0						
YKA	Yellowknife Ar	95.92	28	P	P	09 50 29.3	-0.1
	0.1nm,0.4s,baz=270,slow=4.4,SNR=4.1						

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*NEIC **09** 09:55:27.4,16.38N×99.51W,h10^{km},MD3.7(MEX),After MEX.*

MEX 09 09:55:26.8±1.2,**16.37N**×**99.49W**,**h10**^{km}±27^{km},**MD3.7, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	Acapulco	0.64	320	*i* P	Pg	09 55 37.3	-1.9
ACX				*i* S	Sg	09 55 46.0	-1.6
CAIG	El Cayaco	1.00	312	*i* P	Pg	09 55 43.9	-2.2
CAIG				*i* S	Sg	09 55 57.7	-1.5
CAIG	El Cayaco	1.00	312	*i* P	Pg	09 55 43.9	-2.2
CAIG				*i* S	Sg	09 55 56.7	-2.5
MEIG	Mezcala	1.55	355	*i* P	Pn	09 55 50.8	-3.8
MEIG				*i* S	Sn	09 56 09.9	-4.9
PLIG	Platanillo	2.01	360	*i* P	Pn	09 55 59.9	-1.0
PLIG				*i* S	Sn	09 56 22.3	-3.7
PLIG	Platanillo	2.01	360	*i* P	Pn	09 55 59.1	-1.7
PLIG				*i* S	Sn	09 56 22.3	-3.7
UTMO	Huajuapan	2.17	48	*i* P	Pn	09 55 59.2	-3.8
UTMO				*i* S	Sn	09 56 24.2	-5.8
VHO	Vista Hermosa	2.73	75	*e*P	Pn	09 56 15.3	+4.5
VHO				*i* S	Sn	09 56 41.5	-2.4
VHO	Vista Hermosa	2.73	75	*e*P	Pn	09 56 08.3	-2.5
VHO				*i* S	Sn	09 56 41.5	-2.4
TPIG	Tehuac#an	2.88	45	*i* P	Pn	09 56 11.5	-1.3
TPIG				*i* S	Sn	09 56 43.5	-4.0
IIO	Organos	3.28	13	*i* P	Pn	09 56 21.8	+3.4

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*MOS **09** 10:06:16.6±1.3,54.22N×161.05E,h87^{km},mb4.1/6,Error ellipse: s-maj=28.1km s-min=9.5km az=71.1*

*ISCJB **09** 10:06:17.1±0.3,54.37N±0.03×160.15E±0.08,h121^{km}±3^{km}, mb4.3/16,Error ellipse: s-maj=8.5km s-min=3.1km az=20.7*

*KRSC **09** 10:06:17.6±0.7,54.37N×160.14E,h109^{km}±39^{km},ML4.0*

*IDC **09** 10:06:17.1±8.2,54.64N×159.57E,h111^{km}±76^{km},mb3.8/12, mb1 4.0/12,mb1mx3.7/24,mbtmp3.8/12,MS3.3/1, Ms1 3.2/1,ms1mx2.3/23,Error ellipse: s-maj=26.7km s-min=14.4km az=148.0*

*NEIC **09** 10:06:18.6±0.9,54.47N×159.81E,h126^{km}±11^{km},mb4.8/5, Error ellipse: s-maj=14.6km s-min=10.8km az=139.0*

ISC 09 10:06:18.3±0.3,**54.37N**±0.02×**160.11E**±0.08,**h116**^{km}±2^{km}, **n62,σ0^{s}.85**/84,**mb4.3**/16,**2C-1D,Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KII	Karymskiy	0.52	229	*i* P	Pn	10 06 35.7	-0.1
KII				*i* S	Sn	10 06 49.2	+0.3
TUMR	Tumrok	0.91	1	*i* P	Pn	10 06 39.1	+0.1
TUMR				*i* S	Sn	10 06 54.8	+0.1
MKZ	Mys Kozlova	0.96	78	*i* P	Pn	10 06 38.8	-0.7
MKZ				*i* S	Sn	10 06 54.4	-1.1
SPN	Mys Shipunski	1.28	182	*i* P	Pn	10 06 42.2	-0.6
SPN				*i* S	Sn	10 07 00.3	-1.2
NLC	Nalytchevo	1.29	201	*i* P	Pn	10 06 42.8	-0.1
NLC				*i* S	Sn	10 07 01.7	+0.1
SDLR	Sedlovina	1.32	214	*i* P	Pn	10 06 43.7	+0.5
SDLR				*i* S	Sn	10 07 02.7	+0.5
KMNR	Kamenistaya	1.39	3	*i* P	Pn	10 06 44.5	+0.5
KMNR				*i* S	Sn	10 07 04.4	+0.8
GNL	Ganaly	1.45	243	*i* P	Pn	10 06 45.0	+0.3
GNL				*i* S	Sn	10 07 05.0	+0.1
BZMR	Bezymyannaya	1.58	8	*e*P	Pn	10 06 46.9	+0.6
BZMR				*i* S	Sn	10 07 08.3	+0.7
KPT	Kopyto	1.60	2	*i* P	Pn	10 06 46.5	0.0
KPT				*i* S	Sn	10 07 07.6	-0.4
PET	Petropavlovsk	1.61	213	*e*P	Pn	10 06 46.6	0.0
PET	Petropavlovsk	1.61	213	⇑*i*PN	Pn	10 06 46.9	+0.3
PET				*e*S	Sn	10 07 08.8	+0.6
PET				pmax	pmax		
	comp=Z,140nm,0.4s						
PET				pmax	pmax		

	comp=Z,100nm,0.3s						
PET				smax			
	comp=E,800nm,1.0s						
PET				smax			
	comp=E,776nm,1.0s						
PET				smax			
	comp=N,578nm,0.8s						
PET	**Petropavlovsk**	**1.61**	**213**	*i* P	**Pn**	**10 06 46.9**	**+0.3**
PET				*i* S	**Sn**	**10 07 08.7**	**+0.5**
KOZ	**Kozyrevsk**	**1.69**	**355**	*i* P	**Pn**	**10 06 47.6**	**0.0**
KOZ				*i* S	**Sn**	**10 07 09.9**	**-0.2**
ZLN	**Zelenaya**	**1.69**	**13**	*i* P	**Pn**	**10 06 48.6**	**+1.0**
ZLN				*i* S	**Sn**	**10 07 11.3**	**+1.2**
KOZR	**Kozyr**	**1.70**	**356**	PN	**Pn**	**10 06 47.6**	**-0.1**
KOZR				S	**Sn**	**10 07 09.9**	**-0.3**
KRSR	**Krestovskiy**	**1.87**	**8**	*i* P	**Pn**	**10 06 49.6**	**-0.1**
KRSR				*e*S	**Sn**	**10 07 13.1**	**-0.7**
SRDR	**Sredinnyy**	**1.96**	**354**	*e*P	**Pn**	**10 06 50.4**	**-0.5**
SRDR				*e*S	**Sn**	**10 07 14.5**	**-1.4**
KLY	**Klyuchi**	**1.97**	**9**	*i* P	**Pn**	**10 06 51.7**	**+0.7**
KLY				*i* S	**Sn**	**10 07 16.7**	**+0.6**
RUS	**Russkaya**	**2.17**	**207**	*i* P	**Pn**	**10 06 53.3**	**-0.2**
RUS				*i* S	**Sn**	**10 07 19.5**	**-1.1**
GRL	**Gorelyy**	**2.19**	**215**	P	**Pn**	**10 06 54.8**	**+0.9**
GRL				*i* S	**Sn**	**10 07 22.0**	**+0.8**
SRKR	**Sorokina**	**2.36**	**14**	*i* P	**Pn**	**10 06 56.5**	**+0.5**
SRKR				*e*S	**Sn**	**10 07 25.2**	**+0.2**
KBTR	**Krutoberegovo**	**2.40**	**39**	P	**Pn**	**10 06 56.7**	**+0.2**
KBTR				*i* S	**Sn**	**10 07 24.6**	**-1.4**
MIPR	**Malaya Ipel'ka**	**2.91**	**225**	P	**Pn**	**10 07 03.1**	**0.0**
MA2	**Magadan**	**7.29**	**319**	*e*P	**Pn**	**10 08 01.9**	**0.0**
	comp=N,25nm,0.8s						
MA2	**Magadan**	**7.29**	**319**	*d i*PN	**Pn**	**10 08 01.5**	**-0.5**
BILL	**Bilibino**	**14.02**	**10**	⇑*e*P	**Pn**	**10 09 35.6**	**+4.2**
BILL				pmax	pmax		
	comp=Z,7.0nm,0.9s						
KLR	**Kul'dur**	**18.21**	**265**	*e*P	**P**	**10 10 18.9**	**-3.1**
TNA	**Tin City**	**19.27**	**42**	*e*P	**P**	**10 10 32.1**	**-1.3**
	comp=Z,3.0nm,0.8s						
MJAR	**Matsushiro Arr**	**23.37**	**229**	P	**P**	**10 11 15.7**	**-0.6**
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MJAR	**Matsushiro Arr**	**23.37**	**229**	P	**P**	**10 11 15.7**	**-0.5**
	comp=Z,2.3nm,0.6s,mb3.7,baz=7.4,slow=10,SNR=7.5						
KDAK	**Kodiak Island**	**26.19**	**63**	P	**P**	**10 11 40.9**	**-0.7**
	comp=Z,4.5nm,0.7s,mb4.0,baz=278,slow=7.1,SNR=3.7						
MCK	**McKinley**	**27.09**	**49**	*e*P	**P**	**10 11 49.9**	**+0.3**
PMR	**Palmer**	**27.22**	**54**	*e*P	**P**	**10 11 50.9**	**+0.1**
	comp=Z,9.8nm,1.3s,mb4.2						
PMR	**Palmer**	**27.22**	**54**	*e*P	**P**	**10 11 50.9**	**+0.1**
PMR				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.2						
COLA	**College**	**27.50**	**47**	*e*P	**P**	**10 11 52.2**	**-1.1**
INK	**Inuvik**	**32.86**	**39**	*e*P	**P**	**10 12 39.9**	**-0.5**
INK	**Inuvik**	**32.86**	**39**	P	**P**	**10 12 40.0**	**-0.4**
INK				pmax	pmax		
	comp=Z,1.0nm,0.4s						
INK	**Inuvik**	**32.86**	**39**	P	**P**	**10 12 40.0**	**-0.5**
	comp=Z,1.0nm,0.4s,mb4.0,baz=297,slow=5.5,SNR=7.4						
DLBC	**Dease Lake**	**37.28**	**55**	*e*P	**P**	**10 13 19.7**	**+1.3**
YKA	**Yellowknife Ar**	**42.22**	**44**	P	**P**	**10 13 58.9**	**-0.3**
YKA				PcP	PcP	10 15 50.1	-0.8
YKA				LR	LR	10 33 11.3	
YKA	**Yellowknife Ar**	**42.22**	**44**	P	**P**	**10 13 58.9**	**-0.3**
YKA						10 15 50.1	
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA				MLR	MLR		
	comp=Z,32nm,18.8s						
YKA	**Yellowknife Ar**	**42.22**	**44**	P	**P**	**10 13 58.9**	**-0.3**
	comp=Z,2.0nm,0.7s,mb4.0,baz=300,slow=8.3,SNR=27						
YKA				PcP	PcP	10 15 50.1	-0.8
	comp=Z,0.4nm,0.5s,baz=308,slow=3.5,SNR=7.3						
YKA				LR	LR	10 33 11.3	
	comp=Z,32nm,18.8s,baz=315,slow=38						
MKAR	**Makanchi Array**	**47.62**	**295**	P	**P**	**10 14 38.6**	**-3.6**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	**47.62**	**295**	P	**P**	**10 14 38.6**	**-3.6**
	comp=Z,0.6nm,0.6s,mb3.6,baz=56,slow=6.8,SNR=9.8						
CHMT	**Chamberlain Mo**	**52.13**	**60**	*e*P	**P**	**10 15 16.1**	**-0.1**
NVAR	**Mina Array Bea**	**55.30**	**71**	P	**P**	**10 15 41.3**	**+1.8**
	comp=Z,1.9nm,0.6s,mb4.3,baz=313,slow=6.2,SNR=17						
HWUT	**Hardware Ranch**	**56.68**	**64**	*e*P	**P**	**10 15 50.5**	**+1.2**
	comp=Z,9.7nm,1.0s,mb4.8						
PDAR	**Pinedale Array**	**56.90**	**62**	P	**P**	**10 15 51.7**	**+1.0**
	comp=Z,4.1nm,0.8s,mb4.5,baz=332,slow=2.7,SNR=32						
ULM	**Lac du Bonnet**	**57.94**	**47**	P	**P**	**10 15 57.5**	**-0.4**
	comp=Z,1.1nm,0.4s,mb4.3,baz=323,slow=7.3,SNR=6.3						
MSU	**Marysvale**	**58.59**	**67**	*e*P	**P**	**10 16 04.2**	**+1.6**
RSSD	**Black Hills**	**58.69**	**57**	*e*P	**P**	**10 16 04.0**	**+0.8**
	comp=Z,7.7nm,0.6s,mb4.9						
RSSD	**Black Hills**	**58.69**	**57**	*e*P	**P**	**10 16 04.0**	**+0.7**
RSSD				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
SRU	**San Rafael**	**59.03**	**65**	*e*P	**P**	**10 16 06.8**	**+1.1**
	comp=Z,6.8nm,0.6s,mb4.8						
SRU	**San Rafael**	**59.03**	**65**	*e*P	**P**	**10 16 06.8**	**+1.1**
SRU				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
BORG	**Borgarnes**	**61.21**	**1**	P	**P**	**10 16 17.3**	**-2.8**
	comp=Z,4.6nm,0.4s,mb4.9,baz=7.8,slow=6.0,SNR=5.9						
SCHQ	**Schefferville**	**64.51**	**28**	P	**P**	**10 16 39.9**	**-2.2**
SCHQ	**Schefferville**	**64.51**	**28**	P	**P**	**10 16 39.9**	**-2.2**
	comp=Z,2.8nm,0.8s,mb4.1,baz=326,slow=1.8,SNR=4.0						
TXAR	**Lajitas Array**	**70.13**	**67**	P	**P**	**10 17 18.6**	**+0.6**
TXAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
TXAR	**Lajitas Array**	**70.13**	**67**	P	**P**	**10 17 18.6**	**+0.6**
	comp=Z,3.3nm,0.6s,mb4.3,baz=298,slow=4.8,SNR=22						
WRA	**Warramunga Arr**	**77.25**	**205**	P	**P**	**10 17 58.9**	**-0.5**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRA	**Warramunga Arr**	**77.25**	**205**	P	**P**	**10 17 58.9**	**-0.5**
	comp=Z,1.0nm,0.5s,mb3.8,baz=19,slow=6.0,SNR=8.6						

MEX 09 10:06:56.8±0.9**, 20.54N×105.34W, h19**^{km}±42^{km}**, MD4.2, Near coast of Jalisco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANIG	**Ahuacatlan**	**0.92**	**56**	*i* P	Pb	10 07 11.5	-2.6
ANIG				*i* S	Sb	10 07 22.9	-3.0
SFJM	**Santa Fe**	**2.15**	**91**	*i* P	Pn	10 07 30.1	-1.6
SFJM				*i* S	Sn	10 07 54.7	-3.2
MAIG	**Mazatlaan**	**2.82**	**339**	*i* P	Pn	10 07 39.1	-1.7
MAIG				*i* S	Sn	10 08 11.2	-3.2
MMIG	**Aquila**	**2.93**	**140**	*i* P	Pn	10 07 39.0	-3.3
MMIG				*i* S	Sn	10 08 12.2	-4.8
ZAIG	**Zacatecas**	**3.40**	**49**	*i* P	Pn	10 07 46.6	-2.2
ZAIG				*i* S	Sn	10 08 27.1	-1.5
MEIG	**Mezcala**	**6.00**	**115**	*i* S	Sn	10 09 33.4	+0.6

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*CSEM **09** 10:25:03.0±0.2, 38.43N×39.09E, h10^{km}, MD2.5, Error ellipse: s-maj=5.5km s-min=2.8km az=132.0*
*ISK **09** 10:25:03.2, 38.42N×39.08E, h15^{km}, MD2.5*
*ISCJB **09** 10:25:04.1±1.1, 38.43N±0.09×39.1E±0.1, h18^{km}±11^{km}, Error ellipse: s-maj=19.0km s-min=7.4km az=137.5*
ISC 09 10:25:03.6±1.3**, 38.41N**±0.09×**39.1E**±0.1**, h18**^{km}±14^{km}**, n9, σ0^{s}38**/14**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.12**	**317**	*i* P	**Pg**	**10 25 07.3**	**-0.2**
ELZG				*i* S	**Sg**	**10 25 10.1**	**0.0**
MALT	**Malatya**	**0.53**	**260**	PG	**Pg**	**10 25 13.7**	**-0.5**
MALT				SG	**Sg**	**10 25 21.6**	**+0.3**
MALT	**Malatya**	**0.53**	**260**	*e*Pg	**Pg**	**10 25 13.7**	**-0.5**
MALT				*e*Sg	**Sg**	**10 25 21.6**	**+0.3**
MYA	**Malataya**	**0.53**	**261**	PG	**Pg**	**10 25 14.3**	**+0.1**
MYA	**Malataya**	**0.53**	**261**	*e*Pg	**Pg**	**10 25 14.3**	**+0.1**
PTK	**Pertek**	**0.54**	**26**	PG	**Pg**	**10 25 13.7**	**-0.6**
PTK				SG	**Sg**	**10 25 22.2**	**+0.6**
PTK	**Pertek**	**0.54**	**26**	*e*Pg	**Pg**	**10 25 13.7**	**-0.6**
PTK				*e*Sg	**Sg**	**10 25 22.2**	**+0.6**
URFA	**Urfa**	**0.99**	**192**	*e*PG	**Pg**	**10 25 23.0**	**+0.2**
URFA	**Urfa**	**0.99**	**192**	*e*Pg	**Pg**	**10 25 23.0**	**+0.2**

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*CSEM **09** 10:26:19.9, 35.36N×24.63E, h15^{km}, MD3.4/5, After ATH*
*NEIC **09** 10:26:19.9, 35.36N×24.63E, h15^{km}, MD3.5(ATH), After ATH.*
ATH 09 10:26:19.9, 35.36N×24.63E, h15^{km}±2^{km}**, MD3.5**/5**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VAM	**Vamos**	**0.35**	**278**	*e*Pb	Pg	10 26 27.5	+0.3
VAM				*e*Sb	Sg	10 26 32.7	+0.6
VAM	**Vamos**	**0.35**	**278**	*e*PB	Pg	10 26 27.5	+0.3
VAM				*e*SB	Sg	10 26 32.7	+0.6
VAM	**Vamos**	**0.35**	**278**	*e*Pb	Pg	10 26 27.5	+0.3
VAM				*e*Sb	Sg	10 26 32.7	+0.6
NPS	**Neapolis**	**0.81**	**97**	*e*Pn	Pn	10 26 34.8	-1.9
NPS	**Neapolis**	**0.81**	**97**	*e*PN	Pn	10 26 34.8	-1.9
NPS	**Neapolis**	**0.81**	**97**	*e*Pn	Pn	10 26 34.8	-1.9
XRY	**Khrisi**	**1.00**	**119**	*e*Pn	Pn	10 26 39.0	-0.3
XRY	**Khrisi**	**1.00**	**119**	*e*PN	Pn	10 26 39.0	-0.3
XRY	**Khrisi**	**1.00**	**119**	*e*Pn	Pn	10 26 39.0	-0.3
VLI	**Veliai**	**1.93**	**315**	*e*Pn	Pn	10 26 54.4	+2.3
VLI	**Veliai**	**1.93**	**315**	*e*PN	Pn	10 26 54.4	+2.3
VLI	**Veliai**	**1.93**	**315**	*e*Pn	Pn	10 26 54.4	+2.3
KARP	**Karpathos**	**2.08**	**84**	*e*Pn	Pn	10 26 56.3	+2.1
KARP	**Karpathos**	**2.08**	**84**	*e*PN	Pn	10 26 56.3	+2.1
KARP	**Karpathos**	**2.08**	**84**	*e*Pn	Pn	10 26 56.3	+2.1

ISK 09 10:32:06.6, 38.45N×39.07E, h15^{km}**, MD2.6, 1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.08**	**307**	⇓*i*P	Pg	10 32 11.0	+1.3
ELZG				*i* S	Sg	10 32 13.2	+1.5
PTK	**Pertek**	**0.51**	**29**	PG	Pg	10 32 17.0	+0.3
PTK				SG	Sg	10 32 25.0	+1.4
MYA	**Malataya**	**0.52**	**257**	PG	Pg	10 32 17.6	+0.7
MALT	**Malatya**	**0.52**	**255**	PG	Pg	10 32 16.4	-0.5
MALT				SG	Sg	10 32 25.3	+1.4
URFA	**Urfa**	**1.02**	**191**	*e*PG	Pg	10 32 27.2	+0.8

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*CSEM **09** 10:45:17.0±0.1, 38.44N×39.13E, h5^{km}, MD3.4, Error ellipse: s-maj=1.9km s-min=1.2km az=161.0*
*DDA **09** 10:45:17.8, 38.49N×39.07E, h25^{km}±1^{km}, Md3.4*
*ISK **09** 10:45:17.4, 38.45N×39.11E, h6^{km}, MD3.6*
*ISCJB **09** 10:45:18.1±0.5, 38.45N±0.03×39.10E±0.03, h6^{km}±5^{km}, Error ellipse: s-maj=5.6km s-min=3.6km az=159.0*
ISC 09 10:45:18.5±0.6**, 38.44N**±0.03×**39.12E**±0.03**, h3**^{km}±5^{km}**, n59, σ0^{s}85**/66**, 1C-2D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.12**	**298**	*i* P	**Pg**	**10 45 21.6**	**+0.7**
ELZG				*i* S	**Sg**	**10 45 26.1**	**+3.5**
PTK	**Pertek**	**0.50**	**25**	*i* PG	**Pg**	**10 45 27.7**	**-0.4**
PTK				*i* SG	**Sg**	**10 45 34.5**	**-0.1**
PTK	**Pertek**	**0.50**	**25**	*i* Pg	**Pg**	**10 45 27.7**	**-0.4**
PTK				*i* Sg	**Sg**	**10 45 34.5**	**-0.1**
MYA	**Malataya**	**0.56**	**259**	*i* PG	**Pg**	**10 45 28.7**	**-0.5**
MYA	**Malataya**	**0.56**	**259**	*i* Pg	**Pg**	**10 45 28.7**	**-0.5**
MALT	**Malatya**	**0.56**	**257**	*i* PG	**Pg**	**10 45 28.5**	**-0.7**
MALT				*i* SG	**Sg**	**10 45 36.5**	**0.0**
MALT	**Malatya**	**0.56**	**257**	*i* Pg	**Pg**	**10 45 28.5**	**-0.7**
MALT				*i* Sg	**Sg**	**10 45 36.5**	**0.0**
URFA	**Urfa**	**1.02**	**193**	PG	**Pg**	**10 45 38.4**	**+0.3**
URFA	**Urfa**	**1.02**	**193**	*e*Pg	**Pg**	**10 45 38.4**	**+0.3**
DIY	**Diyarbakir**	**1.03**	**122**	PG	**Pg**	**10 45 37.2**	**-1.0**
DIY	**Diyarbakir**	**1.03**	**122**	*e*Pg	**Pg**	**10 45 37.2**	**-1.0**
BINT	**Bingol**	**1.16**	**67**	PN	**Pn**	**10 45 40.1**	**-1.4**
BINT	**Bingol**	**1.16**	**67**	*e*Pn	**Pn**	**10 45 40.1**	**-1.4**
ATAB	**Bozova**	**1.17**	**214**	*e*P	**Pg**	**10 45 40.7**	**-0.1**
ATAB				*i* S	**Sg**	**10 45 57.2**	**+1.2**
EZC	**Erzincan**	**1.41**	**22**	PN	**Pn**	**10 45 43.3**	**-1.8**
GZT	**Gaziantep**	**1.64**	**229**	*e*P	**Pn**	**10 45 47.5**	**-0.7**
BNGL	**BINGOL**	**1.67**	**72**	⇓*e*P	**Pn**	**10 45 49.6**	**+1.0**
BNGL				*i* S	**Sg**	**10 46 18.6**	**+6.6**
MARD	**Mardin**	**1.73**	**130**	*e*P	**Pn**	**10 45 48.5**	**-0.9**
MARD				*i* S	**Sn**	**10 46 13.1**	**+1.1**
BTMT	**Batman**	**1.88**	**97**	PN	**Pn**	**10 45 49.7**	**-1.8**
GAZ	**Gaziantep**	**1.97**	**231**	PN	**Pn**	**10 45 52.1**	**-0.7**
GAZ	**Gaziantep**	**1.97**	**231**	*e*Pn	**Pn**	**10 45 52.1**	**-0.7**
GUMT	**Gumushane**	**2.04**	**8**	PN	**Pn**	**10 45 53.0**	**-0.7**
GUMT	**Gumushane**	**2.04**	**8**	*e*Pn	**Pn**	**10 45 53.0**	**-0.7**
EZM	**Erzurum**	**2.27**	**49**	PN	**Pn**	**10 45 57.5**	**+0.6**
ERZM	**Erzurum**	**2.28**	**49**	*i* P	**Pn**	**10 45 59.2**	**+2.2**
BNN	**Bunyan**	**2.60**	**280**	PN	**Pn**	**10 46 01.7**	**+0.3**
BNN	**Bunyan**	**2.60**	**280**	*e*Pn	**Pn**	**10 46 01.7**	**+0.3**
TOKT	**Tokat**	**2.74**	**314**	PN	**Pn**	**10 46 02.6**	**-0.7**
TOKT	**Tokat**	**2.74**	**314**	*e*Pn	**Pn**	**10 46 02.6**	**-0.7**
KOZT	**Kozan**	**2.77**	**251**	PN	**Pn**	**10 46 03.3**	**-0.5**
SIRT	**Sirnak**	**2.79**	**109**	PN	**Pn**	**10 46 03.7**	**-0.2**
SIRT	**Sirnak**	**2.79**	**109**	*e*Pn	**Pn**	**10 46 03.7**	**-0.2**
CEYT	**Ceyhan**	**3.03**	**243**	*e*PN	**Pn**	**10 46 06.5**	**-0.8**
CEYT	**Ceyhan**	**3.03**	**243**	*e*Pn	**Pn**	**10 46 06.5**	**-0.8**
TUTA	**Tutak**	**3.04**	**70**	*e*P	**Pn**	**10 46 07.9**	**+0.5**
YOZ	**Yozgat**	**3.19**	**293**	PN	**Pn**	**10 46 10.0**	**+0.4**
YOZ	**Yozgat**	**3.19**	**293**	*e*Pn	**Pn**	**10 46 10.0**	**+0.4**
AGRB	**Hanur-Agry**	**3.22**	**68**	*e*PN	**Pn**	**10 46 10.0**	**+0.1**
AGRB	**Hanur-Agry**	**3.22**	**68**	*e*Pn	**Pn**	**10 46 10.0**	**+0.1**
HTY	**Hatay**	**3.32**	**227**	PN	**Pn**	**10 46 11.1**	**-0.2**
HTY	**Hatay**	**3.32**	**227**	*e*Pn	**Pn**	**10 46 11.1**	**-0.2**
VANB	**Van**	**3.35**	**86**	*e*PN	**Pn**	**10 46 11.8**	**+0.1**
VANB	**Van**	**3.35**	**86**	*e*Pn	**Pn**	**10 46 11.8**	**+0.1**
KARA	**Karaisali**	**3.43**	**251**	*e*PN	**Pn**	**10 46 13.2**	**+0.4**
KARA	**Karaisali**	**3.43**	**251**	*e*Pn	**Pn**	**10 46 13.2**	**+0.4**
ARTV	**Artvin**	**3.49**	**37**	⇑*i*P	**Pn**	**10 46 15.0**	**+1.4**
NIG	**Nigde**	**3.56**	**266**	*e*PN	**Pn**	**10 46 14.5**	**-0.2**
NIG	**Nigde**	**3.56**	**266**	*e*Pn	**Pn**	**10 46 14.5**	**-0.2**
HAKT	**HAKKARI**	**3.73**	**102**	⇓*i*P	**Pn**	**10 46 18.0**	**+1.1**
HAKT				*i* S	**Sg**	**10 47 25.4**	**+7.1**
CUKT	**Cukurca**	**3.75**	**107**	*e*PN	**Pn**	**10 46 17.5**	**+0.4**
CUKT	**Cukurca**	**3.75**	**107**	*e*Pn	**Pn**	**10 46 17.5**	**+0.4**
HKR	**Hakkari**	**3.75**	**102**	*e*PN	**Pn**	**10 46 17.1**	**-0.1**
HKR	**Hakkari**	**3.75**	**102**	*e*Pn	**Pn**	**10 46 17.1**	**-0.1**
MSL	**Mosul**	**3.82**	**123**	*e*Pn	x	10 46 28.0	
MSL				*i* Sn	x	10 47 20.0	
MERS	**Mersin**	**3.97**	**248**	*e*PN	**Pn**	**10 46 20.7**	**+0.4**
MERS	**Mersin**	**3.97**	**248**	*e*Pn	**Pn**	**10 46 20.7**	**+0.4**
TOS	**Tosya**	**4.71**	**305**	*e*PN	**Pn**	**10 46 31.0**	**+0.6**
TOS	**Tosya**	**4.71**	**305**	*e*Pn	**Pn**	**10 46 31.0**	**+0.6**
BHD	**Baghdad**	**6.70**	**139**	*e*P	x	10 47 06.0	
BHD				*e*S	x	10 48 50.0	

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*ISCJB **09** 11:02:19.0±0.9, 38.5N±0.1×39.1E±0.2, h22^{km}±14^{km}, Error ellipse: s-maj=31.0km s-min=7.5km az=141.7*
*CSEM **09** 11:02:18.1±0.4, 38.47N×39.07E, h19^{km}±6^{km}, MD2.6, Error ellipse: s-maj=11.3km s-min=4.6km az=136.0*
*ISK **09** 11:02:18.4, 38.46N×39.07E, h6^{km}, MD2.6*
ISC 09 11:02:18.7±1.0**, 38.46N**±0.09×**39.1E**±0.1**, h20**^{km}±11^{km}**, n10, σ0^{s}29**/14**, 1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.08**	**300**	⇓*i*P	**Pg**	**11 02 22.7**	**+0.2**
PTK	**Pertek**	**0.50**	**30**	PG	**Pg**	**11 02 29.0**	**+0.1**
PTK				SG	**Sg**	**11 02 35.6**	**-0.1**
PTK	**Pertek**	**0.50**	**30**	*e*Pg	**Pg**	**11 02 29.0**	**+0.1**
PTK				*e*Sg	**Sg**	**11 02 35.6**	**-0.1**
MYA	**Malataya**	**0.53**	**256**	PG	**Pg**	**11 02 29.7**	**+0.4**
MYA	**Malataya**	**0.53**	**256**	*e*Pg	**Pg**	**11 02 29.7**	**+0.4**
MALT	**Malatya**	**0.53**	**254**	PG	**Pg**	**11 02 28.7**	**-0.7**
MALT				SG	**Sg**	**11 02 36.6**	**+0.1**
MALT	**Malatya**	**0.53**	**254**	*e*Pg	**Pg**	**11 02 28.7**	**-0.7**
MALT				*e*Sg	**Sg**	**11 02 36.6**	**+0.1**
URFA	**Urfa**	**1.03**	**191**	*e*PG	**Pg**	**11 02 38.8**	**0.0**
URFA	**Urfa**	**1.03**	**191**	*e*Pg	**Pg**	**11 02 38.8**	**0.0**
GZT	**Gaziantep**	**1.62**	**228**	*i* P	**Pn**	**11 02 46.3**	**+0.1**

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*CSEM **09** 11:38:44.5±0.1, 38.47N×39.04E, h8^{km}, MD2.5, Error ellipse: s-maj=4.7km s-min=2.2km az=135.0*
*ISK **09** 11:38:44.8, 38.48N×39.02E, h6^{km}, MD2.5*
*ISCJB **09** 11:38:45.5±1.0, 38.49N±0.10×39.0E±0.1, h16^{km}±8^{km}, Error ellipse: s-maj=20.7km s-min=7.1km az=139.1*
ISC 09 11:38:45.1±1.2**, 38.46N**±0.09×**39.0E**±0.1**, h17**^{km}±10^{km}**, n9, σ0^{s}18**/14**, 1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.06**	**316**	⇓*i*P	**Pg**	**11 38 48.5**	**+0.2**
ELZG				*i* S	**Sg**	**11 38 50.2**	**-0.1**
MYA	**Malataya**	**0.50**	**255**	PG	**Pg**	**11 38 55.2**	**+0.2**
MYA	**Malataya**	**0.50**	**255**	*e*Pg	**Pg**	**11 38 55.2**	**+0.2**
MALT	**Malatya**	**0.50**	**254**	PG	**Pg**	**11 38 54.9**	**-0.2**
MALT				SG	**Sg**	**11 39 01.8**	**0.0**
MALT	**Malatya**	**0.50**	**254**	*e*Pg	**Pg**	**11 38 54.9**	**-0.2**
MALT				*e*Sg	**Sg**	**11 39 01.8**	**0.0**
PTK	**Pertek**	**0.52**	**32**	PG	**Pg**	**11 38 55.1**	**-0.3**
PTK				SG	**Sg**	**11 39 02.6**	**+0.2**
PTK	**Pertek**	**0.52**	**32**	*e*Pg	**Pg**	**11 38 55.1**	**-0.3**
PTK				*e*Sg	**Sg**	**11 39 02.6**	**+0.2**
URFA	**Urfa**	**1.03**	**190**	*e*PG	**Pg**	**11 39 05.0**	**0.0**
URFA	**Urfa**	**1.03**	**190**	*e*Pg	**Pg**	**11 39 05.0**	**0.0**

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*NEIC **09** 12:02:17.8, 18.22N×68.18W, h77^{km}, MD3.6(RSPR), After RSPR.*
RSPR 09 12:02:17.8, 18.22N×68.18W, h77^{km}±3^{km}**, MD3.5**/5**, MD3.5**/5**, 3C-2D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRPR	**Cabo Rojo, PR**	**1.04**	**102**	⇓*e*P	Pn	12 02 36.8	-0.4
CRPR				*e*S	Sn	12 02 51.0	-0.6
AOPR	**Arecibo Observ**	**1.36**	**84**	⇑*e*P	Pn	12 02 40.9	-0.3
AOPR				*e*S	Sn	12 02 58.4	-0.4
CBYP	**Canovanas**	**2.21**	**88**	⇓*e*P	Pn	12 02 51.9	-0.5
CBYP				*e*S	Sn	12 03 18.2	-0.7
HUMP	**Col San Antoni**	**2.22**	**92**	⇑*e*P	Pn	12 02 52.0	-0.6
HUMP				*e*S	Sn	12 03 18.9	-0.2
MTP	**Monte Pirata**	**2.50**	**92**	⇑*e*P	Pn	12 02 55.5	-0.9
MTP				*e*S	Sn	12 03 26.1	+0.1

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*ISCJB **09** 12:05:57.3±0.9, 29.85N±0.04×36.33E±0.07, h0^{km}, Error ellipse: s-maj=9.3km s-min=6.1km az=10.1*
*CSEM **09** 12:05:58.1, 30.08N×36.24E, h7^{km}, ML2.5, After SNSN*
*SGS **09** 12:05:58.1, 30.08N×36.24E, h7^{km}*
*GII **09** 12:05:59.8±1.1, 29.93N×36.15E, h0^{km}±13^{km}, ML1.8/2*
*HLW **09** 12:06:04.5, 29.56N×35.99E, h11^{km}, Mb2.3*
ISC 09 12:05:57.6±0.9**, 29.86N**±0.04×**36.34E**±0.07**, h0**^{km}**, n20, σ0^{s}91**/23**, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AQBJ	**Aqaba**	**1.13**	**264**	Pg	**Pg**	**12 06 19.4**	**0.0**
EIL	**Elat**	**1.23**	**262**	Pg	**Pg**	**12 06 20.4**	**-0.8**
EIL				Sg	**Sg**	**12 06 38.0**	**+1.0**
ZFRI	**Zfri**	**1.23**	**305**	Pg	**Pg**	**12 06 19.8**	**-1.4**
HQLS		**1.25**	**244**	P	**Pg**	**12 06 20.5**	**-1.0**
HQLS				S	**Sg**	**12 06 37.3**	**-0.4**
HQLS		**1.25**	**244**	P	**Pg**	**12 06 20.4**	**-1.1**
JLOS		**1.34**	**214**	P	**Pg**	**12 06 23.4**	**0.0**
JLOS				S	**Sg**	**12 06 42.2**	**+1.4**
JLOS		**1.34**	**214**	P	**Pg**	**12 06 23.4**	**0.0**
HBST	**Basata**	**1.54**	**246**	P	**Pn**	**12 06 25.5**	**-0.8**
MZDA	**Masada**	**1.68**	**330**	Pn	**Pn**	**12 06 28.2**	**0.0**
MASH	**Mash'abbe Sade**	**1.76**	**311**	Pn	**Pn**	**12 06 29.1**	**-0.2**
SVTA	**Shivta**	**1.83**	**306**	Pn	**Pn**	**12 06 30.4**	**+0.1**
HDHB	**Dhahab**	**1.88**	**234**	P	**Pn**	**12 06 30.0**	**-1.1**
DRGI	**Dragot**	**1.92**	**335**	Pn	**Pn**	**12 06 31.9**	**+0.4**
KZIT	**Kziot**	**1.98**	**302**	Pn	**Pn**	**12 06 33.6**	**+1.2**
HNKL	**Nakhl**	**2.05**	**273**	P	**Pn**	**12 06 34.2**	**+0.8**
RSHS		**2.06**	**222**	P	**Pn**	**12 06 32.7**	**-0.8**
HKAT	**Jabal Katrina**	**2.45**	**238**	P	**Pn**	**12 06 38.6**	**-0.2**
AMAG	**Maghara**	**2.82**	**287**	P	**Pn**	**12 06 46.6**	**+2.6**
WJHS		**3.11**	**179**	P	**Pn**	**12 06 48.8**	**+0.8**
HHRG	**Al Ghardaqah**	**3.59**	**224**	P	**Pn**	**12 06 53.8**	**-0.7**

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*ISCJB **09** 13:02:27.6±0.6, 38.27N±0.03×27.32E±0.05, h5^{km}, Error ellipse: s-maj=6.0km s-min=4.4km az=0.3*
*CSEM **09** 13:02:27.0±0.1, 38.25N×27.25E, h5^{km}, MD3.1, Error ellipse: s-maj=4.4km s-min=2.7km az=87.0*
*ISK **09** 13:02:27.6, 38.33N×27.21E, h15^{km}, MD3.1*
*DDA **09** 13:02:28.2, 38.26N×27.22E, h4^{km}±1^{km}, Md2.8*
ISC 09 13:02:27.9±0.6**, 38.27N**±0.04×**27.26E**±0.06**, h10**^{km}±11^{km}**, n12, σ0^{s}73**/20**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IZM	**Izmir**	**0.13**	**1**	*i* PG	**Pg**	**13 02 30.8**	**-0.2**
IZM	**Izmir**	**0.13**	**1**	*i* Pg	**Pg**	**13 02 30.8**	**-0.2**
KDAG	**Bornova**	**0.14**	**2**	*i* P	**Pg**	**13 02 30.9**	**-0.2**
KDAG				*i* S	**Sg**	**13 02 33.3**	**0.0**
BLCB	**Balcova**	**0.21**	**305**	PG	**Pg**	**13 02 31.9**	**-0.4**
BLCB				SG	**Sg**	**13 02 34.6**	**-0.6**
BLCB	**Balcova**	**0.21**	**305**	*e*Pg	**Pg**	**13 02 31.9**	**-0.4**
BLCB				*e*Sg	**Sg**	**13 02 34.6**	**-0.6**
AKS	**Akhisar**	**0.75**	**35**	PG	**Pg**	**13 02 42.7**	**+0.3**
AKS				SG	**Sg**	**13 02 52.6**	**+0.4**
AKS	**Akhisar**	**0.75**	**35**	*e*Pg	**Pg**	**13 02 42.7**	**+0.3**
AKS				*e*Sg	**Sg**	**13 02 52.6**	**+0.4**
AYVA	**Ayvalik**	**1.13**	**337**	*i* P	**Pg**	**13 02 48.9**	**-0.8**
AYVA				*i* S	**Sg**	**13 03 06.5**	**+2.1**
BODT	**Bodrum**	**1.20**	**178**	*e*PN	**Pn**	**13 02 51.0**	**+0.3**
BODT	**Bodrum**	**1.20**	**178**	*e*Pn	**Pn**	**13 02 51.0**	**+0.3**
BDRM	**Kayabasi**	**1.21**	**173**	*i* P	**Pb**	**13 02 50.0**	**-0.9**
BDRM				*i* S	**Sg**	**13 03 07.8**	**+1.0**
ULDT	**Uludag**	**2.37**	**37**	*i* P	**Pg**	**13 03 12.9**	**-0.5**
ULDT				*i* S	**Sg**	**13 03 43.7**	**-0.5**

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*ISCJB **09** 13:03:58.0±0.7, 38.39N±0.04×39.08E±0.05, h4^{km}, Error ellipse: s-maj=6.0km s-min=5.4km az=23.0*
*CSEM **09** 13:03:57.0±0.1, 38.46N×39.04E, h19^{km}±1^{km}, MD2.8, Error ellipse: s-maj=2.2km s-min=1.1km az=138.0*
*ISK **09** 13:03:57.4, 38.45N×39.04E, h4^{km}, MD2.8*
*DDA **09** 13:03:58.6, 38.51N×39.17E, h6^{km}±1^{km}, Md2.7*
ISC 09 13:03:58.2±1.0**, 38.49N**±0.09×**39.02E**±0.08**, h17**^{km}±7^{km}**, n11, σ0^{s}69**/16**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.02**	**281**	*i* P	**Pg**	**13 04 01.3**	**+0.2**
ELZG				*i* S	**Sg**	**13 04 03.6**	**+0.4**
MYA	**Malataya**	**0.49**	**250**	*i* PG	**Pg**	**13 04 07.9**	**-0.2**
MYA	**Malataya**	**0.49**	**250**	*i* Pg	**Pg**	**13 04 07.9**	**-0.2**
MALT	**Malatya**	**0.49**	**249**	*i* PG	**Pg**	**13 04 07.6**	**-0.5**
MALT				*i* SG	**Sg**	**13 04 15.4**	**+0.6**
MALT	**Malatya**	**0.49**	**249**	*i* Pg	**Pg**	**13 04 07.6**	**-0.5**
MALT				*i* Sg	**Sg**	**13 04 15.4**	**+0.6**
PTK	**Pertek**	**0.49**	**36**	PG	**Pg**	**13 04 08.0**	**-0.2**
PTK	**Pertek**	**0.49**	**36**	*e*Pg	**Pg**	**13 04 08.0**	**-0.2**
URFA	**Urfa**	**1.06**	**188**	*e*PG	**Pg**	**13 04 17.6**	**-1.2**
URFA	**Urfa**	**1.06**	**188**	*e*Pg	**Pg**	**13 04 17.6**	**-1.2**
GZT	**Gaziantep**	**1.61**	**226**	*i* P	**Pg**	**13 04 28.1**	**-1.2**
GZT				*i* S	**Sg**	**13 04 51.3**	**+1.0**
MARD	**Mardin**	**1.83**	**130**	*i* P	**Pn**	**13 04 29.6**	**+0.8**
MARD				*i* S	**Sn**	**13 04 51.8**	**+0.2**

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*CSEM **09** 13:20:41.3±0.1, 39.65N×29.45E, h10^{km}, MD2.8, Error ellipse: s-maj=3.2km s-min=2.1km az=73.0*
*ISK **09** 13:20:41.8, 39.66N×29.46E, h9^{km}, MD2.8*
*ISCJB **09** 13:20:42.2±0.5, 39.67N±0.03×29.47E±0.04, h10^{km}, Error ellipse: s-maj=5.1km s-min=3.8km az=38.8*
ISC 09 13:20:42.4±0.5**, 39.66N**±0.03×**29.46E**±0.04**, h10**^{km}**, n34, σ0^{s}80**/42**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ULDT	**Uludag**	**0.54**	**333**	*i* P	**Pg**	**13 20 52.4**	**-0.6**
ULDT	**Uludag**	**0.54**	**333**	*i* P	**Pg**	**13 20 52.4**	**-0.5**
ULDT				*i* S	**Sg**	**13 21 00.8**	**+0.7**
GDZ	**Gediz**	**0.57**	**178**	*i* P	**Pg**	**13 20 53.1**	**-0.3**
IZI	**Iznik**	**0.68**	**1**	PG	**Pg**	**13 20 55.3**	**-0.2**
IZI				SG	**Sg**	**13 21 04.5**	**+0.2**
IZI	**Iznik**	**0.68**	**1**	*e*Pg	**Pg**	**13 20 55.3**	**-0.2**
IZI				*e*Sg	**Sg**	**13 21 04.5**	**+0.2**
ALT	**Altintas**	**0.79**	**140**	*e*PG	**Pg**	**13 20 57.5**	**-0.1**
ALT	**Altintas**	**0.79**	**140**	*e*Pg	**Pg**	**13 20 57.5**	**-0.1**
BORA	**Eskisehir**	**0.80**	**74**	*i* P	**Pg**	**13 20 56.9**	**-0.9**
BORA	**Eskisehir**	**0.80**	**74**	*i* P	**Pg**	**13 20 56.9**	**-0.9**
BORA				*i* S	**Sg**	**13 21 09.2**	**+1.0**
GEMT	**Gemlik**	**0.80**	**345**	*e*PG	**Pg**	**13 20 57.5**	**-0.4**
GEMT	**Gemlik**	**0.80**	**345**	*e*Pg	**Pg**	**13 20 57.5**	**-0.4**
ADVT	**Abdulvahap**	**0.80**	**15**	*e*PG	**Pg**	**13 20 57.2**	**-0.7**
ADVT	**Abdulvahap**	**0.80**	**15**	*e*Pg	**Pg**	**13 20 57.2**	**-0.7**
GPA	**Golpazari**	**0.91**	**46**	*e*PG	**Pg**	**13 20 59.4**	**-0.5**

GPA	Golpazari	0.91	46	ePg	Pg	13 20 59.4	-0.5
YLV	Yalova	0.91	356	PG	Pg	13 20 59.9	0.0
YLV				SG	Sg	13 21 12.7	+1.0
YLV	Yalova	0.91	356	ePg	Pg	13 20 59.9	0.0
YLV				eSg	Sg	13 21 12.7	+1.0
KCT	Karacabey	1.04	306	PG	Pg	13 21 01.7	-0.7
KCT	Karacabey	1.04	306	ePg	Pg	13 21 01.7	-0.7
ESKT	Eskisehir	1.08	97	PN	Pn	13 21 02.5	-1.1
ESKT	Eskisehir	1.08	97	i P	Pb	13 21 02.6	-0.7
ESKT	Eskisehir	1.08	97	ePn	Pn	13 21 02.5	-1.1
SEYT	Eskypehyr	1.08	97	i P	Pb	13 21 02.6	-0.6
SEYT				i S	Sg	13 21 19.4	+2.1
BTOK	Tokmak	1.11	276	i P	Pb	13 21 03.7	+0.1
BTOK	Tokmak	1.11	276	i P	Pb	13 21 03.7	+0.1
BTOK				i S	Sg	13 21 19.4	+1.4
GULT	Gulveren	1.12	46	ePN	Pn	13 21 03.8	-0.3
GULT	Gulveren	1.12	46	ePn	Pn	13 21 03.8	-0.3
HRT	Hereke	1.17	8	ePN	Pn	13 21 03.7	-1.1
HRT	Hereke	1.17	8	ePn	Pn	13 21 03.7	-1.1
BNT	Bandirma	1.37	301	ePN	Pn	13 21 07.5	-0.1
EDC	Edincik	1.40	300	ePN	Pn	13 21 08.4	+0.4
EDC	Edincik	1.40	300	ePn	Pn	13 21 08.4	+0.4
KIZT	Kizilcal	2.04	112	ePN	Pn	13 21 17.9	+1.2
KIZT	Kizilcal	2.04	112	ePn	Pn	13 21 17.9	+1.2

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*ISCJB **09** 13:44:24.2±0.2, 5045N±002×1874E±002, h0^{km}, mb3.5/5, Error ellipse: s-maj=2.8km s-min=1.7km az=8.3*

*MOS **09** 13:44:25.2±2.1, 5050N×1890E, h10^{km}, mb3.8/2, Error ellipse: s-maj=6.5km s-min=4.5km az=94.5*

*IPEC **09** 13:44:26.3±0.2, 5037N×1885E, h4^{km}±1^{km}, ML3.4/3, Error ellipse: s-maj=2.5km s-min=1.1km az=171.0*

*VIE **09** 13:44:26.9±1.8, 5052N×1834E, h0^{km}, Error ellipse: s-maj=15.6km s-min=10.1km az=126.0, Suspected Mining induced. 55 km NW of Katowice*

*CSEM **09** 13:44:26.8±0.2, 5038N×1883E, h1^{km}, mb3.9/2, ML4.3/8, Error ellipse: s-maj=4.4km s-min=2.4km az=10.0*

*PRU **09** 13:44:26.8, 5037N×1878E, h0^{km}*

*WAR **09** 13:44:26.5, 5036N×1888E, ML3.5, Mining Induced*

*NEIC **09** 13:44:26.5±0.4, 5037N×1886E, h5^{km}, ML4.1(SZGRF), ML3.5(BUC), Error ellipse: s-maj=6.0km s-min=3.3km az=13.0*

*BGR **09** 13:44:27.9±0.4, 5033N×1878E, h1^{km}, ML4.1/16, Error ellipse: s-maj=6.7km s-min=4.4km az=11.0*

*IDC **09** 13:44:27.4±0.6, 5024N×1884E, h0^{km}, mb3.4/4, mb1 3.6/12, mb1mx3.5/24, mbtmp3.5/12, ML3.3/8, MS2.7/1, Ms1 2.7/1, ms1mx2.2/29, Error ellipse: s-maj=8.5km s-min=5.7km az=148.0*

ISC 09 13:44:25.9±0.2, **5038N**±002×**1878E**±002, **h0**^{km}, **n200**, σ**1^{s}27**/315, **mb3.5**/5, **20C-16D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	Raciborz	0.48	232	ePg	Pg	13 44 36.8	+1.7
RAC				eSg	Sg	13 44 44.4	+3.1
RAC	Raciborz	0.48	232	ePg	Pg	13 44 36.8	+1.7
RAC				eSg	Sg	13 44 44.4	+3.1
OJC	Ojcow	0.67	104	ePg	Pg	13 44 38.6	-0.1
OJC	Ojcow	0.67	104	ePg	Pg	13 44 38.4	-0.3
OJC				eSg	Sg	13 44 47.0	-0.4
OJC	Ojcow	0.67	104	eP	Pg	13 44 38.4	-0.3
OJC				e		13 44 47.0	
OJC	Ojcow	0.67	104	ePg	Pg	13 44 38.3	-0.4
OJC				eSg	Sg	13 44 47.0	-0.4
OKC	Ostrava-Krasne	0.68	217	ePg	Pg	13 44 39.9	+1.0
OKC				eSg	Sg	13 44 50.1	+2.3
OKC	Ostrava-Krasne	0.68	217	ePg	Pg	13 44 40.0	+1.1
OKC				eSg	Sg	13 44 49.8	+2.0
OKC	Ostrava-Krasne	0.68	217	ePG	Pg	13 44 40.0	+1.1
OKC				eSG	Sg	13 44 49.8	+2.0
	687nm,0.6s						
OKC	Ostrava-Krasne	0.68	217	Pg	Pg	13 44 39.9	+1.0
OKC				eSg	Sg	13 44 49.8	+2.0
MORC	Moravsky Berou	1.00	233	ePg	Pg	13 44 45.8	+0.7
MORC				eSg	Sg	13 44 59.6	+1.6
MORC	Moravsky Berou	1.00	233	⇑P	Pg	13 44 45.8	+0.7
MORC				S	Sg	13 44 59.5	+1.4
MORC	Moravsky Berou	1.00	233	⇑iP	Pg	13 44 45.8	+0.7
MORC	Moravsky Berou	1.00	233	S	Sg	13 44 59.5	+1.4
MORC	Moravsky Berou	1.00	233	ePg	Pg	13 44 45.7	+0.6
MORC				eSg	Sg	13 44 59.5	+1.4
	609nm,0.4s						
LIKS	Likavka	1.35	171	ePn	Pg	13 44 51.3	-0.4
LIKS				eSn	Sn	13 45 09.4	-1.1
LIKS	Likavka	1.35	171	eP	Pg	13 44 51.3	-0.4
LIKS				e		13 45 09.4	
LIKS				pmax	pmax		
	comp=N,2μm,0.5s						
LIKS	Likavka	1.35	171	ePN	Pg	13 44 51.3	-0.4
LIKS				eSN	Sn	13 45 09.4	-1.1
LIKS	Likavka	1.35	171	ePn	Pg	13 44 51.3	-0.4
LIKS				eSn	Sn	13 45 09.4	-1.1
NIE	Niedzica	1.38	134	ePg	Pg	13 44 51.4	-0.9
NIE				eSg	Sg	13 45 09.9	-0.3
NIE	Niedzica	1.38	134	ePg	Pg	13 44 51.4	-0.9
NIE				eSg	Sg	13 45 09.9	-0.3
DPC	Dobruska-Polom	1.58	270	ePn	Pn	13 44 55.7	+0.7
DPC				eSg	Sg	13 45 18.1	+1.6
DPC	Dobruska-Polom	1.58	270	ePg	Pg	13 44 55.8	-0.2
DPC				eSg	Sg	13 45 15.9	-0.6
DPC	Dobruska-Polom	1.58	270	eP	Pg	13 44 55.8	-0.2
DPC				e		13 45 15.9	
DPC				smax			
	comp=N,366nm,0.7s						
DPC	Dobruska-Polom	1.58	270	ePG	Pg	13 44 55.8	-0.2
DPC				eSG	Sg	13 45 15.9	-0.6
	comp=N,366nm,0.7s						
DPC	Dobruska-Polom	1.58	270	ePn	Pn	13 44 55.7	+0.7
DPC	Dobruska-Polom	1.58	270	ePg	Pg	13 44 55.8	-0.2
DPC				eSg	Sg	13 45 16.9	+0.4
KSP	Ksiaz	1.65	287	ePn	Pn	13 44 57.9	+1.8
KSP				ePg	Pg	13 45 00.5	+3.0
KSP				eSg	Sg	13 45 21.3	+2.4
KSP	Ksiaz	1.65	287	ePn	Pn	13 44 57.8	+1.7
KSP				eSg	Sg	13 45 21.2	+2.3
KSP	Ksiaz	1.65	287	ePn	Pn	13 44 56.8	+0.7
KSP				i Pg	Pg	13 44 58.8	+1.3
KSP				eSg	Sg	13 45 21.0	+2.1
KSP	Ksiaz	1.65	287	eP	Pn	13 44 56.8	+0.7
KSP				e		13 45 21.0	
KSP	Ksiaz	1.65	287	i Pg	Pg	13 44 58.8	+1.3
KSP				eSg	Sg	13 45 21.0	+2.1
JAVC	Velka Javorina	1.69	206	ePn	Pn	13 44 57.0	+0.4
UPC	Upice	1.78	275	ePg	Pg	13 44 58.4	-1.5
UPC				eSg	Sg	13 45 22.7	-0.2
UPC	Upice	1.78	275	ePG	Pg	13 44 58.4	-1.5
UPC				eSG	Sg	13 45 22.7	-0.2
UPC	Upice	1.78	275	ePg	Pg	13 44 58.4	-1.5
UPC				eSg	Sg	13 45 22.7	-0.2
VRAC	Vranov	1.78	234	⇓P	Pn	13 44 58.1	+0.2
VRAC				S	Sn	13 45 22.1	+1.0
VRAC	Vranov	1.78	234	Pn	Pn	13 44 58.2	+0.4
	comp=N,18nm,0.3s,baz=58,slow=15,SNR=88						
VRAC				Lg		13 45 22.3	
	comp=N,50nm,0.3s,baz=316,slow=21,SNR=27						
VRAC	Vranov	1.78	234	⇓iP	Pn	13 44 58.1	+0.3
VRAC	Vranov	1.78	234	S	Sn	13 45 22.1	+1.0
VRAC	Vranov	1.78	234	ePn	Pn	13 44 58.1	+0.3
VRAC				eSg	Sg	13 45 22.8	-0.2
	comp=N,264nm,0.4s						
STHS	Stebnicka Huta	1.86	120	ePn	Pn	13 44 59.2	+0.2
STHS				e		13 45 03.4	
STHS				eSn	Sn	13 45 25.6	+2.4
STHS	Stebnicka Huta	1.86	120	eP	Pn	13 44 59.2	+0.2
STHS				e		13 45 25.6	
STHS				pmax	pmax		
	comp=N,194nm,0.6s						
STHS	Stebnicka Huta	1.86	120	ePN	Pn	13 44 59.2	+0.2
STHS				e		13 45 03.4	
STHS	Stebnicka Huta	1.86	120	eSN	Sn	13 45 25.6	+2.4
VYHS	Vyhne	1.89	179	ePn	Pn	13 44 58.5	-0.9
VYHS				e		13 45 03.8	
VYHS				eSn	Sn	13 45 23.1	-0.8
VYHS	Vyhne	1.89	179	eP	Pn	13 44 58.5	-0.9
VYHS				e		13 45 23.1	
VYHS				pmax	pmax		
	comp=N,93nm,1.0s						
VYHS	Vyhne	1.89	179	ePN	Pn	13 44 58.5	-0.9
VYHS				e		13 45 03.8	
VYHS	Vyhne	1.89	179	eSN	Sn	13 45 23.1	-0.8
VYHS	Vyhne	1.89	179	ePn	Pn	13 44 58.5	-0.9
VYHS				eSn	Sn	13 45 23.1	-0.8
KRUC	Moravsky	2.04	230	ePn	Pn	13 45 01.1	-0.3
KRUC				eSg	Sg	13 45 29.9	-1.4
	comp=N,209nm,0.4s						
SMOL	Smolenice	2.07	206	ePn	Pn	13 45 02.0	+0.2
SMOL				e		13 45 06.4	
SMOL				eSn	Sn	13 45 28.9	+0.6
SMOL	Smolenice	2.07	206	ePN	Pn	13 45 02.0	+0.2
SMOL				e		13 45 06.4	
SMOL	Smolenice	2.07	206	eSN	Sn	13 45 28.9	+0.6
SMOL	Smolenice	2.07	206	ePn	Pn	13 45 02.0	+0.2
SMOL				eSn	Sn	13 45 28.9	+0.6
KECS	Kecovo	2.20	149	ePn	Pn	13 45 02.8	-0.8
KECS				e		13 45 07.3	
KECS				eSn	Sn	13 45 29.0	-2.6
KECS	Kecovo	2.20	149	eP	Pn	13 45 02.8	-0.8
KECS				e		13 45 29.0	
KECS				pmax	pmax		
	comp=N,50nm,0.5s						
KECS	Kecovo	2.20	149	ePN	Pn	13 45 02.8	-0.8
KECS				e		13 45 07.3	
KECS	Kecovo	2.20	149	eSN	Sn	13 45 29.0	-2.6
MODS	Modra-Piesok	2.24	207	eP	Pn	13 45 04.0	-0.1
MODS				e		13 45 37.3	
MODS				pmax	pmax		
	comp=N,190nm,1.9s						
MODS	Modra-Piesok	2.24	207	ePN	Pn	13 45 04.0	-0.1
MODS				ePG	Pg	13 45 11.7	+2.9
MODS				e		13 45 37.3	
MODS	Modra-Piesok	2.24	207	ePn	Pn	13 45 04.0	-0.1
MODS				eS	Sn	13 45 37.3	+4.8
	comp=N,190nm,1.9s						
CRVS	Cervenica-Dubn	2.29	129	eP	Pn	13 45 05.1	+0.3
CRVS				e		13 45 33.9	
CRVS				pmax	pmax		
	comp=N,300nm,1.4s						
CRVS	Cervenica-Dubn	2.29	129	ePN	Pn	13 45 05.1	+0.3
CRVS				e		13 45 09.2	
CRVS	Cervenica-Dubn	2.29	129	eSN	Sn	13 45 33.9	+0.3
CRVS				e		13 45 43.0	
CRVS	Cervenica-Dubn	2.29	129	ePn	Pn	13 45 05.1	+0.3
CRVS				eSn	Sn	13 45 33.9	+0.3
WAR	Warsaw	2.33	36	ePn	Pg	13 45 14.5	+3.9
WAR				eSn	Sg	13 45 46.2	+5.5
WAR	Warsaw	2.33	36	ePn	Pg	13 45 14.5	+4.0
WAR				eSn	Sg	13 45 46.2	+5.5
TREC	Trest	2.40	244	eSG	Sg	13 45 40.8	-2.0
	comp=N,268nm,0.6s						
TREC	Trest	2.40	244	eSg	Sg	13 45 40.8	-2.0
	comp=N,268nm,0.6s						
PSZ	Piszkesteto	2.57	163	⇑P	Pn	13 45 08.3	-0.5
PSZ	Piszkesteto	2.57	163	ePn	Pn	13 45 08.7	0.0
PSZ				ePB	Pg	13 45 14.1	-1.0
PSZ	Piszkesteto	2.57	163	⇑iP	Pn	13 45 08.3	-0.4
PSZ	Piszkesteto	2.57	163	ePn	Pn	13 45 08.7	0.0
PSZ	Piszkesteto	2.57	163	ePg	Pg	13 45 14.1	-1.0
PENC	Penc	2.62	173	⇓eP	Pn	13 45 09.3	0.0
KWP	Kalwaria	2.64	105	ePn	Pn	13 45 11.6	+1.9
KWP				eP*	Pb	13 45 15.2	+1.2
KWP				ePg	Pg	13 45 17.9	+1.5
KWP				eSg	Sg	13 45 56.8	+6.1
KWP	Kalwaria	2.64	105	ePn	Pn	13 45 11.6	+1.9
KWP				eP		13 45 15.2	
KWP				ePg	Pg	13 45 17.9	+1.4
KWP				eSg	Sg	13 45 56.8	+6.1
KWP	Kalwaria	2.64	105	eP	Pb	13 45 15.2	+1.2
KWP	Kalwaria	2.64	105	ePn	Pn	13 45 11.6	+1.9
KOLS	Kolonicke sedl	2.69	121	eP	Pn	13 45 10.2	-0.2
KOLS				e		13 45 43.5	
KOLS				pmax	pmax		
	comp=N,290nm,1.3s						
KOLS	Kolonicke sedl	2.69	121	ePN	Pn	13 45 10.2	-0.2
KOLS				e		13 45 18.6	
KOLS	Kolonicke sedl	2.69	121	eSN	Sn	13 45 43.5	-0.1
KOLS				e		13 45 55.5	
KOLS	Kolonicke sedl	2.69	121	ePn	Pn	13 45 10.2	-0.2
KOLS				eSn	Sn	13 45 43.5	-0.1
PVCC	Panska Ves	2.70	275	eSG	Sg	13 45 53.2	+0.7
	comp=N,604nm,0.8s						
PVCC	Panska Ves	2.70	275	eSg	Sg	13 45 53.2	+0.7
	comp=N,604nm,0.8s						
PRU	Pruhonice	2.75	263	ePn	Pn	13 45 11.6	+0.4
PRU				ePg	Pg	13 45 16.5	-2.1
PRU				eSg	Sg	13 45 53.3	-1.0
PRU	Pruhonice	2.75	263	eP	Pn	13 45 11.6	+0.4
PRU				e		13 45 53.3	
PRU				smax			
	comp=N,223nm,0.6s						
PRU	Pruhonice	2.75	263	ePN	Pn	13 45 11.6	+0.4
PRU				ePG	Pg	13 45 16.5	-2.1
PRU				eSG	Sg	13 45 53.3	-1.0
	comp=N,223nm,0.6s						
PRA	Prague	2.81	265	PN	Pn	13 45 10.0	-2.0
PRA				SG	Sg	13 45 55.0	-1.1
UZH	Uzhgorod	2.88	126	eP	Pn	13 45 11.0	-2.0
BUD	Budapest	2.91	177	ePn	Pn	13 45 13.8	+0.5
BUD				eSg	Sg	13 46 02.2	+3.0
BUD	Budapest	2.91	177	ePn	Pn	13 45 13.6	+0.3
GKP	Gorka Klasztor	3.04	342	ePn	Pg	13 45 31.8	+7.6
GKP				eSn	Sg	13 46 08.1	+4.5
SOP	Sopron	3.07	209	⇓ePn	Pn	13 45 06.8	-8.8
SOP				eSn	Sn	13 45 52.0	-1.0
CONA	Conrad Observa	3.12	219	⇑iPn	Pn	13 45 15.8	-0.4
CONA				⇑iSg	Sg	13 46 10.8	+4.8
	comp=N,92nm,0.6s						
BRG	Berggiesshubel	3.12	281	ePg	Pg	13 45 25.1	-0.6
BRG				eSg	Sg	13 46 08.3	+2.3
BRG	Berggiesshubel	3.12	281	Pn	Pb	13 45 22.9	+0.8
BRG				Pg	Pg	13 45 25.0	-0.7
BRG				Sg	Sg	13 46 04.8	-1.3
BRG	Berggiesshubel	3.12	281	Pg	Pg	13 45 25.0	-0.6
BRG				Sg	Sg	13 46 08.4	+2.3
BRG	Berggiesshubel	3.12	281	PN	Pb	13 45 22.9	+0.8
BRG				PG	Pg	13 45 25.0	-0.7
BRG				SG	Sg	13 46 04.8	-1.3
	comp=N,220nm,0.8s						
LVV	L'vov	3.43	97	eP	Pn	13 45 21.0	+0.6
LVV				eS	Sn	13 46 03.0	+1.3
LVV				MLR	MLR		
	comp=Z,450nm,1.6s						
LVV	L'vov	3.43	97	eP	Pn	13 45 21.0	+0.6
LVV				eS	Sn	13 46 03.0	+1.3
	comp=Z,450nm,1.6s						
KHC	Kasperske Hory	3.60	252	ePn	Pn	13 45 23.7	+0.9
KHC				ePg	Pg	13 45 30.1	-4.7
KHC				eSg	Sg	13 46 20.8	-0.6
KHC	Kasperske Hory	3.60	252	ePN	Pn	13 45 23.7	+0.9
KHC				ePG	Pg	13 45 30.1	-4.7
KHC				eSG	Sg	13 46 20.8	-0.6
KHC	Kasperske Hory	3.60	252	ePn	Pn	13 45 23.7	+0.9
GEC2	GERESS Array S	3.65	247	ePn	Pn	13 45 25.3	+1.8
GEC2				eSg	Sg	13 46 21.4	-1.5
GEC2	GERESS Array S	3.65	247	ePn	Pn	13 45 25.3	+1.8
GEC2				eSg	Sg	13 46 21.4	-1.5
GEC2	GERESS Array S	3.65	247	Pn	Pn	13 45 25.3	+1.8
GEC2				Sg	Sg	13 46 21.4	-1.5
GERES	GERESS Array B	3.65	247	Pn	Pn	13 45 24.4	+0.9
GERES				Pg	Pg	13 45 34.2	-1.5
GERES				Sn	Sn	13 46 07.0	-0.1
GERES				Lg		13 46 20.8	
GERES	GERESS Array B	3.65	247	P	Pn	13 45 24.4	+0.9
GERES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GERES	GERESS Array B	3.65	247	Pn	Pn	13 45 24.4	+0.9
	comp=Z,1.0nm,0.3s,baz=58,slow=14,SNR=20						
GERES				Pg	Pg	13 45 34.2	-1.5
	comp=Z,4.4nm,0.3s,baz=60,slow=17,SNR=26						
GERES				Sn	Sn	13 46 07.0	-0.1
	comp=Z,4.6nm,0.3s,baz=54,slow=25,SNR=8.2						
GERES				Lg		13 46 20.8	
	comp=Z,11nm,0.3s,baz=64,slow=30,SNR=12						
GERES	GERESS Array B	3.65	247	Pg	Pg	13 45 34.2	-1.5
CLL	Collm	3.78	286	ePg	Pg	13 45 37.9	-0.3
CLL				eSg	Sg	13 46 28.6	+1.5
CLL	Collm	3.78	286	i Sg	Pn	13 45 24.3	-1.0
CLL	Collm	3.78	286	ePg	Pg	13 45 38.0	-0.2
CLL				eSg	Sg	13 46 29.0	+1.8
	comp=Z,238nm,0.9s						
CLL	Collm	3.78	286	Pg	Pg	13 45 37.9	-0.3
CLL				Sg	Sg	13 46 28.6	+1.4
ARSA	Arzberg	3.80	216	⇓iPn	Pn	13 45 25.6	0.0
ARSA	Arzberg	3.80	216	⇑iSg	Sg	13 46 23.8	-4.2
	comp=Z,20nm,0.5s						
ARSA	Arzberg	3.80	216	⇓iPn	Pn	13 45 25.6	0.0
ARSA				i Sg	Sg	13 46 23.8	-4.2
ARSA	Arzberg	3.80	216	⇑iPn	Pn	13 45 26.8	+1.2
ARSA				⇓iSg	Sg	13 46 32.2	+4.2
	comp=Z,20nm,0.5s						
ARSA	Arzberg	3.80	216	⇓iPn	Pn	13 45 25.6	0.0
ARSA				Sg	Sg	13 46 23.8	-4.2
	comp=Z,20nm,0.5s						
MOA	Molln	3.90	231	⇑iPn	Pn	13 45 27.6	+0.6
MOA	Molln	3.90	231	⇑iPn	Pn	13 45 27.6	+0.6
MOA				i Sg	Sg	13 46 29.4	-1.7
MOA	Molln	3.90	231	⇑iPn	Pn	13 45 27.6	+0.6
MOA				⇑iSg	Sg	13 46 29.4	-1.7
	comp=Z,115nm,0.6s						
MOA	Molln	3.90	231	⇑iPn	Pn	13 45 27.6	+0.6
MOA				i Sg	Sg	13 46 29.4	-1.8
WET	Wettzell	4.02	254	ePn	Pn	13 45 29.8	+1.1
WET				eSg	Sg	13 46 33.1	-1.9
WET	Wettzell	4.02	254	ePn	Pn	13 45 29.8	+1.1
WET				eSg	Sg	13 46 33.1	-2.0
WET	Wettzell	4.02	254	Pn	Pn	13 45 29.8	+1.1
WET				Sg	Sg	13 46 33.1	-2.0
TANN	Tannenbergstha	4.04	273	ePn	Pn	13 45 30.1	+1.2
TANN				eSg	Sg	13 46 34.0	-1.7
TANN	Tannenbergstha	4.04	273	Pn	Pn	13 45 30.1	+1.2
TANN				Sg	Sg	13 46 34.0	-1.7
NKC	Novy Kostel	4.06	270	eSG	Sg	13 46 35.0	-1.3
	comp=Z,160nm,0.6s						
NKC	Novy Kostel	4.06	270	eSg	Sg	13 46 35.0	-1.3
	comp=Z,160nm,0.6s						
WERD	Werda	4.14	273	ePn	Pn	13 45 31.6	+1.4
WERD				eSg	Sg	13 46 38.7	-0.1
WERD	Werda	4.14	273	Pn	Pn	13 45 31.6	+1.3
WERD				Sg	Sg	13 46 38.7	-0.2
PKSM	Moragy	4.18	181	⇑P	Pn	13 45 30.3	-0.4
PKSM	Moragy	4.18	181	⇑iP	Pn	13 45 30.3	-0.5
PKSM	Moragy	4.18	181	⇓ePn	Pn	13 45 30.6	-0.2
ROTZ	Rotzenmuhle	4.28	264	eSg	Sg	13 46 41.8	-1.5
ROTZ	Rotzenmuhle	4.28	264	Sg	Sg	13 46 41.8	-1.5
MANZ	Manzenberg	4.31	267	eSg	Sg	13 46 43.1	-1.1
MANZ	Manzenberg	4.31	267	Sg	Sg	13 46 43.1	-1.1
DRGR		4.44	143	⇑P	Pn	13 45 34.1	-0.3
DRGR				S	Sn	13 46 22.8	-4.0
DRGR		4.44	143	⇑iP	Pn	13 45 34.1	-0.3
DRGR		4.44	143	S	Sn	13 46 22.8	-3.9
RHK3	Tenkes	4.51	185	⇓eP	Pn	13 45 35.6	+0.2
SUW	Suwalki	4.53	35	ePn	Pg	13 45 54.6	+2.0
SUW				eS	Sg	13 47 00.3	+9.0
MOX	Moxa	4.58	276	ePn	Pn	13 45 38.2	+1.9
MOX	Moxa	4.58	276	ePn	Pn	13 45 38.5	+2.2
MOX				eSn	Sn	13 46 30.4	+0.2
MOX				eSg	Sg	13 46 54.5	+1.6
MOX	Moxa	4.58	276	ePN	Pn	13 45 38.5	+2.2
MOX				eSN	Sn	13 46 30.4	+0.2
MOX				eSG	Sg	13 46 54.5	+1.6
MOX	Moxa	4.58	276	eP	Pn	13 45 38.5	+2.2
MOX				e		13 46 30.4	
MOX	Moxa	4.58	276	Pn	Pn	13 45 38.2	+1.9
MOX				eS	Sn	13 46 30.4	+0.2
KBA	Koelnbreinsper	4.89	229	⇓iSg	Sg	13 47 02.5	-0.2
	comp=Z,119nm,0.9s						
KBA	Koelnbreinsper	4.89	229	⇓iSg	Sg	13 47 02.5	-0.2
	comp=Z,119nm,0.9s						
KBA	Koelnbreinsper	4.89	229	Sg	Sg	13 47 02.5	-0.3
	comp=Z,119nm,0.9s						
GRA1	Grafenberg Arr	4.92	265	Sg	Sg	13 47 05.0	+1.1
GRF	Grafenberg Arr	4.92	265	eSg	Sg	13 47 05.0	+1.1
BURAR	Bucovina Array	5.06	121	⇓P	Pn	13 45 43.0	+0.1
BURAR	Bucovina Array	5.06	121	⇓iP	Pn	13 45 43.0	+0.1
BZS	Buzias	5.13	157	⇑P	Pn	13 45 43.8	-0.2
BZS	Buzias	5.13	157	⇑iP	Pn	13 45 43.8	-0.1
VOY	Vojsko	5.44	219	e(Pn)	Sn	13 46 41.4	-10
VOY				eSg	Sg	13 47 27.1	+6.5
CLZ	Clausthal	5.50	289	ePn	Pn	13 45 50.2	+1.4
CLZ				eSg	Sg	13 47 23.1	+0.8
CLZ	Clausthal	5.50	289	ePn	Pn	13 45 50.2	+1.3
CLZ				eSg	Sg	13 47 23.1	+0.8
CLZ	Clausthal	5.50	289	Pn	Pn	13 45 50.2	+1.3
CLZ				Sg	Sg	13 47 23.1	+0.8
GZR	Gura Zlata	5.67	150	⇓P	Pn	13 45 51.7	+0.4
GZR	Gura Zlata	5.67	150	⇓iP	Pn	13 45 51.7	+0.4
AKASG	Malin Array Be	6.66	83	Pn	Pn	13 46 03.8	-1.1
AKASG				Pg	Pg	13 46 23.4	-10
AKASG				Sn	Sn	13 47 15.9	-5.6
AKASG				Lg		13 47 59.6	
AKASG	Malin Array Be	6.66	83	P	Pn	13 46 03.8	-1.1
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	6.66	83	Pn	Pn	13 46 03.8	-1.1
	comp=Z,0.8nm,0.3s,baz=269,slow=12,SNR=3.3						
AKASG				Pg	Pg	13 46 23.4	-10
	comp=Z,1.3nm,0.3s,baz=271,slow=14,SNR=5.5						
AKASG				Sn	Sn	13 47 15.9	-5.6
	comp=Z,2.9nm,0.3s,baz=264,slow=23,SNR=7.0						
AKASG				Lg		13 47 59.6	
	comp=Z,3.6nm,0.3s,baz=266,slow=26,SNR=7.9						
MLR	Muntele Rosu	6.86	133	P	Pn	13 46 08.4	+0.8
MLR				MLR	MLR		
	comp=Z,58nm,18.2s						
MLR	Muntele Rosu	6.86	133	Pn	Pn	13 46 08.4	+0.8
	comp=Z,0.1nm,0.3s,baz=285,slow=18,SNR=2.3						
MLR				LR	LR	13 48 56.1	
	comp=Z,58nm,18.2s,baz=170,slow=40						
MLR	Muntele Rosu	6.86	133	⇑iP	Pn	13 46 08.4	+0.8
DAVOX	Davos/Dischmat	6.92	242	Pn	Pn	13 46 11.4	+3.0
DAVOX				Lg		13 48 07.1	
DAVOX	Davos/Dischmat	6.92	242	Pn	Pn	13 46 11.4	+3.0
	comp=Z,0.7nm,0.3s,baz=18,slow=8.6,SNR=6.9						
DAVOX				Lg		13 48 07.1	
	comp=Z,2.9nm,0.3s,baz=196,slow=20,SNR=9.9						
DAVOX	Davos/Dischmat	6.92	242	Pn	Pn	13 46 11.4	+3.0
VSU	Vasula	9.32	27	i P	Pn	13 46 39.3	-2.0
HFS	Hagfors	10.19	345	Pn	Pn	13 46 52.6	-0.6
HFS				Sn	Sn	13 48 43.6	-4.4
HFS				Lg		13 50 04.2	
HFS	Hagfors	10.19	345	P	Pn	13 46 52.6	-0.6
HFS						13 48 43.6	
HFS	Hagfors	10.19	345	Pn	Pn	13 46 52.6	-0.6
	comp=Z,0.2nm,0.3s,baz=129,slow=14,SNR=4.2						
HFS				Sn	Sn	13 48 43.6	-4.4
	comp=Z,0.2nm,0.3s,baz=156,slow=19,SNR=2.3						
HFS				Lg		13 50 04.2	
	comp=Z,0.1nm,0.3s,baz=155,slow=21,SNR=2.6						
NOA	NORSAR Array B	11.49	341	P	Pn	13 47 09.2	-1.8
NOA						13 49 15.0	
NOA	NORSAR Array B	11.49	341	Pn	Pn	13 47 09.2	-1.8
	comp=Z,0.2nm,0.3s,baz=154,slow=12,SNR=3.2						
NOA				Sn	Sn	13 49 15.0	-4.9
	comp=Z,0.2nm,0.3s,baz=315,slow=24,SNR=3.4						
NOA				Lg		13 50 31.6	
	comp=Z,0.1nm,0.3s,baz=154,slow=9.0,SNR=3.7						
OBN	Obninsk	11.76	59	P	Pn	13 47 13.0	-1.7
OBN				eS	Sn	13 49 24.3	-2.3
FINES	FINESS Array B	11.81	17	P	Pn	13 47 12.7	-2.6
FINES						13 49 19.3	
FINES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
FINES	FINESS Array B	11.81	17	Pn	Pn	13 47 12.7	-2.6
	comp=Z,0.5nm,0.3s,baz=188,slow=12,SNR=17						
FINES				Sn	Sn	13 49 19.2	-8.3
	comp=Z,0.4nm,0.3s,baz=196,slow=19,SNR=6.5						
FINES				Lg		13 50 44.9	
	comp=Z,0.2nm,0.3s,baz=199,slow=28,SNR=5.1						
KAF	Kangasniemi	12.47	17	ep	Pn	13 47 21.4	-2.9
	comp=Z,1.7nm,0.3s						
KAF	Kangasniemi	12.47	17	eP	Pn	13 47 21.4	-2.9
KAF				pmax	pmax		
	comp=Z,2.0nm,0.3s						
JOF	Joensuu	14.29	24	ep	Pn	13 47 44.4	-4.7
	comp=Z,2.4nm,0.4s						
JOF	Joensuu	14.29	24	eP	Pn	13 47 44.4	-4.7
JOF				pmax	pmax		
	comp=Z,2.0nm,0.4s						
BRTR	Keskin Array B	14.93	130	Pn	Pn	13 48 01.6	+3.6
	comp=Z,0.1nm,0.3s,baz=46,slow=37,SNR=2.6						
KIV	Kislovodsk	17.44	102	P	Pn	13 48 27.0	-3.3
KIV				S	Sn	13 51 41.0	-3.8
KIV				pmax	pmax		
	comp=Z,7.0nm,1.4s						

ARCES	ARCESS Array B	19.48	7	P	Pn	13 48 52.5	-2.6
ARCES	ARCESS Array B	19.48	7	Pn	Pn	13 48 52.5	-2.5
	comp=Z,0.4nm,0.3s,baz=191,slow=14,SNR=16						
AKTK	Aktyubinsk	24.81	75	P	P	13 49 50.6	+1.3
	comp=Z,1.0nm,0.4s,mb3.9						
AKTO	Aktyubinsk	24.81	75	P	P	13 49 50.6	+1.3
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
AKTO	Aktyubinsk	24.81	75	P	P	13 49 50.6	+1.3
	comp=Z,0.5nm,0.4s,mb3.6,baz=265,slow=9.6,SNR=4.1						
TORD	Torodi Ar. Bea	39.67	207	P	P	13 51 59.6	+0.1
	comp=Z,0.3nm,0.7s,mb3.0,baz=15,slow=6.2,SNR=3.7						
SONM	Songino Array	54.15	56	P	P	13 53 54.3	+1.9
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	Songino Array	54.15	56	P	P	13 53 54.3	+1.8
	comp=Z,0.5nm,0.8s,mb3.6,baz=306,slow=6.8,SNR=4.8						
YKA	Yellowknife Ar	61.56	337	P	P	13 54 45.0	+0.8
YKA	Yellowknife Ar	61.56	337	P	P	13 54 45.0	+0.8
	comp=Z,0.1nm,0.4s,mb3.4,baz=30,slow=6.4,SNR=3.3						

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*NEIC **09** 13:46:48.3±0.5, 1.25N×126.09E, h10^{km}, mb4.3/5, Error ellipse: s-maj=23.0km s-min=8.4km az=67.0*

*ISCJB **09** 13:46:51.4±1.9, 1.18N±0.08×126.0E±0.1, h47^{km}±17^{km}, mb4.3/15, MS3.4/1, Error ellipse: s-maj=24.2km s-min=8.9km az=156.7*

*IDC **09** 13:46:58.1±3.8, 1.11N×125.98E, h96^{km}±34^{km}, mb3.9/11, mb1 4.0/12, mb1mx3.9/19, mbtmp3.9/12, MS3.4/1, Ms1 3.3/1, ms1mx2.4/29, Error ellipse: s-maj=27.6km s-min=11.4km az=73.0*

ISC 09 13:46:54.2±1.5**, 1.12N**±0.07×**126.1E**±0.1**, h60**^{km}±14^{km}**, n32, σ0^{s}95**/31**, mb4.3**/15**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAGZ	Pagadian	7.20	338	*e*P	Pn	13 48 36.4	-0.5
KAKA	Kakadu	15.13	155	*e*P	Pn	13 50 23.7	-0.7
	13nm,0.6s						
FITZ	Fitzroy Crossi	19.10	181	*e*P	Pn	13 51 13.1	-0.5
	6.7nm,0.8s						
FITZ	Fitzroy Crossi	19.10	181	P	Pn	13 51 13.1	-0.5
	0.4nm,0.3s,baz=20,slow=12,SNR=13						
WRA	Warramunga Arr	22.45	159	P	P	13 51 48.7	+0.4
	5.0nm,0.5s,mb4.2,baz=335,slow=11,SNR=84						
WRA				S	S	13 55 50.1	-1.0
	1.6nm,0.9s,baz=326,slow=20,SNR=4.5						
WB2	Warramunga Arr	22.45	159	*e*P	P	13 51 48.6	+0.3
PSI	Prapat	27.17	274	P	P	13 52 32.9	+0.6
PSI	Prapat	27.17	274	P	P	13 52 32.9	+0.6
	12nm,0.8s,mb4.5,baz=90,slow=5.4,SNR=10.0						
STKA	Stephens Creek	35.97	157	*e*P	P	13 53 50.9	+1.7
	2.6nm,0.6s,mb4.3						
STKA	Stephens Creek	35.97	157	P	P	13 53 50.6	+1.4
	3.1nm,0.6s,mb4.4,baz=324,slow=9.7,SNR=6.9						
STKA				LR	LR	14 09 48.1	
	comp=Z,55nm,18.7s,baz=24,slow=38						
KSRS	Korea Array	36.20	3	P	P	13 53 52.4	+1.2
	0.8nm,0.6s,mb3.9,baz=182,slow=9.9,SNR=3.3						
MJAR	Matsushiro Arr	37.00	16	P	P	13 53 58.7	+0.7
	0.8nm,0.5s,mb3.8,baz=200,slow=9.2,SNR=3.8						
LSA	Lhasa	43.71	314	*e*P	P	13 54 56.1	+2.5
	3.7nm,0.7s,mb4.2						
ODAN	Odare	45.09	308	*e*P	P	13 55 05.7	+1.0
	3.1nm,0.4s,mb4.5						
JIRN	Jiri	46.41	308	*e*P	P	13 55 14.9	-0.1
	2.5nm,0.2s,mb4.8						
GUN	Gumba	46.77	308	*e*P	P	13 55 17.1	-0.8
	16nm,0.7s						
KOLN	Koldanda	48.51	307	*e*P	P	13 55 31.3	-0.1
	20nm,0.6s						
HYB	Hyderabad	49.42	292	*e*P	P	13 55 39.5	+1.0
HYB	Hyderabad	49.42	292	*i* P	P	13 55 39.5	+1.0
SONM	Songino Array	49.56	343	P	P	13 55 39.4	+0.3
	0.4nm,0.4s,mb3.8,baz=166,slow=5.1,SNR=5.7						
MK31	Makanchi Array	59.33	326	*e*P	P	13 56 49.6	-0.4
MKAR	Makanchi Array	59.33	326	P	P	13 56 49.2	-0.8
MKAR	Makanchi Array	59.33	326	P	P	13 56 49.2	-0.8
	1.0nm,0.3s,mb4.3,baz=122,slow=7.5,SNR=52						
ZALV	Zalesovo Beam	62.61	334	P	P	13 57 10.7	-1.4
	0.6nm,0.4s,mb4.1,baz=145,slow=4.7,SNR=5.9						
KURK	Kurchatov	63.59	328	*e*P	P	13 57 17.9	-0.8
	5.4nm,0.6s,mb4.8						
BRVK	Borovoye	69.22	328	*e*P	P	13 57 54.8	+0.2
AKTK	Aktyubinsk	75.29	322	P	P	13 58 29.7	-1.2
AKTO	Aktyubinsk	75.29	322	P	P	13 58 29.7	-1.2
	2.0nm,0.4s,mb4.4,baz=113,slow=8.1,SNR=8.1						
ARCES	ARCESS Array B	92.65	340	P	P	13 59 57.8	-1.3
	5.0nm,0.9s,mb4.9,baz=63,slow=5.6,SNR=6.2						
FINES	FINESS Array B	93.80	332	P	P	14 00 05.8	+1.3
	0.3nm,0.4s,mb4.0,baz=113,slow=37,SNR=6.3						
TORD	Torodi Ar. Bea	123.05	286	PKP	PKPdf	14 05 45.7	+0.7
TORD	Torodi Ar. Bea	123.05	286	PKP	PKPdf	14 05 45.7	+0.7
	0.6nm,0.7s,baz=44,slow=1.9,SNR=3.5						

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*NEIC **09** 13:51:01.4, 36.31S×177.53E, h303^{km}, MG5.1(WEL), After WEL.*

*ISCJB **09** 13:51:02.5±1.0, 36.73S±0.08×177.7E±0.1, h320^{km}±5^{km}, mb3.7/2, Error ellipse: s-maj=18.4km s-min=12.6km az=17.9*

*IDC **09** 13:51:02.2±1.4, 36.72S×177.69E, h308^{km}±15^{km}, mb3.7/2, mb1 3.9/3, mb1mx3.5/12, mbtmp3.8/3, Error ellipse: s-maj=44.6km s-min=29.6km az=147.0*

*WEL **09** 13:51:03.4±0.3, 36.21S×177.51E, h275^{km}±2^{km}, ML5.1/23, Error ellipse: s-maj=4.7km s-min=3.1km az=0.0*

ISC 09 13:51:04.0±1.0**, 36.77S**±0.08×**177.6E**±0.1**, h314**^{km}±5^{km}**, n137, σ0^{s}89**/144**, mb3.8**/2**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	0.95	146	PN	Pn	13 51 44.4	-1.2
MXZ				SN	S	13 52 15.6	-3.2
PUZ	Puketiti	1.39	159	P	Pn	13 51 47.7	-0.1
PUZ				S	S	13 52 21.8	-0.9
PUZ	Puketiti	1.39	159	PN	Pn	13 51 47.7	-0.1
PUZ				SN	S	13 52 21.8	-1.0
MARZ	Manawahe	1.44	212	P	Pn	13 51 47.1	-1.0
MARZ				S	S	13 52 23.0	-0.2
MARZ	Manawahe	1.44	212	PN	Pn	13 51 47.1	-1.0
MARZ				SN	S	13 52 21.7	-1.5
TGRZ	Tauranga	1.46	229	P	Pn	13 51 46.9	-1.3
TGRZ	Tauranga	1.46	229	PN	Pn	13 51 46.9	-1.3
EDRZ	Edgecumbe	1.52	208	P	Pn	13 51 48.1	-0.5
EDRZ	Edgecumbe	1.52	208	PN	Pn	13 51 48.1	-0.4
EDRZ				SN	S	13 52 24.1	0.0
KUZ	Kuaotunu	1.54	270	P	Pn	13 51 44.4	-4.4
KUZ	Kuaotunu	1.54	270	PN	Pn	13 51 44.4	-4.4
KUZ				SN	S	13 52 16.4	-8.1
URZ	Urewera	1.54	196	P	Pn	13 51 48.0	-0.7
	136nm,0.3s,baz=303,slow=2.0,SNR=817						
URZ				S	S	13 52 22.3	-2.2
	168nm,0.3s,baz=213,slow=23,SNR=19						
URZ	Urewera	1.54	196	PN	Pn	13 51 48.0	-0.7
URZ				SN	S	13 52 22.5	-1.9
MWZ	Matawai	1.56	183	P	Pn	13 51 48.9	0.0
MWZ	Matawai	1.56	183	PN	Pn	13 51 48.9	+0.1
MWZ				SN	S	13 52 23.6	-1.0
MKRZ	Makatiti	1.66	214	P	Pn	13 51 49.8	+0.3
MKRZ	Makatiti	1.66	214	PN	Pn	13 51 49.8	+0.4
KARZ	Kaharoa	1.67	221	P	Pn	13 51 48.9	-0.7
KARZ	Kaharoa	1.67	221	PN	Pn	13 51 48.9	-0.6
TAZ	Tarawera	1.71	211	P	Pn	13 51 51.9	+2.0
TAZ	Tarawera	1.71	211	PN	Pn	13 51 52.4	+2.5
PATZ	Paeroa	1.95	214	P	Pn	13 51 51.8	+0.3
PATZ	Paeroa	1.95	214	PN	Pn	13 51 51.8	+0.2
KNZ	Kokohu	2.25	179	P	Pn	13 51 54.8	+0.9
KNZ	Kokohu	2.25	179	PN	Pn	13 51 54.8	+0.9
WHTZ	Whakaora	2.32	215	P	Pn	13 51 55.5	+1.0
WHTZ	Whakaora	2.32	215	PN	Pn	13 51 55.5	+1.0
HATZ	Hinemaiaia	2.45	210	P	Pn	13 51 55.8	+0.2
HATZ	Hinemaiaia	2.45	210	PN	Pn	13 51 55.8	+0.2
WATZ	Wairara	2.46	217	P	Pn	13 51 56.1	+0.5
WATZ	Wairara	2.46	217	PN	Pn	13 51 56.1	+0.5
BKZ	Black Stump Fm	2.56	200	P	Pn	13 51 56.6	+0.1
BKZ	Black Stump Fm	2.56	200	PN	Pn	13 51 56.6	+0.1
RATZ	Rangitukua	2.56	215	P	Pn	13 51 56.9	+0.3
RATZ	Rangitukua	2.56	215	PN	Pn	13 51 56.9	+0.3
RITZ	Rihia Road	2.62	212	P	Pn	13 51 57.5	+0.4
RITZ	Rihia Road	2.62	212	PN	Pn	13 51 57.5	+0.5
KATZ	Kakaramea	2.69	214	P	Pn	13 51 58.1	+0.4
KATZ	Kakaramea	2.69	214	PN	Pn	13 51 58.1	+0.5
KRVZ	Karewarewa	2.81	214	PN	Pn	13 51 59.2	+0.4
HIZ	Hauiti	2.81	231	*e*P	Pn	13 51 59.3	+0.4
HIZ	Hauiti	2.81	231	PN	Pn	13 51 59.3	+0.5
WTVZ	West Tongariro	2.85	214	P	Pn	13 51 59.6	+0.4
WTVZ	West Tongariro	2.85	214	PN	Pn	13 51 59.6	+0.4
OTVZ	Oturere	2.85	213	PN	Pn	13 51 59.7	+0.5
TWVZ	Taurewa	2.88	216	P	Pn	13 51 59.9	+0.4
TWVZ	Taurewa	2.88	216	PN	Pn	13 51 59.9	+0.4
NGZ	Ngauruhoe	2.89	213	P	Pn	13 52 00.1	+0.5
NGZ	Ngauruhoe	2.89	213	PN	Pn	13 52 00.1	+0.5
WPVZ	Whakapapa	2.94	214	P	Pn	13 52 00.3	+0.2
WPVZ	Whakapapa	2.94	214	PN	Pn	13 52 00.3	+0.3
TUVZ	Tukino	2.95	212	P	Pn	13 52 00.6	+0.5
TUVZ	Tukino	2.95	212	PN	Pn	13 52 00.6	+0.5
FWVZ	Far West T-bar	2.98	213	P	Pn	13 52 01.0	+0.6
FWVZ	Far West T-bar	2.98	213	PN	Pn	13 52 01.0	+0.5
TRVZ	Turoa	3.02	213	PN	Pn	13 52 01.4	+0.6
WNVZ	Wahianoa	3.02	212	P	Pn	13 52 01.3	+0.5
WNVZ	Wahianoa	3.02	212	PN	Pn	13 52 01.3	+0.5
MOVZ	Moawhango	3.02	209	P	Pn	13 52 00.9	0.0
MOVZ	Moawhango	3.02	209	PN	Pn	13 52 00.9	0.0
PKVZ	Pokaka	3.10	215	PN	Pn	13 52 01.9	+0.3
MTVZ	Mangateitei	3.12	213	PN	Pn	13 52 00.7	-1.1
VRZ	Vera Road	3.27	223	P	Pn	13 52 04.2	+0.9
VRZ	Vera Road	3.27	223	PN	Pn	13 52 04.2	+0.9
PXZ	Pawanui	3.31	190	PN	Pn	13 52 04.8	+1.1
TSZ	Takapari Road	3.54	201	P	Pn	13 52 06.5	+0.5
TSZ	Takapari Road	3.54	201	PN	Pn	13 52 06.4	+0.4
RAEZ	Rainy Point	3.59	225	PN	Pn	13 52 08.3	+1.7
WAZ	Wanganui	3.64	214	P	Pn	13 52 07.5	+0.5
WAZ	Wanganui	3.64	214	PN	Pn	13 52 07.5	+0.5
NEZ	North Egmont	3.75	227	PN	Pn	13 52 09.7	+1.5
PKE	Pukeiti	3.77	229	PN	Pn	13 52 10.5	+2.1
NWEZ	Newall Road	3.89	229	PN	Pn	13 52 11.5	+1.8
BFZ	Birch Farm	4.05	195	P	Pn	13 52 12.2	+0.8
BFZ	Birch Farm	4.05	195	PN	Pn	13 52 12.2	+0.8
MRZ	Mangatainoka R	4.21	202	P	Pn	13 52 13.2	+0.1
MRZ	Mangatainoka R	4.21	202	PN	Pn	13 52 13.2	+0.1
TIWZ	Tintock	4.23	198	PN	Pn	13 52 14.1	+0.8
KIW	Kapiti Island	4.61	207	P	Pn	13 52 17.5	0.0
KIW	Kapiti Island	4.61	207	PN	Pn	13 52 17.5	0.0
MTW	Mount Morrison	4.69	200	P	Pn	13 52 18.7	+0.3
MTW	Mount Morrison	4.69	200	PN	Pn	13 52 18.7	+0.3
CAW	Cannon Point	4.77	204	P	Pn	13 52 19.3	-0.1
CAW	Cannon Point	4.77	204	PN	Pn	13 52 19.3	-0.1
TRWZ	Traveller	4.87	198	PN	Pn	13 52 21.4	+1.0
PAWZ	Paruwai Farm	4.92	200	P	Pn	13 52 21.4	+0.4
PAWZ	Paruwai Farm	4.92	200	PN	Pn	13 52 21.4	+0.5
DUWZ	D’Urville Isla	4.96	215	PN	Pn	13 52 20.9	-0.6
MSWZ	Moikau Station	5.00	201	P	Pn	13 52 22.2	+0.3
MSWZ	Moikau Station	5.00	201	PN	Pn	13 52 22.2	+0.3
MRW	Makara Radio	5.01	206	P	Pn	13 52 22.2	+0.2
MRW	Makara Radio	5.01	206	PN	Pn	13 52 22.2	+0.2
WEL	Wellington	5.03	205	P	Pn	13 52 22.4	+0.1
WEL	Wellington	5.03	205	PN	Pn	13 52 22.4	+0.1
SNZO	South Karori	5.08	206	P	Pn	13 52 22.8	0.0
SNZO	South Karori	5.08	206	PN	Pn	13 52 22.8	0.0
BHW	Baring Head	5.11	204	P	Pn	13 52 23.1	-0.1
BHW	Baring Head	5.11	204	PN	Pn	13 52 23.1	-0.1
TCW	Tory Channel	5.15	210	P	Pn	13 52 23.4	-0.3
TCW	Tory Channel	5.15	210	PN	Pn	13 52 23.4	-0.2
TUWZ	Tuamarina	5.47	211	PN	Pn	13 52 27.0	-0.3
NNZ	Nelson	5.54	215	*e*P	Pn	13 52 27.6	-0.6
NNZ	Nelson	5.54	215	PN	Pn	13 52 27.6	-0.6
QRZ	Quartz Range	5.69	223	P	Pn	13 52 28.1	-1.8
QRZ	Quartz Range	5.69	223	PN	Pn	13 52 28.1	-1.7
BSWZ	Blackbirch Sta	5.74	209	P	Pn	13 52 30.7	+0.2
BSWZ	Blackbirch Sta	5.74	209	PN	Pn	13 52 30.7	+0.2
THZ	Tophouse	6.19	215	*e*P	Pn	13 52 34.7	-1.1
THZ	Tophouse	6.19	215	PN	Pn	13 52 34.7	-1.1
KHZ	Kahutara	6.47	208	P	Pn	13 52 39.5	+0.4
KHZ	Kahutara	6.47	208	PN	Pn	13 52 39.5	+0.5
DSZ	Denniston Nort	6.72	221	*e*P	Pn	13 52 40.4	-1.7
DSZ	Denniston Nort	6.72	221	PN	Pn	13 52 40.4	-1.7
LTZ	Lake Taylor	7.29	213	*e*P	Pn	13 52 48.5	-0.4
LTZ	Lake Taylor	7.29	213	PN	Pn	13 52 48.5	-0.5
CRLZ	Canterbury Las	7.81	208	*e*P	Pn	13 52 55.4	+0.2
CRLZ	Canterbury Las	7.81	208	PN	Pn	13 52 55.4	+0.2
MQZ	McQueen’s Vall	7.91	207	*e*P	Pn	13 52 56.4	0.0
MQZ	McQueen’s Vall	7.91	207	PN	Pn	13 52 56.4	-0.1
WVZ	Waitaha Valley	8.23	218	*e*P	Pn	13 52 59.3	-1.1
WVZ	Waitaha Valley	8.23	218	PN	Pn	13 52 59.3	-1.0
RPZ	Rata Peaks	8.57	214	*e*P	Pn	13 53 03.9	-0.6
RPZ	Rata Peaks	8.57	214	P	Pn	13 53 04.4	-0.1
	6.9nm,0.3s,baz=52,slow=2.4,SNR=27						
RPZ				S	S	13 54 40.9	-1.6
	7.8nm,0.3s,baz=303,slow=23,SNR=16						
FOZ	Fox Glacier	9.11	219	*e*P	Pn	13 53 08.9	-2.2
LBZ	Lake Benmore	9.48	214	*e*P	Pn	13 53 15.5	-0.1
ODZ	Otahua Downs	9.81	210	*e*P	Pn	13 53 20.8	+1.2
JCZ	Jackson Bay	9.95	220	*e*P	Pn	13 53 20.3	-1.0
WKZ	Wanaka	10.36	216	*e*P	Pn	13 53 25.3	-1.0
EAZ	Earnscleugh	10.53	214	*e*P	Pn	13 53 28.2	-0.2
TUZ	Tuapeka	10.97	211	*e*P	Pn	13 53 34.6	+1.0
WHZ	Wether Hill Ro	11.66	216	*e*P	Pn	13 53 41.5	-0.5
WRA	Warramunga Arr	41.25	282	P	P	13 58 18.1	-1.3
	6.0nm,0.4s,mb4.2,baz=120,slow=7.5,SNR=192						
FITZ	Fitzroy Crossi	49.14	278	P	P	13 59 20.0	-0.9
	1.1nm,0.6s,mb3.4,baz=173,slow=21,SNR=6.3						
ARCES	ARCESS Array B	143.86	344	PKP	PKPdf	14 09 59.0	-1.9
	4.3nm,0.9s,baz=30,slow=2.4,SNR=8.0						
JOF	Joensuu	146.70	332	*e*p	PKPdf	14 10 05.8	-0.1
	2.7nm,0.5s						
KAF	Kangasniemi	149.02	334	*e*p	PKPdf	14 10 10.9	+1.2
	1.6nm,0.5s						
FINES	FINESS Array B	149.54	333	PKPbc	PKPbc	14 10 13.6	-1.9
	1.0nm,0.5s,baz=50,slow=4.3,SNR=12						

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*CSEM **09** 14:00:38.9±0.2, 41.89N×27.37E, h10^{km}, MD2.9, Error ellipse: s-maj=7.5km s-min=3.5km az=20.0*

*ISCJB **09** 14:00:39.5±0.6, 41.81N±0.04×27.32E±0.04, h7^{km}±8^{km}, Error ellipse: s-maj=7.5km s-min=4.4km az=34.2*

*ISK **09** 14:00:39.6, 41.76N×27.26E, h13^{km}, MD2.9*

*THE **09** 14:00:40.2, 41.84N×27.31E, h3^{km}, ML2.9*

ISC 09 14:00:40.5±0.6**, 41.80N**±0.04×**27.30E**±0.05**, h11**^{km}±7^{km}**, n23, σ0^{s}92**/33**, 3D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EDRB	Edirne	0.42	277	*i* PG	Pg	14 00 48.1	-0.7
EDRB				*i* SG	Sg	14 00 53.9	-0.5
EDRB	Edirne	0.42	277	*i* Pg	Pg	14 00 48.1	-0.7
EDRB				*i* Sg	Sg	14 00 53.9	-0.5
JMB	Yambol	0.85	321	*e*Pg	Pg	14 00 55.6	-1.4
JMB				*e*Sg	Sg	14 01 08.8	+0.6
JMB	Yambol	0.85	321	*e*Pg	Pg	14 00 55.6	-1.4
JMB				*e*Sg	Sg	14 01 08.8	+0.7
CTT	Catalca	1.07	127	PG	Pg	14 01 00.5	-0.6
CTT				SG	Sg	14 01 15.9	+0.9
CTT	Catalca	1.07	127	*e*Pg	Pg	14 01 00.5	-0.6
CTT				*e*Sg	Sg	14 01 15.9	+0.9
ALN	Alexandroupoli	1.31	227	*e*Pg	Pg	14 01 05.5	-0.1
ALN				*e*Sg	Sg	14 01 24.5	+1.9
ALN	Alexandroupoli	1.31	227	*e*Pg	Pg	14 01 05.5	-0.1
ALN				*e*Sg	Sg	14 01 24.5	+1.9
ENEZ	Enez	1.37	220	*e*PN	Pn	14 01 04.3	-1.3
ENEZ	Enez	1.37	220	*e*Pn	Pn	14 01 04.3	-1.3
KLYT	Kilyos	1.42	112	*e*PN	Pn	14 01 06.0	-0.2
KLYT	Kilyos	1.42	112	*e*Pn	Pn	14 01 06.0	-0.2
ISK	Istanbul-Kandi	1.51	118	*e*PN	Pn	14 01 06.8	-0.7
ISK	Istanbul-Kandi	1.51	118	*e*Pg	Pn	14 01 07.6	+0.1
ISK				*e*Sg	Sg	14 01 29.2	+0.1
ISK	Istanbul-Kandi	1.51	118	*e*Pn	Pn	14 01 06.8	-0.7
ISK	Istanbul-Kandi	1.51	118	*e*Pg	Pn	14 01 07.6	+0.1
ISK				*e*Sg	Sg	14 01 29.2	+0.1
YLV	Yalova	1.99	128	*e*PN	Pn	14 01 14.3	+0.2
YLV	Yalova	1.99	128	*e*Pn	Pn	14 01 14.3	+0.2
IZI	Iznik	2.20	131	*e*PN	Pn	14 01 16.2	-0.8
IZI	Iznik	2.20	131	*e*Pn	Pn	14 01 16.2	-0.8
TIRR	Tirgusor	2.78	17	⇓*i*P	Pn	14 01 24.5	-0.4
MLR	Muntele Rosu	3.82	346	⇓*i*P	Pn	14 01 40.8	+1.6
VRI	Vrincioaia	4.09	354	⇓*i*P	Pn	14 01 44.3	+1.4

IDC 09 14:04:58.9±1.1**, 9.34S×158.13E, h0**^{km}**, mb3.8**/4**, mb1 3.9**/4**, mb1mx3.7**/13**, mbtmp3.8**/4**, MS3.4**/1**, Ms1 3.4**/1**, ms1mx2.5**/22**, Error ellipse: s-maj=33.4km s-min=21.1km az=175.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	1.80	93	Pn	Pn	14 05 31.3	+0.1
	23nm,0.3s,baz=244,slow=2.6,SNR=8.0						
HNR				Sn	Sn	14 05 54.3	-0.4
	89nm,0.3s,baz=263,slow=8.1,SNR=10						
DZM	Mont Dzumac	14.97	149	LR	LR	14 12 24.2	
	comp=Z,125nm,19.1s,baz=39,slow=30						
WRA	Warramunga Arr	25.28	243	P	P	14 10 26.7	-0.5
	1.9nm,0.8s,baz=68,slow=9.5,SNR=14						
STKA	Stephens Creek	27.17	212	P	P	14 10 44.4	+0.3
	1.4nm,0.7s,baz=30,slow=16,SNR=2.9						
SONM	Songino Array	72.98	326	P	P	14 16 31.5	+1.2
	0.4nm,0.7s,baz=140,slow=5.6,SNR=3.2						
MKAR	Makanchi Array	87.20	318	P	P	14 17 46.4	-0.7
	0.3nm,0.6s,baz=110,slow=5.8,SNR=5.0						

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*CSEM **09** 14:05:10.8±0.2, 38.43N×39.16E, h10^{km}, MD2.7, Error ellipse: s-maj=4.7km s-min=2.5km az=127.0*

*ISCJB **09** 14:05:11.0±1.1, 38.38N±0.05×39.19E±0.07, h6^{km}, Error ellipse: s-maj=9.5km s-min=5.9km az=41.5*

*ISK **09** 14:05:11.1, 38.43N×39.15E, h6^{km}, MD2.7*

ISC 09 14:05:11.6±1.2**, 38.41N**±0.08×**39.2E**±0.1**, h14**^{km}±18^{km}**, n9, σ0^{s}31**/14**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.16	302	*i* P	Pg	14 05 15.6	+0.2
ELZG				*i* S	Sg	14 05 18.1	-0.1
PTK	Pertek	0.51	21	*e*PG	Pg	14 05 21.0	-0.7
PTK				*e*SG	Sg	14 05 29.0	+0.5
PTK	Pertek	0.51	21	*e*Pg	Pg	14 05 21.0	-0.7
PTK				*e*Sg	Sg	14 05 29.0	+0.5
MALT	Malatya	0.58	260	*e*PG	Pg	14 05 22.9	-0.1
MALT				*e*SG	Sg	14 05 30.8	0.0
MALT	Malatya	0.58	260	*e*Pg	Pg	14 05 22.9	-0.1
MALT				*e*Sg	Sg	14 05 30.8	0.0
MYA	Malataya	0.58	262	*e*PG	Pg	14 05 23.1	+0.1
MYA	Malataya	0.58	262	*e*Pg	Pg	14 05 23.1	+0.1
URFA	Urfa	1.01	196	*e*PG	Pg	14 05 31.1	+0.1
URFA	Urfa	1.01	196	*e*Pg	Pg	14 05 31.1	+0.1

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*CSEM **09** 14:09:50.8±0.1, 36.62N×28.97E, h12^{km}, MD2.8, Error ellipse: s-maj=3.4km s-min=1.6km az=13.0*

*ISK **09** 14:09:50.7, 36.55N×28.95E, h9^{km}, MD2.8*

*ISCJB **09** 14:09:51.6±0.9, 36.57N±0.07×28.95E±0.04, h8^{km}±6^{km}, Error ellipse: s-maj=11.6km s-min=6.0km az=3.1*

*DDA **09** 14:09:52.6, 36.58N×28.96E, h7^{km}±3^{km}, Md2.8*

ISC 09 14:09:51.5±1.0**, 36.56N**±0.07×**28.94E**±0.06**, h9**^{km}±9^{km}**, n12, σ0^{s}58**/20**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.14	55	*i* PG	Pg	14 09 54.2	-0.4
FETY				*i* SG	Sg	14 09 56.6	-0.1
FETY	Fethiye	0.14	55	*i* Pg	Pg	14 09 54.2	-0.4
FETY				*i* Sg	Sg	14 09 56.6	-0.1
DALT	Dalyan (Mudla)	0.32	311	PG	Pg	14 09 57.4	-0.6
DALT				SG	Sg	14 10 03.0	+0.7
DALT	Dalyan (Mudla)	0.32	311	*e*Pg	Pg	14 09 57.4	-0.6
DALT				*e*Sg	Sg	14 10 03.0	+0.7
AKAS	Kas	0.62	121	*i* P	Pg	14 10 04.3	+0.7
AKAS				*i* S	Sg	14 10 16.6	+4.9
AKAS	Kas	0.62	121	*i* P	Pg	14 10 04.3	+0.7
AKAS				*i* S	Sg	14 10 16.6	+4.8
GOLH	Golhisar	0.84	36	*i* P	Pg	14 10 06.6	-1.1
GOLH				*i* S	Sg	14 10 19.5	+0.9
DAT	Datca	1.11	279	*e*PN	Pn	14 10 13.0	-0.3
DAT	Datca	1.11	279	*e*Pn	Pn	14 10 13.0	-0.3
BDRM	Kayabasi	1.31	293	*i* P	Pn	14 10 16.2	+0.3
BDRM				*i* S	Sb	14 10 33.1	+0.1
BODT	Bodrum	1.40	291	*e*PN	Pn	14 10 17.1	-0.2
BODT	Bodrum	1.40	291	*e*Pn	Pn	14 10 17.1	-0.2

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*NIED **09** 14:22:00, 46.70N×153.30E, h8^{km}, Mw4.3 Best double couple: $M_0$3.56000×10^{15} NP1:ϕ_s220.00000°, δ47.00000°, λ-161.00000°. NP2:ϕ_s117.00000°, δ76.00000°, λ-45.00000°.*

*NEIC **09** 14:22:03.0±0.6, 46.75N×152.96E, h10^{km}, mb3.9/2, Error ellipse: s-maj=17.5km s-min=8.2km az=134.0*

*JMA **09** 14:22:05.2±0.8, 46.70N×153.32E, h30^{km}, M4.8*

*ISCJB **09** 14:22:05.2±0.8, 46.62N±0.06×153.09E±0.08, h46^{km}±8^{km}, mb4.1/19, MS3.1/5, Error ellipse: s-maj=12.2km s-min=5.5km az=138.0*

*SKHL **09** 14:22:06.4±2.4, 46.54N×153.37E, h67^{km}±11^{km}, mb5.1/4*

*IDC **09** 14:22:06.4±0.8, 46.79N×152.87E, h34^{km}±3^{km}, mb3.6/14, mb1 3.9/15, mb1mx3.8/23, mbtmp3.6/15, ML3.8/1, MS3.2/5, Ms1 3.2/5, ms1mx2.8/34, Error ellipse: s-maj=24.0km s-min=15.4km az=161.0*

*MOS **09** 14:22:06.4±1.3, 46.73N×153.06E, h57^{km}, mb4.1/9, Error ellipse: s-maj=13.2km s-min=8.5km az=65.3*

ISC 09 14:22:07.2±0.7**, 46.61N**±0.06×**153.13E**±0.08**, h46**^{km}±6^{km}**, h39**^{km}±4.8^{km}**:pP-P, n93, σ1^{s}47**/114**, mb4.1**/19**, MS3.1**/5**, 1C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril’sk	3.92	251	⇑*i*PN	Pn	14 23 06.5	+1.7
KUR				*i* S	Sn	14 23 55.2	+5.6
KUR				pmax	pmax		
	comp=Z,230nm,0.6s						
KUR				smax			
	comp=N,840nm,0.6s						
KUR				smax			
	comp=E,530nm,0.6s						
SKR	Severo-Kuril’s	4.53	25	*e*P	Pn	14 23 11.5	-1.7
SKR				AMB	AMB	14 23 14.0	
	comp=E,150nm,0.5s						
SKR				AMB	AMB	14 23 14.0	
	comp=E,290nm,0.5s						
SKR				*i* S	Sn	14 23 58.9	-5.6
SKR				A		14 24 03.5	
	comp=E,290nm,0.3s						
SKR				A		14 24 03.5	
	comp=E,310nm,0.3s						
YUK	Yuzh-Kuril’sk	5.73	246	*e*PN	Pn	14 23 31.9	+2.2
YUK				*e*S	Sn	14 24 39.0	+4.8
YUK				pmax	pmax		
	comp=Z,330nm,0.4s						
YUK				smax			
	comp=N,770nm,0.5s						
YUK				smax			
	comp=E,990nm,0.6s						
YUK				smax			
	comp=N,3µm,0.8s						
YUK				smax			
	comp=E,3µm,0.8s						
YUK	Yuzh-Kuril’sk	5.73	246	*e*P	Pn	14 23 31.9	+2.2
YUK				AMB	AMB	14 23 33.0	
	comp=E,330nm,0.4s						
YUK				*e*S	Sn	14 24 39.0	+4.8
YUK				A		14 24 59.0	
	comp=E,770nm,0.5s						
YUK				A		14 24 59.0	
	comp=E,990nm,0.5s						
YUK				A		14 24 59.0	
	comp=E,3µm,0.8s						
NEM2	Nemuro 2	6.16	241	P	Pn	14 23 35.6	0.0
NEM2				*e*S	Sn	14 24 42.2	-2.5
JRA	Rausu	6.25	248	P	Pn	14 23 39.4	+2.6
JNK	Nakash	6.67	246	P	Pn	14 23 44.4	+1.8
JNK				*e*S	Sn	14 24 57.7	+0.4
JAK	Akkeshi	7.00	242	P	Pn	14 23 47.0	-0.1
JAK				*e*S	Sn	14 25 02.2	-3.1
JTKR	Abashiri--Toko	7.02	251	P	Pn	14 23 49.8	+2.5
YSS	Yuzh-Sakhalins	7.13	277	*e*Pn	Pn	14 23 51.1	+2.3
	comp=E,31nm,0.9s						
YSS	Yuzh-Sakhalins	7.13	277	*e*PN	Pn	14 23 51.0	+2.2
YSS				pmax	pmax		
	comp=Z,40nm,1.0s						
YSS				MLR	MLR		
	comp=Z,300nm,15.0s						
YSS	Yuzh-Sakhalins	7.13	277	*e*P	Pn	14 23 51.0	+2.2
YSS				AMB	AMB	14 24 54.0	
	comp=Z,40nm,1.0s						
YSS				*e*S	Sn	14 25 08.5	0.0

YSS				A		14 25 10.0	
	comp=Z,30nm,0.9s						
PET	Petropavlovsk	7.34	27	ePn	Pn	14 23 50.4	-1.3
	comp=Z,36nm,0.8s						
PET				eSn	Sn	14 25 08.0	-5.6
PET	Petropavlovsk	7.34	27	ePN	Pn	14 23 52.2	+0.5
PET				pmax	pmax		
	comp=Z,48nm,0.8s						
PET				MLR	MLR		
	comp=Z,200nm,18.0s						
JMP	Maruseppu	7.36	253	P	Pn	14 23 54.6	+2.6
JAR	Ashorobuto	7.42	247	P	Pn	14 23 54.8	+2.0
JAR				eS	Sn	14 25 18.3	+2.7
JOB	Onbets	7.58	244	P	Pn	14 23 56.4	+1.4
JOB				eS	Sn	14 25 18.0	-1.6
JKK2	Kamakawa 2	7.82	253	P	Pn	14 24 01.2	+2.9
ASAJ	Asahikawa	7.82	255	P	Pn	14 24 01.9	+3.5
ASAJ	Asahikawa	7.82	255	PN	Pn	14 24 02.0	+3.6
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,181nm,19.1s						
ASAJ	Asahikawa	7.82	255	Pn	Pn	14 24 01.9	+3.6
	comp=Z,4.3nm,0.3s,baz=82,slow=14,SNR=50						
ASAJ				Sn	Sn	14 25 39.6	+14
	comp=Z,0.5nm,0.3s,baz=187,slow=27,SNR=2.3						
ASAJ				LR	LR	14 26 49.7	
	comp=Z,181nm,19.1s,baz=0.1,slow=37						
JWK2	Keihoku	7.93	265	P	Pn	14 24 05.3	+5.5
JCH	Churui	8.03	244	P	Pn	14 24 01.5	+0.3
JCH				eS	Sn	14 25 28.2	-2.4
JFR	Furan	8.23	249	P	Pn	14 24 06.1	+2.1
JAB	Ashibetsu	8.32	252	P	Pn	14 24 08.5	+3.3
JEM	Erimo	8.49	241	P	Pn	14 24 08.6	+1.0
ERM	Erimo	8.50	241	ePn	Pn	14 24 08.3	+0.7
	comp=Z,46nm,0.6s						
ERM				eSn	Sn	14 25 36.3	-5.8
ERM	Erimo	8.50	241	ePN	Pn	14 24 08.3	+0.7
ERM				pmax	pmax		
	comp=Z,46nm,0.6s						
JBT2	Biratori 2	8.57	247	P	Pn	14 24 10.0	+1.4
JNBK	Urakawa-nobuka	8.59	243	P	Pn	14 24 08.5	-0.4
JNBK				eS	Sn	14 25 41.0	-3.4
JNB	Noboribetsu	9.57	249	P	Pn	14 24 22.9	+0.6
JNB				eS	Sn	14 26 06.5	-1.9
JKB	Kayabe	9.88	246	P	Pn	14 24 25.8	-0.7
JKB				eS	Sn	14 26 09.9	-6.0
JSH	Shimam	10.13	252	P	Pn	14 24 31.7	+1.7
JYM2	Yakumo 2	10.18	248	P	Pn	14 24 30.7	+0.1
JSR	Shiriuchi	10.46	246	P	Pn	14 24 33.5	-0.9
JANG	Nango	10.48	238	P	Pn	14 24 32.3	-2.5
JANG				eS	Sn	14 26 21.9	-8.9
JTM	Tenmabayashi	10.49	241	P	Pn	14 24 33.2	-1.7
JTM				eS	Sn	14 26 22.9	-8.0
JTH	Tanohata	10.57	235	P	Pn	14 24 33.1	-2.9
JTH				eS	Sn	14 26 23.4	-10
JOSM	Okushiri--Mats	10.77	250	P	Pn	14 24 38.8	+0.1
OFUJ	Ofunato	11.28	232	P	Pn	14 24 43.3	-2.4
JRG	Rokugo	11.64	236	P	Pn	14 24 49.2	-1.4
JIO	Ouri	11.90	231	P	Pn	14 24 52.4	-1.8
JIO				eS	Sn	14 26 56.3	-9.2
JYA	Atsumi	12.71	236	P	Pn	14 25 03.7	-1.5
MA2	Magadan	13.06	355	ePn	Pn	14 25 08.7	-1.2
	comp=Z,11nm,0.6s						
MA2	Magadan	13.06	355	ePN	Pn	14 25 08.4	-1.5
MA2				pmax	pmax		
	comp=Z,10.0nm,0.6s						
JFY	Yanaizu	13.55	232	P	Pn	14 25 15.2	-1.5
KLR	Kul'dur	14.56	288	eP	Pn	14 25 30.8	+0.5
MJAR	Matsushiro Arr	15.00	233	Pn	Pn	14 25 34.4	-1.8
MJAR	Matsushiro Arr	15.00	233	Pn	Pn	14 25 34.3	-1.8
	comp=Z,0.4nm,0.3s,baz=26,slow=14,SNR=9.0						
MAJO	Matsushiro	15.01	233	ePn	Pn	14 25 35.0	-1.2
	comp=Z,12nm,0.6s						
MAJO	Matsushiro	15.01	233	eP	Pn	14 25 35.0	-1.1
MAJO				pmax	pmax		
	comp=Z,12nm,0.6s						
MAT	Matsushiro	15.01	233	P	Pn	14 25 34.9	-1.2
MAT				eS	S	14 28 31.6	-5.3
SEY	Seymchan	16.36	359	i P	Pn	14 25 52.0	-1.3
MDJ	Mudanjiang	16.58	272	ePn	Pn	14 25 59.0	+2.8
	comp=Z,11nm,0.9s						
KSRS	Korea Array	20.77	253	P	P	14 26 44.9	+0.8
	comp=Z,2.3nm,0.6s,baz=65,slow=8.2,SNR=13						
KSRS				LR	LR	14 33 39.3	
	comp=Z,45nm,20.6s,MS2.8,baz=65,slow=34						
JNU	Nakatsue	21.66	239	LR	LR	14 35 09.4	
	comp=Z,75nm,20.4s,MS3.1,baz=39,slow=36						
BILL	Bilibino	22.52	13	eP	P	14 27 00.6	-2.0
	comp=Z,3.4nm,1.0s,mb3.7						
BILL	Bilibino	22.52	13	P	P	14 27 01.0	-1.6
BILL				e		14 27 13.6	
BILL				e		14 27 21.5	
BILL				MLR	MLR		
	comp=Z,100nm,18.0s,MS3.3						
SONM	Songino Array	31.39	290	P	P	14 28 22.0	-1.5
	comp=Z,0.3nm,0.8s,mb3.2,baz=51,slow=5.7,SNR=2.6						
SONM				LR	LR	14 41 48.8	
	comp=Z,44nm,19.4s,MS3.1,baz=22,slow=38						
IMA2	Indian Mountai	33.91	36	eP	P	14 28 45.6	+0.3
INK	Inuvik	41.76	32	eP	P	14 29 52.0	+0.6
	comp=Z,111nm,0.8s,mb5.5						
INK	Inuvik	41.76	32	P	P	14 29 52.2	+0.8
INK				*PP	pP	14 30 06.0	+2.1
INK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
INK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
INK	Inuvik	41.76	32	P	P	14 29 52.2	+0.8
	comp=Z,2.4nm,0.7s,mb4.0,baz=281,slow=6.7,SNR=9.5						
INK				sP	sP	14 30 06.0	-3.3
	comp=Z,4.2nm,0.6s,baz=304,slow=6.3,SNR=11						
ZALV	Zalesovo Beam	42.70	306	P	P	14 29 58.9	-0.4
	comp=Z,0.2nm,0.3s,mb3.3,baz=54,slow=7.3,SNR=2.6						
ZALV				LR	LR	14 48 22.4	
	comp=Z,26nm,18.4s,MS3.1,baz=98,slow=37						
ZAL	Zalesovo	42.71	306	P	P	14 29 58.9	-0.5
MKAR	Makanchi Array	47.01	297	i P	P	14 30 33.2	-0.4
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	47.01	297	P	P	14 30 32.3	-1.3
	comp=Z,0.6nm,0.6s,mb3.7,baz=69,slow=7.4,SNR=8.2						
YKA	Yellowknife Ar	51.03	37	P	P	14 31 04.7	+0.6
YKA				pP	pP	14 31 14.8	-2.0
YKA				sP	sP	14 31 18.6	-3.7
YKA	Yellowknife Ar	51.03	37	P	P	14 31 04.7	+0.6
YKA				*PP	pP	14 31 14.8	-2.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
YKA	Yellowknife Ar	51.03	37	P	P	14 31 04.7	+0.6
	comp=Z,1.3nm,0.8s,mb3.9,baz=297,slow=7.4,SNR=13						
YKA				pP	pP	14 31 14.8	-2.0
	comp=Z,2.1nm,0.6s,baz=296,slow=7.1,SNR=15						
YKA				sP	sP	14 31 18.5	-3.7
	comp=Z,2.1nm,0.6s,baz=296,slow=7.1,SNR=19						
TAPN	Taplejung	54.12	273	eP	P	14 31 28.2	+0.7
	comp=Z,4.3nm,0.6s,mb4.6						
ODAN	Odare	54.65	273	eP	P	14 31 34.7	+3.4
	comp=Z,4.4nm,0.4s,mb4.8						
JIRN	Jiri	54.97	275	eP	P	14 31 34.5	+0.9
	comp=Z,1.6nm,0.2s,mb4.7						
GUN	Gumba	55.02	275	eP	P	14 31 34.6	+0.6
	comp=Z,5.6nm,0.4s,mb4.9						
KKN	Kakani	55.51	275	eP	P	14 31 38.3	+0.8
	comp=Z,6.5nm,0.5s,mb4.9						
PKI	Pulchoki	55.56	275	eP	P	14 31 38.4	+0.5
KOLN	Koldanda	56.67	277	eP	P	14 31 46.2	+0.4
NVAR	Mina Array Bea	62.49	62	P	P	14 32 26.8	+1.1
NVAR				pP	pP	14 32 38.0	-0.9
NVAR				sP	sP	14 32 42.4	-1.7
NVAR	Mina Array Bea	62.49	62	P	P	14 32 26.8	+1.1
	comp=Z,0.9nm,0.8s,mb3.9,baz=286,slow=6.2,SNR=4.7						
NVAR				pP	pP	14 32 38.0	-0.9
	comp=Z,0.5nm,0.7s,baz=295,slow=6.9,SNR=2.4						
NVAR				sP	sP	14 32 42.4	-1.7
	comp=Z,0.5nm,0.7s,baz=297,slow=6.0,SNR=2.5						
FINES	FINESS Array B	64.17	335	P	P	14 32 35.0	-1.5
FINES	FINESS Array B	64.17	335	P	P	14 32 35.0	-1.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	64.17	335	P	P	14 32 35.0	-1.5
	comp=Z,0.8nm,0.6s,mb3.9,baz=28,slow=8.6,SNR=5.3						
PDAR	Pinedale Array	64.82	54	P	P	14 32 42.1	+1.1
	comp=Z,1.3nm,0.8s,mb4.0,baz=313,slow=1.7,SNR=13						
PDAR				sP	sP	14 32 56.5	-2.9
	comp=Z,1.1nm,0.9s,baz=281,slow=3.6,SNR=6.5						
NOA	NORSAR Array B	68.36	341	P	P	14 33 02.2	-1.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	68.36	341	P	P	14 33 02.1	-1.1
	comp=Z,1.0nm,0.7s,mb4.0,baz=27,slow=6.2,SNR=3.6						
WRA	Warramunga Arr	68.39	199	P	P	14 33 05.1	+1.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	Warramunga Arr	68.39	199	P	P	14 33 05.1	+1.3
	comp=Z,1.0nm,0.9s,mb3.9,baz=14,slow=6.3,SNR=6.5						
AKASG	Malin Array Be	71.67	326	i P	P	14 33 22.0	-1.7
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	71.67	326	P	P	14 33 21.4	-2.4
	comp=Z,0.9nm,0.4s,mb4.1,baz=32,slow=6.5,SNR=4.8						
TXAR	Lajitas Array	77.55	61	P	P	14 33 59.5	+1.3
TXAR				*PP	pP	14 34 09.2	-2.5
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	77.55	61	P	P	14 33 59.5	+1.2
	comp=Z,0.6nm,0.5s,mb3.8,baz=299,slow=4.0,SNR=10.0						
TXAR				pP	pP	14 34 09.2	-2.5
	comp=Z,1.3nm,0.6s,baz=300,slow=4.1,SNR=4.4						
TXAR				sP	sP	14 34 13.6	-3.2
	comp=Z,1.3nm,0.6s,baz=299,slow=4.4,SNR=10.0						
BRTR	Keskin Array B	78.50	317	i P	P	14 34 03.0	-0.3
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	78.50	317	P	P	14 34 02.3	-1.0
	comp=Z,0.8nm,0.8s,mb3.7,baz=70,slow=5.4,SNR=4.2						

IDC 09 14:32:17.2±1.6**, 0.80N×125.87E, h0^{km}, mb4.0**/3**, mb1 4.2**/3**, mb1mx3.7**/16**, mbtmp4.1**/3**, Error ellipse: s-maj=172.1km s-min=23.2km az=63.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.22	159	P	P	14 37 15.2	-0.3
	1.7nm,0.4s,baz=337,slow=11,SNR=52						
WB2	Warramunga Arr	22.23	158	eP	P	14 37 15.1	-0.5
STKA	Stephens Creek	35.75	157	eP	P	14 39 18.1	+0.1
	1.0nm,0.3s						
STKA	Stephens Creek	35.75	157	P	P	14 39 18.2	+0.2
	1.1nm,0.3s,baz=344,slow=7.1,SNR=15						
MKAR	Makanchi Array	59.49	327	P	P	14 42 22.1	0.0
	0.8nm,0.4s,baz=121,slow=7.9,SNR=24						

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*ISCJB **09** 14:43:23.6±0.7, 38.44N±0.04×39.20E±0.04, h1^{km}±9^{km}, Error ellipse: s-maj=7.3km s-min=4.7km az=153.6*

*CSEM **09** 14:43:23.1±0.1, 38.48N×39.13E, h5^{km}, MD3.3, Error ellipse: s-maj=4.6km s-min=1.8km az=123.0*

*ISK **09** 14:43:23.4, 38.47N×39.13E, h6^{km}, MD2.9*

*DDA **09** 14:43:25.2, 38.42N×39.17E, h7^{km}±4^{km}, Md3.3*

ISC 09 14:43:24.3±0.6**, 38.46N**±0.04×**39.18E**±0.05**, h8**^{km}±6^{km}**, n19, σ0ˢ89**/27**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.15	284	i P	Pg	14 43 27.5	-0.1
ELZG				i S	Sg	14 43 31.7	+1.9
PTK	Pertek	0.46	21	PG	Pg	14 43 32.9	-0.4
PTK				SG	Sg	14 43 40.7	+1.3
PTK	Pertek	0.46	21	ePg	Pg	14 43 32.9	-0.4
PTK				eSg	Sg	14 43 40.7	+1.3
MYA	Malataya	0.60	257	PG	Pg	14 43 35.0	-1.0
MYA	Malataya	0.60	257	ePg	Pg	14 43 35.0	-1.0
MALT	Malatya	0.61	256	PG	Pg	14 43 34.0	-2.0
MALT				SG	Sg	14 43 43.8	-0.2
MALT	Malatya	0.61	256	ePg	Pg	14 43 34.0	-2.0
MALT				eSg	Sg	14 43 43.8	-0.2
DIY	Diyarbakir	1.00	124	PG	Pg	14 43 43.3	-0.3
DIY	Diyarbakir	1.00	124	ePg	Pg	14 43 43.3	-0.3
URFA	Urfa	1.06	196	PG	Pg	14 43 44.3	-0.3
URFA	Urfa	1.06	196	ePg	Pg	14 43 44.3	-0.3
ATAB	Bozova	1.21	215	i P	Pb	14 43 48.0	+0.5
ATAB				i S	Sg	14 44 03.7	+0.4
EZC	Erzincan	1.38	21	ePN	Pn	14 43 48.3	-1.6
BNGL	BINGOL	1.62	72	i P	Pn	14 43 53.7	+0.5
GZT	Gaziantep	1.69	230	i P	Pn	14 43 53.8	-0.3
GZT				i S	Sn	14 44 17.0	+1.2
MARD	Mardin	1.71	132	i P	Pn	14 43 54.6	+0.2
MARD				i S	Sn	14 44 17.1	+0.7
BTMT	Batman	1.84	98	ePN	Pn	14 43 55.8	-0.4
GAZ	Gaziantep	2.02	231	ePN	Pn	14 43 58.5	-0.2
GAZ	Gaziantep	2.02	231	ePn	Pn	14 43 58.5	-0.2

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*ISCJB **09** 14:52:24.8±0.6, 40.47N±0.04×29.18E±0.05, h3^{km}, Error ellipse: s-maj=6.4km s-min=4.5km az=36.1*

*CSEM **09** 14:52:24.2±0.1, 40.45N×29.21E, h3^{km}±1^{km}, MD2.6, Error ellipse: s-maj=3.1km s-min=2.7km az=122.0*

*DDA **09** 14:52:24.2, 40.58N×29.00E, h7^{km}±5^{km}, Md2.5*

*ISK **09** 14:52:24.5, 40.46N×29.21E, h3^{km}, MD2.6*

ISC 09 14:52:25.2±0.6**, 40.45N**±0.04×**29.20E**±0.05**, h3**^{km}±10^{km}**, n19, σ0ˢ74**/23**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GEMT	Gemlik	0.02	200	i PG	Pg	14 52 25.5	-0.4
GEMT	Gemlik	0.02	200	i Pg	Pg	14 52 25.5	-0.4
YLV	Yalova	0.17	50	PG	Pg	14 52 28.4	-0.2
YLV				SG	Sg	14 52 31.7	+0.8
YLV	Yalova	0.17	50	ePg	Pg	14 52 28.4	-0.2
YLV				eSg	Sg	14 52 31.7	+0.8
IZI	Iznik	0.24	119	PG	Pg	14 52 29.9	+0.1
IZI	Iznik	0.24	119	ePg	Pg	14 52 29.9	+0.1
ULDT	Uludag	0.32	189	i P	Pg	14 52 30.9	-0.4
HRT	Hereke	0.51	44	ePG	Pg	14 52 34.5	-0.5
HRT	Hereke	0.51	44	ePg	Pg	14 52 34.5	-0.5
KLYT	Kilyos	0.81	352	ePG	Pg	14 52 40.9	+0.2
KLYT	Kilyos	0.81	352	ePg	Pg	14 52 40.9	+0.2
CTT	Catalca	0.91	320	ePG	Pg	14 52 42.9	+0.3
CTT	Catalca	0.91	320	ePg	Pg	14 52 42.9	+0.3
DST	Dursunbey	0.95	207	ePG	Pg	14 52 44.2	+0.7
DST	Dursunbey	0.95	207	ePg	Pg	14 52 44.2	+0.7
EDC	Edincik	1.02	264	ePG	Pg	14 52 44.5	-0.4
EDC	Edincik	1.02	264	ePg	Pg	14 52 44.5	-0.4
BTOK	Tokmak	1.13	233	i P	Pg	14 52 44.9	-2.0
BTOK				i S	Sg	14 53 03.0	+1.5
GDZ	Gediz	1.38	171	i P	Pn	14 52 51.1	-0.2
GDZ				i S	Sg	14 53 09.9	+0.3

CASC 09 15:07:34.3±3.0**, 13.68N×90.75W, h28**^{km}±11^{km}**, MD3.5, 1C, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUG	Fuego 3	0.77	353	eP	Pb	15 07 49.4	+0.4
FG6		0.88	351	eP	Pn	15 07 51.0	+0.1
FG6				eS	Sb	15 08 04.2	+1.7
NBG	Las Nubes	0.98	23	eP	Pn	15 07 51.7	-0.5
NBG				eS	Sn	15 08 06.1	+0.9
JAT	Jato	1.07	306⇑	eP	Pn	15 07 54.0	+0.6
RTR	El Retiro	1.09	79	eP	x	15 07 32.5	
RTR				eS	x	15 07 48.3	
SBLS	San Blas	1.10	82	eP	x	15 07 32.6	
SBLS				eS	x	15 07 48.7	
RBDL	Robledal	1.11	67	eP	x	15 07 32.5	
RBDL				eS	x	15 07 49.2	
SNJE	San Jose	1.12	80	eP	x	15 07 32.8	
SNJE				eS	x	15 07 47.7	
BOQS	Boqueron	1.43	88	eP	x	15 07 36.7	
BOQS				eS	x	15 07 55.2	
SNET	Serv Nac Est T	1.47	90	eP	x	15 07 35.5	
SNET				eS	x	15 07 54.0	
LFU	La Fuente	1.59	87	eP	x	15 07 38.6	
LFU				eS	x	15 08 00.3	
LFRS	El Faro	1.64	92	eP	x	15 07 39.7	
LFRS				eS	x	15 08 00.1	
LCBS	La Ceiba	1.72	91	eP	x	15 07 40.5	
LCBS				eS	x	15 08 02.5	

IDC 09 15:22:13.1±2.0**, 6.78N×75.67W, h130**^{km}±24^{km}**, mb3.0**/1**, mb1 3.6**/3**, mb1mx3.1**/17**, mbtmp3.5**/3**, Error ellipse: s-maj=61.8km s-min=23.4km az=46.0, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	El Rosal	2.33	145	P	Pn	15 22 51.3	+0.1
	9.1nm,0.3s,baz=276,slow=22,SNR=6.3						
ROSC				S	Sn	15 23 22.1	+1.6
	16nm,0.3s,baz=272,slow=24,SNR=8.0						
JTS	JuntasAbangare	9.82	291	P	Pn	15 24 31.2	+0.2
	2.8nm,0.3s,baz=306,slow=22,SNR=7.7						
YKA	Yellowknife Ar	62.45	341	P	P	15 32 22.2	+0.1
	0.2nm,0.8s,baz=137,slow=7.0,SNR=6.6						
WRA	Warramunga Arr	148.08	243	PKPbc	PKPbc	15 41 43.7	-0.7
	0.2nm,0.4s,baz=100,slow=2.7,SNR=6.8						

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*CSEM **09** 15:30:38.6, 40.02N×32.36E, h18^{km}, MD3.0, After ISK*

*ISK **09** 15:30:38.6, 40.02N×32.36E, h18^{km}, MD3.0*

*ISCJB **09** 15:30:41.8±0.8, 39.80N±0.07×32.48E±0.07, h10^{km}, Error ellipse: s-maj=11.3km s-min=6.6km az=151.5*

ISC 09 15:30:41.8±0.8**, 39.79N**±0.07×**32.47E**±0.07**, h10**^{km}**, n11, σ1ˢ05**/13**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LOD	Lodumlu	0.25	67	PG	Pg	15 30 46.6	-0.2
LOD				SG	Sg	15 30 51.7	+1.5
LOD	Lodumlu	0.25	67	ePg	Pg	15 30 46.6	-0.2
LOD				eSg	Sg	15 30 51.7	+1.5
ANTO	Ankara	0.26	73	PG	Pg	15 30 46.2	-0.9
ANTO	Ankara	0.26	73	ePg	Pg	15 30 46.2	-0.9
SGKT	Sivrigoynuk	0.84	338	i P	Pg	15 30 57.2	-0.8
KIZT	Kizilcal	1.02	207	ePN	Pn	15 31 01.0	-1.1
KIZT	Kizilcal	1.02	207	ePn	Pn	15 31 01.0	-1.1
KAMT	Kaman	1.05	113	ePN	Pn	15 31 01.6	-0.9
KAMT	Kaman	1.05	113	ePn	Pn	15 31 01.6	-0.9
ESKT	Eskisehir	1.28	258	i P	Pn	15 31 07.3	+1.6
KDHN	Kadinhani	1.30	192	i P	Pn	15 31 06.8	+0.8

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*ISCJB **09** 15:32:53.8±0.6, 40.80N±0.03×31.05E±0.03, h2^{km}±5^{km}, Error ellipse: s-maj=5.4km s-min=3.9km az=161.2*

*CSEM **09** 15:32:53.3±0.1, 40.83N×31.03E, h5^{km}, MD3.0, Error ellipse: s-maj=1.9km s-min=1.5km az=154.0*

*ISK **09** 15:32:53.4, 40.82N×31.07E, h8^{km}, MD2.8*

*DDA **09** 15:32:54.6, 40.79N×31.07E, h5^{km}±1^{km}, Md3.0*

ISC 09 15:32:54.3±0.5**, 40.80N**±0.03×**31.04E**±0.03**, h5**^{km}±4^{km}**, n25, σ0ˢ86**/38**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HENT	Hendek	0.11	281	i P	Pg	15 32 56.8	+0.2
HENT				i S	Sg	15 32 59.6	+1.5
MDU	Mudurnu	0.36	158	i PG	Pg	15 33 01.2	-0.1
MDU				i SG	Sg	15 33 06.8	+0.8
MDU	Mudurnu	0.36	158	i Pg	Pg	15 33 01.2	-0.1
MDU				i Sg	Sg	15 33 06.8	+0.8
GULT	Gulveren	0.55	227	i PG	Pg	15 33 05.2	+0.4
GULT	Gulveren	0.55	227	i Pg	Pg	15 33 05.2	+0.4
KDZE	Karadeniz Ereo	0.59	31	i PG	Pg	15 33 04.9	-0.8
KDZE				i SG	Sg	15 33 13.3	-0.2
KDZE	Karadeniz Ereo	0.59	31	i Pg	Pg	15 33 04.9	-0.8
KDZE				i Sg	Sg	15 33 13.3	-0.2
SGKT	Sivrigoynuk	0.81	106	i P	Pg	15 33 09.3	-0.5
SGKT				i S	Sg	15 33 19.4	-0.9
BORA	Eskisehir	1.02	206	i P	Pg	15 33 13.5	-0.5
BORA				i S	Sg	15 33 29.4	+2.1
HRT	Hereke	1.04	271	PG	Pg	15 33 13.6	-0.7
HRT	Hereke	1.04	271	ePg	Pg	15 33 13.6	-0.7
ADVT	Abdulvahap	1.06	250	PN	Pn	15 33 15.0	-0.8
ADVT	Abdulvahap	1.06	250	ePn	Pn	15 33 15.0	-0.8
IZI	Iznik	1.28	249	PN	Pn	15 33 18.0	-0.8
IZI	Iznik	1.28	249	ePn	Pn	15 33 18.0	-0.8
ESKT	Eskisehir	1.29	187	ePN	Pn	15 33 19.1	+0.1
ESKT	Eskisehir	1.29	187	i P	Pn	15 33 17.9	-1.0
ESKT				i S	Sg	15 33 34.6	-1.1
ESKT	Eskisehir	1.29	187	ePn	Pn	15 33 19.1	+0.1
SEYT	Eskypehyr	1.29	187	i P	Pn	15 33 17.9	-1.1
SEYT				i S	Sg	15 33 34.6	-1.2
YLV	Yalova	1.29	260	ePN	Pn	15 33 18.5	-0.5
YLV	Yalova	1.29	260	ePn	Pn	15 33 18.5	-0.5
ULDT	Uludag	1.59	246	i P	Pn	15 33 23.1	-0.1
ULDT				i S	Sn	15 33 44.1	0.0
ULDT	Uludag	1.59	246	i P	Pn	15 33 23.0	-0.2
ULDT				i S	Sn	15 33 44.1	0.0
ELDT	Eldivan	1.84	99	i P	Pn	15 33 26.6	0.0
ELDT				i S	Sn	15 33 50.9	+0.7
BALT	Daday	1.92	67	i P	Pn	15 33 28.0	+0.4
BALT				i S	Sn	15 33 54.1	+2.1

IDC 09 15:50:43.4±1.9**, 30.82S×59.33E, h0**^{km}**, mb3.7**/6**, mb1 3.8**/6**, mb1mx3.7**/19**, mbtmp3.7**/6**, MS3.6**/6**, Ms1 3.5**/6**, ms1mx3.3**/20**, Error ellipse: s-maj=74.5km s-min=34.3km az=27.0, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOSA	Boshof	29.61	266	LR	LR	16 07 44.3	
	comp=Z,72nm,19.7s,baz=99,slow=34						
KMBO	Kilima Mbogo	36.20	320	LR	LR	16 09 43.2	
	comp=Z,68nm,19.1s,baz=85,slow=32						
MAW	Mawson	36.87	178	LR	LR	16 10 04.4	
	comp=Z,85nm,21.0s,baz=243,slow=32						
WRA	Warramunga Arr	67.53	100	P	P	16 01 41.8	0.0
	0.9nm,0.8s,baz=242,slow=5.6,SNR=6.9						
TORD	Torodi Ar. Bea	70.53	299	P	P	16 02 00.5	+0.1
	0.5nm,0.8s,baz=129,slow=6.4,SNR=3.2						
TORD				LR	LR	16 31 08.6	
	comp=Z,64nm,21.3s,baz=125,slow=34						
BRTR	Keskin Array B	74.14	340	P	P	16 02 21.5	+0.1
	0.5nm,0.6s,baz=165,slow=6.7,SNR=3.7						
MKAR	Makanchi Array	79.99	16	P	P	16 02 54.4	+0.3
	0.2nm,0.6s,baz=172,slow=3.9,SNR=2.9						
KEST	Kesra	81.16	321	LR	LR	16 38 01.4	
	comp=Z,31nm,18.4s,baz=325,slow=35						
ZALV	Zalesovo Beam	87.26	15	P	P	16 03 31.1	-0.2
	0.6nm,0.5s,baz=233,slow=6.3,SNR=3.5						
SONM	Songino Array	88.97	30	P	P	16 03 39.9	+0.3
	0.2nm,0.4s,baz=196,slow=3.8,SNR=2.5						
SONM				LR	LR	16 42 06.7	
	comp=Z,25nm,18.6s,baz=341,slow=35						
YKA	Yellowknife Ar	148.08	355	PKPbc	PKPbc	16 10 29.6	-0.6
	1.4nm,0.7s,baz=360,slow=2.8,SNR=23						

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*ISCJB **09** 16:03:40.8±0.7, 34.50N±0.07×25.6E±0.1, h38^{km}±36^{km}, Error ellipse: s-maj=15.3km s-min=11.3km az=160.2*

*CSEM **09** 16:03:41.1±0.3, 34.51N×25.61E, h40^{km}, MD3.5, Error ellipse: s-maj=12.4km s-min=6.9km az=78.0*

*HLW **09** 16:03:41.2, 34.61N×25.49E, h33^{km}, Mb3.1*

*NEIC **09** 16:03:42.3, 34.66N×25.35E, h23^{km}, MD3.5(ATH), After ATH.*

*ATH **09** 16:03:43.5, 34.79N×25.37E, h24^{km}±3^{km}, MD3.5/5*

ISC 09 16:03:39.6±1.5**, 34.43N**±0.07×**25.38E**±0.08**, h3**^{km}±14^{km}**, n20, σ0ˢ70**/21**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XRY	Khrisi	0.51	30	ePb	Pg	16 03 50.0	+0.5
XRY	Khrisi	0.51	30	ePB	Pg	16 03 50.0	+0.5
XRY	Khrisi	0.51	30	ePb	Pg	16 03 50.0	+0.5
NPS	Neapolis	0.85	13	ePn	Pg	16 03 54.6	-1.4
NPS	Neapolis	0.85	13	ePN	Pg	16 03 54.6	-1.4
NPS	Neapolis	0.85	13	ePn	Pg	16 03 54.6	-1.4
GVD	Gavdhos	1.15	291	ePg	Pg	16 04 02.1	+0.5
GVD	Gavdhos	1.15	291	ePg	Pg	16 04 02.1	+0.5
VAM	Vamos	1.38	315	ePn	Pn	16 04 05.5	-0.3
VAM	Vamos	1.38	315	ePN	Pn	16 04 05.5	-0.3
VAM	Vamos	1.38	315	ePn	Pn	16 04 05.5	-0.3
KARP	Karpathos	1.84	52	ePn	Pn	16 04 13.2	+1.1
KARP	Karpathos	1.84	52	ePN	Pn	16 04 13.2	+1.1
SLUM		2.93	183	P	Pn	16 04 27.9	+0.8
SLUM				S	Sn	16 05 02.2	-0.6
VLI	Veliai	3.03	320	ePn	Pn	16 04 28.4	-0.1
VLI	Veliai	3.03	320	ePN	Pn	16 04 28.4	-0.1
VLI	Veliai	3.03	320	ePn	Pn	16 04 28.4	-0.1
AMAG	Maghara	7.61	118	P	Pn	16 05 30.9	-0.4

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AMAG	Maghara	7.61	118	P	Pn	16 05 30.9	-0.5
	1μm,0.5s						
HFRF	Wahat Farafira	7.68	160	P	Pn	16 05 32.4	0.0

MAN 09 16:27:48, 12.22N×125.25E, h41^{km}, mb4.0, ML2.8, MS2.5, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	0.64	163	*e*P	Pn	16 28 02.2	+1.5
BESP				*e*S	Sn	16 28 12.0	+2.3
CNP	Catarman	0.64	297	*e*P	Pn	16 28 02.0	+1.4
CNP				*e*S	Sn	16 28 12.6	+2.9
PLP	Palo	1.08	194	*e*P	Pn	16 28 07.3	+0.6
PLP				*e*S	Sn	16 28 21.6	+1.2
OCLP	Ormoc	1.32	208	*e*P	Pn	16 28 11.5	+1.6
MSLP	Maasin	2.11	190	*e*P	Pn	16 28 22.4	+1.6
GUIM	Jordan	3.05	239	*e*P	Pn	16 28 34.6	+0.8
OTRP	Odiongan	3.16	273	*e*P	Pn	16 28 36.6	+1.3

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*NEIC **09** 16:34:12.5, 33.61S×69.97W, h4^{km}, ML2.9(GUC), After GUC.*

GUC 09 16:34:12.5±0.7**, 33.61S×69.97W, h4^{km}**±2^{km}**, MD3.9, ML2.9, 4C-5D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YECH	El Yeso	0.11	238	*e*P	Pg	16 34 15.3	+0.5
YECH				*i* S	Sg	16 34 17.6	+1.4
YECH				AML	AML	16 34 18.9	
	comp=N,7μm,0.5s						
SJCH	San Jose de Ma	0.32	264	⇓*i*P	Pg	16 34 18.8	+0.1
SJCH				*i* S	Sg	16 34 23.7	+0.8
FCH	Farellones	0.39	316	⇑*i*P	Pg	16 34 20.6	+0.7
FCH				*i* S	Sg	16 34 26.4	+1.4
FCH				AML	AML	16 34 26.7	
	comp=N,1μm,0.3s						
FSR	Penalolen	0.48	285	⇑*i*P	Pg	16 34 22.8	+1.0
FSR				*i* S	Sg	16 34 29.7	+1.7
FSR	Penalolen	0.48	285	⇑*i*P	Pg	16 34 22.8	+1.0
FSR				*i* S	Sg	16 34 29.7	+1.7
FSR				AML	AML	16 34 30.0	
	comp=E,2μm,0.3s						
CLCH	Cerro Calan	0.52	294	*e*P	Pg	16 34 23.7	+1.2
CLCH				*i* S	Sg	16 34 31.2	+2.1
CLCH	Cerro Calan	0.52	294	*e*P	Pg	16 34 23.7	+1.2
CLCH				*i* S	Sg	16 34 31.2	+2.1
CLCH				AML	AML	16 34 32.4	
	comp=E,2μm,0.6s						
DSCH	Colegio Aleman	0.54	293	*e*P	Pg	16 34 22.9	0.0
DSCH				*i* S	Sg	16 34 30.8	+0.9
ANTU	Antumapu	0.55	274	⇓*i*P	Pg	16 34 23.2	+0.1
ANTU				*i* S	Sg	16 34 31.5	+1.2
ANTU	Antumapu	0.55	274	⇓*i*P	Pg	16 34 23.2	+0.1
ANTU				*i* S	Sg	16 34 31.5	+1.2
ANTU				AML	AML	16 34 32.0	
	comp=E,1μm,0.3s						
CHCH	Chadas Angostu	0.65	240	⇑*i*P	Pg	16 34 25.3	+0.3
CHCH				*i* S	Sg	16 34 34.4	+0.9
RCDM	Rinconada Maip	0.71	279	*e*P	Pg	16 34 26.2	+0.2
RCDM				*i* S	Sg	16 34 36.3	+1.1
RCDM	Rinconada Maip	0.71	279	*e*P	Pg	16 34 26.2	+0.2
RCDM				*i* S	Sg	16 34 36.3	+1.1
RCDM				AML	AML	16 34 37.0	
	comp=E,1μm,0.2s						
CACH	El Canelo	0.73	226	*i* P	Pg	16 34 26.7	+0.2
CACH				*i* S	Sg	16 34 37.0	+1.1
PEL	Peldehue	0.76	308	⇓*i*P	Pg	16 34 27.0	0.0
PEL				*i* S	Sg	16 34 37.6	+0.8
PEL				AML	AML	16 34 38.6	
	comp=E,2μm,0.5s						
CICH	Cipreses	0.80	208	⇓*i*P	Pg	16 34 27.4	-0.5
CICH				*i* S	Sg	16 34 39.0	+0.7
LNV	Longovilo	1.25	253	*i* P	Pg	16 34 35.3	-1.2
LNV				*i* S	Sg	16 34 52.1	-0.5

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*CSEM **09** 16:50:09.5±0.1, 38.45N×39.13E, h15^{km}, MD2.8, Error ellipse: s-maj=4.0km s-min=2.1km az=129.0*

*ISK **09** 16:50:09.6, 38.45N×39.12E, h3^{km}, MD2.8*

*ISCJB **09** 16:50:10.8±0.6, 38.43N±0.04×39.12E±0.05, h10^{km}, Error ellipse: s-maj=5.9km s-min=4.7km az=144.5*

*DDA **09** 16:50:10.2, 38.44N×39.21E, h7^{km}±1^{km}, Md2.9*

ISC 09 16:50:11.2±0.6**, 38.44N**±0.04×**39.12E**±0.05**, h10^{km}, n11, σ0^{s}69**/18**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.12	299	*i* P	Pg	16 50 14.4	+0.2
ELZG				*i* S	Sg	16 50 17.3	+1.2
PTK	Pertek	0.50	25	PG	Pg	16 50 19.8	-1.2
PTK				SG	Sg	16 50 27.8	+0.2
PTK	Pertek	0.50	25	*e*Pg	Pg	16 50 19.8	-1.2
PTK				*e*Sg	Sg	16 50 27.8	+0.2
MYA	Malataya	0.56	259	PG	Pg	16 50 21.6	-0.4
MYA	Malataya	0.56	259	*e*Pg	Pg	16 50 21.6	-0.4
MALT	Malatya	0.56	257	PG	Pg	16 50 21.0	-1.1
MALT				SG	Sg	16 50 29.5	+0.1
MALT	Malatya	0.56	257	*e*Pg	Pg	16 50 21.0	-1.1
MALT				*e*Sg	Sg	16 50 29.5	+0.1
URFA	Urfa	1.02	193	*e*PG	Pg	16 50 30.0	-0.9
URFA	Urfa	1.02	193	*e*Pg	Pg	16 50 30.0	-0.9
GZT	Gaziantep	1.64	229	*e*P	Pb	16 50 42.0	+0.5
GZT				*e*S	Sg	16 51 04.1	+0.2
MARD	Mardin	1.73	130	*i* P	Pn	16 50 41.7	+0.4
MARD				*e*S	Sn	16 51 04.0	+0.7

WEL 09 17:10:03.8±0.5**, 35.98S×178.30E, h185^{km}**±8^{km}**, ML3.7**/6**, Error ellipse: s-maj=7.3km s-min=6.0km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUZ	Puketiti	2.09	181	PN	Pn	17 10 42.3	+0.2
PUZ				SN	Sn	17 11 10.5	-1.5
MWZ	Matawai	2.43	194	PN	Pn	17 10 46.5	+0.6
MWZ				SN	Sn	17 11 18.2	-0.6
URZ	Urewera	2.46	202	PN	Pn	17 10 46.6	+0.3
URZ				SN	Sn	17 11 19.6	+0.1
KNZ	Kokohu	3.08	189	PN	Pn	17 10 53.3	-0.2
KNZ				SN	Sn	17 11 31.9	-0.5
BKZ	Black Stump Fm	3.49	204	PN	Pn	17 10 59.1	+0.5
PXZ	Pawanui	4.20	195	PN	Pn	17 11 06.3	-1.2
PXZ				SN	Sn	17 11 55.6	-2.0
MRZ	Mangatainoka R	5.14	204	PN	Pn	17 11 17.9	-1.6

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*IDC **09** 17:26:31.1±1.6, 7.77S×107.16E, h0^{km}, mb3.9/6, mb1 4.1/6, mb1mx3.9/17, mbtmp3.9/6, Error ellipse: s-maj=100.0km s-min=19.0km az=47.0*

*ISCJB **09** 17:26:33.6±0.7, 7.9S±0.1×107.2E±0.1, h33^{km}, mb4.2/8, Error ellipse: s-maj=17.6km s-min=13.1km az=137.9*

*NEIC **09** 17:26:35.8±0.4, 7.93S×107.11E, h35^{km}, mb4.3/4, Error ellipse: s-maj=13.2km s-min=9.4km az=48.0*

ISC 09 17:26:35.9±0.7**, 7.9S**±0.1×**107.1E**±0.1**, h35^{km}, n18, σ0^{s}61**/15**, mb4.2**/8**, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XMIS	Christmas Isla	2.92	209	*e*Pn	Pn	17 27 19.6	-0.3
XMIS				*e*Sn	Sn	17 27 44.9	-8.9
FITZ	Fitzroy Crossi	20.67	121	*e*P	P	17 31 13.9	+1.0
	9.6nm,0.8s						
FITZ	Fitzroy Crossi	20.67	121	P	P	17 31 14.1	+1.2
	5.1nm,0.8s,baz=239,slow=5.3,SNR=9.1						
KAKA	Kakadu	25.36	103	*e*P	P	17 31 59.1	-0.8
	9.7nm,0.9s,mb4.3						
WRA	Warramunga Arr	28.94	117	P	P	17 32 32.0	0.0
	0.6nm,0.5s,mb3.6,baz=291,slow=10,SNR=11						
WB2	Warramunga Arr	28.95	117	*e*P	P	17 32 31.4	-0.8
STKA	Stephens Creek	39.95	131	*e*P	P	17 34 07.0	0.0
	2.1nm,0.3s,mb4.3						
STKA	Stephens Creek	39.95	131	P	P	17 34 07.9	+0.9
	2.5nm,0.4s,mb4.3,baz=307,slow=7.1,SNR=16						
HNR	Honiara	52.21	96	P	P	17 35 38.0	-5.9
	33nm,0.7s,mb5.4						
SONM	Songino Array	55.52	359	PcP	PcP	17 37 07.3	+0.3
	0.6nm,0.6s,baz=172,slow=3.9,SNR=5.0						
MKAR	Makanchi Array	58.79	340	P	P	17 36 30.2	-0.3
MKAR	Makanchi Array	58.79	340	P	P	17 36 30.2	-0.3
	0.3nm,0.4s,mb3.7,baz=145,slow=8.3,SNR=5.9						
KURK	Kurchatov	63.40	340	*e*P	P	17 37 01.5	-0.2
	1.4nm,0.6s,mb4.3						
ZALV	Zalesovo Beam	64.45	346	P	P	17 37 08.6	+0.1
	0.3nm,0.3s,mb3.8,baz=162,slow=5.9,SNR=3.8						
BRTR	Keskin Array B	82.52	312	P	P	17 38 56.0	+0.8
	0.9nm,0.8s,mb3.9,baz=111,slow=6.8,SNR=5.1						
TXAR	Lajitas Array	144.08	50	PKP	PKPdf	17 46 08.1	-0.5
TXAR	Lajitas Array	144.08	50	PKP	PKPdf	17 46 08.1	-0.5
	0.2nm,0.3s,baz=278,slow=2.6,SNR=7.1						
JCT	Junction City	146.27	45	*e*PKPbc	PKPbc	17 46 13.9	+0.6

NEIC 09 17:44:19.9, 36.36S×178.62E, h101^{km}, MG4.2(WEL)**, After WEL., Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUZ	Puketiti	1.73	190	*e*P	Pn	17 44 48.7	-0.4
PUZ	Puketiti	1.73	190	PN	Pn	17 44 48.7	-0.4
PUZ				SN	Sn	17 45 38.5	+27
MWZ	Matawai	2.16	203	*e*P	Pn	17 44 54.8	+0.3
MWZ	Matawai	2.16	203	PN	Pn	17 44 54.8	+0.3
MWZ				SN	Sn	17 45 53.0	+32
MARZ	Manawahe	2.25	223	P	Pn	17 44 57.4	+1.7
MARZ	Manawahe	2.25	223	PN	Pn	17 44 57.4	+1.7
URZ	Urewera	2.25	212	*e*P	Pn	17 44 56.2	+0.5
URZ	Urewera	2.25	212	PN	Pn	17 44 56.2	+0.5
KNZ	Kokohu	2.76	195	*e*P	Pn	17 45 03.1	+0.7
KNZ	Kokohu	2.76	195	PN	Pn	17 45 03.1	+0.6
BKZ	Black Stump Fm	3.27	210	*e*P	Pn	17 45 08.9	-0.3
BKZ	Black Stump Fm	3.27	210	PN	Pn	17 45 08.9	-0.3
MOVZ	Moawhango	3.79	216	P	Pn	17 45 15.8	-0.5
MOVZ	Moawhango	3.79	216	PN	Pn	17 45 15.8	-0.4
WNVZ	Wahianoa	3.81	218	P	Pn	17 45 17.0	+0.6
WNVZ	Wahianoa	3.81	218	PN	Pn	17 45 17.0	+0.5
PXZ	Pawanui	3.92	200	PN	Pn	17 45 16.7	-1.3
TSZ	Takapari Road	4.25	209	*e*P	Pn	17 45 20.8	-1.5
TSZ	Takapari Road	4.25	209	PN	Pn	17 45 20.8	-1.6
TIWZ	Tintock	4.90	205	PN	Pn	17 45 30.3	-1.0
MRZ	Mangatainoka R	4.91	208	*e*P	Pn	17 45 28.1	-3.3
MRZ	Mangatainoka R	4.91	208	PN	Pn	17 45 28.1	-3.2
KIW	Kapiti Island	5.35	212	P	Pn	17 45 34.5	-2.8
KIW	Kapiti Island	5.35	212	PN	Pn	17 45 34.5	-2.8
MTW	Mount Morrison	5.38	206	P	Pn	17 45 34.5	-3.1
MTW	Mount Morrison	5.38	206	PN	Pn	17 45 34.5	-3.1
CAW	Cannon Point	5.49	209	P	Pn	17 45 36.0	-3.2
CAW	Cannon Point	5.49	209	PN	Pn	17 45 36.0	-3.3
PAWZ	Paruwai Farm	5.60	205	SN	Sn	17 47 04.5	+21
DUWZ	D'Urville Isla	5.76	218	PN	Pn	17 45 40.3	-2.6
TCW	Tory Channel	5.92	214	P	Pn	17 45 40.8	-4.1
TCW	Tory Channel	5.92	214	PN	Pn	17 45 40.8	-4.2
TCW				SN	Sn	17 47 14.3	+23
TUWZ	Tuamarina	6.24	214	PN	Pn	17 45 45.3	-4.1
BSWZ	Blackbirch Sta	6.50	213	P	Pn	17 45 49.6	-3.2
QRZ	Quartz Range	6.53	225	*e*P	Pn	17 45 48.9	-4.4
THZ	Tophouse	6.99	218	*e*P	Pn	17 45 55.4	-4.2
THZ	Tophouse	6.99	218	*e*PN	Pn	17 45 54.6	-4.9
KHZ	Kahutara	7.21	211	*e*P	Pn	17 45 58.6	-4.0
KHZ	Kahutara	7.21	211	PN	Pn	17 45 58.5	-4.1
DSZ	Denniston Nort	7.55	223	*e*P	Pn	17 46 02.3	-4.9
DSZ	Denniston Nort	7.55	223	*e*PN	Pn	17 46 01.1	-6.1
LTZ	Lake Taylor	8.07	215	*e*P	Pn	17 46 09.4	-4.8
LTZ	Lake Taylor	8.07	215	*e*PN	Pn	17 46 09.4	-4.9
MQZ	McQueen's Vall	8.65	210	*e*P	Pn	17 46 15.8	-6.2

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*ISCJB **09** 17:51:08.5±0.4, 43.77N±0.02×13.30E±0.03, h7^{km}±4^{km}, Error ellipse: s-maj=3.9km s-min=3.4km az=179.8*

*ROM **09** 17:51:09.0±0.2, 43.76N×13.26E, h10^{km}±1^{km}, Md2.8/19, Ml2.6/15, Error ellipse: s-maj=3.5km s-min=2.3km az=155.0*

*NEIC **09** 17:51:09.0, 43.76N×13.26E, h10^{km}, ML2.6(ROM), After ROM.*

*CSEM **09** 17:51:10.0±0.1, 43.76N×13.28E, h30^{km}, ML3.3/3, Error ellipse: s-maj=2.3km s-min=1.3km az=101.0*

ISC 09 17:51:09.5±0.4**, 43.75N**±0.02×**13.28E**±0.03**, h9^{km}**±4^{km}**, n97, σ0^{s}87**/147**, 13C-20D, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AOI	Ancona	0.31	131	⇓*e*Pg	Pg	17 51 15.8	+0.3
AOI				Sg	Sg	17 51 21.8	+2.1
AOI	Ancona	0.31	131	⇓*e*Pg	Pg	17 51 15.8	+0.3
AOI				Sg	Sg	17 51 21.8	+2.1
AOI	Ancona	0.31	131	⇓*e*Pg	Pg	17 51 15.8	+0.3
AOI				Sg	Sg	17 51 21.8	+2.1
ARVD	Arcevia	0.35	224	Pg	Pg	17 51 15.8	-0.6
ARVD				Sg	Sg	17 51 21.5	+0.4
	160nm,0.3s						
FSSB	Fossombrone	0.37	261	Pg	Pg	17 51 15.9	-0.8
FSSB				Sg	Sg	17 51 21.7	+0.1
FSSB	Fossombrone	0.37	261	Pg	Pg	17 51 15.9	-0.8
FSSB				Sg	Sg	17 51 21.7	+0.1
	930nm,0.4s						
PESA	Pesaro	0.37	301	Pg	Pg	17 51 15.9	-0.9
PESA				Sg	Sg	17 51 22.3	+0.6
PESA	Pesaro	0.37	301	Pg	Pg	17 51 15.9	-0.9
PESA				Sg	Sg	17 51 22.3	+0.6
	2μm,0.2s						
CING	Cingoli	0.38	190	⇓*e*Pg	Pg	17 51 16.8	-0.1
CING				Sg	Sg	17 51 23.6	+1.6
CING	Cingoli	0.38	190	⇓*e*Pg	Pg	17 51 16.8	-0.1
CING				Sg	Sg	17 51 23.6	+1.6
	385nm,0.4s						
SNTG	Esanatoglia	0.56	207	Pg	Pg	17 51 19.7	-0.5
SNTG				Sg	Sg	17 51 29.2	+1.7
SNTG	Esanatoglia	0.56	207	Pg	Pg	17 51 19.7	-0.5
SNTG				Sg	Sg	17 51 29.2	+1.7
SNTG	Esanatoglia	0.56	207	Pg	Pg	17 51 19.7	-0.5
SNTG				Sg	Sg	17 51 29.2	+1.7
RSM	Repubblica di	0.63	287	Pg	Pg	17 51 21.3	-0.3
RSM	Repubblica di	0.63	287	Pg	Pg	17 51 21.3	-0.3
	25nm,0.6s						
RSM	Repubblica di	0.63	287	Pg	Pg	17 51 21.3	-0.3
	25nm,0.6s						
MURB	Monte Urbino	0.74	229	Pg	Pg	17 51 23.2	-0.5
MURB	Monte Urbino	0.74	229	Pg	Pg	17 51 23.2	-0.5
	418nm,0.3s						
MURB	Monte Urbino	0.74	229	Pg	Pg	17 51 23.2	-0.5
	418nm,0.3s						
BADI	Badiali	0.79	253	Pg	Pg	17 51 24.0	-0.7
BADI				Sg	Sg	17 51 36.5	+1.5
BADI	Badiali	0.79	253	Pg	Pg	17 51 24.0	-0.7
BADI				Sg	Sg	17 51 36.5	+1.5
	194nm,0.4s						
BADI	Badiali	0.79	253	Pg	Pg	17 51 24.0	-0.7
BADI				Sg	Sg	17 51 36.5	+1.5
	194nm,0.4s						
CESI	CESI - Serrava	0.80	200	Pg	Pg	17 51 24.2	-0.6
CESI				Sg	Sg	17 51 36.0	+0.9
	104nm,0.6s						
ASS	Assisi	0.83	214	Pg	Pg	17 51 24.4	-1.0
ASS	Assisi	0.83	214	Pg	Pg	17 51 24.4	-1.0
	3.0nm,0.4s						
ASS	Assisi	0.83	214	Pg	Pg	17 51 24.4	-1.0
	3.0nm,0.4s						
OFFI	Offida	0.87	160	Pg	Pg	17 51 27.8	+1.6
OFFI	Offida	0.87	160	Pg	Pg	17 51 27.8	+1.6
NRCA	Norcia	0.93	188	⇑*e*Pg	Pg	17 51 26.6	-0.7
NRCA	Norcia	0.93	188	⇑*e*Pg	Pg	17 51 26.6	-0.7
NRCA	Norcia	0.93	188	⇑*e*Pg	Pg	17 51 26.6	-0.7
CRE	Caprese Michel	0.97	263	Pg	Pg	17 51 28.1	-0.1
CRE	Caprese Michel	0.97	263	Pg	Pg	17 51 28.1	-0.1
	48nm,0.4s						
CRE	Caprese Michel	0.97	263	Pg	Pg	17 51 28.1	-0.1
	48nm,0.4s						
SFI	Santa Sofia	1.05	279	Pg	Pg	17 51 28.9	-0.7
SFI	Santa Sofia	1.05	279	Pg	Pg	17 51 28.9	-0.7
	86nm,0.6s						
SFI	Santa Sofia	1.05	279	Pg	Pg	17 51 28.9	-0.7
	86nm,0.6s						
TERO	Teramo	1.15	168	Pg	Pg	17 51 30.8	-0.8
TERO	Teramo	1.15	168	Pg	Pg	17 51 30.8	-0.8
	175nm,0.6s						
TERO	Teramo	1.15	168	Pg	Pg	17 51 30.8	-0.8
	175nm,0.6s						
LNSS	Leonessa	1.16	189	Pg	Pg	17 51 30.8	-1.0
	277nm,0.4s						
LNSS	Leonessa	1.16	189	Pg	Pg	17 51 30.8	-1.0
	277nm,0.4s						
CAMP	Campotosto	1.22	176	Pg	Pg	17 51 31.6	-1.3
	59nm,1.0s						
CAMP	Campotosto	1.22	176	Pg	Pg	17 51 31.6	-1.3
	59nm,1.0s						
VMG	Vicchio	1.27	280	Pg	Pg	17 51 33.2	-0.7
VMG	Vicchio	1.27	280	Pg	Pg	17 51 33.2	-0.7
	215nm,0.7s						
VMG	Vicchio	1.27	280	Pg	Pg	17 51 33.2	-0.7
	215nm,0.7s						
AQU	L'Aquila	1.40	176	*e*Pn	Pn	17 51 34.1	-1.1
AQU				*e*Sn	Sn	17 51 53.5	-0.3
AQU	L'Aquila	1.40	176	*e*Pn	Pn	17 51 34.1	-1.1
AQU				*e*Sn	Sn	17 51 53.5	-0.3
NVLJ	Novalja	1.40	54	*e*Pn	Pn	17 51 34.8	-0.5
NVLJ				Sg	Sg	17 51 54.0	-0.5
NVLJ	Novalja	1.40	54	*e*Pn	Pn	17 51 34.7	-0.5
NVLJ				Sg	Sg	17 51 54.0	-0.6
FAGN	Fagnano	1.50	171	Pg	Pg	17 51 39.0	+0.7
	185nm,0.6s						
SKDS	Skadanscina	1.87	16	*i* Pn	Pn	17 51 40.8	-0.9
SKDS				*i* Sn	Sn	17 52 04.9	-0.4
SKDS	Skadanscina	1.87	16	*i* Pn	Pn	17 51 40.8	-0.9
SKDS				*i* Sn	Sn	17 52 04.9	-0.5
KNDS	Knezji Dol	1.94	23	*i* Pn	Pn	17 51 42.3	-0.4
KNDS				*i* Sn	Sn	17 52 08.3	+1.1
KNDS	Knezji Dol	1.94	23	*i* Pn	Pn	17 51 42.3	-0.4
KNDS				*i* Sn	Sn	17 52 08.3	+1.1
KNDS	Knezji Dol	1.94	23	*i* Pn	Pn	17 51 42.3	-0.3
KNDS				*i* Sn	Sn	17 52 08.3	+1.1
CEY	Cerknica	2.15	22	*i* Pn	Pn	17 51 45.0	-0.4
CEY				*i* Sn	Sn	17 52 13.0	+0.8
CEY	Cerknica	2.15	22	*i* Pn	Pn	17 51 45.0	-0.4
CEY				*i* Sn	Sn	17 52 13.0	+0.8
CEY	Cerknica	2.15	22	*i* Pn	Pn	17 51 45.0	-0.5
CEY				*i* Sn	Sn	17 52 13.0	+0.8
VOY	Vojsko	2.32	11	*e*Pn	Pn	17 51 47.2	-0.7
VOY				*e*		17 51 48.0	
VOY				*e*Sn	Sn	17 52 16.2	-0.3
VOY	Vojsko	2.32	11	*e*Pn	Pn	17 51 47.2	-0.7
VOY				*e*		17 51 48.0	
VOY				*e*Sn	Sn	17 52 16.2	-0.3
VOY	Vojsko	2.32	11	*e*Pn	Pn	17 51 47.2	-0.7
VOY				*e*Sn	Sn	17 52 16.2	-0.3
CTI	Castel Tesino	2.57	334	Pg	Pn	17 51 51.3	0.0
CTI	Castel Tesino	2.57	334	Pg	Pn	17 51 51.3	0.0
	24nm,0.4s						
CTI	Castel Tesino	2.57	334	Pg	Pn	17 51 51.3	0.0
	24nm,0.4s						
PTCC	Patocco-Chiusa	2.65	1	Pg	Pn	17 51 51.5	-0.9
PTCC	Patocco-Chiusa	2.65	1	Pg	Pn	17 51 51.5	-0.9
MAGA	Magasa	2.77	318	Pg	Pn	17 51 54.0	0.0
	131nm,0.4s						
MAGA	Magasa	2.77	318	Pg	Pn	17 51 54.0	0.0
	131nm,0.4s						
OBKA	Obir	2.90	18	⇓*i*Pn	Pn	17 51 55.5	-0.3
OBKA	Obir	2.90	18	⇑*i*Sg	Sg	17 52 43.6	+1.0
	comp=N,13nm,0.3s						
OBKA	Obir	2.90	18	⇓*i*Pn	Pn	17 51 55.5	-0.3
OBKA				⇓*i*Sn	Sn	17 52 29.8	-1.0
OBKA				⇑*i*Sg	Sg	17 52 43.6	+1.0
	13nm,0.3s						
OBKA	Obir	2.90	18	Pn	Pn	17 51 55.5	-0.3
OBKA				Sn	Sn	17 52 29.8	-1.0
OBKA				Sg	Sg	17 52 43.6	+1.0
	13nm,0.3s						
MABI	Malga Bissina	3.03	320	Pg	Pn	17 51 57.1	-0.5
MABI	Malga Bissina	3.03	320	Pg	Pn	17 51 57.1	-0.5
MABI	Malga Bissina	3.03	320	Pg	Pn	17 51 57.1	-0.5
KBA	Koelnbreinsper	3.33	1	⇑*i*Pn	Pn	17 52 01.7	0.0
KBA	Koelnbreinsper	3.33	1	⇑*i*Pn	Pn	17 52 01.7	0.0
KBA				*i* Sn	Sn	17 52 41.0	-0.4
KBA	Koelnbreinsper	3.33	1	⇑*i*Pn	Pn	17 52 01.7	0.0
KBA				⇑*i*Sn	Sn	17 52 41.0	-0.4
KBA	Koelnbreinsper	3.33	1	Pn	Pn	17 52 01.7	0.0
KBA				Sn	Sn	17 52 41.0	-0.3
WTTA	Wattenberg	3.70	342	⇓*i*Pn	Pn	17 52 07.5	+0.8
WTTA	Wattenberg	3.70	342	⇓*i*Pn	Pn	17 52 07.5	+0.8
WTTA				*i* Sn	Sn	17 52 52.8	+2.4
WTTA	Wattenberg	3.70	342	⇓*i*Pn	Pn	17 52 07.5	+0.8
WTTA				⇓*i*Sn	Sn	17 52 52.8	+2.4
WTTA	Wattenberg	3.70	342	Pn	Pn	17 52 07.5	+0.7
WTTA				Sn	Sn	17 52 52.8	+2.3
SQTA	Sankt Quirin	3.76	338	⇓*i*Pn	Pn	17 52 09.0	+1.4
SQTA	Sankt Quirin	3.76	338	⇓*i*Pn	Pn	17 52 09.0	+1.4
SQTA				*i* Sn	Sn	17 52 52.5	+0.4
SQTA	Sankt Quirin	3.76	338	⇓*i*Pn	Pn	17 52 09.0	+1.4
SQTA				⇑*i*Sn	Sn	17 52 52.5	+0.4
SQTA	Sankt Quirin	3.76	338	Pn	Pn	17 52 09.0	+1.3
SQTA				Sn	Sn	17 52 52.5	+0.4
MOTA	Moosalm	3.91	338	⇑*i*Pn	Pn	17 52 10.4	+0.8
MOTA	Moosalm	3.91	338	⇑*i*Pn	Pn	17 52 10.4	+0.8
MOTA				*i* Sn	Sn	17 52 57.1	+1.5
MOTA	Moosalm	3.91	338	⇑*i*Pn	Pn	17 52 10.4	+0.8
MOTA				⇓*i*Sn	Sn	17 52 57.1	+1.5
MOTA	Moosalm	3.91	338	Pn	Pn	17 52 10.4	+0.8
MOTA				Sn	Sn	17 52 57.1	+1.5
MOA	Molln	4.16	9	⇓*i*Pn	Pn	17 52 13.0	-0.1
MOA	Molln	4.16	9	⇓*i*Pn	Pn	17 52 13.0	-0.1
MOA				*i* Sn	Sn	17 53 01.6	-0.1
MOA	Molln	4.16	9	⇓*i*Pn	Pn	17 52 13.0	-0.1
MOA				⇓*i*Sn	Sn	17 53 01.6	-0.1
MOA	Molln	4.16	9	Pn	Pn	17 52 13.0	-0.1

IDC 09 17:51:15.0±2.3**, 15.33S×177.56W, h383^{km}**±44^{km}**, mb3.0**/3**, mb1 3.6**/4**, mb1mx3.3**/14**, mbtmp3.2**/4**, Error ellipse: s-maj=190.3km s-min=19.3km az=157.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	5.77	77	P	Pn	17 52 44.4	-0.2
	8.5nm,0.3s,baz=44,slow=3.5,SNR=20						
AFI				S	S	17 53 58.0	+0.7
	baz=108,slow=20,SNR=1.9						
WRA	Warramunga Arr	45.95	257	P	P	17 59 01.8	+0.1
	0.4nm,0.3s,baz=86,slow=6.2,SNR=26						
FITZ	Fitzroy Crossi	54.29	259	P	P	18 00 09.1	+5.5
	1.8nm,0.6s,baz=151,slow=10,SNR=8.0						
NVAR	Mina Array Bea	77.01	44	P	P	18 02 27.5	+0.7
	0.6nm,0.5s,baz=209,slow=7.2,SNR=4.7						
TXAR	Lajitas Array	83.94	58	P	P	18 03 03.7	+0.3
	0.6nm,0.7s,baz=218,slow=7.4,SNR=5.1						
BRTR	Keskin Array B	143.49	318	PKP	PKPdf	18 10 03.6	-1.2
	2.1nm,0.8s,baz=77,slow=2.7,SNR=12						
GERES	GERESS Array B	145.32	347	PKPbc	PKPbc	18 10 07.5	-0.9
	0.4nm,0.7s,baz=357,slow=2.7,SNR=4.1						

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*CSEM **09** 17:54:20.7±0.2, 38.44N×39.08E, h15^{km}, MD2.9, Error ellipse: s-maj=5.1km s-min=2.7km az=130.0*

*ISCJB **09** 17:54:21.8±0.5, 38.44N±0.06×39.08E±0.06, h13^{km}±7^{km}, Error ellipse: s-maj=11.5km s-min=4.8km az=140.7*

*ISK **09** 17:54:21.2, 38.44N×39.06E, h5^{km}, MD3.0*

*DDA **09** 17:54:22.8, 38.39N×39.02E, h6^{km}±6^{km}, Md2.9*

ISC 09 17:54:22.2±0.6**, 38.46N**±0.06×**39.09E**±0.07**, h12^{km}**±7^{km}**, n15, σ0^{s}83**/25**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.10	297	⇑*i*P	Pg	17 54 25.2	+0.2
ELZG				*i* S	Sg	17 54 28.0	+1.0
PTK	Pertek	0.49	28	PG	Pg	17 54 31.6	-0.3
PTK				SG	Sg	17 54 39.1	+0.6
PTK	Pertek	0.49	28	*e*Pg	Pg	17 54 31.6	-0.3
PTK				*e*Sg	Sg	17 54 39.1	+0.6
MYA	Malataya	0.54	256	PG	Pg	17 54 32.2	-0.6
MYA	Malataya	0.54	256	*e*Pg	Pg	17 54 32.2	-0.6
MALT	Malatya	0.54	255	PG	Pg	17 54 31.4	-1.4
MALT				SG	Sg	17 54 39.1	-0.9
MALT	Malatya	0.54	255	*e*Pg	Pg	17 54 31.4	-1.4
MALT				*e*Sg	Sg	17 54 39.1	-0.9
URFA	Urfa	1.03	192	PG	Pg	17 54 40.9	-1.2
URFA	Urfa	1.03	192	*e*Pg	Pg	17 54 40.9	-1.2
ATAB	Bozova	1.17	213	*i* P	Pn	17 54 44.9	+0.6
ATAB				*e*S	Sb	17 55 01.2	+1.9
BNGL				*e*P	Sg	17 55 19.0	+19
EZC	Erzincan	1.41	23	*e*PN	Pn	17 54 47.6	0.0
GZT	Gaziantep	1.63	228	*i* P	Pn	17 54 50.4	-0.3
GZT				*e*S	Sg	17 55 15.7	+1.0
BNGL	BINGOL	1.68	72	*e*P	Pn	17 54 55.9	+4.5
BNGL				*i* S	Sg	17 55 20.4	+4.0

MARD	**Mardin**	**1.75**	**130**	*i* P	**Pn**	**17 54 52.1**	**-0.2**
MARD				*e*S	**Sn**	**17 55 14.3**	**-0.2**
BTMT	**Batman**	**1.90**	**97**	*e*PN	**Pn**	**17 54 54.2**	**-0.2**

IDC ***09*** *17:58:51.1±0.6, 1.01N×125.94E, h0^{km}, mb4.4/14, mb1 4.6/15, mb1mx4.5/20, mbtmp4.4/15, ML4.0/1, MS4.1/7, Ms1 4.1/7, ms1mx3.6/30, Error ellipse: s-maj=27.5km s-min=14.2km az=75.0*

GCMT ***09*** *17:58:52.7±0.3, 0.82N×126.14E, h19^{km}±1^{km}, MW4.9/56, Moment Tensor Solution. s35,c40; s56,c74; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.32±.14; $M_{\theta\theta}$1.38±.09; $M_{\phi\phi}$0.94±.12; $M_{r\theta}$-1.56±.19; $M_{\theta\phi}$-0.34±.07; $M_{\phi r}$0.61±.29; Best double couple: $M_0$2.56500×10^{16} NP1:ϕ_s299.00000°, δ25.00000°, λ-86.00000°. NP2: ϕ_s114.00000°, δ65.00000°, λ-92.00000°. Principal axes: T 2.1850, Plg20.0000°, Azm206.0000°; N 0.7640, Plg2.0000°, Azm115.0000°; P -2.9450, Plg70.0000°, Azm20.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***09*** *17:58:52.7±4.7, 0.95N×125.98E, h10^{km}±29^{km}, mb4.8/28 Error ellipse: s-maj=10.2km s-min=6.5km az=74.0*

ISCJB ***09*** *17:58:54.3±0.3, 0.96N±0.04×126.03E±0.06, h33^{km}, mb4.7/63, MS4.1/22, Error ellipse: s-maj=8.8km s-min=5.4km az=166.7*

BJI ***09*** *17:58:54.3, 0.67N×126.06E, h47^{km}, mB4.9, mb4.7, Ms4.5, Msz4.2*

MOS ***09*** *17:58:54.5±1.2, 0.98N×125.96E, h33^{km}, mb4.9/31, Error ellipse: s-maj=14.3km s-min=7.0km az=108.2*

ISC 09 17:58:57.5±0.2**, 0.96N**±0.04×**126.04E**±0.06**, h45**^{km}**,**
h45^{km}±3.9^{km}**:pP-P, n137,** σ1^{s}.**19**/148**, mb4.7**/63**, MS4.1**/22**,**
4C-5D, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	**Ambon**	**5.10**	**155**	P	**Pn**	**18 00 14.0**	**+2.6**
	60nm,1.1s						
PCI	**Palu**	**6.47**	**253**	P	**Pn**	**18 00 33.1**	**+2.8**
	83nm,1.0s						
KKM	**Kota Kinabalu**	**11.03**	**297**	*e*Pn	**Pn**	**18 01 35.5**	**+2.7**
KMMI	**Kalianget**	**14.44**	**236**	P	**Pn**	**18 02 27.8**	**+8.5**
	90nm,1.6s						
KAKA	**Kakadu**	**15.00**	**155**	*e*P	**Pn**	**18 02 23.6**	**-3.0**
	44nm,1.1s						
KSM	**Kuching**	**15.74**	**272**	*e*P	**Pn**	**18 02 41.1**	**+4.8**
KRKI	**Karangkates**	**16.30**	**236**	P	**Pn**	**18 02 52.6**	**+9.2**
	204nm,1.3s						
BJII	**Banjamegara**	**18.26**	**243**	P	**Pn**	**18 03 14.0**	**+6.3**
	57nm,1.6s						
FITZ	**Fitzroy Crossi**	**18.95**	**181**	*e*P	**Pn**	**18 03 14.3**	**-1.7**
	22nm,1.2s						
FITZ	**Fitzroy Crossi**	**18.95**	**181**	P	**Pn**	**18 03 14.9**	**-1.1**
	0.3nm,0.3s,baz=6.7,slow=14,SNR=11						
WRA	**Warramunga Arr**	**22.31**	**159**	P	**P**	**18 03 50.5**	**-0.9**
	17nm,0.7s,mb4.6,baz=337,slow=11,SNR=79						
WRA				S	**S**	**18 07 55.4**	**+0.9**
	1.8nm,1.1s,baz=343,slow=20,SNR=4.5						
WB2	**Warramunga Arr**	**22.32**	**159**	*e*P	**P**	**18 03 50.5**	**-0.9**
WB2				*e*S	**S**	**18 07 55.1**	**+0.5**
GUMO	**Guam**	**22.47**	**55**	LR	LR	18 11 26.9	
	comp=Z,251nm,20.6s,MS3.6,baz=240,slow=34						
MBWA	**Marble Bar**	**22.84**	**195**	P	**P**	**18 03 59.9**	**+3.0**
QIZ	**Qiongzhong**	**23.97**	**319**	P	**P**	**18 04 09.2**	**+1.3**
QIZ				S	**S**	**18 08 25.7**	**+3.9**
QIZ				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb3.8						
QIZ				AMB	AMB		
	comp=Z,117nm,7.5s						
QIZ				LR	LR		
	comp=N,285nm,15.2s,MS3.9						
QIZ				LR	LR		
	comp=E,175nm,18.8s,MS3.9						
QIZ				LR	LR		
	comp=Z,256nm,21.8s,MS3.7						
KULM	**Kulim**	**25.71**	**280**	P	**P**	**18 04 24.3**	**+0.4**
PSI	**Prapat**	**27.16**	**274**	P	**P**	**18 04 35.8**	**-1.2**
	comp=Z,3.3nm,0.4s,mb4.2,baz=133,slow=5.1,SNR=7.9						
SSE	**Sheshan**	**30.32**	**352**	*e*P	**P**	**18 05 05.7**	**+0.9**
SSE				AP	pP	18 05 19.3	+2.5
SSE				XP	sP	18 05 24.4	+2.3
SSE				PP	PP	18 06 11.8	-2.1
SSE				S	**S**	**18 10 00.0**	**-2.0**
SSE				XS	sS	18 10 21.4	-0.6
SSE				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.6						
SSE				AMB	AMB		
	comp=Z,63nm,3.8s						
SSE				LR	LR		
	comp=N,104nm,20.8s,MS3.5						
SSE				LR	LR		
	comp=E,55nm,20.8s,MS3.5						
SSE				LR	LR		
	comp=Z,175nm,21.4s,MS3.7						
SSE	**Sheshan**	**30.32**	**352**	*e*P	**P**	**18 05 05.7**	**+0.9**
	comp=Z,11nm,0.8s,mb4.6						
SSE				pP	pP	18 05 19.3	+2.5
SSE				sP	sP	18 05 24.4	+2.3
SSE				PP	PP	18 06 11.8	-2.1
SSE				S	**S**	**18 10 00.0**	**-2.0**
SSE				sS	sS	18 10 21.4	-0.6
SSE				ScS	ScS	18 15 42.7	+3.4
SSE				LR	LR		
	comp=Z,180nm,21.4s,MS3.7						
GYA	**Guiyang**	**31.46**	**325**	P	**P**	**18 05 15.2**	**+0.2**
GYA				AP	pP	18 05 31.9	+4.9
GYA				XP	sP	18 05 37.8	+5.5
GYA				PP	PP	18 06 21.1	-5.6
GYA				PCP	PcP	18 08 09.5	+2.0
GYA				S	**S**	**18 10 21.5**	**+1.4**
GYA				XS	sS	18 10 46.0	+5.9
GYA				SCP	ScP	18 11 47.0	-0.3
GYA				PCS	PcS	18 11 52.8	+0.8
GYA				SS	SS	18 12 14.6	-22
GYA				SCS	ScS	18 15 43.6	-1.5
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
GYA				AMB	AMB		
	comp=Z,100nm,5.4s						
GYA				LR	LR		
	comp=N,400nm,14.2s,MS4.3						
GYA				LR	LR		
	comp=E,340nm,14.6s,MS4.3						
GYA				LR	LR		
	comp=Z,430nm,14.6s,MS4.3						
FORT	**Forrest**	**31.62**	**177**	*e*P	**P**	**18 05 16.7**	**+0.4**
	comp=Z,45nm,0.8s,mb5.3						
NJ2	**Nanjing**	**31.66**	**348**	*e*P	**P**	**18 05 20.0**	**+3.4**
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.0						
CHTO	**Chiang Mai**	**31.95**	**305**	*e*P	**P**	**18 05 18.4**	**-1.0**
	comp=Z,6.3nm,1.3s,mb4.3						
CHTO	**Chiang Mai**	**31.95**	**305**	*e*P	**P**	**18 05 18.4**	**-1.0**
CHTO				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.3						
KMI	**Kunming**	**32.91**	**319**	P	**P**	**18 05 29.0**	**+1.3**
KMI				AP	pP	18 05 37.9	-1.8
KMI				XP	sP	18 05 42.4	-2.7
KMI				PP	PP	18 06 43.3	+0.5
KMI				S	**S**	**18 10 46.5**	**+3.8**
KMI				XS	sS	18 11 04.2	+1.4
KMI				SS	SS	18 12 51.4	-14
KMI				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.4						
KMI				AMB	AMB		
	comp=Z,132nm,5.8s						
KMI				LR	LR		
	comp=N,219nm,16.7s,MS4.0						
KMI				LR	LR		
	comp=E,172nm,16.7s,MS4.0						
KMI				LR	LR		
	comp=Z,241nm,15.4s,MS4.0						
KMI	**Kunming**	**32.91**	**319**	P	**P**	**18 05 29.0**	**+1.3**
	comp=Z,6.0nm,1.2s,mb4.4						
KMI				pP	pP	18 05 37.9	-1.8
KMI				sP	sP	18 05 42.4	-2.7
KMI				PP	PP	18 06 43.3	+0.5
KMI				PPP		18 06 54.9	
KMI				S	**S**	**18 10 46.5**	**+3.8**
KMI				sS	sS	18 11 04.2	+1.4
KMI				SS	SS	18 12 51.4	-14
KMI				LR	LR		
	comp=Z,240nm,15.4s,MS4.0						
KMI	**Kunming**	**32.91**	**319**	P	**P**	**18 05 29.0**	**+1.3**
KMI				*PP	pP	18 05 37.9	-1.8
KMI				*SP	sP	18 05 42.4	-2.7
KMI						18 06 43.3	
KMI				PPP		18 06 54.9	
KMI				S	**S**	**18 10 46.5**	**+3.8**
KMI				*SS	sS	18 11 04.2	+1.4
KMI				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
KMI				MLR	MLR		
	comp=Z,240nm,15.4s,MS4.0						
MUN	**Mundaring**	**34.06**	**195**	*e*P	**P**	**18 05 38.3**	**+0.7**
STKA	**Stephens Creek**	**35.83**	**157**	*e*P	**P**	**18 05 52.9**	**0.0**
	comp=Z,11nm,0.9s,mb4.8						
STKA	**Stephens Creek**	**35.83**	**157**	P	**P**	**18 05 52.6**	**-0.3**
	comp=Z,20nm,1.0s,mb5.0,baz=325,slow=8.2,SNR=17						
KSRS	**Korea Array**	**36.35**	**3**	P	**P**	**18 05 56.2**	**-1.1**
KSRS				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
KSRS	**Korea Array**	**36.35**	**3**	P	**P**	**18 05 56.2**	**-1.1**
	comp=Z,5.1nm,1.1s,mb4.4,baz=178,slow=9.7,SNR=5.1						
CD2	**Chengdu**	**36.51**	**327**	*e*P	**P**	**18 05 57.7**	**-1.0**
CD2				AP	pP	18 06 12.7	+1.9
CD2				XP	sP	18 06 20.1	+4.0
CD2				PP	PP	18 07 23.7	+1.2
CD2				S	**S**	**18 11 35.6**	**-2.4**
CD2				XS	sS	18 12 01.4	+3.2
CD2				SS	SS	18 14 04.8	-14
CD2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.6						
CD2				AMB	AMB		
	comp=Z,40nm,6.4s						
CD2				LR	LR		
	comp=N,300nm,19.0s,MS4.4						
CD2				LR	LR		
	comp=E,530nm,16.6s,MS4.4						
CD2				LR	LR		
	comp=Z,340nm,16.7s,MS4.2						
MAJO	**Matsushiro**	**37.15**	**16**	*e*P	**P**	**18 06 03.3**	**-0.8**
	comp=Z,26nm,1.2s,mb4.9						
MAJO	**Matsushiro**	**37.15**	**16**	*e*P	**P**	**18 06 03.3**	**-0.8**
MAJO				pmax	pmax		
	comp=Z,26nm,1.2s,mb4.9						
MAT	**Matsushiro**	**37.15**	**16**	P	**P**	**18 06 03.3**	**-0.8**
MAT				S	**S**	**18 11 54.2**	**+6.6**
MJAR	**Matsushiro Arr**	**37.15**	**16**	P	**P**	**18 06 03.5**	**-0.6**
	comp=Z,9.0nm,0.9s,mb4.6,baz=186,slow=9.0,SNR=16						
BJT	**Baijiatuau**	**39.90**	**348**	P	**P**	**18 06 29.1**	**+2.0**
	comp=Z,12nm,1.3s,mb4.5						
BJT	**Baijiatuau**	**39.90**	**348**	P	**P**	**18 06 29.1**	**+2.0**
BJT				pmax	pmax		
	comp=Z,13nm,1.3s						
BJI	**Beijing**	**39.92**	**348**	P	**P**	**18 06 28.8**	**+1.5**
BJI				XP	sP	18 06 48.5	+3.7
BJI				PP	PP	18 08 01.6	+1.9
BJI				S	**S**	**18 12 32.9**	**+3.7**
BJI				XS	sS	18 12 54.8	+5.2
BJI				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.3						
BJI				LR	LR		
	comp=N,151nm,18.0s,MS4.0						
BJI				LR	LR		
	comp=E,102nm,18.6s,MS4.0						
BJI				LR	LR		
	comp=Z,147nm,19.5s,MS3.8						
BJI	**Beijing**	**39.92**	**348**	P	**P**	**18 06 28.8**	**+1.5**
BJI				sP	sP	18 06 48.5	+3.7
BJI				PP	PP	18 08 01.6	+1.9
BJI				S	**S**	**18 12 32.9**	**+3.7**
BJI				sS	sS	18 12 54.8	+5.2
BJI				SS	SS	18 15 32.5	+5.2
BJI				LR	LR		
	comp=Z,150nm,19.5s,MS3.8						
LZH	**Lanzhou**	**40.56**	**332**	*e*P	**P**	**18 06 37.5**	**+4.8**
LZH				AP	pP	18 06 49.1	+4.2
LZH				XP	sP	18 06 55.3	+5.1
LZH				PP	PP	18 08 15.6	+8.8
LZH				AMB	AMB		
	comp=Z,22nm,1.4s,mb4.6						
LZH				AMB	AMB		
	comp=Z,105nm,5.3s						
LZH				LR	LR		
	comp=E,599nm,13.6s						
LZH				LR	LR		
	comp=Z,907nm,17.8s,MS4.7						
LZH	**Lanzhou**	**40.56**	**332**	*e*P	**P**	**18 06 37.5**	**+4.8**
	comp=Z,22nm,1.4s,mb4.6						
LZH				pP	pP	18 06 49.1	+4.2
LZH				sP	sP	18 06 55.3	+5.1
LZH				PP	PP	18 08 15.6	+8.8
LZH				LR	LR		
	comp=Z,910nm,17.8s,MS4.7						
LZH	**Lanzhou**	**40.56**	**332**	*e*P	**P**	**18 06 37.5**	**+4.8**
LZH				*PP	pP	18 06 49.1	+4.2
LZH				*SP	sP	18 06 55.3	+5.1
LZH						18 08 15.6	
LZH				pmax	pmax		
	comp=Z,22nm,1.4s,mb4.6						
LZH				MLR	MLR		
	comp=Z,910nm,17.8s,MS4.7						
SNY	**Shenyang**	**40.74**	**357**	⇑P	**P**	**18 06 34.4**	**+0.4**
SNY				AMB	AMB		
	comp=Z,60nm,2.1s,mb4.9						
SNY				AMB	AMB		
	comp=Z,92nm,6.5s						
SNY				LR	LR		
	comp=N,168nm,18.0s,MS4.1						
SNY				LR	LR		
	comp=E,172nm,18.2s,MS4.1						
SNY				LR	LR		
	comp=Z,230nm,23.1s,MS4.0						
HHC	**Hu-ho-hao-te**	**41.81**	**343**	*e*P	**P**	**18 06 43.9**	**+1.0**
HHC				AP	pP	18 06 55.9	+0.8
HHC				XP	sP	18 07 01.3	+0.9
HHC				PP	PP	18 08 25.1	+4.8
HHC				PCS	PcS	18 12 28.4	-1.4
HHC				S	**S**	**18 12 58.1**	**+0.7**
HHC				XS	sS	18 13 20.7	+2.8
HHC				SS	SS	18 16 02.4	-2.5
HHC				AMB	AMB		
	comp=Z,5.0nm,0.5s,mb4.4						
HHC				AMB	AMB		
	comp=Z,100nm,8.4s						
HHC				LR	LR		
	comp=N,204nm,23.8s,MS4.1						
HHC				LR	LR		
	comp=E,228nm,20.2s,MS4.1						
HHC				LR	LR		
	comp=Z,281nm,16.7s,MS4.2						
CN2	**Changchun**	**42.65**	**359**	*e*P	**P**	**18 06 49.2**	**-0.5**
CN2				LR	LR		
	comp=Z,200nm,21.0s,MS4.0						
MDJ	**Mudanjiang**	**43.58**	**4**	P	**P**	**18 06 57.5**	**+0.4**
MDJ				AP	pP	18 07 10.7	+1.2
MDJ				XP	sP	18 07 16.7	+2.0
MDJ				PP	PP	18 08 39.5	+0.3
MDJ				PCP	PcP	18 08 43.8	-0.4
MDJ				SCP	ScP	18 12 30.9	-1.3
MDJ				S	**S**	**18 13 24.5**	**+1.2**
MDJ				SS	SS	18 16 38.0	-1.5
MDJ				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,131nm,6.6s						
MDJ				LR	LR		
	comp=N,143nm,22.9s,MS3.9						
MDJ				LR	LR		
	comp=E,79nm,22.9s,MS3.9						
MDJ				LR	LR		
	comp=Z,144nm,27.6s,MS3.7						
MDJ	**Mudanjiang**	**43.58**	**4**	*e*P	**P**	**18 06 57.6**	**+0.5**
	comp=Z,13nm,1.0s,mb4.6						
LSA	**Lhasa**	**43.80**	**314**	P	**P**	**18 07 00.4**	**+1.3**
LSA	**Lhasa**	**43.80**	**314**	*e*P	**P**	**18 06 59.6**	**+0.5**
	comp=Z,3.6nm,0.8s,mb4.2						
LSA	**Lhasa**	**43.80**	**314**	*e*P	**P**	**18 06 59.6**	**+0.5**
LSA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
GTA	**Gaotai**	**45.13**	**331**	*e*P	**P**	**18 07 10.9**	**+1.2**
GTA				AP	pP	18 07 23.0	+1.0
GTA				XP	sP	18 07 28.3	+1.0
GTA				PCP	PcP	18 08 52.2	+2.6
GTA				PP	PP	18 08 54.1	-1.8
GTA				S	**S**	**18 13 47.4**	**+1.3**
GTA				AMB	AMB		
	comp=Z,2.0nm,1.4s,mb3.8						
GTA				AMB	AMB		
	comp=Z,115nm,6.5s						
GTA				LR	LR		
	comp=N,218nm,16.8s,MS4.3						
GTA				LR	LR		
	comp=E,168nm,14.1s,MS4.3						
GTA				LR	LR		
	comp=Z,317nm,20.3s						
TAPN	**Taplejung**	**45.15**	**309**	*e*P	**P**	**18 07 08.5**	**-1.5**
ODAN	**Odare**	**45.16**	**308**	*e*P	**P**	**18 07 10.2**	**+0.1**
	comp=Z,7.9nm,0.7s,mb4.7						
GUN	**Gumba**	**46.84**	**309**	*e*P	**P**	**18 07 22.8**	**-0.5**
KKN	**Kakani**	**47.26**	**308**	*e*P	**P**	**18 07 25.0**	**-1.6**
	comp=Z,24nm,1.3s,mb5.0						
GKN	**Gorkha**	**47.86**	**308**	*e*P	**P**	**18 07 29.7**	**-1.5**
HABR	**Khabarovsk**	**47.96**	**8**	*e*P	**P**	**18 07 32.3**	**+0.7**
HABR				*e*		18 09 01.3	
HABR				*e*S	**S**	**18 14 24.0**	**-2.2**
HABR				*e*		18 17 21.5	
HABR				*e*SS	SS	18 17 53.5	-2.1
HABR				pmax	pmax		
	comp=Z,40nm,1.5s,mb5.2						
YSS	**Yuzh-Sakhalins**	**48.07**	**15**	*e*P	**P**	**18 07 33.1**	**+0.6**
YSS	**Yuzh-Sakhalins**	**48.07**	**15**	⇓*e*P	**P**	**18 07 33.5**	**+1.0**
YSS				pmax	pmax		
	comp=Z,23nm,1.5s,mb5.0						
KLR	**Kul'dur**	**48.33**	**5**	*e*P	**P**	**18 07 30.8**	**-3.7**
KLR				pmax	pmax		
	comp=Z,24nm,1.4s,mb5.0						
HIA	**Hailar**	**48.42**	**354**	*e*P	**P**	**18 07 35.8**	**+0.6**
	comp=Z,19nm,1.2s,mb5.0						
HIA	**Hailar**	**48.42**	**354**	*e*P	**P**	**18 07 35.8**	**+0.6**
HIA				pmax	pmax		
	comp=Z,19nm,1.2s						
KOLN	**Koldanda**	**48.58**	**307**	*e*P	**P**	**18 07 35.7**	**-1.1**
	comp=Z,12nm,0.6s,mb5.1						
HYB	**Hyderabad**	**49.45**	**292**	*e*P	**P**	**18 07 43.0**	**-0.7**
HYB	**Hyderabad**	**49.45**	**292**	*i* P	**P**	**18 07 43.0**	**-0.7**
SONM	**Songino Array**	**49.70**	**343**	P	**P**	**18 07 44.7**	**-0.3**
SONM						18 09 06.7	
SONM	**Songino Array**	**49.70**	**343**	P	**P**	**18 07 44.6**	**-0.3**
	comp=Z,2.1nm,0.9s,mb4.2,baz=158,slow=6.2,SNR=11						
SONM				PcP	PcP	18 09 06.7	+1.0
	comp=Z,1.5nm,1.0s,baz=154,slow=3.6,SNR=3.7						
SONM				LR	LR	18 29 32.3	
	comp=Z,149nm,21.5s,MS4.0,baz=352,slow=37						
CIT	**Chita**	**51.95**	**350**	*e*P	**P**	**18 08 04.6**	**+2.8**
CIT				*e*		18 08 22.1	
CIT				*e*		18 09 15.8	
TLY	**Talaya**	**53.94**	**343**	*e*P	**P**	**18 08 18.1**	**+1.6**
TLY				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.2						
TLY				MLR	MLR		
	comp=Z,78nm,19.0s,MS3.8						
WMQ	**Urumqi**	**54.61**	**327**	P	**P**	**18 08 23.2**	**+1.6**
WMQ				AP	pP	18 08 37.4	+3.2
WMQ				XP	sP	18 08 43.4	+4.0
WMQ				PCP	PcP	18 09 25.7	+1.5
WMQ				PP	PP	18 10 27.5	+3.1
WMQ				S	**S**	**18 15 57.9**	**-0.2**
WMQ				SCS	ScS	18 18 05.0	-2.2
WMQ				SS	SS	18 19 40.0	-1.5
WMQ				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,31nm,10.1s						
WMQ				LR	LR		
	comp=N,195nm,21.8s,MS4.2						
WMQ				LR	LR		
	comp=E,125nm,22.0s,MS4.2						
WMQ				LR	LR		
	comp=Z,193nm,21.8s,MS4.1						
CLNS	**Chul'man**	**55.71**	**359**	*e*P	**P**	**18 08 28.4**	**-0.8**
CLNS				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
CLNS				pmax	pmax		
	comp=N,9.0nm,1.3s						
CLNS				pmax	pmax		
	comp=E,3.0nm,0.7s						
BOD	**Bodaibo**	**57.49**	**352**	*e*P	**P**	**18 08 40.6**	**-1.3**
BOD				pmax	pmax		
	comp=Z,9.0nm,2.0s,mb4.5						
MKAR	**Makanchi Array**	**59.44**	**327**	P	**P**	**18 08 54.9**	**-0.8**
MKAR				LR	LR	18 35 36.8	
MKAR	**Makanchi Array**	**59.44**	**327**	P	**P**	**18 08 54.9**	**-0.8**
	comp=Z,3.0nm,0.6s,mb4.5,baz=122,slow=4.6,SNR=32						
MKAR				LR	LR	18 35 36.7	
	comp=Z,244nm,20.2s,MS4.3,baz=130,slow=37						
YAK	**Yakutsk**	**60.98**	**2**	*e*P	**P**	**18 09 05.3**	**-0.6**
	comp=Z,14nm,0.7s,mb5.2						
YAK	**Yakutsk**	**60.98**	**2**	*e*P	**P**	**18 09 06.6**	**+0.7**
YAK				pmax	pmax		
	comp=Z,16nm,1.2s,mb5.0						
YAK				pmax	pmax		
	comp=N,9.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.3s						
MA2	**Magadan**	**61.54**	**14**	*e*P	**P**	**18 09 11.1**	**+1.4**
	comp=E,21nm,1.2s,mb5.1						
MA2	**Magadan**	**61.54**	**14**	*e*P	**P**	**18 09 10.4**	**+0.7**
MA2				*e*		18 09 47.0	
MA2				*e*		18 17 47.0	
MA2				pmax	pmax		
	comp=N,20nm,1.3s						
MA2				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.3						
UCH	**Uchtor**	**61.76**	**319**	*e*P	**P**	**18 09 11.2**	**-0.4**
	comp=Z,9.9nm,1.1s,mb4.8						
AAK	**Ala-Archa**	**61.96**	**319**	*e*P	**P**	**18 09 11.4**	**-1.5**
	comp=Z,7.5nm,1.2s,mb4.7						
AAK	**Ala-Archa**	**61.96**	**319**	⇓*e*P	**P**	**18 09 11.8**	**-1.1**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.5						
EKS2	**Erkin-Say**	**62.44**	**319**	*e*P	**P**	**18 09 15.8**	**-0.3**
	comp=Z,8.1nm,1.2s,mb4.7						
KBL	**Kabul**	**62.68**	**309**	*e*P	**P**	**18 09 16.4**	**-1.5**
ZALV	**Zalesovo Beam**	**62.74**	**334**	P	**P**	**18 09 16.3**	**-1.6**
	comp=Z,2.0nm,0.8s,mb4.3,baz=136,slow=5.3,SNR=12						
ZALV				LR	LR	18 40 04.4	
	comp=Z,62nm,18.8s,MS3.8,baz=231,slow=40						
ZAL	**Zalesovo**	**62.74**	**334**	P	**P**	**18 09 16.3**	**-1.6**
KURK	**Kurchatov**	**63.70**	**329**	*e*P	**P**	**18 09 23.5**	**-0.9**
	comp=Z,8.2nm,0.8s,mb4.8						
KURK	**Kurchatov**	**63.70**	**329**	*e*P	**P**	**18 09 23.5**	**-0.9**
KURK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
NVS	**Novosibirsk**	**64.03**	**334**	*e*P	**P**	**18 09 26.9**	**+0.5**
NVS				pmax	pmax		
	comp=Z,47nm,3.1s						
SEY	**Seymchan**	**64.86**	**13**	⇓*i*P	**P**	**18 09 33.3**	**+1.6**
BRVK	**Borovoye**	**69.33**	**328**	*e*P	**P**	**18 09 59.6**	**-0.7**
	comp=Z,13nm,1.3s,mb4.7						
BRVK	**Borovoye**	**69.33**	**328**	*e*P	**P**	**18 09 59.6**	**-0.7**
BRVK				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
TIXI	**Tiksi**	**70.60**	**1**	*e*P	**P**	**18 10 07.1**	**-0.6**
	comp=Z,22nm,1.4s,mb4.9						
TIXI	**Tiksi**	**70.60**	**1**	*e*P	**P**	**18 10 04.0**	**-3.7**
TIXI				*e*S	S	18 19 12.8	-5.1
TIXI				pmax	pmax		
	comp=Z,19nm,1.6s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,80nm,18.0s,MS4.0						
BILL	**Bilibino**	**72.39**	**15**	*e*P	**P**	**18 10 18.7**	**+0.2**
	comp=Z,4.8nm,1.2s,mb4.3						
BILL	**Bilibino**	**72.39**	**15**	⇑*e*P	**P**	**18 10 19.2**	**+0.7**
BILL				*e*	pP	18 10 28.2	-3.4
BILL				pmax	pmax		
	comp=Z,11nm,1.8s,mb4.5						
AKTK	**Aktyubinsk**	**75.40**	**322**	P	**P**	**18 10 36.2**	**-0.3**
AKTO	**Aktyubinsk**	**75.40**	**322**	P	**P**	**18 10 36.2**	**-0.3**
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
AKTO	**Aktyubinsk**	**75.40**	**322**	P	**P**	**18 10 36.2**	**-0.3**
	comp=Z,1.0nm,0.3s,mb4.2,baz=106,slow=9.6,SNR=14						
SVE	**Sverdlovsk**	**75.95**	**329**	*e*P	**P**	**18 10 40.0**	**+0.5**
ARU	**Arti**	**76.90**	**328**	*e*P	**P**	**18 10 44.1**	**-0.8**
	comp=Z,5.8nm,0.8s,mb4.6						
ARU	**Arti**	**76.90**	**328**	⇓*i*P	**P**	**18 10 43.5**	**-1.4**
ARU				*e*	pP	18 10 55.0	-3.1
ARU				*e*		18 13 33.6	
ARU				*e*S	S	18 20 24.0	-5.4
ARU				*e*SSS		18 28 39.7	

ARU				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
VNDA	Vanda	80.79	173	P	P	18 11 05.8	-0.1
VNDA	Vanda	80.79	173	P	P	18 11 06.8	+0.9
	comp=Z,6.1nm,0.9s,mb4.5,baz=356,slow=4.1,SNR=3.5						
VNDA				LR	LR	18 46 56.0	
	comp=Z,119nm,18.1s,MS4.3,baz=320,slow=36						
SVW2	Sparrevohn	83.54	29	eP	P	18 11 22.2	+1.6
ZEI	Tsey	83.57	313	eP	P	18 11 21.9	+0.7
ZEI				e		18 11 29.5	
ZEI				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.9						
KIV	Kislovodsk	84.54	314	P	P	18 11 26.8	+0.7
	comp=Z,4.3nm,0.7s,mb4.7						
KIV	Kislovodsk	84.54	314	⇓eP	P	18 11 27.5	+1.4
KIV				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.6						
KDAK	Kodiak Island	84.58	32	P	P	18 11 27.7	+1.8
	comp=Z,19nm,1.2s,mb5.1,baz=85,slow=3.7,SNR=4.0						
PRGR	Permogore	84.59	332	eP	P	18 11 25.1	-0.8
PRGR				eS	S	18 21 45.0	-4.5
PRGR				pmax	pmax		
	comp=Z,6.0nm,0.4s,mb5.1						
IMA2	Indian Mountai	85.17	24	eP	P	18 11 30.2	+1.5
VRHR	Novokhopersk	85.74	321	eP	P	18 11 31.4	-0.5
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.3						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.6s						
SLKM	Skilak Lake	86.07	30	eP	P	18 11 33.7	+0.4
SOC	Sochi	86.67	313	eP	P	18 11 34.8	-1.9
SOC				e		18 11 41.1	
SOC				eS	S	18 21 50.0	-21
SOC				pmax	pmax		
	comp=Z,20nm,1.5s,mb5.1						
MCK	McKinley	86.93	26	P	P	18 11 36.2	-1.3
	comp=Z,11nm,1.8s,mb4.8						
MCK	McKinley	86.93	26	P	P	18 11 36.2	-1.3
MCK				pmax	pmax		
	comp=Z,11nm,1.8s,mb4.8						
VORD	Divnogorie	87.20	321	eP	P	18 11 38.1	-1.0
VORD				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.8						
VORD				pmax	pmax		
	comp=N,10.0nm,0.8s						
VORD				pmax	pmax		
	comp=E,8.0nm,0.6s						
MALT	Malatya	87.53	308	eP	P	18 11 41.7	+0.7
	comp=E,8.9nm,1.3s,mb4.8						
MALT	Malatya	87.53	308	eP	P	18 11 41.7	+0.7
MALT				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.8						
ANN	Anapa	88.34	315	eP	P	18 11 42.9	-1.7
ANN				pmax	pmax		
	comp=Z,86nm,1.7s,mb5.7						
KMBO	Kilima Mbogo	88.81	269	eP	P	18 11 49.0	+1.4
	comp=Z,40nm,1.9s,mb5.4						
KMBO	Kilima Mbogo	88.81	269	P	P	18 11 48.5	+1.0
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.8s						
KMBO				MLR	MLR		
	comp=Z,100nm,21.3s						
KMBO	Kilima Mbogo	88.81	269	P	P	18 11 48.5	+0.9
	comp=Z,1.8nm,0.8s,mb4.5,baz=236,slow=23,SNR=6.9						
KMBO				LR	LR	18 48 33.6	
	comp=Z,100nm,21.3s,MS4.2,baz=90,slow=34						
OBN	Obninsk	88.91	325	P	P	18 11 46.7	-0.4
OBN	Obninsk	88.91	325	⇑P	P	18 11 47.0	-0.1
OBN				e	pP	18 11 57.0	-3.5
OBN				pmax	pmax		
	comp=Z,15nm,1.3s,mb5.2						
SYO	Syowa Base	89.61	201	⇑eP	P	18 11 49.0	-1.1
QSPA	South Pole Qui	90.89	180	eP	P	18 11 56.7	+0.9
	comp=Z,3.1nm,0.8s,mb4.7						
ARCES	ARCESS Array B	92.79	340	P	P	18 12 04.3	-0.5
	comp=Z,2.9nm,0.9s,mb4.7,baz=66,slow=4.4,SNR=2.9						
AKASG	Malin Array Be	93.59	321	i P	P	18 12 09.3	+0.4
AKASG	Malin Array Be	93.59	321	P	P	18 12 07.5	-1.4
	comp=Z,0.2nm,0.4s,mb3.9,baz=70,slow=3.7,SNR=4.3						
BOSA	Boshof	99.93	241	LR	LR	18 53 08.9	
	comp=Z,160nm,18.2s,MS4.6,baz=131,slow=33						
TORD	Torodi Ar. Bea	123.07	286	PKP	PKPdf	18 17 50.6	+0.4
TORD	Torodi Ar. Bea	123.07	286	PKP	PKPdf	18 17 50.6	+0.4
	comp=Z,1.8nm,1.0s,baz=51,slow=1.7,SNR=6.0						
TXAR	Lajitas Array	123.81	53	PKP	PKPdf	18 17 52.0	+0.8
TXAR	Lajitas Array	123.81	53	PKIKP	PKPdf	18 17 52.1	+0.8
TXAR	Lajitas Array	123.81	53	PKP	PKPdf	18 17 52.1	+0.8
	comp=Z,0.4nm,0.9s,baz=297,slow=4.0,SNR=3.0						

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*CSEM **09** 18:06:45.4±0.2, 38.47N×39.08E, h25^{km}, MD2.7, Error ellipse: s-maj=6.1km s-min=4.8km az=146.0*

*ISCJB **09** 18:06:46.7±0.7, 38.39N±0.05×39.12E±0.04, h2^{km}±11^{km}, Error ellipse: s-maj=8.3km s-min=5.5km az=170.4*

*ISK **09** 18:06:46.2, 38.45N×39.09E, h8^{km}, MD2.7*

*DDA **09** 18:06:48.0, 38.39N×39.10E, h6^{km}±2^{km}, Md2.9*

ISC 09 18:06:47.3±0.6, **38.42N**±0.06×**39.11E**±0.05, **h7**^{km}±8^{km}, **n14**, σ**0.59**/20, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.13	309	i P	Pg	18 06 50.5	+0.5
ELZG				i S	Sg	18 06 52.9	+1.1
PTK	Pertek	0.52	25	PG	Pg	18 06 56.8	-0.6
PTK				SG	Sg	18 07 03.8	-0.4
PTK	Pertek	0.52	25	ePg	Pg	18 06 56.8	-0.6
PTK				eSg	Sg	18 07 03.8	-0.4
MALT	Malatya	0.55	259	PG	Pg	18 06 56.6	-1.2
MALT	Malatya	0.55	259	ePg	Pg	18 06 56.6	-1.2
MYA	Malataya	0.55	261	PG	Pg	18 06 57.5	-0.3
MYA	Malataya	0.55	261	ePg	Pg	18 06 57.5	-0.3
URFA	Urfa	1.00	193	ePG	Pg	18 07 06.7	+0.2
URFA	Urfa	1.00	193	ePg	Pg	18 07 06.7	+0.2
DIY	Diyarbakir	1.02	120	ePG	Pg	18 07 06.4	-0.5
DIY	Diyarbakir	1.02	120	ePg	Pg	18 07 06.4	-0.5
GZT	Gaziantep	1.62	230	i P	Pn	18 07 16.4	+0.2
GZT				i S	Sn	18 07 37.2	-0.1
BNGL	BINGOL	1.68	71	i P	Pg	18 07 19.8	+0.3
BNGL				i S	Sg	18 07 45.7	+4.4
MARD	Mardin	1.72	129	i P	Pn	18 07 17.7	+0.1
MARD				i S	Sn	18 07 40.5	+0.7

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*CSEM **09** 18:10:08.7±0.2, 38.15N×30.97E, h5^{km}, MD3.0, Error ellipse: s-maj=4.2km s-min=3.5km az=164.0*

*ISCJB **09** 18:10:09.3±0.9, 38.17N±0.04×30.97E±0.05, h0^{km}±9^{km}, Error ellipse: s-maj=6.7km s-min=6.3km az=167.5*

*ISK **09** 18:10:09.1, 38.16N×30.91E, h15^{km}, MD3.0*

*DDA **09** 18:10:12.2, 38.20N×30.96E, h18^{km}±4^{km}, Md3.2*

ISC 09 18:10:10.0±0.7, **38.17N**±0.04×**30.95E**±0.05, **h7**^{km}±7^{km}, **n15**, σ**0.61**/24, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ISP	Isparta	0.48	227	PG	Pg	18 10 18.9	-0.4
ISP				SG	Sg	18 10 25.4	-0.1
ISP	Isparta	0.48	227	ePg	Pg	18 10 18.9	-0.4
ISP				eSg	Sg	18 10 25.4	-0.1
SHUT	Suhut-Afyon	0.49	321	PG	Pg	18 10 19.3	-0.2
SHUT				SG	Sg	18 10 26.2	+0.2
SHUT	Suhut-Afyon	0.49	321	ePg	Pg	18 10 19.3	-0.2
SHUT				eSg	Sg	18 10 26.2	+0.2
KDHN	Kadinhani	0.98	69	i P	Pg	18 10 28.4	-0.5
KDHN				i S	Sg	18 10 42.7	+1.1
KIZT	Kizilcal	1.02	46	PG	Pg	18 10 29.6	+0.1
KIZT	Kizilcal	1.02	46	ePg	Pg	18 10 29.6	+0.1
KONT	Konya--Tatoy	1.14	101	ePN	Pn	18 10 31.5	-0.9
KONT	Konya--Tatoy	1.14	101	ePn	Pn	18 10 31.5	-0.9
ESKT	Eskisehir	1.35	357	ePN	Pn	18 10 34.1	-1.2
ESKT	Eskisehir	1.35	357	i P	Pn	18 10 35.2	-0.1
ESKT				i S	Sb	18 10 52.9	-0.2
ESKT	Eskisehir	1.35	357	ePn	Pn	18 10 34.1	-1.2
SEYT	Eskypehyr	1.35	357	i P	Pn	18 10 35.2	-0.1
SEYT				i S	Sb	18 10 52.9	-0.2
GOLH	Golhisar	1.44	230	i P	Pn	18 10 37.9	+1.3
GOLH				i S	Sg	18 11 02.8	+6.3
GDZ	Gediz	1.47	309	i P	Pn	18 10 36.9	0.0
GDZ				i S	Sn	18 10 56.7	+0.3

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*IDC **09** 18:33:44.7±0.9, 63.88N×147.24W, h0^{km}, mb3.6/4, mb1 3.6/7, mb1mx3.5/24, mbtmp3.5/7, ML3.1/3, MS2.7/1, Ms1 2.7/1, ms1mx2.2/28, Error ellipse: s-maj=20.3km s-min=13.5km az=130.0*

*NEIC **09** 18:33:45.6, 63.62N×147.43W, h7^{km}, ML3.3(AEIC), After AEIC.*

*ISCJB **09** 18:33:46.1±1.0, 63.67N±0.04×147.41W±0.09, h24^{km}±10^{km}, mb3.7/4, Error ellipse: s-maj=6.5km s-min=6.2km az=176.3*

ISC 09 18:33:45.3±0.8, **63.64N**±0.03×**147.38W**±0.06, **h6**^{km}±6^{km}, **n33**, σ**0.93**/39, **mb3.7**/4, **Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCK	McKinley	0.70	278	P	Pg	18 33 58.8	+0.2
MCK				S	Sg	18 34 07.6	-0.1
PAX	Paxson	1.09	127	P	Pg	18 34 04.4	-1.8
IL1	Eielson Array	1.15	11	P	Pg	18 34 07.5	+0.1
COLA	College	1.25	351	P	Pn	18 34 09.1	-0.2
TRF	Thorofare Moun	1.32	263	P	Pn	18 34 09.0	-1.1
DOT	Dot Lake	1.48	88	P	Pn	18 34 12.3	-0.1
KTH	Kantishna Hill	1.59	268	P	Pn	18 34 13.1	-0.7
MENT	Mentasta	1.80	112	eP	Pn	18 34 16.6	-0.1
SML	Sawmill	1.89	194	P	Pn	18 34 17.3	-0.8
GHO	Glory Hole Cre	2.01	201	P	Pn	18 34 19.8	+0.2
PMR	Palmer	2.21	202	eP	Pn	18 34 22.9	+0.5
BCA3	Beaver Creek A	2.59	100	P	Pn	18 34 27.4	-0.1
RC01	Rabbit Creek A	2.79	204	P	Pn	18 34 31.5	+1.2
FIB	Fire Island	2.81	209	P	Pn	18 34 31.7	+1.2
EGAK	Eagle	2.95	64	ePn	Pn	18 34 33.9	+1.4
EGAK				ePg	Pg	18 34 41.6	-0.1
EGAK				eSg	Sg	18 35 20.0	+0.1
BMRM	Bremner River	2.98	153	P	Pn	18 34 34.1	+1.1
EYAK	Cordova Ski Ar	3.20	165	P	Pn	18 34 36.7	+0.8
SLKM	Skilak Lake	3.42	204	P	Pn	18 34 40.1	+1.1
DAWY	Dawson	3.56	80	P	Pn	18 34 41.7	+0.7
IM3	Indian Mountai	3.60	314	P	Pn	18 34 41.5	0.0
IMA2	Indian Mountai	3.63	315	eP	Pn	18 34 41.8	-0.1
COLD	Coldfoot	3.79	343	P	Pn	18 34 44.8	+0.7
BM3	Burnt Mountain	3.96	16	P	Pn	18 34 47.1	+0.6
SVW2	Sparrevohn	4.59	240	eP	Pn	18 34 55.5	+0.4
KDAK	Kodiak Island	6.41	206	Pn	Pn	18 35 20.3	+0.3
KDAK				Sn	Sn	18 36 30.8	-2.6
KDAK	Kodiak Island	6.41	206	Pn	Pn	18 35 20.3	+0.3
	0.4nm,0.3s,baz=31,slow=12,SNR=7.0						
KDAK				Sn	Sn	18 36 30.8	-2.6
	2.1nm,0.3s,baz=132,slow=22,SNR=7.7						
INK	Inuvik	7.33	44	ePn	Pn	18 35 32.4	-0.2
	92nm,0.9s						
INK	Inuvik	7.33	44	Pn	Pn	18 35 31.9	-0.8
	0.5nm,0.3s,baz=238,slow=15,SNR=13						
INK				Sn	Sn	18 36 49.1	-6.8
	0.2nm,0.3s,baz=329,slow=19,SNR=1.8						
INK				Lg		18 37 33.5	
	0.1nm,0.3s,baz=223,slow=15,SNR=3.0						
INK				LR	LR	18 38 51.5	
	comp=Z,59nm,19.2s,baz=319,slow=43						
YKA	Yellowknife Ar	14.80	80	Pn	Pn	18 37 12.0	-2.8
	0.1nm,0.3s,baz=286,slow=13,SNR=5.3						
TXAR	Lajitas Array	44.12	120	P	P	18 41 53.6	-0.5
	0.9nm,0.6s,mb3.6,baz=330,slow=7.1,SNR=9.4						
SONM	Songino Array	54.75	308	P	P	18 43 15.8	+0.8
	0.3nm,0.6s,mb3.5,baz=18,slow=6.8,SNR=3.5						
ZALV	Zalesovo Beam	55.94	326	P	P	18 43 23.2	-0.4
	0.6nm,0.4s,mb4.0,baz=28,slow=6.7,SNR=3.7						
MKAR	Makanchi Array	63.15	324	P	P	18 44 10.9	-2.4
	0.3nm,0.5s,mb3.7,baz=19,slow=7.7,SNR=6.4						

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*IDC **09** 18:40:35.6±8.2, 33.59S×178.86W, h86^{km}±69^{km}, mb4.2/2, mb1 4.4/3, mb1mx3.9/13, mbtmp4.2/3, ML4.3/1, MS3.6/5, Ms1 3.6/5, ms1mx3.1/21, Error ellipse: s-maj=59.1km s-min=38.3km az=31.0*

ISC 09 18:40:31.1±2.4, **33.4S**±0.1×**178.5W**±0.3, **h65**^{km}±22^{km}, **n28**, σ**0.80**/19, **mb4.6**/3, **South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUZ	Puketiti	5.31	209	PN	Pn	18 41 48.4	+0.6
PUZ				SN	Sn	18 42 48.5	+0.8
MWZ	Matawai	5.84	212	PN	Pn	18 41 55.6	+0.6
URZ	Urewera	5.97	215	P	Pn	18 41 56.7	-0.2
	9.5nm,0.3s,baz=326,slow=2.6,SNR=41						
URZ				S	Sn	18 43 02.9	-0.9
	3.6nm,0.3s,baz=161,slow=18,SNR=3.7						
URZ	Urewera	5.97	215	PN	Pn	18 41 57.7	+0.9
URZ				SN	Sn	18 43 03.5	-0.4
KNZ	Kokohu	6.36	208	PN	Pn	18 42 02.2	0.0
OUZ	Omahuta	6.75	253	PN	Pn	18 42 07.3	-0.2
BKZ	Black Stump Fm	6.99	214	PN	Pn	18 42 11.0	+0.3
BFZ	Birch Farm	8.35	208	PN	Pn	18 42 27.5	-1.8
MRZ	Mangatainoka R	8.61	211	PN	Pn	18 42 29.3	-3.6
MRZ				SN	Sn	18 44 02.2	-6.2
THZ	Tophouse	10.73	217	PN	Pn	18 43 02.1	+0.2
DZM	Mont Dzumac	17.44	307	LR	LR	18 49 37.8	
	comp=Z,131nm,19.9s,baz=149,slow=31						
RAR	Rarotonga	20.60	59	LR	LR	18 50 53.5	
	comp=Z,228nm,19.0s,baz=213,slow=30						
STKA	Stephens Creek	33.47	262	LR	LR	18 58 19.1	
	comp=Z,102nm,18.1s,baz=205,slow=32						
CTA	Charters Tower	33.97	284	eP	P	18 47 09.5	+1.1
	3.4nm,0.5s,mb4.4						
CTA	Charters Tower	33.97	284	P	P	18 47 09.8	+1.3
	4.7nm,0.6s,mb4.5,baz=111,slow=9.7,SNR=17						
CTA				LR	LR	18 58 08.9	
	comp=Z,109nm,18.3s,baz=83,slow=31						
PMG	Port Moresby	39.59	299	LR	LR	19 00 55.1	
	comp=Z,66nm,18.3s,baz=66,slow=31						
WB2	Warramunga Arr	43.84	276	eP	P	18 48 30.5	-0.4
WRA	Warramunga Arr	43.85	276	P	P	18 48 30.6	-0.4
	3.4nm,0.4s,mb4.4,baz=115,slow=8.0,SNR=44						
FITZ	Fitzroy Crossi	51.97	273	eP	P	18 49 33.7	-0.1
	8.4nm,0.8s,mb4.8						
MKAR	Makanchi Array	119.35	309	PKP	PKPdf	18 59 12.7	+0.2
	0.2nm,0.6s,baz=107,slow=1.5,SNR=3.4						
ZALV	Zalesovo Beam	119.97	317	PKP	PKPdf	18 59 15.5	+2.0
	0.3nm,0.4s,baz=113,slow=2.2,SNR=3.0						
JOF	Joensuu	145.04	337	ep	PKPbc	19 00 00.5	+0.9
	2.0nm,0.5s						
KAF	Kangasniemi	147.23	339	ep	PKPdf	19 00 06.9	+3.1
	4.2nm,0.6s						
FINES	FINESS Array B	147.81	338	PKPbc	PKPbc	19 00 09.9	+2.1
	3.8nm,0.5s,baz=54,slow=3.8,SNR=39						
NB2	NORSAR Subarra	151.67	350	PKPa	PKPbc	19 00 19.6	+2.4
	comp=Z,2.2nm,0.5s,baz=15,slow=2.6						
NOA	NORSAR Array B	151.67	350	PKPbc	PKPbc	19 00 20.0	+2.9
	comp=Z,1.2nm,0.6s,baz=17,slow=4.6,SNR=13						
AKASG	Malin Array Be	153.36	319	PKPbc	PKPbc	19 00 22.5	+1.2
	comp=Z,0.4nm,0.4s,baz=43,slow=2.8,SNR=4.7						
BRTR	Keskin Array B	153.51	293	PKPbc	PKPbc	19 00 23.7	+1.7
	comp=Z,0.8nm,0.5s,baz=126,slow=3.4,SNR=6.5						

KRSC 09 18:55:34.2±0.8, **51.16N**×**158.16E**, **h21**^{km}±21^{km}, **ML3.6**, **Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUS	Russkaya	1.29	10	eP	Pn	18 55 57.9	+0.9
RUS				i S	Sn	18 56 16.0	+2.3
GRL	Gorelyy	1.40	358	i P	Pn	18 56 00.2	+1.8
GRL				i S	Sn	18 56 18.7	+2.5
MIPR	Malaya Ipel'ka	1.42	323	eP	Pn	18 55 59.2	+0.5
MIPR				eS	Sn	18 56 17.7	+1.0
PET	Petropavlovsk	1.89	9	eP	Pn	18 56 07.0	+1.8
PET				i S	Sn	18 56 30.9	+2.5
NLC	Nalytchevo	2.14	19	P	Pn	18 56 09.2	+0.5
NLC				i S	Sn	18 56 35.1	+0.5
SDLR	Sedlovina	2.17	12	eP	Pn	18 56 10.0	+1.0
SDLR				i S	Sn	18 56 36.4	+1.2
SPN	Mys Shipunski	2.25	30	eP	Pn	18 56 12.1	+1.9
SPN				i S	Sn	18 56 39.8	+2.4
GNL	Ganaly	2.54	357	eP	Pn	18 56 16.5	+2.3

IDC 09 19:15:06.3±4.2, **14.35S**×**71.15W**, **h151**^{km}±44^{km}, **mb3.3**/2, **mb1 3.4**/3, **mb1mx3.2**/15, **mbtmp3.2**/3, **Error ellipse: s-maj=100.9km s-min=39.8km az=25.0, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	3.49	124	P	Pn	19 15 59.1	-0.8
	1.2nm,0.3s,baz=304,slow=11,SNR=19						
LPAZ				S	Sn	19 16 43.7	+2.1
	0.5nm,0.3s,baz=41,slow=20,SNR=4.4						
TORD	Torodi Ar. Bea	77.12	73	P	P	19 26 43.2	-0.4
	0.3nm,0.3s,baz=258,slow=4.7,SNR=9.4						
YKA	Yellowknife Ar	83.77	341	P	P	19 27 18.2	+0.1
	0.5nm,0.6s,baz=135,slow=5.0,SNR=11						
ZALV	Zalesovo Beam	136.21	20	PKP	PKPdf	19 34 10.2	+0.6
	0.6nm,0.6s,baz=286,slow=1.0,SNR=4.1						
WRA	Warramunga Arr	137.69	217	PKP	PKPdf	19 34 11.2	-2.3
	0.1nm,0.4s,baz=128,slow=1.2,SNR=3.4						
SONM	Songino Array	146.55	3	PKPbc	PKPbc	19 34 30.5	+0.6
	0.7nm,0.8s,baz=327,slow=2.3,SNR=5.4						

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*IDC **09** 19:33:49.8±0.7, 37.55N×31.90W, h0^{km}, mb4.0/17, mb1 4.2/17, mb1mx4.1/25, mbtmp4.1/17, MS3.9/20, Ms1 3.9/20, ms1mx3.6/32, Error ellipse: s-maj=24.7km s-min=13.8km az=177.0*

*MOS **09** 19:33:49.9±0.6, 37.61N×31.87W, h10^{km}, mb4.8/18, Error ellipse: s-maj=19.4km s-min=8.7km az=137.5*

*ISCJB **09** 19:33:49.9±0.5, 37.6N±0.1×31.91W±0.06, h10^{km}, mb4.3/40, MS3.9/21, Error ellipse: s-maj=15.9km s-min=6.8km az=177.7*

*BJI **09** 19:33:50.5, 37.52N×32.72W, h30^{km}, mb4.9*

*NEIC **09** 19:33:51.5±0.4, 37.54N×31.88W, h10^{km}, mb4.6/20, Error ellipse: s-maj=13.0km s-min=5.6km az=178.0*

*CSEM **09** 19:33:52.9±0.1, 37.60N×31.94W, h33^{km}, mb4.6/25, Ms4.0, Error ellipse: s-maj=7.2km s-min=2.5km az=170.0*

ISC 09 19:33:51.9±0.5, **37.6N**±0.1×**31.88W**±0.06, **h10**^{km}, **n120**, σ**0.86**/107, **mb4.3**/40, **MS3.9**/21, **3C-4D**, **Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESDC	Sonseca Array	21.88	76	P	P	19 38 46.1	+1.2
	13nm,0.8s,mb4.4,baz=278,slow=8.8,SNR=35						
ESDC				LR	LR	19 45 16.8	
	comp=Z,205nm,18.9s,MS3.6,baz=285,slow=31						
ESLA	Sonseca Array	21.88	76	eP	P	19 38 47.1	+2.2
	4.4nm,0.8s,mb3.9						
ESLA	Sonseca Array	21.88	76	eP	P	19 38 47.1	+2.2
	4.4nm,0.8s,mb3.9						
MDT	Midelt	22.75	94	P	P	19 38 52.0	-2.1
	3.4nm,1.1s,mb3.7,baz=327,slow=18,SNR=1.9						
MDT				LR	LR	19 45 59.4	
	comp=Z,306nm,19.6s,MS3.8,baz=332,slow=32						
GRR	Gorron	24.98	54	eP	P	19 39 15.2	-0.3
	198nm,1.7s,mb5.1						
GRR	Gorron	24.98	54	eP	P	19 39 15.2	-0.3
GRR				pmax	pmax		
	comp=Z,99nm,1.7s,mb5.1						
GRR	Gorron	24.98	54	eP	P	19 39 15.2	-0.3
	comp=Z,99nm,1.7s,mb5.1						
MFF	Saint Martin d	25.09	59	eP	P	19 39 16.3	-0.2
	comp=Z,46nm,1.1s,mb4.6						
MFF	Saint Martin d	25.09	59	eP	P	19 39 16.3	-0.2
MFF				pmax	pmax		
	comp=Z,23nm,1.1s,mb4.6						
MFF	Saint Martin d	25.09	59	eP	P	19 39 16.3	-0.2
	comp=Z,23nm,1.1s,mb4.6						
LDF	La Druitiere	25.50	54	eP	P	19 39 19.8	-0.5
	comp=Z,85nm,1.3s,mb4.8						
LDF	La Druitiere	25.50	54	eP	P	19 39 19.8	-0.5
LDF				pmax	pmax		
	comp=Z,43nm,1.3s,mb4.8						
LDF	La Druitiere	25.50	54	eP	P	19 39 19.8	-0.5
	comp=Z,43nm,1.3s,mb4.8						
TCF	Toulx Ste Croi	26.65	60	eP	P	19 39 30.5	-0.2
	comp=Z,35nm,0.9s,mb4.6						
TCF	Toulx Ste Croi	26.65	60	eP	P	19 39 30.5	-0.2
TCF				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.6						
TCF	Toulx Ste Croi	26.65	60	eP	P	19 39 30.5	-0.2
	comp=Z,18nm,0.9s,mb4.6						
BGF	Bois d'Agland	27.12	60	eP	P	19 39 33.5	-1.4
	comp=Z,32nm,0.8s,mb4.6						
BGF	Bois d'Agland	27.12	60	eP	P	19 39 33.5	-1.4
BGF				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.6						
BGF	Bois d'Agland	27.12	60	eP	P	19 39 33.5	-1.4
	comp=Z,16nm,0.8s,mb4.6						
AVF	Avril sur Loir	27.50	59	eP	P	19 39 37.5	-0.8
	comp=Z,31nm,1.3s,mb4.4						
AVF	Avril sur Loir	27.50	59	eP	P	19 39 37.5	-0.8
AVF				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.4						
AVF	Avril sur Loir	27.50	59	eP	P	19 39 37.5	-0.8
	comp=Z,15nm,1.3s,mb4.4						
SMF	Signal de Mont	27.81	60	eP	P	19 39 40.7	-0.4
LOR	Lormes	27.90	58	eP	P	19 39 41.1	-0.7
	comp=Z,15nm,1.0s,mb4.2						
LOR	Lormes	27.90	58	eP	P	19 39 41.1	-0.7
LOR				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
LOR	Lormes	27.90	58	eP	P	19 39 41.1	-0.7
	comp=Z,7.3nm,1.0s,mb4.2						
BAIF	Baives	28.59	52	eP	P	19 39 47.1	-0.9
MEZF	Maizieres J'vi	28.86	56	eP	P	19 39 50.8	+0.4
	comp=Z,20nm,0.8s,mb4.6						
MEZF	Maizieres J'vi	28.86	56	eP	P	19 39 50.8	+0.4
	comp=Z,10nm,0.8s,mb4.6						
SCHQ	Schefferville	29.31	317	LR	LR	19 49 59.4	
	comp=Z,534nm,21.7s,MS4.1,baz=237,slow=33						
CABF	La Chapelle	29.35	60	eP	P	19 39 54.8	0.0
	comp=Z,84nm,1.4s,mb5.0						
CABF	La Chapelle	29.35	60	eP	P	19 39 54.8	0.0
CABF				pmax	pmax		
	comp=Z,42nm,1.4s,mb5.0						
CABF	La Chapelle	29.35	60	eP	P	19 39 54.8	0.0
	comp=Z,42nm,1.4s,mb5.0						
HAU	Haudompre	29.66	57	eP	P	19 39 56.9	-0.6
CDF	Champ du Feu	30.32	56	eP	P	19 40 02.9	-0.4
	comp=Z,26nm,1.0s,mb4.6						
CDF	Champ du Feu	30.32	56	eP	P	19 40 02.9	-0.4
CDF				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.6						
CDF	Champ du Feu	30.32	56	eP	P	19 40 02.9	-0.4
	comp=Z,13nm,1.0s,mb4.6						
SFJD	Kangerlussuaq	31.35	346	LR	LR	19 49 49.1	
	comp=Z,449nm,19.5s,MS4.2,baz=133,slow=31						
DAVOX	Davos/Dischmat	31.97	60	P	P	19 40 17.1	-0.7
	comp=Z,3.9nm,0.8s,mb4.3,baz=291,slow=12,SNR=4.1						
KHC	Kasperske Hory	34.53	56	eP	P	19 40 41.0	+0.8
GERES	GERESS Array B	34.60	56	P	P	19 40 40.0	-0.8
	comp=Z,0.7nm,0.7s,mb3.7,baz=262,slow=9.0,SNR=5.7						
NOA	NORSAR Array B	35.64	35	P	P	19 40 50.2	+0.6
	comp=Z,1.5nm,0.9s,mb3.9,baz=219,slow=9.0,SNR=3.7						
NOA				LR	LR	19 53 41.3	
	comp=Z,42nm,19.6s,MS3.2,baz=270,slow=33						
VAE	Valguarnera	36.43	76	LR	LR	19 55 13.6	
	comp=Z,253nm,19.6s,MS4.0,baz=129,slow=35						
HFS	Hagfors	36.49	37	LR	LR	19 54 09.8	
	comp=Z,140nm,18.2s,MS3.8,baz=252,slow=33						
PKSM	Moragy	38.03	60	⇓iP	P	19 41 10.0	-0.2
TORD	Torodi Ar. Bea	38.55	120	P	P	19 41 13.8	-0.9
	comp=Z,4.1nm,1.0s,mb4.1,baz=314,slow=5.2,SNR=11						
TORD				LR	LR	19 55 13.4	
	comp=Z,164nm,21.3s,MS3.8,baz=310,slow=33						
BZS	Buzias	40.16	61	⇑iP	P	19 41 28.8	+0.8
DRGR		40.76	59	⇓iP	P	19 41 33.4	+0.4
GZR	Gura Zlata	41.01	61	⇑iP	P	19 41 35.5	+0.5
TKL	Tuckaleechee C	41.26	284	LR	LR	19 55 51.0	
	comp=Z,98nm,18.9s,MS3.7,baz=80,slow=32						
BURAR	Bucovina Array	42.35	57	⇓iP	P	19 41 47.4	+1.5
MLR	Muntele Rosu	43.19	60	⇓iP	P	19 41 55.2	+2.4
ARCES	ARCESS Array B	44.03	25	LR	LR	19 57 55.2	
	comp=Z,95nm,18.4s,MS3.7,baz=137,slow=33						
AKASG	Malin Array Be	44.55	53	i P	P	19 42 03.2	-0.4
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.8s						
AKASG	Malin Array Be	44.55	53	P	P	19 42 02.7	-0.9
	comp=Z,3.6nm,0.8s,mb4.2,baz=274,slow=8.1,SNR=10						
AKASG	Malin Array Be	44.55	53	i P	P	19 42 03.2	-0.4
	comp=Z,4.0nm,0.8s,mb4.3						
FCC	Fort Churchill	44.66	319	eP	P	19 42 04.7	+0.2
	comp=Z,5.4nm,1.0s,mb4.3						
FCC	Fort Churchill	44.66	319	eP	P	19 42 04.7	+0.2
FCC				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.3						
FCC	Fort Churchill	44.66	319	eP	P	19 42 04.7	+0.2
	comp=Z,5.4nm,1.0s,mb4.3						
IDI	Anoyia	45.14	75	P	P	19 42 08.6	0.0
	comp=Z,2.4nm,0.8s,mb4.1,baz=255,slow=13,SNR=5.8						
IDI				LR	LR	19 59 34.9	
	comp=Z,41nm,19.8s,MS3.4,baz=230,slow=34						
ULM	Lac du Bonnet	46.44	307	LR	LR	20 01 59.5	

	comp=Z,149nm,18.8s,MS4.0,baz=53,slow=36						
OBN	Obninsk	48.35	46	⇑*e*P	P	19 42 33.2	-0.2
OBN				pmax	pmax		
	comp=Z,21nm,1.9s,mb4.8						
OBN				MLR	MLR		
	comp=Z,100nm,19.0s,MS3.8						
OBN	Obninsk	48.35	46	*e*P	P	19 42 33.2	-0.2
	comp=Z,100nm,19.0s						
MIAR	Mount Ida	49.17	286	*e*P	P	19 42 40.2	+0.2
	comp=Z,4.7nm,0.9s,mb4.5						
MIAR	Mount Ida	49.17	286	*e*P	P	19 42 40.3	+0.2
MIAR				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
MIAR	Mount Ida	49.17	286	*e*P	P	19 42 40.2	+0.1
	comp=Z,4.7nm,0.9s,mb4.5						
BRTR	Keskin Array B	50.18	66	*i* P	P	19 42 48.4	+0.7
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	50.18	66	P	P	19 42 47.9	+0.2
	comp=Z,0.8nm,0.8s,mb3.8,baz=305,slow=4.4,SNR=6.5						
MALT	Malatya	54.17	66	*e*P	P	19 43 17.3	-0.1
	comp=Z,2.3nm,0.8s,mb4.2						
MALT	Malatya	54.17	66	*e*P	P	19 43 17.3	0.0
MALT				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
MALT	Malatya	54.17	66	*e*P	P	19 43 17.3	0.0
	comp=Z,2.3nm,0.8s,mb4.2						
YKA	Yellowknife Ar	54.24	325	P	P	19 43 16.6	-0.9
YKA				PcP	PcP	19 44 20.9	-0.7
YKA				LR	LR	20 04 27.7	
YKA	Yellowknife Ar	54.24	325	*i* P	P	19 43 17.5	0.0
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	Yellowknife Ar	54.24	325	P	P	19 43 16.5	-0.9
	comp=Z,0.7nm,0.9s,mb3.6,baz=74,slow=7.2,SNR=9.7						
YKA				PcP	PcP	19 44 20.9	-0.7
	comp=Z,0.6nm,0.7s,baz=73,slow=4.4,SNR=5.1						
YKA				LR	LR	20 04 27.7	
	comp=Z,110nm,18.6s,MS4.0,baz=150,slow=34						
YKA	Yellowknife Ar	54.24	325	*i* P	P	19 43 17.5	0.0
	comp=Z,1.0nm,0.9s,mb3.8						
YKA	Yellowknife Ar	54.24	325	PcP	PcP	19 44 20.9	-0.8
SDCO	Great Sand Dun	56.79	295	*e*P	P	19 43 36.4	+0.2
SDCO	Great Sand Dun	56.79	295	*e*P	P	19 43 36.4	+0.2
BW06	Boulder Array	57.61	302	*e*P	P	19 43 41.5	-0.5
	comp=Z,8.4nm,1.5s,mb4.5						
BW06	Boulder Array	57.61	302	*e*P	P	19 43 41.5	-0.5
	comp=Z,8.4nm,1.5s,mb4.5						
PDAR	Pinedale Array	57.61	302	P	P	19 43 41.4	-0.6
	comp=Z,0.9nm,0.8s,mb3.8,baz=74,slow=7.9,SNR=7.4						
PDAR				LR	LR	20 07 32.5	
	comp=Z,303nm,19.8s,MS4.4,baz=79,slow=35						
WALA	Waterton Lakes	58.01	310	*e*P	P	19 43 44.3	-0.3
WALA	Waterton Lakes	58.01	310	*e*P	P	19 43 44.3	-0.4
TXAR	Lajitas Array	59.15	285	P	P	19 43 52.8	-0.2
	comp=Z,2.1nm,0.8s,mb4.2,baz=74,slow=6.7,SNR=18						
TXAR				LR	LR	20 07 02.9	
	comp=Z,66nm,20.9s,MS3.7,baz=0.0,slow=34						
INK	Inuvik	59.74	335	*e*P	P	19 43 59.5	+3.1
	comp=Z,65nm,0.9s						
INK	Inuvik	59.74	335	*e*P	P	19 43 59.5	+3.2
INK				pmax	pmax		
	comp=Z,65nm,0.9s						
MSU	Marysvale	61.21	298	P	P	19 44 06.7	-0.2
MSU	Marysvale	61.21	298	P	P	19 44 06.7	-0.2
LPAZ	La Paz	63.50	219	*e*P	P	19 44 22.7	+0.4
	comp=Z,3.8nm,0.9s,mb4.5						
LPAZ	La Paz	63.50	219	P	P	19 44 22.8	+0.5
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LPAZ				MLR	MLR		
	comp=Z,59nm,20.0s						
LPAZ	La Paz	63.50	219	P	P	19 44 22.8	+0.4
	comp=Z,2.4nm,0.7s,mb4.4,baz=36,slow=8.3,SNR=6.6						
LPAZ				LR	LR	20 09 26.4	
	comp=Z,59nm,20.0s,MS3.8,baz=150,slow=34						
DAWY	Dawson	63.89	332	*e*P	P	19 44 25.8	+1.5
DAWY	Dawson	63.89	332	*e*P	P	19 44 25.8	+1.5
NVAR	Mina Array Bea	65.50	301	P	P	19 44 35.0	-0.3
	comp=Z,0.4nm,0.3s,mb3.9,baz=53,slow=4.6,SNR=5.9						
TIXI	Tiksi	70.23	6	*e*P	P	19 45 03.8	-0.8
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
TIXI	Tiksi	70.23	6	*e*P	P	19 45 03.8	-0.8
	comp=Z,4.0nm,1.1s,mb4.3						
NVS	Novosibirsk	72.54	33	*e*P	P	19 45 19.0	+0.3
NVS				pmax	pmax		
	comp=Z,21nm,1.5s,mb4.8						
NVS	Novosibirsk	72.54	33	*e*P	P	19 45 19.0	+0.3
	comp=Z,21nm,1.5s,mb4.8						
KURK	Kurchatov	73.04	39	*e*P	P	19 45 21.5	-0.3
	comp=Z,9.4nm,1.3s,mb4.6						
KURK	Kurchatov	73.04	39	*e*P	P	19 45 21.5	-0.3
KURK				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
KURK	Kurchatov	73.04	39	*e*P	P	19 45 21.5	-0.3
	comp=Z,9.4nm,1.3s,mb4.6						
ZAL	Zalesovo	73.82	33	P	P	19 45 26.0	-0.3
ZALV	Zalesovo Beam	73.82	33	P	P	19 45 26.0	-0.4
	comp=Z,3.5nm,1.0s,mb4.3,baz=303,slow=8.1,SNR=13						
KMBO	Kilima Mbogo	74.27	104	LR	LR	20 20 34.4	
	comp=Z,87nm,19.3s,MS4.1,baz=86,slow=38						
EKS2	Erkin-Say	75.42	47	*e*P	P	19 45 37.5	+1.6
	comp=Z,2.7nm,1.0s,mb4.1						
EKS2	Erkin-Say	75.42	47	*e*P	P	19 45 37.5	+1.6
	comp=Z,2.7nm,1.0s,mb4.1						
UCH	Uchtor	76.12	47	*e*P	P	19 45 41.8	+1.9
	comp=Z,6.0nm,1.3s,mb4.4						
UCH	Uchtor	76.12	47	*e*P	P	19 45 41.8	+2.0
	comp=Z,6.0nm,1.3s,mb4.4						
LSZ	Lusaka	77.07	121	*e*P	P	19 45 46.3	+0.8
	comp=Z,2.6nm,0.8s,mb4.2						
LSZ	Lusaka	77.07	121	*e*P	P	19 45 46.3	+0.8
LSZ				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
LSZ	Lusaka	77.07	121	*e*P	P	19 45 46.3	+0.8
	comp=Z,2.6nm,0.8s,mb4.2						
MK31	Makanchi Array	77.44	40	*e*P	P	19 45 46.9	-0.3
MKAR	Makanchi Array	77.44	40	P	P	19 45 46.9	-0.3
MKAR				LR	LR	20 20 08.4	
MKAR	Makanchi Array	77.44	40	P	P	19 45 46.9	-0.3
	comp=Z,3.4nm,1.0s,mb4.2,baz=317,slow=5.1,SNR=20						
MKAR				LR	LR	20 20 08.4	
	comp=Z,55nm,18.7s,MS3.9,baz=314,slow=36						
ZAK	Zakamensk	83.94	27	*e*P	P	19 46 21.0	-0.9
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb4.0						
BOSA	Boshof	84.84	132	LR	LR	20 20 41.5	
	comp=Z,82nm,18.6s,MS4.2,baz=310,slow=33						
SONM	Songino Array	87.19	27	P	P	19 46 37.8	-0.4
	comp=Z,1.7nm,1.0s,mb4.2,baz=306,slow=3.5,SNR=13						
SONM				LR	LR	20 24 03.0	
	comp=Z,62nm,18.2s,MS4.0,baz=180,slow=35						
CD2	Chengdu	100.25	38	*e*P	Pdif	19 47 38.3	-0.1
CD2				AMB	AMB		
	comp=Z,10.0nm,1.2s						
WRA	Warramunga Arr	158.73	38	PKP2	PKPab	19 54 25.0	-0.6
WRA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
WRA	Warramunga Arr	158.73	38	PKPab	PKPab	19 54 25.0	-0.6
	comp=Z,1.9nm,1.0s,baz=338,slow=4.2,SNR=7.3						

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*ISCJB **09** 19:58:41.6±0.6, 3595N±004×14010E±007, h57^{km}±5^{km}, mb3.3/4, MS3.7/1, Error ellipse: s-maj=9.1km s-min=6.2km az=179.2*

*IDC **09** 19:58:42.8±1.5, 3588N×14003E, h47^{km}±16^{km}, mb3.2/4, mb1 3.5/6, mb1mx3.3/21, mbtmp3.4/6, ML3.5/2, MS3.6/1, Ms1 3.6/1, ms1mx2.4/12, Error ellipse: s-maj=30.2km s-min=10.5km az=83.0*

*JMA **09** 19:58:43.2±0.1, 3599N×14001E, h43^{km}±1^{km}, M3.3*

JMA Felt I J1.

ISC 09 19:58:43.0±0.6**, 3593N**±004×**14004E**±006**, h47**^{km}±6^{km}**, n16, σ1^{s}00**/23**, mb3.3**/4**, MS3.7**/1**, 2D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JYT	Yasato	0.32	22	⇓P	Pn	19 58 51.6	-0.4
JYT				S	Sn	19 58 57.7	-0.8
TOK	Tokyo	0.33	224	P	Pn	19 58 53.3	+1.1
TOK				S	Sn	19 59 01.4	+2.7
JAG	Ashikaga	0.69	316	⇓P	Pn	19 58 55.7	-0.7
JAG				*e*S	Sn	19 59 04.8	-1.3
JRY	Ryogami san	0.93	276	P	Pn	19 58 59.2	-0.4
JRY				S	Sn	19 59 10.6	-1.3
JKT	Katashina	1.05	323	P	Pn	19 59 00.8	-0.5
BSO3	Boso 3	1.19	161	P	Pn	19 59 03.4	+0.2
JYN	Shimob	1.29	251	P	Pn	19 59 05.5	+0.9
JIM2	Oshima 3	1.31	203	P	Pn	19 59 04.6	-0.2
MJAR	Matsushiro Arr	1.60	293	P	Pn	19 59 07.9	-0.9
	5.9nm,0.3s,baz=99,slow=9.1,SNR=57						
MAT	Matsushiro	1.60	293	P	Pn	19 59 09.2	+0.4
MAT				*e*S	Sn	19 59 30.6	+2.2
JHJ	Hachijo jima 2	2.81	184	P	Pn	19 59 25.4	0.0
	31nm,0.3s,baz=42,slow=16,SNR=13						
JHJ				S	Sn	19 59 57.1	-0.9
	58nm,0.3s,baz=250,slow=23,SNR=9.2						
ASAJ	Asahikawa	8.41	13	P	Pn	20 00 42.7	+0.6
	0.6nm,0.3s,baz=86,slow=25,SNR=6.0						
ASAJ				S	Sn	20 02 16.9	+1.3
	0.2nm,0.3s,baz=338,slow=19,SNR=3.2						
SONM	Songino Array	27.51	306	P	P	20 04 24.5	-0.3
	0.3nm,0.6s,mb3.1,baz=112,slow=9.1,SNR=2.7						
ZALV	Zalesovo Beam	41.85	313	P	P	20 06 29.4	+1.3
	0.4nm,0.5s,mb3.3,baz=90,slow=10,SNR=2.9						
MKAR	Makanchi Array	43.78	303	P	P	20 06 43.6	-0.2
	0.2nm,0.5s,mb3.1,baz=89,slow=9.6,SNR=5.1						
WRA	Warramunga Arr	55.83	186	P	P	20 08 14.4	-1.0
	0.7nm,0.6s,mb3.9,baz=0.9,slow=7.6,SNR=16						
WRA				LR	LR	20 32 07.5	
	comp=Z,54nm,19.0s,MS3.7,baz=240,slow=36						

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*ISK **09** 20:03:26.4, 3655N×2896E, h4^{km}, MD3.0*

*ISCJB **09** 20:03:27.9±0.6, 3660N±004×2893E±004, h6^{km}±5^{km}, Error ellipse: s-maj=7.5km s-min=4.9km az=7.6*

*CSEM **09** 20:03:27.1±0.1, 3663N×2899E, h8^{km}, MD3.0, Error ellipse: s-maj=2.8km s-min=1.7km az=6.0*

*DDA **09** 20:03:27.9, 3661N×2891E, h7^{km}±3^{km}, Md3.2*

*ATH **09** 20:03:30.4, 3663N×2865E, h19^{km}, MD3.2/4*

ISC 09 20:03:28.3±0.5**, 3661N**±004×**2893E**±004**, h8**^{km}±6^{km}**, n25, σ0^{s}89**/32**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FETY	Fethiye	0.12	78	*i* PG	Pg	20 03 29.4	-1.6
FETY				*i* SG	Sg	20 03 32.6	-0.3
FETY	Fethiye	0.12	78	*i* Pg	Pg	20 03 29.4	-1.6
FETY				*i* Sg	Sg	20 03 32.6	-0.3
DALT	Dalyan (Mudla)	0.29	304	*i* PG	Pg	20 03 33.6	-0.3
DALT				*i* SG	Sg	20 03 39.1	+1.3
DALT	Dalyan (Mudla)	0.29	304	*i* Pg	Pg	20 03 33.6	-0.3
DALT				*i* Sg	Sg	20 03 39.1	+1.3
AKAS	Kas	0.66	124	*i* P	Pg	20 03 40.7	-0.3
AKAS				*i* S	Sg	20 03 51.5	+1.9
YER	Yerkesik	0.74	315	PG	Pg	20 03 42.2	-0.3
YER	Yerkesik	0.74	315	*e*Pg	Pg	20 03 42.2	-0.3
ARG	Arkhangelos	0.76	239	*e*PN	Pg	20 03 42.2	-0.7
ARG	Arkhangelos	0.76	239	*e*Pn	Pg	20 03 42.2	-0.7
GOLH	Golhisar	0.80	39	*i* P	Pg	20 03 43.2	-0.5
GOLH				*i* S	Sg	20 03 55.8	+1.6
DAT	Datca	1.10	277	PN	Pn	20 03 48.9	-1.0
DAT	Datca	1.10	277	*e*Pn	Pn	20 03 48.9	-1.0
DENT	Denizli	1.15	4	*e*PN	Pn	20 03 49.8	-0.8
DENT	Denizli	1.15	4	*e*Pn	Pn	20 03 49.8	-0.8
MLSB	Milas	1.15	307	*e*PN	Pn	20 03 49.8	-0.8
MLSB	Milas	1.15	307	*e*Pn	Pn	20 03 49.8	-0.8
BDRM	Kayabasi	1.28	291	*i* P	Pn	20 03 52.0	-0.4
BDRM				*i* S	Sb	20 04 10.1	+1.0
BODT	Bodrum	1.38	290	*e*PN	Pn	20 03 53.9	+0.1
BODT	Bodrum	1.38	290	*e*Pn	Pn	20 03 53.9	+0.1
KARP	Karpathos	1.78	234	*e*PN	Pn	20 04 00.1	+0.8
KARP	Karpathos	1.78	234	*e*Pn	Pn	20 04 00.1	+0.8
SMG	Samos	2.00	304	*e*PN	Pn	20 04 02.6	+0.3
SMG	Samos	2.00	304	*e*Pn	Pn	20 04 02.6	+0.3
NPS	Neapolis	3.01	244	*e*PN	Pn	20 04 16.5	+0.3
NPS	Neapolis	3.01	244	*e*Pn	Pn	20 04 16.5	+0.3

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*ISCJB **09** 20:42:21.8±0.7, 1959N±003×9211W±002, h1^{km}±5^{km}, mb4.8/72, MS4.3/20, Error ellipse: s-maj=4.4km s-min=3.7km az=16.6*

*IDC **09** 20:42:23.5±0.6, 1965N×9201W, h0^{km}, mb4.5/22, mb1 4.7/27, mb1mx4.7/29, mbtmp4.6/27, ML4.6/5, MS4.1/18, Ms1 4.1/18, ms1mx3.9/28, Error ellipse: s-maj=20.4km s-min=10.7km az=46.0*

*BJI **09** 20:42:24.7, 1960N×9210W, h10^{km}, mB5.2, Ms5.0, Msz4.6*

*NEIC **09** 20:42:24.8±0.2, 1957N×9207W, h10^{km}, mb4.8/70, MS4.8/1, MD4.8(MEX), Error ellipse: s-maj=4.3km s-min=3.9km az=47.0*

*MOS **09** 20:42:24.2±1.1, 1976N×9208W, h10^{km}, mb4.9/18, MS4.4/5, Error ellipse: s-maj=10.0km s-min=4.6km az=104.9*

*MEX **09** 20:42:25.9±3.1, 1960N×9225W, h20^{km}±35^{km}, MD4.8*

ISC 09 20:42:25.6±0.7**, 1964N**±003×**9205W**±002**, h12**^{km}±5^{km}**, n251, σ1^{s}01**/259**, mb4.7**/72**, MS4.3**/20**, 3C-4D, Bay of Campeche**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCIG	Sabancuy	1.05	129	*i* P	Pb	20 42 43.4	-2.3
SCIG				*i* S	Sb	20 42 58.9	-0.6
SCX	San Cristobal	2.94	191	*i* P	Pn	20 43 08.5	-3.7
CCIG	Comitan	3.34	182	*i* P	Pn	20 43 14.6	-3.0
CCIG				*i* S	Sn	20 43 51.8	-5.5
TEIG	Tepich	3.59	80	*e*Pn	Pn	20 43 21.5	+0.4
TEIG				*e*Pg	Pg	20 43 35.0	+0.5
TEIG				*e*Sg	Sg	20 44 21.3	+0.2
TEIG	Tepich	3.59	80	Pn	Pn	20 43 21.3	+0.1
	161nm,0.3s,baz=260,slow=1.4,SNR=1001						
TEIG				Sn	Sn	20 44 02.5	-1.0
	182nm,0.3s,baz=17,slow=23,SNR=7.4						
TEIG	Tepich	3.59	80	*e*P	Pn	20 43 21.2	+0.1
TEIG				*i* S	Sn	20 44 03.5	0.0
CMIG	Matias Romero	3.70	227	*i* P	Pn	20 43 18.2	-4.4
CMIG				Sn	Sn	20 43 57.1	-9.0
CMIG				LR	LR	20 45 15.4	
CMIG	Matias Romero	3.70	227	Pn	Pn	20 43 18.0	-4.6
	19nm,0.3s,baz=48,slow=12,SNR=95						
CMIG				Sn	Sn	20 43 57.1	-9.0
	56nm,0.3s,baz=255,slow=19,SNR=15						
CMIG				LR	LR	20 45 15.4	
	comp=Z,1µm,21.5s,baz=220,slow=46						
CMIG	Matias Romero	3.70	227	*i* P	Pn	20 43 18.2	-4.4
CMIG				*i* S	Sn	20 43 57.2	-8.9
LVIG	Laguna Verde	4.12	272	*i* P	Pn	20 43 23.6	-4.7
LVIG				*i* S	Sn	20 44 07.0	-10
VHO	Vista Hermosa	5.13	241	*i* P	Pn	20 43 38.9	-3.4
VHO				*i* S	Sn	20 44 34.7	-6.8
VHO	Vista Hermosa	5.13	241	*i* P	Pn	20 43 38.4	-3.9
VHO				*i* S	Sn	20 44 33.3	-8.2
FG6		5.17	167	*e*P	Pg	20 44 05.4	+0.7
TPIG	Tehuac#an	5.17	257	*i* P	Pn	20 43 38.6	-4.2
TPIG				*i* S	Sn	20 44 33.8	-8.7
NBG	Las Nubes	5.28	162	⇑*e*P	Pg	20 44 06.1	-0.6
FUG	Fuego 3	5.29	167	*e*P	Pg	20 44 07.2	+0.3
JAT	Jato	5.31	176	*e*P	Pg	20 44 08.8	+1.6
HUIG	Huatulco	5.46	226	*e*P	Pn	20 43 40.8	-6.0
HUIG				*i* S	Sn	20 44 41.5	-8.0
HUIG	Huatulco	5.46	226	*e*P	Pn	20 43 41.0	-5.8
HUIG				*i* S	Sn	20 44 41.5	-8.0
UTMO	Huajuapan	5.75	253	*i* P	Pn	20 43 46.2	-4.5
UTMO				*i* S	Sn	20 44 46.3	-10
SBLS	San Blas	6.22	158	*e*P	x	20 44 07.2	
PPM	Popocatepetl	6.24	266	*e*P	Pn	20 43 51.5	-6.0
PPM	Popocatepetl	6.24	266	*e*P	Pn	20 43 55.1	-2.4
PPM				*e*P		20 44 01.0	
PPM				*i* S	Sn	20 45 07.3	-1.5
IIO	Organos	6.29	271	*i* P	Pn	20 43 59.6	+1.3
IIO				*i* S	Sn	20 45 06.5	-3.6
BOQS	Boqueron	6.44	155	⇓*e*P	x	20 44 29.4	
LFRS	El Faro	6.63	154	*e*P	x	20 44 22.8	
LCBS	La Ceiba	6.64	153	*e*P	x	20 44 17.1	
SNVI	San Vicente	6.74	152	*e*P	x	20 44 27.2	
VSM	San Miguel	7.16	149	*e*P	x	20 44 12.0	
TGUH	Tegucigalpa,Un	7.19	140	*e*Pn	Pn	20 44 10.3	-0.3
	169nm,0.9s						
LNIG	Linares	8.63	309	*e*P	Pn	20 44 28.7	-1.7
LNIG				*i* S	Sn	20 45 59.2	-8.5
SOR	Soroa	8.99	68	*e*P	Pn	20 44 35.1	-0.2
SOR				*e*S	Sn	20 46 10.9	-5.7
	comp=N,7.9nm,0.7s						
SOR				*e*			
	comp=E,7.5nm,0.7s						
ZAIG	Zacatecas	10.30	289	*i* P	Pn	20 44 51.5	-1.7
SFJM	Santa Fe	10.37	277	*e*P	Pn	20 44 54.0	-0.2
HKT	Hockley	10.82	342	*e*Pn	Pn	20 44 59.1	-1.3
	comp=E,41nm,0.9s						
HKT	Hockley	10.82	342	*e*P	Pn	20 44 59.2	-1.2
HKT				pmax	pmax		
	comp=Z,41nm,0.9s						
JTS	JuntasAbangare	11.54	143	*e*Pn	Pn	20 45 10.2	-0.2
	comp=Z,128nm,1.6s						
JTS	JuntasAbangare	11.54	143	*d* *i*P	Pn	20 45 12.8	+2.5
JTS	JuntasAbangare	11.54	143	Pn	Pn	20 45 08.3	-2.0
	comp=Z,0.5nm,0.3s,baz=321,slow=15,SNR=13						
JTS				LR	LR	20 50 02.0	
	comp=Z,1µm,20.3s,baz=323,slow=40						
MGV	Manicaragua	11.54	76	*e*P	Pn	20 45 12.0	+1.7
MGV				*e*P		20 47 12.1	
	comp=N,38nm,1.9s						
MGV				*e*			
	comp=E,38nm,2.1s						
NATX	Nacogdoches	12.30	349	*e*Pn	Pn	20 45 18.3	-2.2
	comp=E,101nm,0.6s						
NATX				*e*Sn	Sn	20 47 33.1	-4.5
DWPF	Disney	12.85	47	*e*Pn	Pn	20 45 25.9	-2.3
	comp=E,84nm,0.6s						
DWPF				*e*Sn	Sn	20 47 48.8	-2.4
JCT	Junction City	12.87	328	*e*Pn	Pn	20 45 25.9	-2.6
	comp=E,103nm,0.7s						
JCT				*e*Sn	Sn	20 47 46.5	-5.2
JCT	Junction City	12.87	328	*e*P	Pn	20 45 25.9	-2.5
JCT				*e*		20 47 46.5	
JCT				pmax	pmax		
	comp=Z,103nm,0.7s						
CCCC	Cccc	13.48	81	*e*P	Pn	20 45 41.0	+4.3
LMGC	Las Mercedes	14.16	86	*e*P	Pn	20 45 44.6	-1.5
LMGC				*e*S	Sn	20 48 14.4	-8.8
	comp=N,2µm,15.7s						
LMGC				*e*			
	comp=E,1µm,24.3s						
LTX	Lajitas	14.31	315	*e*Pn	Pn	20 45 46.9	-1.2
	comp=E,24nm,0.8s						
LTX	Lajitas	14.31	315	*e*P	Pn	20 45 46.9	-1.2
LTX				pmax	pmax		
	comp=Z,24nm,0.8s						
TXAR	Lajitas Array	14.31	315	Pn	Pn	20 45 47.1	-1.0
TXAR				LR	LR	20 52 22.3	
TXAR	Lajitas Array	14.31	315	Pn	Pn	20 45 47.1	-1.0
	comp=Z,0.8nm,0.3s,baz=134,slow=14,SNR=58						
TXAR				LR	LR	20 52 22.3	
	comp=Z,725nm,20.6s,baz=45,slow=42						
MIAR	Mount Ida	14.91	355	*e*Pn	Pn	20 45 54.5	-1.7
	comp=Z,84nm,0.8s						
MIAR				*e*Sn	Sn	20 48 24.0	-17
MIAR	Mount Ida	14.91	355	*e*P	Pn	20 45 54.6	-1.6
MIAR				pmax	pmax		
	comp=Z,83nm,0.8s						
OXF	Oxford	15.00	8	*e*P	Pn	20 45 54.2	-3.2
	comp=Z,160nm,0.9s						
OXF				*e*Sn	Sn	20 48 30.7	-13
OXF	Oxford	15.00	8	*e*P	Pn	20 45 54.2	-3.2
OXF				pmax	pmax		
	comp=Z,160nm,0.9s						
UALR	University of	15.08	359	*e*Pn	Pn	20 45 57.4	-1.1
	comp=Z,184nm,1.4s						
UALR				*e*P		20 46 05.4	
UALR				*e*Sn	Sn	20 48 35.1	-10
PLAL	Pickwick Lake	15.68	12	*e*P	Pn	20 46 06.2	-0.1
	comp=Z,16nm,0.5s						
PLAL				*e*S	Sn	20 48 45.9	-14
GOGA	Godfrey	15.71	27	*e*P	Pn	20 46 07.7	+1.0
	comp=Z,36nm,0.7s						
GOGA				*e*S	Sn	20 48 49.1	-12
GOGA	Godfrey	15.71	27	*e*P	Pn	20 46 07.7	+1.0
GOGA				pmax	pmax		
	comp=Z,36nm,0.7s						
WMOK	Wichita Mounta	16.18	340	*e*Pn	Pn	20 46 10.5	-2.3
	comp=Z,66nm,0.6s						
WMOK				*e*P		20 46 15.4	
WMOK				*e*Sn	Sn	20 48 55.1	-17
WMOK	Wichita Mounta	16.18	340	*e*P	Pn	20 46 10.5	-2.3
WMOK				pmax	pmax		
	comp=Z,66nm,0.6s						
GNAR	Gosnell	16.36	6	*e*P	Pn	20 46 20.0	+4.9
	comp=Z,3µm,1.0s						
SWET	Sewanee	16.43	18	*e*P	Pn	20 46 15.4	-0.6
WVT	Waverly	16.84	12	*e*P	Pn	20 46 19.6	-1.6
	comp=Z,16nm,0.7s						
WVT				*e*Sn	Sn	20 49 20.0	-8.3
WVT	Waverly	16.84	12	*e*P	Pn	20 46 19.6	-1.6
WVT				*e*		20 49 20.0	
WVT				pmax	pmax		
	comp=Z,16nm,0.7s						
MNTX	Cornudas Mount	16.97	318	*e*P	Pn	20 46 23.1	+0.2
	comp=Z,10nm,0.7s						
CPCT	Cooper Cave	17.09	21	*e*P	Pn	20 46 23.5	-0.9
JSC	Jenkinsville	17.45	31	*e*P	Pn	20 46 30.2	+1.4
LPIG	La Paz	17.52	288	P	Pn	20 46 31.3	+1.5
LPIG				LR	LR	20 54 08.4	
LPIG	La Paz	17.52	288	P	Pn	20 46 31.3	+1.5
	comp=Z,16nm,0.3s,baz=90,slow=3.4,SNR=3.9						
LPIG				LR	LR	20 54 08.4	
	comp=Z,525nm,18.9s,baz=300,slow=40						
TKL	Tuckaleechee C	17.55	23	P	Pn	20 46 29.5	-0.6
	comp=Z,2.9nm,0.3s,baz=189,slow=11,SNR=8.4						
TKL				LR	LR	20 54 56.3	
	comp=Z,263nm,19.2s,baz=259,slow=43						
SIUC	Southern Illin	18.18	7	*e*P	Pn	20 46 38.3	+0.5
	comp=Z,138nm,0.8s						
FVM	French Village	18.33	4	*e*P	Pn	20 46 39.3	-0.4
	comp=Z,32nm,0.6s						
FVM				*e*S	Sn	20 49 47.6	-17
FVM	French Village	18.33	4	*e*P	Pn	20 46 39.3	-0.4
FVM				pmax	pmax		
	comp=Z,32nm,0.6s						
TZTN	Tazewell	18.42	22	*e*P	Pn	20 46 39.8	-1.0
USIN	University of	18.65	11	*e*P	Pn	20 46 43.7	0.0
	comp=Z,65nm,0.8s						
WCI	Wyandotte Cave	19.19	14	*e*P	Pn	20 46 49.6	-0.4
	comp=Z,49nm,0.8s						
WCI	Wyandotte Cave	19.19	14	*e*P	Pn	20 46 49.6	-0.5
WCI				pmax	pmax		
	comp=Z,49nm,0.8s						
BNM	Barren Site	19.41	321	*e*P	Pn	20 46 53.5	+0.7
LPM	Los Pinos Moun	19.52	321	*e*P	Pn	20 46 54.2	0.0
SDDR	Presa de Saban	19.60	88	*e*P	Pn	20 46 57.5	+2.3
	comp=Z,16nm,0.9s						
LENM	Lemitar	19.63	321	*e*P	Pn	20 46 55.6	+0.3
KSU1	Kansas State U	19.79	349	*e*P	Pn	20 46 56.0	-1.3
	comp=Z,66nm,0.6s						
ANMO	Albuquerque	19.88	323	*e*P	Pn	20 46 57.5	-0.9
	comp=Z,60nm,1.4s						
ANMO	Albuquerque	19.88	323	*e*P	Pn	20 46 57.5	-0.9
ANMO				pmax	pmax		
	comp=Z,60nm,1.4s						
ANMO	Albuquerque	19.88	323	P	Pn	20 46 57.2	-1.1
	comp=Z,0.2nm,0.3s,baz=146,slow=12,SNR=28						
ANMO				LR	LR	20 57 38.8	
	comp=Z,360nm,18.2s,baz=260,slow=46						
LAZ	Ladron	19.89	321	*e*P	Pn	20 46 58.4	-0.1
BLO	Bloomington	20.04	13	*e*P	P	20 47 00.2	+1.7
	comp=Z,74nm,0.8s						
BLO	Bloomington	20.04	13	*e*P	P	20 47 00.2	+1.7
BLO				pmax	pmax		
	comp=Z,74nm,0.8s						
ELN	Prospectdale	20.11	27	*e*P	P	20 47 00.8	+1.5
ELN				*e*S	S	20 50 46.1	+1.1
CBKS	Cedar Bluff	20.24	342	*e*P	P	20 47 00.8	+0.2
	comp=Z,48nm,0.5s						
CBKS				*e*		20 47 08.3	
CBKS				*e*S	S	20 50 47.4	-0.1
CBKS	Cedar Bluff	20.24	342	*e*P	P	20 47 00.8	+0.2
CBKS				*e*		20 47 08.3	
CBKS				*e*S	S	20 50 47.4	-0.1
CBKS				pmax	pmax		
	comp=Z,49nm,0.5s						
BLA	Blacksburg	20.24	28	*e*P	P	20 47 01.5	+0.8
BLA				*e*S	S	20 50 45.8	-1.8
HDIL	Hopedale	20.98	6	*e*P	P	20 47 08.8	+0.2
	comp=Z,151nm,1.1s						
TUC	Tucson	21.01	311	*e*P	P	20 47 10.1	+1.0
	comp=Z,47nm,1.0s,mb4.8						
TUC	Tucson	21.01	311	*e*P	P	20 47 10.1	+1.1
TUC				pmax	pmax		
	comp=Z,47nm,1.0s,mb4.8						
SDCO	Great Sand Dun	21.52	330	*e*P	P	20 47 15.6	+1.1
	comp=Z,40nm,0.9s,mb4.8						

ACSO	Alum Creek Sta	21.95	19	*e*P	P	20 47 19.8	+0.7
	comp=Z,100nm,0.9s,mb5.2						
SCIA	State Center	22.22	358	*e*P	P	20 47 21.9	0.0
	comp=Z,52nm,0.6s,mb5.1						
MCWV	Mont Chateau	22.55	25	*e*P	P	20 47 26.6	+1.1
	comp=Z,45nm,1.0s,mb4.8						
MVCO	Mesa Verde	22.65	324	*e*P	P	20 47 26.9	+0.3
	comp=Z,28nm,0.8s,mb4.7						
ROSC	El Rosal	22.67	128	P	P	20 47 27.8	+0.8
	comp=Z,4.2nm,0.3s,mb4.3,baz=281,slow=22,SNR=6.8						
ROSC				LR	LR	20 56 34.8	
	comp=Z,389nm,18.9s,MS3.9,baz=354,slow=38						
ISCO	Idaho Springs	23.24	333	*e*P	P	20 47 33.0	+0.2
	comp=Z,3.5nm,0.4s,mb4.1						
ISCO	Idaho Springs	23.24	333	*e*P	P	20 47 33.0	+0.2
ISCO				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.2						
WUAZ	Wupatki	23.25	317	*e*P	P	20 47 33.8	+0.9
	comp=Z,25nm,1.0s,mb4.6						
SMCO	Snowmass	23.35	330	*e*P	P	20 47 34.4	+0.4
	comp=Z,130nm,1.2s,mb5.2						
PV01	Paradox Valley	23.36	326	*e*P	P	20 47 35.4	+1.3
AAM	Ann Arbor	23.68	16	*e*P	P	20 47 37.4	+0.1
	comp=Z,135nm,1.0s,mb5.3						
AAM	Ann Arbor	23.68	16	*e*P	P	20 47 37.4	+0.2
AAM				pmax	pmax		
	comp=Z,135nm,1.0s,mb5.3						
PV10	Paradox Valley	23.79	325	*e*P	P	20 47 38.6	+0.3
SSPA	Standing Stone	24.18	27	*e*P	P	20 47 42.9	+1.1
	comp=Z,37nm,1.0s,mb4.8						
ECSD	EROS,Sioux Fal	24.33	352	*e*P	P	20 47 42.4	-0.6
	comp=Z,84nm,0.9s,mb5.2						
ECSD				*e*		20 47 52.2	
MVL	Millersville	24.36	30	*e*P	P	20 47 44.8	+1.3
PHWY	Pilot Hill	24.43	335	*e*P	P	20 47 45.0	+0.9
SJG	San Juan	24.55	89	P	P	20 47 46.5	+1.2
	comp=Z,5.6nm,0.4s,mb4.5,baz=248,slow=24,SNR=3.6						
SJG				LR	LR	20 57 29.5	
	comp=Z,731nm,19.5s,MS4.2,baz=272,slow=37						
MTP	Monte Pirata	25.11	89	*e*P	P	20 47 51.0	+0.5
SRU	San Rafael	25.12	324	*e*P	P	20 47 51.0	+0.6
	comp=Z,47nm,0.8s,mb5.1						
SRU	San Rafael	25.12	324	*e*P	P	20 47 51.0	+0.6
SRU				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.1						
RWWY	Rawlins	25.48	333	*e*P	P	20 47 54.6	+1.0
	comp=Z,140nm,1.6s,mb5.2						
TMUT	Trail Mountain	25.63	324	*e*P	P	20 47 55.7	+0.7
MSU	Marysvale	25.65	321	*e*P	P	20 47 56.7	+1.5
CCUT	Cedar City	25.76	318	*e*P	P	20 47 57.6	+1.5
PFO	Pinyon Flat Ob	25.80	308	P	P	20 47 56.7	+0.1
	comp=Z,3.4nm,0.6s,mb4.0,baz=132,slow=13,SNR=6.5						
PFO				LR	LR	20 59 16.5	
	comp=Z,499nm,21.8s,MS4.0,baz=79,slow=39						
ARUT	Antelope Range	25.95	319	*e*P	P	20 48 00.2	+2.3
MPU	Maple Canyon	26.37	325	*e*P	P	20 48 02.5	+0.8
	comp=Z,28nm,0.9s,mb4.8						
RSSD	Black Hills	26.39	340	*e*P	P	20 48 02.0	+0.2
	comp=Z,2.8nm,0.7s,mb3.9						
RSSD	Black Hills	26.39	340	*e*P	P	20 48 02.0	+0.2
RSSD				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.9						
DAU	Daniels Canyon	26.45	326	*e*P	P	20 48 03.4	+1.1
NLU	North Lily Min	26.57	324	*e*P	P	20 48 04.2	+0.8
CTU	Camp Tracy	26.91	325	*e*P	P	20 48 07.2	+0.6
	comp=Z,14nm,1.0s,mb4.5						
DUG	Dugway	27.15	323	*e*P	P	20 48 09.3	+0.6
	comp=Z,19nm,1.2s,mb4.5						
DUG	Dugway	27.15	323	*e*P	P	20 48 09.3	+0.6
DUG				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.5						
PDAR	Pinedale Array	27.38	331	P	P	20 48 10.8	0.0
	comp=Z,12nm,0.9s,mb4.4,baz=127,slow=9.8,SNR=27						
HWUT	Hardware Ranch	27.47	327	*e*P	P	20 48 11.9	+0.3
	comp=Z,6.0nm,0.6s,mb4.3						
SPUT	South Promonto	27.72	326	*e*P	P	20 48 14.1	+0.2
BGU	Big Grassy Mou	27.77	324	*e*P	P	20 48 14.7	+0.5
HVU	Hansel Valley	28.23	326	*e*P	P	20 48 19.1	+0.7
	comp=Z,14nm,0.9s,mb4.6						
HVU	Hansel Valley	28.23	326	*e*P	P	20 48 19.1	+0.8
HVU				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.6						
REDW	Red Top Meadow	28.44	330	*e*P	P	20 48 20.9	+0.6
	comp=Z,80nm,1.4s,mb5.2						
LOHW	Long Hollow	28.52	331	*e*P	P	20 48 21.2	+0.3
	comp=Z,19nm,1.0s,mb4.8						
TPAW	Teton Pass	28.59	330	*e*P	P	20 48 22.2	+0.7
	comp=Z,37nm,1.1s,mb5.0						
MOOW	Moose Ponds	28.69	331	*e*P	P	20 48 22.9	+0.4
	comp=Z,14nm,0.9s,mb4.7						
AGMN	Agassiz Refuge	28.75	355	*e*P	P	20 48 22.1	-0.9
	comp=Z,7.2nm,0.6s,mb4.6						
LONY	Lake Ozonia	28.84	26	*e*P	P	20 48 24.1	+0.3
	comp=Z,22nm,1.0s,mb4.8						
IMW	Indian Meadow	28.89	331	*e*P	P	20 48 24.8	+0.5
	comp=Z,29nm,1.3s,mb4.8						
RLMT	Red Lodge	29.15	335	*e*P	P	20 48 26.5	0.0
	comp=Z,37nm,1.8s,mb4.8						
YFT	Old Faithful	29.28	332	*e*P	P	20 48 29.4	+1.8
YNR	Norris Junctio	29.42	332	*e*P	P	20 48 29.7	+0.8
FRNY	Flat Rock	29.44	27	*e*P	P	20 48 30.1	+1.0
NVAR	Mina Array Bea	29.46	315	P	P	20 48 29.9	+0.5
	comp=Z,5.1nm,0.8s,mb4.3,baz=121,slow=9.9,SNR=32						
NVAR				PcP	PcP	20 51 34.6	-0.3
	comp=Z,0.7nm,0.6s,baz=126,slow=2.3,SNR=3.3						
YMR	Madison River	29.51	332	*e*P	P	20 48 31.1	+1.4
	comp=Z,61nm,1.2s,mb5.2						
ATAH	Atahualpa	29.69	152	P	P	20 48 33.0	+1.4
	comp=Z,15nm,1.0s,mb4.7,baz=336,slow=8.0,SNR=10						
ATAH				LR	LR	20 59 41.8	
	comp=Z,280nm,20.3s,MS3.9,baz=337,slow=35						
QLMT	Earthquake Lak	29.84	332	*e*P	P	20 48 34.1	+1.5
GCMT	Greycliff	29.86	335	*e*P	P	20 48 32.4	-0.4
BMN	Battle Mountai	29.89	319	*e*P	P	20 48 34.5	+1.3
	comp=Z,8.2nm,1.0s,mb4.4						
BMN	Battle Mountai	29.89	319	*e*P	P	20 48 34.5	+1.3
BMN				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.4						
HLID	Hailey	30.34	327	*e*P	P	20 48 37.6	+0.6
	comp=Z,8.1nm,0.8s,mb4.5						
DGMT	Dagmar	30.39	344	*e*P	P	20 48 37.3	-0.1
	comp=Z,8.8nm,0.6s,mb4.7						
MCMT	McKenzie Canyo	30.49	330	*e*P	P	20 48 39.6	+1.2
BOZ	Bozeman (W)	30.57	332	*e*P	P	20 48 39.2	+0.2
	comp=Z,7.6nm,0.9s,mb4.5						
BOZ	Bozeman (W)	30.57	332	*e*P	P	20 48 39.2	+0.2
BOZ				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
CMB	Columbia Colle	30.68	313	*e*P	P	20 48 40.5	+0.3
	comp=Z,3.9nm,0.8s,mb4.3						
CMB	Columbia Colle	30.68	313	*e*P	P	20 48 40.5	+0.4
CMB				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
ULM	Lac du Bonnet	30.69	355	*e*P	P	20 48 38.5	-1.6
	comp=Z,22nm,1.0s,mb4.9						
ULM	Lac du Bonnet	30.69	355	P	P	20 48 39.1	-1.0
	comp=Z,12nm,0.9s,mb4.7,baz=179,slow=8.9,SNR=24						
EGMT	Eagleton	31.75	337	*e*P	P	20 48 49.5	+0.1
	comp=Z,72nm,1.4s,mb5.3						
WVOR	Wild Horse Val	31.94	321	*e*P	P	20 48 51.8	+0.6
	comp=Z,8.9nm,0.9s,mb4.6						
WVOR	Wild Horse Val	31.94	321	*e*P	P	20 48 51.8	+0.6
WVOR				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.6						
CHMT	Chamberlain Mo	32.26	332	*e*P	P	20 48 54.2	+0.3
MSO	Missoula	32.50	332	*e*P	P	20 48 55.9	-0.1
	comp=Z,5.1nm,0.8s,mb4.5						
MOD	Modoc	32.64	319	P	P	20 48 57.8	+0.5
	comp=Z,2.3nm,0.9s,mb4.1						
LBCM	Butte Creek Ri	32.73	317	P	P	20 48 58.8	+0.7
BMO	Blue Mountains	32.74	326	*e*P	P	20 48 57.7	-0.5
	comp=Z,10nm,0.8s,mb4.8						
WALA	Waterton Lakes	34.20	334	*e*P	P	20 49 10.2	-0.7
	comp=Z,35nm,1.3s,mb5.1						
NEW	Newport	35.02	330	*e*P	P	20 49 17.0	-0.9
	comp=Z,10nm,0.8s,mb4.8						
NEW	Newport	35.02	330	P	P	20 49 17.6	-0.3
NEW				pmax	pmax		
	comp=Z,10.0nm,0.7s						
NEW				MLR	MLR		
	comp=Z,168nm,19.0s						
NEW	Newport	35.02	330	P	P	20 49 17.6	-0.3
	comp=Z,10nm,0.7s,mb4.8,baz=138,slow=10,SNR=16						
NEW				LR	LR	21 06 15.6	
	comp=Z,168nm,19.0s,MS3.8,baz=50,slow=41						
OD2	Odessa Site #2	35.17	328	P	P	20 49 19.0	-0.2
EBG	Ellensburg	35.81	326	P	P	20 49 25.4	+0.7
FFC	Flin Flon	35.84	350	*e*P	P	20 49 24.4	-0.4
	comp=Z,7.3nm,0.8s,mb4.7						
FFC	Flin Flon	35.84	350	*e*P	P	20 49 24.4	-0.5
FFC				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
TBM	Table Mountain	35.99	326	P	P	20 49 27.3	+1.0
WTV	Waterville	36.00	327	P	P	20 49 26.7	+0.3
EDM	Edmonton	37.35	339	*e*P	P	20 49 37.2	-0.6
FCC	Fort Churchill	39.10	358	*e*P	P	20 49 51.7	-0.8
	comp=Z,37nm,1.0s,mb5.1						
FCC	Fort Churchill	39.10	358	*e*P	P	20 49 51.7	-0.8
FCC				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.1						
SCHQ	Schefferville	40.02	23	*e*P	P	20 49 59.4	-0.8
	comp=Z,14nm,1.0s,mb4.7						
SCHQ	Schefferville	40.02	23	P	P	20 50 00.0	-0.2
	comp=Z,10.0nm,0.9s,mb4.5,baz=209,slow=7.2,SNR=13						
SCHQ				PcP	PcP	20 52 04.4	-0.6
	comp=Z,4.4nm,0.6s,baz=229,slow=2.2,SNR=6.5						
SCHQ				LR	LR	21 07 59.1	
	comp=Z,328nm,20.6s,MS4.2,baz=216,slow=38						
LPAZ	La Paz	42.75	145	*e*P	P	20 50 23.5	+0.5
	comp=Z,4.8nm,1.0s,mb4.2						
LPAZ	La Paz	42.75	145	*e*P	P	20 50 23.5	+0.5
LPAZ				pmax	pmax		
	comp=Z,5.0nm,1.0s						
LPAZ	La Paz	42.75	145	P	P	20 50 23.0	0.0
	comp=Z,1.6nm,0.5s,mb4.0,baz=348,slow=14,SNR=7.5						
LPAZ				LR	LR	21 09 19.0	
	comp=Z,260nm,21.9s,MS4.1,baz=190,slow=38						
BBB	Bella Bella	42.92	328	P	P	20 50 23.3	-0.7
	comp=Z,11nm,0.7s,mb4.7,baz=124,slow=3.6,SNR=3.1						
YKA	Yellowknife Ar	45.57	346	P	P	20 50 44.4	-0.7
YKA				LR	LR	21 12 56.5	
YKA	Yellowknife Ar	45.57	346	P	P	20 50 44.4	-0.7
	comp=Z,6.7nm,0.4s,mb5.0,baz=148,slow=7.8,SNR=124						
YKA				LR	LR	21 12 56.5	
	comp=Z,158nm,21.9s,MS3.9,baz=150,slow=40						
SIV	San Ignacio	46.70	137	P	P	20 50 53.7	-0.9
	comp=Z,3.0nm,0.9s,mb4.2,baz=319,slow=8.8,SNR=7.3						
DLBC	Dease Lake	47.55	334	*e*P	P	20 51 01.8	+1.1
DLBC	Dease Lake	47.55	334	P	P	20 51 01.7	+1.0
	baz=142,slow=7.0						
SFJD	Kangerlussuaq	54.20	19	P	P	20 51 49.1	-1.6
	comp=Z,8.0nm,0.9s,mb4.6,baz=237,slow=6.7,SNR=4.5						
DAWY	Dawson	54.49	337	*e*P	P	20 51 51.4	-1.4
INK	Inuvik	55.06	343	*e*P	P	20 51 56.0	-0.9
	comp=Z,641nm,1.2s						
INK	Inuvik	55.06	343	P	P	20 51 56.6	-0.3
INK				pmax	pmax		
	comp=Z,6.0nm,0.6s						
INK				MLR	MLR		
	comp=Z,284nm,18.5s						
INK	Inuvik	55.06	343	P	P	20 51 56.5	-0.3
	comp=Z,6.0nm,0.6s,mb4.8,baz=132,slow=7.1,SNR=18						
INK				LR	LR	21 20 52.4	
	comp=Z,284nm,18.5s,MS4.4,baz=308,slow=42						
RES	Resolute Bay	55.09	359	*e*P	P	20 51 56.4	-0.6
	comp=Z,627nm,0.8s						
RES	Resolute Bay	55.09	359	*e*P	P	20 51 56.4	-0.6
RES				pmax	pmax		
	comp=Z,627nm,0.8s						
TAOE	Nuku Hiva Isla	55.18	244	*e*LR	LR	21 08 07.0	
	comp=Z,1μm,25.9s						
EGAK	Eagle	55.51	337	*e*P	P	20 51 58.9	-1.3
	comp=Z,3.6nm,0.8s,mb4.5						
SLKM	Skilak Lake	57.57	330	*e*P	P	20 52 14.8	-0.2
KDAK	Kodiak Island	57.96	327	P	P	20 52 17.9	+0.1
	comp=Z,9.1nm,0.7s,mb4.9,baz=97,slow=4.8,SNR=11						
MCK	McKinley	58.11	334	*e*P	P	20 52 18.2	-0.4
	comp=Z,3.5nm,0.7s,mb4.5						
MCK	McKinley	58.11	334	*e*P	P	20 52 18.2	-0.5
MCK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
COLA	College	58.11	335	*e*P	P	20 52 17.5	-1.2
	comp=Z,13nm,0.9s,mb5.0						
COLA	College	58.11	335	*e*P	P	20 52 17.5	-1.1
COLA				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
RKT	Rikitea	59.67	227	*e*LR	LR	21 10 11.7	
	comp=Z,156nm,24.8s						
SVW2	Sparrevohn	60.26	330	*e*P	P	20 52 32.7	-0.8
TNA	Tin City	66.45	334	*e*P	P	20 53 14.6	+0.1
	comp=Z,4.9nm,0.9s,mb4.5						
DAG	Danmarks Havn	67.22	14⇓	*i*P	P	20 53 18.3	-1.0
DAG				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
DAG	Danmarks Havn	67.22	14⇓	*i*P	P	20 53 18.3	-1.0
	comp=Z,12nm,0.9s,mb4.9						
PPT	Papeete	67.51	241	*e*LR	LR	21 13 48.2	
	comp=Z,178nm,24.0s						
BILL	Bilibino	76.25	338	*e*P	P	20 54 13.5	-0.2
	comp=Z,30nm,1.3s,mb5.1						
BILL	Bilibino	76.25	338⇑	*i*P	P	20 54 13.7	0.0
BILL				*e**PP	pP	20 54 16.4	-1.2
BILL				pmax	pmax		
	comp=Z,36nm,1.7s,mb5.0						
BILL				MLR	MLR		
	comp=Z,100nm,18.0s,MS4.2						
ESDC	Sonseca Array	76.30	53	P	P	20 54 14.3	-0.2
	comp=Z,2.5nm,0.7s,mb4.3,baz=298,slow=5.0,SNR=11						
NOA	NORSAR Array B	79.24	29	P	P	20 54 30.2	-0.3
	comp=Z,4.1nm,1.0s,mb4.3,baz=290,slow=5.4,SNR=3.8						
NOA				LR	LR	21 27 01.1	
	comp=Z,93nm,19.8s,MS4.1,baz=280,slow=34						
ARCES	ARCESS Array B	80.83	18	P	P	20 54 38.9	0.0
ARCES	ARCESS Array B	80.83	18	P	P	20 54 38.9	0.0
	comp=Z,7.5nm,0.9s,mb4.6,baz=323,slow=3.2,SNR=6.9						
SEY	Seymchan	83.63	335⇑	*i*P	P	20 54 52.8	-0.9
TIXI	Tiksi	84.76	348	*e*P	P	20 54 57.8	-1.5
	comp=Z,4.1nm,0.8s,mb4.6						
TIXI	Tiksi	84.76	348	*e*P	P	20 54 57.9	-1.4
TIXI				*e*		20 55 06.8	
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,98nm,19.0s,MS4.2						
KHC	Kasperske Hory	85.11	39	*e*P	P	20 55 01.5	0.0
GERES	GERESS Array B	85.31	40	P	P	20 55 02.6	+0.1
	comp=Z,2.0nm,0.9s,mb4.3,baz=318,slow=3.8,SNR=12						
FINES	FINESS Array B	85.44	25	P	P	20 55 02.5	-0.4
	comp=Z,2.5nm,0.7s,mb4.4,baz=318,slow=2.6,SNR=8.6						
FINES				LR	LR	21 32 27.5	
	comp=Z,100nm,18.5s,MS4.2,baz=156,slow=35						
MA2	Magadan	86.08	333	*e*P	P	20 55 05.7	-0.4
	comp=Z,9.7nm,1.0s,mb5.0						
MA2	Magadan	86.08	333	*e*P	P	20 55 05.4	-0.7
MA2				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.3						
TORD	Torodi Ar. Bea	89.11	76	P	P	20 55 20.4	-1.1
	comp=Z,0.6nm,0.7s,mb4.0,baz=292,slow=5.7,SNR=4.1						
TORD				LR	LR	21 32 13.4	
	comp=Z,248nm,18.1s,MS4.7,baz=280,slow=34						
HABR	Khabarovsk	100.23	330	*e*P	Pdif	20 56 06.9	-4.8
ZALV	Zalesovo Beam	106.67	2	PP	PP	21 01 01.8	-2.7
	comp=Z,0.4nm,0.3s,baz=350,slow=7.5,SNR=6.5						
MKAR	Makanchi Array	113.68	4	PP	PP	21 01 53.0	-2.2
	comp=Z,1.3nm,1.0s,baz=357,slow=5.9,SNR=6.4						
HHC	Hu-ho-hao-te	115.94	340	*e*PKP	PKPdf	21 01 07.3	-1.3
HHC				PP	PP	21 02 14.4	+3.0
HHC				PKS		21 04 43.0	
HHC				SKS	SKSdf	21 08 13.5	-7.3
HHC				SKKS	SKKSac	21 09 05.9	-8.0
HHC				LR	LR		
	comp=N,104nm,17.8s,MS4.8						
HHC				LR	LR		
	comp=E,213nm,17.8s,MS4.8						
HHC				LR	LR		
	comp=Z,137nm,19.6s,MS4.6						
WMQ	Urumqi	116.85	0	*e*PKP	PKPdf	21 01 11.5	+1.2
WMQ				LR	LR		
	comp=N,63nm,18.5s,MS4.5						
WMQ				LR	LR		
	comp=E,98nm,21.8s,MS4.5						
WMQ				LR	LR		
	comp=Z,83nm,18.5s,MS4.4						
NJ2	Nanjing	120.69	330	*e*PKP	PKPdf	21 01 14.1	-3.9
LZH	Lanzhou	122.57	345	*e*PKP	PKPdf	21 01 22.0	+0.5
LZH				XPKP		21 01 26.8	
LZH				LR	LR		
	comp=N,176nm,18.2s						
LZH				LR	LR		
	comp=Z,238nm,20.1s,MS4.8						
LZH	Lanzhou	122.57	345	*e*PKP	PKPdf	21 01 22.0	+0.5
LZH				pPKP	pPKPdf	21 01 25.3	-0.3
LZH				sPKP		21 01 26.8	
LZH				LR	LR		
	comp=Z,240nm,20.1s,MS4.8						
LZH	Lanzhou	122.57	345	*e*PKIKP	PKPdf	21 01 22.0	+0.5
LZH						21 01 25.3	
LZH						21 01 26.8	
LZH				MLR	MLR		
	comp=Z,240nm,20.1s,MS4.8						
CD2	Chengdu	127.50	343	*e*PKP	PKPdf	21 01 29.3	-1.8
CD2				XPKP		21 01 35.2	
CD2				PP	PP	21 03 32.4	+2.4
CD2				PKS		21 05 04.5	
CD2				SKS	SKSdf	21 08 35.9	-7.2
CD2				SKKS	SKKSac	21 10 20.4	-8.8
CD2				PP	PP		
	comp=Z,60nm,10.2s						
CD2				LR	LR		
	comp=E,140nm,15.6s						
CD2				LR	LR		
	comp=Z,80nm,16.8s,MS4.5						
GYA	Guiyang	130.71	338	*e*PDIF	Pdif	20 58 26.9	-0.3
GYA				PKP	PKPdf	21 01 37.2	-0.1
GYA				PP	PP	21 03 55.2	+4.1
GYA				PKS		21 05 12.3	
GYA				SKS	SKSdf	21 08 46.0	-3.1
GYA				SKKS	SKKSac	21 10 45.5	-3.9
GYA				PP	PP		
	comp=Z,110nm,7.8s						
GYA				LR	LR		
	comp=N,200nm,20.2s,MS5.0						
GYA				LR	LR		
	comp=E,240nm,21.6s,MS5.0						
GYA				LR	LR		
	comp=Z,230nm,20.6s,MS4.9						
KMI	Kunming	133.24	341	PKP	PKPdf	21 01 42.7	+0.6
KMI				XPKP		21 01 46.6	
KMI				PP	PP	21 04 12.1	+4.8
KMI				SS	SS	21 21 50.2	0.0
KMI				LR	LR		
	comp=N,82nm,22.6s,MS4.5						
KMI				LR	LR		
	comp=E,80nm,20.7s,MS4.5						
KMI				LR	LR		
	comp=Z,93nm,17.0s,MS4.6						
KMI	Kunming	133.24	341	PKP	PKPdf	21 01 42.7	+0.6
KMI				pPKP	pPKPdf	21 01 45.0	-1.2
KMI				sPKP		21 01 46.6	
KMI				PP	PP	21 04 12.1	+4.8
KMI				SS	SS	21 21 50.2	0.0
KMI				LR	LR		
	comp=Z,90nm,17.0s,MS4.5						
KMI	Kunming	133.24	341	PKIKP	PKPdf	21 01 42.7	+0.6
KMI						21 01 45.0	
KMI						21 01 46.6	
KMI						21 04 12.1	
KMI				SS	SS	21 21 50.2	0.0
KMI				MLR	MLR		
	comp=Z,90nm,17.0s,MS4.5						
WB2	Warramunga Arr	136.45	261	*e*P	PKPdf	21 01 47.6	-0.6
WRA	Warramunga Arr	136.46	261	PKP	PKPdf	21 01 47.1	-1.1
WRA	Warramunga Arr	136.46	261	PKIKP	PKPdf	21 01 47.1	-1.1
WRA	Warramunga Arr	136.46	261	PKP	PKPdf	21 01 47.1	-1.1
	comp=Z,1.1nm,0.8s,baz=78,slow=3.0,SNR=9.4						
FITZ	Fitzroy Crossi	144.35	266	*e*P	PKPdf	21 01 59.7	-2.8
	comp=Z,5.8nm,1.0s						

ISCJB ***09*** *21:00:35.0±1.2, 54N±02×9337E±009, h32km, mb4.0/9, Error ellipse: s-maj=26.7km s-min=9.3km az=19.8*

NEIC ***09*** *21:00:37.3±1.1, 558N×9327E, h30km, mb4.0/3, Error ellipse: s-maj=28.8km s-min=11.8km az=218.0*

IDC ***09*** *21:00:37.0±1.5, 543N×9325E, h34km±7km, mb3.8/7, mb1 4.0/7, mb1mx3.6/19, mbtmp3.8/7, MS3.2/1, Ms1 3.2/1, ms1mx2.5/23, Error ellipse: s-maj=57.7km s-min=18.9km az=55.0*

ISC 09 21:00:37.1±1.2**, 54N**±02×**9331E**±009**, h34**km**,**
h34km±.3km**:pP-P, n15,** σ**0ˢ48**/16**, mb4.0**/10**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	6.18	115	Pn	Pn	21 02 11.2	+5.2
PSI				LR	LR	21 04 52.6	
PSI	Prapat	6.18	115	Pn	Pn	21 02 11.2	+5.2
	0.6nm,0.3s,baz=318,slow=17,SNR=3.3						
PSI				LR	LR	21 04 52.6	
	comp=Z,188nm,18.3s,baz=276,slow=41						
KULM	Kulim	7.31	91	*e*Pn	Pn	21 02 21.0	-0.5
KULM				*e*Sn	Sn	21 03 43.4	0.0
QIZ	Qiongzhong	21.04	49	*e*P	P	21 05 18.6	+0.4
	3.6nm,0.6s,mb3.9						
LSA	Lhasa	24.23	355	*e*P	P	21 05 51.1	+0.3
	3.5nm,0.6s,mb4.0						
MKAR	Makanchi Array	42.29	349	P	P	21 08 27.4	0.0
MKAR				pP	pP	21 08 37.2	-0.3
MKAR	Makanchi Array	42.29	349	P	P	21 08 27.4	0.0
	1.0nm,0.5s,mb3.7,baz=167,slow=9.0,SNR=33						
MKAR				pP	pP	21 08 37.2	-0.3
	0.5nm,0.5s,baz=167,slow=9.0,SNR=5.9						
SONM	Songino Array	43.71	13	P	P	21 08 38.3	-0.6
	0.9nm,0.8s,mb3.6,baz=202,slow=7.8,SNR=9.6						
KURK	Kurchatov	46.78	347	*e*P	P	21 09 03.3	+0.1
	1.3nm,0.7s,mb4.0						
WRA	Warramunga Arr	47.57	123	P	P	21 09 10.3	+0.5
	1.7nm,0.8s,mb4.2,baz=302,slow=9.4,SNR=12						
WRA				pP	pP	21 09 20.0	0.0
	1.8nm,0.8s,baz=307,slow=8.6,SNR=8.4						
ZALV	Zalesovo Beam	48.86	353	P	P	21 09 19.6	+0.3
ZALV				pP	pP	21 09 29.4	-0.1
ZALV	Zalesovo Beam	48.86	353	P	P	21 09 19.6	+0.3
	1.1nm,0.4s,mb4.2,baz=165,slow=6.2,SNR=10						
ZALV				pP	pP	21 09 29.4	-0.1
	0.8nm,0.4s,baz=161,slow=4.8,SNR=3.5						
FINES	FINESS Array B	74.48	333	P	P	21 12 10.7	-1.1
	2.4nm,1.0s,mb4.1,baz=102,slow=6.6,SNR=6.4						
ARCES	ARCESS Array B	77.28	340	P	P	21 12 28.1	+0.5
	4.0nm,1.0s,mb4.3,baz=86,slow=3.9,SNR=4.3						
GERES	GERESS Array B	79.09	319	P	P	21 12 38.0	-0.1
	0.5nm,0.6s,mb3.7,baz=90,slow=6.7,SNR=6.6						

IDC ***09*** *21:30:33.0±1.6, 4338N×10524W, h0km, mb1 3.9/4, mb1mx3.5/21, mbtmp3.7/4, ML3.2/4, Error ellipse: s-maj=32.4km s-min=9.1km az=156.0*

ISCJB ***09*** *21:30:33.9±0.6, 4360N±005×10510W±007, h0km, Error ellipse: s-maj=7.6km s-min=6.6km az=20.0*

NEIC ***09*** *21:30:35.7±0.6, 4356N×10510W, h0km, ML3.1, Error ellipse: s-maj=8.9km s-min=6.6km az=112.0, Suspected Mining explosion.*

NEIC 80 km [50 miles] WSW of Newcastle.

ISC 09 21:30:35.3±0.5**, 4359N**±004×**10509W**±006**, h0**km**, n32,**
σ**1ˢ28**/34**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.93	55	*e*Pg	Pg	21 30 54.4	+1.3
PHWY	Pilot Hill	2.30	187	*e*Pn	Pn	21 31 14.4	-0.1
RWWY	Rawlins	2.46	220	*e*Pn	Pn	21 31 17.3	+0.6
LAO	LASA Array	3.20	346	*e*Pn	Pn	21 31 30.3	+3.5
RLMT	Red Lodge	3.37	298	*e*Pn	Pn	21 31 28.4	-0.7
BW06	Boulder Array	3.37	257	*e*Pn	Pn	21 31 28.8	-0.4
BW06				*e*Sn	Sn	21 32 14.4	+4.5
PDAR	Pinedale Array	3.37	257	Pn	Pn	21 31 28.5	-0.7
PDAR				Lg		21 32 13.2	
PDAR	Pinedale Array	3.37	257	Pn	Pn	21 31 28.5	-0.7
	2.4nm,0.3s,baz=86,slow=16,SNR=75						
PDAR				Lg		21 32 13.2	
	5.4nm,0.3s,baz=79,slow=34,SNR=6.1						
ISCO	Idaho Springs	3.81	186	*e*Pn	Pn	21 31 36.6	+1.4
GCMT	Greycliff	3.94	306	*e*Pn	Pn	21 31 36.4	-0.6
LKWY	Lake	3.95	286	*e*Pg	Pg	21 31 48.1	-2.9
LOHW	Long Hollow	4.01	272	*e*Pn	Pn	21 31 40.9	+3.0
MOOW	Moose Ponds	4.11	274	*e*Pn	Pn	21 31 38.9	-0.4
YNR	Norris Junctio	4.18	288	Pn	Pn	21 31 47.0	+6.7
REDW	Red Top Meadow	4.20	269	*e*Pn	Pn	21 31 42.6	+2.0
YFT	Old Faithful	4.24	284	Pn	Pn	21 31 46.1	+5.0
YFT				*e*Sg	Sg	21 32 47.9	-3.5
IMW	Indian Meadow	4.25	276	*e*Pn	Pn	21 31 42.5	+1.3
TPAW	Teton Pass	4.27	271	*e*Pn	Pn	21 31 46.2	+4.8
SMCO	Snowmass	4.63	198	*e*Pg	Pg	21 32 02.6	-1.5
DGMT	Dagmar	4.92	7	*e*Pn	Pn	21 31 52.6	+2.2
BOZ	Bozeman (W)	5.10	296	*e*Pn	Pn	21 31 54.2	+1.3

	4.1nm,0.4s						
HWUT	**Hardware Ranch**	**5.18**	**250**	*e*Pn	**Pn**	**21 31 54.3**	**+0.3**
	11nm,0.5s						
EGMT	**Eagleton**	**5.50**	**325**	*e*Pn	**Pn**	**21 31 57.3**	**-1.2**
	11nm,0.5s						
SDCO	**Great Sand Dun**	**5.85**	**183**	*e*Pn	**Pn**	**21 32 03.3**	**+0.1**
	3.8nm,0.8s						
SPUT	**South Promonto**	**5.91**	**250**	*e*Pn	**Pn**	**21 32 03.8**	**-0.2**
CHMT	**Chamberlain Mo**	**6.65**	**303**	*e*Pn	**Pn**	**21 32 13.7**	**-0.5**
DUG	**Dugway**	**6.69**	**242**	*e*Pn	**Pn**	**21 32 14.7**	**0.0**
	2.3nm,0.5s						
MSU	**Marysvale**	**7.38**	**229**	Pn	**Pn**	**21 32 24.5**	**+0.3**
ULM	**Lac du Bonnet**	**9.17**	**40**	Pn	**Pn**	**21 32 47.1**	**-1.5**
ULM				Lg		21 35 21.4	
ULM	**Lac du Bonnet**	**9.17**	**40**	Pn	**Pn**	**21 32 47.1**	**-1.5**
	0.7nm,0.3s,baz=224,slow=12,SNR=9.3						
ULM				Lg		21 35 21.4	
	0.4nm,0.3s,baz=336,slow=16,SNR=3.3						
TKL	**Tuckaleechee C**	**18.20**	**109**	P	**Pn**	**21 34 47.0**	**-2.3**
	0.7nm,0.3s,baz=306,slow=7.5,SNR=4.7						
YKA	**Yellowknife Ar**	**19.74**	**347**	P	**Pn**	**21 35 06.3**	**-1.4**
	0.0nm,0.3s,baz=166,slow=9.7,SNR=4.0						

*IDC **09** 21:35:31.4±5.0, 36.23N×76.59E, h0^{km}, mb3.4/2, mb1 3.5/3, mb1mx3.2/19, mbtmp3.4/3, ML3.4/1, Error ellipse: s-maj=90.8km s-min=44.4km az=179.0*

*BJI **09** 21:35:50.5, 37.30N×77.70E, h15^{km}, ML3.0*

ISC 09 21:35:43.5±2.9, **36.8N**±0.1×**77.3E**±0.1, **h21**^{km}±16^{km}, **n6**, σ**1^{s}48**/9, **mb3.2**/2, **1C-2D**, **Kashmir-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	**Kashi**	**2.89**	**340**	P	**Pb**	**21 36 32.4**	**-1.9**
KSH				S	**Sb**	**21 37 09.5**	**+0.4**
KSH				Smax			
	comp=N,102nm,0.6s						
KSH				Smax			
	comp=E,61nm,0.3s						
KK31	**Karatay Array**	**8.14**	**323**	P	**Pn**	**21 37 41.3**	**+1.0**
	comp=E,0.4nm,0.5s,baz=140,slow=12,SNR=10						
KK31				⇓S	**Sn**	**21 39 11.3**	**-0.4**
	comp=E,2.0nm,0.7s,baz=140,slow=24						
MK31	**Makanchi Array**	**10.66**	**19**	⇓P	**Pn**	**21 38 17.2**	**+2.3**
	comp=E,0.2nm,0.3s,baz=203,slow=12,SNR=18						
MK31				⇑S	**Sn**	**21 40 12.8**	**-0.8**
	comp=E,2.0nm,0.7s,baz=203,slow=25						
MKAR	**Makanchi Array**	**10.66**	**19**	Pn	**Pn**	**21 38 17.2**	**+2.3**
	comp=E,0.2nm,0.3s,baz=207,slow=13,SNR=15						
SONM	**Songino Array**	**24.07**	**54**	P	**P**	**21 40 55.4**	**-1.7**
	comp=E,0.2nm,0.4s,mb2.9,baz=249,slow=9.0,SNR=4.4						
FINES	**FINESS Array B**	**40.10**	**324**	P	**P**	**21 43 09.6**	**-7.6**
	comp=E,1.2nm,0.9s,mb3.6,baz=106,slow=8.8,SNR=3.8						

*ISK **09** 22:00:39.5, 38.45N×39.09E, h2^{km}, MD3.4*

*ISCJB **09** 22:00:40.3±0.6, 38.40N±0.03×39.14E±0.03, h2^{km}±6^{km}, Error ellipse: s-maj=5.5km s-min=3.4km az=153.4*

*CSEM **09** 22:00:40.1±0.1, 38.42N×39.09E, h5^{km}, ML3.9, Error ellipse: s-maj=2.6km s-min=1.6km az=169.0*

*DDA **09** 22:00:41.5, 38.39N×39.14E, h4^{km}±4^{km}, Md3.4, Ml3.9*

ISC 09 22:00:41.1±0.5, **38.40N**±0.03×**39.13E**±0.03, **h6**^{km}±5^{km}, **n40**, σ**1^{s}05**/52, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	**Elazig**	**0.15**	**312**	*i* P	**Pg**	**22 00 43.6**	**-0.6**
ELZG				*i* S	**Sg**	**22 00 47.7**	**+1.5**
PTK	**Pertek**	**0.54**	**23**	*i* PG	**Pg**	**22 00 49.8**	**-1.6**
PTK				*i* SG	**Sg**	**22 00 58.2**	**-0.2**
PTK	**Pertek**	**0.54**	**23**	*i* Pg	**Pg**	**22 00 49.8**	**-1.6**
PTK				*i* Sg	**Sg**	**22 00 58.2**	**-0.2**
MYA	**Malataya**	**0.56**	**263**	*i* PG	**Pg**	**22 00 50.9**	**-0.9**
MYA	**Malataya**	**0.56**	**263**	*i* Pg	**Pg**	**22 00 50.9**	**-0.9**
MALT	**Malatya**	**0.56**	**261**	*i* PG	**Pg**	**22 00 50.9**	**-0.9**
MALT				*i* SG	**Sg**	**22 00 58.6**	**-0.4**
MALT	**Malatya**	**0.56**	**261**	*i* Pg	**Pg**	**22 00 50.9**	**-0.9**
MALT				*i* Sg	**Sg**	**22 00 58.6**	**-0.4**
URFA	**Urfa**	**0.98**	**194**	*i* PG	**Pg**	**22 01 00.3**	**+0.3**
URFA	**Urfa**	**0.98**	**194**	*i* Pg	**Pg**	**22 01 00.3**	**+0.3**
DIY	**Diyarbakir**	**1.00**	**120**	*i* PG	**Pg**	**22 01 00.2**	**-0.1**
DIY	**Diyarbakir**	**1.00**	**120**	*i* Pg	**Pg**	**22 01 00.2**	**-0.1**
ATAB	**Bozova**	**1.14**	**216**	*i* P	**Pg**	**22 01 02.6**	**-0.2**
ATAB				*i* S	**Sg**	**22 01 18.8**	**+1.2**
BINT	**Bingol**	**1.17**	**65**	PN	**Pn**	**22 01 02.2**	**-1.8**
BINT	**Bingol**	**1.17**	**65**	*e*Pn	**Pn**	**22 01 02.2**	**-1.8**
EZC	**Erzincan**	**1.45**	**22**	PN	**Pn**	**22 01 05.6**	**-2.3**
GZT	**Gaziantep**	**1.62**	**230**	*i* P	**Pn**	**22 01 09.4**	**-0.8**
GZT				*i* S	**Sn**	**22 01 29.7**	**-1.6**
BNGL	**BINGOL**	**1.68**	**70**	*i* P	**Pn**	**22 01 11.6**	**+0.6**
BNGL				*i* S	**Sg**	**22 01 38.6**	**+3.6**
MARD	**Mardin**	**1.70**	**129**	*i* P	**Pn**	**22 01 10.8**	**-0.5**
MARD				*i* S	**Sn**	**22 01 33.2**	**-0.2**
BTMT	**Batman**	**1.87**	**96**	PN	**Pn**	**22 01 12.6**	**-1.1**
GAZ	**Gaziantep**	**1.95**	**232**	PN	**Pn**	**22 01 15.0**	**+0.2**
GAZ	**Gaziantep**	**1.95**	**232**	*e*Pn	**Pn**	**22 01 15.0**	**+0.2**
GUMT	**Gumushane**	**2.08**	**7**	PN	**Pn**	**22 01 16.0**	**-0.5**
GUMT	**Gumushane**	**2.08**	**7**	*e*Pn	**Pn**	**22 01 16.0**	**-0.5**
EZM	**Erzurum**	**2.30**	**48**	PN	**Pn**	**22 01 19.5**	**-0.1**
ERZM	**Erzurum**	**2.30**	**48**	*e*P	**Pn**	**22 01 20.6**	**+1.0**
ERZM				*i* S	**Sg**	**22 01 56.3**	**+1.2**
BNN	**Bunyan**	**2.61**	**281**	*e*PN	**Pn**	**22 01 23.9**	**+0.1**
BNN	**Bunyan**	**2.61**	**281**	*e*Pn	**Pn**	**22 01 23.9**	**+0.1**
GRSN	**GIRESUNGRSN**	**2.61**	**346**	*e*P	**Pn**	**22 01 24.2**	**+0.4**
SIRT	**Sirnak**	**2.77**	**108**	*e*PN	**Pn**	**22 01 26.6**	**+0.6**
SIRT	**Sirnak**	**2.77**	**108**	*e*Pn	**Pn**	**22 01 26.6**	**+0.6**
COBT	**Iskenderun**	**2.96**	**231**	*e*P	**Pn**	**22 01 28.6**	**0.0**
COBT				*i* S	**Sn**	**22 02 07.5**	**+3.1**
COBT	**Iskenderun**	**2.96**	**231**	*e*P	**Pn**	**22 01 28.6**	**0.0**
COBT				*i* S	**Sn**	**22 02 07.4**	**+3.0**
HTY	**Hatay**	**3.29**	**227**	*e*PN	**Pn**	**22 01 33.9**	**+0.7**
HTY	**Hatay**	**3.29**	**227**	*e*Pn	**Pn**	**22 01 33.9**	**+0.7**
HAKT	**HAKKARI**	**3.72**	**102**	*i* P	**Pn**	**22 01 38.5**	**-0.5**
HAKT				*i* S	**Sg**	**22 02 36.1**	**-4.3**
HKR	**Hakkari**	**3.74**	**101**	*e*PN	**Pn**	**22 01 40.8**	**+1.5**
HKR	**Hakkari**	**3.74**	**101**	*e*Pn	**Pn**	**22 01 40.8**	**+1.5**
MSL	**Mosul**	**3.79**	**122**	*e*Pn	x	22 01 51.0	
MSL				*e*Sn	x	22 02 43.0	
DIGO	**Kars**	**3.86**	**57**	*e*P	**Pn**	**22 01 42.2**	**+1.2**
CTKT	**Corum**	**4.02**	**305**	*i* P	**Pn**	**22 01 45.0**	**+1.8**

*NIC **09** 22:12:03.0±0.2, 30.34N×35.41E, h25^{km}, mb4.3, ML3.8*

*SGS **09** 22:12:04.0, 31.51N×35.44E, h15^{km}*

*IDC **09** 22:12:07.8±1.0, 31.16N×35.52E, h0^{km}, mb3.6/4, mb1 3.7/6, mb1mx3.4/22, mbtmp3.6/6, ML3.1/2, MS3.9/2, Ms1 3.9/2, ms1mx2.8/32, Error ellipse: s-maj=17.8km s-min=8.7km az=114.0*

*NEIC **09** 22:12:07.4±0.7, 31.07N×35.58E, h2^{km}±4^{km}, mb4.0/9, MD4.0(GRAL), ML3.5(GII), ML3.8(NIC), Error ellipse: s-maj=7.7km s-min=3.5km az=106.0*

NEIC Felt [III] in parts of Israel.

*CSEM **09** 22:12:08.4±0.1, 31.08N×35.51E, h20^{km}, mb3.9/4, Mw3.3, Error ellipse: s-maj=2.5km s-min=1.2km az=99.0*

*ISCJB **09** 22:12:09.0±0.5, 31.08N±0.02×35.49E±0.05, h23^{km}±4^{km}, mb3.8/10, MS4.0/2, Error ellipse: s-maj=6.9km s-min=2.9km az=13.5*

*GII **09** 22:12:09.0±0.2, 31.10N×35.50E, h13^{km}±1^{km}, ML3.5/5, Mw3.3/6*

GII Felt III.

*GRAL **09** 22:12:10.1±3.4, 31.11N×35.50E, h3^{km}±19^{km}, MD3.8*

*HLW **09** 22:12:10.2, 31.15N×35.46E, h17^{km}, Mb5.1*

ISC 09 22:12:08.5±0.6, **31.07N**±0.02×**35.52E**±0.05, **h10**^{km}±3^{km}, **n128**, σ**0^{s}92**/144, **mb3.8**/10, **MS4.0**/2, **3C-1D**, **Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MZDA	**Masada**	**0.27**	**330**	Pg	**Pg**	**22 12 14.6**	**+0.5**
MZDA	**Masada**	**0.27**	**330**	Pg	**Pg**	**22 12 14.6**	**+0.5**
MZDA				Sg	**Sg**	**22 12 18.9**	**+1.2**
MZDA	**Masada**	**0.27**	**330**	⇓Pg	**Pg**	**22 12 14.6**	**+0.5**
MZDA				Sg	**Sg**	**22 12 19.0**	**+1.2**
DRGI	**Dragot**	**0.53**	**348**	Pg	**Pg**	**22 12 19.1**	**+0.2**
DRGI	**Dragot**	**0.53**	**348**	Pg	**Pg**	**22 12 18.9**	**0.0**
DRGI	**Dragot**	**0.53**	**348**	Pg	**Pg**	**22 12 18.9**	**0.0**
ZFRI	**Zfri**	**0.60**	**210**	Pg	**Pg**	**22 12 21.0**	**+0.9**
ZFRI	**Zfri**	**0.60**	**210**	Pg	**Pg**	**22 12 21.0**	**+0.9**
ZFRI				Sg	**Sg**	**22 12 29.3**	**+1.4**
ZFRI	**Zfri**	**0.60**	**210**	Pg	**Pg**	**22 12 21.0**	**+0.9**
ZFRI				Sg	**Sg**	**22 12 29.3**	**+1.4**
MASH	**Mash‘abbe Sade**	**0.64**	**263**	Pg	**Pg**	**22 12 21.2**	**+0.3**
MASH	**Mash‘abbe Sade**	**0.64**	**263**	⇑Pg	**Pg**	**22 12 21.2**	**+0.3**
KZIT	**Kziot**	**0.98**	**261**	Pg	**Pg**	**22 12 27.2**	**-0.2**
KZIT	**Kziot**	**0.98**	**261**	Pg	**Pg**	**22 12 27.2**	**-0.2**
KZIT				Sg	**Sg**	**22 12 40.4**	**+0.2**
KZIT	**Kziot**	**0.98**	**261**	⇑Pg	**Pg**	**22 12 27.2**	**-0.2**
KZIT				Sg	**Sg**	**22 12 40.4**	**+0.2**
HMDT	**Nahal Hemdat**	**1.18**	**0**	Pg	**Pg**	**22 12 29.6**	**-1.6**
HMDT	**Nahal Hemdat**	**1.18**	**0**	Pg	**Pg**	**22 12 29.7**	**-1.5**
HMDT				Sg	**Sg**	**22 12 46.7**	**+0.3**
HMDT	**Nahal Hemdat**	**1.18**	**0**	⇑Pg	**Pg**	**22 12 29.7**	**-1.5**
HMDT				Sg	**Sg**	**22 12 46.7**	**+0.2**
SLTI	**Sal’it**	**1.24**	**341**	Pg	**Pg**	**22 12 30.9**	**-1.4**
SLTI	**Sal’it**	**1.24**	**341**	Pg	**Pg**	**22 12 30.9**	**-1.4**
SLTI	**Sal’it**	**1.24**	**341**	⇑Pg	**Pg**	**22 12 30.9**	**-1.4**
MMLI	**Mount Malkishu**	**1.36**	**356**	Pn	**Pn**	**22 12 32.4**	**-1.3**
MMLI	**Mount Malkishu**	**1.36**	**356**	Pn	**Pn**	**22 12 33.0**	**-0.7**
MMLI				Sn	**Sn**	**22 12 51.6**	**-0.3**
MMLI	**Mount Malkishu**	**1.36**	**356**	Pn	**Pn**	**22 12 32.4**	**-1.3**
MMLI				Sn	**Sn**	**22 12 51.6**	**-0.2**
AQBJ	**Aqaba**	**1.40**	**197**	Pn	**Pn**	**22 12 34.5**	**+0.3**
EIL	**Elat**	**1.48**	**200**	Pg	**Pn**	**22 12 35.5**	**+0.2**
EIL				Lg		22 12 56.3	
EIL	**Elat**	**1.48**	**200**	Pg	**Pn**	**22 12 35.5**	**+0.2**
	36nm,0.3s,baz=9.2,slow=7.2,SNR=142						
EIL				Lg		22 12 56.3	
	238nm,0.3s,baz=6.7,slow=17,SNR=20						
EIL	**Elat**	**1.48**	**200**	Pn	**Pn**	**22 12 35.0**	**-0.2**
EIL	**Elat**	**1.48**	**200**	Pn	**Pn**	**22 12 35.0**	**-0.3**
EIL	**Elat**	**1.48**	**200**	Pg	**Pg**	**22 12 35.5**	**-1.5**
ASF	**Jabal al Asfar**	**1.60**	**47**	Pg	**Pn**	**22 12 35.7**	**-1.2**
ASF				Lg		22 12 56.2	
ASF	**Jabal al Asfar**	**1.60**	**47**	Pg	**Pn**	**22 12 35.7**	**-1.2**
	97nm,0.3s,baz=100,slow=8.2,SNR=520						
ASF				Lg		22 12 56.2	
	59nm,0.3s,baz=100,slow=3.8,SNR=5.6						
OFRI	**‘Ofer**	**1.61**	**344**	Pn	**Pn**	**22 12 36.7**	**-0.4**
OFRI	**‘Ofer**	**1.61**	**344**	Pn	**Pn**	**22 12 36.8**	**-0.3**
OFRI	**‘Ofer**	**1.61**	**344**	Pn	**Pn**	**22 12 36.7**	**-0.4**
GLH	**Golan-Tel Qazi**	**1.64**	**4**	Pn	**Pn**	**22 12 36.6**	**-0.9**
GLH	**Golan-Tel Qazi**	**1.64**	**4**	Pn	**Pn**	**22 12 36.6**	**-0.9**
GLH	**Golan-Tel Qazi**	**1.64**	**4**	⇑Pn	**Pn**	**22 12 36.6**	**-0.9**
HNKL	**Nakhl**	**1.75**	**230**	P	**Pn**	**22 12 38.9**	**-0.1**
HNKL				S	**Sn**	**22 12 59.2**	**-2.2**
HNKL	**Nakhl**	**1.75**	**230**	P	**Pn**	**22 12 38.9**	**-0.1**
HNKL				S	**Sn**	**22 12 59.3**	**-2.1**
HNKL	**Nakhl**	**1.75**	**230**	⇑P	**Pn**	**22 12 39.0**	**0.0**
HQLS		**1.81**	**193**	P	**Pn**	**22 12 38.8**	**-1.0**
HQLS				S	**Sn**	**22 13 04.5**	**+1.7**
HQLS		**1.81**	**193**	S	**Sn**	**22 13 04.5**	**+1.7**
HQLS		**1.81**	**193**	P	**Pn**	**22 12 38.8**	**-1.0**
MMAI	**Mount Meron Ar**	**1.94**	**357**	Pg	**Pn**	**22 12 41.0**	**-0.6**
	143nm,0.3s,baz=169,slow=16,SNR=679						
MMAI				Lg		22 13 05.5	
	79nm,0.3s,baz=202,slow=30,SNR=5.3						
HBST	**Basata**	**1.97**	**201**	P	**Pn**	**22 12 42.4**	**+0.4**
HBST	**Basata**	**1.97**	**201**	P	**Pn**	**22 12 42.6**	**+0.6**
AMAG	**Maghara**	**2.04**	**258**	P	**Pn**	**22 12 42.0**	**-0.9**
JLOS		**2.33**	**181**	P	**Pn**	**22 12 46.1**	**-0.8**
MATL	**Matirih**	**2.42**	**356**	*e*Pn	**Pb**	**22 12 51.9**	**-0.2**
MATL	**Matirih**	**2.42**	**356**	*e*Pn	**Pb**	**22 12 51.9**	**-0.2**
RCY	**Rachaya**	**2.42**	**6**	*e*Pn	**Pn**	**22 12 47.9**	**-0.2**
RCY	**Rachaya**	**2.42**	**6**	*e*Pn	**Pn**	**22 12 47.9**	**-0.3**
HDHB	**Dhahab**	**2.47**	**199**	P	**Pn**	**22 12 48.9**	**0.0**
SUZ		**2.63**	**243**	P	**Pn**	**22 12 50.6**	**-0.5**
SUZ		**2.63**	**243**	P	**Pn**	**22 12 50.3**	**-0.8**
BHL	**Bhannes**	**2.83**	**2**	*e*Pn	**Pn**	**22 12 57.6**	**+3.9**
BHL				Sn	**Sn**	**22 13 26.3**	**-1.6**
BHL	**Bhannes**	**2.83**	**2**	*e*Pn	**Pn**	**22 12 54.8**	**+1.1**
BHL				Sn	**Sn**	**22 13 26.3**	**-1.6**
BHL	**Bhannes**	**2.83**	**2**	*e*Pn	**Pn**	**22 12 54.8**	**+1.0**
BHL				Sn	**Sn**	**22 13 26.3**	**-1.6**
RSHS		**2.83**	**193**	P	**Pn**	**22 12 52.4**	**-1.5**
ZNM		**2.85**	**234**	⇑P	**Pn**	**22 12 53.8**	**-0.3**
HRDS	**Abu Rudays**	**3.04**	**220**	P	**Pn**	**22 12 56.8**	**0.0**
HRDS	**Abu Rudays**	**3.04**	**220**	P	**Pn**	**22 12 57.0**	**+0.3**
ZAF		**3.13**	**236**	P	**Pn**	**22 12 57.6**	**-0.4**
ZAF		**3.13**	**236**	P	**Pn**	**22 12 57.7**	**-0.3**
ZAF		**3.13**	**236**	P	**Pn**	**22 12 57.7**	**-0.3**
HHAG	**Hagoal**	**3.16**	**250**	P	**Pn**	**22 12 58.0**	**-0.3**
HWQ	**Hawqa**	**3.22**	**6**	*e*Pn	**Pb**	**22 13 04.5**	**-1.3**
HWQ	**Hawqa**	**3.22**	**6**	*e*Pn	**Pn**	**22 13 00.6**	**+1.5**
HWQ	**Hawqa**	**3.22**	**6**	*e*Pn	**Pn**	**22 13 00.6**	**+1.5**
TR1		**3.35**	**205**	P	**Pn**	**22 13 01.1**	**+0.1**
TR1		**3.35**	**205**	P	**Pn**	**22 13 00.7**	**-0.2**
SHRM		**3.39**	**201**	P	**Pn**	**22 13 01.7**	**+0.1**
SHRM		**3.39**	**201**	P	**Pn**	**22 13 02.7**	**+1.1**
GLL	**Jalalah**	**3.62**	**247**	P	**Pn**	**22 13 04.3**	**-0.4**
GLL	**Jalalah**	**3.62**	**247**	⇑P	**Pn**	**22 13 03.8**	**-0.9**
HSAF	**As Saff**	**3.73**	**248**	P	**Pn**	**22 13 05.5**	**-0.7**
AYT	**Al ‘Ayyat**	**4.01**	**251**	P	**Pn**	**22 13 09.3**	**-0.8**
HHRG	**Al Ghardaqah**	**4.20**	**204**	P	**Pn**	**22 13 13.2**	**+0.5**
HHRG	**Al Ghardaqah**	**4.20**	**204**	P	**Pn**	**22 13 13.3**	**+0.6**
HHRG	**Al Ghardaqah**	**4.20**	**204**	P	**Pn**	**22 13 13.2**	**+0.5**
SZAC	**Souni-Zanaja**	**4.29**	**330**	P	**Pn**	**22 13 14.7**	**+0.8**
SZAC				S	**Sn**	**22 14 10.3**	**+6.2**
HBNS	**Bani Suwayf**	**4.29**	**242**	P	**Pn**	**22 13 13.8**	**-0.1**
CSS	**Prodhromos**	**4.29**	**335**	*e*Pn	**Pn**	**22 13 13.4**	**-0.6**
CSS				*e*Sn	**Sn**	**22 14 03.7**	**-0.4**
CSS	**Prodhromos**	**4.29**	**335**	*e*Pn	**Pn**	**22 13 13.4**	**-0.6**
CSS				*e*Sn	**Sn**	**22 14 03.7**	**-0.4**
WJHS		**4.39**	**170**	P	**Pn**	**22 13 14.5**	**-0.8**
HNAT	**Natroun**	**4.48**	**253**	P	**Pn**	**22 13 15.8**	**-0.7**
HNAT	**Natroun**	**4.48**	**253**	P	**Pn**	**22 13 15.8**	**-0.7**
	110μm,0.3s						
MAMC	**Mammari**	**4.52**	**335**	P	**Pn**	**22 13 17.9**	**+0.8**
PPCY	**Paphos**	**4.65**	**326**	P	**Pn**	**22 13 18.8**	**0.0**
HSFG		**4.70**	**198**	P	**Pn**	**22 13 20.4**	**+0.9**
ALFC	**Alevga**	**4.76**	**330**	P	**Pn**	**22 13 20.3**	**0.0**
	3.9nm,0.6s						
ALFC				S	**Sn**	**22 14 21.6**	**+6.1**
AKMC	**Akamas**	**4.77**	**327**	P	**Pn**	**22 13 20.6**	**+0.1**
BHD	**Baghdad**	**7.82**	**71**	*e*P	x	22 14 04.0	
MSL	**Mosul**	**8.17**	**48**	*e*Pn	x	22 14 09.0	
MSL				*e*Sn	x	22 15 42.0	
BRTR	**Keskin Array B**	**8.77**	**350**	Pn	**Pn**	**22 14 15.2**	**-0.1**
BRTR	**Keskin Array B**	**8.77**	**350**	Pn	**Pn**	**22 14 15.2**	**-0.1**
	0.1nm,0.3s,baz=176,slow=16,SNR=3.2						
IDI	**Anoyia**	**9.85**	**298**	Pn	**Pn**	**22 14 28.9**	**-1.3**
IDI				Sn	**Sn**	**22 16 15.2**	**-5.7**
IDI	**Anoyia**	**9.85**	**298**	Pn	**Pn**	**22 14 28.9**	**-1.3**
	0.7nm,0.3s,baz=117,slow=14,SNR=19						
IDI				Sn	**Sn**	**22 16 15.2**	**-5.7**
	1.0nm,0.3s,baz=8.5,slow=21,SNR=11						
IDI	**Anoyia**	**9.85**	**298**	Pn	**Pn**	**22 14 28.9**	**-1.3**
KOLS	**Kolonicke sedl**	**20.47**	**334**	*e*P	**P**	**22 16 48.1**	**+1.8**
KOLS				*e*pP		22 16 53.1	
PSZ	**Piszkesteto**	**20.63**	**329**	*e*P	**P**	**22 16 48.2**	**+0.2**
	7.7nm,0.8s						
PSZ	**Piszkesteto**	**20.63**	**329**	*e*P	**P**	**22 16 48.2**	**+0.1**
	7.7nm,0.8s						
CRVS	**Cervenica-Dubn**	**20.75**	**333**	*e*P	**P**	**22 16 51.1**	**+1.7**
KECS	**Kecovo**	**20.81**	**331**	*e*P	**P**	**22 16 51.5**	**+1.5**
	1.8nm,1.1s						
KECS				*e*		22 16 56.0	
KWP	**Kalwaria**	**20.90**	**336**	*e*P	**P**	**22 16 52.2**	**+1.2**
	11nm,1.0s						
KWP	**Kalwaria**	**20.90**	**336**	*e*P	**P**	**22 16 52.2**	**+1.3**
	11nm,1.0s						
STHS	**Stebnicka Huta**	**21.25**	**334**	*e*P	**P**	**22 16 56.5**	**+1.7**
	3.0nm,1.6s,mb3.4						
STHS				*e*		22 17 04.2	
VYHS	**Vyhne**	**21.53**	**329**	*e*P	**P**	**22 16 59.0**	**+1.2**
	2.2nm,1.2s,mb3.5						
VYHS				*e*		22 17 04.0	
MODS	**Modra-Piesok**	**22.17**	**326**	*e*P	**P**	**22 17 11.5**	**+7.0**
MODS	**Modra-Piesok**	**22.17**	**326**	*e*pP	pP	22 17 11.5	+4.2
PGF	**Pioggiola**	**24.03**	**306**	*e*P	**P**	**22 17 23.3**	**-0.3**
GERES	**GERESS Array B**	**24.25**	**323**	P	**P**	**22 17 26.0**	**+0.5**
	2.6nm,0.8s,mb3.7,baz=124,slow=8.3,SNR=13						
KHC	**Kasperske Hory**	**24.49**	**324**	*e*P	**P**	**22 17 32.0**	**+4.2**
BRG	**Berggiesshubel**	**25.46**	**327**	*e*P	**P**	**22 17 42.0**	**+5.4**
	4.2nm,0.8s,mb4.0						
AKTK	**Aktyubinsk**	**25.60**	**34**	P	**P**	**22 17 38.4**	**+0.5**
AKTK	**Aktyubinsk**	**25.60**	**34**	P	**P**	**22 17 38.4**	**+0.5**
AKTO	**Aktyubinsk**	**25.60**	**34**	P	**P**	**22 17 38.4**	**+0.5**
	3.4nm,0.7s,mb4.0,baz=230,slow=11,SNR=14						
CLL	**Collm**	**26.19**	**327**	*i* P	**P**	**22 17 48.4**	**+5.2**
	5.0nm,0.9s,mb4.0						
CLL	**Collm**	**26.19**	**327**	*i* pP	pP	22 17 48.4	+2.2
	comp=Z,5.0nm,0.9s						
MBDF	**Montbardon**	**26.31**	**309**	*e*P	**P**	**22 17 43.7**	**-0.6**
	comp=Z,13nm,0.9s,mb4.2						
MBDF	**Montbardon**	**26.31**	**309**	*e*P	**P**	**22 17 43.7**	**-0.6**
	comp=Z,6.7nm,0.9s,mb4.2						
LPG	**La Plagne**	**26.61**	**311**	*e*P	**P**	**22 17 47.3**	**+0.3**
	comp=Z,24nm,1.2s,mb4.3						
LPG	**La Plagne**	**26.61**	**311**	*e*P	**P**	**22 17 47.3**	**+0.3**
	comp=Z,12nm,1.2s,mb4.3						
LPL	**La Plagne**	**26.63**	**311**	*e*P	**P**	**22 17 47.1**	**-0.1**
TORD	**Torodi Ar. Bea**	**35.86**	**248**	P	**P**	**22 19 11.0**	**+2.2**
	comp=Z,0.6nm,1.0s,mb3.5,baz=64,slow=6.6,SNR=4.4						
MKAR	**Makanchi Array**	**39.02**	**53**	P	**P**	**22 19 36.2**	**+1.0**
	comp=Z,0.3nm,0.9s,mb3.0,baz=251,slow=4.4,SNR=2.9						
LSZ	**Lusaka**	**46.62**	**190**	LR	LR	22 42 39.9	
	comp=Z,137nm,18.2s,MS4.0,baz=174,slow=39						
BOSA	**Boshof**	**60.15**	**190**	LR	LR	22 48 43.4	
	comp=Z,98nm,19.3s,MS4.0,baz=9.5,slow=36						

*SGS **09** 22:14:04.0, 31.41N×35.24E, h3^{km}*

*IDC **09** 22:14:06.2±0.7, 31.14N×35.50E, h0^{km}, mb3.9/13, mb1 4.0/15, mb1mx3.9/25, mbtmp3.9/15, ML4.1/2, MS3.6/8, Ms1 3.6/8, ms1mx3.2/36, Error ellipse: s-maj=14.5km s-min=8.5km az=115.0*

*MOS **09** 22:14:06.9±1.3, 31.17N×35.57E, h10^{km}, mb4.4/20, Error ellipse: s-maj=10.7km s-min=4.8km az=109.0*

*ISCJB **09** 22:14:07.8±0.5, 31.08N±0.02×35.56E±0.03, h21^{km}±4^{km}, mb4.2/34, MS3.5/8, Error ellipse: s-maj=4.7km s-min=3.0km az=9.2*

*CSEM **09** 22:14:07.5±0.1, 31.06N×35.52E, h18^{km}, mb4.3/3, Mw3.8, Error ellipse: s-maj=2.2km s-min=1.2km az=90.0*

*GII **09** 22:14:08.9±0.3, 31.11N×35.46E, h15^{km}±4^{km}, mb4.5/2, ML4.4/5, Mw3.8/2*

GII Felt III.

*NEIC **09** 22:14:08.9, 31.11N×35.46E, h15^{km}, mb4.5/19, MD4.5(GRAL), ML4.4(GII), ML4.1(NIC), After GII.*

NEIC Felt [III] in parts of Israel. Felt at Elat, Kefar Sava, Ra‘ananna and Tel Aviv-Yafo, Israel.

*GRAL **09** 22:14:09.8±3.0, 31.08N×35.46E, h10^{km}±14^{km}, MD4.5*

*HLW **09** 22:14:09.3, 31.19N×35.54E, h23^{km}, Mb5.1*

*NIC **09** 22:14:09.8±0.2, 30.84N×35.20E, h25^{km}, mb4.5, ML4.1, MW3.9*

ISC 09 22:14:08.0±0.5, **31.07N**±0.02×**35.52E**±0.03, **h10**^{km}±3^{km}, **h18**^{km}±.7^{km}**:pP-P**, **n230**, σ**1^{s}03**/255, **mb4.2**/34, **MS3.5**/8, **7C-9D**, **Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MZDA	**Masada**	**0.28**	**330**	⇓Pg	**Pg**	**22 14 14.0**	**+0.5**
MZDA				Sg	**Sg**	**22 14 18.3**	**+1.0**
MZDA	**Masada**	**0.28**	**330**	Pg	**Pg**	**22 14 14.0**	**+0.5**
MZDA				Sg	**Sg**	**22 14 18.3**	**+1.0**
MZDA	**Masada**	**0.28**	**330**	⇓Pg	**Pg**	**22 14 14.0**	**+0.5**
MZDA				Sg	**Sg**	**22 14 18.3**	**+1.0**
DRGI	**Dragot**	**0.53**	**348**	⇑Pg	**Pg**	**22 14 18.5**	**+0.2**
DRGI	**Dragot**	**0.53**	**348**	Pg	**Pg**	**22 14 18.5**	**+0.2**
DRGI	**Dragot**	**0.53**	**348**	⇑Pg	**Pg**	**22 14 18.5**	**+0.2**
ZFRI	**Zfri**	**0.59**	**210**	⇓Pg	**Pg**	**22 14 20.5**	**+1.0**
ZFRI	**Zfri**	**0.59**	**210**	Pg	**Pg**	**22 14 20.5**	**+1.0**
ZFRI	**Zfri**	**0.59**	**210**	⇓Pg	**Pg**	**22 14 20.5**	**+1.0**
KZIT	**Kziot**	**0.98**	**261**	⇑Pg	**Pg**	**22 14 26.7**	**-0.1**
KZIT				Sg	**Sg**	**22 14 39.6**	**0.0**
KZIT	**Kziot**	**0.98**	**261**	Pg	**Pg**	**22 14 26.7**	**-0.2**
KZIT				Sg	**Sg**	**22 14 39.6**	**0.0**
KZIT	**Kziot**	**0.98**	**261**	⇑Pg	**Pg**	**22 14 26.7**	**-0.1**
KZIT				Sg	**Sg**	**22 14 39.6**	**0.0**
HMDT	**Nahal Hemdat**	**1.18**	**0**	⇓Pg	**Pg**	**22 14 29.5**	**-1.1**
HMDT	**Nahal Hemdat**	**1.18**	**0**	Pg	**Pg**	**22 14 29.4**	**-1.2**
HMDT	**Nahal Hemdat**	**1.18**	**0**	⇓Pg	**Pg**	**22 14 29.5**	**-1.1**
SLTI	**Sal’it**	**1.24**	**341**	Pg	**Pg**	**22 14 30.4**	**-1.3**
SLTI	**Sal’it**	**1.24**	**341**	Pg	**Pg**	**22 14 30.4**	**-1.3**
SLTI	**Sal’it**	**1.24**	**341**	Pg	**Pg**	**22 14 30.4**	**-1.3**
MMLI	**Mount Malkishu**	**1.37**	**356**	⇑Pn	**Pn**	**22 14 32.4**	**-0.7**
MMLI	**Mount Malkishu**	**1.37**	**356**	Pn	**Pn**	**22 14 32.4**	**-0.7**
MMLI				Sn	**Sn**	**22 14 49.7**	**-1.5**
MMLI	**Mount Malkishu**	**1.37**	**356**	⇑Pn	**Pn**	**22 14 32.4**	**-0.7**
MMLI				Sn	**Sn**	**22 14 49.7**	**-1.5**
EIL	**Elat**	**1.48**	**200**	Pn	**Pn**	**22 14 34.9**	**+0.3**
EIL	**Elat**	**1.48**	**200**	Pg	**Pg**	**22 14 35.1**	**-1.3**
	247nm,0.3s,baz=359,slow=8.0,SNR=8.3						
EIL				Lg		22 14 55.2	
	1μm,0.3s,baz=19,slow=14,SNR=26						
EIL	**Elat**	**1.48**	**200**	Pn	**Pn**	**22 14 34.9**	**+0.2**
EIL	**Elat**	**1.48**	**200**	Pn	**Pn**	**22 14 34.9**	**+0.3**
ASF	**Jabal al Asfar**	**1.61**	**47**	Pg	**Pn**	**22 14 35.4**	**-0.9**
ASF				Lg		22 14 55.7	
ASF				LR	LR	22 15 10.7	
ASF	**Jabal al Asfar**	**1.61**	**47**	P	**Pn**	**22 14 35.4**	**-1.0**
ASF				pmax	pmax		
	comp=Z,579nm,0.3s						
ASF				MLR	MLR		
	comp=Z,610nm,20.1s						
ASF	**Jabal al Asfar**	**1.61**	**47**	Pg	**Pn**	**22 14 35.4**	**-0.9**
	comp=Z,579nm,0.3s,baz=93,slow=5.2,SNR=62						
ASF				Lg		22 14 55.7	
	comp=Z,561nm,0.3s,baz=22,slow=14,SNR=19						
ASF				LR	LR	22 15 10.7	
	comp=Z,610nm,20.1s,baz=280,slow=41						
OFRI	**‘Ofer**	**1.61**	**344**	Pn	**Pn**	**22 14 36.0**	**-0.4**
OFRI	**‘Ofer**	**1.61**	**344**	Pn	**Pn**	**22 14 36.0**	**-0.4**
OFRI	**‘Ofer**	**1.61**	**344**	⇑Pn	**Pn**	**22 14 36.0**	**-0.4**
GLH	**Golan-Tel Qazi**	**1.64**	**4**	Pn	**Pn**	**22 14 36.3**	**-0.6**
GLH	**Golan-Tel Qazi**	**1.64**	**4**	Pn	**Pn**	**22 14 36.3**	**-0.5**
GLH	**Golan-Tel Qazi**	**1.64**	**4**	Pn	**Pn**	**22 14 36.3**	**-0.6**
HNKL	**Nakhl**	**1.75**	**230**	P	**Pn**	**22 14 38.7**	**+0.4**
HNKL				S	**Sn**	**22 14 59.3**	**-1.4**
HNKL	**Nakhl**	**1.75**	**230**	P	**Pn**	**22 14 38.5**	**+0.2**
HNKL				S	**Sn**	**22 14 59.6**	**-1.1**
HQLS		**1.81**	**193**	P	**Pn**	**22 14 38.4**	**-0.7**
HQLS				S	**Sn**	**22 15 04.0**	**+1.9**
HQLS		**1.81**	**193**	S	**Sn**	**22 15 04.0**	**+1.9**
HQLS		**1.81**	**193**	P	**Pn**	**22 14 38.4**	**-0.7**
MMAI	**Mount Meron Ar**	**1.94**	**357**	Pg	**Pn**	**22 14 40.5**	**-0.5**
	comp=Z,533nm,0.3s,baz=180,slow=15,SNR=29						
MMAI				Lg		22 15 07.5	
	comp=Z,1μm,0.3s,baz=178,slow=25,SNR=17						
HBST	**Basata**	**1.97**	**201**	P	**Pn**	**22 14 41.9**	**+0.6**
AMAG	**Maghara**	**2.04**	**259**	P	**Pn**	**22 14 41.5**	**-0.7**
KSDI	**Kefar Szold**	**2.12**	**3**	Pn	**Pn**	**22 14 42.9**	**-0.5**
KSDI	**Kefar Szold**	**2.12**	**3**	Pn	**Pn**	**22 14 42.9**	**-0.5**
KSDI	**Kefar Szold**	**2.12**	**3**	Pn	**Pn**	**22 14 42.9**	**-0.5**
JLOS		**2.33**	**181**	P	**Pn**	**22 14 46.0**	**-0.3**
MATL	**Matirih**	**2.42**	**356**	*e*Pn	**Pn**	**22 14 48.0**	**+0.5**
MATL	**Matirih**	**2.42**	**356**	*e*Pn	**Pn**	**22 14 48.0**	**+0.5**
MATL	**Matirih**	**2.42**	**356**	*e*Pn	**Pn**	**22 14 48.0**	**+0.5**
RCY	**Rachaya**	**2.42**	**6**	*e*Pn	**Pn**	**22 14 47.7**	**+0.2**
RCY	**Rachaya**	**2.42**	**6**	*e*Pn	**Pn**	**22 14 47.7**	**+0.2**
HDHB	**Dhahab**	**2.47**	**199**	P	**Pn**	**22 14 48.6**	**+0.4**
HDHB	**Dhahab**	**2.47**	**199**	P	**Pn**	**22 14 48.5**	**+0.3**
SUZ		**2.63**	**243**	P	**Pn**	**22 14 50.1**	**-0.3**
SUZ		**2.63**	**243**	P	**Pn**	**22 14 50.3**	**-0.1**
SUZ		**2.63**	**243**	P	**Pn**	**22 14 50.1**	**-0.3**
BEYL	**Beyrouth**	**2.79**	**359**	*e*Pn	**Pn**	**22 14 54.2**	**+1.5**
BHL	**Bhannes**	**2.83**	**2**	*e*Pn	**Pn**	**22 14 56.0**	**+2.8**
BHL				Sn	**Sn**	**22 15 26.4**	**-0.9**
BHL	**Bhannes**	**2.83**	**2**	*e*Pn	**Pn**	**22 14 56.0**	**+2.8**
BHL				Sn	**Sn**	**22 15 26.4**	**-0.9**
RSHS		**2.83**	**193**	P	**Pn**	**22 14 52.2**	**-1.0**
ZNM		**2.85**	**234**	P	**Pn**	**22 14 53.6**	**+0.1**
HRDS	**Abu Rudays**	**3.04**	**220**	P	**Pn**	**22 14 56.6**	**+0.4**
ZAF		**3.13**	**236**	P	**Pn**	**22 14 57.5**	**+0.1**
HHAG	**Hagoal**	**3.16**	**250**	P	**Pn**	**22 14 57.5**	**-0.1**
HHAG				S	**Sn**	**22 15 32.9**	**-2.5**
HHAG	**Hagoal**	**3.16**	**250**	P	**Pn**	**22 14 57.6**	**-0.1**
HHAG				S	**Sn**	**22 15 32.9**	**-2.5**
HWQ	**Hawqa**	**3.22**	**6**	*e*Pn	**Pn**	**22 15 02.0**	**+3.5**
HWQ	**Hawqa**	**3.22**	**6**	*e*Pn	**Pn**	**22 15 02.0**	**+3.5**
TR1		**3.35**	**205**	P	**Pn**	**22 15 00.0**	**-0.3**
TR1		**3.35**	**205**	P	**Pn**	**22 15 00.9**	**+0.6**
TR1		**3.35**	**205**	P	**Pn**	**22 15 00.0**	**-0.3**
SHRM		**3.39**	**201**	P	**Pn**	**22 15 01.6**	**+0.6**
SHRM		**3.39**	**201**	P	**Pn**	**22 15 01.5**	**+0.6**
GLL	**Jalalah**	**3.62**	**247**	P	**Pn**	**22 15 03.5**	**-0.5**
GLL	**Jalalah**	**3.62**	**247**	P	**Pn**	**22 15 03.8**	**-0.2**
GRB	**Gharib**	**3.67**	**221**	P	**Pn**	**22 15 04.1**	**-0.7**
GRB	**Gharib**	**3.67**	**221**	P	**Pn**	**22 15 04.5**	**-0.2**
PHNC	**Paralimni**	**4.12**	**343**	P	**Pn**	**22 15 12.2**	**+1.3**

PHNC				S	Sn	22 16 00.8	+1.7
SZAC	Souni-Zanaja	4.29	330	P	Pn	22 15 13.5	+0.2
	comp=Z,20nm,0.3s						
SZAC				S	Sn	22 16 03.8	+0.4
CSS	Prodhromos	4.29	335	*e*Pn	Pn	22 15 12.9	-0.4
CSS				*e*Sn	Sn	22 16 01.7	-1.8
CSS	Prodhromos	4.29	335	*e*Pn	Pn	22 15 12.9	-0.4
CSS	Prodhromos	4.29	335	P	Pn	22 15 14.1	+0.8
	comp=Z,4.9nm,0.3s						
CSS				*e*Sn	Sn	22 16 01.7	-1.8
CSS				S	Sn	22 16 04.4	+0.9
MAMC	Mammari	4.52	335	P	Pn	22 15 17.4	+0.9
PPCY	Paphos	4.65	326	P	Pn	22 15 18.1	-0.1
ALFC	Alevga	4.76	330	P	Pn	22 15 20.0	+0.3
	comp=Z,9.2nm,0.4s						
ALFC				S	Sn	22 16 15.2	+0.4
AKMC	Akamas	4.77	327	P	Pn	22 15 19.7	-0.1
ERMK	Ermenek	5.96	339	*e*P	Pn	22 15 37.1	+0.8
EMRS	Mersa Alam	6.07	186	P	Pn	22 15 38.9	+1.2
EMRS	Mersa Alam	6.07	186	P	Pn	22 15 38.9	+1.2
	comp=Z,110µm,0.3s						
YOBS		7.27	156	P	Pn	22 15 53.0	-1.2
MARD	Mardin	7.60	34	*i* P	Pn	22 15 58.6	-0.1
MALT	Malatya	7.61	18	*e*Pn	Pn	22 15 58.9	0.0
	comp=Z,81nm,1.1s						
MALT	Malatya	7.61	18	*e*P	Pn	22 15 58.9	0.0
MALT				pmax	pmax		
	comp=Z,81nm,1.1s						
MALT	Malatya	7.61	18	*e*Pn	Pn	22 15 58.9	0.0
	comp=Z,81nm,1.1s						
ELZG	Elazig	7.94	20	*i* P	Pn	22 16 01.1	-2.2
ASYS		8.48	113	P	Pn	22 16 11.6	+0.8
CDAG	Cicekdag	8.59	354	*i* P	Pn	22 16 12.0	-0.3
BRTR	Keskin Array B	8.77	350	Pn	Pn	22 16 12.1	-2.7
BRTR	Keskin Array B	8.77	350	Pn	Pn	22 16 12.1	-2.7
	baz=169,slow=8.2,SNR=3.2						
BNGL	BINGOL	9.12	29	*e*P	Pn	22 16 29.1	+10
HAKT	HAKKARI	9.36	44	*i* P	Pn	22 16 22.5	-0.3
IDI	Anoyia	9.85	298	Pn	Pn	22 16 27.6	-2.0
IDI				Sn	Sn	22 18 10.6	-10
IDI	Anoyia	9.85	298	Pn	Pn	22 16 27.6	-2.0
	comp=Z,3.2nm,0.3s,baz=308,slow=16,SNR=6.1						
IDI				Sn	Sn	22 18 10.6	-10
	comp=Z,2.5nm,0.3s,baz=13,slow=22,SNR=14						
IDI	Anoyia	9.85	298	Pn	Pn	22 16 27.6	-2.0
IDI				Sn	Sn	22 18 10.6	-10
TVAN	Van	9.86	39	*i* P	Pn	22 16 39.8	+10
MIB	Mutribah	10.28	94	*e*P	Pn	22 16 35.4	-0.1
NAY	Al-Naaiem	10.31	97	*e*P	Pn	22 16 38.8	+3.0
GVD	Gavdhos	10.31	294	*e*Pn	Pn	22 16 32.8	-3.2
GVD				*e*Sn	Sn	22 18 24.6	-7.0
QRN	Al-Qurain	11.00	99	*e*P	Pn	22 16 37.2	-8.2
SOC	Sochi	12.93	14	*e*P	Pn	22 17 17.3	+5.7
SOC				pmax	pmax		
	comp=Z,8.0nm,1.6s						
SOC				MLR	MLR		
	comp=Z,246nm,11.0s						
ZEI	Tsey	13.45	27	*e*P	Pn	22 17 22.0	+3.2
KIV	Kislovodsk	14.05	22	*e*Pn	Pn	22 17 29.3	+2.3
	comp=Z,9.8nm,1.1s						
KIV	Kislovodsk	14.05	22	⇑P	Pn	22 17 35.0	+8.0
KIV				S	Sn	22 20 11.0	+8.0
KIV				pmax	pmax		
	comp=Z,12nm,1.2s						
KIV				MLR	MLR		
	comp=Z,100nm,16.0s						
TIRR	Tirgusor	14.49	339	⇑*i*P	Pn	22 17 30.7	-2.3
MLR	Muntele Rosu	16.22	335	Pn	Pn	22 17 55.2	-0.7
MLR	Muntele Rosu	16.22	335	Pn	Pn	22 17 55.2	-0.7
	comp=Z,0.1nm,0.3s,baz=137,slow=15,SNR=2.3						
KIEV	Kiev	20.16	348	*e*P	P	22 18 40.0	-2.3
	comp=Z,18nm,1.4s						
KIEV	Kiev	20.16	348	*e*P	P	22 18 40.0	-2.3
KIEV				pmax	pmax		
	comp=Z,18nm,1.4s						
AKASG	Malin Array Be	20.17	348	P	P	22 18 41.4	-0.9
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKASG	Malin Array Be	20.17	348	P	P	22 18 41.4	-1.0
	comp=Z,0.9nm,0.6s,baz=168,slow=9.4,SNR=7.9						
UZH	Uzhgorod	20.21	334	*e*P	P	22 18 44.0	+1.1
KOLS	Kolonicke sedl	20.47	334	*e*P	P	22 18 47.2	+1.6
KOLS				*e*		22 18 52.6	
KOLS	Kolonicke sedl	20.47	334	*e*PN	P	22 18 47.2	+1.6
KOLS				*e*pPN		22 18 52.6	
LVV	L’vov	20.62	339	*e*P	P	22 18 50.6	+3.3
PSZ	Piszkesteto	20.63	329	*e*P	P	22 18 46.7	-0.7
	comp=Z,30nm,1.1s						
PSZ	Piszkesteto	20.63	329	*e*P	P	22 18 46.7	-0.7
PSZ				pmax	pmax		
	comp=Z,30nm,1.1s						
PSZ	Piszkesteto	20.63	329	*e*P	P	22 18 46.7	-0.7
	comp=Z,30nm,1.1s						
CRVS	Cervenica-Dubn	20.75	333	*e*PN	P	22 18 50.1	+1.4
KECS	Kecovo	20.81	331	*e*P	P	22 18 50.5	+1.1
	comp=Z,4.2nm,1.1s						
KECS				*e*		22 18 55.1	
KECS	Kecovo	20.81	331	*e*P	P	22 18 50.5	+1.1
KECS				*e*		22 18 55.1	
KECS				pmax	pmax		
	comp=Z,4.0nm,1.1s						
KECS	Kecovo	20.81	331	*e*PN	P	22 18 50.5	+1.1
KECS				*e*		22 18 55.1	
KWP	Kalwaria	20.90	336	*e*P	P	22 18 50.1	-0.1
	comp=Z,57nm,1.3s						
KWP	Kalwaria	20.90	336	*e*P	P	22 18 50.1	-0.2
KWP				pmax	pmax		
	comp=Z,57nm,1.3s						
KWP	Kalwaria	20.90	336	*e*P	P	22 18 50.1	-0.2
	comp=Z,57nm,1.3s						
STHS	Stebnicka Huta	21.26	334	*e*P	P	22 18 58.0	+3.9
	comp=Z,3.0nm,0.9s,mb3.6						
STHS	Stebnicka Huta	21.26	334	*e*P	P	22 18 58.0	+3.9
STHS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.6						
STHS	Stebnicka Huta	21.26	334	*e*PN	P	22 18 58.0	+3.9
VYHS	Vyhne	21.54	329	*e*P	P	22 18 58.1	+1.0
	comp=Z,12nm,1.5s,mb4.1						
VYHS				*e*		22 19 03.6	
VYHS	Vyhne	21.54	329	*e*P	P	22 18 58.1	+1.0
VYHS				*e*		22 19 03.6	
VYHS				pmax	pmax		
	comp=Z,13nm,1.5s,mb4.1						
VYHS	Vyhne	21.54	329	*e*PN	P	22 18 58.1	+1.0
VYHS				*e*		22 19 03.6	
NIE	Niedzica	21.62	332	⇓*e*P	P	22 19 04.4	+6.4
ZST	Bratislava	22.13	326	*e*P	P	22 19 06.2	+2.7
	comp=Z,40nm,1.9s,mb4.5						
ZST				*e*		22 19 10.8	
ZST	Bratislava	22.13	326	*e*P	P	22 19 06.2	+2.7
ZST				*e*		22 19 10.8	
ZST				pmax	pmax		
	comp=Z,40nm,1.9s,mb4.5						
ZST	Bratislava	22.13	326	*e*P	P	22 19 06.2	+2.7
ZST				*e*pP		22 19 10.8	
MODS	Modra-Piesok	22.17	326	*e*P	P	22 19 05.8	+1.9
	comp=Z,20nm,1.8s,mb4.2						
MODS				*e*		22 19 12.3	
MODS	Modra-Piesok	22.17	326	*e*P	P	22 19 05.8	+1.9
MODS				*e*		22 19 12.3	
MODS				pmax	pmax		
	comp=Z,20nm,1.8s,mb4.2						
MODS	Modra-Piesok	22.17	326	*e*P	P	22 19 05.8	+1.9
MODS				*e*pP		22 19 12.3	
OJC	Ojcow	22.46	333	*e*P	P	22 19 07.2	+0.2
CONA	Conrad Observa	22.56	324	⇓*i*P	P	22 19 08.3	+0.3
	comp=Z,17nm,1.2s,mb4.4						
CONA				⇑*i*S	S	22 23 15.8	+0.3
OKC	Ostrava-Krasne	22.84	330	*e*P	P	22 19 10.8	-0.2
OKC				*e*pP		22 19 16.6	
MORC	Moravsky Berou	23.06	329	*e*P	P	22 19 12.9	-0.5
	comp=Z,9.9nm,1.2s,mb4.1						
MORC	Moravsky Berou	23.06	329	*e*P	P	22 19 12.9	-0.4
MORC				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.1						
VRAC	Vranov	23.15	327	P	P	22 19 13.3	-1.0
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.5s						
VRAC	Vranov	23.15	327	P	P	22 19 13.3	-1.0
	comp=Z,2.3nm,0.5s,mb3.9,baz=135,slow=7.1,SNR=3.2						
TREC	Trest	23.66	326	*e*P	P	22 19 20.2	+0.7
TREC				*e*pP		22 19 24.9	
DPC	Dobruska-Polom	24.01	329	*e*P	P	22 19 22.9	+0.2
DPC				*e*pP		22 19 28.2	
PGF	Pioggiola	24.03	306	*e*P	P	22 19 25.2	+2.2
	comp=Z,221nm,1.5s,mb5.1						
PGF	Pioggiola	24.03	306	*e*P	P	22 19 25.2	+2.2
	comp=Z,110nm,1.5s,mb5.1						
PGF	Pioggiola	24.03	306	*e*P	P	22 19 25.2	+2.2
PGF				pmax	pmax		
	comp=Z,111nm,1.5s,mb5.1						
OBN	Obninsk	24.04	1	P	P	22 19 28.0	+5.1
OBN				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.2						
GEC2	GERESS Array S	24.25	323	*e*P	P	22 19 24.6	-0.3
GEC2	GERESS Array S	24.25	323	*e*P	P	22 19 24.2	-0.7
GEC2				*e**PP		22 19 30.7	
GEC2				pmax	pmax		
	comp=Z,32nm,1.4s,mb4.6						
GEC2				pmax	pmax		
	comp=Z,32nm,1.4s,mb4.6						
GEC2	GERESS Array S	24.25	323	*e*P	P	22 19 24.2	-0.7
	comp=Z,32nm,1.4s,mb4.6						
GEC2				*e*pP		22 19 30.7	
	comp=Z,32nm,1.4s						
GERES	GERESS Array B	24.25	323	P	P	22 19 24.6	-0.3
GERES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
GERES	GERESS Array B	24.25	323	P	P	22 19 24.6	-0.3
	comp=Z,3.2nm,0.8s,mb3.8,baz=127,slow=8.6,SNR=14						
UPC	Upice	24.26	329	*e*P	P	22 19 25.6	+0.6
UPC				*e*pP		22 19 30.4	
KSP	Ksiaz	24.38	330	*e*P	P	22 19 27.0	+0.9
KSP				*e*pP		22 19 31.9	
KHC	Kasperske Hory	24.49	324	*e*P	P	22 19 26.6	-0.5
KHC				*e*pP		22 19 31.9	
PRU	Pruhonice	24.58	326	*e*P	P	22 19 27.5	-0.4
PRU				*e*		22 19 33.4	
PRU	Pruhonice	24.58	326	*e*P	P	22 19 27.5	-0.4
PRU				*e*pP		22 19 33.4	
FETA	Feichten	24.84	317	⇑*i*P	P	22 19 32.0	+1.7
	comp=Z,6.2nm,1.1s,mb4.0						
FETA				⇓*i*S	S	22 23 44.6	-8.4
WET	Wettzell	24.86	323	*e*P	P	22 19 30.0	-0.5
DAVOX	Davos/Dischmat	25.22	316	P	P	22 19 34.7	+0.9
DAVOX	Davos/Dischmat	25.22	316	P	P	22 19 34.7	+0.9
	comp=Z,3.1nm,0.9s,mb3.9,baz=150,slow=20,SNR=3.0						
BRG	Berggiesshubel	25.46	327	*e*P	P	22 19 36.3	+0.4
BRG				*e*	pP	22 19 40.9	+1.9
BRG				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.1						
BRG				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
BRG	Berggiesshubel	25.46	327	*e*P	P	22 19 35.7	-0.2
	comp=Z,15nm,1.0s,mb4.5						
BRG				*e*pP	pP	22 19 41.0	+2.0
	comp=Z,15nm,1.0s						
BRG	Berggiesshubel	25.46	327	*e*P	P	22 19 36.3	+0.4
	comp=Z,12nm,1.1s,mb4.3						
BRG				*e*	pP	22 19 40.9	+1.9
	comp=Z,15nm,1.0s						
AKTK	Aktyubinsk	25.61	34	P	P	22 19 37.0	-0.2
AKTK				LR	LR	22 31 53.6	
AKTO	Aktyubinsk	25.61	34	P	P	22 19 37.1	-0.1
AKTO				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.4						
AKTO				MLR	MLR		
	comp=Z,102nm,18.1s,MS3.4						
AKTO	Aktyubinsk	25.61	34	P	P	22 19 37.0	-0.2
	comp=Z,11nm,0.8s,mb4.5,baz=233,slow=11,SNR=24						
AKTO				LR	LR	22 31 53.6	
	comp=Z,102nm,18.1s,MS3.4,baz=212,slow=42						
FBE	Freiberg	25.77	327	*e*P	P	22 19 38.9	+0.2
	comp=Z,18nm,1.1s,mb4.5						
FBE				*e*pP	pP	22 19 43.9	+2.1
	comp=Z,18nm,1.1s						
WERN	Wernitzgruen	25.83	325	*e*P	P	22 19 40.1	+0.8
	comp=Z,20nm,1.5s,mb4.4						
WERN				*e*pP	pP	22 19 44.7	+2.3
	comp=Z,20nm,1.5s						
TANN	Tannenbergstha	25.87	325	*e*P	P	22 19 40.3	+0.7
	comp=Z,14nm,1.3s,mb4.3						
TANN				*e*pP	pP	22 19 44.8	+2.1
	comp=Z,14nm,1.3s						
WERD	Werda	25.97	325	*e*P	P	22 19 40.6	+0.1
GRA1	Grafenberg Arr	26.05	323	*e*P	P	22 19 41.8	+0.5
	comp=Z,54nm,1.8s,mb4.8						
GRF	Grafenberg Arr	26.05	323	*e*P	P	22 19 41.8	+0.5
GRF				pmax	pmax		
	comp=Z,54nm,1.8s,mb4.8						
GRF	Grafenberg Arr	26.05	323	*e*P	P	22 19 41.8	+0.5
GRF				pmax	pmax		
	comp=Z,54nm,1.8s,mb4.8						
GRF	Grafenberg Arr	26.05	323	*e*P	P	22 19 41.8	+0.5
	comp=Z,54nm,1.8s,mb4.8						
CLL	Collm	26.19	327	*e*P	P	22 19 42.5	0.0
	comp=Z,22nm,1.2s,mb4.6						
CLL				*e*pP	pP	22 19 47.8	+2.1
	comp=Z,22nm,1.2s						
CLL	Collm	26.19	327	*i* P	P	22 19 42.2	-0.3
	comp=Z,29nm,1.8s,mb4.5						
CLL				*i* pP	pP	22 19 47.8	+2.1
	comp=Z,22nm,1.2s						
MBDF	Montbardon	26.31	309	*e*P	P	22 19 43.5	-0.2
	comp=Z,86nm,1.6s,mb4.7						
MBDF	Montbardon	26.31	309	*e*P	P	22 19 43.5	-0.2
	comp=Z,43nm,1.6s,mb4.7						
MBDF	Montbardon	26.31	309	*e*P	P	22 19 43.5	-0.2
MBDF				pmax	pmax		
	comp=Z,43nm,1.6s,mb4.7						
MOX	Moxa	26.43	325	*e*P	P	22 19 45.6	+0.9
	comp=Z,40nm,1.4s,mb4.8						
MOX	Moxa	26.43	325	*e*P	P	22 19 45.6	+0.9
MOX				pmax	pmax		
	comp=Z,40nm,1.4s,mb4.8						
MOX	Moxa	26.43	325	*e*P	P	22 19 45.5	+0.8
	comp=Z,40nm,1.4s,mb4.8						
MOX				*e*pP	pP	22 19 50.5	+2.7
	comp=Z,40nm,1.4s						
LPG	La Plagne	26.61	311	*e*P	P	22 19 46.8	+0.4
	comp=Z,36nm,1.3s,mb4.4						
LPG	La Plagne	26.61	311	*e*P	P	22 19 46.8	+0.4
	comp=Z,18nm,1.3s,mb4.4						
LPG	La Plagne	26.61	311	*e*P	P	22 19 46.8	+0.4
LPG				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.4						
LPL	La Plagne	26.63	311	*e*P	P	22 19 47.4	+0.8
	comp=Z,26nm,1.2s,mb4.3						
LPL	La Plagne	26.63	311	*e*P	P	22 19 47.4	+0.8
	comp=Z,13nm,1.2s,mb4.3						
LPL	La Plagne	26.63	311	*e*P	P	22 19 47.4	+0.8
LPL				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.3						
RUE	Ruedersdorf	26.65	330	*e*pP	pP	22 19 51.2	+1.4
	comp=Z,38nm,1.2s						
BFO	Black Forest	26.90	318	*e*P	P	22 19 48.7	-0.3
BFO				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.2						
BFO	Black Forest	26.90	318	*e*P	P	22 19 48.6	-0.4
	comp=Z,9.0nm,1.1s,mb4.2						
BFO	Black Forest	26.90	318	*e*P	P	22 19 48.7	-0.3
	comp=Z,6.4nm,0.8s,mb4.2						
ARU	Arti	30.04	26	*e*P	P	22 20 16.1	-0.8
	comp=Z,5.4nm,1.1s,mb4.2						
ARU	Arti	30.04	26	*e*P	P	22 20 15.8	-1.0
FINES	FINESS Array B	31.01	351	P	P	22 20 23.7	-1.7
FINES	FINESS Array B	31.01	351	P	P	22 20 23.7	-1.6
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	31.01	351	P	P	22 20 23.7	-1.6
	comp=Z,0.5nm,0.5s,mb3.6,baz=143,slow=9.5,SNR=3.5						
HFS	Hagfors	32.51	340	P	P	22 20 37.5	-1.1
HFS				pmax	pmax		
	comp=Z,2.0nm,0.7s						
HFS				MLR	MLR		
	comp=Z,93nm,18.2s						
HFS	Hagfors	32.51	340	P	P	22 20 37.5	-1.1
	comp=Z,1.8nm,0.7s,mb4.1,baz=131,slow=15,SNR=2.9						
HFS				LR	LR	22 33 60.0	
	comp=Z,93nm,18.2s,MS3.5,baz=89,slow=37						
MDT	Midelt	33.96	284	LR	LR	22 37 27.0	
	comp=Z,49nm,18.3s,MS3.3,baz=155,slow=41						
NOA	NORSAR Array B	33.98	339	P	P	22 20 48.9	-2.5
NOA				pmax	pmax		
	comp=Z,2.0nm,1.1s						
NOA	NORSAR Array B	33.98	339	P	P	22 20 48.9	-2.5
	comp=Z,2.0nm,1.1s,mb4.0,baz=172,slow=11,SNR=2.8						
TORD	Torodi Ar. Bea	35.86	248	P	P	22 21 07.8	-0.3
	comp=Z,1.5nm,1.1s,mb3.8,baz=67,slow=6.7,SNR=5.1						
TORD				LR	LR	22 38 32.8	
	comp=Z,83nm,18.2s,MS3.5,baz=110,slow=41						
MKAR	Makanchi Array	39.02	53	P	P	22 21 34.6	+0.1
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR				MLR	MLR		
	comp=Z,60nm,20.3s						
MKAR	Makanchi Array	39.02	53	P	P	22 21 34.6	0.0
	comp=Z,1.1nm,0.9s,mb3.6,baz=256,slow=4.9,SNR=9.7						
MKAR				LR	LR	22 40 28.4	
	comp=Z,60nm,20.3s,MS3.4,baz=250,slow=41						
NVS	Novosibirsk	41.16	41	*e*P	P	22 21 52.4	+0.2
ZAL	Zalesovo	41.83	42	P	P	22 21 56.8	-0.9
ZALV	Zalesovo Beam	41.84	42	P	P	22 21 56.8	-1.0
	comp=Z,1.8nm,0.8s,mb3.8,baz=264,slow=8.7,SNR=7.4						
ZALV				LR	LR	22 42 18.6	
	comp=Z,32nm,18.2s,MS3.2,baz=323,slow=40						
ZAK	Zakamensk	52.95	48	*e*P	P	22 23 25.1	+0.7
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.0						
SONM	Songino Array	55.33	51	P	P	22 23 41.6	-0.1
SONM				pmax	pmax		
	comp=Z,2.0nm,1.0s						
SONM				MLR	MLR		
	comp=Z,62nm,21.1s						
SONM	Songino Array	55.33	51	P	P	22 23 41.6	-0.1
	comp=Z,1.6nm,1.0s,mb4.0,baz=292,slow=6.1,SNR=10						
SONM				LR	LR	22 50 21.9	
	comp=Z,62nm,21.1s,MS3.7,baz=293,slow=39						
BOD	Bodaibo	58.30	38	*e*P	P	22 24 01.5	-1.1
BILL	Bilibino	74.62	17	P	P	22 25 47.0	+0.1
YKA	Yellowknife Ar	83.72	347	P	P	22 26 35.7	-1.0
YKA	Yellowknife Ar	83.72	347	P	P	22 26 35.7	-1.0
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	83.72	347	P	P	22 26 35.7	-1.0
	comp=Z,0.5nm,0.8s,mb3.7,baz=28,slow=5.2,SNR=7.1						
JHJ	Hachijo jima 2	84.15	55	LR	LR	23 05 56.1	
	comp=Z,144nm,21.6s,MS4.3,baz=124,slow=37						

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*CSEM **09** 22:15:35.2, 35.83N×27.06E, h10^{km}, MD3.5/3, After ATH*
*NEIC **09** 22:15:35.2, 35.83N×27.06E, h10^{km}, mb3.9/1, MD3.5(ATH), After ATH.*

ATH 09 22:15:35.2, 35.83N×27.06E, h10^{km}, MD3.5/3, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	0.29	164	*e*Pg	Pg	22 15 41.0	-0.1
KARP	Karpathos	0.29	164	*e*PG	Pg	22 15 41.0	-0.1
KARP	Karpathos	0.29	164	*e*Pg	Pg	22 15 41.0	-0.1
NPS	Neapolis	1.31	245	*e*Pg	Pg	22 15 59.5	-0.8
NPS	Neapolis	1.31	245	*e*PG	Pg	22 15 59.5	-0.8
NPS	Neapolis	1.31	245	*e*Pg	Pg	22 15 59.5	-0.8
VAM	Vamos	2.37	261	*e*Pn	Pn	22 16 16.5	+2.4
VAM	Vamos	2.37	261	*e*PN	Pn	22 16 16.5	+2.4
VAM	Vamos	2.37	261	*e*Pn	Pn	22 16 16.5	+2.4

MAN 09 22:19:32, 10.73N×124.95E, h32^{km}, mb4.0, ML2.7, MS2.4, Leyte

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	0.43	4	*e*P	Pb	22 19 42.8	+1.2
PLP				*e*S	Sb	22 19 50.8	+2.7
OCLP	Ormoc	0.46	314	*e*P	Pb	22 19 43.3	+1.3
MSLP	Maasin	0.60	189	*e*P	Pb	22 19 45.3	+1.2

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*IDC **09** 22:28:47.7±1.6, 1.20N×97.07E, h0^{km}, mb4.2/7, mb1 4.2/8, mb1mx3.9/21, mbtmp4.2/8, ML3.2/1, Error ellipse: s-maj=40.4km s-min=25.1km az=44.0*
*BJI **09** 22:28:49.7, 1.15N×97.37E, h29^{km}, mB4.8, mb4.5, Ms3.9, Msz3.6*
*ISCJB **09** 22:28:50.7±1.1, 1.2N±0.1×97.13E±0.08, h33^{km}, mb4.3/18, MS3.6/2, Error ellipse: s-maj=19.9km s-min=11.6km az=178.2*
*NEIC **09** 22:28:52.0±0.8, 1.19N×97.09E, h30^{km}, mb4.2/4, Error ellipse: s-maj=15.5km s-min=9.4km az=175.0*

ISC 09 22:28:52.9±1.1, **1.2N**±0.1×**97.16E**±0.08, **h35^{km}, n26,** σ0^{s}**74**/26, **mb4.3**/18, **MS3.6**/2, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.38	48	Pn	Pn	22 29 28.4	-1.0
PSI	Prapat	2.38	48	Pn	Pn	22 29 28.4	-1.0
	5.6nm,0.3s,baz=187,slow=7.6,SNR=45						
KULM	Kulim	5.36	40	*e*Pn	Pn	22 30 10.3	-0.1
PALK	Pallekele	17.48	291	*e*Pn	Pn	22 32 52.1	-2.0
	68nm,1.7s						
QIZ	Qiongzhong	21.65	34	*e*Pn	P	22 33 40.4	-0.1
	4.3nm,0.8s,mb3.9						
KMI	Kunming	24.39	12	P	P	22 34 08.5	+0.5
KMI				AP		22 34 14.5	
KMI				XP	sP	22 34 19.0	-3.3
KMI				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.1						
KMI				AMB	AMB		
	comp=Z,67nm,6.6s						
KMI				LR	LR		
	comp=N,178nm,16.7s,MS3.8						
KMI				LR	LR		
	comp=E,144nm,12.8s,MS3.8						
KMI				LR	LR		
	comp=Z,226nm,14.1s,MS3.8						
KMI	Kunming	24.39	12	P	P	22 34 08.5	+0.5
	comp=Z,10.0nm,1.2s,mb4.1						
KMI				pP		22 34 14.5	
KMI				sP	sP	22 34 19.0	-3.3
KMI				S	S	22 39 02.3	+37
KMI				sS	sS	22 39 14.0	+32
KMI				LR	LR		
	comp=Z,230nm,14.1s,MS3.8						
GYA	Guiyang	26.73	19	P	P	22 34 29.5	+0.2
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.3						
ODAN	Odare	27.19	341	*e*P	P	22 34 34.2	+0.8
	comp=Z,16nm,0.7s,mb4.6						
TAPN	Taplejung	27.54	342	*e*P	P	22 34 37.3	+0.8
	comp=Z,36nm,0.9s,mb5.0						
KKN	Kakani	28.79	338	*e*P	P	22 34 48.0	+0.3
LSA	Lhasa	28.92	349	*e*P	P	22 34 49.6	+0.8
	comp=Z,3.6nm,0.8s,mb4.2						
GKN	Gorkha	29.23	337	*e*P	P	22 34 51.4	-0.2
	comp=Z,14nm,0.9s,mb4.7						
KOLN	Koldanda	29.45	335	*e*P	P	22 34 54.3	+0.8
	comp=Z,10nm,0.8s,mb4.6						
XAN	Xi’an	34.48	17	P	P	22 35 35.7	-1.9
XAN				AP	pP	22 35 42.0	-5.7
XAN				AMB	AMB		
	comp=Z,6.0nm,1.1s,mb4.4						
GTA	Gaotai	38.11	3	*e*P	P	22 36 08.6	+0.1
GTA				AP	pP	22 36 15.6	-3.2
GTA				XP	sP	22 36 20.1	-2.9
GTA				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.3						
WRA	Warramunga Arr	42.06	122	P	P	22 36 42.2	+0.6
	comp=Z,1.2nm,0.6s,mb3.7,baz=300,slow=9.1,SNR=8.6						
BJI	Beijing	42.36	22	P	P	22 36 44.1	+0.4
BJI				AMB	AMB		
	comp=Z,8.0nm,0.7s,mb4.5						
BJI				LR	LR		
	comp=Z,58nm,19.8s,MS3.5						
KSRS	Korea Array	45.87	35	P	P	22 37 11.8	-0.2
	comp=Z,3.1nm,0.8s,mb4.3,baz=228,slow=9.0,SNR=9.5						
SONM	Songino Array	47.14	8	P	P	22 37 21.8	+0.1
	comp=Z,2.9nm,0.8s,mb4.2,baz=187,slow=9.1,SNR=29						
SONM				PcP	PcP	22 38 53.9	+0.8
	comp=Z,0.4nm,0.5s,baz=185,slow=2.5,SNR=3.6						
MK31	Makanchi Array	47.24	346	*e*P	P	22 37 22.3	-0.2
MKAR	Makanchi Array	47.24	346	P	P	22 37 22.4	0.0
	comp=Z,1.6nm,0.6s,mb4.1,baz=159,slow=9.1,SNR=33						
ZALV	Zalesovo Beam	53.56	351	P	P	22 38 09.9	-0.2
	comp=Z,3.7nm,0.5s,mb4.6,baz=178,slow=6.4,SNR=36						
AKTK	Aktyubinsk	59.22	332	P	P	22 38 51.1	+0.5
AKTO	Aktyubinsk	59.22	332	P	P	22 38 51.1	+0.5
	comp=Z,1.1nm,0.5s,mb4.1,baz=134,slow=1.1,SNR=5.3						
ARCES	ARCESS Array B	82.53	340	P	P	22 41 10.7	-1.1
	comp=Z,4.1nm,1.0s,mb4.4,baz=74,slow=7.0,SNR=3.6						

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*ISCJB **09** 22:45:39.8±1.1, 1.9N±0.1×95.15E±0.08, h41^{km}, mb3.6/6, Error ellipse: s-maj=20.6km s-min=11.7km az=9.5*

*NEIC **09** 22:45:39.7±1.1, 1.79N×94.98E, h30^{km}, Error ellipse: s-maj=27.9km s-min=14.5km az=46.0*
NEIC Felt [II] at Gunungsitoli, Nias.
*IDC **09** 22:45:41.8±1.4, 1.90N×95.16E, h41^{km}±8^{km}, mb3.4/6, mb1 3.6/7, mb1mx3.4/22, mbtmp3.5/7, ML3.3/1, Error ellipse: s-maj=27.5km s-min=14.5km az=15.0*
ISC 09 22:45:42.1±1.1**, 1.9N**±0.1×**95.17E**±0.09**, h43^{km}, h43^{km}**±1.5^{km}**:pP-P, n10, σ0^s.71**/12**, mb3.6**/6**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.86	76	P	Pn	22 46 40.2	+1.2
PSI				S	Sn	22 47 22.6	-0.5
PSI	Prapat	3.86	76	P	Pn	22 46 40.2	+1.2
	2.3nm,0.3s,baz=251,slow=8.2,SNR=18						
PSI				S	Sn	22 47 22.6	-0.5
	3.0nm,0.3s,baz=154,slow=22,SNR=6.5						
WRA	Warramunga Arr	44.12	121	P	P	22 53 46.9	+0.2
	0.2nm,0.7s,mb3.0,baz=301,slow=8.9,SNR=5.8						
MK31	Makanchi Array	46.11	348	eP	P	22 54 02.6	+0.5
MKAR	Makanchi Array	46.11	348	P	P	22 54 02.5	+0.5
	0.6nm,0.6s,mb3.7,baz=164,slow=8.8,SNR=11						
MKAR				pP	pP	22 54 13.4	-0.7
	1.3nm,0.6s,baz=164,slow=8.8,SNR=15						
SONM	Songino Array	46.79	10	P	P	22 54 07.6	+0.3
	0.3nm,0.6s,mb3.4,baz=193,slow=10,SNR=3.5						
SONM				pP	pP	22 54 19.3	-0.1
	1.7nm,0.6s,baz=188,slow=9.7,SNR=16						
MJAR	Matsushiro Arr	52.58	44	P	P	22 54 51.1	-0.5
	0.5nm,0.4s,mb3.8,baz=231,slow=3.8,SNR=3.5						
ZALV	Zalesovo Beam	52.58	352	P	P	22 54 49.9	-1.4
	0.4nm,0.4s,mb3.7,baz=147,slow=12,SNR=2.7						
ZALV				pP	pP	22 55 02.3	-1.3
	1.7nm,0.4s,baz=177,slow=6.9,SNR=9.3						
STKA	Stephens Creek	55.33	131	P	P	22 55 11.3	-0.4
STKA	Stephens Creek	55.33	131	P	P	22 55 11.3	-0.4
	1.2nm,0.6s,mb4.1,baz=279,slow=5.2,SNR=3.9						

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*NEIC **09** 22:54:45.8±0.9, 46.40N×152.39E, h10^{km}, Error ellipse: s-maj=23.5km s-min=17.0km az=138.0*
*ISCJB **09** 22:54:49.8±1.1, 46.8N±0.2×152.4E±0.2, h33^{km}, mb3.7/6, Error ellipse: s-maj=31.9km s-min=7.2km az=137.9*
*JMA **09** 22:54:51.4±0.7, 46.73N×152.45E, h30^{km}, M4.2*
*MOS **09** 22:54:56.3±2.1, 47.49N×152.05E, h65^{km}, mb4.1/2, Error ellipse: s-maj=31.3km s-min=19.1km az=58.4*
*IDC **09** 22:54:59.5±5.3, 46.34N×152.15E, h122^{km}±47^{km}, mb3.3/6, mb1 3.5/7, mb1mx3.2/21, mbtmp3.4/7, Error ellipse: s-maj=39.2km s-min=30.7km az=56.0*
ISC 09 22:54:52.2±1.1**, 46.8N**±0.2×**152.4E**±0.2**, h35^{km}, n26, σ1^s.35**/29**, mb3.7**/6**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YUK	Yuzh-Kuril'sk	5.39	241	PN	Pn	22 56 20.8	+11
YUK				eS	Sn	22 57 22.5	+12
NEM2	Nemuro 2	5.85	236	P	Pn	22 56 14.7	-1.7
NEM2				eS	Sn	22 57 16.5	-5.7
JRA	Rausu	5.89	243	P	Pn	22 56 19.3	+2.4
JNK	Nakash	6.33	242	P	Pn	22 56 23.7	+0.8
JTKR	Abashiri--Toko	6.63	248	P	Pn	22 56 29.3	+2.2
JAK	Akkeshi	6.68	238	P	Pn	22 56 26.5	-1.3
JAK				eS	Sn	22 57 36.3	-6.3
JAR	Ashorobuto	7.06	243	P	Pn	22 56 34.0	+1.0
JAR				eS	Sn	22 57 51.1	-0.9
JOB	Onbets	7.25	240	P	Pn	22 56 35.3	-0.2
JOB				eS	Sn	22 57 51.9	-4.6
PET	Petropavlovsk	7.40	31	ePn	Pn	22 56 38.1	+0.5
	6.6nm,0.9s						
PET	Petropavlovsk	7.40	31	ePN	Pn	22 56 38.1	+0.6
PET				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ASAJ	Asahikawa	7.42	252	PN	Pn	22 56 41.0	+3.2
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	7.42	252	P	Pn	22 56 41.0	+3.2
	comp=Z,1.0nm,0.3s,baz=80,slow=10,SNR=6.6						
JKK2	Kamakawa 2	7.42	250	P	Pn	22 56 40.0	+2.1
JCH	Churui	7.70	240	eS	Sx	22 58 01.7	
JNBK	Urakawa-nobuka	8.26	240	P	Pn	22 56 47.7	-1.7
JNBK				eS	Sx	22 58 13.9	
JANG	Nango	10.20	235	P	Pn	22 57 11.8	-4.1
JANG				eS	Sx	22 58 55.6	
JTH	Tanohata	10.30	232	eS	Sx	22 58 57.5	
MK31	Makanchi Array	46.48	297	eP	P	23 03 14.3	-1.2
MKAR	Makanchi Array	46.48	297	P	P	23 03 14.0	-1.6
	comp=Z,0.2nm,0.5s,mb3.3,baz=71,slow=6.5,SNR=5.7						
FINES	FINESS Array B	63.77	334	P	P	23 05 19.3	-0.7
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	FINESS Array B	63.77	334	P	P	23 05 19.2	-0.8
	comp=Z,1.1nm,0.8s,mb3.9,baz=36,slow=6.0,SNR=4.5						
NOA	NORSAR Array B	68.01	341	P	P	23 05 47.7	+0.4
	comp=Z,0.3nm,0.4s,mb3.6,baz=34,slow=8.7,SNR=2.7						
TXAR	Lajitas Array	77.87	60	P	P	23 06 46.2	0.0
	comp=Z,0.4nm,0.6s,mb3.5,baz=302,slow=3.6,SNR=5.6						
BRTR	Keskin Array B	78.01	316	P	P	23 06 47.2	+0.4
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	78.01	316	P	P	23 06 47.1	+0.3
	comp=Z,0.6nm,0.8s,mb3.6,baz=52,slow=8.0,SNR=4.3						
STKA	Stephens Creek	78.94	189	P	P	23 06 46.1	-5.6
	comp=Z,1.6nm,0.8s,mb4.0,baz=307,slow=5.1,SNR=2.9						

GUC 09 23:41:21.5±0.5**, 32.59S×71.03W, h26^{km}**±5^{km}**, MD3.8, ML2.0, 1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PEL	Peldehue	0.62	153	eP	Pb	23 41 33.5	-0.3
PEL				i S	Sb	23 41 42.7	+0.4
PEL				AML	AML	23 41 43.5	
	comp=E,168nm,0.3s						
CHNG	Los Chungos	0.81	330	eP	Pb	23 41 26.8	-10
CHNG				i S	Sb	23 41 38.0	-9.4
FCH	Farellones	0.96	140	eP	Pn	23 41 39.6	+0.3
FCH				i S	Sb	23 41 53.0	+1.1
TACH	Talagante	1.06	176	⇓iP	Pn	23 41 40.4	-0.3
TACH				i S	Sn	23 41 54.6	0.0
PCH	Pirque	1.12	157	i P	Pn	23 41 41.1	-0.3
PCH				i S	Sn	23 41 56.8	+0.9
SFDO	San Fernando	2.02	180	eP	Pn	23 41 55.3	+1.4

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*IDC **09** 23:46:05.1±1.9, 21.22S×69.50W, h80^{km}±8^{km}, mb3.4/2, mb1 3.6/3, mb1mx3.3/15, mbtmp3.4/3, Error ellipse: s-maj=57.2km s-min=44.8km az=43.0*
*NEIC **09** 23:46:17.5±5.1, 20.28S×69.09W, h161^{km}±30^{km}, mb4.2/1, Error ellipse: s-maj=72.9km s-min=25.2km az=192.0*
ISC 09 23:46:11.3±1.5**, 20.2S**±0.1×**68.8W**±0.1**, h100^{km}, n11, σ0^s.58**/10**, mb3.8**/3**, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	3.92	10	ePn	Pn	23 47 19.7	+10
LPAZ				eSn	Sn	23 47 54.2	-0.1
LPAZ	La Paz	3.92	10	P	Pn	23 47 19.8	+10
	0.9nm,0.3s,baz=192,slow=8.3,SNR=15						
ARE	Arequipa	4.47	325	eP	Pn	23 47 24.0	+7.2
ARE				eS	Sn	23 48 08.0	+0.2
JTS	JuntasAbangare	34.18	331	eP	P	23 52 47.5	+0.3
	2.6nm,0.5s,mb4.3						
TORD	Torodi Ar. Bea	76.84	71	P	P	23 57 53.4	+0.7
TORD				pP	pP	23 58 14.7	-3.8
TORD	Torodi Ar. Bea	76.84	71	P	P	23 57 53.4	+0.7
	0.3nm,0.4s,mb3.4,baz=248,slow=4.4,SNR=4.5						
TORD				pP	pP	23 58 14.7	-3.8
	0.5nm,0.7s,baz=257,slow=5.2,SNR=2.4						
YKA	Yellowknife Ar	89.96	341	P	P	23 58 57.8	-1.1
YKA				pP	pP	23 59 19.6	-5.6
YKA	Yellowknife Ar	89.96	341	P	P	23 58 57.8	-1.1
	0.5nm,0.8s,mb3.7,baz=142,slow=3.6,SNR=9.1						
YKA				pP	pP	23 59 19.6	-5.6
	0.1nm,0.6s,baz=135,slow=4.5,SNR=3.6						
MK31	Makanchi Array	144.51	35	ePKPdf	PKPdf	00 05 35.2	-0.7
MKAR	Makanchi Array	144.51	35	PKPbc	PKPdf	00 05 35.6	-0.3
MKAR				pPKPbc		00 05 57.4	
MKAR	Makanchi Array	144.51	35	PKPbc	PKPdf	00 05 35.6	-0.3
	0.4nm,0.6s,baz=318,slow=3.8,SNR=7.0						
MKAR				pPKPbc		00 05 57.4	
	0.4nm,0.7s,baz=320,slow=3.4,SNR=4.3						

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*CSEM **10** 00:00:17.5±0.1, 36.71N×35.99E, h5^{km}, MD3.4, Error ellipse: s-maj=2.8km s-min=2.2km az=22.0*
*ISCJB **10** 00:00:18.2±0.5, 36.68N±0.04×35.98E±0.03, h5^{km}, Error ellipse: s-maj=5.2km s-min=3.5km az=12.9*
*ISK **10** 00:00:18.0, 36.69N×35.96E, h7^{km}, MD3.2*
*DDA **10** 00:00:20.1, 36.62N×36.05E, h5^{km}±2^{km}, Md3.4*
ISC 10 00:00:18.3±0.6**, 36.69N**±0.04×**36.00E**±0.03**, h0^{km}**±5^{km}**, n28, σ0^s.82**/37**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COBT	Iskenderun	0.27	129	i P	Pg	00 00 23.7	+0.3
COBT				i S	Sg	00 00 26.8	-0.2
CEYT	Ceyhan	0.38	328	PG	Pg	00 00 25.1	-0.4
CEYT				SG	Sg	00 00 31.1	+0.7
CEYT	Ceyhan	0.38	328	ePg	Pg	00 00 25.1	-0.4
CEYT				eSg	Sg	00 00 31.1	+0.7
KRTS	Karatas	0.51	257	PG	Pg	00 00 28.3	+0.2
KRTS	Karatas	0.51	257	ePg	Pg	00 00 28.3	+0.2
HTY	Hatay	0.58	168	PG	Pg	00 00 29.7	+0.3
HTY	Hatay	0.58	168	ePg	Pg	00 00 29.7	+0.3
KOZT	Kozan	0.80	350	ePG	Pg	00 00 33.8	+0.2
KARA	Karaisali	0.94	307	ePG	Pg	00 00 35.5	-0.9
KARA	Karaisali	0.94	307	ePg	Pg	00 00 35.5	-0.9
GAZ	Gaziantep	1.09	63	ePN	Pn	00 00 40.1	-0.6
GAZ				eSN	Sn	00 00 55.6	-0.9
GAZ	Gaziantep	1.09	63	ePn	Pn	00 00 40.1	-0.6
GAZ				eSn	Sn	00 00 55.6	-0.9
MERS	Mersin	1.20	279	ePN	Pn	00 00 40.4	-1.8
MERS	Mersin	1.20	279	ePn	Pn	00 00 40.4	-1.8
GZT	Gaziantep	1.42	62	i P	Pn	00 00 45.0	-0.3
GZT				i S	Sg	00 01 04.4	+0.4
NIG	Nigde	1.80	323	ePN	Pn	00 00 50.1	-0.4
NIG	Nigde	1.80	323	ePn	Pn	00 00 50.1	-0.4
IKL	Isikli	1.92	257	ePN	Pn	00 00 51.6	-0.5
IKL	Isikli	1.92	257	ePn	Pn	00 00 51.6	-0.5
ATAB	Bozova	2.00	66	i P	Pb	00 00 55.9	+0.4
ATAB				i S	Sb	00 01 21.5	+0.7
AVNT	Avonos	2.27	337	i P	Pn	00 00 54.8	-2.2
AVNT				i S	Sn	00 01 26.6	+0.8
URFA	Urfa	2.38	71	ePN	Pn	00 00 58.5	0.0
URFA	Urfa	2.38	71	ePn	Pn	00 00 58.5	0.0
ERMK	Ermenek	2.48	270	i P	Pn	00 01 01.1	+1.2
ERMK				i S	Sn	00 01 32.3	+1.5
MALT	Malatya	2.52	49	ePN	Pn	00 01 01.1	+0.6
MALT	Malatya	2.52	49	ePn	Pn	00 01 01.1	+0.6
MYA	Malataya	2.53	49	ePN	Pn	00 01 00.9	+0.3
MYA	Malataya	2.53	49	ePn	Pn	00 01 00.9	+0.3

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*CSEM **10** 00:08:50.9±0.4, 37.72N×43.95E, h8^{km}, MD3.2, Error ellipse: s-maj=11.5km s-min=2.9km az=103.0*
*ISK **10** 00:08:51.9, 37.72N×43.88E, h10^{km}, MD3.0*
*DDA **10** 00:08:54.9, 37.67N×43.67E, h7^{km}±4^{km}, Md3.2*
ISC 10 00:08:50.0±2.5**, 37.63N**±0.06×**44.1E**±0.1**, h1^{km}**±13^{km}**, n13, σ1^s.00**/20**, Turkey-Iran border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HKR	Hakkari	0.29	259	i PG	Pg	00 08 56.4	+0.9
HKR				i SG	Sg	00 08 58.8	-0.5
HKR	Hakkari	0.29	259	i Pg	Pg	00 08 56.4	+0.9
HKR				i Sg	Sg	00 08 58.8	-0.5
HAKT	HAKKARI	0.32	256	i P	Pg	00 08 56.9	+0.7
HAKT				i S	Sg	00 08 59.6	-0.7
VANT	Van	0.98	325	PG	Pg	00 09 09.5	+0.6
TVAN	Van	1.05	329	i P	Pg	00 09 10.3	+0.3
TVAN				i S	Sg	00 09 24.1	+0.4
VANB	Van	1.11	330	PG	Pg	00 09 10.2	-1.1
VANB				SG	Sg	00 09 24.4	-1.3
VANB	Van	1.11	330	ePg	Pg	00 09 10.2	-1.1
VANB				eSg	Sg	00 09 24.4	-1.3
SIRT	Sirnak	1.33	265	ePN	Pn	00 09 15.0	-0.6
SIRT	Sirnak	1.33	265	ePn	Pn	00 09 15.0	-0.6
TUTA	Tutak	2.03	331	i P	Pg	00 09 27.9	-1.1
TUTA				i S	Sg	00 09 57.9	+2.6
AGRB	Hanur-Agry	2.12	336	ePN	Pn	00 09 25.9	-0.7
AGRB	Hanur-Agry	2.12	336	ePn	Pn	00 09 25.9	-0.7
BTMT	Batman	2.14	286	ePN	Pn	00 09 28.2	+1.4

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*IDC **10** 00:10:08.7±0.7, 1.19N×97.07E, h0^{km}, mb4.3/15, mb1 4.4/16, mb1mx4.3/21, mbtmp4.3/16, ML3.8/1, MS4.1/6, Ms1 4.1/6, ms1mx3.7/27, Error ellipse: s-maj=22.7km s-min=15.2km az=58.0*
*MOS **10** 00:10:11.7±1.1, 1.23N×97.10E, h33^{km}, mb5.0/19, MS4.8/4, Error ellipse: s-maj=14.8km s-min=7.1km az=86.9*
*BJI **10** 00:10:11.3, 1.09N×97.33E, h35^{km}, mB4.9, mb4.8, Ms4.8, Msz4.7*
*ISCJB **10** 00:10:13.0±1.0, 1.20N±0.05×97.22E±0.05, h44^{km}±8^{km}, mb4.7/56, MS4.5/21, Error ellipse: s-maj=11.1km s-min=6.5km az=136.0*
*NEIC **10** 00:10:13.0±0.4, 1.18N×97.22E, h30^{km}, mb4.7/13, MS4.0/1, Error ellipse: s-maj=9.5km s-min=7.3km az=52.0*
NEIC Felt [II] at Gunungsitoli.
ISC 10 00:10:14.8±0.9**, 1.18N**±0.05×**97.20E**±0.05**, h42^{km}**±7^{km}**, h28^{km}**±4.9^{km}**:pP-P, n127, σ0^s.95**/130**, mb4.7**/56**, MS4.5**/21**, 23C-8D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.35	47	Pn	Pn	00 10 49.7	-1.3
PSI	Prapat	2.35	47	Pn	Pn	00 10 49.7	-1.3
	22nm,0.3s,baz=254,slow=6.6,SNR=95						
PPI	Padang Panjang	3.59	117	P	Pn	00 11 07.9	-0.1
	250nm,0.8s						
BSI	Banda Aceh	4.69	336	P	Pn	00 11 21.6	-1.5
	68nm,1.2s						
FRIM	Kepong	4.87	65	⇑P	Pn	00 11 25.9	+0.3
IPM	Ipoh	5.03	49	⇓P	Pn	00 11 27.9	+0.1
KULM	Kulim	5.34	40	⇑iPn	Pn	00 11 31.0	-1.0
KULM	Kulim	5.34	40	⇑P	Pn	00 11 31.2	-0.9
KGM	Kluang	6.17	82	⇑P	Pn	00 11 44.0	+0.5
MYKOM	Kota Tinggi	6.67	85	⇑P	Pn	00 11 50.8	+0.4
KTGM	Kuala Trenggan	7.21	55	⇓P	Pn	00 11 57.7	0.0
KLI	Kotabumi	9.72	128	P	Pn	00 12 32.6	+0.4
	268nm,0.4s						
KSM	Kuching	13.11	89	⇑P	Pn	00 13 18.5	-0.1
SBUM	Sibu	15.06	85	⇓P	Pn	00 13 45.2	+0.3
BTM	Bintulu	15.99	83	⇓P	Pn	00 13 56.9	-0.1
KKTK	Khon Kaen	16.04	20	P	Pn	00 14 00.0	+2.4
CHG	Chiang Mai	17.60	5	⇓P	Pn	00 14 17.2	+0.1
	17nm,0.9s						
CHTO	Chiang Mai	17.60	5	ePn	Pn	00 14 14.1	-3.0
	4.6nm,0.6s						
CHTO	Chiang Mai	17.60	5	eP	Pn	00 14 14.1	-3.0
CHTO				pmax	pmax		
	comp=Z,5.0nm,0.6s						
NANT	Nan	17.84	11	⇑P	Pn	00 14 20.5	+0.5
	comp=Z,188nm,1.0s						
KKM	Kota Kinabalu	19.57	75	eP	Pn	00 14 37.1	-3.9
KDM	Kudat	20.39	73	⇑P	P	00 14 49.3	+1.1
SDKM	Sandakan	20.44	77	⇓P	P	00 14 49.7	+0.9
TSM	Tawau	20.87	81	⇑P	P	00 14 53.9	+0.4
MYLDM	Lahad Datu	21.63	79	⇓P	P	00 15 02.7	+1.1
QIZ	Qiongzhong	21.64	34	⇑P	P	00 15 00.6	-1.0
QIZ				XP	sP	00 15 11.9	-5.6
QIZ				S	S	00 18 59.4	+0.4
QIZ				XS	sS	00 19 10.2	-5.7
QIZ				AMB	AMB		
	comp=Z,20nm,1.7s,mb4.3						
QIZ				LR	LR		
	comp=N,767nm,14.0s,MS4.5						
QIZ				LR	LR		
	comp=E,996nm,14.5s,MS4.5						
QIZ				LR	LR		
	comp=Z,1µm,12.5s,MS4.4						
QIZ	Qiongzhong	21.64	34	eP	P	00 15 01.0	-0.6
	comp=Z,12nm,0.9s,mb4.3						
KMI	Kunming	24.39	12	⇑P	P	00 15 30.2	+0.9
KMI				AP		00 15 36.6	
KMI				XP	sP	00 15 39.6	-6.1
KMI				PP		00 16 01.2	
KMI				S	S	00 19 40.6	-5.6
KMI				AMB	AMB		
	comp=Z,61nm,1.3s,mb4.9						
KMI				AMB	AMB		
	comp=Z,369nm,3.2s						
KMI				LR	LR		
	comp=N,2µm,16.1s,MS4.7						
KMI				LR	LR		
	comp=E,694nm,19.5s,MS4.7						
KMI				LR	LR		
	comp=Z,2µm,14.5s,MS4.8						
KMI	Kunming	24.39	12	⇑P	P	00 15 30.2	+0.9
	comp=Z,61nm,1.3s,mb4.9						
KMI				pP		00 15 36.6	
KMI				sP	sP	00 15 39.6	-6.1
KMI				PP		00 16 01.2	
KMI				PPP		00 16 11.6	
KMI				S	S	00 19 40.6	-5.6
KMI				sS	sS	00 19 50.9	-14
KMI				SS		00 20 25.6	
KMI				LR	LR		
	comp=Z,2µm,14.5s,MS4.8						
KMI	Kunming	24.39	12	⇑P	P	00 15 30.2	+0.9
KMI				*SP	sP	00 15 39.6	-6.1
KMI						00 16 01.2	
KMI				PPP		00 16 11.6	
KMI				S	S	00 19 40.6	-5.6
KMI				*SS	sS	00 19 50.9	-14
KMI				pmax	pmax		
	comp=Z,61nm,1.3s,mb4.9						
KMI				MLR	MLR		
	comp=Z,2µm,14.5s,MS4.8						
HYB	Hyderabad	24.42	312	eP	P	00 15 37.5	+7.9
HYB	Hyderabad	24.42	312	i P	P	00 15 33.0	+3.4
GYA	Guiyang	26.73	19	⇑iP	P	00 15 49.8	-0.6
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.4						
GYA				AMB	AMB		
	comp=Z,100nm,4.0s						
GYA				LR	LR		
	comp=N,1µm,13.4s,MS4.6						
GYA				LR	LR		
	comp=E,680nm,13.8s,MS4.6						
GYA				LR	LR		
	comp=Z,2µm,13.8s,MS4.7						
ODAN	Odare	27.21	341	eP	P	00 15 55.5	+0.7
	comp=Z,63nm,0.9s,mb5.1						
TAPN	Taplejung	27.56	342	eP	P	00 15 59.0	+1.1
	comp=Z,93nm,0.9s,mb5.4						
PKI	Pulchoki	28.57	338	eP	P	00 16 07.7	+0.8
GUN	Gumba	28.70	339	eP	P	00 16 08.9	+0.8
	comp=Z,38nm,0.6s,mb5.3						
DMN	Daman	28.72	337	eP	P	00 16 09.2	+1.0
	comp=Z,24nm,0.7s,mb5.0						
KKN	Kakani	28.82	338	eP	P	00 16 09.5	+0.4
	comp=Z,34nm,0.9s,mb5.1						
LSA	Lhasa	28.94	349	P	P	00 16 12.0	+1.9
LSA	Lhasa	28.94	349	eP	P	00 16 11.2	+1.1
	comp=Z,8.1nm,0.8s,mb4.5						
LSA	Lhasa	28.94	349	eP	P	00 16 11.2	+1.1
LSA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
GKN	Gorkha	29.25	337	eP	P	00 16 13.5	+0.5
	comp=Z,50nm,1.0s,mb5.2						
KOLN	Koldanda	29.47	335	eP	P	00 16 15.8	+0.9
	comp=Z,37nm,0.7s,mb5.2						
NACB	Ninganchiao	32.86	44	P	P	00 16 44.3	-0.5
FITZ	Fitzroy Crossi	33.92	126	eP	P	00 16 53.9	-0.2
	comp=Z,5.7nm,0.8s,mb4.5						
FITZ	Fitzroy Crossi	33.92	126	P	P	00 16 53.3	-0.8
	comp=Z,3.1nm,0.8s,mb4.3,baz=310,slow=16,SNR=6.3						
XAN	Xi'an	34.48	17	P	P	00 16 57.8	-0.9
XAN				AMB	AMB		
	comp=Z,19nm,1.3s,mb4.9						
XAN				AMB	AMB		
	comp=Z,75nm,10.8s						
XAN				LR	LR		
	comp=N,447nm,16.1s,MS4.5						
XAN				LR	LR		
	comp=E,603nm,17.3s,MS4.5						
XAN				LR	LR		
	comp=Z,1µm,17.3s,MS4.7						
LZH	Lanzhou	35.27	9	⇑P	P	00 17 04.8	-0.8
LZH				PP	PP	00 18 25.2	-1.0
LZH				eS	S	00 22 38.0	+1.5
LZH				SS	SS	00 24 56.3	-15
LZH				AMB	AMB		
	comp=Z,29nm,1.3s,mb5.0						
LZH				AMB	AMB		
	comp=Z,142nm,5.1s						
LZH				LR	LR		
	comp=E,1µm,14.5s						
LZH				LR	LR		
	comp=Z,5µm,17.9s,MS5.3						
LZH	Lanzhou	35.27	9	⇑P	P	00 17 04.8	-0.8
	comp=Z,29nm,1.3s,mb5.0						
LZH				pP	pP	00 17 09.4	-7.8
LZH				sP	sP	00 17 12.0	-10
LZH				PP	PP	00 18 25.2	-1.0
LZH				eS	S	00 22 38.0	+1.5
LZH				sS	sS	00 22 45.6	-10
LZH				SS	SS	00 24 56.3	-15
LZH				LR	LR		
	comp=Z,4µm,17.9s,MS5.3						
LZH	Lanzhou	35.27	9	⇑P	P	00 17 04.8	-0.8
LZH				*SP	sP	00 17 12.0	-10
LZH						00 18 25.2	
LZH				eS	S	00 22 38.0	+1.5
LZH				SS	SS	00 24 56.3	-15
LZH				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.0						
LZH				MLR	MLR		
	comp=Z,4µm,17.9s,MS5.3						
NJ2	Nanjing	36.88	31	eP	P	00 17 20.0	+0.6
NJ2				AP	pP	00 17 29.7	-1.3
NJ2				XP	sP	00 17 33.8	-2.3
NJ2				PP	PP	00 18 49.0	+5.0
NJ2				S	S	00 23 06.0	+4.8
NJ2				XS	sS	00 23 22.0	+1.3
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,120nm,5.1s						
NJ2				LR	LR		
	comp=N,1µm,23.4s,MS4.8						
NJ2				LR	LR		
	comp=E,1µm,20.8s,MS4.8						
NJ2				LR	LR		
	comp=Z,1µm,20.8s,MS4.7						
SSE	Sheshan	37.42	35	eP	P	00 17 24.8	+0.8
SSE				AP	pP	00 17 34.8	-0.9
SSE				XP	sP	00 17 38.8	-2.0
SSE				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,97nm,5.8s						
SSE				LR	LR		
	comp=N,484nm,15.6s,MS4.5						
SSE				LR	LR		
	comp=E,393nm,15.5s,MS4.5						
SSE				LR	LR		
	comp=Z,649nm,15.2s,MS4.5						
SSE	Sheshan	37.42	35	eP	P	00 17 24.8	+0.8
	comp=Z,25nm,0.7s,mb5.2						
SSE				pP	pP	00 17 34.8	-0.9
SSE				sP	sP	00 17 38.8	-2.0
SSE				S	S	00 23 18.4	+8.8
SSE				sS	sS	00 23 33.6	+4.5
SSE				ScS	ScS	00 27 36.8	+2.3
SSE				LR	LR		
	comp=Z,650nm,15.2s,MS4.5						
KAKA	Kakadu	37.59	113	eP	P	00 17 24.6	-1.1
	comp=Z,21nm,1.2s,mb4.8						
KAKA	Kakadu	37.59	113	eP	P	00 17 24.3	-1.4
GTA	Gaotai	38.12	3	eP	P	00 17 29.4	-0.4
GTA				AP	pP	00 17 37.0	-4.5
GTA				XP	sP	00 17 41.9	-4.6
GTA				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.7						
GTA				AMB	AMB		
	comp=Z,78nm,7.6s						
GTA				LR	LR		
	comp=N,448nm,13.7s,MS4.5						
GTA				LR	LR		
	comp=E,354nm,15.6s,MS4.5						
GTA				LR	LR		
	comp=Z,485nm,15.6s,MS4.4						
WRA	Warramunga Arr	42.02	122	P	P	00 18 02.5	+0.1
	comp=Z,5.2nm,0.6s,mb4.3,baz=301,slow=9.1,SNR=52						
WRA				LR	LR	00 39 10.4	
	comp=Z,284nm,19.1s,MS4.2,baz=325,slow=41						

WB2	**Warramunga Arr**	**42.03**	**122**	*e*P	**P**	**00 18 02.4**	**-0.2**
BJT	**Baijiatuau**	**42.33**	**22**	*e*P	**P**	**00 18 04.2**	**-0.4**
	comp=Z,15nm,0.8s,mb4.7						
BJT	**Baijiatuau**	**42.33**	**22**	*e*P	**P**	**00 18 04.2**	**-0.4**
BJT				pmax	pmax		
	comp=Z,15nm,0.8s						
BJI	**Beijing**	**42.35**	**22**	P	**P**	**00 18 05.0**	**+0.2**
BJI				AMB	AMB		
	comp=Z,19nm,0.8s,mb4.8						
BJI				LR	LR		
	comp=N,293nm,14.5s,MS4.5						
BJI				LR	LR		
	comp=E,393nm,18.1s,MS4.5						
BJI				LR	LR		
	comp=Z,205nm,20.6s,MS4.0						
FORT	**Forrest**	**43.26**	**140**	*e*P	pP	00 18 21.9	-2.3
	comp=Z,18nm,0.7s						
WMQ	**Urumqi**	**43.29**	**350**	P	**P**	**00 18 13.0**	**+0.7**
WMQ				AP	pP	00 18 22.0	-2.2
WMQ				XP	sP	00 18 26.0	-3.2
WMQ				PP	PP	00 19 58.3	+4.7
WMQ				S	**S**	**00 24 46.5**	**+10**
WMQ				SCS	ScS	00 28 05.5	-3.4
WMQ				AMB	AMB		
	comp=Z,21nm,1.0s,mb4.8						
WMQ				AMB	AMB		
	comp=Z,37nm,7.3s						
WMQ				LR	LR		
	comp=N,196nm,20.9s,MS4.3						
WMQ				LR	LR		
	comp=E,314nm,21.6s,MS4.3						
WMQ				LR	LR		
	comp=Z,202nm,24.0s,MS3.9						
UCH	**Uchtor**	**45.66**	**336**	P	**P**	**00 18 32.7**	**+1.3**
	SNR=8.9						
UCH	**Uchtor**	**45.66**	**336**	*e*P	**P**	**00 18 32.3**	**+1.0**
	comp=Z,218nm,0.6s						
TKM2	**Tokmak 2**	**45.83**	**338**	P	**P**	**00 18 33.6**	**+0.9**
	SNR=5.7						
TKM2	**Tokmak 2**	**45.83**	**338**	*e*P	**P**	**00 18 33.1**	**+0.4**
	comp=Z,11nm,1.1s,mb4.7						
TKM2	**Tokmak 2**	**45.83**	**338**	*e*P	**P**	**00 18 33.1**	**+0.4**
TKM2				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
KBK	**Karagaybulak**	**45.86**	**337**	P	**P**	**00 18 34.2**	**+1.4**
	SNR=7.2						
KSRS	**Korea Array**	**45.86**	**35**	P	**P**	**00 18 32.8**	**-0.2**
KSRS				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
KSRS	**Korea Array**	**45.86**	**35**	P	**P**	**00 18 32.8**	**-0.2**
	comp=Z,14nm,0.8s,mb4.9,baz=222,slow=9.2,SNR=33						
AML	**Almayashu**	**45.92**	**336**	*e*P	**P**	**00 18 34.7**	**+1.4**
	comp=Z,170nm,0.8s						
AAK	**Ala-Archa**	**46.01**	**337**	*e*P	**P**	**00 18 34.3**	**+0.2**
	comp=Z,19nm,1.6s,mb4.8						
AAK	**Ala-Archa**	**46.01**	**337**	*i* P	**P**	**00 18 33.8**	**-0.3**
AAK				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
EKS2	**Erkin-Say**	**46.33**	**336**	P	**P**	**00 18 37.8**	**+1.3**
	SNR=6.9						
EKS2	**Erkin-Say**	**46.33**	**336**	*e*P	**P**	**00 18 37.3**	**+0.8**
	comp=Z,4.0nm,0.7s,mb4.5						
USP	**Ospenovka**	**46.55**	**337**	P	**P**	**00 18 39.0**	**+0.7**
	SNR=12						
SNY	**Shenyang**	**46.92**	**27**	⇑P	**P**	**00 18 40.0**	**-1.2**
SNY				AMB	AMB		
	comp=Z,13nm,1.5s,mb4.6						
SNY				AMB	AMB		
	comp=Z,95nm,12.0s						
SNY				LR	LR		
	comp=N,414nm,18.0s,MS4.6						
SNY				LR	LR		
	comp=E,429nm,14.4s,MS4.6						
SNY				LR	LR		
	comp=Z,609nm,15.0s,MS4.7						
SONM	**Songino Array**	**47.15**	**8**	P	**P**	**00 18 43.4**	**+0.6**
	comp=Z,5.1nm,0.9s,mb4.5,baz=189,slow=8.8,SNR=50						
SONM				PcP	PcP	00 20 14.3	+0.3
	comp=Z,1.0nm,0.5s,baz=185,slow=4.1,SNR=5.3						
MK31	**Makanchi Array**	**47.26**	**346**	⇑*i*P	**P**	**00 18 43.7**	**0.0**
MKAR	**Makanchi Array**	**47.26**	**346**	P	**P**	**00 18 43.9**	**+0.1**
	comp=Z,4.9nm,0.5s,mb4.7,baz=161,slow=8.9,SNR=90						
MKAR				LR	LR	00 42 33.3	
	comp=Z,182nm,21.6s,MS4.0,baz=159,slow=41						
ZAK	**Zakamensk**	**49.29**	**5**	*e*P	**P**	**00 18 58.6**	**-0.8**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.9s,mb4.0						
CN2	**Changchun**	**49.32**	**27**	*e*P	**P**	**00 18 59.2**	**-0.5**
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.2						
CN2				LR	LR		
	comp=N,600nm,13.0s,MS4.8						
CN2				LR	LR		
	comp=E,300nm,13.0s,MS4.8						
CN2				LR	LR		
	comp=Z,700nm,16.0s,MS4.8						
TLY	**Talaya**	**50.61**	**5**	*e*P	**P**	**00 19 10.0**	**+0.6**
TLY				*e*S	**S**	**00 26 30.2**	**+9.3**
TLY				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
TLY				MLR	MLR		
	comp=Z,507nm,19.0s,MS4.6						
IRK	**Irkutsk**	**51.22**	**6**	*e*P	**P**	**00 19 14.1**	**+0.1**
IRK				pmax	pmax		
	comp=Z,24nm,2.3s,mb4.7						
MJAR	**Matsushiro Arr**	**51.70**	**42**	P	**P**	**00 19 18.8**	**+1.0**
	comp=Z,2.2nm,0.8s,mb4.2,baz=225,slow=6.4,SNR=6.6						
KURK	**Kurchatov**	**51.81**	**345**	*e*P	**P**	**00 19 17.6**	**-0.8**
	comp=Z,12nm,1.1s,mb4.8						
KURK	**Kurchatov**	**51.81**	**345**	*e*P	**P**	**00 19 17.6**	**-0.8**
KURK				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
CTA	**Charters Tower**	**52.49**	**117**	LR	LR	00 46 00.1	
	comp=Z,350nm,18.7s,MS4.4,baz=48,slow=41						
STKA	**Stephens Creek**	**53.34**	**132**	*e*P	**P**	**00 19 31.3**	**+1.2**
	comp=Z,3.7nm,0.7s,mb4.4						
STKA	**Stephens Creek**	**53.34**	**132**	*e*P	**P**	**00 19 29.7**	**-0.4**
STKA	**Stephens Creek**	**53.34**	**132**	P	**P**	**00 19 31.7**	**+1.6**
	comp=Z,4.8nm,0.7s,mb4.5,baz=288,slow=8.1,SNR=10						
ZAL	**Zalesovo**	**53.57**	**351**	P	**P**	**00 19 31.3**	**0.0**
ZALV	**Zalesovo Beam**	**53.57**	**351**	P	**P**	**00 19 31.2**	**-0.1**
	comp=Z,12nm,0.7s,mb4.9,baz=179,slow=6.3,SNR=86						
ZALV				LR	LR	00 47 24.6	
	comp=Z,106nm,18.5s,MS3.9,baz=174,slow=42						
NVS	**Novosibirsk**	**54.69**	**350**	*e*P	**P**	**00 19 38.4**	**-1.1**
NVS				*e*		00 19 54.6	
NVS				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
NVS				pmax	pmax		
	comp=N,13nm,1.6s						
KLR	**Kul'dur**	**56.27**	**27**	*e*P	**P**	**00 19 47.8**	**-3.1**
KLR				pmax	pmax		
	comp=N,35nm,1.8s						
KLR				pmax	pmax		
	comp=Z,50nm,1.8s,mb5.2						
BRVK	**Borovoye**	**56.33**	**341**	*e*P	**P**	**00 19 50.1**	**-1.1**
	comp=Z,3.1nm,0.6s,mb4.5						
BRVK	**Borovoye**	**56.33**	**341**	*e*P	**P**	**00 19 50.2**	**-1.1**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
HABR	**Khabarovsk**	**57.27**	**29**	*e*P	**P**	**00 19 56.2**	**-1.9**
HABR				*e*		00 20 48.3	
HABR				*e*		00 22 05.1	
HABR				*e*S	**S**	**00 27 55.1**	**+4.0**
HABR				*e*		00 29 43.9	
HABR				*e*SS	SS	00 31 48.1	+7.2
HABR				pmax	pmax		
	comp=Z,49nm,1.7s,mb5.3						
BOD	**Bodaibo**	**58.02**	**11**	*e*P	**P**	**00 20 02.0**	**-1.2**
BOD				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
KMBO	**Kilima Mbogo**	**59.99**	**268**	LR	LR	00 41 33.1	
	comp=Z,139nm,18.1s,MS4.1,baz=98,slow=32						
YSS	**Yuzh-Sakhalins**	**60.36**	**34**	⇓*e*P	**P**	**00 20 20.2**	**+0.6**
YSS				*e*		00 20 27.3	
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
YSS				MLR	MLR		
	comp=Z,400nm,15.0s,MS4.7						
YSS				MLR	MLR		
	comp=E,300nm,14.0s						
ZEI	**Tsey**	**63.01**	**319**	*e*P	**P**	**00 20 43.1**	**+5.6**
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
ARU	**Arti**	**63.20**	**337**	⇑*i*P	**P**	**00 20 37.5**	**-1.0**
ARU				*e*		00 21 14.5	
ARU				*e*		00 22 56.3	
ARU				*e*PPP		00 24 26.2	
ARU				*e*S	**S**	**00 29 11.0**	**+4.2**
ARU				*e*SS	SS	00 33 18.0	+4.4
ARU				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.5						
KIV	**Kislovodsk**	**64.32**	**319**	⇑*e*P	**P**	**00 20 43.6**	**-2.5**
KIV				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
YAK	**Yakutsk**	**65.43**	**16**	*e*P	**P**	**00 20 50.3**	**-2.7**
YAK				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.2						
YAK				pmax	pmax		
	comp=N,10.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
YAK				pmax	pmax		
	comp=N,4.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.1s						
BRTR	**Keskin Array B**	**69.12**	**312**	P	**P**	**00 21 16.8**	**-0.1**
	comp=E,0.7nm,0.7s,mb3.7,baz=77,slow=7.7,SNR=6.1						
MA2	**Magadan**	**71.34**	**26**	*e*P	**P**	**00 21 29.6**	**-0.4**
MA2				*e*S	S	00 30 47.9	+3.2
MA2				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
MA2				MLR	MLR		
	comp=Z,400nm,23.0s,MS4.6						
PRGR	**Permogore**	**71.65**	**337**	*e*P	**P**	**00 21 30.8**	**-1.0**
MAW	**Mawson**	**72.70**	**193**	P	**P**	**00 21 38.7**	**+0.7**
	comp=Z,6.8nm,0.8s,mb4.6,baz=315,slow=20,SNR=3.2						
TIXI	**Tiksi**	**73.20**	**10**	*e*P	**P**	**00 21 39.8**	**-1.1**
	comp=Z,1µm,0.7s						
TIXI	**Tiksi**	**73.20**	**10**	⇑*e*P	**P**	**00 21 39.1**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,18nm,2.9s,mb4.5						
SEY	**Seymchan**	**73.78**	**23**	⇑*e*P	**P**	**00 21 43.9**	**-0.5**
BOSA	**Boshof**	**74.77**	**240**	LR	LR	00 50 08.0	
	comp=Z,143nm,18.7s,MS4.3,baz=140,slow=32						
AKASG	**Malin Array Be**	**75.27**	**322**	P	**P**	**00 21 51.4**	**-1.9**
AKASG	**Malin Array Be**	**75.27**	**322**	P	**P**	**00 21 51.4**	**-1.9**
	comp=Z,1.4nm,0.8s,mb4.0,baz=92,slow=4.6,SNR=5.2						
FINES	**FINESS Array B**	**80.01**	**333**	P	**P**	**00 22 18.6**	**-1.0**
	comp=Z,1.2nm,0.8s,mb3.9,baz=179,slow=5.6,SNR=3.8						
ARCES	**ARCESS Array B**	**82.55**	**340**	P	**P**	**00 22 33.2**	**+0.3**
	comp=Z,5.0nm,0.9s,mb4.5,baz=323,slow=9.8,SNR=2.9						
GERES	**GERESS Array B**	**84.83**	**319**	P	**P**	**00 22 46.0**	**+1.0**
	comp=Z,0.8nm,0.8s,mb3.9,baz=94,slow=4.1,SNR=6.9						
NOA	**NORSAR Array B**	**87.02**	**331**	P	**P**	**00 22 55.1**	**-0.4**
	comp=Z,1.0nm,0.8s,mb4.1,baz=90,slow=5.7,SNR=3.7						
PDAR	**Pinedale Array**	**130.05**	**26**	PKP	PKPdf	00 29 21.6	+1.2
PDAR	**Pinedale Array**	**130.05**	**26**	PKP	PKPdf	00 29 21.6	+1.2
	comp=Z,0.2nm,0.3s,baz=93,slow=5.4,SNR=4.1						
TXAR	**Lajitas Array**	**143.68**	**32**	PKP	PKPdf	00 29 44.1	-1.8
TXAR	**Lajitas Array**	**143.68**	**32**	PKIKP	PKPdf	00 29 44.2	-1.7
TXAR	**Lajitas Array**	**143.68**	**32**	PKP	PKPdf	00 29 44.1	-1.8
	comp=Z,0.6nm,0.7s,baz=165,slow=2.1,SNR=4.0						
LRAL	**Lakeview Retre**	**145.74**	**6**	*e*PKPdf	PKPdf	00 29 48.7	-0.7

IDC **10** *00:18:25.4±1.2, 1.11N×126.48E, h0^{km}, mb3.9/5, mb1 4.0/6, mb1mx3.8/16, mbtmp3.9/6, ML3.4/1, Error ellipse: s-maj=112.3km s-min=18.2km az=71.0*

NEIC **10** *00:18:26.7±0.6, 1.16N×126.57E, h10^{km}, mb3.8/1, Error ellipse: s-maj=53.7km s-min=9.1km az=70.0*

ISCJB **10** *00:18:28.2±0.8, 1.0N±0.2×126.3E±0.5, h33^{km}, mb4.0/5, Error ellipse: s-maj=70.1km s-min=12.2km az=160.5*

ISC 10 00:18:30.5±0.8**, 1.0N**±0.2×**126.3E**±0.4**, h35^{km}, n12, σ0^{s}.39**/10**, mb4.0**/5**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**19.01**	**182**	*e*P	**Pn**	**00 22 50.8**	**+0.5**
	5.2nm,0.8s						
FITZ	**Fitzroy Crossi**	**19.01**	**182**	P	**Pn**	**00 22 50.2**	**-0.1**
	0.1nm,0.3s,baz=350,slow=19,SNR=2.8						
WRA	**Warramunga Arr**	**22.26**	**160**	P	**P**	**00 23 24.8**	**+0.2**
	9.6nm,0.7s,mb4.3,baz=340,slow=11,SNR=35						
WB2	**Warramunga Arr**	**22.27**	**160**	*e*P	**P**	**00 23 24.4**	**-0.2**
WB2	**Warramunga Arr**	**22.27**	**160**	*e*P	**P**	**00 23 24.3**	**-0.3**
STKA	**Stephens Creek**	**35.77**	**157**	P	**P**	**00 25 26.1**	**-0.2**
	1.6nm,0.6s,mb4.1,baz=172,slow=9.3,SNR=3.7						
SONM	**Songino Array**	**49.73**	**342**	P	**P**	**00 27 19.7**	**+0.5**
	0.5nm,0.8s,mb3.6,baz=169,slow=8.8,SNR=4.2						
MK31	**Makanchi Array**	**59.56**	**326**	*e*P	**P**	**00 28 29.7**	**-0.7**
MKAR	**Makanchi Array**	**59.56**	**326**	P	**P**	**00 28 30.8**	**+0.3**
	1.0nm,0.7s,mb4.0,baz=121,slow=8.0,SNR=9.9						
ZALV	**Zalesovo Beam**	**62.82**	**334**	P	**P**	**00 28 52.4**	**-0.1**
	0.6nm,0.6s,mb3.9,baz=134,slow=8.3,SNR=4.0						
TORD	**Torodi Ar. Bea**	**123.33**	**286**	PKP	PKPdf	00 37 25.7	+0.9
TORD	**Torodi Ar. Bea**	**123.33**	**286**	PKP	PKPdf	00 37 25.7	+0.9
	0.6nm,0.9s,baz=62,slow=2.0,SNR=3.4						

ISCJB **10** *00:24:27.7±0.3, 1.04N±0.05×126.40E±0.07, h10^{km}, mb4.5/34, Error ellipse: s-maj=11.6km s-min=6.1km az=154.9*

NEIC **10** *00:24:29.4±0.3, 1.09N×126.45E, h10^{km}, mb4.6/16, Error ellipse: s-maj=11.3km s-min=6.0km az=59.0*

MOS **10** *00:24:31.3±1.4, 1.01N×126.32E, h33^{km}, mb4.7/18, Error ellipse: s-maj=17.5km s-min=8.6km az=116.8*

BJI **10** *00:24:31.7, 1.66N×126.64E, h10^{km}, mB5.3, mb4.6*

IDC **10** *00:24:33.7±5.8, 0.92N×126.21E, h37^{km}±51^{km}, mb4.1/10, mb1 4.1/11, mb1mx4.1/17, mbtmp4.1/11, ML3.8/1, Error ellipse: s-maj=27.9km s-min=15.0km az=68.0*

ISC 10 00:24:31.6±3.9**, 1.03N**±0.06×**126.44E**±0.08**, h23^{km}**±29^{km}**, n85, σ1^{s}.19**/74**, mb4.5**/34**, 2C-3D, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KKM	**Kota Kinabalu**	**11.35**	**296**	*e*Pn	**Pn**	**00 27 12.9**	**+0.4**
KAKA	**Kakadu**	**14.90**	**157**	*e*P	**Pn**	**00 27 59.1**	**-1.8**
	33nm,0.6s						
KAKA	**Kakadu**	**14.90**	**157**	*e*P	**Pn**	**00 28 07.2**	**+6.3**
KSM	**Kuching**	**16.14**	**272**	*e*P	**Pn**	**00 28 20.1**	**+3.0**
FITZ	**Fitzroy Crossi**	**19.03**	**182**	*e*P	**Pn**	**00 28 52.4**	**-0.5**
	15nm,0.9s						
FITZ	**Fitzroy Crossi**	**19.03**	**182**	P	**Pn**	**00 28 52.3**	**-0.6**
	0.2nm,0.3s,baz=18,slow=7.7,SNR=7.3						
WRA	**Warramunga Arr**	**22.24**	**160**	P	**P**	**00 29 26.1**	**-0.7**
	44nm,0.6s,mb5.0,baz=340,slow=11,SNR=114						
WB2	**Warramunga Arr**	**22.24**	**160**	⇓*i*P	**P**	**00 29 26.6**	**-0.2**
PMG	**Port Moresby**	**23.09**	**117**	P	**P**	**00 29 34.5**	**-1.4**
	28nm,1.1s,mb4.6						
PMG	**Port Moresby**	**23.09**	**117**	P	**P**	**00 29 34.6**	**-1.4**
PMG				pmax	pmax		
	comp=Z,28nm,1.1s						
QIZ	**Qiongzhong**	**24.18**	**319**	*e*P	**P**	**00 29 45.5**	**-0.9**
	comp=Z,3.4nm,0.8s,mb3.8						
KULM	**Kulim**	**26.09**	**280**	*e*P	**P**	**00 30 02.6**	**-1.3**
PSI	**Prapat**	**27.56**	**274**	P	**P**	**00 30 16.9**	**-0.2**
	comp=Z,14nm,1.0s,mb4.6,baz=91,slow=2.8,SNR=9.1						
CTA	**Charters Tower**	**28.60**	**138**	P	**P**	**00 30 26.8**	**+0.5**
	comp=Z,5.1nm,0.9s,mb4.2,baz=333,slow=12,SNR=4.3						
FORT	**Forrest**	**31.67**	**177**	*e*P	**P**	**00 30 53.9**	**+0.6**
	comp=Z,29nm,0.7s,mb5.2						
NJ2	**Nanjing**	**31.67**	**348**	*e*P	**P**	**00 30 51.5**	**-1.8**
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.1						
CHTO	**Chiang Mai**	**32.24**	**305**	*e*P	**P**	**00 30 57.1**	**-1.4**
	comp=Z,1.9nm,0.7s,mb4.0						
CHTO	**Chiang Mai**	**32.24**	**305**	*e*P	**P**	**00 30 57.1**	**-1.4**
CHTO				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.1						
KLBR	**Kellerberrin**	**33.48**	**194**	*e*P	**P**	**00 31 09.8**	**+0.7**
NWAO	**Narrogin (SRO)**	**34.88**	**194**	*e*P	**P**	**00 31 22.5**	**+1.2**
STKA	**Stephens Creek**	**35.74**	**158**	⇓*i*P	**P**	**00 31 28.7**	**0.0**
	comp=Z,14nm,0.8s,mb4.9						
STKA	**Stephens Creek**	**35.74**	**158**	*e*P	**P**	**00 31 28.8**	**+0.1**
STKA	**Stephens Creek**	**35.74**	**158**	P	**P**	**00 31 28.9**	**+0.1**
	comp=Z,17nm,0.8s,mb5.0,baz=332,slow=8.6,SNR=28						
KSRS	**Korea Array**	**36.27**	**2**	P	**P**	**00 31 34.9**	**+1.8**
KSRS				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
KSRS	**Korea Array**	**36.27**	**2**	P	**P**	**00 31 34.9**	**+1.8**
	comp=Z,1.7nm,0.6s,mb4.1,baz=185,slow=12,SNR=7.4						
MJAR	**Matsushiro Arr**	**36.98**	**16**	P	**P**	**00 31 42.4**	**+3.2**
	comp=Z,2.9nm,0.7s,mb4.2,baz=182,slow=9.0,SNR=7.4						
ARMA	**Armidale**	**39.42**	**145**	*e*P	**P**	**00 32 01.2**	**+1.4**
LSA	**Lhasa**	**44.04**	**314**	*e*P	**P**	**00 32 38.7**	**+0.9**
	comp=Z,4.4nm,0.7s,mb4.3						
LSA	**Lhasa**	**44.04**	**314**	*e*P	**P**	**00 32 38.7**	**+1.0**
LSA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
YSS	**Yuzh-Sakhalins**	**47.90**	**15**	P	**P**	**00 33 14.2**	**+6.3**
SONM	**Songino Array**	**49.76**	**342**	P	**P**	**00 33 22.3**	**+0.2**
	comp=Z,1.4nm,0.8s,mb4.1,baz=155,slow=9.2,SNR=12						
SONM				PcP	PcP	00 34 43.1	+0.3
	comp=Z,0.9nm,0.8s,baz=163,slow=4.5,SNR=3.6						
ZAK	**Zakamensk**	**52.97**	**342**	*e*P	**P**	**00 33 48.3**	**+2.2**
ZAK				*e*		00 34 54.8	
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.9						
BOD	**Bodaibo**	**57.48**	**352**	*e*P	**P**	**00 34 17.8**	**-0.7**
BOD				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.3						
MK31	**Makanchi Array**	**59.61**	**326**	*e*P	**P**	**00 34 32.9**	**-0.8**
MKAR	**Makanchi Array**	**59.61**	**326**	*i* P	**P**	**00 34 32.7**	**-0.9**
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
MKAR	**Makanchi Array**	**59.61**	**326**	P	**P**	**00 34 32.8**	**-0.9**
	comp=Z,4.1nm,0.7s,mb4.6,baz=122,slow=8.2,SNR=28						
YAK	**Yakutsk**	**60.89**	**2**	*e*P	**P**	**00 34 42.4**	**+0.3**
YAK				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.1						
YAK				pmax	pmax		
	comp=N,3.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.1s						
MA2	**Magadan**	**61.37**	**14**	*e*P	**P**	**00 34 46.1**	**+0.7**
	comp=E,7.8nm,0.9s,mb4.8						
MA2	**Magadan**	**61.37**	**14**	*e*P	**P**	**00 34 46.6**	**+1.2**
MA2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
KZA	**Kyzart**	**61.42**	**319**	P	**P**	**00 34 49.5**	**+3.4**
	SNR=5.2						
TKM2	**Tokmak 2**	**61.58**	**320**	*e*P	**P**	**00 34 45.3**	**-1.8**
	comp=Z,2.2nm,0.6s,mb4.5						
TKM2	**Tokmak 2**	**61.58**	**320**	*e*P	**P**	**00 34 45.3**	**-1.9**
TKM2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.4						
UCH	**Uchtor**	**61.97**	**319**	P	**P**	**00 34 52.4**	**+2.6**
	SNR=5.9						
UCH	**Uchtor**	**61.97**	**319**	*e*P	**P**	**00 34 52.1**	**+2.3**
	comp=Z,2.5nm,0.7s,mb4.5						
AAK	**Ala-Archa**	**62.17**	**319**	*e*P	**P**	**00 34 52.2**	**+1.1**
	comp=Z,3.9nm,1.1s,mb4.5						
AAK	**Ala-Archa**	**62.17**	**319**	*e*P	**P**	**00 34 52.2**	**+1.1**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.5						
USP	**Ospenovka**	**62.45**	**320**	P	**P**	**00 34 54.7**	**+1.7**
	SNR=5.1						
AML	**Almayashu**	**62.47**	**318**	P	**P**	**00 34 55.5**	**+2.3**
	SNR=5.7						
AML	**Almayashu**	**62.47**	**318**	*e*P	**P**	**00 34 53.8**	**+0.6**
	comp=Z,4.5nm,0.8s,mb4.7						
EKS2	**Erkin-Say**	**62.65**	**319**	P	**P**	**00 34 56.2**	**+1.8**
	SNR=5.5						
EKS2	**Erkin-Say**	**62.65**	**319**	*e*P	**P**	**00 34 55.9**	**+1.6**
	comp=Z,3.6nm,0.9s,mb4.5						
ZALV	**Zalesovo Beam**	**62.85**	**334**	P	**P**	**00 34 54.6**	**-0.9**
	comp=Z,2.6nm,0.7s,mb4.5,baz=135,slow=7.1,SNR=8.5						
ZAL	**Zalesovo**	**62.86**	**334**	P	**P**	**00 34 54.6**	**-0.9**
KBL	**Kabul**	**62.95**	**309**	*e*P	**P**	**00 34 55.3**	**-1.2**
KURK	**Kurchatov**	**63.86**	**328**	*e*P	**P**	**00 34 59.9**	**-2.3**
	comp=Z,7.1nm,0.6s,mb4.9						
KURK	**Kurchatov**	**63.86**	**328**	*e*P	**P**	**00 34 59.9**	**-2.3**
KURK				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
NVS	**Novosibirsk**	**64.14**	**334**	*e*P	**P**	**00 35 03.0**	**-1.0**
NVS				pmax	pmax		
	comp=Z,53nm,3.5s						
NVS				pmax	pmax		
	comp=N,10.0nm,2.2s						
SEY	**Seymchan**	**64.71**	**13**	⇑*e*P	**P**	**00 35 08.4**	**+0.9**
BRVK	**Borovoye**	**69.49**	**328**	*e*P	**P**	**00 35 38.2**	**+0.1**
BRVK				pmax	pmax		
	comp=Z,7.0nm,1.5s,mb4.4						
TIXI	**Tiksi**	**70.53**	**1**	*e*P	**P**	**00 35 42.6**	**-1.5**
	comp=Z,6.7nm,1.0s,mb4.5						
TIXI	**Tiksi**	**70.53**	**1**	*e*P	**P**	**00 35 41.0**	**-3.1**
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
GAMB	**Gambell**	**76.96**	**24**	*e*P	**P**	**00 36 22.7**	**+0.7**
ARU	**Arti**	**77.05**	**328**	*e*P	**P**	**00 36 21.4**	**-1.3**
	comp=Z,6.2nm,0.7s,mb4.7						
ARU	**Arti**	**77.05**	**328**	⇑*i*P	**P**	**00 36 22.6**	**-0.1**
ARU				*e*		00 36 32.9	
ARU				*e*		00 39 15.5	
ARU				*e*S	S	00 46 06.3	-3.6
ARU				*e*SS	SS	00 51 11.1	+3.8
ARU				*e*SSS		00 54 27.3	
ARU				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
SVW2	**Sparrevohn**	**83.29**	**29**	*e*P	**P**	**00 36 56.7**	**+0.5**
PRGR	**Permogore**	**84.72**	**332**	*e*P	**P**	**00 37 03.0**	**-0.5**
KIV	**Kislovodsk**	**84.78**	**314**	⇓*e*P	**P**	**00 37 03.5**	**-0.7**
KIV				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.6						
IMA2	**Indian Mountai**	**84.95**	**24**	*e*P	**P**	**00 37 05.2**	**+0.6**
MCK	**McKinley**	**86.69**	**26**	*e*P	**P**	**00 37 12.0**	**-1.3**
	comp=Z,2.6nm,1.1s,mb4.4						
MCK	**McKinley**	**86.69**	**26**	*e*P	**P**	**00 37 12.0**	**-1.2**
MCK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.4						
VRSR	**Storozhevoye**	**87.47**	**321**	*e*P	**P**	**00 37 18.4**	**+1.1**
VRSR				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb4.0						
VRSR				pmax	pmax		
	comp=N,2.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.9s						
OBN	**Obninsk**	**89.09**	**325**	*e*P	**P**	**00 37 24.5**	**-0.4**
OBN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.8						
BRTR	**Keskin Array B**	**91.51**	**310**	P	**P**	**00 37 36.4**	**-0.1**
	comp=Z,0.7nm,0.8s,mb4.1,baz=114,slow=4.6,SNR=5.1						
AKASG	**Malin Array Be**	**93.79**	**321**	P	**P**	**00 37 45.7**	**-1.1**
	comp=Z,0.4nm,0.5s,mb4.1,baz=75,slow=4.9,SNR=3.3						
YKA	**Yellowknife Ar**	**102.06**	**25**	P	Pdif	00 38 23.9	0.0
	comp=Z,0.4nm,0.8s,baz=298,slow=4.8,SNR=4.9						
TORD	**Torodi Ar. Bea**	**123.44**	**286**	PKP	PKPdf	00 43 27.6	-0.4
TORD	**Torodi Ar. Bea**	**123.44**	**286**	PKP	PKPdf	00 43 27.6	-0.4
	comp=Z,0.8nm,0.7s,baz=29,slow=2.0,SNR=5.6						
TXAR	**Lajitas Array**	**123.45**	**53**	PKP	PKPdf	00 43 28.6	+1.0
TXAR	**Lajitas Array**	**123.45**	**53**	PKIKP	PKPdf	00 43 28.6	+1.0
TXAR	**Lajitas Array**	**123.45**	**53**	PKP	PKPdf	00 43 28.6	+1.0
	comp=Z,1.0nm,0.7s,baz=204,slow=0.5,SNR=16						
JCT	**Junction City**	**126.01**	**50**	*e*PKPdf	PKPdf	00 43 33.1	+0.6
JCT	**Junction City**	**126.01**	**50**	*e*PKIKP	PKPdf	00 43 33.1	+0.6
LCO	**Las Campanas**	**147.72**	**151**	*e*PKPdf	PKPdf	00 44 13.3	+1.0
ROSC	**El Rosal**	**158.44**	**74**	PKP	PKPdf	00 44 28.8	+0.5
ROSC	**El Rosal**	**158.44**	**74**	PKP	PKPdf	00 44 28.8	+0.5
	comp=Z,3.0nm,0.4s,baz=109,slow=21,SNR=3.0						

MAN 10 00:48:35, 17.09N×119.42E, h16^{km}, mb3.7, ML2.4, MS2.0, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOLP	**Bolinao**	**0.85**	**146**	*e*P	Pb	00 48 51.8	+0.4
SCZP	**Santa Cruz**	**1.39**	**160**	*e*P	Pn	00 48 59.6	-0.1
APYP	**Conner**	**1.91**	**66**	*e*P	Pn	00 49 07.3	+0.5
APYP				*e*S	Sn	00 49 32.3	+1.7
CAUP	**Cauayan**	**2.31**	**93**	*e*P	Pn	00 49 16.0	+3.6
CVP	**Callao Caves**	**2.38**	**75**	*e*P	Pn	00 49 14.6	+1.3
CVP				*e*S	Pb	00 49 16.6	-0.8

IDC 10 00:49:29.0±29.0**, 12.47N×93.42E, h0^{km}, mb3.7**/3**, mb1 3.7**/3**, mb1mx3.3**/19**, mbtmp3.7**/3**, MS3.8**/2**, Ms1 3.8**/2**, ms1mx3.1**/25**, Error ellipse: s-maj=623.4km s-min=73.8km az=136.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PBA	**Port Blair**	**1.04**	**219**	*e*P	x	00 50 07.9	
PBA				*e*S	x	00 50 25.5	
MKAR	**Makanchi Array**	**35.47**	**347**	P	P	00 56 27.2	+0.1
	0.3nm,0.7s,baz=165,slow=6.9,SNR=4.5						
JNU	**Nakatsue**	**39.89**	**53**	LR	LR	01 13 03.0	
	comp=Z,71nm,19.6s,baz=70,slow=35						
ZALV	**Zalesovo Beam**	**41.93**	**352**	P	P	00 57 21.1	-0.1
	0.9nm,0.6s,baz=183,slow=9.0,SNR=8.8						
BRTR	**Keskin Array B**	**58.95**	**309**	P	P	00 59 30.5	+0.2

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	0.7nm,0.6s,baz=114,slow=6.5,SNR=6.3						
MAW	Mawson	82.87	191	LR	LR	01 31 51.7	
	comp=Z,87nm,18.3s,baz=232,slow=31						

ISCJB ***10*** *01:08:50.3±0.3, 28.16N±0.03×139.09E±0.03, h506km±2km, mb4.4/87, Error ellipse: s-maj=5.2km s-min=3.5km az=170.2*

IDC ***10*** *01:08:50.5±0.6, 28.15N×139.23E, h506km±6km, mb3.7/16, mb1 3.8/23, mb1mx3.8/25, mbtmp3.7/23, Error ellipse: s-maj=13.2km s-min=10.0km az=59.0*

JMA ***10*** *01:08:50.0±0.3, 28.23N×139.66E, h540km±5km, M4.7*

NEIC ***10*** *01:08:51.5±0.7, 28.17N×139.12E, h515km±7km, mb4.4/36, Error ellipse: s-maj=7.9km s-min=5.2km az=142.0*

BJI ***10*** *01:08:52.5, 28.26N×139.03E, h530km, mB4.7, mb4.9*

MOS ***10*** *01:08:53.2±0.8, 28.44N×139.05E, h535km, mb4.3/27, Error ellipse: s-maj=10.9km s-min=6.8km az=93.9*

ISC 10 01:08:51.0±0.3, **28.17N**±0.03×**139.14E**±0.03, **h503**km±2km, **n443**, σ0.71/457, **mb4.4**/87, **84C-69D, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	2.91	111	P	P	01 10 01.6	0.0
CBIJ				S	S	01 10 58.0	-1.0
CBIJ	Chichi jima	2.91	111	P	P	01 10 01.6	0.0
	208nm,0.3s,baz=312,slow=2.3,SNR=47						
CBIJ				S	S	01 10 57.2	-1.7
	228nm,0.3s,baz=270,slow=22,SNR=14						
JHHJ	Haha-jima-NKT	3.11	119	P	P	01 10 03.4	+0.4
JHHJ				S	S	01 11 01.1	-0.3
JHJ	Hachijo jima 2	4.97	6	P	P	01 10 17.6	-0.1
	40nm,0.3s,baz=82,slow=22,SNR=4.9						
JHJ				S	S	01 11 28.3	-0.3
	99nm,0.3s,baz=35,slow=22,SNR=6.2						
JIE	Ise	6.54	342	P	P	01 10 35.9	+3.3
BSO1	Boso 1	6.65	13	P	P	01 10 34.4	+0.7
BSO1				S	S	01 11 57.4	-0.4
BSO3	Boso 3	6.72	10	P	P	01 10 34.7	+0.4
BSO3				S	S	01 11 58.0	-1.0
BSO4	Boso 4	6.88	8	P	P	01 10 36.8	+0.9
BSO4				S	S	01 12 01.1	-0.8
JOD2	Odawara 2	7.07	360	P	P	01 10 39.1	+1.2
JTO	Tosashimizu	7.19	312	P	P	01 10 42.4	+3.3
JNY	Yasuok	7.25	352	P	P	01 10 41.3	+1.7
JHU	Hanno	7.66	1	P	P	01 10 43.4	-0.4
JHU				eS	S	01 12 11.8	-4.6
JRY	Ryogami san	7.83	359	P	P	01 10 46.1	+0.6
JRY				S	S	01 12 17.8	-1.7
JYT	Yasato	8.09	6	P	P	01 10 48.0	-0.2
JAG	Ashikaga	8.24	2	P	P	01 10 49.2	-0.6
MJAR	Matsushiro Arr	8.39	355	P	P	01 10 50.9	-0.4
MJAR				S	S	01 12 28.7	-1.4
MJAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
MJAR				smax			
	comp=N,1.0nm,0.3s						
MJAR	Matsushiro Arr	8.39	355	P	P	01 10 50.9	-0.4
	comp=N,3.2nm,0.3s,baz=167,slow=11,SNR=17						
MJAR				S	S	01 12 28.7	-1.4
	comp=N,1.2nm,0.3s,baz=169,slow=14,SNR=5.7						
MAJO	Matsushiro	8.39	355	eP	P	01 10 51.6	+0.3
	comp=N,19nm,0.5s						
MAJO	Matsushiro	8.39	355	eP	P	01 10 51.6	+0.3
MAJO				pmax	pmax		
	comp=Z,19nm,0.5s						
MAT	Matsushiro	8.39	355	P	P	01 10 51.3	0.0
MAT				eS	S	01 12 29.4	-0.7
JHO	Hitachi	8.51	8	P	P	01 10 53.1	+0.6
JHO				S	S	01 12 29.6	-2.8
JNU	Nakatsue	8.66	307	P	P	01 10 56.2	+2.1
	comp=Z,3.3nm,0.3s,baz=101,slow=10,SNR=16						
JFK	Kawauchi	9.29	9	P	P	01 11 01.5	+0.8
JOW	Kunigami	9.74	265	P	P	01 11 07.4	+1.8
	comp=Z,8.4nm,0.3s,baz=106,slow=10,SNR=18						
JMK	Ichinoseki	10.89	9	P	P	01 11 18.7	+1.0
KSRS	Korea Array	13.21	317	P	P	01 11 42.2	+0.1
	comp=Z,1.2nm,0.3s,baz=135,slow=11,SNR=15						
KSRS				ScP	ScP	01 19 14.6	-2.2
	baz=244,slow=1.4,SNR=4.7						
KS15	Wonju Array Si	13.22	317	eP	P	01 11 44.1	+1.8
JOSM	Okushiri--Mats	13.89	1	P	P	01 11 49.8	+0.6
ERM	Erimo	14.20	12	eP	P	01 11 52.8	+0.3
	comp=Z,26nm,0.8s						
ERM				eS	S	01 14 25.2	+2.9
ERM	Erimo	14.20	12	eP	P	01 11 52.8	+0.3
ERM				eS	S	01 14 25.2	+3.0
ERM				pmax	pmax		
	comp=Z,26nm,0.8s						
ASAJ	Asahikawa	16.16	9	P	P	01 12 13.6	+0.6
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ	Asahikawa	16.16	9	P	P	01 12 13.6	+0.6
	comp=Z,3.3nm,0.3s,baz=210,slow=13,SNR=16						
JTKR	Abashiri--Toko	16.23	12	P	P	01 12 14.1	+0.4
NACB	Ninganchiao	16.24	260	eP	P	01 12 12.6	-1.6
YHNB	Yeheng	16.29	262	eP	P	01 12 12.8	-1.8
JWK2	Keihoku	17.26	7	P	P	01 12 25.2	+1.1
NJ2	Nanjing	17.97	287	eP	P	01 12 30.9	0.0
NJ2				AMB	AMB		
	comp=Z,70nm,0.6s						
MDJ	Mudanjiang	18.10	338	P	P	01 12 31.5	-0.4
MDJ				AMB	AMB		
	comp=Z,3.0nm,0.6s						
MDJ				AMB	AMB		
	comp=Z,38nm,4.2s						
SNY	Shenyang	18.62	321	⇑P	P	01 12 36.7	0.0
SNY				AMB	AMB		
	comp=Z,40nm,1.1s						
QZH	Quanzhou	18.66	265	⇑iP	P	01 12 39.4	+2.1
QZH				AMB	AMB		
	comp=Z,100nm,0.7s						
YSS	Yuzh-Sakhalins	18.97	8	eP	P	01 12 39.9	+0.1
YSS	Yuzh-Sakhalins	18.97	8	⇑iP	P	01 12 39.5	-0.3
YSS				pmax	pmax		
	comp=Z,30nm,0.3s						
CN2	Changchun	19.09	328	eP	P	01 12 41.0	0.0
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s						
TIA	Tai’an	20.25	299	eP	P	01 12 51.7	0.0
TIA				AMB	AMB		
	comp=Z,153nm,0.7s						
HABR	Khabarovsk	20.52	352	eP	P	01 12 54.3	+0.4
HABR				eS	S	01 16 14.0	+2.9
WHN	Wuhan	21.72	282	⇓P	P	01 13 06.0	+0.9
WHN				AMB	AMB		
	comp=Z,84nm,0.7s,mb5.4						
BJT	Baijiatuau	22.33	308	eP	P	01 13 09.6	-0.8
	comp=Z,8.5nm,0.5s,mb4.5						
BJT	Baijiatuau	22.33	308	eP	P	01 13 09.6	-0.8
BJT				pmax	pmax		
	comp=Z,8.0nm,0.5s						
BJI	Beijing	22.33	308	P	P	01 13 09.8	-0.6
BJI				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.3						
XAN	Xi’an	26.47	290	P	P	01 13 47.4	+0.1
XAN				AMB	AMB		
	comp=Z,36nm,0.6s,mb5.0						
QIZ	Qiongzhong	28.28	258	eP	P	01 14 04.1	+0.7
	comp=Z,12nm,1.1s,mb4.2						
PET	Petropavlovsk	28.73	25	⇑eP	P	01 14 06.7	-0.1
PET				pmax	pmax		
	comp=Z,87nm,2.5s,mb4.7						
GYA	Guiyang	28.86	274	⇓iP	P	01 14 08.8	+0.4
GYA				XP	sP	01 16 39.0	+7.1
GYA				PCP	PcP	01 17 04.5	+2.5
GYA				S	S	01 18 23.1	+0.3
GYA				SCP	ScP	01 19 55.2	-0.5
GYA				PCS	PcS	01 20 46.4	+0.9
GYA				SCS	ScS	01 23 48.2	-2.5
GYA				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.5						
GYA				AMB	AMB		
	comp=Z,90nm,4.5s						
LZH	Lanzhou	30.79	294	⇓P	P	01 14 25.0	+0.1
LZH				PP	PP	01 15 56.3	-7.9
LZH				XP	sP	01 16 56.7	+7.6
LZH				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.6						
LZH				AMB	AMB		
	comp=Z,49nm,4.6s						
LZH	Lanzhou	30.79	294	⇓P	P	01 14 25.0	+0.1
	comp=Z,25nm,1.0s,mb4.6						
LZH				pP		01 15 55.0	
LZH				PP	PP	01 15 56.3	-7.9
LZH				sP	sP	01 16 56.7	+7.6
LZH	Lanzhou	30.79	294	⇓P	P	01 14 25.0	+0.1
LZH				*PP		01 15 55.0	
LZH						01 15 56.3	
LZH				*SP	sP	01 16 56.7	+7.6
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.6						
CD2	Chengdu	30.82	284	⇑iP	P	01 14 25.5	+0.2
CD2				AMB	AMB		
	comp=Z,100nm,0.5s,mb5.5						
SONM	Songino Array	32.08	317	P	P	01 14 36.0	+0.2
SONM				pmax	pmax		
	comp=Z,3.0nm,0.5s						
SONM				pmax	pmax		
	comp=N,1.0nm,0.6s						
SONM	Songino Array	32.08	317	P	P	01 14 36.0	+0.2
	comp=N,3.0nm,0.5s,mb4.0,baz=128,slow=8.7,SNR=32						
SONM				ScP	ScP	01 20 03.5	-2.4
	comp=N,0.8nm,0.6s,baz=142,slow=3.7,SNR=6.8						
MA2	Magadan	32.40	11	eP	P	01 14 38.5	+0.1
MA2	Magadan	32.40	11	⇑eP	P	01 14 38.1	-0.3
MA2				pmax	pmax		
	comp=Z,31nm,0.8s,mb4.8						
KMI	Kunming	32.60	273	P	P	01 14 41.9	+1.3
KMI				AMB	AMB		
	comp=Z,29nm,0.8s,mb4.8						
KMI	Kunming	32.60	273	P	P	01 14 41.9	+1.3
	comp=Z,29nm,0.8s,mb4.8						
GTA	Gaotai	34.30	299	⇓iP	P	01 14 55.0	+0.2
GTA				AP		01 16 28.9	
GTA				XP	sP	01 17 29.6	+9.4
GTA				S	S	01 19 42.5	-3.4
GTA				SCP	ScP	01 20 12.3	-1.7
GTA				PCS	PcS	01 21 03.4	-0.5
GTA				XS	sS	01 22 30.2	+2.9
GTA				SS	SS	01 22 40.1	-5.1
GTA				AMB	AMB		
	comp=Z,22nm,0.8s,mb4.6						
GTA				AMB	AMB		
	comp=Z,78nm,7.6s						
YAK	Yakutsk	34.44	352	eP	P	01 14 54.3	-1.3
YAK	Yakutsk	34.44	352	eP	P	01 14 54.1	-1.5
YAK				e		01 16 31.6	
YAK				e		01 17 17.4	
YAK				eS	S	01 19 42.1	-5.2
YAK				e		01 24 11.5	
YAK				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.5						
YAK				pmax	pmax		
	comp=N,7.0nm,1.4s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.2s						
YAK				pmax	pmax		
	comp=N,37nm,3.4s						
YAK				pmax	pmax		
	comp=E,39nm,3.4s						
YAK				pmax	pmax		
	comp=Z,93nm,3.4s						
YAK				smax			
	comp=N,111nm,3.8s						
YAK				smax			
	comp=E,130nm,5.7s						
ZAK	Zakamensk	35.03	319	eP	P	01 15 00.5	-0.2
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.7						
KKTK	Khon Kaen	35.48	258	P	P	01 15 03.5	-1.4
SEY	Seymchan	35.83	10	⇑eP	P	01 15 07.0	-0.2
NANT	Nan	36.34	264	⇑P	P	01 15 12.0	0.0
	comp=Z,85nm,1.0s,mb5.1						
CHG	Chiang Mai	37.87	265	⇓P	P	01 15 24.7	0.0
	comp=Z,42nm,0.7s,mb5.0						
CHTO	Chiang Mai	37.87	265	eP	P	01 15 24.2	-0.5
	comp=Z,17nm,0.8s,mb4.5						
CHTO	Chiang Mai	37.87	265	eP	P	01 15 24.2	-0.5
CHTO				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.5						
LSA	Lhasa	41.79	284	P	P	01 15 58.0	+2.0
LSA	Lhasa	41.79	284	eP	P	01 15 57.7	+1.6
	comp=Z,4.2nm,0.4s,mb4.2						
LSA	Lhasa	41.79	284	eP	P	01 15 57.7	+1.7
LSA				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.2						
BILL	Bilibino	43.06	15	eP	P	01 16 05.2	-0.3
	comp=Z,37nm,0.8s,mb4.9						
BILL	Bilibino	43.06	15	⇓iP	P	01 16 05.6	+0.2
BILL				pmax	pmax		
	comp=Z,44nm,0.9s,mb4.9						
WMQ	Urumqi	43.75	305	eP	P	01 16 10.9	-0.3
TIXI	Tiksi	43.90	355	eP	P	01 16 11.2	-0.7
TIXI	Tiksi	43.90	355	⇑eP	P	01 16 10.6	-1.3
TIXI				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.1						
TAPN	Taplejung	45.23	282	eP	P	01 16 23.7	+0.8
	comp=Z,22nm,0.4s,mb5.0						
ODAN	Odare	45.62	281	eP	P	01 16 26.6	+0.6
	comp=Z,43nm,0.4s,mb5.3						
JIRN	Jiri	46.47	282	eP	P	01 16 33.6	+1.2
	comp=Z,9.5nm,0.2s,mb4.9						
GUN	Gumba	46.68	283	eP	P	01 16 35.0	+1.0
	comp=Z,64nm,0.5s,mb5.3						
ZALV	Zalesovo Beam	46.91	319	P	P	01 16 34.6	-0.6
	comp=Z,2.8nm,0.4s,mb4.1,baz=98,slow=7.7,SNR=22						
ZALV				ScP	ScP	01 20 59.6	-3.9
	comp=Z,2.0nm,0.6s,baz=126,slow=4.7,SNR=9.6						
ZAL	Zalesovo	46.92	319	P	P	01 16 34.6	-0.7
PKI	Pulchoki	47.16	283	eP	P	01 16 38.1	+0.4
	comp=Z,19nm,0.4s,mb4.8						
KKN	Kakani	47.22	283	eP	P	01 16 38.6	+0.5
	comp=Z,23nm,0.4s,mb5.0						
GAMB	Gambell	47.38	27	eP	P	01 16 38.3	-0.3
DMN	Daman	47.42	283	eP	P	01 16 40.1	+0.6
	comp=Z,35nm,0.4s,mb5.1						
MK31	Makanchi Array	47.70	309	⇓iP	P	01 16 41.3	-0.1
MKAR	Makanchi Array	47.70	309	P	P	01 16 41.3	-0.1
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.4s						
MKAR				pmax	pmax		
	comp=N,2.0nm,0.8s						
MKAR	Makanchi Array	47.70	309	P	P	01 16 41.2	-0.1
	comp=N,3.4nm,0.4s,mb4.0,baz=88,slow=10,SNR=88						
MKAR				ScP	ScP	01 21 04.1	-2.9
	comp=N,1.8nm,0.8s,baz=87,slow=4.5,SNR=9.0						
GKN	Gorkha	47.73	283	eP	P	01 16 42.3	+0.4
	comp=N,23nm,0.5s,mb4.8						
BOK	Bokaro	47.76	278	eP	P	01 16 41.3	-0.9
BOK				AMb	AMB	01 16 43.8	
	comp=Z,23nm,0.6s,mb4.7						
FITZ	Fitzroy Crossi	47.81	197	eP	P	01 16 42.3	-0.2
	comp=Z,14nm,0.6s,mb4.5						
NVS	Novosibirsk	47.98	320	eP	P	01 16 42.2	-1.1
WB2	Warramunga Arr	48.05	186	⇓iP	P	01 16 43.4	-0.8
WB2	Warramunga Arr	48.05	186	eP	P	01 16 43.1	-1.1
WRA	Warramunga Arr	48.05	186	P	P	01 16 43.5	-0.8
WRA				*PP	pP	01 18 20.0	+0.6
WRA				pmax	pmax		
	comp=Z,7.0nm,0.5s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	48.05	186	P	P	01 16 43.5	-0.8
	comp=Z,7.0nm,0.5s,mb4.3,baz=2.0,slow=7.8,SNR=106						
WRA				pP	pP	01 18 20.0	+0.6
	comp=Z,0.9nm,0.8s,baz=6.8,slow=9.1,SNR=5.9						
KOLN	Koldanda	48.67	283	eP	P	01 16 49.5	+0.6
	comp=Z,59nm,0.8s,mb5.0						
TNA	Tin City	49.58	26	eP	P	01 16 55.2	+0.2
	comp=Z,10nm,1.2s,mb4.0						
KURK	Kurchatov	50.30	314	eP	P	01 17 00.1	-0.5
SDPT	Sand Point	50.61	40	eP	P	01 17 01.2	-1.5
	comp=Z,64nm,0.6s,mb5.1						
BLSP	Bilaspur	51.56	277	eP	P	01 17 10.0	-0.2
BLSP				AMb	AMB	01 17 10.7	
	comp=Z,20nm,0.8s,mb4.5						
ULHL	Ulahol	52.18	303	P	P	01 17 15.2	+0.8
	SNR=6.0						
TKM2	Tokmak 2	52.58	304	P	P	01 17 18.2	+0.9
	SNR=12						
KZA	Kyzart	52.93	303	P	P	01 17 21.5	+1.8
	SNR=24						
KBK	Karagaybulak	53.09	304	P	P	01 17 21.6	+0.8
	SNR=12						
USP	Ospenovka	53.35	305	P	P	01 17 22.9	+0.2
	SNR=9.0						
AAK	Ala-Archa	53.42	304	P	P	01 17 23.7	+0.5
	SNR=12						
AAK	Ala-Archa	53.42	304	eP	P	01 17 22.6	-0.6
AAK	Ala-Archa	53.42	304	⇑eP	P	01 17 22.0	-1.3
AAK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.1						
UCH	Uchtor	53.45	303	P	P	01 17 25.0	+1.5
	SNR=25						
SVW2	Sparrevohn	53.86	33	eP	P	01 17 25.1	-0.9
NDI	New Delhi	53.89	286	eP	P	01 17 26.3	-0.6
NDI				AMb	AMB	01 17 26.9	
	comp=Z,28nm,0.7s,mb4.7						
EKS2	Erkin-Say	53.94	304	P	P	01 17 27.4	+0.4
	SNR=9.4						
AML	Almayashu	54.07	303	P	P	01 17 29.0	+1.2
	SNR=20						
NGP	Nagpur	54.59	277	eP	P	01 17 30.4	-1.5
KDAK	Kodiak Island	55.14	37	P	P	01 17 34.4	-0.7
	comp=Z,9.7nm,0.4s,mb4.5,baz=251,slow=3.1,SNR=49						
BHPL	Bhopal	55.31	280	eP	P	01 17 36.4	-0.5
BHPL				AMb	AMB	01 17 37.1	
	comp=Z,17nm,0.4s,mb4.8						
IMA2	Indian Mountai	55.36	27	eP	P	01 17 36.6	+0.1
BRVK	Borovoye	55.48	317	eP	P	01 17 37.3	-0.3
	comp=Z,17nm,0.8s,mb4.4						
BRVK	Borovoye	55.48	317	eP	P	01 17 37.3	-0.3
BRVK				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.4						
AKL	Akola	56.53	277	eP	P	01 17 45.4	0.0
AKL				AMb	AMB	01 17 46.2	
	comp=Z,26nm,1.0s,mb4.5						
AJM	Ajmer	56.70	285	eP	P	01 17 45.9	-0.6
PMR	Palmer	56.99	33	eP	P	01 17 46.5	-1.4
	comp=Z,18nm,0.8s,mb4.4						
PMR	Palmer	56.99	33	eP	P	01 17 46.5	-1.4
PMR				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.5						
MCK	McKinley	57.15	30	eP	P	01 17 48.3	-0.6
	comp=Z,16nm,0.8s,mb4.4						
MCK	McKinley	57.15	30	eP	P	01 17 48.3	-0.6
MCK				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.4						
SML	Sawmill	57.38	33	eP	P	01 17 50.0	-0.5
COLA	College	57.67	29	eP	P	01 17 51.1	-1.4
	comp=Z,7.4nm,0.5s,mb4.3						
COLA	College	57.67	29	eP	P	01 17 51.1	-1.4
COLA				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.2						
KBL	Kabul	59.12	295	eP	P	01 18 02.4	-0.5
MENT	Mentasta	59.51	31	eP	P	01 18 04.8	-0.1
FORT	Forrest	59.56	191	eP	P	01 18 05.4	-0.2
	comp=Z,20nm,0.6s,mb4.7						
STKA	Stephens Creek	59.76	178	P	P	01 18 05.8	-1.1
	comp=Z,2.1nm,0.7s,mb3.7,baz=6.4,slow=8.0,SNR=4.0						
POO	Poona	60.10	276	eP	P	01 18 09.4	-0.2
POO				AMb	AMB	01 18 10.7	
	comp=Z,16nm,0.8s,mb4.5						
KAD	Karad	60.27	275	eP	P	01 18 08.0	-2.7
KAD				AMb	AMB	01 18 16.6	
	comp=Z,54nm,1.6s,mb4.7						
KOD	Kodaikanal	60.31	266	eP	P	01 18 09.8	-1.3
KOD				AMb	AMB	01 18 12.9	
	comp=Z,19nm,1.1s,mb4.4						
EGAK	Eagle	60.53	29	eP	P	01 18 10.8	-0.9
	comp=Z,3.8nm,0.6s,mb4.0						
DAWY	Dawson	61.36	30	eP	P	01 18 16.9	-0.2
ARU	Arti	61.91	322	⇓iP	P	01 18 19.9	-1.0
ARU				e		01 18 52.1	
ARU				e		01 20 48.3	
ARU				eS	S	01 26 06.7	+1.4
ARU				eSS	SS	01 30 18.5	+0.1
ARU				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
INK	Inuvik	63.18	25	eP	P	01 18 27.9	-1.0
KEV	Kevo	71.07	340	ep	P	01 19 17.0	-0.4
ARCES	ARCESS Array B	71.63	340	P	P	01 19 20.5	-0.3
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ARCES	ARCESS Array B	71.63	340	P	P	01 19 20.5	-0.3
	comp=Z,3.6nm,0.6s,mb4.1,baz=64,slow=7.5,SNR=14						
RES	Resolute Bay	71.64	13	eP	P	01 19 20.2	-0.5
	comp=Z,355nm,0.7s						
RES				ePP	PP	01 22 08.2	+0.3
YKW3	Yellowknife Ar	72.44	28	eP	P	01 19 24.3	-1.2
YKA	Yellowknife Ar	72.47	28	P	P	01 19 24.7	-1.1
YKA				pmax	pmax		
	comp=Z,11nm,0.7s						
YKA	Yellowknife Ar	72.47	28	P	P	01 19 24.7	-1.0
	comp=Z,10nm,0.7s,mb4.5,baz=296,slow=5.8,SNR=158						
JOF	Joensuu	72.91	333	ep	P	01 19 27.4	-0.9
	comp=Z,1.0nm,0.4s,mb3.7						
JOF	Joensuu	72.91	333	eP	P	01 19 27.4	-0.9
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.7						
NLWA	Neilton Lookou	74.25	44	⇓P	P	01 19 37.1	+0.9
	baz=74						
GNW	Green Mountain	74.82	44	eP	P	01 19 40.3	+0.8
B05A	Bryant	74.96	43	⇓P	P	01 19 40.5	+0.2
	baz=75						
A06A	Chilliwack	74.97	42	⇓P	P	01 19 40.6	+0.3
	baz=75						
B06A	Marblemount	75.22	43	⇑P	P	01 19 41.9	+0.2
	baz=75						
KAF	Kangasniemi	75.32	333	ep	P	01 19 41.0	-1.0
	comp=Z,1.8nm,0.5s,mb3.9,baz=54,slow=5.2						
KAF	Kangasniemi	75.32	333	eP	P	01 19 41.0	-1.0
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.9						
C05A	Tolt Reservoir	75.46	44	⇓P	P	01 19 43.4	+0.4
	baz=75						
GSM	Grass Mountain	75.61	44	P	P	01 19 44.4	+0.6
A07A	Ashnola River,	75.64	42	P	P	01 19 44.2	+0.2
	baz=75,SNR=5.1						
H03A	Soap Creek Ran	75.76	47	⇑P	P	01 19 45.7	+1.0
	baz=75						
F04A	Amboy	75.77	45	⇑P	P	01 19 44.9	+0.2
	baz=75						
FINES	FINESS Array B	75.78	333	P	P	01 19 43.6	-0.9
FINES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
FINES	FINESS Array B	75.78	333	P	P	01 19 43.5	-1.0
	comp=Z,1.1nm,0.3s,mb3.9,baz=71,slow=5.2,SNR=26						
C06A	Tall Timber Ra	75.84	43	⇑P	P	01 19 45.4	+0.3
	baz=75						
WRW	Wenatchee Ridg	75.87	43	P	P	01 19 45.6	+0.3
E05A	Randle	75.91	45	⇓P	P	01 19 45.7	+0.1
	baz=76						
B07A	Winthrop	76.06	42	P	P	01 19 46.4	+0.1
	baz=76,SNR=5.4						
I03A	Eugene	76.07	48	⇑P	P	01 19 47.1	+0.6
	baz=76						
NLW	Nelson Butte	76.10	43	P	P	01 19 46.8	+0.2
J02A	Umpqua	76.14	48	⇓P	P	01 19 47.1	+0.2
	baz=76						
D06A	Cle Elum	76.19	44	⇓P	P	01 19 47.3	+0.2
	baz=76						
E06A	Yakima	76.40	44	⇓P	P	01 19 48.6	+0.4
	baz=76						
C07A	Waterville	76.44	43	P	P	01 19 48.1	-0.3
	baz=76,SNR=8.2						
K02A	Glendale	76.45	49	⇑P	P	01 19 49.1	+0.5
	baz=76						
H04A	Detroit Lake	76.46	46	⇓P	P	01 19 48.7	+0.1
	baz=76						
BROR	Big Rock Looko	76.48	47	P	P	01 19 49.0	+0.3
HOOD	Mount Hood Mea	76.52	46	eP	P	01 19 49.6	+0.7
B08A	Colville Reser	76.58	42	P	P	01 19 49.1	0.0
	baz=76,SNR=7.4						
L02A	Cave Junction	76.64	49	⇑P	P	01 19 49.9	+0.2
	baz=76						
I04A	Tendick Farm,	76.71	47	⇓P	P	01 19 50.1	+0.1
	baz=76						
D07A	Quincy	76.72	43	⇑P	P	01 19 49.9	-0.1
	baz=76						
A09A	Danville	76.73	41	P	P	01 19 50.2	+0.2
	baz=76,SNR=5.3						
G05A	Wamic	76.77	46	⇑P	P	01 19 50.3	0.0
	baz=76						
JCC	Jacoby Creek	76.94	51	⇑P	P	01 19 51.5	+0.1
	baz=77						
C08A	Higginbotham F	77.01	43	P	P	01 19 51.4	-0.2
	baz=77,SNR=7.5						
E07A	Sunnyside	77.08	44	⇓P	P	01 19 52.3	+0.3
	baz=77						
H05A	Madras	77.09	46	⇑P	P	01 19 52.4	+0.3
	baz=77						
J04A	Umpqua Nationa	77.15	48	P	P	01 19 52.9	+0.4
	baz=77,SNR=6.8						

G06A	Carlson Farm,	77.20	45	⇑P	P	01 19 53.0	+0.3
	baz=77						
B09A	Rice	77.25	42	⇓P	P	01 19 52.9	+0.1
	baz=77						
GBL	Gable Mountain	77.31	44	P	P	01 19 53.3	+0.1
A10A	Northport	77.33	41	⇑P	P	01 19 53.3	+0.1
	baz=77						
F07A	Phinny Hill Vi	77.34	45	⇓P	P	01 19 53.8	+0.4
	baz=77						
D08A	Wollman Farm,	77.42	43	P	P	01 19 53.8	-0.1
	baz=77,SNR=5.8						
YBH	Yreka Blue Hor	77.43	49	*e*P	P	01 19 54.7	+0.7
YBH	Yreka Blue Hor	77.43	49	⇓P	P	01 19 54.6	+0.6
	baz=77						
C09A	Chrisman Ranch	77.46	42	⇑P	P	01 19 54.0	0.0
	baz=77						
M02C	Callahan	77.48	50	⇓P	P	01 19 54.9	+0.6
	baz=77						
VIPM	Ingram Point	77.54	46	P	P	01 19 54.7	+0.2
EDM	Edmonton	77.56	36	*e*P	P	01 19 54.3	-0.2
H06A	Lindquist Farm	77.62	46	⇓P	P	01 19 55.0	0.0
	baz=77						
K04A	Chilquin	77.68	48	⇑P	P	01 19 56.0	+0.6
	baz=77						
J05A	Fort Rock	77.70	47	P	P	01 19 56.2	+0.7
	baz=77,SNR=9.0						
L04A	Klamath Falls	77.78	49	⇓P	P	01 19 55.9	+0.1
	baz=77						
D09A	Jones Farm, Ri	77.79	43	⇓P	P	01 19 55.9	+0.1
	baz=77						
G07A	Ruggs Ranch, H	77.79	45	⇑P	P	01 19 55.9	0.0
	baz=77						
LHEM	Herd Peak	77.80	49	P	P	01 19 56.5	+0.5
B10A	Chitwood Farm,	77.85	42	⇓P	P	01 19 56.4	+0.3
	baz=77						
NEW	Newport	77.92	42	*e*P	P	01 19 56.6	+0.1
KBD	Kabd	77.98	297	*e*P	P	01 19 56.3	-0.9
KBD				AMb	AMB	01 20 01.0	
	comp=Z,26nm,0.8s,mb4.7						
QRN	Al-Qurain	77.98	296	*e*P	P	01 19 56.7	-0.6
QRN				AMb	AMB	01 19 57.5	
	comp=Z,26nm,0.6s,mb4.8						
M04C	Macdoel	77.99	49	P	P	01 19 57.3	+0.3
	baz=78,SNR=11						
MIB	Mutribah	77.99	297	*e*P	P	01 19 56.2	-1.0
MIB				AMb	AMB	01 19 57.2	
	comp=Z,25nm,0.5s,mb4.9						
A11A	Hall Mountain,	78.03	41	⇑P	P	01 19 57.5	+0.4
	baz=78						
C10A	Spilker Farm,	78.03	42	⇑P	P	01 19 56.9	-0.2
	baz=78						
M03C	McCloud	78.03	50	P	P	01 19 57.8	+0.5
	baz=78,SNR=9.1						
WDC	Whiskeytown Da	78.06	50	⇑P	P	01 19 57.5	+0.1
	baz=78						
I06A	Prineville	78.06	47	P	P	01 19 57.9	+0.5
	baz=78,SNR=5.8						
O02C	Red Bluff	78.07	51	P	P	01 19 58.2	+0.8
	baz=78,SNR=5.4						
F08A	Pendleton	78.10	44	P	P	01 19 58.1	+0.5
	baz=78,SNR=10						
E09A	Wood Farm, Sta	78.15	43	⇓P	P	01 19 57.9	+0.1
	baz=78						
K05A	Summer Lake	78.18	48	⇑P	P	01 19 58.2	+0.2
	baz=78						
RDF	Al-Radifah	78.20	296	*e*P	P	01 19 57.3	-1.1
RDF				AMb	AMB	01 19 58.5	
	comp=Z,24nm,0.7s,mb4.8						
G08A	Pilot Rock	78.23	45	P	P	01 19 58.7	+0.5
	baz=78,SNR=5.2						
B11A	Sandpoint	78.28	41	P	P	01 19 58.8	+0.3
	baz=78,SNR=5.6						
NAY	Al-Naaiem	78.30	297	*e*P	P	01 19 57.8	-1.1
NAY				AMb	AMB	01 19 59.0	
	comp=Z,14nm,0.8s,mb4.4						
GASB	Alder Springs	78.35	51	⇑P	P	01 19 59.6	+0.5
	baz=78						
J06A	Christmas Vall	78.42	47	P	P	01 19 59.8	+0.5
	baz=78,SNR=6.6						
A12A	Yaak River Ran	78.45	41	⇑P	P	01 19 59.5	+0.2
	baz=78						
I07A	Izee	78.45	46	P	P	01 19 59.8	+0.4
	baz=78,SNR=5.2						
L05A	Lakeview	78.53	48	⇑P	P	01 20 00.1	+0.2
	baz=78						
K06A	Valley Falls	78.57	48	P	P	01 20 00.5	+0.3
	baz=78,SNR=5.4						
M05C	Lookout	78.64	49	⇑P	P	01 20 00.5	0.0
	baz=78						
O03C	Acorn Hollow,	78.67	51	⇓P	P	01 20 00.4	-0.3
	baz=78						
F09A	S2 Ranch, Elgi	78.68	44	⇑P	P	01 20 00.7	+0.1
	baz=78						
HATC	Hat Creek Radi	78.68	50	⇑P	P	01 20 00.7	-0.1
	baz=78						
H08A	Prairie City	78.77	45	P	P	01 20 01.5	+0.3
	baz=78,SNR=8.4						
E10A	Myers Farm, Un	78.79	43	⇑P	P	01 20 01.2	0.0
	baz=78						
MNRC	McLaughlin Nat	78.89	52	⇓P	P	01 20 02.5	+0.5
	baz=78						
J07A	Hines	78.91	47	P	P	01 20 02.6	+0.7
	baz=78,SNR=10.0						
MOD	Modoc	78.95	48	*e*P	P	01 20 02.5	+0.3
MOD	Modoc	78.95	48	⇓P	P	01 20 02.4	+0.2
	baz=79						
F10A	Beach Ranch, E	78.97	44	⇓P	P	01 20 02.3	+0.1
	baz=78						
D11A	Klaveano Farm,	78.98	42	P	P	01 20 01.8	-0.4
	baz=79,SNR=8.4						
I08A	Drewsey	79.13	46	P	P	01 20 03.5	+0.4
	baz=79,SNR=5.4						
M06C	Likely Place G	79.16	49	⇑P	P	01 20 03.5	+0.2
	baz=79						
O04C	Chester	79.16	50	P	P	01 20 03.7	+0.4
	baz=79,SNR=17						
SUTB	Sutter Butte	79.19	51	⇓P	P	01 20 02.7	-0.8
	baz=79						
ORV	Oroville	79.23	51	⇑P	P	01 20 03.1	-0.7
	baz=79						
ELFS	Eagle Lake Fie	79.27	50	⇑P	P	01 20 04.0	+0.1
	baz=79						
K07A	Rock Creek Ran	79.27	47	P	P	01 20 04.2	+0.4
	baz=79,SNR=9.4						
Q03C	Winters	79.30	52	⇓P	P	01 20 03.6	-0.5
	baz=79						
H09A	Durkee	79.33	45	⇑P	P	01 20 04.1	0.0
	baz=79						
WALA	Waterton Lakes	79.38	40	*e*P	P	01 20 04.3	0.0
	comp=Z,5.5nm,0.7s,mb4.2						
E11A	Bogner Ranch,	79.40	43	⇑P	P	01 20 03.9	-0.6
	baz=79						
B13A	Whitefish	79.41	41	P	P	01 20 04.9	+0.5
	baz=79,SNR=9.0						
O05C	Quincy	79.44	50	⇑P	P	01 20 04.8	0.0
	baz=79						
J08A	Circle Bar Ran	79.45	46	P	P	01 20 05.3	+0.5
	baz=79,SNR=12						
BMO	Blue Mountains	79.47	45	*e*P	P	01 20 04.8	0.0
BSMT	Bassoo Peak	79.49	41	*e*P	P	01 20 04.8	-0.1
L07A	Adell	79.53	48	P	P	01 20 06.0	+0.7
	baz=79,SNR=14						
I09A	Lost Marbles R	79.62	46	⇑P	P	01 20 05.9	+0.3
	baz=79						
F11A	Grangeville	79.66	43	⇓P	P	01 20 05.5	-0.3
	baz=79						
C13A	Hot Springs	79.70	41	P	P	01 20 06.1	+0.1
	baz=79,SNR=8.3						
K08A	Mann Creek Ran	79.75	47	P	P	01 20 06.8	+0.4
	baz=79,SNR=6.4						
WVOR	Wild Horse Val	79.79	47	*e*P	P	01 20 05.7	-0.9
	comp=Z,4.2nm,0.7s,mb4.1						
WVOR	Wild Horse Val	79.79	47	*e*P	P	01 20 05.7	-0.9
WVOR				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.1						
N06A	Buffalo Meadow	79.81	49	P	P	01 20 06.8	+0.1
	baz=79,SNR=7.3						
BEKR	Beckwourth	79.87	50	P	P	01 20 07.0	-0.1
	baz=80,SNR=24						
J09A	Fry Pan Ranch,	79.92	46	P	P	01 20 07.6	+0.4
	baz=80,SNR=11						
M07A	Soldier Meadow	79.94	48	P	P	01 20 08.1	+0.6
	baz=80,SNR=5.5						
D13A	Huson	80.07	42	⇓P	P	01 20 07.9	-0.1
	baz=80						
O06A	Flanigan	80.09	50	P	P	01 20 08.2	0.0
	baz=80,SNR=13						
L08A	Fields	80.10	47	P	P	01 20 08.7	+0.5
	baz=80,SNR=22						
LAVA	Lava Cap Winer	80.13	51	P	P	01 20 08.4	-0.1
	baz=80,SNR=5.6						
AKASG	Malin Array Be	80.14	323	P	P	01 20 07.1	-1.2
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	80.14	323	P	P	01 20 07.1	-1.2
	comp=Z,0.5nm,0.3s,mb3.5,baz=53,slow=5.3,SNR=4.7						
I10A	Payette	80.16	45	⇑P	P	01 20 08.6	+0.1
	baz=80						
K09A	Rome	80.25	47	P	P	01 20 09.2	+0.2
	baz=80,SNR=7.6						
H11A	Donnelly	80.34	44	P	P	01 20 09.0	-0.4
	baz=80,SNR=6.4						
N07B	Gerlach	80.37	49	⇑P	P	01 20 09.4	-0.2
	baz=80						
M08A	Happy Creek Ra	80.43	48	⇑P	P	01 20 10.0	0.0
	baz=80						
J10A	Berg Farm, Mel	80.50	46	⇓P	P	01 20 10.0	-0.3
	baz=80						
WCN	Washoe City	80.55	51	⇑P	P	01 20 10.6	0.0
	baz=80						
PACP	Pacheco Peak	80.57	53	⇓P	P	01 20 10.8	0.0
	baz=80						
R05C	Kirkwood Meado	80.61	51	⇑P	P	01 20 10.8	-0.2
	baz=80						
L09A	Wilkinson Ranc	80.62	47	⇑P	P	01 20 11.1	+0.1
	baz=80						
D14A	Greenough	80.63	41	P	P	01 20 10.6	-0.3
	baz=80,SNR=6.2						
HAST	UC Hastings Re	80.67	54	⇑P	P	01 20 11.2	-0.1
	baz=80						
CMB	Columbia Colle	80.72	52	*e*P	P	01 20 10.6	-0.9
	comp=Z,6.8nm,0.9s,mb4.2						
CMB	Columbia Colle	80.72	52	*e*P	P	01 20 10.6	-0.9
CMB				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.2						
CMB	Columbia Colle	80.72	52	P	P	01 20 11.6	+0.1
	baz=80,SNR=7.7						
O07A	Toulon	80.73	49	P	P	01 20 11.7	+0.1
	baz=80,SNR=7.1						
K10A	MacKenzie Ranc	80.76	46	⇓P	P	01 20 11.7	0.0
	baz=80						
I11A	Placerville	80.77	45	⇑P	P	01 20 11.1	-0.6
	baz=80						
F13A	Darby	80.81	43	P	P	01 20 11.0	-0.9
	baz=80,SNR=6.0						
CHMT	Chamberlain Mo	80.87	41	*e*P	P	01 20 09.2	-2.9
N08A	GE Springer Mi	80.92	49	P	P	01 20 12.4	-0.1
	baz=80,SNR=11						
E14A	Clinton	80.98	42	⇓P	P	01 20 12.3	-0.5
	baz=81						
P07A	Fallon	81.02	50	⇑P	P	01 20 12.9	-0.2
	baz=81						
M09A	Marrel Ranch,	81.06	48	⇑P	P	01 20 13.1	-0.1
	baz=81						
S05C	Merced	81.08	52	⇑P	P	01 20 12.8	-0.7
	baz=81						
MFID	Camas Ranch	81.10	45	P	P	01 20 14.0	+0.6
	baz=81,SNR=8.2						
R06C	Coleville	81.13	51	⇓P	P	01 20 14.0	+0.4
	baz=81						
H12A	Diamond D Ranc	81.13	44	P	P	01 20 13.7	+0.2
	baz=81,SNR=6.4						
WAKR	Walker	81.15	51	*e*P	P	01 20 14.0	+0.2
S06C	San Francisco	81.16	52	⇓P	P	01 20 13.4	-0.4
	baz=81						
D15A	Lincoln	81.22	41	⇑P	P	01 20 13.7	-0.3
	baz=81						
G13A	Cobalt	81.23	43	P	P	01 20 12.9	-1.1
	baz=81,SNR=6.2						
N09A	Rock Creek Ran	81.29	48	⇓P	P	01 20 14.7	+0.3
	baz=81						
L10A	Juniper Basin	81.37	47	P	P	01 20 15.2	+0.3
	baz=81,SNR=6.2						
E15A	Deer Lodge	81.48	42	P	P	01 20 15.2	-0.1
	baz=81,SNR=11						
H13A	Challis	81.49	44	P	P	01 20 15.6	+0.2
	baz=81,SNR=13						
NB2	NORSAR Subarra	81.60	337	P	P	01 20 14.1	-1.5
	comp=Z,1.5nm,0.7s,mb3.6,baz=49,slow=4.6						
NOA	NORSAR Array B	81.60	337	P	P	01 20 14.1	-1.5
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	NORSAR Array B	81.60	337	P	P	01 20 14.1	-1.5
	comp=Z,2.2nm,0.6s,mb3.9,baz=46,slow=4.9,SNR=8.9						
M10A	I.L. Ranch, Tu	81.60	47	P	P	01 20 16.8	+0.8
	baz=81,SNR=7.6						
PKD	Parkfield	81.60	54	⇑P	P	01 20 16.2	0.0
	baz=81						
G14A	Jackson	81.62	43	⇓P	P	01 20 16.1	0.0
	baz=81						
J12A	Stokes Ranch,	81.64	45	⇑P	P	01 20 16.0	-0.2
	baz=81						
T06C	Millerton Lake	81.68	53	⇓P	P	01 20 16.1	-0.4
	baz=81						
L11A	Cat Creek Ranc	81.78	46	P	P	01 20 17.1	+0.2
	baz=81,SNR=12						
KCC	Kaiser Creek	81.80	52	⇑P	P	01 20 17.2	+0.1
	baz=81						
O09A	Fish Creek Ran	81.85	49	⇓P	P	01 20 17.5	+0.2
	baz=82						
F15A	Butte	81.88	42	P	P	01 20 17.5	+0.2
	baz=81,SNR=8.9						
HLID	Hailey	81.91	45	*e*P	P	01 20 17.9	+0.3
HLID	Hailey	81.91	45	P	P	01 20 18.0	+0.5
	baz=82,SNR=6.1						
I13A	Wildhorse Cree	81.91	44	P	P	01 20 18.2	+0.7
	baz=82,SNR=9.7						
LRM	Limekiln Ridge	81.91	42	*e*P	P	01 20 17.9	+0.4
NVAR	Mina Array Bea	81.96	51	P	P	01 20 18.0	+0.1
NVAR	Mina Array Bea	81.96	51	P	P	01 20 18.0	+0.1
	comp=Z,4.2nm,0.5s,mb4.3,baz=293,slow=6.4,SNR=55						
MLAC	Mammoth Lakes	81.99	52	⇓P	P	01 20 18.4	+0.4
	baz=82						
Q08A	Gabbs	82.00	50	⇑P	P	01 20 18.3	+0.2
	baz=82						
N10A	Dunphy	82.02	48	⇑P	P	01 20 18.5	+0.3
	baz=82						
DLMT	Dillon	82.07	43	*e*P	P	01 20 19.3	+1.0
	comp=Z,15nm,1.1s,mb4.4						
K12A	Draper Farm, C	82.08	46	P	P	01 20 19.0	+0.6
	baz=82,SNR=5.5						
M11A	Holland Ranch,	82.13	47	P	P	01 20 19.9	+1.1
	baz=82,SNR=5.2						
R08A	Mina	82.14	51	⇑P	P	01 20 18.9	+0.1
	baz=82						
J13A	Cove Ranch, Pi	82.14	45	P	P	01 20 19.4	+0.6
	baz=82,SNR=10						
P09A	Austin	82.19	49	⇑P	P	01 20 19.0	-0.1
	baz=82						
FFC	Flin Flon	82.24	31	*e*P	P	01 20 18.1	-0.9
	comp=Z,8.0nm,1.0s,mb4.2						
FFC	Flin Flon	82.24	31	*e*P	P	01 20 18.1	-0.9
FFC				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.2						
G15A	Dillon	82.24	43	P	P	01 20 19.0	-0.2
	baz=82,SNR=8.4						
O10A	Cortez Mining,	82.25	48	⇑P	P	01 20 19.5	+0.1
	baz=82						
L12A	House Creek Ra	82.26	46	P	P	01 20 20.2	+0.8
	baz=82,SNR=6.0						
EGMT	Eagleton	82.27	39	*e*P	P	01 20 17.4	-1.8
	comp=Z,15nm,0.8s,mb4.6						
MTUM	Tungsten Hills	82.31	52	*e*P	P	01 20 19.0	-0.7
HELL	Mitchell Peak,	82.32	53	⇓P	P	01 20 19.3	-0.5
	baz=82						
BOZ	Bozeman (W)	82.49	42	*e*P	P	01 20 20.4	-0.1
S08C	White Mtn Res	82.51	51	P	P	01 20 21.1	+0.3
	baz=82,SNR=7.3						
K13A	Stover Farm, H	82.59	45	P	P	01 20 21.7	+0.7
	baz=82,SNR=5.9						
PKM	Peak Mountain	82.62	54	⇓P	P	01 20 21.8	+0.5
	baz=82						
TIN	Tinemaha	82.69	52	⇑P	P	01 20 21.9	+0.2
	baz=82						
VES	Vestal, Richgr	82.69	53	⇓P	P	01 20 20.4	-1.3
	baz=82						
M12A	Wells	82.70	47	P	P	01 20 22.2	+0.6
	baz=82,SNR=16						
FCC	Fort Churchill	82.80	25	*e*P	P	01 20 19.8	-2.0
	comp=Z,5.8nm,0.8s,mb4.2						
FCC	Fort Churchill	82.80	25	*e*P	P	01 20 19.8	-2.0
FCC				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.2						
O11A	Cowboy Ranch,	82.88	48	P	P	01 20 23.1	+0.5
	baz=82,SNR=6.9						
R09A	Tonopah	82.89	50	P	P	01 20 22.8	+0.1
	baz=82,SNR=23						
N12A	Clover Valley,	82.92	47	⇓P	P	01 20 23.0	+0.2
	baz=82						
L13A	Double Diamond	82.97	46	⇓P	P	01 20 23.6	+0.6
	baz=83						
S09A	Goldfield	83.05	51	P	P	01 20 23.2	-0.3
	baz=83,SNR=14						
QLMT	Earthquake Lak	83.06	43	*e*P	P	01 20 24.1	+0.8
P11A	Circle Ranch,	83.11	49	⇓P	P	01 20 24.3	+0.5
	baz=83						
ISA	Isabella	83.21	53	⇓P	P	01 20 23.4	-0.9
	baz=83						
M13A	Montello	83.22	47	⇓P	P	01 20 24.3	+0.1
	baz=83						
K14A	Jones Ranch, D	83.22	45	P	P	01 20 25.0	+0.8
	baz=83,SNR=5.8						
BRTR	Keskin Array B	83.28	312	P	P	01 20 24.0	-0.6
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	83.28	312	P	P	01 20 23.9	-0.6
	comp=Z,1.0nm,0.8s,mb3.4,baz=115,slow=4.1,SNR=6.7						
GRAC	Grapevine Rang	83.31	52	P	P	01 20 24.7	0.0
	baz=83,SNR=5.4						
S10A	Tonopah Range,	83.38	50	P	P	01 20 25.3	+0.2
	baz=83,SNR=18						
R10A	Warm Springs	83.39	50	⇓P	P	01 20 25.3	+0.2
	baz=83						
N13A	Wendover, West	83.45	47	⇑P	P	01 20 25.4	0.0
	baz=83						
GCMT	Greycliff	83.56	41	*e*P	P	01 20 24.9	-0.9
YFT	Old Faithful	83.62	43	*e*P	P	01 20 29.0	+2.9
SNCC	San Nicolas Is	83.64	56	⇓P	P	01 20 26.4	-0.1
	baz=83						
MPMC	Manual Prospec	83.70	52	P	P	01 20 26.7	-0.1
	baz=83,SNR=7.2						
P12A	McGill	83.72	48	P	P	01 20 26.9	+0.2
	baz=83,SNR=10						
LKWY	Lake	83.81	42	*e*P	P	01 20 29.3	+2.2
LRMC	Laurel Mountai	83.85	53	⇑P	P	01 20 27.4	-0.1
	baz=84						
IMW	Indian Meadow	83.86	43	*e*P	P	01 20 28.3	+0.9
	comp=Z,10.0nm,1.0s,mb4.3						
FURC	Furnace Creek,	83.93	52	⇑P	P	01 20 27.7	-0.2
	baz=84						
EDW2	Edwards Air Fo	83.94	54	P	P	01 20 27.9	0.0
	baz=84,SNR=8.5						
DECC	Green Verdugo	84.01	54	⇑P	P	01 20 28.2	-0.1
	baz=84						
MOOW	Moose Ponds	84.06	43	*e*P	P	01 20 28.8	+0.4
TPAW	Teton Pass	84.08	43	*e*P	P	01 20 29.4	+0.9
	comp=Z,9.7nm,1.1s,mb4.2						
S11A	Rachel	84.10	50	⇑P	P	01 20 28.6	-0.1
	baz=84						
RLMT	Red Lodge	84.17	41	*e*P	P	01 20 29.3	+0.4
	comp=Z,11nm,0.6s,mb4.6						
LOHW	Long Hollow	84.22	43	*e*P	P	01 20 29.7	+0.5
U10A	Ash Meadows, A	84.33	52	⇑P	P	01 20 30.0	+0.2
	baz=84						
BFSC	Mount Baldy St	84.50	54	⇑P	P	01 20 30.8	+0.1
	baz=84						
R12A	Pony Springs,	84.51	49	⇓P	P	01 20 30.4	-0.3
	baz=84						
GSC	Goldstone	84.56	53	P	P	01 20 30.9	-0.1
	baz=84,SNR=8.3						
SHOC	Shoshone	84.63	52	⇓P	P	01 20 31.0	-0.3
	baz=84						
DUG	Dugway	84.70	47	*e*P	P	01 20 31.9	+0.3
	comp=Z,8.9nm,1.1s,mb4.3						
DUG	Dugway	84.70	47	*e*P	P	01 20 31.9	+0.3
DUG				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.3						
HWUT	Hardware Ranch	84.73	45	*e*P	P	01 20 32.2	+0.5
	comp=Z,7.7nm,1.0s,mb4.3						
LAO	LASA Array	85.00	39	*e*P	P	01 20 33.0	+0.1
	comp=Z,5.9nm,0.6s,mb4.4						
TUQ	Turquoise Mtn.	85.11	52	⇑P	P	01 20 33.5	-0.2
	baz=85						
HEC	Hector,Ludlow	85.14	53	⇓P	P	01 20 33.7	-0.2
	baz=85						
MURC	Murrieta	85.15	54	⇑P	P	01 20 33.3	-0.6
	baz=85						
V11A	Goodsprings	85.25	52	⇓P	P	01 20 34.3	-0.1
	baz=85						
PDAR	Pinedale Array	85.33	44	P	P	01 20 34.0	-0.5
	comp=Z,1.6nm,0.8s,mb3.7,baz=280,slow=2.6,SNR=14						
GMRC	Granite Mounta	85.64	53	⇑P	P	01 20 36.1	-0.2
	baz=85						
T13A	Saint George	85.67	50	⇓P	P	01 20 36.5	+0.1
	baz=85						
PFO	Pinyon Flat Ob	85.68	54	*e*P	P	01 20 36.0	-0.5
PFO	Pinyon Flat Ob	85.68	54	⇓P	P	01 20 36.0	-0.4
	baz=85						
V12A	Nelson	85.71	52	⇑P	P	01 20 36.9	+0.3
	baz=85						
BELC	Belle Mtn.	85.80	54	P	P	01 20 37.0	-0.1
	baz=86,SNR=5.4						
MONP	Monument Peak	86.07	55	⇑P	P	01 20 38.1	-0.3
	baz=86						
IRM	Iron Mountain	86.32	53	⇓P	P	01 20 39.6	+0.1
	baz=86						
BC3	Big Chuckw Mtn	86.37	54	⇑P	P	01 20 39.5	-0.3
	baz=86						
DVTC	Desert V Tower	86.42	55	⇑P	P	01 20 39.5	-0.5
	baz=86						
PDMCI	Parker Dam,Lak	86.96	53	⇑P	P	01 20 42.7	+0.2
	baz=87						
GLA	Glamis	87.13	54	⇓P	P	01 20 42.9	-0.4
	baz=87						
W14A	Seligman	87.20	51	⇓P	P	01 20 43.4	-0.2
	baz=87						
RSSD	Black Hills	87.78	40	*e*P	P	01 20 43.7	-2.4
	comp=Z,3.8nm,0.7s,mb4.2						
RSSD	Black Hills	87.78	40	*e*P	P	01 20 43.7	-2.5
RSSD				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
W15A	Williams	87.78	51	⇑P	P	01 20 46.1	-0.3
	baz=87						
ULM	Lac du Bonnet	87.99	32	P	P	01 20 45.3	-1.8
	comp=Z,0.9nm,0.4s,mb3.9,baz=289,slow=4.7,SNR=4.7						
X15A	Humboldt	88.18	52	⇑P	P	01 20 48.0	-0.3
	baz=88						
PV01	Paradox Valley	88.59	47	*e*P	P	01 20 48.7	-1.4
SMCO	Snowmass	89.00	45	*e*P	P	01 20 52.8	+0.8
	comp=Z,4.2nm,0.9s,mb4.3						
115A	Sonoran Desert	89.16	53	⇑P	P	01 20 53.3	+0.4
	baz=89						
MVCO	Mesa Verde	89.17	48	⇑P	P	01 20 52.5	-0.2
	baz=89						
GERES	GERESS Array B	89.18	327	PKiKP	PKiKP	01 25 46.9	-0.6
	comp=Z,0.4nm,0.8s,baz=90,slow=1.3,SNR=3.6						
SDCO	Great Sand Dun	90.78	46	*e*P	P	01 20 55.5	-4.8
	comp=Z,3.7nm,0.8s,mb4.4						
ANMO	Albuquerque	91.83	48	*e*P	P	01 21 03.0	-2.1
	comp=Z,3.3nm,1.0s,mb4.2						
ANMO	Albuquerque	91.83	48	*e*P	P	01 21 03.0	-2.1
ANMO				pmax	pmax		
	comp=Z,3.0nm,1.0s						
TXAR	Lajitas Array	97.09	52	P	P	01 21 28.8	-0.4
TXAR	Lajitas Array	97.09	52	P	P	01 21 28.8	-0.4
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
TXAR	Lajitas Array	97.09	52	P	P	01 21 28.8	-0.4
	comp=Z,0.9nm,0.8s,mb4.1,baz=289,slow=2.4,SNR=10						
TORD	Torodi Ar. Bea	121.83	309	PKP	PKPdf	01 26 46.6	-1.8
TORD	Torodi Ar. Bea	121.83	309	PKP	PKPdf	01 26 46.6	-1.8
	comp=Z,0.3nm,0.8s,baz=341,slow=1.1,SNR=4.7						
LPAZ	La Paz	152.20	71	PKPbc	PKPbc	01 27 50.9	+0.9
LPAZ	La Paz	152.20	71	PKIKP	PKPbc	01 27 50.9	+0.9
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.6s						
LPAZ	La Paz	152.20	71	PKPbc	PKPbc	01 27 50.9	+0.9
	comp=Z,1.4nm,0.6s,baz=325,slow=3.9,SNR=7.9						

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*CSEM **10** 01:15:29.2, 12.15N×44.84E, h17^{km}, ML3.8, After DHMR*

DHMR 10 01:15:29.2±1.1**, 1215N×4484E, h18**^{km}±4^{km}**, ML3.8, 3C,**

Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ADEN	Aden	0.64	13	*i* P	Pg	01 15 41.2	-0.6
ADEN				*i* S	Sg	01 15 49.9	-0.6
ADEN				AML	AML	01 15 54.0	
	comp=E,6µm,0.3s						
ADEN	Aden	0.64	13	*i* P	Pg	01 15 41.2	-0.7
	comp=E,767nm,0.2s						
ADEN				*i* S	Sg	01 15 49.9	-0.5

	comp=E,3μm,0.3s						
TRBA	**At Turbah**	1.29	327	⇑iP	Pn	01 15 52.1	-0.2
TRBA				iS	Sn	01 16 09.1	0.0
TRBA				AML	AML	01 16 09.5	
	comp=N,2μm,0.2s						
LBOS		1.76	13	iP	Pn	01 16 00.6	+1.8
LBOS				iS	Sn	01 16 24.6	+3.8
BDHA	**Al Bayda'**	1.95	21	iP	Pn	01 16 03.8	+2.4
BDHA				AML	AML	01 16 12.2	
	comp=N,1μm,0.3s						
BDHA				iS	Sn	01 16 29.9	+4.4
BDHA	**Al Bayda'**	1.95	21	iP	Pn	01 16 03.8	+2.4
	comp=N,513nm,0.3s						
BDHA				iS	Sn	01 16 29.9	+4.4
UDYN	**Al 'Udayn**	2.00	335	⇑iP	Pn	01 16 03.1	+1.0
UDYN				iS	Sn	01 16 29.6	+3.0
UDYN				AML	AML	01 16 38.9	
	comp=N,1μm,0.5s						
UDYN	**Al 'Udayn**	2.00	335	⇑iP	Pn	01 16 03.1	+1.0
	comp=N,557nm,0.5s						
UDYN				iS	Sn	01 16 29.6	+3.0
DHBB	**Dhamar BB**	2.45	350	iP	Pn	01 16 11.1	+2.9
DHBB				iS	Sn	01 16 43.5	+5.8
HAJJ	**Hajjah**	3.73	341	iP	Pn	01 16 28.3	+2.4
HAJJ				iS	Sn	01 17 14.9	+5.5
HAJJ				AML	AML	01 17 33.2	
	comp=E,174nm,0.5s						
HAJJ	**Hajjah**	3.73	341	iP	Pn	01 16 28.3	+2.4
HAJJ				iS	Sn	01 17 14.9	+5.5
	comp=E,87nm,0.5s						
MUKL	**Al Mukalla**	4.70	60	iP	Pn	01 16 41.1	+1.9
MUKL				AML	AML	01 17 05.7	
	comp=E,17nm,0.6s						
MUKL				iS	Sn	01 17 37.3	+4.0

*NEIC **10** 01:23:31.4, 17.96N×65.83W, h13^{km}, MD2.8(RSPR), After RSPR.*

RSPR 10 01:23:31.4, 17.96N×65.83W, h13^{km}, MD2.8/15, **MD2.8**/15, **33C-10D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPD	**Cerro la Pandu**	0.11	314	⇓eP	Pg	01 23 35.0	+0.5
CPD	**Cerro la Pandu**	0.11	314	eS	Sg	01 23 37.5	+0.8
CPD	**Cerro la Pandu**	0.11	314	⇑eP	Pg	01 23 34.9	+0.4
CPD	**Cerro la Pandu**	0.11	314	eS	Sg	01 23 37.2	+0.6
CPD	**Cerro la Pandu**	0.11	314	⇑eP	Pg	01 23 34.9	+0.4
CPD				eS	Sg	01 23 37.2	+0.6
CPD				eS	Sg	01 23 37.5	+0.8
HUMP	**Col San Antoni**	0.18	355	⇑eP	Pg	01 23 35.9	+0.4
HUMP				eS	Sg	01 23 39.1	+0.7
HUMP	**Col San Antoni**	0.18	355	⇑eP	Pg	01 23 35.8	+0.3
HUMP	**Col San Antoni**	0.18	355	eS	Sg	01 23 38.8	+0.4
HUMP	**Col San Antoni**	0.18	355	eS	Sg	01 23 38.8	+0.4
HUMP				eS	Sg	01 23 39.1	+0.7
MTP	**Monte Pirata**	0.30	63	⇑eP	Pg	01 23 37.5	-0.1
MTP	**Monte Pirata**	0.30	63	eS	Sg	01 23 42.2	+0.5
MTP	**Monte Pirata**	0.30	63	⇑eP	Pg	01 23 37.4	-0.2
MTP	**Monte Pirata**	0.30	63	eS	Sg	01 23 42.1	+0.4
CBYP	**Canovanas**	0.31	356	⇑eP	Pg	01 23 38.0	+0.2
CBYP	**Canovanas**	0.31	356	eS	Sg	01 23 42.8	+0.8
CBYP	**Canovanas**	0.31	356	⇑eP	Pg	01 23 37.9	+0.1
CBYP	**Canovanas**	0.31	356	eS	Sg	01 23 42.8	+0.8
CBYP	**Canovanas**	0.31	356	⇑eP	Pg	01 23 37.9	+0.1
CBYP				eS	Sg	01 23 42.8	+0.8
SJG	**San Juan**	0.34	296	⇑eP	Pg	01 23 38.2	-0.1
SJG				eS	Sg	01 23 43.2	+0.4
SJG	**San Juan**	0.34	296	⇑eP	Pg	01 23 38.0	-0.3
SJG	**San Juan**	0.34	296	⇑iP	Pg	01 23 38.2	-0.1
SJG				eS	Sg	01 23 43.2	+0.4
SJG	**San Juan**	0.34	296	⇑eP	Pg	01 23 37.9	-0.3
SJG	**San Juan**	0.34	296	eS	Sg	01 23 43.0	+0.1
SJG	**San Juan**	0.34	296	⇑eP	Pg	01 23 37.9	-0.3
SJG				eS	Sg	01 23 43.0	+0.1
ICM	**Isla Caja Muer**	0.66	264	⇓eP	Pg	01 23 43.8	-0.5
ICM	**Isla Caja Muer**	0.66	264	eS	Sg	01 23 53.7	+0.8
ICM	**Isla Caja Muer**	0.66	264	⇑eP	Pg	01 23 43.5	-0.7
ICM	**Isla Caja Muer**	0.66	264	eS	Sg	01 23 52.6	-0.3
ICM	**Isla Caja Muer**	0.66	264	⇑eP	Pg	01 23 43.5	-0.7
ICM				eS	Sg	01 23 53.7	+0.8
CELP	**Cerrillos**	0.72	279	⇓eP	Pg	01 23 44.8	-0.6
CELP				eS	Sg	01 23 54.9	0.0
CELP	**Cerrillos**	0.72	279	⇑eP	Pg	01 23 44.8	-0.5
CELP				eS	Sg	01 23 54.3	-0.5
CELP	**Cerrillos**	0.72	279	⇑eP	Pg	01 23 44.8	-0.5
CELP				eS	Sg	01 23 54.3	-0.5
OBIP	**Obispado Ponce**	0.74	276	⇑eP	Pg	01 23 44.8	-1.0
OBIP	**Obispado Ponce**	0.74	276	eS	Sg	01 23 55.3	-0.2
OBIP	**Obispado Ponce**	0.74	276	⇑eP	Pg	01 23 44.8	-1.0
OBIP	**Obispado Ponce**	0.74	276	eS	Sg	01 23 54.7	-0.8
OBIP	**Obispado Ponce**	0.74	276	eS	Sg	01 23 55.3	-0.2
STVI	**Saint Thomas**	0.92	65	⇓eP	Pg	01 23 48.1	-1.2
STVI	**Saint Thomas**	0.92	65	eS	Sg	01 23 59.7	-1.7
STVI	**Saint Thomas**	0.92	65	⇓eP	Pg	01 23 47.7	-1.6
STVI	**Saint Thomas**	0.92	65	eS	Sg	01 23 59.2	-2.1
STVI	**Saint Thomas**	0.92	65	⇓eP	Pg	01 23 47.7	-1.6
STVI				eS	Sg	01 23 59.2	-2.1
AOPR	**Arecibo Observ**	0.95	294	⇑iP	Pb	01 23 48.7	-1.2
AOPR	**Arecibo Observ**	0.95	294	eS	Sg	01 24 01.3	-1.1
AOPR	**Arecibo Observ**	0.95	294	⇑eP	Pb	01 23 48.0	-1.8
AOPR	**Arecibo Observ**	0.95	294	eS	Sg	01 24 00.3	-2.0
AOPR	**Arecibo Observ**	0.95	294	⇑eP	Pb	01 23 48.0	-1.8
AOPR				eS	Sg	01 24 00.3	-2.0
GBPR	**Guanica, Bosqu**	0.99	271	⇑eP	Pb	01 23 50.1	-0.4
GBPR	**Guanica, Bosqu**	0.99	271	eS	Sb	01 24 01.6	-2.0
GBPR	**Guanica, Bosqu**	0.99	271	⇑eP	Pb	01 23 49.8	-0.7
GBPR	**Guanica, Bosqu**	0.99	271	eS	Sb	01 24 02.9	-0.7
LRS	**Lares**	1.01	289	⇓eP	Pb	01 23 49.5	-1.4
LRS				eS	Sb	01 24 03.1	-1.1
LRS	**Lares**	1.01	289	⇓eP	Pb	01 23 49.3	-1.6
LRS				eS	Sb	01 24 03.0	-1.2
LRS	**Lares**	1.01	289	⇓eP	Pb	01 23 49.3	-1.6
LRS				eS	Sb	01 24 03.0	-1.2
LSP	**Las Mesas**	1.21	280	⇑eP	Pn	01 23 53.2	-0.8
LSP	**Las Mesas**	1.21	280	eS	Sb	01 24 07.7	-2.1
LSP	**Las Mesas**	1.21	280	⇑eP	Pn	01 23 52.9	-1.2
LSP	**Las Mesas**	1.21	280	eS	Sb	01 24 07.3	-2.4
LSP	**Las Mesas**	1.21	280	⇑eP	Pn	01 23 52.9	-1.2
LSP				eS	Sb	01 24 07.3	-2.4
CRPR	**Cabo Rojo, PR**	1.22	272	⇓eP	Pn	01 23 53.2	-1.0
CRPR	**Cabo Rojo, PR**	1.22	272	eS	Sb	01 24 09.0	-0.9
CRPR	**Cabo Rojo, PR**	1.22	272	⇑eP	Pn	01 23 52.8	-1.4
CRPR	**Cabo Rojo, PR**	1.22	272	eS	Sb	01 24 08.3	-1.6
CRPR	**Cabo Rojo, PR**	1.22	272	⇑eP	Pn	01 23 52.8	-1.4
CRPR				eS	Sb	01 24 08.3	-1.6
TBVI	**Tortola**	1.24	68	⇑eP	Pn	01 23 51.6	-2.9
TBVI	**Tortola**	1.24	68	eS	Sb	01 24 08.6	-2.2
TBVI	**Tortola**	1.24	68	⇑eP	Pn	01 23 51.3	-3.2
TBVI	**Tortola**	1.24	68	eS	Sb	01 24 07.0	-3.8
TBVI	**Tortola**	1.24	68	⇑eP	Pn	01 23 51.3	-3.2
TBVI				eS	Sb	01 24 07.0	-3.8
AGPR	**Aguadilla, PR**	1.31	293	eS	Sb	01 24 10.2	-2.6
AGPR	**Aguadilla, PR**	1.31	293	⇑eP	Pn	01 23 53.8	-1.7
AGPR	**Aguadilla, PR**	1.31	293	eS	Sb	01 24 10.7	-2.1
AGPR	**Aguadilla, PR**	1.31	293	⇑eP	Pn	01 23 54.2	-1.3
AGPR				eS	Sb	01 24 10.2	-2.6

*IDC **10** 01:24:05.9±1.4, 2.53N×95.79E, h0^{km}, mb4.1/7, mb1 4.2/8, mb1mx3.9/21, mbtmp4.0/8, ML3.7/1, MS3.5/1, Ms1 3.5/1, ms1mx2.5/27, Error ellipse: s-maj=51.1km s-min=18.7km az=49.0*

*BJI **10** 01:24:08.0, 2.94N×95.90E, h7^{km}, mB4.4, mb4.7*

*ISCJB **10** 01:24:09.8±2.9, 2.5N±0.1×95.8E±0.1, h41^{km}±23^{km}, mb4.3/18, Error ellipse: s-maj=29.9km s-min=12.1km az=141.2*

*NEIC **10** 01:24:10.1±0.8, 2.48N×95.75E, h30^{km}, mb4.2/4, Error ellipse: s-maj=16.9km s-min=10.6km az=222.0*

NEIC Felt [II] at Gunungsitoli, Nias.

ISC 10 01:24:11.6±2.8, **2.5N**±0.1×**95.8E**±0.2, **h40**^{km}±24^{km}, **n28, σ0^{s}73**/28, **mb4.3**/18, **2C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	3.10	85	Pn	**Pn**	**01 24 58.5**	**+0.4**
PSI	**Prapat**	3.10	85	Pn	**Pn**	**01 24 58.5**	**+0.4**
	8.2nm,0.3s,baz=286,slow=6.5,SNR=33						
KULM	**Kulim**	5.54	60	⇑iPn	**Pn**	**01 25 31.1**	**-0.6**
QIZ	**Qiongzhong**	21.39	39	eP	**P**	**01 28 58.5**	**+2.6**
	2.5nm,0.7s,mb3.6						
ODAN	**Odare**	25.53	342	eP	**P**	**01 29 36.8**	**+0.2**
TAPN	**Taplejung**	25.89	343	eP	**P**	**01 29 40.3**	**+0.4**
	25nm,0.8s,mb4.8						
JIRN	**Jiri**	26.65	341	eP	**P**	**01 29 47.3**	**+0.5**
PKI	**Pulchoki**	26.84	339	eP	**P**	**01 29 48.3**	**-0.1**
DMN	**Daman**	26.98	339	eP	**P**	**01 29 49.3**	**-0.4**
GUN	**Gumba**	26.99	340	eP	**P**	**01 29 50.1**	**+0.3**
	32nm,0.7s,mb5.0						
KKN	**Kakani**	27.09	339	eP	**P**	**01 29 50.6**	**0.0**
	23nm,0.9s,mb4.7						
LSA	**Lhasa**	27.40	351	eP	**P**	**01 29 53.7**	**+0.2**
	3.3nm,0.5s,mb4.1						
GKN	**Gorkha**	27.51	338	eP	**P**	**01 29 54.5**	**0.0**
	20nm,0.7s,mb4.8						
KOLN	**Koldanda**	27.70	336	eP	**P**	**01 29 56.0**	**-0.2**
	12nm,0.7s,mb4.6						
NACB	**Ninganchiao**	32.91	47	P	**P**	**01 30 40.8**	**-1.5**
MBWA	**Marble Bar**	33.18	136	eP	**P**	**01 30 44.6**	**-0.1**
FITZ	**Fitzroy Crossi**	35.80	126	P	**P**	**01 31 06.8**	**-0.5**
	2.6nm,0.9s,mb4.1,baz=176,slow=16,SNR=4.0						
GTA	**Gaotai**	36.90	5	eP	**P**	**01 31 15.7**	**-0.8**
GTA				AP	pP	01 31 21.5	-6.2
GTA				XP	sP	01 31 25.2	-7.3
GTA				AMB	AMB		
	comp=Z,5.0nm,0.8s,mb4.4						
BJT	**Baijiatuau**	41.64	24	eP	**P**	**01 31 56.7**	**+0.6**
	comp=Z,4.0nm,0.6s,mb4.2						
BJI	**Beijing**	41.66	24	P	**P**	**01 31 56.9**	**+0.7**
BJI				AMB	AMB		
	comp=Z,17nm,0.7s,mb4.8						
WRA	**Warramunga Arr**	43.88	122	P	**P**	**01 32 14.9**	**+0.3**
	comp=Z,1.1nm,0.5s,mb3.8,baz=298,slow=9.6,SNR=14						
UCH	**Uchtor**	43.91	337	eP	**P**	**01 32 13.3**	**-1.1**
	comp=Z,2.7nm,0.8s,mb4.0						
MK31	**Makanchi Array**	45.66	347	⇑iP	**P**	**01 32 27.7**	**-0.5**
MKAR	**Makanchi Array**	45.66	347	P	**P**	**01 32 27.9**	**-0.4**
	comp=Z,2.7nm,0.5s,mb4.5,baz=154,slow=9.0,SNR=62						
SONM	**Songino Array**	46.06	10	P	**P**	**01 32 30.9**	**-0.6**
	comp=Z,2.1nm,0.6s,mb4.3,baz=189,slow=9.1,SNR=12						
SONM				PcP	PcP	01 34 07.7	+0.3
	comp=Z,0.5nm,0.6s,baz=181,slow=4.3,SNR=3.0						
ZALV	**Zalesovo Beam**	52.06	352	P	**P**	**01 33 16.9**	**-0.4**
	comp=Z,2.6nm,0.5s,mb4.4,baz=172,slow=6.7,SNR=16						
ARCES	**ARCESS Array B**	80.85	340	P	**P**	**01 36 21.3**	**+0.3**
	comp=Z,2.4nm,0.9s,mb4.1,baz=94,slow=4.9,SNR=6.7						
GERES	**GERESS Array B**	82.93	319	P	**P**	**01 36 33.9**	**+1.6**
	comp=Z,0.1nm,0.3s,mb3.3,baz=103,slow=5.8,SNR=3.6						

MAN 10 01:26:09, 15.55N×121.11E, h1^{km}, mb4.2, ML3.0, MS2.8, 2C-2D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCPH	**Palayan**	0.02	301	⇓iP	Pg	01 26 14.5	+5.0
PCPH				iS	Sg	01 26 17.0	+7.3
BALP	**Baler**	0.48	67	eP	Pg	01 26 19.3	+1.0
BALP				eS	Sg	01 26 25.8	+1.3
BCPH	**Baguio City Da**	0.97	328	⇓eP	Pg	01 26 29.1	+1.5
BCPH				eS	Sg	01 26 42.3	+2.0
POLP	**Polilio Island**	1.14	136	eP	Pg	01 26 31.9	+1.0
POLP				eS	Sg	01 26 49.1	+3.4
SCZP	**Santa Cruz**	1.18	281	eP	Pg	01 26 32.5	+0.9
BOLP	**Bolinao**	1.42	306	eP	Pn	01 26 35.8	-0.2
LQP	**Lukban**	1.49	164	⇑eP	Pn	01 26 39.5	+2.6
CAUP	**Cauayan**	1.54	26	eP	Pn	01 26 37.7	+0.1
LUBP	**Lubang**	1.99	205	eP	Pn	01 26 45.3	+1.5
GQP	**Guinayangan**	2.08	142	⇑eP	Pn	01 26 47.0	+1.9
GQP				eS	Sn	01 27 13.0	+1.3
ABRA	**Dolores**	2.12	350	eP	Pn	01 26 47.4	+1.7
BOAC	**Boac**	2.20	161	eP	Pn	01 26 48.6	+1.9
APYP	**Conner**	2.30	3	eP	Pn	01 26 52.0	+3.9

*ISCJB **10** 01:40:19.1±0.9, 48.23N±0.07×153.80E±0.09, h77^{km}±8^{km}, mb3.8/15, Error ellipse: s-maj=15.1km s-min=5.3km az=140.5*

*MOS **10** 01:40:19.3±1.4, 48.12N×153.86E, h88^{km}, mb3.9/6, Error ellipse: s-maj=13.4km s-min=9.0km az=71.3*

*NEIC **10** 01:40:20.3±1.2, 48.12N×153.89E, h77^{km}±10^{km}, Error ellipse: s-maj=17.1km s-min=7.5km az=135.0*

*IDC **10** 01:40:21.9±0.7, 48.01N×153.76E, h93^{km}±6^{km}, mb3.6/15, mb1 3.8/17, mb1mx3.8/23, mbtmp3.6/17, MS3.4/5, Ms1 3.4/5, ms1mx3.0/28, Error ellipse: s-maj=19.7km s-min=11.7km az=155.0*

ISC 10 01:40:20.9±0.8, **48.23N**±0.07×**153.82E**±0.09, **h77**^{km}±7^{km}, **h95**^{km}±4.2^{km}**:pP-P, n48, σ1^{s}15**/52, **mb3.8**/15, **1C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	2.88	31	ePN	**Pn**	**01 41 02.5**	**-1.9**
SKR				eS	**Sn**	**01 41 37.4**	**-0.6**
SKR				pmax	pmax		
	comp=N,80nm,0.5s						
SKR				pmax	pmax		
	comp=E,80nm,0.5s						
SKR				pmax	pmax		
	comp=Z,150nm,0.5s						
SKR				smax			
	comp=N,450nm,0.5s						
SKR				smax			
	comp=E,460nm,0.5s						
SKR				smax			
	comp=Z,150nm,0.5s						
KUR	**Kuril'sk**	5.07	236	ePN	**Pn**	**01 41 33.6**	**-0.8**
KUR				eS	**Sn**	**01 42 33.0**	**+1.4**
KUR				pmax	pmax		
	comp=N,50nm,0.5s						
KUR				pmax	pmax		
	comp=Z,150nm,0.5s						
KUR				smax			
	comp=N,230nm,0.5s						
KUR				smax			
	comp=E,150nm,0.5s						
PET	**Petropavlovsk**	5.70	31	ePn	**Pn**	**01 41 44.3**	**+1.4**
PET				eSn	**Sn**	**01 42 46.0**	**-0.8**
PET	**Petropavlovsk**	5.70	31	ePN	**Pn**	**01 41 45.0**	**+2.2**
PET				eS	**Sn**	**01 42 45.7**	**-1.1**
PET				pmax	pmax		
	comp=Z,33nm,1.1s						
PET				smax			
	comp=N,93nm,0.5s						
PET				smax			
	comp=E,122nm,0.5s						
PET				MLR	MLR		
	comp=Z,100nm,18.0s						
YSS	**Yuzh-Sakhalins**	7.59	264	ePn	**Pn**	**01 42 10.6**	**+1.9**
	comp=Z,50nm,0.6s						
YSS	**Yuzh-Sakhalins**	7.59	264	⇑iPN	**Pn**	**01 42 11.0**	**+2.3**
YSS				eS	**Sn**	**01 43 32.5**	**-0.6**
YSS				pmax	pmax		
	comp=Z,60nm,0.8s						
YSS				smax			
	comp=N,60nm,1.0s						
ASAJ	**Asahikawa**	8.81	246	PN	**Pn**	**01 42 25.3**	**0.0**
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,95nm,21.5s						
ASAJ	**Asahikawa**	8.81	246	P	**Pn**	**01 42 25.3**	**0.0**
	comp=Z,1.9nm,0.3s,baz=81,slow=17,SNR=8.5						
ASAJ				LR	LR	01 45 28.2	
	comp=Z,95nm,21.5s,baz=2.0,slow=35						
ERM	**Erimo**	9.76	234	ePn	**Pn**	**01 42 35.6**	**-2.8**
	comp=Z,34nm,1.1s						
ERM				eSn	**Sn**	**01 44 18.8**	**-7.4**
ERM	**Erimo**	9.76	234	ePN	**Pn**	**01 42 35.6**	**-2.8**
ERM				pmax	pmax		
	comp=Z,34nm,1.1s						
MA2	**Magadan**	11.51	352	ePn	**Pn**	**01 43 04.2**	**+2.2**
	comp=Z,5.9nm,0.5s						
MA2	**Magadan**	11.51	352	ePN	**Pn**	**01 43 04.3**	**+2.3**
MA2				pmax	pmax		
	comp=N,10.0nm,0.7s						
MA2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
KLR	**Kul'dur**	14.60	282	eP	**Pn**	**01 43 44.8**	**+1.6**
MJAR	**Matsushiro Arr**	16.38	230	P	**Pn**	**01 44 05.7**	**-0.2**
	comp=Z,0.4nm,0.3s,baz=21,slow=13,SNR=4.8						
YAK	**Yakutsk**	19.36	324	iP	**Pn**	**01 44 39.1**	**-2.7**
YAK				pmax	pmax		
	comp=Z,7.0nm,0.6s						
KSRS	**Korea Array**	21.73	250	P	**P**	**01 45 05.5**	**-0.2**
	comp=Z,5.6nm,0.8s,mb3.9,baz=53,slow=9.6,SNR=12						
SONM	**Songino Array**	31.32	287	P	**P**	**01 46 34.1**	**+0.5**
SONM						01 49 25.4	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,67nm,18.1s						
SONM	**Songino Array**	31.32	287	P	**P**	**01 46 34.1**	**+0.5**
	comp=Z,0.4nm,0.8s,mb3.2,baz=82,slow=5.0,SNR=3.6						
SONM				PcP	PcP	01 49 25.4	-0.3
	comp=Z,0.6nm,0.8s,baz=90,slow=3.0,SNR=4.8						
SONM				LR	LR	01 59 23.7	
	comp=Z,67nm,18.1s,baz=53,slow=36						
COLA	**College**	34.69	40	iP	**P**	**01 47 03.1**	**+0.4**
INK	**Inuvik**	40.15	33	P	**P**	**01 47 50.2**	**+1.4**
INK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
INK	**Inuvik**	40.15	33	P	**P**	**01 47 50.1**	**+1.4**
	comp=Z,3.5nm,0.6s,mb4.4,baz=297,slow=6.5,SNR=15						
ZALV	**Zalesovo Beam**	42.15	305	P	**P**	**01 48 04.6**	**-0.7**
	comp=Z,0.7nm,0.6s,mb3.6,baz=50,slow=8.0,SNR=4.4						
ZALV				PcP	PcP	01 49 57.8	-0.5
	comp=Z,0.3nm,0.3s,baz=90,slow=3.0,SNR=4.8						
ZALV				LR	LR	02 06 20.0	
	comp=Z,36nm,19.0s,baz=55,slow=37						
ZAL	**Zalesovo**	42.16	305	P	**P**	**01 48 04.6**	**-0.9**
ZAL						01 49 57.8	
MK31	**Makanchi Array**	46.70	296	eP	**P**	**01 48 41.5**	**-0.2**
MKAR	**Makanchi Array**	46.70	296	P	**P**	**01 48 42.7**	**+1.0**
MKAR				LR	LR	02 07 51.1	
MKAR	**Makanchi Array**	46.70	296	P	**P**	**01 48 42.7**	**+1.0**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR				MLR	MLR		
	comp=Z,34nm,19.7s						
MKAR	**Makanchi Array**	46.70	296	P	**P**	**01 48 42.7**	**+1.0**
	comp=Z,1.8nm,0.7s,mb3.9,baz=66,slow=8.0,SNR=24						
MKAR				LR	LR	02 07 51.1	
	comp=Z,34nm,19.6s,baz=356,slow=35						
KURK	**Kurchatov**	46.95	303	iP	**P**	**01 48 42.6**	**-1.0**
YKA	**Yellowknife Ar**	49.45	38	P	**P**	**01 49 03.2**	**+0.5**
YKA				pP	pP	01 49 26.9	+5.2
YKA	**Yellowknife Ar**	49.45	38	P	**P**	**01 49 03.2**	**+0.5**
YKA				*PP	pP	01 49 26.9	+5.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	**Yellowknife Ar**	49.45	38	P	**P**	**01 49 03.2**	**+0.5**
	comp=Z,0.7nm,0.7s,mb3.7,baz=295,slow=7.1,SNR=8.6						
YKA				pP	pP	01 49 26.9	+5.2
	comp=Z,0.6nm,0.7s,baz=299,slow=7.3,SNR=3.4						
NVAR	**Mina Array Bea**	61.33	63	P	**P**	**01 50 29.0**	**+0.7**
NVAR	**Mina Array Bea**	61.33	63	P	**P**	**01 50 29.0**	**+0.7**
	comp=Z,1.0nm,0.6s,mb4.0,baz=305,slow=5.7,SNR=12						
FINES	**FINESS Array B**	62.91	335	P	**P**	**01 50 38.2**	**-0.2**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	**FINESS Array B**	62.91	335	P	**P**	**01 50 38.1**	**-0.3**
	comp=Z,0.7nm,0.4s,mb3.9,baz=44,slow=7.6,SNR=9.7						
PDAR	**Pinedale Array**	63.49	55	P	**P**	**01 50 43.4**	**+0.7**
	comp=Z,1.3nm,0.7s,mb3.9,baz=308,slow=2.0,SNR=13						
NOA	**NORSAR Array B**	66.98	341	P	**P**	**01 51 04.7**	**-0.2**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	**NORSAR Array B**	66.98	341	P	**P**	**01 51 04.7**	**-0.1**
	comp=Z,0.7nm,0.8s,mb3.5,baz=254,slow=7.9,SNR=2.9						
WRA	**Warramunga Arr**	70.07	199	P	**P**	**01 51 22.1**	**-2.4**
WRA				*PP	pP	01 51 45.0	+0.4
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRA	**Warramunga Arr**	70.07	199	P	**P**	**01 51 22.1**	**-2.4**
	comp=Z,0.9nm,0.6s,mb3.8,baz=16,slow=6.5,SNR=8.2						
WRA				pP	pP	01 51 45.0	+0.3
	comp=Z,0.9nm,0.5s,baz=15,slow=5.0,SNR=5.1						
AKASG	**Malin Array Be**	70.58	326	P	**P**	**01 51 26.7**	**-0.7**
	comp=Z,0.3nm,0.4s,mb3.5,baz=33,slow=6.1,SNR=2.9						
SCHQ	**Schefferville**	71.76	23	P	**P**	**01 51 34.9**	**+0.5**
SCHQ	**Schefferville**	71.76	23	P	**P**	**01 51 34.9**	**+0.5**
	comp=Z,1.3nm,0.7s,mb3.8,baz=282,slow=14,SNR=5.3						
TXAR	**Lajitas Array**	76.35	61	P	**P**	**01 52 01.9**	**+0.3**
TXAR				*PP	pP	01 52 26.3	+4.3
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	**Lajitas Array**	76.35	61	P	**P**	**01 52 01.9**	**+0.2**
	comp=Z,1.8nm,0.6s,mb4.0,baz=300,slow=4.4,SNR=27						
TXAR				pP	pP	01 52 26.2	+4.2
	comp=Z,0.5nm,0.6s,baz=294,slow=4.2,SNR=3.0						
GERES	**GERESS Array B**	77.33	334	P	**P**	**01 52 06.8**	**0.0**
	comp=Z,0.4nm,0.5s,mb3.4,baz=35,slow=4.9,SNR=5.7						
GERES				LR	LR	02 30 20.9	
	comp=Z,85nm,18.7s,baz=314,slow=39						
TORD	**Torodi Ar. Bea**	114.06	330	PKP	PKiKP	01 58 50.5	-0.9
TORD	**Torodi Ar. Bea**	114.06	330	PKP	PKiKP	01 58 50.5	-0.9
	comp=Z,0.3nm,0.4s,baz=22,slow=2.4,SNR=10						

MAN 10 02:42:28, 6.96N×125.08E, h18^{km}, mb4.5, ML3.3, MS3.2, 2C, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	**Kidapawan**	0.05	12	⇑iP	Pg	02 42 31.7	+0.4
KCP				iS	Sg	02 42 34.3	+0.8
BUKP	**Musuan**	0.92	359	eP	Pb	02 42 44.7	-0.7
CGP	**Cagayan de Oro**	1.54	346	⇑iP	Pn	02 42 54.5	-0.1
CGP				eS	Sn	02 43 14.6	+0.5

*NIED **10** 02:49:00, 37.20N×142.10E, h23^{km}, Mw3.3 Best double couple: M$_0$1.03000×10^{14} NP1:φ$_s$217.00000°, δ41.00000°, λ107.00000°. NP2:φ$_s$15.00000°, δ51.00000°, λ76.00000°.*

JMA 10 02:49:42.6±0.2, **37.25N×142.14E, h32**^{km}±5^{km}, **M3.5, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JFK	**Kawauchi**	1.02	277	P	Pn	02 50 00.7	+0.1
JFK				eS	Sn	02 50 13.5	-0.3
ONAJ	**Iwakimizuishiy**	1.08	263	P	Pn	02 50 01.4	-0.1
ONAJ				eS	Sn	02 50 15.5	+0.1
JMM	**Marumori**	1.23	300	P	Pn	02 50 04.1	+0.5
JMM				eS	Sn	02 50 19.4	+0.2
JIO	**Ouri**	1.36	333	P	Pn	02 50 05.8	+0.5
JIO				eS	Sn	02 50 22.1	-0.1
JFT	**Otama**	1.46	281	P	Pn	02 50 08.2	+1.5
JFT				eS	Sn	02 50 27.0	+2.2
JOU	**Okura**	1.61	314	P	Pn	02 50 10.3	+1.5
JOU				S	Sn	02 50 30.6	+2.1
JMK	**Ichinoseki**	1.85	337	P	Pn	02 50 13.8	+1.8
JMK				eS	Sn	02 50 36.2	+1.9
JYS	**Shirataka**	1.91	301	P	Pn	02 50 15.2	+2.3
JYS				S	Sn	02 50 39.4	+3.6
JFY	**Yanaizu**	1.95	275	P	Pn	02 50 15.6	+2.2
JFY				eS	Sn	02 50 40.2	+3.4
JOM	**Ohasama**	2.32	344	P	Pn	02 50 21.1	+2.6
JOM				eS	Sn	02 50 46.8	+0.9
MAT	**Matsushiro**	3.23	259	P	Pn	02 50 34.6	+3.5
MAT				S	Sn	02 51 18.1	+10

*ISCJB **10** 02:52:47.0±0.6, 31.09N±0.02×35.43E±0.06, h12^{km}±4^{km}, Error ellipse: s-maj=8.4km s-min=4.0km az=4.9*

*CSEM **10** 02:52:46.7±0.1, 31.09N×35.51E, h15^{km}, ML3.4, Error ellipse: s-maj=2.4km s-min=1.1km az=89.0*

*HLW **10** 02:52:46.3, 31.16N×35.49E, h9^{km}, Mb3.1*

*GII **10** 02:52:47.5±0.5, 31.09N×35.49E, h9^{km}, ML2.4/5*

*SGS **10** 02:52:50.8, 31.12N×34.61E, h12^{km}*

ISC 10 02:52:47.4±0.6, **31.09N**±0.02×**35.46E**±0.06, **h13**^{km}±4^{km}, **n41, σ0^{s}76**/52, **7D, Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MZDA	**Masada**	0.24	340	Pg	**Pg**	**02 52 52.5**	**0.0**
MZDA				Sg	**Sg**	**02 52 56.7**	**+0.9**
MZDA	**Masada**	0.24	340	⇓Pg	**Pg**	**02 52 52.5**	**+0.1**
MZDA				Sg	**Sg**	**02 52 56.7**	**+0.8**
YTIR	**Yattir**	0.40	313	Pg	**Pg**	**02 52 55.9**	**+0.5**

YTIR	Yattir	0.40	313	⇓Pg	Pg	02 52 55.9	+0.5
DSI	Dead Sea	0.49	352	Pg	Pg	02 52 57.4	+0.4
DSI	Dead Sea	0.49	352	⇓Pg	Pg	02 52 57.4	+0.5
DRGI	Dragot	0.51	354	Pg	Pg	02 52 56.9	-0.4
DRGI	Dragot	0.51	354	⇓Pg	Pg	02 52 56.9	-0.4
ZFRI	Zfri	0.58	204	Pg	Pg	02 52 58.8	0.0
ZFRI	Zfri	0.58	204	⇓Pg	Pg	02 52 58.8	0.0
MASH	Mash'abbe Sade	0.58	261	Pg	Pg	02 52 59.0	+0.3
MASH	Mash'abbe Sade	0.58	261	⇑Pg	Pg	02 52 59.0	+0.2
RMNI	Mount Ramon	0.77	231	Pg	Pg	02 53 02.9	+0.5
RMNI	Mount Ramon	0.77	231	⇑Pg	Pg	02 53 02.9	+0.5
PRNI	Paran	0.83	208	Pg	Pg	02 53 03.6	+0.2
PRNI	Paran	0.83	208	⇓Pg	Pg	02 53 03.7	+0.3
KZIT	Kziot	0.93	259	Pg	Pg	02 53 05.0	-0.3
KZIT				Sg	Sg	02 53 18.2	+0.8
KZIT	Kziot	0.93	259	⇑Pg	Pg	02 53 05.0	-0.3
KZIT				Sg	Sg	02 53 18.2	+0.7
HRFI	Mount Harif	1.11	199	Pg	Pg	02 53 07.6	-1.1
HRFI				Sg	Sg	02 53 22.7	-0.5
HRFI	Mount Harif	1.11	199	Pg	Pg	02 53 07.6	-1.1
HRFI				Sg	Sg	02 53 22.7	-0.5
KRMI	Paran Flat	1.16	213	Pg	Pg	02 53 09.1	-0.5
KRMI	Paran Flat	1.16	213	Pg	Pg	02 53 09.1	-0.5
SLTI	Sal'it	1.20	343	Pg	Pg	02 53 09.0	-1.5
SLTI				Sg	Sg	02 53 26.2	0.0
SLTI	Sal'it	1.20	343	⇓Pg	Pg	02 53 09.0	-1.5
SLTI				Sg	Sg	02 53 26.2	0.0
AQBJ	Aqaba	1.40	195	Pn	Pn	02 53 12.7	+0.2
EIL	Elat	1.48	197	Pn	Pn	02 53 13.8	+0.1
EIL	Elat	1.48	197	Pn	Pn	02 53 13.8	+0.1
OFRI	'Ofer	1.58	345	Pn	Pn	02 53 15.1	+0.1
OFRI	'Ofer	1.58	345	Pn	Pn	02 53 15.1	0.0
HNKL	Nakhl	1.72	228	P	Pn	02 53 16.7	-0.3
HQLS		1.81	191	P	Pn	02 53 20.3	+2.0
HQLS				S	Sn	02 53 43.0	+1.9
HQLS		1.81	191	P	Pn	02 53 20.3	+2.0
MMA0	Mount Meron ar	1.92	359	Pn	Pn	02 53 20.2	+0.4
MMA0	Mount Meron ar	1.92	359	Pn	Pn	02 53 20.2	+0.4
HBST	Basata	1.97	199	P	Pn	02 53 20.2	-0.1
AMAG	Maghara	1.98	258	P	Pn	02 53 19.8	-0.8
AMAG				S	Sn	02 53 44.4	-0.9
JLOS		2.34	179	P	Pn	02 53 24.3	-1.3
JLOS				S	Sb	02 53 58.2	-0.1
JLOS		2.34	179	P	Pn	02 53 24.3	-1.3
HKAT	Jabal Katrina	2.86	207	P	Pn	02 53 32.5	0.0
HKAT	Jabal Katrina	2.86	207	P	Pn	02 53 32.5	-0.1
WJHS		4.42	169	P	Pn	02 53 59.3	+5.3

IDC 10 03:07:33.9±2.1, 0.39S×128.40E, h0^{km}, mb3.5/3, mb1 3.8/3, mb1mx3.5/15, mbtmp3.6/3, Error ellipse: s-maj=196.9km s-min=27.4km az=65.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.29	164	P	P	03 12 11.1	-0.2
	1.0nm,0.5s,baz=347,slow=12,SNR=6.6						
STKA	Stephens Creek	33.71	160	P	P	03 14 17.1	+0.2
	0.8nm,0.5s,baz=329,slow=12,SNR=3.2						
MKAR	Makanchi Array	61.87	326	P	P	03 17 55.1	+0.1
	0.4nm,0.7s,baz=121,slow=8.6,SNR=6.3						

*CSEM **10** 04:25:46.9±0.2, 38.59N×38.85E, h40^{km}, MD2.8, Error ellipse: s-maj=7.9km s-min=3.5km az=139.0*
*ISK **10** 04:25:48.5, 38.43N×39.03E, h5^{km}, MD2.8*
*ISCJB **10** 04:25:49.1±0.5, 38.42N±0.05×39.03E±0.06, h12^{km}±7^{km}, Error ellipse: s-maj=10.3km s-min=4.8km az=41.7*
*DDA **10** 04:25:50.4, 38.39N×39.04E, h6^{km}±1^{km}, Md2.7*
ISC 10 04:25:49.5±0.5, 38.45N±0.05×39.03E±0.06, h14^{km}±6^{km}, n16, σ0^{s}80/25, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.06	327	*i* P	Pg	04 25 52.4	+0.2
ELZG				*i* S	Sg	04 25 54.6	+0.5
MYA	Malataya	0.49	256	*i* PG	Pg	04 25 58.9	-0.3
MYA	Malataya	0.49	256	*i* Pg	Pg	04 25 58.9	-0.3
MALT	Malatya	0.49	254	*i* PG	Pg	04 25 57.8	-1.4
MALT				*i* SG	Sg	04 26 05.8	+0.1
MALT	Malatya	0.49	254	*i* Pg	Pg	04 25 57.8	-1.4
MALT				*i* Sg	Sg	04 26 05.8	+0.1
PTK	Pertek	0.53	33	PG	Pg	04 25 59.4	-0.5
PTK				SG	Sg	04 26 07.8	+0.8
PTK	Pertek	0.53	33	*e*Pg	Pg	04 25 59.4	-0.5
PTK				*e*Sg	Sg	04 26 07.8	+0.8
URFA	Urfa	1.02	189	PG	Pg	04 26 08.4	-0.8
URFA				SG	Sg	04 26 22.2	-0.3
URFA	Urfa	1.02	189	*e*Pg	Pg	04 26 08.4	-0.8
URFA				*e*Sg	Sg	04 26 22.2	-0.3
DIY	Diyarbakir	1.09	120	*e*PN	Pn	04 26 09.9	-0.5
DIY	Diyarbakir	1.09	120	*e*Pn	Pn	04 26 09.9	-0.5
BINT	Bingol	1.22	69	*e*PN	Pn	04 26 11.8	-0.4
BINT	Bingol	1.22	69	*e*Pn	Pn	04 26 11.8	-0.4
GZT	Gaziantep	1.59	227	*i* P	Pn	04 26 17.9	+0.6
GZT				*i* S	Sg	04 26 42.3	+1.6
MARD	Mardin	1.79	129	*i* P	Pn	04 26 19.2	-0.8
MARD				*i* S	Sn	04 26 44.1	+1.6
BTMT	Batman	1.95	97	*e*PN	Pn	04 26 22.0	-0.2

*IDC **10** 04:28:50.5±0.9, 0.10S×125.37E, h0^{km}, mb4.1/6, mb1 4.2/6, mb1mx4.0/16, mbtmp4.1/6, Error ellipse: s-maj=77.4km s-min=19.4km az=70.0*
*NEIC **10** 04:28:51.7±0.6, 0.28N×126.32E, h10^{km}, mb4.6/6, Error ellipse: s-maj=23.9km s-min=12.5km az=61.0*
*BJI **10** 04:28:52.7, 0.30N×126.30E, h10^{km}, mB4.9, mb4.6*
*ISCJB **10** 04:28:53.3±0.6, 0.2N±0.1×126.2E±0.1, h33^{km}, mb4.3/17, Error ellipse: s-maj=21.8km s-min=12.9km az=155.5*
*MOS **10** 04:28:53.0±1.0, 0.02S×125.67E, h33^{km}, mb4.7/7, Error ellipse: s-maj=48.2km s-min=13.5km az=108.6*
ISC 10 04:28:55.7±0.6, 0.1N±0.1×125.9E±0.2, h35^{km}, n31, σ0^{s}82/29, mb4.3/17, 3C-1D, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSM	Kuching	15.60	275	*e*P	Pn	04 32 38.6	+5.6
WRA	Warramunga Arr	21.54	158	P	P	04 33 41.7	-0.4
	2.1nm,0.7s,mb3.6,baz=336,slow=11,SNR=6.1						
STKA	Stephens Creek	35.08	156	P	P	04 35 45.9	+0.4
STKA	Stephens Creek	35.08	156	P	P	04 35 45.9	+0.4
	3.5nm,0.9s,mb4.3,baz=343,slow=10,SNR=4.7						
KSRS	Korea Array	37.27	3	P	P	04 36 05.4	+1.2
KSRS				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
KSRS	Korea Array	37.27	3	P	P	04 36 05.3	+1.2
	comp=Z,3.7nm,0.8s,mb4.3,baz=178,slow=9.5,SNR=9.6						
LZH	Lanzhou	41.28	333	*e*P	P	04 36 43.7	+6.0
LZH				AP	pP	04 36 51.3	+3.3
LZH				AMB	AMB		
	comp=Z,17nm,1.4s,mb4.5						
LZH	Lanzhou	41.28	333	*e*P	P	04 36 43.7	+6.0
	comp=Z,17nm,1.4s,mb4.5						
LZH				pP	pP	04 36 51.3	+3.3
LZH				sP	sP	04 36 55.0	+2.8
LZH	Lanzhou	41.28	333	*e*P	P	04 36 43.7	+6.0
LZH				*SP	sP	04 36 55.0	+2.8
LZH				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.5						
GTA	Gaotai	45.84	332	*e*P	P	04 37 18.3	+3.9
GTA				AP	pP	04 37 26.2	+1.4
GTA				XP	sP	04 37 30.8	+1.8
GTA				AMB	AMB		
	comp=Z,3.0nm,0.7s,mb4.3						
SONM	Songino Array	50.51	343	P	P	04 37 50.7	+0.4
	comp=Z,2.5nm,0.9s,mb4.1,baz=154,slow=7.3,SNR=13						
SONM				PcP	PcP	04 39 09.1	+1.1
	comp=Z,0.5nm,0.7s,baz=167,slow=5.2,SNR=3.1						
ZAK	Zakamensk	53.71	342	*e*P	P	04 38 13.1	-1.0
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.2s,mb3.6						
MK31	Makanchi Array	60.10	327	*e*P	P	04 38 59.4	0.0
MKAR	Makanchi Array	60.10	327	P	P	04 38 59.1	-0.3
	comp=Z,1.1nm,0.3s,mb4.3,baz=120,slow=7.8,SNR=24						
YAK	Yakutsk	61.89	2	⇑*e*P	P	04 39 10.9	-0.4
YAK				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.3						
MA2	Magadan	62.47	14	⇑*e*P	P	04 39 16.0	+0.8
MA2				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.5						
AAK	Ala-Archa	62.52	319	*e*P	P	04 39 16.5	+0.6
	comp=Z,5.8nm,1.4s,mb4.5						
AAK	Ala-Archa	62.52	319	⇑*e*P	P	04 39 16.4	+0.5
AAK				pmax	pmax		
	comp=Z,9.0nm,2.0s,mb4.5						
EKS2	Erkin-Say	63.00	319	*e*P	P	04 39 19.8	+0.7
	comp=Z,1.5nm,0.8s,mb4.2						
ZALV	Zalesovo Beam	63.47	334	P	P	04 39 20.5	-1.5
	comp=Z,0.9nm,0.5s,mb4.2,baz=108,slow=4.8,SNR=6.8						
ZAL	Zalesovo	63.48	334	P	P	04 39 20.5	-1.5
KURK	Kurchatov	64.38	329	*e*P	P	04 39 27.8	-0.3
	comp=Z,5.4nm,0.8s,mb4.6						
KURK	Kurchatov	64.38	329	*e*P	P	04 39 27.8	-0.2
KURK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
NVS	Novosibirsk	64.76	334	*e*P	P	04 39 23.3	-7.1
BRVK	Borovoye	70.00	328	*e*P	P	04 40 04.7	+1.0
	comp=Z,2.4nm,0.4s,mb4.5						
BRVK	Borovoye	70.00	328	*e*P	P	04 40 04.7	+1.1
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
TIXI	Tiksi	71.51	1	*e*P	P	04 40 12.7	+0.2
	comp=Z,3.2nm,1.0s,mb4.2						
TIXI	Tiksi	71.51	1	*e*P	P	04 40 12.3	-0.2
TIXI				*e*		04 40 37.3	
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
ARU	Arti	77.57	328	⇓*i*P	P	04 40 47.2	-0.7
ARU				*e*		04 43 38.9	
ARU				*e*S	S	04 50 30.6	-6.2
ARU				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
TORD	Torodi Ar. Bea	123.14	286	PKP	PKPdf	04 47 49.3	-0.4
TORD	Torodi Ar. Bea	123.14	286	PKP	PKPdf	04 47 49.3	-0.4
	comp=Z,0.4nm,0.8s,baz=83,slow=1.9,SNR=2.9						

MEX 10 04:53:50.0±1.3, 17.52N×99.49W, h14^{km}±15^{km}, MD3.5, 1D, Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MEIG	Mezcala	0.42	343	⇓*i*P	Pg	04 53 57.0	-1.6
MEIG				*i* S	Sg	04 54 04.0	-0.3
ACX	Acapulco	0.77	212	*i* P	Pg	04 54 02.0	-2.9
ACX				*i* S	Sg	04 54 12.0	-3.0
CAIG	El Cayaco	0.88	238	*i* P	Pb	04 54 05.2	-1.8
CAIG				*i* S	Sg	04 54 14.1	-4.5
UTMO	Huajuapan	1.64	79	*e*P	Pn	04 54 14.9	-3.5
UTMO				*i* S	Sn	04 54 35.2	-4.0
TPIG	Tehuac#an	2.21	66	*i* S	Sn	04 54 49.7	-3.7

*ISCJB **10** 05:06:25.5±0.4, 51.45N±0.02×16.10E±0.03, h0^{km}, Error ellipse: s-maj=3.3km s-min=2.0km az=25.8*
*IPEC **10** 05:06:26.8±0.3, 51.50N×16.21E, h0^{km}, ML2.3/4, Error ellipse: s-maj=4.1km s-min=2.0km az=82.0*
*NEIC **10** 05:06:26.6±0.4, 51.57N×16.13E, h5^{km}, ML2.7(SZGRF), ML2.5(BRA), Error ellipse: s-maj=4.9km s-min=4.5km az=47.0*
*PRU **10** 05:06:28.3, 51.43N×16.09E, h0^{km}*
*CSEM **10** 05:06:28.7±0.2, 51.42N×16.06E, h0^{km}, ML3.3/11, Error ellipse: s-maj=3.1km s-min=1.9km az=9.0*
*WAR **10** 05:06:28.4, 51.46N×16.10E, ML2.7, Mining Induced*
*IDC **10** 05:06:28.3±0.8, 51.50N×15.92E, h0^{km}, mb1 3.6/6, mb1mx3.3/22, mbtmp3.4/6, ML2.9/6, Error ellipse: s-maj=18.2km s-min=8.3km az=95.0*
*VIE **10** 05:06:29.5±0.8, 51.27N×16.15E, h0^{km}, mb2.4/2, ML2.8/4, Error ellipse: s-maj=5.1km s-min=4.7km az=173.0, Suspected Mining induced.*
ISC 10 05:06:26.5±0.3, 51.50N±0.02×16.10E±0.03, h0^{km}, n98, σ1^{s}09/175, 3C-4D, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.67	170	*e*Pg	Pg	05 06 39.8	+0.5
KSP				*e*Sg	Sg	05 06 48.3	+0.3
KSP	Ksiaz	0.67	170	*e*Pg	Pg	05 06 39.8	+0.5
KSP				*e*Sg	Sg	05 06 48.3	+0.3
KSP	Ksiaz	0.67	170	*e*Pg	Pg	05 06 39.8	+0.5
KSP				*e*Sg	Sg	05 06 48.3	+0.3
UPC	Upice	1.00	183	*e*Pg	Pg	05 06 45.6	0.0
UPC	Upice	1.00	183	*e*PG	Pg	05 06 45.6	0.0
UPC	Upice	1.00	183	*e*Pg	Pg	05 06 45.6	0.0
DPC	Dobruska-Polom	1.16	173	*e*Pg	Pg	05 06 48.6	-0.1
DPC				*e*Sg	Sg	05 07 03.1	-0.6
DPC	Dobruska-Polom	1.16	173	*e*PG	Pg	05 06 48.6	-0.1
DPC				*e*SG	Sg	05 07 03.1	-0.6
	36nm,0.3s						
DPC	Dobruska-Polom	1.16	173	*e*Pg	Pg	05 06 48.6	-0.1
DPC				*e*Sg	Sg	05 07 03.1	-0.6
PVCC	Panska Ves	1.37	225	*e*Pg	Pg	05 06 52.9	+0.1
PVCC				*e*Sg	Sg	05 07 10.6	0.0
PVCC	Panska Ves	1.37	225	*e*PG	Pg	05 06 52.9	+0.1
PVCC				*e*SG	Sg	05 07 10.6	0.0
	120nm,0.3s						
PVCC	Panska Ves	1.37	225	*e*Pg	Pg	05 06 52.9	+0.1
PVCC				*e*Sg	Sg	05 07 10.6	0.0
	120nm,0.3s						
BRG	Berggiesshubel	1.50	246	Pn	Pn	05 06 54.3	-0.3
BRG				Pg	Pg	05 06 55.5	+0.3
BRG				Sg	Sg	05 07 15.6	+1.0
BRG	Berggiesshubel	1.50	246	Pn	Pn	05 06 54.3	-0.3
BRG	Berggiesshubel	1.50	246	PN	Pn	05 06 54.3	-0.3
BRG				PG	Pg	05 06 55.5	+0.3
BRG				SG	Sg	05 07 15.6	+1.0
	56nm,0.4s						
RUE	Ruedersdorf	1.74	305	*e*Pn	Pn	05 06 57.3	-0.6
RUE				*e*Sg	Sg	05 07 24.6	+2.2
RUE	Ruedersdorf	1.74	305	*e*Pn	Pn	05 06 57.3	-0.6
RUE				*e*Sg	Sg	05 07 24.6	+2.2
PRU	Pruhonice	1.81	214	*e*Pn	Pn	05 06 58.5	-0.4
PRU				*e*Pg	Pg	05 07 00.3	-0.9
PRU				*e*Sg	Sg	05 07 23.5	-1.1
PRU	Pruhonice	1.81	214	*e*PN	Pn	05 06 58.5	-0.4
PRU				*e*PG	Pg	05 07 00.3	-0.9
PRU				*e*SG	Sg	05 07 23.5	-1.1
	33nm,0.6s						
PRU	Pruhonice	1.81	214	*e*Pn	Pn	05 06 58.5	-0.4
CLL	Collm	1.95	266	*i* Pn	Pn	05 07 00.8	0.0
CLL				*i* Pg	Pg	05 07 03.5	-0.4
CLL				*i* Sg	Sg	05 07 30.0	+0.8
CLL	Collm	1.95	266	*i* Pn	Pn	05 07 00.8	0.0
CLL				*i* Pg	Pg	05 07 03.5	-0.4
CLL				*i* x	x	05 07 07.5	
CLL				*i* Sg	Sg	05 07 30.0	+0.8
	comp=Z,20nm,0.4s						
CLL	Collm	1.95	266	*i* Pn	Pn	05 07 00.8	0.0
MORC	Moravsky Berou	1.95	151	*e*Pn	Pn	05 07 00.6	-0.3
MORC				*e*Sn	Sn	05 07 27.3	+1.3
MORC	Moravsky Berou	1.95	151	*e*Pn	Pn	05 07 00.6	-0.3
MORC				*e*Sg	Sg	05 07 27.2	-2.1
	comp=Z,20nm,0.3s						
MORC				*e*Sn	Sn	05 07 27.3	+1.2
OKC	Ostrava-Krasne	2.11	141	*e*Pg	Pg	05 07 05.9	-1.1
OKC				*e*Sg	Sg	05 07 32.3	-2.1
OKC	Ostrava-Krasne	2.11	141	*e*PG	Pg	05 07 05.9	-1.1
OKC				*e*SG	Sg	05 07 32.3	-2.1
	comp=Z,42nm,0.7s						
OKC	Ostrava-Krasne	2.11	141	*e*Pg	Pg	05 07 05.9	-1.1
OKC				*e*Sg	Sg	05 07 32.3	-2.1
	comp=Z,42nm,0.7s						
VRAC	Vranov	2.22	172	Pn	Pn	05 07 05.6	+1.1
VRAC				Sn	Sn	05 07 36.7	+4.1
VRAC	Vranov	2.22	172	Pn	Pn	05 07 05.6	+1.1
	comp=Z,2.0nm,0.3s,baz=340,slow=14,SNR=11						
VRAC				Sn	Sn	05 07 36.7	+4.1
	comp=Z,3.3nm,0.3s,baz=80,slow=23,SNR=9.5						
VRAC	Vranov	2.22	172	*e*Pn	Pn	05 07 04.9	+0.4
VRAC				*e*Sg	Sg	05 07 36.0	-1.7
	comp=Z,17nm,0.2s						
TREC	Trest	2.24	190	*e*PN	Pn	05 07 05.5	+0.6
TREC				*e*PG	Pg	05 07 08.6	-0.9
TREC	Trest	2.24	190	*e*Pn	Pn	05 07 05.5	+0.6
KRUC	Moravsky	2.45	175	*e*Pn	Pn	05 07 08.3	+0.6
KRUC				*e*Sg	Sg	05 07 43.5	-1.6
	comp=Z,13nm,0.3s						
NKC	Novy Kostel	2.64	243	*e*Pn	Pn	05 07 10.7	+0.4
NKC				*e*Pg	Pg	05 07 17.0	-0.1
NKC				*e*Sg	Sg	05 07 51.8	+0.5
NKC	Novy Kostel	2.64	243	*e*PN	Pn	05 07 10.7	+0.4
NKC				*e*PG	Pg	05 07 17.0	-0.1
NKC				*e*SG	Sg	05 07 51.8	+0.5
	comp=Z,39nm,0.3s						
NKC	Novy Kostel	2.64	243	*e*Pn	Pn	05 07 10.7	+0.4
OJC	Ojcow	2.67	117	*e*Pn	Pn	05 07 10.5	-0.2
OJC				*e*Pg	Pg	05 07 18.4	+0.7
OJC				*e*Sg	Sg	05 07 53.4	+1.1
OJC	Ojcow	2.67	117	*e*Pn	Pn	05 07 10.5	-0.2
OJC	Ojcow	2.67	117	*e*Pg	Pg	05 07 18.4	+0.7
OJC				*e*Sg	Sg	05 07 53.4	+1.1
JAVC	Velka Javorina	2.83	159	*e*Sg	Sg	05 07 56.8	-0.6
	comp=Z,14nm,0.5s						
KHC	Kasperske Hory	2.87	215	*e*Pn	Pn	05 07 13.7	+0.2
KHC				*e*Pg	Pg	05 07 19.9	-1.6
KHC				*e*Sn	Sn	05 07 48.1	-0.6
KHC				*e*Sg	Sg	05 07 57.9	-0.8
KHC	Kasperske Hory	2.87	215	*e*PN	Pn	05 07 13.7	+0.2
KHC				*e*PG	Pg	05 07 19.9	-1.6
KHC				*e*SN	Sn	05 07 48.1	-0.6
KHC				*e*SG	Sg	05 07 57.9	-0.8
	comp=Z,13nm,0.4s						
KHC	Kasperske Hory	2.87	215	*e*Pn	Pn	05 07 13.7	+0.2
MOX	Moxa	2.96	255	*e*Pn	Pn	05 07 15.8	+1.1
MOX				*e*Pg	Pg	05 07 23.4	+0.2
MOX				*e*Sg	Sg	05 08 03.5	+2.0
MOX	Moxa	2.96	255	*e*PN	Pn	05 07 15.8	+1.1
MOX				*e*PG	Pg	05 07 23.4	+0.2
MOX				*e*SG	Sg	05 08 03.5	+2.0
MOX	Moxa	2.96	255	*e*Pn	Pn	05 07 15.8	+1.1
GEC2	GERESS Array S	3.07	211	*e*Pn	Pn	05 07 16.8	+0.5
GEC2				*e*Pg	Pg	05 07 23.2	-2.2
GEC2				*e*Sn	Sn	05 07 51.4	-2.3
GEC2				*e*Sg	Sg	05 08 03.4	-1.8
GEC2	GERESS Array S	3.07	211	*e*Pn	Pn	05 07 16.8	+0.5
GEC2	GERESS Array S	3.07	211	*e*Pg	Pg	05 07 23.2	-2.2
GERES	GERESS Array B	3.07	211	Pn	Pn	05 07 17.5	+1.2
GERES				Pg	Pg	05 07 23.0	-2.4
GERES				Sn	Sn	05 08 00.1	+6.4
GERES	GERESS Array B	3.07	211	Pn	Pn	05 07 17.5	+1.2
	comp=Z,0.7nm,0.3s,baz=32,slow=13,SNR=27						
GERES				Pg	Pg	05 07 23.0	-2.4
	comp=Z,3.2nm,0.3s,baz=31,slow=16,SNR=57						
GERES				Sn	Sn	05 08 00.1	+6.4
	comp=Z,2.8nm,0.3s,baz=30,slow=28,SNR=8.2						
GERES	GERESS Array B	3.07	211	Pn	Pn	05 07 17.5	+1.2
GERES	GERESS Array B	3.07	211	Pg	Pg	05 07 23.0	-2.4
SMOL	Smolenice	3.11	164	*e*P	Pg	05 07 26.5	+0.4
SMOL				*e*Sg	Sg	05 08 08.3	+1.9
SMOL	Smolenice	3.11	164	*e*	Pg	05 07 26.5	+0.4
SMOL	Smolenice	3.11	164	*e*SG	Sg	05 08 08.3	+1.9
SMOL	Smolenice	3.11	164	*e*Sg	Sg	05 08 08.3	+1.9
WET	Wettzell	3.14	222	*e*Pn	Pn	05 07 17.5	+0.4
WET	Wettzell	3.14	222	*e*Pn	Pn	05 07 17.5	+0.4
MODS	Modra-Piesok	3.22	166	*e*P	Pg	05 07 27.9	-0.3
MODS				*e*Sg	Sg	05 08 12.9	+3.0
MODS	Modra-Piesok	3.22	166	*e*	Pg	05 07 27.9	-0.3
MODS	Modra-Piesok	3.22	166	*e*SG	Sg	05 08 12.9	+3.0
ZST	Bratislava	3.37	169	*e*Sg	Sg	05 08 16.5	+1.8
NIE	Niedzica	3.40	126	*e*P	Pg	05 07 30.2	-1.5
NIE				*e*S	Sg	05 08 14.1	-1.7
VYHS	Vyhne	3.49	149	*e*Pn	Pn	05 07 22.8	+0.8
VYHS				*e*		05 07 31.2	
VYHS				*e*Sg	Sg	05 08 21.9	+3.4
VYHS	Vyhne	3.49	149	*e*PN	Pn	05 07 22.8	+0.8
VYHS				*e*		05 07 31.2	
VYHS	Vyhne	3.49	149	*e*SG	Sg	05 08 21.9	+3.4
VYHS	Vyhne	3.49	149	*e*Pn	Pn	05 07 22.8	+0.8
CONA	Conrad Observa	3.58	183	⇓*i*Pn	Pn	05 07 23.4	+0.2
CONA				⇑*i*Sg	Sg	05 08 21.9	+0.4
	comp=Z,6.6nm,0.3s						
CONA	Conrad Observa	3.58	183	Pn	Pn	05 07 23.4	+0.2
CONA				Sg	Sg	05 08 21.9	+0.5
	comp=Z,6.6nm,0.3s						
GRA1	Grafenberg Arr	3.60	242	*e*Pn	Pn	05 07 24.3	+0.8
GRA1				*e*Sg	Sg	05 08 21.9	-0.1
GRA1	Grafenberg Arr	3.60	242	*e*Pn	Pn	05 07 24.3	+0.8
GRA1				*e*Sg	Sg	05 08 21.9	-0.1
GRF	Grafenberg Arr	3.60	242	*e*Pn	Pn	05 07 24.3	+0.8
GRF				*e*Sg	Sg	05 08 21.9	-0.1
GRF	Grafenberg Arr	3.60	242	*e*Pn	Pn	05 07 24.3	+0.8
GRF				*e*Sg	Sg	05 08 21.9	-0.1
BSD	Bornholm Skovb	3.69	349	*i* P	Pn	05 07 24.5	-0.2
BSD				*i* S	Sn	05 08 06.9	-2.0
MOA	Molln	3.84	199	⇓*i*Pn	Pn	05 07 27.6	+0.7
MOA				⇑*i*Sg	Sg	05 08 29.6	-0.4
	comp=Z,5.6nm,0.3s						
MOA	Molln	3.84	199	⇓*i*Pn	Pn	05 07 27.6	+0.7
MOA				*i* Sg	Sg	05 08 29.6	-0.4
MOA	Molln	3.84	199	⇓*i*Pn	Pn	05 07 27.6	+0.7
MOA				⇑*i*Sg	Sg	05 08 29.6	-0.4
	comp=Z,5.6nm,0.3s						
MOA	Molln	3.84	199	Pn	Pn	05 07 27.6	+0.7
MOA				Sg	Sg	05 08 29.6	-0.3
	comp=Z,5.6nm,0.3s						
STHS	Stebnicka Huta	3.89	120	*e*Pn	Pn	05 07 28.1	+0.6
STHS				*e*		05 07 41.5	
STHS				*e*Sg	Sg	05 08 31.9	+0.4
STHS	Stebnicka Huta	3.89	120	*e*PN	Pn	05 07 28.1	+0.6
STHS				*e*		05 07 41.5	
STHS	Stebnicka Huta	3.89	120	*e*SG	Sg	05 08 31.9	+0.4
STHS	Stebnicka Huta	3.89	120	*e*Pn	Pn	05 07 28.1	+0.6
STHS				*e*Sg	Sg	05 08 31.9	+0.4
KECS	Kecovo	4.14	135	*e*Pn	Pn	05 07 31.6	+0.7
KECS				*e*Sg	Sg	05 08 42.3	+2.9
KECS	Kecovo	4.14	135	*e*PN	Pn	05 07 31.6	+0.7
KECS				*e*SG	Sg	05 08 42.3	+2.9
CRVS	Cervenica-Dubn	4.31	125	*e*Sg	Sg	05 08 46.7	+1.7
KOLS	Kolonicke sedl	4.72	121	*e*Pn	Pn	05 07 39.4	+0.5
KOLS				*e*		05 08 00.0	
KOLS				*e*		05 22 27.9	
KOLS	Kolonicke sedl	4.72	121	*e*PN	Pn	05 07 39.4	+0.5
KOLS				*e*		05 08 00.0	
KOLS				*e*		05 22 27.9	
KOLS	Kolonicke sedl	4.72	121	*e*Pn	Pn	05 07 39.4	+0.5
NOA	NORSAR Array B	9.94	346	Pn	Pn	05 08 49.1	-1.3
NOA	NORSAR Array B	9.94	346	Pn	Pn	05 08 49.1	-1.3
	comp=Z,0.1nm,0.3s,baz=176,slow=17,SNR=2.7						
FINES	FINESS Array B	11.37	25	Pn	Pn	05 09 08.8	-1.2
FINES	FINESS Array B	11.37	25	Pn	Pn	05 09 08.8	-1.2
	comp=Z,0.1nm,0.3s,baz=207,slow=12,SNR=6.4						
EKA	Eskdalemuir Ar	12.11	296	Pn	Pn	05 09 20.1	0.0
EKA	Eskdalemuir Ar	12.11	296	Pn	Pn	05 09 20.1	0.0
	comp=Z,0.1nm,0.3s,baz=96,slow=13,SNR=3.2						
ARCES	ARCESS Array B	18.63	10	Pn	Pn	05 10 41.8	-3.7
ARCES	ARCESS Array B	18.63	10	Pn	Pn	05 10 41.8	-3.7
	comp=Z,0.2nm,0.3s,baz=218,slow=7.7,SNR=4.5						

*NEIC **10** 05:22:05.0, 17.93N×97.64W, h60^{km}, MD3.9(MEX), After MEX.*
MEX 10 05:22:04.8±1.3, 17.98N×97.66W, h62^{km}±9^{km}, MD3.9, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UTMO	Huajuapan	0.21	223	*i* P	Pn	05 22 13.0	-1.5
UTMO				*i* S	Sn	05 22 20.0	-1.6
TPIG	Tehuac#an	0.52	32	*i* P	Pn	05 22 16.2	-1.0
TPIG				*i* S	Sn	05 22 25.4	-0.7
OXX	Oaxaca	1.26	135	*e*P	Pn	05 22 25.0	-1.3
VHO	Vista Hermosa	1.26	136	*i* P	Pn	05 22 25.1	-1.3
VHO				*e*S	Sn	05 22 39.5	-3.0
VHO	Vista Hermosa	1.26	136	*i* P	Pn	05 22 25.1	-1.3
VHO				*i* S	Sn	05 22 40.6	-1.9
PLIG	Platanillo	1.80	283	*i* P	Pn	05 22 33.2	-0.4
PLIG				*i* S	Sn	05 22 54.5	-1.0
MEIG	Mezcala	1.87	269	*i* P	Pn	05 22 33.5	-1.0
MEIG				*i* S	Sn	05 22 55.6	-1.6
IIO	Organos	1.90	328	*e*P	Pn	05 22 37.1	+2.2
IIO				*i* S	Sn	05 22 53.4	-4.3
LVIG	Laguna Verde	2.09	34	*i* P	Pn	05 22 35.0	-2.5
LVIG				*i* S	Sn	05 22 58.9	-3.6
ACX	Acapulco	2.43	243	*i* P	Pn	05 22 38.0	-4.1
CAIG	El Cayaco	2.66	250	*i* P	Pn	05 22 42.1	-3.2
CAIG				*i* S	Sn	05 23 13.8	-2.6
CAIG	El Cayaco	2.66	250	*i* P	Pn	05 22 42.3	-2.9
CAIG				*i* S	Sn	05 23 14.9	-1.5
CMIG	Matias Romero	2.79	108	*i* P	Pn	05 22 45.6	-1.4
CMIG				*i* S	Sn	05 23 16.3	-3.2
CMIG	Matias Romero	2.79	108	*i* P	Pn	05 22 45.6	-1.4
CMIG				*i* S	Sn	05 23 16.5	-3.0

*IDC **10** 05:23:43.7±0.7, 13.42N×146.18E, h0^{km}, mb4.3/14, mb1 4.4/14, mb1mx4.3/22, mbtmp4.3/14, MS3.8/9, Ms1 3.8/9, ms1mx3.4/30, Error ellipse: s-maj=17.2km s-min=16.8km az=162.0*

*ISCJB **10** 05:23:50.5±1.1, 13.42N±0.07×145.95E±0.05, h59^{km}±9^{km}, mb4.5/48, MS3.8/17, Error ellipse: s-maj=11.5km s-min=8.2km az=17.2*

*MOS **10** 05:23:50.9±0.8, 13.61N×145.91E, h59^{km}, mb4.8/16, Error ellipse: s-maj=13.9km s-min=9.7km az=108.6*

*BJI **10** 05:23:50.9, 13.40N×146.00E, h51^{km}, mB4.9, mb4.7, Ms4.4, Msz4.0*

*NEIC **10** 05:23:51.0±1.5, 13.39N×146.00E, h51^{km}±13^{km}, mb4.6/19, Error ellipse: s-maj=9.7km s-min=8.6km az=93.0*

NEIC Felt at Santa Rita.

ISC 10 05:23:52.5±0.9**, 13.42N**±0.07×**145.99E**±0.05**, h63**^{km}±8^{km}**, h55**^{km}±1.9^{km}**:pP-P, n114,** σ**0^{s}95**/111**, mb4.5**/48**, 1C, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.10	279	ePn	Pn	05 24 09.8	-2.1
GUMO				eSn	Sn	05 24 26.9	+1.2
GUMO	Guam	1.10	279	Pn	Pn	05 24 10.4	-1.6
	220nm,0.3s,baz=101,slow=5.3,SNR=61						
GUMO				Sn	Sn	05 24 28.3	+2.5
	1μm,0.3s,baz=6.0,slow=19,SNR=28						
JHJ	Hachijo jima 2	20.41	345	LR	LR	05 34 41.2	
	comp=Z,194nm,21.8s,baz=249,slow=32						
JOW	Kunigami	21.28	312	P	P	05 28 34.8	+0.9
	16nm,0.5s,mb4.6,baz=132,slow=10,SNR=6.5						
PMG	Port Moresby	22.71	177	LR	LR	05 35 21.7	
	comp=Z,141nm,20.6s,baz=6.9,slow=31						
MJAR	Matsushiro Arr	24.06	344	LR	LR	05 37 45.6	
	comp=Z,376nm,18.8s,baz=145,slow=35						
HNR	Honiara	26.60	148	LR	LR	05 38 41.1	
	comp=Z,198nm,18.1s,baz=0.9,slow=34						
KSRS	Korea Array	28.86	329	P	P	05 29 44.3	-0.8
KSRS				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
KSRS	Korea Array	28.86	329	P	P	05 29 44.2	-0.8
	comp=Z,5.0nm,0.6s,mb4.4,baz=139,slow=9.6,SNR=12						
ASAJ	Asahikawa	30.73	355	LR	LR	05 41 20.8	
	comp=Z,109nm,19.0s,baz=186,slow=34						
MDJ	Mudanjiang	34.10	339	P	P	05 30 31.0	0.0
MDJ				AP	pP	05 30 44.0	-2.5
MDJ				XP	sP	05 30 50.0	-3.9
MDJ				PP	PP	05 31 48.9	-0.3
MDJ				PCP	PcP	05 33 06.7	-0.5
MDJ				S	S	05 35 52.5	+0.1
MDJ				XS	sS	05 36 15.6	-3.2
MDJ				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,111nm,5.7s						
MDJ				LR	LR		
	comp=N,68nm,22.4s						
MDJ				LR	LR		
	comp=E,52nm,22.4s						
MDJ				LR	LR		
	comp=Z,78nm,19.8s						
CN2	Changchun	35.03	334	eP	P	05 30 39.6	+0.5
CN2				eS	S	05 36 06.4	-0.4
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,200nm,15.0s						
CN2				LR	LR		
	comp=E,200nm,15.0s						
CN2				LR	LR		
	comp=Z,200nm,15.0s						
WB2	Warramunga Arr	35.07	199	eP	P	05 30 39.5	-0.2
WRA	Warramunga Arr	35.08	199	i P	P	05 30 41.4	+1.7
WRA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
WRA	Warramunga Arr	35.08	199	P	P	05 30 39.1	-0.6
	comp=Z,4.0nm,1.0s,mb4.3,baz=19,slow=9.3,SNR=9.1						
WRA				LR	LR	05 45 24.7	
	comp=Z,86nm,18.6s,baz=25,slow=37						
HABR	Khabarovsk	36.11	348	P	P	05 30 46.8	-1.5
HABR				eS	S	05 36 22.9	-0.3
HABR				eSS	SS	05 38 50.1	-13
HABR				e		05 40 58.9	
FITZ	Fitzroy Crossi	37.20	213	eP	P	05 30 58.2	+0.3
	comp=Z,8.7nm,0.8s,mb4.6						
FITZ	Fitzroy Crossi	37.20	213	P	P	05 30 57.9	0.0
	comp=Z,3.4nm,0.9s,mb4.2,baz=26,slow=16,SNR=3.5						
BJI	Beijing	37.26	321	P	P	05 30 58.6	+0.4
BJI				AP	pP	05 31 11.8	-2.0
BJI				XP	sP	05 31 17.9	-3.3
BJI				S	S	05 36 41.6	+0.7
BJI				LR	LR		
	comp=N,212nm,12.8s						
BJI				LR	LR		
	comp=E,140nm,13.4s						
BJI				LR	LR		
	comp=Z,169nm,21.3s						
BJI	Beijing	37.26	321	P	P	05 30 58.6	+0.4
BJI				pP	pP	05 31 11.8	-2.0
BJI				sP	sP	05 31 17.9	-3.3
BJI				S	S	05 36 41.6	+0.7
BJI				SS	SS	05 39 29.7	+3.4
BJI				LR	LR		
	comp=Z,170nm,21.3s						
BJI	Beijing	37.26	321	P	P	05 30 58.6	+0.4
BJI				*PP	pP	05 31 11.8	-2.0
BJI				*SP	sP	05 31 17.9	-3.3
BJI				S	S	05 36 41.6	+0.7
BJI				MLR	MLR		
	comp=Z,170nm,21.3s						
GYA	Guiyang	39.01	296	eP	P	05 31 14.9	+1.7
GYA				AP	pP	05 31 27.6	-1.3
GYA				XP	sP	05 31 33.6	-2.6
GYA				PP	PP	05 32 46.3	+2.7
GYA				PCP	PcP	05 33 23.7	+1.3
GYA				SCP	ScP	05 37 06.2	+0.7
GYA				S	S	05 37 07.6	-0.3
GYA				XS	sS	05 37 32.2	-2.4
GYA				SS	SS	05 39 53.0	-9.1
GYA				SCS	ScS	05 41 15.8	-1.2
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.5						
GYA				AMB	AMB		
	comp=Z,90nm,8.4s						
GYA				LR	LR		
	comp=N,420nm,18.4s						
GYA				LR	LR		
	comp=E,480nm,19.8s						
GYA				LR	LR		
	comp=Z,360nm,18.8s						
HHC	Hu-ho-hao-te	40.61	319	eP	P	05 31 28.0	+1.8
HHC				AP	pP	05 31 43.5	+1.5
HHC				XP	sP	05 31 50.0	+0.7
HHC				PP	PP	05 33 06.1	+5.3
HHC				PCS	PcS	05 37 20.1	+2.2
HHC				S	S	05 37 32.5	+1.1
HHC				XS	sS	05 37 59.3	+1.1
HHC				SS	SS	05 40 29.8	-3.7
HHC				AMB	AMB		
	comp=Z,8.0nm,0.6s,mb4.5						
HHC				AMB	AMB		
	comp=Z,99nm,8.1s						
HHC				LR	LR		
	comp=N,169nm,20.2s						
HHC				LR	LR		
	comp=E,203nm,19.0s						
HHC				LR	LR		
	comp=Z,164nm,14.3s						
KMI	Kunming	42.28	293	P	P	05 31 40.0	-0.1
KMI				AMB	AMB		
	comp=Z,8.0nm,0.6s,mb4.5						
KMI				LR	LR		
	comp=Z,70nm,23.2s						
KMI	Kunming	42.28	293	P	P	05 31 40.0	-0.1
	comp=Z,8.0nm,0.6s,mb4.5						
KMI				LR	LR		
	comp=Z,70nm,23.2s						
CD2	Chengdu	42.51	301	eP	P	05 31 40.7	-1.2
CD2				PP	PP	05 33 22.7	+1.2
CD2				S	S	05 37 57.5	-2.3
CD2				SS	SS	05 41 02.0	-9.4
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
CD2				AMB	AMB		
	comp=Z,30nm,6.8s						
LZH	Lanzhou	43.97	308	eP	P	05 31 56.5	+2.9
LZH				AP	pP	05 32 10.4	+0.8
LZH				XP	sP	05 32 16.2	-0.7
LZH				ePP	PP	05 33 40.5	+3.4
LZH				AMB	AMB		
	comp=Z,26nm,1.3s,mb4.8						
LZH				AMB	AMB		
	comp=Z,55nm,6.7s						
LZH				LR	LR		
	comp=N,305nm,14.5s						
LZH				LR	LR		
	comp=Z,512nm,18.2s						
LZH	Lanzhou	43.97	308	eP	P	05 31 56.5	+2.9
	comp=Z,26nm,1.3s,mb4.8						
LZH				pP	pP	05 32 10.4	+0.8
LZH				sP	sP	05 32 16.2	-0.7
LZH				ePP	PP	05 33 40.5	+3.4
LZH				LR	LR		
	comp=Z,510nm,18.2s						
LZH	Lanzhou	43.97	308	eP	P	05 31 56.5	+2.9
LZH				*PP	pP	05 32 10.4	+0.8
LZH				*SP	sP	05 32 16.2	-0.7
LZH				e		05 33 40.5	
LZH				pmax	pmax		
	comp=Z,26nm,1.3s,mb4.8						
LZH				MLR	MLR		
	comp=Z,510nm,18.2s						
STKA	Stephens Creek	45.23	185	P	P	05 32 01.6	-2.0
	comp=Z,1.8nm,0.9s,mb3.9,baz=325,slow=16,SNR=2.8						
STKA				LR	LR	05 51 30.5	
	comp=Z,110nm,19.0s,baz=26,slow=37						
SONM	Songino Array	47.50	324	P	P	05 32 22.0	+0.8
	comp=Z,0.8nm,0.5s,mb3.9,baz=144,slow=8.9,SNR=8.9						
SONM				PcP	PcP	05 33 51.0	+0.4
	comp=Z,0.8nm,0.8s,baz=144,slow=4.5,SNR=4.2						
GTA	Gaotai	48.10	311	P	P	05 32 30.3	+4.3
GTA				AP	pP	05 32 45.0	+2.8
GTA				PP	PP	05 34 23.6	+4.9
GTA				S	S	05 39 29.3	+9.1
GTA				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.5						
GTA				AMB	AMB		
	comp=Z,127nm,8.0s						
GTA				LR	LR		
	comp=N,124nm,14.8s						
GTA				LR	LR		
	comp=E,101nm,14.1s						
GTA				LR	LR		
	comp=Z,109nm,13.7s						
SEY	Seymchan	49.65	4	eP	P	05 32 36.3	-1.2
BOD	Bodaibo	50.47	338	eP	P	05 32 40.5	-3.3
BOD				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.2						
ZAK	Zakamensk	50.59	326	eP	P	05 32 44.2	-0.6
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.0						
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.1						
LSA	Lhasa	53.04	297	P	P	05 33 04.8	+1.4
TAPN	Taplejung	55.91	294	eP	P	05 33 24.8	+0.5
	comp=Z,5.4nm,0.5s,mb4.8						
BILL	Bilibino	56.15	9	eP	P	05 33 25.2	-0.1
	comp=Z,2.7nm,0.6s,mb4.5						
BILL	Bilibino	56.15	9	⇑eP	P	05 33 25.5	+0.2
BILL				pmax	pmax		
	comp=Z,9.0nm,1.7s,mb4.5						
GUN	Gumba	57.55	295	eP	P	05 33 36.7	+0.8
	comp=Z,8.3nm,0.4s,mb5.1						
PKI	Pulchoki	57.96	294	eP	P	05 33 38.3	-0.5
WMQ	Urumqi	58.04	313	eP	P	05 33 41.5	+2.4
WMQ				AP	pP	05 33 56.8	+1.1
WMQ				XP	sP	05 34 02.0	-0.8
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.5s,mb5.1						
WMQ				LR	LR		
	comp=N,149nm,26.7s						
WMQ				LR	LR		
	comp=E,88nm,19.0s						
WMQ				LR	LR		
	comp=Z,101nm,19.0s						
DMN	Daman	58.23	294	eP	P	05 33 39.8	-0.9
GKN	Gorkha	58.65	295	eP	P	05 33 43.8	+0.2
	comp=Z,5.2nm,0.3s,mb5.1						
TIXI	Tiksi	59.12	354	eP	P	05 33 45.5	-0.6
TIXI	Tiksi	59.12	354	i P	P	05 33 44.4	-1.7
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
KOLN	Koldanda	59.57	294	eP	P	05 33 49.6	-0.4
	comp=Z,10nm,0.9s,mb4.9						
MK31	Makanchi Array	62.37	316	eP	P	05 34 08.5	-0.1
MKAR	Makanchi Array	62.37	316	P	P	05 34 09.0	+0.4
	comp=Z,1.4nm,0.4s,mb4.4,baz=87,slow=8.9,SNR=26						
ZALV	Zalesovo Beam	62.39	324	P	P	05 34 08.0	-0.7
ZALV	Zalesovo Beam	62.39	324	P	P	05 34 08.0	-0.7
	comp=Z,1.6nm,0.5s,mb4.4,baz=89,slow=6.8,SNR=8.4						
ZAL	Zalesovo	62.40	324	P	P	05 34 08.0	-0.7
NVS	Novosibirsk	63.52	325	eP	P	05 34 15.8	-0.3
NVS				pmax	pmax		
	comp=Z,14nm,1.7s,mb4.7						
NVS				pmax	pmax		
	comp=E,15nm,1.6s						
KDAK	Kodiak Island	63.64	32	P	P	05 34 16.4	-0.4
	comp=E,4.3nm,0.9s,mb4.5,baz=297,slow=4.5,SNR=3.1						
KURK	Kurchatov	65.41	320	eP	P	05 34 28.5	-0.1
	comp=E,7.5nm,0.8s,mb4.8						
KURK	Kurchatov	65.41	320	eP	P	05 34 28.5	0.0
KURK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
SLKM	Skilak Lake	65.61	29	eP	P	05 34 28.6	-1.0
PMR	Palmer	66.42	28	eP	P	05 34 37.0	+2.2
	comp=Z,5.9nm,0.9s,mb4.6						
PMR	Palmer	66.42	28	eP	P	05 34 37.0	+2.2
PMR				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
SML	Sawmill	66.84	28	eP	P	05 34 36.9	-0.6
MCK	McKinley	67.11	26	eP	P	05 34 39.3	+0.1
	comp=Z,0.6nm,0.5s,mb3.9						
MCK	McKinley	67.11	26	eP	P	05 34 39.3	+0.1
MCK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
UCH	Uchtor	67.41	310	eP	P	05 34 41.7	+0.2
	comp=Z,1.6nm,0.7s,mb4.2						
AAK	Ala-Archa	67.44	311	eP	P	05 34 41.4	-0.3
	comp=Z,0.7nm,0.5s,mb4.0						
AAK	Ala-Archa	67.44	311	eP	P	05 34 41.7	0.0
AAK				pmax	pmax		
	comp=Z,4.0nm,2.1s,mb4.1						
PPT	Papeete	70.65	114	eLR	LR	05 55 54.5	
	comp=Z,146nm,23.8s						
BRVK	Borovoye	70.80	322	eP	P	05 35 01.9	-0.4
	comp=Z,12nm,1.0s,mb4.8						
BRVK	Borovoye	70.80	322	eP	P	05 35 01.9	-0.3
BRVK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
DAWY	Dawson	71.30	27	eP	P	05 35 05.0	0.0
INK	Inuvik	74.11	22	eP	P	05 35 21.1	-0.6
YKA	Yellowknife Ar	82.51	28	P	P	05 36 07.4	-0.7
YKA				LR	LR	06 12 32.8	
YKA	Yellowknife Ar	82.51	28	P	P	05 36 07.4	-0.7
	comp=Z,1.0nm,0.6s,mb4.0,baz=285,slow=5.2,SNR=15						
YKA				LR	LR	06 12 32.8	
	comp=Z,47nm,18.2s,baz=240,slow=36						
RES	Resolute Bay	84.46	13	eP	P	05 36 18.3	+0.3
	comp=Z,210nm,1.1s						
RES	Resolute Bay	84.46	13	eP	P	05 36 18.3	+0.3
RES				pmax	pmax		
	comp=Z,210nm,1.1s						
NEW	Newport	84.63	42	eP	P	05 36 19.2	-0.1
	comp=Z,3.0nm,1.0s,mb4.4						
NEW	Newport	84.63	42	eP	P	05 36 19.2	-0.1
NEW				pmax	pmax		
	comp=Z,3.0nm,1.0s						
WVOR	Wild Horse Val	84.98	48	eP	P	05 36 21.0	-0.2
	comp=Z,5.0nm,1.0s,mb4.6						
WVOR	Wild Horse Val	84.98	48	eP	P	05 36 21.0	-0.2
WVOR				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
BMO	Blue Mountains	85.34	45	eP	P	05 36 23.3	+0.4
	comp=Z,11nm,1.5s,mb4.8						
BMO	Blue Mountains	85.34	45	eP	P	05 36 23.3	+0.4
BMO				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.8						
NVAR	Mina Array Bea	86.18	52	P	P	05 36 27.8	+0.5
NVAR	Mina Array Bea	86.18	52	P	P	05 36 27.8	+0.6
	comp=Z,1.0nm,0.6s,mb4.2,baz=60,slow=25,SNR=14						
BSMT	Bassoo Peak	86.25	42	eP	P	05 36 27.9	+0.5
WALA	Waterton Lakes	86.48	40	eP	P	05 36 29.2	+0.8
	comp=Z,13nm,1.3s,mb5.0						
CHMT	Chamberlain Mo	87.52	42	eP	P	05 36 32.7	-0.8
ARCES	ARCESS Array B	87.58	342	P	P	05 36 32.2	-1.1
	comp=Z,1.9nm,0.6s,mb4.5,baz=55,slow=4.6,SNR=6.8						
HLID	Hailey	87.69	46	eP	P	05 36 35.1	+0.7
LRM	Limekiln Ridge	88.37	43	eP	P	05 36 38.1	+0.5
JOF	Joensuu	88.91	335	ep	P	05 36 38.3	-1.5
	comp=Z,4.8nm,0.7s,mb4.9						
BOZ	Bozeman (W)	88.97	43	eP	P	05 36 40.8	+0.3
	comp=Z,3.1nm,1.0s,mb4.6						
BOZ	Bozeman (W)	88.97	43	eP	P	05 36 40.8	+0.3
BOZ				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.6						
QLMT	Earthquake Lak	89.36	44	eP	P	05 36 43.0	+0.7
DUG	Dugway	89.80	49	eP	P	05 36 45.2	+0.8
	comp=Z,5.6nm,1.0s,mb4.8						
DUG	Dugway	89.80	49	eP	P	05 36 45.3	+0.8
DUG				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.9						
MOOW	Moose Ponds	90.17	45	eP	P	05 36 46.7	+0.6
	comp=Z,1.0nm,0.6s,mb4.3						
HWUT	Hardware Ranch	90.27	47	eP	P	05 36 47.2	+0.6
JLU	Jordanelle	90.67	48	eP	P	05 36 49.4	+0.8
PDAR	Pinedale Array	91.31	46	P	P	05 36 51.2	-0.2
	comp=Z,0.5nm,0.6s,mb4.0,baz=210,slow=1.4,SNR=6.3						
KAF	Kangasniemi	91.32	336	ep	P	05 36 49.7	-1.3
	comp=Z,1.7nm,0.5s,mb4.6,baz=57,slow=4.4						
KAF	Kangasniemi	91.32	336	eP	P	05 36 49.7	-1.3
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.7						
FINES	FINESS Array B	91.77	335	i P	P	05 36 51.7	-1.5
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
FINES	FINESS Array B	91.77	335	P	P	05 36 51.8	-1.3
	comp=Z,2.0nm,0.5s,mb4.7,baz=78,slow=4.6,SNR=29						
LAO	LASA Array	92.14	41	eP	P	05 36 55.8	+0.6
WUAZ	Wupatki	92.31	53	eP	P	05 36 57.6	+1.4
NOA	NORSAR Array B	97.59	340	LR	LR	06 24 21.5	
	comp=Z,64nm,18.9s,baz=115,slow=37						
MNTX	Cornudas Mount	98.31	55	eP	P	05 37 23.6	-0.1
	comp=Z,0.7nm,0.6s,mb4.4						
TORD	Torodi Ar. Bea	135.85	305	PKP	PKPdf	05 43 09.1	+1.9
TORD	Torodi Ar. Bea	135.85	305	PKP	PKPdf	05 43 09.1	+1.9
	comp=Z,0.1nm,0.4s,baz=32,slow=2.3,SNR=5.0						
KIC	Kosan Boka	144.91	302	eP	PKPdf	05 43 25.6	+2.0
	comp=Z,78nm,1.3s						
TIC	Toumodi	144.98	303	eP	PKPdf	05 43 23.9	+0.2
	comp=Z,52nm,1.0s						
LIC	Lamto	145.22	302	eP	PKPbc	05 43 25.3	+1.5
	comp=Z,44nm,1.4s						
LPAZ	La Paz	146.92	99	ePKPbc	PKPbc	05 43 29.6	+0.8
LPAZ	La Paz	146.92	99	PKP2	PKPab	05 43 29.7	-0.6
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.6s						
LPAZ	La Paz	146.92	99	PKPbc	PKPbc	05 43 29.7	+0.8
	comp=Z,1.3nm,0.6s,baz=268,slow=4.9,SNR=7.6						

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*IDC **10** 05:42:55.5±1.8, 35.43N×21.77E, h0^{km}, mb3.5/3, mb1 3.5/4, mb1mx3.3/21, mbtmp3.5/4, ML2.4/1, Error ellipse: s-maj=210.7km s-min=27.0km az=140.0*

*ISCJB **10** 05:43:01.6±1.4, 34.7N±0.1×22.5E±0.1, h63^{km}±14^{km}, mb3.5/3, Error ellipse: s-maj=21.9km s-min=11.0km az=28.9*

*CSEM **10** 05:43:13.5, 35.60N×23.47E, h55^{km}, MD3.8/6, After ATH*

*NEIC **10** 05:43:13.5, 35.60N×23.47E, h55^{km}, MD3.8(ATH), After ATH.*

*ATH **10** 05:43:13.5, 35.60N×23.47E, h55^{km}±2^{km}, MD3.8/6*

ISC 10 05:43:02.8±1.5**, 34.7N**±0.1×**22.5E**±0.1**, h54**^{km}±15^{km}**, n16,** σ**0^{s}93**/17**, mb3.5**/3**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GVD	Gavdhos	1.32	84	ePn	Pn	05 43 22.9	-2.0
GVD				eSn	Sn	05 43 42.2	+0.8
VAM	Vamos	1.56	63	eP	Pn	05 43 27.4	-0.8
VLI	Veliai	2.03	10	eP	Pn	05 43 34.9	+0.3
ITM	Ithomi	2.50	350	eP	Pn	05 43 46.3	+5.2
NPS	Neapolis	2.62	77	P	Pn	05 43 44.0	+1.4
APE	Apeiranthos	3.41	45	eP	Pn	05 43 49.4	-4.0
RLS	Riolos of Patr	3.44	346	P	Pn	05 43 54.8	+0.9
VLS	Valsamata	3.78	337	P	Pn	05 43 57.7	-0.9
KARP	Karpathos	3.91	76	eP	Pn	05 44 00.4	0.0
LKR	Lokris	3.95	6	P	Pn	05 44 00.4	-0.5
EVR	Evrytania	4.23	353	eP	Pn	05 44 08.3	+3.6
BRTR	Keskin Array B	10.20	57	Pn	Pn	05 45 26.4	0.0
BRTR	Keskin Array B	10.20	57	Pn	Pn	05 45 26.4	0.0
	0.0nm,0.3s,baz=240,slow=13,SNR=4.8						
TORD	Torodi Ar. Bea	28.56	226	P	P	05 48 54.0	+0.4
	0.2nm,0.5s,mb3.1,baz=35,slow=8.5,SNR=2.3						
MKAR	Makanchi Array	45.84	56	P	P	05 51 19.5	+0.1
	0.3nm,0.4s,mb3.6,baz=265,slow=7.8,SNR=8.0						
ZALV	Zalesovo Beam	46.89	46	P	P	05 51 26.9	-0.5
	0.4nm,0.4s,mb3.7,baz=257,slow=9.7,SNR=3.6						

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*TIF **10** 05:53:38.5, 43.16N×42.90E, h8^{km}±6^{km}*

*ISCJB **10** 05:53:38.3±1.0, 43.13N±0.04×42.74E±0.07, h10^{km}, Error ellipse: s-maj=8.2km s-min=3.4km az=146.2*

*MOS **10** 05:53:38.0±0.7, 43.11N×42.68E, h10^{km}, mb3.6/1, Error ellipse: s-maj=11.1km s-min=9.2km az=47.1*

ISC 10 05:53:39.4±0.9**, 43.15N**±0.03×**42.79E**±0.06**, h10**^{km}**, n13,** σ**0^{s}66**/26**, 6C-5D, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHAR	Shatzhatmas	0.60	351	⇑iPG	Pg	05 53 51.2	+0.2
SHAR				i S	Sg	05 53 58.7	-0.1
DIGR	Digorskoe uzhe	0.63	113	⇑iPG	Pg	05 53 51.5	-0.1
DIGR				i S	Sg	05 53 58.7	-1.1
ONI	Oni	0.75	140	P	Pg	05 53 54.8	+1.0
ONI				S	Sg	05 54 04.6	+1.1
LSNR	Lesken	0.76	80	⇓iPG	Pg	05 53 54.5	+0.5
LSNR				i S	Sg	05 54 04.2	+0.3
KUBR	Kubataba	0.79	35	⇓iPG	Pg	05 53 54.8	+0.2
KUBR				eS	Sg	05 54 05.6	+0.7
KIV	Kislovodsk	0.81	355	⇑iPG	Pg	05 53 55.0	+0.1
KIV				i S	Sg	05 54 05.0	-0.5
BEYR	Belyy Ugol+	0.86	1	⇓iPG	Pg	05 53 55.7	-0.3
BEYR				i S	Sg	05 54 05.9	-1.3
ZEI	Tsey	0.90	115	⇓iPG	Pg	05 53 56.3	-0.3
ZEI				i S	Sg	05 54 06.9	-1.4
KORR	Kora	0.94	94	⇑iPG	Pg	05 53 57.5	+0.1
KORR				i S	Sg	05 54 09.1	-0.5
ARNR	Ardon	1.09	88	⇑iPG	Pg	05 54 00.4	+0.1
ARNR				i S	Sg	05 54 14.3	-0.1
KMSR	Komsomolskaya	1.12	78	i PG	Pg	05 54 01.3	+0.5
KMSR				i S	Sb	05 54 15.6	+0.2
LACR	Lac	1.15	106	⇓iPG	Pg	05 54 01.1	-0.4
LACR				i S	Sb	05 54 15.4	-0.9
PRTR	Priterechnaya	1.24	61	⇑iPG	Pg	05 54 03.8	+0.6
PRTR				eS	Sb	05 54 20.1	+1.2

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*GUC **10** 06:02:58.6±0.9, 42.92S×71.80W, h150^{km}*

*ISCJB **10** 06:03:01.9±0.2, 42.89S±0.03×71.26W±0.08, h158^{km}, mb5.0/79, Error ellipse: s-maj=8.1km s-min=4.3km az=173.8*

*BJI **10** 06:03:02.4, 43.00S×71.60W, h157^{km}, mB5.1*

*IDC **10** 06:03:02.9±0.5, 43.04S×71.74W, h160^{km}±3^{km}, mb4.8/23, mb1 4.8/24, mb1mx4.8/25, mbtmp4.8/24, MS4.2/9, Ms1 4.2/9, ms1mx3.9/20, Error ellipse: s-maj=13.5km s-min=8.1km az=81.0*

*GCMT **10** 06:03:02.5±0.1, 43.26S×72.26W, h162^{km}±1^{km}, MW5.5/93, Moment Tensor Solution. s85,c147; s93,c168; Duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M_{rr}0.23±.04; $M_{\theta\theta}$0.52±.04; $M_{\phi\phi}$-0.74±.04; $M_{r\theta}$0.01±.03; $M_{\theta\phi}$-0.12±.04; $M_{\phi r}$2.41±.03; Best double couple: $M_0$2.46200×10^{17} NP1:ϕ_s207.00000°, δ6.00000°, λ117.00000°. NP2:ϕ_s360.00000°, δ84.00000°, λ87.00000°. Principal axes: T 2.2030, Plg51.0000°, Azm266.0000°; N 0.5180, Plg3.0000°, Azm0.0000°; P -2.7210, Plg39.0000°, Azm92.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***10*** *06:03:02.5±0.2, 42.98S×71.56W, mb5.0/60 Error ellipse: s-maj=8.4km s-min=4.5km az=81.0*
NEIC Felt [III] at Castro, Chile.
MOS ***10*** *06:03:03.8±1.0, 43.02S×71.81W, h175^{km}, mb5.0/26, Error ellipse: s-maj=20.4km s-min=8.3km az=101.1*
ISC 10 06:03:03.5±0.2**, 42.90S**±0.03×**71.35W**±0.07**, h160^{km}, h160^{km}**±.7^{km}**:pP-P, n558, σ0^{s}84**/349**, mb5.0**/78**, 88C-72D, Southern Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COYC	**Coyhaique**	**2.73**	**191**	*e*P	**Pn**	**06 03 42.4**	**-5.4**
COYC				*i* S	**Sn**	**06 04 14.8**	**-7.3**
TMU	**Temuco**	**4.26**	**347**	*e*P	**Pn**	**06 04 07.0**	**-0.5**
TMU				*i* S	**Sn**	**06 04 55.7**	**-1.5**
CCHI	**Chillan**	**6.31**	**355**	*e*P	**Pn**	**06 04 34.8**	**+0.4**
CCHI				*i* S	**Sn**	**06 05 41.1**	**-4.6**
COCH	**Cobquecura**	**6.85**	**350**	*e*P	**Pn**	**06 04 39.2**	**-2.3**
COCH				*i* S	**Sn**	**06 05 50.4**	**-8.1**
CICH	**Cipreses**	**8.59**	**5**	*e*P	**Pn**	**06 05 02.7**	**-2.0**
CHCH	**Chadas Angostu**	**8.96**	**4**	*e*P	**Pn**	**06 05 07.5**	**-2.1**
PCH	**Pirque**	**9.28**	**4**	*e*P	**Pn**	**06 05 11.7**	**-2.2**
RCDM	**Rinconada Maip**	**9.40**	**3**	*e*P	**Pn**	**06 05 13.2**	**-2.3**
FCH	**Farellones**	**9.59**	**5**	*e*P	**Pn**	**06 05 17.0**	**-0.9**
CFAA	**Coronel Fontan**	**11.54**	**13**	P	**Pn**	**06 05 43.0**	**-0.6**
CFAA				S	**Sn**	**06 07 47.5**	**-3.8**
CFAA				ScP	ScP	06 14 38.2	+0.2
CFAA	**Coronel Fontan**	**11.54**	**13**	P	**Pn**	**06 05 43.0**	**-0.5**
	1.4nm,0.3s,baz=194,slow=11,SNR=84						
CFAA				S	**Sn**	**06 07 47.5**	**-3.8**
	2.2nm,0.3s,baz=288,slow=18,SNR=9.6						
CFAA				ScP	ScP	06 14 38.2	+0.2
	0.1nm,0.3s,baz=245,slow=2.3,SNR=16						
USHA	**Ushuaia**	**12.10**	**172**	P	**Pn**	**06 05 49.4**	**-1.1**
	1.5nm,0.3s,baz=326,slow=11,SNR=17						
USHA				LR	LR	06 10 38.1	
	comp=Z,428nm,18.2s,baz=332,slow=38						
EFI	**East Falkland**	**12.57**	**139**	P	**Pn**	**06 05 59.2**	**+2.5**
	6µm,0.9s,SNR=11						
EFI	**East Falkland**	**12.57**	**139**	*e*Pn	**Pn**	**06 05 59.0**	**+2.3**
EFI	**East Falkland**	**12.57**	**139**	*e*P	**Pn**	**06 05 59.0**	**+2.3**
TLL	**Tololo Astrono**	**12.71**	**2**	*e*P	**Pn**	**06 06 00.7**	**+2.0**
LPA	**La Plata**	**13.14**	**57**	*ce*P	**Pn**	**06 06 07.0**	**+2.9**
	2µm,0.9s						
LPA				*e*S	**Sn**	**06 08 38.0**	**+8.4**
LCO	**Las Campanas**	**13.87**	**2**	*e*Pn	**Pn**	**06 06 13.1**	**-0.2**
	229nm,0.8s						
LCO				*e*Sn	**Sn**	**06 08 39.3**	**-7.9**
PMSA	**Palmer Station**	**22.31**	**172**	P	**P**	**06 07 46.7**	**-1.0**
	40nm,0.8s,mb4.9,baz=355,slow=12,SNR=6.2						
PMSA				LR	LR	06 14 52.7	
	comp=Z,295nm,19.8s,baz=276,slow=32						
ARE	**Arequipa**	**26.35**	**360**	*e*P	**P**	**06 08 26.0**	**+1.3**
ARE				*e*	pP	06 09 02.0	+4.2
LPAZ	**La Paz**	**26.66**	**7**	*e*P	**P**	**06 08 29.5**	**+2.0**
	14nm,0.5s,mb4.8						
LPAZ	**La Paz**	**26.66**	**7**	*e*P	**P**	**06 08 29.5**	**+2.0**
LPAZ				pmax	pmax		
	comp=Z,13nm,0.5s						
LPAZ	**La Paz**	**26.66**	**7**	P	**P**	**06 08 29.4**	**+1.9**
	comp=Z,15nm,0.6s,mb4.8,baz=180,slow=7.0,SNR=56						
LPAZ				S	**S**	**06 12 52.4**	**+1.5**
	comp=Z,5.1nm,0.9s,baz=7.6,slow=19,SNR=4.6						
LPAZ				ScP	ScP	06 15 14.8	+2.8
	comp=Z,7.3nm,0.9s,baz=190,slow=2.4,SNR=6.9						
SIV	**San Ignacio**	**28.22**	**21**	P	**P**	**06 08 42.7**	**+1.3**
	comp=Z,98nm,0.8s,mb5.6,baz=211,slow=9.4,SNR=317						
SIV				ScP	ScP	06 15 17.5	+0.8
	comp=Z,4.7nm,0.8s,baz=220,slow=2.8,SNR=4.0						
NNA	**Nana**	**31.16**	**350**	P	**P**	**06 09 07.1**	**-0.3**
	comp=Z,13nm,1.0s,mb4.6,baz=198,slow=11,SNR=6.7						
ATAH	**Atahualpa**	**36.28**	**348**	P	**P**	**06 09 52.4**	**+0.8**
	comp=Z,23nm,0.9s,mb4.8,baz=172,slow=8.9,SNR=7.6						
VNA3	**Neumayer Olymp**	**41.02**	**154**	*e*P	**P**	**06 10 29.3**	**-1.1**
VNA3				*e*	pP	06 11 06.2	+1.0
VNA3				*e*		06 11 26.4	
VNA3				*e*		06 11 46.1	
VNA3				*e*		06 12 05.5	
VNA3				*e*		06 12 26.4	
VNA3				*e*		06 16 01.8	
VNA3				*e*		06 16 21.4	
VNA1	**Neumayer--Stat**	**41.39**	**153**	*e*P	**P**	**06 10 33.4**	**0.0**
VNA1				*e*	pP	06 11 07.6	-0.7
VNA1				*e*		06 11 30.1	
VNA1				*e*		06 12 06.6	
VNA1				*e*		06 12 28.1	
VNA1				*e*		06 12 43.7	
VNA1				*e*		06 16 03.2	
VNA1				*e*		06 16 21.1	
VNA2	**Neumayer--Watz**	**41.71**	**154**	*e*P	**P**	**06 10 35.3**	**-0.7**
	baz=280,slow=8.4						
VNA2				*e*	pP	06 11 12.0	+1.1
VNA2				*e*		06 11 31.7	
VNA2				*e*		06 11 54.5	
VNA2				*e*		06 12 11.3	
VNA2				*e*		06 12 29.3	
VNA2				*e*		06 12 45.3	
VNA2				*e*		06 16 05.0	
VNA2				*e*		06 16 21.8	
SNAA	**Sanae**	**43.24**	**155**	P	**P**	**06 10 47.0**	**-1.4**
	comp=Z,9.5nm,0.5s,mb4.7,baz=284,slow=6.7,SNR=57						
SNAA				ScP	ScP	06 16 09.7	-0.8
	comp=Z,2.8nm,1.0s,baz=254,slow=8.9,SNR=5.0						
OTAV	**Otavalo**	**43.41**	**350**	*e*P	**P**	**06 10 51.9**	**+1.5**
	comp=Z,46nm,1.4s,mb4.9						
OTAV				*e*PcP	PcP	06 12 36.8	+0.9
ROSC	**El Rosal**	**47.60**	**356**	P	**P**	**06 11 25.1**	**+1.8**
	comp=Z,4.1nm,0.6s,mb4.2						
ROSC				*e*pP	pP	06 12 00.2	+1.1
ROSC	**El Rosal**	**47.60**	**356**	P	**P**	**06 11 25.1**	**+1.8**
	comp=Z,15nm,0.6s,mb4.8,baz=124,slow=6.0,SNR=23						
MAIT	**Maitri**	**47.99**	**154**	*e*P	**P**	**06 11 22.9**	**-2.8**
RCBR	**Riachuelo**	**48.40**	**51**	*e*P	**P**	**06 11 32.2**	**+2.8**
	comp=Z,103nm,0.8s,mb5.5						
PCRV	**Puerto La Cruz**	**53.17**	**8**	P	**P**	**06 12 06.2**	**+1.2**
	comp=Z,29nm,0.5s,mb5.2,baz=187,slow=5.1,SNR=35						
JTS	**JuntasAbangare**	**54.37**	**343**	P	**P**	**06 12 13.1**	**-0.7**
	comp=Z,196nm,0.8s,mb5.9,SNR=6.6						
JTS	**JuntasAbangare**	**54.37**	**343**	*e*P	**P**	**06 12 13.3**	**-0.4**
	comp=Z,26nm,0.8s,mb5.0						
JTS	**JuntasAbangare**	**54.37**	**343**	*e*P	**P**	**06 12 13.3**	**-0.5**
JTS				pmax	pmax		
	comp=Z,26nm,0.8s						
SBA	**Scott Base**	**54.51**	**193**	*e*P	**P**	**06 12 15.0**	**+0.9**
GRGR	**Grenville**	**55.47**	**12**	*e*P	**P**	**06 12 21.4**	**-0.3**
VNDA	**Vanda**	**55.51**	**192**	P	**P**	**06 12 20.5**	**-0.8**
	comp=Z,20nm,1.2s,mb4.8,baz=160,slow=7.7,SNR=4.2						
SYO	**Syowa Base**	**57.45**	**156**	⇑*i*P	**P**	**06 12 33.0**	**-2.1**
SYO	**Syowa Base**	**57.45**	**156**	⇓*e*PP	PP	06 14 40.2	-3.6
TGUH	**Tegucigalpa,Un**	**58.53**	**342**	*e*P	**P**	**06 12 42.5**	**-0.6**
	comp=Z,66nm,0.8s,mb5.5						
TGUH				*e*pP	pP	06 13 20.1	-0.2
CPD	**Cerro la Pandu**	**60.83**	**6**	*e*P	**P**	**06 12 56.5**	**-2.3**
SJG	**San Juan**	**60.89**	**6**	*e*P	**P**	**06 12 58.1**	**-1.1**
	comp=Z,17nm,0.7s,mb5.0						
SJG				*e*pP	pP	06 13 40.4	+3.7
SJG	**San Juan**	**60.89**	**6**	*e*P	**P**	**06 12 58.1**	**-1.1**
SJG				*e**PP	pP	06 13 40.4	+3.8
SJG				pmax	pmax		
	comp=Z,17nm,0.7s						
SJG	**San Juan**	**60.89**	**6**	P	**P**	**06 12 57.9**	**-1.3**
	comp=Z,24nm,0.7s,mb5.1,baz=171,slow=23,SNR=14						
MTP	**Monte Pirata**	**60.92**	**6**	*e*P	**P**	**06 12 57.5**	**-1.9**
MPR	**Mayaguez**	**60.92**	**5**	*e*P	**P**	**06 12 58.3**	**-1.2**
HUMP	**Col San Antoni**	**60.94**	**6**	*e*P	**P**	**06 12 58.1**	**-1.5**
CBYP	**Canovanas**	**61.07**	**6**	*e*P	**P**	**06 12 59.1**	**-1.3**
CMIG	**Matias Romero**	**63.49**	**335**	P	**P**	**06 13 15.8**	**-0.8**
CMIG	**Matias Romero**	**63.49**	**335**	P	**P**	**06 13 15.8**	**-0.8**
	comp=Z,6.8nm,0.3s,mb5.0,baz=180,slow=9.1,SNR=5.1						
CCCC	**Cccc**	**64.05**	**353**	*e*P	**P**	**06 13 21.2**	**+1.1**
MAW	**Mawson**	**64.53**	**162**	*e*P	**P**	**06 13 21.5**	**-1.3**
	comp=Z,56nm,0.8s,mb5.5						
MAW	**Mawson**	**64.53**	**162**	*e*P	**P**	**06 13 21.5**	**-1.3**
MAW				pmax	pmax		
	comp=Z,56nm,0.8s						
MAW	**Mawson**	**64.53**	**162**	P	**P**	**06 13 21.9**	**-0.9**
	comp=Z,46nm,0.7s,mb5.4,baz=193,slow=7.2,SNR=35						
TEIG	**Tepich**	**64.71**	**342**	*e*P	**P**	**06 13 23.6**	**-0.9**
	comp=Z,43nm,0.8s,mb5.3						
TEIG	**Tepich**	**64.71**	**342**	P	**P**	**06 13 23.7**	**-0.8**
	comp=Z,34nm,0.7s,mb5.3,baz=190,slow=3.4,SNR=43						
CAIG	**El Cayaco**	**65.31**	**329**	*i* P	**P**	**06 13 28.0**	**-0.3**
SOR	**Soroa**	**66.23**	**348**	*e*P	**P**	**06 13 32.6**	**-1.6**
IIO	**Organos**	**67.09**	**332**	*i* P	**P**	**06 13 41.0**	**+1.3**
MOIG	**Morelia**	**68.06**	**330**	*i* P	**P**	**06 13 45.4**	**-0.4**
TVO	**Taravao**	**69.35**	**265**	*e*P	**P**	**06 13 51.8**	**-2.2**
	comp=Z,116nm,1.1s,mb5.5						
TVO	**Taravao**	**69.35**	**265**	*e*P	**P**	**06 13 51.8**	**-2.2**
TVO				pmax	pmax		
	comp=Z,116nm,1.1s,mb5.5						
PAE	**Paea**	**69.67**	**265**	*e*P	**P**	**06 13 53.5**	**-2.4**
	comp=Z,62nm,0.9s,mb5.3						
PAE	**Paea**	**69.67**	**265**	*e*P	**P**	**06 13 53.5**	**-2.4**
PAE				pmax	pmax		
	comp=Z,62nm,0.9s,mb5.3						
PPT	**Papeete**	**69.72**	**265**	*e*P	**P**	**06 13 53.8**	**-2.5**
	comp=Z,44nm,1.1s,mb5.1						
PPT	**Papeete**	**69.72**	**265**	P	**P**	**06 13 53.6**	**-2.7**
PPT				LR	LR	06 35 59.6	
PPT	**Papeete**	**69.72**	**265**	P	**P**	**06 13 53.6**	**-2.7**
	comp=Z,29nm,0.8s,mb5.1,baz=219,slow=6.5,SNR=4.5						
PPT				LR	LR	06 35 59.7	
	comp=Z,314nm,18.3s,baz=90,slow=28						
VAH	**Vaihoa**	**69.79**	**268**	*e*P	**P**	**06 13 54.3**	**-2.4**
	comp=Z,138nm,0.9s,mb5.7						
VAH				*e*pP	pP	06 14 30.9	-4.1
	comp=Z,63nm,1.0s						
PMOR	**Pomariorio Ree**	**70.14**	**268**	*e*P	**P**	**06 13 56.3**	**-2.5**
	comp=Z,50nm,0.9s,mb5.2						
PMOR				*e*pP	pP	06 14 33.1	-4.1
	comp=Z,45nm,1.2s						
ZAIG	**Zacatecas**	**71.39**	**330**	*i* P	**P**	**06 14 06.9**	**+0.9**
RAR	**Rarotonga**	**74.76**	**255**	P	**P**	**06 14 22.4**	**-3.7**
	comp=Z,40nm,0.8s,mb5.1,baz=200,slow=5.9,SNR=9.1						
BOSA	**Boshof**	**75.60**	**116**	*e*P	**P**	**06 14 30.4**	**-0.4**
	comp=Z,27nm,0.7s,mb5.0						
BOSA				*e*pP	pP	06 15 10.0	+0.3
BOSA	**Boshof**	**75.60**	**116**	*e*P	**P**	**06 14 30.4**	**-0.4**
BOSA				*e**PP	pP	06 15 10.0	+0.3
BOSA				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.0						
BOSA	**Boshof**	**75.60**	**116**	P	**P**	**06 14 30.4**	**-0.4**
	comp=Z,30nm,0.7s,mb5.0,baz=224,slow=4.9,SNR=64						
BOSA				pP	pP	06 15 10.1	+0.3
	comp=Z,28nm,0.9s,baz=222,slow=5.7,SNR=5.3						
BOSA				LR	LR	06 41 15.4	
	comp=Z,152nm,21.9s,baz=90,slow=30						
LPIG	**La Paz**	**75.71**	**324**	P	**P**	**06 14 30.0**	**-1.3**
LPIG				pP	pP	06 15 10.0	-0.2
LPIG	**La Paz**	**75.71**	**324**	P	**P**	**06 14 30.0**	**-1.3**
	comp=Z,12nm,0.3s,mb5.0,baz=23,slow=1.7,SNR=8.6						
LPIG				pP	pP	06 15 10.0	-0.2
	comp=Z,11nm,0.3s,baz=164,slow=4.6,SNR=1.8						
NHSC	**New Hope**	**76.06**	**352**	*e*P	**P**	**06 14 32.8**	**-0.2**
	comp=Z,33nm,1.0s,mb4.9						
NHSC				*e*pP	pP	06 15 11.9	-0.1
NHSC				*e*sP	sP	06 15 29.2	+0.2
TSUM	**Tsumeb**	**76.43**	**104**	*e*P	**P**	**06 14 36.0**	**+0.3**
	comp=Z,11nm,0.7s,mb4.6						
TSUM				*e*pP	pP	06 15 16.3	+1.7
GOGA	**Godfrey**	**76.74**	**350**	*e*pP	pP	06 15 14.8	-1.2
LRAL	**Lakeview Retre**	**76.91**	**347**	*e*P	**P**	**06 14 37.5**	**-0.3**
	comp=Z,28nm,0.6s,mb5.1						
LRAL				*e*pP	pP	06 15 14.8	-2.1
LIC	**Lamto**	**77.27**	**69**	*e*P	**P**	**06 14 41.4**	**+1.1**
	comp=Z,422nm,0.9s,mb6.1						
NATX	**Nacogdoches**	**77.31**	**340**	*e*P	**P**	**06 14 40.1**	**0.0**
	comp=Z,37nm,0.7s,mb5.1						
NATX				*e*pP	pP	06 15 17.7	-1.4
NATX				*e*sP	sP	06 15 35.7	-0.4
JSC	**Jenkinsville**	**77.34**	**352**	*e*P	**P**	**06 14 39.7**	**-0.5**
JSC				*e*PcP	PcP	06 14 48.6	-1.4
LHS	**Liberty Hill**	**77.48**	**352**	*e*P	**P**	**06 14 40.7**	**-0.3**
LHS				*e*pP	pP	06 15 20.4	+0.3
JCT	**Junction City**	**77.55**	**335**	*e*P	**P**	**06 14 41.1**	**-0.3**
	comp=Z,25nm,0.7s,mb5.0						
JCT				*e*pP	pP	06 15 20.2	-0.4
JCT	**Junction City**	**77.55**	**335**	*e*P	**P**	**06 14 41.1**	**-0.4**
JCT				*e**PP	pP	06 15 20.2	-0.4
JCT				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.0						
KIC	**Kosan Boka**	**77.57**	**69**	*e*P	**P**	**06 14 43.0**	**+1.0**
	comp=Z,356nm,0.8s,mb6.1						
TIC	**Toumodi**	**77.58**	**69**	*e*P	**P**	**06 14 43.0**	**+0.9**
	comp=Z,349nm,0.8s,mb6.0						
LTX	**Lajitas**	**77.77**	**331**	*e*P	**P**	**06 14 42.8**	**+0.1**
	comp=Z,20nm,0.9s,mb4.8						
LTX	**Lajitas**	**77.77**	**331**	*e*P	**P**	**06 14 42.8**	**+0.1**
LTX				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.8						
TXAR	**Lajitas Array**	**77.77**	**331**	P	**P**	**06 14 42.9**	**+0.2**
TXAR				*PP	pP	06 15 21.2	-0.7
TXAR	**Lajitas Array**	**77.77**	**331**	P	**P**	**06 14 42.9**	**+0.2**
	comp=Z,23nm,0.9s,mb4.8,baz=153,slow=8.4,SNR=114						
TXAR				pP	pP	06 15 21.2	-0.6
	comp=Z,9.6nm,1.0s,baz=148,slow=7.3,SNR=4.3						
TXAR				LR	LR	06 42 59.0	
	comp=Z,168nm,20.7s,baz=190,slow=31						
LBTB	**Lobatse**	**78.20**	**113**	*e*P	**P**	**06 14 45.3**	**-0.2**
	comp=Z,23nm,0.6s,mb5.0						
LBTB				*e*pP	pP	06 15 25.6	+1.0
LBTB	**Lobatse**	**78.20**	**113**	*e*P	**P**	**06 14 45.3**	**-0.1**
LBTB				*e**PP	pP	06 15 25.6	+1.1
LBTB				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.0						
OXF	**Oxford**	**78.79**	**345**	*e*P	**P**	**06 14 47.0**	**-1.2**
	comp=Z,40nm,0.8s,mb5.1						
OXF				*e*pP	pP	06 15 25.1	-2.2
OXF	**Oxford**	**78.79**	**345**	*e*P	**P**	**06 14 47.0**	**-1.1**
OXF				*e**PP	pP	06 15 25.2	-2.2
OXF				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.1						
SWET	**Sewanee**	**78.87**	**348**	*e*P	**P**	**06 14 47.7**	**-0.9**
SWET				*e*pP	pP	06 15 26.2	-1.6
CPCT	**Cooper Cave**	**78.89**	**349**	*e*P	**P**	**06 14 48.2**	**-0.5**
CPCT				*e*pP	pP	06 15 27.3	-0.7
PLAL	**Pickwick Lake**	**79.00**	**346**	*e*P	**P**	**06 14 48.4**	**-0.9**
	comp=Z,19nm,0.8s,mb4.8						
PLAL				*e*pP	pP	06 15 26.5	-2.1
UALR	**University of**	**79.64**	**343**	*e*P	**P**	**06 14 52.0**	**-0.8**
MIAR	**Mount Ida**	**79.70**	**342**	*e*P	**P**	**06 14 52.4**	**-0.7**
	comp=Z,7.5nm,0.7s,mb4.4						
MIAR				*e*pP	pP	06 15 32.8	+0.4
MIAR	**Mount Ida**	**79.70**	**342**	*e*P	**P**	**06 14 52.4**	**-0.7**
MIAR				*e**PP	pP	06 15 32.8	+0.4
MIAR				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.5						
TZTN	**Tazewell**	**79.84**	**350**	*e*P	**P**	**06 14 52.7**	**-1.1**
	comp=Z,9.6nm,0.6s,mb4.6						
TZTN				*e*pP	pP	06 15 32.7	-0.5
TZTN				*e*sP	sP	06 15 49.1	-0.9
WVT	**Waverly**	**80.07**	**347**	*e*P	**P**	**06 14 53.7**	**-1.4**
	comp=Z,34nm,1.4s,mb4.8						
WVT				*e*pP	pP	06 15 32.2	-2.2
WVT				*e*sP	sP	06 15 51.9	+0.6
WVT	**Waverly**	**80.07**	**347**	*e*P	**P**	**06 14 53.7**	**-1.4**
WVT				*e**PP	pP	06 15 32.2	-2.2
WVT				*e**SP	sP	06 15 51.9	+0.7
WVT				pmax	pmax		
	comp=Z,34nm,1.4s,mb4.8						
ELN	**Prospectdale**	**80.20**	**352**	*e*P	**P**	**06 14 55.3**	**-0.5**
ELN				*e*pP	pP	06 15 34.4	-0.7
ELN				*e*sP	sP	06 15 51.3	-0.7
GNAR	**Gosnell**	**80.31**	**345**	*e*P	**P**	**06 14 56.3**	**-0.1**
	comp=Z,412nm,0.5s						
GNAR				*e*pP	pP	06 15 34.0	-1.8
GNAR				*e*sP	sP	06 15 53.6	+1.1
GLAT	**Glass**	**80.47**	**345**	*e*pP	pP	06 15 37.7	+1.1
MNTX	**Cornudas Mount**	**80.53**	**331**	*e*P	**P**	**06 14 56.5**	**-1.1**
	comp=Z,30nm,1.0s,mb4.9						
MNTX				*e*pP	pP	06 15 35.5	-1.5
GDL2	**Guadalupe Moun**	**80.63**	**332**	*e*P	**P**	**06 14 58.0**	**-0.2**
GDL2				*e*pP	pP	06 15 36.9	-0.7
PARMO	**Parma**	**80.94**	**345**	*e*P	**P**	**06 14 58.8**	**-0.9**
PARMO				*e*pP	pP	06 15 38.8	-0.3
WMOK	**Wichita Mounta**	**81.23**	**337**	*e*P	**P**	**06 15 00.4**	**-0.8**
	comp=Z,21nm,0.9s,mb4.8						
WMOK				*e*pP	pP	06 15 39.6	-1.1
WMOK				*e*sP	sP	06 15 56.7	-0.8
WMOK	**Wichita Mounta**	**81.23**	**337**	*e*P	**P**	**06 15 00.4**	**-0.9**
WMOK				*e**PP	pP	06 15 39.6	-1.1
WMOK				pmax	pmax		
	comp=Z,21nm,0.9s,mb4.8						
RAO	**Raoul Island**	**81.57**	**238**	LR	LR	06 43 29.0	
	comp=Z,199nm,18.0s,baz=84,slow=30						
USIN	**University of**	**81.84**	**347**	*e*P	**P**	**06 15 03.1**	**-1.3**
	comp=Z,46nm,0.8s,mb5.2						
USIN				*e*pP	pP	06 15 41.0	-2.9
SIUC	**Southern Illin**	**81.86**	**346**	*e*P	**P**	**06 15 03.6**	**-0.9**
	comp=Z,32nm,0.8s,mb5.0						
SIUC				*e*pP	pP	06 15 42.5	-1.5
WCI	**Wyandotte Cave**	**81.88**	**348**	*e*P	**P**	**06 15 03.1**	**-1.5**
	comp=Z,18nm,0.9s,mb4.7						
WCI	**Wyandotte Cave**	**81.88**	**348**	*e*P	**P**	**06 15 03.1**	**-1.5**
WCI				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.7						
FVM	**French Village**	**82.35**	**345**	*e*P	**P**	**06 15 06.5**	**-0.5**
	comp=Z,18nm,0.8s,mb4.8						
FVM				*e*pP	pP	06 15 45.2	-1.4
FVM	**French Village**	**82.35**	**345**	*e*P	**P**	**06 15 06.5**	**-0.5**
FVM				*e**PP	pP	06 15 45.2	-1.4
FVM				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.8						
MCWV	**Mont Chateau**	**82.53**	**353**	*e*P	**P**	**06 15 08.0**	**0.0**
	comp=Z,38nm,1.3s,mb5.0						
BLO	**Bloomington**	**82.84**	**348**	*e*P	**P**	**06 15 08.5**	**-1.1**
	comp=Z,17nm,0.8s,mb4.8						
BLO				*e*pP	pP	06 15 46.9	-2.2
BLO	**Bloomington**	**82.84**	**348**	*e*P	**P**	**06 15 08.5**	**-1.0**
BLO				*e**PP	pP	06 15 46.9	-2.2
BLO				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.8						
TUC	**Tucson**	**83.11**	**327**	*e*P	**P**	**06 15 11.1**	**-0.1**
	comp=Z,8.0nm,0.8s,mb4.5						
TUC				*e*pP	pP	06 15 50.1	-0.7
TUC	**Tucson**	**83.11**	**327**	*e*P	**P**	**06 15 11.1**	**0.0**
TUC				*e**PP	pP	06 15 50.1	-0.6
TUC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
BNM	**Barren Site**	**83.19**	**331**	*e*P	**P**	**06 15 12.1**	**+0.6**
BNM				*e*pP	pP	06 15 52.0	+0.9
Y22C	**IRIS PASSCAL I**	**83.22**	**331**	⇓P	**P**	**06 15 12.5**	**+0.9**
	baz=84						
LENM	**Lemitar**	**83.33**	**331**	*e*P	**P**	**06 15 12.8**	**+0.6**
LENM				*e*pP	pP	06 15 52.6	+0.8
LPM	**Los Pinos Moun**	**83.34**	**331**	*e*P	**P**	**06 15 12.6**	**+0.4**
LPM				*e*pP	pP	06 15 52.4	+0.5
ACSO	**Alum Creek Sta**	**83.41**	**351**	*e*P	**P**	**06 15 10.4**	**-2.0**
	comp=Z,11nm,0.7s,mb4.7						
ACSO				*e*pP	pP	06 15 48.9	-3.2
LAZ	**Ladron**	**83.60**	**331**	*e*P	**P**	**06 15 14.2**	**+0.6**
LAZ				*e*pP	pP	06 15 53.9	+0.7
116A	**Eloy**	**83.70**	**327**	⇓P	**P**	**06 15 14.5**	**+0.4**
	baz=84						
ANMO	**Albuquerque**	**83.85**	**332**	*e*P	**P**	**06 15 14.7**	**-0.1**
	comp=Z,42nm,1.0s,mb5.1						
ANMO				*e*pP	pP	06 15 54.8	+0.3
ANMO				*e*sP	sP	06 16 12.4	+1.1
ANMO	**Albuquerque**	**83.85**	**332**	*e*P	**P**	**06 15 14.7**	**-0.1**
ANMO				*e**PP	pP	06 15 54.8	+0.3
ANMO				*e**SP	sP	06 16 12.4	+1.1
ANMO				pmax	pmax		
	comp=Z,42nm,1.0s						
115A	**Sonoran Desert**	**84.04**	**326**	⇓P	**P**	**06 15 16.5**	**+0.7**
	baz=84						
ALLY	**Alegheny Colle**	**84.53**	**353**	*e*P	**P**	**06 15 18.1**	**0.0**
ALLY				*e*pP	pP	06 15 57.6	-0.2
HDIL	**Hopedale**	**84.64**	**346**	*e*P	**P**	**06 15 18.0**	**-0.7**
	comp=Z,41nm,0.8s,mb5.2						
KSU1	**Kansas State U**	**84.77**	**341**	*e*P	**P**	**06 15 18.8**	**-0.5**
	comp=Z,18nm,0.6s,mb5.0						
KSU1				*e*pP	pP	06 15 58.7	-0.4
KSU1				*e*sP	sP	06 16 16.1	+0.3
Z14A	**Wintersburg**	**84.91**	**326**	⇓P	**P**	**06 15 20.5**	**+0.3**
	baz=85						
CBKS	**Cedar Bluff**	**85.31**	**338**	*e*P	**P**	**06 15 21.7**	**-0.3**
	comp=Z,62nm,1.0s,mb5.3						
CBKS				*e*pP	pP	06 16 02.2	+0.3
CBKS				*e*sP	sP	06 16 19.0	+0.4
CBKS	**Cedar Bluff**	**85.31**	**338**	*e*P	**P**	**06 15 21.7**	**-0.3**
CBKS				*e**PP	pP	06 16 02.2	+0.4
CBKS				pmax	pmax		
	comp=Z,62nm,1.0s,mb5.3						
GLA	**Glamis**	**85.43**	**325**	⇓P	**P**	**06 15 23.4**	**+0.7**
	baz=86						
Y14A	**Wickenburg**	**85.43**	**326**	⇑P	**P**	**06 15 23.1**	**+0.3**
	baz=86,SNR=6.4						
X15A	**Humboldt**	**85.60**	**327**	⇑P	**P**	**06 15 24.3**	**+0.8**
	baz=86						
DVTC	**Desert V Tower**	**85.64**	**323**	⇓P	**P**	**06 15 24.9**	**+1.1**
	baz=86						
Y13A	**Salome**	**85.66**	**326**	⇑P	**P**	**06 15 24.3**	**+0.4**
	baz=86						
SWSC	**Sam W. Stewart**	**85.75**	**324**	⇑P	**P**	**06 15 24.8**	**+0.5**
	baz=86						
X14A	**Yava**	**85.85**	**327**	⇓P	**P**	**06 15 25.3**	**+0.5**
	baz=86						
Y12C	**Blythe**	**85.90**	**325**	⇑P	**P**	**06 15 25.6**	**+0.5**
	baz=86						
MONP	**Monument Peak**	**85.98**	**323**	⇑P	**P**	**06 15 25.9**	**+0.4**
	baz=86,SNR=9.7						
SDCO	**Great Sand Dun**	**86.06**	**334**	*e*P	**P**	**06 15 25.5**	**-0.3**
	comp=Z,8.8nm,0.8s,mb4.5						
SDCO				*e*pP	pP	06 16 05.8	+0.1
WUAZ	**Wupatki**	**86.17**	**328**	*e*P	**P**	**06 15 26.9**	**+0.5**
	comp=Z,28nm,1.0s,mb4.9						
WUAZ				*e*pP	pP	06 16 06.0	-0.2
WUAZ	**Wupatki**	**86.17**	**328**	⇑P	**P**	**06 15 27.1**	**+0.7**
	baz=86						
BC3	**Big Chuckw Mtn**	**86.21**	**324**	⇓P	**P**	**06 15 26.9**	**+0.3**
	baz=86,SNR=9.9						
PDMCI	**Parker Dam,Lak**	**86.21**	**326**	⇓P	**P**	**06 15 27.1**	**+0.5**
	baz=86						
W15A	**Williams**	**86.22**	**327**	⇑P	**P**	**06 15 27.3**	**+0.7**
	baz=86						
X13A	**Yucca**	**86.34**	**326**	⇑P	**P**	**06 15 27.6**	**+0.4**
	baz=87						
IRM	**Iron Mountain**	**86.52**	**325**	⇑P	**P**	**06 15 28.4**	**+0.3**
	baz=87						
LSZ	**Lusaka**	**86.56**	**108**	*e*P	**P**	**06 15 29.6**	**+0.7**
	comp=Z,12nm,0.7s,mb4.8						
LSZ				*e*pP	pP	06 16 11.2	+2.5
LSZ	**Lusaka**	**86.56**	**108**	*e*P	**P**	**06 15 29.6**	**+0.7**
LSZ				*e**PP	pP	06 16 11.2	+2.5
LSZ				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.8						
W14A	**Seligman**	**86.57**	**327**	⇑P	**P**	**06 15 28.8**	**+0.5**
	baz=87,SNR=6.4						
MVCO	**Mesa Verde**	**86.60**	**331**	*e*P	**P**	**06 15 28.7**	**+0.3**
	comp=Z,17nm,1.0s,mb4.8						
MVCO				*e*pP	pP	06 16 08.3	-0.1
MVCO	**Mesa Verde**	**86.60**	**331**	⇑P	**P**	**06 15 28.7**	**+0.3**
	baz=87						
PFO	**Pinyon Flat Ob**	**86.60**	**324**	P	**P**	**06 15 29.9**	**+1.4**
	comp=Z,210nm,0.7s,mb6.1,SNR=17						
PFO	**Pinyon Flat Ob**	**86.60**	**324**	*e*P	**P**	**06 15 29.5**	**+0.9**
	comp=Z,27nm,0.8s,mb5.1						
PFO				*e*pP	pP	06 16 07.9	-0.6
PFO	**Pinyon Flat Ob**	**86.60**	**324**	*e*P	**P**	**06 15 29.5**	**+1.0**
PFO				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.1						
PFO	**Pinyon Flat Ob**	**86.60**	**324**	P	**P**	**06 15 29.4**	**+0.9**
	baz=87,SNR=21						
BELC	**Belle Mtn.**	**86.74**	**324**	⇓P	**P**	**06 15 29.9**	**+0.8**
	baz=87,SNR=13						
W13A	**Hualapai Mount**	**86.80**	**326**	⇓P	**P**	**06 15 30.2**	**+0.7**
	baz=87						
TOA0	**Torodi Ar. Sit**	**86.82**	**69**	*e*P	**P**	**06 15 30.1**	**0.0**
TOA0				*e*pP	pP	06 16 12.4	+2.5
TORD	**Torodi Ar. Bea**	**86.82**	**69**	P	**P**	**06 15 30.6**	**+0.6**
	comp=Z,34nm,0.7s,mb5.3,baz=265,slow=2.6,SNR=134						
TORD				pP	pP	06 16 12.1	+2.2
	comp=Z,14nm,0.7s,baz=227,slow=4.3,SNR=5.4						
TORD				LR	LR	06 48 33.3	
	comp=Z,181nm,19.9s,baz=265,slow=31						
MURC	**Murrieta**	**86.92**	**323**	⇑P	**P**	**06 15 30.3**	**+0.2**
	baz=87						
JFWS	**Jewell Farm**	**87.09**	**346**	*e*P	**P**	**06 15 30.1**	**-0.6**
	comp=Z,15nm,0.9s,mb4.8						
JFWS				*e*pP	pP	06 16 10.4	-0.2
JFWS	**Jewell Farm**	**87.09**	**346**	*e*P	**P**	**06 15 30.1**	**-0.6**
JFWS				*e**PP	pP	06 16 10.4	-0.2
JFWS				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.8						
GMRC	**Granite Mounta**	**87.26**	**325**	P	**P**	**06 15 32.4**	**+0.7**
	baz=88,SNR=13						
CIS	**Catalina Islan**	**87.30**	**322**	⇓P	**P**	**06 15 32.5**	**+0.7**
	baz=88						
BBRC	**Big Bear Sol-O**	**87.36**	**324**	⇑P	**P**	**06 15 32.8**	**+0.6**
	baz=88						
FRNY	**Flat Rock**	**87.37**	**358**	*e*P	**P**	**06 15 31.2**	**-0.7**
FRNY				*e*pP	pP	06 16 12.1	+0.2
W12A	**Cal Nev Ari**	**87.38**	**326**	⇑P	**P**	**06 15 32.8**	**+0.6**
	baz=88						
PV01	**Paradox Valley**	**87.45**	**331**	*e*P	**P**	**06 15 32.8**	**+0.3**

PV01				epP	pP	06 16 12.4	0.0
HEC	Hector,Ludlow	87.59	324	⇑P	P	06 15 33.8	+0.6
	baz=88						
BFSC	Mount Baldy St	87.66	323	⇑P	P	06 15 34.0	+0.4
	baz=88						
SNCC	San Nicolas Is	87.67	321	⇓P	P	06 15 33.8	+0.2
	baz=88						
V12A	Nelson	87.74	326	P	P	06 15 34.5	+0.6
	baz=88,SNR=8.8						
PV10	Paradox Valley	87.83	331	eP	P	06 15 33.9	-0.4
SMCO	Snowmass	87.84	333	eP	P	06 15 35.0	+0.6
	comp=Z,16nm,0.9s,mb4.8						
SMCO				esP	sP	06 16 33.0	+2.0
TUQ	Turquoise Mtn.	87.93	325	⇑P	P	06 15 35.4	+0.5
	baz=88						
ISCO	Idaho Springs	87.96	334	eP	P	06 15 35.0	+0.2
	comp=Z,5.5nm,0.8s,mb4.4						
ISCO				epP	pP	06 16 15.0	+0.1
ISCO	Idaho Springs	87.96	334	eP	P	06 15 35.0	+0.1
ISCO				e*PP	pP	06 16 15.0	+0.1
ISCO				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
DECC	Green Verdugo	87.97	323	⇑P	P	06 15 35.7	+0.6
	baz=88						
V11A	Goodsprings	88.07	326	⇓P	P	06 15 36.0	+0.5
	baz=88						
AFI	Afiamalu	88.12	253	LR	LR	06 48 49.1	
	comp=Z,283nm,18.9s,baz=262,slow=31						
BLG	Laguna Peak	88.18	322	⇓P	P	06 15 36.6	+0.6
	baz=88						
T14A	Hurricane	88.18	328	⇓P	P	06 15 36.7	+0.7
	baz=88						
GSC	Goldstone	88.19	324	⇓P	P	06 15 36.6	+0.6
	baz=88						
U12A	Valley of Fire	88.22	326	⇑P	P	06 15 36.7	+0.5
	baz=88						
BSC	Santa Cruz Isl	88.34	322	⇑P	P	06 15 37.5	+0.7
	baz=89						
EDW2	Edwards Air Fo	88.35	323	⇑P	P	06 15 37.4	+0.6
	baz=89						
OSI	Osito Adit	88.45	323	⇓P	P	06 15 38.0	+0.6
	baz=89						
T13A	Saint George	88.47	327	⇑P	P	06 15 38.2	+0.9
	baz=89						
SHPR	Sheep Range	88.53	326	eP	P	06 15 38.3	+0.7
SHPR				epP	pP	06 16 17.4	-0.3
CCUT	Cedar City	88.72	328	eP	P	06 15 39.7	+1.2
LRMC	Laurel Mountai	88.72	324	⇓P	P	06 15 39.3	+0.7
	baz=89						
SBC	Santa Barbara	88.75	322	⇑P	P	06 15 39.5	+0.7
	baz=89						
S14A	Cedar City	88.82	328	⇓P	P	06 15 40.0	+1.0
	baz=89						
ARVC	Arvin	88.93	323	⇓P	P	06 15 40.5	+0.9
	baz=89						
U10A	Ash Meadows, A	88.94	325	⇑P	P	06 15 40.8	+1.2
	baz=89						
ARUT	Antelope Range	88.95	328	eP	P	06 15 41.5	+1.9
ARUT				epP	pP	06 16 17.7	-2.0
SRU	San Rafael	89.02	331	eP	P	06 15 39.6	-0.2
	comp=Z,8.9nm,0.8s,mb4.8						
SRU				epP	pP	06 16 18.6	-1.4
SRU	San Rafael	89.02	331	eP	P	06 15 39.6	-0.2
SRU				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
MSU	Marysvale	89.10	329	eP	P	06 15 40.8	+0.6
MSU				epP	pP	06 16 20.6	+0.2
MPMC	Manual Prospec	89.13	324	⇓P	P	06 15 41.2	+0.7
	baz=89						
PKM	Peak Mountain	89.18	322	⇑P	P	06 15 41.4	+0.6
	baz=89						
FURC	Furnace Creek,	89.21	325	⇑P	P	06 15 41.3	+0.5
	baz=90						
ISA	Isabella	89.22	323	⇓P	P	06 15 41.8	+0.9
	baz=90						
PHWY	Pilot Hill	89.28	335	eP	P	06 15 38.3	-2.7
PHWY				epP	pP	06 16 21.0	-0.1
DAC	Darwin (Calif)	89.36	324	eP	P	06 15 41.9	+0.4
	comp=Z,9.6nm,0.8s,mb4.8						
DAC	Darwin (Calif)	89.36	324	eP	P	06 15 41.9	+0.4
DAC				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
TMUT	Trail Mountain	89.43	330	eP	P	06 15 42.1	+0.3
TMUT				epP	pP	06 16 22.1	+0.2
SMMC	Simmler	89.61	322	⇑P	P	06 15 43.3	+0.6
	baz=90						
VES	Vestal, Richgr	89.64	323	⇓P	P	06 15 43.7	+0.8
	baz=90						
CWC	Cottonwood Cre	89.71	324	⇑P	P	06 15 43.7	+0.6
	baz=90						
S11A	Rachel	89.75	326	⇓P	P	06 15 44.1	+0.8
	baz=90						
GRAC	Grapevine Rang	89.88	325	⇑P	P	06 15 44.4	+0.5
	baz=90						
R12A	Pony Springs,	89.88	327	⇓P	P	06 15 44.6	+0.7
	baz=90,SNR=8.8						
PTRM	Twissleman Ran	89.99	322	eP	P	06 15 45.7	+1.3
PTRM				epP	pP	06 16 24.2	-0.4
V05C	Boulder Hill,	90.03	322	⇑P	P	06 15 45.4	+0.7
	baz=90						
RCTC	Rector, Farmer	90.10	323	⇑P	P	06 15 45.4	+0.4
	baz=90						
TIN	Tinemaha	90.29	324	⇑P	P	06 15 46.3	+0.5
	baz=90						
HELL	Mitchell Peak,	90.32	324	⇓P	P	06 15 45.9	-0.1
	baz=91						
NLU	North Lily Min	90.33	330	eP	P	06 15 46.7	+0.8
S10A	Tonopah Range,	90.34	326	⇑P	P	06 15 46.3	+0.3
	baz=91						
PKD	Parkfield	90.38	322	⇓P	P	06 15 46.9	+0.6
	baz=91						
S09A	Goldfield	90.43	325	⇑P	P	06 15 46.6	+0.1
	baz=91						
DAU	Daniels Canyon	90.43	331	eP	P	06 15 46.1	-0.3
DAU				epP	pP	06 16 27.3	+0.8
U05C	Westside ANR,	90.51	323	⇑P	P	06 15 47.0	+0.1
	baz=91						
R10A	Warm Springs	90.53	326	⇑P	P	06 15 47.4	+0.5
	baz=91						
S08C	White Mtn Res	90.64	325	⇑P	P	06 15 47.8	+0.4
	baz=91						
JLU	Jordanelle	90.67	331	eP	P	06 15 47.9	+0.4
JLU				epP	pP	06 16 28.2	+0.6
MTUM	Tungsten Hills	90.68	324	eP	P	06 15 46.6	-1.1
Q11A	Duckwater	90.74	327	⇓P	P	06 15 48.0	+0.1
	baz=91						
R09A	Tonopah	90.80	326	⇑P	P	06 15 48.4	+0.2
	baz=91						
DUG	Dugway	90.81	330	eP	P	06 15 47.9	-0.3
	comp=Z,4.0nm,0.8s,mb4.5						
DUG				epP	pP	06 16 27.9	-0.4
DUG	Dugway	90.81	330	eP	P	06 15 47.9	-0.3
DUG				e*PP	pP	06 16 28.0	-0.3
DUG				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
DUG	Dugway	90.81	330	⇑P	P	06 15 48.5	+0.3
	baz=91						
T06C	Millerton Lake	90.89	323	⇑P	P	06 15 48.9	+0.2
	baz=91						
KCC	Kaiser Creek	90.98	324	⇓P	P	06 15 49.4	+0.3
	baz=91						
MLAC	Mammoth Lakes	91.03	324	⇓P	P	06 15 49.8	+0.5
	baz=91						
P11A	Circle Ranch,	91.39	327	⇑P	P	06 15 51.2	+0.4
	baz=92						
S05C	Merced	91.45	323	⇓P	P	06 15 51.5	+0.3
	baz=92						
NVAR	Mina Array Bea	91.48	325	P	P	06 15 51.9	+0.6
NVAR				PP	PP	06 19 30.1	-1.9
NVAR				PKKP	PKKPbc	06 33 11.6	+0.2
NVAR	Mina Array Bea	91.48	325	P	P	06 15 51.9	+0.6
	comp=Z,3.3nm,0.8s,mb4.4,baz=148,slow=6.6,SNR=28						
NVAR				PP	PP	06 19 30.1	-1.9
	comp=Z,0.8nm,0.9s,baz=153,slow=8.5,SNR=4.4						
NVAR				PKKP	PKKPbc	06 33 11.6	+0.2
	comp=Z,1.6nm,0.6s,baz=352,slow=1.9,SNR=18						
R07C	Lee Vining	91.51	324	⇑P	P	06 15 51.6	+0.1
	baz=92						
HWUT	Hardware Ranch	91.59	331	eP	P	06 15 51.4	-0.4
	comp=Z,22nm,0.9s,mb5.2						
HWUT				epP	pP	06 16 29.3	-2.6
SPUT	South Promonto	91.65	330	eP	P	06 15 51.6	-0.5
SPUT				epP	pP	06 16 31.6	-0.6
SPUT				esP	sP	06 16 49.0	+0.1
S06C	San Francisco	91.68	324	⇑P	P	06 15 52.5	+0.2
	baz=92						
Q08A	Gabbs	91.69	325	⇑P	P	06 15 52.5	+0.2
	baz=92						
P10A	Eureka	91.73	327	⇑P	P	06 15 52.5	0.0
	baz=92						
O11A	Cowboy Ranch,	91.84	328	⇓P	P	06 15 53.1	+0.1
	baz=92						
N13A	Wendover, West	91.91	329	⇓P	P	06 15 52.9	-0.4
	baz=92						
BW06	Boulder Array	91.92	333	eP	P	06 15 52.4	-0.8
	comp=Z,8.0nm,0.9s,mb4.8						
PDAR	Pinedale Array	91.92	333	P	P	06 15 52.4	-0.9
	comp=Z,7.4nm,0.8s,mb4.8,baz=140,slow=5.8,SNR=53						
PDAR				pP	pP	06 16 33.2	-0.2
	comp=Z,6.2nm,0.9s,baz=145,slow=5.4,SNR=6.3						
PDAR				PKKP	PKKPbc	06 33 06.3	-4.1
	comp=Z,0.7nm,0.6s,baz=43,slow=0.2,SNR=6.7						
PDAR				LR	LR	06 52 15.5	
	comp=Z,111nm,21.6s,baz=257,slow=32						
CMB	Columbia Colle	92.04	323	⇑P	P	06 15 54.2	+0.2
	baz=92						
R06C	Coleville	92.04	324	⇑P	P	06 15 54.3	+0.3
	baz=92						
N12A	Clover Valley,	92.22	328	⇑P	P	06 15 54.5	-0.2
	baz=92						
M13A	Montello	92.33	329	⇑P	P	06 15 54.6	-0.6
	baz=93,SNR=12						
P07A	Fallon	92.66	325	⇓P	P	06 15 57.1	+0.4
	baz=93						
M12A	Wells	92.66	329	⇑P	P	06 15 56.4	-0.3
	baz=93						
LAVA	Lava Cap Winer	92.80	324	⇓P	P	06 15 57.2	-0.2
	baz=93						
L13A	Double Diamond	92.88	330	P	P	06 15 57.8	+0.1
	baz=93,SNR=19						
K14A	Jones Ranch, D	92.99	330	P	P	06 15 58.0	-0.2
	baz=93,SNR=7.7						
M11A	Holland Ranch,	93.01	328	⇓P	P	06 15 58.3	0.0
	baz=93						
LOHW	Long Hollow	93.03	333	eP	P	06 15 57.9	-0.5
	comp=Z,3.8nm,0.8s,mb4.6						
LOHW				epP	pP	06 16 37.5	-1.0
TPAW	Teton Pass	93.04	332	eP	P	06 15 58.4	0.0
	comp=Z,11nm,1.0s,mb4.9						
TPAW				epP	pP	06 16 38.8	+0.2
O07A	Toulon	93.17	326	⇓P	P	06 15 59.1	0.0
	baz=93						
MOOW	Moose Ponds	93.19	333	eP	P	06 15 58.7	-0.4
N09A	Rock Creek Ran	93.20	327	⇓P	P	06 15 58.7	-0.5
	baz=94						
DCID1	Drake Creek	93.21	332	eP	P	06 15 59.0	-0.2
L12A	House Creek Ra	93.33	329	⇑P	P	06 15 59.9	+0.1
	baz=94						
M10A	I.L. Ranch, Tu	93.38	328	⇓P	P	06 16 00.2	+0.2
	baz=94						
N08A	GE Springer Mi	93.39	326	⇓P	P	06 16 00.1	0.0
	baz=94						
IMW	Indian Meadow	93.39	333	eP	P	06 15 59.6	-0.4
	comp=Z,15nm,1.1s,mb5.0						
IMW				epP	pP	06 16 39.7	-0.5
IMW				esP	sP	06 16 56.0	-0.9
K13A	Stover Farm, H	93.41	330	⇑P	P	06 16 00.2	0.0
	baz=94						
L11A	Cat Creek Ranc	93.63	329	⇑P	P	06 16 01.5	+0.4
	baz=94						
M09A	Marrel Ranch,	93.66	327	⇑P	P	06 16 01.2	-0.1
	baz=94						
K12A	Draper Farm, C	93.71	329	P	P	06 16 01.5	0.0
	baz=94,SNR=8.8						
ORV	Oroville	93.79	324	⇓P	P	06 16 02.2	+0.3
	baz=94						
L10A	Juniper Basin	93.83	328	⇑P	P	06 16 01.6	-0.4
	baz=94						
RLMT	Red Lodge	93.93	334	eP	P	06 16 01.6	-0.8
	comp=Z,21nm,1.8s,mb5.0						
M08A	Happy Creek Ra	94.05	327	⇓P	P	06 16 03.2	+0.1
	baz=94						
N06A	Buffalo Meadow	94.06	325	⇓P	P	06 16 03.6	+0.4
	baz=94						
J13A	Cove Ranch, Pi	94.09	330	P	P	06 16 03.3	+0.1
	baz=94,SNR=8.8						
J12A	Stokes Ranch,	94.31	330	P	P	06 16 04.3	0.0
	baz=95,SNR=9.1						
M07A	Soldier Meadow	94.32	326	⇓P	P	06 16 04.4	+0.1
	baz=95						
HLID	Hailey	94.33	330	eP	P	06 16 04.3	0.0
	comp=Z,3.4nm,0.9s,mb4.5						
HLID				epP	pP	06 16 41.2	-3.3
HLID				esP	sP	06 16 59.8	-1.3
HLID	Hailey	94.33	330	⇓P	P	06 16 04.5	+0.2
	baz=95,SNR=7.0						
QLMT	Earthquake Lak	94.38	333	eP	P	06 16 05.1	+0.6
QLMT				epP	pP	06 16 43.8	-1.0
I13A	Wildhorse Cree	94.52	331	⇓P	P	06 16 05.1	-0.1
	baz=95,SNR=11						
K10A	MacKenzie Ranc	94.58	328	⇑P	P	06 16 05.3	-0.2
	baz=95						
L08A	Fields	94.66	327	⇑P	P	06 16 05.7	-0.2
	baz=95						
MFID	Camas Ranch	94.72	329	⇑P	P	06 16 06.0	-0.1
	baz=95						
HATC	Hat Creek Radi	94.81	324	⇓P	P	06 16 06.3	-0.3
	baz=95						
K09A	Rome	94.84	328	⇓P	P	06 16 06.6	-0.1
	baz=95						
MCMT	McKenzie Canyo	94.86	332	eP	P	06 16 06.7	0.0
MCMT				epP	pP	06 16 46.3	-0.6
MCMT				esP	sP	06 17 03.4	-0.2
L07A	Adell	94.92	326	⇑P	P	06 16 07.3	+0.2
	baz=95						
G15A	Dillon	95.04	332	⇑P	P	06 16 07.9	+0.4
	baz=95						
H13A	Challis	95.13	331	P	P	06 16 07.9	0.0
	baz=95,SNR=8.2						
BOZ	Bozeman (W)	95.17	333	⇓P	P	06 16 07.9	-0.2
	baz=95						
K08A	Mann Creek Ran	95.17	327	⇑P	P	06 16 08.3	+0.1
	baz=95						
I11A	Placerville	95.20	329	⇓P	P	06 16 07.9	-0.3
	baz=96						
ULM	Lac du Bonnet	95.21	344	P	P	06 16 05.8	-2.3
ULM				PKKP	PKKPbc	06 32 58.2	-3.8
ULM	Lac du Bonnet	95.21	344	P	P	06 16 05.8	-2.3
	comp=Z,2.0nm,0.9s,mb4.3,baz=104,slow=3.9,SNR=3.4						
ULM				PKKP	PKKPbc	06 32 58.2	-3.8
	comp=Z,1.4nm,0.7s,baz=6.0,slow=6.1,SNR=3.2						
MOD	Modoc	95.22	326	eP	P	06 16 08.5	+0.1
	comp=Z,2.3nm,0.6s,mb4.6						
H12A	Diamond D Ranc	95.34	330	⇑P	P	06 16 09.3	+0.4
	baz=96						
J09A	Fry Pan Ranch,	95.40	328	⇓P	P	06 16 09.1	-0.2
	baz=96						
G14A	Jackson	95.44	332	⇓P	P	06 16 09.2	-0.2
	baz=96						
K07A	Rock Creek Ran	95.44	327	⇓P	P	06 16 08.8	-0.7
	baz=96						
DGMT	Dagmar	95.47	339	epP	pP	06 16 49.9	+0.2
G13A	Cobalt	95.58	331	P	P	06 16 09.7	-0.3
	baz=96,SNR=8.4						
F15A	Butte	95.63	332	⇑P	P	06 16 10.1	-0.1
	baz=96						
J08A	Circle Bar Ran	95.69	328	⇑P	P	06 16 10.6	0.0
	baz=96						
H11A	Donnelly	95.89	330	⇓P	P	06 16 11.4	0.0
	baz=96						
F14A	Wisdom	95.90	332	⇓P	P	06 16 11.8	+0.4
	baz=96						
I09A	Lost Marbles R	95.93	328	⇓P	P	06 16 11.6	0.0
	baz=96						
K06A	Valley Falls	95.94	326	⇑P	P	06 16 11.7	0.0
	baz=96						
J07A	Hines	96.04	327	⇑P	P	06 16 12.3	+0.2
	baz=96						
K05A	Summer Lake	96.15	326	⇑P	P	06 16 13.3	+0.7
	baz=96						
E15A	Deer Lodge	96.19	333	⇑P	P	06 16 12.9	+0.2
	baz=96						
I08A	Drewsey	96.20	328	⇓P	P	06 16 13.2	+0.3
	baz=96						
F13A	Darby	96.22	331	P	P	06 16 13.2	+0.3
	baz=96,SNR=6.3						
J06A	Christmas Vall	96.28	326	⇑P	P	06 16 12.5	-0.7
	baz=96						
E14A	Clinton	96.47	332	⇓P	P	06 16 13.8	-0.2
	baz=97						
G11A	Walters Elk Ra	96.58	330	⇑P	P	06 16 14.9	+0.4
	baz=97						
D15A	Lincoln	96.69	333	⇓P	P	06 16 15.0	0.0
	baz=97						
I07A	Izee	96.71	327	⇓P	P	06 16 15.7	+0.5
	baz=97						
E13A	Victor	96.73	332	⇑P	P	06 16 15.4	+0.2
	baz=97						
H08A	Prairie City	96.75	328	⇑P	P	06 16 15.8	+0.5
	baz=97						
J05A	Fort Rock	96.75	326	⇓P	P	06 16 15.4	0.0
	baz=97						
I06A	Prineville	96.88	327	⇓P	P	06 16 16.4	+0.5
	baz=97						
E11A	Bogner Ranch,	97.38	330	⇓P	P	06 16 17.7	-0.4
	baz=98						
D13A	Huson	97.39	332	⇓P	P	06 16 18.2	+0.1
	baz=98						
STKA	Stephens Creek	99.69	208	P	Pdif	06 16 26.3	-2.7
STKA	Stephens Creek	99.69	208	P	Pdif	06 16 26.3	-2.7
	comp=Z,2.6nm,1.1s,baz=151,slow=5.7,SNR=3.5						
ESDC	Sonseca Array	102.31	47	P	Pdif	06 16 40.3	-0.4
	comp=Z,1.5nm,0.7s,baz=244,slow=5.2,SNR=6.7						
YKA	Yellowknife Ar	110.62	340	Pdif	Pdif	06 17 15.5	-2.1
YKA				PKPdf	PKiKP	06 21 14.1	-1.8
YKA				SKP		06 24 34.6	
YKA				PKKPbc	PKKPbc	06 32 13.0	-3.4
YKA	Yellowknife Ar	110.62	340	P	Pdif	06 17 15.5	-2.1
YKA						06 21 14.1	
YKA						06 32 13.0	
YKA	Yellowknife Ar	110.62	340	Pdiff	Pdif	06 17 15.5	-2.1
	comp=Z,0.2nm,0.7s,baz=140,slow=4.2,SNR=5.8						
YKA				PKiKP	PKiKP	06 21 14.1	-1.8
	comp=Z,0.3nm,0.6s,baz=158,slow=1.9,SNR=5.2						
YKA				SKP		06 24 34.6	
	comp=Z,0.7nm,0.7s,baz=150,slow=2.1,SNR=7.9						
YKA				PKKPbc	PKKPbc	06 32 13.0	-3.4
	comp=Z,0.7nm,0.5s,baz=320,slow=3.5,SNR=20						
WB2	Warramunga Arr	113.14	206	eP	PKiKP	06 21 19.4	-2.8
WRA	Warramunga Arr	113.14	206	PKPdf	PKiKP	06 21 19.1	-3.1
WRA				SKP		06 24 38.7	
WRA				PKKPbc	PKKPbc	06 32 07.2	+0.3
WRA	Warramunga Arr	113.14	206	PKIKP	PKiKP	06 21 19.1	-3.1
WRA						06 24 38.7	
WRA	Warramunga Arr	113.14	206	PKiKP	PKiKP	06 21 19.1	-3.1
	comp=Z,0.8nm,0.5s,baz=177,slow=1.6,SNR=13						
WRA				SKP		06 24 38.7	
	comp=Z,1.1nm,0.7s,baz=176,slow=1.3,SNR=4.7						
WRA				PKKPbc	PKKPbc	06 32 07.2	+0.3
	comp=Z,0.7nm,0.5s,baz=342,slow=3.2,SNR=5.4						
IDI	Anoyia	117.09	66	PKP	PKPdf	06 21 29.5	+0.4
IDI				SKP		06 24 50.9	
IDI	Anoyia	117.09	66	PKP	PKPdf	06 21 29.5	+0.4
	comp=Z,5.5nm,0.7s,baz=321,slow=2.5,SNR=7.9						
IDI				SKP		06 24 50.9	
	comp=Z,1.9nm,0.7s,baz=280,slow=6.1,SNR=5.4						
FITZ	Fitzroy Crossi	117.32	198	eP	PKPdf	06 21 27.8	-2.4
	comp=Z,9.5nm,1.6s						
FITZ	Fitzroy Crossi	117.32	198	PKP	PKPdf	06 21 27.9	-2.4
	comp=Z,2.2nm,0.8s,baz=234,slow=4.9,SNR=5.7						
GERES	GERESS Array B	117.86	48	PKP	PKPdf	06 21 29.5	-0.7
GERES				pPKP	pPKPdf	06 22 12.4	+0.2
GERES				SKP		06 24 48.8	
GERES				PKKPbc	PKKPbc	06 31 49.0	-2.1
GERES	GERESS Array B	117.86	48	PKIKP	PKPdf	06 21 29.5	-0.7
GERES						06 22 12.4	
GERES	GERESS Array B	117.86	48	PKP	PKPdf	06 21 29.5	-0.7
	comp=Z,3.4nm,0.6s,baz=201,slow=1.7,SNR=35						
GERES				pPKP	pPKPdf	06 22 12.4	+0.2
	comp=Z,1.5nm,0.6s,baz=200,slow=1.3,SNR=3.3						
GERES				SKP		06 24 48.8	
	comp=Z,0.9nm,0.6s,baz=222,slow=1.8,SNR=6.4						
GERES				PKKPbc	PKKPbc	06 31 49.0	-2.1
	comp=Z,1.0nm,0.9s,baz=27,slow=3.6,SNR=4.9						
CLL	Collm	118.85	45	i PKP	PKPdf	06 21 31.6	-0.4
CLL	Collm	118.85	45	i PKIKP	PKPdf	06 21 31.6	-0.4
CLL	Collm	118.85	45	i PKiKP	PKiKP	06 21 31.6	-0.5
PKSM	Moragy	119.21	53	⇓iP	PKPdf	06 21 32.5	-0.4
INK	Inuvik	120.13	338	PKKPbc	PKKPbc	06 31 40.6	-2.8
	comp=Z,1.7nm,0.7s,baz=351,slow=1.9,SNR=6.9						
MORC	Moravsky Berou	120.48	49	⇑iP	PKPdf	06 21 34.7	-0.5
VYHS	Vyhne	120.53	51	eP	PKPdf	06 21 35.3	0.0
VYHS	Vyhne	120.53	51	ePKIKP	PKPdf	06 21 35.3	0.0
VYHS	Vyhne	120.53	51	ePKP	PKPdf	06 21 35.3	0.0
BZS	Buzias	120.65	55	⇑iP	PKPdf	06 21 35.4	-0.3
AKAS	Kas	120.80	68	i P	PKPdf	06 21 33.6	-2.7
EIL	Elat	120.90	77	PKP	PKPdf	06 21 37.0	+0.3
EIL	Elat	120.90	77	PKP	PKPdf	06 21 37.0	+0.3
	comp=Z,18nm,0.7s,baz=315,slow=3.1,SNR=19						
GZR	Gura Zlata	121.23	55	⇑iP	PKPdf	06 21 33.5	-3.3
KECS	Kecovo	121.47	51	eP	PKPdf	06 21 36.8	-0.3
KECS	Kecovo	121.47	51	ePKIKP	PKPdf	06 21 36.8	-0.3
KECS	Kecovo	121.47	51	ePKP	PKPdf	06 21 36.8	-0.3
DRGR		121.91	54	⇓iP	PKPdf	06 21 37.7	-0.3
CRVS	Cervenica-Dubn	122.23	51	eP	PKPdf	06 21 39.0	+0.4
CRVS	Cervenica-Dubn	122.23	51	ePKIKP	PKPdf	06 21 39.0	+0.4
CRVS	Cervenica-Dubn	122.23	51	ePKP	PKPdf	06 21 39.0	+0.4
STHS	Stebnicka Huta	122.37	51	eP	PKPdf	06 21 42.9	+4.1
STHS	Stebnicka Huta	122.37	51	ePKIKP	PKPdf	06 21 42.9	+4.1
STHS	Stebnicka Huta	122.37	51	ePKP	PKPdf	06 21 42.9	+4.1
MCK	McKinley	122.48	329	ePKPdf	PKPdf	06 21 37.6	-1.0
MCK				eSKPdf	SKPdf	06 24 59.0	+0.2
MCK	McKinley	122.48	329	ePKIKP	PKPdf	06 21 37.6	-1.0
ULDT	Uludag	122.55	63	i P	PKPdf	06 21 37.0	-2.5
VOIR		122.64	56	⇑iP	PKPdf	06 21 38.9	-0.6
COLA	College	122.69	330	ePKPdf	PKPdf	06 21 37.4	-1.5
COLA				eSKPdf	SKPdf	06 24 59.0	-0.1
COLA	College	122.69	330	ePKIKP	PKPdf	06 21 37.4	-1.6
KOLS	Kolonicke sedl	122.72	51	eP	PKPdf	06 21 42.1	+2.6
KOLS	Kolonicke sedl	122.72	51	ePKIKP	PKPdf	06 21 42.1	+2.6
KOLS	Kolonicke sedl	122.72	51	ePKP	PKPdf	06 21 42.1	+2.6
NB2	NORSAR Subarra	123.11	35	PKPd	PKPdf	06 21 39.0	-0.9
	comp=Z,2.4nm,0.7s,baz=248,slow=1.9						
NOA	NORSAR Array B	123.11	35	PKP	PKPdf	06 21 39.5	-0.4
NOA				pPKP	pPKPdf	06 22 22.0	+0.1
NOA				PKKPab	PKKPab	06 31 28.6	-0.4
NOA	NORSAR Array B	123.11	35	PKIKP	PKPdf	06 21 39.5	-0.4
NOA						06 22 22.0	
NOA	NORSAR Array B	123.11	35	PKP	PKPdf	06 21 39.5	-0.4
	comp=Z,3.9nm,0.6s,baz=246,slow=2.4,SNR=26						
NOA				pPKP	pPKPdf	06 22 22.0	+0.1
	comp=Z,3.0nm,0.9s,baz=243,slow=2.1,SNR=4.1						
NOA				PKKPab	PKKPab	06 31 28.6	-0.4
	comp=Z,2.0nm,0.8s,baz=65,slow=4.4,SNR=5.8						
MLR	Muntele Rosu	123.21	57	PKP	PKPdf	06 21 40.2	-0.4
MLR	Muntele Rosu	123.21	57	PKIKP	PKPdf	06 21 40.2	-0.4
MLR	Muntele Rosu	123.21	57	PKP	PKPdf	06 21 40.2	-0.4
	comp=Z,8.5nm,0.7s,baz=126,slow=2.2,SNR=20						
MLR	Muntele Rosu	123.21	57	⇓iP	PKPdf	06 21 40.4	-0.2
ESKT	Eskisehir	123.37	65	i P	PKPdf	06 21 40.0	-1.1
ASF	Jabal al Asfar	123.68	75	PKP	PKPdf	06 21 42.1	+0.2
ASF	Jabal al Asfar	123.68	75	PKIKP	PKPdf	06 21 42.1	+0.2
ASF	Jabal al Asfar	123.68	75	PKP	PKPdf	06 21 42.1	+0.2
	comp=Z,3.6nm,0.7s,baz=140,slow=1.0,SNR=6.1						
HFS	Hagfors	123.74	37	PKP	PKPdf	06 21 39.4	-1.7
HFS				PKKPbc	PKKPbc	06 31 25.9	-3.5
HFS	Hagfors	123.74	37	PKIKP	PKPdf	06 21 39.4	-1.7
HFS	Hagfors	123.74	37	PKP	PKPdf	06 21 39.4	-1.7
	comp=Z,9.3nm,0.6s,baz=180,slow=3.9,SNR=34						
HFS				PKKPbc	PKKPbc	06 31 25.9	-3.5
	comp=Z,1.2nm,0.6s,baz=108,slow=4.7,SNR=4.7						
BURAR	Bucovina Array	123.80	54	⇑iP	PKPdf	06 21 41.8	+0.2
VRI	Vrincioaia	123.87	56	⇑iP	PKPdf	06 21 41.5	-0.3
TIRR	Tirgusor	124.24	59	⇑iP	PKPdf	06 21 42.1	-0.5
SGKT	Sivrigoynuk	124.69	64	i P	PKPdf	06 21 42.4	-1.2
ANTO	Ankara	124.84	65	⇑iP	PKPdf	06 21 44.3	+0.4
BR131	Keskin Array S	125.33	66	ePKPdf	PKPdf	06 21 44.9	0.0
BRTR	Keskin Array B	125.33	66	PKP	PKPdf	06 21 44.5	-0.4
BRTR				SKPbc		06 24 43.2	
BRTR	Keskin Array B	125.33	66	PKIKP	PKPdf	06 21 44.5	-0.4
BRTR	Keskin Array B	125.33	66	PKP	PKPdf	06 21 44.5	-0.4
	comp=Z,10nm,0.7s,baz=198,slow=3.2,SNR=65						
BRTR				SKPbc		06 24 43.2	
	comp=Z,1.5nm,0.7s,baz=208,slow=5.0,SNR=3.7						
IMA2	Indian Mountai	125.39	330	ePKPdf	PKPdf	06 21 43.6	-0.5
IMA2				ePKPdf	PKPdf	06 21 43.8	-0.4
AVNT	Avonos	125.69	68	i P	PKPdf	06 21 43.8	-1.7
CDAG	Cicekdag	125.78	66	i P	PKPdf	06 21 45.0	-0.8
CTKT	Corum	126.54	66	i P	PKPdf	06 21 46.9	-0.2
GZT	Gaziantep	126.84	70	i P	PKPdf	06 21 45.7	-2.1
BOYT	Boyabat	126.99	65	i P	PKPdf	06 21 46.6	-1.4
KIEV	Kiev	127.52	52	ePKPdf	PKPdf	06 21 47.3	-1.4
KIEV	Kiev	127.52	52	ePKIKP	PKPdf	06 21 47.3	-1.4
AKASG	Malin Array Be	127.53	52	PKP	PKPdf	06 21 47.6	-1.0
AKASG				PP	PP	06 23 51.5	-0.7
AKASG				SKPbc		06 24 53.1	
AKASG	Malin Array Be	127.53	52	PKIKP	PKPdf	06 21 47.6	-1.1

AKASG						06 23 51.5	
AKASG	**Malin Array Be**	**127.53**	**52**	PKP	PKPdf	06 21 47.6	-1.1
	comp=Z,5.4nm,0.6s,baz=258,slow=3.0,SNR=28						
AKASG				PP	PP	06 23 51.5	-0.7
	comp=Z,0.5nm,0.6s,baz=246,slow=6.8,SNR=4.4						
AKASG				SKPbc		06 24 53.1	
	comp=Z,2.7nm,0.8s,baz=259,slow=4.4,SNR=8.6						
AKBB	**Malin Array Si**	**127.53**	**52**	*e*PKPdf	PKPdf	06 21 47.5	-1.2
AKBB	**Malin Array Si**	**127.53**	**52**	*e*PKIKP	PKPdf	06 21 47.5	-1.2
MALT	**Malatya**	**127.91**	**70**	*e*PKPdf	PKPdf	06 21 50.4	+0.5
MALT	**Malatya**	**127.91**	**70**	*e*PKIKP	PKPdf	06 21 50.4	+0.6
MALT	**Malatya**	**127.91**	**70**	⇑*i*P	PKPdf	06 21 50.6	+0.8
RST	**Umm Al-Ruwaisa**	**129.53**	**84**	*e*P	PKPdf	06 21 52.5	-0.7
RST				AMb	AMB	06 21 55.2	
	comp=Z,82nm,0.7s						
NAY	**Al-Naaiem**	**129.57**	**85**	*e*P	PKPdf	06 21 52.0	-1.3
NAY				AMb	AMB	06 21 55.2	
	comp=Z,18nm,0.9s						
RDF	**Al-Radifah**	**129.62**	**85**	*e*P	PKPdf	06 21 51.9	-1.5
RDF				AMb	AMB	06 21 55.2	
	comp=Z,36nm,0.6s						
QRN	**Al-Qurain**	**129.79**	**85**	*e*P	PKPdf	06 21 52.7	-1.0
QRN				AMb	AMB	06 21 55.6	
	comp=Z,41nm,0.5s						
FINES	**FINESS Array B**	**129.82**	**38**	PKP	PKPdf	06 21 52.4	-0.3
FINES				SKPbc		06 25 01.4	
FINES	**FINESS Array B**	**129.82**	**38**	PKIKP	PKPdf	06 21 52.4	-0.3
FINES	**FINESS Array B**	**129.82**	**38**	PKhKP		06 21 39.8	
	comp=Z,1.6nm,0.8s,baz=183,slow=4.9,SNR=3.7						
FINES				PKP	PKPdf	06 21 52.4	-0.3
	comp=Z,1.8nm,0.6s,baz=176,slow=3.1,SNR=14						
FINES				SKPbc		06 25 01.4	
	comp=Z,15nm,0.8s,baz=169,slow=2.8,SNR=28						
MIB	**Mutribah**	**129.94**	**84**	*e*P	PKPdf	06 21 53.1	-0.8
MIB				AMb	AMB	06 21 56.2	
	comp=Z,20nm,0.8s						
KAF	**Kangasniemi**	**130.14**	**38**	*e*pkp	PKPdf	06 21 51.8	-1.5
KAF	**Kangasniemi**	**130.14**	**38**	*e*pkp	SKPbc	06 25 01.0	-0.1
KAF	**Kangasniemi**	**130.14**	**38**	*e*PKP	PKPdf	06 21 51.8	-1.5
KAF	**Kangasniemi**	**130.14**	**38**	*e*PKIKP	PKPdf	06 21 51.8	-1.5
TNA	**Tin City**	**130.67**	**327**	*e*PKPdf	PKPdf	06 21 54.2	0.0
TUTA	**Tutak**	**131.44**	**71**	*i* P	PKPdf	06 21 57.1	+0.6
ARCES	**ARCESS Array B**	**131.74**	**28**	PKP	PKPdf	06 21 56.0	-0.1
ARCES				SKPbc	SKPbc	06 25 08.0	+1.2
ARCES	**ARCESS Array B**	**131.74**	**28**	PKIKP	PKPdf	06 21 56.0	-0.1
ARCES	**ARCESS Array B**	**131.74**	**28**	PKP	PKPdf	06 21 56.0	-0.1
	comp=Z,3.6nm,0.6s,baz=245,slow=2.6,SNR=14						
ARCES				SKPbc	SKPbc	06 25 08.0	+1.2
	comp=Z,10.0nm,1.0s,baz=248,slow=1.0,SNR=5.4						
JOF	**Joensuu**	**132.59**	**37**	*e*pkp		06 21 48.0	
JOF	**Joensuu**	**132.59**	**37**	*e*pkp	SKPbc	06 25 09.3	-0.7
JOF	**Joensuu**	**132.59**	**37**	*e*PKHKP		06 21 48.0	
KIV	**Kislovodsk**	**133.26**	**65**	*e*PKPdf	PKPdf	06 21 59.5	-0.2
KIV	**Kislovodsk**	**133.26**	**65**	*e*PKIKP	PKPdf	06 21 59.5	-0.3
KOD	**Kodaikanal**	**137.61**	**131**	*e*P	PKPdf	06 22 08.2	-0.6
KOD				AMS	AMS	06 59 07.4	
	comp=Z,202nm,23.1s						
PRGR	**Permogore**	**139.03**	**40**	*i* PKHKP		06 22 00.8	
PSI	**Prapat**	**139.15**	**165**	SKPbc	SKPbc	06 25 30.0	-1.9
	comp=Z,20nm,0.7s,baz=136,slow=3.8,SNR=16						
BILL	**Bilibino**	**140.93**	**330**	*i* PKIKP	PKPdf	06 22 12.5	-0.7
KAD	**Karad**	**141.20**	**120**	*e*P	PKPdf	06 22 13.3	-2.0
MDRS	**Chennai**	**141.47**	**132**	*e*P	PKPdf	06 22 14.2	-1.6
POO	**Poona**	**141.89**	**119**	*e*P	PKPdf	06 22 11.9	-4.5
POO				AMS	AMS	07 32 40.8	
	comp=Z,170nm,13.2s						
HYB	**Hyderabad**	**143.98**	**126**	*e*P	PKPdf	06 22 17.5	-2.6
HYB	**Hyderabad**	**143.98**	**126**	*e*PKIKP	PKPdf	06 22 17.5	-2.6
HYB	**Hyderabad**	**143.98**	**126**	*i* PKP	PKPdf	06 22 17.5	-2.6
	comp=Z,69nm,0.8s						
HYB				*e*pPKP	pPKPdf	06 22 21.0	-41
HYB				*e*sPKP		06 23 52.0	
SOKR	**Solikamsk**	**144.57**	**44**	*d i*PKIKP	PKPdf	06 22 19.0	-0.8
SOKR				pmax	pmax		
	comp=Z,110nm,1.3s						
AKTO	**Aktyubinsk**	**145.03**	**60**	PKPbc	PKPbc	06 22 21.3	+0.5
	comp=Z,36nm,0.5s,baz=194,slow=2.1,SNR=146						
AKTO				SKP		06 25 38.4	
	comp=Z,3.4nm,0.7s,baz=268,slow=5.6,SNR=3.4						
AKL	**Akola**	**145.50**	**120**	⇑*i*P	PKPdf	06 22 22.5	-0.2
AKL				*e*x	x	06 22 24.8	
	comp=Z,227nm,1.0s						
AKL				AMS	AMS	06 59 24.5	
	comp=Z,275nm,17.4s						
PET	**Petropavlovsk**	**145.67**	**305**	*e*PKPdf	PKPdf	06 22 20.7	-1.2
PET	**Petropavlovsk**	**145.67**	**305**	*e*PKP2	PKPab	06 22 20.7	-2.5
PET				*e*		06 25 45.0	
PET				pmax	pmax		
	comp=Z,44nm,1.0s						
PET				pmax	pmax		
	comp=Z,100nm,14.5s						
PET				pmax	pmax		
	comp=Z,42nm,1.4s						
PET				pmax	pmax		
	comp=Z,200nm,12.9s						
PET				pmax	pmax		
	comp=Z,100nm,13.7s						
ARU	**Arti**	**145.68**	**49**	*e*PKPdf	PKPdf	06 22 21.1	-0.8
ARU	**Arti**	**145.68**	**49**	*i* PKP2	PKPab	06 22 22.4	-0.8
SVE	**Sverdlovsk**	**146.80**	**48**	⇓*e*PKP2	PKPab	06 22 26.0	-1.5
SVE				pmax	pmax		
	comp=Z,120nm,1.5s						
VIS	**Vishakhapatnam**	**146.97**	**132**	*e*P	PKPdf	06 22 24.8	-0.4
NGP	**Nagpur**	**147.11**	**122**	*e*P	PKPdf	06 22 24.2	-1.2
NGP				AMS	AMS	06 58 42.7	
	comp=Z,220nm,20.4s						
BHPL	**Bhopal**	**147.58**	**117**	*e*P	PKPdf	06 22 26.6	+0.4
BHPL				AMS	AMS	07 12 50.3	
	comp=Z,330nm,26.4s						
SEY	**Seymchan**	**147.78**	**324**	*e*PKIKP	PKPdf	06 22 24.6	-0.6
AJM	**Ajmer**	**147.86**	**110**	*e*P	PKPdf	06 22 28.8	+2.3
KBL	**Kabul**	**148.23**	**92**	*e*PKPdf	PKPdf	06 22 26.7	-0.2
KBL				*e*PKPbc	PKPbc	06 22 30.3	-0.1
MA2	**Magadan**	**149.45**	**318**	*e*PKPbc	PKPbc	06 22 31.2	-1.5
MA2				*e*PKPab	PKPab	06 22 37.0	-1.2
MA2	**Magadan**	**149.45**	**318**	*e*PKP2	PKPbc	06 22 31.2	-1.5
MA2				pmax	pmax		
	comp=Z,40nm,0.9s						
MA2				pmax	pmax		
	comp=Z,60nm,1.7s						
TIXI	**Tiksi**	**149.51**	**348**	*e*PKPbc	PKPbc	06 22 30.9	-1.5
TIXI				*e*PKPab	PKPab	06 22 36.9	-1.1
TIXI	**Tiksi**	**149.51**	**348**	*e*PKHKP		06 22 27.3	
TIXI				pmax	pmax		
	comp=Z,6.0nm,0.8s						
TIXI				pmax	pmax		
	comp=Z,20nm,0.8s						
BLSP	**Bilaspur**	**149.74**	**125**	*e*P	PKPdf	06 22 30.7	+1.0
NDI	**New Delhi**	**151.02**	**109**	*e*P	PKPdf	06 22 34.0	+2.5
NDI				AMS	AMS	06 56 45.6	
	comp=Z,173nm,22.6s						
ALBI	**Allahabad**	**151.87**	**120**	*e*x	x	06 22 36.0	
THN	**Thein Dam**	**152.08**	**101**	*e*x	x	06 22 38.0	
BRVK	**Borovoye**	**152.69**	**55**	*e*PKPdf	PKPdf	06 22 34.3	+1.1
BRVK				*e*PKPbc	PKPbc	06 22 40.6	+0.3
BRVK				*e*PKPab	PKPab	06 22 53.6	+1.8
BRVK	**Borovoye**	**152.69**	**55**	*e*PKIKP	PKPdf	06 22 34.3	+1.1
BDT	**Bhumibol Dam**	**153.15**	**159**	P	PKPbc	06 22 41.0	-1.5
BOK	**Bokaro**	**153.23**	**128**	*e*P	PKPdf	06 22 34.5	-0.4
AML	**Almayashu**	**154.33**	**80**	P	PKPbc	06 22 45.1	+0.8
	SNR=5.0						
EKS2	**Erkin-Say**	**154.51**	**79**	P	PKPbc	06 22 45.2	+0.6
	SNR=7.3						
EKS2	**Erkin-Say**	**154.51**	**79**	*e*PKPdf	PKPdf	06 22 35.6	-0.5
EKS2				*e*PKPbc	PKPbc	06 22 45.1	+0.4
EKS2				*e*PKPab	PKPab	06 23 00.7	+0.8
CHG	**Chiang Mai**	**154.63**	**158**	⇑P	PKPab	06 22 57.9	-3.0
	comp=Z,52nm,0.9s						
KOLN	**Koldanda**	**154.72**	**119**	*e*P	PKPdf	06 22 35.5	-1.4
UCH	**Uchtor**	**154.94**	**80**	P	PKPdf	06 22 37.8	+1.1
	SNR=9.2						
AAK	**Ala-Archa**	**155.02**	**79**	P	PKPdf	06 22 46.5	+10
	SNR=12						
AAK	**Ala-Archa**	**155.02**	**79**	*e*PKPdf	PKPdf	06 22 36.0	-0.8
AAK				*e*PKPbc	PKPdf	06 22 45.3	+8.5
AAK	**Ala-Archa**	**155.02**	**79**	*e*PKIKP	PKPdf	06 22 36.0	-0.8
AAK				*e*		06 22 45.3	
NANT	**Nan**	**155.06**	**162**	⇑P	PKPab	06 23 00.9	-1.8
	comp=Z,121nm,0.5s						
USP	**Ospenovka**	**155.15**	**77**	P	PKPdf	06 22 46.3	+9.3
	SNR=9.0						
CHMS	**Chumysh**	**155.28**	**78**	P	PKPdf	06 22 46.4	+9.2
	SNR=5.4						
ASAJ	**Asahikawa**	**155.44**	**285**	PKPab	PKPab	06 23 02.2	-1.6
	comp=Z,7.8nm,0.7s,baz=226,slow=10,SNR=9.7						
GKN	**Gorkha**	**155.55**	**120**	*e*P	PKPdf	06 22 36.8	-1.2
DMN	**Daman**	**155.57**	**121**	*e*P	PKPdf	06 22 37.6	-0.5
YSS	**Yuzh-Sakhalins**	**155.63**	**291**	*e*PKPab	PKPab	06 23 03.0	-1.5
YSS	**Yuzh-Sakhalins**	**155.63**	**291**	⇓*i*PKP2	PKPab	06 23 02.8	-1.8
YSS				pmax	pmax		
	comp=E,20nm,1.0s						
YSS				pmax	pmax		
	comp=Z,60nm,1.0s						
PKI	**Pulchoki**	**155.74**	**122**	*e*P	PKPdf	06 22 37.6	-0.7
KKN	**Kakani**	**155.81**	**121**	*e*P	PKPdf	06 22 37.2	-1.2
TKM2	**Tokmak 2**	**155.87**	**79**	P	PKPdf	06 22 38.0	0.0
	SNR=6.1						
TKM2	**Tokmak 2**	**155.87**	**79**	*e*PKPdf	PKPdf	06 22 37.3	-0.6
TKM2				*e*		06 22 47.5	
TKM2				*e*PKPab	PKPab	06 23 06.9	+1.1
TKM2	**Tokmak 2**	**155.87**	**79**	*e*PKIKP	PKPdf	06 22 37.3	-0.6
GUN	**Gumba**	**156.27**	**122**	*e*P	PKPdf	06 22 38.4	-0.6
JIRN	**Jiri**	**156.29**	**123**	*e*P	PKPdf	06 22 39.0	0.0
ODAN	**Odare**	**156.43**	**126**	*e*P	PKPdf	06 22 38.5	-0.7
MJAR	**Matsushiro Arr**	**156.47**	**264**	PKPab	PKPab	06 23 05.9	-2.6
	comp=Z,16nm,0.8s,baz=153,slow=4.0,SNR=21						
MAJO	**Matsushiro**	**156.47**	**264**	*e*PKPab	PKPab	06 23 06.0	-2.5
MAJO	**Matsushiro**	**156.47**	**264**	*e*PKP2	PKPab	06 23 06.0	-2.5
MAT	**Matsushiro**	**156.47**	**264**	PKP2	PKPab	06 23 05.7	-2.8
TAPN	**Taplejung**	**156.99**	**126**	*e*P	PKPdf	06 22 39.8	-0.1
YAK	**Yakutsk**	**157.14**	**334**	*e*PKP2	PKPab	06 23 07.9	-2.7
YAK				pmax	pmax		
	comp=E,4.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,26nm,1.0s						
SHL	**Shillong**	**157.91**	**136**	*e*PN	PKPdf	06 22 41.0	-0.1
SHL				*e*SN	pPKPdf	06 23 20.0	-3.3
KURK	**Kurchatov**	**158.12**	**59**	*e*PKPdf	PKPdf	06 22 40.4	-0.1
KURK	**Kurchatov**	**158.12**	**59**	⇑*i*PKIKP	PKPdf	06 22 40.5	0.0
NVS	**Novosibirsk**	**159.58**	**45**	*e*PKIKP	PKPdf	06 22 42.3	+0.2
NVS				*e*		06 23 22.1	
NVS				*e*		06 26 59.8	
NVS				pmax	pmax		
	comp=Z,10.0nm,1.2s						
LSA	**Lhasa**	**160.75**	**127**	PKP	PKPdf	06 22 44.2	-0.1
ZAL	**Zalesovo**	**160.80**	**47**	PKIKP	PKPdf	06 22 41.9	-1.6
ZAL						06 23 27.6	
ZAL						06 27 09.7	
ZALV	**Zalesovo Beam**	**160.80**	**47**	PKP	PKPdf	06 22 41.9	-1.6
ZALV				PKPab	PKPab	06 23 27.6	+0.8
ZALV				PP	PP	06 27 09.7	-0.7
ZALV	**Zalesovo Beam**	**160.80**	**47**	PKP	PKPdf	06 22 41.9	-1.6
	comp=Z,2.5nm,0.6s,baz=234,slow=1.0,SNR=9.2						
ZALV				PKPab	PKPab	06 23 27.6	+0.8
	comp=Z,14nm,0.7s,baz=299,slow=4.5,SNR=24						
ZALV				PP	PP	06 27 09.7	-0.7
	comp=Z,1.4nm,0.7s,baz=286,slow=7.6,SNR=3.7						
MK31	**Makanchi Array**	**160.94**	**69**	*e*PKPdf	PKPdf	06 22 42.7	-1.2
MK31				*e*PKPab	PKPab	06 23 28.1	+0.5
MK31	**Makanchi Array**	**160.94**	**69**	*e*PKIKP	PKPdf	06 22 42.7	-1.2
MK31				*e*		06 23 28.1	
MKAR	**Makanchi Array**	**160.94**	**69**	PKP	PKPdf	06 22 42.8	-1.1
MKAR				PKPab	PKPab	06 23 28.4	+0.7
MKAR				pPKPab	pPKPab	06 24 08.8	+0.7
MKAR				PP	PP	06 27 12.8	+1.1
MKAR	**Makanchi Array**	**160.94**	**69**	PKIKP	PKPdf	06 22 42.8	-1.1
MKAR						06 23 28.4	
MKAR						06 27 12.8	
MKAR	**Makanchi Array**	**160.94**	**69**	PKP	PKPdf	06 22 42.8	-1.1
	comp=Z,4.1nm,0.8s,baz=202,slow=0.1,SNR=25						
MKAR				PKPab	PKPab	06 23 28.4	+0.7
	comp=Z,8.3nm,0.6s,baz=261,slow=3.7,SNR=27						
MKAR				pPKPab	pPKPab	06 24 08.8	+0.7
	comp=Z,8.2nm,1.0s,baz=274,slow=5.6,SNR=2.2						
MKAR				PP	PP	06 27 12.8	+1.1
	comp=Z,1.9nm,0.7s,baz=298,slow=4.4,SNR=5.4						
KMI	**Kunming**	**161.62**	**163**	PKP	PKPdf	06 22 42.3	-3.0
KMI				PP	PP	06 27 14.6	+0.5
KMI				PP	PP		
	comp=Z,94nm,6.7s						
KMI				LR	LR		
	comp=Z,79nm,28.3s						
KMI	**Kunming**	**161.62**	**163**	PKP	PKPdf	06 22 42.3	-3.0
KMI				PP	PP	06 27 14.6	+0.5
KMI				LR	LR		
	comp=Z,80nm,28.3s						
KMI	**Kunming**	**161.62**	**163**	PKIKP	PKPdf	06 22 42.3	-3.0
KMI						06 27 14.6	
KMI				MLR	MLR		
	comp=Z,80nm,28.3s						
KLR	**Kul'dur**	**162.80**	**300**	*e*PKIKP	PKPdf	06 22 54.7	+9.0
GYA	**Guiyang**	**163.52**	**174**	*i* PKP	PKPdf	06 22 47.2	+0.1
GYA				APKP		06 23 30.0	
GYA				PKP2	PKPab	06 23 41.6	+2.3
GYA				XPKP		06 23 46.4	
GYA				PKS		06 26 18.7	
GYA				PP	PP	06 27 28.0	+3.9
GYA				SKS	SKSdf	06 29 33.6	-3.1
GYA				SKKS	SKKSac	06 33 57.6	+0.4
GYA				SS	SS	06 47 38.5	+1.5
GYA				PP	PP		
	comp=Z,180nm,8.9s						
GYA				LR	LR		
	comp=N,420nm,20.4s						
GYA				LR	LR		
	comp=E,480nm,21.8s						
GYA				LR	LR		
	comp=Z,360nm,20.8s						
KSRS	**Korea Array**	**164.31**	**256**	PKPab	PKPab	06 23 41.4	-1.3
	comp=Z,7.0nm,0.8s,baz=124,slow=4.2,SNR=12						
BOD	**Bodaibo**	**164.68**	**349**	*e*PKIKP	PKPdf	06 22 41.9	-5.2
BOD				*e*		06 23 39.3	
BOD				pmax	pmax		
	comp=Z,6.0nm,0.9s						
BOD				pmax	pmax		
	comp=Z,8.0nm,1.2s						
NJ2	**Nanjing**	**166.49**	**220**	*e*PKP	PKPdf	06 22 49.7	+0.2
WHN	**Wuhan**	**166.86**	**202**	*e*PKP	PKPdf	06 22 49.0	-0.8
CD2	**Chengdu**	**167.42**	**160**	*e*PKP	PKPdf	06 22 47.8	-2.4
CD2				APKP		06 23 30.3	
CD2				XPKP		06 23 47.2	
CD2				PKP2	PKPab	06 23 56.0	-0.4
CD2				PP	PP	06 27 45.5	+1.1
CD2				SKS	SKSdf	06 29 33.9	-5.1
CD2				SKKS	SKKSac	06 34 14.6	-2.1
CD2				SS	SS	06 48 15.5	-1.4
CD2				PP	PP		
	comp=Z,150nm,10.8s						
CD2				LR	LR		
	comp=N,130nm,17.8s						
CD2				LR	LR		
	comp=E,200nm,19.2s						
CD2				LR	LR		
	comp=Z,130nm,15.6s						
CN2	**Changchun**	**167.73**	**280**	*e*PKP	PKPdf	06 22 50.6	+0.6
ZAK	**Zakamensk**	**171.65**	**24**	*e*PKIKP	PKPdf	06 22 50.0	-2.1
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.6s						
LZH	**Lanzhou**	**172.25**	**150**	*e*PKP	PKPdf	06 22 51.6	-1.3
LZH				APKP		06 23 34.5	
LZH				XPKP		06 23 51.2	
LZH				PKP2	PKPab	06 24 16.7	-1.0
LZH				PP	PP	06 28 10.5	+1.7
LZH				SKS	SKSdf	06 29 37.2	-3.8
LZH				SKKS	SKKSac	06 34 39.4	-0.7
LZH				*e*SS	SS	06 49 03.8	-1.3
LZH				PP	PP		
	comp=Z,127nm,9.5s						
LZH				LR	LR		
	comp=E,127nm,18.1s						
LZH				LR	LR		
	comp=Z,179nm,20.3s						
LZH	**Lanzhou**	**172.25**	**150**	*e*PKP	PKPdf	06 22 51.6	-1.3
LZH				pPKP	pPKPdf	06 23 34.5	-0.7
LZH				sPKP		06 23 51.2	
LZH	**Lanzhou**	**172.25**	**150**	*e*PKIKP	PKPdf	06 22 51.6	-1.3
LZH						06 23 34.5	
LZH						06 23 51.2	
GTA	**Gaotai**	**172.48**	**115**	PKP	PKPdf	06 22 51.6	-1.3
GTA				APKP		06 23 32.5	
GTA				XPKP		06 23 51.7	
GTA				PKP2	PKPab	06 24 18.3	-0.5
GTA				PP	PP	06 28 10.1	-0.7
GTA				SKS	SKSdf	06 29 36.8	-4.1
GTA				SKKS	SKKSac	06 34 37.2	-4.2
GTA				SS	SS	06 49 06.4	-2.4
GTA				PP	PP		
	comp=Z,234nm,8.7s						
GTA				LR	LR		
	comp=N,62nm,14.8s						
GTA				LR	LR		
	comp=E,188nm,16.3s						
GTA				LR	LR		
	comp=Z,83nm,13.3s						
SONM	**Songino Array**	**174.81**	**17**	PKP	PKPdf	06 22 51.5	-1.9
SONM				pPKP	pPKPdf	06 23 33.2	-2.6
SONM				PKPab	PKPab	06 24 29.7	+0.9
SONM				PP	PP	06 28 22.7	+1.6
SONM	**Songino Array**	**174.81**	**17**	PKIKP	PKPdf	06 22 51.5	-1.9
SONM						06 24 29.7	
SONM						06 28 22.7	
SONM	**Songino Array**	**174.81**	**17**	PKP	PKPdf	06 22 51.5	-1.9
	comp=Z,0.7nm,0.7s,baz=184,slow=2.3,SNR=5.9						
SONM				pPKP	pPKPdf	06 23 33.2	-2.6
	comp=Z,2.1nm,1.2s,baz=344,slow=2.8,SNR=2.7						
SONM				PKPab	PKPab	06 24 29.7	+0.9
	comp=Z,4.3nm,0.7s,baz=324,slow=4.3,SNR=23						
SONM				PP	PP	06 28 22.7	+1.6
	comp=Z,1.5nm,0.8s,baz=273,slow=2.0,SNR=4.9						
HHC	**Hu-ho-hao-te**	**177.01**	**228**	*e*PKP	PKPdf	06 22 53.6	-0.6
HHC				APKP		06 23 36.1	
HHC				XPKP		06 23 53.4	
HHC				PKS		06 26 24.4	
HHC				PP	PP	06 28 34.6	+2.4
HHC				SKS	SKSdf	06 29 39.4	-2.5
HHC				SKKS	SKKSac	06 34 58.2	-4.4
HHC				SS	SS	06 49 45.9	-5.6
HHC				PP	PP		
	comp=Z,209nm,15.5s						
HHC				LR	LR		
	comp=N,158nm,28.5s						
HHC				LR	LR		
	comp=E,186nm,28.5s						
HHC				LR	LR		
	comp=Z,229nm,27.4s						

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*NEIC **10** 06:12:10.0, 15.71N×94.36W, h35^{km}, MD3.8(MEX), After MEX.*

MEX 10 06:12:10.2±0.6**, 15.70N×94.39W, h35^{km}, MD3.8, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	**Matias Romero**	**1.46**	**341**	*i* P	Pn	06 12 32.5	-1.5
CMIG				*i* S	Sn	06 12 49.6	-2.4
HUIG	**Huatulco**	**1.65**	**272**	*i* P	Pn	06 12 35.5	-1.2
HUIG				*i* S	Sn	06 12 53.8	-2.9
CCIG	**Comitan**	**2.25**	**75**	*e*P	Pn	06 12 43.2	-1.7
CCIG				*i* S	Sn	06 13 07.5	-3.8
CCIG	**Comitan**	**2.25**	**75**	*e*P	Pn	06 12 43.2	-1.7
CCIG				*i* S	Sn	06 13 09.6	-1.8
VHO	**Vista Hermosa**	**2.63**	**302**	*i* P	Pn	06 12 51.7	+1.5
VHO				*i* S	Sn	06 13 18.9	-1.9
VHO	**Vista Hermosa**	**2.63**	**302**	*i* P	Pn	06 12 49.2	-0.9
VHO				*i* S	Sn	06 13 19.6	-1.2

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*IDC **10** 06:20:43.1±2.0, 15.11N×147.18E, h0^{km}, mb4.0/5, mb1 4.1/6, mb1mx3.8/20, mbtmp4.0/6, MS3.5/1, Ms1 3.5/1, ms1mx2.4/30, Error ellipse: s-maj=51.6km s-min=23.4km az=104.0*

*ISCJB **10** 06:20:44.1±6.8, 15.1N±0.1×147.3E±0.2, h20^{km}±48^{km}, mb4.2/6, Error ellipse: s-maj=28.7km s-min=16.6km az=32.5*

*NEIC **10** 06:20:49.1±1.2, 15.04N×147.08E, h40^{km}, mb4.6/1, Error ellipse: s-maj=31.5km s-min=13.6km az=97.0*

ISC 10 06:20:45.0±6.9**, 15.1N**±0.1×**147.2E**±0.2**, h12^{km}**±44^{km}**, n10, σ0^{s}.55**/11**, mb4.2**/6**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**2.71**	**238**	Pn	**Pn**	**06 21 28.0**	**-0.3**
GUMO				Sn	**Sn**	**06 22 00.9**	**-0.1**
GUMO	**Guam**	**2.71**	**238**	Pn	**Pn**	**06 21 28.0**	**-0.3**
	45nm,0.3s,baz=53,slow=2.4,SNR=22						
GUMO				Sn	**Sn**	**06 22 00.9**	**-0.1**
	43nm,0.3s,baz=286,slow=21,SNR=9.4						
PMG	**Port Moresby**	**24.31**	**180**	LR	LR	06 33 51.4	
	comp=Z,129nm,21.3s,baz=39,slow=32						
WB2	**Warramunga Arr**	**37.02**	**200**	*e*P	**P**	**06 27 54.6**	**-0.1**
WRA	**Warramunga Arr**	**37.02**	**200**	P	**P**	**06 27 55.2**	**+0.5**
	1.7nm,0.7s,mb4.0,baz=22,slow=9.2,SNR=7.1						
LZH	**Lanzhou**	**43.92**	**307**	*e*P	**P**	**06 28 52.8**	**+1.1**
	16nm,1.4s,mb4.6						
LZH				pP	pP	06 28 59.3	+3.7
LZH				sP	sP	06 29 04.5	+7.4
SONM	**Songino Array**	**46.89**	**323**	P	**P**	**06 29 14.7**	**-0.4**
	3.1nm,1.1s,mb4.2,baz=132,slow=7.1,SNR=6.1						
ZALV	**Zalesovo Beam**	**61.78**	**324**	P	**P**	**06 31 03.1**	**-0.2**
	0.6nm,0.3s,mb4.1,baz=133,slow=8.1,SNR=3.6						
MKAR	**Makanchi Array**	**62.03**	**315**	P	**P**	**06 31 05.7**	**+0.5**
	0.8nm,0.3s,mb4.3,baz=90,slow=8.4,SNR=17						
FINES	**FINESS Array B**	**90.78**	**336**	P	**P**	**06 33 46.9**	**-0.9**
	0.5nm,0.5s,mb4.1,baz=70,slow=4.6,SNR=3.8						

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*CSEM **10** 06:26:23.2±0.1, 38.84N×27.71E, h15^{km}, MD2.8, Error ellipse: s-maj=7.7km s-min=2.7km az=126.0*

*ISCJB **10** 06:26:24.3±0.8, 38.83N±0.06×27.78E±0.08, h13^{km}±4^{km}, Error ellipse: s-maj=13.1km s-min=6.3km az=41.1*

*DDA **10** 06:26:25.2, 38.84N×27.74E, h7^{km}±2^{km}, Md2.8*

ISC 10 06:26:24.4±0.7**, 38.84N**±0.06×**27.78E**±0.09**, h13^{km}**±5^{km}**, n10, σ0^{s}.43**/16**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKS	**Akhisar**	**0.05**	**29**	*i* PG	**Pg**	**06 26 26.8**	**-0.2**
AKS				*i* SG	**Sg**	**06 26 28.7**	**-0.1**
AKS	**Akhisar**	**0.05**	**29**	*i* Pg	**Pg**	**06 26 26.8**	**-0.2**
AKS				*i* Sg	**Sg**	**06 26 28.7**	**-0.1**
KDAG	**Bornova**	**0.59**	**223**	*i* P	**Pg**	**06 26 35.3**	**-0.7**
KDAG				*i* S	**Sg**	**06 26 44.3**	**+0.5**
BTOK	**Tokmak**	**0.95**	**12**	*i* P	**Pb**	**06 26 42.7**	**+0.1**
BTOK				*i* S	**Sg**	**06 26 55.5**	**+0.4**
GDZ	**Gediz**	**1.35**	**79**	*i* P	**Pn**	**06 26 49.8**	**+0.9**
GDZ				*i* S	**Sb**	**06 27 06.5**	**-0.2**
KCT	**Karacabey**	**1.50**	**17**	*e*PN	**Pn**	**06 26 50.6**	**-0.4**
KCT	**Karacabey**	**1.50**	**17**	*e*Pn	**Pn**	**06 26 50.6**	**-0.4**
ULDT	**Uludag**	**1.67**	**38**	*i* P	**Pn**	**06 26 52.9**	**-0.5**
ULDT				*i* S	**Sn**	**06 27 14.4**	**-0.3**
IZI	**Iznik**	**1.99**	**41**	*e*PN	**Pn**	**06 26 58.0**	**+0.3**
IZI	**Iznik**	**1.99**	**41**	*e*Pn	**Pn**	**06 26 58.0**	**+0.3**

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*IDC **10** 06:44:09.2±18.0, 22.41S×179.80W, h263^{km}±183^{km}, mb3.6/4, mb1 3.9/5, mb1mx3.6/13, mbtmp3.6/5, MS3.7/3, Ms1 3.7/3, ms1mx3.1/20, Error ellipse: s-maj=102.8km s-min=29.1km az=1.0*

*NEIC **10** 06:44:28.4±5.5, 23.35S×179.88W, h482^{km}±67^{km}, mb4.3/6, Error ellipse: s-maj=58.2km s-min=20.9km az=182.0*

*ISCJB **10** 06:44:29.0±0.9, 23.4S±0.2×180.0W±0.2, h500^{km}, mb4.0/9, Error ellipse: s-maj=24.8km s-min=17.3km az=160.3*

ISC 10 06:44:30.0±0.9**, 23.5S**±0.2×**179.9W**±0.2**, h500^{km}, n19, σ0^{s}.66**/12**, mb4.0**/9**, 2D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**14.97**	**189**	P	**P**	**06 47 39.5**	**-0.2**
	1.2nm,0.3s,baz=176,slow=2.4,SNR=6.7						
CTA	**Charters Tower**	**31.58**	**270**	⇓*i*P	**P**	**06 50 12.2**	**+1.2**
	12nm,0.4s,mb4.7						
STKA	**Stephens Creek**	**34.98**	**248**	*e*P	**P**	**06 50 40.8**	**+1.1**
	2.5nm,0.4s,mb4.0						
STKA	**Stephens Creek**	**34.98**	**248**	P	**P**	**06 50 40.9**	**+1.2**
	2.9nm,0.4s,mb4.1,baz=98,slow=9.1,SNR=10						
WB2	**Warramunga Arr**	**42.53**	**266**	⇓*i*P	**P**	**06 51 40.7**	**-0.4**
WRA	**Warramunga Arr**	**42.54**	**266**	P	**P**	**06 51 40.9**	**-0.3**
	3.8nm,0.3s,mb4.3,baz=102,slow=8.3,SNR=92						
KAKA	**Kakadu**	**46.37**	**275**	*e*P	**P**	**06 52 10.1**	**-0.8**
	35nm,1.6s,mb4.5						
FORT	**Forrest**	**46.56**	**249**	*e*P	**P**	**06 52 11.8**	**-0.4**
	17nm,1.1s,mb4.4						
GUMO	**Guam**	**50.45**	**313**	LR	LR	07 11 43.8	
	comp=Z,58nm,18.8s,baz=122,slow=33						
FITZ	**Fitzroy Crossi**	**50.96**	**265**	*e*P	**P**	**06 52 45.2**	**+0.1**
	4.7nm,0.4s,mb4.2						
KLBR	**Kellerberrin**	**55.25**	**247**	*e*P	**P**	**06 53 15.1**	**-0.4**
	7.1nm,0.7s,mb4.1						

MJAR	**Matsushiro Arr**	**71.60**	**325**	LR	LR	07 19 16.1	
	comp=Z,83nm,20.9s,baz=240,slow=30						
KSRS	**Korea Array**	**77.98**	**320**	LR	LR	07 23 46.0	
	comp=Z,46nm,21.4s,baz=325,slow=31						
TXAR	**Lajitas Array**	**90.12**	**58**	P	**P**	**06 56 37.1**	**+0.7**
	0.4nm,0.7s,mb3.4,baz=223,slow=5.9,SNR=5.7						
PDAR	**Pinedale Array**	**92.31**	**44**	P	**P**	**06 56 45.7**	**-0.5**
	0.1nm,0.6s,mb2.9,baz=186,slow=3.4,SNR=3.7						
AKASG	**Malin Array Be**	**144.66**	**328**	PKP	PKPdf	07 03 07.4	-1.6
AKASG	**Malin Array Be**	**144.66**	**328**	PKhKP		07 03 07.4	
	0.4nm,0.4s,baz=39,slow=2.7,SNR=5.7						
BRTR	**Keskin Array B**	**147.40**	**308**	PKPbc	PKPbc	07 03 20.1	+2.8
BRTR	**Keskin Array B**	**147.40**	**308**	PKPbc	PKPbc	07 03 20.1	+2.8
	0.3nm,0.5s,baz=91,slow=3.9,SNR=3.7						

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*ISCJB **10** 06:52:31.1±0.8, 36.55N±0.10×69.9E±0.1, h133^{km}±24^{km}, Error ellipse: s-maj=21.4km s-min=9.2km az=42.7*

*NEIC **10** 06:52:31.1±1.0, 36.31N×70.18E, h155^{km}±22^{km}, mb3.4/1, Error ellipse: s-maj=24.0km s-min=12.2km az=131.0*

*NNC **10** 06:52:44.5±2.7, 37.43N×70.33E, h217^{km}±24^{km}, mb2.5, mpv3.6, Error ellipse: s-maj=31.6km s-min=11.0km az=32.0*

ISC 10 06:52:31.7±0.8, **36.62N**±0.06×**69.6E**±0.1, **h129**^{km}±20^{km}, **n23**, σ**1^{s}18**/31, **1C-2D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.13**	**193**	*i* Pn	**Pn**	**06 53 06.7**	**-0.5**
KBL				*e*S	**Sn**	**06 53 33.7**	**-0.7**
AML	**Almayashu**	**6.35**	**29**	P	**Pn**	**06 54 04.0**	**+1.3**
	SNR=67						
AML	**Almayashu**	**6.35**	**29**	*e*Pn	**Pn**	**06 54 04.0**	**+1.2**
AML				*e*S	**Sn**	**06 55 11.2**	**-2.7**
KK31	**Karatay Array**	**6.51**	**6**	P	**Pn**	**06 54 07.7**	**+2.7**
	5.9nm,0.4s,baz=196,slow=13,SNR=129						
KK31				S	**Sn**	**06 55 15.4**	**-2.5**
	10.0nm,0.6s,baz=209,slow=17,SNR=4.5						
UCH	**Uchtor**	**6.76**	**33**	P	**Pn**	**06 54 09.2**	**+0.8**
	SNR=50						
UCH	**Uchtor**	**6.76**	**33**	*e*Pn	**Pn**	**06 54 09.1**	**+0.7**
UCH				*e*Sn	**Sn**	**06 55 23.8**	**-0.2**
EKS2	**Erkin-Say**	**6.83**	**27**	P	**Pn**	**06 54 10.7**	**+1.4**
	SNR=18						
EKS2	**Erkin-Say**	**6.83**	**27**	*e*Pn	**Pn**	**06 54 10.6**	**+1.2**
EKS2				*e*Sn	**Sn**	**06 55 26.3**	**+0.6**
KZA	**Kyzart**	**6.98**	**37**	P	**Pn**	**06 54 11.2**	**-0.2**
	SNR=30						
AAK	**Ala-Archa**	**7.09**	**31**	P	**Pn**	**06 54 13.9**	**+1.1**
	SNR=28						
AAK	**Ala-Archa**	**7.09**	**31**	*e*Pn	**Pn**	**06 54 12.7**	**-0.1**
AAK				*e*S	**Sn**	**06 55 30.1**	**-1.7**
KBK	**Karagaybulak**	**7.30**	**33**	P	**Pn**	**06 54 16.8**	**+1.2**
	SNR=6.7						
CHMS	**Chumysh**	**7.50**	**30**	P	**Pn**	**06 54 19.1**	**+0.9**
	SNR=26						
ULHL	**Ulahol**	**7.61**	**40**	P	**Pn**	**06 54 19.7**	**-0.1**
	SNR=5.7						
USP	**Ospenovka**	**7.62**	**28**	P	**Pn**	**06 54 20.4**	**+0.4**
	SNR=19						
TKM2	**Tokmak 2**	**7.80**	**34**	P	**Pn**	**06 54 22.5**	**+0.2**
	SNR=32						
TKM2	**Tokmak 2**	**7.80**	**34**	⇓P	**Pn**	**06 54 22.5**	**+0.1**
	1.1nm,0.5s						
TKM2	**Tokmak 2**	**7.80**	**34**	*e*Pn	**Pn**	**06 54 22.4**	**+0.1**
MK31	**Makanchi Array**	**13.87**	**39**	⇓P	**Pn**	**06 55 41.0**	**-1.6**
	0.9nm,0.6s,baz=213,slow=10,SNR=17						
MK31	**Makanchi Array**	**13.87**	**39**	*e*Pn	**Pn**	**06 55 41.1**	**-1.6**
AB31	**Akbulak array**	**14.46**	**334**	P	**Pn**	**06 55 55.0**	**+5.0**
	0.2nm,0.3s,baz=163,slow=12,SNR=13						
AB31				⇑S	**Sn**	**06 58 29.6**	**-0.2**
	0.8nm,0.5s,baz=156,slow=22,SNR=3.9						
AB31	**Akbulak array**	**14.46**	**334**	P	**Pn**	**06 55 55.0**	**+5.0**
AB31				S	**Sn**	**06 58 29.6**	**-0.2**
KURK	**Kurchatov**	**15.51**	**22**	Pn	**Pn**	**06 56 01.7**	**-1.4**
	1.4nm,0.8s						

IDC 10 07:05:43.6±1.3, **28.18N**×**139.61E**, **h0**^{km}, **mb3.9**/3, **mb1 4.1**/3, **mb1mx3.6**/18, **mbtmp3.9**/3, **Error ellipse: s-maj=83.8km s-min=30.1km az=96.0, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**48.11**	**187**	P	P	07 14 25.1	-0.1
	1.5nm,0.3s,baz=4.7,slow=7.6,SNR=35						
YKA	**Yellowknife Ar**	**72.27**	**28**	P	P	07 17 10.4	0.0
	0.2nm,0.4s,baz=296,slow=6.0,SNR=5.0						
FINES	**FINESS Array B**	**75.96**	**333**	P	P	07 17 32.2	+0.2
	1.0nm,0.9s,baz=65,slow=5.0,SNR=4.0						

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*CSEM **10** 07:08:31.0, 12.16N×44.74E, h14^{km}, ML3.9, After DHMR*

DHMR 10 07:08:31.0±1.1, **12.16N**×**44.74E**, **h14**^{km}±5^{km}, **ML3.9, 5C-4D, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADEN	**Aden**	**0.65**	**21**	⇑*e*P	Pg	07 08 43.2	-0.6
ADEN				*i* S	Sg	07 08 53.0	+0.6
ADEN				AML	AML	07 08 54.9	
	comp=E,12μm,0.4s						
ADEN	**Aden**	**0.65**	**21**	⇑*e*P	Pg	07 08 43.2	-0.6
ADEN				*i* S	Sg	07 08 53.0	+0.6
TRBA	**At Turbah**	**1.23**	**330**	⇓*i*P	Pn	07 08 53.1	-0.6
TRBA				*i* S	Sb	07 09 10.9	+1.3
TRBA				AML	AML	07 09 18.8	
	comp=N,1μm,0.5s						
LBOS		**1.77**	**16**	⇑*i*P	Pn	07 09 02.4	+1.2
LBOS				*i* S	Sn	07 09 26.8	+3.3
UDYN	**Al ‘Udayn**	**1.95**	**337**	⇓*i*P	Pn	07 09 05.8	+2.1
UDYN				*i* S	Sn	07 09 31.5	+3.6
UDYN				AML	AML	07 09 39.9	
	comp=N,2μm,0.5s						
UDYN	**Al ‘Udayn**	**1.95**	**337**	⇓*i*P	Pn	07 09 05.8	+2.2
UDYN				*i* S	Sn	07 09 31.5	+3.6
BDHA	**Al Bayda’**	**1.97**	**24**	⇑*i*P	Pn	07 09 05.2	+1.2
BDHA				*i* S	Sn	07 09 32.4	+3.8
BDHA				AML	AML	07 09 39.9	
	comp=N,969nm,0.4s						
BDHA	**Al Bayda’**	**1.97**	**24**	⇑*i*P	Pn	07 09 05.2	+1.2
BDHA				*i* S	Sn	07 09 32.3	+3.8
DHBB	**Dhamar BB**	**2.42**	**352**	⇓*i*P	Pn	07 09 12.9	+2.7
DHBB				*i* S	Sn	07 09 45.4	+5.8

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*ISK **10** 07:23:17.5, 38.12N×42.64E, h4^{km}, MD3.0*

*ISCJB **10** 07:23:18.4±0.7, 38.08N±0.03×42.75E±0.04, h4^{km}±6^{km}, Error ellipse: s-maj=5.6km s-min=4.8km az=32.1*

*CSEM **10** 07:23:18.4±0.1, 38.07N×42.75E, h15^{km}, MD3.0, Error ellipse: s-maj=3.5km s-min=1.9km az=107.0*

*DDA **10** 07:23:19.9, 38.05N×42.75E, h7^{km}±2^{km}, Md3.1*

ISC 10 07:23:19.1±0.6, **38.08N**±0.03×**42.76E**±0.05, **h9**^{km}±7^{km}, **n21**, σ**0^{s}88**/29, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VANT	**Van**	**0.61**	**53**	PG	**Pg**	**07 23 29.8**	**-1.2**
VANT				SG	**Sg**	**07 23 38.0**	**-1.0**
SIRT	**Sirnak**	**0.63**	**204**	PG	**Pg**	**07 23 31.2**	**-0.1**
SIRT				SG	**Sg**	**07 23 40.1**	**+0.6**
SIRT	**Sirnak**	**0.63**	**204**	*e*Pg	**Pg**	**07 23 31.2**	**-0.1**
SIRT				*e*Sg	**Sg**	**07 23 40.1**	**+0.6**
TVAN	**Van**	**0.68**	**48**	*i* P	**Pg**	**07 23 32.8**	**+0.6**
VANB	**Van**	**0.71**	**44**	PG	**Pg**	**07 23 32.9**	**0.0**
VANB	**Van**	**0.71**	**44**	*e*Pg	**Pg**	**07 23 32.9**	**0.0**
HAKT	**HAKKARI**	**0.91**	**125**	*i* P	**Pg**	**07 23 36.7**	**0.0**
HAKT				*i* S	**Sg**	**07 23 49.0**	**+0.4**
HAKT				*i* S	**Sg**	**07 23 50.4**	**+1.8**
HKR	**Hakkari**	**0.93**	**123**	PG	**Pg**	**07 23 37.5**	**+0.6**
HKR	**Hakkari**	**0.93**	**123**	*e*Pg	**Pg**	**07 23 37.5**	**+0.6**
BTMT	**Batman**	**1.01**	**277**	PG	**Pg**	**07 23 37.9**	**-0.6**
CUKT	**Cukurca**	**1.07**	**141**	PN	**Pn**	**07 23 39.3**	**-0.9**
CUKT	**Cukurca**	**1.07**	**141**	*e*Pn	**Pn**	**07 23 39.3**	**-0.9**
TUTA	**Tutak**	**1.32**	**2**	*i* P	**Pn**	**07 23 43.7**	**0.0**
TUTA				*i* S	**Sb**	**07 24 01.6**	**+0.5**
AGRB	**Hanur-Agry**	**1.50**	**7**	*e*PN	**Pn**	**07 23 46.0**	**-0.2**
AGRB	**Hanur-Agry**	**1.50**	**7**	*e*Pn	**Pn**	**07 23 46.0**	**-0.2**
BNGL	**BINGOL**	**1.53**	**305**	*i* P	**Pn**	**07 23 47.7**	**+1.1**
BNGL				*i* S	**Sn**	**07 24 08.0**	**+1.3**
MARD	**Mardin**	**1.75**	**245**	*i* P	**Pn**	**07 23 49.5**	**-0.1**
MARD				*i* S	**Sn**	**07 24 10.6**	**-1.4**
ERZM	**Erzurum**	**2.12**	**330**	*i* P	**Pn**	**07 23 56.6**	**+1.9**
EZM	**Erzurum**	**2.12**	**330**	*e*PN	**Pn**	**07 23 53.8**	**-0.9**
PTK	**Pertek**	**2.76**	**288**	*e*PN	**Pn**	**07 24 02.6**	**-0.9**
PTK	**Pertek**	**2.76**	**288**	*e*Pn	**Pn**	**07 24 02.6**	**-0.9**

MAN 10 07:57:02, 17.53N×119.89E, h4^{km}**, mb4.2, ML3.0, MS2.7, 1D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABRA	**Dolores**	**0.79**	**81**	*e*P	Pg	07 57 17.8	+0.6
BOLP	**Bolinao**	**1.14**	**179**	*e*P	Pg	07 57 23.8	-0.1
BCPH	**Baguio City Da**	**1.32**	**150**	⇓*i*P	Pn	07 57 26.1	-1.2
BCPH				*i* S	Sg	07 57 42.5	-2.0
APYP	**Conner**	**1.33**	**75**	*e*P	Pn	07 57 26.3	-1.1
APYP				*e*S	Sg	07 57 45.7	+0.9
SCZP	**Santa Cruz**	**1.74**	**179**	*e*P	Pn	07 57 32.8	-0.2
CVP	**Callao Caves**	**1.85**	**84**	*e*P	Pn	07 57 34.5	0.0
CVP				*e*S	Sn	07 57 57.6	-0.8
BALP	**Baler**	**2.40**	**137**	*e*P	Pn	07 57 43.4	+1.3
LUBP	**Lubang**	**3.79**	**175**	*e*P	Pn	07 58 06.7	+5.5

IDC 10 07:59:50.0±4.0, **48.44N**×**150.99E**, **h0**^{km}, **mb3.4**/3, **mb1 3.7**/3, **mb1mx3.3**/20, **mbtmp3.4**/3, **Error ellipse: s-maj=137.5km s-min=37.3km az=8.0, Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**44.90**	**295**	P	P	08 08 06.0	-0.1
	0.1nm,0.4s,baz=70,slow=6.2,SNR=5.0						
FINES	**FINESS Array B**	**61.89**	**333**	P	P	08 10 10.6	0.0
	0.5nm,0.4s,baz=39,slow=9.2,SNR=9.4						
TXAR	**Lajitas Array**	**77.89**	**59**	P	P	08 11 49.8	+0.2
	0.1nm,0.5s,baz=302,slow=5.2,SNR=6.9						

KRSC 10 08:01:54.7±1.2, **50.33N**×**157.51E**, **h5**^{km}±5^{km}, **ML3.6, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MIPR	**Malaya Ipel’ka**	**2.00**	**347**	P	Pn	08 02 29.4	+0.2
RUS	**Russkaya**	**2.20**	**16**	*e*P	Pn	08 02 32.5	+0.7
RUS				*e*S	Sn	08 03 00.4	+1.0
GRL	**Gorelyy**	**2.25**	**9**	*e*P	Pn	08 02 34.6	+2.0
GRL				*e*S	Sn	08 03 03.4	+2.7
PET	**Petropavlovsk**	**2.79**	**14**	S	Sn	08 03 14.5	+0.5
NLC	**Nalytchevo**	**3.06**	**21**	P	Pn	08 02 44.2	+0.5
NLC				S	Sn	08 03 19.6	-1.1
SDLR	**Sedlovina**	**3.07**	**16**	*e*P	Pn	08 02 45.8	+2.0
SPN	**Mys Shipunski**	**3.18**	**28**	*e*P	Pn	08 02 47.5	+2.2
SPN				*e*S	Sn	08 03 25.4	+1.8
GNL	**Ganaly**	**3.38**	**4**	*e*P	Pn	08 02 49.7	+1.6
MKZ	**Mys Kozlova**	**4.96**	**30**	*e*P	Pn	08 03 10.7	+1.0
MKZ				S	Sn	08 04 06.8	-0.5
KBTR	**Krutoberegovo**	**6.69**	**26**	P	Pn	08 03 34.6	+1.1

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*BJI **10** 08:10:09.3, 0.35N×96.90E, h30^{km}, mB5.1, mb4.7, Ms4.2, Msz3.9*

*IDC **10** 08:10:13.1±1.0, 1.07N×97.09E, h0^{km}, mb4.1/10, mb1 4.2/11, mb1mx4.0/21, mbtmp4.1/11, ML3.2/1, MS3.6/2, Ms1 3.6/2, ms1mx2.9/30, Error ellipse: s-maj=30.6km s-min=17.3km az=53.0*

*MOS **10** 08:10:15.5±1.1, 1.02N×97.11E, h33^{km}, mb4.7/9, Error ellipse: s-maj=20.1km s-min=10.5km az=77.2*

*NEIC **10** 08:10:17.5±0.6, 1.06N×97.14E, h30^{km}, mb4.5/8, Error ellipse: s-maj=14.8km s-min=11.1km az=53.0*

*ISCJB **10** 08:10:18.3±1.9, 1.12N±0.09×97.3E±0.1, h50^{km}±15^{km}, mb4.4/26, MS4.1/2, Error ellipse: s-maj=19.7km s-min=12.5km az=141.9*

ISC 10 08:10:21.8±1.8, **1.21N**±0.10×**97.4E**±0.1, **h59**^{km}±14^{km}, **n53**, σ**0^{s}96**/51, **mb4.4**/26, **MS4.1**/2, **2D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.20**	**44**	Pn	**Pn**	**08 10 54.9**	**-1.1**
PSI				LR	LR	08 11 45.0	
PSI	**Prapat**	**2.20**	**44**	Pn	**Pn**	**08 10 54.9**	**-1.1**
	4.9nm,0.3s,baz=235,slow=8.4,SNR=36						
PSI				LR	LR	08 11 45.0	
	comp=Z,274nm,21.5s,baz=308,slow=38						
KULM	**Kulim**	**5.20**	**39**	*e*Pn	**Pn**	**08 11 36.8**	**-0.2**
KMI	**Kunming**	**24.33**	**12**	⇓P	**P**	**08 15 36.3**	**+2.2**
KMI				AP		08 15 39.6	
KMI				S	**S**	**08 19 48.5**	**-0.9**
KMI				AMB	AMB		
	comp=Z,22nm,1.1s,mb4.5						
KMI				LR	LR		
	comp=N,255nm,14.1s,MS4.0						
KMI				LR	LR		
	comp=E,119nm,10.4s,MS4.0						
KMI				LR	LR		
	comp=Z,264nm,13.2s,MS3.9						
KMI	**Kunming**	**24.33**	**12**	⇓P	**P**	**08 15 36.3**	**+2.2**
	comp=Z,22nm,1.1s,mb4.5						
KMI				pP		08 15 39.6	
KMI				sP	sP	08 15 41.2	-14
KMI				S	**S**	**08 19 48.5**	**-0.9**
KMI				LR	LR		
	comp=Z,260nm,13.2s,MS3.9						
SHL	**Shillong**	**24.80**	**348**	*i* PN	**P**	**08 15 38.0**	**-0.4**
GYA	**Guiyang**	**26.64**	**19**	P	**P**	**08 15 56.4**	**+1.3**
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.3						
ODAN	**Odare**	**27.26**	**340**	*e*P	**P**	**08 16 03.4**	**+2.8**
TAPN	**Taplejung**	**27.61**	**341**	*e*P	**P**	**08 16 04.4**	**+0.7**
GUN	**Gumba**	**28.75**	**338**	*e*P	**P**	**08 16 14.3**	**+0.4**
	comp=Z,24nm,0.6s,mb5.1						
KKN	**Kakani**	**28.87**	**337**	*e*P	**P**	**08 16 15.8**	**+0.8**
GKN	**Gorkha**	**29.31**	**336**	*e*P	**P**	**08 16 19.0**	**+0.1**
	comp=Z,12nm,0.7s,mb4.8						
KOLN	**Koldanda**	**29.54**	**335**	*e*P	**P**	**08 16 20.8**	**-0.1**
	comp=Z,14nm,0.8s,mb4.8						
FITZ	**Fitzroy Crossi**	**33.77**	**126**	P	**P**	**08 16 58.0**	**-0.2**
	comp=Z,1.7nm,0.8s,mb4.1,baz=280,slow=11,SNR=2.7						
XAN	**Xi’an**	**34.40**	**17**	P	**P**	**08 17 03.2**	**-0.2**
LZH	**Lanzhou**	**35.22**	**9**	*e*P	**P**	**08 17 16.1**	**+5.6**
LZH				AP	pP	08 17 25.3	0.0
LZH				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.8						
LZH	**Lanzhou**	**35.22**	**9**	*e*P	**P**	**08 17 16.1**	**+5.6**
	comp=Z,16nm,1.3s,mb4.8						
LZH				pP	pP	08 17 25.3	0.0
LZH				sP	sP	08 17 30.5	-1.7
LZH	**Lanzhou**	**35.22**	**9**	*e*P	**P**	**08 17 16.1**	**+5.6**
LZH				*PP	pP	08 17 25.3	0.0
LZH				*SP	sP	08 17 30.5	-1.7
LZH				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.8						
GTA	**Gaotai**	**38.09**	**3**	*e*P	**P**	**08 17 35.2**	**+0.3**
GTA				AP	pP	08 17 45.5	-4.3
GTA				XP	sP	08 17 50.0	-6.6
GTA				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.5						
WRA	**Warramunga Arr**	**41.87**	**122**	P	**P**	**08 18 07.0**	**+0.5**
	comp=Z,2.0nm,0.6s,mb3.9,baz=301,slow=9.1,SNR=15						
BJI	**Beijing**	**42.26**	**22**	P	**P**	**08 18 10.7**	**+1.3**
BJI				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.3						
UCH	**Uchtor**	**45.73**	**336**	*e*P	**P**	**08 18 37.9**	**+0.8**
	comp=Z,3.1nm,0.8s,mb4.3						
KSRS	**Korea Array**	**45.73**	**34**	P	**P**	**08 18 37.9**	**+0.6**
KSRS				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
KSRS	**Korea Array**	**45.73**	**34**	P	**P**	**08 18 37.9**	**+0.6**
	comp=Z,5.9nm,0.9s,mb4.5,baz=224,slow=8.9,SNR=12						
AML	**Almayashu**	**45.98**	**335**	*e*P	**P**	**08 18 38.6**	**-0.6**
	comp=Z,4.1nm,0.8s,mb4.4						
SONM	**Songino Array**	**47.10**	**8**	P	**P**	**08 18 48.5**	**+0.8**
	comp=Z,1.8nm,0.7s,mb4.1,baz=190,slow=10.0,SNR=21						
SONM				PcP	PcP	08 20 19.5	+0.7
	comp=Z,0.6nm,0.5s,baz=183,slow=3.3,SNR=5.6						
MK31	**Makanchi Array**	**47.28**	**346**	*e*P	**P**	**08 18 49.2**	**0.0**
MKAR	**Makanchi Array**	**47.28**	**346**	*i* P	**P**	**08 18 49.2**	**-0.1**
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MKAR	**Makanchi Array**	**47.28**	**346**	P	**P**	**08 18 49.2**	**0.0**
	comp=Z,3.1nm,0.6s,mb4.4,baz=161,slow=9.0,SNR=61						
MJAR	**Matsushiro Arr**	**51.55**	**42**	P	**P**	**08 19 22.1**	**+0.1**
	comp=Z,2.3nm,1.1s,mb4.0,baz=222,slow=5.9,SNR=3.7						
HIA	**Hailar**	**51.57**	**19**	*e*P	**P**	**08 19 22.7**	**+0.8**
	comp=Z,2.6nm,0.4s,mb4.5						
HIA	**Hailar**	**51.57**	**19**	*e*P	**P**	**08 19 22.7**	**+0.8**
HIA				pmax	pmax		
	comp=Z,3.0nm,0.4s						
KURK	**Kurchatov**	**51.84**	**345**	*e*P	**P**	**08 19 22.9**	**-0.9**
	comp=Z,2.7nm,0.9s,mb4.2						
KURK	**Kurchatov**	**51.84**	**345**	*e*P	**P**	**08 19 22.9**	**-1.0**
KURK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
STKA	**Stephens Creek**	**53.21**	**132**	P	**P**	**08 19 35.3**	**+0.9**
	comp=Z,4.0nm,1.0s,mb4.3,baz=295,slow=8.6,SNR=4.5						
ZAL	**Zalesovo**	**53.58**	**351**	P	**P**	**08 19 36.7**	**+0.1**
ZALV	**Zalesovo Beam**	**53.58**	**351**	P	**P**	**08 19 36.7**	**0.0**
	comp=Z,5.6nm,0.7s,mb4.6,baz=178,slow=5.8,SNR=36						
KLR	**Kul’dur**	**56.16**	**26**	*e*P	**P**	**08 19 53.0**	**-2.4**
BRVK	**Borovoye**	**56.37**	**341**	*i* P	**P**	**08 19 56.1**	**-0.7**
BOD	**Bodaibo**	**57.97**	**10**	*e*P	**P**	**08 20 07.0**	**-1.0**
YSS	**Yuzh-Sakhalins**	**60.23**	**34**	*i* P	**P**	**08 20 22.7**	**-1.2**
YAK	**Yakutsk**	**65.36**	**16**	*i* P	**P**	**08 20 57.9**	**+0.2**
YAK				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.0						
BRTR	**Keskin Array B**	**69.26**	**312**	P	**P**	**08 21 21.0**	**-1.8**
	comp=Z,0.4nm,0.5s,mb3.6,baz=89,slow=7.6,SNR=3.8						
OBN	**Obninsk**	**72.72**	**328**	*e*P	**P**	**08 21 34.7**	**-8.8**
OBN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
MAW	**Mawson**	**72.76**	**193**	LR	LR	08 49 05.6	
	comp=Z,163nm,18.2s,MS4.3,baz=71,slow=32						
TIXI	**Tiksi**	**73.15**	**10**	*e*P	**P**	**08 21 44.0**	**-1.7**
	comp=Z,2.8nm,0.9s,mb4.2						
TIXI	**Tiksi**	**73.15**	**10**	*e*P	**P**	**08 21 43.7**	**-2.0**
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
FINES	**FINESS Array B**	**80.09**	**332**	P	**P**	**08 22 24.3**	**-0.7**
	comp=Z,2.4nm,1.1s,mb4.0,baz=147,slow=3.9,SNR=3.5						
BILL	**Bilibino**	**81.09**	**21**	*e*P	**P**	**08 22 25.9**	**-4.4**
	comp=Z,14nm,1.0s,mb4.8						
BILL	**Bilibino**	**81.09**	**21**	*e*P	**P**	**08 22 25.9**	**-4.4**
BILL				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
TXAR	**Lajitas Array**	**143.56**	**32**	PKP	PKPdf	08 29 48.5	-2.2
TXAR	**Lajitas Array**	**143.56**	**32**	PKIKP	PKPdf	08 29 48.5	-2.2
TXAR	**Lajitas Array**	**143.56**	**32**	PKP	PKPdf	08 29 48.5	-2.2
	comp=Z,0.4nm,0.8s,baz=138,slow=1.0,SNR=3.8						

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*NIED **10** 08:31:00, 36.20N×139.80E, h59^{km}, Mw3.7 Best double couple: M$_0$3.59000×10^{14} NP1:φ$_s$267.00000°, δ36.00000°, λ-180.00000°. NP2:φ$_s$176.00000°, δ90.00000°, λ-54.00000°.*

*ISCJB **10** 08:31:08.7±1.1, 36.13N±0.04×139.82E±0.06, h47^{km}±9^{km}, Error ellipse: s-maj=9.1km s-min=5.8km az=22.0*

*JMA **10** 08:31:08.5±0.1, 36.13N×139.81E, h50^{km}±1^{km}, M3.6 Broadband fault plane solution: P waves. NP1: φ$_s$258.00000°, δ15.00000°, λ176.00000°. NP2: φ$_s$352.00000°, δ89.00000°, λ75.00000°. Principal axes: T Plg44.0000°, Azm247.0000°; N Plg15.0000°, Azm352.0000°; P Plg42.0000°, Azm96.0000°;*

JMA Felt I J1.

ISC 10 08:31:09.0±1.0, **36.13N**±0.04×**139.82E**±0.06, **h45**^{km}±12^{km}, **n11**, σ**0^{s}62**/21, **1C-5D, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYT	**Yasato**	**0.32**	**71**	⇑P	**Pn**	**08 31 17.9**	**+0.1**
JYT				S	**Sn**	**08 31 24.4**	**+0.3**
JAG	**Ashikaga**	**0.42**	**315**	⇓P	**Pn**	**08 31 19.0**	**0.0**
JAG				S	**Sn**	**08 31 26.2**	**+0.1**
JHU	**Hanno**	**0.52**	**238**	⇓P	**Pn**	**08 31 19.8**	**-0.4**
JHU				S	**Sn**	**08 31 27.7**	**-0.4**
JRY	**Ryogami san**	**0.75**	**262**	⇓P	**Pn**	**08 31 22.8**	**-0.5**
JRY				S	**Sn**	**08 31 33.2**	**-0.4**
JKT	**Katashina**	**0.79**	**324**	⇓P	**Pn**	**08 31 23.2**	**-0.6**
JKT				S	**Sn**	**08 31 34.2**	**-0.3**
JOD2	**Odawara 2**	**1.05**	**215**	P	**Pn**	**08 31 27.3**	**+0.1**
JOD2				*e*S	**Sn**	**08 31 40.8**	**+0.1**
JYN	**Shimob**	**1.21**	**239**	P	**Pn**	**08 31 30.0**	**+0.5**
JYN				S	**Sn**	**08 31 47.9**	**+3.2**
JFY	**Yanaizu**	**1.28**	**356**	P	**Pn**	**08 31 30.3**	**-0.2**
JFY				S	**Sn**	**08 31 47.1**	**+0.6**
JHK	**Hiroka**	**1.29**	**330**	⇓P	**Pn**	**08 31 30.3**	**-0.3**
JHK				*e*S	**Sn**	**08 31 47.1**	**+0.3**
MAT	**Matsushiro**	**1.37**	**288**	P	**Pn**	**08 31 30.3**	**-1.3**
MAT				*e*S	**Sn**	**08 31 49.5**	**+0.9**
MAT	**Matsushiro**	**1.37**	**288**	P	**Pn**	**08 31 30.8**	**-0.8**

MAN 10 08:33:43, 15.44N×119.88E, h32^{km}**, mb3.8, ML2.5, MS2.1, 1C, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCZP	**Santa Cruz**	**0.34**	**6**	*e*P	Pb	08 33 52.6	+1.4
SCZP				*e*S	Sb	08 33 59.8	+3.1
BOLP	**Bolinao**	**0.94**	**2**	*e*P	Pn	08 34 00.5	+0.5
BCPH	**Baguio City Da**	**1.16**	**36**	⇑*e*P	Pn	08 34 08.4	+5.5
BCPH				*e*S	Sn	08 34 20.6	+2.9
BALP	**Baler**	**1.67**	**79**	*e*P	Pn	08 34 10.6	+0.6
LUBP	**Lubang**	**1.73**	**168**	*e*P	Pn	08 34 11.6	+0.7

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*IDC **10** 09:01:37.2±1.0, 1.18N×125.22E, h0^{km}, mb4.2/6, mb1 4.3/7, mb1mx4.0/18, mbtmp4.2/7, ML3.9/1, Error ellipse: s-maj=51.4km s-min=17.2km az=73.0*

*NEIC **10** 09:01:38.8±0.6, 1.19N×125.21E, h10^{km}, mb4.2/4, Error ellipse: s-maj=31.4km s-min=9.1km az=75.0*

*ISCJB **10** 09:01:40.0±0.8, 1.2N±0.1×125.1E±0.3, h33^{km}, mb4.3/7, Error ellipse: s-maj=39.9km s-min=11.7km az=165.2*

ISC 10 09:01:42.3±0.8, **1.1N**±0.1×**125.2E**±0.3, **h35**^{km}, **n12**, σ**0^{s}65**/12, **mb4.3**/7, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**15.54**	**152**	*e*P	**Pn**	**09 05 19.5**	**+0.7**
	6.9nm,0.6s						
FITZ	**Fitzroy Crossi**	**19.12**	**179**	*e*P	**Pn**	**09 06 02.9**	**-0.5**
	10nm,1.5s						
FITZ	**Fitzroy Crossi**	**19.12**	**179**	P	**Pn**	**09 06 02.4**	**-1.0**
	0.3nm,0.3s,baz=13,slow=13,SNR=6.4						
WRA	**Warramunga Arr**	**22.80**	**157**	P	**P**	**09 06 41.2**	**-0.8**
	6.8nm,0.5s,mb4.4,baz=336,slow=11,SNR=85						
WB2	**Warramunga Arr**	**22.80**	**157**	*e*P	**P**	**09 06 41.4**	**-0.7**
FORT	**Forrest**	**31.85**	**175**	*e*P	**P**	**09 08 04.6**	**+0.6**
	12nm,0.7s,mb4.8						
STKA	**Stephens Creek**	**36.34**	**156**	*e*P	**P**	**09 08 44.1**	**+1.2**
	6.1nm,1.0s,mb4.5						
STKA	**Stephens Creek**	**36.34**	**156**	P	**P**	**09 08 43.8**	**+0.9**
	4.3nm,0.4s,mb4.7,baz=341,slow=9.5,SNR=3.3						
MJAR	**Matsushiro Arr**	**37.25**	**17**	P	**P**	**09 08 50.0**	**-0.6**
	2.9nm,0.7s,mb4.2,baz=194,slow=8.8,SNR=8.8						
SONM	**Songino Array**	**49.28**	**343**	P	**P**	**09 10 27.9**	**+0.4**
	0.7nm,0.9s,mb3.7,baz=158,slow=8.8,SNR=5.2						
MKAR	**Makanchi Array**	**58.82**	**327**	P	**P**	**09 11 37.3**	**+0.1**
	0.3nm,0.5s,mb3.6,baz=135,slow=7.6,SNR=10						
URZ	**Urewera**	**61.77**	**135**	P	**P**	**09 11 57.9**	**+0.3**
	4.7nm,0.6s,mb4.8,baz=256,slow=4.2,SNR=5.0						

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*IDC **10** 09:05:53.2±1.1, 1.04N×126.45E, h0^{km}, mb4.0/5, mb1 4.2/6, mb1mx4.0/16, mbtmp4.0/6, ML3.5/1, Error ellipse: s-maj=96.2km s-min=18.0km az=70.0*

*ISCJB **10** 09:05:56.0±0.9, 1.1N±0.2×126.5E±0.5, h33^{km}, mb4.2/6, Error ellipse: s-maj=68.6km s-min=12.9km az=162.5*

ISC 10 09:05:58.3±0.9, **1.1N**±0.2×**126.6E**±0.4, **h35**^{km}, **n11**, σ**0^{s}73**/11, **mb4.2**/6, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**14.86**	**157**	*e*P	**Pn**	**09 09 32.7**	**+6.7**
	10nm,0.6s						
FITZ	**Fitzroy Crossi**	**19.07**	**183**	*e*P	**Pn**	**09 10 20.3**	**+1.4**
	5.2nm,0.8s						
FITZ	**Fitzroy Crossi**	**19.07**	**183**	P	**Pn**	**09 10 17.4**	**-1.5**
	0.1nm,0.3s,baz=354,slow=9.2,SNR=3.6						
WRA	**Warramunga Arr**	**22.21**	**160**	P	**P**	**09 10 51.7**	**-0.2**
	16nm,0.6s,mb4.6,baz=339,slow=11,SNR=56						
WB2	**Warramunga Arr**	**22.21**	**160**	*e*P	**P**	**09 10 51.4**	**-0.5**
FORT	**Forrest**	**31.70**	**178**	*e*P	**P**	**09 12 19.3**	**+0.6**
	12nm,0.6s,mb4.9						
STKA	**Stephens Creek**	**35.71**	**158**	*e*P	**P**	**09 12 54.0**	**+0.4**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
	3.1nm,0.9s,mb4.2						
STKA	Stephens Creek	35.71	158	P	P	09 12 53.8	+0.1
	2.3nm,0.5s,mb4.3,baz=322,slow=9.5,SNR=7.6						
SONM	Songino Array	49.77	342	P	P	09 14 47.5	+0.1
	0.3nm,0.7s,mb3.4,baz=150,slow=7.6,SNR=3.8						
MKAR	Makanchi Array	59.68	326	P	P	09 15 58.2	-1.0
	0.6nm,0.7s,mb3.8,baz=113,slow=6.7,SNR=7.0						
ZALV	Zalesovo Beam	62.90	334	P	P	09 16 21.6	+0.7
	0.5nm,0.3s,mb4.1,baz=131,slow=4.0,SNR=2.8						

CASC 10 09:09:35.3±2.9**,1355N**×**9070W,h36**^{km}±999^{km}**,MD3.6, 1C-2D,Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCG	Pacaya	0.85	6	⇑iP	Pn	09 09 51.1	+0.4
FUG	Fuego 3	0.91	351	⇓eP	Pn	09 09 51.6	+0.1
RTR	El Retiro	1.08	71	eP	x	09 10 03.0	
RTR				eS	x	09 10 18.8	
SBLS	San Blas	1.09	74	eP	x	09 10 03.2	
SBLS				eS	x	09 10 17.4	
NBG	Las Nubes	1.09	18	⇓iP	Pn	09 09 53.9	-0.2
NBG				eS	Sn	09 10 10.8	+2.8
SNJE	San Jose	1.11	73	eP	x	09 10 03.2	
SNJE				eS	x	09 10 18.6	
RBDL	Robledal	1.14	60	eP	x	09 10 02.9	
RBDL				eS	x	09 10 18.3	
JAT	Jato	1.19	310	eP	Pn	09 09 57.7	+2.3
JAT				eS	Sn	09 10 09.1	-1.2
BOQS	Boqueron	1.40	82	eP	x	09 10 07.3	
BOQS				eS	x	09 10 25.7	
SNET	Serv Nac Est T	1.44	84	eP	x	09 09 59.2	
SNET				eS	x	09 10 16.6	
LFRS	El Faro	1.60	87	eP	x	09 10 10.0	
LFRS				eS	x	09 10 30.1	
LBRS	Las Brisas	1.62	83	eP	x	09 10 10.2	
LBRS				eS	x	09 10 30.6	
LCBS	La Ceiba	1.68	86	eP	x	09 10 11.1	
LCBS				eS	x	09 10 33.5	
SNVI	San Vicente	1.81	88	eP	x	09 10 13.3	
SNVI				eS	x	09 10 35.4	

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*IDC **10** 09:12:52.7±0.5,3538N×2135E,h0^{km},mb4.7/24, mb1 4.7/32,mb1mx4.7/35,mbtmp4.6/32,ML4.3/8,MS4.2/13, Ms1 4.3/13,ms1mx3.9/35,Error ellipse: s-maj=12.5km s-min=10.6km az=74.0*

*BJI **10** 09:12:52.8,3566N×2129E,h12^{km},mB5.1,mb4.9,Ms4.8, Msz4.5*

*CSEM **10** 09:12:53.4±0.1,3536N×2141E,h11^{km},mb4.9/53,Ms3.9, Error ellipse: s-maj=1.7km s-min=1.1km az=13.0*

*PDG **10** 09:12:53.8±0.2,3534N×2003E,h9^{km}±1^{km},ML4.9/10, Error ellipse: s-maj=277.9km s-min=30.3km az=90.0*

*NEIC **10** 09:12:54.0,3509N×2127E,h10^{km},mb4.7/99, ML4.5(ATH),After ATH.*

*MOS **10** 09:12:54.5±1.2,3545N×2136E,h19^{km},mb5.0/59, MS4.2/35,Error ellipse: s-maj=3.8km s-min=2.0km az=99.8*

*ISCJB **10** 09:12:54.4±0.5,3542N±002×2135E±001,h19^{km}±3^{km}, mb4.9/116,MS4.3/33,Error ellipse: s-maj=2.8km s-min=1.8km az=14.0*

*ATH **10** 09:12:55.2,3522N×2138E,h38^{km},MD4.7/22,ML4.7*

*THE **10** 09:12:58.1,3543N×2144E,h20^{km},ML5.3*

*SZGRF **10** 09:13:01.6,3577N×2112E,h10^{km},mb3.9,Central Mediterranean Sea*

*HLW **10** 09:13:18.4,3527N×2424E,h33^{km},Mb4.5*

*NAO **10** 09:13:26.5,3853N×2144E,h33^{km},mb4.5*

ISC 10 09:12:56.7±0.5**,3538N**±002×**2135E**±001**,h23**^{km}±3^{km}**, h16**^{km}±3.7^{km}**:pP-P,n929,**σ1^{s}**14**/1044**,mb4.9**/116**,MS4.3**/33**, 129C-35D,Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	Kithira	1.64	56	ePB	Pb	09 13 25.5	-0.6
VLI	Veliai	1.85	43	ePB	Pb	09 13 29.2	-0.6
ITM	Ithomi	1.85	14	ePB	Pb	09 13 29.6	-0.2
KARN	Karanos	2.10	89	ePn	Pn	09 13 30.3	0.0
KARN				eSn	Sn	09 13 54.0	-1.7
KARN	Karanos	2.10	89	ePn	Pn	09 13 30.3	0.0
KARN				eSn	Sn	09 13 54.0	-1.7
GVD	Gavdhos	2.31	103	P	Pn	09 13 32.7	-0.6
GVD				S	Sn	09 14 00.1	-0.8
GVD	Gavdhos	2.31	103	ePn	Pn	09 13 32.7	-0.6
GVD				eSn	Sn	09 14 00.1	-0.8
GVD	Gavdhos	2.31	103	ePn	Pn	09 13 32.7	-0.6
GVD				eSn	Sn	09 14 00.1	-0.8
VAM	Vamos	2.33	89	ePN	Pn	09 13 33.8	+0.3
RLS	Riolos of Patr	2.67	2	eP	Pn	09 13 41.6	+3.3
RLS	Riolos of Patr	2.67	2	ePN	Pn	09 13 41.0	+2.7
SIVA	Sivas	2.85	96	P	Pn	09 13 39.9	-0.8
SIVA				S	Sn	09 14 13.9	-0.5
SIVA	Sivas	2.85	96	ePn	Pn	09 13 39.9	-0.8
SIVA				eSn	Sn	09 14 13.9	-0.5
SIVA	Sivas	2.85	96	ePn	Pn	09 13 39.9	-0.9
SIVA				eSn	Sn	09 14 13.9	-0.5
VLS	Valsamata	2.85	348	⇑iP	Pn	09 13 42.6	+1.8
VLS				eS	Sn	09 14 16.8	+2.4
IDI	Anoyia	2.89	91	Pn	Pn	09 13 41.4	0.0
IDI				Sn	Sn	09 14 15.8	+0.4
IDI				LR	LR	09 14 23.2	
IDI	Anoyia	2.89	91	Pn	Pn	09 13 41.4	0.0
	30nm,0.3s,baz=263,slow=13,SNR=103						
IDI				Sn	Sn	09 14 15.8	+0.4
	97nm,0.3s,baz=7.3,slow=20,SNR=8.7						
IDI				LR	LR	09 14 23.2	
	comp=Z,600nm,19.2s,baz=279,slow=31						
IDI	Anoyia	2.89	91	Pn	Pn	09 13 41.3	0.0
IDI				Sn	Sn	09 14 15.8	+0.4
NAIG	Nisos Aigina	2.93	35	ePN	Pn	09 13 42.5	+0.7
MGER	Gerania Oros	3.02	30	ePN	Pn	09 13 44.0	+1.0
KVR	Kavouri	3.12	38	ePN	Pn	09 13 45.5	+1.1
ATH	Athens Observa	3.21	36	ePN	Pn	09 13 46.6	+1.0
PTL	Penteli	3.34	36	ePN	Pn	09 13 47.8	+0.4
LAST	Lasithi	3.38	93	P	Pn	09 13 47.9	-0.2
LAST				S	Sn	09 14 26.8	-0.6
LAST	Lasithi	3.38	93	ePn	Pn	09 13 47.9	-0.2
LAST				eSn	Sn	09 14 26.8	-0.6
LAST	Lasithi	3.38	93	ePn	Pn	09 13 47.9	-0.2
LAST				eSn	Sn	09 14 26.8	-0.7
NPS	Neapolis	3.49	91	ePN	Pn	09 13 48.3	-1.2
NPS	Neapolis	3.49	91	eP	Pn	09 13 50.0	+0.5
LKR	Lokris	3.52	22	ePN	Pn	09 13 51.6	+1.7
EVR	Evrytania	3.55	6	P	Pn	09 13 54.8	+4.5
XRY	Khrisi	3.59	97	ePN	Pn	09 13 50.0	-1.0
APE	Apeiranthos	3.77	62	ePn	Pn	09 13 53.1	-0.3
APE				eSn	Sn	09 14 35.5	-1.6
APE	Apeiranthos	3.77	62	c iP	Pn	09 13 53.0	-0.4
APE	Apeiranthos	3.77	62	⇓iPN	Pn	09 13 53.4	0.0
APE	Apeiranthos	3.77	62	ePn	Pn	09 13 53.1	-0.3
APE				eSn	Sn	09 14 35.5	-1.6
LTBQ	Tobruq	3.95	146	i P	Pn	09 13 54.8	-1.0
	SNR=23						
ZKR	Zakros	3.99	92	P	Pn	09 13 56.5	+0.1
ZKR				S	Sn	09 14 41.6	-0.8
ZKR	Zakros	3.99	92	ePn	Pn	09 13 56.5	+0.1
ZKR				eSn	Sn	09 14 41.6	-0.8
ZKR	Zakros	3.99	92	ePn	Pn	09 13 56.5	+0.1
ZKR				eSn	Sn	09 14 41.6	-0.8
NEO	Neokhori	4.19	20	ePN	Pn	09 14 00.7	+1.6
THL	Klokotos Trika	4.21	7	ePN	Pn	09 14 01.7	+2.3
XOR	Xorichti	4.24	20	P	Pn	09 14 00.8	+1.1
XOR	Xorichti	4.24	20	ePn	Pn	09 14 00.8	+1.1
XOR	Xorichti	4.24	20	ePn	Pn	09 14 00.8	+1.0
AOS	Alonnisos	4.28	27	P	Pn	09 14 00.9	+0.5
AOS	Alonnisos	4.28	27	ePn	Pn	09 14 00.9	+0.5
AOS	Alonnisos	4.28	27	ePn	Pn	09 14 00.9	+0.5
JAN	Janina	4.28	355	ePN	Pn	09 14 02.6	+2.2
KEK	Kerkira	4.50	345	eP	Pn	09 14 04.8	+1.5
KEK	Kerkira	4.50	345	ePN	Pn	09 14 04.8	+1.5
KEK	Kerkira	4.50	345	Pn	Pn	09 14 04.9	+1.6
	412nm,0.5s						
LJBD	Adjabya	4.56	193	i P	Pn	09 14 02.3	-2.0
	SNR=23						
SRN	Sarande	4.62	347	i PN	Pn	09 14 06.4	+1.4
SRN				i SN	Sn	09 14 56.7	-1.1
SRN	Sarande	4.62	347	i Pn	Pn	09 14 06.4	+1.4
SRN				i Sn	Sn	09 14 56.7	-1.1
KARP	Karpathos	4.74	86	ePN	Pn	09 14 05.8	-1.0
LIT	Litokhoron	4.79	10	ePn	Pn	09 14 08.5	+1.1
LIT				eSn	Sn	09 15 03.2	+0.9
LIT	Litokhoron	4.79	10	ePn	Pn	09 14 08.5	+1.1
LIT				S	Sn	09 15 03.2	+1.0
CHOS	Chios island	4.82	50	ePn	Pn	09 14 08.4	+0.7
CHOS	Chios island	4.82	50	ePn	Pn	09 14 08.4	+0.7
PAIG	Paliouri	4.90	21	ePn	Pn	09 14 10.0	+1.1
PAIG	Paliouri	4.90	21	ePn	Pn	09 14 10.0	+1.2
KZN	Kozani	4.93	4	ePN	Pn	09 14 11.6	+2.4
SMG	Samos	4.99	61	ePN	Pn	09 14 10.3	+0.2
MPAZ	Palizzi	5.00	302	Pn	Pn	09 14 10.1	-0.2
	415nm,0.6s						
SOI	Samo	5.03	304	Pn	Pn	09 14 10.5	-0.2
	242nm,0.6s						
SOI	Samo	5.03	304	P	Pn	09 14 10.5	-0.2
SOI				pmax	pmax		
	comp=Z,242nm,0.6s						
SOI	Samo	5.03	304	Pn	Pn	09 14 10.5	-0.2
	comp=Z,242nm,0.6s						
BDRM	Kayabasi	5.20	69	i P	Pn	09 14 13.6	+0.6
GRI	Girifalco	5.23	312	Pn	Pn	09 14 14.6	+1.2
	comp=Z,2µm,2.7s						
MTTG	Motta San Giov	5.24	302	Pn	Pn	09 14 13.7	+0.1
	comp=Z,545nm,0.7s						
MTTG	Motta San Giov	5.24	302	Pn	Pn	09 14 13.7	+0.1
	comp=Z,545nm,0.7s						
PLG	Polygyros	5.25	18	ePn	Pn	09 14 14.3	+0.7
PLG	Polygyros	5.25	18	⇓iPN	Pn	09 14 14.9	+1.2
PLG	Polygyros	5.25	18	ePn	Pn	09 14 14.3	+0.6
KBN	Korca	5.25	355	i PN	Pn	09 14 15.9	+2.2
KBN				i SN	Sn	09 15 18.6	+5.1
KBN	Korca	5.25	355	i Pn	Pn	09 14 15.9	+2.2
TIP	Timpagrande	5.27	317	ePn	Pn	09 14 13.4	-0.6
TIP				eSn	Sn	09 15 07.6	-6.3
TIP	Timpagrande	5.27	317	ePn	Pn	09 14 13.4	-0.6
TIP				eSn	Sn	09 15 07.6	-6.3
HAVL	Avola	5.28	289	Pn	Pn	09 14 12.4	-1.7
	comp=Z,1µm,0.3s						
HAVL	Avola	5.28	289	Pn	Pn	09 14 12.4	-1.7
	comp=Z,1µm,0.3s						
AGST	Augusta-Monte	5.29	292	Pn	Pn	09 14 12.5	-1.7
	comp=Z,113nm,0.3s						
AGST	Augusta-Monte	5.29	292	Pn	Pn	09 14 12.5	-1.7
	comp=Z,113nm,0.3s						
SCLL	Scilla	5.36	304	Pn	Pn	09 14 14.8	-0.3
	comp=Z,92nm,0.4s						
SCLL	Scilla	5.36	304	Pn	Pn	09 14 14.8	-0.3
	comp=Z,92nm,0.4s						
OUR	Ouranopolis	5.36	22	ePn	Pn	09 14 15.8	+0.6
OUR	Ouranopolis	5.36	22	ePn	Pn	09 14 15.8	+0.6
SSY	Sortino	5.37	291	Pn	Pn	09 14 14.2	-1.2
SSY				Sn	Sn	09 15 12.3	-4.2
SSY	Sortino	5.37	291	Pn	Pn	09 14 14.2	-1.2
HORT	Hortiatis	5.39	14	ePn	Pn	09 14 16.4	+0.8
HORT	Hortiatis	5.39	14	ePn	Pn	09 14 16.4	+0.8
FNA	Florina	5.39	0	ePn	Pn	09 14 16.7	+1.0
FNA	Florina	5.39	0	ePn	Pn	09 14 16.7	+1.1
THE	Thessaloniki	5.39	13	ePn	Pn	09 14 16.2	+0.5
THE				eSn	Sn	09 15 16.5	-0.5
THE	Thessaloniki	5.39	13	ePn	Pn	09 14 16.2	+0.6
THE				S	Sn	09 15 16.5	-0.5
LOS	Limnos	5.42	32	P	Pn	09 14 17.4	+1.4
LOS	Limnos	5.42	32	ePn	Pn	09 14 17.4	+1.4
LOS	Limnos	5.42	32	ePn	Pn	09 14 17.4	+1.4
JOPP	Joppolo	5.43	308	Pn	Pn	09 14 15.9	-0.3
	comp=Z,509nm,1.1s						
LIA	Limnos Island	5.44	33	P	Pn	09 14 19.7	+3.5
MSI	Messina ING	5.44	303	Pn	Pn	09 14 17.1	+0.8
	comp=Z,1µm,0.7s						
MSI	Messina ING	5.44	303	P	Pn	09 14 17.1	+0.8
MSI				pmax	pmax		
	comp=Z,1µm,0.7s						
MSI	Messina ING	5.44	303	Pn	Pn	09 14 17.1	+0.8
	comp=Z,1µm,0.7s						
PZI	Palazzolo	5.44	290	Pn	Pn	09 14 16.0	-0.3
	comp=Z,41nm,0.1s						
PZI	Palazzolo	5.44	290	P	Pn	09 14 16.0	-0.3
PZI				pmax	pmax		
	comp=Z,41nm,0.1s						
BLCB	Balcova	5.46	55	P	Pn	09 14 17.1	+0.5
BLCB	Balcova	5.46	55	ePn	Pn	09 14 17.1	+0.5
BLCB	Balcova	5.46	55	ePn	Pn	09 14 17.1	+0.6
MSRU	Castanea	5.50	303	Pn	Pn	09 14 17.5	+0.4
	comp=Z,1µm,0.9s						
ARG	Arkhangelos	5.57	79	ePN	Pn	09 14 17.8	-0.3
LCI	Lecce	5.57	334	Pn	Pn	09 14 18.4	+0.3
	comp=Z,184nm,0.2s						
LCI	Lecce	5.57	334	P	Pn	09 14 18.4	+0.3
LCI				pmax	pmax		
	comp=Z,184nm,0.2s						
LCI	Lecce	5.57	334	Pn	Pn	09 14 18.4	+0.3
	comp=Z,184nm,0.2s						
KDAG	Bornova	5.62	56	i P	Pn	09 14 19.6	+0.8
GRG	Griva	5.62	8	ePn	Pn	09 14 19.6	+0.8
GRG	Griva	5.62	8	ePn	Pn	09 14 19.6	+0.8
BIA	Bitola	5.63	360	P	Pn	09 14 19.2	+0.4
BIA	Bitola	5.63	360	ePn	Pn	09 14 19.2	+0.4
BIA	Bitola	5.63	360	ePn	Pn	09 14 18.9	0.0
BIA				eSn	Sn	09 15 20.9	-1.9
BIA	Bitola	5.63	360	ePn	Pn	09 14 19.2	+0.3
BIA				eSn	Sn	09 15 20.8	-1.9
SOH	Sokhos	5.65	16	ePn	Pn	09 14 20.4	+1.2
SOH				eSn	Sn	09 15 23.5	+0.1
SOH	Sokhos	5.65	16	ePn	Pn	09 14 20.4	+1.2
SOH				S	Sn	09 15 23.5	+0.1
OHR	Ohrid	5.74	356	ePn	Pn	09 14 21.0	+0.7
OHR	Ohrid	5.74	356	⇑iPn	Pn	09 14 20.9	+0.6
OHR				eSn	Sn	09 15 24.7	-0.7
OHR	Ohrid	5.74	356	ePn	Pn	09 14 21.0	+0.6
OHR				eSn	Sn	09 15 24.6	-0.8
AYVA	Ayvalik	5.78	46	i P	Pn	09 14 21.6	+0.6
ECNV	Catenanuova	5.79	294	Pn	Pn	09 14 22.2	+1.1
	comp=Z,365nm,0.8s						
TDS	Terranova Siba	5.84	318	i P	Pn	09 14 22.0	+0.2
TDS				pmax	pmax		
	comp=Z,631nm,1.0s						
TDS	Terranova Siba	5.84	318	i P	Pn	09 14 22.0	+0.2
	comp=Z,631nm,1.0s						
KNT	Kendrikon	5.90	11	ePn	Pn	09 14 23.3	+0.8
KNT	Kendrikon	5.90	11	ePn	Pn	09 14 23.3	+0.7
VAE	Valguarnera	5.97	293	Pn	Pn	09 14 24.3	+0.7
VAE				Sn	Sn	09 15 27.9	-3.4
VAE	Valguarnera	5.97	293	Pn	Pn	09 14 24.3	+0.7
	comp=Z,9.5nm,0.3s,baz=246,slow=22,SNR=17						
VAE				Sn	Sn	09 15 27.9	-3.4
	comp=Z,22nm,0.3s,baz=264,slow=18,SNR=3.4						
VAE	Valguarnera	5.97	293	Pn	Pn	09 14 24.3	+0.7
VAE				Sn	Sn	09 15 27.9	-3.4
KRUS	Krusevo	5.98	359	i Pn	Pn	09 14 24.6	+0.9
KRUS				eSn	Sn	09 15 31.1	-0.3
KRUS	Krusevo	5.98	359	i Pn	Pn	09 14 24.5	+0.8
KRUS				eSn	Sn	09 15 31.0	-0.4
SRS	Serrai	5.99	16	ePn	Pn	09 14 24.8	+0.9
SRS	Serrai	5.99	16	ePn	Pn	09 14 24.8	+1.0
VAY	Valandovo	6.00	9	ePn	Pn	09 14 24.4	+0.4
VAY	Valandovo	6.00	9	i Pn	Pn	09 14 24.2	+0.1
VAY				eSn	Sn	09 15 30.0	-2.1
VAY	Valandovo	6.00	9	ePn	Pn	09 14 24.4	+0.3
VAY				eSn	Sn	09 15 29.9	-2.2
TIR	Tirane	6.07	349	ePn	Pn	09 14 25.1	+0.2
TIR	Tirane	6.07	349	i PN	Pn	09 14 25.7	+0.8
TIR	Tirane	6.07	349	ePn	Pn	09 14 25.1	+0.2
LMSR	Misrath	6.10	242	i P	Pn	09 14 23.8	-1.6
	SNR=22						
PE1	Pezze di Greco	6.24	331	ePn	Pn	09 14 26.8	-0.4
NVR	Nevrokopi	6.28	18	ePN	Pn	09 14 28.9	+1.1
IFIL	Filicudi I Eol	6.29	302	Pn	Pn	09 14 28.0	0.0
	comp=Z,1µm,0.6s						
STIP	Stip	6.33	6	ePn	Pn	09 14 29.5	+0.9
STIP	Stip	6.33	6	ePn	Pn	09 14 29.4	+0.8
STIP				eSn	Sn	09 15 36.0	-4.1
STIP	Stip	6.33	6	ePn	Pn	09 14 29.5	+0.9
SCHR	S. Chirico Rap	6.37	321	Pn	Pn	09 14 30.1	+1.1
	comp=Z,100nm,0.8s						
CSLB	Castelbuono	6.39	296	Pn	Pn	09 14 29.4	0.0
	comp=Z,257nm,0.9s						
HMAT	Matruh	6.44	130	⇓P	Pn	09 14 28.7	-1.4
FAVR	Favara	6.48	289	Pn	Pn	09 14 31.7	+1.1
	comp=Z,141nm,0.6s						
FAVR	Favara	6.48	289	Pn	Pn	09 14 31.7	+1.1
	comp=Z,141nm,0.6s						
SG1	Sgolgore (BA)	6.58	327	ePn	Pn	09 14 31.1	-0.8
SKO	Skopje	6.58	1	ePn	Pn	09 14 32.6	+0.7
SKO	Skopje	6.58	1	i Pn	Pn	09 14 32.1	+0.2
SKO				eSn	Sn	09 15 42.2	-3.9
SKO	Skopje	6.58	1	ePn	Pn	09 14 32.6	+0.7
MCEL	Monticello	6.60	320	Pn	Pn	09 14 33.4	+1.1
	comp=Z,160nm,0.7s						
MGR	Morigerati	6.60	318	Pn	Pn	09 14 32.6	+0.3
	comp=Z,165nm,0.5s						
MGR	Morigerati	6.60	318	Pn	Pn	09 14 32.6	+0.3
	comp=Z,165nm,0.5s						
ALN	Alexandroupoli	6.63	32	ePn	Pn	09 14 33.1	+0.4
ALN	Alexandroupoli	6.63	32	ePn	Pn	09 14 33.1	+0.4
BAI	Bari	6.71	330	ePn	Pn	09 14 33.2	-0.5
KSL	Kastellorizon	6.74	81	eP	Pn	09 14 32.5	-1.6
KSL	Kastellorizon	6.74	81	ePN	Pn	09 14 32.5	-1.6
AKAS	Kas	6.76	80	i P	Pn	09 14 32.9	-1.6
ULC	Ulcinj	6.77	347	⇑iPn	Pn	09 14 33.3	-1.3
ULC				eSn	Sn	09 15 48.5	-2.4
ULC	Ulcinj	6.77	347	⇑iPn	Pn	09 14 33.3	-1.3
ULC				eSn	Sn	09 15 48.5	-2.4
GOLH	Golhisar	6.88	72	i P	Pn	09 14 36.3	+0.2
CDT	Castel del Mon	6.95	326	ePn	Pn	09 14 36.6	-0.5
SART	Tekirdag	7.01	39	i P	Pn	09 14 38.7	+0.8
SGO	Sicignano	7.03	319	Pn	Pn	09 14 38.8	+0.6
	comp=Z,500nm,0.9s						
SGO	Sicignano	7.03	319	P	Pn	09 14 38.8	+0.6
SGO				pmax	pmax		
	comp=Z,500nm,0.9s						
SGO	Sicignano	7.03	319	Pn	Pn	09 14 38.8	+0.6
	comp=Z,500nm,0.9s						
BUM	Brajici-Budva	7.17	345	⇑iPn	Pn	09 14 38.7	-1.3
BUM				eSn	Sn	09 15 56.6	-4.1
BUM	Brajici-Budva	7.17	345	⇑iPn	Pn	09 14 38.7	-1.3
BUM				eSn	Sn	09 15 56.6	-4.1
BUM	Brajici-Budva	7.17	345	⇑iPn	Pn	09 14 38.7	-1.3
PLD	Plovdiv	7.20	20	ePn	Pn	09 14 41.1	+0.6
PLD	Plovdiv	7.20	20	ePn	Pn	09 14 41.1	+0.6
PDG	Podgorica	7.22	348	⇑iPn	Pn	09 14 39.5	-1.3
TTG	Podgorica	7.22	348	⇑iPn	Pn	09 14 39.5	-1.3
TTG				eSn	Sn	09 15 59.5	-2.5
TTG	Podgorica	7.22	348	⇑iPn	Pn	09 14 39.5	-1.3
TTG				eSn	Sn	09 15 59.5	-2.5
PVY	Plav	7.28	352	⇑iPn	Pn	09 14 41.9	+0.3
PVY				eSn	Sn	09 16 03.2	-0.2
PVY	Plav	7.28	352	⇑iPn	Pn	09 14 41.9	+0.3
PVY				eSn	Sn	09 16 03.2	-0.2
VTS	Vitosha	7.34	11	P	Pn	09 14 43.3	+0.9
VTS	Vitosha	7.34	11	ePn	Pn	09 14 43.3	+0.9
VTS	Vitosha	7.34	11	⇑iP	Pn	09 14 43.7	+1.3
VTS	Vitosha	7.34	11	ePn	Pn	09 14 43.3	+0.9
HCY	Herceg Novi	7.40	343	⇑iPn	Pn	09 14 41.0	-2.1
HCY				eSn	Sn	09 16 01.2	-5.1
HCY	Herceg Novi	7.40	343	⇑iPn	Pn	09 14 41.0	-2.1
HCY				eSn	Sn	09 16 01.2	-5.1
SGTA	Sant Agata di	7.42	322	Pn	Pn	09 14 44.6	+1.1
	comp=Z,203nm,0.8s						
BARS	Barje	7.43	3	Pn	Pn	09 14 45.9	+2.2
GDZ	Gediz	7.46	58	i P	Pn	09 14 45.5	+1.4
LZLA	Zalla	7.53	206	i P	Pn	09 14 42.0	-3.1
	SNR=22						
IVA	Berane	7.56	352	⇑iPn	Pn	09 14 45.5	+0.1
IVA				eSn	Sn	09 16 09.0	-1.4
IVA	Berane	7.56	352	⇑iPn	Pn	09 14 45.5	+0.1
IVA				eSn	Sn	09 16 09.0	-1.4
FGMS	Monte Sant'Ang	7.60	328	Pn	Pn	09 14 45.2	-0.7
	comp=Z,74nm,0.2s						
FGMS	Monte Sant'Ang	7.60	328	Pn	Pn	09 14 45.2	-0.7
	comp=Z,74nm,0.2s						
MS1	Monte Sant'Ang	7.60	328	ePn	Pn	09 14 45.1	-0.9
NKY	Niksic	7.64	347	⇑iPn	Pn	09 14 45.2	-1.3
NKY				eSn	Sn	09 16 08.9	-3.4
NKY	Niksic	7.64	347	⇑iPn	Pn	09 14 45.2	-1.3
NKY				eSn	Sn	09 16 08.9	-3.4
RGNG	Rignano Grg	7.74	326	Pn	Pn	09 14 47.4	-0.4
RGNG	Rignano Grg	7.74	326	Pn	Pn	09 14 47.4	-0.4
ISP	Isparta	7.76	69	ePn	Pn	09 14 48.1	-0.1
ISP	Isparta	7.76	69	i P	Pn	09 14 48.1	-0.1
ULDT	Uludag	7.78	50	i P	Pn	09 14 50.4	+1.9
BRY	Bratogost	7.82	345	⇑iPn	Pn	09 14 47.2	-1.7
BRY				eSn	Sn	09 16 11.4	-5.2
BRY	Bratogost	7.82	345	⇑iPn	Pn	09 14 47.2	-1.7
BRY				eSn	Sn	09 16 11.4	-5.2
LJFR	Jufra	7.82	218	i P	Pn	09 14 45.3	-3.8
	SNR=22						
SJES	Sjenica	7.95	353	Pn	Pn	09 14 50.2	-0.5
STON	Ston	8.00	340	ePn	Pn	09 14 50.2	-1.1
STON				Sn	Sn	09 16 14.8	-6.3
UPM	Unac-Piva	8.04	347	⇑iPn	Pn	09 14 51.7	-0.2
UPM				eSn	Sn	09 16 18.9	-3.1
UPM	Unac-Piva	8.04	347	⇑iPn	Pn	09 14 51.7	-0.2
UPM				eSn	Sn	09 16 18.9	-3.1
LSHF	Shwairf	8.05	230	i P	Pn	09 14 49.2	-3.0
	SNR=22						
PLE	Pljevlja	8.08	350	⇑iPn	Pn	09 14 51.9	-0.6
PLE				eSn	Sn	09 16 20.3	-2.8
PLE	Pljevlja	8.08	350	⇑iPn	Pn	09 14 51.9	-0.6
PLE				eSn	Sn	09 16 20.3	-2.8
JMB	Yambol	8.16	28	ePn	Pn	09 14 54.1	+0.4
JMB	Yambol	8.16	28	ePn	Pn	09 14 54.1	+0.4
ISK	Istanbul-Kandi	8.30	45	ePn	Pn	09 14 56.4	+0.8
BBLS	Bajina Basta -	8.61	351	Pn	Pn	09 14 58.8	-0.9
ESKT	Eskisehir	8.61	59	i P	Pn	09 15 01.3	+1.5
SEYT	Eskypehyr	8.61	59	i P	Pn	09 15 01.3	+1.5
SDI	San Donato	8.65	319	Pn	Pn	09 15 01.2	+0.9
	comp=Z,5.9nm,0.4s						
SDI	San Donato	8.65	319	P	Pn	09 15 01.2	+0.9
SDI				pmax	pmax		
	comp=Z,6.0nm,0.4s						
SDI	San Donato	8.65	319	Pn	Pn	09 15 01.2	+0.9
	comp=Z,5.9nm,0.4s						
HENT	Hendek	9.28	51	i P	Pn	09 15 10.9	+1.9
DJES	Djerdap	9.28	5	Pn	Pn	09 15 09.3	+0.3
AQU	L'Aquila	9.32	321	ePn	Pn	09 15 09.8	+0.3
AQU	L'Aquila	9.32	321	⇓iP	Pn	09 15 11.6	+2.1
AQU	L'Aquila	9.32	321	ePn	Pn	09 15 09.8	+0.3
ERMK	Ermenek	9.45	79	i P	Pn	09 15 10.6	-0.7
HNAT	Natroun	9.70	124	P	Pn	09 15 09.9	-4.8
HNAT	Natroun	9.70	124	P	Pn	09 15 09.9	-4.8
CSS	Prodhromos	9.82	89	ePn	Pn	09 15 16.8	+0.5
	comp=Z,18nm,0.4s						
CSS	Prodhromos	9.82	89	ePn	Pn	09 15 16.8	+0.4
	comp=Z,18nm,0.4s						
SGKT	Sivrigoynuk	9.91	55	i P	Pn	09 15 20.0	+2.4
AYT	Al 'Ayyat	10.02	122	P	Pn	09 15 15.4	-3.8
GZR	Gura Zlata	10.06	6	P	Pn	09 15 19.8	+0.2
GZR	Gura Zlata	10.06	6	⇓iP	Pn	09 15 20.0	+0.4
GZR	Gura Zlata	10.06	6	P	Pn	09 15 19.8	+0.2
ANTO	Ankara	10.12	60	ePn	Pn	09 15 22.5	+2.0
	comp=Z,74nm,1.3s						
ANTO	Ankara	10.12	60	Pn	Pn	09 15 22.5	+2.0
	SNR=15						
ANTO	Ankara	10.12	60	⇑iP	Pn	09 15 22.1	+1.6
ANTO	Ankara	10.12	60	P	Pn	09 15 22.5	+2.0
	SNR=15						
SNTG	Esanatoglia	10.21	323	Pn	Pn	09 15 19.0	-2.6
	comp=Z,44nm,0.8s						
ASS	Assisi	10.21	321	i P	Pn	09 15 24.4	+2.7
ASS				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ASS	Assisi	10.21	321	i P	Pn	09 15 24.4	+2.7
	comp=Z,2.0nm,0.6s						
BZS	Buzias	10.22	1	P	Pn	09 15 23.1	+1.2
BZS	Buzias	10.22	1	⇑iP	Pn	09 15 22.1	+0.2
BZS	Buzias	10.22	1	P	Pn	09 15 23.1	+1.2
HSAF	As Saff	10.35	121	P	Pn	09 15 18.4	-5.3
NVLJ	Novalja	10.43	334	ePn	Pn	09 15 25.1	+0.4
NVLJ				Sn	Sn	09 17 13.2	-7.5
NVLJ	Novalja	10.43	334	ePn	Pn	09 15 25.1	+0.4
VOIR		10.43	15	P	Pn	09 15 25.2	+0.5
VOIR		10.43	15	⇑iP	Pn	09 15 25.4	+0.7
VOIR		10.43	15	P	Pn	09 15 25.2	+0.5
GLL	Jalalah	10.48	121	⇓P	Pn	09 15 19.7	-5.8
HHAG	Hagoal	10.55	118	P	Pn	09 15 19.4	-7.1
TIRR	Tirgusor	10.56	29	P	Pn	09 15 26.5	0.0
TIRR	Tirgusor	10.56	29	⇑iP	Pn	09 15 25.8	-0.7
TIRR	Tirgusor	10.56	29	P	Pn	09 15 26.5	0.0
FSSB	Fossombrone	10.61	324	Pn	Pn	09 15 27.9	+0.7
	comp=Z,60nm,0.6s						
FSSB	Fossombrone	10.61	324	Pn	Pn	09 15 27.9	+0.7
	comp=Z,60nm,0.6s						
BRTR	Keskin Array B	10.67	62	Pn	Pn	09 15 28.9	+0.8
BRTR	Keskin Array B	10.67	62	P	Pn	09 15 28.9	+0.8
BRTR				pmax	pmax		

	comp=Z,1.0nm,0.3s						
BRTR	Keskin Array B	10.67	62	Pn	Pn	09 15 28.9	+0.8
	comp=Z,0.6nm,0.3s,baz=246,slow=13,SNR=23						
BR131	Keskin Array S	10.67	62	ePn	Pn	09 15 29.8	+1.7
MLR	Muntele Rosu	10.68	18	P	Pn	09 15 29.5	+1.3
MLR	Muntele Rosu	10.68	18	Pn	Pn	09 15 29.8	+1.6
	comp=Z,0.7nm,0.3s,baz=217,slow=10,SNR=15						
MLR	Muntele Rosu	10.68	18	⇓iP	Pn	09 15 28.9	+0.7
MLR	Muntele Rosu	10.68	18	P	Pn	09 15 29.5	+1.3
BADI	Badiali	10.74	322	Pn	Pn	09 15 30.8	+1.9
	comp=Z,80nm,1.1s						
ELDT	Eldivan	10.81	58	iP	Pn	09 15 31.4	+1.5
CRE	Caprese Michel	10.97	321	P	Pn	09 15 34.1	+2.0
PKSM	Moragy	11.01	350	P	Pn	09 15 31.8	-0.8
PKSM	Moragy	11.01	350	⇓iP	Pn	09 15 29.7	-3.0
PKSM	Moragy	11.01	350	P	Pn	09 15 31.8	-0.8
BOJS	Bojanci	11.12	337	iPn	Pn	09 15 33.6	-0.6
BOJS				iSn	Sn	09 17 30.2	-7.6
BOJS	Bojanci	11.12	337	iPn	Pn	09 15 33.6	-0.6
BOJS				iSn	Sn	09 17 30.2	-7.6
SUZ		11.14	117	P	Pn	09 15 27.8	-6.8
CDAG	Cicekdag	11.17	64	iP	Pn	09 15 36.1	+1.2
PLOR	Plostina	11.20	19	⇑iP	Pn	09 15 35.9	+0.6
PLOR	Plostina	11.20	19	P	Pn	09 15 36.0	+0.7
VRI	Vrincioaia	11.24	20	P	Pn	09 15 36.3	+0.5
VRI	Vrincioaia	11.24	20	⇑iP	Pn	09 15 36.3	+0.6
BALT	Daday	11.25	53	iP	Pn	09 15 37.5	+1.5
AVNT	Avonos	11.31	69	iP	Pn	09 15 40.3	+3.5
GCIS	Gornji Cirnik	11.34	339	iPn	Pn	09 15 35.8	-1.3
GCIS				iSn	Sn	09 17 32.9	-10
GCIS	Gornji Cirnik	11.34	339	iPn	Pn	09 15 35.8	-1.3
GCIS				iSn	Sn	09 17 32.9	-10
LGHD	Ghdames	11.37	245	iP	Pn	09 15 31.2	-6.4
	SNR=22						
DRGR		11.44	5	P	Pn	09 15 39.1	+0.6
DRGR		11.44	5	⇓iP	Pn	09 15 38.2	-0.4
DRGR		11.44	5	P	Pn	09 15 39.1	+0.5
SKDS	Skadanscina	11.58	333	iPn	Pn	09 15 40.1	-0.4
SKDS				iSn	Sn	09 17 40.2	-8.8
CORF	Corte	11.75	310	eP	Pn	09 15 42.9	+0.2
CTKT	Corum	11.82	60	iP	Pn	09 15 47.5	+3.8
LJU	Ljubljana	11.84	336	iPn	Pn	09 15 44.5	+0.6
LJU				iSn	Sn	09 17 45.2	-10
LJU	Ljubljana	11.84	336	iPn	Pn	09 15 44.5	+0.6
LJU				iSn	Sn	09 17 45.2	-10
JAVS	Javornik	11.86	334	iPn	Pn	09 15 44.2	-0.1
JAVS				iSn	Sn	09 17 47.9	-8.0
JAVS	Javornik	11.86	334	iPn	Pn	09 15 44.2	-0.1
JAVS				iSn	Sn	09 17 47.9	-8.0
HNKL	Nakhl	11.95	114	P	Pn	09 15 38.1	-7.5
PGF	Pioggiola	11.98	310	⇑iP	Pn	09 15 42.0	-3.9
	comp=Z,173nm,1.2s						
PGF	Pioggiola	11.98	310	⇑iP	Pn	09 15 42.0	-3.9
	comp=Z,87nm,1.2s						
PGF	Pioggiola	11.98	310	⇑iP	Pn	09 15 42.0	-3.9
PGF				pmax	pmax		
	comp=Z,87nm,1.2s						
VOY	Vojsko	12.04	334	ePn	Pn	09 15 46.5	-0.3
VOY				e		09 16 10.4	
VOY				e		09 16 40.0	
VOY				eSn	Sn	09 17 51.3	-8.9
VOY	Vojsko	12.04	334	ePn	Pn	09 15 46.5	-0.3
VOY				e		09 15 58.7	
VOY				e		09 16 10.4	
VOY				e		09 16 40.0	
VOY				e		09 17 51.3	
COBT	Iskenderun	12.13	80	iP	Pn	09 15 44.1	-3.9
BUD	Budapest	12.21	353	⇑e	Pn	09 15 48.9	-0.2
BOYT	Boyabat	12.21	56	iP	Pn	09 15 50.5	+1.3
OBKA	Obir	12.24	337	⇓iPn	Pn	09 15 48.7	-0.8
	SNR=9.3						
OBKA	Obir	12.24	337	⇓iPn	Pn	09 15 48.7	-0.8
OBKA				iSn	Sn	09 17 55.7	-9.4
OBKA	Obir	12.24	337	⇓iPn	Pn	09 15 48.7	-0.8
	SNR=9.3						
OBKA				⇑iSn	Sn	09 17 55.7	-9.4
PTCC	Patocco-Chiusa	12.55	334	Pn	Pn	09 15 52.8	-1.0
BURAR	Bucovina Array	12.56	12	⇑P	Pn	09 15 54.8	+1.0
BURAR	Bucovina Array	12.56	12	⇑iP	Pn	09 15 54.8	+1.0
PSZ	Piszkesteto	12.57	355	ePn	Pn	09 15 53.2	-0.8
PSZ				eSn	Sn	09 18 07.8	-5.4
PSZ	Piszkesteto	12.57	355	⇑e	Pn	09 15 53.2	-0.8
PSZ	Piszkesteto	12.57	355	⇑iP	Pn	09 15 53.2	-0.8
PSZ	Piszkesteto	12.57	355	P	Pn	09 15 53.4	-0.6
ARSA	Arzberg	12.63	342	⇑iPn	Pn	09 15 53.0	-1.8
ARSA	Arzberg	12.63	342	⇑iPn	Pn	09 15 53.0	-1.8
ARSA				iSn	Sn	09 18 05.1	-10
ARSA	Arzberg	12.63	342	⇑iPn	Pn	09 15 53.0	-1.8
ARSA				⇑iSn	Sn	09 18 05.1	-10
SOP	Sopron	12.80	345	⇑e	Pn	09 16 00.6	+3.5
KIS	Kishinev	12.88	24	eP	Pn	09 16 00.0	+1.7
KIS				eS	Sn	09 18 24.0	+3.1
KIS				MLR	MLR		
	comp=Z,700nm,12.0s						
KIS				MLR	MLR		
	comp=N,900nm,11.0s						
KIS				MLR	MLR		
	comp=E,1µm,10.0s						
KIS	Kishinev	12.88	24	ePP		09 16 09.0	
KIS				eS	Sn	09 18 24.0	+3.1
KIS				eLi		09 18 42.0	
KIS				eLg1		09 19 18.0	
KIS				eLg2		09 20 03.0	
KIS				eRg		09 20 49.0	
KIS	Kishinev	12.88	24	ePcP	PcP	09 21 32.0	-0.1
KIS				LRM		09 23 20.0	
	comp=E,1µm,10.0s						
FVI	Forni Avoltri	12.93	333	P	Pn	09 15 57.9	-1.0
CTI	Castel Tesino	12.94	328	Pn	Pn	09 15 57.6	-1.4
CTI	Castel Tesino	12.94	328	Pn	Pn	09 15 57.6	-1.4
KECS	Kecovo	13.11	357	ePn	Pn	09 16 00.2	-1.1
KECS				eSn	Sn	09 18 23.8	-2.4
KECS				eSn	Sn	09 18 30.7	+4.5
KECS	Kecovo	13.11	357	eP	Pn	09 16 00.2	-1.1
KECS				e		09 18 23.8	
KECS	Kecovo	13.11	357	ePN	Pn	09 16 00.2	-1.1
KECS				eSN	Sn	09 18 30.7	+4.5
KBA	Koelnbreinsper	13.14	335	⇓iPn	Pn	09 16 00.8	-0.9
	SNR=10						
KBA	Koelnbreinsper	13.14	335	⇓iPn	Pn	09 16 00.8	-0.9
KBA				iSn	Sn	09 18 17.6	-9.4
KBA	Koelnbreinsper	13.14	335	⇓iPn	Pn	09 16 00.8	-0.9
	SNR=10						
KBA				⇓iSn	Sn	09 18 17.6	-9.4
ABTA	Abfaltersbach	13.15	332	⇓iPn	Pn	09 16 01.6	-0.4
	SNR=6.0						
ABTA	Abfaltersbach	13.15	332	Pn	Pn	09 16 01.6	-0.4
	SNR=6.0						
CONA	Conrad Observa	13.18	344	⇑iPn	Pn	09 16 01.2	-1.2
ZST	Bratislava	13.19	347	ePn	Pn	09 16 00.0	-2.4
ZST	Bratislava	13.19	347	ePN	Pn	09 16 00.0	-2.4
ZST				e		11 28 11.2	
ZST				e		18 53 23.2	
ZST	Bratislava	13.19	347	ePn	Pn	09 16 00.0	-2.4
GZT	Gaziantep	13.21	77	eP	Pn	09 15 58.9	-4.0
VYHS	Vyhne	13.23	353	ePn	Pn	09 16 01.1	-1.9
VYHS				eSn	Sn	09 18 22.7	-6.6
VYHS	Vyhne	13.23	353	ePN	Pn	09 16 01.1	-1.9
VYHS				eSN	Sn	09 18 22.7	-6.6
UZH	Uzhgorod	13.26	3	eP	Pn	09 16 01.0	-2.3
UZH				eS	Sn	09 18 27.0	-2.9
UZH				MLR	MLR		
	comp=Z,1µm,13.0s						
ASF	Jabal al Asfar	13.32	99	Pn	Pn	09 16 02.0	-2.4
ASF				Sn	Sn	09 18 17.7	-14
ASF	Jabal al Asfar	13.32	99	P	Pn	09 16 02.0	-2.3
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF	Jabal al Asfar	13.32	99	Pn	Pn	09 16 02.0	-2.4
	comp=Z,0.7nm,0.3s,baz=170,slow=7.3,SNR=4.7						
ASF				Sn	Sn	09 18 17.7	-14
	comp=Z,1.1nm,0.3s,baz=240,slow=23,SNR=7.1						
MODS	Modra-Piesok	13.33	348	ePn	Pn	09 16 02.8	-1.5
MODS				eSn	Sn	09 18 25.3	-6.3
MODS	Modra-Piesok	13.33	348	ePN	Pn	09 16 02.8	-1.5
MODS				eSN	Sn	09 18 25.3	-6.3
SMOL	Smolenice	13.44	349	ePn	Pn	09 16 04.7	-1.1
SMOL	Smolenice	13.44	349	ePN	Pn	09 16 04.7	-1.1
SMOL				e		11 28 08.2	
CRVS	Cervenica-Dubn	13.51	0	ePn	Pn	09 16 06.0	-0.8
CRVS	Cervenica-Dubn	13.51	0	ePN	Pn	09 16 06.0	-0.8
MOA	Molln	13.53	339	⇓iPn	Pn	09 16 06.2	-0.9
	SNR=17						
MOA	Molln	13.53	339	⇓iPn	Pn	09 16 06.2	-0.9
MOA				iSn	Sn	09 18 27.2	-9.4
MOA	Molln	13.53	339	⇓iPn	Pn	09 16 06.2	-0.9
	SNR=17						
MOA				⇓iSn	Sn	09 18 27.2	-9.4
KOLS	Kolonicke sedl	13.56	3	ePn	Pn	09 16 07.1	-0.3
KOLS	Kolonicke sedl	13.56	3	eP	Pn	09 16 04.1	-3.3
KOLS	Kolonicke sedl	13.56	3	ePN	Pn	09 16 07.1	-0.3
SIM	Simferopol’	13.64	42	eP	Pn	09 16 09.8	+1.2
SIM				S	Sn	09 18 43.5	+4.1
SIM				pmax	pmax		
	comp=Z,27nm,0.9s						
SIM				MLR	MLR		
	comp=Z,900nm,17.0s						
SIM	Simferopol’	13.64	42	eP	Pn	09 16 09.8	+1.2
	comp=Z,27nm,0.9s						
SAOF	Saorge	13.65	313	eP	Pn	09 16 12.9	+4.2
WTTA	Wattenberg	13.92	331	⇑iPn	Pn	09 16 14.1	+1.7
WTTA	Wattenberg	13.92	331	⇑iPn	Pn	09 16 14.1	+1.7
WTTA				iSn	Sn	09 18 36.5	-10
WTTA	Wattenberg	13.92	331	⇑iPn	Pn	09 16 14.1	+1.7
WTTA				⇑iSn	Sn	09 18 36.5	-10
LMR	La Mourre	13.95	309	⇑iP	Pn	09 16 12.3	-0.5
MALT	Malatya	13.98	73	ePn	Pn	09 16 12.4	-1.0
MALT	Malatya	13.98	73	⇓iP	Pn	09 16 15.3	+2.0
MALT	Malatya	13.98	73	eP	Pn	09 16 12.4	-0.9
STHS	Stebnicka Huta	14.03	360	ePn	Pn	09 16 14.6	+0.8
STHS	Stebnicka Huta	14.03	360	ePN	Pn	09 16 14.6	+0.8
FETA	Feichten	14.09	329	⇑iPn	Pn	09 16 15.3	+0.6
	SNR=8.7						
MOTA	Moosalm	14.20	330	⇓iPn	Pn	09 16 16.2	0.0
	SNR=7.5						
MOTA	Moosalm	14.20	330	⇓iPn	Pn	09 16 16.2	0.0
MOTA				iSn	Sn	09 18 44.1	-8.7
MOTA	Moosalm	14.20	330	⇓iPn	Pn	09 16 16.2	0.0
	SNR=7.5						
MOTA				⇑iSn	Sn	09 18 44.2	-8.7
KWP	Kalwaria	14.27	4	eP	Pn	09 16 23.2	+6.0
	comp=Z,77nm,1.1s						
KWP	Kalwaria	14.27	4	eP	Pn	09 16 23.2	+6.0
KWP				pmax	pmax		
	comp=Z,77nm,1.1s						
DAVOX	Davos/Dischmat	14.28	326	Pn	Pn	09 16 17.6	+0.3
DAVOX				Sn	Sn	09 18 49.7	-5.2
DAVOX	Davos/Dischmat	14.28	326	Pn	Pn	09 16 17.6	+0.3
	comp=Z,0.6nm,0.3s,baz=144,slow=15,SNR=15						
DAVOX				Sn	Sn	09 18 49.7	-5.2
	comp=Z,0.8nm,0.3s,baz=268,slow=21,SNR=4.0						
DAVOX	Davos/Dischmat	14.28	326	Pn	Pn	09 16 17.6	+0.3
VRAC	Vranov	14.35	347	⇓iP	Pn	09 16 23.7	+5.5
VRAC	Vranov	14.35	347	ePn	Pn	09 16 15.6	-2.6
ELZG	Elazig	14.44	72	iP	Pn	09 16 20.4	+0.8
MBDF	Montbardon	14.53	314	⇑iP	Pn	09 16 18.6	-2.2
	comp=Z,132nm,1.1s						
MBDF	Montbardon	14.53	314	⇑iP	Pn	09 16 18.6	-2.2
	comp=Z,66nm,1.1s						
MBDF	Montbardon	14.53	314	⇑iP	Pn	09 16 18.6	-2.2
MBDF				pmax	pmax		
	comp=Z,66nm,1.1s						
TREC	Trest	14.55	345	eP	Pn	09 16 19.6	-1.4
TREC				AMS	AMS	09 23 20.0	
	comp=Z,3µm,15.4s						
TREC	Trest	14.55	345	eP	Pn	09 16 19.6	-1.4
	comp=Z,3µm,15.4s						
LVV	L’vov	14.56	7	eS	Sn	09 19 08.3	+6.6
LVV				MLR	MLR		
	comp=Z,500nm,11.0s						
GEC2	GERESS Array S	14.59	340	ePn	Pn	09 16 18.6	-2.9
GEC2	GERESS Array S	14.59	340	ePn	Pn	09 16 18.6	-2.9
GEC2	GERESS Array S	14.59	340	ePn	Pn	09 16 18.6	-2.9
GERES	GERESS Array B	14.59	340	Pn	Pn	09 16 20.0	-1.5
GERES				Sn	Sn	09 18 51.9	-11
GERES	GERESS Array B	14.59	340	P	Pn	09 16 20.0	-1.5
GERES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GERES	GERESS Array B	14.59	340	Pn	Pn	09 16 20.0	-1.5
	comp=Z,1.0nm,0.3s,baz=163,slow=14,SNR=22						
GERES				Sn	Sn	09 18 51.9	-11
	comp=Z,1.5nm,0.3s,baz=152,slow=23,SNR=12						
OKC	Ostrava-Krasne	14.63	352	eP	Pn	09 16 21.0	-1.1
MORC	Moravsky Berou	14.65	350	ePn	Pn	09 16 22.2	-0.1
MORC				eSn	Sn	09 19 03.7	-0.2
MORC	Moravsky Berou	14.65	350	⇑iP	Pn	09 16 22.3	-0.1
DAVA	Damuels	14.66	328	⇑iPn	Pn	09 16 22.8	+0.2
DAVA	Damuels	14.66	328	⇑iPn	Pn	09 16 22.8	+0.2
DAVA				iSn	Sn	09 18 57.0	-7.2
DAVA	Damuels	14.66	328	⇑iPn	Pn	09 16 22.8	+0.2
DAVA				⇑iSn	Sn	09 18 57.0	-7.2
BNI	Bardonecchia	14.78	315	eP	Pn	09 16 22.9	-1.2
BNI				pmax	pmax		
	comp=Z,53nm,1.2s						
BNI	Bardonecchia	14.78	315	eP	Pn	09 16 22.9	-1.2
	comp=Z,53nm,1.2s						
FUR	Furstenfeldbru	14.80	333	ePn	Pn	09 16 26.6	+2.2
FUR	Furstenfeldbru	14.80	333	ePn	Pn	09 16 26.6	+2.2
OJC	Ojcow	14.87	356	eP	Pn	09 16 27.4	+2.1
KHC	Kasperske Hory	14.88	340	eP	Pn	09 16 24.2	-1.3
KHC				e		09 16 33.0	
KHC				e		09 16 54.0	
KHC	Kasperske Hory	14.88	340	eP	Pn	09 16 24.2	-1.3
KHC				epP	pP	09 16 27.0	-10
KHC				ex	x	09 16 33.0	
KHC				ex	x	09 16 54.0	
KHC				AMS	AMS	09 23 30.0	
	comp=Z,3µm,13.7s						
LPG	La Plagne	15.00	317	⇑iP	Pn	09 16 28.0	+0.9
	comp=Z,128nm,1.3s						
LPG	La Plagne	15.00	317	⇑iP	Pn	09 16 28.0	+0.9
LPG				pmax	pmax		
	comp=Z,64nm,1.3s						
LPG	La Plagne	15.00	317	⇑iP	Pn	09 16 28.0	+0.9
	comp=Z,64nm,1.3s						
LPL	La Plagne	15.02	317	⇑iP	Pn	09 16 27.6	+0.2
	comp=Z,67nm,1.0s						
LPL	La Plagne	15.02	317	⇑iP	Pn	09 16 27.6	+0.2
LPL				pmax	pmax		
	comp=Z,34nm,1.0s						
LPL	La Plagne	15.02	317	⇑iP	Pn	09 16 27.6	+0.2
	comp=Z,34nm,1.0s						
WET	Wettzell	15.10	338	ePn	Pn	09 16 26.7	-1.7
WET	Wettzell	15.10	338	ePn	Pn	09 16 26.7	-1.7
ORIF	Oris-en-Rattie	15.16	314	⇑iP	Pn	09 16 28.0	-1.3
	comp=Z,77nm,1.2s						
ORIF				eMLR	MLR		
	comp=Z,776nm,17.0s						
ORIF	Oris-en-Rattie	15.16	314	⇑iP	Pn	09 16 28.0	-1.3
ORIF				pmax	pmax		
	comp=Z,39nm,1.2s						
ORIF	Oris-en-Rattie	15.16	314	⇑iP	Pn	09 16 28.0	-1.3
	comp=Z,39nm,1.2s						
DPC	Dobruska-Polom	15.40	348	eP	Pn	09 16 32.5	+0.2
DPC				AMS	AMS	09 24 10.0	
	comp=Z,2µm,13.0s						
PRU	Pruhonice	15.42	343	eP	Pn	09 16 31.7	-0.9
PRU				AMS	AMS	09 24 00.0	
	comp=Z,2µm,13.9s						
ANN	Anapa	15.46	48	eP	Pn	09 16 35.9	+2.7
ANN				eS	Sn	09 19 32.7	+8.9
ANN				pmax	pmax		
	comp=Z,54nm,1.0s						
PRA	Prague	15.52	343	P	Pn	09 16 34.0	+0.1
UPC	Upice	15.61	347	eP	Pn	09 16 35.5	+0.5
SPAK	Spaichingen-Ko	15.77	328	eP	Pn	09 16 36.7	-0.4
VIVF	Saint-Julien-l	15.86	312	⇑iP	Pn	09 16 35.4	-2.9
	comp=Z,58nm,1.3s						
VIVF	Saint-Julien-l	15.86	312	⇑iP	Pn	09 16 35.4	-2.9
	comp=Z,29nm,1.3s						
VIVF	Saint-Julien-l	15.86	312	⇑iP	Pn	09 16 35.4	-2.9
VIVF				pmax	pmax		
	comp=Z,29nm,1.3s						
KSP	Ksiaz	15.88	348	eP	Pn	09 16 39.2	+0.7
KSP				epP	pP	09 16 43.3	-5.1
BBS	Basel-Blauen	15.89	324	eP	Pn	09 16 39.3	+0.6
PVCC	Panska Ves	15.92	344	eP	Pn	09 16 39.4	+0.4
PVCC				AMS	AMS	09 24 20.0	
	comp=Z,4µm,11.3s						
FELD	Feldberg im Sc	15.95	326	eP	Pn	09 16 38.8	-0.7
LASF	Ste Croix	15.99	308	⇑iP	Pn	09 16 39.1	-0.9
	comp=Z,87nm,1.4s						
LASF	Ste Croix	15.99	308	⇑iP	Pn	09 16 39.1	-0.9
	comp=Z,43nm,1.4s						
CABF	La Chapelle	16.05	319	⇑iP	Pn	09 16 39.7	-1.0
MANZ	Manzenberg	16.08	338	ePn	Pn	09 16 39.2	-1.9
GRFO	Grafenberg	16.11	336	ePn	Pn	09 16 40.4	-1.1
	comp=Z,75nm,1.3s						
GRFO	Grafenberg	16.11	336	eP	Pn	09 16 40.4	-1.1
GRFO				pmax	pmax		
	comp=Z,75nm,1.3s						
GRFO	Grafenberg	16.11	336	eP	Pn	09 16 40.4	-1.1
	comp=Z,75nm,1.3s						
GRA1	Grafenberg Arr	16.11	336	eP	Pn	09 16 40.1	-1.4
	comp=Z,800nm,22.0s						
GRF	Grafenberg Arr	16.11	336	eP	Pn	09 16 40.1	-1.4
GRF				MLR	MLR		
	comp=Z,800nm,22.0s						
GRF	Grafenberg Arr	16.11	336	ePn	Pn	09 16 40.1	-1.4
GRF				eL		09 24 58.8	
	comp=Z,825nm,22.0s						
BFO	Black Forest	16.14	327	ePn	Pn	09 16 41.8	-0.1
BFO	Black Forest	16.14	327	ePn	Pn	09 16 41.8	-0.1
LOMF	Lomont	16.15	322	eP	Pn	09 16 41.0	-1.0
BNGL	BINGOL	16.18	71	iP	Pn	09 16 46.1	+3.7
NKC	Novy Kostel	16.20	339	eP	Pn	09 16 42.9	+0.3
NKC				AMS	AMS	09 24 20.0	
	comp=Z,2µm,15.3s						
WERN	Wernitzgruen	16.27	339	ePn	Pn	09 16 42.7	-0.8
KIEV	Kiev	16.33	18	ePn	Pn	09 16 40.7	-3.6
	comp=Z,36nm,0.6s						
KIEV				e		09 19 48.9	
KIEV	Kiev	16.33	18	eP	Pn	09 16 40.7	-3.6
KIEV				e		09 19 48.9	
KIEV				pmax	pmax		
	comp=Z,36nm,0.6s						
KIEV	Kiev	16.33	18	ePn	Pn	09 16 40.7	-3.6
AKASG	Malin Array Be	16.34	18	Pn	Pn	09 16 40.8	-3.6
AKASG				Sn	Sn	09 19 48.8	+3.9
AKASG	Malin Array Be	16.34	18	P	Pn	09 16 40.8	-3.6
AKASG						09 19 48.8	
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.3s						
AKASG	Malin Array Be	16.34	18	Pn	Pn	09 16 40.8	-3.6
	comp=Z,5.3nm,0.3s,baz=208,slow=12,SNR=27						
AKASG				Sn	Sn	09 19 48.8	+3.9
	baz=200,slow=22,SNR=8.3						
AKASG	Malin Array Be	16.34	18	Pn	Pn	09 16 40.8	-3.6
AKBB	Malin Array Si	16.34	18	ePn	Pn	09 16 41.0	-3.5
AKBB				e		09 19 49.0	
AKBB	Malin Array Si	16.34	18	ePn	Pn	09 16 41.0	-3.4
MOF	Molkenrain	16.34	324	eP	Pn	09 16 44.0	-0.5
GUNZ	Gunzen	16.35	339	ePn	Pn	09 16 44.2	-0.3
SOC	Sochi	16.35	54	eP	Pn	09 16 42.3	-2.3
SOC				e		09 19 43.1	
SOC				pmax	pmax		
	comp=Z,9.0nm,0.5s						
SOC				MLR	MLR		
	comp=Z,471nm,13.0s						
SOC	Sochi	16.35	54	eP	Pn	09 16 42.3	-2.3
	comp=Z,9.0nm,0.5s						
TANN	Tannenbergstha	16.36	339	ePn	Pn	09 16 45.1	+0.5
BRG	Berggiesshubel	16.39	343	iP	Pn	09 16 44.9	-0.1
	comp=Z,20nm,1.3s						
BRG				i		09 22 48.0	
BRG	Berggiesshubel	16.39	343	iP	Pn	09 16 44.9	-0.1
BRG				pmax	pmax		
	comp=Z,20nm,1.3s						
BRG				MLR	MLR		
	comp=N,1µm,12.1s						
BRG				MLR	MLR		
	comp=E,705nm,13.5s						
BRG				MLR	MLR		
	comp=Z,2µm,11.8s						
BRG	Berggiesshubel	16.39	343	ePn	Pn	09 16 44.3	-0.7
BRG	Berggiesshubel	16.39	343	iP	Pn	09 16 44.9	-0.1
	comp=Z,34nm,1.3s						
BRG				i		09 22 48.0	
BRG							
	comp=N,2µm,12.1s						
BRG							
	comp=E,1µm,13.4s						
BRG							
	comp=Z,3µm,11.8s						
WERD	Werda	16.43	339	ePn	Pn	09 16 47.1	+1.5
HINF	Hinteralfeld	16.45	323	eP	Pn	09 16 43.4	-2.5
	comp=Z,77nm,1.3s						
HINF	Hinteralfeld	16.45	323	eP	Pn	09 16 43.4	-2.5
	comp=Z,39nm,1.3s						
HINF	Hinteralfeld	16.45	323	eP	Pn	09 16 43.4	-2.5
HINF				pmax	pmax		
	comp=Z,39nm,1.3s						
ERZM	Erzurum	16.48	68	iP	Pn	09 16 46.5	+0.2
FBE	Freiberg	16.57	342	ePn	Pn	09 16 47.0	-0.4
CDF	Champ du Feu	16.68	326	eP	Pn	09 16 47.1	-1.6
	comp=Z,178nm,1.3s						
CDF	Champ du Feu	16.68	326	eP	Pn	09 16 47.1	-1.6
CDF				pmax	pmax		
	comp=Z,89nm,1.3s						
CDF	Champ du Feu	16.68	326	eP	Pn	09 16 47.1	-1.6
	comp=Z,89nm,1.3s						
MTLF	Montolieu	16.77	304	⇑iP	Pn	09 16 49.2	-0.8
	comp=Z,36nm,1.1s						
MTLF	Montolieu	16.77	304	⇑iP	Pn	09 16 49.2	-0.8
MTLF				pmax	pmax		
	comp=Z,18nm,1.1s						
MTLF	Montolieu	16.77	304	⇑iP	Pn	09 16 49.2	-0.8
	comp=Z,18nm,1.1s						
MOX	Moxa	16.81	338	ePN	Pn	09 16 52.0	+1.6
MOX							
	comp=Z,2µm,17.0s						
MOX	Moxa	16.81	338	ePn	Pn	09 16 50.1	-0.3
HAU	Haudompre	16.83	323	eP	Pn	09 16 47.6	-3.1
	comp=Z,91nm,1.0s						
HAU				eMLR	MLR		
	comp=Z,883nm,21.2s						
HAU	Haudompre	16.83	323	eP	Pn	09 16 47.6	-3.1
	comp=Z,46nm,1.0s						
HAU	Haudompre	16.83	323	eP	Pn	09 16 47.6	-3.1
HAU				pmax	pmax		
	comp=Z,46nm,1.0s						
LANF	Langenberg	16.86	328	eP	Pn	09 16 51.0	0.0
TOD	Tromm	16.93	331	eP	Pn	09 16 53.6	+1.8
CLL	Collm	17.02	342	iP	Pn	09 16 52.8	-0.2
	comp=Z,22nm,1.3s						
CLL				i		09 16 56.6	
CLL				i		09 17 02.9	
CLL	Collm	17.02	342	iP	Pn	09 16 52.8	-0.2
CLL				pmax	pmax		
	comp=Z,22nm,1.3s						
CLL				MLR	MLR		
	comp=Z,2µm,15.4s						
CLL	Collm	17.02	342	ePn	Pn	09 16 52.7	-0.3
CLL	Collm	17.02	342	iP	Pn	09 16 52.8	-0.2
	comp=Z,22nm,1.3s						
CLL				iPmax		09 16 56.6	
	comp=Z,167nm,1.7s						
CLL				ePP		09 17 08.0	
PLDF	La Plantade	17.07	314	eP	Pn	09 16 52.6	-1.1
ARTV	Artvin	17.15	64	iP	Pn	09 16 50.9	-3.8
THEF	They Montfort	17.16	323	eP	Pn	09 16 53.7	-1.1
SMF	Signal de Mont	17.31	316	eP	Pn	09 16 55.0	-1.7
	comp=Z,85nm,1.2s						
SMF	Signal de Mont	17.31	316	eP	Pn	09 16 55.0	-1.7
SMF				pmax	pmax		
	comp=Z,43nm,1.2s						
SMF	Signal de Mont	17.31	316	eP	Pn	09 16 55.0	-1.7
	comp=Z,43nm,1.2s						
AGO	Saint Agoulin	17.41	313	eP	Pn	09 16 56.8	-1.1
ERTA	Horta de San J	17.43	295	P	Pn	09 17 01.7	+3.6
	comp=Z,24nm,1.0s						
TUTA	Tutak	17.51	70	iP	Pn	09 16 59.5	+0.2
CAF	Calviac	17.52	309	⇑iP	Pn	09 16 55.9	-3.4
	comp=Z,60nm,1.2s						
CAF	Calviac	17.52	309	⇑iP	Pn	09 16 55.9	-3.4
	comp=Z,30nm,1.2s						
CAF	Calviac	17.52	309	⇑iP	Pn	09 16 55.9	-3.4
CAF				pmax	pmax		
	comp=Z,30nm,1.2s						
TNS	Taunus Mts	17.55	332	ePn	Pn	09 17 01.6	+1.9
TNS	Taunus Mts	17.55	332	ePn	Pn	09 17 01.6	+1.9
ABH	Alteburg	17.65	329	eP	Pn	09 17 03.2	+2.3
LOR	Lormes	17.66	318	⇑iP	Pn	09 16 58.3	-2.7
	comp=Z,31nm,1.0s						
LOR				eMLR	MLR		
	comp=Z,868nm,20.2s						
LOR	Lormes	17.66	318	⇑iP	Pn	09 16 58.3	-2.7
	comp=Z,16nm,1.0s						
LOR	Lormes	17.66	318	⇑iP	Pn	09 16 58.3	-2.7
LOR				pmax	pmax		
	comp=Z,16nm,1.0s						

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AVF   Avril sur Loir   17.67 316  eP    Pn     09 16 57.8 -3.4
      comp=Z,43nm,1.1s
AVF   Avril sur Loir   17.67 316  eP    Pn     09 16 57.8 -3.4
      comp=Z,22nm,1.1s
AVF   Avril sur Loir   17.67 316  eP    Pn     09 16 57.8 -3.4
AVF                                pmax  pmax
      comp=Z,22nm,1.1s
RUP   Ruppelstein      17.72 328  eP    Pn     09 17 02.7 +1.0
SSF   Saint Saulge     17.74 317  eP    Pn     09 16 59.6 -2.4
      comp=Z,60nm,1.3s
SSF   Saint Saulge     17.74 317  eP    Pn     09 16 59.6 -2.4
      comp=Z,30nm,1.3s
SSF   Saint Saulge     17.74 317  eP    Pn     09 16 59.6 -2.4
SSF                                pmax  pmax
      comp=Z,30nm,1.3s
MEZF  Maizieres J'vi   17.81 322  eP    Pn     09 17 01.0 -1.8
      comp=Z,133nm,1.2s
MEZF  Maizieres J'vi   17.81 322  eP    Pn     09 17 01.0 -1.8
      comp=Z,67nm,1.2s
BGF   Bois d'Agland    17.84 314  eP    Pn     09 16 59.5 -3.7
      comp=Z,79nm,1.1s
BGF   Bois d'Agland    17.84 314  eP    Pn     09 16 59.5 -3.7
      comp=Z,40nm,1.1s
BGF   Bois d'Agland    17.84 314  eP    Pn     09 16 59.5 -3.7
BGF                                pmax  pmax
      comp=Z,40nm,1.1s
EMOS  Mosqueruela      17.92 293   P    Pn     09 17 06.1 +1.9
      comp=Z,23nm,1.0s
EMOS  Mosqueruela      17.92 293   P    Pn     09 17 06.1 +1.8
      comp=Z,23nm,1.0s
RUE   Ruedersdorf      17.92 345  ePn   Pn     09 17 04.4 +0.2
RUE   Ruedersdorf      17.92 345  ePn   Pn     09 17 04.4 +0.2
RUE   Ruedersdorf      17.92 345  ePn   Pn     09 17 04.4 +0.2
EPF   Esparros         17.96 301⇑iP    Pn     09 17 03.8 -0.9
      comp=Z,69nm,1.2s
EPF   Esparros         17.96 301⇑iP    Pn     09 17 03.8 -0.9
EPF                                pmax  pmax
      comp=Z,34nm,1.2s
EPF   Esparros         17.96 301⇑iP    Pn     09 17 03.8 -0.9
      comp=Z,34nm,1.2s
EBIE  Bielsa           17.99 300   P    Pn     09 17 07.2 +2.1
      comp=Z,35nm,0.8s
EBIE  Bielsa           17.99 300   P    Pn     09 17 07.2 +2.1
      comp=Z,35nm,0.8s
RJF   Les Rejaudoux    18.04 309⇑iP    Pn     09 17 04.4 -1.2
RJF                               eMLR  MLR
      comp=Z,560nm,22.8s
TCF   Toulx Ste Croi   18.08 313⇑iP    Pn     09 17 04.2 -1.9
      comp=Z,44nm,1.1s
TCF   Toulx Ste Croi   18.08 313⇑iP    Pn     09 17 04.2 -1.9
TCF                                pmax  pmax
      comp=Z,22nm,1.1s
TCF   Toulx Ste Croi   18.08 313⇑iP    Pn     09 17 04.2 -1.9
      comp=Z,22nm,1.1s
DIGO  Kars             18.08  67  i P   Pn     09 17 04.7 -1.5
WLF   Walferdange      18.09 327  ePn   Pn     09 17 06.3  0.0
      comp=Z,89nm,1.1s
WLF   Walferdange      18.09 327  eP    Pn     09 17 06.3  0.0
WLF                                pmax  pmax
      comp=Z,89nm,1.1s
WLF   Walferdange      18.09 327   P    Pn     09 17 06.5 +0.3
      comp=Z,50nm,1.3s
WLF   Walferdange      18.09 327  ePn   Pn     09 17 05.8 -0.5
WLF   Walferdange      18.09 327  eP    Pn     09 17 06.3  0.0
      comp=Z,89nm,1.1s
HAKT  HAKKARI          18.11  77  i P   Pn     09 17 06.1 -0.5
HAKT                              eP           09 17 08.5
HAKT  HAKKARI          18.11  77  i P   Pn     09 17 06.1 -0.5
LFF   La Frestale      18.38 308⇑iP    Pn     09 17 07.1 -2.7
      comp=Z,77nm,1.0s
LFF   La Frestale      18.38 308⇑iP    Pn     09 17 07.1 -2.7
      comp=Z,38nm,1.0s
LFF   La Frestale      18.38 308⇑iP    Pn     09 17 07.1 -2.7
LFF                                pmax  pmax
      comp=Z,38nm,1.0s
KIV   Kislovodsk       18.48  56  ePn   Pn     09 17 10.7 -0.4
      comp=Z,22nm,0.6s
KIV   Kislovodsk       18.48  56c iP    Pn     09 17 10.1 -1.0
KIV                                pmax  pmax
      comp=Z,25nm,0.9s
KIV                                MLR   MLR
      comp=Z,400nm,16.0s
KIV   Kislovodsk       18.48  56   P    Pn     09 17 11.1  0.0
      SNR=11
KIV   Kislovodsk       18.48  56   P    Pn     09 17 11.1  0.0
      SNR=11
KIV   Kislovodsk       18.48  56  i P   Pn     09 17 10.1 -1.0
      comp=Z,400nm,16.0s
MEM   Membach          18.85 329   P    Pn     09 17 15.8 +0.3
      comp=Z,27nm,1.0s
NRDL  Niedersach Rie   18.89 338  ePn   Pn     09 17 16.6 +0.7
ZEI   Tsey             18.96  60  eP    Pn     09 17 16.3 -0.6
BUG   Bochum--Univer   18.98 332  ePn   Pn     09 17 20.2 +3.2
BUG   Bochum--Univer   18.98 332  ePn   Pn     09 17 20.2 +3.2
GIVF  Givet            19.01 326  eP    Pn     09 17 17.7 +0.3
      comp=Z,123nm,1.1s
GIVF  Givet            19.01 326  eP    Pn     09 17 17.7 +0.3
GIVF                               pmax  pmax
      comp=Z,61nm,1.1s
GIVF  Givet            19.01 326  eP    Pn     09 17 17.7 +0.3
      comp=Z,62nm,1.1s
BCLA  Clavier          19.02 327   P    Pn     09 17 18.0 +0.5
      comp=Z,26nm,2.0s
SJPF  Ste Jean         19.08 301⇑iP    Pn     09 17 19.3 +1.0
      comp=Z,228nm,0.9s
SJPF  Ste Jean         19.08 301⇑iP    Pn     09 17 19.3 +1.0
SJPF                               pmax  pmax
      comp=Z,114nm,0.9s
SJPF  Ste Jean         19.08 301⇑iP    Pn     09 17 19.3 +1.0
      comp=Z,114nm,0.9s
DOU   Dourbes          19.11 325   P    Pn     09 17 19.1 +0.4
      comp=Z,22nm,1.0s
DOU   Dourbes          19.11 325   P    Pn     09 17 19.0 +0.4
      comp=Z,22nm,1.0s
BEBN  Eben Emael       19.13 328   P    Pn     09 17 20.9 +2.0
      comp=Z,30nm,1.5s
ETOR  Torete           19.18 293   P    Pn     09 17 21.5 +1.9
      comp=Z,8.7nm,0.6s
ETOR  Torete           19.18 293   P    Pn     09 17 21.5 +1.9
ETOR                               pmax  pmax
      comp=Z,9.0nm,0.6s
ETOR  Torete           19.18 293   P    Pn     09 17 21.5 +1.9
      comp=Z,8.7nm,0.6s
BAIF  Baives           19.26 325  eP    Pn     09 17 20.6 +0.1
      comp=Z,43nm,0.8s
BAIF  Baives           19.26 325  eP    Pn     09 17 20.6 +0.1
BAIF                               pmax  pmax
      comp=Z,21nm,0.8s
BAIF  Baives           19.26 325  eP    Pn     09 17 20.6 +0.1
      comp=Z,22nm,0.8s
ELIZ  Elizondo         19.30 301   P    Pn     09 17 21.8 +0.8
      comp=Z,56nm,0.8s
ELIZ  Elizondo         19.30 301   P    Pn     09 17 21.8 +0.7
ELIZ                               pmax  pmax
      comp=Z,56nm,0.8s
ELIZ  Elizondo         19.30 301   P    Pn     09 17 21.8 +0.7
      comp=Z,56nm,0.8s
EVIA  Vianos           19.31 287   P    Pn     09 17 23.2 +2.0
      comp=Z,12nm,0.8s
EVIA  Vianos           19.31 287   P    Pn     09 17 23.2 +2.0
EVIA                               pmax  pmax
      comp=Z,12nm,0.8s
EVIA  Vianos           19.31 287   P    Pn     09 17 23.2 +2.0
      comp=Z,12nm,0.8s
IBBN  Ibbenburen       19.50 334  ePn   Pn     09 17 25.7 +2.4
IBBN  Ibbenburen       19.50 334  ePn   Pn     09 17 25.7 +2.4
SNF   Seneffe          19.54 326   P    Pn     09 17 24.1 +0.3
      comp=Z,24nm,1.0s
SNF   Seneffe          19.54 326   P    Pn     09 17 24.0 +0.2
      comp=Z,24nm,1.0s
WTSB  Winterswijk      19.57 332  eP    Pn     09 17 24.8 +0.6
      comp=Z,70nm,1.9s
MNK   Minsk            19.64  11  eP    Pn     09 17 20.0 -5.0
MFF   Saint Martin d   19.66 311⇑iP    Pn     09 17 24.3 -0.9
      comp=Z,43nm,0.7s
MFF   Saint Martin d   19.66 311⇑iP    Pn     09 17 24.3 -0.9
MFF                                pmax  pmax
      comp=Z,21nm,0.7s
MFF   Saint Martin d   19.66 311⇑iP    Pn     09 17 24.3 -0.9
      comp=Z,21nm,0.7s
UCC   Uccle            19.71 327   P    Pn     09 17 25.9 +0.1
      comp=Z,56nm,1.3s
EQES  Quesada          19.75 284   P    Pn     09 17 27.9 +1.5
      comp=Z,14nm,0.8s
EQES  Quesada          19.75 284   P    Pn     09 17 27.9 +1.5
      comp=Z,14nm,0.8s
ECRI  Cripan           19.86 298   P    Pn     09 17 28.0 +0.3
ECRI                               pmax  pmax
      comp=Z,39nm,0.9s
ECRI  Cripan           19.86 298   P    Pn     09 17 28.0 +0.3
      comp=Z,39nm,0.9s
NE53  Naroch'          19.88   9  eS    Sn     09 21 02.9 -7.6
BSEG  Bad Segeberg     20.10 341  ePn   P      09 17 29.8 +1.3
BSEG  Bad Segeberg     20.10 341  ePn   P      09 17 29.8 +1.3
ECOG  Cogollos-Vega    20.15 283   P    P      09 17 30.8 +1.6
      comp=Z,22nm,0.8s
ECOG  Cogollos-Vega    20.15 283   P    P      09 17 30.8 +1.6
ECOG                               pmax  pmax
      comp=Z,22nm,0.8s
ECOG  Cogollos-Vega    20.15 283   P    P      09 17 30.8 +1.6
      comp=Z,22nm,0.8s
BSD   Bornholm Skovb   20.23 349  i P   P      09 17 29.2 -0.7
BSD                                pmax  pmax
      comp=Z,59nm,0.9s
BSD   Bornholm Skovb   20.23 349  i P   P      09 17 29.2 -0.7
      comp=Z,59nm,0.9s
VORD  Divnogorie       20.26  34  eP    P      09 17 29.0 -1.2
VORD                              e            09 17 34.0
VORD                               pmax  pmax
      comp=Z,40nm,0.9s
VORD                               pmax  pmax
      comp=N,30nm,0.6s
VORD                               pmax  pmax
      comp=E,60nm,0.9s
VORD  Divnogorie       20.26  34  eP    P      09 17 29.0 -1.2
      comp=E,30nm,0.6s
EBAN  Banos Encina     20.31 285   P    P      09 17 31.3 +0.3
      comp=E,4.2nm,0.6s
EBAN  Banos Encina     20.31 285   P    P      09 17 31.3 +0.4
EBAN                               pmax  pmax
      comp=Z,4.0nm,0.6s
EBAN  Banos Encina     20.31 285   P    P      09 17 31.3 +0.4
      comp=Z,4.2nm,0.6s
VRSR  Storozhevoye     20.38  34  eP    P      09 17 31.1 -0.5
VRSR                              eS    S      09 21 15.1 -3.6
VRSR                               pmax  pmax
      comp=Z,4.0nm,0.7s
VRSR                               pmax  pmax
      comp=N,8.0nm,0.9s
VRSR                               pmax  pmax
      comp=E,9.0nm,0.9s
VRSR                               smax
      comp=N,10.0nm,0.9s
VRSR                               smax
      comp=E,8.0nm,0.9s
VRSR                               MLR   MLR
      comp=Z,70nm,22.0s
VRSR                               MLR   MLR
      comp=N,80nm,17.0s
VRSR                               MLR   MLR
      comp=E,110nm,23.0s
VRSR  Storozhevoye     20.38  34  eP    P      09 17 31.1 -0.5
      comp=E,4.0nm,0.7s
ESDC  Sonseca Array    20.50 290   P    P      09 17 33.3 +0.2
      comp=E,14nm,1.1s
ESDC  Sonseca Array    20.50 290   P    P      09 17 33.3 +0.2
      comp=E,42nm,1.1s,baz=87,slow=10,SNR=35
ESLA  Sonseca Array    20.50 290  eP    P      09 17 33.5 +0.5
      comp=E,11nm,1.0s
ESLA  Sonseca Array    20.50 290  eP    P      09 17 33.5 +0.5
      comp=E,11nm,1.0s
LDF   La Druitiere     20.62 316⇑iP    P      09 17 34.9 +0.7
      comp=E,77nm,0.9s
LDF   La Druitiere     20.62 316⇑iP    P      09 17 34.9 +0.7
      comp=E,39nm,0.9s
LDF   La Druitiere     20.62 316⇑iP    P      09 17 34.9 +0.7
LDF                                pmax  pmax
      comp=Z,39nm,0.9s
ELUQ  Luque            20.70 284   P    P      09 17 34.9 -0.2
      comp=Z,17nm,0.6s
ELUQ  Luque            20.70 284   P    P      09 17 34.9 -0.3
ELUQ                               pmax  pmax
      comp=Z,17nm,0.6s
GUD   Guadarrama       20.74 292   P    P      09 17 36.7 +1.2
      comp=Z,35nm,0.8s
GUD   Guadarrama       20.74 292   P    P      09 17 36.7 +1.1
GUD                                pmax  pmax
      comp=Z,35nm,0.8s
VOR   Voronezh         20.75  33  eP    P      09 17 35.0 -0.6
VOR                                pmax  pmax
      comp=Z,100nm,1.0s
PAB   San Pablo        20.79 289  eP    P      09 17 36.9 +0.7
      comp=Z,54nm,1.1s
PAB   San Pablo        20.79 289  eP    P      09 17 36.9 +0.7
PAB                                pmax  pmax
      comp=Z,54nm,1.1s
FLN   La Foliniere     20.91 316  eP    P      09 17 37.9 +0.5
      comp=Z,64nm,0.8s
FLN                               eMLR  MLR
      comp=Z,783nm,21.8s,MS3.8
FLN   La Foliniere     20.91 316  eP    P      09 17 37.9 +0.5
      comp=Z,32nm,0.8s
FLN                                LR    LR
      comp=Z,780nm,21.8s,MS4.0
FLN   La Foliniere     20.91 316  eP    P      09 17 37.9 +0.5
FLN                                pmax  pmax
      comp=Z,32nm,0.8s
FLN                                MLR   MLR
      comp=Z,780nm,21.8s,MS4.0
EADA  Adamuz           20.93 285   P    P      09 17 39.6 +1.9
      comp=Z,11nm,0.9s
GRR   Gorron           20.94 315⇑iP    P      09 17 38.7 +1.1
      comp=Z,72nm,0.8s
GRR   Gorron           20.94 315⇑iP    P      09 17 38.7 +1.1
      comp=Z,36nm,0.8s
GRR   Gorron           20.94 315⇑iP    P      09 17 38.7 +1.1
GRR                                pmax  pmax
      comp=Z,36nm,0.8s
EMIJ  Mijas            21.16 281   P    P      09 17 41.6 +1.5
      comp=Z,37nm,0.8s,mb4.8
VRHR  Novokhopersk     21.45  37  eP    P      09 17 42.2 -0.9
VRHR                              eS    S      09 21 34.4 -5.4
VRHR                               pmax  pmax
      comp=Z,90nm,0.7s,mb5.2
VRHR                               pmax  pmax
      comp=N,20nm,0.5s
VRHR                               pmax  pmax
      comp=E,40nm,0.6s
VRHR                               smax
      comp=N,100nm,1.0s
VRHR                               smax
      comp=Z,10.0nm,0.4s
VRHR                               smax
      comp=E,80nm,0.6s
VRHR                               MLR   MLR
      comp=Z,130nm,7.0s
VRHR                               MLR   MLR
      comp=N,360nm,6.0s
VRHR                               MLR   MLR
      comp=E,390nm,9.0s
MAK   Makhachkala      21.58  62  eP    P      09 17 42.6 -2.1
MAK                               eS    S      09 21 42.7 +0.1
MAK                                pmax  pmax
      comp=Z,196nm,1.4s,mb5.3
MAK                                MLR   MLR
      comp=Z,428nm,11.0s,MS4.1
ZFT   Errachidia       21.62 268  i P   P      09 17 47.0 +1.8
MDT   Midelt           21.64 271   P    P      09 17 44.9 -0.4
      comp=Z,9.0nm,0.9s,mb4.2,baz=96,slow=13,SNR=14
CZD   Col de Zad       21.94 271  i P   P      09 17 50.0 +1.5
ESPR  Espera           22.00 282   P    P      09 17 48.4 -0.8
      comp=Z,9.9nm,0.6s,mb4.4
QUIF  Quistinic        22.08 312⇑iP    P      09 17 50.9 +1.0
      comp=Z,67nm,0.8s,mb4.8
QUIF  Quistinic        22.08 312⇑iP    P      09 17 50.9 +1.0
      comp=Z,34nm,0.8s,mb4.8
QUIF  Quistinic        22.08 312⇑iP    P      09 17 50.9 +1.0
QUIF                               pmax  pmax
      comp=Z,34nm,0.8s,mb4.8
ROSF  Rostrenen        22.33 313⇑iP    P      09 17 53.1 +0.5
      comp=Z,101nm,1.0s,mb4.9
ROSF  Rostrenen        22.33 313⇑iP    P      09 17 53.1 +0.5
      comp=Z,50nm,1.0s,mb4.9
ROSF  Rostrenen        22.33 313⇑iP    P      09 17 53.1 +0.5
ROSF                               pmax  pmax
      comp=Z,51nm,1.0s,mb4.9
OBN   Obninsk          22.36  23  eP    P      09 17 51.8 -1.0
      comp=Z,67nm,0.5s,mb5.3
OBN   Obninsk          22.36  23⇓eP    P      09 17 51.6 -1.2
OBN                                pmax  pmax
      comp=Z,336nm,1.5s,mb5.5
OBN                                MLR   MLR
      comp=Z,500nm,17.0s,MS4.0
RST   Umm Al-Ruwaisa   22.39  98  eP    P      09 17 52.2 -1.2
RST                                AMb   AMB   09 17 56.6
      comp=Z,105nm,0.8s,mb5.3
RST   Umm Al-Ruwaisa   22.39  98  eP    P      09 17 52.2 -1.2
      comp=Z,105nm,0.8s,mb5.3
MIB   Mutribah         22.56  97  eP    P      09 17 53.4 -1.8
MIB                                AMb   AMB   09 17 57.7
      comp=Z,79nm,0.7s,mb5.2
MIB   Mutribah         22.56  97  eP    P      09 17 53.4 -1.8
      comp=Z,79nm,0.7s,mb5.2
EMIN  Mina Concepcio   22.60 284   P    P      09 17 55.1 -0.4
      comp=Z,9.4nm,0.9s,mb4.2
MUD   Monsted U'grnd   22.65 342⇑iP    P      09 17 55.9 +0.1
MUD                                pmax  pmax
      comp=Z,46nm,0.9s,mb4.9
MUD   Monsted U'grnd   22.65 342⇑iP    P      09 17 55.9 +0.1
      comp=Z,46nm,0.9s,mb4.9
NAY   Al-Naaiem        22.69  98  eP    P      09 17 54.8 -1.8
NAY                                AMb   AMB   09 17 59.4
      comp=Z,50nm,0.8s,mb5.0
NAY   Al-Naaiem        22.69  98  eP    P      09 17 54.8 -1.7
      comp=Z,50nm,0.8s,mb5.0
ECAL  Calabor          22.83 295   P    P      09 17 57.6 -0.4
      comp=Z,50nm,1.0s,mb4.9
EBAD  Badajoz          22.84 287   P    P      09 17 59.2 +1.0
      comp=Z,21nm,0.9s,mb4.6
MVO   Moncorvo         22.96 293  eP    P      09 17 58.9 -0.4
      comp=Z,92nm,1.1s,mb5.1
RDF   Al-Radifah       23.06  99  eP    P      09 17 59.0 -1.5
RDF                                AMb   AMB   09 18 06.9
      comp=Z,80nm,1.2s,mb5.0
RDF   Al-Radifah       23.06  99  eP    P      09 17 59.0 -1.5
      comp=Z,80nm,1.2s,mb5.0
KBD   Kabd             23.08  98  eP    P      09 17 58.5 -2.2
KBD                                AMb   AMB   09 18 04.7
      comp=Z,250nm,1.3s,mb5.5
KBD   Kabd             23.08  98  eP    P      09 17 58.5 -2.2
      comp=Z,250nm,1.3s,mb5.5
MOS   Moscow           23.22  24  eP    P      09 17 59.5 -2.3
MOS                               e            09 18 24.9
MOS                               i S   S      09 22 08.3 -3.8
MOS                                pmax  pmax
      comp=Z,142nm,0.7s,mb5.5
MOS                                smax
      comp=N,300nm,1.4s
MOS                                smax
      comp=E,200nm,1.4s
MOS                                MLR   MLR
      comp=Z,900nm,12.0s,MS4.4
PCBR  Castelo Branco   23.22 290  eP    P      09 18 01.2 -0.9
      comp=Z,33nm,1.3s,mb4.6
MTE   Manteigas        23.29 291  eP    P      09 18 02.9 +0.1
PESTR Estremoz         23.29 287  eP    P      09 18 03.1 +0.2
      comp=Z,33nm,0.9s,mb4.8
VSU   Vasula           23.36   7c iP    P      09 18 01.4 -2.0
QRN   Al-Qurain        23.43  99  eP    P      09 18 02.5 -1.8
PVAQ  Vaqueiros        23.45 284  eP    P      09 18 04.4 -0.1
PBEJ  Beja             23.53 285  eP    P      09 18 04.8 -0.5
      comp=Z,48nm,1.8s,mb4.6
PVIS  Viseu            23.58 292  eP    P      09 18 05.8 +0.1
PCAB  Cabril           23.76 294  eP    P      09 18 08.0 +0.7
      comp=Z,126nm,1.6s,mb5.1
HFS   Hagfors          25.26 351   P    P      09 18 20.3 -0.5
HFS                                pmax  pmax
      comp=Z,13nm,0.6s
HFS   Hagfors          25.26 351   P    P      09 18 20.3 -0.5
      comp=Z,12nm,0.6s,mb4.7,baz=161,slow=11,SNR=37
KONO  Kongsberg        25.46 346⇓eP    P      09 18 23.3 +0.7
EKA   Eskdalemuir Ar   26.12 327   P    P      09 18 28.0 -0.6
EKA                                pmax  pmax
      comp=Z,25nm,1.0s
EKA   Eskdalemuir Ar   26.12 327   P    P      09 18 28.0 -0.6
      comp=Z,24nm,1.0s,mb4.7,baz=114,slow=7.0,SNR=17
FINES FINESS Array B   26.25   5   P    P      09 18 29.8  0.0
FINES FINESS Array B   26.25   5  i P   P      09 18 29.7 -0.1
FINES                              pmax  pmax
      comp=Z,19nm,0.9s
FINES FINESS Array B   26.25   5   P    P      09 18 29.8  0.0
      comp=Z,19nm,0.8s,mb4.7,baz=170,slow=10,SNR=36
FIA1  FINESS Array S   26.25   5  eP    P      09 18 29.7 -0.1
NAO01 NORSAR Array S   26.35 348  eP    P      09 18 30.4 -0.2
      comp=Z,9.8nm,0.7s,mb4.5
NB2   NORSAR Subarra   26.48 349   P    P      09 18 31.6 -0.2
      comp=Z,23nm,1.1s,mb4.6,baz=160,slow=10
NOA   NORSAR Array B   26.48 349   P    P      09 18 31.7 -0.1
NOA                                pmax  pmax
      comp=Z,11nm,0.9s
NOA                                MLR   MLR
      comp=Z,287nm,19.4s
NOA   NORSAR Array B   26.48 349   P    P      09 18 31.6 -0.2
      comp=Z,11nm,0.9s,mb4.4,baz=158,slow=9.4,SNR=18
NOA                                LR    LR    09 29 40.9
      comp=Z,286nm,19.4s,MS3.8,baz=170,slow=38
KAF   Kangasniemi      26.93   5  ep    P      09 18 35.7 -0.2
      comp=Z,52nm,0.7s,mb5.2
KAF   Kangasniemi      26.93   5  eP    P      09 18 35.7 -0.2
KAF                                pmax  pmax
      comp=Z,52nm,0.7s,mb5.2
JOF   Joensuu          28.25  10  ep    P      09 18 47.0 -0.7
      comp=Z,22nm,0.7s,mb4.9
JOF   Joensuu          28.25  10  eP    P      09 18 47.0 -0.7
JOF                                pmax  pmax
      comp=Z,22nm,0.7s,mb4.9
TOA0  Torodi Ar. Sit   28.37 224  eP    P      09 18 48.0 -1.2
TORD  Torodi Ar. Bea   28.37 224   P    P      09 18 48.0 -1.2
TORD                               ScP   ScP   09 25 40.7 -0.4
TORD                               LR    LR    09 31 43.7
TORD  Torodi Ar. Bea   28.37 224   P    P      09 18 48.0 -1.2
      comp=Z,7.3nm,0.9s,mb4.3,baz=35,slow=7.7,SNR=34
TORD                               ScP   ScP   09 25 40.7 -0.4
      comp=Z,2.2nm,1.1s,baz=37,slow=2.6,SNR=4.4
TORD                               LR    LR    09 31 43.7
      comp=Z,661nm,18.3s,MS4.3,baz=40,slow=40
PRGR  Permogore        30.44  23⇓iP    P      09 19 04.6 -2.5
PRGR                              eS    S      09 24 01.3 -5.1
ATD   Arta Tunnel      30.72 135   LR   LR     09 33 40.4
      comp=Z,269nm,18.9s,MS3.9,baz=189,slow=41
ARU   Arti             32.77  38  eP    P      09 19 26.0 -1.6
ARU   Arti             32.77  38⇑iP    P      09 19 27.0 -0.6
ARU                               e            09 22 07.0
ARU                               eS    S      09 24 43.7 +0.7
ARU                               eSS   SS     09 26 38.0  -26
ARU                                pmax  pmax
      comp=Z,17nm,1.1s,mb4.9
ARU                                MLR   MLR
      comp=Z,200nm,14.0s,MS4.0
ARU                                MLR   MLR
      comp=N,200nm,19.0s,MS4.0
ARU                                MLR   MLR
      comp=E,200nm,15.0s,MS4.0
APA   Apatity          32.97   8⇑iP    P      09 19 29.6 +0.4
APA                                pmax  pmax
      comp=Z,52nm,1.0s,mb5.4
APA                                MLR   MLR
      comp=Z,1µm,16.0s,MS4.6
SOKR  Solikamsk        33.38  32d iP    P      09 19 31.9 -1.0
SOKR                               pmax  pmax
      comp=Z,30nm,1.1s,mb5.1
SOKR                               MLR   MLR
      comp=Z,500nm,20.0s,MS4.2
SVE   Sverdlovsk       33.98  39  eP    P      09 19 37.0 -1.2
RBK   Rabkut           34.17 113   P    P      09 19 40.4 +0.2
      SNR=5.3
RBK   Rabkut           34.17 113   P    P      09 19 40.4 +0.2
      SNR=5.3
ARCES ARCESS Array B   34.28   3   P    P      09 19 39.8 -0.9
ARCES                              pmax  pmax
      comp=Z,11nm,0.7s
ARCES                              MLR   MLR
      comp=Z,904nm,21.5s
ARCES ARCESS Array B   34.28   3   P    P      09 19 39.8 -0.9
      comp=Z,11nm,0.7s,mb4.9,baz=186,slow=9.7,SNR=27
ARCES                              LR    LR    09 34 48.1
      comp=Z,904nm,21.5s,MS4.5,baz=182,slow=38
KEV   Kevo             34.57   3  ep    P      09 19 43.1  0.0
      comp=Z,5.4nm,0.4s,mb4.8
KEV   Kevo             34.57   3  eP    P      09 19 43.1  0.0
KEV                                pmax  pmax
      comp=Z,5.0nm,0.4s,mb4.8
TIC   Toumodi          37.49 226  eP    P      09 20 07.1 -1.6
      comp=Z,20nm,0.5s,mb5.2
KIC   Kosan Boka       37.55 226  eP    P      09 20 07.9 -1.3
      comp=Z,93nm,1.2s,mb5.4
LIC   Lamto            37.83 226  eP    P      09 20 10.4 -1.2
      comp=Z,44nm,1.0s,mb4.8
LIC   Lamto            37.83 226  eP    P      09 20 10.4 -1.2
      comp=Z,59nm,1.0s,mb5.3
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BRVK	**Borovoye**	**38.41**	**47**	*e*P	**P**	**09 20 15.9**	**-0.2**
	comp=Z,6.9nm,0.7s,mb4.5						
BRVK	**Borovoye**	**38.41**	**47**	*e*P	**P**	**09 20 15.9**	**-0.2**
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
BRVK	**Borovoye**	**38.41**	**47**	*e*P	**P**	**09 20 15.9**	**-0.2**
	comp=Z,6.9nm,0.7s,mb4.5						
KBL	**Kabul**	**38.79**	**77**	*e*P	**P**	**09 20 19.9**	**+0.3**
KBL	**Kabul**	**38.79**	**77**	*e*P	**P**	**09 20 19.9**	**+0.3**
KMBO	**Kilima Mbogo**	**39.24**	**154**	*e*P	**P**	**09 20 24.7**	**+1.3**
	comp=Z,6.5nm,0.9s,mb4.4						
KMBO	**Kilima Mbogo**	**39.24**	**154**	P	**P**	**09 20 24.2**	**+0.7**
KMBO				pmax	pmax		
	comp=Z,6.0nm,0.9s						
KMBO				MLR	MLR		
	comp=Z,655nm,18.2s						
KMBO	**Kilima Mbogo**	**39.24**	**154**	P	**P**	**09 20 24.2**	**+0.8**
	comp=Z,5.7nm,0.9s,mb4.3,baz=347,slow=7.4,SNR=11						
KMBO				LR	LR	09 38 12.8	
	comp=Z,655nm,18.2s,MS4.5,baz=97,slow=39						
KMBO	**Kilima Mbogo**	**39.24**	**154**	*e*P	**P**	**09 20 24.7**	**+1.2**
	comp=Z,6.4nm,0.9s,mb4.3						
AML	**Almayashu**	**40.83**	**64**	*e*P	**P**	**09 20 36.8**	**+0.3**
	comp=Z,5.4nm,0.7s,mb4.3						
AML	**Almayashu**	**40.83**	**64**	*e*P	**P**	**09 20 36.8**	**+0.4**
	comp=Z,5.4nm,0.7s,mb4.3						
AAK	**Ala-Archa**	**41.35**	**63**	*e*P	**P**	**09 20 40.0**	**-0.6**
	comp=Z,3.6nm,0.8s,mb4.0						
AAK	**Ala-Archa**	**41.35**	**63**	⇓*e*P	**P**	**09 20 40.3**	**-0.4**
AAK				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.3						
AAK				MLR	MLR		
	comp=Z,300nm,25.0s,MS4.1						
AAK	**Ala-Archa**	**41.35**	**63**	P	**P**	**09 20 40.8**	**+0.2**
	SNR=5.9						
AAK	**Ala-Archa**	**41.35**	**63**	P	**P**	**09 20 40.8**	**+0.2**
	SNR=5.9						
AAK	**Ala-Archa**	**41.35**	**63**	*e*P	**P**	**09 20 40.0**	**-0.7**
	comp=Z,3.6nm,0.8s,mb4.0						
FRU	**Bishkek**	**41.41**	**63**	⇓*i*P	**P**	**09 20 41.5**	**+0.3**
FRU				pmax	pmax		
	comp=Z,76nm,1.8s,mb5.0						
UCH	**Uchtor**	**41.42**	**64**	*e*P	**P**	**09 20 40.9**	**-0.3**
	comp=Z,12nm,1.0s,mb4.5						
UCH	**Uchtor**	**41.42**	**64**	*e*P	**P**	**09 20 40.9**	**-0.4**
	comp=Z,12nm,1.0s,mb4.5						
TKM2	**Tokmak 2**	**42.11**	**63**	*e*P	**P**	**09 20 46.6**	**-0.2**
	comp=Z,8.4nm,0.9s,mb4.4						
TKM2	**Tokmak 2**	**42.11**	**63**	*e*P	**P**	**09 20 46.6**	**-0.3**
TKM2				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.3						
TKM2	**Tokmak 2**	**42.11**	**63**	*e*P	**P**	**09 20 46.6**	**-0.3**
	comp=Z,8.4nm,0.9s,mb4.4						
KURK	**Kurchatov**	**43.46**	**51**	*e*P	**P**	**09 20 56.7**	**-1.0**
KURK				pmax	pmax		
	comp=Z,26nm,1.2s,mb4.8						
KURK	**Kurchatov**	**43.46**	**51**	P	**P**	**09 20 57.2**	**-0.5**
	SNR=8.4						
KURK	**Kurchatov**	**43.46**	**51**	P	**P**	**09 20 57.2**	**-0.5**
	SNR=8.4						
KURK	**Kurchatov**	**43.46**	**51**	*e*P	**P**	**09 20 56.7**	**-1.0**
	comp=Z,26nm,1.2s,mb4.8						
NVS	**Novosibirsk**	**46.13**	**45**	⇑*i*P	**P**	**09 21 18.6**	**-0.4**
NVS				*i* S	**S**	**09 27 59.5**	**-3.8**
NVS				pmax	pmax		
	comp=Z,84nm,1.2s,mb5.5						
NVS				pmax	pmax		
	comp=E,49nm,1.4s						
NVS				smax			
	comp=N,37nm,2.1s						
MK31	**Makanchi Array**	**46.25**	**56**	*e*P	**P**	**09 21 19.4**	**-0.5**
MK31	**Makanchi Array**	**46.25**	**56**	*e*P	**P**	**09 21 19.4**	**-0.6**
MKAR	**Makanchi Array**	**46.25**	**56**	P	**P**	**09 21 19.5**	**-0.5**
MKAR				S	**S**	**09 28 02.7**	**-2.5**
MKAR				pmax	pmax		
	comp=Z,14nm,0.5s						
MKAR				smax			
	comp=N,3.0nm,1.2s						
MKAR	**Makanchi Array**	**46.25**	**56**	P	**P**	**09 21 19.4**	**-0.5**
	comp=N,14nm,0.5s,mb5.2,baz=270,slow=7.5,SNR=55						
MKAR				S	**S**	**09 28 02.7**	**-2.5**
	comp=N,2.8nm,1.1s,baz=273,slow=10,SNR=5.7						
SMLA	**Simla**	**46.35**	**79**	*e*P	**P**	**09 21 21.0**	**0.0**
ZAL	**Zalesovo**	**47.09**	**46**	P	**P**	**09 21 25.9**	**-0.6**
ZAL				S	**S**	**09 28 11.4**	**-5.6**
ZALV	**Zalesovo Beam**	**47.10**	**46**	P	**P**	**09 21 25.9**	**-0.7**
	comp=N,16nm,0.3s,mb5.4,baz=273,slow=8.6,SNR=115						
ZALV				S	**S**	**09 28 11.4**	**-5.8**
	comp=N,0.3nm,0.3s,baz=281,slow=10,SNR=2.6						
ZALV				LR	LR	09 42 09.3	
	comp=N,96nm,20.3s,MS3.8,baz=56,slow=37						
POO	**Poona**	**49.15**	**96**	*e*P	**P**	**09 21 43.0**	**+0.1**
WMQ	**Urumqi**	**50.58**	**59**	P	**P**	**09 21 55.2**	**+1.8**
WMQ				AP	pP	09 21 59.7	-0.9
WMQ				XP	sP	09 22 02.2	-1.2
WMQ				PCP	PcP	09 23 13.4	+2.5
WMQ				PP	PP	09 23 52.0	+2.9
WMQ				*e*S	**S**	**09 29 07.3**	**+0.9**
WMQ				SCS	ScS	09 31 42.7	-0.1
WMQ				SS	SS	09 32 38.0	-2.3
WMQ				AMB	AMB		
	comp=Z,26nm,1.0s,mb5.1						
WMQ				AMB	AMB		
	comp=Z,76nm,6.2s						
WMQ				LR	LR		
	comp=N,283nm,26.8s,MS4.3						
WMQ				LR	LR		
	comp=E,338nm,27.8s,MS4.3						
WMQ				LR	LR		
	comp=Z,359nm,26.8s,MS4.3						
LSZ	**Lusaka**	**50.80**	**171**	P	**P**	**09 21 55.8**	**+0.6**
LSZ				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
LSZ	**Lusaka**	**50.80**	**171**	P	**P**	**09 21 55.8**	**+0.6**
	comp=Z,18nm,0.8s,mb5.0,baz=5.6,slow=7.2,SNR=24						
LSZ	**Lusaka**	**50.80**	**171**	*e*P	**P**	**09 21 55.8**	**+0.6**
	comp=Z,14nm,0.8s,mb5.0						
KOLN	**Koldanda**	**52.82**	**80**	*e*P	**P**	**09 22 09.9**	**-0.5**
	comp=Z,70nm,0.9s,mb5.6						
HYB	**Hyderabad**	**53.55**	**94**	*i* P	**P**	**09 22 16.0**	**+0.1**
HYB	**Hyderabad**	**53.55**	**94**	*e*P	**P**	**09 22 16.0**	**+0.1**
GKN	**Gorkha**	**53.55**	**79**	*e*P	**P**	**09 22 15.3**	**-0.5**
	comp=Z,84nm,0.6s,mb5.9						
DMN	**Daman**	**54.10**	**79**	*e*P	**P**	**09 22 19.7**	**-0.1**
	comp=Z,81nm,0.6s,mb5.8						
KKN	**Kakani**	**54.16**	**79**	*e*P	**P**	**09 22 19.9**	**-0.3**
	comp=Z,55nm,0.7s,mb5.6						
PKI	**Pulchoki**	**54.36**	**79**	*e*P	**P**	**09 22 21.3**	**-0.4**
	comp=Z,140nm,1.0s,mb5.9						
GUN	**Gumba**	**54.59**	**79**	*e*P	**P**	**09 22 23.3**	**0.0**
	comp=Z,68nm,0.7s,mb5.8						
JIRN	**Jiri**	**54.95**	**79**	*e*P	**P**	**09 22 25.9**	**0.0**
MATP	**Matopo**	**55.91**	**172**	P	**P**	**09 22 32.8**	**0.0**
	comp=Z,11nm,0.9s,mb4.9,baz=358,slow=8.7,SNR=18						
ODAN	**Odare**	**56.25**	**79**	*e*P	**P**	**09 22 35.3**	**0.0**
TAPN	**Taplejung**	**56.30**	**78**	*e*P	**P**	**09 22 35.3**	**-0.3**
	comp=Z,61nm,0.8s,mb5.7						
MOY	**Mondy**	**57.15**	**47**	*e*P	**P**	**09 22 42.2**	**+0.9**
MOY				pmax	pmax		
	comp=Z,23nm,2.1s,mb4.8						
LSA	**Lhasa**	**58.02**	**74**	P	**P**	**09 22 48.6**	**+0.8**
LSA	**Lhasa**	**58.02**	**74**	*e*P	**P**	**09 22 48.7**	**+0.9**
	comp=Z,32nm,0.8s,mb5.4						
LSA	**Lhasa**	**58.02**	**74**	*e*P	**P**	**09 22 48.7**	**+0.9**
LSA				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.4						
LSA	**Lhasa**	**58.02**	**74**	*e*P	**P**	**09 22 48.7**	**+0.9**
	comp=Z,32nm,0.8s,mb5.4						
TLY	**Talaya**	**58.71**	**46**	*e*P	**P**	**09 22 52.6**	**+0.3**
	comp=Z,4.3nm,0.8s,mb4.5						
TLY	**Talaya**	**58.71**	**46**	*e*P	**P**	**09 22 52.7**	**+0.4**
TLY				*e*		09 23 05.2	
TLY				pmax	pmax		
	comp=Z,28nm,1.9s,mb5.0						
TLY				MLR	MLR		
	comp=Z,128nm,12.0s,MS4.3						
TLY	**Talaya**	**58.71**	**46**	P	**P**	**09 22 53.3**	**+1.0**
	SNR=13						
TLY	**Talaya**	**58.71**	**46**	P	**P**	**09 22 53.3**	**+1.0**
	SNR=13						
TLY	**Talaya**	**58.71**	**46**	*e*P	**P**	**09 22 52.6**	**+0.3**
	comp=Z,4.3nm,0.8s,mb4.5						
IRK	**Irkutsk**	**58.90**	**45**	*e*P	**P**	**09 22 50.1**	**-3.5**
IRK				pmax	pmax		
	comp=Z,58nm,1.6s,mb5.4						
ZAK	**Zakamensk**	**58.92**	**48**	⇓*i*P	**P**	**09 22 53.9**	**+0.2**
ZAK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
LBTB	**Lobatse**	**60.20**	**176**	*e*P	**P**	**09 23 03.6**	**+0.9**
	comp=Z,12nm,0.9s,mb4.9						
LBTB	**Lobatse**	**60.20**	**176**	*e*P	**P**	**09 23 03.6**	**+0.9**
LBTB				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
LBTB	**Lobatse**	**60.20**	**176**	*e*P	**P**	**09 23 03.6**	**+0.9**
	comp=Z,12nm,0.9s,mb4.9						
GTA	**Gaotai**	**60.59**	**61**	*e*P	**P**	**09 23 05.6**	**+0.2**
GTA				AP	pP	09 23 10.6	-2.1
GTA				XP	sP	09 23 12.5	-3.0
GTA				PP	PP	09 25 20.6	+1.8
GTA				S	**S**	**09 31 20.8**	**+0.7**
GTA				XS	sS	09 31 29.4	-2.8
GTA				SS	SS	09 35 19.1	+1.0
GTA				AMB	AMB		
	comp=Z,15nm,0.9s,mb5.1						
GTA				AMB	AMB		
	comp=Z,75nm,5.3s						
GTA				LR	LR		
	comp=N,157nm,18.6s,MS4.3						
GTA				LR	LR		
	comp=E,161nm,17.9s,MS4.3						
GTA				LR	LR		
	comp=Z,238nm,20.2s,MS4.3						
SCHQ	**Schefferville**	**60.98**	**319**	*e*P	**P**	**09 23 08.2**	**+0.4**
	comp=Z,9.3nm,0.8s,mb5.0						
SCHQ	**Schefferville**	**60.98**	**319**	P	**P**	**09 23 07.6**	**-0.2**
	comp=Z,9.4nm,0.9s,mb4.9,baz=61,slow=7.4,SNR=14						
SCHQ	**Schefferville**	**60.98**	**319**	*e*P	**P**	**09 23 08.2**	**+0.4**
	comp=Z,9.3nm,0.8s,mb5.0						
SONM	**Songino Array**	**61.74**	**50**	P	**P**	**09 23 13.2**	**+0.2**
SONM				pmax	pmax		
	comp=Z,10.0nm,0.8s						
SONM	**Songino Array**	**61.74**	**50**	P	**P**	**09 23 13.2**	**+0.1**
	comp=Z,9.7nm,0.8s,mb5.0,baz=281,slow=8.4,SNR=74						
TIXI	**Tiksi**	**62.04**	**20**	*e*P	**P**	**09 23 14.4**	**-0.3**
	comp=Z,3.2nm,0.8s,mb4.5						
TIXI	**Tiksi**	**62.04**	**20**	*e*P	**P**	**09 23 12.9**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
TIXI	**Tiksi**	**62.04**	**20**	*e*P	**P**	**09 23 14.4**	**-0.3**
	comp=Z,3.2nm,0.8s,mb4.5						
BOD	**Bodaibo**	**62.18**	**37**	*e*P	**P**	**09 23 14.2**	**-1.6**
BOD				*e*		09 31 38.2	
BOD				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.3						
RES	**Resolute Bay**	**62.63**	**344**	*e*P	**P**	**09 23 19.8**	**+1.2**
	comp=Z,208nm,1.0s,mb6.2						
RES				*e*PcP	PcP	09 23 58.5	+1.2
RES	**Resolute Bay**	**62.63**	**344**	*e*P	**P**	**09 23 19.8**	**+1.2**
RES				*e*		09 23 58.5	
RES				pmax	pmax		
	comp=Z,208nm,1.0s						
RES	**Resolute Bay**	**62.63**	**344**	*e*PcP	PcP	09 23 58.5	+1.2
BOSA	**Boshof**	**63.76**	**176**	P	**P**	**09 23 26.5**	**-0.1**
BOSA				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
BOSA				MLR	MLR		
	comp=Z,1µm,18.8s,MS5.1						
BOSA	**Boshof**	**63.76**	**176**	P	**P**	**09 23 26.5**	**-0.1**
	comp=Z,12nm,1.0s,mb4.9,baz=12,slow=5.1,SNR=9.1						
BOSA				LR	LR	09 54 03.8	
	comp=Z,1µm,18.8s,MS5.1,baz=3.8,slow=39						
CIT	**Chita**	**64.29**	**43**	*e*P	**P**	**09 23 27.3**	**-2.6**
LZH	**Lanzhou**	**64.88**	**62**	⇑P	**P**	**09 23 35.0**	**+0.9**
LZH				AP	pP	09 23 42.5	+1.0
LZH				XP	sP	09 23 46.1	+1.9
LZH				PCP	PcP	09 24 08.5	+1.3
LZH				PP	PP	09 25 59.7	+3.1
LZH				*e*S	**S**	**09 32 12.5**	**-1.6**
LZH				XS	sS	09 32 25.0	-1.2
LZH				*e*SS	SS	09 36 25.2	-0.1
LZH				AMB	AMB		
	comp=Z,25nm,1.5s,mb5.0						
LZH				AMB	AMB		
	comp=Z,102nm,7.6s						
LZH				LR	LR		
	comp=N,512nm,15.4s						
LZH				LR	LR		
	comp=Z,776nm,19.2s,MS4.9						
LZH	**Lanzhou**	**64.88**	**62**	⇑P	**P**	**09 23 35.0**	**+0.9**
	comp=Z,25nm,1.5s,mb5.0						
LZH				pP	pP	09 23 42.5	+1.0
LZH				sP	sP	09 23 46.1	+1.9
LZH				PcP	PcP	09 24 08.5	+1.3
LZH				PP	PP	09 25 59.7	+3.1
LZH				*e*S	**S**	**09 32 12.5**	**-1.6**
LZH				sS	sS	09 32 25.0	-1.2
LZH				PS		09 32 35.4	
LZH				*e*SS	SS	09 36 25.2	-0.1
LZH				LR	LR		
	comp=Z,780nm,19.2s,MS4.9						
LZH	**Lanzhou**	**64.88**	**62**	⇑P	**P**	**09 23 35.0**	**+0.9**
LZH				*PP	pP	09 23 42.5	+1.0
LZH						09 24 08.5	
LZH						09 25 59.7	
LZH				*e*S	**S**	**09 32 12.5**	**-1.6**
LZH				PS		09 32 35.4	
LZH				*e*SS	SS	09 36 25.2	-0.1
LZH				pmax	pmax		
	comp=Z,25nm,1.5s,mb5.0						
LZH				MLR	MLR		
	comp=Z,780nm,19.2s,MS4.9						
CD2	**Chengdu**	**67.20**	**68**	*e*P	**P**	**09 23 49.7**	**+0.6**
CD2				XP	sP	09 23 56.8	-2.5
CD2				PP	PP	09 26 19.0	+1.9
CD2				S	S	09 32 41.3	-1.2
CD2				SS	SS	09 37 01.6	0.0
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.1						
CD2				AMB	AMB		
	comp=Z,40nm,8.4s						
CD2				LR	LR		
	comp=N,250nm,20.2s						
CD2				LR	LR		
	comp=Z,210nm,16.6s,MS4.4						
YAK	**Yakutsk**	**67.22**	**29**	*e*P	**P**	**09 23 47.9**	**-0.7**
YAK				MLR	MLR		
	comp=Z,215nm,17.9s,MS4.4						
HHC	**Hu-ho-hao-te**	**68.08**	**55**	*e*P	**P**	**09 23 55.0**	**+0.5**
HHC				XP	sP	09 24 02.0	-2.7
HHC				PP	PP	09 26 25.9	+1.5
HHC				S	S	09 32 51.8	-0.9
HHC				SCS	ScS	09 33 48.9	-3.3
HHC				SS	SS	09 37 13.5	-1.2
HHC				AMB	AMB		
	comp=Z,23nm,1.0s,mb5.2						
HHC				AMB	AMB		
	comp=Z,215nm,10.8s						
HHC				LR	LR		
	comp=N,202nm,21.4s,MS4.5						
HHC				LR	LR		
	comp=E,279nm,22.6s,MS4.5						
HHC				LR	LR		
	comp=Z,197nm,21.4s,MS4.3						
HIA	**Hailar**	**69.06**	**44**	*e*P	**P**	**09 24 00.9**	**+0.5**
HIA				pmax	pmax		
	comp=Z,15nm,0.8s						
HIA	**Hailar**	**69.06**	**44**	*e*P	**P**	**09 24 00.9**	**+0.5**
	comp=Z,15nm,0.8s,mb5.0						
KMI	**Kunming**	**69.25**	**73**	P	**P**	**09 24 02.7**	**+0.7**
KMI				AP	pP	09 24 05.9	-3.5
KMI				XP	sP	09 24 07.2	-5.0
KMI				S	S	09 33 06.0	-1.1
KMI				AMB	AMB		
	comp=Z,11nm,0.6s,mb5.0						
KMI				AMB	AMB		
	comp=Z,94nm,3.1s						
KMI				LR	LR		
	comp=Z,107nm,25.9s,MS4.0						
KMI	**Kunming**	**69.25**	**73**	P	**P**	**09 24 02.7**	**+0.7**
	comp=Z,11nm,0.6s,mb5.0						
KMI				pP	pP	09 24 05.9	-3.5
KMI				sP	sP	09 24 07.2	-5.0
KMI				S	S	09 33 06.0	-1.1
KMI				sS	sS	09 33 10.3	-9.0
KMI				LR	LR		
	comp=Z,110nm,25.9s,MS4.0						
KMI	**Kunming**	**69.25**	**73**	P	**P**	**09 24 02.7**	**+0.7**
KMI				*SP	sP	09 24 07.2	-5.0
KMI				S	S	09 33 06.0	-1.1
KMI				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
KMI				MLR	MLR		
	comp=Z,110nm,25.9s,MS4.0						
CHG	**Chiang Mai**	**69.45**	**81**	⇑P	**P**	**09 24 04.1**	**+0.8**
	comp=Z,20nm,1.1s,mb5.0						
CHTO	**Chiang Mai**	**69.45**	**81**	*e*P	**P**	**09 24 02.6**	**-0.7**
	comp=Z,5.3nm,0.8s,mb4.5						
CHTO	**Chiang Mai**	**69.45**	**81**	*e*P	**P**	**09 24 02.6**	**-0.7**
CHTO				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
CHTO	**Chiang Mai**	**69.45**	**81**	P	**P**	**09 24 03.4**	**+0.2**
	SNR=7.2						
CHTO	**Chiang Mai**	**69.45**	**81**	P	**P**	**09 24 03.4**	**+0.2**
	SNR=7.2						
CHTO	**Chiang Mai**	**69.45**	**81**	*e*P	**P**	**09 24 02.6**	**-0.7**
	comp=Z,5.3nm,0.8s,mb4.5						
XAN	**Xi’an**	**69.52**	**62**	P	**P**	**09 24 03.1**	**-0.4**
XAN				AP	pP	09 24 05.3	-5.7
XAN				AMB	AMB		
	comp=Z,12nm,1.6s,mb4.6						
BJI	**Beijing**	**71.54**	**54**	P	**P**	**09 24 15.7**	**-0.1**
BJI				PP	PP	09 26 52.1	-2.1
BJI				S	S	09 33 30.5	-2.9
BJI				SS	SS	09 38 07.8	-0.2
BJI				AMB	AMB		
	comp=Z,13nm,1.6s,mb4.6						
BJI				AMB	AMB		
	comp=Z,79nm,3.9s						
BJI				LR	LR		
	comp=N,210nm,20.7s,MS4.7						
BJI				LR	LR		
	comp=E,299nm,18.4s,MS4.7						
BJI				LR	LR		
	comp=Z,185nm,20.9s,MS4.3						
GYA	**Guiyang**	**71.62**	**70**	⇑*i*P	**P**	**09 24 16.2**	**-0.3**
GYA				AP	pP	09 24 20.8	-3.1
GYA				XP	sP	09 24 23.4	-3.3
GYA				PCP	PcP	09 24 37.4	+1.7
GYA				PP	PP	09 26 58.0	+2.7
GYA				S	S	09 33 34.8	+0.1
GYA				SKS		09 34 16.3	
GYA				SCS	ScS	09 34 19.0	-1.5
GYA				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.6						
GYA				AMB	AMB		
	comp=Z,100nm,5.4s						
GYA				LR	LR		
	comp=N,420nm,19.4s,MS4.9						
GYA				LR	LR		
	comp=E,480nm,18.8s,MS4.9						
GYA				LR	LR		
	comp=Z,360nm,19.8s,MS4.6						
FCC	**Fort Churchill**	**72.00**	**330**	*e*P	**P**	**09 24 19.1**	**+0.9**
	comp=Z,7.3nm,0.9s,mb4.6						
FCC	**Fort Churchill**	**72.00**	**330**	*e*P	**P**	**09 24 19.1**	**+0.9**
FCC				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
FCC	**Fort Churchill**	**72.00**	**330**	*e*P	**P**	**09 24 19.1**	**+0.9**
	comp=Z,7.2nm,0.9s,mb4.6						
BILL	**Bilibino**	**73.59**	**13**	⇑*e*P	**P**	**09 24 27.4**	**0.0**
BILL				pmax	pmax		
	comp=Z,16nm,1.9s,mb4.6						
BILL				MLR	MLR		
	comp=Z,300nm,32.0s,MS4.4						
KKTK	**Khon Kaen**	**73.89**	**81**	P	**P**	**09 24 32.0**	**+1.9**
SEY	**Seymchan**	**74.50**	**21**	⇓*e*P	**P**	**09 24 33.1**	**+0.2**
INK	**Inuvik**	**74.93**	**351**	*e*P	**P**	**09 24 35.6**	**+0.4**
	comp=Z,361nm,1.2s						
INK				*e*PcP	PcP	09 24 49.1	+0.1
INK	**Inuvik**	**74.93**	**351**	*e*P	**P**	**09 24 35.6**	**+0.4**
INK				*e*		09 24 49.1	
INK				pmax	pmax		
	comp=Z,361nm,1.2s						
INK	**Inuvik**	**74.93**	**351**	*e*P	**P**	**09 24 35.6**	**+0.4**
	comp=Z,361nm,1.2s						
INK	**Inuvik**	**74.93**	**351**	*e*PcP	PcP	09 24 49.1	+0.1
CN2	**Changchun**	**75.32**	**47**	⇑P	**P**	**09 24 38.0**	**+0.1**
CN2				*e*XP	sP	09 24 45.0	-3.2
CN2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.7						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
KLR	**Kul’dur**	**75.61**	**39**	*e*P	**P**	**09 24 35.7**	**-3.8**
YKW3	**Yellowknife Ar**	**76.19**	**341**	*e*P	**P**	**09 24 42.7**	**+0.1**
YKW3	**Yellowknife Ar**	**76.19**	**341**	*e*P	**P**	**09 24 42.7**	**+0.1**
YKA	**Yellowknife Ar**	**76.24**	**341**	P	**P**	**09 24 43.1**	**+0.2**
YKA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
YKA				MLR	MLR		
	comp=Z,121nm,21.8s						
YKA	**Yellowknife Ar**	**76.24**	**341**	P	**P**	**09 24 43.1**	**+0.2**
	comp=Z,3.8nm,1.0s,mb4.3,baz=40,slow=5.2,SNR=33						
YKA				LR	LR	10 00 06.5	
	comp=Z,121nm,21.8s,MS4.2,baz=145,slow=37						
MA2	**Magadan**	**76.58**	**24**	*e*P	**P**	**09 24 45.4**	**+0.6**
	comp=Z,9.0nm,0.8s,mb4.8						
MA2	**Magadan**	**76.58**	**24**	*e*P	**P**	**09 24 45.4**	**+0.6**
MA2				*e*		09 34 51.5	
MA2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
MA2	**Magadan**	**76.58**	**24**	*e*P	**P**	**09 24 45.4**	**+0.6**
	comp=Z,9.0nm,0.8s,mb4.8						
MDJ	**Mudanjiang**	**77.24**	**44**	P	**P**	**09 24 47.7**	**-1.2**
MDJ				AP	pP	09 24 51.1	-5.3
MDJ				PP	PP	09 27 38.4	-4.0
MDJ				S	S	09 34 33.2	-3.9
MDJ				SS	SS	09 39 31.9	-2.4
MDJ				AMB	AMB		
	comp=Z,5.0nm,1.6s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,87nm,4.9s						
MDJ				LR	LR		
	comp=N,131nm,21.8s,MS4.4						
MDJ				LR	LR		
	comp=E,120nm,19.9s,MS4.4						
MDJ				LR	LR		
	comp=Z,109nm,20.9s,MS4.2						
ACSO	**Alum Creek Sta**	**77.53**	**311**	*e*P	**P**	**09 24 51.3**	**+0.7**
	comp=Z,12nm,0.9s,mb4.8						
ACSO	**Alum Creek Sta**	**77.53**	**311**	*e*P	**P**	**09 24 51.3**	**+0.8**
	comp=Z,12nm,0.9s,mb4.8						
NJ2	**Nanjing**	**77.65**	**60**	*e*P	**P**	**09 24 52.2**	**+0.8**
NJ2				AMB	AMB		
	comp=Z,20nm,0.5s,mb5.3						
FFC	**Flin Flon**	**77.93**	**330**	*e*P	**P**	**09 24 53.6**	**+1.1**
FFC				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
FFC	**Flin Flon**	**77.93**	**330**	*e*P	**P**	**09 24 53.6**	**+1.1**
	comp=Z,3.4nm,0.8s,mb4.3						
PSI	**Prapat**	**78.25**	**95**	P	**P**	**09 24 53.5**	**-1.5**
PSI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
PSI	**Prapat**	**78.25**	**95**	P	**P**	**09 24 53.5**	**-1.5**
	comp=Z,3.8nm,0.6s,mb4.5,baz=195,slow=3.7,SNR=4.1						
ULM	**Lac du Bonnet**	**78.35**	**324**	*e*P	**P**	**09 24 55.2**	**+0.3**
	comp=Z,7.8nm,1.0s,mb4.6						
ULM	**Lac du Bonnet**	**78.35**	**324**	P	**P**	**09 24 54.4**	**-0.5**
	comp=Z,5.7nm,0.9s,mb4.5,baz=49,slow=6.0,SNR=12						
ULM				LR	LR	09 59 23.8	
	comp=Z,199nm,19.5s,MS4.5,baz=48,slow=36						
ULM	**Lac du Bonnet**	**78.35**	**324**	*e*P	**P**	**09 24 55.2**	**+0.3**
	comp=Z,7.8nm,1.0s,mb4.6						
IMA2	**Indian Mountai**	**78.80**	**358**	*e*P	**P**	**09 24 58.2**	**+1.1**
IMA2	**Indian Mountai**	**78.80**	**358**	*e*P	**P**	**09 24 58.2**	**+1.1**
TNA	**Tin City**	**79.12**	**4**	*e*P	**P**	**09 25 00.0**	**+1.1**
	comp=Z,8.3nm,0.9s,mb4.7						
TNA	**Tin City**	**79.12**	**4**	*e*P	**P**	**09 25 00.0**	**+1.1**
	comp=Z,8.3nm,0.9s,mb4.7						
EGAK	**Eagle**	**79.23**	**352**	*e*P	**P**	**09 24 58.6**	**-0.9**
	comp=Z,5.0nm,0.8s,mb4.5						
EGAK	**Eagle**	**79.23**	**352**	*e*P	**P**	**09 24 58.6**	**-0.9**
	comp=Z,5.0nm,0.8s,mb4.5						
COLA	**College**	**79.72**	**355**	*c i*P	**P**	**09 25 03.0**	**+0.9**
COLA	**College**	**79.72**	**355**	*e*P	**P**	**09 25 03.0**	**+0.9**
	comp=Z,7.9nm,1.0s,mb4.6						
BLO	**Bloomington**	**80.35**	**311**	*e*P	**P**	**09 25 07.1**	**+1.1**
	comp=Z,8.0nm,0.7s,mb4.8						
BLO	**Bloomington**	**80.35**	**311**	*e*P	**P**	**09 25 07.1**	**+1.1**
BLO				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
BLO	**Bloomington**	**80.35**	**311**	*e*P	**P**	**09 25 07.1**	**+1.1**
	comp=Z,8.0nm,0.7s,mb4.8						
KSRS	**Korea Array**	**80.58**	**51**	P	**P**	**09 25 07.3**	**0.0**
	comp=Z,2.4nm,0.7s,mb4.2,baz=309,slow=4.2,SNR=5.6						
WCI	**Wyandotte Cave**	**80.78**	**311**	*e*P	**P**	**09 25 09.2**	**+0.8**
	comp=Z,17nm,1.2s,mb4.8						
WCI	**Wyandotte Cave**	**80.78**	**311**	*e*P	**P**	**09 25 09.2**	**+0.8**

WCI				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
WCI	Wyandotte Cave	80.78	311	eP	P	09 25 09.2	+0.8
	comp=Z,17nm,1.2s,mb4.8						
MCK	McKinley	80.92	356	eP	P	09 25 09.2	+0.6
	comp=Z,10nm,1.0s,mb4.7						
MCK	McKinley	80.92	356	eP	P	09 25 09.2	+0.6
MCK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
MCK	McKinley	80.92	356	eP	P	09 25 09.2	+0.6
	comp=Z,10nm,1.0s,mb4.7						
CPCT	Cooper Cave	81.35	307	eP	P	09 25 12.5	+1.0
YSS	Yuzh-Sakhalins	82.63	36⇓	eP	P	09 25 18.3	+0.3
YSS				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
SML	Sawmill	82.79	355	eP	P	09 25 18.8	+0.3
SML	Sawmill	82.79	355	eP	P	09 25 18.8	+0.3
PMR	Palmer	83.06	355	eP	P	09 25 20.7	+0.9
	comp=Z,12nm,1.2s,mb4.8						
PMR	Palmer	83.06	355	eP	P	09 25 20.7	+0.8
PMR				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.8						
PMR	Palmer	83.06	355	eP	P	09 25 20.7	+0.8
	comp=Z,11nm,1.2s,mb4.8						
EDM	Edmonton	83.40	335	eP	P	09 25 22.5	+0.7
EDM	Edmonton	83.40	335	eP	P	09 25 22.5	+0.7
FVM	French Village	83.47	312	eP	P	09 25 23.6	+1.1
	comp=Z,10.0nm,0.9s,mb4.8						
FVM	French Village	83.47	312	eP	P	09 25 23.6	+1.1
FVM				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
FVM	French Village	83.47	312	eP	P	09 25 23.6	+1.1
	comp=Z,10.0nm,0.9s,mb4.8						
DLBC	Dease Lake	83.51	345	eP	P	09 25 26.9	+4.6
DLBC	Dease Lake	83.51	345	eP	P	09 25 26.9	+4.6
SVW2	Sparrevohn	83.83	359	eP	P	09 25 25.6	+1.7
SVW2	Sparrevohn	83.83	359	eP	P	09 25 25.6	+1.7
SLKM	Skilak Lake	84.21	356	eP	P	09 25 26.4	+0.6
SLKM	Skilak Lake	84.21	356	eP	P	09 25 26.4	+0.6
LRAL	Lakeview Retre	84.45	307	eP	P	09 25 28.4	+0.8
	comp=Z,6.8nm,0.8s,mb4.8						
LRAL	Lakeview Retre	84.45	307	eP	P	09 25 28.4	+0.8
	comp=Z,6.8nm,0.8s,mb4.8						
PET	Petropavlovsk	84.45	24	eP	P	09 25 27.4	+0.2
PET				pmax	pmax		
	comp=Z,100nm,13.5s						
PET				MLR	MLR		
	comp=Z,300nm,21.0s,MS4.7						
ASAJ	Asahikawa	84.57	38	P	P	09 25 28.3	+0.3
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ASAJ	Asahikawa	84.57	38	P	P	09 25 28.2	+0.3
	comp=Z,3.1nm,0.8s,mb4.5,baz=243,slow=4.5,SNR=3.1						
LAO	LASA Array	85.69	327	eP	P	09 25 34.7	+1.2
	comp=Z,10nm,0.9s,mb5.0						
LAO	LASA Array	85.69	327	eP	P	09 25 34.7	+1.2
	comp=Z,10nm,0.9s,mb5.0						
EGMT	Eagleton	86.18	330	eP	P	09 25 36.4	+0.4
	comp=Z,12nm,1.0s,mb5.1						
EGMT	Eagleton	86.18	330	eP	P	09 25 36.3	+0.4
	comp=Z,12nm,1.0s,mb5.1						
WALA	Waterton Lakes	87.00	332	eP	P	09 25 40.8	+0.9
	comp=Z,7.5nm,1.0s,mb4.9						
WALA	Waterton Lakes	87.00	332	eP	P	09 25 40.8	+0.9
	comp=Z,7.5nm,1.0s,mb4.9						
MJAR	Matsushiro Arr	87.45	46	P	P	09 25 41.9	-0.5
	comp=Z,1.8nm,0.8s,mb4.3,baz=314,slow=4.4,SNR=6.3						
MJAR				LR	LR	10 12 31.3	
	comp=Z,182nm,18.4s,MS4.5,baz=335,slow=41						
MJAR	Matsushiro Arr	87.45	46	P	P	09 25 41.8	-0.6
MIAR	Mount Ida	87.64	311	eP	P	09 25 44.3	+1.0
	comp=Z,11nm,1.3s,mb4.9						
MIAR	Mount Ida	87.64	311	eP	P	09 25 44.3	+1.0
MIAR				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.9						
MIAR	Mount Ida	87.64	311	eP	P	09 25 44.3	+1.0
	comp=Z,11nm,1.3s,mb4.9						
NEW	Newport	88.85	334	eP	P	09 25 49.8	+1.0
	comp=Z,6.1nm,1.0s,mb4.9						
NEW	Newport	88.85	334	eP	P	09 25 49.8	+1.0
NEW				pmax	pmax		
	comp=Z,6.0nm,1.0s						
NEW	Newport	88.85	334	eP	P	09 25 49.8	+1.0
	comp=Z,6.1nm,1.0s,mb4.9						
BOZ	Bozeman (W)	88.85	329	eP	P	09 25 49.2	+0.4
	comp=Z,2.3nm,1.0s,mb4.5						
BOZ	Bozeman (W)	88.85	329	eP	P	09 25 49.2	+0.4
BOZ				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.4						
BOZ	Bozeman (W)	88.85	329	eP	P	09 25 49.2	+0.4
	comp=Z,2.2nm,1.0s,mb4.4						
YMR	Madison River	89.35	328	eP	P	09 25 53.3	+2.1
	comp=Z,3.9nm,0.8s,mb4.8						
YMR				epP	pP	09 26 03.2	+4.4
YMR	Madison River	89.35	328	eP	P	09 25 53.3	+2.1
	comp=Z,3.9nm,0.8s,mb4.8						
YMR				epP	pP	09 26 03.2	+4.4
PHWY	Pilot Hill	89.42	323	eP	P	09 25 52.6	+1.0
PHWY	Pilot Hill	89.42	323	eP	P	09 25 52.6	+1.0
IMW	Indian Meadow	89.95	328	eP	P	09 26 02.1	+8.1
	comp=Z,7.4nm,1.2s,mb4.9						
IMW	Indian Meadow	89.95	328	eP	P	09 26 02.1	+8.1
	comp=Z,7.4nm,1.2s,mb4.9						
MOOW	Moose Ponds	89.99	327	eP	P	09 25 56.0	+1.8
MOOW	Moose Ponds	89.99	327	eP	P	09 25 56.0	+1.8
MCMT	McKenzie Canyo	90.02	329	eP	P	09 25 55.2	+0.9
MCMT	McKenzie Canyo	90.02	329	eP	P	09 25 55.2	+0.9
PDAR	Pinedale Array	90.23	326	P	P	09 25 55.6	+0.2
	comp=Z,1.2nm,0.7s,mb4.3,baz=72,slow=4.9,SNR=10						
DCID1	Drake Creek	90.30	328	eP	P	09 25 57.9	+2.2
DCID1	Drake Creek	90.30	328	eP	P	09 25 57.9	+2.2
GNW	Green Mountain	91.41	337	eP	P	09 26 03.0	+2.2
GNW	Green Mountain	91.41	337	eP	P	09 26 03.0	+2.3
HWUT	Hardware Ranch	92.06	327	eP	P	09 26 04.8	+0.9
	comp=Z,7.4nm,1.2s,mb4.9						
HWUT	Hardware Ranch	92.06	327	eP	P	09 26 04.8	+0.9
	comp=Z,7.4nm,1.2s,mb4.9						
SDCO	Great Sand Dun	92.13	321	eP	P	09 26 05.1	+0.9
PV01	Paradox Valley	93.39	323	eP	P	09 26 10.3	+0.2
PV01	Paradox Valley	93.39	323	eP	P	09 26 10.3	+0.3
MSU	Marysvale	94.82	325	eP	P	09 26 17.6	+1.0
MSU	Marysvale	94.82	325	eP	P	09 26 17.6	+1.0
TXAR	Lajitas Array	97.38	314	P	P	09 26 27.8	-0.6
	comp=Z,0.4nm,0.9s,baz=62,slow=4.2,SNR=3.9						
TXAR				LR	LR	10 08 51.5	
	comp=Z,116nm,20.3s,MS4.4,baz=0.0,slow=34						
LPAZ	La Paz	98.83	256	LR	LR	10 15 33.0	
	comp=Z,146nm,18.9s,MS4.5,baz=56,slow=38						
WRA	Warramunga Arr	119.71	94	PKP	PKPdf	09 31 44.2	-0.9
WRA	Warramunga Arr	119.71	94	PKIKP	PKPdf	09 31 44.2	-0.9
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	119.71	94	PKP	PKPdf	09 31 44.2	-0.9
	comp=Z,0.8nm,0.6s,baz=316,slow=1.6,SNR=16						
WRA	Warramunga Arr	119.71	94	PKIKP	PKPdf	09 31 44.2	-0.9
WB2	Warramunga Arr	119.72	94	eP	PKPdf	09 31 44.5	-0.7
CTA	Charters Tower	129.51	88	PKIKP	PKPdf	09 32 03.5	-0.4
CTA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
CTA	Charters Tower	129.51	88	PKP	PKPdf	09 32 03.5	-0.4
	comp=Z,1.2nm,0.5s,baz=315,slow=4.3,SNR=2.6						
STKA	Stephens Creek	130.78	104	PKP	PKPdf	09 32 06.2	+0.2
	comp=Z,3.2nm,1.0s,baz=315,slow=1.4,SNR=2.9						

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*IDC **10** 09:17:53.0±2.5, 35.37N×21.34E, h0^{km}, mb4.0/8, mb1 3.9/10, mb1mx3.8/22, mbtmp3.9/10, ML3.2/2, MS4.1/1, Ms1 4.1/1, ms1mx2.9/33, Error ellipse: s-maj=53.9km s-min=19.6km az=13.0*

*NEIC **10** 09:17:54.0, 35.10N×21.31E, h10^{km}, ML3.7(ATH), After ATH.*

*ISCJB **10** 09:17:57.3±1.3, 35.3N±0.1×21.37E±0.07, h53^{km}±9^{km}, mb3.8/8, MS4.1/1, Error ellipse: s-maj=19.5km s-min=8.1km az=18.3*

*ATH **10** 09:18:02.8, 36.00N×22.12E, h137^{km}±23^{km}*

ISC 10 09:17:59.0±1.3**, 35.3N**±0.1×**21.40E**±0.07**, h48**^{km}±9^{km}**, n33, σ0^s.87**/35**, mb3.8**/8**, MS4.1**/1**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	Kithira	1.66	53	eP	Pn	09 18 25.8	+0.2
VLI	Veliai	1.89	41	eP	Pn	09 18 28.0	-0.8
VLI	Veliai	1.89	41	eP	Pn	09 18 26.7	-2.1
ITM	Ithomi	1.93	13	eP	Pn	09 18 30.1	+0.7
ITM	Ithomi	1.93	13	eP	Pn	09 18 28.1	-1.3
VAM	Vamos	2.29	86	eP	Pn	09 18 34.1	-0.2
RLS	Riolos of Patr	2.76	1	eP	Pn	09 18 41.7	+1.0
IDI	Anoyia	2.86	89	Pn	Pn	09 18 41.3	-0.8
IDI				Sn	Sn	09 19 15.8	+0.6
IDI	Anoyia	2.86	89	Pn	Pn	09 18 41.3	-0.8
	3.7nm,0.3s,baz=297,slow=18,SNR=13						
IDI				Sn	Sn	09 19 15.8	+0.6
	8.3nm,0.3s,baz=313,slow=19,SNR=5.3						
VLS	Valsamata	2.95	348	P	Pn	09 18 43.4	+0.1
LKR	Lokris	3.59	20	P	Pn	09 18 52.7	+0.6
LKR	Lokris	3.59	20	eP	Pn	09 18 47.5	-4.6
EVR	Evrytania	3.63	5	P	Pn	09 18 55.3	+2.6
EVR	Evrytania	3.63	5	eP	Pn	09 18 50.7	-2.0
APE	Apeiranthos	3.79	61	P	Pn	09 18 54.2	-0.6
APE	Apeiranthos	3.79	61	eP	Pn	09 18 49.9	-4.9
NEO	Neokhori	4.26	19	P	Pn	09 19 01.6	+0.3
PLG	Polygyros	5.33	17	P	Pn	09 19 15.9	0.0
PLG	Polygyros	5.33	17	eP	Pn	09 19 11.3	-4.6
TIP	Timpagrande	5.36	318	P	Pn	09 19 15.4	-1.0
VAE	Valguarnera	6.04	293	Pn	Pn	09 19 27.5	+1.8
VAE	Valguarnera	6.04	293	Pn	Pn	09 19 27.5	+1.8
	0.8nm,0.3s,baz=247,slow=15,SNR=4.6						
BRTR	Keskin Array B	10.68	62	Pn	Pn	09 20 29.7	+0.4
	0.2nm,0.3s,baz=247,slow=12,SNR=3.5						
AKASG	Malin Array Be	16.41	18	Pn	Pn	09 21 46.4	+0.5
	1.8nm,0.3s,baz=210,slow=9.9,SNR=8.5						
ESDC	Sonseca Array	20.57	290	P	P	09 22 32.6	-1.1
	0.3nm,0.4s,baz=83,slow=8.9,SNR=2.6						
HFS	Hagfors	25.35	351	P	P	09 23 20.9	-0.3
	1.5nm,0.5s,mb3.8,baz=163,slow=11,SNR=4.8						
FINES	FINESS Array B	26.34	5	P	P	09 23 30.1	0.0
	0.9nm,0.5s,mb3.6,baz=174,slow=10.0,SNR=5.1						
NOA	NORSAR Array B	26.58	349	P	P	09 23 31.9	-0.3
	0.5nm,0.5s,mb3.3,baz=159,slow=11,SNR=2.4						
ARCES	ARCESS Array B	34.37	3	P	P	09 24 39.7	-1.2
	3.3nm,0.9s,mb4.3,baz=192,slow=8.7,SNR=4.2						
MKAR	Makanchi Array	46.27	56	P	P	09 26 19.8	+0.3
	1.4nm,0.5s,mb4.2,baz=270,slow=7.6,SNR=15						
MKAR				LR	LR	09 48 07.8	
	comp=Z,230nm,20.5s,MS4.1,baz=271,slow=39						
ZALV	Zalesovo Beam	47.14	46	P	P	09 26 26.1	-0.1
	2.4nm,0.3s,mb4.6,baz=265,slow=9.3,SNR=7.5						
SONM	Songino Array	61.77	50	P	P	09 28 13.2	+0.7
	0.7nm,0.6s,mb4.0,baz=277,slow=6.3,SNR=6.4						
YKA	Yellowknife Ar	76.34	341	P	P	09 29 43.5	+1.0
	0.1nm,0.6s,mb2.9,baz=29,slow=5.2,SNR=2.6						

CASC 10 09:21:43.2±1.4**, 8.42N**×**82.92W, h1**^{km}±9^{km}**, MD3.8, 1D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRU2	Volcan	0.44	32⇓	iP	Pg	09 21 53.5	+1.9
TBS2		0.46	35	eP	Pg	09 21 59.9	+7.9
TBS2				eS	Sg	09 22 07.6	+10
DVD	David	0.47	88	eP	Pg	09 21 52.8	+0.6
CTCR	Cotoan	0.50	19	eP	Pg	09 21 54.5	+1.7
CTCR				eS	Sg	09 22 02.9	+3.5
BRU	Baru	0.53	43	eP	Pg	09 21 54.7	+1.4
BAR1		0.90	335	eP	Pg	09 22 00.5	0.0
BAR1				eS	Sg	09 22 13.6	+1.3
CNI	Changuinola	1.07	22	eP	Pg	09 22 04.1	+0.4
QCR	Quepos	1.58	309	eP	Pn	09 22 12.4	0.0
URSC	Urasca	1.64	329	eP	Pn	09 22 12.4	-0.8
URSC				eS	Sn	09 22 35.3	+0.3
LCR2	La Lucha 2	1.69	321	eP	Pn	09 22 14.1	+0.2
LCR2				eS	Sn	09 22 38.6	+2.4
LAJ	Bijagual	1.86	321	eP	Pn	09 22 19.1	+2.9
PRS1	Puriscal	2.07	319	eP	Pn	09 22 18.2	-0.9
PRS1				eS	Sn	09 22 46.8	+1.1
PTP	Ponta Puerca	19.45	58	eP		09 21 48.0	

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*ISCJB **10** 09:25:17.9±1.6, 21.6N±0.1×143.0E±0.2, h309^{km}±14^{km}, mb3.5/11, Error ellipse: s-maj=32.5km s-min=17.4km az=169.4*

*IDC **10** 09:25:18.9±1.8, 21.60N×143.09E, h304^{km}±16^{km}, mb3.3/12, mb1 3.4/14, mb1mx3.4/24, mbtmp3.3/14, Error ellipse: s-maj=22.5km s-min=12.7km az=81.0*

*NEIC **10** 09:25:21.2±3.0, 21.58N×143.00E, h329^{km}±29^{km}, Error ellipse: s-maj=23.7km s-min=12.4km az=81.0*

ISC 10 09:25:18.8±1.6**, 21.6N**±0.1×**143.1E**±0.2**, h304**^{km}±14^{km}**, n19, σ0^s.66**/18**, mb3.5**/11**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	5.54	352	P	Pn	09 26 42.5	-0.3
	14nm,0.3s,baz=287,slow=19,SNR=3.0						
CBIJ				S	S	09 27 50.1	-0.2
	18nm,0.3s,baz=301,slow=19,SNR=4.2						
MJAR	Matsushiro Arr	15.49	345	P	P	09 28 41.7	+0.7
	0.4nm,0.3s,baz=170,slow=10,SNR=7.5						
KSRS	Korea Array	20.54	324	P	P	09 29 35.8	+0.8
	1.3nm,0.6s,baz=147,slow=8.8,SNR=5.0						
SONM	Songino Array	39.35	321	P	P	09 32 19.8	+0.5
	0.2nm,0.4s,mb2.9,baz=132,slow=8.0,SNR=4.0						
WRA	Warramunga Arr	42.14	192	P	P	09 32 42.4	+0.2
	1.2nm,0.5s,mb3.4,baz=17,slow=8.4,SNR=11						
STKA	Stephens Creek	53.17	182	P	P	09 34 06.2	-0.1
STKA	Stephens Creek	53.17	182	P	P	09 34 06.2	0.0
	1.2nm,0.7s,mb3.4,baz=3.8,slow=15,SNR=2.6						
ZALV	Zalesovo Beam	54.23	322	P	P	09 34 13.4	-0.2
	0.3nm,0.3s,mb3.0,baz=98,slow=7.6,SNR=3.8						
ZALV				PcP	PcP	09 35 12.8	-0.9
	1.0nm,0.5s,baz=122,slow=4.2,SNR=3.5						
MKAR	Makanchi Array	54.69	313	P	P	09 34 17.6	+0.5
	0.5nm,0.6s,mb3.1,baz=90,slow=8.8,SNR=8.3						
MKAR				PcP	PcP	09 35 15.6	-0.1
	0.4nm,0.5s,baz=76,slow=4.5,SNR=5.6						
AKTK	Aktyubinsk	70.57	318	P	P	09 36 00.8	-0.5
AKTO	Aktyubinsk	70.57	318	P	P	09 36 00.8	-0.5
	0.9nm,0.8s,mb3.5,baz=48,slow=4.2,SNR=4.0						
YKA	Yellowknife Ar	76.61	28	P	P	09 36 36.0	0.0
YKA	Yellowknife Ar	76.61	28	P	P	09 36 36.0	0.0
	1.7nm,0.6s,mb4.0,baz=291,slow=5.6,SNR=27						
ARCES	ARCESS Array B	78.99	341	P	P	09 36 49.7	+0.8
	2.1nm,0.6s,mb4.0,baz=74,slow=8.7,SNR=9.9						
FINES	FINESS Array B	83.23	334	P	P	09 37 10.6	-0.7
	1.4nm,0.5s,mb4.1,baz=72,slow=5.5,SNR=22						
NVAR	Mina Array Bea	83.31	51	P	P	09 37 12.9	+0.8
	1.0nm,0.7s,mb3.7,baz=281,slow=3.7,SNR=11						
HFS	Hagfors	88.79	337	P	P	09 37 36.5	-1.8
	0.9nm,0.5s,mb3.9,baz=45,slow=4.4,SNR=6.7						
LPAZ	La Paz	150.06	85	PKPbc	PKPbc	09 44 34.7	+0.3
LPAZ	La Paz	150.06	85	PKPbc	PKPbc	09 44 34.7	+0.3
	0.8nm,0.5s,baz=294,slow=5.2,SNR=5.7						

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*IDC **10** 09:25:47.3±1.2, 34.64N×73.16E, h0^{km}, mb3.6/4, mb1 3.7/6, mb1mx3.4/21, mbtmp3.5/6, ML3.2/2, Error ellipse: s-maj=32.9km s-min=29.8km az=104.0*

*ISCJB **10** 09:25:48.8±0.5, 34.73N±0.04×72.98E±0.06, h10^{km}, mb3.5/3, Error ellipse: s-maj=7.0km s-min=5.5km az=153.0*

*NEIC **10** 09:25:50.0±1.2, 34.48N×73.46E, h10^{km}, Error ellipse: s-maj=21.8km s-min=15.4km az=132.0*

*NDI **10** 09:25:54.4±4.3, 34.49N×73.05E, h10^{km}, ML3.0*

ISC 10 09:25:50.3±0.5**, 34.64N**±0.04×**73.06E**±0.05**, h10**^{km}**, n19, σ1^s.41**/24**, mb3.6**/4**, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THN	Thein Dam	3.12	134	eP	Pn	09 26 41.1	+1.5
THN				ex	x	09 27 25.9	
DLH	Dalhousie	3.20	130	eP	Pn	09 26 42.0	+1.4
DLH				ex	x	09 27 26.0	
KBL	Kabul	3.32	269	ePn	Pn	09 26 47.0	+4.8
KBL				eSg	Sg	09 27 37.3	+0.5
SDNR	Sundarnagar	4.54	133	eP	Pn	09 27 01.0	+2.0
SDNR				ex	x	09 28 10.4	
SMLA	Simla	4.92	134	eP	Pn	09 27 08.5	+4.2
SMLA				eS	Sn	09 28 00.8	-0.4
KLP	Kalpa	5.34	124	eP	Pn	09 27 15.5	+5.4
KLP				eS	Sn	09 28 10.1	-1.6
KLP				AML	AML	09 28 41.4	
	comp=N,52nm,0.6s						
KLP				AML	AML	09 28 42.5	
	comp=E,61nm,0.5s						
KHET	Khetri	6.96	160	ex	x	09 28 25.8	
KHET				AML	AML	09 29 41.2	
	comp=E,5.8nm,0.4s						
KHET				AML	AML	09 29 41.9	
	comp=N,5.6nm,0.3s						
AML	Almayashu	7.49	4	ePn	Pn	09 27 42.3	+2.7
	comp=N,2.9nm,0.4s						
AML				eSn	Sn	09 29 04.1	-0.5
UCH	Uchtor	7.66	8	Pn	Pn	09 27 44.0	+2.1
	comp=N,4.5nm,1.0s						
UCH				eSn	Sn	09 29 08.5	-0.1
KK31	Karatay Array	8.68	348	Pn	Pn	09 27 57.6	+1.8
	comp=N,1.4nm,0.3s,baz=169,slow=13,SNR=52						
KK31				Sn	Sn	09 29 34.1	+0.4
	comp=N,1.9nm,0.5s,baz=168,slow=23,SNR=10						
MKAR	Makanchi Array	14.00	27	Pn	Pn	09 29 08.4	-0.1
MKAR	Makanchi Array	14.00	27	Pn	Pn	09 29 08.4	-0.1
	comp=N,0.0nm,0.3s,baz=207,slow=11,SNR=2.5						
AKTK	Aktyubinsk	19.23	330	P	Pn	09 30 13.9	-1.4
AKTO	Aktyubinsk	19.23	330	P	Pn	09 30 13.9	-1.4
	comp=N,0.3nm,0.3s,baz=124,slow=12,SNR=4.5						
ZALV	Zalesovo Beam	21.00	20	P	P	09 30 31.2	-2.5
	comp=N,1.9nm,0.4s,mb3.8,baz=218,slow=10,SNR=8.8						
TORD	Torodi Ar. Bea	67.39	271	P	P	09 36 45.2	-0.9
TORD	Torodi Ar. Bea	67.39	271	P	P	09 36 45.2	-0.9
	comp=N,0.4nm,0.4s,mb3.8,baz=45,slow=6.8,SNR=7.2						
WRA	Warramunga Arr	79.58	123	P	P	09 37 56.3	-1.4
	comp=N,0.3nm,0.5s,mb3.5,baz=323,slow=5.1,SNR=6.3						
YKA	Yellowknife Ar	83.01	4	P	P	09 38 13.9	-1.4
	comp=N,0.1nm,0.4s,mb3.2,baz=346,slow=5.3,SNR=3.3						

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*IDC **10** 09:39:38.5±1.0, 55.73N×162.19E, h0^{km}, mb3.5/8, mb1 3.8/8, mb1mx3.6/21, mbtmp3.5/8, Error ellipse: s-maj=29.0km s-min=22.2km az=136.0*

*ISCJB **10** 09:39:41.3±0.6, 55.65N±0.02×162.61E±0.07, h35^{km}±7^{km}, mb3.5/9, MS3.8/1, Error ellipse: s-maj=6.6km s-min=3.8km az=9.7*

*KRSC **10** 09:39:41.3±0.3, 55.68N×162.48E, h40^{km}±40^{km}, ML4.2*

*MOS **10** 09:39:41.2±1.2, 55.71N×162.51E, h33^{km}, mb4.0/4, Error ellipse: s-maj=17.9km s-min=8.4km az=76.7*

*NEIC **10** 09:39:44.4±1.6, 55.75N×162.20E, h41^{km}±17^{km}, Error ellipse: s-maj=18.9km s-min=10.3km az=140.0*

ISC 10 09:39:41.4±0.8**, 55.67N**±0.03×**162.52E**±0.06**, h20**^{km}±6^{km}**, n40, σ1^s.05**/64**, mb3.5**/9**, MS3.8**/1**, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.56	17	iP	Pb	09 39 52.1	-0.5
KBTR				iS	Sb	09 40 00.2	0.0
ZLN	Zelenaya	1.03	290	iP	Pb	09 39 59.9	-0.6
ZLN				iS	Sb	09 40 14.1	+0.5
BDR	Baidarnaya	1.16	321	iP	Pn	09 40 01.8	-0.6
BDR				iS	Sb	09 40 17.2	-0.2
BZMR	Bezymyannaya	1.18	284	eP	Pn	09 40 02.2	-0.5
BZMR				iS	Sb	09 40 17.7	-0.1
MKZ	Mys Kozlova	1.21	203	iP	Pn	09 40 01.9	-1.1
MKZ				iS	Sn	09 40 16.6	-2.1
KRSR	Krestovskiy	1.23	297	iP	Pn	09 40 02.1	-1.3
KRSR				iS	Sn	09 40 17.0	-2.4
KLY	Klyuchi	1.23	302	iP	Pn	09 40 01.0	-2.4
KLY				iS	Sn	09 40 15.7	-3.7
SRKR	Sorokina	1.24	323	iP	Pn	09 40 02.9	-0.7
SRKR				iS	Sn	09 40 19.1	-0.6
KMNR	Kamenistaya	1.30	275	iP	Pn	09 40 04.4	+0.1
KMNR				iS	Sn	09 40 21.7	+0.7
KPT	Kopyto	1.33	284	iP	Pn	09 40 04.6	-0.2
KPT				iS	Sn	09 40 21.7	-0.2
TUMR	Tumrok	1.41	255	iP	Pn	09 40 06.8	+1.0
TUMR				iS	Sn	09 40 24.8	+1.1
KOZR	Kozyr	1.53	286	PN	Pn	09 40 08.4	+0.9
KOZR				S	Sn	09 40 28.6	+1.8
KOZ	Kozyrevsk	1.54	286	iP	Pn	09 40 08.4	+0.7
KOZ				iS	Sn	09 40 28.6	+1.5
SRDR	Sredinnyy	1.71	294	iP	Pn	09 40 10.4	+0.5
SRDR				iS	Sn	09 40 31.0	0.0
KII	Karymskiy	2.42	229	P	Pn	09 40 19.4	-0.3
KII				iS	Sn	09 40 47.6	-1.0
SPN	Mys Shipunski	2.96	211	eP	Pn	09 40 26.8	-0.4
SPN				iS	Sn	09 40 59.5	-2.6
NLC	Nalytchevo	3.12	218	iP	Pn	09 40 29.7	+0.4
NLC				iS	Sn	09 41 05.2	-0.7
SDLR	Sedlovina	3.20	223	iP	Pn	09 40 31.7	+1.2
SDLR				iS	Sn	09 41 07.9	-0.1
GNL	Ganaly	3.31	235	iP	Pn	09 40 33.4	+1.4
GNL				iS	Sn	09 41 12.8	+2.1
PET	Petropavlovsk	3.49	222	ePn	Pn	09 40 35.5	+1.1
PET				eSn	Sn	09 41 14.0	-1.0
PET	Petropavlovsk	3.49	222	PN	Pn	09 40 35.3	+0.9
PET				S	Sn	09 41 14.2	-0.8
PET	Petropavlovsk	3.49	222	eP	Pn	09 40 35.3	+0.9
PET				iS	Sn	09 41 14.2	-0.8
RUS	Russkaya	4.01	218	eP	Pn	09 40 42.1	+0.5
RUS				iS	Sn	09 41 26.9	-1.0
GRL	Gorelyy	4.08	222	eP	Pn	09 40 44.2	+1.7
GRL				iS	Sn	09 41 30.6	+1.1
YAK	Yakutsk	17.99	304	iP	Pn	09 43 50.7	+0.9
ERM	Erimo	18.59	231	iP	Pn	09 43 56.9	-0.5
TIXI	Tiksi	21.41	331	eP	P	09 44 26.0	-1.5
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.6						
TIXI				MLR	MLR		
	comp=Z,300nm,15.0s,MS3.8						
IMA2	Indian Mountai	23.19	46	eP	P	09 44 47.9	+1.5
MJAR	Matsushiro Arr	25.27	231	P	P	09 45 05.8	-0.2
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MJAR	Matsushiro Arr	25.27	231	P	P	09 45 05.8	-0.2
	comp=Z,0.7nm,0.5s,mb3.4,baz=37,slow=9.7,SNR=6.3						
YKA	Yellowknife Ar	40.32	45	P	P	09 47 18.0	+1.3
YKA	Yellowknife Ar	40.32	45	P	P	09 47 17.7	+1.0
	comp=Z,0.3nm,0.7s,mb3.1,baz=300,slow=8.1,SNR=5.6						
MKAR	Makanchi Array	48.34	295	P	P	09 48 19.6	-1.4
	comp=Z,0.2nm,0.5s,mb3.4,baz=60,slow=6.7,SNR=3.7						
FINES	FINESS Array B	58.31	337	P	P	09 49 34.0	-0.1
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	58.31	337	P	P	09 49 33.6	-0.5
	comp=Z,0.9nm,0.5s,mb4.0,baz=50,slow=9.5,SNR=11						
NOA	NORSAR Array B	61.45	345	P	P	09 49 55.4	-0.2
NOA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
NOA	NORSAR Array B	61.45	345	P	P	09 49 55.4	-0.3
	comp=Z,1.1nm,1.0s,mb3.9,baz=31,slow=6.8,SNR=2.1						
TXAR	Lajitas Array	68.36	70	P	P	09 50 42.7	+1.6
	comp=Z,0.2nm,0.7s,mb3.3,baz=322,slow=5.7,SNR=3.0						
BRTR	Keskin Array B	75.51	322	P	P	09 51 23.6	-0.3
	comp=Z,0.4nm,0.5s,mb3.6,baz=43,slow=3.7,SNR=2.3						
WRA	Warramunga Arr	79.02	207	P	P	09 51 43.7	+0.1
	comp=Z,0.3nm,0.5s,mb3.5,baz=11,slow=5.9,SNR=7.0						

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*ISCJB **10** 09:48:26.0±0.9, 39.26N±0.04×41.39E±0.09, h2^{km}±13^{km}, Error ellipse: s-maj=12.7km s-min=5.6km az=19.9*

*CSEM **10** 09:48:25.8±0.4, 39.58N×41.31E, h64^{km}±5^{km}, MD2.8, Error ellipse: s-maj=8.3km s-min=3.4km az=2.0*

*DDA **10** 09:48:25.8, 39.24N×41.42E, h7^{km}±1^{km}, Md2.6*

*ISK **10** 09:48:25.8, 39.29N×41.38E, h6^{km}, MD2.8*

ISC 10 09:48:26.4±0.7**, 39.26N**±0.04×**41.39E**±0.06**, h5**^{km}±9^{km}**, n9, σ0^s.63**/16**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNGL	BINGOL	0.35	212	iP	Pg	09 48 33.0	-0.2
BNGL				iS	Sg	09 48 38.5	+0.6
ERZM	Erzurum	0.65	358	iP	Pg	09 48 38.6	-0.3
ERZM				iS	Sg	09 48 48.6	+1.2
EZM	Erzurum	0.65	358	PG	Pg	09 48 38.4	-0.5
EZM				SG	Sg	09 48 47.0	-0.4
EZM	Erzurum	0.65	358	ePg	Pg	09 48 38.4	-0.5
EZM				eSg	Sg	09 48 47.0	-0.4
TUTA	Tutak	1.11	82	eP	Pg	09 48 46.7	-1.1
TUTA				eS	Sg	09 49 02.9	+0.7
AGRB	Hanur-Agry	1.28	75	ePN	Pn	09 48 50.6	-0.4
AGRB				eSN	Sn	09 49 09.0	+0.5
AGRB	Hanur-Agry	1.28	75	ePn	Pn	09 48 50.6	-0.4
AGRB				eSn	Sn	09 49 09.0	+0.5
PTK	Pertek	1.60	258	ePN	Pn	09 48 55.2	-0.1
PTK	Pertek	1.60	258	ePn	Pn	09 48 55.2	-0.1

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*NEIC **10** 10:00:30.5, 17.00N×100.28W, h6^{km}, MD3.6(MEX), After MEX.*

MEX 10 10:00:30.2±0.6, 17.02N×100.29W, h10km±2km, MD3.6, Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.04	38	iP	Pg	10 00 31.2	-0.8
CAIG				iS	Sg	10 00 32.4	-1.0
ACX	Acapulco	0.39	113	iP	Pg	10 00 37.5	-0.3
ACX				iS	Sg	10 00 43.0	0.0
MEIG	Mezcala	1.10	35	iP	Pb	10 00 48.2	-3.2
MEIG				iS	Sg	10 01 01.4	-4.4
PLIG	Platanillo	1.56	29	iP	Pn	10 00 56.9	-1.1
PLIG				iS	Sn	10 01 16.5	-1.7
PLIG	Platanillo	1.56	29	eP	Pn	10 00 54.0	-4.0
PLIG				iS	Sn	10 01 13.9	-4.3
IIO	Organos	2.96	30	iP	Pn	10 01 19.6	+2.4
IIO				iS	Sn	10 01 48.9	-4.0
VHO	Vista Hermosa	3.40	89	eP	Pn	10 01 22.2	-1.1
VHO				iS	Sn	10 02 01.8	-2.0

CSEM 10 10:10:21.3±0.7, 39.28N×43.12E, h69km±7km, MD2.9, Error ellipse: s-maj=15.2km s-min=7.8km az=165.0
ISCJB 10 10:10:23.6±1.4, 39.41N±0.09×42.84E±0.08, h6km±11km, Error ellipse: s-maj=15.3km s-min=9.7km az=161.3
DDA 10 10:10:24.7, 39.44N×42.84E, h7km±4km, Md2.9
ISC 10 10:10:24.5±1.3, 39.44N±0.09×42.87E±0.07, h11km±8km, n6, σ1°07/12, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGRB	Hanur-Agry	0.16	35	iPG	Pg	10 10 27.8	-0.4
AGRB				iSG	Sg	10 10 30.7	0.0
DYDN	Diyadin	0.64	81	iP	Pg	10 10 36.5	-0.5
DYDN				iS	Sg	10 10 47.1	+1.8
DIGO	Kars	1.05	22	iP	Pb	10 10 43.0	-1.6
DIGO				iS	Sb	10 10 58.6	+0.3
ERZM	Erzurum	1.25	292	iP	Pn	10 10 47.3	-0.6
ERZM				iS	Sb	10 11 07.5	+3.3
ERZM	Erzurum	1.25	292	iP	Pn	10 10 47.3	-0.6
ERZM				iS	Sb	10 11 07.4	+3.2
EZM	Erzurum	1.25	292	PN	Pn	10 10 46.8	-1.1
EZM				SN	Sn	10 11 05.5	+0.8

IDC 10 10:10:52.7±2.4, 29.52N×92.56E, h0km, mb3.4/2, mb1 3.4/3, mb1mx3.2/20, mbtmp3.3/3, ML2.7/1, Error ellipse: s-maj=79.1km s-min=29.5km az=73.0, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	19.01	338	P	Pn	10 15 16.0	-0.5
	0.0nm,0.3s,baz=149,slow=13,SNR=3.0						
SONM	Songino Array	21.18	26	P	P	10 15 39.7	+0.2
	1.4nm,0.8s,baz=210,slow=13,SNR=14						
WRA	Warramunga Arr	63.56	136	P	P	10 21 25.4	+0.1
	0.3nm,0.6s,baz=325,slow=6.9,SNR=7.7						

IDC 10 10:16:29.0±10.0, 24.71S×66.69W, h114km±82km, mb3.3/1, mb1 3.3/3, mb1mx3.2/15, mbtmp3.3/3, ML3.8/2, Error ellipse: s-maj=106.9km s-min=44.4km az=159.0
ISCJB 10 10:16:31.9±1.0, 24.40S±0.08×67.1W±0.1, h169km±24km, mb3.3/1, Error ellipse: s-maj=23.1km s-min=9.5km az=26.4
NEIC 10 10:16:36.4, 24.38S×67.64W, h200km, MG3.8(GUC), After GUC.
GUC 10 10:16:36.4±0.6, 24.38S×67.64W, h200km, ML3.8
ISC 10 10:16:32.5±0.9, 24.41S±0.08×67.0W±0.1, h154km±21km, n11, σ1°20/15, mb3.3/1, 2C-3D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEN1	Los Morros	3.07	289	⇓iP	Pn	10 17 23.0	+2.1
CEN1				iS	Sn	10 17 58.2	-0.1
CEN1				AML	AML	10 17 59.1	
	comp=N,218nm,0.6s						
CPN1	Cerro Paranal	3.08	265	⇓iP	Pn	10 17 22.4	+1.5
CPN1				iS	Sn	10 17 57.6	-0.7
CPN1				AML	AML	10 17 59.4	
	comp=E,119nm,0.2s						
ANCH	Antofagasta	3.17	282	⇑iP	Pn	10 17 23.3	+1.2
ANCH				iS	Sn	10 17 58.4	-2.0
ANCH	Antofagasta	3.17	282	⇑iP	Pn	10 17 23.3	+1.2
ANCH				iS	Sn	10 17 58.4	-2.0
ANCH				AML	AML	10 18 01.6	
	comp=E,349nm,0.1s						
CDCH	Caldera	4.33	231	⇓iP	Pn	10 17 37.3	+0.2
CDCH				iS	Sn	10 18 25.7	-1.7
LCO	Las Campanas	5.64	215	ePn	Pn	10 17 55.2	+0.8
	comp=E,11nm,0.3s						
LPAZ	La Paz	8.14	353	P	Pn	10 18 28.8	+1.0
	comp=E,0.5nm,0.3s,baz=150,slow=7.1,SNR=7.5						
SIV	San Ignacio	10.07	35	P	Pn	10 18 52.9	-0.5
	comp=E,0.5nm,0.3s,baz=224,slow=14,SNR=9.7						
SIV				S	Sn	10 20 43.9	-1.1
	comp=E,0.1nm,0.3s,baz=300,slow=20,SNR=3.5						
TORD	Torodi Ar. Bea	76.75	69	P	P	10 28 06.6	-0.7
	comp=E,0.6nm,0.8s,mb3.3,baz=253,slow=6.1,SNR=5.4						
WRA	Warramunga Arr	131.25	207	PKP	PKPdf	10 35 27.8	+0.7
	comp=E,0.3nm,0.9s,baz=164,slow=1.5,SNR=5.8						
MKAR	Makanchi Array	146.86	40	PKPbc	PKPbc	10 35 58.1	+1.6
	comp=E,0.3nm,0.7s,baz=318,slow=1.9,SNR=2.9						

ISCJB 10 10:33:30.5±1.2, 18.65N±0.07×62.89W±0.04, h30km±8km, Error ellipse: s-maj=12.7km s-min=4.5km az=21.9
TRN 10 10:33:30.2, 18.54N×62.91W, h26km, MD3.2
RSPR 10 10:33:32.1, 18.43N×62.79W, h25km±18km, MD3.9/12, MD3.9/12
NEIC 10 10:33:32.1, 18.43N×62.79W, h25km, MD3.9(RSPR), After RSPR.
ISC 10 10:33:31.6±1.2, 18.62N±0.07×62.88W±0.04, h26km±8km, n26, σ0°66/44, 15C-1D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STMA	St. Maarten, A	0.61	201	⇓iP	Pb	10 33 43.8	+0.1
STMA				iS	Sb	10 33 51.3	-0.7
TBVI	Tortola	1.66	263	⇑eP	Pn	10 33 58.4	-0.7
TBVI				eS	Sn	10 34 19.0	-0.5
BPA	Boggy Peak	1.84	148	eP	Pn	10 34 02.0	+0.3
BPA				iS	Sn	10 34 23.8	-0.3
STVI	Saint Thomas	1.98	263	⇑eP	Pn	10 34 02.8	-0.8
STVI				eS	Sn	10 34 27.0	-0.6
MTP	Monte Pirata	2.59	259	⇑eP	Pn	10 34 11.0	-0.9
MTP				eS	Sn	10 34 41.8	-0.7
SCG	Saint Claude	2.82	156	eP	Pn	10 34 16.2	+1.1
SCG				eS	Sn	10 34 49.7	+1.5
CBYP	Canovanas	2.84	263	⇑eP	Pn	10 34 14.9	-0.5
CBYP				eS	Sn	10 34 49.2	+0.3
HUMP	Col San Antoni	2.86	261	⇑eP	Pn	10 34 15.2	-0.4
HUMP				eS	Sn	10 34 49.2	0.0
DEG	La Desirade	2.88	143	eP	Pn	10 34 14.8	-1.1
CPD	Cerro la Pandu	2.94	259	⇑eP	Pn	10 34 16.4	-0.3
CPD				eS	Sn	10 34 51.0	-0.2
TBG	Guadaloupe-3	3.00	157	eP	Pn	10 34 17.1	-0.3
MGG	Marie-Galante	3.07	151	eP	Pn	10 34 18.1	-0.5
SJG	San Juan	3.15	261	⇑eP	Pn	10 34 19.6	0.0
SJG	San Juan	3.15	261	⇑eP	Pn	10 34 19.8	+0.3
SJG				eS	Sn	10 34 56.1	-0.1
ICM	Isla Caja Muer	3.53	259	⇑eP	Pn	10 34 24.5	-0.4
ICM	Isla Caja Muer	3.53	259	eS	Sn	10 35 06.1	+0.3
CELP	Cerrillos	3.55	262	⇑eP	Pn	10 34 25.4	+0.2
CELP				eS	Sn	10 35 06.1	-0.2
AOPR	Arecibo Observ	3.69	266	⇑eP	Pn	10 34 27.3	+0.3
AOPR				eS	Sn	10 35 10.4	+0.8
AOPR	Arecibo Observ	3.69	266	⇑eP	Pn	10 34 27.3	+0.3
AOPR				eS	Sn	10 35 10.4	+0.8
LRS	Lares	3.78	266	⇑eP	Pn	10 34 28.4	+0.2
LRS				eS	Sn	10 35 12.1	+0.2
LRS	Lares	3.78	266	eP	Pb	10 34 40.0	+2.4
LRS				eS	Sn	10 35 12.1	+0.2
GBPR	Guanica, Bosqu	3.85	261	eP	Pn	10 34 29.5	+0.3
GBPR				eS	Sn	10 35 13.7	-0.1
AGPR	Aguadilla, PR	4.02	269	⇑eP	Pn	10 34 32.3	+0.8
LSP	Las Mesas	4.02	264	⇑eP	Pn	10 34 32.1	+0.5
LSP				eS	Sn	10 35 18.8	+1.0
CRPR	Cabo Rojo, PR	4.06	262	eP	Pn	10 34 32.0	-0.1
CRPR				eS	Sn	10 35 19.2	+0.3
SDDR	Presa de Saban	7.97	274	P	Pn	10 35 25.1	-0.8

11nm,0.6s

NEIC 10 11:06:23.5, 17.11N×101.20W, h16km, MD4.2(MEX), After MEX.
MEX 10 11:06:23.6±0.6, 17.13N×101.19W, h19km±15km, MD4.2, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIIG	Zihuatanejo	0.54	331	iP	Pb	11 06 32.3	-2.2
ZIIG				iS	Sg	11 06 39.5	-2.3
CAIG	El Cayaco	0.89	95	iP	Pb	11 06 37.3	-3.1
CAIG				iS	Sb	11 06 48.0	-3.9
ACX	Acapulco	1.25	102	iP	Pn	11 06 43.5	-2.5
ACX				iS	Sb	11 06 58.0	-4.3
MEIG	Mezcala	1.70	62	iP	Pn	11 06 49.4	-2.8
MEIG				iS	Sn	11 07 09.7	-3.7
PLIG	Platanillo	2.04	52	iP	Pn	11 06 54.2	-2.7
PLIG				iS	Sn	11 07 17.6	-4.3
MMIG	Aquila	2.35	300	iP	Pn	11 06 58.4	-2.9
MMIG				iS	Sn	11 07 26.6	-3.0
MOIG	Morelia	2.53	0	iP	Pn	11 07 02.7	-1.0
MOIG				iS	Sn	11 07 30.4	-3.7
MOIG	Morelia	2.53	0	iP	Pn	11 07 02.0	-1.7
MOIG				iS	Sn	11 07 30.4	-3.7
YAIG	Yautepec	2.66	49	eP	Pn	11 07 00.7	-4.7
YAIG				iS	Sn	11 07 34.3	-2.8
YAIG	Yautepec	2.66	49	eP	Pn	11 07 02.7	-2.7
YAIG				iS	Sn	11 07 34.3	-2.8
SZVM	Salazar	2.78	38	eP	Pn	11 07 05.5	-1.6
SZVM				iS	Sn	11 07 38.6	-1.5
UNM	Universidad Na	2.91	41	iP	Pn	11 07 07.8	-1.1
UNM				iS	Sn	11 07 42.1	-1.1
PPM	Popocatepetl	3.11	51	iP	Pn	11 07 17.0	+5.4
UTMO	Huajuapan	3.31	77	eP	Pn	11 07 11.4	-3.0
UTMO				iS	Sn	11 07 50.1	-3.1
IIO	Organos	3.39	43	eP	Pn	11 07 15.0	-0.5
IIO				iS	Sn	11 07 49.7	-5.5
IIO				iS	Sn	11 07 56.2	+1.0
SFJM	Santa Fe	3.77	333	eP	Pn	11 07 24.0	+3.3
SFJM	Santa Fe	3.77	333	eP	Pn	11 07 19.0	-1.7
SFJM				iS	Sn	11 08 02.5	-2.1
TPIG	Tehuac#an	3.87	70	eP	Pn	11 07 20.1	-2.0
TPIG				iS	Sn	11 08 01.7	-5.4
VHO	Vista Hermosa	4.26	90	eP	Pn	11 07 18.9	-8.7
VHO				iS	Sn	11 08 10.0	-6.8
VHO	Vista Hermosa	4.26	90	eP	Pn	11 07 25.9	-1.7
VHO				iS	Sn	11 08 14.0	-2.8
OXX	Oaxaca	4.28	90	eP	Pn	11 07 20.0	-7.7
OXX	Oaxaca	4.28	90	eP	Pn	11 07 26.0	-1.7
ANIG	Ahuacatlan	5.01	322	eP	Pn	11 07 35.8	-2.0
ANIG				iS	Sn	11 08 33.2	-2.1
HUIG	Huatulco	5.06	105	iS	Sn	11 08 27.6	-8.9
HUIG	Huatulco	5.06	105	iS	Sn	11 08 33.4	-3.1
ZAIG	Zacatecas	5.76	347	eP	Pn	11 07 46.0	-2.1
ZAIG				iS	Sn	11 08 50.9	-2.7
CMIG	Matias Romero	6.03	89	iP	Pn	11 07 58.0	+6.2
CMIG				eS	Sn	11 08 53.2	-7.3
CMIG	Matias Romero	6.03	89	eP	Pn	11 07 49.2	-2.6
CMIG				iS	Sn	11 08 54.1	-6.4
LNIG	Linares	7.90	11	iP	Pn	11 08 17.0	-0.5
LNIG				iS	Sn	11 09 46.3	0.0

ISCJB 10 11:11:57.0±0.6, 38.40N±0.04×39.14E±0.04, h6km, Error ellipse: s-maj=5.5km s-min=4.8km az=144.0
CSEM 10 11:11:56.2±0.2, 38.45N×39.13E, h15km, MD2.7, Error ellipse: s-maj=5.3km s-min=2.8km az=129.0
ISK 10 11:11:56.6, 38.45N×39.12E, h6km, MD2.7
DDA 10 11:11:57.3, 38.46N×39.21E, h6km±1km, Md2.9
ISC 10 11:11:57.4±0.9, 38.41N±0.06×39.15E±0.07, h3km±14km, n11, σ0°57/18, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.16	304	iP	Pg	11 12 01.0	+0.5
ELZG				iS	Sg	11 12 03.2	+0.6
PTK	Pertek	0.52	21	PG	Pg	11 12 06.6	-0.7
PTK				SG	Sg	11 12 13.9	-0.1
PTK	Pertek	0.52	21	ePg	Pg	11 12 06.6	-0.7
PTK				eSg	Sg	11 12 13.9	-0.1
MALT	Malatya	0.58	261	PG	Pg	11 12 08.0	-0.5
MALT				SG	Sg	11 12 15.6	-0.4
MALT	Malatya	0.58	261	ePg	Pg	11 12 08.0	-0.5
MALT				eSg	Sg	11 12 15.6	-0.4
MYA	Malataya	0.58	262	PG	Pg	11 12 08.4	-0.1
MYA	Malataya	0.58	262	ePg	Pg	11 12 08.4	-0.1
URFA	Urfa	1.00	195	ePG	Pg	11 12 16.7	+0.2
URFA	Urfa	1.00	195	ePg	Pg	11 12 16.7	+0.2
GZT	Gaziantep	1.64	231	iP	Pn	11 12 26.8	-0.3
GZT				iS	Sg	11 12 50.0	-0.1
MARD	Mardin	1.69	130	iP	Pn	11 12 29.2	+1.5
MARD				iS	Sn	11 12 49.3	-0.6

IDC 10 11:22:07.4±1.9, 0.84N×125.95E, h0km, mb3.6/3, mb1 3.8/3, mb1mx3.5/16, mbtmp3.6/3, Error ellipse: s-maj=178.2km s-min=26.7km az=63.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.23	159	P	P	11 27 06.0	+0.1
	2.3nm,0.8s,baz=337,slow=11,SNR=15						
STKA	Stephens Creek	35.76	157	P	P	11 29 08.1	-0.1
	1.4nm,0.9s,baz=345,slow=12,SNR=2.6						
MKAR	Makanchi Array	59.50	327	P	P	11 32 12.5	+0.1
	0.2nm,0.5s,baz=125,slow=7.9,SNR=4.3						

ISCJB 10 11:27:06.3±0.4, 51.48N±0.02×16.09E±0.03, h0km, Error ellipse: s-maj=3.3km s-min=2.4km az=20.3
NEIC 10 11:27:08.5±0.6, 51.51N×16.05E, h5km, ML2.7(SZGRF), Error ellipse: s-maj=7.2km s-min=5.6km az=216.0
IDC 10 11:27:08.4±0.8, 51.36N×16.31E, h0km, mb1 3.2/4, mb1mx3.0/19, mbtmp3.1/4, ML2.7/4, Error ellipse: s-maj=16.5km s-min=7.0km az=100.0
IPEC 10 11:27:08.3±0.4, 51.48N×16.16E, h0km, ML2.2/1, Error ellipse: s-maj=11.1km s-min=2.4km az=93.0
CSEM 10 11:27:09.2±0.2, 51.46N×16.11E, h1km, ML3.5/7, Error ellipse: s-maj=2.8km s-min=1.6km az=13.0
WAR 10 11:27:09.8, 51.45N×16.08E, ML2.7, Mining Induced
PRU 10 11:27:10.2, 51.41N×16.04E, h0km
VIE 10 11:27:10.3±0.3, 51.31N×16.15E, h0km, mb2.4/4, ML2.7/4, Error ellipse: s-maj=1.9km s-min=1.8km az=171.0, Suspected Mining induced.
ISC 10 11:27:07.8±0.4, 51.51N±0.02×16.09E±0.03, h0km, n87, σ1°01/140, 6C-2D, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.68	169	ePg	Pg	11 27 21.2	+0.4
KSP				eSg	Sg	11 27 30.2	+0.6
KSP	Ksiaz	0.68	169	⇓iPg	Pg	11 27 21.2	+0.4
KSP				eSg	Sg	11 27 29.7	+0.1
KSP	Ksiaz	0.68	169	ePg	Pg	11 27 21.1	+0.3
KSP				eSg	Sg	11 27 29.7	+0.1
DPC	Dobruska-Polom	1.17	173	ePg	Pg	11 27 30.0	-0.2
DPC				eSg	Sg	11 27 44.3	-1.0
DPC	Dobruska-Polom	1.17	173	ePG	Pg	11 27 30.0	-0.2
DPC				eSG	Sg	11 27 44.3	-1.0
	37nm,0.4s						
DPC	Dobruska-Polom	1.17	173	ePg	Pg	11 27 30.0	-0.2
DPC				eSg	Sg	11 27 44.3	-1.0
PVCC	Panska Ves	1.37	225	eSG	Sg	11 27 52.7	+0.9
	201nm,0.2s						
PVCC	Panska Ves	1.37	225	eSg	Sg	11 27 52.7	+0.9
	201nm,0.2s						
BRG	Berggiesshubel	1.49	246	Pn	Pn	11 27 36.0	+0.2
BRG				Pg	Pg	11 27 36.8	+0.4
BRG				Sg	Sg	11 27 56.6	+1.0
BRG	Berggiesshubel	1.49	246	Pn	Pn	11 27 36.0	+0.2
BRG	Berggiesshubel	1.49	246	Pg	Pg	11 27 36.8	+0.5
BRG	Berggiesshubel	1.49	246	PN	Pn	11 27 36.0	+0.2
BRG				PG	Pg	11 27 36.8	+0.4
BRG				SG	Sg	11 27 56.6	+1.0
	69nm,0.3s						
PRA	Prague	1.78	217	SG	Sg	11 28 07.0	+2.0
PRU	Pruhonice	1.81	213	ePn	Pn	11 27 39.8	-0.4
PRU				ePg	Pg	11 27 41.1	-1.4
PRU				eSg	Sg	11 28 04.8	-1.1
PRU	Pruhonice	1.81	213	ePN	Pn	11 27 39.8	-0.4
PRU				ePG	Pg	11 27 41.1	-1.4
PRU				eSG	Sg	11 28 04.8	-1.1
	25nm,0.4s						
PRU	Pruhonice	1.81	213	ePn	Pn	11 27 39.8	-0.4
CLL	Collm	1.94	265	ePn	Pn	11 27 42.0	0.0
CLL				iPg	Pg	11 27 44.5	-0.5
CLL				iSg	Sg	11 28 11.2	+1.1
CLL	Collm	1.94	265	ePn	Pn	11 27 42.0	0.0
CLL				iPg	Pg	11 27 44.5	-0.5
CLL				iSg	Sg	11 28 11.2	+1.1
	comp=Z,24nm,0.4s						
CLL	Collm	1.94	265	iPg	Pg	11 27 44.5	-0.5
MORC	Moravsky Berou	1.97	151	P	Pn	11 27 42.3	0.0
MORC	Moravsky Berou	1.97	151	ePn	Pn	11 27 42.0	-0.3
MORC	Moravsky Berou	1.97	151	P	Pn	11 27 42.3	0.0
OKC	Ostrava-Krasne	2.13	141	ePg	Pg	11 27 47.8	-0.7
OKC				eSg	Sg	11 28 13.9	-2.1
OKC	Ostrava-Krasne	2.13	141	ePG	Pg	11 27 47.8	-0.7
OKC				eSG	Sg	11 28 13.9	-2.1
OKC	Ostrava-Krasne	2.13	141	ePg	Pg	11 27 47.8	-0.7
OKC				eSg	Sg	11 28 13.9	-2.1
VRAC	Vranov	2.23	171	Pg	Pg	11 27 46.0	-4.5
VRAC				Lg		11 28 14.0	
VRAC	Vranov	2.23	171	Pg	Pg	11 27 46.0	-4.5
	comp=Z,1.9nm,0.3s,baz=331,slow=14,SNR=12						
VRAC				Lg		11 28 14.0	
	comp=Z,1.6nm,0.3s,baz=74,slow=20,SNR=4.8						
VRAC	Vranov	2.23	171	Pg	Pg	11 27 46.0	-4.4
VRAC	Vranov	2.23	171	ePn	Pn	11 27 46.2	+0.3
TREC	Trest	2.25	190	ePN	Pn	11 27 46.9	+0.7
TREC				ePG	Pg	11 27 49.8	-1.1
TREC	Trest	2.25	190	ePn	Pn	11 27 46.9	+0.7
KRUC	Moravsky	2.46	175	ePn	Pn	11 27 48.9	-0.2
KRUC				eSg	Sg	11 28 23.7	-3.0
	comp=Z,11nm,0.3s						
NKC	Novy Kostel	2.63	242	ePn	Pn	11 27 52.1	+0.6
NKC				ePg	Pg	11 27 57.9	-0.3
NKC				eSg	Sg	11 28 33.0	+0.6
NKC	Novy Kostel	2.63	242	ePN	Pn	11 27 52.1	+0.6
NKC				ePG	Pg	11 27 57.9	-0.3
NKC				eSG	Sg	11 28 33.0	+0.6
	comp=Z,48nm,0.2s						
NKC	Novy Kostel	2.63	242	ePn	Pn	11 27 52.1	+0.6
OJC	Ojcow	2.68	117	ePg	Pg	11 27 59.3	+0.1
OJC				eSg	Sg	11 28 34.2	+0.3
KHC	Kasperske Hory	2.87	215	ePn	Pn	11 27 55.0	+0.2
KHC				ePg	Pg	11 28 01.1	-1.7
KHC				eSn	Sn	11 28 29.7	-0.3
KHC				eSg	Sg	11 28 38.1	-1.9
KHC	Kasperske Hory	2.87	215	ePN	Pn	11 27 55.0	+0.2
KHC				ePG	Pg	11 28 01.1	-1.7
KHC				eSN	Sn	11 28 29.7	-0.3
KHC				eSG	Sg	11 28 38.1	-1.9
	comp=Z,13nm,0.4s						
KHC	Kasperske Hory	2.87	215	ePn	Pn	11 27 55.0	+0.2
MOX	Moxa	2.95	255	ePn	Pn	11 27 56.3	+0.5
MOX				ePg	Pg	11 28 04.5	+0.2
MOX	Moxa	2.95	255	ePG	Pg	11 28 04.5	+0.2
MOX				eSG	Sg	11 28 43.8	+1.3
MOX	Moxa	2.95	255	ePn	Pn	11 27 56.3	+0.5
MOX	Moxa	2.95	255	ePg	Pg	11 28 04.5	+0.2
GEC2	GERESS Array S	3.08	211	ePn	Pn	11 27 58.5	+0.9
GEC2	GERESS Array S	3.08	211	ePn	Pn	11 27 58.5	+0.9
GERES	GERESS Array B	3.08	211	Pn	Pn	11 27 58.6	+1.0
GERES				Pg	Pg	11 28 04.3	-2.4
GERES				Sn	Sn	11 28 33.7	-1.3
GERES				Lg		11 28 42.9	
GERES	GERESS Array B	3.08	211	Pn	Pn	11 27 58.6	+1.0
	comp=Z,0.7nm,0.3s,baz=30,slow=13,SNR=23						
GERES				Pg	Pg	11 28 04.3	-2.4
	comp=Z,3.4nm,0.3s,baz=32,slow=17,SNR=57						
GERES				Sn	Sn	11 28 33.7	-1.3
	comp=Z,2.3nm,0.3s,baz=31,slow=24,SNR=5.2						
GERES				Lg		11 28 42.9	
	comp=Z,3.8nm,0.3s,baz=34,slow=26,SNR=8.5						
GERES	GERESS Array B	3.08	211	Pn	Pn	11 27 58.6	+1.0
GERES	GERESS Array B	3.08	211	Pg	Pg	11 28 04.3	-2.4
SMOL	Smolenice	3.12	163	eSG	Sg	11 28 48.0	0.0
SMOL	Smolenice	3.12	163	eSg	Sg	11 28 48.0	0.0
WET	Wettzell	3.13	222	ePn	Pn	11 27 58.7	+0.3
WET	Wettzell	3.13	222	ePn	Pn	11 27 58.7	+0.3
MODS	Modra-Piesok	3.23	166	e	Pg	11 28 09.3	-0.4
MODS	Modra-Piesok	3.23	166	eSG	Sg	11 28 52.1	+0.6
MODS	Modra-Piesok	3.23	166	eSg	Sg	11 28 52.1	+0.6
VYHS	Vyhne	3.50	148	ePn	Pn	11 28 03.9	+0.5
VYHS				e		11 28 14.5	
VYHS				eSg	Sg	11 29 02.4	+2.2
VYHS	Vyhne	3.50	148	ePN	Pn	11 28 03.9	+0.5
VYHS				e		11 28 14.5	
VYHS	Vyhne	3.50	148	eSG	Sg	11 29 02.4	+2.2
VYHS	Vyhne	3.50	148	ePn	Pn	11 28 03.9	+0.5
CONA	Conrad Observa	3.59	182	⇑iPn	Pn	11 28 04.3	-0.2
CONA				⇓iSg	Sg	11 29 02.9	-0.1
	comp=Z,6.1nm,0.3s						
CONA	Conrad Observa	3.59	182	Pn	Pn	11 28 04.3	-0.3
CONA				Sg	Sg	11 29 02.9	0.0
	comp=Z,6.1nm,0.3s						
GRA1	Grafenberg Arr	3.59	241	ePn	Pn	11 28 03.2	-1.5
GRA1				eSg	Sg	11 29 03.4	+0.3
GRA1	Grafenberg Arr	3.59	241	ePn	Pn	11 28 03.2	-1.5
GRA1				eSg	Sg	11 29 03.4	+0.3
GRF	Grafenberg Arr	3.59	241	ePn	Pn	11 28 03.3	-1.4
GRF				eSg	Sg	11 29 03.4	+0.3
GRF	Grafenberg Arr	3.59	241	ePn	Pn	11 28 03.3	-1.4
GRF				eSg	Sg	11 29 03.4	+0.3
BSD	Bornholm Skovb	3.68	349	iP	Pn	11 28 05.9	0.0
BSD				iS	Sn	11 28 49.4	-0.5
MOA	Molln	3.85	199	⇑iPn	Pn	11 28 08.5	+0.3
MOA				⇑iSg	Sg	11 29 11.7	+0.3
	comp=Z,12nm,0.5s						
MOA	Molln	3.85	199	⇑iPn	Pn	11 28 08.5	+0.3
MOA				iSg	Sg	11 29 11.7	+0.3
MOA	Molln	3.85	199	⇑iPn	Pn	11 28 08.5	+0.3
MOA				⇑iSg	Sg	11 29 11.7	+0.3
	comp=Z,12nm,0.5s						
MOA	Molln	3.85	199	Pn	Pn	11 28 08.5	+0.3
MOA				Sg	Sg	11 29 11.7	+0.4
	comp=Z,12nm,0.5s						
STHS	Stebnicka Huta	3.90	120	ePn	Pn	11 28 11.1	+2.2
STHS				e		11 28 24.6	
STHS				eSg	Sg	11 29 17.4	+4.3
STHS	Stebnicka Huta	3.90	120	ePN	Pn	11 28 11.1	+2.2
STHS				e		11 28 24.6	
STHS	Stebnicka Huta	3.90	120	eSG	Sg	11 29 17.4	+4.3
STHS	Stebnicka Huta	3.90	120	ePn	Pn	11 28 11.1	+2.2
KECS	Kecovo	4.15	135	eSG	Sg	11 29 22.9	+1.9
KOLS	Kolonicke sedl	4.74	121	ePn	Pn	11 28 22.1	+1.7
KOLS	Kolonicke sedl	4.74	121	ePN	Pn	11 28 22.1	+1.7
KOLS				e		18 53 16.7	
KOLS	Kolonicke sedl	4.74	121	ePn	Pn	11 28 22.1	+1.7
HFS	Hagfors	8.75	352	Pn	Pn	11 29 14.4	-1.0
HFS	Hagfors	8.75	352	Pn	Pn	11 29 14.4	-1.0
	comp=Z,0.1nm,0.3s,baz=153,slow=4.8,SNR=4.2						
HFS	Hagfors	8.75	352	Pn	Pn	11 29 14.4	-1.0
NOA	NORSAR Array B	9.93	346	Pn	Pn	11 29 31.4	-0.1
NOA	NORSAR Array B	9.93	346	Pn	Pn	11 29 31.4	-0.1
	comp=Z,0.1nm,0.3s,baz=162,slow=12,SNR=2.7						
NOA	NORSAR Array B	9.93	346	Pn	Pn	11 29 31.4	-0.1
FINES	FINESS Array B	11.37	25	Pn	Pn	11 29 50.0	-1.3
	comp=Z,0.2nm,0.3s,baz=200,slow=12,SNR=8.3						
ARCES	ARCESS Array B	18.63	10	Pn	Pn	11 31 18.7	-8.0
	comp=Z,0.1nm,0.3s,baz=188,slow=12,SNR=2.3						

ISCJB 10 12:02:48.4±1.4, 20.5S±0.2×178.2W±0.1, h506km±19km, mb3.8/8, Error ellipse: s-maj=29.9km s-min=13.7km az=142.8
IDC 10 12:02:48.5±2.2, 20.49S×178.13W, h498km±28km, mb3.2/5, mb1 3.6/7, mb1mx3.4/14, mbtmp3.3/7, Error ellipse: s-maj=29.1km s-min=16.4km az=144.0
ISC 10 12:02:48.6±1.4, 20.5S±0.2×178.1W±0.1, h498km±19km, n12, σ0°56/12, mb3.8/8, 1C-1D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	8.92	44	P	P	12 04 55.7	+1.0
	3.5nm,0.3s,baz=104,slow=9.5,SNR=4.8						

AFI				S	S	12 06 37.3	-0.8
	2.4nm,0.3s,baz=236,slow=22,SNR=3.9						
URZ	Urewera	18.16	192	P	P	12 06 29.9	-0.5
	0.9nm,0.3s,baz=317,slow=19,SNR=6.9						
CTA	Charters Tower	33.40	264	⇓*i*P	P	12 08 46.1	+0.8
	7.0nm,0.4s,mb4.4						
WB2	Warramunga Arr	44.50	262	⇑*i*P	P	12 10 15.1	-0.2
WRA	Warramunga Arr	44.51	262	P	P	12 10 15.2	-0.1
	1.9nm,0.3s,mb4.1,baz=96,slow=7.6,SNR=209						
KAKA	Kakadu	47.88	271	*e*P	P	12 10 40.9	-0.2
	3.6nm,0.3s,mb4.2						
FITZ	Fitzroy Crossi	52.94	262	*e*P	P	12 11 18.1	0.0
	7.4nm,1.5s,mb3.8						
MJAR	Matsushiro Arr	70.17	324	P	P	12 13 10.0	-0.6
	1.8nm,0.5s,mb3.9,baz=154,slow=6.2,SNR=14						
NVAR	Mina Array Bea	81.10	43	P	P	12 14 12.1	+0.7
	0.6nm,0.7s,mb3.2,baz=210,slow=7.2,SNR=5.6						
TXAR	Lajitas Array	87.14	57	P	P	12 14 41.7	+0.3
	0.6nm,0.8s,mb3.4,baz=221,slow=7.2,SNR=8.4						
PDAR	Pinedale Array	89.03	43	P	P	12 14 49.6	-0.3
	0.6nm,0.6s,mb3.6,baz=187,slow=3.1,SNR=6.5						
AKASG	Malin Array Be	142.98	331	PKP	PKPdf	12 21 20.1	-4.9
	1.0nm,0.5s,baz=42,slow=4.1,SNR=10.0						

*ISCJB **10** 12:13:16.0±1.6, 29.88N±0.05×36.3E±0.1, h0^{km}, Error ellipse: s-maj=17.5km s-min=6.7km az=13.2*

*CSEM **10** 12:13:16.9±0.4, 29.77N×36.23E, h2^{km}, ML2.5, Error ellipse: s-maj=9.7km s-min=4.3km az=106.0, Mining explosion.*

*SGS **10** 12:13:16.6, 30.05N×36.26E, h8^{km}*

*GII **10** 12:13:19.8±624.0, 30.01N×36.02E, h0^{km}±30^{km}*

ISC 10 12:13:15.8±1.6, 29.87N±0.05×36.3E±0.1, h0^{km}, n17, σ0^s.76/19, Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AQBJ	Aqaba	1.12	263	Pg	Pg	12 13 37.8	+0.4
ZFRI	Zfri	1.21	305	Pg	Pg	12 13 37.9	-1.1
EIL	Elat	1.22	261	Pg	Pg	12 13 39.3	+0.2
EIL	Elat	1.22	261	Pg	Pg	12 13 39.3	+0.2
HQLS		1.24	243	P	Pg	12 13 39.1	-0.5
HQLS				S	Sg	12 13 55.6	-0.1
HQLS		1.24	243	P	Pg	12 13 39.1	-0.5
JLOS		1.35	213	P	Pg	12 13 41.4	-0.2
JLOS				S	Sg	12 14 00.3	+1.2
JLOS		1.35	213	P	Pg	12 13 41.4	-0.2
MZDA	Masada	1.66	330	Pn	Pn	12 13 46.4	+0.3
MZDA	Masada	1.66	330	Pn	Pn	12 13 46.4	+0.2
MASH	Mash‘abbe Sade	1.74	310	Pn	Pn	12 13 47.8	+0.4
MASH	Mash‘abbe Sade	1.74	310	Pn	Pn	12 13 47.8	+0.5
DRGI	Dragot	1.90	335	Pn	Pn	12 13 50.4	+0.9
DRGI	Dragot	1.90	335	Pn	Pn	12 13 50.4	+0.9
KZIT	Kziot	1.96	302	Pn	Pn	12 13 50.4	0.0
KZIT	Kziot	1.96	302	Pn	Pn	12 13 50.4	0.0
RSHS		2.06	221	P	Pn	12 13 50.0	-1.7

*IDC **10** 12:34:30.1±1.4, 25.63S×70.25W, h0^{km}, mb4.1/2, mb1 4.0/3, mb1mx3.7/14, mbtmp3.8/3, ML3.6/1, MS2.7/1, Ms1 2.8/1, ms1mx2.8/15, Error ellipse: s-maj=59.3km s-min=47.2km az=109.0*

*ISCJB **10** 12:34:36.5±0.8, 25.32S±0.04×70.1W±0.3, h54^{km}±14^{km}, mb3.9/2, Error ellipse: s-maj=39.1km s-min=5.4km az=3.2*

*NEIC **10** 12:34:37.0, 25.32S×70.53W, h42^{km}, MG3.6(GUC), After GUC.*

*GUC **10** 12:34:37.0±0.9, 25.32S×70.53W, h42^{km}±4^{km}, ML3.6*

ISC 10 12:34:37.8±0.6, 25.32S±0.04×70.4W±0.3, h55^{km}±11^{km}, n15, σ1^s.00/20, mb3.9/2, 1C-5D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPN1	Cerro Paranal	0.69	356	⇓*i*P	Pn	12 34 51.8	+0.2
CPN1				*i* S	Sn	12 35 02.4	+0.7
CPN1				AML	AML	12 35 03.1	
	comp=E,7μm,0.3s						
ANCH	Antofagasta	1.63	358	⇓*i*P	Pn	12 35 04.4	+0.2
ANCH				*i* S	Sn	12 35 24.5	+0.4
ANCH	Antofagasta	1.63	358	⇓*i*P	Pn	12 35 04.4	+0.2
ANCH				*i* S	Sn	12 35 24.5	+0.4
ANCH				AML	AML	12 35 29.8	
	comp=N,2μm,0.3s						
CDCH	Caldera	1.80	194	⇓*i*P	Pn	12 35 05.3	-1.0
CDCH				*i* S	Sn	12 35 28.5	+0.4
CDCH	Caldera	1.80	194	⇓*i*P	Pn	12 35 05.3	-1.0
CDCH				*i* S	Sn	12 35 28.5	+0.4
CDCH				AML	AML	12 35 33.3	
	comp=E,604nm,0.4s						
CEN1	Los Morros	1.93	4	⇑*i*P	Pn	12 35 05.7	-2.5
CEN1				*i* S	Sn	12 35 27.9	-3.4
CEN1				AML	AML	12 35 31.7	
	comp=E,701nm,0.3s						
CPCH	Copiapo	2.03	180	*e*P	Pn	12 35 09.5	0.0
CPCH				*i* S	Sn	12 35 34.6	+0.9
LCO	Las Campanas	3.69	185	*e*Pn	Pn	12 35 31.3	-1.0
LCO				*e*Sn	Sn	12 36 20.4	+5.9
LPAZ	La Paz	9.22	13	Pn	Pn	12 36 49.7	+1.5
LPAZ				LR	LR	12 40 46.7	
LPAZ	La Paz	9.22	13	Pn	Pn	12 36 49.7	+1.5
	comp=E,0.2nm,0.3s,baz=205,slow=7.7,SNR=5.2						
LPAZ				LR	LR	12 40 46.7	
	comp=E,44nm,19.3s,baz=346,slow=40						
TORD	Torodi Ar. Bea	79.88	70	P	P	12 46 41.0	-0.1
	comp=E,2.0nm,0.6s,mb4.2,baz=261,slow=5.2,SNR=24						
TORD				pP	pP	12 46 55.6	-0.9
	comp=E,1.0nm,0.6s,baz=257,slow=5.0,SNR=5.2						
YKA	Yellowknife Ar	94.35	341	P	P	12 47 51.3	+0.5
	comp=E,0.2nm,0.7s,mb3.6,baz=139,slow=4.0,SNR=7.1						
WRA	Warramunga Arr	129.01	210	PKP	PKPdf	12 53 40.3	+0.1
	comp=E,0.5nm,1.1s,baz=149,slow=1.8,SNR=3.4						
ZALV	Zalesovo Beam	145.95	26	PKPbc	PKPbc	12 54 11.8	+0.9
	comp=E,1.0nm,0.5s,baz=300,slow=2.8,SNR=6.1						
MKAR	Makanchi Array	149.46	38	PKPbc	PKPbc	12 54 21.6	+1.0
	comp=E,0.3nm,0.4s,baz=322,slow=2.3,SNR=6.1						
MKAR				pPKPbc	pPKPbc	12 54 36.4	-0.5
	comp=E,0.3nm,0.5s,baz=305,slow=2.1,SNR=2.9						

*HEL **10** 12:52:45.7±0.3, 67.63N×33.97E, h0^{km}, ML2.1, ML2.2(BER), ML2.1(NAO), Explosion*

*NAO **10** 12:52:46.2±1.2, 67.62N×33.85E, ML2.1*

*ISCJB **10** 12:52:47.3±1.1, 67.58N±0.03×33.2E±0.2, h0^{km}, Error ellipse: s-maj=8.8km s-min=4.8km az=3.7*

*IDC **10** 12:52:49.2±2.7, 67.62N×33.23E, h0^{km}, mb1 3.4/3, mb1mx3.1/20, mbtmp3.3/3, ML2.8/3, Error ellipse: s-maj=29.9km s-min=9.6km az=76.0*

ISC 10 12:52:46.2±1.1, 67.59N±0.03×33.6E±0.2, h0^{km}, n24, σ1^s.11/41, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APA0	Apatity Array	0.24	275	Pg	Pg	12 52 52.5	+1.9
	baz=96,slow=16						
APA0				Lg		12 52 57.3	
	baz=106,slow=37						
APA0				Rg		12 52 58.9	
	baz=80,slow=37						
APA0	Apatity Array	0.24	275	*i* P	Pg	12 52 52.5	+1.9
APA0				*i* S	Sg	12 52 57.3	+3.5
APA0				*e*RG		12 52 58.9	
APA0	Apatity Array	0.24	275	Pg	Pg	12 52 52.5	+1.9
	baz=96,slow=16						
APA0				Lg		12 52 57.3	
	baz=106,slow=37						
APA0				Rg		12 52 58.9	
	baz=80,slow=37						
KU6	Riekki	2.15	225	*e*PB	Pb	12 53 25.4	-0.5
KU6				*e*SG	Sg	12 53 55.6	+0.4
MSF	Maaselka	2.47	229	*e*PB	Pb	12 53 30.4	-1.0
MSF				*e*SG	Sg	12 54 06.5	+0.9
MSF				MSG		12 54 06.5	
	comp=Z,4.2nm,0.2s						
SGF	Sodankyl	2.73	270	*e*P	Pn	12 53 31.3	+0.2
SGF				*e*SG	Sg	12 54 12.6	-1.1
SGF				MSG		12 54 12.6	
	comp=Z,17nm,0.4s						
KEV	Kevo	3.25	315	*e*P	Pn	12 53 39.3	+1.0
KEV				*e*S	Sn	12 54 18.5	+0.9
KEV				MSG		12 54 18.5	
	comp=Z,7.2nm,0.1s						
ARA0	ARCESS Array S	3.56	307	Pn	Pn	12 53 43.1	+0.5
	baz=122,slow=16						
ARA0				Pg	Pg	12 53 51.5	-2.8
	baz=115,slow=16						
ARA0				Sn	Sn	12 54 24.6	-0.7
	baz=121,slow=22						
ARA0				Lg		12 54 36.2	
	baz=112,slow=37						
ARA0	ARCESS Array S	3.56	307	*e*P	Pn	12 53 43.1	+0.5
ARA0				*e*PG	Pg	12 53 51.5	-2.8
ARA0				*e*S	Sn	12 54 24.6	-0.7
ARA0				*e*SG		12 54 36.2	
ARA0	ARCESS Array S	3.56	307	Pn	Pn	12 53 43.1	+0.5
	baz=122,slow=16						
ARA0				Pg	Pg	12 53 51.5	-2.8
	baz=115,slow=16						
ARA0				Sn	Sn	12 54 24.6	-0.7
	baz=121,slow=22						
ARA0				Lg		12 54 36.2	
	baz=112,slow=37						
ARCES	ARCESS Array B	3.56	307	Pn	Pn	12 53 43.2	+0.6
	comp=Z,4.3nm,0.3s,baz=122,slow=15,SNR=529						
ARCES				Sn	Sn	12 54 24.8	-0.5
	comp=Z,3.4nm,0.3s,baz=122,slow=25,SNR=11						
ARCES				Lg		12 54 36.0	
	comp=Z,6.5nm,0.3s,baz=113,slow=34,SNR=12						
HEF	Hetta	3.83	287	*e*SG	Sg	12 54 48.9	-0.3
OUL	Oulu	4.00	235	*e*P	Pn	12 53 50.1	+1.5
	baz=41						
OUL				*e*SG	Sg	12 54 54.0	-0.3
OUL				MSG		12 54 54.0	
	comp=Z,1.6nm,0.2s						
KTK1	Kautokeino	4.11	295	*e*P	Pn	12 53 50.9	+0.8
KTK1				AML	AML	12 54 59.4	
	comp=Z,11nm,0.4s						
FIA0	FINESS Array S	6.97	211	Pn	Pn	12 54 29.2	-0.1
	baz=37,slow=14						
FIA0				Sn	Sn	12 55 45.4	-3.7
	baz=37,slow=22						
FIA0				Lg		12 56 22.7	
	baz=24,slow=28						
FIA0	FINESS Array S	6.97	211	*e*P	Pn	12 54 29.2	-0.1
FIA0				*e*S	Sn	12 55 45.4	-3.7
FIA0				*e*SG		12 56 22.7	
FIA0	FINESS Array S	6.97	211	Pn	Pn	12 54 29.2	-0.1
	baz=37,slow=14						
FIA0				Sn	Sn	12 55 45.4	-3.7
	baz=37,slow=22						
FIA0				Lg		12 56 22.7	
	baz=24,slow=28						
FINES	FINESS Array B	6.97	211	Pn	Pn	12 54 29.0	-0.3
	comp=Z,0.1nm,0.3s,baz=26,slow=13,SNR=6.0						
FINES				Sn	Sn	12 55 48.2	-0.9
	comp=Z,0.2nm,0.3s,baz=28,slow=19,SNR=3.5						
FINES				Lg		12 56 22.7	
	comp=Z,0.5nm,0.3s,baz=26,slow=26,SNR=6.2						
NB2	NORSAR Subarra	11.66	247	*e*P	Pn	12 55 32.2	-1.4
NB2	NORSAR Subarra	11.66	247	Pn	Pn	12 55 32.2	-1.4
NOA	NORSAR Array B	11.66	247	Pn	Pn	12 55 31.7	-1.9
	comp=Z,0.1nm,0.3s,baz=40,slow=10,SNR=2.7						
SPA0	Spitsbergen Ar	11.70	342	Pn	Pn	12 55 30.7	-3.4
	baz=140,slow=16						
SPA0	Spitsbergen Ar	11.70	342	*e*P	Pn	12 55 30.7	-3.4
SPA0	Spitsbergen Ar	11.70	342	P	Pn	12 55 30.7	-3.4
	baz=140,slow=16						

*IDC **10** 13:04:41.1±2.0, 47.38N×156.33E, h0^{km}, mb3.6/3, mb1 3.8/5, mb1mx3.4/21, mbtmp3.6/5, ML3.6/2, Error ellipse: s-maj=59.6km s-min=29.6km az=163.0*

*ISCJB **10** 13:04:42.9±1.6, 47.0N±0.2×156.1E±0.2, h33^{km}, mb3.6/3, Error ellipse: s-maj=31.9km s-min=13.9km az=141.1*

*MOS **10** 13:04:44.0±2.5, 47.30N×156.10E, h33^{km}, mb4.0/2, Error ellipse: s-maj=28.6km s-min=17.2km az=67.1*

ISC 10 13:04:45.2±1.5, 47.1N±0.2×156.2E±0.2, h35^{km}, n11, σ0^s.38/11, mb3.6/3, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril’s	3.64	359	*e*PN	Pn	13 05 38.9	0.0
KUR	Kuril’sk	6.08	256	*e*PN	Pn	13 06 11.8	-0.6
KUR				pmax	pmax		
	comp=Z,60nm,0.6s						
PET	Petropavlovsk	6.18	14	*e*PN	Pn	13 06 09.3	-4.5
PET				pmax	pmax		
	comp=Z,6.0nm,0.5s						
PET				MLR	MLR		
	comp=Z,100nm,16.0s						
ASAJ	Asahikawa	9.99	258	PN	Pn	13 07 06.5	+0.5
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	9.99	258	Pn	Pn	13 07 06.5	+0.5
	comp=Z,0.7nm,0.3s,baz=317,slow=31,SNR=9.0						
MJAR	Matsushiro Arr	17.00	238	P	Pn	13 08 44.8	+4.7
	comp=Z,0.2nm,0.3s,baz=32,slow=8.9,SNR=5.2						
MKAR	Makanchi Array	48.68	298	P	P	13 13 25.6	0.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	48.68	298	P	P	13 13 25.6	0.0
	comp=Z,0.6nm,0.7s,mb3.8,baz=66,slow=7.1,SNR=8.4						
FINES	FINESS Array B	64.65	336	P	P	13 15 18.9	+0.1
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	FINESS Array B	64.65	336	P	P	13 15 18.9	+0.1
	comp=Z,0.8nm,0.8s,mb3.8,baz=34,slow=7.1,SNR=4.6						
TXAR	Lajitas Array	75.48	63	P	P	13 16 25.7	0.0
	comp=Z,0.3nm,0.7s,mb3.3,baz=300,slow=3.9,SNR=4.4						

KISR 10 13:09:45.9±0.8, 32.32N×48.51E, h34^{km}±458^{km}, ML1.8, Western Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MIB	Mutribah	2.70	202	*e*P	Pn	13 10 34.8	+7.9
MIB				*e*S	Sn	13 11 13.1	+15
MIB				AML	AML	13 11 15.5	
	comp=Z,2.6nm,0.4s						
RST	Umm Al-Ruwaisa	3.10	205	*e*P	Pn	13 10 39.5	+7.1
RST				*e*S	Sn	13 11 19.9	+12
RST				AML	AML	13 11 21.3	
	comp=Z,4.7nm,0.5s						
RST	Umm Al-Ruwaisa	3.10	205	*e*P	Pn	13 10 39.5	+7.1
RST				*e*S	Sn	13 11 20.8	+13
RST				AML	AML	13 11 20.8	
	comp=Z,4.1nm,0.5s						
NAY	Al-Naaiem	3.25	200	*e*P	Pn	13 10 42.1	+7.7
NAY				*e*S	Sn	13 11 25.5	+14
NAY				AML	AML	13 11 28.2	
	comp=Z,1.2nm,0.3s						
NAY	Al-Naaiem	3.25	200	*e*P	Pn	13 10 42.3	+7.8
NAY				*e*S	Sn	13 11 24.1	+12
NAY				AML	AML	13 11 28.2	
	comp=Z,1.1nm,0.3s						
RDF	Al-Radifah	3.48	194	*e*P	Pn	13 10 46.9	+9.2
RDF				*e*S	Sn	13 11 32.2	+14
RDF				AML	AML	13 11 33.5	
	comp=Z,3.9nm,0.3s						
RDF	Al-Radifah	3.48	194	*e*P	Pn	13 10 45.7	+8.0
RDF				*e*S	Sn	13 11 29.9	+12
RDF				AML	AML	13 11 30.0	
	comp=Z,2.4nm,0.4s						

IDC 10 13:18:41.7±0.9, 20.91S×68.58E, h0^{km}, mb3.8/9, mb1 3.9/9, mb1mx3.8/19, mbtmp3.8/9, MS4.0/9, Ms1 4.0/9, ms1mx3.7/29, Error ellipse: s-maj=30.1km s-min=22.8km az=10.0, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMBO	Kilima Mbogo	36.34	299	LR	LR	13 38 04.6	
	comp=Z,165nm,19.1s,baz=90,slow=32						
BOSA	Boshof	39.91	250	P	P	13 26 18.2	+0.6
	4.2nm,1.0s,baz=80,slow=6.1,SNR=2.7						
BOSA				LR	LR	13 40 07.4	
	comp=Z,203nm,18.7s,baz=28,slow=32						
WRA	Warramunga Arr	61.23	102	P	P	13 28 58.6	-0.3
	1.7nm,0.9s,baz=260,slow=6.5,SNR=9.5						
STKA	Stephens Creek	65.25	116	P	P	13 29 24.9	-0.5
	2.4nm,1.0s,baz=265,slow=13,SNR=2.8						
STKA				LR	LR	13 53 14.4	
	comp=Z,138nm,18.7s,baz=7.4,slow=32						
MKAR	Makanchi Array	68.51	10	P	P	13 29 46.4	+0.7
	0.5nm,0.7s,baz=193,slow=5.0,SNR=9.1						
BRTR	Keskin Array B	68.57	332	P	P	13 29 46.3	+0.1
	0.7nm,1.0s,baz=163,slow=5.3,SNR=2.4						
CTA	Charters Tower	72.02	105	LR	LR	13 58 48.8	
	comp=Z,175nm,18.6s,baz=226,slow=33						
TORD	Torodi Ar. Bea	73.89	291	P	P	13 30 18.8	-0.3
	1.0nm,1.1s,baz=100,slow=6.1,SNR=2.8						
ZALV	Zalesovo Beam	75.85	10	P	P	13 30 28.9	-0.5
	0.4nm,0.3s,baz=194,slow=6.5,SNR=3.5						
ZALV				LR	LR	13 59 24.6	
	comp=Z,34nm,19.0s,baz=353,slow=32						
PMG	Port Moresby	76.10	95	LR	LR	14 01 17.1	
	comp=Z,75nm,19.1s,baz=278,slow=34						
SONM	Songino Array	76.38	25	P	P	13 30 33.8	+1.2
	0.2nm,0.5s,baz=230,slow=3.4,SNR=2.8						
AKASG	Malin Array Be	79.28	336	P	P	13 30 47.0	-1.7
	0.4nm,0.4s,baz=126,slow=4.7,SNR=5.4						
KSRS	Korea Array	80.53	44	LR	LR	14 06 02.9	
	comp=Z,86nm,18.8s,baz=73,slow=35						
MJAR	Matsushiro Arr	87.03	49	LR	LR	14 11 49.3	
	comp=Z,103nm,18.1s,baz=15,slow=37						
HNR	Honiara	87.95	99	LR	LR	14 05 44.1	
	comp=Z,153nm,20.4s,baz=0.1,slow=32						
ULM	Lac du Bonnet	148.24	341	PKPbc	PKPbc	13 38 31.2	+1.7
	1.0nm,0.6s,baz=12,slow=9.3,SNR=3.2						

KRSC 10 13:36:26.8±0.4, 55.12N×161.46E, h67^{km}±57^{km}, ML3.8, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKZ	Mys Kozlova	0.59	164	*i* P	Pn	13 36 40.9	+0.7
MKZ				*i* S	Sn	13 36 51.3	+1.3
TUMR	Tumrok	0.77	283	*i* P	Pn	13 36 44.2	+1.9
TUMR				*i* S	Sn	13 36 56.2	+2.5
KMNR	Kamenistaya	0.94	313	*i* P	Pn	13 36 46.1	+1.7
KMNR				*i* S	Sn	13 36 59.3	+1.9
ZLN	Zelenaya	0.97	338	*e*P	Pn	13 36 46.8	+2.1
ZLN				*i* S	Sn	13 37 00.4	+2.3
KPT	Kopyto	1.10	321	*i* P	Pn	13 36 48.1	+1.7
KPT				*i* S	Sn	13 37 03.4	+2.4
KRSR	Krestovskiy	1.21	336	*e*P	Pn	13 36 49.1	+1.3
KRSR				*i* S	Sn	13 37 05.0	+1.5
KLY	Klyuchi	1.28	339	*i* P	Pn	13 36 49.4	+0.7
KLY				*i* S	Sn	13 37 05.2	+0.1
KOZ	Kozyrevsk	1.30	317	*e*P	Pn	13 36 50.6	+1.6
KOZ				*i* S	Sn	13 37 08.5	+2.9
KBTR	Krutoberegovo	1.33	35	*i* P	Pn	13 36 50.5	+1.1
KBTR				*i* S	Sn	13 37 07.7	+1.3
SRKR	Sorokina	1.55	354	*i* P	Pn	13 36 53.6	+1.4
SRKR				*i* S	Sn	13 37 13.1	+1.7
SRDR	Sredinnyy	1.55	321	*e*P	Pn	13 36 53.7	+1.4
SRDR				*i* S	Sn	13 37 13.3	+1.7
KII	Karymskiy	1.60	228	*i* P	Pn	13 36 54.6	+1.7
KII				*i* S	Sn	13 37 15.2	+2.6
SPN	Mys Shipunski	2.20	203	*i* P	Pn	13 37 01.4	+0.4
SPN				*i* S	Sn	13 37 26.7	-0.3
NLC	Nalytchevo	2.31	213	*e*P	Pn	13 37 03.7	+1.1
NLC				*i* S	Sn	13 37 31.1	+1.1
SDLR	Sedlovina	2.39	220	*i* P	Pn	13 37 05.2	+1.7
SDLR				*i* S	Sn	13 37 33.4	+1.7
GNL	Ganaly	2.50	237	*i* P	Pn	13 37 07.1	+2.0
GNL				*e*S	Sn	13 37 36.6	+2.1
PET	Petropavlovsk	2.67	219	*i* P	Pn	13 37 09.0	+1.6
PET				*i* S	Sn	13 37 39.9	+1.2
RUS	Russkaya	3.21	214	*i* P	Pn	13 37 15.9	+1.2
RUS				*e*S	Sn	13 37 52.9	+1.1
GRL	Gorelyy	3.26	219	*e*P	Pn	13 37 18.5	+3.0
GRL				*i* S	Sn	13 37 55.7	+2.6

*NEIC **10** 13:58:51.0, 36.54S×177.74E, h202^{km}, MG4.2(WEL), After WEL.*

WEL 10 13:58:50.9±0.3, 36.55S×177.71E, h203^{km}±3^{km}, ML4.1/14, Error ellipse: s-maj=3.9km s-min=3.2km az=0.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUZ	Puketiti	1.59	164	P	Pn	13 59 25.5	-0.1
PUZ				S	Sn	13 59 52.4	-0.3
PUZ	Puketiti	1.59	164	PN	Pn	13 59 25.5	0.0
PUZ				SN	Sn	13 59 52.4	-0.3
URZ	Urewera	1.78	195	P	Pn	13 59 27.5	+0.2
URZ	Urewera	1.78	195	PN	Pn	13 59 27.5	+0.2
URZ				SN	Sn	13 59 55.7	-0.2
KNZ	Kokohu	2.47	181	P	Pn	13 59 34.7	+0.1
KNZ	Kokohu	2.47	181	PN	Pn	13 59 34.7	+0.1
BKZ	Black Stump Fm	2.79	200	*e*P	Pn	13 59 38.2	+0.1
BKZ	Black Stump Fm	2.79	200	PN	Pn	13 59 38.2	0.0
BKZ				SN	Sn	14 00 15.1	-0.1
KATZ	Kakaramea	2.90	213	P	Pn	13 59 41.5	+2.0
KATZ	Kakaramea	2.90	213	*e*PN	Pn	13 59 41.1	+1.6
KRVZ	Karewarewa	3.03	212	*e*PN	Pn	13 59 41.9	+1.0
TWVZ	Taurewa	3.10	215	P	Pn	13 59 42.7	+1.0
TWVZ	Taurewa	3.10	215	PN	Pn	13 59 42.7	+1.0
NGZ	Ngauruhoe	3.11	212	P	Pn	13 59 43.2	+1.3
NGZ	Ngauruhoe	3.11	212	PN	Pn	13 59 43.2	+1.3
WPVZ	Whakapapa	3.16	212	P	Pn	13 59 43.7	+1.3
WPVZ	Whakapapa	3.16	212	PN	Pn	13 59 43.6	+1.2
TUVZ	Tukino	3.17	210	P	Pn	13 59 43.4	+0.9
TUVZ	Tukino	3.17	210	PN	Pn	13 59 43.4	+0.8
WNVZ	Wahianoa	3.24	210	P	Pn	13 59 43.8	+0.4
WNVZ	Wahianoa	3.24	210	PN	Pn	13 59 43.8	+0.4
MOVZ	Moawhango	3.25	208	P	Pn	13 59 43.4	-0.1
MOVZ	Moawhango	3.25	208	PN	Pn	13 59 43.4	-0.1
PKVZ	Pokaka	3.32	214	PN	Pn	13 59 44.9	+0.6
MTVZ	Mangateitei	3.34	211	PN	Pn	13 59 45.1	+0.5
PXZ	Pawanui	3.54	191	PN	Pn	13 59 46.6	-0.5
TSZ	Takapari Road	3.77	201	P	Pn	13 59 48.9	-0.9
TSZ	Takapari Road	3.77	201	PN	Pn	13 59 48.9	-0.9
WAZ	Wanganui	3.86	213	PN	Pn	13 59 51.0	+0.1
BFZ	Birch Farm	4.29	195	*e*P	Pn	13 59 55.2	-1.0
BFZ	Birch Farm	4.29	195	PN	Pn	13 59 55.2	-1.1
MRZ	Mangatainoka R	4.43	201	*e*P	Pn	13 59 56.5	-1.6
MRZ	Mangatainoka R	4.43	201	PN	Pn	13 59 56.5	-1.6
TIWZ	Tintock	4.46	198	PN	Pn	13 59 57.3	-1.1
KIW	Kapiti Island	4.83	206	P	Pn	14 00 01.3	-1.8
KIW	Kapiti Island	4.83	206	PN	Pn	14 00 01.3	-1.9
MTW	Mount Morrison	4.92	200	P	Pn	14 00 02.1	-2.1
MTW	Mount Morrison	4.92	200	PN	Pn	14 00 02.1	-2.1
CAW	Cannon Point	5.00	204	P	Pn	14 00 03.1	-2.1
CAW	Cannon Point	5.00	204	PN	Pn	14 00 03.1	-2.1
PAWZ	Paruwai Farm	5.15	199	P	Pn	14 00 04.9	-2.2
PAWZ	Paruwai Farm	5.15	199	PN	Pn	14 00 04.9	-2.2
MSWZ	Moikau Station	5.23	201	P	Pn	14 00 05.8	-2.3
MSWZ	Moikau Station	5.23	201	PN	Pn	14 00 05.8	-2.3
MRW	Makara Radio	5.23	206	P	Pn	14 00 05.6	-2.6
MRW	Makara Radio	5.23	206	PN	Pn	14 00 05.6	-2.6
WEL	Wellington	5.26	205	P	Pn	14 00 06.4	-2.1
WEL	Wellington	5.26	205	PN	Pn	14 00 06.4	-2.1
SNZO	South Karori	5.30	205	*e*P	Pn	14 00 06.7	-2.4
SNZO	South Karori	5.30	205	PN	Pn	14 00 06.7	-2.4
BHW	Baring Head	5.33	204	P	Pn	14 00 07.1	-2.4
BHW				S	Sn	14 01 09.7	-2.0
BHW	Baring Head	5.33	204	PN	Pn	14 00 07.1	-2.4
TCW	Tory Channel	5.37	209	P	Pn	14 00 07.9	-2.1
TCW	Tory Channel	5.37	209	PN	Pn	14 00 07.9	-2.1
TUWZ	Tuamarina	5.69	210	PN	Pn	14 00 11.5	-2.6
NNZ	Nelson	5.76	215	*e*P	Pn	14 00 12.7	-2.2
NNZ	Nelson	5.76	215	PN	Pn	14 00 12.7	-2.2
BSWZ	Blackbirch Sta	5.96	209	P	Pn	14 00 15.1	-2.4
BSWZ	Blackbirch Sta	5.96	209	PN	Pn	14 00 15.1	-2.4
THZ	Tophouse	6.41	214	*e*P	Pn	14 00 21.0	-2.3
THZ	Tophouse	6.41	214	PN	Pn	14 00 21.0	-2.3
KHZ	Kahutara	6.69	207	*e*P	Pn	14 00 24.3	-2.7
KHZ	Kahutara	6.69	207	PN	Pn	14 00 24.3	-2.7
LTZ	Lake Taylor	7.51	212	*e*P	Pn	14 00 34.0	-3.6
MQZ	McQueen’s Vall	8.13	207	*e*P	Pn	14 00 42.1	-3.6
MQZ	McQueen’s Vall	8.13	207	PN	Pn	14 00 42.1	-3.6

IDC 10 14:01:04.7±0.9, 58.39S×140.04W, h0^{km}, mb4.2/2, mb1 4.4/2, mb1mx4.1/9, mbtmp4.2/2, MS4.2/8, Ms1 4.1/8, ms1mx3.9/12, Error ellipse: s-maj=143.7km s-min=30.1km az=174.0, Pacific-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNDA	Vanda	27.09	204	LR	LR	14 14 57.7	
	comp=Z,682nm,18.3s,baz=354,slow=31						
RKT	Rikitea	35.43	8	*e*LR	LR	14 17 20.5	
	918nm,27.0s,baz=178						
RKT	Rikitea	35.43	8	*e*T		14 44 46.2	

	3.1nm,0.3s						
PPT	Papeete	41.37	346	eLR	LR	14 19 56.5	
	916nm,27.0s,baz=170						
PPT	Papeete	41.37	346	LR	LR	14 20 35.5	
	comp=Z,350nm,19.6s,baz=270,slow=28						
MAW	Mawson	53.18	191	LR	LR	14 30 48.8	
	comp=Z,261nm,18.0s,baz=339,slow=34						
STKA	Stephens Creek	57.51	261	LR	LR	14 31 50.7	
	comp=Z,93nm,19.4s,baz=205,slow=32						
LPAZ	La Paz	66.80	83	P	P	14 11 58.7	+0.8
	3.1nm,1.0s,baz=111,slow=5.3,SNR=5.7						
WRA	Warramunga Arr	70.97	263	P	P	14 12 24.2	+0.3
	2.1nm,1.0s,baz=146,slow=5.3,SNR=10						
WRA				LR	LR	14 39 19.9	
	comp=Z,66nm,20.5s,baz=105,slow=32						
ROSC	El Rosal	81.70	67	LR	LR	14 41 56.9	
	comp=Z,91nm,20.7s,baz=20,slow=30						
BOSA	Boshof	92.46	167	LR	LR	14 51 35.3	
	comp=Z,193nm,18.8s,baz=157,slow=33						
TXAR	Lajitas Array	92.52	31	LR	LR	14 46 47.9	
	comp=Z,102nm,19.4s,baz=0.0,slow=30						
YKA	Yellowknife Ar	122.14	14	PKP	PKPdf	14 19 59.5	-0.1
	0.3nm,0.9s,baz=190,slow=2.5,SNR=6.2						
TORD	Torodi Ar. Bea	126.51	131	PKP	PKPdf	14 20 09.2	-0.3
	0.7nm,0.7s,baz=214,slow=1.8,SNR=4.6						
MKAR	Makanchi Array	152.27	264	PKPbc	PKPbc	14 21 01.4	+0.2
	1.1nm,0.9s,baz=116,slow=5.5,SNR=12						
MKAR				PKPab	PKPab	14 21 10.5	-0.7
	1.4nm,1.0s,baz=126,slow=6.2,SNR=5.9						
ZALV	Zalesovo Beam	155.00	279	PKPab	PKPab	14 21 21.9	-0.7
	2.0nm,0.9s,baz=116,slow=3.4,SNR=7.9						

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*CSEM **10** 14:09:19.5±0.1, 38.42N×39.15E, h8^{km}, MD2.9, Error ellipse: s-maj=3.5km s-min=2.4km az=149.0*
*ISK **10** 14:09:19.7, 38.44N×39.11E, h6^{km}, MD2.8*
*NEIC **10** 14:09:19.0, 38.38N×39.18E, h6^{km}, MD2.8(ISK), After ISK.*
*ISCJB **10** 14:09:20.5±0.5, 38.44N±0.03×39.11E±0.04, h8^{km}, Error ellipse: s-maj=5.2km s-min=3.4km az=149.2*
*DDA **10** 14:09:21.8, 38.48N×39.13E, h7^{km}±3^{km}, Md2.9*
ISC 10 14:09:20.9±0.5, **38.45N**±0.04×**39.11E**±0.06, **h9**^{km}±8^{km}, **n23**, σ**1**^{s}.**02**/34, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.11	297	i P	Pg	14 09 24.0	+0.4
ELZG				i S	Sg	14 09 25.9	+0.5
PTK	Pertek	0.50	26	PG	Pg	14 09 29.9	-0.7
PTK	Pertek	0.50	26	Pg	Pg	14 09 30.1	-0.5
PTK				Sg	Sg	14 09 37.0	-0.1
PTK	Pertek	0.50	26	Pg	Pg	14 09 30.0	-0.6
PTK				Sg	Sg	14 09 37.0	-0.1
MYA	Malataya	0.55	258	PG	Pg	14 09 31.4	-0.2
MYA	Malataya	0.55	258	Pg	Pg	14 09 31.1	-0.5
MYA	Malataya	0.55	258	Pg	Pg	14 09 31.1	-0.5
MALT	Malatya	0.55	256	PG	Pg	14 09 30.6	-1.0
MALT				SG	Sg	14 09 38.7	-0.2
MALT	Malatya	0.55	256	Pg	Pg	14 09 31.1	-0.5
MALT				Sg	Sg	14 09 39.1	+0.3
MALT	Malatya	0.55	256	Pg	Pg	14 09 31.1	-0.5
MALT				Sg	Sg	14 09 39.1	+0.2
URFA	Urfa	1.03	193	ePG	Pg	14 09 40.6	-0.1
URFA	Urfa	1.03	193	Pg	Pg	14 09 38.4	-2.3
URFA	Urfa	1.03	193	Pg	Pg	14 09 38.4	-2.3
DIY	Diyarbakir	1.04	122	ePG	Pg	14 09 39.1	-1.7
DIY	Diyarbakir	1.04	122	Pg	Pg	14 09 37.6	-3.2
DIY	Diyarbakir	1.04	122	ePg	Pg	14 09 39.1	-1.7
ATAB	Bozova	1.17	214	i P	Pb	14 09 44.1	+0.8
ATAB				i S	Sg	14 09 59.1	+0.6
EZC	Erzincan	1.41	23	ePN	Pn	14 09 45.7	-1.1
EZC	Erzincan	1.41	23	Pn	Pn	14 09 45.9	-0.9
GZT	Gaziantep	1.64	229	eP	Pg	14 09 52.6	+0.2
GZT				i S	Sg	14 10 15.2	+1.6
BNGL	BINGOL	1.67	72	eP	Pn	14 09 50.9	+0.5
BNGL				i S	Sg	14 10 17.7	+3.0
MARD	Mardin	1.74	130	i P	Pn	14 09 51.7	+0.5
MARD				i S	Sn	14 10 13.7	+0.2
COBT	Iskenderun	2.98	231	i P	Pg	14 10 18.5	+0.5
COBT				i S	Sg	14 10 54.5	-2.0

IDC 10 14:14:15.7±4.8, **6.67N**×**75.70W**, **h135**^{km}±55^{km}, **mb3.1**/2, **mb1 3.3**/3, **mb1mx3.0**/15, **mbtmp3.1**/3, **Error ellipse: s-maj=163.9km s-min=28.9km az=73.0, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	El Rosal	2.26	143	P	Pn	14 14 52.8	-0.3
	7.8nm,0.3s,baz=293,slow=2.7,SNR=11						
ROSC				S	Sn	14 15 23.7	+1.7
	13nm,0.3s,baz=82,slow=23,SNR=11						
LPAZ	La Paz	24.01	162	P	P	14 19 18.3	+0.2
	0.6nm,0.3s,baz=167,slow=11,SNR=6.9						
YKA	Yellowknife Ar	62.54	341	P	P	14 24 24.8	0.0
	0.2nm,0.6s,baz=136,slow=6.7,SNR=4.2						
WRA	Warramunga Arr	148.01	243	PKPbc	PKPbc	14 33 46.1	-0.1
	0.2nm,0.4s,baz=107,slow=2.9,SNR=7.3						

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*MOS **10** 14:30:35.4±0.4, 43.06N×42.65E, h8^{km}, mb3.6/1, Error ellipse: s-maj=12.0km s-min=10.1km az=70.8*
*ISCJB **10** 14:30:36.8±1.0, 43.16N±0.04×42.81E±0.07, h9^{km}±5^{km}, Error ellipse: s-maj=10.7km s-min=3.7km az=144.8*
*TIF **10** 14:30:37.5, 43.23N×42.93E, h18^{km}±3^{km}*
ISC 10 14:30:37.1±1.1, **43.15N**±0.04×**42.79E**±0.08, **h19**^{km}±6^{km}, **n12**, σ**0**^{s}.**66**/24, **6C-3D, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHAR	Shatzhatmas	0.59	352	⇑iPG	Pg	14 30 49.2	+0.3
SHAR				eS	Sg	14 30 56.5	-0.4
DIGR	Digorskoe uzhe	0.64	113	⇑iPG	Pg	14 30 49.3	-0.3
DIGR				i S	Sg	14 30 56.8	-1.4
ONI	Oni	0.75	139	P	Pg	14 30 52.9	+1.1
ONI				S	Sg	14 31 02.6	+0.8
LSNR	Lesken	0.76	81	⇑iPG	Pg	14 30 52.5	+0.5
LSNR				i S	Sg	14 31 02.1	0.0
KIV	Kislovodsk	0.80	355	⇑iPG	Pg	14 30 53.7	+0.9
KIV				i S	Sb	14 31 02.7	-0.2
BEYR	Belyy Ugol+	0.86	1	⇓iPG	Pg	14 30 53.6	-0.2
BEYR				i S	Sb	14 31 03.8	-0.7
PYA	Pyatigorsk	0.90	13	⇑ePG	Pg	14 30 55.0	+0.4
PYA				eS	Sb	14 31 05.2	-0.5
ZEI	Tsey	0.90	115	⇑iPG	Pg	14 30 54.1	-0.5
ZEI				i S	Sb	14 31 04.9	-0.8
KORR	Kora	0.94	94	⇓iPG	Pg	14 30 55.2	-0.2
KORR				i S	Sb	14 31 06.8	0.0
ARNR	Ardon	1.09	88	ePG	Pg	14 30 58.0	-0.3
ARNR				eS	Sb	14 31 11.8	+0.6
LACR	Lac	1.16	106	⇓iPG	Pg	14 30 58.8	-0.6
LACR				i S	Sb	14 31 12.9	-0.1
PRTR	Priterechnaya	1.24	61	ePG	Pg	14 31 01.2	+0.1
PRTR				i S	Sb	14 31 17.3	+1.8

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*ISCJB **10** 14:40:57.5±0.5, 34.55N±0.04×73.16E±0.07, h10^{km}, Error ellipse: s-maj=8.2km s-min=5.3km az=157.6*
*NDI **10** 14:40:58.8±2.6, 34.45N×72.57E, h10^{km}, ML3.4*
*NNC **10** 14:41:07.7±3.4, 34.85N×72.77E, h80^{km}±87^{km}, mb3.2, mpv3.4, Error ellipse: s-maj=44.8km s-min=27.1km az=124.0*
ISC 10 14:40:59.6±0.5, **34.53N**±0.03×**73.04E**±0.07, **h10**^{km}, **n29**, σ**1**^{s}.**44**/36, **3C-2D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHCP	Chirah Chowk	0.89	168	P	Pg	14 41 17.7	+1.0
JMU	Jammu	2.38	139	eS	Sn	14 42 12.5	+4.6
SARP	Sargodha	2.62	187	P	Pn	14 41 42.0	+0.1
SBDP	Sheikh Budin	2.91	221	P	Pn	14 41 45.5	-0.4
THN	Thein Dam	3.06	132	eP	Pn	14 41 51.7	+3.7
THN				ex	x	14 42 33.7	
DLH	Dalhousie	3.15	128	eP	Pn	14 41 51.0	+1.9
DLH				ex	x	14 42 38.0	
DRP	Derazinda	3.66	221	P	Pn	14 41 56.5	+0.3
BHK	Bhakra	4.20	137	ex	x	14 42 17.0	
SDNR	Sundarnagar	4.47	131	eP	Pn	14 42 10.6	+3.2
SDNR				ex	x	14 43 01.0	
SMLA	Simla	4.85	133	eP	Pn	14 42 15.8	+3.2
SMLA				ex	x	14 43 10.5	
JOSI	Joshimath	6.78	124	eP	Pn	14 42 42.0	+2.9
JOSI				eS	Sn	14 43 55.7	-0.6
JOSI				AML	AML	14 44 06.5	
	comp=N,79nm,0.9s						
JOSI				AML	AML	14 44 08.5	
	comp=E,62nm,0.4s						
NDI	New Delhi	6.83	147	eP	Pn	14 42 41.5	+1.7
NDI				eS	Sn	14 43 55.1	-2.5
NDI				AML	AML	14 43 58.9	
	comp=N,22nm,0.4s						
NDI				AML	AML	14 43 59.6	
	comp=E,27nm,0.5s						
KHET	Khetri	6.86	159	eP	Pn	14 42 39.1	-1.1
KHET				eS	Sn	14 43 53.6	-4.7
KHET				AML	AML	14 43 55.6	
	comp=N,17nm,0.5s						
KHET				AML	AML	14 43 55.7	
	comp=E,23nm,0.4s						
AYAN	Aya Nagar	6.96	149	eP	Pn	14 42 42.1	+0.5
AYAN				eS	Sn	14 43 59.0	-1.9
AYAN				AML	AML	14 44 01.4	
	comp=Z,14nm,0.6s						
AJM	Ajmer	8.14	170	eS	Sn	14 44 21.6	-8.4
AJM				AML	AML	14 45 36.9	
	comp=N,14nm,0.6s						
AJM				AML	AML	14 45 36.9	
	comp=E,22nm,0.5s						
AGRA	Agra	8.40	149	eS	Sn	14 44 32.7	-3.7
AGRA				AML	AML	14 44 36.0	
	comp=E,47nm,0.4s						
AGRA				AML	AML	14 44 36.3	
	comp=N,52nm,0.4s						
TKM2	Tokmak 2	8.61	13	⇑Pn	Pn	14 43 05.8	+1.7
	comp=N,0.2nm,0.7s						
TKM2				⇑Sn	Sn	14 44 39.6	-1.8
	comp=N,0.3nm,0.6s						
KK31	Karatay Array	8.78	348	Pn	Pn	14 43 08.2	+1.7
	comp=N,3.8nm,0.3s,baz=178,slow=13,SNR=34						
KK31				Sn	Sn	14 44 43.8	-1.8
	comp=N,5.4nm,0.5s,baz=171,slow=23,SNR=10						
KOLN	Koldanda	11.27	124	eP	Pn	14 43 40.1	-0.6
	comp=N,7.3nm,0.5s						
KOLN				eS	Sn	14 45 37.6	-9.2
GKN	Gorkha	11.86	120	eP	Pn	14 43 48.2	-0.5
	comp=N,8.6nm,0.3s						
BHPL	Bhopal	11.88	160	eS	Sn	14 45 52.0	-10
BHPL				AML	AML	14 47 28.3	
	comp=N,5.9nm,0.2s						
BHPL				AML	AML	14 47 29.4	
	comp=E,10.0nm,0.6s						
DMN	Daman	12.42	120	eP	Pn	14 43 56.2	-0.3
	comp=E,12nm,0.6s						
KKN	Kakani	12.44	119	eP	Pn	14 43 57.3	+0.6
	comp=E,7.9nm,0.4s						
PKI	Pulchoki	12.66	120	eP	Pn	14 44 00.4	+0.7
	comp=E,5.3nm,0.3s						
GUN	Gumba	12.81	118	eP	Pn	14 44 01.6	-0.1
	comp=E,6.5nm,0.3s						
MK31	Makanchi Array	14.10	27	⇑P	Pn	14 44 21.4	+2.2
	comp=E,2.3nm,1.3s,baz=206,slow=11,SNR=8.1						
TAPN	Taplejung	14.47	116	eP	Pn	14 44 22.7	-1.7
	comp=E,6.4nm,0.4s						
ODAN	Odare	14.51	118	eP	Pn	14 44 24.9	0.0
	comp=E,5.6nm,0.4s						
AB31	Akbulak array	17.61	331	⇓Pn	Pn	14 45 02.8	-2.1
	comp=E,0.5nm,0.6s						
AB31				⇓Sn	Sn	14 48 08.5	-12
	comp=E,0.6nm,0.6s						

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*CSEM **10** 15:01:58.6±0.1, 39.58N×42.82E, h2^{km}, MD3.2, Error ellipse: s-maj=2.3km s-min=1.7km az=55.0*
*NEIC **10** 15:01:58.7, 39.59N×42.80E, h5^{km}, MD3.4(ISK), After ISK.*
*ISCJB **10** 15:01:59.9±0.3, 39.60N±0.02×42.84E±0.03, h5^{km}, Error ellipse: s-maj=3.7km s-min=3.1km az=155.9*
*ISK **10** 15:01:59.5, 39.60N×42.80E, h6^{km}, MD3.2*
*DDA **10** 15:02:00.1, 39.61N×42.83E, h5^{km}±3^{km}, Md3.4, Ml3.5*
ISC 10 15:02:00.3±0.5, **39.60N**±0.02×**42.84E**±0.04, **h5**^{km}±4^{km}, **n44**, σ**0**^{s}.**82**/58, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGRB	Hanur-Agry	0.12	103	i PG	Pg	15 02 02.5	-0.2
AGRB	Hanur-Agry	0.12	103	i Pg	Pg	15 02 02.5	-0.2
TUTA	Tutak	0.20	186	i P	Pg	15 02 03.5	-0.8
TUTA				i S	Sg	15 02 07.2	+0.4
DYDN	Diyadin	0.66	95	i P	Pg	15 02 11.9	-1.0
DYDN				i S	Sg	15 02 21.6	+0.1
DYDN	Diyadin	0.66	95	i P	Pg	15 02 11.9	-1.0
DYDN				i S	Sg	15 02 21.5	+0.1
DIGO	Kars	0.91	27	i P	Pg	15 02 17.1	-0.7
DIGO				i S	Sg	15 02 34.8	+5.3
KARS	Kars	1.03	11	PG	Pg	15 02 19.9	-0.1
KARS				SG	Sg	15 02 34.9	+1.6
KARS	Kars	1.03	11	Pg	Pg	15 02 19.9	0.0
KARS				Sg	Sg	15 02 36.0	+2.6
VANB	Van	1.09	157	PN	Pn	15 02 21.2	-1.0
VANB				SN	Sn	15 02 37.8	+0.2
VANB	Van	1.09	157	Pn	Pn	15 02 21.3	-0.9
VANB	Van	1.09	157	Pn	Pn	15 02 21.3	-0.9
VANB				eSn	Sn	15 02 37.8	+0.2
TVAN	Van	1.16	158	i P	Pg	15 02 21.6	-0.9
TVAN				i S	Sg	15 02 39.1	+1.6
ERZM	Erzurum	1.18	285	i P	Pg	15 02 22.1	-0.8
ERZM				i S	Sg	15 02 42.2	+4.1
ERZM	Erzurum	1.18	285	i P	Pg	15 02 22.0	-0.9
ERZM				i S	Sg	15 02 42.2	+4.1
EZM	Erzurum	1.18	285	PN	Pn	15 02 21.9	-1.5
EZM	Erzurum	1.18	285	Pn	Pn	15 02 21.9	-1.5
EZM				Sg	Sg	15 02 38.9	+0.7
VANT	Van	1.23	160	PN	Pn	15 02 23.2	-0.9
VANT	Van	1.23	160	Pn	Pn	15 02 23.3	-0.8
VANT	Van	1.23	160	Pn	Pn	15 02 23.3	-0.8
BNGL	BINGOL	1.47	244	i P	Pn	15 02 25.7	-1.6
BNGL				i S	Sn	15 02 47.3	+0.5
ARTV	Artvin	1.73	336	i P	Pn	15 02 31.5	+0.6
BTMT	Batman	1.76	217	PN	Pn	15 02 32.3	+1.0
BINT	Bingol	1.97	249	ePN	Pn	15 02 34.0	-0.2
BINT	Bingol	1.97	249	Pn	Pn	15 02 34.0	-0.2
BINT	Bingol	1.97	249	ePn	Pn	15 02 34.0	-0.2
BCA	Borcka	2.06	334	Pn	Pn	15 02 35.8	+0.3
BCA	Borcka	2.06	334	Pn	Pn	15 02 35.8	+0.3
SIRT	Sirnak	2.12	189	ePN	Pn	15 02 36.7	+0.4
SIRT	Sirnak	2.12	189	ePn	Pn	15 02 36.7	+0.4
HKR	Hakkari	2.14	161	ePN	Pn	15 02 37.2	+0.6
HKR	Hakkari	2.14	161	Pn	Pn	15 02 37.2	+0.7
HKR	Hakkari	2.14	161	ePn	Pn	15 02 37.2	+0.6
HAKT	HAKKARI	2.15	161	i P	Pb	15 02 38.8	-0.8
HAKT				i S	Sg	15 03 10.5	+1.2
EZC	Erzincan	2.34	275	Pn	Pg	15 02 44.6	-0.5
CUKT	Cukurca	2.43	165	ePN	Pn	15 02 40.9	+0.4
CUKT	Cukurca	2.43	165	ePn	Pn	15 02 40.9	+0.4
DGRG	David-gareji	2.67	45	P	Pb	15 02 48.0	-0.5
GUMT	Gumushane	2.72	289	Pn	Pn	15 02 44.9	+0.3
GUMT	Gumushane	2.72	289	Pn	Pn	15 02 44.9	+0.3
PTK	Pertek	2.77	256	ePN	Pn	15 02 45.7	+0.4
PTK	Pertek	2.77	256	Pn	Pn	15 02 45.7	+0.4
PTK	Pertek	2.77	256	ePn	Pn	15 02 45.7	+0.4
MARD	Mardin	2.80	216	i P	Pn	15 02 45.6	-0.1
ONI	Oni	3.01	9	P	Pb	15 02 55.1	+0.8

IDC 10 15:09:18.0±5.3, **18.18S**×**168.23E**, **h165**^{km}±54^{km}, **mb3.6**/4, **mb1 3.8**/5, **mb1mx3.7**/11, **mbtmp3.6**/5, **MS3.4**/1, **Ms1 3.4**/1, **ms1mx2.6**/16, **Error ellipse: s-maj=63.6km s-min=31.3km az=163.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	4.22	203	P	Pn	15 10 20.5	-0.9
	2.4nm,0.3s,baz=52,slow=21,SNR=26						
DZM				S	Sn	15 11 12.2	+1.1
	2.7nm,0.3s,baz=73,slow=23,SNR=7.8						
PMG	Port Moresby	22.23	290	LR	LR	15 20 32.1	
	comp=Z,88nm,18.7s,baz=246,slow=30						
STKA	Stephens Creek	27.63	235	P	P	15 14 49.5	-0.6
	1.1nm,0.5s,baz=78,slow=9.3,SNR=4.0						
WRA	Warramunga Arr	32.05	261	P	P	15 15 29.7	+0.4
	0.4nm,0.4s,baz=93,slow=6.9,SNR=7.1						
SONM	Songino Array	85.81	323	P	P	15 21 38.7	+0.1
	1.1nm,0.9s,baz=114,slow=3.5,SNR=6.7						
TXAR	Lajitas Array	97.10	62	P	P	15 22 31.9	+0.3
	0.8nm,0.7s,baz=219,slow=7.0,SNR=10						

IDC 10 15:10:37.6±2.3, **19.26S**×**177.88W**, **h464**^{km}±25^{km}, **mb3.1**/4, **mb1 3.3**/5, **mb1mx3.2**/13, **mbtmp3.1**/5, **Error ellipse: s-maj=62.6km s-min=17.8km az=147.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.90	49	P	P	15 12 33.5	+1.2
	1.3nm,0.3s,baz=179,slow=22,SNR=2.2						
AFI				S	S	15 14 05.1	-1.2
	14nm,0.3s,baz=105,slow=9.8,SNR=9.2						
STKA	Stephens Creek	38.44	243	P	P	15 17 18.6	+0.2
	1.0nm,0.6s,baz=76,slow=8.3,SNR=3.6						
WRA	Warramunga Arr	44.90	261	P	P	15 18 09.5	-0.4
	1.1nm,0.6s,baz=97,slow=7.2,SNR=39						
MJAR	Matsushiro Arr	69.28	323	P	P	15 20 57.8	+0.5
	0.8nm,0.5s,baz=148,slow=5.2,SNR=5.3						
PDAR	Pinedale Array	87.98	43	P	P	15 22 38.4	+1.1
	0.5nm,0.8s,baz=258,slow=1.4,SNR=4.7						
BRTR	Keskin Array B	146.08	314	PKPbc	PKPbc	15 29 24.6	-0.6
	0.8nm,0.8s,baz=59,slow=4.8,SNR=4.5						
VRAC	Vranov	147.84	342	PKPbc	PKPbc	15 29 28.2	-1.3
	4.2nm,0.3s,baz=145,slow=4.9,SNR=3.8						
GERES	GERESS Array B	149.04	345	PKPbc	PKPbc	15 29 32.0	-0.5
	0.3nm,0.5s,baz=17,slow=1.4,SNR=4.6						

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*ATH **10** 15:39:46.3, 38.98N×23.50E, h34^{km}, MD3.0/4*
*ISCJB **10** 15:39:48.2±1.0, 39.02N±0.05×23.31E±0.07, h10^{km}±6^{km}, Error ellipse: s-maj=10.7km s-min=6.1km az=137.2*
*CSEM **10** 15:39:49.2±0.2, 39.00N×23.31E, h15^{km}, ML2.8, Error ellipse: s-maj=4.9km s-min=3.2km az=131.0*
*THE **10** 15:39:49.5, 39.01N×23.32E, h10^{km}, ML2.8*
ISC 10 15:39:49.2±0.9, **39.03N**±0.04×**23.30E**±0.06, **h11**^{km}±5^{km}, **n30**, σ**0**^{s}.**98**/40, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEO	Neokhori	0.28	348	ePB	Pg	15 39 55.7	+0.8
NEO	Neokhori	0.28	348	ePb	Pg	15 39 55.7	+0.8
XOR	Xorichti	0.34	346	ePg	Pg	15 39 56.8	+0.7
XOR	Xorichti	0.34	346	ePg	Pg	15 39 56.8	+0.7
LKR	Lokris	0.45	212	ePN	Pg	15 39 57.5	-0.5
LKR	Lokris	0.45	212	ePn	Pg	15 39 57.5	-0.5
AOS	Alonnisos	0.47	73	ePg	Pg	15 39 58.3	-0.1
AOS	Alonnisos	0.47	73	ePg	Pg	15 39 58.3	-0.2
AGG	Agios Georgios	0.76	270	ePg	Pg	15 40 03.3	-0.5
AGG				eSg	Sg	15 40 14.8	+1.1
AGG	Agios Georgios	0.76	270	ePg	Pg	15 40 03.3	-0.5
AGG				eSg	Sg	15 40 14.8	+1.1
PAIG	Paliouri	0.94	18	ePg	Pg	15 40 08.0	+0.6
PAIG				eSg	Sg	15 40 21.5	+1.8
PAIG	Paliouri	0.94	18	ePg	Pg	15 40 07.9	+0.5
PAIG				eSg	Sg	15 40 21.5	+1.9
THL	Klokotos Trika	1.13	299	ePN	Pn	15 40 09.9	-1.1
THL	Klokotos Trika	1.13	299	ePn	Pn	15 40 09.9	-1.1
LIT	Litokhoron	1.24	330	ePg	Pg	15 40 12.6	-0.4
LIT	Litokhoron	1.24	330	ePg	Pg	15 40 12.6	-0.4
PLG	Polygyros	1.35	5	ePg	Pg	15 40 13.5	-1.5
PLG				eSg	Sg	15 40 31.6	-1.0
PLG	Polygyros	1.35	5	ePN	Pn	15 40 10.8	-3.1
PLG	Polygyros	1.35	5	ePn	Pn	15 40 10.8	-3.1
PLG	Polygyros	1.35	5	ePg	Pg	15 40 13.5	-1.6
PLG				eSg	Sg	15 40 31.5	-1.0
OUR	Ouranopolis	1.40	22	ePg	Pn	15 40 14.5	-0.2
OUR	Ouranopolis	1.40	22	ePg	Pn	15 40 14.5	-0.2
HORT	Hortiatis	1.57	354	ePg	Pn	15 40 17.3	+0.2
HORT				eSg	Sg	15 40 38.4	-1.4
HORT	Hortiatis	1.57	354	ePg	Pn	15 40 17.3	+0.3
HORT				eSg	Sg	15 40 38.3	-1.5
GRG	Griva	2.04	341	ePn	Pn	15 40 24.1	+0.6
GRG	Griva	2.04	341	ePn	Pn	15 40 24.1	+0.6
SRS	Serrai	2.10	6	ePn	Pn	15 40 24.8	+0.6
SRS				eSn	Sn	15 40 50.6	+0.3
SRS	Serrai	2.10	6	ePn	Pn	15 40 24.8	+0.6
SRS				eSn	Sn	15 40 50.6	+0.3
KNT	Kendrikon	2.15	352	ePn	Pn	15 40 26.2	+1.2
KNT	Kendrikon	2.15	352	ePn	Pn	15 40 26.2	+1.2

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*IDC **10** 16:10:43.9±3.8, 8.70S×118.28E, h132^{km}±35^{km}, mb3.7/5, mb1 3.8/7, mb1mx3.6/18, mbtmp3.7/7, Error ellipse: s-maj=54.3km s-min=11.6km az=49.0*
*ISCJB **10** 16:10:44.8±0.8, 8.73S±0.09×118.42E±0.10, h161^{km}±9^{km}, mb4.0/7, Error ellipse: s-maj=19.3km s-min=9.0km az=137.9*
*NEIC **10** 16:10:45.7±2.4, 8.71S×118.38E, h148^{km}±21^{km}, mb4.4/3, Error ellipse: s-maj=33.7km s-min=11.5km az=54.0*
ISC 10 16:10:45.8±0.8, **8.70S**±0.09×**118.43E**±0.10, **h147**^{km}±9^{km}, **n34**, σ**1**^{s}.**18**/33, **mb4.0**/7, **Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WSI	Waingapu	2.09	118	P	Pn	16 11 20.6	-1.2
	2μm,0.5s						
DNP	Denpasar	3.18	270	P	Pn	16 11 35.8	+0.5
	545nm,0.5s						
KRKI	Karangkates	5.93	275	P	Pn	16 12 03.5	-8.1
	166nm,1.0s						
PCI	Palu	7.87	10	P	Pn	16 12 38.4	+0.9
	44nm,1.3s						
FITZ	Fitzroy Crossi	11.69	144	eP	Pn	16 13 27.9	-0.2
	19nm,0.6s						
FITZ				eS	Sn	16 15 30.1	-7.2
FITZ	Fitzroy Crossi	11.69	144	ePn	Pn	16 13 27.1	-1.0
FITZ				eS	Sn	16 15 30.1	-7.2
FITZ	Fitzroy Crossi	11.69	144	P	Pn	16 13 27.4	-0.7
	1.0nm,0.3s,baz=337,slow=8.0,SNR=33						
FITZ				S	Sn	16 15 32.1	-5.2
	2.7nm,0.3s,baz=168,slow=23,SNR=12						
KSM	Kuching	12.94	321	ePn	Pn	16 13 51.1	+6.7
KAKA	Kakadu	14.34	107	eP	Pn	16 14 00.8	-1.4
	15nm,0.4s						
KAKA				eS	Sn	16 16 31.3	-10
KAKA	Kakadu	14.34	107	ePn	Pn	16 14 00.2	-2.0
KAKA				eSn	Sn	16 16 28.3	-13
KKM	Kota Kinabalu	14.81	351	ePn	Pn	16 14 10.4	+2.4
WRA	Warramunga Arr	19.02	128	P	P	16 14 57.2	+0.6
	1.6nm,0.3s,baz=302,slow=13,SNR=82						
WRA				S	S	16 18 25.5	+0.7
	0.4nm,0.3s,baz=302,slow=21,SNR=6.2						
WB2	Warramunga Arr	19.03	128	eP	P	16 14 57.4	+0.8
WB2				eS	S	16 18 19.5	-5.5
COEN	Coen	24.81	104	eP	P	16 15 54.9	+0.3
PMG	Port Moresby	28.38	94	P	P	16 16 25.7	-0.9
	9.3nm,0.9s,mb4.5						
CTA	Charters Tower	29.18	116	P	P	16 16 35.0	+1.4
CTA	Charters Tower	29.18	116	P	P	16 16 35.0	+1.4
	1.9nm,0.7s,mb3.9,baz=303,slow=10,SNR=3.2						
CTAO	Charters Tower	29.18	116	P	P	16 16 34.4	+0.8
	2.7nm,0.8s,mb4.0						
STKA	Stephens Creek	31.55	140	eP	P	16 16 55.9	+1.6
	1.8nm,0.5s,mb4.1						
STKA	Stephens Creek	31.55	140	eP	P	16 16 55.5	+1.2
STKA	Stephens Creek	31.55	140	P	P	16 16 55.1	+0.9
	2.0nm,0.5s,mb4.1,baz=329,slow=8.8,SNR=7.3						
STKA				PcP	PcP	16 19 45.0	+1.4
	3.7nm,0.8s,baz=342,slow=2.8,SNR=4.7						
MAJO	Matsushiro	48.69	21	eP	P	16 19 08.5	-6.7
	4.1nm,0.5s,mb4.3						
SONM	Songino Array	57.28	350	P	P	16 20 17.3	-0.6
	1.5nm,0.7s,mb3.9,baz=166,slow=9.0,SNR=15						
MKAR	Makanchi Array	63.93	333	P	P	16 21 01.6	-1.5
	0.6nm,0.7s,mb3.5,baz=153,slow=6.4,SNR=15						
ZALV	Zalesovo Beam	68.56	339	P	P	16 21 30.2	-2.2
ZALV	Zalesovo Beam	68.56	339	P	P	16 21 30.2	-2.2
	1.6nm,0.6s,mb3.9,baz=132,slow=4.4,SNR=8.7						
YKA	Yellowknife Ar	114.15	24	PKP	PKiKP	16 29 07.1	-0.2
YKA	Yellowknife Ar	114.15	24	PKP	PKiKP	16 29 07.1	-0.2
	0.4nm,0.6s,baz=301,slow=1.8,SNR=6.0						
TORD	Torodi Ar. Bea	117.85	280	PKP	PKPdf	16 29 15.9	+0.1
TORD	Torodi Ar. Bea	117.85	280	PKP	PKPdf	16 29 15.9	+0.1
	1.2nm,0.6s,baz=84,slow=2.1,SNR=10						
NVAR	Mina Array Bea	121.26	50	PKP	PKPdf	16 29 22.1	+0.4
NVAR	Mina Array Bea	121.26	50	PKP	PKPdf	16 29 22.1	+0.4
	0.4nm,0.6s,baz=304,slow=2.1,SNR=3.4						
SCHQ	Schefferville	133.80	4	PKP	PKPdf	16 29 46.2	+1.1
SCHQ	Schefferville	133.80	4	PKP	PKPdf	16 29 46.2	+1.1
	1.9nm,0.9s,baz=14,slow=4.2,SNR=3.2						

IDC 10 16:30:29.3±1.9, 3.16N×128.39E, h0^{km}, mb3.2/3, mb1 3.4/3, mb1mx3.3/16, mbtmp3.2/3, Error ellipse: s-maj=174.0km s-min=26.1km az=71.0, North of Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	23.69	166	P	P	16 35 42.6	-0.5
	0.3nm,0.5s,baz=347,slow=10.0,SNR=7.6						
SONM	**Songino Array**	48.38	340	P	P	16 39 13.5	+0.6
	0.2nm,0.6s,baz=141,slow=5.9,SNR=2.5						
MKAR	**Makanchi Array**	58.97	325	P	P	16 40 30.5	-0.2
	0.2nm,0.5s,baz=112,slow=8.4,SNR=4.8						

ISCJB ***10*** *17:06:20.8±4.0, 39.5N±0.1×21.3E±0.1, h3^{km}±40^{km}, Error ellipse: s-maj=26.2km s-min=13.8km az=33.2*
CSEM ***10*** *17:06:22.0, 39.48N×21.31E, h10^{km}, MD2.9/3, After ATH*
SKO ***10*** *17:06:22.3, 39.45N×21.31E, h2^{km}*
ATH ***10*** *17:06:22.0, 39.48N×21.31E, h10^{km}, MD2.9/3*
ISC 10 17:06:22.0±1.2, 39.5N±0.1×21.3E±0.1, h1^{km}±19^{km}, n7, σ0^{s}.35/8, Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAN	**Janina**	0.40	297	*e*PB	**Pg**	**17 06 29.6**	**-0.1**
JAN	**Janina**	0.40	297	*e*Pb	**Pg**	**17 06 29.6**	**-0.1**
THL	**Klokotos Trika**	0.55	81	*e*PB	**Pg**	**17 06 32.5**	**0.0**
THL	**Klokotos Trika**	0.55	81	*e*Pb	**Pg**	**17 06 32.5**	**0.0**
EVR	**Evrytania**	0.68	145	*e*PB	**Pg**	**17 06 34.9**	**-0.1**
EVR	**Evrytania**	0.68	145	*e*Pb	**Pg**	**17 06 34.9**	**-0.1**
KRUS	**Krusevo**	1.89	359	*e*Pn	**Pn**	**17 06 55.8**	**+0.4**
KRUS				*e*Sn	**Sn**	**17 07 19.4**	**-0.3**

IDC 10 17:10:31.2±1.7, 2.24N×126.00E, h0^{km}, mb3.8/4, mb1 4.0/4, mb1mx3.6/17, mbtmp3.8/4, Error ellipse: s-maj=116.6km s-min=23.0km az=70.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	20.22	181	P	P	17 15 09.6	+1.7
	1.8nm,0.9s,baz=3.4,slow=17,SNR=2.6						
WRA	**Warramunga Arr**	23.52	160	P	P	17 15 42.1	-1.1
	0.5nm,0.3s,baz=336,slow=10,SNR=22						
MKAR	**Makanchi Array**	58.37	326	P	P	17 20 28.5	+0.2
	0.3nm,0.3s,baz=120,slow=8.0,SNR=21						
FINES	**FINESS Array B**	92.79	332	P	P	17 23 44.9	-0.5
	2.0nm,1.0s,baz=40,slow=2.4,SNR=3.5						

KRSC 10 17:21:39.2±1.0, 55.55N×161.90E, h58^{km}±58^{km}, ML3.6, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZLN	**Zelenaya**	0.78	308	*i* P	Pn	17 21 55.5	+1.3
ZLN				*i* S	Sn	17 22 07.9	+2.6
KBTR	**Krutoberegovo**	0.84	38	*i* P	Pn	17 21 54.9	-0.1
KBTR				*i* S	Sn	17 22 06.7	0.0
KMNR	**Kamenistaya**	0.96	283	*e*P	Pn	17 21 58.3	+1.7
KMNR				*i* S	Sn	17 22 12.0	+2.5
MKZ	**Mys Kozlova**	1.00	186	*e*P	Pn	17 21 57.1	0.0
MKZ				*i* S	Sn	17 22 10.1	-0.3
KRSR	**Krestovskiy**	1.01	312	*i* P	Pn	17 21 57.9	+0.7
KRSR				*i* S	Sn	17 22 11.3	+0.8
TUMR	**Tumrok**	1.03	256	*i* P	Pn	17 21 59.3	+1.7
TUMR				*i* S	Sn	17 22 13.5	+2.3
KPT	**Kopyto**	1.04	294	*i* P	Pn	17 21 58.9	+1.3
KPT				*i* S	Sn	17 22 13.1	+1.9
KLY	**Klyuchi**	1.04	318	*i* P	Pn	17 21 57.2	-0.4
KLY				*i* S	Sn	17 22 10.2	-1.1
SRKR	**Sorokina**	1.18	340	*i* P	Pn	17 22 00.3	+0.8
SRKR				*i* S	Sn	17 22 16.7	+2.1
KOZ	**Kozyrevsk**	1.25	295	*i* P	Pn	17 22 02.1	+1.7
KOZ				*i* S	Sn	17 22 18.8	+2.5
SRDR	**Sredinnyy**	1.45	303	*e*P	Pn	17 22 04.1	+1.0
SRDR				*i* S	Sn	17 22 22.1	+1.0
KII	**Karymskiy**	2.08	224	*e*P	Pn	17 22 13.7	+2.1
KII				*i* S	Sn	17 22 39.2	+2.9
SPN	**Mys Shipunski**	2.69	205	*e*P	Pn	17 22 20.6	+0.6
SPN				*i* S	Sn	17 22 51.2	-0.1
NLC	**Nalytchevo**	2.81	213	*e*P	Pn	17 22 22.9	+1.2
NLC				*i* S	Sn	17 22 55.1	+0.8
SDLR	**Sedlovina**	2.88	219	*e*P	Pn	17 22 24.6	+2.0
SDLR				*i* S	Sn	17 22 58.4	+2.5
GNL	**Ganaly**	2.96	233	*e*P	Pn	17 22 25.8	+2.2
GNL				*e*S	Sn	17 22 59.4	+1.5
PET	**Petropavlovsk**	3.17	218	P	Pn	17 22 28.7	+2.2
PET				*i* S	Sn	17 23 04.4	+1.4
RUS	**Russkaya**	3.71	214	P	Pn	17 22 35.2	+1.3
RUS				*i* S	Sn	17 23 16.4	+0.1
GRL	**Gorelyy**	3.76	218	P	Pn	17 22 37.2	+2.7

MAN 10 17:31:38, 11.51N×124.45E, h4^{km}, mb3.6, ML2.3, MS1.8, Leyte

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OCLP	**Ormoc**	0.48	161	*e*P	Pg	17 31 48.5	+1.2
OCLP				*e*S	Sg	17 31 56.8	+3.2
PLP	**Palo**	0.62	123	*e*P	Pg	17 31 51.4	+1.4
PLP				*e*S	Sg	17 31 59.1	+1.1
BESP	**Borongan**	0.97	85	*e*P	Pg	17 31 57.6	+0.9
MSLP	**Maasin**	1.42	164	*e*P	Pn	17 32 05.3	+0.6

ISCJB ***10*** *17:48:21.2±1.5, 5.31S±0.09×128.7E±0.1, h318^{km}±16^{km}, mb4.1/22, Error ellipse: s-maj=27.1km s-min=7.8km az=150.3*
NEIC ***10*** *17:48:23.5±1.3, 5.34S×128.60E, h325^{km}±15^{km}, mb4.0/10, Error ellipse: s-maj=20.3km s-min=7.5km az=53.0*
IDC ***10*** *17:48:25.9±6.8, 5.36S×128.73E, h353^{km}±81^{km}, mb3.3/5, mb1 3.5/7, mb1mx3.4/15, mbtmp3.4/7, Error ellipse: s-maj=52.8km s-min=21.8km az=78.0*
ISC 10 17:48:23.6±1.3, 5.35S±0.06×128.7E±0.1, h329^{km}±15^{km}, n35, σ0^{s}.81/40, mb4.0/22, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	8.20	153	*e*P	**Pn**	**17 50 19.4**	**-0.5**
	12nm,0.1s						
KAKA				*e*S	**S**	**17 51 47.6**	**-7.0**
FITZ	**Fitzroy Crossi**	13.02	193	*e*P	**Pn**	**17 51 17.6**	**-0.2**
	19nm,0.8s						
FITZ				*e*S	**S**	**17 53 42.5**	**+1.0**
FITZ	**Fitzroy Crossi**	13.02	193	P	**Pn**	**17 51 17.8**	**0.0**
	1.8nm,0.3s,baz=26,slow=12,SNR=65						
FITZ				S	**S**	**17 53 42.8**	**+1.3**
	0.6nm,0.3s,baz=92,slow=17,SNR=3.3						
WRA	**Warramunga Arr**	15.51	160	P	**P**	**17 51 46.2**	**+1.3**
	1.5nm,0.3s,baz=345,slow=12,SNR=95						
WRA				S	**S**	**17 54 31.5**	**-0.4**
	1.1nm,0.3s,baz=334,slow=21,SNR=15						
WB2	**Warramunga Arr**	15.52	160	*e*P	**P**	**17 51 46.2**	**+1.3**
WB2	**Warramunga Arr**	15.52	160	*e*P	**P**	**17 51 46.1**	**+1.1**
WB2				*e*S	**S**	**17 54 29.4**	**-2.6**
KKM	**Kota Kinabalu**	16.82	312	*e*P	**P**	**17 51 59.0**	**-0.2**
KSM	**Kuching**	19.56	290	*e*P	**P**	**17 52 27.7**	**-0.8**
STKA	**Stephens Creek**	29.03	157	P	**P**	**17 53 54.3**	**0.0**
	3.3nm,1.1s,mb3.5,baz=316,slow=9.5,SNR=2.8						
KULM	**Kulim**	29.92	290	*e*P	**P**	**17 54 01.4**	**-1.0**
CM31	**Chiang Mai Arr**	37.68	310	*e*P	**P**	**17 55 11.2**	**+2.6**
	6.2nm,1.0s,mb3.8						
CHTO	**Chiang Mai**	37.88	310	*e*P	**P**	**17 55 10.3**	**0.0**
	3.0nm,0.6s,mb3.7						
KSRS	**Korea Array**	42.59	359	P	**P**	**17 55 48.0**	**-0.3**
	0.8nm,0.6s,mb3.0,baz=175,slow=9.3,SNR=4.7						
LSA	**Lhasa**	50.11	316	*e*P	**P**	**17 56 46.9**	**+0.4**
	3.8nm,0.8s,mb3.7						
ODAN	**Odare**	51.19	311	*e*P	**P**	**17 56 53.4**	**-1.1**
	14nm,0.7s,mb4.3						
TAPN	**Taplejung**	51.22	312	*e*P	**P**	**17 56 54.5**	**-0.2**
	16nm,0.7s,mb4.4						
JIRN	**Jiri**	52.52	311	*e*P	**P**	**17 57 04.4**	**+0.1**
	2.6nm,0.2s,mb4.2						
GUN	**Gumba**	52.89	311	*e*P	**P**	**17 57 07.0**	**+0.1**
	20nm,0.5s,mb4.7						
PKI	**Pulchoki**	53.06	310	*e*P	**P**	**17 57 08.0**	**-0.2**
KKN	**Kakani**	53.28	311	*e*P	**P**	**17 57 09.4**	**-0.3**
	8.5nm,0.5s,mb4.3						
GKN	**Gorkha**	53.87	310	*e*P	**P**	**17 57 13.8**	**-0.2**
	15nm,0.4s,mb4.6						
KOLN	**Koldanda**	54.55	310	*e*P	**P**	**17 57 18.8**	**0.0**
	10nm,0.7s,mb4.3						
SONM	**Songino Array**	56.48	342	P	**P**	**17 57 32.8**	**+0.7**
	0.2nm,0.3s,mb2.9,baz=167,slow=8.0,SNR=4.3						
MK31	**Makanchi Array**	66.14	327	*e*P	**P**	**17 58 36.3**	**0.0**
MKAR	**Makanchi Array**	66.14	327	P	**P**	**17 58 36.6**	**+0.2**
	3.4nm,0.3s,mb4.5,baz=116,slow=7.9,SNR=90						
UCH	**Uchtor**	68.23	320	*e*P	**P**	**17 58 49.3**	**-0.2**
	1.0nm,0.7s,mb3.6						
AAK	**Ala-Archa**	68.44	320	*e*P	**P**	**17 58 50.2**	**-0.6**
	1.3nm,0.5s,mb3.9						
KBL	**Kabul**	68.70	310	*e*P	**P**	**17 58 52.4**	**-0.2**
EKS2	**Erkin-Say**	68.92	320	*e*P	**P**	**17 58 54.5**	**+0.8**
	2.1nm,0.7s,mb4.0						
ZALV	**Zalesovo Beam**	69.54	334	P	**P**	**17 58 56.9**	**-0.4**
	0.7nm,0.3s,mb3.9,baz=121,slow=5.4,SNR=8.2						
KURK	**Kurchatov**	70.44	329	*e*P	**P**	**17 59 02.5**	**-0.2**
	6.1nm,0.9s,mb4.3						
ARU	**Arti**	83.62	328	*e*P	**P**	**18 00 18.4**	**+2.8**
	4.7nm,1.1s,mb4.2						
RDF	**Al-Radifah**	84.84	300	*e*P	**P**	**18 00 22.4**	**+0.2**
NAY	**Al-Naaiem**	85.15	300	*e*P	**P**	**18 00 23.6**	**-0.2**
NAY				AMb	AMB	18 00 25.1	
	comp=Z,8.2nm,0.7s,mb4.7						
MIB	**Mutribah**	85.16	300	*e*P	**P**	**18 00 23.6**	**-0.2**
MIB				AMb	AMB	18 00 26.0	
	comp=Z,8.2nm,1.3s,mb4.4						

NIED ***10*** *17:51:00, 47.00N×155.60E, h29^{km}, Mw4.3 Best double couple: $M_0$3.37000×10^{15} NP1:ϕ_s360.00000°, δ22.00000°, λ33.00000°. NP2:ϕ_s239.00000°, δ78.00000°, λ109.00000°.*
ISCJB ***10*** *17:51:48.4±1.7, 46.67N±0.07×155.71E±0.06, h24^{km}±13^{km}, mb4.4/52, MS3.7/9, Error ellipse: s-maj=11.7km s-min=6.1km az=159.8*
MOS ***10*** *17:51:48.8±1.2, 46.92N×155.75E, h20^{km}, mb4.6/28, Error ellipse: s-maj=8.4km s-min=6.6km az=93.1*
SKHL ***10*** *17:51:51.9±1.8, 47.07N×155.60E, h39^{km}±8^{km}, mb5.1/4*
NEIC ***10*** *17:51:52.7±3.6, 47.04N×155.79E, h28^{km}±24^{km}, mb4.5/22, Error ellipse: s-maj=14.6km s-min=6.9km az=159.0*
BJI ***10*** *17:51:52.3, 47.85N×155.21E, h10^{km}, mB4.8, mb4.5, Ms4.7, Msz4.3*
IDC ***10*** *17:51:53.8±3.5, 46.66N×155.71E, h49^{km}±34^{km}, mb3.8/17, mb1 4.0/19, mb1mx3.9/24, mbtmp3.8/19, ML3.8/2, MS3.7/6, Ms1 3.7/6, ms1mx3.2/31, Error ellipse: s-maj=19.0km s-min=14.7km az=155.0*
ISC 10 17:51:50.6±1.5, 46.77N±0.06×155.71E±0.06, h21^{km}±11^{km}, h22^{km}±1.4^{km}:pP-P, n159, σ1^{s}.43/181, mb4.4/52, MS3.7/9, 8C-4D, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	3.92	4	*e*P	**Pn**	**17 52 45.4**	**-4.1**
SKR				AMB	AMB	17 52 48.0	
	80nm,0.5s						
SKR				*e*S	**Sn**	**17 53 26.4**	**-8.5**
SKR				A		17 53 31.3	
	680nm,0.5s						
SKR				A		17 53 31.3	
	310nm,0.5s						
KUR	**Kuril'sk**	5.68	257	*i* P	**Pn**	**17 53 15.3**	**+1.7**
KUR				AMB	AMB	17 53 16.0	
	110nm,0.8s						
KUR				AMB	AMB	17 53 16.0	
	320nm,0.8s						
KUR				*i* S	**Sn**	**17 54 16.0**	**-2.1**
KUR				A		17 54 19.2	
	670nm,0.3s						
KUR				A		17 54 19.2	
	360nm,0.3s						
PET	**Petropavlovsk**	6.54	16	*e*Pn	**Pn**	**17 53 22.1**	**-3.4**
	17nm,0.6s						
PET				*e*Sn	**Sn**	**17 54 30.6**	**-8.7**
PET	**Petropavlovsk**	6.54	16	*e*PN	**Pn**	**17 53 23.0**	**-2.4**
PET				MLR	MLR		
	comp=Z,100nm,22.0s						
PET	**Petropavlovsk**	6.54	16	*e*P	**Pn**	**17 53 22.9**	**-2.5**
YUK	**Yuzh-Kuril'sk**	7.45	252	⇓*i*PN	**Pn**	**17 53 39.0**	**+1.0**
YUK				pmax	pmax		
	comp=Z,200nm,0.4s						
YUK	**Yuzh-Kuril'sk**	7.45	252	*e*P	**Pn**	**17 53 39.0**	**+1.0**
YUK				AMB	AMB	17 53 39.3	
	comp=Z,100nm,0.4s						
YUK				AMB	AMB	17 53 39.3	
	comp=Z,200nm,0.4s						
YUK				*e*S	**Sn**	**17 54 59.0**	**-2.8**
YUK				A		17 55 08.0	
	comp=Z,400nm,0.5s						
YUK				A		17 55 08.0	
	comp=Z,300nm,0.5s						
YUK				A		17 55 12.0	
	comp=Z,1μm,1.0s						
NEM2	**Nemuro 2**	7.83	248	P	**Pn**	**17 53 42.5**	**-0.7**
NEM2				*e*S	**Sn**	**17 55 03.6**	**-7.6**
JRA	**Rausu**	7.98	253	P	**Pn**	**17 53 46.8**	**+1.6**
JRA				*e*S	**Sn**	**17 55 11.7**	**-3.0**
JNK	**Nakash**	8.39	252	P	**Pn**	**17 53 51.9**	**+1.0**
JNK				*e*S	**Sn**	**17 55 19.6**	**-5.3**
JAK	**Akkeshi**	8.68	248	P	**Pn**	**17 53 54.1**	**-0.7**
JAK				*e*S	**Sn**	**17 55 24.0**	**-8.0**
JTKR	**Abashiri--Toko**	8.77	256	P	**Pn**	**17 53 57.7**	**+1.7**
YSS	**Yuzh-Sakhalins**	8.88	276	*e*Pn	**Pn**	**17 54 00.9**	**+3.3**
	comp=Z,83nm,1.0s						
YSS	**Yuzh-Sakhalins**	8.88	276	*e*PN	**Pn**	**17 54 00.6**	**+3.0**
YSS				pmax	pmax		
	comp=N,40nm,1.0s						
YSS				pmax	pmax		
	comp=E,120nm,1.0s						
YSS				pmax	pmax		
	comp=Z,90nm,1.0s						
YSS				MLR	MLR		
	comp=E,300nm,14.0s						
YSS				MLR	MLR		
	comp=Z,400nm,14.0s						
YSS	**Yuzh-Sakhalins**	8.88	276	*e*P	**Pn**	**17 54 00.6**	**+3.0**
YSS				AMB	AMB	17 54 02.2	
	comp=Z,40nm,1.0s						
YSS				AMB	AMB	17 54 02.2	
	comp=Z,120nm,1.0s						
YSS				AMB	AMB	17 54 02.2	
	comp=Z,90nm,1.0s						
YSS				*e*S	**Sn**	**17 55 38.3**	**+1.4**
JMP	**Maruseppu**	9.12	257	P	**Pn**	**17 54 04.4**	**+3.6**
JAR	**Ashorobuto**	9.14	252	P	**Pn**	**17 54 02.7**	**+1.6**
JAR				*e*S	**Sn**	**17 55 39.7**	**-3.6**
JOB	**Onbets**	9.28	250	P	**Pn**	**17 54 03.5**	**+0.5**
JOB				*e*S	**Sn**	**17 55 40.7**	**-6.0**
JSE	**Soyaes**	9.34	264	P	**Pn**	**17 54 08.3**	**+4.5**
UGL	**Uglegorsk**	9.45	289	*e*PN	**Pn**	**17 54 08.0**	**+2.7**
UGL				pmax	pmax		
	comp=Z,158nm,1.2s						
UGL				MLR	MLR		
	comp=N,300nm,14.0s						
UGL				MLR	MLR		
	comp=E,400nm,14.0s						
UGL				MLR	MLR		
	comp=Z,500nm,14.0s						
JKK2	**Kamakawa 2**	9.58	257	P	**Pn**	**17 54 09.3**	**+2.2**
ASAJ	**Asahikawa**	9.59	259	P	**Pn**	**17 54 10.1**	**+2.8**
ASAJ	**Asahikawa**	9.59	259	PN	**Pn**	**17 54 09.6**	**+2.3**
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,166nm,20.5s						
ASAJ	**Asahikawa**	9.59	259	P	**Pn**	**17 54 09.6**	**+2.3**
	comp=Z,1.5nm,0.3s,baz=95,slow=15,SNR=20						
ASAJ				LR	LR	17 57 21.4	
	comp=Z,166nm,20.5s,baz=349,slow=34						
JWK2	**Keihoku**	9.72	266	P	**Pn**	**17 54 15.9**	**+6.9**
JCH	**Churui**	9.72	249	P	**Pn**	**17 54 08.5**	**-0.6**
JCH				*e*S	**Sn**	**17 55 50.4**	**-7.2**
JFR	**Furan**	9.97	254	P	**Pn**	**17 54 14.4**	**+1.9**
JFR				*e*S	**Sn**	**17 56 01.9**	**-1.7**
JAB	**Ashibetsu**	10.07	256	P	**Pn**	**17 54 17.3**	**+3.4**
JEM	**Erimo**	10.16	247	P	**Pn**	**17 54 13.7**	**-1.4**
JEM				*e*S	**Sn**	**17 55 59.4**	**-8.9**
ERM	**Erimo**	10.16	247	*i* PN	**Pn**	**17 54 15.9**	**+0.8**
JNBK	**Urakawa-nobuka**	10.28	249	P	**Pn**	**17 54 15.8**	**-1.0**
JNBK				*e*S	**Sn**	**17 56 03.3**	**-8.0**
JBT2	**Biratori 2**	10.29	252	P	**Pn**	**17 54 17.3**	**+0.4**
JNB	**Noboribetsu**	11.30	253	P	**Pn**	**17 54 30.5**	**-0.2**
JNB				*e*S	**Sn**	**17 56 29.6**	**-6.7**
JKB	**Kayabe**	11.59	250	P	**Pn**	**17 54 33.6**	**-1.0**
JKB				*e*S	**Sn**	**17 56 33.5**	**-10**
JYM2	**Yakumo 2**	11.91	253	P	**Pn**	**17 54 38.4**	**-0.6**
JANG	**Nango**	12.11	243	P	**Pn**	**17 54 38.9**	**-2.9**
JANG				*e*S	**Sn**	**17 56 44.4**	**-12**
JTM	**Tenmabayashi**	12.15	246	P	**Pn**	**17 54 40.5**	**-1.8**
JTM				*e*S	**Sn**	**17 56 45.9**	**-11**
JSR	**Shiriuchi**	12.16	250	P	**Pn**	**17 54 42.0**	**-0.5**
JTH	**Tanohata**	12.16	241	*e*S	**Sn**	**17 56 44.5**	**-13**
JOSM	**Okushiri--Mats**	12.51	254	P	**Pn**	**17 54 46.8**	**-0.5**
OFUJ	**Ofunato**	12.83	238	*e*S	**Sn**	**17 57 02.1**	**-12**
MA2	**Magadan**	13.16	349	*e*Pn	**Pn**	**17 54 53.7**	**-2.3**
	comp=Z,7.5nm,0.9s						
MA2	**Magadan**	13.16	349	*e*PN	**Pn**	**17 54 53.9**	**-2.1**
MA2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
JRG	**Rokugo**	13.24	242	P	**Pn**	**17 54 55.4**	**-1.9**
JRG				*e*S	**Sn**	**17 57 14.4**	**-9.4**
JIO	**Ouri**	13.44	237	P	**Pn**	**17 54 58.0**	**-1.9**
JIO				*e*S	**Sn**	**17 57 17.3**	**-11**
HABR	**Khabarovsk**	14.04	285	*e*P	**Pn**	**17 55 07.6**	**-0.4**
HABR				*e*		17 57 44.9	
JFK	**Kawauchi**	14.46	235	*e*S	**Sn**	**17 57 41.4**	**-12**
KLR	**Kul'dur**	16.21	288	*e*P	**Pn**	**17 55 32.3**	**-4.5**
SEY	**Seymchan**	16.31	355	⇑*e*P	**Pn**	**17 55 35.0**	**-3.0**
MJAR	**Matsushiro Arr**	16.56	238	P	**Pn**	**17 55 41.0**	**-0.4**
	comp=Z,0.1nm,0.3s,baz=26,slow=13,SNR=7.7						
MAJO	**Matsushiro**	16.56	238	*e*Pn	**Pn**	**17 55 41.1**	**-0.4**
	comp=Z,19nm,0.9s						
MAJO	**Matsushiro**	16.56	238	*e*P	**Pn**	**17 55 41.1**	**-0.3**
MAJO				pmax	pmax		
	comp=Z,19nm,0.9s						
MAT	**Matsushiro**	16.56	238	P	**Pn**	**17 55 41.9**	**+0.5**
VLA	**Vladivostok**	17.23	266	*i* P	**Pn**	**17 55 51.8**	**+2.0**
VLA				pmax	pmax		
	comp=Z,58nm,1.8s						
MDJ	**Mudanjiang**	18.35	273	*e*Pn	**Pn**	**17 56 01.3**	**-2.2**
	comp=Z,4.4nm,0.6s						
YAK	**Yakutsk**	21.29	325	*e*Pn	**P**	**17 56 30.9**	**-4.5**
	comp=Z,20nm,0.6s,mb4.6						
YAK	**Yakutsk**	21.29	325	*e*P	**P**	**17 56 34.6**	**-0.8**
YAK				*e**PP		17 56 41.6	
YAK				*e*		17 56 54.1	
YAK				*e*S	**S**	**18 00 28.2**	**-2.5**
YAK				*e*		18 00 39.2	
YAK				*e*		18 07 50.1	
YAK				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.5						
YAK				pmax	pmax		
	comp=N,9.0nm,1.4s						
YAK				pmax	pmax		
	comp=E,12nm,1.1s						
YAK				pmax	pmax		
	comp=Z,27nm,1.2s,mb4.5						
YAK				pmax	pmax		
	comp=N,34nm,1.9s						
YAK				pmax	pmax		
	comp=E,47nm,1.9s						
YAK				smax			
	comp=E,98nm,3.7s						
YAK				smax			
	comp=N,36nm,4.2s						
YAK				MLR	MLR		
	comp=Z,97nm,23.0s,MS3.1						
YAK				MLR	MLR		
	comp=N,41nm,17.0s						
YAK				MLR	MLR		
	comp=E,84nm,22.0s						
CLNS	**Chul'man**	21.37	309	*e*P	**P**	**17 56 35.1**	**-1.2**
CLNS				pmax	pmax		
	comp=N,18nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,31nm,0.8s,mb4.7						
CLNS				pmax	pmax		
	comp=E,23nm,1.0s						
CN2	**Changchun**	21.43	273	*e*P	**P**	**17 56 36.5**	**-0.6**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.2						
BILL	**Bilibino**	22.00	11	*e*P	**P**	**17 56 42.1**	**-0.8**
	comp=Z,16nm,1.0s,mb4.4						
BILL	**Bilibino**	22.00	11	⇓*e*P	**P**	**17 56 42.9**	**-0.1**
BILL				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.3						
BILL				MLR	MLR		
	comp=Z,100nm,19.0s,MS3.2						
KSRS	**Korea Array**	22.52	256	P	**P**	**17 56 51.2**	**+2.5**
	comp=Z,7.9nm,0.9s,mb4.1,baz=47,slow=13,SNR=14						
KSRS				LR	LR	18 05 34.3	
	comp=Z,106nm,18.1s,MS3.3,baz=347,slow=36						
BOD	**Bodaibo**	27.35	309	*e*P	**P**	**17 57 31.2**	**-2.6**
BOD				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.0						
TIXI	**Tiksi**	27.97	342	⇑*e*P	**P**	**17 57 37.7**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,21nm,2.2s,mb4.4						
TIXI				MLR	MLR		
	comp=Z,100nm,22.0s,MS3.4						
BJI	**Beijing**	29.26	271	P	**P**	**17 57 56.5**	**+5.5**
BJI				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.5						
SONM	**Songino Array**	33.01	290	P	**P**	**17 58 23.7**	**-0.2**
SONM				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,143nm,21.7s						
SONM	**Songino Array**	33.01	290	P	**P**	**17 58 23.7**	**-0.1**
	comp=Z,2.2nm,0.8s,mb4.2,baz=69,slow=8.0,SNR=21						
SONM				LR	LR	18 11 33.5	
	comp=Z,143nm,21.7s,MS3.6,baz=175,slow=36						
TLY	**Talaya**	33.75	298	P	**P**	**17 58 30.0**	**-0.3**
	comp=Z,3.7nm,0.7s,mb4.4						
TLY	**Talaya**	33.75	298	*i* P	**P**	**17 58 30.5**	**+0.2**
ZAK	**Zakamensk**	34.28	296	*e*P	**P**	**17 58 35.0**	**+0.1**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb3.8						
MCK	**McKinley**	34.48	40	*e*P	**P**	**17 58 35.0**	**-1.5**
	comp=Z,3.4nm,1.1s,mb4.2						
MCK	**McKinley**	34.48	40	*e*P	**P**	**17 58 35.0**	**-1.5**
MCK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
SML	**Sawmill**	34.72	44	*e*P	**P**	**17 58 37.8**	**-0.8**
COLA	**College**	35.01	38	*e*P	**P**	**17 58 40.3**	**-0.8**
	comp=Z,3.2nm,1.0s,mb4.2						
COLA	**College**	35.01	38	*e*P	**P**	**17 58 40.3**	**-0.8**
COLA				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
XAN	**Xi'an**	37.30	267	P	**P**	**17 59 05.6**	**+4.6**
XAN				AP	pP	17 59 10.8	+3.3
XAN				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.6						
EGAK	**Eagle**	37.87	39	*e*P	**P**	**17 59 04.1**	**-1.4**
	comp=Z,5.3nm,1.0s,mb4.2						
LZH	**Lanzhou**	39.67	274	⇑P	**P**	**17 59 24.0**	**+3.1**
LZH				AP	pP	17 59 30.5	+3.1
LZH				XP	sP	17 59 34.2	+4.1
LZH				AMB	AMB		
	comp=Z,19nm,1.0s,mb4.8						
LZH	**Lanzhou**	39.67	274	⇑P	**P**	**17 59 24.0**	**+3.1**
	comp=Z,19nm,1.0s,mb4.8						
LZH				pP	pP	17 59 30.5	+3.1
LZH				sP	sP	17 59 34.2	+4.1
INK	**Inuvik**	40.67	33	*e*P	**P**	**17 59 28.5**	**-0.3**
	comp=Z,98nm,0.8s,mb5.5						
INK	**Inuvik**	40.67	33	P	**P**	**17 59 29.0**	**+0.2**
INK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
INK	**Inuvik**	40.67	33	P	**P**	**17 59 29.0**	**+0.2**
	comp=Z,1.7nm,0.8s,mb3.7,baz=260,slow=6.1,SNR=2.1						
GTA	**Gaotai**	40.73	281	*e*P	**P**	**17 59 30.3**	**+0.7**
GTA				AP	pP	17 59 36.9	+0.7
GTA				XP	sP	17 59 40.1	+1.3
GTA				AMB	AMB		
	comp=Z,3.0nm,1.5s,mb3.7						
CD2	**Chengdu**	42.66	267	*e*P	**P**	**17 59 51.1**	**+5.6**
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.8						
ZALV	**Zalesovo Beam**	44.04	307	P	**P**	**17 59 56.0**	**-0.4**
	comp=Z,4.2nm,0.7s,mb4.3,baz=67,slow=7.1,SNR=19						
ZALV				PcP	PcP	18 01 40.8	-0.7
	comp=Z,0.8nm,0.7s,baz=42,slow=4.5,SNR=3.3						
ZALV				LR	LR	18 19 09.9	
	comp=Z,88nm,21.9s,MS3.6,baz=45,slow=37						
ZAL	**Zalesovo**	44.06	307	P	**P**	**17 59 56.0**	**-0.5**
ZAL						18 01 40.8	

KMI	Kunming	47.01	262	P	P	18 00 27.6	+7.4
KMI				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.5						
MK31	Makanchi Array	48.51	298	*e*P	P	18 00 31.5	-0.1
MKAR	Makanchi Array	48.51	298	P	P	18 00 31.8	+0.2
MKAR	Makanchi Array	48.51	298	P	P	18 00 31.8	+0.2
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MKAR	Makanchi Array	48.51	298	P	P	18 00 31.8	+0.2
	comp=Z,3.5nm,0.8s,mb4.5,baz=65,slow=7.9,SNR=31						
KURK	Kurchatov	48.83	305	*e*P	P	18 00 33.9	-0.1
	comp=Z,14nm,0.8s,mb5.1						
KURK	Kurchatov	48.83	305	*e*P	P	18 00 33.9	-0.1
KURK				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
YKA	Yellowknife Ar	49.83	37	P	P	18 00 40.8	-0.7
YKA	Yellowknife Ar	49.83	37	P	P	18 00 40.8	-0.7
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	49.83	37	P	P	18 00 40.8	-0.7
	comp=Z,1.2nm,0.7s,mb4.0,baz=294,slow=7.3,SNR=14						
RES	Resolute Bay	50.24	19	P	P	18 00 43.1	-1.3
	comp=Z,82nm,0.8s						
RES	Resolute Bay	50.24	19	P	P	18 00 43.1	-1.3
RES				pmax	pmax		
	comp=Z,82nm,0.8s						
LSA	Lhasa	52.05	275	P	P	18 01 03.4	+4.7
LSA	Lhasa	52.05	275	*e*P	P	18 01 02.3	+3.6
	comp=Z,5.1nm,0.6s,mb4.6						
LSA	Lhasa	52.05	275	*e*P	P	18 01 02.3	+3.6
LSA				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
BRVK	Borovoye	52.25	310	*e*P	P	18 00 59.0	-0.8
	comp=Z,12nm,0.8s,mb4.9						
BRVK	Borovoye	52.25	310	*e*P	P	18 00 59.0	-0.8
BRVK				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
SPB4	Spitsbergen Ar	52.90	350	*e*P	P	18 01 03.4	-0.9
CM31	Chiang Mai Arr	54.12	258	*e*P	P	18 01 15.7	+1.7
	comp=Z,5.2nm,0.9s,mb4.5						
ULHL	Ulahol	54.56	296	P	P	18 01 18.8	+1.8
	SNR=9.1						
TKM2	Tokmak 2	54.58	297	*e*P	P	18 01 17.1	0.0
	comp=Z,3.6nm,1.0s,mb4.4						
TKM2	Tokmak 2	54.58	297	*e*P	P	18 01 17.1	0.0
TKM2				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
USP	Ospenovka	55.06	298	P	P	18 01 22.1	+1.6
	SNR=6.9						
KBK	Karagaybulak	55.13	297	P	P	18 01 22.2	+1.2
	SNR=5.5						
KZA	Kyzart	55.27	297	P	P	18 01 24.6	+2.6
	SNR=7.4						
AAK	Ala-Archa	55.42	298	P	P	18 01 24.6	+1.5
	SNR=7.7						
AAK	Ala-Archa	55.42	298	*e*P	P	18 01 23.2	+0.1
	comp=Z,5.9nm,1.0s,mb4.6						
AAK	Ala-Archa	55.42	298⇑	*e*P	P	18 01 23.5	+0.4
AAK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
EKS2	Erkin-Say	55.84	298	P	P	18 01 27.7	+1.6
	SNR=8.7						
EKS2	Erkin-Say	55.84	298	*e*P	P	18 01 27.4	+1.3
	comp=Z,3.3nm,0.8s,mb4.4						
EKS2				*e*		18 01 39.8	
EKS2				*e*		18 01 49.8	
AML	Almayashu	56.19	298	P	P	18 01 30.2	+1.6
	comp=Z,2.1nm,0.9s,mb4.2						
ARU	Arti	56.19	318	*e*P	P	18 01 27.6	-0.8
	comp=Z,8.7nm,0.8s,mb4.8						
ARU	Arti	56.19	318⇑	*i*P	P	18 01 28.7	+0.3
ARU				*e*		18 03 30.6	
ARU				*e*PPP		18 04 49.7	
ARU				*e*S	S	18 09 20.1	+3.8
ARU				*e*SS	SS	18 13 05.7	+3.5
ARU				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
ARCES	ARCESS Array B	58.41	342	P	P	18 01 44.8	+0.9
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ARCES	ARCESS Array B	58.41	342	P	P	18 01 44.8	+0.9
	comp=Z,6.8nm,0.9s,mb4.7,baz=37,slow=7.3,SNR=5.4						
FFC	Flin Flon	59.56	41	*e*P	P	18 01 51.7	-0.4
	comp=Z,4.9nm,1.0s,mb4.5						
FFC	Flin Flon	59.56	41	*e*P	P	18 01 51.7	-0.4
FFC				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
FCC	Fort Churchill	60.25	34	*e*P	P	18 01 56.0	-0.7
	comp=Z,3.9nm,0.9s,mb4.4						
FCC	Fort Churchill	60.25	34	*e*P	P	18 01 56.0	-0.8
FCC				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
NVAR	Mina Array Bea	60.83	64	P	P	18 02 02.4	+1.3
	comp=Z,1.0nm,0.7s,mb4.0,baz=288,slow=6.6,SNR=4.0						
JOF	Joensuu	62.09	335	*e*p	P	18 02 10.5	+1.3
	comp=Z,1.5nm,0.5s,mb4.4						
JOF	Joensuu	62.09	335	*e*P	P	18 02 10.5	+1.3
JOF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						
PDAR	Pinedale Array	63.28	55	P	P	18 02 18.1	+0.7
	comp=Z,1.4nm,0.8s,mb4.1,baz=315,slow=2.3,SNR=12						
KBL	Kabul	63.71	293	*e*P	P	18 02 21.5	+1.1
KAF	Kangasniemi	64.16	336	*e*p	P	18 02 27.1	+4.2
FINES	FINESS Array B	64.77	336	P	P	18 02 28.8	+1.9
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
FINES	FINESS Array B	64.77	336	P	P	18 02 28.8	+1.9
	comp=Z,2.4nm,0.8s,mb4.3,baz=42,slow=7.1,SNR=25						
OBN	Obninsk	66.29	327⇑	*e*P	P	18 02 38.5	+1.7
OBN				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
OBN				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.4						
NB2	NORSAR Subarra	68.77	342	P	P	18 02 54.6	+2.2
	comp=Z,2.1nm,0.8s,mb4.1,baz=29,slow=6.5						
NOA	NORSAR Array B	68.77	342	P	P	18 02 54.7	+2.3
NOA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
NOA				MLR	MLR		
	comp=Z,46nm,19.1s						
NOA	NORSAR Array B	68.77	342	P	P	18 02 54.7	+2.3
	comp=Z,1.8nm,0.8s,mb4.0,baz=25,slow=6.7,SNR=5.6						
NOA				LR	LR	18 40 13.0	
	comp=Z,46nm,19.1s,MS3.7,baz=285,slow=42						
WRA	Warramunga Arr	69.15	202	P	P	18 02 55.3	+0.1
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
WRA	Warramunga Arr	69.15	202	P	P	18 02 55.3	+0.1
	comp=Z,2.1nm,0.9s,mb4.0,baz=18,slow=6.4,SNR=8.3						
FITZ	Fitzroy Crossi	70.03	210	P	P	18 02 58.2	-2.4
	comp=Z,1.4nm,0.9s,mb3.9,baz=11,slow=14,SNR=4.9						
KIV	Kislovodsk	72.05	316	*e*P	P	18 03 15.1	+2.4
	comp=Z,7.5nm,0.8s,mb4.7						
KIV	Kislovodsk	72.05	316⇑	*e*P	P	18 03 15.6	+2.9
KIV				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
AKASG	Malin Array Be	72.50	328	P	P	18 03 13.8	-1.6
	comp=Z,0.2nm,0.3s,mb3.5,baz=34,slow=5.9,SNR=3.5						
SOC	Sochi	73.74	317	*e*P	P	18 03 24.2	+1.5
SOC				*e**SP	sP	18 03 28.8	-3.4
SOC				*e*S	S	18 12 50.4	-1.9
SOC				*e*		18 13 18.7	
SOC				*e*SS	SS	18 17 35.9	+0.9
SOC				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.6						
TXAR	Lajitas Array	75.92	62	P	P	18 03 35.8	+0.2
TXAR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
TXAR	Lajitas Array	75.92	62	P	P	18 03 35.8	+0.2
	comp=Z,4.4nm,0.8s,mb4.5,baz=300,slow=4.3,SNR=23						
BURAR	Bucovina Array	76.53	328⇓	*i*P	P	18 03 38.7	-0.1
CLL	Collm	77.16	337	*e*pP	pP	18 03 50.0	+0.8
CLL				*e*(sP)	sP	18 03 58.0	+6.2
MALT	Malatya	78.43	314	*e*P	P	18 03 50.9	+1.3
	comp=Z,2.3nm,0.8s,mb4.2						
MALT	Malatya	78.43	314	*e*P	P	18 03 50.9	+1.3
MALT				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
MALT	Malatya	78.43	314⇓	*i*P	P	18 03 51.4	+1.8
KHC	Kasperske Hory	78.97	336	*e*P	P	18 04 00.0	+7.7
GERES	GERESS Array B	79.20	336	P	P	18 03 53.6	0.0
	comp=Z,0.2nm,0.5s,baz=8.7,slow=7.1,SNR=3.2						
GERES				LR	LR	18 41 22.5	
	comp=Z,245nm,19.4s,MS4.5,baz=77,slow=37						
STKA	Stephens Creek	79.31	192	P	P	18 03 57.7	+3.6
BRTR	Keskin Array B	79.58	318	P	P	18 03 55.5	-0.3
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BRTR	Keskin Array B	79.58	318	P	P	18 03 55.5	-0.4
	comp=Z,1.5nm,0.9s,mb3.9,baz=80,slow=3.4,SNR=9.6						
MIB	Mutribah	80.16	303	*e*P	P	18 03 56.0	-3.2
MIB				AMb	AMB	18 04 06.1	
	comp=Z,6.9nm,0.6s,mb4.8						
NAY	Al-Naaiem	80.63	303	*e*P	P	18 03 59.0	-2.7
NAY				AMb	AMB	18 04 03.2	
	comp=Z,5.2nm,0.9s,mb4.5						
RDF	Al-Radifah	80.69	302	*e*P	P	18 03 56.2	-5.8
RDF				AMb	AMB	18 04 04.3	
	comp=Z,14nm,0.9s,mb4.9						

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*IDC **10** 17:55:24.6±16.0, 54.69N×160.86E, h0^{km}, mb3.8/4, mb1 4.0/4, mb1mx3.4/21, mbtmp3.8/4, MS2.1/1, Ms1 2.1/1, ms1mx2.0/32, Error ellipse: s-maj=493.0km s-min=38.2km az=28.0*

*ISCJB **10** 17:55:36.8±0.5, 55.55N±0.03×162.06E±0.08, h75^{km}±5^{km}, mb3.8/4, Error ellipse: s-maj=7.6km s-min=4.3km az=10.4*

*KRSC **10** 17:55:36.7±1.1, 55.55N×161.99E, h63^{km}±66^{km}, ML3.9*

*MOS **10** 17:55:39.0±1.6, 55.63N×161.50E, h95^{km}, mb4.3/2, Error ellipse: s-maj=99.9km s-min=34.9km az=82.7*

ISC 10 17:55:37.9±0.5**, 55.56N**±0.03×**162.06E**±0.08**, h66**^{km}±6^{km}**, n27,** σ**0^{s}.86**/44**, mb3.8**/4**, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.78	33	*i* P	Pn	17 55 53.4	0.0
KBTR				*i* S	Sn	17 56 05.4	+0.6
ZLN	Zelenaya	0.85	303	*i* P	Pn	17 55 54.1	-0.1
ZLN				*i* S	Sn	17 56 06.9	+0.6
MKZ	Mys Kozlova	1.02	191	*e*P	Pn	17 55 55.6	-0.8
MKZ				*i* S	Sn	17 56 09.6	-0.5
KMNR	Kamenistaya	1.05	282	*e*P	Pn	17 55 56.7	-0.1
KMNR				*i* S	Sn	17 56 11.2	+0.3
KRSR	Krestovskiy	1.07	309	*i* P	Pn	17 55 56.4	-0.6
KRSR				*i* S	Sn	17 56 10.7	-0.6
KLY	Klyuchi	1.10	314	*i* P	Pn	17 55 55.7	-1.7
KLY				*i* S	Sn	17 56 10.1	-1.8
KPT	Kopyto	1.12	292	*e*P	Pn	17 55 57.5	-0.1
KPT				*i* S	Sn	17 56 13.1	+0.7
TUMR	Tumrok	1.13	257	*i* P	Pn	17 55 57.8	0.0
TUMR				*i* S	Sn	17 56 13.5	+0.9
SRKR	Sorokina	1.21	336	*e*P	Pn	17 55 58.8	0.0
SRKR				*i* S	Sn	17 56 15.1	+0.6
KOZ	Kozyrevsk	1.33	293	*i* P	Pn	17 56 00.6	+0.1
KOZ				*i* S	Sn	17 56 17.9	+0.5
SRDR	Sredinnyy	1.52	301	*e*P	Pn	17 56 02.7	-0.3
SRDR				*i* S	Sn	17 56 21.6	-0.3
KII	Karymskiy	2.15	226	*e*P	Pn	17 56 12.3	+0.9
KII				*i* S	Sn	17 56 38.6	+1.6
SPN	Mys Shipunski	2.74	207	*e*P	Pn	17 56 19.1	-0.3
SPN				*i* S	Sn	17 56 49.6	-1.7
NLC	Nalytchevo	2.87	215	*e*P	Pn	17 56 21.1	-0.1
NLC				*i* S	Sn	17 56 53.2	-1.4
SDLR	Sedlovina	2.94	220	*e*P	Pn	17 56 23.1	+0.9
SDLR				*i* S	Sn	17 56 56.7	+0.4
GNL	Ganaly	3.04	234	P	Pn	17 56 24.1	+0.6
PET	Petropavlovsk	3.23	220	*e*PN	Pn	17 56 27.0	+0.9
PET				*e*S	Sn	17 57 04.1	+0.8
PET				smax			
	comp=N,118nm,0.7s						
PET				smax			
	comp=E,67nm,0.4s						
PET				MLR	MLR		
	comp=Z,100nm,16.0s						
PET	Petropavlovsk	3.23	220	*e*P	Pn	17 56 27.1	+1.0
PET				*i* S	Sn	17 57 03.5	+0.2
RUS	Russkaya	3.77	215	P	Pn	17 56 33.6	+0.2
RUS				*i* S	Sn	17 57 14.8	-1.7
GRL	Gorelyy	3.82	220	P	Pn	17 56 35.5	+1.3
ARCES	ARCESS Array B	51.30	342	P	P	18 04 34.8	+0.2
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES	ARCESS Array B	51.30	342	P	P	18 04 34.8	+0.3
	comp=Z,4.2nm,0.9s,mb4.5,baz=38,slow=10,SNR=3.0						
TGY	Tagaytay City	52.09	234	LR	LR	18 28 27.5	
	comp=Z,2.2nm,20.9s,baz=120,slow=39						
FINES	FINESS Array B	58.31	337	P	P	18 05 24.4	-0.9
	comp=Z,0.4nm,0.4s,mb3.8,baz=37,slow=7.1,SNR=3.6						
NOA	NORSAR Array B	61.49	344	P	P	18 05 46.1	-1.0
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	61.49	344	P	P	18 05 46.1	-1.0
	comp=Z,0.7nm,0.6s,mb3.9,baz=19,slow=7.0,SNR=3.5						
TXAR	Lajitas Array	68.64	69	P	P	18 06 35.6	+1.7
	comp=Z,0.2nm,0.7s,mb3.1,baz=292,slow=2.4,SNR=3.1						

CASC 10 17:55:46.0±3.2**, 10.60N**×**83.13W, h13**^{km}±19^{km}**, MD3.8, ML3.7, 3D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ICR	Volcan Irazu	0.92	228	*e*P	Pg	17 56 04.0	+0.2
ICR				*e*S	Sg	17 56 16.6	+0.8
URSC	Urasca	0.99	220⇓	*e*P	Pb	17 56 04.6	-0.4
URSC				*e*S	Sb	17 56 16.1	-1.8
LCR2	La Lucha 2	1.21	225⇓	*e*P	Pn	17 56 08.4	-0.1
LCR2				*e*S	Sb	17 56 22.6	-1.6
LAJ	Bijagual	1.22	233	*e*P	Pn	17 56 16.6	+7.9
LAJ				*e*S	Sb	17 56 38.0	+14
PRS1	Puriscal	1.31	242	*e*P	Pn	17 56 11.5	+1.5
PRS1				*e*S	Sb	17 56 29.6	+2.4
BAR1		1.36	187⇓	*e*P	Pn	17 56 10.0	-0.7
BAR1				*e*S	Sn	17 56 27.1	-1.5
CGA2	Cerro Gallo 2	1.43	246	*e*P	Pn	17 56 12.5	+0.8
CGA2				*e*S	Sn	17 56 30.7	+0.4
QCR	Quepos	1.55	221	*e*P	Pn	17 56 13.7	+0.4
QCR				*e*S	Sn	17 56 33.4	+0.2
JCR	Jicaral	2.08	249	*e*P	Pn	17 56 22.0	+1.3
JCR				*e*S	Sn	17 56 48.6	+2.1
BOAB	BOACO BROADBAN	3.09	307	*e*P	Pn	17 56 34.3	-0.2

IDC 10 18:33:54.2±2.0**, 23.52S**×**66.53W, h191**^{km}±20^{km}**, mb3.7**/2**, mb1 3.6**/4**, mb1mx3.3**/15**, mbtmp3.4**/4**, MS2.7**/1**, Ms1 2.8**/1**, ms1mx2.3**/23**, Error ellipse: s-maj=37.7km s-min=22.6km az=99.0, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	7.35	348	P	Pn	18 35 39.6	+0.6
	0.5nm,0.3s,baz=145,slow=12,SNR=10						
LPAZ				LR	LR	18 38 33.7	
	comp=Z,52nm,20.0s,baz=328,slow=38						
CFAA	Coronel Fontan	8.19	190	P	Pn	18 35 50.0	+0.1
	0.1nm,0.3s,baz=35,slow=12,SNR=4.2						
CFAA				S	Sn	18 37 16.2	-5.6
	0.2nm,0.3s,baz=252,slow=16,SNR=12						
SIV	San Ignacio	9.09	35	P	Pn	18 36 01.9	+0.2
	0.6nm,0.3s,baz=237,slow=13,SNR=11						
TORD	Torodi Ar. Bea	76.00	69	P	P	18 45 20.5	-0.1
	0.9nm,0.4s,baz=258,slow=5.7,SNR=25						
YKA	Yellowknife Ar	93.83	340	P	P	18 46 48.7	-0.3
	0.4nm,0.5s,baz=129,slow=4.5,SNR=10						
ZALV	Zalesovo Beam	142.77	28	PKhKP		18 52 59.9	
	0.5nm,0.5s,baz=298,slow=6.1,SNR=4.6						
ZALV				PKP	PKPdf	18 53 02.1	-2.2
	0.5nm,0.5s,baz=336,slow=3.2,SNR=4.5						
MKAR	Makanchi Array	145.89	39	PKPbc	PKPbc	18 53 10.8	-0.1
	0.9nm,0.5s,baz=304,slow=2.9,SNR=16						

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*ISCJB **10** 18:38:37.6±0.5, 38.40N±0.04×39.28E±0.03, h4^{km}±8^{km}, Error ellipse: s-maj=6.8km s-min=4.2km az=158.3*

*CSEM **10** 18:38:37.3±0.1, 38.44N×39.25E, h5^{km}, MD3.0, Error ellipse: s-maj=2.6km s-min=1.8km az=150.0*

*DDA **10** 18:38:37.7, 38.36N×39.26E, h7^{km}±5^{km}, Md2.9*

*ISK **10** 18:38:37.6, 38.42N×39.25E, h7^{km}, MD3.0*

ISC 10 18:38:38.5±0.5**, 38.42N**±0.04×**39.26E**±0.04**, h9**^{km}±7^{km}**, n21,** σ**0^{s}.79**/29**, 2C-1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.23	289⇑	*i*P	Pg	18 38 43.0	-0.1
ELZG				*i* S	Sg	18 38 47.0	+0.8
ELZG	Elazig	0.23	289	*i* P	Pg	18 38 43.0	-0.1
PTK	Pertek	0.48	13	PG	Pg	18 38 47.1	-0.7
PTK				SG	Sg	18 38 54.9	+0.7
PTK	Pertek	0.48	13	*e*Pg	Pg	18 38 47.1	-0.7
PTK				*e*Sg	Sg	18 38 54.9	+0.7
MYA	Malataya	0.66	262	PG	Pg	18 38 50.6	-0.6
MYA	Malataya	0.66	262	*e*Pg	Pg	18 38 50.6	-0.6
MALT	Malatya	0.66	261	PG	Pg	18 38 50.1	-1.2
MALT				SG	Sg	18 39 00.5	+0.6
MALT	Malatya	0.66	261	*e*Pg	Pg	18 38 50.1	-1.2
MALT				*e*Sg	Sg	18 39 00.5	+0.6
DIY	Diyarbakir	0.93	124	PG	Pg	18 38 56.2	-0.1
DIY	Diyarbakir	0.93	124	*e*Pg	Pg	18 38 56.2	-0.1
URFA	Urfa	1.04	200	PG	Pg	18 38 57.9	-0.5
URFA	Urfa	1.04	200	*e*Pg	Pg	18 38 57.9	-0.5
BINT	Bingol	1.06	64	*e*PG	Pg	18 38 58.4	-0.5
BINT	Bingol	1.06	64	*e*Pg	Pg	18 38 58.4	-0.5
EZC	Erzincan	1.39	18	*e*PN	Pn	18 39 03.9	-0.1
BNGL	BINGOL	1.57	70⇓	*i*P	Pg	18 39 08.6	-0.1
BNGL				*i* S	Sg	18 39 30.1	+1.1
MARD	Mardin	1.64	132	*e*P	Pn	18 39 07.7	+0.3
MARD				*i* S	Sn	18 39 29.6	+1.2
GZT	Gaziantep	1.71	232⇑	*i*P	Pn	18 39 08.2	-0.2
GZT				*i* S	Sg	18 39 34.1	+0.6
BTMT	Batman	1.77	97	*e*PN	Pn	18 39 07.0	-2.2
GAZ	Gaziantep	2.05	233	*e*PN	Pn	18 39 13.6	+0.6
GAZ	Gaziantep	2.05	233	*e*Pn	Pn	18 39 13.6	+0.6

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*ISCJB **10** 18:50:06.8±0.6, 39.18N±0.03×22.39E±0.04, h5^{km}±5^{km}, Error ellipse: s-maj=6.0km s-min=4.4km az=19.9*

*CSEM **10** 18:50:06.9±0.2, 39.15N×22.36E, h2^{km}, ML3.1, Error ellipse: s-maj=3.6km s-min=3.3km az=140.0*

*ATH **10** 18:50:06.8, 39.19N×22.37E, h13^{km}, MD3.2/4*

*THE **10** 18:50:08.2, 39.18N×22.43E, h3^{km}, ML3.1*

ISC 10 18:50:07.1±0.6**, 39.15N**±0.03×**22.39E**±0.05**, h11**^{km}±5^{km}**, n32,** σ**0^{s}.99**/50**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGG	Agios Georgios	0.13	199	*e*Pg	Pg	18 50 11.0	+0.7
AGG				*e*Sg	Sg	18 50 15.0	+2.4
AGG	Agios Georgios	0.13	199	*e*Pg	Pg	18 50 11.0	+0.7
AGG				*e*Sg	Sg	18 50 15.0	+2.4
THL	Klokotos Trika	0.51	325	*e*PG	Pg	18 50 15.7	-1.3
THL				*e*SB	Sg	18 50 22.8	-0.9
THL	Klokotos Trika	0.51	325	*e*Pg	Pg	18 50 15.7	-1.3
THL				*e*Sb	Sg	18 50 22.8	-0.9
EVR	Evrytania	0.51	243	*e*PB	Pg	18 50 16.8	-0.2
EVR	Evrytania	0.51	243	*e*Pb	Pg	18 50 16.8	-0.2
XOR	Xorichti	0.66	71	*e*Pg	Pg	18 50 19.9	0.0
XOR	Xorichti	0.66	71	*e*Pg	Pg	18 50 20.0	+0.1
NEO	Neokhori	0.67	76	*e*PB	Pb	18 50 20.0	-0.7
NEO				*e*SB	Sb	18 50 29.1	-0.9
NEO	Neokhori	0.67	76	*e*Pb	Pb	18 50 20.0	-0.7
NEO				*e*Sb	Sb	18 50 29.1	-0.9
LKR	Lokris	0.69	136	*e*PB	Pb	18 50 20.8	-0.3
LKR	Lokris	0.69	136	*e*Pb	Pb	18 50 20.8	-0.3
LIT	Litokhoron	0.95	5	*e*Sg	Sg	18 50 39.4	+1.5
LIT	Litokhoron	0.95	5	*e*Sg	Sg	18 50 39.4	+1.5
PAIG	Paliouri	1.27	52	*e*Pg	Pg	18 50 30.2	-1.2
PAIG				*e*Sg	Sg	18 50 48.3	+0.4
PAIG	Paliouri	1.27	52	*e*Pg	Pg	18 50 30.2	-1.2
PAIG				*e*Sg	Sg	18 50 48.3	+0.4
PLG	Polygyros	1.47	33	*e*Pg	Pg	18 50 34.6	-0.7
PLG				*e*Sg	Sg	18 50 55.9	+1.5
PLG	Polygyros	1.47	33	*e*Pg	Pg	18 50 34.6	-0.7
PLG				*e*Sg	Sg	18 50 55.9	+1.5
HORT	Hortiatis	1.55	21	*e*Pg	Pg	18 50 35.6	-1.2
HORT				*e*Sg	Sg	18 50 55.8	-1.1
HORT	Hortiatis	1.55	21	*e*Pg	Pg	18 50 35.6	-1.2
HORT				*e*Sg	Sg	18 50 55.8	-1.1
THE	Thessaloniki	1.55	17	*e*Pg	Pg	18 50 36.0	-0.7
THE				*e*Sg	Sg	18 50 57.2	+0.3
THE	Thessaloniki	1.55	17	*e*Pg	Pg	18 50 36.0	-0.8
THE				*e*Sg	Sg	18 50 57.2	+0.3
GRG	Griva	1.81	0	*e*Pb	Pb	18 50 40.3	+0.2
GRG				*e*Sb	Sb	18 51 04.0	+1.2
GRG	Griva	1.81	0	*e*Pb	Pb	18 50 40.3	+0.2
GRG				*e*Sb	Sb	18 51 04.0	+1.3
FNA	Florina	1.81	335	*e*Pb	Pb	18 50 39.4	-0.8
FNA	Florina	1.81	335	*e*Pb	Pb	18 50 39.4	-0.8
SOH	Sokhos	1.83	24	*e*Pb	Pb	18 50 40.3	-0.2
SOH				*e*Sb	Sb	18 51 05.1	+1.7
SOH	Sokhos	1.83	24	*e*Pb	Pb	18 50 40.3	-0.2
SOH				*e*Sb	Sb	18 51 05.1	+1.7
KNT	Kendrikon	2.05	11	*e*Pn	Pn	18 50 42.1	+0.7
KNT	Kendrikon	2.05	11	*e*Pn	Pn	18 50 42.1	+0.7
SRS	Serrai	2.17	25	*e*Pn	Pn	18 50 43.8	+0.7
SRS	Serrai	2.17	25	*e*Pn	Pn	18 50 43.8	+0.7

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*ISCJB **10** 19:03:02.6±0.4, 43.76N±0.04×105.24W±0.05, h0^{km}, mb4.0/4, Error ellipse: s-maj=5.9km s-min=4.8km az=41.0*

*IDC **10** 19:03:02.6±1.9, 43.54N×105.32W, h0^{km}, mb4.0/4, mb1 3.9/7, mb1mx3.6/20, mbtmp3.8/7, ML3.4/3, Error ellipse: s-maj=52.6km s-min=8.4km az=153.0*

*NEIC **10** 19:03:04.4±0.4, 43.76N×105.27W, h0^{km}, ML3.1, Error ellipse: s-maj=5.0km s-min=4.4km az=129.0, Suspected Mining explosion.*

NEIC 60 km [40 miles] SSE of Gillette.

ISC 10 19:03:04.4±0.4**, 43.78N**±0.04×**105.25W**±0.05**, h0**^{km}**, n46,** σ**0^{s}.98**/46**, mb4.0**/4**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.94	68	*e*Pg	Pg	19 03 23.4	+0.9
PHWY	Pilot Hill	2.48	184	*e*Pn	Pn	19 03 45.8	-0.2
RWWY	Rawlins	2.54	215	*e*Pn	Pn	19 03 47.3	+0.5
LAO	LASA Array	2.99	347	*e*Pn	Pn	19 03 53.0	-0.1
RLMT	Red Lodge	3.17	296	*e*Pn	Pn	19 03 54.8	-0.8
BW06	Boulder Array	3.30	254	*e*Pn	Pn	19 03 57.1	-0.2
PDAR	Pinedale Array	3.30	254	Pn	Pn	19 03 57.5	+0.1
PDAR				Lg		19 04 42.6	
PDAR	Pinedale Array	3.30	254	Pn	Pn	19 03 57.5	+0.1
	3.4nm,0.3s,baz=78,slow=17,SNR=87						
PDAR				Lg		19 04 42.6	
	13nm,0.3s,baz=77,slow=32,SNR=12						
GCMT	Greycliff	3.73	304	*e*Pn	Pn	19 04 03.6	+0.4
LKWY	Lake	3.79	284	*e*Pn	Pn	19 04 03.5	-0.5
LOHW	Long Hollow	3.88	269	*e*Pn	Pn	19 04 05.7	+0.4
MOOW	Moose Ponds	3.98	272	*e*Pn	Pn	19 04 07.3	+0.6
YFT	Old Faithful	4.08	281	*e*Pn	Pn	19 04 07.6	-0.4
REDW	Red Top Meadow	4.09	266	*e*Pn	Pn	19 04 08.6	+0.5
IMW	Indian Meadow	4.12	274	*e*Pn	Pn	19 04 10.4	+1.9
TPAW	Teton Pass	4.15	268	*e*Pn	Pn	19 04 09.6	+0.6
YMR	Madison River	4.20	284	*e*Pn	Pn	19 04 09.8	+0.1
AHID	Auburn Hatcher	4.39	259	*e*Pn	Pn	19 04 09.5	-2.7
QLMT	Earthquake Lak	4.56	286	*e*Pn	Pn	19 04 13.1	-1.5
DGMT	Dagmar	4.75	9	*e*Pn	Pn	19 04 18.1	+0.8
SMCO	Snowmass	4.77	196	*e*Pn	Pn	19 04 17.4	-0.1
BOZ	Bozeman (W)	4.92	295	*e*Pn	Pn	19 04 19.2	-0.2
HWUT	Hardware Ranch	5.13	247	*e*Pn	Pn	19 04 21.7	-0.8
	8.9nm,0.4s						
EGMT	Eagleton	5.29	325	*e*Pn	Pn	19 04 24.7	+0.2
	12nm,0.6s						
DLMT	Dillon	5.48	289	P	Pn	19 04 28.7	+1.4
MCMT	McKenzie Canyo	5.55	284	*e*Pn	Pn	19 04 31.2	+2.9
DAU	Daniels Canyon	5.59	235	*e*Pn	Pn	19 04 31.1	+2.4
SPUT	South Promonto	5.86	248	*e*Pn	Pn	19 04 32.6	+0.1
HVU	Hansel Valley	5.88	253	*e*Pn	Pn	19 04 31.1	-1.7
	7.3nm,0.7s						
SDCO	Great Sand Dun	6.03	182	*e*Pn	Pn	19 04 34.6	-0.1
	4.8nm,0.8s						
PV10	Paradox Valley	6.10	209	*e*Pn	Pn	19 04 37.1	+1.3
SRU	San Rafael	6.11	222	*e*Pn	Pn	19 04 34.5	-1.5
	11nm,0.4s						
PV01	Paradox Valley	6.17	205	*e*Pn	Pn	19 04 36.5	-0.2
ECSD	EROS,Sioux Fal	6.26	87	*e*Pn	Pn	19 04 38.1	+0.2
	5.7nm,0.4s						
TMUT	Trail Mountain	6.32	227	*e*Pn	Pn	19 04 39.0	+0.2
CHMT	Chamberlain Mo	6.45	302	*e*Pn	Pn	19 04 41.1	+0.5
DUG	Dugway	6.67	240	*e*Pn	Pn	19 04 43.0	-0.6
	2.7nm,0.4s						
MSU	Marysvale	7.41	227	*e*Pn	Pn	19 04 53.7	-0.1
CCUT	Cedar City	8.75	227	*e*Pn	Pn	19 05 12.3	+0.1
ULM	Lac du Bonnet	9.11	41	Pn	Pn	19 05 15.9	-1.1
ULM				Lg		19 07 50.4	
ULM	Lac du Bonnet	9.11	41	Pn	Pn	19 05 15.9	-1.1
	2.1nm,0.3s,baz=232,slow=11,SNR=25						
ULM				Lg		19 07 50.4	
	0.3nm,0.3s,baz=183,slow=21,SNR=2.5						

YKA	**Yellowknife Ar**	19.53	347	P	Pn	19 07 33.8	-0.5
	0.1nm,0.3s,baz=158,slow=12,SNR=4.0						
SCHQ	**Schefferville**	27.04	52	P	P	19 08 49.9	+1.7
	1.5nm,0.8s,mb3.8,baz=324,slow=8.7,SNR=3.5						
ARCES	**ARCESS Array B**	61.38	18	P	P	19 13 20.6	-0.9
	3.7nm,0.9s,mb4.5,baz=334,slow=8.0,SNR=3.6						
FINES	**FINESS Array B**	67.99	23	P	P	19 14 02.8	-2.0
	1.6nm,0.8s,mb4.3,baz=308,slow=4.6,SNR=3.9						
MKAR	**Makanchi Array**	89.57	355	P	P	19 16 03.0	-0.6
	0.4nm,0.9s,mb3.6,baz=355,slow=5.4,SNR=3.2						

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*NEIC **10** 19:14:03.9, 3201S×7146W, h38^{km}, MD4.0(GUC), After GUC.*

GUC 10 19:14:03.9±0.9**, 3201S×7146W, h38^{km}±3^{km}, MD4.0, ML3.4, 8C-7D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHNG	**Los Chungos**	0.13	345	⇓*i*P	Pn	19 13 59.7	-11
CHNG				*i* S	Sn	19 14 04.4	-11
CHNG				AML	AML	19 14 04.7	
	comp=N,5μm,0.2s						
PTCH	**Petorca**	0.51	119	⇓*i*P	Pn	19 14 15.1	+0.4
PTCH				*i* S	Sn	19 14 23.2	+0.8
PTCH	**Petorca**	0.51	119	⇓*i*P	Pn	19 14 15.1	+0.4
PTCH				*i* S	Sn	19 14 23.2	+0.8
PTCH				AML	AML	19 14 23.5	
	comp=N,8μm,0.5s						
CMCH	**Combarbala**	0.92	25	⇑*i*P	Pn	19 14 20.8	+0.4
CMCH				*i* S	Sn	19 14 33.7	+1.3
CMCH	**Combarbala**	0.92	25	⇑*i*P	Pn	19 14 20.8	+0.4
CMCH				*i* S	Sn	19 14 33.7	+1.3
CMCH				AML	AML	19 14 36.1	
	comp=E,7μm,0.4s						
IHA	**Instituto Hidr**	1.02	189	⇓*i*P	Pn	19 14 21.9	+0.2
IHA				*i* S	Sn	19 14 36.5	+1.7
PEL	**Peldehue**	1.30	150	⇓*i*P	Pn	19 14 26.6	+1.0
PEL				*i* S	Sn	19 14 44.2	+2.4
PEL				AML	AML	19 14 45.4	
	comp=E,1μm,0.4s						
OVCH	**Ovalle**	1.42	9	⇑*i*P	Pn	19 14 28.9	+1.7
OVCH				*i* S	Sn	19 14 47.4	+2.8
OVCH	**Ovalle**	1.42	9	⇑*i*P	Pn	19 14 28.9	+1.7
OVCH				*i* S	Sn	19 14 47.4	+2.8
OVCH				AML	AML	19 14 55.5	
	comp=N,1μm,0.4s						
RCDM	**Rinconada Maip**	1.57	160	*e*P	Pn	19 14 30.7	+1.4
RCDM				*i* S	Sn	19 14 51.1	+2.7
RCDM	**Rinconada Maip**	1.57	160	*e*P	Pn	19 14 30.7	+1.4
RCDM				*i* S	Sn	19 14 51.1	+2.7
RCDM				AML	AML	19 14 56.3	
	comp=E,498nm,0.1s						
CLCH	**Cerro Calan**	1.58	151	*i* P	Pn	19 14 31.9	+2.4
CLCH				*i* S	Sn	19 14 52.8	+4.1
CLCH	**Cerro Calan**	1.58	151	*i* P	Pn	19 14 31.9	+2.4
CLCH				*i* S	Sn	19 14 52.8	+4.1
CLCH				AML	AML	19 14 53.9	
	comp=N,861nm,0.4s						
FCH	**Farellones**	1.64	143	⇑*i*P	Pn	19 14 31.6	+1.4
FCH				*i* S	Sn	19 14 53.7	+3.6
FCH				AML	AML	19 14 59.1	
	comp=E,248nm,0.3s						
TACH	**Talagante**	1.69	165	*i* P	Pn	19 14 32.2	+1.3
TACH				*i* S	Sn	19 14 53.3	+1.9
ANTU	**Antumapu**	1.70	156	*e*P	Pn	19 14 32.6	+1.6
ANTU				*i* S	Sn	19 14 54.2	+2.6
ANTU	**Antumapu**	1.70	156	*e*P	Pn	19 14 32.6	+1.6
ANTU				*i* S	Sn	19 14 54.2	+2.6
ANTU				AML	AML	19 15 00.8	
	comp=N,431nm,0.4s						
PCH	**Pirque**	1.79	154	⇓*i*P	Pn	19 14 33.9	+1.6
TLL	**Tololo Astrono**	1.92	17	⇑*i*P	Pn	19 14 36.0	+1.9
TLL				S	Sn	19 15 01.4	+4.3
TLL	**Tololo Astrono**	1.92	17	⇑*i*P	Pn	19 14 36.0	+1.9
TLL				*i* S	Sn	19 15 01.4	+4.3
TLL				AML	AML	19 15 06.5	
	comp=E,496nm,0.3s						
CHCH	**Chadas Angostu**	2.03	161	⇓*i*P	Pn	19 14 37.6	+2.0
CACH	**El Canelo**	2.22	161	⇑*i*P	Pn	19 14 40.7	+2.5
SFDO	**San Fernando**	2.62	172	*e*P	Pn	19 14 45.5	+1.8
LCO	**Las Campanas**	3.06	13	*e*Pn	Pn	19 14 50.5	+0.7
LCO				*e*Sn	Sn	19 15 29.1	+3.9

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*SZGRF **10** 19:33:01.8, 1718S×17375W, h33^{km}, Tonga Islands*
*ISCJB **10** 19:33:05.0±1.9, 1749S±010×1744W±01, h88^{km}±18^{km}, mb4.3/15, Error ellipse: s-maj=21.9km s-min=12.5km az=34.6*
*NEIC **10** 19:33:05.8±1.4, 1760S×17432W, h85^{km}±12^{km}, mb4.4/9, Error ellipse: s-maj=17.8km s-min=8.4km az=138.0*
*IDC **10** 19:33:06.4±2.9, 1753S×17436W, h86^{km}±26^{km}, mb4.0/7, mb1 4.2/8, mb1mx3.9/17, mbtmp4.0/8, Error ellipse: s-maj=29.4km s-min=16.2km az=125.0*

ISC 10 19:33:06.5±1.7**, 175S**±01×**1744W**±01**, h89^{km}**±17^{km}**, n61, σ0^{s}90**/28**, mb4.3**/15**, 1C-5D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	4.36	35	*e*Pn	Pn	19 34 10.4	0.0
AFI				*e*Sn	Sn	19 34 54.3	-5.7
AFI	**Afiamalu**	4.36	35	P	Pn	19 34 10.4	0.0
	12nm,0.3s,baz=58,slow=2.8,SNR=12						
AFI				S	Sn	19 34 54.4	-5.6
	92nm,0.3s,baz=50,slow=23,SNR=44						
URZ	**Urewera**	21.99	198	P	P	19 37 52.9	-0.4
	12nm,0.3s,mb4.6,baz=346,slow=1.6,SNR=24						
URZ				S	S	19 41 44.8	-6.0
	5.2nm,0.7s,baz=145,slow=17,SNR=4.7						
RPZ	**Rata Peaks**	28.90	202	P	P	19 38 58.8	+1.9
	3.3nm,0.4s,mb4.3,baz=29,slow=8.9,SNR=6.1						
CTA	**Charters Tower**	37.31	260	*e*P	P	19 40 10.7	+0.4
	2.0nm,0.4s,mb4.4						
CTAO	**Charters Tower**	37.31	260	*e*P	P	19 40 10.6	+0.3
	3.6nm,0.7s,mb4.4						
STKA	**Stephens Creek**	42.20	242	*e*P	P	19 40 50.8	0.0
	4.4nm,1.1s,mb4.1						
STKA	**Stephens Creek**	42.20	242	P	P	19 40 50.8	-0.1
	3.8nm,0.8s,mb4.2,baz=88,slow=9.7,SNR=11						
WB2	**Warramunga Arr**	48.48	259	*e*P	P	19 41 40.0	-0.6
WB2	**Warramunga Arr**	48.48	259	*e*P	P	19 41 39.8	-0.8
WRA	**Warramunga Arr**	48.49	259	P	P	19 41 40.0	-0.6
	5.1nm,0.4s,mb4.7,baz=97,slow=6.3,SNR=174						
KAKA	**Kakadu**	51.44	268	*e*P	P	19 42 02.9	-0.2
	7.0nm,0.4s,mb5.0						
FITZ	**Fitzroy Crossi**	56.89	260	*e*P	P	19 42 42.1	-0.5
	6.2nm,0.8s,mb4.7						
KLBR	**Kellerberrin**	62.45	243	*e*P	P	19 43 18.2	-2.4
	89nm,1.7s,mb5.5						
MUN	**Mundaring**	63.73	243	*e*P	P	19 43 28.9	-0.2
MJAR	**Matsushiro Arr**	69.95	321	P	P	19 44 08.8	+0.4
MJAR	**Matsushiro Arr**	69.95	321	P	P	19 44 08.8	+0.4
	0.8nm,0.7s,mb3.7,baz=148,slow=6.2,SNR=4.3						
KKM	**Kota Kinabalu**	72.39	282	P	P	19 44 25.0	+1.3
QSPA	**South Pole Qui**	72.56	180	*e*P	P	19 44 23.6	+0.1
	10.0nm,1.0s,mb4.6						
KSM	**Kuching**	76.46	276	*e*P	P	19 44 48.5	+1.3
ANMO	**Albuquerque**	82.86	50	P	P	19 45 19.6	-1.8
	0.8nm,0.6s,mb3.7						
MCK	**McKinley**	83.35	11	*e*P	P	19 45 22.9	-0.3
	2.4nm,0.8s,mb4.1						
PDAR	**Pinedale Array**	84.44	42	P	P	19 45 30.0	+0.7
	1.5nm,0.7s,mb4.0,baz=219,slow=3.0,SNR=16						
COLA	**College**	84.59	11	*e*P	P	19 45 29.6	+0.1
	3.9nm,0.8s,mb4.4						
YKA	**Yellowknife Ar**	92.38	24	P	P	19 46 07.0	+0.3
	0.2nm,0.8s,mb3.4,baz=227,slow=4.8,SNR=4.2						
ZALV	**Zalesovo Beam**	110.29	322	PKPdf	PKiKP	19 51 26.8	-1.2
ZALV	**Zalesovo Beam**	110.29	322	PKiKP	PKiKP	19 51 26.7	-1.2
	0.2nm,0.3s,baz=90,slow=1.4,SNR=2.4						
MKAR	**Makanchi Array**	111.62	314	PKPdf	PKiKP	19 51 29.9	-0.8
MKAR	**Makanchi Array**	111.62	314	PKiKP	PKiKP	19 51 29.9	-0.8
	0.3nm,0.6s,baz=61,slow=1.8,SNR=5.4						
ARCES	**ARCESS Array B**	126.54	351	PKP	PKPdf	19 51 59.0	+0.3
ARCES	**ARCESS Array B**	126.54	351	PKP	PKPdf	19 51 59.0	+0.3
	1.2nm,0.5s,baz=86,slow=0.4,SNR=9.6						
FINES	**FINESS Array B**	133.77	347	PKP	PKPdf	19 52 13.5	+0.9
FINES	**FINESS Array B**	133.77	347	PKP	PKPdf	19 52 13.5	+0.9
	0.9nm,0.6s,baz=3.2,slow=10,SNR=9.3						
MALT	**Malatya**	144.64	313	*e*PKPbc	PKPdf	19 52 33.6	+0.5
IBBN	**Ibbenburen**	145.23	358	*e*PKPbc	PKPbc	19 52 34.4	+0.9
CLZ	**Clausthal**	145.53	355	*e*PKPbc	PKPbc	19 52 35.3	+0.9
CLZ	**Clausthal**	145.53	355	*e*PKPbc	PKPbc	19 52 35.3	+0.9
CLL	**Collm**	145.76	352	*e*PKPbc	PKPbc	19 52 35.7	+0.5
CLL	**Collm**	145.76	352	⇓*i*PKPbc	PKPbc	19 52 35.4	+0.2
	comp=Z,9.0nm,0.9s						
BURAR	**Bucovina Array**	145.93	336	⇑*i*P	PKPbc	19 52 38.1	+2.3
BRG	**Berggiesshubel**	146.05	351	*e*PKPbc	PKPbc	19 52 37.1	+1.1
MORC	**Moravsky Berou**	146.40	346	⇓*i*P	PKPdf	19 52 38.1	+2.4
MOX	**Moxa**	146.59	353	*e*PKPbc	PKPbc	19 52 38.6	+1.0
BRTR	**Keskin Array B**	147.14	318	PKPbc	PKPbc	19 52 40.5	+0.9
BRTR	**Keskin Array B**	147.14	318	PKPbc	PKPbc	19 52 40.5	+0.9
	comp=Z,1.6nm,0.8s,baz=112,slow=3.0,SNR=11						
MLR	**Muntele Rosu**	147.34	333	⇓*i*P	PKPbc	19 52 41.4	+1.5
ROTZ	**Rotzenmuhle**	147.38	352	*e*PKPbc	PKPbc	19 52 40.8	+0.9
DRGR		147.55	338	⇓*i*P	PKPbc	19 52 41.3	+0.8
GRA1	**Grafenberg Arr**	147.57	353	*e*PKPbc	PKPbc	19 52 41.3	+0.9
GRF	**Grafenberg Arr**	147.57	353	*e*PKP	PKPbc	19 52 41.3	+0.9
GRF	**Grafenberg Arr**	147.57	353	*e*PKPbc	PKPbc	19 52 41.3	+0.9
KHC	**Kasperske Hory**	147.79	350	*e*PKP	PKPdf	19 52 41.0	+2.9
GEC2	**GERESS Array S**	148.05	350	*e*PKPbc	PKPbc	19 52 42.5	+0.8
GEC2	**GERESS Array S**	148.05	350	*e*PKPbc	PKPbc	19 52 42.5	+0.8
GERES	**GERESS Array B**	148.05	350	PKPbc	PKPbc	19 52 42.6	+0.9
GERES	**GERESS Array B**	148.05	350	PKPbc	PKPbc	19 52 42.6	+0.9
	comp=Z,1.7nm,0.6s,baz=21,slow=2.2,SNR=16						
BZS	**Buzias**	148.95	338	⇓*i*P	PKPbc	19 52 44.6	+0.4
BFO	**Black Forest**	149.17	356	*e*PKPbc	PKPbc	19 52 45.7	+1.1
BFO	**Black Forest**	149.17	356	*e*PKPbc	PKPbc	19 52 45.7	+1.1
TORD	**Torodi Ar. Bea**	174.25	138	PKP	PKPdf	19 53 05.0	-1.6
TORD				PKPab	PKPab	19 54 37.6	-1.4
TORD	**Torodi Ar. Bea**	174.25	138	PKP	PKPdf	19 53 05.0	-1.6
	comp=Z,0.9nm,0.8s,baz=85,slow=0.6,SNR=4.5						
TORD				PKPab	PKPab	19 54 37.6	-1.4
	comp=Z,0.5nm,0.8s,baz=251,slow=4.4,SNR=2.8						

IDC 10 19:42:12.5±1.8**, 1725S×17472W, h0^{km}, mb3.9**/5**, mb1 4.3**/6**, mb1mx4.1**/14**, mbtmp3.9**/6**, ML1.9**/1**, MS3.9**/6**, Ms1 3.9**/6**, ms1mx3.3**/34**, Error ellipse: s-maj=109.2km s-min=23.3km az=150.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	4.37	41	Pn	Pn	19 43 21.3	+1.2
	3.9nm,0.3s,baz=205,slow=14,SNR=4.0						
AFI				Sn	Sn	19 44 14.0	+2.3
	2.3nm,0.3s,baz=288,slow=20,SNR=2.1						
DZM	**Mont Dzumac**	18.37	252	LR	LR	19 51 25.0	
	comp=Z,406nm,18.7s,baz=162,slow=30						
CTA	**Charters Tower**	37.03	259	LR	LR	20 02 52.8	
	comp=Z,140nm,18.2s,baz=217,slow=34						
STKA	**Stephens Creek**	42.03	241	LR	LR	20 05 27.0	
	comp=Z,162nm,18.8s,baz=294,slow=33						
WRA	**Warramunga Arr**	48.21	258	P	P	19 50 55.4	+0.1
	1.3nm,0.5s,baz=96,slow=8.4,SNR=26						
WRA				LR	LR	20 09 12.4	
	comp=Z,128nm,18.3s,baz=125,slow=34						
FITZ	**Fitzroy Crossi**	56.61	259	LR	LR	20 15 44.3	
	comp=Z,120nm,18.6s,baz=101,slow=36						
NVAR	**Mina Array Bea**	76.54	42	P	P	19 54 03.9	-0.7
	0.9nm,0.7s,baz=212,slow=7.2,SNR=5.6						
TXAR	**Lajitas Array**	82.69	56	P	P	19 54 39.2	+0.8
	0.5nm,1.0s,baz=206,slow=6.0,SNR=3.3						
PDAR	**Pinedale Array**	84.48	42	P	P	19 54 48.0	+0.8
	2.2nm,0.8s,baz=201,slow=4.8,SNR=2.4						
PSI	**Prapat**	87.34	274	LR	LR	20 32 14.1	
	comp=Z,75nm,19.4s,baz=242,slow=34						
YKA	**Yellowknife Ar**	92.29	24	P	P	19 55 23.4	-0.7
	0.1nm,0.3s,baz=240,slow=4.2,SNR=4.5						
BRTR	**Keskin Array B**	146.74	318	PKPbc	PKPbc	20 01 56.7	0.0
	0.5nm,0.7s,baz=53,slow=0.7,SNR=3.8						
GERES	**GERESS Array B**	147.75	350	PKPbc	PKPbc	20 01 58.1	-1.1
	0.2nm,0.3s,baz=299,slow=4.4,SNR=5.3						

IDC 10 19:54:45.6±1.9**, 2901S×17799W, h47^{km}**±20^{km}**, mb3.8**/2**, mb1 4.0**/2**, mb1mx3.6**/11**, mbtmp3.8**/2**, MS3.7**/3**, Ms1 3.7**/3**, ms1mx3.0**/25**, Error ellipse: s-maj=45.2km s-min=32.7km az=172.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	0.25	165	P	Pn	19 54 55.5	+1.5
	4μm,0.3s,baz=0.0,slow=18,SNR=192						
RAO				S	Sn	19 55 02.4	+2.5
	9μm,0.3s,baz=342,slow=20,SNR=90						
AFI	**Afiamalu**	16.09	22	LR	LR	20 03 17.4	
	comp=Z,165nm,18.7s,baz=340,slow=32						
HNR	**Honiara**	28.42	309	LR	LR	20 10 50.5	
	comp=Z,124nm,18.2s,baz=359,slow=34						
STKA	**Stephens Creek**	34.82	255	P	P	20 01 32.0	-0.1
	1.1nm,0.6s,baz=117,slow=11,SNR=2.7						
WRA	**Warramunga Arr**	44.07	271	P	P	20 02 49.0	-0.2
	1.4nm,0.4s,baz=110,slow=8.0,SNR=34						
MJAR	**Matsushiro Arr**	77.11	325	LR	LR	20 35 42.7	
	comp=Z,102nm,19.9s,baz=70,slow=32						
MKAR	**Makanchi Array**	116.88	311	PKiKP	PKiKP	20 13 26.2	+1.5
	0.2nm,0.7s,baz=110,slow=1.0,SNR=2.9						
FINES	**FINESS Array B**	143.84	341	PKP	PKPdf	20 14 12.4	-2.4
	0.7nm,0.5s,baz=66,slow=3.5,SNR=15						
NB2	**NORSAR Subarra**	147.38	352	PKPa	PKPdf	20 14 22.9	+2.0
	comp=Z,0.8nm,0.6s,baz=12,slow=2.9						
NOA	**NORSAR Array B**	147.38	352	PKPbc	PKPbc	20 14 22.8	-0.6
	comp=Z,1.0nm,0.6s,baz=15,slow=4.5,SNR=4.5						
HFS	**Hagfors**	147.88	349	PKPbc	PKPbc	20 14 23.9	-0.9
	comp=Z,1.6nm,0.8s,baz=30,slow=2.8,SNR=5.1						
AKASG	**Malin Array Be**	150.19	324	PKPbc	PKPbc	20 14 29.9	-1.0
	comp=Z,0.8nm,0.4s,baz=41,slow=2.9,SNR=5.8						
TORD	**Torodi Ar. Bea**	164.22	179	PKPab	PKPab	20 15 38.2	0.0
	comp=Z,0.3nm,0.7s,baz=168,slow=4.9,SNR=4.5						

RSPR 10 19:57:25.8, 1765N×6889W, h146^{km}±6^{km}**, MD3.8**/7**, MD3.8**/7**, 8C-2D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRPR	**Cabo Rojo, PR**	1.73	78	⇑*e*P	Pn	19 57 57.1	-0.4
CRPR	**Cabo Rojo, PR**	1.73	78	*e*S	Sn	19 58 21.6	-0.3
LSP	**Las Mesas**	1.79	73	⇑*e*P	Pn	19 57 57.8	-0.5
LSP	**Las Mesas**	1.79	73	*e*S	Sn	19 58 23.6	+0.5
AGPR	**Aguadilla, PR**	1.88	64	⇑*e*P	Pn	19 57 58.8	-0.4
AGPR	**Aguadilla, PR**	1.88	64	*e*S	Sn	19 58 25.2	+0.3
GBPR	**Guanica, Bosqu**	1.94	80	*e*S	Sn	19 58 27.2	+1.1
LRS	**Lares**	2.05	72	⇑*e*P	Pn	19 58 01.1	-0.1
LRS				*e*S	Sn	19 58 29.5	+1.0
AOPR	**Arecibo Observ**	2.15	71	⇑*e*P	Pn	19 58 03.1	+0.8
AOPR	**Arecibo Observ**	2.15	71	*e*S	Sn	19 58 31.0	+0.5
CELP	**Cerrillos**	2.24	79	⇑*e*P	Pn	19 58 04.3	+0.8
CELP				*e*S	Sn	19 58 32.6	+0.1
ICM	**Isla Caja Muer**	2.27	84	⇑*e*P	Pn	19 58 03.2	-0.7
ICM	**Isla Caja Muer**	2.27	84	*e*S	Sn	19 58 34.2	+1.1
HUMP	**Col San Antoni**	2.94	80	⇓*e*P	Pn	19 58 13.1	+0.9
HUMP	**Col San Antoni**	2.94	80	*e*S	Sn	19 58 48.5	+0.6
CBYP	**Canovanas**	2.95	78	⇑*e*P	Pn	19 58 12.1	-0.3
CBYP	**Canovanas**	2.95	78	*e*S	Sn	19 58 48.6	+0.3
MTP	**Monte Pirata**	3.21	82	⇓*e*P	Pn	19 58 16.4	+0.7

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*NAO **10** 20:11:19.1, 4052N×2218E, h33^{km}, mb3.3*
*PRU **10** 20:11:28.9, 4143N×2026E, h0^{km}*
*ISCJB **10** 20:11:30.9±0.3, 4173N±001×2046E±002, h5^{km}±2^{km}, mb3.3/2, Error ellipse: s-maj=2.5km s-min=1.6km az=43.7*
*IDC **10** 20:11:30.5±1.3, 4164N×2052E, h0^{km}, mb3.3/5, mb1 3.6/9, mb1mx3.5/24, mbtmp3.5/9, ML3.4/4, MS3.1/1, Ms1 3.1/1, ms1mx2.5/20, Error ellipse: s-maj=16.9km s-min=13.2km az=177.0*
*SKO **10** 20:11:30.8, 4169N×2051E, h15^{km}, M2.7, ML3.0*
*TIR **10** 20:11:30.3±2.9, 4176N×2052E, h7^{km}±98^{km}, ML3.0*
*NEIC **10** 20:11:31.1, 4171N×2047E, h1^{km}, MD3.5(ATH), ML3.6(THE), ML3.4(PDG), ML2.9(BUC), After PDG.*
*CSEM **10** 20:11:31.3±0.0, 4178N×2044E, h2^{km}, ML3.6, Error ellipse: s-maj=1.2km s-min=0.8km az=37.0*
*PDG **10** 20:11:31.1±0.4, 4171N×2047E, h1^{km}±1^{km}, MD3.4/8, ML3.4/9, Error ellipse: s-maj=0.7km s-min=0.8km az=0.0*
*MOS **10** 20:11:31.7±0.7, 4170N×2042E, h18^{km}, mb3.6/4, Error ellipse: s-maj=6.5km s-min=4.1km az=116.7*
*THE **10** 20:11:31.5, 4168N×2043E, h3^{km}, ML3.6*
*BEO **10** 20:11:32.6±0.8, 4169N×2049E, h13^{km}±3^{km}, ML3.4/7*
*ATH **10** 20:11:46.9, 4108N×2139E, h35^{km}±3^{km}, MD3.5/5*

ISC 10 20:11:31.9±0.3**, 4171N**±001×**2049E**±002**, h1^{km}**±2^{km}**, n254, σ1^{s}16**/389**, mb3.3**/2**, 52C-20D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TIR	**Tirane**	0.59	233	*e*Pg	Pg	20 11 42.4	-0.7
TIR				*e*Sg	Sg	20 11 49.5	-1.2
TIR	**Tirane**	0.59	233	*i* PG	Pg	20 11 42.7	-0.4
TIR				*i* SG	Sg	20 11 53.7	+3.0
TIR	**Tirane**	0.59	233	*i* PG	Pg	20 11 42.7	-0.4
TIR				*i* SG	Sg	20 11 53.7	+3.0
TIR	**Tirane**	0.59	233	*e*Pg	Pg	20 11 42.4	-0.7
TIR				*i* Sg	Sg	20 11 53.7	+3.0
OHR	**Ohrid**	0.64	158	*e*Pg	Pg	20 11 42.7	-1.4
OHR				*e*Sg	Sg	20 11 53.1	+0.8
OHR	**Ohrid**	0.64	158	*e*Pg	Pg	20 11 42.7	-1.4
OHR				*e*Sg	Sg	20 11 53.0	+0.6
OHR				*e*Lg		20 11 53.3	
	comp=E,1μm,0.7s						
OHR				*e*Lg		20 11 53.4	
	comp=N,758nm,0.4s						
OHR	**Ohrid**	0.64	158	*e*Pg	Pg	20 11 42.7	-1.4
OHR				*e*Sg	Sg	20 11 53.1	+0.7
KRUS	**Krusevo**	0.67	120	*e*Pg	Pg	20 11 44.3	-0.3
KRUS				*e*Sg	Sg	20 11 55.5	+2.2
KRUS	**Krusevo**	0.67	120	*e*Pg	Pg	20 11 44.3	-0.3
KRUS				*e*Sg	Sg	20 11 55.4	+2.2
SKO	**Skopje**	0.76	69	*e*Pg	Pg	20 11 45.9	-0.6
SKO	**Skopje**	0.76	69	*e*Pg	Pg	20 11 45.8	-0.7
SKO				*e*Sg	Sg	20 11 57.5	+1.1
SKO				*e*Lg		20 11 57.8	
	comp=N,590nm,0.6s						
SKO				*e*Lg		20 11 57.9	
	comp=E,562nm,0.5s						
SKO	**Skopje**	0.76	69	*e*Pg	Pg	20 11 45.9	-0.6
SKO				*e*Sg	Sg	20 11 57.5	+1.1
SDA	**Shkodra**	0.81	296	*i* PG	Pg	20 11 46.0	-1.5
SDA				*i* SG	Sg	20 11 58.4	+0.3
SDA	**Shkodra**	0.81	296	*i* PG	Pg	20 11 46.0	-1.5
SDA				*i* SG	Sg	20 11 58.4	+0.3
SDA	**Shkodra**	0.81	296	*i* Pg	Pg	20 11 46.0	-1.5
SDA				*i* Sg	Sg	20 11 58.4	+0.3
BIA	**Bitola**	0.93	137	P	Pg	20 11 48.2	-1.6
BIA				S	Sg	20 12 02.8	+1.0
BIA	**Bitola**	0.93	137	*e*Pg	Pg	20 11 48.2	-1.6
BIA				*e*Sg	Sg	20 12 02.8	+1.0
BIA	**Bitola**	0.93	137	*e*Pg	Pg	20 11 48.9	-0.9
BIA				*e*Sg	Sg	20 12 03.1	+1.3
BIA				*e*Lg		20 12 03.6	
	comp=N,283nm,0.5s						
BIA				*e*Lg		20 12 04.7	
	comp=E,524nm,0.7s						
BIA	**Bitola**	0.93	137	*e*Pg	Pg	20 11 48.9	-0.9
BIA				*e*Sg	Sg	20 12 03.1	+1.3
ULC	**Ulcinj**	0.96	286	⇑*i*Pg	Pg	20 11 48.4	-1.9
ULC				*e*Sg	Sg	20 12 02.9	+0.2
ULC	**Ulcinj**	0.96	286	⇑*i*Pg	Pg	20 11 48.4	-1.9
ULC				*e*Sg	Sg	20 12 02.9	+0.2
ULC	**Ulcinj**	0.96	286	*i* PG	Pg	20 11 48.4	-1.9
ULC				*i* SG	Sg	20 12 02.9	+0.2
ULC	**Ulcinj**	0.96	286	*i* PG	Pg	20 11 48.4	-1.9
ULC				*i* SG	Sg	20 12 02.9	+0.2
ULC	**Ulcinj**	0.96	286	⇑*i*Pg	Pg	20 11 48.4	-1.9
ULC				*e*Sg	Sg	20 12 02.9	+0.2
PVY	**Plav**	0.97	337	⇑*i*Pg	Pg	20 11 48.8	-1.7
PVY				*e*Sg	Sg	20 12 03.5	+0.5
PVY	**Plav**	0.97	337	⇑*i*Pg	Pg	20 11 48.8	-1.7
PVY				*e*Sg	Sg	20 12 03.5	+0.5
PVY	**Plav**	0.97	337	*i* PG	Pg	20 11 48.8	-1.7
PVY				*i* SG	Sg	20 12 03.6	+0.6
PVY	**Plav**	0.97	337	*i* PG	Pg	20 11 48.8	-1.7
PVY				*i* SG	Sg	20 12 03.6	+0.6
PVY	**Plav**	0.97	337	⇑*i*Pg	Pg	20 11 48.8	-1.7
PVY				*e*Sg	Sg	20 12 03.5	+0.5
KBN	**Korca**	1.10	168	*i* PG	Pg	20 11 54.5	+1.4
KBN				*i* SG	Sg	20 12 10.5	+3.1
KBN	**Korca**	1.10	168	*i* PG	Pg	20 11 54.5	+1.4
KBN				*i* SG	Sg	20 12 10.5	+3.1
KBN	**Korca**	1.10	168	*i* Pg	Pg	20 11 54.5	+1.4
KBN				*i* Sg	Sg	20 12 10.5	+3.1
FNA	**Florina**	1.14	144	*e*Pg	Pg	20 11 52.4	-1.4
FNA				*e*Sg	Sg	20 12 10.4	+1.9
FNA	**Florina**	1.14	144	*i* PG	Pg	20 11 52.4	-1.3
FNA				*i* SG	Sg	20 12 10.4	+1.9
FNA	**Florina**	1.14	144	*i* PG	Pg	20 11 52.4	-1.3
FNA				*i* SG	Sg	20 12 10.4	+1.9
FNA	**Florina**	1.14	144	*e*Pg	Pg	20 11 52.4	-1.3
FNA				*e*Sg	Sg	20 12 10.4	+1.9
PDG	**Podgorica**	1.16	309	*i* PG	Pg	20 11 51.7	-2.5
PDG				*i* SG	Sg	20 12 10.3	+1.0
PDG	**Podgorica**	1.16	309	*i* PG	Pg	20 11 51.7	-2.5
PDG				*i* SG	Sg	20 12 10.3	+1.0
PDG	**Podgorica**	1.16	309	⇑*i*Pg	Pg	20 11 51.7	-2.5
PDG				*e*Sg	Sg	20 12 10.3	+1.0
TTG	**Podgorica**	1.16	309	⇑*i*Pg	Pg	20 11 51.7	-2.5
TTG				*e*Sg	Sg	20 12 10.3	+1.0
TTG	**Podgorica**	1.16	309	⇑*i*Pg	Pg	20 11 51.7	-2.5
TTG				*e*Sg	Sg	20 12 10.3	+1.0
TTG	**Podgorica**	1.16	309	⇑*i*Pg	Pg	20 11 51.7	-2.5
TTG				*e*Sg	Sg	20 12 10.3	+1.0
BEY	**Berane**	1.25	340	*i* PG	Pg	20 11 53.9	-1.9
BEY				*i* SG	Sg	20 12 12.6	+0.7
BEY	**Berane**	1.25	340	*i* PG	Pg	20 11 53.9	-1.9
BEY				*i* SG	Sg	20 12 12.6	+0.7
BEY	**Berane**	1.25	340	⇑*i*Pg	Pg	20 11 53.9	-1.9
BEY				*e*Sg	Sg	20 12 12.6	+0.7
IVA	**Berane**	1.25	340	⇑*i*Pg	Pg	20 11 53.9	-1.9
IVA				*e*Sg	Sg	20 12 12.6	+0.7
IVA	**Berane**	1.25	340	⇑*i*Pg	Pg	20 11 53.9	-1.9
IVA				*e*Sg	Sg	20 12 12.6	+0.7
IVA	**Berane**	1.25	340	⇑*i*Pg	Pg	20 11 53.9	-1.9
IVA				*e*Sg	Sg	20 12 12.6	+0.7
STIP	**Stip**	1.27	90	*e*Pg	Pg	20 11 56.4	0.0
STIP	**Stip**	1.27	90	*e*Pn	Pn	20 11 54.5	-2.4
STIP				*e*Sg	Sg	20 12 14.3	+1.4
STIP				*e*Lg		20 12 14.7	
	comp=E,170nm,0.8s						
STIP				*e*Lg		20 12 15.2	
	comp=N,168nm,0.6s						
STIP	**Stip**	1.27	90	*e*Pn	Pn	20 11 54.4	-2.4
STIP	**Stip**	1.27	90	*e*Pg	Pg	20 11 56.4	+0.1
STIP				*e*Sg	Sg	20 12 14.2	+1.4
BUM	**Brajici-Budva**	1.32	297	⇑*i*Pg	Pn	20 11 55.1	-2.4
BUM				*e*Sg	Sg	20 12 16.0	+1.6
BUM	**Brajici-Budva**	1.32	297	⇑*i*Pg	Pn	20 11 55.1	-2.4
BUM				*e*Sg	Sg	20 12 16.0	+1.6
BUM	**Brajici-Budva**	1.32	297	*i* PG	Pn	20 11 55.2	-2.3
BUM				*i* SG	Sg	20 12 16.0	+1.6
BUM	**Brajici-Budva**	1.32	297	*i* PG	Pn	20 11 55.2	-2.3
BUM				*i* SG	Sg	20 12 16.0	+1.6
BUM	**Brajici-Budva**	1.32	297	⇑*i*Pg	Pn	20 11 55.1	-2.4
BUM				*e*Sg	Sg	20 12 16.0	+1.6
BARS	**Barje**	1.49	41	*e*Pg	Pg	20 11 59.7	-0.9
BARS				*e*Sg	Sg	20 12 20.5	+0.6
BARS	**Barje**	1.49	41	Pg	Pg	20 11 59.7	-0.9
BARS				Sg	Sg	20 12 20.8	+0.9
LSK	**Leskovik**	1.56	177	*i* PN	Pg	20 12 02.6	+0.9
LSK	**Leskovik**	1.56	177	*i* PN	Pg	20 12 02.6	+0.9
LSK	**Leskovik**	1.56	177	*i* Pg	Pg	20 12 02.6	+0.9
NKY	**Niksic**	1.56	316	⇑*i*Pg	Pn	20 11 59.7	-1.1
NKY				*e*Sg	Sg	20 12 23.8	+1.7
NKY	**Niksic**	1.56	316	⇑*i*Pg	Pn	20 11 59.7	-1.1
NKY				*e*Sg	Sg	20 12 23.8	+1.7
NKY	**Niksic**	1.56	316	*i* PG	Pn	20 11 59.7	-1.1
NKY				*i* SG	Sg	20 12 23.8	+1.7
NKY	**Niksic**	1.56	316	*i* PG	Pn	20 11 59.7	-1.1
NKY				*i* SG	Sg	20 12 23.8	+1.7
NKY	**Niksic**	1.56	316	⇑*i*Pg	Pn	20 11 59.7	-1.1
NKY				*e*Sg	Sg	20 12 23.8	+1.7
VAY	**Valandovo**	1.61	103	*e*Pb	Pb	20 12 01.2	-1.2
VAY				*e*Sb	Sb	20 12 23.0	-0.3
VAY	**Valandovo**	1.61	103	*e*Pn	Pn	20 12 00.4	-1.1
VAY				*e*Sg	Sg	20 12 23.4	-0.3
VAY				*e*Lg		20 12 23.7	
	comp=E,198nm,0.6s						
VAY				*e*Lg		20 12 23.7	
	comp=N,480nm,1.0s						
VAY	**Valandovo**	1.61	103	*e*Pn	Pn	20 12 00.4	-1.1
VAY				*e*Sg	Sg	20 12 23.3	-0.4
SJES	**Sjenica**	1.61	346	*i* Pg	Pg	20 12 01.3	-1.5
SJES				*e*Sg	Sg	20 12 23.7	-0.1
SJES	**Sjenica**	1.61	346	Pn	Pn	20 12 01.5	0.0
SJES				Sn	Sn	20 12 24.5	+1.5
GRG	**Griva**	1.62	117	*e*Pb	Pb	20 12 01.1	-1.6
GRG				*e*Sb	Sb	20 12 23.7	0.0

GRG	Griva	1.62	117	ePb	Pb	20 12 01.1	-1.6
GRG				eSb	Sb	20 12 23.7	0.0
HCY	Herceg Novi	1.66	297	⇓iPn	Pn	20 12 00.5	-1.6
HCY				eSn	Sg	20 12 26.4	+1.3
HCY	Herceg Novi	1.66	297	⇓iPn	Pn	20 12 00.5	-1.6
HCY				eSn	Sg	20 12 26.4	+1.3
HCY	Herceg Novi	1.66	297	i PG	Pn	20 12 00.5	-1.6
HCY				i SG	Sg	20 12 26.8	+1.7
HCY	Herceg Novi	1.66	297	i PG	Pn	20 12 00.5	-1.6
HCY				i SG	Sg	20 12 26.8	+1.7
HCY	Herceg Novi	1.66	297	⇓iPn	Pn	20 12 00.5	-1.6
HCY				eS	Sg	20 12 26.4	+1.3
KZN	Kozani	1.70	145	ePn	Pn	20 12 03.2	+0.5
KZN	Kozani	1.70	145	ePN	Pn	20 12 03.2	+0.5
KZN	Kozani	1.70	145	ePn	Pn	20 12 03.2	+0.5
PLE	Pljevlja	1.81	334	⇑iPn	Pn	20 12 04.6	+0.3
PLE				eSn	Sb	20 12 30.1	+1.0
PLE	Pljevlja	1.81	334	⇑iPn	Pn	20 12 04.6	+0.3
PLE				eSn	Sb	20 12 30.1	+1.0
PLE	Pljevlja	1.81	334	⇑iPn	Pn	20 12 04.6	+0.3
PLE				eS	Sb	20 12 30.1	+1.0
SRN	Sarande	1.86	192	i PN	Sn	20 12 22.2	-6.8
SRN	Sarande	1.86	192	i PN	Sn	20 12 22.2	-6.8
BRY	Bratogost	1.87	310	⇑iPn	Pn	20 12 05.1	0.0
BRY				eSn	Sg	20 12 32.1	+0.1
BRY	Bratogost	1.87	310	⇑iPn	Pn	20 12 05.1	0.0
BRY				eSn	Sg	20 12 32.1	+0.1
BRY	Bratogost	1.87	310	⇑iPn	Pn	20 12 05.1	0.0
BRY				eS	Sg	20 12 32.1	+0.1
KNT	Kendrikon	1.89	106	ePb	Pn	20 12 05.3	-0.1
KNT				eSb	Sb	20 12 31.0	-0.4
KNT	Kendrikon	1.89	106	ePb	Pn	20 12 05.3	-0.1
KNT				eSb	Sb	20 12 31.0	-0.4
UPM	Unac-Piva	1.90	323	⇑iPn	Pn	20 12 05.8	+0.4
UPM				eSn	Sg	20 12 32.9	0.0
UPM	Unac-Piva	1.90	323	⇑iPn	Pn	20 12 05.8	+0.4
UPM				eSn	Sg	20 12 32.9	0.0
UPM	Unac-Piva	1.90	323	⇑iPn	Pn	20 12 05.8	+0.4
JAN	Janina	2.06	172	ePb	Pg	20 12 12.6	+1.1
JAN	Janina	2.06	172	ePB	Pg	20 12 12.6	+1.1
JAN	Janina	2.06	172	ePb	Pg	20 12 12.6	+1.1
THE	Thessaloniki	2.16	119	ePn	Pn	20 12 08.4	-0.6
THE	Thessaloniki	2.16	119	ePn	Pn	20 12 08.4	-0.6
GRUS	Gruza	2.19	4	ePn	Pn	20 12 08.6	-0.8
GRUS				eSg	Sg	20 12 43.5	+1.2
GRUS	Gruza	2.19	4	Pn	Pn	20 12 09.4	0.0
GRUS				Sn	Sn	20 12 34.9	-2.3
LIT	Litokhoron	2.21	136	ePn	Pn	20 12 09.9	+0.2
LIT				eSn	Sn	20 12 39.2	+1.5
LIT	Litokhoron	2.21	136	ePn	Pn	20 12 09.9	+0.2
LIT				S	Sn	20 12 39.2	+1.6
VTS	Vitosha	2.21	65	P	Pn	20 12 10.1	+0.4
VTS	Vitosha	2.21	65	ePn	Pn	20 12 10.1	+0.4
VTS	Vitosha	2.21	65	⇓iP	Pn	20 12 10.3	+0.6
VTS	Vitosha	2.21	65	ePn	Pn	20 12 10.1	+0.4
VTS	Vitosha	2.21	65	ePn	Pn	20 12 10.1	+0.4
HORT	Hortiatis	2.26	118	P	Pn	20 12 10.1	-0.4
HORT				S	Sn	20 12 39.6	+0.6
HORT	Hortiatis	2.26	118	ePn	Pn	20 12 10.1	-0.4
HORT				eSn	Sn	20 12 39.6	+0.6
HORT	Hortiatis	2.26	118	ePn	Pn	20 12 10.1	-0.3
HORT				S	Sn	20 12 39.6	+0.6
BBLS	Bajina Basta -	2.30	340	ePg	Pg	20 12 14.4	-1.6
BBLS				eSg	Sg	20 12 46.4	+0.5
SOH	Sokhos	2.34	111	ePn	Pn	20 12 11.3	-0.1
SOH				eSn	Sn	20 12 42.7	+1.9
SOH	Sokhos	2.34	111	ePn	Pn	20 12 11.4	0.0
SOH				S	Sn	20 12 42.7	+1.9
BOLS	Boljevac	2.39	27	Pn	Pn	20 12 14.6	+2.5
BOLS				Sn	Sn	20 12 40.6	-1.4
SRS	Serrai	2.41	103	ePn	Pn	20 12 12.2	-0.2
SRS	Serrai	2.41	103	ePn	Pn	20 12 12.2	-0.3
DIVS	Divcibare	2.42	352	ePn	Pn	20 12 11.7	-0.9
DIVS	Divcibare	2.42	352	ePn	Pn	20 12 11.9	-0.7
DIVS				eSn	Sn	20 12 42.1	-0.7
DIVS				eSg	Sg	20 12 50.2	+0.6
DIVS	Divcibare	2.42	352	ePn	Pn	20 12 11.7	-0.9
DIVS				Sn	Sn	20 12 43.6	+0.8
THL	Klokotos Trika	2.43	151	ePB	Pb	20 12 14.6	-1.9
THL	Klokotos Trika	2.43	151	ePb	Pb	20 12 14.6	-1.9
PE1	Pezze di Greco	2.48	250	ePn	Pn	20 12 11.9	-1.5
NVR	Nevrokopi	2.56	97	ePn	Pb	20 12 18.7	+0.1
NVR	Nevrokopi	2.56	97	ePN	Pb	20 12 18.7	+0.1
PLG	Polygyros	2.60	120	ePn	Pn	20 12 15.7	+0.6
PLG	Polygyros	2.60	120	ePn	Pn	20 12 15.5	+0.4
PLG	Polygyros	2.60	120	ePN	Pn	20 12 15.7	+0.6
PLG	Polygyros	2.60	120	ePn	Pn	20 12 15.5	+0.4
SVIS	Svilajnac	2.65	12	ePn	Pn	20 12 15.8	+0.1
SVIS				eSn	Sn	20 12 47.7	-0.7
SVIS				eSg	Sg	20 12 57.7	+0.8
SG1	Sgolgore (BA)	3.00	254	ePn	Pn	20 12 21.4	+0.9
PAIG	Paliouri	3.00	125	ePn	Pn	20 12 20.4	-0.3
PAIG	Paliouri	3.00	125	ePn	Pn	20 12 20.4	-0.2
BEO	Belgrade	3.12	360	ePn	Pn	20 12 20.8	-1.4
XOR	Xorichti	3.12	138	P	Pn	20 12 22.0	-0.1
XOR	Xorichti	3.12	138	ePn	Pn	20 12 22.0	-0.1
XOR	Xorichti	3.12	138	ePn	Pn	20 12 22.0	-0.2
PLD	Plovdiv	3.17	81	ePn	Pn	20 12 23.9	+0.9
PLD	Plovdiv	3.17	81	ePn	Pn	20 12 23.9	+0.9
DJES	Djerdap	3.29	26	ePn	Pn	20 12 24.4	-0.1
DJES				eSn	Sn	20 13 01.9	-2.3
DJES				eSg	Sg	20 13 15.5	-1.9
FGMS	Monte Sant'Ang	3.39	272	i Pnu	Pn	20 12 24.9	-1.1
FGSL	Fruska Gora	3.49	352	ePn	Pn	20 12 26.6	-0.6
FGSL	Fruska Gora	3.49	352	Pn	Pn	20 12 26.6	-0.6
RGNG	Rignano Grg	3.67	271	i Pnu	Pn	20 12 28.3	-1.5
BZS	Buzias	4.00	11	⇓P	Pn	20 12 34.0	-0.3
BZS	Buzias	4.00	11	⇓iP	Pn	20 12 34.0	-0.3
BZS	Buzias	4.00	11	ePn	Pn	20 12 33.2	-1.1
GZR	Gura Zlata	4.05	24	⇓iP	Pn	20 12 35.1	+0.2
SGO	Sicignano	4.07	255	Pn	Pn	20 12 35.7	+0.4
SGO	Sicignano	4.07	255	Pn	Pn	20 12 35.7	+0.4
RHK3	Tenkes	4.48	340	eP	Pn	20 12 40.6	-0.4
SGG	Gregorio Mates	4.59	268	Pn	Pn	20 12 42.5	0.0
SGG	Gregorio Mates	4.59	268	Pn	Pn	20 12 42.5	0.0
PKSM	Moragy	4.70	344	⇑iP	Pn	20 12 42.9	-1.0
PKSM	Moragy	4.70	344	ePn	Pn	20 12 43.0	-0.9
PKSM	Moragy	4.70	344	⇑ePn	Pn	20 12 42.8	-1.1
PKSM				eSn	Sn	20 13 35.3	-3.7
VAGA	Valle Agricola	4.70	269	Pn	Pn	20 12 44.2	+0.3
	comp=N,165nm,1.3s						
INTR	Introdacqua	4.92	276	Pn	Pn	20 12 45.5	-1.5
INTR	Introdacqua	4.92	276	Pn	Pn	20 12 45.5	-1.5
VOIR		4.99	40	⇑P	Pn	20 12 48.6	+0.7
VOIR		4.99	40	⇑iP	Pn	20 12 48.6	+0.7
SDI	San Donato	5.00	272	Pn	Pn	20 12 47.9	-0.1
SDI	San Donato	5.00	272	Pn	Pn	20 12 47.9	-0.1
FAGN	Fagnano	5.17	279	Pn	Pn	20 12 49.1	-1.3
	comp=N,77nm,0.5s						
AQU	L'Aquila	5.32	279	⇓P	Pn	20 12 52.6	+0.2
AQU	L'Aquila	5.32	279	⇓iP	Pn	20 12 52.6	+0.2
DRGR		5.33	17	⇑P	Pn	20 12 53.4	+0.8
DRGR		5.33	17	⇑iP	Pn	20 12 53.4	+0.8
MLR	Muntele Rosu	5.48	44	⇑P	Pn	20 12 55.9	+1.3
MLR	Muntele Rosu	5.48	44	P	Pn	20 12 55.5	+0.9
MLR						20 13 57.7	
MLR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MLR				MLR	MLR		
	comp=Z,197nm,19.4s						
MLR	Muntele Rosu	5.48	44	Pn	Pn	20 12 55.5	+0.8
	comp=Z,0.8nm,0.3s,baz=164,slow=10,SNR=16						
MLR				Sn	Sn	20 13 57.7	-0.6
	comp=Z,0.3nm,0.3s,baz=275,slow=20,SNR=4.8						
MLR				LR	LR	20 14 45.8	
	comp=Z,197nm,19.4s,baz=182,slow=36						
MLR	Muntele Rosu	5.48	44	⇑iP	Pn	20 12 55.9	+1.3
MLR	Muntele Rosu	5.48	44	P	Pn	20 12 55.5	+0.9
	comp=Z,1.0nm,0.3s						
MLR				S	Sn	20 13 57.7	-0.6
	comp=Z,197nm,19.4s						
FIAM	Fiamignano	5.52	278	i Pnu	Pn	20 12 55.8	+0.6
	comp=Z,53nm,0.9s						
LNSS	Leonessa	5.61	282	Pn	Pn	20 12 56.7	+0.3
	comp=Z,100nm,0.8s						
SNTG	Esanatoglia	5.79	288	Pn	Pn	20 12 58.4	-0.5
	comp=Z,5.6nm,0.3s						
SNTG	Esanatoglia	5.79	288	Pn	Pn	20 12 58.4	-0.5
	comp=Z,5.6nm,0.3s						
BUD	Budapest	5.87	350	ePn	Pn	20 13 05.8	+5.8
BUD				eSn	Sn	20 14 13.2	+5.3
PLOR	Plostina	6.09	45	⇑iP	Pn	20 13 03.9	+0.9
PENC	Penc	6.14	352	eS	Sn	20 14 16.1	+1.4
PSZ	Piszkesteto	6.23	356	ePn	Pn	20 13 04.1	-0.8
PSZ				eSn	Sn	20 14 12.1	-4.6
PSZ	Piszkesteto	6.23	356	ePn	Pn	20 13 04.1	-0.8
PSZ				eSn	Sn	20 14 12.1	-4.6
OBKA	Obir	6.43	320	⇑iPn	Pn	20 13 08.0	+0.4
OBKA	Obir	6.43	320	⇑iPn	Pn	20 13 08.0	+0.4
OBKA				i Sn	Sn	20 14 23.9	+2.3
OBKA	Obir	6.43	320	⇑iPn	Pn	20 13 08.0	+0.4
OBKA				⇓iSn	Sn	20 14 23.9	+2.3
OBKA	Obir	6.43	320	Pn	Pn	20 13 08.0	+0.4
VOY	Vojsko	6.43	314	ePn	Pn	20 13 07.8	+0.1
VOY				eSn	Sn	20 14 23.7	+1.9
VOY	Vojsko	6.43	314	ePn	Pn	20 13 07.8	+0.1
VOY				eSn	Sn	20 14 23.7	+1.9
VOY	Vojsko	6.43	314	ePn	Pn	20 13 07.8	+0.1
GORS	Gorjuse	6.57	317	i Pn	Pn	20 13 09.5	-0.1
GORS	Gorjuse	6.57	317	i Pn	Pn	20 13 09.5	-0.1
GORS	Gorjuse	6.57	317	i Pn	Pn	20 13 09.5	-0.1
ARSA	Arzberg	6.58	329	⇓iPn	Pn	20 13 10.7	+0.9
ARSA	Arzberg	6.58	329	⇓iPn	Pn	20 13 10.7	+0.9
ARSA				i Sn	Sn	20 14 27.4	+2.0
ARSA	Arzberg	6.58	329	⇓iPn	Pn	20 13 10.7	+0.9
ARSA				⇑iSn	Sn	20 14 27.4	+2.0
ARSA	Arzberg	6.58	329	Pn	Pn	20 13 10.7	+0.9
KECS	Kecovo	6.78	0	ePn	Pn	20 13 12.1	-0.4
KECS				eSn	Sn	20 14 26.4	-3.8
KECS	Kecovo	6.78	0	ePN	Pn	20 13 12.1	-0.4
KECS				eSN	Sn	20 14 26.4	-3.8
BURAR	Bucovina Array	6.80	28	⇓iP	Pn	20 13 14.9	+2.1
VYHS	Vyhne	6.89	351	ePn	Pn	20 13 14.3	+0.3
VYHS				eSn	Sn	20 14 28.5	-4.4
VYHS	Vyhne	6.89	351	ePN	Pn	20 13 14.3	+0.3
VYHS				eSN	Sn	20 14 28.5	-4.4
PTCC	Patocco-Chiusa	6.96	315	Pn	Pn	20 13 15.2	+0.2
	comp=Z,1µm,5.5s						
MODS	Modra-Piesok	7.04	342	eSN	Sn	20 14 35.1	-1.7
CRVS	Cervenica-Dubn	7.23	5	ePn	Pn	20 13 19.1	+0.4
CRVS	Cervenica-Dubn	7.23	5	ePN	Pn	20 13 19.1	+0.4
KOLS	Kolonicke sedl	7.34	9	ePn	Pn	20 13 22.4	+2.3
KOLS				eSg	Sg	20 15 37.6	+10
KOLS	Kolonicke sedl	7.34	9	ePN	Pn	20 13 22.4	+2.3
KOLS				eSG	Sg	20 15 37.6	+10
FVI	Forni Avoltri	7.39	314	Pn	Pn	20 13 21.3	+0.5
	comp=Z,2.6nm,0.7s						
FVI	Forni Avoltri	7.39	314	P	Pn	20 13 21.3	+0.5
FVI				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FVI	Forni Avoltri	7.39	314	Pn	Pn	20 13 21.3	+0.5
	comp=Z,2.6nm,0.7s						
KBA	Koelnbreinsper	7.42	319	⇓iPn	Pn	20 13 21.4	+0.2
KBA	Koelnbreinsper	7.42	319	⇓iPn	Pn	20 13 21.4	+0.2
KBA	Koelnbreinsper	7.42	319	⇓iPn	Pn	20 13 21.4	+0.2
KBA	Koelnbreinsper	7.42	319	Pn	Pn	20 13 21.4	+0.2
ABTA	Abfaltersbach	7.63	314	i Pn	Pn	20 13 24.1	0.0
	SNR=9.2						
ABTA	Abfaltersbach	7.63	314	Pn	Pn	20 13 24.1	0.0
	SNR=9.2						
CTI	Castel Tesino	7.72	307	Pn	Pn	20 13 24.2	-1.2
	comp=Z,6.6nm,0.6s						
CTI	Castel Tesino	7.72	307	P	Pn	20 13 24.2	-1.2
CTI				pmax	pmax		
	comp=Z,7.0nm,0.6s						
CTI	Castel Tesino	7.72	307	Pn	Pn	20 13 24.2	-1.2
	comp=Z,6.6nm,0.6s						
STHS	Stebnicka Huta	7.73	4	ePn	Pn	20 13 27.9	+2.4
STHS				eSn	Sn	20 14 54.6	+0.9
STHS	Stebnicka Huta	7.73	4	ePN	Pn	20 13 27.9	+2.4
STHS				eSN	Sn	20 14 54.6	+0.9
WTTA	Wattenberg	8.42	314	⇑iPn	Pn	20 13 34.1	-0.8
WTTA	Wattenberg	8.42	314	⇑iPn	Pn	20 13 34.1	-0.9
WTTA				i Sn	Sn	20 15 12.0	+1.4
WTTA	Wattenberg	8.42	314	⇑iPn	Pn	20 13 34.1	-0.8
WTTA				⇑iSn	Sn	20 15 12.0	+1.4
WTTA	Wattenberg	8.42	314	Pn	Pn	20 13 34.1	-0.8
WTTA				i S	Sn	20 15 12.0	+1.4
GERES	GERESS Array B	8.59	329	Pn	Pn	20 13 38.4	+1.1
GERES				Sn	Sn	20 15 15.9	+1.2
GERES	GERESS Array B	8.59	329	Pn	Pn	20 13 38.4	+1.1
	comp=Z,0.2nm,0.3s,baz=152,slow=15,SNR=14						
GERES				Sn	Sn	20 15 15.9	+1.1
	comp=Z,0.1nm,0.3s,baz=142,slow=26,SNR=2.9						
GERES	GERESS Array B	8.59	329	P	Pn	20 13 38.4	+1.1
GERES				S	Sn	20 15 15.9	+1.1
SQTA	Sankt Quirin	8.62	313	⇓iPn	Pn	20 13 38.4	+0.6
SQTA	Sankt Quirin	8.62	313	⇓iPn	Pn	20 13 38.4	+0.6
SQTA				i Sn	Sn	20 15 17.5	+1.9
SQTA	Sankt Quirin	8.62	313	⇓iPn	Pn	20 13 38.4	+0.6
SQTA				⇑iSn	Sn	20 15 17.5	+1.9
SQTA	Sankt Quirin	8.62	313	Pn	Pn	20 13 38.4	+0.6
SQTA				i S	Sn	20 15 17.5	+1.9
MOTA	Moosalm	8.75	313	⇑iPn	Pn	20 13 40.2	+0.6
	SNR=6.9						
MOTA	Moosalm	8.75	313	⇑iSn	Sn	20 15 22.5	+3.7
MOTA	Moosalm	8.75	313	⇑iPn	Pn	20 13 40.2	+0.6
MOTA				i Sn	Sn	20 15 22.5	+3.7
MOTA	Moosalm	8.75	313	⇑iPn	Pn	20 13 40.2	+0.6
	SNR=6.9						
MOTA				⇑iSn	Sn	20 15 22.5	+3.7
MOTA	Moosalm	8.75	313	Pn	Pn	20 13 40.2	+0.6
	comp=Z,6.0nm,9.0s						
MOTA				i S	Sn	20 15 22.5	+3.7
KHC	Kasperske Hory	8.87	329	ePn	Pn	20 13 41.5	+0.4
KHC				e		20 13 52.5	
KHC				eSn	Sn	20 15 21.0	-0.7
KHC	Kasperske Hory	8.87	329	ePN	Pn	20 13 41.5	+0.4
KHC				ex	x	20 13 52.5	
KHC				eSN	Sn	20 15 21.0	-0.7
DAVOX	Davos/Dischmat	9.14	307	Pn	Pn	20 13 45.0	+0.1
DAVOX	Davos/Dischmat	9.14	307	Pn	Pn	20 13 45.0	+0.1
	comp=Z,0.5nm,0.3s,baz=140,slow=19,SNR=6.9						
DAVOX	Davos/Dischmat	9.14	307	Pn	Pn	20 13 45.0	+0.1
HFS	Hagfors	18.92	349	P	Pn	20 15 52.0	-2.4
	comp=Z,0.1nm,0.3s,baz=172,slow=12,SNR=4.5						
FINES	FINESS Array B	20.06	8	P	P	20 16 05.0	-1.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	FINESS Array B	20.06	8	P	P	20 16 05.0	-1.2
	comp=Z,0.9nm,0.8s,baz=119,slow=31,SNR=3.1						
NB2	NORSAR Subarra	20.17	347	P	P	20 16 06.1	-1.4
	comp=Z,1.1nm,0.7s,baz=157,slow=11						
NOA	NORSAR Array B	20.17	347	P	P	20 16 06.3	-1.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	20.17	347	P	P	20 16 06.3	-1.2
	comp=Z,0.7nm,0.7s,baz=158,slow=11,SNR=2.7						
EKA	Eskdalemuir Ar	20.63	319	P	P	20 16 10.9	-1.6
EKA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
EKA	Eskdalemuir Ar	20.63	319	P	P	20 16 10.8	-1.7
	comp=Z,3.4nm,0.6s,baz=112,slow=9.8,SNR=11						
TORD	Torodi Ar. Bea	32.82	215	P	P	20 18 05.2	-1.8
	comp=Z,0.4nm,0.8s,mb3.4,baz=23,slow=9.1,SNR=3.7						
MKAR	Makanchi Array	43.56	61	P	P	20 19 39.5	+2.3
MKAR	Makanchi Array	43.56	61	P	P	20 19 37.2	+0.1
	comp=Z,0.3nm,0.5s,mb3.3,baz=282,slow=8.3,SNR=6.9						

IDC 10 20:15:16.5±17.0**, 17.22S**×**179.45W, h595**^{km}±176^{km}**, mb2.9**/2**, mb1 3.1**/2**, mb1mx2.8**/13**, mbtmp2.9**/2**, Error ellipse: s-maj=136.5km s-min=89.7km az=105.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	38.10	240	P	P	20 21 46.2	+0.1
	1.5nm,0.4s,baz=92,slow=12,SNR=8.9						
WRA	Warramunga Arr	43.78	259	P	P	20 22 31.0	-0.2
	0.6nm,0.6s,baz=96,slow=7.7,SNR=22						
WRA				PcP	PcP	20 24 04.0	-0.3
	0.7nm,0.8s,baz=94,slow=3.9,SNR=5.6						
GERES	GERESS Array B	146.69	344	PKPbc	PKPbc	20 33 51.9	-0.5
	0.4nm,0.5s,baz=20,slow=4.3,SNR=6.0						

IDC 10 20:25:39.4±3.5**, 3.02S**×**101.25E, h0**^{km}**, mb3.7**/4**, mb1 3.8**/4**, mb1mx3.5**/19**, mbtmp3.7**/4**, Error ellipse: s-maj=145.9km s-min=25.8km az=54.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	36.41	120	P	P	20 32 46.3	+0.5
	0.2nm,0.3s,baz=286,slow=8.1,SNR=12						
SONM	Songino Array	50.84	4	P	P	20 34 41.5	-0.2
	1.4nm,0.6s,baz=187,slow=9.7,SNR=14						
MKAR	Makanchi Array	52.34	344	P	P	20 34 54.2	+1.2
	0.5nm,0.6s,baz=151,slow=8.6,SNR=15						
ZALV	Zalesovo Beam	58.40	349	P	P	20 35 36.0	-0.5
	0.9nm,0.4s,baz=165,slow=6.1,SNR=6.2						
TXAR	Lajitas Array	144.72	40	PKP	PKPdf	20 45 16.2	-2.7
	0.2nm,0.5s,baz=243,slow=0.4,SNR=3.2						

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*IDC **10** 20:52:40.5±5.2, 36.39N×71.09E, h205^{km}±47^{km}, mb3.3/8, mb1 3.4/11, mb1mx3.2/22, mbtmp3.3/11, Error ellipse: s-maj=26.4km s-min=17.7km az=3.0*

*ISCJB **10** 20:52:41.5±0.6, 36.59N±0.04×71.03E±0.08, h217^{km}±7^{km}, mb3.5/9, Error ellipse: s-maj=10.7km s-min=4.3km az=156.1*

*MOS **10** 20:52:41.1±1.1, 36.58N×70.94E, h214^{km}, mb3.8/5, Error ellipse: s-maj=19.5km s-min=10.0km az=86.2*

*NEIC **10** 20:52:43.0±0.7, 36.63N×71.05E, h217^{km}±7^{km}, mb3.9/7, Error ellipse: s-maj=11.4km s-min=8.8km az=125.0*

*NNC **10** 20:52:48.2±1.7, 37.12N×70.97E, h230^{km}±23^{km}, mb2.4, mpv3.2, Error ellipse: s-maj=16.2km s-min=13.0km az=5.0*

ISC 10 20:52:42.2±0.6**, 36.58N**±0.04×**71.01E**±0.08**, h206**^{km}±7^{km}**, n64, σ1.04**/77**, mb3.5**/9**, 1C-2D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.59	219	ePn	Pn	20 53 30.2	+2.7
KBL				eSn	Sn	20 53 53.6	-9.3
THN	Thein Dam	5.67	135	eP	Pn	20 54 06.2	+0.8
THN				eS	Sn	20 55 10.6	-0.5
DLH	Dalhousie	5.74	133	eP	Pn	20 54 06.0	-0.2
DLH				eS	Sn	20 55 10.0	-2.7
AML	Almayashu	5.92	20	P	Pn	20 54 09.0	+0.5
	SNR=55						
AML	Almayashu	5.92	20	ePn	Pn	20 54 08.7	+0.3
	33nm,0.5s						
AML				eSn	Sn	20 55 13.4	-3.4
UCH	Uchtor	6.26	25	P	Pn	20 54 13.6	+0.8
	SNR=16						
UCH	Uchtor	6.26	25	ePn	Pn	20 54 13.2	+0.4
	9.3nm,0.6s						
KZA	Kyzart	6.40	30	P	Pn	20 54 15.0	+0.5
	SNR=10						
EKS2	Erkin-Say	6.44	18	P	Pn	20 54 15.7	+0.6
	SNR=7.2						
EKS2	Erkin-Say	6.44	18	ePn	Pn	20 54 15.2	+0.1
	3.6nm,0.4s						
EKS2				eSn	Sn	20 55 12.2	-17
KK31	Karatay Array	6.53	357	P	Pn	20 54 16.2	0.0
	4.5nm,0.5s,baz=181,slow=12,SNR=171						
KK31				S	Sn	20 55 24.1	-6.9
	5.3nm,0.3s,baz=189,slow=15,SNR=12						
AAK	Ala-Archa	6.62	23	P	Pn	20 54 18.0	+0.6
	SNR=12						
AAK	Ala-Archa	6.62	23	ePn	Pn	20 54 16.6	-0.7
	6.7nm,0.5s						
AAK				eSn	Sn	20 55 25.2	-7.8
AAK	Ala-Archa	6.62	23	ePN	Pn	20 54 16.7	-0.7
AAK				pmax	pmax		
	comp=Z,7.0nm,0.5s						
ULHL	Ulahol	6.96	34	P	Pn	20 54 22.5	+0.7
	SNR=7.5						
SDNR	Sundarnagar	7.08	134	eP	Pn	20 54 24.6	+1.1
SDNR				eS	Sn	20 55 41.0	-3.0
USP	Ospenovka	7.20	21	P	Pn	20 54 25.1	+0.2
	SNR=7.2						
TKM2	Tokmak 2	7.25	28	P	Pn	20 54 26.2	+0.6
	SNR=7.2						
TKM2	Tokmak 2	7.25	28	⇓P	Pn	20 54 25.8	+0.2
	comp=Z,0.3nm,0.6s						
TKM2				⇑S	Sn	20 55 45.1	-2.8
	comp=Z,0.9nm,0.8s						
TKM2	Tokmak 2	7.25	28	ePn	Pn	20 54 25.9	+0.3
	comp=Z,3.5nm,0.4s						
TKM2				eSn	Sn	20 55 36.7	-11
TKM2	Tokmak 2	7.25	28	ePN	Pn	20 54 25.9	+0.3
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.4s						
JOSI	Joshimath	9.32	128	eP	Pn	20 54 53.2	+0.6
JOSI				AMb	AMB	20 54 55.5	
	comp=Z,145nm,0.7s						
JOSI				ex	x	20 56 27.1	
KHET	Khetri	9.40	153	eP	Pn	20 54 52.4	-1.3
KHET				AMb	AMB	20 54 54.1	
	comp=Z,7.2nm,0.3s						
KHET				eS	Sn	20 56 32.5	-6.5
KUDL	Kundal	9.60	150	eP	Pn	20 54 56.0	-0.2
KUDL				AMb	AMB	20 54 56.4	
	comp=Z,14nm,0.8s						
KUDL				eS	Sn	20 56 34.3	-9.5
MK31	Makanchi Array	13.22	36	P	Pn	20 55 42.3	+0.3
	comp=Z,0.4nm,0.4s,baz=212,slow=11,SNR=16						
MK31	Makanchi Array	13.22	36	ePn	Pn	20 55 41.5	-0.6
MK31	Makanchi Array	13.22	36	eP	Pn	20 55 41.5	-0.6
MKAR	Makanchi Array	13.22	36	P	Pn	20 55 42.6	+0.5
	comp=Z,0.2nm,0.3s,baz=210,slow=10,SNR=12						
KOLN	Koldanda	13.80	126	eP	Pn	20 55 49.3	-0.2
	comp=Z,10nm,0.2s						
GKN	Gorkha	14.34	123	eP	Pn	20 55 55.7	-0.4
	comp=Z,33nm,0.3s						
DMN	Daman	14.91	123	eP	Pn	20 56 03.4	+0.3
	comp=Z,16nm,0.3s						
KKN	Kakani	14.91	122	eP	Pn	20 56 02.5	-0.6
	comp=Z,34nm,0.5s						
AB31	Akbulak array	15.02	331	P	Pn	20 56 03.4	-0.8
	comp=Z,1.6nm,0.5s,baz=151,slow=12,SNR=38						
AB31				⇓S	S	20 58 44.9	-5.7
	comp=Z,0.4nm,0.4s						
PKI	Pulchoki	15.14	122	eP	Pn	20 56 06.3	+0.4
GUN	Gumba	15.25	120	eP	Pn	20 56 07.6	+0.4
JIRN	Jiri	15.62	120	eP	Pn	20 56 12.3	+0.6
	comp=Z,17nm,0.4s						
BRVK	Borovoye	16.49	358	P	P	20 56 19.5	-1.3
	comp=Z,2.0nm,0.7s						
BRVK	Borovoye	16.49	358	P	P	20 56 19.5	-1.3
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKTK	Aktyubinsk	16.72	330	P	P	20 56 24.1	+0.8
AKTO	Aktyubinsk	16.72	330	P	P	20 56 24.1	+0.7
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO	Aktyubinsk	16.72	330	P	P	20 56 24.1	+0.8
	comp=Z,0.7nm,0.3s,baz=131,slow=10,SNR=13						
TAPN	Taplejung	16.87	118	eP	P	20 56 27.2	+1.9
	comp=Z,5.6nm,0.3s						
ODAN	Odare	16.95	120	eP	P	20 56 28.3	+2.1
	comp=Z,14nm,0.6s						
LSA	Lhasa	18.19	106	eP	P	20 56 41.8	+2.1
	comp=Z,3.9nm,0.9s						
LSA	Lhasa	18.19	106	eP	P	20 56 41.8	+2.1
LSA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ZAL	Zalesovo	19.82	25	P	P	20 56 56.6	-0.4
ZALV	Zalesovo Beam	19.84	25	P	P	20 56 56.6	-0.5
	comp=Z,0.9nm,0.3s,baz=217,slow=11,SNR=14						
AKASG	Malin Array Be	32.91	309	P	P	20 58 56.8	+0.1
	comp=Z,0.2nm,0.4s,mb3.0,baz=219,slow=50,SNR=4.1						
JOF	Joensuu	35.81	330	ep	P	20 59 22.1	+0.6
	comp=Z,2.6nm,0.4s,mb4.1						
JOF	Joensuu	35.81	330	eP	P	20 59 22.1	+0.6
JOF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.2						
FINES	FINESS Array B	37.42	326	P	P	20 59 34.8	-0.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	37.42	326	P	P	20 59 34.8	-0.3
	comp=Z,0.9nm,0.5s,mb3.6,baz=117,slow=9.0,SNR=14						
ARCES	ARCESS Array B	41.08	338	P	P	21 00 05.7	+0.5
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARCES	ARCESS Array B	41.08	338	P	P	21 00 05.7	+0.5
	comp=Z,1.9nm,0.6s,mb3.7,baz=114,slow=7.8,SNR=11						
NB2	NORSAR Subarra	44.32	323	P	P	21 00 31.3	-0.1
	comp=Z,0.8nm,0.5s,mb3.3,baz=94,slow=7.9						
NOA	NORSAR Array B	44.32	323	P	P	21 00 31.2	-0.2
NOA	NORSAR Array B	44.32	323	P	P	21 00 31.2	-0.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	44.32	323	P	P	21 00 31.2	-0.2
	comp=Z,1.4nm,0.7s,mb3.4,baz=96,slow=7.7,SNR=6.6						

TOA0	Torodi Ar. Sit	65.73	269	P	P	21 03 01.1	-4.0
TORD	Torodi Ar. Bea	65.73	269	P	P	21 03 03.6	-1.6
	comp=Z,1.2nm,0.7s,mb3.6,baz=49,slow=5.9,SNR=18						
INK	Inuvik	73.83	9	P	P	21 03 53.3	-0.3
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	Inuvik	73.83	9	P	P	21 03 53.2	-0.4
	comp=Z,1.4nm,0.6s,mb3.8,baz=357,slow=5.6,SNR=9.7						
YKA	Yellowknife Ar	81.17	3	P	P	21 04 33.4	-0.9
	comp=Z,0.4nm,0.5s,mb3.3,baz=350,slow=5.3,SNR=11						
WRA	Warramunga Arr	82.02	122	P	P	21 04 37.4	-2.0
	comp=Z,0.2nm,0.5s,mb3.0,baz=324,slow=5.0,SNR=8.9						

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*ISK **10** 21:41:45.8, 3735N×3688E, h5^{km}, MD3.5*
*ISCJB **10** 21:41:46.0±0.3, 3735N±003×3689E±003, h5^{km}, Error ellipse: s-maj=5.1km s-min=2.9km az=166.0*
*CSEM **10** 21:41:47.0±0.1, 3734N×3689E, h20^{km}, MD3.3, Error ellipse: s-maj=2.8km s-min=1.8km az=178.0*
*DDA **10** 21:41:47.0, 3728N×3689E, h2^{km}±1^{km}, Md3.3*
ISC 10 21:41:46.5±0.5**, 3733N**±004×**3689E**±003**, h5**^{km}±5^{km}**, n43, σ0^{s}96**/52**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GAZ	Gaziantep	0.30	121	*i* PG	Pg	21 41 52.6	+0.3
GAZ				*i* SG	Sg	21 41 57.6	+1.3
GAZ	Gaziantep	0.30	121	*i* Pg	Pg	21 41 52.6	+0.3
GAZ				*i* Sg	Sg	21 41 57.6	+1.3
GZT	Gaziantep	0.54	87	*i* P	Pg	21 41 56.9	+0.1
GZT				*i* S	Sg	21 42 02.8	-1.0
KOZT	Kozan	0.86	280	*i* PG	Pg	21 42 02.4	-0.6
KOZT				*i* SG	Sg	21 42 14.9	+0.7
KOZT	Kozan	0.86	280	*i* Pg	Pg	21 42 02.4	-0.6
KOZT				*i* Sg	Sg	21 42 14.9	+0.7
COBT	Iskenderun	0.95	212	*i* P	Pg	21 42 03.6	-1.2
COBT				*i* S	Sg	21 42 17.1	0.0
CEYT	Ceyhan	0.97	251	*i* PG	Pg	21 42 04.4	-0.6
CEYT	Ceyhan	0.97	251	*i* Pg	Pg	21 42 04.4	-0.6
YURE	YUREGIR	1.12	244	*i* P	Pg	21 42 07.3	-0.7
YURE				*i* S	Sg	21 42 25.5	+2.9
ATAB	Bozova	1.13	82	*i* P	Pg	21 42 07.7	-0.5
ATAB				*i* S	Sg	21 42 23.1	+0.4
HTY	Hatay	1.35	207	PN	Pn	21 42 11.8	-0.1
HTY	Hatay	1.35	207	*e*Pn	Pn	21 42 11.8	-0.1
KRTS	Karatas	1.43	239	PN	Pn	21 42 13.3	+0.3
KRTS	Karatas	1.43	239	*e*Pn	Pn	21 42 13.3	+0.3
KARA	Karaisali	1.47	268	PN	Pn	21 42 13.0	-0.5
KARA	Karaisali	1.47	268	*e*Pn	Pn	21 42 13.0	-0.5
URFA	Urfa	1.54	85	PN	Pn	21 42 14.4	-0.2
URFA	Urfa	1.54	85	*e*Pn	Pn	21 42 14.4	-0.2
MALT	Malatya	1.56	51	PN	Pn	21 42 14.3	-0.6
MALT	Malatya	1.56	51	*e*Pn	Pn	21 42 14.3	-0.6
MYA	Malataya	1.57	50	PN	Pn	21 42 15.7	+0.7
MYA	Malataya	1.57	50	*e*Pn	Pn	21 42 15.7	+0.7
BNN	Bunyan	1.73	332	PN	Pn	21 42 16.8	-0.4
BNN	Bunyan	1.73	332	*e*Pn	Pn	21 42 16.8	-0.4
MERS	Mersin	1.95	257	PN	Pn	21 42 20.8	+0.6
MERS	Mersin	1.95	257	*e*Pn	Pn	21 42 20.8	+0.6
NIG	Nigde	1.97	294	PN	Pn	21 42 20.3	-0.1
NIG	Nigde	1.97	294	*e*Pn	Pn	21 42 20.3	-0.1
ELZG	Elazig	2.03	54	*i* P	Pg	21 42 25.2	-0.2
ELZG				*i* S	Sg	21 42 53.3	+1.6
PTK	Pertek	2.52	51	*e*PN	Pn	21 42 28.7	+0.7
PTK	Pertek	2.52	51	*e*Pn	Pn	21 42 28.7	+0.7
DIY	Diyarbakir	2.71	77	*e*PN	Pn	21 42 31.2	+0.6
DIY	Diyarbakir	2.71	77	*e*Pn	Pn	21 42 31.2	+0.6
MARD	Mardin	3.10	89	*i* P	Pn	21 42 33.4	-2.6
HWQ	Hawqa	3.14	194	*e*Pn	Pb	21 42 43.1	+0.4
BINT	Bingol	3.23	60	*e*PN	Pn	21 42 39.4	+1.6
BINT	Bingol	3.23	60	*e*Pn	Pn	21 42 39.4	+1.6
EZC	Erzincan	3.33	43	*e*PN	Pn	21 42 36.2	-3.0
CORM	Corum	3.35	329	*e*PN	Pn	21 42 40.0	+0.6
CORM	Corum	3.35	329	*e*Pn	Pn	21 42 40.0	+0.6
BHL	Bhannes	3.56	197	*e*Pn	Pn	21 42 42.3	-0.1
BHL	Bhannes	3.56	197	*e*Pn	Pn	21 42 42.3	-0.1
BNGL	BINGOL	3.73	63	*e*P	Pg	21 42 56.4	-1.6

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*IDC **10** 21:46:08.0±1.2, 3294S×17891W, h0^{km}, mb4.0/1, mb1 4.4/2, mb1mx4.0/12, mbtmp4.2/2, ML4.1/1, MS3.3/1, Ms1 3.3/1, ms1mx2.5/20, Error ellipse: s-maj=49.1km s-min=36.5km az=120.0*
ISC 10 21:46:14.5±2.1**, 334S**±01×**1787W**±03**, h68**^{km}±27^{km}**, n21, σ0^{s}84**/16**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	4.81	210	*e*PN	Pn	21 47 25.0	+0.6
PUZ	Puketiti	5.27	207	*e*PN	Pn	21 47 30.7	0.0
PUZ				SN	Sn	21 48 31.6	+1.6
MWZ	Matawai	5.79	211	*e*PN	Pn	21 47 36.8	-1.0
MWZ				SN	Sn	21 48 43.4	+0.5
URZ	Urewera	5.92	214	Pn	Pn	21 47 40.3	+0.8
	4.7nm,0.3s,baz=354,slow=0.8,SNR=25						
URZ				Sn	Sn	21 48 44.3	-1.6
	4.3nm,0.3s,baz=194,slow=20,SNR=6.2						
URZ	Urewera	5.92	214	*e*PN	Pn	21 47 38.9	-0.6
URZ				*e*SN	Sn	21 48 43.7	-2.2
KNZ	Kokohu	6.32	207	*e*PN	Pn	21 47 45.1	+0.1
OUZ	Omahuta	6.64	252	PN	Pn	21 47 49.8	+0.5
BKZ	Black Stump Fm	6.94	213	PN	Pn	21 47 52.9	-0.5
BKZ				*e*SN	Sn	21 49 10.7	-0.1
BFZ	Birch Farm	8.31	208	*e*SN	Sx	21 49 39.1	
MRZ	Mangatainoka R	8.56	211	SN	Sx	21 49 45.4	
THZ	Tophouse	10.67	216	*e*PN	Pn	21 48 39.9	-4.5
THZ				*e*SN	Sn	21 50 34.9	-7.2
RPZ	Rata Peaks	13.04	215	Sn	Sx	21 51 31.7	
	0.4nm,0.3s,baz=280,slow=14,SNR=3.1						
DZM	Mont Dzumac	17.32	307	LR	LR	21 54 05.8	
	comp=Z,105nm,19.6s,baz=265,slow=28						
WRA	Warramunga Arr	43.72	276	P	P	21 54 13.2	+0.1
	1.1nm,0.4s,baz=115,slow=8.0,SNR=48						
KAF	Kangasniemi	147.16	339	*e*pkp	PKPdf	22 05 50.3	+3.6
FINES	FINESS Array B	147.74	338	PKPbc	PKPbc	22 05 52.0	+1.5
	1.3nm,0.5s,baz=45,slow=3.7,SNR=18						
NB2	NORSAR Subarra	151.62	350	PKPa	PKPbc	22 06 02.5	+2.4
	comp=Z,0.8nm,0.5s,baz=15,slow=4.1						
NOA	NORSAR Array B	151.62	350	PKPbc	PKPbc	22 06 02.4	+2.2
	comp=Z,0.8nm,0.6s,baz=17,slow=4.1,SNR=4.7						
HFS	Hagfors	152.05	347	PKPbc	PKPbc	22 06 02.6	+1.5
	comp=Z,1.6nm,0.7s,baz=94,slow=4.5,SNR=7.6						
BRTR	Keskin Array B	153.38	293	PKPbc	PKPbc	22 06 07.6	+2.8
	comp=Z,0.2nm,0.5s,baz=160,slow=2.8,SNR=3.8						
TORD	Torodi Ar. Bea	159.82	181	PKPab	PKPab	22 06 49.9	+4.7
	comp=Z,0.2nm,0.4s,baz=155,slow=4.6,SNR=4.6						

IDC 10 21:48:37.2±6.0**, 4755N**×**15259E, h0**^{km}**, mb3.8**/4**, mb1 3.8**/6**, mb1mx3.5**/24**, mbtmp3.7**/6**, ML3.3**/2**, Error ellipse: s-maj=144.0km s-min=34.4km az=130.0, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAJ	Asahikawa	7.78	247	Pn	Pn	21 50 31.6	+0.2
	0.6nm,0.3s,baz=76,slow=4.2,SNR=6.4						
MJAR	Matsushiro Arr	15.31	229	Pn	Pn	21 52 14.1	-0.3
	0.1nm,0.3s,baz=32,slow=11,SNR=4.2						
MKAR	Makanchi Array	46.26	296	P	P	21 57 04.0	0.0
	0.2nm,0.6s,baz=67,slow=7.2,SNR=5.0						
FINES	FINESS Array B	63.16	334	P	P	21 59 06.2	-0.1
	0.9nm,1.0s,baz=40,slow=9.9,SNR=5.4						
NOA	NORSAR Array B	67.35	341	P	P	21 59 34.0	+0.5
	0.8nm,0.6s,baz=28,slow=6.2,SNR=4.1						
HFS	Hagfors	67.58	339	P	P	21 59 34.8	-0.2
	0.8nm,0.5s,baz=46,slow=4.3,SNR=8.2						

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*ISCJB **10** 22:00:44.4±0.7, 490S±009×10588W±010, h10^{km}, mb4.5/31, MS4.6/22, Error ellipse: s-maj=15.0km s-min=12.2km az=145.1*
*IDC **10** 22:00:45.5±1.2, 473S×10610W, h0^{km}, mb4.1/9, mb1 4.3/9, mb1mx4.3/13, mbtmp4.1/9, MS4.6/18, Ms1 4.6/18, ms1mx4.4/22, Error ellipse: s-maj=36.4km s-min=24.3km az=60.0*
*GCMT **10** 22:00:46.6±0.2, 455S×10584W, h16^{km}±1^{km}, MW5.2/83, Moment Tensor Solution. s53,c71; s83,c140; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.07±.16; $M_{\theta\theta}$2.57±.14; $M_{\phi\phi}$-2.50±.18; $M_{r\theta}$2.25±.45; $M_{\theta\phi}$6.44±.14; $M_{\phi r}$-0.90±.45; Best double couple: $M_0$7.33100×10^{16} NP1: ϕ_s11.00000°, δ71.00000°, λ-177.00000°. NP2: ϕ_s280.00000°, δ87.00000°, λ-19.00000°. Principal axes: T 7.2170, Plg11.0000°, Azm327.0000°; N 0.2280, Plg71.0000°, Azm91.0000°; P -7.4450, Plg16.0000°, Azm234.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **10** 22:00:46.6±0.5, 484S×10601W, h10^{km}, mb4.7/23 Error ellipse: s-maj=16.4km s-min=8.6km az=68.0*
*BJI **10** 22:00:46.5, 480S×10600W, h10^{km}, mB5.4, Ms5.3, Msz4.9*
ISC 10 22:00:46.3±0.7**, 493S**±009×**10591W**±010**, h10**^{km}**, n291, σ0^{s}61**/256**, mb4.5**/31**, MS4.6**/22**, 74C-87D, Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	24.44	26	LR	LR	22 13 22.1	
	comp=Z,1μm,20.3s,MS4.3,baz=198,slow=31						
JTS	JuntasAbangare	25.77	54	*e*P	P	22 06 16.9	-0.6
JTS	JuntasAbangare	25.77	54	P	P	22 06 18.3	+0.7
	22nm,1.1s,mb4.6,baz=250,slow=4.2,SNR=20						
JTS				LR	LR	22 13 38.7	
	comp=Z,3μm,21.0s,MS4.8,baz=326,slow=30						
ATAH	Atahualpa	27.44	96	LR	LR	22 14 40.4	
	comp=Z,634nm,20.4s,MS4.2,baz=99,slow=30						
LPIG	La Paz	29.17	352	LR	LR	22 15 16.6	
	comp=Z,2μm,20.0s,MS4.7,baz=356,slow=30						
NNA	Nana	29.57	106	LR	LR	22 15 27.9	
	comp=Z,922nm,20.1s,MS4.4,baz=286,slow=30						
TEIG	Tepich	30.42	34	LR	LR	22 17 12.8	
	comp=Z,1μm,20.6s,MS4.6,baz=17,slow=32						
ROSC	El Rosal	33.01	73	LR	LR	22 18 00.9	
	comp=Z,805nm,20.7s,MS4.4,baz=214,slow=31						
RKT	Rikitea	33.37	234	*e*LR	LR	22 16 09.6	
	3μm,28.8s						
TXAR	Lajitas Array	34.13	3	P	P	22 07 31.1	-0.4
TXAR				PcP	PcP	22 10 09.3	+0.6
TXAR				LR	LR	22 18 48.7	
TXAR	Lajitas Array	34.13	3	P	P	22 07 31.1	-0.4
	0.2nm,0.3s,mb3.5,baz=198,slow=8.3,SNR=3.2						
TXAR				PcP	PcP	22 10 09.3	+0.6
	0.5nm,0.7s,baz=203,slow=5.0,SNR=3.9						
TXAR				LR	LR	22 18 48.7	
	comp=Z,672nm,21.0s,MS4.3,baz=80,slow=32						
MNTX	Cornudas Mount	36.42	1	*e*P	P	22 07 50.4	-0.8
116A	Eloy	37.69	352	⇑P	P	22 08 01.5	-0.4
	baz=38						
115A	Sonoran Desert	37.90	351	⇓P	P	22 08 03.9	+0.2
	baz=38						
DVTC	Desert V Tower	38.61	346	⇑P	P	22 08 10.1	+0.4
	baz=39						
Z14A	Wintersburg	38.66	351	⇓P	P	22 08 10.3	+0.2
	baz=39						
GLA	Glamis	38.71	348	⇓P	P	22 08 10.6	+0.1
	baz=39						
LPAZ	La Paz	38.73	110	P	P	22 08 15.3	+4.3
LPAZ				LR	LR	22 21 51.4	
LPAZ	La Paz	38.73	110	P	P	22 08 15.3	+4.3
	0.4nm,0.4s,mb3.5,baz=276,slow=5.0,SNR=4.0						
LPAZ				LR	LR	22 21 51.4	
	comp=Z,311nm,18.2s,MS4.2,baz=104,slow=32						
SWSC	Sam W. Stewart	38.81	347	⇓P	P	22 08 11.4	0.0
	baz=39						
LENM	Lemitar	38.89	359	*e*P	P	22 08 14.8	+2.7
MONP	Monument Peak	38.91	346	P	P	22 08 12.5	+0.3
	baz=39,SNR=5.3						
109C	Camp Elliot, M	39.08	345	⇓P	P	22 08 13.6	0.0
	baz=39						
LAZ	Ladron	39.13	358	*e*P	P	22 08 12.9	-1.2
Y14A	Wickenburg	39.23	351	⇓P	P	22 08 14.9	0.0
	baz=40,SNR=5.7						
Y13A	Salome	39.25	350	⇑P	P	22 08 14.9	-0.2
	baz=40						
Y12C	Blythe	39.32	349	⇓P	P	22 08 15.7	+0.1
	baz=40						
BC3	Big Chuckw Mtn	39.42	347	⇓P	P	22 08 16.7	+0.2
	baz=40,SNR=6.8						
PFO	Pinyon Flat Ob	39.60	346	*e*P	P	22 08 18.0	0.0
	10nm,1.1s,mb4.5						
PFO	Pinyon Flat Ob	39.60	346	P	P	22 08 17.8	-0.2
	8.6nm,1.1s,mb4.4,baz=123,slow=2.4,SNR=7.9						
PFO	Pinyon Flat Ob	39.60	346	P	P	22 08 18.4	+0.4
	baz=40,SNR=7.1						
X15A	Humboldt	39.65	352	⇑P	P	22 08 18.9	+0.5
	baz=40						
ANMO	Albuquerque	39.67	359	*e*P	P	22 08 19.5	+1.0
ANMO	Albuquerque	39.67	359	P	P	22 08 17.9	-0.6
	1.0nm,0.6s,mb3.7,baz=173,slow=8.4,SNR=3.4						
X14A	Yava	39.73	351	P	P	22 08 19.5	+0.5
	baz=40,SNR=6.8						
MURC	Murrieta	39.78	345	⇓P	P	22 08 19.7	+0.2
	baz=40						
PDMCI	Parker Dam,Lak	39.78	349	⇑P	P	22 08 19.7	+0.2
	baz=40						
IRM	Iron Mountain	39.84	348	⇓P	P	22 08 20.3	+0.3
	baz=40,SNR=6.5						
BELC	Belle Mtn.	39.87	347	P	P	22 08 20.7	+0.4
	baz=40,SNR=12						
X13A	Yucca	40.01	350	P	P	22 08 21.7	+0.3
	baz=40,SNR=7.8						
W15A	Williams	40.34	352	⇓P	P	22 08 24.8	+0.7
	baz=41						
W14A	Seligman	40.49	351	⇓P	P	22 08 25.9	+0.6
	baz=41						
BFSC	Mount Baldy St	40.50	345	⇑P	P	22 08 25.9	+0.5
	baz=41						
W13A	Hualapai Mount	40.51	350	⇓P	P	22 08 26.1	+0.6
	baz=41						
GMRC	Granite Mounta	40.55	348	⇑P	P	22 08 26.3	+0.4
	baz=41						
WUAZ	Wupatki	40.55	353	*e*P	P	22 08 26.8	+0.9
WUAZ	Wupatki	40.55	353	⇓P	P	22 08 26.5	+0.6
	baz=41						
DECC	Green Verdugo	40.69	344	⇑P	P	22 08 27.3	+0.3
	baz=41						
HEC	Hector,Ludlow	40.74	347	⇓P	P	22 08 27.8	+0.4
	baz=41,SNR=5.2						
MIAR	Mount Ida	40.95	16	*e*P	P	22 08 29.8	+0.6
	19nm,1.4s,mb4.5						
LCO	Las Campanas	41.04	130	*e*P	P	22 08 30.8	+0.7
	11nm,1.1s,mb4.4						
OSI	Osito Adit	41.14	344	⇓P	P	22 08 31.0	+0.2
	baz=41						
EDW2	Edwards Air Fo	41.20	345	P	P	22 08 31.3	+0.1
	baz=42,SNR=8.6						
TUQ	Turquoise Mtn.	41.24	348	⇓P	P	22 08 31.7	+0.2
	baz=42						
V12A	Nelson	41.30	349	P	P	22 08 32.4	+0.4
	baz=42,SNR=6.3						
GSC	Goldstone	41.31	346	P	P	22 08 32.7	+0.6
	baz=42,SNR=5.7						
V11A	Goodsprings	41.52	348	⇑P	P	22 08 34.2	+0.3
	baz=42						
SDDR	Presa de Saban	41.56	54	*e*P	P	22 08 35.4	+1.0
	9.5nm,0.9s,mb4.4						
LRMC	Laurel Mountai	41.69	345	⇓P	P	22 08 35.3	+0.1
	baz=42						
SHOC	Shoshone	41.76	347	⇑P	P	22 08 36.2	+0.4
	baz=42						
U12A	Valley of Fire	41.93	350	⇓P	P	22 08 37.4	+0.2
	baz=42						
MVCO	Mesa Verde	41.99	357	*e*P	P	22 08 32.9	-4.7
	4.4nm,0.7s,mb4.2						
MVCO	Mesa Verde	41.99	357	⇑P	P	22 08 37.8	+0.2
	baz=42						
ISA	Isabella	42.06	345	⇓P	P	22 08 38.3	0.0
	baz=42						
SHPR	Sheep Range	42.12	349	*e*P	P	22 08 39.3	+0.6
SMMC	Simmler	42.16	343	⇑P	P	22 08 38.8	-0.2
	baz=42						
MPMC	Manual Prospec	42.19	346	⇓P	P	22 08 39.5	+0.1
	baz=42						
U10A	Ash Meadows, A	42.27	347	⇓P	P	22 08 40.2	+0.3
	baz=42						
T14A	Hurricane	42.30	351	⇓P	P	22 08 40.5	+0.3
	baz=43						
T13A	Saint George	42.39	350	⇓P	P	22 08 41.2	+0.3
	baz=43						
VES	Vestal, Richgr	42.39	344	⇓P	P	22 08 41.1	+0.1
	baz=43						
DAC	Darwin (Calif)	42.42	346	*e*P	P	22 08 42.0	+0.8
FURC	Furnace Creek,	42.44	347	⇑P	P	22 08 41.4	+0.1
	baz=43						
SDCO	Great Sand Dun	42.45	0	*e*P	P	22 08 42.1	+0.6
	27nm,1.9s,mb4.5						
V04C	Ramage Ranch,	42.73	342	⇓P	P	22 08 44.0	+0.3
	baz=43						
PKD	Parkfield	42.91	342	⇑P	P	22 08 45.2	+0.1
	baz=43						
PV01	Paradox Valley	42.91	357	*e*P	P	22 08 39.5	-5.6
S14A	Cedar City	43.00	352	⇑P	P	22 08 46.4	+0.5
	baz=43						
ARUT	Antelope Range	43.07	351	*e*P	P	22 08 47.3	+0.9
PLAL	Pickwick Lake	43.10	22	*e*P	P	22 08 43.0	-3.7
	12nm,1.2s,mb4.5						
HELL	Mitchell Peak,	43.17	345	P	P	22 08 47.5	+0.3
	baz=43,SNR=7.4						
PV10	Paradox Valley	43.18	356	*e*P	P	22 08 43.2	-4.1
U04C	Hernandez Rese	43.37	342	⇓P	P	22 08 49.2	+0.3
	baz=44,SNR=5.2						
MSU	Marysvale	43.61	353	*e*P	P	22 08 51.9	+1.1
T06C	Millerton Lake	43.66	344	⇓P	P	22 08 51.4	+0.2
	baz=44						
MTUM	Tungsten Hills	43.69	345	*e*P	P	22 08 52.6	+1.2
S09A	Goldfield	43.72	347	⇓P	P	22 08 52.1	+0.5
	baz=44						
S10A	Tonopah Range,	43.77	348	⇑P	P	22 08 52.3	+0.2
	baz=44						
R12A	Pony Springs,	43.79	350	⇓P	P	22 08 52.7	+0.5
	baz=44						
SMCO	Snowmass	43.89	359	*e*P	P	22 08 51.2	-1.9
	4.2nm,0.8s,mb4.2						
SRU	San Rafael	44.02	355	*e*P	P	22 08 54.0	-0.1
	13nm,0.9s,mb4.7						
R10A	Warm Springs	44.06	348	⇑P	P	22 08 55.1	+0.7
	baz=44						
S05C	Merced	44.15	343	⇓P	P	22 08 55.4	+0.3
	baz=44						
Q11A	Duckwater	44.48	349	⇑P	P	22 08 58.4	+0.7
	baz=45,SNR=9.4						
PPT	Papeete	44.51	250	*e*S	S	22 15 32.8	-1.3
	250nm,25.8s						
PPT				*e*LR	LR	22 21 18.2	
	2μm,26.0s,baz=63						
PPT	Papeete	44.51	250	LR	LR	22 22 46.4	
	comp=Z,924nm,18.2s,MS4.7,baz=89,slow=30						
Q12A	Willow Creek R	44.52	350	⇑P	P	22 08 58.5	+0.5
	baz=45						
S06C	San Francisco	44.52	344	⇑P	P	22 08 58.5	+0.4
	baz=45						
NVAR	Mina Array Bea	44.64	346	P	P	22 08 59.2	+0.1
	1.8nm,0.9s,mb3.9,baz=159,slow=9.1,SNR=8.3						
CMB	Columbia Colle	44.81	344	*e*P	P	22 08 59.6	-0.8
	4.6nm,1.0s,mb4.3						
CMB	Columbia Colle	44.81	344	⇑P	P	22 09 00.5	+0.1
	baz=45						
P12A	McGill	44.95	350	⇓P	P	22 09 01.6	+0.1
	baz=45						
Q08A	Gabbs	44.97	347	⇓P	P	22 09 01.9	+0.2
	baz=45						
R06C	Coleville	45.02	345	⇑P	P	22 09 02.4	+0.3
	baz=45						
DUG	Dugway	45.35	353	*e*P	P	22 09 05.6	+1.0
DUG	Dugway	45.35	353	⇓P	P	22 09 05.1	+0.5
	baz=46						
R05C	Kirkwood Meado	45.35	344	⇑P	P	22 09 05.0	+0.3
	baz=46						
P10A	Eureka	45.38	349	⇓P	P	22 09 05.7	+0.8
	baz=46						
DAU	Daniels Canyon	45.38	354	*e*P	P	22 09 05.2	+0.3
P09A	Austin	45.45	348	⇓P	P	22 09 06.0	+0.5
	baz=46						
LAVA	Lava Cap Winer	45.58	344	⇓P	P	22 09 06.8	+0.2
	baz=46						
JLU	Jordanelle	45.59	354	*e*P	P	22 09 06.4	-0.2
O11A	Cowboy Ranch,	45.73	350	⇓P	P	22 09 08.2	+0.5
	baz=46						
WCN	Washoe City	45.83	345	⇑P	P	22 09 08.7	+0.3
	baz=46						
O10A	Cortez Mining,	46.04	349	⇓P	P	22 09 10.5	+0.4
	baz=46						
O09A	Fish Creek Ran	46.06	348	⇑P	P	22 09 10.9	+0.7
	baz=46						
N13A	Wendover, West	46.19	351	⇑P	P	22 09 12.1	+0.8
	baz=46						
MNRC	McLaughlin Nat	46.20	342	⇓P	P	22 09 12.1	+0.7
	baz=46						
N12A	Clover Valley,	46.32	350	⇓P	P	22 09 12.8	+0.5
	baz=47						
SUTB	Sutter Butte	46.32	343	⇑P	P	22 09 12.6	+0.3
	baz=47						
SPUT	South Promonto	46.40	353	*e*P	P	22 09 12.8	-0.1
O07A	Toulon	46.43	346	⇓P	P	22 09 13.7	+0.5
	baz=47						
BEKR	Beckwourth	46.52	345	⇓P	P	22 09 14.4	+0.5
	baz=47						
ORV	Oroville	46.54	343	⇑P	P	22 09 14.5	+0.5
	baz=47						
HWUT	Hardware Ranch	46.60	354	*e*P	P	22 09 14.3	-0.2
O06A	Flanigan	46.66	345	⇑P	P	22 09 15.5	+0.4
	baz=47						
M13A	Montello	46.68	351	P	P	22 09 15.4	+0.3
	baz=47,SNR=12						
N09A	Rock Creek Ran	46.78	348	⇑P	P	22 09 16.5	+0.5
	baz=47						
N08A	GE Springer Mi	46.85	347	⇓P	P	22 09 16.7	+0.2
	baz=47						
M12A	Wells	46.85	351	P	P	22 09 17.0	+0.5
	baz=47,SNR=7.6						
HVU	Hansel Valley	46.90	353	*e*P	P	22 09 16.5	-0.3
	100nm,2.2s,mb5.4						
M11A	Holland Ranch,	47.01	350	⇑P	P	22 09 18.4	+0.6
	baz=47						
N07B	Gerlach	47.03	346	P	P	22 09 18.9	+1.0
	baz=47,SNR=7.0						
O04C	Chester	47.14	344	⇓P	P	22 09 19.2	+0.5
	baz=47						
N06A	Buffalo Meadow	47.21	346	⇓P	P	22 09 19.7	+0.4
	baz=48						
M10A	I.L. Ranch, Tu	47.23	349	⇓P	P	22 09 20.1	+0.6
	baz=48						
M09A	Marrel Ranch,	47.32	348	⇓P	P	22 09 20.5	+0.4
	baz=48						
ELFS	Eagle Lake Fie	47.32	345	⇑P	P	22 09 20.6	+0.4
	baz=48						
L13A	Double Diamond	47.36	352	⇓P	P	22 09 20.8	+0.3
	baz=48						
M08A	Happy Creek Ra	47.54	347	⇓P	P	22 09 22.2	+0.4
	baz=48						
L12A	House Creek Ra	47.58	351	P	P	22 09 22.6	+0.4
	baz=48,SNR=9.7						
PDAR	Pinedale Array	47.58	356	P	P	22 09 20.8	-1.4
	0.9nm,0.7s,mb3.9,baz=176,slow=7.3,SNR=8.0						
PDAR				LR	LR	22 26 58.6	
	comp=Z,848nm,18.4s,MS4.8,baz=187,slow=33						
M07A	Soldier Meadow	47.66	346	⇑P	P	22 09 23.0	+0.2
	baz=48						
K14A	Jones Ranch, D	47.71	353	⇑P	P	22 09 23.4	+0.3
	baz=48						
L11A	Cat Creek Ranc	47.72	350	⇓P	P	22 09 23.6	+0.4
	baz=48						
L10A	Juniper Basin	47.76	349	⇓P	P	22 09 23.4	-0.1
	baz=48						
O01C	Eel River Cons	47.78	341	⇑P	P	22 09 23.4	-0.3
	baz=48						
M06C	Likely Place G	47.80	345	⇓P	P	22 09 23.9	0.0
	baz=48						
K13A	Stover Farm, H	47.93	352	⇓P	P	22 09 24.9	+0.1
	baz=48						
L09A	Wilkinson Ranc	47.94	348	⇓P	P	22 09 25.2	+0.3
	baz=48						
K12A	Draper Farm, C	48.04	351	⇓P	P	22 09 25.8	+0.1
	baz=48						
M05C	Lookout	48.12	345	⇑P	P	22 09 26.3	-0.1
	baz=48						
L08A	Fields	48.24	348	P	P	22 09 27.8	+0.5
	baz=48,SNR=10.0						
REDW	Red Top Meadow	48.27	355	*e*P	P	22 09 22.8	-4.7
	6.1nm,1.0s,mb4.6						
L07A	Adell	48.30	347	⇑P	P	22 09 28.0	+0.3
	baz=49,SNR=7.6						
M03C	McCloud	48.31	344	⇑P	P	22 09 28.1	+0.2
	baz=49						
TPAW	Teton Pass	48.41	355	*e*P	P	22 09 26.3	-2.3
	8.7nm,0.9s,mb4.8						
MOD	Modoc	48.42	346	*e*P	P	22 09 29.4	+0.7
	5.9nm,1.0s,mb4.6						
MOD	Modoc	48.42	346	⇑P	P	22 09 28.7	0.0
	baz=49						
K10A	MacKenzie Ranc	48.51	349	P	P	22 09 29.5	+0.2
	baz=49,SNR=9.1						
K09A	Rome	48.60	348	P	P	22 09 30.3	+0.2
	baz=49,SNR=17						
M02C	Callahan	48.63	343	⇑P	P	22 09 30.2	-0.1

	baz=49						
J12A	Stokes Ranch,	48.67	351	⇑P	P	22 09 30.6	+0.1
	baz=49,SNR=8.0						
J13A	Cove Ranch, Pi	48.68	352	P	P	22 09 30.6	-0.1
	baz=49,SNR=10.0						
L05A	Lakeview	48.69	345	⇑P	P	22 09 30.7	0.0
	baz=49						
M04C	Macdoel	48.70	344	⇓P	P	22 09 30.8	-0.1
	baz=49						
K08A	Mann Creek Ran	48.79	348	⇑P	P	22 09 31.6	+0.2
	baz=49						
IMW	Indian Meadow	48.81	355	*e*P	P	22 09 30.5	-1.1
	12nm,1.1s,mb4.8						
HLID	Hailey	48.87	352	*e*P	P	22 09 32.4	+0.2
	8.2nm,1.1s,mb4.7						
HLID	Hailey	48.87	352	P	P	22 09 32.5	+0.3
	baz=49,SNR=12						
YBH	Yreka Blue Hor	48.90	343	*e*P	P	22 09 31.1	-1.3
	3.8nm,0.8s,mb4.5						
YBH	Yreka Blue Hor	48.90	343	⇑P	P	22 09 32.3	0.0
	baz=49						
K07A	Rock Creek Ran	48.92	347	⇑P	P	22 09 32.7	+0.2
	baz=49						
MFID	Camas Ranch	48.95	350	P	P	22 09 32.9	+0.2
	baz=49,SNR=17						
L04A	Klamath Falls	49.09	344	⇓P	P	22 09 33.9	+0.2
	baz=49						
J10A	Berg Farm, Mel	49.12	350	⇑P	P	22 09 34.1	+0.1
	baz=49						
I13A	Wildhorse Cree	49.18	352	⇑P	P	22 09 34.8	+0.3
	baz=50,SNR=16						
J09A	Fry Pan Ranch,	49.23	349	P	P	22 09 35.1	+0.2
	baz=50,SNR=11						
K06A	Valley Falls	49.25	346	⇑P	P	22 09 35.4	+0.4
	baz=50,SNR=7.9						
K05A	Summer Lake	49.34	345	⇓P	P	22 09 35.8	+0.1
	baz=50						
J08A	Circle Bar Ran	49.39	348	⇑P	P	22 09 36.2	+0.2
	baz=50						
I11A	Placerville	49.45	350	P	P	22 09 36.6	+0.1
	baz=50,SNR=6.3						
J07A	Hines	49.58	347	⇓P	P	22 09 37.8	+0.2
	baz=50						
J06A	Christmas Vall	49.66	346	P	P	22 09 38.6	+0.5
	baz=50,SNR=14						
QLMT	Earthquake Lak	49.78	355	*e*P	P	22 09 39.3	+0.3
H13A	Challis	49.83	352	P	P	22 09 39.6	+0.1
	baz=50,SNR=6.4						
H12A	Diamond D Ranc	49.90	352	P	P	22 09 40.0	0.0
	baz=50,SNR=20						
MCMT	McKenzie Canyo	49.92	354	*e*P	P	22 09 40.0	-0.1
J05A	Fort Rock	49.95	345	⇓P	P	22 09 40.6	+0.3
	baz=50						
G15A	Dillon	50.21	354	⇓P	P	22 09 42.4	+0.1
	baz=50						
H11A	Donnelly	50.23	351	⇓P	P	22 09 41.7	-0.7
	baz=50						
H10A	Noah’s Angus R	50.24	350	⇑P	P	22 09 41.7	-0.9
	baz=50						
I07A	Izee	50.30	347	⇓P	P	22 09 43.1	+0.1
	baz=51,SNR=10						
I06A	Prineville	50.33	347	⇑P	P	22 09 43.2	0.0
	baz=51						
G13A	Cobalt	50.35	352	⇓P	P	22 09 43.0	-0.3
	baz=51,SNR=17						
G14A	Jackson	50.40	353	⇑P	P	22 09 43.5	-0.2
	baz=51						
H09A	Durkee	50.48	349	⇓P	P	22 09 43.9	-0.5
	baz=51						
H08A	Prairie City	50.54	348	⇓P	P	22 09 44.5	-0.3
	baz=51,SNR=13						
GCMT	Greycliff	50.60	357	*e*P	P	22 09 43.9	-1.4
BOZ	Bozeman (W)	50.61	355	*e*P	P	22 09 45.3	0.0
	15nm,1.8s,mb4.6						
BOZ	Bozeman (W)	50.61	355	⇓P	P	22 09 45.1	-0.2
	baz=51						
LRM	Limekiln Ridge	50.86	354	*e*P	P	22 09 46.6	-0.6
F15A	Butte	50.88	354	⇑P	P	22 09 46.8	-0.6
	baz=51						
F14A	Wisdom	50.95	353	P	P	22 09 47.4	-0.5
	baz=51,SNR=20						
G11A	Walters Elk Ra	50.95	351	⇑P	P	22 09 47.2	-0.7
	baz=51						
F13A	Darby	51.05	352	⇓P	P	22 09 48.3	-0.3
	baz=51						
G09A	Cove	51.10	349	P	P	22 09 48.9	-0.1
	baz=51,SNR=12						
H06A	Lindquist Farm	51.10	347	⇓P	P	22 09 48.6	-0.5
	baz=51						
F12A	Elk City	51.14	352	⇑P	P	22 09 48.8	-0.5
	baz=51						
G08A	Pilot Rock	51.34	348	⇓P	P	22 09 50.0	-0.8
	baz=52						
F11A	Grangeville	51.41	351	⇓P	P	22 09 50.6	-0.7
	baz=52						
G07A	Ruggs Ranch, H	51.46	348	⇓P	P	22 09 51.3	-0.4
	baz=52						
E15A	Deer Lodge	51.48	354	⇑P	P	22 09 51.1	-0.7
	baz=52						
H04A	Detroit Lake	51.50	345	⇑P	P	22 09 51.5	-0.6
	baz=52						
F09A	S2 Ranch, Elgi	51.53	349	⇑P	P	22 09 51.8	-0.5
	baz=52,SNR=6.9						
E14A	Clinton	51.56	353	⇑P	P	22 09 51.9	-0.6
	baz=52,SNR=9.4						
F10A	Beach Ranch, E	51.67	350	⇑P	P	22 09 53.0	-0.3
	baz=52						
F08A	Pendleton	51.79	349	⇓P	P	22 09 53.6	-0.5
	baz=52						
E11A	Bogner Ranch,	51.87	351	⇓P	P	22 09 54.0	-0.8
	baz=52						
G04A	Mulino	52.06	345	⇑P	P	22 09 55.1	-1.1
	baz=52						
D15A	Lincoln	52.07	354	⇓P	P	22 09 55.7	-0.6
	baz=52						
E10A	Myers Farm, Un	52.14	350	⇑P	P	22 09 56.0	-0.8
	baz=52						
D14A	Greenough	52.22	353	⇓P	P	22 09 56.5	-0.8
	baz=52						
D12A	Red Ives Fores	52.42	352	⇓P	P	22 09 57.7	-1.2
	baz=53						
HAWA	Hanford	52.51	348	*e*P	P	22 10 00.1	+0.6
D11A	Klaveano Farm,	52.56	351	P	P	22 09 58.9	-1.0
	baz=53,SNR=11						
D10A	Wagner Farm, O	52.73	350	P	P	22 10 00.4	-0.7
	baz=53,SNR=7.3						
E07A	Sunnyside	52.73	348	⇓P	P	22 10 00.8	-0.3
	baz=53						
EGMT	Eagleton	52.84	357	⇑P	P	22 10 01.3	-0.6
	baz=53						
D09A	Jones Farm, Ri	52.91	349	⇓P	P	22 10 01.7	-0.8
	baz=53						
C14A	Swan Lake	52.92	353	⇓P	P	22 10 02.0	-0.5
	baz=53						
D08A	Wollman Farm,	53.02	349	⇓P	P	22 10 02.9	-0.4
	baz=53						
BSMT	Bassoo Peak	53.13	353	*e*P	P	22 10 03.3	-0.8
E05A	Randle	53.16	346	⇑P	P	22 10 03.8	-0.5
	baz=53						
B13A	Whitefish	53.60	353	⇓P	P	22 10 07.3	-0.3
	baz=54						
C09A	Chrisman Ranch	53.62	350	⇓P	P	22 10 07.5	-0.1
	baz=54						
C08A	Higginbotham F	53.75	349	⇑P	P	22 10 08.4	-0.2
	baz=54						
C07A	Waterville	53.85	348	⇑P	P	22 10 09.0	-0.4
	baz=54						
NEW	Newport	53.87	351	*e*P	P	22 10 08.7	-0.8
A13A	Flathead Natio	54.15	353	⇓P	P	22 10 10.9	-0.6
	baz=54						
B09A	Rice	54.20	350	⇑P	P	22 10 11.0	-0.9
	baz=54						
WALA	Waterton Lakes	54.21	354	*e*P	P	22 10 11.9	-0.1
	7.9nm,0.9s,mb4.6						
A12A	Yaak River Ran	54.31	352	⇑P	P	22 10 12.2	-0.5
	baz=55						
B08A	Colville Reser	54.35	349	⇓P	P	22 10 12.1	-0.9
	baz=55						
A11A	Hall Mountain,	54.43	352	⇑P	P	22 10 12.6	-1.0
	baz=55						
B07A	Winthrop	54.60	348	⇑P	P	22 10 13.9	-0.9
	baz=55						
A10A	Northport	54.64	351	⇑P	P	22 10 14.1	-1.0
	baz=55						
A09A	Danville	54.81	350	⇑P	P	22 10 15.3	-1.0
	baz=55						
B05A	Bryant	54.84	347	⇓P	P	22 10 15.4	-1.1
	baz=55						
A08A	Turner Farm, O	54.91	349	⇑P	P	22 10 16.2	-0.9
	baz=55						
A07A	Ashnola River,	55.22	348	⇑P	P	22 10 18.9	-0.4
	baz=56						
ULM	Lac du Bonnet	55.64	8	P	P	22 10 23.1	+0.9
	2.8nm,0.8s,mb4.4,baz=190,slow=7.2,SNR=4.9						
ULM				LR	LR	22 32 21.3	
	comp=Z,600nm,18.9s,MS4.7,baz=12,slow=34						
EDM	Edmonton	58.27	355	*e*P	P	22 10 39.6	-1.3
FFC	Flin Flon	59.53	3	*e*P	P	22 10 49.8	+0.2
FCC	Fort Churchill	64.19	7	*e*P	P	22 11 11.6	-9.3
	8.6nm,1.0s,mb4.7						
DLBC	Dease Lake	66.06	346	*e*P	P	22 11 33.7	+0.6
YKA	Yellowknife Ar	67.56	356	P	P	22 11 40.7	-1.8
YKA				LR	LR	22 39 23.5	
YKA	Yellowknife Ar	67.56	356	P	P	22 11 40.7	-1.8
	3.2nm,0.7s,mb4.4,baz=164,slow=6.3,SNR=38						
YKA				LR	LR	22 39 23.5	
	comp=Z,371nm,18.4s,MS4.6,baz=180,slow=34						
YKW3	Yellowknife Ar	67.63	356	*e*P	P	22 11 41.3	-1.7
SCHQ	Schefferville	67.80	23	LR	LR	22 40 07.7	
	comp=Z,211nm,20.5s,MS4.3,baz=261,slow=35						
DAWY	Dawson	73.21	345	*e*P	P	22 12 16.1	-1.0
PMR	Palmer	74.20	340	*e*P	P	22 12 23.1	+0.2
	10nm,1.0s,mb4.7						
EGAK	Eagle	74.24	345	*e*P	P	22 12 22.3	-0.9
	12nm,1.0s,mb4.8						
INK	Inuvik	75.58	350	*e*P	P	22 12 30.7	-0.1
	336nm,1.1s						
URZ	Urewera	76.74	232	LR	LR	22 40 57.1	
	comp=Z,377nm,18.5s,MS4.7,baz=304,slow=31						
RPZ	Rata Peaks	81.58	227	LR	LR	22 42 44.0	
	comp=Z,681nm,18.0s,MS5.0,baz=28,slow=31						
QSPA	South Pole Qui	85.13	180	*e*P	P	22 13 23.7	+1.6
	13nm,1.0s,mb5.0						
DZM	Mont Dzumac	86.00	248	LR	LR	22 47 06.0	
	comp=Z,290nm,18.0s,MS4.7,baz=222,slow=32						
HNR	Honiara	93.28	260	LR	LR	22 45 47.1	
	comp=Z,245nm,20.8s,MS4.6,baz=178,slow=29						
WRA	Warramunga Arr	115.86	245	PKP	PKPdf	22 19 31.4	+1.2
WRA	Warramunga Arr	115.86	245	PKP	PKPdf	22 19 31.4	+1.2
	0.5nm,0.9s,baz=272,slow=0.7,SNR=2.6						
SONM	Songino Array	129.08	332	PKP	PKPdf	22 19 55.0	+0.2
SONM	Songino Array	129.08	332	PKP	PKPdf	22 19 55.0	+0.2
	0.5nm,0.8s,baz=252,slow=3.0,SNR=4.5						
BRTR	Keskin Array B	129.72	41	PKP	PKPdf	22 19 56.7	+0.5
BRTR	Keskin Array B	129.72	41	PKP	PKPdf	22 19 56.7	+0.5
	0.9nm,0.8s,baz=22,slow=0.8,SNR=7.0						
NJ2	Nanjing	130.22	308	*e*PKP	PKPdf	22 19 53.2	-4.2
ZALV	Zalesovo Beam	130.35	352	PKP	PKPdf	22 19 56.9	0.0
ZALV	Zalesovo Beam	130.35	352	PKP	PKPdf	22 19 56.9	0.0
	0.5nm,0.5s,baz=346,slow=3.0,SNR=3.2						
HHC	Hu-ho-hao-te	130.95	322	*e*PKP	PKPdf	22 19 56.4	-2.1
MK31	Makanchi Array	137.69	352	*e*PKPdf	PKPdf	22 20 11.5	+0.5
MKAR	Makanchi Array	137.69	352	PKP	PKPdf	22 20 09.6	-1.4
MKAR	Makanchi Array	137.69	352	PKP	PKPdf	22 20 09.6	-1.4
	0.6nm,0.8s,baz=10.0,slow=3.6,SNR=5.0						
LZH	Lanzhou	138.65	323	*e*PKP	PKPdf	22 20 09.2	-3.8
LZH				XPKP		22 20 13.7	
LZH				LR	LR		
	comp=N,173nm,18.0s						
LZH				LR	LR		
	comp=Z,212nm,20.1s,MS4.9						
LZH	Lanzhou	138.65	323	*e*PKP	PKPdf	22 20 09.2	-3.8
LZH				pPKP	pPKPdf	22 20 12.5	-4.0
LZH				sPKP		22 20 13.7	
LZH				LR	LR		
	comp=Z,210nm,20.1s,MS4.9						
WMQ	Urumqi	139.45	345	*e*PKP	PKPdf	22 20 14.6	+0.3
WMQ				LR	LR		
	comp=N,253nm,21.0s,MS5.0						
WMQ				LR	LR		
	comp=E,188nm,24.0s,MS5.0						
WMQ				LR	LR		
	comp=Z,246nm,22.5s,MS4.9						
CD2	Chengdu	141.97	316	*e*PKP	PKPdf	22 20 16.9	-2.3
GYA	Guiyang	142.23	308	PKP	PKPdf	22 20 18.6	-1.2
GYA				PP	PP	22 23 28.5	+2.8
GYA				PKS		22 23 53.4	
GYA				SKS	SKSdf	22 27 25.8	-4.4
GYA				SKKS	SKKSac	22 30 17.0	-2.8
GYA				PP	PP		
	comp=Z,110nm,8.4s						
GYA				LR	LR		
	comp=N,220nm,20.4s,MS5.1						
GYA				LR	LR		
	comp=E,280nm,20.8s,MS5.1						
GYA				LR	LR		
	comp=Z,360nm,21.8s,MS5.1						
KMI	Kunming	145.96	309	PKP	PKPdf	22 20 25.7	-0.6
KMI				PKP2	PKPab	22 20 28.2	+0.7
KMI				XPKP		22 20 29.5	
KMI				PP	PP	22 23 51.2	+3.2
KMI				PKS		22 24 00.4	
KMI				SKKS	SKKSac	22 30 37.7	-3.5
KMI				SS	SS	22 42 41.6	-1.7
KMI				PP	PP		
	comp=Z,116nm,5.9s						
KMI				LR	LR		
	comp=N,108nm,22.5s,MS4.8						
KMI				LR	LR		
	comp=E,159nm,24.3s,MS4.8						
KMI				LR	LR		
	comp=Z,197nm,22.3s,MS4.8						
KMI	Kunming	145.96	309	PKP	PKPdf	22 20 25.7	-0.6
KMI				PKP	PKPdf	22 20 28.2	+1.9
KMI				pPKP	pPKPdf	22 20 28.3	-1.5
KMI				sPKP		22 20 29.5	
KMI				PP	PP	22 23 51.2	+3.2
KMI				PKS		22 24 00.4	
KMI				PPP		22 27 06.8	
KMI				SKKS	SKKSac	22 30 37.7	-3.5
KMI				SSS		22 48 12.6	
KMI				LR	LR		
	comp=Z,200nm,22.3s,MS4.8						
KBL	Kabul	150.16	8	*e*PKPbc	PKPbc	22 20 39.0	+1.0
LSA	Lhasa	150.55	329	PKPdf	PKPdf	22 20 34.4	+0.7

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*NEIC **10** 22:20:05.4, 43.18S×170.84E, h5^{km}, ML3.9(WEL), After WEL.*

WEL 10 22:20:05.3±0.1**, 43.18S×170.86E, h5**^{km}**, ML3.9**/22**, 2C, Error ellipse: s-maj=0.8km s-min=0.5km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WVZ	Waitaha Valley	0.13	318	P	Pg	22 20 08.3	+0.3
WVZ				S	Sg	22 20 10.0	+0.2
WVZ	Waitaha Valley	0.13	318	PG	Pg	22 20 08.3	+0.3
WVZ				SG	Sg	22 20 10.1	+0.3
RPZ	Rata Peaks	0.56	165	P	Pg	22 20 16.7	+0.6
RPZ	Rata Peaks	0.56	165	⇑PG	Pg	22 20 16.7	+0.7
RPZ				SG	Sg	22 20 24.4	+1.0
FOZ	Fox Glacier	0.94	245	*e*P	Pg	22 20 21.4	-1.9
FOZ	Fox Glacier	0.94	245	⇑P*	Pb	22 20 21.4	-2.6
FOZ				S*	Sb	22 20 32.7	-4.1
LTZ	Lake Taylor	1.11	70	P	Pg	22 20 26.7	+0.2
LTZ	Lake Taylor	1.11	70	P*	Pb	22 20 26.7	-0.2
LTZ				*e*S*	Sb	22 20 40.8	-0.9
LBZ	Lake Benmore	1.31	202	*e*P	Pn	22 20 29.4	-0.8
LBZ	Lake Benmore	1.31	202	P*	Pb	22 20 29.4	-0.9
LBZ				*e*S*	Sb	22 20 46.9	-0.5
CRLZ	Canterbury Las	1.35	108	*e*P	Pn	22 20 30.6	-0.1
CRLZ	Canterbury Las	1.35	108	PN	Pn	22 20 30.1	-0.6
MQZ	McQueen’s Vall	1.41	113	*e*P	Pn	22 20 30.8	-0.8
MQZ	McQueen’s Vall	1.41	113	PN	Pn	22 20 30.8	-0.8
DSZ	Denniston Nort	1.59	26	P	Pn	22 20 33.2	-0.9
DSZ	Denniston Nort	1.59	26	PN	Pn	22 20 33.2	-0.9
JCZ	Jackson Bay	1.77	239	*e*P	Pn	22 20 35.5	-1.0
JCZ	Jackson Bay	1.77	239	PN	Pn	22 20 35.5	-1.1
ODZ	Otahua Downs	1.88	185	*e*P	Pn	22 20 37.9	-0.1
ODZ	Otahua Downs	1.88	185	PN	Pn	22 20 37.9	-0.1
THZ	Tophouse	2.07	48	*e*P	Pn	22 20 41.1	+0.4
THZ	Tophouse	2.07	48	PN	Pn	22 20 40.8	+0.1
KHZ	Kahutara	2.11	70	*e*P	Pn	22 20 41.6	+0.3
KHZ	Kahutara	2.11	70	PN	Pn	22 20 41.4	+0.1
WKZ	Wanaka	2.12	218	*e*P	Pn	22 20 40.9	-0.5
WKZ	Wanaka	2.12	218	PN	Pn	22 20 40.9	-0.4
EAZ	Earnscleugh	2.34	208	*e*P	Pn	22 20 43.5	-0.9
EAZ	Earnscleugh	2.34	208	PN	Pn	22 20 43.3	-1.1
QRZ	Quartz Range	2.66	29	P	Pn	22 20 48.1	-0.6
QRZ	Quartz Range	2.66	29	PN	Pn	22 20 48.1	-0.6
NNZ	Nelson	2.71	45	*e*P	Pn	22 20 50.0	+0.6
TUWZ	Tuamarina	2.88	54	PN	Pn	22 20 52.6	+0.8
MLZ	Mavora Lakes	2.91	221	*e*P	Pn	22 20 52.1	0.0
MLZ	Mavora Lakes	2.91	221	PN	Pn	22 20 52.1	-0.1
TUZ	Tuapeka	2.92	197	*e*P	Pn	22 20 51.4	-0.9
TUZ	Tuapeka	2.92	197	PN	Pn	22 20 51.4	-0.9
WHZ	Wether Hill Ro	3.42	216	*e*P	Pn	22 20 57.7	-1.6
WHZ	Wether Hill Ro	3.42	216	*e*PN	Pn	22 20 58.0	-1.2
DCZ	Deep Cove	3.52	228	*e*P	Pn	22 20 59.7	-0.8
DCZ	Deep Cove	3.52	228	*e*PN	Pn	22 20 59.7	-0.9
MRZ	Mangatainoka R	4.33	56	*e*P	Pn	22 21 10.6	-1.1
NEZ	North Egmont	4.60	33	P	Pn	22 21 16.1	+0.6
PKE	Pukeiti	4.62	32	P	Pn	22 21 16.6	+0.8

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*IDC **10** 22:26:14.8±1.6, 33.57N×45.88E, h0^{km}, mb3.6/10, mb1 3.8/14, mb1mx3.7/23, mbtmp3.6/14, ML3.6/4, Error ellipse: s-maj=35.4km s-min=16.2km az=165.0*

*SGS **10** 22:26:16.5, 33.61N×45.87E, h20^{km}*

*MOS **10** 22:26:17.2±0.8, 33.48N×45.82E, h33^{km}, mb4.3/11, Error ellipse: s-maj=13.3km s-min=8.4km az=126.2*

*ISCJB **10** 22:26:18.0±0.7, 33.48N±0.04×45.87E±0.06, h43^{km}±9^{km}, mb3.9/18, Error ellipse: s-maj=9.2km s-min=4.5km az=146.0*

*KISR **10** 22:26:18.3±0.8, 32.85N×45.10E, h8^{km}±999^{km}, ML3.3*

*CSEM **10** 22:26:19.2±0.3, 33.11N×45.43E, h10^{km}, ML3.3, Error ellipse: s-maj=10.5km s-min=5.8km az=44.0*

*NEIC **10** 22:26:19.2±0.7, 33.44N×45.85E, h35^{km}, mb4.4/8, Error ellipse: s-maj=13.6km s-min=6.8km az=174.0*

ISC 10 22:26:20.0±0.5**, 33.50N**±0.04×**45.88E**±0.06**, h43**^{km}±8^{km}**, n78,** σ1^{s}**05**/91**, mb3.9**/18**, Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MIB	Mutribah	3.88	161	*e*P	Pn	22 27 17.6	+0.4
MIB				*e*S	Sn	22 28 02.2	+0.6
MIB				AML	AML	22 28 04.6	
	comp=Z,34nm,0.5s						
MIB	Mutribah	3.88	161	*e*P	Pn	22 27 17.6	+0.4
MIB				*e*S	Sn	22 28 02.2	+0.6
	comp=Z,34nm,0.5s						
NAY	Al-Naaiem	4.39	164	*e*P	Pn	22 27 24.3	+0.2
NAY				AML	AML	22 28 12.8	
	comp=Z,12nm,0.5s						
NAY				*e*S	Sn	22 28 13.0	-1.1
NAY	Al-Naaiem	4.39	164	*e*P	Pn	22 27 24.3	+0.1
NAY				*e*S	Sn	22 28 13.0	-1.0
	comp=Z,12nm,0.5s						
HAKT	HAKKARI	4.42	337	*i* P	Pn	22 27 24.3	-0.3
RDF	Al-Radifah	4.77	162	*e*P	Pn	22 27 29.7	+0.3
RDF				*e*S	Sn	22 28 23.8	+0.3
RDF				AML	AML	22 28 26.2	
	comp=Z,61nm,0.5s						
RDF	Al-Radifah	4.77	162	*e*P	Pn	22 27 29.7	+0.3
RDF				*e*S	Sn	22 28 23.8	+0.3
QRN	Al-Qurain	5.05	159	*e*P	Pn	22 27 34.3	+1.1
QRN				*e*S	Sn	22 28 31.5	+1.3
QRN				AML	AML	22 28 33.8	
	comp=Z,44nm,0.3s						
KFJS		5.58	161	P	Pn	22 27 43.0	+2.5
KFJS				S	Sn	22 28 39.9	-3.4
KFJS		5.58	161	P	Pn	22 27 43.0	+2.5
MARD	Mardin	5.65	314	*i* P	Pn	22 27 39.7	-1.7
ASYS		6.12	193	P	Pn	22 27 45.8	-2.1
TUTA	Tutak	6.39	338	*i* P	Pn	22 27 50.6	-1.0
ASF	Jabal al Asfar	7.68	263	Pn	Pn	22 28 07.7	-1.5
ASF				Sn	Sn	22 29 44.6	+10
ASF				Lg		22 30 26.8	
ASF	Jabal al Asfar	7.68	263	P	Pn	22 28 07.7	-1.6
ASF						22 29 44.6	
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF	Jabal al Asfar	7.68	263	Pn	Pn	22 28 07.7	-1.5
	comp=Z,0.5nm,0.3s,baz=336,slow=9.1,SNR=8.9						
ASF				Sn	Sn	22 29 44.6	+10
	comp=Z,0.2nm,0.3s,baz=255,slow=20,SNR=3.2						
ASF				Lg		22 30 26.8	
	comp=Z,0.5nm,0.3s,baz=297,slow=23,SNR=6.5						
MALT	Malatya	7.72	311	*e*Pn	Pn	22 28 11.5	+1.6
	comp=Z,8.4nm,1.1s						
MALT				Sn	Sn	22 29 39.8	+3.7
MALT	Malatya	7.72	311	*e*P	Pn	22 28 11.5	+1.6
MALT						22 29 39.8	
MALT				pmax	pmax		
	comp=Z,8.0nm,1.1s						
GZT	Gaziantep	7.80	302	*i* P	Pn	22 28 14.0	+3.0
MMAI	Mount Meron Ar	8.79	270	Pn	Pn	22 28 23.3	-1.2
	comp=Z,0.3nm,0.3s,baz=81,slow=18,SNR=4.0						
MMAI				Lg		22 30 56.7	
	comp=Z,1.3nm,0.3s,baz=93,slow=26,SNR=3.5						
EIL	Elat	10.07	251	Pn	Pn	22 28 49.0	+7.0
EIL				Sn	Sn	22 30 45.2	+11
EIL				Lg		22 31 49.9	
EIL	Elat	10.07	251	Pn	Pn	22 28 49.0	+7.0
	comp=Z,0.3nm,0.3s,baz=27,slow=6.8,SNR=2.3						
EIL				Sn	Sn	22 30 45.2	+11
	comp=Z,0.1nm,0.3s,baz=332,slow=21,SNR=1.6						
EIL				Lg		22 31 49.9	
	comp=Z,0.4nm,0.3s,baz=80,slow=21,SNR=2.5						
BTHS		10.37	154	P	Pn	22 28 44.6	-1.6
KIV	Kislovodsk	10.74	348	*e*Pn	Pn	22 28 52.8	+1.7
	comp=Z,9.9nm,1.5s						
KIV	Kislovodsk	10.74	348	*e*P	Pn	22 28 56.4	+5.3
KIV				pmax	pmax		
	comp=Z,4.0nm,1.0s						
HRDDS		10.99	162	P	Pn	22 28 53.5	-1.2
BRTR	Keskin Array B	11.63	306	Pn	Pn	22 29 06.5	+3.1
BRTR	Keskin Array B	11.63	306	Pn	Pn	22 29 06.5	+3.1
	comp=Z,0.0nm,0.3s,baz=193,slow=12,SNR=2.4						
AKTK	Aktyubinsk	19.14	24	P	Pn	22 30 39.0	-1.6
AKTO	Aktyubinsk	19.14	24	P	Pn	22 30 39.0	-1.6
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO	Aktyubinsk	19.14	24	P	Pn	22 30 39.0	-1.6
	comp=Z,1.1nm,0.3s,baz=197,slow=11,SNR=17						
KBL	Kabul	19.22	80	*e*P	Pn	22 30 42.1	+0.4
MLR	Muntele Rosu	19.44	314	P	Pn	22 30 44.2	-0.1
	comp=Z,0.0nm,0.3s,baz=179,slow=12,SNR=2.3						
AKASG	Malin Array Be	21.09	330	P	P	22 30 59.7	-1.0
AKASG	Malin Array Be	21.09	330	P	P	22 30 59.7	-0.9
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	Malin Array Be	21.09	330	P	P	22 30 59.7	-0.9
	comp=Z,1.9nm,0.5s,mb3.7,baz=139,slow=9.5,SNR=19						
PSZ	Piszkesteto	24.26	314	P	P	22 31 32.0	-0.9
	comp=Z,4.3nm,0.8s,mb3.9						
PSZ	Piszkesteto	24.26	314	P	P	22 31 32.0	-0.9
PSZ				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.9						
ARU	Arti	24.55	17	*e*P	P	22 31 35.4	0.0
	comp=Z,12nm,1.4s,mb4.2						
ARU	Arti	24.55	17	*e*P	P	22 31 35.4	0.0
ARU				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.2						
MORC	Moravsky Berou	26.49	316	*e*P	P	22 31 52.9	-0.2
	comp=Z,1.5nm,0.8s,mb3.6						
MORC	Moravsky Berou	26.49	316	*e*P	P	22 31 52.9	-0.2
MORC				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
GERES	GERESS Array B	28.41	312	P	P	22 32 10.6	+0.3
	comp=Z,0.2nm,0.6s,mb2.9,baz=100,slow=10,SNR=2.4						
MK31	Makanchi Array	30.55	53	*e*P	P	22 32 30.1	+0.8
MKAR	Makanchi Array	30.55	53	P	P	22 32 30.4	+1.1
MKAR	Makanchi Array	30.55	53	P	P	22 32 30.4	+1.1
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	30.55	53	P	P	22 32 30.4	+1.1
	comp=Z,1.3nm,0.7s,mb3.9,baz=250,slow=8.4,SNR=19						
FINES	FINESS Array B	30.74	341	P	P	22 32 30.5	-0.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	FINESS Array B	30.74	341	P	P	22 32 30.5	-0.3
	comp=Z,0.8nm,0.8s,mb3.6,baz=146,slow=12,SNR=3.9						
MBDF	Montbardon	32.07	302	*e*P	P	22 32 42.9	+0.2
	comp=Z,6.4nm,0.7s,mb4.3						
MBDF	Montbardon	32.07	302	*e*P	P	22 32 42.9	+0.2
	comp=Z,3.2nm,0.7s,mb4.3						
MBDF	Montbardon	32.07	302	*e*P	P	22 32 42.9	+0.2
MBDF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.2						
LPG	La Plagne	32.18	304	*e*P	P	22 32 44.6	+0.9
	comp=Z,6.1nm,0.6s,mb4.3						
LPG	La Plagne	32.18	304	*e*P	P	22 32 44.6	+0.9

	comp=Z,3.0nm,0.6s,mb4.3						
LPG	La Plagne	32.18	304	eP	P	22 32 44.6	+0.9
LPG				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
LPL	La Plagne	32.20	304	eP	P	22 32 44.8	+1.0
CABF	La Chapelle	32.80	305	eP	P	22 32 49.6	+0.5
	comp=Z,13nm,0.7s,mb4.7						
CABF	La Chapelle	32.80	305	eP	P	22 32 49.6	+0.5
	comp=Z,6.6nm,0.7s,mb4.7						
CABF	La Chapelle	32.80	305	eP	P	22 32 49.6	+0.5
CABF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
HAU	Haudompre	32.88	308	eP	P	22 32 50.2	+0.4
ZAL	Zalesovo	34.16	41	P	P	22 33 00.8	-0.1
ZALV	Zalesovo Beam	34.18	41	P	P	22 33 00.8	-0.2
ZALV	Zalesovo Beam	34.18	41	P	P	22 33 00.8	-0.2
	comp=Z,0.7nm,0.3s,mb4.0,baz=257,slow=7.9,SNR=6.6						
SMF	Signal de Mont	34.34	305	eP	P	22 33 02.1	-0.4
	comp=Z,7.5nm,0.6s,mb4.5						
SMF	Signal de Mont	34.34	305	eP	P	22 33 02.1	-0.4
	comp=Z,3.8nm,0.6s,mb4.5						
SMF	Signal de Mont	34.34	305	eP	P	22 33 02.1	-0.4
SMF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
LOR	Lormes	34.41	306	eP	P	22 33 02.3	-0.8
SSF	Saint Saulge	34.62	306	eP	P	22 33 05.2	+0.2
AVF	Avril sur Loir	34.69	305	eP	P	22 33 04.9	-0.7
NOA	NORSAR Array B	35.48	332	P	P	22 33 11.4	-0.7
NOA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NOA	NORSAR Array B	35.48	332	P	P	22 33 11.4	-0.7
	comp=Z,0.7nm,0.9s,mb3.6,baz=133,slow=10,SNR=2.2						
ARCES	ARCESS Array B	37.84	348	P	P	22 33 32.2	+0.1
ARCES				pmax	pmax		
	comp=Z,4.0nm,1.0s						
ARCES	ARCESS Array B	37.84	348	P	P	22 33 32.1	0.0
	comp=Z,3.9nm,1.0s,mb4.1,baz=135,slow=10,SNR=3.2						
TORD	Torodi Ar. Bea	44.94	254	P	P	22 34 31.6	+0.6
	comp=Z,0.6nm,0.6s,mb3.6,baz=78,slow=6.0,SNR=5.8						
SONM	Songino Array	46.92	53	P	P	22 34 47.0	+0.8
	comp=Z,0.2nm,0.7s,mb3.2,baz=281,slow=8.6,SNR=3.4						
LZH	Lanzhou	47.06	70	eP	P	22 34 53.5	+6.0
	comp=Z,16nm,1.2s,mb4.8						
LZH				pP	pP	22 34 58.1	-1.4
LZH				sP	sP	22 35 00.7	-3.8
LZH	Lanzhou	47.06	70	eP	P	22 34 53.5	+6.0
LZH				*SP	sP	22 35 00.7	-3.8
LZH				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
YKA	Yellowknife Ar	83.06	351	P	P	22 38 40.6	-0.1
	comp=Z,0.3nm,0.6s,mb3.5,baz=11,slow=5.4,SNR=5.4						

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*ISCJB **10** 22:44:14.0±1.0, 3180N±005×11550W±004, h10^{km}, Error ellipse: s-maj=7.9km s-min=3.9km az=148.1*
*ECX **10** 22:44:16.9±0.3, 3183N×11558W, h7^{km}, MD2.7, ML2.8*
ISC 10 22:44:14.3±0.9**, 3181N**±005×**11553W**±004**, h10**^{km}**, n14,** σ**0**^{s}**66**/25**, 16C-4D, Baja California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	Cerro Prieto	0.64	17	⇑eP	Pg	22 44 28.1	+1.5
CPBX				eS	Sg	22 44 36.8	+1.8
CPBX				e		22 44 40.8	
	comp=E,2μm,0.3s						
CPBX				e		22 44 42.8	
	comp=N,2μm,0.1s						
RMX	La Rumorosa	0.92	330	⇑eP	Pg	22 44 32.3	+0.3
RMX				eS	Sg	22 44 44.4	+0.5
ECNX	Esteban Cantu	0.92	261	⇑eP	Pg	22 44 32.1	+0.1
ECNX				⇑eP		22 44 33.0	
ECNX				eS	Sg	22 44 44.7	+0.6
ECNX				eS	Sg	22 44 45.7	+1.6
ENX	Ensenada	0.97	275	⇑eP	Pg	22 44 33.0	+0.1
ENX				eS	Sg	22 44 45.7	+0.1
ENX				⇓e		22 44 46.3	
	comp=E,153nm,0.5s						
DVTC	Desert V Tower	0.98	330	⇑P	Pg	22 44 33.0	-0.1
	baz=0.9,SNR=35						
DVTC				⇑S	Sg	22 44 45.2	-0.7
	baz=0.9						
PBX	Punta Banda	1.02	267	⇑eP	Pg	22 44 33.9	0.0
PBX				eS	Sg	22 44 47.4	+0.2
CBX	Cerro Bola	1.09	298	⇑eP	Pb	22 44 35.0	-0.2
CBX				eS	Sg	22 44 49.1	-0.2
SWSC	Sam W. Stewart	1.15	349	⇓P	Pb	22 44 35.4	-0.8
	baz=1.1,SNR=31						
SWSC				⇑S	Sb	22 44 51.4	+0.1
	baz=1.1						
MONP	Monument Peak	1.32	325	⇓P	Pn	22 44 38.0	-0.8
	baz=1.3,SNR=84						
MONP				⇑S	Sb	22 44 55.4	-0.6
	baz=1.3						
GLA	Glamis	1.37	25	⇑P	Pn	22 44 39.0	-0.5
	baz=1.4,SNR=6.8						
GLA				⇑S	Sb	22 44 57.4	-0.3
	baz=1.4						
109C	Camp Elliot, M	1.71	309	⇑P	Pn	22 44 43.7	-0.5
	baz=1.7,SNR=6.4						
BC3	Big Chuckw Mtn	1.84	2	⇓P	Pn	22 44 45.2	-0.8
	baz=1.9						
PFO	Pinyon Flat Ob	1.96	337	⇑P	Pn	22 44 47.7	+0.2
	baz=1.9						
Z14A	Wintersburg	2.67	54	⇑S	Sn	22 45 29.7	-0.2
	baz=2.7						

IDC 10 23:00:06.5±3.0**, 4979S**×**11151E, h0**^{km}**, mb3.7**/1**, mb1 4.1**/1**, mb1mx3.6**/11**, mbtmp3.7**/1**, MS3.4**/1**, Ms1 3.4**/1**, ms1mx2.7**/16**, Error ellipse: s-maj=178.3km s-min=57.2km az=113.0, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	Vanda	33.56	162	LR	LR	23 20 11.7	
	comp=Z,62nm,21.2s,baz=155,slow=36						
WRA	Warramunga Arr	34.90	40	P	P	23 06 59.6	-0.1
	0.8nm,0.8s,baz=206,slow=8.1,SNR=5.0						
TXAR	Lajitas Array	146.48	114	PKPbc	PKPbc	23 19 49.0	-0.4
	0.9nm,1.1s,baz=199,slow=3.4,SNR=6.2						
PDAR	Pinedale Array	151.05	88	PKPbc	PKPbc	23 20 00.1	-0.6
	1.2nm,1.1s,baz=219,slow=3.8,SNR=4.4						
YKA	Yellowknife Ar	152.02	45	PKPbc	PKPbc	23 20 02.5	+0.3
	0.4nm,0.6s,baz=290,slow=2.2,SNR=9.2						

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*ISCJB **10** 23:34:27.3±0.6, 3738N±006×10616E±007, h10^{km}, mb3.8/6, Error ellipse: s-maj=9.7km s-min=5.6km az=137.0*
*BJI **10** 23:34:28.8, 3731N×10630E, h15^{km}, mB4.2, mb3.9, ML3.8, Ms3.8, Msz3.3*
*IDC **10** 23:34:28.1±1.2, 3736N×10606E, h0^{km}, mb3.7/4, mb1 3.9/6, mb1mx3.6/20, mbtmp3.6/6, ML3.5/2, Error ellipse: s-maj=54.6km s-min=22.7km az=60.0*
*NEIC **10** 23:34:41.3±0.8, 3762N×10451E, h10^{km}, mb3.7/2, Error ellipse: s-maj=14.3km s-min=12.0km az=167.0*
ISC 10 23:34:29.4±0.6**, 3749N**±004×**10606E**±005**, h10**^{km}**, n18,** σ**0**^{s}**98**/29**, mb3.8**/6**, Western Nei Mongol**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LZH	Lanzhou	2.26	232	PG	Pg	23 35 12.0	-0.7
LZH				SG	Sg	23 35 41.2	-0.8
LZH				Smax			
	comp=N,2μm,0.6s						
LZH				Smax			
	comp=E,1μm,0.7s						
LZH				LR	LR		
	comp=N,1μm,5.6s						
LZH				LR	LR		
	comp=Z,2μm,8.5s						
LZH	Lanzhou	2.26	232	Pg	Pg	23 35 12.0	-0.7
LZH				Sg	Sg	23 35 41.2	-0.8
BTO	Baotou	4.38	44	eP	Pn	23 35 36.5	+0.5
BTO				PG	Pg	23 35 48.8	-4.6
BTO				S	Sn	23 36 26.1	-1.1
BTO				SG	Sg	23 36 46.2	-4.0
BTO				Smax			
	comp=N,40nm,0.4s						
BTO				Smax			
	comp=E,52nm,0.3s						
GTA	Gaotai	5.26	293	P	Pn	23 35 51.9	+3.8
GTA				PG	Pg	23 36 10.0	-0.2
GTA				S	Sn	23 36 54.7	+5.9
GTA				SG	Sg	23 37 17.9	-0.5
GTA				Smax			
	comp=N,112nm,0.9s						
GTA				Smax			
	comp=E,80nm,0.8s						
GTA				LR	LR		
	comp=N,405nm,5.7s						
GTA				LR	LR		
	comp=E,260nm,4.9s						
GTA				LR	LR		
	comp=Z,167nm,6.5s						
SONM	Songino Array	10.35	1	Pn	Pn	23 36 58.4	+0.6
SONM				Sn	Sn	23 38 52.2	-1.5
SONM	Songino Array	10.35	1	Pn	Pn	23 36 58.4	+0.6
	comp=Z,0.4nm,0.3s,baz=190,slow=13,SNR=21						
SONM				Sn	Sn	23 38 52.2	-1.5
	comp=Z,0.3nm,0.3s,baz=180,slow=24,SNR=2.8						
GYA	Guiyang	11.01	177	P	Pn	23 37 06.9	-0.1
GYA				S	Sn	23 39 01.8	-8.3
GYA				AMB	AMB		
	comp=Z,10.0nm,4.5s						
GYA				LR	LR		
	comp=N,150nm,4.3s						
GYA				LR	LR		
	comp=E,140nm,5.5s						
GYA				LR	LR		
	comp=Z,190nm,3.7s						
MK31	Makanchi Array	19.86	305	eP	Pn	23 39 01.8	-0.4
MKAR	Makanchi Array	19.86	305	P	Pn	23 39 01.9	-0.2
	comp=Z,0.1nm,0.3s,baz=102,slow=12,SNR=6.5						
ZALV	Zalesovo Beam	22.02	325	P	P	23 39 24.2	+0.4
ZALV	Zalesovo Beam	22.02	325	P	P	23 39 24.2	+0.4
	comp=Z,1.6nm,0.6s,mb3.6,baz=126,slow=9.9,SNR=7.0						
UCH	Uchtor	24.59	291	eP	P	23 39 51.0	+1.4
	comp=Z,3.1nm,1.1s,mb3.8						
AAK	Ala-Archa	24.61	292	eP	P	23 39 51.3	+1.5
	comp=Z,3.4nm,1.7s,mb3.6						
NB2	NORSAR Subarra	60.22	326	P	P	23 44 41.0	+3.7
	comp=Z,1.0nm,0.6s,mb4.0,baz=64,slow=6.9						
NOA	NORSAR Array B	60.22	326	P	P	23 44 38.7	+1.4
	comp=Z,0.9nm,0.6s,mb4.0,baz=67,slow=6.8,SNR=4.0						
WRA	Warramunga Arr	63.03	150	P	P	23 44 56.1	-0.6
	comp=Z,1.8nm,0.6s,mb4.4,baz=344,slow=7.0,SNR=11						
WB2	Warramunga Arr	63.03	150	eP	P	23 44 56.1	-0.6
YKA	Yellowknife Ar	75.14	18	P	P	23 46 13.0	+1.7
	comp=Z,0.2nm,0.4s,mb3.4,baz=324,slow=4.7,SNR=3.8						

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*NEIC **10** 23:47:52.2±3.9, 4332N×12740W, h10^{km}, mb3.6/1, Error ellipse: s-maj=42.8km s-min=8.5km az=65.0*
ISC 10 23:47:54.5±1.8**, 4338N**±008×**1274W**±02**, h25**^{km}±37^{km}**, n59,** σ**0**^{s}**58**/66**, 16C-24D, Off coast of Oregon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
I02A	Mapleton	2.63	75	⇓P	Pn	23 48 34.0	-1.3
	baz=3.3,SNR=24						
RNO	Roman Nose	2.68	77	P	Pn	23 48 35.1	-0.8
H02A	Toledo	2.74	61	⇓P	Pn	23 48 35.7	-1.2
	baz=3.4,SNR=25						
J02A	Umpqua	2.76	89	⇑P	Pn	23 48 36.0	-1.1
	baz=3.4,SNR=18						
J02A				⇓S	Sn	23 49 09.7	+0.2
	baz=3.4						
K02A	Glendale	2.90	101	⇓P	Pn	23 48 38.1	-0.9
	baz=3.5,SNR=10						
K02A				⇑S	Sn	23 49 13.3	+0.3
	baz=3.5						
DBO	Dodson Butte	3.02	94	P	Pn	23 48 39.8	-0.8
I03A	Eugene	3.02	77	⇓P	Pn	23 48 40.0	-0.6
	baz=3.7,SNR=294						
I03A				⇑S	Sn	23 49 15.8	-0.1
	baz=3.7						
L02A	Cave Junction	3.02	113	⇓P	Pn	23 48 40.0	-0.7
	baz=3.6						
EUO	Eugene	3.17	77	P	Pn	23 48 42.5	-0.3
J03A	Ideyld Park	3.20	89	⇓P	Pn	23 48 42.2	-0.9
	baz=3.9,SNR=19						
H03A	Soap Creek Ran	3.20	65	⇑P	Pn	23 48 42.1	-1.0
	baz=3.9						
H03A				⇑S	Sn	23 49 20.3	-0.2
	baz=3.9						
HUMO	Hull Mountain	3.32	102	⇑S	Sn	23 49 23.9	+0.6
	baz=3.9						
BBOR	Butler Butte	3.46	97	P	Pn	23 48 46.9	+0.3
G03A	Yamhill	3.50	55	⇓P	Pn	23 48 46.6	-0.6
	baz=4.2,SNR=29						
I04A	Tendick Farm,	3.62	82	⇓P	Pn	23 48 48.7	-0.1
	baz=4.3						
BROR	Big Rock Looko	3.66	74	P	Pn	23 48 49.6	+0.2
HBO	Huckleberry Mo	3.69	81	P	Pn	23 48 50.5	+0.7
F03A	Seaside	3.72	45	⇑P	Pn	23 48 49.5	-0.8
	baz=4.4						
F03A				⇓S	Sn	23 49 33.6	+0.5
	baz=4.4						
IRO	Indian Ridge	3.75	79	P	Pn	23 48 50.7	0.0
SSOR	Sweet Springs	3.82	66	P	Pn	23 48 52.1	+0.5
NLO	Nicolai Mounta	3.88	44	P	Pn	23 48 52.2	-0.2
FRIS	Frissel Point	3.89	76	P	Pn	23 48 53.2	+0.6
G04A	Mulino	3.95	61	⇑P	Pn	23 48 53.4	0.0
	baz=4.6,SNR=7.8						
H04A	Detroit Lake	3.95	69	⇑P	Pn	23 48 53.3	-0.1
	baz=4.6,SNR=78						
HUOR	Husband	4.06	78	P	Pn	23 48 55.7	+0.8
WIFE	Three Sisters-	4.07	79	P	Pn	23 48 55.8	+0.8
E03A	Lebam	4.15	39	⇑P	Pn	23 48 55.5	-0.6
	baz=4.8						
E03A				⇑S	Sn	23 49 43.1	-0.7
	baz=4.8						
F04A	Amboy	4.35	52	⇑P	Pn	23 48 58.6	-0.3
	baz=5.0,SNR=9.3						
LVP	Lakeview Peak	4.43	51	P	Pn	23 49 00.2	+0.2
MTMW	Mount Mitchell	4.52	52	P	Pn	23 49 01.5	+0.3
FL2	Flat Top 2	4.54	50	P	Pn	23 49 02.1	+0.6
JLK	June Lake	4.62	51	P	Pn	23 49 03.2	+0.6
NLWA	Neilton Lookou	4.70	30	⇑P	Pn	23 49 03.0	-0.7
	baz=5.3						
NLWA				⇓S	Sn	23 49 56.2	-1.2
	baz=5.3						
LMW	Ladd Mountain	4.87	46	P	Pn	23 49 06.3	+0.4
ASR	Mount Adams--S	4.95	54	P	Pn	23 49 08.0	+0.8
VIPM	Ingram Point	4.99	75	P	Pn	23 49 08.1	+0.4
E05A	Randle	5.08	49	⇑P	Pn	23 49 09.3	+0.4
	baz=5.8,SNR=33						
G06A	Carlson Farm,	5.17	67	⇓P	Pn	23 49 10.1	0.0
	baz=5.9						
GLK	Glacier Lake	5.17	50	P	Pn	23 49 11.0	+0.9
H06A	Lindquist Farm	5.24	73	⇓P	Pn	23 49 11.2	+0.1
	baz=5.9,SNR=25						
F06A	Goldendale	5.27	61	⇓P	Pn	23 49 11.7	+0.3
	baz=6.0,SNR=5.7						
RCM	Mount Rainier-	5.27	47	P	Pn	23 49 12.2	+0.7
GL2	New Goldendale	5.32	59	P	Pn	23 49 12.8	+0.6
FMW	Mount Fremont	5.36	47	P	Pn	23 49 13.2	+0.4
D05A	Enumclaw	5.37	43	⇓P	Pn	23 49 13.2	+0.4
	baz=6.0						
E06A	Yakima	5.52	53	⇓P	Pn	23 49 15.3	+0.4
	baz=6.2,SNR=8.6						
G07A	Ruggs Ranch, H	5.83	69	⇓P	Pn	23 49 19.3	+0.1
	baz=6.5,SNR=10						
C05A	Tolt Reservoir	5.87	41	⇓P	Pn	23 49 20.0	+0.3
	baz=6.5						
G08A	Pilot Rock	6.32	70	⇓P	Pn	23 49 25.8	0.0
	baz=7.0,SNR=8.5						
HAWA	Hanford	6.32	59	ePn	Pn	23 49 26.3	+0.3
	6.1nm,0.8s						
H08A	Prairie City	6.37	77	⇓P	Pn	23 49 26.6	-0.1
	baz=7.1						
C07A	Waterville	6.69	47	⇑P	Pn	23 49 30.9	-0.1
	baz=7.3						
H09A	Durkee	7.10	76	⇓P	Pn	23 49 36.2	-0.6
	baz=7.8						
G09A	Cove	7.12	71	⇓P	Pn	23 49 37.0	+0.1
	baz=7.8						
BMO	Blue Mountains	7.38	75	ePn	Pn	23 49 40.4	-0.1
	1.8nm,0.6s						
H10A	Noah’s Angus R	7.75	77	⇓P	Pn	23 49 45.8	+0.2
	baz=8.4						
B09A	Rice	8.16	49	⇓P	Pn	23 49 51.1	-0.1
	baz=8.8						
H11A	Donnelly	8.28	77	⇑P	Pn	23 49 53.7	+0.9
	baz=9.0						
FFC	Flin Flon	20.01	47	eP	P	23 52 25.9	+0.8
	3.8nm,1.2s						

IDC 11 00:03:22.0±2.1**, 286N**×**12860E, h0**^{km}**, mb3.7**/3**, mb1 3.9**/3**, mb1mx3.4**/17**, mbtmp3.7**/3**, Error ellipse: s-maj=152.6km s-min=26.6km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.35	166	P	P	00 08 33.7	+1.4
	0.8nm,0.5s,baz=345,slow=10,SNR=9.2						
WB2	Warramunga Arr	23.35	166	eP	P	00 08 33.7	+1.4
STKA	Stephens Creek	36.69	161	P	P	00 10 28.8	-2.0
	1.2nm,0.4s,baz=336,slow=10.0,SNR=3.8						
MKAR	Makanchi Array	59.33	325	P	P	00 13 26.3	+0.5
	0.3nm,0.6s,baz=121,slow=8.4,SNR=5.2						

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*CSEM **11** 00:03:54.6±0.1, 4063N×3489E, h5^{km}, MD3.0, Error ellipse: s-maj=2.3km s-min=2.0km az=127.0*
*ISK **11** 00:03:54.2, 4067N×3485E, h5^{km}, MD3.0*
*ISCJB **11** 00:03:55.3±0.7, 4068N±003×3489E±005, h0^{km}±6^{km}, Error ellipse: s-maj=6.0km s-min=5.0km az=20.3*
*DDA **11** 00:03:55.5, 4067N×3485E, h16^{km}±1^{km}, Md3.0*
ISC 11 00:03:55.8±0.7**, 4068N**±003×**3490E**±005**, h2**^{km}±5^{km}**, n21,** σ**0**^{s}**83**/30**, 2C-1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTKT	Corum	0.10	235	⇑iP	Pg	00 03 58.4	+0.7
CTKT				i S	Sg	00 04 00.0	+1.1
BOYT	Boyabat	0.74	1	⇓iP	Pg	00 04 10.2	+0.1
BOYT				i S	Sg	00 04 20.9	+1.3
TOS	Tosya	0.75	299	PG	Pg	00 04 09.3	-0.9
TOS	Tosya	0.75	299	ePg	Pg	00 04 09.3	-0.9
KVT	Kavak	0.96	65	ePG	Pg	00 04 14.1	-0.1
KVT	Kavak	0.96	65	ePg	Pg	00 04 14.1	-0.1
CANT	Cankiri	0.97	266	ePG	Pg	00 04 13.3	-1.2
CANT				eSG	Sg	00 04 27.3	+0.2
DIKM	Dikmen	1.01	16	ePG	Pg	00 04 15.2	+0.1
DIKM	Dikmen	1.01	16	ePg	Pg	00 04 15.2	+0.1
YOZ	Yozgat	1.09	162	ePN	Pn	00 04 16.4	-1.7
YOZ	Yozgat	1.09	162	ePn	Pn	00 04 16.4	-1.7
CDAG	Cicekdag	1.13	201	i P	Pg	00 04 16.6	-0.8
CDAG				i S	Sg	00 04 32.3	+0.3
ELDT	Eldivan	1.13	261	i P	Pg	00 04 17.2	-0.3
ELDT				i S	Sg	00 04 31.8	-0.4
ELDT	Eldivan	1.13	261	i P	Pg	00 04 17.2	-0.3
ELDT				i S	Sg	00 04 31.8	-0.4
BALT	Daday	1.43	307	⇑iP	Pn	00 04 22.3	-0.4
BALT				i S	Sb	00 04 42.0	+0.3
BZK	Bozkurt	1.45	333	ePN	Pn	00 04 22.9	-0.1
BZK	Bozkurt	1.45	333	ePn	Pn	00 04 22.9	-0.1
KAMT	Kaman	1.59	215	ePN	Pn	00 04 24.0	-1.0
KAMT	Kaman	1.59	215	ePn	Pn	00 04 24.0	-1.0
AVNT	Avonos	1.90	181	i P	Pn	00 04 30.0	+0.8
AVNT				i S	Sn	00 04 55.7	+2.0
SGKT	Sivrigoynuk	2.16	268	eP	Pn	00 04 24.8	-8.0
SGKT				eS	Sn	00 05 00.6	+0.3

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*NIED **11** 00:55:00, 2960N×13060E, h32^{km}, Mw4.0 Best double couple: $M_0$9.68000×10^{14} NP1:ϕ_s194.00000°, δ14.00000°, λ90.00000°. NP2:ϕ_s14.00000°, δ76.00000°, λ90.00000°.*
*ISCJB **11** 00:55:11.3±0.7, 2961N±004×13065E±008, h58^{km}±4^{km}, mb4.2/12, Error ellipse: s-maj=12.3km s-min=4.7km az=22.9*
*JMA **11** 00:55:11.6±0.1, 2962N×13062E, h62^{km}±2^{km}, M3.7*
*NEIC **11** 00:55:11.7, 2962N×13062E, h62^{km}, MG3.7(JMA), After JMA.*
*IDC **11** 00:55:11.9±1.5, 2961N×13053E, h45^{km}±12^{km}, mb3.6/9, mb1 3.7/13, mb1mx3.6/25, mbtmp3.6/13, ML3.3/4, Error ellipse: s-maj=27.3km s-min=8.9km az=110.0*
ISC 11 00:55:12.4±0.6**, 2961N**±004×**13062E**±008**, h51**^{km}±5^{km}**, n31,** σ**0**^{s}**66**/39**, mb4.2**/12**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNN	Nakanoshima	0.69	290	P	Pn	00 55 25.8	-0.3
JNN				S	Sn	00 55 36.9	+0.9
JKC	Kuchinoerabu	0.93	337	P	Pn	00 55 28.9	-0.3
JKC				eS	Sn	00 55 41.7	+0.2
JTN	Tanegashima 3	1.09	17	P	Pn	00 55 30.9	-0.5
JAM	Amami Oshima	1.49	217	P	Pn	00 55 37.0	+0.2
JAM				eS	Sn	00 55 55.3	+0.2
JTSR	Tashiro 2	1.57	9	P	Pn	00 55 38.0	0.0
JTSR				S	Sn	00 55 57.1	-0.1
JSU	Suzuyama	1.90	356	P	Pn	00 55 42.0	-0.4
JSU				eS	Sn	00 56 04.5	-0.6
JNAR	Kushima--Naru	1.99	16	P	Pn	00 55 44.2	+0.5
JTK	Tokunoshima	2.34	219	P	Pn	00 55 48.8	+0.4
JTK				eS	Sn	00 56 16.1	+0.2
JOW	Kunigami	3.46	217	P	Pn	00 56 03.2	-0.6
	4.8nm,0.3s,baz=71,slow=20,SNR=13						
JOW				S	Sn	00 56 41.5	-1.9
	16nm,0.3s,baz=146,slow=28,SNR=11						
JNU	Nakatsue	3.51	4	P	Pn	00 56 05.5	+1.0
	3.1nm,0.3s,baz=135,slow=12,SNR=31						
JNU				S	Sn	00 56 44.0	-0.6
	2.6nm,0.3s,baz=203,slow=32,SNR=3.6						
KSRS	Korea Array	8.14	345	P	Pn	00 57 07.8	-0.2
	0.1nm,0.3s,baz=226,slow=40,SNR=2.5						
MJAR	Matsushiro Arr	9.39	41	P	Pn	00 57 26.1	+1.0
	1.2nm,0.3s,baz=247,slow=14,SNR=12						
SONM	Songino Array	26.06	321	P	P	01 00 40.2	-0.8
	2.0nm,0.7s,mb3.7,baz=138,slow=9.3,SNR=22						
TAPN	Taplejung	37.63	277	eP	P	01 02 22.5	0.0
ODAN	Odare	38.03	277	eP	P	01 02 25.0	-0.9
GUN	Gumba	39.08	279	eP	P	01 02 35.8	+1.1
	57nm,0.7s						
PKI	Pulchoki	39.56	278	eP	P	01 02 39.3	+0.6
	22nm,0.6s,mb5.1						
KKN	Kakani	39.62	279	eP	P	01 02 39.8	+0.6
	22nm,0.5s,mb5.2						
DMN	Daman	39.81	279	eP	P	01 02 41.5	+0.7
	11nm,0.4s,mb4.9						
GKN	Gorkha	40.12	279	eP	P	01 02 43.5	+0.1
	16nm,0.5s,mb5.0						
ZALV	Zalesovo Beam	40.94	320	P	P	01 02 49.4	-0.4
	1.2nm,0.5s,mb3.8,baz=107,slow=8.3,SNR=8.4						
MK31	Makanchi Array	40.98	308	eP	P	01 02 50.2	0.0
MK31				e	pP	01 02 58.5	-5.2
MKAR	Makanchi Array	40.98	308	P	P	01 02 50.3	+0.2
	2.5nm,0.5s,mb4.1,baz=90,slow=10,SNR=86						
MKAR				PcP	PcP	01 04 50.0	+0.5
	0.4nm,0.6s,baz=90,slow=2.8,SNR=4.0						
KOLN	Koldanda	41.07	279	eP	P	01 02 51.3	+0.1
WRA	Warramunga Arr	49.39	175	P	P	01 03 57.5	+0.5
	0.3nm,0.7s,mb3.4,baz=354,slow=8.1,SNR=3.2						
FINES	FINESS Array B	70.97	331	P	P	01 06 23.1	-1.2
	0.4nm,0.3s,mb3.8,baz=63,slow=6.0,SNR=13						
AKASG	Malin Array Be	74.34	320	P	P	01 06 44.4	-0.1
	0.7nm,0.5s,mb3.9,baz=56,slow=5.9,SNR=5.4						
YKA	Yellowknife Ar	74.58	26	P	P	01 06 45.3	-0.3
	0.1nm,0.5s,baz=294,slow=5.4,SNR=4.4						
BRTR	Keskin Array B	76.63	308	P	P	01 06 59.0	+1.3
	1.3nm,0.7s,mb4.0,baz=91,slow=5.7,SNR=14						
NB2	NORSAR Subarra	77.21	334	P	P	01 06 59.8	-0.9
	comp=Z,0.5nm,0.5s,mb3.7,baz=49,slow=5.9						
NOA	NORSAR Array B	77.21	334	P	P	01 06 59.4	-1.2
	comp=Z,0.8nm,0.7s,mb3.8,baz=50,slow=5.6,SNR=3.1						

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*IDC **11** 01:14:38.2±8.2, 3678N×7152E, h69^{km}±69^{km}, mb3.1/4, mb1 3.2/7, mb1mx3.1/22, mbtmp3.2/7, ML3.3/3, Error ellipse: s-maj=59.9km s-min=28.0km az=178.0*
*ISCJB **11** 01:14:44.3±1.0, 3732N±006×7140E±009, h123^{km}±11^{km}, mb3.3/4, Error ellipse: s-maj=11.7km s-min=9.5km az=16.4*
*NEIC **11** 01:14:44.2±0.9, 3713N×7158E, h115^{km}±9^{km}, mb3.9/4, Error ellipse: s-maj=18.9km s-min=8.9km az=131.0*
ISC 11 01:14:45.0±1.0**, 3726N**±007×**715E**±01**, h113**^{km}±11^{km}**, n17,** σ**1**^{s}**00**/24**, mb3.3**/4**, 1C-2D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	3.35	217	ePn	Pn	01 15 35.1	-0.5
KBL				eSn	Sn	01 16 09.4	-5.3
AML	Almayashu	5.16	19	ePn	Pn	01 16 00.9	+1.0
	27nm,0.6s						
AML				eSn	Sn	01 16 57.5	-0.8
UCH	Uchtor	5.49	24	ePn	Pn	01 16 05.5	+1.1
	3.0nm,0.4s						

EKS2	Erkin-Say	5.68	18	ePn	Pn	01 16 08.0	+1.1
	3.0nm,0.3s						
AAK	Ala-Archa	5.85	23	ePn	Pn	01 16 09.2	0.0
	4.8nm,0.6s						
AAK				eSn	Sn	01 17 14.5	-0.5
KK31	Karatay Array	5.88	353	P	Pn	01 16 10.7	+1.0
	1.3nm,0.2s,baz=176,slow=12,SNR=92						
KK31				⇓S	Sn	01 17 14.5	-1.2
	1.1nm,0.2s,baz=175,slow=18,SNR=8.5						
MKAR	Makanchi Array	12.46	37	P	Pn	01 17 37.3	-0.9
	0.0nm,0.3s,baz=212,slow=12,SNR=3.3						
MK31	Makanchi Array	12.46	37	ePn	Pn	01 17 37.2	-1.0
AB31	Akbulak array	14.61	329	⇑Pn	Pn	01 18 04.2	-1.7
	0.5nm,0.5s						
AB31				⇓Sn	Sn	01 20 36.9	-10
	1.2nm,0.5s						
AKTK	Aktyubinsk	16.32	328	P	Pn	01 18 27.9	+0.7
AKTK				S	S	01 21 20.9	-12
AKTO	Aktyubinsk	16.32	328	P	Pn	01 18 27.9	+0.7
	0.3nm,0.3s,baz=131,slow=10,SNR=7.2						
AKTO				S	S	01 21 20.9	-12
	0.1nm,0.3s,baz=195,slow=23,SNR=3.3						
ZALV	Zalesovo Beam	19.07	25	P	P	01 18 59.9	+1.6
	0.2nm,0.3s,baz=230,slow=11,SNR=6.6						
SONM	Songino Array	27.61	56	P	P	01 20 20.8	-0.7
	0.2nm,0.6s,mb2.8,baz=268,slow=7.9,SNR=3.2						
FINES	FINESS Array B	37.06	325	P	P	01 21 44.6	+0.9
	0.3nm,0.3s,mb3.6,baz=116,slow=8.7,SNR=4.7						
NB2	NORSAR Subarra	44.00	323	P	P	01 22 41.3	+0.6
	comp=Z,0.8nm,0.6s,mb3.6,baz=94,slow=7.9						
NOA	NORSAR Array B	44.00	323	P	P	01 22 41.6	+0.9
	comp=Z,0.5nm,0.5s,mb3.5,baz=95,slow=7.7,SNR=2.8						
TORD	Torodi Ar. Bea	66.10	269	P	P	01 25 18.7	-1.5
	comp=Z,0.3nm,0.8s,mb3.1,baz=48,slow=5.7,SNR=5.2						

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*CASC **11** 01:18:21.1±3.4, 11.69N×87.98W, h0^{km}±7^{km}, MD4.0, ML3.3*

*IDC **11** 01:18:24.4±2.0, 12.10N×87.25W, h0^{km}, mb3.6/6, mb1 3.8/7, mb1mx3.7/18, mbtmp3.6/7, ML2.9/2, Error ellipse: s-maj=54.2km s-min=21.4km az=42.0*

*ISCJB **11** 01:18:27.8±1.1, 11.76N±0.07×87.6W±0.1, h62^{km}±12^{km}, mb3.6/6, Error ellipse: s-maj=19.1km s-min=8.3km az=148.2*

*NEIC **11** 01:18:27.7±1.4, 11.79N×87.56W, h35^{km}, Error ellipse: s-maj=31.0km s-min=14.6km az=219.0*

ISC 11 01:18:29.7±1.0, 11.83N±0.07×87.54W±0.09, h58^{km}±11^{km}, n36, σ1^{s}01/35, mb3.6/6, 5C-3D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
COPN	Copaltepe	0.99	69	⇓eP	Pn	01 18 47.5	0.0
TEL3	Telica 3	1.00	42	⇑eP	Pn	01 18 47.7	0.0
TELN	Telica	1.04	42	⇑eP	Pn	01 18 48.1	0.0
MOMJ	Momotombo	1.13	59	⇑eP	Pn	01 18 49.2	-0.2
XAVN	Gruta Xavier	1.23	75	⇓eP	Pn	01 18 50.6	0.0
TISN	Laguna Tiscapa	1.28	76	eP	Pn	01 18 51.2	-0.1
TICN	Ticuantepe	1.29	81	eP	Pn	01 18 51.9	+0.4
TICN				eS	Sn	01 19 18.2	+10
MGAN	Managua	1.30	76	eP	Pn	01 18 52.1	+0.4
MGAN				i		01 19 12.7	
	comp=N,352nm,0.4s						
HUEN		1.43	69	⇑eP	Pn	01 18 53.1	-0.3
APON	Apoyo	1.44	86	eP	Pn	01 18 53.6	+0.1
CNCH	Conchagua	1.47	349	eP	x	01 19 08.8	
CNCH				eS	x	01 19 31.8	
BLLM	Bellamira	1.74	337	eP	x	01 19 11.8	
BLLM				eS	x	01 19 38.7	
VSM	San Miguel	1.75	336	eP	x	01 19 19.1	
VSM				eS	x	01 19 46.0	
BOAB	BOACO BROADBAN	1.93	71	⇑eP	Pn	01 18 59.6	-0.5
TGUH	Tegucigalpa,Un	2.23	7	ePn	Pn	01 19 04.7	+0.5
TGUH				eSn	Sn	01 19 16.9	-14
LCBS	La Ceiba	2.30	322	eP	x	01 19 19.3	
LCBS				eS	x	01 19 50.5	
LFRS	El Faro	2.32	320	eP	x	01 19 18.5	
LFRS				eS	x	01 19 46.8	
SNJE	San Jose	2.86	315	eP	x	01 19 25.9	
SNJE				eS	x	01 19 59.3	
JTS	JuntasAbangare	2.96	121	ePn	Pn	01 19 13.0	-1.3
JTS				eSn	Sn	01 19 46.3	-2.3
JTS	JuntasAbangare	2.96	121	Pn	Pn	01 19 12.4	-1.9
	comp=N,0.8nm,0.3s,baz=338,slow=19,SNR=3.9						
JTS				Sn	Sn	01 19 46.9	-1.7
	comp=N,6.4nm,0.3s,baz=294,slow=19,SNR=8.4						
JCR	Jicaral	3.09	129	eP	Pn	01 19 14.2	-1.8
PRS1	Puriscal	3.66	120	eP	Pn	01 19 25.9	+2.1
LAJ	Bijagual	3.88	120	eP	Pn	01 19 22.7	-4.2
LCR2	La Lucha 2	4.04	120	eP	Pn	01 19 30.3	+1.2
QCR	Quepos	4.09	125	eP	Pn	01 19 29.6	-0.1
URSC	Urasca	4.19	118	⇓eP	Pn	01 19 33.2	+2.1
URSC				eS	Sn	01 20 24.0	+5.2
BAR1		4.89	121	eP	Pn	01 19 41.1	+0.5
CMIG	Matias Romero	8.83	307	Pn	Pn	01 20 33.5	-1.2
CMIG	Matias Romero	8.83	307	Pn	Pn	01 20 33.5	-1.2
	comp=N,0.2nm,0.3s,baz=7.1,slow=8.1,SNR=3.7						
TXAR	Lajitas Array	23.00	322	P	P	01 23 30.7	+1.0
	comp=N,0.6nm,0.5s,mb3.3,baz=136,slow=9.6,SNR=11						
TKL	Tuckaleechee C	23.97	8	P	P	01 23 38.1	-0.6
	comp=N,2.2nm,0.7s,mb3.7,baz=144,slow=8.7,SNR=4.0						
PDAR	Pinedale Array	36.28	332	P	P	01 25 30.7	+3.2
	comp=N,0.3nm,0.6s,mb3.4,baz=133,slow=9.2,SNR=3.6						
ULM	Lac du Bonnet	38.92	351	P	P	01 25 48.7	-1.0
	comp=N,0.9nm,0.5s,mb3.8,baz=171,slow=11,SNR=5.4						
SCHQ	Schefferville	45.90	17	P	P	01 26 45.8	-0.5
	comp=N,1.7nm,1.0s,mb3.9,baz=220,slow=7.9,SNR=4.3						
YKA	Yellowknife Ar	54.19	345	P	P	01 27 49.3	+0.3
YKA	Yellowknife Ar	54.19	345	P	P	01 27 49.3	+0.3
	comp=N,0.4nm,0.9s,mb3.3,baz=152,slow=6.8,SNR=6.2						

CASC 11 01:21:31.3±11.0, 7.88N×82.42W, h10^{km}, MD3.7, 1D, South of Panama

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DVD	David	0.56	357	eP	Pg	01 21 51.8	+10
CNI	Changuinola	1.53	356	eP	Pn	01 22 04.6	+5.8
BAR1		1.62	327	eP	Pn	01 22 01.6	+1.7
BAR1				eS	Sn	01 22 16.1	-4.8
AZU	Azuero	2.12	92	eS	Sn	01 22 25.0	-8.3
QCR	Quepos	2.31	312	eP	Pn	01 22 10.6	+1.1
QCR				eS	Sn	01 22 32.7	-5.3
URSC	Urasca	2.37	325	eP	Pn	01 22 13.6	+3.4
URSC				eS	Sn	01 22 36.8	-2.5
LCR2	La Lucha 2	2.43	320	eP	Pn	01 22 13.9	+2.8
LCR2				eS	Sn	01 22 37.6	-3.2
PRS1	Puriscal	2.81	318	eP	Pn	01 22 18.7	+2.4
PRS1				eS	Sn	01 22 44.9	-5.4
PTP	Ponta Puerca	19.32	56	⇓iP		01 21 45.0	

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*ISCJB **11** 01:57:51.9±0.8, 17.2N±0.1×46.6W±0.1, h10^{km}, mb4.3/16, MS3.8/9, Error ellipse: s-maj=20.3km s-min=15.7km az=176.6*

*IDC **11** 01:57:52.4±1.0, 17.12N×46.56W, h0^{km}, mb3.8/8, mb1 4.2/9, mb1mx3.9/21, mbtmp3.9/9, ML5.8/1, MS3.8/9, Ms1 3.8/9, ms1mx3.4/24, Error ellipse: s-maj=29.9km s-min=21.7km az=5.0*

*NEIC **11** 01:57:53.3±0.7, 17.03N×46.55W, h10^{km}, mb4.6/9, Error ellipse: s-maj=17.8km s-min=13.9km az=176.0*

ISC 11 01:57:53.8±0.8, 17.1N±0.1×46.6W±0.1, h10^{km}, n24, σ0^{s}89/21, mb4.3/16, MS3.8/9, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SJG	San Juan	18.71	276	eP	Pn	02 02 11.5	-1.5
	22nm,1.3s						
SJG	San Juan	18.71	276	P	Pn	02 02 12.0	-1.0
	0.6nm,0.3s,baz=54,slow=9.7,SNR=3.4						
ROSC	El Rosal	29.82	249	LR	LR	02 15 30.9	
	comp=Z,99nm,21.6s,MS3.4,baz=26,slow=36						
OTAV	Otavalo	35.61	245	eP	P	02 04 52.5	+0.5
	24nm,1.8s,mb4.8						
LPAZ	La Paz	39.43	214	eP	P	02 05 23.1	-1.1
	7.0nm,1.1s,mb4.3						
LPAZ				LR	LR	02 20 38.0	
LPAZ	La Paz	39.43	214	P	P	02 05 25.1	+0.8
	4.0nm,1.1s,mb4.1,baz=32,slow=8.4,SNR=8.0						
LPAZ				LR	LR	02 20 38.0	
	comp=Z,76nm,21.6s,MS3.5,baz=32,slow=35						
ESDC	Sonseca Array	43.16	50	LR	LR	02 21 25.2	
	comp=Z,151nm,18.6s,MS3.9,baz=325,slow=33						
TORD	Torodi Ar. Bea	46.65	88	P	P	02 06 21.6	-1.3
	1.0nm,0.8s,mb3.8,baz=294,slow=8.7,SNR=5.9						
TORD				LR	LR	02 23 09.5	
	comp=Z,160nm,20.0s,MS4.0,baz=290,slow=32						
ULM	Lac du Bonnet	51.36	321	P	P	02 06 58.1	-0.4
	1.6nm,0.5s,mb4.2,baz=134,slow=6.5,SNR=6.0						
ULM				LR	LR	02 25 15.1	
	comp=Z,91nm,19.5s,MS3.8,baz=89,slow=32						
TXAR	Lajitas Array	53.42	294	P	P	02 07 14.4	+0.2
	2.1nm,1.1s,mb4.0,baz=105,slow=7.9,SNR=7.0						
TXAR				LR	LR	02 27 52.6	
	comp=Z,112nm,20.9s,MS3.9,baz=200,slow=34						
ISCO	Idaho Springs	55.58	307	eP	P	02 07 29.4	-0.3
	4.8nm,1.0s,mb4.5						
PDAR	Pinedale Array	58.83	310	P	P	02 07 53.1	+0.5
	2.2nm,1.0s,mb4.2,baz=99,slow=6.6,SNR=14						
PDAR				LR	LR	02 29 52.5	
	comp=Z,132nm,18.6s,MS4.1,baz=64,slow=33						
GCMT	Greycliff	59.23	313	eP	P	02 07 54.9	-0.5
TUC	Tucson	59.49	298	eP	P	02 07 58.4	+0.9
	4.6nm,1.2s,mb4.4						
WUAZ	Wupatki	59.93	301	eP	P	02 08 02.1	+1.7
	11nm,1.2s,mb4.8						
IMW	Indian Meadow	59.94	311	eP	P	02 08 00.3	0.0
	8.4nm,1.1s,mb4.7						
HWUT	Hardware Ranch	60.23	308	eP	P	02 08 02.5	+0.1
	5.8nm,1.0s,mb4.6						
BOZ	Bozeman (W)	60.58	313	eP	P	02 08 04.0	-0.7
	2.6nm,0.8s,mb4.4						
YKA	Yellowknife Ar	64.84	332	P	P	02 08 32.2	-0.5
YKA				LR	LR	02 33 13.6	
YKA	Yellowknife Ar	64.84	332	P	P	02 08 32.2	-0.5
	0.5nm,0.8s,mb3.6,baz=106,slow=7.1,SNR=8.9						
YKA				LR	LR	02 33 13.6	
	comp=Z,67nm,19.0s,MS3.9,baz=135,slow=33						
NVAR	Mina Array Bea	65.40	305	P	P	02 08 37.5	+0.7
	0.3nm,0.7s,mb3.4,baz=77,slow=7.3,SNR=3.8						
BRTR	Keskin Array B	71.82	53	P	P	02 09 18.9	+1.9
	0.5nm,0.8s,mb3.5,baz=236,slow=6.9,SNR=3.2						
INK	Inuvik	73.12	337	eP	P	02 09 23.1	-1.0
	64nm,0.8s,mb5.6						
KMBO	Kilima Mbogo	84.40	93	LR	LR	02 47 29.4	
	comp=Z,72nm,18.2s,MS4.1,baz=281,slow=35						

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*ISCJB **11** 02:02:09.8±1.8, 35.41N±0.04×30.93E±0.05, h8^{km}±14^{km}, Error ellipse: s-maj=8.9km s-min=5.0km az=42.3*

*CSEM **11** 02:02:10.8±0.3, 35.48N×31.04E, h10^{km}, Mw3.3, Error ellipse: s-maj=9.5km s-min=4.6km az=36.0*

*NIC **11** 02:02:10.3±0.3, 35.74N×30.93E, h46^{km}, ML3.5, MW3.3*

*DDA **11** 02:02:12.8, 35.56N×31.10E, h8^{km}±2^{km}, Md3.6*

*HLW **11** 02:02:40.4, 33.56N×31.77E, h33^{km}, Mb2.9*

ISC 11 02:02:11.1±1.1, 35.44N±0.04×30.98E±0.04, h8^{km}±8^{km}, n18, σ1^{s}06/29, 1C-4D, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AKMC	Akamas	1.18	110	⇓iP	Pg	02 02 32.4	-1.3
AKMC				S	Sg	02 02 50.4	+1.4
PPCY	Paphos	1.25	116	P	Pg	02 02 33.9	-1.1
PPCY				S	Sg	02 02 52.7	+1.5
ALFC	Alevga	1.35	102	P	Pn	02 02 34.5	-1.7
	7.1nm,0.2s						
ALFC				S	Sb	02 02 53.1	-0.9
AKAS	Kas	1.37	306	i P	Pn	02 02 37.7	+1.2
SZAC	Souni-Zanaja	1.70	113	P	Pn	02 02 40.7	-0.3
	4.1nm,0.5s						
SZAC				S	Sn	02 03 03.5	+0.6
MAMC	Mammari	1.85	98	P	Pn	02 02 41.4	-1.6
ERMK	Ermenek	1.97	52	i P	Pn	02 02 44.6	-0.1
ERMK				i S	Sn	02 03 10.0	+0.5
GOLH	Golhisar	2.13	328	i P	Pn	02 02 47.5	+0.6
GOLH				i S	Sn	02 03 14.4	+0.9
KDHN	Kadinhani	3.21	16	i P	Pn	02 03 01.9	+0.2
KDHN				i S	Sn	02 03 38.1	-1.9
BDRM	Kayabasi	3.29	301	i P	Pn	02 03 03.1	+0.3
BDRM				i S	Sn	02 03 36.8	-5.3
ESKT	Eskisehir	4.07	359	i P	Pn	02 03 14.1	+0.5
ESKT				i S	Sn	02 03 60.0	-1.4
SEYT	Eskypehyr	4.07	359	i P	Pn	02 03 14.1	+0.5
SEYT				i S	Sn	02 04 00.0	-1.4
COBT	Iskenderun	4.41	74	i P	Pn	02 03 19.5	+1.3
COBT				i S	Sn	02 04 12.2	+2.5
AMAG	Maghara	5.14	158	⇑P	Pn	02 03 27.9	-0.4
HHAG	Hagoal	5.55	170	⇓P	Pn	02 03 34.1	+0.1
SUZ		5.80	164	⇓P	Pn	02 03 37.1	-0.2
GLL	Jalalah	5.88	174	⇓P	Pn	02 03 38.7	+0.3
HNKL	Nakhl	6.05	154	P	Pn	02 03 40.2	-0.6

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*ISCJB **11** 02:04:51.1±1.6, 34.93N±0.05×27.21E±0.06, h11^{km}±13^{km}, Error ellipse: s-maj=8.9km s-min=6.9km az=138.5*

*HLW **11** 02:04:51.3, 35.17N×27.02E, h33^{km}, Mb3.2*

*CSEM **11** 02:04:54.8±0.2, 34.86N×27.31E, h40^{km}, MD3.4, Error ellipse: s-maj=8.6km s-min=4.6km az=40.0*

*NEIC **11** 02:04:57.4, 35.59N×26.96E, h26^{km}, MD3.4(ATH), After ATH.*

*ATH **11** 02:04:57.4, 35.59N×26.96E, h26^{km}±4^{km}, MD3.4/4*

ISC 11 02:04:53.0±1.6, 35.02N±0.05×27.18E±0.06, h14^{km}±13^{km}, n27, σ0^{s}80/30, 5D, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KARP	Karpathos	0.53	359	ePb	Pb	02 05 02.9	-1.1
KARP	Karpathos	0.53	359	ePB	Pb	02 05 02.9	-1.1
NPS	Neapolis	1.30	281	ePn	Pg	02 05 18.8	+0.8
NPS				eSn	Sn	02 05 34.9	+0.9
NPS	Neapolis	1.30	281	ePN	Pg	02 05 18.8	+0.8
NPS				eSN	Sn	02 05 34.9	+0.9
NPS	Neapolis	1.30	281	ePn	Pg	02 05 18.8	+0.8
NPS				eSn	Sn	02 05 34.9	+0.9
ARG	Arkhangelos	1.42	33	ePn	Pn	02 05 19.3	+0.9
ARG	Arkhangelos	1.42	33	ePN	Pn	02 05 19.3	+0.9
ARG	Arkhangelos	1.42	33	ePn	Pn	02 05 19.3	+0.9
DAT	Datca	1.74	11	PN	Pn	02 05 23.1	+0.4
BODT	Bodrum	2.04	3	ePN	Pn	02 05 26.3	-0.6
BDRM	Kayabasi	2.05	6	i P	Pn	02 05 26.5	-0.5
DALT	Dalyan (Mudla)	2.11	34	ePN	Pn	02 05 27.7	-0.1
FETY	Fethiye	2.24	43	ePN	Pn	02 05 29.1	-0.5
YER	Yerkesik	2.29	23	ePN	Pn	02 05 30.3	0.0
AKAS	Kas	2.32	58	i P	Pn	02 05 31.1	+0.4
MLSB	Milas	2.32	12	ePN	Pn	02 05 30.7	0.0
APE	Apeiranthos	2.44	327	ePn	Pn	02 05 30.0	-2.4
APE	Apeiranthos	2.44	327	ePN	Pn	02 05 30.0	-2.4
APE	Apeiranthos	2.44	327	ePn	Pn	02 05 30.0	-2.4
GOLH	Golhisar	2.94	40	i P	Pn	02 05 40.0	+0.8
ERMK	Ermenek	4.93	69	i P	Pn	02 06 08.3	+1.7
KDHN	Kadinhani	5.29	47	i P	Pn	02 06 11.9	+0.4
HSAF	As Saff	6.54	144	⇓P	Pn	02 06 28.4	-0.3
GLL	Jalalah	6.64	143	⇓P	Pn	02 06 29.6	-0.6
AMAG	Maghara	6.69	129	⇓P	Pn	02 06 30.6	-0.3
SUZ		7.04	136	⇓P	Pn	02 06 35.8	+0.2
HNKL	Nakhl	7.67	130	⇓P	Pn	02 06 43.7	-0.6

CASC 11 02:27:42.1±1.2, 8.42N×82.98W, h1^{km}±5^{km}, MD3.9, 2C-1D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BAR1		0.88	338	eP	Pg	02 27 58.7	-0.3
BAR1				eS	Sg	02 28 11.9	+1.6
CNI	Changuinola	1.09	25	⇓iP	Pg	02 28 03.2	+0.2
QCR	Quepos	1.53	311	⇑eP	Pn	02 28 09.7	-0.9
QCR				eS	Sn	02 28 31.6	+0.4
URSC	Urasca	1.61	331	eP	Pn	02 28 11.4	-0.3
URSC				eS	Sn	02 28 34.0	+0.9
LCR2	La Lucha 2	1.65	323	eP	Pn	02 28 11.8	-0.4
LCR2				eS	Sn	02 28 36.2	+2.0
ICR	Volcan Irazu	1.76	332	eP	Pn	02 28 17.9	+4.2
LAJ	Bijagual	1.82	322	eP	Pn	02 28 17.8	+3.2
PRS1	Puriscal	2.03	320	eP	Pn	02 28 17.1	-0.4
PRS1				eS	Sn	02 28 44.3	+0.8
CGA2	Cerro Gallo 2	2.16	317	eP	Pn	02 28 20.0	+0.8
CGA2				eS	Sn	02 28 44.0	-2.6
PTP	Ponta Puerca	19.49	58	⇑iP		02 27 47.3	

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*ISCJB **11** 02:30:33.7±0.5, 38.06N±0.03×38.77E±0.04, h4^{km}, Error ellipse: s-maj=4.6km s-min=3.5km az=30.0*

*CSEM **11** 02:30:33.0±0.2, 38.05N×38.78E, h4^{km}±1^{km}, MD3.2, Error ellipse: s-maj=3.5km s-min=2.5km az=91.0*

*DDA **11** 02:30:33.9, 38.10N×38.68E, h7^{km}±2^{km}, Md3.4*

*ISK **11** 02:30:33.2, 38.05N×38.76E, h4^{km}, MD3.2*

ISC 11 02:30:34.3±0.5, 38.07N±0.03×38.79E±0.05, h5^{km}±8^{km}, n20, σ0^{s}72/29, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MALT	Malatya	0.38	311	i PG	Pg	02 30 41.2	-0.4
MALT				i SG	Sg	02 30 46.7	+0.2
MALT	Malatya	0.38	311	i Pg	Pg	02 30 41.2	-0.4
MALT				i Sg	Sg	02 30 46.7	+0.2
MYA	Malataya	0.39	313	i PG	Pg	02 30 41.8	0.0
MYA	Malataya	0.39	313	i Pg	Pg	02 30 41.8	0.0
ELZG	Elazig	0.46	20	i P	Pg	02 30 43.4	+0.3
ELZG				i S	Sg	02 30 50.0	+0.9
URFA	Urfa	0.62	177	i PG	Pg	02 30 45.2	-1.1
URFA				i SG	Sg	02 30 54.9	+0.5
URFA	Urfa	0.62	177	i Pg	Pg	02 30 45.2	-1.1
URFA				i Sg	Sg	02 30 54.9	+0.5
ATAB	Bozova	0.71	213	i P	Pg	02 30 47.8	-0.1
ATAB				i S	Sg	02 30 57.3	+0.2
PTK	Pertek	0.95	30	PG	Pg	02 30 52.2	-0.4
PTK	Pertek	0.95	30	ePg	Pg	02 30 52.2	-0.4
DIY	Diyarbakir	1.15	98	PN	Pn	02 30 56.1	-0.9
DIY	Diyarbakir	1.15	98	ePn	Pn	02 30 56.1	-0.9
GZT	Gaziantep	1.20	234	i P	Pg	02 30 56.5	-0.8
GZT				i S	Sg	02 31 13.8	+0.9
GAZ	Gaziantep	1.54	235	ePN	Pn	02 31 01.8	-0.5
GAZ	Gaziantep	1.54	235	ePn	Pn	02 31 01.8	-0.5
BINT	Bingol	1.56	58	ePN	Pn	02 31 03.2	+0.5
BINT	Bingol	1.56	58	ePn	Pn	02 31 03.2	+0.5
MARD	Mardin	1.75	115	i P	Pn	02 31 05.3	+0.1
MARD				i S	Sn	02 31 29.4	+1.5
BTMT	Batman	2.13	86	ePN	Pn	02 31 09.4	-1.1
COBT	Iskenderun	2.54	233	i P	Pg	02 31 22.3	-0.7
COBT				i S	Sg	02 31 56.8	+0.9

CASC 11 02:45:59.3±1.4, 8.21N×82.93W, h14^{km}±8^{km}, MD3.9, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DVD	David	0.52	65	eP	Pg	02 46 09.2	-0.4
BAR1		1.09	340	eP	Pb	02 46 18.4	-1.6
BAR1				eS	Sb	02 46 33.6	-0.4
QCR	Quepos	1.71	315	eP	Pn	02 46 27.2	-1.5
QCR				eS	Sn	02 46 50.9	+0.4
LCR2	La Lucha 2	1.85	325	eP	Pn	02 46 30.8	+0.1
LCR2				eS	Sn	02 46 54.8	+0.9
PRS1	Puriscal	2.23	322	eP	Pn	02 46 36.1	+0.3
PRS1				eS	Sn	02 47 03.4	+0.3

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*IDC **11** 02:49:04.3±0.8, 6.80S×130.36E, h0^{km}, mb4.2/9, mb1 4.4/12, mb1mx4.3/19, mbtmp4.4/12, ML4.9/4, Error ellipse: s-maj=27.1km s-min=15.8km az=76.0*

*ISCJB **11** 02:49:07.5±0.4, 6.93S±0.05×130.42E±0.08, h33^{km}, mb4.4/18, Error ellipse: s-maj=12.7km s-min=5.8km az=157.3*

*NEIC **11** 02:49:09.9±0.5, 6.91S×130.39E, h35^{km}, mb4.2/10, Error ellipse: s-maj=14.0km s-min=8.4km az=66.0*

ISC 11 02:49:10.0±0.4, 6.93S±0.05×130.42E±0.08, h35^{km}, n41, σ0^{s}99/46, mb4.4/18, 2D, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	6.08	161	⇓iP	Pn	02 50 41.3	+3.9
	322nm,0.6s						
KAKA				eS	Sn	02 51 44.9	-1.0
FITZ	Fitzroy Crossi	12.04	202	eP	Pn	02 51 59.8	+0.6
	41nm,0.3s						
FITZ				eS	Sn	02 54 04.6	-7.8
FITZ	Fitzroy Crossi	12.04	202	Pn	Pn	02 51 59.9	+0.7
	10nm,0.3s,baz=31,slow=11,SNR=148						
FITZ				Sn	Sn	02 54 03.8	-8.5
	17nm,0.3s,baz=144,slow=23,SNR=19						
WRA	Warramunga Arr	13.49	164	Pn	Pn	02 52 18.2	-0.7
WRA				Sn	Sn	02 54 41.0	-6.6
WRA	Warramunga Arr	13.49	164	Pn	Pn	02 52 18.2	-0.7
	12nm,0.3s,baz=335,slow=14,SNR=53						
WRA				Sn	Sn	02 54 41.0	-6.6
	8.2nm,0.3s,baz=331,slow=21,SNR=14						
WB2	Warramunga Arr	13.49	164	⇓iP	Pn	02 52 17.3	-1.7
WB2				eS	Sn	02 54 39.8	-7.9
PMG	Port Moresby	16.75	100	eP	Pn	02 53 03.7	+1.7
	18nm,0.9s						
PMG	Port Moresby	16.75	100	Pn	Pn	02 53 03.4	+1.3
	2.0nm,0.3s,baz=307,slow=6.8,SNR=6.1						
ASAR	Alice Springs	16.98	169	P	Pn	02 53 04.1	-0.7
	8.8nm,0.3s,baz=342,slow=10.0,SNR=484						
ASAR				S	S	02 56 01.9	-20
	0.7nm,0.3s,baz=338,slow=17,SNR=5.4						
MBWA	Marble Bar	17.52	215	eP	Pn	02 53 12.4	+0.7
	16nm,0.3s						
CTA	Charters Tower	20.18	132	eP	P	02 53 43.9	+2.3
	3.0nm,0.6s						
CTA	Charters Tower	20.18	132	P	P	02 53 43.8	+2.1
	3.9nm,0.6s,baz=301,slow=12,SNR=7.4						
CTA				S	S	02 57 27.0	+0.6
	3.4nm,0.8s,baz=49,slow=20,SNR=2.8						
CTAO	Charters Tower	20.18	132	eP	P	02 53 43.5	+1.9
	3.7nm,0.7s						
FORT	Forrest	23.83	185	eP	pP	02 54 31.0	+1.1
	27nm,0.6s						
STKA	Stephens Creek	26.93	159	P	P	02 54 48.4	+0.4
STKA	Stephens Creek	26.93	159	P	P	02 54 48.4	+0.4
	1.0nm,0.4s,mb3.7,baz=321,slow=14,SNR=3.2						
KLBR	Kellerberrin	27.24	204	eP	P	02 54 51.7	+0.8
	60nm,1.8s,mb4.8						
NWAO	Narrogin (SRO)	28.62	204	P	P	02 55 02.9	-0.3
	3.3nm,0.5s,mb4.3,baz=73,slow=8.1,SNR=5.0						
KULM	Kulim	32.09	291	eP	P	02 55 36.1	+2.0
PSI	Prapat	32.89	286	P	P	02 55 40.2	-0.9
PSI	Prapat	32.89	286	P	P	02 55 40.2	-0.8
	4.7nm,0.6s,mb4.6,baz=91,slow=12,SNR=5.9						
MJAR	Matsushiro Arr	43.85	9	P	P	02 57 09.9	-2.9
	1.3nm,0.6s,mb3.8,baz=186,slow=9.0,SNR=4.2						
ASAJ	Asahikawa	51.98	11	P	P	02 58 14.1	-1.6
	4.8nm,0.6s,mb4.6,baz=209,slow=12,SNR=7.4						
LSA	Lhasa	52.43	316	eP	P	02 58 19.9	+0.6
	4.0nm,0.6s,mb4.5						
ODAN	Odare	53.52	311	eP	P	02 58 27.2	-0.2
	9.2nm,0.4s,mb5.0						
TAPN	Taplejung	53.55	311	eP	P	02 58 27.2	-0.4
	13nm,0.4s,mb5.2						
JIRN	Jiri	54.85	311	eP	P	02 58 36.9	-0.2
GUN	Gumba	55.22	311	eP	P	02 58 39.5	-0.2
	21nm,0.5s,mb5.4						
KKN	Kakani	55.61	310	eP	P	02 58 42.1	-0.4
	11nm,0.4s,mb5.2						
GKN	Gorkha	56.20	310	eP	P	02 58 46.3	-0.5
SONM	Songino Array	58.50	341	P	P	02 59 02.6	0.0
	0.3nm,0.4s,mb3.6,baz=164,slow=7.2,SNR=4.6						
MK31	Makanchi Array	68.39	327	eP	P	03 00 08.5	+0.5
MKAR	Makanchi Array	68.39	327	P	P	03 00 08.0	0.0
	2.0nm,0.4s,mb4.5,baz=115,slow=8.4,SNR=47						
TKM2	Tokmak 2	70.19	320	eP	P	03 00 19.9	+0.7
	1.2nm,0.7s,mb3.9						
AAK	Ala-Archa	70.75	320	eP	P	03 00 23.2	+0.5
	1.1nm,0.7s,mb3.9						
EKS2	Erkin-Say	71.23	319	eP	P	03 00 26.6	+1.0
	1.3nm,0.6s,mb4.0						
ZALV	Zalesovo Beam	71.70	334	P	P	03 00 26.9	-1.3
ZALV	Zalesovo Beam	71.70	334	P	P	03 00 26.9	-1.3
	0.6nm,0.5s,mb3.8,baz=112,slow=1.6,SNR=3.7						
QSPA	South Pole Qui	83.05	180	eP	P	03 01 31.0	-0.3
	2.2nm,0.6s,mb4.4						
TORD	Torodi Ar. Bea	129.20	281	PKP	PKPdf	03 08 13.4	-2.1
TORD	Torodi Ar. Bea	129.20	281	PKP	PKPdf	03 08 13.4	-2.1
	0.3nm,0.6s,baz=65,slow=2.3,SNR=7.9						

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*NEIC **11** 03:02:54.6, 17.01N×94.98W, h125^{km}, MD4.2(MEX), After MEX.*

MEX 11 03:02:54.7±1.0, 16.99N×95.00W, h125^{km}±8^{km}, MD4.2, 1C-1D, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.15	47	i P	Pn	03 03 10.4	-1.4
CMIG				i S	Sn	03 03 22.5	-2.2
CMIG	Matias Romero	0.15	47	⇓iP	Pn	03 03 10.5	-1.3

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
CMIG				*i* S	Sn	03 03 22.5	-2.2
HUIG	**Huatulco**	**1.61**	**221**	*i* P	Pn	03 03 21.8	-2.0
HUIG				*i* S	Sn	03 03 44.8	-1.2
HUIG	**Huatulco**	**1.61**	**221**	*i* P	Pn	03 03 21.8	-2.0
HUIG				*i* S	Sn	03 03 44.7	-1.3
OXX	**Oaxaca**	**1.65**	**273**	*i* P	Pn	03 03 24.5	+0.3
OXX				*i* S	Sn	03 03 46.5	-0.3
VHO	**Vista Hermosa**	**1.66**	**273**	*i* P	Pn	03 03 24.1	-0.2
VHO				*i* S	Sn	03 03 46.7	-0.2
VHO	**Vista Hermosa**	**1.66**	**273**	*i* P	Pn	03 03 24.1	-0.2
VHO				*i* S	Sn	03 03 45.9	-1.0
SCX	**San Cristobal**	**2.28**	**96**	*e*P	Pn	03 03 31.5	-0.3
SCX				*i* S	Sn	03 03 57.5	-2.8
TPIG	**Tehuac#an**	**2.67**	**303**	*i* P	Pn	03 03 35.2	-1.6
TPIG				*i* S	Sn	03 04 06.9	-2.3
UTMO	**Huajuapan**	**2.81**	**288**	*i* P	Pn	03 03 38.2	-0.4
UTMO				*i* S	Sn	03 04 09.7	-2.8
CCIG	**Comitan**	**2.83**	**104**	*i* P	Pn	03 03 38.7	-0.2
CCIG				*i* S	Sn	03 04 11.0	-2.0
CCIG	**Comitan**	**2.83**	**104**	*i* P	Pn	03 03 39.0	+0.1
CCIG				*i* S	Sn	03 04 11.9	-1.1
LVIG	**Laguna Verde**	**3.04**	**334**	*i* P	Pn	03 03 37.9	-3.8
LVIG				*i* S	Sn	03 04 11.0	-6.9
LVIG	**Laguna Verde**	**3.04**	**334**	*i* P	Pn	03 03 38.0	-3.6
LVIG				*i* S	Sn	03 04 11.0	-6.9
PNIG	**Pinotepa**	**3.06**	**259**	*i* P	Pn	03 03 39.5	-2.4
PNIG				*i* S	Sn	03 04 16.6	-1.7
PNIG	**Pinotepa**	**3.06**	**259**	⇑*i*P	Pn	03 03 39.8	-2.1
PNIG				*i* S	Sn	03 04 15.6	-2.8
IIO	**Organos**	**4.38**	**307**	*i* P	Pn	03 04 00.1	+0.6
IIO				*i* S	Sn	03 04 48.9	-0.9
MEIG	**Mezcala**	**4.51**	**283**	*i* P	Pn	03 04 00.5	-0.6
MEIG				*i* S	Sn	03 04 49.1	-3.6
PLIG	**Platanillo**	**4.52**	**289**	*i* P	Pn	03 04 01.4	+0.2
PLIG				*i* S	Sn	03 04 49.0	-4.0
PLIG	**Platanillo**	**4.52**	**289**	*i* P	Pn	03 04 00.6	-0.7
PLIG				*i* S	Sn	03 04 49.0	-4.0
ACX	**Acapulco**	**4.71**	**269**	*e*P	Pn	03 04 04.5	+0.6

MOS ***11*** *03:14:43.9±1.1, 36.28N×71.10E, h131^{km}, mb3.9/6, Error ellipse: s-maj=18.6km s-min=8.9km az=84.4*

IDC ***11*** *03:14:43.4±6.4, 36.21N×71.17E, h113^{km}±56^{km}, mb3.4/11, mb1 3.6/13, mb1mx3.4/24, mbtmp3.4/13, MS3.9/1, Ms1 3.9/1, ms1mx2.8/26, Error ellipse: s-maj=30.2km s-min=17.9km az=15.0*

ISCJB ***11*** *03:14:45.4±0.4, 36.44N±0.03×71.20E±0.05, h141^{km}±6^{km}, mb3.5/10, Error ellipse: s-maj=6.9km s-min=4.0km az=149.7*

NEIC ***11*** *03:14:46.2±0.8, 36.39N×71.21E, h134^{km}±7^{km}, mb3.9/5, Error ellipse: s-maj=12.2km s-min=8.3km az=131.0*

ISC 11 03:14:46.5±0.4**, 36.44N**±0.03×**71.22E**±0.05**, h131**^{km}±5^{km}**, n65, σ1^{s}07**/83**, mb3.5**/10**, 1C-2D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.59**	**224**	*e*Pn	**Pn**	**03 15 28.5**	**+0.6**
KBL				*e*Sn	**Sn**	**03 16 00.3**	**+0.6**
THN	**Thein Dam**	**5.46**	**136**	*e*P	**Pn**	**03 16 06.8**	**+1.1**
THN				*e*x	x	03 17 09.5	
DLH	**Dalhousie**	**5.52**	**133**	*e*P	**Pn**	**03 16 06.0**	**-0.6**
DLH				*e*S	**Sn**	**03 17 08.0**	**-1.0**
AML	**Almayashu**	**6.00**	**18**	P	**Pn**	**03 16 13.0**	**0.0**
	SNR=38						
AML	**Almayashu**	**6.00**	**18**	*e*Pn	**Pn**	**03 16 12.7**	**-0.3**
	38nm,0.4s						
AML				*e*Sn	**Sn**	**03 17 16.7**	**-3.7**
UCH	**Uchtor**	**6.32**	**23**	P	**Pn**	**03 16 17.3**	**+0.1**
	SNR=16						
UCH	**Uchtor**	**6.32**	**23**	*e*Pn	**Pn**	**03 16 17.2**	**0.0**
	2.3nm,0.3s						
UCH				*e*Sn	**Sn**	**03 17 24.2**	**-3.9**
KZA	**Kyzart**	**6.44**	**28**	P	**Pn**	**03 16 20.1**	**+1.2**
	SNR=13						
EKS2	**Erkin-Say**	**6.52**	**17**	P	**Pn**	**03 16 21.1**	**+1.1**
	SNR=18						
EKS2	**Erkin-Say**	**6.52**	**17**	*e*Pn	**Pn**	**03 16 19.6**	**-0.3**
	1.7nm,0.6s						
EKS2				*e*Sn	**Sn**	**03 17 30.8**	**-2.1**
KK31	**Karatay Array**	**6.68**	**356**	⇓P	**Pn**	**03 16 20.9**	**-1.2**
	11nm,0.5s,baz=184,slow=13,SNR=302						
KK31				S	**Sn**	**03 17 31.9**	**-4.8**
	2.0nm,0.2s,baz=185,slow=22,SNR=6.4						
AAK	**Ala-Archa**	**6.69**	**21**	P	**Pn**	**03 16 22.2**	**+0.1**
	SNR=13						
AAK	**Ala-Archa**	**6.69**	**21**	*e*Pn	**Pn**	**03 16 21.0**	**-1.2**
	2.4nm,0.4s						
AAK				*e*Sn	**Sn**	**03 17 33.5**	**-3.4**
AAK	**Ala-Archa**	**6.69**	**21**	*e*PN	**Pn**	**03 16 21.0**	**-1.1**
AAK				pmax	pmax		
	comp=Z,2.0nm,0.4s						
KBK	**Karagaybulak**	**6.85**	**24**	P	**Pn**	**03 16 25.1**	**+0.8**
	SNR=5.9						
SDNR	**Sundarnagar**	**6.86**	**134**	*e*P	**Pn**	**03 16 25.0**	**+0.4**
SDNR				*e*S	**Sn**	**03 17 40.0**	**-1.3**
USP	**Ospenovka**	**7.27**	**19**	P	**Pn**	**03 16 32.2**	**+2.1**
	SNR=6.8						
TKM2	**Tokmak 2**	**7.30**	**26**	P	**Pn**	**03 16 33.7**	**+3.2**
	SNR=23						
TKM2	**Tokmak 2**	**7.30**	**26**	*e*Pn	**Pn**	**03 16 31.9**	**+1.5**
	comp=Z,7.6nm,0.5s						
TKM2				*e*Sn	**Sn**	**03 17 46.6**	**-5.2**
TKM2	**Tokmak 2**	**7.30**	**26**	*e*PN	**Pn**	**03 16 31.9**	**+1.5**
TKM2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
JOSI	**Joshimath**	**9.10**	**128**	*e*P	**Pn**	**03 16 55.7**	**+0.9**
JOSI				*e*S	**Sn**	**03 18 32.6**	**-2.9**
KHET	**Khetri**	**9.20**	**154**	*e*P	**Pn**	**03 16 55.1**	**-1.0**
KHET				AMb	AMB	03 16 55.6	
	comp=Z,7.1nm,0.4s						
KHET				*e*S	**Sn**	**03 18 30.3**	**-7.5**
KUDL	**Kundal**	**9.39**	**150**	*e*P	**Pn**	**03 16 55.7**	**-3.0**
KUDL				AMb	AMB	03 16 58.8	
	comp=Z,8.0nm,0.4s						
KUDL				*e*S	**Sn**	**03 18 35.0**	**-7.6**
MK31	**Makanchi Array**	**13.24**	**35**	*e*Pn	**Pn**	**03 17 51.6**	**+2.4**
MKAR	**Makanchi Array**	**13.24**	**35**	P	**Pn**	**03 17 50.4**	**+1.1**
	comp=Z,0.2nm,0.3s,baz=222,slow=14,SNR=13						
KOLN	**Koldanda**	**13.59**	**126**	*e*P	**Pn**	**03 17 53.5**	**-0.3**
KOLN				*e*S	**Sn**	**03 20 16.6**	**-7.2**
GKN	**Gorkha**	**14.12**	**123**	*e*P	**Pn**	**03 18 00.5**	**-0.2**
	comp=Z,21nm,0.5s						
DMN	**Daman**	**14.69**	**123**	*e*P	**Pn**	**03 18 08.2**	**+0.3**
	comp=Z,10nm,0.3s						
KKN	**Kakani**	**14.70**	**122**	*e*P	**Pn**	**03 18 08.6**	**+0.7**
PKI	**Pulchoki**	**14.92**	**122**	*e*P	**Pn**	**03 18 10.9**	**+0.1**
GUN	**Gumba**	**15.04**	**120**	*e*P	**Pn**	**03 18 12.9**	**+0.7**
AB31	**Akbulak array**	**15.22**	**331**	⇑Pn	**Pn**	**03 18 13.0**	**-1.3**
	comp=Z,1.5nm,0.5s						
AB31				⇓Sn	**Sn**	**03 20 49.4**	**-14**
	comp=Z,1.5nm,0.7s						
JIRN	**Jiri**	**15.41**	**120**	*e*P	**Pn**	**03 18 18.1**	**+1.3**
JIRN				*e*S	**S**	**03 21 00.1**	**-14**
BRVK	**Borovoye**	**16.63**	**358**	*e*P	**Pn**	**03 18 32.1**	**+0.5**
	comp=Z,1.9nm,0.4s						
BRVK	**Borovoye**	**16.63**	**358**	*e*P	**Pn**	**03 18 32.1**	**+0.5**
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.4s						
TAPN	**Taplejung**	**16.66**	**118**	*e*P	**Pn**	**03 18 33.9**	**+1.7**
	comp=Z,8.0nm,0.4s						
TAPN				*e*S	**S**	**03 21 30.7**	**-7.3**
ODAN	**Odare**	**16.74**	**120**	*e*P	**Pn**	**03 18 34.8**	**+1.6**
	comp=Z,10nm,0.7s						
AKTK	**Aktyubinsk**	**16.92**	**330**	P	**Pn**	**03 18 35.3**	**+0.1**
AKTK				S	**S**	**03 21 34.4**	**-9.1**
AKTO	**Aktyubinsk**	**16.92**	**330**	P	**Pn**	**03 18 35.3**	**+0.1**
AKTO				S	**S**	**03 21 34.4**	**-9.1**
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO	**Aktyubinsk**	**16.92**	**330**	P	**Pn**	**03 18 35.3**	**+0.1**
	comp=Z,0.6nm,0.3s,baz=141,slow=10.0,SNR=22						
AKTO				S	**S**	**03 21 34.4**	**-9.1**
	comp=Z,0.1nm,0.3s,baz=119,slow=19,SNR=3.4						
ZAL	**Zalesovo**	**19.88**	**24**	P	**P**	**03 19 07.7**	**+0.4**
ZALV	**Zalesovo Beam**	**19.90**	**24**	P	**P**	**03 19 07.7**	**+0.3**
ZALV	**Zalesovo Beam**	**19.90**	**24**	P	**P**	**03 19 07.7**	**+0.3**
	comp=Z,4.8nm,0.4s,baz=220,slow=11,SNR=32						
NVS	**Novosibirsk**	**20.18**	**20**	*e*P	**P**	**03 19 10.6**	**+0.2**
NVS				pmax	pmax		
	comp=Z,3.0nm,0.6s						
NVS				pmax	pmax		
	comp=N,3.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,2.0nm,0.8s						
SONM	**Songino Array**	**28.23**	**55**	P	**P**	**03 20 26.4**	**-0.4**
	comp=E,0.2nm,0.4s,mb3.2,baz=340,slow=3.8,SNR=3.2						
AKASG	**Malin Array Be**	**33.12**	**309**	P	**P**	**03 21 09.5**	**-0.3**
AKASG	**Malin Array Be**	**33.12**	**309**	P	**P**	**03 21 09.5**	**-0.3**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKASG	**Malin Array Be**	**33.12**	**309**	P	**P**	**03 21 09.5**	**-0.3**
	comp=Z,1.8nm,0.6s,mb4.0,baz=82,slow=7.0,SNR=14						
AKBB	**Malin Array Si**	**33.12**	**309**	*e*P	**P**	**03 21 09.5**	**-0.3**
JOF	**Joensuu**	**36.01**	**330**	*e*p	**P**	**03 21 34.2**	**-0.3**
FINES	**FINESS Array B**	**37.63**	**326**	P	**P**	**03 21 48.4**	**+0.2**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	**FINESS Array B**	**37.63**	**326**	P	**P**	**03 21 48.4**	**+0.1**
	comp=Z,1.9nm,0.9s,mb3.7,baz=117,slow=7.7,SNR=13						
ARCES	**ARCESS Array B**	**41.27**	**338**	P	**P**	**03 22 19.0**	**+0.7**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES	**ARCESS Array B**	**41.27**	**338**	P	**P**	**03 22 18.9**	**+0.7**
	comp=Z,1.9nm,0.7s,mb3.9,baz=117,slow=8.0,SNR=10						
NB2	**NORSAR Subarra**	**44.53**	**323**	P	**P**	**03 22 44.1**	**-0.6**
	comp=Z,1.0nm,0.5s,mb3.7,baz=99,slow=7.9						
NOA	**NORSAR Array B**	**44.53**	**323**	P	**P**	**03 22 44.3**	**-0.4**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
NOA	**NORSAR Array B**	**44.53**	**323**	P	**P**	**03 22 44.3**	**-0.3**
	comp=Z,0.9nm,0.4s,mb3.8,baz=101,slow=7.8,SNR=8.0						
JOW	**Kunigami**	**48.90**	**84**	LR	LR	03 45 43.0	
	comp=Z,144nm,20.8s,baz=287,slow=38						
TORD	**Torodi Ar. Bea**	**65.89**	**269**	P	**P**	**03 25 16.8**	**-1.6**
	comp=Z,0.3nm,0.3s,mb3.5,baz=51,slow=5.9,SNR=9.8						
INK	**Inuvik**	**73.94**	**9**	P	**P**	**03 26 07.4**	**+0.6**
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	**Inuvik**	**73.94**	**9**	P	**P**	**03 26 07.4**	**+0.6**
	comp=Z,0.6nm,0.5s,mb3.6,baz=341,slow=4.1,SNR=4.8						
YKA	**Yellowknife Ar**	**81.30**	**3**	P	**P**	**03 26 47.7**	**0.0**
YKA	**Yellowknife Ar**	**81.30**	**3**	P	**P**	**03 26 47.7**	**0.0**
	comp=Z,0.3nm,0.4s,mb3.3,baz=351,slow=5.4,SNR=9.3						
WRA	**Warramunga Arr**	**81.81**	**122**	P	**P**	**03 26 49.7**	**-1.3**
	comp=Z,0.4nm,0.8s,mb3.1,baz=326,slow=4.8,SNR=3.2						
ASAR	**Alice Springs**	**84.08**	**125**	P	**P**	**03 27 01.5**	**-1.0**
	comp=Z,0.2nm,0.7s,mb3.0,baz=305,slow=5.5,SNR=4.1						

ISCJB ***11*** *03:40:30.9±1.1, 20.91S±0.10×178.6W±0.1, h573^{km}±16^{km}, mb4.2/18, Error ellipse: s-maj=17.8km s-min=11.2km az=44.4*

NEIC ***11*** *03:40:33.4±1.0, 20.88S×178.54W, h597^{km}±11^{km}, mb4.2/9, Error ellipse: s-maj=15.9km s-min=10.3km az=147.0*

IDC ***11*** *03:40:33.3±1.4, 20.91S×178.55W, h588^{km}±13^{km}, mb3.6/10, mb1 3.7/13, mb1mx3.5/19, mbtmp3.6/13, Error ellipse: s-maj=17.1km s-min=14.9km az=118.0*

ISC 11 03:40:33.2±1.2**, 20.9S**±0.1×**178.6W**±0.1**, h589**^{km}±15^{km}**, n71, σ0^{s}92**/30**, mb4.2**/18**, 8C-8D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**9.53**	**44**	P	**P**	**03 42 46.5**	**-0.7**
	4.2nm,0.3s,baz=191,slow=5.2,SNR=4.1						
AFI				S	**S**	**03 44 31.6**	**-5.6**
	6.6nm,0.3s,baz=28,slow=23,SNR=8.2						
DZM	**Mont Dzumac**	**13.99**	**263**	P	**P**	**03 43 34.3**	**+2.2**
	0.8nm,0.3s,baz=75,slow=17,SNR=8.1						
URZ	**Urewera**	**17.67**	**191**	P	**P**	**03 44 04.9**	**-1.2**
	1.3nm,0.3s,baz=4.1,slow=5.0,SNR=12						
CTA	**Charters Tower**	**32.91**	**265**	*e*P	**P**	**03 46 21.0**	**+0.6**
	12nm,0.4s,mb4.9						
CTA	**Charters Tower**	**32.91**	**265**	P	**P**	**03 46 21.1**	**+0.7**
	16nm,0.5s,mb4.9,baz=95,slow=11,SNR=21						
CTAO	**Charters Tower**	**32.91**	**265**	*e*P	**P**	**03 46 20.9**	**+0.4**
	14nm,0.8s,mb4.7						
PMG	**Port Moresby**	**34.91**	**284**	P	**P**	**03 46 37.2**	**-0.1**
	16nm,0.7s,mb4.8,baz=78,slow=8.5,SNR=8.0						
STKA	**Stephens Creek**	**37.11**	**245**	P	**P**	**03 46 54.7**	**-0.4**
	3.0nm,0.6s,mb4.0,baz=314,slow=24,SNR=3.8						
ASAR	**Alice Springs**	**43.89**	**257**	P	**P**	**03 47 49.2**	**+0.2**
	16nm,0.8s,mb4.6,baz=98,slow=7.5,SNR=189						
ASAR				ScP	ScP	03 52 18.9	+0.7
	0.7nm,0.6s,baz=98,slow=4.7,SNR=6.8						
ASAR				S	**S**	**03 53 35.7**	**-3.0**
	4.3nm,0.9s,baz=94,slow=16,SNR=22						
WB2	**Warramunga Arr**	**43.99**	**263**	*e*P	**P**	**03 47 48.5**	**-1.4**
WB2				*e*S	**S**	**03 53 35.9**	**-4.3**
WRA	**Warramunga Arr**	**44.01**	**263**	P	**P**	**03 47 49.5**	**-0.4**
	11nm,0.6s,mb4.6,baz=97,slow=8.7,SNR=91						
KAKA	**Kakadu**	**47.44**	**272**	⇓*i*P	**P**	**03 48 15.6**	**-0.5**
	17nm,0.7s,mb4.7						
FORT	**Forrest**	**48.63**	**247**	*e*P	**P**	**03 48 24.4**	**-0.3**
	12nm,0.8s,mb4.4						
FITZ	**Fitzroy Crossi**	**52.43**	**263**	*e*P	**P**	**03 48 52.5**	**0.0**
	3.7nm,0.5s,mb4.0						
MBWA	**Marble Bar**	**57.23**	**258**	*e*P	**P**	**03 49 25.1**	**-0.8**
	5.6nm,0.6s,mb4.0						
VNDA	**Vanda**	**57.43**	**185**	*e*P	**P**	**03 49 28.0**	**+1.7**
	3.0nm,0.6s,mb3.7						
VNDA	**Vanda**	**57.43**	**185**	P	**P**	**03 49 28.0**	**+1.8**
	2.5nm,0.9s,mb3.4,baz=16,slow=12,SNR=8.2						
QSPA	**South Pole Qui**	**69.14**	**180**	*e*P	**P**	**03 50 42.0**	**+1.1**
	9.0nm,0.9s,mb4.2						
MJAR	**Matsushiro Arr**	**70.24**	**324**	P	**P**	**03 50 47.7**	**-0.4**
	2.5nm,0.6s,mb3.8,baz=156,slow=6.7,SNR=7.3						
KSM	**Kuching**	**72.94**	**278**	*e*P	**P**	**03 51 04.5**	**+0.2**
ASAJ	**Asahikawa**	**73.85**	**332**	P	**P**	**03 51 10.0**	**+1.3**
	5.5nm,0.8s,mb4.1,baz=238,slow=9.7,SNR=4.4						
KSRS	**Korea Array**	**76.85**	**319**	P	**P**	**03 51 26.3**	**+0.7**
	1.6nm,0.8s,mb3.5,baz=111,slow=6.5,SNR=4.8						
SYO	**Syowa Base**	**86.19**	**193**	⇑*e*P	**P**	**03 52 11.8**	**-0.8**
MCK	**McKinley**	**87.51**	**13**	*e*P	**P**	**03 52 18.1**	**-0.6**
	2.1nm,0.9s,mb3.9						
COLA	**College**	**88.74**	**13**	*e*P	**P**	**03 52 23.8**	**-0.7**
	5.4nm,1.3s,mb4.2						
PDAR	**Pinedale Array**	**89.65**	**43**	P	**P**	**03 52 29.6**	**+0.5**
	0.4nm,0.7s,mb3.4,baz=182,slow=5.5,SNR=3.8						
CHTO	**Chiang Mai**	**89.88**	**290**	*e*P	**P**	**03 52 31.6**	**+0.8**
	3.2nm,0.6s,mb4.3						
ZALV	**Zalesovo Beam**	**110.49**	**321**	PKPdf	PKiKP	03 57 58.4	-0.7
ZALV	**Zalesovo Beam**	**110.49**	**321**	PKiKP	PKiKP	03 57 58.4	-0.7
	0.4nm,0.4s,baz=170,slow=4.0,SNR=2.5						
MK31	**Makanchi Array**	**111.10**	**313**	*e*PKP	PKiKP	03 58 00.1	-0.4
MKAR	**Makanchi Array**	**111.10**	**313**	PKPdf	PKiKP	03 57 59.7	-0.8
MKAR	**Makanchi Array**	**111.10**	**313**	PKiKP	PKiKP	03 57 59.7	-0.8
	0.2nm,0.4s,baz=52,slow=2.2,SNR=3.7						
ARCES	**ARCESS Array B**	**129.25**	**349**	PKP	PKPdf	03 58 32.9	-1.7
ARCES	**ARCESS Array B**	**129.25**	**349**	PKP	PKPdf	03 58 32.9	-1.7
	9.0nm,1.3s,baz=23,slow=5.4,SNR=3.9						
FINES	**FINESS Array B**	**136.03**	**343**	PKP	PKPdf	03 58 48.2	+0.7
FINES				SKPbc	SKPbc	04 01 24.0	-0.9
FINES	**FINESS Array B**	**136.03**	**343**	PKP	PKPdf	03 58 48.2	+0.7
	2.5nm,1.0s,baz=78,slow=2.7,SNR=5.6						
FINES				SKPbc	SKPbc	04 01 24.0	-0.9
	2.2nm,0.7s,baz=71,slow=3.7,SNR=14						
NOA	**NORSAR Array B**	**139.34**	**353**	SKPbc	SKPbc	04 01 34.2	0.0
	1.3nm,0.8s,baz=13,slow=4.5,SNR=4.7						
HFS	**Hagfors**	**139.88**	**350**	PKP	PKPdf	03 58 47.8	-6.9
HFS	**Hagfors**	**139.88**	**350**	PKhKP		03 58 47.8	
	0.9nm,0.3s,baz=82,slow=3.1,SNR=14						
AKASG	**Malin Array Be**	**143.12**	**330**	PKP	PKPdf	03 58 57.9	-2.8
AKASG				SKPbc	SKPbc	04 01 42.9	-1.3
AKASG	**Malin Array Be**	**143.12**	**330**	PKP	PKPdf	03 58 57.9	-2.8
	5.0nm,0.4s,baz=42,slow=4.2,SNR=57						
AKASG				SKPbc	SKPbc	04 01 42.9	-1.3
	0.4nm,0.6s,baz=37,slow=2.0,SNR=5.3						
AKBB	**Malin Array Si**	**143.12**	**330**	*e*PKPdf	PKPdf	03 58 57.8	-3.0
MALT	**Malatya**	**143.76**	**307**	*e*PKPdf	PKPdf	03 59 02.2	-0.1
MALT	**Malatya**	**143.76**	**307**	⇓*i*P	PKPdf	03 59 02.3	0.0
BRTR	**Keskin Array B**	**146.72**	**311**	PKPbc	PKPbc	03 59 09.8	-0.3
BRTR	**Keskin Array B**	**146.72**	**311**	PKPbc	PKPbc	03 59 09.8	-0.3
	1.3nm,0.6s,baz=120,slow=5.0,SNR=14						
BURAR	**Bucovina Array**	**147.17**	**330**	⇓P	PKPbc	03 59 11.3	+0.3
BURAR	**Bucovina Array**	**147.17**	**330**	⇓*i*P	PKPbc	03 59 11.3	+0.3
ANTO	**Ankara**	**147.25**	**312**	⇑P	PKPbc	03 59 11.0	-0.5
ANTO	**Ankara**	**147.25**	**312**	⇑*i*P	PKPbc	03 59 11.0	-0.5
MMAI	**Mount Meron Ar**	**147.55**	**299**	PKPbc	PKPbc	03 59 12.8	+0.3
	3.5nm,0.6s,baz=76,slow=4.4,SNR=7.1						
MMAI				PKPab	PKPab	03 59 17.7	+0.9
	1.4nm,0.5s,baz=46,slow=6.2,SNR=4.7						
MLR	**Muntele Rosu**	**148.29**	**326**	⇑P	PKPbc	03 59 12.8	-1.1
MLR	**Muntele Rosu**	**148.29**	**326**	PKPbc	PKPbc	03 59 14.1	+0.2
	0.3nm,0.3s,baz=36,slow=13,SNR=8.9						
MLR	**Muntele Rosu**	**148.29**	**326**	⇑*i*P	PKPbc	03 59 12.8	-1.1
CLL	**Collm**	**148.35**	**346**	*i* PKPbc	PKPbc	03 59 13.9	0.0
	comp=Z,6.0nm,1.1s						
CLL				*i* PKPab	PKPab	03 59 18.9	-0.5
	comp=Z,4.0nm,0.7s						
EIL	**Elat**	**148.55**	**293**	PKPbc	PKPbc	03 59 15.1	0.0
EIL	**Elat**	**148.55**	**293**	PKPbc	PKPbc	03 59 15.1	0.0
	comp=Z,1.8nm,0.5s,baz=354,slow=10,SNR=3.2						
VOIR		**148.78**	**327**	⇑*i*P	PKPbc	03 59 15.5	+0.4
GZR	**Gura Zlata**	**149.94**	**329**	⇓P	PKPbc	03 59 17.6	-0.2
GZR	**Gura Zlata**	**149.94**	**329**	⇓*i*P	PKPbc	03 59 17.6	-0.3
KHC	**Kasperske Hory**	**150.24**	**344**	*e*P	PKPbc	03 59 18.0	-0.4
KHC				*e*		03 59 27.5	
KHC	**Kasperske Hory**	**150.24**	**344**	*e*PKPbc	PKPbc	03 59 18.0	-0.4
KHC				*e*PKPab	PKPab	03 59 27.5	+0.2
BZS	**Buzias**	**150.31**	**331**	⇓P	PKPbc	03 59 18.5	-0.2
BZS	**Buzias**	**150.31**	**331**	⇓*i*P	PKPbc	03 59 18.5	-0.2
GERES	**GERESS Array B**	**150.46**	**343**	PKPbc	PKPbc	03 59 18.8	-0.1
GERES	**GERESS Array B**	**150.46**	**343**	PKPbc	PKPbc	03 59 18.8	-0.1
	comp=Z,1.1nm,0.7s,baz=39,slow=1.8,SNR=11						
PKSM	**Moragy**	**151.12**	**335**	⇑P	PKPbc	03 59 20.0	-0.6
PKSM	**Moragy**	**151.12**	**335**	⇑*i*P	PKPbc	03 59 20.0	-0.5
DAVOX	**Davos/Dischmat**	**153.31**	**347**	PKPbc	PKPbc	03 59 25.1	-0.3
DAVOX	**Davos/Dischmat**	**153.31**	**347**	PKPbc	PKPbc	03 59 25.1	-0.3
	comp=Z,1.1nm,0.5s,baz=315,slow=7.4,SNR=5.2						
TORD	**Torodi Ar. Bea**	**172.25**	**182**	PKPab	PKPab	04 01 03.4	-0.7
	comp=Z,0.6nm,0.7s,baz=168,slow=4.3,SNR=5.4						

ISK ***11*** *03:40:54.1, 38.45N×39.08E, h5^{km}, MD3.2*

ISCJB ***11*** *03:40:55.4±0.4, 38.41N±0.03×39.13E±0.03, h5^{km}, Error ellipse: s-maj=5.0km s-min=3.5km az=162.5*

CSEM ***11*** *03:40:55.1±0.1, 38.43N×39.09E, h8^{km}, MD2.9, Error ellipse: s-maj=2.5km s-min=1.5km az=117.0*

DDA ***11*** *03:40:56.4, 38.41N×39.12E, h5^{km}±3^{km}, Md2.9*

ISC 11 03:40:55.9±0.6**, 38.43N**±0.04×**39.12E**±0.05**, h8**^{km}±7^{km}**, n22, σ0^{s}90**/31**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.13**	**303**	*i* P	**Pg**	**03 40 58.8**	**+0.1**
ELZG				*i* S	**Sg**	**03 41 02.2**	**+1.6**
PTK	**Pertek**	**0.51**	**25**	PG	**Pg**	**03 41 05.0**	**-0.8**
PTK	**Pertek**	**0.51**	**25**	*e*Pg	**Pg**	**03 41 05.0**	**-0.8**
MYA	**Malataya**	**0.56**	**260**	PG	**Pg**	**03 41 05.9**	**-0.8**
MYA				SG	**Sg**	**03 41 14.3**	**+0.4**
MYA	**Malataya**	**0.56**	**260**	*e*Pg	**Pg**	**03 41 05.9**	**-0.8**
MYA				*e*Sg	**Sg**	**03 41 14.3**	**+0.4**
MALT	**Malatya**	**0.56**	**258**	PG	**Pg**	**03 41 04.9**	**-1.8**
MALT				SG	**Sg**	**03 41 13.8**	**-0.1**
MALT	**Malatya**	**0.56**	**258**	*e*Pg	**Pg**	**03 41 04.9**	**-1.8**
MALT				*e*Sg	**Sg**	**03 41 13.8**	**-0.1**
URFA	**Urfa**	**1.01**	**194**	*e*PG	**Pg**	**03 41 15.0**	**-0.4**
URFA	**Urfa**	**1.01**	**194**	*e*Pg	**Pg**	**03 41 15.0**	**-0.4**
DIY	**Diyarbakir**	**1.02**	**121**	*e*PG	**Pg**	**03 41 15.3**	**-0.2**
DIY	**Diyarbakir**	**1.02**	**121**	*e*Pg	**Pg**	**03 41 15.3**	**-0.2**
ATAB	**Bozova**	**1.16**	**215**	*i* P	**Pg**	**03 41 17.5**	**-0.6**
ATAB				*i* S	**Sg**	**03 41 34.2**	**+1.0**
BINT	**Bingol**	**1.16**	**67**	*e*PN	**Pn**	**03 41 17.4**	**-1.1**
BINT	**Bingol**	**1.16**	**67**	*e*Pn	**Pn**	**03 41 17.4**	**-1.1**
EZC	**Erzincan**	**1.43**	**22**	*e*PN	**Pn**	**03 41 21.0**	**-1.1**
GZT	**Gaziantep**	**1.63**	**229**	*i* P	**Pn**	**03 41 24.3**	**-0.6**
GZT				*i* S	**Sg**	**03 41 49.0**	**+0.6**
BNGL	**BINGOL**	**1.67**	**71**	*i* P	**Pb**	**03 41 27.1**	**+0.2**
BNGL				*i* S	**Sg**	**03 41 55.9**	**+6.2**
MARD	**Mardin**	**1.72**	**130**	*i* P	**Pn**	**03 41 25.9**	**-0.2**
MARD				*i* S	**Sn**	**03 41 49.3**	**+1.0**
BTMT	**Batman**	**1.88**	**96**	*e*PN	**Pn**	**03 41 28.0**	**-0.3**
GUMT	**Gumushane**	**2.05**	**8**	*e*PN	**Pn**	**03 41 30.9**	**+0.2**
EZM	**Erzurum**	**2.28**	**49**	*e*PN	**Pn**	**03 41 35.1**	**+1.2**
ERZM	**Erzurum**	**2.29**	**49**	*i* P	**Pn**	**03 41 36.1**	**+2.2**

ISK ***11*** *03:43:00.1, 38.42N×39.12E, h2^{km}, MD4.1, ML4.2*

NEIC ***11*** *03:43:00.0, 38.41N×39.12E, h2^{km}, mb4.1/5, ML4.1(ISK), After ISK.*

CSEM ***11*** *03:43:00.6±0.1, 38.40N×39.13E, h5^{km}, MD4.1, Error ellipse: s-maj=1.9km s-min=1.3km az=171.0*

MOS ***11*** *03:43:00.7±1.5, 38.27N×39.10E, h11^{km}, mb3.9/5, Error ellipse: s-maj=11.1km s-min=9.4km az=94.1*

ISCJB ***11*** *03:43:01.3±0.2, 38.38N±0.02×39.16E±0.02, h10^{km}, mb3.8/13, Error ellipse: s-maj=3.0km s-min=2.2km az=152.7*

DDA ***11*** *03:43:01.2, 38.35N×39.12E, h27^{km}±1^{km}, Md4.0*

IDC ***11*** *03:43:01.7±0.9, 38.40N×39.09E, h0^{km}, mb3.7/9, mb1 3.8/15, mb1mx3.7/25, mbtmp3.7/15, ML3.7/6, MS3.1/2, Ms1 3.1/2, ms1mx2.5/26, Error ellipse: s-maj=16.3km s-min=12.8km az=156.0*

ISC 11 03:43:02.5±0.2**, 38.37N**±0.02×**39.17E**±0.02**, h10**^{km}**, n141, σ1^{s}06**/153**, mb3.8**/13**, 2C-1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTK	**Pertek**	**0.55**	**18**	*i* PG	**Pg**	**03 43 10.7**	**-2.5**
PTK				*i* SG	**Sg**	**03 43 18.8**	**-1.7**
PTK	**Pertek**	**0.55**	**18**	*i* Pg	**Pg**	**03 43 10.7**	**-2.5**
PTK				*i* Sg	**Sg**	**03 43 18.8**	**-1.7**
MALT	**Malatya**	**0.59**	**265**	*i* PG	**Pg**	**03 43 10.8**	**-3.2**
MALT				*i* SG	**Sg**	**03 43 20.3**	**-1.4**
MALT	**Malatya**	**0.59**	**265**	*e*Pg	**Pg**	**03 43 11.4**	**-2.6**
MALT				*e*Sg	**Sg**	**03 43 18.2**	**-3.5**
MALT	**Malatya**	**0.59**	**265**	*e*P	**Pg**	**03 43 11.4**	**-2.6**
MALT				*e*		03 43 18.2	
MALT	**Malatya**	**0.59**	**265**	*e*Pg	**Pg**	**03 43 11.4**	**-2.6**
MALT				*i* Sg	**Sg**	**03 43 20.3**	**-1.4**
MYA	**Malataya**	**0.59**	**266**	*i* PG	**Pg**	**03 43 11.3**	**-2.7**
MYA	**Malataya**	**0.59**	**266**	*i* Pg	**Pg**	**03 43 11.3**	**-2.7**
DIY	**Diyarbakir**	**0.95**	**119**	*i* PG	**Pg**	**03 43 20.8**	**-0.1**
DIY	**Diyarbakir**	**0.95**	**119**	*i* Pg	**Pg**	**03 43 20.8**	**-0.1**
URFA	**Urfa**	**0.97**	**197**	*i* PG	**Pg**	**03 43 20.4**	**-0.7**
URFA				*i* SG	**Sg**	**03 43 34.3**	**+0.6**
URFA	**Urfa**	**0.97**	**197**	*i* Pg	**Pg**	**03 43 20.4**	**-0.7**
URFA				*i* Sg	**Sg**	**03 43 34.3**	**+0.6**
ATAB	**Bozova**	**1.14**	**218**	*i* P	**Pb**	**03 43 22.9**	**-1.4**
ATAB				*i* S	**Sb**	**03 43 38.0**	**-1.0**
BINT	**Bingol**	**1.15**	**63**	*i* PN	**Pn**	**03 43 22.9**	**-1.7**
BINT	**Bingol**	**1.15**	**63**	*i* Pn	**Pn**	**03 43 22.9**	**-1.7**
EZC	**Erzincan**	**1.47**	**20**	PN	**Pn**	**03 43 26.1**	**-2.9**
GZT	**Gaziantep**	**1.63**	**232**	⇓*i*P	**Pn**	**03 43 29.9**	**-1.4**
MARD	**Mardin**	**1.65**	**129**	*i* P	**Pn**	**03 43 30.9**	**-0.6**
MARD				*i* S	**Sn**	**03 43 50.7**	**-2.1**
BNGL	**BINGOL**	**1.65**	**69**	*i* P	**Pn**	**03 43 32.2**	**+0.6**
BNGL				*i* S	**Sg**	**03 43 55.4**	**-0.3**
BTMT	**Batman**	**1.83**	**95**	PN	**Pn**	**03 43 33.0**	**-1.0**
GAZ	**Gaziantep**	**1.96**	**233**	PN	**Pn**	**03 43 36.0**	**+0.2**
GAZ	**Gaziantep**	**1.96**	**233**	*e*Pn	**Pn**	**03 43 36.0**	**+0.2**
GUMT	**Gumushane**	**2.10**	**6**	PN	**Pn**	**03 43 37.9**	**+0.1**
EZM	**Erzurum**	**2.29**	**47**	PN	**Pn**	**03 43 40.4**	**0.0**
ERZM	**Erzurum**	**2.29**	**47**	*i* P	**Pn**	**03 43 41.3**	**+0.9**
ERZM				*i* S	**Sg**	**03 44 14.4**	**-1.8**
MACK	**Trabzon**	**2.61**	**10**	*i* P	**Pn**	**03 43 45.5**	**+0.8**
MACK				*i* S	**Sn**	**03 44 17.0**	**+0.5**
GRSN	**GIRESUNGRSN**	**2.65**	**345**	*i* P	**Pn**	**03 43 44.9**	**-0.4**
GRSN				*i* S	**Sb**	**03 44 22.6**	**+0.1**
BNN	**Bunyan**	**2.65**	**282**	PN	**Pn**	**03 43 45.4**	**+0.1**
BNN	**Bunyan**	**2.65**	**282**	*e*Pn	**Pn**	**03 43 45.4**	**+0.1**
SIRT	**Sirnak**	**2.72**	**108**	PN	**Pn**	**03 43 46.9**	**+0.6**
SIRT	**Sirnak**	**2.72**	**108**	*e*Pn	**Pn**	**03 43 46.9**	**+0.6**
KOZT	**Kozan**	**2.79**	**253**	PN	**Pn**	**03 43 47.5**	**+0.3**
TOKT	**Tokat**	**2.82**	**315**	PN	**Pn**	**03 43 47.1**	**-0.5**
TOKT	**Tokat**	**2.82**	**315**	*e*Pn	**Pn**	**03 43 47.1**	**-0.5**
COBT	**Iskenderun**	**2.97**	**232**	*i* P	**Pn**	**03 43 48.4**	**-1.3**
COBT	**Iskenderun**	**2.97**	**232**	*i* P	**Pn**	**03 43 48.3**	**-1.3**
TUTA	**Tutak**	**3.02**	**69**	*i* P	**Pn**	**03 43 50.8**	**+0.4**
TUTA				*i* S	**Sg**	**03 44 37.6**	**-2.0**
CEYT	**Ceyhan**	**3.04**	**245**	*e*PN	**Pn**	**03 43 51.0**	**+0.4**
CEYT	**Ceyhan**	**3.04**	**245**	*e*Pn	**Pn**	**03 43 51.0**	**+0.4**
AGRB	**Hanur-Agry**	**3.21**	**67**	*e*PN	**Pn**	**03 43 53.3**	**+0.3**
AGRB	**Hanur-Agry**	**3.21**	**67**	*e*Pn	**Pn**	**03 43 53.3**	**+0.3**
YOZ	**Yozgat**	**3.26**	**294**	*e*PN	**Pn**	**03 43 53.9**	**+0.2**
YOZ	**Yozgat**	**3.26**	**294**	*e*Pn	**Pn**	**03 43 53.9**	**+0.2**
HTY	**Hatay**	**3.30**	**228**	*e*PN	**Pn**	**03 43 53.6**	**-0.7**
HTY	**Hatay**	**3.30**	**228**	*e*Pn	**Pn**	**03 43 53.6**	**-0.7**
VANT	**Van**	**3.31**	**87**	*e*PN	**Pn**	**03 43 53.9**	**-0.5**
VANB	**Van**	**3.31**	**85**	*e*PN	**Pn**	**03 43 56.2**	**+1.8**
VANB	**Van**	**3.31**	**85**	*e*Pn	**Pn**	**03 43 56.2**	**+1.8**
TVAN	**Van**	**3.33**	**86**	*i* P	**Pb**	**03 44 00.7**	**-0.9**
AVNT	**Avonos**	**3.41**	**278**	*i* P	**Pn**	**03 43 55.0**	**-0.7**
AVNT				*i* S	**Sg**	**03 44 47.6**	**-4.4**
KRTS	**Karatas**	**3.51**	**240**	*e*PN	**Pn**	**03 43 57.4**	**+0.2**
KRTS	**Karatas**	**3.51**	**240**	*e*Pn	**Pn**	**03 43 57.4**	**+0.2**

ARTV	Artvin	3.52	36	⇑iP	Pn	03 43 57.5	+0.2
BCA	Borcka	3.60	31	ePN	Pn	03 43 58.7	+0.3
BCA	Borcka	3.60	31	ePn	Pn	03 43 58.7	+0.3
NIG	Nigde	3.60	267	ePN	Pn	03 43 58.0	-0.4
NIG	Nigde	3.60	267	ePn	Pn	03 43 58.0	-0.4
KVT	Kavak	3.63	319	ePN	Pn	03 43 59.1	+0.4
KVT	Kavak	3.63	319	ePn	Pn	03 43 59.1	+0.4
HAKT	HAKKARI	3.67	101	iP	Pn	03 43 59.5	+0.1
HAKT				iS	Sb	03 44 49.4	-2.7
HKR	Hakkari	3.69	101	ePN	Pn	03 44 00.7	+1.1
HKR	Hakkari	3.69	101	ePn	Pn	03 44 00.7	+1.1
DYDN	Diyadin	3.71	70	iP	Pn	03 44 02.0	+2.1
MSL	Mosul	3.75	122	ePn	x	03 42 31.0	
MSL				eSn	x	03 42 58.0	
MSL	Mosul	3.75	122	ePn	x	03 44 02.0	
MSL				eSn	x	03 45 01.5	
MSL	Mosul	3.75	122	ePn	x	03 44 02.0	
KARS	Kars	3.77	52	ePN	Pn	03 44 01.4	+0.7
KARS	Kars	3.77	52	ePn	Pn	03 44 01.4	+0.7
DIGO	Kars	3.84	57	iP	Pn	03 44 02.6	+1.0
CDAG	Cicekdag	3.95	290	iP	Pn	03 44 02.8	-0.3
MERS	Mersin	3.99	249	ePN	Pn	03 44 04.4	+0.7
MERS	Mersin	3.99	249	ePn	Pn	03 44 04.4	+0.7
CTKT	Corum	4.07	305	iP	Pn	03 44 05.4	+0.6
BOYT	Boyabat	4.48	314	⇑iP	Pn	03 44 10.9	+0.5
BR131	Keskin Array S	4.52	289	ePn	Pn	03 44 10.5	-0.5
BR131	Keskin Array S	4.52	289	ePn	Pn	03 44 10.5	-0.5
BRTR	Keskin Array B	4.52	289	P	Pn	03 44 10.8	-0.2
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
BRTR	Keskin Array B	4.52	289	Pn	Pn	03 44 10.8	-0.2
	comp=Z,3.7nm,0.3s,baz=110,slow=14,SNR=73						
BRTR				Lg		03 45 24.6	
	baz=115,slow=21,SNR=3.0						
HWQ	Hawqa	4.84	214	ePn	Pn	03 44 16.8	+1.3
HWQ	Hawqa	4.84	214	ePn	Pn	03 44 16.8	+1.4
ELDT	Eldivan	4.93	297	iP	Pn	03 44 16.6	0.0
ANTO	Ankara	5.18	289	ePn	Pn	03 44 20.1	-0.1
	comp=Z,38nm,0.8s						
ANTO				ePg	Pg	03 44 38.3	-3.5
ANTO				eSg	Sg	03 45 44.1	-4.8
ANTO	Ankara	5.18	289	eP	Pn	03 44 20.1	0.0
ANTO				pmax	pmax		
	comp=Z,38nm,0.8s						
ANTO	Ankara	5.18	289	ePn	Pn	03 44 20.0	-0.1
	comp=Z,38nm,0.8s						
ANTO	Ankara	5.18	289	ePg	Pg	03 44 38.3	-3.5
SOC	Sochi	5.22	4	eP	Pn	03 44 25.8	+5.1
SOC				pmax	pmax		
	comp=Z,18nm,0.7s						
ERMK	Ermenek	5.27	253	iP	Pn	03 44 24.6	+3.4
BHL	Bhannes	5.29	214	ePn	Pn	03 44 21.7	+0.2
BHL	Bhannes	5.29	214	ePn	Pn	03 44 21.7	+0.1
BALT	Daday	5.46	307	iP	Pn	03 44 24.4	+0.6
KDHN	Kadinhani	5.54	274	iP	Pn	03 44 25.1	0.0
RCY	Rachaya	5.58	210	ePn	Pn	03 44 27.4	+1.8
ZEI	Tsey	5.68	38	eP	Pn	03 44 20.6	-6.3
CSS	Prodhromos	5.80	236	ePn	Pn	03 44 29.0	+0.5
	comp=Z,16nm,0.6s						
CSS	Prodhromos	5.80	236	ePn	Pn	03 44 29.0	+0.4
	comp=Z,16nm,0.6s						
SGKT	Sivrigoynuk	5.93	294	iP	Pn	03 44 30.1	-0.3
MMAI	Mount Meron Ar	6.16	211	Pn	Pn	03 44 35.1	+1.6
	comp=Z,3.3nm,0.3s,baz=30,slow=12,SNR=10						
MMAI				Lg		03 46 16.2	
	comp=Z,7.0nm,0.3s,baz=40,slow=19,SNR=3.7						
KIV	Kislovodsk	6.18	24	ePn	Pn	03 44 35.5	+1.7
KIV	Kislovodsk	6.18	24	eP	Pn	03 44 35.5	+1.8
ASF	Jabal al Asfar	6.46	197	Pn	Pn	03 44 37.2	-0.4
ASF				Lg		03 46 27.3	
ASF	Jabal al Asfar	6.46	197	Pn	Pn	03 44 37.2	-0.4
	comp=Z,0.4nm,0.3s,baz=101,slow=23,SNR=5.5						
ASF				Lg		03 46 27.3	
	comp=Z,2.8nm,0.3s,baz=88,slow=19,SNR=3.5						
BHD	Baghdad	6.62	139	eP	x	03 43 36.0	
BHD	Baghdad	6.62	139	eP	x	03 45 06.0	
BHD				eS	x	03 46 31.0	
EIL	Elat	9.36	203	Lg		03 47 58.2	
	comp=Z,0.4nm,0.3s,baz=348,slow=9.3,SNR=2.3						
EIL				LR	LR	03 49 19.9	
	comp=Z,162nm,21.0s,baz=126,slow=40						
IDI	Anoyia	11.85	259	Pn	Pn	03 45 51.9	+0.4
IDI				LR	LR	03 51 19.8	
IDI	Anoyia	11.85	259	Pn	Pn	03 45 51.9	+0.4
	comp=Z,0.8nm,0.3s,baz=95,slow=23,SNR=6.8						
IDI				LR	LR	03 51 19.8	
	comp=Z,81nm,19.1s,baz=97,slow=42						
IDI	Anoyia	11.85	259	Pn	Pn	03 45 51.9	+0.3
MLR	Muntele Rosu	12.14	310	Pn	Pn	03 45 55.1	-0.4
MLR	Muntele Rosu	12.14	310	Pn	Pn	03 45 55.1	-0.4
	comp=Z,0.1nm,0.3s,baz=95,slow=16,SNR=3.7						
MLR	Muntele Rosu	12.14	310	Pn	Pn	03 45 55.1	-0.4
TIP	Timpagrande	17.50	280	eP	Pn	03 47 07.8	+1.2
TIP	Timpagrande	17.50	280	eP	Pn	03 47 07.8	+1.3
AKTK	Aktyubinsk	18.02	42	P	Pn	03 47 12.8	0.0
AKTK	Aktyubinsk	18.02	42	P	Pn	03 47 12.8	0.0
AKTO	Aktyubinsk	18.02	42	P	Pn	03 47 12.8	0.0
	comp=Z,0.1nm,0.3s,baz=221,slow=5.0,SNR=6.5						
MORC	Moravsky Berou	19.20	313	eP	Pn	03 47 26.4	-0.9
	comp=Z,1.9nm,0.7s						
MORC	Moravsky Berou	19.20	313	eP	Pn	03 47 26.4	-0.9
MORC				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MORC	Moravsky Berou	19.20	313	eP	Pn	03 47 26.4	-0.9
	comp=Z,1.9nm,0.7s						
GERES	GERESS Array B	21.11	308	P	P	03 47 47.0	-0.2
GERES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
GERES	GERESS Array B	21.11	308	P	P	03 47 47.0	-0.1
	comp=Z,1.9nm,0.8s,mb3.5,baz=111,slow=10,SNR=16						
KHC	Kasperske Hory	21.29	309	eP	P	03 47 48.5	-0.6
KHC				epP		03 47 55.0	
ARU	Arti	22.19	29	eP	P	03 47 58.4	-0.3
	comp=Z,4.7nm,0.8s,mb4.0						
ARU	Arti	22.19	29	eP	P	03 47 57.9	-0.8
DAVOX	Davos/Dischmat	23.05	301	P	P	03 48 07.7	-0.2
	comp=Z,1.7nm,0.7s,mb3.6,baz=336,slow=20,SNR=2.7						
FINES	FINESS Array B	24.50	345	P	P	03 48 23.3	+1.7
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	24.50	345	P	P	03 48 23.3	+1.8
	comp=Z,0.9nm,0.5s,mb3.4,baz=158,slow=8.5,SNR=8.2						
BNI	Bardonecchia	25.05	296	eP	P	03 48 29.1	+2.3
	comp=Z,4.1nm,0.8s,mb4.0						
BNI	Bardonecchia	25.05	296	eP	P	03 48 29.1	+2.3
BNI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.0						
EKS2	Erkin-Say	26.54	70	eP	P	03 48 41.5	+1.2
	comp=Z,3.0nm,1.0s,mb3.8						
KURK	Kurchatov	30.34	53	eP	P	03 49 14.9	+0.8
	comp=Z,4.6nm,1.0s,mb4.2						
KURK	Kurchatov	30.34	53	eP	P	03 49 14.9	+0.8
KURK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.2						
MK31	Makanchi Array	32.50	61	eP	P	03 49 33.7	+0.5
MKAR	Makanchi Array	32.50	61	P	P	03 49 34.1	+0.9
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	32.50	61	P	P	03 49 34.0	+0.9
	comp=Z,1.0nm,0.7s,mb3.9,baz=265,slow=8.1,SNR=8.3						
ESDC	Sonseca Array	33.30	286	P	P	03 49 41.4	+1.1
	comp=Z,0.6nm,0.6s,mb3.7,baz=72,slow=8.4,SNR=5.7						
ZAL	Zalesovo	34.56	48	P	P	03 49 50.9	-0.1
ZALV	Zalesovo Beam	34.57	48	P	P	03 49 50.9	-0.2
	comp=Z,0.6nm,0.4s,mb3.9,baz=281,slow=9.4,SNR=3.0						
TORD	Torodi Ar. Bea	41.64	243	P	P	03 50 50.3	-0.8
	comp=Z,0.4nm,0.9s,mb3.0,baz=39,slow=6.0,SNR=3.5						
SONM	Songino Array	48.56	56	P	P	03 51 46.6	+0.8
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	48.56	56	P	P	03 51 46.6	+0.8
	comp=Z,0.5nm,0.6s,mb3.7,baz=291,slow=8.2,SNR=4.5						
KSRS	Korea Array	67.17	60	P	P	03 53 59.0	+2.3
	comp=Z,1.7nm,0.7s,mb4.2,baz=292,slow=6.6,SNR=4.7						

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*JMA **11** 03:46:52.6±0.4, 33.85N×141.63E, h58km, M3.0*
*ISCJB **11** 03:46:54.6±1.1, 33.84N±0.04×141.45E±0.09, h55km±10km, mb3.4/3, Error ellipse: s-maj=12.9km s-min=7.2km az=1.3*
*IDC **11** 03:46:57.0±4.5, 33.84N×141.38E, h53km±39km, mb3.0/3, mb1 3.2/4, mb1mx3.0/21, mbtmp2.9/4, ML2.8/1, Error ellipse: s-maj=38.3km s-min=11.9km az=94.0*
ISC 11 03:46:55.0±1.3**, 33.82N**±0.04×**141.5E**±0.1**, h35**km±15km**, n16, σ0.94**/26**, mb3.4**/3**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSO1	Boso 1	0.93	333	P	Pn	03 47 10.1	-1.4
BSO1				eS	Sn	03 47 24.6	+0.9
BSO2	Boso 2	1.11	327	eS	Sn	03 47 29.1	+1.0
BSO3	Boso 3	1.27	320	P	Pn	03 47 15.7	-0.5
BSO3				eS	Sn	03 47 32.0	-0.1
BSO4	Boso 4	1.51	321	P	Pn	03 47 19.5	+0.1
JHJ2	Mitsune	1.57	244	P	Pn	03 47 20.9	+0.5
JHJ2				eS	Sn	03 47 40.1	+0.6
JHJ	Hachijo jima 2	1.59	244	P	Pn	03 47 21.0	+0.3
	44nm,0.3s,baz=66,slow=23,SNR=15						
JHJ				S	Sn	03 47 39.8	-0.2
	48nm,0.3s,baz=95,slow=22,SNR=8.7						
JIM2	Oshima 3	1.93	298	P	Pn	03 47 24.5	-0.7
JIM2				eS	Sn	03 47 47.3	-1.0
JOD2	Odawara 2	2.45	307	P	Pn	03 47 31.5	-0.9
JOD2				eS	Sn	03 47 58.8	-2.4
JYN	Shimob	2.95	305	P	Pn	03 47 39.3	0.0
JYN				eS	Sn	03 48 14.0	+0.5
JRY	Ryogami san	3.06	316	P	Pn	03 47 40.9	+0.2
JRY				eS	Sn	03 48 15.9	-0.1
JAG	Ashikaga	3.09	328	P	Pn	03 47 40.7	-0.5
MJAR	Matsushiro Arr	3.82	316	P	Pn	03 47 51.9	+0.7
	0.8nm,0.3s,baz=141,slow=11,SNR=10						
MJAR				S	Sn	03 48 34.9	0.0
	1.1nm,0.3s,baz=50,slow=11,SNR=7.4						
MAT	Matsushiro	3.82	316	P	Pn	03 47 52.3	+1.0
MAT				eS	Sn	03 48 37.9	+2.9
MKAR	Makanchi Array	45.94	305	P	P	03 55 13.9	-0.3
	0.1nm,0.4s,mb3.1,baz=87,slow=8.8,SNR=3.0						
WRA	Warramunga Arr	53.90	188	P	P	03 56 13.4	-1.4
	0.8nm,1.1s,mb3.6,baz=3.6,slow=7.5,SNR=5.2						
ASAR	Alice Springs	57.62	188	P	P	03 56 43.2	+1.7
	0.3nm,0.6s,mb3.5,baz=4.8,slow=7.1,SNR=4.6						

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*ISCJB **11** 04:10:29.0±0.3, 7.61S±0.05×127.57E±0.07, h158km, mb4.4/27, Error ellipse: s-maj=10.2km s-min=5.1km az=151.1*
*NEIC **11** 04:10:30.6±0.2, 7.58S×127.56E, mb4.4/15, Error ellipse: s-maj=7.5km s-min=4.8km az=53.0*
*IDC **11** 04:10:31.1±0.8, 7.55S×127.55E, h158km±6km, mb4.0/12, mb1 4.2/13, mb1mx4.1/17, mbtmp4.1/13, MS3.2/3, Ms1 3.1/3, ms1mx2.7/21, Error ellipse: s-maj=19.1km s-min=9.7km az=68.0*
ISC 11 04:10:31.1±0.3**, 7.66S**±0.05×**127.56E**±0.05**, h160**km**, h160**km±2.4km**:pP-P, n64, σ0.91**/58**, mb4.4**/27**, 1D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.95	137	⇓iP	Pn	04 12 09.8	-0.7
KAKA				eS	Sn	04 13 22.4	-6.3
FITZ	Fitzroy Crossi	10.54	190	eP	Pn	04 12 55.7	-2.4
	171nm,0.4s						
FITZ				eS	Sn	04 14 45.6	-9.4
FITZ	Fitzroy Crossi	10.54	190	P	Pn	04 12 55.9	-2.2
	23nm,0.3s,baz=21,slow=10,SNR=235						
FITZ				S	Sn	04 14 46.3	-8.8
	27nm,0.3s,baz=306,slow=16,SNR=12						
FITZ				LR	LR	04 17 38.2	
	comp=Z,89nm,20.9s,baz=12,slow=40						
WRA	Warramunga Arr	13.87	152	P	Pn	04 13 38.0	-3.0
	19nm,0.3s,baz=321,slow=14,SNR=443						
WRA				S	Sn	04 16 05.5	-9.4
	14nm,0.3s,baz=326,slow=24,SNR=12						
WRA				LR	LR	04 19 41.3	
	comp=Z,77nm,20.5s,baz=355,slow=39						
WB2	Warramunga Arr	13.87	152	eP	Pn	04 13 38.0	-3.0
WB2				eS	Sn	04 16 05.9	-9.1
MBWA	Marble Bar	15.40	209	ePn	Pn	04 14 00.8	+0.7
	32nm,0.7s						
MBWA				eP		04 14 02.4	
COEN	Coen	16.56	114	eP	Pn	04 14 13.9	-0.4
COEN				eSn	Sn	04 17 07.2	-12
ASAR	Alice Springs	17.04	160	P	Pn	04 14 19.5	-0.4
	10.0nm,0.3s,baz=330,slow=9.8,SNR=316						
ASAR				S	S	04 17 22.5	-6.1
	3.2nm,0.3s,baz=326,slow=22,SNR=8.3						
KSM	Kuching	19.45	297	eP	P	04 14 46.4	+0.9
PMG	Port Moresby	19.46	97	eP	P	04 14 46.1	+0.4
	15nm,0.8s						
PMG				S	S	04 18 17.8	+0.6
PMG	Port Moresby	19.46	97	P	P	04 14 49.5	+3.8
	1.3nm,0.3s,baz=315,slow=5.7,SNR=4.9						
PMG				S	S	04 18 17.8	+0.6
	0.8nm,0.3s,baz=286,slow=19,SNR=3.2						
XMIS	Christmas Isla	21.81	261	eP	P	04 15 09.6	-1.1
CTA	Charters Tower	21.93	126	eP	P	04 15 13.0	+1.1
	8.6nm,0.7s,mb4.3						
CTA	Charters Tower	21.93	126	P	P	04 15 11.6	-0.3
	10nm,1.0s,mb4.2,baz=316,slow=12,SNR=8.4						
CTAO	Charters Tower	21.93	126	eP	P	04 15 12.8	+1.0
	19nm,1.4s,mb4.3						
TGY	Tagaytay City	22.60	343	P	P	04 15 20.3	+2.0
	133nm,0.3s,baz=325,slow=17,SNR=5.1						
FORT	Forrest	23.00	179	eP	P	04 15 23.0	+1.0
	62nm,0.7s,mb5.2						
KLBR	Kellerberrin	25.50	200	eP	P	04 15 45.5	+0.8
	28nm,0.8s,mb5.0						
MUN	Mundaring	26.40	202	eP	P	04 15 53.5	+0.8
NWAO	Narrogin (SRO)	26.90	199	P	P	04 15 58.2	+1.0
	19nm,0.6s,mb4.9,baz=35,slow=7.6,SNR=23						
NWAO				pP	pP	04 16 31.3	+0.8
	7.4nm,0.5s,baz=25,slow=10,SNR=2.1						
STKA	Stephens Creek	27.42	153	eP	P	04 16 02.5	+0.7
	8.3nm,0.6s,mb4.5						
STKA	Stephens Creek	27.42	153	P	P	04 16 02.6	+0.8
	10nm,0.6s,mb4.7,baz=328,slow=8.6,SNR=23						
STKA				pP	pP	04 16 36.6	+1.4
	39nm,0.5s,baz=327,slow=9.7,SNR=13						
STKA				LR	LR	04 28 38.4	
	comp=Z,71nm,19.2s,baz=25,slow=40						
KULM	Kulim	29.77	295	eP	P	04 16 22.4	-0.4
PSI	Prapat	30.40	289	P	P	04 16 27.9	-0.5
	22nm,1.0s,mb4.9,baz=148,slow=3.7,SNR=16						
DZM	Mont Dzumac	40.08	115	P	P	04 17 52.3	+1.2
	9.2nm,1.0s,mb4.4,baz=214,slow=11,SNR=5.5						
KSRS	Korea Array	44.88	0	P	P	04 18 29.5	0.0
	1.7nm,0.7s,mb3.8,baz=179,slow=10,SNR=5.7						
MJAR	Matsushiro Arr	45.09	12	P	P	04 18 29.2	-2.0
	0.5nm,0.4s,mb3.5,baz=177,slow=8.3,SNR=3.9						
LSA	Lhasa	51.04	318	eP	P	04 19 17.0	0.0
	4.5nm,0.6s,mb4.3						
TAPN	Taplejung	51.95	314	eP	P	04 19 23.8	0.0
	7.6nm,0.5s,mb4.6						
JIRN	Jiri	53.22	313	eP	P	04 19 33.4	+0.2
GUN	Gumba	53.59	313	eP	P	04 19 35.7	-0.2
	24nm,0.6s,mb5.1						
PKI	Pulchoki	53.74	312	eP	P	04 19 37.3	+0.3
	13nm,0.5s,mb4.9						
DMN	Daman	53.98	312	eP	P	04 19 39.3	+0.6
	8.7nm,0.5s,mb4.7						
GKN	Gorkha	54.55	312	eP	P	04 19 42.4	-0.4
	16nm,0.5s,mb5.0						
KOLN	Koldanda	55.19	311	eP	P	04 19 47.5	+0.1
	14nm,0.6s,mb4.9						
SONM	Songino Array	58.34	343	P	P	04 20 09.3	+0.2
	0.6nm,0.5s,mb3.7,baz=171,slow=6.2,SNR=13						
SONM				pP	pP	04 20 45.5	-1.0
	1.1nm,0.9s,baz=159,slow=7.4,SNR=3.6						
SONM				ScP	ScP	04 24 42.6	-1.0
	0.3nm,0.7s,baz=160,slow=7.1,SNR=3.8						
MK31	Makanchi Array	67.47	328	eP	P	04 21 09.1	-0.4
MKAR	Makanchi Array	67.47	328	P	P	04 21 09.3	-0.3
MKAR				pP	pP	04 21 46.8	-1.2
MKAR	Makanchi Array	67.47	328	P	P	04 21 09.3	-0.3
	1.5nm,0.5s,mb4.1,baz=120,slow=7.7,SNR=26						
MKAR				pP	pP	04 21 46.8	-1.2
	0.7nm,0.5s,baz=114,slow=8.5,SNR=2.3						
TKM2	Tokmak 2	68.97	322	eP	P	04 21 18.8	-0.2
	1.8nm,0.7s,mb3.9						
AAK	Ala-Archa	69.50	321	eP	P	04 21 21.6	-0.7
	2.5nm,0.9s,mb3.9						
EKS2	Erkin-Say	69.96	321	eP	P	04 21 25.0	-0.1
	1.3nm,0.7s,mb3.8						
ZALV	Zalesovo Beam	71.12	335	P	P	04 21 31.7	-0.2
	5.5nm,0.7s,mb4.4,baz=131,slow=5.4,SNR=23						
KURK	Kurchatov	71.84	330	eP	P	04 21 35.7	-0.5
	4.2nm,0.6s,mb4.3						
VNDA	Vanda	72.10	173	eP	P	04 21 38.0	+0.6
	5.1nm,0.7s,mb4.4						
VNDA	Vanda	72.10	173	P	P	04 21 38.4	+1.0
	5.5nm,0.7s,mb4.4,baz=308,slow=5.7,SNR=23						
MAW	Mawson	73.46	201	P	P	04 21 46.6	+1.1
	2.4nm,0.7s,mb4.0,baz=98,slow=7.1,SNR=4.0						
BRVK	Borovoye	77.42	329	eP	P	04 22 07.6	-0.7
	1.2nm,0.5s,mb3.8						
QSPA	South Pole Qui	82.32	180	eP	P	04 22 34.9	+0.6
	12nm,0.9s,mb4.5						
ARCES	ARCESS Array B	101.35	339	PKiKP	PKiKP	04 28 26.8	-0.1
	1.5nm,0.8s,baz=42,slow=1.5,SNR=5.6						
YKA	Yellowknife Ar	109.40	26	PKPdf	PKiKP	04 28 41.3	-0.7
YKA				PKKPbc	PKKPbc	04 39 47.5	-2.8
YKA	Yellowknife Ar	109.40	26	PKiKP	PKiKP	04 28 41.3	-0.7
	0.3nm,0.7s,baz=286,slow=1.7,SNR=5.5						
YKA				PKKPbc	PKKPbc	04 39 47.5	-2.8
	0.4nm,0.6s,baz=107,slow=3.1,SNR=12						
GERES	GERESS Array B	111.36	320	PKPdf	PKiKP	04 28 45.7	-0.3
GERES	GERESS Array B	111.36	320	PKiKP	PKiKP	04 28 45.7	-0.3
	0.5nm,0.6s,baz=64,slow=3.1,SNR=6.7						
PDAR	Pinedale Array	119.07	45	PKP	PKPdf	04 29 01.0	-0.1
PDAR	Pinedale Array	119.07	45	PKP	PKPdf	04 29 01.0	-0.1
	0.1nm,0.4s,baz=291,slow=0.8,SNR=2.8						
FCC	Fort Churchill	119.94	24	ePKPdf	PKPdf	04 29 00.9	-1.3
TOA0	Torodi Ar. Sit	126.55	281	ePKPdf	PKPdf	04 29 15.8	-0.4
TORD	Torodi Ar. Bea	126.55	281	PKP	PKPdf	04 29 15.5	-0.7
TORD	Torodi Ar. Bea	126.55	281	PKP	PKPdf	04 29 15.5	-0.7
	2.2nm,0.7s,baz=48,slow=2.3,SNR=19						
TXAR	Lajitas Array	127.34	59	PKP	PKPdf	04 29 17.8	+0.4
TXAR	Lajitas Array	127.34	59	PKP	PKPdf	04 29 17.8	+0.4
	0.1nm,0.5s,baz=213,slow=4.8,SNR=4.2						
LPAZ	La Paz	151.59	147	ePKPbc	PKPbc	04 30 08.3	+1.0
LPAZ				ePKPab	PKPab	04 30 17.5	+1.2
LPAZ	La Paz	151.59	147	PKPbc	PKPbc	04 30 08.7	+1.4
	2.0nm,0.4s,baz=243,slow=2.3,SNR=17						
LPAZ				PKPab	PKPab	04 30 19.0	+2.7
	4.3nm,0.6s,baz=203,slow=4.8,SNR=12						

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*MDD **11** 04:15:18.9±0.8, 35.90N×1.09W, h6km±5km, mb3.4/10, Error ellipse: s-maj=5.6km s-min=4.9km az=48.0, PRXIMO*
*ISCJB **11** 04:15:19.4±0.5, 35.91N±0.03×1.10W±0.04, h10km, Error ellipse: s-maj=5.0km s-min=4.4km az=157.3*
*CSEM **11** 04:15:19.1±0.1, 35.82N×1.03W, h25km, ML2.5, Error ellipse: s-maj=3.3km s-min=1.6km az=52.0*
*CRAAG **11** 04:15:21.6, 35.62N×0.92W, Ml2.5*
ISC 11 04:15:20.7±1.2**, 35.8N**±0.1×**1.08W**±0.09**, h21**km±28km**, n25, σ0.90**/45**, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
USTO	Oran	0.44	102	P	Pb	04 15 29.0	-0.7
ODZI	Dziouia	0.55	193	P	Pb	04 15 31.0	-0.6
OLHC	Oulhaca	0.64	206	P	Pb	04 15 33.0	-0.1
ODJA	Bouhanifia	0.90	123	P	Pb	04 15 40.0	+2.4
ENIJ	Nijar	1.46	322	P	Pn	04 15 44.4	-1.4
	5.0nm,0.2s,SNR=10						
ENIJ				S	Sn	04 16 02.5	-1.8
	17nm,0.3s,SNR=12						
ENIJ	Nijar	1.46	322	P	Pn	04 15 45.0	-0.8
	5.0nm,0.2s,SNR=10						
ENIJ				S	Sn	04 16 03.5	-0.8
	17nm,0.3s,SNR=12						
EALB	Alboran	1.59	275	P	Pn	04 15 47.6	0.0
	1.7nm,0.1s,SNR=7.9						
EALB				S	Sn	04 16 07.1	-0.4
	22nm,0.2s,SNR=7.9						
EBER	Berja	1.81	307	P	Pn	04 15 50.2	-0.4
	1.6nm,0.1s,SNR=7.9						
EBER				S	Sn	04 16 13.3	+0.4
	12nm,0.2s,SNR=7.9						
EBER	Berja	1.81	307	P	Pn	04 15 50.3	-0.3
	1.6nm,0.1s,SNR=7.9						
EBER				S	Sn	04 16 13.3	+0.4
	12nm,0.2s,SNR=7.9						
EMUR	La Murta	2.02	356	P	Pn	04 15 52.6	-0.8
	0.7nm,0.1s,SNR=20						
EMUR				S	Sn	04 16 16.3	-1.6
	7.7nm,0.3s,SNR=7.6						
EMUR	La Murta	2.02	356	P	Pn	04 15 52.6	-0.8
	0.7nm,0.1s,SNR=20						
EMUR				S	Sn	04 16 16.1	-1.9
	7.7nm,0.3s,SNR=7.6						
EQUE	Quentar	2.35	307	P	Pn	04 15 57.8	-0.2
	3.1nm,0.1s,SNR=12						
EQUE				S	Sn	04 16 26.3	+0.2
	6.5nm,3.5s,SNR=7.9						
EQUE	Quentar	2.35	307	P	Pn	04 15 59.4	+1.4
	3.1nm,0.1s,SNR=12						
EQES	Quesada	2.54	322	P	Pn	04 16 00.7	+0.1
	3.2nm,0.1s,SNR=80						
EQES				S	Sn	04 16 31.4	+0.5
	3.4nm,0.1s						
EQES	Quesada	2.54	322	P	Pn	04 16 02.4	+1.8
	3.2nm,0.1s,SNR=80						
EQES				S	Sn	04 16 33.1	+2.2
	3.4nm,0.1s						
ETOB	Tobarra	2.84	353	P	Pn	04 16 04.5	-0.2
	1.1nm,0.1s,SNR=30						
ETOB				S	Sn	04 16 37.9	-0.4
	3.0nm,0.1s						
ETOB	Tobarra	2.84	353	P	Pn	04 16 05.5	+0.8
	1.1nm,0.1s,SNR=30						
ETOB				S	Sn	04 16 37.8	-0.4
	3.0nm,0.1s						
EBEN	Beniarda	2.95	13	P	Pn	04 16 05.5	-0.8
	0.3nm,0.5s,SNR=7.9						
EBEN				S	Sn	04 16 40.5	-0.5
	1.0nm,0.2s,SNR=7.9						
EVIA	Vianos	3.03	338	P	Pn	04 16 06.8	-0.6
	2.1nm,0.2s,SNR=7.9						
EVIA				S	Sn	04 16 43.3	+0.3
	0.5nm,0.1s,SNR=7.9						
EVIA	Vianos	3.03	338	P	Pn	04 16 08.1	+0.8
	2.1nm,0.2s,SNR=7.9						
EVIA				S	Sn	04 16 43.3	+0.4
	0.5nm,0.1s,SNR=7.9						
EMIJ	Mijas	3.08	285	P	Pn	04 16 07.1	-0.9
	1.6nm,0.2s,SNR=12						
EMIJ				S	Sn	04 16 43.7	-0.5
	3.2nm,0.3s,SNR=5.6						
EBAN	Banos Encina	3.19	318	P	Pn	04 16 09.8	+0.4
	1.3nm,0.1s,SNR=6.6						
EBAN				S	Sn	04 16 47.3	+0.5
	1.2nm,0.2s						
EBAN	Banos Encina	3.19	318	P	Pn	04 16 11.5	+2.0
	1.3nm,0.1s,SNR=6.6						
EBAN				S	Sn	04 16 47.3	+0.5
	1.2nm,0.2s						
ESDC	Sonseca Array	4.47	330	P	Pn	04 16 27.6	+0.5
	0.9nm,0.1s,baz=147,slow=13,SNR=4.7						
ESDC				S	Sn	04 17 19.5	+1.0
	2.6nm,1.2s,baz=276,slow=43,SNR=7.9						
ERTA	Horta de San J	5.24	12	P	Pn	04 16 38.5	+0.8
	0.3nm,0.2s,SNR=7.9						
ERTA				S	Sn	04 17 38.0	+0.5
	0.3nm,0.2s,SNR=7.9						

PRE 11 04:33:39.5±1.2**, 21.51S**×**33.12E, h5**km**, ML4.0, Mozambique**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSNA	Messina	2.99	253	eP	Pn	04 34 29.0	+1.4
MSNA				eS	Sn	04 35 03.9	+0.1
MSNA				AML	AML	04 35 23.5	
	comp=Z,324nm,0.2s						
PRYS	Parys	7.53	223	eP	Pn	04 35 32.0	+2.1
PRYS				eS	Sn	04 36 53.0	-2.8
PRYS				AML	AML	04 37 53.9	
	comp=Z,9.9nm,0.5s						
LBTB	Lobatse	7.75	242	eP	Pn	04 35 33.6	+0.7
LBTB				eS	Sn	04 36 57.9	-3.2
LBTB				AML	AML	04 37 55.9	
	comp=Z,20nm,0.6s						
KSD	Kokstad	9.59	200	eP	Pn	04 35 58.9	+0.6
KSD				eS	Sn	04 37 41.2	-5.2
KSD				AML	AML	04 37 55.9	
	comp=Z,6.7nm,0.8s						
BOSA	Boshof	10.04	224	eP	Pn	04 36 05.7	+1.3
BOSA				eS	Sn	04 37 52.4	-5.1
BOSA				AML	AML	04 38 09.3	
	comp=Z,3.1nm,0.7s						
UPI	Upington	12.74	235	eP	Pn	04 36 42.6	+1.2
UPI				eS	Sn	04 38 57.0	-6.7
UPI				AML	AML	04 40 21.4	

comp=Z,2.4nm,0.7s

IDC **11** *04:39:10.6±0.5, 3664N×7294E, h0^{km}, mb4.7/20, mb1 4.9/23, mb1mx4.9/23, mbtmp4.8/23, ML4.8/3, MS4.3/18, Ms1 4.3/18, ms1mx4.2/22, Error ellipse: s-maj=14.6km s-min=12.1km az=19.0*

MOS **11** *04:39:14.5±1.0, 3671N×7296E, h33^{km}, mb5.0/69, MS4.4/23, Error ellipse: s-maj=5.9km s-min=3.7km az=124.9*

ISCJB **11** *04:39:15.5±0.4, 3667N±002×7301E±002, h44^{km}±3^{km}, mb4.8/121, MS4.5/46, Error ellipse: s-maj=3.0km s-min=2.7km az=40.7*

BJI **11** *04:39:17.2, 3672N×7303E, h47^{km}, mB5.0, mb4.7, ML5.1, Ms4.9, Msz4.8*

GCMT **11** *04:39:18.4±0.2, 3679N×7300E, h26^{km}, MW5.1/66, Moment Tensor Solution. s37,c54; s66,c111; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.54±.22; $M_{\theta\theta}$-2.23±.17; $M_{\phi\phi}$5.76±.14; $M_{r\theta}$-1.26±.44; $M_{\theta\phi}$-1.44±.12; $M_{\phi r}$-0.48±.25; Best double couple: $M_0$5.23000×10^{16} NP1:ϕ_s141.00000°,δ53.00000°,λ-135.00000°. NP2: ϕ_s19.00000°,δ56.00000°,λ-47.00000°. Principal axes: T 6.0190, Plg2.0000°, Azm80.0000°; N -1.5880, Plg34.0000°, Azm171.0000°; P -4.4410, Plg56.0000°, Azm348.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SZGRF **11** *04:39:18.3, 3690N×7299E, h33^{km}, mb4.8, Afghanistan-Tajikistan border region*

NEIC **11** *04:39:18.4±0.7, 3673N×7297E, h54^{km}±6^{km}, mb4.9/74, Error ellipse: s-maj=5.2km s-min=3.1km az=200.0*

NEIC Felt at Gilgit, Kashmir.

NNC **11** *04:39:21.6±3.1, 3744N×7287E, h0^{km}, mb5.1, mpv4.7, Error ellipse: s-maj=31.0km s-min=22.6km az=161.0*

ISC 11 04:39:18.2±0.3, **3669N**±002×**7300E**±002, **h52**^{km}±3^{km}, **h49**^{km}±4.7^{km}**:pP-P, n448,** σ1^{s}**09**/497, **mb4.8**/121, **MS4.5**/46, **31C-43D, Northwestern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRNI	**Srinagar**	**2.99**	**149**	*e*x	x	04 40 10.5	
SRNI				*e*x	x	04 40 55.5	
CHCP	**Chirah Chowk**	**3.03**	**176**	⇑P	**Pn**	**04 40 07.7**	**+4.1**
KSH	**Kashi**	**3.67**	**39**	P	**Pn**	**04 40 14.9**	**+2.5**
KSH				S	**Sn**	**04 40 56.9**	**+2.5**
KSH				Smax			
	comp=N,18μm,1.2s						
KSH				Smax			
	comp=E,16μm,1.2s						
JMU	**Jammu**	**4.26**	**158**	*e*P	**Pn**	**04 40 22.5**	**+2.1**
JMU				*e*x	x	04 41 20.0	
SBDP	**Sheikh Budin**	**4.74**	**203**	P	**Pn**	**04 40 27.9**	**+0.9**
SARP	**Sargodha**	**4.76**	**183**	P	**Pn**	**04 40 28.6**	**+1.3**
SARP				S	**Sn**	**04 41 24.0**	**+2.8**
THN	**Thein Dam**	**4.80**	**151**	*e*P	**Pn**	**04 40 28.0**	**+0.2**
THN				*e*x	x	04 41 24.5	
DLH	**Dalhousie**	**4.80**	**149**	*e*P	**Pn**	**04 40 27.0**	**-0.9**
DLH				*e*S	**Sn**	**04 41 22.0**	**-0.2**
PONG	**Pong**	**5.31**	**152**	*e*P	**Pn**	**04 40 34.0**	**-0.9**
PONG				*e*x	x	04 41 39.0	
DRP	**Derazinda**	**5.45**	**206**	⇓P	**Pn**	**04 40 38.3**	**+1.5**
AML	**Almayashu**	**5.46**	**5**	P	**Pn**	**04 40 37.3**	**+0.3**
	SNR=67						
AML	**Almayashu**	**5.46**	**5**	*e*Pn	**Pn**	**04 40 37.4**	**+0.4**
	comp=E,259nm,0.6s						
UCH	**Uchtor**	**5.66**	**11**	P	**Pn**	**04 40 40.6**	**+1.0**
	SNR=178						
UCH	**Uchtor**	**5.66**	**11**	⇑*i*Pn	**Pn**	**04 40 40.6**	**+1.0**
	comp=E,113nm,0.6s						
KZA	**Kyzart**	**5.66**	**17**	P	**Pn**	**04 40 40.3**	**+0.7**
	SNR=94						
BHK	**Bhakra**	**5.97**	**151**	*e*P	**Pn**	**04 40 41.0**	**-2.9**
EKS2	**Erkin-Say**	**6.00**	**5**	P	**Pn**	**04 40 45.4**	**+1.1**
	SNR=85						
EKS2	**Erkin-Say**	**6.00**	**5**	*e*Pn	**Pn**	**04 40 45.1**	**+0.8**
	comp=E,113nm,0.6s						
AAK	**Ala-Archa**	**6.05**	**10**	P	**Pn**	**04 40 46.1**	**+1.1**
	SNR=72						
AAK	**Ala-Archa**	**6.05**	**10**	*e*Pn	**Pn**	**04 40 44.9**	**-0.1**
AAK	**Ala-Archa**	**6.05**	**10**	⇑*i*PN	**Pn**	**04 40 44.9**	**-0.1**
AAK	**Ala-Archa**	**6.05**	**10**	Pn	**Pn**	**04 40 45.3**	**+0.3**
	SNR=62						
ULHL	**Ulahol**	**6.09**	**23**	P	**Pn**	**04 40 46.2**	**+0.7**
	SNR=27						
SDNR	**Sundarnagar**	**6.13**	**146**	*e*P	**Pn**	**04 40 47.0**	**+0.9**
SDNR				*e*x	x	04 42 19.0	
KBK	**Karagaybulak**	**6.15**	**14**	P	**Pn**	**04 40 47.4**	**+1.1**
	SNR=54						
FRU	**Bishkek**	**6.26**	**11**	*i* PN	**Pn**	**04 40 49.0**	**+1.1**
FRU				*i*		04 41 05.0	
FRU				*i* S	**Sn**	**04 42 05.0**	**+6.9**
FRU				pmax	pmax		
	comp=Z,970nm,1.6s						
FRU				smax			
	comp=N,1μm,1.8s						
CHMS	**Chumysh**	**6.45**	**11**	P	**Pn**	**04 40 51.0**	**+0.6**
	SNR=29						
TKM2	**Tokmak 2**	**6.54**	**17**	P	**Pn**	**04 40 52.5**	**+0.8**
	SNR=107						
TKM2	**Tokmak 2**	**6.54**	**17**	⇑Pn	**Pn**	**04 40 52.0**	**+0.3**
	comp=N,14nm,0.7s						
TKM2				⇑Lg		04 42 28.8	
	comp=N,161nm,1.1s						
TKM2	**Tokmak 2**	**6.54**	**17**	*e*Pn	**Pn**	**04 40 52.2**	**+0.6**
	comp=N,273nm,1.0s						
TKM2	**Tokmak 2**	**6.54**	**17**	*e*PN	**Pn**	**04 40 52.3**	**+0.6**
TKM2				pmax	pmax		
	comp=Z,273nm,1.0s						
USP	**Ospenovka**	**6.67**	**9**	P	**Pn**	**04 40 54.4**	**+0.9**
	SNR=8.9						
KK31	**Karatay Array**	**6.69**	**344**	Pn	**Pn**	**04 40 53.6**	**-0.1**
	comp=Z,22nm,0.3s,baz=153,slow=11,SNR=618						
KK31				⇓Sn	**Sn**	**04 42 04.9**	**-3.7**
	comp=Z,130nm,0.7s,baz=163,slow=24,SNR=4.7						
KNDC	**Almaty**	**7.20**	**24**	⇑Pn	**Pn**	**04 40 60.0**	**-0.7**
	comp=Z,326nm,0.8s						
KNDC				⇓Lg		04 42 50.7	
	comp=Z,2μm,1.3s						
DDI	**Dehra Dun**	**7.62**	**145**	*e*P	**Pn**	**04 41 06.0**	**-0.5**
DDI				*e*x	x	04 42 33.0	
JOSI	**Joshimath**	**8.20**	**136**	*e*P	**Pn**	**04 41 12.7**	**-1.7**
BHGR	**Bahadurgarh**	**8.64**	**156**	*e*P	**Pn**	**04 41 20.5**	**0.0**
NDI	**New Delhi**	**8.73**	**155**	*e*P	**Pn**	**04 41 22.3**	**+0.5**
NDI				*e*S	**Sn**	**04 42 52.3**	**-6.5**
AYAN	**Aya Nagar**	**8.89**	**156**	*e*P	**Pn**	**04 41 22.9**	**-1.0**
KUDL	**Kundal**	**9.01**	**160**	*e*P	**Pn**	**04 41 22.9**	**-2.7**
KUDL				*e*S	**Sn**	**04 43 00.6**	**-5.1**
LGTI	**Lohaghat**	**9.43**	**138**	*e*P	**Pn**	**04 41 29.5**	**-1.8**
LGTI				*e*x	x	04 43 13.5	
AJM	**Ajmer**	**10.27**	**172**	*e*P	**Pn**	**04 41 41.3**	**-1.5**
AJM				AMb	AMB	04 41 47.8	
	comp=Z,64nm,0.7s						
AJM				*e*S	**Sn**	**04 43 29.8**	**-6.7**
VAN	**Vannovskaya**	**11.93**	**281**	P	**Pn**	**04 42 02.4**	**-3.0**
VAN				*e*S	**Sn**	**04 44 12.0**	**-5.0**
MK31	**Makanchi Array**	**12.24**	**32**	Pn	**Pn**	**04 42 08.4**	**-1.3**
	comp=Z,18nm,0.6s,baz=206,slow=12,SNR=198						
MK31				⇑Lg		04 45 29.3	
	comp=Z,68nm,1.2s						
MK31	**Makanchi Array**	**12.24**	**32**	*e*Pn	**Pn**	**04 42 08.4**	**-1.2**
MK31	**Makanchi Array**	**12.24**	**32**	*e*P	**Pn**	**04 42 08.4**	**-1.2**
MKAR	**Makanchi Array**	**12.24**	**32**	Pn	**Pn**	**04 42 08.0**	**-1.6**
MKAR				Lg		04 45 44.6	
MKAR				LR	LR	04 47 36.3	
MKAR	**Makanchi Array**	**12.24**	**32**	P	**Pn**	**04 42 08.0**	**-1.6**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MKAR				MLR	MLR		
	comp=Z,2μm,20.1s						
MKAR	**Makanchi Array**	**12.24**	**32**	Pn	**Pn**	**04 42 08.0**	**-1.6**
	comp=Z,1.9nm,0.3s,baz=209,slow=12,SNR=88						
MKAR				Lg		04 45 44.6	
	comp=Z,0.1nm,0.3s,baz=215,slow=35,SNR=3.6						
MKAR				LR	LR	04 47 36.3	
	comp=Z,2μm,20.1s,baz=218,slow=41						
KOLN	**Koldanda**	**12.62**	**132**	*e*P	**Pn**	**04 42 10.6**	**-4.3**
	comp=Z,134nm,0.6s						
KOLN				*e*S	**Sn**	**04 44 29.3**	**-4.6**
GKN	**Gorkha**	**13.09**	**128**	*e*P	**Pn**	**04 42 16.7**	**-4.7**
	comp=Z,268nm,0.7s						
GKN				*e*S	**Sn**	**04 44 37.7**	**-7.7**
WMQ	**Urumqi**	**13.28**	**53**	P	**Pn**	**04 42 24.4**	**+0.5**
WMQ				AP		04 42 34.0	
WMQ				PP		04 42 36.4	
WMQ				S	**Sn**	**04 44 50.2**	**+0.3**
WMQ				SS		04 45 07.2	
WMQ				PCP	PcP	04 47 51.8	+1.6
WMQ				AMB	AMB		
	comp=Z,74nm,0.8s						
WMQ				LR	LR		
	comp=N,4μm,19.0s						
WMQ				LR	LR		
	comp=E,2μm,19.0s						
WMQ				LR	LR		
	comp=Z,2μm,19.0s						
ALBI	**Allahabad**	**13.61**	**144**	*e*x	x	04 42 21.5	
KKN	**Kakani**	**13.65**	**127**	*e*P	**Pn**	**04 42 23.8**	**-5.2**
	comp=Z,165nm,0.6s						
KKN				*e*S	**Sn**	**04 44 50.1**	**-8.9**
DMN	**Daman**	**13.66**	**128**	*e*P	**Pn**	**04 42 24.2**	**-5.0**
	comp=Z,244nm,0.8s						
DMN				*e*S	**Sn**	**04 44 51.6**	**-7.8**
BHJ	**Bhuj**	**13.70**	**193**	*e*P	**Pn**	**04 42 27.6**	**-2.0**
PKI	**Pulchoki**	**13.88**	**127**	*e*P	**Pn**	**04 42 27.1**	**-5.0**
	comp=Z,198nm,0.7s						
PKI				*e*S	**Sn**	**04 44 56.8**	**-7.9**
BHPL	**Bhopal**	**13.93**	**163**	*e*P	**Pn**	**04 42 29.3**	**-3.5**
BHPL				AMb	AMB	04 42 40.8	
	comp=Z,78nm,0.7s						
BHPL				*e*x	x	04 44 57.4	
GUN	**Gumba**	**13.96**	**125**	*e*P	**Pn**	**04 42 27.6**	**-5.5**
JIRN	**Jiri**	**14.33**	**125**	*e*P	**Pn**	**04 42 32.4**	**-5.7**
	comp=Z,333nm,0.6s						
JIRN				*e*S	**Sn**	**04 45 06.5**	**-9.0**
KURK	**Kurchatov**	**14.59**	**14**	*e*Pn	**Pn**	**04 42 36.7**	**-4.7**
KURK				*e*P		04 42 46.0	
KURK	**Kurchatov**	**14.59**	**14**	Pn	**Pn**	**04 42 37.7**	**-3.7**
	SNR=40						
JBP	**Jabalpur**	**14.76**	**154**	⇑*i*P	**Pn**	**04 42 44.1**	**+0.4**
JBP				*e*x	x	04 42 56.9	
	comp=Z,111nm,1.0s						
JBP				*i* x	x	04 45 18.2	
TAPN	**Taplejung**	**15.55**	**123**	*e*P	**Pn**	**04 42 47.8**	**-6.2**
	comp=Z,249nm,1.1s						
TAPN				*e*S	S	04 45 35.4	-23
ODAN	**Odare**	**15.65**	**125**	*e*P	**Pn**	**04 42 49.7**	**-5.6**
	comp=Z,120nm,0.5s						
ODAN				*e*S	S	04 45 37.7	-23
AKL	**Akola**	**16.31**	**167**	*e*P	**Pn**	**04 42 59.7**	**-3.9**
AKL				*e*x	x	04 43 11.8	
	comp=Z,79nm,1.0s						
AKL				*e*x	x	04 45 58.3	
NGP	**Nagpur**	**16.35**	**160**	*e*x	**Pn**	**04 42 58.5**	**-5.7**
NGP				*e*x	x	04 42 60.0	
	comp=Z,63nm,0.8s						
NGP				*e*x	x	04 45 54.8	
BRVK	**Borovoye**	**16.48**	**354**	*e*Pn	**Pn**	**04 43 03.3**	**-2.3**
	comp=Z,152nm,1.2s						
BRVK	**Borovoye**	**16.48**	**354**	*e*P	**Pn**	**04 43 03.3**	**-2.3**
BRVK				pmax	pmax		
	comp=Z,152nm,1.2s						
BRVK	**Borovoye**	**16.48**	**354**	Pn	**Pn**	**04 43 04.1**	**-1.5**
	SNR=57						
LSA	**Lhasa**	**16.70**	**109**	P	**Pn**	**04 43 05.4**	**-3.1**
LSA				AP	pP	04 43 15.0	-6.8
LSA				S	**S**	**04 46 11.0**	**-11**
LSA				AMB	AMB		
	comp=Z,40nm,1.0s						
LSA				LR	LR		
	comp=N,3μm,11.0s						
LSA				LR	LR		
	comp=E,2μm,11.0s						
LSA				LR	LR		
	comp=Z,4μm,14.0s						
BOK	**Bokaro**	**16.98**	**136**	*e*x	x	04 43 06.2	
BOK				AMb	AMB	04 43 13.3	
	comp=Z,46nm,0.6s						
BOK				*e*x	x	04 45 59.0	
AKTK	**Aktyubinsk**	**17.47**	**327**	P	**Pn**	**04 43 15.8**	**-2.1**
AKTK				S	**S**	**04 46 20.8**	**-16**
AKTK				LR	LR	04 50 32.2	
AKTO	**Aktyubinsk**	**17.47**	**327**	P	**Pn**	**04 43 15.8**	**-2.1**
AKTO				S	**S**	**04 46 20.8**	**-16**
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.3s						
AKTO				MLR	MLR		
	comp=Z,1μm,19.9s						
AKTO	**Aktyubinsk**	**17.47**	**327**	P	**Pn**	**04 43 15.8**	**-2.1**
	comp=Z,3.0nm,0.3s,baz=126,slow=11,SNR=40						
AKTO				S	**S**	**04 46 20.8**	**-16**
	comp=Z,0.3nm,0.3s,baz=319,slow=20,SNR=2.1						
AKTO				LR	LR	04 50 32.2	
	comp=Z,1μm,19.9s,baz=141,slow=39						
BANOM	**Banah**	**17.83**	**238**	Pn	**Pn**	**04 43 22.3**	**-0.2**
	SNR=22						
POO	**Poona**	**18.10**	**177**	*e*P	**Pn**	**04 43 22.9**	**-3.0**
POO				AMb	AMB	04 43 27.8	
	comp=Z,66nm,0.8s						
WBK	**Wadi Bani Khal**	**18.56**	**225**	P	**Pn**	**04 43 34.2**	**+2.8**
	SNR=6.9						
HATD	**Hatta, Dubai**	**18.68**	**235**	P	**Pn**	**04 43 33.1**	**+0.4**
	SNR=12						
SMDO	**Samad**	**18.74**	**228**	P	**Pn**	**04 43 34.0**	**+0.4**
	SNR=9.2						
HOQ	**Hoqain**	**18.80**	**230**	P	**Pn**	**04 43 35.5**	**+1.3**
	SNR=14						
ASHO	**Ashiyiah**	**18.82**	**235**	P	**Pn**	**04 43 34.4**	**-0.1**
	SNR=28						
ZAL	**Zalesovo**	**19.10**	**22**	P	**Pn**	**04 43 35.1**	**-2.5**
ZAL				S	**S**	**04 47 05.8**	**-4.2**
ZALV	**Zalesovo Beam**	**19.11**	**22**	P	**Pn**	**04 43 35.1**	**-2.7**
ZALV				S	**S**	**04 47 05.8**	**-4.5**
ZALV				LR	LR	04 51 19.8	
ZALV	**Zalesovo Beam**	**19.11**	**22**	P	**Pn**	**04 43 35.1**	**-2.7**
	comp=Z,7.3nm,0.3s,baz=208,slow=11,SNR=153						
ZALV				S	**S**	**04 47 05.8**	**-4.5**
	baz=210,slow=11,SNR=2.1						
ZALV				LR	LR	04 51 19.8	
	comp=Z,658nm,21.0s,baz=213,slow=38						
JMDO	**Jabal Madar**	**19.24**	**226**	P	**Pn**	**04 43 40.2**	**+0.6**
	SNR=17						
KAD	**Karad**	**19.33**	**177**	*e*P	**Pn**	**04 43 38.8**	**-1.8**
KAD				AMb	AMB	04 43 41.7	
	comp=Z,25nm,0.7s						
CAL	**Calcutta**	**19.36**	**133**	*e*x	x	04 45 53.9	
CAL				*e*S	**S**	**04 47 17.8**	**+2.0**
ARQ	**Araqi**	**19.47**	**231**	P	**Pn**	**04 43 44.0**	**+1.7**
	SNR=25						
NVS	**Novosibirsk**	**19.47**	**18**	*e*P	**Pn**	**04 43 38.3**	**-3.7**
NVS				*e*S	**S**	**04 47 14.1**	**-3.4**
NVS				pmax	pmax		
	comp=N,109nm,1.3s						
NVS				pmax	pmax		
	comp=E,22nm,1.3s						
NVS				pmax	pmax		
	comp=Z,116nm,1.3s						
NVS				smax			
	comp=N,419nm,2.3s						
NVS				smax			
	comp=E,124nm,2.3s						
BSY	**Bisya**	**19.49**	**229**	P	**Pn**	**04 43 44.5**	**+2.0**
	SNR=14						
SHL	**Shillong**	**19.56**	**119**	*e*P	**Pn**	**04 43 37.5**	**-5.8**
SHL				*e*x	x	04 47 04.0	
HYB	**Hyderabad**	**19.81**	**164**	⇓*e*P	**Pn**	**04 43 44.5**	**-1.8**
	comp=E,60nm,1.0s						
HYB				*e*S	**S**	**04 47 26.0**	**+1.2**
HYB	**Hyderabad**	**19.81**	**164**	⇓*e*P	**Pn**	**04 43 44.5**	**-1.8**
HYB				*e*S	**S**	**04 47 26.0**	**+1.2**
HYB				pmax	pmax		
	comp=Z,60nm,1.0s						
HYB	**Hyderabad**	**19.81**	**164**	⇓*i*P	**Pn**	**04 43 44.5**	**-1.8**
	comp=Z,60nm,1.0s						
HYB				*e*S	**S**	**04 47 26.0**	**+1.2**
MAK	**Makhachkala**	**20.52**	**296**	*e*P	**P**	**04 43 49.9**	**-2.0**
MAK				*e*S	**S**	**04 47 37.8**	**-0.8**
MAK				pmax	pmax		
	comp=Z,166nm,1.6s						
MAK				MLR	MLR		
	comp=Z,2μm,13.0s,MS4.6						
VIS	**Vishakhapatnam**	**20.98**	**151**	*i* P	**P**	**04 43 57.1**	**+0.1**
VIS				*e*x	x	04 44 04.9	
	comp=Z,50nm,1.2s						
VIS				*e*S	**S**	**04 47 51.9**	**+4.1**
GTA	**Gaotai**	**21.26**	**74**	*e*P	**P**	**04 44 00.1**	**+0.1**
GTA				AP		04 44 15.1	
GTA				PP		04 44 27.6	
GTA				S	**S**	**04 47 52.0**	**-1.2**
GTA				AMB	AMB		
	comp=Z,21nm,0.9s,mb4.5						
GTA				AMB	AMB		
	comp=Z,191nm,6.1s						
GTA				LR	LR		
	comp=N,1μm,12.9s,MS4.8						
GTA				LR	LR		
	comp=E,2μm,15.2s,MS4.8						
GTA				LR	LR		
	comp=Z,2μm,13.7s,MS4.7						
IMP	**Imphal**	**21.50**	**118**	*e*x	**P**	**04 44 04.0**	**+1.4**
SVE	**Sverdlovsk**	**21.79**	**342**	⇑*e*P	**P**	**04 44 05.0**	**-0.4**
SVE				pmax	pmax		
	comp=Z,190nm,1.2s,mb5.4						
SVE				MLR	MLR		
	comp=N,3μm,11.0s						
SVE				MLR	MLR		
	comp=Z,6μm,11.0s,MS5.3						
DGRG	**David-gareji**	**21.93**	**291**	P	**P**	**04 44 09.2**	**+2.1**
DGRG				S	**S**	**04 48 17.1**	**+11**
ARU	**Arti**	**22.02**	**338**	*e*P	**P**	**04 44 06.7**	**-1.2**
	comp=Z,104nm,1.3s,mb5.1						
ARU	**Arti**	**22.02**	**338**	⇓*i*P	**P**	**04 44 06.5**	**-1.4**
ARU				*e*		04 44 29.3	
ARU				*e*PPP		04 44 40.9	
ARU				*e*S	**S**	**04 48 07.7**	**+0.1**
ARU				*e*SS		04 48 42.5	
ARU				pmax	pmax		
	comp=Z,70nm,1.2s,mb5.0						
ARU				MLR	MLR		
	comp=Z,1μm,17.0s,MS4.3						
ARU				MLR	MLR		
	comp=N,700nm,16.0s,MS4.3						
ARU				MLR	MLR		
	comp=E,600nm,15.0s,MS4.3						
MTA	**Mtatsminda**	**22.38**	**292**	P	**P**	**04 44 13.0**	**+1.2**
MTA				S	sS	04 48 49.6	+15
TBLG	**Delisi**	**22.42**	**292**	*i* P	**P**	**04 44 13.3**	**+1.0**
TBLG				*e*S	sS	04 48 48.9	+14
TBLG	**Delisi**	**22.42**	**292**	P	**P**	**04 44 13.4**	**+1.1**
TBLG				S	sS	04 48 48.9	+14
KBD	**Kabd**	**22.48**	**258**	*e*P	**P**	**04 44 10.2**	**-2.9**
RDF	**Al-Radifah**	**22.71**	**257**	*e*P	**P**	**04 44 14.2**	**-1.3**
ZEI	**Tsey**	**23.13**	**294**	*e*P	**P**	**04 44 21.0**	**+1.3**
ZEI				*i*		04 44 27.4	
ZEI				*e*		04 44 46.4	
DYDN	**Diyadin**	**23.20**	**286**	⇓*i*P	**P**	**04 44 22.4**	**+2.0**
DIGO	**Kars**	**23.42**	**288**	⇓*i*P	**P**	**04 44 23.7**	**+1.1**
ONI	**Oni**	**23.44**	**294**	P	**P**	**04 44 23.6**	**+0.9**
ONI				S	**S**	**04 48 43.6**	**+12**
MNGI	**Mangalore**	**23.70**	**176**	*e*P	**P**	**04 44 23.5**	**-1.7**
MNGI				*i* x	x	04 51 37.1	
TUTA	**Tutak**	**23.88**	**286**	⇓*i*P	**P**	**04 44 29.1**	**+2.3**
KIV	**Kislovodsk**	**24.14**	**297**	*e*P	**P**	**04 44 29.8**	**+0.7**
	comp=E,52nm,0.8s,mb5.0						
KIV	**Kislovodsk**	**24.14**	**297**	*e*P	**P**	**04 44 28.2**	**-0.9**
KIV				*e*S	**S**	**04 48 42.7**	**-0.6**
KIV				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.5						
KIV				MLR	MLR		
	comp=Z,222nm,14.0s,MS3.8						
KIV	**Kislovodsk**	**24.14**	**297**	P	**P**	**04 44 29.8**	**+0.7**
	SNR=8.6						
ARTV	**Artvin**	**24.52**	**290**	⇑*i*P	**P**	**04 44 31.9**	**-0.7**
LZH	**Lanzhou**	**24.79**	**82**	⇑P	**P**	**04 44 38.0**	**+2.9**
LZH				PP		04 45 16.3	
LZH				*e*S	**S**	**04 48 53.0**	**-0.9**
LZH				SS		04 49 54.2	
LZH				AMB	AMB		
	comp=Z,31nm,1.3s,mb4.7						
LZH				AMB	AMB		
	comp=Z,135nm,4.5s						
LZH				LR	LR		
	comp=E,1μm,12.5s						
LZH				LR	LR		
	comp=Z,2μm,15.2s,MS4.7						
LZH	**Lanzhou**	**24.79**	**82**	⇑P	**P**	**04 44 38.0**	**+2.9**
	comp=Z,31nm,1.3s,mb4.7						
LZH				pP		04 44 53.5	
LZH				sP	sP	04 44 59.2	+4.8
LZH				PP		04 45 16.3	
LZH				*e*S	**S**	**04 48 53.0**	**-0.9**
LZH				sS	sS	04 49 17.8	+1.7
LZH				SS		04 49 54.2	
LZH				LR	LR		
	comp=Z,2μm,15.2s,MS4.7						
LZH	**Lanzhou**	**24.79**	**82**	⇑P	**P**	**04 44 38.0**	**+2.9**
LZH				*PP		04 44 53.5	
LZH						04 45 16.3	
LZH				*e*S	**S**	**04 48 53.0**	**-0.9**
LZH				SS		04 49 54.2	
LZH				pmax	pmax		
	comp=Z,31nm,1.3s,mb4.7						
LZH				MLR	MLR		
	comp=Z,2μm,15.2s,MS4.7						
MOY	**Mondy**	**24.84**	**44**	*e*P	**P**	**04 44 36.3**	**+0.9**
MOY				pmax	pmax		
	comp=Z,44nm,1.8s,mb4.7						
ERZM	**Erzurum**	**24.97**	**287**	⇓*i*P	**P**	**04 44 37.9**	**+1.1**
SOKR	**Solikamsk**	**25.19**	**340**	*d i*P	**P**	**04 44 36.0**	**-2.5**
SOKR				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.6						
SOKR				MLR	MLR		
	comp=Z,860nm,12.0s,MS4.5						
BNGL	**BINGOL**	**25.20**	**285**	⇓*i*P	**P**	**04 44 41.3**	**+2.5**
WHFO	**Wadi Hawf**	**25.24**	**227**	P	**P**	**04 44 39.8**	**+0.5**
	SNR=43						
RBK	**Rabkut**	**25.31**	**226**	P	**P**	**04 44 40.5**	**+0.5**
	SNR=35						
ZAK	**Zakamensk**	**25.66**	**48**	*e*P	**P**	**04 44 43.3**	**+0.5**
ZAK				pmax	pmax		
	comp=Z,24nm,1.1s,mb4.6						
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb3.9						
MARD	**Mardin**	**25.68**	**281**	⇑*i*P	**P**	**04 44 45.6**	**+2.4**
ABTO	**Aybut**	**25.96**	**227**	P	**P**	**04 44 46.1**	**+0.3**
	SNR=34						
CD2	**Chengdu**	**26.13**	**94**	*e*P	**P**	**04 44 47.6**	**+0.3**
CD2				AP	pP	04 45 02.0	+1.5
CD2				PP		04 45 30.7	
CD2				S	**S**	**04 49 11.8**	**-3.5**
CD2				SS		04 50 21.8	
CD2				AMB	AMB		
	comp=Z,50nm,1.1s,mb5.0						
CD2				AMB	AMB		
	comp=Z,150nm,5.2s						
CD2				LR	LR		
	comp=N,1μm,10.7s						
CD2				LR	LR		
	comp=E,1μm,9.5s						
CD2				LR	LR		
	comp=Z,1μm,11.9s,MS4.6						
SOC	**Sochi**	**26.24**	**296**	*e*P	**P**	**04 44 46.0**	**-2.2**
SOC				*e**SP	sP	04 45 00.0	-7.6
SOC				*e*		04 45 28.9	
SOC				*e*PPP		04 45 34.8	
SOC				*e*S	**S**	**04 49 15.4**	**-1.4**
SOC				*e*SSS		04 50 39.1	
SOC				pmax	pmax		
	comp=Z,21nm,0.9s,mb4.7						
SOC				MLR	MLR		
	comp=Z,473nm,13.0s,MS4.2						
TLY	**Talaya**	**26.35**	**46**	*e*P	**P**	**04 44 50.7**	**+1.6**
	comp=Z,7.9nm,0.8s,mb4.3						
TLY	**Talaya**	**26.35**	**46**	*e*P	**P**	**04 44 50.6**	**+1.5**
TLY				*e*		04 45 48.2	
TLY				*e*SS		04 50 45.5	
TLY				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.2						
TLY				MLR	MLR		
	comp=Z,1μm,17.0s,MS4.5						
SONM	**Songino Array**	**26.91**	**55**	P	**P**	**04 44 54.6**	**+0.5**
SONM				pmax	pmax		
	comp=Z,12nm,0.8s						
SONM				MLR	MLR		
	comp=Z,1μm,18.5s						
SONM	**Songino Array**	**26.91**	**55**	P	**P**	**04 44 54.6**	**+0.4**
	comp=Z,12nm,0.8s,mb4.5,baz=259,slow=8.7,SNR=64						
SONM				LR	LR	04 57 16.2	
	comp=Z,1μm,18.5s,MS4.5,baz=2.9,slow=40						
IRK	**Irkutsk**	**26.93**	**45**	*e*P	**P**	**04 44 56.0**	**+1.7**
IRK				*e*		04 45 53.8	

IRK				pmax	pmax		
	comp=Z,42nm,2.2s,mb4.6						
MALT	**Malatya**	**27.39**	**284**	*e*P	**P**	**04 44 58.8**	**+0.2**
	comp=Z,20nm,1.2s,mb4.5						
MALT	**Malatya**	**27.39**	**284**	⇑*i*P	**P**	**04 45 00.3**	**+1.7**
KMI	**Kunming**	**27.89**	**106**	P	**P**	**04 45 06.2**	**+3.1**
KMI				PP	PP	04 45 57.3	-9.5
KMI				S	**S**	**04 49 43.3**	**+0.3**
KMI				SS		04 51 07.8	
KMI				PCS	PcS	04 52 01.1	+1.1
KMI				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.3						
KMI				AMB	AMB		
	comp=Z,119nm,4.3s						
KMI				LR	LR		
	comp=N,1µm,14.2s,MS4.7						
KMI				LR	LR		
	comp=E,793nm,13.6s,MS4.7						
KMI				LR	LR		
	comp=Z,826nm,11.5s,MS4.6						
KMI	**Kunming**	**27.89**	**106**	P	**P**	**04 45 06.2**	**+3.1**
	comp=Z,6.0nm,0.8s,mb4.3						
KMI				pP	pP	04 45 19.8	+3.4
KMI				sP	sP	04 45 26.4	+3.9
KMI				PP	PP	04 45 57.3	-9.5
KMI				PPP		04 46 09.5	
KMI				S	**S**	**04 49 43.3**	**+0.3**
KMI				sS	sS	04 50 08.6	+3.1
KMI				SS		04 51 07.8	
KMI				SSS		04 51 26.6	
KMI				PcS	PcS	04 52 01.1	+1.1
KMI				LR	LR		
	comp=Z,830nm,11.5s,MS4.6						
KMI	**Kunming**	**27.89**	**106**	P	**P**	**04 45 06.2**	**+3.1**
KMI				*PP	pP	04 45 19.8	+3.4
KMI						04 45 57.3	
KMI				PPP		04 46 09.5	
KMI				S	**S**	**04 49 43.3**	**+0.3**
KMI				SS		04 51 07.8	
KMI				SSS		04 51 26.6	
KMI				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.3						
KMI				MLR	MLR		
	comp=Z,830nm,11.5s,MS4.6						
VORD	**Divnogorie**	**27.91**	**311**	*e*P	**P**	**04 44 59.5**	**-3.6**
VORD				*e*	pP	04 45 10.0	-6.3
VORD				*e*		04 45 47.4	
VORD				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.4						
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,9.0nm,0.7s						
VORD				pmax	pmax		
	comp=N,70nm,0.6s						
VORD				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
VORD				pmax	pmax		
	comp=E,60nm,0.8s						
VORD				MLR	MLR		
	comp=N,450nm,7.0s						
VORD				MLR	MLR		
	comp=Z,720nm,7.0s						
VORD				MLR	MLR		
	comp=E,450nm,9.0s						
ANN	**Anapa**	**27.97**	**298**	*e*P	**P**	**04 45 01.7**	**-2.0**
ANN				*e*S	**S**	**04 49 41.5**	**-2.5**
ANN				pmax	pmax		
	comp=Z,119nm,1.7s,mb5.2						
ANN				MLR	MLR		
	comp=Z,706nm,11.0s,MS4.5						
VRSR	**Storozhevoye**	**28.05**	**312**	*e*P	**P**	**04 45 04.4**	**+0.1**
VRSR				*e*S	**S**	**04 49 44.7**	**-0.5**
VRSR				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.0						
VRSR				pmax	pmax		
	comp=N,1.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,7.0nm,0.9s						
VRSR				smax			
	comp=N,20nm,3.3s						
VRSR				smax			
	comp=Z,130nm,4.5s						
VRSR				smax			
	comp=E,100nm,4.7s						
VRSR				MLR	MLR		
	comp=Z,90nm,16.0s,MS3.5						
VRSR				MLR	MLR		
	comp=N,100nm,38.0s						
VRSR				MLR	MLR		
	comp=E,90nm,17.0s						
GZT	**Gaziantep**	**28.21**	**282**	*i* P	**P**	**04 45 07.4**	**+1.5**
CHG	**Chiang Mai**	**28.91**	**121**	⇑P	**P**	**04 45 17.4**	**+5.1**
	comp=E,12nm,0.8s,mb4.7						
CHTO	**Chiang Mai**	**28.91**	**121**	*e*P	**P**	**04 45 13.2**	**+1.0**
	comp=E,8.0nm,0.8s,mb4.5						
CHTO	**Chiang Mai**	**28.91**	**121**	*e*P	**P**	**04 45 13.2**	**+0.9**
CHTO				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
BTO	**Baotou**	**29.04**	**71**	*e*P	**P**	**04 45 13.6**	**+0.4**
XAN	**Xi’an**	**29.31**	**84**	P	**P**	**04 45 17.8**	**+2.1**
XAN				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb4.3						
XAN				LR	LR		
	comp=N,662nm,11.7s,MS4.7						
XAN				LR	LR		
	comp=E,989nm,13.0s,MS4.7						
XAN				LR	LR		
	comp=Z,1µm,13.9s,MS4.7						
BOYT	**Boyabat**	**29.80**	**291**	⇓*i*P	**P**	**04 45 20.4**	**+0.5**
CTKT	**Corum**	**29.94**	**289**	⇓*i*P	**P**	**04 45 22.2**	**+1.0**
ASF	**Jabal al Asfar**	**30.01**	**272**	LR	LR	04 59 54.5	
	comp=Z,467nm,18.4s,MS4.2,baz=194,slow=42						
AVNT	**Avonos**	**30.10**	**286**	⇓*i*P	**P**	**04 45 24.4**	**+1.7**
PALK	**Pallekele**	**30.11**	**165**	*e*P	**P**	**04 45 22.9**	**0.0**
	comp=Z,11nm,0.8s,mb4.7						
NANT	**Nan**	**30.14**	**119**	P	**P**	**04 45 22.0**	**-1.2**
HHC	**Hu-ho-hao-te**	**30.19**	**70**	*e*P	**P**	**04 45 24.1**	**+0.7**
HHC				AP	pP	04 45 38.9	+2.2
HHC				PP	PP	04 46 24.4	-7.7
HHC				PCP	PcP	04 48 24.3	+0.9
HHC				S	**S**	**04 50 17.2**	**-1.7**
HHC				SCP	ScP	04 52 00.9	-0.3
HHC				SCS	ScS	04 55 54.4	-2.5
HHC				AMB	AMB		
	comp=Z,13nm,0.8s,mb4.7						
HHC				AMB	AMB		
	comp=Z,259nm,4.8s						
HHC				LR	LR		
	comp=N,1µm,13.4s,MS4.9						
HHC				LR	LR		
	comp=E,2µm,17.4s,MS4.9						
HHC				LR	LR		
	comp=Z,2µm,18.5s,MS4.8						
PRGR	**Permogore**	**30.29**	**334**	⇓*i*P	**P**	**04 45 23.9**	**-0.1**
GYA	**Guiyang**	**30.30**	**100**	P	**P**	**04 45 25.1**	**+0.6**
GYA				AP	pP	04 45 40.5	+2.7
GYA				PP	PP	04 46 27.7	-5.9
GYA				PCP	PcP	04 48 26.3	+2.4
GYA				S	**S**	**04 50 21.6**	**+0.6**
GYA				SCP	ScP	04 52 02.4	+0.6
GYA				SCS	ScS	04 55 56.9	-1.0
GYA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.7						
GYA				AMB	AMB		
	comp=Z,110nm,5.7s						
GYA				LR	LR		
	comp=N,340nm,17.9s,MS4.2						
GYA				LR	LR		
	comp=E,310nm,18.6s,MS4.2						
GYA				LR	LR		
	comp=Z,370nm,18.4s,MS4.1						
SIM	**Simferopol’**	**30.33**	**298**	P	**P**	**04 45 25.2**	**+0.6**
SIM				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.3						
MOS	**Moscow**	**30.54**	**320**	*e*P	**P**	**04 45 24.8**	**-1.6**
MOS				*e*		04 46 29.7	
MOS				*e*PPP		04 46 39.3	
MOS				pmax	pmax		
	comp=Z,46nm,0.8s,mb5.4						
MOS				MLR	MLR		
	comp=Z,900nm,11.9s,MS4.6						
OBN	**Obninsk**	**30.86**	**318**	*e*P	**P**	**04 45 28.8**	**-0.3**
	comp=Z,36nm,0.6s,mb5.4						
OBN	**Obninsk**	**30.86**	**318**	*de*P	**P**	**04 45 28.6**	**-0.6**
OBN				*i*		04 45 36.0	
OBN				*e*		04 46 30.5	
OBN				*e*S	**S**	**04 50 31.0**	**+1.9**
OBN				pmax	pmax		
	comp=Z,36nm,0.6s,mb5.4						
OBN				MLR	MLR		
	comp=Z,500nm,15.0s,MS4.3						
BRTR	**Keskin Array B**	**30.91**	**288**	P	**P**	**04 45 30.4**	**+0.6**
BRTR				pmax	pmax		
	comp=Z,8.0nm,0.6s						
BRTR	**Keskin Array B**	**30.91**	**288**	P	**P**	**04 45 30.4**	**+0.6**
	comp=Z,8.2nm,0.6s,mb4.7,baz=100,slow=9.7,SNR=98						
BALT	**Daday**	**30.93**	**291**	⇓*i*P	**P**	**04 45 30.9**	**+0.9**
ANTO	**Ankara**	**31.54**	**288**	*e*P	**P**	**04 45 36.0**	**+0.6**
	comp=Z,13nm,1.0s,mb4.7						
ANTO	**Ankara**	**31.54**	**288**	⇑P	**P**	**04 45 36.4**	**+1.1**
ANTO	**Ankara**	**31.54**	**288**	P	**P**	**04 45 36.6**	**+1.2**
	SNR=5.7						
ANTO	**Ankara**	**31.54**	**288**	⇑*i*P	**P**	**04 45 36.3**	**+0.9**
NST	**Nakhon Sawan**	**31.91**	**124**	P	**P**	**04 45 39.2**	**+0.4**
SGKT	**Sivrigoynuk**	**32.02**	**290**	⇓*i*P	**P**	**04 45 40.5**	**+0.9**
CIT	**Chita**	**32.32**	**49**	*e*P	**P**	**04 45 42.1**	**+0.1**
CIT				*e*		04 50 56.1	
ESKT	**Eskisehir**	**33.08**	**288**	*i* P	**P**	**04 45 48.8**	**0.0**
BJI	**Beijing**	**33.77**	**71**	P	**P**	**04 45 55.4**	**+0.5**
BJI				AP	pP	04 46 08.4	+0.2
BJI				PP	PP	04 47 08.4	-3.5
BJI				S	**S**	**04 51 15.1**	**+0.3**
BJI				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.5						
BJI				LR	LR		
	comp=N,1µm,14.6s,MS5.0						
BJI				LR	LR		
	comp=E,2µm,17.4s,MS5.0						
BJI				LR	LR		
	comp=Z,2µm,18.3s,MS4.8						
BJI	**Beijing**	**33.77**	**71**	P	**P**	**04 45 55.4**	**+0.5**
BJI				*PP	pP	04 46 08.4	+0.2
BJI						04 47 08.4	
BJI				S	**S**	**04 51 15.1**	**+0.3**
BJI				SS	SS	04 53 43.5	+1.3
BJI				MLR	MLR		
	comp=Z,2µm,18.3s,MS4.8						
KIS	**Kishinev**	**34.09**	**302**	*e*P	**P**	**04 45 55.0**	**-2.5**
KIS				*e*	pP	04 46 07.0	-3.9
AKASG	**Malin Array Be**	**34.09**	**308**	P	**P**	**04 45 55.9**	**-1.6**
AKASG				LR	LR	05 00 44.5	
AKASG	**Malin Array Be**	**34.09**	**308**	P	**P**	**04 45 55.9**	**-1.6**
AKASG				pmax	pmax		
	comp=Z,8.0nm,0.6s						
AKASG				MLR	MLR		
	comp=Z,244nm,18.5s						
AKASG	**Malin Array Be**	**34.09**	**308**	P	**P**	**04 45 55.9**	**-1.6**
	comp=Z,8.3nm,0.6s,mb4.9,baz=106,slow=9.5,SNR=39						
AKASG				LR	LR	05 00 44.5	
	comp=Z,244nm,18.5s,MS4.0,baz=90,slow=38						
AKBB	**Malin Array Si**	**34.09**	**308**	*e*P	**P**	**04 45 56.6**	**-0.9**
KIEV	**Kiev**	**34.10**	**308**	*e*P	**P**	**04 45 56.6**	**-0.9**
	comp=Z,11nm,0.7s,mb4.9						
KIEV	**Kiev**	**34.10**	**308**	*e*P	**P**	**04 45 56.6**	**-1.0**
KIEV				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
BOD	**Bodaibo**	**34.19**	**39**	*e*P	**P**	**04 45 57.7**	**-0.6**
BOD				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
TIRR	**Tirgusor**	**34.40**	**297**	⇓P	**P**	**04 46 00.4**	**+0.1**
TIRR	**Tirgusor**	**34.40**	**297**	⇓*i*P	**P**	**04 46 00.4**	**+0.2**
WHN	**Wuhan**	**34.77**	**88**	*e*P	**P**	**04 46 07.6**	**+4.0**
WHN				LR	LR		
	comp=Z,1µm,11.6s,MS4.9						
VRI	**Vrincioaia**	**35.54**	**300**	⇑P	**P**	**04 46 11.6**	**+1.6**
VRI	**Vrincioaia**	**35.54**	**300**	⇑*i*P	**P**	**04 46 11.6**	**+1.6**
PLOR	**Plostina**	**35.59**	**300**	⇓*i*P	**P**	**04 46 11.4**	**+0.9**
MLR	**Muntele Rosu**	**36.10**	**299**	⇑P	**P**	**04 46 16.4**	**+1.6**
MLR	**Muntele Rosu**	**36.10**	**299**	⇑*i*P	**P**	**04 46 16.4**	**+1.6**
JOF	**Joensuu**	**36.52**	**329**	*e*p	**P**	**04 46 17.3**	**-0.9**
	comp=Z,30nm,0.6s,mb5.3						
JOF	**Joensuu**	**36.52**	**329**	*e*P	**P**	**04 46 17.3**	**-0.9**
JOF				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.3						
BURAR	**Bucovina Array**	**36.54**	**303**	⇓P	**P**	**04 46 19.1**	**+0.5**
BURAR	**Bucovina Array**	**36.54**	**303**	⇓*i*P	**P**	**04 46 19.1**	**+0.5**
VOIR		**36.73**	**299**	⇑P	**P**	**04 46 20.9**	**+0.6**
VOIR		**36.73**	**299**	⇑*i*P	**P**	**04 46 20.9**	**+0.7**
VSU	**Vasula**	**37.05**	**321**	⇓*e*P	**P**	**04 46 23.3**	**+0.6**
LVV	**L’vov**	**37.35**	**306**	*e*P	**P**	**04 46 25.3**	**-0.1**
LVV				*e*		04 47 47.5	
LVV				*e*S	**S**	**04 52 12.1**	**+2.7**
LVV				MLR	MLR		
	comp=Z,300nm,12.0s,MS4.3						
NJ2	**Nanjing**	**37.85**	**83**	*e*P	**P**	**04 46 31.0**	**+1.1**
NJ2				AP	pP	04 46 46.2	+2.8
NJ2				PP	PP	04 48 00.8	+3.8
NJ2				S	**S**	**04 52 18.0**	**+0.6**
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,270nm,4.6s						
NJ2				LR	LR		
	comp=N,270nm,21.4s,MS4.2						
NJ2				LR	LR		
	comp=E,290nm,20.3s,MS4.2						
NJ2				LR	LR		
	comp=Z,290nm,20.3s,MS4.1						
APA	**Apatity**	**38.09**	**337**	⇓*i*P	**P**	**04 46 31.0**	**-0.5**
APA				*i*	pP	04 46 41.4	-3.6
APA				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.6						
APA				MLR	MLR		
	comp=Z,2µm,17.0s,MS4.9						
SUW	**Suwalki**	**38.16**	**313**	*e*P	**P**	**04 46 32.3**	**+0.1**
KWP	**Kalwaria**	**38.20**	**306**	*e*P	**P**	**04 46 34.1**	**+1.5**
FIA1	**FINESS Array S**	**38.24**	**325**	*e*P	**P**	**04 46 32.0**	**-0.7**
FINES	**FINESS Array B**	**38.24**	**325**	P	**P**	**04 46 32.0**	**-0.7**
FINES				pmax	pmax		
	comp=Z,11nm,0.6s						
FINES				MLR	MLR		
	comp=Z,609nm,19.9s						
FINES	**FINESS Array B**	**38.24**	**325**	P	**P**	**04 46 32.0**	**-0.7**
	comp=Z,11nm,0.6s,mb4.8,baz=109,slow=9.9,SNR=127						
FINES				LR	LR	05 03 05.1	
	comp=Z,609nm,19.9s,MS4.4,baz=284,slow=38						
DRGR		**38.27**	**301**	⇓P	**P**	**04 46 34.9**	**+1.7**
DRGR		**38.27**	**301**	⇓*i*P	**P**	**04 46 34.9**	**+1.6**
GZR	**Gura Zlata**	**38.33**	**299**	⇑P	**P**	**04 46 33.9**	**+0.2**
GZR	**Gura Zlata**	**38.33**	**299**	⇑*i*P	**P**	**04 46 33.9**	**+0.2**
VTS	**Vitosha**	**38.35**	**295**	⇓P	**P**	**04 46 34.9**	**+1.0**
VTS	**Vitosha**	**38.35**	**295**	⇓*i*P	**P**	**04 46 34.9**	**+1.0**
KAF	**Kangasniemi**	**38.35**	**327**	*e*p	**P**	**04 46 32.4**	**-1.3**
	comp=Z,9.1nm,0.6s,mb4.7,baz=109,slow=8.5						
KAF	**Kangasniemi**	**38.35**	**327**	*e*P	**P**	**04 46 32.4**	**-1.3**
KAF				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.7						
UZH	**Uzhgorod**	**38.48**	**304**	⇓*e*P	**P**	**04 46 35.2**	**+0.2**
UZH				*e*		04 48 11.4	
KOLS	**Kolonicke sedl**	**38.49**	**305**	*e*P	**P**	**04 46 35.5**	**+0.5**
KOLS				*e*pP	pP	04 46 42.6	-6.0
KOLS				*e*PP	PP	04 48 10.5	+6.8
CRVS	**Cervenica-Dubn**	**39.03**	**305**	*e*P	**P**	**04 46 40.2**	**+0.7**
CRVS				*e*	pP	04 46 49.9	-3.2
CRVS				*e*PP	PP	04 48 14.0	+4.4
CRVS	**Cervenica-Dubn**	**39.03**	**305**	*e*P	**P**	**04 46 40.1**	**+0.6**
CRVS				*e*pP	pP	04 46 49.9	-3.2
CRVS				*e*PP	PP	04 48 14.0	+4.4
BZS	**Buzias**	**39.12**	**300**	⇓P	**P**	**04 46 41.2**	**+0.8**
BZS	**Buzias**	**39.12**	**300**	⇓*i*P	**P**	**04 46 41.2**	**+0.8**
STHS	**Stebnicka Huta**	**39.16**	**306**	*e*P	**P**	**04 46 39.6**	**-1.0**
	comp=Z,7.8nm,2.0s,mb4.1						
STHS				*e*	pP	04 46 48.2	-6.0
STHS				*e*PP	PP	04 48 23.3	+12
STHS	**Stebnicka Huta**	**39.16**	**306**	*e*P	**P**	**04 46 39.6**	**-1.0**
STHS				*e*	pP	04 46 48.2	-6.0
STHS				pmax	pmax		
	comp=Z,8.0nm,2.0s,mb4.1						
CLNS	**Chul’man**	**39.68**	**43**	*e*P	**P**	**04 46 45.0**	**+0.1**
CLNS				*e**PP	pP	04 46 52.7	-5.8
CLNS				*e*		04 48 50.0	
CLNS				*e*S	**S**	**04 52 47.9**	**+3.5**
CLNS				*e*SS	SS	04 55 42.1	+1.0
CLNS				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
CLNS				pmax	pmax		
	comp=N,6.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,6.0nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
CLNS				pmax	pmax		
	comp=N,4.0nm,0.9s						
CLNS				pmax	pmax		
	comp=E,4.0nm,0.8s						
CLNS				smax			
	comp=N,122nm,14.9s						
CLNS				smax			
	comp=Z,65nm,10.1s						
CLNS				smax			
	comp=E,122nm,11.6s						
CLNS				MLR	MLR		
	comp=Z,600nm,13.0s,MS4.6						
CLNS				MLR	MLR		
	comp=N,200nm,12.0s,MS4.6						
CLNS				MLR	MLR		
	comp=E,500nm,13.0s,MS4.6						
KECS	**Kecovo**	**39.69**	**304**	*e*P	**P**	**04 46 46.8**	**+1.8**
	comp=E,1.7nm,0.9s,mb3.8						
KECS				*e*	pP	04 46 55.3	-3.3
KECS				*e*PP	PP	04 48 22.0	+5.2
KECS	**Kecovo**	**39.69**	**304**	*e*P	**P**	**04 46 46.8**	**+1.8**
KECS				*e*	pP	04 46 55.3	-3.3
KECS				*e*		04 48 22.0	
KECS				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.9						
NIE	**Niedzica**	**39.77**	**306**	*e*P	**P**	**04 46 46.8**	**+1.1**
SSE	**Sheshan**	**40.05**	**83**	P	**P**	**04 46 48.4**	**+0.1**
SSE				AP	pP	04 47 01.9	0.0
SSE				S	**S**	**04 52 49.5**	**-1.1**
SSE				SS	SS	04 55 47.4	-1.8
SSE				AMB	AMB		
	comp=Z,16nm,0.8s,mb4.8						
SSE				AMB	AMB		
	comp=Z,180nm,6.4s						
SSE				LR	LR		
	comp=N,690nm,14.7s,MS4.7						
SSE				LR	LR		
	comp=E,431nm,14.7s,MS4.7						
SSE				LR	LR		
	comp=Z,868nm,13.6s,MS4.8						
SSE	**Sheshan**	**40.05**	**83**	P	**P**	**04 46 48.4**	**+0.1**
	comp=Z,16nm,0.8s,mb4.8						
SSE				pP	pP	04 47 01.9	0.0
SSE				S	**S**	**04 52 49.5**	**-1.1**
SSE				SS	SS	04 55 47.4	-1.8
SSE				LR	LR		
	comp=Z,870nm,13.6s,MS4.8						
OJC	**Ojcow**	**40.08**	**307**	*e*P	**P**	**04 46 46.0**	**-2.3**
CN2	**Changchun**	**40.09**	**63**	*e*P	**P**	**04 46 54.5**	**+6.1**
CN2				*e*S	**S**	**04 52 55.0**	**+4.2**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.5						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,700nm,14.0s,MS4.9						
CN2				LR	LR		
	comp=E,900nm,14.0s,MS4.9						
CN2				LR	LR		
	comp=Z,1µm,14.0s,MS4.8						
PSZ	**Piszkesteto**	**40.12**	**303**	*e*P	**P**	**04 46 49.5**	**+0.9**
	comp=Z,3.4nm,0.7s,mb4.2						
PSZ	**Piszkesteto**	**40.12**	**303**	*e*P	**P**	**04 46 49.5**	**+0.9**
PSZ				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
KULM	**Kulim**	**40.22**	**134**	*e*P	**P**	**04 46 50.2**	**+0.4**
VYHS	**Vyhne**	**40.78**	**304**	*e*P	**P**	**04 46 55.1**	**+1.0**
	comp=Z,17nm,1.9s,mb4.3						
VYHS				*e*PP	PP	04 48 31.9	+3.2
VYHS	**Vyhne**	**40.78**	**304**	*e*P	**P**	**04 46 55.1**	**+1.0**
VYHS				pmax	pmax		
	comp=Z,17nm,1.9s,mb4.3						
PKSM	**Moragy**	**41.13**	**301**	⇓P	**P**	**04 46 57.3**	**+0.3**
PKSM	**Moragy**	**41.13**	**301**	⇓*i*P	**P**	**04 46 57.3**	**+0.4**
OKC	**Ostrava-Krasne**	**41.16**	**306**	*e*P	**P**	**04 46 57.1**	**0.0**
KEV	**Kevo**	**41.23**	**338**	*e*p	**P**	**04 46 55.8**	**-1.7**
	comp=Z,8.0nm,0.6s,mb4.5						
KEV	**Kevo**	**41.23**	**338**	*e*P	**P**	**04 46 55.8**	**-1.7**
KEV				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.5						
PSI	**Prapat**	**41.32**	**139**	P	**P**	**04 46 58.8**	**-0.1**
PSI						04 48 57.7	
PSI				pmax	pmax		
	comp=Z,5.0nm,0.3s,mb4.6						
PSI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.2						
PSI	**Prapat**	**41.32**	**139**	P	**P**	**04 46 58.8**	**-0.1**
	comp=Z,4.5nm,0.3s,mb4.5,baz=312,slow=8.0,SNR=7.4						
PSI				PcP	PcP	04 48 57.6	+1.0
	comp=Z,4.7nm,0.8s,baz=16,slow=3.3,SNR=3.7						
MORC	**Moravsky Berou**	**41.55**	**306**	*e*P	**P**	**04 47 01.9**	**+1.5**
MORC	**Moravsky Berou**	**41.55**	**306**	⇑*i*P	**P**	**04 47 01.7**	**+1.3**
ARCES	**ARCESS Array B**	**41.60**	**337**	P	**P**	**04 47 00.4**	**-0.1**
ARCES				pmax	pmax		
	comp=Z,15nm,0.6s						
ARCES				MLR	MLR		
	comp=Z,908nm,18.0s						
ARCES	**ARCESS Array B**	**41.60**	**337**	P	**P**	**04 47 00.4**	**-0.1**
	comp=Z,15nm,0.6s,mb4.8,baz=112,slow=8.5,SNR=98						
ARCES				LR	LR	05 05 35.0	
	comp=Z,908nm,18.0s,MS4.7,baz=33,slow=38						
MODS	**Modra-Piesok**	**41.83**	**304**	*e*P	**P**	**04 47 03.1**	**+0.4**
MODS				*e*PP	PP	04 48 45.8	+5.8
ZST	**Bratislava**	**41.96**	**304**	*e*P	**P**	**04 47 05.2**	**+1.4**
	comp=Z,4.0nm,0.9s,mb4.0						
ZST				*e*	pP	04 47 23.5	+6.1
ZST				*e*PP	PP	04 48 45.9	+4.5
ZST	**Bratislava**	**41.96**	**304**	*e*P	**P**	**04 47 05.2**	**+1.4**
ZST				*e*	pP	04 47 23.5	+6.1
ZST				*e*		04 48 45.9	
ZST				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.0						
VRAC	**Vranov**	**42.20**	**306**	⇓P	**P**	**04 47 06.4**	**+0.7**
VRAC	**Vranov**	**42.20**	**306**	⇓*i*P	**P**	**04 47 06.4**	**+0.7**
DPC	**Dobruska-Polom**	**42.30**	**307**	*e*P	**P**	**04 47 06.7**	**+0.2**
UPC	**Upice**	**42.49**	**308**	*e*P	**P**	**04 47 08.1**	**+0.1**
CONA	**Conrad Observa**	**42.82**	**304**	⇓*i*P	**P**	**04 47 11.2**	**+0.5**
	comp=Z,18nm,1.2s,mb4.7,SNR=5.8						
YAK	**Yakutsk**	**42.88**	**35**	*e*P	**P**	**04 47 11.8**	**+0.7**
	comp=Z,24nm,0.6s,mb5.1						
YAK	**Yakutsk**	**42.88**	**35**	*e*P	**P**	**04 47 10.1**	**-0.9**
YAK				*i* *PP	pP	04 47 19.1	-5.6
YAK				*i*		04 49 02.2	
YAK				*e*S	**S**	**04 53 33.3**	**+1.6**
YAK				*i*		04 57 08.8	
YAK				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.8						
YAK				pmax	pmax		
	comp=N,3.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,10.0nm,1.5s						
YAK				smax			
	comp=N,130nm,3.4s						
YAK				smax			
	comp=E,76nm,2.1s						
YAK				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.0						
YAK				MLR	MLR		
	comp=N,359nm,22.0s,MS4.8						
YAK				MLR	MLR		
	comp=E,1µm,17.0s,MS4.8						
TREC	**Trest**	**42.92**	**306**	*e*P	**P**	**04 47 12.8**	**+1.3**
GROS	**Grobnik**	**43.25**	**302**	*e*P	**P**	**04 47 14.4**	**+0.2**
KSRS	**Korea Array**	**43.29**	**72**	P	**P**	**04 47 14.8**	**0.0**
	comp=E,1.8nm,0.7s,mb3.9,baz=286,slow=8.0,SNR=8.3						
KSRS				LR	LR	05 07 33.5	
	comp=E,916nm,19.7s,MS4.7,baz=293,slow=39						
PVCC	**Panska Ves**	**43.41**	**308**	*e*P	**P**	**04 47 15.5**	**+0.1**
PRU	**Pruhonice**	**43.47**	**307**	*e*P	**P**	**04 47 16.0**	**0.0**
PRU				*e*PP	PP	04 48 54.3	-3.3
BRG	**Berggiesshubel**	**43.78**	**308**	*i* P	**P**	**04 47 18.8**	**+0.4**
BRG				*e*		04 49 11.6	
BRG				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.4						
BRG				pmax	pmax		
	comp=Z,15nm,1.7s,mb4.5						
BRG	**Berggiesshubel**	**43.78**	**308**	*i* P	**P**	**04 47 18.8**	**+0.4**
	comp=Z,16nm,1.1s,mb4.7						
BRG				*e*		04 49 11.6	
	comp=Z,26nm,1.7s						
TIP	**Timpagrande**	**43.83**	**291**	*e*P	**P**	**04 47 19.1**	**+0.2**

MOA	Molln	43.89	304⇑	iP	P	04 47 20.2	+0.8
	comp=Z,20nm,1.3s,mb4.7,SNR=5.8						
LJU	Ljubljana	43.98	301	eP	P	04 47 20.7	+0.5
GERES	GERESS Array B	44.14	305	P	P	04 47 21.3	-0.1
	comp=Z,0.4nm,0.5s,mb3.4,baz=89,slow=7.4,SNR=6.4						
GERES				LR	LR	05 08 48.0	
	comp=Z,134nm,18.0s,MS3.9,baz=259,slow=40						
FBE	Freiberg	44.14	308	eP	P	04 47 21.5	+0.2
	comp=Z,19nm,1.2s,mb4.7						
KHC	Kasperske Hory	44.19	306	eP	P	04 47 21.6	-0.1
KHC				epP	pP	04 47 37.0	+1.5
CLL	Collm	44.33	309	i P	P	04 47 22.5	-0.3
	comp=Z,18nm,1.2s,mb4.7						
CLL				i pP	pP	04 47 39.4	+2.8
CLL				LR	LR		
	comp=Z,700nm,14.1s,MS4.7						
CLL	Collm	44.33	309	i P	P	04 47 22.5	-0.3
CLL				i *PP	pP	04 47 39.4	+2.8
CLL				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.7						
CLL				MLR	MLR		
	comp=Z,700nm,14.1s,MS4.7						
CLL	Collm	44.33	309	eP	P	04 47 22.1	-0.7
	comp=Z,18nm,1.2s,mb4.7						
CLL	Collm	44.33	309	i P	P	04 47 22.5	-0.3
	comp=Z,18nm,1.2s,mb4.7						
CLL				i (pP)	pP	04 47 39.4	+2.8
CLL				ePP	PP	04 49 07.0	+0.2
ROBS	Robic	44.65	302	eP	P	04 47 25.1	-0.3
NKC	Novy Kostel	44.79	307	eP	P	04 47 29.9	+3.4
TIXI	Tiksi	45.00	22	eP	P	04 47 27.1	-0.8
TIXI	Tiksi	45.00	22	eP	P	04 47 27.6	-0.3
TIXI				e		04 49 11.3	
TIXI				eS	S	04 54 03.2	+0.9
TIXI				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.2						
TIXI				MLR	MLR		
	comp=Z,2μm,12.0s,MS5.2						
NB2	NORSAR Subarra	45.20	323	P	P	04 47 28.6	-1.0
	comp=Z,18nm,0.6s,mb5.1,baz=93,slow=7.9						
NOA	NORSAR Array B	45.20	323	P	P	04 47 28.6	-1.0
NOA				pmax	pmax		
	comp=Z,21nm,0.7s						
NOA				MLR	MLR		
	comp=Z,297nm,18.4s						
NOA	NORSAR Array B	45.20	323	P	P	04 47 28.6	-1.1
	comp=Z,21nm,0.7s,mb5.1,baz=94,slow=7.7,SNR=79						
NOA				LR	LR	05 08 32.0	
	comp=Z,297nm,18.4s,MS4.3,baz=275,slow=39						
NAO01	NORSAR Array S	45.35	323	eP	P	04 47 29.9	-0.9
	comp=Z,16nm,0.8s,mb4.9						
GRA1	Grafenberg Arr	45.64	307	eP	P	04 47 33.8	+0.5
	comp=Z,17nm,1.2s,mb4.8						
GRF	Grafenberg Arr	45.64	307	eP	P	04 47 33.8	+0.5
GRF				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
GRF	Grafenberg Arr	45.64	307	eP	P	04 47 33.8	+0.5
GRF				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
GRF	Grafenberg Arr	45.64	307	eP	P	04 47 33.8	+0.5
	comp=Z,17nm,1.2s,mb4.8						
HABR	Khabarovsk	45.99	55	eP	P	04 47 34.6	-1.5
HABR				eS	S	04 54 17.5	+0.3
DAVA	Damuels	46.91	304⇑	iP	P	04 47 42.2	-1.1
	comp=Z,26nm,1.1s,mb5.1,SNR=6.7						
CDF	Champ du Feu	48.41	306	eP	P	04 47 54.5	-0.4
PGF	Pioggiola	48.62	298	eP	P	04 47 55.9	-0.6
	comp=Z,71nm,1.1s,mb5.3						
PGF	Pioggiola	48.62	298	eP	P	04 47 55.9	-0.6
	comp=Z,36nm,1.1s,mb5.3						
PGF	Pioggiola	48.62	298	eP	P	04 47 55.9	-0.6
PGF				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.3						
HINF	Hinteralfeld	48.81	305	eP	P	04 47 57.2	-0.8
	comp=Z,18nm,1.0s,mb4.8						
HINF	Hinteralfeld	48.81	305	eP	P	04 47 57.2	-0.8
	comp=Z,9.1nm,1.0s,mb4.8						
HINF	Hinteralfeld	48.81	305	eP	P	04 47 57.2	-0.8
HINF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
WLF	Walferdange	48.89	308	eP	P	04 47 58.7	+0.2
	comp=Z,9.6nm,0.7s,mb4.9						
WLF	Walferdange	48.89	308	eP	P	04 47 58.7	+0.2
WLF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
HAU	Haudompre	49.11	305	eP	P	04 47 59.7	-0.5
KSM	Kuching	49.13	127	eP	P	04 48 01.7	+0.9
SBF	Sospel	49.37	300	eP	P	04 48 01.7	-0.6
	comp=Z,87nm,1.0s,mb5.4						
SBF	Sospel	49.37	300	eP	P	04 48 01.7	-0.6
	comp=Z,44nm,1.0s,mb5.4						
SBF	Sospel	49.37	300	eP	P	04 48 01.7	-0.6
SBF				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.4						
LPG	La Plagne	49.42	302	eP	P	04 48 02.4	-0.2
	comp=Z,22nm,0.9s,mb4.9						
LPG	La Plagne	49.42	302	eP	P	04 48 02.4	-0.2
	comp=Z,11nm,0.9s,mb4.9						
LPG	La Plagne	49.42	302	eP	P	04 48 02.4	-0.2
LPG				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
LPL	La Plagne	49.43	302	eP	P	04 48 02.5	-0.2
	comp=Z,32nm,0.9s,mb5.0						
LPL	La Plagne	49.43	302	eP	P	04 48 02.5	-0.2
	comp=Z,16nm,0.9s,mb5.0						
LPL	La Plagne	49.43	302	eP	P	04 48 02.5	-0.2
LPL				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
BNI	Bardonecchia	49.58	301	eP	P	04 48 03.7	-0.2
	comp=Z,11nm,0.9s,mb4.9						
BNI	Bardonecchia	49.58	301	eP	P	04 48 03.7	-0.2
BNI				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
CABF	La Chapelle	49.60	304	eP	P	04 48 03.4	-0.6
MBDF	Montbardon	49.60	301	eP	P	04 48 03.5	-0.5
	comp=Z,24nm,0.9s,mb4.9						
MBDF	Montbardon	49.60	301	eP	P	04 48 03.5	-0.5
	comp=Z,12nm,0.9s,mb4.9						
MBDF	Montbardon	49.60	301	eP	P	04 48 03.5	-0.5
MBDF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
MEZF	Maizieres J'vi	49.84	306	eP	P	04 48 05.3	-0.5
FRF	La Foret Royal	50.00	300	eP	P	04 48 06.6	-0.5
	comp=Z,30nm,0.8s,mb5.1						
FRF	La Foret Royal	50.00	300	eP	P	04 48 06.6	-0.5
	comp=Z,15nm,0.8s,mb5.1						
FRF	La Foret Royal	50.00	300	eP	P	04 48 06.6	-0.5
FRF				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
BAIF	Baives	50.05	308	eP	P	04 48 07.0	-0.3
	comp=Z,25nm,1.0s,mb4.9						
BAIF	Baives	50.05	308	eP	P	04 48 07.0	-0.3
	comp=Z,13nm,1.0s,mb4.9						
BAIF	Baives	50.05	308	eP	P	04 48 07.0	-0.3
BAIF				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
LMR	La Mourre	50.16	299	eP	P	04 48 07.4	-0.9
KMBO	Kilima Mbogo	50.16	230	eP	P	04 48 09.9	+1.3
	comp=Z,11nm,0.7s,mb5.0						
KMBO	Kilima Mbogo	50.16	230	i P	P	04 48 10.1	+1.5
KMBO				pmax	pmax		
	comp=Z,11nm,0.7s						
KMBO	Kilima Mbogo	50.16	230	P	P	04 48 10.6	+2.0
	SNR=7.5						
KMBO	Kilima Mbogo	50.16	230	P	P	04 48 08.9	+0.3
	comp=Z,11nm,0.7s,mb5.0,baz=34,slow=12,SNR=45						
KMBO				LR	LR	05 13 13.9	
	comp=Z,175nm,18.8s,MS4.1,baz=44,slow=41						
ORIF	Oris-en-Rattie	50.16	302	eP	P	04 48 07.9	-0.4
KEST	Kesra	50.50	289	P	P	04 48 10.8	-0.2
	comp=Z,5.1nm,0.6s,mb4.7,baz=258,slow=8.0,SNR=18						
SMRF	Simiane la Rot	50.63	300	eP	P	04 48 11.4	-0.4
	comp=Z,18nm,0.9s,mb4.7						
SMRF	Simiane la Rot	50.63	300	eP	P	04 48 11.4	-0.4
	comp=Z,18nm,0.9s,mb5.0						
LOR	Lormes	50.92	305	eP	P	04 48 13.3	-0.6
VIVF	Saint-Julien-l	51.01	302	eP	P	04 48 14.2	-0.5
	comp=Z,16nm,0.7s,mb4.7						
VIVF	Saint-Julien-l	51.01	302	eP	P	04 48 14.2	-0.5
	comp=Z,7.8nm,0.7s,mb4.8						
VIVF	Saint-Julien-l	51.01	302	eP	P	04 48 14.2	-0.5
VIVF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
SMF	Signal de Mont	51.09	304	eP	P	04 48 14.2	-1.0
	comp=Z,40nm,1.0s,mb5.0						
SMF	Signal de Mont	51.09	304	eP	P	04 48 14.2	-1.0
	comp=Z,20nm,1.0s,mb5.0						
SMF	Signal de Mont	51.09	304	eP	P	04 48 14.2	-1.0
SMF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
SSF	Saint Saulge	51.20	305	eP	P	04 48 15.5	-0.6
AVF	Avril sur Loir	51.37	304	eP	P	04 48 16.4	-1.0
	comp=Z,23nm,0.8s,mb4.9						
AVF	Avril sur Loir	51.37	304	eP	P	04 48 16.4	-1.0
	comp=Z,12nm,0.8s,mb4.9						
AVF	Avril sur Loir	51.37	304	eP	P	04 48 16.4	-1.0
AVF				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
MAT	Matsushiro	51.38	69	P	P	04 48 16.6	-1.0
MAJO	Matsushiro	51.38	69	eP	P	04 48 18.4	+0.8
	comp=Z,21nm,0.9s,mb5.1						
MAJO	Matsushiro	51.38	69	eP	P	04 48 18.4	+0.8
MAJO				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
MJAR	Matsushiro Arr	51.38	69	P	P	04 48 17.3	-0.3
MJAR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
MJAR				MLR	MLR		
	comp=Z,184nm,19.1s						
MJAR	Matsushiro Arr	51.38	69	P	P	04 48 17.3	-0.3
	comp=Z,3.6nm,0.9s,mb4.3,baz=288,slow=9.1,SNR=8.8						
MJAR				LR	LR	05 11 42.1	
	comp=Z,184nm,19.1s,MS4.1,baz=275,slow=38						
YSS	Yuzh-Sakhalins	51.40	55	eP	P	04 48 18.1	+0.5
	comp=Z,22nm,0.9s,mb5.1						
YSS	Yuzh-Sakhalins	51.40	55	P	P	04 48 17.6	0.0
YSS				MLR	MLR		
	comp=Z,1μm,15.0s,MS5.0						
YSS				MLR	MLR		
	comp=E,1μm,17.0s						
BGF	Bois d'Agland	51.77	304	eP	P	04 48 19.8	-0.6
LASF	Ste Croix	51.79	301	eP	P	04 48 20.2	-0.3
	comp=E,34nm,1.0s,mb4.9						
TCF	Toulx Ste Croi	52.27	304	eP	P	04 48 23.7	-0.4
CAF	Calviac	52.76	302	eP	P	04 48 27.2	-0.5
	comp=E,19nm,1.1s,mb4.7						
CAF	Calviac	52.76	302	eP	P	04 48 27.2	-0.5
	comp=E,9.6nm,1.0s,mb4.7						
CAF	Calviac	52.76	302	eP	P	04 48 27.2	-0.5
CAF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
MTLF	Montolieu	53.14	301	eP	P	04 48 30.2	-0.4
	comp=Z,21nm,1.1s,mb4.7						
MTLF	Montolieu	53.14	301	eP	P	04 48 30.2	-0.4
	comp=Z,11nm,1.1s,mb4.7						
MTLF	Montolieu	53.14	301	eP	P	04 48 30.2	-0.4
MTLF				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
LDF	La Druitiere	53.15	307	eP	P	04 48 29.5	-1.0
	comp=Z,27nm,0.7s,mb5.0						
LDF	La Druitiere	53.15	307	eP	P	04 48 29.5	-1.0
	comp=Z,14nm,0.7s,mb5.0						
LDF	La Druitiere	53.15	307	eP	P	04 48 29.5	-1.0
LDF				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
FLN	La Foliniere	53.33	308	eP	P	04 48 31.6	-0.3
SEY	Seymchan	53.37	34⇓	eP	P	04 48 32.9	+1.0
GRR	Gorron	53.68	307	eP	P	04 48 33.7	-0.7
	comp=Z,29nm,0.6s,mb5.1						
GRR	Gorron	53.68	307	eP	P	04 48 33.7	-0.7
	comp=Z,15nm,0.6s,mb5.1						
GRR	Gorron	53.68	307	eP	P	04 48 33.7	-0.7
GRR				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
MBAR	Mbarara	53.94	236⇓	eP	P	04 48 36.4	-0.3
EPF	Esparros	54.54	301	eP	P	04 48 40.1	-0.7
DAG	Danmarks Havn	55.01	344⇑	iP	P	04 48 43.8	+0.1
	comp=Z,19nm,0.7s,mb5.2						
ROSF	Rostrenen	55.23	308	eP	P	04 48 45.1	-0.6
	comp=Z,46nm,0.8s,mb5.2						
ROSF	Rostrenen	55.23	308	eP	P	04 48 45.1	-0.6
	comp=Z,23nm,0.8s,mb5.3						
ROSF	Rostrenen	55.23	308	eP	P	04 48 45.1	-0.6
ROSF				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.3						
QUIF	Quistinic	55.29	307	eP	P	04 48 45.2	-0.9
	comp=Z,26nm,0.7s,mb5.1						
QUIF	Quistinic	55.29	307	eP	P	04 48 45.2	-0.9
	comp=Z,13nm,0.7s,mb5.1						
QUIF	Quistinic	55.29	307	eP	P	04 48 45.2	-0.9
QUIF				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.1						
SJPF	Ste Jean	55.59	301	eP	P	04 48 48.1	-0.3
CART	Cartagena	57.50	295	eP	P	04 49 01.6	-0.4
	comp=Z,23nm,0.7s,mb5.3						
BILL	Bilibino	57.73	26	eP	P	04 49 03.4	+0.2
	comp=Z,3.9nm,0.6s,mb4.6						
BILL	Bilibino	57.73	26	eP	P	04 49 03.4	+0.3
BILL				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
ESDC	Sonseca Array	58.79	298	P	P	04 49 10.7	-0.3
	comp=Z,2.2nm,0.5s,mb4.4,baz=55,slow=7.3,SNR=20						
LSZ	Lusaka	66.76	228	eP	P	04 50 03.9	-0.2
	comp=Z,4.5nm,0.7s,mb4.6						
LSZ	Lusaka	66.76	228	eP	P	04 50 03.9	-0.3
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
TOA0	Torodi Ar. Sit	67.33	270	eP	P	04 50 05.5	-2.4
TORD	Torodi Ar. Bea	67.33	270	P	P	04 50 05.4	-2.6
	comp=Z,7.5nm,0.8s,mb4.8,baz=47,slow=5.7,SNR=93						
TORD				LR	LR	05 23 15.8	
	comp=Z,242nm,18.8s,MS4.4,baz=45,slow=39						
TNA	Tin City	67.77	23	eP	P	04 50 09.8	-0.1
	comp=Z,5.6nm,1.0s,mb4.5						
RES	Resolute Bay	68.62	357	eP	P	04 50 15.2	0.0
	comp=Z,95nm,0.5s,mb6.0						
IMA2	Indian Mountai	71.45	18	eP	P	04 50 32.1	-0.5
INK	Inuvik	73.45	10	eP	P	04 50 44.5	0.0
FITZ	Fitzroy Crossi	73.72	128⇓	iP	P	04 50 47.2	+0.5
	comp=Z,11nm,0.7s,mb4.9						
COLA	College	73.84	17	eP	P	04 50 46.7	-0.1
	comp=Z,23nm,0.9s,mb5.1						
COLA	College	73.84	17c	iP	P	04 50 47.0	+0.2
KAKA	Kakadu	74.41	119	eP	P	04 50 50.9	+0.1
	comp=Z,43nm,0.6s,mb5.6						
MCK	McKinley	74.54	18	eP	P	04 50 50.8	0.0
	comp=Z,3.9nm,0.6s,mb4.5						
MCK	McKinley	74.54	18	eP	P	04 50 50.8	-0.1
MCK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
SVW2	Sparrevohn	74.84	22	eP	P	04 50 53.0	+0.3
EGAK	Eagle	75.38	14	eP	P	04 50 55.7	0.0
	comp=Z,9.2nm,1.0s,mb4.7						
LBTB	Lobatse	75.91	224	eP	P	04 50 59.6	+0.4
PMR	Palmer	76.27	19	eP	P	04 51 00.2	-0.7
	comp=Z,13nm,1.1s,mb4.8						
PMR	Palmer	76.27	19	eP	P	04 51 00.2	-0.7
PMR				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
SML	Sawmill	76.30	19	eP	P	04 51 00.9	-0.2
TSUM	Tsumeb	76.31	233	eP	P	04 51 01.3	-0.3
	comp=Z,4.2nm,0.7s,mb4.5						
DAWY	Dawson	76.36	14	eP	P	04 51 01.0	-0.3
KIC	Kosan Boka	76.41	268	eP	P	04 50 59.3	-3.1
	comp=Z,47nm,1.0s,mb5.4						
TIC	Toumodi	76.46	268	eP	P	04 50 59.8	-2.9
	comp=Z,139nm,1.5s,mb5.7						
LIC	Lamto	76.72	268	eP	P	04 51 02.5	-1.7
	comp=Z,26nm,1.0s,mb4.8						
LIC				eMLR	MLR		
	comp=Z,345nm,19.0s,MS4.4						
LIC	Lamto	76.72	268	eP	P	04 51 02.8	-1.4
	comp=Z,30nm,1.0s,mb5.2						
LIC	Lamto	76.72	268	eP	P	04 51 02.5	-1.7
	comp=Z,13nm,1.0s,mb4.8						
LIC				LR	LR		
	comp=Z,170nm,19.0s,MS4.4						
SLKM	Skilak Lake	76.88	20	eP	P	04 51 03.1	-1.2
EYAK	Cordova Ski Ar	78.04	18	eP	P	04 51 10.9	+0.1
KDAK	Kodiak Island	78.41	23	eP	P	04 51 13.0	+0.1
	comp=Z,16nm,0.6s,mb5.1						
BOSA	Boshof	78.94	222	eP	P	04 51 16.4	+0.3
	comp=Z,17nm,1.1s,mb4.9						
BOSA	Boshof	78.94	222	eP	P	04 51 16.4	+0.3
BOSA				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
BOSA	Boshof	78.94	222	P	P	04 51 15.3	-0.7
	comp=Z,11nm,1.1s,mb4.7,baz=55,slow=6.6,SNR=10						
BOSA				LR	LR	05 29 10.5	
	comp=Z,200nm,18.4s,MS4.5,baz=297,slow=38						
MUN	Mundaring	79.37	144	eP	P	04 51 18.3	-0.1
KLBR	Kellerberrin	79.80	142	eP	P	04 51 20.5	-0.2
	comp=Z,20nm,0.7s,mb5.2						
WRA	Warramunga Arr	80.73	123	P	P	04 51 26.2	+0.2
WRA				pmax	pmax		
	comp=Z,24nm,0.8s						
WRA	Warramunga Arr	80.73	123	P	P	04 51 26.2	+0.2
	comp=Z,24nm,0.8s,mb5.2,baz=327,slow=5.2,SNR=198						
WB2	Warramunga Arr	80.74	123⇓	iP	P	04 51 26.2	+0.2
YKW3	Yellowknife Ar	80.91	4	eP	P	04 51 26.0	-0.3
YKA	Yellowknife Ar	80.97	4	P	P	04 51 26.3	-0.4
YKA				pmax	pmax		
	comp=Z,11nm,0.8s						
YKA				MLR	MLR		
	comp=Z,139nm,19.0s						
YKA	Yellowknife Ar	80.97	4	P	P	04 51 26.3	-0.4
	comp=Z,11nm,0.8s,mb4.9,baz=348,slow=5.5,SNR=139						
YKA				LR	LR	05 30 52.8	
	comp=Z,139nm,19.0s,MS4.3,baz=195,slow=38						
SCHQ	Schefferville	82.55	338	P	P	04 51 34.0	-1.1
	comp=Z,4.2nm,0.8s,mb4.5,baz=51,slow=13,SNR=5.2						
SCHQ				LR	LR	05 27 26.4	
	comp=Z,221nm,20.3s,MS4.5,baz=338,slow=35						
COEN	Coen	82.98	113	eP	P	04 51 37.9	0.0
ASAR	Alice Springs	83.05	126	P	P	04 51 38.2	+0.1
ASAR				pmax	pmax		
	comp=Z,8.0nm,0.7s						
ASAR	Alice Springs	83.05	126	P	P	04 51 38.2	+0.1
	comp=Z,7.6nm,0.7s,mb4.8,baz=309,slow=5.1,SNR=102						
PMG	Port Moresby	83.11	107	eP	P	04 51 39.1	+0.5
	comp=Z,28nm,0.7s,mb5.4						
PMG	Port Moresby	83.11	107	eP	P	04 51 39.1	+0.5
PMG				pmax	pmax		
	comp=Z,28nm,0.7s						
DLBC	Dease Lake	83.30	12	eP	P	04 51 39.3	+0.4
FCC	Fort Churchill	84.30	353	eP	P	04 51 43.9	-0.1
	comp=Z,9.8nm,1.0s,mb4.9						
FCC	Fort Churchill	84.30	353	eP	P	04 51 43.9	-0.1
FCC				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
FORT	Forrest	84.64	135	eP	P	04 51 46.7	+0.6
	comp=Z,54nm,0.6s,mb5.9						
FFC	Flin Flon	88.86	357	eP	P	04 52 05.8	-0.5
	comp=Z,13nm,0.9s,mb5.3						
FFC	Flin Flon	88.86	357	eP	P	04 52 05.8	-0.6
FFC				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.3						
CTA	Charters Tower	89.16	116	eP	P	04 52 08.7	+0.4
	comp=Z,6.6nm,0.6s,mb5.1						
CTA	Charters Tower	89.16	116	eP	P	04 52 08.7	+0.4
CTA				pmax	pmax		
	comp=Z,7.0nm,0.6s						
CTAO	Charters Tower	89.16	116	eP	P	04 52 08.8	+0.5
	comp=Z,6.7nm,0.6s,mb5.2						
CTAO	Charters Tower	89.16	116	eP	P	04 52 08.8	+0.5
CTAO				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb5.2						
EDM	Edmonton	90.29	4	eP	P	04 52 12.9	-0.2
ULM	Lac du Bonnet	92.88	353	P	P	04 52 25.8	+0.6
	comp=Z,2.2nm,0.7s,mb4.7,baz=7.3,slow=7.4,SNR=4.8						
ULM				LR	LR	05 36 39.6	
	comp=Z,144nm,20.9s,MS4.4,baz=26,slow=37						
STKA	Stephens Creek	93.61	127	P	P	04 52 28.1	-0.6
	comp=Z,2.4nm,0.8s,mb4.7,baz=303,slow=8.0,SNR=3.8						
NEW	Newport	94.95	7	eP	P	04 52 34.7	0.0
	comp=Z,1.6nm,0.7s,mb4.6						
NEW	Newport	94.95	7	eP	P	04 52 34.7	0.0
NEW				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LAO	LASA Array	97.00	359	eP	P	04 52 45.5	+1.4
	comp=Z,6.2nm,0.9s,mb5.0						
PDAR	Pinedale Array	100.89	2	P	Pdif	04 53 02.1	+0.6
	comp=Z,0.3nm,0.7s,baz=354,slow=6.4,SNR=3.3						
TXAR	Lajitas Array	114.26	357	PKP	PKiKP	04 57 52.6	+0.5
TXAR	Lajitas Array	114.26	357	PKIKP	PKiKP	04 57 52.6	+0.5
TXAR	Lajitas Array	114.26	357	PKP	PKiKP	04 57 52.6	+0.5
	comp=Z,0.1nm,0.5s,baz=19,slow=8.6,SNR=2.4						
LCO	Las Campanas	148.70	274	ePKPbc	PKPbc	04 58 59.7	0.0

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*CSEM **11** 05:11:36.6±0.1, 38.40N×39.13E, h5^{km}, MD3.4, Error ellipse: s-maj=3.1km s-min=2.1km az=157.0*

*DDA **11** 05:11:36.9, 38.40N×39.15E, h6^{km}±7^{km}, Md3.4*

*ISK **11** 05:11:36.9, 38.40N×39.11E, h5^{km}, MD3.1*

*ISCJB **11** 05:11:37.2±0.7, 38.39N±0.04×39.13E±0.04, h2^{km}±8^{km}, Error ellipse: s-maj=7.0km s-min=4.5km az=140.6*

ISC 11 05:11:37.7±0.6**, 38.41N**±0.04×**39.13E**±0.05**, h5**^{km}±7^{km}**, n21, σ0^{s}85**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.14	309	i P	Pg	05 11 41.0	+0.4
ELZG				i S	Sg	05 11 42.0	-0.4
PTK	Pertek	0.53	23	PG	Pg	05 11 47.6	-0.2
PTK				SG	Sg	05 11 56.0	+1.3
PTK	Pertek	0.53	23	ePg	Pg	05 11 47.6	-0.2
PTK				eSg	Sg	05 11 56.0	+1.3
MYA	Malataya	0.56	262	i PG	Pg	05 11 48.3	-0.1
MYA	Malataya	0.56	262	i Pg	Pg	05 11 48.3	-0.1
MALT	Malatya	0.56	260	i PG	Pg	05 11 47.7	-0.7
MALT				i SG	Sg	05 11 55.8	+0.2
MALT	Malatya	0.56	260	i Pg	Pg	05 11 47.7	-0.7
MALT				i Sg	Sg	05 11 55.8	+0.2
URFA	Urfa	1.00	194	ePG	Pg	05 11 57.0	+0.2
URFA	Urfa	1.00	194	ePg	Pg	05 11 57.0	+0.2
DIY	Diyarbakir	1.01	120	ePG	Pg	05 11 56.2	-0.8
DIY	Diyarbakir	1.01	120	ePg	Pg	05 11 56.2	-0.8
ATAB	Bozova	1.15	215	i P	Pg	05 11 59.7	+0.1
ATAB				i S	Sg	05 12 13.9	-0.6
BINT	Bingol	1.17	66	ePN	Pn	05 11 59.8	-0.8
BINT	Bingol	1.17	66	ePn	Pn	05 11 59.8	-0.8
EZC	Erzincan	1.44	22	ePN	Pn	05 12 03.3	-1.1
GZT	Gaziantep	1.62	230	i P	Pn	05 12 07.3	+0.4
GZT				i S	Sg	05 12 30.9	+1.1
BNGL	BINGOL	1.68	70	i P	Pn	05 12 09.4	+1.8
BNGL				i S	Sg	05 12 38.0	+6.4
MARD	Mardin	1.71	129	i P	Pn	05 12 09.0	+0.9
MARD				i S	Sn	05 12 30.8	+0.6
BTMT	Batman	1.87	96	ePN	Pn	05 12 08.5	-1.9
GAZ	Gaziantep	1.96	231	ePN	Pn	05 12 11.3	-0.2
GAZ	Gaziantep	1.96	231	ePn	Pn	05 12 11.3	-0.2

CASC 11 05:40:39.8±1.5**, 6.38N**×**82.60W, h15**^{km}±322^{km}**, MD4.0, 1C, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVD	David	2.04	4	eP	Pn	05 41 12.6	-1.0
BAR1		2.93	346	eP	Pn	05 41 25.6	-0.2
CNI	Changuinola	3.01	2	eP	Pn	05 41 28.0	+1.1
QCR	Quepos	3.40	333	eP	Pn	05 41 31.8	-0.5
QCR				eP		05 41 31.8	
QCR				eS	Sn	05 42 13.0	+0.7
LCR2	La Lucha 2	3.61	337⇑	eP	Pn	05 41 35.7	+0.4
ICR	Volcan Irazu	3.77	341	eP	Pn	05 41 39.0	+1.5
PRS1	Puriscal	3.96	335	eP	Pn	05 41 39.2	-0.7
CGA2	Cerro Gallo 2	4.05	333	eP	Pn	05 41 41.8	+0.5

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*IDC **11** 06:08:31.3±1.3, 17.04N×124.14E, h0^{km}, mb3.5/4, mb1 3.6/4, mb1mx3.4/21, mbtmp3.5/4, Error ellipse: s-maj=73.7km s-min=22.7km az=74.0*

*ISCJB **11** 06:08:33.2±2.4, 17.10N±0.05×124.17E±0.06, h28^{km}±20^{km}, mb3.3/3, Error ellipse: s-maj=10.2km s-min=6.7km az=137.6*

*MAN **11** 06:08:36, 16.92N×123.84E, h109^{km}, mb4.0, ML2.8, MS2.4*

ISC 11 06:08:33.7±2.4**, 17.12N**±0.05×**124.13E**±0.06**, h15**^{km}±17^{km}**, n16, σ1^{s}08**/22**, mb3.3**/3**, 1C, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAUP	Cauayan	2.21	266	eP	Pn	06 09 10.0	+0.1
CAUP				eS	Sn	06 09 38.1	+1.1
CVP	Callao Caves	2.28	285⇑	iP	Pn	06 09 10.1	-0.7
CVP				i S	Sn	06 09 37.6	-1.0
BALP	Baler	2.81	241	eP	Pn	06 09 15.8	-2.2
BALP				eS	Sn	06 09 46.6	-5.1
APYP	Conner	2.85	285	eP	Pn	06 09 18.4	-0.2
APYP				eS	Sn	06 09 52.6	-0.2
POLP	Polilio Island	3.18	222	eP	Pn	06 09 30.0	+6.9
POLP				eS	Sn	06 09 57.9	-2.9
ABRA	Dolores	3.31	280	eP	Pn	06 09 25.4	+0.5
PVCP	Virac	3.50	180	eP	Pn	06 09 27.1	-0.5
BOLP	Bolinao	4.11	260	eP	Pn	06 09 37.6	+1.7

BOAC	Boac	4.26	212	eP	Pn	06 09 37.4	-0.6
TGY	Tagaytay City	4.30	226	Sn	Sn	06 10 30.3	+1.9
	89nm,0.3s,baz=278,slow=21,SNR=5.9						
OTRP	Odiongan	5.15	204	eP	Pn	06 09 51.1	+0.8
PLP	Palo	5.98	172	eP	Pn	06 10 02.6	+1.0
PLP				eS	Sn	06 11 10.2	+0.4
KSRS	Korea Array	20.53	9	P	P	06 13 11.9	+0.5
	2.5nm,0.8s,baz=194,slow=11,SNR=6.6						
WRA	Warramunga Arr	38.17	164	P	P	06 15 51.0	-1.7
	0.9nm,1.0s,mb3.5,baz=345,slow=9.4,SNR=5.0						
ASAR	Alice Springs	41.65	166	P	P	06 16 21.8	+0.2
	0.3nm,0.5s,mb3.2,baz=358,slow=8.0,SNR=7.2						
MKAR	Makanchi Array	45.41	320	P	P	06 16 52.1	+0.4
	0.3nm,0.5s,mb3.4,baz=118,slow=7.3,SNR=6.8						

IDC 11 06:15:29.1±2.4, 14.25S×167.29E, h148^{km}±18^{km}, mb3.9/9, mb1 4.0/10, mb1mx3.8/18, mbtmp3.9/10, Error ellipse: s-maj=24.7km s-min=21.7km az=133.0

ISCJB 11 06:15:32.5±3.5, 14.4S±0.2×167.2E±0.1, h196^{km}±34^{km}, mb4.1/10, Error ellipse: s-maj=28.4km s-min=21.3km az=5.3

LDG 11 06:15:34.6±0.3, 14.53S×165.84E, h180^{km}, Mb4.0/2, Error ellipse: s-maj=50.4km s-min=6.2km az=80.0

NEIC 11 06:15:34.5±5.7, 14.58S×167.19E, h197^{km}±28^{km}, mb4.4/3, Error ellipse: s-maj=98.3km s-min=26.6km az=59.0

ISC 11 06:15:32.7±3.3, 14.4S±0.2×167.3E±0.1, h186^{km}±32^{km}, n39, σ0^{s}66/18, mb4.2/10, 1C, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	7.68	186	P	Pn	06 17 21.1	-0.6
	5.4nm,0.3s,baz=46,slow=18,SNR=51						
DZM				S	Sn	06 18 48.8	+0.8
	1.2nm,0.3s,baz=307,slow=20,SNR=2.6						
PMG	Port Moresby	20.31	282	P	P	06 19 55.1	+0.6
	6.2nm,0.6s,baz=83,slow=9.7,SNR=4.3						
CTA	Charters Tower	20.87	251	eP	P	06 20 00.1	-0.3
	2.2nm,0.6s						
CTA	Charters Tower	20.87	251	P	P	06 20 00.2	-0.2
	2.9nm,0.6s,baz=69,slow=9.5,SNR=5.4						
COEN	Coen	23.39	268	eP	P	06 20 24.8	-0.1
STKA	Stephens Creek	29.23	229	⇑iP	P	06 21 18.4	+1.3
	3.6nm,0.4s,mb4.5						
STKA	Stephens Creek	29.23	229	P	P	06 21 18.4	+1.2
	4.8nm,0.4s,mb4.6,baz=47,slow=8.3,SNR=12						
WB2	Warramunga Arr	31.92	255	eP	P	06 21 39.7	-1.2
WRA	Warramunga Arr	31.93	255	P	P	06 21 40.4	-0.7
	1.3nm,0.3s,mb4.1,baz=85,slow=9.2,SNR=54						
ASAR	Alice Springs	32.82	249	P	P	06 21 48.0	-0.7
	3.3nm,0.4s,mb4.5,baz=76,slow=9.3,SNR=108						
KAKA	Kakadu	33.91	269	eP	P	06 21 58.4	+0.2
	5.0nm,0.4s,mb4.6						
FORT	Forrest	39.49	239	eP	P	06 22 45.2	0.0
	17nm,0.5s,mb4.9						
FITZ	Fitzroy Crossi	40.10	259	eP	P	06 22 50.6	+0.2
	7.8nm,0.7s,mb4.5						
SONM	Songino Array	82.24	324	P	P	06 27 33.9	+0.9
	0.3nm,0.4s,mb3.2,baz=144,slow=5.3,SNR=6.3						
TXAR	Lajitas Array	96.09	61	P	P	06 28 38.7	-0.7
	0.3nm,0.7s,mb3.7,baz=232,slow=6.2,SNR=3.8						
MKAR	Makanchi Array	96.98	316	P	P	06 28 43.5	+0.5
	1.0nm,0.7s,mb4.2,baz=89,slow=6.4,SNR=12						
ZALV	Zalesovo Beam	97.14	324	P	P	06 28 43.6	+0.1
	0.5nm,0.4s,mb4.2,baz=108,slow=4.8,SNR=5.1						
ARCES	ARCESS Array B	119.93	345	PKP	PKPdf	06 34 00.6	+0.3
	3.9nm,0.9s,baz=71,slow=1.8,SNR=27						
FINES	FINESS Array B	125.42	338	PKP	PKPdf	06 34 11.4	+0.4
	1.7nm,0.9s,baz=109,slow=3.3,SNR=5.3						
AKASG	Malin Array Be	130.47	326	PKP	PKPdf	06 34 21.5	+0.6
	0.3nm,0.4s,baz=44,slow=2.5,SNR=4.6						
AKASG				SKPbc	SKPbc	06 37 30.4	+3.3
	0.4nm,0.6s,baz=48,slow=4.2,SNR=7.4						
GERES	GERESS Array B	139.35	333	PKP	PKPdf	06 34 38.7	+1.1
	0.5nm,0.7s,baz=67,slow=3.5,SNR=4.0						
GERES				SKPbc	SKPbc	06 38 00.5	+5.0
	0.2nm,0.3s,baz=48,slow=2.0,SNR=4.4						
GRR	Gorron	144.71	346	ePKP1	PKPdf	06 34 47.4	+0.2
	28nm,0.8s						
SSF	Saint Saulge	144.72	341	ePKP1	PKPdf	06 34 48.0	+0.8
	13nm,0.7s						
LPL	La Plagne	144.90	336	ePKP1	PKPdf	06 34 49.0	+1.4
	11nm,0.7s						
LPG	La Plagne	144.90	336	ePKP1	PKPdf	06 34 49.1	+1.5
	27nm,0.9s						
SMF	Signal de Mont	144.98	340	ePKP1	PKPdf	06 34 48.6	+0.9
	23nm,0.9s						
AVF	Avril sur Loir	145.01	341	ePKP1	PKPbc	06 34 48.7	+1.2
BGF	Bois d'Agland	145.38	341	ePKP1	PKPbc	06 34 49.4	+0.8
MBDF	Montbardon	145.53	335	ePKP1	PKPbc	06 34 50.4	+1.2
	7.2nm,0.7s						
ORIF	Oris-en-Rattie	145.73	336	ePKP1	PKPbc	06 34 51.4	+1.6
	15nm,0.6s						
SBF	Sospel	145.96	334	ePKP1	PKPbc	06 34 51.4	+0.9
VIVF	Saint-Julien-l	146.24	338	ePKP1	PKPbc	06 34 51.8	+0.5
PGF	Pioggiola	146.28	331	ePKP1	PKPbc	06 34 52.1	+0.6
FRF	La Foret Royal	146.54	334	ePKP1	PKPbc	06 34 53.2	+1.0
	24nm,0.8s						
SMRF	Simiane la Rot	146.63	336	ePKP1	PKPbc	06 34 54.1	+1.7
	7.5nm,0.6s						
LMR	La Mourre	146.78	334	ePKP1	PKPbc	06 34 54.0	+1.1
	4.3nm,0.5s						
LASF	Ste Croix	147.21	338	ePKP1	PKPbc	06 34 55.5	+1.5
	19nm,1.1s						
MTLF	Montolieu	148.44	339	ePKP1	PKPbc	06 34 58.8	+1.5
	14nm,0.8s						
KEST	Kesra	150.97	321	PKPbc	PKPbc	06 35 05.2	+1.5
	2.0nm,0.6s,baz=89,slow=2.4,SNR=6.1						

ISCJB 11 06:15:53.6±0.7, 10.34N±0.03×62.28W±0.02, h9^{km}±5^{km}, Error ellipse: s-maj=5.0km s-min=3.8km az=156.2

FUNV 11 06:15:54.7, 10.38N×62.25W, h7^{km}, MW3.4

TRN 11 06:15:56.1, 10.43N×62.17W, h3^{km}, MD3.4

NEIC 11 06:15:56.1, 10.43N×62.17W, h3^{km}, MD3.4(TRN), After TRN.

ISC 11 06:15:54.0±0.5, 10.36N±0.03×62.28W±0.02, h7^{km}±5^{km}, n21, σ0^{s}97/34, 3C, Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	Guiria	0.29	10	eS	Sg	06 16 03.8	+0.1
TCE	Chacachacare	0.62	57	⇑iP	Pg	06 16 05.1	-0.7
TCE				eS	Sg	06 16 12.9	-1.0
BUAY	Buenos Aires	0.63	113	eP	Pg	06 16 08.1	+1.9
GUNV	Guanoco	0.68	254	⇑iP	Pg	06 16 07.4	+0.3
GUNV				eS	Sg	06 16 18.4	+2.4
TPP	Pointe-a-Pierr	0.81	93	eP	Pg	06 16 11.5	+1.9
TPP				eS	Sg	06 16 27.3	+7.2
TPP	Pointe-a-Pierr	0.81	93	eP	Pg	06 16 11.5	+1.9
TPP				eS	Sg	06 16 27.3	+7.2
TRN	Trinidad (W)	0.91	71	eP	Pg	06 16 10.1	-1.3
TRN				eS	Sg	06 16 22.7	-0.5
CRUV	Carupano	1.00	289	eP	Pg	06 16 12.1	-1.0
CRUV				eS	Sg	06 16 24.8	-1.3
TBH	Brigand Hill	1.20	84	eP	Pg	06 16 16.9	-0.1
TBH				eS	Sg	06 16 38.1	+5.6
ITEV	Isla Los Testi	1.30	320	⇑iP	Pn	06 16 18.3	-0.3
ITEV				eS	Sb	06 16 35.5	-0.2
TPR	Prospect	1.69	61	eP	Pn	06 16 23.9	0.0
TPR				eS	Sn	06 16 47.1	+1.2
GRW	Mount Saint Ca	1.89	19	eP	Pb	06 16 29.2	+0.4
GRW				eS	Sn	06 16 51.6	+0.7
RIOV	Rio Grande	2.32	169	eP	Pn	06 16 32.9	+0.3
RIOV				eS	Sn	06 17 01.1	-0.3
PCRV	Puerto La Cruz	2.33	266	eP	Pn	06 16 33.4	+0.6
GURV	El Guri	2.70	197	eP	Pn	06 16 38.2	+0.3
GURV				eS	Sn	06 17 10.2	-0.7
PRGV	PARIAGUAN	2.82	236	eP	Pn	06 16 40.5	+1.0
BIRV	Birongo	3.93	272	eP	Pn	06 16 54.9	+0.1
LUEV	Luepa	4.55	170	eP	Pn	06 17 02.1	-1.3
LUEV				eS	Sn	06 17 53.7	-3.0
CAOV	Caicara del Or	5.00	233	eP	Pn	06 17 09.3	-0.2
TURV	Turiamo	5.47	271	eP	Pn	06 17 15.8	-0.2
BAUV	El Baul	5.86	257	eP	Pn	06 17 21.4	+0.1

IDC 11 06:17:01.0±17.0, 19.38S×178.85W, h660^{km}±209^{km}, mb2.9/4, mb1 3.2/4, mb1mx2.9/14, mbtmp2.9/4, Error ellipse: s-maj=239.8km s-min=65.8km az=148.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	32.82	263	P	P	06 22 44.1	+0.4
	1.9nm,0.5s,baz=76,slow=9.0,SNR=5.2						
WRA	Warramunga Arr	43.98	261	P	P	06 24 13.3	+0.3
	0.7nm,0.3s,baz=97,slow=7.5,SNR=16						
ASAR	Alice Springs	44.01	256	P	P	06 24 13.1	-0.1
	1.5nm,0.5s,baz=94,slow=7.7,SNR=16						
PDAR	Pinedale Array	88.70	44	P	P	06 28 46.7	+0.5
	0.3nm,0.6s,baz=200,slow=2.4,SNR=3.2						
AKASG	Malin Array Be	141.66	331	PKP	PKPdf	06 35 18.0	-1.0
	0.8nm,0.5s,baz=38,slow=3.6,SNR=10						

MOS 11 06:21:51.5±1.0, 35.41N×21.33E, h10^{km}, mb4.9/46, MS4.2/9, Error ellipse: s-maj=4.2km s-min=2.0km az=100.0

IDC 11 06:21:51.4±0.6, 35.40N×21.37E, h0^{km}, mb4.6/22, mb1 4.7/32, mb1mx4.6/36, mbtmp4.6/32, ML4.6/8, MS3.9/8, Ms1 4.0/8, ms1mx3.5/30, Error ellipse: s-maj=13.5km s-min=12.3km az=20.0

PRU 11 06:21:51.9, 35.54N×20.93E, h0^{km}, M4.6

ISCJB 11 06:21:52.5±0.6, 35.43N±0.02×21.34E±0.02, h15^{km}±4^{km}, mb4.9/105, MS4.2/13, Error ellipse: s-maj=3.0km s-min=2.2km az=3.5

NEIC 11 06:21:53.8±1.2, 35.38N×21.30E, h13^{km}±7^{km}, mb4.6/87, MS4.7/1, ML4.5(ATH), Error ellipse: s-maj=3.9km s-min=2.3km az=182.0

PDG 11 06:21:53.5±0.2, 35.40N×20.00E, h13^{km}±1^{km}, ML4.8/10, Error ellipse: s-maj=313.1km s-min=33.0km az=90.0

SZGRF 11 06:21:53.2, 35.26N×21.36E, h10^{km}, Central Mediterranean Sea

BJI 11 06:21:53.6, 35.76N×21.65E, h13^{km}, mB5.1, mb4.9, Ms4.8, Msz4.5

CSEM 11 06:21:54.2±0.1, 35.22N×21.25E, h34^{km}, mb4.8/57, Ms4.3, Error ellipse: s-maj=1.5km s-min=1.1km az=10.0

BEO 11 06:21:55.8±0.8, 35.61N×20.76E, ML5.0/5

THE 11 06:21:57.1, 35.47N×21.44E, h15^{km}, ML5.1

HLW 11 06:22:18.8, 34.06N×23.25E, h33^{km}, Mb4.2

NAO 11 06:22:27.9, 38.79N×21.14E, h33^{km}, mb4.2

TIR 11 06:24:12.2±2.5, 41.02N×19.48E, h71^{km}±49^{km}, ML3.0

ISC 11 06:21:55.3±0.6, 35.40N±0.02×21.32E±0.02, h25^{km}±4^{km}, h36^{km}±.9^{km}:pP-P, n834, σ1^{s}10/974, mb4.9/105, MS4.2/13, 60C-60D, Central Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	Ithomi	1.84	15	P	Pn	06 22 27.9	+2.5
VLI	Veliai	1.86	44	P	Pn	06 22 28.2	+2.6
KARN	Karanos	2.12	89	ePn	Pn	06 22 28.9	-0.3
KARN				eSn	Sn	06 22 53.2	-1.6
KARN	Karanos	2.12	89	ePn	Pn	06 22 28.9	-0.3
KARN				eSn	Sn	06 22 53.2	-1.6
GVD	Gavdhos	2.34	103	P	Pn	06 22 31.1	-1.1
GVD				S	Sn	06 22 58.0	-2.1
GVD	Gavdhos	2.34	103	ePn	Pn	06 22 31.1	-1.1
GVD				eSn	Sn	06 22 58.0	-2.1
GVD	Gavdhos	2.34	103	ePn	Pn	06 22 31.0	-1.2
GVD				eSn	Sn	06 22 58.0	-2.1
VAM	Vamos	2.35	89	P	Pn	06 22 32.3	-0.1
RLS	Riolos of Patr	2.65	3	P	Pn	06 22 39.8	+3.3
VLS	Valsamata	2.83	348	eP	Pn	06 22 41.0	+2.0
SIVA	Sivas	2.88	97	ePn	Pn	06 22 39.9	+0.2
SIVA	Sivas	2.88	97	ePn	Pn	06 22 39.9	+0.2
IDI	Anoyia	2.92	91	Pn	Pn	06 22 39.4	-0.8
IDI				Sn	Sn	06 23 12.6	-1.9
IDI				LR	LR	06 24 03.2	
IDI	Anoyia	2.92	91	Pn	Pn	06 22 39.4	-0.8
	33nm,0.3s,baz=279,slow=15,SNR=79						
IDI				Sn	Sn	06 23 12.6	-1.9
	32nm,0.3s,baz=30,slow=20,SNR=7.8						
IDI				LR	LR	06 24 03.2	
	comp=Z,2μm,21.3s,baz=278,slow=46						
IDI	Anoyia	2.92	91	Pn	Pn	06 22 39.4	-0.8
IDI				Sn	Sn	06 23 12.6	-1.9
NAIG	Nisos Aigina	2.93	36	eP	Pn	06 22 41.5	+1.2
MGER	Gerania Oros	3.02	31	eP	Pn	06 22 42.8	+1.3
KVR	Kavouri	3.12	38	eP	Pn	06 22 39.5	-3.5
ATH	Athens Observa	3.21	36	eP	Pn	06 22 45.0	+0.8
PTL	Penteli	3.34	37	eP	Pn	06 22 45.5	-0.5
LKD	Levkas	3.34	351	P	Pn	06 22 47.3	+1.3
LKD				S	Sn	06 23 26.3	+1.4
LKD	Levkas	3.34	351	ePn	Pn	06 22 47.3	+1.3
LKD				eSn	Sn	06 23 26.3	+1.4
LKD	Levkas	3.34	351	ePn	Pn	06 22 47.3	+1.3
LKD				eSn	Sn	06 23 26.3	+1.4
LAST	Lasithi	3.41	93	P	Pn	06 22 47.3	+0.4
LAST	Lasithi	3.41	93	ePn	Pn	06 22 47.3	+0.4
LAST	Lasithi	3.41	93	ePn	Pn	06 22 47.3	+0.3
LKR	Lokris	3.51	22	P	Pn	06 22 49.9	+1.6
NPS	Neapolis	3.51	91	P	Pn	06 22 48.9	+0.5
EVR	Evrytania	3.53	6	eP	Pn	06 22 52.0	+3.4
EVR	Evrytania	3.53	6	P	Pn	06 22 53.1	+4.5
AGG	Agios Georgios	3.70	12	eSn	Sn	06 23 34.9	+1.1
AGG	Agios Georgios	3.70	12	eSn	Sn	06 23 34.4	+0.6
APE	Apeiranthos	3.79	63	⇓P	Pn	06 22 51.8	-0.4
APE	Apeiranthos	3.79	63	c iP	Pn	06 22 52.7	+0.5
APE	Apeiranthos	3.79	63	eP	Pn	06 22 52.5	+0.3
APE	Apeiranthos	3.79	63	⇓iP	Pn	06 22 51.8	-0.4
APE	Apeiranthos	3.79	63	iP	Pn	06 22 52.7	+0.5
ZKR	Zakros	4.02	93	P	Pn	06 22 55.8	+0.5
ZKR				S	Sn	06 23 42.3	+0.7
ZKR	Zakros	4.02	93	ePn	Pn	06 22 55.8	+0.5
ZKR				eSn	Sn	06 23 42.3	+0.7
ZKR	Zakros	4.02	93	ePn	Pn	06 22 55.8	+0.5
NEO	Neokhori	4.18	21	eP	Pn	06 22 59.5	+1.9
NEO	Neokhori	4.18	21	P	Pn	06 22 59.2	+1.6
XOR	Xorichti	4.23	20	P	Pn	06 22 59.2	+1.0
XOR	Xorichti	4.23	20	ePn	Pn	06 22 59.2	+1.0
XOR	Xorichti	4.23	20	ePn	Pn	06 22 59.2	+1.0
JAN	Janina	4.26	355	eP	Pn	06 23 00.5	+1.8
JAN	Janina	4.26	355	P	Pn	06 23 01.9	+3.2
AOS	Alonnisos	4.28	28	P	Pn	06 22 59.4	+0.5
AOS	Alonnisos	4.28	28	ePn	Pn	06 22 59.4	+0.5
AOS	Alonnisos	4.28	28	ePn	Pn	06 22 59.4	+0.5
KEK	Kerkira	4.47	345	eP	Pn	06 23 02.1	+0.6
KEK	Kerkira	4.47	345	Pn	Pn	06 23 02.6	+1.1
	389nm,0.7s						
KEK	Kerkira	4.47	345	P	Pn	06 23 02.9	+1.4
SRN	Sarande	4.59	347	ePN	Pn	06 23 04.5	+1.3
SRN				i SN	Sn	06 23 54.5	-1.2
SRN	Sarande	4.59	347	ePn	Pn	06 23 04.5	+1.3
SRN				i Sn	Sn	06 23 54.5	-1.2
KARP	Karpathos	4.77	87	P	Pn	06 23 06.4	+0.8
LSK	Leskovik	4.78	353	ePN	Pn	06 23 07.6	+1.9
LSK	Leskovik	4.78	353	ePn	Pn	06 23 07.6	+1.9
LIT	Litokhoron	4.78	11	ePn	Pn	06 23 07.1	+1.3
LIT				eSn	Sn	06 24 00.3	0.0
LIT	Litokhoron	4.78	11	ePn	Pn	06 23 07.1	+1.3
LIT				eSn	Sn	06 24 00.3	-0.1
CHOS	Chios island	4.83	50	ePn	Pn	06 23 07.4	+1.0
CHOS				eSn	Sn	06 24 00.5	-1.0
CHOS	Chios island	4.83	50	ePn	Pn	06 23 07.4	+1.0
CHOS				eSn	Sn	06 24 00.5	-1.0
PAIG	Paliouri	4.89	22	ePn	Pn	06 23 08.5	+1.2
PAIG	Paliouri	4.89	22	ePn	Pn	06 23 08.5	+1.2
KZN	Kozani	4.91	4	eP	Pn	06 23 10.0	+2.5
KZN	Kozani	4.91	4	P	Pn	06 23 10.1	+2.6
MPAZ	Palizzi	4.97	302	Pn	Pn	06 23 07.9	-0.5
	421nm,0.6s						
SOI	Samo	5.00	304	i P	Pn	06 23 08.8	+0.1
SMG	Samos	5.00	61	eP	Pn	06 23 08.7	-0.1
SMG	Samos	5.00	61	P	Pn	06 23 09.0	+0.2
GRI	Girifalco	5.19	313	Pn	Pn	06 23 11.6	+0.2
	3μm,3.1s						
MTTG	Motta San Giov	5.21	302	i Pnu	Pn	06 23 11.5	-0.2
	286nm,0.6s						
KBN	Korca	5.23	356	ePN	Pn	06 23 14.2	+2.3
KBN				i SN	Sn	06 24 15.8	+4.4
TIP	Timpagrande	5.24	317	ePn	Pn	06 23 12.2	+0.1
TIP	Timpagrande	5.24	317	ePn	Pn	06 23 12.2	+0.2
PLG	Polygyros	5.24	18	ePn	Pn	06 23 13.5	+1.4
PLG	Polygyros	5.24	18	eP	Pn	06 23 13.3	+1.2
PLG	Polygyros	5.24	18	ePn	Pn	06 23 13.5	+1.4
HAVL	Avola	5.25	289	Pn	Pn	06 23 10.8	-1.4
	1μm,0.3s						
HAVL	Avola	5.25	289	Pn	Pn	06 23 10.8	-1.4
	1μm,0.3s						
AGST	Augusta-Monte	5.25	292	i Pnr	Pn	06 23 10.1	-2.2
	293nm,0.5s						
SCLL	Scilla	5.32	304	Pn	Pn	06 23 12.8	-0.4
	77nm,0.4s						
SCLL	Scilla	5.32	304	Pn	Pn	06 23 12.8	-0.4
	77nm,0.4s						
OUR	Ouranopolis	5.36	22	ePn	Pn	06 23 14.8	+1.1
OUR	Ouranopolis	5.36	22	ePn	Pn	06 23 14.8	+1.1
FNA	Florina	5.37	0	ePn	Pn	06 23 14.9	+1.0
FNA				eSn	Sn	06 24 15.6	+0.7
FNA	Florina	5.37	0	ePn	Pn	06 23 14.9	+1.0
FNA				eSn	Sn	06 24 15.6	+0.6
HORT	Hortiatis	5.38	15	P	Pn	06 23 14.7	+0.8
HORT	Hortiatis	5.38	15	ePn	Pn	06 23 14.7	+0.8
HORT	Hortiatis	5.38	15	ePn	Pn	06 23 14.7	+0.8
THE	Thessaloniki	5.38	13	ePn	Pn	06 23 14.5	+0.5
THE				eSn	Sn	06 24 14.6	-0.6
THE	Thessaloniki	5.38	13	ePn	Pn	06 23 14.5	+0.5
THE				eSn	Sn	06 24 14.6	-0.5
MSI	Messina ING	5.41	303	P	Pn	06 23 15.0	+0.6
MSI				pmax	pmax		
	comp=Z,2μm,0.7s						
MSI	Messina ING	5.41	303	P	Pn	06 23 15.0	+0.6
	comp=Z,2μm,0.7s						
PZI	Palazzolo	5.41	290	Pn	Pn	06 23 13.4	-1.0
	comp=Z,14nm,0.1s						
PZI	Palazzolo	5.41	290	P	Pn	06 23 13.4	-1.0
PZI				pmax	pmax		
	comp=Z,14nm,0.1s						
PRK	Paraskevi	5.50	44	eP	Pn	06 23 17.5	+1.8
HMDC	Modica	5.51	288	Pn	Pn	06 23 14.5	-1.3
	comp=Z,2μm,0.9s						
LCI	Lecce	5.54	334	i P	Pn	06 23 16.5	+0.3
LCI				pmax	pmax		
	comp=Z,164nm,0.5s						
LCI	Lecce	5.54	334	i P	Pn	06 23 16.5	+0.3
	comp=Z,164nm,0.5s						
ARG	Arkhangelos	5.59	80	eP	Pn	06 23 14.5	-2.4
BIA	Bitola	5.61	0	P	Pn	06 23 17.5	+0.4
BIA				S	Sn	06 24 21.8	+1.1
BIA	Bitola	5.61	0	ePn	Pn	06 23 17.5	+0.4
BIA				eSn	Sn	06 24 21.8	+1.1
BIA	Bitola	5.61	0	i Pn	Pn	06 23 17.9	+0.8
BIA				i Sn	Sn	06 24 21.3	+0.5
BIA	Bitola	5.61	0	ePn	Pn	06 23 17.5	+0.4
BIA				eSn	Sn	06 24 21.8	+1.0
GRG	Griva	5.61	8	ePn	Pn	06 23 17.9	+0.7
GRG	Griva	5.61	8	ePn	Pn	06 23 17.9	+0.7
HVZN	Vizzini	5.62	290	Pn	Pn	06 23 16.2	-1.1
	comp=Z,839nm,0.8s						
SOH	Sokhos	5.64	16	ePn	Pn	06 23 18.7	+1.1
SOH				eSn	Sn	06 24 22.9	+1.3
SOH	Sokhos	5.64	16	ePn	Pn	06 23 18.7	+1.1
SOH				eSn	Sn	06 24 22.9	+1.3
OHR	Ohrid	5.72	356	ePn	Pn	06 23 19.3	+0.7
OHR				eSn	Sn	06 24 23.3	0.0
OHR	Ohrid	5.72	356	⇑iPn	Pn	06 23 19.3	+0.7
OHR				i Sn	Sn	06 24 23.7	+0.3
OHR	Ohrid	5.72	356	ePn	Pn	06 23 19.3	+0.7
OHR				eSn	Sn	06 24 23.3	-0.1
KNT	Kendrikon	5.88	12	ePn	Pn	06 23 22.0	+1.0
KNT				eSn	Sn	06 24 26.7	-0.8
KNT	Kendrikon	5.88	12	ePn	Pn	06 23 22.0	+1.1
KNT				eSn	Sn	06 24 26.7	-0.8
VAE	Valguarnera	5.94	292	Pn	Pn	06 23 23.0	+1.3
VAE				Sn	Sn	06 24 27.2	-1.7
VAE	Valguarnera	5.94	292	Pn	Pn	06 23 23.0	+1.3
	comp=Z,14nm,0.3s,baz=356,slow=1.0,SNR=24						
VAE				Sn	Sn	06 24 27.2	-1.7
	comp=Z,31nm,0.3s,baz=270,slow=7.1,SNR=4.1						
VAE	Valguarnera	5.94	292	Sn	Sn	06 24 27.2	-1.8
KRUS	Krusevo	5.96	359	i Pn	Pn	06 23 22.9	+1.0
SRS	Serrai	5.98	17	ePn	Pn	06 23 23.1	+0.9
SRS	Serrai	5.98	17	ePn	Pn	06 23 23.1	+0.9
VAY	Valandovo	5.99	9	ePn	Pn	06 23 22.7	+0.3
VAY	Valandovo	5.99	9	⇑iPn	Pn	06 23 22.7	+0.3
VAY	Valandovo	5.99	9	ePn	Pn	06 23 22.7	+0.3
TIR	Tirane	6.05	350	ePn	Pn	06 23 24.2	+1.0
TIR				eSn	Sn	06 24 32.6	+1.1
TIR	Tirane	6.05	350	ePN	Pn	06 23 24.2	+1.1
TIR				i SN	Sn	06 24 33.1	+1.6
TIR	Tirane	6.05	350	ePn	Pn	06 23 24.2	+1.1
TIR				eSn	Sn	06 24 32.6	+1.1
PE1	Pezze di Greco	6.21	332	⇓iPn	Pn	06 23 25.2	-0.2
PHP	Peshkopia	6.31	354	ePN	Pn	06 23 27.5	+0.7
PHP				i SN	Sn	06 24 38.7	+0.7
STIP	Stip	6.32	6	ePn	Pn	06 23 27.9	+1.0
STIP				eSn	Sn	06 24 38.4	+0.1
STIP	Stip	6.32	6	i Pn	Pn	06 23 27.9	+1.0
STIP	Stip	6.32	6	ePn	Pn	06 23 27.9	+1.0
STIP				eSn	Sn	06 24 38.4	+0.1
SG1	Sgolgore (BA)	6.54	327	⇓iPn	Pn	06 23 29.5	-0.5
SKO	Skopje	6.56	1	ePn	Pn	06 23 30.9	+0.7
SKO	Skopje	6.56	1	i Pn	Pn	06 23 31.1	+0.8
SKO	Skopje	6.56	1	ePn	Pn	06 23 30.9	+0.7
MGR	Morigerati	6.57	318	Pn	Pn	06 23 30.7	+0.3
	comp=Z,527nm,0.6s						
RDO	Rodhopi	6.63	29	eP	Pn	06 23 31.8	+0.7
ALN	Alexandroupoli	6.63	33	ePn	Pn	06 23 31.2	+0.1
ALN	Alexandroupoli	6.63	33	ePn	Pn	06 23 31.2	0.0
BAI	Bari	6.68	330	⇓iPn	Pn	06 23 31.3	-0.6
ULC	Ulcinj	6.75	347	⇑iPn	Pn	06 23 31.4	-1.4
ULC				eSn	Sn	06 24 45.1	-3.7
ULC	Ulcinj	6.75	347	⇑iPn	Pn	06 23 31.4	-1.4
ULC				eSn	Sn	06 24 45.1	-3.7
ULC	Ulcinj	6.75	347	i PG	Pn	06 23 31.4	-1.4
ULC				i SG	Sn	06 24 45.1	-3.7
ULC	Ulcinj	6.75	347	⇑iPn	Pn	06 23 31.4	-1.4
ULC				eSn	Sn	06 24 45.1	-3.7
KSL	Kastellorizon	6.76	81	eP		06 22 30.0	
CDT	Castel del Mon	6.92	327	⇓iPn	Pn	06 23 34.7	-0.5
BUM	Brajici-Budva	7.14	345	⇑iPn	Pn	06 23 37.1	-1.1
BUM				eSn	Sn	06 24 54.5	-4.0
BUM	Brajici-Budva	7.14	345	⇑iPn	Pn	06 23 37.1	-1.1
BUM				eSn	Sn	06 24 54.5	-4.0
BUM	Brajici-Budva	7.14	345	i PG	Pn	06 23 37.2	-1.0
BUM				i SG	Sn	06 24 54.6	-3.9
BUM	Brajici-Budva	7.14	345	⇑iPn	Pn	06 23 37.1	-1.1
BUM				eSn	Sn	06 24 54.5	-4.0
PLD	Plovdiv	7.20	21	ePn	Pn	06 23 39.8	+0.9
PLD	Plovdiv	7.20	21	ePn	Pn	06 23 39.8	+0.9
PDG	Podgorica	7.20	348	i PG	Pn	06 23 37.9	-1.1
PDG				i SG	Sn	06 24 55.5	-4.4
PDG	Podgorica	7.20	348	⇑iPn	Pn	06 23 37.9	-1.1
PDG				eSn	Sn	06 24 55.5	-4.4
TTG	Podgorica	7.20	348	⇑iPn	Pn	06 23 37.9	-1.1
TTG				eSn	Sn	06 24 55.5	-4.4
TTG	Podgorica	7.20	348	⇑iPn	Pn	06 23 37.9	-1.1
TTG				eSn	Sn	06 24 55.5	-4.4
TTG	Podgorica	7.20	348	⇑iPn	Pn	06 23 37.9	-1.1
TTG				eSn	Sn	06 24 55.5	-4.4
PVY	Plav	7.26	352	⇑iPn	Pn	06 23 40.2	+0.4
PVY				eSn	Sn	06 24 59.5	-1.9
PVY	Plav	7.26	352	⇑iPn	Pn	06 23 40.2	+0.4
PVY				eSn	Sn	06 24 59.5	-1.9
PVY	Plav	7.26	352	i PG	Pn	06 23 40.3	+0.5
PVY				i SG	Sn	06 24 59.5	-1.9
PVY	Plav	7.26	352	⇑iPn	Pn	06 23 40.2	+0.4
PVY				eSn	Sn	06 24 59.5	-1.9
VTS	Vitosha	7.33	11	P	Pn	06 23 41.7	+0.9
VTS	Vitosha	7.33	11	ePn	Pn	06 23 41.7	+0.9
VTS	Vitosha	7.33	11	⇓iP	Pn	06 23 42.1	+1.4
VTS	Vitosha	7.33	11	ePn	Pn	06 23 42.9	+2.2
VTS	Vitosha	7.33	11	ePn	Pn	06 23 41.7	+1.0
HCY	Herceg Novi	7.37	344	⇑iPn	Pn	06 23 38.9	-2.4
HCY				eSn	Sn	06 24 58.5	-5.6
HCY	Herceg Novi	7.37	344	⇑iPn	Pn	06 23 38.9	-2.4
HCY				eSn	Sn	06 24 58.5	-5.6
HCY	Herceg Novi	7.37	344	i PG	Pn	06 23 38.9	-2.4
HCY				i SG	Sn	06 24 58.5	-5.6
HCY	Herceg Novi	7.37	344	⇑iPn	Pn	06 23 38.9	-2.4
HCY				eSn	Sn	06 24 58.5	-5.6
BARS	Barje	7.42	3	i Pn	Pn	06 23 42.3	+0.3
BARS				eSn	Sn	06 25 02.7	-2.6
BEY	Berane	7.54	352	i PG	Pn	06 23 43.0	-0.7
BEY				i SG	Sn	06 25 06.8	-1.5
BEY	Berane	7.54	352	⇑iPn	Pn	06 23 43.0	-0.7
BEY				eSn	Sn	06 25 06.0	-2.3
IVA	Berane	7.54	352	⇑iPn	Pn	06 23 43.0	-0.7
IVA				eSn	Sn	06 25 06.0	-2.3
IVA	Berane	7.54	352	⇑iPn	Pn	06 23 43.0	-0.7

IVA				*e*Sn	Sn	06 25 06.0	-2.3
IVA	Berane	7.54	352	⇑*i*Pn	Pn	06 23 43.0	-0.7
IVA				*e*Sn	Sn	06 25 06.0	-2.3
FG5	Orsara di Pugl	7.55	323	*i* P	Pn	06 23 44.7	+0.9
FG5				pmax	pmax		
	comp=Z,195nm,0.7s						
FG5	Orsara di Pugl	7.55	323	*i* P	Pn	06 23 44.7	+0.9
	comp=Z,195nm,0.7s						
FGMS	Monte Sant'Ang	7.57	328	Pn	Pn	06 23 43.6	-0.4
	comp=Z,50nm,0.2s						
NKY	Niksic	7.62	347	⇑*i*Pn	Pn	06 23 43.6	-1.1
NKY				*e*Sn	Sn	06 25 06.7	-3.5
NKY	Niksic	7.62	347	⇑*i*Pn	Pn	06 23 43.6	-1.1
NKY				*e*Sn	Sn	06 25 06.7	-3.5
NKY	Niksic	7.62	347	*i* PG	Pn	06 23 43.2	-1.5
NKY				*i* SG	Sn	06 25 06.8	-3.4
NKY	Niksic	7.62	347	⇑*i*Pn	Pn	06 23 43.6	-1.1
NKY				*e*Sn	Sn	06 25 06.7	-3.5
ISP	Isparta	7.78	69	P	Pn	06 23 46.9	0.0
ISP	Isparta	7.78	69	*e*Pn	Pn	06 23 46.9	0.0
ISP	Isparta	7.78	69	*i* P	Pn	06 23 47.4	+0.4
BRY	Bratogost	7.79	345	⇑*i*Pn	Pn	06 23 45.5	-1.6
BRY				*e*Sn	Sn	06 25 09.7	-4.8
BRY	Bratogost	7.79	345	⇑*i*Pn	Pn	06 23 45.5	-1.6
BRY				*e*Sn	Sn	06 25 09.7	-4.8
BRY	Bratogost	7.79	345	*i* PG	Pn	06 23 45.5	-1.6
BRY				*i* SG	Sn	06 25 09.8	-4.7
BRY	Bratogost	7.79	345	⇑*i*Pn	Pn	06 23 45.5	-1.6
BRY				*e*Sn	Sn	06 25 09.7	-4.8
SJES	Sjenica	7.93	353	*i* Pn	Pn	06 23 48.2	-0.8
SJES				*e*Sn	Sn	06 25 11.4	-6.4
UPM	Unac-Piva	8.01	347	⇑*i*Pn	Pn	06 23 49.8	-0.3
UPM				*e*Sn	Sn	06 25 15.3	-4.6
UPM	Unac-Piva	8.01	347	⇑*i*Pn	Pn	06 23 49.8	-0.3
UPM				*e*Sn	Sn	06 25 15.3	-4.6
UPM	Unac-Piva	8.01	347	⇑*i*Pn	Pn	06 23 49.8	-0.3
UPM				*e*Sn	Sn	06 25 15.3	-4.6
PLE	Pljevlja	8.06	350	⇑*i*Pn	Pn	06 23 50.4	-0.3
PLE				*e*Sn	Sn	06 25 18.0	-3.0
PLE	Pljevlja	8.06	350	⇑*i*Pn	Pn	06 23 50.4	-0.3
PLE				*e*Sn	Sn	06 25 18.0	-3.0
PLE	Pljevlja	8.06	350	⇑*i*Pn	Pn	06 23 50.4	-0.3
PLE				*e*Sn	Sn	06 25 18.0	-3.0
JMB	Yambol	8.16	29	*e*Pn	Pn	06 23 52.9	+0.8
JMB	Yambol	8.16	29	*e*Pn	Pn	06 23 52.9	+0.8
GRUS	Gruza	8.49	357	*e*Pn	Pn	06 23 55.0	-1.7
GRUS				*e*Sn	Sn	06 25 26.4	-5.2
BBLS	Bajina Basta -	8.58	351	*e*Pn	Pn	06 23 57.3	-0.6
BBLS				*e*Sn	Sn	06 25 27.7	-6.2
DIVS	Divcibare	8.75	354	*i* Pn	Pn	06 23 58.5	-1.7
DIVS				*e*Sn	Sn	06 25 32.1	-5.8
SVIS	Svilajnac	8.88	360	*e*Pn	Pn	06 24 00.7	-1.4
SVIS				*e*Sn	Sn	06 25 34.7	-6.6
DJES	Djerdap	9.27	5	*e*Pn	Pn	06 24 06.8	-0.5
DJES				*e*Sn	Sn	06 25 45.5	-5.2
AQU	L'Aquila	9.29	321	*e*Pn	Pn	06 24 08.1	+0.5
AQU	L'Aquila	9.29	321	⇑*i*P	Pn	06 24 08.2	+0.6
AQU	L'Aquila	9.29	321	*e*Pn	Pn	06 24 08.1	+0.5
AQU	L'Aquila	9.29	321	P	Pn	06 24 10.1	+2.5
BEO	Belgrade	9.43	356	*e*Pn	Pn	06 24 07.3	-2.3
HNAT	Natroun	9.73	124	⇓P	Pn	06 24 08.9	-4.9
KEST	Kesra	9.76	275	Pn	Pn	06 24 13.8	-0.3
	comp=Z,0.4nm,0.3s,baz=34,slow=12,SNR=6.9						
KEST				Sn	Sn	06 26 00.3	-2.6
	comp=Z,0.5nm,0.3s,baz=276,slow=23,SNR=7.1						
FGSL	Fruska Gora	9.81	354	*e*Pn	Pn	06 24 12.8	-2.0
CSS	Prodhromos	9.84	89	*e*Pn	Pn	06 24 15.4	+0.1
	comp=Z,18nm,0.5s						
CSS	Prodhromos	9.84	89	*e*Pn	Pn	06 24 15.4	+0.1
	comp=Z,18nm,0.5s						
GZR	Gura Zlata	10.04	6	P	Pn	06 24 18.2	+0.3
GZR	Gura Zlata	10.04	6	⇓*i*P	Pn	06 24 18.0	+0.1
AYT	Al 'Ayyat	10.05	122	⇓P	Pn	06 24 13.7	-4.5
ANTO	Ankara	10.13	60	*e*Pn	Pn	06 24 19.5	+0.3
	comp=Z,43nm,1.3s						
ANTO	Ankara	10.13	60	*e*P	Pn	06 24 19.5	+0.3
ANTO				pmax	pmax		
	comp=Z,43nm,1.3s						
HFRF	Wahat Farafira	10.17	142	⇓P	Pn	06 24 15.2	-4.5
BZS	Buzias	10.21	1	P	Pn	06 24 19.4	-0.8
BZS	Buzias	10.21	1	⇑P	Pn	06 24 19.1	-1.1
BZS	Buzias	10.21	1	⇑*i*P	Pn	06 24 19.0	-1.2
BZS	Buzias	10.21	1	*e*Pn	Pn	06 24 19.3	-0.9
HSAF	As Saff	10.38	121	⇓P	Pn	06 24 18.1	-4.6
VOIR		10.42	15	P	Pn	06 24 23.8	+0.8
VOIR		10.42	15	⇑*i*P	Pn	06 24 23.6	+0.5
GLL	Jalalah	10.52	121	⇓P	Pn	06 24 20.2	-4.3
TIRR	Tirgusor	10.55	29	⇓P	Pn	06 24 24.6	-0.4
TIRR	Tirgusor	10.55	29	⇓*i*P	Pn	06 24 24.6	-0.3
FSSB	Fossombrone	10.58	324	Pn	Pn	06 24 25.7	+0.4
	comp=Z,38nm,0.8s						
MLR	Muntele Rosu	10.67	18	P	Pn	06 24 30.1	+3.6
MLR	Muntele Rosu	10.67	18	Pn	Pn	06 24 26.8	+0.2
	comp=Z,1.2nm,0.3s,baz=185,slow=10,SNR=28						
MLR				LR	LR	06 27 57.1	
	comp=Z,142nm,18.6s,baz=192,slow=34						
MLR	Muntele Rosu	10.67	18	⇓*i*P	Pn	06 24 27.3	+0.7
MLR	Muntele Rosu	10.67	18	P	Pn	06 24 30.1	+3.5
BR131	Keskin Array S	10.69	63	*e*Pn	Pn	06 24 27.1	+0.3
BRTR	Keskin Array B	10.69	63	Pn	Pn	06 24 27.1	+0.3
BRTR	Keskin Array B	10.69	63	P	Pn	06 24 27.1	+0.3
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
BRTR	Keskin Array B	10.69	63	Pn	Pn	06 24 27.1	+0.3
	comp=Z,0.8nm,0.3s,baz=246,slow=13,SNR=26						
PKSM	Moragy	10.99	350	P	Pn	06 24 29.8	-1.1
PKSM	Moragy	10.99	350	⇓*i*P	Pn	06 24 28.4	-2.5
PKSM	Moragy	10.99	350	*e*Pn	Pn	06 24 28.5	-2.4
AMAG	Maghara	11.05	112	⇓P	Pn	06 24 28.4	-3.4
BOJS	Bojanci	11.10	337	*e*Pn	Pn	06 24 31.9	-0.4
BOJS	Bojanci	11.10	337	*e*Pn	Pn	06 24 31.9	-0.4
SUZ		11.18	117	⇓P	Pn	06 24 29.4	-4.2
CDAG	Cicekdag	11.19	64	*i* P	Pn	06 24 36.8	+3.1
PLOR	Plostina	11.19	20	⇓*i*P	Pn	06 24 35.9	+2.2
PLOR	Plostina	11.19	20	P	Pn	06 24 37.0	+3.3
VRI	Vrincioaia	11.23	20	P	Pn	06 24 37.7	+3.5
VRI	Vrincioaia	11.23	20	⇓*i*P	Pn	06 24 35.3	+1.1
VRI	Vrincioaia	11.23	20	P	Pn	06 24 37.7	+3.5
BALT	Daday	11.26	53	*i* P	Pn	06 24 35.6	+1.0
ZAF		11.28	120	⇓P	Pn	06 24 30.5	-4.5
DRGR		11.43	5	⇓P	Pn	06 24 37.0	+0.1
DRGR		11.43	5	⇓*i*P	Pn	06 24 37.0	+0.1
ZNM		11.46	118	P	Pn	06 24 33.3	-4.2
LJU	Ljubljana	11.81	336	*i* Pn	Pn	06 24 41.6	-0.5
LJU				*i* Sn	Sn	06 26 45.7	-7.2
LJU	Ljubljana	11.81	336	*i* Pn	Pn	06 24 41.6	-0.5
LJU				*i* Sn	Sn	06 26 45.7	-7.2
ASUT		11.84	130	P	Pn	06 24 37.6	-5.0
GROS	Grobnik	11.89	340	*e*Pn	Pn	06 24 41.6	-1.6
GROS	Grobnik	11.89	340	*e*Pn	Pn	06 24 41.6	-1.6
MMAI	Mount Meron Ar	11.90	98	Pn	Pn	06 24 43.2	-0.2
	comp=Z,3.8nm,0.3s,baz=288,slow=14,SNR=7.6						
MMAI				Sn	Sn	06 26 43.8	-12
	comp=Z,7.3nm,0.3s,baz=294,slow=30,SNR=6.9						
PGF	Pioggiola	11.94	310	*e*P	Pn	06 24 45.2	+1.2
	comp=Z,44nm,0.7s						
PGF	Pioggiola	11.94	310	*e*P	Pn	06 24 45.2	+1.2
PGF				pmax	pmax		
	comp=Z,22nm,0.7s						
PGF	Pioggiola	11.94	310	*e*P	Pn	06 24 45.2	+1.2
	comp=Z,22nm,0.7s						
HNKL	Nakhl	11.98	114	⇓P	Pn	06 24 40.8	-3.7
VOY	Vojsko	12.01	334	*e*Pn	Pn	06 24 44.7	-0.2
VOY				*e*Sn	Sn	06 26 49.7	-8.3
VOY	Vojsko	12.01	334	*e*Pn	Pn	06 24 44.7	-0.2
VOY				*e*Sn	Sn	06 26 49.7	-8.3
GRB	Gharib	12.06	123	P	Pn	06 24 41.1	-4.5
PERS	Pernice	12.16	339	*i* Pn	Pn	06 24 45.5	-1.4
PERS				*e*Sn	Sn	06 26 52.5	-8.9
PERS	Pernice	12.16	339	*i* Pn	Pn	06 24 45.5	-1.4
PERS				*e*Sn	Sn	06 26 52.5	-8.9
BUD	Budapest	12.19	353	*e*P	Pn	06 24 44.4	-2.9
BUD				*e*S	Sn	06 26 59.7	-2.7
OBKA	Obir	12.21	337	⇓*i*Pn	Pn	06 24 46.3	-1.4
	SNR=23						
OBKA	Obir	12.21	337	⇓*i*Sn	Sn	06 26 55.2	-7.7
OBKA	Obir	12.21	337	⇓*i*Pn	Pn	06 24 46.2	-1.4
OBKA				*i* Sn	Sn	06 26 55.1	-7.7
OBKA	Obir	12.21	337	⇓*i*Pn	Pn	06 24 46.3	-1.4
	SNR=23						
OBKA				⇓*i*Sn	Sn	06 26 55.2	-7.7
PTCC	Patocco-Chiusa	12.53	334	Pn	Pn	06 24 50.1	-1.8
PSZ	Piszkesteto	12.55	356	*e*Pn	Pn	06 24 51.0	-1.3
PSZ	Piszkesteto	12.55	356	*e*Pc	Pn	06 24 51.5	-0.7
PSZ	Piszkesteto	12.55	356	⇓*i*P	Pn	06 24 51.1	-1.1
ARSA	Arzberg	12.61	342	⇓*i*Pn	Pn	06 24 50.8	-2.3
	SNR=24						
ARSA	Arzberg	12.61	342	⇑*i*Sn	Sn	06 27 04.7	-7.8
ARSA	Arzberg	12.61	342	⇓*i*Pn	Pn	06 24 50.8	-2.3
ARSA				*i* Sn	Sn	06 27 04.7	-7.8
ARSA	Arzberg	12.61	342	⇓*i*Pn	Pn	06 24 50.8	-2.3
	SNR=24						
ARSA				⇑*i*Sn	Sn	06 27 04.7	-7.8
SOP	Sopron	12.78	345	⇑*e*P	Pn	06 24 54.3	-1.0
EIL	Elat	12.84	113	Pn	Pn	06 24 51.5	-4.7
EIL				Sn	Sn	06 27 03.5	-15
EIL	Elat	12.84	113	Pn	Pn	06 24 51.5	-4.7
	comp=Z,1.1nm,0.3s,baz=312,slow=15,SNR=16						
EIL				Sn	Sn	06 27 03.5	-15
	comp=Z,2.4nm,0.3s,baz=315,slow=14,SNR=5.8						
KIS	Kishinev	12.88	24	*e*P	Pn	06 24 59.0	+2.3
KECS	Kecovo	13.09	358	*e*Pn	Pn	06 24 59.4	-0.1
KECS				*e*		06 27 20.8	
KECS	Kecovo	13.09	358	*e*PN	Pn	06 24 59.4	-0.1
KECS				*e*		06 27 20.8	
KBA	Koelnbreinsper	13.11	335	⇑*i*Pn	Pn	06 24 59.0	-0.8
	SNR=20						
KBA	Koelnbreinsper	13.11	335	⇑*i*Sn	Sn	06 27 17.4	-7.4
KBA	Koelnbreinsper	13.11	335	⇑*i*Pn	Pn	06 24 59.0	-0.8
KBA				*i* Sn	Sn	06 27 17.4	-7.4
KBA	Koelnbreinsper	13.11	335	⇑*i*Pn	Pn	06 24 59.0	-0.8
	SNR=20						
KBA				⇑*i*Sn	Sn	06 27 17.4	-7.4
ABTA	Abfaltersbach	13.13	332	*i* Pn	Pn	06 24 59.8	-0.2
	SNR=11						
CONA	Conrad Observa	13.16	344	⇑*i*Pn	Pn	06 24 59.3	-1.3
CONA				⇑*i*Sn	Sn	06 27 17.4	-8.5
ZST	Bratislava	13.16	348	*e*Pn	Pn	06 24 59.2	-1.4
ZST				*e*Sn	Sn	06 27 18.9	-7.2
ZST	Bratislava	13.16	348	*e*PN	Pn	06 24 59.2	-1.4
ZST				*e*SN	Sn	06 27 18.9	-7.2
ZST	Bratislava	13.16	348	*e*Pn	Pn	06 24 59.2	-1.4
ZST				*e*Sn	Sn	06 27 18.9	-7.2
VYHS	Vyhne	13.21	353	*e*Pn	Pn	06 24 59.7	-1.5
VYHS				*e*Sn	Sn	06 27 19.9	-7.4
VYHS	Vyhne	13.21	353	*e*PN	Pn	06 24 59.7	-1.5
VYHS				*e*SN	Sn	06 27 19.9	-7.4
VYHS	Vyhne	13.21	353	*e*Pn	Pn	06 24 59.7	-1.5
VYHS				*e*Sn	Sn	06 27 19.9	-7.4
UZH	Uzhgorod	13.24	3	*e*P	Pn	06 25 00.8	-0.8
MODS	Modra-Piesok	13.30	348	*e*Pn	Pn	06 25 01.1	-1.4
MODS				*e*Sn	Sn	06 27 21.5	-8.0
MODS	Modra-Piesok	13.30	348	*e*PN	Pn	06 25 01.1	-1.4
MODS				*e*SN	Sn	06 27 21.5	-8.0
MODS	Modra-Piesok	13.30	348	*e*Pn	Pn	06 25 01.1	-1.4
MODS				*e*Sn	Sn	06 27 21.5	-8.0
ASF	Jabal al Asfar	13.35	100	Pn	Pn	06 24 59.3	-4.0
ASF				Sn	Sn	06 27 17.5	-13
ASF	Jabal al Asfar	13.35	100	P	Pn	06 24 59.3	-4.0
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF	Jabal al Asfar	13.35	100	Pn	Pn	06 24 59.3	-4.0
	comp=Z,0.5nm,0.3s,baz=180,slow=4.0,SNR=4.8						
ASF				Sn	Sn	06 27 17.5	-13
	comp=Z,0.4nm,0.3s,baz=255,slow=20,SNR=3.7						
SMOL	Smolenice	13.42	349	*e*Pn	Pn	06 25 02.5	-1.5
SMOL				*e*		06 25 12.0	
SMOL	Smolenice	13.42	349	*e*PN	Pn	06 25 02.5	-1.5
SMOL				*e*		06 25 12.0	
SMOL	Smolenice	13.42	349	*e*Pn	Pn	06 25 02.5	-1.5
CRVS	Cervenica-Dubn	13.49	0	*e*Pn	Pn	06 25 04.8	-0.3
CRVS	Cervenica-Dubn	13.49	0	*e*PN	Pn	06 25 04.8	-0.3
CRVS				*e*		06 25 16.9	
CRVS	Cervenica-Dubn	13.49	0	*e*Pn	Pn	06 25 04.8	-0.3
MOA	Molln	13.50	339	⇓*i*Pn	Pn	06 25 03.9	-1.3
	SNR=7.1						
MOA	Molln	13.50	339	⇑*i*Sn	Sn	06 27 26.6	-7.7
MOA	Molln	13.50	339	⇓*i*Pn	Pn	06 25 03.9	-1.3
MOA				*i* Sn	Sn	06 27 26.6	-7.7
MOA	Molln	13.50	339	⇓*i*Pn	Pn	06 25 03.9	-1.3
	SNR=7.1						
MOA				⇑*i*Sn	Sn	06 27 26.6	-7.7
KOLS	Kolonicke sedl	13.54	3	*e*Pn	Pn	06 25 06.1	+0.4
KOLS				*e*		06 25 12.1	
KOLS				*e*		06 25 17.3	
KOLS	Kolonicke sedl	13.54	3	*e*PN	Pn	06 25 06.1	+0.4
KOLS				*e*		06 25 12.1	
KOLS				*e*		06 25 17.3	
KOLS				*e*		10 33 57.4	
KOLS	Kolonicke sedl	13.54	3	*e*Pn	Pn	06 25 06.1	+0.4
SBF	Sospel	13.62	313	*e*P	Pn	06 25 07.4	+0.6
	comp=Z,30nm,0.8s						
SBF	Sospel	13.62	313	*e*P	Pn	06 25 07.4	+0.6
SBF				pmax	pmax		
	comp=Z,15nm,0.8s						
SBF	Sospel	13.62	313	*e*P	Pn	06 25 07.4	+0.6
	comp=Z,15nm,0.8s						
SIM	Simferopol'	13.65	42	*e*P	Pn	06 25 07.7	+0.5
SIM				pmax	pmax		
	comp=Z,12nm,1.0s						
SIM				MLR	MLR		
	comp=Z,400nm,17.8s						
SIM	Simferopol'	13.65	42	*e*P	Pn	06 25 07.7	+0.5
	comp=Z,400nm,17.8s						
WTTA	Wattenberg	13.89	332	⇓*i*Pn	Pn	06 25 11.0	+0.5
WTTA	Wattenberg	13.89	332	⇓*i*Sn	Sn	06 27 38.1	-5.8
WTTA	Wattenberg	13.89	332	⇓*i*Pn	Pn	06 25 11.0	+0.5
WTTA				*i* Sn	Sn	06 27 38.0	-5.8
WTTA	Wattenberg	13.89	332	⇓*i*Pn	Pn	06 25 11.0	+0.5
WTTA				⇓*i*Sn	Sn	06 27 38.1	-5.8
LMR	La Mourre	13.91	309	*e*P	Pn	06 25 10.9	0.0
FRF	La Foret Royal	13.94	310	*e*P	Pn	06 25 12.2	+1.0
	comp=Z,72nm,1.5s						
FRF	La Foret Royal	13.94	310	*e*P	Pn	06 25 12.2	+1.0
FRF				pmax	pmax		
	comp=Z,36nm,1.5s						
FRF	La Foret Royal	13.94	310	*e*P	Pn	06 25 12.2	+1.0
	comp=Z,36nm,1.5s						
STHS	Stebnicka Huta	14.01	360	*e*Pn	Pn	06 25 12.8	+0.7
STHS				*e*		06 25 23.1	
STHS	Stebnicka Huta	14.01	360	*e*PN	Pn	06 25 12.8	+0.7
STHS				*e*		06 25 23.1	
SQTA	Sankt Quirin	14.03	330	⇑*i*Pn	Pn	06 25 12.7	+0.4
SQTA	Sankt Quirin	14.03	330	⇑*i*Pn	Pn	06 25 12.7	+0.4
SQTA				*i* Sn	Sn	06 27 39.8	-7.3
SQTA	Sankt Quirin	14.03	330	⇑*i*Pn	Pn	06 25 12.7	+0.4
SQTA				⇓*i*Sn	Sn	06 27 39.8	-7.3
NIE	Niedzica	14.03	357	*e*P	Pn	06 25 12.4	0.0
FETA	Feichten	14.06	329	⇓*i*Pn	Pn	06 25 12.5	-0.4
	SNR=10						
MOTA	Moosalm	14.17	330	⇓*i*Pn	Pn	06 25 14.0	-0.3
	SNR=10						
MOTA	Moosalm	14.17	330	⇓*i*Pn	Pn	06 25 14.0	-0.3
MOTA				*i* Sn	Sn	06 27 44.4	-6.2
MOTA	Moosalm	14.17	330	⇓*i*Pn	Pn	06 25 14.0	-0.3
	SNR=10						
MOTA				⇑*i*Sn	Sn	06 27 44.4	-6.2
DAVOX	Davos/Dischmat	14.25	326	Pn	Pn	06 25 14.5	-0.9
DAVOX				Sn	Sn	06 27 46.9	-5.7
DAVOX	Davos/Dischmat	14.25	326	Pn	Pn	06 25 14.5	-0.9
	comp=Z,1.0nm,0.3s,baz=144,slow=18,SNR=27						
DAVOX				Sn	Sn	06 27 46.9	-5.7
	comp=Z,0.4nm,0.3s,baz=283,slow=18,SNR=4.5						
DAVOX	Davos/Dischmat	14.25	326	Pn	Pn	06 25 14.5	-0.9
VRAC	Vranov	14.32	347	⇓P	Pn	06 25 15.8	-0.6
VRAC				P		06 25 25.3	
VRAC	Vranov	14.32	347	Pn	Pn	06 25 14.6	-1.8
	baz=179,slow=13,SNR=5.7						
VRAC	Vranov	14.32	347	⇓*i*P	Pn	06 25 15.9	-0.5
VRAC	Vranov	14.32	347	*e*Pn	Pn	06 25 14.8	-1.6
MBDF	Montbardon	14.50	314	*e*P	Pn	06 25 19.9	+1.1
	comp=Z,89nm,1.1s						
MBDF	Montbardon	14.50	314	*e*P	Pn	06 25 19.9	+1.1
MBDF				pmax	pmax		
	comp=Z,44nm,1.1s						
MBDF	Montbardon	14.50	314	*e*P	Pn	06 25 19.9	+1.1
	comp=Z,44nm,1.1s						
TREC	Trest	14.53	345	*e*P	Pn	06 25 18.4	-0.8
TREC				*e*pP	pP	06 25 27.1	-5.2
GEC2	GERESS Array S	14.56	340	*e*Pn	Pn	06 25 18.5	-1.2
GEC2	GERESS Array S	14.56	340	*e*Pn	Pn	06 25 18.5	-1.2
GEC2	GERESS Array S	14.56	340	*e*Pn	Pn	06 25 18.5	-1.2
GERES	GERESS Array B	14.56	340	Pn	Pn	06 25 18.0	-1.7
GERES				Sn	Sn	06 27 51.3	-8.9
GERES	GERESS Array B	14.56	340	P	Pn	06 25 18.0	-1.7
GERES				pmax	pmax		
	comp=Z,2.0nm,0.3s						
GERES	GERESS Array B	14.56	340	Pn	Pn	06 25 18.0	-1.7
	comp=Z,1.8nm,0.3s,baz=155,slow=13,SNR=62						
GERES				Sn	Sn	06 27 51.3	-8.9
	comp=Z,1.0nm,0.3s,baz=152,slow=23,SNR=10						
OKC	Ostrava-Krasne	14.61	352	*e*P	Pn	06 25 19.6	-0.7
OKC				*e*pP	pP	06 25 28.6	-4.6
MORC	Moravsky Berou	14.63	350	*e*Pn	Pn	06 25 20.9	+0.3
MORC	Moravsky Berou	14.63	350	⇓*i*P	Pn	06 25 20.4	-0.2
MORC	Moravsky Berou	14.63	350	*e*Pn	Pn	06 25 20.9	+0.3
DAVA	Damuels	14.64	328	⇑*i*Pn	Pn	06 25 21.1	+0.4
	SNR=6.7						
DAVA	Damuels	14.64	328	⇑*i*Pn	Pn	06 25 21.1	+0.4
DAVA				*i* Sn	Sn	06 27 55.0	-7.0
DAVA	Damuels	14.64	328	⇑*i*Pn	Pn	06 25 21.1	+0.4
	SNR=6.7						
DAVA				⇓*i*Sn	Sn	06 27 55.0	-7.0
BNI	Bardonecchia	14.74	315	*e*Pn	Pn	06 25 24.7	+2.5
BNI				*e*Pn	Pn	06 25 25.5	+3.3
BNI	Bardonecchia	14.74	315	*e*P	Pn	06 25 24.7	+2.6
FUR	Furstenfeldbru	14.77	333	*e*Pn	Pn	06 25 23.3	+0.8
FUR	Furstenfeldbru	14.77	333	*e*Pn	Pn	06 25 23.3	+0.8
SMRF	Simiane la Rot	14.82	310	*e*P	Pn	06 25 23.8	+0.6
OJC	Ojcow	14.85	356	*e*P	Pn	06 25 22.8	-0.8
KHC	Kasperske Hory	14.86	340	*e*P	Pn	06 25 22.1	-1.6
KHC				*e*pP	pP	06 25 31.8	-4.1
KHC				*e*x	x	06 25 46.5	
KHC				*e*S	Sn	06 28 04.0	-3.3
LPG	La Plagne	14.97	317	*e*P	Pn	06 25 25.6	+0.4
	comp=Z,58nm,1.2s						
LPG	La Plagne	14.97	317	*e*P	Pn	06 25 25.6	+0.4
LPG				pmax	pmax		
	comp=Z,29nm,1.2s						
LPG	La Plagne	14.97	317	*e*P	Pn	06 25 25.6	+0.4
	comp=Z,29nm,1.2s						
LPL	La Plagne	14.99	317	*e*P	Pn	06 25 25.8	+0.3
	comp=Z,93nm,1.4s						
LPL	La Plagne	14.99	317	*e*P	Pn	06 25 25.8	+0.3
LPL				pmax	pmax		
	comp=Z,46nm,1.4s						
LPL	La Plagne	14.99	317	*e*P	Pn	06 25 25.8	+0.3
	comp=Z,46nm,1.4s						
WET	Wettzell	15.07	338	*e*Pn	Pn	06 25 24.9	-1.6
WET	Wettzell	15.07	338	*e*Pn	Pn	06 25 24.9	-1.6
ORIF	Oris-en-Rattie	15.13	314	*e*P	Pn	06 25 27.8	+0.4
	comp=Z,48nm,1.3s						
ORIF				*e*MLR	MLR		
	comp=Z,671nm,22.2s						
ORIF	Oris-en-Rattie	15.13	314	*e*P	Pn	06 25 27.8	+0.4
ORIF				pmax	pmax		
	comp=Z,24nm,1.3s						
ORIF	Oris-en-Rattie	15.13	314	*e*P	Pn	06 25 27.8	+0.4
	comp=Z,24nm,1.3s						
DPC	Dobruska-Polom	15.38	348	*e*P	Pn	06 25 29.7	-0.8
DPC				*e*pP	pP	06 25 36.7	-5.0
PRU	Pruhonice	15.39	343	*e*P	Pn	06 25 30.6	-0.1
PRU				*e*pP	pP	06 25 36.4	-5.5
ANN	Anapa	15.47	48	*e*P	Pn	06 25 31.5	-0.3
ANN				*e*S	Sn	06 28 20.5	-1.9
ANN				pmax	pmax		
	comp=Z,31nm,0.6s						
ANN				MLR	MLR		
	comp=Z,468nm,9.0s						
ANN	Anapa	15.47	48	*e*P	Pn	06 25 31.5	-0.3
	comp=Z,31nm,0.6s						
UPC	Upice	15.58	347	*e*P	Pn	06 25 33.0	-0.2
UPC				*e*pP	pP	06 25 39.3	-4.7
VIVF	Saint-Julien-l	15.82	312	*e*P	Pn	06 25 36.8	+0.4
ROTZ	Rotzenmuhle	15.83	338	*e*Pn	Pn	06 25 35.5	-0.9
KSP	Ksiaz	15.86	348	*e*P	Pn	06 25 42.2	+5.5
PVCC	Panska Ves	15.89	344	*e*x	Pn	06 25 37.6	+0.4
FELD	Feldberg im Sc	15.92	326	*e*P	Pn	06 25 38.2	+0.6
LASF	Ste Croix	15.96	308	*e*P	Pn	06 25 37.9	-0.2
OG05	Jujurieux	16.02	316	*e*P	Pn	06 25 38.9	+0.1
CABF	La Chapelle	16.02	319	*e*P	Pn	06 25 38.3	-0.5
	comp=Z,86nm,1.5s						
CABF	La Chapelle	16.02	319	*e*P	Pn	06 25 38.3	-0.5
CABF				pmax	pmax		
	comp=Z,43nm,1.5s						
CABF	La Chapelle	16.02	319	*e*P	Pn	06 25 38.3	-0.5
	comp=Z,43nm,1.5s						
MANZ	Manzenberg	16.05	338	*e*Pn	Pn	06 25 38.6	-0.7
GRA1	Grafenberg Arr	16.08	336	*e*P	Pn	06 25 39.0	-0.6
GRF	Grafenberg Arr	16.08	336	*e*Pn	Pn	06 25 39.0	-0.6
GRF	Grafenberg Arr	16.08	336	*e*Pn	Pn	06 25 39.0	-0.6
GRF	Grafenberg Arr	16.08	336	*e*Pn	Pn	06 25 39.0	-0.6
GRFO	Grafenberg	16.08	336	*e*Pn	Pn	06 25 38.8	-0.8
	comp=Z,19nm,0.8s						
GRFO	Grafenberg	16.08	336	*e*P	Pn	06 25 38.8	-0.8
GRFO				pmax	pmax		
	comp=Z,19nm,0.8s						
GRFO	Grafenberg	16.08	336	*e*P	Pn	06 25 38.8	-0.8
	comp=Z,19nm,0.8s						
BFO	Black Forest	16.11	327	*e*Pn	Pn	06 25 39.7	-0.3
BFO	Black Forest	16.11	327	*e*Pn	Pn	06 25 39.7	-0.3
LOMF	Lomont	16.12	322	*e*P	Pn	06 25 39.1	-1.0
NKC	Novy Kostel	16.17	339	*e*x	Pn	06 25 40.8	0.0
WERN	Wernitzgruen	16.24	339	*e*Pn	Pn	06 25 41.6	0.0
MOF	Molkenrain	16.31	324	*e*P	Pn	06 25 45.9	+3.3
KIEV	Kiev	16.32	18	*e*Pn	Pn	06 25 39.6	-3.1
	comp=Z,31nm,0.5s						
KIEV	Kiev	16.32	18	*e*P	Pn	06 25 39.6	-3.1
KIEV				pmax	pmax		
	comp=Z,31nm,0.5s						
TANN	Tannenbergstha	16.33	339	*e*Pn	Pn	06 25 44.0	+1.2
AKASG	Malin Array Be	16.33	18	Pn	Pn	06 25 38.7	-4.1
AKASG				Sn	Sn	06 28 44.9	+1.8
AKASG	Malin Array Be	16.33	18	P	Pn	06 25 38.7	-4.1
AKASG						06 28 44.9	
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.3s						
AKASG				smax			
	comp=N,1.0nm,0.3s						
AKASG	Malin Array Be	16.33	18	Pn	Pn	06 25 38.7	-4.1
	comp=N,5.8nm,0.3s,baz=208,slow=12,SNR=43						
AKASG				Sn	Sn	06 28 44.9	+1.8
	comp=N,0.5nm,0.3s,baz=201,slow=23,SNR=7.3						
AKASG	Malin Array Be	16.33	18	S	Sn	06 28 44.9	+1.8
	comp=N,1.0nm,0.3s						
AKBB	Malin Array Si	16.33	18	*e*Pn	Pn	06 25 39.7	-3.1
BRG	Berggiesshubel	16.36	343	*e*P	Pn	06 25 43.8	+0.6
BRG				pmax	pmax		
	comp=Z,9.0nm,1.2s						
BRG				pmax	pmax		
	comp=Z,11nm,0.7s						
BRG	Berggiesshubel	16.36	343	*e*Pn	Pn	06 25 43.6	+0.4
BRG	Berggiesshubel	16.36	343	*e*P	Pn	06 25 43.8	+0.6
	comp=Z,16nm,1.2s						
BRG				*i*		06 25 47.5	
	comp=Z,18nm,0.7s						
WERD	Werda	16.40	339	*e*Pn	Pn	06 25 45.1	+1.4
HINF	Hinteralfeld	16.42	323	*e*P	Pn	06 25 42.7	-1.3
	comp=Z,35nm,0.9s						
HINF	Hinteralfeld	16.42	323	*e*P	Pn	06 25 42.7	-1.3
HINF				pmax	pmax		
	comp=Z,18nm,0.9s						
HINF	Hinteralfeld	16.42	323	*e*P	Pn	06 25 42.7	-1.3
	comp=Z,18nm,0.9s						
FBE	Freiberg	16.55	342	*e*Pn	Pn	06 25 46.2	+0.6
ECH	Echery	16.56	325	*e*P	Pn	06 25 45.6	-0.1
CDF	Champ du Feu	16.64	326	*e*P	Pn	06 25 46.1	-0.7
	comp=Z,80nm,1.0s						
CDF	Champ du Feu	16.64	326	*e*P	Pn	06 25 46.1	-0.7
CDF				pmax	pmax		
	comp=Z,40nm,1.0s						
CDF	Champ du Feu	16.64	326	*e*P	Pn	06 25 46.1	-0.7
	comp=Z,40nm,1.0s						
MTLF	Montolieu	16.74	304	*e*P	Pn	06 25 48.6	+0.5
	comp=Z,21nm,1.1s						
MTLF	Montolieu	16.74	304	*e*P	Pn	06 25 48.6	+0.5
MTLF				pmax	pmax		
	comp=Z,10.0nm,1.1s						
MTLF	Montolieu	16.74	304	*e*P	Pn	06 25 48.6	+0.5
	comp=Z,10nm,1.1s						
MOX	Moxa	16.78	338	*e*PN	Pn	06 25 50.9	+2.4
MOX	Moxa	16.78	338	*e*Pn	Pn	06 25 49.1	+0.6
HAU	Haudompre	16.80	323	*e*P	Pn	06 25 47.9	-0.9
	comp=Z,68nm,0.9s						
HAU	Haudompre	16.80	323	*e*P	Pn	06 25 47.9	-0.9
HAU				pmax	pmax		
	comp=Z,34nm,0.9s						

HAU	Haudompre	16.80	323	*e*P	Pn	06 25 47.9	-0.9
	comp=Z,34nm,0.9s						
LANF	Langenberg	16.83	328	*e*P	Pn	06 25 52.0	+2.9
LBL	Lubilhac	16.89	311	*e*P	Pn	06 25 55.1	+5.2
EPOB	Poblet	16.93	297	P	Pn	06 25 52.4	+1.9
	comp=Z,34nm,1.0s						
EPOB	Poblet	16.93	297	P	Pn	06 25 52.4	+1.9
	comp=Z,34nm,1.0s						
CLL	Collm	16.99	342	*i* P	Pn	06 25 51.7	+0.6
	comp=Z,34nm,1.2s						
CLL				*i*		06 25 54.7	
CLL				*i*		06 26 02.9	
CLL	Collm	16.99	342	*i* P	Pn	06 25 51.7	+0.6
CLL				pmax	pmax		
	comp=Z,34nm,1.2s						
CLL	Collm	16.99	342	*e*Pn	Pn	06 25 51.6	+0.5
CLL	Collm	16.99	342	*i* P	Pn	06 25 51.7	+0.6
	comp=Z,34nm,1.2s						
CLL				*i* pP	pP	06 25 54.7	-4.9
	comp=Z,34nm,1.2s						
CLL				*i* sP	sP	06 25 56.1	-6.7
CLL				*i* PP		06 26 02.9	
CLL				*e*x	x	06 26 43.0	
PLDF	La Plantade	17.04	314	*e*P	Pn	06 25 50.0	-1.8
THEF	They Montfort	17.13	323	*e*P	Pn	06 25 56.0	+3.1
SMF	Signal de Mont	17.28	316	*e*P	Pn	06 25 53.0	-1.8
AGO	Saint Agoulin	17.37	313	*e*P	Pn	06 25 55.5	-0.5
ERTA	Horta de San J	17.39	295	P	Pn	06 25 57.7	+1.4
	comp=Z,31nm,1.1s						
ERTA	Horta de San J	17.39	295	P	Pn	06 25 57.7	+1.5
	comp=Z,31nm,1.1s						
TNS	Taunus Mts	17.53	332	*e*Pn	Pn	06 25 59.9	+2.1
TNS	Taunus Mts	17.53	332	*e*Pn	Pn	06 25 59.9	+2.1
LOR	Lormes	17.63	318	*e*P	Pn	06 25 57.2	-1.9
	comp=Z,15nm,1.1s						
LOR	Lormes	17.63	318	*e*P	Pn	06 25 57.2	-1.9
	comp=Z,7.6nm,1.1s						
LOR	Lormes	17.63	318	*e*P	Pn	06 25 57.2	-1.9
LOR				pmax	pmax		
	comp=Z,8.0nm,1.1s						
AVF	Avril sur Loir	17.64	316	*e*P	Pn	06 25 57.9	-1.4
RUP	Ruppelstein	17.69	328	*e*P	Pn	06 26 01.8	+1.9
SSF	Saint Saulge	17.71	317	*e*P	Pn	06 25 58.3	-1.8
	comp=Z,47nm,1.2s						
SSF	Saint Saulge	17.71	317	*e*P	Pn	06 25 58.3	-1.8
	comp=Z,24nm,1.2s						
SSF	Saint Saulge	17.71	317	*e*P	Pn	06 25 58.3	-1.8
SSF				pmax	pmax		
	comp=Z,24nm,1.2s						
MEZF	Maizieres J'vi	17.77	322	*e*P	Pn	06 26 01.1	+0.2
	comp=Z,44nm,0.8s						
MEZF	Maizieres J'vi	17.77	322	*e*P	Pn	06 26 01.1	+0.2
	comp=Z,22nm,0.8s						
BGF	Bois d'Agland	17.81	314	*e*P	Pn	06 26 00.5	-0.8
	comp=Z,64nm,1.1s						
BGF	Bois d'Agland	17.81	314	*e*P	Pn	06 26 00.5	-0.8
BGF				pmax	pmax		
	comp=Z,32nm,1.1s						
BGF	Bois d'Agland	17.81	314	*e*P	Pn	06 26 00.5	-0.8
	comp=Z,32nm,1.1s						
EMOS	Mosqueruela	17.89	293	P	Pn	06 26 03.8	+1.5
	comp=Z,27nm,0.8s						
EMOS	Mosqueruela	17.89	293	P	Pn	06 26 03.8	+1.4
	comp=Z,27nm,0.8s						
RUE	Ruedersdorf	17.90	345	*e*Pn	Pn	06 26 03.0	+0.6
	comp=Z,20nm,0.6s						
RUE	Ruedersdorf	17.90	345	*e*Pn	Pn	06 26 03.0	+0.6
	comp=Z,20nm,0.6s						
EPF	Esparros	17.92	301	*e*P	Pn	06 26 04.0	+1.2
EBIE	Bielsa	17.96	300	P	Pn	06 26 03.9	+0.6
	comp=Z,38nm,0.9s						
EBIE	Bielsa	17.96	300	P	Pn	06 26 03.9	+0.7
	comp=Z,38nm,0.9s						
RJF	Les Rejaudoux	18.00	309	*e*P	Pn	06 26 04.3	+0.6
TCF	Toulx Ste Croi	18.04	313	*e*P	Pn	06 26 04.3	+0.1
	comp=Z,74nm,1.3s						
TCF	Toulx Ste Croi	18.04	313	*e*P	Pn	06 26 04.3	+0.1
TCF				pmax	pmax		
	comp=Z,37nm,1.3s						
TCF	Toulx Ste Croi	18.04	313	*e*P	Pn	06 26 04.3	+0.1
	comp=Z,37nm,1.3s						
WLF	Walferdange	18.06	327	*e*Pn	Pn	06 26 05.4	+1.0
	comp=Z,38nm,0.8s						
WLF	Walferdange	18.06	327	*e*P	Pn	06 26 05.4	+1.0
WLF				pmax	pmax		
	comp=Z,38nm,0.8s						
WLF	Walferdange	18.06	327	P	Pn	06 26 05.1	+0.7
	comp=Z,39nm,1.3s						
WLF	Walferdange	18.06	327	*e*Pn	Pn	06 26 06.0	+1.6
WLF	Walferdange	18.06	327	*e*P	Pn	06 26 05.4	+1.0
	comp=Z,38nm,0.8s						
CLZ	Clausthal	18.21	338	*e*Pn	Pn	06 26 07.9	+1.7
CLZ	Clausthal	18.21	338	*e*Pn	Pn	06 26 07.9	+1.7
LFF	La Frestale	18.34	308	*e*P	Pn	06 26 08.4	+0.5
	comp=Z,164nm,1.3s						
LFF	La Frestale	18.34	308	*e*P	Pn	06 26 08.4	+0.5
LFF				pmax	pmax		
	comp=Z,82nm,1.3s						
LFF	La Frestale	18.34	308	*e*P	Pn	06 26 08.4	+0.5
	comp=Z,82nm,1.3s						
KIV	Kislovodsk	18.50	56	*e*Pn	Pn	06 26 08.9	-0.9
	comp=Z,10nm,0.6s						
KIV	Kislovodsk	18.50	56⇓	*i*P	Pn	06 26 09.1	-0.7
SUW	Suwalki	18.66	3	*e*P	Pn	06 26 11.6	0.0
MEM	Membach	18.82	329	P	Pn	06 26 15.3	+1.6
	comp=Z,17nm,1.0s						
NRDL	Niedersach Rie	18.86	338	*e*Pn	Pn	06 26 16.3	+2.2
BUG	Bochum--Univer	18.95	332	*e*Pn	Pn	06 26 17.1	+1.9
BUG	Bochum--Univer	18.95	332	*e*Pn	Pn	06 26 17.1	+1.9
HGN	Heimansgroeve	18.97	329	*e*P	Pn	06 26 17.2	+1.8
GIVF	Givet	18.98	326	*e*P	Pn	06 26 16.1	+0.6
	comp=Z,69nm,0.7s						
GIVF	Givet	18.98	326	*e*P	Pn	06 26 16.1	+0.6
GIVF				pmax	pmax		
	comp=Z,35nm,0.7s						
GIVF	Givet	18.98	326	*e*P	Pn	06 26 16.1	+0.6
	comp=Z,34nm,0.7s						
ZEI	Tsey	18.98	60	*e*P	Pn	06 26 12.4	-3.2
SJPF	Ste Jean	19.04	301	*e*P	Pn	06 26 16.9	+0.5
	comp=Z,189nm,0.8s						
SJPF	Ste Jean	19.04	301	*e*P	Pn	06 26 16.9	+0.5
SJPF				pmax	pmax		
	comp=Z,94nm,0.8s						
SJPF	Ste Jean	19.04	301	*e*P	Pn	06 26 16.9	+0.5
	comp=Z,94nm,0.8s						
ENIJ	Nijar	19.05	282	P	Pn	06 26 14.8	-1.8
	comp=Z,18nm,0.9s						
ENIJ	Nijar	19.05	282	P	Pn	06 26 14.8	-1.7
ENIJ				pmax	pmax		
	comp=Z,18nm,0.9s						
ENIJ	Nijar	19.05	282	P	Pn	06 26 14.8	-1.7
	comp=Z,18nm,0.9s						
DOU	Dourbes	19.08	325	P	Pn	06 26 17.4	+0.7
	comp=Z,18nm,1.2s						
DOU				E		06 26 20.9	
DOU				E		06 26 39.9	
BEBN	Eben Emael	19.10	328	P	Pn	06 26 17.1	+0.1
ETOR	Torete	19.15	293	P	Pn	06 26 16.7	-1.0
	comp=Z,12nm,0.6s						
ETOR	Torete	19.15	293	P	Pn	06 26 16.7	-1.0
ETOR				pmax	pmax		
	comp=Z,12nm,0.6s						
ETOR	Torete	19.15	293	P	Pn	06 26 16.7	-1.0
	comp=Z,12nm,0.6s						
BAIF	Baives	19.23	325	*e*P	Pn	06 26 19.1	+0.5
	comp=Z,21nm,0.5s						
BAIF	Baives	19.23	325	*e*P	Pn	06 26 19.1	+0.5
BAIF				pmax	pmax		
	comp=Z,10.0nm,0.5s						
BAIF	Baives	19.23	325	*e*P	Pn	06 26 19.1	+0.5
	comp=Z,10nm,0.5s						
ELIZ	Elizondo	19.27	301	P	Pn	06 26 19.2	+0.1
	comp=Z,60nm,0.8s						
ELIZ	Elizondo	19.27	301	P	Pn	06 26 19.2	0.0
ELIZ				pmax	pmax		
	comp=Z,60nm,0.8s						
ELIZ	Elizondo	19.27	301	P	Pn	06 26 19.2	0.0
	comp=Z,60nm,0.8s						
EVIA	Vianos	19.28	287	P	Pn	06 26 19.6	+0.3
	comp=Z,8.5nm,0.7s						
EVIA	Vianos	19.28	287	P	Pn	06 26 19.6	+0.3
EVIA				pmax	pmax		
	comp=Z,9.0nm,0.7s						
EVIA	Vianos	19.28	287	P	Pn	06 26 19.6	+0.3
	comp=Z,8.5nm,0.7s						
SNF	Seneffe	19.51	326	P	Pn	06 26 22.4	+0.5
WTSB	Winterswijk	19.55	332	*e*P	Pn	06 26 24.4	+2.1
MFF	Saint Martin d	19.62	311	*e*P	Pn	06 26 24.3	+1.0
	comp=Z,24nm,0.5s						
MFF	Saint Martin d	19.62	311	*e*P	Pn	06 26 24.3	+1.0
MFF				pmax	pmax		
	comp=Z,12nm,0.5s						
MFF	Saint Martin d	19.62	311	*e*P	Pn	06 26 24.3	+1.0
	comp=Z,12nm,0.5s						
MNK	Minsk	19.63	11	*e*P	Pn	06 26 19.0	-4.3
UCC	Uccle	19.68	327	P	Pn	06 26 24.0	0.0
EQES	Quesada	19.72	284	P	Pn	06 26 23.1	-1.4
	comp=Z,30nm,0.8s						
EQES	Quesada	19.72	284	P	Pn	06 26 23.1	-1.4
	comp=Z,30nm,0.8s						
ECRI	Cripan	19.83	298	P	Pn	06 26 23.8	-2.0
	comp=Z,35nm,0.8s						
ECRI	Cripan	19.83	298	P	Pn	06 26 23.8	-2.0
ECRI				pmax	pmax		
	comp=Z,35nm,0.8s						
ECRI	Cripan	19.83	298	P	Pn	06 26 23.8	-2.0
	comp=Z,35nm,0.8s						
BSEG	Bad Segeberg	20.07	341	*e*P	P	06 26 27.5	+0.8
ECOG	Cogollos-Vega	20.12	283	P	P	06 26 28.2	+0.8
	comp=Z,16nm,0.6s						
ECOG	Cogollos-Vega	20.12	283	P	P	06 26 28.2	+0.8
ECOG				pmax	pmax		
	comp=Z,16nm,0.6s						
ECOG	Cogollos-Vega	20.12	283	P	P	06 26 28.2	+0.8
	comp=Z,16nm,0.6s						
BSD	Bornholm Skovb	20.20	349	*i* P	P	06 26 27.7	-0.4
BSD				pmax	pmax		
	comp=Z,39nm,0.8s						
BSD	Bornholm Skovb	20.20	349	*i* P	P	06 26 27.7	-0.4
	comp=Z,39nm,0.8s						
VORD	Divnogorie	20.26	34	*e*P	P	06 26 28.8	+0.1
VORD				*e**PP		06 26 34.4	
VORD				*e*PPP		06 26 47.9	
VORD				pmax	pmax		
	comp=N,50nm,0.9s						
VORD				pmax	pmax		
	comp=E,80nm,0.9s						
VORD				pmax	pmax		
	comp=Z,50nm,0.9s						
VORD				pmax	pmax		
	comp=Z,20nm,0.8s						
VORD				pmax	pmax		
	comp=N,20nm,0.5s						
VORD				pmax	pmax		
	comp=E,70nm,0.6s						
EBAN	Banos Encina	20.28	285	P	P	06 26 28.7	-0.4
	comp=E,9.1nm,0.7s						
EBAN	Banos Encina	20.28	285	P	P	06 26 28.7	-0.4
EBAN				pmax	pmax		
	comp=Z,9.0nm,0.7s						
EBAN	Banos Encina	20.28	285	P	P	06 26 28.7	-0.4
	comp=Z,9.1nm,0.7s						
ERON	Agron	20.32	282	P	P	06 26 30.0	+0.5
	comp=Z,5.6nm,0.5s						
ERON	Agron	20.32	282	P	P	06 26 30.0	+0.4
	comp=Z,5.6nm,0.5s						
VRSR	Storozhevoye	20.38	34	*e*P	P	06 26 29.3	-0.8
VRSR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
VRSR				pmax	pmax		
	comp=N,5.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,4.0nm,0.7s						
ESDC	Sonseca Array	20.47	290	P	P	06 26 31.7	+0.5
	comp=E,11nm,0.8s						
ESDC	Sonseca Array	20.47	290	P	P	06 26 31.5	+0.4
	comp=E,16nm,0.6s,baz=88,slow=11,SNR=72						
ESDC	Sonseca Array	20.47	290	P	P	06 26 31.7	+0.5
	comp=E,11nm,0.8s						
LDF	La Druitiere	20.59	316	*e*P	P	06 26 32.7	+0.3
	comp=E,54nm,0.6s						
LDF	La Druitiere	20.59	316	*e*P	P	06 26 32.7	+0.3
LDF				pmax	pmax		
	comp=Z,27nm,0.6s						
LDF	La Druitiere	20.59	316	*e*P	P	06 26 32.7	+0.3
	comp=Z,27nm,0.6s						
ELOJ	Sierra Loja	20.59	282	P	P	06 26 32.2	-0.3
	comp=Z,7.1nm,0.8s						
ELOJ	Sierra Loja	20.59	282	P	P	06 26 32.2	-0.3
ELOJ				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ELOJ	Sierra Loja	20.59	282	P	P	06 26 32.2	-0.3
	comp=Z,7.1nm,0.8s						
ELAN	Lanestosa	20.64	300	P	P	06 26 33.4	+0.5
	comp=Z,74nm,1.2s						
ELAN	Lanestosa	20.64	300	P	P	06 26 33.3	+0.4
	comp=Z,74nm,1.2s						
ELUQ	Luque	20.67	284	P	P	06 26 33.5	+0.1
	comp=Z,30nm,0.7s						
ELUQ	Luque	20.67	284	P	P	06 26 33.5	+0.2
ELUQ				pmax	pmax		
	comp=Z,30nm,0.7s						
ELUQ	Luque	20.67	284	P	P	06 26 33.5	+0.2
	comp=Z,30nm,0.7s						
GUD	Guadarrama	20.71	292	P	P	06 26 33.9	+0.2
	comp=Z,41nm,0.8s						
GUD	Guadarrama	20.71	292	P	P	06 26 33.9	+0.2
GUD				pmax	pmax		
	comp=Z,41nm,0.8s						
GUD	Guadarrama	20.71	292	P	P	06 26 33.9	+0.2
	comp=Z,41nm,0.8s						
PAB	San Pablo	20.76	289	*e*P	P	06 26 34.5	+0.2
	comp=Z,30nm,0.9s						
PAB	San Pablo	20.76	289	*e*P	P	06 26 34.5	+0.2
PAB				pmax	pmax		
	comp=Z,30nm,0.9s						
PAB	San Pablo	20.76	289	*e*P	P	06 26 34.5	+0.2
	comp=Z,30nm,0.9s						
FLN	La Foliniere	20.88	316	*e*P	P	06 26 35.5	0.0
	comp=Z,62nm,0.7s						
FLN	La Foliniere	20.88	316	*e*P	P	06 26 35.5	0.0
	comp=Z,31nm,0.7s						
FLN	La Foliniere	20.88	316	*e*P	P	06 26 35.5	0.0
FLN				pmax	pmax		
	comp=Z,31nm,0.7s						
EADA	Adamuz	20.90	285	P	P	06 26 35.8	-0.1
	comp=Z,17nm,0.8s						
EADA	Adamuz	20.90	285	P	P	06 26 35.8	0.0
	comp=Z,17nm,0.8s						
GRR	Gorron	20.91	315	*e*P	P	06 26 36.3	+0.5
	comp=Z,75nm,0.6s						
GRR	Gorron	20.91	315	*e*P	P	06 26 36.3	+0.5
	comp=Z,38nm,0.6s						
GRR	Gorron	20.91	315	*e*P	P	06 26 36.3	+0.5
GRR				pmax	pmax		
	comp=Z,38nm,0.6s						
EMIJ	Mijas	21.13	281	P	P	06 26 38.1	-0.2
	comp=Z,109nm,1.2s,mb5.1						
EMIJ	Mijas	21.13	281	P	P	06 26 38.1	-0.2
	comp=Z,109nm,1.2s,mb5.1						
COP	Copenhagen	21.18	346	*e*P	P	06 26 39.2	+0.5
COP				pmax	pmax		
	comp=Z,66nm,1.2s,mb4.8						
COP	Copenhagen	21.18	346	*i* P	P	06 26 39.2	+0.5
	comp=Z,66nm,1.2s,mb4.8						
VRHR	Novokhopersk	21.45	37	*e*P	P	06 26 40.6	-1.0
VRHR				*e*S	S	06 30 36.0	-2.2
VRHR				pmax	pmax		
	comp=Z,120nm,0.6s,mb5.4						
VRHR				pmax	pmax		
	comp=N,20nm,0.4s						
VRHR				pmax	pmax		
	comp=E,50nm,0.8s						
VRHR				smax			
	comp=N,90nm,0.8s						
VRHR				smax			
	comp=Z,30nm,1.3s						
VRHR				smax			
	comp=E,50nm,0.8s						
MDT	Midelt	21.61	271	P	P	06 26 43.7	+0.2
	comp=E,6.1nm,0.8s,mb4.1,baz=86,slow=12,SNR=13						
EJIF	Jimena Fronter	21.70	281	P	P	06 26 43.8	-0.6
	comp=E,13nm,0.6s,mb4.5						
EJIF	Jimena Fronter	21.70	281	P	P	06 26 43.8	-0.6
EJIF				pmax	pmax		
	comp=Z,13nm,0.6s,mb4.5						
EJIF	Jimena Fronter	21.70	281	P	P	06 26 43.8	-0.6
	comp=Z,13nm,0.6s,mb4.5						
EARI	Arriondas	21.91	299	P	P	06 26 45.9	-0.8
	comp=Z,128nm,1.4s,mb5.2						
EARI	Arriondas	21.91	299	P	P	06 26 45.9	-0.8
	comp=Z,128nm,1.4s,mb5.2						
ESPR	Espera	21.97	282	P	P	06 26 45.6	-1.8
	comp=Z,45nm,0.8s,mb5.0						
QUIF	Quistinic	22.05	312	*e*P	P	06 26 48.4	+0.3
	comp=Z,58nm,0.7s,mb4.8						
QUIF	Quistinic	22.05	312	*e*P	P	06 26 48.4	+0.3
	comp=Z,29nm,0.7s,mb4.8						
QUIF	Quistinic	22.05	312	*e*P	P	06 26 48.4	+0.3
QUIF				pmax	pmax		
	comp=Z,29nm,0.7s,mb4.8						
ROSF	Rostrenen	22.30	313	*e*P	P	06 26 51.5	+0.8
	comp=Z,118nm,1.0s,mb5.0						
ROSF	Rostrenen	22.30	313	*e*P	P	06 26 51.5	+0.8
	comp=Z,59nm,1.0s,mb5.0						
ROSF	Rostrenen	22.30	313	*e*P	P	06 26 51.5	+0.8
ROSF				pmax	pmax		
	comp=Z,59nm,1.0s,mb5.0						
OBN	Obninsk	22.35	23	*e*P	P	06 26 49.9	-1.3
	comp=Z,90nm,0.5s,mb5.5						
OBN	Obninsk	22.35	23*d*	*i*P	P	06 26 49.7	-1.5
OBN				*i* S	S	06 30 49.8	-5.8
OBN				pmax	pmax		
	comp=Z,104nm,0.6s,mb5.4						
OBN				MLR	MLR		
	comp=Z,300nm,14.0s,MS3.9						
OBN	Obninsk	22.35	23	*e*P	P	06 26 49.9	-1.3
	comp=Z,90nm,0.5s,mb5.5						
EMIN	Mina Concepcio	22.57	284	P	P	06 26 51.7	-2.0
	comp=Z,171nm,2.0s,mb5.1						
MUD	Monsted U'grnd	22.62	342	*i* P	P	06 26 54.7	+0.7
MUD				pmax	pmax		
	comp=Z,33nm,0.7s,mb4.9						
MUD	Monsted U'grnd	22.62	342	*i* P	P	06 26 54.7	+0.7
	comp=Z,33nm,0.7s,mb4.9						
ECAL	Calabor	22.80	295	P	P	06 26 54.8	-1.3
	comp=Z,281nm,1.7s,mb5.4						
ECAL	Calabor	22.80	295	P	P	06 26 54.8	-1.2
	comp=Z,281nm,1.7s,mb5.4						
EBAD	Badajoz	22.81	287	P	P	06 26 55.4	-0.8
	comp=Z,152nm,1.4s,mb5.2						
EBAD	Badajoz	22.81	287	P	P	06 26 55.4	-0.9
	comp=Z,152nm,1.4s,mb5.2						
MVO	Moncorvo	22.93	293	*e*P	P	06 26 57.2	-0.2
	comp=Z,63nm,1.0s,mb5.0						
PCBR	Castelo Branco	23.19	290	*e*P	P	06 26 59.5	-0.7
MOS	Moscow	23.21	24	*e*P	P	06 26 58.9	-1.4
MOS				*e*PPP		06 27 32.4	
MOS				*e*S	S	06 31 06.1	-4.2
MOS				pmax	pmax		
	comp=Z,102nm,0.6s,mb5.4						
MOS				MLR	MLR		
	comp=Z,900nm,11.0s,MS4.5						
EGRO	El Granado	23.22	284	P	P	06 26 59.8	-0.9
	comp=Z,71nm,1.3s,mb4.9						
EGRO	El Granado	23.22	284	P	P	06 26 59.8	-0.8
	comp=Z,71nm,1.3s,mb4.9						
MTE	Manteigas	23.26	291	*e*P	P	06 27 02.1	+1.1
PESTR	Estremoz	23.26	287	*e*P	P	06 27 00.1	-0.9
	comp=Z,59nm,1.5s,mb4.8						
VSU	Vasula	23.35	7⇓	*e*P	P	06 27 00.2	-1.5
PVAQ	Vaqueiros	23.42	283	*e*P	P	06 27 03.2	+0.5
	comp=Z,20nm,1.3s,mb4.4						
PVRL	Vila Real	23.45	293	*e*P	P	06 27 02.7	-0.3
	comp=Z,60nm,1.7s,mb4.8						
PBEJ	Beja	23.50	285	*e*P	P	06 27 04.0	+0.5
	comp=Z,25nm,1.2s,mb4.5						
PVIS	Viseu	23.55	292	*e*P	P	06 27 03.9	+0.1
	comp=Z,37nm,1.2s,mb4.7						
PBDV	Barranco-do-Ve	23.60	283	*e*P	P	06 27 04.5	+0.1
PCAB	Cabril	23.73	294	*e*P	P	06 27 05.4	-0.1
ELOB	Lobios	23.77	295	P	P	06 27 04.6	-1.2
	comp=Z,53nm,1.0s,mb4.9						
ELOB	Lobios	23.77	295	P	P	06 27 04.6	-1.3
	comp=Z,53nm,1.0s,mb4.9						
PTOM	Tomar	23.90	289	*e*P	P	06 27 07.2	+0.1
	comp=Z,60nm,1.6s,mb4.8						
HFS	Hagfors	25.24	351	P	P	06 27 18.5	-0.5
HFS				pmax	pmax		
	comp=Z,20nm,0.5s						
HFS	Hagfors	25.24	351	P	P	06 27 18.5	-0.5
	comp=Z,20nm,0.5s,mb4.9,baz=156,slow=11,SNR=78						
BLS5	Blasjo	25.93	343	*e*P	P	06 27 28.1	+2.8
BLS5				AMb	AMB	06 27 29.5	
	comp=Z,55nm,0.6s,mb5.3						
BLS5	Blasjo	25.93	343	*e*P	P	06 27 28.1	+2.8
	comp=Z,55nm,0.6s,mb5.3,SNR=34						
EKA	Eskdalemuir Ar	26.09	327	P	P	06 27 27.3	+0.5
EKA				pmax	pmax		
	comp=Z,19nm,0.8s						
EKA	Eskdalemuir Ar	26.09	327	P	P	06 27 27.2	+0.5
	comp=Z,19nm,0.8s,mb4.7,baz=113,slow=7.2,SNR=45						
EKA	Eskdalemuir Ar	26.09	327	P	P	06 27 27.2	+0.4
FINES	FINESS Array B	26.24	5	P	P	06 27 28.2	+0.1
FINES				pmax	pmax		
	comp=Z,7.0nm,0.5s						
FINES	FINESS Array B	26.24	5	P	P	06 27 28.2	+0.1
	comp=Z,7.1nm,0.5s,mb4.4,baz=169,slow=11,SNR=60						
FIA1	FINESS Array S	26.24	5	*e*P	P	06 27 27.3	-0.7
FIA1	FINESS Array S	26.24	5	*e*P	P	06 27 27.3	-0.8
NAO01	NORSAR Array S	26.33	348	*e*P	P	06 27 29.1	+0.2
	comp=Z,4.3nm,0.4s,mb4.3						
NAO01	NORSAR Array S	26.33	348	*e*P	P	06 27 29.1	+0.2
	comp=Z,4.3nm,0.4s,mb4.3						
NB2	NORSAR Subarra	26.46	349	P	P	06 27 30.0	-0.1
	comp=Z,4.7nm,0.5s,mb4.3,baz=160,slow=10						
NOA	NORSAR Array B	26.46	349	P	P	06 27 29.8	-0.3
NOA	NORSAR Array B	26.46	349	P	P	06 27 29.8	-0.3
NOA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
NOA	NORSAR Array B	26.46	349	P	P	06 27 29.8	-0.3
	comp=Z,8.4nm,0.7s,mb4.4,baz=160,slow=9.8,SNR=18						
KAF	Kangasniemi	26.92	5	*e*p	P	06 27 33.8	-0.4
JOF	Joensuu	28.24	10	*e*p	P	06 27 44.9	-1.1
TOA0	Torodi Ar. Sit	28.37	224	P	P	06 27 47.5	-0.1
TOA0	Torodi Ar. Sit	28.37	224	P	P	06 27 47.5	-0.1
TORD	Torodi Ar. Bea	28.37	224	P	P	06 27 46.4	-1.2
	comp=Z,1.1nm,0.5s,mb3.8,baz=36,slow=9.2,SNR=16						
TORD				LR	LR	06 40 34.3	
	comp=Z,211nm,21.5s,MS3.7,baz=15,slow=40						
PRGR	Permogore	30.43	23	*e*P	P	06 28 02.5	-3.0
PRGR				*e*		06 29 00.4	
PRGR				*e*S	S	06 33 00.2	-4.5
MOR8	Moi Rana	31.07	355	*e*P	P	06 28 12.0	+0.9
ARU	Arti	32.77	38⇓	*i*P	P	06 28 25.7	-0.4
ARU				*e*		06 29 32.8	
ARU				*e*S	S	06 33 40.9	-0.4
ARU				*e*SS	SS	06 35 35.8	-27
ARU				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
ARU	Arti	32.77	38	*i* P	P	06 28 25.7	-0.4
	comp=Z,8.0nm,0.8s,mb4.7						
ARU				*e*S	S	06 33 40.9	-0.4
KTK1	Kautokeino	33.68	1	*e*P	P	06 28 34.9	+1.0
KTK1				AMb	AMB	06 28 37.6	
	comp=Z,79nm,1.9s,mb5.3						
KTK1	Kautokeino	33.68	1	*e*P	P	06 28 34.9	+1.0
	comp=Z,79nm,1.9s,mb5.3,SNR=27						
ARCES	ARCESS Array B	34.27	3	P	P	06 28 38.6	-0.4
ARCES				pmax	pmax		
	comp=Z,12nm,0.5s						
ARCES				MLR	MLR		
	comp=Z,515nm,19.1s						
ARCES	ARCESS Array B	34.27	3	P	P	06 28 38.5	-0.4
	comp=Z,12nm,0.5s,mb5.1,baz=187,slow=9.4,SNR=111						
ARCES				LR	LR	06 43 45.9	
	comp=Z,515nm,19.1s,MS4.3,baz=76,slow=38						
ARE0	ARCESS Array S	34.27	3	*e*P	P	06 28 38.0	-1.0
TRO	Tromso	34.31	359	*e*P	P	06 28 38.4	-1.0
KEV	Kevo	34.55	3	*e*p	P	06 28 40.5	-0.9
TIC	Toumodi	37.48	226	*e*P	P	06 29 03.6	-3.5
	comp=Z,21nm,0.6s,mb5.2						
KIC	Kosan Boka	37.54	226	*e*P	P	06 29 05.7	-1.9
	comp=Z,41nm,1.0s,mb5.1						
LIC	Lamto	37.82	226	*e*P	P	06 29 09.5	-0.5
	comp=Z,11nm,0.6s,mb4.5						
LIC	Lamto	37.82	226	*e*P	P	06 29 07.3	-2.7
	comp=Z,59nm,1.5s,mb5.1						
LIC	Lamto	37.82	226	*e*P	P	06 29 09.5	-0.5
	comp=Z,5.4nm,0.6s,mb4.5						
BRVK	Borovoye	38.41	47	*e*P	P	06 29 14.6	0.0
BRVK	Borovoye	38.41	47	*e*P	P	06 29 14.6	0.0
KBL	Kabul	38.82	77	*e*P	P	06 29 18.1	-0.1
KBL	Kabul	38.82	77	*e*P	P	06 29 18.1	-0.1
KMBO	Kilima Mbogo	39.27	154	P	P	06 29 23.0	+0.9
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KMBO				MLR	MLR		
	comp=Z,254nm,19.0s						

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KMBO Kilima Mbogo      39.27 154  P      P       06 29 23.0 +0.9
          comp=Z,0.5nm,0.3s,mb3.7,baz=20,slow=18,SNR=2.3
KMBO                              LR     LR      06 47 18.6
          comp=Z,254nm,19.0s,MS4.1,baz=96,slow=39
EKS2 Erkin-Say         40.84  63 eP      P       06 29 33.5 -1.4
          comp=Z,5.1nm,0.7s,mb4.3
EKS2 Erkin-Say         40.84  63 eP      P       06 29 33.5 -1.4
          comp=Z,5.1nm,0.7s,mb4.3
AAK  Ala-Archa         41.36  63 eP      P       06 29 38.7 -0.5
          comp=Z,3.8nm,0.6s,mb4.2
AAK  Ala-Archa         41.36  63 eP      P       06 29 38.7 -0.5
AAK                               pmax   pmax
          comp=Z,4.0nm,0.6s,mb4.2
AAK  Ala-Archa         41.36  63 eP      P       06 29 38.7 -0.5
          comp=Z,3.8nm,0.6s,mb4.2
FRU  Bishkek           41.42  63 eP      P       06 29 40.0 +0.3
SPB4 Spitsbergen Ar    42.94 358 eP      P       06 29 51.8 +0.2
SPB4 Spitsbergen Ar    42.94 358 eP      P       06 29 51.8 +0.2
KURK Kurchatov         43.47  51 eP      P       06 29 55.4 -0.9
          comp=Z,7.2nm,0.7s,mb4.5
KURK Kurchatov         43.47  51 i P     P       06 29 55.7 -0.6
NVS  Novosibirsk       46.14  45 eP      P       06 30 16.8 -0.7
NVS                              eS      S       06 36 57.5 -4.3
NVS                               pmax   pmax
          comp=Z,32nm,0.5s,mb5.5
NVS                               pmax   pmax
          comp=N,6.0nm,0.6s
NVS                               pmax   pmax
          comp=E,16nm,0.6s
NVS                               smax
          comp=N,21nm,2.3s
NVS                               smax
          comp=E,7.0nm,1.8s
NVS  Novosibirsk       46.14  45 eP      P       06 30 16.8 -0.7
          comp=E,32nm,0.5s,mb5.5
MK31 Makanchi Array    46.26  56 eP      P       06 30 17.9 -0.7
MK31 Makanchi Array    46.26  56 eP      P       06 30 17.9 -0.6
MKAR Makanchi Array    46.26  56  P      P       06 30 17.7 -0.8
MKAR                              pmax   pmax
          comp=Z,19nm,0.7s
MKAR Makanchi Array    46.26  56  P      P       06 30 17.7 -0.8
          comp=Z,19nm,0.7s,mb5.1,baz=270,slow=7.4,SNR=235
ZAL  Zalesovo          47.09  46  P      P       06 30 24.5 -0.5
ZALV Zalesovo Beam     47.11  46  P      P       06 30 24.5 -0.5
          comp=Z,26nm,0.3s,mb5.6,baz=270,slow=8.8,SNR=191
ZALV                              LR     LR      06 51 31.9
          comp=Z,48nm,21.5s,baz=295,slow=38
NDI  New Delhi         47.33  82 eP      P       06 30 26.0 -1.1
WMQ  Urumqi            50.59  59 eP      P       06 30 52.2 +0.3
WMQ                               AP     pP      06 31 02.2 +2.6
WMQ                               XP     sP      06 31 06.2 +3.7
WMQ                               AMB    AMB
          comp=Z,12nm,0.8s,mb4.9
WMQ                               LR     LR
          comp=N,153nm,20.0s,MS4.2
WMQ                               LR     LR
          comp=E,181nm,22.0s,MS4.2
WMQ                               LR     LR
          comp=Z,229nm,20.0s,MS4.2
LSZ  Lusaka            50.82 171 eP      P       06 30 53.2 -0.6
          comp=Z,5.6nm,0.8s,mb4.5
LSZ  Lusaka            50.82 171 eP      P       06 30 53.2 -0.6
LSZ                               pmax   pmax
          comp=Z,6.0nm,0.8s,mb4.6
LSZ  Lusaka            50.82 171 eP      P       06 30 53.2 -0.6
          comp=Z,5.6nm,0.8s,mb4.5
KOLN Koldanda          52.84  80 eP      P       06 31 07.5 -1.5
          comp=Z,22nm,0.7s,mb5.2
GKN  Gorkha            53.58  79 eP      P       06 31 13.6 -0.8
          comp=Z,56nm,0.6s,mb5.7
DMN  Daman             54.12  79 eP      P       06 31 17.9 -0.5
          comp=Z,112nm,0.8s,mb5.8
KKN  Kakani            54.18  79 eP      P       06 31 18.1 -0.7
          comp=Z,50nm,0.7s,mb5.6
PKI  Pulchoki          54.38  79 eP      P       06 31 19.5 -0.8
          comp=Z,80nm,0.8s,mb5.7
GUN  Gumba             54.61  79 eP      P       06 31 21.5 -0.5
          comp=Z,86nm,0.8s,mb5.8
JIRN Jiri              54.97  79 eP      P       06 31 24.0 -0.5
          comp=Z,6.9nm,0.4s,mb5.0
ODAN Odare             56.28  79 eP      P       06 31 33.6 -0.3
          comp=Z,18nm,0.8s,mb5.2
TAPN Taplejung         56.32  78 eP      P       06 31 33.6 -0.6
          comp=Z,49nm,0.9s,mb5.5
MOY  Mondy             57.15  47 eP      P       06 31 40.2 +0.4
LSA  Lhasa             58.04  74  P      P       06 31 43.6 -2.8
LSA                               AMB    AMB
          comp=Z,30nm,1.0s,mb5.3
TLY  Talaya            58.72  46 eP      P       06 31 50.4 -0.3
          comp=Z,8.5nm,0.8s,mb4.8
TLY  Talaya            58.72  46 i P     P       06 31 51.3 +0.5
IRK  Irkutsk           58.91  45 eP      P       06 31 50.9 -1.2
IRK                               pmax   pmax
          comp=Z,21nm,1.2s,mb5.0
IRK  Irkutsk           58.91  45 eP      P       06 31 50.9 -1.2
          comp=Z,21nm,1.2s,mb5.0
ZAK  Zakamensk         58.92  48⇑iP      P       06 31 52.5 +0.3
ZAK                               pmax   pmax
          comp=Z,5.0nm,0.8s,mb4.6
ZAK  Zakamensk         58.92  48 i P     P       06 31 52.5 +0.3
          comp=Z,5.0nm,0.8s,mb4.6
GTA  Gaotai            60.60  61 eP      P       06 32 04.2 +0.3
GTA                               AP     pP      06 32 15.7 +4.0
GTA                               PCP    PcP     06 32 47.4 -0.8
GTA                               PP     PP      06 34 20.4 +3.0
GTA                               S      S       06 40 17.9 -0.7
GTA                               AMB    AMB
          comp=Z,12nm,0.8s,mb5.1
GTA                               AMB    AMB
          comp=Z,150nm,5.7s
GTA                               LR     LR
          comp=N,212nm,13.7s,MS4.6
GTA                               LR     LR
          comp=E,173nm,12.5s,MS4.6
GTA                               LR     LR
          comp=Z,210nm,14.4s,MS4.4
SCHQ Schefferville     60.95 319  P      P       06 32 06.5 +0.5
SCHQ Schefferville     60.95 319  P      P       06 32 06.5 +0.5
          comp=Z,7.4nm,0.7s,mb4.9,baz=73,slow=7.2,SNR=15
SONM Songino Array     61.74  50  P      P       06 32 11.5  0.0
SONM                              pmax   pmax
          comp=Z,10.0nm,0.8s
SONM Songino Array     61.74  50  P      P       06 32 11.5 -0.1
          comp=Z,9.5nm,0.8s,mb5.0,baz=281,slow=8.1,SNR=92
TIXI Tiksi             62.03  20 eP      P       06 32 12.8 -0.3
          comp=Z,3.4nm,0.7s,mb4.6
TIXI Tiksi             62.03  20⇓eP      P       06 32 12.9 -0.2
TIXI                              pmax   pmax
          comp=Z,3.0nm,0.7s,mb4.5
TIXI                              MLR    MLR
          comp=Z,100nm,17.0s,MS4.0
TIXI Tiksi             62.03  20 eP      P       06 32 12.9 -0.2
          comp=Z,100nm,17.0s
BOD  Bodaibo           62.18  37 eP      P       06 32 12.7 -1.6
BOD                               pmax   pmax
          comp=Z,19nm,0.8s,mb5.3
RES  Resolute Bay      62.61 344 eP      P       06 32 18.4 +1.4
          comp=Z,152nm,0.8s
RES  Resolute Bay      62.61 344 eP      P       06 32 18.4 +1.5
          comp=Z,152nm,0.8s
BOSA Boshof            63.78 176  P      P       06 32 26.0 +0.9
BOSA                              LR     LR      07 03 09.8
BOSA Boshof            63.78 176  P      P       06 32 26.0 +0.9
BOSA                              pmax   pmax
          comp=Z,5.0nm,0.9s,mb4.5
BOSA                              MLR    MLR
          comp=Z,423nm,18.4s,MS4.7
BOSA Boshof            63.78 176  P      P       06 32 26.0 +0.9
          comp=Z,4.8nm,0.9s,mb4.5,baz=11,slow=10,SNR=3.0
BOSA                              LR     LR      07 03 09.8
          comp=Z,423nm,18.4s,MS4.7,baz=4.9,slow=39
LZH  Lanzhou           64.90  62 eP      P       06 32 32.5 -0.1
LZH                               AP     pP      06 32 42.7 +2.3
LZH                               XP     sP      06 32 46.8 +3.4
LZH                              ePP     PP      06 34 56.5 +1.3
LZH                               AMB    AMB
          comp=Z,20nm,1.4s,mb5.0
LZH                               AMB    AMB
          comp=Z,47nm,7.5s
LZH                               LR     LR
          comp=N,297nm,16.7s
LZH                               LR     LR
          comp=Z,439nm,19.2s,MS4.7
LZH  Lanzhou           64.90  62 eP      P       06 32 32.5 -0.1
          comp=Z,20nm,1.4s,mb5.0
LZH                               pP     pP      06 32 42.7 +2.3
LZH                               sP     sP      06 32 46.8 +3.4
LZH                              ePP     PP      06 34 56.5 +1.3
LZH                               LR     LR
          comp=Z,440nm,19.2s,MS4.7
LZH  Lanzhou           64.90  62 eP      P       06 32 32.5 -0.1
LZH                              e               06 34 56.5
LZH                               pmax   pmax
          comp=Z,20nm,1.4s,mb5.0
LZH                               MLR    MLR
          comp=Z,440nm,19.2s,MS4.7
YAK  Yakutsk           67.22  29⇓eP      P       06 32 46.1 -1.0
YAK                               pmax   pmax
          comp=Z,12nm,0.7s,mb5.0
YAK                               MLR    MLR
          comp=Z,100nm,17.0s,MS4.1
YAK  Yakutsk           67.22  29 eP      P       06 32 46.1 -1.0
          comp=Z,100nm,17.0s
CD2  Chengdu           67.22  68 eP      P       06 32 47.5 -0.1
CD2                               AMB    AMB
          comp=Z,10.0nm,0.6s,mb5.0
CD2                               AMB    AMB
          comp=Z,30nm,8.2s
HHC  Hu-ho-hao-te      68.09  55 eP      P       06 32 53.0  0.0
HHC                               AP     pP      06 33 03.3 +2.5
HHC                               XP     sP      06 33 07.3 +3.5
HHC                               PCP    PcP     06 33 19.8 +0.9
HHC                               PP     PP      06 35 25.8 +2.8
HHC                               SCP            06 37 19.3
HHC                               PCS            06 37 23.1
HHC                               S      S       06 41 47.7 -3.5
HHC                               XS     sS      06 42 04.8 +0.7
HHC                               SCS    ScS     06 42 45.6 -5.0
HHC                               SS     SS      06 46 10.3 -2.9
HHC                               AMB    AMB
          comp=Z,15nm,1.1s,mb4.9
HHC                               AMB    AMB
          comp=Z,110nm,4.6s
HHC                               LR     LR
          comp=N,283nm,17.1s,MS4.7
HHC                               LR     LR
          comp=E,221nm,17.1s,MS4.7
HHC                               LR     LR
          comp=Z,218nm,15.2s,MS4.5
XAN  Xi'an             69.53  62  P      P       06 33 01.6 -0.5
XAN                               AP     pP      06 33 12.9 +3.0
XAN                               AMB    AMB
          comp=Z,5.0nm,1.0s,mb4.4
GYA  Guiyang           71.64  70  P      P       06 33 17.3 +2.3
GYA                               AP     pP      06 33 27.8 +4.9
GYA                               PCP    PcP     06 33 34.9 +0.7
GYA                               S      S       06 42 29.3 -3.9
GYA                               SKS            06 43 10.5
GYA                               AMB    AMB
          comp=Z,10.0nm,0.9s,mb4.8
GYA                               AMB    AMB
          comp=Z,70nm,5.4s
FCC  Fort Churchill    71.97 330 eP      P       06 33 17.8 +1.3
          comp=Z,8.0nm,0.8s,mb4.7
FCC  Fort Churchill    71.97 330 eP      P       06 33 17.8 +1.4
FCC                               pmax   pmax
          comp=Z,8.0nm,0.8s,mb4.7
FCC  Fort Churchill    71.97 330 eP      P       06 33 17.8 +1.4
          comp=Z,8.0nm,0.8s,mb4.7
BILL Bilibino          73.57  13⇓eP      P       06 33 26.0 +0.2
BILL                              pmax   pmax
          comp=Z,8.0nm,2.1s,mb4.3
BILL Bilibino          73.57  13 eP      P       06 33 26.0 +0.2
          comp=Z,8.0nm,2.1s,mb4.3
SEY  Seymchan          74.50  21⇓eP      P       06 33 32.3 +1.0
INK  Inuvik            74.90 351 eP      P       06 33 33.8 +0.3
          comp=Z,122nm,0.6s,mb6.0
INK  Inuvik            74.90 351 eP      P       06 33 33.8 +0.3
          comp=Z,122nm,0.6s,mb6.0
CN2  Changchun         75.32  47 eP      P       06 33 36.8 +0.4
CN2                              eXP     sP      06 33 51.1 +3.8
CN2                               AMB    AMB
          comp=Z,10.0nm,0.7s,mb4.8
CN2                               AMB    AMB
          comp=Z,200nm,4.0s
MCWV Mont Chateau      75.85 309 eP      P       06 33 40.5 +1.0
          comp=Z,6.9nm,0.6s,mb4.8
YKW3 Yellowknife Ar    76.16 341 eP      P       06 33 41.9 +1.0
YKW3 Yellowknife Ar    76.16 341 eP      P       06 33 41.9 +1.0
YKA  Yellowknife Ar    76.22 341  P      P       06 33 41.6 +0.4
YKA                               pmax   pmax
          comp=Z,1.0nm,0.5s
YKA                               pmax   pmax
          comp=Z,1.0nm,0.7s
YKA  Yellowknife Ar    76.22 341  P      P       06 33 41.6 +0.4
          comp=Z,1.3nm,0.5s,mb4.1,baz=35,slow=5.5,SNR=27
YKA                               PP     PP      06 36 12.2  -19
          comp=Z,0.6nm,0.7s,baz=25,slow=6.9,SNR=4.8
MA2  Magadan           76.57  24 eP      P       06 33 43.8 +0.6
          comp=Z,6.5nm,0.6s,mb4.7
MA2  Magadan           76.57  24⇑eP      P       06 33 44.0 +0.8
MA2                               pmax   pmax
          comp=Z,8.0nm,0.7s,mb4.8
MA2  Magadan           76.57  24 eP      P       06 33 44.0 +0.8
          comp=Z,8.0nm,0.7s,mb4.8
MDJ  Mudanjiang        77.25  44  P      P       06 33 52.3 +5.0
MDJ                               AMB    AMB
          comp=Z,10.0nm,1.8s,mb4.4
MDJ                               AMB    AMB
          comp=Z,150nm,9.1s
HUMP Col San Antoni    77.47 283 eP      P       06 33 50.6 +1.6
ACSO Alum Creek Sta    77.50 311 eP      P       06 33 49.4 +0.6
ACSO Alum Creek Sta    77.50 311 eP      P       06 33 49.4 +0.6
COWI Conover           77.55 318 eP      P       06 33 49.3 +0.3
          comp=Z,16nm,1.1s,mb4.9
COWI Conover           77.55 318 eP      P       06 33 49.3 +0.3
          comp=Z,16nm,1.1s,mb4.9
NJ2  Nanjing           77.67  60 eP      P       06 33 51.6 +1.7
NJ2                               AMB    AMB
          comp=Z,70nm,0.6s,mb5.8
FFC  Flin Flon         77.90 330 eP      P       06 33 51.3 +0.6
          comp=Z,6.0nm,0.9s,mb4.5
FFC  Flin Flon         77.90 330 eP      P       06 33 51.3 +0.5
FFC                               pmax   pmax
          comp=Z,6.0nm,0.9s,mb4.5
FFC  Flin Flon         77.90 330 eP      P       06 33 51.3 +0.5
          comp=Z,6.0nm,0.9s,mb4.5
PSI  Prapat            78.28  95  P      P       06 33 53.4 -0.2
PSI                               pmax   pmax
          comp=Z,1.0nm,0.3s,mb4.2
PSI  Prapat            78.28  95  P      P       06 33 53.4 -0.2
          comp=Z,1.4nm,0.3s,mb4.3,baz=318,slow=12,SNR=2.7
ULM  Lac du Bonnet     78.32 324  P      P       06 33 53.6 +0.5
          comp=Z,4.8nm,0.9s,mb4.4,baz=81,slow=2.8,SNR=9.7
IMA2 Indian Mountai    78.78 358 eP      P       06 33 52.6 -2.9
TNA  Tin City          79.11   4 eP      P       06 33 57.9 +0.6
          comp=Z,6.4nm,0.9s,mb4.5
TNA  Tin City          79.11   4 eP      P       06 33 57.9 +0.7
          comp=Z,6.4nm,0.9s,mb4.5
COLA College           79.69 355d iP     P       06 34 02.7 +2.3
COLA College           79.69 355 i P     P       06 34 02.7 +2.3
DAWY Dawson            79.69 352 eP      P       06 34 01.9 +1.5
DAWY Dawson            79.69 352 eP      P       06 34 02.0 +1.5
KSRS Korea Array       80.59  51  P      P       06 34 05.8  0.0
          comp=Z,2.1nm,0.6s,mb4.2,baz=310,slow=4.8,SNR=7.6
WCI  Wyandotte Cave    80.75 310 eP      P       06 34 07.0 +0.3
          comp=Z,5.0nm,0.8s,mb4.5
WCI  Wyandotte Cave    80.75 310 eP      P       06 34 07.0 +0.3
WCI                               pmax   pmax
          comp=Z,5.0nm,0.8s,mb4.5
WCI  Wyandotte Cave    80.75 310 eP      P       06 34 07.0 +0.3
          comp=Z,5.0nm,0.8s,mb4.5
MCK  McKinley          80.90 356 eP      P       06 34 08.0 +1.0
          comp=Z,7.8nm,0.9s,mb4.6
MCK  McKinley          80.90 356 eP      P       06 34 08.0 +1.1
MCK                               pmax   pmax
          comp=Z,8.0nm,0.9s,mb4.7
MCK  McKinley          80.90 356 eP      P       06 34 07.9 +1.0
          comp=Z,7.8nm,0.9s,mb4.6
CPCT Cooper Cave       81.32 307  P      P       06 34 10.6 +0.9
CPCT                             ePcP    PcP     06 34 17.4 +1.5
CPCT Cooper Cave       81.32 307  P      P       06 34 10.6 +0.9
YSS  Yuzh-Sakhalins    82.63  36 i P     P       06 34 15.9 -0.5
YSS                               pmax   pmax
          comp=Z,5.0nm,0.6s,mb4.7
YSS  Yuzh-Sakhalins    82.63  36 i P     P       06 34 15.9 -0.5
          comp=Z,5.0nm,0.6s,mb4.7
PMR  Palmer            83.04 355 eP      P       06 34 19.3 +1.1
          comp=Z,9.5nm,1.1s,mb4.7
PMR  Palmer            83.04 355 eP      P       06 34 19.3 +1.1
PMR                               pmax   pmax
          comp=Z,10.0nm,1.1s,mb4.8
PMR  Palmer            83.04 355 eP      P       06 34 19.3 +1.1
          comp=Z,9.5nm,1.1s,mb4.7
ECSD EROS,Sioux Fal    83.12 320 eP      P       06 34 19.9 +0.9
          comp=Z,7.8nm,0.9s,mb4.7
ECSD EROS,Sioux Fal    83.12 320 eP      P       06 34 19.9 +0.9
          comp=Z,7.8nm,0.9s,mb4.7
EDM  Edmonton          83.37 334 eP      P       06 34 20.8 +0.7
EDM  Edmonton          83.37 334 eP      P       06 34 20.8 +0.7
LRAL Lakeview Retre    84.42 307 eP      P       06 34 26.8 +1.0
          comp=Z,4.3nm,0.6s,mb4.8
LRAL Lakeview Retre    84.42 307 eP      P       06 34 26.8 +0.9
          comp=Z,4.3nm,0.6s,mb4.8
ASAJ Asahikawa         84.58  38  P      P       06 34 26.2 -0.2
ASAJ                              pmax   pmax
          comp=Z,5.0nm,0.7s
ASAJ Asahikawa         84.58  38  P      P       06 34 26.1 -0.3
          comp=Z,4.9nm,0.7s,mb4.8,baz=330,slow=8.1,SNR=3.8
LAO  LASA Array        85.66 327 eP      P       06 34 33.7 +1.8
          comp=Z,6.6nm,0.8s,mb4.9
LAO  LASA Array        85.66 327 eP      P       06 34 33.7 +1.9
          comp=Z,6.6nm,0.8s,mb4.9
EGMT Eagleton          86.15 330 eP      P       06 34 34.6 +0.4
          comp=Z,5.2nm,0.4s,mb5.1
EGMT Eagleton          86.15 330 eP      P       06 34 34.7 +0.5
          comp=Z,5.2nm,0.4s,mb5.1
KSU1 Kansas State U    86.30 316 eP      P       06 34 36.1 +0.9
          comp=Z,8.4nm,0.6s,mb5.2
KSU1 Kansas State U    86.30 316 eP      P       06 34 36.1 +1.0
          comp=Z,8.4nm,0.6s,mb5.2
WALA Waterton Lakes    86.97 332 eP      P       06 34 39.0 +0.8
          comp=Z,3.9nm,0.8s,mb4.7
WALA Waterton Lakes    86.97 332 eP      P       06 34 39.0 +0.8
          comp=Z,3.9nm,0.8s,mb4.7
KDAK Kodiak Island     87.03 357  P      P       06 34 39.8 +1.4
          comp=Z,11nm,0.6s,mb5.2,baz=1.0,slow=3.6,SNR=22
MJAR Matsushiro Arr    87.46  46  P      P       06 34 40.6 -0.2
MJAR                              pmax   pmax
          comp=Z,3.0nm,0.8s
MJAR Matsushiro Arr    87.46  46  P      P       06 34 40.5 -0.3
          comp=Z,2.9nm,0.8s,mb4.5,baz=313,slow=6.1,SNR=6.1
MIAR Mount Ida         87.61 311 eP      P       06 34 42.9 +1.3
MIAR Mount Ida         87.61 311 eP      P       06 34 42.9 +1.3
NEW  Newport           88.82 334 eP      P       06 34 47.9 +0.9
          comp=Z,3.3nm,0.7s,mb4.8
NEW  Newport           88.82 334 eP      P       06 34 47.9 +0.8
NEW                               pmax   pmax
          comp=Z,3.0nm,0.7s
NEW  Newport           88.82 334 eP      P       06 34 47.9 +0.8
          comp=Z,3.3nm,0.7s,mb4.8
BOZ  Bozeman (W)       88.82 329 eP      P       06 34 48.5 +1.3
BOZ  Bozeman (W)       88.82 329 eP      P       06 34 48.5 +1.4
LKWY Lake              89.16 328 eP      P       06 34 50.5 +1.8
LKWY Lake              89.16 328 eP      P       06 34 50.5 +1.8
PHWY Pilot Hill        89.39 323 eP      P       06 34 51.3 +1.4
PHWY Pilot Hill        89.39 323 eP      P       06 34 51.3 +1.4
MOOW Moose Ponds       89.96 327 eP      P       06 34 53.7 +1.2
PDAR Pinedale Array    90.20 326  P      P       06 34 53.9 +0.3
          comp=Z,1.8nm,0.7s,mb4.5,baz=70,slow=4.3,SNR=17
WMOK Wichita Mounta    90.59 315 eP      P       06 34 57.0 +1.4
          comp=Z,4.5nm,0.9s,mb4.8
WMOK Wichita Mounta    90.59 315 eP      P       06 34 57.0 +1.4
WMOK                              pmax   pmax
          comp=Z,4.0nm,0.9s,mb4.8
WMOK Wichita Mounta    90.59 315 eP      P       06 34 57.0 +1.4
          comp=Z,4.5nm,0.9s,mb4.8
GNW  Green Mountain    91.38 337 eP      P       06 35 01.0 +2.0
GNW  Green Mountain    91.38 337 eP      P       06 35 01.0 +2.0
BMO  Blue Mountains    91.76 332 eP      P       06 35 01.1 +0.2
          comp=Z,3.2nm,0.8s,mb4.7
BMO  Blue Mountains    91.76 332 eP      P       06 35 01.1 +0.3
          comp=Z,3.2nm,0.8s,mb4.7
SDCO Great Sand Dun    92.10 321 eP      P       06 35 03.2 +0.7
          comp=Z,2.2nm,0.9s,mb4.5
SDCO Great Sand Dun    92.10 321 eP      P       06 35 03.2 +0.7
          comp=Z,2.2nm,0.9s,mb4.5
DAU  Daniels Canyon    92.84 326 eP      P       06 35 06.9 +1.0
SRU  San Rafael        93.54 324 eP      P       06 35 09.2 +0.1
          comp=Z,2.3nm,0.5s,mb4.9
SRU  San Rafael        93.54 324 eP      P       06 35 09.2 +0.1
SRU                               pmax   pmax
          comp=Z,2.0nm,0.5s,mb4.8
SRU  San Rafael        93.54 324 eP      P       06 35 09.2 +0.1
          comp=Z,2.3nm,0.5s,mb4.9
LPAZ La Paz            98.81 256  LR     LR      07 24 39.8
          comp=Z,59nm,18.0s,MS4.1,baz=230,slow=38
WRA  Warramunga Arr   119.74  94  PKIKP  PKPdf   06 40 42.7 -0.9
WRA                               pmax   pmax
          comp=Z,1.0nm,0.6s
WRA  Warramunga Arr   119.74  94  PKP    PKPdf   06 40 42.7 -0.9
          comp=Z,0.8nm,0.6s,baz=304,slow=2.2,SNR=6.6
ASAR Alice Springs    121.19  98  PKIKP  PKPdf   06 40 45.7 -0.6
ASAR                              pmax   pmax
          comp=Z,1.0nm,0.7s
ASAR Alice Springs    121.19  98  PKP    PKPdf   06 40 45.6 -0.7
          comp=Z,1.4nm,0.7s,baz=309,slow=1.5,SNR=17
```

ISK **11** *06:23:45.3, 38.48N×39.08E, h5km, MD3.5*
ISCJB **11** *06:23:46.8±0.5, 38.45N±0.04×39.08E±0.03, h10km±4km, Error ellipse: s-maj=6.5km s-min=3.7km az=150.0*
CSEM **11** *06:23:46.1±0.1, 38.46N×39.10E, h8km, ML4.2, Error ellipse: s-maj=2.4km s-min=1.9km az=141.0*
DDA **11** *06:23:48.0, 38.47N×39.07E, h15km±2km, Md3.8, Ml4.2*
ISC 11 06:23:47.5±0.4**, 38.46N**±0.04×**39.07E**±0.04**, h11**km±4km**, n33, σ0.99**/42**, Turkey**

```
Code Station Name       Δ°  AZ°    Phase ID          Time       Res
                                   Op     ISC      h  m  s      ISC
ELZG Elazig             0.08 301  i P     Pg       06 23 49.9  -0.1
ELZG                              i S     Sg       06 23 53.5  +1.6
PTK  Pertek             0.50  30  i PG    Pg       06 23 56.1  -1.3
PTK                               i SG    Sg       06 24 03.7  -0.3
PTK  Pertek             0.50  30  i Pg    Pg       06 23 56.1  -1.3
PTK                               i Sg    Sg       06 24 03.7  -0.3
MYA  Malataya           0.53 256  i PG    Pg       06 23 57.2  -0.6
MYA  Malataya           0.53 256  i Pg    Pg       06 23 57.2  -0.6
MALT Malatya            0.53 255  i PG    Pg       06 23 56.4  -1.4
MALT                              i SG    Sg       06 24 05.6  +0.8
MALT Malatya            0.53 255  i Pg    Pg       06 23 56.4  -1.4
MALT                              i Sg    Sg       06 24 05.6  +0.8
URFA Urfa               1.03 191  i PG    Pg       06 24 06.7  -0.7
URFA Urfa               1.03 191  i Pg    Pg       06 24 06.7  -0.7
DIY  Diyarbakir         1.07 121  i PG    Pg       06 24 06.8  -1.2
DIY  Diyarbakir         1.07 121  i Pg    Pg       06 24 06.8  -1.2
ATAB Bozova             1.16 212  i P     Pb       06 24 08.7  -0.8
ATAB                              i S     Sb       06 24 25.0  +0.5
BINT Bingol             1.19  69  i PN    Pn       06 24 08.9  -1.1
BINT Bingol             1.19  69  i Pn    Pn       06 24 08.9  -1.1
EZC  Erzincan           1.42  24    PN    Pn       06 24 10.5  -2.6
GZT  Gaziantep          1.62 228  i P     Pn       06 24 15.7  -0.3
GZT                               i S     Sg       06 24 39.8  +0.1
BNGL BINGOL             1.70  72  i P     Pn       06 24 18.4  +1.4
BNGL                              i S     Sg       06 24 44.1  +2.0
MARD Mardin             1.77 130  i P     Pn       06 24 17.6  -0.4
MARD                              i S     Sn       06 24 40.9  +0.6
BTMT Batman             1.92  97    PN    Pn       06 24 19.0  -1.0
GAZ  Gaziantep          1.95 230    PN    Pn       06 24 21.2  +0.7
GAZ  Gaziantep          1.95 230  ePn     Pn       06 24 21.2  +0.7
GUMT Gumushane          2.03   9    PN    Pn       06 24 22.0  +0.5
EZM  Erzurum            2.29  50    PN    Pn       06 24 25.3  +0.1
BNN  Bunyan             2.56 280  ePN     Pn       06 24 29.8  +1.0
BNN  Bunyan             2.56 280  ePn     Pn       06 24 29.8  +1.0
SIRT Sirnak             2.83 109  ePN     Pn       06 24 33.0  +0.5
SIRT Sirnak             2.83 109  ePn     Pn       06 24 33.0  +0.5
YOZ  Yozgat             3.15 293  ePN     Pn       06 24 37.6  +0.6
YOZ  Yozgat             3.15 293  ePn     Pn       06 24 37.6  +0.6
YURE YUREGIR            3.18 240  i P     Pn       06 24 37.5  +0.2
AVNT Avonos             3.32 277  i P     Pn       06 24 38.4  -0.9
CUKT Cukurca            3.79 107  ePN     Pn       06 24 47.4  +1.7
CUKT Cukurca            3.79 107  ePn     Pn       06 24 47.4  +1.7
```

IDC 11 06:33:40.9±13.0**, 22.47N**×**143.86E, h187**km±107km**, mb3.0**/5**, mb1 3.1**/5**, mb1mx2.9**/19**, mbtmp3.0**/5**, Error ellipse: s-maj=135.2km s-min=22.8km az=77.0, Volcano Islands region**

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Code Station Name       Δ°  AZ°    Phase ID          Time       Res
                                   Op     ISC      h  m  s      ISC
KSRS Korea Array       20.29 321  P       P        06 38 02.9  +0.6
          0.8nm,0.4s,baz=142,slow=8.4,SNR=4.2
SONM Songino Array     39.15 320  P       P        06 40 49.5  -0.8
          0.2nm,0.4s,baz=130,slow=6.9,SNR=5.2
```

WRA	Warramunga Arr	43.16	193	P	P	06 41 23.1	-0.1
	0.5nm,0.9s,baz=13,slow=8.6,SNR=4.7						
MKAR	Makanchi Array	54.64	312	P	P	06 42 50.7	+0.4
	0.6nm,0.6s,baz=89,slow=8.6,SNR=12						
FINES	FINESS Array B	82.76	335	P	P	06 45 43.6	0.0
	0.9nm,0.8s,baz=84,slow=4.7,SNR=6.7						

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*IDC **11** 06:40:49.8±1.9, 2479N×12226E, h0^{km}, mb3.6/4, mb1 3.8/4, mb1mx3.5/20, mbtmp3.6/4, Error ellipse: s-maj=150.4km s-min=21.4km az=65.0*

*NEIC **11** 06:40:51.3±1.0, 2474N×12225E, h10^{km}, mb3.8/1, Error ellipse: s-maj=17.4km s-min=11.6km az=224.0*

*ISCJB **11** 06:40:56.3±1.8, 246N±02×1218E±04, h57^{km}±15^{km}, mb3.7/5, Error ellipse: s-maj=63.3km s-min=17.8km az=162.5*

ISC 11 06:40:55.1±3.0**, 247N**±01×**1220E**±02**, h30**^{km}±21^{km}**, n8, σ0^{s}94**/8**, mb3.7**/5**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TATO	Taipei	0.57	300	*e*Pg	Pb	06 41 06.6	0.0
YHNB	Yeheng	0.60	268	*e*Pn	Pn	06 41 07.8	+0.3
NACB	Ninganchiao	0.65	218	*e*Pn	Pn	06 41 08.6	+0.3
SONM	Songino Array	26.21	336	P	P	06 46 26.4	-0.7
	1.0nm,0.8s,mb3.4,baz=155,slow=10,SNR=7.5						
MKAR	Makanchi Array	38.52	315	P	P	06 48 14.4	-0.3
	0.2nm,0.5s,mb3.1,baz=97,slow=10,SNR=5.9						
WRA	Warramunga Arr	45.95	164	P	P	06 49 14.6	-0.8
	2.0nm,0.6s,mb4.2,baz=346,slow=8.7,SNR=21						
ASAR	Alice Springs	49.43	166	P	P	06 49 42.4	-0.1
	0.6nm,0.8s,mb3.7,baz=347,slow=12,SNR=5.2						
BOZ	Bozeman (W)	94.71	35	P	P	06 54 15.0	+1.4
	0.3nm,0.6s,mb3.9						

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*IDC **11** 06:50:16.9±19.0, 3326N×13760E, h351^{km}±55^{km}, mb2.9/2, mb1 2.9/3, mb1mx2.5/23, mbtmp2.7/3, Error ellipse: s-maj=362.4km s-min=82.9km az=167.0*

*JMA **11** 06:50:18.2±0.4, 3366N×13732E, h375^{km}±4^{km}, M3.1*

*ISCJB **11** 06:50:19.6±1.3, 338N±02×1374E±01, h366^{km}±6^{km}, mb3.1/2, Error ellipse: s-maj=32.4km s-min=10.7km az=157.3*

ISC 11 06:50:20.1±1.3**, 337N**±02×**1374E**±01**, h361**^{km}±6^{km}**, n17, σ0^{s}61**/21**, mb3.1**/2**, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK02	Tokai 2	0.39	50	*e*S	S	06 51 42.4	+0.8
JKN2	Miekihoku	1.08	300	P	Pn	06 51 07.0	-0.2
HMMJ	Hamamatsu 2	1.19	13	P	Pn	06 51 08.1	+0.4
JWZ	Kozaga	1.41	264	P	Pn	06 51 08.3	-0.6
JWY	Kouya	1.59	290	P	Pn	06 51 09.3	-0.5
JWY				*e*S	S	06 51 50.6	+0.9
JNY	Yasuok	1.70	13	P	Pn	06 51 10.8	+0.4
JWT	Wachi	2.29	314	P	Pn	06 51 13.5	-0.8
JRY	Ryogami san	2.63	28	P	Pn	06 51 18.0	+1.0
JHU	Hanno	2.65	35	P	Pn	06 51 17.9	+0.7
JHU				*e*S	S	06 52 02.9	-0.3
BSO3	Boso 3	2.80	66	P	Pn	06 51 18.5	0.0
BSO3				*e*S	S	06 52 05.5	-0.1
MJAR	Matsushiro Arr	2.92	13	P	Pn	06 51 19.1	-0.3
	0.5nm,0.3s,baz=182,slow=8.6,SNR=6.0						
JMN	Monobe	2.93	272	P	Pn	06 51 18.8	-0.8
JAG	Ashikaga	3.20	31	P	Pn	06 51 21.2	-0.8
JHO	Hitachi	3.90	41	P	Pn	06 51 28.0	-0.6
JFK	Kawauchi	4.63	37	P	Pn	06 51 35.8	-0.3
JFK				*e*S	S	06 52 33.0	-4.7
MKAR	Makanchi Array	43.21	305	P	P	06 57 47.2	+0.4
	0.1nm,0.3s,mb2.4,baz=82,slow=9.0,SNR=4.1						
FINES	FINESS Array B	70.21	332	P	P	07 00 55.0	+0.7
	1.5nm,0.8s,mb3.8,baz=59,slow=7.4,SNR=6.6						

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*NEIC **11** 07:42:08.1, 1696N×9943W, h29^{km}, MD3.9(MEX), After MEX.*

MEX 11 07:42:08.3±0.8**, 1696N×9944W, h27**^{km}±20^{km}**, MD3.9, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.47	259	*i* P	Pb	07 42 16.0	-2.0
ACX				*i* S	Sb	07 42 23.0	-1.7
CAIG	El Cayaco	0.80	277	*i* P	Pb	07 42 20.9	-2.6
CAIG				*i* S	Sb	07 42 31.6	-2.4
MEIG	Mezcala	0.98	350	*i* P	Pn	07 42 23.5	-2.8
MEIG				*i* S	Sb	07 42 35.7	-3.5
PLIG	Platanillo	1.43	358	*i* P	Pn	07 42 29.7	-2.8
PLIG				*i* S	Sn	07 42 47.3	-3.1
UTMO	Huajuapan	1.79	61	*i* P	Pn	07 42 35.9	-1.5
UTMO				*i* S	Sn	07 42 56.6	-2.6
VHO	Vista Hermosa	2.59	87	*i* P	Pn	07 42 48.1	-0.3
VHO				*i* S	Sn	07 43 14.8	-4.3
IIO	Organos	2.71	14	*i* P	Pn	07 42 48.4	-1.7
IIO				*i* S	Sn	07 43 20.7	-1.3
HUIG	Huatulco	3.41	110	*e*S	Sn	07 43 34.2	-5.1

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*CSEM **11** 07:42:19.1, 3505N×2129E, h10^{km}, ML3.4, After NEIC*

*NEIC **11** 07:42:19.1±2.0, 3505N×2129E, h10^{km}, ML3.4(ATH), Error ellipse: s-maj=24.8km s-min=11.4km az=204.0*

*IDC **11** 07:42:19.7±12.0, 3491N×2114E, h37^{km}±67^{km}, mb3.7/4, mb1 3.6/6, mb1mx3.3/22, mbtmp3.6/6, ML2.7/1, Error ellipse: s-maj=129.0km s-min=37.6km az=34.0*

*ISCJB **11** 07:42:20.4±2.7, 351N±02×213E±01, h51^{km}±14^{km}, mb3.9/4, Error ellipse: s-maj=34.7km s-min=10.9km az=24.9*

ISC 11 07:42:22.0±2.6**, 351N**±02×**213E**±01**, h46**^{km}±14^{km}**, n17, σ0^{s}45**/20**, mb3.9**/4**, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLI	Veliai	2.12	39	P	Pn	07 42 55.3	+0.4
ITM	Ithomi	2.17	14	P	Pn	07 42 56.1	+0.5
IDI	Anoyia	2.96	85	Pn	Pn	07 43 06.1	-0.3
IDI				Sn	Sn	07 43 40.7	0.0
IDI	Anoyia	2.96	85	Pn	Pn	07 43 06.1	-0.3
	0.8nm,0.3s,baz=332,slow=9.5,SNR=7.2						
IDI				Sn	Sn	07 43 40.7	0.0
	2.0nm,0.3s,baz=332,slow=20,SNR=6.9						
IDI	Anoyia	2.96	85	Pn	Pn	07 43 06.1	-0.3
IDI				Sn	Sn	07 43 40.7	0.0
RLS	Riolos of Patr	2.99	3	P	Pn	07 43 07.3	+0.5
VLS	Valsamata	3.15	350	P	Pn	07 43 08.6	-0.5
LKR	Lokris	3.83	21	P	Pn	07 43 18.3	-0.1
NEO	Neokhori	4.50	20	P	Pn	07 43 27.0	-0.6
TIP	Timpagrande	5.47	320	P	Pn	07 43 41.1	+0.2
PLG	Polygyros	5.57	17	P	Pn	07 43 41.2	-1.0
NVR	Nevrokopi	6.59	17	P	Pn	07 43 56.9	+0.7
AKASG	Malin Array Be	16.66	18	Pn	Pn	07 46 12.1	+0.1
	0.8nm,0.3s,baz=208,slow=9.6,SNR=6.3						
FINES	FINESS Array B	26.57	5	P	P	07 47 55.1	-0.3
	1.3nm,0.9s,mb3.5,baz=145,slow=15,SNR=4.0						
ARCES	ARCESS Array B	34.60	3	P	P	07 49 05.7	-0.4
	5.9nm,1.2s,mb4.4,baz=185,slow=9.5,SNR=5.1						
MKAR	Makanchi Array	46.47	56	P	P	07 50 44.4	+0.1
	0.2nm,0.3s,mb3.5,baz=272,slow=7.9,SNR=4.3						
ZALV	Zalesovo Beam	47.36	46	P	P	07 50 51.6	+0.5
	0.9nm,0.3s,mb4.2,baz=273,slow=7.4,SNR=6.9						

IDC 11 07:45:02.5±3.3**, 6294S×15579E, h0**^{km}**, mb3.8**/2**, mb1 4.1**/3**, mb1mx4.0**/8**, mbtmp3.9**/3**, ML3.8**/1**, MS4.1**/7**, Ms1 4.0**/7**, ms1mx3.8**/13**, Error ellipse: s-maj=209.1km s-min=40.1km az=73.0, Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	Vanda	14.78	175	Pn	Pn	07 48 32.1	-0.2
	0.4nm,0.3s,baz=344,slow=12,SNR=11						
VNDA				Sn	Sn	07 51 10.5	-6.0
	0.1nm,0.3s,baz=153,slow=4.5,SNR=2.4						
VNDA				LR	LR	07 53 48.3	
	comp=Z,1μm,19.0s,baz=357,slow=36						
RPZ	Rata Peaks	21.20	32	LR	LR	07 57 12.6	
	comp=Z,756nm,18.7s,baz=218,slow=34						
URZ	Urewera	27.90	38	LR	LR	08 00 52.1	
	comp=Z,310nm,18.2s,baz=5.7,slow=34						
STKA	Stephens Creek	32.37	337	LR	LR	08 04 22.2	
	comp=Z,138nm,18.3s,baz=21,slow=36						
MAW	Mawson	35.66	221	LR	LR	08 06 56.0	
	comp=Z,589nm,18.6s,baz=315,slow=37						
ASAR	Alice Springs	41.92	329	P	P	07 52 54.9	+0.3
	1.2nm,0.8s,baz=166,slow=8.2,SNR=11						
WRA	Warramunga Arr	45.41	331	P	P	07 53 22.2	-0.5
	0.9nm,0.6s,baz=164,slow=7.0,SNR=12						
WRA				LR	LR	08 09 06.4	
	comp=Z,123nm,20.8s,baz=180,slow=32						
BOSA	Boshof	80.66	223	LR	LR	08 30 26.2	
	comp=Z,71nm,21.9s,baz=279,slow=34						
YKA	Yellowknife Ar	141.83	49	PKP	PKPdf	08 04 35.0	+0.7
	0.2nm,0.8s,baz=229,slow=2.8,SNR=3.9						

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*NEIC **11** 08:16:30.1±0.6, 4708N×15274E, h10^{km}, mb4.2/3, Error ellipse: s-maj=15.5km s-min=14.1km az=155.0*

*SKHL **11** 08:16:36.3, 4601N×15306E, h98^{km}±9^{km}, mb4.4/1, msh6.0/1*

*ISCJB **11** 08:16:37.6±1.2, 4712N±008×15287E±009, h83^{km}±10^{km}, mb3.6/17, Error ellipse: s-maj=16.0km s-min=7.5km az=147.8*

*MOS **11** 08:16:38.1±1.1, 4712N×15289E, h91^{km}, mb3.8/7, Error ellipse: s-maj=17.9km s-min=10.4km az=84.3*

*IDC **11** 08:16:41.2±3.9, 4719N×15277E, h98^{km}±36^{km}, mb3.4/14, mb1 3.6/15, mb1mx3.5/23, mbtmp3.4/15, MS2.8/1, Ms1 2.8/1, ms1mx2.2/18, Error ellipse: s-maj=20.9km s-min=17.2km az=152.0*

ISC 11 08:16:40.2±1.0**, 4719N**±008×**15284E**±009**, h88**^{km}±9^{km}**, n41, σ1^{s}00**/45**, mb3.6**/17**, 1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril’s	4.11	30	*e*PN	Pn	08 17 39.0	-1.6
SKR				*e*S	Sn	08 18 21.5	-6.0
SKR				pmax	pmax		
	comp=Z,60nm,0.5s						
SKR				smax			
	comp=N,150nm,0.5s						
SKR				smax			
	comp=E,110nm,0.5s						
YUK	Yuzh-Kuril’sk	5.82	240	PN	Pn	08 17 55.8	-8.1
YUK				S	Sn	08 19 08.0	-1.2
YUK				smax			
	comp=N,530nm,0.8s						
YUK				smax			
	comp=E,240nm,0.6s						
YUK	Yuzh-Kuril’sk	5.82	240	*e*P	Pn	08 17 55.8	-8.1
YUK				A		08 19 30.3	
	comp=E,530nm,0.8s						
YUK				A		08 19 30.3	
	comp=E,240nm,0.8s						
YSS	Yuzh-Sakhalins	6.89	272	*e*Pn	Pn	08 18 16.2	-2.3
	comp=E,10nm,0.4s						
YSS	Yuzh-Sakhalins	6.89	272	*e*PN	Pn	08 18 19.0	+0.6
YSS				S	Sn	08 19 36.0	+0.7
YSS				pmax	pmax		
	comp=Z,20nm,0.9s						
YSS	Yuzh-Sakhalins	6.89	272	*e*P	Pn	08 18 19.0	+0.6
YSS				AMB	AMB	08 18 20.0	
	comp=Z,20nm,0.9s						
YSS				*e*S	Sn	08 19 36.0	+0.7
PET	Petropavlovsk	6.94	30	*e*PN	Pn	08 18 20.1	+1.1
ASAJ	Asahikawa	7.80	251	PN	Pn	08 18 30.7	-0.2
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	7.80	251	P	Pn	08 18 30.7	-0.2
	comp=Z,0.6nm,0.3s,baz=74,slow=20,SNR=6.0						
MA2	Magadan	12.47	355	*e*Pn	Pn	08 19 30.0	-4.2
	comp=Z,6.6nm,0.5s						
MA2	Magadan	12.47	355	*d i*PN	Pn	08 19 34.1	-0.1
MA2				pmax	pmax		
	comp=N,10.0nm,0.7s						
MA2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
MJAR	Matsushiro Arr	15.20	231	P	Pn	08 20 12.4	+2.5
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	15.20	231	P	Pn	08 20 12.4	+2.5
	comp=Z,0.5nm,0.3s,baz=47,slow=9.5,SNR=9.2						
YAK	Yakutsk	19.85	327	*e*P	Pn	08 21 07.0	+0.9
YAK				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KSRS	Korea Array	20.75	251	P	P	08 21 14.7	+1.0
	comp=Z,1.8nm,0.9s,baz=55,slow=11,SNR=4.2						
KSRS				LR	LR	08 28 55.4	
	comp=Z,23nm,18.2s,baz=85,slow=35						
TIXI	Tiksi	27.00	344	*e*P	P	08 22 13.4	+0.2
TIXI				pmax	pmax		
	comp=Z,1.0nm,1.3s,mb3.2						
COLA	College	35.91	39	*e*P	P	08 23 30.7	-0.7
	comp=Z,2.8nm,0.8s,mb4.2						
COLA	College	35.91	39	*e*P	P	08 23 30.7	-0.7
COLA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
ZALV	Zalesovo Beam	42.20	305	P	P	08 24 24.6	+0.7
ZALV				PcP	PcP	08 26 16.4	0.0
ZALV	Zalesovo Beam	42.20	305	P	P	08 24 24.6	+0.7
	comp=Z,0.3nm,0.4s,mb3.4,baz=79,slow=7.7,SNR=2.4						
ZALV				PcP	PcP	08 26 16.4	0.0
	comp=Z,1.5nm,0.7s,baz=80,slow=3.3,SNR=7.4						
ZAL	Zalesovo	42.22	305	P	P	08 24 24.6	+0.5
ZAL						08 26 16.4	
MKAR	Makanchi Array	46.58	297	P	P	08 24 59.2	+0.3
	comp=Z,0.1nm,0.2s,mb3.1,baz=69,slow=7.9,SNR=2.2						
MKAR				PcP	PcP	08 26 31.4	-0.2
	comp=Z,0.4nm,0.4s,baz=67,slow=3.5,SNR=6.1						
YKA	Yellowknife Ar	50.69	37	P	P	08 25 30.6	+0.5
	comp=Z,0.4nm,0.5s,mb3.7,baz=300,slow=7.1,SNR=11						
AML	Almayashu	54.25	296	*e*P	P	08 25 54.2	-2.5
	comp=Z,1.4nm,0.5s,mb4.2						
NVAR	Mina Array Bea	62.40	62	P	P	08 26 54.3	+0.7
	comp=Z,0.1nm,0.3s,mb3.3,baz=306,slow=7.7,SNR=4.2						
FINES	FINESS Array B	63.56	335	P	P	08 26 59.8	-1.0
FINES				pmax	pmax		
	comp=Z,2.0nm,1.0s						
FINES	FINESS Array B	63.56	335	P	P	08 26 59.8	-1.1
	comp=Z,1.7nm,1.0s,mb3.8,baz=28,slow=6.3,SNR=8.9						
HWUT	Hardware Ranch	64.29	56	*e*P	P	08 27 06.7	+0.7
	comp=Z,0.7nm,0.6s,mb3.7						
PDAR	Pinedale Array	64.64	54	P	P	08 27 08.5	+0.3
	comp=Z,0.5nm,0.6s,mb3.5,baz=301,slow=2.3,SNR=5.9						
NOA	NORSAR Array B	67.75	341	P	P	08 27 27.4	-0.4
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	67.75	341	P	P	08 27 27.4	-0.4
	comp=Z,0.7nm,0.7s,mb3.6,baz=28,slow=6.4,SNR=3.1						
WRA	Warramunga Arr	68.86	199	P	P	08 27 33.8	-1.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	Warramunga Arr	68.86	199	P	P	08 27 33.8	-1.4
	comp=Z,0.6nm,0.9s,mb3.4,baz=17,slow=6.5,SNR=2.6						
AKASG	Malin Array Be	71.08	326	P	P	08 27 46.9	-1.6
	comp=Z,0.3nm,0.3s,mb3.6,baz=32,slow=6.0,SNR=5.3						
ASAR	Alice Springs	72.56	198	P	P	08 27 57.6	+0.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	72.56	198	P	P	08 27 57.6	+0.1
	comp=Z,0.7nm,0.7s,mb3.6,baz=13,slow=5.3,SNR=8.0						
TXAR	Lajitas Array	77.44	60	P	P	08 28 26.3	+0.5
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
TXAR	Lajitas Array	77.44	60	P	P	08 28 26.2	+0.5
	comp=Z,2.0nm,0.5s,mb4.1,baz=298,slow=4.7,SNR=35						
BRTR	Keskin Array B	77.94	316	P	P	08 28 28.9	+0.5
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
BRTR	Keskin Array B	77.94	316	P	P	08 28 28.9	+0.5
	comp=Z,0.6nm,0.9s,mb3.3,baz=64,slow=5.6,SNR=4.5						
GERES	GERESS Array B	77.98	334	P	P	08 28 27.8	-0.6
	comp=Z,0.3nm,0.5s,mb3.3,baz=34,slow=7.1,SNR=3.5						

KRSC 11 08:53:36.2±1.4**, 5448N×16640E, h20**^{km}±20^{km}**, ML3.7, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	2.68	312	*e*P	Pn	08 54 17.8	-0.3
KBTR				*i* S	Sn	08 54 47.9	-2.0
MKZ	Mys Kozlova	2.72	274	*e*P	Pn	08 54 20.5	+1.8
MKZ				*i* S	Sn	08 54 52.6	+1.6
ZLN	Zelenaya	3.55	298	P	Pn	08 54 31.5	+1.4
ZLN				*i* S	Sn	08 55 12.3	+0.8
TUMR	Tumrok	3.70	285	*e*P	Pn	08 54 35.6	+3.5
TUMR				*i* S	Sn	08 55 19.8	+4.7
KLY	Klyuchi	3.76	302	*e*P	Pn	08 54 35.0	+2.1
KLY				*i* S	Sn	08 55 17.5	+1.0
KMNR	Kamenistaya	3.76	292	*e*P	Pn	08 54 35.5	+2.5
KIRR	Kirishev	3.77	296	*e*P	Pn	08 54 36.3	+3.2
SPN	Mys Shipunski	4.03	252	*e*P	Pn	08 54 38.8	+2.2
SPN				*i* S	Sn	08 55 24.4	+1.2
KOZ	Kozyrevsk	4.05	296	P	Pn	08 54 39.4	+2.4
SRDR	Sredinnyy	4.23	298	*e*P	Pn	08 54 43.2	+3.8
NLC	Nalytchevo	4.38	255	*e*P	Pn	08 54 43.5	+2.0
NLC				*i* S	Sn	08 55 32.4	+0.5
SDLR	Sedlovina	4.61	258	*e*P	Pn	08 54 47.4	+2.8
SDLR				*i* S	Sn	08 55 39.1	+1.6
PET	Petropavlovsk	4.82	256	*e*P	Pn	08 54 50.8	+3.2
PET				*i* S	Sn	08 55 44.9	+2.1
RUS	Russkaya	5.14	250	*e*P	Pn	08 54 54.6	+2.7
RUS				*i* S	Sn	08 55 51.2	+0.6
MIPR	Malaya Ipel’ka	6.18	253	*e*P	Pn	08 55 10.3	+4.1

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*IDC **11** 09:09:01.4±0.6, 2139N×10642W, h0^{km}, mb4.7/18, mb1 4.9/24, mb1mx4.8/26, mbtmp4.7/24, ML4.0/6, MS4.2/19, Ms1 4.2/19, ms1mx4.0/28, Error ellipse: s-maj=18.1km s-min=12.1km az=60.0*

*BJI **11** 09:09:04.9, 2130N×10630W, h41^{km}, mB5.6, mb5.3, Ms5.2, Msz4.9*

*MOS **11** 09:09:04.9±1.0, 2139N×10630W, h28^{km}, mb5.4/49, Error ellipse: s-maj=7.1km s-min=3.9km az=83.9*

*MEX **11** 09:09:04.2±3.3, 2147N×10639W, h10^{km}±20^{km}, MD5.2*

*ISCJB **11** 09:09:06.3±0.4, 2138N±003×10627W±002, h39^{km}±3^{km}, mb5.1/110, MS4.5/20, Error ellipse: s-maj=5.3km s-min=1.9km az=35.5*

*GCMT **11** 09:09:07.7±0.5, 2143N×10629W, h18^{km}±1^{km}, MW5.0/71, Moment Tensor Solution. s33,c45; s71,c105; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$3.41±.21; M$_{\theta\theta}$-2.85±.15; M$_{\phi\phi}$-0.55±.17; M$_{r\theta}$2.71±.37; M$_{\theta\phi}$1.99±.10; M$_{\phi r}$-0.52±.41; Best double couple: M$_0$4.63400×10^{16} NP1:φ$_s$314.00000°, δ29.00000°, λ114.00000°. NP2: φ$_s$108.00000°, δ64.00000°, λ77.00000°. Principal axes: T 4.4300, Plg69.0000°, Azm353.0000°; N 0.4130, Plg11.0000°, Azm113.0000°; P -4.8380, Plg18.0000°, Azm207.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **11** 09:09:07.7±0.5, 2134N×10632W, h41^{km}±3^{km}, mb5.2/101, MD5.2(MEX) Error ellipse: s-maj=4.9km s-min=2.4km az=217.0*

NEIC Felt strongly at Penita de Jaltemba. Felt at Puerto Vallarta.

ISC 11 09:09:09.0±0.3**, 2141N**±003×**10627W**±002**, h47**^{km}±2^{km}**, n724, σ0^{s}79**/700**, mb5.1**/110**, MS4.5**/20**, 114C-77D, Off coast of central Mexico**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANIG	Ahuacatlan	1.67	102	*i* P	Pn	09 09 31.3	-4.5
ANIG				*i* S	Sn	09 09 54.1	-1.8
MAIG	Mazatlaan	1.78	355	*i* P	Pn	09 09 30.2	-7.0
MAIG				*i* S	Sn	09 09 50.8	-7.9
CJM	Chamela	2.22	149	*i* P	Pn	09 09 39.0	-4.4
CJM				*i* S	Sn	09 10 06.6	-3.0
SFJM	Santa Fe	3.15	106	*i* P	Pn	09 09 53.5	-2.6
ZAIG	Zacatecas	3.69	68	*i* P	Pn	09 10 01.4	-2.1
ZAIG				*e*S	Sn	09 10 50.1	+4.3
ZAIG	Zacatecas	3.69	68	*i* P	Pn	09 10 01.4	-2.1
ZAIG				*e*S	Sn	09 10 44.1	-1.7
MMIG	Aquila	4.15	138	*i* P	Pn	09 10 06.7	-3.1
MMIG				*i* S	Sn	09 10 56.3	-0.7
LPIG	La Paz	4.59	306	Pn	Pn	09 10 11.2	-4.7
LPIG				Sn	Sn	09 11 02.5	-5.4
LPIG	La Paz	4.59	306	Pn	Pn	09 10 11.2	-4.7
	1.8nm,0.3s,baz=295,slow=2.4,SNR=15						
LPIG				Sn	Sn	09 11 02.5	-5.4
	1.0nm,0.3s,baz=100,slow=17,SNR=1.6						
LPIG	La Paz	4.59	306	*i* P	Pn	09 10 10.9	-5.0
MOIG	Morelia	5.06	109	*e*P	Pn	09 10 17.4	-4.9
MOIG	Morelia	5.06	109	*e*P	Pn	09 10 20.4	-2.0
MOIG				*i* S	Sn	09 11 19.7	+0.2
ZIIG	Zihuatanejo	5.90	129	*i* S	Sn	09 11 38.3	-1.9
SZVM	Salazar	6.79	107	*i* P	Pn	09 10 48.4	+2.4
SZVM				*i* S	Sn	09 12 03.8	+1.8
UNM	Universidad Na	6.97	106	*i* P	Pn	09 10 51.9	+3.4
UNM	Universidad Na	6.97	106	*e*P	Pn	09 10 47.5	-0.9
UNM				*i* S	Sn	09 12 06.7	+0.3
PLIG	Platanillo	7.04	114	*i* P	Pn	09 10 51.4	+1.9
PLIG				*i* S	Sn	09 12 09.7	+1.5
CAIG	El Cayaco	7.14	126	*i* P	Pn	09 10 53.3	+2.4
CAIG				*i* S	Sn	09 12 10.3	-0.4
MEIG	Mezcala	7.16	118	*i* P	Pn	09 10 50.6	-0.5
LNIG	Linares	7.16	60	*i* P	Pn	09 10 50.4	-0.7
LNIG				*i* S	Sn	09 12 09.4	-1.7
IIO	Organos	7.30	103	*i* P	Pn	09 10 56.2	+3.2
ACX	Acapulco	7.51	126	*i* P	Pn	09 10 59.0	+3.0
TXAR	Lajitas Array	8.23	16	Pn	Pn	09 11 03.2	-2.6
TXAR				Sn	Sn	09 12 35.4	-2.2
TXAR				Lg		09 13 20.4	
TXAR				LR	LR	09 14 20.6	
TXAR	Lajitas Array	8.23	16	P	Pn	09 11 03.3	-2.5
TXAR						09 12 35.4	
TXAR	Lajitas Array	8.23	16	Pn	Pn	09 11 03.2	-2.6
	1.7nm,0.3s,baz=200,slow=13,SNR=106						
TXAR				Sn	Sn	09 12 35.4	-2.2
	1.0nm,0.3s,baz=184,slow=14,SNR=2.0						
TXAR				Lg		09 13 20.4	
	4.6nm,0.3s,baz=147,slow=16,SNR=5.0						
TXAR				LR	LR	09 14 20.6	
	comp=Z,3μm,18.5s,baz=5.0,slow=38						
LTX	Lajitas	8.23	16	Pn	Pn	09 11 04.5	-1.4
UTMO	Huajuapan	8.73	113	*i* P	Pn	09 11 13.5	+0.7
TPIG	Tehuac#an	8.89	108	*i* P	Pn	09 11 17.7	+2.9
TPIG				*i* S	Sn	09 12 55.2	+1.5
PNIG	Pinotepa	9.18	122	*e*S	Sn	09 13 00.3	-0.5
LVIG	Laguna Verde	9.38	99	*i* P	Pn	09 11 23.7	+2.1
OXX	Oaxaca	9.99	114	*e*P	Pn	09 11 31.0	+1.1
MNTX	Cornudas Mount	10.28	4	*e*Pn	Pn	09 11 31.3	-2.5
JCT	Junction City	10.74	31	*e*Pn	Pn	09 11 39.5	-0.6
HUIG	Huatulco	11.14	119	*i* P	Pn	09 11 46.4	+0.7
CMIG	Matias Romero	11.58	110	*i* P	Pn	09 11 51.0	-0.6
CMIG				Pn	Pn	09 11 51.6	0.0
CMIG				Lg		09 15 04.3	
CMIG				LR	LR	09 16 35.8	
CMIG	Matias Romero	11.58	110	Pn	Pn	09 11 51.6	0.0
	2.6nm,0.3s,baz=281,slow=11,SNR=58						
CMIG				Lg		09 15 04.3	
	0.1nm,0.3s,baz=6.0,slow=17,SNR=2.8						
CMIG				LR	LR	09 16 35.8	
	comp=Z,384nm,20.3s,baz=262,slow=39						
TUC	Tucson	11.58	341	*e*Pn	Pn	09 11 51.0	-0.6
	22nm,0.9s						
TUC	Tucson	11.58	341	*e*P	Pn	09 11 51.0	-0.6
TUC				pmax	pmax		
	comp=Z,22nm,0.9s						
116A	Eloy	12.12	338	⇑P	Pn	09 11 58.4	-0.5
	baz=12,SNR=14						
115A	Sonoran Desert	12.43	336	⇓P	Pn	09 12 03.8	+0.6
	baz=13,SNR=36						
Y22C	IRIS PASSCAL I	12.63	358	⇑P	Pn	09 12 07.5	+1.6
	baz=13,SNR=7.8						
HKT	Hockley	12.68	46	*e*Pn	Pn	09 12 05.2	-1.4
BNM	Barren Site	12.70	359	*e*Pn	Pn	09 12 07.0	+0.1
LENM	Lemitar	12.72	357	*e*Pn	Pn	09 12 08.1	+0.9
LPM	Los Pinos Moun	12.86	359	*e*Pn	Pn	09 12 10.0	+0.9
LAZ	Ladron	12.97	357	*e*Pn	Pn	09 12 11.5	+0.9
Z14A	Wintersburg	13.30	335	⇓P	Pn	09 12 15.5	+0.5
	baz=14,SNR=15						
ANMO	Albuquerque	13.49	359	*e*Pn	Pn	09 12 19.0	+1.3
ANMO	Albuquerque	13.49	359	⇑*e*P	Pn	09 12 18.1	+0.4
ANMO	Albuquerque	13.49	359	Pn	Pn	09 12 17.7	0.0
	comp=Z,0.2nm,0.3s,baz=204,slow=12,SNR=7.1						
ANMO				Lg		09 16 06.2	
	comp=Z,0.1nm,0.3s,baz=288,slow=18,SNR=2.6						
ANMO				LR	LR	09 17 38.2	
	comp=Z,2μm,18.3s,baz=308,slow=38						
SCX	San Cristobal	13.70	108	*e*P	Pn	09 12 20.0	-0.6
Y14A	Wickenburg	13.83	336	P	Pn	09 12 22.3	0.0
	baz=14,SNR=55						
GLA	Glamis	13.86	329	P	Pn	09 12 22.7	0.0
	baz=14,SNR=32						
AMTX	Amarillo	14.02	16	*e*Pn	Pn	09 12 23.8	-1.1
X15A	Humboldt	14.05	339	P	Pn	09 12 25.9	+0.6
	baz=14,SNR=59						
Y13A	Salome	14.05	333	P	Pn	09 12 25.2	-0.1
	baz=14,SNR=63						

DVTC	**Desert V Tower**	**14.21**	**324**	⇑P	**Pn**	**09 12 27.0**	**-0.5**
	baz=14,SNR=16						
X14A	**Yava**	**14.26**	**337**	⇓P	**Pn**	**09 12 28.5**	**+0.3**
	baz=14,SNR=38						
SWSC	**Sam W. Stewart**	**14.27**	**326**	P	**Pn**	**09 12 27.9**	**-0.3**
	baz=14,SNR=20						
Y12C	**Blythe**	**14.30**	**331**	P	**Pn**	**09 12 28.5**	**-0.1**
	baz=14,SNR=41						
CCIG	**Comitan**	**14.31**	**108**	*i* P	**Pn**	**09 12 28.2**	**-0.7**
MONP	**Monument Peak**	**14.56**	**324**	⇑P	**Pn**	**09 12 32.1**	**0.0**
	baz=15,SNR=6.8						
PDMCI	**Parker Dam,Lak**	**14.60**	**333**	P	**Pn**	**09 12 32.6**	**0.0**
	baz=15,SNR=33						
NATX	**Nacogdoches**	**14.62**	**43**	*e*Pn	**Pn**	**09 12 33.0**	**+0.1**
BC3	**Big Chuckw Mtn**	**14.66**	**328**	P	**Pn**	**09 12 33.1**	**-0.4**
	baz=15,SNR=29						
W15A	**Williams**	**14.70**	**340**	⇑P	**Pn**	**09 12 34.7**	**+0.9**
	baz=15,SNR=32						
X13A	**Yucca**	**14.73**	**335**	P	**Pn**	**09 12 34.0**	**-0.3**
	baz=15,SNR=27						
WUAZ	**Wupatki**	**14.75**	**343**	*e*Pn	**Pn**	**09 12 35.7**	**+1.1**
WUAZ	**Wupatki**	**14.75**	**343**	⇓P	**Pn**	**09 12 35.3**	**+0.7**
	baz=15,SNR=58						
WMOK	**Wichita Mounta**	**14.82**	**25**	*e*Pn	**Pn**	**09 12 34.5**	**-1.1**
IRM	**Iron Mountain**	**14.93**	**330**	P	**Pn**	**09 12 36.4**	**-0.5**
	baz=15,SNR=35						
109C	**Camp Elliot, M**	**14.95**	**322**	⇑P	**Pn**	**09 12 36.9**	**-0.3**
	baz=15,SNR=9.3						
W14A	**Seligman**	**15.00**	**338**	⇑P	**Pn**	**09 12 38.6**	**+0.8**
	baz=15,SNR=73						
PFO	**Pinyon Flat Ob**	**15.13**	**326**	Pn	**Pn**	**09 12 39.0**	**-0.6**
	comp=Z,662nm,1.1s,SNR=41						
PFO	**Pinyon Flat Ob**	**15.13**	**326**	*e*Pn	**Pn**	**09 12 39.5**	**-0.2**
PFO	**Pinyon Flat Ob**	**15.13**	**326**	*e*P	**Pn**	**09 12 39.5**	**-0.1**
PFO	**Pinyon Flat Ob**	**15.13**	**326**	Pn	**Pn**	**09 12 39.6**	**0.0**
	comp=Z,0.2nm,0.3s,baz=148,slow=12,SNR=45						
PFO	**Pinyon Flat Ob**	**15.13**	**326**	P	**Pn**	**09 12 39.6**	**0.0**
	baz=15,SNR=76						
W13A	**Hualapai Mount**	**15.19**	**335**	⇑P	**Pn**	**09 12 40.7**	**+0.3**
	baz=15,SNR=16						
NEE2	**Needles Airpor**	**15.20**	**333**	⇑P	**Pn**	**09 12 40.4**	**-0.1**
	baz=15						
BELC	**Belle Mtn.**	**15.21**	**328**	P	**Pn**	**09 12 40.3**	**-0.2**
	baz=15,SNR=30						
MURC	**Murrieta**	**15.53**	**324**	⇑P	**Pn**	**09 12 44.3**	**-0.4**
	baz=16,SNR=10						
GMRC	**Granite Mounta**	**15.68**	**330**	P	**Pn**	**09 12 46.5**	**-0.1**
	baz=16,SNR=43						
W12A	**Cal Nev Ari**	**15.76**	**333**	⇓P	**Pn**	**09 12 48.1**	**+0.3**
	baz=16,SNR=42						
SCI	**San Clemente I**	**15.86**	**319**	⇓P	**Pn**	**09 12 48.8**	**-0.3**
	baz=16						
MVCO	**Mesa Verde**	**15.87**	**353**	⇓P	**Pn**	**09 12 49.3**	**+0.3**
	baz=16						
BBRC	**Big Bear Sol-O**	**15.88**	**326**	⇓P	**Pn**	**09 12 49.7**	**+0.4**
	baz=16,SNR=15						
HEC	**Hector,Ludlow**	**16.03**	**329**	⇑P	**Pn**	**09 12 51.1**	**-0.1**
	baz=16,SNR=12						
CIS	**Catalina Islan**	**16.07**	**321**	⇑P	**Pn**	**09 12 52.2**	**+0.5**
	baz=16,SNR=10						
V12A	**Nelson**	**16.12**	**334**	⇑P	**Pn**	**09 12 52.7**	**+0.3**
	baz=16,SNR=45						
BFSC	**Mount Baldy St**	**16.26**	**324**	⇑P	**Pn**	**09 12 53.8**	**-0.3**
	baz=16,SNR=18						
SDCO	**Great Sand Dun**	**16.30**	**2**	*e*Pn	**Pn**	**09 12 55.6**	**+1.1**
TUQ	**Turquoise Mtn.**	**16.34**	**331**	⇓P	**Pn**	**09 12 55.5**	**+0.5**
	baz=16,SNR=40						
RRX	**Edison Barstow**	**16.41**	**327**	⇓P	**Pn**	**09 12 55.8**	**-0.1**
	baz=17						
V11A	**Goodsprings**	**16.46**	**333**	P	**Pn**	**09 12 57.4**	**+0.8**
	baz=17,SNR=48						
U12A	**Valley of Fire**	**16.62**	**336**	⇓P	**Pn**	**09 12 59.2**	**+0.6**
	baz=17,SNR=17						
DECC	**Green Verdugo**	**16.64**	**323**	⇑P	**Pn**	**09 12 58.4**	**-0.4**
	baz=17,SNR=8.1						
GSC	**Goldstone**	**16.64**	**329**	P	**Pn**	**09 12 59.2**	**+0.3**
	baz=17,SNR=55						
SNCC	**San Nicolas Is**	**16.65**	**318**	⇑P	**Pn**	**09 12 59.7**	**+0.8**
	baz=17						
T14A	**Hurricane**	**16.68**	**341**	⇑P	**Pn**	**09 13 00.4**	**+1.0**
	baz=17,SNR=21						
PV01	**Paradox Valley**	**16.79**	**354**	*e*Pn	**Pn**	**09 13 00.1**	**-0.6**
TEIG	**Tepich**	**16.86**	**91**	Pn	**Pn**	**09 12 59.0**	**-2.7**
TEIG				LR	LR	09 20 01.9	
TEIG	**Tepich**	**16.86**	**91**	Pn	**Pn**	**09 12 59.0**	**-2.7**
	comp=Z,0.2nm,0.3s,baz=266,slow=13,SNR=3.4						
TEIG				LR	LR	09 20 01.9	
	comp=Z,258nm,19.1s,baz=131,slow=39						
SHOC	**Shoshone**	**16.88**	**331**	P	**Pn**	**09 13 02.3**	**+0.4**
	baz=17,SNR=32						
T13A	**Saint George**	**16.91**	**339**	⇓P	**Pn**	**09 13 03.2**	**+1.0**
	baz=17,SNR=45						
EDW2	**Edwards Air Fo**	**16.92**	**325**	⇑P	**Pn**	**09 13 01.8**	**-0.6**
	baz=17,SNR=17						
SHPR	**Sheep Range**	**16.92**	**335**	*e*Pn	**Pn**	**09 13 02.9**	**+0.6**
U11A	**Corn Creek**	**16.94**	**334**	⇓P	**Pn**	**09 13 03.6**	**+1.0**
	baz=17,SNR=8.7						
T12A	**Moapa**	**16.94**	**336**	⇑P	**Pn**	**09 13 03.2**	**+0.6**
	baz=17,SNR=8.6						
BLG	**Laguna Peak**	**16.96**	**321**	⇓P	**Pn**	**09 13 04.1**	**+1.3**
	baz=17,SNR=5.8						
PV10	**Paradox Valley**	**17.08**	**353**	*e*Pn	**Pn**	**09 13 03.5**	**-0.8**
OSI	**Osito Adit**	**17.12**	**323**	⇓P	**Pn**	**09 13 04.7**	**-0.2**
	baz=17,SNR=9.8						
MIAR	**Mount Ida**	**17.21**	**38**	*e*Pn	**Pn**	**09 13 05.1**	**-0.9**
BSC	**Santa Cruz Isl**	**17.22**	**320**	⇓P	**Pn**	**09 13 06.9**	**+0.8**
	baz=17						
CCUT	**Cedar City**	**17.22**	**341**	*e*Pn	**Pn**	**09 13 06.4**	**+0.4**
LRMC	**Laurel Mountai**	**17.22**	**327**	⇓P	**Pn**	**09 13 06.0**	**-0.1**
	baz=17,SNR=11						
U10A	**Ash Meadows, A**	**17.34**	**332**	⇑P	**Pn**	**09 13 08.2**	**+0.7**
	baz=18,SNR=24						
S14A	**Cedar City**	**17.36**	**341**	⇑P	**Pn**	**09 13 08.4**	**+0.7**
	baz=18,SNR=11						
ARUT	**Antelope Range**	**17.46**	**341**	*e*Pn	**Pn**	**09 13 10.3**	**+1.2**
ARVC	**Arvin**	**17.56**	**324**	⇑P	**Pn**	**09 13 09.7**	**-0.6**
	baz=18,SNR=18						
MPMC	**Manual Prospec**	**17.58**	**329**	⇑P	**Pn**	**09 13 10.6**	**+0.1**
	baz=18,SNR=28						
FURC	**Furnace Creek,**	**17.62**	**331**	⇑P	**Pn**	**09 13 11.0**	**0.0**
	baz=18,SNR=16						
SMCO	**Snowmass**	**17.72**	**358**	*e*P	**Pn**	**09 13 14.3**	**+2.1**
ISA	**Isabella**	**17.77**	**326**	P	**Pn**	**09 13 12.5**	**-0.4**
	baz=18,SNR=25						
MSU	**Marysvale**	**17.79**	**345**	*e*P	**Pn**	**09 13 14.2**	**+1.1**
DAC	**Darwin (Calif)**	**17.81**	**329**	*e*Pn	**Pn**	**09 13 13.8**	**+0.5**
PKM	**Peak Mountain**	**17.95**	**321**	⇓P	**Pn**	**09 13 14.5**	**-0.6**
	baz=18						
UALR	**University of**	**18.09**	**40**	*e*Pn	**Pn**	**09 13 15.4**	**-1.4**
S11A	**Rachel**	**18.14**	**335**	⇑P	**Pn**	**09 13 17.9**	**+0.6**
	baz=18,SNR=21						
CWC	**Cottonwood Cre**	**18.17**	**328**	⇑P	**Pn**	**09 13 17.9**	**+0.1**
	baz=18						
VES	**Vestal, Richgr**	**18.23**	**325**	⇑P	**Pn**	**09 13 18.3**	**-0.2**
	baz=18,SNR=34						
CBKS	**Cedar Bluff**	**18.23**	**16**	*e*Pn	**Pn**	**09 13 18.4**	**0.0**
	comp=Z,94nm,1.1s						
CBKS	**Cedar Bluff**	**18.23**	**16**	*e*P	**Pn**	**09 13 18.4**	**-0.1**
CBKS				pmax	pmax		
	comp=Z,94nm,1.1s						
GRAC	**Grapevine Rang**	**18.29**	**331**	⇑P	**Pn**	**09 13 19.4**	**+0.3**
	baz=18,SNR=26						
TMUT	**Trail Mountain**	**18.33**	**348**	*e*Pn	**Pn**	**09 13 20.2**	**+0.6**
R12A	**Pony Springs,**	**18.33**	**339**	P	**Pn**	**09 13 20.7**	**+1.0**
	baz=18,SNR=35						
ISCO	**Idaho Springs**	**18.34**	**2**	*e*Pn	**Pn**	**09 13 21.0**	**+1.2**
SMMC	**Simmler**	**18.35**	**322**	⇑P	**Pn**	**09 13 19.4**	**-0.5**
	baz=18						
RCTC	**Rector, Farmer**	**18.67**	**325**	⇑P	**Pn**	**09 13 23.1**	**-0.7**
	baz=19,SNR=9.9						
TRCR	**Troy Canyon**	**18.70**	**337**	*e*P	**Pn**	**09 13 24.1**	**0.0**
V05C	**Boulder Hill,**	**18.70**	**323**	⇓P	**Pn**	**09 13 23.5**	**-0.7**
	baz=19						
PTRM	**Twissleman Ran**	**18.72**	**322**	*e*P	**Pn**	**09 13 23.8**	**-0.6**
S10A	**Tonopah Range,**	**18.72**	**334**	⇓P	**Pn**	**09 13 24.2**	**-0.2**
	baz=19,SNR=33						
TIN	**Tinemaha**	**18.73**	**329**	⇑P	**Pn**	**09 13 24.4**	**-0.1**
	baz=19,SNR=14						
S09A	**Goldfield**	**18.82**	**332**	P	**Pn**	**09 13 25.2**	**-0.4**
	baz=19,SNR=32						
HELL	**Mitchell Peak,**	**18.84**	**327**	P	**Pn**	**09 13 25.6**	**-0.2**
	baz=19,SNR=30						
R10A	**Warm Springs**	**18.92**	**335**	⇓P	**Pn**	**09 13 27.0**	**+0.2**
	baz=19,SNR=48						
Q12A	**Willow Creek R**	**19.05**	**339**	⇓P	**Pn**	**09 13 28.0**	**-0.3**
	baz=19,SNR=27						
S08C	**White Mtn Res**	**19.06**	**330**	⇑P	**Pn**	**09 13 28.1**	**-0.4**
	baz=19,SNR=29						
V04C	**Ramage Ranch,**	**19.09**	**321**	⇑P	**Pn**	**09 13 27.2**	**-1.5**
	baz=19						
MPU	**Maple Canyon**	**19.11**	**347**	*e*Pn	**Pn**	**09 13 29.1**	**+0.1**
PKD	**Parkfield**	**19.11**	**322**	P	**Pn**	**09 13 28.1**	**-1.0**
	baz=19,SNR=6.5						
TPH	**Tonopah**	**19.11**	**333**	*e*Pn	**Pn**	**09 13 29.0**	**-0.1**
	comp=Z,84nm,1.3s						
TPH	**Tonopah**	**19.11**	**333**	*e*P	**Pn**	**09 13 29.0**	**-0.1**
TPH				pmax	pmax		
	comp=Z,84nm,1.3s						
NLU	**North Lily Min**	**19.14**	**346**	*e*Pn	**Pn**	**09 13 29.5**	**+0.1**
U05C	**Westside ANR,**	**19.16**	**324**	⇓P	**Pn**	**09 13 28.2**	**-1.4**
	baz=19						
Q11A	**Duckwater**	**19.16**	**337**	⇑P	**Pn**	**09 13 29.1**	**-0.6**
	baz=19,SNR=34						
R09A	**Tonopah**	**19.19**	**333**	⇓P	**Pn**	**09 13 29.2**	**-0.8**
	baz=19,SNR=42						
DAU	**Daniels Canyon**	**19.41**	**348**	*e*Pn	**Pn**	**09 13 32.8**	**+0.1**
T06C	**Millerton Lake**	**19.44**	**326**	P	**Pn**	**09 13 31.0**	**-2.0**
	baz=20,SNR=39						
KCC	**Kaiser Creek**	**19.48**	**327**	⇓P	**Pn**	**09 13 32.5**	**-1.0**
	baz=20,SNR=14						
MLAC	**Mammoth Lakes**	**19.48**	**329**	⇑P	**Pn**	**09 13 32.4**	**-1.2**
	baz=20						
KSU1	**Kansas State U**	**19.48**	**23**	*e*P	**Pn**	**09 13 32.7**	**-0.8**
TGUH	**Tegucigalpa,Un**	**19.50**	**109**	*e*P	**Pn**	**09 13 31.0**	**-2.9**
	comp=Z,56nm,1.6s						
DUG	**Dugway**	**19.54**	**345**	*e*Pn	**Pn**	**09 13 33.8**	**-0.3**
DUG	**Dugway**	**19.54**	**345**	⇓P	**Pn**	**09 13 33.6**	**-0.6**
	baz=20						
U04C	**Hernandez Rese**	**19.55**	**323**	⇓P	**Pn**	**09 13 32.9**	**-1.4**
	baz=20,SNR=5.8						
V03C	**Hunter Liggett**	**19.57**	**321**	⇑P	**Pn**	**09 13 33.8**	**-0.7**
	baz=20						
HBAR	**Harrisburg**	**19.63**	**41**	*e*P	**Pn**	**09 13 34.1**	**-1.2**
JLU	**Jordanelle**	**19.63**	**348**	*e*Pn	**Pn**	**09 13 36.6**	**+1.4**
BRAL	**Brewton**	**19.69**	**57**	*e*P	**Pn**	**09 13 35.0**	**-1.0**
	comp=Z,545nm,1.1s						
R08A	**Mina**	**19.73**	**331**	P	**Pn**	**09 13 35.6**	**-0.8**
	baz=20,SNR=19						
Q09A	**Carvers**	**19.74**	**334**	⇓P	**Pn**	**09 13 35.6**	**-1.0**
	baz=20						
OXF	**Oxford**	**19.77**	**45**	*e*Pn	**Pn**	**09 13 36.9**	**0.0**
	comp=Z,83nm,0.9s						
OXF	**Oxford**	**19.77**	**45**	*e*P	**Pn**	**09 13 36.9**	**0.0**
OXF				pmax	pmax		
	comp=Z,83nm,0.9s						
CTU	**Camp Tracy**	**19.78**	**348**	*e*P	**Pn**	**09 13 36.5**	**-0.5**
MET	**Memphis--Engin**	**19.80**	**43**	*e*Pn	**Pn**	**09 13 37.0**	**-0.4**
NOQ	**North Oquirrh**	**19.82**	**347**	*e*Pn	**Pn**	**09 13 37.8**	**+0.3**
P11A	**Circle Ranch,**	**19.82**	**338**	⇑P	**Pn**	**09 13 36.4**	**-1.1**
	baz=20						
PHWY	**Pilot Hill**	**19.84**	**2**	*e*Pn	**Pn**	**09 13 38.1**	**+0.4**
T05C	**Eagle Field, D**	**19.87**	**324**	⇑P	**Pn**	**09 13 37.3**	**-0.8**
	baz=20						
NVAR	**Mina Array Bea**	**19.88**	**331**	Pn	**Pn**	**09 13 36.9**	**-1.4**
NVAR				PcP	PcP	09 17 52.5	+0.4
NVAR	**Mina Array Bea**	**19.88**	**331**	Pn	**Pn**	**09 13 36.9**	**-1.4**
	comp=Z,0.8nm,0.3s,baz=150,slow=13,SNR=110						
NVAR				PcP	PcP	09 17 52.5	+0.4
	comp=Z,0.0nm,0.3s,baz=130,slow=3.3,SNR=5.3						
R07C	**Lee Vining**	**19.95**	**329**	⇓P	**Pn**	**09 13 37.7**	**-1.4**
	baz=20,SNR=20						
S05C	**Merced**	**20.02**	**326**	⇓P	**P**	**09 13 37.3**	**-0.5**
	baz=20,SNR=20						
Q08A	**Gabbs**	**20.07**	**333**	⇓P	**P**	**09 13 38.8**	**+0.4**
	baz=20,SNR=67						
P10A	**Eureka**	**20.14**	**337**	⇑P	**P**	**09 13 40.2**	**+1.1**
	baz=20,SNR=27						
S06C	**San Francisco**	**20.18**	**327**	⇑P	**P**	**09 13 39.3**	**-0.2**
	baz=20,SNR=10						
RWWY	**Rawlins**	**20.23**	**358**	*e*Pn	**P**	**09 13 40.5**	**+0.5**
	comp=Z,65nm,1.2s						
BGU	**Big Grassy Mou**	**20.29**	**345**	*e*P	**P**	**09 13 40.9**	**+0.3**
GNAR	**Gosnell**	**20.29**	**41**	*e*P	**P**	**09 13 41.1**	**+0.4**
	comp=Z,655nm,0.6s						
O11A	**Cowboy Ranch,**	**20.31**	**339**	P	**P**	**09 13 41.7**	**+0.8**
	baz=20,SNR=44						
P09A	**Austin**	**20.34**	**335**	⇑P	**P**	**09 13 41.9**	**+0.7**
	baz=20,SNR=6.2						
WAKR	**Walker**	**20.47**	**329**	*e*P	**P**	**09 13 43.5**	**+0.9**
R06C	**Coleville**	**20.49**	**329**	P	**P**	**09 13 44.0**	**+1.2**
	baz=21,SNR=38						
Q07A	**Schurz**	**20.52**	**331**	⇑P	**P**	**09 13 43.9**	**+0.7**
	baz=21						
N13A	**Wendover, West**	**20.52**	**343**	⇑P	**P**	**09 13 44.0**	**+0.8**
	baz=21,SNR=13						
CMB	**Columbia Colle**	**20.57**	**327**	*e*P	**P**	**09 13 42.4**	**-1.4**
	comp=Z,30nm,1.1s						
CMB	**Columbia Colle**	**20.57**	**327**	*e*P	**P**	**09 13 42.4**	**-1.3**
CMB				pmax	pmax		
	comp=Z,30nm,1.1s						
CMB	**Columbia Colle**	**20.57**	**327**	⇑P	**P**	**09 13 44.0**	**+0.3**
	baz=21,SNR=16						
HWUT	**Hardware Ranch**	**20.63**	**349**	*e*P	**P**	**09 13 45.0**	**+0.7**
	comp=Z,63nm,0.9s						
LRAL	**Lakeview Retre**	**20.64**	**52**	*e*P	**P**	**09 13 44.9**	**+0.3**
	comp=Z,53nm,1.0s						
HALT	**Halls**	**20.68**	**42**	*e*P	**P**	**09 13 46.1**	**+1.1**
ELK	**Elko**	**20.73**	**340**	*e*P	**P**	**09 13 46.1**	**+0.7**
	comp=Z,81nm,0.9s						
ELK	**Elko**	**20.73**	**340**	*e*P	**P**	**09 13 46.1**	**+0.7**
ELK				pmax	pmax		
	comp=Z,81nm,0.9s						
O10A	**Cortez Mining,**	**20.74**	**337**	P	**P**	**09 13 46.6**	**+1.0**
	baz=21,SNR=41						
N12A	**Clover Valley,**	**20.76**	**341**	P	**P**	**09 13 46.9**	**+1.1**
	baz=21,SNR=39						
PVMO	**Portageville**	**20.78**	**40**	P	**P**	**09 13 47.2**	**+1.1**
	comp=Z,200nm,0.6s						
O09A	**Fish Creek Ran**	**20.89**	**336**	P	**P**	**09 13 48.0**	**+0.8**
	baz=21,SNR=53						
PARMO	**Parma**	**20.92**	**40**	*e*P	**P**	**09 13 47.6**	**+0.1**
PLAL	**Pickwick Lake**	**20.93**	**46**	*e*P	**P**	**09 13 48.0**	**+0.3**
R05C	**Kirkwood Meado**	**20.93**	**328**	P	**P**	**09 13 48.5**	**+0.9**
	baz=21,SNR=20						
GLAT	**Glass**	**20.94**	**41**	*e*Pn	**P**	**09 13 48.4**	**+0.6**
N11A	**Elko Archery C**	**20.95**	**340**	P	**P**	**09 13 48.5**	**+0.7**
	baz=21,SNR=19						
M13A	**Montello**	**20.98**	**343**	P	**P**	**09 13 48.8**	**+0.6**
	baz=21,SNR=42						
WENL	**Wente Brothers**	**20.99**	**324**	⇓P	**P**	**09 13 48.3**	**0.0**
	baz=21,SNR=7.5						
HVU	**Hansel Valley**	**21.04**	**346**	*e*P	**P**	**09 13 49.3**	**+0.5**
	comp=Z,103nm,0.9s,mb5.2						
HVU	**Hansel Valley**	**21.04**	**346**	*e*P	**P**	**09 13 49.3**	**+0.5**
HVU				pmax	pmax		
	comp=Z,103nm,0.9s,mb5.2						
P07A	**Fallon**	**21.05**	**332**	⇓P	**P**	**09 13 49.5**	**+0.5**
	baz=21,SNR=7.4						
N10A	**Dunphy**	**21.12**	**338**	⇑P	**P**	**09 13 50.2**	**+0.5**
	baz=21,SNR=18						
BMN	**Battle Mountai**	**21.13**	**336**	*e*P	**P**	**09 13 50.3**	**+0.5**
	comp=Z,100nm,1.1s,mb5.1						
BMN	**Battle Mountai**	**21.13**	**336**	*e*P	**P**	**09 13 50.3**	**+0.5**
BMN				pmax	pmax		
	comp=Z,99nm,1.1s,mb5.0						
M12A	**Wells**	**21.24**	**342**	P	**P**	**09 13 51.8**	**+0.8**
	baz=22,SNR=116						
UTMT	**University of**	**21.25**	**42**	*e*P	**P**	**09 13 52.1**	**+1.0**
WCN	**Washoe City**	**21.25**	**330**	P	**P**	**09 13 52.0**	**+0.9**
	baz=21,SNR=32						
BDM	**Black Diamond**	**21.29**	**324**	⇑P	**P**	**09 13 51.5**	**0.0**
	baz=21						
LAVA	**Lava Cap Winer**	**21.30**	**327**	P	**P**	**09 13 51.8**	**+0.2**
	baz=22,SNR=19						
O08A	**Rochester Mine**	**21.37**	**334**	⇑P	**P**	**09 13 52.7**	**+0.4**
	baz=22						
FVM	**French Village**	**21.45**	**36**	*e*P	**P**	**09 13 53.4**	**+0.2**
	comp=Z,53nm,0.8s,mb4.9						
FVM	**French Village**	**21.45**	**36**	*e*P	**P**	**09 13 53.4**	**+0.2**
FVM				pmax	pmax		
	comp=Z,53nm,0.8s,mb4.9						
PDAR	**Pinedale Array**	**21.47**	**353**	P	**P**	**09 13 53.0**	**-0.4**
PDAR				PcP	PcP	09 17 53.6	-1.4
PDAR				Lg		09 20 13.3	
PDAR				LR	LR	09 22 07.9	
PDAR	**Pinedale Array**	**21.47**	**353**	P	**P**	**09 13 53.0**	**-0.4**
	comp=Z,35nm,0.9s,mb4.7,baz=167,slow=10,SNR=263						
PDAR				PcP	PcP	09 17 53.6	-1.4
	comp=Z,1.8nm,0.9s,baz=153,slow=4.4,SNR=4.2						
PDAR				Lg		09 20 13.3	
	comp=Z,0.1nm,0.4s,baz=88,slow=34,SNR=2.3						
PDAR				LR	LR	09 22 07.9	
	comp=Z,736nm,19.7s,MS4.1,baz=186,slow=37						
BW06	**Boulder Array**	**21.48**	**353**	*e*P	**P**	**09 13 53.0**	**-0.4**
M11A	**Holland Ranch,**	**21.52**	**340**	P	**P**	**09 13 55.1**	**+1.1**
	baz=22,SNR=47						
L13A	**Double Diamond**	**21.61**	**344**	P	**P**	**09 13 55.7**	**+0.8**
	baz=22,SNR=53						
N09A	**Rock Creek Ran**	**21.61**	**336**	⇑P	**P**	**09 13 55.3**	**+0.4**
	baz=22,SNR=26						
P06A	**Stead Airport,**	**21.62**	**330**	⇓P	**P**	**09 13 55.8**	**+0.8**
	baz=22,SNR=15						
AHID	**Auburn Hatcher**	**21.68**	**350**	*e*P	**P**	**09 13 57.6**	**+2.0**
Q04C	**Lincoln**	**21.68**	**327**	⇓P	**P**	**09 13 56.1**	**+0.4**
	baz=22,SNR=29						
WVT	**Waverly**	**21.77**	**44**	*e*P	**P**	**09 13 56.4**	**-0.3**
	comp=Z,145nm,1.1s,mb5.3						
WVT	**Waverly**	**21.77**	**44**	*e*P	**P**	**09 13 56.4**	**-0.3**
WVT				pmax	pmax		
	comp=Z,145nm,1.1s,mb5.3						
N08A	**GE Springer Mi**	**21.78**	**335**	P	**P**	**09 13 57.0**	**+0.3**
	baz=22,SNR=55						
M10A	**I.L. Ranch, Tu**	**21.85**	**339**	P	**P**	**09 13 58.3**	**+0.9**
	baz=22,SNR=68						
K14A	**Jones Ranch, D**	**21.86**	**346**	P	**P**	**09 13 58.0**	**+0.4**
	baz=22,SNR=59						
Q03C	**Winters**	**21.87**	**325**	⇓P	**P**	**09 13 58.2**	**+0.6**
	baz=22						
CVS	**Carmenet Viney**	**21.90**	**324**	⇓P	**P**	**09 13 58.5**	**+0.5**
	baz=22						
SIUC	**Southern Illin**	**21.94**	**38**	*e*P	**P**	**09 13 58.6**	**+0.1**
	comp=Z,97nm,1.1s,mb5.2						
L12A	**House Creek Ra**	**21.95**	**342**	P	**P**	**09 13 58.9**	**+0.4**
	baz=22,SNR=45						
BEKR	**Beckwourth**	**21.98**	**330**	⇑P	**P**	**09 13 59.5**	**+0.6**
	baz=22,SNR=52						
SLM	**Saint Louis**	**22.02**	**35**	*e*P	**P**	**09 13 59.0**	**-0.3**
	comp=Z,59nm,0.8s,mb5.1						
SLM	**Saint Louis**	**22.02**	**35**	*e*P	**P**	**09 13 59.0**	**-0.3**
SLM				pmax	pmax		
	comp=Z,59nm,0.8s,mb5.1						
M09A	**Marrel Ranch,**	**22.08**	**337**	P	**P**	**09 14 00.5**	**+0.6**
	baz=22,SNR=65						
NSHM	**Saint Helena R**	**22.10**	**324**	*e*P	**P**	**09 13 59.3**	**-0.9**
OHCM	**Honcut**	**22.11**	**327**	*e*P	**P**	**09 14 00.7**	**+0.4**
N07B	**Gerlach**	**22.12**	**334**	⇑P	**P**	**09 14 00.2**	**-0.1**
	baz=22,SNR=19						
K13A	**Stover Farm, H**	**22.17**	**345**	P	**P**	**09 14 01.4**	**+0.5**
	baz=22,SNR=62						
L11A	**Cat Creek Ranc**	**22.18**	**341**	P	**P**	**09 14 01.6**	**+0.6**
	baz=22,SNR=87						
SUTB	**Sutter Butte**	**22.19**	**327**	⇓P	**P**	**09 14 01.3**	**+0.2**
	baz=22						
REDW	**Red Top Meadow**	**22.22**	**351**	*e*P	**P**	**09 14 01.7**	**+0.2**
MNRC	**McLaughlin Nat**	**22.27**	**325**	P	**P**	**09 14 03.1**	**+1.1**
	baz=22,SNR=8.8						
ORV	**Oroville**	**22.29**	**328**	P	**P**	**09 14 02.5**	**+0.4**
	baz=22,SNR=42						
O05C	**Quincy**	**22.32**	**329**	⇑P	**P**	**09 14 03.3**	**+0.8**
	baz=22,SNR=48						
L10A	**Juniper Basin**	**22.32**	**340**	P	**P**	**09 14 03.0**	**+0.5**
	baz=22,SNR=70						
TPAW	**Teton Pass**	**22.36**	**351**	*e*P	**P**	**09 14 03.1**	**+0.2**
K12A	**Draper Farm, C**	**22.37**	**343**	P	**P**	**09 14 03.1**	**+0.1**
	baz=23,SNR=56						
LOHW	**Long Hollow**	**22.43**	**352**	*e*P	**P**	**09 14 03.6**	**0.0**
M08A	**Happy Creek Ra**	**22.45**	**336**	⇑P	**P**	**09 14 04.3**	**+0.5**
	baz=23,SNR=72						
N06A	**Buffalo Meadow**	**22.46**	**332**	P	**P**	**09 14 04.1**	**+0.2**
	baz=23,SNR=43						
SWET	**Sewanee**	**22.52**	**48**	*e*P	**P**	**09 14 05.0**	**+0.3**
MOOW	**Moose Ponds**	**22.59**	**352**	*e*P	**P**	**09 14 05.3**	**+0.1**
	comp=Z,60nm,1.0s,mb5.0						
L09A	**Wilkinson Ranc**	**22.68**	**338**	⇑P	**P**	**09 14 06.7**	**+0.4**
	baz=23,SNR=16						
O04C	**Chester**	**22.68**	**330**	⇓P	**P**	**09 14 07.0**	**+0.7**
	baz=23,SNR=23						
HOPS	**Hopland**	**22.70**	**324**	⇓P	**P**	**09 14 06.4**	**0.0**
	baz=23						
M07A	**Soldier Meadow**	**22.71**	**334**	P	**P**	**09 14 07.8**	**+1.2**
	baz=23,SNR=50						
RSSD	**Black Hills**	**22.73**	**4**	*e*P	**P**	**09 14 06.8**	**+0.1**
	comp=Z,31nm,0.9s,mb4.7						
RSSD	**Black Hills**	**22.73**	**4**	*e*P	**P**	**09 14 06.8**	**+0.1**
RSSD				pmax	pmax		
	comp=Z,31nm,0.9s,mb4.7						
IMW	**Indian Meadow**	**22.76**	**351**	*e*P	**P**	**09 14 07.2**	**+0.1**
	comp=Z,129nm,1.2s,mb5.2						
O03C	**Acorn Hollow,**	**22.89**	**328**	⇓P	**P**	**09 14 08.6**	**+0.1**
	baz=23						
J13A	**Cove Ranch, Pi**	**22.90**	**345**	⇑P	**P**	**09 14 09.2**	**+0.7**
	baz=23,SNR=29						
GASB	**Alder Springs**	**22.98**	**326**	⇓P	**P**	**09 14 10.5**	**+0.9**
	baz=23,SNR=5.9						
J12A	**Stokes Ranch,**	**22.99**	**343**	⇑P	**P**	**09 14 10.3**	**+0.8**
	baz=23,SNR=67						
USIN	**University of**	**23.02**	**40**	*e*P	**P**	**09 14 10.5**	**+0.5**
L08A	**Fields**	**23.07**	**337**	⇑P	**P**	**09 14 10.3**	**-0.1**
	baz=23,SNR=29						
K10A	**MacKenzie Ranc**	**23.08**	**340**	P	**P**	**09 14 10.9**	**+0.4**
	baz=23,SNR=38						
HLID	**Hailey**	**23.11**	**345**	*e*P	**P**	**09 14 10.9**	**+0.2**
	comp=Z,30nm,1.1s,mb4.6						
HLID	**Hailey**	**23.11**	**345**	⇓P	**P**	**09 14 11.2**	**+0.4**
	baz=23						
M06C	**Likely Place G**	**23.11**	**332**	⇑P	**P**	**09 14 11.6**	**+0.7**
	baz=23,SNR=36						
SCIA	**State Center**	**23.21**	**25**	*e*P	**P**	**09 14 11.4**	**-0.4**
	comp=Z,66nm,0.9s,mb5.1						
LBCM	**Butte Creek Ri**	**23.21**	**330**	P	**P**	**09 14 11.9**	**0.0**
HATC	**Hat Creek Radi**	**23.25**	**330**	⇓P	**P**	**09 14 12.5**	**+0.3**
	baz=23,SNR=12						
JTS	**JuntasAbangare**	**23.26**	**115**	*e*P	**P**	**09 14 13.0**	**+0.3**
	comp=Z,8.6nm,0.8s,mb4.2						
JTS	**JuntasAbangare**	**23.26**	**115**	*e*P	**P**	**09 14 13.0**	**+0.3**
JTS				pmax	pmax		
	comp=Z,9.0nm,0.8s						
JTS	**JuntasAbangare**	**23.26**	**115**	P	**P**	**09 14 12.4**	**-0.3**
	comp=Z,7.3nm,0.8s,mb4.2,baz=330,slow=12,SNR=7.8						
JTS				LR	LR	09 25 07.6	
	comp=Z,299nm,19.0s,baz=180,slow=41						
YFT	**Old Faithful**	**23.29**	**352**	*e*P	**P**	**09 14 13.9**	**+1.3**
K09A	**Rome**	**23.30**	**338**	P	**P**	**09 14 12.8**	**0.0**
	baz=24,SNR=79						
L07A	**Adell**	**23.31**	**335**	⇓P	**P**	**09 14 13.0**	**+0.2**
	baz=24,SNR=47						
LKWY	**Lake**	**23.35**	**353**	*e*P	**P**	**09 14 14.9**	**+1.7**
MFID	**Camas Ranch**	**23.35**	**342**	⇓P	**P**	**09 14 12.9**	**-0.2**
	baz=24,SNR=30						
I13A	**Wildhorse Cree**	**23.37**	**346**	P	**P**	**09 14 14.1**	**+0.7**
	baz=24,SNR=135						
WVOR	**Wild Horse Val**	**23.39**	**336**	*e*P	**P**	**09 14 13.2**	**-0.4**
	comp=Z,223nm,1.8s,mb5.3						
WVOR	**Wild Horse Val**	**23.39**	**336**	*e*P	**P**	**09 14 13.2**	**-0.4**
WVOR				pmax	pmax		
	comp=Z,223nm,1.8s,mb5.3						
GOGA	**Godfrey**	**23.45**	**55**	*e*P	**P**	**09 14 13.9**	**-0.4**
DWPF	**Disney**	**23.50**	**69**	*e*P	**P**	**09 14 14.0**	**-0.7**
	comp=Z,88nm,1.0s,mb5.2						
YMR	**Madison River**	**23.52**	**352**	*e*P	**P**	**09 14 15.4**	**+0.7**
	comp=Z,133nm,0.9s,mb5.4						
YNR	**Norris Junctio**	**23.53**	**352**	*e*P	**P**	**09 14 16.2**	**+1.4**
M05C	**Lookout**	**23.53**	**331**	P	**P**	**09 14 15.2**	**+0.2**
	baz=24,SNR=33						
WDC	**Whiskeytown Da**	**23.59**	**328**	*e*P	**P**	**09 14 13.4**	**-2.1**
	comp=Z,9.5nm,0.8s,mb4.3						
WDC	**Whiskeytown Da**	**23.59**	**328**	*e*P	**P**	**09 14 13.4**	**-2.0**
WDC				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.3						
WDC	**Whiskeytown Da**	**23.59**	**328**	⇑P	**P**	**09 14 13.6**	**-1.8**
	baz=24,SNR=7.3						
K08A	**Mann Creek Ran**	**23.60**	**337**	P	**P**	**09 14 15.7**	**+0.2**
	baz=24,SNR=57						
MOD	**Modoc**	**23.61**	**333**	*e*P	**P**	**09 14 15.8**	**+0.2**
	comp=Z,47nm,1.1s,mb4.8						
MOD	**Modoc**	**23.61**	**333**	⇑P	**P**	**09 14 15.1**	**-0.4**
	baz=24,SNR=48						
CPCT	**Cooper Cave**	**23.62**	**49**	*e*P	**P**	**09 14 15.5**	**-0.4**
J10A	**Berg Farm, Mel**	**23.64**	**341**	⇑P	**P**	**09 14 16.0**	**+0.2**
	baz=24,SNR=17						
ECSD	**EROS,Sioux Fal**	**23.67**	**18**	*e*P	**P**	**09 14 15.4**	**-0.7**
	comp=Z,27nm,0.9s,mb4.7						
QLMT	**Earthquake Lak**	**23.75**	**351**	*e*P	**P**	**09 14 17.8**	**+1.0**
RLMT	**Red Lodge**	**23.78**	**355**	*e*P	**P**	**09 14 16.8**	**-0.3**
	comp=Z,71nm,1.3s,mb4.9						
I11A	**Placerville**	**23.84**	**342**	P	**P**	**09 14 18.1**	**+0.3**
	baz=24,SNR=114						
K07A	**Rock Creek Ran**	**23.84**	**336**	P	**P**	**09 14 18.2**	**+0.4**
	baz=24,SNR=52						
J09A	**Fry Pan Ranch,**	**23.88**	**339**	⇑P	**P**	**09 14 18.4**	**+0.4**
	baz=24,SNR=94						

HDIL	Hopedale	23.92	33	*e*P	P	09 14 17.9	-0.5
	comp=Z,126nm,0.8s,mb5.4						
L05A	Lakeview	23.95	333	P	P	09 14 19.5	+0.8
	baz=24,SNR=13						
MCMT	McKenzie Canyo	23.98	348	*e*P	P	09 14 19.5	+0.5
H13A	Challis	24.02	346	P	P	09 14 19.7	+0.4
	baz=24,SNR=62						
WCI	Wyandotte Cave	24.03	41	*e*P	P	09 14 19.4	-0.1
	comp=Z,243nm,1.5s,mb5.4						
WCI	Wyandotte Cave	24.03	41	*e*P	P	09 14 19.4	-0.1
WCI				pmax	pmax		
	comp=Z,243nm,1.5s,mb5.4						
J08A	Circle Bar Ran	24.14	338	P	P	09 14 20.8	+0.4
	baz=24,SNR=77						
H12A	Diamond D Ranc	24.15	345	P	P	09 14 20.6	+0.1
	baz=24,SNR=105						
M04C	Macdoel	24.18	331	⇑P	P	09 14 20.7	-0.1
	baz=24,SNR=33						
LHEM	Herd Peak	24.24	330	P	P	09 14 21.0	-0.4
G15A	Dillon	24.24	349	P	P	09 14 22.1	+0.7
	baz=24,SNR=110						
I10A	Payette	24.25	341	⇓P	P	09 14 21.7	+0.3
	baz=24,SNR=7.2						
TKL	Tuckaleechee C	24.26	49	P	P	09 14 21.8	+0.2
TKL				PcP	PcP	09 18 00.6	-0.2
TKL	Tuckaleechee C	24.26	49	P	P	09 14 21.8	+0.2
	comp=Z,36nm,0.7s,mb4.9,baz=206,slow=10.0,SNR=53						
TKL				PcP	PcP	09 18 00.6	-0.2
	comp=Z,7.9nm,0.9s,baz=155,slow=8.3,SNR=5.2						
K06A	Valley Falls	24.33	334	P	P	09 14 22.6	+0.4
	baz=24,SNR=34						
KHMM	Horse Mountain	24.41	327	*e*P	P	09 14 23.2	+0.3
I09A	Lost Marbles R	24.44	340	P	P	09 14 23.3	+0.1
	baz=25,SNR=71						
DLMT	Dillon	24.45	349	*e*P	P	09 14 23.6	+0.4
J07A	Hines	24.45	337	⇓P	P	09 14 23.1	-0.2
	baz=25,SNR=33						
GCMT	Greycliff	24.48	354	*e*P	P	09 14 23.8	+0.3
BLO	Bloomington	24.49	39	*e*P	P	09 14 24.3	+0.6
	comp=Z,48nm,0.7s,mb5.0						
BLO	Bloomington	24.49	39	*e*P	P	09 14 24.3	+0.6
BLO				pmax	pmax		
	comp=Z,48nm,0.7s,mb5.0						
G14A	Jackson	24.50	348	⇑P	P	09 14 23.7	0.0
	baz=25,SNR=104						
G13A	Cobalt	24.52	346	P	P	09 14 24.2	+0.3
	baz=25,SNR=137						
L04A	Klamath Falls	24.52	331	P	P	09 14 23.6	-0.3
	baz=25,SNR=8.3						
K05A	Summer Lake	24.53	333	⇑P	P	09 14 24.3	+0.3
	baz=25,SNR=36						
YBH	Yreka Blue Hor	24.55	329	*e*P	P	09 14 22.8	-1.4
YBH	Yreka Blue Hor	24.55	329	⇑P	P	09 14 23.3	-0.9
	baz=25,SNR=7.4						
BOZ	Bozeman (W)	24.57	351	*e*P	P	09 14 24.5	+0.1
BOZ	Bozeman (W)	24.57	351	⇑P	P	09 14 24.5	+0.1
	baz=25						
H11A	Donnelly	24.59	343	P	P	09 14 24.4	-0.1
	baz=25,SNR=78						
I08A	Drewsey	24.66	338	⇓P	P	09 14 24.9	-0.2
	baz=25,SNR=35						
J06A	Christmas Vall	24.67	335	P	P	09 14 25.2	-0.1
	baz=25,SNR=44						
H10A	Noah’s Angus R	24.69	342	⇑P	P	09 14 25.2	-0.2
	baz=25						
LCCM	Lewis and Clar	24.80	351	P	P	09 14 27.0	+0.6
K04A	Chilquin	24.80	332	⇑P	P	09 14 26.3	-0.2
	baz=25,SNR=5.9						
TZTN	Tazewell	24.86	48	*e*P	P	09 14 27.4	+0.3
LRM	Limekiln Ridge	24.87	350	*e*P	P	09 14 27.4	+0.4
F15A	Butte	24.90	350	P	P	09 14 27.8	+0.4
	baz=25,SNR=79						
KRMB	Red Mountain	24.98	327	*e*P	P	09 14 28.3	+0.2
F14A	Wisdom	25.03	348	⇑P	P	09 14 28.7	+0.2
	baz=25,SNR=63						
H09A	Durkee	25.03	341	P	P	09 14 28.4	-0.2
	baz=25,SNR=83						
BMO	Blue Mountains	25.09	341	*e*P	P	09 14 28.2	-0.8
	comp=Z,90nm,1.5s,mb5.1						
BMO				*e*PcP	PcP	09 18 02.4	-0.1
I07A	Izee	25.14	337	⇓P	P	09 14 29.1	-0.4
	baz=25,SNR=31						
F13A	Darby	25.20	347	⇑P	P	09 14 30.0	0.0
	baz=25						
LAO	LASA Array	25.22	0	*e*P	P	09 14 29.7	-0.5
	comp=Z,95nm,0.8s,mb5.4						
H08A	Prairie City	25.23	339	P	P	09 14 30.0	-0.3
	baz=25,SNR=28						
I06A	Prineville	25.28	336	⇓P	P	09 14 30.4	-0.4
	baz=26,SNR=14						
JFWS	Jewell Farm	25.29	28	*e*P	P	09 14 30.5	-0.4
	comp=Z,26nm,0.8s,mb4.8						
JFWS	Jewell Farm	25.29	28	*e*P	P	09 14 30.5	-0.4
JFWS				pmax	pmax		
	comp=Z,26nm,0.8s,mb4.8						
G11A	Walters Elk Ra	25.30	343	⇑P	P	09 14 30.8	-0.2
	baz=26						
L02A	Cave Junction	25.30	329	⇑P	P	09 14 30.4	-0.7
	baz=26						
M01C	Crescent City	25.33	328	⇓P	P	09 14 30.6	-0.7
	baz=26						
HUMO	Hull Mountain	25.34	330	⇓P	P	09 14 31.1	-0.3
	baz=26						
F12A	Elk City	25.38	345	P	P	09 14 31.5	-0.2
	baz=26,SNR=57						
J04A	Umpqua Nationa	25.47	332	⇓P	P	09 14 32.5	0.0
	baz=26,SNR=19						
JSC	Jenkinsville	25.48	54	*e*P	P	09 14 33.3	+0.5
E15A	Deer Lodge	25.49	350	P	P	09 14 32.6	-0.1
	baz=26,SNR=70						
COW	Cow Castle Cre	25.57	57	*e*P	P	09 14 34.0	+0.4
G09A	Cove	25.62	341	⇑P	P	09 14 34.7	+0.8
	baz=26,SNR=25						
E14A	Clinton	25.63	348	P	P	09 14 34.1	+0.2
	baz=26,SNR=38						
K02A	Glendale	25.72	330	⇑P	P	09 14 33.9	-0.9
	baz=26						
F11A	Grangeville	25.73	344	P	P	09 14 34.0	-0.8
	baz=26,SNR=18						
E13A	Victor	25.79	347	P	P	09 14 35.2	-0.2
	baz=26,SNR=50						
I05A	Bend	25.88	335	⇑P	P	09 14 36.4	+0.2
	baz=26,SNR=39						
NHSC	New Hope	25.88	58	*e*P	P	09 14 37.5	+1.0
	comp=Z,100nm,1.0s,mb5.3						
VIPM	Ingram Point	25.91	336	P	P	09 14 36.9	+0.4
H06A	Lindquist Farm	26.00	337	⇓P	P	09 14 37.0	-0.3
	baz=26						
G08A	Pilot Rock	26.01	339	⇓P	P	09 14 36.9	-0.5
	baz=26,SNR=21						
I04A	Tendick Farm,	26.05	333	⇑P	P	09 14 37.0	-0.7
	baz=26						
F09A	S2 Ranch, Elgi	26.05	341	⇑P	P	09 14 36.9	-0.8
	baz=26						
CHMT	Chamberlain Mo	26.07	349	*e*P	P	09 14 38.2	+0.3
D15A	Lincoln	26.07	350	P	P	09 14 37.9	-0.1
	baz=26,SNR=45						
F10A	Beach Ranch, E	26.09	342	P	P	09 14 37.6	-0.5
	baz=26,SNR=29						
MSO	Missoula	26.11	348	*e*P	P	09 14 38.2	-0.1
MSO				*e*PcP	PcP	09 18 05.3	+0.5
IRO	Indian Ridge	26.15	333	P	P	09 14 38.7	0.0
E11A	Bogner Ranch,	26.17	344	P	P	09 14 37.8	-1.0
	baz=26,SNR=38						
KEBM	Edson Butte	26.20	329	*e*P	P	09 14 40.0	+0.8
K01A	Sixes	26.22	329	⇓P	P	09 14 39.1	-0.2
	baz=26						
J02A	Umpqua	26.22	331	⇓P	P	09 14 39.1	-0.2
	baz=26						
G07A	Ruggs Ranch, H	26.22	338	P	P	09 14 39.3	-0.1
	baz=26,SNR=9.8						
H05A	Madras	26.27	335	P	P	09 14 39.6	-0.1
	baz=26,SNR=14						
D14A	Greenough	26.28	349	P	P	09 14 39.7	0.0
	baz=26,SNR=62						
F08A	Pendleton	26.40	340	P	P	09 14 39.9	-1.0
	baz=27,SNR=20						
CROR	Criterion Ridg	26.46	336	P	P	09 14 41.7	+0.3
D13A	Huson	26.47	347	P	P	09 14 41.1	-0.4
	baz=27,SNR=22						
E10A	Myers Farm, Un	26.53	343	P	P	09 14 41.0	-1.1
	baz=27,SNR=21						
G06A	Carlson Farm,	26.54	337	⇑P	P	09 14 42.3	+0.1
	baz=27,SNR=5.9						
I03A	Eugene	26.56	332	⇑P	P	09 14 42.1	-0.3
	baz=27,SNR=15						
D12A	Red Ives Fores	26.62	346	⇑P	P	09 14 42.3	-0.6
	baz=27						
H04A	Detroit Lake	26.68	334	P	P	09 14 42.9	-0.6
	baz=27,SNR=11						
EGMT	Eagleton	26.70	355	*e*P	P	09 14 43.5	-0.1
EGMT	Eagleton	26.70	355	⇓P	P	09 14 43.5	-0.1
	baz=27						
G05A	Wamic	26.80	336	⇓P	P	09 14 44.3	-0.2
	baz=27,SNR=7.0						
I02A	Mapleton	26.83	331	⇑P	P	09 14 44.6	-0.2
	baz=27						
E09A	Wood Farm, Sta	26.85	342	⇓P	P	09 14 44.4	-0.5
	baz=27						
D11A	Klaveano Farm,	26.85	345	P	P	09 14 44.1	-0.9
	baz=27,SNR=28						
F07A	Phinny Hill Vi	26.86	339	⇑P	P	09 14 44.5	-0.6
	baz=27,SNR=6.1						
VFP	Flag Point	26.92	336	P	P	09 14 45.7	+0.1
C14A	Swan Lake	26.98	349	⇓P	P	09 14 45.9	-0.3
	baz=27						
HOOD	Mount Hood Mea	27.00	336	*e*P	P	09 14 46.3	0.0
F06A	Goldendale	27.05	337	⇑P	P	09 14 47.0	+0.3
	baz=27,SNR=14						
DGMT	Dagmar	27.05	3	*e*P	P	09 14 46.3	-0.5
C13A	Hot Springs	27.05	348	P	P	09 14 46.1	-0.6
	baz=27,SNR=12						
COR	Corvallis	27.06	333	*e*P	P	09 14 47.0	+0.1
	comp=Z,82nm,1.1s,mb5.2						
COR	Corvallis	27.06	333	*e*P	P	09 14 47.1	+0.2
COR				pmax	pmax		
	comp=Z,82nm,1.1s,mb5.2						
D10A	Wagner Farm, O	27.10	343	P	P	09 14 46.1	-1.1
	baz=27,SNR=27						
H03A	Soap Creek Ran	27.13	333	⇓P	P	09 14 47.0	-0.6
	baz=27,SNR=6.5						
ELN	Prospectdale	27.15	49	*e*P	P	09 14 48.3	+0.5
G04A	Mulino	27.22	334	⇑P	P	09 14 47.6	-0.7
	baz=27						
BSMT	Bassoo Peak	27.26	347	*e*P	P	09 14 48.0	-0.6
ACSO	Alum Creek Sta	27.29	41	*e*P	P	09 14 49.4	+0.4
BLA	Blacksburg	27.37	49	*e*P	P	09 14 50.0	+0.2
	comp=Z,32nm,0.9s,mb4.9						
BLA	Blacksburg	27.37	49	*e*P	P	09 14 50.0	+0.2
BLA				pmax	pmax		
	comp=Z,32nm,0.9s,mb4.8						
D09A	Jones Farm, Ri	27.39	342	⇓P	P	09 14 49.0	-0.8
	baz=28						
F05A	White Salmon	27.40	337	⇑P	P	09 14 49.7	-0.2
	baz=28,SNR=31						
E07A	Sunnyside	27.42	339	P	P	09 14 49.7	-0.4
	baz=28,SNR=14						
D08A	Wollman Farm,	27.57	341	⇑P	P	09 14 50.6	-0.8
	baz=28						
G03A	Yamhill	27.64	334	⇑P	P	09 14 51.3	-0.7
	baz=28,SNR=6.7						
B13A	Whitefish	27.70	348	⇓P	P	09 14 52.0	-0.6
	baz=28,SNR=20						
E06A	Yakima	27.79	338	⇑P	P	09 14 53.6	+0.3
	baz=28,SNR=15						
F04A	Amboy	27.80	335	⇓P	P	09 14 53.0	-0.5
	baz=28						
C10A	Spilker Farm,	27.81	344	⇓P	P	09 14 53.2	-0.4
	baz=28						
B12A	Libby	28.02	347	⇑P	P	09 14 55.3	-0.1
	baz=28						
D07A	Quincy	28.02	340	⇑P	P	09 14 55.3	-0.1
	baz=28						
C09A	Chrisman Ranch	28.05	343	⇑P	P	09 14 55.3	-0.4
	baz=28						
E05A	Randle	28.08	337	⇑P	P	09 14 55.5	-0.5
	baz=28,SNR=8.8						
AGMN	Agassiz Refuge	28.10	15	*e*P	P	09 14 55.3	-0.8
	comp=Z,18nm,0.8s,mb4.8						
B11A	Sandpoint	28.16	346	⇓P	P	09 14 56.6	0.0
	baz=28						
AAM	Ann Arbor	28.18	37	*e*P	P	09 14 57.0	+0.1
NEW	Newport	28.18	345	*e*P	P	09 14 56.4	-0.5
	comp=Z,8.6nm,0.6s,mb4.6						
NEW				*e*PcP	PcP	09 18 09.2	-0.4
NEW	Newport	28.18	345	*e*P	P	09 14 56.4	-0.4
NEW				*e*		09 18 09.3	
NEW				pmax	pmax		
	comp=Z,9.0nm,0.6s						
NEW	Newport	28.18	345	P	P	09 14 55.4	-1.4
	comp=Z,11nm,0.8s,mb4.5,baz=161,slow=8.8,SNR=14						
NEW				PcP	PcP	09 18 08.9	-0.8
	comp=Z,10nm,0.8s,baz=147,slow=1.8,SNR=15						
NEW				LR	LR	09 26 57.3	
	comp=Z,501nm,19.2s,MS4.1,baz=332,slow=38						
A13A	Flathead Natio	28.23	349	⇑P	P	09 14 57.3	+0.1
	baz=28						
B10A	Chitwood Farm,	28.24	344	⇓P	P	09 14 57.3	0.0
	baz=28						
WALA	Waterton Lakes	28.26	349	*e*P	P	09 14 57.8	+0.3
C08A	Higginbotham F	28.26	342	⇓P	P	09 14 56.7	-0.8
	baz=28						
LON	Longmire	28.26	337	*e*P	P	09 14 57.9	+0.3
D06A	Cle Elum	28.30	339	⇑P	P	09 14 58.0	0.0
	baz=28,SNR=13						
COWI	Conover	28.33	26	*e*P	P	09 14 58.0	-0.2
	comp=Z,33nm,0.9s,mb5.0						
FMW	Mount Fremont	28.36	337	P	P	09 14 58.8	+0.3
E04A	Onalaska	28.47	336	⇑P	P	09 14 59.8	+0.3
	baz=29,SNR=9.5						
A12A	Yaak River Ran	28.47	347	⇑P	P	09 14 59.6	+0.2
	baz=29						
C07A	Waterville	28.48	340	P	P	09 14 59.6	0.0
	baz=29,SNR=19						
B09A	Rice	28.59	343	⇑P	P	09 15 00.3	-0.1
	baz=29,SNR=7.9						
A11A	Hall Mountain,	28.65	346	⇑P	P	09 15 01.4	+0.4
	baz=29						
D05A	Enumclaw	28.70	337	⇓P	P	09 15 01.5	+0.1
	baz=29,SNR=5.7						
E03A	Lebam	28.76	335	⇓P	P	09 15 02.2	+0.2
	baz=29,SNR=6.5						
B08A	Colville Reser	28.86	342	P	P	09 15 02.8	-0.1
	baz=29,SNR=32						
D04A	Dobbs Creek Ra	28.93	336	⇑P	P	09 15 03.7	+0.2
	baz=29						
A10A	Northport	28.95	345	P	P	09 15 03.2	-0.5
	baz=29,SNR=11						
C06A	Tall Timber Ra	28.96	339	⇑P	P	09 15 04.1	+0.4
	baz=29						
MCWV	Mont Chateau	28.97	45	*e*P	P	09 15 03.8	-0.2
	comp=Z,40nm,0.9s,mb5.2						
EYMN	Ely	29.02	21	*e*P	P	09 15 03.8	-0.6
	comp=Z,43nm,1.1s,mb5.1						
EYMN				*e*PcP	PcP	09 18 11.6	-0.2
C05A	Tolt Reservoir	29.03	338	⇑P	P	09 15 03.7	-0.7
	baz=29						
B07A	Winthrop	29.19	341	⇓P	P	09 15 05.3	-0.4
	baz=29,SNR=9.9						
A09A	Danville	29.21	343	⇑P	P	09 15 05.7	-0.3
	baz=29,SNR=7.5						
GNW	Green Mountain	29.32	337	*e*P	P	09 15 06.7	-0.3
C04A	Brinnon	29.50	337	⇑P	P	09 15 08.3	-0.3
	baz=30						
NLWA	Neilton Lookou	29.57	335	⇑P	P	09 15 09.2	0.0
	baz=30						
URVA	University of	29.59	51	*e*P	P	09 15 09.5	0.0
B05A	Bryant	29.66	338	P	P	09 15 09.3	-0.6
	baz=30,SNR=6.6						
B06A	Marblemount	29.67	339	⇓P	P	09 15 09.6	-0.5
	baz=30,SNR=5.6						
A07A	Ashnola River,	29.79	341	⇑P	P	09 15 10.8	-0.3
	baz=30						
ALLY	Alegheny Colle	29.86	42	*e*P	P	09 15 11.8	0.0
ULM	Lac du Bonnet	29.93	13	*e*P	P	09 15 10.9	-1.5
	comp=Z,69nm,1.5s,mb5.2						
ULM				*e*PcP	PcP	09 18 12.9	-1.1
ULM	Lac du Bonnet	29.93	13	P	P	09 15 11.1	-1.2
	comp=Z,11nm,0.6s,mb4.7,baz=197,slow=8.9,SNR=36						
ULM				PcP	PcP	09 18 12.7	-1.4
	comp=Z,9.8nm,1.0s,baz=229,slow=3.4,SNR=6.3						
ULM				Lg		09 24 48.1	
	comp=Z,1.0nm,0.8s,baz=190,slow=8.0,SNR=3.5						
ULM				LR	LR	09 27 35.3	
	comp=Z,576nm,21.4s,MS4.2,baz=69,slow=37						
CBN	Corbin	29.98	50	*e*P	P	09 15 13.6	+0.7
	comp=Z,68nm,1.0s,mb5.3						
CBN				*e*PcP	PcP	09 18 16.5	+2.1
B04A	Port Angeles	29.98	337	⇓P	P	09 15 13.1	+0.2
	baz=30						
A06A	Chilliwack	30.17	340	⇓P	P	09 15 14.2	-0.3
	baz=30						
A04A	Legoe Bay, Lum	30.26	338	⇑P	P	09 15 15.2	0.0
	baz=30						
A05A	Maple Falls	30.28	339	P	P	09 15 15.1	-0.4
	baz=30,SNR=9.2						
SSPA	Standing Stone	30.76	45	*e*P	P	09 15 19.4	-0.4
	comp=Z,15nm,0.9s,mb4.8						
SDMD	Soldier’s Deli	30.88	48	*e*P	P	09 15 20.9	-0.1
MVL	Millersville	31.49	47	*e*P	P	09 15 26.6	+0.4
EDM	Edmonton	32.22	352	*e*P	P	09 15 31.8	-0.7
EDM				*e*PcP	PcP	09 18 19.0	-1.1
BINY	Binghamton	32.78	44	*e*P	P	09 15 37.5	0.0
	comp=Z,46nm,0.9s,mb5.4						
BRNJ	Basking Ridge	33.01	47	*e*P	P	09 15 40.9	+1.3
FFC	Flin Flon	33.42	5	P	P	09 15 41.7	-1.3
	comp=Z,173nm,0.8s,mb6.0,SNR=14						
FFC	Flin Flon	33.42	5	*e*P	P	09 15 42.0	-1.0
	comp=Z,23nm,0.8s,mb5.2						
FFC				*e*PcP	PcP	09 18 22.5	-0.9
FFC	Flin Flon	33.42	5	*e*P	P	09 15 42.0	-1.0
FFC				*e*		09 18 22.5	
FFC				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.2						
CPNY	Central Park	33.48	47	*e*P	P	09 15 43.5	-0.1
PAL	Palisades	33.60	47	*e*P	P	09 15 45.1	+0.4
	comp=Z,29nm,0.7s,mb5.3						
PAL	Palisades	33.60	47	*e*P	P	09 15 45.1	+0.4
PAL				pmax	pmax		
	comp=Z,29nm,0.7s,mb5.3						
OTAV	Otavalo	34.35	124	*e*P	P	09 15 52.9	+1.4
	comp=Z,3.8nm,0.7s,mb4.4						
ACCN	Adirondack Com	34.84	43	*e*P	P	09 15 55.4	-0.1
LONY	Lake Ozonia	34.89	41	*e*P	P	09 15 55.4	-0.4
	comp=Z,25nm,1.0s,mb5.1						
MSNY	Massena	34.91	40	*e*P	P	09 15 55.8	-0.2
ROSC	El Rosal	35.07	113	P	P	09 15 58.8	+1.1
	comp=Z,2.0nm,0.3s,mb4.5,baz=96,slow=21,SNR=5.9						
FRNY	Flat Rock	35.61	41	*e*P	P	09 16 02.2	+0.3
LBNH	Lisbon	36.36	43	*e*P	P	09 16 08.1	-0.4
	comp=Z,94nm,1.5s,mb5.5						
LBNH	Lisbon	36.36	43	*e*P	P	09 16 08.1	-0.3
LBNH				pmax	pmax		
	comp=Z,94nm,1.5s,mb5.5						
SJG	San Juan	37.83	88	*e*P	P	09 16 21.3	0.0
	comp=Z,71nm,1.4s,mb5.2						
SJG	San Juan	37.83	88	*e*P	P	09 16 21.3	0.0
SJG				pmax	pmax		
	comp=Z,71nm,1.4s						
WVL	Waterville	37.96	44	*e*P	P	09 16 23.4	+1.4
	comp=Z,38nm,1.1s,mb5.0						
CPD	Cerro la Pandu	38.06	88	*e*P	P	09 16 22.4	-0.9
CBYP	Canovanas	38.07	87	*e*P	P	09 16 23.2	-0.1
HUMP	Col San Antoni	38.10	88	*e*P	P	09 16 23.7	+0.1
FCC	Fort Churchill	38.34	10	*e*P	P	09 16 23.3	-1.6
	comp=Z,38nm,1.0s,mb5.1						
FCC				*e*PcP	PcP	09 18 37.3	-0.6
FCC	Fort Churchill	38.34	10	*e*P	P	09 16 23.3	-1.6
FCC				*e*		09 18 37.3	
FCC				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.1						
MTP	Monte Pirata	38.39	88	*e*P	P	09 16 26.0	+0.1
ATAH	Atahualpa	39.31	133	P	P	09 16 35.4	+1.7
	comp=Z,8.1nm,0.9s,mb4.5,baz=349,slow=8.8,SNR=4.2						
DLBC	Dease Lake	40.78	341	*e*P	P	09 16 46.4	+1.1
YKA	Yellowknife Ar	41.45	354	P	P	09 16 49.4	-1.4
YKA				PcP	PcP	09 18 46.8	-1.0
YKA				LR	LR	09 33 48.6	
YKA	Yellowknife Ar	41.45	354	P	P	09 16 49.4	-1.4
YKA						09 18 46.8	
YKA	Yellowknife Ar	41.45	354	P	P	09 16 49.4	-1.3
	comp=Z,18nm,0.9s,mb4.7,baz=166,slow=7.6,SNR=184						
YKA				PcP	PcP	09 18 46.8	-1.0
	comp=Z,4.1nm,1.0s,baz=159,slow=2.7,SNR=7.7						
YKA				LR	LR	09 33 48.6	
	comp=Z,323nm,19.8s,MS4.2,baz=170,slow=36						
YKW3	Yellowknife Ar	41.52	354	*e*P	P	09 16 50.0	-1.3
NNA	Nana	44.01	136	LR	LR	09 32 30.5	
	comp=Z,104nm,18.8s,baz=324,slow=32						
SCHQ	Schefferville	44.57	32	*e*P	P	09 17 15.9	-0.2
	comp=Z,137nm,1.5s,mb5.6						
SCHQ	Schefferville	44.57	32	P	P	09 17 16.1	0.0
	comp=Z,25nm,0.9s,mb5.0,baz=237,slow=5.9,SNR=27						
SCHQ				LR	LR	09 35 46.1	
	comp=Z,231nm,21.1s,MS4.1,baz=279,slow=36						
TAOE	Nuku Hiva Isla	44.84	231	*e*LR	LR	09 29 41.3	
	comp=Z,1µm,25.5s						
TAOE	Nuku Hiva Isla	44.84	231	*e*T		10 04 49.9	
	comp=Z,2µm,0.3s						
POHA	Pohakuloa	46.00	277	*e*P	P	09 17 24.0	-4.0
	comp=Z,50nm,1.0s,mb5.4						
DAWY	Dawson	48.00	341	*e*P	P	09 17 43.0	+0.1
EGAK	Eagle	49.05	341	*e*P	P	09 17 50.7	-0.2
	comp=Z,26nm,1.1s,mb5.2						
KDAK	Kodiak Island	49.37	329	*e*P	P	09 17 53.7	+0.3
KDAK	Kodiak Island	49.37	329	P	P	09 17 53.8	+0.3
	comp=Z,28nm,1.0s,mb5.2,baz=126,slow=5.0,SNR=16						
SLKM	Skilak Lake	49.66	333	*e*P	P	09 17 55.6	-0.1
PMR	Palmer	49.81	335	*e*P	P	09 17 56.3	-0.5
	comp=Z,83nm,1.8s,mb5.5						
PMR	Palmer	49.81	335	*e*P	P	09 17 56.3	-0.5
PMR				pmax	pmax		
	comp=Z,83nm,1.8s,mb5.5						
INK	Inuvik	49.84	347	*e*P	P	09 17 56.7	-0.3
MCK	McKinley	50.96	337	*e*P	P	09 18 05.2	-0.2
	comp=Z,18nm,1.2s,mb4.9						
MCK	McKinley	50.96	337	*e*P	P	09 18 05.3	-0.1
MCK				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
COLA	College	51.26	339	*e*P	P	09 18 07.0	-0.7
	comp=Z,34nm,1.4s,mb5.1						
COLA	College	51.26	339	*e*P	P	09 18 07.3	-0.4
SVW2	Sparrevohn	52.24	332	*e*P	P	09 18 14.0	-1.1
RKT	Rikitea	52.35	214	*e*LR	LR	09 33 10.6	
	comp=Z,512nm,29.2s						
RKT	Rikitea	52.35	214	*e*T		10 14 21.8	
	comp=Z,96nm,0.2s						
LPAZ	La Paz	52.94	132	*e*P	P	09 18 21.3	+0.5
LPAZ	La Paz	52.94	132	P	P	09 18 20.1	-0.7
	comp=Z,3.4nm,0.9s,mb4.2,baz=354,slow=12,SNR=4.9						
LPAZ				PcP	PcP	09 19 29.7	+0.4
	comp=Z,2.0nm,0.8s,baz=32,slow=5.8,SNR=2.9						
RES	Resolute Bay	53.66	4	*e*P	P	09 18 23.9	-1.4
	comp=Z,577nm,0.9s						
IMA2	Indian Mountai	53.95	338	*e*P	P	09 18 26.4	-1.1
VAH	Vaihoa	54.52	232	*e*T		10 16 59.2	
	comp=Z,10nm,0.3s						
PMOR	Pomariorio Ree	54.57	232	*e*T		10 17 07.2	
	comp=Z,12nm,0.3s						
TVO	Taravao	57.36	230	*e*T		10 20 36.3	
	comp=Z,10nm,0.3s						
PPT	Papeete	57.45	231	*e*LR	LR	09 35 32.9	
	comp=Z,677nm,26.5s						
PPT	Papeete	57.45	231	LR	LR	09 36 12.0	
	comp=Z,395nm,21.7s,MS4.5,baz=20,slow=28						
TNA	Tin City	59.07	335	*e*P	P	09 19 03.0	-0.9
	comp=Z,25nm,1.0s,mb5.2						
GAMB	Gambell	60.18	332	*e*P	P	09 19 11.3	-0.3
ALE	Alert	63.39	6	P	P	09 19 31.9	-1.1
	comp=Z,124nm,1.1s,mb6.0,SNR=11						
CFAA	Coronel Fontan	64.08	144	LR	LR	09 43 13.4	
	comp=Z,7.2nm,19.6s,baz=230,slow=32						
DAG	Danmarks Havn	68.77	14	⇓*i*P	P	09 20 06.2	-1.4
	comp=Z,33nm,1.3s,mb5.1						
BILL	Bilibino	69.41	336	*e*P	P	09 20 10.7	-0.9
	comp=Z,40nm,1.4s,mb5.2						
BILL	Bilibino	69.41	336	*c* *i*P	P	09 20 10.8	-0.8
BILL				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.1						
PET	Petropavlovsk	76.15	322	*e*P	P	09 20 50.8	-1.1
PET	Petropavlovsk	76.15	322	⇑*e*P	P	09 20 51.2	-0.7
PET				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.2						
SEY	Seymchan	76.19	332	⇑*e*P	P	09 20 51.5	-0.4
MA2	Magadan	78.11	330	*e*P	P	09 21 02.2	-0.5
	comp=Z,24nm,1.2s,mb5.0						
MA2	Magadan	78.11	330	⇑*e*P	P	09 21 02.0	-0.8
MA2				pmax	pmax		
	comp=Z,36nm,1.9s,mb5.0						
DCN	Croghan	78.28	37	*e*P	P	09 21 04.0	+0.2
DLF	Lyons Farm	78.72	37	*e*P	P	09 21 06.7	+0.5
TIXI	Tiksi	79.89	345	*e*P	P	09 21 10.7	-1.6
TIXI	Tiksi	79.89	345	*e*P	P	09 21 10.9	-1.4
TIXI				pmax	pmax		
	comp=Z,53nm,1.5s,mb5.2						
TIXI				MLR	MLR		
	comp=Z,172nm,16.0s,MS4.5						
PTOM	Tomar	82.41	51	*e*P	P	09 21 27.3	+1.0
ROSF	Rostrenen	82.50	41	*e*P	P	09 21 25.6	-1.0

QUIF	**Quistinic**	**82.74**	**41**	*e*P	**P**	**09 21 27.2**	**-0.6**
MTE	**Manteigas**	**82.74**	**50**	*e*P	**P**	**09 21 29.8**	**+1.8**
PCBR	**Castelo Branco**	**83.00**	**50**	*e*P	**P**	**09 21 29.7**	**+0.3**
ARCES	**ARCESS Array B**	**83.03**	**15**	P	**P**	**09 21 28.7**	**-0.2**
ARCES				LR	LR	09 59 21.7	
ARCES	**ARCESS Array B**	**83.03**	**15**	P	**P**	**09 21 28.7**	**-0.2**
	comp=Z,19nm,1.1s,mb5.0,baz=334,slow=4.4,SNR=7.9						
ARCES				LR	LR	09 59 21.7	
	comp=Z,246nm,21.3s,MS4.5,baz=250,slow=36						
PESTR	**Estremoz**	**83.28**	**51**	*e*P	**P**	**09 21 31.5**	**+0.7**
PVAQ	**Vaqueiros**	**83.73**	**52**	*e*P	**P**	**09 21 34.0**	**+0.8**
NB2	**NORSAR Subarra**	**83.82**	**26**	P	**P**	**09 21 33.6**	**+0.5**
	comp=Z,2.0nm,0.8s,mb4.3,baz=308,slow=5.3						
NOA	**NORSAR Array B**	**83.82**	**26**	P	**P**	**09 21 33.5**	**+0.4**
	comp=Z,21nm,0.9s,mb5.3,baz=304,slow=4.9,SNR=53						
NOA				LR	LR	09 57 36.9	
	comp=Z,248nm,18.3s,MS4.6,baz=275,slow=35						
EGRO	**El Granado**	**83.86**	**52**	P	**P**	**09 21 34.5**	**+0.7**
	comp=Z,2µm,6.3s						
KONO	**Kongsberg**	**83.91**	**27**	*e*P	**P**	**09 21 34.7**	**+1.1**
KONO	**Kongsberg**	**83.91**	**27**	⇑*e*P	**P**	**09 21 34.6**	**+1.0**
GRR	**Gorron**	**83.95**	**40**	*e*P	**P**	**09 21 34.8**	**+0.8**
	comp=Z,168nm,1.2s,mb5.7						
GRR	**Gorron**	**83.95**	**40**	*e*P	**P**	**09 21 34.8**	**+0.8**
	comp=Z,84nm,1.2s,mb5.8						
GRR	**Gorron**	**83.95**	**40**	*e*P	**P**	**09 21 34.8**	**+0.8**
GRR				pmax	pmax		
	comp=Z,84nm,1.2s,mb5.8						
FLN	**La Foliniere**	**84.01**	**40**	*e*P	**P**	**09 21 35.2**	**+0.8**
	comp=Z,218nm,1.1s,mb5.9						
FLN	**La Foliniere**	**84.01**	**40**	*e*P	**P**	**09 21 35.2**	**+0.8**
	comp=Z,109nm,1.1s,mb5.9						
FLN	**La Foliniere**	**84.01**	**40**	*e*P	**P**	**09 21 35.2**	**+0.8**
FLN				pmax	pmax		
	comp=Z,109nm,1.1s,mb5.9						
LDF	**La Druitiere**	**84.30**	**40**	*e*P	**P**	**09 21 36.5**	**+0.7**
	comp=Z,158nm,1.3s,mb5.7						
LDF	**La Druitiere**	**84.30**	**40**	*e*P	**P**	**09 21 36.5**	**+0.7**
	comp=Z,79nm,1.3s,mb5.7						
LDF	**La Druitiere**	**84.30**	**40**	*e*P	**P**	**09 21 36.5**	**+0.7**
LDF				pmax	pmax		
	comp=Z,79nm,1.3s,mb5.7						
EMIN	**Mina Concepcio**	**84.36**	**52**	P	**P**	**09 21 37.1**	**+0.7**
	comp=Z,307nm,2.9s,mb5.9						
ELAN	**Lanestosa**	**84.47**	**46**	P	**P**	**09 21 37.6**	**+0.8**
GUD	**Guadarrama**	**85.03**	**48**	P	**P**	**09 21 41.0**	**+1.3**
	comp=Z,27nm,1.0s,mb5.3						
GUD	**Guadarrama**	**85.03**	**48**	P	**P**	**09 21 41.0**	**+1.3**
GUD				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.3						
MFF	**Saint Martin d**	**85.16**	**42**	*e*P	**P**	**09 21 39.3**	**-0.9**
	comp=Z,183nm,1.6s,mb5.6						
MFF	**Saint Martin d**	**85.16**	**42**	*e*P	**P**	**09 21 39.3**	**-0.9**
	comp=Z,91nm,1.6s,mb5.7						
MFF	**Saint Martin d**	**85.16**	**42**	*e*P	**P**	**09 21 39.3**	**-0.9**
MFF				pmax	pmax		
	comp=Z,91nm,1.6s,mb5.7						
ESPR	**Espera**	**85.31**	**52**	P	**P**	**09 21 42.4**	**+1.2**
	comp=Z,18nm,1.1s,mb5.1						
ESDC	**Sonseca Array**	**85.56**	**49**	P	**P**	**09 21 42.9**	**+0.6**
	comp=Z,5.8nm,0.8s,mb4.9						
ESDC	**Sonseca Array**	**85.56**	**49**	P	**P**	**09 21 42.4**	**+0.1**
	comp=Z,6.5nm,0.9s,mb4.9,baz=305,slow=5.4,SNR=20						
ESDC				LR	LR	09 58 22.8	
	comp=Z,112nm,21.0s,MS4.2,baz=310,slow=35						
ESLA	**Sonseca Array**	**85.56**	**49**	*e*P	**P**	**09 21 43.1**	**+0.8**
	comp=Z,36nm,1.8s,mb5.3						
EADA	**Adamuz**	**85.73**	**51**	P	**P**	**09 21 44.1**	**+0.9**
	comp=Z,165nm,2.1s,mb5.9						
YAK	**Yakutsk**	**85.75**	**337**	*e*P	**P**	**09 21 42.6**	**-0.3**
YAK	**Yakutsk**	**85.75**	**337**	*c* *i*P	**P**	**09 21 42.4**	**-0.4**
YAK				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.8						
YAK				pmax	pmax		
	comp=N,7.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,12nm,1.1s						
YAK				pmax	pmax		
	comp=E,3.0nm,0.8s						
YAK				pmax	pmax		
	comp=N,4.0nm,1.2s						
SNF	**Seneffe**	**85.96**	**37**	P	**P**	**09 21 44.1**	**0.0**
SJPF	**Ste Jean**	**85.99**	**45**	*e*P	**P**	**09 21 42.9**	**-1.5**
	comp=N,91nm,1.3s,mb5.5						
SJPF	**Ste Jean**	**85.99**	**45**	*e*P	**P**	**09 21 42.9**	**-1.5**
	comp=N,45nm,1.3s,mb5.5						
SJPF	**Ste Jean**	**85.99**	**45**	*e*P	**P**	**09 21 42.9**	**-1.5**
SJPF				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.5						
BAIF	**Baives**	**86.14**	**37**	*e*P	**P**	**09 21 44.8**	**-0.2**
	comp=Z,97nm,1.4s,mb5.5						
BAIF	**Baives**	**86.14**	**37**	*e*P	**P**	**09 21 44.8**	**-0.2**
	comp=Z,48nm,1.4s,mb5.5						
BAIF	**Baives**	**86.14**	**37**	*e*P	**P**	**09 21 44.8**	**-0.2**
BAIF				pmax	pmax		
	comp=Z,49nm,1.4s,mb5.5						
ELUQ	**Luque**	**86.20**	**51**	P	**P**	**09 21 47.2**	**+1.7**
	comp=Z,13nm,1.1s,mb5.1						
ELUQ	**Luque**	**86.20**	**51**	P	**P**	**09 21 47.2**	**+1.6**
ELUQ				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.1						
DOU	**Dourbes**	**86.34**	**37**	P	**P**	**09 21 45.2**	**-0.7**
ETOR	**Torete**	**86.41**	**47**	P	**P**	**09 21 48.0**	**+1.5**
	comp=Z,17nm,1.2s,mb5.2						
ETOR	**Torete**	**86.41**	**47**	P	**P**	**09 21 48.0**	**+1.5**
ETOR				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.2						
ELOJ	**Sierra Loja**	**86.45**	**52**	P	**P**	**09 21 47.9**	**+1.1**
	comp=Z,9.8nm,0.8s,mb5.1						
ELOJ	**Sierra Loja**	**86.45**	**52**	P	**P**	**09 21 47.9**	**+1.1**
ELOJ				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.1						
GIVF	**Givet**	**86.46**	**37**	*e*P	**P**	**09 21 46.4**	**-0.2**
BCLA	**Clavier**	**86.58**	**37**	P	**P**	**09 21 47.6**	**+0.5**
BEBN	**Eben Emael**	**86.59**	**36**	P	**P**	**09 21 48.2**	**+1.0**
TCF	**Toulx Ste Croi**	**86.75**	**41**	*e*P	**P**	**09 21 47.2**	**-0.9**
	comp=Z,44nm,1.0s,mb5.3						
TCF	**Toulx Ste Croi**	**86.75**	**41**	*e*P	**P**	**09 21 47.2**	**-0.9**
	comp=Z,22nm,1.0s,mb5.3						
TCF	**Toulx Ste Croi**	**86.75**	**41**	*e*P	**P**	**09 21 47.2**	**-0.9**
TCF				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.3						
RJF	**Les Rejaudoux**	**86.78**	**42**	*e*P	**P**	**09 21 47.4**	**-0.8**
	comp=Z,95nm,1.3s,mb5.6						
RJF	**Les Rejaudoux**	**86.78**	**42**	*e*P	**P**	**09 21 47.4**	**-0.8**
	comp=Z,48nm,1.3s,mb5.6						
RJF	**Les Rejaudoux**	**86.78**	**42**	*e*P	**P**	**09 21 47.4**	**-0.8**
RJF				pmax	pmax		
	comp=Z,48nm,1.3s,mb5.6						
ECOG	**Cogollos-Vega**	**86.82**	**51**	P	**P**	**09 21 49.5**	**+0.9**
	comp=Z,14nm,0.8s,mb5.3						
ECOG	**Cogollos-Vega**	**86.82**	**51**	P	**P**	**09 21 49.5**	**+0.9**
ECOG				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.3						
MEM	**Membach**	**86.87**	**36**	P	**P**	**09 21 49.6**	**+1.0**
	comp=Z,13nm,0.9s,mb5.2						
EQES	**Quesada**	**86.96**	**51**	P	**P**	**09 21 52.3**	**+3.0**
	comp=Z,6.6nm,0.9s,mb4.9						
BGF	**Bois d'Agland**	**87.02**	**41**	*e*P	**P**	**09 21 48.5**	**-0.9**
	comp=Z,46nm,1.2s,mb5.3						
BGF	**Bois d'Agland**	**87.02**	**41**	*e*P	**P**	**09 21 48.5**	**-0.9**
	comp=Z,23nm,1.2s,mb5.3						
BGF	**Bois d'Agland**	**87.02**	**41**	*e*P	**P**	**09 21 48.5**	**-0.9**
BGF				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.3						
EVIA	**Vianos**	**87.02**	**50**	P	**P**	**09 21 50.5**	**+1.0**
	comp=Z,14nm,0.8s,mb5.3						
EVIA	**Vianos**	**87.02**	**50**	P	**P**	**09 21 50.5**	**+0.9**
EVIA				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.3						
SSF	**Saint Saulge**	**87.17**	**40**	*e*P	**P**	**09 21 49.3**	**-0.8**
	comp=Z,44nm,1.1s,mb5.3						
SSF	**Saint Saulge**	**87.17**	**40**	*e*P	**P**	**09 21 49.3**	**-0.8**
	comp=Z,22nm,1.1s,mb5.3						
SSF	**Saint Saulge**	**87.17**	**40**	*e*P	**P**	**09 21 49.3**	**-0.8**
SSF				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.3						
AVF	**Avril sur Loir**	**87.21**	**40**	*e*P	**P**	**09 21 49.1**	**-1.2**
	comp=Z,15nm,1.0s,mb4.9						
AVF	**Avril sur Loir**	**87.21**	**40**	*e*P	**P**	**09 21 49.1**	**-1.2**
	comp=Z,7.7nm,1.0s,mb4.9						
AVF	**Avril sur Loir**	**87.21**	**40**	*e*P	**P**	**09 21 49.1**	**-1.2**
AVF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.9						
LOR	**Lormes**	**87.29**	**40**	*e*P	**P**	**09 21 50.0**	**-0.7**
	comp=Z,62nm,1.2s,mb5.4						
LOR	**Lormes**	**87.29**	**40**	*e*P	**P**	**09 21 50.0**	**-0.7**
	comp=Z,31nm,1.2s,mb5.4						
LOR	**Lormes**	**87.29**	**40**	*e*P	**P**	**09 21 50.0**	**-0.7**
LOR				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.4						
MEZF	**Maizieres J'vi**	**87.38**	**38**	*e*P	**P**	**09 21 50.6**	**-0.5**
	comp=Z,60nm,1.0s,mb5.5						
MEZF	**Maizieres J'vi**	**87.38**	**38**	*e*P	**P**	**09 21 50.6**	**-0.5**
	comp=Z,60nm,1.0s,mb5.8						
WLF	**Walferdange**	**87.43**	**37**	P	**P**	**09 21 51.8**	**+0.5**
	comp=Z,30nm,1.3s,mb5.4						
WLF	**Walferdange**	**87.43**	**37**	*e*P	**P**	**09 21 51.8**	**+0.5**
	comp=Z,55nm,1.2s,mb5.7						
SMF	**Signal de Mont**	**87.58**	**40**	*e*P	**P**	**09 21 50.9**	**-1.2**
	comp=Z,78nm,1.5s,mb5.4						
SMF	**Signal de Mont**	**87.58**	**40**	*e*P	**P**	**09 21 50.9**	**-1.2**
	comp=Z,39nm,1.5s,mb5.4						
SMF	**Signal de Mont**	**87.58**	**40**	*e*P	**P**	**09 21 50.9**	**-1.2**
SMF				pmax	pmax		
	comp=Z,39nm,1.5s,mb5.4						
YSS	**Yuzh-Sakhalins**	**87.95**	**320**	*e*P	**P**	**09 21 52.3**	**-1.5**
YSS				pmax	pmax		
	comp=Z,14nm,1.3s,mb5.0						
HAU	**Haudompre**	**88.38**	**38**	*e*P	**P**	**09 21 55.2**	**-0.7**
CDF	**Champ du Feu**	**88.70**	**38**	*e*P	**P**	**09 21 56.7**	**-0.7**
	comp=Z,25nm,1.1s,mb5.2						
CDF	**Champ du Feu**	**88.70**	**38**	*e*P	**P**	**09 21 56.7**	**-0.7**
	comp=Z,13nm,1.1s,mb5.2						
CDF	**Champ du Feu**	**88.70**	**38**	*e*P	**P**	**09 21 56.7**	**-0.7**
CDF				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.2						
HINF	**Hinteralfeld**	**88.77**	**38**	*e*P	**P**	**09 21 56.9**	**-0.8**
LASF	**Ste Croix**	**88.83**	**43**	*e*P	**P**	**09 21 57.5**	**-0.6**
	comp=Z,92nm,1.5s,mb5.6						
CABF	**La Chapelle**	**88.94**	**40**	*e*P	**P**	**09 21 58.0**	**-0.5**
	comp=Z,74nm,1.4s,mb5.5						
CABF	**La Chapelle**	**88.94**	**40**	*e*P	**P**	**09 21 58.0**	**-0.5**
	comp=Z,37nm,1.4s,mb5.5						
CABF	**La Chapelle**	**88.94**	**40**	*e*P	**P**	**09 21 58.0**	**-0.5**
CABF				pmax	pmax		
	comp=Z,37nm,1.4s,mb5.5						
FINES	**FINESS Array B**	**89.05**	**21**	P	**P**	**09 21 59.7**	**+1.0**
FINES				LR	LR	10 02 21.9	
FINES	**FINESS Array B**	**89.05**	**21**	P	**P**	**09 21 59.7**	**+1.0**
	comp=Z,1.9nm,0.9s,mb4.4,baz=252,slow=3.0,SNR=5.5						
FINES				LR	LR	10 02 21.9	
	comp=Z,152nm,18.2s,MS4.5,baz=46,slow=36						
LPG	**La Plagne**	**89.91**	**40**	*e*P	**P**	**09 22 03.3**	**+0.2**
	comp=Z,38nm,1.4s,mb5.2						
LPG	**La Plagne**	**89.91**	**40**	*e*P	**P**	**09 22 03.3**	**+0.2**
	comp=Z,19nm,1.4s,mb5.2						
LPG	**La Plagne**	**89.91**	**40**	*e*P	**P**	**09 22 03.3**	**+0.2**
LPG				pmax	pmax		
	comp=Z,19nm,1.4s,mb5.2						
SMRF	**Simiane la Rot**	**89.96**	**42**	*e*P	**P**	**09 22 03.7**	**+0.4**
	comp=Z,105nm,1.7s,mb5.6						
SMRF	**Simiane la Rot**	**89.96**	**42**	*e*P	**P**	**09 22 03.7**	**+0.4**
	comp=Z,105nm,1.7s,mb5.9						
GRA1	**Grafenberg Arr**	**90.19**	**35**	*e*P	**P**	**09 22 08.3**	**+4.0**
	comp=Z,120nm,2.0s,mb5.9						
GRF	**Grafenberg Arr**	**90.19**	**35**	*e*P	**P**	**09 22 08.3**	**+4.0**
GRF				pmax	pmax		
	comp=Z,120nm,2.0s,mb5.9						
GRF	**Grafenberg Arr**	**90.19**	**35**	*e*P	**P**	**09 22 08.3**	**+4.0**
GRF				pmax	pmax		
	comp=Z,120nm,2.0s,mb5.9						
GRF	**Grafenberg Arr**	**90.19**	**35**	*e*P	**P**	**09 22 08.3**	**+4.0**
	comp=Z,120nm,2.0s,mb5.9						
CLL	**Collm**	**90.20**	**33**	*e*P	**P**	**09 22 03.0**	**-1.3**
CLL				pmax	pmax		
	comp=Z,12nm,1.4s,mb5.0						
CLL	**Collm**	**90.20**	**33**	*e*P	**P**	**09 22 03.0**	**-1.3**
	comp=Z,12nm,1.4s,mb5.0						
CLL				*e*(sP)	sP	09 22 24.0	+0.4
MBDF	**Montbardon**	**90.31**	**41**	*e*P	**P**	**09 22 03.8**	**-1.2**
	comp=Z,16nm,1.2s,mb4.9						
MBDF	**Montbardon**	**90.31**	**41**	*e*P	**P**	**09 22 03.8**	**-1.2**
	comp=Z,7.9nm,1.2s,mb4.9						
MBDF	**Montbardon**	**90.31**	**41**	*e*P	**P**	**09 22 03.8**	**-1.2**
MBDF				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.9						
BRG	**Berggiesshubel**	**90.94**	**33**	*e*P	**P**	**09 22 10.1**	**+2.4**
BRG				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb4.2						
BRG	**Berggiesshubel**	**90.94**	**33**	*e*P	**P**	**09 22 10.1**	**+2.4**
	comp=Z,2.2nm,0.8s,mb4.5						
GERES	**GERESS Array B**	**92.01**	**35**	P	**P**	**09 22 12.8**	**0.0**
GERES						09 25 53.6	
GERES	**GERESS Array B**	**92.01**	**35**	P	**P**	**09 22 12.8**	**+0.1**
	comp=Z,0.5nm,0.8s,baz=318,slow=3.6,SNR=4.2						
GERES				PP	PP	09 25 53.6	+1.4
	comp=Z,0.3nm,0.4s,baz=308,slow=8.5,SNR=5.9						
GERES				LR	LR	10 00 47.7	
	comp=Z,156nm,18.1s,MS4.5,baz=83,slow=34						
BOD	**Bodaibo**	**94.24**	**340**	*e*P	**P**	**09 22 20.8**	**-2.0**
BOD				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.9						
MJAR	**Matsushiro Arr**	**96.21**	**313**	P	**P**	**09 22 31.5**	**-0.8**
	comp=Z,2.4nm,1.0s,mb4.6,baz=32,slow=5.9,SNR=4.1						
MJAR				LR	LR	10 00 42.1	
	comp=Z,82nm,20.7s,MS4.2,baz=195,slow=32						
MAJO	**Matsushiro**	**96.21**	**313**	*e*P	**P**	**09 22 32.4**	**0.0**
AKASG	**Malin Array Be**	**98.19**	**27**	P	**P**	**09 22 39.1**	**-1.9**
AKASG				PP	PP	09 26 32.9	-7.1
AKASG				LR	LR	10 05 35.9	
AKASG	**Malin Array Be**	**98.19**	**27**	P	**P**	**09 22 39.1**	**-1.9**
	comp=Z,1.1nm,0.7s,mb4.5,baz=307,slow=3.9,SNR=10						
AKASG				PP	PP	09 26 32.9	-7.1
	comp=Z,0.1nm,0.3s,baz=311,slow=6.3,SNR=4.0						
AKASG				LR	LR	10 05 35.9	
	comp=Z,138nm,18.8s,MS4.5,baz=300,slow=34						
CN2	**Changchun**	**99.66**	**325**	*e*P	Pdif	09 22 47.9	+0.4
ZALV	**Zalesovo Beam**	**104.35**	**353**	PP	PP	09 27 22.2	-3.8
	comp=Z,1.3nm,0.7s,baz=339,slow=7.7,SNR=6.6						
BJI	**Beijing**	**107.18**	**327**	P	Pdif	09 23 20.2	-0.7
BRTR	**Keskin Array B**	**108.59**	**32**	PKPdf	PKiKP	09 27 31.9	-1.0
BRTR	**Keskin Array B**	**108.59**	**32**	PKiKP	PKiKP	09 27 31.9	-1.0
	comp=Z,0.4nm,0.7s,baz=355,slow=4.8,SNR=4.0						
HHC	**Hu-ho-hao-te**	**108.78**	**331**	*e*PDIF	Pdif	09 23 28.6	+0.6
HHC				PP	PP	09 28 04.3	+5.2
HHC				S	Sdif	09 35 31.1	-2.0
HHC				SS	SS	09 43 16.1	+3.4
HHC				PP	PP		
	comp=Z,91nm,4.3s						
HHC				LR	LR		
	comp=N,156nm,28.5s,MS4.6						
HHC				LR	LR		
	comp=E,187nm,30.3s,MS4.6						
HHC				LR	LR		
	comp=Z,187nm,27.5s,MS4.5						
NJ2	**Nanjing**	**111.51**	**320**	*e*PKP	PKiKP	09 27 40.4	+1.9
MKAR	**Makanchi Array**	**111.68**	**354**	PKPdf	PKiKP	09 27 36.9	-1.5
MKAR				PP	PP	09 28 14.4	-5.2
MKAR				PKKPbc	PKKPbc	09 38 29.6	-3.6
MKAR				PKKPab	PKKPab	09 38 39.7	-4.7
MKAR	**Makanchi Array**	**111.68**	**354**	PKIKP	PKiKP	09 27 36.9	-1.5
MKAR	**Makanchi Array**	**111.68**	**354**	PKiKP	PKiKP	09 27 36.9	-1.5
	comp=Z,0.2nm,0.3s,baz=7.5,slow=2.1,SNR=5.3						
MKAR				PP	PP	09 28 14.4	-5.2
	comp=Z,1.2nm,0.8s,baz=3.7,slow=4.5,SNR=6.6						
MKAR				PKKPbc	PKKPbc	09 38 29.6	-3.6
	comp=Z,0.1nm,0.2s,baz=143,slow=4.2,SNR=3.7						
MKAR				PKKPab	PKKPab	09 38 39.7	-4.7
	comp=Z,0.2nm,0.3s,baz=202,slow=6.3,SNR=6.3						
WMQ	**Urumqi**	**113.84**	**349**	*e*PKP	PKiKP	09 27 44.3	+1.7
WMQ				LR	LR		
	comp=N,134nm,22.0s,MS4.7						
WMQ				LR	LR		
	comp=E,188nm,22.0s,MS4.7						
WMQ				LR	LR		
	comp=Z,129nm,22.0s,MS4.5						
GTA	**Gaotai**	**114.77**	**338**	PKP	PKiKP	09 27 40.3	-4.3
GTA				PP	PP		
	comp=Z,114nm,7.2s						
GTA				LR	LR		
	comp=N,203nm,16.8s,MS4.9						
GTA				LR	LR		
	comp=E,161nm,14.1s,MS4.9						
GTA				LR	LR		
	comp=Z,155nm,16.1s,MS4.7						
LZH	**Lanzhou**	**116.11**	**333**	*e*PKP	PKPdf	09 27 38.5	-8.7
LZH				SKS	SKSdf	09 34 45.7	-10
LZH				SKKS	SKKSac	09 35 37.3	-13
LZH				PP	PP		
	comp=Z,118nm,7.8s						
LZH				LR	LR		
	comp=N,305nm,17.9s						
LZH				LR	LR		
	comp=Z,612nm,20.2s,MS5.2						
AAK	**Ala-Archa**	**116.28**	**359**	⇑*i*PKIKP	PKPdf	09 27 45.0	-2.4
STKA	**Stephens Creek**	**119.30**	**245**	PKP	PKPdf	09 27 52.1	-1.3
STKA	**Stephens Creek**	**119.30**	**245**	PKP	PKPdf	09 27 52.1	-1.3
	comp=Z,5.3nm,0.7s,baz=44,slow=6.2,SNR=8.2						
CD2	**Chengdu**	**120.53**	**330**	*e*PKP	PKPdf	09 27 56.7	+0.8
CD2				PP	PP	09 29 27.3	+5.2
CD2				PKS		09 31 32.1	
CD2				SKS	SKSdf	09 35 03.7	-0.6
CD2				SKKS	SKKSac	09 36 15.7	-3.5
CD2				SS	SS	09 45 50.7	+3.3
CD2				PP	PP		
	comp=Z,90nm,8.8s						
CD2				LR	LR		
	comp=N,220nm,11.9s						
CD2				LR	LR		
	comp=Z,180nm,13.1s,MS4.9						
GYA	**Guiyang**	**122.70**	**325**	PKP	PKPdf	09 27 59.3	-0.9
GYA				PP	PP	09 29 40.5	+3.4
GYA				PKS		09 31 34.6	
GYA				SKS	SKSdf	09 35 04.6	-4.0
GYA				SKKS	SKKSac	09 36 27.0	-6.5
GYA				S	Sdif	09 37 24.0	-5.3
GYA				SS	SS	09 46 14.5	-1.1
GYA				PP	PP		
	comp=Z,120nm,8.9s						
GYA				LR	LR		
	comp=N,390nm,20.9s,MS5.2						
GYA				LR	LR		
	comp=E,360nm,22.6s,MS5.2						
GYA				LR	LR		
	comp=Z,370nm,21.4s,MS5.0						
WB2	**Warramunga Arr**	**123.58**	**260**	*e*PKP	PKPdf	09 27 59.2	-2.7
WRA	**Warramunga Arr**	**123.59**	**260**	PKP	PKPdf	09 28 00.7	-1.3
WRA				PKKPbc	PKKPbc	09 37 49.7	+0.1
WRA	**Warramunga Arr**	**123.59**	**260**	PKIKP	PKPdf	09 28 00.7	-1.2
WRA	**Warramunga Arr**	**123.59**	**260**	PKP	PKPdf	09 28 00.7	-1.3
	comp=Z,8.0nm,0.8s,baz=74,slow=1.7,SNR=48						
WRA				PKKPbc	PKKPbc	09 37 49.7	+0.1
	comp=Z,0.6nm,0.9s,baz=267,slow=2.2,SNR=6.5						
ASAR	**Alice Springs**	**124.74**	**255**	PKP	PKPdf	09 28 02.6	-1.4
ASAR	**Alice Springs**	**124.74**	**255**	PKIKP	PKPdf	09 28 02.6	-1.4
ASAR	**Alice Springs**	**124.74**	**255**	PKhKP		09 27 56.1	
	comp=Z,1.2nm,0.8s,baz=86,slow=3.8,SNR=8.8						
ASAR				PKP	PKPdf	09 28 02.6	-1.4
	comp=Z,5.9nm,0.8s,baz=80,slow=2.2,SNR=38						
KMI	**Kunming**	**125.84**	**327**	PKP	PKPdf	09 28 05.7	-0.5
KMI	**Kunming**	**125.84**	**327**	PKIKP	PKPdf	09 28 05.7	-0.5
MAW	**Mawson**	**133.30**	**174**	PKP	PKPdf	09 28 18.6	-0.4
MAW	**Mawson**	**133.30**	**174**	PKIKP	PKPdf	09 28 18.6	-0.4
MAW	**Mawson**	**133.30**	**174**	PKP	PKPdf	09 28 18.6	-0.4
	comp=Z,7.5nm,1.1s,baz=60,slow=11,SNR=3.6						
XMIS	**Christmas Isla**	**147.51**	**285**	*e*PKPdf	PKPdf	09 28 47.5	+1.3

MAN 11 09:22:38,968N×12596E,h12^{km},mb4.2,ML3.0,MS2.8, 1C-1D,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SCPH	**Surigao**	**0.47**	**282**	⇓*e*P	Pg	09 22 48.6	+1.4
SCPH				*e*S	Sg	09 22 56.7	+3.1
BIPH	**Bislig**	**1.54**	**165**	⇑*i*P	Pn	09 23 04.0	-1.3
PLP	**Palo**	**1.76**	**327**	*e*P	Pn	09 23 08.5	+0.2
PLP				*e*S	Sn	09 23 29.7	-0.9

ISCJB ***11*** *09:32:02.8±0.7,1793S±009×6701W±005,h282^{km}±5^{km}, mb3.8/10,Error ellipse: s-maj=15.0km s-min=7.2km az=15.0*

NEIC ***11*** *09:32:03.4±0.7,1797S×6700W,h274^{km}±7^{km},mb4.0/1, Error ellipse: s-maj=14.7km s-min=10.4km az=209.0*

IDC ***11*** *09:32:04.6±1.5,1773S×6690W,h273^{km}±7^{km},mb3.6/9, mb1 3.7/12,mb1mx3.6/21,mbtmp3.6/12,Error ellipse: s-maj=35.1km s-min=12.1km az=17.0*

ISC 11 09:32:03.4±0.7,1795S±010×6698W±006,h273^{km}±5^{km}, n27,σ0^{s}92/29,mb3.8/10,1C,Central Bolivia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LPAZ	**La Paz**	**1.98**	**326**	P	**Pn**	**09 32 49.4**	**+1.7**
LPAZ				S	**S**	**09 33 23.5**	**+0.7**
LPAZ	**La Paz**	**1.98**	**326**	P	**Pn**	**09 32 49.4**	**+1.7**
	43nm,0.3s,baz=131,slow=5.8,SNR=1039						
LPAZ				S	**S**	**09 33 23.5**	**+0.8**
	8.2nm,0.3s,baz=5.9,slow=24,SNR=16						
ARE	**Arequipa**	**4.56**	**288**	⇑*i*P	**Pn**	**09 33 14.1**	**-0.7**
ARE				*e*S	**S**	**09 34 11.0**	**-0.8**
SIV	**San Ignacio**	**5.97**	**72**	P	**Pn**	**09 33 32.2**	**+0.4**
	21nm,0.3s,baz=267,slow=10,SNR=207						
SIV				S	**S**	**09 34 41.4**	**-1.3**
	2.0nm,0.3s,baz=173,slow=23,SNR=3.4						
NNA	**Nana**	**11.22**	**301**	P	**Pn**	**09 34 36.9**	**-0.1**
	4.9nm,0.3s,baz=151,slow=7.6,SNR=5.0						
NNA				S	**S**	**09 36 36.3**	**-6.2**
	1.8nm,0.3s,baz=258,slow=15,SNR=2.7						
CFAA	**Coronel Fontan**	**13.65**	**185**	P	**Pn**	**09 35 06.2**	**-0.3**
	0.1nm,0.3s,baz=359,slow=11,SNR=29						
CFAA				S	**S**	**09 37 25.1**	**-12**
	0.1nm,0.3s,baz=220,slow=17,SNR=6.6						
ATAH	**Atahualpa**	**15.57**	**313**	P	**Pn**	**09 35 28.6**	**-1.0**
	0.3nm,0.3s,baz=128,slow=13,SNR=2.3						
ATAH				S	**S**	**09 38 14.3**	**-4.2**
	0.3nm,0.3s,baz=116,slow=19,SNR=2.7						
TEIG	**Tepich**	**43.31**	**330**	P	**P**	**09 39 38.2**	**-0.7**
	6.5nm,0.9s,mb3.9,baz=320,slow=10,SNR=3.0						
TKL	**Tuckaleechee C**	**55.64**	**343**	P	**P**	**09 41 10.3**	**-1.1**
	2.2nm,0.8s,mb3.6,baz=214,slow=16,SNR=3.7						
TXAR	**Lajitas Array**	**58.85**	**322**	P	**P**	**09 41 34.4**	**+0.5**
	0.3nm,0.8s,mb2.8,baz=146,slow=6.3,SNR=4.1						
SADO	**Sadowa**	**63.39**	**350**	P	**P**	**09 42 03.4**	**-0.5**
SADO	**Sadowa**	**63.39**	**350**	P	**P**	**09 42 03.4**	**-0.5**
	baz=217,slow=5.1						
PDAR	**Pinedale Array**	**72.00**	**328**	P	**P**	**09 42 58.9**	**+1.4**
	0.4nm,0.6s,mb3.2,baz=117,slow=7.9,SNR=4.5						
ULM	**Lac du Bonnet**	**72.53**	**341**	P	**P**	**09 43 00.2**	**-0.3**
ULM	**Lac du Bonnet**	**72.53**	**341**	P	**P**	**09 43 00.2**	**-0.3**
	0.4nm,0.3s,mb3.5,baz=160,slow=10,SNR=5.1						
TPAW	**Teton Pass**	**73.23**	**328**	*e*P	**P**	**09 43 05.0**	**+0.3**
	4.8nm,1.5s,mb3.9						
TOA0	**Torodi Ar. Sit**	**74.45**	**70**	*e*P	**P**	**09 43 11.6**	**-0.8**
TORD	**Torodi Ar. Bea**	**74.45**	**70**	P	**P**	**09 43 11.9**	**-0.6**
	5.7nm,0.6s,mb4.4,baz=253,slow=5.3,SNR=51						
TORD				pP	pP	09 44 17.0	+1.5
	0.5nm,0.7s,baz=253,slow=5.5,SNR=3.4						
ESDC	**Sonseca Array**	**82.03**	**44**	P	**P**	**09 43 55.1**	**+1.8**
	1.0nm,0.6s,mb3.8,baz=245,slow=5.5,SNR=7.7						
BOSA	**Boshof**	**83.49**	**118**	P	**P**	**09 44 01.7**	**+0.5**
BOSA	**Boshof**	**83.49**	**118**	P	**P**	**09 44 01.7**	**+0.5**
	2.0nm,0.4s,mb4.3,baz=250,slow=5.4,SNR=7.5						
YKA	**Yellowknife Ar**	**88.47**	**340**	P	**P**	**09 44 25.7**	**+1.3**
	1.8nm,0.5s,mb4.1,baz=129,slow=4.7,SNR=42						
WRA	**Warramunga Arr**	**136.93**	**210**	PKP	PKPdf	09 50 55.5	+0.9
	0.8nm,1.0s,baz=152,slow=1.4,SNR=9.3						
ZALV	**Zalesovo Beam**	**137.98**	**25**	PKP	PKPdf	09 50 56.5	+1.1
	0.8nm,0.5s,baz=303,slow=2.7,SNR=4.1						
MKAR	**Makanchi Array**	**141.69**	**35**	PKhKP		09 50 59.5	
	0.2nm,0.2s,baz=299,slow=3.0,SNR=2.6						
SONM	**Songino Array**	**149.70**	**9**	PKPbc	PKPbc	09 51 22.4	+1.6
	1.4nm,0.6s,baz=313,slow=1.7,SNR=12						
MJAR	**Matsushiro Arr**	**151.08**	**315**	PKPbc	PKPbc	09 51 25.5	+1.0
	0.4nm,0.4s,baz=62,slow=1.5,SNR=3.1						

CASC 11 09:32:45.1±4.3,1291N×8767W,h20^{km}±23^{km},MD3.5, ML2.6,2C-1D,Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CNCH	**Conchagua**	**0.40**	**337**	⇑*i*P	x	09 33 08.2	
CNCH				*e*S	x	09 33 12.9	
BLLM	**Bellamira**	**0.77**	**314**	⇑*e*P	x	09 33 15.5	
BLLM				*e*S	x	09 33 26.1	
TEL3	**Telica 3**	**0.87**	**112**	*e*P	Pb	09 33 02.4	+0.8
TEL3				*e*S	Sb	09 33 14.8	+1.9
TELN	**Telica**	**0.87**	**110**	*e*P	Pb	09 32 59.1	-2.5
TELN				*e*S	Sb	09 33 12.8	0.0
CAHU	**Cacacuatique**	**1.00**	**329**	*e*P	x	09 33 18.1	
CAHU				*e*S	x	09 33 32.5	
COPN	**Copaltepe**	**1.28**	**124**	⇓*e*P	Pn	09 33 07.2	-0.6
COPN				*e*S	Sn	09 33 25.6	+1.2
SNVI	**San Vicente**	**1.33**	**302**	*e*P	x	09 33 26.0	
SNVI				*e*S	x	09 33 44.8	

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
LCBS	**La Ceiba**	**1.47**	**300**	*e*P	x	09 33 27.9	
LCBS				*e*S	x	09 33 47.8	
LFRS	**El Faro**	**1.53**	**298**	*e*P	x	09 33 29.0	
LFRS				*e*S	x	09 33 53.1	
HUEN		**1.57**	**111**	*e*P	Pn	09 33 11.7	-0.2
HUEN				*e*S	Sn	09 33 32.8	+1.2
MGAN	**Managua**	**1.58**	**118**	*i*	Pn	09 33 37.7	+26
	comp=E,75nm,0.6s						
SNET	**Serv Nac Est T**	**1.70**	**297**	*e*P	x	09 33 12.8	
SNET				*e*S	x	09 33 35.8	

IDC **11** *09:53:48.2±1.8, 27.06N×97.15E, h0^{km}, mb3.1/4, mb1 3.4/4, mb1mx3.2/22, mbtmp3.2/4, Error ellipse: s-maj=82.1km s-min=24.2km az=68.0*

ISCJB **11** *09:53:51.8±1.4, 27.1N±0.1×97.11E±0.07, h47^{km}±16^{km}, mb3.5/5, Error ellipse: s-maj=19.1km s-min=8.4km az=154.8*

BJI **11** *09:53:51.7, 27.00N×96.87E, h70^{km}*

NEIC **11** *09:53:55.9±3.0, 27.09N×96.82E, h74^{km}±31^{km}, mb4.4/1, Error ellipse: s-maj=28.2km s-min=19.2km az=82.0*

ISC 11 09:53:54.9±1.1**, 27.2N**±0.1×**97.04E**±0.07**, h61**^{km}±14^{km}**, n10,** σ**1**^{s}**08**/12**, mb3.5**/5**, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHL	**Shillong**	**4.89**	**252**	*e*PN	**Pn**	**09 55 05.5**	**-0.4**
SHL				*e*SN	**Sn**	**09 56 02.5**	**+1.3**
LSA	**Lhasa**	**5.78**	**297**	*e*P	**Pn**	**09 55 17.0**	**-1.0**
LSA	**Lhasa**	**5.78**	**297**	*e*Pn	**Pn**	**09 55 17.4**	**-0.6**
	9.5nm,0.5s						
CD2	**Chengdu**	**6.97**	**56**	*e*P	**Pn**	**09 55 32.9**	**-1.5**
CD2				S	**Sn**	**09 56 53.1**	**+0.9**
CD2				Smax			
	comp=N,10.0nm,1.4s						
CD2				Smax			
	comp=E,10.0nm,1.4s						
SONM	**Songino Array**	**21.91**	**17**	P	**P**	**09 58 43.7**	**+0.8**
	comp=E,0.2nm,0.4s,mb2.9,baz=208,slow=8.2,SNR=3.3						
MK31	**Makanchi Array**	**22.80**	**333**	*e*P	**P**	**09 58 51.4**	**-1.0**
MKAR	**Makanchi Array**	**22.80**	**333**	P	**P**	**09 58 53.7**	**+1.4**
	comp=E,0.9nm,0.6s,mb3.4,baz=141,slow=11,SNR=8.0						
WRA	**Warramunga Arr**	**59.14**	**138**	P	**P**	**10 03 49.8**	**+0.3**
	comp=E,0.2nm,0.5s,mb3.4,baz=327,slow=7.5,SNR=3.8						
ASAR	**Alice Springs**	**61.81**	**141**	P	**P**	**10 04 08.2**	**+0.6**
	comp=E,0.2nm,0.5s,mb3.5,baz=323,slow=6.8,SNR=3.1						
BOSA	**Boshof**	**88.36**	**237**	*e*P	**P**	**10 06 38.3**	**-1.9**
	comp=E,2.7nm,0.8s,mb4.5						

ISK **11** *10:09:30.4, 38.38N×39.14E, h5^{km}, MD2.7*

ISCJB **11** *10:09:31.5±0.7, 38.37N±0.05×39.11E±0.06, h10^{km}, Error ellipse: s-maj=7.2km s-min=6.4km az=164.1*

ISC 11 10:09:32.1±0.8**, 38.38N**±0.05×**39.08E**±0.06**, h10**^{km}**, n6,** σ**0**^{s}**97**/8**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	**Elazig**	**0.14**	**326**	⇑*i*P	**Pg**	**10 09 35.8**	**+0.5**
MALT	**Malatya**	**0.52**	**262**	PG	**Pg**	**10 09 42.2**	**0.0**
MYA	**Malataya**	**0.52**	**264**	PG	**Pg**	**10 09 43.0**	**+0.8**
PTK	**Pertek**	**0.56**	**26**	PG	**Pg**	**10 09 42.0**	**-1.1**
PTK				SG	**Sg**	**10 09 51.0**	**+0.5**
URFA	**Urfa**	**0.96**	**192**	*e*PG	**Pg**	**10 09 50.1**	**-0.6**
MARD	**Mardin**	**1.72**	**128**	*i* P	**Pn**	**10 10 00.4**	**-1.7**
MARD				*i* S	**Sg**	**10 10 28.9**	**+1.5**

BJI **11** *10:47:27.4, 5.80N×94.19E, h40^{km}, mB5.5, mb5.9, Ms4.9, Msz4.5*

SZGRF **11** *10:47:28.2, 5.60N×94.58E, h33^{km}, mb5.6, Northern Sumatera, Indonesia*

MOS **11** *10:47:29.8±0.8, 6.28N×94.42E, h33^{km}, mb5.8/122, MS4.5/19, Error ellipse: s-maj=7.1km s-min=3.5km az=122.0*

ISCJB **11** *10:47:33.7±0.1, 6.18N±0.02×94.42E±0.02, h69^{km}, mb5.5/272, Error ellipse: s-maj=3.7km s-min=2.5km az=27.1*

GCMT **11** *10:47:35.0±0.2, 6.12N×94.47E, h64^{km}±1^{km}, MW5.4/89, Moment Tensor Solution. s79,c132; s89,c173; Duration: 1*^{s}*2 Moment tensor: Scale 10*^{17}*Nm;* M_{rr}*0.49±.03;* $M_{\theta\theta}$*-0.55±.02;* $M_{\phi\phi}$*0.05±.03;* $M_{r\theta}$*0.70±.02;* $M_{\theta\phi}$*-1.19±.02;* $M_{\phi r}$*-0.42±.02; Best double couple:* M_0*1.53500×10*^{17} *NP1:*ϕ_s*193.00000°, δ58.00000°, λ21.00000°. NP2:*ϕ_s*91.00000°, δ72.00000°, λ146.00000°. Principal axes: T 1.5490, Plg37.0000°, Azm48.0000°; N -0.0270, Plg52.0000°, Azm247.0000°; P -1.5220, Plg9.0000°, Azm145.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

NEIC **11** *10:47:35.0±0.1, 6.18N×94.40E, mb5.6/174, MW5.4 Error ellipse: s-maj=3.7km s-min=2.3km az=31.0, Moment Tensor Solution. s6 Moment tensor: Scale 10*^{17}*Nm;* M_{rr}*0.36;* $M_{\theta\theta}$*0.67;* $M_{\phi\phi}$*-1.03;* $M_{r\theta}$*1.00;* $M_{\theta\phi}$*-1.21;* $M_{\phi r}$*0.04; Best double couple:* M_0*1.80000×10*^{17} *NP1:*ϕ_s*166.00000°, δ57.00000°, λ13.00000°. NP2:*ϕ_s*69.00000°, δ79.00000°, λ146.00000°. Principal axes: T 1.8300, Plg32.0000°, Azm22.0000°; N -0.0500, Plg55.0000°, Azm233.0000°; P -1.7800, Plg14.0000°, Azm122.0000°;*

NEIC Felt [IV] at Banda Aceh; felt at Sabang, Indonesia.

IDC **11** *10:47:38.4±0.9, 6.28N×94.57E, h94^{km}±6^{km}, mb5.0/32, mb1 5.1/33, mb1mx5.1/33, mbtmp5.1/33, MS4.4/19, Ms1 4.4/19, ms1mx4.2/29 Error ellipse: s-maj=10.6km s-min=6.2km az=50.0*

ISC 11 10:47:35.6±0.1**, 6.18N**±0.02×**94.41E**±0.02**, h71**^{km}**, h71**^{km}±1.9^{km}**:pP-P, n1228,** σ**0**^{s}**90**/837**, mb5.5**/272**, 321C-146D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	**5.62**	**126**	P	**Pn**	**10 48 59.0**	**+2.4**
	281nm,0.3s,baz=304,slow=10,SNR=1101						
PSI				S	**Sn**	**10 50 02.2**	**+2.5**
	38nm,0.3s,baz=324,slow=22,SNR=2.0						
PSI				LR	LR	10 51 33.5	
	comp=Z,9µm,21.6s,baz=300,slow=42						
PSI				ScP	ScP	10 59 25.2	+0.7
	0.2nm,0.3s,baz=256,slow=3.7,SNR=4.1						
PSI				ScS	ScS	11 02 56.0	-1.6
	0.1nm,0.3s,baz=62,slow=23,SNR=12						
PBA	**Port Blair**	**5.69**	**343**	*e*P	x	10 49 00.8	
PBA				*e*S	x	10 50 03.3	
PBA	**Port Blair**	**5.69**	**343**	*e*P	**Pn**	**10 48 57.4**	**-0.1**
PBA				AMb	AMB	10 49 21.3	
	comp=Z,2µm,1.8s						
PBA				*e*S	**Sn**	**10 49 56.7**	**-4.8**
SNG	**Songkhla**	**6.25**	**81**	P	**Pn**	**10 49 07.0**	**+1.8**
	comp=Z,1µm,1.0s						
KULM	**Kulim**	**6.28**	**98**	*e*Pn	**Pn**	**10 49 05.3**	**-0.3**
KULM				*e*Sn	**Sn**	**10 50 12.3**	**-3.6**
KULM	**Kulim**	**6.28**	**98**	⇑P	**Pn**	**10 49 06.3**	**+0.7**
IPM	**Ipoh**	**6.80**	**104**	⇑P	**Pn**	**10 49 12.3**	**-0.5**
FRIM	**Kepong**	**7.76**	**112**	⇓P	**Pn**	**10 49 25.7**	**-0.3**
NNT	**Nongplab**	**8.26**	**39**	P	**Pn**	**10 49 34.3**	**+1.6**
KTGM	**Kuala Trenggan**	**8.72**	**95**	⇓P	**Pn**	**10 49 40.0**	**+0.9**
KGM	**Kluang**	**9.80**	**115**	⇓P	**Pn**	**10 49 54.2**	**+0.3**
MYKOM	**Kota Tinggi**	**10.38**	**114**	⇑P	**Pn**	**10 50 01.9**	**+0.2**
NST	**Nakhon Sawan**	**10.98**	**30**	⇓P	**Pn**	**10 50 12.1**	**+2.2**
	comp=Z,293nm,0.6s						
BDT	**Bhumibol Dam**	**11.88**	**22**	⇓P	**Pn**	**10 50 23.8**	**+1.6**
	comp=Z,100nm,0.9s						
CM31	**Chiang Mai Arr**	**12.98**	**20**	*e*Pn	**Pn**	**10 50 38.2**	**+1.1**
KKTK	**Khon Kaen**	**13.04**	**39**	PG	**Pn**	**10 50 39.0**	**+1.1**
CHG	**Chiang Mai**	**13.31**	**19**	⇑P	**Pn**	**10 50 42.9**	**+1.3**
	comp=Z,150nm,1.0s						
CHTO	**Chiang Mai**	**13.31**	**19**	*e*Pn	**Pn**	**10 50 42.3**	**+0.7**
	comp=Z,232nm,0.7s						
CHTO				*e*ScP	ScP	10 59 32.3	-1.0
CHTO	**Chiang Mai**	**13.31**	**19**	*e*P	**Pn**	**10 50 42.3**	**+0.7**
CHTO				pmax	pmax		
	comp=Z,232nm,0.7s						
CHTO	**Chiang Mai**	**13.31**	**19**	Pn	**Pn**	**10 50 43.2**	**+1.6**
	SNR=130						
PALK	**Pallekele**	**13.65**	**275**	Pn	**Pn**	**10 50 47.7**	**+1.6**
	comp=Z,1µm,1.1s,SNR=20						
PALK	**Pallekele**	**13.65**	**275**	*e*Pn	**Pn**	**10 50 45.4**	**-0.7**
PALK				*e*Sn	**Sn**	**10 53 03.4**	**-13**
PALK	**Pallekele**	**13.65**	**275**	Pn	**Pn**	**10 50 47.6**	**+1.5**
	SNR=16						
NANT	**Nan**	**13.96**	**25**	⇑P	**Pn**	**10 50 50.5**	**+0.3**
	comp=Z,1µm,1.0s						
CHRT	**Chiangrai**	**14.58**	**21**	⇑P	**Pn**	**10 51 00.0**	**+1.8**
	comp=Z,566nm,0.9s						
VIS	**Vishakhapatnam**	**15.77**	**318**	*i* P	**Pn**	**10 51 14.3**	**+0.8**
VIS				*i* x	x	10 53 55.4	
BWNR	**Bhubaneshwar**	**16.33**	**330**	*e*x	x	10 51 27.0	
BWNR				*e*S	**S**	**10 54 20.0**	**-10**
KSM	**Kuching**	**16.54**	**106**	*e*P	**Pn**	**10 51 23.1**	**-0.1**
KSM				*e*ScP	ScP	10 59 36.7	-2.5
KSM	**Kuching**	**16.54**	**106**	⇑P	**Pn**	**10 51 23.8**	**+0.6**
KOD	**Kodaikanal**	**17.24**	**285**	*e*P	**Pn**	**10 51 33.5**	**+1.6**
KOD				AMb	AMB	10 51 36.3	
	comp=Z,283nm,2.2s						
CAL	**Calcutta**	**17.29**	**341**	*e*x	x	10 51 17.6	
CAL				*e*S	**S**	**10 54 47.1**	**-2.0**
AGT	**Agartala**	**17.86**	**351**	*i* P	**Pn**	**10 51 38.0**	**-1.4**
AGT				*i* x	x	10 52 27.0	
SBUM	**Sibu**	**18.14**	**101**	⇑P	**Pn**	**10 51 44.2**	**+1.3**
COCO	**West Island**	**18.41**	**172**	P	**Pn**	**10 51 46.9**	**+0.9**
	comp=Z,2µm,0.9s,SNR=10						
COCO	**West Island**	**18.41**	**172**	*e*P	**Pn**	**10 51 45.2**	**-0.8**
	comp=Z,391nm,0.9s						
COCO	**West Island**	**18.41**	**172**	P	**Pn**	**10 51 46.7**	**+0.7**
	SNR=7.7						
IMP	**Imphal**	**18.51**	**359**	*e*P	**Pn**	**10 51 46.0**	**-1.1**
IMP				*e*x	x	10 55 05.0	
BTM	**Bintulu**	**18.85**	**98**	⇓P	**Pn**	**10 51 55.5**	**+4.2**
HYB	**Hyderabad**	**19.10**	**307**	⇓*e*P	**Pn**	**10 51 55.0**	**+0.7**
	comp=Z,290nm,1.0s						
HYB				*e*S	**S**	**10 55 28.0**	**+2.2**
HYB	**Hyderabad**	**19.10**	**307**	⇓*e*P	**Pn**	**10 51 55.0**	**+0.7**
HYB				*e*S	**S**	**10 55 28.0**	**+2.2**
HYB				pmax	pmax		
	comp=Z,290nm,1.0s						
HYB	**Hyderabad**	**19.10**	**307**	⇓*i*P	**Pn**	**10 51 55.0**	**+0.7**
	comp=Z,290nm,1.0s						
HYB				*e*S	**S**	**10 55 25.0**	**-0.8**
BOK	**Bokaro**	**19.34**	**336**	*i* P	**Pn**	**10 51 55.6**	**-1.4**
BOK				*i* x	x	10 55 20.6	
SHL	**Shillong**	**19.43**	**353**	*e*P	**Pn**	**10 51 54.0**	**-4.1**
SHL				AMb	AMB	10 52 18.1	
	comp=Z,942nm,1.5s						
SHL				*e*x	x	10 55 20.0	
QIZ	**Qiongzhong**	**19.73**	**48**	P	**Pn**	**10 52 01.6**	**-0.1**
QIZ				XP	sP	10 52 20.2	-3.1
QIZ				S	**S**	**10 55 39.1**	**+0.8**
QIZ				XS	sS	10 55 58.0	-4.3
QIZ				SS		10 56 12.0	
QIZ				AMB	AMB		
	comp=Z,551nm,1.0s						
QIZ				LR	LR		
	comp=N,2µm,16.5s						
QIZ				LR	LR		
	comp=Z,1µm,19.3s						
QIZ	**Qiongzhong**	**19.73**	**48**	*e*P	**Pn**	**10 52 01.4**	**-0.3**
	comp=Z,536nm,0.8s						
XMIS	**Christmas Isla**	**19.98**	**146**	*e*P	**Pn**	**10 52 02.7**	**-2.0**
MNGI	**Mangalore**	**20.44**	**291**	*i* P	**P**	**10 52 09.3**	**+2.0**
MNGI				AMb	AMB	10 52 14.9	
	comp=Z,330nm,1.0s						
MNGI				*i* x	x	10 55 44.6	
KMI	**Kunming**	**20.46**	**22**	⇑P	**P**	**10 52 10.3**	**+2.8**
KMI				AP		10 52 17.7	
KMI				XP	sP	10 52 21.4	-10
KMI				PP		10 52 31.1	
KMI				S	**S**	**10 55 54.1**	**+1.4**
KMI				XS	sS	10 56 07.1	-10
KMI				SS		10 56 23.6	
KMI				AMB	AMB		
	comp=Z,375nm,1.0s						
KMI				LR	LR		
	comp=N,997nm,15.8s						
KMI				LR	LR		
	comp=E,2µm,19.2s						
KMI				LR	LR		
	comp=Z,1µm,23.0s						
KMI	**Kunming**	**20.46**	**22**	⇑P	**P**	**10 52 10.3**	**+2.8**
	comp=Z,375nm,1.0s						
KMI				pP		10 52 17.7	
KMI				sP	sP	10 52 21.4	-10
KMI				PP		10 52 31.1	
KMI				PPP		10 52 40.4	
KMI				S	**S**	**10 55 54.1**	**+1.4**
KMI				sS	sS	10 56 07.1	-10
KMI				SS		10 56 23.6	
KMI				SSS		10 56 39.5	
KMI				LR	LR		
	comp=Z,1µm,23.0s						
KMI	**Kunming**	**20.46**	**22**	⇑P	**P**	**10 52 10.3**	**+2.8**
KMI				*SP	sP	10 52 21.4	-10
KMI						10 52 31.1	
KMI				PPP		10 52 40.4	
KMI				S	**S**	**10 55 54.1**	**+1.4**
KMI				*SS	sS	10 56 07.1	-10
KMI				SS		10 56 23.6	
KMI				pmax	pmax		
	comp=Z,375nm,1.0s						
KMI				MLR	MLR		
	comp=Z,1µm,23.0s						
NGP	**Nagpur**	**21.04**	**316**	*e*P	**P**	**10 52 14.1**	**+0.3**
NGP				*e*x	x	10 52 16.2	
	comp=Z,341nm,0.8s						
NGP				*e*x	x	10 56 13.9	
SLGI	**Shiliguri**	**21.19**	**345**	*e*x	**P**	**10 52 19.0**	**+3.7**
LATR	**Latur**	**21.23**	**307**	*e*P	**P**	**10 52 16.8**	**+0.9**
ODAN	**Odare**	**21.63**	**343**	*e*P	**P**	**10 52 18.0**	**-2.0**
	comp=Z,206nm,0.7s,mb5.6						
KKM	**Kota Kinabalu**	**21.68**	**89**	*e*P	**P**	**10 52 20.9**	**+0.1**
KKM	**Kota Kinabalu**	**21.68**	**89**	⇑P	**P**	**10 52 22.4**	**+1.6**
JBP	**Jabalpur**	**21.87**	**322**	⇓*i*P	**P**	**10 52 25.1**	**+2.5**
JBP				*i* S	**S**	**10 56 22.9**	**+2.6**
TAPN	**Taplejung**	**22.00**	**344**	*e*P	**P**	**10 52 22.1**	**-1.8**
	comp=Z,210nm,0.6s,mb5.6						
AKL	**Akola**	**22.20**	**312**	⇑*i*P	**P**	**10 52 28.2**	**+2.0**
AKL				*e*x	x	10 52 47.1	
	comp=Z,282nm,1.2s						
AKL				*i* S	**S**	**10 56 28.1**	**+1.4**
KDM	**Kudat**	**22.29**	**87**	⇓P	**P**	**10 52 27.3**	**+0.1**
ALBI	**Allahabad**	**22.52**	**329**	*e*P	**P**	**10 52 28.5**	**-1.0**
KAD	**Karad**	**22.65**	**301**	*i* P	**P**	**10 52 32.3**	**+1.3**
KAD				*e*S	**S**	**10 56 34.6**	**+0.6**
SDKM	**Sandakan**	**22.67**	**90**	⇓P	**P**	**10 52 31.4**	**+0.1**
PKI	**Pulchoki**	**22.93**	**339**	*e*P	**P**	**10 52 32.4**	**-1.4**
	comp=Z,145nm,0.6s,mb5.5						
DMN	**Daman**	**23.07**	**339**	*e*P	**P**	**10 52 33.8**	**-1.5**
	comp=Z,285nm,0.9s,mb5.6						
GUN	**Gumba**	**23.08**	**340**	*e*P	**P**	**10 52 33.6**	**-1.7**
	comp=Z,403nm,0.7s,mb5.9						
KKN	**Kakani**	**23.18**	**339**	*e*P	**P**	**10 52 34.6**	**-1.6**
	comp=Z,368nm,1.0s,mb5.7						
GYA	**Guiyang**	**23.31**	**29**	⇑*i*P	**P**	**10 52 37.0**	**-0.5**
GYA				AP		10 52 46.3	
GYA				XP	sP	10 52 49.9	-12
GYA				PP		10 53 09.7	
GYA				PCP	PcP	10 56 25.8	+3.0
GYA				S	**S**	**10 56 45.8**	**+1.2**
GYA				XS	sS	10 56 59.4	-14
GYA				SS		10 57 32.7	
GYA				AMB	AMB		
	comp=Z,880nm,1.3s,mb5.9						
GYA				AMB	AMB		
	comp=Z,1µm,5.1s						
GYA				LR	LR		
	comp=N,2µm,16.9s						
GYA				LR	LR		
	comp=E,3µm,17.6s						
GYA				LR	LR		
	comp=Z,4µm,17.4s						
TSM	**Tawau**	**23.44**	**93**	⇓P	**P**	**10 52 38.4**	**-0.4**
POO	**Poona**	**23.50**	**303**	*e*P	**P**	**10 52 41.0**	**+1.7**
POO				*e*x	x	10 57 04.0	
BHPL	**Bhopal**	**23.57**	**318**	*e*P	**P**	**10 52 41.4**	**+1.6**
BHPL				AMb	AMB	10 52 49.4	
	comp=Z,149nm,0.9s,mb5.3						
LSA	**Lhasa**	**23.60**	**353**	P	**P**	**10 52 39.0**	**-1.0**
LSA				AP		10 52 50.0	
LSA				XP	sP	10 52 58.8	-6.1
LSA				AMB	AMB		
	comp=Z,180nm,0.9s,mb5.4						
LSA				AMB	AMB		
	comp=Z,270nm,11.0s						
LSA				LR	LR		
	comp=N,580nm,26.0s						
LSA				LR	LR		
	comp=E,1µm,29.0s						
LSA				LR	LR		
	comp=Z,910nm,27.0s						
LSA	**Lhasa**	**23.60**	**353**	*e*P	**P**	**10 52 39.1**	**-0.9**
	comp=Z,207nm,0.8s,mb5.5						
LSA				*e*S	**S**	**10 56 50.0**	**+0.8**
LSA				*e*ScP	ScP	10 59 55.7	+0.3
LSA	**Lhasa**	**23.60**	**353**	*e*P	**P**	**10 52 39.1**	**-0.9**
LSA				*e*S	**S**	**10 56 50.0**	**+0.8**
LSA				pmax	pmax		
	comp=Z,207nm,0.8s,mb5.5						
GKN	**Gorkha**	**23.60**	**338**	*e*P	**P**	**10 52 39.1**	**-1.0**
	comp=Z,175nm,0.7s,mb5.5						
KOLN	**Koldanda**	**23.80**	**336**	*e*P	**P**	**10 52 42.0**	**+0.1**
	comp=Z,304nm,0.8s,mb5.7						
MYLDM	**Lahad Datu**	**24.00**	**91**	⇓P	**P**	**10 52 45.0**	**+1.1**
PPR	**Puerto Princes**	**24.35**	**80**	⇓*e*P	**P**	**10 52 52.0**	**+4.9**
BOM	**Bombay**	**24.54**	**303**	*e*x	x	10 56 31.6	
GZH	**Guangzhou**	**24.81**	**45**	P	**P**	**10 52 55.0**	**+3.8**
GZH				S	**S**	**10 57 19.6**	**+11**
GZH				AMB	AMB		
	comp=Z,429nm,0.8s,mb5.9						
GZH				LR	LR		
	comp=N,2µm,16.8s						
GZH				LR	LR		
	comp=E,879nm,17.4s						
GZH				LR	LR		
	comp=Z,1µm,23.9s						
CD2	**Chengdu**	**26.12**	**18**	⇑*i*P	**P**	**10 53 02.7**	**-0.3**
CD2				AP	pP	10 53 12.0	-7.8
CD2				XP	sP	10 53 16.5	-12
CD2				PP		10 53 45.1	
CD2				S	**S**	**10 57 30.3**	**+0.8**
CD2				AMB	AMB		
	comp=Z,540nm,0.8s,mb6.0						
CD2				AMB	AMB		
	comp=Z,310nm,10.6s						
CD2				LR	LR		
	comp=N,1µm,9.8s						
CD2				LR	LR		
	comp=E,1µm,10.2s						
CD2				LR	LR		
	comp=Z,1µm,8.4s						
BHV	**Bhavnagar**	**26.52**	**308**	*e*P	**P**	**10 53 10.0**	**+3.4**
LUBP	**Lubang**	**26.52**	**72**	*e*P	**P**	**10 53 07.0**	**+0.3**
LGTI	**Lohaghat**	**26.73**	**332**	*i* P	**P**	**10 53 08.0**	**-0.5**
BOLP	**Bolinao**	**26.96**	**66**	*e*P	**P**	**10 53 11.3**	**+0.7**
TGY	**Tagaytay City**	**27.25**	**71**	P	**P**	**10 53 13.9**	**+0.5**
TGY				pmax	pmax		
	comp=Z,294nm,0.5s						
TGY	**Tagaytay City**	**27.25**	**71**	P	**P**	**10 53 13.9**	**+0.6**
	comp=Z,294nm,0.5s,mb6.0,baz=352,slow=16,SNR=14						
BCPH	**Baguio City Da**	**27.56**	**66**	⇓*e*P	**P**	**10 53 14.9**	**-1.2**
AJM	**Ajmer**	**27.62**	**319**	*e*P	**P**	**10 53 18.0**	**+1.5**
KAPI	**Kappang**	**27.64**	**113**	P	**P**	**10 53 15.2**	**-1.6**
	comp=Z,402nm,0.5s,mb6.2,SNR=16						
NDI	**New Delhi**	**27.67**	**326**	*e*P	**P**	**10 53 17.2**	**+0.3**
NDI				AMb	AMB	10 53 19.5	
	comp=Z,68nm,0.6s,mb5.4						
NDI				*e*S	**S**	**10 57 54.0**	**0.0**
DDI	**Dehra Dun**	**28.52**	**329**	*e*x	x	10 53 58.0	
SNPH	**Sibulan**	**28.73**	**82**	*e*P	**P**	**10 53 27.0**	**+0.4**
QZH	**Quanzhou**	**29.75**	**49**	⇓*i*P	**P**	**10 53 38.5**	**+3.1**
QZH				PCP	PcP	10 56 39.9	+2.0
QZH				AMB	AMB		
	comp=Z,200nm,0.7s,mb5.9						
QZH				LR	LR		
	comp=N,2µm,9.6s						
QZH				LR	LR		
	comp=E,2µm,18.8s						
QZH				LR	LR		
	comp=Z,2µm,19.7s						
SDNR	**Sundarnagar**	**30.02**	**329**	*e*P	**P**	**10 53 38.5**	**+0.8**
WHN	**Wuhan**	**30.64**	**35**	⇑*i*P	**P**	**10 53 44.1**	**+0.9**
WHN				AMB	AMB		
	comp=Z,321nm,1.0s,mb6.0						
WHN				LR	LR		
	comp=Z,1µm,13.6s						
XAN	**Xi'an**	**30.81**	**24**	P	**P**	**10 53 44.1**	**-0.6**
XAN				XP	sP	10 54 05.9	-4.2
XAN				PP	PP	10 54 51.9	-3.6
XAN				AMB	AMB		
	comp=Z,566nm,0.9s,mb6.3						
XAN				LR	LR		
	comp=N,1µm,18.9s						
XAN				LR	LR		
	comp=E,2µm,18.9s						
XAN				LR	LR		
	comp=Z,1µm,17.4s						
LZH	**Lanzhou**	**31.00**	**15**	⇑*i*P	**P**	**10 53 46.5**	**+0.2**
LZH				PP	PP	10 54 49.5	-8.1
LZH				PCP	PcP	10 56 41.5	+0.6
LZH				SCP	ScP	11 00 17.5	-0.2
LZH				PCS	PcS	11 00 25.4	+0.4
LZH				SCS	ScS	11 04 12.5	-2.2
LZH				AMB	AMB		
	comp=Z,173nm,1.2s,mb5.7						
LZH				AMB	AMB		
	comp=Z,575nm,4.6s						
LZH				LR	LR		
	comp=E,2µm,13.2s						
LZH				LR	LR		
	comp=Z,3µm,17.0s						
LZH	**Lanzhou**	**31.00**	**15**	⇑*i*P	**P**	**10 53 46.5**	**+0.2**
	comp=Z,173nm,1.2s,mb5.7						
LZH				pP	pP	10 54 06.7	+3.3
LZH				sP	sP	10 54 18.5	+6.8
LZH				PP	PP	10 54 49.5	-8.1
LZH				PcP	PcP	10 56 41.5	+0.6
LZH				S	**S**	**10 58 40.0**	**-6.1**
LZH				sS	sS	10 59 16.6	+1.3
LZH				ScP	ScP	11 00 17.5	-0.2
LZH				PcS	PcS	11 00 25.4	+0.4
LZH				SS	SS	11 00 27.3	-34
LZH				ScS	ScS	11 04 12.5	-2.2
LZH				LR	LR		
	comp=Z,3µm,17.0s						
LZH	**Lanzhou**	**31.00**	**15**	⇑*i*P	**P**	**10 53 46.5**	**+0.2**
LZH						10 54 49.5	
LZH						10 56 41.5	
LZH				S	**S**	**10 58 40.0**	**-6.1**
LZH				SS	SS	11 00 27.3	-34
LZH						11 04 12.5	
LZH				pmax	pmax		
	comp=Z,173nm,1.2s,mb5.7						
LZH				MLR	MLR		
	comp=Z,3µm,17.0s						
DLH	**Dalhousie**	**31.36**	**329**	*e*P	**P**	**10 53 48.0**	**-1.6**
THN	**Thein Dam**	**31.40**	**329**	*e*P	**P**	**10 53 48.8**	**-1.1**
THN				*e*x	x	10 58 49.9	
NACB	**Ninganchiao**	**31.65**	**53**	*e*P	**P**	**10 53 53.0**	**+0.8**
NACB				*e*pP	pP	10 54 09.3	0.0
YHNB	**Yeheng**	**31.73**	**52**	*e*P	**P**	**10 53 54.5**	**+1.7**
TATO	**Taipei**	**31.97**	**51**	*e*P	**P**	**10 53 56.7**	**+1.7**
	comp=Z,126nm,0.6s,mb5.8						
GTA	**Gaotai**	**33.44**	**8**	⇑*i*P	**P**	**10 54 07.6**	**-0.1**
GTA				AP	pP	10 54 20.8	-4.0
GTA				XP	sP	10 54 26.5	-6.6
GTA				PP	PP	10 55 20.8	-3.8
GTA				PCP	PcP	10 56 48.4	+0.8
GTA				S	**S**	**10 59 28.7**	**+4.7**
GTA				XS	sS	10 59 42.4	-11
GTA				SCP	ScP	11 00 25.1	-0.9
GTA				PCS	PcS	11 00 32.5	-0.7
GTA				SS	SS	11 01 35.7	-15
GTA				SCS	ScS	11 04 23.7	-3.3
GTA				AMB	AMB		
	comp=Z,97nm,0.7s,mb5.7						
GTA				AMB	AMB		
	comp=Z,283nm,8.4s						
GTA				LR	LR		
	comp=N,614nm,19.8s						
GTA				LR	LR		
	comp=E,501nm,17.5s						
GTA				LR	LR		
	comp=Z,999nm,22.8s						
NJ2	**Nanjing**	**34.41**	**38**	*e*P	**P**	**10 54 17.0**	**+0.8**
NJ2				AP	pP	10 54 26.9	-6.4
NJ2				XP	sP	10 54 30.3	-11
NJ2				PP	PP	10 55 33.0	-2.4
NJ2				S	**S**	**10 59 44.0**	**+4.9**
NJ2				XS	sS	11 00 00.0	-8.5

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NJ2                                AMB      AMB
     comp=Z,360nm,0.8s,mb6.2
NJ2                                AMB      AMB
     comp=Z,250nm,5.7s
NJ2                                LR       LR
     comp=N,2µm,19.3s
NJ2                                LR       LR
     comp=E,1µm,22.0s
NJ2                                LR       LR
     comp=Z,1µm,24.8s
SSE  Sheshan          35.28  42    P        P        10 54 24.7 +1.0
SSE                                PP       PP       10 55 44.8  -0.2
SSE                                S        S        10 59 56.5 +4.0
SSE                                AMB      AMB
     comp=Z,142nm,0.8s,mb5.8
SSE                                AMB      AMB
     comp=Z,231nm,5.6s
SSE                                LR       LR
     comp=N,978nm,21.7s
SSE                                LR       LR
     comp=E,834nm,21.7s
SSE                                LR       LR
     comp=Z,701nm,18.2s
SSE  Sheshan          35.28  42    P        P        10 54 24.7 +1.0
     comp=Z,142nm,0.8s,mb5.8
SSE                                PP       PP       10 55 44.8  -0.2
SSE                                S        S        10 59 56.5 +4.0
SSE                                LR       LR
     comp=Z,700nm,18.2s
TIY  Taiyuan          35.42  25⇑eP     P        10 54 24.5  -0.3
TIY                                PP       PP       10 55 42.7  -3.8
TIY                                S        S        10 59 49.7  -4.8
TIY                                LR       LR
     comp=N,1µm,18.1s
TIY                                LR       LR
     comp=E,791nm,12.7s
TIA  Tai'an           36.43  32  ⇑P     P        10 54 33.6 +0.1
TIA                                AMB      AMB
     comp=Z,289nm,0.8s,mb6.3
KBL  Kabul            36.68 324   eP       P        10 54 34.6  -1.0
MBWA Marble Bar       36.82 138   eP       P        10 54 36.0  -0.9
     comp=Z,125nm,2.1s,mb5.5
BTO  Baotou           37.02  20   eP       P        10 54 38.0  -0.4
KSH  Kashi            37.12 336    P        P        10 54 38.1  -1.2
KSH                               eAP      pP       10 54 48.7  -7.9
KSH                               eXP      sP       10 54 52.9   -12
KSH                               ePP      PP       10 56 05.2   0.0
KSH                               ePCP     PcP      10 57 00.1 +1.8
KSH                               eS       S        11 00 19.5  -0.9
KSH                               eXS      sS       11 00 38.7   -11
KSH                               eSS      SS       11 02 52.1   -12
KSH                               eSCS     ScS      11 04 49.3 +2.4
KSH                                AMB      AMB
     comp=Z,374nm,3.8s
KSH                                LR       LR
     comp=N,820nm,7.1s
KSH                                LR       LR
     comp=E,871nm,7.5s
KSH                                LR       LR
     comp=Z,479nm,6.4s
HHC  Hu-ho-hao-te     37.78  21   eP       P        10 54 45.6 +0.8
HHC                                AP       pP       10 54 55.4  -6.8
HHC                                XP       sP       10 54 59.4   -11
HHC                                PP       PP       10 56 15.8 +3.4
HHC                                PCP      PcP      10 57 02.5 +2.2
HHC                                S        S        11 00 34.0 +3.5
HHC                                SCP      ScP      11 00 46.4 +4.6
HHC                                PCS      PcS      11 00 49.3 +0.3
HHC                                XS       sS       11 00 52.0  -8.1
HHC                                SS       SS       11 03 12.7  -6.3
HHC                                SCS      ScS      11 04 53.0 +2.4
HHC                                AMB      AMB
     comp=Z,179nm,1.2s,mb5.8
HHC                                LR       LR
     comp=N,817nm,19.2s
HHC                                LR       LR
     comp=E,1µm,16.7s
HHC                                LR       LR
     comp=Z,772nm,18.8s
WBK  Wadi Bani Khal   37.87 299    P        P        10 54 49.9 +4.0
     SNR=8.5
WMQ  Urumqi           37.95 352    P        P        10 54 45.6  -0.6
WMQ                                AP       pP       10 54 55.3  -8.3
WMQ                                XP       sP       10 54 59.2   -13
WMQ                                PP       PP       10 56 16.0 +1.8
WMQ                                PCP      PcP      10 57 01.3 +0.5
WMQ                                S        S        11 00 34.5 +1.5
WMQ                                SS       SS       11 03 13.0  -9.4
WMQ                                SCS      ScS      11 04 52.9 +1.4
WMQ                                AMB      AMB
     comp=Z,125nm,0.6s,mb5.9
WMQ                                LR       LR
     comp=N,709nm,32.0s
WMQ                                LR       LR
     comp=E,857nm,29.0s
WMQ                                LR       LR
     comp=Z,614nm,30.0s
SMDO Samad            38.82 299    P        P        10 54 57.6 +3.7
     SNR=6.5
BIDO Bidbid           38.91 300    P        P        10 54 58.1 +3.5
     SNR=12
BJT  Baijiatuau       38.96  27   eP       P        10 54 55.9 +1.1
     comp=Z,413nm,1.0s,mb6.2
BJT  Baijiatuau       38.96  27   eP       P        10 54 55.9 +1.2
BJT                                pmax     pmax
     comp=Z,413nm,1.0s
BJI  Beijing          38.98  27    P        P        10 54 56.1 +1.2
BJI                                PP       PP       10 56 25.0  -0.5
BJI                                S        S        11 00 43.4  -5.1
BJI                                AMB      AMB
     comp=Z,34nm,1.1s,mb5.1
BJI                                LR       LR
     comp=E,963nm,24.4s
BJI                                LR       LR
     comp=Z,742nm,27.1s
BJI  Beijing          38.98  27    P        P        10 54 56.1 +1.2
     comp=Z,0.3nm,1.1s
BJI                                PP       PP       10 56 25.0  -0.5
BJI                                PcP      PcP      10 57 23.6   +20
BJI                                S        S        11 00 43.4  -5.1
BJI                                SS       SS       11 03 33.0   -10
BJI                                ScS      ScS      11 05 04.7 +7.1
BJI                                LR       LR
     comp=Z,740nm,27.1s
FITZ Fitzroy Crossi   39.14 129⇓iP     P        10 54 55.3  -1.2
     comp=Z,119nm,0.6s,mb5.9
FITZ                              e                 10 56 02.9
FITZ                              ePCP     PcP      10 57 05.0   0.0
FITZ                              eSCP     ScP      11 00 44.6  -2.8
FITZ                              eSCS     ScS      11 04 56.5  -2.7
FITZ Fitzroy Crossi   39.14 129    P        P        10 54 55.4  -1.2
     comp=Z,74nm,0.6s,mb5.7,baz=312,slow=6.1,SNR=252
FITZ                               PcP      PcP      10 57 05.1 +0.1
     comp=Z,13nm,0.6s,baz=316,slow=4.5,SNR=5.2
FITZ                               ScP      ScP      11 00 45.0  -2.4
     comp=Z,65nm,0.9s,baz=224,slow=2.4,SNR=14
FITZ                               ScS      ScS      11 04 56.6  -2.7
     comp=Z,3.9nm,1.0s,baz=38,slow=23,SNR=4.2
FITZ                               LR       LR       11 11 07.8
     comp=Z,505nm,21.5s,baz=324,slow=36
ULHL Ulahol           39.37 339    P        P        10 54 59.0 +0.8
     SNR=90
BSY  Bisya            39.45 299    P        P        10 55 02.7 +3.6
     SNR=8.1
KZA  Kyzart           39.59 337    P        P        10 55 01.3 +1.3
     SNR=61
SHAO Shalim           39.61 291    P        P        10 55 04.3 +3.8
     SNR=5.3
HOQ  Hoqain           39.63 300    P        P        10 55 04.1 +3.4
     SNR=10
UCH  Uchtor           40.01 337    P        P        10 55 04.8 +1.4
     SNR=176
UCH  Uchtor           40.01 337   eP       P        10 55 04.6 +1.2
     comp=Z,76nm,0.7s,mb5.6
UCH                               epP      pP       10 55 22.8 +1.9
UCH                               ePcP     PcP      10 57 08.8 +1.5
UCH                               eS       S        11 01 06.0 +2.1
TKM2 Tokmak 2         40.19 338    P        P        10 55 05.9 +1.0
     SNR=89
TKM2 Tokmak 2         40.19 338   eP       P        10 55 05.6 +0.7
     comp=Z,57nm,0.6s,mb5.6
TKM2                              ePcP     PcP      10 57 08.2 +0.3
TKM2                              eS       S        11 01 08.3 +1.7
TKM2 Tokmak 2         40.19 338   eP       P        10 55 05.6 +0.7
TKM2                              e                 10 57 08.2
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TKM2                              eS       S        11 01 08.4 +1.8
TKM2                               pmax     pmax
     comp=Z,57nm,0.6s,mb5.6
KBK  Karagaybulak     40.20 338    P        P        10 55 06.7 +1.7
     SNR=194
ARQ  Araqi            40.23 299    P        P        10 55 08.9 +3.3
     SNR=9.7
AML  Almayashu        40.25 336    P        P        10 55 07.1 +1.6
     SNR=297
AML  Almayashu        40.25 336   eP       P        10 55 06.8 +1.4
     comp=Z,194nm,0.6s,mb6.1
AML                               ePcP     PcP      10 57 07.9  -0.2
AML                               eS       S        11 01 08.2 +0.6
AAK  Ala-Archa        40.36 337    P        P        10 55 06.6 +0.3
     comp=Z,634nm,0.9s,mb6.5,SNR=98
AAK  Ala-Archa        40.36 337    P        P        10 55 07.6 +1.3
     SNR=107
AAK  Ala-Archa        40.36 337   eP       P        10 55 06.6 +0.3
     comp=Z,101nm,0.9s,mb5.7
AAK                               ePcP     PcP      10 57 08.2  -0.3
AAK                               eScP     ScP      11 00 51.3  -0.3
AAK                               eS       S        11 01 10.8 +1.7
AAK  Ala-Archa        40.36 337⇑eP     P        10 55 06.5 +0.2
AAK                                pmax     pmax
     comp=Z,149nm,1.3s,mb5.7
AAK  Ala-Archa        40.36 337    P        P        10 55 07.0 +0.6
     SNR=54
FRU  Bishkek          40.48 337   i P      P        10 55 08.0 +0.7
FRU                               e        pP       10 55 23.0  -1.8
FRU                               i                 11 01 11.0
FRU                                pmax     pmax
     comp=Z,200nm,1.6s,mb5.7
CHMS Chumysh          40.57 338    P        P        10 55 08.7 +0.6
     SNR=39
EKS2 Erkin-Say        40.66 336    P        P        10 55 10.1 +1.3
     SNR=167
EKS2 Erkin-Say        40.66 336   eP       P        10 55 09.9 +1.1
     comp=Z,90nm,0.7s,mb5.7
EKS2                              ePcP     PcP      10 57 08.9  -0.5
EKS2                              eS       S        11 01 15.2 +1.5
DL2  Dalian           40.83  33⇑iP     P        10 55 11.4 +1.2
DL2                                S        S        11 01 20.5 +4.3
DL2                                AMB      AMB
     comp=Z,330nm,0.8s,mb6.2
DL2                                AMB      AMB
     comp=Z,290nm,4.1s
DL2                                LR       LR
     comp=N,270nm,15.3s
DL2                                LR       LR
     comp=E,350nm,13.1s
DL2                                LR       LR
     comp=Z,250nm,18.6s
USP  Ospenovka        40.90 338    P        P        10 55 11.4 +0.7
     SNR=116
ASHO Ashiyiah         41.09 301    P        P        10 55 16.4 +3.8
     SNR=8.0
WHFO Wadi Hawf        41.32 290    P        P        10 55 17.5 +2.9
     SNR=22
ABTO Aybut            41.66 289    P        P        10 55 20.5 +3.1
     SNR=8.7
MK31 Makanchi Array   41.79 348   eP       P        10 55 17.9  -0.2
MKAR Makanchi Array   41.79 348    P        P        10 55 17.9  -0.1
MKAR                               ScP      ScP      11 00 53.6  -3.6
MKAR                               S        S        11 01 25.9  -4.3
MKAR                               ScS      ScS      11 05 10.8  -3.2
MKAR                               LR       LR       11 15 02.2
MKAR Makanchi Array   41.79 348    P        P        10 55 17.9  -0.1
MKAR                               S        S        11 01 25.9  -4.3
MKAR                                                 11 05 10.9
MKAR                               pmax     pmax
     comp=Z,108nm,0.6s
MKAR                               pmax     pmax
     comp=N,2.0nm,0.7s
MKAR                               smax
     comp=N,1.0nm,0.8s
MKAR                               pmax     pmax
     comp=N,1.0nm,0.8s
MKAR                               MLR      MLR
     comp=Z,576nm,21.7s
MKAR Makanchi Array   41.79 348    P        P        10 55 17.9  -0.1
     comp=Z,108nm,0.6s,mb5.7,baz=167,slow=7.9,SNR=1300
MKAR                               ScP      ScP      11 00 53.6  -3.6
     comp=Z,1.9nm,0.7s,baz=202,slow=6.1,SNR=2.7
MKAR                               S        S        11 01 25.9  -4.4
     comp=Z,0.7nm,0.8s,baz=54,slow=44,SNR=2.0
MKAR                               ScS      ScS      11 05 10.8  -3.2
     comp=Z,0.7nm,0.8s,baz=117,slow=6.9,SNR=2.7
MKAR                               LR       LR       11 15 02.2
     comp=Z,576nm,21.7s,baz=161,slow=39
KAKA Kakadu           42.20 116⇓iP     P        10 55 19.8  -2.0
     comp=Z,48nm,1.0s,mb5.2
SONM Songino Array    42.75  12    P        P        10 55 25.7  -0.1
SONM                                                 10 57 16.4
SONM                               S        S        11 01 40.6  -3.8
SONM                                                 11 05 15.7
SONM                               pmax     pmax
     comp=Z,142nm,0.7s
SONM                               pmax     pmax
     comp=Z,29nm,0.6s
SONM                               pmax     pmax
     comp=N,12nm,0.8s
SONM                               smax
     comp=N,1.0nm,0.6s
SONM                               pmax     pmax
     comp=N,1.0nm,0.9s
SONM                               MLR      MLR
     comp=Z,440nm,22.0s
SONM Songino Array    42.75  12    P        P        10 55 25.7  -0.1
     comp=Z,142nm,0.7s,mb5.8,baz=193,slow=8.8,SNR=1351
SONM                               PcP      PcP      10 57 16.4 +0.2
     comp=Z,29nm,0.6s,baz=198,slow=3.5,SNR=9.9
SONM                               ScP      ScP      11 00 58.9  -2.2
     comp=Z,12nm,0.8s,baz=195,slow=4.3,SNR=14
SONM                               S        S        11 01 40.6  -3.8
     comp=Z,0.5nm,0.6s,baz=0.6,slow=22,SNR=1.8
SONM                               ScS      ScS      11 05 15.7  -4.3
     comp=Z,0.7nm,0.9s,baz=172,slow=12,SNR=3.1
SONM                               LR       LR       11 15 30.7
     comp=Z,440nm,22.0s,baz=192,slow=39
INCN Inchon           42.79  39   eP       P        10 55 26.0  -0.3
     comp=Z,229nm,1.0s,mb5.9
INCN Inchon           42.79  39    P        P        10 55 26.3   0.0
     SNR=12
MUN  Mundaring        43.26 153   eP       P        10 55 30.1  -0.1
KS15 Wonju Array Si   43.55  40   eP       P        10 55 32.4  -0.1
KSRS Korea Array      43.58  40    P        P        10 55 32.2  -0.4
     comp=Z,70nm,0.9s,mb5.4,baz=218,slow=9.0,SNR=132
KSRS                               PcP      PcP      10 57 18.7  -0.5
     comp=Z,6.9nm,0.6s,baz=223,slow=3.1,SNR=6.8
KSRS                               ScP      ScP      11 01 01.6  -3.0
     comp=Z,3.2nm,0.7s,baz=219,slow=4.4,SNR=7.4
KSRS                               LR       LR       11 15 16.1
     comp=Z,384nm,18.1s,baz=322,slow=38
KLBR Kellerberrin     43.67 151⇓iP     P        10 55 33.1  -0.4
     comp=Z,18nm,0.5s,mb5.1
KLBR                              ePCP     PcP      10 57 19.2  -0.4
SNY  Shenyang         43.96  32  ⇑P     P        10 55 35.5  -0.1
SNY                                AP       pP       10 55 45.6  -7.7
SNY                                XP       sP       10 55 50.9   -11
SNY                                S        S        11 02 01.5  -0.7
SNY                                AMB      AMB
     comp=Z,169nm,0.9s,mb5.8
SNY                                AMB      AMB
     comp=Z,243nm,3.5s
SNY                                LR       LR
     comp=N,435nm,17.8s
SNY                                LR       LR
     comp=E,407nm,15.7s
SNY                                LR       LR
     comp=Z,431nm,17.4s
NWAO Narrogin (SRO)   44.53 152   eP       P        10 55 40.3   0.0
     comp=Z,36nm,0.8s,mb5.2
NWAO                              epP      pP       10 55 56.6  -1.4
NWAO Narrogin (SRO)   44.53 152    P        P        10 55 40.2  -0.1
     comp=Z,45nm,0.8s,mb5.2,baz=319,slow=8.3,SNR=25
NWAO                               LR       LR       11 10 41.4
     comp=Z,378nm,21.9s,baz=114,slow=31
ZAK  Zakamensk        44.68   8⇓iP     P        10 55 40.6  -0.6
ZAK                               e                 10 57 21.5
ZAK                                pmax     pmax
     comp=Z,31nm,1.0s,mb5.0
ZAK                                pmax     pmax
     comp=Z,14nm,1.1s,mb4.6
ABKT Ailbek           45.64 319    P        P        10 55 50.0 +0.9
     comp=Z,349nm,0.6s,mb6.3,SNR=7.2
MOY  Mondy            45.67   6   eP       P        10 55 49.2 +0.1
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MOY                                pmax     pmax
     comp=Z,39nm,1.6s,mb4.9
TLY  Talaya           46.00   8    P        P        10 55 52.4 +0.7
     comp=Z,450nm,0.7s,mb6.3,SNR=11
TLY  Talaya           46.00   8   eP       P        10 55 52.1 +0.4
     comp=Z,55nm,0.8s,mb5.3
TLY                               ePcP     PcP      10 57 27.9 +0.7
TLY  Talaya           46.00   8⇑iP     P        10 55 52.1 +0.4
TLY                               e                 10 57 23.0
TLY                               ePPP              10 58 26.4
TLY                               eS       S        11 02 38.4 +7.0
TLY                               eSS      SS       11 05 52.1  -5.1
TLY                                pmax     pmax
     comp=Z,59nm,0.8s,mb5.4
TLY                                MLR      MLR
     comp=Z,684nm,2.0s
TLY  Talaya           46.00   8    P        P        10 55 52.5 +0.8
     SNR=16
KURK Kurchatov        46.31 346    P        P        10 55 54.8 +0.7
     comp=Z,912nm,0.6s,mb6.7,SNR=96
KURK Kurchatov        46.31 346   eP       P        10 55 54.4 +0.3
     comp=Z,111nm,0.7s,mb5.7
KURK                              ePcP     PcP      10 57 28.7 +0.4
KURK                              eS       S        11 02 36.8 +0.9
KURK Kurchatov        46.31 346⇑eP     P        10 55 54.5 +0.4
KURK Kurchatov        46.31 346    P        P        10 55 54.9 +0.8
     SNR=71
CN2  Changchun        46.33  31  ⇑P     P        10 55 54.4   0.0
CN2                               eXP      sP       10 56 08.2   -12
CN2                               eS       S        11 02 39.0 +2.7
CN2                                LR       LR
     comp=N,300nm,15.0s
CN2                                LR       LR
     comp=E,400nm,15.0s
CN2                                LR       LR
     comp=Z,400nm,16.0s
IRK  Irkutsk          46.64   8⇑iP     P        10 55 56.3  -0.3
IRK                               e                 10 58 27.9
IRK                               eS       S        11 02 32.3  -8.2
IRK                                pmax     pmax
     comp=Z,107nm,1.0s,mb5.5
WRA  Warramunga Arr   47.08 124    P        P        10 56 00.1  -0.5
WRA                                                 10 57 31.3
WRA                                S        S        11 02 41.6  -6.1
WRA                                pmax     pmax
     comp=Z,100nm,0.8s
WRA                                pmax     pmax
     comp=Z,9.0nm,0.6s
WRA                                pmax     pmax
     comp=N,20nm,0.7s
WRA                                smax
     comp=N,24nm,0.8s
WRA                                MLR      MLR
     comp=Z,189nm,20.2s
WRA  Warramunga Arr   47.08 124    P        P        10 56 00.1  -0.5
     comp=Z,100nm,0.8s,mb5.6,baz=306,slow=8.8,SNR=696
WRA                                PcP      PcP      10 57 31.3  -0.4
     comp=Z,8.6nm,0.6s,baz=313,slow=2.8,SNR=4.6
WRA                                ScP      ScP      11 01 16.0  -3.5
     comp=Z,20nm,0.7s,baz=309,slow=3.7,SNR=20
WRA                                S        S        11 02 41.6  -6.1
     comp=Z,24nm,0.8s,baz=303,slow=16,SNR=12
WRA                                LR       LR       11 20 14.5
     comp=Z,189nm,20.1s,baz=315,slow=42
WB2  Warramunga Arr   47.09 124   eP       P        10 55 59.9  -0.8
WB2                               eSCP     ScP      11 01 16.0  -3.5
WB2                               eS       S        11 02 40.7  -7.1
HIA  Hailar           47.98  22   eP       P        10 56 06.9  -0.2
     comp=Z,193nm,0.6s,mb6.1
HIA                               ePcP     PcP      10 57 33.4  -0.9
HIA                               ePP      PP       10 57 58.0  -1.7
HIA  Hailar           47.98  22   eP       P        10 56 06.9  -0.2
HIA                               e                 10 57 33.4
HIA                               e                 10 57 58.0
HIA                                pmax     pmax
     comp=Z,193nm,0.6s
ZAL  Zalesovo         48.25 352    P        P        10 56 09.4 +0.2
ZAL                                S        S        11 03 00.7  -2.7
ZALV Zalesovo Beam    48.26 352    P        P        10 56 09.4 +0.2
ZALV                               ScP      ScP      11 01 21.7  -2.1
ZALV                               S        S        11 03 00.7  -2.8
ZALV                               ScS      ScS      11 05 47.8  -7.4
ZALV                               LR       LR       11 18 57.8
ZALV                               P'P'              11 27 16.6
ZALV Zalesovo Beam    48.26 352    P        P        10 56 09.4 +0.2
     comp=Z,150nm,0.7s,mb5.9,baz=184,slow=7.1,SNR=864
ZALV                               ScP      ScP      11 01 21.7  -2.0
     comp=Z,6.0nm,0.7s,baz=147,slow=3.1,SNR=5.5
ZALV                               S        S        11 03 00.6  -2.8
     comp=Z,6.4nm,0.7s,baz=165,slow=12,SNR=9.0
ZALV                               ScS      ScS      11 05 47.8  -7.4
     comp=Z,3.9nm,0.9s,baz=190,slow=5.9,SNR=4.3
ZALV                               LR       LR       11 18 57.8
     comp=Z,259nm,21.4s,baz=178,slow=39
ZALV                               PKPPKP            11 27 16.6
     comp=Z,1.9nm,1.1s,baz=323,slow=2.2,SNR=4.7
CIT  Chita            48.36  16⇑iP     P        10 56 10.1 +0.1
CIT                               e                 10 57 36.2
CIT                               e                 11 03 02.7
CIT                                pmax     pmax
     comp=Z,364nm,1.4s,mb6.0
ASAR Alice Springs    48.64 129    P        P        10 56 12.1  -0.5
ASAR                                                 10 57 36.9
ASAR                               S        S        11 03 05.2  -4.5
ASAR                                                 11 05 53.9
ASAR                               pmax     pmax
     comp=Z,34nm,0.5s
ASAR                               pmax     pmax
     comp=Z,12nm,0.6s
ASAR                               pmax     pmax
     comp=N,12nm,0.8s
ASAR                               smax
     comp=N,21nm,0.8s
ASAR                               pmax     pmax
     comp=N,9.0nm,0.9s
ASAR Alice Springs    48.64 129    P        P        10 56 12.1  -0.6
     comp=N,34nm,0.5s,mb5.6,baz=301,slow=7.9,SNR=1269
ASAR                               PcP      PcP      10 57 36.9  -0.3
     comp=N,12nm,0.6s,baz=311,slow=3.4,SNR=4.9
ASAR                               ScP      ScP      11 01 23.1  -2.9
     comp=N,12nm,0.8s,baz=301,slow=4.3,SNR=8.6
ASAR                               S        S        11 03 05.2  -4.5
     comp=N,21nm,0.8s,baz=297,slow=14,SNR=22
ASAR                               ScS      ScS      11 05 53.9  -5.0
     comp=N,9.1nm,0.9s,baz=298,slow=7.1,SNR=10
ASAR                               PKPPKP            11 27 14.2
     comp=N,0.4nm,0.8s,baz=127,slow=1.8,SNR=4.4
FORT Forrest          48.86 141   eP       P        10 56 14.3 +0.1
     comp=N,60nm,0.7s,mb5.6
FORT                              e                 11 01 24.8
FORT                              eS       S        11 03 13.3 +0.7
MDJ  Mudanjiang       49.07  33    P        P        10 56 15.8 +0.2
MDJ                                AP       pP       10 56 24.9  -8.7
MDJ                                XP       sP       10 56 28.6   -13
MDJ                                PCP      PcP      10 57 38.0  -0.3
MDJ                                PP       PP       10 58 10.8 +1.0
MDJ                                SCP      ScP      11 01 29.5 +2.1
MDJ                                PCS      PcS      11 01 35.1 +0.5
MDJ                                S        S        11 03 19.6 +4.4
MDJ                                SCS      ScS      11 06 05.0 +4.0
MDJ                                AMB      AMB
     comp=Z,171nm,1.6s,mb5.7
MDJ                                AMB      AMB
     comp=Z,276nm,9.5s
MDJ                                LR       LR
     comp=N,241nm,31.9s
MDJ                                LR       LR
     comp=E,252nm,35.1s
MDJ                                LR       LR
     comp=Z,288nm,34.0s
MDJ  Mudanjiang       49.07  33   eP       P        10 56 16.1 +0.5
     comp=Z,235nm,1.0s,mb6.1
QRN  Al-Qurain        49.29 303   eP       P        10 56 18.1 +0.6
QRN                                AMb      AMB      10 56 20.8
     comp=Z,32nm,0.5s,mb5.5
NVS  Novosibirsk      49.35 352⇑iP     P        10 56 17.1  -0.4
NVS                               e        pP       10 56 31.5  -4.0
NVS                                pmax     pmax
     comp=N,73nm,0.6s
NVS                                pmax     pmax
     comp=E,54nm,0.6s
NVS                                pmax     pmax
     comp=Z,92nm,0.6s,mb5.9
VLA  Vladivostok      49.42  36d iP     P        10 56 18.3   0.0
KBD  Kabd             49.61 303   eP       P        10 56 20.6 +0.7
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KBD                                AMb    AMB    10 56 21.5
      comp=Z,142nm,0.5s,mb6.2
RDF   Al-Radifah        49.65 303 eP      P      10 56 20.4 +0.1
RDF                                AMb    AMB    10 56 24.5
      comp=Z,83nm,0.7s,mb5.8
UMR   Umm Al-Rimmam     49.71 304 eP      P      10 56 21.2 +0.5
UMR                                AMb    AMB    10 56 22.2
      comp=Z,55nm,0.5s,mb5.8
NAY   Al-Naaiem         50.00 303 eP      P      10 56 23.4 +0.5
NAY                                AMb    AMB    10 56 26.9
      comp=Z,42nm,0.6s,mb5.5
MIB   Mutribah          50.10 304 eP      P      10 56 24.3 +0.6
MIB                                AMb    AMB    10 56 28.2
      comp=Z,126nm,1.1s,mb5.8
MAJO  Matsushiro        50.11  47 eP      P      10 56 23.2 -0.5
      comp=Z,48nm,0.7s,mb5.5
MAJO                             ePcP    PcP    10 57 42.0 -0.4
MAJO  Matsushiro        50.11  47 eP      P      10 56 23.2 -0.5
MAJO                             e              10 57 42.0
MAJO                              pmax   pmax
      comp=Z,48nm,0.7s,mb5.5
MAT   Matsushiro        50.11  47  P      P      10 56 23.1 -0.6
MAT                                S      S      11 03 34.0 +4.0
MJAR  Matsushiro Arr    50.11  47  P      P      10 56 23.5 -0.2
MJAR                                            10 57 42.0
MJAR                              pmax   pmax
      comp=Z,29nm,0.7s
MJAR                              pmax   pmax
      comp=Z,38nm,0.9s
MJAR                              pmax   pmax
      comp=N,7.0nm,0.9s
MJAR  Matsushiro Arr    50.11  47  P      P      10 56 23.5 -0.2
      comp=N,29nm,0.7s,mb5.4,baz=246,slow=7.4,SNR=107
MJAR                              PcP    PcP    10 57 42.0 -0.3
      comp=N,38nm,0.9s,baz=252,slow=4.1,SNR=15
MJAR                              ScP    ScP    11 01 29.5 -2.6
      comp=N,7.2nm,0.9s,baz=236,slow=4.3,SNR=8.5
GUMO  Guam              50.18  78  LR     LR     11 14 17.7
      comp=N,236nm,21.0s,baz=133,slow=32
RST   Umm Al-Ruwaisa    50.28 303 eP      P      10 56 25.5 +0.4
RST                                AMb    AMB    10 56 29.3
      comp=Z,85nm,0.9s,mb5.7
BRVK  Borovoye          50.73 341  P      P      10 56 28.7 +0.7
      comp=Z,930nm,0.7s,mb6.9,SNR=43
BRVK  Borovoye          50.73 341 eP      P      10 56 28.3 +0.3
      comp=Z,96nm,0.7s,mb5.9
BRVK                             eScP    ScP    11 01 33.9 -0.4
BRVK                             eS      S      11 03 36.2 -1.8
BRVK  Borovoye          50.73 341 eP      P      10 56 28.3 +0.3
BRVK                              pmax   pmax
      comp=Z,96nm,0.7s,mb5.9
BRVK  Borovoye          50.73 341  P      P      10 56 28.3 +0.3
      SNR=39
ATD   Arta Tunnel       51.17 280  P      P      10 56 34.0 +2.0
ATD   Arta Tunnel       51.17 280  P      P      10 56 34.0 +2.0
      comp=Z,3.8nm,0.3s,mb4.9,baz=101,slow=22,SNR=3.5
COEN  Coen              52.37 113 eP      P      10 56 38.7 -2.2
AKTK  Aktyubinsk        53.56 332  P      P      10 56 49.0  0.0
AKTK                              PcP    PcP    10 57 55.0 +0.1
AKTK                              ScP    ScP    11 01 44.7 -1.9
AKTK                              S      S      11 04 14.7 -2.1
AKTK                              LR     LR     11 21 56.0
AKTO  Aktyubinsk        53.56 332  P      P      10 56 49.0  0.0
AKTO                                            10 57 55.1
AKTO                              S      S      11 04 14.7 -2.1
AKTO                              pmax   pmax
      comp=Z,48nm,0.6s,mb5.7
AKTO                              pmax   pmax
      comp=Z,40nm,0.7s,mb5.6
AKTO                              pmax   pmax
      comp=N,4.0nm,0.7s
AKTO                              smax
      comp=N,7.0nm,0.9s
AKTO                              MLR    MLR
      comp=Z,217nm,19.3s
AKTO  Aktyubinsk        53.56 332  P      P      10 56 49.0  0.0
      comp=Z,48nm,0.6s,mb5.7,baz=123,slow=8.0,SNR=162
AKTO                              PcP    PcP    10 57 55.0 +0.1
      comp=Z,40nm,0.7s,baz=107,slow=6.1,SNR=5.0
AKTO                              ScP    ScP    11 01 44.7 -1.9
      comp=Z,3.7nm,0.7s,baz=13,slow=4.2,SNR=3.2
AKTO                              S      S      11 04 14.7 -2.1
      comp=Z,7.3nm,0.8s,baz=332,slow=20,SNR=11
AKTO                              LR     LR     11 21 56.0
      comp=Z,217nm,19.3s,baz=347,slow=38
BHD   Baghdad           53.59 307 eP      x      10 56 49.0
BHD                              eS      x      11 04 09.0
BOD   Bodaibo           53.73  13⇓iP      P      10 56 49.5 -0.7
BOD                              e       S      11 04 14.7 -4.2
HABR  Khabarovsk        54.42  32⇑iP      P      10 56 55.5 +0.1
HABR                             e              10 57 56.8
HABR                             e              10 58 58.7
HABR                             eS      S      11 04 33.7 +5.1
HABR                             e              11 06 41.6
HABR                              pmax   pmax
      comp=Z,181nm,1.0s,mb6.1
PMG   Port Moresby      54.80 106 i P     P      10 56 52.0 -6.7
PMG   Port Moresby      54.80 106  ScP    ScP    11 01 50.6 -2.3
      comp=Z,8.5nm,0.9s,baz=254,slow=4.9,SNR=3.1
HAKT  HAKKARI           55.57 312 eP      P      10 57 03.5 -0.4
CLNS  Chul’man          55.93  20 eP      P      10 57 05.1 -1.0
CLNS                             e*PP    pP     10 57 11.7  -13
CLNS                             e              10 58 03.4
CLNS                             e              10 59 05.8
CLNS                             eS      S      11 04 48.8 +0.4
CLNS                             eSS     SS     11 08 29.9 -5.4
CLNS                              pmax   pmax
      comp=N,44nm,0.6s
CLNS                              pmax   pmax
      comp=Z,86nm,0.6s,mb6.0
CLNS                              pmax   pmax
      comp=E,47nm,0.7s
CLNS                              pmax   pmax
      comp=Z,12nm,0.9s,mb4.9
CLNS                              pmax   pmax
      comp=N,10.0nm,0.8s
CLNS                              pmax   pmax
      comp=E,16nm,1.0s
CLNS                              smax
      comp=E,210nm,13.1s
CLNS                              smax
      comp=Z,100nm,11.0s
CLNS                              smax
      comp=N,82nm,12.3s
ERM   Erimo             55.96  43  P      P      10 57 07.8 +1.2
      comp=N,506nm,0.8s,mb6.6,SNR=8.2
ERM   Erimo             55.96  43 eP      P      10 57 07.1 +0.5
      comp=N,161nm,1.3s,mb5.9
ERM   Erimo             55.96  43 eP      P      10 57 07.1 +0.5
ERM                                pmax   pmax
      comp=Z,161nm,1.3s,mb5.9
ASAJ  Asahikawa         56.52  40  P      P      10 57 11.0 +0.4
ASAJ                              pmax   pmax
      comp=Z,70nm,0.9s
ASAJ  Asahikawa         56.52  40  P      P      10 57 10.9 +0.4
      comp=Z,70nm,0.9s,mb5.7,baz=261,slow=10.0,SNR=44
TUTA  Tutak             56.90 314⇓iP      P      10 57 13.6 +0.2
SVE   Sverdlovsk        57.07 339⇑eP      P      10 57 14.0 -0.2
SVE                              e       pP     10 57 32.0 -0.5
SVE                              e              11 05 02.0
SVE                               pmax   pmax
      comp=Z,440nm,1.3s,mb6.3
CTA   Charters Tower    57.26 119 eP      P      10 57 15.5 -0.7
      comp=Z,33nm,0.9s,mb5.4
CTA                              eSCP    ScP    11 02 00.3 -3.3
CTA   Charters Tower    57.26 119  P      P      10 57 15.5 -0.7
CTA                               pmax   pmax
      comp=Z,43nm,0.9s
CTA                               pmax   pmax
      comp=N,7.0nm,0.7s
CTA   Charters Tower    57.26 119  P      P      10 57 15.4 -0.7
      comp=N,43nm,0.9s,mb5.5,baz=299,slow=8.1,SNR=46
CTA                               ScP    ScP    11 02 00.5 -3.1
      comp=N,7.2nm,0.7s,baz=317,slow=4.3,SNR=5.0
CTAO  Charters Tower    57.26 119 eP      P      10 57 15.4 -0.8
      comp=N,65nm,1.0s,mb5.6
CTAO                             epP     pP     10 57 32.7 -1.9
CTAO  Charters Tower    57.26 119 eP      P      10 57 15.4 -0.8
CTAO                              pmax   pmax
      comp=Z,65nm,1.0s,mb5.6
ZEI   Tsey              57.46 318 eP      P      10 57 17.6 +0.4
ZEI                              e              10 59 23.9
ZEI                               pmax   pmax
      comp=Z,22nm,0.6s,mb5.4
KMBO  Kilima Mbogo      57.51 265 eP      P      10 57 21.7 +3.5
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      comp=Z,13nm,1.0s,mb4.9
KMBO                             epP     pP     10 57 36.0 -0.6
KMBO  Kilima Mbogo      57.51 265  P      P      10 57 21.0 +2.9
      comp=Z,10nm,0.9s,mb4.8,baz=46,slow=8.2,SNR=19
KMBO                              LR     LR     11 19 56.9
      comp=Z,230nm,19.1s,baz=93,slow=34
ARU   Arti              57.55 337  P      P      10 57 17.0 -0.5
      comp=Z,1µm,1.1s,mb6.8,SNR=43
ARU   Arti              57.55 337 eP      P      10 57 17.7 +0.1
      comp=Z,168nm,0.9s,mb6.1
ARU   Arti              57.55 337⇑iP      P      10 57 17.6 +0.1
ARU                              e              10 58 05.5
ARU                              e              10 59 20.8
ARU                              ePPP           11 00 43.4
ARU                              eS      S      11 05 16.4 +6.6
ARU                              eSS     SS     11 09 06.1 +5.4
ARU                               pmax   pmax
      comp=Z,145nm,0.9s,mb6.0
ARU                               MLR    MLR
      comp=Z,500nm,24.0s
ARU                               MLR    MLR
      comp=N,400nm,19.0s
ARU                               MLR    MLR
      comp=E,400nm,18.0s
YSS   Yuzh-Sakhalins    57.96  37 eP      P      10 57 20.9 +0.2
      comp=E,319nm,1.0s,mb6.3
YSS                              esP     sP     10 57 46.8 -0.3
YSS   Yuzh-Sakhalins    57.96  37⇑eP      P      10 57 20.5 -0.1
YSS                              e              10 58 10.3
YSS                               pmax   pmax
      comp=N,70nm,1.0s
YSS                               pmax   pmax
      comp=E,100nm,1.0s
YSS                               pmax   pmax
      comp=Z,290nm,1.0s,mb6.3
ADE   Adelaide          58.44 138 eP      P      10 57 25.0 +0.8
KIV   Kislovodsk        58.75 318  P      P      10 57 26.4 +0.2
      comp=Z,293nm,0.7s,mb6.4,SNR=7.2
KIV   Kislovodsk        58.75 318 eP      P      10 57 26.0 -0.2
      comp=Z,38nm,0.8s,mb5.5
KIV   Kislovodsk        58.75 318c iP     P      10 57 25.8 -0.4
KIV                              eS      S      11 05 25.0 -0.9
KIV                               pmax   pmax
      comp=Z,53nm,1.1s,mb5.5
KIV                               pmax   pmax
      comp=Z,168nm,5.4s
KIV                               MLR    MLR
      comp=Z,150nm,19.0s
KIV   Kislovodsk        58.75 318  P      P      10 57 26.0 -0.2
      SNR=9.5
STKA  Stephens Creek    58.76 133⇓iP      P      10 57 25.9 -0.5
      comp=Z,26nm,0.7s,mb5.4
STKA                             eSCP    ScP    11 02 07.7 -2.2
STKA                             e              11 05 22.0
STKA  Stephens Creek    58.76 133  P      P      10 57 26.0 -0.4
      comp=Z,31nm,0.7s,mb5.5,baz=317,slow=5.8,SNR=66
STKA                              ScP    ScP    11 02 07.7 -2.3
      comp=Z,7.6nm,0.8s,baz=300,slow=5.9,SNR=3.5
STKA                              S      S      11 05 22.3 -4.0
      comp=Z,4.9nm,1.1s,baz=62,slow=21,SNR=2.2
STKA                              LR     LR     11 25 27.2
      comp=Z,339nm,18.2s,baz=232,slow=39
ASF   Jabal al Asfar    59.36 304  P      P      10 57 32.5 +1.8
ASF                               pmax   pmax
      comp=Z,9.0nm,0.8s
ASF   Jabal al Asfar    59.36 304  P      P      10 57 32.5 +1.8
      comp=Z,8.9nm,0.8s,mb4.8,baz=314,slow=5.2,SNR=13
MALT  Malatya           59.76 311 eP      P      10 57 33.3  0.0
      comp=Z,25nm,1.4s,mb5.0
MALT  Malatya           59.76 311⇓iP      P      10 57 33.9 +0.6
GZT   Gaziantep         60.14 310⇑iP      P      10 57 36.4 +0.5
SOKR  Solikamsk         60.47 339c iP     P      10 57 37.0 -0.7
SOKR                              pmax   pmax
      comp=Z,170nm,0.9s,mb6.1
SOKR                              MLR    MLR
      comp=Z,640nm,19.0s
SOC   Sochi             60.59 317 eP      P      10 57 40.7 +1.8
SOC                               pmax   pmax
      comp=Z,24nm,0.7s,mb5.3
GRSN  GIRESUNGRSN       60.69 314⇑iP      P      10 57 39.1 -0.5
MMAI  Mount Meron Ar    60.78 304  P      P      10 57 42.1 +1.8
      comp=Z,6.4nm,0.6s,mb4.8,baz=89,slow=6.2,SNR=11
MMAI                              PcP    PcP    10 58 25.5 +1.8
      comp=Z,20nm,0.8s,baz=100,slow=8.6,SNR=6.9
YAK   Yakutsk           61.51  18 eP      P      10 57 43.7 -1.0
      comp=Z,320nm,0.6s,mb6.5
YAK   Yakutsk           61.51  18c iP     P      10 57 44.4 -0.3
YAK                              i *PP   pP     10 58 01.1 -2.2
YAK                              i              10 58 25.2
YAK                              e              10 59 59.5
YAK                              i S     S      11 05 55.5 -5.2
YAK                              i *SS   sS     11 06 23.2 -9.1
YAK                              eSSS           11 12 39.3
YAK                               pmax   pmax
      comp=Z,144nm,0.7s,mb6.1
YAK                               pmax   pmax
      comp=N,62nm,1.3s
YAK                               pmax   pmax
      comp=E,65nm,1.3s
YAK                               pmax   pmax
      comp=Z,50nm,1.3s,mb5.4
YAK                               pmax   pmax
      comp=N,48nm,1.5s
YAK                               pmax   pmax
      comp=E,50nm,2.1s
YAK                               smax
      comp=E,168nm,1.8s
YAK                               smax
      comp=N,137nm,1.9s
YAK                               MLR    MLR
      comp=Z,495nm,18.0s
YAK                               MLR    MLR
      comp=N,251nm,17.0s
YAK                               MLR    MLR
      comp=E,328nm,19.0s
VRHR  Novokhopersk      62.47 326 eP      P      10 57 50.2 -1.2
VRHR                              pmax   pmax
      comp=Z,10.0nm,0.3s,mb5.3
VRHR                              pmax   pmax
      comp=N,20nm,0.6s
VRHR                              pmax   pmax
      comp=E,20nm,0.5s
ANN   Anapa             62.56 318 eP      P      10 57 47.3 -4.8
ANN                              e*PP    pP     10 57 58.9  -12
ANN                              eS      S      11 06 12.7 -1.8
ANN                               pmax   pmax
      comp=Z,122nm,2.3s,mb5.4
AVNT  Avonos            62.58 311⇑iP      P      10 57 52.0 -0.4
CSS   Prodhromos        62.87 306 eP      P      10 57 53.5 -0.9
      comp=Z,55nm,1.1s,mb5.4
CTKT  Corum             63.12 313⇓iP      P      10 57 56.0 +0.1
CDAG  Cicekdag          63.16 311⇓iP      P      10 57 55.9 -0.4
BOYT  Boyabat           63.26 313⇓iP      P      10 57 56.6 -0.2
EIDS  Eidsvold          63.34 122 eP      P      10 57 57.3 -0.4
BR131 Keskin Array S    63.73 311 eP      P      10 57 59.3 -0.7
      comp=Z,18nm,0.8s,mb5.0
BRTR  Keskin Array B    63.73 311  P      P      10 57 59.2 -0.8
BRTR                              pmax   pmax
      comp=Z,15nm,0.8s
BRTR                              MLR    MLR
      comp=Z,182nm,21.9s
BRTR  Keskin Array B    63.73 311  P      P      10 57 59.1 -0.8
      comp=Z,15nm,0.8s,mb4.9,baz=108,slow=7.9,SNR=100
BRTR                              LR     LR     11 25 55.2
      comp=Z,182nm,21.9s,baz=139,slow=36
VORD  Divnogorie        63.74 325 eP      P      10 57 58.2 -1.6
VORD                              pmax   pmax
      comp=Z,20nm,0.3s,mb5.4
VORD                              pmax   pmax
      comp=N,330nm,0.6s
VORD                              pmax   pmax
      comp=E,140nm,0.4s
ELDT  Eldivan           64.09 312⇓iP      P      10 58 01.8 -0.5
BALT  Daday             64.39 313⇑iP      P      10 58 04.0 -0.2
ANTO  Ankara            64.40 311 eP      P      10 58 03.6 -0.7
      comp=E,17nm,0.8s,mb4.9
ANTO  Ankara            64.40 311 eP      P      10 58 03.6 -0.8
ANTO                              pmax   pmax
      comp=Z,17nm,0.8s,mb4.9
ANTO  Ankara            64.40 311  P      P      10 58 04.6 +0.2
      SNR=5.4
ANTO  Ankara            64.40 311⇑iP      P      10 58 03.8 -0.6
TOO   Toolangi          64.45 137 eP      P      10 58 05.9 +1.3
      comp=Z,16nm,0.8s,mb4.9
TOO   Toolangi          64.45 137 eP      P      10 58 05.9 +1.3
TOO                               pmax   pmax
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      comp=Z,16nm,0.8s,mb4.9
SIM   Simferopol’       64.84 317⇑iP      P      10 58 06.5 -0.6
SIM                               pmax   pmax
      comp=Z,34nm,0.7s,mb5.3
SGKT  Sivrigoynuk       65.12 312⇓iP      P      10 58 08.5 -0.5
ESKT  Eskisehir         65.78 311⇓iP      P      10 58 13.2 -0.1
PRGR  Permogore         66.00 337⇑iP      P      10 58 13.2 -1.0
PRGR                             eS      S      11 06 53.7 -2.6
PRGR                              pmax   pmax
      comp=Z,356nm,0.5s,mb6.5
PRGR                              smax
      comp=N,67nm,1.3s
CNB   Canberra Magne    66.08 133 eP      P      10 58 15.9 +0.6
      comp=N,25nm,0.7s,mb5.2
MOS   Moscow            66.66 329 i P     P      10 58 18.0 -0.6
MOS                              e              11 00 42.8
MOS                              eS      S      11 07 00.3 -4.2
MOS                               pmax   pmax
      comp=Z,237nm,0.6s,mb6.2
OBN   Obninsk           66.95 328  P      P      10 58 19.8 -0.6
      comp=Z,1µm,0.6s,mb6.8,SNR=8.5
OBN   Obninsk           66.95 328 eP      P      10 58 19.8 -0.6
      comp=Z,101nm,0.6s,mb5.8
OBN   Obninsk           66.95 328c iP     P      10 58 19.6 -0.8
OBN                              e       pP     10 58 35.2 -4.1
OBN                              e              10 58 45.0
OBN                              e              11 00 47.5
OBN                              i S     S      11 07 14.6 +6.5
OBN                               pmax   pmax
      comp=Z,285nm,1.6s,mb5.8
OBN                               MLR    MLR
      comp=Z,200nm,14.0s
ISK   Istanbul-Kandi    67.45 312 eP      P      10 58 23.4 -0.5
SKR   Severo-Kuril’s    67.53  37 eP      P      10 58 22.4 -1.8
SKR                               pmax   pmax
      comp=E,80nm,0.6s
SKR                               pmax   pmax
      comp=Z,240nm,0.6s,mb6.2
MA2   Magadan           68.14  27 eP      P      10 58 27.2 -0.7
      comp=Z,123nm,1.0s,mb5.7
MA2                              e              10 58 52.7
MA2   Magadan           68.14  27⇑eP      P      10 58 27.1 -0.8
MA2                               pmax   pmax
      comp=Z,142nm,1.6s,mb5.5
TIRR  Tirgusor          68.64 315  P      P      10 58 30.6 -0.6
TIRR  Tirgusor          68.64 315⇓iP      P      10 58 30.6 -0.7
TIXI  Tiksi             68.83  11 eP      P      10 58 30.6 -1.4
      comp=Z,305nm,0.7s,mb6.2
TIXI                             epP     pP     10 58 50.9 -0.1
TIXI  Tiksi             68.83  11c iP     P      10 58 30.5 -1.5
TIXI                             eS      S      11 07 23.9 -6.2
TIXI                              pmax   pmax
      comp=N,47nm,0.6s
TIXI                              pmax   pmax
      comp=Z,246nm,0.6s,mb6.2
TIXI                              pmax   pmax
      comp=E,28nm,0.5s
TIXI                              smax
      comp=N,100nm,7.5s
TIXI                              smax
      comp=E,60nm,8.5s
TIXI                              MLR    MLR
      comp=Z,324nm,15.0s
KIS   Kishinev          68.95 318 eP      P      10 58 30.0 -3.2
KIS                              e              10 58 56.0
LSZ   Lusaka            68.96 251 eP      P      10 58 35.6 +1.8
      comp=Z,11nm,0.9s,mb4.7
LSZ   Lusaka            68.96 251 eP      P      10 58 35.6 +1.8
LSZ                               pmax   pmax
      comp=Z,11nm,0.9s,mb4.7
LAST  Lasithi           69.26 305 eP      P      10 58 35.3  0.0
JMB   Yambol            69.54 313 eP      P      10 58 37.2 +0.3
AKASG Malin Array Be    69.64 322  P      P      10 58 36.0 -1.4
AKASG                             S      S      11 07 38.5 -1.8
AKASG                             pmax   pmax
      comp=Z,24nm,0.5s
AKASG Malin Array Be    69.64 322  P      P      10 58 36.0 -1.4
      comp=Z,24nm,0.5s,mb5.3,baz=88,slow=5.4,SNR=163
AKASG                             S      S      11 07 38.5 -1.8
      comp=Z,0.1nm,0.3s,baz=91,slow=12,SNR=4.3
AKBB  Malin Array Si    69.64 322 eP      P      10 58 35.8 -1.6
KIEV  Kiev              69.65 322 eP      P      10 58 35.8 -1.6
      comp=Z,38nm,0.7s,mb5.3
KIEV  Kiev              69.65 322 eP      P      10 58 35.8 -1.6
KIEV                              pmax   pmax
      comp=Z,38nm,0.7s,mb5.3
ALN   Alexandroupoli    69.66 311 eP      P      10 58 37.3 -0.4
PET   Petropavlovsk     69.75  35 eP      P      10 58 36.8 -1.2
PET   Petropavlovsk     69.75  35⇑iP      P      10 58 36.3 -1.7
PET                              eS      S      11 07 40.7 -0.7
PET                              ePS            11 08 06.8
PET                              eSS     SS     11 12 07.7 -3.3
PET                               pmax   pmax
      comp=Z,89nm,0.8s,mb5.7
PET                               pmax   pmax
      comp=Z,200nm,15.7s
PET                               MLR    MLR
      comp=Z,500nm,15.0s
PET                               MLR    MLR
      comp=Z,500nm,18.0s
SIVA  Sivas             69.78 305 eP      P      10 58 39.2 +0.6
VRI   Vrincioaia        70.10 317  P      P      10 58 40.8 +0.5
VRI   Vrincioaia        70.10 317⇑iP      P      10 58 40.7 +0.4
PLOR  Plostina          70.15 317⇑iP      P      10 58 41.0 +0.4
LOS   Limnos            70.23 310 eP      P      10 58 40.7 -0.5
SEY   Seymchan          70.35  24⇑eP      P      10 58 40.4 -1.1
SEY   Seymchan          70.35  24⇑eP      P      10 58 40.3 -1.2
KARN  Karanos           70.55 305 eP      P      10 58 43.4 +0.1
MLR   Muntele Rosu      70.56 316  P      P      10 58 43.4 +0.2
MLR   Muntele Rosu      70.56 316  S      S      11 07 48.5 -2.8
      comp=Z,1.4nm,0.7s,baz=196,slow=23,SNR=9.4
MLR   Muntele Rosu      70.56 316⇑iP      P      10 58 43.2 +0.1
ZIMR                    70.63 314  P      P      10 58 43.8 +0.2
PLD   Plovdiv           70.85 312 eP      P      10 58 44.4 -0.6
VOIR                    71.17 316  P      P      10 58 46.2 -0.6
VOIR                    71.17 316⇓iP      P      10 58 46.6 -0.2
PAIG  Paliouri          71.29 310 eP      P      10 58 47.2 -0.5
BURAR Bucovina Array    71.47 318 ⇑P      P      10 58 49.0 +0.3
BURAR Bucovina Array    71.47 318⇑iP      P      10 58 49.0 +0.4
MNK   Minsk             71.49 326⇑eP      P      10 58 45.0 -3.6
MNK                               pmax   pmax
      comp=Z,610nm,0.8s,mb6.5
SRS   Serrai            71.52 311 eP      P      10 58 48.1 -1.0
PLG   Polygyros         71.53 310 eP      P      10 58 48.5 -0.7
SOH   Sokhos            71.66 311 eP      P      10 58 49.3 -0.6
PUL   Pulkovo           71.82 331⇑eP      P      10 58 50.7 +0.3
HORT  Hortiatis         71.82 311 eP      P      10 58 49.9 -1.0
THE   Thessaloniki      71.93 311 eP      P      10 58 50.4 -1.1
VTS   Vitosha           72.02 313 eP      P      10 58 51.6 -0.3
VTS   Vitosha           72.02 313⇑iP      P      10 58 51.7 -0.3
KNT   Kendrikon         72.05 311 eP      P      10 58 51.4 -0.8
AGG   Agios Georgios    72.22 309 eP      P      10 58 51.2 -2.0
LIT   Litokhoron        72.22 310 eP      P      10 58 51.9 -1.3
VAY   Valandovo         72.31 311 eP      P      10 58 52.2 -1.6
VAY   Valandovo         72.31 311⇑iP      P      10 58 52.4 -1.4
IDID  Didziasalis       72.32 326 eP      P      10 58 53.4 -0.1
IDID                              AMb    AMB    10 58 55.0
      comp=Z,44nm,1.0s,mb5.3
GRG   Griva             72.39 311 eP      P      10 58 53.2 -1.0
JOF   Joensuu           72.48 335 ep      P      10 58 52.7 -1.6
      comp=Z,68nm,0.6s,mb5.7
JOF   Joensuu           72.48 335 eP      P      10 58 52.7 -1.6
JOF                               pmax   pmax
      comp=Z,68nm,0.6s,mb5.7
IIGN  Ignalina          72.61 326 eP      P      10 58 55.2 -0.1
STIP  Stip              72.65 312⇑iP      P      10 58 55.0 -0.7
LVV   L’vov             72.68 320⇓iP      P      10 58 55.3 -0.4
IZAR  Zarasai           72.70 327 eP      P      10 58 55.6 -0.1
IZAR                              AMb    AMB    10 58 56.6
      comp=Z,47nm,0.6s,mb5.5
GZR   Gura Zlata        72.74 316  P      P      10 58 55.9 -0.3
DRGR                    73.01 317  P      P      10 58 58.1 +0.3
DRGR                    73.01 317⇑iP      P      10 58 58.0 +0.2
FNA   Florina           73.15 311 eP      P      10 58 57.2 -1.5
VSU   Vasula            73.17 329⇑iP      P      10 58 57.9 -0.6
VSU   Vasula            73.17 329c iP     P      10 58 57.8 -0.7
BIA   Bitola            73.21 311 i P     P      10 58 57.2 -1.9
LVZ   Lovozero          73.23 340  P      P      10 58 58.6 -0.1
      comp=Z,936nm,0.7s,mb6.7,SNR=27
LVZ   Lovozero          73.23 340⇑eP      P      10 58 58.6 -0.1
LVZ                               pmax   pmax
      comp=Z,85nm,0.9s,mb5.6
SKO   Skopje            73.24 312⇑iP      P      10 58 58.2 -1.0
KRUS  Krusevo           73.31 311⇑iP      P      10 58 58.8 -0.9
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KWP	Kalwaria	73.49	320	*e*Pc	P	10 59 00.7	+0.2
LKD	Levkas	73.49	308	*e*P	P	10 58 59.9	-0.9
APA	Apatity	73.52	340	⇑*i*P	P	10 59 00.3	-0.1
APA				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.3						
APA				MLR	MLR		
	comp=Z,1µm,18.0s						
BZS	Buzias	73.58	316	P	P	10 59 00.9	-0.3
BZS	Buzias	73.58	316	⇓*i*P	P	10 59 00.9	-0.3
UZH	Uzhgorod	73.59	319	⇓*e*P	P	10 59 01.0	-0.1
UZH				*e*	pP	10 59 18.0	-2.2
OHR	Ohrid	73.62	311	⇑*i*P	P	10 58 59.5	-2.0
KOLS	Kolonicke sedl	73.65	319	*e*P	P	10 59 02.1	+0.6
KOLS	Kolonicke sedl	73.65	319	*e*P	P	10 59 02.0	+0.5
SUW	Suwalki	74.03	324	*e*P	P	10 59 02.9	-0.7
CRVS	Cervenica-Dubn	74.17	319	*e*P	P	10 59 05.1	+0.6
CRVS	Cervenica-Dubn	74.17	319	*e*P	P	10 59 05.0	+0.5
FIA1	FINESS Array S	74.33	332	*e*P	P	10 59 04.3	-0.8
FIA1				*e*pP	pP	10 59 21.8	-2.6
FINES	FINESS Array B	74.33	332	P	P	10 59 04.8	-0.4
FINES				LR	LR	11 35 22.0	
FINES	FINESS Array B	74.33	332	P	P	10 59 04.8	-0.4
FINES				pmax	pmax		
	comp=Z,51nm,0.5s						
FINES				MLR	MLR		
	comp=Z,242nm,20.0s						
FINES	FINESS Array B	74.33	332	P	P	10 59 04.8	-0.4
	comp=Z,51nm,0.5s,mb5.5,baz=100,slow=6.2,SNR=746						
FINES				LR	LR	11 35 22.0	
	comp=Z,242nm,20.0s,baz=294,slow=38						
STHS	Stebnicka Huta	74.39	320	*e*P	P	10 59 06.3	+0.5
	comp=Z,42nm,0.8s,mb5.2						
STHS	Stebnicka Huta	74.39	320	*e*P	P	10 59 06.3	+0.5
STHS				pmax	pmax		
	comp=Z,42nm,0.8s,mb5.2						
STHS	Stebnicka Huta	74.39	320	*e*P	P	10 59 06.2	+0.4
KAF	Kangasniemi	74.41	333	*e*p	P	10 59 04.4	-1.3
	comp=Z,67nm,0.6s,mb5.5,baz=103,slow=5.4						
KAF	Kangasniemi	74.41	333	*e*P	P	10 59 04.4	-1.3
KAF				pmax	pmax		
	comp=Z,67nm,0.6s,mb5.5						
DIVS	Divcibare	74.54	314	*e*P	P	10 59 06.4	-0.3
KECS	Kecovo	74.75	318	*e*P	P	10 59 08.2	+0.3
	comp=Z,28nm,0.7s,mb5.1						
KECS	Kecovo	74.75	318	*e*P	P	10 59 08.2	+0.3
KECS				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.1						
BOSA	Boshof	74.92	238	*e*P	P	10 59 10.4	+1.1
	comp=Z,138nm,1.5s,mb5.5						
BOSA				*e*pP	pP	10 59 27.4	-1.0
BOSA	Boshof	74.92	238	P	P	10 59 10.6	+1.3
	comp=Z,13nm,0.6s,mb4.8,baz=91,slow=7.0,SNR=28						
BOSA				LR	LR	11 27 05.9	
	comp=Z,340nm,20.6s,baz=69,slow=32						
NIE	Niedzica	74.99	319	⇑*i*P	P	10 59 09.9	+0.6
PSZ	Piszkesteto	75.07	318	*e*P	P	10 59 09.8	+0.1
	comp=Z,46nm,0.7s,mb5.3						
PSZ	Piszkesteto	75.07	318	⇑*i*sP	P	10 59 09.9	+0.2
PSZ	Piszkesteto	75.07	318	⇑*i*P	P	10 59 09.7	0.0
OJC	Ojcow	75.44	320	⇑*i*P	P	10 59 12.0	+0.2
BUD	Budapest	75.60	317	⇑*i*sP	P	10 59 11.0	-1.8
PKSM	Moragy	75.72	316	P	P	10 59 13.2	-0.3
PKSM	Moragy	75.72	316	⇑*i*P	P	10 59 13.2	-0.3
LIKS	Likavka	75.73	319	*e*P	P	10 59 13.5	0.0
	comp=Z,40nm,0.6s,mb5.3						
LIKS	Likavka	75.73	319	*e*P	P	10 59 13.5	0.0
LIKS				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.3						
VYHS	Vyhne	75.84	318	*e*P	P	10 59 14.4	+0.2
	comp=Z,22nm,0.7s,mb5.0						
VYHS	Vyhne	75.84	318	*e*P	P	10 59 14.4	+0.2
VYHS				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.0						
DZM	Mont Dzumac	75.85	114	P	P	10 59 15.1	+0.4
	comp=Z,8.1nm,0.6s,mb4.6,baz=233,slow=5.1,SNR=6.2						
OKC	Ostrava-Krasne	76.44	320	⇑*i*P	P	10 59 17.9	+0.3
KEV	Kevo	76.51	341	*e*p	P	10 59 16.7	-0.9
	comp=Z,97nm,0.7s,mb5.6						
KEV	Kevo	76.51	341	*e*P	P	10 59 16.7	-0.9
KEV				pmax	pmax		
	comp=Z,97nm,0.7s,mb5.6						
SMOL	Smolenice	76.77	318	*e*P	P	10 59 19.9	+0.5
MORC	Moravsky Berou	76.83	320	*e*P	P	10 59 19.9	+0.2
	comp=Z,108nm,1.0s,mb5.5						
MORC				*e*sP	sP	10 59 45.3	-1.5
MORC	Moravsky Berou	76.83	320	*e*P	P	10 59 19.9	+0.2
MORC				pmax	pmax		
	comp=Z,108nm,1.0s,mb5.5						
MORC	Moravsky Berou	76.83	320	⇑*i*P	P	10 59 20.2	+0.5
MODS	Modra-Piesok	76.86	318	*e*P	P	10 59 20.3	+0.4
	comp=Z,21nm,0.8s,mb4.9						
MODS	Modra-Piesok	76.86	318	*e*P	P	10 59 20.3	+0.4
MODS				pmax	pmax		
	comp=Z,21nm,0.8s,mb4.9						
MAW	Mawson	76.94	192	P	P	10 59 22.3	+2.4
MAW				LR	LR	11 26 03.4	
MAW	Mawson	76.94	192	P	P	10 59 22.3	+2.4
	comp=Z,3.3nm,0.6s,mb4.3,baz=332,slow=7.5,SNR=3.6						
MAW				LR	LR	11 26 03.4	
	comp=Z,241nm,21.0s,baz=180,slow=30						
ARCES	ARCESS Array B	76.94	340	P	P	10 59 20.1	+0.1
ARCES				pmax	pmax		
	comp=Z,47nm,0.5s						
ARCES				MLR	MLR		
	comp=Z,581nm,20.6s						
ARCES	ARCESS Array B	76.94	340	P	P	10 59 20.1	+0.1
	comp=Z,47nm,0.5s,mb5.5,baz=92,slow=5.8,SNR=296						
ARCES				LR	LR	11 35 58.2	
	comp=Z,581nm,20.6s,baz=326,slow=38						
ARE0	ARCESS Array S	76.94	340	*e*P	P	10 59 20.2	+0.3
ZST	Bratislava	76.96	318	*e*P	P	10 59 21.3	+0.8
	comp=Z,134nm,0.7s,mb5.8						
ZST	Bratislava	76.96	318	*e*P	P	10 59 21.3	+0.8
ZST				pmax	pmax		
	comp=Z,135nm,0.7s,mb5.8						
ZST	Bratislava	76.96	318	*e*P	P	10 59 21.2	+0.7
SOP	Sopron	77.28	317	⇑*i*sP	P	10 59 22.5	+0.2
KOGS	Kog	77.39	316	*i* P	P	10 59 23.1	+0.1
VRAC	Vranov	77.40	319	P	P	10 59 23.3	+0.3
VRAC	Vranov	77.40	319	⇑*i*P	P	10 59 23.0	+0.1
GKP	Gorka Klasztor	77.40	323	*e*P	P	10 59 22.6	-0.3
BILL	Bilibino	77.56	21	*e*P	P	10 59 22.3	-1.2
	comp=Z,19nm,0.7s,mb4.9						
BILL	Bilibino	77.56	21	*c* *i*P	P	10 59 21.7	-1.8
BILL				pmax	pmax		
	comp=Z,70nm,1.7s,mb5.1						
BILL				MLR	MLR		
	comp=Z,700nm,23.0s						
KTK1	Kautokeino	77.56	340	*e*P	P	10 59 24.2	+0.7
	comp=Z,185nm,0.8s,mb5.9						
KTK1	Kautokeino	77.56	340	*e*P	P	10 59 24.2	+0.7
KTK1				AMb	AMB	10 59 25.2	
	comp=Z,185nm,0.8s,mb5.9						
DPC	Dobruska-Polom	77.67	320	⇑*i*P	P	10 59 25.2	+0.8
DPC				*e*pP	pP	10 59 43.6	-0.1
KSP	Ksiaz	77.73	321	*e*P	P	10 59 25.4	+0.6
KSP	Ksiaz	77.73	321	*e*P	P	10 59 24.5	-0.3
KSP				*e**PP	pP	10 59 42.5	-1.5
CONA	Conrad Observa	77.77	318	*i* P	P	10 59 25.1	+0.1
	comp=Z,20nm,0.7s,mb5.0,SNR=33						
UPC	Upice	77.88	320	⇑*i*P	P	10 59 26.0	+0.4
UPC				*e*pP	pP	10 59 45.2	+0.4
GROS	Grobnik	77.91	316	*i* P	P	10 59 26.1	+0.3
ARSA	Arzberg	77.94	317	*i* P	P	10 59 26.4	+0.4
	comp=Z,70nm,1.2s,mb5.3,SNR=39						
BOJS	Bojanci	78.02	315	*i* P	P	10 59 26.5	0.0
TREC	Trest	78.12	319	⇑*i*P	P	10 59 27.1	+0.2
LJU	Ljubljana	78.56	316	*i* P	P	10 59 29.8	+0.4
OBKA	Obir	78.57	316	*i* P	P	10 59 29.8	+0.3
	comp=Z,43nm,0.7s,mb5.4,SNR=35						
PRU	Pruhonice	78.78	320	⇑*i*P	P	10 59 30.9	+0.3
PRU				*e*pP	pP	10 59 52.6	+2.7
PVCC	Panska Ves	78.80	320	⇑*i*P	P	10 59 31.2	+0.5
MOA	Molln	78.83	317	*i* P	P	10 59 30.8	-0.1
	comp=Z,32nm,0.8s,mb5.2,SNR=28						
PRA	Prague	78.86	320	⇑P	P	10 59 31.0	0.0
GORS	Gorjuse	78.94	316	*e*P	P	10 59 31.8	+0.2
VOY	Vojsko	79.00	316	⇑*i*P	P	10 59 31.7	-0.2
VOY				*e*	pP	10 59 52.4	+1.2
VOY	Vojsko	79.00	316	⇑*i*P	P	10 59 31.7	-0.2
VOY				*e*	pP	10 59 52.4	+1.2
VOY				*e*		11 00 00.1	
MYKA	Terra Mystica	79.20	316	⇑*i*P	P	10 59 33.0	+0.1
	comp=Z,31nm,0.6s,mb5.3						
TRO	Tromso	79.20	340	*e*P	P	10 59 30.4	-2.0
	comp=Z,156nm,1.5s,mb5.6						
TRO	Tromso	79.20	340	*e*P	P	10 59 30.4	-2.0
TRO				AMb	AMB	10 59 32.7	
	comp=Z,156nm,1.5s,mb5.6						
PTQR	Pietraquaria	79.22	311	P	P	10 59 33.4	+0.3
	comp=Z,43nm,0.9s,mb5.3						
BRG	Berggiesshubel	79.22	321	⇑*i*P	P	10 59 33.3	+0.3
BRG				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.2						
BRG				pmax	pmax		
	comp=Z,33nm,1.7s,mb4.9						
BRG	Berggiesshubel	79.22	321	*e*P	P	10 59 33.4	+0.4
	comp=Z,47nm,0.7s,mb5.4						
BRG				*e*		10 59 58.6	
BRG	Berggiesshubel	79.22	321	⇑*i*P	P	10 59 33.3	+0.3
	comp=Z,47nm,0.7s,mb5.4						
BRG				*i*	pP	10 59 55.6	+3.4
	comp=Z,56nm,1.7s						
AQU	L'Aquila	79.22	312	*e*P	P	10 59 33.4	+0.2
	comp=Z,70nm,1.2s,mb5.4						
GEC2	GERESS Array S	79.26	318	*e*P	P	10 59 33.8	+0.6
GEC2				pmax	pmax		
	comp=Z,110nm,0.8s,mb5.7						
GEC2	GERESS Array S	79.26	318	*e*P	P	10 59 33.8	+0.6
	comp=Z,110nm,0.8s,mb5.7						
GEC2				*e*		10 59 58.8	
GERES	GERESS Array B	79.26	318	P	P	10 59 33.6	+0.4
GERES				pmax	pmax		
	comp=Z,73nm,0.7s						
GERES	GERESS Array B	79.26	318	P	P	10 59 33.6	+0.4
	comp=Z,73nm,0.7s,mb5.6,baz=90,slow=5.2,SNR=542						
ROBS	Robic	79.27	316	*e*P	P	10 59 33.1	-0.2
KHC	Kasperske Hory	79.36	319	⇑*e*P	P	10 59 33.8	+0.1
KHC	Kasperske Hory	79.36	319	⇑*i*P	P	10 59 33.8	+0.1
KHC				*e*PCP	PcP	10 59 39.5	-2.2
KHC				*e*pP	pP	10 59 54.6	+1.5
PTCC	Patocco-Chiusa	79.39	316	P	P	10 59 34.0	0.0
	comp=Z,81nm,0.6s,mb5.7						
KBA	Koelnbreinsper	79.42	317	*i* P	P	10 59 33.9	-0.2
	comp=Z,24nm,0.6s,mb5.2,SNR=30						
KBA	Koelnbreinsper	79.42	317	*i* P	P	10 59 33.9	-0.2
KBA				pmax	pmax		
	comp=Z,24nm,0.6s,mb5.2						
RUE	Ruedersdorf	79.42	322	*e*P	P	10 59 33.9	-0.2
	comp=Z,173nm,0.6s,mb6.1						
RUE	Ruedersdorf	79.42	322	*e*P	P	10 59 34.3	+0.3
	comp=Z,192nm,0.6s,mb6.1						
RUE				*e*		10 59 59.4	
NRCA	Norcia	79.45	312	P	P	10 59 34.3	-0.1
	comp=Z,15nm,0.8s,mb4.9						
GMNA	Gemona	79.46	316	P	P	10 59 34.6	+0.2
	comp=Z,257nm,0.7s,mb6.2						
SNTG	Esanatoglia	79.58	313	P	P	10 59 35.2	+0.1
	comp=Z,66nm,1.3s,mb5.3						
FBE	Freiberg	79.59	321	*e*P	P	10 59 35.5	+0.5
	comp=Z,83nm,0.8s,mb5.6						
FSSB	Fossombrone	79.71	313	P	P	10 59 36.4	+0.6
	comp=Z,57nm,0.8s,mb5.5						
FVI	Forni Avoltri	79.79	316	P	P	10 59 36.1	-0.1
	comp=Z,37nm,0.6s,mb5.4						
FVI	Forni Avoltri	79.79	316	P	P	10 59 36.1	-0.1
FVI				pmax	pmax		
	comp=Z,37nm,0.6s,mb5.4						
WET	Wettzell	79.82	319	*e*P	P	10 59 36.7	+0.5
WET				pmax	pmax		
	comp=Z,59nm,0.8s,mb5.5						
WET	Wettzell	79.82	319	*e*P	P	10 59 36.7	+0.5
	comp=Z,59nm,0.8s,mb5.5						
WET				*e*		11 00 02.0	
CLL	Collm	79.83	321	⇑*i*P	P	10 59 36.0	-0.3
	comp=Z,33nm,1.0s,mb5.1						
CLL				*i*	pP	10 59 58.1	+2.5
CLL	Collm	79.83	321	⇑*i*P	P	10 59 36.0	-0.3
CLL				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.1						
CLL	Collm	79.83	321	*e*P	P	10 59 36.2	-0.1
	comp=Z,32nm,1.0s,mb5.1						
CLL	Collm	79.83	321	⇑*i*P	P	10 59 36.0	-0.3
	comp=Z,33nm,1.0s,mb5.1						
CLL				*i* PcP	PcP	10 59 42.8	-0.9
CLL				*i* (pPcP)	pP	10 59 58.1	+2.5
CLL				*e*sP	sP	11 00 01.0	-2.4
RSM	Repubblica di	79.95	313	P	P	10 59 38.1	+1.0
	comp=Z,144nm,0.8s,mb5.9						
RSM	Repubblica di	79.95	313	P	P	10 59 38.1	+1.0
RSM				pmax	pmax		
	comp=Z,144nm,0.8s,mb5.9						
ABTA	Abfaltersbach	79.98	316	*i* P	P	10 59 36.8	-0.4
	SNR=10						
HFS	Hagfors	80.05	330	S	S	11 09 32.1	-3.6
	comp=Z,4.1nm,0.9s,baz=126,slow=15,SNR=3.5						
TANN	Tannenbergstha	80.14	320	*e*P	P	10 59 38.1	+0.2
	comp=Z,57nm,1.5s,mb5.2						
NKC	Novy Kostel	80.14	320	⇑*i*P	P	10 59 38.1	+0.1
NKC				*e*pP	pP	10 59 56.0	-1.3
SEST	Monte Rota	80.18	316	P	P	10 59 38.0	-0.3
WERN	Wernitzgruen	80.19	320	*e*P	P	10 59 38.6	+0.4
	comp=Z,22nm,0.7s,mb5.1						
GUNZ	Gunzen	80.22	320	*e*P	P	10 59 38.9	+0.5
	comp=Z,30nm,0.7s,mb5.2						
WERD	Werda	80.24	320	*e*P	P	10 59 38.8	+0.3
	comp=Z,34nm,0.7s,mb5.3						
ROTZ	Rotzenmuhle	80.28	319	*e*P	P	10 59 39.3	+0.6
	comp=Z,56nm,0.8s,mb5.5						
CRE	Caprese Michel	80.31	313	P	P	10 59 39.2	+0.2
	comp=Z,28nm,0.5s,mb5.3						
MOR8	Moi Rana	80.33	336	*e*P	P	10 59 37.6	-1.0
	comp=Z,86nm,1.5s,mb5.4						
MOR8	Moi Rana	80.33	336	*e*P	P	10 59 37.6	-1.0
MOR8				AMb	AMB	10 59 39.7	
	comp=Z,86nm,1.5s,mb5.4						
MOR8				*e*pP	pP	10 59 56.6	-1.4
MANZ	Manzenberg	80.35	320	*e*P	P	10 59 39.8	+0.7
	comp=Z,60nm,0.8s,mb5.5						
SFI	Santa Sofia	80.39	313	P	P	10 59 40.6	+1.1
	comp=Z,186nm,1.0s,mb5.9						
SFI	Santa Sofia	80.39	313	P	P	10 59 40.6	+1.1
SFI				pmax	pmax		
	comp=Z,186nm,1.0s,mb5.9						
CTI	Castel Tesino	80.56	316	P	P	10 59 40.8	+0.5
	comp=Z,70nm,0.7s,mb5.6						
CTI	Castel Tesino	80.56	316	P	P	10 59 40.8	+0.5
CTI				pmax	pmax		
	comp=Z,70nm,0.7s,mb5.6						
WTTA	Wattenberg	80.59	317	*i* P	P	10 59 40.1	-0.3
	comp=Z,85nm,0.6s,mb5.8,SNR=51						
WTTA	Wattenberg	80.59	317	*i* P	P	10 59 40.1	-0.3
	comp=Z,85nm,0.6s,mb5.8						
WTTA	Wattenberg	80.59	317	*i* P	P	10 59 40.1	-0.3
WTTA				pmax	pmax		
	comp=Z,85nm,0.6s,mb5.8						
WATA	Walderalm	80.63	317	⇑*i*P	P	10 59 39.9	-0.8
	comp=Z,42nm,0.5s,mb5.5,SNR=13						
WATA	Walderalm	80.63	317	⇑*i*P	P	10 59 39.9	-0.8
WATA				pmax	pmax		
	comp=Z,42nm,0.5s,mb5.5						
MOX	Moxa	80.68	320	*e*P	P	10 59 40.9	0.0
MOX				*e*	pP	11 00 03.7	+3.5
MOX	Moxa	80.68	320	*e*P	P	10 59 41.2	+0.3
	comp=Z,27nm,0.7s,mb5.2						
SEI	Scarperia	80.75	314	P	P	10 59 42.0	+0.6
	comp=Z,397nm,0.7s,mb6.3						
FUR	Furstenfeldbru	80.85	318	*e*P	P	10 59 41.7	-0.1
FUR				pmax	pmax		
	comp=Z,61nm,0.7s,mb5.5						
FUR	Furstenfeldbru	80.85	318	*e*P	P	10 59 41.7	-0.1
	comp=Z,61nm,0.7s,mb5.5						
SQTA	Sankt Quirin	80.88	317	*i* P	P	10 59 41.7	-0.3
	comp=Z,90nm,0.5s,mb5.8,SNR=66						
SQTA	Sankt Quirin	80.88	317	*i* P	P	10 59 41.7	-0.3
SQTA				pmax	pmax		
	comp=Z,90nm,0.5s,mb5.9						
FNVD	Fontana Vidola	80.91	314	P	P	10 59 43.6	+1.3
GRA1	Grafenberg Arr	80.91	319	*e*P	P	10 59 42.6	+0.5
	comp=Z,68nm,0.9s,mb5.5						
GRF	Grafenberg Arr	80.91	319	*e*P	P	10 59 42.6	+0.5
GRF				pmax	pmax		
	comp=Z,68nm,0.9s,mb5.5						
GRF	Grafenberg Arr	80.91	319	*e*P	P	10 59 42.6	+0.5
GRF				pmax	pmax		
	comp=Z,68nm,0.9s,mb5.5						
GRF	Grafenberg Arr	80.91	319	*e*P	P	10 59 42.6	+0.5
	comp=Z,68nm,0.9s,mb5.5						
GRFO	Grafenberg	80.92	319	*e*P	P	10 59 42.5	+0.4
	comp=Z,93nm,1.2s,mb5.5						
GRFO	Grafenberg	80.92	319	*e*P	P	10 59 42.6	+0.5
GRFO				pmax	pmax		
	comp=Z,93nm,1.2s,mb5.5						
MOTA	Moosalm	80.95	317	⇓*i*P	P	10 59 41.9	-0.5
	comp=Z,62nm,0.7s,mb5.5,SNR=50						
MOTA	Moosalm	80.95	317	⇓*i*P	P	10 59 41.9	-0.5
MOTA				pmax	pmax		
	comp=Z,62nm,0.7s,mb5.5						
RETA	Reutte	81.19	317	*i* P	P	10 59 43.4	-0.2
	comp=Z,100nm,0.5s,mb5.9,SNR=144						
NSS	Namsos	81.20	334	*e*P	P	10 59 41.5	-1.8
	comp=Z,90nm,1.3s,mb5.4						
NSS	Namsos	81.20	334	*e*P	P	10 59 41.5	-1.8
NSS				AMb	AMB	10 59 43.8	
	comp=Z,90nm,1.3s,mb5.5						
NSS				*e*pP	pP	11 00 01.8	-1.0
FETA	Feichten	81.21	317	*i* P	P	10 59 43.7	0.0
	comp=Z,45nm,0.7s,mb5.4,SNR=29						
GSCL	Gusciola	81.30	314	P	P	10 59 45.5	+1.2
	comp=Z,40nm,0.7s,mb5.3						
NB2	NORSAR Subarra	81.33	331	P	P	10 59 43.0	-1.1
	comp=Z,90nm,1.4s,mb5.4,baz=97,slow=5.1						
NOA	NORSAR Array B	81.33	331	P	P	10 59 43.2	-0.9
NOA				pmax	pmax		
	comp=Z,16nm,0.8s						
NOA				MLR	MLR		
	comp=Z,250nm,18.2s						
NOA	NORSAR Array B	81.33	331	P	P	10 59 43.1	-0.9
	comp=Z,16nm,0.8s,mb4.9,baz=93,slow=5.7,SNR=36						
NOA				LR	LR	11 39 03.3	
	comp=Z,250nm,18.2s,baz=100,slow=38						
MABI	Malga Bissina	81.35	316	P	P	10 59 45.2	+0.7
ERBM	Eremo	81.42	314	P	P	10 59 46.3	+1.3
	comp=Z,42nm,0.8s,mb5.3						
BRMO	Bormio	81.45	316	P	P	10 59 45.5	+0.5
	comp=Z,33nm,0.6s,mb5.3						
NAO01	NORSAR Array S	81.48	331	*e*P	P	10 59 43.4	-1.5
	comp=Z,14nm,0.7s,mb4.9						
NAO01				*e*pP	pP	11 00 05.2	+1.0
CLZ	Clausthal	81.49	321	*e*P	P	10 59 45.5	+0.4
CLZ				pmax	pmax		
	comp=Z,63nm,1.0s,mb5.4						
CLZ	Clausthal	81.49	321	*e*P	P	10 59 45.5	+0.4
	comp=Z,63nm,1.0s,mb5.4						
SPB4	Spitsbergen Ar	81.55	348	*e*P	P	10 59 44.9	-0.1
BSEG	Bad Segeberg	81.56	324	*e*P	P	10 59 45.9	+0.4
NRDL	Niedersach Rie	81.66	322	*e*P	P	10 59 46.4	+0.4
DAVA	Damuels	81.79	317	*i* P	P	10 59 47.0	+0.2
	comp=Z,59nm,1.0s,mb5.4,SNR=16						
AMKA	Amchitka	82.03	39	*e*P	P	10 59 46.4	-1.6
KONO	Kongsberg	82.08	329	*e*P	P	10 59 47.6	-0.5
	comp=Z,148nm,1.5s,mb5.6						
KONO	Kongsberg	82.08	329	*e*P	P	10 59 47.6	-0.5
KONO				pmax	pmax		
	comp=Z,150nm,1.5s,mb5.6						
TUE	Stuetta	82.16	316	P	P	10 59 48.9	+0.1
STU	Stuttgart	82.24	318	*e*P	P	10 59 49.1	0.0
	comp=Z,36nm,0.7s,mb5.3						
CORF	Corte	82.37	312	*e*P	P	10 59 48.3	-1.7
DOMB	Dombas	82.39	332	*e*P	P	10 59 49.5	-0.2
	comp=Z,75nm,1.1s,mb5.4						
DOMB	Dombas	82.39	332	*e*P	P	10 59 49.5	-0.2
DOMB				AMb	AMB	10 59 51.3	
	comp=Z,75nm,1.1s,mb5.4						
DOMB				*e*pP	pP	11 00 08.2	-0.9
KEST	Kesra	82.43	305	P	P	10 59 51.6	+1.2
	comp=Z,13nm,0.7s,mb4.8,baz=349,slow=7.3,SNR=16						
PGF	Pioggiola	82.48	312	⇑*i*P	P	10 59 50.5	0.0
	comp=Z,62nm,0.9s,mb5.1						
PGF	Pioggiola	82.48	312	⇑*i*P	P	10 59 50.5	0.0
	comp=Z,31nm,0.9s,mb5.1						
PGF	Pioggiola	82.48	312	⇑*i*P	P	10 59 50.5	0.0
PGF				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.1						
TOD	Tromm	82.48	319	*e*P	P	10 59 50.2	-0.2
SPAK	Spaichingen-Ko	82.52	318	*e*P	P	10 59 50.5	-0.1
KBS	Kingsbay	82.53	349	*e*P	P	10 59 49.1	-1.0
	comp=Z,55nm,0.8s,mb5.4						
KBS				*e*pP	pP	11 00 10.8	+1.3
KBS	Kingsbay	82.53	349	*e*P	P	10 59 49.1	-1.0
KBS				pmax	pmax		
	comp=Z,120nm,1.4s,mb5.5						
TNS	Taunus Mts	82.71	320	*e*P	P	10 59 52.0	+0.5
TNS				pmax	pmax		
	comp=Z,48nm,1.1s,mb5.2						
TNS	Taunus Mts	82.71	320	*e*P	P	10 59 52.0	+0.5
	comp=Z,48nm,1.1s,mb5.2						
BFO	Black Forest	82.82	318	P	P	10 59 51.6	-0.6
	comp=Z,315nm,0.7s,mb6.2,SNR=9.1						
BFO	Black Forest	82.82	318	*e*P	P	10 59 51.8	-0.4
BFO				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.3						
BFO	Black Forest	82.82	318	*e*P	P	10 59 51.8	-0.4
	comp=Z,38nm,0.8s,mb5.3						
FIN	Finale Ligure	83.01	314	P	P	10 59 53.1	-0.1
	comp=Z,143nm,0.6s,mb6.0						
FIN	Finale Ligure	83.01	314	P	P	10 59 53.1	-0.1
FIN				pmax	pmax		
	comp=Z,143nm,0.6s,mb6.0						
FELD	Feldberg im Sc	83.05	317	*e*P	P	10 59 52.9	-0.5
IBBN	Ibbenburen	83.11	322	*e*P	P	10 59 53.9	+0.4
	comp=Z,62nm,0.7s,mb5.5						
LANF	Langenberg	83.15	319	*e*P	P	10 59 54.1	+0.2
IMI	Imperia	83.25	313	P	P	10 59 54.6	+0.1
	comp=Z,40nm,0.8s,mb5.3						
ABH	Alteburg	83.30	319	*e*P	P	10 59 54.5	-0.1
BUG	Bochum--Univer	83.43	321	*e*P	P	10 59 55.5	+0.3
	comp=Z,36nm,0.7s,mb5.3						
SAOF	Saorge	83.49	313	*e*P	P	10 59 55.8	+0.1
CDF	Champ du Feu	83.52	318	⇑*i*P	P	10 59 55.2	-0.6
	comp=Z,41nm,0.8s,mb5.0						
CDF	Champ du Feu	83.52	318	⇑*i*P	P	10 59 55.2	-0.6
	comp=Z,20nm,0.8s,mb5.0						
CDF	Champ du Feu	83.52	318	⇑*i*P	P	10 59 55.2	-0.6
CDF				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.0						
SBF	Sospel	83.58	313	⇑*i*P	P	10 59 56.1	-0.1
	comp=Z,187nm,0.7s,mb5.7						
SBF	Sospel	83.58	313	⇑*i*P	P	10 59 56.1	-0.1
	comp=Z,94nm,0.7s,mb5.7						
SBF	Sospel	83.58	313	⇑*i*P	P	10 59 56.1	-0.1
SBF				pmax	pmax		
	comp=Z,94nm,0.7s,mb5.7						
ECH	Echery	83.60	318	*e*P	P	10 59 56.7	+0.5
RUP	Ruppelstein	83.62	319	*e*P	P	10 59 56.3	+0.1
MOF	Molkenrain	83.63	317	*e*P	P	10 59 56.9	+0.5
LUCF	Luceram	83.64	313	*e*P	P	10 59 56.3	-0.2
BLS5	Blasjo	83.68	329	*e*P	P	10 59 56.9	+0.6
TOUF	Mont Tournerai	83.71	314	*e*P	P	10 59 57.1	+0.3
MVIF	Mont Vial	83.78	313	*e*P	P	10 59 57.2	0.0
HINF	Hinteralfeld	83.82	317	⇑*i*P	P	10 59 56.3	-1.0
	comp=Z,12nm,0.6s,mb4.6						
HINF	Hinteralfeld	83.82	317	⇑*i*P	P	10 59 56.3	-1.0
	comp=Z,6.3nm,0.6s,mb4.6						
HINF	Hinteralfeld	83.82	317	⇑*i*P	P	10 59 56.3	-1.0
HINF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.6						
LOMF	Lomont	83.86	317	*e*P	P	10 59 57.0	-0.5
SYO	Syowa Base	83.87	197	⇑*e*PcP	PcP	11 00 00.4	-0.5
SYO	Syowa Base	83.87	197	⇓*e*pP	pP	11 00 15.5	-1.0
SYO	Syowa Base	83.87	197	⇑*e*sP	sP	11 00 24.2	-0.1
CALN	Calern	83.98	313	*e*P	P	10 59 58.5	+0.3
LPG	La Plagne	84.00	315	⇑*i*P	P	10 59 58.5	+0.2
	comp=Z,127nm,0.7s,mb5.5						
LPG	La Plagne	84.00	315	⇑*i*P	P	10 59 58.5	+0.2
	comp=Z,64nm,0.7s,mb5.6						
LPG	La Plagne	84.00	315	⇑*i*P	P	10 59 58.5	+0.2
LPG				pmax	pmax		
	comp=Z,63nm,0.7s,mb5.5						
LPL	La Plagne	84.01	315	⇑*i*P	P	10 59 58.5	+0.2
	comp=Z,140nm,0.7s,mb5.6						
LPL	La Plagne	84.01	315	⇑*i*P	P	10 59 58.5	+0.2
	comp=Z,70nm,0.7s,mb5.6						
LPL	La Plagne	84.01	315	⇑*i*P	P	10 59 58.5	+0.2
LPL				pmax	pmax		
	comp=Z,70nm,0.7s,mb5.6						
MBDF	Montbardon	84.02	314	⇑*i*P	P	10 59 57.7	-0.7
	comp=Z,35nm,0.6s,mb5.1						
MBDF	Montbardon	84.02	314	⇑*i*P	P	10 59 57.7	-0.7
	comp=Z,18nm,0.6s,mb5.1						
MBDF	Montbardon	84.02	314	⇑*i*P	P	10 59 57.7	-0.7
MBDF				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.0						
BNI	Bardonecchia	84.07	315	*e*P	P	10 59 58.3	-0.3
	comp=Z,28nm,0.7s,mb5.2						
BNI	Bardonecchia	84.07	315	*e*P	P	10 59 58.3	-0.3

BNI				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.2						
RSL	**Roselend**	84.08	315	*e*P	P	10 59 58.6	-0.1
HAU	**Haudompre**	84.16	318	⇑*i*P	P	10 59 58.5	-0.5
	comp=Z,126nm,0.7s,mb5.5						
HAU	**Haudompre**	84.16	318	⇑*i*P	P	10 59 58.5	-0.5
	comp=Z,63nm,0.7s,mb5.5						
HAU	**Haudompre**	84.16	318	⇑*i*P	P	10 59 58.5	-0.5
HAU				pmax	pmax		
	comp=Z,63nm,0.7s,mb5.5						
FRF	**La Foret Royal**	84.17	313	⇑*i*P	P	10 59 59.2	0.0
	comp=Z,96nm,0.7s,mb5.5						
FRF	**La Foret Royal**	84.17	313	⇑*i*P	P	10 59 59.2	0.0
	comp=Z,48nm,0.7s,mb5.4						
FRF	**La Foret Royal**	84.17	313	⇑*i*P	P	10 59 59.2	0.0
FRF				pmax	pmax		
	comp=Z,48nm,0.7s,mb5.4						
WLF	**Walferdange**	84.21	319	*e*P	P	10 59 59.4	+0.2
WLF	**Walferdange**	84.21	319	P	P	10 59 59.1	-0.1
WLF	**Walferdange**	84.21	319	*e*P	P	10 59 59.9	+0.7
	comp=Z,77nm,1.4s,mb5.3						
MEM	**Membach**	84.26	320	P	P	10 59 59.7	+0.3
LMR	**La Mourre**	84.28	313	⇑*i*P	P	10 59 59.6	-0.1
	comp=Z,82nm,0.9s,mb5.3						
LMR	**La Mourre**	84.28	313	⇑*i*P	P	10 59 59.6	-0.1
	comp=Z,41nm,0.9s,mb5.3						
LMR	**La Mourre**	84.28	313	⇑*i*P	P	10 59 59.6	-0.1
LMR				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.3						
THEF	**They Montfort**	84.39	318	*e*P	P	10 59 59.8	-0.4
CABF	**La Chapelle**	84.40	316	⇑*i*P	P	11 00 00.3	0.0
	comp=Z,80nm,0.7s,mb5.4						
CABF	**La Chapelle**	84.40	316	⇑*i*P	P	11 00 00.3	0.0
	comp=Z,40nm,0.7s,mb5.3						
CABF	**La Chapelle**	84.40	316	⇑*i*P	P	11 00 00.3	0.0
CABF				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.4						
BEBN	**Eben Emael**	84.46	320	P	P	11 00 00.2	-0.3
ADK	**Adak**	84.51	39	*e*P	P	10 59 58.9	-1.8
	comp=Z,60nm,0.6s,mb5.7						
ADK	**Adak**	84.51	39	*e*P	P	10 59 59.5	-1.2
ADK				pmax	pmax		
	comp=Z,60nm,0.7s,mb5.6						
OG25	**Le Caire**	84.53	314	*e*P	P	11 00 00.3	-0.7
TAVF	**Tavernes**	84.59	313	*e*P	P	11 00 01.7	+0.4
ORIF	**Oris-en-Rattie**	84.64	314	⇑*i*P	P	11 00 01.2	-0.4
	comp=Z,55nm,0.7s,mb5.3						
ORIF	**Oris-en-Rattie**	84.64	314	⇑*i*P	P	11 00 01.2	-0.4
	comp=Z,28nm,0.7s,mb5.3						
ORIF	**Oris-en-Rattie**	84.64	314	⇑*i*P	P	11 00 01.2	-0.4
ORIF				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.3						
STOF	**St-Etienne Org**	84.67	314	*e*P	P	11 00 02.4	+0.7
BCLA	**Clavier**	84.71	320	P	P	11 00 07.2	+5.4
	comp=Z,27nm,1.9s,mb4.9						
OG05	**Jujurieux**	84.87	316	*e*P	P	11 00 02.7	0.0
SMRF	**Simiane la Rot**	84.92	314	⇑*i*P	P	11 00 03.4	+0.4
	comp=Z,53nm,0.8s,mb5.2						
SMRF	**Simiane la Rot**	84.92	314	⇑*i*P	P	11 00 03.4	+0.4
	comp=Z,53nm,0.8s,mb5.5						
MEZF	**Maizieres J’vi**	84.99	318	⇑*i*P	P	11 00 02.8	-0.4
	comp=Z,62nm,0.9s,mb5.2						
MEZF	**Maizieres J’vi**	84.99	318	⇑*i*P	P	11 00 02.8	-0.4
	comp=Z,62nm,0.9s,mb5.5						
GIVF	**Givet**	85.04	320	⇑*i*P	P	11 00 03.2	-0.2
	comp=Z,40nm,1.0s,mb5.0						
GIVF	**Givet**	85.04	320	⇑*i*P	P	11 00 03.2	-0.2
	comp=Z,20nm,1.0s,mb5.0						
GIVF	**Givet**	85.04	320	⇑*i*P	P	11 00 03.2	-0.2
GIVF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
GELF	**Grande-Etoile**	85.06	313	*e*P	P	11 00 03.7	0.0
DOU	**Dourbes**	85.19	320	P	P	11 00 03.9	-0.2
SNF	**Seneffe**	85.36	320	P	P	11 00 04.9	-0.1
BAIF	**Baives**	85.44	320	⇑*i*P	P	11 00 05.4	0.0
	comp=Z,67nm,0.9s,mb5.3						
BAIF	**Baives**	85.44	320	⇑*i*P	P	11 00 05.4	0.0
	comp=Z,33nm,0.9s,mb5.3						
BAIF	**Baives**	85.44	320	⇑*i*P	P	11 00 05.4	0.0
BAIF				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
VIVF	**Saint-Julien-l**	85.50	314	⇑*i*P	P	11 00 05.7	-0.2
	comp=Z,58nm,0.8s,mb5.2						
VIVF	**Saint-Julien-l**	85.50	314	⇑*i*P	P	11 00 05.7	-0.2
	comp=Z,29nm,0.8s,mb5.3						
VIVF	**Saint-Julien-l**	85.50	314	⇑*i*P	P	11 00 05.7	-0.2
VIVF				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.3						
LOR	**Lormes**	85.88	317	⇑*i*P	P	11 00 07.3	-0.4
	comp=Z,71nm,0.7s,mb5.4						
LOR	**Lormes**	85.88	317	⇑*i*P	P	11 00 07.3	-0.4
	comp=Z,35nm,0.7s,mb5.4						
LOR	**Lormes**	85.88	317	⇑*i*P	P	11 00 07.3	-0.4
LOR				pmax	pmax		
	comp=Z,35nm,0.7s,mb5.4						
SMF	**Signal de Mont**	85.94	316	⇑*i*P	P	11 00 07.5	-0.5
	comp=Z,91nm,0.7s,mb5.5						
SMF	**Signal de Mont**	85.94	316	⇑*i*P	P	11 00 07.5	-0.5
	comp=Z,46nm,0.7s,mb5.5						
SMF	**Signal de Mont**	85.94	316	⇑*i*P	P	11 00 07.5	-0.5
SMF				pmax	pmax		
	comp=Z,46nm,0.7s,mb5.5						
SSF	**Saint Saulge**	86.14	317	⇑*i*P	P	11 00 08.6	-0.4
	comp=Z,40nm,0.8s,mb5.1						
SSF	**Saint Saulge**	86.14	317	⇑*i*P	P	11 00 08.6	-0.4
	comp=Z,20nm,0.8s,mb5.1						
SSF	**Saint Saulge**	86.14	317	⇑*i*P	P	11 00 08.6	-0.4
SSF				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
LASF	**Ste Croix**	86.14	314	⇑*i*P	P	11 00 09.1	0.0
	comp=Z,22nm,0.7s,mb4.9						
PLDF	**La Plantade**	86.15	316	*e*P	P	11 00 09.2	+0.1
GAMB	**Gambell**	86.23	26	*e*P	P	11 00 08.5	-0.6
GAMB				*e*sP	sP	11 00 42.1	+5.8
AVF	**Avril sur Loir**	86.27	316	⇑*i*P	P	11 00 09.1	-0.5
	comp=Z,56nm,1.0s,mb5.2						
AVF	**Avril sur Loir**	86.27	316	⇑*i*P	P	11 00 09.1	-0.5
	comp=Z,28nm,1.0s,mb5.2						
AVF	**Avril sur Loir**	86.27	316	⇑*i*P	P	11 00 09.1	-0.5
AVF				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
LBL	**Lubilhac**	86.48	315	*e*P	P	11 00 10.9	+0.2
AGO	**Saint Agoulin**	86.48	316	*e*P	P	11 00 10.8	+0.1
PYM	**Petit Puy Mans**	86.60	315	*e*P	P	11 00 10.9	-0.3
BGF	**Bois d’Agland**	86.64	316	⇑*i*P	P	11 00 11.4	0.0
	comp=Z,70nm,0.9s,mb5.3						
BGF	**Bois d’Agland**	86.64	316	⇑*i*P	P	11 00 11.4	0.0
	comp=Z,35nm,0.9s,mb5.3						
BGF	**Bois d’Agland**	86.64	316	⇑*i*P	P	11 00 11.4	0.0
BGF				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.3						
EJON	**La Jonquera**	87.00	312	P	P	11 00 12.7	-0.5
	comp=Z,23nm,0.9s,mb5.1						
TCF	**Toulx Ste Croi**	87.10	316	⇑*i*P	P	11 00 13.6	-0.1
	comp=Z,31nm,0.9s,mb5.0						
TCF	**Toulx Ste Croi**	87.10	316	⇑*i*P	P	11 00 13.6	-0.1
	comp=Z,16nm,0.9s,mb4.9						
TCF	**Toulx Ste Croi**	87.10	316	⇑*i*P	P	11 00 13.6	-0.1
TCF				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
ETOS	**Mallorca**	87.32	310	P	P	11 00 14.9	+0.1
	comp=Z,63nm,1.3s,mb5.4						
CAF	**Calviac**	87.34	315	⇑*i*P	P	11 00 15.0	+0.1
	comp=Z,39nm,0.9s,mb5.0						
CAF	**Calviac**	87.34	315	⇑*i*P	P	11 00 15.0	+0.1
	comp=Z,19nm,0.9s,mb5.0						
CAF	**Calviac**	87.34	315	⇑*i*P	P	11 00 15.0	+0.1
CAF				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
MTLF	**Montolieu**	87.40	313	⇑*i*P	P	11 00 15.2	0.0
	comp=Z,29nm,0.7s,mb5.0						
MTLF	**Montolieu**	87.40	313	⇑*i*P	P	11 00 15.2	0.0
	comp=Z,14nm,0.7s,mb5.0						
MTLF	**Montolieu**	87.40	313	⇑*i*P	P	11 00 15.2	0.0
MTLF				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
TNA	**Tin City**	87.59	24	*e*P	P	11 00 14.9	-0.7
	comp=Z,50nm,0.7s,mb5.7						
RJF	**Les Rejaudoux**	87.69	315	⇑*i*P	P	11 00 16.7	+0.2
	comp=Z,62nm,1.0s,mb5.3						
RJF	**Les Rejaudoux**	87.69	315	⇑*i*P	P	11 00 16.7	+0.2
	comp=Z,31nm,1.0s,mb5.3						
RJF	**Les Rejaudoux**	87.69	315	⇑*i*P	P	11 00 16.7	+0.2
RJF				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.3						
EMIR	**Miracle**	88.06	312	P	P	11 00 19.0	+0.6
	comp=Z,36nm,0.6s,mb5.6						
LFF	**La Frestale**	88.28	315	⇑*i*P	P	11 00 19.7	+0.4
	comp=Z,30nm,0.6s,mb5.2						
LFF	**La Frestale**	88.28	315	⇑*i*P	P	11 00 19.7	+0.4
	comp=Z,15nm,0.6s,mb5.2						
LFF	**La Frestale**	88.28	315	⇑*i*P	P	11 00 19.7	+0.4
LFF				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.2						
LDF	**La Druitiere**	88.41	319	⇑*i*P	P	11 00 19.6	-0.2
	comp=Z,80nm,1.0s,mb5.4						
LDF	**La Druitiere**	88.41	319	⇑*i*P	P	11 00 19.6	-0.2
	comp=Z,40nm,1.0s,mb5.4						
LDF	**La Druitiere**	88.41	319	⇑*i*P	P	11 00 19.6	-0.2
LDF				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
EPOB	**Poblet**	88.46	311	P	P	11 00 20.5	+0.3
	comp=Z,232nm,2.0s,mb5.9						
FLN	**La Foliniere**	88.62	319	⇑*i*P	P	11 00 20.6	-0.3
	comp=Z,95nm,0.9s,mb5.5						
FLN	**La Foliniere**	88.62	319	⇑*i*P	P	11 00 20.6	-0.3
	comp=Z,47nm,0.9s,mb5.5						
FLN	**La Foliniere**	88.62	319	⇑*i*P	P	11 00 20.6	-0.3
FLN				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.5						
MFF	**Saint Martin d**	88.68	317	⇑*i*P	P	11 00 21.0	-0.2
	comp=Z,27nm,0.7s,mb5.1						
MFF	**Saint Martin d**	88.68	317	⇑*i*P	P	11 00 21.0	-0.2
	comp=Z,14nm,0.7s,mb5.1						
MFF	**Saint Martin d**	88.68	317	⇑*i*P	P	11 00 21.0	-0.2
MFF				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.1						
EPF	**Esparros**	88.80	313	⇑*i*P	P	11 00 21.3	-0.5
	comp=Z,17nm,0.8s,mb4.8						
EPF	**Esparros**	88.80	313	⇑*i*P	P	11 00 21.3	-0.5
	comp=Z,8.6nm,0.8s,mb4.8						
EPF	**Esparros**	88.80	313	⇑*i*P	P	11 00 21.3	-0.5
EPF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
GRR	**Gorron**	88.92	318	⇑*i*P	P	11 00 22.4	+0.1
	comp=Z,41nm,0.9s,mb5.2						
GRR	**Gorron**	88.92	318	⇑*i*P	P	11 00 22.4	+0.1
	comp=Z,21nm,0.9s,mb5.2						
GRR	**Gorron**	88.92	318	⇑*i*P	P	11 00 22.4	+0.1
GRR				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.2						
EBIE	**Bielsa**	88.98	313	P	P	11 00 23.7	+1.0
	comp=Z,88nm,1.6s,mb5.5						
ERTA	**Horta de San J**	89.06	311	P	P	11 00 23.1	-0.1
	comp=Z,61nm,1.1s,mb5.5						
DAG	**Danmarks Havn**	89.18	348	⇓*i*P	P	11 00 22.0	-0.9
	comp=Z,19nm,0.6s,mb5.3						
DAG				*e*		11 02 57.0	
ESAC	**San Caprasio**	89.56	312	P	P	11 00 25.3	-0.2
	comp=Z,68nm,0.7s,mb5.9						
EMOS	**Mosqueruela**	89.75	310	P	P	11 00 27.5	+1.1
	comp=Z,121nm,1.1s,mb5.9						
EBEN	**Beniarda**	89.78	309	P	P	11 00 27.4	+0.9
	comp=Z,158nm,1.7s,mb5.9						
SJPF	**Ste Jean**	89.92	313	⇑*i*P	P	11 00 27.7	+0.6
	comp=Z,52nm,1.0s,mb5.3						
SJPF	**Ste Jean**	89.92	313	⇑*i*P	P	11 00 27.7	+0.6
	comp=Z,26nm,1.0s,mb5.3						
SJPF	**Ste Jean**	89.92	313	⇑*i*P	P	11 00 27.7	+0.6
SJPF				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.3						
ECHE	**Chera**	90.23	310	P	P	11 00 29.6	+1.0
	comp=Z,18nm,0.6s,mb5.4						
ECHE	**Chera**	90.23	310	P	P	11 00 29.6	+1.0
ECHE				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.4						
UNV	**Unalaska Valle**	90.40	36	*e*P	P	11 00 27.7	-1.4
	comp=Z,147nm,0.9s,mb6.1						
QUIF	**Quistinic**	90.52	318	⇑*i*P	P	11 00 29.3	-0.5
	comp=Z,26nm,0.6s,mb5.2						
QUIF	**Quistinic**	90.52	318	⇑*i*P	P	11 00 29.3	-0.5
	comp=Z,13nm,0.6s,mb5.2						
QUIF	**Quistinic**	90.52	318	⇑*i*P	P	11 00 29.3	-0.5
QUIF				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.2						
EMUR	**La Murta**	90.70	308	P	P	11 00 31.5	+0.7
	comp=Z,308nm,3.1s						
ALE	**Alert**	90.80	357	P	P	11 00 30.0	-0.5
	comp=Z,261nm,0.7s,mb6.5,SNR=18						
ETOB	**Tobarra**	90.82	309	P	P	11 00 31.8	+0.4
	comp=Z,309nm,2.2s,mb6.0						
ETOR	**Torete**	90.88	311	P	P	11 00 31.7	+0.1
	comp=Z,53nm,0.6s,mb5.8						
ETOR	**Torete**	90.88	311	P	P	11 00 31.7	+0.1
ETOR				pmax	pmax		
	comp=Z,53nm,0.6s,mb5.8						
ECRI	**Cripan**	90.93	313	P	P	11 00 32.3	+0.5
	comp=Z,11nm,0.8s,mb5.0						
ECRI	**Cripan**	90.93	313	P	P	11 00 32.3	+0.5
ECRI				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.0						
RAO	**Raoul Island**	90.96	119	P	P	11 00 33.0	+0.8
RAO				pmax	pmax		
	comp=Z,312nm,0.5s,mb6.7						
RAO	**Raoul Island**	90.96	119	P	P	11 00 33.0	+0.8
	comp=Z,312nm,0.5s,mb6.7,baz=267,slow=24,SNR=2.8						
VNDA	**Vanda**	91.22	168	P	P	11 00 33.9	+1.5
VNDA				pmax	pmax		
	comp=Z,6.0nm,1.0s						
VNDA	**Vanda**	91.22	168	P	P	11 00 33.9	+1.5
	comp=Z,6.2nm,1.0s,mb4.7,baz=45,slow=3.9,SNR=4.7						
TOA0	**Torodi Ar. Sit**	91.24	283	*e*P	P	11 00 34.4	+0.6
TORD	**Torodi Ar. Bea**	91.24	283	P	P	11 00 34.6	+0.8
	comp=Z,8.3nm,0.7s,mb5.0,baz=87,slow=4.5,SNR=56						
TORD				PP	PP	11 04 11.0	-0.8
	comp=Z,1.1nm,1.0s,baz=113,slow=8.0,SNR=5.6						
TORD				PKKPbc	PKKPbc	11 17 55.6	-0.1
	comp=Z,0.3nm,0.4s,baz=314,slow=2.9,SNR=6.8						
TORD				LR	LR	11 40 06.3	
	comp=Z,217nm,19.9s,baz=320,slow=34						
ELAN	**Lanestosa**	91.50	314	P	P	11 00 35.4	+0.9
	comp=Z,95nm,1.4s,mb5.7						
EVIA	**Vianos**	91.56	309	P	P	11 00 35.1	+0.3
	comp=Z,19nm,0.8s,mb5.4						
EVIA	**Vianos**	91.56	309	P	P	11 00 35.1	+0.3
EVIA				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.4						
ENIJ	**Nijar**	91.59	307	P	P	11 00 35.5	+0.6
	comp=Z,8.6nm,0.5s,mb5.2						
ENIJ	**Nijar**	91.59	307	P	P	11 00 35.5	+0.5
ENIJ				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.3						
EQES	**Quesada**	92.13	308	P	P	11 00 37.7	+0.2
	comp=Z,46nm,1.2s,mb5.6						
EBER	**Berja**	92.14	307	P	P	11 00 37.6	+0.1
	comp=Z,152nm,1.5s,mb6.0						
GUD	**Guadarrama**	92.48	311	P	P	11 00 39.7	+0.7
	comp=Z,24nm,0.7s,mb5.5						
GUD	**Guadarrama**	92.48	311	P	P	11 00 39.7	+0.7
GUD				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.5						
ESDC	**Sonseca Array**	92.51	310	P	P	11 00 39.4	+0.2
	comp=Z,16nm,0.5s,mb5.6						
ESDC	**Sonseca Array**	92.51	310	P	P	11 00 39.7	+0.5
	comp=Z,8.8nm,0.6s,mb5.2,baz=59,slow=4.3,SNR=38						
ESDC				PKKP	PKKPbc	11 17 49.8	-3.5
	comp=Z,1.6nm,0.8s,baz=262,slow=2.1,SNR=7.1						
ESLA	**Sonseca Array**	92.51	310	*e*P	P	11 00 39.4	+0.2
	comp=Z,2.4nm,0.8s,mb4.6						
EBAN	**Banos Encina**	92.63	309	P	P	11 00 39.1	-0.7
	comp=Z,24nm,1.0s,mb5.5						
EBAN	**Banos Encina**	92.63	309	P	P	11 00 39.1	-0.7
EBAN				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.5						
ERON	**Agron**	92.84	308	P	P	11 00 40.5	-0.3
IMA2	**Indian Mountai**	93.08	22	*e*P	P	11 00 41.3	+0.1
ELOJ	**Sierra Loja**	93.09	308	P	P	11 00 40.8	-1.2
	comp=Z,3.1nm,0.5s,mb4.9						
ELOJ	**Sierra Loja**	93.09	308	P	P	11 00 40.8	-1.1
ELOJ				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.9						
ELUQ	**Luque**	93.11	308	P	P	11 00 41.0	-1.0
	comp=Z,5.0nm,0.5s,mb5.1						
ELUQ	**Luque**	93.11	308	P	P	11 00 41.0	-1.0
ELUQ				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb5.1						
EADA	**Adamuz**	93.24	309	P	P	11 00 41.7	-0.9
	comp=Z,53nm,1.1s,mb5.8						
SDPT	**Sand Point**	93.46	34	*e*P	P	11 00 41.8	-1.4
SVW2	**Sparrevohn**	94.12	27	*e*P	P	11 00 46.5	+0.4
COLA	**College**	95.79	22	*e*P	P	11 00 53.8	+0.1
	comp=Z,6.3nm,0.7s,mb5.2						
COLA	**College**	95.79	22	P	P	11 00 52.6	-1.1
COLA				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb5.1						
MCK	**McKinley**	95.90	24	*e*P	P	11 00 52.4	-1.8
	comp=Z,11nm,0.8s,mb5.3						
MCK	**McKinley**	95.90	24	*e*P	P	11 00 52.4	-1.8
MCK				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.3						
KDAK	**Kodiak Island**	96.77	30	P	P	11 00 57.9	-0.4
	comp=Z,184nm,0.6s,mb6.7,SNR=10.0						
KDAK	**Kodiak Island**	96.77	30	*e*P	P	11 00 57.5	-0.7
	comp=Z,13nm,0.5s,mb5.6						
KDAK	**Kodiak Island**	96.77	30	P	P	11 00 57.4	-0.9
	comp=Z,22nm,0.7s,mb5.7,baz=309,slow=2.5,SNR=33						
KDAK				S	SKSac	11 11 27.8	-1.1
	comp=Z,12nm,1.1s,baz=288,slow=18,SNR=7.3						
SLKM	**Skilak Lake**	96.77	27	*e*P	P	11 00 56.7	-1.5
PMR	**Palmer**	96.78	26	*e*P	P	11 00 57.1	-1.1
	comp=Z,26nm,0.8s,mb5.7						
PMR	**Palmer**	96.78	26	*e*P	P	11 00 57.1	-1.1
PMR				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.7						
SML	**Sawmill**	97.02	25	*e*P	P	11 00 58.8	-0.5
EGAK	**Eagle**	98.30	21	*e*P	P	11 01 03.6	-1.4
	comp=Z,4.9nm,0.8s,mb5.1						
MENT	**Mentasta**	98.34	23	*e*P	P	11 01 05.6	+0.4
INK	**Inuvik**	98.54	16	*e*P	P	11 01 04.9	-1.1
	comp=Z,748nm,0.8s						
INK	**Inuvik**	98.54	16	P	P	11 01 05.2	-0.8
	comp=Z,19nm,0.6s,mb5.8,baz=343,slow=5.2,SNR=94						
INK				PP	PP	11 05 06.0	-0.8
	comp=Z,2.9nm,0.8s,baz=351,slow=7.2,SNR=4.3						
LIC	**Lamto**	98.66	277	⇑*i*P	P	11 01 06.9	-0.8
	comp=Z,46nm,1.4s,mb5.5						
LIC				*e*MLR	MLR		
	comp=Z,309nm,22.2s						
LIC	**Lamto**	98.66	277	⇑*i*P	P	11 01 06.9	-0.8
	comp=Z,23nm,1.4s,mb5.5						
LIC				LR	LR		
	comp=Z,150nm,22.3s						
EYAK	**Cordova Ski Ar**	98.72	26	*e*P	P	11 01 05.7	-1.3
RES	**Resolute Bay**	99.07	2	*e*P	P	11 01 08.2	-0.1
	comp=Z,918nm,0.8s						
RES				*e*PP	PP	11 05 05.3	-5.4
DAWY	**Dawson**	99.34	21	*e*P	P	11 01 08.6	-1.0
YKA	**Yellowknife Ar**	108.00	14	Pdif	Pdif	11 01 48.1	-0.2
YKA				PKPdf	PKiKP	11 05 54.1	-0.7
YKA				PP	PP	11 06 12.5	-4.8
YKA				PKKPbc	PKKPbc	11 17 06.5	-3.5
YKA				PKKPab	PKKPab	11 17 23.1	0.0
YKA	**Yellowknife Ar**	108.00	14	P	Pdif	11 01 48.1	-0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	**Yellowknife Ar**	108.00	14	Pdiff	Pdif	11 01 48.1	-0.2
	comp=Z,1.2nm,0.7s,baz=327,slow=4.3,SNR=20						
YKA				PKiKP	PKiKP	11 05 54.1	-0.7
	comp=Z,0.6nm,0.6s,baz=314,slow=3.1,SNR=6.7						
YKA				PP	PP	11 06 12.5	-4.8
	comp=Z,4.5nm,0.7s,baz=333,slow=7.7,SNR=15						
YKA				PKKPbc	PKKPbc	11 17 06.4	-3.5
	comp=Z,0.6nm,0.8s,baz=137,slow=2.0,SNR=7.5						
YKA				PKKPab	PKKPab	11 17 23.0	0.0
	comp=Z,1.1nm,0.9s,baz=144,slow=2.8,SNR=7.5						
LFA	**Lagoa do Fogo**	109.11	313	*e*P	Pdif	11 02 02.9	+10
PGC	**Sidney**	116.14	27	*e*PKPdf	PKPdf	11 06 11.1	+0.3
EDM	**Edmonton**	116.34	18	*e*PKPdf	PKPdf	11 06 10.1	-0.9
EDM	**Edmonton**	116.34	18	PKIKP	PKPdf	11 06 10.7	-0.3
A05A	**Maple Falls**	116.49	26	⇑P	PKPdf	11 06 10.7	-0.7
	baz=116,SNR=5.9						
A06A	**Chilliwack**	116.67	26	⇑P	PKPdf	11 06 11.0	-0.7
	baz=116						
B05A	**Bryant**	117.03	27	⇓P	PKPdf	11 06 12.1	-0.4
	baz=117,SNR=14						
C04A	**Brinnon**	117.05	27	⇓P	PKPdf	11 06 12.2	-0.3
	baz=117						
B06A	**Marblemount**	117.11	26	⇓P	PKPdf	11 06 12.0	-0.6
	baz=117						
JCW	**Jim Creek**	117.16	26	P	PKPdf	11 06 12.7	0.0
A07A	**Ashnola River,**	117.18	25	⇑P	PKPdf	11 06 12.5	-0.2
	baz=117,SNR=7.1						
SCHQ	**Schefferville**	117.23	348	PKP	PKPdf	11 06 12.1	-0.5
SCHQ				PP	PP	11 07 21.1	-1.9
SCHQ	**Schefferville**	117.23	348	PKP	PKPdf	11 06 12.1	-0.5
	comp=Z,5.7nm,0.5s,baz=26,slow=2.4,SNR=21						
SCHQ				PP	PP	11 07 21.1	-1.9
	comp=Z,4.2nm,0.7s,baz=13,slow=6.6,SNR=4.7						
D04A	**Dobbs Creek Ra**	117.57	28	⇑P	PKPdf	11 06 13.2	-0.4
	baz=117						
E03A	**Lebam**	117.62	29	⇑P	PKPdf	11 06 13.2	-0.5
	baz=118						
C05A	**Tolt Reservoir**	117.64	27	⇑P	PKPdf	11 06 13.3	-0.4
	baz=118						
B07A	**Winthrop**	117.74	25	P	PKPdf	11 06 13.6	-0.2
	baz=118,SNR=5.6						
FFC	**Flin Flon**	117.79	11	*e*PKPdf	PKPdf	11 06 12.3	-1.4
FFC				*e*PP	PP	11 07 22.3	-4.6
FFC	**Flin Flon**	117.79	11	*e*PKIKP	PKPdf	11 06 12.3	-1.4
C06A	**Tall Timber Ra**	117.82	26	⇑P	PKPdf	11 06 13.5	-0.5
	baz=118						
D05A	**Enumclaw**	117.89	27	⇑P	PKPdf	11 06 14.0	-0.2
	baz=118,SNR=5.8						
A09A	**Danville**	117.97	24	⇑P	PKPdf	11 06 14.1	-0.1
	baz=118,SNR=6.5						
E04A	**Onalaska**	117.99	28	⇑P	PKPdf	11 06 14.2	-0.1
	baz=118						
F03A	**Seaside**	118.07	29	⇑P	PKPdf	11 06 14.2	-0.3
	baz=118						
B08A	**Colville Reser**	118.15	25	P	PKPdf	11 06 14.2	-0.4
	baz=118,SNR=9.7						
C07A	**Waterville**	118.36	26	P	PKPdf	11 06 14.3	-0.7
	baz=118,SNR=12						
A10A	**Northport**	118.38	23	⇓P	PKPdf	11 06 14.6	-0.4
	baz=118,SNR=7.4						
WTV	**Waterville**	118.40	26	P	PKPdf	11 06 14.6	-0.5
TDL	**Tradedollar La**	118.40	28	P	PKPdf	11 06 15.5	+0.4
E05A	**Randle**	118.46	28	⇓P	PKPdf	11 06 14.6	-0.7
	baz=118						
TBM	**Table Mountain**	118.52	26	P	PKPdf	11 06 15.2	-0.1
B09A	**Rice**	118.59	24	⇓P	PKPdf	11 06 15.1	-0.3
	baz=118,SNR=18						
F04A	**Amboy**	118.61	28	⇑P	PKPdf	11 06 15.3	-0.3
	baz=118,SNR=9.9						
EBG	**Ellensburg**	118.73	27	P	PKPdf	11 06 15.8	0.0
D07A	**Quincy**	118.78	26	⇓P	PKPdf	11 06 15.4	-0.5
	baz=119,SNR=8.5						
E06A	**Yakima**	118.83	27	⇑P	PKPdf	11 06 15.8	-0.2
	baz=119,SNR=6.5						
A11A	**Hall Mountain,**	118.86	23	⇓P	PKPdf	11 06 16.3	+0.3
	baz=119,SNR=15						
C09A	**Chrisman Ranch**	119.03	25	⇓P	PKPdf	11 06 16.0	-0.4
	baz=119						
B10A	**Chitwood Farm,**	119.06	24	⇑P	PKPdf	11 06 16.3	-0.1
	baz=119						
H03A	**Soap Creek Ran**	119.10	30	⇓P	PKPdf	11 06 16.3	-0.3
	baz=119						
MXC	**Moxie City**	119.11	27	P	PKPdf	11 06 16.6	+0.1
G04A	**Mulino**	119.12	29	⇓P	PKPdf	11 06 16.4	-0.2
	baz=119						
NEW	**Newport**	119.13	24	*e*PKPdf	PKPdf	11 06 15.7	-0.8
NEW	**Newport**	119.13	24	PKIKP	PKPdf	11 06 16.0	-0.5
NEW				pmax	pmax		
	comp=Z,6.0nm,0.7s						
NEW				pmax	pmax		
	comp=N,3.0nm,1.0s						
NEW	**Newport**	119.13	24	PKP	PKPdf	11 06 16.0	-0.5
	comp=N,5.9nm,0.7s,baz=241,slow=2.4,SNR=20						
NEW				SKP		11 09 44.3	
	comp=N,2.6nm,1.0s,baz=326,slow=1.0,SNR=3.7						
A12A	**Yaak River Ran**	119.15	22	P	PKPdf	11 06 16.7	+0.2
	baz=119,SNR=12						
B11A	**Sandpoint**	119.28	23	⇑P	PKPdf	11 06 16.7	-0.1
	baz=119,SNR=8.2						
I02A	**Mapleton**	119.31	31	⇓P	PKPdf	11 06 17.1	+0.1
	baz=119						
E07A	**Sunnyside**	119.32	26	⇑P	PKPdf	11 06 16.8	-0.2
	baz=119,SNR=9.2						
D08A	**Wollman Farm,**	119.34	26	⇑P	PKPdf	11 06 16.6	-0.3
	baz=119,SNR=9.2						
C10A	**Spilker Farm,**	119.41	24	⇑P	PKPdf	11 06 16.6	-0.5
	baz=119,SNR=5.5						
F06A	**Goldendale**	119.50	28	⇓P	PKPdf	11 06 16.9	-0.4
	baz=119,SNR=7.4						
B12A	**Libby**	119.56	22	⇑P	PKPdf	11 06 17.1	-0.2
	baz=119						
D09A	**Jones Farm, Ri**	119.60	25	⇓P	PKPdf	11 06 17.1	-0.3
	baz=119,SNR=11						
A13A	**Flathead Natio**	119.61	21	⇓P	PKPdf	11 06 17.4	-0.1
	baz=119,SNR=48						

I03A	**Eugene**	**119.61**	**31**	⇓P	PKPdf	11 06 17.6	0.0
	baz=120						
H04A	**Detroit Lake**	**119.64**	**29**	⇓P	PKPdf	11 06 17.0	-0.6
	baz=120,SNR=12						
G05A	**Wamic**	**119.65**	**28**	⇓P	PKPdf	11 06 17.5	-0.1
	baz=120						
PRW	**Prosser**	**119.66**	**27**	P	PKPdf	11 06 18.2	+0.6
E08A	**Dider Farm, El**	**119.72**	**26**	P	PKPdf	11 06 17.8	+0.1
	baz=120,SNR=27						
F07A	**Phinny Hill Vi**	**119.80**	**27**	⇑P	PKPdf	11 06 17.9	0.0
	baz=120,SNR=8.1						
K01A	**Sixes**	**119.82**	**32**	⇓P	PKPdf	11 06 17.9	-0.1
	baz=120						
J02A	**Umpqua**	**119.89**	**31**	⇑P	PKPdf	11 06 18.1	0.0
	baz=120						
G06A	**Carlson Farm,**	**119.97**	**28**	⇓P	PKPdf	11 06 18.1	-0.1
	baz=120,SNR=6.5						
D10A	**Wagner Farm, O**	**120.03**	**25**	P	PKPdf	11 06 17.8	-0.5
	baz=120,SNR=18						
B13A	**Whitefish**	**120.06**	**22**	⇓P	PKPdf	11 06 17.9	-0.4
	baz=120,SNR=16						
E09A	**Wood Farm, Sta**	**120.10**	**25**	⇑P	PKPdf	11 06 18.0	-0.4
	baz=120						
H05A	**Madras**	**120.13**	**29**	⇓P	PKPdf	11 06 18.6	0.0
	baz=120,SNR=9.4						
I04A	**Tendick Farm,**	**120.18**	**30**	⇓P	PKPdf	11 06 18.2	-0.5
	baz=120,SNR=7.5						
J03A	**Ideyld Park**	**120.20**	**31**	⇑P	PKPdf	11 06 18.7	0.0
	baz=120						
K02A	**Glendale**	**120.36**	**32**	⇑P	PKPdf	11 06 19.0	-0.1
	baz=120						
F08A	**Pendleton**	**120.38**	**26**	⇓P	PKPdf	11 06 18.8	-0.2
	baz=120,SNR=8.5						
G07A	**Ruggs Ranch, H**	**120.39**	**27**	⇑P	PKPdf	11 06 18.8	-0.3
	baz=120,SNR=5.3						
D11A	**Klaveano Farm,**	**120.42**	**24**	⇑P	PKPdf	11 06 18.7	-0.4
	baz=120						
I05A	**Bend**	**120.47**	**29**	⇑P	PKPdf	11 06 19.3	+0.1
	baz=120,SNR=15						
H06A	**Lindquist Farm**	**120.49**	**28**	⇑P	PKPdf	11 06 19.1	-0.2
	baz=120,SNR=11						
E10A	**Myers Farm, Un**	**120.56**	**25**	⇓P	PKPdf	11 06 18.6	-0.7
	baz=120,SNR=6.8						
C13A	**Hot Springs**	**120.59**	**22**	⇑P	PKPdf	11 06 19.0	-0.3
	baz=120,SNR=8.3						
G08A	**Pilot Rock**	**120.69**	**27**	P	PKPdf	11 06 19.6	0.0
	baz=120,SNR=20						
J04A	**Umpqua Nationa**	**120.73**	**30**	⇓P	PKPdf	11 06 19.9	+0.1
	baz=121,SNR=16						
L02A	**Cave Junction**	**120.73**	**32**	⇑P	PKPdf	11 06 19.7	0.0
	baz=121						
HUMO	**Hull Mountain**	**120.75**	**31**	*e*PKPdf	PKPdf	11 06 19.9	0.0
HUMO	**Hull Mountain**	**120.75**	**31**	⇓P	PKPdf	11 06 19.8	0.0
	baz=121,SNR=10						
C14A	**Swan Lake**	**120.83**	**22**	⇓P	PKPdf	11 06 19.6	-0.2
	baz=121						
F09A	**S2 Ranch, Elgi**	**120.83**	**26**	P	PKPdf	11 06 19.6	-0.3
	baz=121,SNR=30						
F10A	**Beach Ranch, E**	**120.92**	**25**	⇓P	PKPdf	11 06 19.5	-0.5
	baz=121,SNR=41						
E11A	**Bogner Ranch,**	**121.03**	**24**	P	PKPdf	11 06 19.1	-1.1
	baz=121,SNR=16						
D13A	**Huson**	**121.12**	**23**	⇑P	PKPdf	11 06 19.6	-0.7
	baz=121,SNR=18						
I06A	**Prineville**	**121.14**	**29**	⇓P	PKPdf	11 06 20.9	+0.4
	baz=121,SNR=16						
G09A	**Cove**	**121.23**	**26**	P	PKPdf	11 06 20.3	-0.4
	baz=121,SNR=6.7						
I07A	**Izee**	**121.37**	**28**	⇓P	PKPdf	11 06 21.2	+0.2
	baz=121,SNR=19						
K04A	**Chilquin**	**121.38**	**31**	⇓P	PKPdf	11 06 20.9	-0.1
	baz=121						
H08A	**Prairie City**	**121.42**	**27**	⇓P	PKPdf	11 06 21.0	-0.1
	baz=121,SNR=11						
F11A	**Grangeville**	**121.43**	**25**	⇓P	PKPdf	11 06 20.1	-0.9
	baz=121,SNR=29						
D14A	**Greenough**	**121.49**	**22**	⇓P	PKPdf	11 06 20.3	-0.8
	baz=121,SNR=16						
YBH	**Yreka Blue Hor**	**121.50**	**32**	⇑P	PKPdf	11 06 20.6	-0.7
	baz=121						
MSO	**Missoula**	**121.54**	**22**	*e*PKPdf	PKPdf	11 06 20.2	-1.0
L04A	**Klamath Falls**	**121.61**	**31**	⇑P	PKPdf	11 06 21.3	-0.2
	baz=122,SNR=6.6						
M02C	**Callahan**	**121.67**	**32**	⇑P	PKPdf	11 06 21.9	+0.3
	baz=122,SNR=6.3						
J06A	**Christmas Vall**	**121.69**	**29**	P	PKPdf	11 06 21.9	+0.3
	baz=122,SNR=32						
K05A	**Summer Lake**	**121.72**	**30**	⇑P	PKPdf	11 06 22.0	+0.3
	baz=122,SNR=15						
CHMT	**Chamberlain Mo**	**121.73**	**22**	*e*PKPdf	PKPdf	11 06 20.8	-0.8
CHMT				*e*PP	PP	11 07 54.5	+0.3
H09A	**Durkee**	**121.76**	**26**	⇓P	PKPdf	11 06 21.2	-0.5
	baz=122						
E13A	**Victor**	**121.77**	**23**	P	PKPdf	11 06 21.0	-0.6
	baz=122,SNR=55						
BMO	**Blue Mountains**	**121.77**	**26**	*e*PKPdf	PKPdf	11 06 20.1	-1.6
BMO				*e*PP	PP	11 07 58.1	+3.5
G11A	**Walters Elk Ra**	**121.78**	**25**	⇓P	PKPdf	11 06 20.9	-0.8
	baz=122						
D15A	**Lincoln**	**121.89**	**21**	P	PKPdf	11 06 21.4	-0.5
	baz=122,SNR=19						
F12A	**Elk City**	**121.91**	**24**	⇓P	PKPdf	11 06 21.2	-0.7
	baz=122,SNR=9.7						
M04C	**Macdoel**	**121.92**	**31**	⇓P	PKPdf	11 06 21.9	-0.2
	baz=122,SNR=6.7						
I08A	**Drewsey**	**121.94**	**28**	⇓P	PKPdf	11 06 21.9	-0.1
	baz=122,SNR=16						
K06A	**Valley Falls**	**121.98**	**30**	P	PKPdf	11 06 22.6	+0.4
	baz=122,SNR=21						
EGMT	**Eagleton**	**121.99**	**19**	*e*PKPdf	PKPdf	11 06 21.6	-0.4
EGMT				*e*SKPdf	SKPdf	11 09 50.2	-1.2
EGMT	**Eagleton**	**121.99**	**19**	⇑P	PKPdf	11 06 21.7	-0.3
	baz=122						
J07A	**Hines**	**122.00**	**29**	⇓P	PKPdf	11 06 22.6	+0.4
	baz=122,SNR=28						
E14A	**Clinton**	**122.06**	**22**	P	PKPdf	11 06 21.8	-0.4
	baz=122,SNR=17						
M03C	**McCloud**	**122.14**	**32**	⇑P	PKPdf	11 06 22.1	-0.4
	baz=122,SNR=11						
LASM	**Arnica Sink**	**122.19**	**31**	P	PKPdf	11 06 23.0	+0.4
H10A	**Noah’s Angus R**	**122.22**	**26**	P	PKPdf	11 06 21.7	-0.8
	baz=122,SNR=29						
L05A	**Lakeview**	**122.24**	**31**	⇓P	PKPdf	11 06 23.1	+0.4
	baz=122,SNR=10						
F13A	**Darby**	**122.25**	**23**	⇑P	PKPdf	11 06 21.8	-0.8
	baz=122						
I09A	**Lost Marbles R**	**122.27**	**27**	⇓P	PKPdf	11 06 22.2	-0.5
	baz=122,SNR=16						
E15A	**Deer Lodge**	**122.37**	**22**	⇓P	PKPdf	11 06 22.1	-0.7
	baz=122,SNR=6.4						
J08A	**Circle Bar Ran**	**122.41**	**28**	P	PKPdf	11 06 23.2	+0.2
	baz=122,SNR=33						
WDC	**Whiskeytown Da**	**122.41**	**33**	*e*PKPdf	PKPdf	11 06 22.3	-0.7
WDC	**Whiskeytown Da**	**122.41**	**33**	*e*PKIKP	PKPdf	11 06 22.3	-0.7
WDC	**Whiskeytown Da**	**122.41**	**33**	⇓P	PKPdf	11 06 22.3	-0.7
	baz=122,SNR=6.8						
H11A	**Donnelly**	**122.45**	**25**	P	PKPdf	11 06 22.8	-0.2
	baz=122,SNR=26						
K07A	**Rock Creek Ran**	**122.55**	**29**	⇓P	PKPdf	11 06 23.4	+0.1
	baz=122,SNR=45						
O02C	**Red Bluff**	**122.56**	**33**	⇑P	PKPdf	11 06 23.3	0.0
	baz=122						
M05C	**Lookout**	**122.59**	**31**	⇑P	PKPdf	11 06 23.3	-0.1
	baz=122,SNR=8.8						
I10A	**Payette**	**122.60**	**26**	⇓P	PKPdf	11 06 23.3	0.0
	baz=122,SNR=15						
F14A	**Wisdom**	**122.61**	**23**	⇑P	PKPdf	11 06 22.9	-0.4
	baz=122,SNR=19						
MOD	**Modoc**	**122.62**	**30**	*e*PKPdf	PKPdf	11 06 23.6	+0.2
MOD	**Modoc**	**122.62**	**30**	⇓P	PKPdf	11 06 23.1	-0.3
	baz=122,SNR=30						
J09A	**Fry Pan Ranch,**	**122.75**	**27**	P	PKPdf	11 06 23.7	+0.1
	baz=123,SNR=27						
HATC	**Hat Creek Radi**	**122.82**	**32**	⇑P	PKPdf	11 06 23.8	0.0
	baz=123,SNR=7.5						
G13A	**Cobalt**	**122.86**	**24**	⇓P	PKPdf	11 06 23.6	-0.1
	baz=123,SNR=8.3						
K08A	**Mann Creek Ran**	**122.88**	**28**	⇑P	PKPdf	11 06 23.9	+0.1
	baz=123,SNR=44						
F15A	**Butte**	**122.92**	**22**	⇑P	PKPdf	11 06 23.3	-0.6
	baz=123,SNR=8.2						
GASB	**Alder Springs**	**122.96**	**34**	⇓P	PKPdf	11 06 24.6	+0.4
	baz=123,SNR=6.3						
L07A	**Adell**	**123.01**	**30**	⇓P	PKPdf	11 06 24.3	+0.2
	baz=123,SNR=11						
WVOR	**Wild Horse Val**	**123.04**	**29**	*e*PKPdf	PKPdf	11 06 24.3	+0.1
WVOR	**Wild Horse Val**	**123.04**	**29**	PKIKP	PKPdf	11 06 24.3	+0.1
M06C	**Likely Place G**	**123.04**	**31**	⇑P	PKPdf	11 06 24.5	+0.2
	baz=123,SNR=9.2						
G14A	**Jackson**	**123.05**	**23**	⇑P	PKPdf	11 06 24.0	-0.2
	baz=123,SNR=65						
H12A	**Diamond D Ranc**	**123.06**	**25**	⇓P	PKPdf	11 06 23.8	-0.4
	baz=123,SNR=20						
ULM	**Lac du Bonnet**	**123.10**	**8**	*e*PKPdf	PKPdf	11 06 22.7	-1.3
ULM				*e*SKPdf	SKPdf	11 09 51.5	-1.9
ULM	**Lac du Bonnet**	**123.10**	**8**	PKP	PKPdf	11 06 22.9	-1.2
	comp=N,15nm,0.7s,baz=3.9,slow=2.6,SNR=41						
ULM				PP	PP	11 08 00.4	-2.8
	comp=N,4.8nm,0.7s,baz=359,slow=4.8,SNR=4.5						
ULM				SKP		11 09 51.2	
	comp=N,3.6nm,0.7s,baz=26,slow=0.8,SNR=4.4						
I11A	**Placerville**	**123.10**	**26**	⇑P	PKPdf	11 06 23.7	-0.5
	baz=123,SNR=32						
J10A	**Berg Farm, Mel**	**123.13**	**27**	⇓P	PKPdf	11 06 24.1	-0.2
	baz=123,SNR=8.2						
DGMT	**Dagmar**	**123.19**	**15**	*e*PKPdf	PKPdf	11 06 24.2	-0.1
HOPS	**Hopland**	**123.22**	**35**	⇓P	PKPdf	11 06 24.7	0.0
	baz=123						
K09A	**Rome**	**123.26**	**28**	⇓P	PKPdf	11 06 24.9	+0.2
	baz=123,SNR=47						
DLMT	**Dillon**	**123.28**	**23**	*e*PKPdf	PKPdf	11 06 24.6	+0.1
H13A	**Challis**	**123.29**	**24**	⇑P	PKPdf	11 06 24.3	-0.3
	baz=123,SNR=33						
ELFS	**Eagle Lake Fie**	**123.34**	**32**	⇓P	PKPdf	11 06 25.1	+0.3
	baz=123						
L08A	**Fields**	**123.36**	**29**	P	PKPdf	11 06 25.4	+0.6
	baz=123,SNR=32						
O04C	**Chester**	**123.37**	**32**	P	PKPdf	11 06 25.1	+0.1
	baz=123,SNR=18						
BOZ	**Bozeman (W)**	**123.40**	**22**	*e*PKPdf	PKPdf	11 06 24.4	-0.4
BOZ				*e*PP	PP	11 08 07.8	+2.3
BOZ				*e*SKPdf	SKPdf	11 09 53.7	-0.5
BOZ	**Bozeman (W)**	**123.40**	**22**	*e*PKIKP	PKPdf	11 06 24.4	-0.4
BOZ				*e*		11 08 07.8	
BOZ	**Bozeman (W)**	**123.40**	**22**	⇑P	PKPdf	11 06 24.9	+0.1
	baz=123						
G15A	**Dillon**	**123.49**	**23**	P	PKPdf	11 06 25.1	+0.1
	baz=123,SNR=36						
MFID	**Camas Ranch**	**123.56**	**26**	P	PKPdf	11 06 25.4	+0.2
	baz=123,SNR=46						
M07A	**Soldier Meadow**	**123.57**	**30**	⇑P	PKPdf	11 06 25.8	+0.5
	baz=123,SNR=24						
K10A	**MacKenzie Ranc**	**123.60**	**27**	P	PKPdf	11 06 25.4	+0.2
	baz=123,SNR=10.0						
MCMT	**McKenzie Canyo**	**123.63**	**23**	*e*PKPdf	PKPdf	11 06 25.6	+0.3
MNRC	**McLaughlin Nat**	**123.66**	**34**	⇓P	PKPdf	11 06 26.1	+0.6
	baz=124,SNR=5.6						
ORV	**Oroville**	**123.70**	**33**	P	PKPdf	11 06 25.2	-0.3
	baz=124,SNR=7.7						
N06A	**Buffalo Meadow**	**123.71**	**31**	⇓P	PKPdf	11 06 25.8	+0.2
	baz=124,SNR=29						
O05C	**Quincy**	**123.72**	**32**	⇑P	PKPdf	11 06 25.4	-0.1
	baz=124,SNR=7.9						
SUTB	**Sutter Butte**	**123.77**	**33**	⇑P	PKPdf	11 06 25.1	-0.6
	baz=124						
NSHM	**Saint Helena R**	**123.81**	**35**	*e*PKPdf	PKPdf	11 06 25.6	-0.2
L09A	**Wilkinson Ranc**	**123.82**	**28**	⇓P	PKPdf	11 06 26.5	+0.8
	baz=124,SNR=17						
I13A	**Wildhorse Cree**	**123.88**	**25**	P	PKPdf	11 06 26.1	+0.3
	baz=124,SNR=29						
M08A	**Happy Creek Ra**	**123.91**	**29**	⇑P	PKPdf	11 06 26.6	+0.7
	baz=124,SNR=15						
MCCM	**Marconi Confer**	**123.92**	**35**	⇓P	PKPdf	11 06 26.7	+0.7
	baz=124						
GCMT	**Greycliff**	**123.97**	**20**	*e*PKPdf	PKPdf	11 06 25.8	-0.1
GCMT				*e*PP	PP	11 08 08.6	-0.7
GCMT				*e*SKPdf	SKPdf	11 09 54.8	-0.5
J12A	**Stokes Ranch,**	**124.01**	**26**	⇑P	PKPdf	11 06 26.4	+0.3
	baz=124,SNR=34						
CVS	**Carmenet Viney**	**124.02**	**35**	⇑P	PKPdf	11 06 26.6	+0.4
	baz=124						
HLID	**Hailey**	**124.05**	**25**	*e*PKPdf	PKPdf	11 06 26.5	+0.4
HLID	**Hailey**	**124.05**	**25**	⇑P	PKPdf	11 06 26.7	+0.6
	baz=124						
Q03C	**Winters**	**124.07**	**34**	⇑P	PKPdf	11 06 27.1	+0.8
	baz=124						
N07B	**Gerlach**	**124.12**	**30**	⇑P	PKPdf	11 06 26.7	+0.4
	baz=124,SNR=15						
QLMT	**Earthquake Lak**	**124.17**	**22**	*e*PKPdf	PKPdf	11 06 27.2	+0.9
QLMT				*e*PP	PP	11 08 12.8	+2.2
LAO	**LASA Array**	**124.27**	**17**	*e*PKPdf	PKPdf	11 06 26.9	+0.5
LAO				*e*SKPdf	SKPdf	11 09 55.8	+0.1
J13A	**Cove Ranch, Pi**	**124.28**	**25**	⇓P	PKPdf	11 06 27.0	+0.4
	baz=124,SNR=55						
L10A	**Juniper Basin**	**124.33**	**28**	⇓P	PKPdf	11 06 27.2	+0.5
	baz=124,SNR=30						
M09A	**Marrel Ranch,**	**124.38**	**29**	⇑P	PKPdf	11 06 27.4	+0.5
	baz=124,SNR=12						
P06A	**Stead Airport,**	**124.46**	**32**	⇓P	PKPdf	11 06 27.1	+0.1
	baz=124						
YMR	**Madison River**	**124.48**	**22**	*e*PKPdf	PKPdf	11 06 27.5	+0.6
N08A	**GE Springer Mi**	**124.54**	**30**	⇑P	PKPdf	11 06 27.4	+0.3
	baz=124,SNR=13						
L11A	**Cat Creek Ranc**	**124.58**	**27**	⇑P	PKPdf	11 06 27.6	+0.4
	baz=124,SNR=22						
K12A	**Draper Farm, C**	**124.59**	**26**	⇑P	PKPdf	11 06 27.1	-0.1
	baz=124,SNR=8.0						
BDM	**Black Diamond**	**124.62**	**35**	⇑P	PKPdf	11 06 27.4	+0.1
	baz=124						
LAVA	**Lava Cap Winer**	**124.68**	**33**	⇓P	PKPdf	11 06 27.2	-0.3
	baz=124,SNR=7.7						
RLMT	**Red Lodge**	**124.69**	**20**	*e*PKPdf	PKPdf	11 06 27.1	-0.2
RLMT				*e*PP	PP	11 08 14.7	+0.6
YFT	**Old Faithful**	**124.72**	**22**	*e*PKPdf	PKPdf	11 06 29.2	+1.9
M10A	**I.L. Ranch, Tu**	**124.73**	**28**	⇓P	PKPdf	11 06 27.8	+0.4
	baz=125,SNR=17						
LKWY	**Lake**	**124.78**	**21**	*e*PKPdf	PKPdf	11 06 29.3	+1.8
LKWY	**Lake**	**124.78**	**21**	*e*PKIKP	PKPdf	11 06 29.3	+1.8
N09A	**Rock Creek Ran**	**124.78**	**29**	⇓P	PKPdf	11 06 28.1	+0.5
	baz=125,SNR=18						
JRSC	**Jasper Ridge**	**124.79**	**35**	⇓P	PKPdf	11 06 27.5	-0.3
	baz=125						
WCN	**Washoe City**	**124.81**	**32**	⇑P	PKPdf	11 06 27.9	+0.2
	baz=125						
WENL	**Wente Brothers**	**124.92**	**35**	⇑P	PKPdf	11 06 28.2	+0.2
	baz=125						
K13A	**Stover Farm, H**	**124.93**	**25**	⇓P	PKPdf	11 06 28.3	+0.4
	baz=125,SNR=10						
L12A	**House Creek Ra**	**124.93**	**26**	⇓P	PKPdf	11 06 28.0	+0.1
	baz=125,SNR=11						
AGMN	**Agassiz Refuge**	**125.01**	**8**	*e*PKPdf	PKPdf	11 06 26.5	-1.3
AGMN				*e*PP	PP	11 08 11.2	-4.8
R05C	**Kirkwood Meado**	**125.08**	**33**	⇑P	PKPdf	11 06 28.5	+0.2
	baz=125,SNR=6.4						
P07A	**Fallon**	**125.09**	**31**	⇓P	PKPdf	11 06 28.6	+0.4
	baz=125						
IMW	**Indian Meadow**	**125.15**	**22**	*e*PKPdf	PKPdf	11 06 28.7	+0.5
M11A	**Holland Ranch,**	**125.15**	**28**	P	PKPdf	11 06 29.1	+0.9
	baz=125,SNR=33						
S04C	**Ingram Canyon,**	**125.24**	**35**	⇑P	PKPdf	11 06 28.9	+0.3
	baz=125						
BMN	**Battle Mountai**	**125.25**	**29**	*e*PKPdf	PKPdf	11 06 29.2	+0.7
BMN	**Battle Mountai**	**125.25**	**29**	PKIKP	PKPdf	11 06 29.2	+0.7
DCID1	**Drake Creek**	**125.32**	**23**	*e*PKPdf	PKPdf	11 06 29.2	+0.6
MOOW	**Moose Ponds**	**125.35**	**22**	*e*PKPdf	PKPdf	11 06 28.7	+0.1
N10A	**Dunphy**	**125.37**	**29**	⇓P	PKPdf	11 06 28.9	+0.2
	baz=125						
CMB	**Columbia Colle**	**125.39**	**34**	*e*PKPdf	PKPdf	11 06 28.2	-0.7
CMB	**Columbia Colle**	**125.39**	**34**	PKIKP	PKPdf	11 06 28.8	-0.1
CMB	**Columbia Colle**	**125.39**	**34**	⇓P	PKPdf	11 06 28.6	-0.2
	baz=125,SNR=9.1						
K14A	**Jones Ranch, D**	**125.40**	**25**	⇑P	PKPdf	11 06 29.0	+0.3
	baz=125,SNR=35						
L13A	**Double Diamond**	**125.45**	**26**	⇑P	PKPdf	11 06 29.2	+0.4
	baz=125,SNR=26						
O09A	**Fish Creek Ran**	**125.47**	**30**	⇑P	PKPdf	11 06 29.3	+0.4
	baz=125,SNR=11						
TPAW	**Teton Pass**	**125.49**	**23**	*e*PKPdf	PKPdf	11 06 29.0	+0.1
LOHW	**Long Hollow**	**125.52**	**22**	*e*PKPdf	PKPdf	11 06 28.9	0.0
R06C	**Coleville**	**125.55**	**32**	⇑P	PKPdf	11 06 29.8	+0.7
	baz=125,SNR=12						
M12A	**Wells**	**125.56**	**27**	P	PKPdf	11 06 29.8	+0.7
	baz=125,SNR=41						
Q07A	**Schurz**	**125.58**	**32**	⇓P	PKPdf	11 06 29.7	+0.5
	baz=125						
PACP	**Pacheco Peak**	**125.61**	**35**	⇑P	PKPdf	11 06 29.9	+0.6
	baz=126						
REDW	**Red Top Meadow**	**125.64**	**23**	*e*PKPdf	PKPdf	11 06 29.2	0.0
REDW				*e*SKPdf	SKPdf	11 09 58.9	+0.4
N11A	**Elko Archery C**	**125.66**	**28**	⇑P	PKPdf	11 06 29.9	+0.6
	baz=126,SNR=12						
O10A	**Cortez Mining,**	**125.71**	**29**	⇓P	PKPdf	11 06 29.7	+0.3
	baz=126,SNR=10						
S06C	**San Francisco**	**125.80**	**33**	P	PKPdf	11 06 29.6	0.0
	baz=126,SNR=20						
EYMN	**Ely**	**125.86**	**5**	*e*PKPdf	PKPdf	11 06 28.7	-0.7
S05C	**Merced**	**125.92**	**34**	⇑P	PKPdf	11 06 29.9	0.0
	baz=126,SNR=9.1						
M13A	**Montello**	**125.94**	**26**	P	PKPdf	11 06 30.2	+0.5
	baz=126,SNR=44						
ELK	**Elko**	**125.95**	**28**	*e*PKPdf	PKPdf	11 06 30.7	+0.8
ELK	**Elko**	**125.95**	**28**	*e*PKIKP	PKPdf	11 06 30.7	+0.9
N12A	**Clover Valley,**	**125.95**	**27**	P	PKPdf	11 06 30.6	+0.8
	baz=126,SNR=35						
P09A	**Austin**	**125.97**	**30**	⇑P	PKPdf	11 06 30.1	+0.2
	baz=126						
T05C	**Eagle Field, D**	**126.04**	**35**	⇓P	PKPdf	11 06 30.9	+0.7
	baz=126						
R07C	**Lee Vining**	**126.08**	**33**	⇓P	PKPdf	11 06 30.8	+0.6
	baz=126						
Q08A	**Gabbs**	**126.09**	**31**	⇓P	PKPdf	11 06 30.5	+0.3
	baz=126,SNR=14						
HVU	**Hansel Valley**	**126.20**	**25**	*e*PKPdf	PKPdf	11 06 30.4	+0.1
HVU	**Hansel Valley**	**126.20**	**25**	*e*PKIKP	PKPdf	11 06 30.4	+0.1
NVAR	**Mina Array Bea**	**126.22**	**32**	PKP	PKPdf	11 06 31.4	+1.0
NVAR				SKKPbc		11 19 47.6	
NVAR	**Mina Array Bea**	**126.22**	**32**	PKP	PKPdf	11 06 31.4	+0.9
	comp=N,16nm,0.7s,baz=348,slow=1.5,SNR=88						
NVAR				SKKPbc		11 19 47.6	
	comp=N,0.4nm,0.7s,baz=195,slow=6.4,SNR=3.7						
O11A	**Cowboy Ranch,**	**126.24**	**28**	⇑P	PKPdf	11 06 30.8	+0.4
	baz=126,SNR=32						
P10A	**Eureka**	**126.25**	**29**	⇑P	PKPdf	11 06 31.0	+0.5
	baz=126,SNR=11						
N13A	**Wendover, West**	**126.33**	**27**	⇓P	PKPdf	11 06 31.0	+0.4
	baz=126,SNR=14						
V03C	**Hunter Liggett**	**126.33**	**36**	⇑P	PKPdf	11 06 31.3	+0.6
	baz=126						
U04C	**Hernandez Rese**	**126.36**	**35**	⇓P	PKPdf	11 06 31.4	+0.7
	baz=126						
R08A	**Mina**	**126.39**	**32**	⇓P	PKPdf	11 06 31.5	+0.8
	baz=126,SNR=11						
KCC	**Kaiser Creek**	**126.49**	**33**	P	PKPdf	11 06 31.4	+0.5
	baz=126,SNR=6.0						
Q09A	**Carvers**	**126.49**	**31**	⇓P	PKPdf	11 06 31.4	+0.5
	baz=126						
T06C	**Millerton Lake**	**126.50**	**34**	P	PKPdf	11 06 30.8	-0.2
	baz=126,SNR=16						
MLAC	**Mammoth Lakes**	**126.53**	**33**	⇑P	PKPdf	11 06 31.6	+0.6
	baz=126						
PDAR	**Pinedale Array**	**126.64**	**22**	PKP	PKPdf	11 06 30.8	-0.3
PDAR				SKP		11 09 58.6	
PDAR				PKKPbc		11 16 00.8	
PDAR	**Pinedale Array**	**126.64**	**22**	PKhKP		11 06 25.6	
	comp=N,1.1nm,0.5s,baz=144,slow=0.6,SNR=16						
PDAR				PKP	PKPdf	11 06 30.8	-0.3
	comp=N,19nm,0.9s,baz=114,slow=4.1,SNR=16						
PDAR				SKP		11 09 58.6	
	comp=N,1.0nm,0.6s,baz=220,slow=1.7,SNR=3.9						
PDAR				PKKPbc		11 16 00.8	
	comp=N,0.4nm,0.8s,baz=131,slow=6.7,SNR=3.6						
P11A	**Circle Ranch,**	**126.64**	**29**	⇓P	PKPdf	11 06 31.7	+0.5
	baz=126						
U05C	**Westside ANR,**	**126.75**	**35**	⇓P	PKPdf	11 06 32.2	+0.7
	baz=127						
PKD	**Parkfield**	**126.79**	**35**	⇑P	PKPdf	11 06 32.4	+0.8
	baz=127						
BGU	**Big Grassy Mou**	**126.79**	**26**	*e*PKPdf	PKPdf	11 06 31.3	-0.1
V04C	**Ramage Ranch,**	**126.81**	**36**	⇓P	PKPdf	11 06 32.3	+0.6
	baz=127						
HWUT	**Hardware Ranch**	**126.84**	**24**	*e*PKPdf	PKPdf	11 06 31.3	-0.2
HWUT				*e*PP	PP	11 08 27.5	-1.0
S08C	**White Mtn Res**	**126.98**	**32**	⇑P	PKPdf	11 06 32.7	+0.8
	baz=127,SNR=13						
R09A	**Tonopah**	**127.00**	**31**	P	PKPdf	11 06 32.2	+0.3
	baz=127,SNR=15						
HELL	**Mitchell Peak,**	**127.12**	**34**	P	PKPdf	11 06 32.5	+0.3
	baz=127,SNR=17						
V05C	**Boulder Hill,**	**127.21**	**35**	⇓P	PKPdf	11 06 32.6	+0.2
	baz=127						
RSSD	**Black Hills**	**127.24**	**17**	*e*PKPdf	PKPdf	11 06 31.9	-0.3
RSSD	**Black Hills**	**127.24**	**17**	*e*PKIKP	PKPdf	11 06 31.9	-0.3
Q11A	**Duckwater**	**127.25**	**29**	⇑P	PKPdf	11 06 32.7	+0.3
	baz=127,SNR=14						
RCTC	**Rector, Farmer**	**127.27**	**34**	⇑P	PKPdf	11 06 32.8	+0.3
	baz=127,SNR=5.6						
TIN	**Tinemaha**	**127.28**	**33**	⇑P	PKPdf	11 06 33.0	+0.5
	baz=127,SNR=5.3						
S09A	**Goldfield**	**127.31**	**32**	P	PKPdf	11 06 33.0	+0.5
	baz=127,SNR=25						
R10A	**Warm Springs**	**127.36**	**30**	⇑P	PKPdf	11 06 33.0	+0.4
	baz=127,SNR=9.4						
NOQ	**North Oquirrh**	**127.41**	**25**	*e*PKPdf	PKPdf	11 06 33.1	+0.5
DUG	**Dugway**	**127.48**	**26**	*e*PKPdf	PKPdf	11 06 32.9	+0.1
DUG	**Dugway**	**127.48**	**26**	*e*PKIKP	PKPdf	11 06 32.9	+0.1
DUG	**Dugway**	**127.48**	**26**	P	PKPdf	11 06 33.3	+0.5
	baz=127,SNR=41						
S10A	**Tonopah Range,**	**127.49**	**31**	P	PKPdf	11 06 33.5	+0.6
	baz=127,SNR=28						
Q12A	**Willow Creek R**	**127.49**	**29**	⇑P	PKPdf	11 06 33.1	+0.3
	baz=127,SNR=8.4						
CTU	**Camp Tracy**	**127.53**	**25**	*e*PKPdf	PKPdf	11 06 33.0	+0.2
SMMC	**Simmler**	**127.55**	**36**	⇑P	PKPdf	11 06 34.0	+0.9
	baz=127						
TRCR	**Troy Canyon**	**127.67**	**30**	*e*PKPdf	PKPdf	11 06 33.7	+0.5
JLU	**Jordanelle**	**127.73**	**25**	*e*PKPdf	PKPdf	11 06 33.4	+0.1
GRAC	**Grapevine Rang**	**127.78**	**32**	⇑P	PKPdf	11 06 33.8	+0.4
	baz=128,SNR=5.8						
CWC	**Cottonwood Cre**	**127.81**	**33**	⇑P	PKPdf	11 06 34.4	+0.9
	baz=128						
PKM	**Peak Mountain**	**127.94**	**36**	⇓P	PKPdf	11 06 34.8	+1.0
	baz=128,SNR=5.5						
DAU	**Daniels Canyon**	**127.97**	**25**	*e*PKPdf	PKPdf	11 06 34.5	+0.7
NLU	**North Lily Min**	**128.00**	**26**	*e*PKPdf	PKPdf	11 06 34.4	+0.6
S11A	**Rachel**	**128.13**	**30**	⇑P	PKPdf	11 06 35.0	+0.9
	baz=128,SNR=13						
MSNY	**Massena**	**128.15**	**350**	*e*PKPdf	PKPdf	11 06 33.6	-0.3
R12A	**Pony Springs,**	**128.16**	**29**	⇑P	PKPdf	11 06 34.5	+0.4
	baz=128,SNR=7.2						
DAC	**Darwin (Calif)**	**128.20**	**33**	*e*PKPdf	PKPdf	11 06 35.5	+1.2
DAC	**Darwin (Calif)**	**128.20**	**33**	PKIKP	PKPdf	11 06 33.2	-1.1
MPMC	**Manual Prospec**	**128.41**	**33**	⇑P	PKPdf	11 06 35.3	+0.6
	baz=128,SNR=11						
FURC	**Furnace Creek,**	**128.45**	**32**	⇑P	PKPdf	11 06 35.2	+0.5
	baz=128,SNR=12						
LRMC	**Laurel Mountai**	**128.74**	**34**	⇓P	PKPdf	11 06 36.1	+0.8
	baz=129						
U10A	**Ash Meadows, A**	**128.77**	**32**	⇑P	PKPdf	11 06 36.1	+0.8
	baz=129,SNR=7.9						
OSI	**Osito Adit**	**128.78**	**35**	⇓P	PKPdf	11 06 35.9	+0.5
	baz=129						
TMUT	**Trail Mountain**	**128.92**	**26**	*e*PKPdf	PKPdf	11 06 36.2	+0.7
BLG	**Laguna Peak**	**128.94**	**36**	⇑P	PKPdf	11 06 36.6	+0.8
	baz=129						
EDW2	**Edwards Air Fo**	**129.00**	**35**	⇓P	PKPdf	11 06 36.3	+0.4
	baz=129						
MSU	**Marysvale**	**129.14**	**27**	*e*PKPdf	PKPdf	11 06 37.4	+1.4
MSU	**Marysvale**	**129.14**	**27**	*e*PKIKP	PKPdf	11 06 37.4	+1.4
ARUT	**Antelope Range**	**129.15**	**29**	*e*PKPdf	PKPdf	11 06 36.2	+0.2
ARUT	**Antelope Range**	**129.15**	**29**	*e*PKIKP	PKPdf	11 06 36.2	+0.2
SHOC	**Shoshone**	**129.19**	**32**	⇑P	PKPdf	11 06 36.6	+0.5
	baz=129,SNR=11						
U11A	**Corn Creek**	**129.25**	**31**	⇑P	PKPdf	11 06 37.0	+0.7
	baz=129						
S14A	**Cedar City**	**129.30**	**28**	⇓P	PKPdf	11 06 36.7	+0.4
	baz=129,SNR=19						
ECSD	**EROS,Sioux Fal**	**129.33**	**10**	*e*PKPdf	PKPdf	11 06 35.4	-0.8
GSC	**Goldstone**	**129.35**	**33**	⇓P	PKPdf	11 06 37.2	+0.8
	baz=129,SNR=7.5						
T12A	**Moapa**	**129.36**	**30**	⇓P	PKPdf	11 06 37.1	+0.7
	baz=129,SNR=5.4						
PHWY	**Pilot Hill**	**129.37**	**19**	*e*PKPdf	PKPdf	11 06 35.7	-0.7
SRU	**San Rafael**	**129.37**	**25**	*e*PKPdf	PKPdf	11 06 36.8	+0.4
SRU	**San Rafael**	**129.37**	**25**	*e*PKIKP	PKPdf	11 06 36.8	+0.4
CCUT	**Cedar City**	**129.37**	**29**	*e*PKPdf	PKPdf	11 06 37.3	+0.8
T13A	**Saint George**	**129.53**	**29**	⇑P	PKPdf	11 06 37.3	+0.5
	baz=129,SNR=16						
BFSC	**Mount Baldy St**	**129.66**	**35**	⇓P	PKPdf	11 06 37.5	+0.4
	baz=130						
U12A	**Valley of Fire**	**129.68**	**30**	⇓P	PKPdf	11 06 37.5	+0.4
	baz=130						
V11A	**Goodsprings**	**129.68**	**32**	⇑P	PKPdf	11 06 37.4	+0.3
	baz=130,SNR=6.6						
TUQ	**Turquoise Mtn.**	**129.72**	**32**	⇑P	PKPdf	11 06 37.6	+0.4
	baz=130						
CIS	**Catalina Islan**	**129.82**	**36**	⇑P	PKPdf	11 06 37.7	+0.2
	baz=130						
T14A	**Hurricane**	**129.90**	**29**	⇑P	PKPdf	11 06 38.2	+0.7
	baz=130,SNR=19						
HEC	**Hector,Ludlow**	**129.96**	**33**	⇑P	PKPdf	11 06 38.1	+0.4

	baz=130						
V12A	**Nelson**	**130.07**	**31**	⇑P	PKPdf	11 06 38.4	+0.6
	baz=130,SNR=19						
GMRC	**Granite Mounta**	**130.36**	**33**	⇓P	PKPdf	11 06 39.2	+0.8
	baz=130,SNR=15						
MURC	**Murrieta**	**130.38**	**35**	⇓P	PKPdf	11 06 39.1	+0.6
	baz=130,SNR=6.9						
W12A	**Cal Nev Ari**	**130.38**	**32**	⇑P	PKPdf	11 06 39.2	+0.8
	baz=130						
PV10	**Paradox Valley**	**130.61**	**24**	*e*PKPdf	PKPdf	11 06 39.7	+0.9
PV10				*e*SKPbc	SKPbc	11 09 54.5	-1.9
ISCO	**Idaho Springs**	**130.66**	**20**	*e*PKPdf	PKPdf	11 06 38.7	-0.2
ISCO	**Idaho Springs**	**130.66**	**20**	*e*PKIKP	PKPdf	11 06 38.7	-0.1
SMCO	**Snowmass**	**130.72**	**22**	*e*PKPdf	PKPdf	11 06 39.2	+0.3
BELC	**Belle Mtn.**	**130.76**	**34**	⇑P	PKPdf	11 06 40.0	+0.8
	baz=131,SNR=6.5						
PFO	**Pinyon Flat Ob**	**130.80**	**34**	*e*PKPdf	PKPdf	11 06 40.2	+0.9
PFO				*e*SKPbc	SKPbc	11 09 54.7	-2.5
PFO	**Pinyon Flat Ob**	**130.80**	**34**	*e*PKIKP	PKPdf	11 06 40.2	+0.9
PFO	**Pinyon Flat Ob**	**130.80**	**34**	⇓P	PKPdf	11 06 40.0	+0.7
	baz=131						
NEE2	**Needles Airpor**	**130.93**	**32**	⇑P	PKPdf	11 06 40.3	+0.8
	baz=131						
109C	**Camp Elliot, M**	**130.95**	**36**	⇓P	PKPdf	11 06 39.9	+0.2
	baz=131						
JFWS	**Jewell Farm**	**130.96**	**5**	*e*PKPdf	PKPdf	11 06 38.1	-1.2
JFWS	**Jewell Farm**	**130.96**	**5**	*e*PKIKP	PKPdf	11 06 38.1	-1.2
PV01	**Paradox Valley**	**131.00**	**24**	*e*PKPdf	PKPdf	11 06 40.0	+0.5
PV01				*e*		11 09 55.1	
W13A	**Hualapai Mount**	**131.05**	**31**	⇑P	PKPdf	11 06 40.5	+0.8
	baz=131,SNR=21						
BINY	**Binghamton**	**131.06**	**351**	*e*PKPdf	PKPdf	11 06 38.9	-0.7
IRM	**Iron Mountain**	**131.10**	**33**	⇑P	PKPdf	11 06 40.5	+0.6
	baz=131,SNR=15						
BC3	**Big Chuckw Mtn**	**131.32**	**34**	⇑P	PKPdf	11 06 40.8	+0.5
	baz=131,SNR=7.8						
W14A	**Seligman**	**131.37**	**30**	⇑P	PKPdf	11 06 41.2	+0.9
	baz=131,SNR=19						
X13A	**Yucca**	**131.47**	**31**	⇓P	PKPdf	11 06 41.2	+0.7
	baz=131,SNR=22						
PDMCI	**Parker Dam,Lak**	**131.54**	**32**	⇓P	PKPdf	11 06 41.4	+0.7
	baz=131,SNR=15						
SCIA	**State Center**	**131.64**	**8**	*e*PKPdf	PKPdf	11 06 39.8	-0.8
SCIA				*e*SKPbc	SKPbc	11 09 58.1	-2.0
SWSC	**Sam W. Stewart**	**131.66**	**34**	⇓P	PKPdf	11 06 41.7	+0.7
	baz=132,SNR=10.0						
Y12C	**Blythe**	**131.75**	**33**	⇓P	PKPdf	11 06 41.8	+0.7
	baz=132,SNR=12						
W15A	**Williams**	**131.80**	**30**	⇓P	PKPdf	11 06 42.0	+0.9
	baz=132,SNR=5.8						
MVCO	**Mesa Verde**	**131.82**	**25**	*e*PKPdf	PKPdf	11 06 41.9	+0.8
MVCO				*e*SKPbc	SKPbc	11 09 58.3	-2.6
MVCO	**Mesa Verde**	**131.82**	**25**	P	PKPdf	11 06 41.7	+0.6
	baz=132,SNR=12						
WUAZ	**Wupatki**	**131.96**	**28**	*e*PKPdf	PKPdf	11 06 42.2	+0.8
WUAZ				*e*SKPbc	SKPbc	11 09 59.2	-2.2
WUAZ	**Wupatki**	**131.96**	**28**	⇑P	PKPdf	11 06 42.1	+0.7
	baz=132						
X14A	**Yava**	**132.05**	**31**	⇑P	PKPdf	11 06 42.6	+0.9
	baz=132,SNR=13						
Y13A	**Salome**	**132.07**	**32**	⇑P	PKPdf	11 06 42.6	+0.9
	baz=132,SNR=10						
GLA	**Glamis**	**132.12**	**34**	⇓P	PKPdf	11 06 42.7	+0.9
	baz=132,SNR=15						
ALLY	**Alegheny Colle**	**132.15**	**354**	*e*PKPdf	PKPdf	11 06 41.2	-0.4
X15A	**Humboldt**	**132.37**	**30**	⇑P	PKPdf	11 06 43.0	+0.8
	baz=132,SNR=29						
Y14A	**Wickenburg**	**132.41**	**31**	⇑P	PKPdf	11 06 42.9	+0.5
	baz=132,SNR=9.2						
SSPA	**Standing Stone**	**132.88**	**352**	*e*PKPdf	PKPdf	11 06 42.5	-0.5
SSPA				*e*SKPbc	SKPbc	11 10 04.9	+0.4
Z14A	**Wintersburg**	**132.89**	**32**	⇑P	PKPdf	11 06 43.9	+0.7
	baz=133						
MVL	**Millersville**	**133.27**	**350**	*e*PKPdf	PKPdf	11 06 43.5	-0.3
ACSO	**Alum Creek Sta**	**133.76**	**357**	*e*PKPdf	PKPdf	11 06 43.6	-1.1
ACSO				*e*PKPbc	SKPbc	11 10 05.8	-1.6
115A	**Sonoran Desert**	**133.78**	**32**	⇑P	PKPdf	11 06 45.4	+0.5
	baz=134,SNR=7.2						
KSU1	**Kansas State U**	**133.81**	**12**	*e*PKPdf	PKPdf	11 06 44.3	-0.5
KSU1				*e*		11 10 06.2	
116A	**Eloy**	**134.16**	**31**	⇓P	PKPdf	11 06 46.3	+0.6
	baz=134,SNR=6.6						
ANMO	**Albuquerque**	**134.61**	**24**	*e*PKPdf	PKPdf	11 06 46.6	+0.2
ANMO				*e*		11 10 08.1	
ANMO	**Albuquerque**	**134.61**	**24**	*e*PKIKP	PKPdf	11 06 46.6	+0.2
LAZ	**Ladron**	**134.79**	**25**	*e*PKPdf	PKPdf	11 06 47.8	+1.0
LAZ				*e*SKPbc	SKPbc	11 10 10.0	-1.0
TUC	**Tucson**	**134.83**	**31**	*e*PKPdf	PKPdf	11 06 47.3	+0.4
TUC				*e*SKPbc	SKPbc	11 10 09.2	-2.1
TUC	**Tucson**	**134.83**	**31**	PKIKP	PKPdf	11 06 45.4	-1.5
BLO	**Bloomington**	**134.87**	**1**	*e*PKPdf	PKPdf	11 06 46.3	-0.5
BLO				*e*SKPbc	SKPbc	11 10 09.3	-1.8
BLO	**Bloomington**	**134.87**	**1**	*e*PKIKP	PKPdf	11 06 46.3	-0.5
LENM	**Lemitar**	**135.07**	**25**	*e*PKPdf	PKPdf	11 06 47.8	+0.5
LENM				*e*SKPbc	SKPbc	11 10 10.7	-1.2
LPM	**Los Pinos Moun**	**135.09**	**25**	*e*PKPdf	PKPdf	11 06 47.4	0.0
LPM				*e*SKPbc	SKPbc	11 10 11.0	-1.0
Y22C	**IRIS PASSCAL I**	**135.17**	**25**	⇑P	PKPdf	11 06 48.3	+0.8
	baz=135,SNR=5.8						
BNM	**Barren Site**	**135.23**	**25**	*e*PKPdf	PKPdf	11 06 47.8	+0.2
BNM				*e*SKPbc	SKPbc	11 10 11.3	-1.1
WCI	**Wyandotte Cave**	**135.82**	**1**	*e*PKPdf	PKPdf	11 06 47.4	-1.2
WCI				*e*SKPbc	SKPbc	11 10 12.0	-2.1
WCI	**Wyandotte Cave**	**135.82**	**1**	*e*PKIKP	PKPdf	11 06 47.4	-1.2
SIUC	**Southern Illin**	**136.21**	**4**	*e*PKPdf	PKPdf	11 06 49.1	-0.3
SIUC				*e*SKPbc	SKPbc	11 10 13.4	-1.9
ELN	**Prospectdale**	**136.59**	**354**	*e*PKPdf	PKPdf	11 06 49.4	-0.6
ELN				*e*SKPbc	SKPbc	11 10 14.0	-2.5
PARMO	**Parma**	**137.21**	**5**	*e*PKPdf	PKPdf	11 06 52.0	+0.8
TZTN	**Tazewell**	**137.46**	**358**	*e*PKPdf	PKPdf	11 06 51.1	-0.6
TZTN				*e*PP	PP	11 09 36.7	+0.4
TZTN				*e*SKP		11 10 17.2	
GLAT	**Glass**	**137.64**	**4**	*e*PKPdf	PKPdf	11 06 52.8	+0.8
WVT	**Waverly**	**137.87**	**3**	*e*PKPpre		11 06 41.7	
WVT				*e*PKPdf	PKPdf	11 06 51.1	-1.3
WVT	**Waverly**	**137.87**	**3**	*e*PKHKP		11 06 41.7	
WVT				*e*		11 06 51.1	
MNTX	**Cornudas Mount**	**137.87**	**25**	*e*PKPpre		11 06 43.0	
MNTX				*e*PKPdf	PKPdf	11 06 52.8	+0.3
MNTX				*e*PP	PP	11 09 38.1	-1.2
MNTX				*e*SKPbc	SKPbc	11 10 18.1	-2.3
GNAR	**Gosnell**	**137.88**	**5**	*e*PKPdf	PKPdf	11 06 52.2	-0.2
GNAR				*e*SKPbc	SKPbc	11 10 19.1	-1.2
TKL	**Tuckaleechee C**	**138.35**	**358**	PP	PP	11 09 42.4	+0.6
	comp=N,2.6nm,0.7s,baz=60,slow=4.2,SNR=3.6						
TKL				SKPbc	SKPbc	11 10 19.3	-2.4
	comp=N,4.9nm,0.6s,baz=112,slow=4.6,SNR=7.9						
CPCT	**Cooper Cave**	**138.58**	**359**	*e*PKPdf	PKPdf	11 06 53.7	-0.1
CPCT				*e*SKP		11 10 20.5	
UALR	**University of**	**138.77**	**8**	*e*PKPdf	PKPdf	11 06 53.6	-0.6
UALR				*e*SKP		11 10 20.8	
MIAR	**Mount Ida**	**138.80**	**10**	*e*PKPpre		11 06 43.3	
MIAR				*e*PKPdf	PKPdf	11 06 54.3	+0.1
MIAR				*e*SKPbc	SKPbc	11 10 21.0	-2.0
MIAR	**Mount Ida**	**138.80**	**10**	*e*PKHKP		11 06 43.3	
MIAR				*e*		11 06 54.3	
PLAL	**Pickwick Lake**	**139.00**	**3**	*e*PKPpre		11 06 42.9	
PLAL				*e*PKPdf	PKPdf	11 06 53.4	-1.2
PLAL				*e*SKPdf	SKPdf	11 10 21.2	-2.1
OXF	**Oxford**	**139.37**	**5**	*e*PKPpre		11 06 44.5	
OXF				*e*PKPdf	PKPdf	11 06 54.3	-0.9
OXF				*e*PP	PP	11 09 48.0	-0.2
OXF				*e*SKPdf	SKPdf	11 10 21.7	-2.3
OXF	**Oxford**	**139.37**	**5**	*e*PKHKP		11 06 44.5	
OXF				*e*		11 06 54.3	
OXF				*e*		11 09 48.0	
JSC	**Jenkinsville**	**139.55**	**354**	*e*PKPdf	PKPdf	11 06 55.3	-0.3
JSC	**Jenkinsville**	**139.55**	**354**	*e*PKIKP	PKPdf	11 06 55.3	-0.3
GOGA	**Godfrey**	**140.58**	**357**	*e*PKPdf	PKPdf	11 06 56.7	-0.7
GOGA				*e*SKPdf	SKPdf	11 10 26.5	+0.4
GOGA	**Godfrey**	**140.58**	**357**	PKIKP	PKPdf	11 06 57.3	-0.2
LTX	**Lajitas**	**140.65**	**25**	*e*PKPpre		11 06 50.2	
LTX				*e*PKPdf	PKPdf	11 06 58.1	+0.4
LTX				*e*SKP		11 10 27.4	
LTX	**Lajitas**	**140.65**	**25**	PKHKP		11 06 50.8	
TXAR	**Lajitas Array**	**140.65**	**25**	PKP	PKPdf	11 06 58.1	+0.4
TXAR				PP	PP	11 09 50.9	-5.5
TXAR				SKPbc	SKPbc	11 10 25.6	-2.5
TXAR	**Lajitas Array**	**140.65**	**25**	PKIKP	PKPdf	11 06 58.1	+0.4
TXAR	**Lajitas Array**	**140.65**	**25**	PKhKP		11 06 50.2	
	comp=N,2.7nm,0.5s,baz=313,slow=2.8,SNR=24						
TXAR				PKP	PKPdf	11 06 58.1	+0.4
	comp=N,12nm,0.7s,baz=198,slow=2.6,SNR=21						
TXAR				PP	PP	11 09 50.9	-5.5
	comp=N,2.3nm,1.0s,baz=236,slow=0.3,SNR=3.9						
TXAR				SKPbc	SKPbc	11 10 25.6	-2.5
	comp=N,9.0nm,0.8s,baz=30,slow=0.5,SNR=14						
LRAL	**Lakeview Retre**	**140.98**	**2**	*e*PKPpre		11 06 49.9	
LRAL				*e*PKPdf	PKPdf	11 06 59.6	+1.4
LRAL				*e*SKP		11 10 26.9	
JCT	**Junction City**	**141.09**	**20**	PKHKP		11 06 50.9	
NATX	**Nacogdoches**	**141.30**	**12**	*e*PKPdf	PKPdf	11 06 51.5	-7.3
NATX				*e*SKPdf	SKPdf	11 10 28.5	+1.1
HKT	**Hockley**	**142.76**	**15**	*e*PKPpre		11 06 56.0	
HKT				*e*PKPdf	PKPdf	11 07 02.1	+0.6
HKT				*e*PP	PP	11 10 07.9	-1.0
HKT				*e*SKPdf	SKPdf	11 10 31.7	+1.8
HKT	**Hockley**	**142.76**	**15**	*e*PKHKP		11 06 56.0	
HKT				*e*		11 07 02.1	
HKT				*e*		11 10 07.9	
DWPF	**Disney**	**145.68**	**353**	PKPdf	PKPdf	11 07 06.6	0.0
DWPF	**Disney**	**145.68**	**353**	*e*PKPdf	PKPdf	11 07 06.4	-0.2
ZAIG	**Zacatecas**	**146.78**	**29**	*i* P	PKPdf	11 07 10.1	+1.5
MGG	**Marie-Galante**	**147.45**	**313**	*e*P	PKPdf	11 07 10.6	+0.7
HMG	**Houelmont**	**147.68**	**313**	*e*P	PKPdf	11 07 13.1	+2.8
TBG	**Guadaloupe-3**	**147.73**	**313**	*e*P	PKPdf	11 07 11.2	+0.8
CJM	**Chamela**	**148.10**	**36**	*i* P	PKPdf	11 07 13.1	+2.3
SFJM	**Santa Fe**	**148.44**	**32**	*i* P	PKPdf	11 07 12.5	+1.1
MTP	**Monte Pirata**	**148.81**	**321**	*e*PKPdf	PKPdf	11 07 11.8	-0.2
MTP				*e*PKPbc	PKPbc	11 07 15.8	-0.2
MTP				*e*PKPab	PKPab	11 07 19.8	-0.1
CPD	**Cerro la Pandu**	**149.08**	**321**	*e*PKPdf	PKPdf	11 07 12.6	+0.1
CPD				*e*PKPbc	PKPbc	11 07 16.7	0.0
CPD				*e*PKPab	PKPab	11 07 21.5	+0.5
CPD	**Cerro la Pandu**	**149.08**	**321**	*e*PKIKP	PKPdf	11 07 12.6	+0.1
CPD				*e*		11 07 16.7	
CPD				*e*		11 07 21.5	
SJG	**San Juan**	**149.17**	**322**	*e*PKPdf	PKPdf	11 07 12.5	-0.2
SJG				*e*PKPbc	PKPbc	11 07 16.6	-0.3
SJG				*e*PKPab	PKPab	11 07 21.9	+0.6
SJG	**San Juan**	**149.17**	**322**	PKIKP	PKPdf	11 07 12.0	-0.6
SJG						11 07 16.6	
SJG				pmax	pmax		
	comp=Z,28nm,0.8s						
SJG				pmax	pmax		
	comp=Z,28nm,0.8s						
SJG	**San Juan**	**149.17**	**322**	PKP	PKPdf	11 07 12.0	-0.6
	comp=Z,28nm,0.8s,baz=59,slow=3.5,SNR=5.1						
SJG				PKPbc	PKPbc	11 07 16.6	-0.3
	comp=Z,28nm,0.8s,baz=68,slow=3.5,SNR=17						
RPN	**Rapa Nui**	**149.28**	**135**	PKPbc	PKPbc	11 07 17.5	+0.6
CFAA	**Coronel Fontan**	**149.94**	**211**	PKP	PKPdf	11 07 14.1	+0.6
CFAA				PKPbc	PKPbc	11 07 19.2	+0.8
CFAA	**Coronel Fontan**	**149.94**	**211**	PKP	PKPdf	11 07 14.1	+0.6
	comp=Z,5.9nm,0.6s,baz=152,slow=2.2,SNR=53						
CFAA				PKPbc	PKPbc	11 07 19.2	+0.8
	comp=Z,5.9nm,0.6s,baz=165,slow=2.3,SNR=76						
MOIG	**Morelia**	**150.07**	**31**	*i* P	PKPdf	11 07 17.6	+3.6
SDDR	**Presa de Saban**	**151.30**	**331**	*e*PKPbc	PKPbc	11 07 22.1	+0.1
SDDR				*e*PKPab	PKPab	11 07 30.3	+0.3
LCO	**Las Campanas**	**153.28**	**210**	*e*PKPdf	PKPdf	11 07 20.0	+1.3
LCO				*e*PKPbc	PKPbc	11 07 27.0	+0.8
PCRV	**Puerto La Cruz**	**153.55**	**308**	PKPbc	PKPbc	11 07 26.6	-0.6
	comp=Z,14nm,0.5s,baz=203,slow=2.0,SNR=18						
TEIG	**Tepich**	**153.63**	**6**	PKP	PKPdf	11 07 18.2	-1.2
TEIG				*e*PKPbc	PKPbc	11 07 26.8	-0.3
TEIG				*e*PKPab	PKPab	11 07 39.1	-0.6
TEIG				PKPab	PKPab	11 07 39.3	-0.4
TEIG	**Tepich**	**153.63**	**6**	PKP	PKPdf	11 07 18.2	-1.2
	comp=Z,13nm,1.0s,baz=314,slow=9.3,SNR=3.7						
TEIG				PKPbc	PKPbc	11 07 26.9	-0.3
	comp=Z,38nm,0.9s,baz=4.3,slow=6.2,SNR=10						
TEIG				PKPab	PKPab	11 07 39.3	-0.4
	comp=Z,74nm,0.7s,baz=325,slow=4.7,SNR=26						
SIV	**San Ignacio**	**154.06**	**246**	PKP	PKPdf	11 07 20.6	+0.6
SIV				PKPbc	PKPbc	11 07 27.7	-0.4
SIV	**San Ignacio**	**154.06**	**246**	PKP	PKPdf	11 07 20.6	+0.6
	comp=Z,6.2nm,0.7s,baz=116,slow=3.6,SNR=43						
SIV				PKPbc	PKPbc	11 07 27.7	-0.4
	comp=Z,5.2nm,0.6s,baz=109,slow=5.7,SNR=15						
CMIG	**Matias Romero**	**155.12**	**22**	PKP	PKPdf	11 07 21.2	-0.4
CMIG				PKPbc	PKPdf	11 07 29.5	+8.0
CMIG				PKPab	PKPab	11 07 45.1	-1.0
CMIG	**Matias Romero**	**155.12**	**22**	PKP	PKPdf	11 07 21.2	-0.4
	comp=Z,12nm,1.1s,baz=258,slow=0.1,SNR=3.7						
CMIG				PKPbc	PKPdf	11 07 29.5	+8.0
	comp=Z,10nm,1.0s,baz=296,slow=0.8,SNR=4.5						
CMIG				PKPab	PKPab	11 07 45.1	-1.0
	comp=Z,11nm,0.6s,baz=355,slow=4.5,SNR=9.1						
TGUH	**Tegucigalpa,Un**	**159.83**	**5**	*e*PKPdf	PKPdf	11 07 27.9	+0.5
TGUH				*e*PKPab	PKPab	11 08 06.2	-0.2
ROSC	**El Rosal**	**164.30**	**314**	*e*PKPdf	PKPdf	11 07 32.9	+0.9
ROSC	**El Rosal**	**164.30**	**314**	PKP	PKPdf	11 07 32.7	+0.6
	comp=Z,26nm,0.9s,baz=104,slow=4.2,SNR=16						
NNA	**Nana**	**169.61**	**236**	PKP	PKPdf	11 07 36.1	+0.1
NNA	**Nana**	**169.61**	**236**	PKP	PKPdf	11 07 36.1	+0.1
	comp=Z,2.3nm,0.3s,baz=246,slow=5.9,SNR=3.7						
OTAV	**Otavalo**	**170.44**	**312**	*e*PKPdf	PKPdf	11 07 36.9	+0.3
OTAV				*e*PKPab	PKPab	11 08 54.8	+1.4
ATAH	**Atahualpa**	**172.80**	**263**	PKP	PKPdf	11 07 38.7	+1.0
	comp=Z,7.4nm,0.8s,baz=333,slow=2.7,SNR=5.8						

IDC 11 10:55:01.8±4.7**,4.51S×144.97E,h46**^{km}±56^{km}**,mb3.9**/9**, mb1 4.1**/11**,mb1mx4.0**/17**,mbtmp4.0**/11**,ML4.1**/3**, MS3.4**/1**,Ms1 3.4**/1**,ms1mx2.6**/17**,Error ellipse: s-maj=36.7km s-min=24.5km az=129.0,Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**5.33**	**156**	P	Pn	10 56 19.3	+0.5
	33nm,0.3s,baz=349,slow=5.6,SNR=96						
PMG				S	Sn	10 57 18.6	-0.2
	12nm,0.3s,baz=19,slow=0.9,SNR=3.4						
CTA	**Charters Tower**	**15.53**	**175**	P	Pn	10 58 38.0	+0.2
	0.4nm,0.3s,baz=22,slow=7.5,SNR=1.8						
GUMO	**Guam**	**17.98**	**360**	LR	LR	11 04 07.3	
	comp=Z,134nm,21.8s,baz=152,slow=30						
WRA	**Warramunga Arr**	**18.50**	**213**	P	Pn	10 59 15.2	+0.4
	0.9nm,0.3s,baz=38,slow=12,SNR=9.5						
ASAR	**Alice Springs**	**21.83**	**208**	P	P	10 59 50.9	+0.5
	22nm,0.9s,baz=34,slow=12,SNR=8.0						
FITZ	**Fitzroy Crossi**	**23.23**	**233**	P	P	11 00 04.9	-0.4
	9.6nm,0.7s,baz=39,slow=12,SNR=7.5						
MJAR	**Matsushiro Arr**	**41.33**	**352**	P	P	11 02 41.5	-1.6
	2.2nm,0.8s,baz=172,slow=9.7,SNR=4.0						
KSRS	**Korea Array**	**44.67**	**341**	P	P	11 03 10.4	+0.3
	0.4nm,0.4s,baz=302,slow=45,SNR=3.1						
ASAJ	**Asahikawa**	**48.45**	**358**	P	P	11 03 41.0	+1.4
	3.8nm,0.8s,baz=281,slow=30,SNR=3.1						
MKAR	**Makanchi Array**	**75.07**	**321**	P	P	11 06 38.3	-0.6
	0.4nm,0.6s,baz=100,slow=7.0,SNR=4.7						
ZALV	**Zalesovo Beam**	**76.69**	**328**	P	P	11 06 47.6	-0.3
	0.7nm,0.6s,baz=117,slow=8.3,SNR=2.3						
KDAK	**Kodiak Island**	**79.57**	**29**	P	P	11 07 04.3	+0.5
	6.7nm,1.0s,baz=288,slow=3.2,SNR=2.9						
YKA	**Yellowknife Ar**	**98.80**	**28**	P	P	11 08 36.2	-0.2
	0.2nm,0.5s,baz=254,slow=3.9,SNR=3.2						

IDC ***11*** *10:55:20.3±0.8,55.85N×162.54E,h0*^{km}*,mb4.1/20, mb1 4.3/20,mb1mx4.2/28,mbtmp4.1/20,Error ellipse: s-maj=23.9km s-min=16.7km az=174.0*
KRSC ***11*** *10:55:22.3±0.4,55.78N×163.08E,h33*^{km}*±33*^{km}*,ML4.6*
MOS ***11*** *10:55:22.2±1.3,55.88N×163.01E,h28*^{km}*,mb4.5/14,Error ellipse: s-maj=15.8km s-min=7.7km az=79.5*
ISCJB ***11*** *10:55:23.6±0.6,55.77N±0.02×163.11E±0.07,h42*^{km}*±5*^{km}*, mb4.1/22,Error ellipse: s-maj=6.5km s-min=4.0km az=5.7*
ISC 11 10:55:24.1±0.8**,55.81N**±0.02×**163.10E**±0.05**,h29**^{km}±5^{km}**, n67,σ1**^{s}**10**/91**,mb4.1**/22**,Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	**Krutoberegovo**	**0.43**	**339**	*i* P	**Pb**	**10 55 32.7**	**-0.7**
KBTR				*i* S	**Sb**	**10 55 39.8**	**0.0**
SMKR	**Semkarok**	**1.20**	**311**	*e*P	**Pn**	**10 55 44.4**	**-0.4**
SMKR				*i* S	**Sn**	**10 56 00.7**	**+0.6**
BDR	**Baidarnaya**	**1.31**	**307**	*e*P	**Pn**	**10 55 46.2**	**-0.1**
BDR				*i* S	**Sn**	**10 56 02.9**	**+0.2**
ZLN	**Zelenaya**	**1.31**	**280**	*i* P	**Pn**	**10 55 45.7**	**-0.6**
ZLN				*i* S	**Sn**	**10 56 02.8**	**0.0**
CIRR	**Tsirk**	**1.36**	**284**	*e*P	**Pn**	**10 55 46.4**	**-0.6**
CIRR				*i* S	**Sn**	**10 56 04.2**	**+0.2**
SRKR	**Sorokina**	**1.38**	**309**	*i* P	**Pn**	**10 55 47.3**	**+0.1**
SRKR				*i* S	**Sn**	**10 56 05.2**	**+0.8**
KLY	**Klyuchi**	**1.47**	**291**	*i* P	**Pn**	**10 55 46.4**	**-2.1**
KLY				*i* S	**Sn**	**10 56 04.5**	**-2.1**
BZMR	**Bezymyannaya**	**1.48**	**276**	*e*P	**Pn**	**10 55 47.9**	**-0.7**
BZMR				*i* S	**Sn**	**10 56 06.3**	**-0.6**
MKZ	**Mys Kozlova**	**1.48**	**213**	*e*P	**Pn**	**10 55 47.5**	**-1.1**
MKZ				*i* S	**Sn**	**10 56 05.6**	**-1.3**
KRSR	**Krestovskiy**	**1.48**	**287**	*e*P	**Pn**	**10 55 47.9**	**-0.8**
KRSR				*i* S	**Sn**	**10 56 06.1**	**-0.9**
KIRR	**Kirishev**	**1.56**	**277**	*i* P	**Pn**	**10 55 49.4**	**-0.4**
KIRR				*i* S	**Sn**	**10 56 08.8**	**-0.2**
KMNR	**Kamenistaya**	**1.62**	**269**	*e*P	**Pn**	**10 55 50.4**	**-0.2**
KMNR				*i* S	**Sn**	**10 56 10.5**	**+0.1**
KPT	**Kopyto**	**1.63**	**277**	*e*P	**Pn**	**10 55 50.6**	**-0.1**
KPT				*i* S	**Sn**	**10 56 11.1**	**+0.4**
TUMR	**Tumrok**	**1.76**	**254**	*i* P	**Pn**	**10 55 52.9**	**+0.4**
TUMR				*i* S	**Sn**	**10 56 15.2**	**+1.3**
KOZR	**Kozyr**	**1.82**	**280**	PN	**Pn**	**10 55 54.1**	**+0.7**
KOZR				S	**Sn**	**10 56 17.4**	**+2.0**
KOZ	**Kozyrevsk**	**1.83**	**279**	*e*P	**Pn**	**10 55 54.1**	**+0.6**
KOZ				*i* S	**Sn**	**10 56 17.4**	**+1.7**
SRDR	**Sredinnyy**	**1.97**	**287**	*i* P	**Pn**	**10 55 55.8**	**+0.5**
SRDR				*i* S	**Sn**	**10 56 21.0**	**+2.0**
KII	**Karymskiy**	**2.75**	**231**	*e*P	**Pn**	**10 56 06.8**	**+0.6**
KII				*i* S	**Sn**	**10 56 39.2**	**+0.8**
SPN	**Mys Shipunski**	**3.25**	**215**	*e*P	**Pn**	**10 56 12.6**	**-0.4**
SPN				*i* S	**Sn**	**10 56 48.3**	**-2.4**
NLC	**Nalytchevo**	**3.43**	**221**	*e*P	**Pn**	**10 56 15.3**	**-0.2**
NLC				*i* S	**Sn**	**10 56 53.8**	**-1.3**
SDLR	**Sedlovina**	**3.53**	**226**	*e*P	**Pn**	**10 56 17.4**	**+0.6**
SDLR				*i* S	**Sn**	**10 56 56.9**	**-0.6**
GNL	**Ganaly**	**3.66**	**237**	*e*P	**Pn**	**10 56 20.0**	**+1.4**
PET	**Petropavlovsk**	**3.81**	**225**	*e*PN	**Pn**	**10 56 20.8**	**+0.1**
PET				*e*S	**Sn**	**10 57 05.0**	**+0.6**
PET				pmax	pmax		
	comp=Z,100nm,2.1s						
PET				pmax	pmax		
	comp=Z,30nm,2.6s						
PET				pmax	pmax		
	comp=Z,69nm,0.6s						
PET				smax			
	comp=E,265nm,0.7s						
PET				smax			
	comp=N,332nm,0.6s						
PET				MLR	MLR		
	comp=Z,300nm,13.0s						
RUS	**Russkaya**	**4.32**	**221**	*e*P	**Pn**	**10 56 28.3**	**+0.6**
RUS				*i* S	**Sn**	**10 57 16.2**	**-0.9**
GRL	**Gorelyy**	**4.40**	**224**	*e*P	**Pn**	**10 56 30.2**	**+1.4**
GRL				*i* S	**Sn**	**10 57 19.7**	**+0.8**
MIPR	**Malaya Ipel'ka**	**5.14**	**229**	*e*P	**Pn**	**10 56 40.8**	**+1.8**
SKR	**Severo-Kuril's**	**6.62**	**222**	*e*PN	**Pn**	**10 57 01.4**	**+2.1**
KDAK	**Kodiak Island**	**24.03**	**67**	P	**P**	**11 00 36.3**	**+0.3**
	comp=Z,3.3nm,0.6s,mb3.9,baz=269,slow=6.9,SNR=5.1						
MJAR	**Matsushiro Arr**	**25.61**	**232**	P	**P**	**11 00 48.8**	**-1.8**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MJAR	**Matsushiro Arr**	**25.61**	**232**	P	**P**	**11 00 48.8**	**-1.8**
	comp=Z,1.2nm,0.5s,mb3.7,baz=46,slow=7.0,SNR=5.9						
SONM	**Songino Array**	**35.04**	**281**	P	**P**	**11 02 13.0**	**-0.8**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	**Songino Array**	**35.04**	**281**	P	**P**	**11 02 13.0**	**-0.8**
	comp=Z,0.6nm,0.5s,mb3.8,baz=57,slow=5.9,SNR=4.8						
YKA	**Yellowknife Ar**	**39.99**	**46**	P	**P**	**11 02 57.4**	**+1.9**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	**Yellowknife Ar**	**39.99**	**46**	P	**P**	**11 02 57.4**	**+2.0**
	comp=Z,0.6nm,0.7s,mb3.4,baz=301,slow=8.3,SNR=3.9						
MKAR	**Makanchi Array**	**48.58**	**295**	*i* P	**P**	**11 04 02.7**	**-1.6**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	**48.58**	**295**	P	**P**	**11 04 02.2**	**-2.2**
	comp=Z,0.5nm,0.4s,mb3.9,baz=50,slow=6.3,SNR=9.3						
ARCES	**ARCESS Array B**	**51.24**	**342**	P	**P**	**11 04 22.2**	**-2.1**
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ARCES	**ARCESS Array B**	**51.24**	**342**	P	**P**	**11 04 22.2**	**-2.0**
	comp=Z,5.3nm,0.9s,mb4.5,baz=64,slow=4.1,SNR=3.3						
NVAR	**Mina Array Bea**	**53.23**	**74**	P	**P**	**11 04 42.6**	**+3.1**
	comp=Z,0.8nm,0.7s,mb3.7,baz=304,slow=5.6,SNR=6.3						
PDAR	**Pinedale Array**	**54.71**	**64**	P	**P**	**11 04 52.9**	**+2.7**
	comp=Z,0.9nm,0.7s,mb3.9,baz=332,slow=2.6,SNR=9.4						
JOF	**Joensuu**	**55.83**	**336**	*e*P	**P**	**11 04 56.1**	**-1.9**
AKTO	**Aktyubinsk**	**57.28**	**313**	P	**P**	**11 05 06.9**	**-1.5**
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
AKTO	**Aktyubinsk**	**57.28**	**313**	P	**P**	**11 05 06.9**	**-1.5**
	comp=Z,2.7nm,0.5s,mb4.5,baz=65,slow=8.6,SNR=4.3						
KAF	**Kangasniemi**	**57.66**	**338**	*e*P	**P**	**11 05 09.4**	**-1.6**
FINES	**FINESS Array B**	**58.31**	**337**	*i* P	**P**	**11 05 14.8**	**-0.7**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	**58.31**	**337**	P	**P**	**11 05 15.5**	**0.0**
	comp=Z,1.3nm,0.6s,mb4.2,baz=54,slow=9.7,SNR=3.6						
NOA	**NORSAR Array B**	**61.40**	**345**	P	**P**	**11 05 36.6**	**-0.2**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	**NORSAR Array B**	**61.40**	**345**	P	**P**	**11 05 36.5**	**-0.2**
	comp=Z,1.6nm,0.6s,mb4.3,baz=18,slow=7.0,SNR=3.6						
HFS	**Hagfors**	**61.88**	**343**	P	**P**	**11 05 39.6**	**-0.4**
HFS				pmax	pmax		
	comp=Z,2.0nm,0.6s						
HFS	**Hagfors**	**61.88**	**343**	P	**P**	**11 05 39.6**	**-0.4**
	comp=Z,1.9nm,0.6s,mb4.4,baz=72,slow=4.8,SNR=3.2						
AKASG	**Malin Array Be**	**67.16**	**330**	P	**P**	**11 06 13.8**	**-0.8**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	**Malin Array Be**	**67.16**	**330**	P	**P**	**11 06 13.8**	**-0.9**
	comp=Z,2.1nm,0.5s,mb4.4,baz=28,slow=6.9,SNR=8.2						
TXAR	**Lajitas Array**	**68.01**	**70**	P	**P**	**11 06 23.4**	**+3.1**
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
TXAR	**Lajitas Array**	**68.01**	**70**	P	**P**	**11 06 23.4**	**+3.1**
	comp=Z,1.8nm,0.6s,mb4.3,baz=299,slow=4.5,SNR=27						
KIV	**Kislovodsk**	**68.63**	**318**	*e*P	**P**	**11 06 27.6**	**+3.6**
KIV				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
EKA	**Eskdalemuir Ar**	**68.66**	**352**	P	**P**	**11 06 24.5**	**+0.6**
EKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
EKA	**Eskdalemuir Ar**	**68.66**	**352**	P	**P**	**11 06 24.5**	**+0.6**
	comp=Z,2.4nm,0.8s,mb4.2,baz=24,slow=4.7,SNR=5.6						
GERES	**GERESS Array B**	**72.63**	**339**	P	**P**	**11 06 48.7**	**+0.4**
	comp=Z,0.2nm,0.3s,mb3.5,baz=9.5,slow=3.0,SNR=3.4						
MLR	**Muntele Rosu**	**72.82**	**330**	P	**P**	**11 06 50.1**	**+0.7**
MLR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
MLR	**Muntele Rosu**	**72.82**	**330**	P	**P**	**11 06 50.1**	**+0.7**
	comp=Z,2.1nm,0.5s,mb4.3,baz=168,slow=14,SNR=6.1						
BRTR	**Keskin Array B**	**75.60**	**322**	P	**P**	**11 07 05.6**	**-0.2**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	**Keskin Array B**	**75.60**	**322**	P	**P**	**11 07 05.6**	**-0.2**
	comp=Z,1.2nm,0.7s,mb3.9,baz=70,slow=4.0,SNR=5.7						
WRA	**Warramunga Arr**	**79.29**	**207**	P	**P**	**11 07 26.4**	**0.0**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	**Warramunga Arr**	**79.29**	**207**	P	**P**	**11 07 26.4**	**0.0**
	comp=Z,1.2nm,0.9s,mb3.8,baz=10,slow=5.8,SNR=3.2						
ASF	**Jabal al Asfar**	**81.11**	**316**	P	**P**	**11 07 35.9**	**-0.4**
ASF				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ASF	**Jabal al Asfar**	**81.11**	**316**	P	**P**	**11 07 35.9**	**-0.4**
	comp=Z,3.0nm,0.7s,mb4.3,baz=282,slow=9.1,SNR=3.7						
ESDC	**Sonseca Array**	**84.25**	**350**	P	**P**	**11 07 53.3**	**+0.8**
	comp=Z,2.5nm,1.0s,mb4.3,baz=348,slow=5.9,SNR=4.7						

MEX 11 11:09:07.2±0.8**,16.32N×98.21W,h10**^{km}±5^{km}**,MD3.8,Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.10**	**47**	*i* P	Pg	11 09 09.5	-0.3
PNIG				*i* S	Sg	11 09 10.7	-0.9
UTMO	**Huajuapan**	**1.55**	**14**	*e*P	Pn	11 09 32.3	-2.6
UTMO				*i* S	Sn	11 09 49.6	-5.5
VHO	**Vista Hermosa**	**1.59**	**62**	*i* P	Pn	11 09 33.2	-2.2
VHO				*i* S	Sn	11 09 50.7	-5.5
HUIG	**Huatulco**	**2.09**	**105**	*i* P	Pn	11 09 37.8	-4.5
HUIG				*i* S	Sn	11 10 03.3	-5.2
CAIG	**El Cayaco**	**2.10**	**290**	*e*P	Pn	11 09 38.6	-3.9
CAIG				*i* S	Sn	11 10 03.9	-4.9
CMIG	**Matias Romero**	**3.27**	**76**	*e*P	Pn	11 09 54.6	-4.1

CMIG				*i* S	Sn	11 10 33.7	-4.0

IGQ 11 11:28:42.0,262S×7942W,h8^{km}±5^{km},Mb4.0,Ms3.8, 8C-6D,Error ellipse: s-maj=10.3km s-min=2.3km az=55.0,Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BILB	**Tungurahua vol**	**1.49**	**38**	P	Pn	11 29 10.6	+1.5
BILB	**Tungurahua vol**	**1.49**	**38**	S	Sn	11 29 30.3	+1.4
RETU	**Refugio**	**1.52**	**40**	P	Pn	11 29 11.3	+1.8
RETU	**Refugio**	**1.52**	**40**	S	Sn	11 29 31.4	+1.9
JUIV	**Juive**	**1.53**	**39**	P	Pn	11 29 11.4	+1.8
JUIV	**Juive**	**1.53**	**39**	S	Sn	11 29 29.9	+0.2
ULBA	**Ulba**	**1.54**	**41**	⇓P	Pn	11 29 11.7	+1.9
ULBA	**Ulba**	**1.54**	**41**	⇓S	Sn	11 29 32.2	+2.1
RUN5	**Runtun**	**1.56**	**40**	P	Pn	11 29 12.4	+2.3
RUN5	**Runtun**	**1.56**	**40**	S	Sn	11 29 32.2	+1.8
PISA	**Pisayambo**	**1.87**	**34**	⇑P	Pn	11 29 17.2	+2.9
PISA	**Pisayambo**	**1.87**	**34**	⇑S	Sn	11 29 39.7	+1.6
CHIS	**Cerro-Chispas-**	**2.04**	**320**	P	Pn	11 29 18.9	+2.3
CAMI	**Rancho Maria**	**2.14**	**25**	⇓P	Pn	11 29 20.8	+2.7
CAMI	**Rancho Maria**	**2.14**	**25**	⇓S	Sn	11 29 49.6	+4.8
TAMB	**Tambo**	**2.19**	**29**	P	Pn	11 29 21.5	+2.8
VC1	**Cotopaxi 1**	**2.21**	**27**	⇓P	Pn	11 29 22.0	+2.9
VC1	**Cotopaxi 1**	**2.21**	**27**	⇓S	Sn	11 29 51.9	+5.2
JUA2	**San Juan 2**	**2.53**	**19**	⇑P	Pn	11 29 26.6	+3.2
JUA2	**San Juan 2**	**2.53**	**19**	⇑S	Sn	11 29 59.0	+4.6
TERV	**Terraza Guagua**	**2.56**	**19**	⇑P	Pn	11 29 27.1	+3.2
TERV	**Terraza Guagua**	**2.56**	**19**	⇑S	Sn	11 29 58.7	+3.4
GGP	**Refugio Guagua**	**2.57**	**19**	P	Pn	11 29 26.4	+2.4
PINO	**Pino**	**2.58**	**18**	P	Pn	11 29 26.7	+2.5
YANA	**Yana**	**2.63**	**19**	⇑P	Pn	11 29 26.8	+2.0
YANA	**Yana**	**2.63**	**19**	⇑S	Sn	11 29 59.1	+2.2

GUC 11 11:32:22.9±0.7,3304S×6906W,h26^{km}±16^{km},MD3.8, 1C-2D,Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FCH	**Farellones**	**1.07**	**254**	⇓*i*P	Pn	11 32 42.8	+0.5
FCH				*i* S	Sn	11 32 57.0	+0.7
PCH	**Pirque**	**1.35**	**244**	⇑*i*P	Pn	11 32 46.1	0.0
PCH				*i* S	Sn	11 33 04.1	+1.0
TACH	**Talagante**	**1.69**	**248**	⇓*e*P	Pn	11 32 51.6	+0.9
TACH				*i* S	Sn	11 33 13.6	+2.1
SFDO	**San Fernando**	**2.26**	**225**	*e*P	Pn	11 32 59.8	+1.2
SFDO				*i* S	Sn	11 33 28.2	+2.6
TLL	**Tololo Astrono**	**3.22**	**332**	*e*P	Pn	11 33 20.0	+8.2
TLL				*e*S	Sn	11 34 12.6	+23

ISCJB ***11*** *11:36:13.0±1.0,1607N±003×9872W±002,h10^{km}±6^{km}, mb4.4/36,Error ellipse: s-maj=5.9km s-min=3.6km az=6.3*

NEIC ***11*** *11:36:13.7,1582N×9892W,h16^{km},mb4.5/35, MD4.8(MEX),After MEX.*

IDC ***11*** *11:36:13.9±1.5,1624N×9869W,h0^{km},mb4.1/8, mb1 4.3/12,mb1mx4.1/23,mbtmp4.0/12,ML3.5/4,MS3.1/1, Ms1 3.1/1,ms1mx2.3/29,Error ellipse: s-maj=28.1km s-min=15.7km az=22.0*

MEX ***11*** *11:36:14.4±0.9,1592N×9893W,h16^{km}±12^{km},MD4.8*

BJI ***11*** *11:36:15.7,1580N×9890W,h16^{km},mB5.1,Ms4.9,Msz4.8*

ISC 11 11:36:14.7±1.2,1616N±004×9869W±002,h4^{km}±7^{km},n237, σ0^{s}90/266,mb4.4/36,51C-55D,Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	**Pinotepa**	**0.58**	**67**	*i* P	**Pg**	**11 36 28.5**	**+2.5**
PNIG				*i* S	**Sg**	**11 36 38.5**	**+5.0**
ACX	**Acapulco**	**1.37**	**301**	*i* P	**Pn**	**11 36 34.0**	**-6.7**
ACX				*i* S	**Sb**	**11 36 50.0**	**-8.9**
CAIG	**El Cayaco**	**1.75**	**300**	*i* P	**Pn**	**11 36 40.3**	**-5.6**
CAIG				*i* S	**Sn**	**11 37 05.8**	**-2.9**
CAIG	**El Cayaco**	**1.75**	**300**	*i* P	**Pn**	**11 36 40.3**	**-5.6**
CAIG				*i* S	**Sn**	**11 37 01.2**	**-7.5**
UTMO	**Huajuapan**	**1.86**	**27**	*i* P	**Pn**	**11 36 47.3**	**-0.1**
UTMO				*i* S	**Sn**	**11 37 12.6**	**+1.2**
MEIG	**Mezcala**	**1.97**	**333**	*i* P	**Pn**	**11 36 45.9**	**-3.0**
MEIG				*i* S	**Sn**	**11 37 09.9**	**-4.1**
VHO	**Vista Hermosa**	**2.08**	**64**	*i* P	**Pn**	**11 36 50.8**	**+0.4**
VHO				*i* S	**Sn**	**11 37 18.9**	**+2.1**
OXX	**Oaxaca**	**2.09**	**64**	*i* P	**Pn**	**11 36 51.0**	**+0.4**
OXX				*i* S	**Sn**	**11 37 17.0**	**-0.1**
PLIG	**Platanillo**	**2.35**	**341**	*i* P	**Pn**	**11 36 52.1**	**-2.0**
PLIG				*i* S	**Sn**	**11 37 25.9**	**+2.4**
PLIG	**Platanillo**	**2.35**	**341**	*i* P	**Pn**	**11 36 52.1**	**-2.0**
PLIG				*i* S	**Sn**	**11 37 21.2**	**-2.2**
HUIG	**Huatulco**	**2.51**	**99**	*i* P	**Pn**	**11 36 56.0**	**-0.3**
HUIG				*i* S	**Sn**	**11 37 24.1**	**-3.3**
HUIG	**Huatulco**	**2.51**	**99**	*i* P	**Pn**	**11 36 54.0**	**-2.3**
HUIG				*i* S	**Sn**	**11 37 24.1**	**-3.3**
TPIG	**Tehuac#an**	**2.58**	**29**	*i* P	**Pn**	**11 36 56.7**	**-0.6**
TPIG				*i* S	**Sn**	**11 37 32.0**	**+3.0**
YAIG	**Yautepec**	**2.71**	**352**	*e*P	**Pn**	**11 37 00.0**	**+0.9**
YAIG				*i* S	**Sn**	**11 37 33.7**	**+1.4**
YAIG	**Yautepec**	**2.71**	**352**	*e*P	**Pn**	**11 36 58.9**	**-0.1**
YAIG				*i* S	**Sn**	**11 37 32.5**	**+0.2**
ZIIG	**Zihuatanejo**	**3.02**	**299**	*i* P	**Pn**	**11 37 05.1**	**+1.7**
ZIIG				*i* S	**Sn**	**11 37 46.4**	**+6.4**
ZIIG	**Zihuatanejo**	**3.02**	**299**	*i* P	**Pn**	**11 36 58.1**	**-5.3**
ZIIG				*i* S	**Sn**	**11 37 30.3**	**-10**
UNM	**Universidad Na**	**3.19**	**352**	*e*P	**Pn**	**11 37 07.9**	**+2.3**
UNM				*i* S	**Sn**	**11 37 53.8**	**+10**
UNM	**Universidad Na**	**3.19**	**352**	*e*P	**Pn**	**11 37 04.9**	**-0.7**
UNM				*i* S	**Sn**	**11 37 44.1**	**+0.1**
SZVM	**Salazar**	**3.21**	**348**	*e*P	**Pn**	**11 37 05.8**	**-0.2**
SZVM				*i* S	**Sn**	**11 37 47.6**	**+2.9**
CMIG	**Matias Romero**	**3.76**	**75**	*i* P	**Pn**	**11 37 12.8**	**-0.8**
CMIG				*i* S	**Sn**	**11 38 03.8**	**+5.6**
CMIG				Lg		11 38 15.9	
CMIG	**Matias Romero** 3.0nm,0.3s,baz=259,slow=12,SNR=38	**3.76**	**75**	Pn	**Pn**	**11 37 13.3**	**-0.2**
CMIG	13nm,0.3s,baz=261,slow=22,SNR=3.6			Sn	**Sn**	**11 37 57.5**	**-0.8**
CMIG	13nm,0.3s,baz=145,slow=21,SNR=3.7			Lg		11 38 15.9	
CMIG	**Matias Romero**	**3.76**	**75**	*i* P	**Pn**	**11 37 12.8**	**-0.8**
CMIG				*i* S	**Sn**	**11 38 03.8**	**+5.6**
LVIG	**Laguna Verde**	**4.15**	**31**	*i* P	**Pn**	**11 37 16.8**	**-2.1**
LVIG				*i* S	**Sb**	**11 38 21.8**	**+3.0**
LVIG	**Laguna Verde**	**4.15**	**31**	*i* P	**Pn**	**11 37 16.8**	**-2.1**
LVIG				*i* S	**Sn**	**11 38 11.8**	**+4.0**
MOIG	**Morelia**	**4.23**	**326**	*i* P	**Pn**	**11 37 25.7**	**+5.7**
MOIG				*i* S	**Sb**	**11 38 21.3**	**+0.1**
MOIG	**Morelia**	**4.23**	**326**	*e*P	**Pn**	**11 37 17.4**	**-2.6**
MOIG				*i* S	**Sn**	**11 38 05.0**	**-4.8**
MMIG	**Aquila**	**4.93**	**296**	*i* P	**Pn**	**11 37 24.1**	**-5.5**
MMIG				*i* S	**Sn**	**11 38 19.3**	**-7.8**
SCX	**San Cristobal**	**5.83**	**84**	*e*P	**Pn**	**11 37 39.0**	**-3.1**
SFJM	**Santa Fe**	**5.97**	**317**	*e*P	**Pn**	**11 37 44.5**	**+0.6**
CCIG	**Comitan**	**6.29**	**88**	*i* S	**Sn**	**11 39 01.8**	**+1.1**
CJM	**Chamela**	**6.90**	**300**	*i* S	**Sn**	**11 39 11.4**	**-4.4**
ANIG	**Ahuacatlan**	**7.37**	**312**	*i* P	**Pn**	**11 37 59.2**	**-3.9**
ANIG				*i* S	**Sn**	**11 39 26.8**	**-0.4**
ZAIG	**Zacatecas**	**7.52**	**331**	*e*P	**Pn**	**11 38 04.1**	**-1.2**
ZAIG				*i* S	**Sb**	**11 39 53.9**	**-2.0**
ZAIG	**Zacatecas**	**7.52**	**331**	*e*P	**Pn**	**11 38 04.1**	**-1.2**
ZAIG				*i* S	**Sn**	**11 39 29.5**	**-1.5**
LNIG	**Linares**	**8.72**	**355**	*i* P	**Pn**	**11 38 22.5**	**+0.8**
LNIG				*i* S	**Sn**	**11 40 06.4**	**+5.9**
TEIG	**Tepich**	**10.69**	**66**	*e*Pn	**Pn**	**11 38 48.4**	**-0.3**
TEIG				*e*Sn	**Sn**	**11 40 48.9**	**+0.1**
TEIG	**Tepich** 1.1nm,0.3s,baz=360,slow=23,SNR=9.6	**10.69**	**66**	Pn	**Pn**	**11 38 47.3**	**-1.3**
TEIG	comp=Z,95nm,18.9s,baz=168,slow=38			LR	LR	11 43 04.5	
LTX	**Lajitas** 3.7nm,1.0s	**13.89**	**342**	*e*Pn	**Pn**	**11 39 33.1**	**+0.7**
TXAR	**Lajitas Array**	**13.89**	**342**	Pn	**Pn**	**11 39 32.2**	**-0.2**
TXAR				Lg		11 43 33.9	
TXAR	**Lajitas Array** 0.0nm,0.3s,baz=158,slow=15,SNR=9.2	**13.89**	**342**	Pn	**Pn**	**11 39 32.3**	**-0.2**
TXAR	0.0nm,0.3s,baz=152,slow=26,SNR=3.5			Lg		11 43 33.9	
JCT	**Junction City** 15nm,0.9s	**14.29**	**356**	*e*Pn	**Pn**	**11 39 36.9**	**-1.0**
NATX	**Nacogdoches** 35nm,0.8s	**15.96**	**13**	*e*P	**Pn**	**11 40 03.7**	**+3.6**
MNTX	**Cornudas Mount** 6.1nm,1.1s	**16.62**	**340**	*e*P	**Pn**	**11 40 07.4**	**-1.3**
WMOK	**Wichita Mounta** 3.1nm,0.7s	**18.50**	**360**	*e*P	**Pn**	**11 40 30.1**	**-1.9**
MIAR	**Mount Ida** 6.4nm,0.8s	**18.87**	**13**	*e*P	**Pn**	**11 40 33.7**	**-2.8**
BNM	**Barren Site**	**19.29**	**340**	*e*P	**Pn**	**11 40 40.6**	**-0.9**
LENM	**Lemitar**	**19.42**	**339**	*e*P	**Pn**	**11 40 43.0**	**-0.1**
LPM	**Los Pinos Moun**	**19.43**	**340**	*e*P	**Pn**	**11 40 42.4**	**-0.9**
TUC	**Tucson** 4.2nm,0.9s	**19.47**	**328**	*e*P	**Pn**	**11 40 43.2**	**-0.6**
LAZ	**Ladron**	**19.69**	**339**	*e*P	**Pn**	**11 40 45.3**	**-1.1**
ANMO	**Albuquerque** 4.9nm,0.8s	**19.97**	**341**	*e*P	**Pn**	**11 40 48.0**	**-1.6**
ANMO	**Albuquerque** 0.2nm,0.3s,baz=156,slow=13,SNR=11	**19.97**	**341**	P	**Pn**	**11 40 48.0**	**-1.6**
OXF	**Oxford** 37nm,1.3s	**20.08**	**23**	*e*P	**P**	**11 40 48.0**	**-1.3**
116A	**Eloy** baz=20	**20.15**	**326**	⇑P	**P**	**11 40 51.1**	**+1.2**
115A	**Sonoran Desert** baz=20,SNR=6.4	**20.54**	**326**	P	**P**	**11 40 55.5**	**+1.3**
PLAL	**Pickwick Lake** 27nm,0.9s,mb4.6	**21.02**	**25**	*e*P	**P**	**11 40 59.2**	**-0.1**
GNAR	**Gosnell** 931nm,1.1s	**21.18**	**20**	*e*P	**P**	**11 41 01.2**	**0.0**
Z14A	**Wintersburg** baz=21,SNR=6.5	**21.43**	**326**	P	**P**	**11 41 04.8**	**+0.9**
Y14A	**Wickenburg** baz=22,SNR=13	**21.90**	**327**	P	**P**	**11 41 09.4**	**+0.5**
UTMT	**University of** 140nm,1.0s,mb5.3	**21.92**	**22**	*e*P	**P**	**11 41 10.5**	**+1.4**
X15A	**Humboldt** baz=22,SNR=8.7	**21.93**	**329**	P	**P**	**11 41 09.9**	**+0.7**
GOGA	**Godfrey** 19nm,1.0s,mb4.5	**22.00**	**36**	*e*P	**P**	**11 41 08.2**	**-1.8**
WVT	**Waverly** 23nm,0.9s,mb4.6	**22.11**	**24**	*e*P	**P**	**11 41 10.4**	**-0.7**
SWET	**Sewanee**	**22.14**	**29**	*e*P	**P**	**11 41 09.3**	**-2.2**
X14A	**Yava** baz=22	**22.25**	**328**	⇓P	**P**	**11 41 13.4**	**+0.8**
Y13A	**Salome** baz=22,SNR=12	**22.25**	**325**	P	**P**	**11 41 13.1**	**+0.4**
GLA	**Glamis** baz=22,SNR=11	**22.27**	**322**	P	**P**	**11 41 13.6**	**+0.7**
SDCO	**Great Sand Dun** 5.6nm,0.9s,mb4.0	**22.33**	**346**	*e*P	**P**	**11 41 13.2**	**-0.3**
WUAZ	**Wupatki** 19nm,1.0s,mb4.5	**22.36**	**332**	*e*P	**P**	**11 41 14.6**	**+0.7**
WUAZ	**Wupatki** baz=22	**22.36**	**332**	⇓P	**P**	**11 41 14.9**	**+1.1**
Y12C	**Blythe** baz=22	**22.59**	**324**	⇑P	**P**	**11 41 16.7**	**+0.3**
MVCO	**Mesa Verde** 30nm,1.1s,mb4.6	**22.70**	**339**	*e*P	**P**	**11 41 17.3**	**0.0**
MVCO	**Mesa Verde** baz=23	**22.70**	**339**	⇑P	**P**	**11 41 17.8**	**+0.5**
PDMCI	**Parker Dam,Lak** baz=23	**22.79**	**325**	⇓P	**P**	**11 41 18.5**	**+0.1**
X13A	**Yucca** baz=23,SNR=6.2	**22.84**	**326**	P	**P**	**11 41 19.4**	**+0.5**
KSU1	**Kansas State U** 16nm,0.9s,mb4.5	**22.93**	**4**	*e*P	**P**	**11 41 18.2**	**-1.6**
FVM	**French Village** 23nm,0.9s,mb4.6	**22.93**	**17**	*e*P	**P**	**11 41 18.8**	**-1.0**
W14A	**Seligman** baz=23	**22.93**	**328**	⇑P	**P**	**11 41 20.4**	**+0.5**
CPCT	**Cooper Cave**	**23.00**	**31**	*e*P	**P**	**11 41 19.3**	**-1.3**
SIUC	**Southern Illin** 26nm,0.8s,mb4.7	**23.04**	**19**	*e*P	**P**	**11 41 21.0**	**0.0**
BC3	**Big Chuckw Mtn** baz=23	**23.06**	**322**	⇓P	**P**	**11 41 21.5**	**+0.2**
IRM	**Iron Mountain** baz=23,SNR=7.5	**23.25**	**323**	P	**P**	**11 41 23.3**	**+0.1**
W13A	**Hualapai Mount** baz=23,SNR=5.2	**23.25**	**327**	⇑P	**P**	**11 41 23.7**	**+0.4**
TKL	**Tuckaleechee C**	**23.54**	**32**	P	**P**	**11 41 25.2**	**-1.1**
TKL	**Tuckaleechee C** 4.6nm,0.8s,mb3.9,baz=168,slow=12,SNR=2.9	**23.54**	**32**	P	**P**	**11 41 25.2**	**-1.1**
PV01	**Paradox Valley**	**23.56**	**340**	*e*P	**P**	**11 41 26.0**	**-0.4**
SLM	**Saint Louis** 12nm,0.6s,mb4.5	**23.59**	**17**	*e*P	**P**	**11 41 26.1**	**-0.6**
BELC	**Belle Mtn.** baz=24	**23.63**	**322**	⇑P	**P**	**11 41 27.0**	**-0.1**
PFO	**Pinyon Flat Ob** 2.9nm,1.0s,mb3.7,baz=129,slow=4.1,SNR=3.7	**23.63**	**321**	P	**P**	**11 41 26.4**	**-0.9**
PFO	**Pinyon Flat Ob** baz=24	**23.63**	**321**	⇑P	**P**	**11 41 27.6**	**+0.4**
USIN	**University of** 26nm,0.9s,mb4.7	**23.79**	**22**	*e*P	**P**	**11 41 28.3**	**-0.4**
PV10	**Paradox Valley**	**23.93**	**340**	*e*P	**P**	**11 41 28.8**	**-1.1**
W12A	**Cal Nev Ari** baz=24	**23.93**	**326**	⇓P	**P**	**11 41 29.8**	**-0.1**
GMRC	**Granite Mounta** baz=24	**23.99**	**324**	⇑P	**P**	**11 41 30.5**	**+0.1**
SMCO	**Snowmass** 21nm,1.3s,mb4.4	**24.05**	**344**	*e*P	**P**	**11 41 31.7**	**+0.8**
V12A	**Nelson** baz=24	**24.24**	**327**	⇓P	**P**	**11 41 33.0**	**+0.3**
ISCO	**Idaho Springs** 3.2nm,0.6s,mb3.9	**24.31**	**347**	*e*P	**P**	**11 41 33.7**	**+0.4**
TZTN	**Tazewell** 16nm,1.0s,mb4.4	**24.35**	**31**	*e*P	**P**	**11 41 33.4**	**-0.4**
T14A	**Hurricane** baz=24	**24.41**	**331**	⇓P	**P**	**11 41 34.8**	**+0.5**
WCI	**Wyandotte Cave** 23nm,0.8s,mb4.8	**24.54**	**24**	*e*P	**P**	**11 41 35.1**	**-0.3**
SCI	**San Clemente I** baz=24	**24.56**	**317**	⇓P	**P**	**11 41 35.7**	**0.0**
TUQ	**Turquoise Mtn.** baz=24	**24.61**	**324**	⇓P	**P**	**11 41 36.8**	**+0.7**
U12A	**Valley of Fire** baz=24	**24.62**	**328**	⇓P	**P**	**11 41 36.9**	**+0.7**
V11A	**Goodsprings** baz=25	**24.64**	**326**	⇓P	**P**	**11 41 36.9**	**+0.5**
T13A	**Saint George** baz=25	**24.77**	**330**	⇑P	**P**	**11 41 38.3**	**+0.7**
T12A	**Moapa** baz=25	**24.94**	**328**	⇓P	**P**	**11 41 39.8**	**+0.7**
GSC	**Goldstone** baz=25	**25.02**	**323**	⇓P	**P**	**11 41 40.7**	**+0.9**
S14A	**Cedar City** baz=25,SNR=6.6	**25.02**	**332**	P	**P**	**11 41 40.8**	**+0.9**
SRU	**San Rafael** 14nm,0.9s,mb4.5	**25.10**	**338**	*e*P	**P**	**11 41 40.0**	**-0.6**
ARUT	**Antelope Range**	**25.17**	**332**	*e*P	**P**	**11 41 41.7**	**+0.5**
MSU	**Marysvale**	**25.23**	**335**	*e*P	**P**	**11 41 43.8**	**+2.1**
BLO	**Bloomington** 16nm,0.9s,mb4.5	**25.28**	**23**	*e*P	**P**	**11 41 41.4**	**-0.7**
HDIL	**Hopedale** 30nm,0.8s,mb4.9	**25.64**	**17**	*e*P	**P**	**11 41 44.2**	**-1.2**
LRMC	**Laurel Mountai** baz=26	**25.65**	**322**	⇓P	**P**	**11 41 45.9**	**+0.3**
FURC	**Furnace Creek,** baz=26	**25.88**	**325**	⇑P	**P**	**11 41 47.5**	**-0.2**
MPMC	**Manual Prospec** baz=26	**25.95**	**323**	⇓P	**P**	**11 41 48.9**	**+0.6**
R12A	**Pony Springs,** baz=26	**26.15**	**331**	⇑P	**P**	**11 41 51.4**	**+1.3**
S11A	**Rachel** baz=26	**26.17**	**328**	⇓P	**P**	**11 41 50.1**	**-0.2**
SBC	**Santa Barbara** baz=26	**26.23**	**318**	⇑P	**P**	**11 41 50.7**	**-0.1**
ISA	**Isabella** baz=26	**26.25**	**321**	⇓P	**P**	**11 41 51.3**	**+0.3**
DAU	**Daniels Canyon**	**26.52**	**338**	*e*P	**P**	**11 41 53.8**	**+0.5**
GRAC	**Grapevine Rang** baz=26	**26.55**	**325**	⇑P	**P**	**11 41 55.1**	**+1.4**
VES	**Vestal, Richgr** baz=27	**26.73**	**321**	⇓P	**P**	**11 41 55.7**	**+0.3**
S10A	**Tonopah Range,** baz=27	**26.82**	**327**	⇑P	**P**	**11 41 56.6**	**+0.5**
DUG	**Dugway** baz=27	**26.92**	**336**	⇓P	**P**	**11 41 57.1**	**+0.2**
R10A	**Warm Springs** baz=27	**26.94**	**328**	⇓P	**P**	**11 41 55.5**	**-1.8**
S09A	**Goldfield** baz=27	**27.00**	**326**	⇑P	**P**	**11 41 57.6**	**-0.2**
Q11A	**Duckwater** baz=27	**27.06**	**330**	⇑P	**P**	**11 41 58.0**	**-0.2**
HELL	**Mitchell Peak,** baz=27	**27.26**	**322**	⇓P	**P**	**11 42 00.4**	**+0.2**
R09A	**Tonopah** baz=27	**27.30**	**327**	⇓P	**P**	**11 42 00.3**	**-0.2**
ECSD	**EROS,Sioux Fal** 6.3nm,0.9s,mb4.2	**27.54**	**3**	*e*P	**P**	**11 42 01.2**	**-1.3**
HWUT	**Hardware Ranch** 26nm,1.9s,mb4.5	**27.68**	**339**	*e*P	**P**	**11 42 03.7**	**-0.2**
R08A	**Mina** baz=28,SNR=5.1	**27.93**	**326**	P	**P**	**11 42 07.4**	**+1.3**
O11A	**Cowboy Ranch,** baz=28	**28.08**	**332**	⇓P	**P**	**11 42 07.9**	**+0.5**
NVAR	**Mina Array Bea** 2.0nm,0.8s,mb3.8,baz=142,slow=11,SNR=14	**28.09**	**326**	P	**P**	**11 42 08.4**	**+0.9**
PDAR	**Pinedale Array** 3.6nm,0.9s,mb4.0,baz=145,slow=9.0,SNR=29	**28.10**	**343**	P	**P**	**11 42 07.7**	**+0.1**
Q08A	**Gabbs** baz=28	**28.21**	**327**	⇓P	**P**	**11 42 08.8**	**+0.1**
N12A	**Clover Valley,** baz=28	**28.39**	**333**	⇑P	**P**	**11 42 10.4**	**+0.2**
M13A	**Montello** baz=28	**28.45**	**335**	⇓P	**P**	**11 42 11.3**	**+0.7**
M12A	**Wells** baz=29	**28.80**	**334**	⇓P	**P**	**11 42 14.4**	**+0.6**
O09A	**Fish Creek Ran** baz=29	**28.83**	**330**	⇑P	**P**	**11 42 14.7**	**+0.6**
L13A	**Double Diamond** baz=29,SNR=5.5	**28.98**	**336**	P	**P**	**11 42 16.3**	**+1.0**
K14A	**Jones Ranch, D** baz=29,SNR=5.0	**29.08**	**338**	⇑P	**P**	**11 42 16.2**	**-0.1**
TPAW	**Teton Pass** 5.2nm,0.9s,mb4.3	**29.17**	**342**	*e*P	**P**	**11 42 17.3**	**+0.2**
LOHW	**Long Hollow** 5.0nm,0.9s,mb4.2	**29.18**	**342**	*e*P	**P**	**11 42 17.6**	**+0.4**
M11A	**Holland Ranch,** baz=29	**29.19**	**333**	⇓P	**P**	**11 42 17.6**	**+0.3**
K13A	**Stover Farm, H** baz=29	**29.51**	**337**	⇓P	**P**	**11 42 20.5**	**+0.4**
L11A	**Cat Creek Ranc** baz=30	**29.78**	**334**	⇑P	**P**	**11 42 21.3**	**-1.1**
K12A	**Draper Farm, C** baz=30,SNR=9.1	**29.82**	**336**	P	**P**	**11 42 23.7**	**+0.9**
M09A	**Marrel Ranch,** baz=30	**29.93**	**331**	⇑P	**P**	**11 42 23.6**	**-0.3**
L10A	**Juniper Basin** baz=30	**30.01**	**333**	⇑P	**P**	**11 42 25.0**	**+0.5**
J13A	**Cove Ranch, Pi** baz=30	**30.18**	**337**	⇓P	**P**	**11 42 26.3**	**+0.3**
J12A	**Stokes Ranch,** baz=30	**30.41**	**336**	⇑P	**P**	**11 42 28.9**	**+0.8**
HLID	**Hailey** 3.9nm,1.0s,mb4.1	**30.41**	**337**	*e*P	**P**	**11 42 27.8**	**-0.3**
HLID	**Hailey** baz=30	**30.41**	**337**	⇓P	**P**	**11 42 28.5**	**+0.4**
N06A	**Buffalo Meadow** baz=30	**30.59**	**327**	⇓P	**P**	**11 42 30.2**	**+0.5**
MFID	**Camas Ranch** baz=31	**30.84**	**335**	⇑P	**P**	**11 42 32.1**	**+0.3**
L08A	**Fields** baz=31	**30.95**	**331**	⇑P	**P**	**11 42 33.0**	**+0.2**
O04C	**Chester** baz=31	**30.95**	**325**	⇑P	**P**	**11 42 33.4**	**+0.5**
MCMT	**McKenzie Canyo**	**30.97**	**340**	*e*P	**P**	**11 42 34.0**	**+1.0**
K09A	**Rome** baz=31,SNR=6.2	**31.07**	**332**	P	**P**	**11 42 34.8**	**+0.9**
G15A	**Dillon** baz=31	**31.16**	**341**	⇓P	**P**	**11 42 35.3**	**+0.6**
H13A	**Challis** baz=31	**31.22**	**338**	⇓P	**P**	**11 42 36.4**	**+1.2**
M06C	**Likely Place G** baz=31	**31.26**	**327**	⇓P	**P**	**11 42 35.8**	**+0.2**
I11A	**Placerville** baz=31	**31.31**	**336**	⇑P	**P**	**11 42 36.5**	**+0.5**
BOZ	**Bozeman (W)** baz=31	**31.34**	**342**	⇑P	**P**	**11 42 36.5**	**+0.4**
GASB	**Alder Springs** baz=31	**31.41**	**323**	⇓P	**P**	**11 42 38.2**	**+1.3**
H12A	**Diamond D Ranc** baz=31	**31.43**	**338**	⇓P	**P**	**11 42 37.5**	**+0.5**
K08A	**Mann Creek Ran** baz=31,SNR=6.6	**31.43**	**331**	P	**P**	**11 42 37.7**	**+0.6**
G14A	**Jackson** baz=31,SNR=5.9	**31.54**	**340**	P	**P**	**11 42 38.9**	**+0.9**
J09A	**Fry Pan Ranch,** baz=32	**31.59**	**333**	⇓P	**P**	**11 42 39.3**	**+0.8**
G13A	**Cobalt** baz=32	**31.67**	**339**	⇓P	**P**	**11 42 39.7**	**+0.5**
MOD	**Modoc** baz=32	**31.68**	**328**	⇓P	**P**	**11 42 39.5**	**+0.2**
M05C	**Lookout** baz=32	**31.72**	**327**	⇑P	**P**	**11 42 39.8**	**+0.1**
K07A	**Rock Creek Ran** baz=32	**31.76**	**331**	⇑P	**P**	**11 42 40.0**	**+0.1**
F15A	**Butte** baz=32,SNR=5.5	**31.77**	**342**	P	**P**	**11 42 40.8**	**+0.8**
J08A	**Circle Bar Ran** baz=32	**31.92**	**332**	⇓P	**P**	**11 42 41.7**	**+0.3**
H11A	**Donnelly** baz=32,SNR=6.6	**31.99**	**336**	P	**P**	**11 42 42.0**	**0.0**
F14A	**Wisdom** baz=32	**32.02**	**340**	⇓P	**P**	**11 42 42.3**	**+0.1**
I09A	**Lost Marbles R** baz=32	**32.09**	**334**	⇑P	**P**	**11 42 43.0**	**+0.2**
AGMN	**Agassiz Refuge** 13nm,0.8s,mb4.8	**32.13**	**4**	*e*P	**P**	**11 42 42.0**	**-1.1**
H10A	**Noah's Angus R** baz=32	**32.19**	**335**	⇑P	**P**	**11 42 43.5**	**-0.2**
F13A	**Darby** baz=32	**32.31**	**339**	⇑P	**P**	**11 42 45.0**	**+0.2**
K06A	**Valley Falls** baz=32	**32.32**	**330**	⇓P	**P**	**11 42 44.6**	**-0.3**
E15A	**Deer Lodge** baz=32	**32.34**	**342**	⇑P	**P**	**11 42 44.9**	**-0.1**
I08A	**Drewsey** baz=32	**32.40**	**333**	⇑P	**P**	**11 42 45.4**	**-0.2**
E14A	**Clinton** baz=32	**32.59**	**341**	⇓P	**P**	**11 42 47.6**	**+0.3**
F12A	**Elk City** baz=32,SNR=13	**32.61**	**338**	P	**P**	**11 42 47.6**	**+0.2**
H09A	**Durkee** baz=32,SNR=5.5	**32.62**	**335**	P	**P**	**11 42 47.4**	**-0.1**
G11A	**Walters Elk Ra** baz=33	**32.68**	**337**	⇑P	**P**	**11 42 47.9**	**-0.1**
E13A	**Victor** baz=33,SNR=8.0	**32.84**	**340**	P	**P**	**11 42 49.6**	**+0.2**
D15A	**Lincoln** baz=33	**32.86**	**342**	⇑P	**P**	**11 42 49.0**	**-0.5**
H08A	**Prairie City** baz=33	**32.93**	**333**	⇓P	**P**	**11 42 50.0**	**-0.2**
G09A	**Cove** baz=33	**33.17**	**335**	⇓P	**P**	**11 42 51.9**	**-0.4**
I06A	**Prineville** baz=33	**33.17**	**331**	⇑P	**P**	**11 42 52.0**	**-0.4**
D14A	**Greenough** baz=33	**33.19**	**341**	⇓P	**P**	**11 42 52.2**	**-0.3**
E11A	**Bogner Ranch,** baz=33	**33.46**	**338**	⇓P	**P**	**11 42 54.6**	**-0.3**
D13A	**Huson** baz=33,SNR=7.0	**33.50**	**340**	P	**P**	**11 42 54.7**	**-0.5**
F10A	**Beach Ranch, E** baz=33,SNR=8.9	**33.52**	**336**	P	**P**	**11 42 55.4**	**0.0**
F09A	**S2 Ranch, Elgi** baz=34	**33.57**	**335**	⇑P	**P**	**11 42 55.4**	**-0.4**
G08A	**Pilot Rock** baz=34	**33.67**	**334**	⇑P	**P**	**11 42 56.4**	**-0.2**
G07A	**Ruggs Ranch, H** baz=34	**33.95**	**333**	⇑P	**P**	**11 42 59.0**	**-0.1**
C13A	**Hot Springs** baz=34	**34.06**	**341**	⇓P	**P**	**11 42 59.0**	**-0.9**
ULM	**Lac du Bonnet**	**34.08**	**3**	P	**P**	**11 42 57.5**	**-2.6**
ULM	**Lac du Bonnet** 5.3nm,1.0s,mb4.4,baz=175,slow=9.8,SNR=8.1	**34.08**	**3**	P	**P**	**11 42 57.5**	**-2.6**
D11A	**Klaveano Farm,** baz=34	**34.10**	**338**	⇓P	**P**	**11 43 00.3**	**-0.1**
D10A	**Wagner Farm, O** baz=34	**34.45**	**337**	⇑P	**P**	**11 43 02.4**	**-1.0**
B13A	**Whitefish** baz=34,SNR=5.7	**34.64**	**341**	P	**P**	**11 43 05.2**	**+0.2**
E07A	**Sunnyside** baz=35	**35.06**	**334**	⇑P	**P**	**11 43 07.0**	**-1.6**
C10A	**Spilker Farm,** baz=35	**35.10**	**338**	⇑P	**P**	**11 43 08.5**	**-0.5**
A13A	**Flathead Natio** baz=35	**35.12**	**342**	⇓P	**P**	**11 43 09.4**	**+0.2**
C09A	**Chrisman Ranch** baz=35	**35.44**	**337**	⇓P	**P**	**11 43 11.9**	**-0.1**
A12A	**Yaak River Ran** baz=35	**35.50**	**341**	⇑P	**P**	**11 43 12.1**	**-0.3**
A11A	**Hall Mountain,** baz=36	**35.75**	**340**	⇑P	**P**	**11 43 13.7**	**-1.0**
B09A	**Rice** baz=36	**35.92**	**338**	⇓P	**P**	**11 43 16.0**	**-0.1**
D06A	**Cle Elum** baz=36	**35.97**	**334**	⇓P	**P**	**11 43 16.4**	**-0.2**
C07A	**Waterville** baz=36	**36.05**	**335**	⇑P	**P**	**11 43 16.7**	**-0.4**
B08A	**Colville Reser**	**36.30**	**337**	⇓P	**P**	**11 43 18.8**	**-0.5**

	baz=36						
A09A	Danville	36.54	338	⇑P	P	11 43 21.2	-0.2
	baz=36						
C06A	Tall Timber Ra	36.57	335	⇑P	P	11 43 21.9	+0.3
	baz=36						
B07A	Winthrop	36.69	336	⇓P	P	11 43 22.9	+0.3
	baz=37						
A07A	Ashnola River,	37.27	336	⇑P	P	11 43 27.8	+0.2
	baz=37						
C04A	Brinnon	37.30	333	⇑P	P	11 43 28.1	+0.3
	baz=37						
FFC	Flin Flon	38.57	357	*e*P	P	11 43 37.7	-0.8
	4.6nm,0.9s,mb4.2						
EDM	Edmonton	38.73	346	*e*P	P	11 43 39.0	-0.9
FCC	Fort Churchill	42.67	4	*e*P	P	11 44 11.2	-1.1
	2.3nm,0.9s,mb3.9						
SCHQ	Schefferville	45.74	25	*e*P	P	11 44 36.5	-0.5
SCHQ	Schefferville	45.74	25	P	P	11 44 36.1	-0.9
	8.8nm,1.0s,mb4.6,baz=221,slow=5.2,SNR=7.4						
YKA	Yellowknife Ar	47.62	350	P	P	11 44 50.4	-1.2
	1.5nm,0.7s,mb4.2,baz=156,slow=7.1,SNR=18						
SIV	San Ignacio	48.97	129	P	P	11 45 03.0	+0.3
	0.6nm,0.9s,mb3.6,baz=304,slow=7.2,SNR=2.9						
INK	Inuvik	56.63	345	*e*P	P	11 45 57.6	-1.0
	153nm,1.0s						
MCK	McKinley	58.59	336	*e*P	P	11 46 11.3	-1.1
	1.6nm,0.8s,mb4.1						
WMQ	Urumqi	120.03	355	*e*PKP	PKPdf	11 55 07.0	+0.1
LZH	Lanzhou	123.83	338	*e*PKP	PKPdf	11 55 16.2	+1.7
CD2	Chengdu	128.46	335	*e*PKP	PKPdf	11 55 22.3	-1.2
GYA	Guiyang	130.99	329	*e*PDIF	Pdif	11 52 18.4	-0.5
GYA				PKP	PKPdf	11 55 27.8	-0.6
GYA				PP	PP	11 57 46.8	+3.1
GYA				PP	PP		
	comp=Z,70nm,7.8s						

IDC 11 11:41:11.1±17.0,**2232S**×**17979W**,**h641**^{km}±173^{km}, **mb3.3**/5,**mb1 3.4**/5,**mb1mx3.1**/14,**mbtmp3.3**/5,**Error ellipse: s-maj=133.0km s-min=32.9km az=77.0,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	34.19	287	P	P	11 47 06.8	+0.6
	8.2nm,0.7s,baz=77,slow=5.4,SNR=5.8						
STKA	Stephens Creek	35.51	246	P	P	11 47 15.2	-1.8
	1.7nm,0.6s,baz=54,slow=7.6,SNR=5.5						
ASAR	Alice Springs	42.50	259	P	P	11 48 13.3	+0.5
	3.6nm,0.8s,baz=95,slow=8.3,SNR=27						
WB2	Warramunga Arr	42.72	264	*e*P	P	11 48 15.1	+0.5
WRA	Warramunga Arr	42.73	264	P	P	11 48 15.2	+0.5
	1.1nm,0.3s,baz=90,slow=5.8,SNR=43						
KAKA	Kakadu	46.38	274	*e*P	P	11 48 43.8	+1.2
	6.3nm,0.6s						
FORT	Forrest	47.06	248	*e*P	P	11 48 47.3	-0.1
	19nm,0.6s						
MAW	Mawson	79.29	200	P	P	11 52 11.8	+0.2
	2.1nm,0.5s,baz=138,slow=9.0,SNR=6.2						
AKASG	Malin Array Be	143.74	329	PKhKP		11 59 31.6	
	1.6nm,0.4s,baz=42,slow=3.9,SNR=13						
BRTR	Keskin Array B	146.76	309	PKPbc	PKPbc	11 59 42.5	-0.5
	0.7nm,0.6s,baz=133,slow=3.7,SNR=4.9						
MLR	Muntele Rosu	148.77	324	PKPbc	PKPbc	11 59 46.7	-1.2
	1.0nm,0.4s,baz=200,slow=7.8,SNR=3.1						
TORD	Torodi Ar. Bea	170.77	189	PKPab	PKPab	12 01 31.6	+0.9
	0.5nm,0.6s,baz=171,slow=4.3,SNR=3.7						

IDC 11 11:49:38.7±21.0,**1930S**×**17793W**,**h586**^{km}±202^{km}, **mb3.0**/3,**mb1 3.2**/3,**mb1mx2.9**/14,**mbtmp3.0**/3,**Error ellipse: s-maj=155.3km s-min=97.2km az=106.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	38.38	243	P	P	11 56 10.7	-0.4
	1.8nm,0.7s,baz=51,slow=6.5,SNR=3.4						
WRA	Warramunga Arr	44.85	261	P	P	11 57 02.0	-0.1
	0.8nm,0.3s,baz=98,slow=7.3,SNR=45						
ASAR	Alice Springs	44.87	256	P	P	11 57 02.4	+0.1
	1.3nm,0.6s,baz=87,slow=7.9,SNR=35						
ASAR				PcP	PcP	11 58 31.1	0.0
	0.3nm,0.4s,baz=104,slow=4.3,SNR=4.2						
AKASG	Malin Array Be	142.00	332	PKhKP		12 08 00.1	
	0.2nm,0.3s,baz=38,slow=3.4,SNR=4.0						
BRTR	Keskin Array B	146.08	314	PKPbc	PKPbc	12 08 13.1	-1.1
	0.5nm,0.5s,baz=110,slow=4.2,SNR=4.4						
GERES	GERESS Array B	149.07	345	PKPbc	PKPbc	12 08 21.6	+0.1
	0.8nm,0.6s,baz=15,slow=5.5,SNR=4.6						

ISCJB ***11*** *11:53:46.8±0.7,3934N±003×2354E±005,h10*^{km}*±6*^{km}*, Error ellipse: s-maj=7.3km s-min=4.5km az=25.5*

CSEM ***11*** *11:53:47.9±0.1,3933N×2353E,h6*^{km}*±1*^{km}*,MD3.1,Error ellipse: s-maj=2.3km s-min=1.7km az=119.0*

ATH ***11*** *11:53:47.6,3932N×2350E,h10*^{km}*±6*^{km}*,MD3.1/3*

THE ***11*** *11:53:47.9,3931N×2351E,h10*^{km}*,ML2.7*

ISC 11 11:53:46.9±0.7,**3932N**±003×**2355E**±006,**h17**^{km}±5^{km},**n29,** σ**0^{s}86**/41,**Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEO	Neokhori	0.26	266	*e*PG	Pg	11 53 51.8	-0.8
NEO				*e*SG	Sg	11 53 55.6	-0.9
NEO	Neokhori	0.26	266	*e*Pg	Pg	11 53 51.8	-0.8
NEO				*e*Sg	Sg	11 53 55.6	-0.9
XOR	Xorichti	0.28	279	*e*Pg	Pg	11 53 52.8	-0.2
XOR	Xorichti	0.28	279	*e*Pg	Pg	11 53 52.8	-0.3
AOS	Alonnisos	0.30	121	*e*Pg	Pg	11 53 54.0	+0.7
AOS	Alonnisos	0.30	121	*e*Pg	Pg	11 53 54.0	+0.7
PAIG	Paliouri	0.61	9	*e*Pg	Pg	11 54 00.6	+1.6
PAIG	Paliouri	0.61	9	*e*Pg	Pg	11 54 00.6	+1.6
LKR	Lokris	0.80	213	*e*PB	Pb	11 54 02.6	+0.3
LKR				*e*SB	Sb	11 54 12.9	+0.1
LKR	Lokris	0.80	213	*e*Pb	Pb	11 54 02.6	+0.3
LKR				*e*Sb	Sb	11 54 12.9	+0.1
AGG	Agios Georgios	1.00	253	*e*Pg	Pg	11 54 06.1	-0.1
AGG				*e*Sg	Sg	11 54 19.9	+0.6
AGG	Agios Georgios	1.00	253	*e*Pg	Pg	11 54 06.1	-0.1
AGG				*e*Sg	Sg	11 54 19.9	+0.6
PLG	Polygyros	1.05	356	*e*Pg	Pg	11 54 07.3	0.0
PLG	Polygyros	1.05	356	*e*PB	Pb	11 54 07.1	+0.4
PLG				*e*SB	Sb	11 54 21.1	+0.9
PLG	Polygyros	1.05	356	*e*Pb	Pb	11 54 07.1	+0.4
PLG	Polygyros	1.05	356	*e*Pg	Pg	11 54 07.3	0.0
PLG				*e*Sb	Sb	11 54 21.1	+0.9
OUR	Ouranopolis	1.06	18	*e*Pg	Pg	11 54 07.6	+0.1
OUR	Ouranopolis	1.06	18	*e*Pg	Pg	11 54 07.6	+0.1
LIT	Litokhoron	1.13	314	*e*Pg	Pg	11 54 09.6	+0.9
LIT				*e*Sg	Sg	11 54 25.1	+1.6
LIT	Litokhoron	1.13	314	*e*Pg	Pg	11 54 09.6	+0.9
LIT				*e*Sg	Sg	11 54 25.1	+1.6
THL	Klokotos Trika	1.22	282	*e*PB	Pb	11 54 09.9	+0.5
THL	Klokotos Trika	1.22	282	*e*Pb	Pb	11 54 09.9	+0.5
HORT	Hortiatis	1.32	345	*e*Pg	Pg	11 54 12.3	0.0
HORT				*e*Sg	Sg	11 54 29.3	-0.3
HORT	Hortiatis	1.32	345	*e*Pg	Pg	11 54 12.3	-0.1
HORT				*e*Sg	Sg	11 54 29.3	-0.3
SOH	Sokhos	1.50	354	*e*Pg	Pg	11 54 14.3	-1.6
SOH	Sokhos	1.50	354	*e*Pg	Pg	11 54 14.3	-1.6
SRS	Serrai	1.79	1	*e*Pb	Pb	11 54 17.7	-1.6
GRG	Griva	1.85	332	*e*Pb	Pb	11 54 19.3	-1.1
KNT	Kendrikon	1.90	345	*e*Pb	Pb	11 54 20.2	-1.0

IDC ***11*** *11:59:28.2±2.1,5552S×2824W,h0*^{km}*,mb3.9/4,mb1 4.1/4, mb1mx4.0/14,mbtmp3.9/4,Error ellipse: s-maj=87.5km s-min=32.1km az=7.0*

ISCJB ***11*** *11:59:29.4±1.0,552S±02×284W±04,h10*^{km}*,mb4.0/4, Error ellipse: s-maj=37.7km s-min=14.2km az=147.5*

ISC 11 11:59:31.4±1.0,**552S**±02×**284W**±04,**h10**^{km},**n8,** σ**1^{s}11**/6, **mb4.0**/4,**South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA3	Neumayer Olymp	17.98	160	*e*P	Pn	12 03 39.9	-1.1
VNA2	Neumayer--Watz	18.20	158	*e*P	Pn	12 03 44.9	+1.2
	baz=314,slow=12						
CFAA	Coronel Fontan	36.63	294	P	P	12 06 37.2	-0.6
	0.2nm,0.7s,mb3.1,baz=165,slow=6.4,SNR=5.1						
LPAZ	La Paz	49.37	306	P	P	12 08 21.7	+0.8
	1.4nm,0.6s,mb4.1,baz=142,slow=6.1,SNR=5.7						
NNA	Nana	57.28	299	P	P	12 09 19.1	0.0
	5.2nm,0.4s,mb4.9,baz=164,slow=15,SNR=3.5						
TORD	Torodi Ar. Bea	72.68	31	P	P	12 10 59.0	-0.2
	0.8nm,0.7s,mb3.8,baz=200,slow=5.9,SNR=4.8						
YKA	Yellowknife Ar	135.12	319	PKP	PKPdf	12 18 49.2	-0.2
	0.4nm,0.8s,baz=116,slow=2.3,SNR=6.3						
SONM	Songino Array	151.33	86	PKPbc	PKPbc	12 19 22.3	-1.9
	0.5nm,0.6s,baz=232,slow=2.5,SNR=5.9						

HLW ***11*** *12:24:37.0,2989N×3681E,h18*^{km}*,Mb3.1*

ISCJB ***11*** *12:24:39.8±1.1,2984N±004×3623E±008,h0*^{km}*,Error ellipse: s-maj=10.3km s-min=5.1km az=6.0*

CSEM ***11*** *12:24:39.9±0.2,2979N×3623E,h1*^{km}*,ML2.5,Error ellipse: s-maj=5.4km s-min=2.5km az=99.0,Mining explosion.*

GII ***11*** *12:24:41.2±2.7,2992N×3616E,h0*^{km}*±13*^{km}*,ML2.0/2*

SGS ***11*** *12:24:42.6,2990N×3604E,h4*^{km}

ISC 11 12:24:39.7±1.1,**2983N**±004×**3628E**±008,**h0**^{km},**n35,** σ**0^{s}63**/40,**Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AQBJ	Aqaba	1.07	265	Pg	Pg	12 25 00.7	+0.4
EIL	Elat	1.16	262	Pg	Pg	12 25 02.6	+0.5
EIL	Elat	1.16	262	Pg	Pg	12 25 02.6	+0.5
HQLS		1.18	244	P	Pg	12 25 02.2	-0.2
HQLS				S	Sg	12 25 16.5	-1.3
HQLS		1.18	244	P	Pg	12 25 02.2	-0.3
MBH	Mount Berech	1.18	269	Pg	Pg	12 25 03.0	+0.5
MBH	Mount Berech	1.18	269	Pg	Pg	12 25 03.0	+0.5
ZFRI	Zfri	1.20	307	Pg	Pg	12 25 01.7	-1.0
ZFRI	Zfri	1.20	307	Pg	Pg	12 25 01.7	-1.0
PRNI	Paran	1.22	296	Pg	Pg	12 25 02.1	-1.1
PRNI				Sg	Sg	12 25 20.1	+1.1
PRNI	Paran	1.22	296	Pg	Pg	12 25 02.1	-1.0
PRNI				Sg	Sg	12 25 20.1	+1.1
JLOS		1.29	212	P	Pg	12 25 04.9	+0.4
JLOS				S	Sg	12 25 21.8	+0.6
JLOS		1.29	212	P	Pg	12 25 04.9	+0.5
KRMI	Paran Flat	1.38	282	Pg	Pg	12 25 05.8	-0.3
KRMI	Paran Flat	1.38	282	Pg	Pg	12 25 05.8	-0.4
HBST	Basata	1.48	246	P	Pn	12 25 07.9	+0.3
RMNI	Mount Ramon	1.52	301	Pn	Pn	12 25 07.7	-0.4
RMNI	Mount Ramon	1.52	301	Pn	Pn	12 25 07.7	-0.5
MZDA	Masada	1.67	332	Pn	Pn	12 25 09.7	-0.6
MZDA	Masada	1.67	332	Pn	Pn	12 25 09.7	-0.6
MASH	Mash‘abbe Sade	1.74	312	Pn	Pn	12 25 12.1	+0.9
MASH	Mash‘abbe Sade	1.74	312	Pn	Pn	12 25 12.1	+0.9
SVTA	Shivta	1.80	308	Pn	Pn	12 25 11.9	-0.2
SVTA	Shivta	1.80	308	Pn	Pn	12 25 11.9	-0.2
DSI	Dead Sea	1.90	336	Pn	Pn	12 25 14.1	+0.7
DSI	Dead Sea	1.90	336	Pn	Pn	12 25 14.1	+0.7
DRGI	Dragot	1.92	337	Pn	Pn	12 25 13.4	-0.3
DRGI	Dragot	1.92	337	Pn	Pn	12 25 13.4	-0.2
HNKL	Nakhl	2.00	273	P	Pn	12 25 15.5	+0.8
RSHS		2.00	221	P	Pn	12 25 14.2	-0.6
RSHS				S	Sn	12 25 40.2	-0.3
RSHS		2.00	221	P	Pn	12 25 14.2	-0.6
HKAT	Jabal Katrina	2.38	237	P	Pn	12 25 19.9	-0.1
AMAG	Maghara	2.78	288	P	Pn	12 25 25.2	-0.2
AMAG	Maghara	2.78	288	P	Pn	12 25 25.2	-0.3
SUZ		2.99	271	P	Pn	12 25 28.8	+0.4

IDC ***11*** *12:33:03.1±1.1,5116N×17938E,h0*^{km}*,mb3.8/13, mb1 4.1/14,mb1mx3.9/26,mbtmp3.9/14,ML4.2/1,Error ellipse: s-maj=32.8km s-min=17.6km az=1.0*

NEIC ***11*** *12:33:07.2,5101N×17936E,h6*^{km}*,ML3.7(AEIC),After AEIC.*

ISCJB ***11*** *12:33:08.4±0.8,513N±01×17943E±010,h46*^{km}*±4*^{km}*, mb3.8/13,Error ellipse: s-maj=24.4km s-min=10.3km az=175.8*

ISC 11 12:33:09.0±1.3,**512N**±02×**1794E**±01,**h38**^{km}±7^{km},**n22,** σ**0^{s}79**/26,**mb3.8**/13,**Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AMKA	Amchitka	0.19	343	P	Pn	12 33 15.3	-0.6
AMKA				S	Sn	12 33 20.8	+0.1
ADK	Adak	2.55	73	P	Pn	12 33 48.1	+0.4
SMY	Shemya	3.61	297	P	Pn	12 34 02.5	+0.2
ATKA	Atka Island	4.12	73	P	Pn	12 34 09.7	+0.4
SPIA	Saint Paul Isl	8.53	41	P	Pn	12 35 10.4	+0.6
KDAK	Kodiak Island	17.48	57	P	Pn	12 37 07.5	-1.9
KDAK				S	S	12 40 12.8	-17
KDAK	Kodiak Island	17.48	57	P	Pn	12 37 07.5	-1.9
	0.9nm,0.3s,baz=305,slow=14,SNR=18						
KDAK				S	S	12 40 12.8	-17
	0.1nm,0.3s,baz=221,slow=20,SNR=2.0						
INK	Inuvik	28.26	35	P	P	12 38 57.8	-0.2
	0.5nm,0.3s,mb3.6,baz=258,slow=9.6,SNR=4.8						
INK				S	S	12 43 36.3	-4.8
	1.5nm,0.6s,baz=73,slow=19,SNR=21						
YKA	Yellowknife Ar	36.18	46	P	P	12 40 06.9	-0.4
	0.7nm,0.4s,mb3.9,baz=282,slow=8.0,SNR=16						
NVAR	Mina Array Bea	44.70	81	P	P	12 41 19.2	+1.1
NVAR	Mina Array Bea	44.70	81	P	P	12 41 19.2	+1.2
	0.2nm,0.5s,mb3.2,baz=311,slow=6.7,SNR=3.7						
SONM	Songino Array	45.71	296	P	P	12 41 27.4	+1.5
	0.6nm,0.6s,mb3.7,baz=61,slow=8.9,SNR=8.2						
PDAR	Pinedale Array	47.45	71	P	P	12 41 39.9	+0.3
	1.9nm,0.6s,mb4.2,baz=306,slow=3.4,SNR=24						
ARCES	ARCESS Array B	58.07	349	P	P	12 42 58.4	+0.9
	6.6nm,1.1s,mb4.6,baz=20,slow=8.0,SNR=4.9						
MKAR	Makanchi Array	59.25	307	P	P	12 43 06.2	0.0
	1.1nm,0.4s,mb4.2,baz=46,slow=6.7,SNR=35						
TXAR	Lajitas Array	59.81	80	P	P	12 43 10.2	-0.1
	0.2nm,0.5s,mb3.4,baz=298,slow=4.2,SNR=7.9						
FINES	FINESS Array B	65.70	346	P	P	12 43 47.8	-1.1
	0.6nm,0.6s,mb3.8,baz=20,slow=4.4,SNR=3.5						
NB2	NORSAR Subarra	67.71	354	P	P	12 44 01.5	-0.3
	comp=Z,0.2nm,0.6s,mb3.3,baz=10,slow=6.5						
NOA	NORSAR Array B	67.71	354	P	P	12 44 01.9	+0.1
	comp=Z,1.5nm,0.8s,mb4.1,baz=11,slow=6.5,SNR=5.6						
AKASG	Malin Array Be	75.36	341	P	P	12 44 47.2	-0.8
	comp=Z,0.3nm,0.2s,mb3.8,baz=21,slow=6.7,SNR=4.7						
WRA	Warramunga Arr	81.10	222	P	P	12 45 18.9	-1.1
	comp=Z,0.4nm,0.8s,mb3.4,baz=32,slow=5.8,SNR=3.1						
BRTR	Keskin Array B	84.63	334	P	P	12 45 38.8	+0.5
	comp=Z,0.5nm,0.7s,mb3.8,baz=46,slow=4.2,SNR=4.1						

CSEM ***11*** *12:56:23.9±0.1,3747N×3534E,h5*^{km}*,MD3.0,Error ellipse: s-maj=2.4km s-min=2.0km az=179.0*

ISCJB ***11*** *12:56:24.4±0.8,3747N±008×3536E±005,h10*^{km}*±16*^{km}*, Error ellipse: s-maj=14.2km s-min=5.6km az=166.1*

ISK ***11*** *12:56:24.1,3746N×3536E,h6*^{km}*,MD3.0*

DDA ***11*** *12:56:25.5,3746N×3529E,h7*^{km}*±4*^{km}*,Md2.6*

ISC 11 12:56:24.8±0.8,**3747N**±008×**3536E**±005,**h12**^{km}±15^{km}, **n13,** σ**0^{s}51**/18,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARA	Karaisali	0.32	230	PG	Pg	12 56 30.8	-0.4
KARA				SG	Sg	12 56 35.2	-0.4
KARA	Karaisali	0.32	230	*e*Pg	Pg	12 56 30.8	-0.4
KARA				*e*Sg	Sg	12 56 35.2	-0.4
KOZT	Kozan	0.37	88	PG	Pg	12 56 31.8	-0.3
KOZT				SG	Sg	12 56 37.5	+0.4
KOZT	Kozan	0.37	88	*e*Pg	Pg	12 56 31.8	-0.3
KOZT				*e*Sg	Sg	12 56 37.5	+0.4
GULE	Gulek	0.50	249	*i* P	Pg	12 56 34.4	-0.2
GULE				*i* S	Sg	12 56 42.6	+1.3
CEYT	Ceyhan	0.55	146	*e*PG	Pg	12 56 35.7	+0.2
CEYT	Ceyhan	0.55	146	*e*Pg	Pg	12 56 35.7	+0.2
NIG	Nigde	0.88	317	*e*PG	Pg	12 56 41.5	-0.2
NIG	Nigde	0.88	317	*e*Pg	Pg	12 56 41.5	-0.2
MERS	Mersin	0.90	229	*e*PG	Pg	12 56 41.7	-0.4
MERS	Mersin	0.90	229	*e*Pg	Pg	12 56 41.7	-0.4
AVNT	Avonos	1.37	343	*i* P	Pn	12 56 49.9	+0.1
AVNT	Avonos	1.37	343	*i* P	Pn	12 56 49.8	+0.1

NEIC ***11*** *13:05:01.1,1865N×6825W,h168*^{km}*,MD3.8(RSPR), After RSPR.*

RSPR 11 13:05:01.1,1865N×**6825W,h168**^{km}±1^{km},**MD3.8**/16, **MD3.8**/16,**17C,Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGPR	Aguadilla, PR	1.09	99	⇑*e*P	Pn	13 05 28.6	+0.2
AGPR				*e*S	Sn	13 05 49.1	-0.1
LSP	Las Mesas	1.20	113	⇑*e*P	Pn	13 05 29.1	-0.2
LSP				*e*S	Sn	13 05 51.4	+0.6
CRPR	Cabo Rojo, PR	1.26	120	⇑*e*P	Pn	13 05 29.3	-0.5
CRPR				*e*S	Sn	13 05 51.9	+0.2
LRS	Lares	1.38	105	⇑*e*P	Pn	13 05 31.2	+0.4
LRS				*e*S	Sn	13 05 53.8	0.0
AOPR	Arecibo Observ	1.45	102	⇑*e*P	Pn	13 05 32.0	+0.5
AOPR				*e*S	Sn	13 05 55.7	+0.7
GBPR	Guanica, Bosqu	1.47	117	⇑*e*P	Pn	13 05 31.7	0.0
GBPR	Guanica, Bosqu	1.47	117	*e*S	Sn	13 05 56.0	+0.7
OBIP	Obispado Ponce	1.67	111	⇑*e*P	Pn	13 05 33.7	-0.1
OBIP				*e*S	Sn	13 05 59.8	+0.8
CELP	Cerrillos	1.69	110	⇑*e*P	Pn	13 05 34.0	+0.1
CELP				*e*S	Sn	13 05 59.3	+0.1
ICM	Isla Caja Muer	1.81	114	⇑*e*P	Pn	13 05 34.9	-0.3
ICM				*e*S	Sn	13 06 02.3	+0.8
SJG	San Juan	2.06	105	⇑*e*P	Pn	13 05 37.9	-0.2
SJG				*e*S	Sn	13 06 07.4	+0.9
SJG	San Juan	2.06	105	⇑*e*P	Pn	13 05 38.2	+0.2
SJG				*e*S	Sn	13 06 07.4	+0.9
CPD	Cerro la Pandu	2.30	105	⇑*e*P	Pn	13 05 41.2	+0.4
CPD				*e*S	Sn	13 06 11.8	+0.4
CBYP	Canovanas	2.30	99	⇑*e*P	Pn	13 05 40.7	-0.1
CBYP				*e*S	Sn	13 06 12.4	+1.0
HUMP	Col San Antoni	2.33	102	⇑*e*P	Pn	13 05 41.3	+0.2
HUMP				*e*S	Sn	13 06 12.6	+0.5
MTP	Monte Pirata	2.62	102	⇑*e*P	Pn	13 05 45.0	+0.5
MTP				*e*S	Sn	13 06 19.2	+1.1
STVI	Saint Thomas	3.14	95	⇑*e*P	Pn	13 05 51.7	+0.7
STVI				*e*S	Sn	13 06 30.9	+1.3
TBVI	Tortola	3.46	93	⇑*e*P	Pn	13 05 55.9	+1.0
TBVI				*e*S	Sn	13 06 37.6	+0.9

GRAL ***11*** *13:07:50.9±1.0,3376N×3714E,h0*^{km}*±613*^{km}*,MD3.5*

CSEM ***11*** *13:07:51.7±0.3,3367N×3698E,h5*^{km}*,Mc2.0,Error ellipse: s-maj=5.9km s-min=3.4km az=149.0*

ISCJB ***11*** *13:07:52.5±1.1,3369N±005×3696E±006,h10*^{km}*,Error ellipse: s-maj=8.8km s-min=5.4km az=42.3*

NSSC ***11*** *13:07:52.8,3376N×3690E,h0*^{km}*±1*^{km}

ISC 11 13:07:52.8±1.2,**3369N**±005×**3699E**±007,**h10**^{km},**n18,** σ**1^{s}10**/29,**4D,Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MARH	Ras Al Marh	0.54	309	⇑P	Pg	13 08 02.2	-1.1
MARH	Ras Al Marh	0.54	309	⇑*i*P	Pg	13 08 02.2	-1.1
ROOS	tl_alroos	0.54	27	⇑P	Pg	13 08 03.8	+0.5
ROOS	tl_alroos	0.54	27	⇑*i*P	Pg	13 08 03.8	+0.5
TOTH	TOTAH	0.57	235	⇑P	Pg	13 08 04.4	+0.5
TOTH	TOTAH	0.57	235	⇑*i*P	Pg	13 08 04.4	+0.6
BRBR	Barbar	0.91	253	⇑P	Pg	13 08 09.8	-0.5
BRBR				⇓S	Sg	13 08 24.0	+1.8
BRBR	Barbar	0.91	253	⇑*i*P	Pg	13 08 09.8	-0.5
BRBR				⇓*i*S	Sg	13 08 24.0	+1.9
RCY	Rachaya	1.00	259	*e*Pg	Pg	13 08 10.7	-1.3
RCY				*e*Sg	Sg	13 08 26.7	+1.8
RCY	Rachaya	1.00	259	*e*Pg	Pg	13 08 10.7	-1.3
RCY				*e*Sg	Sg	13 08 26.7	+1.8
HWQ	Hawqa	1.05	304	*e*Pg	Pg	13 08 11.3	-1.6
HWQ				*e*Sg	Sg	13 08 25.8	-0.8
HWQ	Hawqa	1.05	304	*e*Pg	Pg	13 08 11.3	-1.6
HWQ				*e*Sg	Sg	13 08 25.8	-0.7
BHL	Bhannes	1.13	281	*e*Pg	Pg	13 08 12.9	-1.7
BHL				*e*Sg	Sg	13 08 29.5	+0.3
MATL	Matirih	1.40	262	*e*Pg	Pg	13 08 18.9	-0.7
BIDA	Albida	1.43	337	⇑P	Pn	13 08 18.9	+0.1
BIDA				⇓S	Sn	13 08 39.2	+1.5
BIDA	Albida	1.43	337	⇑*i*P	Pn	13 08 18.9	+0.1
BIDA				⇓*i*S	Sn	13 08 39.2	+1.5
WRDH	Warideh	1.88	345	⇑P	Pn	13 08 25.1	+0.2
WRDH				⇑S	Sn	13 08 49.6	+1.0
WRDH	Warideh	1.88	345	⇑*i*P	Pn	13 08 25.1	+0.2
WRDH				⇑*i*S	Sn	13 08 49.6	+1.0

IDC 11 13:25:27.8±1.9,**3434N**×**8128E,h0**^{km},**mb3.5**/3,**mb1 3.6**/5, **mb1mx3.3**/22,**mbtmp3.4**/5,**ML3.1**/2,**Error ellipse: s-maj=73.8km s-min=31.0km az=65.0,Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	Makanchi Array	12.46	3	Pn	Pn	13 28 27.7	+1.4
	0.1nm,0.3s,baz=180,slow=13,SNR=6.3						
ZALV	Zalesovo Beam	19.76	6	P	Pn	13 29 58.8	-1.8
	0.1nm,0.3s,baz=195,slow=10,SNR=2.9						
FINES	FINESS Array B	44.00	325	P	P	13 33 36.2	-0.3
	0.6nm,0.8s,baz=120,slow=8.5,SNR=5.1						
WRA	Warramunga Arr	73.89	128	P	P	13 37 04.9	+0.2
	0.4nm,1.0s,baz=326,slow=5.6,SNR=3.4						
YKA	Yellowknife Ar	82.66	7	P	P	13 37 52.7	0.0
	0.3nm,0.5s,baz=337,slow=5.6,SNR=5.9						

MAN 11 13:34:11,736N×**12715E,h24**^{km},**mb4.7,ML3.6,MS3.5, 2C,Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	1.13	316	⇑*i*P	Pn	13 34 29.8	-1.5
BIPH				*i* S	Sn	13 34 39.4	-6.7
CGP	Cagayan de Oro	2.67	294	⇑*i*P	Pn	13 34 53.6	+1.2
CGP				*i* S	Sn	13 35 25.8	+1.7

IDC ***11*** *13:37:41.0±0.8,3420N×8096E,h0*^{km}*,mb3.7/11, mb1 3.9/13,mb1mx3.8/22,mbtmp3.7/13,ML3.4/2,Error ellipse: s-maj=25.7km s-min=17.8km az=40.0*

ISCJB ***11*** *13:37:44.1±1.7,3430N±007×810E±01,h33*^{km}*±16*^{km}*, mb3.7/11,Error ellipse: s-maj=19.5km s-min=10.8km az=18.4*

ISC 11 13:37:46.7±1.2,**3432N**±007×**810E**±01,**h37**^{km}±12^{km},**n21,** σ**1^{s}10**/24,**mb3.7**/11,**Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KLP	Kalpa	3.62	221	*e*P	Pn	13 38 42.6	+2.3
KLP				*e*S	Sn	13 39 25.3	+3.5
KLP				AML	AML	13 39 36.9	
	comp=N,1μm,0.8s						
KLP				AML	AML	13 39 38.8	
	comp=E,1μm,1.0s						
JOSI	Joshimath	3.95	198	*e*P	Pn	13 38 52.1	+7.3
JOSI				*e*S	Sn	13 39 44.2	+14
JOSI				AML	AML	13 39 48.4	
	comp=E,69nm,0.7s						
JOSI				AML	AML	13 39 49.8	
	comp=N,74nm,0.7s						
SMLA	Simla	4.54	226	*e*P	Pn	13 38 52.9	0.0
SMLA				*e*x	x	13 39 47.5	
THN	Thein Dam	4.81	248	*e*P	Pn	13 38 48.5	-8.1
KUDL	Kundal	7.27	213	*e*P	Pn	13 39 30.6	+0.2
KUDL				*e*S	Sn	13 40 51.2	-0.5
KUDL				AML	AML	13 40 51.9	
	comp=E,3.9nm,0.4s						
KUDL				AML	AML	13 40 52.4	
	comp=N,4.2nm,0.4s						
KHET	Khetri	7.66	217	*e*P	Pn	13 39 34.3	-1.4
KHET				*e*S	Sn	13 40 58.0	-3.2
KHET				AML	AML	13 41 01.2	
	comp=E,5.5nm,0.5s						
KHET				AML	AML	13 41 01.4	
	comp=N,6.3nm,0.3s						
MKAR	Makanchi Array	12.49	4	Pn	Pn	13 40 41.2	-0.6
	comp=N,0.3nm,0.3s,baz=192,slow=13,SNR=16						
ZALV	Zalesovo Beam	19.80	7	P	Pn	13 42 14.2	-1.2
	comp=N,0.1nm,0.3s,baz=191,slow=12,SNR=7.2						
SONM	Songino Array	23.29	47	P	P	13 42 52.7	+1.6
	comp=N,0.6nm,0.7s,mb3.2,baz=239,slow=12,SNR=6.7						
SONM				PcP	PcP	13 46 38.2	+0.9
	comp=N,0.2nm,0.6s,baz=228,slow=2.1,SNR=3.7						
BRTR	Keskin Array B	37.85	292	P	P	13 45 00.0	+0.2
	comp=N,0.8nm,0.8s,mb3.5,baz=110,slow=11,SNR=6.0						
AKASG	Malin Array Be	40.64	310	P	P	13 45 23.4	+0.5
	comp=N,0.8nm,0.6s,mb3.5,baz=78,slow=7.8,SNR=5.1						
FINES	FINESS Array B	43.88	325	P	P	13 45 49.5	+0.3
	comp=N,2.2nm,0.6s,mb4.0,baz=114,slow=8.9,SNR=14						
ARCES	ARCESS Array B	46.35	336	P	P	13 46 08.0	-0.6
	comp=N,1.3nm,0.6s,mb4.0,baz=90,slow=6.6,SNR=4.1						
GERES	GERESS Array B	50.78	308	P	P	13 46 44.9	+1.9
	comp=N,0.4nm,0.5s,mb3.6,baz=36,slow=3.9,SNR=3.9						

NB2	**NORSAR Subarra**	**50.99**	**324**	P	**P**	**13 46 44.1**	**-0.3**
	comp=Z,6.3nm,1.2s,mb4.4,baz=86,slow=7.4						
NOA	**NORSAR Array B**	**50.99**	**324**	P	**P**	**13 46 44.1**	**-0.3**
	comp=Z,1.1nm,0.7s,mb3.9,baz=88,slow=7.6,SNR=4.1						
TORD	**Torodi Ar. Bea**	**73.96**	**275**	P	**P**	**13 49 17.1**	**-1.5**
	comp=Z,0.5nm,0.6s,mb3.7,baz=40,slow=5.5,SNR=5.9						
WRA	**Warramunga Arr**	**74.06**	**128**	P	**P**	**13 49 18.3**	**-0.6**
	comp=Z,0.5nm,0.7s,mb3.6,baz=324,slow=6.2,SNR=7.5						
ASAR	**Alice Springs**	**76.48**	**131**	P	**P**	**13 49 33.0**	**+0.2**
	comp=Z,0.3nm,0.5s,mb3.5,baz=320,slow=5.4,SNR=9.6						
YKA	**Yellowknife Ar**	**82.70**	**7**	P	**P**	**13 50 06.1**	**0.0**
	comp=Z,0.9nm,0.5s,mb4.0,baz=342,slow=5.3,SNR=15						
LPAZ	**La Paz**	**147.01**	**295**	PKPbc	PKPbc	13 57 28.0	+2.1
	comp=Z,0.5nm,0.5s,baz=22,slow=5.4,SNR=2.9						

IDC 11 13:39:03.2±2.9,2.68S×137.55E,h0^{km},mb3.6/3,mb1 3.7/4, mb1mx3.5/11,mbtmp3.6/4,ML3.2/1,Error ellipse: s-maj=127.9km s-min=26.2km az=84.0,Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**17.44**	**190**	P	Pn	13 43 08.1	0.0
	0.1nm,0.3s,baz=12,slow=12,SNR=7.3						
ASAR	**Alice Springs**	**21.16**	**189**	P	P	13 43 49.8	-0.3
	0.8nm,0.5s,baz=14,slow=11,SNR=20						
MKAR	**Makanchi Array**	**69.06**	**323**	P	P	13 50 11.8	+0.9
	0.7nm,0.6s,baz=116,slow=7.5,SNR=14						
ZALV	**Zalesovo Beam**	**71.33**	**330**	P	P	13 50 23.7	-1.0
	0.3nm,0.4s,baz=110,slow=7.8,SNR=2.7						

WEL 11 14:23:53.9±0.2,39.31S×177.62E,h39^{km}±4^{km},ML3.5/9,2D, Error ellipse: s-maj=2.1km s-min=1.3km az=90.0,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KNZ	**Kokohu**	**0.29**	**9**	⇓PN	Pn	14 24 02.1	+0.1
KNZ				SN	Sn	14 24 07.6	+0.1
BKZ	**Black Stump Fm**	**0.88**	**279**	⇓PN	Pn	14 24 09.0	-0.9
BKZ				SN	Sn	14 24 20.2	-1.3
PXZ	**Pawanui**	**0.93**	**218**	PN	Pn	14 24 10.5	0.0
PXZ				SN	Sn	14 24 22.0	-0.6
MWZ	**Matawai**	**0.97**	**356**	PN	Pn	14 24 10.5	-0.6
MWZ				SN	Sn	14 24 22.7	-0.9
URZ	**Urewera**	**1.12**	**339**	PN	Pn	14 24 12.4	-0.7
HATZ	**Hinemaiaia**	**1.25**	**289**	PN	Pn	14 24 14.8	-0.1
PUZ	**Puketiti**	**1.33**	**22**	PN	Pn	14 24 15.8	-0.2
TAZ	**Tarawera**	**1.38**	**321**	PN	Pn	14 24 16.4	-0.2
PATZ	**Paeroa**	**1.41**	**311**	PN	Pn	14 24 16.3	-0.7
WHTZ	**Whakaora**	**1.44**	**296**	PN	Pn	14 24 17.4	-0.1
MOVZ	**Moawhango**	**1.45**	**265**	PN	Pn	14 24 17.6	0.0
MKRZ	**Makatiti**	**1.47**	**322**	PN	Pn	14 24 18.6	+0.7
TSZ	**Takapari Road**	**1.48**	**239**	PN	Pn	14 24 17.7	-0.4
MARZ	**Manawahe**	**1.51**	**330**	PN	Pn	14 24 17.9	-0.5
OTVZ	**Oturere**	**1.52**	**275**	PN	Pn	14 24 19.3	+0.7
TUVZ	**Tukino**	**1.52**	**271**	PN	Pn	14 24 18.8	+0.2
KATZ	**Kakaramea**	**1.53**	**282**	PN	Pn	14 24 18.6	-0.2
KRVZ	**Karewarewa**	**1.55**	**277**	PN	Pn	14 24 18.8	-0.2
WNVZ	**Wahianoa**	**1.56**	**269**	PN	Pn	14 24 19.2	0.0
NGZ	**Ngauruhoe**	**1.57**	**274**	PN	Pn	14 24 19.2	-0.1
WTVZ	**West Tongariro**	**1.58**	**276**	PN	Pn	14 24 20.4	+0.9
FWVZ	**Far West T-bar**	**1.60**	**271**	PN	Pn	14 24 19.6	-0.1
WPVZ	**Whakapapa**	**1.61**	**273**	PN	Pn	14 24 19.7	-0.1
MTVZ	**Mangateitei**	**1.67**	**267**	PN	Pn	14 24 18.6	-2.0
BFZ	**Birch Farm**	**1.73**	**217**	PN	Pn	14 24 20.7	-0.8
PKVZ	**Pokaka**	**1.76**	**270**	PN	Pn	14 24 21.8	-0.1
MXZ	**Matakaoa Point**	**1.82**	**18**	PN	Pn	14 24 23.0	+0.2
TIWZ	**Tintock**	**1.98**	**222**	PN	Pn	14 24 24.2	-0.7
MRZ	**Mangatainoka R**	**2.07**	**228**	PN	Pn	14 24 25.2	-1.0
WAZ	**Wanganui**	**2.08**	**257**	PN	Pn	14 24 27.3	+1.0
VRZ	**Vera Road**	**2.23**	**274**	PN	Pn	14 24 28.3	-0.1
CAW	**Cannon Point**	**2.66**	**226**	PN	Pn	14 24 32.7	-1.5
PAWZ	**Paruwai Farm**	**2.67**	**218**	PN	Pn	14 24 32.4	-1.9
PKE	**Pukeiti**	**2.82**	**271**	PN	Pn	14 24 37.3	+0.8
SNZO	**South Karori**	**2.99**	**227**	PN	Pn	14 24 37.0	-1.8

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*CSEM **11** 14:26:06.4±0.1,38.48N×39.04E,h30^{km},MD2.7,Error ellipse: s-maj=3.5km s-min=1.5km az=130.0*
*ISK **11** 14:26:07.4,38.45N×39.07E,h15^{km},MD2.7*
*ISCJB **11** 14:26:08.1±0.6,38.43N±0.04×39.04E±0.05,h15^{km},Error ellipse: s-maj=5.8km s-min=4.6km az=43.6*
*DDA **11** 14:26:10.7,38.50N×38.89E,h1^{km}±4^{km},Md2.9*

ISC 11 14:26:08.6±0.7,38.46N±007×39.03E±008,h15^{km}±8^{km},n11, σ0.61/18,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	**Elazig**	**0.05**	**312**	*i* P	**Pg**	**14 26 11.5**	**+0.1**
ELZG				*i* S	**Sg**	**14 26 13.9**	**+0.7**
MYA	**Malataya**	**0.50**	**254**	PG	**Pg**	**14 26 18.7**	**+0.3**
MYA	**Malataya**	**0.50**	**254**	*e*Pg	**Pg**	**14 26 18.7**	**+0.3**
MALT	**Malatya**	**0.50**	**253**	PG	**Pg**	**14 26 17.8**	**-0.7**
MALT				SG	**Sg**	**14 26 25.8**	**+0.6**
MALT	**Malatya**	**0.50**	**253**	*e*Pg	**Pg**	**14 26 17.8**	**-0.7**
MALT				*e*Sg	**Sg**	**14 26 25.8**	**+0.6**
PTK	**Pertek**	**0.51**	**33**	PG	**Pg**	**14 26 17.8**	**-0.9**
PTK				SG	**Sg**	**14 26 25.8**	**+0.2**
PTK	**Pertek**	**0.51**	**33**	*e*Pg	**Pg**	**14 26 17.8**	**-0.9**
PTK				*e*Sg	**Sg**	**14 26 25.8**	**+0.2**
URFA	**Urfa**	**1.03**	**189**	*e*PG	**Pg**	**14 26 27.6**	**-1.0**
URFA	**Urfa**	**1.03**	**189**	*e*Pg	**Pg**	**14 26 27.6**	**-1.0**
GZT	**Gaziantep**	**1.60**	**227**	*i* P	**Pg**	**14 26 38.7**	**-0.7**
GZT				*i* S	**Sg**	**14 27 00.6**	**+0.3**
MARD	**Mardin**	**1.79**	**129**	*i* P	**Pn**	**14 26 39.5**	**+0.4**
MARD				*i* S	**Sn**	**14 27 02.2**	**+0.7**

MAN 11 14:45:16,18.48N×120.86E,h24^{km},mb3.7,ML2.4,MS2.0, 1C,Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PIP	**Pasuquin**	**0.28**	**236**	⇑*e*P	Pb	14 45 25.0	+2.4
PIP				*e*S	Sb	14 45 32.5	+5.3
SGCP	**Mt. Cagua**	**1.15**	**102**	*e*P	Pn	14 45 36.6	+0.1
SGCP				*e*S	Sn	14 45 53.0	+1.5

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*CSEM **11** 14:46:07.3±0.1,36.49N×36.43E,h20^{km},MD2.9,Error ellipse: s-maj=3.7km s-min=2.5km az=145.0*
*ISK **11** 14:46:07.4,36.49N×36.42E,h20^{km},MD2.9*
*ISCJB **11** 14:46:08.1±1.0,36.44N±0.07×36.39E±0.07,h30^{km}±11^{km}, Error ellipse: s-maj=12.4km s-min=9.5km az=4.9*

ISC 11 14:46:07.6±0.9,36.46N±006×36.40E±005,h16^{km}±6^{km},n21, σ0.84/26,Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COBT	**Iskenderun**	**0.13**	**297**	*i* P	**Pg**	**14 46 08.8**	**-2.5**
HTY	**Hatay**	**0.40**	**212**	PG	**Pg**	**14 46 16.7**	**+1.0**
HTY	**Hatay**	**0.40**	**212**	*e*Pg	**Pg**	**14 46 16.7**	**+1.0**
CEYT	**Ceyhan**	**0.76**	**317**	PG	**Pg**	**14 46 22.9**	**+0.5**
CEYT				SG	**Sg**	**14 46 33.2**	**+0.8**
CEYT	**Ceyhan**	**0.76**	**317**	*e*Pg	**Pg**	**14 46 22.9**	**+0.5**
CEYT				*e*Sg	**Sg**	**14 46 33.2**	**+0.8**
GAZ	**Gaziantep**	**0.96**	**42**	PG	**Pg**	**14 46 25.5**	**-0.8**
GAZ				SG	**Sg**	**14 46 39.6**	**+0.7**
GAZ	**Gaziantep**	**0.96**	**42**	*e*Pg	**Pg**	**14 46 25.5**	**-0.8**
GAZ				*e*Sg	**Sg**	**14 46 39.6**	**+0.7**
KOZT	**Kozan**	**1.11**	**336**	*e*PN	**Pn**	**14 46 27.4**	**-1.2**
GZT	**Gaziantep**	**1.29**	**46**	*i* P	**Pn**	**14 46 31.1**	**+0.1**
GZT				*i* S	**Sb**	**14 46 48.2**	**+0.3**
KARA	**Karaisali**	**1.34**	**307**	*e*PN	**Pn**	**14 46 30.9**	**-0.8**
KARA	**Karaisali**	**1.34**	**307**	*e*Pn	**Pn**	**14 46 30.9**	**-0.8**
MERS	**Mersin**	**1.56**	**286**	*e*PN	**Pn**	**14 46 35.4**	**+0.7**
MERS	**Mersin**	**1.56**	**286**	*e*Pn	**Pn**	**14 46 35.4**	**+0.7**
URFA	**Urfa**	**2.17**	**63**	*e*PN	**Pn**	**14 46 43.2**	**+0.1**
URFA	**Urfa**	**2.17**	**63**	*e*Pn	**Pn**	**14 46 43.2**	**+0.1**
NIG	**Nigde**	**2.18**	**320**	*e*PN	**Pn**	**14 46 43.0**	**-0.2**
NIG	**Nigde**	**2.18**	**320**	*e*Pn	**Pn**	**14 46 43.0**	**-0.2**
BNN	**Bunyan**	**2.43**	**350**	*e*PN	**Pn**	**14 46 47.2**	**+0.6**
BNN	**Bunyan**	**2.43**	**350**	*e*Pn	**Pn**	**14 46 47.2**	**+0.6**
MALT	**Malatya**	**2.46**	**41**	*e*PN	**Pn**	**14 46 46.7**	**-0.3**
MALT	**Malatya**	**2.46**	**41**	*e*Pn	**Pn**	**14 46 46.7**	**-0.3**

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*MAN **11** 14:49:19,4.48N×125.50E,h178^{km},mb5.4,ML4.4,MS4.7*
*MOS **11** 14:49:20.7±1.3,5.16N×125.30E,h155^{km},mb4.6/19,Error ellipse: s-maj=12.5km s-min=6.4km az=111.0*
*NEIC **11** 14:49:24.7±0.2,5.10N×125.31E,mb4.8/27,Error ellipse: s-maj=8.7km s-min=5.5km az=70.0*
*BJI **11** 14:49:24.6,5.10N×125.30E,h179^{km},mB4.7,mb4.5*
*IDC **11** 14:49:24.5±0.6,5.11N×125.14E,h181^{km}±5^{km},mb4.2/25, mb1 4.3/25,mb1mx4.3/26,mbtmp4.2/25,Error ellipse: s-maj=14.1km s-min=7.0km az=76.0*
*ISCJB **11** 14:49:25.5±0.3,5.12N±0.03×125.47E±0.04,h205^{km}±2^{km}, mb4.5/72,Error ellipse: s-maj=6.1km s-min=4.6km az=171.9*

ISC 11 14:49:26.6±0.3,5.11N±003×125.44E±004,h197^{km}±2^{km}, h187^{km}±4.4^{km}:pP-P,n195,σ1.12/207,mb4.5/72,19C-16D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSPH	**General Santos**	**1.08**	**333**	⇓*i*P	**Pn**	**14 49 58.3**	**+1.6**
GSPH				*e*S	**Sn**	**14 50 21.1**	**+1.0**
KCP	**Kidapawan**	**1.92**	**350**	⇑*i*P	**Pn**	**14 50 03.3**	**-0.7**
KCP				*i* S	**Sn**	**14 50 32.1**	**-1.1**
DAV	**Davao City (W)**	**1.95**	**4**	*e*Pn	**Pn**	**14 50 03.3**	**-1.1**
DAV				*e*Sn	**Sn**	**14 50 33.1**	**-0.8**
DMPH	**Davao City--Mi**	**1.96**	**2**	⇓*i*P	**Pn**	**14 50 04.2**	**-0.3**
DMPH				*i* S	**Sn**	**14 50 37.6**	**+3.5**
BIPH	**Bislig**	**3.19**	**17**	⇑*e*P	**Pn**	**14 50 17.4**	**-1.0**
BIPH				*e*S	**Sn**	**14 50 57.0**	**-1.8**
CGP	**Cagayan de Oro**	**3.40**	**347**	*e*P	**Pn**	**14 50 20.5**	**-0.4**
CGP				*e*S	**Sn**	**14 51 14.4**	**+11**
SCPH	**Surigao**	**4.64**	**1**	⇑*e*P	**Pn**	**14 50 35.1**	**-1.2**
SNPH	**Sibulan**	**4.74**	**333**	*e*P	**Pn**	**14 50 40.0**	**+2.4**
LLP	**Lapu-Lapu**	**5.37**	**344**	*e*P	**Pn**	**14 50 45.1**	**-0.6**
PLP	**Palo**	**6.03**	**356**	*e*P	**Pn**	**14 50 54.0**	**-0.2**
MYLDM	**Lahad Datu**	**6.91**	**271**	⇓P	**Pn**	**14 51 07.8**	**+2.1**
MYLDM	**Lahad Datu**	**6.91**	**271**	⇓P	**Pn**	**14 51 13.7**	**+8.0**
TSM	**Tawau**	**7.59**	**264**	⇓P	**Pn**	**14 51 14.5**	**0.0**
SDKM	**Sandakan**	**8.22**	**274**	⇓P	**Pn**	**14 51 23.0**	**+0.2**
KKM	**Kota Kinabalu**	**9.23**	**276**	*e*Pn	**Pn**	**14 51 35.8**	**-0.1**
BTM	**Bintulu**	**12.47**	**262**	⇓P	**Pn**	**14 52 23.6**	**+6.0**
SBUM	**Sibu**	**13.45**	**259**	⇑P	**Pn**	**14 52 31.6**	**+1.7**
KSM	**Kuching**	**15.53**	**257**	*e*P	**Pn**	**14 52 54.4**	**-1.1**
KSM	**Kuching**	**15.53**	**257**	⇓P	**Pn**	**14 52 55.1**	**-0.4**
KAKA	**Kakadu**	**19.02**	**159**	*e*P	**P**	**14 53 34.1**	**+0.3**
	73nm,0.6s						
KAKA				*e*S	**S**	**14 56 59.8**	**+0.5**
KAKA				*e*SCP	ScP	15 01 08.0	+0.5
QIZ	**Qiongzhong**	**20.56**	**314**	P	**P**	**14 53 50.7**	**+0.5**
QIZ				XP	sP	14 54 46.1	-2.3
QIZ				S	**S**	**14 57 29.7**	**+0.5**
QIZ				AMB	AMB		
	comp=Z,18nm,1.0s						
QIZ				AMB	AMB		
	comp=Z,73nm,5.5s						
QIZ	**Qiongzhong**	**20.56**	**314**	*e*P	**P**	**14 53 50.3**	**0.0**
	comp=Z,19nm,1.0s						
GUMO	**Guam**	**20.92**	**65**	P	**P**	**14 53 57.0**	**+2.9**
	comp=Z,106nm,0.4s,baz=316,slow=0.8,SNR=14						
JOW	**Kunigami**	**21.77**	**7**	P	**P**	**14 54 03.2**	**+0.3**
	comp=Z,46nm,0.7s,mb5.1,baz=196,slow=9.8,SNR=13						
MYKOM	**Kota Tinggi**	**21.80**	**262**	⇓P	**P**	**14 54 03.6**	**+0.2**
KTGM	**Kuala Trenggan**	**22.21**	**272**	⇓P	**P**	**14 54 08.1**	**+0.9**
KGM	**Kluang**	**22.29**	**263**	⇑P	**P**	**14 54 08.8**	**+0.9**
FITZ	**Fitzroy Crossi**	**23.07**	**180**	*e*P	**P**	**14 54 14.1**	**-0.8**
	comp=Z,49nm,0.5s,mb5.3						
FITZ				*e*S	**S**	**14 58 09.9**	**-1.0**
FITZ				*e*SCP	ScP	15 01 18.0	+0.6
FITZ	**Fitzroy Crossi**	**23.07**	**180**	P	**P**	**14 54 14.8**	**-0.1**
	comp=Z,23nm,0.5s,mb5.0,baz=4.1,slow=9.1,SNR=140						
FITZ				S	**S**	**14 58 10.2**	**-0.7**
	comp=Z,3.1nm,0.8s,baz=233,slow=20,SNR=3.0						
FITZ				ScP	ScP	15 01 17.5	+0.1
	comp=Z,2.2nm,0.8s,baz=288,slow=1.8,SNR=3.9						
FRIM	**Kepong**	**23.82**	**266**	⇑P	**P**	**14 54 22.4**	**+0.5**
IPM	**Ipoh**	**24.34**	**270**	⇓P	**P**	**14 54 26.7**	**+0.2**
KULM	**Kulim**	**24.69**	**272**	*e*P	**P**	**14 54 29.9**	**+0.2**
KULM	**Kulim**	**24.69**	**272**	⇑P	**P**	**14 54 30.2**	**+0.5**
KKTK	**Khon Kaen**	**24.83**	**298**	PG	**P**	**14 54 32.0**	**+1.1**
COEN	**Coen**	**25.86**	**137**	*e*P	**P**	**14 54 39.8**	**-0.4**
PMG	**Port Moresby**	**26.01**	**124**	*e*P	**P**	**14 54 42.2**	**+0.5**
	comp=Z,13nm,0.6s,mb4.7						
PMG	**Port Moresby**	**26.01**	**124**	⇑*e*P	**P**	**14 54 42.3**	**+0.7**
PMG	**Port Moresby**	**26.01**	**124**	P	**P**	**14 54 42.6**	**+1.0**
	comp=Z,18nm,0.7s,mb4.8,baz=346,slow=5.4,SNR=13						
WRA	**Warramunga Arr**	**26.39**	**161**	P	**P**	**14 54 44.4**	**-0.5**
WRA				pP	pP	14 55 21.2	-3.6
WRA				S	**S**	**14 58 58.8**	**-4.8**
WRA				ScP	ScP	15 01 26.7	0.0
WRA	**Warramunga Arr**	**26.39**	**161**	P	**P**	**14 54 44.4**	**-0.5**
WRA				S	**S**	**14 58 58.8**	**-4.8**
WRA	**Warramunga Arr**	**26.39**	**161**	P	**P**	**14 54 44.4**	**-0.5**
	comp=Z,7.0nm,0.6s,mb4.5,baz=334,slow=11,SNR=113						
WRA				pP	pP	14 55 21.2	-3.6
	comp=Z,8.5nm,0.5s,baz=338,slow=11,SNR=4.1						
WRA				S	**S**	**14 58 58.8**	**-4.8**
	comp=Z,4.3nm,1.0s,baz=340,slow=16,SNR=5.1						
WRA				ScP	ScP	15 01 26.7	0.0
	comp=Z,3.2nm,0.8s,baz=340,slow=2.8,SNR=7.3						
WB2	**Warramunga Arr**	**26.40**	**161**	⇓*i*P	**P**	**14 54 44.4**	**-0.6**
WB2				*e*S	**S**	**14 58 58.8**	**-4.9**
PSI	**Prapat**	**26.55**	**266**	P	**P**	**14 54 46.2**	**-0.3**
PSI				ScP	ScP	15 01 25.5	-1.9
PSI	**Prapat**	**26.55**	**266**	P	**P**	**14 54 46.2**	**-0.3**
	comp=Z,63nm,0.8s,mb5.3,baz=91,slow=4.5,SNR=50						
PSI				ScP	ScP	15 01 25.5	-1.9
	comp=Z,2.7nm,0.3s,baz=240,slow=1.2,SNR=4.2						
MBWA	**Marble Bar**	**26.70**	**192**	*e*P	**P**	**14 54 46.4**	**-1.3**
	comp=Z,119nm,1.5s,mb5.3						
NST	**Nakhon Sawan**	**26.98**	**295**	P	**P**	**14 54 50.5**	**+0.3**
	comp=Z,60nm,1.0s,mb5.2						
CBIJ	**Chichi jima**	**27.07**	**34**	P	**P**	**14 54 51.3**	**+0.3**
	comp=Z,95nm,0.5s,baz=327,slow=21,SNR=5.9						
NJ2	**Nanjing**	**27.50**	**348**	*e*P	**P**	**14 54 57.0**	**+2.3**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.5						
NANT	**Nan**	**27.71**	**301**	⇑P	**P**	**14 54 55.0**	**-1.7**
	comp=Z,162nm,0.6s						
GYA	**Guiyang**	**27.79**	**322**	⇑*i*P	**P**	**14 54 58.2**	**+0.8**
GYA				AP	pP	14 55 39.2	+1.8
GYA				XP	sP	14 55 58.0	-2.4
GYA				PCP	PcP	14 58 10.9	+2.2
GYA				S	**S**	**14 59 27.5**	**+1.9**
GYA				XS	sS	15 00 36.7	-0.5
GYA				SCP	ScP	15 01 32.0	+1.1
GYA				PCS	PcS	15 01 51.7	+0.8
GYA				SCS	ScS	15 05 23.2	-0.2
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.4						
GYA				AMB	AMB		
	comp=Z,80nm,6.4s						
GYA				LR	LR		
	comp=N,380nm,16.0s						
GYA				LR	LR		
	comp=E,340nm,15.4s						
GYA				LR	LR		
	comp=Z,460nm,16.2s						
JNU	**Nakatsue**	**28.32**	**10**	P	**P**	**14 55 02.1**	**+0.1**
	comp=Z,7.6nm,0.7s,mb4.4,baz=121,slow=10.0,SNR=5.0						
BDT	**Bhumibol Dam**	**28.55**	**297**	P	**P**	**14 55 05.5**	**+1.3**
CHG	**Chiang Mai**	**29.21**	**300**	⇓P	**P**	**14 55 10.5**	**+0.4**
	comp=Z,30nm,0.7s,mb5.0						
CHTO	**Chiang Mai**	**29.21**	**300**	*e*P	**P**	**14 55 10.6**	**+0.5**
	comp=Z,44nm,1.1s,mb5.0						
CHTO	**Chiang Mai**	**29.21**	**300**	*e*P	**P**	**14 55 10.6**	**+0.5**
CHTO				pmax	pmax		
	comp=Z,44nm,1.1s,mb5.0						
KMI	**Kunming**	**29.50**	**315**	P	**P**	**14 55 13.9**	**+1.4**
KMI				AP	pP	14 55 55.8	+3.0
KMI				XP	sP	14 56 13.4	-2.2
KMI				S	**S**	**14 59 57.9**	**+5.4**
KMI				SS	SS	15 01 44.2	-23
KMI				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.4						
KMI				LR	LR		
	comp=N,164nm,16.0s						
KMI				LR	LR		
	comp=E,156nm,16.8s						
KMI				LR	LR		
	comp=Z,112nm,13.6s						
KMI	**Kunming**	**29.50**	**315**	P	**P**	**14 55 13.9**	**+1.4**
	comp=Z,11nm,1.1s,mb4.4						
KMI				pP	pP	14 55 55.8	+3.0
KMI				sP	sP	14 56 13.4	-2.2
KMI				S	**S**	**14 59 57.9**	**+5.4**
KMI				SS	SS	15 01 44.2	-23
KMI				LR	LR		
	comp=Z,110nm,13.6s						
KMI	**Kunming**	**29.50**	**315**	P	**P**	**14 55 13.9**	**+1.4**
KMI				*SP	sP	14 56 13.4	-2.2
KMI				S	**S**	**14 59 57.9**	**+5.4**
KMI				SS	SS	15 01 44.2	-23
KMI				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.4						
KMI				MLR	MLR		
	comp=Z,110nm,13.6s						
ASAR	**Alice Springs**	**29.77**	**164**	P	**P**	**14 55 14.9**	**0.0**
ASAR						14 58 13.6	
ASAR				S	**S**	**14 59 55.0**	**-1.7**
ASAR	**Alice Springs**	**29.77**	**164**	P	**P**	**14 55 14.8**	**0.0**
	comp=Z,3.9nm,0.4s,mb4.4,baz=338,slow=6.9,SNR=256						
ASAR				PcP	PcP	14 58 13.6	-0.1
	comp=Z,3.5nm,0.5s,baz=342,slow=2.5,SNR=9.4						
ASAR				S	**S**	**14 59 55.0**	**-1.7**
	comp=Z,1.3nm,0.7s,baz=356,slow=22,SNR=5.0						
ASAR				ScP	ScP	15 01 37.1	0.0
	comp=Z,7.5nm,1.1s,baz=336,slow=2.9,SNR=12						
KSRS	**Korea Array**	**32.27**	**4**	P	**P**	**14 55 37.4**	**+0.7**
	comp=Z,2.1nm,0.5s,mb3.9,baz=176,slow=9.8,SNR=16						
KSRS				PcP	PcP	14 58 20.9	+0.8
	comp=Z,1.7nm,0.8s,baz=186,slow=2.7,SNR=4.0						
KSRS				ScP	ScP	15 01 45.2	0.0
	comp=Z,2.6nm,0.8s,baz=181,slow=2.3,SNR=7.9						
CTA	**Charters Tower**	**32.34**	**141**	*e*P	**P**	**14 55 39.1**	**+1.6**
	comp=Z,2.8nm,0.8s,mb3.8						
CTA				*e*SCP	ScP	15 01 47.5	+1.7
CTA	**Charters Tower**	**32.34**	**141**	*e*P	**P**	**14 55 39.1**	**+1.6**
CTA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CTA	**Charters Tower**	**32.34**	**141**	P	**P**	**14 55 38.8**	**+1.3**
	comp=Z,2.4nm,0.9s,mb3.7,baz=335,slow=12,SNR=5.2						
CTAO	**Charters Tower**	**32.34**	**141**	*e*P	**P**	**14 55 38.5**	**+1.0**
XAN	**Xi'an**	**32.61**	**334**	P	**P**	**14 55 39.8**	**+0.1**
XAN				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.5						
CD2	**Chengdu**	**32.77**	**324**	*e*P	**P**	**14 55 42.4**	**+1.2**
CD2				AP	pP	14 56 22.0	+0.2
CD2				XP	sP	14 56 43.9	-0.6
CD2				PP	PP	14 56 59.7	+0.2
CD2				S	**S**	**15 00 44.3**	**+0.9**
CD2				XS	sS	15 01 54.2	-1.3
CD2				SS	SS	15 02 58.2	-8.1
CD2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.7						
CD2				AMB	AMB		
	comp=Z,30nm,6.8s						
MAJO	**Matsushiro**	**33.40**	**19**	*e*P	**P**	**14 55 46.2**	**-0.3**
	comp=Z,8.5nm,0.8s,mb4.3						
MAJO	**Matsushiro**	**33.40**	**19**	*e*P	**P**	**14 55 46.2**	**-0.3**
MAJO				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.3						
MAT	**Matsushiro**	**33.40**	**19**	P	**P**	**14 55 46.2**	**-0.3**
MAT				*e*S	**S**	**15 00 47.2**	**-5.7**
MJAR	**Matsushiro Arr**	**33.40**	**19**	P	**P**	**14 55 46.3**	**-0.2**
	comp=Z,9.3nm,0.9s,mb4.3,baz=196,slow=9.5,SNR=22						
MJAR				ScP	ScP	15 01 49.8	+0.6
	comp=Z,4.5nm,1.0s,baz=210,slow=5.4,SNR=7.0						
BJI	**Beijing**	**35.76**	**348**	P	**P**	**14 56 07.9**	**+1.2**
BJI				AP	pP	14 56 42.3	-5.5
BJI				PCP	PcP	14 58 30.7	+0.6
BJI				S	**S**	**15 01 26.0**	**-2.9**
BJI				SCP	ScP	15 01 58.9	+1.3
BJI				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.2						
BJI				AMB	AMB		
	comp=Z,194nm,4.1s						
BJI	**Beijing**	**35.76**	**348**	P	**P**	**14 56 07.9**	**+1.2**
BJI				pP	pP	14 56 42.3	-5.5
BJI				PcP	PcP	14 58 30.7	+0.6
BJI				S	**S**	**15 01 26.0**	**-2.9**
BJI				ScP	ScP	15 01 58.9	+1.3
BJI	**Beijing**	**35.76**	**348**	P	**P**	**14 56 07.9**	**+1.2**
BJI				*PP	pP	14 56 42.3	-5.5
BJI						14 58 30.7	
BJI				S	**S**	**15 01 26.0**	**-2.9**
FORT	**Forrest**	**35.78**	**176**	*e*P	**P**	**14 56 06.4**	**-0.5**
	comp=Z,28nm,0.7s,mb4.9						
LZH	**Lanzhou**	**36.67**	**330**	⇑P	**P**	**14 56 15.6**	**+1.2**
LZH				AP	pP	14 56 56.0	+0.3
LZH				XP	sP	14 57 17.8	-0.5
LZH				PP	PP	14 57 47.5	+5.2
LZH				AMB	AMB		
	comp=Z,31nm,1.3s,mb4.7						
LZH				AMB	AMB		
	comp=Z,96nm,5.6s						
LZH	**Lanzhou**	**36.67**	**330**	⇑P	**P**	**14 56 15.6**	**+1.2**
	comp=Z,31nm,1.3s,mb4.7						
LZH				pP	pP	14 56 56.0	+0.3
LZH				sP	sP	14 57 17.8	-0.5
LZH				PP	PP	14 57 47.5	+5.2
KLBR	**Kellerberrin**	**37.23**	**191**	*e*P	**P**	**14 56 18.4**	**-0.8**
	comp=Z,30nm,0.8s,mb4.9						
HNR	**Honiara**	**37.30**	**113**	P	**P**	**14 56 20.6**	**+0.5**
	comp=Z,64nm,0.7s,mb5.2,baz=256,slow=3.4,SNR=4.2						
HHC	**Hu-ho-hao-te**	**37.70**	**343**	*e*P	**P**	**14 56 26.2**	**+3.2**
HHC				AP	pP	14 57 06.0	+1.5
HHC				XP	sP	14 57 26.3	-0.7
HHC				PCP	PcP	14 58 38.4	+2.5
HHC				S	**S**	**15 02 05.2**	**+7.0**
HHC				SCP	ScP	15 02 07.1	+2.3
HHC				PCS	PcS	15 02 25.9	+1.1
HHC				SCS	ScS	15 06 16.2	+2.3
HHC				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb3.8						
HHC				AMB	AMB		
	comp=Z,65nm,4.6s						
HHC				LR	LR		
	comp=N,206nm,14.2s						
HHC				LR	LR		
	comp=E,209nm,14.2s						
HHC				LR	LR		
	comp=Z,177nm,13.3s						
MUN	**Mundaring**	**37.92**	**193**	*e*P	**P**	**14 56 24.3**	**-0.6**
CN2	**Changchun**	**38.53**	**0**	*e*P	**P**	**14 56 33.1**	**+3.2**
NWAO	**Narrogin (SRO)**	**38.62**	**191**	*e*P	**P**	**14 56 30.4**	**-0.5**
	comp=Z,92nm,1.4s,mb5.1						
NWAO	**Narrogin (SRO)**	**38.62**	**191**	*e*P	**P**	**14 56 30.4**	**-0.4**
NWAO				pmax	pmax		
	comp=Z,93nm,1.4s						
NWAO	**Narrogin (SRO)**	**38.62**	**191**	P	**P**	**14 56 30.6**	**-0.2**
	comp=Z,37nm,0.8s,mb4.9,baz=27,slow=11,SNR=20						
MDJ	**Mudanjiang**	**39.51**	**5**	P	**P**	**14 56 39.5**	**+1.5**
MDJ				AP	pP	14 57 20.2	+0.4
MDJ				XP	sP	14 57 44.4	+2.1
MDJ				PP	PP	14 58 14.8	+1.7
MDJ				PCP	PcP	14 58 41.8	+0.2
MDJ				SCP	ScP	15 02 11.3	-0.3
MDJ				S	**S**	**15 02 27.8**	**+2.5**
MDJ				PCS	PcS	15 02 32.7	+1.1
MDJ				XS	sS	15 03 41.1	+2.1
MDJ				SCS	ScS	15 06 26.3	+2.0
MDJ				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,147nm,7.0s						
STKA	**Stephens Creek**	**39.88**	**158**	*e*P	**P**	**14 56 42.0**	**+0.8**
	comp=Z,9.6nm,0.6s,mb4.4						
STKA				*e*		15 02 24.3	
STKA	**Stephens Creek**	**39.88**	**158**	P	**P**	**14 56 42.0**	**+0.8**
	comp=Z,12nm,0.7s,mb4.5,baz=331,slow=8.5,SNR=32						
STKA				pP	pP	14 57 18.9	-4.2
	comp=Z,11nm,0.7s,baz=342,slow=6.9,SNR=4.4						
STKA				PcP	PcP	14 58 43.5	+0.5
	comp=Z,7.4nm,0.7s,baz=317,slow=4.9,SNR=3.1						
LSA	**Lhasa**	**40.56**	**311**	*e*P	**P**	**14 56 48.2**	**+1.3**
	comp=Z,8.8nm,0.7s,mb4.3						
LSA	**Lhasa**	**40.56**	**311**	*e*P	**P**	**14 56 48.3**	**+1.3**
LSA				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.3						
GTA	**Gaotai**	**41.26**	**329**	*e*P	**P**	**14 56 52.9**	**+0.5**
GTA				AP	pP	14 57 35.1	+0.5
GTA				XP	sP	14 57 54.8	-2.1
GTA				PP	PP	14 58 34.1	+2.1
GTA				SCP	ScP	15 02 18.2	-0.4
GTA				PCS	PcS	15 02 38.1	-0.6
GTA				S	**S**	**15 02 51.9**	**+0.5**
GTA				XS	sS	15 04 01.8	-3.7
GTA				SS	SS	15 05 53.6	-10
GTA				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.0						

GTA				AMB	AMB		
	comp=Z,174nm,6.5s						
GTA				LR	LR		
	comp=N,211nm,14.1s						
GTA				LR	LR		
	comp=E,205nm,13.3s						
GTA				LR	LR		
	comp=Z,202nm,14.1s						
ADE	Adelaide	41.78	164	eP	P	14 56 58.6	+1.9
TAPN	Taplejung	42.17	306	eP	P	14 57 00.2	+0.2
	comp=Z,46nm,1.0s,mb4.9						
ODAN	Odare	42.23	305	eP	P	14 57 00.6	+0.1
	comp=Z,50nm,0.8s,mb5.0						
JIRN	Jiri	43.52	305	eP	P	14 57 11.0	+0.1
GUN	Gumba	43.88	306	eP	P	14 57 13.8	+0.1
	comp=Z,52nm,0.8s,mb4.9						
HABR	Khabarovsk	43.98	9	eP	P	14 57 15.5	+1.4
HABR				e*PP	pP	14 58 07.9	+11
HABR				eS	S	15 03 29.8	-1.0
HABR				e		15 06 44.6	
HABR				eSS	SS	15 06 52.7	-1.9
PKI	Pulchoki	44.13	305	eP	P	14 57 15.5	-0.2
HIA	Hailar	44.26	355	eP	P	14 57 16.4	0.0
	comp=Z,8.6nm,1.3s,mb3.9						
HIA	Hailar	44.26	355	eP	P	14 57 16.4	0.0
HIA				pmax	pmax		
	comp=Z,9.0nm,1.3s						
YSS	Yuzh-Sakhalins	44.28	17	P	P	14 57 17.0	+0.4
KKN	Kakani	44.32	305	eP	P	14 57 16.6	-0.6
	comp=Z,31nm,0.9s,mb4.6						
DMN	Daman	44.39	305	eP	P	14 57 17.5	-0.3
GKN	Gorkha	44.92	305	eP	P	14 57 21.4	-0.6
	comp=Z,11nm,0.6s,mb4.4						
SONM	Songino Array	45.59	342	P	P	14 57 26.5	-0.4
SONM				*PP	pP	14 58 04.6	-5.2
SONM						14 59 02.7	
SONM	Songino Array	45.59	342	P	P	14 57 26.5	-0.4
	comp=Z,1.2nm,0.7s,mb3.4,baz=156,slow=8.8,SNR=13						
SONM				pP	pP	14 58 04.6	-5.2
	comp=Z,1.7nm,0.7s,baz=152,slow=8.4,SNR=3.5						
SONM				PcP	PcP	14 59 02.7	+0.8
	comp=Z,3.1nm,0.8s,baz=153,slow=6.2,SNR=5.5						
SONM				ScP	ScP	15 02 35.3	-0.8
	comp=Z,2.0nm,0.8s,baz=161,slow=4.9,SNR=8.6						
KOLN	Koldanda	45.68	304	eP	P	14 57 28.0	0.0
	comp=Z,60nm,0.8s,mb5.0						
TOO	Toolangi	46.39	158	⇓iP	P	14 57 35.3	+2.0
	comp=Z,9.1nm,0.7s,mb4.2						
TOO	Toolangi	46.39	158	⇓iP	P	14 57 35.3	+2.0
TOO				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.2						
HYB	Hyderabad	47.45	289	eP	P	14 57 41.5	-0.3
HYB	Hyderabad	47.45	289	i P	P	14 57 41.5	-0.3
ZAK	Zakamensk	48.81	341	eP	P	14 57 52.0	+0.3
ZAK				e	pP	14 58 30.4	-4.7
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.4s						
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WMQ	Urumqi	50.86	325	P	P	14 58 08.8	+1.5
WMQ				AP	pP	14 58 51.3	+0.2
WMQ				XP	sP	14 59 12.4	-0.6
WMQ				PP	PP	15 00 08.3	+2.7
WMQ				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.4						
BOD	Bodaibo	53.33	352	eP	P	14 58 24.0	-1.2
BOD				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.7						
MK31	Makanchi Array	55.69	325	eP	P	14 58 41.9	-0.6
MKAR	Makanchi Array	55.69	325	P	P	14 58 41.8	-0.6
	comp=Z,9.6nm,0.6s,mb4.5,baz=121,slow=7.1,SNR=119						
MKAR				ScP	ScP	15 03 17.5	-2.1
	comp=Z,2.1nm,0.8s,baz=122,slow=4.8,SNR=5.4						
MKAR				S	S	15 06 12.2	-1.0
	comp=Z,0.6nm,1.0s,baz=91,slow=7.2,SNR=3.7						
YAK	Yakutsk	56.88	2	eP	P	14 58 50.4	-0.1
	comp=Z,22nm,0.6s,mb5.0						
YAK	Yakutsk	56.88	2	eP	P	14 58 51.5	+1.0
YAK				pmax	pmax		
	comp=Z,26nm,0.8s,mb4.9						
YAK				pmax	pmax		
	comp=N,9.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.6s						
ULHL	Ulahol	57.14	318	P	P	14 58 54.2	+1.4
	SNR=6.7						
MA2	Magadan	57.70	15	eP	P	14 58 58.1	+1.9
	comp=E,7.9nm,0.8s,mb4.4						
MA2	Magadan	57.70	15	⇑eP	P	14 58 57.8	+1.5
MA2				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.3						
KZA	Kyzart	57.73	317	P	P	14 58 58.1	+1.3
	SNR=20						
TKM2	Tokmak 2	57.86	318	P	P	14 58 58.2	+0.4
	SNR=11						
TKM2	Tokmak 2	57.86	318	eP	P	14 58 57.8	+0.1
	comp=Z,10nm,0.9s,mb4.5						
TKM2	Tokmak 2	57.86	318	eP	P	14 58 57.8	0.0
TKM2				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
KBK	Karagaybulak	58.18	318	P	P	14 59 01.4	+1.4
	SNR=9.7						
UCH	Uchtor	58.29	317	P	P	14 59 02.0	+1.3
	SNR=16						
UCH	Uchtor	58.29	317	ePn	P	14 58 54.1	-6.7
	comp=Z,30nm,1.2s,mb4.8						
AAK	Ala-Archa	58.47	318	eP	P	14 59 00.6	-1.4
	comp=Z,11nm,1.3s,mb4.3						
AAK	Ala-Archa	58.47	318	⇑eP	P	14 59 01.1	-0.9
AAK				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.2						
USP	Ospenovka	58.74	318	P	P	14 59 03.8	0.0
	SNR=19						
ZALV	Zalesovo Beam	58.78	333	P	P	14 59 02.1	-1.8
	comp=Z,2.0nm,0.6s,mb3.9,baz=135,slow=6.4,SNR=12						
ZAL	Zalesovo	58.78	333	P	P	14 59 02.1	-1.8
AML	Almayashu	58.81	317	P	P	14 59 05.0	+0.7
	SNR=7.7						
AML	Almayashu	58.81	317	eP	P	14 59 04.7	+0.4
	comp=Z,23nm,1.1s,mb4.7						
EKS2	Erkin-Say	58.97	318	P	P	14 59 06.0	+0.6
	SNR=16						
KBL	Kabul	59.67	307	eP	P	14 59 10.1	-0.2
KURK	Kurchatov	59.89	328	eP	P	14 59 09.9	-1.7
	comp=Z,27nm,0.9s,mb4.9						
KURK	Kurchatov	59.89	328	⇑eP	P	14 59 11.1	-0.4
NVS	Novosibirsk	60.06	333	eP	P	14 59 10.2	-2.4
NVS				e		15 00 05.2	
NVS				i S	S	15 07 04.5	-5.2
NVS				pmax	pmax		
	comp=N,9.0nm,1.7s						
NVS				pmax	pmax		
	comp=Z,14nm,1.7s,mb4.3						
NVS				pmax	pmax		
	comp=E,8.0nm,1.4s						
NVS				smax			
	comp=N,13nm,2.0s						
NVS				smax			
	comp=E,28nm,2.0s						
SEY	Seymchan	60.99	14	⇑eP	P	14 59 20.5	+1.7
BRVK	Borovoye	65.54	327	eP	P	14 59 47.6	-1.2
	comp=E,17nm,0.9s,mb4.7						
BRVK	Borovoye	65.54	327	eP	P	14 59 47.6	-1.2
BRVK				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.7						
TIXI	Tiksi	66.49	1	eP	P	14 59 53.8	-0.7
	comp=Z,4.9nm,0.6s,mb4.3						
TIXI	Tiksi	66.49	1	⇑eP	P	14 59 54.0	-0.5
TIXI				pmax	pmax		
	comp=Z,19nm,1.8s,mb4.4						
BILL	Bilibino	68.56	15	eP	P	15 00 07.4	-0.2
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.7						
ARU	Arti	73.09	328	⇓iP	P	15 00 34.7	-0.3
ARU				e		15 03 16.1	
ARU				ePPP		15 05 07.0	
ARU				eS	S	15 09 44.9	-1.1
ARU				eSS	SS	15 14 36.3	+5.0
ARU				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.7						
QRN	Al-Qurain	76.62	298	eP	P	15 00 54.7	-1.2
QRN				AMb	AMB	15 00 56.4	
	comp=Z,25nm,0.6s,mb5.0						
RDF	Al-Radifah	76.95	298	eP	P	15 00 56.2	-1.5
RDF				AMb	AMB	15 00 57.7	
	comp=Z,29nm,1.0s,mb4.9						
MIB	Mutribah	77.16	299	eP	P	15 00 57.1	-1.7
MIB				AMb	AMB	15 00 58.7	
	comp=Z,30nm,0.9s,mb4.9						
NAY	Al-Naaiem	77.23	299	eP	P	15 00 57.5	-1.8
NAY				AMb	AMB	15 00 59.1	
	comp=Z,16nm,1.0s,mb4.6						
RST	Umm Al-Ruwaisa	77.45	299	eP	P	15 00 58.5	-2.0
RST				AMb	AMB	15 01 00.1	
	comp=Z,36nm,0.8s,mb5.0						
KIV	Kislovodsk	81.26	314	eP	P	15 01 16.1	-4.7
KIV				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb3.8						
IMA2	Indian Mountai	81.65	24	eP	P	15 01 24.0	+1.7
MCK	McKinley	83.51	27	eP	P	15 01 33.0	+1.0
	comp=Z,5.9nm,0.7s,mb4.4						
MCK				e		15 01 42.3	
MCK	McKinley	83.51	27	eP	P	15 01 33.0	+1.0
MCK				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
MAW	Mawson	84.60	200	P	P	15 01 37.4	0.0
	comp=Z,10nm,0.9s,mb4.5,baz=68,slow=6.3,SNR=7.1						
VNDA	Vanda	84.95	173	P	P	15 01 39.2	+0.2
	comp=Z,1.8nm,0.5s,mb4.1,baz=319,slow=6.2,SNR=6.5						
OBN	Obninsk	85.20	325	eP	P	15 01 38.7	-2.0
OBN				pmax	pmax		
	comp=Z,12nm,0.5s,mb4.9						
JOF	Joensuu	87.37	333	ep	P	15 01 48.4	-2.7
BRTR	Keskin Array B	88.15	310	P	P	15 01 52.6	-2.7
	comp=Z,0.7nm,0.5s,mb3.8,baz=131,slow=5.1,SNR=7.5						
KMBO	Kilima Mbogo	88.29	269	P	P	15 01 55.5	-1.0
KMBO	Kilima Mbogo	88.29	269	i P	P	15 01 56.9	+0.4
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.6s						
KMBO	Kilima Mbogo	88.29	269	P	P	15 01 55.5	-1.0
	comp=Z,1.1nm,0.6s,mb3.9,baz=43,slow=16,SNR=4.8						
ARCES	ARCESS Array B	88.71	340	P	P	15 01 55.9	-1.4
	comp=Z,5.8nm,0.8s,mb4.5,baz=12,slow=6.2,SNR=6.1						
INK	Inuvik	89.35	21	eP	P	15 02 00.5	+0.1
KAF	Kangasniemi	89.78	332	ep	P	15 02 00.5	-1.9
FINES	FINESS Array B	90.01	332	i P	P	15 02 01.7	-1.8
FINES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
FINES	FINESS Array B	90.01	332	P	P	15 02 01.4	-2.1
	comp=Z,4.2nm,0.8s,mb4.3,baz=95,slow=4.0,SNR=13						
AKASG	Malin Array Be	90.01	321	i P	P	15 02 01.9	-1.9
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	90.01	321	P	P	15 02 01.3	-2.5
	comp=Z,1.1nm,0.5s,mb3.9,baz=66,slow=4.7,SNR=7.9						
SYO	Syowa Base	93.24	201	⇑eP	P	15 02 17.8	-0.4
SYO	Syowa Base	93.24	201	⇑eX		15 02 28.3	
NB2	NORSAR Subarra	96.98	333	P	P	15 02 34.6	-0.9
	comp=Z,5.4nm,0.9s,mb4.8,baz=67,slow=4.6						
NOA	NORSAR Array B	96.98	333	P	P	15 02 33.5	-2.0
	comp=Z,2.9nm,0.8s,mb4.6,baz=67,slow=4.5,SNR=8.8						
YKA	Yellowknife Ar	98.77	24	P	P	15 02 44.1	+0.6
YKA				pP	pP	15 03 28.3	-4.2
YKA	Yellowknife Ar	98.77	24	P	P	15 02 44.1	+0.6
	comp=Z,0.6nm,0.7s,mb4.0,baz=301,slow=4.8,SNR=11						
YKA				pP	pP	15 03 28.3	-4.2
	comp=Z,0.6nm,0.8s,baz=302,slow=4.1,SNR=2.9						
GERES	GERESS Array B	100.21	321	P	Pdif	15 02 50.2	+0.1
	comp=Z,0.4nm,0.6s,baz=60,slow=8.0,SNR=3.8						
NVAR	Mina Array Bea	106.94	47	PKPdf	PKiKP	15 07 31.2	+2.0
NVAR				PKKPbc	PKKPbc	15 18 47.7	-0.7
NVAR				PKKP	PKKPbc	15 19 02.7	+14
NVAR	Mina Array Bea	106.94	47	PKiKP	PKiKP	15 07 31.2	+2.0
	comp=Z,0.2nm,0.6s,baz=220,slow=0.8,SNR=4.2						
NVAR				PKKPbc	PKKPbc	15 18 47.7	-0.7
	comp=Z,0.8nm,0.8s,baz=193,slow=5.1,SNR=5.3						
NVAR				PKKP	PKKPbc	15 19 02.7	+14
	comp=Z,0.6nm,0.7s,baz=115,slow=6.3,SNR=4.2						
PDAR	Pinedale Array	111.15	40	PKPdf	PKiKP	15 07 38.5	+1.6
PDAR				PKKPbc	PKKPbc	15 18 32.1	-3.1
PDAR				PKKPab	PKKPab	15 18 42.6	-2.7
PDAR	Pinedale Array	111.15	40	PKiKP	PKiKP	15 07 38.5	+1.6
	comp=Z,0.2nm,0.5s,baz=177,slow=2.5,SNR=3.4						
PDAR				PKKPbc	PKKPbc	15 18 32.1	-3.1
	comp=Z,0.9nm,0.9s,baz=115,slow=6.7,SNR=4.7						
PDAR				PKKPab	PKKPab	15 18 42.6	-2.7
	comp=Z,1.9nm,0.9s,baz=120,slow=7.0,SNR=11						
ULM	Lac du Bonnet	114.36	28	PKP	PKiKP	15 07 42.6	-0.2
ULM	Lac du Bonnet	114.36	28	PKP	PKiKP	15 07 42.6	-0.2
	comp=Z,1.0nm,0.6s,baz=190,slow=3.0,SNR=4.3						
SCHQ	Schefferville	119.40	8	PKP	PKPdf	15 07 52.5	+0.1
SCHQ	Schefferville	119.40	8	PKP	PKPdf	15 07 52.5	+0.1
	comp=Z,2.0nm,0.5s,baz=142,slow=3.8,SNR=8.1						
TORD	Torodi Ar. Bea	121.26	289	PKP	PKPdf	15 07 55.9	-1.2
TORD				pPKP	pPKPdf	15 08 43.2	-5.1
TORD	Torodi Ar. Bea	121.26	289	PKP	PKPdf	15 07 55.9	-1.3
	comp=Z,3.0nm,0.8s,baz=48,slow=1.9,SNR=15						
TORD				pPKP	pPKPdf	15 08 43.2	-5.1
	comp=Z,1.5nm,0.7s,baz=46,slow=2.1,SNR=4.2						
TXAR	Lajitas Array	121.75	51	PKP	PKPdf	15 07 59.0	+1.2
TXAR				pPKP	pPKPdf	15 08 45.9	-3.1
TXAR				PKKPbc	PKKPbc	15 17 56.8	-0.9
TXAR	Lajitas Array	121.75	51	PKIKP	PKPdf	15 07 59.0	+1.3
TXAR	Lajitas Array	121.75	51	PKP	PKPdf	15 07 59.0	+1.2
	comp=Z,1.2nm,0.6s,baz=233,slow=0.9,SNR=22						
TXAR				pPKP	pPKPdf	15 08 45.9	-3.1
	comp=Z,0.4nm,0.7s,baz=204,slow=1.2,SNR=2.9						
TXAR				PKKPbc	PKKPbc	15 17 56.8	-0.9
	comp=Z,0.5nm,0.6s,baz=131,slow=6.6,SNR=6.7						
JCT	Junction City	124.11	48	ePKPdf	PKPdf	15 08 03.3	+1.1
JCT	Junction City	124.11	48	ePKIKP	PKPdf	15 08 03.3	+1.1
JTS	JuntasAbangare	146.08	63	ePKPdf	PKPdf	15 08 44.1	+0.9
JTS	JuntasAbangare	146.08	63	ePKP2	PKPab	15 08 44.1	-1.3

ISCJB ***11*** *15:04:23.0±0.7, 24.33S±0.03×67.00W±0.06, h156km±5km, mb4.4/35, Error ellipse: s-maj=9.6km s-min=5.1km az=169.6*

MOS ***11*** *15:04:23.7±1.1, 24.25S×67.21W, h158km, mb4.6/9, Error ellipse: s-maj=37.0km s-min=10.4km az=110.6*

NEIC ***11*** *15:04:24.0±0.6, 24.27S×66.99W, h156km±5km, mb4.5/25, Error ellipse: s-maj=9.7km s-min=5.1km az=84.0*

BJI ***11*** *15:04:25.9, 24.30S×67.00W, h155km, mB4.8*

IDC ***11*** *15:04:25.0±1.2, 24.19S×66.98W, h164km±9km, mb4.1/11, mb1 4.2/14, mb1mx4.2/18, mbtmp4.1/14, Error ellipse: s-maj=19.1km s-min=9.8km az=76.0*

GUC ***11*** *15:04:26.5±0.7, 24.44S×67.50W, h200km, ML5.1*

ISC 11 15:04:23.9±0.7, **24.31S**±0.03×**66.98W**±0.06, **h149**km±5km, **n319, σ0.69**/278, **mb4.4**/35, **66C-70D, Salta Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEN1	Los Morros	3.08	287	⇓iP	Pn	15 05 14.7	+2.5
CEN1				i S	Sn	15 05 50.9	+3.1
CEN1				AML	AML	15 05 53.8	
	comp=E,3µm,0.8s						
CPN1	Cerro Paranal	3.13	263	⇑iP	Pn	15 05 14.3	+1.4
CPN1				i S	Sn	15 05 50.4	+1.3
CPN1				AML	AML	15 05 52.7	
	comp=E,3µm,0.4s						
ANCH	Antofagasta	3.19	281	⇑iP	Pn	15 05 15.1	+1.4
ANCH				i S	Sn	15 05 52.1	+1.6
ANCH	Antofagasta	3.19	281	⇑iP	Pn	15 05 15.1	+1.4
ANCH				i S	Sn	15 05 52.1	+1.6
ANCH				AML	AML	15 05 56.2	
	comp=N,4µm,0.3s						
CPCH	Copiapo	4.29	224	⇓iP	Pn	15 05 28.0	+0.1
CPCH				i S	Sn	15 06 16.9	-0.1
CDCH	Caldera	4.43	231	⇑iP	Pn	15 05 29.4	-0.4
CDCH				i S	Sn	15 06 18.2	-2.1
VACH	Vallenar	5.43	218	eP	Pn	15 05 43.2	+0.2
VACH				i S	Sn	15 06 43.6	-0.8
LCO	Las Campanas	5.75	215	⇑ePn	Pn	15 05 46.7	-0.4
	comp=N,241nm,0.8s						
LCO				eSn	Sn	15 06 39.9	-12
CFAA	Coronel Fontan	7.35	188	P	Pn	15 06 09.9	+1.3
	comp=N,0.3nm,0.3s,baz=5.1,slow=12,SNR=56						
CFAA				S	Sn	15 07 28.6	-2.1
	comp=N,1.5nm,0.3s,baz=87,slow=23,SNR=9.4						
LPAZ	La Paz	8.05	352	ePn	Pn	15 06 18.9	+0.9
	comp=N,16nm,0.7s						
LPAZ				eSn	Sn	15 07 43.5	-4.3
LPAZ	La Paz	8.05	352	eP	Pn	15 06 18.9	+0.9
LPAZ				e		15 07 43.5	
LPAZ				pmax	pmax		
	comp=Z,16nm,0.7s						
LPAZ	La Paz	8.05	352	P	Pn	15 06 19.4	+1.3
	comp=Z,3.4nm,0.3s,baz=163,slow=8.7,SNR=46						
LPAZ				S	Sn	15 07 46.3	-1.5
	comp=Z,0.6nm,0.3s,baz=331,slow=24,SNR=6.5						
ARE	Arequipa	8.88	331	eP	Pn	15 06 28.0	-1.0
ARE				eS	Sn	15 08 01.0	-6.6
SIV	San Ignacio	9.96	35	P	Pn	15 06 43.1	-0.4
	comp=Z,2.9nm,0.3s,baz=219,slow=14,SNR=112						
SIV				S	Sn	15 08 22.1	-12
	comp=Z,0.4nm,0.3s,baz=231,slow=17,SNR=7.6						
NNA	Nana	15.41	321	P	Pn	15 07 53.5	0.0
	comp=Z,0.8nm,0.3s,baz=140,slow=9.2,SNR=3.7						
USHA	Ushuaia	30.51	182	P	P	15 10 23.3	+0.7
	comp=Z,13nm,0.9s,mb4.7,baz=358,slow=10,SNR=9.2						
VNA3	Neumayer Olymp	56.86	161	eP	P	15 13 53.5	+1.0
VNA3				e		15 13 56.7	
VNA1	Neumayer--Stat	57.06	160	eP	P	15 13 55.3	+1.4
VNA1				e		15 13 58.8	
VNA2	Neumayer--Watz	57.42	160	eP	P	15 13 57.2	+0.7
	baz=289,slow=7.2						
VNA2				e		15 14 00.3	
SNAA	Sanae	59.06	161	P	P	15 14 08.2	+0.4
	comp=Z,4.9nm,0.8s,mb4.4,baz=282,slow=6.8,SNR=23						
SNAA				PcP	PcP	15 14 53.8	-1.1
	comp=Z,1.7nm,0.9s,baz=284,slow=8.3,SNR=2.2						
JSC	Jenkinsville	59.82	346	eP	P	15 14 12.3	-1.1
JCT	Junction City	62.91	328	eP	P	15 14 33.0	-1.3
	comp=Z,12nm,0.8s,mb4.8						
JCT	Junction City	62.91	328	eP	P	15 14 33.0	-1.3
JCT				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.8						
WVT	Waverly	63.26	341	eP	P	15 14 34.1	-2.3
	comp=Z,13nm,0.9s,mb4.8						
WVT	Waverly	63.26	341	eP	P	15 14 34.1	-2.3
WVT				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.8						
MAIT	Maitri	63.55	159	eP	P	15 14 37.4	-0.6
TXAR	Lajitas Array	63.93	325	P	P	15 14 40.0	-1.1
TXAR				PcP	PcP	15 15 15.0	-0.3
TXAR	Lajitas Array	63.93	325	P	P	15 14 40.0	-1.1
	comp=Z,2.2nm,0.9s,mb4.0,baz=147,slow=8.0,SNR=20						
TXAR				PcP	PcP	15 15 15.0	-0.3
	comp=Z,0.4nm,0.7s,baz=138,slow=7.7,SNR=3.5						
QSPA	South Pole Qui	65.90	180	eP	P	15 14 54.1	+1.0
	comp=Z,25nm,0.6s,mb5.2						
MNTX	Cornudas Mount	66.70	325	eP	P	15 14 56.9	-1.9
	comp=Z,10.0nm,1.2s,mb4.5						
BNM	Barren Site	69.27	326	eP	P	15 15 14.8	0.0
LPM	Los Pinos Moun	69.40	326	eP	P	15 15 14.8	-0.8
ANMO	Albuquerque	69.81	326	eP	P	15 15 17.5	-0.6
	comp=Z,7.5nm,1.0s,mb4.4						
ANMO	Albuquerque	69.81	326	eP	P	15 15 17.5	-0.6
ANMO				pmax	pmax		
	comp=Z,8.0nm,1.0s						
CBKS	Cedar Bluff	69.88	333	eP	P	15 15 17.8	-0.6
	comp=Z,14nm,1.0s,mb4.7						
CBKS	Cedar Bluff	69.88	333	eP	P	15 15 17.8	-0.6
CBKS				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.7						
116A	Eloy	70.84	321	⇑P	P	15 15 24.7	+0.2
	baz=71						
115A	Sonoran Desert	71.24	321	⇑P	P	15 15 27.3	+0.4
	baz=72						
SDCO	Great Sand Dun	71.56	329	eP	P	15 15 28.7	+0.1
	comp=Z,4.2nm,0.7s,mb4.3						
X15A	Humboldt	72.55	322	P	P	15 15 35.0	+0.4
	baz=73,SNR=7.4						
Y14A	Wickenburg	72.59	321	⇓P	P	15 15 34.9	+0.1
	baz=73						
MVCO	Mesa Verde	72.61	326	eP	P	15 15 34.9	0.0
	comp=Z,9.6nm,1.0s,mb4.5						
MVCO	Mesa Verde	72.61	326	⇑P	P	15 15 35.2	+0.4
	baz=73						
WUAZ	Wupatki	72.83	323	eP	P	15 15 36.6	+0.4
	comp=Z,11nm,1.0s,mb4.5						
WUAZ	Wupatki	72.83	323	⇓P	P	15 15 36.9	+0.7
	baz=73						
X14A	Yava	72.91	322	P	P	15 15 37.2	+0.5
	baz=73,SNR=5.3						
Y13A	Salome	72.97	321	⇑P	P	15 15 37.4	+0.3
	baz=73						
GLA	Glamis	73.02	319	⇑P	P	15 15 37.8	+0.4
	baz=73						
W15A	Williams	73.08	323	⇑P	P	15 15 38.3	+0.7
	baz=73						
ISCO	Idaho Springs	73.25	330	eP	P	15 15 38.5	-0.1
	comp=Z,6.6nm,1.1s,mb4.3						
ISCO	Idaho Springs	73.25	330	eP	P	15 15 38.5	-0.1
ISCO				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.3						
SYO	Syowa Base	73.26	159	⇑eP	P	15 15 38.2	-0.1
SYO	Syowa Base	73.26	159	⇓ePcP	PcP	15 15 54.0	0.0
Y12C	Blythe	73.33	320	⇑P	P	15 15 39.7	+0.5
	baz=74						
PV01	Paradox Valley	73.36	327	eP	P	15 15 39.4	+0.1
SMCO	Snowmass	73.39	329	eP	P	15 15 39.8	+0.3
	comp=Z,3.9nm,0.7s,mb4.2						
PDMCI	Parker Dam,Lak	73.50	321	⇓P	P	15 15 40.3	+0.1
	baz=74						
SWSC	Sam W. Stewart	73.52	319	⇓P	P	15 15 40.7	+0.3
	baz=74						
X13A	Yucca	73.53	321	P	P	15 15 40.8	+0.4
	baz=74,SNR=7.4						
W14A	Seligman	73.56	322	⇓P	P	15 15 41.1	+0.6
	baz=74						
PV10	Paradox Valley	73.78	327	eP	P	15 15 41.2	-0.5
BC3	Big Chuckw Mtn	73.81	319	P	P	15 15 42.5	+0.5
	baz=74,SNR=8.8						
W13A	Hualapai Mount	73.93	321	⇓P	P	15 15 43.0	+0.3
	baz=74						
IRM	Iron Mountain	73.99	320	P	P	15 15 43.3	+0.3
	baz=74,SNR=6.4						
BELC	Belle Mtn.	74.38	319	⇑P	P	15 15 45.7	+0.4
	baz=75						
PFO	Pinyon Flat Ob	74.38	319	⇓P	P	15 15 45.9	+0.5
	baz=75						
VNDA	Vanda	74.40	190	P	P	15 15 46.1	+1.2
	comp=Z,4.8nm,0.9s,mb4.2,baz=138,slow=2.7,SNR=4.4						
W12A	Cal Nev Ari	74.63	321	⇓P	P	15 15 47.1	+0.3
	baz=75						
GMRC	Granite Mounta	74.72	320	P	P	15 15 47.8	+0.5
	baz=75,SNR=7.9						
MURC	Murrieta	74.82	318	⇓P	P	15 15 48.1	+0.2
	baz=75						
T14A	Hurricane	74.90	323	P	P	15 15 49.0	+0.8
	baz=75,SNR=7.0						
V12A	Nelson	74.92	321	P	P	15 15 48.8	+0.4
	baz=75,SNR=7.8						
SRU	San Rafael	75.08	326	eP	P	15 15 49.1	-0.2
	comp=Z,7.7nm,0.7s,mb4.4						
SRU	San Rafael	75.08	326	eP	P	15 15 49.1	-0.2
SRU				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.5						
HEC	Hector,Ludlow	75.15	320	⇓P	P	15 15 50.5	+0.7
	baz=75						
U12A	Valley of Fire	75.25	322	P	P	15 15 50.6	+0.4
	baz=76,SNR=5.0						
T13A	Saint George	75.32	323	⇓P	P	15 15 51.2	+0.5
	baz=76						
V11A	Goodsprings	75.34	321	⇓P	P	15 15 51.3	+0.5
	baz=76						
TUQ	Turquoise Mtn.	75.34	320	⇑P	P	15 15 51.4	+0.6
	baz=76						
CCUT	Cedar City	75.41	324	eP	P	15 15 51.8	+0.6
S14A	Cedar City	75.46	324	⇓P	P	15 15 52.1	+0.6
	baz=76						
MSU	Marysvale	75.49	325	eP	P	15 15 52.0	+0.4
ARUT	Antelope Range	75.63	324	eP	P	15 15 53.0	+0.6
GSC	Goldstone	75.76	320	⇓P	P	15 15 53.5	+0.3
	baz=76						
DECC	Green Verdugo	75.95	318	⇓P	P	15 15 54.3	0.0
	baz=76						
EDW2	Edwards Air Fo	76.17	319	⇑P	P	15 15 55.4	-0.2
	baz=76						
U10A	Ash Meadows, A	76.26	321	⇑P	P	15 15 56.8	+0.8
	baz=76						
LRMC	Laurel Mountai	76.40	319	⇓P	P	15 15 57.2	+0.3
	baz=77						
OSI	Osito Adit	76.44	318	⇓P	P	15 15 57.6	+0.6
	baz=77						
FURC	Furnace Creek,	76.60	321	⇓P	P	15 15 58.6	+0.7
	baz=77						
R12A	Pony Springs,	76.65	323	P	P	15 15 58.8	+0.7
	baz=77,SNR=14						
TORD	Torodi Ar. Bea	76.67	69	P	P	15 15 57.9	-0.9
	comp=Z,3.1nm,0.4s,mb4.3,baz=261,slow=5.6,SNR=27						
MPMC	Manual Prospec	76.69	320	⇑P	P	15 15 58.6	+0.2
	baz=77						

AGMN	Agassiz Refuge	76.77	341	*e*P	P	15 15 57.0	-1.6
	comp=Z,8.5nm,0.9s,mb4.4						
DAC	Darwin (Calif)	76.89	320	*e*P	P	15 15 59.7	+0.2
	comp=Z,6.9nm,1.0s,mb4.2						
DAC	Darwin (Calif)	76.89	320	*e*P	P	15 15 59.7	+0.1
DAC				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
ISA	Isabella	77.00	319	⇓P	P	15 16 00.5	+0.3
	baz=77						
DUG	Dugway	77.06	326	*e*P	P	15 16 00.4	0.0
	comp=Z,8.3nm,1.1s,mb4.3						
DUG	Dugway	77.06	326	*e*P	P	15 16 00.4	0.0
DUG				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.3						
DUG	Dugway	77.06	326	P	P	15 16 00.6	+0.2
	baz=77,SNR=5.6						
Q12A	Willow Creek R	77.28	324	⇑P	P	15 16 02.2	+0.5
	baz=78						
CWC	Cottonwood Cre	77.29	320	⇑P	P	15 16 02.0	+0.2
	baz=78						
PKM	Peak Mountain	77.29	318	P	P	15 16 02.5	+0.6
	baz=78,SNR=5.5						
PDAR	Pinedale Array	77.42	329	P	P	15 16 01.7	-0.6
	comp=Z,1.6nm,0.8s,mb3.7,baz=135,slow=7.2,SNR=13						
S10A	Tonopah Range,	77.47	322	P	P	15 16 03.3	+0.6
	baz=78,SNR=6.3						
VES	Vestal, Richgr	77.48	319	⇓P	P	15 16 02.9	+0.1
	baz=78						
HWUT	Hardware Ranch	77.49	327	*e*P	P	15 16 02.3	-0.5
	comp=Z,5.3nm,0.7s,mb4.3						
R10A	Warm Springs	77.56	322	⇓P	P	15 16 03.8	+0.6
	baz=78						
Q11A	Duckwater	77.59	323	P	P	15 16 03.8	+0.4
	baz=78,SNR=9.4						
SMMC	Simmler	77.68	318	⇓P	P	15 16 04.1	+0.1
	baz=78						
S09A	Goldfield	77.68	321	⇑P	P	15 16 04.2	+0.2
	baz=78						
RCTC	Rector, Farmer	77.89	319	⇓P	P	15 16 04.8	-0.3
	baz=78						
R09A	Tonopah	77.95	322	⇑P	P	15 16 05.5	+0.1
	baz=78						
HELL	Mitchell Peak,	78.01	320	P	P	15 16 05.3	-0.4
	baz=78,SNR=5.9						
S08C	White Mtn Res	78.07	321	⇓P	P	15 16 06.9	+0.8
	baz=78						
N13A	Wendover, West	78.27	325	⇑P	P	15 16 07.4	+0.3
	baz=78						
REDW	Red Top Meadow	78.48	329	*e*P	P	15 16 08.0	-0.2
	comp=Z,9.7nm,1.3s,mb4.3						
O11A	Cowboy Ranch,	78.51	324	P	P	15 16 09.0	+0.5
	baz=79,SNR=7.0						
ULM	Lac du Bonnet	78.52	342	P	P	15 16 06.8	-1.4
ULM	Lac du Bonnet	78.52	342	P	P	15 16 06.8	-1.4
	comp=Z,5.9nm,0.6s,mb4.4,baz=154,slow=5.4,SNR=14						
LOHW	Long Hollow	78.56	329	*e*P	P	15 16 08.1	-0.5
	comp=Z,3.1nm,0.6s,mb4.1						
P10A	Eureka	78.59	323	P	P	15 16 09.8	+1.0
	baz=79,SNR=6.2						
M13A	Montello	78.62	326	⇑P	P	15 16 09.0	0.0
	baz=79						
TPAW	Teton Pass	78.62	329	*e*P	P	15 16 07.0	-2.0
	comp=Z,12nm,1.3s,mb4.3						
T06C	Millerton Lake	78.64	319	⇓P	P	15 16 09.3	+0.1
	baz=79						
N12A	Clover Valley,	78.70	325	⇓P	P	15 16 09.6	+0.1
	baz=79						
NVAR	Mina Array Bea	78.78	321	P	P	15 16 09.8	-0.2
	comp=Z,1.5nm,0.7s,mb3.7,baz=142,slow=6.6,SNR=14						
SCHQ	Schefferville	78.81	0	P	P	15 16 08.1	-1.6
	comp=Z,2.1nm,0.8s,mb3.8,baz=296,slow=12,SNR=4.4						
U04C	Hernandez Rese	78.85	318	⇓P	P	15 16 10.4	0.0
	baz=79						
Q08A	Gabbs	78.87	322	P	P	15 16 10.5	+0.1
	baz=79,SNR=10						
IMW	Indian Meadow	78.93	329	*e*P	P	15 16 10.2	-0.5
	comp=Z,12nm,1.0s,mb4.5						
K14A	Jones Ranch, D	78.99	327	⇑P	P	15 16 10.8	-0.2
	baz=79						
L13A	Double Diamond	79.04	326	P	P	15 16 11.8	+0.5
	baz=79,SNR=9.5						
M12A	Wells	79.04	325	P	P	15 16 11.2	-0.1
	baz=79,SNR=7.7						
O10A	Cortez Mining,	79.08	324	⇑P	P	15 16 12.0	+0.4
	baz=79						
S05C	Merced	79.23	319	⇓P	P	15 16 12.8	+0.3
	baz=79						
S06C	San Francisco	79.31	320	⇑P	P	15 16 13.1	+0.3
	baz=80						
O09A	Fish Creek Ran	79.37	323	⇑P	P	15 16 14.0	+0.9
	baz=80						
N10A	Dunphy	79.39	324	⇓P	P	15 16 13.5	+0.3
	baz=80						
R06C	Coleville	79.51	321	⇓P	P	15 16 14.8	+0.9
	baz=80						
M11A	Holland Ranch,	79.51	325	P	P	15 16 14.5	+0.6
	baz=80,SNR=6.2						
K13A	Stover Farm, H	79.52	327	⇑P	P	15 16 14.1	+0.2
	baz=80						
P08A	Dixie Valley	79.53	322	⇓P	P	15 16 14.4	+0.4
	baz=80						
PACP	Pacheco Peak	79.58	319	⇑P	P	15 16 14.5	+0.1
	baz=80						
L12A	House Creek Ra	79.62	326	P	P	15 16 14.7	+0.2
	baz=80,SNR=6.5						
CMB	Columbia Colle	79.72	320	⇓P	P	15 16 14.7	-0.4
	baz=80						
QLMT	Earthquake Lak	79.87	330	*e*P	P	15 16 16.0	+0.3
K12A	Draper Farm, C	79.92	326	P	P	15 16 16.6	+0.6
	baz=80,SNR=6.4						
M10A	I.L. Ranch, Tu	79.97	325	⇑P	P	15 16 17.2	+0.9
	baz=80						
R05C	Kirkwood Meado	79.99	321	⇓P	P	15 16 16.9	+0.4
	baz=80						
L11A	Cat Creek Ranc	80.02	325	⇓P	P	15 16 17.3	+0.7
	baz=80						
J13A	Cove Ranch, Pi	80.11	327	P	P	15 16 17.4	+0.4
	baz=80,SNR=7.2						
N08A	GE Springer Mi	80.31	323	⇑P	P	15 16 17.8	-0.3
	baz=80						
L10A	Juniper Basin	80.33	325	P	P	15 16 18.4	+0.2
	baz=81,SNR=13						
HLID	Hailey	80.35	327	*e*P	P	15 16 18.3	-0.1
	comp=Z,16nm,1.0s,mb4.6						
HLID	Hailey	80.35	327	P	P	15 16 18.9	+0.6
	baz=81,SNR=26						
M09A	Marrel Ranch,	80.39	324	⇑P	P	15 16 18.5	0.0
	baz=81						
LAVA	Lava Cap Winer	80.41	320	⇓P	P	15 16 18.5	-0.3
	baz=81						
I13A	Wildhorse Cree	80.46	328	P	P	15 16 19.5	+0.6
	baz=81,SNR=12						
J12A	Stokes Ranch,	80.47	327	P	P	15 16 19.2	+0.3
	baz=81,SNR=12						
MCMT	McKenzie Canyo	80.53	329	*e*P	P	15 16 19.5	+0.3
BOSA	Boshof	80.58	117	P	P	15 16 20.5	+0.4
	comp=Z,5.7nm,0.6s,mb4.4,baz=132,slow=8.8,SNR=16						
BOZ	Bozeman (W)	80.58	330	⇓P	P	15 16 18.9	-0.5
	baz=81						
G15A	Dillon	80.61	329	P	P	15 16 20.0	+0.3
	baz=81,SNR=6.2						
N07B	Gerlach	80.77	323	⇑P	P	15 16 20.4	-0.2
	baz=81						
M08A	Happy Creek Ra	80.91	323	⇓P	P	15 16 21.6	+0.3
	baz=81						
L09A	Wilkinson Ranc	80.92	324	⇓P	P	15 16 21.6	+0.2
	baz=81						
MFID	Camas Ranch	80.95	326	⇑P	P	15 16 21.8	+0.3
	baz=81						
H13A	Challis	81.01	328	P	P	15 16 22.1	+0.3
	baz=81,SNR=21						
K10A	MacKenzie Ranc	81.03	325	⇓P	P	15 16 22.2	+0.3
	baz=81						
F15A	Butte	81.12	330	P	P	15 16 22.7	+0.4
	baz=81,SNR=7.6						
G14A	Jackson	81.13	329	⇑P	P	15 16 22.7	+0.3
	baz=81						
MAW	Mawson	81.14	163	P	P	15 16 23.0	+0.8
	comp=Z,10nm,0.6s,mb4.6,baz=211,slow=8.9,SNR=20						
N06A	Buffalo Meadow	81.23	322	⇑P	P	15 16 23.2	+0.1
	baz=82						
H12A	Diamond D Ranc	81.29	328	P	P	15 16 23.7	+0.5
	baz=82,SNR=8.8						
M07A	Soldier Meadow	81.30	323	⇑P	P	15 16 23.5	+0.1
	baz=82						
O05C	Quincy	81.32	321	⇓P	P	15 16 23.6	+0.1
	baz=82						
SUTB	Sutter Butte	81.33	320	⇑P	P	15 16 23.6	0.0
	baz=82						
I11A	Placerville	81.38	327	⇓P	P	15 16 23.7	-0.1
	baz=82						
ORV	Oroville	81.38	320	⇑P	P	15 16 23.9	0.0
	baz=82						
G13A	Cobalt	81.39	328	P	P	15 16 23.8	0.0
	baz=82,SNR=37						
L08A	Fields	81.40	324	P	P	15 16 23.8	-0.1
	baz=82,SNR=5.1						
K09A	Rome	81.43	325	P	P	15 16 24.0	0.0
	baz=82,SNR=6.0						
F14A	Wisdom	81.51	329	P	P	15 16 25.1	+0.8
	baz=82,SNR=13						
EGMT	Eagleton	81.59	333	*e*P	P	15 16 23.6	-1.1
	comp=Z,8.8nm,1.2s,mb4.3						
EGMT	Eagleton	81.59	333	⇑P	P	15 16 24.1	-0.7
	baz=82						
E15A	Deer Lodge	81.63	330	⇑P	P	15 16 25.0	0.0
	baz=82						
ELFS	Eagle Lake Fie	81.64	322	⇓P	P	15 16 24.8	-0.4
	baz=82						
J09A	Fry Pan Ranch,	81.89	325	⇑P	P	15 16 26.8	+0.3
	baz=82						
M06C	Likely Place G	81.90	322	P	P	15 16 26.7	+0.1
	baz=82,SNR=5.5						
I10A	Payette	81.93	326	⇓P	P	15 16 26.5	-0.2
	baz=82						
F13A	Darby	81.94	329	P	P	15 16 26.6	0.0
	baz=82,SNR=27						
H11A	Donnelly	81.97	327	P	P	15 16 26.5	-0.3
	baz=82,SNR=10						
E14A	Clinton	82.02	330	P	P	15 16 27.5	+0.5
	baz=82,SNR=6.5						
D15A	Lincoln	82.04	330	P	P	15 16 27.5	+0.3
	baz=82,SNR=9.4						
GASB	Alder Springs	82.16	320	⇓P	P	15 16 28.1	+0.1
	baz=82						
K07A	Rock Creek Ran	82.23	324	P	P	15 16 28.7	+0.5
	baz=82,SNR=9.9						
H10A	Noah’s Angus R	82.26	327	⇓P	P	15 16 28.4	0.0
	baz=82						
MOD	Modoc	82.27	323	⇑P	P	15 16 28.3	-0.1
	baz=82						
J08A	Circle Bar Ran	82.28	325	P	P	15 16 28.9	+0.4
	baz=82,SNR=8.6						
I09A	Lost Marbles R	82.33	326	⇓P	P	15 16 28.9	+0.2
	baz=83						
E13A	Victor	82.36	329	P	P	15 16 28.8	0.0
	baz=83,SNR=16						
F12A	Elk City	82.36	328	⇓P	P	15 16 28.8	0.0
	baz=83						
M05C	Lookout	82.38	322	⇑P	P	15 16 29.1	+0.1
	baz=83						
D14A	Greenough	82.52	330	⇑P	P	15 16 29.3	-0.3
	baz=83						
G11A	Walters Elk Ra	82.60	327	P	P	15 16 29.4	-0.7
	baz=83,SNR=8.8						
WDC	Whiskeytown Da	82.66	321	⇑P	P	15 16 28.8	-1.7
	baz=83						
I08A	Drewsey	82.71	325	⇓P	P	15 16 31.1	+0.4
	baz=83						
J07A	Hines	82.73	324	⇑P	P	15 16 31.2	+0.4
	baz=83						
H09A	Durkee	82.77	326	⇓P	P	15 16 30.9	-0.1
	baz=83						
K06A	Valley Falls	82.85	324	P	P	15 16 31.9	+0.4
	baz=83,SNR=5.1						
M03C	McCloud	82.87	321	⇑P	P	15 16 31.3	-0.3
	baz=83						
F11A	Grangeville	82.89	328	P	P	15 16 30.9	-0.7
	baz=83,SNR=7.8						
D13A	Huson	82.97	330	P	P	15 16 31.6	-0.3
	baz=83,SNR=5.9						
M04C	Macdoel	83.05	322	⇑P	P	15 16 32.3	-0.2
	baz=83						
J06A	Christmas Vall	83.10	324	P	P	15 16 32.7	-0.1
	baz=83,SNR=5.6						
C14A	Swan Lake	83.14	330	⇑P	P	15 16 32.8	-0.1
	baz=83						
K05A	Summer Lake	83.15	323	P	P	15 16 33.5	+0.6
	baz=83,SNR=5.9						
H08A	Prairie City	83.19	326	⇑P	P	15 16 33.2	0.0
	baz=83						
E11A	Bogner Ranch,	83.25	328	⇑P	P	15 16 32.5	-0.9
	baz=84						
G09A	Cove	83.26	327	P	P	15 16 33.3	-0.2
	baz=84,SNR=7.5						
I07A	Izee	83.32	325	⇑P	P	15 16 33.9	0.0
	baz=84						
C13A	Hot Springs	83.45	330	P	P	15 16 33.9	-0.5
	baz=84,SNR=5.3						
I06A	Prineville	83.60	324	⇓P	P	15 16 35.3	0.0
	baz=84						
F09A	S2 Ranch, Elgi	83.63	327	⇓P	P	15 16 34.7	-0.7
	baz=84						
E10A	Myers Farm, Un	83.78	328	P	P	15 16 35.7	-0.4
	baz=84,SNR=5.3						
D11A	Klaveano Farm,	83.81	329	⇓P	P	15 16 35.5	-0.8
	baz=84						
G08A	Pilot Rock	83.87	326	⇓P	P	15 16 36.3	-0.3
	baz=84						
B13A	Whitefish	83.91	330	⇓P	P	15 16 36.5	-0.3
	baz=84						
F08A	Pendleton	84.13	326	⇑P	P	15 16 37.9	0.0
	baz=84						
J04A	Umpqua Nationa	84.16	323	⇑P	P	15 16 38.0	-0.1
	baz=84						
H06A	Lindquist Farm	84.20	325	⇓P	P	15 16 38.5	+0.2
	baz=84						
G07A	Ruggs Ranch, H	84.22	326	⇑P	P	15 16 38.6	+0.2
	baz=84						
D10A	Wagner Farm, O	84.27	328	P	P	15 16 37.6	-0.9
	baz=84,SNR=8.2						
A13A	Flathead Natio	84.30	331	⇓P	P	15 16 38.7	0.0
	baz=84,SNR=14						
I05A	Bend	84.31	324	⇓P	P	15 16 39.0	+0.1
	baz=84						
B12A	Libby	84.49	330	P	P	15 16 39.4	-0.3
	baz=85,SNR=5.5						
D09A	Jones Farm, Ri	84.78	328	⇓P	P	15 16 40.8	-0.4
	baz=85						
B11A	Sandpoint	84.83	329	⇑P	P	15 16 40.8	-0.6
	baz=85						
C10A	Spilker Farm,	84.83	329	⇓P	P	15 16 40.9	-0.4
	baz=85						
A12A	Yaak River Ran	84.86	330	⇑P	P	15 16 41.2	-0.3
	baz=85						
G05A	Wamic	85.06	325	⇑P	P	15 16 42.8	+0.2
	baz=85						
D08A	Wollman Farm,	85.07	327	⇑P	P	15 16 42.6	0.0
	baz=85						
F06A	Goldendale	85.13	325	⇑P	P	15 16 42.8	-0.1
	baz=85						
E07A	Sunnyside	85.19	326	⇓P	P	15 16 43.0	-0.2
	baz=85						
A11A	Hall Mountain,	85.20	330	P	P	15 16 42.7	-0.5
	baz=85,SNR=7.7						
G04A	Mulino	85.65	324	⇓P	P	15 16 45.5	0.0
	baz=86						
B09A	Rice	85.65	329	P	P	15 16 44.6	-0.8
	baz=86,SNR=9.1						
D07A	Quincy	85.69	327	⇓P	P	15 16 45.7	0.0
	baz=86						
FCC	Fort Churchill	85.76	346	*e*P	P	15 16 44.5	-1.2
	comp=Z,16nm,0.9s,mb4.8						
FCC	Fort Churchill	85.76	346	*e*P	P	15 16 44.5	-1.2
FCC				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
A10A	Northport	85.77	329	⇓P	P	15 16 45.0	-1.0
	baz=86						
C07A	Waterville	86.07	327	P	P	15 16 46.8	-0.7
	baz=86,SNR=8.4						
D06A	Cle Elum	86.12	326	⇑P	P	15 16 46.8	-1.1
	baz=86						
B08A	Colville Reser	86.17	328	⇓P	P	15 16 47.2	-0.8
	baz=86						
A09A	Danville	86.24	329	P	P	15 16 47.2	-1.1
	baz=86,SNR=6.2						
ESDC	Sonseca Array	86.61	44	P	P	15 16 52.6	+2.2
	comp=Z,1.3nm,0.7s,mb3.9,baz=250,slow=4.9,SNR=5.5						
B07A	Winthrop	86.62	328	P	P	15 16 49.4	-0.8
	baz=87,SNR=9.5						
C06A	Tall Timber Ra	86.64	327	⇓P	P	15 16 49.1	-1.2
	baz=87						
D05A	Enumclaw	86.70	326	⇓P	P	15 16 49.8	-0.8
	baz=87						
EDM	Edmonton	87.05	334	*e*P	P	15 16 50.1	-2.1
A07A	Ashnola River,	87.15	328	P	P	15 16 52.2	-0.5
	baz=87,SNR=8.6						
B06A	Marblemount	87.33	327	⇑P	P	15 16 52.4	-1.3
	baz=88						
B05A	Bryant	87.47	327	⇑P	P	15 16 53.1	-1.2
	baz=88						
A06A	Chilliwack	87.72	328	⇓P	P	15 16 54.5	-1.0
	baz=88						
A05A	Maple Falls	87.95	327	⇑P	P	15 16 55.3	-1.3
	baz=88						
AKASG	Malin Array Be	112.25	43	PKPdf	PKiKP	15 22 39.5	-2.1
AKASG	Malin Array Be	112.25	43	PKIKP	PKiKP	15 22 39.5	-2.0
AKASG	Malin Array Be	112.25	43	PKiKP	PKiKP	15 22 39.5	-2.1
	comp=Z,0.2nm,0.3s,baz=262,slow=2.7,SNR=5.6						
BRTR	Keskin Array B	112.97	55	PKPdf	PKiKP	15 22 41.9	-1.4
BRTR	Keskin Array B	112.97	55	PKIKP	PKiKP	15 22 41.9	-1.4
BRTR	Keskin Array B	112.97	55	PKiKP	PKiKP	15 22 41.9	-1.4
	comp=Z,0.8nm,0.7s,baz=27,slow=3.2,SNR=5.8						
KLBR	Kellerberrin	124.23	185	*e*P	PKPdf	15 23 04.1	-1.2
	comp=Z,94nm,1.7s						
CTA	Charters Tower	125.28	219	*e*P	PKPdf	15 23 07.0	-0.6
	comp=Z,3.2nm,0.6s						
CTA	Charters Tower	125.28	219	*e*PKIKP	PKPdf	15 23 07.0	-0.6
ASAR	Alice Springs	128.19	205	PKP	PKPdf	15 23 11.8	-1.2
ASAR				SKPbc		15 26 14.7	
ASAR	Alice Springs	128.19	205	PKIKP	PKPdf	15 23 11.9	-1.2
ASAR	Alice Springs	128.19	205	PKP	PKPdf	15 23 11.8	-1.2
	comp=Z,6.2nm,0.7s,baz=135,slow=1.7,SNR=46						
ASAR				SKPbc		15 26 14.7	
	comp=Z,0.3nm,0.6s,baz=141,slow=3.2,SNR=4.1						
AKTK	Aktyubinsk	130.49	44	PKP	PKPdf	15 23 15.3	-1.2
AKTK				SKPbc	SKPbc	15 26 23.8	-2.4
AKTO	Aktyubinsk	130.49	44	PKIKP	PKPdf	15 23 15.3	-1.2
AKTO	Aktyubinsk	130.49	44	PKP	PKPdf	15 23 15.3	-1.2
	comp=Z,1.4nm,0.7s,baz=268,slow=3.0,SNR=5.3						
AKTO				SKPbc	SKPbc	15 26 23.8	-2.4
	comp=Z,3.7nm,1.0s,baz=314,slow=2.7,SNR=8.5						
WB2	Warramunga Arr	131.36	207	*e*P	PKPdf	15 23 18.4	-0.8
WRA	Warramunga Arr	131.36	207	PKP		15 23 06.4	
WRA				PKP	PKPdf	15 23 18.4	-0.8
WRA				SKPbc	SKPbc	15 26 26.7	-3.8
WRA	Warramunga Arr	131.36	207	PKHKP		15 23 06.4	
WRA						15 23 18.4	
WRA	Warramunga Arr	131.36	207	PKhKP		15 23 06.4	
	comp=Z,0.5nm,0.5s,baz=122,slow=1.9,SNR=5.3						
WRA				PKP	PKPdf	15 23 18.4	-0.8
	comp=Z,4.0nm,0.5s,baz=160,slow=1.7,SNR=70						
WRA				SKPbc	SKPbc	15 26 26.7	-3.8
	comp=Z,1.7nm,0.7s,baz=155,slow=3.6,SNR=23						
FITZ	Fitzroy Crossi	136.09	197	*e*P	PKPdf	15 23 27.5	-0.6
	comp=Z,5.5nm,0.8s						
YAK	Yakutsk	140.63	348	*i* PKIKP	PKPdf	15 23 32.1	-2.9
NVS	Novosibirsk	142.37	28	*i* PKIKP	PKPdf	15 23 37.9	-0.4
KURK	Kurchatov	142.62	36	*i* PKIKP	PKPdf	15 23 38.3	-0.6
AAK	Ala-Archa	143.42	50	*i* PKIKP	PKPdf	15 23 42.0	+1.4
ZAL	Zalesovo	143.66	28	PKIKP	PKPdf	15 23 38.0	-2.6
ZAL						15 27 02.6	
ZALV	Zalesovo Beam	143.66	28	PKP	PKPdf	15 23 38.0	-2.6
ZALV				SKPbc	SKPbc	15 27 02.6	-2.8
ZALV	Zalesovo Beam	143.66	28	PKP	PKPdf	15 23 38.0	-2.6
	comp=Z,8.3nm,0.7s,baz=303,slow=4.3,SNR=32						
ZALV				SKPbc	SKPbc	15 27 02.6	-2.8
	comp=Z,1.8nm,0.8s,baz=290,slow=4.3,SNR=7.2						
BOD	Bodaibo	146.51	359	*e*PKIKP	PKPdf	15 23 45.1	-0.3
BOD				pmax	pmax		
	comp=Z,12nm,0.8s						
MK31	Makanchi Array	146.75	40	*e*PKPdf	PKPdf	15 23 45.5	-0.6
MK31				*e*PKPbc	PKPbc	15 23 47.7	-0.5
MK31	Makanchi Array	146.75	40	*e*PKIKP	PKPdf	15 23 45.5	-0.7
MK31				*e*		15 23 47.7	
MKAR	Makanchi Array	146.75	40	PKPbc	PKPbc	15 23 46.0	-2.2
MKAR				SKPbc	SKPbc	15 27 09.8	-2.9
MKAR	Makanchi Array	146.75	40	PKIKP	PKPdf	15 23 46.0	-0.2
MKAR						15 27 09.8	
MKAR	Makanchi Array	146.75	40	PKPbc	PKPbc	15 23 46.0	-2.2
	comp=Z,9.7nm,0.7s,baz=334,slow=1.4,SNR=61						
MKAR				SKPbc	SKPbc	15 27 09.8	-2.9
	comp=Z,0.6nm,0.8s,baz=345,slow=2.3,SNR=4.3						
YSS	Yuzh-Sakhalins	147.24	321	*i* PKP2	PKPbc	15 23 47.5	-2.0
HABR	Khabarovsk	150.27	330	*i* PKIKP	PKPbc	15 23 56.5	-0.6
HABR				*e*SS	SS	15 46 34.4	-4.4
MOY	Mondy	151.17	16	*e*PKIKP	PKPbc	15 23 59.2	+0.1
WMQ	Urumqi	151.57	41	*e*PKP	PKPdf	15 23 51.5	-2.5
ZAK	Zakamensk	152.89	14	*e*PKIKP	PKPdf	15 23 45.8	-10
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.1s						
MJAR	Matsushiro Arr	155.17	305	PKPbc	PKPdf	15 24 06.5	+7.1
MJAR				PKPab	PKPab	15 24 23.2	-1.7
MJAR	Matsushiro Arr	155.17	305	PKIKP	PKPdf	15 24 06.5	+7.1
MJAR						15 24 23.2	
MJAR	Matsushiro Arr	155.17	305	PKPbc	PKPdf	15 24 06.5	+7.1
	comp=Z,1.2nm,0.6s,baz=64,slow=1.9,SNR=5.2						
MJAR				PKPab	PKPab	15 24 23.2	-1.7
	comp=Z,6.5nm,1.0s,baz=85,slow=2.3,SNR=9.8						
MAT	Matsushiro	155.17	305	PKP2	PKPab	15 24 24.0	-0.9
SONM	Songino Array	155.94	11	PKP	PKPdf	15 23 59.3	-0.8
SONM				PKPbc	PKPdf	15 24 08.8	+8.7
SONM				PKPab	PKPab	15 24 26.8	-0.9
SONM	Songino Array	155.94	11	PKIKP	PKPdf	15 23 59.3	-0.8
SONM						15 24 08.8	
SONM						15 24 26.8	
SONM	Songino Array	155.94	11	PKP	PKPdf	15 23 59.3	-0.8
	comp=Z,0.9nm,0.8s,baz=264,slow=1.5,SNR=7.4						
SONM				PKPbc	PKPdf	15 24 08.8	+8.7
	comp=Z,1.0nm,0.7s,baz=296,slow=1.0,SNR=6.0						
SONM				PKPab	PKPab	15 24 26.8	-0.9
	comp=Z,1.2nm,0.7s,baz=304,slow=4.0,SNR=6.3						
KSRS	Korea Array	161.72	319	PKP	PKPdf	15 24 07.9	+0.7
	comp=Z,2.5nm,1.1s,baz=63,slow=2.9,SNR=4.5						
KSRS				PKPab	PKPab	15 24 52.6	-0.6
	comp=Z,1.3nm,0.9s,baz=90,slow=3.9,SNR=4.4						
HHC	Hu-ho-hao-te	163.46	4	*e*PKP	PKPdf	15 24 06.3	-2.5
HHC				APKP		15 24 48.9	
HHC				XPKP		15 25 05.7	
HHC				PKS		15 27 38.9	
HHC				PP	PP	15 28 46.9	+1.6
HHC				SKS	SKSdf	15 30 53.4	-6.0
HHC				SKKS	SKKSac	15 35 15.8	-3.8
HHC				PP	PP		
	comp=Z,98nm,4.7s						
LZH	Lanzhou	165.84	32	*e*PKP	PKPdf	15 24 09.5	-1.5
LZH				APKP		15 24 52.0	
LZH				XPKP		15 25 08.5	
LZH				LR	LR		
	comp=N,126nm,18.2s						
LZH				LR	LR		
	comp=Z,167nm,20.1s						
LZH	Lanzhou	165.84	32	*e*PKP	PKPdf	15 24 09.5	-1.5
LZH				pPKP	pPKPdf	15 24 52.0	+1.1
LZH				sPKP		15 25 08.5	
LZH	Lanzhou	165.84	32	*e*PKIKP	PKPdf	15 24 09.5	-1.5
LZH						15 24 52.0	
LZH						15 25 08.5	
CD2	Chengdu	169.48	49	*e*PKP	PKPdf	15 24 10.2	-3.6
KMI	Kunming	170.62	83	PKP	PKPdf	15 24 14.7	+0.1
KMI	Kunming	170.62	83	PKIKP	PKPdf	15 24 14.7	+0.1

SZGRF **11** *15:05:09.3, 36.83N×70.80E, h196^{km}, mb4.8, Hindu Kush, Afghanistan, region*

ISCJB **11** *15:05:19.4±0.1, 36.46N±0.02×70.99E±0.02, h187^{km}, mb4.7/132, Error ellipse: s-maj=2.6km s-min=1.7km az=39.3*

MOS **11** *15:05:19.7±0.9, 36.46N×70.98E, h192^{km}, mb4.8/62, Error ellipse: s-maj=6.1km s-min=3.8km az=125.7*

BJI **11** *15:05:19.7, 36.65N×70.84E, h189^{km}, mB4.9, mb5.0*

NEIC **11** *15:05:20.9±0.1, 36.45N×70.99E, mb4.7/80, Error ellipse: s-maj=4.1km s-min=3.1km az=198.0*

IDC **11** *15:05:21.1±0.5, 36.41N×70.93E, h192^{km}±4^{km}, mb4.4/25, mb1 4.5/27, mb1mx4.5/27, mbtmp4.4/27, MS4.3/2, Ms1 4.3/2, ms1mx3.3/33, Error ellipse: s-maj=10.5km s-min=7.8km az=13.0*

NNC **11** *15:05:27.1±5.1, 37.22N×70.54E, h171^{km}±76^{km}, mb4.6, mpv5.5, Error ellipse: s-maj=52.7km s-min=17.1km az=29.0*

ISC 11 15:05:21.0±0.1**, 36.46N**±0.02×**70.99E**±0.02**, h189**^{km}**, h189**^{km}±1.5^{km}**:pP-P, n446,** σ0.^{s}99/488**, mb4.7**/132**, 38C-38D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBL	Kabul	2.49	220	⇓*e*Pn	Pn	15 06 03.7	-0.4

KBL				eSn	Sn	15 06 36.0	-1.7
CHCP	Chirah Chowk	3.36	146	⇓P	Pn	15 06 16.7	+2.2
SRNI	Srinagar	3.94	126	ex	x	15 06 26.0	
SRNI				eS	Sn	15 07 06.0	-3.1
SBDP	Sheikh Budin	4.16	182	⇑P	Pn	15 06 24.4	0.0
SARP	Sargodha	4.74	162	⇓P	Pn	15 06 32.7	+0.8
DRP	Derazinda	4.75	188	⇓P	Pn	15 06 32.9	+0.9
JMU	Jammu	4.93	138	i P	Pn	15 06 34.0	-0.3
JMU				i S	Sn	15 07 30.0	-1.9
KSH	Kashi	4.98	51	P	Pn	15 06 36.4	+1.6
KSH				S	Sn	15 07 33.5	+0.7
KSH				Smax			
	comp=N,3µm,0.4s						
KSH				Smax			
	comp=E,3µm,0.4s						
THN	Thein Dam	5.60	134	eP	Pn	15 06 42.7	-0.3
THN				ex	x	15 07 46.6	
DLH	Dalhousie	5.67	132	eP	Pn	15 06 42.0	-1.9
DLH				eS	Sn	15 07 46.0	-3.1
AML	Almayashu	6.04	19	P	Pn	15 06 47.5	-0.9
	SNR=3086						
AML	Almayashu	6.04	19	⇓ePn	Pn	15 06 47.7	-0.8
	comp=E,4.2nm,1.9s						
AML				eSn	Sn	15 07 51.2	-6.4
UCH	Uchtor	6.37	24	P	Pn	15 06 52.3	-0.5
	SNR=294						
UCH	Uchtor	6.37	24	⇓iPn	Pn	15 06 52.2	-0.6
	comp=E,14nm,1.0s						
UCH				eSn	Sn	15 07 59.9	-5.6
KZA	Kyzart	6.51	29	P	Pn	15 06 53.5	-1.1
	SNR=87						
EKS2	Erkin-Say	6.55	18	P	Pn	15 06 54.4	-0.8
	SNR=585						
EKS2	Erkin-Say	6.55	18	⇓iPn	Pn	15 06 54.4	-0.9
	comp=E,4.0nm,0.6s						
KK31	Karatay Array	6.64	357	Pn	Pn	15 06 54.5	-1.8
	comp=E,620nm,0.7s,baz=185,slow=13,SNR=5147						
KK31				Sn	Sn	15 08 01.9	-10
	comp=E,995nm,0.5s,baz=186,slow=16,SNR=23						
AAK	Ala-Archa	6.73	23	P	Pn	15 06 57.0	-0.5
	SNR=503						
AAK	Ala-Archa	6.73	23	⇓ePn	Pn	15 06 55.9	-1.7
	comp=E,332nm,0.4s						
AAK	Ala-Archa	6.73	23	⇓iPN	Pn	15 06 55.9	-1.6
BHK	Bhakra	6.75	137	eP	Pn	15 06 56.0	-2.0
BHK				ex	x	15 12 52.0	
KBK	Karagaybulak	6.90	25	P	Pn	15 06 59.4	-0.4
	SNR=210						
FRU	Bishkek	6.95	23	⇓iPN	Pn	15 07 00.0	-0.4
FRU				i S	Sn	15 08 17.0	-2.1
FRU				pmax	pmax		
	comp=Z,440nm,1.8s						
FRU				smax			
	comp=E,1µm,1.8s						
SDNR	Sundarnagar	7.01	133	eP	Pn	15 07 00.0	-1.3
SDNR				eS	Sn	15 08 16.0	-4.7
ULHL	Ulahol	7.06	34	P	Pn	15 07 00.8	-1.1
	SNR=68						
CHMS	Chumysh	7.14	23	P	Pn	15 07 01.5	-1.4
	SNR=315						
USP	Ospenovka	7.31	21	P	Pn	15 07 03.4	-1.7
	SNR=190						
TKM2	Tokmak 2	7.36	27	P	Pn	15 07 05.2	-0.6
	SNR=854						
TKM2	Tokmak 2	7.36	27	⇓Pn	Pn	15 07 04.5	-1.3
	comp=E,87nm,0.8s						
TKM2				⇓Sn	Sn	15 08 24.3	-4.5
	comp=E,34nm,0.8s						
TKM2	Tokmak 2	7.36	27	⇓iPn	Pn	15 07 05.0	-0.8
	comp=E,9.8nm,0.9s						
TKM2	Tokmak 2	7.36	27	⇓iPN	Pn	15 07 05.0	-0.8
TKM2				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KNDC	Almaty	8.16	32	⇑P	Pn	15 07 16.3	0.0
	comp=Z,567nm,1.1s						
RTK	Rohtak	8.70	147	eP	Pn	15 07 22.8	-0.6
BHGR	Bahadurgarh	9.23	145	eP	Pn	15 07 29.3	-1.2
BHGR				AMb	AMB	15 07 30.1	
	comp=Z,339nm,0.6s						
BHGR				eS	Sn	15 09 07.1	-6.5
JOSI	Joshimath	9.26	127	eP	Pn	15 07 31.2	+0.4
JOSI				eS	Sn	15 09 08.7	-5.6
KHET	Khetri	9.30	153	eP	Pn	15 07 30.0	-1.4
KHET				AMb	AMB	15 07 31.4	
	comp=Z,148nm,0.4s						
KHET				eS	Sn	15 09 06.3	-9.0
NDI	New Delhi	9.36	144	eP	Pn	15 07 31.5	-0.6
NDI				AMb	AMB	15 07 33.1	
	comp=Z,397nm,0.8s						
NDI				eS	Sn	15 09 08.6	-8.1
AYAN	Aya Nagar	9.49	145	eP	Pn	15 07 33.1	-0.7
AYAN				AMb	AMB	15 07 33.8	
	comp=Z,265nm,0.3s						
AYAN				eS	Sn	15 09 12.9	-7.0
KUDL	Kundal	9.51	149	eP	Pn	15 07 32.7	-1.3
KUDL				AMb	AMB	15 07 34.8	
	comp=Z,430nm,0.9s						
KUDL				eS	Sn	15 09 12.1	-8.1
VAN	Vannovskaya	10.39	282	P	Pn	15 07 41.3	-4.1
VAN				S	Sn	15 09 30.2	-11
AJM	Ajmer	10.43	162	eP	Pn	15 07 45.2	-0.8
AJM				AMb	AMB	15 07 45.5	
	comp=Z,293nm,0.6s						
AJM				eS	Sn	15 09 35.0	-7.2
LGTI	Lohaghat	10.45	129	ex	x	15 07 43.5	
LGTI				eS	Sn	15 09 35.0	-7.7
AGRA	Agra	10.93	145	eP	Pn	15 07 51.8	-0.8
AGRA				eS	Sn	15 09 45.8	-8.5
AGRA				eS	Sn	15 09 45.9	-8.4
MK31	Makanchi Array	13.32	36	Pn	Pn	15 08 21.4	-1.4
	comp=Z,54nm,0.7s,baz=217,slow=12,SNR=426						
MK31				⇑Sn	Sn	15 10 56.2	+5.1
	comp=Z,51nm,1.4s,baz=150,slow=40,SNR=3.6						
MK31	Makanchi Array	13.32	36	ePn	Pn	15 08 21.1	-1.7
MK31	Makanchi Array	13.32	36	eP	Pn	15 08 21.1	-1.7
MKAR	Makanchi Array	13.32	36	P	Pn	15 08 21.9	-0.8
MKAR				S	Sn	15 10 52.2	+1.2
MKAR	Makanchi Array	13.32	36	P	Pn	15 08 22.0	-0.8
MKAR				S	Sn	15 10 52.2	+1.2
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
MKAR	Makanchi Array	13.32	36	P	Pn	15 08 21.9	-0.8
	comp=Z,3.4nm,0.3s,baz=228,slow=8.9,SNR=168						
MKAR				S	Sn	15 10 52.2	+1.2
	baz=212,slow=23,SNR=1.8						
KOLN	Koldanda	13.75	126	eP	Pn	15 08 27.3	-0.9
	comp=Z,240nm,0.6s						
KOLN				eS	Sn	15 10 52.9	-8.6
GKN	Gorkha	14.29	122	eP	Pn	15 08 34.3	-0.7
	comp=Z,571nm,0.5s						
GKN				eS	Sn	15 11 05.6	-8.8
BHPL	Bhopal	14.30	155	eP	Pn	15 08 34.2	-0.9
BHPL				AMb	AMB	15 08 40.4	
	comp=Z,176nm,0.4s						
BHPL				ex	x	15 11 05.5	
ALBI	Allahabad	14.47	137	eP	Pn	15 08 36.0	-1.2
ALBI				ex	x	15 10 54.5	
BHV	Bhavnagar	14.70	176	eP	Pn	15 08 41.0	+1.0
WMQ	Urumqi	14.72	55	P	Pn	15 08 40.0	-0.2
WMQ				XP		15 09 29.3	
WMQ				S	Sn	15 11 18.1	-6.4
WMQ				AMB	AMB		
	comp=Z,65nm,0.8s						
DMN	Daman	14.86	122	eP	Pn	15 08 42.2	+0.2
	comp=Z,714nm,0.6s						
DMN				eS	Sn	15 11 19.3	-8.7
KKN	Kakani	14.86	122	eP	Pn	15 08 41.3	-0.7
	comp=Z,338nm,0.5s						
KKN				eS	Sn	15 11 19.2	-8.9
PKI	Pulchoki	15.09	122	eP	Pn	15 08 45.0	+0.2
	comp=Z,574nm,0.6s						
PKI				eS	S	15 11 24.2	-8.4
AB31	Akbulak array	15.11	331	⇓Pn	Pn	15 08 42.2	-2.7
	comp=Z,81nm,0.6s,baz=144,slow=12,SNR=736						
AB31				⇑Sn	Sn	15 11 19.8	-14
	comp=Z,24nm,0.4s,baz=142,slow=24,SNR=5.3						
GUN	Gumba	15.20	120	eP	Pn	15 08 46.5	+0.3
	comp=Z,230nm,0.4s						
GUN				eS	S	15 11 27.3	-7.9
KURK	Kurchatov	15.27	19	⇑Pn	Pn	15 08 43.0	-3.7
	comp=Z,18nm,1.0s						
KURK	Kurchatov	15.27	19	eP	Pn	15 08 43.5	-3.2
	comp=Z,44nm,0.9s						
KURK	Kurchatov	15.27	19	⇓iP	Pn	15 08 43.6	-3.1
JBP	Jabalpur	15.36	147	⇓iP	Pn	15 08 47.9	-0.3
JBP				ex	x	15 08 52.9	
	comp=Z,85nm,0.4s						
JBP				i x	x	15 11 27.7	
JIRN	Jiri	15.57	120	eP	Pn	15 08 51.1	+0.4
	comp=Z,833nm,0.4s						
JIRN				eS	S	15 11 35.3	-8.3
BANOM	Banah	16.36	234	P	Pn	15 08 59.3	-1.0
	SNR=31						
AKL	Akola	16.56	160	eP	Pn	15 09 02.8	+0.2
AKL				ex	x	15 09 20.6	
	comp=Z,255nm,1.1s						
AKL				i x	x	15 11 59.8	
BRVK	Borovoye	16.60	358	eP	Pn	15 09 01.0	-1.8
	comp=Z,114nm,0.6s						
BRVK	Borovoye	16.60	358	eP	Pn	15 09 01.0	-1.8
BRVK				pmax	pmax		
	comp=Z,114nm,0.6s						
NGP	Nagpur	16.80	153	⇑iP	Pn	15 09 05.8	+0.3
NGP				AMb	AMB	15 09 06.6	
	comp=Z,46nm,0.4s						
NGP				ex	x	15 12 02.5	
AKTK	Aktyubinsk	16.81	330	P	Pn	15 09 04.3	-1.0
AKTK				S	S	15 12 03.2	-6.7
AKTO	Aktyubinsk	16.81	330	P	Pn	15 09 04.3	-1.0
AKTO				S	S	15 12 03.2	-6.7
AKTO				pmax	pmax		
	comp=Z,24nm,0.3s						
AKTO	Aktyubinsk	16.81	330	P	Pn	15 09 04.3	-1.0
	comp=Z,24nm,0.3s,baz=142,slow=10,SNR=744						
AKTO				S	S	15 12 03.2	-6.7
	comp=Z,0.4nm,0.3s,baz=11,slow=21,SNR=3.6						
TAPN	Taplejung	16.83	118	eP	Pn	15 09 06.8	+0.9
	comp=Z,191nm,0.3s						
TAPN				eS	S	15 12 04.2	-6.6
ODAN	Odare	16.91	120	eP	Pn	15 09 07.3	+0.6
	comp=Z,252nm,0.5s						
ODAN				eS	S	15 12 06.1	-6.2
BLSP	Bilaspur	17.25	143	eP	Pn	15 09 10.6	-0.3
BLSP				AMb	AMB	15 09 16.2	
	comp=Z,81nm,1.2s						
BLSP				ex	x	15 12 11.4	
ASHO	Ashiyiah	17.39	232	P	Pn	15 09 11.4	-1.0
	SNR=40						
BOM	Bombay	17.57	174	eP	Pn	15 09 04.2	-10
BOM				eS	S	15 12 17.2	-8.6
BOK	Bokaro	18.01	130	eP	P	15 09 18.6	+1.0
BOK				AMb	AMB	15 09 25.3	
	comp=Z,84nm,1.0s						
BOK				i x	x	15 12 13.7	
POO	Poona	18.04	171	eP	P	15 09 18.4	+0.4
POO				AMb	AMB	15 09 22.5	
	comp=Z,18nm,0.4s						
POO				ex	x	15 12 56.7	
LSA	Lhasa	18.17	106	P	P	15 09 24.0	+4.6
LSA				AMB	AMB		
	comp=Z,10.0nm,0.9s						
LSA	Lhasa	18.17	106	eP	P	15 09 23.4	+4.0
	comp=Z,115nm,0.8s						
LSA	Lhasa	18.17	106	eP	P	15 09 23.4	+4.0
LSA				pmax	pmax		
	comp=Z,115nm,0.8s						
LATR	Latur	18.64	163	eP	P	15 09 24.0	-0.5
KAD	Karad	19.29	171	eP	P	15 09 32.7	+1.1
KAD				ex	x	15 13 10.5	
ZAL	Zalesovo	19.93	24	P	P	15 09 38.6	+0.4
ZAL				S	S	15 13 09.3	-2.5
ZALV	Zalesovo Beam	19.95	24	P	P	15 09 38.6	+0.2
	comp=Z,166nm,0.5s,baz=221,slow=11,SNR=669						
ZALV				S	S	15 13 09.3	-2.8
	comp=Z,25nm,0.8s,baz=214,slow=19,SNR=6.0						
HYB	Hyderabad	20.12	159	eP	P	15 09 41.5	+1.0
	comp=Z,95nm,1.0s						
HYB				eS	S	15 13 17.0	+1.0
HYB	Hyderabad	20.12	159	eP	P	15 09 41.5	+1.0
HYB				eS	S	15 13 17.0	+1.0
HYB				pmax	pmax		
	comp=Z,95nm,1.0s						
HYB	Hyderabad	20.12	159	i P	P	15 09 41.5	+1.0
	comp=Z,95nm,1.0s						
HYB				esP	sP	15 10 40.0	+3.9
HYB				eS	S	15 13 17.0	+1.0
HYB				e		15 13 48.0	
NVS	Novosibirsk	20.22	21	⇑iP	P	15 09 41.0	-0.2
NVS				i		15 10 16.5	
NVS				i PPP		15 10 34.0	
NVS				i S	S	15 13 16.5	-0.8
NVS				i SSS		15 13 54.5	
NVS				pmax	pmax		
	comp=N,52nm,0.6s						
NVS				pmax	pmax		
	comp=E,30nm,0.6s						
NVS				pmax	pmax		
	comp=Z,59nm,0.6s						
NVS				smax			
	comp=N,103nm,1.5s						
NVS				smax			
	comp=E,67nm,1.3s						
DGRG	David-gareji	20.51	292	P	P	15 09 45.5	+1.1
KBD	Kabd	20.86	256	eP	P	15 09 47.8	-0.4
KBD				AMb	AMB	15 09 51.8	
	comp=Z,528nm,0.6s						
MIB	Mutribah	20.87	258	eP	P	15 09 47.9	-0.4
MIB				AMb	AMB	15 09 51.2	
	comp=Z,161nm,0.8s						
QRN	Al-Qurain	20.88	255	eP	P	15 09 47.8	-0.6
QRN				AMb	AMB	15 09 50.6	
	comp=Z,130nm,0.8s						
SHL	Shillong	20.90	115	eP	P	15 09 49.6	+0.9
SHL				eS	S	15 13 34.5	+3.5
MTA	Mtatsminda	20.96	292	P	P	15 09 50.6	+1.3
TBLG	Delisi	21.01	293	P	P	15 09 51.2	+1.5
RDF	Al-Radifah	21.08	256	eP	P	15 09 50.1	-0.6
RDF				AMb	AMB	15 09 53.9	
	comp=Z,163nm,0.8s,mb5.4						
NAY	Al-Naaiem	21.18	257	eP	P	15 09 50.9	-0.8
NAY				AMb	AMB	15 09 54.1	
	comp=Z,74nm,0.8s,mb5.1						
RST	Umm Al-Ruwaisa	21.26	258	eP	P	15 09 51.5	-1.1
RST				AMb	AMB	15 09 54.4	
	comp=Z,113nm,0.7s,mb5.3						
AGT	Agartala	21.48	120	eP	P	15 09 55.0	+0.1
SVE	Sverdlovsk	21.53	344	eP	P	15 09 54.0	-1.0
VIS	Vishakhapatnam	21.62	146	i P	P	15 09 58.0	+1.6
VIS				ex	x	15 10 00.7	
	comp=Z,40nm,1.5s						
VIS				i x	x	15 13 58.5	
ARU	Arti	21.67	341	eP	P	15 09 56.1	-0.4
	comp=Z,66nm,0.9s,mb5.1						
ARU	Arti	21.67	341	⇓iP	P	15 09 56.2	-0.3
ARU				ePPP		15 10 36.4	
ARU				eS	S	15 13 43.7	+0.5
ARU				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.0						
DIGO	Kars	21.95	289	i P	P	15 10 00.9	+1.3
BHD	Baghdad	22.04	270	eP	x	15 09 57.0	
BHD				eS	x	15 13 44.0	
ONI	Oni	22.05	295	P	P	15 10 02.0	+1.5
TUTA	Tutak	22.38	286	i P	P	15 10 05.0	+1.5
MSL	Mosul	22.44	278	e	x	15 10 38.0	
KIV	Kislovodsk	22.80	298	eP	P	15 10 07.3	0.0
	comp=Z,26nm,0.8s,mb4.7						
KIV	Kislovodsk	22.80	298	⇑eP	P	15 10 07.3	0.0
KIV				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.4						
IMP	Imphal	22.86	114	eP	P	15 10 10.0	+2.0
IMP				ex	x	15 11 09.0	
GTA	Gaotai	22.88	74	⇑iP	P	15 10 10.6	+2.5
GTA				AP		15 10 47.6	
GTA				PP		15 10 52.0	
GTA				XP	sP	15 11 06.0	0.0
GTA				PCP	PcP	15 13 53.0	+0.6
GTA				S	S	15 14 07.4	+4.2
GTA				SCP	ScP	15 17 14.7	+2.5
GTA				PCS	PcS	15 17 30.6	-0.9
GTA				AMB	AMB		
	comp=Z,46nm,0.9s,mb4.9						
GTA				AMB	AMB		
	comp=Z,283nm,6.8s						
GTA				LR	LR		
	comp=N,175nm,12.9s						
GTA				LR	LR		
	comp=E,179nm,14.5s						
GTA				LR	LR		
	comp=Z,180nm,10.3s						
MNGI	Mangalore	23.67	171	eP	P	15 10 16.5	+1.0
MNGI				AMb	AMB	15 10 20.1	
	comp=Z,47nm,1.9s,mb4.7						
SOC	Sochi	24.88	296	eP	P	15 10 26.1	-0.1
SOC				e*PP		15 11 08.0	
SOC				e*SP	sP	15 11 29.5	+3.1
SOC				eS	S	15 14 35.8	+0.7
SOC				e*SS	sS	15 15 41.9	-1.2
SOC				pmax	pmax		
	comp=Z,29nm,0.9s,mb4.8						
SOKR	Solikamsk	24.89	343	eP	P	15 10 27.7	+1.6
SOKR				pmax	pmax		
	comp=Z,40nm,1.3s,mb4.8						
MALT	Malatya	25.87	284	eP	P	15 10 36.5	+1.2
	comp=Z,5.8nm,1.1s,mb4.1						
MALT	Malatya	25.87	284	⇑iP	P	15 10 36.4	+1.2
MOY	Mondy	26.14	45	eP	P	15 10 39.4	+2.0
MOY				pmax	pmax		
	comp=Z,19nm,2.0s,mb4.4						
LZH	Lanzhou	26.42	81	⇑P	P	15 10 42.5	+2.3
LZH				AP	pP	15 11 20.7	+2.2
LZH				PP	PP	15 11 34.5	-9.2
LZH				XP	sP	15 11 43.2	+2.8
LZH				PCP	PcP	15 14 02.6	+2.2
LZH				S	S	15 14 59.0	-0.5
LZH				XS	sS	15 16 06.5	-1.6
LZH				SS	SS	15 16 26.4	-32
LZH				SCP	ScP	15 17 24.7	+2.5
LZH				AMB	AMB		
	comp=Z,33nm,1.4s,mb4.8						
LZH				AMB	AMB		
	comp=Z,178nm,5.2s						
LZH	Lanzhou	26.42	81	⇑P	P	15 10 42.5	+2.3
	comp=Z,33nm,1.4s,mb4.8						
LZH				pP	pP	15 11 20.7	+2.2
LZH				PP	PP	15 11 34.5	-9.2
LZH				sP	sP	15 11 43.2	+2.8
LZH				PcP	PcP	15 14 02.6	+2.2
LZH				S	S	15 14 59.0	-0.5
LZH				sS	sS	15 16 06.5	-1.6
LZH				SS	SS	15 16 26.4	-32
LZH				ScP	ScP	15 17 24.7	+2.5
LZH	Lanzhou	26.42	81	⇑P	P	15 10 42.5	+2.3
LZH				*PP	pP	15 11 20.7	+2.2
LZH						15 11 34.5	
LZH				*SP	sP	15 11 43.2	+2.8
LZH						15 14 02.6	
LZH				S	S	15 14 59.0	-0.5
LZH				*SS	sS	15 16 06.5	-1.6
LZH				SS	SS	15 16 26.4	-32
LZH				pmax	pmax		
	comp=Z,33nm,1.4s,mb4.8						
KOD	Kodaikanal	26.76	166	eP	P	15 10 43.9	+0.5
KOD				AMb	AMB	15 10 46.3	
	comp=Z,50nm,0.6s,mb5.3						
VRSR	Storozhevoye	27.01	313	eP	P	15 10 45.4	+0.2
VRSR				e	pP	15 11 24.3	+0.7
VRSR				pmax	pmax		
	comp=N,3.0nm,0.9s						
VRSR				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.1						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.0s						
ZAK	Zakamensk	27.02	49	eP	P	15 10 46.5	+1.2
ZAK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.4						
TLY	Talaya	27.67	46	eP	P	15 10 53.3	+2.2
TLY				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
CD2	Chengdu	27.74	92	eP	P	15 10 53.3	+1.4
CD2				AP	pP	15 11 31.9	+1.4
CD2				PP	PP	15 11 50.5	-7.9
CD2				XP	sP	15 11 54.0	+1.7
CD2				S	S	15 15 20.6	+0.3
CD2				XS	sS	15 16 28.9	-0.2
CD2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.3						
CD2				AMB	AMB		
	comp=Z,130nm,6.4s						
SONM	Songino Array	28.36	55	P	P	15 10 58.9	+1.6
SONM				pmax	pmax		
	comp=Z,15nm,0.7s						
SONM	Songino Array	28.36	55	P	P	15 10 58.9	+1.6
	comp=Z,15nm,0.7s,mb4.8,baz=260,slow=9.3,SNR=129						
AVNT	Avonos	28.60	286	i P	P	15 11 00.5	+0.9
SIM	Simferopol’	29.01	299	P	P	15 11 04.5	+1.5
SIM				e*PP	pP	15 11 41.0	-0.8
SIM				pmax	pmax		
	comp=Z,24nm,1.1s,mb4.8						
MMAI	Mount Meron Ar	29.35	274	PcP	PcP	15 14 07.8	+0.1
	comp=Z,2.2nm,0.8s,baz=101,slow=3.5,SNR=5.2						
KMI	Kunming	29.39	104	P	P	15 11 08.5	+1.8
KMI				AP	pP	15 11 45.9	+0.5
KMI				XP	sP	15 12 09.1	+1.9
KMI				PP	PP	15 12 12.2	-4.7
KMI				S	S	15 15 46.7	+0.3
KMI				XS	sS	15 16 55.7	+0.4
KMI				SS	SS	15 17 35.3	-24
KMI				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.8						
KMI				LR	LR		
	comp=N,111nm,11.5s						
KMI				LR	LR		
	comp=E,111nm,13.8s						
KMI				LR	LR		
	comp=Z,78nm,15.4s						
KMI	Kunming	29.39	104	P	P	15 11 08.5	+1.8
	comp=Z,10.0nm,0.5s,mb4.8						
KMI				pP	pP	15 11 45.9	+0.5
KMI				sP	sP	15 12 09.1	+1.9
KMI				PP	PP	15 12 12.2	-4.7
KMI				S	S	15 15 46.7	+0.3
KMI				sS	sS	15 16 55.7	+0.4
KMI				SS	SS	15 17 35.3	-24
KMI				LR	LR		
	comp=Z,80nm,15.4s						
KMI	Kunming	29.39	104	P	P	15 11 08.5	+1.8
KMI				*PP	pP	15 11 45.9	+0.5
KMI				*SP	sP	15 12 09.1	+1.9
KMI						15 12 12.2	
KMI				S	S	15 15 46.7	+0.3
KMI				*SS	sS	15 16 55.7	+0.4
KMI				SS	SS	15 17 35.3	-24
KMI				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.8						
KMI				MLR	MLR		
	comp=Z,80nm,15.4s						
BR131	Keskin Array S	29.44	288	P	P	15 11 07.5	+0.6
	comp=Z,2.7nm,0.6s,mb4.2						
BRTR	Keskin Array B	29.44	288	P	P	15 11 07.4	+0.5
BRTR				*PP	pP	15 11 47.0	+1.3
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRTR	Keskin Array B	29.44	288	P	P	15 11 07.3	+0.4
	comp=Z,2.5nm,0.7s,mb4.0,baz=93,slow=7.4,SNR=18						
BRTR				pP	pP	15 11 47.0	+1.3
	comp=Z,1.8nm,0.7s,baz=83,slow=10,SNR=3.6						
PRGR	Permogore	29.80	336	⇓iP	P	15 11 09.6	-0.2
PRGR				eS	S	15 15 48.8	-3.2
OBN	Obninsk	29.96	319	eP	P	15 11 11.5	+0.2
OBN				i *PP	pP	15 11 50.6	+0.5
OBN				e		15 12 08.4	
OBN				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.1						
CHG	Chiang Mai	30.21	118	⇓P	P	15 11 15.9	+2.0
	comp=Z,18nm,0.6s,mb5.0						
CHTO	Chiang Mai	30.21	118	eP	P	15 11 12.7	-1.2
	comp=Z,13nm,0.8s,mb4.7						
CHTO	Chiang Mai	30.21	118	eP	P	15 11 12.7	-1.2
CHTO				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.7						
PALK	Pallekele	30.38	161	eP	P	15 11 16.8	+1.4
	comp=Z,33nm,1.0s,mb5.0						
CM31	Chiang Mai Arr	30.44	119	eP	P	15 11 15.8	-0.2
	comp=Z,17nm,0.7s,mb4.9						
SGKT	Sivrigoynuk	30.57	290	i P	P	15 11 17.6	+0.7
XAN	Xi’an	30.94	83	P	P	15 11 21.6	+1.4
XAN				AMB	AMB		
	comp=Z,61nm,0.8s,mb5.4						
BDT	Bhumibol Dam	31.30	120	P	P	15 11 25.5	+2.0
	comp=Z,16nm,1.0s,mb4.7						

ESKT	**Eskisehir**	31.60	288	i P	P	**15 11 22.2**	**-3.7**
HHC	**Hu-ho-hao-te**	31.78	70	eP	P	**15 11 27.8**	**+0.3**
HHC				AP	pP	15 12 07.2	+0.8
HHC				XP	sP	15 12 29.2	+1.0
HHC				PP	PP	15 12 41.0	-2.1
HHC				PCP	PcP	15 14 14.7	+0.8
HHC				S	S	**15 16 22.8**	**-0.6**
HHC				XS	sS	15 17 33.1	+0.6
HHC				SCP	ScP	15 17 38.4	-0.8
HHC				PCS	PcS	15 17 58.6	0.0
HHC				SS	SS	15 18 29.0	-19
HHC				SCS	ScS	15 21 35.8	-2.0
HHC				AMB	AMB		
	comp=Z,8.0nm,0.5s,mb4.7						
HHC				AMB	AMB		
	comp=Z,122nm,4.3s						
HHC				LR	LR		
	comp=N,198nm,14.2s						
HHC				LR	LR		
	comp=E,185nm,15.2s						
HHC				LR	LR		
	comp=Z,211nm,14.2s						
GYA	**Guiyang**	31.86	98	⇑iP	P	**15 11 30.2**	**+1.8**
GYA				AP	pP	15 12 09.3	+2.0
GYA				XP	sP	15 12 31.3	+2.2
GYA				PP	PP	15 12 43.2	-1.0
GYA				PCP	PcP	15 14 14.1	-0.3
GYA				S	S	**15 16 25.2**	**+0.2**
GYA				XS	sS	15 17 34.9	+0.8
GYA				SCP	ScP	15 17 40.5	+0.7
GYA				PCS	PcS	15 17 59.9	+0.5
GYA				SS	SS	15 18 31.5	-18
GYA				SCS	ScS	15 21 37.6	-1.1
GYA				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.2						
GYA				AMB	AMB		
	comp=Z,230nm,6.6s						
GYA				LR	LR		
	comp=N,480nm,17.9s						
GYA				LR	LR		
	comp=E,440nm,16.6s						
GYA				LR	LR		
	comp=Z,360nm,16.4s						
KIS	**Kishinev**	32.83	302	eP	P	**15 11 35.0**	**-1.5**
KIS				e	pP	15 12 15.0	-0.6
ULDT	**Uludag**	32.84	289	i P	P	**15 11 35.0**	**-1.6**
AKASG	**Malin Array Be**	32.97	309	P	P	**15 11 36.9**	**-0.7**
AKASG				pP	pP	15 12 16.9	+0.2
AKASG				PP	PP	15 12 53.5	-2.5
AKASG	**Malin Array Be**	32.97	309	P	P	**15 11 36.9**	**-0.7**
AKASG				*PP	pP	15 12 16.9	+0.2
AKASG						15 12 53.5	
AKASG				pmax	pmax		
	comp=Z,27nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,7.0nm,0.7s						
AKASG	**Malin Array Be**	32.97	309	P	P	**15 11 36.9**	**-0.7**
	comp=Z,27nm,0.6s,mb5.1,baz=81,slow=7.1,SNR=173						
AKASG				pP	pP	15 12 16.9	+0.2
	comp=Z,5.2nm,0.6s,baz=88,slow=7.3,SNR=3.1						
AKASG				PP	PP	15 12 53.5	-2.5
	comp=Z,6.7nm,0.7s,baz=94,slow=13,SNR=5.1						
AKBB	**Malin Array Si**	32.97	309	eP	P	**15 11 37.0**	**-0.6**
KIEV	**Kiev**	32.97	309	eP	P	**15 11 36.9**	**-0.8**
	comp=Z,23nm,0.6s,mb5.1						
KIEV	**Kiev**	32.97	309	eP	P	**15 11 36.9**	**-0.8**
KIEV				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.1						
NST	**Nakhon Sawan**	33.16	121	P	P	**15 11 41.6**	**+1.9**
	comp=Z,58nm,0.7s,mb5.4						
CIT	**Chita**	33.68	49	⇑iP	P	**15 11 44.7**	**+0.9**
CIT				e	pP	15 12 26.4	+3.4
CIT				pmax	pmax		
	comp=Z,67nm,1.3s,mb5.2						
VRI	**Vrincioaia**	34.24	300	⇑P	P	**15 11 50.1**	**+1.4**
VRI	**Vrincioaia**	34.24	300	⇑iP	P	**15 11 50.2**	**+1.5**
PLOR	**Plostina**	34.30	300	⇓iP	P	**15 11 51.0**	**+1.8**
MNK	**Minsk**	34.55	315	eP	P	**15 11 49.0**	**-2.2**
KKTK	**Khon Kaen**	34.61	117	P	P	**15 11 54.0**	**+1.8**
	comp=Z,679nm,0.6s						
MLR	**Muntele Rosu**	34.80	299	⇓P	P	**15 11 55.3**	**+1.9**
MLR	**Muntele Rosu**	34.80	299	⇓iP	P	**15 11 55.3**	**+1.8**
BURAR	**Bucovina Array**	35.30	303	⇑iP	P	**15 11 58.2**	**+0.4**
BJI	**Beijing**	35.37	70	P	P	**15 11 57.2**	**-1.3**
BJI				AMB	AMB		
	comp=Z,16nm,0.7s,mb4.8						
BOD	**Bodaibo**	35.38	39	eP	P	**15 11 58.3**	**0.0**
BOD				e	pP	15 12 40.1	+2.3
BOD				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.5						
BOD				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.6						
VOIR		35.43	299	⇓P	P	**15 11 59.5**	**+0.7**
VOIR		35.43	299	⇓iP	P	**15 11 59.5**	**+0.6**
JOF	**Joensuu**	35.90	330	ep	P	**15 12 01.9**	**-0.7**
	comp=Z,24nm,0.5s,mb5.1						
JOF	**Joensuu**	35.90	330	eP	P	**15 12 01.9**	**-0.7**
JOF				pmax	pmax		
	comp=Z,24nm,0.5s,mb5.1						
LVV	**L'vov**	36.18	307	⇓iP	P	**15 12 05.1**	**-0.1**
LVV				e		15 14 32.9	
LVV				i S	S	**15 17 33.3**	**+2.5**
LVV				e*SS	sS	15 18 47.7	+7.0
WHN	**Wuhan**	36.40	86	⇑P	P	**15 12 09.3**	**+2.0**
WHN				PCP	PcP	15 14 26.8	-0.6
WHN				AMB	AMB		
	comp=Z,71nm,1.0s,mb5.2						
DRGR		37.01	302	⇓P	P	**15 12 13.3**	**+1.1**
DRGR		37.01	302	⇓iP	P	**15 12 13.4**	**+1.1**
KWP	**Kalwaria**	37.03	306	eP	P	**15 12 13.4**	**+1.0**
SUW	**Suwalki**	37.14	314	eP	P	**15 12 13.2**	**-0.1**
UZH	**Uzhgorod**	37.28	305	eP	P	**15 12 15.0**	**+0.5**
UZH				i		15 13 18.7	
KOLS	**Kolonicke sedl**	37.29	305	eP	P	**15 12 15.1**	**+0.5**
KOLS				e	pP	15 12 55.3	+0.9
KOLS				ePP	PP	15 13 44.7	+1.1
KOLS	**Kolonicke sedl**	37.29	305	eP	P	**15 12 15.1**	**+0.5**
KOLS				epP	pP	15 12 55.3	+0.9
KOLS				ePP	PP	15 13 44.7	+1.1
HIA	**Hailar**	37.32	54	eP	P	**15 12 15.0**	**+0.1**
	comp=Z,6.5nm,0.7s,mb4.4						
HIA	**Hailar**	37.32	54	eP	P	**15 12 15.0**	**+0.2**
HIA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
FINES	**FINESS Array B**	37.51	326	P	P	**15 12 16.5**	**+0.2**
FINES				pP	pP	15 12 56.6	+0.5
FINES				sP	sP	15 13 18.5	+0.8
FINES				PP	PP	15 13 45.1	-0.7
FINES	**FINESS Array B**	37.51	326	P	P	**15 12 16.5**	**+0.2**
FINES				*PP	pP	15 12 56.6	+0.5
FINES				*SP	sP	15 13 18.5	+0.8
FINES						15 13 45.1	
FINES				pmax	pmax		
	comp=Z,11nm,0.7s						
FINES				pmax	pmax		
	comp=Z,5.0nm,0.7s						
FINES				pmax	pmax		
	comp=Z,10.0nm,0.9s						
FINES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
FINES	**FINESS Array B**	37.51	326	P	P	**15 12 16.5**	**+0.3**
	comp=Z,11nm,0.7s,mb4.6,baz=118,slow=8.8,SNR=64						
FINES				pP	pP	15 12 56.6	+0.5
	comp=Z,4.9nm,0.7s,baz=119,slow=12,SNR=3.0						
FINES				sP	sP	15 13 18.5	+0.8
	comp=Z,9.6nm,0.9s,baz=111,slow=10,SNR=3.4						
FINES				PP	PP	15 13 45.1	-0.7
	comp=Z,3.9nm,0.6s,baz=116,slow=8.7,SNR=4.4						
KAF	**Kangasniemi**	37.66	327	ep	P	**15 12 17.0**	**-0.5**
	comp=Z,9.4nm,0.7s,mb4.5,baz=111,slow=8.5						
KAF	**Kangasniemi**	37.66	327	eP	P	**15 12 17.0**	**-0.5**
KAF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.5						
BZS	**Buzias**	37.83	300	⇓P	P	**15 12 20.1**	**+0.9**
BZS	**Buzias**	37.83	300	⇓iP	P	**15 12 20.1**	**+1.0**
CRVS	**Cervenica-Dubn**	37.83	305	eP	P	**15 12 19.1**	**0.0**
CRVS				epP	pP	15 12 59.1	+0.1
CRVS				ePP	PP	15 13 48.2	-1.3
STHS	**Stebnicka Huta**	37.98	306	eP	P	**15 12 20.8**	**+0.5**
	comp=Z,6.1nm,0.7s,mb4.3						
STHS				e		15 14 04.9	
STHS	**Stebnicka Huta**	37.98	306	eP	P	**15 12 20.8**	**+0.5**
STHS				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.3						
QIZ	**Qiongzhong**	38.21	106	P	P	**15 12 21.8**	**-0.9**
QIZ				AP	pP	15 12 59.8	-2.8
QIZ				S	S	**15 18 01.9**	**-0.2**
QIZ				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.4						
QIZ				AMB	AMB		
	comp=Z,81nm,5.9s						
KECS	**Kecovo**	38.48	304	eP	P	**15 12 24.8**	**+0.3**
	comp=Z,4.0nm,0.8s,mb4.1						
KECS				e	pP	15 13 01.1	-3.4
KECS				ePP	PP	15 13 54.6	-1.9
KECS	**Kecovo**	38.48	304	eP	P	**15 12 24.8**	**+0.3**
KECS				e	pP	15 13 01.1	-3.4
KECS				e		15 13 54.6	
KECS				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
NIE	**Niedzica**	38.58	306	⇓iP	P	**15 12 26.7**	**+1.3**
GZH	**Guangzhou**	38.80	98	P	P	**15 12 27.2**	**-0.3**
PSZ	**Piszkesteto**	38.89	304	P	P	**15 12 27.9**	**-0.1**
	comp=Z,4.4nm,0.8s,mb4.1						
PSZ	**Piszkesteto**	38.89	304	P	P	**15 12 27.9**	**-0.1**
PSZ				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
OJC	**Ojcow**	38.92	307	eP	P	**15 12 28.5**	**+0.3**
VYHS	**Vyhne**	39.58	304	eP	P	**15 12 34.0**	**+0.4**
	comp=Z,6.3nm,1.4s,mb4.0						
VYHS				e	pP	15 13 15.6	+1.8
VYHS				ePP	PP	15 14 13.5	+5.1
VYHS	**Vyhne**	39.58	304	eP	P	**15 12 34.0**	**+0.4**
VYHS				e	pP	15 13 15.6	+1.8
VYHS				e		15 14 13.5	
VYHS				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.0						
DL2	**Dalian**	39.73	71	P	P	**15 12 37.1**	**+2.0**
DL2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.0						
PKSM	**Moragy**	39.85	301	⇑P	P	**15 12 36.3**	**+0.4**
PKSM	**Moragy**	39.85	301	⇑iP	P	**15 12 36.3**	**+0.4**
OKC	**Ostrava-Krasne**	39.99	307	eP	P	**15 12 37.6**	**+0.6**
OKC				epP	pP	15 13 12.7	-4.6
MORC	**Moravsky Berou**	40.38	306	eP	P	**15 12 40.5**	**+0.2**
	comp=Z,15nm,0.9s,mb4.6						
MORC	**Moravsky Berou**	40.38	306	⇑iP	P	**15 12 40.8**	**+0.6**
SMOL	**Smolenice**	40.51	305	eP	P	**15 12 42.2**	**+0.9**
GKP	**Gorka Klasztor**	40.59	312	eP	P	**15 12 42.3**	**+0.4**
SNY	**Shenyang**	40.61	66	⇑P	P	**15 12 43.0**	**+0.8**
SNY				AMB	AMB		
	comp=Z,16nm,0.7s,mb4.8						
MODS	**Modra-Piesok**	40.62	304	eP	P	**15 12 42.1**	**-0.1**
	comp=Z,4.7nm,1.2s,mb4.0						
MODS				e	pP	15 13 22.1	-0.5
MODS				ePP	PP	15 14 26.6	+6.9
MODS	**Modra-Piesok**	40.62	304	eP	P	**15 12 42.1**	**-0.1**
MODS				e	pP	15 13 22.1	-0.5
MODS				e		15 14 26.6	
MODS				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.0						
ZST	**Bratislava**	40.74	304	eP	P	**15 12 43.6**	**+0.4**
	comp=Z,5.8nm,0.7s,mb4.3						
ZST	**Bratislava**	40.74	304	eP	P	**15 12 43.6**	**+0.4**
ZST				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.3						
KEV	**Kevo**	40.84	338	ep	P	**15 12 42.6**	**-1.1**
	comp=Z,10nm,0.5s,mb4.7						
KEV	**Kevo**	40.84	338	eP	P	**15 12 42.6**	**-1.1**
KEV				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.7						
VRAC	**Vranov**	41.02	306	⇑P	P	**15 12 46.0**	**+0.5**
VRAC	**Vranov**	41.02	306	⇑iP	P	**15 12 46.0**	**+0.6**
DPC	**Dobruska-Polom**	41.15	307	eP	P	**15 12 47.3**	**+0.8**
DPC				epP	pP	15 13 27.9	+0.9
ARCES	**ARCESS Array B**	41.18	338	P	P	**15 12 47.0**	**+0.5**
ARCES				pP	pP	15 13 27.7	+0.7
ARCES	**ARCESS Array B**	41.18	338	P	P	**15 12 47.0**	**+0.5**
ARCES				*PP	pP	15 13 27.7	+0.8
ARCES				pmax	pmax		
	comp=Z,23nm,0.6s						
ARCES				pmax	pmax		
	comp=Z,17nm,0.8s						
ARCES	**ARCESS Array B**	41.18	338	P	P	**15 12 47.0**	**+0.5**
	comp=Z,23nm,0.6s,mb5.0,baz=112,slow=8.3,SNR=126						
ARCES				pP	pP	15 13 27.7	+0.8
	comp=Z,17nm,0.8s,baz=106,slow=8.9,SNR=5.4						
ARE0	**ARCESS Array S**	41.18	338	eP	P	**15 12 46.9**	**+0.4**
KULM	**Kulim**	41.25	132	eP	P	**15 12 48.1**	**+0.3**
UPC	**Upice**	41.34	308	eP	P	**15 12 48.2**	**+0.1**
UPC				ex	x	15 13 11.6	
CONA	**Conrad Observa**	41.60	304	⇓iP	P	**15 12 50.8**	**+0.7**
	comp=Z,21nm,1.1s,mb4.7						
CN2	**Changchun**	41.63	62	eP	P	**15 12 50.1**	**-0.4**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
KTK1	**Kautokeino**	41.65	336	eP	P	**15 12 51.7**	**+1.4**
KTK1	**Kautokeino**	41.65	336	eP	P	**15 12 51.3**	**+1.0**
KTK1				epP	pP	15 13 32.2	+1.4
TREC	**Trest**	41.74	306	eP	P	**15 12 52.0**	**+0.7**
ARSA	**Arzberg**	41.89	303	⇓iP	P	**15 12 52.8**	**+0.3**
	comp=Z,6.4nm,1.2s,mb4.1						
PERS	**Pernice**	42.23	302	eP	P	**15 12 55.7**	**+0.4**
PSI	**Prapat**	42.26	136	P	P	**15 12 56.4**	**+0.5**
PSI				pmax	pmax		
	comp=Z,43nm,0.8s,mb5.1						
PSI	**Prapat**	42.26	136	P	P	**15 12 56.4**	**+0.5**
	comp=Z,43nm,0.8s,mb5.2,baz=322,slow=8.7,SNR=38						
PVCC	**Panska Ves**	42.26	308	eP	P	**15 12 56.4**	**+0.9**
PRU	**Pruhonice**	42.31	307	eP	P	**15 12 56.6**	**+0.7**
BRG	**Berggiesshubel**	42.64	308	i P	P	**15 12 58.9**	**+0.3**
BRG				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.5						
BRG	**Berggiesshubel**	42.64	308	eP	P	**15 12 59.0**	**+0.4**
	comp=Z,20nm,0.9s,mb4.8						
BRG	**Berggiesshubel**	42.64	308	i P	P	**15 12 58.9**	**+0.3**
	comp=Z,20nm,0.9s,mb4.8						
MOA	**Molln**	42.67	304	⇑iP	P	**15 12 58.9**	**0.0**
	comp=Z,14nm,1.1s,mb4.5						
RUE	**Ruedersdorf**	42.68	311	eP	P	**15 12 58.9**	**0.0**
	comp=Z,43nm,1.1s,mb5.0						
GERES	**GERESS Array B**	42.95	305	P	P	**15 13 01.1**	**0.0**
GERES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
GERES	**GERESS Array B**	42.95	305	P	P	**15 13 01.1**	**0.0**
	comp=Z,1.7nm,0.8s,mb3.7,baz=94,slow=8.3,SNR=10						
KHC	**Kasperske Hory**	43.00	306	eP	P	**15 13 01.3**	**-0.2**
KHC				epP	pP	15 13 43.0	+0.7
FBE	**Freiberg**	43.01	308	eP	P	**15 13 01.8**	**+0.3**
	comp=Z,26nm,1.0s,mb4.8						
CLL	**Collm**	43.21	309	i P	P	**15 13 03.2**	**+0.1**
	comp=Z,13nm,0.9s,mb4.6						
CLL				epP	pP	15 13 44.0	+0.1
CLL	**Collm**	43.21	309	i P	P	**15 13 03.2**	**+0.1**
CLL				e*PP	pP	15 13 44.0	+0.1
CLL				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.6						
CLL	**Collm**	43.21	309	eP	P	**15 13 03.1**	**0.0**
	comp=Z,12nm,0.9s,mb4.5						
CLL	**Collm**	43.21	309	i P	P	**15 13 03.2**	**+0.1**
	comp=Z,13nm,0.9s,mb4.6						
CLL				epP	pP	15 13 44.0	+0.1
CLL				e(sP)	sP	15 14 02.0	-3.3
CLL				e(PP)		15 14 44.0	
CLL				i PcP	PcP	15 14 50.1	+1.3
CLL				ex	x	15 14 55.0	
CADS	**Cadrg**	43.23	302	i P	P	**15 13 03.3**	**-0.1**
TRO	**Tromso**	43.30	336	eP	P	**15 13 03.1**	**-0.5**
NKC	**Novy Kostel**	43.64	307	eP	P	**15 13 03.0**	**-3.6**
GUNZ	**Gunzen**	43.70	308	eP	P	**15 13 07.5**	**+0.4**
	comp=Z,16nm,1.1s,mb4.6						
WERD	**Werda**	43.71	308	eP	P	**15 13 07.8**	**+0.7**
	comp=Z,194nm,3.2s						
ROTZ	**Rotzenmuhle**	43.84	307	eP	P	**15 13 08.3**	**+0.2**
	comp=Z,14nm,1.2s,mb4.5						
MOR8	**Moi Rana**	43.85	331	eP	P	**15 13 07.6**	**-0.4**
	comp=Z,63nm,0.6s,mb5.4						
MOR8	**Moi Rana**	43.85	331	eP	P	**15 13 07.6**	**-0.4**
MOR8				AMb	AMB	15 13 08.8	
	comp=Z,63nm,0.7s,mb5.4						
MOR8				epP	pP	15 13 48.7	-0.2
MANZ	**Manzenberg**	43.88	307	eP	P	**15 13 09.2**	**+0.7**
	comp=Z,12nm,1.2s,mb4.4						
YAK	**Yakutsk**	44.00	35	eP	P	**15 13 09.1**	**-0.2**
	comp=Z,74nm,0.7s,mb5.4						
YAK	**Yakutsk**	44.00	35c	iP	P	**15 13 09.9**	**+0.6**
YAK				e		15 14 50.5	
YAK				i		15 14 55.5	
YAK				eS	S	**15 19 25.2**	**-1.3**
YAK				e		15 22 51.7	
YAK				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,1.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,12nm,1.0s						
YAK				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.7						
YAK				pmax	pmax		
	comp=N,33nm,2.4s						
YAK				smax			
	comp=N,100nm,1.6s						
YAK				smax			
	comp=E,100nm,2.1s						
MOX	**Moxa**	44.13	308	eP	P	**15 13 11.0**	**+0.5**
	comp=Z,14nm,1.0s,mb4.5						
MOX				epP	pP	15 13 52.6	+1.1
NB2	**NORSAR Subarra**	44.41	323	P	P	**15 13 11.9**	**-0.6**
	comp=Z,32nm,0.7s,mb5.0,baz=95,slow=7.9						
NOA	**NORSAR Array B**	44.41	323	P	P	**15 13 12.4**	**-0.1**
NOA				*PP	pP	15 13 53.3	-0.2
NOA				pmax	pmax		
	comp=Z,31nm,0.7s						
NOA				pmax	pmax		
	comp=Z,25nm,0.9s						
NOA				MLR	MLR		
	comp=Z,170nm,18.1s						
NOA	**NORSAR Array B**	44.41	323	P	P	**15 13 12.4**	**-0.1**
	comp=Z,31nm,0.7s,mb5.1,baz=96,slow=7.8,SNR=128						
NOA				pP	pP	15 13 53.3	-0.2
	comp=Z,25nm,0.9s,baz=96,slow=8.0,SNR=5.9						
NOA				LR	LR	15 32 24.1	
	comp=Z,170nm,18.1s,baz=300,slow=36						
STOK	**Stokkvaagen**	44.45	331	eP	P	**15 13 13.1**	**+0.4**
	comp=Z,118nm,2.0s,mb5.2						
STOK	**Stokkvaagen**	44.45	331	eP	P	**15 13 13.1**	**+0.4**
STOK				AMb	AMB	15 13 19.1	
	comp=Z,118nm,2.0s,mb5.2						
GRA1	**Grafenberg Arr**	44.48	307	eP	P	**15 13 13.9**	**+0.7**
	comp=Z,81nm,2.0s,mb5.0						
GRA1				epP	pP	15 13 56.2	+1.9
GRF	**Grafenberg Arr**	44.48	307	eP	P	**15 13 13.9**	**+0.7**
GRF				e*PP	pP	15 13 56.2	+1.9
GRF				pmax	pmax		
	comp=Z,81nm,2.0s,mb5.0						
GRF	**Grafenberg Arr**	44.48	307	eP	P	**15 13 13.9**	**+0.7**
GRF				e*PP	pP	15 13 56.2	+1.9
GRF				pmax	pmax		
	comp=Z,81nm,2.0s,mb5.0						
GRF	**Grafenberg Arr**	44.48	307	eP	P	**15 13 13.9**	**+0.7**
	comp=Z,81nm,2.0s,mb5.0						
GRF				epP	pP	15 13 56.2	+1.9
WTTA	**Wattenberg**	44.51	303	⇑iP	P	**15 13 13.7**	**+0.2**
	comp=Z,16nm,1.2s,mb4.5						
WTTA	**Wattenberg**	44.51	303	⇑iP	P	**15 13 13.7**	**+0.1**
WTTA				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.5						
LOF	**Lofoten**	44.67	333	eP	P	**15 13 16.4**	**+1.9**
	comp=Z,156nm,1.5s,mb5.4						
LOF	**Lofoten**	44.67	333	eP	P	**15 13 16.4**	**+1.9**
LOF				AMb	AMB	15 13 19.8	
	comp=Z,156nm,1.5s,mb5.4						
BSEG	**Bad Segeberg**	44.71	313	eP	P	**15 13 15.9**	**+0.9**
BSEG				pmax	pmax		
	comp=Z,27nm,0.8s,mb4.9						
BSEG	**Bad Segeberg**	44.71	313	eP	P	**15 13 15.9**	**+0.9**
	comp=Z,27nm,0.8s,mb4.9						
SQTA	**Sankt Quirin**	44.81	303	⇑iP	P	**15 13 14.8**	**-1.1**
	comp=Z,14nm,1.4s,mb4.4						
SQTA	**Sankt Quirin**	44.81	303	⇑iP	P	**15 13 14.8**	**-1.1**
SQTA				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.4						
CLZ	**Clausthal**	44.81	310	eP	P	**15 13 16.3**	**+0.5**
CLZ				e*PP	pP	15 13 59.5	+2.6
CLZ				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.6						
CLZ	**Clausthal**	44.81	310	eP	P	**15 13 16.3**	**+0.5**
	comp=Z,18nm,1.2s,mb4.6						
CLZ				epP	pP	15 13 59.5	+2.6
MOTA	**Moosalm**	44.86	303	⇓iP	P	**15 13 15.4**	**-0.9**
	comp=Z,7.7nm,1.1s,mb4.2						
MOTA	**Moosalm**	44.86	303	⇓iP	P	**15 13 15.4**	**-0.9**
MOTA				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.3						
KSRS	**Korea Array**	44.90	71	P	P	**15 13 17.1**	**+0.3**
	comp=Z,8.6nm,1.1s,mb4.3,baz=276,slow=7.1,SNR=14						
KSRS				PcP	PcP	15 14 54.5	-0.4
	comp=Z,6.2nm,0.8s,baz=284,slow=3.4,SNR=9.1						
TIXI	**Tiksi**	45.81	22	eP	P	**15 13 23.6**	**+0.2**
	comp=Z,41nm,0.6s,mb5.2						
TIXI				epP	pP	15 14 05.3	+0.7
TIXI	**Tiksi**	45.81	22	eP	P	**15 13 23.7**	**+0.3**
TIXI				e*PP	pP	15 14 06.2	+1.5
TIXI				e		15 14 25.6	
TIXI				pmax	pmax		
	comp=Z,47nm,0.7s,mb5.2						
VLA	**Vladivostok**	46.36	62	i P	P	**15 13 29.1**	**+1.0**
CDF	**Champ du Feu**	47.23	306	eP	P	**15 13 34.1**	**-0.7**
PGF	**Pioggiola**	47.28	297	eP	P	**15 13 34.4**	**-0.9**
	comp=Z,122nm,1.4s,mb5.1						
PGF				epP	pP	15 14 12.4	-4.4
PGF	**Pioggiola**	47.28	297	eP	P	**15 13 34.4**	**-0.9**
	comp=Z,61nm,1.4s,mb5.0						
PGF				epP	pP	15 14 12.4	-4.4
PGF	**Pioggiola**	47.28	297	eP	P	**15 13 34.4**	**-0.9**
PGF				e*PP	pP	15 14 12.4	-4.4
PGF				pmax	pmax		
	comp=Z,61nm,1.4s,mb5.0						
HABR	**Khabarovsk**	47.44	54	eP	P	**15 13 36.4**	**0.0**
HABR				eS	S	**15 20 15.4**	**-0.6**
HABR				e		15 23 08.0	
HABR				eSS	SS	15 23 47.5	+1.6
HABR				pmax	pmax		
	comp=Z,40nm,1.6s,mb4.8						
SPB4	**Spitsbergen Ar**	47.53	347	eP	P	**15 13 37.5**	**+0.8**
HINF	**Hinteralfeld**	47.62	305	eP	P	**15 13 36.9**	**-0.8**
	comp=Z,31nm,1.2s,mb4.5						
HINF				epP	pP	15 14 16.4	-2.9
HINF	**Hinteralfeld**	47.62	305	eP	P	**15 13 36.9**	**-0.8**
	comp=Z,15nm,1.2s,mb4.5						
HINF				epP	pP	15 14 16.4	-2.9
HINF	**Hinteralfeld**	47.62	305	eP	P	**15 13 36.9**	**-0.8**
HINF				e*PP	pP	15 14 16.4	-2.9
HINF				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.5						
MEM	**Membach**	47.68	309	P	P	**15 13 39.3**	**+1.0**
MEM				AP	pP	15 14 20.8	+1.0
WLF	**Walferdange**	47.74	307	P	P	**15 13 39.5**	**+0.8**
WLF				AP	pP	15 14 21.1	+0.8
HAU	**Haudompre**	47.91	305	eP	P	**15 13 38.9**	**-1.1**
	comp=Z,7.3nm,0.5s,mb4.2						
HAU	**Haudompre**	47.91	305	eP	P	**15 13 38.9**	**-1.1**
	comp=Z,3.7nm,0.5s,mb4.3						
HAU	**Haudompre**	47.91	305	eP	P	**15 13 38.9**	**-1.1**
HAU				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.3						
SBF	**Sospel**	48.07	299	eP	P	**15 13 40.4**	**-0.9**
	comp=Z,67nm,1.0s,mb4.9						
SBF	**Sospel**	48.07	299	eP	P	**15 13 40.4**	**-0.9**
	comp=Z,34nm,1.0s,mb4.9						
SBF	**Sospel**	48.07	299	eP	P	**15 13 40.4**	**-0.9**
SBF				pmax	pmax		
	comp=Z,33nm,1.0s,mb4.9						
LPG	**La Plagne**	48.16	302	eP	P	**15 13 41.6**	**-0.4**
	comp=Z,24nm,0.8s,mb4.6						
LPG	**La Plagne**	48.16	302	eP	P	**15 13 41.6**	**-0.4**
	comp=Z,12nm,0.8s,mb4.6						
LPG	**La Plagne**	48.16	302	eP	P	**15 13 41.6**	**-0.4**
LPG				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.6						
LPL	**La Plagne**	48.17	302	eP	P	**15 13 41.6**	**-0.4**
	comp=Z,3.7nm,0.3s,mb4.2						
LPL	**La Plagne**	48.17	302	eP	P	**15 13 41.6**	**-0.4**
	comp=Z,1.9nm,0.3s,mb4.2						
LPL	**La Plagne**	48.17	302	eP	P	**15 13 41.6**	**-0.4**
LPL				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.2						
MBDF	**Montbardon**	48.33	301	eP	P	**15 13 42.7**	**-0.5**
	comp=Z,15nm,0.7s,mb4.5						
MBDF	**Montbardon**	48.33	301	eP	P	**15 13 42.7**	**-0.5**

	comp=Z,7.7nm,0.7s,mb4.4						
MBDF	Montbardon	48.33	301	eP	P	15 13 42.7	-0.5
MBDF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.5						
CABF	La Chapelle	48.37	303	eP	P	15 13 43.0	-0.5
	comp=Z,27nm,0.9s,mb4.6						
CABF	La Chapelle	48.37	303	eP	P	15 13 43.0	-0.5
	comp=Z,14nm,0.9s,mb4.6						
CABF	La Chapelle	48.37	303	eP	P	15 13 43.0	-0.5
CABF				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.6						
JNU	Nakatsue	48.61	75	P	P	15 13 47.1	+1.6
	comp=Z,15nm,0.9s,mb4.6,baz=68,slow=4.8,SNR=6.9						
MEZF	Maizieres J'vi	48.67	306	eP	P	15 13 45.3	-0.5
FRF	La Foret Royal	48.70	299	eP	P	15 13 45.3	-0.8
	comp=Z,34nm,1.1s,mb4.6						
FRF				epP	pP	15 14 23.5	-4.3
FRF	La Foret Royal	48.70	299	eP	P	15 13 45.3	-0.8
	comp=Z,17nm,1.1s,mb4.6						
FRF				epP	pP	15 14 23.5	-4.3
FRF	La Foret Royal	48.70	299	eP	P	15 13 45.3	-0.8
FRF				e*PP	pP	15 14 23.5	-4.3
FRF				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.6						
KMBO	Kilima Mbogo	48.80	228	eP	P	15 13 47.2	0.0
	comp=Z,5.8nm,0.6s,mb4.4						
KMBO	Kilima Mbogo	48.80	228	eP	P	15 13 47.2	0.0
KMBO				pmax	pmax		
	comp=Z,6.0nm,0.6s						
KMBO	Kilima Mbogo	48.80	228	P	P	15 13 48.5	+1.3
	comp=Z,9.6nm,0.6s,mb4.6,baz=33,slow=11,SNR=33						
LMR	La Mourre	48.85	299	eP	P	15 13 46.6	-0.7
ORIF	Oris-en-Rattie	48.90	301	eP	P	15 13 47.0	-0.6
BAIF	Baives	48.91	308	eP	P	15 13 47.3	-0.3
	comp=Z,35nm,1.1s,mb4.6						
BAIF	Baives	48.91	308	eP	P	15 13 47.3	-0.3
	comp=Z,18nm,1.1s,mb4.6						
BAIF	Baives	48.91	308	eP	P	15 13 47.3	-0.3
BAIF				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.6						
KEST	Kesra	49.04	289	P	P	15 13 49.0	+0.2
	comp=Z,2.6nm,0.8s,mb3.9,baz=69,slow=6.2,SNR=6.5						
JOW	Kunigami	49.08	84	P	P	15 13 49.9	+0.6
	comp=Z,9.9nm,0.5s,mb4.7,baz=130,slow=23,SNR=7.9						
SMRF	Simiane la Rot	49.34	300	eP	P	15 13 50.3	-0.7
TGY	Tagaytay City	49.71	103	LR	LR	15 39 39.9	
	comp=Z,4.6nm,19.2s,baz=310,slow=41						
LOR	Lormes	49.71	305	eP	P	15 13 52.8	-0.9
VIVF	Saint-Julien-l	49.74	301	eP	P	15 13 52.8	-1.2
	comp=Z,21nm,0.7s,mb4.5						
VIVF	Saint-Julien-l	49.74	301	eP	P	15 13 52.8	-1.2
	comp=Z,10nm,0.7s,mb4.6						
VIVF	Saint-Julien-l	49.74	301	eP	P	15 13 52.8	-1.2
VIVF				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.6						
SMF	Signal de Mont	49.87	304	eP	P	15 13 54.4	-0.5
	comp=Z,20nm,0.9s,mb4.4						
SMF	Signal de Mont	49.87	304	eP	P	15 13 54.4	-0.5
	comp=Z,9.8nm,0.9s,mb4.4						
SMF	Signal de Mont	49.87	304	eP	P	15 13 54.4	-0.5
SMF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
SSF	Saint Saulge	50.00	304	eP	P	15 13 55.3	-0.6
AVF	Avril sur Loir	50.16	304	eP	P	15 13 56.2	-0.9
	comp=Z,28nm,1.0s,mb4.6						
AVF				epP	pP	15 14 34.5	-4.6
AVF	Avril sur Loir	50.16	304	eP	P	15 13 56.2	-0.9
	comp=Z,14nm,1.0s,mb4.5						
AVF				epP	pP	15 14 34.5	-4.6
AVF	Avril sur Loir	50.16	304	eP	P	15 13 56.2	-0.9
AVF				e*PP	pP	15 14 34.5	-4.6
AVF				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.5						
LASF	Ste Croix	50.51	301	eP	P	15 13 59.1	-0.7
	comp=Z,14nm,0.8s,mb4.3						
TCF	Toulx Ste Croi	51.05	304	eP	P	15 14 03.4	-0.4
CAF	Calviac	51.51	302	eP	P	15 14 06.8	-0.4
	comp=Z,21nm,0.9s,mb4.5						
CAF	Calviac	51.51	302	eP	P	15 14 06.8	-0.4
	comp=Z,11nm,0.9s,mb4.5						
CAF	Calviac	51.51	302	eP	P	15 14 06.8	-0.4
CAF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.5						
MTLF	Montolieu	51.86	300	eP	P	15 14 09.1	-0.7
LDF	La Druitiere	52.00	307	eP	P	15 14 10.3	-0.4
FLN	La Foliniere	52.19	307	eP	P	15 14 11.5	-0.6
GRR	Gorron	52.52	307	eP	P	15 14 14.3	-0.3
GRR				epP	pP	15 14 53.7	-3.2
MFF	Saint Martin d	52.54	305	eP	P	15 14 14.3	-0.4
YSS	Yuzh-Sakhalins	52.85	55	eP	P	15 14 17.9	+0.8
	comp=Z,26nm,1.0s,mb4.9						
YSS	Yuzh-Sakhalins	52.85	55	⇓eP	P	15 14 17.3	+0.3
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.0						
MAT	Matsushiro	52.97	68	P	P	15 14 17.8	-0.3
MJAR	Matsushiro Arr	52.97	68	P	P	15 14 17.5	-0.6
MJAR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
MJAR	Matsushiro Arr	52.97	68	P	P	15 14 17.5	-0.6
	comp=Z,4.1nm,1.0s,mb4.1,baz=289,slow=9.6,SNR=7.2						
EPF	Esparros	53.26	300	eP	P	15 14 19.1	-1.0
	comp=Z,33nm,1.2s,mb4.6						
EPF	Esparros	53.26	300	eP	P	15 14 19.1	-1.0
	comp=Z,16nm,1.2s,mb4.6						
EPF	Esparros	53.26	300	eP	P	15 14 19.1	-1.0
EPF				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.6						
MA2	Magadan	54.40	38	eP	P	15 14 28.2	+0.2
	comp=Z,18nm,1.2s,mb4.7						
MA2				epP	pP	15 15 12.1	+1.5
MA2	Magadan	54.40	38	eP	P	15 14 28.2	+0.2
MA2				e*PP	pP	15 15 12.1	+1.4
MA2				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.7						
SEY	Seymchan	54.45	34	⇑eP	P	15 14 29.2	+0.8
SEY				e*PP	pP	15 15 13.2	+2.2
DAG	Danmarks Havn	54.77	344	⇓iP	P	15 14 31.1	+0.6
	comp=Z,23nm,0.6s,mb5.1						
ESDC	Sonseca Array	57.47	298	P	P	15 14 49.2	-0.9
	comp=Z,3.9nm,0.8s,mb4.3,baz=58,slow=7.7,SNR=17						
ESDC				pP	pP	15 15 32.7	-0.5
	comp=Z,3.5nm,0.8s,baz=60,slow=7.6,SNR=5.0						
BILL	Bilibino	58.64	26	eP	P	15 14 58.6	+0.7
	comp=Z,34nm,1.1s,mb5.1						
BILL	Bilibino	58.64	26	c iP	P	15 14 58.7	+0.8
BILL				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.1						
LSZ	Lusaka	65.42	226	eP	P	15 15 43.8	+0.1
	comp=Z,40nm,1.4s,mb5.0						
LSZ	Lusaka	65.42	226	eP	P	15 15 43.8	+0.2
LSZ				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.1						
TOA0	Torodi Ar. Sit	65.71	269	eP	P	15 15 42.9	-2.7
TORD	Torodi Ar. Bea	65.71	269	P	P	15 15 43.3	-2.3
	comp=Z,7.3nm,0.5s,mb4.8,baz=46,slow=5.6,SNR=62						
TORD				pP	pP	15 16 28.5	-1.4
	comp=Z,3.6nm,0.8s,baz=47,slow=5.8,SNR=2.0						
TNA	Tin City	68.60	23	eP	P	15 16 03.5	+0.5
	comp=Z,12nm,1.1s,mb4.5						
IMA2	Indian Mountai	72.16	18	eP	P	15 16 24.7	+0.2
INK	Inuvik	73.94	9	eP	P	15 16 35.0	+0.1
	comp=Z,998nm,0.8s						
INK				epP	pP	15 17 20.0	-0.1
COLA	College	74.52	16	eP	P	15 16 38.4	0.0
	comp=Z,36nm,0.8s,mb5.0						
COLA				epP	pP	15 17 23.2	-0.4
FITZ	Fitzroy Crossi	74.87	127	⇑iP	P	15 16 41.3	+0.3
	comp=Z,31nm,0.8s,mb5.0						
FITZ				e		15 17 55.4	
LIC	Lamto	75.09	267	eP	P	15 16 40.0	-2.5
	comp=Z,36nm,1.2s,mb4.6						
LIC	Lamto	75.09	267	eP	P	15 16 40.0	-2.5
	comp=Z,18nm,1.2s,mb4.6						
MCK	McKinley	75.24	17	eP	P	15 16 41.7	-0.7
	comp=Z,2.1nm,0.4s,mb4.1						
MCK	McKinley	75.24	17	eP	P	15 16 41.7	-0.8
MCK				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.1						
SVW2	Sparrevohn	75.64	21	eP	P	15 16 45.8	+1.0
KAKA	Kakadu	75.72	118	eP	P	15 16 45.7	-0.2
	comp=Z,35nm,0.7s,mb5.1						
EGAK	Eagle	75.98	14	eP	P	15 16 47.0	+0.3
	comp=Z,7.1nm,0.8s,mb4.3						
DAWY	Dawson	76.96	13	eP	P	15 16 52.3	+0.2
PMR	Palmer	77.00	18	eP	P	15 16 52.3	-0.2
	comp=Z,19nm,1.1s,mb4.6						
PMR				LR	LR		
	comp=Z,500nm,20.0s						
PMR	Palmer	77.00	18	eP	P	15 16 52.3	-0.2
PMR				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.6						
PMR				MLR	MLR		
	comp=Z,500nm,20.0s						
SML	Sawmill	77.02	18	eP	P	15 16 52.3	-0.3
MENT	Mentasta	77.11	15	eP	P	15 16 54.4	+1.4
BOSA	Boshof	77.71	220	eP	P	15 16 56.6	-0.2
	comp=Z,43nm,1.0s,mb5.0						
BOSA	Boshof	77.71	220	P	P	15 16 56.6	-0.2
BOSA				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.0						
BOSA	Boshof	77.71	220	P	P	15 16 56.6	-0.2
	comp=Z,29nm,0.8s,mb5.0,baz=46,slow=5.4,SNR=19						
EYAK	Cordova Ski Ar	78.75	18	eP	P	15 17 02.7	+0.6
EYAK				pP	pP	15 17 47.4	-0.4
KDAK	Kodiak Island	79.23	22	eP	P	15 17 04.9	+0.1
	comp=Z,37nm,1.0s,mb5.0						
KDAK				epP	pP	15 17 48.1	-2.5
MUN	Mundaring	80.17	142	eP	P	15 17 07.8	-2.3
KLBR	Kellerberrin	80.63	141	eP	P	15 17 11.0	-1.5
	comp=Z,79nm,1.9s,mb5.0						
YKA	Yellowknife Ar	81.28	3	P	P	15 17 15.8	+0.2
YKA				*PP	pP	15 18 01.9	+0.2
YKA				pmax	pmax		
	comp=Z,8.0nm,0.4s						
YKA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
YKA	Yellowknife Ar	81.28	3	P	P	15 17 15.8	+0.2
	comp=Z,8.4nm,0.4s,mb4.7,baz=351,slow=5.4,SNR=143						
YKA				pP	pP	15 18 01.9	+0.2
	comp=Z,8.0nm,0.7s,baz=350,slow=5.6,SNR=7.4						
YKA				PKKPbc	PKKPbc	15 35 45.8	-3.5
	comp=Z,0.4nm,0.6s,baz=165,slow=2.2,SNR=7.0						
WRA	Warramunga Arr	81.97	122	P	P	15 17 19.2	-0.7
WRA				pmax	pmax		
	comp=Z,37nm,0.7s						
WRA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
WRA	Warramunga Arr	81.97	122	P	P	15 17 19.2	-0.6
	comp=Z,37nm,0.7s,mb5.1,baz=324,slow=4.9,SNR=516						
WRA				PKKPbc	PKKPbc	15 35 48.7	+0.8
	comp=Z,0.7nm,1.0s,baz=127,slow=2.3,SNR=4.8						
WB2	Warramunga Arr	81.98	122	⇑iP	P	15 17 19.2	-0.7
SCHQ	Schefferville	82.13	337	P	P	15 17 20.2	0.0
	comp=Z,5.8nm,0.8s,mb4.2,baz=29,slow=3.8,SNR=7.8						
SUR	Sutherland	83.02	221	eP	P	15 17 25.8	+0.8
DLBC	Dease Lake	83.83	11	eP	P	15 17 29.6	+0.7
ASAR	Alice Springs	84.24	125	P	P	15 17 30.8	-0.6
ASAR				pmax	pmax		
	comp=Z,33nm,0.7s						
ASAR	Alice Springs	84.24	125	P	P	15 17 30.8	-0.6
	comp=Z,33nm,0.7s,mb5.2,baz=309,slow=5.0,SNR=575						
FCC	Fort Churchill	84.32	352	eP	P	15 17 31.2	-0.1
	comp=Z,41nm,1.5s,mb4.9						
FCC				epP	pP	15 18 17.5	-0.1
FCC	Fort Churchill	84.32	352	eP	P	15 17 31.2	-0.1
FCC				e*PP	pP	15 18 17.5	-0.1
FCC				pmax	pmax		
	comp=Z,41nm,1.5s,mb4.9						
PMG	Port Moresby	84.60	106	⇑eP	P	15 17 33.0	-0.4
PMG	Port Moresby	84.60	106	P	P	15 17 33.2	-0.2
	comp=Z,13nm,1.0s,mb4.6,baz=320,slow=6.6,SNR=6.7						
FORT	Forrest	85.64	134	eP	P	15 17 38.2	0.0
	comp=Z,41nm,0.6s,mb5.3						
CTA	Charters Tower	90.53	115	⇑iP	P	15 18 01.1	-0.6
	comp=Z,16nm,0.6s,mb5.2						
CTA	Charters Tower	90.53	115	⇑iP	P	15 18 01.1	-0.6
CTA				pmax	pmax		
	comp=Z,16nm,0.6s						
CTAO	Charters Tower	90.53	115	eP	P	15 18 01.0	-0.7
	comp=Z,32nm,1.0s,mb5.3						
CTAO	Charters Tower	90.53	115	eP	P	15 18 01.0	-0.7
CTAO				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.3						
EDM	Edmonton	90.61	3	eP	P	15 18 01.6	+0.1
EDM				epP	pP	15 18 49.0	+0.6
ULM	Lac du Bonnet	92.89	352	P	P	15 18 11.6	-0.5
	comp=Z,6.3nm,1.0s,mb4.7,baz=14,slow=6.0,SNR=9.2						
HNR	Honiara	94.69	98	LR	LR	15 59 19.0	
	comp=Z,263nm,20.5s,slow=34						
WALA	Waterton Lakes	94.74	3	eP	P	15 18 21.0	+0.3
	comp=Z,4.6nm,0.8s,mb4.8						
STKA	Stephens Creek	94.77	126	P	P	15 18 19.9	-1.1
	comp=Z,2.9nm,0.6s,mb4.7,baz=324,slow=9.3,SNR=5.1						
AGMN	Agassiz Refuge	94.81	351	eP	P	15 18 20.3	-0.7
	comp=Z,7.0nm,0.9s,mb4.9						
EGMT	Eagleton	95.89	1	eP	P	15 18 26.1	+0.2
	comp=Z,3.3nm,0.9s,mb4.7						
TXAR	Lajitas Array	114.36	355	PP	PP	15 24 35.9	+0.2
	comp=Z,0.4nm,0.8s,baz=336,slow=2.7,SNR=3.6						
VNDA	Vanda	125.46	165	PKP	PKPdf	15 23 56.5	-1.6
VNDA	Vanda	125.46	165	PKIKP	PKPdf	15 23 56.6	-1.6
VNDA				pmax	pmax		
	comp=Z,7.0nm,1.1s						
VNDA	Vanda	125.46	165	PKP	PKPdf	15 23 56.5	-1.6
	comp=Z,7.3nm,1.1s,baz=112,slow=3.0,SNR=7.3						
QSPA	South Pole Qui	126.26	180	ePKPdf	PKPdf	15 23 59.1	-0.5
ROSC	El Rosal	127.65	314	PKP	PKPdf	15 24 03.7	-0.6
ROSC	El Rosal	127.65	314	PKP	PKPdf	15 24 03.7	-0.6
	comp=Z,4.5nm,0.3s,baz=113,slow=11,SNR=6.0						
SIV	San Ignacio	132.96	283	PKP	PKPdf	15 24 13.5	-0.7
SIV	San Ignacio	132.96	283	PKP	PKPdf	15 24 13.5	-0.7
	comp=Z,1.7nm,0.7s,baz=139,slow=3.2,SNR=7.5						
LPAZ	La Paz	138.62	288	ePKPdf	PKPdf	15 24 24.9	+0.2
LPAZ	La Paz	138.62	288	PKIKP	PKPdf	15 24 24.4	-0.3
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LPAZ	La Paz	138.62	288	PKP	PKPdf	15 24 24.4	-0.3
	comp=Z,2.0nm,0.8s,baz=64,slow=1.8,SNR=6.4						
CFAA	Coronel Fontan	146.05	266	PKPbc	PKPbc	15 24 37.4	-1.3
CFAA				pPKPbc	pPKPbc	15 25 27.2	0.0
CFAA	Coronel Fontan	146.05	266	PKPbc	PKPbc	15 24 37.4	-1.3
	comp=Z,1.4nm,0.7s,baz=66,slow=2.4,SNR=33						
CFAA				pPKPbc	pPKPbc	15 25 27.2	0.0
	comp=Z,1.5nm,0.9s,baz=350,slow=2.7,SNR=5.9						
LCO	Las Campanas	147.10	272	ePKPdf	PKPdf	15 24 39.3	0.0
TLL	Tololo Astrono	147.62	270	⇓eP	PKPdf	15 24 40.7	+0.6

IDC **11** *15:23:22.3±1.5, 4.01N×126.83E, h0^{km}, mb3.5/4, mb1 3.7/4, mb1mx3.5/18, mbtmp3.5/4, Error ellipse: s-maj=131.4km s-min=21.3km az=69.0*

ISCJB **11** *15:23:25.2±1.2, 4.1N±0.2×127.0E±0.7, h33^{km}, mb3.5/5, Error ellipse: s-maj=98.3km s-min=16.1km az=162.6*

ISC 11 15:23:27.4±1.2**, 4.1N**±0.2×**127.0E**±0.6**, h35^{km}, n6, σ0^{s}62**/6**,**
mb3.5/5**, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	22.06	184	eP	P	15 28 19.5	+0.2
	4.0nm,1.1s,mb3.8						
WRA	Warramunga Arr	24.91	163	P	P	15 28 46.9	-0.4
	4.5nm,0.8s,mb4.0,baz=343,slow=11,SNR=21						
WB2	Warramunga Arr	24.91	163	eP	P	15 28 46.9	-0.3
ASAR	Alice Springs	28.36	167	P	P	15 29 18.8	+0.5
	0.2nm,0.5s,mb3.0,baz=354,slow=7.5,SNR=6.4						
SONM	Songino Array	47.09	341	P	P	15 31 56.3	+0.5
	0.1nm,0.5s,mb3.0,baz=148,slow=6.9,SNR=3.0						
MKAR	Makanchi Array	57.46	325	P	P	15 33 12.3	-0.5
	0.3nm,0.4s,mb3.6,baz=119,slow=7.9,SNR=14						

BJI **11** *15:34:45.7, 43.50N×127.40W, h10^{km}, mB5.1, mb4.7, Ms4.8, Msz4.4*

ISCJB **11** *15:34:47.7±0.2, 43.55N±0.02×127.27W±0.03, h10^{km}, mb4.3/37, MS4.1/13, Error ellipse: s-maj=3.0km s-min=2.1km az=157.1*

IDC **11** *15:34:47.2±0.9, 43.67N×127.28W, h0^{km}, mb3.9/12, mb1 4.1/17, mb1mx4.0/26, mbtmp3.9/17, ML3.7/5, MS4.1/13, Ms1 4.1/13, ms1mx3.7/30, Error ellipse: s-maj=20.3km s-min=12.0km az=35.0*

GCMT **11** *15:34:48.7±0.4, 43.33N×127.73W, h21^{km}±1^{km}, MW5.0/75, Moment Tensor Solution. s22,c29; s75,c111; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.04±.14; $M_{\theta\theta}$-2.46±.12; $M_{\phi\phi}$2.50±.12; $M_{r\theta}$-0.65±.21; $M_{\theta\phi}$-2.25±.11; $M_{\phi r}$0.58±.21; Best double couple: $M_0$3.45700×10^{16} NP1:ϕ_s24.00000°, δ76.00000°, λ4.00000°. NP2: ϕ_s293.00000°, δ86.00000°, λ166.00000°. Principal axes: T 3.5370, Plg12.0000°, Azm248.0000°; N -0.1590, Plg76.0000°, Azm98.0000°; P -3.3770, Plg7.0000°, Azm340.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC **11** *15:34:48.7±0.4, 43.48N×127.36W, h10^{km}, mb4.5/24 Error ellipse: s-maj=5.7km s-min=3.6km az=211.0*

MOS **11** *15:34:50.7±0.9, 43.64N×127.31W, h33^{km}, mb4.6/13, Error ellipse: s-maj=7.0km s-min=6.2km az=128.0*

ISC 11 15:34:49.6±0.2**, 43.57N**±0.02×**127.32W**±0.03**, h10^{km}, n375,**
σ1^{s}00/385**, mb4.3**/37**, MS4.1**/13**, 93C-91D, Off coast of Oregon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
K01A	Sixes	2.22	109	⇑P	Pn	15 35 22.6	-3.8
	baz=2.5,SNR=10.0						
K01A				⇑S	Sn	15 35 49.5	-4.3
	baz=2.5						
KEBM	Edson Butte	2.29	107	⇑iPn	Pn	15 35 24.1	-3.3
KEBM				eS	Sn	15 35 48.6	-7.0
I02A	Mapleton	2.56	79	P	Pn	15 35 29.2	-1.8
	baz=3.0,SNR=220						
I02A				⇑S	Sn	15 36 00.9	-1.4
	baz=3.0						
RNO	Roman Nose	2.61	81	P	Pn	15 35 30.3	-1.5
H02A	Toledo	2.63	64	⇓P	Pn	15 35 30.8	-1.3
	baz=3.1,SNR=161						
J02A	Umpqua	2.73	93	P	Pn	15 35 31.1	-2.3
	baz=3.1,SNR=464						
J02A				⇑S	Sn	15 36 05.2	-1.3
	baz=3.1						
K02A	Glendale	2.91	105	P	Pn	15 35 33.4	-2.5
	baz=3.2,SNR=76						
K02A				⇑S	Sn	15 36 08.5	-2.4
	baz=3.2						
I03A	Eugene	2.95	81	⇑P	Pn	15 35 35.1	-1.4
	baz=3.4,SNR=1000						
DBO	Dodson Butte	3.01	97	P	Pn	15 35 35.1	-2.1
HEBO	Mount Hebo	3.04	56	P	Pn	15 35 37.0	-0.6
COR	Corvallis	3.06	69	ePn	Pn	15 35 37.0	-1.0
HSO	Harness Mounta	3.07	89	P	Pn	15 35 36.5	-1.6
L02A	Cave Junction	3.08	116	⇑P	Pn	15 35 36.2	-2.0
	baz=3.3						
L02A				⇓S	Sn	15 36 12.8	-2.1
	baz=3.3						
H03A	Soap Creek Ran	3.10	68	⇓P	Pn	15 35 37.4	-1.2
	baz=3.6,SNR=604						
EUO	Eugene	3.11	80	P	Pn	15 35 37.6	-1.0
J03A	Ideyld Park	3.17	92	P	Pn	15 35 37.6	-1.9
	baz=3.5,SNR=163						
J03A				⇓S	Sn	15 36 16.7	-0.7
	baz=3.5						
HUMO	Hull Mountain	3.34	105	ePn	Pn	15 35 39.2	-2.5
HUMO				eSn	Sn	15 36 14.9	-6.5
HUMO	Hull Mountain	3.34	105	⇓P	Pn	15 35 39.3	-2.5
	baz=3.6,SNR=87						
HUMO				⇑S	Sn	15 36 20.6	-0.8
	baz=3.6						
G03A	Yamhill	3.38	58	⇓P	Pn	15 35 42.0	-0.3
	baz=3.9						
BBOR	Butler Butte	3.46	100	P	Pn	15 35 42.0	-1.4
I04A	Tendick Farm,	3.57	85	⇑P	Pn	15 35 44.1	-0.8
	baz=4.0,SNR=121						
F03A	Seaside	3.57	47	⇑P	Pn	15 35 44.7	-0.2
	baz=4.1						
BROR	Big Rock Looko	3.58	77	P	Pn	15 35 44.6	-0.5
HBO	Huckleberry Mo	3.63	84	P	Pn	15 35 45.4	-0.4
IRO	Indian Ridge	3.69	82	P	Pn	15 35 45.9	-0.7
NLO	Nicolai Mounta	3.73	46	P	Pn	15 35 47.4	+0.3
J04A	Umpqua Nationa	3.81	93	⇓P	Pn	15 35 48.0	-0.2
	baz=4.2						
FRIS	Frissel Point	3.83	79	P	Pn	15 35 48.2	-0.2
G04A	Mulino	3.83	63	P	Pn	15 35 49.0	+0.5
	baz=4.3,SNR=248						
H04A	Detroit Lake	3.86	71	P	Pn	15 35 48.9	-0.1
	baz=4.3,SNR=718						
YBH	Yreka Blue Hor	3.86	117	ePn	Pn	15 35 48.1	-0.9
YBH	Yreka Blue Hor	3.86	117	⇑P	Pn	15 35 47.7	-1.3
	baz=4.0,SNR=45						
YBH				⇓S	Sn	15 36 32.9	-1.5
	baz=4.0						
GT2	Goat Mountain	3.95	65	P	Pn	15 35 50.8	+0.6
M02C	Callahan	3.95	122	⇓P	Pn	15 35 48.1	-2.1
	baz=4.1						
E03A	Lebam	3.99	40	⇓P	Pn	15 35 50.3	-0.4
	baz=4.5,SNR=121						
WIFE	Three Sisters-	4.01	81	P	Pn	15 35 50.9	-0.1
BMW	Boistfort Moun	4.10	44	P	Pn	15 35 51.9	-0.3
BKCOR	Black Crater	4.12	78	P	Pn	15 35 52.6	0.0
RVW	Rose Valley	4.15	50	P	Pn	15 35 53.1	+0.2
K04A	Chilquin	4.20	101	⇓P	Pn	15 35 52.6	-1.1
	baz=4.5						
F04A	Amboy	4.21	54	P	Pn	15 35 54.4	+0.6
	baz=4.7,SNR=210						
L04A	Klamath Falls	4.22	107	⇓P	Pn	15 35 53.2	-0.8
	baz=4.5						
VLMM	Larch Mountain	4.25	61	P	Pn	15 35 55.1	+0.8
LVP	Lakeview Peak	4.29	53	P	Pn	15 35 55.6	+0.8
O01C	Eel River Cons	4.31	142	⇓P	Pn	15 35 55.2	+0.1
	baz=4.3						
TDH	Tom, Dick, Har	4.32	65	P	Pn	15 35 55.9	+0.7
D03A	Wishkah Elem.	4.34	34	⇓P	Pn	15 35 55.4	-0.1
	baz=4.9,SNR=27						
MTMW	Mount Mitchell	4.38	54	P	Pn	15 35 56.9	+0.7
I05A	Bend	4.41	80	⇓P	Pn	15 35 56.1	-0.4
	baz=4.8,SNR=16						
M04C	Macdoel	4.42	112	⇑P	Pn	15 35 56.4	-0.2
	baz=4.6						
HOOD	Mount Hood Mea	4.42	65	P	Pn	15 35 57.5	+0.9
E04A	Onalaska	4.44	46	⇑P	Pn	15 35 57.0	+0.1
	baz=5.0						
SHW	Mount Saint He	4.46	52	P	Pn	15 35 58.2	+1.1
M03C	McCloud	4.48	119	⇓P	Pn	15 35 56.7	-0.8
	baz=4.6						
STD	Studebaker Rid	4.50	52	P	Pn	15 35 58.5	+0.9
ESD	East Dome	4.51	53	P	Pn	15 35 59.0	+1.1
H05A	Madras	4.52	74	P	Pn	15 35 57.8	-0.1
	baz=5.0,SNR=44						
NLWA	Neilton Lookou	4.53	31	ePn	Pn	15 35 57.7	-0.4
NLWA				eSn	Sn	15 36 51.6	+0.9
G05A	Wamic	4.61	67	⇓P	Pn	15 35 59.6	+0.3
	baz=5.1,SNR=63						
WDC	Whiskeytown Da	4.64	128	ePn	Pn	15 36 00.3	+0.6
WDC	Whiskeytown Da	4.64	128	⇓P	Pn	15 36 00.0	+0.3
	baz=4.7						
D04A	Dobbs Creek Ra	4.76	40	⇑P	Pn	15 36 01.4	+0.1
	baz=5.3,SNR=17						
F05A	White Salmon	4.77	59	⇑P	Pn	15 36 02.1	+0.6
	baz=5.3,SNR=15						
K05A	Summer Lake	4.78	98	⇑P	Pn	15 36 00.8	-0.7
	baz=5.1						
C03A	Quillayute Air	4.78	23	⇓P	Pn	15 36 02.1	+0.6
	baz=5.3						
O02C	Red Bluff	4.79	134	⇑P	Pn	15 36 02.0	+0.3
	baz=4.8						
ASR	Mount Adams--S	4.82	56	P	Pn	15 36 03.2	+1.1
VIPM	Ingram Point	4.92	77	P	Pn	15 36 03.2	-0.2
E05A	Randle	4.94	51	⇑P	Pn	15 36 04.8	+1.0
	baz=5.5,SNR=490						
GHW	Garrison Hill	4.97	44	P	Pn	15 36 04.7	+0.5
LON	Longmire	5.03	49	P	Pn	15 36 06.0	+1.0
GLK	Glacier Lake	5.03	52	P	Pn	15 36 06.2	+1.2
G06A	Carlson Farm,	5.07	69	⇑P	Pn	15 36 05.2	-0.3
	baz=5.5,SNR=54						
M05C	Lookout	5.07	114	⇓P	Pn	15 36 05.0	-0.6
	baz=5.3						
VTHM	Trough	5.10	69	P	Pn	15 36 05.9	-0.1
WPW	White Pass	5.14	51	P	Pn	15 36 07.6	+1.1
RCS	Mount Rainier-	5.14	48	P	Pn	15 36 07.7	+1.1
C04A	Brinnon	5.14	35	⇑P	Pn	15 36 06.6	+0.1
	baz=5.7						
F06A	Goldendale	5.15	63	⇓P	Pn	15 36 07.1	+0.4
	baz=5.7,SNR=43						
H06A	Lindquist Farm	5.16	75	P	Pn	15 36 06.9	+0.1
	baz=5.6,SNR=196						
I06A	Prineville	5.16	83	⇑P	Pn	15 36 06.4	-0.4
	baz=5.6,SNR=7.2						
GL2	New Goldendale	5.20	60	P	Pn	15 36 08.2	+0.8
D05A	Enumclaw	5.21	44	P	Pn	15 36 08.8	+1.3
	baz=5.7,SNR=272						
FMW	Mount Fremont	5.21	48	P	Pn	15 36 08.6	+1.1
GASB	Alder Springs	5.22	137	⇓P	Pn	15 36 06.9	-0.7
	baz=5.2						
B04A	Port Angeles	5.22	29	P	Pn	15 36 08.1	+0.5
	baz=5.7,SNR=25						
K06A	Valley Falls	5.22	96	⇑P	Pn	15 36 06.8	-0.9

	baz=5.5						
J06A	Christmas Vall	5.23	91	P	Pn	15 36 06.7	-1.0
	baz=5.6,SNR=22						
GSM	Grass Mountain	5.32	45	P	Pn	15 36 10.0	+1.0
E06A	Yakima	5.38	54	P	Pn	15 36 11.1	+1.2
	baz=5.9,SNR=92						
MOD	Modoc	5.43	105	*e*Pn	Pn	15 36 09.1	-1.4
	15nm,1.1s						
MOD	Modoc	5.43	105	⇓P	Pn	15 36 09.5	-1.0
	baz=5.7						
HOPS	Hopland	5.58	144	*e*Pn	Pn	15 36 11.6	-1.0
	132nm,1.3s						
HOPS	Hopland	5.58	144	⇑P	Pn	15 36 12.3	-0.3
	baz=5.5						
M06C	Likely Place G	5.59	113	⇓P	Pn	15 36 11.9	-0.8
	baz=5.8						
I07A	Izee	5.68	82	⇓P	Pn	15 36 13.3	-0.5
	baz=6.1,SNR=27						
C05A	Tolt Reservoir	5.71	42	⇓P	Pn	15 36 14.8	+0.5
	baz=6.2,SNR=45						
G07A	Ruggs Ranch, H	5.73	70	⇑P	Pn	15 36 14.5	-0.1
	baz=6.2,SNR=61						
PGC	Sidney	5.75	27	*e*Pn	Pn	15 36 15.0	+0.1
	62nm,0.4s						
F07A	Phinny Hill Vi	5.75	64	⇑P	Pn	15 36 14.8	-0.1
	baz=6.2						
EBG	Ellensburg	5.82	53	P	Pn	15 36 17.2	+1.4
D06A	Cle Elum	5.82	49	⇑P	Pn	15 36 16.9	+1.0
	baz=6.3,SNR=36						
ORV	Oroville	5.93	131	⇓P	Pn	15 36 18.4	+1.1
	baz=6.0						
B05A	Bryant	5.94	36	⇓P	Pn	15 36 17.8	+0.4
	baz=6.5,SNR=34						
MNRC	McLaughlin Nat	5.96	140	⇓P	Pn	15 36 18.0	+0.3
	baz=5.9						
K07A	Rock Creek Ran	5.97	96	⇑P	Pn	15 36 17.0	-1.0
	baz=6.3						
SUTB	Sutter Butte	6.01	134	⇓P	Pn	15 36 17.9	-0.6
	baz=6.0						
A04A	Legoe Bay, Lum	6.06	30	⇑P	Pn	15 36 19.9	+0.7
	baz=6.6,SNR=25						
E07A	Sunnyside	6.07	58	⇑P	Pn	15 36 19.5	+0.2
	baz=6.6,SNR=17						
L07A	Adell	6.07	102	⇑P	Pn	15 36 18.3	-1.0
	baz=6.3						
OHCM	Honcut	6.09	132	*e*Pn	Pn	15 36 20.9	+1.3
RSW	Rattlesnake Hi	6.16	60	P	Pn	15 36 21.4	+0.8
NSHM	Saint Helena R	6.17	143	*e*Pn	Pn	15 36 20.1	-0.6
G08A	Pilot Rock	6.23	71	⇓P	Pn	15 36 21.3	-0.2
	baz=6.7,SNR=77						
C06A	Tall Timber Ra	6.25	44	⇓P	Pn	15 36 22.4	+0.6
	baz=6.8						
H08A	Prairie City	6.30	78	⇓P	Pn	15 36 22.1	-0.4
	baz=6.7,SNR=32						
D07A	Quincy	6.31	52	⇑P	Pn	15 36 22.7	0.0
	baz=6.8,SNR=6.4						
ETW	Entiat	6.35	48	P	Pn	15 36 24.4	+1.3
I08A	Drewsey	6.35	84	⇑P	Pn	15 36 22.6	-0.5
	baz=6.7						
Q03C	Winters	6.35	139	⇓P	Pn	15 36 23.7	+0.5
	baz=6.3						
CVS	Carmenet Viney	6.38	143	⇑P	Pn	15 36 23.5	-0.1
	baz=6.3						
B06A	Marblemount	6.40	37	⇓P	Pn	15 36 24.0	+0.2
	baz=6.9						
J08A	Circle Bar Ran	6.44	89	⇑P	Pn	15 36 24.1	-0.3
	baz=6.8						
WVOR	Wild Horse Val	6.46	97	*e*Pn	Pn	15 36 22.7	-2.0
	14nm,1.0s						
WVOR	Wild Horse Val	6.46	97	*e*P	Pn	15 36 22.7	-2.0
WVOR				pmax	pmax		
	comp=Z,14nm,1.0s						
F08A	Pendleton	6.48	67	⇑P	Pn	15 36 24.5	-0.4
	baz=7.0						
K08A	Mann Creek Ran	6.51	94	⇑P	Pn	15 36 24.5	-0.9
	baz=6.8						
A05A	Maple Falls	6.53	32	⇑P	Pn	15 36 26.2	+0.6
	baz=7.1,SNR=11						
E08A	Dider Farm, El	6.54	61	⇑P	Pn	15 36 26.1	+0.4
	baz=7.0,SNR=13						
C07A	Waterville	6.54	48	⇓P	Pn	15 36 26.3	+0.5
	baz=7.1,SNR=70						
WTV	Waterville	6.61	49	P	Pn	15 36 27.5	+0.8
A06A	Chilliwack	6.84	34	⇑P	Pn	15 36 31.1	+1.2
	baz=7.4						
D08A	Wollman Farm,	6.87	57	⇓P	Pn	15 36 30.5	+0.3
	baz=7.4,SNR=9.1						
LAVA	Lava Cap Winer	6.91	132	⇑P	Pn	15 36 30.5	-0.3
	baz=6.9						
M08A	Happy Creek Ra	6.94	105	⇓P	Pn	15 36 30.5	-0.7
	baz=7.2						
I09A	Lost Marbles R	6.95	83	⇑P	Pn	15 36 31.2	-0.1
	baz=7.3						
J09A	Fry Pan Ranch,	6.96	89	⇓P	Pn	15 36 31.0	-0.5
	baz=7.3						
B07A	Winthrop	7.00	43	⇓P	Pn	15 36 32.0	-0.1
	baz=7.5,SNR=12						
H09A	Durkee	7.03	78	⇑P	Pn	15 36 31.9	-0.6
	baz=7.5,SNR=18						
G09A	Cove	7.04	73	⇑P	Pn	15 36 32.2	-0.4
	baz=7.5,SNR=20						
F09A	S2 Ranch, Elgi	7.04	69	⇓P	Pn	15 36 32.1	-0.6
	baz=7.5						
K09A	Rome	7.07	94	⇓P	Pn	15 36 32.0	-1.1
	baz=7.4						
WCN	Washoe City	7.10	124	⇓P	Pn	15 36 33.8	+0.3
	baz=7.2						
E09A	Wood Farm, Sta	7.13	62	⇓P	Pn	15 36 33.3	-0.5
	baz=7.6						
D09A	Jones Farm, Ri	7.25	58	⇓P	Pn	15 36 35.1	-0.3
	baz=7.7,SNR=8.2						
L09A	Wilkinson Ranc	7.27	99	⇓P	Pn	15 36 35.2	-0.5
	baz=7.6						
A07A	Ashnola River,	7.28	39	⇓P	Pn	15 36 36.0	+0.1
	baz=7.8,SNR=12						
WENL	Wente Brothers	7.29	143	⇑P	Pn	15 36 35.7	-0.4
	baz=7.2						
BMO	Blue Mountains	7.31	76	*e*Pn	Pn	15 36 35.8	-0.5
	comp=Z,58nm,1.0s						
BMO	Blue Mountains	7.31	76	*e*P	Pn	15 36 35.8	-0.5
BMO				pmax	pmax		
	comp=Z,58nm,1.0s						
R05C	Kirkwood Meado	7.31	129	⇓P	Pn	15 36 35.4	-1.0
	baz=7.4						
B08A	Colville Reser	7.34	46	⇑P	Pn	15 36 36.0	-0.7
	baz=7.9,SNR=7.7						
F10A	Beach Ranch, E	7.57	68	⇓P	Pn	15 36 39.0	-0.9
	baz=8.0						
S04C	Ingram Canyon,	7.58	141	⇓P	Pn	15 36 40.2	+0.1
	baz=7.5						
I10A	Payette	7.62	83	⇑P	Pn	15 36 40.0	-0.6
	baz=8.0						
CMB	Columbia Colle	7.63	134	*e*Pn	Pn	15 36 43.0	+2.3
	comp=Z,169nm,1.5s						
CMB	Columbia Colle	7.63	134	*e*P	Pn	15 36 43.0	+2.3
CMB				pmax	pmax		
	comp=Z,169nm,1.5s						
CMB	Columbia Colle	7.63	134	⇑P	Pn	15 36 42.2	+1.5
	baz=7.6						
K10A	MacKenzie Ranc	7.68	92	⇑P	Pn	15 36 40.5	-0.9
	baz=8.0						
H10A	Noah's Angus R	7.68	79	⇓P	Pn	15 36 40.7	-0.6
	baz=8.1						
R06C	Coleville	7.79	128	⇑P	Pn	15 36 42.9	-0.1
	baz=7.8						
E10A	Myers Farm, Un	7.79	65	⇑P	Pn	15 36 42.2	-0.7
	baz=8.3						
D10A	Wagner Farm, O	7.89	60	⇓P	Pn	15 36 43.9	-0.3
	baz=8.4						
B09A	Rice	8.02	50	⇓P	Pn	15 36 46.1	+0.1
	baz=8.5,SNR=19						
S06C	San Francisco	8.03	133	⇓P	Pn	15 36 47.8	+1.7
	baz=8.0						
A09A	Danville	8.11	45	⇑P	Pn	15 36 47.2	0.0
	baz=8.6						
G11A	Walters Elk Ra	8.11	73	⇑P	Pn	15 36 46.8	-0.5
	baz=8.6,SNR=12						
L10A	Juniper Basin	8.11	97	⇑P	Pn	15 36 47.7	+0.3
	baz=8.4						
S05C	Merced	8.19	137	⇓P	Pn	15 36 48.6	+0.3
	baz=8.2						
C10A	Spilker Farm,	8.19	55	⇑P	Pn	15 36 48.3	-0.1
	baz=8.7,SNR=5.9						
H11A	Donnelly	8.21	78	⇑P	Pn	15 36 48.4	-0.3
	baz=8.6,SNR=28						
M10A	I.L. Ranch, Tu	8.22	101	⇑P	Pn	15 36 48.6	-0.2
	baz=8.5						
I11A	Placerville	8.23	84	⇑P	Pn	15 36 48.4	-0.6
	baz=8.6						
F11A	Grangeville	8.28	70	⇑P	Pn	15 36 49.6	0.0
	baz=8.7						
E11A	Bogner Ranch,	8.35	67	⇓P	Pn	15 36 50.0	-0.6
	baz=8.8						
MFID	Camas Ranch	8.36	87	⇓P	Pn	15 36 50.2	-0.5
	baz=8.7						
T05C	Eagle Field, D	8.38	140	⇓P	Pn	15 36 51.5	+0.5
	baz=8.3						
B10A	Chitwood Farm,	8.47	53	⇓P	Pn	15 36 52.6	+0.4
	baz=9.0						
D11A	Klaveano Farm,	8.48	62	⇓P	Pn	15 36 50.9	-1.5
	baz=9.0						
NEW	Newport	8.51	53	*e*Pn	Pn	15 36 52.8	0.0
	comp=Z,32nm,0.9s						
NEW	Newport	8.51	53	*e*P	Pn	15 36 52.8	0.0
NEW				pmax	pmax		
	comp=Z,32nm,0.9s						
NEW	Newport	8.51	53	Pn	Pn	15 36 52.4	-0.5
	comp=Z,2.4nm,0.3s,baz=227,slow=11,SNR=27						
NEW				LR	LR	15 40 13.2	
	comp=Z,2µm,20.8s,baz=240,slow=39						
NVAR	Mina Array Bea	8.53	124	Pn	Pn	15 36 54.1	+1.1
NVAR	Mina Array Bea	8.53	124	Pn	Pn	15 36 54.1	+1.1
	comp=Z,0.2nm,0.3s,baz=302,slow=12,SNR=9.0						
L11A	Cat Creek Ranc	8.61	95	⇓P	Pn	15 36 53.0	-1.1
	baz=8.9						
BBB	Bella Bella	8.64	357	Pn	Pn	15 36 56.1	+1.7
BBB				Sn	Sn	15 38 30.4	-1.5
BBB				LR	LR	15 39 39.7	
BBB	Bella Bella	8.64	357	Pn	Pn	15 36 56.1	+1.7
	comp=Z,2.4nm,0.3s,baz=193,slow=11,SNR=13						
BBB				Sn	Sn	15 38 30.4	-1.5
	comp=Z,0.1nm,0.3s,baz=71,slow=18,SNR=2.1						
BBB				LR	LR	15 39 39.7	
	comp=Z,804nm,19.0s,baz=285,slow=34						
A10A	Northport	8.65	48	⇓P	Pn	15 36 53.8	-0.9
	baz=9.2,SNR=5.4						
KCC	Kaiser Creek	8.72	133	⇑P	Pn	15 36 57.1	+1.4
	baz=8.7						
T06C	Millerton Lake	8.76	136	⇑P	Pn	15 36 56.7	+0.4
	baz=8.7						
MLAC	Mammoth Lakes	8.76	130	⇓P	Pn	15 36 56.7	+0.4
	baz=8.8						
U04C	Hernandez Rese	8.77	143	⇑P	Pn	15 36 57.2	+0.8
	baz=8.7						
M11A	Holland Ranch,	8.78	100	⇓P	Pn	15 36 55.2	-1.2
	baz=9.1						
F12A	Elk City	8.87	72	⇓P	Pn	15 36 57.8	+0.1
	baz=9.3						
J12A	Stokes Ranch,	8.90	88	⇓P	Pn	15 36 58.1	0.0
	baz=9.3						
H12A	Diamond D Ranc	9.03	79	⇑P	Pn	15 36 59.7	-0.2
	baz=9.4						
B11A	Sandpoint	9.04	54	⇑P	Pn	15 37 00.0	0.0
	baz=9.5						
P10A	Eureka	9.04	112	⇓P	Pn	15 36 58.9	-1.1
	baz=9.2						
U05C	Westside ANR,	9.09	140	⇑P	Pn	15 37 01.5	+0.7
	baz=9.0						
K12A	Draper Farm, C	9.13	92	⇑P	Pn	15 37 01.9	+0.6
	baz=9.5						
L12A	House Creek Ra	9.15	95	⇓P	Pn	15 37 02.6	+1.1
	baz=9.5						
S08C	White Mtn Res	9.23	128	⇑P	Pn	15 37 02.4	-0.2
	baz=9.3						
A11A	Hall Mountain,	9.30	51	⇑P	Pn	15 37 04.2	+0.6
	baz=9.8,SNR=8.6						
O11A	Cowboy Ranch,	9.36	108	⇑P	Pn	15 37 04.2	-0.1
	baz=9.6						
HELL	Mitchell Peak,	9.36	135	⇑P	Pn	15 37 06.1	+1.6
	baz=9.4						
HLID	Hailey	9.37	86	*e*Pn	Pn	15 37 05.4	+0.8
	comp=Z,11nm,1.0s						
HLID	Hailey	9.37	86	⇓P	Pn	15 37 05.4	+0.9
	baz=9.7						
R09A	Tonopah	9.41	121	⇓P	Pn	15 37 05.0	0.0
	baz=9.5						
M12A	Wells	9.41	99	⇑P	Pn	15 37 06.1	+0.9
	baz=9.7						
H13A	Challis	9.46	79	⇑P	Pn	15 37 06.6	+0.8
	baz=9.9						
G13A	Cobalt	9.50	76	⇑P	Pn	15 37 06.8	+0.4
	baz=9.9						
N12A	Clover Valley,	9.51	102	⇓P	Pn	15 37 06.9	+0.5
	baz=9.8						
B12A	Libby	9.51	55	⇑P	Pn	15 37 07.1	+0.6
	baz=10.0						
F13A	Darby	9.51	72	⇑P	Pn	15 37 06.5	-0.1
	baz=10.0						
RCTC	Rector, Farmer	9.54	137	⇓P	Pn	15 37 07.4	+0.5
	baz=9.5						
J13A	Cove Ranch, Pi	9.56	87	⇑P	Pn	15 37 06.5	-0.7
	baz=9.9						
I13A	Wildhorse Cree	9.56	83	⇓P	Pn	15 37 07.9	+0.7
	baz=9.9						
S09A	Goldfield	9.64	124	⇓P	Pn	15 37 08.2	0.0
	baz=9.7						
A12A	Yaak River Ran	9.69	52	⇑P	Pn	15 37 08.8	-0.2
	baz=10						
D13A	Huson	9.72	64	⇓P	Pn	15 37 07.7	-1.6
	baz=10						
K13A	Stover Farm, H	9.72	91	⇓P	Pn	15 37 10.6	+1.2
	baz=10						
E13A	Victor	9.73	68	⇓P	Pn	15 37 09.2	-0.3
	baz=10,SNR=5.5						
C13A	Hot Springs	9.83	61	⇓P	Pn	15 37 11.6	+0.8
	baz=10						
R10A	Warm Springs	9.86	119	⇓P	Pn	15 37 12.1	+0.8
	baz=10.0						
S10A	Tonopah Range,	9.90	121	⇑P	Pn	15 37 12.0	+0.2
	baz=10.0						
L13A	Double Diamond	9.94	94	⇓P	Pn	15 37 12.9	+0.5
	baz=10						
MSO	Missoula	9.99	66	*e*Pn	Pn	15 37 13.1	+0.1
	comp=Z,26nm,1.0s						
VES	Vestal, Richgr	9.99	138	⇓P	Pn	15 37 13.4	+0.3
	baz=9.9						
CWC	Cottonwood Cre	10.04	132	⇑P	Pn	15 37 15.2	+1.5
	baz=10						
G14A	Jackson	10.06	76	⇑P	Pn	15 37 14.3	+0.3
	baz=10						
N13A	Wendover, West	10.10	101	⇓P	Pn	15 37 14.2	-0.4
	baz=10						
B13A	Whitefish	10.15	57	⇑P	Pn	15 37 15.2	0.0
	baz=11,SNR=6.8						
F14A	Wisdom	10.18	72	⇑P	Pn	15 37 15.3	-0.3
	baz=11						
E14A	Clinton	10.20	69	⇑P	Pn	15 37 15.6	-0.3
	baz=11						
D14A	Greenough	10.34	65	⇓P	Pn	15 37 16.6	-1.2
	baz=11						
C14A	Swan Lake	10.38	61	⇓P	Pn	15 37 17.9	-0.5
	baz=11						
K14A	Jones Ranch, D	10.40	91	⇓P	Pn	15 37 17.7	-1.0
	baz=11						
A13A	Flathead Natio	10.42	55	⇑P	Pn	15 37 19.1	+0.2
	baz=11,SNR=8.6						
DAC	Darwin (Calif)	10.43	131	*e*Pn	Pn	15 37 21.3	+2.3
	comp=Z,14nm,1.2s						
DAC	Darwin (Calif)	10.43	131	*e*P	Pn	15 37 21.3	+2.2
DAC				pmax	pmax		
	comp=Z,14nm,1.2s						
ISA	Isabella	10.43	136	⇓P	Pn	15 37 19.5	+0.4
	baz=10						
CHMT	Chamberlain Mo	10.47	67	*e*Pn	Pn	15 37 19.1	-0.4
MCMT	McKenzie Canyo	10.47	78	*e*Pn	Pn	15 37 20.4	+0.8
MPMC	Manual Prospec	10.64	132	⇑P	Pn	15 37 23.9	+1.9
	baz=11						
DLMT	Dillon	10.68	75	*e*Pn	Pn	15 37 22.6	+0.1
	comp=Z,42nm,1.1s						
ARVC	Arvin	10.69	139	⇑P	Pn	15 37 22.8	+0.2
	baz=11						
FURC	Furnace Creek,	10.70	128	⇑P	Pn	15 37 23.5	+0.7
	baz=11						
G15A	Dillon	10.74	76	⇑P	Pn	15 37 23.8	+0.5
	baz=11						
WALA	Waterton Lakes	10.77	55	*e*Pn	Pn	15 37 25.1	+1.5
	comp=Z,68nm,1.1s						
E15A	Deer Lodge	10.78	70	⇑P	Pn	15 37 23.3	-0.6
	baz=11						
F15A	Butte	10.79	73	⇓P	Pn	15 37 22.8	-1.2
	baz=11						
BGU	Big Grassy Mou	10.92	99	*e*Pn	Pn	15 37 26.7	+1.0
R12A	Pony Springs,	10.94	114	⇑P	Pn	15 37 25.4	-0.8
	baz=11						
D15A	Lincoln	10.98	66	⇑P	Pn	15 37 25.4	-1.2
	baz=11						
EDW2	Edwards Air Fo	11.29	137	⇑P	Pn	15 37 30.6	-0.3
	baz=11						
DUG	Dugway	11.33	102	*e*Pn	Pn	15 37 32.2	+0.8
	comp=Z,3.5nm,0.9s						
DUG				*e*		15 37 40.1	
DUG	Dugway	11.33	102	*e*P	Pn	15 37 32.2	+0.8
DUG				pmax	pmax		
	comp=Z,4.0nm,0.9s						
DUG	Dugway	11.33	102	⇓P	Pn	15 37 30.8	-0.5
	baz=12						
BOZ	Bozeman (W)	11.38	74	*e*Pn	Pn	15 37 32.8	+0.7
	comp=Z,16nm,1.1s						
BOZ	Bozeman (W)	11.38	74	*e*P	Pn	15 37 32.8	+0.8
BOZ				pmax	pmax		
	comp=Z,16nm,1.1s						
BOZ	Bozeman (W)	11.38	74	⇑P	Pn	15 37 31.8	-0.2
	baz=12						
QLMT	Earthquake Lak	11.48	78	*e*Pn	Pn	15 37 35.3	+1.9
DCID1	Drake Creek	11.71	84	Pn	Pn	15 37 35.5	-1.0
HWUT	Hardware Ranch	11.78	94	*e*Pn	Pn	15 37 38.8	+1.3
	comp=Z,10nm,1.0s						
YMR	Madison River	11.81	79	*e*Pn	Pn	15 37 39.2	+1.3
	comp=Z,70nm,1.3s						
IMW	Indian Meadow	11.86	83	*e*Pn	Pn	15 37 40.0	+1.4
	comp=Z,48nm,1.5s						
AHID	Auburn Hatcher	11.87	88	*e*Pn	Pn	15 37 40.5	+1.7
	comp=Z,38nm,1.1s						
TPAW	Teton Pass	11.88	85	*e*Pn	Pn	15 37 41.6	+2.6
	comp=Z,61nm,1.1s						
YFT	Old Faithful	11.90	80	*e*Pn	Pn	15 37 41.0	+1.8
REDW	Red Top Meadow	11.97	85	*e*Pn	Pn	15 37 42.3	+2.1
	comp=Z,42nm,1.1s						
MOOW	Moose Ponds	12.01	83	*e*Pn	Pn	15 37 43.1	+2.4
	comp=Z,16nm,1.2s						
ARUT	Antelope Range	12.01	114	*e*Pn	Pn	15 37 42.9	+2.1
YNR	Norris Junctio	12.01	79	*e*Pn	Pn	15 37 43.6	+2.9
LOHW	Long Hollow	12.12	84	*e*Pn	Pn	15 37 43.2	+1.0
	comp=Z,58nm,1.6s						
CCUT	Cedar City	12.19	115	Pn	Pn	15 37 45.1	+1.9
LKWY	Lake	12.21	79	*e*Pn	Pn	15 37 46.6	+3.2
	comp=Z,41nm,1.2s						
LKWY	Lake	12.21	79	*e*P	Pn	15 37 46.7	+3.2
LKWY				pmax	pmax		
	comp=Z,41nm,1.2s						
MSU	Marysvale	12.49	109	*e*Pn	Pn	15 37 49.2	+1.9
GMRC	Granite Mounta	12.59	130	⇓P	Pn	15 37 49.0	+0.3
	baz=13						
GCMT	Greycliff	12.76	74	*e*Pn	Pn	15 37 52.1	+1.2
PDAR	Pinedale Array	12.99	87	Pn	Pn	15 37 56.0	+1.9
PDAR	Pinedale Array	12.99	87	Pn	Pn	15 37 56.0	+1.9
	comp=Z,0.1nm,0.3s,baz=276,slow=11,SNR=42						
RLMT	Red Lodge	13.02	77	*e*Pn	Pn	15 37 55.6	+1.1
	comp=Z,9.6nm,1.0s						
EGMT	Eagleton	13.03	64	*e*Pn	Pn	15 37 54.7	+0.1
	comp=Z,79nm,1.2s						
EGMT				*e*		15 38 06.2	
EGMT	Eagleton	13.03	64	⇓P	Pn	15 37 53.8	-0.8
	baz=14						
PFO	Pinyon Flat Ob	13.07	136	Pn	Pn	15 37 57.7	+2.5
PFO				LR	LR	15 42 36.4	
PFO	Pinyon Flat Ob	13.07	136	Pn	Pn	15 37 57.7	+2.5
	comp=Z,0.1nm,0.3s,baz=336,slow=16,SNR=2.8						
PFO				LR	LR	15 42 36.4	
	comp=Z,663nm,19.7s,baz=309,slow=36						
EDM	Edmonton	13.37	39	*e*Pn	Pn	15 37 59.0	-0.2
SRU	San Rafael	13.38	104	*e*Pn	Pn	15 38 00.9	+1.5
	comp=Z,24nm,1.2s						
SRU	San Rafael	13.38	104	*e*P	Pn	15 38 01.0	+1.6
SRU				pmax	pmax		
	comp=Z,24nm,1.2s						
RWWY	Rawlins	14.92	90	*e*Pn	Pn	15 38 19.4	-1.0
	comp=Z,65nm,1.5s						
DLBC	Dease Lake	14.98	354	*e*Pn	Pn	15 38 23.6	+2.5
DLBC	Dease Lake	14.98	354	Pn	Pn	15 38 23.6	+2.5
	baz=190,slow=13						
PV01	Paradox Valley	15.18	105	*e*Pn	Pn	15 38 24.2	+0.3
LAO	LASA Array	15.21	71	*e*Pn	Pn	15 38 23.1	-1.1
	comp=Z,50nm,1.1s						
LAO				*e*		15 38 31.7	
MVCO	Mesa Verde	15.67	108	*e*Pn	Pn	15 38 31.2	+0.9
	comp=Z,40nm,1.8s						
SMCO	Snowmass	15.88	99	*e*Pn	Pn	15 38 33.2	+0.1
	comp=Z,16nm,1.3s						
ISCO	Idaho Springs	16.64	96	*e*Pn	Pn	15 38 42.2	-0.6
	comp=Z,36nm,1.1s						
ISCO	Idaho Springs	16.64	96	*e*P	Pn	15 38 42.2	-0.5
ISCO				pmax	pmax		
	comp=Z,35nm,1.1s						
DGMT	Dagmar	16.77	65	*e*Pn	Pn	15 38 43.8	-0.5
	comp=Z,80nm,0.3s						
TUC	Tucson	17.18	125	*e*Pn	Pn	15 38 51.5	+1.9
	comp=Z,4.3nm,1.0s						
TUC	Tucson	17.18	125	*e*P	Pn	15 38 51.5	+1.8
TUC				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SDCO	Great Sand Dun	17.53	102	*e*Pn	Pn	15 38 54.1	+0.2
	comp=Z,56nm,1.4s						
LAZ	Ladron	18.13	114	*e*Pn	Pn	15 39 03.6	+2.3
ANMO	Albuquerque	18.27	111	*e*P	Pn	15 39 03.9	+0.8
	comp=Z,44nm,2.0s						
ANMO	Albuquerque	18.27	111	*e*P	Pn	15 39 02.1	-0.9
ANMO	Albuquerque	18.27	111	P	Pn	15 39 04.0	+1.0
	comp=Z,0.1nm,0.3s,baz=311,slow=9.7,SNR=13						
LENM	Lemitar	18.38	114	*e*P	Pn	15 39 07.6	+3.2
LPM	Los Pinos Moun	18.52	113	*e*P	Pn	15 39 08.6	+2.4
BNM	Barren Site	18.62	113	*e*P	Pn	15 39 08.9	+1.6
FFC	Flin Flon	19.86	47	*e*P	Pn	15 39 21.3	-0.8
	comp=Z,79nm,1.1s						
FFC	Flin Flon	19.86	47	*e*P	Pn	15 39 21.3	-0.8
FFC				pmax	pmax		
	comp=Z,79nm,1.1s						
YKA	Yellowknife Ar	20.36	17	P	P	15 39 25.6	-0.3
YKA	Yellowknife Ar	20.36	17	P	P	15 39 25.6	-0.3
	comp=Z,3.1nm,0.7s,baz=207,slow=11,SNR=33						
MNTX	Cornudas Mount	20.96	117	*e*P	P	15 39 33.5	+0.8
	comp=Z,6.2nm,0.9s						
KDAK	Kodiak Island	21.24	321	*e*P	P	15 39 35.6	+0.2
	comp=Z,29nm,1.4s,mb4.4						
KDAK	Kodiak Island	21.24	321	P	P	15 39 33.7	-1.7
	comp=Z,15nm,0.9s,mb4.3,baz=124,slow=6.0,SNR=7.9						
KDAK				LR	LR	15 45 39.6	
	comp=Z,549nm,20.3s,MS3.9,baz=130,slow=31						
AMTX	Amarillo	21.61	105	*e*P	P	15 39 40.3	+0.7
	comp=Z,21nm,1.0s,mb4.5						
MENT	Mentasta	21.62	339	*e*P	P	15 39 40.3	+0.9
DAWY	Dawson	21.66	346	*e*P	P	15 39 40.6	+0.7
SML	Sawmill	22.08	333	*e*P	P	15 39 45.0	+0.6
ECSD	EROS,Sioux Fal	22.16	79	*e*P	P	15 39 45.3	-0.1
	comp=Z,74nm,1.2s,mb5.0						
PMR	Palmer	22.20	332	*e*P	P	15 39 45.7	0.0
	comp=Z,31nm,1.4s,mb4.5						
PMR	Palmer	22.20	332	*e*P	P	15 39 45.7	0.0
PMR				pmax	pmax		
	comp=Z,31nm,1.4s,mb4.5						
AGMN	Agassiz Refuge	22.29	67	*e*P	P	15 39 46.6	-0.2
	comp=Z,53nm,1.1s,mb4.9						
ULM	Lac du Bonnet	22.38	62	*e*P	P	15 39 47.0	-0.6
	comp=Z,31nm,1.2s,mb4.6						
ULM	Lac du Bonnet	22.38	62	P	P	15 39 47.4	-0.3
	comp=Z,14nm,1.0s,mb4.3,baz=272,slow=11,SNR=14						
ULM				LR	LR	15 48 48.0	
	comp=Z,513nm,20.4s,MS3.9,baz=123,slow=38						
EGAK	Eagle	22.64	345	*e*P	P	15 39 49.7	-0.6
	comp=Z,12nm,1.2s,mb4.2						
LTX	Lajitas	23.64	119	P	P	15 40 00.9	-0.2
	comp=Z,7.4nm,1.1s,mb4.0						
LTX	Lajitas	23.64	119	P	P	15 40 00.9	-0.1
LTX				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.0						
TXAR	Lajitas Array	23.64	119	P	P	15 40 01.3	+0.3
	comp=Z,4.6nm,1.0s,mb3.9,baz=303,slow=6.7,SNR=20						
TXAR				LR	LR	15 48 32.6	
	comp=Z,250nm,21.8s,MS3.6,baz=0.0,slow=35						
MCK	McKinley	23.69	336	*e*P	P	15 40 00.9	-0.2
	comp=Z,4.8nm,0.9s,mb3.9						
MCK	McKinley	23.69	336	*e*P	P	15 40 01.0	-0.2
MCK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb3.9						
WMOK	Wichita Mounta	23.73	102	*e*P	P	15 40 01.3	-0.5
	comp=Z,50nm,1.4s,mb4.8						
WMOK	Wichita Mounta	23.73	102	*e*P	P	15 40 01.3	-0.5
WMOK				pmax	pmax		
	comp=Z,50nm,1.4s,mb4.8						
LPIG	La Paz	23.93	139	LR	LR	15 48 38.5	
	comp=Z,256nm,21.7s,MS3.7,baz=323,slow=35						
COLA	College	24.26	339	*e*P	P	15 40 05.7	-0.7

	comp=Z,8.7nm,1.1s,mb4.1						
COLA	College	24.26	339	eP	P	15 40 05.6	-0.8
SVW2	Sparrevohn	24.31	326	eP	P	15 40 06.8	-0.1
JCT	Junction City	25.43	112	eP	P	15 40 17.8	+0.5
	comp=Z,13nm,1.0s,mb4.4						
JCT	Junction City	25.43	112	eP	P	15 40 17.8	+0.5
JCT				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.4						
FCC	Fort Churchill	25.44	42	eP	P	15 40 17.4	+0.2
	comp=Z,27nm,1.1s,mb4.7						
FCC	Fort Churchill	25.44	42	eP	P	15 40 17.4	+0.2
FCC				pmax	pmax		
	comp=Z,27nm,1.1s,mb4.7						
SCHQ	Schefferville	39.88	52	LR	LR	15 59 03.1	
	comp=Z,462nm,19.0s,MS4.3,baz=291,slow=37						
BILL	Bilibino	41.77	329	eP	P	15 42 37.5	-1.1
BILL				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.1						
SEY	Seymchan	48.18	323	eP	P	15 43 26.1	-3.5
MA2	Magadan	49.97	319	eP	P	15 43 40.8	-2.5
MA2				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
TIXI	Tiksi	53.38	337	eP	P	15 44 06.9	-1.8
	comp=Z,2.9nm,1.0s,mb4.2						
TIXI	Tiksi	53.38	337	⇓iP	P	15 44 06.6	-2.1
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
TIXI				MLR	MLR		
	comp=Z,84nm,15.0s,MS3.9						
BOD	Bodaibo	66.83	329	eP	P	15 45 38.0	-3.0
BOD				pmax	pmax		
	comp=Z,3.0nm,1.7s,mb4.0						
MJAR	Matsushiro Arr	68.81	301	P	P	15 45 53.9	0.0
	comp=Z,1.6nm,0.8s,mb4.0,baz=50,slow=6.1,SNR=4.9						
MAT	Matsushiro	68.81	301	P	P	15 45 55.0	+1.1
NB2	NORSAR Subarra	70.43	20	P	P	15 46 08.7	+5.2
	comp=Z,7.9nm,1.2s,mb4.5,baz=330,slow=6.2						
HIA	Hailar	70.53	320	eP	P	15 46 06.4	+2.1
CN2	Changchun	71.47	313	eP	P	15 46 09.3	-0.8
FINES	FINESS Array B	73.14	13	P	P	15 46 17.8	-1.9
	comp=Z,0.6nm,0.7s,mb3.7,baz=350,slow=4.9,SNR=3.0						
TLY	Talaya	75.38	330	eP	P	15 46 31.9	-1.1
TLY				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
ZAK	Zakamensk	76.57	329	eP	P	15 46 33.2	-6.6
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.7s,mb3.5						
SONM	Songino Array	77.43	326	P	P	15 46 43.0	-1.7
	comp=Z,1.5nm,0.8s,mb4.0,baz=41,slow=2.2,SNR=12						
SONM				LR	LR	16 18 43.1	
	comp=Z,147nm,20.0s,MS4.3,baz=3.5,slow=34						
NVS	Novosibirsk	78.57	343	iP	P	15 46 49.5	-1.4
NVS				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.6						
NVS				pmax	pmax		
	comp=E,11nm,1.6s						
ZALV	Zalesovo Beam	79.04	341	P	P	15 46 52.1	-1.4
	comp=E,0.4nm,0.5s,mb3.6,baz=27,slow=7.0,SNR=3.7						
ZALV				LR	LR	16 21 40.5	
	comp=E,119nm,19.8s,MS4.2,baz=170,slow=36						
ZAL	Zalesovo	79.05	341	P	P	15 46 52.1	-1.5
GUMO	Guam	79.20	278	LR	LR	16 18 50.6	
	comp=E,71nm,18.4s,MS4.0,baz=93,slow=33						
LPAZ	La Paz	80.44	123	P	P	15 47 02.1	+0.6
	comp=E,1.2nm,0.8s,mb3.9,baz=315,slow=4.3,SNR=2.2						
LPAZ				LR	LR	16 26 56.8	
	comp=E,57nm,18.7s,MS4.0,baz=231,slow=39						
HHC	Hu-ho-hao-te	80.65	319	eP	P	15 47 02.6	+0.2
HHC				AP	pP	15 47 07.4	+1.6
HHC				XP	sP	15 47 09.7	+2.8
HHC				PP	PP	15 50 07.9	+2.4
HHC				S	S	15 57 09.1	-0.5
HHC				SKS		15 57 15.3	
HHC				SS	SS	16 02 21.2	0.0
HHC				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.5						
HHC				AMB	AMB		
	comp=Z,204nm,7.5s						
HHC				LR	LR		
	comp=N,149nm,37.0s,MS4.3						
HHC				LR	LR		
	comp=E,183nm,37.0s,MS4.3						
HHC				LR	LR		
	comp=Z,149nm,33.2s,MS4.1						
OBN	Obninsk	80.74	9	eP	P	15 47 01.1	-1.6
OBN				i		15 47 07.4	
OBN				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.6						
GERES	GERESS Array B	81.82	25	P	P	15 47 08.3	-0.2
	comp=Z,0.2nm,0.3s,mb3.5,baz=357,slow=7.9,SNR=5.8						
AKASG	Malin Array Be	83.91	15	P	P	15 47 18.2	-1.1
	comp=Z,0.1nm,0.3s,mb3.4,baz=346,slow=4.7,SNR=2.4						
MKAR	Makanchi Array	86.28	340	P	P	15 47 29.6	-1.7
	comp=Z,0.3nm,0.8s,mb3.6,baz=22,slow=4.8,SNR=3.5						
MKAR				LR	LR	16 26 41.2	
	comp=Z,148nm,20.2s,MS4.4,baz=237,slow=36						
WMQ	Urumqi	87.54	335	eP	P	15 47 37.4	-0.1
LZH	Lanzhou	88.08	321	eP	P	15 47 36.5	-3.7
LZH				AP	pP	15 47 41.3	-2.3
LZH				XP	sP	15 47 43.6	-1.2
LZH				ePP	PP	15 51 04.5	-1.6
LZH				AMB	AMB		
	comp=Z,18nm,1.5s,mb5.1						
LZH				AMB	AMB		
	comp=Z,52nm,8.2s						
LZH				LR	LR		
	comp=N,305nm,16.5s						
LZH				LR	LR		
	comp=Z,472nm,19.3s,MS4.9						
CD2	Chengdu	92.38	318	eP	P	15 47 58.9	-1.5
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb5.2						
CD2				AMB	AMB		
	comp=Z,30nm,9.8s						
KIV	Kislovodsk	92.40	7	eP	P	15 47 59.0	-1.2
KIV				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.6						
GYA	Guiyang	94.52	313	P	P	15 48 09.6	-0.7
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb5.3						
KMI	Kunming	97.64	315	P	P	15 48 26.9	+2.4
KMI				AMB	AMB		
	comp=Z,4.0nm,1.6s,mb4.7						

NEIC **11** *15:35:36.6±0.8, 9.58S×111.73E, h10^{km}, Error ellipse: s-maj=23.9km s-min=13.6km az=206.0*

ISCJB **11** *15:35:37.0±0.9, 9.7S±0.1×111.7E±0.1, h33^{km}, mb3.4/5, Error ellipse: s-maj=21.3km s-min=14.5km az=17.7*

IDC **11** *15:35:37.2±2.0, 9.27S×112.04E, h0^{km}, mb3.4/5, mb1 3.6/5, mb1mx3.4/17, mbtmp3.4/5, Error ellipse: s-maj=65.2km s-min=22.8km az=54.0*

ISC 11 15:35:39.6±0.8, **9.7S**±0.1×**111.7E**±0.1, **h35**^{km}, **n9**, σ**1**^{s}**14**/12, **mb3.4**/5, **South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XMIS	Christmas Isla	6.02	262	ePn	Pn	15 37 05.9	-0.4
XMIS				Sn	Sn	15 38 05.2	-8.9
FITZ	Fitzroy Crossi	15.88	123	eP	Pn	15 39 19.2	-1.3
FITZ				Sn	Sn	15 42 01.0	-15
FITZ	Fitzroy Crossi	15.88	123	Pn	Pn	15 39 19.0	-1.5
	0.1nm,0.3s,baz=318,slow=12,SNR=4.6						
FITZ				Sn	Sn	15 42 01.0	-15
	0.0nm,0.3s,baz=349,slow=19,SNR=2.4						
WRA	Warramunga Arr	24.09	118	P	P	15 40 53.6	+1.6
	0.4nm,0.5s,mb3.1,baz=293,slow=11,SNR=9.2						
ASAR	Alice Springs	25.33	126	P	P	15 41 06.2	+2.9
	0.3nm,0.7s,mb3.0,baz=305,slow=8.8,SNR=6.2						
KSRS	Korea Array	49.30	17	P	P	15 44 25.1	-0.1
	0.9nm,0.6s,mb4.0,baz=194,slow=7.6,SNR=4.9						
MJAR	Matsushiro Arr	52.31	27	P	P	15 44 46.9	-0.9
	0.3nm,0.6s,mb3.4,baz=213,slow=8.8,SNR=4.1						
MK31	Makanchi Array	62.07	338	eP	P	15 45 56.9	+0.3
MKAR	Makanchi Array	62.07	338	P	P	15 45 57.1	+0.5
	0.3nm,0.3s,mb3.8,baz=150,slow=7.4,SNR=18						

ISCJB **11** *15:55:23.9±0.8, 36.51N±0.05×71.5E±0.1, h97^{km}±13^{km}, mb3.8/3, Error ellipse: s-maj=14.2km s-min=8.2km az=168.4*

NEIC **11** *15:55:24.8±1.3, 36.36N×71.66E, h102^{km}±10^{km}, mb4.0/4, Error ellipse: s-maj=35.0km s-min=8.5km az=131.0*

IDC **11** *15:55:34.6±14.0, 38.73N×70.18E, h0^{km}, mb3.8/4, mb1 3.9/5, mb1mx3.5/22, mbtmp3.8/5, ML2.4/1, Error ellipse: s-maj=281.0km s-min=26.7km az=165.0*

ISC 11 15:55:25.4±0.8, **36.50N**±0.05×**71.5E**±0.1, **h93**^{km}±12^{km}, **n17**, σ**0**^{s}**97**/20, **mb3.8**/3, **1C**, **Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.78	226	eP	Pn	15 56 08.1	+0.1
THN	Thein Dam	5.36	138	eP	Pn	15 56 42.7	-0.2
THN				eS	Sn	15 57 42.8	-0.5
AML	Almayashu	5.89	16	eP	Pn	15 56 51.1	+1.1
	8.8nm,0.4s						
UCH	Uchtor	6.19	21	eP	Pn	15 56 55.5	+1.3
	1.7nm,0.5s						
EKS2	Erkin-Say	6.41	15	eP	Pn	15 56 58.2	+1.1
	4.0nm,0.6s						
AAK	Ala-Archa	6.56	20	eP	Pn	15 56 59.2	+0.1
	2.1nm,0.3s						
KK31	Karatay Array	6.64	354	P	Pn	15 56 59.7	-0.5
	1.4nm,0.3s,baz=184,slow=14,SNR=87						
KK31				⇑S	Sn	15 58 12.8	-1.6
	0.6nm,0.2s,baz=183,slow=21,SNR=5.6						
MKAR	Makanchi Array	13.08	35	Pn	Pn	15 58 27.1	-0.2
MKAR	Makanchi Array	13.08	35	Pn	Pn	15 58 27.2	-0.2
	0.0nm,0.3s,baz=229,slow=13,SNR=2.4						
AB31	Akbulak array	15.27	330	Pn	Pn	15 58 52.1	-3.6
	0.4nm,0.3s,baz=138,slow=12,SNR=23						
AB31				Sn	Sn	16 01 29.4	-15
	0.3nm,0.4s,baz=152,slow=23,SNR=3.4						
ZALV	Zalesovo Beam	19.76	24	P	Pn	15 59 46.8	-3.3
	0.4nm,0.3s,baz=222,slow=10,SNR=7.3						
AKASG	Malin Array Be	33.24	309	P	P	16 01 54.2	+0.8
AKASG	Malin Array Be	33.24	309	P	P	16 01 54.2	+0.8
	baz=100,slow=9.3,SNR=4.2						
FINES	FINESS Array B	37.70	326	P	P	16 02 30.8	-0.6
	0.4nm,0.5s,mb3.5,baz=122,slow=9.1,SNR=5.5						
ARCES	ARCESS Array B	41.29	337	P	P	16 03 02.1	+0.9
	5.7nm,1.1s,mb4.3,baz=118,slow=9.3,SNR=2.9						
NB2	NORSAR Subarra	44.61	323	P	P	16 03 28.0	0.0
	comp=Z,0.6nm,0.5s,mb3.6,baz=100,slow=7.9						
NOA	NORSAR Array B	44.61	323	P	P	16 03 27.9	-0.1
	comp=Z,1.2nm,0.8s,mb3.7,baz=100,slow=8.0,SNR=3.0						

IDC 11 15:57:50.3±2.0, **6.41S**×**129.54E**, **h0**^{km}, **mb3.7**/1, **mb1 3.6**/4, **mb1mx3.4**/15, **mbtmp3.5**/4, **ML3.3**/3, **Error ellipse: s-maj=80.8km s-min=26.7km az=76.0**, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.23	198	Pn	Pn	16 00 46.5	+0.6
	0.1nm,0.3s,baz=72,slow=17,SNR=13						
FITZ				Sn	Sn	16 02 49.5	-13
	0.4nm,0.3s,baz=227,slow=22,SNR=6.1						
WRA	Warramunga Arr	14.23	161	Pn	Pn	16 01 13.4	+0.1
	0.1nm,0.3s,baz=340,slow=13,SNR=16						
WRA				Sn	Sn	16 03 35.1	-17
	0.3nm,0.3s,baz=339,slow=22,SNR=5.8						
ASAR	Alice Springs	17.66	167	P	Pn	16 01 57.4	-0.5
	0.1nm,0.3s,baz=343,slow=10,SNR=23						
ASAR				S	Sn	16 05 02.2	-13
	0.1nm,0.3s,baz=344,slow=24,SNR=3.9						
MKAR	Makanchi Array	67.49	327	P	P	16 08 48.2	+0.1
	0.4nm,0.5s,baz=117,slow=8.1,SNR=14						

IDC **11** *16:03:03.8±3.8, 35.06N×72.15E, h0^{km}, mb3.8/4, mb1 3.8/6, mb1mx3.4/23, mbtmp3.7/6, ML3.5/1, Error ellipse: s-maj=78.0km s-min=33.2km az=137.0*

NEIC **11** *16:03:11.7±1.9, 35.19N×72.19E, h60^{km}±10^{km}, Error ellipse: s-maj=34.1km s-min=9.1km az=138.0*

ISCJB **11** *16:03:12.3±0.9, 35.44N±0.04×71.95E±0.08, h63^{km}±14^{km}, mb3.8/3, Error ellipse: s-maj=11.5km s-min=7.1km az=167.4*

ISC 11 16:03:14.0±0.8, **35.39N**±0.05×**71.91E**±0.09, **h64**^{km}±13^{km}, **n16**, σ**0**^{s}**96**/22, **mb3.8**/3, **2C-1D**, **Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.50	251	eP	Pn	16 03 52.4	0.0
KBL				eS	Sn	16 04 32.4	+11
THN	Thein Dam	4.32	132	eP	Pn	16 04 15.9	-1.3
THN				eS	Sn	16 05 07.9	+1.6
AML	Almayashu	6.87	11	eP	Pn	16 04 51.6	-0.4
	3.5nm,0.4s						
AML				eS	Sn	16 06 08.7	-0.1
UCH	Uchtor	7.12	16	eP	Pn	16 04 55.7	+0.3
	2.5nm,0.7s						
UCH				eS	Sn	16 06 15.2	+0.3
AAK	Ala-Archa	7.50	15	eP	Pn	16 05 01.0	+0.3
	1.1nm,0.4s						
KK31	Karatay Array	7.78	352	⇑P	Pn	16 05 03.8	-0.6
	0.8nm,0.4s,baz=183,slow=14,SNR=27						
KK31				⇑S	Sn	16 06 32.4	+1.4
	0.6nm,0.3s,baz=176,slow=20,SNR=4.7						
MK31	Makanchi Array	13.80	31	eP	Pn	16 06 31.0	+4.5
MKAR	Makanchi Array	13.80	31	Pn	Pn	16 06 25.6	-0.8
MKAR	Makanchi Array	13.80	31	Pn	Pn	16 06 25.6	-0.8
	baz=211,slow=10,SNR=2.3						
AB31	Akbulak array	16.41	331	Pn	Pn	16 06 58.2	-1.8
	0.5nm,0.6s,baz=159,slow=11,SNR=6.0						
AB31				⇓Sn	Sn	16 09 57.5	-3.6
	0.1nm,0.5s						
AKTK	Aktyubinsk	18.11	330	P	Pn	16 07 21.5	+0.7
AKTO	Aktyubinsk	18.11	330	P	Pn	16 07 21.5	+0.7
	0.1nm,0.3s,baz=157,slow=13,SNR=4.2						
ZALV	Zalesovo Beam	20.64	22	P	P	16 07 46.5	-1.5
	1.2nm,0.3s,baz=217,slow=10,SNR=7.4						
FINES	FINESS Array B	38.82	327	P	P	16 10 33.3	+1.1
	0.8nm,0.7s,mb3.6,baz=116,slow=11,SNR=5.4						
ARCES	ARCESS Array B	42.45	338	P	P	16 11 02.6	+0.6
	6.5nm,1.1s,mb4.2,baz=114,slow=8.3,SNR=7.0						
TORD	Torodi Ar. Bea	66.44	270	P	P	16 13 56.7	-0.2
	0.4nm,0.7s,mb3.6,baz=46,slow=6.4,SNR=3.6						

IDC **11** *16:16:10.7±16.0, 47.72N×154.14E, h0^{km}, mb3.7/3, mb1 3.8/3, mb1mx3.4/21, mbtmp3.7/3, Error ellipse: s-maj=389.9km s-min=87.9km az=155.0*

MOS **11** *16:16:20.7±0.3, 48.67N×152.79E, h26^{km}, mb3.7/1, Error ellipse: s-maj=68.1km s-min=32.3km az=63.8*

ISCJB **11** *16:16:21.7±1.4, 48.5N±0.2×152.9E±0.3, h33^{km}, mb3.7/3, Error ellipse: s-maj=42.6km s-min=9.5km az=139.7*

ISC 11 16:16:23.6±1.5, **48.5N**±0.2×**152.9E**±0.3, **h35**^{km}, **n6**, σ**1**^{s}**12**/7, **mb3.7**/3, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	3.01	43	ePN	Pn	16 17 07.0	-1.7
SKR				eS	Sn	16 17 45.0	+1.5
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=N,120nm,0.5s						
SKR				smax			
	comp=E,60nm,0.5s						
SKR				smax			
	comp=Z,60nm,0.5s						
KUR	Kuril'sk	4.77	228	PN	Pn	16 17 33.5	+0.6
MKAR	Makanchi Array	46.02	296	P	P	16 24 44.3	+1.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	Makanchi Array	46.02	296	P	P	16 24 44.3	+0.9
	comp=Z,0.5nm,0.8s,mb3.5,baz=67,slow=7.8,SNR=4.8						
FINES	FINESS Array B	62.38	334	P	P	16 26 41.8	-0.4
	comp=Z,0.4nm,0.4s,mb4.0,baz=43,slow=6.7,SNR=14						
GERES	GERESS Array B	76.80	334	P	P	16 28 10.2	-1.0
	comp=Z,0.3nm,0.3s,mb3.6,baz=38,slow=6.8,SNR=5.7						

CSEM **11** *16:36:21.8±0.4, 38.56N×38.95E, h40^{km}, MD2.7, Error ellipse: s-maj=14.8km s-min=6.9km az=147.0*

ISCJB **11** *16:36:23.7±0.8, 38.38N±0.05×39.10E±0.05, h2^{km}±12^{km}, Error ellipse: s-maj=8.1km s-min=6.2km az=157.1*

DDA **11** *16:36:23.2, 38.44N×39.18E, h7^{km}±5^{km}, Md2.7*

ISK **11** *16:36:23.2, 38.46N×39.08E, h6^{km}, MD2.8*

ISC 11 16:36:24.1±0.8, **38.45N**±0.08×**39.07E**±0.06, **h13**^{km}±9^{km}, **n14**, σ**1**^{s}**09**/20, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.08	305	iP	Pg	16 36 27.1	+0.2
ELZG				iS	Sg	16 36 29.8	+0.9
PTK	Pertek	0.51	30	PG	Pg	16 36 33.3	-0.8
PTK	Pertek	0.51	30	ePg	Pg	16 36 33.3	-0.8
MYA	Malataya	0.52	256	PG	Pg	16 36 34.4	+0.1
MYA	Malataya	0.52	256	ePg	Pg	16 36 34.4	+0.1
MALT	Malatya	0.52	255	PG	Pg	16 36 34.0	-0.3
MALT				SG	Sg	16 36 41.2	0.0
MALT	Malatya	0.52	255	ePg	Pg	16 36 34.0	-0.3
MALT				eSg	Sg	16 36 41.2	0.0
URFA	Urfa	1.03	191	ePG	Pg	16 36 43.9	0.0
URFA	Urfa	1.03	191	ePg	Pg	16 36 43.9	0.0
DIY	Diyarbakir	1.07	121	ePG	Pg	16 36 43.6	-1.1
DIY	Diyarbakir	1.07	121	ePg	Pg	16 36 43.6	-1.1
ATAB	Bozova	1.16	212	eP	Pb	16 36 47.1	+1.3
ATAB				iS	Sb	16 36 57.8	-2.9
GZT	Gaziantep	1.62	228	eP	Pg	16 36 52.8	-2.3
GZT				eS	Sg	16 37 17.3	+1.2
MARD	Mardin	1.77	129	eP	Pn	16 36 54.6	+0.3
MARD				eS	Sn	16 37 18.0	+1.4

IDC **11** *16:38:53.8±1.8, 27.16N×97.06E, h0^{km}, mb3.0/4, mb1 3.2/4, mb1mx3.1/22, mbtmp3.0/4, Error ellipse: s-maj=82.1km s-min=24.5km az=67.0*

ISCJB **11** *16:38:56.5±0.9, 27.1N±0.1×97.0E±0.1, h33^{km}, mb3.1/4, Error ellipse: s-maj=21.3km s-min=13.8km az=9.1*

ISC 11 16:38:59.0±0.9, **27.2N**±0.1×**97.0E**±0.1, **h35**^{km}, **n7**, σ**0**^{s}**36**/7, **mb3.1**/4, **Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAPN	Taplejung	8.30	273	eP	Pn	16 40 57.5	+0.6
	5.0nm,0.4s						
ODAN	Odare	8.61	270	eP	Pn	16 41 01.2	+0.1
GUN	Gumba	9.93	277	eP	Pn	16 41 18.5	-0.7
SONM	Songino Array	21.88	17	P	P	16 43 48.8	+0.2
	0.2nm,0.6s,mb2.8,baz=222,slow=5.8,SNR=2.7						
MKAR	Makanchi Array	22.77	333	P	P	16 43 58.0	-0.2
	0.3nm,0.5s,mb3.0,baz=146,slow=10,SNR=8.2						
WRA	Warramunga Arr	59.17	138	P	P	16 48 56.5	0.0
	0.2nm,0.5s,mb3.4,baz=328,slow=7.6,SNR=5.0						
ASAR	Alice Springs	61.83	141	P	P	16 49 14.6	-0.1
	0.1nm,0.5s,mb3.2,baz=326,slow=6.8,SNR=4.9						

NEIC **11** *16:43:02.0, 16.94N×100.07W, h10^{km}, MD4.2(MEX), After MEX.*

MEX 11 16:43:01.8±0.6, **16.93N**×**100.08W**, **h11**^{km}±4^{km}, **MD4.2**, **Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.17	110	iP	Pg	16 43 05.0	-0.5
ACX				iS	Sg	16 43 08.0	0.0
CAIG	El Cayaco	0.22	304	iP	Pg	16 43 05.8	-0.6
CAIG				eS	Sg	16 43 09.6	+0.1
MEIG	Mezcala	1.09	24	iP	Pb	16 43 19.2	-3.5
MEIG				iS	Sb	16 43 33.3	-3.6
ZIIG	Zihuatanejo	1.49	297	eP	Pn	16 43 25.7	-2.8
ZIIG				eS	Sn	16 43 46.4	-1.5
ZIIG	Zihuatanejo	1.49	297	eP	Pn	16 43 25.7	-2.8
ZIIG				iS	Sn	16 43 43.4	-4.6
UTMO	Huajuapan	2.35	67	iP	Pn	16 43 36.9	-3.5
UTMO				iS	Sn	16 44 04.5	-4.8
SZVM	Salazar	2.48	15	eP	Pn	16 43 39.0	-3.1
SZVM				iS	Sn	16 44 10.1	-2.3
UNM	Universidad Na	2.54	20	eP	Pn	16 43 44.0	+1.0
PTVM	Pico Tres Padr	2.81	19	iP	Pn	16 43 43.3	-3.4
PTVM				iS	Sn	16 44 17.3	-3.3
IIO	Organos	2.95	26	eP	Pn	16 43 45.7	-3.0
IIO				iS	Sn	16 44 21.2	-2.9
OXX	Oaxaca	3.21	87	eP	Pn	16 43 58.5	+6.2
SFJM	Santa Fe	4.52	322	eP	Pn	16 44 20.0	+10

ISCJB **11** *17:01:04.5±0.4, 25.31N±0.08×123.96E±0.05, h148^{km}±7^{km}, mb3.3/6, Error ellipse: s-maj=14.2km s-min=5.1km az=155.1*

NEIC **11** *17:01:05.5±0.7, 25.35N×123.98E, h143^{km}±7^{km}, mb3.7/1, Error ellipse: s-maj=15.2km s-min=10.3km az=168.0*

JMA **11** *17:01:06.6±0.2, 25.30N×123.91E, h133^{km}±4^{km}, M3.5*

IDC **11** *17:01:08.3±7.0, 25.57N×124.35E, h178^{km}±83^{km}, mb3.0/5, mb1 3.1/6, mb1mx3.0/22, mbtmp3.1/6, Error ellipse: s-maj=87.0km s-min=20.6km az=62.0*

ISC 11 17:01:05.5±0.4, **25.33N**±0.08×**123.95E**±0.05, **h142**^{km}±7^{km}, **n30**, σ**0**^{s}**77**/41, **mb3.3**/6, **Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTJ	Tarama	0.97	135	P	Pn	17 01 29.8	+0.6
JTJ				S	Sn	17 01 47.7	+0.5
JIJ	Ishigaki jima	0.97	169	P	Pn	17 01 29.1	-0.2
JIJ				eS	Sn	17 01 46.0	-1.4
IRIF	Iriomote-Funau	1.01	191	P	Pn	17 01 29.5	-0.1
IRIF				eS	Sn	17 01 47.3	-0.6
JKRS	Kuro-shima	1.08	177	P	Pn	17 01 30.4	+0.1
JKRS				eS	Sn	17 01 48.4	-0.7
YOJ	Yonaguni jima	1.21	225	P	Pn	17 01 31.8	+0.3
YOJ				eS	Sn	17 01 50.4	-0.8
HATJ	Hateruma jima	1.27	186	P	Pn	17 01 32.4	+0.3
HATJ				eS	Sn	17 01 52.1	-0.2
JMJ	Miyako jima 2	1.32	112	P	Pn	17 01 33.5	+0.9
JMJ				eS	Sn	17 01 53.5	+0.3
JOGS	Gusukube	1.44	113	P	Pn	17 01 35.0	+1.2
JOGS				eS	Sn	17 01 56.3	+0.9
TATO	Taipei	2.25	262	eP	Pn	17 01 43.8	+0.6
YHNB	Yeheng	2.42	255	eP	Pn	17 01 47.0	+1.7
NACB	Ninganchiao	2.43	242	eP	Pn	17 01 44.6	-0.8
JKE	Kume jima 2	2.75	68	P	Pn	17 01 50.0	+0.7
JKE				eS	Sn	17 02 23.7	+0.6
JAGN	Aguni-jima	3.22	66	P	Pn	17 01 56.0	+0.6
JAGN				eS	Sn	17 02 33.0	-1.0
NAH1	Naha	3.49	75	P	Pn	17 01 59.7	+0.9
JJT2	Tamagusuku 2	3.52	76	P	Pn	17 02 00.0	+0.7
JIH	Iheya	3.99	64	P	Pn	17 02 05.5	0.0
JOW	Kunigami	4.17	68	P	Pn	17 02 07.3	-0.5
JOW	Kunigami	4.17	68	P	Pn	17 02 07.3	-0.5
	13nm,0.3s,baz=119,slow=16,SNR=119						
JOW				S	Sn	17 02 51.0	-5.1
	2.8nm,0.3s,baz=126,slow=19,SNR=1.8						
JTK	Tokunoshima	5.11	60	P	Pn	17 02 19.2	-1.0
JAM	Amami Oshima	5.92	57	P	Pn	17 02 29.5	-1.5
JZK	Kikaishima	6.15	60	P	Pn	17 02 33.4	-0.8
JMZ	Minamidaito 2	6.59	84	P	Pn	17 02 38.0	-2.0
SONM	Songino Array	26.40	333	P	P	17 06 28.6	-0.1
	0.2nm,0.5s,mb3.0,baz=158,slow=10.0,SNR=3.9						
MK31	Makanchi Array	39.31	314	eP	P	17 08 20.9	+0.3
MKAR	Makanchi Array	39.31	314	P	P	17 08 20.3	-0.3
	0.5nm,0.4s,mb3.5,baz=98,slow=9.4,SNR=22						
ZALV	Zalesovo Beam	40.70	325	P	P	17 08 31.2	-0.7
	1.1nm,0.5s,mb3.8,baz=110,slow=8.7,SNR=8.4						
KURK	Kurchatov	42.87	318	eP	P	17 08 49.7	+0.1
	0.6nm,0.4s,mb3.6						
WRA	Warramunga Arr	46.12	166	P	P	17 09 16.0	+0.3
	0.2nm,0.7s,mb2.8,baz=348,slow=9.0,SNR=4.6						
BRVK	Borovoye	48.48	320	eP	P	17 09 34.2	+0.6
BRTR	Keskin Array B	74.51	307	P	P	17 12 28.5	-0.1
	0.2nm,0.5s,mb3.0,baz=69,slow=4.8,SNR=4.0						

CSEM **11** *17:11:50.9±0.2, 35.36N×15.82E, h10^{km}, ML4.2, Error ellipse: s-maj=4.4km s-min=2.1km az=33.0*

IDC **11** *17:11:51.6±1.1, 35.13N×16.08E, h0^{km}, mb3.7/7, mb1 3.8/16, mb1mx3.7/29, mbtmp3.7/16, ML3.7/8, MS2.7/1, Ms1 2.7/1, ms1mx2.3/32, Error ellipse: s-maj=22.6km s-min=17.9km az=156.0*

PDG **11** *17:11:52.9±0.5, 35.48N×15.91E, h11^{km}±1^{km}, ML4.6/10, Error ellipse: s-maj=24.1km s-min=21.5km az=90.0*

ROM **11** *17:11:53.9±0.5, 35.24N×16.07E, h10^{km}±3^{km}, Ml4.2/30, Error ellipse: s-maj=3.2km s-min=0.7km az=111.0*

NEIC **11** *17:11:53.6±0.8, 35.37N×15.92E, h10^{km}, ML4.2(ROM), Error ellipse: s-maj=9.1km s-min=4.4km az=22.0*

BEO **11** *17:11:54.3±0.9, 35.49N×15.77E, ML4.2/1*

ISCJB **11** *17:11:56.8±0.6, 35.62N±0.03×16.30E±0.03, h17^{km}±5^{km}, mb3.6/7, Error ellipse: s-maj=5.6km s-min=4.1km az=18.4*

THE **11** *17:11:59.2, 35.43N×16.47E, h20^{km}, ML5.0*

SOF **11** *17:13:13.3, 39.70N×21.20E, h4^{km}, MD3.4*

ISC 11 17:11:57.8±0.6, **35.59N**±0.03×**16.11E**±0.03, **h16**^{km}±4^{km}, **n314**, σ**1**^{s}**32**/425, **mb3.6**/7, **10C-39D**, **Central**

Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WDD	**Wield Dalam**	**1.32**	**282**	Pg	**Pn**	**17 12 18.8**	**-2.8**
WDD				Sg	**Sb**	**17 12 38.0**	**-0.8**
	4µm,0.9s						
WDD	**Wield Dalam**	**1.32**	**282**	Pg	**Pn**	**17 12 18.8**	**-2.8**
WDD				Sg	**Sb**	**17 12 38.0**	**-0.8**
HAVL	**Avola**	**1.58**	**330**	Pg	**Pg**	**17 12 26.1**	**-2.0**
HAVL				Sg	**Sg**	**17 12 50.7**	**+2.1**
HAVL	**Avola**	**1.58**	**330**	Pg	**Pg**	**17 12 26.1**	**-2.0**
HAVL				Sg	**Sg**	**17 12 50.7**	**+2.1**
	2µm,0.4s						
HAVL	**Avola**	**1.58**	**330**	Pg	**Pg**	**17 12 26.1**	**-2.0**
HAVL				Sg	**Sg**	**17 12 50.7**	**+2.1**
HMDC	**Modica**	**1.73**	**322**	Pg	**Pg**	**17 12 27.9**	**-3.2**
HMDC				Sg	**Sg**	**17 12 53.0**	**-0.6**
HMDC	**Modica**	**1.73**	**322**	Pg	**Pg**	**17 12 27.9**	**-3.2**
HMDC				Sg	**Sg**	**17 12 53.0**	**-0.6**
	2µm,0.8s						
HMDC	**Modica**	**1.73**	**322**	Pg	**Pg**	**17 12 27.9**	**-3.2**
HMDC				Sg	**Sg**	**17 12 53.0**	**-0.6**
PZI	**Palazzolo**	**1.73**	**328**	Pg	**Pg**	**17 12 29.0**	**-2.1**
PZI	**Palazzolo**	**1.73**	**328**	Pg	**Pg**	**17 12 29.0**	**-2.1**
	19nm,0.2s						
AGST	**Augusta-Monte**	**1.80**	**337**	⇑*i*Pg	**Pb**	**17 12 29.6**	**-0.9**
AGST				Sg	**Sg**	**17 12 56.1**	**+0.2**
AGST	**Augusta-Monte**	**1.80**	**337**	⇑*i*Pg	**Pb**	**17 12 29.6**	**-0.9**
AGST				Sg	**Sg**	**17 12 56.1**	**+0.2**
	2µm,0.9s						
AGST	**Augusta-Monte**	**1.80**	**337**	⇑*i*Pg	**Pb**	**17 12 29.6**	**-0.9**
AGST				Sg	**Sg**	**17 12 56.1**	**+0.2**
HAGA	**Augusta**	**1.85**	**336**	⇑*i*Pg	**Pb**	**17 12 30.1**	**-1.2**
HAGA				Sg	**Sg**	**17 12 57.1**	**-0.4**
	1µm,0.5s						
HAGA	**Augusta**	**1.85**	**336**	⇑*i*Pg	**Pb**	**17 12 30.1**	**-1.2**
HAGA				Sg	**Sg**	**17 12 57.1**	**-0.4**
	1µm,0.5s						
HVZN	**Vizzini**	**1.94**	**325**	Pg	**Pb**	**17 12 31.4**	**-1.4**
HVZN				Sg	**Sg**	**17 12 58.8**	**-1.4**
HVZN	**Vizzini**	**1.94**	**325**	Pg	**Pb**	**17 12 31.4**	**-1.4**
HVZN				Sg	**Sg**	**17 12 58.8**	**-1.4**
	5µm,0.9s						
HVZN	**Vizzini**	**1.94**	**325**	Pg	**Pb**	**17 12 31.4**	**-1.4**
HVZN				Sg	**Sg**	**17 12 58.8**	**-1.4**
RAFF	**Raffo Rosso**	**2.15**	**320**	Pg	**Pb**	**17 12 34.2**	**-2.2**
RAFF	**Raffo Rosso**	**2.15**	**320**	Pg	**Pb**	**17 12 34.2**	**-2.2**
	4µm,1.0s						
RAFF	**Raffo Rosso**	**2.15**	**320**	Pg	**Pb**	**17 12 34.2**	**-2.2**
ECNV	**Catenanuova**	**2.29**	**331**	Pg	**Pb**	**17 12 37.9**	**-0.9**
	1µm,0.7s						
ECNV	**Catenanuova**	**2.29**	**331**	Pg	**Pb**	**17 12 37.9**	**-0.9**
	1µm,0.7s						
VAE	**Valguarnera**	**2.32**	**325**	Pn	**Pb**	**17 12 38.0**	**-1.3**
VAE				Sn	**Sg**	**17 13 16.1**	**+3.6**
VAE	**Valguarnera**	**2.32**	**325**	Pn	**Pb**	**17 12 38.0**	**-1.3**
	8.9nm,0.3s,baz=108,slow=7.2,SNR=12						
VAE				Sn	**Sg**	**17 13 16.1**	**+3.6**
	43nm,0.3s,baz=212,slow=1.1,SNR=6.3						
VAE	**Valguarnera**	**2.32**	**325**	Pn	**Pb**	**17 12 38.0**	**-1.3**
VAE				Sn	**Sg**	**17 13 16.1**	**+3.6**
MPAZ	**Palizzi**	**2.36**	**358**	Pg	**Pb**	**17 12 38.3**	**-1.6**
	449nm,0.5s						
MPAZ	**Palizzi**	**2.36**	**358**	Pg	**Pb**	**17 12 38.3**	**-1.6**
	449nm,0.5s						
MTTG	**Motta San Giov**	**2.43**	**352**	Pg	**Pb**	**17 12 39.4**	**-1.7**
MTTG	**Motta San Giov**	**2.43**	**352**	Pg	**Pb**	**17 12 39.4**	**-1.7**
	536nm,0.8s						
MTTG	**Motta San Giov**	**2.43**	**352**	Pg	**Pb**	**17 12 39.4**	**-1.7**
GALF	**Gagliano Caste**	**2.45**	**330**	Pg	**Pb**	**17 12 40.0**	**-1.5**
	1µm,0.7s						
GALF	**Gagliano Caste**	**2.45**	**330**	Pg	**Pb**	**17 12 40.0**	**-1.5**
	1µm,0.7s						
SOI	**Samo**	**2.47**	**359**	Pg	**Pb**	**17 12 40.1**	**-1.8**
SOI	**Samo**	**2.47**	**359**	Pg	**Pb**	**17 12 40.1**	**-1.8**
	178nm,0.5s						
SOI	**Samo**	**2.47**	**359**	Pg	**Pb**	**17 12 40.1**	**-1.8**
FAVR	**Favara**	**2.58**	**311**	Pg	**Pb**	**17 12 41.7**	**-2.0**
FAVR	**Favara**	**2.58**	**311**	Pg	**Pb**	**17 12 41.7**	**-2.0**
FAVR	**Favara**	**2.58**	**311**	Pg	**Pb**	**17 12 41.7**	**-2.0**
MSI	**Messina ING**	**2.64**	**351**	Pg	**Pn**	**17 12 42.8**	**+3.0**
MSI	**Messina ING**	**2.64**	**351**	Pg	**Pn**	**17 12 42.8**	**+3.0**
	968nm,0.5s						
MSI	**Messina ING**	**2.64**	**351**	Pg	**Pn**	**17 12 42.8**	**+3.0**
SCLL	**Scilla**	**2.67**	**353**	Pg	**Pn**	**17 12 43.0**	**+2.8**
SCLL	**Scilla**	**2.67**	**353**	Pg	**Pn**	**17 12 43.0**	**+2.8**
	78nm,0.3s						
SCLL	**Scilla**	**2.67**	**353**	Pg	**Pn**	**17 12 43.0**	**+2.8**
CSLB	**Castelbuono**	**2.86**	**325**	Pg	**Pb**	**17 12 47.6**	**-0.9**
CSLB	**Castelbuono**	**2.86**	**325**	Pg	**Pb**	**17 12 47.6**	**-0.9**
CSLB	**Castelbuono**	**2.86**	**325**	Pg	**Pb**	**17 12 47.6**	**-0.9**
PLAC	**Placanica**	**2.86**	**5**	Pg	**Pn**	**17 12 45.5**	**+2.7**
	126nm,0.5s						
PLAC	**Placanica**	**2.86**	**5**	Pg	**Pn**	**17 12 45.5**	**+2.7**
	126nm,0.5s						
GIB	**Gibilmanna**	**2.92**	**326**	Pg	**Pb**	**17 12 47.5**	**-1.9**
GIB	**Gibilmanna**	**2.92**	**326**	Pg	**Pb**	**17 12 47.5**	**-1.9**
GIB	**Gibilmanna**	**2.92**	**326**	Pg	**Pb**	**17 12 47.5**	**-1.9**
JOPP	**Joppolo**	**3.01**	**357**	Pg	**Pn**	**17 12 47.4**	**+2.5**
	297nm,0.5s						
JOPP	**Joppolo**	**3.01**	**357**	Pg	**Pn**	**17 12 47.4**	**+2.5**
	297nm,0.5s						
CLTB	**Caltabellotta**	**3.06**	**311**	Pg	**Pn**	**17 12 45.9**	**+0.4**
CLTB	**Caltabellotta**	**3.06**	**311**	Pg	**Pn**	**17 12 45.9**	**+0.4**
	124nm,0.4s						
CLTB	**Caltabellotta**	**3.06**	**311**	Pg	**Pn**	**17 12 45.9**	**+0.4**
IFIL	**Filicudi I Eol**	**3.21**	**338**	Pg	**Pn**	**17 12 51.0**	**+3.4**
	920nm,0.5s						
IFIL	**Filicudi I Eol**	**3.21**	**338**	Pg	**Pn**	**17 12 51.0**	**+3.4**
	920nm,0.5s						
GRI	**Girifalco**	**3.23**	**4**	Pg	**Pn**	**17 12 50.7**	**+2.8**
GRI				Sg	**Sn**	**17 13 31.8**	**+5.8**
GRI	**Girifalco**	**3.23**	**4**	Pg	**Pn**	**17 12 50.7**	**+2.8**
GRI				Sg	**Sn**	**17 13 31.8**	**+5.8**
	386nm,0.5s						
GRI	**Girifalco**	**3.23**	**4**	Pg	**Pn**	**17 12 50.7**	**+2.8**
GRI				Sg	**Sn**	**17 13 31.8**	**+5.8**
SERS	**Sersale**	**3.47**	**8**	Pg	**Pn**	**17 12 53.6**	**+2.5**
	207nm,0.5s						
SERS	**Sersale**	**3.47**	**8**	Pg	**Pn**	**17 12 53.6**	**+2.5**
	207nm,0.5s						
TIP	**Timpagrande**	**3.62**	**8**	*e*Pn	**Pn**	**17 12 55.1**	**+2.0**
TIP				Pg	**Pn**	**17 12 56.1**	**+3.0**
TIP				*e*Sn	**Sn**	**17 13 35.4**	**-0.1**
TIP	**Timpagrande**	**3.62**	**8**	Pg	**Pn**	**17 12 56.1**	**+3.0**
	165nm,0.6s						
TIP	**Timpagrande**	**3.62**	**8**	*e*Pn	**Pn**	**17 12 55.1**	**+2.0**
TIP	**Timpagrande**	**3.62**	**8**	Pg	**Pn**	**17 12 56.1**	**+3.0**
CARO	**Carolei**	**3.65**	**1**	Pg	**Pn**	**17 12 56.3**	**+2.6**
	831nm,0.4s						
CARO	**Carolei**	**3.65**	**1**	Pg	**Pn**	**17 12 56.3**	**+2.6**
	831nm,0.4s						
TDS	**Terranova Siba**	**4.06**	**3**	Pg	**Pn**	**17 13 02.5**	**+3.2**
TDS	**Terranova Siba**	**4.06**	**3**	Pg	**Pn**	**17 13 02.5**	**+3.2**
	296nm,0.6s						
TDS	**Terranova Siba**	**4.06**	**3**	Pg	**Pn**	**17 13 02.5**	**+3.2**
VLS	**Valsamata**	**4.42**	**53**	*e*P	**Pn**	**17 13 03.6**	**-0.6**
ORI	**Oriolo Calabro**	**4.47**	**3**	Pg	**Pn**	**17 13 08.1**	**+3.2**
ORI	**Oriolo Calabro**	**4.47**	**3**	Pg	**Pn**	**17 13 08.1**	**+3.2**
	339nm,0.5s						
ORI	**Oriolo Calabro**	**4.47**	**3**	Pg	**Pn**	**17 13 08.1**	**+3.2**
BULG	**Bulgheria - Ca**	**4.51**	**353**	Pg	**Pn**	**17 13 07.8**	**+2.3**
	155nm,0.4s						
BULG	**Bulgheria - Ca**	**4.51**	**353**	Pg	**Pn**	**17 13 07.8**	**+2.3**
	155nm,0.4s						
MGR	**Morigerati**	**4.56**	**355**	Pg	**Pn**	**17 13 08.3**	**+2.2**
MGR	**Morigerati**	**4.56**	**355**	Pg	**Pn**	**17 13 08.3**	**+2.2**
	329nm,0.7s						
MGR	**Morigerati**	**4.56**	**355**	Pg	**Pn**	**17 13 08.3**	**+2.2**
SIRI	**Monte Sirino -**	**4.58**	**358**	Pg	**Pn**	**17 13 08.5**	**+2.0**
	118nm,0.4s						
SIRI	**Monte Sirino -**	**4.58**	**358**	Pg	**Pn**	**17 13 08.5**	**+2.0**
	118nm,0.4s						
SCHR	**S. Chirico Rap**	**4.60**	**360**	Pg	**Pn**	**17 13 09.7**	**+3.1**
SCHR	**S. Chirico Rap**	**4.60**	**360**	Pg	**Pn**	**17 13 09.7**	**+3.1**
MTSN	**Montesano sull**	**4.67**	**357**	Pg	**Pn**	**17 13 09.6**	**+1.9**
	111nm,0.5s						
MTSN	**Montesano sull**	**4.67**	**357**	Pg	**Pn**	**17 13 09.6**	**+1.9**
	111nm,0.5s						
MCEL	**Monticello**	**4.73**	**357**	Pg	**Pn**	**17 13 10.9**	**+2.5**
	112nm,0.8s						
MCEL	**Monticello**	**4.73**	**357**	Pg	**Pn**	**17 13 10.9**	**+2.5**
	112nm,0.8s						
CMPR	**Campora**	**4.76**	**353**	Pg	**Pn**	**17 13 11.0**	**+2.1**
	76nm,0.6s						
CMPR	**Campora**	**4.76**	**353**	Pg	**Pn**	**17 13 11.0**	**+2.1**
	76nm,0.6s						
CRAC	**Craco**	**4.77**	**3**	Pg	**Pn**	**17 13 11.9**	**+2.9**
	198nm,0.4s						
CRAC	**Craco**	**4.77**	**3**	Pg	**Pn**	**17 13 11.9**	**+2.9**
	198nm,0.4s						
LKD	**Levkas**	**4.78**	**48**	P	**Pn**	**17 13 10.2**	**+1.1**
LKD				S	**Sn**	**17 14 02.2**	**-1.9**
LKD	**Levkas**	**4.78**	**48**	*e*Pn	**Pn**	**17 13 10.2**	**+1.1**
LKD				*e*Sn	**Sn**	**17 14 02.2**	**-1.9**
LKD	**Levkas**	**4.78**	**48**	*e*Pn	**Pn**	**17 13 10.2**	**+1.1**
LKD				*e*Sn	**Sn**	**17 14 02.2**	**-1.9**
SCTE	**Santa Cesarea**	**4.84**	**22**	Pg	**Pn**	**17 13 10.5**	**+0.5**
	627nm,0.5s						
SCTE	**Santa Cesarea**	**4.84**	**22**	Pg	**Pn**	**17 13 10.5**	**+0.5**
	627nm,0.5s						
CDRU	**Civita di Ruta**	**4.93**	**353**	Pg	**Pn**	**17 13 13.8**	**+2.6**
	54nm,0.9s						
CDRU	**Civita di Ruta**	**4.93**	**353**	Pg	**Pn**	**17 13 13.8**	**+2.6**
	54nm,0.9s						
RLS	**Riolos of Patr**	**4.95**	**59**	*e*P	**Pn**	**17 13 12.1**	**+0.6**
ITM	**Ithomi**	**4.95**	**70**	*e*P	**Pn**	**17 13 10.5**	**-1.0**
LCI	**Lecce**	**4.99**	**18**	Pg	**Pn**	**17 13 12.3**	**+0.3**
LCI	**Lecce**	**4.99**	**18**	Pg	**Pn**	**17 13 12.3**	**+0.3**
	48nm,0.2s						
LCI	**Lecce**	**4.99**	**18**	Pg	**Pn**	**17 13 12.3**	**+0.3**
SGO	**Sicignano**	**5.00**	**353**	Pg	**Pn**	**17 13 15.1**	**+3.0**
SGO	**Sicignano**	**5.00**	**353**	Pg	**Pn**	**17 13 15.1**	**+3.0**
	24nm,0.3s						
SGO	**Sicignano**	**5.00**	**353**	Pg	**Pn**	**17 13 15.1**	**+3.0**
	24nm,0.3s						
KEK	**Kerkira**	**5.05**	**34**	*e*P	**Pn**	**17 13 12.8**	**0.0**
KEK	**Kerkira**	**5.05**	**34**	Pg	**Pn**	**17 13 12.8**	**0.0**
	391nm,1.6s						
KEK	**Kerkira**	**5.05**	**34**	Pg	**Pn**	**17 13 12.8**	**0.0**
	391nm,1.6s						
MRLC	**Muro Lucano**	**5.18**	**355**	Pg	**Pn**	**17 13 18.8**	**+4.2**
MRLC	**Muro Lucano**	**5.18**	**355**	Pg	**Pn**	**17 13 18.8**	**+4.2**
MRLC	**Muro Lucano**	**5.18**	**355**	Pg	**Pn**	**17 13 18.8**	**+4.2**
MCRV	**Calabrutti - M**	**5.23**	**352**	Pg	**Pn**	**17 13 18.9**	**+3.5**
	36nm,0.4s						
MCRV	**Calabrutti - M**	**5.23**	**352**	Pg	**Pn**	**17 13 18.9**	**+3.5**
	36nm,0.4s						
NOCI	**Noci**	**5.24**	**8**	Pg	**Pn**	**17 13 16.0**	**+0.5**
	206nm,0.3s						
NOCI	**Noci**	**5.24**	**8**	Pg	**Pn**	**17 13 16.0**	**+0.5**
	206nm,0.3s						
SG1	**Sgolgore (BA)**	**5.26**	**5**	*e*Pn	**Pn**	**17 13 16.7**	**+1.0**
PE1	**Pezze di Greco**	**5.30**	**11**	*e*Pn	**Pn**	**17 13 16.3**	**-0.1**
AMUR	**Altamura**	**5.32**	**4**	Pg	**Pn**	**17 13 17.6**	**+1.1**
	165nm,0.6s						
AMUR	**Altamura**	**5.32**	**4**	Pg	**Pn**	**17 13 17.6**	**+1.1**
	165nm,0.6s						
CSSN	**Cassano Irpino**	**5.33**	**351**	Pg	**Pn**	**17 13 20.3**	**+3.6**
CSSN	**Cassano Irpino**	**5.33**	**351**	Pg	**Pn**	**17 13 20.3**	**+3.6**
	11nm,0.3s						
CSSN	**Cassano Irpino**	**5.33**	**351**	Pg	**Pn**	**17 13 20.3**	**+3.6**
CDT	**Castel del Mon**	**5.48**	**1**	*e*Pn	**Pn**	**17 13 19.9**	**+1.1**
KEST	**Kesra**	**5.51**	**273**	Pn	**Pn**	**17 13 17.3**	**-1.9**
	0.1nm,0.3s,baz=81,slow=14,SNR=5.7						
KEST				Sn	**Sn**	**17 14 16.4**	**-5.7**
	0.2nm,0.3s,baz=270,slow=20,SNR=3.4						
KEST				LR	LR	17 15 58.9	
	comp=Z,72nm,18.1s,baz=177,slow=45						
JAN	**Janina**	**5.53**	**41**	*e*P	**Pn**	**17 13 20.3**	**+0.8**
BAI	**Bari**	**5.54**	**6**	*e*Pn	**Pn**	**17 13 20.7**	**+1.2**
EVR	**Evrytania**	**5.63**	**52**	*e*P	**Pn**	**17 13 21.3**	**+0.5**
VLI	**Veliai**	**5.64**	**77**	*e*P	**Pn**	**17 13 20.7**	**-0.3**
AGG	**Agios Georgios**	**6.03**	**54**	P	**Pn**	**17 13 26.9**	**+0.7**
AGG				S	**Sn**	**17 14 34.0**	**-0.9**
AGG	**Agios Georgios**	**6.03**	**54**	*e*Pn	**Pn**	**17 13 26.9**	**+0.7**
AGG				*e*Sn	**Sn**	**17 14 34.0**	**-0.9**
RGNG	**Rignano Grg**	**6.08**	**356**	Pg	**Pn**	**17 13 28.7**	**+1.6**
RGNG	**Rignano Grg**	**6.08**	**356**	Pg	**Pn**	**17 13 28.7**	**+1.6**
RGNG	**Rignano Grg**	**6.08**	**356**	Pg	**Pn**	**17 13 28.7**	**+1.6**
FGMS	**Monte Sant'Ang**	**6.11**	**359**	Pg	**Pn**	**17 13 28.8**	**+1.4**
FGMS	**Monte Sant'Ang**	**6.11**	**359**	Pg	**Pn**	**17 13 28.8**	**+1.4**
	26nm,0.4s						
FGMS	**Monte Sant'Ang**	**6.11**	**359**	Pg	**Pn**	**17 13 28.8**	**+1.4**
THL	**Klokotos Trika**	**6.14**	**48**	*e*P	**Pn**	**17 13 29.0**	**+1.2**
LKR	**Lokris**	**6.29**	**59**	*e*P	**Pn**	**17 13 30.1**	**+0.1**
TIR	**Tirane**	**6.46**	**26**	P	**Pn**	**17 13 33.2**	**+1.0**
TIR	**Tirane**	**6.46**	**26**	*e*Pn	**Pn**	**17 13 33.2**	**+1.0**
TIR	**Tirane**	**6.46**	**26**	Pg	**Pn**	**17 13 33.3**	**+1.1**
	134nm,0.5s						
TIR	**Tirane**	**6.46**	**26**	*e*Pn	**Pn**	**17 13 33.2**	**+1.0**
KZN	**Kozani**	**6.49**	**42**	*e*P	**Pn**	**17 13 34.0**	**+1.3**
VSL	**Villasalto**	**6.61**	**308**	*e*Pn	**Pn**	**17 13 33.8**	**-0.5**
VSL				*e*Sn	**Sn**	**17 14 45.8**	**-3.6**
VSL	**Villasalto**	**6.61**	**308**	*e*Pn	**Pn**	**17 13 33.8**	**-0.5**
VSL				*e*Sn	**Sn**	**17 14 45.8**	**-3.6**
OHR	**Ohrid**	**6.63**	**32**	P	**Pn**	**17 13 34.8**	**+0.3**
OHR	**Ohrid**	**6.63**	**32**	*e*Pn	**Pn**	**17 13 34.8**	**+0.3**
OHR	**Ohrid**	**6.63**	**32**	*e*Pn	**Pn**	**17 13 34.8**	**+0.3**
FNA	**Florina**	**6.64**	**37**	P	**Pn**	**17 13 35.7**	**+1.0**
FNA				S	**Sn**	**17 14 51.5**	**+1.6**
FNA	**Florina**	**6.64**	**37**	*e*Pn	**Pn**	**17 13 35.7**	**+1.0**
FNA				*e*Sn	**Sn**	**17 14 51.5**	**+1.6**
LIT	**Litokhoron**	**6.76**	**46**	P	**Pn**	**17 13 36.2**	**-0.1**
LIT				S	**Sn**	**17 14 52.8**	**-0.3**
LIT	**Litokhoron**	**6.76**	**46**	*e*Pn	**Pn**	**17 13 36.2**	**-0.1**
LIT				*e*Sn	**Sn**	**17 14 52.8**	**-0.3**
LIT	**Litokhoron**	**6.76**	**46**	*e*Pn	**Pn**	**17 13 36.2**	**-0.2**
LIT				*e*Sn	**Sn**	**17 14 52.8**	**-0.2**
NEO	**Neokhori**	**6.76**	**55**	*e*P	**Pn**	**17 13 36.0**	**-0.4**
XOR	**Xorichti**	**6.78**	**54**	P	**Pn**	**17 13 37.3**	**+0.8**
XOR	**Xorichti**	**6.78**	**54**	*e*Pn	**Pn**	**17 13 37.3**	**+0.8**
XOR	**Xorichti**	**6.78**	**54**	*e*Pn	**Pn**	**17 13 37.3**	**+0.8**
BIA	**Bitola**	**6.79**	**36**	*e*Pn	**Pn**	**17 13 37.5**	**+0.7**
BIA	**Bitola**	**6.79**	**36**	*e*Pn	**Pn**	**17 13 37.5**	**+0.7**
ULC	**Ulcinj**	**6.82**	**20**	⇓*i*Pn	**Pn**	**17 13 37.1**	**0.0**
ULC				*e*Sn	**Sn**	**17 14 54.8**	**+0.4**
ULC	**Ulcinj**	**6.82**	**20**	⇓*i*Pn	**Pn**	**17 13 37.1**	**0.0**
ULC				*e*Sn	**Sn**	**17 14 54.8**	**+0.4**
ULC	**Ulcinj**	**6.82**	**20**	⇓*i*Pn	**Pn**	**17 13 37.1**	**0.0**
ULC				*e*Sn	**Sn**	**17 14 54.8**	**+0.4**
BUM	**Brajici-Budva**	**7.04**	**17**	⇓*i*Pn	**Pn**	**17 13 39.5**	**-0.7**
BUM				*e*Sn	**Sn**	**17 14 59.6**	**-0.3**
BUM	**Brajici-Budva**	**7.04**	**17**	⇓*i*Pn	**Pn**	**17 13 39.5**	**-0.7**
BUM				*e*Sn	**Sn**	**17 14 59.6**	**-0.3**
BUM	**Brajici-Budva**	**7.04**	**17**	⇓*i*Pn	**Pn**	**17 13 39.5**	**-0.7**
BUM				*e*Sn	**Sn**	**17 14 59.6**	**-0.3**
HCY	**Herceg Novi**	**7.09**	**14**	⇓*i*Pn	**Pn**	**17 13 39.7**	**-1.2**
HCY				*e*Sn	**Sn**	**17 15 00.9**	**-0.2**
HCY	**Herceg Novi**	**7.09**	**14**	⇓*i*Pn	**Pn**	**17 13 39.7**	**-1.2**
HCY				*e*Sn	**Sn**	**17 15 00.9**	**-0.2**
HCY	**Herceg Novi**	**7.09**	**14**	⇓*i*Pn	**Pn**	**17 13 39.7**	**-1.2**
HCY				*e*Sn	**Sn**	**17 15 00.9**	**-0.2**
SIVA	**Sivas**	**7.14**	**92**	P	**Pn**	**17 13 38.7**	**-2.8**
SIVA				S	**Sn**	**17 14 56.0**	**-6.4**
SIVA	**Sivas**	**7.14**	**92**	*e*Pn	**Pn**	**17 13 38.7**	**-2.8**
SIVA				*e*Sn	**Sn**	**17 14 56.0**	**-6.4**
SIVA	**Sivas**	**7.14**	**92**	*e*Pn	**Pn**	**17 13 38.7**	**-2.9**
SIVA				*e*Sn	**Sn**	**17 14 56.0**	**-6.4**
AOS	**Alonnisos**	**7.14**	**58**	P	**Pn**	**17 13 42.4**	**+0.8**
AOS	**Alonnisos**	**7.14**	**58**	*e*Pn	**Pn**	**17 13 42.4**	**+0.8**
AOS	**Alonnisos**	**7.14**	**58**	*e*Pn	**Pn**	**17 13 42.4**	**+0.8**
IDI	**Anoyia**	**7.18**	**90**	Pn	**Pn**	**17 13 38.9**	**-3.1**
IDI				Sn	**Sn**	**17 14 57.0**	**-6.3**
IDI	**Anoyia**	**7.18**	**90**	Pn	**Pn**	**17 13 38.9**	**-3.1**
	5.1nm,0.3s,baz=255,slow=16,SNR=25						
IDI				Sn	**Sn**	**17 14 57.0**	**-6.3**
	24nm,0.3s,baz=145,slow=23,SNR=15						
IDI	**Anoyia**	**7.18**	**90**	Pn	**Pn**	**17 13 38.9**	**-3.2**
IDI				Sn	**Sn**	**17 14 57.0**	**-6.3**
PDG	**Podgorica**	**7.25**	**19**	⇓*i*Pn	**Pn**	**17 13 42.6**	**-0.5**
PDG				*e*Sn	**Sn**	**17 15 05.3**	**+0.2**
TTG	**Podgorica**	**7.25**	**19**	⇓*i*Pn	**Pn**	**17 13 42.6**	**-0.5**
TTG				*e*Sn	**Sn**	**17 15 05.3**	**+0.2**
TTG	**Podgorica**	**7.25**	**19**	⇓*i*Pn	**Pn**	**17 13 42.6**	**-0.5**
TTG				*e*Sn	**Sn**	**17 15 05.3**	**+0.2**
TTG	**Podgorica**	**7.25**	**19**	⇓*i*Pn	**Pn**	**17 13 42.6**	**-0.5**
TTG				*e*Sn	**Sn**	**17 15 05.3**	**+0.2**
GRG	**Griva**	**7.29**	**41**	P	**Pn**	**17 13 43.9**	**+0.2**
GRG				S	**Sn**	**17 15 06.6**	**+0.6**
GRG	**Griva**	**7.29**	**41**	*e*Pn	**Pn**	**17 13 43.9**	**+0.2**
GRG				*e*Sn	**Sn**	**17 15 06.6**	**+0.6**
GRG	**Griva**	**7.29**	**41**	*e*Pn	**Pn**	**17 13 43.9**	**+0.3**
GRG				*e*Sn	**Sn**	**17 15 06.6**	**+0.6**
THE	**Thessaloniki**	**7.38**	**45**	P	**Pn**	**17 13 45.0**	**+0.1**
THE				S	**Sn**	**17 15 07.3**	**-0.9**
THE	**Thessaloniki**	**7.38**	**45**	*e*Pn	**Pn**	**17 13 45.0**	**+0.1**
THE				*e*Sn	**Sn**	**17 15 07.3**	**-0.9**
THE	**Thessaloniki**	**7.38**	**45**	*e*Pn	**Pn**	**17 13 45.0**	**+0.1**
THE				*e*Sn	**Sn**	**17 15 07.3**	**-1.0**
PAIG	**Paliouri**	**7.39**	**52**	P	**Pn**	**17 13 44.8**	**-0.2**
PAIG				S	**Sn**	**17 15 06.2**	**-2.4**
PAIG	**Paliouri**	**7.39**	**52**	*e*Pn	**Pn**	**17 13 44.8**	**-0.2**
PAIG				*e*Sn	**Sn**	**17 15 06.2**	**-2.4**
PAIG	**Paliouri**	**7.39**	**52**	*e*Pn	**Pn**	**17 13 44.8**	**-0.2**
PAIG				*e*Sn	**Sn**	**17 15 06.2**	**-2.4**
HORT	**Hortiatis**	**7.44**	**46**	P	**Pn**	**17 13 44.9**	**-0.7**
HORT				S	**Sn**	**17 15 07.6**	**-2.1**
HORT	**Hortiatis**	**7.44**	**46**	*e*Pn	**Pn**	**17 13 44.9**	**-0.7**
HORT				*e*Sn	**Sn**	**17 15 07.6**	**-2.1**
HORT	**Hortiatis**	**7.44**	**46**	*e*Pn	**Pn**	**17 13 44.9**	**-0.7**
HORT				*e*Sn	**Sn**	**17 15 07.6**	**-2.1**
PLG	**Polygyros**	**7.50**	**48**	P	**Pn**	**17 13 46.9**	**+0.3**
PLG				S	**Sn**	**17 15 08.5**	**-2.8**
PLG	**Polygyros**	**7.50**	**48**	*e*Pn	**Pn**	**17 13 46.9**	**+0.3**
PLG				*e*Sn	**Sn**	**17 15 08.5**	**-2.8**
PLG	**Polygyros**	**7.50**	**48**	*e*P	**Pn**	**17 13 46.3**	**-0.3**
PLG	**Polygyros**	**7.50**	**48**	*e*Pn	**Pn**	**17 13 46.9**	**+0.3**
PLG				*e*Sn	**Sn**	**17 15 08.5**	**-2.8**
BRY	**Bratogost**	**7.54**	**14**	⇓*i*Pn	**Pn**	**17 13 46.2**	**-0.8**
BRY				*e*Sn	**Sn**	**17 15 11.8**	**-0.3**
BRY	**Bratogost**	**7.54**	**14**	⇓*i*Pn	**Pn**	**17 13 46.2**	**-0.8**
BRY				*e*Sn	**Sn**	**17 15 11.8**	**-0.3**
BRY	**Bratogost**	**7.54**	**14**	⇓*i*Pn	**Pn**	**17 13 46.2**	**-0.8**
BRY				*e*Sn	**Sn**	**17 15 11.8**	**-0.3**
NKY	**Niksic**	**7.55**	**16**	⇓*i*Pn	**Pn**	**17 13 47.0**	**-0.2**
NKY				*e*Sn	**Sn**	**17 15 12.3**	**-0.1**
NKY	**Niksic**	**7.55**	**16**	⇓*i*Pn	**Pn**	**17 13 47.0**	**-0.2**
NKY				*e*Sn	**Sn**	**17 15 12.3**	**-0.1**
NKY	**Niksic**	**7.55**	**16**	⇓*i*Pn	**Pn**	**17 13 47.0**	**-0.2**
NKY				*e*Sn	**Sn**	**17 15 12.3**	**-0.1**
SKO	**Skopje**	**7.61**	**32**	P	**Pn**	**17 13 48.7**	**+0.7**
SKO	**Skopje**	**7.61**	**32**	*e*Pn	**Pn**	**17 13 48.7**	**+0.7**
SKO	**Skopje**	**7.61**	**32**	*e*Pn	**Pn**	**17 13 48.7**	**+0.7**
PVY	**Plav**	**7.61**	**22**	⇓*i*Pn	**Pn**	**17 13 48.1**	**+0.1**
PVY				*e*Sn	**Sn**	**17 15 14.7**	**+0.9**
PVY	**Plav**	**7.61**	**22**	⇓*i*Pn	**Pn**	**17 13 48.1**	**+0.1**
PVY				*e*Sn	**Sn**	**17 15 14.7**	**+0.9**
PVY	**Plav**	**7.61**	**22**	⇓*i*Pn	**Pn**	**17 13 48.1**	**+0.1**
PVY				*e*Sn	**Sn**	**17 15 14.7**	**+0.9**
VAY	**Valandovo**	**7.64**	**40**	P	**Pn**	**17 13 48.1**	**-0.3**
VAY	**Valandovo**	**7.64**	**40**	*e*Pn	**Pn**	**17 13 48.1**	**-0.3**
VAY	**Valandovo**	**7.64**	**40**	*e*Pn	**Pn**	**17 13 48.1**	**-0.3**
LAST	**Lasithi**	**7.67**	**91**	P	**Pn**	**17 13 46.3**	**-2.5**
LAST	**Lasithi**	**7.67**	**91**	*e*Pn	**Pn**	**17 13 46.3**	**-2.5**
LAST	**Lasithi**	**7.67**	**91**	*e*Pn	**Pn**	**17 13 46.3**	**-2.5**
KNT	**Kendrikon**	**7.70**	**42**	P	**Pn**	**17 13 48.9**	**-0.4**
KNT	**Kendrikon**	**7.70**	**42**	*e*Pn	**Pn**	**17 13 48.9**	**-0.4**
KNT	**Kendrikon**	**7.70**	**42**	*e*Pn	**Pn**	**17 13 48.9**	**-0.4**
SOH	**Sokhos**	**7.73**	**45**	P	**Pn**	**17 13 49.8**	**+0.1**
SOH				S	**Sn**	**17 15 17.6**	**+0.8**
SOH	**Sokhos**	**7.73**	**45**	*e*Pn	**Pn**	**17 13 49.8**	**+0.1**
SOH				*e*Sn	**Sn**	**17 15 17.6**	**+0.8**
SOH	**Sokhos**	**7.73**	**45**	*e*Pn	**Pn**	**17 13 49.8**	**+0.2**
SOH				*e*Sn	**Sn**	**17 15 17.6**	**+0.8**
NPS	**Neapolis**	**7.77**	**90**	*e*P	**Pn**	**17 13 42.8**	**-7.4**
OUR	**Ouranopolis**	**7.81**	**50**	P	**Pn**	**17 13 50.6**	**-0.1**
OUR	**Ouranopolis**	**7.81**	**50**	*e*Pn	**Pn**	**17 13 50.6**	**-0.1**
OUR	**Ouranopolis**	**7.81**	**50**	*e*Pn	**Pn**	**17 13 50.7**	**-0.1**
BEY	**Berane**	**7.84**	**21**	⇓*i*Pn	**Pn**	**17 13 51.6**	**+0.5**
BEY				*e*Sn	**Sn**	**17 15 19.2**	**-0.3**
IVA	**Berane**	**7.84**	**21**	⇓*i*Pn	**Pn**	**17 13 51.6**	**+0.5**
IVA				*e*Sn	**Sn**	**17 15 19.2**	**-0.3**
IVA	**Berane**	**7.84**	**21**	⇓*i*Pn	**Pn**	**17 13 51.6**	**+0.5**
IVA				*e*Sn	**Sn**	**17 15 19.2**	**-0.3**
IVA	**Berane**	**7.84**	**21**	⇓*i*Pn	**Pn**	**17 13 51.6**	**+0.5**
IVA				*e*Sn	**Sn**	**17 15 19.2**	**-0.3**
UPM	**Unac-Piva**	**7.90**	**15**	⇓*i*Pn	**Pn**	**17 13 52.0**	**0.0**
UPM				*e*Sn	**Sn**	**17 15 20.6**	**-0.4**
UPM	**Unac-Piva**	**7.90**	**15**	⇓*i*Pn	**Pn**	**17 13 52.0**	**0.0**
UPM				*e*Sn	**Sn**	**17 15 20.6**	**-0.4**
UPM	**Unac-Piva**	**7.90**	**15**	⇓*i*Pn	**Pn**	**17 13 52.0**	**0.0**
UPM				*e*Sn	**Sn**	**17 15 20.6**	**-0.4**
SRS	**Serrai**	**8.06**	**45**	P	**Pn**	**17 13 54.4**	**+0.2**
SRS				S	**Sn**	**17 15 23.2**	**-1.8**
SRS	**Serrai**	**8.06**	**45**	*e*Pn	**Pn**	**17 13 54.4**	**+0.2**
SRS				*e*Sn	**Sn**	**17 15 23.2**	**-1.8**
SRS	**Serrai**	**8.06**	**45**	*e*Pn	**Pn**	**17 13 54.4**	**+0.2**
SRS				*e*Sn	**Sn**	**17 15 23.2**	**-1.7**
PLE	**Pljevlja**	**8.13**	**17**	⇓*i*Pn	**Pn**	**17 13 55.6**	**+0.4**
PLE				*e*Sn	**Sn**	**17 15 26.5**	**-0.2**
PLE	**Pljevlja**	**8.13**	**17**	⇓*i*Pn	**Pn**	**17 13 55.6**	**+0.4**
PLE				*e*Sn	**Sn**	**17 15 26.5**	**-0.2**
PLE	**Pljevlja**	**8.13**	**17**	⇓*i*Pn	**Pn**	**17 13 55.6**	**+0.4**
PLE				*e*Sn	**Sn**	**17 15 26.5**	**-0.2**
ZKR	**Zakros**	**8.27**	**90**	P	**Pn**	**17 13 54.5**	**-2.6**
ZKR	**Zakros**	**8.27**	**90**	*e*Pn	**Pn**	**17 13 54.5**	**-2.6**
ZKR	**Zakros**	**8.27**	**90**	*e*Pn	**Pn**	**17 13 54.5**	**-2.6**
KKB	**Krupnik**	**8.30**	**39**	*i* P	**Pn**	**17 13 57.3**	**-0.2**
MMB	**Musomiste**	**8.45**	**43**	*i* P	**Pn**	**17 13 58.9**	**-0.6**
BARS	**Barje**	**8.47**	**30**	*e*Pn	**Pn**	**17 13 59.7**	**-0.1**
BARS				*e*Sn	**Sn**	**17 15 35.5**	**+0.5**
BBLS	**Bajina Basta -**	**8.64**	**16**	*e*Pn	**Pn**	**17 14 01.5**	**-0.7**
BBLS				*e*Sn	**Sn**	**17 15 37.2**	**-2.1**
VTS	**Vitosha**	**8.90**	**36**	*e*P	**Pn**	**17 14 07.8**	**+2.1**
VTS	**Vitosha**	**8.90**	**36**	⇑*i*P	**Pn**	**17 14 07.1**	**+1.4**
VTS	**Vitosha**	**8.90**	**36**	*e*Pn	**Pn**	**17 14 06.5**	**+0.8**
VTS				*e*Sn	**Sn**	**17 15 45.1**	**-0.5**
DIVS	**Divcibare**	**9.00**	**18**	*e*Pn	**Pn**	**17 14 06.4**	**-0.7**
DIVS				*e*Sn	**Sn**	**17 15 46.4**	**-1.7**
GRUS	**Gruza**	**9.01**	**22**	*e*Pn	**Pn**	**17 14 07.5**	**+0.3**
GRUS				*e*Sn	**Sn**	**17 15 46.9**	**-1.4**
RZN	**Rozhen**	**9.07**	**45**	*i* P	**Pn**	**17 14 07.9**	**-0.2**
RDO	**Rodhopi**	**9.25**	**50**	*e*P	**Pn**	**17 14 09.6**	**-0.8**
ALN	**Alexandroupoli**	**9.44**	**53**	P	**Pn**	**17 14 13.0**	**0.0**
ALN	**Alexandroupoli**	**9.44**	**53**	P	**Pn**	**17 14 13.0**	**-0.1**
KDZ	**Kurdzhali**	**9.46**	**48**	*e*P	**Pn**	**17 14 13.3**	**-0.1**
SVIS	**Svilajnac**	**9.53**	**23**	*e*Pn	**Pn**	**17 14 13.4**	**-1.0**
SVIS				*e*Sn	**Sn**	**17 15 59.4**	**-1.8**
FGSL	**Fruska Gora**	**9.96**	**15**	*e*Pn	**Pn**	**17 14 18.9**	**-1.3**
FGSL				*e*Sn	**Sn**	**17 16 09.2**	**-2.4**
PKSM	**Moragy**	**10.78**	**9**	⇓*i*P	**Pn**	**17 14 30.8**	**-0.6**
PKSM	**Moragy**	**10.78**	**9**	*e*Pn	**Pn**	**17 14 31.0**	**-0.4**
SZH	**Strazhica**	**10.78**	**42**	*i* P	**Pn**	**17 14 32.0**	**+0.5**
BZS	**Buzias**	**10.85**	**21**	⇓P	**Pn**	**17 14 31.6**	**-0.8**
BZS				S	**Sn**	**17 16 31.5**	**-1.8**
BZS	**Buzias**	**10.85**	**21**	⇓*i*P	**Pn**	**17 14 31.6**	**-0.8**
BZS	**Buzias**	**10.85**	**21**	*e*Pn	**Pn**	**17 14 31.5**	**-0.9**
BZS				*e*Sn	**Sn**	**17 16 30.8**	**-2.6**
BZS				*e*Sn	**Sn**	**17 16 30.9**	**-2.5**
BZS	**Buzias**	**10.85**	**21**	⇓P	**Pn**	**17 14 31.6**	**-0.8**
BZS				S	**Sn**	**17 16 31.5**	**-1.9**
GZR	**Gura Zlata**	**11.02**	**25**	⇓P	**Pn**	**17 14 35.3**	**+0.5**
GZR	**Gura Zlata**	**11.02**	**25**	⇓*i*P	**Pn**	**17 14 35.3**	**+0.6**
VOIR		**11.95**	**32**	⇑P	**Pn**	**17 14 48.8**	**+1.4**
VOIR		**11.95**	**32**	⇑*i*P	**Pn**	**17 14 48.8**	**+1.4**
DRGR		**12.24**	**22**	⇑P	**Pn**	**17 14 51.7**	**+0.3**
DRGR		**12.24**	**22**	⇑*i*P	**Pn**	**17 14 51.7**	**+0.4**
MLR	**Muntele Rosu**	**12.39**	**34**	Pn	**Pn**	**17 14 55.0**	**+1.6**
	0.2nm,0.3s,baz=143,slow=19,SNR=6.5						
MLR	**Muntele Rosu**	**12.39**	**34**	⇓*i*P	**Pn**	**17 14 54.7**	**+1.3**
MODS	**Modra-Piesok**	**12.80**	**4**	*e*Pn	**Pn**	**17 15 01.0**	**+2.0**
MODS				*e*Sn	**Sn**	**17 17 15.9**	**-5.2**
MODS	**Modra-Piesok**	**12.80**	**4**	*e*PN	**Pn**	**17 15 01.0**	**+2.0**
MODS				*e*SN	**Sn**	**17 17 15.9**	**-5.2**
MODS	**Modra-Piesok**	**12.80**	**4**	*e*Pn	**Pn**	**17 15 01.0**	**+2.0**
MODS				*e*Sn	**Sn**	**17 17 15.9**	**-5.2**
VYHS	**Vyhne**	**13.05**	**8**	*e*SN	**Sn**	**17 17 23.1**	**-4.1**
VYHS	**Vyhne**	**13.05**	**8**	*e*Sn	**Sn**	**17 17 23.1**	**-4.1**
KECS	**Kecovo**	**13.28**	**13**	*e*Pn	**Pn**	**17 15 07.9**	**+2.3**
KECS				*e*Sn	**Sn**	**17 17 24.8**	**-8.0**
KECS	**Kecovo**	**13.28**	**13**	*e*PN	**Pn**	**17 15 07.9**	**+2.3**
KECS				*e*SN	**Sn**	**17 17 24.8**	**-8.0**
GERES	**GERESS Array B**	**13.36**	**353**	Pn	**Pn**	**17 15 08.1**	**+1.4**
GERES	**GERESS Array B**	**13.36**	**353**	Pn	**Pn**	**17 15 08.1**	**+1.4**
	0.1nm,0.3s,baz=175,slow=14,SNR=2.5						
GERES	**GERESS Array B**	**13.36**	**353**	Pn	**Pn**	**17 15 08.1**	**+1.4**
KOLS	**Kolonicke sedl**	**14.08**	**17**	*e*P	**Pn**	**17 15 18.3**	**+1.8**
KOLS	**Kolonicke sedl**	**14.08**	**17**	*e*	**Pn**	**17 15 18.3**	**+1.8**
STHS	**Stebnicka Huta**	**14.32**	**14**	*e*Pn	**Pn**	**17 15 22.3**	**+2.6**
STHS	**Stebnicka Huta**	**14.32**	**14**	*e*PN	**Pn**	**17 15 22.3**	**+2.6**
STHS	**Stebnicka Huta**	**14.32**	**14**	*e*Pn	**Pn**	**17 15 22.3**	**+2.6**
BR131	**Keskin Array S**	**14.48**	**68**	*e*P	**Pn**	**17 15 24.7**	**+2.6**
BR131	**Keskin Array S**	**14.48**	**68**	*e*P	**Pn**	**17 15 24.7**	**+2.6**
BRTR	**Keskin Array B**	**14.48**	**68**	Pn	**Pn**	**17 15 21.4**	**-0.6**

BRTR	Keskin Array B	14.48	68	Pn	Pn	17 15 21.4	-0.6
	0.1nm,0.3s,baz=256,slow=13,SNR=5.7						
BRTR	Keskin Array B	14.48	68	Pn	Pn	17 15 21.5	-0.6
MMAI	Mount Meron Ar	16.15	94	Pn	Pn	17 15 37.6	-6.5
	2.4nm,0.3s,baz=301,slow=11,SNR=12						
MMAI				Sn	Sx	17 18 26.6	
	2.3nm,0.3s,baz=261,slow=19,SNR=5.5						
EIL	Elat	16.93	105	Pn	Pn	17 15 48.2	-5.8
EIL				Sn	Sx	17 18 41.5	
EIL	Elat	16.93	105	Pn	Pn	17 15 48.2	-5.8
	0.3nm,0.3s,baz=358,slow=7.3,SNR=3.2						
EIL				Sn	Sx	17 18 41.5	
	0.3nm,0.3s,baz=329,slow=18,SNR=2.6						
EIL	Elat	16.93	105	Pn	Pn	17 15 48.2	-5.8
EIL				Sn	Sx	17 18 41.5	
MDT	Midelt	17.36	267	P	Pn	17 15 54.3	-5.2
	0.1nm,0.3s,baz=75,slow=19,SNR=2.4						
ASF	Jabal al Asfar	17.59	95	S	Sx	17 18 56.1	
	0.4nm,0.3s,baz=198,slow=16,SNR=2.1						
AKASG	Malin Array Be	17.83	28	P	Pn	17 16 05.1	-0.1
AKASG	Malin Array Be	17.83	28	P	Pn	17 16 05.1	-0.1
	0.3nm,0.3s,baz=219,slow=10,SNR=6.9						
HFS	Hagfors	24.60	357	P	P	17 17 16.0	-0.9
	2.8nm,0.9s,mb3.8,baz=185,slow=14,SNR=3.6						
TORD	Torodi Ar. Bea	25.86	214	P	P	17 17 20.6	-8.2
	1.0nm,0.8s,mb3.4,baz=23,slow=8.3,SNR=6.7						
FINES	FINESS Array B	26.64	11	P	P	17 17 35.5	+0.1
	2.3nm,0.9s,mb3.7,baz=165,slow=12,SNR=3.1						
MKAR	Makanchi Array	49.67	56	P	P	17 20 47.8	-0.9
	0.2nm,0.5s,mb3.4,baz=273,slow=6.1,SNR=7.9						
ZALV	Zalesovo Beam	50.04	46	P	P	17 20 50.4	-1.0
	1.1nm,0.5s,mb4.1,baz=282,slow=7.4,SNR=6.0						
SONM	Songino Array	64.82	48	P	P	17 22 35.0	-0.7
	0.4nm,0.8s,mb3.5,baz=289,slow=7.4,SNR=3.8						
YKA	Yellowknife Ar	74.55	339	P	P	17 23 34.9	-0.5
YKA	Yellowknife Ar	74.55	339	P	P	17 23 34.9	-0.5
	0.1nm,0.3s,mb3.2,baz=42,slow=7.5,SNR=5.2						
YKA	Yellowknife Ar	74.55	339	P	P	17 23 34.9	-0.5

ISCJB ***11*** *17:27:48.7±0.8, 24.45S±0.04×67.2W±0.1, h168km±15km, mb3.6/2, Error ellipse: s-maj=15.9km s-min=6.9km az=2.6*

IDC ***11*** *17:27:48.7±1.8, 24.43S×67.03W, h143km±18km, mb3.3/2, mb1 3.6/4, mb1mx3.4/16, mbtmp3.4/4, Error ellipse: s-maj=33.1km s-min=14.7km az=91.0*

NEIC ***11*** *17:27:49.2±0.8, 24.47S×67.06W, h151km±10km, MG3.8(GUC), Error ellipse: s-maj=16.7km s-min=9.0km az=107.0*

GUC ***11*** *17:27:52.6±0.5, 24.47S×67.66W, h190km, ML3.8*

ISC 11 17:27:49.4±0.8, **24.44S**±0.04×**67.15W**±0.10, **h154**km±15km, **n16**, σ**1§11**/21, **mb3.6**/2, **2C-2D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPN1	Cerro Paranal	2.97	266	⇓*i*P	Pn	17 28 38.0	+1.5
CPN1				*i* S	Sn	17 29 12.9	+0.1
CPN1				AML	AML	17 29 14.3	
	comp=E,225nm,0.3s						
CEN1	Los Morros	2.98	290	⇓*i*P	Pn	17 28 38.7	+2.0
CEN1				*i* S	Sn	17 29 13.3	+0.2
CEN1				AML	AML	17 29 15.2	
	comp=N,225nm,0.5s						
ANCH	Antofagasta	3.08	284	⇑*i*P	Pn	17 28 38.9	+1.1
ANCH				*i* S	Sn	17 29 13.5	-1.7
ANCH	Antofagasta	3.08	284	⇑*i*P	Pn	17 28 38.9	+1.1
ANCH				*i* S	Sn	17 29 13.5	-1.7
ANCH				AML	AML	17 29 15.6	
	comp=N,322nm,0.2s						
CPCH	Copiapo	4.09	224	*i* S	Sn	17 29 39.0	+0.3
CDCH	Caldera	4.23	231	*e*P	Pn	17 28 52.4	-0.2
CDCH				*i* S	Sn	17 29 39.5	-2.4
LCO	Las Campanas	5.55	214	*e*Pn	Pn	17 29 10.1	+0.1
CFAA	Coronel Fontan	7.20	187	P	Pn	17 29 32.3	+0.3
	comp=N,0.0nm,0.3s,baz=5.2,slow=11,SNR=4.0						
CFAA				S	Sn	17 30 52.3	-0.3
	comp=N,0.2nm,0.3s,baz=108,slow=20,SNR=4.1						
LPAZ	La Paz	8.17	353	*e*Pn	Pn	17 29 45.7	+0.7
LPAZ				S	Sn	17 31 14.2	-1.8
LPAZ	La Paz	8.17	353	P	Pn	17 29 45.8	+0.8
	comp=N,1.0nm,0.3s,baz=162,slow=10,SNR=15						
LPAZ				S	Sn	17 31 14.2	-1.8
	comp=N,0.1nm,0.3s,baz=315,slow=10.0,SNR=2.5						
SIV	San Ignacio	10.16	35	P	Pn	17 30 11.3	-0.1
	comp=N,0.9nm,0.3s,baz=225,slow=12,SNR=12						
TXAR	Lajitas Array	63.96	325	P	P	17 38 07.1	+0.9
	comp=N,1.1nm,0.9s,mb3.7,baz=159,slow=7.7,SNR=8.5						
TORD	Torodi Ar. Bea	76.85	69	P	P	17 39 23.6	-1.2
	comp=N,0.4nm,0.4s,mb3.4,baz=255,slow=3.9,SNR=5.1						
MK31	Makanchi Array	146.95	40	*e*PKPbc	PKPbc	17 47 14.2	+0.6
MKAR	Makanchi Array	146.95	40	PKPbc	PKPbc	17 47 14.3	+0.7
MKAR	Makanchi Array	146.95	40	PKPbc	PKPbc	17 47 14.3	+0.7
	comp=N,0.9nm,0.6s,baz=303,slow=3.2,SNR=16						

NSSC ***11*** *17:51:39.3, 38.58N×39.29E, h6km±8km*

BJI ***11*** *17:51:40.8, 38.19N×39.41E, h8km, mB5.3, mb4.4*

ISK ***11*** *17:51:40.3, 38.43N×39.14E, h5km, MD4.2, ML4.4*

CSEM ***11*** *17:51:40.4±0.0, 38.39N×39.18E, h2km, mb4.4/14, Error ellipse: s-maj=1.3km s-min=1.0km az=168.0*

TIF ***11*** *17:51:41.0, 38.45N×39.13E, h12km±2km*

MOS ***11*** *17:51:41.8±1.0, 38.24N×39.34E, h11km, mb4.4/16, Error ellipse: s-maj=7.3km s-min=5.9km az=128.1*

IDC ***11*** *17:51:41.4±0.7, 38.34N×39.21E, h0km, mb3.9/11, mb1 3.9/19, mb1mx3.8/27, mbtmp3.8/19, ML3.6/8, MS3.4/8, Ms1 3.4/8, ms1mx3.2/34, Error ellipse: s-maj=14.3km s-min=11.7km az=151.0*

ISCJB ***11*** *17:51:42.1±0.2, 38.38N±0.02×39.20E±0.02, h10km, mb4.1/29, MS3.9/2, Error ellipse: s-maj=2.4km s-min=1.9km az=142.0*

NEIC ***11*** *17:51:43.2±0.5, 38.28N×39.27E, h10km, mb4.4/14, ML4.3(ISK), Error ellipse: s-maj=9.4km s-min=6.3km az=175.0*

DDA ***11*** *17:51:43.1, 38.33N×39.18E, h30km±2km, Md3.9*

ISC 11 17:51:43.5±0.2, **38.35N**±0.02×**39.21E**±0.02, **h10**km, **n258**, σ**1§25**/296, **mb4.1**/29, **MS3.9**/2, **9C-33D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.23	310	⇑*i*P	Pg	17 51 45.2	-3.1
ELZG				*i* S	Sg	17 51 55.2	+3.8
PTK	Pertek	0.56	15	*i* PG	Pg	17 51 50.8	-3.5
PTK				*i* SG	Sg	17 51 59.1	-2.6
PTK	Pertek	0.56	15	*i* Pg	Pg	17 51 50.8	-3.5
PTK				*i* Sg	Sg	17 51 59.1	-2.6
MALT	Malatya	0.62	267	*i* PG	Pg	17 51 52.0	-3.4
MALT				*i* SG	Sg	17 52 01.2	-2.3
MALT	Malatya	0.62	267	*e*Pg	Pg	17 51 52.7	-2.7
MALT				*e*Sg	Sg	17 52 02.0	-1.5
MALT	Malatya	0.62	267	*e*P	Pg	17 51 52.7	-2.7
MALT				*e*		17 52 02.0	
MALT	Malatya	0.62	267	⇓*i*P	Pg	17 51 52.6	-2.8
MALT	Malatya	0.62	267	*e*Pg	Pg	17 51 52.7	-2.7
MALT				*i* Sg	Sg	17 52 01.2	-2.3
MYA	Malataya	0.62	268	*i* PG	Pg	17 51 52.8	-2.6
MYA	Malataya	0.62	268	*i* Pg	Pg	17 51 52.8	-2.6
DIY	Diyarbakir	0.92	119	*i* PG	Pg	17 52 01.1	-0.1
DIY	Diyarbakir	0.92	119	*i* Pg	Pg	17 52 01.1	-0.1
URFA	Urfa	0.96	199	*i* PG	Pg	17 52 01.5	-0.5
URFA	Urfa	0.96	199	*i* Pg	Pg	17 52 01.5	-0.5
BINT	Bingol	1.13	62	*i* PN	Pn	17 52 02.9	-2.5
BINT	Bingol	1.13	62	*i* Pn	Pn	17 52 02.9	-2.5
ATAB	Bozova	1.14	220	⇓*i*P	Pb	17 52 04.3	-1.0
ATAB				*i* S	Sb	17 52 20.7	+0.6
EZC	Erzincan	1.47	19	*i* PN	Pn	17 52 06.1	-4.0
MARD	Mardin	1.62	129	*i* P	Pn	17 52 11.1	-0.9
MARD				*i* S	Sn	17 52 35.0	+2.0
BNGL	BINGOL	1.63	68	*i* P	Pn	17 52 12.5	+0.2
BNGL				*i* S	Sn	17 52 36.7	+3.4
KBSD	Kabsdagh	1.71	141	⇑P	Pn	17 52 12.2	-1.2
KBSD				⇑S	Sn	17 52 36.6	+1.3
KBSD	Kabsdagh	1.71	141	⇑*i*P	Pn	17 52 12.2	-1.2
KBSD				⇑*i*S	Sn	17 52 36.6	+1.3
BTMT	Batman	1.80	94	*i* PN	Pn	17 52 13.4	-1.2
GAZ	Gaziantep	1.97	234	*i* PN	Pn	17 52 15.8	-1.1
GAZ	Gaziantep	1.97	234	*i* Pn	Pn	17 52 15.8	-1.1
SFNV	Sufian	2.06	159	⇑P	Pn	17 52 16.9	-1.2
SFNV				⇑S	Sn	17 52 45.7	+1.8
SFNV	Sufian	2.06	159	⇑*i*P	Pn	17 52 16.9	-1.2
SFNV				⇑*i*S	Sn	17 52 45.7	+1.8
GUMT	Gumushane	2.12	6	*i* PN	Pn	17 52 18.2	-0.7
GUMT	Gumushane	2.12	6	*i* Pn	Pn	17 52 18.2	-0.7
EZM	Erzurum	2.28	47	*i* PN	Pn	17 52 21.2	0.0
ERZM	Erzurum	2.28	47	*i* P	Pn	17 52 21.8	+0.6
SLMH	Al Salmeh	2.37	206	⇓P	Pn	17 52 21.8	-0.6
SLMH				⇓S	Sn	17 52 55.0	+3.6
SLMH	Al Salmeh	2.37	206	⇓*i*P	Pn	17 52 21.8	-0.6
SLMH				⇓*i*S	Sn	17 52 55.0	+3.6
KSRV	Kasrt alli	2.49	184	⇑P	Pg	17 52 32.0	+0.8
MACK	Trabzon	2.62	9	*i* P	Pn	17 52 26.1	+0.2
MACK				*i* S	Sb	17 53 03.5	+0.7
DRWC	Darouich	2.66	230	⇓P	Pn	17 52 25.0	-1.4
DRWC				⇑S	Sn	17 53 00.8	+2.1
DRWC	Darouich	2.66	230	⇓*i*P	Pn	17 52 25.0	-1.4
DRWC				⇑*i*S	Sn	17 53 00.8	+2.1
GRSN	GIRESUNGRSN	2.67	344	*i* P	Pn	17 52 26.7	+0.1
GRSN				*i* S	Sg	17 53 06.7	-2.6
BNN	Bunyan	2.68	282	PN	Pn	17 52 25.3	-1.4
BNN	Bunyan	2.68	282	*e*Pn	Pn	17 52 25.3	-1.4
SIRT	Sirnak	2.69	107	PN	Pn	17 52 27.1	+0.3
SIRT	Sirnak	2.69	107	*e*Pn	Pn	17 52 27.1	+0.3
MZRK	Al-Mazaregh	2.77	155	⇑P	Pn	17 52 26.6	-1.3
MZRK				⇓S	Sn	17 53 03.0	+1.5
MZRK	Al-Mazaregh	2.77	155	⇑*i*P	Pn	17 52 26.6	-1.3
MZRK				⇓*i*S	Sn	17 53 03.0	+1.6
KOZT	Kozan	2.81	253	PN	Pn	17 52 28.1	-0.4
TOKT	Tokat	2.85	314	PN	Pn	17 52 27.6	-1.4
TOKT	Tokat	2.85	314	*e*Pn	Pn	17 52 27.6	-1.4
COBT	Iskenderun	2.98	233	*i* P	Pg	17 52 39.4	-1.2
COBT				*i* S	Sg	17 53 20.3	+1.1
TUTA	Tutak	3.00	68	*i* P	Pn	17 52 31.0	-0.1
TUTA				*i* S	Sg	17 53 15.2	-4.7
CEYT	Ceyhan	3.06	245	PN	Pn	17 52 31.8	0.0
CEYT	Ceyhan	3.06	245	*e*Pn	Pn	17 52 31.8	0.0
BTCH	Batrach	3.19	224	⇓P	Pn	17 52 32.7	-0.9
BTCH				⇓S	Sn	17 53 15.1	+3.5
BTCH	Batrach	3.19	224	⇓*i*P	Pn	17 52 32.7	-0.9
BTCH				⇓*i*S	Sn	17 53 15.1	+3.4
AGRB	Hanur-Agry	3.19	66	PN	Pn	17 52 33.3	-0.4
AGRB	Hanur-Agry	3.19	66	*e*Pn	Pn	17 52 33.3	-0.4
YURE	YUREGIR	3.22	243	*i* P	Pn	17 52 34.0	-0.2
YURE				*i* S	Sg	17 53 25.9	-1.1
VANT	Van	3.29	87	PN	Pn	17 52 33.5	-1.5
VANB	Van	3.29	84	*e*PN	Pn	17 52 35.4	+0.4
VANB	Van	3.29	84	*e*Pn	Pn	17 52 35.4	+0.4
YOZ	Yozgat	3.29	294	PN	Pn	17 52 34.8	-0.3
YOZ	Yozgat	3.29	294	*e*Pn	Pn	17 52 34.8	-0.3
TVAN	Van	3.30	86	*e*P	Pn	17 52 35.6	+0.4
HTY	Hatay	3.31	229	PN	Pn	17 52 34.8	-0.5
HTY	Hatay	3.31	229	*e*Pn	Pn	17 52 34.8	-0.5
AVNT	Avonos	3.44	278	*i* P	Pn	17 52 36.6	-0.5
AVNT				*i* S	Sg	17 53 31.4	-2.5
KARA	Karaisali	3.47	253	*e*PN	Pn	17 52 37.5	0.0
KARA	Karaisali	3.47	253	*e*Pn	Pn	17 52 37.5	0.0
ARTV	Artvin	3.52	36	*i* P	Pn	17 52 38.3	+0.1
ARTV				*i* S	Sg	17 53 43.3	+6.8
KRTS	Karatas	3.53	241	*e*PN	Pn	17 52 38.5	+0.1
KRTS	Karatas	3.53	241	*e*Pn	Pn	17 52 38.5	+0.1
ARNB	Al Arnab	3.59	227	⇓P	Pn	17 52 38.5	-0.7
ARNB				⇓S	Sn	17 53 24.8	+3.2
BCA	Borcka	3.60	30	*e*PN	Pn	17 52 39.2	-0.2
BCA	Borcka	3.60	30	*e*Pn	Pn	17 52 39.2	-0.2
WRDH	Warideh	3.62	219	⇓P	Pn	17 52 39.0	-0.5
WRDH				⇑S	Sn	17 53 26.0	+3.7
WRDH	Warideh	3.62	219	⇓*i*P	Pn	17 52 39.0	-0.5
WRDH				⇑*i*S	Sn	17 53 26.0	+3.7
NIG	Nigde	3.63	268	*e*PN	Pn	17 52 39.5	-0.2
NIG	Nigde	3.63	268	*e*Pn	Pn	17 52 39.5	-0.2
HAKT	HAKKARI	3.64	101	*i* P	Pn	17 52 39.5	-0.4
HAKT				*i* S	Sn	17 53 03.7	-19
SLNF	Slenfeh	3.65	222	⇑P	Pn	17 52 39.3	-0.7
SLNF				⇑S	Sn	17 53 25.7	+2.7
SLNF	Slenfeh	3.65	222	⇑*i*P	Pn	17 52 39.3	-0.6
SLNF				⇑*i*S	Sn	17 53 25.7	+2.7
CUKT	Cukurca	3.65	106	*e*PN	Pn	17 52 40.5	+0.4
CUKT	Cukurca	3.65	106	*e*Pn	Pn	17 52 40.5	+0.4
KVT	Kavak	3.66	319	*e*PN	Pn	17 52 39.0	-1.1
KVT	Kavak	3.66	319	*e*Pn	Pn	17 52 39.0	-1.1
HKR	Hakkari	3.66	101	*e*PN	Pn	17 52 40.7	+0.5
HKR	Hakkari	3.66	101	*e*Pn	Pn	17 52 40.7	+0.5
GULE	Gulek	3.67	254	*i* P	Pn	17 52 39.7	-0.6
GULE				*i* S	Sn	17 53 23.9	+0.4
MSL	Mosul	3.71	122	*e*Pn	x	17 52 42.0	
MSL				*i* Sn	x	17 53 29.0	
MSL				*i* Sb	x	17 53 40.0	
MSL				*i* Sg	x	17 53 50.5	
KARS	Kars	3.76	52	*e*PN	Pn	17 52 41.7	+0.2
KARS	Kars	3.76	52	*e*Pn	Pn	17 52 41.7	+0.2
CDAG	Cicekdag	3.98	290	*i* P	Pn	17 52 43.6	-0.9
CDAG				*i* S	Sg	17 53 48.4	-2.8
CORM	Corum	4.00	299	*e*PN	Pn	17 52 44.2	-0.5
CORM	Corum	4.00	299	*e*Pn	Pn	17 52 44.2	-0.5
MERS	Mersin	4.01	250	*e*PN	Pn	17 52 44.2	-0.7
MERS	Mersin	4.01	250	*e*Pn	Pn	17 52 44.2	-0.7
BIDA	Albida	4.06	216	⇓P	Pn	17 52 44.0	-1.7
BIDA				⇑S	Sn	17 53 36.6	+3.3
BIDA	Albida	4.06	216	⇓*i*P	Pn	17 52 44.0	-1.6
BIDA				⇑*i*S	Sn	17 53 36.6	+3.4
ROOS	tl_alroos	4.45	201	⇑*i*P	Pn	17 52 51.2	+0.2
ROOS				⇑*i*S	Sn	17 53 47.0	+4.1
DIKM	Dikmen	4.48	319	*e*PN	Pn	17 52 50.4	-1.0
DIKM	Dikmen	4.48	319	*e*Pn	Pn	17 52 50.4	-1.0
BR131	Keskin Array S	4.55	289	*e*Pn	Pn	17 52 51.5	-0.8
BR131	Keskin Array S	4.55	289	*e*Pn	Pn	17 52 51.5	-0.9
BRTR	Keskin Array B	4.55	289	Pn	Pn	17 52 51.6	-0.7
BRTR				Lg		17 54 10.3	
BRTR				LR	LR	17 55 10.9	
BRTR	Keskin Array B	4.55	289	P	Pn	17 52 51.7	-0.7
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
BRTR				MLR	MLR		
	comp=Z,192nm,20.4s						
BRTR	Keskin Array B	4.55	289	Pn	Pn	17 52 51.6	-0.7
	comp=Z,3.2nm,0.3s,baz=110,slow=11,SNR=69						
BRTR				Lg		17 54 10.3	
	comp=Z,1.7nm,0.3s,baz=112,slow=27,SNR=3.8						
BRTR				LR	LR	17 55 10.9	
	comp=Z,192nm,20.4s,baz=299,slow=46						
BYBT	Boyabat	4.62	314	*e*PN	Pn	17 52 53.0	-0.3
BYBT	Boyabat	4.62	314	*e*Pn	Pn	17 52 53.0	-0.3
TOS	Tosya	4.81	305	*e*PN	Pn	17 52 55.4	-0.6
TOS	Tosya	4.81	305	*e*Pn	Pn	17 52 55.4	-0.6
HWQ	Hawqa	4.84	214	*e*Pn	Pn	17 52 56.9	+0.5
HWQ	Hawqa	4.84	214	*e*Pn	Pn	17 52 56.9	+0.5
MARH	Ras Al Marh	4.85	208	⇓P	Pn	17 52 56.7	+0.2
MARH	Ras Al Marh	4.85	208	⇓*i*P	Pn	17 52 56.7	+0.2
ANTO	Ankara	5.21	289	⇑*i*P	Pn	17 53 02.3	+0.8
SOC	Sochi	5.24	4	*e*P	Pn	17 53 05.6	+3.8
SOC				*e*		17 54 09.5	
SOC				pmax	pmax		
	comp=Z,25nm,0.7s						
SOC				pmax	pmax		
	comp=Z,37nm,0.7s						
SOC				MLR	MLR		
	comp=Z,230nm,8.0s						
BHL	Bhannes	5.29	214	*e*Pn	Pn	17 53 02.8	+0.3
BHL	Bhannes	5.29	214	*e*Pn	Pn	17 53 02.8	+0.3
ONI	Oni	5.32	36	P	Pn	17 53 03.3	+0.4
BZK	Bozkurt	5.38	314	*e*PN	Pn	17 53 03.9	+0.2
BZK	Bozkurt	5.38	314	*e*Pn	Pn	17 53 03.9	+0.2
TBLG	Delisi	5.42	50	P	Pn	17 53 04.9	+0.6
MTA	Mtatsminda	5.43	50	P	Pn	17 53 05.2	+0.7
RCY	Rachaya	5.58	211	*e*Pn	Pn	17 53 06.9	+0.3
DGRG	David-gareji	5.66	55	P	Pn	17 53 09.1	+1.5
ZEI	Tsey	5.68	37	*e*P	Pn	17 53 09.0	+1.2
CSS	Prodhromos	5.81	236	*e*Pn	Pn	17 53 09.3	-0.4
	comp=Z,43nm,0.9s						
CSS	Prodhromos	5.81	236	*e*Pn	Pn	17 53 09.3	-0.4
	comp=Z,43nm,0.9s						
MMAI	Mount Meron Ar	6.16	211	Pn	Pn	17 53 13.8	-0.7
	comp=Z,5.6nm,0.3s,baz=62,slow=16,SNR=33						
MMAI				Lg		17 54 60.0	
	comp=Z,14nm,0.3s,baz=17,slow=28,SNR=4.9						
MMAI				LR	LR	17 55 45.2	
	comp=Z,134nm,20.9s,baz=325,slow=40						
KIV	Kislovodsk	6.18	24	*e*P	Pn	17 53 14.8	0.0
KIV				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KIV	Kislovodsk	6.18	24	*e*P	Pn	17 53 14.8	0.0
	comp=Z,3.0nm,0.7s						
ASF	Jabal al Asfar	6.45	198	Pn	Pn	17 53 17.7	-0.7
ASF				Lg		17 55 04.2	
ASF	Jabal al Asfar	6.45	198	P	Pn	17 53 17.7	-0.8
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF	Jabal al Asfar	6.45	198	Pn	Pn	17 53 17.7	-0.7
	comp=Z,1.1nm,0.3s,baz=287,slow=3.2,SNR=8.3						
ASF				Lg		17 55 04.2	
	comp=Z,5.4nm,0.3s,baz=242,slow=23,SNR=6.5						
ANN	Anapa	6.58	349	*e*P	Pn	17 53 20.1	-0.1
ANN				*e*S	Sn	17 54 36.8	+1.6
ANN				pmax	pmax		
	comp=Z,50nm,1.1s						
ANN	Anapa	6.58	349	*e*P	Pn	17 53 20.1	-0.1
	comp=Z,50nm,1.1s						
ANN				*e*S	Sn	17 54 36.8	+1.6
BHD	Baghdad	6.58	139	*e*Pn	x	17 53 15.0	
BHD				*e*Sn	x	17 54 32.5	
BHD				*i* Sg	x	17 55 19.0	
BHD	Baghdad	6.58	139	*e*Pn	Pn	17 53 15.0	-5.3
ISP	Isparta	6.88	268	*e*P	Pn	17 53 27.5	+3.1
GOF	Gofitskoye	7.29	22	*e*P	Pn	17 53 32.9	+3.0
EIL	Elat	9.35	203	Pn	Pn	17 53 58.3	0.0
EIL				Lg		17 56 47.9	
EIL				LR	LR	17 57 09.4	
EIL	Elat	9.35	203	Pn	Pn	17 53 58.3	0.0
	comp=Z,0.2nm,0.3s,baz=33,slow=15,SNR=2.2						
EIL				Lg		17 56 47.9	
	comp=Z,1.2nm,0.3s,baz=20,slow=17,SNR=3.5						
EIL				LR	LR	17 57 09.4	
	comp=Z,86nm,18.2s,baz=285,slow=35						
EIL	Elat	9.35	203	Pn	Pn	17 53 58.3	0.0
TIRR	Tirgusor	10.14	310	⇑P	Pn	17 54 11.3	+2.2
TIRR	Tirgusor	10.14	310	⇑*i*P	Pn	17 54 11.3	+2.2
MIB	Mutribah	10.86	139	*e*P	Pn	17 54 16.2	-2.8
MIB				AML	AML	17 56 40.3	
	comp=Z,24nm,0.6s						
RST	Umm Al-Ruwaisa	10.94	142	*e*P	Pn	17 54 17.6	-2.4
RST				AML	AML	17 56 43.2	
	comp=Z,16nm,0.6s						
NAY	Al-Naaiem	11.27	141	*e*P	Pn	17 54 22.0	-2.5
NAY				AML	AML	17 56 28.0	
	comp=Z,2.4nm,0.5s						
KBD	Kabd	11.55	140	*e*P	Pn	17 54 25.9	-2.5
KBD				AML	AML	17 56 42.0	
	comp=Z,18nm,0.3s						
IDI	Anoyia	11.88	259	Pn	Pn	17 54 31.6	-1.2
IDI				LR	LR	17 59 54.7	
IDI	Anoyia	11.88	259	Pn	Pn	17 54 31.7	-1.2
	comp=Z,0.9nm,0.3s,baz=53,slow=12,SNR=6.0						
IDI				LR	LR	17 59 54.7	
	comp=Z,264nm,18.2s,baz=78,slow=42						
IDI	Anoyia	11.88	259	Pn	Pn	17 54 31.6	-1.3
VRI	Vrincioaia	11.92	313	⇓P	Pn	17 54 36.0	+2.6
VRI	Vrincioaia	11.92	313	⇓*i*P	Pn	17 54 36.0	+2.6
PLOR	Plostina	11.96	313	⇓*i*P	Pn	17 54 37.2	+3.3
MLR	Muntele Rosu	12.18	310	Pn	Pn	17 54 36.9	0.0
MLR				LR	LR	17 59 11.7	
MLR	Muntele Rosu	12.18	310	Pn	Pn	17 54 36.9	0.0
	comp=Z,0.0nm,0.3s,baz=319,slow=20,SNR=2.5						
MLR				LR	LR	17 59 11.7	
	comp=Z,118nm,18.5s,baz=300,slow=37						
MLR	Muntele Rosu	12.18	310	⇑*i*P	Pn	17 54 42.1	+5.2
MLR	Muntele Rosu	12.18	310	Pn	Pn	17 54 36.9	0.0
BURAR	Bucovina Array	13.79	317	⇓P	Pn	17 55 04.4	+5.5
BURAR	Bucovina Array	13.79	317	⇓*i*P	Pn	17 55 04.4	+5.5
GZR	Gura Zlata	14.11	305	⇓P	Pn	17 55 11.4	+8.1
GZR	Gura Zlata	14.11	305	⇓*i*P	Pn	17 55 11.4	+8.1
AKASG	Malin Array Be	14.23	333	Pn	Pn	17 55 02.9	-2.1
AKASG	Malin Array Be	14.23	333	Pn	Pn	17 55 02.9	-2.1
	comp=Z,0.4nm,0.3s,baz=141,slow=12,SNR=4.0						
DRGR		14.77	310	⇓P	Pn	17 55 19.2	+6.9
DRGR		14.77	310	⇓*i*P	Pn	17 55 19.2	+6.9
PKSM	Moragy	17.10	304	⇑P	Pn	17 55 44.2	+1.7
PKSM	Moragy	17.10	304	⇑*i*P	Pn	17 55 44.2	+1.8
TIP	Timpagrande	17.53	280	*e*P	Pn	17 55 49.1	+1.2
TIP	Timpagrande	17.53	280	*e*P	Pn	17 55 49.1	+1.2
AKTK	Aktyubinsk	18.01	42	P	Pn	17 55 52.9	-0.9
AKTK				LR	LR	18 04 54.7	
AKTK	Aktyubinsk	18.01	42	P	Pn	17 55 52.9	-0.8
	comp=Z,185nm,18.6s						
AKTO	Aktyubinsk	18.01	42	P	Pn	17 55 52.9	-0.9
	comp=Z,0.2nm,0.3s,baz=216,slow=18,SNR=3.9						
AKTO				LR	LR	18 04 54.7	
	comp=Z,185nm,18.6s,baz=69,slow=44						
AQU	L'Aquila	20.04	290	⇓P	P	17 56 19.1	+2.6
AQU	L'Aquila	20.04	290	⇓*i*P	P	17 56 19.1	+2.5
KBA	Koelnbreinsper	20.84	303	⇑*i*P	P	17 56 25.8	+0.7
	comp=Z,16nm,1.3s						
KBA	Koelnbreinsper	20.84	303	⇑*i*P	P	17 56 25.8	+0.7
KBA				pmax	pmax		
	comp=Z,16nm,1.3s						
GERES	GERESS Array B	21.15	308	P	P	17 56 28.0	-0.5
GERES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
GERES	GERESS Array B	21.15	308	P	P	17 56 28.0	-0.5
	comp=Z,3.3nm,0.8s,mb3.7,baz=113,slow=10,SNR=13						
KHC	Kasperske Hory	21.32	309	*e*P	P	17 56 32.0	+1.6
KHC	Kasperske Hory	21.32	309	*e*P	P	17 56 33.0	+2.6
CLL	Collm	22.51	314	*e*(P)	P	17 56 47.0	+4.0
DAVOX	Davos/Dischmat	23.08	301	LR	LR	18 05 35.8	
	comp=Z,214nm,20.5s,MS3.6,baz=259,slow=36						
PGF	Pioggiola	23.30	290	*e*P	P	17 56 52.0	+0.5
	comp=Z,48nm,0.9s,mb4.6						
PGF	Pioggiola	23.30	290	*e*P	P	17 56 52.0	+0.5
PGF				pmax	pmax		
	comp=Z,24nm,0.9s,mb4.6						
PGF	Pioggiola	23.30	290	*e*P	P	17 56 52.0	+0.5
	comp=Z,24nm,0.9s,mb4.6						
KEST	Kesra	23.93	273	P	P	17 56 57.6	-0.1
	comp=Z,5.8nm,0.8s,mb4.1,baz=1.8,slow=2.1,SNR=10						
SBF	Sospel	24.47	293	*e*P	P	17 57 03.6	+1.1
FINES	FINESS Array B	24.52	345	P	P	17 57 03.0	+0.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	24.52	345	P	P	17 57 03.0	+0.3
	comp=Z,1.3nm,0.6s,mb3.6,baz=142,slow=9.0,SNR=7.6						
MBDF	Montbardon	24.99	295	*e*P	P	17 57 08.5	+1.3
	comp=Z,11nm,0.8s,mb4.1						
MBDF	Montbardon	24.99	295	*e*P	P	17 57 08.5	+1.3
MBDF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.2						
MBDF	Montbardon	24.99	295	*e*P	P	17 57 08.5	+1.3
	comp=Z,5.7nm,0.8s,mb4.2						
FRF	La Foret Royal	25.04	292	*e*P	P	17 57 08.8	+1.1
LPG	La Plagne	25.06	297	*e*P	P	17 57 09.5	+1.6
	comp=Z,24nm,1.2s,mb4.3						
LPG	La Plagne	25.06	297	*e*P	P	17 57 09.5	+1.6
LPG				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.3						
LPG	La Plagne	25.06	297	*e*P	P	17 57 09.5	+1.6
	comp=Z,12nm,1.2s,mb4.3						
LPL	La Plagne	25.08	297	*e*P	P	17 57 09.8	+1.8
	comp=Z,7.7nm,0.8s,mb4.0						
LPL	La Plagne	25.08	297	*e*P	P	17 57 09.8	+1.8
LPL				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.0						
LPL	La Plagne	25.08	297	*e*P	P	17 57 09.8	+1.8
	comp=Z,3.8nm,0.8s,mb4.0						
CDF	Champ du Feu	25.13	304	*e*P	P	17 57 10.2	+1.8
LMR	La Mourre	25.14	292	*e*P	P	17 57 09.4	+0.8
HINF	Hinteralfeld	25.30	302	*e*P	P	17 57 11.5	+1.5
	comp=Z,8.2nm,0.8s,mb4.0						
HINF	Hinteralfeld	25.30	302	*e*P	P	17 57 11.5	+1.5
HINF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.0						
HINF	Hinteralfeld	25.30	302	*e*P	P	17 57 11.5	+1.5
	comp=Z,4.1nm,0.8s,mb4.0						
CABF	La Chapelle	25.64	299	*e*P	P	17 57 14.7	+1.6
	comp=Z,20nm,1.0s,mb4.3						
CABF	La Chapelle	25.64	299	*e*P	P	17 57 14.7	+1.6
CABF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.3						
CABF	La Chapelle	25.64	299	*e*P	P	17 57 14.7	+1.6
	comp=Z,10nm,1.0s,mb4.3						
ORIF	Oris-en-Rattie	25.64	296	*e*P	P	17 57 14.7	+1.6
	comp=Z,45nm,1.2s,mb4.6						
ORIF	Oris-en-Rattie	25.64	296	*e*P	P	17 57 14.7	+1.6
ORIF				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.6						
ORIF	Oris-en-Rattie	25.64	296	*e*P	P	17 57 14.7	+1.6
	comp=Z,23nm,1.2s,mb4.6						
HAU	Haudompre	25.66	303	*e*P	P	17 57 15.4	+2.1
VIVF	Saint-Julien-l	26.49	295	*e*P	P	17 57 22.3	+1.5
EKS2	Erkin-Say	26.52	70	*e*P	P	17 57 21.7	+0.6
	comp=Z,9.1nm,1.0s,mb4.3						

EKS2	Erkin-Say	26.52	70	eP	P	17 57 21.7	+0.6
	comp=Z,9.1nm,1.0s,mb4.3						
AAK	Ala-Archa	27.05	70	P	P	17 57 23.0	-2.9
	comp=Z,4.3nm,1.1s,mb3.9						
AAK	Ala-Archa	27.05	70	eP	P	17 57 25.1	-0.8
HFS	Hagfors	27.11	332	P	P	17 57 27.1	+0.8
HFS				pmax	pmax		
	comp=Z,1.0nm,0.4s						
HFS	Hagfors	27.11	332	P	P	17 57 27.1	+0.9
	comp=Z,0.5nm,0.4s,mb3.4,baz=113,slow=14,SNR=1.9						
LOR	Lormes	27.23	301	eP	P	17 57 29.3	+1.9
	comp=Z,15nm,1.0s,mb4.2						
LOR	Lormes	27.23	301	eP	P	17 57 29.3	+1.9
LOR				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.2						
LOR	Lormes	27.23	301	eP	P	17 57 29.3	+1.9
	comp=Z,7.5nm,1.0s,mb4.2						
SSF	Saint Saulge	27.45	300	eP	P	17 57 31.1	+1.7
	comp=Z,24nm,1.2s,mb4.3						
SSF	Saint Saulge	27.45	300	eP	P	17 57 31.1	+1.7
SSF				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.3						
SSF	Saint Saulge	27.45	300	eP	P	17 57 31.1	+1.7
	comp=Z,12nm,1.2s,mb4.3						
TKM2	Tokmak 2	27.84	69	eP	P	17 57 33.0	0.0
	comp=Z,4.2nm,1.0s,mb4.0						
TKM2	Tokmak 2	27.84	69	eP	P	17 57 33.0	0.0
TKM2				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.0						
TKM2	Tokmak 2	27.84	69	eP	P	17 57 33.0	0.0
	comp=Z,4.2nm,1.0s,mb4.0						
MK31	Makanchi Array	32.48	61	eP	P	17 58 14.3	+0.3
MK31	Makanchi Array	32.48	61	eP	P	17 58 14.3	+0.3
MKAR	Makanchi Array	32.48	61	P	P	17 58 14.3	+0.3
MKAR				PcP	PcP	18 00 59.9	-0.9
MKAR	Makanchi Array	32.48	61	P	P	17 58 14.3	+0.3
MKAR						18 00 59.9	
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MKAR	Makanchi Array	32.48	61	P	P	17 58 14.3	+0.3
	comp=Z,2.3nm,0.6s,mb4.2,baz=271,slow=7.2,SNR=39						
MKAR				PcP	PcP	18 00 59.9	-0.9
	comp=Z,0.3nm,0.6s,baz=241,slow=4.8,SNR=3.1						
ESDC	Sonseca Array	33.34	286	P	P	17 58 19.8	-1.7
	comp=Z,0.8nm,0.5s,mb3.9,baz=68,slow=9.1,SNR=8.7						
NVS	Novosibirsk	33.79	46	eP	P	17 58 24.6	-0.7
ZAL	Zalesovo	34.55	48	P	P	17 58 30.5	-1.4
ZALV	Zalesovo Beam	34.56	48	P	P	17 58 30.5	-1.5
	comp=Z,0.6nm,0.4s,mb3.9,baz=264,slow=9.4,SNR=4.1						
KOLN	Koldanda	38.35	92	eP	P	17 59 07.4	+2.7
GKN	Gorkha	39.06	91	eP	P	17 59 10.4	-0.2
KKN	Kakani	39.66	91	eP	P	17 59 16.2	+0.6
TORD	Torodi Ar. Bea	41.66	243	P	P	17 59 31.0	-1.2
TORD	Torodi Ar. Bea	41.66	243	P	P	17 59 31.0	-1.2
	comp=Z,1.0nm,0.9s,mb3.5,baz=47,slow=7.9,SNR=5.8						
ODAN	Odare	41.75	91	eP	P	17 59 32.1	-0.8
TAPN	Taplejung	41.77	90	eP	P	17 59 33.3	+0.2
ZAK	Zakamensk	45.99	53	eP	P	18 00 06.4	-0.3
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.7						
ZAK	Zakamensk	45.99	53	eP	P	18 00 06.4	-0.3
	comp=Z,1.0nm,1.0s,mb3.7						
GTA	Gaotai	46.39	69	eP	P	18 00 10.6	+0.6
GTA				AP	pP	18 00 14.4	+1.2
GTA				XP	sP	18 00 16.9	+2.5
GTA				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.4						
SONM	Songino Array	48.55	56	P	P	18 00 26.9	+0.3
SONM						18 01 52.1	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,212nm,19.4s						
SONM	Songino Array	48.55	56	P	P	18 00 26.9	+0.2
	comp=Z,0.9nm,0.7s,mb3.9,baz=282,slow=8.8,SNR=11						
SONM				PcP	PcP	18 01 52.1	-0.3
	comp=Z,0.8nm,0.8s,baz=252,slow=3.5,SNR=4.9						
SONM				LR	LR	18 23 29.0	
	comp=Z,212nm,19.4s,MS4.1,baz=333,slow=39						
LZH	Lanzhou	50.57	71	eP	P	18 00 42.1	-0.1
LZH				AP	pP	18 00 46.7	+1.3
LZH				XP	sP	18 00 49.2	+2.6
LZH				AMB	AMB		
	comp=Z,17nm,1.2s,mb4.8						
LZH	Lanzhou	50.57	71	eP	P	18 00 42.1	-0.1
	comp=Z,17nm,1.2s,mb4.8						
LZH				pP	pP	18 00 46.7	+1.3
LZH				sP	sP	18 00 49.2	+2.6
BOD	Bodaibo	50.78	42	eP	P	18 00 42.2	-1.3
BOD				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
BOD	Bodaibo	50.78	42	eP	P	18 00 42.2	-1.3
	comp=Z,5.0nm,1.0s,mb4.4						
GYA	Guiyang	57.04	81	P	P	18 01 28.9	-0.8
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
BILL	Bilibino	66.78	19	eP	P	18 02 38.3	+3.7
BILL				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb4.0						
KSRS	Korea Array	67.16	60	P	P	18 02 36.8	-0.8
	comp=Z,2.9nm,0.9s,mb4.3,baz=297,slow=6.4,SNR=7.0						
YKA	Yellowknife Ar	77.31	348	P	P	18 03 37.8	0.0
YKA	Yellowknife Ar	77.31	348	P	P	18 03 37.8	0.0
	comp=Z,0.3nm,0.8s,mb3.2,baz=26,slow=5.8,SNR=3.8						

DDA **11** *18:10:09.6, 38.66N×39.30E, h2km, Md2.6*
CSEM **11** *18:10:11.6±0.1, 38.52N×39.09E, h30km, MD2.7, Error ellipse: s-maj=6.0km s-min=2.5km az=130.0*
ISK **11** *18:10:12.7, 38.49N×39.12E, h6km, MD2.7*
ISCJB **11** *18:10:13.1±0.8, 38.45N±0.07×39.17E±0.08, h6km±14km, Error ellipse: s-maj=15.1km s-min=5.7km az=136.6*
ISC 11 18:10:13.7±0.7**, 38.49N**±0.07×**39.15E**±0.09**, h11**km±11km**, n12, σ0.77**/20**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.13	275	i P	Pg	18 10 17.1	+0.2
ELZG				i S	Sg	18 10 19.7	+0.6
ELZG	Elazig	0.13	275	i P	Pg	18 10 17.0	+0.1
ELZG				i S	Sg	18 10 19.7	+0.6
PTK	Pertek	0.45	25	PG	Pg	18 10 22.3	-0.2
PTK				SG	Sg	18 10 28.9	+0.4
PTK	Pertek	0.45	25	ePg	Pg	18 10 22.3	-0.2
PTK				eSg	Sg	18 10 28.9	+0.4
MYA	Malataya	0.59	254	PG	Pg	18 10 24.5	-0.7
MYA	Malataya	0.59	254	ePg	Pg	18 10 24.5	-0.7
MALT	Malatya	0.59	253	PG	Pg	18 10 23.9	-1.3
MALT				SG	Sg	18 10 32.4	-0.6
MALT	Malatya	0.59	253	ePg	Pg	18 10 23.9	-1.3
MALT				eSg	Sg	18 10 32.4	-0.6
URFA	Urfa	1.08	194	ePG	Pg	18 10 33.6	-0.8
URFA	Urfa	1.08	194	ePg	Pg	18 10 33.6	-0.8
GZT	Gaziantep	1.69	228	eP	Pn	18 10 43.6	+0.5
GZT				i S	Sg	18 11 09.8	+1.8
MARD	Mardin	1.74	132	i P	Pn	18 10 44.0	+0.2
MARD				i S	Sn	18 11 05.9	0.0

ISCJB **11** *18:18:17.5±2.9, 12.35N±0.05×125.8E±0.1, h32km±21km, mb4.0/11, Error ellipse: s-maj=17.0km s-min=8.2km az=5.9*
MAN **11** *18:18:18, 12.42N×125.70E, h24km, mb4.6, ML3.5, MS3.5*
IDC **11** *18:18:21.7±9.6, 12.26N×125.82E, h50km±92km, mb3.5/7, mb1 3.6/7, mb1mx3.4/19, mbtmp3.5/7, Error ellipse: s-maj=167.6km s-min=17.8km az=68.0*
ISC 11 18:18:18.6±3.1**, 12.32N**±0.05×**125.8E**±0.1**, h26**km±22km**, n17, σ1.01**/20**, mb4.0**/11**, 2C-1D, Samar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	1.38	213	eP	Pn	18 18 41.8	-0.2
PLP				eS	Sn	18 18 58.4	-1.0
PVCP	Virac	2.00	309	⇑ eP	Pn	18 18 49.7	-1.0
PVCP				eS	Sn	18 19 22.2	+7.3
SCPH	Surigao	2.54	186	⇓ eP	Pn	18 18 58.6	+0.5
LLP	Lapu-Lapu	2.65	221	eP	Pn	18 18 59.1	-0.5
LLP				eS	Sn	18 19 33.0	+2.1
RCP	Roxas	3.03	256	⇑ eP	Pn	18 19 06.0	+1.1
CAUP	Cauayan	5.96	321	eP	Pn	18 19 45.7	+0.5
WRA	Warramunga Arr	33.16	165	P	P	18 24 52.4	-0.6
	0.4nm,0.9s,mb3.4,baz=343,slow=8.8,SNR=3.5						
WRA				PcP	PcP	18 27 35.8	0.0
	0.4nm,0.6s,baz=342,slow=2.9,SNR=6.0						
ASAR	Alice Springs	36.65	167	P	P	18 25 23.1	0.0
	0.4nm,0.4s,mb3.6,baz=337,slow=6.8,SNR=19						
ODAN	Odare	38.75	298	eP	P	18 25 40.2	-0.8
	7.9nm,0.8s,mb4.5						
SONM	Songino Array	38.93	339	P	P	18 25 43.5	+1.4
	0.4nm,0.4s,mb3.5,baz=161,slow=9.2,SNR=6.2						
KKN	Kakani	40.80	298	eP	P	18 25 57.0	-1.0
	10nm,1.0s,mb4.4						
GKN	Gorkha	41.40	298	eP	P	18 26 01.3	-1.6
	6.6nm,0.7s,mb4.4						
KOLN	Koldanda	42.24	298	eP	P	18 26 08.7	-1.1
	9.2nm,0.8s,mb4.5						
MKAR	Makanchi Array	50.10	322	P	P	18 27 13.0	+1.6
	1.3nm,0.7s,mb4.1,baz=117,slow=8.8,SNR=17						
ZALV	Zalesovo Beam	52.59	331	P	P	18 27 30.7	+0.8
	0.3nm,0.3s,mb3.7,baz=118,slow=5.5,SNR=4.0						
FINES	FINESS Array B	83.85	332	P	P	18 30 46.5	+0.8
	2.4nm,1.0s,mb4.3,baz=58,slow=4.7,SNR=5.5						
AKASG	Malin Array Be	84.66	321	P	P	18 30 49.6	-0.4
	0.1nm,0.3s,mb3.4,baz=68,slow=4.5,SNR=3.8						

NEIC **11** *18:19:11.8, 41.71N×20.49E, h0km, ML3.6(THE), ML3.2(PDG), ML3.1(ATH), ML2.8(BUC), After PDG.*
PDG **11** *18:19:11.8±0.4, 41.71N×20.49E, h0km±1km, MD3.2/5, ML3.2/9, Error ellipse: s-maj=0.6km s-min=0.8km az=0.0*
TIR **11** *18:19:11.6±3.2, 41.73N×20.48E, h7km±115km, ML3.0*
THE **11** *18:19:12.0, 41.74N×20.46E, h3km, ML3.6*
ISCJB **11** *18:19:12.1±0.3, 41.74N±0.01×20.48E±0.02, h4km±2km, Error ellipse: s-maj=2.9km s-min=1.7km az=143.4*
CSEM **11** *18:19:12.2±0.1, 41.78N×20.45E, h2km, ML3.6, Error ellipse: s-maj=2.0km s-min=1.1km az=33.0*
BEO **11** *18:19:12.5±0.8, 41.66N×20.39E, h11km±3km, ML3.3/6*
ISC 11 18:19:13.4±0.3**, 41.72N**±0.01×**20.48E**±0.02**, h7**km±2km**, n167, σ1.23**/275**, 28C-13D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.59	231	P	Pg	18 19 23.2	-1.7
TIR				S	Sg	18 19 31.7	-0.9
TIR	Tirane	0.59	231	ePg	Pg	18 19 23.2	-1.7
TIR				eSg	Sg	18 19 31.7	-0.9
TIR	Tirane	0.59	231	i PG	Pg	18 19 23.2	-1.7
TIR				i SG	Sg	18 19 32.9	+0.3
TIR	Tirane	0.59	231	i Pg	Pg	18 19 23.2	-1.7
TIR				i Sg	Sg	18 19 32.9	+0.3
OHR	Ohrid	0.66	158	P	Pg	18 19 23.6	-2.5
OHR				S	Sg	18 19 33.8	-0.8
OHR	Ohrid	0.66	158	ePg	Pg	18 19 23.6	-2.5
OHR				eSg	Sg	18 19 33.8	-0.8
OHR	Ohrid	0.66	158	i Pg	Pg	18 19 23.6	-2.4
OHR				i Sg	Sg	18 19 34.0	-0.6
OHR	Ohrid	0.66	158	ePg	Pg	18 19 23.6	-2.5
OHR				eSg	Sg	18 19 33.8	-0.8
KRUS	Krusevo	0.68	121	i Pg	Pg	18 19 25.2	-1.3
KRUS				i Sg	Sg	18 19 36.1	+0.8
KRUS	Krusevo	0.68	121	i Pg	Pg	18 19 25.1	-1.4
KRUS				i Sg	Sg	18 19 36.0	+0.7
SKO	Skopje	0.76	71	P	Pg	18 19 26.6	-1.4
SKO				S	Sg	18 19 38.7	+0.7
SKO	Skopje	0.76	71	ePg	Pg	18 19 26.6	-1.4
SKO				eSg	Sg	18 19 38.7	+0.7
SKO	Skopje	0.76	71	i Pg	Pg	18 19 26.6	-1.5
SKO	Skopje	0.76	71	ePg	Pg	18 19 26.6	-1.5
SKO				eSg	Sg	18 19 38.7	+0.8
PVY	Plav	0.95	337	⇑ iPg	Pg	18 19 29.7	-2.0
PVY				eSg	Sg	18 19 45.3	+1.3
PVY	Plav	0.95	337	⇑ iPg	Pg	18 19 29.7	-2.0
PVY				eSg	Sg	18 19 45.3	+1.3
PVY	Plav	0.95	337	i PG	Pg	18 19 29.7	-2.0
PVY				i SG	Sg	18 19 45.3	+1.3
PVY	Plav	0.95	337	⇑ iPg	Pg	18 19 29.7	-2.0
PVY				eSg	Sg	18 19 45.3	+1.3
BIA	Bitola	0.95	138	P	Pg	18 19 28.8	-2.9
BIA				S	Sg	18 19 44.7	+0.8
BIA	Bitola	0.95	138	ePg	Pg	18 19 28.8	-2.9
BIA				eSg	Sg	18 19 44.7	+0.8
BIA	Bitola	0.95	138	i Pg	Pg	18 19 28.9	-2.8
BIA				i Sg	Sg	18 19 44.8	+0.8
BIA	Bitola	0.95	138	ePg	Pg	18 19 28.8	-2.9
BIA				eSg	Sg	18 19 44.7	+0.7
ULC	Ulcinj	0.95	285	⇑ iPg	Pg	18 19 29.1	-2.6
ULC				eSg	Sg	18 19 44.5	+0.5
ULC	Ulcinj	0.95	285	⇑ iPg	Pg	18 19 29.1	-2.6
ULC				eSg	Sg	18 19 44.5	+0.5
ULC	Ulcinj	0.95	285	i PG	Pg	18 19 29.1	-2.6
ULC				i SG	Sg	18 19 44.5	+0.5
ULC	Ulcinj	0.95	285	⇑ iPg	Pg	18 19 29.1	-2.6
ULC				eSg	Sg	18 19 44.5	+0.5
KBN	Korca	1.12	168	i PG	Pg	18 19 36.2	+1.2
KBN				i SG	Sg	18 19 50.4	+0.8
KBN	Korca	1.12	168	i Pg	Pg	18 19 36.2	+1.2
KBN				i Sg	Sg	18 19 50.4	+0.8
PDG	Podgorica	1.15	308	i PG	Pg	18 19 32.7	-2.8
PDG				i SG	Sg	18 19 51.6	+1.2
PDG	Podgorica	1.15	308	⇑ iPg	Pg	18 19 32.7	-2.8
PDG				eSg	Sg	18 19 51.6	+1.2
TTG	Podgorica	1.15	308	⇑ iPg	Pg	18 19 32.7	-2.8
TTG				eSg	Sg	18 19 51.6	+1.2
TTG	Podgorica	1.15	308	⇑ iPg	Pg	18 19 32.7	-2.8
TTG				eSg	Sg	18 19 51.6	+1.2
TTG	Podgorica	1.15	308	⇑ iPg	Pg	18 19 32.7	-2.8
FNA	Florina	1.16	144	P	Pg	18 19 33.2	-2.4
FNA				S	Sg	18 19 51.1	+0.4
FNA	Florina	1.16	144	ePg	Pg	18 19 33.2	-2.4
FNA				eSg	Sg	18 19 51.1	+0.4
FNA	Florina	1.16	144	ePg	Pg	18 19 33.2	-2.4
FNA				eSg	Sg	18 19 51.1	+0.4
BEY	Berane	1.23	340	i PG	Pg	18 19 34.7	-2.3
BEY				i SG	Sg	18 19 54.3	+1.4
BEY	Berane	1.23	340	⇑ iPg	Pg	18 19 34.7	-2.3
BEY				eSg	Sg	18 19 54.3	+1.4
IVA	Berane	1.23	340	⇑ iPg	Pg	18 19 34.7	-2.3
IVA				eSg	Sg	18 19 54.3	+1.4
IVA	Berane	1.23	340	⇑ iPg	Pg	18 19 34.7	-2.3
IVA				eSg	Sg	18 19 54.3	+1.4
IVA	Berane	1.23	340	⇑ iPg	Pg	18 19 34.7	-2.3
STIP	Stip	1.28	91	ePg	Pg	18 19 35.0	-2.9
STIP				eSg	Sg	18 19 55.9	+1.4
STIP	Stip	1.28	91	i Pn	Pn	18 19 35.3	-2.5
STIP	Stip	1.28	91	ePg	Pg	18 19 35.0	-3.0
STIP	Stip	1.28	91	i Pn	Pn	18 19 35.2	-2.5
STIP				eSg	Sg	18 19 55.9	+1.3
BUM	Brajici-Budva	1.31	297	⇑ iPg	Pn	18 19 35.9	-2.3
BUM				eSg	Sg	18 19 56.8	+1.2
BUM	Brajici-Budva	1.31	297	⇑ iPg	Pn	18 19 35.9	-2.3
BUM				eSg	Sg	18 19 56.8	+1.2
BUM	Brajici-Budva	1.31	297	i PG	Pn	18 19 35.9	-2.3
BUM				i SG	Sg	18 19 56.8	+1.2
BUM	Brajici-Budva	1.31	297	⇑ iPg	Pn	18 19 35.9	-2.3
BUM				eSg	Sg	18 19 56.8	+1.2
BARS	Barje	1.48	42	ePg	Pg	18 19 40.6	-1.3
BARS				eSg	Sg	18 20 01.8	+0.7
BARS	Barje	1.48	42	Pg	Pg	18 19 41.1	-0.8
BARS				Sg	Sg	18 20 01.8	+0.7
NKY	Niksic	1.55	315	⇓ iPg	Pn	18 19 40.4	-1.0
NKY				eSg	Sg	18 20 05.5	+2.4
NKY	Niksic	1.55	315	⇓ iPg	Pn	18 19 40.4	-1.0
NKY				eSg	Sg	18 20 05.5	+2.4
NKY	Niksic	1.55	315	i PG	Pn	18 19 40.4	-1.0
NKY				i SG	Sg	18 20 05.5	+2.4
NKY	Niksic	1.55	315	⇓ iPg	Pn	18 19 40.4	-1.0
SJES	Sjenica	1.59	346	i Pg	Pn	18 19 42.0	-0.1
SJES				eSg	Sg	18 20 05.1	+0.4
SJES	Sjenica	1.59	346	Pn	Pn	18 19 42.2	+0.1
SJES				Sg	Sg	18 20 06.0	+1.3
VAY	Valandovo	1.62	104	P	Pn	18 19 40.9	-1.5
VAY				S	Sn	18 20 03.8	+0.3
VAY	Valandovo	1.62	104	ePb	Pn	18 19 40.9	-1.5
VAY				eSb	Sn	18 20 03.8	+0.3
VAY	Valandovo	1.62	104	i Pn	Pn	18 19 41.0	-1.4
VAY				i Sn	Sn	18 20 04.1	+0.5
VAY	Valandovo	1.62	104	i Pn	Pn	18 19 41.0	-1.4
VAY				i Sn	Sn	18 20 04.0	+0.4
GRG	Griva	1.64	117	P	Pn	18 19 42.0	-0.7
GRG				S	Sb	18 20 05.5	+0.7
GRG	Griva	1.64	117	ePb	Pn	18 19 42.0	-0.7
GRG				eSb	Sb	18 20 05.5	+0.7
GRG	Griva	1.64	117	ePb	Pb	18 19 42.0	-2.0
GRG				eSb	Sb	18 20 05.6	+0.8
HCY	Herceg Novi	1.64	297	⇑ iPn	Pn	18 19 41.5	-1.2
HCY				eSn	Sg	18 20 07.9	+1.7
HCY	Herceg Novi	1.64	297	⇑ iPn	Pn	18 19 41.5	-1.2
HCY				eSn	Sg	18 20 07.9	+1.7
HCY	Herceg Novi	1.64	297	⇑ iPn	Pn	18 19 41.5	-1.2
PLE	Pljevlja	1.79	334	ePn	Pn	18 19 45.3	+0.5
PLE				eSn	Sg	18 20 11.7	+0.6
PLE	Pljevlja	1.79	334	ePn	Pn	18 19 45.3	+0.5
PLE				eSn	Sg	18 20 11.7	+0.6
PLE	Pljevlja	1.79	334	ePn	Pn	18 19 45.3	+0.5
BRY	Bratogost	1.85	310	ePn	Pn	18 19 46.1	+0.4
BRY				eSn	Sg	18 20 13.0	0.0
BRY	Bratogost	1.85	310	ePn	Pn	18 19 46.1	+0.4
BRY				eSn	Sg	18 20 13.0	0.0
BRY	Bratogost	1.85	310	i PG	Pn	18 19 46.1	+0.4
BRY				i SG	Sg	18 20 13.1	+0.1
BRY	Bratogost	1.85	310	ePn	Pn	18 19 46.1	+0.4
UPM	Unac-Piva	1.88	322	ePn	Pn	18 19 46.5	+0.5
UPM				eSn	Sg	18 20 14.0	+0.2
UPM	Unac-Piva	1.88	322	ePn	Pn	18 19 46.5	+0.5
UPM				eSn	Sg	18 20 14.0	+0.2
UPM	Unac-Piva	1.88	322	ePn	Pn	18 19 46.5	+0.5
KNT	Kendrikon	1.90	106	P	Pn	18 19 45.9	-0.4
KNT	Kendrikon	1.90	106	ePb	Pn	18 19 45.9	-0.4
KNT	Kendrikon	1.90	106	ePb	Pn	18 19 45.9	-0.4
GRUS	Gruza	2.17	5	ePn	Pn	18 19 49.3	-0.7
GRUS				eSg	Sg	18 20 23.7	+0.5
GRUS	Gruza	2.17	5	Pn	Pn	18 19 49.1	-0.9
VTS	Vitosha	2.21	66	P	Pn	18 19 50.6	+0.2
VTS				S	Sn	18 20 18.8	+0.7
VTS	Vitosha	2.21	66	ePn	Pn	18 19 50.6	+0.2
VTS				eSn	Sn	18 20 18.8	+0.7
VTS	Vitosha	2.21	66	⇑ iP	Pn	18 19 50.8	+0.3
VTS	Vitosha	2.21	66	S	Sn	18 20 18.9	+0.9
VTS	Vitosha	2.21	66	ePn	Pn	18 19 50.9	+0.4
VTS				eSn	Sn	18 20 19.2	+1.2
VTS	Vitosha	2.21	66	ePn	Pn	18 19 50.7	+0.2
VTS				eSn	Sn	18 20 18.8	+0.8
LIT	Litokhoron	2.23	136	P	Pn	18 19 50.5	-0.2
LIT				S	Sn	18 20 20.3	+1.8
LIT	Litokhoron	2.23	136	ePn	Pn	18 19 50.5	-0.2
LIT				eSn	Sn	18 20 20.3	+1.8
LIT	Litokhoron	2.23	136	ePn	Pn	18 19 50.5	-0.2
HORT	Hortiatis	2.28	119	P	Pn	18 19 51.7	+0.3
HORT				S	Sn	18 20 19.4	-0.3
HORT	Hortiatis	2.28	119	ePn	Pn	18 19 51.7	+0.3
HORT				eSn	Sn	18 20 19.4	-0.3
HORT	Hortiatis	2.28	119	ePn	Pn	18 19 51.7	+0.3
HORT				eSn	Sn	18 20 19.5	-0.2
BBLS	Bajina Basta -	2.28	340	ePn	Pn	18 19 51.3	-0.2
BBLS				eSn	Sn	18 20 19.5	-0.4
SOH	Sokhos	2.35	112	P	Pn	18 19 52.3	-0.1
SOH				S	Sn	18 20 21.5	0.0
SOH	Sokhos	2.35	112	ePn	Pn	18 19 52.3	-0.1
SOH				eSn	Sn	18 20 21.5	0.0
SOH	Sokhos	2.35	112	ePn	Pn	18 19 52.3	-0.1
SOH				eSn	Sn	18 20 21.5	0.0
DIVS	Divcibare	2.40	352	ePn	Pn	18 19 52.6	-0.6
DIVS				eSn	Sn	18 20 21.8	-0.9
DIVS	Divcibare	2.40	352	i Pn	Pn	18 19 52.5	-0.6
DIVS				eSn	Sn	18 20 21.9	-0.9
DIVS				eSg	Sg	18 20 30.7	+0.2
DIVS	Divcibare	2.40	352	ePn	Pn	18 19 52.6	-0.5
DIVS				eSn	Sn	18 20 21.8	-1.0
SRS	Serrai	2.42	103	P	Pn	18 19 52.8	-0.6
SRS				S	Sn	18 20 24.0	+0.7
SRS	Serrai	2.42	103	ePn	Pn	18 19 52.8	-0.6
SRS				eSn	Sn	18 20 24.0	+0.7
SRS	Serrai	2.42	103	ePn	Pn	18 19 52.8	-0.6
SRS				eSn	Sn	18 20 24.0	+0.7
NVR	Nevrokopi	2.57	97	P	Pn	18 19 57.8	+2.4
PLG	Polygyros	2.62	120	P	Pn	18 19 56.4	+0.2
PLG				S	Sn	18 20 29.1	+0.9
PLG	Polygyros	2.62	120	ePn	Pn	18 19 56.4	+0.2
PLG				eSn	Sn	18 20 29.1	+0.9
PLG	Polygyros	2.62	120	ePn	Pn	18 19 56.4	+0.3
PLG				eSn	Sn	18 20 29.1	+0.9
SVIS	Svilajnac	2.63	12	ePn	Pn	18 19 57.0	+0.7
SVIS				eSg	Sg	18 20 39.0	+1.1
LKD	Levkas	3.02	177	P	Pn	18 20 00.7	-1.0
LKD				S	Sn	18 20 38.9	+0.9
LKD	Levkas	3.02	177	ePn	Pn	18 20 00.7	-1.0
LKD				eSn	Sn	18 20 38.9	+0.9
LKD	Levkas	3.02	177	ePn	Pn	18 20 00.7	-0.9
PAIG	Paliouri	3.02	125	P	Pn	18 20 02.2	+0.5
PAIG	Paliouri	3.02	125	ePn	Pn	18 20 02.2	+0.5
PAIG	Paliouri	3.02	125	ePn	Pn	18 20 02.2	+0.5
AGG	Agios Georgios	3.05	152	P	Pn	18 20 02.4	+0.3
AGG				S	Sn	18 20 41.1	+2.4
AGG	Agios Georgios	3.05	152	ePn	Pn	18 20 02.4	+0.3
AGG				eSn	Sn	18 20 41.1	+2.4
AGG	Agios Georgios	3.05	152	ePn	Pn	18 20 02.4	+0.4
BEO	Belgrade	3.10	360	ePn	Pn	18 20 00.6	-2.1
BEO				eSg	Sg	18 20 53.0	+0.1
XOR	Xorichti	3.13	138	P	Pn	18 20 02.8	-0.4
XOR	Xorichti	3.13	138	ePn	Pn	18 20 02.8	-0.4
XOR	Xorichti	3.13	138	ePn	Pn	18 20 02.8	-0.4
NEO	Neokhori	3.19	138	P	Pn	18 20 05.1	+1.0
DJES	Djerdap	3.27	27	ePn	Pn	18 20 04.1	-1.0
DJES				eSn	Sn	18 20 44.1	-0.2
FGSL	Fruska Gora	3.47	352	ePn	Pn	18 20 07.2	-0.6
FGSL	Fruska Gora	3.47	352	Pn	Pn	18 20 07.2	-0.6
TIP	Timpagrande	3.81	229	P	Pn	18 20 13.5	+1.0
RDO	Rodhopi	3.85	97	P	Pn	18 20 13.6	+0.6
BZS	Buzias	3.98	12	⇓ P	Pn	18 20 14.1	-0.7
BZS				S	Sn	18 20 58.9	-2.8
BZS	Buzias	3.98	12	ePn	Pn	18 20 14.3	-0.5
BZS	Buzias	3.98	12	⇓ iP	Pn	18 20 14.1	-0.7
BZS				S	Sn	18 20 58.9	-2.8
GZR	Gura Zlata	4.03	24	⇑ P	Pn	18 20 15.7	+0.1
GZR	Gura Zlata	4.03	24	⇑ iP	Pn	18 20 15.7	+0.2
PKSM	Moragy	4.68	344	⇑ P	Pn	18 20 23.4	-1.1
PKSM				S	Sn	18 21 16.8	-2.1
PKSM	Moragy	4.68	344	ePn	Pn	18 20 23.8	-0.6
PKSM	Moragy	4.68	344	⇑ iP	Pn	18 20 23.4	-1.0
PKSM				S	Sn	18 21 16.8	-2.2
AQU	L'Aquila	5.31	279	⇓ P	Pn	18 20 35.0	+1.9
AQU	L'Aquila	5.31	279	⇓ iP	Pn	18 20 35.0	+1.9
DRGR		5.31	17	⇓ P	Pn	18 20 34.4	+1.2
DRGR				S	Sn	18 21 31.9	-2.7
DRGR		5.31	17	⇓ iP	Pn	18 20 34.4	+1.2
DRGR				S	Sn	18 21 31.9	-2.7
BOJS	Bojanci	5.35	317	i Pn	Pn	18 20 34.5	+0.8
BOJS	Bojanci	5.35	317	i Pn	Pn	18 20 34.5	+0.8
BOJS	Bojanci	5.35	317	Pn	Pn	18 20 34.5	+0.8
MLR	Muntele Rosu	5.47	45	⇓ P	Pn	18 20 36.4	+1.0
MLR				S	Sn	18 21 37.8	-0.7
MLR	Muntele Rosu	5.47	45	⇓ iP	Pn	18 20 36.4	+1.1
MLR	Muntele Rosu	5.47	45	S	Sn	18 21 37.8	-0.7
PLOR	Plostina	6.08	45	⇑ iP	Pn	18 20 44.8	+1.1
PSZ	Piszkesteto	6.21	356	⇑ P	Pn	18 20 44.9	-0.6
PSZ	Piszkesteto	6.21	356	⇑ iP	Pn	18 20 44.9	-0.5
JAVS	Javornik	6.24	314	ePn	Pn	18 20 46.2	+0.4
JAVS	Javornik	6.24	314	ePn	Pn	18 20 46.2	+0.4
JAVS	Javornik	6.24	314	ePn	Pn	18 20 46.2	+0.4
VOJS	Vojsko	6.42	314	i Pn	Pn	18 20 48.7	+0.3
VOJS	Vojsko	6.42	314	i Pn	Pn	18 20 48.7	+0.3
VOJS	Vojsko	6.42	314	i Pn	Pn	18 20 48.7	+0.3
KECS	Kecovo	6.76	0	ePn	Pn	18 20 53.2	+0.2
KECS				e		18 22 12.4	
KECS	Kecovo	6.76	0	ePN	Pn	18 20 53.2	+0.2
KECS				eSN	Sn	18 22 12.4	+2.2
BURAR	Bucovina Array	6.79	28	⇓ P	Pn	18 20 55.0	+1.6
BURAR	Bucovina Array	6.79	28	⇓ iP	Pn	18 20 55.0	+1.6
VYHS	Vyhne	6.87	351	ePn	Pn	18 20 57.9	+3.4
VYHS				e		18 22 09.3	
VYHS	Vyhne	6.87	351	ePN	Pn	18 20 57.9	+3.4
VYHS				eSN	Sn	18 22 09.3	-3.6
MODS	Modra-Piesok	7.02	342	ePn	Pn	18 20 59.0	+2.4
MODS				e		18 22 15.0	
MODS	Modra-Piesok	7.02	342	ePN	Pn	18 20 59.0	+2.4
MODS				eSN	Sn	18 22 15.0	-1.7
CRVS	Cervenica-Dubn	7.21	5	ePn	Pn	18 20 59.6	+0.4
CRVS	Cervenica-Dubn	7.21	5	ePN	Pn	18 20 59.6	+0.4
STHS	Stebnicka Huta	7.71	4	eSN	Sn	18 22 28.5	-5.1
KHC	Kasperske Hory	8.85	329	eSN	Sn	18 23 01.5	-0.1

ISCJB ***11*** *19:34:49.8±0.3, 62.13N±0.04×148.78W±0.08, h58^{km}±5^{km}, mb3.7/9, Error ellipse: s-maj=6.4km s-min=6.0km az=175.5*
IDC ***11*** *19:34:50.0±2.3, 62.22N×149.00W, h46^{km}±24^{km}, mb3.5/9, mb1 3.7/12, mb1mx3.5/24, mbtmp3.5/12, ML3.5/3, Error ellipse: s-maj=21.1km s-min=16.0km az=49.0*
NEIC ***11*** *19:34:51.7, 62.13N×148.64W, h25^{km}, ML3.7(AEIC), ML4.0(PMR), After AEIC.*
NEIC Felt [II] at Chickaloon and Palmer.
ISC 11 19:34:51.0±0.3**, 62.12N**±0.03×**148.79W**±0.07**, h49**^{km}±5^{km}**, n42,** σ1^s**08**/48**, mb3.7**/9**, Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GHO	Glory Hole Cre	0.35	191	P	Pn	19 34 59.7	-0.8
SML	Sawmill	0.38	145	P	Pn	19 34 59.4	-1.3
SML				S	Sn	19 35 05.5	-2.2
PMR	Palmer	0.55	197	*e*Pg	Pn	19 35 02.0	-0.8
PMR				*e*Sg	Sn	19 35 10.5	-0.7
RC01	Rabbit Creek A	1.13	204	P	Pn	19 35 10.5	+0.1
FIB	Fire Island	1.16	215	P	Pn	19 35 12.1	+1.2
TRF	Thorofare Moun	1.51	333	P	Pn	19 35 16.1	+0.6
MCK	McKinley	1.62	358	P	Pn	19 35 17.8	+0.7
SLKM	Skilak Lake	1.76	204	P	Pn	19 35 20.0	+1.1
PAX	Paxson	1.76	59	P	Pn	19 35 19.4	+0.4
EYAK	Cordova Ski Ar	2.15	136	P	Pn	19 35 24.2	-0.1
BMRM	Bremner River	2.31	118	P	Pn	19 35 26.2	-0.3
MENT	Mentasta	2.49	68	*e*P	Pn	19 35 29.6	+0.6
IL1	Eielson Array	2.80	17	P	Pn	19 35 33.0	-0.1
COLA	College	2.80	8	P	Pn	19 35 33.1	-0.1
MID	Middleton Isla	2.95	155	*e*P	Pn	19 35 36.7	+1.4
BCA3	Beaver Creek A	3.38	71	P	Pn	19 35 41.2	+0.1
SVW2	Sparrevohn	3.40	256	P	Pn	19 35 42.2	+0.8
AUL	Augustine Lava	3.57	222	P	Pn	19 35 45.6	+1.8
EGAK	Eagle	4.34	49	P	Pn	19 35 54.8	+0.4
IM3	Indian Mountai	4.45	333	P	Pn	19 35 56.4	+0.5
IMA2	Indian Mountai	4.51	334	P	Pn	19 35 57.4	+0.8
KDAK	Kodiak Island	4.75	205	P	Pn	19 35 59.5	-0.4
KDAK	Kodiak Island	4.75	205	P	Pn	19 35 59.4	-0.5
	5.3nm,0.3s,baz=34,slow=9.6,SNR=156						
KDAK				S	Sn	19 36 50.0	-3.6
	18nm,0.3s,baz=318,slow=20,SNR=16						
PNL	Peninsula	5.20	114	P	Pn	19 36 05.8	-0.3
SKAG	Skagway	7.10	106	*e*P	Pn	19 36 32.7	+0.5
INK	Inuvik	8.90	39	P	Pn	19 36 57.5	+0.7
INK				S	Sn	19 38 32.9	-2.6
INK	Inuvik	8.90	39	P	Pn	19 36 57.5	+0.7
	0.5nm,0.3s,baz=244,slow=12,SNR=5.3						
INK				S	Sn	19 38 32.9	-2.6
	3.4nm,0.3s,baz=352,slow=31,SNR=13						
TNA	Tin City	9.12	301	*e*P	Pn	19 37 01.7	+2.0
	6.5nm,0.5s						
TNA				*e*S	Sn	19 38 39.7	-0.9
DLBC	Dease Lake	10.01	103	P	Pn	19 37 11.9	0.0
	baz=337,slow=7.7						
YKA	Yellowknife Ar	15.79	73	P	Pn	19 38 31.3	+1.7
YKA	Yellowknife Ar	15.79	73	P	Pn	19 38 31.3	+1.7
	0.1nm,0.3s,baz=283,slow=10,SNR=7.6						
NEW	Newport	22.48	113	P	P	19 39 45.7	-0.1
NEW	Newport	22.48	113	P	P	19 39 45.7	-0.1
	3.2nm,1.0s,mb3.7,baz=307,slow=13,SNR=4.2						
PDAR	Pinedale Array	30.08	112	P	P	19 40 56.3	+0.9
	0.8nm,0.8s,mb3.5,baz=335,slow=6.6,SNR=7.2						
NVAR	Mina Array Bea	30.17	128	P	P	19 40 56.8	+0.6
	0.8nm,0.7s,mb3.6,baz=330,slow=9.0,SNR=4.9						
TXAR	Lajitas Array	43.96	117	P	P	19 42 54.1	+1.1
	0.3nm,0.6s,mb3.2,baz=330,slow=7.2,SNR=4.9						
SONM	Songino Array	55.17	307	P	P	19 44 16.4	-1.6
	0.6nm,0.6s,mb3.8,baz=33,slow=9.0,SNR=4.9						
FINES	FINESS Array B	56.70	3	P	P	19 44 27.4	-1.4
	1.5nm,0.9s,mb4.0,baz=352,slow=4.8,SNR=5.5						
ZALV	Zalesovo Beam	56.84	325	P	P	19 44 28.5	-1.4
ZALV	Zalesovo Beam	56.84	325	P	P	19 44 28.5	-1.4
	0.8nm,0.5s,mb4.0,baz=28,slow=6.8,SNR=5.5						
MKAR	Makanchi Array	64.00	324	P	P	19 45 17.0	-1.8
	0.3nm,0.4s,mb3.7,baz=38,slow=6.8,SNR=16						
AKASG	Malin Array Be	67.52	1	P	P	19 45 39.8	-1.6
	0.5nm,0.5s,mb3.9,baz=0.4,slow=6.2,SNR=4.1						

GUC 11 20:01:46.8±0.7**, 32.65S×71.10W, h5**^{km}±4^{km}**, MD3.5, ML2.1, 4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PEL	Peldehue	0.60	145	⇓*i*P	Pg	20 01 59.1	+0.7
PEL				*i* S	Sg	20 02 08.7	+2.4
PEL				AML	AML	20 02 11.9	
	comp=N,210nm,0.3s						
CHNG	Los Chungos	0.84	336	⇓*i*P	Pg	20 01 52.0	-11
CHNG				*i* S	Sg	20 02 03.6	-10
CHNG				AML	AML	20 02 07.0	
	comp=E,85nm,0.5s						
FCH	Farellones	0.96	135	*e*P	Pg	20 02 05.0	-0.2
FCH				*i* S	Sg	20 02 19.0	+1.3
FCH				AML	AML	20 02 24.7	
	comp=E,33nm,0.5s						
TACH	Talagante	1.01	172	⇓*i*P	Pg	20 02 05.9	-0.3
TACH				*i* S	Sg	20 02 20.1	+0.8
PCH	Pirque	1.09	153	⇓*i*P	Pg	20 02 07.5	-0.2
CMCH	Combarbala	1.47	3	*e*P	Pn	20 02 13.2	-0.8
CMCH				*i* S	Sn	20 02 33.6	-0.1
CMCH				AML	AML	20 02 41.4	
	comp=E,364nm,0.8s						

CSEM ***11*** *20:15:50.4±0.1, 36.66N×27.15E, h150^{km}, mb4.3/3, Mw3.3, Error ellipse: s-maj=2.3km s-min=1.2km az=35.0*
ISCJB ***11*** *20:15:50.8±0.2, 36.62N±0.03×27.08E±0.03, h150^{km}±3^{km}, mb4.1/11, Error ellipse: s-maj=5.0km s-min=3.2km az=23.3*
IDC ***11*** *20:15:50.8±1.1, 36.71N×27.03E, h125^{km}±15^{km}, mb3.8/8, mb1 3.8/13, mb1mx3.6/26, mbtmp3.7/13, Error ellipse: s-maj=21.4km s-min=10.7km az=165.0*
ATH ***11*** *20:15:53.5, 36.81N×26.83E, h25^{km}±2^{km}, MD3.8/7*
NIC ***11*** *20:15:54.8±0.1, 36.86N×27.48E, h46^{km}, mb4.3, ML3.8, MW3.3*
NEIC ***11*** *20:15:54.8, 36.90N×27.50E, h46^{km}, MD3.8(ATH), After NIC.*
HLW ***11*** *20:15:56.9, 36.35N×27.71E, h33^{km}, Mb4.1*
DDA ***11*** *20:16:02.5, 36.65N×27.86E, h24^{km}, Md3.4*
ISC 11 20:15:51.9±0.2**, 36.61N**±0.03×**27.11E**±0.03**, h144**^{km}±3^{km}**, n120,** σ1^s**12**/147**, mb4.1**/11**, 10C-10D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDRM	Kayabasi	0.53	31	*i* P	Pn	20 16 13.0	+0.3
BDRM				*i* S	Sn	20 16 27.8	-0.7
ARG	Arkhangelos	0.91	115	⇑*i*Pn	Pn	20 16 16.5	+1.2
ARG				*e*Sn	Sn	20 16 33.5	+0.4
ARG	Arkhangelos	0.91	115	⇑*i*PN	Pn	20 16 16.5	+1.2
ARG				*e*SN	Sn	20 16 33.5	+0.4
ARG	Arkhangelos	0.91	115	⇑*i*Pn	Pn	20 16 16.5	+1.2
ARG				*e*Sn	Sn	20 16 33.5	+0.4
KARP	Karpathos	1.06	178	⇑*i*Pn	Pn	20 16 17.8	+1.1
KARP				*e*Sn	Sn	20 16 35.6	+0.1
KARP	Karpathos	1.06	178	⇑*i*PN	Pn	20 16 17.8	+1.1
KARP				*e*SN	Sn	20 16 35.6	+0.1
KARP	Karpathos	1.06	178	⇑*i*Pn	Pn	20 16 17.8	+1.1
KARP				*e*Sn	Sn	20 16 35.6	+0.1
SMG	Samos	1.12	349	P	Pn	20 16 17.0	-0.1
APE	Apeiranthos	1.34	290	P	Pn	20 16 20.0	+0.7
NPS	Neapolis	1.81	222	⇓*i*Pn	Pn	20 16 25.3	+0.8
NPS				*e*Sn	Sn	20 16 48.2	-1.2
NPS	Neapolis	1.81	222	⇓*i*PN	Pn	20 16 25.3	+0.8
NPS				*e*SN	Sn	20 16 48.2	-1.2
NPS	Neapolis	1.81	222	⇓*i*Pn	Pn	20 16 25.3	+0.8
NPS				*e*Sn	Sn	20 16 48.2	-1.2
AKAS	Kas	2.05	100	*i* P	Pn	20 16 28.5	+1.3
AKAS				*i* S	Sn	20 16 51.7	-2.6
KSL	Kastellorizon	2.05	102	*e*Pn	Pn	20 16 31.8	+4.6
KSL	Kastellorizon	2.05	102	*e*PN	Pn	20 16 31.8	+4.6
GOLH	Golhisar	2.06	72	*i* P	Pn	20 16 28.7	+1.3
GOLH				*i* S	Sn	20 16 54.3	-0.3
XRY	Khrisi	2.08	214	*e*Pn	Pn	20 16 29.0	+1.4
XRY	Khrisi	2.08	214	*e*PN	Pn	20 16 29.0	+1.4
XRY	Khrisi	2.08	214	*e*Pn	Pn	20 16 29.0	+1.4
IDI	Anoyia	2.23	234	P	Pn	20 16 29.5	+0.1
	46nm,0.3s,baz=345,slow=9.5,SNR=491						
IDI				S	Sn	20 16 55.9	-2.3
	56nm,0.3s,baz=142,slow=22,SNR=12						
VAM	Vamos	2.65	244	*e*Pn	Pn	20 16 35.5	+1.0
VAM				*e*Sn	Sn	20 17 06.2	-1.1
VAM	Vamos	2.65	244	*e*PN	Pn	20 16 35.5	+1.0
VAM				*e*SN	Sn	20 17 06.2	-1.1
VAM	Vamos	2.65	244	*e*Pn	Pn	20 16 35.5	+1.0
VAM				*e*Sn	Sn	20 17 06.2	-1.1
PRK	Paraskevi	2.71	346	P	Pn	20 16 36.0	+0.7
ISP	Isparta	2.98	65	P	Pn	20 16 40.8	+2.1
KYTH	Kithira	3.30	265	*e*Pn	Pn	20 16 43.5	+0.7
KYTH	Kithira	3.30	265	*e*PN	Pn	20 16 43.5	+0.7
KYTH	Kithira	3.30	265	*e*Pn	Pn	20 16 43.5	+0.7
VLI	Veliai	3.35	273	*e*Pn	Pn	20 16 44.1	+0.6
VLI				*e*Sn	Sn	20 17 20.6	-2.9
VLI	Veliai	3.35	273	*e*PN	Pn	20 16 44.1	+0.6
VLI				*e*SN	Sn	20 17 20.6	-2.9
VLI	Veliai	3.35	273	*e*Pn	Pn	20 16 44.1	+0.6
VLI				*e*Sn	Sn	20 17 20.6	-2.9
NEO	Neokhori	4.08	312	P	Pn	20 16 54.5	+1.5
ITM	Ithomi	4.19	279	*e*Pn	Pn	20 16 55.8	+1.4
ITM	Ithomi	4.19	279	*e*PN	Pn	20 16 55.8	+1.4
ITM	Ithomi	4.19	279	*e*Pn	Pn	20 16 55.8	+1.4
AKMC	Akamas	4.53	109	⇓*e*P	Pn	20 16 58.4	-0.5
PPCY	Paphos	4.59	110	P	Pn	20 16 59.3	-0.5
ERMK	Ermenek	4.67	88	*e*P	Pn	20 17 04.1	+3.4
ALFC	Alevga	4.69	106	P	Pn	20 17 00.2	-0.8
	8.1nm,0.2s						
ALFC				S	Sn	20 17 51.7	-3.1
SZAC	Souni-Zanaja	5.05	110	P	Pn	20 17 05.3	-0.6
	7.7nm,0.2s						
SZAC				S	Sn	20 18 01.3	-2.2
MAMC	Mammari	5.16	104	P	Pn	20 17 06.7	-0.6
VLS	Valsamata	5.42	289	P	Pn	20 17 14.0	+3.3
HMAT	Matruh	5.50	180	P	Pn	20 17 13.6	+1.7
BR131	Keskin Array S	6.01	57	*e*Pn	Pn	20 17 19.6	+1.0
	1.6nm,0.5s						
BR131				*e*Sn	Sn	20 18 13.9	-12
BR131	Keskin Array S	6.01	57	*e*Pn	Pn	20 17 19.6	+1.0
	1.6nm,0.5s						
BRTR	Keskin Array B	6.01	57	P	Pn	20 17 19.1	+0.5
BRTR				S	Sn	20 18 29.9	+3.5
BRTR	Keskin Array B	6.01	57	P	Pn	20 17 19.1	+0.5
	0.6nm,0.3s,baz=224,slow=13,SNR=29						
BRTR				S	Sn	20 18 29.9	+3.5
	0.2nm,0.3s,baz=224,slow=24,SNR=7.3						
BRTR	Keskin Array B	6.01	57	P	Pn	20 17 19.1	+0.5
HNAT	Natroun	7.55	156	⇓P	Pn	20 17 39.4	+0.1
FYM	Al Fayyum	7.65	153	⇓*i*P	Pn	20 17 40.5	-0.1
AYT	Al ‘Ayyat	7.67	153	⇓*e*P	Pn	20 17 40.8	-0.2
MMAI	Mount Meron Ar	7.71	115	P	Pn	20 17 40.7	-0.7
	16nm,0.3s,baz=307,slow=12,SNR=106						
MMAI				S	Sn	20 19 02.7	-4.6
	18nm,0.3s,baz=343,slow=33,SNR=20						
AMAG	Maghara	7.83	138	P	Pn	20 17 42.1	-0.9
HHAG	Hagoal	7.84	146	⇑*e*P	Pn	20 17 43.6	+0.4
HSAF	As Saff	7.91	151	P	Pn	20 17 44.2	+0.2
GLL	Jalalah	8.00	150	⇓*e*P	Pn	20 17 45.1	-0.2
SUZ		8.28	143	P	Pn	20 17 48.7	-0.3
TIP	Timpagrande	8.57	291	*e*Pn	Pn	20 17 50.4	-2.5
ZAF		8.62	146	P	Pn	20 17 53.8	+0.2
HNKL	Nakhl	8.80	137	P	Pn	20 17 55.5	-0.5
ASF	Jabal al Asfar	9.22	116	P	Pn	20 18 01.9	+0.4
	1.0nm,0.3s,baz=180,slow=4.7,SNR=12						
ASF				S	Sn	20 19 42.1	-1.6
	0.8nm,0.3s,baz=337,slow=23,SNR=3.8						
HFRF	Wahat Farafira	9.49	173	⇓P	Pn	20 18 07.7	+2.5
EIL	Elat	9.54	134	P	Pn	20 18 05.3	-0.6
	1.2nm,0.3s,baz=332,slow=11,SNR=14						
EIL				S	Sn	20 19 46.6	-4.9
	2.4nm,0.3s,baz=23,slow=14,SNR=8.0						
GRB	Gharib	9.60	148	⇑P	Pn	20 18 07.2	+0.6
HBST	Basata	9.77	137	⇑*e*P	Pn	20 18 08.6	-0.2
HQLS		9.88	135	P	Pn	20 18 09.6	-0.9
HQLS		9.88	135	S	Sn	20 19 47.1	-13
HKAT	Jabal Katrina	9.94	142	⇓*e*P	Pn	20 18 11.1	-0.1
HDHB	Dhahab	10.09	139	P	Pn	20 18 13.3	+0.1
VAE	Valguarnera	10.19	279	S	Sn	20 20 02.9	-4.1
	3.9nm,0.3s,baz=105,slow=12,SNR=6.0						
RSHS		10.52	140	P	Pn	20 18 18.4	-0.5
RSHS		10.52	140	S	Sn	20 20 01.3	-14
SHRM		10.53	144	P	Pn	20 18 19.6	+0.6
JLOS		10.56	136	P	Pn	20 18 18.5	-0.9
JLOS		10.56	136	S	Sn	20 20 01.4	-15
HDK1	Dakhla	11.21	169	⇑P	Pn	20 18 30.9	+3.0
HSFG		11.57	148	P	Pn	20 18 34.2	+1.5
HSFG		11.57	148	P	Pn	20 18 34.2	+1.5
FRF	La Foret Royal	17.11	300	*e*P	Pn	20 19 39.1	-3.1
	51nm,1.4s						
MBDF	Montbardon	17.40	304	*e*P	Pn	20 19 43.0	-2.6
	4.6nm,0.5s						
MBDF	Montbardon	17.40	304	*e*P	Pn	20 19 43.0	-2.6
	2.3nm,0.5s						
LPG	La Plagne	17.70	306	*e*P	Pn	20 19 47.5	-1.7
	4.4nm,0.5s						
LPG	La Plagne	17.70	306	*e*P	Pn	20 19 47.5	-1.7
	2.2nm,0.5s						
LPL	La Plagne	17.72	306	*e*P	Pn	20 19 47.6	-1.9
	7.6nm,0.5s						
LPL	La Plagne	17.72	306	*e*P	Pn	20 19 47.6	-1.9
	3.8nm,0.5s						
ORIF	Oris-en-Rattie	18.06	304	*e*P	P	20 19 51.6	-0.4
CABF	La Chapelle	18.57	309	*e*P	P	20 19 58.0	+0.4
HINF	Hinteralfeld	18.66	313	*e*P	P	20 19 57.7	-0.8
	4.3nm,0.5s						
HINF	Hinteralfeld	18.66	313	*e*P	P	20 19 57.7	-0.8
	2.2nm,0.5s						
CDF	Champ du Feu	18.72	315	*e*P	P	20 19 58.7	-0.5
VIVF	Saint-Julien-l	18.85	303	*e*P	P	20 20 01.0	+0.4
HAU	Haudompre	19.05	313	*e*P	P	20 20 02.5	-0.3
LASF	Ste Croix	19.19	300	*e*P	P	20 20 04.6	+0.3
SMF	Signal de Mont	20.01	307	*e*P	P	20 20 12.7	-0.4
MEZF	Maizieres J’vi	20.05	313	*e*P	P	20 20 13.5	0.0
MTLF	Montolieu	20.18	297	*e*P	P	20 20 15.1	+0.1
LOR	Lormes	20.24	309	*e*P	P	20 20 16.2	+0.6
	3.0nm,0.5s						
LOR	Lormes	20.24	309	*e*P	P	20 20 16.2	+0.6
	1.5nm,0.5s						
AVF	Avril sur Loir	20.37	307	*e*P	P	20 20 16.8	-0.2
SSF	Saint Saulge	20.38	308	*e*P	P	20 20 17.4	+0.3
	7.5nm,0.6s						
SSF	Saint Saulge	20.38	308	*e*P	P	20 20 17.4	+0.3
	3.8nm,0.6s						
BGF	Bois d’Agland	20.62	306	*e*P	P	20 20 19.8	+0.1
LDF	La Druitiere	23.21	310	*e*P	P	20 20 45.0	-0.9
	9.2nm,0.6s,mb4.1						
LDF	La Druitiere	23.21	310	*e*P	P	20 20 45.0	-0.9
	4.6nm,0.6s,mb4.1						
FLN	La Foliniere	23.50	310	*e*P	P	20 20 47.1	-1.3
	7.5nm,0.3s,mb4.3						
FLN	La Foliniere	23.50	310	*e*P	P	20 20 47.1	-1.3
	3.8nm,0.3s,mb4.3						
GRR	Gorron	23.60	309	*e*P	P	20 20 48.8	-0.6
	26nm,0.6s,mb4.6						
GRR	Gorron	23.60	309	*e*P	P	20 20 48.8	-0.6
	13nm,0.6s,mb4.6						
ESDC	Sonseca Array	24.57	287	P	P	20 20 58.2	-0.1
	1.3nm,0.4s,mb3.8,baz=83,slow=9.4,SNR=14						
HFS	Hagfors	25.07	344	P	P	20 21 01.8	-0.8
	3.1nm,0.7s,mb4.0,baz=148,slow=12,SNR=10.0						
AKTK	Aktyubinsk	26.11	48	P	P	20 21 14.2	+2.1
AKTO	Aktyubinsk	26.11	48	P	P	20 21 14.2	+2.1
	1.0nm,0.5s,mb3.8,baz=256,slow=9.2,SNR=3.8						
TORD	Torodi Ar. Bea	32.63	231	P	P	20 22 11.7	+1.6
	4.7nm,0.5s,mb4.5,baz=34,slow=8.7,SNR=95						
ARCES	ARCESS Array B	32.99	359	P	P	20 22 11.9	-0.8
	3.0nm,0.8s,mb4.0,baz=166,slow=8.0,SNR=3.3						
MK31	Makanchi Array	41.66	58	*e*P	P	20 23 26.9	+1.0
MK31	Makanchi Array	41.66	58	*e*P	P	20 23 27.0	+1.1
MKAR	Makanchi Array	41.66	58	P	P	20 23 26.9	+1.0
	2.7nm,0.3s,mb4.3,baz=268,slow=8.9,SNR=121						
ZALV	Zalesovo Beam	42.86	47	P	P	20 23 35.2	-0.3
ZALV	Zalesovo Beam	42.86	47	P	P	20 23 35.2	-0.3
	1.6nm,0.4s,mb4.0,baz=278,slow=8.7,SNR=10						
SONM	Songino Array	57.35	52	P	P	20 25 25.2	+0.5
	0.2nm,0.3s,mb3.4,baz=284,slow=7.8,SNR=6.8						

MAN 11 20:17:04, 11.61N×124.83E, h4^{km}**, mb4.1, ML2.9, MS2.6, Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	0.47	161	*i* P	Pg	20 17 13.8	+0.8
PLP				*e*S	Sg	20 17 20.7	+1.7

IDC ***11*** *20:22:43.9±1.2, 16.95N×99.19W, h0^{km}, mb4.0/7, mb1 4.2/12, mb1mx4.0/23, mbtmp4.0/12, ML3.8/5, MS3.5/5, Ms1 3.5/5, ms1mx3.1/25, Error ellipse: s-maj=25.8km s-min=17.0km az=28.0*
ISCJB ***11*** *20:22:48.4±0.5, 16.93N±0.04×99.19W±0.03, h50^{km}±4^{km}, mb4.2/21, Error ellipse: s-maj=7.2km s-min=4.6km az=16.5*
MEX ***11*** *20:22:50.9±0.9, 16.92N×99.22W, h23^{km}±30^{km}, MD4.5*
NEIC ***11*** *20:22:51.3, 16.91N×99.25W, h16^{km}, mb4.3/24, MD4.5(MEX), After MEX.*
ISC 11 20:22:49.5±0.5**, 16.93N**±0.04×**99.15W**±0.03**, h43**^{km}±5^{km}**, n78,** σ1^s**24**/88**, mb4.2**/21**, 1D, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.74	265	*i* P	Pn	20 23 01.5	-2.1
CAIG	El Cayaco	1.08	276	*i* P	Pn	20 23 07.1	-1.1
CAIG				*e*S	Sn	20 23 18.0	-4.0
MEIG	Mezcala	1.09	335	*i* P	Pn	20 23 07.9	-0.4
MEIG				*e*S	Sn	20 23 20.7	-1.5
PNIG	Pinotepa	1.11	119	⇓*i*P	Pn	20 23 09.3	+0.6
PNIG				*i* S	Sn	20 23 22.7	-0.2
UTMO	Huajuapan	1.56	55	*i* P	Pn	20 23 14.8	-0.1
UTMO				*i* S	Sn	20 23 35.0	+1.2
ZIIG	Zihuatanejo	2.31	287	*e*P	Pn	20 23 28.9	+3.8
ZIIG				*e*S	Sn	20 23 49.3	-3.2
ZIIG	Zihuatanejo	2.31	287	*e*P	Pn	20 23 25.0	-0.2
ZIIG				*e*S	Sn	20 23 49.3	-3.2
OXX	Oaxaca	2.32	86	*i* P	Pn	20 23 27.0	+1.7
UNM	Universidad Na	2.38	359	*i* P	Pn	20 23 27.0	+0.9
SZVM	Salazar	2.39	355	*i* P	Pn	20 23 27.0	+0.8
SZVM				*i* S	Sn	20 23 58.1	+3.9
PTVM	Pico Tres Padr	2.65	1	*e*P	Pn	20 23 30.1	+0.3
PTVM				*i* S	Sn	20 24 00.0	-0.6
IIO	Organos	2.67	9	*i* P	Pn	20 23 30.7	+0.5
IIO				*i* S	Sn	20 24 00.6	-0.7
IIO				*i* S	Sn	20 24 07.7	+6.4
CMIG	Matias Romero	4.08	87	Pn	Pn	20 23 50.2	+0.8
CMIG				Sn	Sn	20 24 33.2	-2.8
CMIG				Lg		20 24 52.8	
CMIG				LR	LR	20 25 42.3	
CMIG	Matias Romero	4.08	87	Pn	Pn	20 23 50.2	+0.8
	3.7nm,0.3s,baz=262,slow=11,SNR=38						
CMIG				Sn	Sn	20 24 33.2	-2.8
	15nm,0.3s,baz=280,slow=13,SNR=4.5						
CMIG				Lg		20 24 52.8	
	11nm,0.3s,baz=254,slow=16,SNR=4.7						
CMIG				LR	LR	20 25 42.3	
	comp=Z,407nm,19.5s,baz=28,slow=43						
MMIG	Aquila	4.23	289	*e*P	Pn	20 23 50.9	-0.5
MMIG				*i* S	Sn	20 24 39.5	0.0
SFJM	Santa Fe	5.11	314	*i* P	Pn	20 24 09.5	+5.9
SCX	San Cristobal	6.24	91	*e*P	Pn	20 24 22.5	+3.4
TEIG	Tepich	10.81	71	*e*Pn	Pn	20 25 23.0	+1.1
TEIG				*e*Sn	Sn	20 27 14.5	-7.1
TEIG	Tepich	10.81	71	Pn	Pn	20 25 21.4	-0.5
	1.5nm,0.3s,baz=153,slow=2.3,SNR=4.1						
TEIG				Sn	Sn	20 27 11.4	-10
	1.1nm,0.3s,baz=349,slow=23,SNR=2.1						
LPIG	La Paz	12.65	306	LR	LR	20 30 11.5	
	comp=Z,221nm,19.4s,baz=135,slow=36						
LTX	Lajitas	13.02	342	*e*Pn	Pn	20 25 54.4	+2.4
TXAR	Lajitas Array	13.02	342	Pn	Pn	20 25 53.3	+1.3
TXAR	Lajitas Array	13.02	342	Pn	Pn	20 25 53.3	+1.3
	0.1nm,0.3s,baz=164,slow=13,SNR=11						
JCT	Junction City	13.50	358	*e*Pn	Pn	20 25 59.7	+1.3
	17nm,1.1s						
JTS	JuntasAbangare	15.29	114	Pn	Pn	20 26 27.5	+5.0
JTS				LR	LR	20 31 07.6	
JTS	JuntasAbangare	15.29	114	Pn	Pn	20 26 21.8	-0.7
	0.5nm,0.3s,baz=211,slow=12,SNR=2.7						
JTS				LR	LR	20 31 07.6	
	comp=Z,94nm,20.1s,baz=23,slow=33						
NATX	Nacogdoches	15.31	15	*e*Pn	Pn	20 26 27.1	+4.4
	22nm,0.6s						
MNTX	Cornudas Mount	15.75	340	*e*Pn	Pn	20 26 29.6	+1.1
	26nm,1.5s						
MNTX				*e*		20 26 44.2	
WMOK	Wichita Mounta	17.73	1	*e*Pn	Pn	20 26 54.0	+0.7
	7.0nm,0.6s						
WMOK				*e*		20 27 04.8	
AMTX	Amarillo	18.02	353	*e*Pn	Pn	20 26 56.9	+0.2
	26nm,0.6s						
MIAR	Mount Ida	18.24	15	*e*Pn	Pn	20 26 57.9	-1.5
	13nm,0.9s						
BNM	Barren Site	18.41	340	*e*P	Pn	20 27 05.0	+3.5
TUC	Tucson	18.59	328	*e*P	Pn	20 27 08.3	+4.7
	3.6nm,0.9s						
UALR	University of	18.78	18	*e*P	Pn	20 27 04.9	-1.1
	22nm,1.0s						
ANMO	Albuquerque	19.10	341	*e*P	Pn	20 27 10.1	+0.3
	2.2nm,0.8s						
ANMO				LR	LR	20 35 16.4	
ANMO	Albuquerque	19.10	341	P	Pn	20 27 09.4	-0.4
	0.3nm,0.3s,baz=152,slow=12,SNR=7.4						
ANMO				LR	LR	20 35 16.4	
	comp=Z,200nm,19.2s,baz=272,slow=40						
LRAL	Lakeview Retre	19.42	32	*e*P	Pn	20 27 11.8	-1.9
	5.7nm,0.8s						
OXF	Oxford	19.56	25	P	Pn	20 27 12.8	-2.5
PLAL	Pickwick Lake	20.52	27	*e*P	P	20 27 22.9	-1.2
	14nm,0.6s						
SDCO	Great Sand Dun	21.48	346	*e*P	P	20 27 35.9	+1.5
	3.6nm,1.0s,mb3.7						
WVT	Waverly	21.60	26	*e*P	P	20 27 34.5	-1.3
	22nm,0.6s,mb4.8						
GOGA	Godfrey	21.65	38	*e*P	P	20 27 35.3	-1.0
	7.5nm,0.9s,mb4.1						
SWET	Sewanee	21.69	30	*e*P	P	20 27 35.3	-1.5
CBKS	Cedar Bluff	21.81	359	*e*P	P	20 27 39.1	+1.1
	15nm,0.8s,mb4.5						
MVCO	Mesa Verde	21.82	340	*e*P	P	20 27 40.2	+2.1
	18nm,1.4s,mb4.3						
MVCO				*e*		20 27 53.1	
KSU1	Kansas State U	22.20	5	*e*P	P	20 27 40.6	-1.5
	16nm,0.9s,mb4.4						
FVM	French Village	22.33	18	*e*P	P	20 27 41.7	-1.8
	11nm,0.9s,mb4.3						
FVM				*e*		20 27 55.2	
SIUC	Southern Illin	22.47	21	*e*P	P	20 27 45.9	+0.9
CPCT	Cooper Cave	22.58	32	*e*P	P	20 27 44.6	-1.6
CPCT				*e*		20 27 59.3	
TKL	Tuckaleechee C	23.13	33	P	P	20 27 51.9	-0.1
	3.4nm,0.6s,mb4.0,baz=199,slow=12,SNR=7.4						
USIN	University of	23.26	23	*e*P	P	20 27 53.0	-0.2
	13nm,0.6s,mb4.5						
USIN				*e*		20 28 04.2	
JSC	Jenkinsville	23.57	39	*e*P	P	20 27 56.3	+0.1
TZTN	Tazewell	23.93	32	*e*P	P	20 27 59.0	-0.5
	64nm,1.7s,mb4.8						
WCI	Wyandotte Cave	24.03	25	*e*P	P	20 27 59.5	-1.0
	14nm,0.7s,mb4.5						
ELN	Prospectdale	25.93	35	*e*P	P	20 28 13.1	-4.6
DUG	Dugway	26.04	336	*e*P	P	20 28 23.1	+4.4
	4.7nm,1.0s,mb4.0						
DUG				*e*	pP	20 28 35.1	+4.8
BLA	Blacksburg	26.10	36	*e*P	P	20 28 19.0	-0.2
	17nm,0.8s,mb4.6						
BLA				*e*	pP	20 28 31.1	+0.3
HWUT	Hardware Ranch	26.81	339	*e*P	P	20 28 28.2	+2.6
	4.2nm,1.0s,mb3.9						
ACSO	Alum Creek Sta	27.12	28	*e*P	P	20 28 28.5	+0.1
NVAR	Mina Array Bea	27.21	326	P	P	20 28 28.4	-0.8
	0.5nm,0.4s,mb3.4,baz=330,slow=14,SNR=3.6						
PDAR	Pinedale Array	27.24	343	P	P	20 28 30.2	+0.7
	2.5nm,0.9s,mb3.8,baz=146,slow=9.0,SNR=11						
CMB	Columbia Colle	28.10	323	*e*P	P	20 28 39.4	+2.1
MCWV	Mont Chateau	28.19	33	*e*P	P	20 28 38.5	+0.5
	8.6nm,0.9s,mb4.4						
HLID	Hailey	29.54	337	*e*P	P	20 28 52.2	+2.3
AGMN	Agassiz Refuge	31.40	4	*e*P	P	20 29 05.6	-0.6
ULM	Lac du Bonnet	33.34	4	P	P	20 29 22.1	-1.1
	2.3nm,0.8s,mb4.2,baz=204,slow=3.7,SNR=4.9						
NEW	Newport	34.54	339	P	P	20 29 38.0	+4.2
FCC	Fort Churchill	41.93	4	*e*P	P	20 30 36.4	+0.7
SCHQ	Schefferville	45.24	26	*e*P	P	20 31 02.9	+0.5
SCHQ	Schefferville	45.24	26	P	P	20 31 02.5	0.0
	6.9nm,0.7s,mb4.6,baz=231,slow=5.8,SNR=27						
YKA	Yellowknife Ar	46.79	350	P	P	20 31 14.4	-0.1

	0.9nm,0.6s,mb3.9,baz=157,slow=7.5,SNR=9.0						
SIV	**San Ignacio**	**49.80**	**129**	P	**P**	**20 31 39.2**	**+0.9**
	0.7nm,0.7s,mb3.8,baz=270,slow=14,SNR=3.3						
RES	**Resolute Bay**	**57.81**	**1**	P	**P**	**20 32 39.8**	**+3.7**
COLA	**College**	**57.90**	**338**	P	**P**	**20 32 41.7**	**+4.9**
WRA	**Warramunga Arr**	**129.34**	**258**	PKP	PKPdf	20 41 54.4	+0.3
WRA	**Warramunga Arr**	**129.34**	**258**	PKP	PKPdf	20 41 54.4	+0.3
	1.5nm,0.8s,baz=88,slow=1.7,SNR=7.5						
ASAR	**Alice Springs**	**130.02**	**253**	PKP	PKPdf	20 41 56.5	+1.2
ASAR	**Alice Springs**	**130.02**	**253**	PKP	PKPdf	20 41 56.5	+1.2
	0.6nm,0.7s,baz=159,slow=3.8,SNR=5.0						

MAN ***11*** *20:33:09, 4.05N×124.59E, h73^{km}, mb4.8, ML3.8, MS3.8*

IDC ***11*** *20:33:09.2±1.0, 4.37N×124.76E, h0^{km}, mb3.9/7, mb1 4.1/7, mb1mx3.7/20, mbtmp3.9/7, Error ellipse: s-maj=35.2km s-min=18.4km az=70.0*

ISCJB ***11*** *20:33:15.1±1.2, 4.28N±0.06×124.68E±0.09, h63^{km}±12^{km}, mb4.0/11, Error ellipse: s-maj=15.3km s-min=9.7km az=165.2*

NEIC ***11*** *20:33:16.0±1.3, 4.28N×124.69E, h54^{km}±14^{km}, mb4.4/4, Error ellipse: s-maj=14.2km s-min=8.8km az=62.0*

ISC 11 20:33:16.1±1.1**, 4.27N**±0.06×**124.70E**±0.08**, h53**^{km}±11^{km}**, n25, σ1^{s}17**/29**, mb4.0**/11**, 2C, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSPH	**General Santos**	**1.83**	**8⇑**	*i*P	**Pn**	**20 33 45.4**	**+0.3**
GSPH				*e*S	**Sn**	**20 34 08.3**	**+1.3**
KCP	**Kidapawan**	**2.75**	**8⇑**	*e*P	**Pn**	**20 33 56.4**	**-1.4**
KCP				*e*S	**Sn**	**20 34 31.3**	**+1.5**
DAV	**Davao City (W)**	**2.92**	**17**	*e*Pn	**Pn**	**20 34 01.0**	**+1.0**
DAV				*e*Sn	**Sn**	**20 34 32.7**	**-1.3**
CTBH	**Cotabato--PC H**	**2.97**	**351**	*e*P	**Sn**	**20 34 30.8**	**-4.3**
CTBH				*i* S	**Sn**	**20 34 30.8**	**-4.3**
SNPH	**Sibulan**	**5.25**	**344**	*i* P	**Pn**	**20 34 32.0**	**0.0**
KKM	**Kota Kinabalu**	**8.63**	**282**	*e*Pn	**Pn**	**20 35 17.0**	**-1.4**
YHNB	**Yeheng**	**20.54**	**351**	*e*P	**P**	**20 37 47.2**	**-3.0**
FITZ	**Fitzroy Crossi**	**22.25**	**178**	P	**P**	**20 38 09.3**	**+0.8**
	5.0nm,0.5s,mb4.2,baz=8.4,slow=8.7,SNR=24						
PSI	**Prapat**	**25.76**	**268**	P	**P**	**20 38 42.1**	**0.0**
	4.8nm,0.7s,mb4.1,baz=116,slow=11,SNR=6.9						
WRA	**Warramunga Arr**	**25.86**	**159**	P	**P**	**20 38 42.9**	**0.0**
	0.9nm,0.5s,mb3.5,baz=337,slow=10,SNR=8.8						
WB2	**Warramunga Arr**	**25.86**	**159**	*e*P	**P**	**20 38 41.9**	**-1.0**
PMG	**Port Moresby**	**26.18**	**121**	*e*P	**P**	**20 38 44.8**	**-1.1**
	2.4nm,0.3s,mb4.2						
ASAR	**Alice Springs**	**29.18**	**162**	P	**P**	**20 39 12.8**	**+0.3**
	0.3nm,0.6s,mb3.2,baz=352,slow=8.3,SNR=4.1						
MJAR	**Matsushiro Arr**	**34.44**	**19**	P	**P**	**20 39 56.9**	**-1.7**
	1.7nm,0.9s,mb4.0,baz=199,slow=9.6,SNR=4.3						
STKA	**Stephens Creek**	**39.38**	**157**	P	**P**	**20 40 41.9**	**+1.2**
	1.4nm,0.7s,mb3.8,baz=337,slow=7.7,SNR=2.0						
LSA	**Lhasa**	**40.57**	**312**	*e*P	**P**	**20 40 53.0**	**+2.4**
	2.5nm,0.5s,mb4.1						
TAU	**Tasmania Unive**	**51.23**	**159**	*e*P	**P**	**20 42 15.0**	**+0.7**
MK31	**Makanchi Array**	**55.97**	**326**	*e*P	**P**	**20 42 51.5**	**+2.5**
MKAR	**Makanchi Array**	**55.97**	**326**	P	**P**	**20 42 49.7**	**+0.7**
MKAR	**Makanchi Array**	**55.97**	**326**	P	**P**	**20 42 49.7**	**+0.7**
	1.3nm,0.5s,mb4.2,baz=122,slow=8.1,SNR=21						
AAK	**Ala-Archa**	**58.60**	**318**	P	**P**	**20 43 07.0**	**-0.7**
KURK	**Kurchatov**	**60.21**	**328**	*e*P	**P**	**20 43 18.9**	**+0.3**
	3.8nm,0.8s,mb4.5						
BRVK	**Borovoye**	**65.84**	**327**	P	**P**	**20 43 54.7**	**-1.2**
ARU	**Arti**	**73.41**	**328**	*e*P	**P**	**20 44 41.8**	**-0.7**
	2.3nm,0.4s,mb4.5						
KMBO	**Kilima Mbogo**	**87.53**	**269**	P	**P**	**20 45 59.5**	**+0.5**

NEIC ***11*** *20:48:53.9±2.4, 6.21S×151.70E, h10^{km}, Error ellipse: s-maj=110.0km s-min=30.1km az=132.0*

IDC 11 20:49:08.6±8.7**, 6.00S×150.47E, h84**^{km}±61^{km}**, mb3.5**/3**, mb1 3.7**/4**, mb1mx3.3**/15**, mbtmp3.5**/4**, ML2.4**/1**, Error ellipse: s-maj=102.3km s-min=57.4km az=125.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**4.71**	**224**	*e*Pn	Pn	20 50 17.3	-0.1
PMG				*e*Sn	Sn	20 51 12.0	+1.2
PMG	**Port Moresby**	**4.71**	**224**	P	Pn	20 50 17.6	+0.3
	1.1nm,0.3s,baz=7.1,slow=8.1,SNR=3.3						
PMG				S	Sn	20 51 11.4	+0.6
	3.7nm,0.3s,baz=352,slow=23,SNR=8.2						
WB2	**Warramunga Arr**	**20.92**	**227**	*e*P	P	20 53 44.5	-0.1
WRA	**Warramunga Arr**	**20.93**	**227**	P	P	20 53 44.6	-0.1
	0.9nm,0.5s,baz=52,slow=10,SNR=18						
ASAR	**Alice Springs**	**23.72**	**221**	P	P	20 54 12.8	-0.3
	3.6nm,0.8s,baz=57,slow=9.0,SNR=40						
FITZ	**Fitzroy Crossi**	**27.05**	**241**	P	P	20 54 44.4	+1.0
	3.0nm,1.1s,baz=52,slow=14,SNR=3.6						
TORD	**Torodi Ar. Bea**	**148.43**	**285**	PKPbc	PKPbc	21 08 45.9	-0.8
TORD	**Torodi Ar. Bea**	**148.43**	**285**	PKPbc	PKPbc	21 08 45.9	-0.8
	0.5nm,0.6s,baz=50,slow=2.9,SNR=5.6						

BJI ***11*** *21:02:52.1, 52.30N×159.00E, h37^{km}, mB4.8, mb4.8, Ms4.4, Msz4.2*

MOS ***11*** *21:02:54.0±0.9, 52.11N×158.97E, h48^{km}, mb5.0/59, Error ellipse: s-maj=8.7km s-min=3.9km az=95.0*

MOS Felt (II) at Petropavlovsk-Kamchatskiy.

KRSC ***11*** *21:02:55.2±0.5, 52.15N×159.29E, h26^{km}±25^{km}, ML5.2*

ISCJB ***11*** *21:02:56.1±0.2, 52.14N±0.02×159.05E±0.04, h66^{km}, mb4.6/111, Error ellipse: s-maj=4.4km s-min=2.6km az=42.0*

NEIC ***11*** *21:02:57.2±0.7, 52.26N×158.97E, h57^{km}±6^{km}, mb4.8/74, Error ellipse: s-maj=5.3km s-min=3.2km az=164.0*

NEIC Felt [II] at Petropavlovsk-Kamchatskiy.

IDC ***11*** *21:02:58.7±4.1, 52.30N×158.94E, h72^{km}±38^{km}, mb4.2/23, mb1 4.4/24, mb1mx4.4/27, mbtmp4.3/24, ML4.3/1, MS3.8/4, Ms1 3.8/4, ms1mx3.3/46, Error ellipse: s-maj=15.9km s-min=10.4km az=146.0*

SZGRF ***11*** *21:02:59.0, 52.94N×157.35E, h33^{km}, mb5.1, Kamchatka Peninsula, Russia*

ISC 11 21:02:58.3±0.2**, 52.20N**±0.03×**158.93E**±0.04**, h68**^{km}**, h68**^{km}±1.9^{km}**:pP-P, n385, σ0^{s}90**/399**, mb4.6**/111**, 43C-5D, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUS	**Russkaya**	**0.35**	**312**	*i* P	**Pn**	**21 03 06.8**	**-2.8**
GRL	**Gorelyy**	**0.63**	**304**	*i* P	**Pn**	**21 03 11.8**	**-0.5**
GRL				*i* S	**Sn**	**21 03 24.8**	**+2.2**
PET	**Petropavlovsk**	**0.84**	**349**	*e*Pn	**Pn**	**21 03 12.6**	**-2.1**
PET				*e*Sn	**Sn**	**21 03 25.6**	**-1.2**
PET	**Petropavlovsk**	**0.84**	**349**	PN	**Pn**	**21 03 12.7**	**-2.0**
PET				S	**Sn**	**21 03 25.7**	**-1.1**
PET	**Petropavlovsk**	**0.84**	**349**	*e*P	**Pn**	**21 03 12.7**	**-2.0**
PET				*i* S	**Sn**	**21 03 25.7**	**-1.1**
INSR	**Institute**	**0.89**	**347**	*e*P	**Pn**	**21 03 12.9**	**-2.4**
INSR				*i* S	**Sn**	**21 03 26.8**	**-1.1**
NLC	**Nalytchevo**	**1.00**	**14**	*e*P	**Pn**	**21 03 13.0**	**-3.7**
NLC				*i* S	**Sn**	**21 03 26.8**	**-3.6**
AVH	**Avacha**	**1.07**	**354**	*e*P	**Pn**	**21 03 16.1**	**-1.5**
SPN	**Mys Shipunski**	**1.12**	**36**	*e*P	**Pn**	**21 03 14.6**	**-3.6**
SPN				*i* S	**Sn**	**21 03 28.8**	**-4.2**
MIPR	**Malaya Ipel'ka**	**1.34**	**274**	*e*P	**Pn**	**21 03 21.4**	**+0.4**
GNL	**Ganaly**	**1.61**	**339**	*e*P	**Pn**	**21 03 24.7**	**+0.1**
KII	**Karymskiy**	**1.86**	**9**	*e*P	**Pn**	**21 03 27.8**	**-0.2**
KII				*i* S	**Sn**	**21 03 51.0**	**+0.4**
SKR	**Severo-Kuril's**	**2.33**	**230**	*e*PN	**Pn**	**21 03 31.0**	**-3.2**
SKR				*i* S	**Sn**	**21 03 59.5**	**-2.2**
SKR				pmax	pmax		
	comp=N,140nm,0.5s						
SKR				pmax	pmax		
	comp=Z,400nm,0.5s						
SKR				pmax	pmax		
	comp=E,260nm,0.4s						
SKR				pmax	pmax		
	comp=Z,2µm,2.0s						
SKR				smax			
	comp=N,4µm,0.5s						
SKR				smax			
	comp=E,1µm,0.5s						
SKR				smax			
	comp=N,8µm,2.0s						
SKR				smax			
	comp=E,5µm,2.0s						
ALID	**Alaid**	**2.50**	**239**	*e*P	**Pn**	**21 03 35.8**	**-0.8**
ALID				*i* S	**Sn**	**21 04 06.0**	**+0.1**
MKZ	**Mys Kozlova**	**2.90**	**34**	*e*P	**Pn**	**21 03 38.4**	**-3.6**
MKZ				*i* S	**Sn**	**21 04 10.3**	**-5.3**
TUMR	**Tumrok**	**3.17**	**13**	*e*P	**Pn**	**21 03 45.9**	**+0.2**
TUMR				*i* S	**Sn**	**21 04 24.0**	**+1.7**
KMNR	**Kamenistaya**	**3.65**	**12**	*e*P	**Pn**	**21 03 52.6**	**+0.4**
KPT	**Kopyto**	**3.85**	**11**	*e*P	**Pn**	**21 03 56.0**	**+1.0**
KIRR	**Kirishev**	**3.85**	**12**	*e*P	**Pn**	**21 03 55.5**	**+0.5**
BZMR	**Bezymyannaya**	**3.85**	**13**	*e*P	**Pn**	**21 03 55.8**	**+0.8**
KOZ	**Kozyrevsk**	**3.91**	**8**	*e*P	**Pn**	**21 03 56.7**	**+1.0**
KOZR	**Kozyr**	**3.92**	**8**	PN	**Pn**	**21 03 56.7**	**+0.9**
ZLN	**Zelenaya**	**3.98**	**15**	*e*P	**Pn**	**21 03 57.5**	**+0.8**
CIRR	**Tsirk**	**4.07**	**15**	*e*P	**Pn**	**21 03 59.2**	**+1.3**
KRSR	**Krestovskiy**	**4.14**	**13**	*e*P	**Pn**	**21 03 59.0**	**+0.1**
SRDR	**Sredinnyy**	**4.15**	**6**	*e*P	**Pn**	**21 03 59.8**	**+0.7**
KLY	**Klyuchi**	**4.24**	**13**	*e*P	**Pn**	**21 04 02.1**	**+1.8**
KLY				*i* S	**Sn**	**21 04 52.0**	**+3.5**
BDR	**Baidarnaya**	**4.57**	**16**	*e*P	**Pn**	**21 04 05.8**	**+1.0**
KBTR	**Krutoberegovo**	**4.62**	**28**	*e*P	**Pn**	**21 04 03.8**	**-1.7**
KBTR				*i* S	**Sn**	**21 04 54.8**	**-2.9**
SMKR	**Semkarok**	**4.63**	**18**	*e*P	**Pn**	**21 04 05.8**	**+0.1**
SRKR	**Sorokina**	**4.65**	**15**	*e*P	**Pn**	**21 04 06.7**	**+0.8**
SEY	**Seymchan**	**11.31**	**345⇑**	*e*PN	**Pn**	**21 05 39.1**	**+2.3**
YSS	**Yuzh-Sakhalins**	**11.73**	**250**	*e*Pn	**Pn**	**21 05 44.0**	**+1.4**
YSS				Sn	**Sn**	**21 07 50.9**	**-0.8**
YSS	**Yuzh-Sakhalins**	**11.73**	**250⇑**	*e*PN	**Pn**	**21 05 45.5**	**+2.9**
YSS				MLR	MLR		
	comp=Z,500nm,16.0s						
YSS				MLR	MLR		
	comp=N,500nm,15.0s						
YSS				MLR	MLR		
	comp=E,400nm,17.0s						
ASAJ	**Asahikawa**	**13.55**	**240**	P	**Pn**	**21 06 07.1**	**-0.2**
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,164nm,20.5s						
ASAJ	**Asahikawa**	**13.55**	**240**	P	**Pn**	**21 06 07.1**	**-0.2**
	comp=Z,2.2nm,0.3s,baz=65,slow=15,SNR=6.6						
ASAJ				LR	LR	21 11 11.1	
	comp=Z,164nm,20.5s,baz=188,slow=36						
BILL	**Bilibino**	**16.28**	**10**	*e*Pn	**Pn**	**21 06 41.3**	**-1.0**
	comp=Z,21nm,0.8s						
BILL				*e*		21 06 58.9	
BILL				*e*Sn	**Sn**	**21 09 39.0**	**-2.8**
BILL	**Bilibino**	**16.28**	**10**	*e*P	**Pn**	**21 06 42.9**	**+0.6**
BILL				*e*		21 09 39.0	
BILL				pmax	pmax		
	comp=Z,10.0nm,0.9s						
YAK	**Yakutsk**	**18.52**	**313**	*e*P	**Pn**	**21 07 08.0**	**-1.6**
	comp=Z,22nm,0.8s						
YAK				*e*		21 07 26.7	
YAK	**Yakutsk**	**18.52**	**313**	*e*P	**Pn**	**21 07 08.0**	**-1.6**
YAK				pmax	pmax		
	comp=Z,20nm,0.9s						
YAK				pmax	pmax		
	comp=N,5.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,12nm,1.5s						
CLNS	**Chul'man**	**20.16**	**297**	*e*P	**P**	**21 07 30.3**	**+3.6**
CLNS				pmax	pmax		
	comp=N,10.0nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,20nm,0.8s						
CLNS				pmax	pmax		
	comp=E,16nm,0.9s						
NRGR	**Nerungri**	**20.25**	**296**	*e*P	**P**	**21 07 31.6**	**+3.9**
NRGR				S	**S**	**21 11 09.4**	**-1.5**
NRGR				smax			
	comp=E,37nm,0.6s						
MDJ	**Mudanjiang**	**20.79**	**260**	P	**P**	**21 07 32.5**	**-1.2**
TNA	**Tin City**	**21.39**	**39**	*e*P	**P**	**21 07 38.8**	**-1.1**
	comp=E,14nm,1.1s,mb4.2						
TNA				*e*S	**S**	**21 11 28.7**	**-4.4**
MAJO	**Matsushiro**	**21.43**	**231**	*e*P	**P**	**21 07 40.9**	**+0.3**
	comp=E,21nm,0.6s,mb4.6						
MAJO				S	**S**	**21 11 30.5**	**-3.9**
MAJO	**Matsushiro**	**21.43**	**231**	*e*P	**P**	**21 07 40.9**	**+0.3**
MAJO				S	**S**	**21 11 30.5**	**-3.9**
MAJO				pmax	pmax		
	comp=Z,21nm,0.6s,mb4.6						
MAT	**Matsushiro**	**21.43**	**231**	P	**P**	**21 07 40.7**	**+0.1**
MJAR	**Matsushiro Arr**	**21.43**	**231**	P	**P**	**21 07 41.2**	**+0.6**
MJAR				pmax	pmax		
	comp=Z,10.0nm,0.5s						
MJAR	**Matsushiro Arr**	**21.43**	**231**	P	**P**	**21 07 41.2**	**+0.6**
	comp=Z,10.0nm,0.5s,mb4.4,baz=31,slow=7.5,SNR=58						
TIXI	**Tiksi**	**23.61**	**337**	*e*P	**P**	**21 08 01.3**	**-1.2**
	comp=Z,16nm,0.6s,mb4.5						
TIXI				*e*		21 08 30.1	
TIXI				*e*PcP	PcP	21 11 45.5	+0.3
TIXI	**Tiksi**	**23.61**	**337**	*e*P	**P**	**21 08 01.6**	**-0.9**
TIXI				*e*		21 08 30.1	
TIXI				*e*		21 11 45.5	
TIXI				pmax	pmax		
	comp=Z,11nm,0.5s,mb4.4						
HIA	**Hailar**	**24.77**	**279**	*e*P	**P**	**21 08 12.8**	**-0.5**
	comp=Z,13nm,0.8s,mb4.4						
HIA				*e*		21 08 30.6	
HIA	**Hailar**	**24.77**	**279**	*e*P	**P**	**21 08 12.8**	**-0.5**
HIA				*e*		21 08 30.7	
HIA				pmax	pmax		
	comp=Z,13nm,0.8s						
BOD	**Bodaibo**	**25.97**	**300**	*e*P	**P**	**21 08 23.2**	**-0.9**
BOD				*e*	pP	21 08 36.4	-3.9
BOD				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.7						
KSRS	**Korea Array**	**26.22**	**248**	P	**P**	**21 08 27.4**	**+0.8**
	comp=Z,5.6nm,0.6s,mb4.1,baz=47,slow=9.5,SNR=22						
JNU	**Nakatsue**	**27.82**	**238**	P	**P**	**21 08 42.3**	**+1.4**
	comp=Z,22nm,0.8s,mb4.7,baz=86,slow=16,SNR=14						
MCK	**McKinley**	**29.08**	**46**	*e*P	**P**	**21 08 50.0**	**-1.8**
	comp=Z,9µm,1.2s						
MCK	**McKinley**	**29.08**	**46**	*e*P	**P**	**21 08 50.0**	**-1.8**
MCK				pmax	pmax		
	comp=Z,9µm,1.2s						
PMR	**Palmer**	**29.11**	**51**	P	**P**	**21 08 54.4**	**+2.3**
	comp=Z,1.9nm,0.6s,mb3.9						
PMR				*e*	pP	21 09 12.1	+3.7
PMR	**Palmer**	**29.11**	**51**	P	**P**	**21 08 54.4**	**+2.3**
PMR				*e*	pP	21 09 12.1	+3.6
PMR				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
COLA	**College**	**29.54**	**44**	*e*P	**P**	**21 08 54.3**	**-1.5**
	comp=Z,4.6nm,0.8s,mb4.2						
COLA				*e*	pP	21 09 13.4	+1.2
COLA	**College**	**29.54**	**44**	*e*P	**P**	**21 08 54.3**	**-1.5**
COLA				*e*	pP	21 09 13.4	+1.2
COLA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.2						
BJT	**Baijiatuau**	**31.59**	**265**	*e*P	**P**	**21 09 13.6**	**-0.6**
	comp=Z,3.6nm,0.4s,mb4.5						
BJT	**Baijiatuau**	**31.59**	**265**	*e*P	**P**	**21 09 13.6**	**-0.6**
BJT				pmax	pmax		
	comp=Z,4.0nm,0.4s						
EGAK	**Eagle**	**32.40**	**44**	*e*P	**P**	**21 09 18.6**	**-2.5**
	comp=Z,10nm,0.9s,mb4.5						
EGAK				*e*	pP	21 09 35.8	-1.6
DAWY	**Dawson**	**33.25**	**45**	*e*P	**P**	**21 09 27.5**	**-1.0**
TLY	**Talaya**	**33.39**	**292**	*e*P	**P**	**21 09 30.0**	**+0.2**
	comp=Z,3.0nm,0.9s,mb4.1						
TLY				*e*	pP	21 09 46.7	+0.5
TLY	**Talaya**	**33.39**	**292**	*e*P	**P**	**21 09 29.7**	**-0.1**
TLY				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.1						
SONM	**Songino Array**	**33.42**	**284**	P	**P**	**21 09 30.1**	**0.0**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM				MLR	MLR		
	comp=Z,226nm,19.3s						
SONM	**Songino Array**	**33.42**	**284**	P	**P**	**21 09 30.1**	**0.0**
	comp=Z,0.6nm,0.5s,mb3.7,baz=65,slow=8.2,SNR=17						
SONM				LR	LR	21 24 31.7	
	comp=Z,226nm,19.2s,baz=165,slow=39						
ZAK	**Zakamensk**	**34.13**	**290**	*e*P	**P**	**21 09 36.4**	**+0.2**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.9						
JOW	**Kunigami**	**34.21**	**234**	P	**P**	**21 09 39.5**	**+2.3**
	comp=Z,17nm,0.5s,mb5.2,baz=19,slow=8.5,SNR=8.7						
MOY	**Mondy**	**34.90**	**293**	*e*P	**P**	**21 09 43.8**	**+0.9**
MOY				pmax	pmax		
	comp=Z,28nm,2.9s,mb4.6						
INK	**Inuvik**	**35.01**	**37**	*e*P	**P**	**21 09 42.8**	**-0.8**
	comp=Z,291nm,0.7s						
INK				PcP	PcP	21 12 13.7	-0.4
INK				LR	LR	21 24 43.3	
INK	**Inuvik**	**35.01**	**37**	*e*P	**P**	**21 09 42.8**	**-0.8**
INK						21 12 13.7	
INK	**Inuvik**	**35.01**	**37**	P	**P**	**21 09 43.2**	**-0.5**
	comp=Z,8.7nm,0.6s,mb4.8,baz=301,slow=5.1,SNR=14						
INK				PcP	PcP	21 12 13.7	-0.4
	comp=Z,1.1nm,0.6s,baz=309,slow=6.5,SNR=3.6						
INK				LR	LR	21 24 43.3	
	comp=Z,135nm,21.4s,baz=266,slow=37						
DLBC	**Dease Lake**	**39.15**	**52**	*e*P	**P**	**21 10 18.2**	**-0.6**
DLBC				*e*		21 10 44.2	
DLBC	**Dease Lake**	**39.15**	**52**	P	**P**	**21 10 19.2**	**+0.4**
	baz=165,slow=12						
YHNB	**Yeheng**	**39.55**	**241**	*e*P	**P**	**21 10 23.2**	**+0.7**
ZALV	**Zalesovo Beam**	**42.67**	**303**	P	**P**	**21 10 46.4**	**-1.3**
	comp=Z,1.1nm,0.7s,mb3.7,baz=64,slow=7.4,SNR=7.0						
ZALV				PcP	PcP	21 12 38.6	+0.2
	comp=Z,3.0nm,0.9s,baz=64,slow=3.4,SNR=8.5						
ZAL	**Zalesovo**	**42.68**	**303**	P	**P**	**21 10 46.4**	**-1.5**
ZAL						21 12 38.6	
NVS	**Novosibirsk**	**43.04**	**305**	*i* P	**P**	**21 10 49.6**	**-1.2**
NVS				pmax	pmax		
	comp=E,6.0nm,0.9s						
NVS				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
YKA	**Yellowknife Ar**	**44.30**	**42**	P	**P**	**21 10 59.9**	**-0.9**
YKA						21 12 43.0	
YKA				pmax	pmax		
	comp=Z,5.0nm,1.0s						
YKA	**Yellowknife Ar**	**44.30**	**42**	P	**P**	**21 10 59.9**	**-0.9**
	comp=Z,4.6nm,1.0s,mb4.2,baz=297,slow=8.1,SNR=32						
YKA				PcP	PcP	21 12 43.0	-0.8
	comp=Z,0.2nm,0.4s,baz=302,slow=3.3,SNR=3.7						
RES	**Resolute Bay**	**44.42**	**21**	*e*P	**P**	**21 11 01.6**	**0.0**
	comp=Z,314nm,1.0s,mb6.0						
RES				*e*	pP	21 11 17.4	-1.2
RES				*e*PcP	PcP	21 12 43.7	-0.2
KURK	**Kurchatov**	**47.60**	**302**	*e*P	**P**	**21 11 25.4**	**-1.4**
	comp=Z,10nm,0.8s,mb4.7						
KURK				*e*	pP	21 11 45.3	+1.3
KURK	**Kurchatov**	**47.60**	**302**	*e*P	**P**	**21 11 25.5**	**-1.4**
KURK				*e*	pP	21 11 45.3	+1.2
KURK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
MK31	**Makanchi Array**	**47.90**	**296**	*e*P	**P**	**21 11 27.8**	**-1.5**
MK31				*e*		21 11 55.1	
MKAR	**Makanchi Array**	**47.90**	**296**	P	**P**	**21 11 27.9**	**-1.4**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	**47.90**	**296**	P	**P**	**21 11 27.9**	**-1.4**
	comp=Z,1.0nm,0.4s,mb4.0,baz=56,slow=6.5,SNR=36						
EDM	**Edmonton**	**49.87**	**52**	*e*P	**P**	**21 11 43.6**	**-0.7**
EDM				*e*	pP	21 12 00.1	-1.5
KMI	**Kunming**	**49.97**	**260**	P	pP	21 12 07.9	+5.3
BRVK	**Borovoye**	**50.42**	**308**	*e*P	**P**	**21 11 47.0**	**-1.3**
	comp=Z,2.5nm,0.6s,mb4.3						
BRVK				*e*	pP	21 12 08.4	+2.7
BRVK	**Borovoye**	**50.42**	**308**	*e*P	**P**	**21 11 47.0**	**-1.4**
BRVK				*e*	pP	21 12 08.4	+2.7
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
QIZ	**Qiongzhong**	**50.45**	**248**	*e*P	**P**	**21 11 51.2**	**+2.2**
NEW	**Newport**	**50.97**	**59**	*e*P	**P**	**21 11 51.8**	**-0.8**
	comp=Z,1.2nm,0.5s,mb4.2						
NEW	**Newport**	**50.97**	**59**	*e*P	**P**	**21 11 51.8**	**-0.8**
NEW				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WALA	**Waterton Lakes**	**52.14**	**56**	*e*P	**P**	**21 12 00.7**	**-0.6**
	comp=Z,7.9nm,1.0s,mb4.7						
WALA				*e*	pP	21 12 16.9	-1.9
WALA				*e*PcP	PcP	21 13 12.6	+0.4
MOD	**Modoc**	**53.26**	**67**	*e*P	**P**	**21 12 09.8**	**+0.1**
	comp=Z,4.5nm,1.0s,mb4.5						
MOD				*e*	pP	21 12 26.8	-0.4
KEV	**Kevo**	**53.44**	**341**	*e*p	**P**	**21 12 08.6**	**-1.9**
ARU	**Arti**	**53.57**	**317**	*e*P	**P**	**21 12 10.2**	**-1.5**
ARU	**Arti**	**53.57**	**317**	*e*P	**P**	**21 12 10.2**	**-1.5**
LSA	**Lhasa**	**53.77**	**273**	*e*P	**P**	**21 12 12.8**	**-0.8**
CHMT	**Chamberlain Mo**	**53.85**	**58**	*e*P	**P**	**21 12 13.4**	**-0.5**
CHMT				*e*		21 12 25.3	
ARCES	**ARCESS Array B**	**53.91**	**342**	P	**P**	**21 12 13.2**	**-0.8**
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ARCES				MLR	MLR		
	comp=Z,167nm,18.5s						
ARCES	**ARCESS Array B**	**53.91**	**342**	P	**P**	**21 12 13.2**	**-0.8**
	comp=Z,3.7nm,0.6s,mb4.6,baz=41,slow=8.0,SNR=28						
ARCES				LR	LR	21 42 27.4	
	comp=Z,167nm,18.5s,baz=140,slow=44						
TKM2	**Tokmak 2**	**54.04**	**296**	*e*P	**P**	**21 12 14.3**	**-1.0**
FCC	**Fort Churchill**	**54.62**	**38**	*e*P	**P**	**21 12 18.5**	**-0.8**
	comp=Z,9.7nm,0.6s,mb5.0						
FCC				*e*	pP	21 12 37.0	+0.2
FCC	**Fort Churchill**	**54.62**	**38**	*e*P	**P**	**21 12 18.5**	**-0.8**
FCC				*e*	pP	21 12 37.0	+0.2
FCC				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
AAK	**Ala-Archa**	**54.84**	**296**	*e*P	**P**	**21 12 19.1**	**-2.1**
	comp=Z,19nm,1.6s,mb4.9						
AAK	**Ala-Archa**	**54.84**	**296**	*e*P	**P**	**21 12 19.1**	**-2.0**
AAK				pmax	pmax		
	comp=Z,19nm,1.6s,mb4.9						
EKS2	**Erkin-Say**	**55.21**	**296**	*e*P	**P**	**21 12 23.3**	**-0.6**
	comp=Z,3.3nm,0.8s,mb4.4						
HLID	**Hailey**	**55.44**	**62**	*e*P	**P**	**21 12 25.2**	**-0.2**
HLID				*e*PcP	PcP	21 13 25.1	+0.3
BOZ	**Bozeman (W)**	**55.53**	**58**	*e*P	**P**	**21 12 26.2**	**+0.1**
	comp=Z,4.5nm,1.0s,mb4.5						
BOZ				*e*	pP	21 12 42.6	-1.0
BOZ	**Bozeman (W)**	**55.53**	**58**	*e*P	**P**	**21 12 26.2**	**+0.1**
BOZ				*e*	pP	21 12 42.6	-1.1
BOZ				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
AML	**Almayashu**	**55.61**	**296**	*e*P	**P**	**21 12 26.4**	**-0.3**
CMB	**Columbia Colle**	**55.79**	**70**	*e*P	**P**	**21 12 28.2**	**+0.2**
	comp=Z,5.6nm,1.2s,mb4.5						
CMB				*e*	pP	21 12 44.4	-1.2
CMB	**Columbia Colle**	**55.79**	**70**	*e*P	**P**	**21 12 28.2**	**+0.2**
CMB				*e*	pP	21 12 44.4	-1.2
CMB				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.5						
QLMT	**Earthquake Lak**	**56.18**	**59**	*e*P	**P**	**21 12 30.9**	**+0.1**
NVAR	**Mina Array Bea**	**56.72**	**69**	P	**P**	**21 12 34.6**	**-0.1**
	comp=Z,1.8nm,0.6s,mb4.3,baz=306,slow=6.1,SNR=4.2						
CHTO	**Chiang Mai**	**57.03**	**258**	*e*P	**P**	**21 12 37.9**	**+0.9**
	comp=Z,14nm,0.6s,mb5.2						
CHTO	**Chiang Mai**	**57.03**	**258**	*e*P	**P**	**21 12 37.9**	**+0.9**
CHTO				pmax	pmax		
	comp=Z,14nm,0.6s,mb5.2						
CM31	**Chiang Mai Arr**	**57.30**	**258**	*e*P	**P**	**21 12 40.5**	**+1.5**
	comp=Z,47nm,1.4s,mb5.3						
TPH	**Tonopah**	**57.58**	**68**	P	**P**	**21 12 40.7**	**-0.1**
JOF	**Joensuu**	**58.08**	**335**	*e*p	**P**	**21 12 42.5**	**-1.3**
HWUT	**Hardware Ranch**	**58.31**	**62**	*e*P	**P**	**21 12 46.1**	**+0.4**
	comp=Z,3.8nm,0.7s,mb4.5						
HWUT				*e*	pP	21 13 03.2	-0.3
PDAR	**Pinedale Array**	**58.58**	**60**	P	**P**	**21 12 47.3**	**-0.4**
	comp=Z,4.7nm,0.9s,mb4.5,baz=312,slow=2.6,SNR=34						
DUG	**Dugway**	**58.60**	**64**	*e*P	**P**	**21 12 47.8**	**0.0**
	comp=Z,4.1nm,0.7s,mb4.6						
DUG				*e*	pP	21 13 04.8	-0.7
DUG	**Dugway**	**58.60**	**64**	*e*P	**P**	**21 12 47.8**	**0.0**
DUG				*e*	pP	21 13 04.8	-0.7
DUG				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
NLU	**North Lily Min**	**59.17**	**64**	*e*P	**P**	**21 12 52.5**	**+0.7**
NLU				*e*	pP	21 13 08.6	-0.9
NLU				*e*PcP	PcP	21 13 38.8	-0.8
ULM	**Lac du Bonnet**	**59.95**	**46**	P	**P**	**21 12 56.1**	**-0.9**
	comp=Z,1.2nm,0.4s,mb4.3,baz=310,slow=6.2,SNR=9.2						
KAF	**Kangasniemi**	**60.02**	**336**	*e*p	**P**	**21 12 56.2**	**-1.1**
TMUT	**Trail Mountain**	**60.11**	**64**	*e*P	**P**	**21 12 58.2**	**0.0**
TMUT				*e*	pP	21 13 15.0	-1.0
MSU	**Marysvale**	**60.13**	**65**	*e*P	**P**	**21 12 59.0**	**+0.6**
MSU				*e*	pP	21 13 15.5	-0.6
MSU				*e*PcP	PcP	21 13 44.3	+0.8
SRU	**San Rafael**	**60.62**	**63**	*e*P	**P**	**21 13 01.7**	**0.0**
	comp=Z,11nm,0.9s,mb4.9						
SRU				*e*	pP	21 13 17.9	-1.6
SRU				*e*		21 15 26.1	
SRU	**San Rafael**	**60.62**	**63**	*e*P	**P**	**21 13 01.7**	**0.0**
SRU				*e*	pP	21 13 17.9	-1.6
SRU				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FINES	FINESS Array B	60.66	336	iP	P	21 13 01.3	-0.3
FINES				pmax	pmax		
	comp=Z,6.0nm,0.8s						
FINES	FINESS Array B	60.66	336	P	P	21 13 01.4	-0.2
	comp=Z,6.0nm,0.8s,mb4.7,baz=39,slow=7.5,SNR=44						
SMCO	Snowmass	62.50	61	eP	P	21 13 14.2	-0.2
	comp=Z,4.5nm,0.8s,mb4.5						
SMCO				e	pP	21 13 30.5	-1.8
ISCO	Idaho Springs	62.78	60	eP	P	21 13 16.6	+0.4
	comp=Z,6.9nm,0.9s,mb4.6						
ISCO				e	pP	21 13 33.2	-0.9
ISCO	Idaho Springs	62.78	60	eP	P	21 13 16.6	+0.4
ISCO				e	pP	21 13 33.3	-0.8
ISCO				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
MVCO	Mesa Verde	63.09	63	eP	P	21 13 18.4	0.0
	comp=Z,3.4nm,0.8s,mb4.3						
MVCO				e	pP	21 13 34.6	-1.6
MVCO				ePcP	PcP	21 13 55.5	0.0
BORG	Borgarnes	63.39	0	P	P	21 13 19.3	-0.5
NB2	NORSAR Subarra	64.20	343	P	P	21 13 25.1	-0.1
	comp=Z,25nm,0.6s,mb5.2,baz=22,slow=6.9						
NOA	NORSAR Array B	64.20	343	P	P	21 13 25.1	-0.1
NOA				pmax	pmax		
	comp=Z,24nm,0.6s						
NOA	NORSAR Array B	64.20	343	P	P	21 13 25.1	-0.1
	comp=Z,24nm,0.6s,mb5.2,baz=21,slow=6.6,SNR=103						
ECSD	EROS,Sioux Fal	64.43	51	eP	P	21 13 25.9	-1.1
	comp=Z,4.3nm,1.0s,mb4.2						
NAO01	NORSAR Array S	64.44	343	eP	P	21 13 26.8	0.0
	comp=Z,7.0nm,0.6s,mb4.7						
NAO01				e	pP	21 13 46.2	+1.4
ANMO	Albuquerque	65.87	64	eP	P	21 13 36.0	-0.5
	comp=Z,2.1nm,0.8s,mb4.0						
ANMO				e		21 13 48.5	
ANMO	Albuquerque	65.87	64	⇑eP	P	21 13 35.5	-1.0
SCHQ	Schefferville	66.77	27	eP	P	21 13 41.0	-0.9
SCHQ				e	pP	21 13 59.2	-0.8
SCHQ	Schefferville	66.77	27	P	P	21 13 41.1	-0.8
	comp=Z,6.6nm,0.7s,mb4.6,baz=354,slow=7.8,SNR=19						
SCIA	State Center	67.44	50	eP	P	21 13 45.9	-0.5
	comp=Z,15nm,0.6s,mb5.0						
SCIA				e	pP	21 14 02.3	-2.2
AKASG	Malin Array Be	69.01	328	P	P	21 13 55.3	-0.7
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.5s						
AKASG	Malin Array Be	69.01	328	P	P	21 13 55.2	-0.8
	comp=Z,5.0nm,0.5s,mb4.6,baz=30,slow=6.2,SNR=25						
AKBB	Malin Array Si	69.01	328	eP	P	21 13 55.0	-1.1
AKBB				ePcP	PcP	21 14 18.4	-1.4
KIEV	Kiev	69.02	328	eP	P	21 13 55.2	-0.9
	comp=Z,10nm,0.8s,mb4.7						
KIEV				e	pP	21 14 15.0	+0.8
KIEV	Kiev	69.02	328	eP	P	21 13 55.2	-0.9
KIEV				e	pP	21 14 15.0	+0.8
KIEV				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
KIV	Kislovodsk	69.60	316	eP	P	21 13 59.6	-0.2
KIV				ePcP	PcP	21 14 22.2	-0.2
KIV	Kislovodsk	69.60	316	eP	P	21 13 59.6	-0.2
KIV				e	pP	21 14 22.2	+4.2
LVV	L'vov	71.39	331	eP	P	21 14 10.1	-0.5
LTX	Lajitas	71.65	66	eP	P	21 14 12.4	-0.1
	comp=Z,11nm,0.8s,mb4.7						
LTX				e	pP	21 14 28.9	-1.8
LTX				ePP	PP	21 16 49.2	-2.6
LTX	Lajitas	71.65	66	eP	P	21 14 12.4	-0.1
LTX				e	pP	21 14 28.9	-1.8
LTX				e		21 16 49.2	
LTX				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
TXAR	Lajitas Array	71.65	66	P	P	21 14 12.4	-0.1
TXAR				pmax	pmax		
	comp=Z,6.0nm,0.6s						
TXAR	Lajitas Array	71.65	66	P	P	21 14 12.3	-0.1
	comp=Z,5.5nm,0.6s,mb4.6,baz=298,slow=4.8,SNR=86						
RUE	Ruedersdorf	71.66	338	eP	P	21 14 12.7	+0.5
	comp=Z,32nm,0.8s,mb5.2						
KWP	Kalwaria	71.95	332	eP	P	21 14 14.1	+0.1
	comp=Z,72nm,1.0s,mb5.5						
KWP	Kalwaria	71.95	332	eP	P	21 14 14.1	+0.1
KWP				pmax	pmax		
	comp=Z,71nm,1.0s,mb5.5						
OJC	Ojcow	72.24	334	eP	P	21 14 15.9	+0.2
STHS	Stebnicka Huta	72.56	333	eP	P	21 14 18.8	+1.2
	comp=Z,14nm,0.8s,mb4.8						
STHS	Stebnicka Huta	72.56	333	eP	P	21 14 18.8	+1.2
STHS				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.8						
KSP	Ksiaz	72.58	336	eP	P	21 14 17.9	+0.2
KOLS	Kolonicke sedl	72.70	332	eP	P	21 14 18.9	+0.4
NIE	Niedzica	72.82	333	eP	P	21 14 19.8	+0.6
CTAO	Charters Tower	72.83	192	P	P	21 14 18.6	-0.8
CLL	Collm	72.93	338	⇑iP	P	21 14 19.7	-0.1
	comp=Z,24nm,0.9s,mb5.0						
CLL				e	pP	21 14 39.0	+1.0
CLL	Collm	72.93	338	⇑iP	P	21 14 19.7	-0.1
CLL				e	pP	21 14 39.0	+1.0
CLL				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.0						
CLL	Collm	72.93	338	eP	P	21 14 19.4	-0.4
	comp=Z,24nm,0.9s,mb5.0						
CLL	Collm	72.93	338	⇑iP	P	21 14 19.7	-0.1
	comp=Z,24nm,0.9s,mb5.0						
CLL				e(pP)	pP	21 14 39.0	+1.0
UPC	Upice	72.96	336	⇑eP	P	21 14 20.3	+0.4
CRVS	Cervenica-Dubn	72.97	332	eP	P	21 14 20.3	+0.3
UZH	Uzhgorod	72.97	332	eP	P	21 14 16.0	-4.0
BURAR	Bucovina Array	72.99	329	⇑P	P	21 14 20.1	-0.1
BURAR	Bucovina Array	72.99	329	⇑iP	P	21 14 20.1	-0.1
CLZ	Clausthal	73.00	340	eP	P	21 14 21.0	+0.8
CLZ				pmax	pmax		
	comp=Z,57nm,1.3s,mb5.2						
CLZ	Clausthal	73.00	340	eP	P	21 14 21.0	+0.8
	comp=Z,57nm,1.3s,mb5.2						
DPC	Dobruska-Polom	73.03	336	⇑iP	P	21 14 21.0	+0.7
OKC	Ostrava-Krasne	73.03	335	⇑eP	P	21 14 19.8	-0.6
IBBN	Ibbenburen	73.08	342	eP	P	21 14 21.1	+0.5
	comp=Z,52nm,1.3s,mb5.2						
BRG	Berggiesshubel	73.12	338	eP	P	21 14 20.8	-0.1
BRG				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.2						
BRG	Berggiesshubel	73.12	338	eP	P	21 14 20.5	-0.4
	comp=Z,7.0nm,1.0s,mb4.5						
BRG	Berggiesshubel	73.12	338	eP	P	21 14 20.8	-0.1
	comp=Z,7.2nm,1.0s,mb4.5						
FBE	Freiberg	73.21	338	eP	P	21 14 21.8	+0.4
	comp=Z,18nm,1.0s,mb4.9						
MORC	Moravsky Berou	73.24	335	⇓iP	P	21 14 22.1	+0.5
PVCC	Panska Ves	73.29	337	⇑eP	P	21 14 22.1	+0.2
KECS	Kecovo	73.62	333	eP	P	21 14 24.2	+0.3
	comp=Z,5.4nm,0.8s,mb4.3						
KECS	Kecovo	73.62	333	eP	P	21 14 24.2	+0.3
KECS				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
PRU	Pruhonice	73.80	337	⇑iP	P	21 14 25.2	+0.3
MOX	Moxa	73.86	339	eP	P	21 14 26.0	+0.8
MOX	Moxa	73.86	339	eP	P	21 14 25.6	+0.4
	comp=Z,12nm,1.0s,mb4.6						
WERD	Werda	73.89	339	eP	P	21 14 25.8	+0.4
	comp=Z,14nm,1.1s,mb4.6						
VRAC	Vranov	73.92	335	P	P	21 14 26.6	+1.0
VRAC	Vranov	73.92	335	⇑iP	P	21 14 26.3	+0.7
GUNZ	Gunzen	73.97	338	eP	P	21 14 26.4	+0.5
	comp=Z,11nm,0.9s,mb4.6						
BUG	Bochum--Univer	74.00	342	eP	P	21 14 26.7	+0.7
	comp=Z,37nm,1.3s,mb5.0						
WERN	Wernitzgruen	74.03	338	eP	P	21 14 26.8	+0.6
	comp=Z,15nm,0.9s,mb4.7						
NKC	Novy Kostel	74.06	338	eP	P	21 14 26.7	+0.3
VYHS	Vyhne	74.07	334	eP	P	21 14 27.2	+0.7
	comp=Z,10nm,1.2s,mb4.4						
VYHS	Vyhne	74.07	334	eP	P	21 14 27.2	+0.7
VYHS				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.4						
PLOR	Plostina	74.08	327	⇑iP	P	21 14 27.0	+0.4
PSZ	Piszkesteto	74.30	333	P	P	21 14 29.0	+1.2
PSZ	Piszkesteto	74.30	333	⇑iP	P	21 14 28.5	+0.6
MANZ	Manzenberg	74.37	338	eP	P	21 14 28.4	+0.2
	comp=Z,10.0nm,1.0s,mb4.5						
SMOL	Smolenice	74.43	335	eP	P	21 14 30.1	+1.5
DRGR		74.50	330	P	P	21 14 28.8	-0.2
DRGR		74.50	330	⇓iP	P	21 14 29.1	+0.1
ROTZ	Rotzenmuhle	74.55	338	eP	P	21 14 29.6	+0.3
	comp=Z,11nm,1.0s,mb4.5						
MLR	Muntele Rosu	74.63	328	P	P	21 14 30.5	+0.7
MLR	Muntele Rosu	74.63	328	⇑iP	P	21 14 30.6	+0.8
TIRR	Tirgusor	74.71	326	P	P	21 14 30.4	+0.1
TIRR	Tirgusor	74.71	326	⇑iP	P	21 14 29.8	-0.5
ZST	Bratislava	74.81	335	eP	P	21 14 32.1	+1.3
	comp=Z,10nm,0.8s,mb4.6						
ZST	Bratislava	74.81	335	eP	P	21 14 32.1	+1.3
ZST				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
KHC	Kasperske Hory	74.83	337	⇑eP	P	21 14 30.9	0.0
KHC	Kasperske Hory	74.83	337	⇑iP	P	21 14 31.5	+0.6
GRA1	Grafenberg Arr	74.84	339	eP	P	21 14 31.9	+0.9
	comp=Z,34nm,1.2s,mb5.0						
GRF	Grafenberg Arr	74.84	339	eP	P	21 14 31.9	+0.9
GRF				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.0						
GRF	Grafenberg Arr	74.84	339	eP	P	21 14 31.9	+0.9
GRF				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.0						
GRF	Grafenberg Arr	74.84	339	eP	P	21 14 31.9	+0.9
	comp=Z,34nm,1.2s,mb5.0						
BEBN	Eben Emael	74.91	343	P	P	21 14 32.1	+0.8
TNS	Taunus Mts	74.93	341	eP	P	21 14 32.2	+0.8
TNS				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
TNS	Taunus Mts	74.93	341	eP	P	21 14 32.2	+0.8
	comp=Z,10.0nm,0.8s,mb4.6						
VOIR		74.97	328	P	P	21 14 32.7	+0.9
VOIR		74.97	328	⇓iP	P	21 14 32.5	+0.7
WRA	Warramunga Arr	74.97	204	P	P	21 14 31.4	-0.5
WRA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
WRA	Warramunga Arr	74.97	204	P	P	21 14 31.4	-0.5
	comp=Z,4.2nm,0.7s,mb4.3,baz=19,slow=6.1,SNR=7.0						
WET	Wettzell	74.98	338	eP	P	21 14 32.6	+0.8
WET				pmax	pmax		
	comp=Z,18nm,1.0s,mb4.8						
WET	Wettzell	74.98	338	eP	P	21 14 32.6	+0.8
	comp=Z,18nm,1.0s,mb4.8						
MEM	Membach	75.03	343	P	P	21 14 32.8	+0.8
GEC2	GERESS Array S	75.07	337	eP	P	21 14 32.5	+0.2
GEC2				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.6						
GEC2	GERESS Array S	75.07	337	eP	P	21 14 32.5	+0.2
	comp=Z,9.0nm,0.7s,mb4.6						
GERES	GERESS Array B	75.07	337	P	P	21 14 32.7	+0.4
GERES				pmax	pmax		
	comp=Z,6.0nm,0.6s						
GERES	GERESS Array B	75.07	337	P	P	21 14 32.7	+0.4
	comp=Z,5.7nm,0.6s,mb4.5,baz=32,slow=5.1,SNR=24						
BCLA	Clavier	75.34	343	P	P	21 14 34.5	+0.7
CONA	Conrad Observa	75.38	335	iP	P	21 14 35.2	+1.1
	comp=Z,8.6nm,0.8s,mb4.6,SNR=11						
SNF	Seneffe	75.44	344	P	P	21 14 33.8	-0.5
GZR	Gura Zlata	75.73	330	P	P	21 14 36.2	+0.1
GZR	Gura Zlata	75.73	330	⇓iP	P	21 14 36.3	+0.2
GIVF	Givet	75.73	343	eP	P	21 14 36.1	0.0
DOU	Dourbes	75.78	343	P	P	21 14 36.6	+0.3
	comp=Z,19nm,2.2s,mb4.5						
MOA	Molln	75.86	336	⇑iP	P	21 14 37.5	+0.7
	comp=Z,13nm,1.0s,mb4.6,SNR=9.4						
BAIF	Baives	75.88	344	eP	P	21 14 37.0	+0.1
	comp=Z,20nm,0.8s,mb4.6						
BAIF	Baives	75.88	344	eP	P	21 14 37.0	+0.1
	comp=Z,10nm,0.8s,mb4.6						
BAIF	Baives	75.88	344	eP	P	21 14 37.0	+0.1
BAIF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
BZS	Buzias	75.88	331	P	P	21 14 36.8	-0.2
BZS	Buzias	75.88	331	⇑iP	P	21 14 36.8	-0.2
MALT	Malatya	76.06	316	⇑P	P	21 14 39.1	+0.9
MALT	Malatya	76.06	316	⇑iP	P	21 14 39.1	+0.9
ARSA	Arzberg	76.09	335	⇑iP	P	21 14 39.0	+0.9
	comp=Z,9.8nm,0.7s,mb4.6						
PKSM	Moragy	76.21	333	⇑P	P	21 14 38.5	-0.3
PKSM	Moragy	76.21	333	⇑iP	P	21 14 38.5	-0.3
FUR	Furstenfeldbru	76.27	338	eP	P	21 14 39.9	+0.8
FUR				pmax	pmax		
	comp=Z,41nm,1.4s,mb5.0						
FUR	Furstenfeldbru	76.27	338	eP	P	21 14 39.9	+0.8
	comp=Z,41nm,1.4s,mb5.0						
ZIMR		76.45	327	⇑P	P	21 14 39.8	-0.4
ZIMR		76.45	327	⇑iP	P	21 14 39.8	-0.4
SZH	Strazhica	76.61	327	iP	P	21 14 40.4	-0.7
BFO	Black Forest	76.75	340	eP	P	21 14 41.9	0.0
BFO	Black Forest	76.75	340	eP	P	21 14 42.1	+0.2
BFO				pmax	pmax		
	comp=Z,40nm,1.6s,mb4.9						
BFO	Black Forest	76.75	340	eP	P	21 14 42.1	+0.2
	comp=Z,40nm,1.6s,mb4.9						
PERS	Pernice	76.77	335	iP	P	21 14 42.8	+0.8
KBA	Koelnbreinsper	76.80	337	iP	P	21 14 43.6	+1.4
	comp=Z,56nm,0.8s,mb5.3,SNR=60						
KBA	Koelnbreinsper	76.80	337	iP	P	21 14 43.6	+1.4
KBA				pmax	pmax		
	comp=Z,56nm,0.8s,mb5.3						
GROS	Grobnik	76.83	335	iP	P	21 14 43.0	+0.6
PVL	Pavlikeni	76.85	327	iP	P	21 14 42.2	-0.3
BR131	Keskin Array S	76.85	320	eP	P	21 14 42.9	+0.3
	comp=Z,2.5nm,0.6s,mb4.1						
BRTR	Keskin Array B	76.85	320	P	P	21 14 42.5	-0.1
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BRTR	Keskin Array B	76.85	320	P	P	21 14 42.5	-0.1
	comp=Z,2.4nm,0.6s,mb4.1,baz=53,slow=3.3,SNR=26						
CDF	Champ du Feu	76.89	341	eP	P	21 14 42.8	+0.2
	comp=Z,37nm,1.1s,mb4.7						
CDF	Champ du Feu	76.89	341	eP	P	21 14 42.8	+0.2
	comp=Z,18nm,1.1s,mb4.7						
CDF	Champ du Feu	76.89	341	eP	P	21 14 42.8	+0.2
CDF				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.7						
WATA	Walderalm	76.98	338	⇑iP	P	21 14 44.1	+1.0
	comp=Z,12nm,1.1s,mb4.5						
WATA	Walderalm	76.98	338	⇑iP	P	21 14 44.2	+1.0
WATA				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.5						
OBKA	Obir	77.03	336	⇑iP	P	21 14 44.3	+0.8
	comp=Z,27nm,1.4s,mb4.8						
WTTA	Wattenberg	77.03	338	⇑iP	P	21 14 44.7	+1.2
	comp=Z,26nm,1.1s,mb4.9						
WTTA	Wattenberg	77.03	338	⇑iP	P	21 14 44.7	+1.2
WTTA				pmax	pmax		
	comp=Z,26nm,1.1s,mb4.9						
ANTO	Ankara	77.06	320	⇑P	P	21 14 44.8	+1.0
ANTO	Ankara	77.06	320	⇑iP	P	21 14 44.8	+1.0
PALK	Pallekele	77.07	265	P	P	21 14 44.6	+0.4
MOTA	Moosalm	77.08	338	⇑iP	P	21 14 44.6	+0.9
	comp=Z,27nm,1.2s,mb4.9,SNR=12						
MOTA	Moosalm	77.08	338	⇑iP	P	21 14 44.6	+0.9
MOTA				pmax	pmax		
	comp=Z,27nm,1.2s,mb4.8						
JMB	Yambol	77.09	326	eP	P	21 14 43.9	0.0
JMB	Yambol	77.09	326	iP	P	21 14 43.6	-0.3
SQTA	Sankt Quirin	77.17	338	⇑iP	P	21 14 45.4	+1.1
	comp=Z,15nm,1.0s,mb4.7,SNR=9.9						
SQTA	Sankt Quirin	77.17	338	⇑iP	P	21 14 45.4	+1.1
	comp=Z,15nm,1.0s,mb4.7						
SQTA	Sankt Quirin	77.17	338	⇑iP	P	21 14 45.4	+1.1
SQTA				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.7						
GOLS	Golise	77.22	335	iP	P	21 14 44.9	+0.4
MEZF	Maizieres J'vi	77.23	343	eP	P	21 14 45.0	+0.5
	comp=Z,18nm,0.8s,mb4.6						
MEZF	Maizieres J'vi	77.23	343	eP	P	21 14 45.0	+0.5
	comp=Z,18nm,0.8s,mb4.8						
ABTA	Abfaltersbach	77.31	337	iP	P	21 14 45.8	+0.8
	SNR=11						
HAU	Haudompre	77.46	342	eP	P	21 14 45.8	0.0
FETA	Feichten	77.47	338	iP	P	21 14 46.9	+1.0
	comp=Z,17nm,1.1s,mb4.7,SNR=13						
HINF	Hinteralfeld	77.54	341	eP	P	21 14 46.0	-0.3
DIVS	Divcibare	77.75	331	eP	P	21 14 47.4	-0.1
CEY	Cerknica	77.78	335	iP	P	21 14 47.6	0.0
BOJS	Bojanci	77.78	335	iP	P	21 14 47.9	+0.2
DIM	Dimitrovgrad	77.82	326	iP	P	21 14 48.4	+0.5
PGB	Panagyurishte	77.83	328	iP	P	21 14 48.1	+0.1
FLN	La Foliniere	77.90	346	eP	P	21 14 48.5	+0.3
PLD	Plovdiv	78.05	327	eP	P	21 14 49.2	0.0
PLD	Plovdiv	78.05	327	iP	P	21 14 48.4	-0.8
VTS	Vitosha	78.11	328	eP	P	21 14 49.7	+0.2
VTS	Vitosha	78.11	328	iP	P	21 14 48.9	-0.6
VTS	Vitosha	78.11	328	⇓iP	P	21 14 49.2	-0.3
KDZ	Kurdzhali	78.22	326	iP	P	21 14 49.5	-0.6
GRR	Gorron	78.32	346	eP	P	21 14 50.6	0.0
RZN	Rozhen	78.42	327	iP	P	21 14 50.6	-0.7
LOR	Lormes	78.64	343	eP	P	21 14 52.4	0.0
	comp=Z,23nm,0.9s,mb4.7						
LOR	Lormes	78.64	343	eP	P	21 14 52.4	0.0
	comp=Z,11nm,0.9s,mb4.7						
LOR	Lormes	78.64	343	eP	P	21 14 52.4	0.0
LOR				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
ASAR	Alice Springs	78.65	203	P	P	21 14 52.9	+0.3
ASAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ASAR	Alice Springs	78.65	203	P	P	21 14 52.9	+0.3
	comp=Z,3.2nm,0.6s,mb4.3,baz=16,slow=5.1,SNR=14						
ALN	Alexandroupoli	78.67	325	eP	P	21 14 52.4	-0.3
KKB	Krupnik	78.80	328	iP	P	21 14 53.4	0.0
MMB	Musomiste	78.84	327	iP	P	21 14 52.2	-1.4
CABF	La Chapelle	78.85	341	eP	P	21 14 52.9	-0.6
SSF	Saint Saulge	78.90	343	eP	P	21 14 53.9	+0.1
	comp=Z,6.0nm,0.5s,mb4.4						
SSF	Saint Saulge	78.90	343	eP	P	21 14 53.9	+0.1
	comp=Z,3.0nm,0.5s,mb4.4						
SSF	Saint Saulge	78.90	343	eP	P	21 14 53.9	+0.1
SSF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.4						
AVF	Avril sur Loir	79.19	343	eP	P	21 14 55.6	+0.2
	comp=Z,18nm,0.7s,mb4.7						
AVF	Avril sur Loir	79.19	343	eP	P	21 14 55.6	+0.2
	comp=Z,8.9nm,0.7s,mb4.7						
AVF	Avril sur Loir	79.19	343	eP	P	21 14 55.6	+0.2
AVF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.7						
SMF	Signal de Mont	79.24	343	eP	P	21 14 55.9	+0.2
STIP	Stip	79.25	329	eP	P	21 14 55.3	-0.5
SRS	Serrai	79.31	327	eP	P	21 14 56.2	0.0
VAY	Valandovo	79.46	328	eP	P	21 14 57.0	0.0
KNT	Kendrikon	79.50	328	eP	P	21 14 57.4	+0.2
SOH	Sokhos	79.65	327	eP	pP	21 15 25.8	+9.2
LPL	La Plagne	79.77	341	eP	P	21 14 59.7	+1.1
	comp=Z,10nm,0.6s,mb4.5						
LPL	La Plagne	79.77	341	eP	P	21 14 59.7	+1.1
	comp=Z,5.2nm,0.6s,mb4.5						
LPL	La Plagne	79.77	341	eP	P	21 14 59.7	+1.1
LPL				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.5						
LPG	La Plagne	79.78	341	eP	P	21 14 59.9	+1.3
	comp=Z,13nm,0.7s,mb4.6						
LPG	La Plagne	79.78	341	eP	P	21 14 59.9	+1.3
	comp=Z,6.7nm,0.7s,mb4.6						
LPG	La Plagne	79.78	341	eP	P	21 14 59.9	+1.3
LPG				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.6						
GRG	Griva	79.84	328	eP	P	21 14 58.9	-0.2
TCF	Toulx Ste Croi	79.88	344	eP	P	21 14 59.5	+0.4
	comp=Z,37nm,1.0s,mb4.9						
TCF	Toulx Ste Croi	79.88	344	eP	P	21 14 59.5	+0.4
	comp=Z,19nm,1.0s,mb4.9						
TCF	Toulx Ste Croi	79.88	344	eP	P	21 14 59.5	+0.4
TCF				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.9						
HORT	Hortiatis	79.94	327	eP	P	21 14 59.1	-0.5
PLG	Polygyros	80.02	327	eP	P	21 14 59.4	-0.6
BIA	Bitola	80.13	329	eP	P	21 15 00.0	-0.6
TIR	Tirane	80.29	330	eP	P	21 15 01.2	-0.3
FNA	Florina	80.33	329	eP	P	21 15 01.4	-0.3
ORIF	Oris-en-Rattie	80.51	341	eP	P	21 15 03.5	+0.9
	comp=Z,24nm,1.0s,mb4.7						
ORIF	Oris-en-Rattie	80.51	341	eP	P	21 15 03.5	+0.9
	comp=Z,12nm,1.0s,mb4.7						
ORIF	Oris-en-Rattie	80.51	341	eP	P	21 15 03.5	+0.9
ORIF				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.7						
LIT	Litokhoron	80.59	328	eP	P	21 15 02.2	-0.9
VIVF	Saint-Julien-l	80.81	342	eP	P	21 15 04.9	+0.7
	comp=Z,18nm,0.8s,mb4.6						
VIVF	Saint-Julien-l	80.81	342	eP	P	21 15 04.9	+0.7
	comp=Z,8.8nm,0.8s,mb4.6						
VIVF	Saint-Julien-l	80.81	342	eP	P	21 15 04.9	+0.7
VIVF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.7						
RJF	Les Rejaudoux	80.95	344	eP	P	21 15 05.5	+0.6
	comp=Z,54nm,1.3s,mb4.9						
RJF	Les Rejaudoux	80.95	344	eP	P	21 15 05.5	+0.6
	comp=Z,27nm,1.3s,mb4.9						
RJF	Les Rejaudoux	80.95	344	eP	P	21 15 05.5	+0.6
RJF				pmax	pmax		
	comp=Z,27nm,1.3s,mb4.9						
XOR	Xorichti	81.01	327	eP	P	21 15 03.6	-1.7
AQU	L'Aquila	81.20	335	⇑P	P	21 15 07.1	+0.8
AQU	L'Aquila	81.20	335	⇑iP	P	21 15 07.1	+0.8
CAF	Calviac	81.22	344	eP	P	21 15 06.7	+0.3
	comp=Z,25nm,0.8s,mb4.8						
CAF	Calviac	81.22	344	eP	P	21 15 06.7	+0.3
	comp=Z,13nm,0.8s,mb4.8						
CAF	Calviac	81.22	344	eP	P	21 15 06.7	+0.3
CAF				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.8						
LFF	La Frestale	81.43	345	eP	P	21 15 07.4	-0.1
	comp=Z,37nm,1.0s,mb4.9						
LFF	La Frestale	81.43	345	eP	P	21 15 07.4	-0.1
	comp=Z,19nm,1.0s,mb4.9						
LFF	La Frestale	81.43	345	eP	P	21 15 07.4	-0.1
LFF				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.9						
PPT	Papeete	82.58	131	eS	S	21 25 36.3	+11
	comp=Z,90nm,22.0s						
PPT				eLR	LR	21 41 05.0	
	comp=Z,160nm,24.0s						
MTLF	Montolieu	82.73	343	eP	P	21 15 15.2	+0.9
	comp=Z,29nm,1.1s,mb4.7						
MTLF	Montolieu	82.73	343	eP	P	21 15 15.2	+0.9
	comp=Z,15nm,1.1s,mb4.7						
MTLF	Montolieu	82.73	343	eP	P	21 15 15.2	+0.9
MTLF				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.7						
TIP	Timpagrande	83.22	331	eP	P	21 15 16.9	0.0
EPF	Esparros	83.36	344	eP	P	21 15 17.8	+0.3
	comp=Z,22nm,1.0s,mb4.7						
EPF	Esparros	83.36	344	eP	P	21 15 17.8	+0.3
	comp=Z,11nm,1.0s,mb4.7						
EPF	Esparros	83.36	344	eP	P	21 15 17.8	+0.3
EPF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.6						
LAST	Lasithi	83.97	323	eP	P	21 15 20.2	-0.6
KARN	Karanos	84.32	325	eP	P	21 15 22.0	-0.6
ESDC	Sonseca Array	87.30	347	P	P	21 15 36.6	-0.7
	comp=Z,2.1nm,0.6s,mb4.2,baz=358,slow=4.2,SNR=10						
RKT	Rikitea	94.48	122	eLR	LR	21 46 43.0	
	comp=Z,143nm,23.8s						
SIV	San Ignacio	132.01	56	PKP	PKPdf	21 22 03.2	-0.7
SIV	San Ignacio	132.01	56	PKP	PKPdf	21 22 03.2	-0.7
	comp=Z,1.8nm,1.0s,baz=288,slow=5.8,SNR=5.5						

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*BJI **11** 21:02:51.9, 4.87N×126.64E, h36^{km}, mB5.0, mb5.0, Ms4.4, Msz4.2*

*MAN **11** 21:02:57, 5.37N×126.21E, h6^{km}, mb5.2, ML4.2, MS4.4*

*IDC **11** 21:02:59.0±1.7, 5.54N×125.99E, h31^{km}±11^{km}, mb4.6/24, mb1 4.7/24, mb1mx4.6/27, mbtmp4.6/24, MS4.2/12, Ms1 4.2/12, ms1mx3.8/38, Error ellipse: s-maj=18.7km s-min=9.3km az=77.0*

*ISCJB **11** 21:02:59.2±0.2, 5.50N±0.03×126.42E±0.04, h51^{km}, mb5.0/92, MS4.2/20, Error ellipse: s-maj=5.8km s-min=3.4km az=155.6*

*NEIC **11** 21:03:02.8±0.8, 5.54N×126.28E, h66^{km}±7^{km}, mb5.0/39, Error ellipse: s-maj=7.3km s-min=3.9km az=70.0*

*GCMT **11** 21:03:02.8±0.4, 5.49N×126.59E, h34^{km}±1^{km}, MW5.0/53, Moment Tensor Solution. s30,c36; s53,c75; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.98±.25; $M_{\theta\theta}$0.12±.14; $M_{\phi\phi}$-4.10±.16; $M_{r\theta}$0.90±.16; $M_{\theta\phi}$-0.28±.12; $M_{\phi r}$1.52±.19; Best double couple: $M_0$4.41900×10^{16} NP1:ϕ_s173.00000°, δ35.00000°, λ73.00000°. NP2: ϕ_s14.00000°, δ57.00000°, λ102.00000°. Principal axes: T 4.4200, Plg75.0000°, Azm319.0000°; N 0.0000, Plg10.0000°, Azm188.0000°; P -4.4180, Plg11.0000°, Azm96.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 11 21:03:01.2±0.2, **5.51N**±0.03×**126.42E**±0.04, **h53**^{km}, **h53**^{km}±3.9^{km}**:pP-P, n253,** σ1^{s}**13**/234, **mb5.0**/91, **MS4.2**/20, **18C-21D, Mindanao**

GSPH	General Santos	1.57	291	*e*P	Pn	21 03 26.7	+0.1
DAV	Davao City (W)	1.76	332	*e*Pn	Pn	21 03 29.3	+0.1
DAV				*e*Sn	Sn	21 03 50.0	-0.5
DMPH	Davao City--Mi	1.81	330	⇓*i*P	Pn	21 03 29.3	-0.6
DMPH				*i* S	Sn	21 03 59.3	+7.6
KCP	Kidapawan	1.99	318	⇑*i*P	Pn	21 03 31.7	-0.7
KCP				*e*S	Sn	21 04 00.4	+4.2
CTBH	Cotabato--PC H	2.75	308	⇓*e*P	Pn	21 03 41.6	-1.2
CTBH				*i* S	Sn	21 04 19.7	+4.9
CGP	Cagayan de Oro	3.39	330	*e*P	Pn	21 03 51.6	0.0
CGP				*e*S	Sn	21 04 37.9	+7.2
SCPH	Surigao	4.34	348	⇓*e*P	Pn	21 04 06.0	+1.3
TBP	Tagbilaran	4.87	329	*i* P	Pn	21 04 11.8	0.0
SNPH	Sibulan	4.95	321	*e*P	Pn	21 04 14.0	+1.0
LLP	Lapu-Lapu	5.36	333	*e*P	Pn	21 04 20.3	+1.7
LLP				*e*S	Sn	21 05 23.5	+4.5
OCLP	Ormoc	5.79	342	*e*P	Pn	21 04 26.7	+2.2
PLP	Palo	5.80	346	*e*P	Pn	21 04 26.8	+2.2
PLP				*e*S	Sn	21 05 41.1	+11
GUIM	Jordan	6.34	324	*e*P	Pn	21 04 33.0	+0.9
RCP	Roxas	7.02	329	⇑*e*P	Pn	21 04 42.5	+1.0
CUYO	Cuyo Island	7.53	315	*e*P	Pn	21 04 50.0	+1.6
MYLDM	Lahad Datu	7.89	268	⇓P	Pn	21 04 56.2	+2.8
OTRP	Odiongan	8.08	328	*e*P	Pn	21 05 00.7	+4.9
TSM	Tawau	8.60	262	⇓P	Pn	21 05 04.6	+1.5
BUSP	Coron	8.91	317	*e*P	Pn	21 05 07.6	+0.3
ENPP	El Nido	8.94	310	*e*P	Pn	21 05 08.4	+0.7
BOAC	Boac	9.10	331	*e*P	Pn	21 05 13.2	+3.4
BATP	Bataraza	9.15	291	*e*P	Pn	21 05 14.6	+3.9
SDKM	Sandakan	9.18	271	⇑P	Pn	21 05 18.1	+7.1
KDM	Kudat	9.63	279	⇓P	Pn	21 05 26.9	+10
TGY	Tagaytay City	10.10	328	Pn	Pn	21 05 24.2	+0.5
TGY	Tagaytay City	10.10	328	Pn	Pn	21 05 24.2	+0.5
	6.8nm,0.3s,baz=261,slow=19,SNR=1.9						
KKM	Kota Kinabalu	10.17	274	⇓P	Pn	21 05 23.2	-1.4
APYP	Conner	13.28	338	*e*P	Pn	21 06 14.5	+7.5
ABRA	Dolores	13.29	336	*e*P	Pn	21 06 09.4	+2.2
SBUM	Sibu	14.49	258	⇓P	Pn	21 06 27.5	+4.2
KSM	Kuching	16.57	257	*e*Pn	Pn	21 06 54.7	+4.6
KSM	Kuching	16.57	257	⇓P	Pn	21 06 55.6	+5.5
KAKA	Kakadu	19.06	162	*e*P	Pn	21 07 18.5	-2.1
	34nm,0.6s						
KAKA	Kakadu	19.06	162	*e*P	Pn	21 07 18.7	-1.9
KAKA				*e*S	S	21 10 46.7	-6.3
NACB	Ninganchiao	19.13	346	*e*P	Pn	21 07 19.7	-1.6
YHNB	Yeheng	19.66	346	*e*P	Pn	21 07 27.4	-0.2
GUMO	Guam	19.87	65	LR	LR	21 13 46.7	
	comp=Z,626nm,20.6s,baz=122,slow=32						
TATO	Taipei	19.93	347	*e*P	Pn	21 07 27.4	-3.3
	47nm,0.9s						
QZH	Quanzhou	20.73	340	⇑*i*P	P	21 07 40.0	+2.6
QZH				S	S	21 11 36.0	+10
QZH				AMB	AMB		
	comp=Z,140nm,1.1s						
QZH				LR	LR		
	comp=N,2µm,19.4s,MS4.6						
QZH				LR	LR		
	comp=E,3µm,24.1s,MS4.6						
QZH				LR	LR		
	comp=Z,1µm,25.0s,MS4.2						
QIZ	Qiongzhong	21.02	311	P	P	21 07 43.3	+2.8
QIZ				XP	sP	21 07 54.8	-4.4
QIZ				PP		21 08 05.6	
QIZ				AMB	AMB		
	comp=Z,24nm,0.9s,mb4.5						
QIZ				LR	LR		
	comp=E,361nm,18.4s						
QIZ				LR	LR		
	comp=Z,641nm,20.5s,MS4.0						
QIZ	Qiongzhong	21.02	311	*e*P	P	21 07 42.2	+1.6
	comp=Z,39nm,1.0s,mb4.7						
JOW	Kunigami	21.28	5	P	P	21 07 44.5	+1.3
	comp=Z,14nm,0.6s,mb4.5,baz=206,slow=5.5,SNR=6.3						
MYKOM	Kota Tinggi	22.82	262	⇑P	P	21 08 02.1	+2.2
MYKOM	Kota Tinggi	22.82	262	⇑P	P	21 08 05.4	+5.6
KTGM	Kuala Trenggan	23.18	271	⇓P	P	21 08 06.3	+2.7
KGM	Kluang	23.31	262	⇓P	P	21 08 06.7	+1.8
FITZ	Fitzroy Crossi	23.47	182	*e*P	P	21 08 06.7	+0.4
	comp=Z,26nm,0.6s,mb4.8						
FITZ				*e*S	S	21 12 18.9	+2.9
FITZ				*e*SCP	ScP	21 15 32.3	+7.3
FITZ	Fitzroy Crossi	23.47	182	P	P	21 08 06.2	0.0
	comp=Z,15nm,0.8s,mb4.5,baz=21,slow=11,SNR=39						
FITZ				S	S	21 12 19.7	+3.7
	comp=Z,6.4nm,1.1s,baz=181,slow=17,SNR=3.3						
FRIM	Kepong	24.82	266	⇓P	P	21 08 22.5	+3.8
IPM	Ipoh	25.32	269	⇑P	P	21 08 23.6	+0.4
IPM	Ipoh	25.32	269	⇑P	P	21 08 28.5	+5.3
PMG	Port Moresby	25.43	126	*e*P	P	21 08 25.6	+1.4
	comp=Z,6.0nm,0.7s,mb4.2						
PMG				LR	LR	21 17 47.0	
PMG	Port Moresby	25.43	126	P	P	21 08 29.1	+4.9
	comp=Z,8.2nm,0.7s,mb4.4,baz=53,slow=1.2,SNR=5.3						
PMG				LR	LR	21 17 47.1	
	comp=Z,350nm,20.7s,MS3.9,baz=90,slow=34						
KKTK	Khon Kaen	25.51	297	P	P	21 08 27.0	+2.1
	comp=Z,432nm,0.6s,mb6.2						
KULM	Kulim	25.66	271	*e*P	P	21 08 27.0	+0.7
KULM				*e*	pP	21 08 39.0	-0.6
KULM				*e*PcP	PcP	21 11 57.0	+1.0
KULM	Kulim	25.66	271	⇓P	P	21 08 27.8	+1.5
KULM	Kulim	25.66	271	⇓P	P	21 08 30.6	+4.4
SSE	Sheshan	25.92	350	P	P	21 08 29.3	+0.8
SSE				S	S	21 12 53.4	-1.6
SSE				AMB	AMB		
	comp=Z,41nm,1.0s,mb4.9						
SSE				AMB	AMB		
	comp=Z,82nm,4.1s						
SSE				LR	LR		
	comp=N,78nm,25.2s,MS3.6						
SSE				LR	LR		
	comp=E,224nm,25.2s,MS3.6						
SSE				LR	LR		
	comp=Z,121nm,18.9s						
SSE	Sheshan	25.92	350	P	P	21 08 29.3	+0.8
	comp=Z,41nm,1.0s,mb4.9						
SSE				S	S	21 12 53.4	-1.6
SSE				LR	LR		
	comp=Z,120nm,18.9s,MS3.5						
CBIJ	Chichi jima	26.20	33	LR	LR	21 19 07.1	
	comp=Z,198nm,19.1s,MS3.7,baz=264,slow=37						
WRA	Warramunga Arr	26.46	163	P	P	21 08 33.8	+0.3
WRA				S	S	21 13 14.4	+11
WRA				ScP	ScP	21 15 35.8	+2.4
WRA				*e*		21 41 17.0	
WRA	Warramunga Arr	26.46	163	P	P	21 08 33.8	+0.3
	comp=Z,46nm,1.0s,mb5.0,baz=343,slow=9.9,SNR=66						
WRA				S	S	21 13 14.4	+11
	comp=Z,4.4nm,1.1s,baz=343,slow=18,SNR=5.4						
WRA				ScP	ScP	21 15 35.8	+2.4
	comp=Z,5.6nm,0.7s,baz=340,slow=3.1,SNR=8.3						
WRA				P3KPbc		21 41 17.0	
	comp=Z,1.2nm,0.8s,baz=157,slow=3.9,SNR=9.1						
WB2	Warramunga Arr	26.47	163	*e*P	P	21 08 33.2	-0.3
WB2				*e*S	S	21 13 04.1	+0.3
WB2				*e*SCP	ScP	21 15 39.6	+6.2
WB2	Warramunga Arr	26.47	163	*e*P	P	21 08 33.8	+0.3
WB2				*e*PcP	PcP	21 11 58.4	+0.7
WB2				*e*S	S	21 13 04.1	+0.3
WB2				*e*ScP	ScP	21 15 39.6	+6.2
NNT	Nongplab	27.26	287	P	P	21 08 45.1	+4.4
NJ2	Nanjing	27.34	346	*e*P	P	21 08 44.0	+2.8
NJ2				AMB	AMB		
	comp=Z,70nm,0.8s,mb5.2						
WHN	Wuhan	27.37	337	*e*P	P	21 08 41.7	+0.2
PSI	Prapat	27.55	266	P	P	21 08 41.1	-2.2
PSI				PcP	PcP	21 12 00.8	+0.3
PSI				ScP	ScP	21 15 39.0	+2.2
PSI				LR	LR	21 20 25.4	
PSI	Prapat	27.55	266	P	P	21 08 41.1	-2.2
	comp=Z,32nm,1.0s,mb4.9,baz=124,slow=2.8,SNR=18						
PSI				PcP	PcP	21 12 00.8	+0.3
	comp=Z,16nm,0.8s,baz=186,slow=4.4,SNR=8.1						
PSI				ScP	ScP	21 15 39.0	+2.2
	comp=Z,2.0nm,0.4s,baz=28,slow=7.8,SNR=5.8						
PSI				LR	LR	21 20 25.4	
	comp=Z,287nm,20.6s,MS3.8,baz=256,slow=39						
NST	Nakhon Sawan	27.71	293	P	P	21 08 44.6	-0.1
	comp=Z,37nm,0.7s,mb5.1						
GYA	Guiyang	28.10	320	P	P	21 08 48.7	+0.6
GYA				PCP	PcP	21 12 02.7	+1.1
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
GYA				AMB	AMB		
	comp=Z,160nm,6.0s						
ENH	Enshi	29.35	329	P	P	21 08 57.3	-1.8
CM31	Chiang Mai Arr	29.74	298	*e*P	P	21 09 03.2	+0.4
CHG	Chiang Mai	29.87	299	⇓P	P	21 09 05.4	+1.5
	comp=Z,12nm,0.7s,mb4.7						
CHTO	Chiang Mai	29.87	299	*e*P	P	21 09 04.1	+0.1
	comp=Z,8.4nm,0.6s,mb4.7						
ASAR	Alice Springs	29.90	166	P	P	21 09 04.8	+0.7
	comp=Z,3.2nm,0.6s,mb4.2,baz=344,slow=6.7,SNR=41						
ASAR				PcP	PcP	21 12 07.0	+0.9
	comp=Z,3.9nm,0.7s,baz=350,slow=2.3,SNR=7.1						
ASAR				ScP	ScP	21 15 46.5	+2.5
	comp=Z,4.7nm,0.8s,baz=343,slow=2.8,SNR=8.0						
KMI	Kunming	29.93	313	P	P	21 09 05.3	+0.9
KMI				AP	pP	21 09 13.7	-4.1
KMI				XP	sP	21 09 18.8	-5.3
KMI				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.0						
KMI				LR	LR		
	comp=N,250nm,13.4s,MS4.2						
KMI				LR	LR		
	comp=E,287nm,16.6s,MS4.2						
KMI				LR	LR		
	comp=Z,526nm,20.6s,MS4.2						
TIA	Tai’an	31.73	346	*e*P	P	21 09 21.0	+0.9
KSRS	Korea Array	31.82	2	P	P	21 09 21.5	+0.6
	comp=Z,7.4nm,0.9s,mb4.5,baz=186,slow=9.1,SNR=12						
KSRS				PcP	PcP	21 12 12.2	+1.3
	comp=Z,3.3nm,0.7s,baz=189,slow=2.4,SNR=9.5						
KSRS				LR	LR	21 20 47.0	
	comp=Z,281nm,19.5s,MS4.0,baz=197,slow=34						
CTA	Charters Tower	32.05	143	*e*P	P	21 09 24.4	+1.3
	comp=Z,8.0nm,0.8s,mb4.6						
CTA				*e*S	S	21 14 38.9	+7.3
CTA				*e*SCP	ScP	21 15 55.2	+4.0
CTAO	Charters Tower	32.05	143	*e*P	P	21 09 24.5	+1.4
	comp=Z,10nm,0.8s,mb4.7						
CTAO				*e*	pP	21 09 38.5	+1.8
XAN	Xi’an	32.70	332	P	P	21 09 27.3	-1.3
XAN				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.2						
XAN				LR	LR		
	comp=N,290nm,22.8s						
XAN				LR	LR		
	comp=E,331nm,16.3s						
XAN				LR	LR		
	comp=Z,464nm,24.9s,MS4.1						
MJAR	Matsushiro Arr	32.72	18	P	P	21 09 28.7	-0.1
	comp=Z,5.0nm,0.9s,mb4.4,baz=193,slow=9.9,SNR=5.4						
MJAR				PcP	PcP	21 12 14.9	+1.5
	comp=Z,0.6nm,0.3s,baz=177,slow=3.5,SNR=5.0						
MJAR				ScP	ScP	21 15 56.7	+3.5
	comp=Z,3.8nm,1.0s,baz=207,slow=3.8,SNR=6.0						
MAJO	Matsushiro	32.72	18	*e*P	P	21 09 29.4	+0.6
	comp=Z,7.8nm,0.7s,mb4.8						
CD2	Chengdu	33.04	323	*e*P	P	21 09 31.4	-0.3
CD2				AP	pP	21 09 41.1	-4.1
CD2				XP	sP	21 09 45.1	-6.3
CD2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.4						
CD2				AMB	AMB		
	comp=Z,50nm,4.2s						
CD2				LR	LR		
	comp=N,510nm,20.4s,MS4.3						
CD2				LR	LR		
	comp=E,410nm,19.2s,MS4.3						
CD2				LR	LR		
	comp=Z,450nm,14.4s,MS4.3						
DL2	Dalian	33.53	353	P	P	21 09 37.0	+1.2
DL2				AMB	AMB		
	comp=Z,60nm,0.7s,mb5.6						
BJT	Baijiatuau	35.58	346	*e*P	P	21 09 53.3	-0.1
	comp=Z,67nm,0.9s,mb5.6						
BJT				*e*PcP	PcP	21 12 21.6	0.0
BJI	Beijing	35.59	346	P	P	21 09 53.5	-0.1
BJI				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.6						
BJI				LR	LR		
	comp=N,214nm,18.2s						
BJI				LR	LR		
	comp=E,221nm,24.0s						
BJI				LR	LR		
	comp=Z,216nm,23.9s						
BJI	Beijing	35.59	346	P	P	21 09 53.5	-0.1
	comp=Z,0.1nm,0.9s						
BJI				LR	LR		
	comp=Z,220nm,23.9s,MS3.8						
FORT	Forrest	36.12	178	*e*P	P	21 09 58.5	+0.3
	comp=Z,28nm,0.6s,mb5.4						
LZH	Lanzhou	36.83	329	⇑P	P	21 10 04.5	+0.3
LZH				PCP	PcP	21 12 26.5	+1.1
LZH				*e*S	S	21 15 49.2	+4.3
LZH				PCS	PcS	21 16 14.3	+0.9
LZH				SS	SS	21 18 18.2	-10
LZH				SCS	ScS	21 20 17.0	+2.0
LZH				AMB	AMB		
	comp=Z,56nm,1.3s,mb5.2						
LZH				AMB	AMB		
	comp=Z,204nm,7.6s						
LZH				LR	LR		
	comp=E,681nm,13.1s						
LZH				LR	LR		
	comp=Z,979nm,17.2s,MS4.7						
LZH	Lanzhou	36.83	329	⇑P	P	21 10 04.5	+0.3
	comp=Z,56nm,1.3s,mb5.2						
LZH				pP	pP	21 10 09.1	-8.8
LZH				sP	sP	21 10 11.6	-12
LZH				PP	PP	21 11 41.7	+13
LZH				PcP	PcP	21 12 26.5	+1.1
LZH				*e*S	S	21 15 49.2	+4.3
LZH				sS	sS	21 15 56.7	-11
LZH				ScP	ScP	21 16 12.0	+4.0
LZH				PcS	PcS	21 16 14.3	+0.9
LZH				SS	SS	21 18 18.2	-10
LZH				ScS	ScS	21 20 17.0	+2.0
LZH				LR	LR		
	comp=Z,980nm,17.2s,MS4.7						
HHC	Hu-ho-hao-te	37.62	341	*e*P	P	21 10 11.6	+0.7
HHC				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.6						
HHC				AMB	AMB		
	comp=Z,134nm,5.5s						
KLBR	Kellerberrin	37.81	192	*e*P	P	21 10 13.2	+0.7
	comp=Z,19nm,0.6s,mb5.0						
CN2	Changchun	38.15	359	*e*P	P	21 10 15.8	+0.6
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
MUN	Mundaring	38.53	194	*e*P	P	21 10 19.2	+0.6
SHL	Shillong	38.59	305	*e*P	P	21 10 17.2	-2.2
SHL				AMb	AMB	21 10 17.8	
	comp=Z,319nm,0.9s,mb6.1						
SHL				*e*S	S	21 16 13.0	+1.0
EIDS	Eidsvold	38.94	143	*e*P	P	21 10 22.3	+0.1
MDJ	Mudanjiang	39.05	4	P	P	21 10 22.6	-0.2
MDJ				AMB	AMB		
	comp=Z,31nm,0.9s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,107nm,6.1s						
MDJ	Mudanjiang	39.05	4	*e*P	P	21 10 23.0	+0.2
	comp=Z,30nm,0.9s,mb5.0						
NWAO	Narrogin (SRO)	39.21	192	*e*P	P	21 10 25.1	+0.8
	comp=Z,11nm,0.5s,mb4.8						
STKA	Stephens Creek	39.89	160	*e*P	P	21 10 31.0	+1.0
	comp=Z,22nm,0.7s,mb5.0						
STKA	Stephens Creek	39.89	160	P	P	21 10 30.5	+0.5
STKA				ScP	ScP	21 16 22.4	+2.8
STKA				LR	LR	21 27 32.8	
STKA	Stephens Creek	39.89	160	P	P	21 10 30.5	+0.5
	comp=Z,9.8nm,0.5s,mb4.8,baz=336,slow=8.1,SNR=40						
STKA				ScP	ScP	21 16 22.4	+2.8
	comp=Z,2.2nm,0.8s,baz=8.7,slow=2.6,SNR=2.7						
STKA				LR	LR	21 27 32.8	
	comp=Z,144nm,18.1s,MS3.9,baz=114,slow=37						
ASAJ	Asahikawa	41.00	18	P	P	21 10 39.6	+0.7
	comp=Z,12nm,0.7s,mb4.6,baz=242,slow=12,SNR=6.0						
LSA	Lhasa	41.05	310	P	P	21 10 41.0	+1.3
LSA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.7						
LSA	Lhasa	41.05	310	*e*P	P	21 10 40.8	+1.1
	comp=Z,6.4nm,0.6s,mb4.4						
LSA				*e*	pP	21 10 55.6	+2.1
LSA				*e*PcP	PcP	21 12 40.3	+1.5
LSA				*e*ScP	ScP	21 16 23.6	-0.8
GTA	Gaotai	41.42	328	*e*P	P	21 10 42.1	-0.5
GTA				AP	pP	21 10 50.3	-6.1
GTA				XP	sP	21 10 54.0	-8.6
GTA				PP	PP	21 12 21.4	+2.3
GTA				PCP	PcP	21 12 41.2	+1.4
GTA				SCP	ScP	21 16 27.5	+1.9
GTA				PCS	PcS	21 16 32.2	+1.2
GTA				S	S	21 16 48.7	-5.2
GTA				XS	sS	21 17 13.1	-4.2
GTA				SCS	ScS	21 20 42.9	+1.2
GTA				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.5						
GTA				AMB	AMB		
	comp=Z,152nm,6.8s						
GTA				LR	LR		
	comp=N,335nm,18.6s,MS4.4						
GTA				LR	LR		
	comp=E,262nm,17.5s,MS4.4						
GTA				LR	LR		
	comp=Z,429nm,18.6s,MS4.3						
TAPN	Taplejung	42.73	305	*e*P	P	21 10 54.2	+0.7
	comp=Z,51nm,0.9s,mb5.2						
ODAN	Odare	42.81	304	*e*P	P	21 10 54.6	+0.6
	comp=Z,71nm,0.7s,mb5.5						
BOK	Bokaro	43.01	299	*e*P	P	21 10 56.0	+0.2
BOK				AMb	AMB	21 10 58.2	
	comp=Z,19nm,0.7s,mb4.9						
YSS	Yuzh-Sakhalins	43.62	16	*e*P	P	21 11 00.0	-0.3
VIS	Vishakhapatnam	43.80	290	*e*P	P	21 11 00.0	-2.2
VIS				AMb	AMB	21 11 05.3	
	comp=Z,13nm,0.6s,mb4.9						
HIA	Hailar	43.97	354	*e*P	P	21 11 03.7	+0.7
	comp=Z,33nm,0.8s,mb5.1						
JIRN	Jiri	44.10	305	*e*P	P	21 11 04.0	-0.4
	comp=Z,39nm,0.7s,mb5.2						
GUN	Gumba	44.45	305	*e*P	P	21 11 07.8	+0.6
	comp=Z,99nm,0.8s,mb5.6						
PKI	Pulchoki	44.71	304	*e*P	P	21 11 09.2	-0.1
KKN	Kakani	44.89	304	*e*P	P	21 11 11.1	+0.3
	comp=Z,51nm,0.9s,mb5.4						
DMN	Daman	44.97	304	*e*P	P	21 11 11.6	+0.2
	comp=Z,65nm,0.9s,mb5.5						
GKN	Gorkha	45.50	304	*e*P	P	21 11 15.7	+0.1
	comp=Z,32nm,0.7s,mb5.3						
SONM	Songino Array	45.52	341	P	P	21 11 15.2	-0.3
	comp=Z,7.4nm,0.7s,mb4.7,baz=156,slow=8.2,SNR=48						
SONM				PcP	PcP	21 12 53.7	+0.2
	comp=Z,15nm,0.8s,baz=158,slow=3.4,SNR=17						
SONM				ScP	ScP	21 16 44.3	+2.2
	comp=Z,0.8nm,0.8s,baz=140,slow=3.8,SNR=3.9						
BLSP	Bilaspur	45.86	296	*e*P	P	21 11 18.2	-0.3
BLSP				AMb	AMB	21 11 21.2	
	comp=Z,21nm,0.8s,mb5.1						
KOLN	Koldanda	46.27	304	*e*P	P	21 11 22.0	+0.3
	comp=Z,114nm,0.7s,mb5.9						
TOO	Toolangi	46.40	159	⇑*i*P	P	21 11 24.7	+2.2
	comp=Z,11nm,0.8s,mb4.8						
ALBI	Allahabad	47.00	300	*e*P	P	21 11 25.5	-2.0
DZM	Mont Dzumac	47.82	126	P	P	21 11 37.1	+3.3
	comp=Z,9.0nm,0.8s,mb4.9,baz=291,slow=18,SNR=5.2						
HYB	Hyderabad	48.25	288	*e*P	P	21 11 37.0	-0.2
HYB	Hyderabad	48.25	288	*i* P	P	21 11 37.0	-0.2
NGP	Nagpur	48.43	293	*e*P	P	21 11 37.2	-1.4
NGP				AMb	AMB	21 11 38.8	
	comp=Z,9.1nm,0.7s,mb4.9						
KOD	Kodaikanal	48.68	279	*e*P	P	21 11 40.6	0.0
KOD				AMb	AMB	21 11 46.5	
	comp=Z,12nm,1.1s,mb4.8						
TLY	Talaya	49.75	342	*e*P	P	21 11 48.8	+0.7
	comp=Z,14nm,0.9s,mb5.0						
TLY				*e*PcP	PcP	21 13 09.7	+1.2
AKL	Akola	50.21	292	*e*P	P	21 11 52.6	+0.4
AKL				AMb	AMB	21 12 10.3	
	comp=Z,34nm,0.3s,mb5.8						
BHPL	Bhopal	50.34	296	*e*P	P	21 11 51.1	-2.0
TAU	Tasmania Unive	51.79	161	P	P	21 12 04.5	+1.0
NDI	New Delhi	51.90	302	*e*P	P	21 12 03.2	-1.5
NDI				AMb	AMB	21 12 04.0	
	comp=Z,30nm,0.9s,mb5.2						
KAD	Karad	52.37	288	*e*P	P	21 12 04.0	-4.3
POO	Poona	52.83	289	*e*P	P	21 12 10.0	-1.8
POO				*e*P		21 12 10.7	
POO				AMb	AMB	21 12 14.5	
	comp=Z,11nm,0.5s,mb5.0						
PET	Petropavlovsk	54.22	23	*e*P	P	21 12 21.6	+0.2
THN	Thein Dam	54.26	306	*e*P	P	21 12 19.9	-2.2
MKAR	Makanchi Array	55.93	325	P	P	21 12 32.4	-1.4
MKAR				PcP	PcP	21 13 31.7	-0.2
MKAR				ScP	ScP	21 17 28.0	+1.2
MKAR				LR	LR	21 37 24.9	
MKAR	Makanchi Array	55.93	325	P	P	21 12 32.4	-1.4
	comp=Z,7.5nm,0.4s,mb5.1,baz=125,slow=8.1,SNR=61						
MKAR				PcP	PcP	21 13 31.7	-0.2
	comp=Z,13nm,0.6s,baz=116,slow=4.3,SNR=9.2						
MKAR				ScP	ScP	21 17 28.0	+1.2
	comp=Z,1.8nm,0.8s,baz=110,slow=4.3,SNR=5.2						
MKAR				LR	LR	21 37 24.9	
	comp=Z,321nm,20.2s,MS4.4,baz=258,slow=37						
YAK	Yakutsk	56.45	2	*e*P	P	21 12 36.9	-0.4
	comp=Z,107nm,0.8s,mb5.9						
YAK				*e*PcP	PcP	21 13 27.0	-6.6
ULHL	Ulahol	57.51	317	P	P	21 12 45.0	-0.1
	SNR=7.3						
KZA	Kyzart	58.11	317	P	P	21 12 49.9	+0.6
	SNR=12						
TKM2	Tokmak 2	58.22	318	P	P	21 12 49.8	-0.3
	SNR=6.6						
TKM2	Tokmak 2	58.22	318	*e*P	P	21 12 49.6	-0.5
	comp=Z,6.7nm,0.8s,mb4.7						
TKM2				*e*	pP	21 13 03.7	-0.9
TKM2				*e*PcP	PcP	21 13 41.0	0.0
KBK	Karagaybulak	58.55	317	P	P	21 12 53.4	+1.0
	SNR=7.9						
UCH	Uchtor	58.67	317	P	P	21 12 53.8	+0.5
	SNR=19						
UCH	Uchtor	58.67	317	*e*P	P	21 12 53.3	+0.1
	comp=Z,24nm,1.0s,mb5.2						
UCH				*e*PcP	PcP	21 13 42.1	-0.7
UCH				*e*PP	PP	21 15 02.6	-0.8
UCH				*e*ScP	ScP	21 17 38.0	-1.0
AAK	Ala-Archa	58.84	317	*e*P	P	21 12 53.0	-1.5
	comp=Z,10nm,1.2s,mb4.7						
AAK				*e*	pP	21 13 10.6	+1.6
AAK				*e*PcP	PcP	21 13 35.7	-7.7
ZALV	Zalesovo Beam	58.87	333	P	P	21 12 52.6	-1.8
	comp=Z,6.8nm,0.6s,mb4.8,baz=120,slow=6.7,SNR=16						
ZALV				PcP	PcP	21 13 42.4	-0.9
	comp=Z,12nm,0.8s,baz=131,slow=2.1,SNR=8.1						
ZALV				ScP	ScP	21 17 39.6	0.0
	comp=Z,1.0nm,0.9s,baz=104,slow=3.6,SNR=2.7						
ZALV				LR	LR	21 38 41.0	
	comp=Z,164nm,20.8s,MS4.1,baz=276,slow=36						
ZALV				PKPPKP		21 42 37.3	
	comp=Z,0.4nm,0.3s,baz=278,slow=4.3,SNR=3.8						
USP	Ospenovka	59.10	318	P	P	21 12 55.7	-0.5
	SNR=10						
AML	Almayashu	59.19	316	P	P	21 12 57.1	+0.2
	SNR=11						
AML	Almayashu	59.19	316	*e*P	P	21 12 56.6	-0.3
AML				*e*PcP	PcP	21 13 45.2	+0.4
EKS2	Erkin-Say	59.34	317	P	P	21 12 58.2	+0.3
	SNR=9.1						
EKS2	Erkin-Say	59.34	317	*e*P	P	21 12 57.9	0.0
	comp=Z,20nm,1.0s,mb5.1						
EKS2				*e*	pP	21 13 11.8	-0.6
KURK	Kurchatov	60.09	327	*e*P	P	21 13 02.3	-0.6
KURK				*e*PcP	PcP	21 13 47.4	-0.9
KBL	Kabul	60.21	307	*e*P	P	21 13 03.2	-0.8
BRVK	Borovoye	65.74	327	*e*P	P	21 13 39.5	-0.9
	comp=Z,56nm,1.0s,mb5.5						
TIXI	Tiksi	66.08	1	*e*P	P	21 13 41.9	-0.3
	comp=Z,32nm,0.7s,mb5.5						
TIXI				*e*	pP	21 13 59.8	+2.9
BILL	Bilibino	67.92	15	*e*P	P	21 13 54.3	+0.3
	comp=Z,17nm,1.3s,mb4.9						
ARU	Arti	73.28	328	*e*P	P	21 14 25.5	-1.3
	comp=Z,18nm,0.6s,mb5.2						
QRN	Al-Qurain	77.30	298	*e*P	P	21 14 49.1	-1.4
QRN				AMb	AMB	21 14 51.3	
	comp=Z,34nm,0.9s,mb5.3						
RDF	Al-Radifah	77.62	298	*e*P	P	21 14 50.9	-1.5
RDF				AMb	AMB	21 14 52.8	
	comp=Z,37nm,0.9s,mb5.3						
MIB	Mutribah	77.82	299	*e*P	P	21 14 51.9	-1.5
MIB				AMb	AMB	21 14 53.8	
	comp=Z,55nm,0.8s,mb5.5						
NAY	Al-Naaiem	77.89	299	*e*P	P	21 14 52.2	-1.6

NAY				AMb	AMB	21 14 57.0	
	comp=Z,17nm,0.7s,mb5.1						
KDAK	Kodiak Island	80.56	32	P	P	21 15 10.0	+2.2
	comp=Z,7.3nm,0.6s,mb4.8,baz=236,slow=5.6,SNR=11						
IMA2	Indian Mountai	80.89	24	*e*P	P	21 15 10.2	+0.9
IMA2				*e*	pP	21 15 24.3	-0.2
KIV	Kislovodsk	81.69	313	*e*P	P	21 15 14.4	+0.3
	comp=Z,8.5nm,0.8s,mb4.7						
SLKM	Skilak Lake	81.96	30	*e*P	P	21 15 14.9	-0.3
PMR	Palmer	82.54	29	*e*P	P	21 15 17.8	-0.3
	comp=Z,16nm,1.1s,mb5.0						
MCK	McKinley	82.72	27	*e*P	P	21 15 18.9	-0.2
	comp=Z,5µm,0.6s						
MCK				*e*PcP	PcP	21 15 26.1	+2.3
COLA	College	83.23	25	*e*P	P	21 15 22.0	+0.4
	comp=Z,4.9nm,0.8s,mb4.6						
MALT	Malatya	85.05	308	⇓P	P	21 15 31.2	-0.2
VNDA	Vanda	85.22	173	P	P	21 15 32.5	+1.1
	comp=Z,6.7nm,1.0s,mb4.7,baz=317,slow=5.1,SNR=6.6						
VNDA				LR	LR	21 52 59.9	
	comp=Z,139nm,18.9s,MS4.4,baz=332,slow=35						
MAW	Mawson	85.31	200	P	P	21 15 31.9	-0.1
	comp=Z,7.7nm,1.1s,mb4.8,baz=98,slow=7.1,SNR=4.1						
OBN	Obninsk	85.44	325	*e*P	P	21 15 32.3	-0.8
	comp=Z,55nm,0.9s,mb5.7						
EGAK	Eagle	86.09	25	*e*P	P	21 15 37.7	+1.6
	comp=Z,3.9nm,0.8s,mb4.7						
JOF	Joensuu	87.47	333	*e*p	P	21 15 41.0	-1.8
	comp=Z,16nm,0.7s,mb5.3						
KEV	Kevo	88.12	340	*e*p	P	21 15 44.2	-1.6
	comp=Z,16nm,1.0s,mb5.2						
INK	Inuvik	88.63	21	*e*P	P	21 15 46.8	-1.4
	comp=Z,130nm,0.9s,mb6.3						
INK	Inuvik	88.63	21	P	P	21 15 48.5	+0.3
	comp=Z,3.1nm,0.9s,mb4.6,baz=276,slow=5.9,SNR=6.6						
BR131	Keskin Array S	88.66	310	*e*P	P	21 15 47.9	-1.1
	comp=Z,4.4nm,0.8s,mb4.8						
BRTR	Keskin Array B	88.66	310	P	P	21 15 47.4	-1.6
	comp=Z,4.6nm,0.9s,mb4.8,baz=104,slow=5.6,SNR=16						
ARCES	ARCESS Array B	88.68	340	P	P	21 15 48.2	-0.3
ARCES	ARCESS Array B	88.68	340	P	P	21 15 48.2	-0.3
	comp=Z,30nm,0.7s,mb5.7,baz=82,slow=6.6,SNR=46						
ARE0	ARCESS Array S	88.68	340	*e*P	P	21 15 48.0	-0.4
KAF	Kangasniemi	89.89	332	*e*p	P	21 15 53.1	-1.1
	comp=Z,12nm,0.5s,mb5.5,baz=75,slow=4.3						
FINES	FINESS Array B	90.13	332	P	P	21 15 54.6	-0.8
	comp=Z,5.8nm,0.7s,mb5.0,baz=69,slow=4.4,SNR=18						
AKASG	Malin Array Be	90.33	321	P	P	21 15 54.3	-2.3
	comp=Z,4.4nm,0.8s,mb4.8,baz=67,slow=4.3,SNR=18						
AKBB	Malin Array Si	90.33	321	*e*P	P	21 15 54.9	-1.7
KIEV	Kiev	90.34	321	*e*P	P	21 15 55.0	-1.6
	comp=Z,9.4nm,1.0s,mb5.1						
TIRR	Tirgusor	91.88	315	⇑P	P	21 16 02.1	-1.8
TIRR	Tirgusor	91.88	315	⇑*i*P	P	21 16 02.1	-1.8
DLBC	Dease Lake	92.38	31	P	P	21 16 05.7	-0.2
VRI	Vrincioaia	92.80	316	⇑P	P	21 16 07.1	-1.0
VRI	Vrincioaia	92.80	316	⇑*i*P	P	21 16 07.1	-1.0
PLOR	Plostina	92.86	316	⇓*i*P	P	21 16 07.6	-0.8
MLR	Muntele Rosu	93.41	316	⇓*i*P	P	21 16 09.9	-1.0
BURAR	Bucovina Array	93.48	318	⇓P	P	21 16 10.6	-0.6
BURAR	Bucovina Array	93.48	318	⇓*i*P	P	21 16 10.6	-0.6
SYO	Syowa Base	93.96	201	⇑*e*P	P	21 16 13.8	+0.9
DRGR		95.33	318	⇓*i*P	P	21 16 18.9	-0.8
DAG	Danmarks Havn	95.46	352	⇑*i*P	P	21 16 19.7	0.0
	comp=Z,26nm,1.2s,mb5.5						
CRVS	Cervenica-Dubn	95.62	320	*e*P	P	21 16 20.7	-0.3
STHS	Stebnicka Huta	95.62	321	*e*P	P	21 16 21.5	+0.5
RES	Resolute Bay	96.13	10	*e*P	P	21 16 22.4	-0.4
HFS	Hagfors	96.31	332	LR	LR	22 03 13.3	
	comp=Z,297nm,18.4s,MS4.8,baz=171,slow=38						
BZS	Buzias	96.35	317	⇑*i*P	P	21 16 23.3	-1.1
KECS	Kecovo	96.35	320	*e*P	P	21 16 23.6	-0.7
NB2	NORSAR Subarra	97.07	334	P	P	21 16 25.6	-1.7
	comp=Z,2.3nm,0.7s,mb4.7,baz=66,slow=4.6						
NOA	NORSAR Array B	97.07	334	P	P	21 16 25.1	-2.2
	comp=Z,5.6nm,0.9s,mb5.0,baz=67,slow=4.5,SNR=7.8						
NOA				LR	LR	22 03 39.6	
	comp=Z,225nm,18.3s,MS4.7,baz=50,slow=38						
MORC	Moravsky Berou	97.83	322	*e*P	P	21 16 30.7	-0.2
YKA	Yellowknife Ar	98.02	24	P	P	21 16 31.0	-0.5
YKA				PKKPbc	PKKPbc	21 33 03.9	-3.3
YKA	Yellowknife Ar	98.02	24	P	P	21 16 31.0	-0.5
	comp=Z,0.7nm,0.7s,mb4.3,baz=300,slow=4.7,SNR=11						
YKA				PKKPbc	PKKPbc	21 33 03.9	-3.3
	comp=Z,0.2nm,0.4s,baz=110,slow=2.5,SNR=6.3						
VRAC	Vranov	98.56	321	LR	LR	22 00 37.0	
	comp=Z,263nm,21.4s,MS4.7,baz=315,slow=35						
BRG	Berggiesshubel	99.63	324	*i* P	Pdif	21 16 39.0	+0.1
	comp=Z,5.5nm,0.7s						
CLL	Collm	100.03	324	*e*P	Pdif	21 16 40.0	-0.6
GERES	GERESS Array B	100.51	322	P	Pdif	21 16 42.5	-0.2
	comp=Z,1.3nm,0.8s,baz=76,slow=5.6,SNR=4.6						
CMB	Columbia Colle	104.54	49	P	Pdif	21 17 01.1	+0.4
PDAR	Pinedale Array	110.22	41	PKKPbc	PKKPbc	21 32 39.1	+9.2
	comp=Z,0.7nm,0.7s,baz=123,slow=5.5,SNR=6.8						
SDCO	Great Sand Dun	115.38	44	PKPdf	PKPdf	21 21 39.2	+1.8
ANMO	Albuquerque	116.05	47	*e*PKPdf	PKPdf	21 21 40.3	+1.5
SCHQ	Schefferville	118.87	9	PKP	PKPdf	21 21 44.3	+0.6
SCHQ				*e*PKPdf	PKPdf	21 21 44.5	+0.9
SCHQ	Schefferville	118.87	9	PKP	PKPdf	21 21 44.3	+0.6
	comp=Z,2.9nm,0.5s,baz=313,slow=3.8,SNR=14						
KSU1	Kansas State U	120.42	38	*e*PKPdf	PKPdf	21 21 47.3	+0.2
LTX	Lajitas	120.75	51	*e*PKPdf	PKPdf	21 21 48.9	+0.8
TXAR	Lajitas Array	120.75	51	PKP	PKPdf	21 21 49.2	+1.2
TXAR				PKKPbc	PKKPbc	21 31 52.0	-1.1
TXAR	Lajitas Array	120.75	51	PKP	PKPdf	21 21 49.2	+1.2
	comp=Z,0.8nm,0.7s,baz=231,slow=1.2,SNR=12						
TXAR				PKKPbc	PKKPbc	21 31 52.0	-1.1
	comp=Z,0.8nm,0.6s,baz=135,slow=6.0,SNR=9.5						
WMOK	Wichita Mounta	121.57	43	*e*PKPdf	PKPdf	21 21 50.1	+0.6
TOA0	Torodi Ar. Sit	122.06	289	*e*PKPdf	PKPdf	21 21 50.8	-0.1
TORD	Torodi Ar. Bea	122.06	289	PKP	PKPdf	21 21 50.8	-0.1
TORD				PKKPbc	PKKPbc	21 31 52.0	+4.2
TORD	Torodi Ar. Bea	122.06	289	PKP	PKPdf	21 21 50.8	-0.1
	comp=Z,10.0nm,0.6s,baz=68,slow=1.7,SNR=99						
TORD				PKKPbc	PKKPbc	21 31 52.0	+4.2
	comp=Z,0.2nm,0.6s,baz=307,slow=34,SNR=3.6						
JCT	Junction City	123.12	48	*e*PKPdf	PKPdf	21 21 53.5	+1.0
MIAR	Mount Ida	125.15	40	*e*PKPdf	PKPdf	21 21 57.3	+1.0
PLAL	Pickwick Lake	128.26	36	*e*PKPdf	PKPdf	21 22 02.5	+0.2
USHA	Ushuaia	129.38	169	PKP	PKPdf	21 22 05.3	+1.5
USHA	Ushuaia	129.38	169	PKP	PKPdf	21 22 05.3	+1.5
	comp=Z,5.8nm,0.9s,baz=45,slow=1.4,SNR=3.3						
KIC	Kosan Boka	129.84	283	*e*PKP1	PKPdf	21 22 06.4	+0.5
	comp=Z,49nm,0.6s						
TIC	Toumodi	130.05	283	*e*PKP1	PKPdf	21 22 06.6	+0.3
	comp=Z,28nm,0.5s						
LIC	Lamto	130.15	283	*e*PKP1	PKPdf	21 22 05.6	-0.8
	comp=Z,39nm,0.8s						
ELN	Prospectdale	130.50	29	PKPdf	PKPdf	21 22 07.7	+1.3
JTS	JuntasAbangare	145.03	63	PKPbc	PKPbc	21 22 33.2	+0.1
JTS	JuntasAbangare	145.03	63	PKPbc	PKPbc	21 22 33.2	+0.1
	comp=Z,25nm,0.8s,baz=248,slow=6.9,SNR=4.4						
CFAA	Coronel Fontan	150.63	154	PKPbc	PKPbc	21 22 48.8	+0.8
CFAA	Coronel Fontan	150.63	154	PKPbc	PKPbc	21 22 48.8	+0.8
	comp=Z,3.2nm,0.7s,baz=230,slow=2.8,SNR=3.9						
LCO	Las Campanas	151.56	147	*e*PKPbc	PKPbc	21 22 51.6	+1.4
SJG	San Juan	153.45	28	PKPbc	PKPbc	21 22 57.1	+2.4
SJG	San Juan	153.45	28	PKPbc	PKPbc	21 22 57.1	+2.4
	comp=Z,10nm,0.7s,baz=345,slow=19,SNR=4.1						
LPAZ	La Paz	162.16	128	*e*PKPdf	PKPdf	21 22 59.0	+1.2
LPAZ				PKP	PKPdf	21 22 59.8	+2.1
LPAZ				PKPab	PKPab	21 23 48.8	+4.2
LPAZ	La Paz	162.16	128	PKP	PKPdf	21 22 59.8	+2.1
	comp=Z,2.0nm,0.8s,baz=28,slow=3.1,SNR=4.2						
LPAZ				PKPab	PKPab	21 23 48.8	+4.2
	comp=Z,1.7nm,0.8s,baz=172,slow=3.9,SNR=4.1						
SIV	San Ignacio	167.25	145	PKP	PKPdf	21 23 02.7	+0.5
SIV	San Ignacio	167.25	145	PKP	PKPdf	21 23 02.7	+0.5
	comp=Z,5.9nm,1.0s,baz=185,slow=2.7,SNR=13						

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*BJI **11** 21:16:49.7, 54.55N×160.29E, h87km, mB4.7, mb4.7*
*MOS **11** 21:16:49.0±0.9, 54.40N×160.08E, h65km, mb4.8/35, Error ellipse: s-maj=10.2km s-min=5.5km az=87.0*
MOS Felt (II) at Petropavlovsk-Kamchatskiy.
*IDC **11** 21:16:50.9±1.7, 54.41N×160.10E, h71km±14km, mb4.1/26, mb1 4.2/27, mb1mx4.2/29, mbtmp4.1/27, MS3.8/3, Ms1 3.8/3, ms1mx3.3/46, Error ellipse: s-maj=15.4km s-min=9.5km az=147.0*
*ISCJB **11** 21:16:51.8±0.3, 54.21N±0.02×160.25E±0.06, h99km±2km, mb4.5/75, Error ellipse: s-maj=6.1km s-min=3.1km az=30.9*
*NEIC **11** 21:16:51.7±0.7, 54.33N×160.11E, h78km±6km, mb4.6/39, Error ellipse: s-maj=5.7km s-min=3.4km az=150.0*
NEIC Felt [II] at Petropavlovsk-Kamchatskiy.
*KRSC **11** 21:16:51.3±0.4, 54.13N×160.55E, h63km±56km, ML4.9*
ISC 11 21:16:52.9±0.3, **54.22N**±0.03×**160.21E**±0.06, **h93**km±2km, **h74**km±2.4km**:pP-P, n246, σ0.96**/257**, mb4.5**/75**, 13C-7D,**
Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KII	Karymskiy	0.48	248	*i* P	Pn	21 17 06.3	-1.4
MKZ	Mys Kozlova	0.95	68	*i* P	Pn	21 17 07.4	-4.8
MKZ				*i* S	Sn	21 17 19.5	-7.1
TUMR	Tumrok	1.07	358	*i* P	Pn	21 17 13.1	-0.4
TUMR				*i* S	Sn	21 17 29.4	+0.4
SPN	Mys Shipunski	1.13	186	*i* P	Pn	21 17 10.9	-3.3
NLC	Nalytchevo	1.17	207	*i* P	Pn	21 17 13.1	-1.5
AVH	Avacha	1.29	223	*i* P	Pn	21 17 16.1	-0.1
GNL	Ganaly	1.44	250	*i* P	Pn	21 17 19.0	+1.1
GNL				*i* S	Sn	21 17 39.7	+2.8
INSR	Institute	1.50	220	*e*P	Pn	21 17 18.5	-0.2
INSR				*i* S	Sn	21 17 38.6	+0.4
PET	Petropavlovsk	1.51	218	*e*Pn	Pn	21 17 18.5	-0.3
PET				*e*Sn	Sn	21 17 36.3	-2.2
PET	Petropavlovsk	1.51	218	*e*PN	Pn	21 17 17.7	-1.2
PET				*e*S	Sn	21 17 38.2	-0.3
PET				pmax	pmax		
	comp=Z,700nm,2.2s						
PET				pmax	pmax		
	comp=Z,3µm,0.3s						
PET				pmax	pmax		
	comp=Z,8µm,1.5s						
PET				smax			
	comp=N,1µm,1.2s						
PET				smax			
	comp=E,19µm,0.5s						
PET				smax			
	comp=E,2µm,1.1s						
PET				smax			
	comp=E,21µm,0.5s						
PET				smax			
	comp=N,17µm,0.6s						
PET				smax			
	comp=N,21µm,0.4s						
PET	Petropavlovsk	1.51	218	*i* P	Pn	21 17 18.4	-0.5
PET				*i* S	Sn	21 17 38.7	+0.2
KMNR	Kamenistaya	1.54	1	*e*P	Pn	21 17 19.6	+0.4
BZMR	Bezymyannaya	1.73	5	*e*P	Pn	21 17 21.8	+0.2
KIRR	Kirishev	1.74	2	*e*P	Pn	21 17 21.9	+0.1
KPT	Kopyto	1.75	0	*e*P	Pn	21 17 21.9	0.0
ZLN	Zelenaya	1.84	10	*i* P	Pn	21 17 23.2	+0.2
KOZ	Kozyrevsk	1.86	354	*e*P	Pn	21 17 23.7	+0.5
KOZ				*i* S	Sn	21 17 47.6	+1.3
KOZR	Kozyr	1.86	355	PN	Pn	21 17 23.7	+0.4
CIRR	Tsirk	1.93	9	*i* P	Pn	21 17 24.4	+0.2
KRSR	Krestovskiy	2.02	6	*e*P	Pn	21 17 25.1	-0.2
RUS	Russkaya	2.06	210	*e*P	Pn	21 17 24.8	-1.0
RUS				*i* S	Sn	21 17 49.1	-1.9
GRL	Gorelyy	2.10	218	*e*P	Pn	21 17 26.9	+0.5
GRL				*i* S	Sn	21 17 52.1	0.0
KLY	Klyuchi	2.12	7	*i* P	Pn	21 17 26.7	+0.1
SRDR	Sredinnyy	2.12	353	*e*P	Pn	21 17 26.7	0.0
SRDR				*i* S	Sn	21 17 53.3	+0.7
BDR	Baidarnaya	2.42	13	*e*P	Pn	21 17 30.8	+0.1
SMKR	Semkarok	2.48	16	*e*P	Pn	21 17 31.2	-0.2
KBTR	Krutoberegovo	2.49	36	*e*P	Pn	21 17 29.2	-2.4
SRKR	Sorokina	2.50	12	*e*P	Pn	21 17 31.9	+0.2
MIPR	Malaya Ipel'ka	2.84	228	*e*P	Pn	21 17 37.3	+1.0
SKR	Severo-Kuril's	4.33	217	*e*PN	Pn	21 17 56.5	+0.1
SKR				*e*S	Sn	21 18 49.9	+4.2
SKR				pmax	pmax		
	comp=N,2µm,2.0s						
SKR				pmax	pmax		
	comp=E,2µm,2.0s						
SKR				pmax	pmax		
	comp=Z,2µm,2.0s						
SKR				pmax	pmax		
	comp=Z,2µm,1.0s						
SKR				pmax	pmax		
	comp=N,450nm,0.5s						
SKR				pmax	pmax		
	comp=E,370nm,0.5s						
SKR				smax			
	comp=N,3µm,2.0s						
SKR				smax			
	comp=E,4µm,2.0s						
SKR				smax			
	comp=N,2µm,0.5s						
SKR				smax			
	comp=E,2µm,0.9s						
ALID	Alaid	4.40	222	*e*P	Pn	21 17 58.4	+1.2
MA2	Magadan	7.45	320	Pn	Pn	21 18 40.9	+2.2
MA2	Magadan	7.45	320	⇑*e*PN	Pn	21 18 40.1	+1.4
MA2				pmax	pmax		
	comp=Z,39nm,1.3s						
SEY	Seymchan	9.64	338	⇑*e*PN	Pn	21 19 10.7	+2.3
YSS	Yuzh-Sakhalins	13.24	244	*e*Pn	Pn	21 19 56.4	-0.5
	comp=Z,16nm,0.8s						
YSS	Yuzh-Sakhalins	13.24	244	PN	Pn	21 20 00.0	+3.1
YSS				pmax	pmax		
	comp=E,40nm,1.0s						
YSS				pmax	pmax		
	comp=Z,30nm,1.0s						
BILL	Bilibino	14.16	9	Pn	Pn	21 20 06.0	-2.8
	comp=Z,9.3nm,0.6s						
BILL	Bilibino	14.16	9	*e*P	Pn	21 20 12.1	+3.3
BILL				pmax	pmax		
	comp=Z,16nm,1.1s						
ASAJ	Asahikawa	15.28	236	P	Pn	21 20 23.6	+0.3
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	15.28	236	P	Pn	21 20 23.6	+0.3
	comp=Z,2.4nm,0.3s,baz=79,slow=11,SNR=14						
ERM	Erimo	16.64	230	*e*Pn	Pn	21 20 39.4	-0.8
	comp=Z,50nm,0.5s						
ERM	Erimo	16.64	230	*e*P	Pn	21 20 39.4	-0.8
ERM				pmax	pmax		
	comp=Z,50nm,0.5s						
HABR	Khabarovsk	16.69	260	*e*P	Pn	21 20 44.5	+3.8
HABR				*e*S	S	21 23 50.9	0.0
HABR				pmax	pmax		
	comp=Z,31nm,1.3s						
GAMB	Gambell	17.20	45	*e*P	Pn	21 20 45.6	-1.2
GAMB				*e*		21 20 57.9	
YAK	Yakutsk	17.77	308	*e*Pn	Pn	21 20 53.9	0.0
	comp=Z,122nm,0.6s						
YAK	Yakutsk	17.77	308	*e*P	Pn	21 20 53.8	-0.1
YAK				pmax	pmax		
	comp=Z,87nm,0.8s						
YAK				pmax	pmax		
	comp=N,3.0nm,0.7s						
YAK				pmax	pmax		
	comp=E,21nm,0.9s						
KLR	Kul'dur	18.26	266	*e*P	Pn	21 20 58.0	-1.8
TNA	Tin City	19.35	42	*e*P	Pn	21 21 10.7	-1.9
	comp=E,22nm,0.8s						
CLNS	Chul'man	20.03	292	*e*P	P	21 21 20.9	+2.9
CLNS				pmax	pmax		
	comp=N,13nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,30nm,0.7s						
CLNS				pmax	pmax		
	comp=E,17nm,0.6s						
NRGR	Nerungri	20.14	291	*i* P	P	21 21 22.7	+3.5
MDJ	Mudanjiang	21.95	257	*e*P	P	21 21 38.0	-0.7
	comp=E,8.5nm,0.8s,mb4.1						
TIXI	Tiksi	22.09	334	*e*P	P	21 21 39.0	-0.9
	comp=E,5.4nm,0.5s,mb4.1						
TIXI				*e*PcP	PcP	21 25 33.7	+0.2
TIXI	Tiksi	22.09	334	*e*P	P	21 21 39.2	-0.8
TIXI				*e*		21 22 00.1	
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb3.9						
TIXI				MLR	MLR		
	comp=Z,71nm,14.0s						
MAJO	Matsushiro	23.32	230	*e*P	P	21 21 53.5	+1.1
	comp=Z,29nm,0.6s,mb4.8						
MAJO	Matsushiro	23.32	230	*e*P	P	21 21 53.6	+1.1
MAJO				pmax	pmax		
	comp=Z,29nm,0.6s,mb4.8						
MAT	Matsushiro	23.32	230	P	P	21 21 53.2	+0.8
MJAR	Matsushiro Arr	23.32	230	P	P	21 21 53.8	+1.4
MJAR				pmax	pmax		
	comp=Z,14nm,0.6s						
MJAR	Matsushiro Arr	23.32	230	P	P	21 21 53.8	+1.4
	comp=Z,14nm,0.6s,mb4.5,baz=13,slow=13,SNR=80						
CN2	Changchun	24.83	260	*e*P	P	21 22 06.0	-0.1
CN2				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.7						
HIA	Hailar	25.28	275	*e*P	P	21 22 09.6	-0.7
	comp=Z,24nm,0.6s,mb4.8						
HIA	Hailar	25.28	275	*d i*P	P	21 22 10.5	+0.3
BOD	Bodaibo	25.68	297	*e*P	P	21 22 12.5	-1.2
BOD				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.3						
KDAK	Kodiak Island	26.21	63	P	P	21 22 17.1	-1.4
	comp=Z,3.3nm,0.4s,mb4.1,baz=307,slow=8.9,SNR=9.7						
MCK	McKinley	27.15	49	*e*P	P	21 22 26.0	-0.9
COLA	College	27.57	47	*e*P	P	21 22 29.9	-0.7
	comp=Z,2.7nm,0.6s,mb4.0						
COLA	College	27.57	47	*e*P	P	21 22 30.4	-0.2
KSRS	Korea Array	27.72	246	P	P	21 22 34.0	+1.7
	comp=Z,3.2nm,0.7s,mb4.0,baz=36,slow=9.9,SNR=9.1						
KSRS				LR	LR	21 33 00.2	
	comp=Z,97nm,18.9s,baz=61,slow=35						
INCN	Inchon	28.40	248	P	P	21 22 38.3	0.0
JNU	Nakatsue	29.56	236	P	P	21 22 49.8	+1.2
	comp=Z,8.7nm,1.0s,mb4.3,baz=315,slow=5.7,SNR=4.6						
JNU				LR	LR	21 34 47.4	
	comp=Z,94nm,21.3s,baz=207,slow=36						
EGAK	Eagle	30.43	46	*e*P	P	21 22 54.8	-1.1
	comp=Z,7.2nm,0.6s,mb4.5						
EGAK				*e*	pP	21 23 12.8	-4.1
DAWY	Dawson	31.30	47	*e*P	P	21 23 03.9	+0.3
BJI	Beijing	32.57	262	P	P	21 23 15.2	+0.2
BJI				AMB	AMB		
	comp=Z,7.0nm,0.5s,mb4.8						
INK	Inuvik	32.94	39	*e*P	P	21 23 18.6	+0.7
INK				ScP	ScP	21 29 37.9	+2.7
INK	Inuvik	32.94	39	P	P	21 23 17.8	-0.2
	comp=Z,1.9nm,0.7s,mb4.1,baz=294,slow=12,SNR=6.0						
INK				ScP	ScP	21 29 37.9	+2.7
	comp=Z,0.5nm,0.3s,baz=326,slow=13,SNR=4.9						
TLY	Talaya	33.40	289	P	P	21 23 21.6	-0.6
SONM	Songino Array	33.73	282	P	P	21 23 24.7	-0.3
SONM						21 26 02.6	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.4s						
SONM				pmax	pmax		
	comp=Z,4.0nm,0.6s						
SONM	Songino Array	33.73	282	P	P	21 23 24.7	-0.3
	comp=Z,0.9nm,0.4s,mb4.0,baz=70,slow=8.2,SNR=22						
SONM				PcP	PcP	21 26 02.6	+0.3
	comp=Z,4.2nm,0.6s,baz=80,slow=1.7,SNR=26						
SONM				ScP	ScP	21 29 41.3	+3.0
	comp=Z,0.4nm,0.6s,baz=96,slow=3.0,SNR=4.2						
ZAK	Zakamensk	34.22	287	*e*P	P	21 23 30.0	+0.8
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.7						
MOY	Mondy	34.87	291	*e*P	P	21 23 34.9	+0.1
JOW	Kunigami	36.03	233	P	P	21 23 46.1	+1.1
	comp=Z,8.3nm,0.3s,mb5.1,baz=42,slow=8.2,SNR=14						
DLBC	Dease Lake	37.33	54	*e*P	P	21 23 57.6	+2.0
NACB	Ninganchiao	41.52	239	*e*P	P	21 24 30.7	-0.2
NACB				*e*	pP	21 24 47.8	-4.8
ZALV	Zalesovo Beam	42.24	302	P	P	21 24 34.7	-1.7
	comp=Z,2.0nm,0.6s,mb4.0,baz=53,slow=7.3,SNR=14						
ZALV				PcP	PcP	21 26 28.2	-0.3
	comp=Z,2.2nm,0.6s,baz=27,slow=6.8,SNR=4.6						
ZALV				ScP	ScP	21 30 12.3	+1.9
	comp=Z,0.6nm,0.6s,baz=46,slow=4.3,SNR=3.5						
ZAL	Zalesovo	42.25	302	P	P	21 24 34.7	-1.8
ZAL						21 26 28.3	
RES	Resolute Bay	42.26	22	*e*P	P	21 24 36.2	0.0
RES				*e*		21 24 52.5	
YKA	Yellowknife Ar	42.29	43	P	P	21 24 36.5	-0.1
YKA				PcP	PcP	21 26 28.5	0.0
YKA				ScP	ScP	21 30 11.1	+0.7
YKA	Yellowknife Ar	42.29	43	P	P	21 24 36.5	-0.2
YKA						21 26 28.5	
YKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
YKA	Yellowknife Ar	42.29	43	P	P	21 24 36.5	-0.1
	comp=Z,1.6nm,0.6s,mb3.9,baz=299,slow=8.0,SNR=16						
YKA				PcP	PcP	21 26 28.5	-0.1
	comp=Z,0.4nm,0.6s,baz=305,slow=3.7,SNR=4.2						
YKA				ScP	ScP	21 30 11.1	+0.7
	comp=Z,0.1nm,0.3s,baz=298,slow=3.2,SNR=4.0						
LZH	Lanzhou	42.43	268	*e*P	P	21 24 38.6	+0.5
LZH				AMB	AMB		
	comp=Z,21nm,1.2s,mb4.7						
LZH				AMB	AMB		
	comp=Z,89nm,4.3s						
LZH	Lanzhou	42.43	268	*e*P	P	21 24 38.6	+0.5
	comp=Z,21nm,1.2s,mb4.7						
LZH				pP	pP	21 24 46.2	-14
LZH				sP	sP	21 24 49.3	-21
NVS	Novosibirsk	42.54	304	*i* P	P	21 24 37.3	-1.5
NVS				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
NVS				pmax	pmax		
	comp=N,4.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,8.0nm,0.8s						
GTA	Gaotai	42.56	275	*e*P	P	21 24 39.5	+0.3
GTA				PCP	PcP	21 26 31.2	+1.3
GTA				AMB	AMB		
	comp=Z,11nm,0.7s,mb4.7						
ENH	Enshi	43.31	257	P	P	21 24 43.5	-1.9
KURK	Kurchatov	47.21	301	*e*P	P	21 25 14.3	-1.5
	comp=Z,8.6nm,0.4s,mb4.8						
KURK				*e*PcP	PcP	21 26 45.7	0.0
KURK	Kurchatov	47.21	301	*e*P	P	21 25 14.4	-1.4
KURK				*e*		21 26 45.7	
KURK				pmax	pmax		
	comp=Z,9.0nm,0.4s,mb4.8						
MK31	Makanchi Array	47.74	295	*e*P	P	21 25 18.5	-1.5
MKAR	Makanchi Array	47.74	295	P	P	21 25 18.7	-1.3
MKAR						21 26 47.8	
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.5s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	47.74	295	P	P	21 25 18.7	-1.3
	comp=Z,8.3nm,0.5s,mb4.8,baz=57,slow=7.7,SNR=120						
MKAR				PcP	PcP	21 26 47.8	+0.2
	comp=Z,1.1nm,0.6s,baz=54,slow=4.7,SNR=3.0						
MKAR				ScP	ScP	21 30 35.1	+1.9
	comp=Z,0.2nm,0.5s,baz=48,slow=6.2,SNR=3.0						
NEW	Newport	49.29	61	*e*P	P	21 25 30.9	-1.0
BRVK	Borovoye	49.78	308	*e*P	P	21 25 34.0	-1.5
	comp=Z,6.2nm,0.5s,mb4.8						
BRVK	Borovoye	49.78	308	*e*P	P	21 25 34.0	-1.5
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
WALA	Waterton Lakes	50.40	58	*e*P	P	21 25 40.4	+0.1
	comp=Z,13nm,1.4s,mb4.7						
ARCES	ARCESS Array B	52.24	342	P	P	21 25 51.9	-1.8
ARCES						21 27 03.1	
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES	ARCESS Array B	52.24	342	P	P	21 25 51.9	-1.9
	comp=Z,4.1nm,0.8s,mb4.5,baz=41,slow=10,SNR=3.7						
ARCES				PcP	PcP	21 27 03.1	-0.8
	comp=Z,3.7nm,0.8s,baz=23,slow=6.6,SNR=5.2						
FCC	Fort Churchill	52.56	39	*e*P	P	21 25 56.5	+0.2
	comp=Z,9.6nm,1.2s,mb4.7						
FCC				*e*	pP	21 26 13.9	-4.9
FCC				*e*PcP	PcP	21 27 05.5	+0.3
FCC	Fort Churchill	52.56	39	*e*P	P	21 25 56.5	+0.3
FCC				*e*	pP	21 26 13.9	-4.9
FCC				*e*		21 27 05.5	
FCC				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.7						
ARU	Arti	52.62	317	*e*P	P	21 25 55.5	-1.2
	comp=Z,6.3nm,0.6s,mb4.8						
ARU				*e*PcP	PcP	21 27 04.6	-0.9
ARU	Arti	52.62	317	⇓*i*P	P	21 25 55.7	-1.0
ARU				*e*		21 27 02.1	
ARU				*e*		21 27 57.6	
ARU				*e*PPP		21 29 00.7	
ARU				*e*S	S	21 33 15.7	-0.8
ARU				*e*SS	SS	21 36 49.5	-5.6
ARU				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
HLID	Hailey	53.83	64	*e*P	P	21 26 05.3	-0.4
CMB	Columbia Colle	54.42	73	P	P	21 26 11.4	+1.3

LSA	**Lhasa**	**54.44**	**273**	*e*P	**P**	**21 26 12.7**	**+2.3**
LSA	**Lhasa**	**54.44**	**273**	*e*P	**P**	**21 26 11.4**	**+1.1**
	comp=Z,7.5nm,0.6s,mb4.9						
LSA	**Lhasa**	**54.44**	**273**	*e*P	**P**	**21 26 11.4**	**+1.0**
LSA				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
AAK	**Ala-Archa**	**54.65**	**296**	*e*P	**P**	**21 26 10.1**	**-1.7**
	comp=Z,2.7nm,0.6s,mb4.5						
AAK				*e*	pP	21 26 29.7	-4.8
AAK	**Ala-Archa**	**54.65**	**296**	*e*P	**P**	**21 26 10.1**	**-1.6**
AAK				*e*	pP	21 26 29.7	-4.7
AAK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
UCH	**Uchtor**	**54.92**	**295**	P	**P**	**21 26 14.7**	**+1.0**
UCH				*e*PcP	PcP	21 27 15.3	+0.8
EKS2	**Erkin-Say**	**55.01**	**296**	*e*P	**P**	**21 26 13.5**	**-0.8**
	comp=Z,5.1nm,0.6s,mb4.7						
EKS2				*e*PcP	PcP	21 27 14.8	-0.1
NVAR	**Mina Array Bea**	**55.30**	**71**	P	**P**	**21 26 17.7**	**+1.3**
	comp=Z,1.5nm,0.6s,mb4.2,baz=313,slow=6.2,SNR=14						
AML	**Almayashu**	**55.43**	**296**	*e*P	**P**	**21 26 16.8**	**-0.5**
	comp=Z,1.8nm,0.5s,mb4.4						
JOF	**Joensuu**	**56.58**	**335**	*e*p	**P**	**21 26 23.5**	**-1.7**
	comp=Z,4.3nm,0.6s,mb4.7						
HWUT	**Hardware Ranch**	**56.70**	**64**	*e*P	**P**	**21 26 27.9**	**+1.5**
	comp=Z,2.6nm,0.7s,mb4.4						
BW06	**Boulder Array**	**56.92**	**62**	*e*P	**P**	**21 26 28.3**	**+0.4**
PDAR	**Pinedale Array**	**56.92**	**62**	P	**P**	**21 26 28.1**	**+0.2**
	comp=Z,1.7nm,0.6s,mb4.2,baz=325,slow=2.6,SNR=14						
DUG	**Dugway**	**57.04**	**66**	*e*P	**P**	**21 26 29.6**	**+0.8**
ULM	**Lac du Bonnet**	**58.00**	**47**	P	**P**	**21 26 34.8**	**-0.6**
	comp=Z,1.6nm,0.6s,mb4.2,baz=309,slow=7.7,SNR=2.9						
TAPN	**Taplejung**	**58.20**	**274**	*e*P	**P**	**21 26 36.8**	**-0.3**
	comp=Z,10nm,0.4s,mb5.2						
CHTO	**Chiang Mai**	**58.21**	**258**	*e*P	**P**	**21 26 37.6**	**+0.4**
	comp=Z,3.9nm,0.5s,mb4.7						
CHTO	**Chiang Mai**	**58.21**	**258**	*e*P	**P**	**21 26 37.6**	**+0.4**
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
KAF	**Kangasniemi**	**58.48**	**337**	*e*p	**P**	**21 26 37.6**	**-0.9**
	comp=Z,2.6nm,0.4s,mb4.6,baz=29,slow=6.5						
KAF	**Kangasniemi**	**58.48**	**337**	*e*P	**P**	**21 26 37.6**	**-0.9**
KAF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.7						
ODAN	**Odare**	**58.76**	**273**	*e*P	**P**	**21 26 41.3**	**+0.3**
	comp=Z,8.8nm,0.4s,mb5.1						
JIRN	**Jiri**	**58.86**	**275**	*e*P	**P**	**21 26 41.9**	**+0.2**
	comp=Z,3.5nm,0.3s,mb4.9						
FINES	**FINESS Array B**	**59.12**	**336**	*i* P	**P**	**21 26 43.0**	**0.0**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FINES	**FINESS Array B**	**59.12**	**336**	P	**P**	**21 26 42.3**	**-0.7**
	comp=Z,2.3nm,0.4s,mb4.5,baz=39,slow=8.3,SNR=34						
KKN	**Kakani**	**59.29**	**276**	*e*P	**P**	**21 26 44.2**	**-0.5**
	comp=Z,11nm,0.4s,mb5.3						
PKI	**Pulchoki**	**59.38**	**275**	*e*P	**P**	**21 26 44.8**	**-0.5**
GKN	**Gorkha**	**59.51**	**276**	*e*P	**P**	**21 26 44.8**	**-1.4**
	comp=Z,14nm,0.6s,mb5.2						
OBN	**Obninsk**	**61.61**	**327**	P	**P**	**21 26 59.5**	**-0.5**
OBN	**Obninsk**	**61.61**	**327**	*e*P	**P**	**21 26 59.2**	**-0.8**
OBN				*i*		21 27 39.8	
OBN				pmax	pmax		
	comp=Z,29nm,1.7s,mb5.0						
NB2	**NORSAR Subarra**	**62.48**	**344**	P	**P**	**21 27 04.6**	**-1.2**
	comp=Z,1.7nm,0.6s,mb4.2,baz=19,slow=6.9						
NOA	**NORSAR Array B**	**62.48**	**344**	P	**P**	**21 27 04.9**	**-0.9**
NOA						21 27 44.5	
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
NOA	**NORSAR Array B**	**62.48**	**344**	P	**P**	**21 27 04.8**	**-0.9**
	comp=Z,1.7nm,0.6s,mb4.2,baz=20,slow=6.6,SNR=7.7						
NOA				PcP	PcP	21 27 44.5	+0.3
	comp=Z,3.3nm,0.7s,baz=24,slow=3.4,SNR=10						
NAO01	**NORSAR Array S**	**62.72**	**344**	P	**P**	**21 27 07.5**	**+0.2**
KBL	**Kabul**	**63.45**	**293**	*e*P	**P**	**21 27 10.2**	**-2.5**
ANMO	**Albuquerque**	**64.31**	**66**	P	**P**	**21 27 19.3**	**+1.1**
SCHQ	**Schefferville**	**64.62**	**28**	*e*P	**P**	**21 27 19.6**	**-0.3**
SCHQ	**Schefferville**	**64.62**	**28**	P	**P**	**21 27 19.2**	**-0.8**
	comp=Z,3.5nm,0.7s,mb4.3,baz=313,slow=4.8,SNR=14						
AKASG	**Malin Array Be**	**67.69**	**329**	*i* P	**P**	**21 27 38.7**	**-0.9**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
AKASG	**Malin Array Be**	**67.69**	**329**	P	**P**	**21 27 38.0**	**-1.6**
	comp=Z,2.6nm,0.5s,mb4.3,baz=29,slow=6.4,SNR=17						
WMOK	**Wichita Mounta**	**68.49**	**60**	*e*P	**P**	**21 27 44.9**	**+0.1**
KIV	**Kislovodsk**	**68.67**	**317**	*e*P	**P**	**21 27 45.8**	**0.0**
KIV	**Kislovodsk**	**68.67**	**317**	*e*P	**P**	**21 27 45.8**	**0.0**
TXAR	**Lajitas Array**	**70.14**	**67**	P	**P**	**21 27 56.1**	**+1.0**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	**Lajitas Array**	**70.14**	**67**	P	**P**	**21 27 56.1**	**+0.9**
	comp=Z,1.1nm,0.6s,mb3.9,baz=296,slow=4.7,SNR=19						
KAKA	**Kakadu**	**70.72**	**209**	*e*P	**P**	**21 27 59.2**	**+0.5**
	comp=Z,4.0nm,0.6s,mb4.4						
PSI	**Prapat**	**71.27**	**248**	P	**P**	**21 28 02.8**	**+0.7**
PSI				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.9						
PSI	**Prapat**	**71.27**	**248**	P	**P**	**21 28 02.8**	**+0.7**
	comp=Z,12nm,0.6s,mb4.9,baz=338,slow=9.6,SNR=15						
CLL	**Collm**	**71.33**	**339**	*e*P	**P**	**21 28 02.0**	**0.0**
CLL				*e*pP	pP	21 28 21.0	-4.7
BURAR	**Bucovina Array**	**71.64**	**330**	⇓*i*P	**P**	**21 28 03.6**	**-0.3**
MORC	**Moravsky Berou**	**71.73**	**336**	*e*P	**P**	**21 28 04.3**	**-0.1**
PLOR	**Plostina**	**72.79**	**328**	⇑*i*P	**P**	**21 28 11.8**	**+1.0**
DRGR		**73.11**	**331**	⇑P	**P**	**21 28 12.4**	**-0.3**
DRGR		**73.11**	**331**	⇑*i*P	**P**	**21 28 12.4**	**-0.3**
KHC	**Kasperske Hory**	**73.26**	**338**	*e*P	**P**	**21 28 11.5**	**-2.0**
KHC				*e*		21 28 30.0	
KHC	**Kasperske Hory**	**73.26**	**338**	*e*P	**P**	**21 28 11.5**	**-2.0**
KHC				*e*PCP	PcP	21 28 30.0	+0.5
MLR	**Muntele Rosu**	**73.33**	**328**	⇑P	**P**	**21 28 15.1**	**+1.1**
MLR	**Muntele Rosu**	**73.33**	**328**	LR	LR	22 06 34.6	
	comp=Z,267nm,20.6s,baz=223,slow=41						
MLR	**Muntele Rosu**	**73.33**	**328**	⇑*i*P	**P**	**21 28 15.1**	**+1.1**
TIRR	**Tirgusor**	**73.47**	**326**	⇑P	**P**	**21 28 14.9**	**+0.1**
TIRR	**Tirgusor**	**73.47**	**326**	⇑*i*P	**P**	**21 28 14.9**	**+0.1**
GERES	**GERESS Array B**	**73.50**	**338**	P	**P**	**21 28 15.3**	**+0.4**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	**GERESS Array B**	**73.50**	**338**	P	**P**	**21 28 15.3**	**+0.3**
	comp=Z,1.2nm,0.6s,mb3.9,baz=25,slow=7.3,SNR=6.3						
BAIF	**Baives**	**74.16**	**344**	*e*P	**P**	**21 28 18.7**	**-0.1**
	comp=Z,19nm,0.9s,mb4.5						
BAIF	**Baives**	**74.16**	**344**	*e*P	**P**	**21 28 18.7**	**-0.1**
	comp=Z,9.4nm,0.9s,mb4.5						
BAIF	**Baives**	**74.16**	**344**	*e*P	**P**	**21 28 18.7**	**-0.1**
BAIF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.5						
GZR	**Gura Zlata**	**74.37**	**330**	⇑P	**P**	**21 28 20.4**	**+0.4**
GZR	**Gura Zlata**	**74.37**	**330**	⇑*i*P	**P**	**21 28 20.4**	**+0.4**
BZS	**Buzias**	**74.50**	**331**	⇓P	**P**	**21 28 20.9**	**+0.1**
BZS	**Buzias**	**74.50**	**331**	⇓*i*P	**P**	**21 28 20.9**	**+0.1**
MALT	**Malatya**	**75.15**	**316**	P	**P**	**21 28 20.2**	**-4.5**
CDF	**Champ du Feu**	**75.22**	**342**	*e*P	**P**	**21 28 25.3**	**+0.4**
	comp=Z,9.0nm,0.9s,mb4.2						
CDF	**Champ du Feu**	**75.22**	**342**	*e*P	**P**	**21 28 25.3**	**+0.4**
	comp=Z,4.5nm,0.9s,mb4.2						
CDF	**Champ du Feu**	**75.22**	**342**	*e*P	**P**	**21 28 25.3**	**+0.4**
CDF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.2						
KBA	**Koelnbreinsper**	**75.25**	**337**	⇑*i*P	**P**	**21 28 26.6**	**+1.5**
	comp=Z,6.7nm,0.7s,mb4.5						
KBA	**Koelnbreinsper**	**75.25**	**337**	⇑*i*P	**P**	**21 28 26.6**	**+1.5**
KBA				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
MEZF	**Maizieres J'vi**	**75.53**	**343**	*e*P	**P**	**21 28 27.1**	**+0.4**
	comp=Z,7.7nm,0.6s,mb4.3						
MEZF	**Maizieres J'vi**	**75.53**	**343**	*e*P	**P**	**21 28 27.1**	**+0.4**
	comp=Z,7.7nm,0.6s,mb4.6						
HAU	**Haudompre**	**75.78**	**342**	*e*P	**P**	**21 28 28.5**	**+0.4**
	comp=Z,3.2nm,0.5s,mb4.0						
HAU	**Haudompre**	**75.78**	**342**	*e*P	**P**	**21 28 28.5**	**+0.4**
	comp=Z,1.6nm,0.5s,mb4.0						
HAU	**Haudompre**	**75.78**	**342**	*e*P	**P**	**21 28 28.5**	**+0.4**
HAU				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.1						
BRTR	**Keskin Array B**	**75.80**	**320**	P	**P**	**21 28 26.9**	**-1.5**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BRTR	**Keskin Array B**	**75.80**	**320**	P	**P**	**21 28 26.9**	**-1.5**
	comp=Z,0.8nm,0.6s,mb3.6,baz=67,slow=2.2,SNR=6.1						
HINF	**Hinteralfeld**	**75.87**	**342**	*e*P	**P**	**21 28 29.0**	**+0.4**
LDF	**La Druitiere**	**76.23**	**347**	*e*P	**P**	**21 28 30.9**	**+0.3**
VTS	**Vitosha**	**76.79**	**329**	⇓P	**P**	**21 28 34.1**	**+0.2**
VTS	**Vitosha**	**76.79**	**329**	⇓*i*P	**P**	**21 28 34.1**	**+0.2**
LOR	**Lormes**	**76.92**	**344**	*e*P	**P**	**21 28 34.6**	**0.0**
	comp=Z,15nm,0.8s,mb4.5						
LOR	**Lormes**	**76.92**	**344**	*e*P	**P**	**21 28 34.6**	**0.0**
	comp=Z,7.5nm,0.8s,mb4.5						
LOR	**Lormes**	**76.92**	**344**	*e*P	**P**	**21 28 34.6**	**0.0**
LOR				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
WB2	**Warramunga Arr**	**77.13**	**205**	*e*P	**P**	**21 28 36.3**	**+0.4**
WB2	**Warramunga Arr**	**77.13**	**205**	*e*P	**P**	**21 28 36.6**	**+0.7**
WRA	**Warramunga Arr**	**77.13**	**205**	*i* P	**P**	**21 28 36.5**	**+0.6**
WRA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WRA	**Warramunga Arr**	**77.13**	**205**	P	**P**	**21 28 36.2**	**+0.2**
	comp=Z,1.8nm,0.7s,mb3.9,baz=22,slow=6.2,SNR=42						
SSF	**Saint Saulge**	**77.18**	**344**	*e*P	**P**	**21 28 36.0**	**0.0**
	comp=Z,8.0nm,0.8s,mb4.2						
SSF	**Saint Saulge**	**77.18**	**344**	*e*P	**P**	**21 28 36.0**	**0.0**
	comp=Z,4.0nm,0.8s,mb4.2						
SSF	**Saint Saulge**	**77.18**	**344**	*e*P	**P**	**21 28 36.0**	**0.0**
SSF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
AVF	**Avril sur Loir**	**77.47**	**344**	*e*P	**P**	**21 28 37.6**	**-0.1**
	comp=Z,21nm,1.0s,mb4.5						
AVF	**Avril sur Loir**	**77.47**	**344**	*e*P	**P**	**21 28 37.6**	**-0.1**
	comp=Z,11nm,1.0s,mb4.5						
AVF	**Avril sur Loir**	**77.47**	**344**	*e*P	**P**	**21 28 37.6**	**-0.1**
AVF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.5						
FITZ	**Fitzroy Crossi**	**77.88**	**214**	*e*P	**P**	**21 28 41.5**	**+1.4**
	comp=Z,2.9nm,0.6s,mb4.2						
PALK	**Pallekele**	**78.00**	**266**	*e*P	**P**	**21 28 41.4**	**+0.3**
LPL	**La Plagne**	**78.11**	**341**	*e*P	**P**	**21 28 42.0**	**+0.8**
	comp=Z,16nm,0.8s,mb4.5						
LPL	**La Plagne**	**78.11**	**341**	*e*P	**P**	**21 28 42.0**	**+0.8**
	comp=Z,7.8nm,0.8s,mb4.5						
LPL	**La Plagne**	**78.11**	**341**	*e*P	**P**	**21 28 42.0**	**+0.8**
LPL				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.5						
LPG	**La Plagne**	**78.13**	**341**	*e*P	**P**	**21 28 42.4**	**+1.1**
	comp=Z,11nm,0.7s,mb4.4						
LPG	**La Plagne**	**78.13**	**341**	*e*P	**P**	**21 28 42.4**	**+1.1**
	comp=Z,5.5nm,0.7s,mb4.4						
LPG	**La Plagne**	**78.13**	**341**	*e*P	**P**	**21 28 42.4**	**+1.1**
LPG				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
TCF	**Toulx Ste Croi**	**78.14**	**345**	*e*P	**P**	**21 28 41.4**	**0.0**
	comp=Z,13nm,0.7s,mb4.5						
TCF	**Toulx Ste Croi**	**78.14**	**345**	*e*P	**P**	**21 28 41.4**	**0.0**
	comp=Z,6.4nm,0.7s,mb4.5						
TCF	**Toulx Ste Croi**	**78.14**	**345**	*e*P	**P**	**21 28 41.4**	**0.0**
TCF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
ORIF	**Oris-en-Rattie**	**78.85**	**342**	*e*P	**P**	**21 28 46.0**	**+0.7**
	comp=Z,16nm,0.9s,mb4.5						
ORIF	**Oris-en-Rattie**	**78.85**	**342**	*e*P	**P**	**21 28 46.0**	**+0.7**
	comp=Z,7.8nm,0.9s,mb4.5						
ORIF	**Oris-en-Rattie**	**78.85**	**342**	*e*P	**P**	**21 28 46.0**	**+0.7**
ORIF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
MBDF	**Montbardon**	**78.86**	**341**	*e*P	**P**	**21 28 46.2**	**+0.8**
	comp=Z,10.0nm,0.7s,mb4.5						
MBDF	**Montbardon**	**78.86**	**341**	*e*P	**P**	**21 28 46.2**	**+0.8**
	comp=Z,5.0nm,0.7s,mb4.5						
MBDF	**Montbardon**	**78.86**	**341**	*e*P	**P**	**21 28 46.2**	**+0.8**
MBDF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
VIVF	**Saint-Julien-l**	**79.12**	**343**	*e*P	**P**	**21 28 46.8**	**0.0**
RJF	**Les Rejaudoux**	**79.21**	**345**	*e*P	**P**	**21 28 47.7**	**+0.4**
CAF	**Calviac**	**79.49**	**344**	*e*P	**P**	**21 28 49.4**	**+0.6**
	comp=Z,6.8nm,0.8s,mb4.2						
CAF	**Calviac**	**79.49**	**344**	*e*P	**P**	**21 28 49.4**	**+0.6**
	comp=Z,3.4nm,0.8s,mb4.2						
CAF	**Calviac**	**79.49**	**344**	*e*P	**P**	**21 28 49.4**	**+0.6**
CAF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
SBF	**Sospel**	**79.57**	**340**	*e*P	**P**	**21 28 49.9**	**+0.7**
FRF	**La Foret Royal**	**80.01**	**341**	*e*P	**P**	**21 28 52.1**	**+0.5**
LASF	**Ste Croix**	**80.02**	**343**	*e*P	**P**	**21 28 52.2**	**+0.5**
LMR	**La Mourre**	**80.26**	**341**	*e*P	**P**	**21 28 53.2**	**+0.2**
PGF	**Pioggiola**	**80.51**	**339**	*e*P	**P**	**21 28 54.8**	**+0.5**
ASAR	**Alice Springs**	**80.81**	**204**	P	**P**	**21 28 57.2**	**+1.2**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	**Alice Springs**	**80.81**	**204**	P	**P**	**21 28 57.1**	**+1.2**
	comp=Z,1.4nm,0.6s,mb4.0,baz=16,slow=5.1,SNR=22						
MTLF	**Montolieu**	**81.01**	**344**	*e*P	**P**	**21 28 57.2**	**+0.2**
	comp=Z,10nm,0.8s,mb4.4						
MTLF	**Montolieu**	**81.01**	**344**	*e*P	**P**	**21 28 57.2**	**+0.2**
	comp=Z,5.2nm,0.8s,mb4.4						
MTLF	**Montolieu**	**81.01**	**344**	*e*P	**P**	**21 28 57.2**	**+0.2**
MTLF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
EPF	**Esparros**	**81.61**	**345**	*e*P	**P**	**21 29 00.6**	**+0.5**
ESDC	**Sonseca Array**	**85.50**	**348**	P	**P**	**21 29 20.4**	**+0.3**
	comp=Z,4.4nm,0.6s,mb4.6,baz=0.9,slow=4.9,SNR=28						
KEST	**Kesra**	**86.95**	**337**	P	**P**	**21 29 27.4**	**+0.1**
	comp=Z,2.3nm,0.7s,mb4.2,baz=217,slow=2.3,SNR=6.2						
SUR	**Sutherland**	**143.97**	**291**	PKP	PKPdf	21 36 17.5	+0.6
SUR	**Sutherland**	**143.97**	**291**	PKP	PKPdf	21 36 17.5	+0.6
	comp=Z,19nm,1.1s,baz=59,slow=12,SNR=3.9						

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*NEIC **11** 21:44:07.4, 3159S×7169W, h29^{km}, ML2.7(GUC), After GUC.*

GUC 11 21:44:07.4±0.6**, 3159S×7169W, h29**^{km}±4^{km}**, MD3.8, ML2.7, 2C-3D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHNG	**Los Chungos**	**0.34**	**152**	⇓*i*P	Pb	21 44 03.7	-12
CHNG				*i* S	Sb	21 44 09.2	-11
CMCH	**Combarbala**	**0.72**	**55**	⇑*i*P	Pb	21 44 20.9	-0.5
CMCH				*i* S	Sb	21 44 31.4	+0.5
CMCH	**Combarbala**	**0.72**	**55**	⇑*i*P	Pb	21 44 20.9	-0.5
CMCH				*i* S	Sb	21 44 31.4	+0.5
CMCH				AML	AML	21 44 37.6	
	comp=N,857nm,0.9s						
TLL	**Tololo Astrono**	**1.61**	**28**	*e*P	Pn	21 44 35.3	+1.5
TLL				*i* S	Sn	21 44 56.6	+3.1
TLL	**Tololo Astrono**	**1.61**	**28**	*e*P	Pn	21 44 35.3	+1.5
TLL				*i* S	Sn	21 44 56.6	+3.1
TLL				AML	AML	21 45 04.5	
	comp=E,86nm,0.3s						
PEL	**Peldehue**	**1.77**	**152**	⇓*e*P	Pn	21 44 37.5	+1.4
PEL				*i* S	Sn	21 45 00.5	+2.9
PEL				AML	AML	21 45 06.1	
	comp=E,168nm,0.4s						
RCDM	**Rinconada Maip**	**2.04**	**159**	⇓*i*P	Pn	21 44 40.8	+1.0
RCDM				*i* S	Sn	21 45 07.6	+3.4
FCH	**Farellones**	**2.10**	**146**	*e*P	Pn	21 44 42.8	+2.2
FCH				*i* S	Sn	21 45 09.5	+3.8
TACH	**Talagante**	**2.15**	**163**	*i* P	Pn	21 44 42.8	+1.4
PCH	**Pirque**	**2.26**	**154**	*e*P	Pn	21 44 45.3	+2.5
SFDO	**San Fernando**	**3.07**	**170**	*e*P	Pn	21 44 55.7	+1.7

MAN 11 21:49:45, 933N×12605E, h29^{km}**, mb4.6, ML3.5, MS3.4, 1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCPH	**Surigao**	**0.71**	**309**	⇓*e*P	Pb	21 49 59.0	+0.2
SCPH				*e*S	Sb	21 50 10.6	+2.2
MSLP	**Maasin**	**1.42**	**304**	*e*P	Pn	21 50 10.2	+1.3
CGP	**Cagayan de Oro**	**1.60**	**237**	*e*P	Pn	21 50 11.2	-0.1
CGP				*e*S	Sn	21 50 31.3	+0.3
BUKP	**Musuan**	**1.74**	**214**	*e*P	Pn	21 50 13.4	+0.1
PLP	**Palo**	**2.10**	**330**	*e*P	Pn	21 50 19.2	+0.9
PLP				*e*S	Sn	21 50 46.9	+3.5
TBP	**Tagbilaran**	**2.19**	**280**	*e*P	Pn	21 50 20.5	+1.1
LLP	**Lapu-Lapu**	**2.27**	**296**	*e*P	Pn	21 50 22.0	+1.4
LLP				*e*S	Sn	21 50 47.2	-0.5
BESP	**Borongan**	**2.33**	**345**	*e*P	Pn	21 50 22.0	+0.5
MATI	**Mati**	**2.38**	**175**	*e*P	Pn	21 50 23.0	+0.9
MATI				*e*S	Sn	21 50 51.7	+1.4
PAGZ	**Pagadian**	**3.02**	**241**	*e*P	Pn	21 50 32.3	+1.4
CNP	**Catarman**	**3.44**	**337**	*e*P	Pn	21 50 37.6	+0.9
PVCP	**Virac**	**4.63**	**337**	*e*P	Pn	21 50 54.5	+1.5

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*NEIC **11** 21:52:42.9, 1807N×93.18W, h103^{km}, MD4.4(MEX), After MEX.*

MEX 11 21:52:43.0±0.9**, 1805N×9318W, h106**^{km}±31^{km}**, MD4.4, Bay of Campeche**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCX	**San Cristobal**	**1.41**	**158**	*i* P	Pn	21 53 06.5	-2.0
SCX				*i* S	Sn	21 53 27.0	-0.8
CMIG	**Matias Romero**	**1.88**	**240**	*i* P	Pn	21 53 13.5	-0.8
CMIG				*i* S	Sn	21 53 36.5	-1.7
CCIG	**Comitan**	**2.02**	**150**	*e*P	Pn	21 53 15.3	-0.8
CCIG				*i* S	Sn	21 53 41.7	+0.3
CCIG	**Comitan**	**2.02**	**150**	*e*P	Pn	21 53 15.3	-0.8
CCIG				*i* S	Sn	21 53 40.8	-0.6
SCIG	**Sabancuy**	**2.11**	**64**	*e*P	Pn	21 53 16.5	-0.7
SCIG				*e*S	Sn	21 53 42.0	-1.3
OXX	**Oaxaca**	**3.51**	**255**	*e*P	Pn	21 53 36.0	+0.3
UTMO	**Huajuapan**	**4.40**	**268**	*e*P	Pn	21 53 46.9	-0.9
UTMO				*i* S	Sn	21 54 35.9	-2.1

IDC 11 22:17:40.8±2.1**, 127N×12670E, h0**^{km}**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.3**/16**, mbtmp3.4**/3**, Error ellipse: s-maj=172.5km s-min=25.3km az=66.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**22.37**	**161**	P	P	22 22 40.0	-0.7
	0.6nm,0.4s,baz=339,slow=11,SNR=12						
ASAR	**Alice Springs**	**25.76**	**165**	P	P	22 23 14.2	+0.8
	0.2nm,0.3s,baz=344,slow=11,SNR=5.2						
MKAR	**Makanchi Array**	**59.56**	**326**	P	P	22 27 46.2	0.0
	0.3nm,0.5s,baz=120,slow=8.0,SNR=7.0						

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*IDC **11** 22:50:52.3±2.6, 252N×9579E, h0^{km}, mb3.6/4, mb1 3.7/5, mb1mx3.4/21, mbtmp3.6/5, ML3.2/1, Error ellipse: s-maj=71.3km s-min=25.4km az=47.0*

*ISCJB **11** 22:50:53.1±5.6, 250N±008×957E±02, h19^{km}±41^{km}, mb3.8/6, Error ellipse: s-maj=25.6km s-min=13.7km az=169.9*

*NEIC **11** 22:50:56.5±0.6, 249N×9577E, h30^{km}, mb4.0/2, Error ellipse: s-maj=14.6km s-min=9.1km az=64.0*

ISC 11 22:50:55.7±5.3**, 249N**±009×**958E**±01**, h22**^{km}±40^{km}**, n15, σ0**^{s}**79**/15**, mb3.8**/6**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	**3.16**	**84**	Pn	**Pn**	**22 51 44.3**	**+0.2**
PSI	**Prapat**	**3.16**	**84**	Pn	**Pn**	**22 51 44.3**	**+0.2**
	2.5nm,0.3s,baz=267,slow=7.8,SNR=12						
KULM	**Kulim**	**5.60**	**60**	*e*Pn	**Pn**	**22 52 17.4**	**-0.3**
COCO	**West Island**	**14.62**	**176**	Pn	**Pn**	**22 54 21.2**	**-0.1**
LSA	**Lhasa**	**27.42**	**351**	*e*P	**P**	**22 56 41.2**	**+1.4**
	2.0nm,0.7s,mb3.8						
NWAO	**Narrogin (SRO)**	**40.65**	**152**	P	**P**	**22 58 34.4**	**+0.1**
WRA	**Warramunga Arr**	**43.92**	**122**	P	**P**	**22 59 00.8**	**-0.3**
	0.2nm,0.6s,mb3.1,baz=302,slow=9.0,SNR=5.2						
WB2	**Warramunga Arr**	**43.93**	**122**	*e*P	**P**	**22 59 01.6**	**+0.4**
EKS2	**Erkin-Say**	**44.57**	**337**	*e*P	**P**	**22 59 03.4**	**-2.6**
MK31	**Makanchi Array**	**45.67**	**347**	*e*P	**P**	**22 59 15.4**	**+0.7**
MKAR	**Makanchi Array**	**45.67**	**347**	P	**P**	**22 59 15.2**	**+0.6**
	1.0nm,0.7s,mb3.9,baz=165,slow=8.2,SNR=16						
SONM	**Songino Array**	**46.10**	**10**	P	**P**	**22 59 17.1**	**-0.9**
	0.6nm,0.5s,mb3.8,baz=192,slow=9.8,SNR=8.3						
KURK	**Kurchatov**	**50.20**	**346**	*e*P	**P**	**22 59 49.5**	**-0.2**
	0.9nm,0.5s,mb4.1						
ZALV	**Zalesovo Beam**	**52.08**	**352**	P	**P**	**23 00 03.5**	**-0.2**
	0.8nm,0.4s,mb4.0,baz=179,slow=7.2,SNR=8.5						
BRVK	**Borovoye**	**54.64**	**341**	P	**P**	**23 00 22.9**	**+0.3**

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*HLW **11** 23:46:35.1, 3158N×3599E, h15^{km}, Mb4.0*

*SGS **11** 23:46:40.3, 3131N×3546E, h7^{km}*

*CSEM **11** 23:46:42.9±0.1, 31.10N×3551E, h20^{km}, Mw2.6, Error ellipse: s-maj=3.1km s-min=1.2km az=94.0*

*ISCJB **11** 23:46:43.3±0.7, 3109N±003×3552E±007, h21^{km}±6^{km}, Error ellipse: s-maj=10.2km s-min=4.0km az=10.9*

*GII **11** 23:46:43.6±0.1, 31.11N×3549E, h13^{km}±1^{km}, ML3.3/8, Mw2.6/5*

ISC 11 23:46:43.0±0.7**, 3109N**±002×**3553E**±007**, h13**^{km}±5^{km}**, n53, σ0**^{s}**82**/64**, 6D, Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MZDA	**Masada**	**0.26**	**327**	Pg	**Pg**	**23 46 48.8**	**+0.4**
MZDA				Sg	**Sg**	**23 46 52.9**	**+0.8**
MZDA	**Masada**	**0.26**	**327**	⇓Pg	**Pg**	**23 46 48.8**	**+0.4**
MZDA				Sg	**Sg**	**23 46 52.9**	**+0.8**
YTIR	**Yattir**	**0.44**	**308**	Pg	**Pg**	**23 46 52.2**	**+0.5**
YTIR	**Yattir**	**0.44**	**308**	⇓Pg	**Pg**	**23 46 52.2**	**+0.5**
DSI	**Dead Sea**	**0.49**	**345**	Pg	**Pg**	**23 46 53.6**	**+1.0**
DSI	**Dead Sea**	**0.49**	**345**	⇑Pg	**Pg**	**23 46 53.6**	**+0.9**
DRGI	**Dragot**	**0.51**	**347**	Pg	**Pg**	**23 46 53.2**	**+0.2**
DRGI	**Dragot**	**0.51**	**347**	⇑Pg	**Pg**	**23 46 53.2**	**+0.1**
ZFRI	**Zfri**	**0.61**	**209**	Pg	**Pg**	**23 46 55.2**	**+0.3**
ZFRI	**Zfri**	**0.61**	**209**	⇓Pg	**Pg**	**23 46 55.2**	**+0.3**
MASH	**Mash'abbe Sade**	**0.64**	**262**	Pg	**Pg**	**23 46 55.4**	**-0.1**
MASH	**Mash'abbe Sade**	**0.64**	**262**	⇑Pg	**Pg**	**23 46 55.4**	**-0.1**
RMNI	**Mount Ramon**	**0.82**	**233**	Pg	**Pg**	**23 46 59.3**	**+0.5**
RMNI	**Mount Ramon**	**0.82**	**233**	⇑Pg	**Pg**	**23 46 59.3**	**+0.4**
PRNI	**Paran**	**0.86**	**211**	Pg	**Pg**	**23 46 59.7**	**0.0**
PRNI				Sg	**Sg**	**23 47 12.1**	**+1.2**
PRNI	**Paran**	**0.86**	**211**	⇓Pg	**Pg**	**23 46 59.7**	**0.0**
PRNI				Sg	**Sg**	**23 47 12.1**	**+1.2**
KZIT	**Kziot**	**0.99**	**259**	Pg	**Pg**	**23 47 01.4**	**-0.6**
KZIT				Sg	**Sg**	**23 47 14.8**	**-0.1**
KZIT	**Kziot**	**0.99**	**259**	⇑Pg	**Pg**	**23 47 01.4**	**-0.6**
KZIT				Sg	**Sg**	**23 47 14.8**	**-0.1**
HRFI	**Mount Harif**	**1.13**	**202**	Pg	**Pg**	**23 47 03.9**	**-0.9**
HRFI	**Mount Harif**	**1.13**	**202**	Pg	**Pg**	**23 47 03.9**	**-0.9**
HMDT	**Nahal Hemdat**	**1.16**	**0**	Pg	**Pg**	**23 47 04.3**	**-1.0**
HMDT	**Nahal Hemdat**	**1.16**	**0**	⇓Pg	**Pg**	**23 47 04.3**	**-1.0**
KRMI	**Paran Flat**	**1.19**	**216**	Pg	**Pg**	**23 47 05.7**	**-0.2**
KRMI	**Paran Flat**	**1.19**	**216**	Pg	**Pg**	**23 47 05.6**	**-0.3**
SLTI	**Sal'it**	**1.22**	**340**	Pg	**Pg**	**23 47 05.1**	**-1.3**
SLTI				Sg	**Sg**	**23 47 21.9**	**-0.4**
SLTI	**Sal'it**	**1.22**	**340**	⇑Pg	**Pg**	**23 47 05.1**	**-1.3**
SLTI				Sg	**Sg**	**23 47 21.9**	**-0.4**
MMLI	**Mount Malkishu**	**1.34**	**356**	Pn	**Pn**	**23 47 07.1**	**-0.3**
MMLI	**Mount Malkishu**	**1.34**	**356**	⇑Pn	**Pn**	**23 47 07.1**	**-0.3**
MBH	**Mount Berech**	**1.40**	**202**	Pn	**Pn**	**23 47 09.0**	**+0.9**
MBH	**Mount Berech**	**1.40**	**202**	⇓Pn	**Pn**	**23 47 09.0**	**+0.9**
AQBJ	**Aqaba**	**1.42**	**197**	Pn	**Pn**	**23 47 09.0**	**+0.6**
EIL	**Elat**	**1.50**	**199**	Pn	**Pn**	**23 47 09.7**	**+0.1**
EIL				Sn	**Sn**	**23 47 30.4**	**+1.4**
EIL	**Elat**	**1.50**	**199**	Pn	**Pn**	**23 47 09.7**	**+0.2**
OFRI	**'Ofer**	**1.59**	**343**	Pn	**Pn**	**23 47 10.9**	**+0.1**
OFRI	**'Ofer**	**1.59**	**343**	⇑Pn	**Pn**	**23 47 10.9**	**+0.1**
HNKL	**Nakhl**	**1.77**	**229**	P	**Pn**	**23 47 13.0**	**-0.2**
HQLS		**1.83**	**193**	P	**Pn**	**23 47 13.0**	**-1.1**
HQLS				S	**Sn**	**23 47 37.6**	**+0.5**
HQLS		**1.83**	**193**	P	**Pn**	**23 47 13.0**	**-1.0**
HBST	**Basata**	**1.99**	**200**	P	**Pn**	**23 47 16.5**	**+0.2**
AMAG	**Maghara**	**2.04**	**258**	P	**Pn**	**23 47 16.1**	**-0.9**
JLOS		**2.35**	**181**	P	**Pn**	**23 47 20.5**	**-0.7**
JLOS				S	**Sn**	**23 47 50.2**	**+0.3**
JLOS		**2.35**	**181**	P	**Pn**	**23 47 20.6**	**-0.7**
MATL	**Matirih**	**2.40**	**356**	*e*Pn	**Pn**	**23 47 24.4**	**+2.6**
HDHB	**Dhahab**	**2.49**	**199**	P	**Pn**	**23 47 22.5**	**-0.6**
SUZ		**2.64**	**242**	P	**Pn**	**23 47 24.6**	**-0.5**
BHL	**Bhannes**	**2.81**	**2**	*e*Pn	**Pn**	**23 47 29.9**	**+2.4**
RSHS		**2.85**	**193**	P	**Pn**	**23 47 26.7**	**-1.5**
RSHS		**2.85**	**193**	S	**Sg**	**23 48 10.0**	**-4.7**
HKAT	**Jabal Katrina**	**2.89**	**208**	P	**Pn**	**23 47 28.3**	**-0.3**
HRDS	**Abu Rudays**	**3.06**	**220**	P	**Pn**	**23 47 31.1**	**+0.1**
ZAF		**3.15**	**236**	P	**Pn**	**23 47 32.2**	**0.0**
HWQ	**Hawqa**	**3.20**	**6**	*e*Pn	**Pb**	**23 47 38.8**	**-0.8**
GLL	**Jalalah**	**3.63**	**246**	P	**Pn**	**23 47 37.8**	**-1.0**

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*IDC **12** 00:43:39.5±1.4, 3451N×32.19E, h0^{km}, mb3.8/1, mb1 3.4/7, mb1mx3.2/22, mbtmp3.2/7, ML3.3/6, Error ellipse: s-maj=31.6km s-min=15.3km az=45.0*

*CSEM **12** 00:43:40.1±0.1, 3448N×3202E, h20^{km}, Mw3.3, Error ellipse: s-maj=4.1km s-min=1.9km az=96.0*

*ISCJB **12** 00:43:41.5±0.7, 3447N±003×3208E±004, h31^{km}±6^{km}, mb3.5/1, Error ellipse: s-maj=5.6km s-min=5.3km az=165.0*

NIC ***12*** *00:43:42.3±0.1, 34.47N×32.07E, h25^{km}, ML3.4, MW3.3*
NEIC ***12*** *00:43:42.3, 34.47N×32.07E, h25^{km}, ML3.4(NIC), After NIC.*
HLW ***12*** *00:43:43.5, 34.49N×32.14E, h33^{km}, Mb3.5*
ISC 12 00:43:42.6±0.8**, 34.51N**±0.03×**32.14E**±0.04**, h23^{km}**±8^{km}**, n40, σ0^{s}78**/54**, mb3.5**/1**, 8C-1D, Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPCY	Paphos	0.41	24	⇑iP	Pb	00 43 51.3	0.0
AKMC	Akamas	0.54	17	⇑iP	Pb	00 43 53.4	-0.1
SZAC	Souni-Zanaja	0.66	68	P	Pb	00 43 55.2	-0.3
	35nm,0.2s						
SZAC				S	Sb	00 44 05.2	+1.0
ALFC	Alevga	0.75	30	⇑iP	Pb	00 43 56.4	-0.6
	22nm,0.2s						
ALFC				S	Sb	00 44 07.5	+0.7
CSS	Prodhromos	1.08	65	P	Pn	00 44 01.3	-1.0
	14nm,0.3s						
CSS				S	Sb	00 44 15.7	-0.6
MAMC	Mammari	1.11	53	⇑eP	Pn	00 44 02.4	-0.2
PHNC	Paralimni	1.64	72	P	Pn	00 44 11.3	+1.4
	6.4nm,0.5s						
PHNC				S	Sn	00 44 31.8	+1.6
BHL	Bhannes	2.97	101	ePn	Pn	00 44 28.2	-0.1
BHL	Bhannes	2.97	101	ePn	Pn	00 44 28.2	-0.1
MMAI	Mount Meron Ar	3.10	118	Pn	Pn	00 44 28.9	-1.1
	7.1nm,0.3s,baz=307,slow=13,SNR=116						
MMAI				Sn	Sn	00 45 06.0	-0.3
	14nm,0.3s,baz=311,slow=26,SNR=10						
HWQ	Hawqa	3.15	93	ePn	Pn	00 44 30.2	-0.6
HWQ	Hawqa	3.15	93	ePn	Pn	00 44 30.2	-0.6
RCY	Rachaya	3.22	107	ePn	Pn	00 44 30.6	-1.1
RCY	Rachaya	3.22	107	ePn	Pn	00 44 30.6	-1.1
AMAG	Maghara	3.96	167	P	Pn	00 44 41.5	-0.3
ASF	Jabal al Asfar	4.61	119	Pn	Pn	00 44 50.9	0.0
ASF				Sn	Sn	00 45 47.1	+3.4
ASF	Jabal al Asfar	4.61	119	Pn	Pn	00 44 50.9	0.0
	0.7nm,0.3s,baz=180,slow=6.9,SNR=12						
ASF				Sn	Sn	00 45 47.1	+3.4
	0.4nm,0.3s,baz=291,slow=16,SNR=2.9						
ASF	Jabal al Asfar	4.61	119	Pn	Pn	00 44 50.9	+0.1
ASF				Sn	Sn	00 45 47.1	+3.5
SUZ		4.69	173	P	Pn	00 44 51.9	0.0
HNKL	Nakhl	4.82	161	P	Pn	00 44 53.7	-0.1
GLL	Jalalah	4.93	184	⇓P	Pn	00 44 55.2	+0.1
ZAF		5.22	176	⇑P	Pn	00 44 59.3	+0.1
BRTR	Keskin Array B	5.35	13	Pn	Pn	00 45 01.6	+0.7
BRTR				Pg	Pn	00 45 13.2	+12
BRTR	Keskin Array B	5.35	13	Pn	Pn	00 45 01.6	+0.7
	0.1nm,0.3s,baz=189,slow=17,SNR=3.3						
BRTR				Pg	Pn	00 45 13.2	+12
	0.1nm,0.3s,baz=194,slow=13,SNR=4.5						
BRTR	Keskin Array B	5.35	13	Pn	Pn	00 45 01.6	+0.7
EIL	Elat	5.38	153	Pn	Pn	00 45 01.5	+0.1
EIL				Sn	Sn	00 46 02.4	-0.2
EIL	Elat	5.38	153	Pn	Pn	00 45 01.5	+0.1
	0.5nm,0.3s,baz=314,slow=8.6,SNR=13						
EIL				Sn	Sn	00 46 02.4	-0.1
	1.5nm,0.3s,baz=62,slow=14,SNR=6.9						
EIL	Elat	5.38	153	Pn	Pn	00 45 01.5	+0.1
HBST	Basata	5.71	157	⇑eP	Pn	00 45 06.1	+0.1
IDI	Anoyia	6.01	280	Pn	Pn	00 45 11.9	+1.9
IDI				Sn	Sn	00 46 18.6	+0.5
IDI	Anoyia	6.01	280	Pn	Pn	00 45 11.9	+1.9
	0.4nm,0.3s,baz=85,slow=7.0,SNR=8.1						
IDI				Sn	Sn	00 46 18.6	+0.5
	0.8nm,0.3s,baz=3.8,slow=15,SNR=5.4						
HDHB	Dhahab	6.14	159	⇑eP	Pn	00 45 12.0	+0.2
HKAT	Jabal Katrina	6.17	165	P	Pn	00 45 12.6	+0.3
SHRM		6.81	165	⇑eP	Pn	00 45 21.5	+0.4
AKASG	Malin Array Be	16.33	353	Pn	Pn	00 47 29.9	-0.3
AKASG	Malin Array Be	16.33	353	Pn	Pn	00 47 29.9	-0.3
	0.3nm,0.3s,baz=185,slow=10,SNR=5.1						
AKASG	Malin Array Be	16.33	353	Pn	Pn	00 47 29.9	-0.2
GERES	GERESS Array B	19.80	322	P	Pn	00 48 11.4	-1.4
	0.0nm,0.3s,baz=131,slow=13,SNR=3.3						
FINES	FINESS Array B	27.23	354	P	P	00 49 23.3	-1.2
FINES	FINESS Array B	27.23	354	P	P	00 49 23.3	-1.2
	1.2nm,0.8s,mb3.5,baz=151,slow=12,SNR=4.4						

NEIC ***12*** *01:06:33.8, 37.42S×177.27E, h5^{km}, ML4.0(WEL), After WEL.*
WEL 12 01:06:33.8±0.2**, 37.42S×177.27E, h5^{km}, ML3.9**/10**, 2D, Error ellipse: s-maj=1.7km s-min=1.6km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WIZ	White Island	0.12	211	P	Pg	01 06 37.2	+0.8
WIZ				S	Sg	01 06 38.8	+0.7
WIZ	White Island	0.12	211	PG	Pg	01 06 37.2	+0.8
WIZ				SG	Sg	01 06 38.8	+0.7
MARZ	Manawahe	0.74	220	⇓P	Pg	01 06 48.3	+0.3
MARZ				S	Sg	01 06 57.5	-0.1
MARZ	Manawahe	0.74	220	⇓P*	Pb	01 06 48.3	-0.8
MARZ				S*	Sb	01 06 57.5	-2.0
EDRZ	Edgecumbe	0.81	211	P	Pg	01 06 49.2	-0.1
EDRZ	Edgecumbe	0.81	211	P*	Pb	01 06 49.2	-1.1
MYRZ	Mayor Island	0.83	279	eP*	Pb	01 06 49.3	-1.5
MXZ	Matakaoa Point	0.84	100	P	Pg	01 06 49.4	-0.5
MXZ	Matakaoa Point	0.84	100	P*	Pb	01 06 49.4	-1.4
URZ	Urewera	0.85	189	P	Pg	01 06 48.9	-1.2
URZ	Urewera	0.85	189	P*	Pb	01 06 48.9	-2.1
URZ				S*	Sb	01 07 00.5	-2.3
URZ				S*	Sb	01 07 00.6	-2.1
TGRZ	Tauranga	0.86	249	P	Pg	01 06 50.7	+0.4
TGRZ	Tauranga	0.86	249	P*	Pb	01 06 50.7	-0.6
MWZ	Matawai	0.94	168	P	Pg	01 06 50.4	-1.4
MWZ	Matawai	0.94	168	P*	Pb	01 06 50.4	-2.1
KARZ	Kaharoa	1.01	233	P	Pg	01 06 52.7	-0.5
KARZ	Kaharoa	1.01	233	P*	Pb	01 06 52.7	-1.2
PUZ	Puketiti	1.02	130	P	Pg	01 06 53.4	0.0
PUZ	Puketiti	1.02	130	P*	Pb	01 06 53.4	-0.5
KUZ	Kuaotunu	1.41	298	P	Pn	01 06 59.1	-1.0
KUZ				S	Sb	01 07 17.7	-1.2
KUZ	Kuaotunu	1.41	298	PN	Pn	01 06 59.1	-1.1
KUZ				SN	Sn	01 07 17.7	-1.4
KUZ				SN	Sn	01 07 17.7	-1.4
KNZ	Kokohu	1.63	169	P	Pn	01 07 02.3	-0.9
KNZ	Kokohu	1.63	169	PN	Pn	01 07 02.3	-0.8
BKZ	Black Stump Fm	1.85	199	P*	Pb	01 07 04.3	-3.8
PXZ	Pawanui	2.63	187	SN	Sn	01 07 49.4	+0.2

WEL 12 01:14:11.0±0.1**, 37.57S×177.26E, h5^{km}, ML3.7**/6**, Error ellipse: s-maj=1.1km s-min=1.0km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WIZ	White Island	0.07	305	P*	Pg	01 14 12.7	+0.2
WIZ				SG	Sg	01 14 14.3	+0.8
MARZ	Manawahe	0.62	227	P*	Pb	01 14 23.7	-0.7
MARZ				S*	Sg	01 14 32.2	+1.1
URZ	Urewera	0.70	189	P*	Pb	01 14 24.4	-1.4
URZ				S*	Sb	01 14 34.2	-1.5
MWZ	Matawai	0.80	164	P*	Pb	01 14 25.8	-1.6
MWZ				S*	Sb	01 14 36.9	-1.5
MXZ	Matakaoa Point	0.83	90	P*	Pb	01 14 26.9	-1.1
KARZ	Kaharoa	0.92	240	P*	Pb	01 14 27.6	-1.8
PUZ	Puketiti	0.94	123	P*	Pb	01 14 29.0	-0.8
KNZ	Kokohu	1.49	167	PN	Pn	01 14 37.7	-0.7
BKZ	Black Stump Fm	1.71	200	P*	Pb	01 14 39.7	-3.2

MAN ***12*** *01:23:44, 19.07N×120.24E, h31^{km}, mb4.5, ML3.4, MS3.3*
ISCJB ***12*** *01:23:48.4±0.8, 19.0N±0.2×120.5E±0.2, h33^{km}, mb3.4/4, Error ellipse: s-maj=38.8km s-min=7.1km az=142.7*
IDC ***12*** *01:23:49.0±3.5, 18.88N×119.46E, h0^{km}, mb3.6/5, mb1 3.7/5, mb1mx3.5/19, mbtmp3.6/5, Error ellipse: s-maj=99.3km s-min=58.3km az=27.0*
ISC 12 01:23:50.2±0.8**, 19.0N**±0.1×**120.7E**±0.2**, h35^{km}, n9, σ0^{s}93**/10**, mb3.4**/4**, 1C, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APYP	Conner	1.27	154	eP	Pn	01 24 09.6	-1.9
APYP				eS	Sn	01 24 28.3	+1.0
SGCP	Mt. Cagua	1.52	120	eP	Pn	01 24 14.7	-0.1
CVP	Callao Caves	1.71	140	⇑eP	Pn	01 24 16.6	-0.9
CVP				iS	Sn	01 24 41.8	+3.8
CAUP	Cauayan	2.34	152	eP	Pn	01 24 30.7	+4.6
SONM	Songino Array	31.01	341	P	P	01 30 04.7	+0.5
	0.4nm,0.8s,mb3.3,baz=159,slow=9.7,SNR=4.4						
MKAR	Makanchi Array	41.84	320	P	P	01 31 36.5	-0.2
	0.1nm,0.3s,mb2.9,baz=107,slow=8.2,SNR=5.3						
MKAR				PcP	PcP	01 33 32.2	0.0
	0.4nm,0.7s,baz=113,slow=2.8,SNR=3.6						
ZALV	Zalesovo Beam	44.39	330	P	P	01 31 57.1	0.0
	0.6nm,0.6s,mb3.5,baz=116,slow=6.9,SNR=4.6						
AKTO	Aktyubinsk	58.20	318	P	P	01 33 41.3	+0.6
	0.5nm,0.6s,mb3.8,baz=90,slow=11,SNR=3.5						
YKA	Yellowknife Ar	87.90	22	P	pP	01 36 44.1	-2.9
	0.1nm,0.3s,baz=306,slow=4.2,SNR=5.6						

IDC ***12*** *01:24:21.0±1.6, 0.92N×126.13E, h0^{km}, mb4.1/4, mb1 4.3/4, mb1mx3.8/17, mbtmp4.1/4, Error ellipse: s-maj=157.1km s-min=22.0km az=64.0*
NEIC ***12*** *01:24:22.4±0.7, 0.91N×126.12E, h10^{km}, mb4.2/3, Error ellipse: s-maj=23.8km s-min=9.8km az=56.0*
ISCJB ***12*** *01:24:23.7±1.0, 0.9N±0.1×126.1E±0.2, h33^{km}, mb4.3/5, Error ellipse: s-maj=30.1km s-min=12.6km az=145.2*
ISC 12 01:24:26.2±1.0**, 0.8N**±0.1×**126.0E**±0.2**, h35^{km}, n13, σ0^{s}81**/11**, mb4.3**/5**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSM	Kuching	15.74	272	Pn	Pn	01 28 05.6	+0.2
FITZ	Fitzroy Crossi	18.81	181	eP	Pn	01 28 42.5	-1.1
	1.9nm,0.5s						
WRA	Warramunga Arr	22.18	159	P	P	01 29 18.8	-0.7
	8.0nm,0.5s,mb4.4,baz=337,slow=12,SNR=39						
WB2	Warramunga Arr	22.19	159	eP	P	01 29 18.9	-0.6
WB2	Warramunga Arr	22.19	159	eP	P	01 29 19.0	-0.5
ASAR	Alice Springs	25.52	163	P	P	01 29 53.2	+1.7
	1.7nm,0.4s,mb4.0,baz=344,slow=12,SNR=22						
FORT	Forrest	31.48	177	eP	P	01 30 45.6	+0.9
	12nm,0.7s,mb4.8						
STKA	Stephens Creek	35.71	157	eP	P	01 31 22.1	+0.6
	2.3nm,0.6s,mb4.3						
STKA	Stephens Creek	35.71	157	P	P	01 31 21.1	-0.3
	2.8nm,0.6s,mb4.4,baz=342,slow=6.9,SNR=9.0						
MK31	Makanchi Array	59.56	327	eP	P	01 34 25.8	-0.4
MKAR	Makanchi Array	59.56	327	P	P	01 34 26.2	-0.1
	0.5nm,0.5s,mb3.8,baz=121,slow=8.4,SNR=7.6						
TORD	Torodi Ar. Bea	123.11	286	PKP	PKPdf	01 43 20.6	+0.4
TORD	Torodi Ar. Bea	123.11	286	PKP	PKPdf	01 43 20.6	+0.4
	0.3nm,0.8s,baz=85,slow=1.1,SNR=4.2						

IDC ***12*** *01:36:50.8±0.9, 9.16S×124.18E, h0^{km}, mb4.0/6, mb1 4.2/9, mb1mx4.1/16, mbtmp4.1/9, ML4.3/3, MS3.3/1, Ms1 3.3/1, ms1mx2.5/31, Error ellipse: s-maj=58.0km s-min=18.5km az=66.0*
ISCJB ***12*** *01:36:53.4±0.6, 9.19S±0.08×124.43E±0.09, h33^{km}, mb4.0/6, Error ellipse: s-maj=14.4km s-min=8.0km az=141.2*
NEIC ***12*** *01:36:55.9±0.6, 9.20S×124.30E, h35^{km}, Error ellipse: s-maj=20.2km s-min=10.2km az=64.0*
ISC 12 01:36:55.8±0.6**, 9.18S**±0.08×**124.39E**±0.09**, h35^{km}, n20, σ0^{s}94**/23**, mb4.0**/6**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	8.64	115	eP	Pn	01 39 01.9	+3.5
	26nm,0.4s						
KAKA				eS	Sn	01 40 35.0	+0.2
FITZ	Fitzroy Crossi	8.95	172	eP	Pn	01 39 03.4	+0.8
	9.1nm,0.3s						
FITZ				eS	Sn	01 40 34.7	-7.5
FITZ	Fitzroy Crossi	8.95	172	Pn	Pn	01 39 03.1	+0.5
	1.9nm,0.3s,baz=11,slow=13,SNR=60						
FITZ				Sn	Sn	01 40 34.5	-7.7
	7.8nm,0.3s,baz=26,slow=23,SNR=18						
MBWA	Marble Bar	12.73	200	ePn	Pn	01 39 54.6	+0.3
	18nm,1.3s						
WRA	Warramunga Arr	14.38	139	Pn	Pn	01 40 15.9	-1.0
WRA				Sn	Sn	01 42 44.6	-11
WRA	Warramunga Arr	14.38	139	Pn	Pn	01 40 15.9	-1.0
	1.6nm,0.3s,baz=323,slow=13,SNR=53						
WRA				Sn	Sn	01 42 44.6	-11
	3.1nm,0.3s,baz=302,slow=22,SNR=12						
WB2	Warramunga Arr	14.39	139	eP	Pn	01 40 15.9	-1.2
WB2				eS	Sn	01 42 42.5	-13
ASAR	Alice Springs	17.04	149	P	Pn	01 40 50.9	-0.4
	0.8nm,0.3s,baz=321,slow=12,SNR=26						
ASAR				S	S	01 43 48.3	-20
	0.7nm,0.3s,baz=315,slow=20,SNR=11						
STKA	Stephens Creek	27.66	147	P	P	01 42 43.0	+2.6
STKA	Stephens Creek	27.66	147	P	P	01 42 42.3	+2.0
	2.3nm,0.7s,mb3.9,baz=329,slow=12,SNR=4.3						
MJAR	Matsushiro Arr	47.30	15	P	P	01 45 26.6	+0.7
	1.1nm,0.5s,mb4.0,baz=180,slow=8.6,SNR=4.0						
SONM	Songino Array	58.97	346	P	P	01 46 52.3	+0.7
	0.9nm,0.5s,mb4.0,baz=164,slow=8.5,SNR=11						
MKAR	Makanchi Array	67.16	330	P	P	01 47 45.9	-0.2
	0.8nm,0.5s,mb4.0,baz=134,slow=7.5,SNR=13						
ZALV	Zalesovo Beam	71.22	337	P	P	01 48 09.9	-1.1
	0.5nm,0.3s,mb3.9,baz=132,slow=4.2,SNR=3.7						
AKTK	Aktyubinsk	82.46	324	P	P	01 49 14.3	-0.2
AKTO	Aktyubinsk	82.46	324	P	P	01 49 14.3	-0.2
	1.2nm,0.6s,mb4.0,baz=114,slow=7.0,SNR=6.3						
TORD	Torodi Ar. Bea	123.74	280	PKP	PKPdf	01 55 50.9	0.0
TORD	Torodi Ar. Bea	123.74	280	PKP	PKPdf	01 55 50.9	0.0
	0.4nm,0.6s,baz=47,slow=2.3,SNR=5.3						
TXAR	Lajitas Array	130.81	59	PKP	PKPdf	01 56 05.2	+1.2
TXAR	Lajitas Array	130.81	59	PKP	PKPdf	01 56 05.2	+1.2
	0.2nm,0.6s,baz=202,slow=2.3,SNR=3.4						

BJI ***12*** *02:08:48.0, 5.46S×145.71E, h35^{km}, mb5.3, mB5.8, Ms5.4, Msz5.2*
MOS ***12*** *02:08:54.1±1.0, 4.93S×144.91E, h33^{km}, mb5.6/41, MS5.4/36, Error ellipse: s-maj=9.3km s-min=5.3km az=106.0*
ISCJB ***12*** *02:08:54.2±0.7, 5.01S±0.02×145.03E±0.03, h39^{km}±5^{km}, mb5.6/119, MS5.4/208, Error ellipse: s-maj=5.0km s-min=3.8km az=170.5*
GCMT ***12*** *02:08:55.2±0.1, 5.03S×144.99E, h68^{km}, MW5.9/108, Moment Tensor Solution. s108,c210; s105,c302; Duration: 2^{s}1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$7.25±.07; M$_{\theta\theta}$-5.39±.06; M$_{\phi\phi}$-1.85±.07; M$_{r\theta}$-0.45±.05; M$_{\theta\phi}$3.72±.05; M$_{\phi r}$0.26±.06; Best double couple: M$_0$7.51300×10^{17} NP1:φ$_s$122.00000°, δ43.00000°, λ90.00000°. NP2:φ$_s$302.00000°, δ47.00000°, λ90.00000°. Principal axes: T 7.2680, Plg88.0000°, Azm207.0000°; N 0.5000, Plg0.0000°, Azm302.0000°; P -7.7570, Plg2.0000°, Azm32.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
IDC ***12*** *02:08:55.3±2.2, 5.06S×144.87E, h34^{km}±16^{km}, mb5.3/17, mb1 5.5/21, mb1mx5.5/22, mbtmp5.4/21, ML5.4/4, MS5.2/14, Ms1 5.2/14, ms1mx5.0/18 Error ellipse: s-maj=12.0km s-min=7.5km az=104.0*
NEIC ***12*** *02:08:56.0±0.1, 5.00S×144.98E, h42^{km}, mb5.7/60, ME5.3, MS5.5/175, MW5.8, Error ellipse: s-maj=5.0km s-min=3.8km az=78.0 Broadband fault plane solution: P waves. NP1:φ$_s$310.00000°, δ40.00000°, λ90.00000°. NP2:φ$_s$130.00000°, δ50.00000°, λ90.00000°. Principal axes: T Plg85.0000°, Azm40.0000°; N Plg0.0000°, Azm0.0000°; P Plg5.0000°, Azm220.0000°; Moment Tensor Solution. s33 Moment tensor: Scale 10^{17} Nm; M$_{rr}$6.40; M$_{\theta\theta}$-2.89; M$_{\phi\phi}$-3.52; M$_{r\theta}$0.09; M$_{\theta\phi}$3.37; M$_{\phi r}$-0.91; Best double couple: M$_0$6.60000×10^{17} NP1:φ$_s$313.00000°, δ42.00000°, λ83.00000°. NP2:φ$_s$143.00000°, δ48.00000°, λ97.00000°. Principal axes: T 6.4900, Plg84.0000°, Azm105.0000°; N 0.1400, Plg5.0000°, Azm318.0000°; P -6.6300, Plg3.0000°, Azm228.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*
NEIC Felt [III] at Mount Hagen. Also felt at Goroka and Kainantu.
ISC 12 02:08:57.8±0.6**, 5.05S**±0.02×**145.02E**±0.03**, h55^{km}**±5^{km}**, h46^{km}**±4.3^{km}**: pP-P, n739, σ1^{s}04**/348**, mb5.6**/119**, MS5.4**/208**, 64C-30D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.82	154	ePn	Pn	02 10 07.4	-0.4
PMG	Port Moresby	4.82	154	eP	Pn	02 10 07.4	-0.5
PMG				e		02 11 04.1	
PMG	Port Moresby	4.82	154	Pn	Pn	02 10 07.6	-0.3
	240nm,0.3s,baz=344,slow=5.4,SNR=267						
PMG				Sn	Sn	02 11 01.7	-0.7
	453nm,0.3s,baz=124,slow=23,SNR=14						
PMG				Lg		02 11 27.8	
	403nm,0.3s,baz=121,slow=22,SNR=4.1						
COEN	Coen	9.04	191	⇓iPn	Pn	02 11 06.8	+1.2
	555nm,0.8s						
COEN				Sn	Sn	02 12 45.7	-0.3
KAKA	Kakadu	14.56	238	eP	Pn	02 12 18.2	-2.7
	717nm,0.6s						
CTA	Charters Tower	15.00	175	eP	Pn	02 12 26.9	+0.4
	229nm,0.8s						
CTA				eS	Sn	02 15 18.8	+7.3
CTA	Charters Tower	15.00	175	P	Pn	02 12 26.8	+0.3
CTA						02 15 12.9	
CTA				pmax	pmax		
	comp=Z,5.0nm,0.3s						
CTA				smax			
	comp=N,2.0nm,0.3s						
CTA	Charters Tower	15.00	175	Pn	Pn	02 12 26.8	+0.4
	comp=N,5.2nm,0.3s,baz=352,slow=13,SNR=79						
CTA				Sn	Sn	02 15 12.9	+1.4
	comp=N,2.4nm,0.3s,baz=234,slow=21,SNR=2.5						
CTA				Lg		02 17 01.9	
	baz=278,slow=6.3,SNR=2.7						
CTAO	Charters Tower	15.00	175	ePn	Pn	02 12 27.2	+0.8
HNR	Honiara	15.44	107	Pn	Pn	02 12 33.2	+1.0
HNR				Sn	Sn	02 15 28.7	+6.4
HNR	Honiara	15.44	107	P	Pn	02 12 33.2	+1.0
HNR						02 15 28.7	
HNR				pmax	pmax		
	comp=Z,25nm,0.3s						
HNR				smax			
	comp=N,6.0nm,0.3s						
HNR	Honiara	15.44	107	Pn	Pn	02 12 33.2	+1.0
	comp=N,25nm,0.3s,baz=254,slow=1.1,SNR=18						
HNR				Sn	Sn	02 15 28.7	+6.4
	comp=N,6.3nm,0.3s,baz=261,slow=19,SNR=1.8						
WB2	Warramunga Arr	18.08	214	⇓iP	Pn	02 13 04.2	-1.0
WB2				eS	S	02 16 21.9	-7.6
WB2	Warramunga Arr	18.08	214	ePn	Pn	02 13 04.5	-0.7
WB2				Sn	Sn	02 16 24.6	-1.7
WRA	Warramunga Arr	18.09	214	P	Pn	02 13 02.7	-2.5
WRA				S	S	02 16 24.6	-5.0
WRA				Lg		02 18 24.0	
WRA	Warramunga Arr	18.09	214	P	Pn	02 13 02.7	-2.6
WRA				S	S	02 16 24.6	-5.0
WRA				pmax	pmax		
	comp=Z,48nm,0.3s						
WRA	Warramunga Arr	18.09	214	P	Pn	02 13 02.7	-2.5
	comp=Z,48nm,0.3s,baz=38,slow=12,SNR=522						
WRA				S	S	02 16 24.6	-5.0
	baz=33,slow=23,SNR=4.7						
WRA				Lg		02 18 24.0	
	comp=Z,0.3nm,0.3s,baz=32,slow=28,SNR=3.9						
WRA				P3KP		02 48 28.9	
	comp=Z,0.0nm,0.3s,baz=139,slow=2.4,SNR=4.9						
GUMO	Guam	18.52	360	eP	Pn	02 13 08.5	-2.0
	comp=Z,638nm,1.3s						
GUMO				LR	LR	02 19 43.7	
GUMO	Guam	18.52	360	P	Pn	02 13 12.6	+2.1
	comp=Z,9.6nm,0.3s,baz=169,slow=9.1,SNR=5.5						
GUMO				S	S	02 16 42.6	+4.7
	comp=Z,4.8nm,0.3s,baz=146,slow=21,SNR=2.1						
GUMO				LR	LR	02 19 43.7	
	comp=Z,7µm,18.7s,baz=171,slow=35						
EIDS	Eidsvold	21.02	165	eP	P	02 13 37.4	+0.4
	comp=Z,108nm,0.9s,mb5.2						
ASAR	Alice Springs	21.39	209	P	P	02 13 40.7	-0.2
ASAR				S	S	02 17 33.8	-1.5
ASAR				pmax	pmax		
	comp=Z,224nm,0.9s						
ASAR				smax			
	comp=N,71nm,1.0s						
ASAR	Alice Springs	21.39	209	P	P	02 13 40.7	-0.2
	comp=N,224nm,0.8s,mb5.5,baz=42,slow=9.5,SNR=522						
ASAR				S	S	02 17 33.8	-1.5
	comp=N,71nm,1.0s,baz=30,slow=21,SNR=6.5						
ASAR				Lg		02 20 17.6	
	comp=N,58nm,1.0s,baz=45,slow=32,SNR=4.5						
BIPH	Bislig	22.78	305	⇑iP	P	02 13 53.4	-2.4
DAV	Davao City (W)	22.83	302	PFAKE		02 14 10.0	+14
DAV				LR	LR		
	comp=Z,5µm,19.0s,MS5.0						
FITZ	Fitzroy Crossi	22.95	234	eP	P	02 13 55.8	-1.9
	comp=Z,878nm,0.5s,mb6.4						
FITZ				eS	S	02 17 52.8	-11
FITZ	Fitzroy Crossi	22.95	234	P	P	02 13 57.0	-0.7
	comp=Z,471nm,0.5s,mb6.1,baz=57,slow=12,SNR=200						
FITZ				S	S	02 18 03.7	-0.2
	comp=Z,54nm,1.0s,baz=266,slow=19,SNR=3.7						
FITZ				Lg		02 21 01.8	
	comp=Z,116nm,1.0s,baz=323,slow=20,SNR=2.8						
FITZ				LR	LR	02 23 37.2	
	comp=Z,7µm,19.7s,MS5.1,baz=49,slow=39						
BUKP	Musuan	23.69	303	eP	P	02 14 04.9	+0.2
SCPH	Surigao	24.41	307	⇓eP	P	02 14 11.3	0.0
PAGZ	Pagadian	25.10	301	eP	P	02 14 19.1	+1.5
MSLP	Maasin	25.11	307	eP	P	02 14 17.8	0.0
TBP	Tagbilaran	25.67	305	eP	P	02 14 24.7	+1.9
NOUC	Port Laguerre	26.68	131	eP	P	02 14 30.5	-1.3
CNP	Catarman	26.71	311	eP	P	02 14 32.1	-0.2
DZM	Mont Dzumac	26.77	131	eP	P	02 14 31.7	-0.9
DZM	Mont Dzumac	26.77	131	eP	P	02 14 31.7	-0.9
DZM	Mont Dzumac	26.77	131	P	P	02 14 32.7	0.0
	comp=Z,81nm,0.9s,mb5.3,baz=322,slow=6.7,SNR=29						
STKA	Stephens Creek	26.88	186	⇑iP	P	02 14 32.4	-1.1
	comp=Z,91nm,0.8s,mb5.4						
STKA	Stephens Creek	26.88	186	eP	P	02 14 32.5	-1.0
STKA	Stephens Creek	26.88	186	P	P	02 14 33.0	-0.6
	comp=Z,102nm,0.7s,mb5.5,baz=353,slow=8.5,SNR=184						
STKA				S	S	02 19 04.8	-1.6
	comp=Z,20nm,1.0s,baz=145,slow=16,SNR=2.0						
STKA				Lg		02 23 18.8	
	comp=Z,12nm,1.1s,baz=71,slow=18,SNR=2.1						
STKA				LR	LR	02 25 37.7	
	comp=Z,8µm,21.7s,MS5.2,baz=7.8,slow=37						
PVCP	Virac	27.79	312	eP	P	02 14 44.4	+2.5
MYLDM	Lahad Datu	28.36	291	⇑P	P	02 14 48.4	+1.4
CUYO	Cuyo Island	28.64	304	eP	P	02 14 49.9	+0.4
TSM	Tawau	28.66	288	⇓P	P	02 14 50.8	+1.1
OTRP	Odiongan	28.67	307	eP	P	02 14 49.6	0.0
MBWA	Marble Bar	29.29	235	eP	P	02 14 54.9	-0.4
MBWA				LR	LR		
	comp=Z,8µm,21.0s,MS5.3						
MBWA	Marble Bar	29.29	235	P	P	02 14 55.6	+0.4
	SNR=7.2						
SDKM	Sandakan	29.74	291	⇓P	P	02 14 59.5	+0.2
FORT	Forrest	30.16	210	eP	P	02 15 01.8	-1.0
	comp=Z,159nm,0.5s,mb6.0						
FORT				eS	S	02 19 58.9	+0.8
ADE	Adelaide	30.34	190	eP	P	02 15 05.6	+1.4
CNB	Canberra Magne	30.38	173	eP	P	02 15 05.1	+0.4
	comp=Z,54nm,1.1s,mb5.2						
TGY	Tagaytay City	30.54	309	P	P	02 15 05.9	-0.4
TGY				pmax	pmax		
	comp=Z,221nm,0.4s						
TGY	Tagaytay City	30.54	309	P	P	02 15 05.9	-0.4
	comp=Z,221nm,0.3s,mb6.4,baz=211,slow=18,SNR=5.7						
KKM	Kota Kinabalu	30.80	291	⇑eP	P	02 15 07.6	-1.0
KKM	Kota Kinabalu	30.80	291	⇑P	P	02 15 09.6	+1.0
TOO	Toolangi	32.37	179	eP	P	02 15 22.6	+0.5
	comp=Z,45nm,1.0s,mb5.2						
TOO				eS	S	02 20 34.0	+1.5
TOO	Toolangi	32.37	179	eP	P	02 15 22.6	+0.5
TOO				eS	S	02 20 34.0	+1.5
TOO				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.2						
BTM	Bintulu	32.94	284	⇑P	P	02 15 28.4	+1.0
SBUM	Sibu	33.60	282	⇓P	P	02 15 34.4	+1.2
FUNA	Funafuti	34.11	98	PFAKE		02 15 50.0	+12
FUNA				LR	LR		
	comp=Z,6µm,21.0s,MS5.3						
KSM	Kuching	35.27	280	⇑iP	P	02 15 47.8	+0.1
KSM	Kuching	35.27	280	⇑P	P	02 15 48.5	+0.9
KLBR	Kellerberrin	36.75	221	eP	P	02 15 59.7	-0.4
	comp=Z,146nm,1.1s,mb5.7						
KLBR				ePCP	PcP	02 18 21.8	+0.2
NACB	Ninganchiao	36.94	323	eP	P	02 16 01.5	-0.3
	comp=Z,186nm,1.2s,mb5.8						
YHNB	Yeheng	37.44	323	eP	P	02 16 05.8	-0.2
	comp=Z,329nm,1.3s,mb6.0						

TATO	**Taipei**	**37.61**	**324**	*e*P	**P**	**02 16 09.3**	**+1.9**
	comp=Z,235nm,0.9s,mb5.9						
TATO				*e*pP	pP	02 16 22.9	+1.4
TATO				LR	LR		
	comp=Z,4µm,20.0s,MS5.2						
TAU	**Tasmania Unive**	**37.76**	**177**	*e*P	**P**	**02 16 09.2**	**+0.8**
TAU				LR	LR		
	comp=Z,5µm,19.0s,MS5.4						
NWAO	**Narrogin (SRO)**	**37.95**	**220**	*e*P	**P**	**02 16 10.4**	**+0.1**
	comp=Z,69nm,0.8s,mb5.4						
NWAO				LR	LR		
	comp=Z,7µm,21.0s,MS5.5						
NWAO	**Narrogin (SRO)**	**37.95**	**220**	P	**P**	**02 16 10.1**	**-0.1**
NWAO						02 17 35.2	
NWAO				pmax	pmax		
	comp=Z,67nm,0.7s						
NWAO				pmax	pmax		
	comp=Z,101nm,0.9s						
NWAO				MLR	MLR		
	comp=Z,7µm,18.7s						
NWAO	**Narrogin (SRO)**	**37.95**	**220**	P	**P**	**02 16 10.1**	**-0.1**
	comp=Z,67nm,0.7s,mb5.5,baz=45,slow=7.4,SNR=34						
NWAO				PP	PP	02 17 35.1	-2.7
	comp=Z,100nm,0.8s,baz=48,slow=14,SNR=5.3						
NWAO				LR	LR	02 32 27.5	
	comp=Z,7µm,18.7s,MS5.5,baz=42,slow=37						
MUN	**Mundaring**	**38.01**	**222**	*e*P	**P**	**02 16 10.9**	**+0.2**
MUN				*e*PP	PP	02 17 35.7	-2.8
MUN				*e*PCP	PcP	02 18 25.5	0.0
MUN				*e*S	**S**	**02 21 58.9**	**-0.4**
XMIS	**Christmas Isla**	**39.35**	**260**	⇑*i*P	**P**	**02 16 22.3**	**+0.1**
QZH	**Quanzhou**	**39.36**	**320**	⇑*i*P	**P**	**02 16 24.1**	**+2.0**
QZH				XP	sP	02 16 40.5	-2.1
QZH				S	**S**	**02 22 21.0**	**+1.3**
QZH				XS	sS	02 22 42.3	-1.3
QZH				SS	SS	02 25 19.3	+3.8
QZH				AMB	AMB		
	comp=Z,200nm,1.4s,mb5.7						
QZH				AMB	AMB		
	comp=Z,2µm,6.5s						
QZH				LR	LR		
	comp=N,2µm,15.6s,MS5.3						
QZH				LR	LR		
	comp=E,4µm,19.3s,MS5.3						
QZH				LR	LR		
	comp=Z,11µm,30.9s						
MYKOM	**Kota Tinggi**	**41.68**	**278**	⇓P	**P**	**02 16 41.9**	**+0.4**
GZH	**Guangzhou**	**41.70**	**313**	P	**P**	**02 16 42.1**	**+0.6**
GZH				LR	LR		
	comp=N,911nm,19.0s,MS4.9						
GZH				LR	LR		
	comp=E,2µm,22.1s,MS4.9						
GZH				LR	LR		
	comp=Z,3µm,30.5s						
MJAR	**Matsushiro Arr**	**41.86**	**352**	P	**P**	**02 16 41.8**	**-0.8**
MJAR				pmax	pmax		
	comp=Z,17nm,0.5s						
MJAR				MLR	MLR		
	comp=Z,1µm,21.3s						
MJAR	**Matsushiro Arr**	**41.86**	**352**	P	**P**	**02 16 41.8**	**-0.7**
	comp=Z,17nm,0.5s,mb4.9,baz=172,slow=9.7,SNR=46						
MJAR				LR	LR	02 33 05.5	
	comp=Z,1µm,21.3s,MS4.8,baz=175,slow=35						
MAJO	**Matsushiro**	**41.86**	**352**	*e*P	**P**	**02 16 42.0**	**-0.6**
	comp=Z,53nm,0.6s,mb5.3						
MAJO				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
MAT	**Matsushiro**	**41.86**	**352**	P	**P**	**02 16 40.9**	**-1.7**
MAT				S	**S**	**02 22 47.0**	**-10**
QIZ	**Qiongzhong**	**42.10**	**306**	P	**P**	**02 16 44.9**	**+0.1**
QIZ				XP	sP	02 16 59.2	-6.2
QIZ				S	**S**	**02 22 57.0**	**-3.7**
QIZ				AMB	AMB		
	comp=Z,99nm,1.0s,mb5.4						
QIZ				AMB	AMB		
	comp=Z,616nm,7.5s						
QIZ				LR	LR		
	comp=E,1µm,24.8s						
QIZ				LR	LR		
	comp=Z,4µm,25.1s,MS5.2						
QIZ	**Qiongzhong**	**42.10**	**306**	⇑*e*P	**P**	**02 16 44.6**	**-0.2**
	comp=Z,80nm,0.9s,mb5.3						
QIZ				LR	LR		
	comp=Z,3µm,22.0s,MS5.1						
KGM	**Kluang**	**42.24**	**279**	⇑P	**P**	**02 16 47.1**	**+1.0**
RAO	**Raoul Island**	**42.51**	**129**	PFAKE		02 17 00.0	+12
RAO				LR	LR		
	comp=Z,4µm,21.0s,MS5.2						
RAO	**Raoul Island**	**42.51**	**129**	LR	LR	02 32 12.0	
	comp=Z,1µm,21.6s,MS4.8,baz=160,slow=33						
SSE	**Sheshan**	**42.54**	**329**	P	**P**	**02 16 49.2**	**+1.0**
SSE				XP	sP	02 17 05.1	-3.7
SSE				S	**S**	**02 23 11.7**	**+4.8**
SSE				XS	sS	02 23 30.8	-0.2
SSE				AMB	AMB		
	comp=Z,51nm,0.9s,mb5.2						
SSE				AMB	AMB		
	comp=Z,753nm,6.8s						
SSE				LR	LR		
	comp=N,3µm,30.0s,MS5.0						
SSE				LR	LR		
	comp=E,2µm,30.0s,MS5.0						
SSE				LR	LR		
	comp=Z,4µm,30.0s,MS5.1						
SSE	**Sheshan**	**42.54**	**329**	P	**P**	**02 16 49.2**	**+1.0**
	comp=Z,51nm,0.9s,mb5.2						
SSE				sP	sP	02 17 05.1	-3.7
SSE				S	**S**	**02 23 11.7**	**+4.8**
SSE				sS	sS	02 23 30.8	-0.2
SSE				SS	SS	02 26 25.2	+6.7
SSE				LR	LR		
	comp=Z,4µm,30.0s,MS5.1						
KTGM	**Kuala Trenggan**	**43.08**	**283**	⇑P	**P**	**02 16 53.3**	**+0.5**
AFI	**Afiamalu**	**43.45**	**105**	P	**P**	**02 16 57.8**	**+2.0**
AFI				LR	LR		
	comp=Z,3µm,21.0s,MS5.2						
AFI	**Afiamalu**	**43.45**	**105**	P	**P**	**02 16 57.8**	**+2.0**
	comp=Z,24nm,0.8s,mb5.0,baz=0.5,slow=22,SNR=3.4						
URZ	**Urewera**	**44.09**	**143**	P	**P**	**02 17 01.2**	**+0.6**
	comp=Z,66nm,0.9s,mb5.4,baz=331,slow=4.2,SNR=28						
URZ				PP	PP	02 18 43.6	-0.7
	comp=Z,56nm,0.9s,baz=334,slow=6.7,SNR=4.7						
FRIM	**Kepong**	**44.12**	**280**	⇑P	**P**	**02 17 01.8**	**+0.5**
NJ2	**Nanjing**	**44.51**	**328**	*e*P	**P**	**02 17 05.0**	**+0.9**
NJ2				AP	pP	02 17 15.1	-3.3
NJ2				XP	sP	02 17 19.1	-5.7
NJ2				PP	PP	02 18 49.9	+1.0
NJ2				S	**S**	**02 23 36.0**	**+0.3**
NJ2				AMB	AMB		
	comp=Z,410nm,1.0s,mb6.2						
NJ2				AMB	AMB		
	comp=Z,1µm,6.2s						
NJ2				LR	LR		
	comp=N,8µm,22.9s						
NJ2				LR	LR		
	comp=E,5µm,28.2s						
NJ2				LR	LR		
	comp=Z,5µm,28.2s						
SNZO	**South Karori**	**44.81**	**148**	*e*P	**P**	**02 17 06.1**	**-0.2**
	comp=Z,120nm,0.9s,mb5.7						
SNZO				LR	LR		
	comp=Z,3µm,19.0s,MS5.2						
RPZ	**Rata Peaks**	**44.83**	**153**	P	**P**	**02 17 06.6**	**+0.2**
	comp=Z,291nm,0.8s,mb6.2,baz=298,slow=1.0,SNR=75						
IPM	**Ipoh**	**44.95**	**281**	⇑P	**P**	**02 17 08.2**	**+0.4**
KSRS	**Korea Array**	**45.19**	**341**	P	**P**	**02 17 08.8**	**-0.6**
	comp=Z,6.5nm,0.8s,mb4.5,baz=163,slow=9.0,SNR=20						
KSRS				LR	LR	02 33 18.8	
	comp=Z,5µm,21.6s,MS5.4,baz=160,slow=32						
KS15	**Wonju Array Si**	**45.19**	**341**	*e*P	**P**	**02 17 11.1**	**+1.7**
KULM	**Kulim**	**45.48**	**282**	⇑*i*P	**P**	**02 17 11.7**	**-0.4**
KULM	**Kulim**	**45.48**	**282**	⇑P	**P**	**02 17 12.4**	**+0.3**
INCN	**Inchon**	**45.65**	**339**	*e*P	**P**	**02 17 14.2**	**+1.2**
	comp=Z,27nm,0.4s,mb5.5						
INCN				LR	LR		
	comp=Z,3µm,20.0s,MS5.2						
SNG	**Songkhla**	**45.94**	**285**	P	**P**	**02 17 14.0**	**-1.7**
	comp=Z,378nm,1.0s,mb6.3						
WHN	**Wuhan**	**45.97**	**322**	*e*P	**P**	**02 17 17.0**	**+1.4**
WHN				XP	sP	02 17 32.8	-3.6
WHN				S	**S**	**02 23 59.0**	**+2.2**
WHN				LR	LR		
	comp=Z,7µm,31.6s,MS5.4						
KKTK	**Khon Kaen**	**46.83**	**298**	⇓P	**P**	**02 17 23.8**	**+1.2**
	comp=Z,988nm,0.8s,mb6.8						
ERM	**Erimo**	**46.87**	**358**	PFAKE		02 17 30.0	+7.5
ERM				LR	LR		
	comp=Z,3µm,21.0s,MS5.2						
COCO	**West Island**	**48.10**	**258**	*e*P	**P**	**02 17 34.8**	**+2.2**
COCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
NNT	**Nongplab**	**48.29**	**292**	P	**P**	**02 17 35.1**	**+1.1**
GYA	**Guiyang**	**48.58**	**312**	P	**P**	**02 17 38.0**	**+2.0**
GYA				AP	pP	02 17 48.5	-2.0
GYA				XP	sP	02 17 52.6	-4.3
GYA				PCP	PcP	02 19 03.7	+2.6
GYA				PP	PP	02 19 31.4	+2.0
GYA				SCP	ScP	02 22 54.3	+2.8
GYA				S	**S**	**02 24 36.6**	**+2.5**
GYA				XS	sS	02 24 54.0	-4.5
GYA				SCS	ScS	02 27 25.1	+0.9
GYA				SS	SS	02 28 02.2	-2.7
GYA				AMB	AMB		
	comp=Z,2µm,4.9s						
GYA				LR	LR		
	comp=N,9µm,17.0s,MS5.9						
GYA				LR	LR		
	comp=E,6µm,17.4s,MS5.9						
GYA				LR	LR		
	comp=Z,8µm,17.8s,MS5.8						
DL2	**Dalian**	**48.80**	**336**	⇑*i*P	**P**	**02 17 36.7**	**-0.8**
DL2				XP	sP	02 17 51.9	-6.4
DL2				PP	PP	02 19 29.7	-1.5
DL2				S	**S**	**02 24 36.7**	**0.0**
DL2				XS	sS	02 24 54.0	-7.2
DL2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.1						
DL2				AMB	AMB		
	comp=Z,310nm,6.6s						
DL2				LR	LR		
	comp=N,840nm,26.6s,MS4.8						
DL2				LR	LR		
	comp=E,850nm,25.8s,MS4.8						
DL2				LR	LR		
	comp=Z,2µm,25.4s,MS4.9						
NANT	**Nan**	**49.67**	**300**	⇓P	**P**	**02 17 45.3**	**+0.8**
	comp=Z,1µm,1.0s,mb6.8						
BDT	**Bhumibol Dam**	**50.55**	**297**	P	**P**	**02 17 52.0**	**+0.8**
	comp=Z,31nm,1.0s,mb5.2						
MCQ	**Macquarie Isla**	**50.58**	**170**	*e*P	**P**	**02 17 51.2**	**+0.4**
MCQ	**Macquarie Isla**	**50.58**	**170**	*e*P	**P**	**02 17 50.7**	**-0.1**
SNY	**Shenyang**	**50.59**	**339**	⇑P	**P**	**02 17 50.7**	**-0.3**
SNY				S	**S**	**02 25 00.5**	**-1.1**
SNY				XS	sS	02 25 27.8	+1.7
SNY				SS	SS	02 28 40.8	+4.2
SNY				AMB	AMB		
	comp=Z,980nm,2.5s,mb6.3						
SNY				LR	LR		
	comp=E,3µm,23.7s						
SNY				LR	LR		
	comp=Z,4µm,23.3s,MS5.4						
KMI	**Kunming**	**50.86**	**308**	P	**P**	**02 17 54.9**	**+1.5**
KMI				AP	pP	02 18 04.9	-3.1
KMI				PP	PP	02 19 52.4	+2.2
KMI				S	**S**	**02 25 08.1**	**+2.2**
KMI				XS	sS	02 25 24.5	-6.0
KMI				SS	SS	02 28 43.7	+2.3
KMI				AMB	AMB		
	comp=Z,33nm,1.5s,mb5.0						
KMI				AMB	AMB		
	comp=Z,707nm,8.1s						
KMI				LR	LR		
	comp=N,1µm,24.8s,MS4.9						
KMI				LR	LR		
	comp=E,1µm,26.2s,MS4.9						
KMI				LR	LR		
	comp=Z,3µm,26.2s,MS5.2						
KMI	**Kunming**	**50.86**	**308**	P	**P**	**02 17 54.9**	**+1.5**
	comp=Z,33nm,1.5s,mb5.0						
KMI				pP	pP	02 18 04.9	-3.1
KMI				PP	PP	02 19 52.4	+2.2
KMI				PPP		02 20 51.9	
KMI				S	**S**	**02 25 08.1**	**+2.2**
KMI				PS		02 25 20.8	
KMI				sS	sS	02 25 24.5	-6.0
KMI				SS	SS	02 28 43.7	+2.3
KMI				SSS		02 30 16.3	
KMI				LR	LR		
	comp=Z,3µm,26.2s,MS5.2						
KMI	**Kunming**	**50.86**	**308**	P	**P**	**02 17 54.9**	**+1.5**
KMI				*PP	pP	02 18 04.9	-3.1
KMI						02 19 52.4	
KMI				PPP		02 20 51.9	
KMI				S	**S**	**02 25 08.1**	**+2.2**
KMI				PS		02 25 20.8	
KMI				*SS	sS	02 25 24.5	-6.0
KMI				SSS		02 30 16.3	
KMI				pmax	pmax		
	comp=Z,33nm,1.5s,mb5.0						
KMI				MLR	MLR		
	comp=Z,3µm,26.2s,MS5.2						
CHRT	**Chiangrai**	**50.90**	**301**	⇑P	**P**	**02 17 54.0**	**+0.3**
	comp=Z,632nm,0.7s,mb6.7						
CM31	**Chiang Mai Arr**	**51.06**	**298**	*e*P	**P**	**02 17 55.6**	**+0.6**
	comp=Z,71nm,0.8s,mb5.7						
CM31				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
CHG	**Chiang Mai**	**51.20**	**299**	⇑P	**P**	**02 17 56.3**	**+0.3**
	comp=Z,137nm,1.0s,mb5.8						
CHTO	**Chiang Mai**	**51.20**	**299**	⇑*i*P	**P**	**02 17 56.5**	**+0.4**
	comp=Z,199nm,1.3s,mb5.9						
CHTO				LR	LR		
	comp=Z,887nm,22.0s,MS4.7						
CHTO	**Chiang Mai**	**51.20**	**299**	P	**P**	**02 17 56.9**	**+0.9**
	SNR=90						
CHTO	**Chiang Mai**	**51.20**	**299**	P	**P**	**02 17 56.5**	**+0.5**
CHTO				S	**S**	**02 25 11.6**	**+0.7**
MDJ	**Mudanjiang**	**51.34**	**346**	P	**P**	**02 17 56.1**	**-0.6**
MDJ				XP	sP	02 18 13.1	-4.5
MDJ				PCS	PcS	02 23 09.8	+1.3
MDJ				S	**S**	**02 25 14.9**	**+2.9**
MDJ				XS	sS	02 25 33.2	-3.4
MDJ				SS	SS	02 28 53.0	+4.5
MDJ				AMB	AMB		
	comp=Z,14nm,2.2s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,576nm,8.4s						
MDJ				LR	LR		
	comp=N,3µm,27.2s,MS5.3						
MDJ				LR	LR		
	comp=E,1µm,28.5s,MS5.3						
MDJ				LR	LR		
	comp=Z,5µm,27.2s,MS5.4						
MDJ	**Mudanjiang**	**51.34**	**346**	⇑*e*P	**P**	**02 17 55.8**	**-0.8**
	comp=Z,14nm,0.9s,mb4.9						
MDJ				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
XAN	**Xi'an**	**51.70**	**321**	P	**P**	**02 17 58.9**	**-0.7**
XAN				XP	sP	02 18 15.7	-4.8
XAN				XS	sS	02 25 42.7	+0.8
XAN				AMB	AMB		
	comp=Z,47nm,1.2s,mb5.3						
XAN				AMB	AMB		
	comp=Z,614nm,6.1s						
XAN				LR	LR		
	comp=N,819nm,24.9s						
XAN				LR	LR		
	comp=E,1µm,33.5s						
XAN				LR	LR		
	comp=Z,2µm,34.5s						
CN2	**Changchun**	**51.73**	**342**	*e*P	**P**	**02 18 02.7**	**+3.1**
CN2				*e*XP	sP	02 18 16.6	-3.9
CN2				*e*S	**S**	**02 25 21.1**	**+3.8**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,3µm,23.0s,MS5.3						
CN2				LR	LR		
	comp=E,2µm,23.0s,MS5.3						
CN2				LR	LR		
	comp=Z,3µm,21.0s,MS5.2						
YSS	**Yuzh-Sakhalins**	**51.82**	**358**	*e*P	**P**	**02 18 01.2**	**+1.1**
	comp=Z,90nm,0.9s,mb5.7						
YSS				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
YSS	**Yuzh-Sakhalins**	**51.82**	**358**	⇑*e*P	**P**	**02 17 59.4**	**-0.7**
YSS				*e**SP	sP	02 18 16.0	-5.0
YSS				*e*		02 19 12.0	
YSS				*e*S	**S**	**02 25 15.0**	**-3.4**
YSS				*e*PS		02 25 32.0	
YSS				*e*		02 27 46.0	
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
YSS				smax			
	comp=N,1µm,10.0s						
YSS				smax			
	comp=E,500nm,10.0s						
YSS				MLR	MLR		
	comp=Z,800nm,16.0s,MS4.8						
YSS				MLR	MLR		
	comp=N,800nm,17.0s						
BJT	**Baijiatuau**	**52.11**	**332**	⇑*i*P	**P**	**02 18 01.6**	**-0.9**
	comp=N,47nm,0.9s,mb5.4						
BJT				LR	LR		
	comp=Z,4µm,20.0s,MS5.4						
BJT	**Baijiatuau**	**52.11**	**332**	⇑*i*P	**P**	**02 18 01.6**	**-0.9**
BJT				pmax	pmax		
	comp=Z,47nm,0.9s						
BJT				MLR	MLR		
	comp=Z,4µm,20.0s						
BJI	**Beijing**	**52.13**	**332**	P	**P**	**02 18 01.6**	**-1.0**
BJI				XP	sP	02 18 16.4	-7.1
BJI				PCP	PcP	02 19 11.0	-2.9
BJI				PP	PP	02 20 01.5	0.0
BJI				S	**S**	**02 25 20.6**	**-2.3**
BJI				XS	sS	02 25 43.4	-4.2
BJI				SCS	ScS	02 27 47.5	-0.4
BJI				SS	SS	02 29 02.1	+1.0
BJI				AMB	AMB		
	comp=Z,37nm,2.1s,mb5.0						
BJI				AMB	AMB		
	comp=Z,900nm,3.6s						
BJI				LR	LR		
	comp=N,1µm,19.9s,MS5.3						
BJI				LR	LR		
	comp=E,2µm,19.9s,MS5.3						
BJI				LR	LR		
	comp=Z,5µm,29.5s						
BJI	**Beijing**	**52.13**	**332**	P	**P**	**02 18 01.6**	**-1.0**
BJI				*SP	sP	02 18 16.4	-7.1
BJI						02 19 11.0	
BJI						02 20 01.5	
BJI				S	**S**	**02 25 20.6**	**-2.3**
BJI				*SS	sS	02 25 43.4	-4.2
BJI						02 27 47.5	
BJI				SS	SS	02 29 02.1	+1.0
BJI				MLR	MLR		
	comp=Z,5µm,29.5s,MS5.3						
TIY	**Taiyuan**	**52.23**	**327**	⇑*i*P	**P**	**02 18 02.2**	**-1.2**
TIY				XP	sP	02 18 18.9	-5.5
TIY				SCP	ScP	02 23 02.5	-4.5
TIY				S	**S**	**02 25 23.2**	**-1.2**
TIY				LR	LR		
	comp=N,1µm,15.9s,MS5.2						
TIY				LR	LR		
	comp=E,787nm,14.0s,MS5.2						
CD2	**Chengdu**	**53.20**	**315**	⇑*i*P	**P**	**02 18 10.7**	**0.0**
CD2				AP	pP	02 18 20.8	-4.6
CD2				XP	sP	02 18 25.7	-6.0
CD2				PCP	PcP	02 19 18.4	+0.2
CD2				PP	PP	02 20 12.3	+0.9
CD2				PCS	PcS	02 23 15.8	-1.3
CD2				S	**S**	**02 25 37.7**	**-0.2**
CD2				XS	sS	02 25 57.3	-5.3
CD2				SCS	ScS	02 27 52.3	-3.5
CD2				AMB	AMB		
	comp=Z,90nm,0.5s,mb6.0						
CD2				AMB	AMB		
	comp=Z,930nm,8.3s						
CD2				LR	LR		
	comp=N,2µm,27.6s,MS5.2						
CD2				LR	LR		
	comp=E,2µm,27.6s,MS5.2						
CD2				LR	LR		
	comp=Z,1µm,28.8s,MS4.8						
HABR	**Khabarovsk**	**54.01**	**352**	*e*P	**P**	**02 18 14.3**	**-2.0**
HABR				*e**PP	pP	02 18 23.8	-7.2
HABR				*e*S	**S**	**02 25 48.4**	**+0.2**
HABR				*e*SS	SS	02 29 31.2	+0.8
HABR				pmax	pmax		
	comp=Z,112nm,1.6s,mb5.5						
PBA	**Port Blair**	**54.58**	**288**	*e*P	**P**	**02 18 19.4**	**-1.6**
PBA				AMb	AMB	02 18 41.3	
	comp=Z,135nm,2.6s,mb5.5						
HHC	**Hu-ho-hao-te**	**55.00**	**329**	*e*P	**P**	**02 18 23.3**	**-0.3**
HHC				AP	pP	02 18 36.1	-2.3
HHC				XP	sP	02 18 41.1	-3.5
HHC				PCP	PcP	02 19 25.7	+0.9
HHC				PP	PP	02 20 27.3	0.0
HHC				SCP	ScP	02 23 20.0	+1.0
HHC				PCS	PcS	02 23 23.8	-0.8
HHC				S	**S**	**02 26 00.3**	**-1.5**
HHC				XS	sS	02 26 21.2	-5.4
HHC				SCS	ScS	02 28 04.6	-3.5
HHC				AMB	AMB		
	comp=Z,27nm,1.4s,mb5.1						
HHC				AMB	AMB		
	comp=Z,797nm,4.5s						
HHC				LR	LR		
	comp=N,1µm,23.5s,MS5.1						
HHC				LR	LR		
	comp=E,1µm,21.0s,MS5.1						
HHC				LR	LR		
	comp=Z,4µm,31.6s						
KLR	**Kul'dur**	**55.28**	**349**	*e*P	**P**	**02 18 21.5**	**-3.9**
KLR				*e*S	**S**	**02 25 56.5**	**-8.7**
KLR				*e*		02 31 54.0	
KLR				pmax	pmax		
	comp=E,42nm,1.8s						
KLR				pmax	pmax		
	comp=Z,120nm,1.8s,mb5.6						
KLR				pmax	pmax		
	comp=N,700nm,6.5s						
KLR				pmax	pmax		
	comp=Z,1µm,6.5s						
KLR				MLR	MLR		
	comp=E,500nm,15.0s						
KLR				MLR	MLR		
	comp=Z,1µm,15.0s,MS5.1						
BTO	**Baotou**	**55.62**	**328**	*e*P	**P**	**02 18 27.3**	**-0.8**
LZH	**Lanzhou**	**56.21**	**320**	⇑*i*P	**P**	**02 18 33.0**	**+0.6**
LZH				AP	pP	02 18 42.5	-4.7
LZH				XP	sP	02 18 46.5	-7.0
LZH				PCP	PcP	02 19 31.2	+1.6
LZH				PP	PP	02 20 42.0	+3.7
LZH				*e*S	**S**	**02 26 17.0**	**-1.1**
LZH				XS	sS	02 26 36.0	-7.0
LZH				SS	SS	02 30 08.2	+2.5
LZH				AMB	AMB		
	comp=Z,111nm,1.5s,mb5.7						
LZH				AMB	AMB		
	comp=Z,429nm,4.1s						
LZH				LR	LR		
	comp=E,2µm,15.1s						
LZH				LR	LR		
	comp=Z,3µm,16.0s,MS5.5						
LZH	**Lanzhou**	**56.21**	**320**	⇑*i*P	**P**	**02 18 33.0**	**+0.6**
	comp=Z,111nm,1.5s,mb5.7						
LZH				pP	pP	02 18 42.5	-4.7
LZH				sP	sP	02 18 46.5	-7.0
LZH				PcP	PcP	02 19 31.2	+1.6
LZH				PP	PP	02 20 42.0	+3.7
LZH				*e*S	**S**	**02 26 17.0**	**-1.1**
LZH				sS	sS	02 26 36.0	-7.0
LZH				SS	SS	02 30 08.2	+2.5
LZH				LR	LR		
	comp=Z,3µm,16.0s,MS5.5						
LZH	**Lanzhou**	**56.21**	**320**	⇑*i*P	**P**	**02 18 33.0**	**+0.6**
LZH				*PP	pP	02 18 42.5	-4.7
LZH				*SP	sP	02 18 46.5	-7.0
LZH						02 19 31.2	
LZH						02 20 42.0	
LZH				*e*S	**S**	**02 26 17.0**	**-1.1**
LZH				*SS	sS	02 26 36.0	-7.0
LZH				SS	SS	02 30 08.2	+2.5
LZH				pmax	pmax		
	comp=Z,111nm,1.5s,mb5.7						
LZH				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.5						
SKR	**Severo-Kuril's**	**56.33**	**8**	*e*P	**P**	**02 18 32.0**	**-0.9**
SKR				*e*		02 19 24.0	
SKR				*e*		02 20 36.0	
SKR				*e*S	**S**	**02 26 18.0**	**-1.1**

SKR				pmax	pmax		
	comp=N,1µm,4.0s						
SKR				pmax	pmax		
	comp=E,1µm,4.0s						
SKR				pmax	pmax		
	comp=Z,1µm,4.0s						
SKR				pmax	pmax		
	comp=Z,130nm,1.0s,mb5.9						
SKR				smax			
	comp=N,2µm,14.0s						
SKR				smax			
	comp=E,1µm,14.0s						
SKR				MLR	MLR		
	comp=E,1µm,18.0s						
SKR				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.0						
IMP	**Imphal**	**57.83**	**303**	*e*P	**P**	**02 18 45.0**	**+0.9**
IMP				*e*x	x	02 19 35.0	
HIA	**Hailar**	**58.40**	**341**	⇑*i*P	**P**	**02 18 46.8**	**-0.7**
HIA				LR	LR		
	comp=Z,4µm,22.0s,MS5.5						
PET	**Petropavlovsk**	**58.99**	**10**	PFAKE		02 19 00.0	+8.4
PET				LR	LR		
	comp=Z,2µm,22.0s,MS5.1						
PET	**Petropavlovsk**	**58.99**	**10**	*d* *i*P	**P**	**02 18 50.9**	**-0.7**
PET				*e**SP	sP	02 19 07.5	-5.2
PET				*i* S	**S**	**02 26 55.3**	**+1.3**
PET				pmax	pmax		
	comp=Z,800nm,3.5s						
PET				pmax	pmax		
	comp=Z,400nm,12.9s						
PET				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.4						
PET				pmax	pmax		
	comp=Z,900nm,4.3s						
PET				pmax	pmax		
	comp=Z,400nm,16.7s						
PET				smax			
	comp=N,1µm,12.8s						
PET				smax			
	comp=N,900nm,10.7s						
AGT	**Agartala**	**59.75**	**301**	*e*P	**P**	**02 18 58.0**	**+0.6**
SHL	**Shillong**	**59.85**	**303**	*i* P	**P**	**02 18 58.0**	**-0.1**
SHL				*e*S	**S**	**02 27 04.0**	**-2.0**
GTA	**Gaotai**	**60.76**	**321**	⇑P	**P**	**02 19 04.5**	**+0.5**
GTA				AP	pP	02 19 14.8	-4.2
GTA				XP	sP	02 19 19.0	-6.2
GTA				PP	PP	02 21 20.8	+2.3
GTA				SCP	ScP	02 23 45.2	+0.7
GTA				PCS	PcS	02 23 48.6	-1.5
GTA				S	**S**	**02 27 18.6**	**+1.4**
GTA				XS	sS	02 27 35.7	-6.6
GTA				SCS	ScS	02 28 49.0	-1.4
GTA				SS	SS	02 31 19.7	+2.7
GTA				AMB	AMB		
	comp=Z,32nm,2.1s,mb5.1						
GTA				AMB	AMB		
	comp=Z,752nm,7.2s						
GTA				LR	LR		
	comp=N,1µm,19.8s,MS5.1						
GTA				LR	LR		
	comp=E,818nm,22.1s,MS5.1						
GTA				LR	LR		
	comp=Z,1µm,20.9s,MS5.0						
DRV	**Dumont d'Urvil**	**61.61**	**182**	P	**P**	**02 19 13.0**	**+3.7**
DRV				S	**S**	**02 27 36.0**	**+8.9**
DRV				SS	SS	02 31 54.0	+25
DRV				L		02 34 00.0	
DRV				R		02 39 00.0	
HON	**Honolulu**	**61.67**	**63**	*e*pP	pP	02 19 25.4	-0.2
KIP	**Kipapa**	**61.69**	**63**	*e*P	**P**	**02 19 12.2**	**+1.5**
LSA	**Lhasa**	**62.10**	**307**	P	**P**	**02 19 14.8**	**+1.5**
LSA				AP	pP	02 19 29.4	+1.1
LSA				AMB	AMB		
	comp=Z,30nm,1.7s,mb5.2						
LSA				AMB	AMB		
	comp=Z,570nm,6.0s						
LSA				LR	LR		
	comp=N,750nm,23.0s,MS5.1						
LSA				LR	LR		
	comp=E,1µm,26.0s,MS5.1						
LSA				LR	LR		
	comp=Z,2µm,26.0s,MS5.2						
LSA	**Lhasa**	**62.10**	**307**	⇑*i*P	**P**	**02 19 14.5**	**+1.2**
	comp=Z,24nm,0.6s,mb5.5						
LSA				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
LSA	**Lhasa**	**62.10**	**307**	⇑*i*P	**P**	**02 19 14.5**	**+1.2**
LSA				pmax	pmax		
	comp=Z,24nm,0.6s,mb5.5						
LSA				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.1						
SMY	**Shemya**	**62.61**	**19**	PFAKE		02 19 30.0	+14
SMY				LR	LR		
	comp=Z,5µm,20.0s,MS5.6						
SONM	**Songino Array**	**62.63**	**332**	P	**P**	**02 19 16.0**	**-0.5**
SONM				LR	LR	02 46 26.9	
SONM				⇑*e*		02 48 27.2	
SONM	**Songino Array**	**62.63**	**332**	P	**P**	**02 19 16.0**	**-0.5**
	comp=Z,3.6nm,0.5s,mb4.8,baz=151,slow=6.3,SNR=31						
SONM				LR	LR	02 46 26.9	
	comp=Z,4µm,20.3s,MS5.5,baz=139,slow=36						
SONM				PKP2bc		02 48 27.2	
	comp=Z,18nm,0.9s,baz=302,slow=2.7,SNR=16						
CIT	**Chita**	**62.85**	**339**	*e*P	**P**	**02 19 17.6**	**-0.2**
CIT				*e*	pP	02 19 34.6	+1.8
CIT				*e*		02 19 57.0	
CIT				pmax	pmax		
	comp=Z,167nm,2.7s,mb5.7						
POHA	**Pohakuloa**	**63.42**	**65**	PFAKE		02 19 30.0	+7.8
POHA				LR	LR		
	comp=Z,5µm,22.0s,MS5.7						
NRGR	**Nerungri**	**63.70**	**348**	*e*P	**P**	**02 19 24.4**	**+1.1**
CLNS	**Chul'man**	**63.83**	**348**	⇑*i*P	**P**	**02 19 24.0**	**-0.2**
CLNS				*e**PP	pP	02 19 30.8	-8.5
CLNS				*e*		02 20 02.5	
CLNS				*e*S	**S**	**02 27 50.5**	**-4.7**
CLNS				*e*PS		02 28 26.1	
CLNS				pmax	pmax		
	comp=N,12nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.2						
CLNS				pmax	pmax		
	comp=E,4.0nm,0.6s						
CLNS				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
CLNS				pmax	pmax		
	comp=N,16nm,1.2s						
CLNS				pmax	pmax		
	comp=E,15nm,0.9s						
CLNS				smax			
	comp=N,215nm,13.5s						
CLNS				smax			
	comp=Z,421nm,12.9s						
CLNS				smax			
	comp=E,472nm,12.7s						
TAPN	**Taplejung**	**63.98**	**304**	*e*P	**P**	**02 19 26.3**	**+0.5**
	comp=E,557nm,1.3s,mb6.4						
ODAN	**Odare**	**64.07**	**303**	*e*P	**P**	**02 19 26.8**	**+0.4**
	comp=E,116nm,0.6s,mb6.1						
MA2	**Magadan**	**64.58**	**3**	*e*P	**P**	**02 19 28.9**	**-0.2**
	comp=E,67nm,1.0s,mb5.6						
MA2				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
MA2	**Magadan**	**64.58**	**3**	⇑*e*P	**P**	**02 19 28.3**	**-0.8**
MA2				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.2						
VIS	**Vishakhapatnam**	**64.92**	**292**	*e*P	**P**	**02 19 31.9**	**-0.3**
VIS				AMb	AMB	02 19 35.0	
	comp=Z,227nm,0.8s,mb6.2						
VIS				*i* S	**S**	**02 28 11.1**	**+1.0**
PPT	**Papeete**	**65.06**	**107**	*e*S	S	02 28 12.4	+0.6
	comp=Z,3µm,30.5s						
PPT				*e*LQ		02 36 20.2	
	comp=Z,3µm,29.0s						
PPT				*e*LR	LR	02 38 55.1	
	comp=Z,2µm,26.2s						
PPT	**Papeete**	**65.06**	**107**	LR	LR	02 44 09.9	
	comp=Z,744nm,21.4s,MS4.8,baz=181,slow=32						
PAE	**Paea**	**65.06**	**107**	*e*P	**P**	**02 19 34.2**	**+1.2**
	comp=Z,66nm,0.8s,mb5.7						
PAE	**Paea**	**65.06**	**107**	*e*P	**P**	**02 19 34.2**	**+1.2**
PAE				pmax	pmax		
	comp=Z,66nm,0.8s,mb5.7						
PALK	**Pallekele**	**65.33**	**280**	*e*P	**P**	**02 19 35.7**	**+0.8**
PALK				LR	LR		
	comp=Z,838nm,22.0s,MS4.9						
PALK	**Pallekele**	**65.33**	**280**	P	**P**	**02 19 36.3**	**+1.4**
	SNR=13						
JIRN	**Jiri**	**65.35**	**303**	*e*P	**P**	**02 19 35.4**	**+0.6**
	comp=Z,54nm,0.8s,mb5.7						
TVO	**Taravao**	**65.38**	**107**	*e*P	**P**	**02 19 36.7**	**+1.6**
	comp=Z,96nm,0.9s,mb5.8						
TVO	**Taravao**	**65.38**	**107**	*e*P	**P**	**02 19 36.7**	**+1.6**
TVO				pmax	pmax		
	comp=Z,96nm,0.9s,mb5.8						
ADK	**Adak**	**65.42**	**25**	PFAKE		02 19 40.0	+5.3
ADK				LR	LR		
	comp=Z,3µm,22.0s,MS5.5						
CASY	**Casey**	**65.66**	**195**	*e*P	**P**	**02 19 36.4**	**+0.4**
CASY	**Casey**	**65.66**	**195**	*e*P	**P**	**02 19 36.0**	**+0.1**
CASY				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
GUN	**Gumba**	**65.70**	**304**	*e*P	**P**	**02 19 37.4**	**+0.4**
	comp=Z,189nm,0.6s,mb6.3						
ZAK	**Zakamensk**	**65.87**	**332**	⇓*i*P	**P**	**02 19 37.1**	**-0.5**
ZAK				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.2						
PKI	**Pulchoki**	**65.97**	**303**	*e*P	**P**	**02 19 39.2**	**+0.4**
	comp=Z,512nm,1.6s,mb6.3						
KKN	**Kakani**	**66.16**	**303**	*e*P	**P**	**02 19 40.1**	**+0.2**
	comp=Z,194nm,0.9s,mb6.2						
DMN	**Daman**	**66.24**	**303**	*e*P	**P**	**02 19 40.9**	**+0.4**
	comp=Z,341nm,0.9s,mb6.4						
MEH	**Mehetia**	**66.51**	**107**	*e*P	**P**	**02 19 43.7**	**+1.3**
	comp=Z,72nm,0.8s,mb5.7						
PMOR	**Pomariorio Ree**	**66.59**	**104**	*e*P	**P**	**02 19 44.4**	**+1.4**
	comp=Z,75nm,0.8s,mb5.8						
TLY	**Talaya**	**66.61**	**333**	P	**P**	**02 19 42.3**	**0.0**
	comp=Z,113nm,1.3s,mb5.7,SNR=8.3						
TLY	**Talaya**	**66.61**	**333**	*e*P	**P**	**02 19 43.2**	**+0.9**
TLY				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
TLY	**Talaya**	**66.61**	**333**	*e*P	**P**	**02 19 42.1**	**-0.2**
TLY				*e*S	S	02 28 30.8	+1.4
TLY				*e*		02 28 59.7	
TLY				*e*		02 29 35.9	
TLY				*e*SS	SS	02 32 45.3	-2.5
TLY				*e*SSS		02 35 36.3	
TLY				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.2						
TLY				MLR	MLR		
	comp=Z,734nm,18.0s,MS4.9						
TLY	**Talaya**	**66.61**	**333**	P	**P**	**02 19 43.4**	**+1.1**
	SNR=16						
IRK	**Irkutsk**	**66.73**	**334**	*e*P	**P**	**02 19 42.6**	**-0.4**
IRK				*e*	pP	02 20 01.3	+3.1
IRK				*e*		02 28 59.4	
IRK				pmax	pmax		
	comp=Z,112nm,1.2s,mb5.8						
GKN	**Gorkha**	**66.76**	**303**	*e*P	**P**	**02 19 43.8**	**0.0**
	comp=Z,107nm,0.5s,mb6.2						
MDRS	**Chennai**	**66.79**	**286**	*e*P	**P**	**02 19 42.4**	**-1.8**
MDRS				AMb	AMB	02 19 44.9	
	comp=Z,178nm,1.1s,mb6.0						
VAH	**Vaihoa**	**66.86**	**104**	*e*P	**P**	**02 19 45.6**	**+1.0**
	comp=Z,39nm,0.9s,mb5.4						
BLSP	**Bilaspur**	**67.15**	**296**	*e*P	**P**	**02 19 47.0**	**+0.6**
BLSP				AMb	AMB	02 19 48.6	
	comp=Z,230nm,0.9s,mb6.2						
BOD	**Bodaibo**	**67.48**	**343**	*e*P	**P**	**02 19 46.3**	**-1.4**
BOD				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.2						
KOLN	**Koldanda**	**67.55**	**303**	*e*P	**P**	**02 19 48.8**	**0.0**
	comp=Z,513nm,1.4s,mb6.4						
MOY	**Mondy**	**67.81**	**332**	*e*P	**P**	**02 19 50.0**	**+0.1**
MOY				pmax	pmax		
	comp=Z,163nm,2.5s,mb5.6						
YAK	**Yakutsk**	**67.92**	**352**	⇑*e*P	**P**	**02 19 49.6**	**-0.8**
YAK				LR	LR		
	comp=Z,969nm,21.0s,MS5.0						
YAK	**Yakutsk**	**67.92**	**352**	*e*P	**P**	**02 19 50.5**	**+0.1**
YAK				*e*	pP	02 20 07.7	+2.1
YAK				*e**PP	pP	02 20 13.1	+7.5
YAK				*e*		02 22 21.2	
YAK				*e*PPP		02 24 01.1	
YAK				*e*S	S	02 28 42.4	-2.4
YAK				*e**SS	sS	02 29 15.1	+4.7
YAK				*e*		02 29 39.4	
YAK				*e*SS	SS	02 33 09.1	+1.3
YAK				pmax	pmax		
	comp=N,12nm,1.2s						
YAK				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.1						
YAK				pmax	pmax		
	comp=E,11nm,1.8s						
YAK				pmax	pmax		
	comp=Z,246nm,2.7s,mb5.8						
YAK				pmax	pmax		
	comp=N,210nm,2.4s						
YAK				pmax	pmax		
	comp=E,232nm,6.5s						
YAK				smax			
	comp=N,417nm,5.5s						
YAK				smax			
	comp=E,1µm,10.8s						
ALBI	**Allahabad**	**68.33**	**300**	*e*P	**P**	**02 19 52.5**	**-1.3**
KOD	**Kodaikanal**	**68.96**	**283**	*e*P	**P**	**02 19 59.0**	**+1.1**
KOD				AMb	AMB	02 20 00.1	
	comp=Z,308nm,1.8s,mb5.9						
TRD	**Trivandrum**	**69.19**	**281**	⇓*e*P	**P**	**02 19 56.4**	**-2.9**
TRD				*e*P		02 19 59.4	
TRD				*e*P		02 19 60.0	
TRD				AMb	AMB	02 20 00.7	
	comp=Z,337nm,2.6s,mb5.8						
HYB	**Hyderabad**	**69.28**	**291**	*e*P	**P**	**02 19 58.5**	**-1.3**
	comp=Z,150nm,1.0s,mb5.9						
HYB				*e*S	S	02 29 00.0	-2.6
HYB	**Hyderabad**	**69.28**	**291**	*e*P	**P**	**02 19 58.5**	**-1.3**
HYB				*e*S	S	02 29 00.0	-2.6
HYB				pmax	pmax		
	comp=Z,150nm,1.0s,mb5.9						
HYB	**Hyderabad**	**69.28**	**291**	*i* P	**P**	**02 19 58.5**	**-1.3**
	comp=Z,214nm,1.2s,mb6.0						
HYB				*e*sP	sP	02 20 18.0	-3.2
HYB				*e*PcP	PcP	02 20 24.0	+0.8
HYB				*e*S	S	02 29 00.0	-2.6
NGP	**Nagpur**	**69.67**	**295**	⇑*i*P	**P**	**02 20 00.7**	**-1.5**
NGP				*e*x	x	02 20 03.2	
	comp=Z,150nm,1.3s						
NGP				*e*S	S	02 29 04.5	-2.7
UNV	**Unalaska Valle**	**71.29**	**28**	*e*P	**P**	**02 20 10.9**	**-0.4**
	comp=Z,36nm,0.8s,mb5.3						
UNV				LR	LR		
	comp=Z,6µm,22.0s,MS5.8						
LATR	**Latur**	**71.35**	**291**	*e*P	**P**	**02 20 11.8**	**-0.6**
AKL	**Akola**	**71.42**	**294**	⇑*i*P	**P**	**02 20 13.4**	**+0.6**
AKL				*e*x	x	02 20 14.3	
	comp=Z,325nm,1.0s						
AKL				*e*x	x	02 24 20.7	
BHPL	**Bhopal**	**71.64**	**296**	*e*P	**P**	**02 20 12.6**	**-1.5**
BHPL				*e*P		02 20 14.5	
BHPL				AMb	AMB	02 20 15.8	
	comp=Z,146nm,0.8s,mb6.0						
AKUT	**Akutan**	**71.81**	**28**	*e*P	**P**	**02 20 15.1**	**+0.7**
	comp=Z,463nm,1.5s,mb6.2						
MNGI	**Mangalore**	**71.96**	**285**	*i* P	**P**	**02 20 16.4**	**+0.2**
MNGI				AMb	AMB	02 20 19.4	
	comp=Z,124nm,1.2s,mb5.7						
MNGI				*i* S	S	02 29 35.0	+1.0
VNDA	**Vanda**	**72.98**	**176**	*e*P	**P**	**02 20 21.5**	**+0.5**
VNDA				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
VNDA	**Vanda**	**72.98**	**176**	P	**P**	**02 20 21.1**	**0.0**
	comp=Z,100nm,0.9s,mb5.7,baz=326,slow=6.2,SNR=82						
VNDA				LR	LR	02 53 43.5	
	comp=Z,2µm,18.5s,MS5.3,baz=349,slow=37						
NDI	**New Delhi**	**73.20**	**302**	*e*P	**P**	**02 20 22.0**	**-1.3**
NDI				AMb	AMB	02 20 25.1	
	comp=Z,168nm,1.8s,mb5.7						
KAD	**Karad**	**73.35**	**290**	*e*P	**P**	**02 20 24.3**	**0.0**
KAD				AMb	AMB	02 20 25.9	
	comp=Z,226nm,0.9s,mb6.1						
SBA	**Scott Base**	**73.65**	**175**	*e*P	**P**	**02 20 27.2**	**+2.2**
	comp=Z,152nm,1.2s,mb5.8						
SBA				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
POO	**Poona**	**73.89**	**291**	*e*P	**P**	**02 20 26.8**	**-0.7**
POO				AMb	AMB	02 20 28.5	
	comp=Z,261nm,1.0s,mb6.1						
TAOE	**Nuku Hiva Isla**	**74.28**	**98**	*e*S	S	02 30 02.2	+1.9
	comp=Z,1µm,27.4s						
TAOE				*e*LR	LR	02 43 23.6	
	comp=Z,6µm,22.9s						
BILL	**Bilibino**	**74.44**	**8**	*e*P	**P**	**02 20 29.3**	**-0.4**
BILL				LR	LR		
	comp=Z,20057µm,20.0s						
BILL	**Bilibino**	**74.44**	**8**	⇑*i*P	**P**	**02 20 29.2**	**-0.5**
BILL				*e*	pP	02 20 48.5	+3.4
BILL				*i* S	S	02 30 00.7	+0.6
BILL				*i* PPS		02 30 55.4	
BILL				*e*SS	SS	02 34 43.5	-4.1
BILL				pmax	pmax		
	comp=Z,51nm,2.5s,mb5.0						
AJM	**Ajmer**	**74.86**	**299**	*e*P	**P**	**02 20 31.3**	**-1.7**
AJM				AMb	AMB	02 20 35.5	
	comp=Z,188nm,1.2s,mb5.9						
SDPT	**Sand Point**	**75.02**	**29**	*e*P	**P**	**02 20 32.7**	**-0.6**
	comp=Z,90nm,0.8s,mb5.8						
THN	**Thein Dam**	**75.46**	**305**	*e*P	**P**	**02 20 34.8**	**-1.6**
MK31	**Makanchi Array**	**75.52**	**321**	⇑*e*P	**P**	**02 20 35.7**	**-0.7**
MKAR	**Makanchi Array**	**75.52**	**321**	P	**P**	**02 20 34.8**	**-1.6**
	comp=Z,10nm,0.5s,mb5.0,baz=96,slow=9.6,SNR=102						
MKAR				PKPPKP		02 47 56.3	
	comp=Z,0.3nm,0.2s,baz=286,slow=2.3,SNR=6.1						
GAMB	**Gambell**	**75.89**	**18**	*e*P	**P**	**02 20 39.0**	**+0.9**
ZALV	**Zalesovo Beam**	**77.17**	**328**	P	**P**	**02 20 43.8**	**-1.7**
ZALV				PKKPbc	PKKPbc	02 39 52.6	-2.2
ZALV				P'P'		02 47 52.3	
ZALV				LR	LR	02 53 57.2	
ZALV	**Zalesovo Beam**	**77.17**	**328**	P	**P**	**02 20 43.8**	**-1.7**
	comp=Z,24nm,0.7s,mb5.3,baz=112,slow=6.1,SNR=55						
ZALV				PKKPbc	PKKPbc	02 39 52.6	-2.2
	comp=Z,2.0nm,0.7s,baz=321,slow=3.7,SNR=9.1						
ZALV				PKPPKP		02 47 52.3	
	comp=Z,0.3nm,0.3s,baz=321,slow=2.1,SNR=4.4						
ZALV				LR	LR	02 53 57.2	
	comp=Z,1µm,20.9s,MS5.2,baz=118,slow=35						
ZAL	**Zalesovo**	**77.17**	**328**	P	**P**	**02 20 43.8**	**-1.8**
TIXI	**Tiksi**	**77.28**	**355**	PFAKE		02 21 00.0	+14
TIXI				LR	LR		
	comp=Z,841nm,20.0s,MS5.1						
ULHL	**Ulahol**	**77.92**	**315**	P	**P**	**02 20 52.0**	**+2.0**
	SNR=8.3						
TNA	**Tin City**	**78.30**	**18**	*e*P	**P**	**02 20 52.3**	**+0.7**
TNA				LR	LR		
	comp=Z,3µm,22.0s,MS5.5						
NVS	**Novosibirsk**	**78.40**	**329**	⇑*i*P	**P**	**02 20 51.0**	**-1.4**
NVS				*i*	pP	02 21 09.2	+1.3
NVS				*e*		02 23 53.6	
NVS				*i* S	S	02 30 39.8	-4.0
NVS				*e*PS		02 31 03.5	
NVS				*e*		02 31 39.2	
NVS				pmax	pmax		
	comp=N,110nm,2.3s						
NVS				pmax	pmax		
	comp=E,133nm,2.3s						
NVS				pmax	pmax		
	comp=Z,254nm,2.3s,mb5.7						
NVS				pmax	pmax		
	comp=Z,54nm,2.5s,mb5.0						
NVS				pmax	pmax		
	comp=N,38nm,2.3s						
NVS				pmax	pmax		
	comp=E,47nm,2.3s						
NVS				smax			
	comp=N,32nm,2.3s						
NVS				smax			
	comp=E,98nm,3.5s						
KZA	**Kyzart**	**78.57**	**315**	P	**P**	**02 20 54.7**	**+1.0**
	SNR=79						
TKM2	**Tokmak 2**	**78.59**	**315**	P	**P**	**02 20 54.4**	**+0.7**
	SNR=44						
TKM2	**Tokmak 2**	**78.59**	**315**	*e*P	**P**	**02 20 53.2**	**-0.5**
	comp=E,22nm,0.5s,mb5.3						
TKM2				LR	LR		
	comp=Z,834nm,22.0s,MS5.0						
TKM2	**Tokmak 2**	**78.59**	**315**	*e*P	**P**	**02 20 53.2**	**-0.5**
TKM2				pmax	pmax		
	comp=Z,22nm,0.5s,mb5.3						
TKM2				MLR	MLR		
	comp=Z,834nm,22.0s,MS5.0						
BHJ	**Bhuj**	**78.63**	**295**	*e*P	**P**	**02 20 54.6**	**+0.2**
BHJ				AMb	AMB	02 20 55.9	
	comp=Z,274nm,0.7s,mb6.3						
RKT	**Rikitea**	**78.86**	**112**	*e*S	S	02 30 50.6	+0.5
	comp=Z,1µm,31.0s						
RKT				*e*LQ		02 42 04.7	
	comp=Z,1µm,40.5s						
RKT				*e*LR	LR	02 45 32.5	
	comp=Z,4µm,35.5s						
KBK	**Karagaybulak**	**78.96**	**315**	P	**P**	**02 20 56.4**	**+0.6**
	SNR=18						
UCH	**Uchtor**	**79.14**	**315**	P	**P**	**02 20 58.4**	**+1.6**
	SNR=33						
UCH	**Uchtor**	**79.14**	**315**	⇑*i*P	**P**	**02 20 57.3**	**+0.6**
	comp=Z,27nm,0.8s,mb5.2						
UCH				LR	LR		
	comp=Z,915nm,20.0s,MS5.1						
CHMS	**Chumysh**	**79.20**	**315**	P	**P**	**02 20 57.4**	**+0.3**
	SNR=9.7						
FRU	**Bishkek**	**79.25**	**315**	⇑*e*P	**P**	**02 20 57.0**	**-0.3**
FRU				*e*	pP	02 21 11.0	-1.8
FRU				*e*	pP	02 21 16.0	+3.2
FRU				pmax	pmax		
	comp=Z,200nm,2.1s,mb5.7						
FRU				MLR	MLR		
	comp=Z,500nm,20.0s,MS4.8						
AAK	**Ala-Archa**	**79.27**	**315**	P	**P**	**02 20 58.3**	**+0.8**
	SNR=20						
AAK	**Ala-Archa**	**79.27**	**315**	*e*P	**P**	**02 20 56.6**	**-0.9**
AAK				LR	LR		
	comp=Z,815nm,19.0s,MS5.1						
AAK	**Ala-Archa**	**79.27**	**315**	⇑*e*P	**P**	**02 20 56.1**	**-1.4**
AAK				pmax	pmax		
	comp=Z,73nm,2.3s,mb5.2						
AAK	**Ala-Archa**	**79.27**	**315**	P	**P**	**02 20 56.2**	**-1.3**
	SNR=20						
KURK	**Kurchatov**	**79.28**	**324**	P	**P**	**02 20 56.4**	**-0.9**
	comp=Z,194nm,1.0s,mb6.0,SNR=12						
KURK	**Kurchatov**	**79.28**	**324**	*e*P	**P**	**02 20 56.7**	**-0.6**
	comp=Z,62nm,1.0s,mb5.5						
KURK				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
KURK	**Kurchatov**	**79.28**	**324**	⇑*e*P	**P**	**02 20 55.6**	**-1.7**
KURK	**Kurchatov**	**79.28**	**324**	P	**P**	**02 20 56.8**	**-0.5**
	SNR=34						
USP	**Ospenovka**	**79.46**	**316**	P	**P**	**02 20 58.9**	**+0.5**
	SNR=21						
AML	**Almayashu**	**79.70**	**314**	P	**P**	**02 21 01.2**	**+1.4**
	SNR=33						
AML	**Almayashu**	**79.70**	**314**	*e*P	**P**	**02 21 00.2**	**+0.4**
	comp=Z,50nm,0.8s,mb5.5						
AML				LR	LR		
	comp=Z,726nm,20.0s,MS5.0						
EKS2	**Erkin-Say**	**79.79**	**315**	P	**P**	**02 21 00.3**	**+0.1**
	SNR=28						
EKS2	**Erkin-Say**	**79.79**	**315**	⇑*e*P	**P**	**02 21 00.3**	**0.0**
	comp=Z,38nm,0.8s,mb5.4						
EKS2				LR	LR		
	comp=Z,996nm,20.0s,MS5.2						
KDAK	**Kodiak Island**	**80.01**	**29**	*e*P	**P**	**02 21 01.2**	**+0.1**
KDAK				LR	LR		
	comp=Z,415nm,21.0s,MS4.8						
KDAK	**Kodiak Island**	**80.01**	**29**	P	**P**	**02 21 01.4**	**+0.2**
	comp=Z,38nm,0.9s,mb5.3,baz=274,slow=5.1,SNR=17						
SVW2	**Sparrevohn**	**80.22**	**25**	*e*P	**P**	**02 21 02.2**	**+0.1**
KBL	**Kabul**	**81.38**	**306**	⇑*e*P	**P**	**02 21 07.6**	**-1.4**
	comp=Z,23nm,0.7s,mb5.2						
SLKM	**Skilak Lake**	**82.29**	**27**	*e*P	**P**	**02 21 12.3**	**-0.9**
MAW	**Mawson**	**82.36**	**203**	*e*P	**P**	**02 21 13.1**	**-0.4**
	comp=Z,51nm,0.8s,mb5.5						
MAW				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
MAW	**Mawson**	**82.36**	**203**	*e*P	**P**	**02 21 13.1**	**-0.4**
MAW				pmax	pmax		
	comp=Z,51nm,0.8s						
MAW				MLR	MLR		
	comp=Z,3µm,21.0s						
MAW	**Mawson**	**82.36**	**203**	P	**P**	**02 21 12.6**	**-0.8**
	comp=Z,64nm,0.8s,mb5.6,baz=91,slow=5.6,SNR=52						
MAW				LR	LR	02 57 33.0	
	comp=Z,2µm,19.5s,MS5.4,baz=65,slow=36						
PMR	**Palmer**	**83.22**	**26**	*e*P	**P**	**02 21 16.8**	**-1.2**
	comp=Z,75nm,1.5s,mb5.5						
PMR				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						

PMR	**Palmer**	83.22	26	*e*P	P	02 21 16.8	-1.2
PMR				pmax	pmax		
	comp=Z,75nm,1.5s,mb5.5						
PMR				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.3						
IMA2	**Indian Mountai**	83.38	21	*e*P	P	02 21 18.2	-0.5
SML	**Sawmill**	83.65	26	*e*P	P	02 21 20.4	+0.2
MCK	**McKinley**	84.17	24	*e*P	P	02 21 21.3	-1.5
MCK				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
EYAK	**Cordova Ski Ar**	84.35	28	⇑*e*P	P	02 21 22.7	-1.1
	comp=Z,54nm,1.3s,mb5.5						
QSPA	**South Pole Qui**	84.91	180	P	P	02 21 26.0	-0.3
QSPA	**South Pole Qui**	84.91	180	*e*P	P	02 21 25.7	-0.6
	comp=Z,186nm,1.0s,mb6.2						
QSPA				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
BRVK	**Borovoye**	84.92	324	P	P	02 21 26.1	-0.7
	comp=Z,218nm,0.8s,mb6.3,SNR=12						
BRVK	**Borovoye**	84.92	324	*e*P	P	02 21 26.6	-0.2
	comp=Z,48nm,0.8s,mb5.7						
BRVK				LR	LR		
	comp=Z,991nm,22.0s,MS5.2						
BRVK	**Borovoye**	84.92	324	*e*P	P	02 21 26.6	-0.2
BRVK				pmax	pmax		
	comp=Z,48nm,0.8s,mb5.7						
BRVK				MLR	MLR		
	comp=Z,991nm,22.0s,MS5.2						
BRVK	**Borovoye**	84.92	324	P	P	02 21 26.3	-0.5
	SNR=27						
COLA	**College**	85.05	23	⇑*i*P	P	02 21 24.8	-2.4
COLA				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
MENT	**Mentasta**	86.07	26	*e*P	P	02 21 32.3	0.0
EGAK	**Eagle**	87.71	24	*e*P	P	02 21 39.6	-0.7
	comp=Z,32nm,0.9s,mb5.5						
EGAK				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
DAWY	**Dawson**	88.25	25	*e*P	P	02 21 42.7	-0.2
WBK	**Wadi Bani Khal**	88.28	293	P	P	02 21 44.9	+1.0
	SNR=6.1						
SIT	**Sitka**	88.60	33	PFAKE		02 21 50.0	+5.4
SIT				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
SKAG	**Skagway**	89.07	30	*e*P	P	02 21 47.3	+0.5
	comp=Z,92nm,2.1s,mb5.7						
SKAG				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
MSEY	**Mahe Island**	89.14	265	PFAKE		02 22 00.0	+12
MSEY				LR	LR		
	comp=Z,933nm,20.0s,MS5.2						
BIDO	**Bidbid**	89.14	294	P	P	02 21 47.9	0.0
	SNR=15						
SMDO	**Samad**	89.17	293	P	P	02 21 48.5	+0.4
	SNR=12						
HOQ	**Hoqain**	89.90	294	P	P	02 21 51.4	-0.1
	SNR=13						
BSY	**Bisya**	89.92	293	P	P	02 21 51.8	+0.1
	SNR=5.4						
WRAK	**Wrangell Islan**	90.10	33	PFAKE		02 22 00.0	+8.3
WRAK				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
ARQ	**Araqi**	90.59	293	P	P	02 21 55.0	+0.3
	SNR=10						
SYO	**Syowa Base**	90.80	200	⇓*i*P	P	02 21 54.3	-0.4
INK	**Inuvik**	91.50	22	*e*P	P	02 21 56.8	-1.2
	comp=Z,775nm,1.0s						
INK	**Inuvik**	91.50	22	LR	LR	03 01 50.6	
	comp=Z,3µm,21.2s,MS5.7,baz=238,slow=35						
ARU	**Arti**	92.20	326	*e*P	P	02 21 59.6	-1.8
	comp=Z,26nm,1.1s,mb5.5						
ARU				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
ARU	**Arti**	92.20	326	⇑*i*P	P	02 21 59.3	-2.1
ARU				*e*		02 25 40.1	
ARU				*e*S	SKSac	02 32 29.6	-0.3
ARU				*e*PS	PS	02 34 14.0	-3.4
ARU				*e*SS	SS	02 39 11.4	+0.7
ARU				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.2						
ARU				MLR	MLR		
	comp=N,200nm,18.0s,MS5.1						
ARU				MLR	MLR		
	comp=E,600nm,21.0s,MS5.1						
RBK	**Rabkut**	92.27	287	P	P	02 22 02.8	+0.2
	SNR=6.4						
WHFO	**Wadi Hawf**	92.71	288	P	P	02 22 03.0	-1.6
	SNR=6.5						
ABTO	**Aybut**	93.12	287	P	P	02 22 06.0	-0.6
	SNR=6.7						
NLWA	**Neilton Lookou**	94.44	43	PFAKE		02 22 20.0	+8.1
NLWA				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
HOPS	**Hopland**	94.63	51	PFAKE		02 22 20.0	+7.0
HOPS				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
COR	**Corvallis**	94.71	46	PFAKE		02 22 20.0	+6.7
COR				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
MCCM	**Marconi Confer**	94.74	52	PFAKE		02 22 20.0	+6.4
MCCM				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
HUMO	**Hull Mountain**	94.88	48	PFAKE		02 22 20.0	+5.9
HUMO				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
YBH	**Yreka Blue Hor**	95.02	49	PFAKE		02 22 20.0	+5.2
YBH				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
WDC	**Whiskeytown Da**	95.11	50	PFAKE		02 22 20.0	+4.8
WDC				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
SAO	**San Andreas Ge**	95.82	54	PFAKE		02 22 30.0	+11
SAO				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
OHCM	**Honcut**	95.88	51	*e*P	P	02 22 18.6	-0.1
CMB	**Columbia Colle**	96.70	52	*e*P	P	02 22 21.2	-1.3
	comp=Z,14nm,1.6s,mb5.1						
CMB				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
CMB	**Columbia Colle**	96.70	52	*e*P	P	02 22 21.2	-1.3
CMB				pmax	pmax		
	comp=Z,14nm,1.6s,mb5.1						
CMB				MLR	MLR		
	comp=Z,4µm,22.0s,MS5.8						
MOD	**Modoc**	96.83	49	PFAKE		02 22 30.0	+7.0
MOD				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
WVOR	**Wild Horse Val**	98.07	48	PFAKE		02 22 40.0	+11
WVOR				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
NVAR	**Mina Array Bea**	98.35	52	P	P	02 22 30.2	+0.3
NVAR	**Mina Array Bea**	98.35	52	P	P	02 22 30.2	+0.3
	comp=Z,1.2nm,0.8s,mb4.5,baz=254,slow=3.6,SNR=8.4						
DAC	**Darwin (Calif)**	98.92	54	*e*P	P	02 22 33.2	+0.7
DAC				*e*pP	pP	02 22 46.6	-1.8
DAC				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
NEW	**Newport**	98.98	42	P	P	02 22 33.0	+0.5
NEW				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
NEW	**Newport**	98.98	42	P	P	02 22 33.0	+0.5
	comp=Z,1.9nm,0.9s,mb4.6,baz=257,slow=5.6,SNR=4.4						
BMO	**Blue Mountains**	98.98	46	PFAKE		02 22 40.0	+7.4
BMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
BMN	**Battle Mountai**	99.16	50	PFAKE		02 22 40.0	+6.5
BMN				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
TPH	**Tonopah**	99.20	52	PFAKE		02 22 40.0	+6.3
TPH				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
YKW3	**Yellowknife Ar**	99.24	27	*e*P	P	02 22 32.6	-0.7
YKA	**Yellowknife Ar**	99.25	28	P	P	02 22 32.6	-0.8
YKA						02 26 44.4	
YKA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
YKA				MLR	MLR		
	comp=Z,1µm,20.8s						
YKA	**Yellowknife Ar**	99.25	28	P	P	02 22 32.6	-0.7
	comp=Z,2.5nm,0.8s,mb4.8,baz=277,slow=4.9,SNR=22						
YKA				PP	PP	02 26 44.4	+7.8
	comp=Z,0.4nm,0.6s,baz=270,slow=36,SNR=3.8						
YKA				PKKPbc	PKKPbc	02 38 57.1	-3.2
	comp=Z,4.3nm,0.8s,baz=90,slow=2.9,SNR=48						
YKA				LR	LR	03 07 09.5	
	comp=Z,1µm,20.8s,MS5.4,baz=215,slow=35						
PFO	**Pinyon Flat Ob**	99.87	57	PFAKE		02 22 50.0	+14
PFO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
HLID	**Hailey**	101.12	47	PFAKE		02 22 50.0	+8.1
HLID				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
MSO	**Missoula**	101.22	43	PFAKE		02 22 50.0	+7.7
MSO				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
ZEI	**Tsey**	101.57	312	*e*P	Pdif	02 22 42.1	-1.8
ZEI				*e*		02 26 56.2	
BHD	**Baghdad**	101.64	303	*e*P	x	02 22 43.5	
LVZ	**Lovozero**	102.25	339	PFAKE		02 23 00.0	+13
LVZ				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
KIV	**Kislovodsk**	102.36	314	PFAKE		02 23 00.0	+13
KIV				LR	LR		
	comp=Z,596nm,22.0s,MS5.1						
DUG	**Dugway**	102.54	50	PFAKE		02 23 00.0	+12
DUG				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
KBS	**Kingsbay**	102.55	352	PFAKE		02 23 00.0	+12
KBS				LR	LR		
	comp=Z,753nm,20.0s,MS5.2						
MSL	**Mosul**	102.58	306	*e*P	x	02 22 49.0	
APA	**Apatity**	102.80	339	⇑*e*P	Pdif	02 22 53.0	+3.6
APA				pmax	pmax		
	comp=Z,43nm,1.4s						
BOZ	**Bozeman (W)**	102.93	44	*e*Pdif	Pdif	02 22 51.5	+1.6
BOZ				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
MVU	**Marysvale**	103.12	52	PFAKE		02 23 00.0	+9.2
MVU				LR	LR		
	comp=Z,3µm,22.0s,MS5.7						
QLMT	**Earthquake Lak**	103.15	45	*e*Pdif	Pdif	02 22 52.3	+1.4
QLMT				*e*		02 27 07.0	
HWUT	**Hardware Ranch**	103.37	49	PFAKE		02 23 00.0	+8.1
HWUT				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
MPU	**Maple Canyon**	103.45	50	PFAKE		02 23 00.0	+7.7
MPU				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
YMR	**Madison River**	103.50	45	PFAKE		02 23 00.0	+7.5
YMR				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
JLU	**Jordanelle**	103.54	50	*e*Pdif	Pdif	02 22 52.9	+0.2
AHID	**Auburn Hatcher**	103.60	47	PFAKE		02 23 00.0	+7.1
AHID				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
LKWY	**Lake**	103.91	45	PFAKE		02 23 00.0	+5.7
LKWY				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
EGMT	**Eagleton**	103.92	42	PFAKE		02 23 00.0	+5.7
EGMT				LR	LR		
	comp=Z,810nm,20.0s,MS5.3						
WUAZ	**Wupatki**	103.99	55	PFAKE		02 23 10.0	+15
WUAZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
KEV	**Kevo**	104.17	342	*e*pkp	Pdif	02 22 49.1	-6.4
KEV	**Kevo**	104.17	342	*e*PKP	Pdif	02 22 49.1	-6.4
KEV				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
OBN	**Obninsk**	104.64	326	PFAKE		02 23 10.0	+12
OBN				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
RLMT	**Red Lodge**	104.64	45	PFAKE		02 23 10.0	+12
RLMT				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
TUC	**Tucson**	104.68	58	PFAKE		02 23 10.0	+12
TUC				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
BW06	**Boulder Array**	104.73	47	PFAKE		02 23 10.0	+12
BW06				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
PDAR	**Pinedale Array**	104.73	47	Pdif	Pdif	02 22 58.1	+0.2
PDAR	**Pinedale Array**	104.73	47	Pdiff	Pdif	02 22 58.1	+0.2
	comp=Z,0.6nm,0.8s,baz=255,slow=2.8,SNR=6.4						
PDAR				PKiKP	PKiKP	02 27 16.0	+2.5
	comp=Z,0.7nm,0.9s,baz=197,slow=1.9,SNR=3.5						
PDAR				PKKPbc	PKKPbc	02 38 45.8	+2.2
	comp=Z,0.3nm,0.8s,baz=94,slow=4.5,SNR=4.0						
ARCES	**ARCESS Array B**	104.74	342	P	Pdif	02 22 57.9	-0.1
ARCES						02 27 12.9	
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES				pmax	pmax		
	comp=Z,7.0nm,1.1s						
ARCES	**ARCESS Array B**	104.74	342	Pdiff	Pdif	02 22 57.9	-0.1
	comp=Z,3.5nm,0.7s,baz=96,slow=9.9,SNR=5.8						
ARCES				PKiKP	PKiKP	02 27 12.9	+0.1
	comp=Z,2.4nm,0.8s,baz=96,slow=1.5,SNR=6.9						
ARCES				PKKPbc	PKKPbc	02 38 44.1	-0.3
	comp=Z,6.6nm,1.1s,baz=247,slow=2.8,SNR=5.7						
JOF	**Joensuu**	105.13	334	*e*pkp	Pdif	02 22 59.3	-0.4
JOF	**Joensuu**	105.13	334	*e*PKP	Pdif	02 22 59.3	-0.4
MALT	**Malatya**	106.12	308	⇓*i*P	PKiKP	02 27 29.3	+13
MVCO	**Mesa Verde**	106.16	53	PFAKE		02 27 30.0	+14
MVCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
LAO	**LASA Array**	106.50	43	PFAKE		02 27 30.0	+13
LAO				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
FFC	**Flin Flon**	107.28	34	PFAKE		02 27 30.0	+12
FFC				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
DGMT	**Dagmar**	107.49	41	PFAKE		02 27 30.0	+11
DGMT				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
KMBO	**Kilima Mbogo**	107.59	267	Pdif	Pdif	02 23 11.5	+0.9
KMBO				LR	LR		
	comp=Z,672nm,22.0s,MS5.2						
KMBO	**Kilima Mbogo**	107.59	267	Pdiff	Pdif	02 23 11.5	+0.9
	comp=Z,3.3nm,1.0s,baz=53,slow=24,SNR=5.5						
FINES	**FINESS Array B**	107.96	334	Pdif	Pdif	02 23 13.4	+1.1
FINES				PKPdf	PKiKP	02 27 19.2	+0.3
FINES				PKKPbc	PKKPbc	02 38 33.2	-1.0
FINES	**FINESS Array B**	107.96	334	P	Pdif	02 23 13.4	+1.1
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	**FINESS Array B**	107.96	334	Pdiff	Pdif	02 23 13.4	+1.1
	comp=Z,1.5nm,0.8s,baz=90,slow=1.9,SNR=5.1						
FINES				PKiKP	PKiKP	02 27 19.2	+0.3
	comp=Z,1.4nm,0.7s,baz=80,slow=2.8,SNR=6.6						
FINES				PKKPbc	PKKPbc	02 38 33.2	-1.0
	comp=Z,2.0nm,0.9s,baz=152,slow=6.3,SNR=4.9						
ANMO	**Albuquerque**	108.05	55	PFAKE		02 27 30.0	+10
ANMO				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
ISCO	**Idaho Springs**	108.08	50	PFAKE		02 27 30.0	+10
ISCO				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
SDCO	**Great Sand Dun**	108.46	52	PFAKE		02 27 30.0	+9.3
SDCO				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
RSSD	**Black Hills**	108.49	45	PFAKE		02 27 30.0	+9.5
RSSD				LR	LR		
	comp=Z,529nm,20.0s,MS5.1						
MNTX	**Cornudas Mount**	109.31	58	*e*PKPdf	PKiKP	02 27 22.3	-0.2
MNTX				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
BR131	**Keskin Array S**	109.61	310	PFAKE		02 27 30.0	+7.2
BR131				LR	LR		
	comp=Z,467nm,20.0s,MS5.0						
BRTR	**Keskin Array B**	109.61	310	Pdif	Pdif	02 23 19.7	0.0
BRTR				PKPdf	PKiKP	02 27 22.8	0.0
BRTR				PKKPbc	PKKPbc	02 38 28.6	+0.4
BRTR	**Keskin Array B**	109.61	310	P	Pdif	02 23 19.7	0.0
BRTR						02 38 28.6	
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	**Keskin Array B**	109.61	310	Pdiff	Pdif	02 23 19.7	0.0
	comp=Z,0.3nm,0.7s,baz=100,slow=5.6,SNR=4.3						
BRTR				PKiKP	PKiKP	02 27 22.8	0.0
	comp=Z,1.2nm,0.8s,baz=117,slow=1.6,SNR=8.6						
BRTR				PKKPbc	PKKPbc	02 38 28.6	+0.4
	comp=Z,0.4nm,0.5s,baz=187,slow=7.5,SNR=3.7						
AKASG	**Malin Array Be**	110.07	322	PKPdf	PKiKP	02 27 23.2	0.0
AKASG				PKKPbc	PKKPbc	02 38 24.3	-2.8
AKASG	**Malin Array Be**	110.07	322	PKiKP	PKiKP	02 27 23.2	0.0
	comp=Z,1.7nm,0.6s,baz=68,slow=1.9,SNR=8.1						
AKASG				PKKPbc	PKKPbc	02 38 24.3	-2.8
	comp=Z,4.2nm,0.9s,baz=261,slow=3.8,SNR=17						
KIEV	**Kiev**	110.08	322	PFAKE		02 27 30.0	+6.7
KIEV				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
ANTO	**Ankara**	110.23	311	*e*PKPdf	PKiKP	02 27 24.1	+0.2
ANTO				LR	LR		
	comp=Z,479nm,21.0s,MS5.0						
ANTO	**Ankara**	110.23	311	*e*PKIKP	PKiKP	02 27 24.1	+0.2
ANTO				MLR	MLR		
	comp=Z,479nm,21.0s,MS5.0						
LTX	**Lajitas**	111.03	61	PFAKE		02 27 40.0	+14
LTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
TXAR	**Lajitas Array**	111.03	61	PKPdf	PKiKP	02 27 27.6	+1.9
TXAR				PP	PP	02 28 02.7	-2.1
TXAR				PKKPbc	PKKPbc	02 38 22.2	-1.1
TXAR	**Lajitas Array**	111.03	61	*i* PKIKP	PKiKP	02 27 27.6	+1.9
TXAR						02 28 02.7	
TXAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
TXAR	**Lajitas Array**	111.03	61	PKiKP	PKiKP	02 27 27.6	+1.9
	comp=Z,0.6nm,1.0s,baz=349,slow=1.3,SNR=3.8						
TXAR				PP	PP	02 28 02.7	-2.1
	comp=Z,1.1nm,0.9s,baz=298,slow=2.7,SNR=4.6						
TXAR				PKKPbc	PKKPbc	02 38 22.2	-1.1
	comp=Z,0.4nm,0.5s,baz=122,slow=4.5,SNR=4.6						
ULM	**Lac du Bonnet**	112.22	37	PFAKE		02 27 40.0	+13
ULM				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
ULM	**Lac du Bonnet**	112.22	37	PKKPbc	PKKPbc	02 38 16.4	-3.7
	comp=Z,3.6nm,1.0s,baz=41,slow=3.8,SNR=6.4						
CBKS	**Cedar Bluff**	112.74	50	PFAKE		02 27 40.0	+11
CBKS				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
AGMN	**Agassiz Refuge**	112.88	39	PFAKE		02 27 40.0	+11
AGMN				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
BOSA	**Boshof**	113.15	236	PKPdf	PKiKP	02 27 30.7	+0.9
BOSA				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
BOSA	**Boshof**	113.15	236	*i* PKIKP	PKiKP	02 27 30.7	+0.9
BOSA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
BOSA	**Boshof**	113.15	236	PKiKP	PKiKP	02 27 30.7	+0.9
	comp=Z,3.5nm,0.8s,baz=108,slow=20,SNR=3.6						
PLOR	**Plostina**	113.16	318	⇑*i*P	PKiKP	02 27 30.8	+1.5
BURAR	**Bucovina Array**	113.54	320	⇑*i*P	PKiKP	02 27 31.2	+1.2
MLR	**Muntele Rosu**	113.74	318	⇓*i*P	PKiKP	02 27 30.2	-0.2
ECSD	**EROS,Sioux Fal**	113.79	44	*e*PKPdf	PKiKP	02 27 30.6	0.0
ECSD				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
HFS	**Hagfors**	113.89	336	PKKPbc	PKKPbc	02 38 14.0	-0.7
	comp=Z,3.6nm,0.9s,baz=222,slow=2.0,SNR=5.1						
JCT	**Junction City**	114.21	59	PFAKE		02 27 40.0	+8.2
JCT				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
LSZ	**Lusaka**	114.27	251	PFAKE		02 27 40.0	+7.7
LSZ				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
WMOK	**Wichita Mounta**	114.32	54	PFAKE		02 27 40.0	+8.1
WMOK				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
NOA	**NORSAR Array B**	114.33	337	PKPdf	PKiKP	02 27 30.7	-0.4
NOA				PKKPbc	PKKPbc	02 38 18.1	+4.8
NOA	**NORSAR Array B**	114.33	337	*i* PKIKP	PKiKP	02 27 30.7	-0.4
NOA				pmax	pmax		
	comp=Z,3.0nm,1.0s						
NOA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NOA	**NORSAR Array B**	114.33	337	PKiKP	PKiKP	02 27 30.7	-0.4
	comp=Z,2.6nm,0.9s,baz=52,slow=1.9,SNR=3.1						
NOA				PKKPbc	PKKPbc	02 38 18.1	+4.8
	comp=Z,3.0nm,0.8s,baz=229,slow=4.7,SNR=7.0						
KWP	**Kalwaria**	114.37	323	*e*PKPdf	PKiKP	02 27 31.4	-0.1
KWP	**Kalwaria**	114.37	323	*e*PKIKP	PKiKP	02 27 31.4	-0.1
KOLS	**Kolonicke sedl**	114.90	322	*i* PKP	PKiKP	02 27 33.1	+0.6
KOLS	**Kolonicke sedl**	114.90	322	*i* PKIKP	PKiKP	02 27 33.1	+0.6
KOLS	**Kolonicke sedl**	114.90	322	*i* PKP	PKiKP	02 27 33.1	+0.6
KSU1	**Kansas State U**	115.04	49	PFAKE		02 27 40.0	+6.9
KSU1				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
STHS	**Stebnicka Huta**	115.33	323	*e*PKP	PKPdf	02 27 33.9	+0.6
STHS	**Stebnicka Huta**	115.33	323	*e*PKIKP	PKPdf	02 27 33.9	+0.6
STHS	**Stebnicka Huta**	115.33	323	*e*PKP	PKPdf	02 27 33.9	+0.6
CRVS	**Cervenica-Dubn**	115.41	322	*i* PKP	PKPdf	02 27 33.3	-0.2
CRVS	**Cervenica-Dubn**	115.41	322	*i* PKIKP	PKPdf	02 27 33.3	-0.2
CRVS	**Cervenica-Dubn**	115.41	322	*i* PKP	PKPdf	02 27 33.3	-0.2
DRGR		115.42	320	⇑*i*P	PKiKP	02 27 33.4	-0.2
EYMN	**Ely**	115.74	38	PFAKE		02 27 40.0	+5.8
EYMN				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
KONO	**Kongsberg**	115.83	337	PFAKE		02 27 40.0	+6.0
KONO				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
OJC	**Ojcow**	115.85	324	*e*PKPdf	PKPdf	02 27 34.3	0.0
OJC	**Ojcow**	115.85	324	*i* PKIKP	PKPdf	02 27 34.3	0.0
NIE	**Niedzica**	115.89	323	*e*PKPdf	PKPdf	02 27 35.5	+1.1
NIE	**Niedzica**	115.89	323	*i* PKIKP	PKPdf	02 27 35.5	+1.1
KECS	**Kecovo**	116.17	322	*e*PKP	PKPdf	02 27 35.6	+0.6
KECS	**Kecovo**	116.17	322	*e*PKIKP	PKPdf	02 27 35.6	+0.6
KECS	**Kecovo**	116.17	322	*e*PKP	PKPdf	02 27 35.6	+0.6
KVTX	**Kingsville**	116.30	62	PFAKE		02 27 50.0	+14
KVTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
BZS	**Buzias**	116.56	319	⇓*i*P	PKPdf	02 27 35.6	-0.2
SCIA	**State Center**	116.72	45	PFAKE		02 27 50.0	+14
SCIA				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
PSZ	**Piszkesteto**	116.76	322	*e*PKPdf	PKPdf	02 27 36.1	-0.1
PSZ	**Piszkesteto**	116.76	322	*e*PKIKP	PKPdf	02 27 36.1	0.0
PSZ	**Piszkesteto**	116.76	322	⇓*e*PKP/D	PKPdf	02 27 35.8	-0.3
PSZ	**Piszkesteto**	116.76	322	⇓*i*P	PKPdf	02 27 36.3	+0.2
OKC	**Ostrava-Krasne**	116.98	324	*e*PKP	PKPdf	02 27 36.5	0.0
OKC	**Ostrava-Krasne**	116.98	324	*e*PKIKP	PKPdf	02 27 36.5	0.0
OKC	**Ostrava-Krasne**	116.98	324	*e*PKPdf	PKPdf	02 27 36.5	0.0
VYHS	**Vyhne**	117.16	323	*i* PKP	PKPdf	02 27 36.4	-0.5
VYHS	**Vyhne**	117.16	323	*i* PKIKP	PKPdf	02 27 36.4	-0.5
VYHS	**Vyhne**	117.16	323	*i* PKP	PKPdf	02 27 36.4	-0.5
SFJD	**Kangerlussuaq**	117.22	7	PFAKE		02 27 50.0	+14
SFJD				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
MORC	**Moravsky Berou**	117.35	325	*e*PKPdf	PKPdf	02 27 37.7	+0.5
MORC	**Moravsky Berou**	117.35	325	*e*PKIKP	PKPdf	02 27 37.7	+0.5
MORC	**Moravsky Berou**	117.35	325	⇓*i*P	PKPdf	02 27 37.7	+0.5
HKT	**Hockley**	117.68	59	PFAKE		02 27 50.0	+12
HKT				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
DPC	**Dobruska-Polom**	117.78	326	*e*PKP	PKPdf	02 27 36.6	-1.4
DPC				*e*PKKP	PKKPbc	02 37 59.8	-1.1
DPC	**Dobruska-Polom**	117.78	326	*e*PKIKP	PKPdf	02 27 36.6	-1.4
DPC	**Dobruska-Polom**	117.78	326	*e*PKPdf	PKPdf	02 27 36.6	-1.4
DPC				*e*PKKP	PKKPbc	02 37 59.8	-1.1
UPC	**Upice**	117.88	326	*e*PKP	PKPdf	02 27 38.5	+0.3
UPC				*e*PKKP	PKKPbc	02 37 59.2	-1.3
UPC	**Upice**	117.88	326	*e*PKIKP	PKPdf	02 27 38.5	+0.3
UPC	**Upice**	117.88	326	*e*PKPdf	PKPdf	02 27 38.5	+0.3
UPC				*e*PKKP	PKKPbc	02 37 59.2	-1.3
COWI	**Conover**	117.95	40	PFAKE		02 27 50.0	+12
COWI				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
SMOL	**Smolenice**	117.99	323	*e*PKP	PKPdf	02 27 38.8	+0.3
SMOL	**Smolenice**	117.99	323	*e*PKIKP	PKPdf	02 27 38.8	+0.3
SMOL	**Smolenice**	117.99	323	*e*PKP	PKPdf	02 27 38.8	+0.3
PKSM	**Moragy**	118.24	321	⇓*i*P	PKPdf	02 27 38.3	-0.7
NATX	**Nacogdoches**	118.31	57	PFAKE		02 27 50.0	+10
NATX				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
JFWS	**Jewell Farm**	118.45	43	PFAKE		02 27 50.0	+10
JFWS				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
MIAR	**Mount Ida**	118.55	53	PFAKE		02 27 50.0	+10
MIAR				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
PVCC	**Panska Ves**	118.67	326	*e*PKP	PKPdf	02 27 39.3	-0.4
PVCC				*e*PKKP	PKKPbc	02 37 56.6	-1.1
PVCC				LR	LR		
	comp=Z,2µm,26.6s,MS5.6						

PVCC	**Panska Ves**	**118.67**	**326**	*e*PKIKP	PKPdf	02 27 39.3	-0.4
PVCC				MLR	MLR		
	comp=Z,2µm,26.6s,MS5.6						
PVCC	**Panska Ves**	**118.67**	**326**	*e*PKPdf	PKPdf	02 27 39.3	-0.4
PVCC				*e*PKKP	PKKPbc	02 37 56.6	-1.1
PVCC				AMS	AMS	03 18 30.0	
	comp=Z,2µm,26.6s						
TREC	**Trest**	**118.76**	**325**	*e*PKIKP	PKPdf	02 27 39.9	-0.1
TREC				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.6						
TREC	**Trest**	**118.76**	**325**	*e*PKPdf	PKPdf	02 27 39.9	-0.1
TREC				*e*PKKP	PKKPbc	02 37 55.8	-1.5
TREC				AMS	AMS	03 20 30.0	
	comp=Z,2µm,21.0s						
BRG	**Berggiesshubel**	**118.84**	**327**	*e*P	PKPdf	02 27 39.1	-1.0
BRG				*e*		02 27 58.4	
BRG				LR	LR		
	comp=Z,1µm,22.4s,MS5.5						
BRG	**Berggiesshubel**	**118.84**	**327**	*e*PKIKP	PKPdf	02 27 39.1	-0.9
BRG				MLR	MLR		
	comp=Z,1µm,22.4s,MS5.5						
BRG	**Berggiesshubel**	**118.84**	**327**	*e*PKPdf	PKPdf	02 27 38.5	-1.5
BRG	**Berggiesshubel**	**118.84**	**327**	*e*P	PKPdf	02 27 39.1	-1.0
	comp=Z,23nm,1.5s						
BRG				*e*		02 27 58.4	
	comp=Z,29nm,1.4s						
BRG							
	comp=N,2µm,23.0s						
BRG							
	comp=E,999nm,23.6s						
BRG							
	comp=Z,2µm,22.4s						
SOP	**Sopron**	**118.89**	**323**	⇓*e*PKP/D	PKPdf	02 27 39.9	-0.3
PRU	**Pruhonice**	**118.96**	**326**	*e*PKP	PKPdf	02 27 39.9	-0.4
PRU				*e*PKKP	PKKPbc	02 37 55.2	-1.4
PRU				LR	LR		
	comp=Z,2µm,25.6s,MS5.6						
PRU	**Pruhonice**	**118.96**	**326**	*e*PKIKP	PKPdf	02 27 39.9	-0.4
PRU				MLR	MLR		
	comp=Z,2µm,25.6s,MS5.6						
PRU	**Pruhonice**	**118.96**	**326**	*e*PKPdf	PKPdf	02 27 39.9	-0.4
PRU				*e*PKKP	PKKPbc	02 37 55.2	-1.4
PRU				AMS	AMS	03 18 50.0	
	comp=Z,2µm,25.6s						
CLL	**Collm**	**119.12**	**328**	*i* PKP	PKPdf	02 27 40.3	-0.3
CLL				*i*		02 27 45.1	
CLL				*e*		02 27 56.0	
CLL				*i* PKKP	PKKPbc	02 37 55.1	-1.0
CLL				LR	LR		
	comp=Z,2µm,21.6s,MS5.8						
CLL	**Collm**	**119.12**	**328**	*i* PKIKP	PKPdf	02 27 40.3	-0.3
CLL				*i*		02 27 45.1	
CLL				*e*		02 27 56.0	
CLL				pmax	pmax		
	comp=Z,29nm,1.4s						
CLL				pmax	pmax		
	comp=Z,8.0nm,0.9s						
CLL				MLR	MLR		
	comp=Z,2µm,21.6s,MS5.8						
CLL	**Collm**	**119.12**	**328**	*i* PKPdf	PKPdf	02 27 40.3	-0.3
	comp=Z,29nm,1.4s						
CLL				LmV		02 19 00.0	
	comp=Z,2µm,21.6s						
CLL				*i* x	x	02 27 45.1	
CLL				*e*x	x	02 27 56.0	
CLL				*e*PP	PP	02 28 59.0	-1.7
CLL				*e*SKKSac	SKKSac	02 36 06.0	+10
CLL				*e*x	x	02 37 42.0	
CLL				*i* PKKPbc	PKKPbc	02 37 55.1	-1.0
	comp=Z,8.0nm,0.9s						
CLL				*e*PS	PS	02 38 54.0	+4.4
CLL				*e*x	x	02 39 36.0	
CLL				*e*x	x	02 40 36.0	
CLL				*e*SS	SS	02 45 36.0	+19
CLL				*e*SSS		02 49 48.0	
TANN	**Tannenbergstha**	**119.88**	**327**	*e*PKPdf	PKPdf	02 27 41.6	-0.5
KHC	**Kasperske Hory**	**119.93**	**325**	*e*PKP	PKPdf	02 27 41.5	-0.7
KHC				*e*		02 27 45.5	
KHC				*e*PKKP	PKKPbc	02 37 50.3	-2.7
KHC				LR	LR		
	comp=Z,2µm,19.4s,MS5.8						
KHC	**Kasperske Hory**	**119.93**	**325**	*e*PKIKP	PKPdf	02 27 41.5	-0.7
KHC				MLR	MLR		
	comp=Z,2µm,19.4s,MS5.8						
KHC	**Kasperske Hory**	**119.93**	**325**	*e*PKPdf	PKPdf	02 27 41.5	-0.7
KHC				*e*x	x	02 27 45.5	
KHC				*e*PKKP	PKKPbc	02 37 50.3	-2.7
KHC				AMS	AMS	03 19 20.0	
	comp=Z,2µm,19.4s						
WERD	**Werda**	**119.95**	**327**	*e*PKPdf	PKPdf	02 27 42.5	+0.3
HDIL	**Hopedale**	**119.96**	**46**	PFAKE		02 27 50.0	+7.5
HDIL				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
GUNZ	**Gunzen**	**119.98**	**327**	*e*PKPdf	PKPdf	02 27 42.8	+0.5
NKC	**Novy Kostel**	**119.99**	**327**	*e*PKP	PKPdf	02 27 39.9	-2.4
NKC	**Novy Kostel**	**119.99**	**327**	*e*PKIKP	PKPdf	02 27 39.9	-2.4
NKC	**Novy Kostel**	**119.99**	**327**	*e*PKPdf	PKPdf	02 27 39.9	-2.4
WERN	**Wernitzgruen**	**120.00**	**327**	*e*PKPdf	PKPdf	02 27 42.5	+0.2
GEC2	**GERESS Array S**	**120.01**	**325**	*e*PKPdf	PKPdf	02 27 41.3	-1.1
GEC2	**GERESS Array S**	**120.01**	**325**	*e*PKIKP	PKPdf	02 27 41.3	-1.1
GERES	**GERESS Array B**	**120.01**	**325**	PKP	PKPdf	02 27 41.7	-0.7
GERES				PKKPbc	PKKPbc	02 37 51.4	-1.4
GERES	**GERESS Array B**	**120.01**	**325**	PKIKP	PKPdf	02 27 41.7	-0.7
GERES				pmax	pmax		
	comp=Z,4.0nm,0.7s						
GERES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
GERES	**GERESS Array B**	**120.01**	**325**	PKP	PKPdf	02 27 41.7	-0.6
	comp=Z,4.2nm,0.7s,baz=90,slow=1.3,SNR=22						
GERES				PKKPbc	PKKPbc	02 37 51.4	-1.4
	comp=Z,3.4nm,0.8s,baz=224,slow=3.7,SNR=15						
MOX	**Moxa**	**120.21**	**328**	*e*PKP	PKPdf	02 27 42.6	-0.1
MOX	**Moxa**	**120.21**	**328**	*e*PKP	PKPdf	02 27 42.6	-0.1
	comp=Z,60nm,2.1s						
MOX							
	comp=Z,1µm,21.0s						
MOX	**Moxa**	**120.21**	**328**	*e*PKIKP	PKPdf	02 27 42.6	-0.1
MOX				pmax	pmax		
	comp=Z,60nm,2.1s						
MOX				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.5						
PERS	**Pernice**	**120.24**	**322**	*e*PKPdf	PKPdf	02 27 42.1	-0.8
PERS	**Pernice**	**120.24**	**322**	*e*PKPdf	PKPdf	02 27 42.1	-0.8
WET	**Wettzell**	**120.32**	**326**	*e*PKPdf	PKPdf	02 27 42.7	-0.3
WET	**Wettzell**	**120.32**	**326**	*e*PKIKP	PKPdf	02 27 42.7	-0.3
WET	**Wettzell**	**120.32**	**326**	*e*PKPdf	PKPdf	02 27 42.7	-0.3
BOJS	**Bojanci**	**120.68**	**321**	*i* PKPdf	PKPdf	02 27 43.4	-0.4
BOJS	**Bojanci**	**120.68**	**321**	*i* PKPdf	PKPdf	02 27 43.4	-0.4
LJU	**Ljubljana**	**120.88**	**322**	*i* PKPdf	PKPdf	02 27 44.1	-0.1
LJU	**Ljubljana**	**120.88**	**322**	*i* PKIKP	PKPdf	02 27 44.1	0.0
LJU	**Ljubljana**	**120.88**	**322**	*i* PKPdf	PKPdf	02 27 44.1	-0.1
GRA1	**Grafenberg Arr**	**120.95**	**327**	*e*PKPdf	PKPdf	02 27 43.2	-0.9
GRA1				*e*PKKPbc	PKKPbc	02 37 48.4	-0.9
GRA1				LR	LR		
	comp=Z,1µm,20.8s,MS5.6						
GRF	**Grafenberg Arr**	**120.95**	**327**	*e*PKP	PKPdf	02 27 43.2	-0.9
GRF				PKKPbc	PKKPbc	02 37 48.4	-0.9
GRF				LR	LR		
	comp=Z,1µm,20.8s,MS5.6						
GRF	**Grafenberg Arr**	**120.95**	**327**	*e*PKIKP	PKPdf	02 27 43.2	-0.9
GRF				MLR	MLR		
	comp=Z,1µm,20.8s,MS5.6						
GRF	**Grafenberg Arr**	**120.95**	**327**	*e*PKIKP	PKPdf	02 27 43.2	-0.9
GRF				MLR	MLR		
	comp=Z,1µm,20.8s,MS5.6						
GRF	**Grafenberg Arr**	**120.95**	**327**	*e*PKPdf	PKPdf	02 27 43.2	-0.9
GRF				*e*PKKPbc	PKKPbc	02 37 48.4	-0.9
GRF				*e*L		03 20 54.8	
	comp=Z,1µm,20.8s						
GRFO	**Grafenberg**	**120.95**	**327**	PFAKE		02 27 50.0	+5.9
GRFO				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
KBA	**Koelnbreinsper**	**121.10**	**323**	⇑*i*P	PKPdf	02 27 43.9	-0.6
	comp=Z,13nm,1.4s						
KBA	**Koelnbreinsper**	**121.10**	**323**	⇑*i*PKiKP	PKiKP	02 27 43.9	-0.8
	comp=Z,13nm,1.4s						
KBA	**Koelnbreinsper**	**121.10**	**323**	⇑*i*PKIKP	PKPdf	02 27 43.9	-0.6
VOY	**Vojsko**	**121.28**	**322**	*e*PKPdf	PKPdf	02 27 44.0	-0.9
VOY				*e*		02 27 48.7	
VOY	**Vojsko**	**121.28**	**322**	*e*PKPdf	PKPdf	02 27 44.0	-0.9
VOY				*e*PKPbc	PKPdf	02 27 48.7	+3.8
VOY				*e*		02 28 08.6	
GLMI	**Grayling**	**121.37**	**39**	PFAKE		02 27 50.0	+4.9
GLMI				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
GMNA	**Gemona**	**121.56**	**323**	PKP	PKPdf	02 27 45.4	0.0
FVI	**Forni Avoltri**	**121.67**	**323**	PKP	PKPdf	02 27 45.8	+0.2
FVI	**Forni Avoltri**	**121.67**	**323**	PKIKP	PKPdf	02 27 45.8	+0.2
FUR	**Furstenfeldbru**	**121.74**	**325**	*e*PKPdf	PKPdf	02 27 46.0	+0.3
FUR	**Furstenfeldbru**	**121.74**	**325**	*e*PKIKP	PKPdf	02 27 46.0	+0.3
FUR	**Furstenfeldbru**	**121.74**	**325**	*e*PKPdf	PKPdf	02 27 46.0	+0.3
ABTA	**Abfaltersbach**	**121.76**	**323**	*i* PKiKP	PKiKP	02 27 45.5	-0.5
	SNR=6.4						
OXF	**Oxford**	**121.86**	**52**	PFAKE		02 28 00.0	+14
OXF				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
BUG	**Bochum--Univer**	**121.98**	**330**	*e*PKPdf	PKPdf	02 27 44.8	-1.3
WATA	**Walderalm**	**122.00**	**324**	⇓*i*P	PKPdf	02 27 45.6	-0.6
	comp=Z,17nm,1.2s,SNR=5.7						
WATA	**Walderalm**	**122.00**	**324**	⇓*i*PKiKP	PKiKP	02 27 45.6	-0.8
	comp=Z,17nm,1.2s,SNR=5.7						
WATA	**Walderalm**	**122.00**	**324**	⇓*i*PKIKP	PKPdf	02 27 45.6	-0.7
WTTA	**Wattenberg**	**122.01**	**324**	⇓*i*P	PKPdf	02 27 46.3	0.0
	comp=Z,25nm,1.0s,SNR=8.3						
WTTA	**Wattenberg**	**122.01**	**324**	⇓*i*PKiKP	PKiKP	02 27 46.3	-0.2
	comp=Z,25nm,1.0s,SNR=8.3						
WTTA	**Wattenberg**	**122.01**	**324**	⇓*i*PKIKP	PKPdf	02 27 46.3	0.0
RGNG	**Rignano Grg**	**122.14**	**317**	PKP	PKPdf	02 27 45.7	-1.0
MOTA	**Moosalm**	**122.27**	**325**	⇑*i*P	PKPdf	02 27 45.7	-1.0
	comp=Z,15nm,1.1s,SNR=23						
MOTA	**Moosalm**	**122.27**	**325**	⇑*i*PKPdf	PKPdf	02 27 45.7	-1.0
	comp=Z,15nm,1.1s,SNR=23						
MOTA	**Moosalm**	**122.27**	**325**	⇑*i*PKIKP	PKPdf	02 27 45.7	-1.1
SQTA	**Sankt Quirin**	**122.28**	**324**	⇓*i*P	PKPdf	02 27 46.1	-0.7
	comp=Z,20nm,1.2s,SNR=12						
SQTA	**Sankt Quirin**	**122.28**	**324**	⇓*i*PKiKP	PKiKP	02 27 46.1	-0.9
	comp=Z,20nm,1.2s,SNR=12						
SQTA	**Sankt Quirin**	**122.28**	**324**	⇓*i*PKIKP	PKPdf	02 27 46.1	-0.7
FG2	**Serracapriola**	**122.37**	**317**	PKP	PKPdf	02 27 47.1	0.0
BLO	**Bloomington**	**122.46**	**46**	*e*PKPdf	PKPdf	02 27 45.7	-1.7
BLO	**Bloomington**	**122.46**	**46**	*e*PKIKP	PKPdf	02 27 45.7	-1.7
STU	**Stuttgart**	**122.56**	**327**	*e*PKPdf	PKPdf	02 27 46.8	-0.5
WVT	**Waverly**	**122.58**	**50**	PFAKE		02 28 00.0	+12
WVT				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
CTI	**Castel Tesino**	**122.63**	**323**	PKP	PKPdf	02 27 48.4	+0.9
CTI	**Castel Tesino**	**122.63**	**323**	PKIKP	PKPdf	02 27 48.4	+0.9
FETA	**Feichten**	**122.66**	**324**	⇑*i*PKPdf	PKPdf	02 27 46.3	-1.2
	comp=Z,19nm,1.1s,SNR=15						
PLAL	**Pickwick Lake**	**122.76**	**51**	PFAKE		02 28 00.0	+12
PLAL				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
SGO	**Sicignano**	**122.79**	**316**	PKP	PKPdf	02 27 47.9	-0.1
SGO	**Sicignano**	**122.79**	**316**	PKIKP	PKPdf	02 27 47.9	-0.1
TSUM	**Tsumeb**	**122.93**	**243**	PFAKE		02 28 00.0	+11
TSUM				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
WCI	**Wyandotte Cave**	**122.98**	**47**	PFAKE		02 28 00.0	+12
WCI				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
FSSB	**Fossombrone**	**123.09**	**320**	PKP	PKPdf	02 27 48.0	-0.5
MEM	**Membach**	**123.13**	**330**	PKPdf	PKPdf	02 27 48.5	+0.2
AAM	**Ann Arbor**	**123.14**	**42**	PFAKE		02 28 00.0	+11
AAM				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
BRMO	**Bormio**	**123.16**	**324**	PKP	PKPdf	02 27 48.0	-0.5
SNTG	**Esanatoglia**	**123.19**	**320**	PKP	PKPdf	02 27 48.7	0.0
SOI	**Samo**	**123.23**	**313**	PKP	PKPdf	02 27 49.6	+0.7
SOI	**Samo**	**123.23**	**313**	PKIKP	PKPdf	02 27 49.6	+0.7
DAVOX	**Davos/Dischmat**	**123.28**	**325**	PKKPbc	PKKPbc	02 37 40.3	0.0
	comp=Z,4.5nm,0.9s,baz=358,slow=21,SNR=4.9						
BFO	**Black Forest**	**123.29**	**327**	*e*PKPdf	PKPdf	02 27 48.2	-0.4
BFO				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
BFO	**Black Forest**	**123.29**	**327**	*e*PKIKP	PKPdf	02 27 48.2	-0.5
BFO				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.8						
AQU	**L’Aquila**	**123.30**	**318**	PKP	PKPdf	02 27 49.3	+0.4
AQU	**L’Aquila**	**123.30**	**318**	PKIKP	PKPdf	02 27 49.3	+0.4
AQU	**L’Aquila**	**123.30**	**318**	⇑*i*P	PKPdf	02 27 50.5	+1.6
SDI	**San Donato**	**123.32**	**318**	PKP	PKPdf	02 27 48.6	-0.4
SDI	**San Donato**	**123.32**	**318**	PKIKP	PKPdf	02 27 48.6	-0.4
PTQR	**Pietraquaria**	**123.45**	**318**	PKP	PKPdf	02 27 48.7	-0.5
SFI	**Santa Sofia**	**123.58**	**321**	PKP	PKPdf	02 27 49.5	+0.1
SFI	**Santa Sofia**	**123.58**	**321**	PKIKP	PKPdf	02 27 49.5	+0.1
EKA	**Eskdalemuir Ar**	**123.74**	**339**	PKKPbc	PKKPbc	02 37 36.2	-2.5
	comp=Z,2.0nm,0.8s,baz=213,slow=4.0,SNR=5.1						
ESK	**Eskdalemuir**	**123.77**	**339**	PFAKE		02 28 00.0	+11
ESK				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
CDF	**Champ du Feu**	**123.81**	**327**	*e*PKIKP	PKPdf	02 27 48.2	-1.5
CDF	**Champ du Feu**	**123.81**	**327**	*e*PKPdf	PKPdf	02 27 48.2	-1.5
CDF	**Champ du Feu**	**123.81**	**327**	*e*PKIKP	PKPdf	02 27 48.2	-1.5
GIVF	**Givet**	**124.03**	**330**	*e*PKIKP	PKPdf	02 27 49.2	-0.9
GIVF	**Givet**	**124.03**	**330**	*e*PKPdf	PKPdf	02 27 49.2	-0.9
GIVF	**Givet**	**124.03**	**330**	*e*PKIKP	PKPdf	02 27 49.2	-0.9
SCHQ	**Schefferville**	**124.12**	**22**	PKP	PKPdf	02 27 48.6	-1.4
SCHQ				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
SCHQ	**Schefferville**	**124.12**	**22**	PKP	PKPdf	02 27 48.6	-1.4
	comp=Z,3.3nm,0.8s,baz=241,slow=9.2,SNR=6.8						
LRAL	**Lakeview Retre**	**124.23**	**53**	*e*PKPdf	PKPdf	02 27 48.9	-2.1
LRAL				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
BAIF	**Baives**	**124.37**	**330**	*e*PKIKP	PKPdf	02 27 49.8	-0.9
	comp=Z,31nm,1.0s						
BAIF	**Baives**	**124.37**	**330**	*e*PKPdf	PKPdf	02 27 49.8	-0.9
BAIF	**Baives**	**124.37**	**330**	*e*PKIKP	PKPdf	02 27 49.8	-0.9
HINF	**Hinteralfeld**	**124.39**	**327**	*e*PKIKP	PKPdf	02 27 49.4	-1.4
	comp=Z,123nm,1.5s						
HINF	**Hinteralfeld**	**124.39**	**327**	*e*PKPdf	PKPdf	02 27 49.4	-1.4
HINF	**Hinteralfeld**	**124.39**	**327**	*e*PKIKP	PKPdf	02 27 49.4	-1.4
VAI	**Varese**	**124.43**	**324**	PKP	PKPdf	02 27 49.9	-1.0
VAI	**Varese**	**124.43**	**324**	PKIKP	PKPdf	02 27 49.9	-1.0
PAYG	**Puerto Ayora**	**124.47**	**94**	PFAKE		02 28 00.0	+8.0
PAYG				LR	LR		
	comp=Z,594nm,22.0s,MS5.2						
ACSO	**Alum Creek Sta**	**124.51**	**44**	PFAKE		02 28 00.0	+8.7
ACSO				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
HAU	**Haudompre**	**124.55**	**327**	*e*PKIKP	PKPdf	02 27 49.9	-1.2
	comp=Z,34nm,0.7s						
HAU				*e*MLR	MLR		
	comp=Z,1µm,20.2s,MS5.3						
HAU	**Haudompre**	**124.55**	**327**	*e*PKPdf	PKPdf	02 27 49.9	-1.2
HAU				LR	LR		
	comp=Z,1µm,20.3s,MS5.6						
HAU	**Haudompre**	**124.55**	**327**	*e*PKIKP	PKPdf	02 27 49.9	-1.2
HAU				MLR	MLR		
	comp=Z,1µm,20.3s,MS5.6						
BRAL	**Brewton**	**124.79**	**56**	PFAKE		02 28 00.0	+7.9
BRAL				LR	LR		
	comp=Z,951nm,20.0s,MS5.5						
MEZF	**Maizieres J’vi**	**124.93**	**329**	*e*PKIKP	PKPdf	02 27 51.0	-0.8
MEZF	**Maizieres J’vi**	**124.93**	**329**	*e*PKPdf	PKPdf	02 27 51.0	-0.8
CABF	**La Chapelle**	**125.53**	**326**	*e*PKIKP	PKPdf	02 27 52.3	-0.7
CABF	**La Chapelle**	**125.53**	**326**	*e*PKPdf	PKPdf	02 27 52.3	-0.7
CABF	**La Chapelle**	**125.53**	**326**	*e*PKIKP	PKPdf	02 27 52.3	-0.7
TZTN	**Tazewell**	**125.64**	**48**	PFAKE		02 28 00.0	+6.4
TZTN				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
LPG	**La Plagne**	**125.80**	**325**	*e*PKIKP	PKPdf	02 27 53.0	-0.6
	comp=Z,67nm,1.4s						
LPG	**La Plagne**	**125.80**	**325**	*e*PKPdf	PKPdf	02 27 53.0	-0.6
LPG	**La Plagne**	**125.80**	**325**	*e*PKIKP	PKPdf	02 27 53.0	-0.6
LPL	**La Plagne**	**125.80**	**325**	*e*PKIKP	PKPdf	02 27 52.9	-0.7
	comp=Z,66nm,1.5s						
LPL	**La Plagne**	**125.80**	**325**	*e*PKPdf	PKPdf	02 27 52.9	-0.7
LPL	**La Plagne**	**125.80**	**325**	*e*PKIKP	PKPdf	02 27 52.9	-0.7
PGF	**Pioggiola**	**126.06**	**321**	*e*PKIKP	PKPdf	02 27 52.9	-1.3
PGF	**Pioggiola**	**126.06**	**321**	*e*PKPdf	PKPdf	02 27 52.9	-1.3
PGF	**Pioggiola**	**126.06**	**321**	*e*PKIKP	PKPdf	02 27 52.9	-1.3
BNI	**Bardonecchia**	**126.10**	**324**	*e*PKPdf	PKPdf	02 27 53.5	-0.7
BNI	**Bardonecchia**	**126.10**	**324**	*e*PKIKP	PKPdf	02 27 53.5	-0.7
TEIG	**Tepich**	**126.10**	**69**	PFAKE		02 28 00.0	+5.1
TEIG				LR	LR		
	comp=Z,952nm,20.0s,MS5.5						
MBDF	**Montbardon**	**126.23**	**324**	*e*PKIKP	PKPdf	02 27 53.3	-1.1
MBDF	**Montbardon**	**126.23**	**324**	*e*PKPdf	PKPdf	02 27 53.3	-1.1
MBDF	**Montbardon**	**126.23**	**324**	*e*PKIKP	PKPdf	02 27 53.3	-1.1
SBF	**Sospel**	**126.32**	**323**	*e*PKIKP	PKPdf	02 27 53.2	-1.4
	comp=Z,151nm,1.4s						
SBF	**Sospel**	**126.32**	**323**	*e*PKPdf	PKPdf	02 27 53.2	-1.4
SBF	**Sospel**	**126.32**	**323**	*e*PKIKP	PKPdf	02 27 53.2	-1.4
LOR	**Lormes**	**126.33**	**328**	*e*PKIKP	PKPdf	02 27 53.5	-1.0
	comp=Z,52nm,1.3s						
LOR				*e*MLR	MLR		
	comp=Z,2µm,22.2s,MS5.3						
LOR	**Lormes**	**126.33**	**328**	*e*PKPdf	PKPdf	02 27 53.5	-1.0
LOR				LR	LR		
	comp=Z,2µm,22.3s,MS5.6						
LOR	**Lormes**	**126.33**	**328**	*e*PKIKP	PKPdf	02 27 53.5	-1.0
LOR				MLR	MLR		
	comp=Z,2µm,22.3s,MS5.6						
ORIF	**Oris-en-Rattie**	**126.64**	**325**	*e*PKIKP	PKPdf	02 27 54.1	-1.1
	comp=Z,49nm,1.4s						
ORIF				*e*MLR	MLR		
	comp=Z,1µm,21.8s,MS5.2						
ORIF	**Oris-en-Rattie**	**126.64**	**325**	*e*PKPdf	PKPdf	02 27 54.1	-1.1
ORIF	**Oris-en-Rattie**	**126.64**	**325**	*e*PKIKP	PKPdf	02 27 54.1	-1.1
SSF	**Saint Saulge**	**126.65**	**328**	*e*PKIKP	PKPdf	02 27 54.2	-1.0
SSF	**Saint Saulge**	**126.65**	**328**	*e*PKPdf	PKPdf	02 27 54.2	-1.0
SSF	**Saint Saulge**	**126.65**	**328**	*e*PKIKP	PKPdf	02 27 54.2	-1.0
SMF	**Signal de Mont**	**126.73**	**327**	*e*PKIKP	PKPdf	02 27 54.2	-1.1
	comp=Z,91nm,1.3s						
SMF	**Signal de Mont**	**126.73**	**327**	*e*PKPdf	PKPdf	02 27 54.2	-1.1
SMF	**Signal de Mont**	**126.73**	**327**	*e*PKIKP	PKPdf	02 27 54.2	-1.1
GOGA	**Godfrey**	**126.89**	**52**	PFAKE		02 28 10.0	+14
GOGA				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
AVF	**Avril sur Loir**	**126.90**	**328**	*e*PKIKP	PKPdf	02 27 54.3	-1.4
AVF	**Avril sur Loir**	**126.90**	**328**	*e*PKPdf	PKPdf	02 27 54.3	-1.4
AVF	**Avril sur Loir**	**126.90**	**328**	*e*PKIKP	PKPdf	02 27 54.3	-1.4
MCWV	**Mont Chateau**	**126.92**	**43**	PFAKE		02 28 10.0	+14
MCWV				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
FRF	**La Foret Royal**	**126.97**	**323**	*e*PKIKP	PKPdf	02 27 54.6	-1.3
	comp=Z,78nm,1.3s						
FRF	**La Foret Royal**	**126.97**	**323**	*e*PKPdf	PKPdf	02 27 54.6	-1.3
FRF	**La Foret Royal**	**126.97**	**323**	*e*PKIKP	PKPdf	02 27 54.6	-1.3
LMR	**La Mourre**	**127.17**	**323**	*e*PKIKP	PKPdf	02 27 55.0	-1.3
	comp=Z,142nm,1.4s						
LMR	**La Mourre**	**127.17**	**323**	*e*PKPdf	PKPdf	02 27 55.0	-1.3
LMR	**La Mourre**	**127.17**	**323**	*e*PKIKP	PKPdf	02 27 55.0	-1.3
SMRF	**Simiane la Rot**	**127.37**	**324**	*e*PKIKP	PKPdf	02 27 56.0	-0.6
	comp=Z,107nm,1.4s						
SMRF	**Simiane la Rot**	**127.37**	**324**	*e*PKPdf	PKPdf	02 27 56.0	-0.6
VIVF	**Saint-Julien-l**	**127.37**	**325**	*e*PKIKP	PKPdf	02 27 55.6	-1.0
	comp=Z,135nm,1.6s						
VIVF	**Saint-Julien-l**	**127.37**	**325**	*e*PKPdf	PKPdf	02 27 55.6	-1.0
VIVF	**Saint-Julien-l**	**127.37**	**325**	*e*PKIKP	PKPdf	02 27 55.6	-1.0
LONY	**Lake Ozonia**	**127.54**	**35**	PFAKE		02 28 10.0	+13
LONY				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
BLA	**Blacksburg**	**127.64**	**46**	*e*PKPdf	PKPdf	02 27 58.0	+0.6
BLA				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
BLA	**Blacksburg**	**127.64**	**46**	*e*PKIKP	PKPdf	02 27 58.0	+0.6
BLA				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.7						
SSPA	**Standing Stone**	**127.74**	**41**	PFAKE		02 28 10.0	+13
SSPA				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
TGUH	**Tegucigalpa,Un**	**127.77**	**76**	PFAKE		02 28 10.0	+12
TGUH				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
TCF	**Toulx Ste Croi**	**127.83**	**328**	*e*PKIKP	PKPdf	02 27 56.6	-0.8
	comp=Z,36nm,0.9s						
TCF	**Toulx Ste Croi**	**127.83**	**328**	*e*PKPdf	PKPdf	02 27 56.6	-0.8
TCF	**Toulx Ste Croi**	**127.83**	**328**	*e*PKIKP	PKPdf	02 27 56.6	-0.8
BINY	**Binghamton**	**128.11**	**38**	PFAKE		02 28 10.0	+12
BINY				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
NCB	**Newcomb**	**128.14**	**36**	PFAKE		02 28 10.0	+12
NCB				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
LASF	**Ste Croix**	**128.31**	**325**	*e*PKIKP	PKPdf	02 27 57.6	-0.8
	comp=Z,134nm,1.4s						
LASF	**Ste Croix**	**128.31**	**325**	*e*PKPdf	PKPdf	02 27 57.6	-0.8
KEST	**Kesra**	**129.09**	**313**	PKP	PKPdf	02 28 00.9	+0.8
	comp=Z,1.7nm,0.7s,baz=180,slow=2.7,SNR=6.7						
LBNH	**Lisbon**	**129.28**	**34**	PFAKE		02 28 10.0	+10
LBNH				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
CBN	**Corbin**	**129.31**	**43**	PFAKE		02 28 10.0	+9.5
CBN				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
NHSC	**New Hope**	**129.55**	**51**	PFAKE		02 28 10.0	+8.9
NHSC				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
PKME	**Peaks-Kenny Pk**	**130.02**	**31**	PFAKE		02 28 10.0	+8.4
PKME				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
JTS	**JuntasAbangare**	**130.25**	**81**	PFAKE		02 28 10.0	+7.0
JTS				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
DWPF	**Disney**	**130.34**	**57**	PFAKE		02 28 10.0	+7.2
DWPF				LR	LR		
	comp=Z,937nm,22.0s,MS5.4						
CNNC	**Cliffs of the**	**130.35**	**47**	PFAKE		02 28 10.0	+7.4
CNNC				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
HRV	**Harvard--Oak R**	**130.57**	**35**	PFAKE		02 28 10.0	+7.2
HRV				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
WES	**Weston**	**130.79**	**35**	PFAKE		02 28 10.0	+6.8
WES				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
EBIE	**Bielsa**	**131.29**	**326**	PKP	PKPdf	02 28 02.9	-1.3
EPOB	**Poblet**	**131.59**	**324**	PKP	PKPdf	02 28 01.0	-3.8
CFAA	**Coronel Fontan**	**131.70**	**141**	PKP		02 27 52.9	
CFAA				PKP	PKPdf	02 28 06.2	+0.9
CFAA	**Coronel Fontan**	**131.70**	**141**	PKhKP		02 27 52.9	
	comp=Z,0.3nm,0.7s,baz=291,slow=3.2,SNR=6.4						
CFAA				PKP	PKPdf	02 28 06.2	+0.9
	comp=Z,1.8nm,0.7s,baz=205,slow=1.3,SNR=22						
LCO	**Las Campanas**	**131.78**	**137**	*e*PKPdf	PKPdf	02 28 06.1	+0.6
LCO				LR	LR		
	comp=Z,537nm,21.0s,MS5.2						
ETOR	**Torete**	**133.75**	**325**	PKP	PKPdf	02 28 11.4	+2.6
ETOR	**Torete**	**133.75**	**325**	PKIKP	PKPdf	02 28 11.4	+2.6
ECHE	**Chera**	**133.91**	**323**	PKP	PKPdf	02 28 07.2	-2.0
ECHE	**Chera**	**133.91**	**323**	PKIKP	PKPdf	02 28 07.2	-2.0
ETOB	**Tobarra**	**134.86**	**323**	PKP	PKPdf	02 28 06.9	-4.1
GUD	**Guadarrama**	**135.04**	**326**	PKP	PKPdf	02 28 09.4	-1.9
GUD	**Guadarrama**	**135.04**	**326**	PKIKP	PKPdf	02 28 09.4	-1.9
ATAH	**Atahualpa**	**135.05**	**105**	PKP	PKPdf	02 28 14.1	+2.0
	comp=Z,10.0nm,0.8s,baz=230,slow=1.0,SNR=5.4						
NNA	**Nana**	**135.07**	**112**	*e*PKPdf	PKPdf	02 28 12.3	+0.3
NNA				PKP	PKPdf	02 28 12.9	+0.8
NNA				LR	LR		
	comp=Z,444nm,21.0s,MS5.2						
NNA	**Nana**	**135.07**	**112**	PKP	PKPdf	02 28 12.9	+0.8
	comp=Z,8.8nm,1.0s,baz=323,slow=9.3,SNR=3.7						
EVIA	**Vianos**	**135.44**	**323**	PKP	PKPdf	02 28 12.1	0.0
EVIA	**Vianos**	**135.44**	**323**	PKIKP	PKPdf	02 28 12.1	0.0
ESDC	**Sonseca Array**	**135.60**	**325**	PKP	PKPdf	02 28 14.1	+1.7
ESDC	**Sonseca Array**	**135.60**	**325**	PKP	PKPdf	02 28 14.1	+1.7
	comp=Z,0.9nm,0.6s,baz=7.2,slow=3.2,SNR=4.4						
ESLA	**Sonseca Array**	**135.60**	**325**	PFAKE		02 28 20.0	+7.7
ESLA				LR	LR		
	comp=Z,8µm,19.0s,MS6.5						
PAB	**San Pablo**	**135.91**	**326**	PFAKE		02 28 20.0	+7.1
PAB				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
EQES	**Quesada**	**136.32**	**323**	PKP	PKPdf	02 28 12.0	-1.8
OTAV	**Otavalo**	**136.33**	**95**	PFAKE		02 28 20.0	+5.5
OTAV				LR	LR		
	comp=Z,296nm,19.0s,MS5.0						
EBAN	**Banos Encina**	**136.51**	**324**	PKP	PKPdf	02 28 13.0	-1.1
EBAN	**Banos Encina**	**136.51**	**324**	PKIKP	PKPdf	02 28 13.0	-1.1
EBER	**Berja**	**136.79**	**322**	PKP	PKPdf	02 28 13.2	-1.4
ECOG	**Cogollos-Vega**	**136.96**	**322**	PKP	PKPdf	02 28 14.4	-0.6
ECOG	**Cogollos-Vega**	**136.96**	**322**	PKIKP	PKPdf	02 28 14.4	-0.5
ELUQ	**Luque**	**137.19**	**323**	PKP	PKPdf	02 28 11.6	-3.8
ELUQ	**Luque**	**137.19**	**323**	PKIKP	PKPdf	02 28 11.6	-3.8
EGUA	**Guajares**	**137.24**	**322**	PKP	PKPdf	02 28 15.6	+0.1
EGUA	**Guajares**	**137.24**	**322**	PKIKP	PKPdf	02 28 15.6	+0.1
ERON	**Agron**	**137.27**	**322**	PKP	PKPdf	02 28 13.8	-1.8
ELOJ	**Sierra Loja**	**137.40**	**323**	PKP	PKPdf	02 28 13.1	-2.7
ELOJ	**Sierra Loja**	**137.40**	**323**	PKIKP	PKPdf	02 28 13.1	-2.7
ARE	**Arequipa**	**138.04**	**121**	*e*P	PKPdf	02 28 10.0	-7.5
ARE	**Arequipa**	**138.04**	**121**	*e*PKHKP		02 28 10.0	
EMIJ	**Mijas**	**138.16**	**323**	PKP	PKPdf	02 28 15.1	-2.1
EMIN	**Mina Concepcio**	**138.45**	**325**	PKP	PKPdf	02 28 16.2	-1.5
ESPR	**Espera**	**138.60**	**324**	PKP	PKPdf	02 28 17.8	-0.2
EJIF	**Jimena Fronter**	**138.65**	**323**	PKP	PKPdf	02 28 19.3	+1.2
EJIF	**Jimena Fronter**	**138.65**	**323**	PKIKP	PKPdf	02 28 19.3	+1.2
MDT	**Midelt**	**140.43**	**318**	PKP	PKPdf	02 28 21.6	+0.2
MDT	**Midelt**	**140.43**	**318**	PKP	PKPdf	02 28 21.6	+0.2
	comp=Z,2.6nm,0.8s,baz=39,slow=4.3,SNR=5.6						
ROSC	**El Rosal**	**140.80**	**89**	PKP	PKPdf	02 28 22.0	-0.6

ROSC				*e*PKPdf	PKPdf	02 28 22.4	-0.3
ROSC	**El Rosal**	**140.80**	**89**	PKP	PKPdf	02 28 22.0	-0.6
	comp=Z,3.3nm,0.5s,baz=270,slow=21,SNR=4.4						
LPAZ	**La Paz**	**140.95**	**124**	PKP	PKPdf	02 28 17.6	-5.3
LPAZ				PKP	PKPdf	02 28 22.3	-0.5
LPAZ				LR	LR		
	comp=Z,332nm,20.0s,MS5.1						
LPAZ	**La Paz**	**140.95**	**124**	*i* PKHKP		02 28 17.6	
LPAZ						02 28 22.3	
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.6s						
LPAZ				pmax	pmax		
	comp=Z,10.0nm,0.8s						
LPAZ	**La Paz**	**140.95**	**124**	PKhKP		02 28 17.6	
	comp=Z,4.3nm,0.6s,baz=279,slow=1.0,SNR=19						
LPAZ				PKP	PKPdf	02 28 22.3	-0.5
	comp=Z,10nm,0.8s,baz=179,slow=3.5,SNR=13						
BBSR	**BB Station**	**141.15**	**42**	PFAKE		02 28 30.0	+7.3
BBSR				LR	LR		
	comp=Z,1μm,21.0s,MS5.7						
SDDR	**Presa de Saban**	**142.00**	**65**	PFAKE		02 28 30.0	+5.4
SDDR				LR	LR		
	comp=Z,2μm,21.0s,MS5.8						
TOA0	**Torodi Ar. Sit**	**142.94**	**285**	*e*PKPdf	PKPdf	02 28 21.5	-4.9
TORD	**Torodi Ar. Bea**	**142.94**	**285**	PKP	PKPdf	02 28 21.6	-4.8
TORD				PKP	PKPdf	02 28 26.8	+0.4
TORD	**Torodi Ar. Bea**	**142.94**	**285**	PKhKP		02 28 21.6	
	comp=Z,5.8nm,0.4s,baz=84,slow=3.2,SNR=97						
TORD				PKP	PKPdf	02 28 26.8	+0.4
	comp=Z,16nm,0.7s,baz=67,slow=2.9,SNR=32						
SIV	**San Ignacio**	**146.78**	**129**	PKPbc	PKPbc	02 28 34.1	-0.6
SIV	**San Ignacio**	**146.78**	**129**	PKPbc	PKPbc	02 28 34.1	-0.6
	comp=Z,45nm,0.8s,baz=228,slow=2.2,SNR=132						
SJG	**San Juan**	**146.90**	**64**	PKPdf	PKPdf	02 28 32.4	-0.8
SJG	**San Juan**	**146.90**	**64**	*e*PKPdf	PKPdf	02 28 31.6	-1.6
SJG				LR	LR		
	comp=Z,956nm,21.0s,MS5.6						
SJG	**San Juan**	**146.90**	**64**	*e*PKIKP	PKPdf	02 28 31.6	-1.5
SJG				MLR	MLR		
	comp=Z,956nm,21.0s						
CPD	**Cerro la Pandu**	**147.13**	**64**	*e*PKPdf	PKPdf	02 28 33.7	+0.2
CPD	**Cerro la Pandu**	**147.13**	**64**	*e*PKIKP	PKPdf	02 28 33.7	+0.2
MTP	**Monte Pirata**	**147.44**	**64**	*e*PKPdf	PKPdf	02 28 33.4	-0.7
CFTV	**Fuerteventura**	**149.45**	**322**	PKP	PKPdf	02 28 35.6	-1.4
KIC	**Kosan Boka**	**149.88**	**274**	*e*PKIKP	PKPbc	02 28 43.4	+0.4
	comp=Z,1μm,1.1s						
TIC	**Toumodi**	**150.15**	**275**	*e*PKIKP	PKPbc	02 28 43.9	+0.2
	comp=Z,1μm,1.1s						
LIC	**Lamto**	**150.17**	**274**	⇑*i*PKIKP	PKPbc	02 28 43.4	-0.3
	comp=Z,538nm,0.9s						
LIC				*e*MLR	MLR		
	comp=Z,1μm,23.0s,MS5.4						
LIC	**Lamto**	**150.17**	**274**	*e*PKIKP	PKPbc	02 28 43.9	+0.2
	comp=Z,747nm,0.9s						
LIC	**Lamto**	**150.17**	**274**	⇑*i*PKPdf	PKPbc	02 28 43.4	-0.3
LIC				LR	LR		
	comp=Z,730nm,23.0s,MS5.4						
CCAN	**Las Canadas**	**151.09**	**325**	PKP	PKPdf	02 28 40.5	+0.9
CHIE	**El Hierro**	**152.23**	**326**	PKP	PKPdf	02 28 40.7	-0.7
BBGH	**Gun Hill**	**154.46**	**70**	PFAKE		02 28 50.0	+5.1
BBGH				LR	LR		
	comp=Z,3μm,20.0s,MS6.1						

CSEM ***12*** *02:10:36.6±0.1, 38.66N×43.09E, h2^{km}, MD3.1, Error ellipse: s-maj=2.2km s-min=1.4km az=60.0*

DDA ***12*** *02:10:37.7, 38.62N×43.10E, h8^{km}±2^{km}, Md2.9*

ISK ***12*** *02:10:37.5, 38.68N×43.10E, h10^{km}, MD3.1*

ISCJB ***12*** *02:10:38.1±0.7, 38.65N±0.04×43.11E±0.06, h1^{km}±10^{km}, Error ellipse: s-maj=10.1km s-min=4.6km az=141.1*

ISC 12 02:10:38.7±0.6**, 38.64N**±0.04×**43.13E**±0.07**, h5**^{km}±9^{km}**, n16,** σ**0^{s}.95**/22**, 2D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VANB	**Van**	**0.21**	**103**	*i* PG	**Pg**	**02 10 42.8**	**0.0**
VANB				*i* SG	**Sg**	**02 10 46.9**	**+1.3**
VANB	**Van**	**0.21**	**103**	*i* Pg	**Pg**	**02 10 42.8**	**0.0**
VANB				*i* Sg	**Sg**	**02 10 46.9**	**+1.3**
TVAN	**Van**	**0.25**	**117**	⇓*i*P	**Pg**	**02 10 42.8**	**-0.7**
TVAN				*i* S	**Sg**	**02 10 47.1**	**+0.4**
VANT	**Van**	**0.28**	**134**	*i* PG	**Pg**	**02 10 43.4**	**-0.8**
VANT				*i* SG	**Sg**	**02 10 48.7**	**+0.8**
TUTA	**Tutak**	**0.80**	**342**	⇓*i*P	**Pg**	**02 10 53.2**	**-0.8**
TUTA				*i* S	**Sg**	**02 11 04.3**	**0.0**
AGRB	**Hanur-Agry**	**0.94**	**354**	PG	**Pg**	**02 10 55.5**	**-1.2**
AGRB	**Hanur-Agry**	**0.94**	**354**	*e*Pg	**Pg**	**02 10 55.5**	**-1.2**
DYDN	**Diyadin**	**1.00**	**26**	*e*P	**Pg**	**02 10 57.6**	**-0.3**
HKR	**Hakkari**	**1.17**	**155**	PN	**Pn**	**02 11 00.5**	**-1.2**
HKR	**Hakkari**	**1.17**	**155**	*e*Pn	**Pn**	**02 11 00.5**	**-1.2**
HAKT	**HAKKARI**	**1.18**	**157**	*e*P	**Pg**	**02 10 59.9**	**-1.4**
HAKT				*i* S	**Sg**	**02 11 23.5**	**+7.0**
BTMT	**Batman**	**1.36**	**251**	PN	**Pn**	**02 11 05.6**	**+1.2**
CUKT	**Cukurca**	**1.44**	**165**	PN	**Pn**	**02 11 05.2**	**-0.3**
CUKT	**Cukurca**	**1.44**	**165**	*e*Pn	**Pn**	**02 11 05.2**	**-0.3**
BNGL	**BINGOL**	**1.57**	**282**	*e*P	**Pg**	**02 11 10.2**	**+1.3**
DIGO	**Kars**	**1.78**	**6**	*e*P	**Pn**	**02 11 11.7**	**+1.5**

NIED ***12*** *02:42:00, 25.30N×124.40E, h26^{km}, Mw4.8 Best double couple: $M_0$1.52000×10^{16} NP1:ϕ_s78.00000°, δ55.00000°, λ-153.00000°. NP2:ϕ_s332.00000°, δ68.00000°, λ-38.00000°.*

JMA ***12*** *02:42:12.4±0.2, 25.35N×124.41E, h14^{km}, M5.1*

ISCJB ***12*** *02:42:12.9±0.9, 25.26N±0.02×124.36E±0.02, h10^{km}±5^{km}, mb4.7/78, MS4.5/16, Error ellipse: s-maj=3.9km s-min=2.9km az=167.2*

MOS ***12*** *02:42:16.2±1.1, 25.25N×124.24E, h37^{km}, mb4.9/44, MS4.5/8, Error ellipse: s-maj=10.3km s-min=5.8km az=112.8*

BJI ***12*** *02:42:16.0, 25.14N×124.59E, h40^{km}, mB5.0, mb4.7, ML4.9, Ms5.0, Msz4.8*

GCMT ***12*** *02:42:17.5±0.6, 25.26N×124.28E, h13^{km}±2^{km}, MW5.0/57, Moment Tensor Solution. s3,c3; s57,c88; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.83±.36; $M_{\theta\theta}$3.16±.24; $M_{\phi\phi}$-0.32±.18; $M_{r\theta}$0.77±.41; $M_{\theta\phi}$-0.28±.12; $M_{\phi r}$1.19±.56; Best double couple: $M_0$3.33500×10^{16} NP1:ϕ_s115.00000°, δ43.00000°, λ-57.00000°. NP2: ϕ_s254.00000°, δ55.00000°, λ-117.00000°. Principal axes: T 3.2630, Plg7.0000°, Azm2.0000°; N 0.1520, Plg22.0000°, Azm270.0000°; P -3.4070, Plg67.0000°, Azm109.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***12*** *02:42:17.5±0.2, 25.23N×124.35E, h35^{km}, mb4.9/33 Error ellipse: s-maj=5.8km s-min=5.0km az=172.0*

IDC ***12*** *02:42:18.6±2.0, 25.27N×124.37E, h49^{km}±19^{km}, mb4.2/26, mb1 4.3/30, mb1mx4.2/36, mbtmp4.2/30, ML3.7/4, MS4.4/14, Ms1 4.4/14, ms1mx4.0/37, Error ellipse: s-maj=14.8km s-min=10.2km az=70.0*

ISC 12 02:42:13.7±0.7**, 25.24N**±0.03×**124.38E**±0.02**, h7**^{km}±4^{km}**, h31**^{km}±3.2^{km}**:pP-P, n440,** σ**0^{s}.91**/449**, mb4.7**/78**, MS4.5**/16**, 75C-74D, Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTJ	**Tarama**	**0.67**	**154**	P	**Pg**	**02 42 26.5**	**0.0**
JTJ				*e*S	**Sg**	**02 42 37.2**	**+2.0**
JIJ	**Ishigaki jima**	**0.90**	**194**	P	**Pg**	**02 42 31.0**	**0.0**
JIJ				*e*S	**Sg**	**02 42 43.2**	**+0.5**
JMJ	**Miyako jima 2**	**0.93**	**117**	P	**Pg**	**02 42 30.2**	**-1.4**
JMJ				S	**Sg**	**02 42 42.8**	**-0.9**
JOGS	**Gusukube**	**1.05**	**117**	P	**Pg**	**02 42 32.5**	**-1.3**
JKRS	**Kuro-shima**	**1.06**	**199**	P	**Pg**	**02 42 33.9**	**-0.1**
IRIF	**Iriomote-Funau**	**1.08**	**213**	P	**Pg**	**02 42 33.9**	**-0.5**
HATJ	**Hateruma jima**	**1.29**	**204**	P	**Pn**	**02 42 37.8**	**-0.3**
YOJ	**Yonaguni jima**	**1.47**	**238**	P	**Pn**	**02 42 38.6**	**-2.0**
JKE	**Kume jima 2**	**2.42**	**63**	P	**Pn**	**02 42 51.0**	**-2.7**
JKE				*e*S	**Sn**	**02 43 20.8**	**-2.8**
TATO	**Taipei**	**2.64**	**265**	*e*Pn	**Pn**	**02 42 57.7**	**+1.1**
TATO				*e*Sn	**Sn**	**02 43 25.4**	**-3.5**
NACB	**Ninganchiao**	**2.75**	**248**	*e*Pn	**Pn**	**02 43 00.1**	**+1.9**
YHNB	**Yeheng**	**2.79**	**259**	*e*Pn	**Pn**	**02 43 00.1**	**+1.4**
YHNB				*e*Sn	**Sn**	**02 43 32.2**	**-0.4**
JAGN	**Aguni-jima**	**2.90**	**62**	P	**Pn**	**02 42 59.3**	**-1.0**
JAGN				*e*S	**Sn**	**02 43 34.0**	**-1.5**
NAH1	**Naha**	**3.13**	**72**	P	**Pn**	**02 43 02.6**	**-0.9**
JJT2	**Tamagusuku 2**	**3.17**	**73**	P	**Pn**	**02 43 03.0**	**-0.9**
JIH	**Iheya**	**3.68**	**60**	P	**Pn**	**02 43 10.3**	**-0.8**
JOW	**Kunigami**	**3.84**	**65**	P	**Pn**	**02 43 12.4**	**-0.8**
JOW	**Kunigami**	**3.84**	**65**	P	**Pn**	**02 43 13.7**	**+0.4**
	13nm,0.3s,baz=254,slow=12,SNR=60						
JOW				S	**Sn**	**02 44 00.7**	**+2.0**
	26nm,0.3s,baz=238,slow=22,SNR=3.7						
JTK	**Tokunoshima**	**4.81**	**57**	P	**Pn**	**02 43 26.0**	**-0.6**
QZH	**Quanzhou**	**5.26**	**268**	P	**Pn**	**02 43 37.2**	**+4.5**
QZH				S	**Sn**	**02 44 34.6**	**+1.0**
QZH				Smax			
	comp=N,320nm,0.9s						
QZH				Smax			
	comp=E,600nm,1.0s						
QZH				LR	LR		
	comp=N,9μm,9.5s						
QZH				LR	LR		
	comp=E,3μm,7.2s						
QZH				LR	LR		
	comp=Z,7μm,9.1s						
JAM	**Amami Oshima**	**5.63**	**55**	P	**Pn**	**02 43 36.8**	**-1.1**
SSE	**Sheshan**	**6.48**	**335**	P	**Pn**	**02 43 51.2**	**+1.8**
SSE				S	**Sn**	**02 45 04.3**	**+0.7**
SSE				Smax			
	comp=N,568nm,1.0s						
SSE				Smax			
	comp=E,586nm,1.1s						
SSE				LR	LR		
	comp=N,4μm,9.0s						
SSE				LR	LR		
	comp=E,3μm,9.0s						
SSE				LR	LR		
	comp=Z,4μm,11.7s						
SSE	**Sheshan**	**6.48**	**335**	Pn	**Pn**	**02 43 51.2**	**+1.8**
	comp=Z,568nm,1.0s						
SSE				Sn	**Sn**	**02 45 04.3**	**+0.7**
JNN	**Nakanoshima**	**6.69**	**46**	P	**Pn**	**02 43 53.4**	**+1.0**
NJ2	**Nanjing**	**8.34**	**326**	*e*P	**Pn**	**02 44 20.3**	**+5.3**
NJ2				AP		02 44 27.1	
NJ2				XP		02 44 32.2	
NJ2				S	**Sn**	**02 45 54.9**	**+5.4**
NJ2				XS		02 46 05.1	
NJ2				AMB	AMB		
	comp=Z,40nm,0.6s						
NJ2				AMB	AMB		
	comp=Z,190nm,4.0s						
NJ2				Smax			
	comp=N,100nm,0.8s						
NJ2				Smax			
	comp=E,60nm,1.0s						
NJ2				LR	LR		
	comp=N,7μm,14.8s						
NJ2				LR	LR		
	comp=E,8μm,10.6s						
NJ2				LR	LR		
	comp=Z,8μm,10.6s						
JNU	**Nakatsue**	**9.69**	**34**	P	**Pn**	**02 44 34.6**	**+1.2**
JNU				LR	LR	02 48 09.8	
JNU	**Nakatsue**	**9.69**	**34**	P	**Pn**	**02 44 34.6**	**+1.2**
	comp=Z,0.6nm,0.3s,baz=219,slow=8.5,SNR=5.9						
JNU				LR	LR	02 48 09.8	
	comp=Z,3μm,21.4s,baz=206,slow=36						
KSRS	**Korea Array**	**12.54**	**13**	P	**Pn**	**02 45 15.2**	**+2.6**
	comp=Z,0.5nm,0.3s,baz=190,slow=13,SNR=21						
KSRS				LR	LR	02 50 16.8	
	comp=Z,2μm,19.9s,baz=188,slow=38						
TIA	**Tai'an**	**12.58**	**332**	*e*P	**Pn**	**02 45 21.0**	**+7.9**
TIA				LR	LR		
	comp=E,4μm,12.0s						
QIZ	**Qiongzhong**	**14.82**	**248**	P	**Pn**	**02 45 49.1**	**+5.4**
QIZ				S	**Sn**	**02 48 28.5**	**+0.3**
QIZ				AMB	AMB		
	comp=Z,19nm,1.5s						
QIZ				LR	LR		
	comp=N,604nm,13.5s						
QIZ				LR	LR		
	comp=Z,941nm,16.0s						
JHJ	**Hachijo jima 2**	**15.56**	**56**	LR	LR	02 51 25.9	
	comp=Z,717nm,19.0s,baz=82,slow=35						
GYA	**Guiyang**	**16.00**	**278**	P	**Pn**	**02 46 01.7**	**+2.4**
GYA				AP	pP	02 46 09.4	+4.6
GYA				S	**Sn**	**02 48 57.6**	**+0.7**
GYA				XS	sS	02 49 09.9	-4.2
GYA				PCP	PcP	02 50 58.8	+2.2
GYA				AMB	AMB		
	comp=Z,20nm,0.8s						
GYA				AMB	AMB		
	comp=Z,140nm,4.5s						
GYA				LR	LR		
	comp=N,1μm,12.0s						
GYA				LR	LR		
	comp=E,2μm,13.4s						
GYA				LR	LR		
	comp=Z,2μm,14.2s						
XAN	**Xi'an**	**16.03**	**307**	P	**Pn**	**02 46 07.2**	**+7.6**
XAN				AMB	AMB		
	comp=Z,26nm,0.9s						
XAN				LR	LR		
	comp=N,2μm,8.3s						
XAN				LR	LR		
	comp=E,2μm,10.1s						
XAN				LR	LR		
	comp=Z,2μm,9.9s						
TIY	**Taiyuan**	**16.06**	**324**	*e*P	**Pn**	**02 46 00.5**	**+0.6**
TIY				LR	LR		
	comp=N,2μm,6.9s						
TIY				LR	LR		
	comp=E,2μm,8.3s						
BJI	**Beijing**	**16.28**	**337**	P	**Pn**	**02 46 03.0**	**+0.2**
BJI				AMB	AMB		
	comp=Z,13nm,0.7s						
BJI				AMB	AMB		
	comp=Z,300nm,6.9s						
BJI				LR	LR		
	comp=N,3μm,12.3s						
BJI				LR	LR		
	comp=E,3μm,13.1s						
BJI				LR	LR		
	comp=Z,1μm,22.5s						
MAT	**Matsushiro**	**16.34**	**43**	P	**Pn**	**02 46 05.5**	**+1.9**
MJAR	**Matsushiro Arr**	**16.34**	**43**	P	**Pn**	**02 46 05.5**	**+1.9**
	comp=Z,0.2nm,0.3s,baz=232,slow=9.3,SNR=6.5						
MJAR				LR	LR	02 52 16.8	
	comp=Z,773nm,21.5s,baz=240,slow=37						
SNY	**Shenyang**	**16.56**	**358**	⇑P	**Pn**	**02 46 12.0**	**+5.7**
SNY				S	**Sn**	**02 49 16.5**	**+6.2**
SNY				XS	sS	02 49 28.0	+2.7
SNY				AMB	AMB		
	comp=Z,20nm,1.3s						
SNY				LR	LR		
	comp=N,5μm,14.3s						
SNY				LR	LR		
	comp=Z,4μm,14.5s						
CN2	**Changchun**	**18.54**	**2**	*e*P	**Pn**	**02 46 34.0**	**+3.1**
CN2				*e*AP	pP	02 46 42.0	+9.3
CN2				*e*S	**Sn**	**02 49 56.9**	**-1.3**
CN2				AMB	AMB		
	comp=Z,80nm,1.1s						
CN2				AMB	AMB		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,3μm,11.0s						
CN2				LR	LR		
	comp=E,2μm,11.0s						
CN2				LR	LR		
	comp=Z,3μm,13.0s						
HHC	**Hu-ho-hao-te**	**18.88**	**329**	*e*P	**Pn**	**02 46 37.0**	**+1.9**
HHC				AP	pP	02 46 45.0	+8.5
HHC				XP	sP	02 46 49.5	+12
HHC				PP		02 46 53.6	
HHC				S	**Sn**	**02 50 03.3**	**-3.2**
HHC				XS	sS	02 50 15.7	+3.2
HHC				SS		02 50 28.0	
HHC				PCP	PcP	02 51 01.9	+0.9
HHC				SCS	ScS	02 58 13.2	-5.2
HHC				AMB	AMB		
	comp=Z,35nm,1.4s						
HHC				AMB	AMB		
	comp=Z,460nm,8.2s						
HHC				LR	LR		
	comp=N,3μm,12.9s						
HHC				LR	LR		
	comp=E,2μm,14.5s						
HHC				LR	LR		
	comp=Z,2μm,14.7s						
CD2	**Chengdu**	**19.04**	**292**	⇑*i*P	**Pn**	**02 46 38.5**	**+1.3**
CD2				AP	pP	02 46 46.4	+7.9
CD2				XP	sP	02 46 51.0	+12
CD2				PP		02 46 55.5	
CD2				S	**Sn**	**02 50 05.5**	**-5.2**
CD2				SS		02 50 31.3	
CD2				AMB	AMB		
	comp=Z,90nm,1.0s						
CD2				AMB	AMB		
	comp=Z,150nm,4.2s						
CD2				LR	LR		
	comp=N,3μm,9.6s						
CD2				LR	LR		
	comp=E,3μm,9.6s						
CD2				LR	LR		
	comp=Z,2μm,9.6s						
BTO	**Baotou**	**19.45**	**325**	*e*P	**Pn**	**02 46 42.5**	**+0.5**
KMI	**Kunming**	**19.59**	**274**	P	**Pn**	**02 46 46.1**	**+2.4**
KMI				S	**Sn**	**02 50 19.3**	**-4.6**
KMI				LR	LR		
	comp=N,764nm,7.5s						
KMI				LR	LR		
	comp=E,2μm,7.3s						
KMI				LR	LR		
	comp=Z,2μm,7.8s						
MDJ	**Mudanjiang**	**19.79**	**11**	P	**Pn**	**02 46 45.6**	**-0.3**
MDJ				AP	pP	02 46 53.7	+7.2
MDJ				XP	sP	02 46 57.7	+10
MDJ				S	**Sn**	**02 50 28.1**	**-0.3**
MDJ				PCP	PcP	02 51 02.8	+0.3
MDJ				AMB	AMB		
	comp=Z,10.0nm,1.5s						
MDJ				AMB	AMB		
	comp=Z,190nm,5.9s						
MDJ				LR	LR		
	comp=N,2μm,12.8s						
MDJ				LR	LR		
	comp=E,2μm,12.3s						
MDJ				LR	LR		
	comp=Z,3μm,12.3s						
MDJ	**Mudanjiang**	**19.79**	**11**	*e*P	**Pn**	**02 46 47.6**	**+1.6**
	comp=Z,16nm,0.8s						
LZH	**Lanzhou**	**20.67**	**306**	*e*P	**P**	**02 46 56.0**	**+1.9**
LZH				AP		02 47 02.5	
LZH				PP		02 47 20.3	
LZH				*e*S	**S**	**02 50 38.0**	**-7.3**
LZH				PCP	PcP	02 51 05.4	+1.1
LZH				SS		02 51 13.0	
LZH				AMB	AMB		
	comp=Z,56nm,1.5s						
LZH				AMB	AMB		
	comp=Z,273nm,5.1s						
LZH				LR	LR		
	comp=N,2μm,13.4s						
LZH				LR	LR		
	comp=Z,2μm,14.4s,MS4.6						
LZH	**Lanzhou**	**20.67**	**306**	*e*P	**P**	**02 46 56.0**	**+1.9**
	comp=Z,56nm,1.5s						
LZH				pP		02 47 02.5	
LZH				sP	sP	02 47 06.0	+8.9
LZH				PP		02 47 20.3	
LZH				*e*S	**S**	**02 50 38.0**	**-7.3**
LZH				sS	sS	02 50 51.2	+2.7
LZH				PcP	PcP	02 51 05.4	+1.1
LZH				SS		02 51 13.0	
LZH				LR	LR		
	comp=Z,2μm,14.4s,MS4.6						
LZH	**Lanzhou**	**20.67**	**306**	*e*P	**P**	**02 46 56.0**	**+1.9**
LZH				*SP	sP	02 47 06.0	+8.9
LZH						02 47 20.3	
LZH				*e*S	**S**	**02 50 38.0**	**-7.3**
LZH						02 51 05.4	
LZH				SS		02 51 13.0	
LZH				pmax	pmax		
	comp=Z,56nm,1.5s						
LZH				MLR	MLR		
	comp=Z,2μm,14.4s,MS4.6						
ASAJ	**Asahikawa**	**23.96**	**34**	P	**P**	**02 47 28.7**	**+0.1**
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.4s						
ASAJ				MLR	MLR		
	comp=Z,888nm,18.7s						
ASAJ	**Asahikawa**	**23.96**	**34**	P	**P**	**02 47 28.6**	**+0.1**
	comp=Z,2.7nm,0.3s,mb4.1,baz=181,slow=22,SNR=3.3						
ASAJ				LR	LR	02 56 27.3	
	comp=Z,888nm,18.7s,MS4.3,baz=122,slow=35						
HIA	**Hailar**	**24.25**	**353**	*e*P	**P**	**02 47 29.6**	**-1.6**
	comp=Z,26nm,0.8s,mb4.7						
HIA	**Hailar**	**24.25**	**353**	*e*P	**P**	**02 47 29.6**	**-1.6**
HIA				pmax	pmax		
	comp=Z,26nm,0.8s						
CHTO	**Chiang Mai**	**24.41**	**260**	*e*P	**P**	**02 47 33.3**	**+0.4**
	comp=Z,13nm,0.8s,mb4.4						
CHTO	**Chiang Mai**	**24.41**	**260**	*e*P	**P**	**02 47 33.3**	**+0.4**
CHTO				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.4						
KLR	**Kul'dur**	**24.63**	**12**	*e*P	**P**	**02 47 29.4**	**-5.2**
KLR				*e*S	**S**	**02 52 00.0**	**+3.9**
KLR				pmax	pmax		
	comp=Z,56nm,1.8s,mb4.8						
KLR				MLR	MLR		
	comp=E,1μm,12.5s						
KLR				MLR	MLR		
	comp=Z,2μm,12.5s,MS4.9						
HABR	**Khabarovsk**	**24.66**	**17**	*e*P	**P**	**02 47 35.6**	**+0.7**
HABR				*e*		02 48 08.0	
HABR				S	**S**	**02 51 57.4**	**+0.8**
HABR				*e*SS		02 52 49.0	
HABR				*e*		02 58 36.0	
GTA	**Gaotai**	**25.01**	**310**	⇓P	**P**	**02 47 38.1**	**-0.1**
GTA				AP	pP	02 47 47.7	+7.4
GTA				XP	sP	02 47 51.6	+10
GTA				PP		02 48 16.9	
GTA				PCP	PcP	02 51 12.8	-0.3
GTA				S	**S**	**02 51 58.6**	**-3.8**
GTA				XS	sS	02 52 14.6	+8.6
GTA				SS		02 52 59.8	
GTA				SCP	ScP	02 54 47.1	-5.6
GTA				PCS	PcS	02 54 51.5	-1.8
GTA				SCS	ScS	02 58 33.3	-7.6
GTA				AMB	AMB		
	comp=Z,28nm,1.1s,mb4.7						
GTA				AMB	AMB		
	comp=Z,689nm,7.6s						
GTA				LR	LR		
	comp=N,868nm,15.6s,MS4.6						
GTA				LR	LR		
	comp=E,1μm,16.4s,MS4.6						
GTA				LR	LR		
	comp=Z,1μm,18.3s,MS4.4						
YSS	**Yuzh-Sakhalins**	**26.14**	**29**	*e*P	**P**	**02 47 54.0**	**+5.6**
YSS				*e*		02 48 03.0	
YSS				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.7						
SONM	**Songino Array**	**26.65**	**332**	P	**P**	**02 47 52.6**	**-0.4**
SONM						02 51 16.6	
SONM				pmax	pmax		
	comp=Z,10.0nm,1.0s						
SONM				pmax	pmax		
	comp=Z,3.0nm,1.0s						
SONM				MLR	MLR		
	comp=Z,1μm,19.8s						
SONM	**Songino Array**	**26.65**	**332**	P	**P**	**02 47 52.6**	**-0.3**
	comp=Z,9.6nm,1.0s,mb4.3,baz=152,slow=8.1,SNR=40						
SONM				PcP	PcP	02 51 16.6	-0.1
	comp=Z,2.9nm,1.0s,baz=105,slow=6.0,SNR=4.4						
SONM				LR	LR	02 59 51.4	
	comp=Z,1μm,19.8s,MS4.5,baz=154,slow=40						
CIT	**Chita**	**27.98**	**346**	*e*P	**P**	**02 48 04.1**	**-0.8**
CIT				*e*		02 48 11.1	
CIT				*e*		02 51 19.1	
CIT				pmax	pmax		
	comp=Z,60nm,2.3s,mb4.8						
LSA	**Lhasa**	**29.76**	**286**	P	**P**	**02 48 19.4**	**-1.5**
LSA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
LSA	**Lhasa**	**29.76**	**286**	*e*P	**P**	**02 48 18.5**	**-2.4**
	comp=Z,149nm,2.0s,mb5.4						
LSA	**Lhasa**	**29.76**	**286**	*e*P	**P**	**02 48 18.5**	**-2.4**
LSA				pmax	pmax		
	comp=Z,149nm,2.0s,mb5.4						
ZAK	**Zakamensk**	**29.92**	**332**	*e*P	**P**	**02 48 17.6**	**-4.5**
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.2						
TLY	**Talaya**	**30.77**	**334**	*e*P	**P**	**02 48 29.5**	**-0.1**
TLY	**Talaya**	**30.77**	**334**	*e*P	**P**	**02 48 29.2**	**-0.4**
TLY				pmax	pmax		
	comp=Z,14nm,2.5s,mb4.3						

NRGR	Nerungri	31.39	0	S	S	02 53 33.9	-8.6
NRGR				smax			
	comp=N,48nm,0.8s						
CLNS	Chul’man	31.57	1	eP	P	02 48 39.5	+2.9
CLNS				e*PP	pP	02 48 46.1	+7.4
CLNS				e		02 49 37.6	
CLNS				ePPP		02 49 52.2	
CLNS				e		02 51 26.9	
CLNS				eS	S	02 53 50.4	+5.1
CLNS				eSS	SS	02 55 36.6	-24
CLNS				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.8						
CLNS				pmax	pmax		
	comp=N,6.0nm,0.9s						
CLNS				pmax	pmax		
	comp=E,7.0nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
CLNS				pmax	pmax		
	comp=N,8.0nm,0.9s						
CLNS				pmax	pmax		
	comp=E,4.0nm,0.6s						
CLNS				smax			
	comp=E,243nm,13.9s						
CLNS				smax			
	comp=Z,179nm,12.5s						
CLNS				smax			
	comp=N,75nm,9.8s						
CLNS				MLR	MLR		
	comp=Z,2µm,12.0s,MS5.0						
CLNS				MLR	MLR		
	comp=N,900nm,13.0s,MS4.8						
CLNS				MLR	MLR		
	comp=E,1µm,12.0s,MS4.8						
PSI	Prapat	33.14	232	P	P	02 48 51.5	+0.6
PSI				PcP	PcP	02 51 33.2	-0.8
PSI				LR	LR	03 01 22.0	
PSI	Prapat	33.14	232	P	P	02 48 51.5	+0.7
PSI						02 51 33.3	
PSI				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
PSI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
PSI				MLR	MLR		
	comp=Z,366nm,19.6s,MS4.1						
PSI	Prapat	33.14	232	P	P	02 48 51.5	+0.6
	comp=Z,3.1nm,0.6s,mb4.4,baz=18,slow=5.9,SNR=4.7						
PSI				PcP	PcP	02 51 33.2	-0.8
	comp=Z,6.0nm,0.9s,baz=184,slow=5.0,SNR=4.1						
PSI				LR	LR	03 01 22.0	
	comp=Z,366nm,19.6s,MS4.1,baz=227,slow=34						
WMQ	Urumqi	35.09	311	eP	P	02 49 10.1	+2.7
WMQ				AP	pP	02 49 19.8	+10
WMQ				XP	sP	02 49 23.8	+13
WMQ				PP	PP	02 50 29.1	+2.2
WMQ				AMB	AMB		
	comp=Z,18nm,1.4s,mb4.8						
WMQ				LR	LR		
	comp=N,781nm,19.2s,MS4.5						
WMQ				LR	LR		
	comp=E,551nm,20.6s,MS4.5						
WMQ				LR	LR		
	comp=Z,584nm,20.6s,MS4.3						
YAK	Yakutsk	36.95	4	eP	P	02 49 22.2	-0.9
YAK				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.0						
YAK				pmax	pmax		
	comp=N,14nm,1.3s						
YAK				pmax	pmax		
	comp=E,10.0nm,1.3s						
YAK				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.0						
YAK				MLR	MLR		
	comp=N,1µm,14.0s,MS5.0						
YAK				MLR	MLR		
	comp=E,450nm,11.0s,MS5.0						
MA2	Magadan	38.93	21	eP	P	02 49 40.5	+0.7
MA2				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb3.9						
MK31	Makanchi Array	39.66	314	⇓eP	P	02 49 45.6	-0.5
MKAR	Makanchi Array	39.66	314	P	P	02 49 45.5	-0.6
MKAR						02 51 51.1	
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MKAR	Makanchi Array	39.66	314	P	P	02 49 45.5	-0.7
	comp=Z,2.8nm,0.6s,mb4.2,baz=96,slow=11,SNR=22						
MKAR				PcP	PcP	02 51 51.0	-1.9
	comp=Z,3.4nm,0.7s,baz=80,slow=5.4,SNR=6.0						
PMG	Port Moresby	40.97	144	⇑eP	P	02 49 57.0	-0.3
PMG	Port Moresby	40.97	144	P	P	02 49 55.5	-1.8
	comp=Z,3.6nm,0.4s,mb4.3,baz=309,slow=14,SNR=5.2						
ZALV	Zalesovo Beam	40.99	325	P	P	02 49 55.9	-1.3
	comp=Z,7.5nm,0.7s,mb4.5,baz=112,slow=8.2,SNR=30						
ZALV				LR	LR	03 08 10.8	
	comp=Z,446nm,20.0s,MS4.3,baz=295,slow=38						
ZAL	Zalesovo	41.00	325	P	P	02 49 55.9	-1.3
NVS	Novosibirsk	42.23	326	i P	P	02 50 05.7	-1.6
NVS				e		02 51 48.5	
NVS				pmax	pmax		
	comp=Z,30nm,1.6s,mb4.7						
NVS				pmax	pmax		
	comp=N,26nm,1.8s						
NVS				pmax	pmax		
	comp=E,18nm,1.8s						
COEN	Coen	43.05	153	eP	P	02 50 14.3	0.0
FITZ	Fitzroy Crossi	43.10	178	eP	P	02 50 13.5	-1.1
	comp=E,11nm,0.8s,mb4.6						
FITZ	Fitzroy Crossi	43.10	178	P	P	02 50 13.6	-1.0
	comp=E,4.5nm,0.8s,mb4.3,baz=28,slow=7.9,SNR=12						
KURK	Kurchatov	43.20	318	P	P	02 50 14.5	-0.6
	comp=E,151nm,0.9s,mb5.7,SNR=9.2						
KURK	Kurchatov	43.20	318	eP	P	02 50 15.5	+0.4
	comp=E,33nm,1.1s,mb5.0						
KURK	Kurchatov	43.20	318	⇑eP	P	02 50 14.4	-0.7
AAK	Ala-Archa	44.21	306	eP	P	02 50 19.4	-4.0
WRA	Warramunga Arr	45.95	167	P	P	02 50 36.6	-0.8
WRA				pmax	pmax		
	comp=Z,9.0nm,0.7s						
WRA				MLR	MLR		
	comp=Z,257nm,18.2s						
WRA	Warramunga Arr	45.95	167	P	P	02 50 36.6	-0.8
	comp=Z,8.5nm,0.7s,mb4.8,baz=351,slow=8.5,SNR=57						
WRA				LR	LR	03 10 45.2	
	comp=Z,257nm,18.1s,MS4.2,baz=275,slow=37						
WB2	Warramunga Arr	45.95	167	⇓iP	P	02 50 36.9	-0.5
KBL	Kabul	48.35	295	eP	P	02 50 56.9	+0.7
BRVK	Borovoye	48.80	319	eP	P	02 50 59.1	-0.2
ASAR	Alice Springs	49.49	168	P	P	02 51 05.0	+0.2
ASAR						02 52 26.5	
ASAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ASAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ASAR	Alice Springs	49.49	168	P	P	02 51 05.0	+0.1
	comp=Z,3.7nm,0.6s,mb4.6,baz=353,slow=12,SNR=47						
ASAR				PcP	PcP	02 52 26.5	-0.4
	comp=Z,3.3nm,0.7s,baz=347,slow=3.9,SNR=4.7						
CTA	Charters Tower	49.83	153	eP	P	02 51 07.9	+0.4
	comp=Z,4.6nm,0.9s,mb4.5						
CTA	Charters Tower	49.83	153	eP	P	02 51 07.9	+0.4
CTA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
CTA	Charters Tower	49.83	153	P	P	02 51 08.4	+1.0
	comp=Z,6.7nm,0.9s,mb4.7,baz=332,slow=11,SNR=3.3						
CTA				LR	LR	03 12 05.9	
	comp=Z,419nm,20.4s,MS4.4,baz=136,slow=36						
ARU	Arti	56.03	322	eP	P	02 51 51.7	-1.2
ARU	Arti	56.03	322	⇓iP	P	02 51 50.1	-2.8
ARU				e		02 52 45.1	
ARU				eS	S	02 59 36.4	-5.1
ARU				eSS	SS	03 03 20.1	-7.1
ARU				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.9						
AKTK	Aktyubinsk	56.07	315	P	P	02 51 53.0	-0.2
AKTO	Aktyubinsk	56.07	315	P	P	02 51 53.0	-0.3
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
AKTO	Aktyubinsk	56.07	315	P	P	02 51 53.0	-0.2
	comp=Z,3.1nm,0.6s,mb4.5,baz=22,slow=5.2,SNR=12						
NWAO	Narrogin (SRO)	58.24	187	LR	LR	03 17 52.7	
	comp=Z,291nm,18.6s,MS4.4,baz=111,slow=37						
STKA	Stephens Creek	59.13	163	eP	P	02 52 14.5	-0.4
	comp=Z,8.6nm,1.1s,mb4.7						
STKA	Stephens Creek	59.13	163	P	P	02 52 14.3	-0.6
	comp=Z,9.2nm,1.0s,mb4.8,baz=345,slow=5.1,SNR=11						
DZM	Mont Dzumac	62.27	135	LR	LR	03 14 08.1	
	comp=Z,359nm,19.8s,MS4.5,baz=319,slow=31						
KDAK	Kodiak Island	65.36	36	eP	P	02 53 01.0	+4.5
KDAK	Kodiak Island	65.36	36	P	P	02 52 54.9	-1.6
	comp=Z,9.6nm,0.8s,mb4.9,baz=93,slow=5.2,SNR=7.6						
MCK	McKinley	66.23	29	eP	P	02 53 00.1	-1.9
PMR	Palmer	66.48	31	eP	P	02 53 01.1	-2.6
	comp=Z,8.5nm,0.8s,mb4.8						
PMR	Palmer	66.48	31	eP	P	02 53 01.1	-2.6
PMR				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
COLA	College	66.51	28	eP	P	02 53 04.3	+0.5
ZEI	Tsey	66.60	308	eP	P	02 53 03.6	-1.1
ZEI				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
SML	Sawmill	66.82	31	eP	P	02 53 04.8	-1.0
ONI	Oni	66.96	308	P	P	02 53 07.1	0.0
KIV	Kislovodsk	67.18	309	P	P	02 53 08.0	-0.4
	comp=Z,180nm,0.8s,SNR=5.7						
KIV	Kislovodsk	67.18	309	eP	P	02 53 08.7	+0.3
KIV	Kislovodsk	67.18	309	⇑eP	P	02 53 08.6	+0.2
KIV				pmax	pmax		
	comp=Z,45nm,1.5s,mb5.3						
MIB	Mutribah	67.28	293	eP	P	02 53 06.4	-3.0
MIB				AMb	AMB	02 53 10.7	
	comp=Z,19nm,0.9s,mb5.1						
RDF	Al-Radifah	67.36	292	eP	P	02 53 07.6	-2.2
RDF				AMb	AMB	02 53 15.4	
	comp=Z,50nm,0.9s,mb5.5						
NAY	Al-Naaiem	67.52	293	eP	P	02 53 08.1	-2.8
NAY				AMb	AMB	02 53 20.2	
	comp=Z,19nm,1.1s,mb5.0						
VORD	Divnogorie	67.82	317	eP	P	02 53 10.3	-2.0
VORD				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.7						
VORD				pmax	pmax		
	comp=N,9.0nm,1.8s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.9s						
VRSR	Storozhevoye	67.82	317	eP	P	02 53 11.2	-1.1
VRSR				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
VRSR				pmax	pmax		
	comp=N,2.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,4.0nm,1.0s						
OBN	Obninsk	68.47	322	eP	P	02 53 15.1	-1.2
OBN				i		02 53 31.4	
OBN				pmax	pmax		
	comp=Z,36nm,1.6s,mb5.2						
MENT	Mentasta	68.69	29	eP	P	02 53 17.1	-0.5
BHD	Baghdad	68.70	298	eP	x	02 53 07.0	
JOF	Joensuu	69.21	331	ep	P	02 53 22.3	+1.5
	comp=Z,3.2nm,0.6s,mb4.4						
JOF	Joensuu	69.21	331	eP	P	02 53 22.3	+1.5
JOF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
EGAK	Eagle	69.33	27	eP	P	02 53 20.0	-1.5
	comp=Z,3.3nm,0.6s,mb4.4						
SOC	Sochi	69.36	309	eP	P	02 53 20.1	-2.0
SOC				e		02 53 35.5	
SOC				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
ARCES	ARCESS Array B	69.64	338	P	P	02 53 23.9	+0.5
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES	ARCESS Array B	69.64	338	P	P	02 53 23.9	+0.5
	comp=Z,3.8nm,0.8s,mb4.4,baz=4.4,slow=13,SNR=2.7						
DAWY	Dawson	70.26	28	eP	P	02 53 26.4	-0.8
ANN	Anapa	70.60	311	eP	P	02 53 34.2	+4.5
ANN				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.2						
INK	Inuvik	71.15	23	eP	P	02 53 29.1	-3.5
INK	Inuvik	71.15	23	P	P	02 53 31.1	-1.5
	comp=Z,3.6nm,0.8s,mb4.3,baz=304,slow=6.3,SNR=9.4						
KAF	Kangasniemi	71.67	331	ep	P	02 53 35.3	-0.6
	comp=Z,5.5nm,0.8s,mb4.5						
KAF	Kangasniemi	71.67	331	eP	P	02 53 35.3	-0.6
KAF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
MALT	Malatya	71.81	304	eP	P	02 53 37.7	+0.5
	comp=Z,19nm,1.1s,mb4.9						
MALT	Malatya	71.81	304	⇓iP	P	02 53 38.0	+0.8
FINES	FINESS Array B	72.00	330	i P	P	02 53 40.5	+2.7
FINES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
FINES	FINESS Array B	72.00	330	P	P	02 53 36.2	-1.6
	comp=Z,2.7nm,0.8s,mb4.2,baz=57,slow=7.0,SNR=7.2						
SIM	Simferopol’	72.81	312	eP	P	02 53 41.8	-1.2
SIM				e		02 53 58.0	
SIM				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
AKASG	Malin Array Be	74.01	319	i P	P	02 53 48.5	-1.4
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.8s						
AKASG	Malin Array Be	74.01	319	P	P	02 53 47.9	-2.1
	comp=Z,3.0nm,0.8s,mb4.3,baz=56,slow=6.1,SNR=13						
CDAG	Cicekdag	74.38	307	⇑iP	P	02 53 51.8	-0.5
BALT	Daday	74.44	309	⇓iP	P	02 53 52.1	-0.5
SIT	Sitka	74.53	34	eP	P	02 53 54.0	+1.1
BR131	Keskin Array S	74.88	307	eP	P	02 53 55.5	+0.2
BRTR	Keskin Array B	74.88	307	P	P	02 53 54.4	-0.8
BRTR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
BRTR	Keskin Array B	74.88	307	P	P	02 53 54.4	-0.8
	comp=Z,7.2nm,1.0s,mb4.6,baz=90,slow=6.2,SNR=42						
ASF	Jabal al Asfar	75.02	299	P	P	02 53 56.5	+0.3
ASF				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ASF	Jabal al Asfar	75.02	299	P	P	02 53 56.5	+0.3
	comp=Z,6.2nm,0.8s,mb4.6,baz=286,slow=0.9,SNR=12						
ANTO	Ankara	75.44	307	⇓iP	P	02 53 58.2	-0.2
SGKT	Sivrigoynuk	75.71	308	⇑iP	P	02 54 00.3	+0.3
SUW	Suwalki	76.20	323	eP	P	02 54 01.7	-0.9
RES	Resolute Bay	77.14	10	eP	P	02 54 05.5	-2.0
VRI	Vrincioaia	77.34	315	⇑P	P	02 54 09.5	+0.4
VRI	Vrincioaia	77.34	315	⇑iP	P	02 54 09.5	+0.4
BURAR	Bucovina Array	77.60	317	⇑P	P	02 54 10.0	-0.6
BURAR	Bucovina Array	77.60	317	⇑iP	P	02 54 10.0	-0.6
ISP	Isparta	77.84	306	eP	P	02 54 09.4	-2.7
ULDT	Uludag	77.94	309	⇓iP	P	02 54 11.2	-1.5
MLR	Muntele Rosu	78.00	315	⇑P	P	02 54 12.6	-0.2
MLR	Muntele Rosu	78.00	315	⇑iP	P	02 54 12.6	-0.2
HFS	Hagfors	78.05	331	P	P	02 54 10.9	-1.9
HFS				pmax	pmax		
	comp=Z,3.0nm,0.9s						
HFS	Hagfors	78.05	331	P	P	02 54 10.9	-2.0
	comp=Z,2.5nm,0.9s,mb4.2,baz=170,slow=36,SNR=2.9						
KWP	Kalwaria	78.28	319	eP	P	02 54 13.3	-1.0
	comp=Z,22nm,1.1s,mb5.0						
KWP	Kalwaria	78.28	319	eP	P	02 54 13.3	-1.0
KWP				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
NB2	NORSAR Subarra	78.63	333	P	P	02 54 13.8	-2.2
	comp=Z,12nm,1.2s,mb4.7,baz=56,slow=5.6						
NOA	NORSAR Array B	78.63	333	P	P	02 54 14.3	-1.7
NOA	NORSAR Array B	78.63	333	P	P	02 54 14.3	-1.7
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	NORSAR Array B	78.63	333	P	P	02 54 14.3	-1.7
	comp=Z,1.5nm,0.8s,mb4.0,baz=57,slow=5.5,SNR=3.2						
STHS	Stebnicka Huta	79.24	320	eP	P	02 54 19.1	-0.5
	comp=Z,3.2nm,1.3s,mb4.1						
STHS	Stebnicka Huta	79.24	320	eP	P	02 54 19.1	-0.5
STHS				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.1						
CRVS	Cervenica-Dubn	79.34	319	eP	P	02 54 21.7	+1.6
DRGR		79.50	317	⇑P	P	02 54 20.0	-1.0
DRGR		79.50	317	⇑iP	P	02 54 20.0	-1.0
KECS	Kecovo	80.10	319	eP	P	02 54 23.1	-1.2
	comp=Z,1.7nm,0.9s,mb4.0						
KECS	Kecovo	80.10	319	eP	P	02 54 23.1	-1.2
KECS				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
URZ	Urewera	80.20	141	LR	LR	03 24 09.8	
	comp=Z,189nm,20.5s,MS4.4,baz=124,slow=31						
BZS	Buzias	80.70	316	⇓P	P	02 54 25.9	-1.6
BZS	Buzias	80.70	316	⇓iP	P	02 54 26.0	-1.5
YKW3	Yellowknife Ar	80.81	24	eP	P	02 54 26.3	-1.4
YKA	Yellowknife Ar	80.85	24	P	P	02 54 26.5	-1.5
YKA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
YKA	Yellowknife Ar	80.85	24	P	P	02 54 26.5	-1.5
	comp=Z,2.8nm,0.8s,mb4.3,baz=304,slow=5.1,SNR=46						
RPZ	Rata Peaks	80.88	148	LR	LR	03 24 38.1	
	comp=Z,291nm,18.9s,MS4.7,baz=288,slow=31						
VTS	Vitosha	81.00	313	⇑iP	P	02 54 29.3	+0.1
VYHS	Vyhne	81.07	320	i P	P	02 54 29.0	-0.5
	comp=Z,22nm,2.7s,mb4.6						
VYHS	Vyhne	81.07	320	i P	P	02 54 29.0	-0.5
VYHS				pmax	pmax		
	comp=Z,22nm,2.7s,mb4.6						
VRAC	Vranov	81.98	321	P	P	02 54 33.1	-1.2
VRAC				pmax	pmax		
	comp=Z,5.0nm,1.0s						
VRAC	Vranov	81.98	321	P	P	02 54 33.1	-1.1
	comp=Z,4.5nm,1.0s,mb4.3,baz=87,slow=3.2,SNR=4.3						
PKSM	Moragy	82.27	318	⇓P	P	02 54 34.7	-1.2
PKSM	Moragy	82.27	318	⇓iP	P	02 54 34.7	-1.1
CLL	Collm	82.94	324	eP	P	02 54 40.0	+0.8
CLL				pmax	pmax		
	comp=Z,27nm,1.8s,mb5.0						
CLL	Collm	82.94	324	eP	P	02 54 40.0	+0.8
	comp=Z,27nm,1.8s,mb5.0						
CLL				i PcP	PcP	02 54 43.6	-0.4
GERES	GERESS Array B	83.85	322	P	P	02 54 42.8	-1.2
GERES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
GERES	GERESS Array B	83.85	322	P	P	02 54 42.8	-1.2
	comp=Z,2.0nm,0.9s,mb4.2,baz=46,slow=3.9,SNR=11						
A06A	Chilliwack	85.63	37	⇑P	P	02 54 52.0	-0.9
	baz=85						
B05A	Bryant	85.76	38	⇓P	P	02 54 53.0	-0.6
	baz=86						
JCW	Jim Creek	85.89	38	P	P	02 54 54.5	+0.2
B06A	Marblemount	85.95	37	⇑P	P	02 54 54.3	-0.3
	baz=86						
A07A	Ashnola River,	86.25	37	⇑P	P	02 54 55.7	-0.3
	baz=86						
C05A	Tolt Reservoir	86.30	38	⇑P	P	02 54 56.0	-0.3
	baz=86						
D05A	Enumclaw	86.41	39	⇓P	P	02 54 56.2	-0.6
	baz=86						
C06A	Tall Timber Ra	86.61	38	⇑P	P	02 54 57.5	-0.3
	baz=86						
B07A	Winthrop	86.73	37	⇓P	P	02 54 58.1	-0.3
	baz=86						
F04A	Amboy	86.86	40	⇓P	P	02 54 58.4	-0.7
	baz=87						
H03A	Soap Creek Ran	87.04	41	⇓P	P	02 54 59.9	0.0
	baz=87						
D06A	Cle Elum	87.06	38	⇓P	P	02 54 59.7	-0.3
	baz=87						
ETW	Entiat	87.11	38	P	P	02 55 00.2	0.0
C07A	Waterville	87.21	38	⇓P	P	02 54 59.5	-1.3
	baz=87						
TBM	Table Mountain	87.21	38	P	P	02 55 00.7	-0.1
B08A	Colville Reser	87.22	37	P	P	02 55 00.7	-0.1
	baz=87,SNR=10						
G04A	Mulino	87.23	41	⇓P	P	02 55 01.2	+0.3
	baz=87						
EDM	Edmonton	87.24	31	eP	P	02 55 00.8	0.0
A09A	Danville	87.26	36	P	P	02 55 01.4	+0.4
	baz=87,SNR=7.0						
E06A	Yakima	87.35	39	⇑P	P	02 55 01.7	+0.3
	baz=87						
EBG	Ellensburg	87.37	38	P	P	02 55 01.9	+0.4
D07A	Quincy	87.54	38	⇓P	P	02 55 02.0	-0.4
	baz=87						
C08A	Higginbotham F	87.71	37	⇑P	P	02 55 03.1	0.0
	baz=88						
A10A	Northport	87.80	36	⇓P	P	02 55 03.5	0.0
	baz=88						
B09A	Rice	87.82	36	P	P	02 55 03.8	+0.1
	baz=88,SNR=9.3						
F06A	Goldendale	87.90	39	⇓P	P	02 55 04.1	-0.1
	baz=88						
E07A	Sunnyside	87.98	38	P	P	02 55 05.0	+0.6
	baz=88,SNR=6.6						
WAH2	Wahluke Slope	88.03	38	P	P	02 55 04.8	+0.1
I04A	Tendick Farm,	88.05	42	⇓P	P	02 55 04.5	-0.4
	baz=88						
M01C	Crescent City	88.06	44	⇑P	P	02 55 05.5	+0.6
	baz=88						
C09A	Chrisman Ranch	88.12	37	⇑P	P	02 55 05.7	+0.6
	baz=88						
GBL	Gable Mountain	88.17	38	P	P	02 55 05.7	+0.3
D08A	Wollman Farm,	88.21	38	P	P	02 55 05.5	0.0
	baz=88,SNR=10						
L02A	Cave Junction	88.22	44	⇓P	P	02 55 05.9	+0.2
	baz=88						
H05A	Madras	88.28	41	⇑P	P	02 55 06.2	+0.2
	baz=88						
G06A	Carlson Farm,	88.29	40	⇓P	P	02 55 06.5	+0.6
	baz=88						
F07A	Phinny Hill Vi	88.32	39	⇓P	P	02 55 06.7	+0.6
	baz=88						
HUMO	Hull Mountain	88.37	43	⇓P	P	02 55 07.0	+0.6
	baz=88						
B10A	Chitwood Farm,	88.39	36	⇓P	P	02 55 06.6	+0.3
	baz=88						
A11A	Hall Mountain,	88.44	35	⇑P	P	02 55 07.2	+0.6
	baz=88						
E08A	Dider Farm, El	88.46	38	⇓P	P	02 55 07.0	+0.2
	baz=88						
NEW	Newport	88.46	36	eP	P	02 55 06.7	-0.1
	comp=Z,18nm,0.8s,mb5.3						
NEW	Newport	88.46	36	eP	P	02 55 06.7	0.0
NEW				pmax	pmax		
	comp=Z,18nm,0.8s						
I05A	Bend	88.53	41	⇓P	P	02 55 06.7	-0.4
	baz=88						
J04A	Umpqua Nationa	88.54	42	⇓P	P	02 55 07.1	-0.1
	baz=88						
D09A	Jones Farm, Ri	88.54	37	⇑P	P	02 55 07.4	+0.2
	baz=88						
H06A	Lindquist Farm	88.75	40	⇓P	P	02 55 07.8	-0.4
	baz=88						
B11A	Sandpoint	88.76	36	P	P	02 55 08.8	+0.7
	baz=88,SNR=8.7						
A12A	Yaak River Ran	88.82	35	P	P	02 55 09.1	+0.7
	baz=89,SNR=16						
G07A	Ruggs Ranch, H	88.83	39	⇑P	P	02 55 08.8	+0.2
	baz=89						
E09A	Wood Farm, Sta	88.96	38	P	P	02 55 09.8	+0.6
	baz=89,SNR=5.7						
YBH	Yreka Blue Hor	89.00	44	eP	P	02 55 10.5	+1.0
YBH	Yreka Blue Hor	89.00	44	⇓P	P	02 55 09.7	+0.2
	baz=89						
F08A	Pendleton	89.03	39	⇑P	P	02 55 09.4	-0.1
	baz=89						
J05A	Fort Rock	89.04	42	⇓P	P	02 55 10.1	+0.5
	baz=89						
M02C	Callahan	89.10	44	⇑P	P	02 55 10.4	+0.5
	baz=89						
D10A	Wagner Farm, O	89.11	37	P	P	02 55 09.5	-0.3
	baz=89,SNR=7.0						
K04A	Chilquin	89.12	42	⇓P	P	02 55 10.5	+0.5
	baz=89						
B12A	Libby	89.15	35	⇑P	P	02 55 10.5	+0.5
	baz=89						
G08A	Pilot Rock	89.22	39	⇓P	P	02 55 10.3	-0.1
	baz=89						
I06A	Prineville	89.28	41	⇑P	P	02 55 11.2	+0.5
	baz=89						
M04C	Macdoel	89.52	43	⇑P	P	02 55 11.1	-0.7
	baz=89						
E10A	Myers Farm, Un	89.55	37	P	P	02 55 12.4	+0.6
	baz=89,SNR=8.2						
K05A	Summer Lake	89.57	42	⇑P	P	02 55 12.3	+0.2
	baz=89						
F09A	S2 Ranch, Elgi	89.57	38	⇑P	P	02 55 11.9	-0.1
	baz=89						
I07A	Izee	89.61	40	⇓P	P	02 55 12.5	+0.2
	baz=89						
M03C	McCloud	89.62	44	⇑P	P	02 55 12.2	-0.1
	baz=89						
D11A	Klaveano Farm,	89.63	37	P	P	02 55 12.2	-0.1
	baz=89,SNR=17						
WALA	Waterton Lakes	89.64	34	eP	P	02 55 12.6	+0.4
LPL	La Plagne	89.65	321	eP	P	02 55 10.7	-1.7
	comp=Z,6.8nm,0.8s,mb4.8						
LPL	La Plagne	89.65	321	eP	P	02 55 10.7	-1.7
	comp=Z,3.4nm,0.8s,mb4.7						
LPL	La Plagne	89.65	321	eP	P	02 55 10.7	-1.7
LPL				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.7						
LPG	La Plagne	89.65	321	eP	P	02 55 10.8	-1.6
	comp=Z,12nm,0.8s,mb5.0						
LPG	La Plagne	89.65	321	eP	P	02 55 10.8	-1.6
	comp=Z,6.2nm,0.8s,mb5.0						

LPG	La Plagne	89.65	321	eP	P	02 55 10.8	-1.6
LPG				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.0						
J06A	Christmas Vall	89.71	41	⇑P	P	02 55 12.3	-0.4
	baz=90						
WDC	Whiskeytown Da	89.75	44	⇑P	P	02 55 13.5	+0.5
	baz=90						
B13A	Whitefish	89.79	35	P	P	02 55 13.7	+0.8
	baz=90,SNR=19						
F10A	Beach Ranch, E	89.79	38	P	P	02 55 13.6	+0.5
	baz=90,SNR=6.1						
O02C	Red Bluff	89.81	45	⇓P	P	02 55 13.4	+0.2
	baz=90						
H08A	Prairie City	89.84	40	P	P	02 55 13.8	+0.5
	baz=90,SNR=7.2						
K06A	Valley Falls	89.91	42	⇑P	P	02 55 13.6	-0.1
	baz=90						
BSMT	Bassoo Peak	89.95	35	P	P	02 55 14.4	+0.7
L05A	Lakeview	89.99	43	⇓P	P	02 55 13.6	-0.4
	baz=90						
E11A	Bogner Ranch,	90.12	37	P	P	02 55 14.6	0.0
	baz=90,SNR=13						
J07A	Hines	90.14	41	⇓P	P	02 55 14.9	+0.2
	baz=90						
GASB	Alder Springs	90.14	45	⇑P	P	02 55 16.0	+1.1
	baz=90						
D12A	Red Ives Fores	90.15	36	⇓P	P	02 55 14.6	-0.1
	baz=90						
C13A	Hot Springs	90.17	35	P	P	02 55 15.2	+0.4
	baz=90,SNR=18						
M05C	Lookout	90.19	43	⇓P	P	02 55 15.5	+0.5
	baz=90						
I08A	Drewsey	90.26	40	⇑P	P	02 55 15.8	+0.5
	baz=90						
H09A	Durkee	90.33	39	⇓P	P	02 55 16.1	+0.5
	baz=90						
MOD	Modoc	90.40	42	eP	P	02 55 15.5	-0.4
	comp=Z,7.2nm,1.0s,mb5.0						
MOD	Modoc	90.40	42	P	P	02 55 16.6	+0.7
	baz=90,SNR=6.5						
F11A	Grangeville	90.44	37	P	P	02 55 16.1	0.0
	baz=90,SNR=9.3						
C14A	Swan Lake	90.55	35	⇓P	P	02 55 16.7	+0.2
	baz=90						
K07A	Rock Creek Ran	90.58	41	P	P	02 55 17.4	+0.6
	baz=90,SNR=8.2						
D13A	Huson	90.60	36	⇓P	P	02 55 16.7	-0.1
	baz=90						
J08A	Circle Bar Ran	90.64	40	P	P	02 55 18.0	+0.9
	baz=90,SNR=7.2						
M06C	Likely Place G	90.69	43	⇓P	P	02 55 16.9	-0.4
	baz=90						
I09A	Lost Marbles R	90.70	40	P	P	02 55 17.8	+0.5
	baz=90,SNR=9.1						
O04C	Chester	90.81	44	⇑P	P	02 55 18.4	+0.5
	baz=91						
H10A	Noah's Angus R	90.90	39	P	P	02 55 18.0	-0.2
	baz=91,SNR=26						
L07A	Adell	90.91	42	P	P	02 55 19.6	+1.3
	baz=91,SNR=6.3						
FFC	Flin Flon	90.98	25	eP	P	02 55 17.0	-1.4
ORV	Oroville	90.98	45	⇑P	P	02 55 19.2	+0.5
	baz=91						
K08A	Mann Creek Ran	91.01	41	P	P	02 55 19.7	+1.0
	baz=91,SNR=6.5						
MSO	Missoula	91.04	36	eP	P	02 55 18.4	-0.4
	comp=Z,14nm,1.0s,mb5.2						
J09A	Fry Pan Ranch,	91.07	40	P	P	02 55 19.8	+0.7
	baz=91,SNR=11						
D14A	Greenough	91.11	35	P	P	02 55 19.0	-0.2
	baz=91,SNR=11						
E13A	Victor	91.16	36	⇓P	P	02 55 18.9	-0.4
	baz=91						
I10A	Payette	91.18	39	⇑P	P	02 55 19.4	-0.1
	baz=91						
H11A	Donnelly	91.25	38	P	P	02 55 19.6	-0.3
	baz=91,SNR=8.6						
N06A	Buffalo Meadow	91.35	43	⇑P	P	02 55 20.2	-0.1
	baz=91						
CHMT	Chamberlain Mo	91.35	35	eP	P	02 55 20.3	0.0
M07A	Soldier Meadow	91.39	42	⇑P	P	02 55 21.0	+0.5
	baz=91						
L08A	Fields	91.41	41	P	P	02 55 21.8	+1.1
	baz=91,SNR=16						
K09A	Rome	91.48	41	P	P	02 55 21.6	+0.7
	baz=91,SNR=9.9						
F13A	Darby	91.50	37	P	P	02 55 20.5	-0.4
	baz=91,SNR=6.4						
E14A	Clinton	91.55	36	P	P	02 55 21.2	0.0
	baz=91,SNR=17						
J10A	Berg Farm, Mel	91.60	40	⇓P	P	02 55 21.3	-0.2
	baz=91						
D15A	Lincoln	91.65	35	⇑P	P	02 55 20.9	-0.8
	baz=91						
O06A	Flanigan	91.69	44	P	P	02 55 21.9	0.0
	baz=91,SNR=6.2						
I11A	Placerville	91.77	39	P	P	02 55 22.4	+0.2
	baz=92,SNR=18						
M08A	Happy Creek Ra	91.83	42	⇓P	P	02 55 22.8	+0.2
	baz=92						
N07B	Gerlach	91.86	43	⇑P	P	02 55 22.9	+0.2
	baz=92						
L09A	Wilkinson Ranc	91.92	41	P	P	02 55 24.2	+1.2
	baz=92,SNR=6.5						
LAVA	Lava Cap Winer	91.92	45	⇑P	P	02 55 23.2	+0.2
	baz=92						
K10A	MacKenzie Ranc	91.93	40	P	P	02 55 23.9	+0.8
	baz=92,SNR=9.8						
H12A	Diamond D Ranc	91.99	38	P	P	02 55 23.3	0.0
	baz=92,SNR=29						
E15A	Deer Lodge	91.99	35	P	P	02 55 23.4	+0.2
	baz=92,SNR=11						
G13A	Cobalt	91.99	37	P	P	02 55 22.9	-0.4
	baz=92,SNR=6.0						
F14A	Wisdom	92.00	36	P	P	02 55 23.7	+0.4
	baz=92,SNR=26						
MFID	Camas Ranch	92.15	39	P	P	02 55 24.6	+0.5
	baz=92,SNR=13						
HRY	Holter Researc	92.23	35	eP	P	02 55 24.9	+0.6
O07A	Toulon	92.28	43	⇓P	P	02 55 25.2	+0.5
	baz=92						
H13A	Challis	92.31	38	P	P	02 55 25.1	+0.4
	baz=92,SNR=11						
G14A	Jackson	92.31	37	⇑P	P	02 55 24.6	-0.2
	baz=92						
N08A	GE Springer Mi	92.38	42	⇑P	P	02 55 25.9	+0.8
	baz=92						
EGMT	Eagleton	92.40	33	eP	P	02 55 25.1	0.0
	comp=Z,12nm,0.8s,mb5.3						
EGMT	Eagleton	92.40	33	P	P	02 55 25.1	+0.1
	baz=92,SNR=6.3						
M09A	Marrel Ranch,	92.41	42	⇑P	P	02 55 26.4	+1.1
	baz=92						
F15A	Butte	92.45	36	P	P	02 55 25.6	+0.3
	baz=92,SNR=13						
LRM	Limekiln Ridge	92.48	36	eP	P	02 55 25.8	+0.3
CMB	Columbia Colle	92.56	46	P	P	02 55 25.8	-0.2
	baz=92,SNR=6.1						
L10A	Juniper Basin	92.59	41	P	P	02 55 26.9	+0.8
	baz=92,SNR=17						
J12A	Stokes Ranch,	92.67	39	P	P	02 55 26.9	+0.5
	baz=92,SNR=8.6						
DLMT	Dillon	92.70	36	eP	P	02 55 27.4	+0.8
N09A	Rock Creek Ran	92.70	42	⇓P	P	02 55 27.1	+0.4
	baz=92						
I13A	Wildhorse Cree	92.80	38	P	P	02 55 28.1	+1.0
	baz=92,SNR=23						
HLID	Hailey	92.86	39	eP	P	02 55 28.3	+1.0
HLID	Hailey	92.86	39	P	P	02 55 28.2	+0.9
	baz=93,SNR=36						
R06C	Coleville	92.88	45	⇓P	P	02 55 28.3	+0.8
	baz=93						
G15A	Dillon	92.89	36	P	P	02 55 27.8	+0.4
	baz=93,SNR=31						
M10A	I.L. Ranch, Tu	92.89	41	P	P	02 55 28.8	+1.3
	baz=93,SNR=9.6						
MCMT	McKenzie Canyo	92.92	37	eP	P	02 55 27.4	-0.2
L11A	Cat Creek Ranc	92.96	40	P	P	02 55 28.7	+0.9
	baz=93,SNR=24						
S05C	Merced	92.99	46	⇑P	P	02 55 28.2	+0.1
	baz=93						
S06C	San Francisco	92.99	46	⇑P	P	02 55 27.6	-0.5
	baz=93						
BOZ	Bozeman (W)	93.03	36	eP	P	02 55 28.2	+0.1
	comp=Z,4.7nm,0.8s,mb5.0						
BOZ	Bozeman (W)	93.03	36	eP	P	02 55 28.2	+0.1
BOZ				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb5.0						
BOZ	Bozeman (W)	93.03	36	P	P	02 55 28.2	+0.2
	baz=93,SNR=7.6						
J13A	Cove Ranch, Pi	93.10	39	P	P	02 55 29.4	+1.0
	baz=93,SNR=17						
K12A	Draper Farm, C	93.16	39	P	P	02 55 29.7	+1.0
	baz=93,SNR=7.3						
O09A	Fish Creek Ran	93.32	42	P	P	02 55 30.5	+1.0
	baz=93,SNR=7.1						
M11A	Holland Ranch,	93.39	41	P	P	02 55 31.4	+1.6
	baz=93,SNR=7.2						
N10A	Dunphy	93.40	42	⇓P	P	02 55 30.0	+0.1
	baz=93						
L12A	House Creek Ra	93.40	40	P	P	02 55 30.9	+1.1
	baz=93,SNR=9.5						
T06C	Millerton Lake	93.59	46	⇓P	P	02 55 30.0	-0.8
	baz=93						
K13A	Stover Farm, H	93.62	39	P	P	02 55 32.2	+1.4
	baz=93,SNR=6.9						
Q08A	Gabbs	93.64	44	⇑P	P	02 55 31.1	+0.1
	baz=93						
PKD	Parkfield	93.65	47	⇓P	P	02 55 30.9	-0.2
	baz=93						
KCC	Kaiser Creek	93.66	46	⇑P	P	02 55 31.2	+0.1
	baz=93						
NVAR	Mina Array Bea	93.66	44	P	P	02 55 31.6	+0.5
	comp=Z,2.8nm,0.7s,mb4.8,baz=307,slow=3.4,SNR=28						
O10A	Cortez Mining,	93.66	42	⇓P	P	02 55 31.8	+0.7
	baz=93						
QLMT	Earthquake Lak	93.68	36	eP	P	02 55 31.9	+0.9
U05C	Westside ANR,	93.70	47	⇑P	P	02 55 31.8	+0.4
	baz=94						
P09A	Austin	93.72	43	⇑P	P	02 55 31.8	+0.4
	baz=94						
N11A	Elko Archery C	93.80	41	⇑P	P	02 55 32.8	+1.0
	baz=94						
M12A	Wells	93.92	40	P	P	02 55 33.3	+1.0
	baz=94,SNR=9.3						
YMR	Madison River	94.03	36	eP	P	02 55 32.9	+0.2
	comp=Z,8.2nm,0.9s,mb5.2						
L13A	Double Diamond	94.06	39	P	P	02 55 34.0	+1.1
	baz=94,SNR=9.2						
N12A	Clover Valley,	94.20	41	⇓P	P	02 55 33.9	+0.4
	baz=94						
K14A	Jones Ranch, D	94.20	39	⇓P	P	02 55 33.9	+0.4
	baz=94,SNR=8.7						
HELL	Mitchell Peak,	94.23	46	⇓P	P	02 55 32.9	-0.9
	baz=94						
O11A	Cowboy Ranch,	94.27	42	⇓P	P	02 55 34.0	+0.1
	baz=94						
S08C	White Mtn Res	94.30	45	⇓P	P	02 55 34.5	+0.4
	baz=94						
M13A	Montello	94.39	40	P	P	02 55 35.2	+0.8
	baz=94,SNR=9.3						
LKWY	Lake	94.40	36	eP	P	02 55 36.6	+2.3
	comp=Z,9.5nm,1.0s,mb5.2						
LKWY	Lake	94.40	36	eP	P	02 55 36.7	+2.3
LKWY				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.2						
R09A	Tonopah	94.55	44	P	P	02 55 35.2	0.0
	baz=94,SNR=9.5						
IMW	Indian Meadow	94.56	37	eP	P	02 55 34.5	-0.6
	comp=Z,8.1nm,1.2s,mb5.0						
P11A	Circle Ranch,	94.57	42	⇓P	P	02 55 35.3	+0.1
	baz=94						
VES	Vestal, Richgr	94.68	47	⇑P	P	02 55 35.6	-0.3
	baz=94						
N13A	Wendover, West	94.69	41	⇑P	P	02 55 36.1	+0.4
	baz=94						
PKM	Peak Mountain	94.73	48	⇓P	P	02 55 35.9	-0.2
	baz=94						
MOOW	Moose Ponds	94.76	37	eP	P	02 55 36.9	+0.8
	comp=Z,8.0nm,1.4s,mb5.0						
S09A	Goldfield	94.77	44	P	P	02 55 36.3	+0.1
	baz=94,SNR=5.6						
TPAW	Teton Pass	94.82	37	eP	P	02 55 37.4	+1.0
LOHW	Long Hollow	94.93	37	eP	P	02 55 37.5	+0.7
	comp=Z,8.5nm,1.4s,mb5.0						
REDW	Red Top Meadow	94.96	37	eP	P	02 55 38.2	+1.3
	comp=Z,20nm,1.8s,mb5.2						
R10A	Warm Springs	95.01	44	⇑P	P	02 55 37.3	+0.1
	baz=95						
S10A	Tonopah Range,	95.04	44	P	P	02 55 38.0	+0.5
	baz=95,SNR=7.2						
Q11A	Duckwater	95.07	43	⇑P	P	02 55 37.0	-0.6
	baz=95						
GRAC	Grapevine Rang	95.11	45	⇑P	P	02 55 37.5	-0.2
	baz=95						
P12A	McGill	95.13	42	⇑P	P	02 55 38.2	+0.4
	baz=95						
ISA	Isabella	95.18	47	⇓P	P	02 55 37.3	-0.9
	baz=95						
Q12A	Willow Creek R	95.45	42	⇓P	P	02 55 38.4	-0.9
	baz=95						
MPMC	Manual Prospec	95.59	46	⇑P	P	02 55 39.7	-0.3
	baz=95						
HWUT	Hardware Ranch	95.72	39	eP	P	02 55 40.8	+0.3
	comp=Z,12nm,1.5s,mb5.1						
S11A	Rachel	95.75	44	⇓P	P	02 55 40.1	-0.6
	baz=96						
FURC	Furnace Creek,	95.75	45	⇓P	P	02 55 40.1	-0.6
	baz=96						
DUG	Dugway	95.92	40	eP	P	02 55 42.1	+0.6
	comp=Z,3.8nm,0.9s,mb4.8						
DUG	Dugway	95.92	40	eP	P	02 55 42.1	+0.7
DUG				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.8						
DUG	Dugway	95.92	40	⇑P	P	02 55 41.5	0.0
	baz=96						
EDW2	Edwards Air Fo	95.96	47	⇓P	P	02 55 41.4	-0.3
	baz=96						
R12A	Pony Springs,	96.03	43	⇓P	P	02 55 41.3	-0.6
	baz=96						
PDAR	Pinedale Array	96.06	37	P	P	02 55 40.8	-1.3
	comp=Z,0.7nm,0.8s,mb4.1,baz=45,slow=0.2,SNR=6.5						
PDAR				PP	PP	02 59 36.6	+2.7
	comp=Z,1.4nm,1.2s,baz=327,slow=7.6,SNR=3.8						
GSC	Goldstone	96.49	46	⇑P	P	02 55 44.1	0.0
	baz=96						
T13A	Saint George	97.28	43	⇑P	P	02 55 47.9	+0.3
	baz=97						
MSU	Marysvale	97.39	41	eP	P	02 55 49.0	+0.8
V12A	Nelson	97.49	45	⇓P	P	02 55 49.2	+0.6
	baz=97						
GMRC	Granite Mounta	97.55	46	⇓P	P	02 55 47.0	-1.9
	baz=97						
BC3	Big Chuckw Mtn	98.38	47	⇓P	P	02 55 52.3	-0.4
	baz=98						
W13A	Hualapai Mount	98.50	45	⇑P	P	02 55 52.8	-0.4
	baz=98						
X14A	Yava	99.53	45	⇑P	P	02 55 57.7	-0.1
	baz=99						
WUAZ	Wupatki	99.81	43	⇓P	Pdif	02 55 59.2	+0.5
	baz=100						
X15A	Humboldt	99.94	44	⇑P	Pdif	02 56 00.4	+1.1
	baz=100						
TXAR	Lajitas Array	108.78	43	PKPdf	PKiKP	03 00 42.7	-1.4
TXAR				PP	PP	03 01 09.3	-0.4
TXAR	Lajitas Array	108.78	43	PKiKP	PKiKP	03 00 42.7	-1.4
	comp=Z,0.3nm,0.9s,baz=209,slow=1.7,SNR=4.8						
TXAR				PP	PP	03 01 09.3	-0.4
	comp=Z,0.5nm,0.8s,baz=48,slow=1.9,SNR=3.8						
TORD	Torodi Ar. Bea	112.37	298	PKPdf	PKiKP	03 00 49.8	-1.5
TORD				PP	PP	03 01 38.8	+2.6
TORD	Torodi Ar. Bea	112.37	298	PKiKP	PKiKP	03 00 49.8	-1.5
	comp=Z,0.8nm,0.7s,baz=38,slow=2.8,SNR=9.2						
TORD				PP	PP	03 01 38.8	+2.6
	comp=Z,1.0nm,0.8s,baz=47,slow=5.3,SNR=4.0						
LIC	Lamto	121.73	295	⇑iPKIKP	PKPdf	03 01 07.9	-1.4
	comp=Z,20nm,0.9s						
LIC	Lamto	121.73	295	⇑iPKPdf	PKPdf	03 01 07.9	-1.4
ROSC	El Rosal	144.99	34	PKPab	PKPdf	03 01 51.9	-0.7
OTAV	Otavalo	146.40	45	ePKP	PKPdf	03 01 55.8	+0.7
LPAZ	La Paz	165.30	55	PKP	PKPdf	03 02 19.4	-0.2
LPAZ				PKPab	PKPab	03 03 16.5	-0.6
LPAZ	La Paz	165.30	55	PKIKP	PKPdf	03 02 19.4	-0.2
LPAZ						03 03 16.5	
LPAZ				pmax	pmax		
	comp=Z,2.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.5s						
LPAZ	La Paz	165.30	55	PKP	PKPdf	03 02 19.4	-0.2
	comp=Z,1.8nm,0.9s,baz=343,slow=4.2,SNR=5.6						
LPAZ				PKPab	PKPab	03 03 16.5	-0.6
	comp=Z,0.5nm,0.5s,baz=39,slow=6.5,SNR=3.9						

WEL 12 03:41:50.2±0.8, 36.71S×179.34E, h12^{km}, ML3.7/5, Error ellipse: s-maj=9.4km s-min=5.4km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	1.19	224	P*	Pb	03 42 10.7	-1.9
MXZ				S*	Sb	03 42 27.9	+0.1
PUZ	Puketiti	1.61	212	PN	Pn	03 42 18.1	-0.3
PUZ				SN	Sn	03 42 38.4	-0.7
MWZ	Matawai	2.17	221	PN	Pn	03 42 25.6	-0.5
MWZ				SN	Sn	03 42 51.3	-1.6
URZ	Urewera	2.35	228	PN	Pn	03 42 27.9	-0.7
URZ				SN	Sn	03 42 56.0	-1.4
MARZ	Manawahe	2.48	238	PN	Pn	03 42 29.7	-0.6
KNZ	Kokohu	2.66	209	PN	Pn	03 42 31.0	-1.8
KUZ	Kuaotunu	2.91	268	PN	Pn	03 42 34.9	-1.3

CASC 12 03:55:07.8±27.0, 8.44N×84.29W, h4^{km}, MD3.5, 2D, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QCR	Quepos	0.98	7	⇓eP	Pg	03 55 37.4	+11
QCR				eS	Sg	03 55 45.9	+6.3
LCR2	La Lucha 2	1.32	13	⇓eP	Pn	03 55 40.7	+7.6
LCR2				eS	Sg	03 55 52.2	+1.8
LAJ	Bijagual	1.42	7	eP	Pn	03 55 32.8	-1.7
LAJ				eS	Sb	03 55 37.6	-16
URSC	Urasca	1.48	20	eP	Pn	03 55 45.1	+10
URSC				eS	Sn	03 56 00.1	+5.2
PRS1	Puriscal	1.53	359	eP	Pn	03 55 37.2	+1.3
CGA2	Cerro Gallo 2	1.57	354	eP	Pn	03 55 38.8	+2.3
ICR	Volcan Irazu	1.60	17	eP	Pn	03 55 46.2	+9.4
ICR				eS	Sn	03 56 01.1	+3.2
JCR	Jicaral	1.62	330	eP	Pn	03 55 38.3	+1.2
JCR				eS	Sn	03 55 47.6	-11
BCIP	Isla Barro Col	4.46	80	eP	Pn	03 55 57.6	-19
BCIP				eS	Sn	03 56 25.5	-43

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*NEIC **12** 03:56:41.1±1.2, 5.00S×144.90E, h35^{km}, Error ellipse: s-maj=21.7km s-min=15.2km az=81.0*

*ISCJB **12** 03:56:43.3±2.7, 5.3S±0.1×145.1E±0.1, h78^{km}±28^{km}, mb3.8/5, Error ellipse: s-maj=20.4km s-min=19.2km az=141.1*

*IDC **12** 03:56:45.1±5.6, 5.25S×145.17E, h85^{km}±61^{km}, mb3.7/5, mb1 3.9/7, mb1mx3.7/15, mbtmp3.8/7, ML3.7/2, MS3.3/2, Ms1 3.3/2, ms1mx2.7/19, Error ellipse: s-maj=45.2km s-min=29.2km az=116.0*

ISC 12 03:56:44.4±2.6, 5.2S±0.1×145.1E±0.1, h74^{km}±26^{km}, n11, $\sigma 0^{s}.81$/13, mb3.8/5, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.66	153	P	Pn	03 57 52.9	+0.5
	5.7nm,0.3s,baz=35,slow=6.2,SNR=11						
PMG				S	Sn	03 58 43.8	-1.4
	11nm,0.3s,baz=126,slow=21,SNR=10						
COEN	Coen	8.88	192	ePn	Pn	03 58 51.6	+1.6
COEN				Sn	Sn	04 00 29.1	+0.5
KAKA	Kakadu	14.50	238	eP	Pn	04 00 04.4	-1.6
	12nm,0.4s						
WB2	Warramunga Arr	17.96	214	eP	Pn	04 00 48.8	-0.5
WRA	Warramunga Arr	17.97	215	P	Pn	04 00 49.3	0.0
	0.8nm,0.3s,baz=40,slow=11,SNR=118						
WRA				LR	LR	04 08 27.0	
	comp=Z,68nm,18.8s,baz=75,slow=39						
ASAR	Alice Springs	21.26	209	P	P	04 01 25.1	+0.4
	1.7nm,0.6s,mb3.6,baz=41,slow=9.4,SNR=23						
FITZ	Fitzroy Crossi	22.89	234	eP	P	04 01 41.6	-0.4
	22nm,0.4s,mb4.8						
FITZ	Fitzroy Crossi	22.89	234	P	P	04 01 42.2	+0.2
	11nm,0.4s,mb4.5,baz=45,slow=9.3,SNR=82						
STKA	Stephens Creek	26.72	187	P	P	04 02 17.1	+0.2
	1.9nm,0.6s,mb3.8,baz=344,slow=9.8,SNR=4.3						
STKA				LR	LR	04 14 13.7	
	comp=Z,82nm,19.1s,baz=35,slow=39						
MKAR	Makanchi Array	75.66	321	P	P	04 08 21.4	-0.2
	0.3nm,0.6s,mb3.2,baz=104,slow=3.9,SNR=4.0						
ZALV	Zalesovo Beam	77.32	328	P	P	04 08 31.2	+0.4
	0.5nm,0.3s,mb3.6,baz=98,slow=2.9,SNR=4.1						

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*ISCJB **12** 04:20:13.6±1.3, 67.72N±0.04×33.7E±0.2, h0^{km}, Error ellipse: s-maj=10.7km s-min=5.3km az=176.0*

*HEL **12** 04:20:14.9±0.2, 67.70N×33.79E, h0^{km}, ML2.4, ML2.3(BER), ML2.6(NAO), Explosion*

*NAO **12** 04:20:14.7±1.2, 67.66N×33.82E, ML2.6*

*CSEM **12** 04:20:15.3±0.3, 67.70N×33.54E, h1^{km}, ML2.3, Error ellipse: s-maj=7.4km s-min=3.5km az=82.0, Mining explosion.*

*IDC **12** 04:20:16.9±2.3, 67.67N×33.55E, h0^{km}, mb1 3.2/4, mb1mx3.0/23, mbtmp3.1/4, ML2.8/4, Error ellipse: s-maj=27.0km s-min=9.0km az=71.0*

ISC 12 04:20:15.2±1.0, 67.74N±0.03×33.6E±0.2, h0^{km}, n35, $\sigma 1^{s}.32$/65, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA0	Apatity Array	0.26	240	Pg	Pg	04 20 20.5	+0.3
	baz=97,slow=16						
APA0				Lg		04 20 25.2	
	baz=87,slow=37						
APA0				Rg		04 20 27.7	
	baz=89,slow=37						
APA0	Apatity Array	0.26	240	iP	Pg	04 20 20.5	+0.3
APA0				iS	Sg	04 20 25.2	+1.6
APA0				eRG		04 20 27.7	
APA0	Apatity Array	0.26	240	Pg	Pg	04 20 20.5	+0.3
	baz=97,slow=16						
APA0				Lg		04 20 25.2	
	baz=87,slow=37						
APA0				Rg		04 20 27.7	
	baz=89,slow=37						
APA0	Apatity Array	0.26	240	Pg	Pg	04 20 20.5	+0.3
	SNR=90						
KU6	Riekki	2.26	222	eP	Pn	04 20 53.8	+0.1
KU6				eS	Sn	04 21 22.6	+0.5
KU6	Riekki	2.26	222	P	Pn	04 20 53.7	0.0
KU6				S	Sn	04 21 22.5	+0.4
MSF	Maaselka	2.57	226	eP	Pn	04 20 58.4	+0.4
MSF				eS	Sn	04 21 29.8	0.0
SGF	Sodankyl	2.72	267	eP	Pn	04 21 00.8	+0.8
SGF				eS	Sn	04 21 34.2	+0.6
SGF	Sodankyl	2.72	267	P	Pn	04 21 00.8	+0.8
SGF				S	Sn	04 21 34.1	+0.5
KEV	Kevo	3.14	313	eP	Pn	04 21 07.4	+1.6
KEV				eS	Sn	04 21 45.4	+1.6
KEV				eSG	Sg	04 21 53.9	-1.9
KEV				MSG		04 21 58.9	
	comp=Z,9.2nm,0.3s						
KEV	Kevo	3.14	313	P	Pn	04 21 07.3	+1.6
KEV				S	Sn	04 21 45.4	+1.6
KEV				Sg	Sg	04 21 53.8	-2.0
ARA0	ARCESS Array S	3.46	305	Pn	Pn	04 21 11.3	+1.1
	baz=122,slow=16						
ARA0				Pg	Pg	04 21 20.1	-1.4
	baz=115,slow=16						
ARA0				Sn	Sn	04 21 52.7	+0.9
	baz=128,slow=28						
ARA0				Lg		04 22 03.3	
	baz=113,slow=28						
ARA0	ARCESS Array S	3.46	305	eP	Pn	04 21 11.3	+1.1
ARA0				ePG	Pg	04 21 20.1	-1.4
ARA0				eS	Sn	04 21 52.7	+0.9
ARA0				eSG		04 22 03.3	
ARA0	ARCESS Array S	3.46	305	Pn	Pn	04 21 11.3	+1.1
	baz=122,slow=16						
ARA0				Pg	Pg	04 21 20.1	-1.4
	baz=115,slow=16						
ARA0				Sn	Sn	04 21 52.7	+0.9
	baz=128,slow=28						
ARA0				Lg		04 22 03.3	
	baz=113,slow=28						
ARA0	ARCESS Array S	3.46	305	Pn	Pn	04 21 11.3	+1.1
	SNR=50						
ARA0	ARCESS Array S	3.46	305	Pg	Pg	04 21 20.0	-1.5
	SNR=90						
ARA0				Sn	Sn	04 21 52.7	+0.8
	SNR=50						
ARA0				Sg		04 22 03.3	
ARCES	ARCESS Array B	3.46	305	Pn	Pn	04 21 11.3	+1.1

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       comp=Z,2.0nm,0.3s,baz=123,slow=15,SNR=210
ARCES                              Pg    Pg      04 21 20.3  -1.2
       comp=Z,1.3nm,0.3s,baz=115,slow=15,SNR=8.9
ARCES                              Sn    Sn      04 21 52.9  +1.0
       comp=Z,1.4nm,0.3s,baz=119,slow=24,SNR=9.3
ARCES                              Lg            04 22 05.2
       comp=Z,5.0nm,0.3s,baz=114,slow=32,SNR=17
HEF    Hetta               3.78 285 eP    Pn     04 21 15.5  +0.9
HEF                                eS    Sn      04 21 59.8  +0.1
HEF                                eSG   Sg      04 22 13.6  -3.0
HEF    Hetta               3.78 285  P    Pn     04 21 15.5  +0.9
HEF                                 S    Sn      04 21 59.8  +0.1
HEF                                 Sg   Sg      04 22 13.5  -3.1
KTK1   Kautokeino          4.04 293 eP    Pn     04 21 19.5  +1.4
KTK1                               eSG   Sg      04 22 21.5  -3.2
KTK1                                AML  AML     04 22 30.0
       comp=Z,13nm,0.6s
KTK1   Kautokeino          4.04 293 eP    Pn     04 21 19.5  +1.4
       SNR=49
KTK1                                Sg   Sg      04 22 21.5  -3.2
KJN    Kajaani             4.39 216 eP    Pn     04 21 22.9   0.0
KJN                                eS    Sn      04 22 13.0  -1.6
KJN                                eSG   Sg      04 22 30.7  -5.3
KJN                                 MSG          04 22 31.5
       comp=Z,8.6nm,0.4s
KJN    Kajaani             4.39 216  P    Pn     04 21 22.9   0.0
KJN                                 S    Sn      04 22 13.0  -1.6
KJN                                 Sg   Sg      04 22 30.6  -5.3
       comp=Z,8.6nm,0.4s
FIA0   FINESS Array S      7.09 211  Pn   Pn     04 21 58.3  -1.7
       baz=30,slow=12
FIA0                                Sn   Sn      04 23 15.4  -5.8
       baz=55,slow=18
FIA0                                Lg           04 23 48.5
       baz=16,slow=28
FIA0   FINESS Array S      7.09 211 eP    Pn     04 21 58.3  -1.7
FIA0                               eS    Sn      04 23 15.4  -5.8
FIA0   FINESS Array S      7.09 211  Pn   Pn     04 21 58.3  -1.7
       baz=30,slow=12
FIA0                                Sn   Sn      04 23 15.4  -5.8
       baz=55,slow=18
FIA0                                Lg           04 23 48.5
       baz=16,slow=28
FINES  FINESS Array B      7.09 211  Pn   Pn     04 21 58.4  -1.7
       comp=Z,0.1nm,0.3s,baz=38,slow=12,SNR=2.1
FINES                               Sn   Sn      04 23 16.5  -4.7
       comp=Z,0.1nm,0.3s,baz=30,slow=21,SNR=3.5
FINES                               Lg           04 23 51.7
       comp=Z,0.4nm,0.3s,baz=20,slow=25,SNR=7.5
HFS    Hagfors            11.55 238  Lg          04 26 18.2
       baz=51,slow=28
HFS    Hagfors            11.55 238  Lg          04 26 18.2
       baz=51,slow=28
HFS    Hagfors            11.55 238  Lg          04 26 15.9
       comp=Z,0.2nm,0.3s,baz=53,slow=27,SNR=3.2
SPA0   Spitsbergen Ar     11.55 342  Pn   Pn     04 22 58.7  -2.3
       baz=146,slow=16
SPA0   Spitsbergen Ar     11.55 342 eP    Pn     04 22 58.7  -2.3
SPA0   Spitsbergen Ar     11.55 342  P    Pn     04 22 58.7  -2.3
       baz=146,slow=16
NOA    NORSAR Array B     11.72 246  Pn   Pn     04 23 00.7  -2.7
       comp=Z,0.1nm,0.3s,baz=40,slow=11,SNR=2.6
AKASG  Malin Array Be     17.23 189  Pn   Pn     04 24 10.2  -6.7
       comp=Z,0.1nm,0.3s,baz=5.1,slow=12,SNR=2.7
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*NEIC **12** 04:36:19.0±2.1, 4.36N×126.12E, h30^{km}, mb4.4/5, Error ellipse: s-maj=51.6km s-min=11.3km az=39.0*

*ISCJB **12** 04:36:23.8±2.2, 4.1N±0.2×125.8E±0.2, h80^{km}±35^{km}, mb4.1/7, Error ellipse: s-maj=35.8km s-min=21.6km az=38.4*

*IDC **12** 04:36:29.9±7.3, 2.79N×126.72E, h0^{km}, mb4.0/4, mb1 4.2/4, mb1mx3.7/18, mbtmp4.1/4, Error ellipse: s-maj=122.7km s-min=97.1km az=125.0*

ISC 12 04:36:24.7±1.9, **4.2N**±0.2×**125.8E**±0.2, **h74**^{km}±29^{km}, **n12**, σ0^{s}.**49**/13, **mb4.1**/7, **1C, Talaud Islands**

```
Code   Station Name         Δ°   AZ°    Phase ID            Time     Res
                                     Op    ISC           h  m  s    ISC
GSPH   General Santos      2.10 336⇑iP    Pn     04 36 58.8  +1.0
GSPH                                iS    Sn     04 37 22.4  -0.6
KKM    Kota Kinabalu       9.74 281  Pn   Pn     04 38 41.8  -0.3
FITZ   Fitzroy Crossi     22.12 180 eP    P      04 41 14.4  +0.2
       5.9nm,0.3s,mb4.4
FITZ   Fitzroy Crossi     22.12 180  P    P      04 41 13.5  -0.6
       3.2nm,0.3s,mb4.1,baz=9.0,slow=9.1,SNR=42
WRA    Warramunga Arr     25.37 161  P    P      04 41 44.9  -0.2
       2.1nm,0.4s,mb4.0,baz=340,slow=10,SNR=38
WB2    Warramunga Arr     25.38 161 eP    P      04 41 44.5  -0.7
MBWA   Marble Bar         25.86 193  P    P      04 41 50.2  +0.7
       11nm,1.3s,mb4.1
ASAR   Alice Springs      28.76 164  P    P      04 42 15.6  +0.1
       0.6nm,0.4s,mb3.5,baz=343,slow=7.5,SNR=20
FORT   Forrest            34.81 177 eP    P      04 43 08.4   0.0
       14nm,1.4s,mb4.6
STKA   Stephens Creek     38.86 158 eP    P      04 43 43.0  +0.2
       2.2nm,0.8s,mb4.0
STKA   Stephens Creek     38.86 158  P    P      04 43 42.9  +0.1
       2.0nm,0.7s,mb4.1,baz=342,slow=9.9,SNR=6.0
PALK   Pallekele          44.98 276  P    P      04 44 33.2  +0.1
       1.5nm,0.4s,mb4.1
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*ISCJB **12** 04:41:16.2±1.0, 1.76S±0.09×134.3E±0.2, h30^{km}, mb3.8/6, Error ellipse: s-maj=24.5km s-min=11.4km az=164.2*

*NEIC **12** 04:41:18.3±0.8, 1.77S×134.30E, h30^{km}, mb4.2/2, Error ellipse: s-maj=21.0km s-min=9.6km az=72.0*

*IDC **12** 04:41:20.3±4.2, 1.89S×134.12E, h47^{km}±45^{km}, mb3.5/5, mb1 3.8/7, mb1mx3.7/16, mbtmp3.6/7, ML4.0/2, Error ellipse: s-maj=52.4km s-min=14.1km az=81.0*

ISC 12 04:41:20.1±2.5, **1.8S**±0.1×**134.2E**±0.2, **h43**^{km}±23^{km}, **n14**, σ0^{s}.**74**/19, **mb3.8**/6, **Irian Jaya region**

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Code   Station Name         Δ°   AZ°    Phase ID            Time     Res
                                     Op    ISC           h  m  s    ISC
KAKA   Kakadu             10.95 189 eP    Pn     04 43 54.1  -0.1
       11nm,0.6s
WB2    Warramunga Arr     17.99 180 eP    Pn     04 45 26.8  -0.2
WRA    Warramunga Arr     17.99 180  P    Pn     04 45 26.6  -0.4
       0.4nm,0.3s,baz=1.5,slow=12,SNR=15
WRA                                 S    S       04 48 36.3   -15
       0.1nm,0.3s,baz=2.4,slow=24,SNR=4.7
FITZ   Fitzroy Crossi     18.23 207 eP    Pn     04 45 30.4  +0.4
       12nm,1.0s
FITZ                               eS    S       04 48 41.4   -15
FITZ   Fitzroy Crossi     18.23 207  P    Pn     04 45 29.0  -1.0
       0.6nm,0.3s,baz=33,slow=13,SNR=19
FITZ                                S    S       04 48 41.9   -14
       0.1nm,0.3s,baz=45,slow=20,SNR=2.7
CTA    Charters Tower     21.60 148  P    P      04 46 06.2  -0.2
CTA    Charters Tower     21.60 148  P    P      04 46 06.2  -0.2
       3.8nm,0.7s,mb3.9,baz=330,slow=12,SNR=3.8
ASAR   Alice Springs      21.70 181  P    P      04 46 07.9  +0.5
ASAR                                S    S       04 50 04.3  -0.9
ASAR   Alice Springs      21.70 181  P    P      04 46 07.9  +0.5
       3.3nm,0.6s,mb3.9,baz=7.3,slow=11,SNR=27
ASAR                                S    S       04 50 04.3  -0.9
       3.0nm,0.8s,baz=5.0,slow=21,SNR=11
MBWA   Marble Bar         23.85 215 eP    P      04 46 29.6  +0.1
       23nm,1.4s,mb4.4
KSM    Kuching            24.16 278 eP    P      04 46 33.3  +0.8
STKA   Stephens Creek     30.67 168  P    P      04 47 32.1  +1.5
       2.8nm,0.8s,mb4.1,baz=336,slow=12,SNR=3.2
SONM   Songino Array      55.12 337  P    P      04 50 48.1  +0.2
       0.1nm,0.4s,mb3.2,baz=142,slow=7.2,SNR=3.3
MKAR   Makanchi Array     66.42 324  P    P      04 52 03.4  -1.4
       0.2nm,0.5s,mb3.4,baz=116,slow=8.1,SNR=4.5
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*IDC **12** 04:44:04.9±0.6, 14.5N×97.01E, h0^{km}, mb4.8/21, mb1 4.8/22, mb1mx4.7/28, mbtmp4.8/22, ML3.7/1, MS4.2/5, Ms1 4.2/5, ms1mx3.6/31, Error ellipse: s-maj=20.5km s-min=12.1km az=41.0*

*ISCJB **12** 04:44:07.5±0.2, 14.5N±0.04×97.06E±0.03, h28^{km}, mb5.0/110, MS4.5/23, Error ellipse: s-maj=5.2km s-min=3.6km az=17.2*

*BJI **12** 04:44:07.9, 14.0N×97.19E, h35^{km}, mB5.1, mb5.0, Ms4.8, Msz4.6*

*MOS **12** 04:44:08.2±1.0, 15.0N×97.11E, h33^{km}, mb5.3/39, Error ellipse: s-maj=9.7km s-min=5.4km az=107.3*

*NEIC **12** 04:44:09.8±0.2, 15.1N×97.11E, h30^{km}, mb5.0/41, Error ellipse: s-maj=6.7km s-min=4.7km az=211.0*

ISC 12 04:44:09.8±0.2, **14.7N**±0.04×**97.08E**±0.03, **h29**^{km}, **h29**^{km}±.6^{km}**:pP-P**, **n279**, σ**1**^{s}.**06**/290, **mb5.0**/110, **MS4.5**/23, **34C-24D, Northern Sumatera**

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Code   Station Name         Δ°   AZ°    Phase ID            Time     Res
                                     Op    ISC           h  m  s    ISC
PSI    Prapat              2.27  54  Pn   Pn     04 44 45.0  -0.4
PSI    Prapat              2.27  54  Pn   Pn     04 44 45.0  -0.4
       22nm,0.3s,baz=234,slow=4.6,SNR=212
TSI    Tuntungan           2.51  36  P    Pn     04 44 48.6   0.0
       2μm,1.1s
FRIM   Kepong              4.87  69 ⇓P    Pn     04 45 22.0  +0.8
IPM    Ipoh                4.95  53 ⇑P    Pn     04 45 22.9  +0.7
KULM   Kulim               5.21  43⇑ePn   Pn     04 45 25.4  -0.4
KULM   Kulim               5.21  43 ⇓P    Pn     04 45 26.0  +0.2
KGM    Kluang              6.26  85 ⇓P    Pn     04 45 41.7  +1.4
SNG    Songkhla            6.68  32  P    Pn     04 45 46.0   0.0
       500nm,1.0s
MYKOM  Kota Tinggi         6.78  87 ⇓P    Pn     04 45 49.0  +1.6
KTGM   Kuala Trenggan      7.16  57 ⇓P    Pn     04 45 54.4  +1.8
PBA    Port Blair         10.99 337 eP    Pn     04 46 44.9  -0.4
PBA                                 AMb  AMB     04 46 46.9
       comp=Z,47nm,1.4s
KSM    Kuching            13.23  90 ⇓P    Pn     04 47 19.4  +3.6
SBUM   Sibu               15.17  86 ⇓P    Pn     04 47 43.8  +1.6
BDT    Bhumibol Dam       15.79   7  P    Pn     04 47 52.5  +2.3
BTM    Bintulu            16.09  84 ⇑P    Pn     04 47 55.8  +1.8
CM31   Chiang Mai Arr     16.98   6 ePn   Pn     04 48 04.2  -1.2
       comp=Z,30nm,0.8s
PALK   Pallekele          17.31 290 ePn   Pn     04 48 11.2  +1.8
CHG    Chiang Mai         17.33   6 ⇑P    Pn     04 48 07.6  -2.1
       comp=Z,15nm,0.8s
CHTO   Chiang Mai         17.33   6 ePn   Pn     04 48 07.0  -2.7
       comp=Z,9.9nm,0.6s
CHTO   Chiang Mai         17.33   6 eP    Pn     04 48 07.0  -2.7
CHTO                                pmax pmax
       comp=Z,10.0nm,0.6s
NANT   Nan                17.59  11 ⇑P    Pn     04 48 14.2  +1.3
       comp=Z,162nm,0.7s
KMMI   Kalianget          18.86 117  P    Pn     04 48 27.2  -1.3
       comp=Z,58nm,1.1s
KKM    Kota Kinabalu      19.63  76 eP    Pn     04 48 36.3  -1.5
KKM    Kota Kinabalu      19.63  76 ⇓P    Pn     04 48 37.0  -0.7
KDM    Kudat              20.43  74 ⇑P    P      04 48 43.9  -1.0
SDKM   Sandakan           20.50  78 ⇑P    P      04 48 45.9  +0.2
TSM    Tawau              20.96  82 ⇓P    P      04 48 51.4  +0.7
VIS    Vishakhapatnam     21.05 321 eP    P      04 48 53.3  +1.6
VIS                                ex    x       04 49 03.3
       comp=Z,90nm,1.4s
VIS                                i x   x       04 52 34.2
KOD    Kodaikanal         21.34 295 eP    P      04 48 56.7  +1.9
KOD                                 AMb  AMB     04 49 06.2
       comp=Z,44nm,1.4s,mb4.6
QIZ    Qiongzhong         21.47  35  P    P      04 48 54.1  -2.1
QIZ                                 XP   sP      04 49 08.1  +0.2
QIZ                                 PP           04 49 20.7
QIZ                                 S    S       04 52 50.4  -2.5
QIZ                                 XS   sS      04 53 06.8  +1.1
QIZ                                 AMB  AMB
       comp=Z,22nm,1.3s,mb4.3
QIZ                                 AMB  AMB
       comp=Z,116nm,5.3s
QIZ                                 LR   LR
       comp=N,438nm,12.8s,MS4.4
QIZ                                 LR   LR
       comp=E,852nm,14.0s,MS4.4
QIZ                                 LR   LR
       comp=Z,503nm,14.6s,MS4.0
QIZ    Qiongzhong         21.47  35 eP    P      04 48 53.4  -2.7
       comp=Z,37nm,1.1s,mb4.6
MYLDM  Lahad Datu         21.70  80 ⇑P    P      04 49 00.7  +2.0
KAPI   Kappang            23.55 106  P    P      04 49 17.7  -0.5
       comp=Z,211nm,1.1s,mb5.5,SNR=5.2
HYB    Hyderabad          24.14 312 eP    P      04 49 25.0  +1.5
       comp=Z,40nm,1.0s,mb4.8
HYB    Hyderabad          24.14 312 eP    P      04 49 25.0  +1.5
HYB                                 pmax pmax
       comp=Z,40nm,1.0s,mb4.8
HYB    Hyderabad          24.14 312 i P   P      04 49 25.0  +1.5
       comp=Z,40nm,1.0s,mb4.8
HYB                                epP           04 49 33.0
HYB                                eS    S       04 53 44.0  +4.2
KMI    Kunming            24.14  13  P    P      04 49 24.0  +0.6
KMI                                 AP           04 49 31.9
KMI                                 XP   sP      04 49 35.2  -0.3
KMI                                 PP           04 49 59.1
KMI                                 S    S       04 53 38.6  -1.1
KMI                                 XS   sS      04 53 52.1  -1.6
KMI                                 SS           04 54 28.2
KMI                                 AMB  AMB
       comp=Z,54nm,1.1s,mb4.9
KMI                                 AMB  AMB
       comp=Z,271nm,4.6s
KMI                                 LR   LR
       comp=N,1μm,16.5s,MS4.6
KMI                                 LR   LR
       comp=E,955nm,14.1s,MS4.6
KMI                                 LR   LR
       comp=Z,1μm,16.0s,MS4.5
KMI    Kunming            24.14  13  P    P      04 49 24.0  +0.6
       comp=Z,54nm,1.1s,mb4.9
KMI                                 pP           04 49 31.9
KMI                                 sP   sP      04 49 35.2  -0.3
KMI                                 PP           04 49 59.1
KMI                                 S    S       04 53 38.6  -1.1
KMI                                 sS   sS      04 53 52.1  -1.6
KMI                                 SS           04 54 28.2
KMI                                 LR   LR
       comp=Z,1μm,16.0s,MS4.5
KMI    Kunming            24.14  13  P    P      04 49 24.0  +0.6
KMI                                 *PP          04 49 31.9
KMI                                 *SP  sP      04 49 35.2  -0.3
KMI                                              04 49 59.1
KMI                                 S    S       04 53 38.6  -1.1
KMI                                 *SS  sS      04 53 52.1  -1.6
KMI                                 SS           04 54 28.2
KMI                                 pmax pmax
       comp=Z,54nm,1.1s,mb4.9
KMI                                 MLR  MLR
       comp=Z,1μm,16.0s,MS4.5
SHL    Shillong           24.48 349 eP    P      04 49 23.6  -2.8
SHL                                 AMb  AMB     04 49 24.5
       comp=Z,1μm,1.1s
SHL                                eS    S       04 53 42.0  -3.0
BOK    Bokaro             24.70 335 eP    P      04 49 28.1  -0.4
BOK                                 AMb  AMB     04 49 31.8
       comp=Z,82nm,0.8s,mb5.3
BOK                                i x   x       04 49 39.1
MNGI   Mangalore          24.81 298 eP    P      04 49 30.7  +1.1
MNGI                                AMb  AMB     04 49 42.0
       comp=Z,46nm,0.9s,mb5.0
BLSP   Bilaspur           25.16 326 eP    P      04 49 33.4  +0.7
BLSP                                AMb  AMB     04 49 35.3
       comp=Z,32nm,1.0s,mb4.8
BLSP                               i x   x       04 49 42.2
NGP    Nagpur             26.30 319 eP    P      04 49 43.7  +0.7
NGP                                 AMb  AMB     04 49 53.5
       comp=Z,34nm,1.0s,mb4.8
GYA    Guiyang            26.50  20⇑iP    P      04 49 47.0  +2.2
GYA                                 AP   pP      04 49 55.8  +2.4
GYA                                 XP   sP      04 49 59.2  +2.2
GYA                                 PP           04 50 31.3
GYA                                 PCP  PcP     04 53 11.8  +2.4
GYA                                 S    S       04 54 17.6  +0.4
GYA                                 XS   sS      04 54 32.0  +0.6
GYA                                 SS           04 55 28.4
GYA                                 SCP  ScP     04 56 48.0  +0.5
GYA                                 AMB  AMB
       comp=Z,30nm,1.0s,mb4.8
GYA                                 AMB  AMB
       comp=Z,140nm,6.7s
GYA                                 LR   LR
       comp=N,1μm,15.0s,MS5.0
GYA                                 LR   LR
       comp=E,3μm,16.4s,MS5.0
GYA                                 LR   LR
       comp=Z,3μm,16.2s,MS4.9
GZH    Guangzhou          26.67  35  P    P      04 49 50.1  +3.7
GZH                                 LR   LR
       comp=N,623nm,13.4s,MS4.6
GZH                                 LR   LR
       comp=E,768nm,12.1s,MS4.6
GZH                                 LR   LR
       comp=Z,1μm,13.7s,MS4.7
ODAN   Odare              26.90 341 eP    P      04 49 49.3  +0.9
       comp=Z,101nm,0.9s,mb5.4
TAPN   Taplejung          27.25 342 eP    P      04 49 52.7  +1.1
       comp=Z,116nm,0.9s,mb5.4
AKL    Akola              27.37 316 eP    P      04 49 58.7  +6.0
AKL                                 AMb  AMB     04 50 07.8
       comp=Z,35nm,0.4s,mb5.2
PKI    Pulchoki           28.26 338 eP    P      04 50 01.3  +0.7
       comp=Z,63nm,1.1s,mb5.2
GUN    Gumba              28.39 339 eP    P      04 50 02.8  +1.0
       comp=Z,78nm,0.7s,mb5.5
DMN    Daman              28.41 337 eP    P      04 50 02.8  +0.9
       comp=Z,70nm,1.1s,mb5.2
KKN    Kakani             28.50 338 eP    P      04 50 03.6  +0.8
       comp=Z,83nm,1.0s,mb5.4
LSA    Lhasa              28.64 349  P    P      04 50 05.0  +1.1
LSA                                 AMB  AMB
       comp=Z,20nm,0.9s,mb4.8
LSA    Lhasa              28.64 349 eP    P      04 50 04.6  +0.7
       comp=Z,16nm,0.6s,mb4.9
LSA    Lhasa              28.64 349 eP    P      04 50 04.6  +0.7
LSA                                 pmax pmax
       comp=Z,16nm,0.6s,mb4.9
BHPL   Bhopal             28.84 320 eP    P      04 50 06.1  +0.3
BHPL                                AMb  AMB     04 50 08.3
       comp=Z,6.9nm,0.4s,mb4.7
GKN    Gorkha             28.94 337 eP    P      04 50 07.5  +0.8
       comp=Z,90nm,1.0s,mb5.5
DAV    Davao City (W)     28.95  78 eP    P      04 50 07.2  +0.3
       comp=Z,253nm,0.4s
KOLN   Koldanda           29.16 335 eP    P      04 50 09.4  +0.8
       comp=Z,85nm,0.8s,mb5.5
CD2    Chengdu            29.96  12 eP    P      04 50 14.4  -1.2
CD2                                 AP   pP      04 50 24.0  -0.2
CD2                                 XP   sP      04 50 28.2  +0.4
CD2                                 PP   PP      04 51 12.7   -11
CD2                                 S    S       04 55 08.9  -2.6
CD2                                 XS   sS      04 55 24.9  -0.9
CD2                                 SS   SS      04 56 46.7   -33
CD2                                 AMB  AMB
       comp=Z,40nm,0.7s,mb5.3
CD2                                 AMB  AMB
       comp=Z,150nm,6.8s
CD2                                 LR   LR
       comp=N,640nm,17.8s,MS4.6
CD2                                 LR   LR
       comp=E,1μm,14.4s,MS4.6
CD2                                 LR   LR
       comp=Z,730nm,16.6s,MS4.4
MBWA   Marble Bar         31.57 137 eP    P      04 50 30.4  +0.4
       comp=Z,6.7nm,0.6s,mb4.7
MBWA                               e     pP      04 50 37.6  -1.1
LGTI   Lohaghat           32.11 332 eP    P      04 50 34.5  -0.1
NDI    New Delhi          33.04 327 eP    P      04 50 42.7  -0.1
NDI                                 AMb  AMB     04 50 53.7
       comp=Z,40nm,1.2s,mb5.2
WHN    Wuhan              33.23  28 ⇓P    P      04 50 44.3  -0.2
WHN                                 S    S       04 56 01.8  -1.0
WHN                                 LR   LR
       comp=E,2μm,15.6s
JOSI   Joshimath          33.36 332 eP    P      04 50 46.5  +1.0
KHET   Khetri             33.37 324 eP    P      04 50 46.2  +0.5
KHET                                AMb  AMB     04 50 47.8
       comp=Z,11nm,1.0s,mb4.7
KHET                               i x   x       04 50 54.4
FITZ   Fitzroy Crossi     34.19 126 eP    P      04 50 52.1  -0.8
       comp=Z,6.5nm,0.6s,mb4.7
FITZ   Fitzroy Crossi     34.19 126  P    P      04 50 51.1  -1.8
       comp=Z,3.4nm,0.7s,mb4.4,baz=286,slow=6.2,SNR=3.5
XAN    Xi'an              34.24  18  P    P      04 50 51.8  -1.4
XAN                                 AP   pP      04 50 57.9  -4.0
XAN                                 AMB  AMB
       comp=Z,68nm,1.0s,mb5.5
XAN                                 LR   LR
       comp=N,576nm,14.5s,MS4.6
XAN                                 LR   LR
       comp=E,495nm,13.9s,MS4.6
XAN                                 LR   LR
       comp=Z,1μm,14.5s,MS4.8
LZH    Lanzhou            35.01  10 eP    P      04 50 59.5  -0.3
LZH                                 AP   pP      04 51 07.8  -0.7
LZH                                 XP   sP      04 51 10.5  -1.6
LZH                                 PP   PP      04 52 20.6  +1.0
LZH                                 PCP  PcP     04 53 27.3  -4.3
LZH                                eS    S       04 56 28.0  -2.1
LZH                                 XS   sS      04 56 42.0  -2.4
LZH                                 SS   SS      04 58 47.4   -16
LZH                                 AMB  AMB
       comp=Z,56nm,1.1s,mb5.4
LZH                                 AMB  AMB
       comp=Z,158nm,4.0s
LZH                                 LR   LR
       comp=N,2μm,15.5s
LZH                                 LR   LR
       comp=Z,3μm,16.0s,MS5.1
LZH    Lanzhou            35.01  10 eP    P      04 50 59.5  -0.3
       comp=Z,56nm,1.1s,mb5.4
LZH                                 pP   pP      04 51 07.8  -0.7
LZH                                 sP   sP      04 51 10.5  -1.6
LZH                                 PP   PP      04 52 20.6  +1.0
LZH                                 PcP  PcP     04 53 27.3  -4.3
LZH                                eS    S       04 56 28.0  -2.1
LZH                                 sS   sS      04 56 42.0  -2.4
LZH                                 SS   SS      04 58 47.4   -16
LZH                                 LR   LR
       comp=Z,3μm,16.0s,MS5.1
LZH    Lanzhou            35.01  10 eP    P      04 50 59.5  -0.3
LZH                                 *SP  sP      04 51 10.5  -1.6
LZH                                              04 52 20.6
LZH                                              04 53 27.3
LZH                                eS    S       04 56 28.0  -2.1
LZH                                 *SS  sS      04 56 42.0  -2.4
LZH                                 SS   SS      04 58 47.4   -16
LZH                                 pmax pmax
       comp=Z,56nm,1.1s,mb5.4
LZH                                 MLR  MLR
       comp=Z,3μm,16.0s,MS5.1
NJ2    Nanjing            36.70  32 eP    P      04 51 14.7  +0.3
NJ2                                 AP   pP      04 51 24.2  +1.1
NJ2                                 XP   sP      04 51 26.4  -0.2
NJ2                                 PP   PP      04 52 39.5  +1.2
NJ2                                 S    S       04 56 56.0  -0.1
NJ2                                 XS   sS      04 57 11.0  +0.5
NJ2                                 AMB  AMB
       comp=Z,20nm,0.6s,mb5.1
NJ2                                 AMB  AMB
       comp=Z,260nm,7.8s
NJ2                                 LR   LR
       comp=N,2μm,13.5s,MS5.0
NJ2                                 LR   LR
       comp=E,1μm,13.9s,MS5.0
NJ2                                 LR   LR
       comp=Z,1μm,13.9s,MS4.8
THN    Thein Dam          36.78 329 eP    P      04 51 13.5  -1.5
SSE    Sheshan            37.27  35  P    P      04 51 19.9  +0.7
SSE                                 AMB  AMB
       comp=Z,9.0nm,0.5s,mb4.9
SSE                                 AMB  AMB
       comp=Z,58nm,4.0s
SSE                                 LR   LR
       comp=N,349nm,14.4s,MS4.4
SSE                                 LR   LR
       comp=E,260nm,14.4s,MS4.4
SSE                                 LR   LR
       comp=Z,617nm,16.2s,MS4.5
SSE    Sheshan            37.27  35  P    P      04 51 19.9  +0.7
       comp=Z,9.0nm,0.5s,mb4.9
SSE                                 LR   LR
       comp=Z,620nm,16.2s,MS4.5
KAKA   Kakadu             37.82 113 eP    P      04 51 22.2  -1.9
       comp=Z,19nm,0.6s,mb5.0
KAKA                               epP   pP      04 51 29.7  -3.1
GTA    Gaotai             37.84   3 ⇑P    P      04 51 23.8  -0.1
GTA                                 AP   pP      04 51 32.7   0.0
GTA                                 XP   sP      04 51 36.8  +0.6
GTA                                 PP   PP      04 52 52.9  +2.1
GTA                                 PCP  PcP     04 53 40.5  +0.5
GTA                                 S    S       04 57 11.9  -1.4
GTA                                 SCP  ScP     04 57 24.4  -1.3
GTA                                 XS   sS      04 57 27.8  +0.1
GTA                                 AMB  AMB
       comp=Z,17nm,1.3s,mb4.6
GTA                                 AMB  AMB
       comp=Z,112nm,5.7s
GTA                                 LR   LR
       comp=N,416nm,14.8s,MS4.5
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GTA                                  LR       LR
       comp=E,297nm,15.6s,MS4.5
GTA                                  LR       LR
       comp=Z,378nm,15.6s,MS4.3
JOW    Kunigami          39.15  47   P        P        04 51 35.2 +0.1
       comp=Z,57nm,0.6s,mb5.5,baz=237,slow=8.0,SNR=23
HHC    Hu-ho-hao-te      41.34  17   eP       P        04 51 54.3 +1.3
HHC                                  AP       pP       04 52 04.1 +2.3
HHC                                  XP       sP       04 52 08.1 +2.7
HHC                                  PP       PP       04 53 33.6 +4.8
HHC                                  PCP      PcP      04 53 52.5 +1.4
HHC                                  SCP      ScP      04 57 39.2  0.0
HHC                                  PCS      PcS      04 57 43.9 +1.7
HHC                                  AMB      AMB
       comp=Z,24nm,1.0s,mb4.8
HHC                                  LR       LR
       comp=N,763nm,14.7s,MS4.8
HHC                                  LR       LR
       comp=E,457nm,14.4s,MS4.8
HHC                                  LR       LR
       comp=Z,743nm,14.9s,MS4.7
KBL    Kabul             42.03 325   eP       P        04 51 58.6 -0.2
KBL                                  e        pP       04 52 06.6 -1.0
BJT    Baijiatuau        42.12  22   eP       P        04 51 59.6 +0.3
       comp=Z,35nm,0.6s,mb5.2
BJT                                  epP      pP       04 52 08.3 +0.1
BJT    Baijiatuau        42.12  22   eP       P        04 51 59.7 +0.3
BJT                                  e*PP     pP       04 52 08.3 +0.1
BJT                                                    04 53 38.3
BJT                                  S        S        04 58 20.1 +2.9
BJT                                  pmax     pmax
       comp=Z,35nm,0.6s
BJI    Beijing           42.14  22   P        P        04 52 00.0 +0.4
BJI                                  PP       PP       04 53 38.3 +0.8
BJI                                  AMB      AMB
       comp=Z,56nm,0.6s,mb5.4
BJI                                  LR       LR
       comp=N,301nm,14.7s,MS4.4
BJI                                  LR       LR
       comp=E,231nm,13.0s,MS4.4
BJI                                  LR       LR
       comp=Z,142nm,26.6s
BJI    Beijing           42.14  22   P        P        04 52 00.0 +0.4
       comp=Z,0.1nm,0.6s
BJI                                  PP       PP       04 53 38.3 +0.8
BJI                                  S        S        04 58 20.1 +2.6
BJI                                  SS       SS       05 01 40.7  +15
BJI                                  LR       LR
       comp=Z,140nm,26.6s
WRA    Warramunga Arr    42.28 122   P        P        04 52 00.4 -0.7
       comp=Z,7.9nm,0.9s,mb4.3,baz=302,slow=9.3,SNR=19
WB2    Warramunga Arr    42.29 122   eP       P        04 52 00.8 -0.4
WB2                                  epP      pP       04 52 07.9 -2.1
KSH    Kashi             42.48 336   eP       P        04 52 04.0 +1.7
KSH                                  eAP      pP       04 52 13.5 +2.4
KSH                                  eXP      sP       04 52 17.0 +2.3
KSH                                  ePP      PP       04 53 45.3 +4.1
KSH                                  ePCP     PcP      04 53 56.4 +1.5
KSH                                  eSCP     ScP      04 57 43.6 -0.2
KSH                                  ePCS     PcS      04 57 47.5 +0.7
KSH                                  eS       S        04 58 22.9 +0.4
KSH                                  eXS      sS       04 58 40.4 +3.4
KSH                                  eSS      SS       05 01 28.3 -4.4
KSH                                  LR       LR
       comp=N,516nm,5.6s
KSH                                  LR       LR
       comp=E,647nm,5.3s
KSH                                  LR       LR
       comp=Z,486nm,6.4s
WMQ    Urumqi            42.99 350   P        P        04 52 07.1 +0.7
WMQ                                  AP       pP       04 52 17.0 +1.8
WMQ                                  XP       sP       04 52 20.9 +2.1
WMQ                                  PP       PP       04 53 49.6 +3.0
WMQ                                  eS       S        04 58 29.2 -0.7
WMQ                                  AMB      AMB
       comp=Z,33nm,1.2s,mb4.9
WMQ                                  LR       LR
       comp=N,151nm,18.8s,MS4.2
WMQ                                  LR       LR
       comp=E,291nm,20.0s,MS4.2
WMQ                                  LR       LR
       comp=Z,158nm,18.8s,MS3.9
DL2    Dalian            43.50  28   P        P        04 52 11.1 +0.5
DL2                                  S        S        04 58 38.4 +0.8
DL2                                  AMB      AMB
       comp=Z,20nm,0.6s,mb5.0
DL2                                  LR       LR
       comp=N,210nm,13.4s,MS4.3
DL2                                  LR       LR
       comp=E,200nm,14.7s,MS4.3
DL2                                  LR       LR
       comp=Z,200nm,16.2s,MS4.1
FORT   Forrest           43.56 140   eP       P        04 52 13.0 +1.7
       comp=Z,17nm,0.6s,mb5.0
FORT                                 epP      pP       04 52 20.0 -0.1
ASAR   Alice Springs     43.66 127   P        P        04 52 12.0 -0.2
       comp=Z,8.2nm,1.0s,mb4.4,baz=303,slow=7.6,SNR=34
ASAR                                 PcP      PcP      04 53 60.0 +0.7
       comp=Z,1.1nm,0.8s,baz=308,slow=1.5,SNR=4.2
JNU    Nakatsue          44.69  42   P        P        04 52 19.9 -0.3
       comp=Z,30nm,0.9s,mb5.1,baz=229,slow=4.3,SNR=15
ULHL   Ulahol            44.70 338   P        P        04 52 20.7 +0.5
       SNR=12
KZA    Kyzart            44.94 337   P        P        04 52 23.5 +1.4
       SNR=7.2
UCH    Uchtor            45.35 336   P        P        04 52 26.8 +1.4
       SNR=22
UCH    Uchtor            45.35 336   eP       P        04 52 26.6 +1.2
       comp=Z,34nm,0.9s,mb5.2
UCH                                  e        pP       04 52 35.0 +0.7
TKM2   Tokmak 2          45.52 338   P        P        04 52 27.8 +1.0
       SNR=13
TKM2   Tokmak 2          45.52 338   eP       P        04 52 27.3 +0.5
       comp=Z,23nm,1.0s,mb5.1
TKM2                                 e        pP       04 52 36.2 +0.6
TKM2   Tokmak 2          45.52 338   eP       P        04 52 27.3 +0.6
TKM2                                 e        pP       04 52 36.2 +0.6
TKM2                                 pmax     pmax
       comp=Z,23nm,1.0s,mb5.1
KBK    Karagaybulak      45.55 337   P        P        04 52 28.7 +1.8
       SNR=15
AML    Almayashu         45.61 336   P        P        04 52 28.9 +1.5
       SNR=13
AML    Almayashu         45.61 336   eP       P        04 52 28.7 +1.2
       comp=Z,32nm,1.0s,mb5.2
AML                                  e        pP       04 52 37.2 +0.9
KS15   Wonju Array Si    45.67  35   eP       P        04 52 27.7 -0.3
KSRS   Korea Array       45.70  35   P        P        04 52 27.6 -0.6
       comp=Z,24nm,0.9s,mb5.1,baz=222,slow=9.2,SNR=72
KSRS                                 LR       LR       05 11 58.7
       comp=Z,184nm,20.6s,MS4.0,baz=225,slow=37
AAK    Ala-Archa         45.70 337   P        P        04 52 34.2 +6.1
       SNR=6.0
AAK    Ala-Archa         45.70 337   eP       P        04 52 28.4 +0.2
AAK    Ala-Archa         45.70 337⇑  eP       P        04 52 28.3 +0.1
AAK                                  pmax     pmax
       comp=Z,18nm,1.4s,mb4.8
FRU    Bishkek           45.83 337   eP       P        04 52 30.0 +0.9
FRU                                  e        pP       04 52 38.5 +0.5
EKS2   Erkin-Say         46.02 336   P        P        04 52 32.0 +1.3
       SNR=8.7
EKS2   Erkin-Say         46.02 336   eP       P        04 52 31.8 +1.1
       comp=Z,20nm,0.9s,mb5.1
EKS2                                 e        pP       04 52 40.0 +0.5
USP    Ospenovka         46.24 337   P        P        04 52 33.1 +0.7
       SNR=18
SONM   Songino Array     46.88   9   P        P        04 52 37.7 +0.3
SONM                                                   04 54 10.2
SONM   Songino Array     46.88   9   P        P        04 52 37.7 +0.3
       comp=Z,39nm,0.9s,mb5.3,baz=189,slow=8.1,SNR=216
SONM                                 PcP      PcP      04 54 10.2 +0.3
       comp=Z,3.7nm,0.8s,baz=195,slow=2.6,SNR=3.7
SONM                                 LR       LR       05 14 56.5
       comp=Z,477nm,19.2s,MS4.5,baz=6.9,slow=40
MK31   Makanchi Array    46.95 346⇑  iP       P        04 52 38.1 +0.2
MK31                                 e        pP       04 52 46.3 -0.5
MKAR   Makanchi Array    46.95 346   i P      P        04 52 38.2 +0.3
MKAR                                 pmax     pmax
       comp=Z,37nm,0.8s
MKAR   Makanchi Array    46.95 346   P        P        04 52 38.2 +0.3
       comp=Z,37nm,0.8s,mb5.4,baz=160,slow=8.2,SNR=208
ULN    Ulaanbaatar       47.02   9⇑  iP       P        04 52 38.5 +0.1
       comp=Z,24nm,0.8s,mb5.2
ULN    Ulaanbaatar       47.02   9⇑  iP       P        04 52 38.5 +0.1
ULN                                  pmax     pmax
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       comp=Z,24nm,0.8s,mb5.2
ZAK    Zakamensk         49.02   5⇓  iP       P        04 52 53.6 -0.2
ZAK                                  pmax     pmax
       comp=Z,6.0nm,0.9s,mb4.6
CN2    Changchun         49.12  27   eP       P        04 52 54.0 -0.8
CN2                                  eAP      pP       04 53 04.0 +0.3
CN2                                  AMB      AMB
       comp=Z,20nm,1.0s,mb5.1
CN2                                  AMB      AMB
       comp=Z,200nm,6.0s
CN2                                  LR       LR
       comp=N,300nm,15.0s,MS4.6
CN2                                  LR       LR
       comp=E,400nm,15.0s,MS4.6
CN2                                  LR       LR
       comp=Z,500nm,17.0s,MS4.6
MOY    Mondy             50.13   3   eP       P        04 53 03.0 +0.7
TLY    Talaya            50.34   5   eP       P        04 53 04.7 +0.8
TLY    Talaya            50.34   5   eP       P        04 53 04.6 +0.7
TLY                                  pmax     pmax
       comp=Z,16nm,0.8s,mb5.1
TLY                                  MLR      MLR
       comp=Z,284nm,16.0s,MS4.4
IRK    Irkutsk           50.95   6   eP       P        04 53 08.6 +0.1
IRK                                  pmax     pmax
       comp=Z,33nm,0.6s,mb5.4
IRK                                  pmax     pmax
       comp=N,19nm,0.6s
PMG    Port Moresby      51.04 103   eP       P        04 53 08.5 -1.3
       comp=N,15nm,0.6s,mb5.1
PMG    Port Moresby      51.04 103⇑  eP       P        04 53 08.8 -1.0
PMG    Port Moresby      51.04 103   P        P        04 53 08.9 -0.9
       comp=N,16nm,0.7s,mb5.1,baz=296,slow=2.1,SNR=7.6
PMG                                  LR       LR       05 17 31.0
       comp=N,228nm,20.1s,MS4.2,baz=220,slow=39
HIA    Hailar            51.43  19   eP       P        04 53 11.3 -0.8
       comp=N,18nm,0.9s,mb5.0
HIA                                  e        pP       04 53 20.2 -0.9
HIA    Hailar            51.43  19   eP       P        04 53 11.3 -0.8
HIA                                  e        pP       04 53 20.2 -0.9
HIA                                  pmax     pmax
       comp=Z,18nm,0.9s
KURK   Kurchatov         51.50 345   P        P        04 53 12.2 -0.4
       comp=Z,107nm,0.7s,mb5.9,SNR=9.1
KURK   Kurchatov         51.50 345   eP       P        04 53 12.8 +0.1
       comp=Z,20nm,1.0s,mb5.0
KURK   Kurchatov         51.50 345⇑  eP       P        04 53 12.7 +0.1
MAT    Matsushiro        51.58  43   P        P        04 53 13.4 -0.1
MJAR   Matsushiro Arr    51.58  43   P        P        04 53 12.3 -1.2
       comp=Z,5.5nm,0.9s,mb4.5,baz=217,slow=6.7,SNR=8.3
MDJ    Mudanjiang        51.69  29   P        P        04 53 14.1 -0.1
MDJ                                  XP       sP       04 53 26.8 +0.1
MDJ                                  PCP      PcP      04 54 27.2 -0.2
MDJ                                  AMB      AMB
       comp=Z,17nm,0.9s,mb5.0
MDJ                                  AMB      AMB
       comp=Z,98nm,5.8s
MDJ                                  LR       LR
       comp=N,230nm,17.7s
MDJ                                  LR       LR
       comp=Z,473nm,16.8s,MS4.6
MDJ    Mudanjiang        51.69  29   eP       P        04 53 14.0 -0.2
       comp=Z,13nm,0.8s,mb4.9
CIT    Chita             52.24  13   eP       P        04 53 18.8 +0.7
CIT                                  e        pP       04 53 28.6 +1.5
CIT                                  pmax     pmax
       comp=Z,50nm,1.2s,mb5.3
CTA    Charters Tower    52.73 117   P        P        04 53 22.4 +0.1
       comp=Z,7.5nm,0.9s,mb4.6,baz=285,slow=8.3,SNR=6.1
CTAO   Charters Tower    52.73 117   eP       P        04 53 22.7 +0.4
       comp=Z,14nm,1.1s,mb4.8
CTAO   Charters Tower    52.73 117   eP       P        04 53 22.7 +0.3
CTAO                                 pmax     pmax
       comp=Z,14nm,1.1s,mb4.8
ZAL    Zalesovo          53.27 351   P        P        04 53 25.8 +0.1
ZALV   Zalesovo Beam     53.27 351   P        P        04 53 25.8  0.0
ZALV                                 LR       LR       05 21 11.2
ZALV   Zalesovo Beam     53.27 351   P        P        04 53 25.8 +0.1
       comp=Z,22nm,0.6s,mb5.3,baz=177,slow=7.1,SNR=76
ZALV                                 LR       LR       05 21 11.2
       comp=Z,116nm,18.1s,MS4.0,baz=230,slow=42
STKA   Stephens Creek    53.63 132   eP       P        04 53 29.5 +0.7
       comp=Z,7.7nm,0.7s,mb4.7
STKA                                 epP      pP       04 53 36.7 -1.1
STKA   Stephens Creek    53.63 132   eP       P        04 53 29.1 +0.3
STKA                                 e        pP       04 53 36.8 -1.0
STKA   Stephens Creek    53.63 132   P        P        04 53 29.6 +0.8
       comp=Z,8.7nm,0.6s,mb4.9,baz=310,slow=8.5,SNR=19
STKA                                 LR       LR       05 18 19.2
       comp=Z,302nm,21.4s,MS4.3,baz=117,slow=38
NVS    Novosibirsk       54.39 350   i P      P        04 53 31.6 -2.3
NVS                                  e*PP     pP       04 53 41.6 -1.3
NVS                                  ePPP              04 56 51.4
NVS                                  eS       S        05 01 02.8 -7.4
NVS                                  pmax     pmax
       comp=N,24nm,1.4s
NVS                                  pmax     pmax
       comp=E,17nm,1.4s
NVS                                  pmax     pmax
       comp=Z,25nm,1.4s,mb5.0
NVS                                  smax
       comp=N,52nm,3.2s
NVS                                  smax
       comp=E,14nm,2.4s
RDF    Al-Radifah        54.47 305   eP       P        04 53 34.1 -0.8
RDF                                  AMb      AMB      04 53 44.4
       comp=Z,74nm,0.7s,mb5.7
UMR    Umm Al-Rimmam     54.56 306   eP       P        04 53 34.2 -1.4
UMR                                  AMb      AMB      04 53 44.7
       comp=Z,36nm,0.5s,mb5.6
NAY    Al-Naaiem         54.84 305   eP       P        04 53 35.9 -1.7
NAY                                  AMb      AMB      04 53 47.2
       comp=Z,38nm,0.8s,mb5.5
MIB    Mutribah          54.96 306   eP       P        04 53 37.2 -1.3
MIB                                  AMb      AMB      04 53 48.5
       comp=Z,108nm,0.9s,mb5.9
BRVK   Borovoye          56.02 341   eP       P        04 53 45.0 -0.6
KLR    Kul’dur           56.07  27   eP       P        04 53 42.5 -3.6
KLR                                  pmax     pmax
       comp=E,25nm,1.2s
KLR                                  pmax     pmax
       comp=Z,56nm,1.2s,mb5.5
HABR   Khabarovsk        57.08  29   eP       P        04 53 52.3 -1.0
HABR                                 e                 04 54 46.1
HABR                                 S        S        05 01 45.7 -0.6
HABR                                 e                 05 03 37.9
HABR                                 pmax     pmax
       comp=Z,51nm,1.0s,mb5.5
BOD    Bodaibo           57.77  11⇓  iP       P        04 53 57.6 -0.4
BOD                                  e        pP       04 54 07.0 -0.1
BOD                                  pmax     pmax
       comp=Z,16nm,1.0s,mb5.0
BOD                                  pmax     pmax
       comp=Z,14nm,1.0s,mb5.0
EIDS   Eidsvold          58.62 121   eP       P        04 54 05.4 +0.8
EIDS                                 e        pP       04 54 12.8 -0.9
CLNS   Chul’man          59.52  17   eP       P        04 54 08.5 -1.7
CLNS                                 pmax     pmax
       comp=Z,16nm,0.7s,mb5.2
CLNS                                 pmax     pmax
       comp=N,11nm,0.9s
CLNS                                 pmax     pmax
       comp=E,6.0nm,1.1s
YSS    Yuzh-Sakhalins    60.20  34⇑  eP       P        04 54 15.0 -0.1
YSS                                  e        pP       04 54 23.2 -1.0
YSS                                  pmax     pmax
       comp=Z,60nm,1.0s,mb5.6
SVE    Sverdlovsk        62.39 338   eP       P        04 54 30.0 +0.3
ZEI    Tsey              62.71 318   eP       P        04 54 32.3 +0.1
ZEI                                  i        pP       04 54 40.7 -0.6
ZEI                                  pmax     pmax
       comp=Z,6.0nm,0.7s,mb4.8
ARU    Arti              62.89 337   eP       P        04 54 32.2 -0.8
ARU    Arti              62.89 337⇓  iP       P        04 54 32.0 -1.0
ARU                                  e                 04 55 06.0
ARU                                  e                 04 56 48.1
ARU                                  eS       S        05 03 00.2 -0.5
ARU                                  eSS      SS       05 07 02.9 -3.4
ARU                                  pmax     pmax
       comp=Z,20nm,1.1s,mb5.2
KIV    Kislovodsk        64.02 319   eP       P        04 54 40.4 -0.4
KIV    Kislovodsk        64.02 319⇑  eP       P        04 54 40.9 +0.1
KIV                                  pmax     pmax
       comp=Z,23nm,1.3s,mb5.0
MALT   Malatya           64.86 312   eP       P        04 54 46.9 +0.5
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       comp=Z,13nm,0.9s,mb5.0
MALT   Malatya           64.86 312⇑  iP       P        04 54 46.7 +0.3
YAK    Yakutsk           65.20  16   eP       P        04 54 47.4 -0.7
YAK    Yakutsk           65.20  16   eP       P        04 54 47.4 -0.7
YAK                                  pmax     pmax
       comp=Z,40nm,0.8s,mb5.5
YAK                                  pmax     pmax
       comp=N,16nm,1.2s
YAK                                  pmax     pmax
       comp=E,17nm,1.1s
SOC    Sochi             65.84 318   eP       P        04 54 50.1 -2.5
SOC                                  e*PP     pP       04 54 57.3 -4.5
SOC                                  e*SP     sP       04 55 04.3 -1.0
SOC                                  eS       S        05 03 42.0 +4.3
SOC                                  pmax     pmax
       comp=Z,17nm,1.0s,mb5.0
CDAG   Cicekdag          68.27 312   i P      P        04 55 08.1 -0.1
CDAG                                 i S      pP       04 55 18.0 +0.6
BOYT   Boyabat           68.42 314   i P      P        04 55 09.9 +0.8
BOYT                                 i S      pP       04 55 21.9 +3.6
BR131  Keskin Array S    68.84 312   eP       P        04 55 11.3 -0.4
BRTR   Keskin Array B    68.84 312   P        P        04 55 10.7 -1.0
       comp=Z,3.3nm,0.8s,mb4.3,baz=118,slow=7.3,SNR=29
VRSR   Storozhevoye      69.26 325   eP       P        04 55 13.0 -1.1
VRSR                                 pmax     pmax
       comp=N,2.0nm,0.9s
VRSR                                 pmax     pmax
       comp=Z,2.0nm,0.9s,mb4.0
VRSR                                 pmax     pmax
       comp=E,3.0nm,1.0s
ANTO   Ankara            69.50 312   eP       P        04 55 15.1 -0.8
       comp=E,25nm,1.2s,mb5.0
ANTO                                 e        pP       04 55 23.7 -1.4
ANTO   Ankara            69.50 312   eP       P        04 55 15.1 -0.7
ANTO                                 e        pP       04 55 23.7 -1.4
ANTO                                 pmax     pmax
       comp=Z,25nm,1.2s,mb5.0
ANTO   Ankara            69.50 312⇓  iP       pP       04 55 23.9 -1.2
BALT   Daday             69.54 314   i P      P        04 55 15.4 -0.7
SIM    Simferopol’       70.08 318   eP       P        04 55 19.0 -0.3
SIM                                  e        pP       04 55 28.0 -0.5
SIM                                  pmax     pmax
       comp=Z,12nm,0.8s,mb4.9
MA2    Magadan           71.14  26   eP       P        04 55 25.2 -0.2
       comp=Z,14nm,0.8s,mb5.0
MA2    Magadan           71.14  26⇑  eP       P        04 55 24.1 -1.3
MA2                                  pmax     pmax
       comp=Z,13nm,1.1s,mb4.8
PRGR   Permogore         71.34 337   eP       P        04 55 25.6 -1.0
PRGR                                 eS       S        05 04 39.6 -2.8
MOS    Moscow            72.04 329   eP       P        04 55 28.7 -2.2
PET    Petropavlovsk     72.08  34   eP       P        04 55 30.9 -0.3
PET                                  MLR      MLR
       comp=Z,100nm,17.0s,MS4.2
OBN    Obninsk           72.33 328⇑  eP       P        04 55 32.0 -0.6
OBN                                  i        pP       04 55 40.5 -1.4
OBN                                  pmax     pmax
       comp=Z,34nm,1.8s,mb5.0
TIXI   Tiksi             72.94  10   eP       P        04 55 34.6 -1.4
TIXI   Tiksi             72.94  10⇑  eP       P        04 55 34.6 -1.4
TIXI                                 pmax     pmax
       comp=Z,16nm,1.2s,mb4.8
SEY    Seymchan          73.56  23⇑  eP       P        04 55 38.3 -1.5
TIRR   Tirgusor          73.84 316   ⇑P       P        04 55 41.4 -0.5
TIRR   Tirgusor          73.84 316⇑  iP       P        04 55 41.4 -0.5
AKASG  Malin Array Be    74.97 322   i P      P        04 55 47.0 -1.3
AKASG                                pmax     pmax
       comp=Z,4.0nm,0.6s
AKASG  Malin Array Be    74.97 322   P        P        04 55 47.1 -1.2
       comp=Z,4.0nm,0.6s,mb4.6,baz=86,slow=5.2,SNR=24
AKBB   Malin Array Si    74.97 322   eP       P        04 55 46.9 -1.4
AKBB                                 e        pP       04 55 55.1 -2.5
KIEV   Kiev              74.98 322   eP       P        04 55 46.5 -1.8
       comp=Z,7.8nm,0.6s,mb4.8
KIEV   Kiev              74.98 322   eP       P        04 55 46.6 -1.7
KIEV                                 pmax     pmax
       comp=Z,8.0nm,0.6s,mb4.8
VRI    Vrincioaia        75.34 317   ⇑P       P        04 55 50.9 +0.4
VRI    Vrincioaia        75.34 317⇑  iP       P        04 55 50.9 +0.4
MLR    Muntele Rosu      75.79 317   ⇓P       P        04 55 53.8 +0.7
MLR    Muntele Rosu      75.79 317   P        P        04 55 53.0 -0.1
       comp=Z,6.6nm,0.9s,mb4.6,baz=159,slow=4.6,SNR=16
MLR    Muntele Rosu      75.79 317⇓  iP       P        04 55 53.8 +0.7
BURAR  Bucovina Array    76.74 319   ⇑P       P        04 55 59.3 +0.9
BURAR  Bucovina Array    76.74 319⇑  iP       P        04 55 59.3 +0.8
JOF    Joensuu           77.85 335   ep       P        04 56 03.4 -0.9
       comp=Z,1.3nm,0.4s,mb4.2
JOF    Joensuu           77.85 335   eP       P        04 56 03.4 -0.9
JOF                                  pmax     pmax
       comp=Z,1.0nm,0.4s,mb4.1
DRGR                     78.25 317   ⇑P       P        04 56 07.7 +0.8
DRGR                     78.25 317⇑  iP       P        04 56 07.7 +0.8
KWP    Kalwaria          78.78 320   eP       P        04 56 09.9 +0.1
KWP                                  e        pP       04 56 17.0 -2.2
KWP    Kalwaria          78.78 320   eP       P        04 56 09.9 +0.1
       comp=Z,27nm,1.2s,mb5.0
KWP                                  e        pP       04 56 18.2 -1.0
BZS    Buzias            78.80 316   ⇑P       P        04 56 09.7 -0.3
BZS    Buzias            78.80 316⇑  iP       P        04 56 09.6 -0.4
KOLS   Kolonicke sedl    78.93 320   i P      P        04 56 11.1 +0.5
       comp=Z,8.3nm,1.0s,mb4.6
KOLS                                 i PP     pP       04 56 19.6 -0.4
KOLS   Kolonicke sedl    78.93 320   i P      P        04 56 11.1 +0.5
KOLS                                 i        pP       04 56 19.6 -0.4
KOLS                                 pmax     pmax
       comp=Z,8.0nm,1.0s,mb4.6
KOLS   Kolonicke sedl    78.93 320   i P      P        04 56 11.1 +0.5
KOLS                                 i pP     pP       04 56 19.5 -0.5
SUW    Suwalki           79.38 325   eP       P        04 56 12.3 -0.6
SUW                                  e        pP       04 56 20.1 -2.2
CRVS   Cervenica-Dubn    79.45 319   eP       P        04 56 14.7 +1.2
CRVS                                 epP      pP       04 56 24.2 +1.3
STHS   Stebnicka Huta    79.68 320   eP       P        04 56 15.9 +1.2
       comp=Z,4.3nm,0.8s,mb4.4
STHS                                 ePP      pP       04 56 24.0 -0.1
STHS   Stebnicka Huta    79.68 320   eP       P        04 56 15.9 +1.2
STHS                                 pmax     pmax
       comp=Z,4.0nm,0.8s,mb4.4
FINES  FINESS Array B    79.70 332   i P      P        04 56 14.3 -0.3
FINES                                pmax     pmax
       comp=Z,4.0nm,0.5s
FINES  FINESS Array B    79.70 332   P        P        04 56 14.2 -0.3
       comp=Z,3.7nm,0.5s,mb4.5,baz=107,slow=5.8,SNR=31
KAF    Kangasniemi       79.79 333   ep       P        04 56 13.4 -1.6
       comp=Z,9.5nm,0.6s,mb4.9,baz=103,slow=5.0
KAF    Kangasniemi       79.79 333   eP       P        04 56 13.4 -1.6
KAF                                  pmax     pmax
       comp=Z,10.0nm,0.6s,mb4.9
KECS   Kecovo            80.02 319   i P      P        04 56 16.6  0.0
       comp=Z,3.0nm,0.9s,mb4.2
KECS                                 i PP     pP       04 56 24.9 -1.1
KECS   Kecovo            80.02 319   i P      P        04 56 16.6  0.0
KECS                                 pmax     pmax
       comp=Z,3.0nm,0.9s,mb4.2
SYO    Syowa Base        80.22 198⇓  eP       P        04 56 18.6 +1.4
SYO    Syowa Base        80.22 198⇓  ePcP     PcP      04 56 23.8 -0.5
PSZ    Piszkesteto       80.33 318   eP       P        04 56 18.7 +0.5
       comp=Z,11nm,1.0s,mb4.8
PSZ    Piszkesteto       80.33 318⇓  iP       P        04 56 18.9 +0.7
PKSM   Moragy            80.94 316   ⇓P       P        04 56 21.3 -0.3
PKSM   Moragy            80.94 316⇓  iP       P        04 56 21.3 -0.2
BILL   Bilibino          80.96  21   eP       P        04 56 18.3 -2.9
       comp=Z,31nm,1.3s,mb5.1
BILL   Bilibino          80.96  21   eP       P        04 56 19.8 -1.4
BILL                                 pmax     pmax
       comp=Z,3.0nm,1.0s,mb4.2
VYHS   Vyhne             81.11 319   eP       P        04 56 22.8 +0.4
VYHS                                 i pP     pP       04 56 30.3 -1.5
OKC    Ostrava-Krasne    81.74 320   eP       P        04 56 25.3 -0.4
OKC                                  e        pP       04 56 34.3 -0.8
OKC    Ostrava-Krasne    81.74 320   eP       P        04 56 25.3 -0.4
OKC                                  epP      pP       04 56 34.3 -0.8
KEV    Kevo              81.81 341   ep       P        04 56 33.6 +7.9
       comp=Z,5.1nm,0.8s,mb4.5
MORC   Moravsky Berou    82.12 320   ⇓P       P        04 56 28.2 +0.5
MORC   Moravsky Berou    82.12 320⇓  iP       P        04 56 28.2 +0.5
ZST    Bratislava        82.22 318   i P      P        04 56 28.8 +0.5
       comp=Z,7.8nm,0.8s,mb4.7
ZST                                  ePP      pP       04 56 36.1 -1.6
ZST    Bratislava        82.22 318   i P      P        04 56 28.8 +0.5
ZST                                  pmax     pmax
       comp=Z,8.0nm,0.8s,mb4.7
ARCES  ARCESS Array B    82.24 340   P        P        04 56 27.9  0.0
       comp=Z,5.2nm,0.5s,mb4.7,baz=95,slow=4.5,SNR=40
```

DPC	**Dobruska-Polom**	**82.97**	**320**	*e*P	**P**	**04 56 32.9**	**+0.8**
DPC				*e*	pP	04 56 40.5	-1.0
DPC	**Dobruska-Polom**	**82.97**	**320**	*e*P	**P**	**04 56 32.9**	**+0.8**
DPC				*e*pP	pP	04 56 40.5	-1.0
ARSA	**Arzberg**	**83.18**	**317**	⇓*i*P	**P**	**04 56 34.0**	**+0.7**
	comp=Z,5.9nm,1.1s,mb4.5						
BRG	**Berggiesshubel**	**84.52**	**321**	*e*P	**P**	**04 56 48.5**	**+8.4**
	comp=Z,6.8nm,1.2s,mb4.7						
GERES	**GERESS Array B**	**84.53**	**319**	P	**P**	**04 56 40.6**	**+0.5**
	comp=Z,3.7nm,0.9s,mb4.5,baz=93,slow=5.3,SNR=23						
KHC	**Kasperske Hory**	**84.63**	**319**	*e*P	**P**	**04 56 37.0**	**-3.7**
KHC				*e*pP	pP	04 56 48.5	-1.6
CLL	**Collm**	**85.14**	**321**	*e*P	**P**	**04 56 44.0**	**+0.8**
CLL				*e*pP	pP	04 56 51.0	-1.6
CLL	**Collm**	**85.14**	**321**	*e*P	**P**	**04 56 44.0**	**+0.8**
CLL				*e*pP	pP	04 56 51.0	-1.6
NB2	**NORSAR Subarra**	**86.71**	**331**	P	**P**	**04 56 50.1**	**-0.6**
	comp=Z,4.5nm,0.8s,mb4.8,baz=95,slow=4.8						
NOA	**NORSAR Array B**	**86.71**	**331**	P	**P**	**04 56 50.2**	**-0.5**
NOA	**NORSAR Array B**	**86.71**	**331**	P	**P**	**04 56 50.2**	**-0.5**
	comp=Z,4.0nm,0.8s,mb4.7,baz=94,slow=4.9,SNR=12						
KONO	**Kongsberg**	**87.46**	**329**	⇑*e*P	**P**	**04 56 55.1**	**+0.7**
LPG	**La Plagne**	**89.19**	**315**	*e*P	**P**	**04 57 01.3**	**-1.6**
MBDF	**Montbardon**	**89.19**	**315**	*e*P	**P**	**04 56 58.6**	**-4.4**
LPL	**La Plagne**	**89.20**	**315**	*e*P	**P**	**04 57 00.0**	**-3.0**
ORIF	**Oris-en-Rattie**	**89.82**	**315**	*e*P	**P**	**04 57 02.4**	**-3.5**
BAIF	**Baives**	**90.73**	**320**	*e*P	**P**	**04 57 08.5**	**-1.5**
	comp=Z,24nm,0.9s,mb5.2						
BAIF	**Baives**	**90.73**	**320**	*e*P	**P**	**04 57 08.5**	**-1.5**
	comp=Z,12nm,0.9s,mb5.2						
BAIF	**Baives**	**90.73**	**320**	*e*P	**P**	**04 57 08.5**	**-1.5**
BAIF				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.2						
LOR	**Lormes**	**91.12**	**317**	*e*P	**P**	**04 57 11.6**	**-0.3**
	comp=Z,26nm,1.1s,mb5.2						
LOR	**Lormes**	**91.12**	**317**	*e*P	**P**	**04 57 11.6**	**-0.3**
	comp=Z,13nm,1.1s,mb5.2						
LOR	**Lormes**	**91.12**	**317**	*e*P	**P**	**04 57 11.6**	**-0.3**
LOR				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.2						
SMF	**Signal de Mont**	**91.17**	**317**	*e*P	**P**	**04 57 09.8**	**-2.3**
	comp=Z,59nm,1.3s,mb5.4						
SMF	**Signal de Mont**	**91.17**	**317**	*e*P	**P**	**04 57 09.8**	**-2.3**
	comp=Z,29nm,1.3s,mb5.5						
SMF	**Signal de Mont**	**91.17**	**317**	*e*P	**P**	**04 57 09.8**	**-2.3**
SMF				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.5						
TORD	**Torodi Ar. Bea**	**94.91**	**283**	P	**P**	**04 57 29.8**	**-0.2**
	comp=Z,0.6nm,1.0s,mb4.0,baz=91,slow=5.2,SNR=3.2						
IMA2	**Indian Mountai**	**96.38**	**23**	*e*P	**P**	**04 57 35.5**	**-0.2**
ULM	**Lac du Bonnet**	**127.30**	**10**	PKP	PKPdf	05 03 10.5	-1.2
ULM	**Lac du Bonnet**	**127.30**	**10**	PKP	PKPdf	05 03 10.5	-1.2
	comp=Z,1.6nm,0.8s,baz=0.0,slow=2.3,SNR=4.2						
DCID1	**Drake Creek**	**128.48**	**26**	*e*PP	PP	05 05 17.6	-0.8
NVAR	**Mina Array Bea**	**128.64**	**36**	PKP	PKPdf	05 03 16.2	+1.6
NVAR	**Mina Array Bea**	**128.64**	**36**	PKP	PKPdf	05 03 16.2	+1.6
	comp=Z,0.2nm,0.4s,baz=298,slow=2.9,SNR=3.6						
PDAR	**Pinedale Array**	**129.85**	**25**	PKP	PKPdf	05 03 16.6	-0.1
PDAR	**Pinedale Array**	**129.85**	**25**	PKP	PKPdf	05 03 16.6	-0.1
	comp=Z,0.5nm,0.8s,baz=269,slow=4.4,SNR=4.1						
WUAZ	**Wupatki**	**134.61**	**33**	*e*PP	PP	05 05 53.9	-4.3
LRAL	**Lakeview Retre**	**145.47**	**6**	*e*PKPdf	PKPdf	05 03 44.6	-1.1
LRAL				*e*		05 03 53.1	

NIED ***12*** *04:51:00, 46.60N×153.80E, h29^{km}, Mw4.4   Best double couple: M$_0$4.27000×10^{15} NP1:ϕ_s264.00000°, δ20.00000°, λ96.00000°.   NP2:ϕ_s78.00000°, δ71.00000°, λ88.00000°.*

IDC ***12*** *04:51:40.0±0.6, 45.89N×154.30E, h0^{km}, mb4.2/18, mb1 4.4/20, mb1mx4.3/26, mbtmp4.2/20, ML3.8/2, Error ellipse: s-maj=19.0km s-min=14.5km az=158.0*

ISCJB ***12*** *04:51:40.6±0.3, 45.72N±0.06×154.24E±0.05, h15^{km}, mb4.5/64, MS4.2/7, Error ellipse: s-maj=9.9km s-min=3.9km az=155.8*

NEIC ***12*** *04:51:41.9±0.3, 45.88N×154.29E, h10^{km}, mb4.7/32, Error ellipse: s-maj=10.2km s-min=5.5km az=166.0*

BJI ***12*** *04:51:44.7, 46.57N×153.68E, h10^{km}, mB4.8, mb4.7, Ms4.3, Msz4.0*

MOS ***12*** *04:51:44.4±1.3, 46.01N×154.20E, h34^{km}, mb4.8/40, Error ellipse: s-maj=10.2km s-min=5.9km az=109.2*

SZGRF ***12*** *04:51:55.2, 47.36N×153.83E, h33^{km}, mb4.9, Kuril Islands, Russia*

ISC 12 04:51:42.9±0.3, **45.83N**±0.06×**154.23E**±0.05, **h16**^{km}, **h16**^{km}±1.4^{km}**:pP-P, n219,** σ1^{s}14/225, **mb4.5**/64, **MS4.2**/7, **22C-16D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**4.51**	**265**	*e*PN	**Pn**	**04 52 50.0**	**-0.5**
KUR				pmax	pmax		
	comp=Z,150nm,0.5s						
SKR	**Severo-Kuril's**	**5.02**	**14**	*e*PN	**Pn**	**04 52 55.5**	**-1.9**
SKR				pmax	pmax		
	comp=Z,220nm,1.0s						
SKR				MLR	MLR		
	comp=E,2µm,14.0s						
SKR				MLR	MLR		
	comp=Z,800nm,14.0s						
NEM2	**Nemuro 2**	**6.54**	**251**	P	**Pn**	**04 53 16.7**	**-1.6**
NEM2				*e*S	**Sn**	**04 54 26.4**	**-6.1**
JRA	**Rausu**	**6.74**	**257**	P	**Pn**	**04 53 20.8**	**-0.3**
JNK	**Nakash**	**7.14**	**255**	P	**Pn**	**04 53 26.5**	**0.0**
JAK	**Akkeshi**	**7.39**	**251**	P	**Pn**	**04 53 28.8**	**-1.2**
JAK				*e*S	**Sn**	**04 54 47.0**	**-6.4**
JTKR	**Abashiri--Toko**	**7.56**	**259**	P	**Pn**	**04 53 32.5**	**+0.2**
PET	**Petropavlovsk**	**7.76**	**20**	*e*PN	**Pn**	**04 53 30.9**	**-4.1**
PET				pmax	pmax		
	comp=Z,12nm,0.8s						
PET				MLR	MLR		
	comp=Z,300nm,10.0s						
JAR	**Ashorobuto**	**7.89**	**255**	P	**Pn**	**04 53 37.0**	**+0.2**
JAR				*e*S	**Sn**	**04 55 01.8**	**-3.8**
JMP	**Maruseppu**	**7.93**	**261**	P	**Pn**	**04 53 38.6**	**+1.2**
JOB	**Onbets**	**8.00**	**252**	P	**Pn**	**04 53 37.8**	**-0.6**
JOB				*e*S	**Sn**	**04 55 03.4**	**-5.0**
YSS	**Yuzh-Sakhalins**	**8.02**	**282**	*e*Pn	**Pn**	**04 53 41.0**	**+2.5**
YSS	**Yuzh-Sakhalins**	**8.02**	**282**	⇑*e*PN	**Pn**	**04 53 41.0**	**+2.5**
YSS				pmax	pmax		
	comp=E,40nm,1.0s						
YSS				pmax	pmax		
	comp=Z,50nm,1.0s						
YSS				MLR	MLR		
	comp=Z,200nm,15.0s						
ASAJ	**Asahikawa**	**8.43**	**262**	PN	**Pn**	**04 53 44.4**	**+0.2**
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	**Asahikawa**	**8.43**	**262**	Pn	**Pn**	**04 53 44.4**	**+0.2**
	comp=Z,2.4nm,0.3s,baz=298,slow=31,SNR=9.0						
JCH	**Churui**	**8.44**	**252**	P	**Pn**	**04 53 43.1**	**-1.3**
JCH				*e*S	**Sn**	**04 55 13.0**	**-6.2**
JEM	**Erimo**	**8.85**	**248**	P	**Pn**	**04 53 50.4**	**+0.4**
JNBK	**Urakawa-nobuka**	**8.99**	**251**	P	**Pn**	**04 53 49.8**	**-2.2**
JBT2	**Biratori 2**	**9.04**	**255**	P	**Pn**	**04 53 51.9**	**-0.7**
JTH	**Tanohata**	**10.81**	**241**	P	**Pn**	**04 54 13.1**	**-3.8**
JTH				*e*S	**Sn**	**04 56 05.0**	**-12**
OFUJ	**Ofunato**	**11.46**	**238**	P	**Pn**	**04 54 22.4**	**-3.4**
JRG	**Rokugo**	**11.89**	**242**	P	**Pn**	**04 54 29.5**	**-2.2**
JFK	**Kawauchi**	**13.08**	**234**	*e*S	**Sn**	**04 57 00.7**	**-12**
MA2	**Magadan**	**13.93**	**353**	*e*Pn	**Pn**	**04 54 57.8**	**-1.5**
	comp=Z,5.3nm,0.6s						
MA2	**Magadan**	**13.93**	**353**	*e*P	**Pn**	**04 54 52.0**	**-7.3**
MA2				pmax	pmax		
	comp=Z,2.0nm,1.3s						
MAJO	**Matsushiro**	**15.19**	**238**	*e*Pn	**Pn**	**04 55 24.2**	**+7.6**
	comp=Z,23nm,0.9s						
MAJO	**Matsushiro**	**15.19**	**238**	*e*P	**Pn**	**04 55 24.2**	**+7.6**
MAJO				pmax	pmax		
	comp=Z,23nm,0.9s						
MAT	**Matsushiro**	**15.19**	**238**	P	**Pn**	**04 55 24.2**	**+7.6**
MJAR	**Matsushiro Arr**	**15.19**	**238**	Pn	**Pn**	**04 55 15.6**	**-1.1**
MJAR	**Matsushiro Arr**	**15.19**	**238**	Pn	**Pn**	**04 55 15.6**	**-1.1**
	comp=Z,0.1nm,0.3s,baz=34,slow=12,SNR=5.5						
MDJ	**Mudanjiang**	**17.39**	**275**	P	**Pn**	**04 55 43.8**	**-0.8**
MDJ				AP	pP	04 55 48.3	-2.2
MDJ				XP	sP	04 55 49.6	-3.0
MDJ				AMB	AMB		
	comp=Z,21nm,1.4s						
MDJ				AMB	AMB		
	comp=Z,73nm,4.1s						
MDJ	**Mudanjiang**	**17.39**	**275**	*e*Pn	**Pn**	**04 55 43.7**	**-0.9**
	comp=Z,29nm,1.2s						
CN2	**Changchun**	**20.48**	**275**	*e*P	**P**	**04 56 17.8**	**-1.9**
CN2				*e*XP	sP	04 56 24.8	-1.7
CN2				*e*S	**S**	**05 00 00.8**	**-7.4**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.1s						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,500nm,16.0s,MS4.1						
CN2				LR	LR		
	comp=E,500nm,16.0s,MS4.1						
CN2				LR	LR		
	comp=Z,500nm,17.0s,MS4.0						
CLNS	**Chul'man**	**21.21**	**312**	*e*P	**P**	**04 56 26.1**	**-1.5**
CLNS				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.3						
CLNS				pmax	pmax		
	comp=N,9.0nm,1.3s						
CLNS				pmax	pmax		
	comp=E,7.0nm,0.9s						
KSRS	**Korea Array**	**21.30**	**256**	P	**P**	**04 56 30.6**	**+2.0**
	comp=E,6.8nm,1.0s,mb3.9,baz=58,slow=9.3,SNR=12						
BILL	**Bilibino**	**23.13**	**12**	*e*P	**P**	**04 56 45.1**	**-2.8**
	comp=E,34nm,1.3s,mb4.6						
BILL	**Bilibino**	**23.13**	**12**	*e*P	**P**	**04 56 44.0**	**-3.9**
BILL				pmax	pmax		
	comp=Z,21nm,1.6s,mb4.3						
BOD	**Bodaibo**	**27.18**	**311**	*e*P	**P**	**04 57 22.3**	**-2.9**
BOD				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.2						
BJI	**Beijing**	**28.26**	**272**	P	**P**	**04 57 36.7**	**+1.6**
BJI				S	**S**	**05 02 19.1**	**-1.3**
BJI				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
BJI				LR	LR		
	comp=N,280nm,13.6s,MS4.2						
BJI				LR	LR		
	comp=E,254nm,14.0s,MS4.2						
BJI				LR	LR		
	comp=Z,126nm,25.4s						
BJT	**Baijiatuau**	**28.28**	**272**	*e*P	**P**	**04 57 36.0**	**+0.7**
	comp=Z,11nm,0.8s,mb4.5						
BJT	**Baijiatuau**	**28.28**	**272**	*e*P	**P**	**04 57 36.0**	**+0.7**
BJT				pmax	pmax		
	comp=Z,11nm,0.8s						
TNA	**Tin City**	**28.38**	**32**	*e*P	**P**	**04 57 38.2**	**+2.3**
TIXI	**Tiksi**	**28.57**	**344**	*e*P	**P**	**04 57 35.0**	**-2.6**
TIXI				pmax	pmax		
	comp=Z,10.0nm,1.7s,mb4.3						
NJ2	**Nanjing**	**30.49**	**256**	*e*P	**P**	**04 57 59.7**	**+4.7**
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.0						
HHC	**Hu-ho-hao-te**	**31.15**	**276**	*e*P	**P**	**04 58 02.7**	**+2.0**
HHC				AP	pP	04 58 07.1	+1.4
HHC				XP	sP	04 58 09.8	+2.0
HHC				PP	PP	04 59 05.1	-5.8
HHC				PCP	PcP	05 00 58.2	+2.8
HHC				S	**S**	**05 03 07.2**	**+1.5**
HHC				XS	sS	05 03 14.2	+0.3
HHC				SCP	ScP	05 04 40.3	+2.8
HHC				SCS	ScS	05 08 37.2	+2.6
HHC				AMB	AMB		
	comp=Z,34nm,0.9s,mb5.2						
HHC				AMB	AMB		
	comp=Z,220nm,5.0s						
HHC				LR	LR		
	comp=N,763nm,14.2s,MS4.6						
HHC				LR	LR		
	comp=E,457nm,14.0s,MS4.6						
HHC				LR	LR		
	comp=Z,743nm,15.1s,MS4.5						
ULN	**Ulaanbaatar**	**31.94**	**291**	*e*P	**P**	**04 58 10.4**	**+2.8**
SONM	**Songino Array**	**32.38**	**291**	P	**P**	**04 58 10.8**	**-0.6**
SONM				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SONM	**Songino Array**	**32.38**	**291**	P	**P**	**04 58 10.8**	**-0.7**
	comp=Z,1.8nm,0.9s,mb3.9,baz=81,slow=6.7,SNR=3.9						
TLY	**Talaya**	**33.30**	**299**	*e*P	**P**	**04 58 18.4**	**-1.0**
TLY				pmax	pmax		
	comp=Z,7.0nm,1.6s,mb4.3						
ZAK	**Zakamensk**	**33.78**	**297**	*e*P	**P**	**04 58 21.9**	**-1.7**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.0						
KDAK	**Kodiak Island**	**34.09**	**50**	P	**P**	**04 58 25.9**	**-0.3**
	comp=Z,18nm,1.2s,mb4.9,baz=201,slow=2.8,SNR=4.1						
MCK	**McKinley**	**35.86**	**39**	*e*P	**P**	**04 58 41.4**	**0.0**
COLA	**College**	**36.39**	**38**	*e*P	**P**	**04 58 44.2**	**-1.7**
	comp=Z,13nm,1.4s,mb4.7						
COLA	**College**	**36.39**	**38**	*e*P	**P**	**04 58 44.3**	**-1.6**
COLA				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.7						
LZH	**Lanzhou**	**38.71**	**274**	*e*P	**P**	**04 59 08.0**	**+2.1**
LZH				AP	pP	04 59 12.0	+1.0
LZH				XP	sP	04 59 15.0	+2.0
LZH				AMB	AMB		
	comp=Z,28nm,1.5s,mb4.8						
LZH				AMB	AMB		
	comp=Z,131nm,4.6s						
LZH	**Lanzhou**	**38.71**	**274**	*e*P	**P**	**04 59 08.0**	**+2.1**
	comp=Z,28nm,1.5s,mb4.8						
LZH				pP	pP	04 59 12.0	+1.0
LZH				sP	sP	04 59 15.0	+2.0
EGAK	**Eagle**	**39.25**	**38**	*e*P	**P**	**04 59 08.8**	**-1.2**
	comp=Z,7.4nm,0.9s,mb4.4						
EGAK				*e*		04 59 18.4	
GTA	**Gaotai**	**39.89**	**281**	⇓P	**P**	**04 59 17.5**	**+1.7**
GTA				AP	pP	04 59 21.1	+0.2
GTA				XP	sP	04 59 22.6	-0.3
GTA				PP	PP	05 00 56.1	+8.7
GTA				PCP	PcP	05 01 22.0	+0.8
GTA				S	**S**	**05 05 22.2**	**+2.4**
GTA				AMB	AMB		
	comp=Z,18nm,1.3s,mb4.6						
GTA				AMB	AMB		
	comp=Z,85nm,5.3s						
GTA				LR	LR		
	comp=N,213nm,19.0s,MS4.3						
GTA				LR	LR		
	comp=E,334nm,19.4s,MS4.3						
GTA				LR	LR		
	comp=Z,175nm,20.1s,MS3.9						
CD2	**Chengdu**	**41.59**	**267**	*e*P	**P**	**04 59 30.9**	**+1.0**
CD2				XP	sP	04 59 38.2	+1.2
CD2				PP	PP	05 01 10.5	+4.6
CD2				S	**S**	**05 05 46.5**	**+1.2**
CD2				XS	sS	05 05 53.9	+0.2
CD2				SS	SS	05 08 46.2	-4.0
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
CD2				AMB	AMB		
	comp=Z,30nm,6.2s						
CD2				LR	LR		
	comp=N,200nm,16.6s						
CD2				LR	LR		
	comp=Z,150nm,13.1s,MS4.0						
GYA	**Guiyang**	**42.29**	**260**	P	**P**	**04 59 40.0**	**+4.4**
GYA				AP	pP	04 59 44.8	+4.1
GYA				XP	sP	04 59 47.6	+4.8
GYA				PP	PP	05 01 21.2	+7.6
GYA				PCP	PcP	05 01 34.0	+4.8
GYA				SCP	ScP	05 05 23.5	+4.6
GYA				S	**S**	**05 06 01.3**	**+5.6**
GYA				SCS	ScS	05 09 40.2	+3.2
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
GYA				AMB	AMB		
	comp=Z,80nm,4.5s						
GYA				LR	LR		
	comp=N,480nm,16.0s,MS4.6						
GYA				LR	LR		
	comp=E,440nm,17.4s,MS4.6						
GYA				LR	LR		
	comp=Z,360nm,17.2s,MS4.3						
ZALV	**Zalesovo Beam**	**43.78**	**307**	P	**P**	**04 59 45.7**	**-1.6**
ZALV				PcP	PcP	05 01 33.4	-0.3
ZALV	**Zalesovo Beam**	**43.78**	**307**	P	**P**	**04 59 45.7**	**-1.6**
	comp=Z,1.6nm,0.7s,mb3.9,baz=67,slow=7.8,SNR=6.4						
ZALV				PcP	PcP	05 01 33.4	-0.4
	comp=Z,3.1nm,1.0s,baz=62,slow=3.5,SNR=4.9						
ZAL	**Zalesovo**	**43.80**	**307**	P	**P**	**04 59 45.7**	**-1.8**
ZAL						05 01 33.4	
WMQ	**Urumqi**	**45.99**	**293**	*e*P	**P**	**05 00 07.8**	**+2.7**
WMQ				AP	pP	05 00 12.8	+2.6
WMQ				XP	sP	05 00 14.8	+2.5
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.6s,mb4.9						
WMQ				LR	LR		
	comp=N,151nm,18.6s,MS4.1						
WMQ				LR	LR		
	comp=E,151nm,18.0s,MS4.1						
WMQ				LR	LR		
	comp=Z,158nm,18.6s,MS4.0						
MKAR	**Makanchi Array**	**48.06**	**299**	P	**P**	**05 00 20.6**	**-0.6**
MKAR						05 01 48.4	
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MKAR	**Makanchi Array**	**48.06**	**299**	P	**P**	**05 00 20.6**	**-0.6**
	comp=Z,2.1nm,0.8s,mb4.2,baz=69,slow=6.9,SNR=16						
MKAR				PcP	PcP	05 01 48.4	-0.4
	comp=Z,0.2nm,0.7s,baz=54,slow=5.3,SNR=3.5						
KURK	**Kurchatov**	**48.52**	**305**	*e*P	**P**	**05 00 24.9**	**+0.2**
LSA	**Lhasa**	**51.11**	**275**	*e*P	**P**	**05 00 46.6**	**+1.9**
	comp=Z,3.5nm,0.3s,mb4.8						
LSA	**Lhasa**	**51.11**	**275**	*e*P	**P**	**05 00 46.6**	**+1.9**
LSA				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.7						
YKA	**Yellowknife Ar**	**51.20**	**37**	P	**P**	**05 00 44.2**	**-0.7**
YKA				PcP	PcP	05 01 59.1	-0.9
YKA	**Yellowknife Ar**	**51.20**	**37**	P	**P**	**05 00 44.2**	**-0.7**
YKA						05 01 59.1	
YKA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	**Yellowknife Ar**	**51.20**	**37**	P	**P**	**05 00 44.2**	**-0.7**
	comp=Z,1.8nm,0.9s,mb4.0,baz=296,slow=7.3,SNR=16						
YKA				PcP	PcP	05 01 59.1	-0.9
	comp=Z,0.6nm,0.9s,baz=296,slow=4.2,SNR=4.6						
RES	**Resolute Bay**	**51.47**	**19**	*e*P	**P**	**05 00 41.4**	**-5.3**
RES				*e*pP	pP	05 00 55.2	+3.3
BRVK	**Borovoye**	**52.09**	**310**	*e*P	**P**	**05 00 52.1**	**+0.5**
	comp=Z,3.2nm,0.3s,mb4.7						
BRVK	**Borovoye**	**52.09**	**310**	*e*P	**P**	**05 00 52.1**	**+0.5**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.7						
ULHL	**Ulahol**	**54.06**	**296**	P	**P**	**05 01 07.6**	**+1.3**
	SNR=12						
TKM2	**Tokmak 2**	**54.10**	**297**	P	**P**	**05 01 08.5**	**+1.8**
	SNR=5.9						
USP	**Ospenovka**	**54.60**	**298**	P	**P**	**05 01 12.0**	**+1.7**
	SNR=9.7						
FRU	**Bishkek**	**54.76**	**298**	*e*P	**P**	**05 01 12.0**	**+0.6**
KZA	**Kyzart**	**54.77**	**297**	P	**P**	**05 01 13.8**	**+2.2**
	SNR=10						
AAK	**Ala-Archa**	**54.94**	**297**	P	**P**	**05 01 14.1**	**+1.3**
	SNR=6.2						
AAK	**Ala-Archa**	**54.94**	**297**	*e*P	**P**	**05 01 12.6**	**-0.2**
EKS2	**Erkin-Say**	**55.37**	**298**	P	**P**	**05 01 17.5**	**+1.7**
	SNR=8.5						
AML	**Almayashu**	**55.72**	**297**	P	**P**	**05 01 20.6**	**+2.2**
	SNR=6.0						
ARU	**Arti**	**56.22**	**318**	*e*P	**P**	**05 01 21.4**	**-0.2**
ARU	**Arti**	**56.22**	**318**	⇑*i*P	**P**	**05 01 21.1**	**-0.6**
ARU				*e*		05 02 17.1	
ARU				*e*S	**S**	**05 09 08.8**	**-1.4**
ARU				*e*SS	SS	05 12 51.4	-4.7
ARU				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
KEV	**Kevo**	**58.47**	**341**	*e*p	**P**	**05 01 34.5**	**-2.9**
	comp=Z,0.4nm,0.3s,mb3.9						
PRGR	**Permogore**	**58.56**	**328**	*e*P	**P**	**05 01 38.2**	**0.0**
ARCES	**ARCESS Array B**	**58.98**	**341**	P	**P**	**05 01 41.9**	**+1.0**
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ARCES	**ARCESS Array B**	**58.98**	**341**	P	**P**	**05 01 41.9**	**+0.9**
	comp=Z,4.9nm,0.9s,mb4.5,baz=21,slow=7.7,SNR=4.7						
FFC	**Flin Flon**	**60.95**	**40**	*e*P	**P**	**05 01 53.7**	**-1.0**
	comp=Z,5.3nm,0.9s,mb4.7						
FFC	**Flin Flon**	**60.95**	**40**	*e*P	**P**	**05 01 53.7**	**-1.0**
FFC				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.6						
LRM	**Limekiln Ridge**	**61.14**	**53**	*e*P	**P**	**05 01 56.2**	**+0.1**
BOZ	**Bozeman (W)**	**61.70**	**53**	*e*P	**P**	**05 02 00.2**	**+0.3**
	comp=Z,3.6nm,1.0s,mb4.5						
BOZ	**Bozeman (W)**	**61.70**	**53**	*e*P	**P**	**05 02 00.2**	**+0.3**
BOZ				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
NVAR	**Mina Array Bea**	**62.17**	**63**	P	**P**	**05 02 02.9**	**-0.3**
NVAR	**Mina Array Bea**	**62.17**	**63**	P	**P**	**05 02 02.9**	**-0.3**
	comp=Z,0.6nm,0.7s,mb3.8,baz=285,slow=5.3,SNR=5.0						
JOF	**Joensuu**	**62.50**	**334**	*e*p	**P**	**05 02 05.0**	**0.0**
	comp=Z,0.3nm,0.3s,mb3.9						
KBL	**Kabul**	**63.13**	**293**	*e*P	**P**	**05 02 08.7**	**-1.0**
MOOW	**Moose Ponds**	**63.37**	**54**	*e*P	**P**	**05 02 11.7**	**+0.6**
	comp=Z,6.8nm,1.4s,mb4.6						
TPAW	**Teton Pass**	**63.42**	**54**	*e*P	**P**	**05 02 12.8**	**+1.4**
	comp=Z,10nm,1.3s,mb4.8						
LOHW	**Long Hollow**	**63.54**	**54**	*e*P	**P**	**05 02 14.2**	**+2.0**
	comp=Z,8.1nm,1.4s,mb4.6						
REDW	**Red Top Meadow**	**63.55**	**54**	*e*P	**P**	**05 02 13.3**	**+1.0**
DUG	**Dugway**	**64.41**	**58**	*e*P	**P**	**05 02 17.9**	**-0.1**
PDAR	**Pinedale Array**	**64.66**	**54**	P	**P**	**05 02 18.9**	**-0.7**
	comp=Z,1.4nm,0.9s,mb4.0,baz=296,slow=1.5,SNR=12						
FINES	**FINESS Array B**	**65.20**	**335**	P	**P**	**05 02 21.5**	**-1.3**
FINES	**FINESS Array B**	**65.20**	**335**	*i* P	**P**	**05 02 24.2**	**+1.4**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
FINES	**FINESS Array B**	**65.20**	**335**	P	**P**	**05 02 21.5**	**-1.3**
	comp=Z,3.0nm,0.8s,mb4.4,baz=37,slow=6.7,SNR=8.3						
OBN	**Obninsk**	**66.51**	**326**	*e*P	**P**	**05 02 31.3**	**0.0**
OBN				*e*		05 02 50.5	
OBN				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
WRA	**Warramunga Arr**	**67.90**	**200**	P	**P**	**05 02 40.1**	**-0.4**
WRA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
WRA	**Warramunga Arr**	**67.90**	**200**	P	**P**	**05 02 40.1**	**-0.4**
	comp=Z,2.0nm,0.8s,mb4.2,baz=19,slow=6.9,SNR=11						
ISCO	**Idaho Springs**	**68.85**	**54**	*e*P	**P**	**05 02 46.7**	**+0.3**
NB2	**NORSAR Subarra**	**69.35**	**342**	P	**P**	**05 02 48.3**	**-0.8**
	comp=Z,5.9nm,1.0s,mb4.5,baz=28,slow=6.2						
NOA	**NORSAR Array B**	**69.35**	**342**	P	**P**	**05 02 48.5**	**-0.6**
NOA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NOA	**NORSAR Array B**	**69.35**	**342**	P	**P**	**05 02 48.5**	**-0.7**
	comp=Z,2.9nm,0.8s,mb4.2,baz=25,slow=6.4,SNR=6.6						
ASAR	**Alice Springs**	**71.59**	**200**	P	**P**	**05 03 04.0**	**+0.9**
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ASAR	**Alice Springs**	**71.59**	**200**	P	**P**	**05 03 04.0**	**+0.9**
	comp=Z,1.8nm,0.9s,mb4.0,baz=12,slow=5.7,SNR=11						
KIV	**Kislovodsk**	**72.00**	**315**	*e*P	**P**	**05 03 07.4**	**+1.9**
KIV	**Kislovodsk**	**72.00**	**315**	*e*P	**P**	**05 03 06.3**	**+0.8**
KIV				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
AKASG	**Malin Array Be**	**72.75**	**327**	*i* P	**P**	**05 03 09.1**	**-0.8**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.7s						
AKASG	**Malin Array Be**	**72.75**	**327**	P	**P**	**05 03 09.2**	**-0.7**
	comp=Z,3.2nm,0.7s,mb4.4,baz=33,slow=6.0,SNR=24						
SOC	**Sochi**	**73.72**	**316**	*e*P	**P**	**05 03 15.2**	**-0.6**
SOC				*e*		05 03 33.3	
SOC				*e*S	S	05 12 47.0	+1.2
SOC				*e*SSS		05 20 44.4	
SOC				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
KWP	**Kalwaria**	**76.01**	**330**	*e*P	**P**	**05 03 29.0**	**+0.1**
STHS	**Stebnicka Huta**	**76.70**	**331**	*i* P	**P**	**05 03 33.3**	**+0.5**
	comp=Z,5.6nm,0.9s,mb4.5						
STHS	**Stebnicka Huta**	**76.70**	**331**	*i* P	**P**	**05 03 33.3**	**+0.5**
STHS				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
KOLS	**Kolonicke sedl**	**76.75**	**330**	*i* P	**P**	**05 03 33.1**	**0.0**
BURAR	**Bucovina Array**	**76.79**	**327**	⇑P	**P**	**05 03 33.3**	**0.0**
BURAR	**Bucovina Array**	**76.79**	**327**	⇑*i*P	**P**	**05 03 33.3**	**0.0**
CRVS	**Cervenica-Dubn**	**77.06**	**330**	*e*P	**P**	**05 03 34.8**	**-0.1**
LTX	**Lajitas**	**77.27**	**61**	*e*P	**P**	**05 03 36.0**	**-0.4**
	comp=Z,6.1nm,1.1s,mb4.4						
LTX	**Lajitas**	**77.27**	**61**	*e*P	**P**	**05 03 36.0**	**-0.4**
LTX				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
TXAR	**Lajitas Array**	**77.27**	**61**	P	**P**	**05 03 35.5**	**-0.9**
TXAR	**Lajitas Array**	**77.27**	**61**	P	**P**	**05 03 35.5**	**-0.9**
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
TXAR	**Lajitas Array**	**77.27**	**61**	P	**P**	**05 03 35.5**	**-0.9**
	comp=Z,1.7nm,0.8s,mb4.0,baz=293,slow=3.9,SNR=19						
DPC	**Dobruska-Polom**	**77.50**	**334**	*e*P	**P**	**05 03 37.7**	**+0.4**
MORC	**Moravsky Berou**	**77.62**	**333**	⇓P	**P**	**05 03 38.0**	**0.0**
MORC	**Moravsky Berou**	**77.62**	**333**	⇓*i*P	**P**	**05 03 38.0**	**+0.1**
CLL	**Collm**	**77.62**	**336**	*i* P	**P**	**05 03 36.9**	**-1.1**

	comp=Z,10.0nm,1.0s,mb4.7						
CLL	**Collm**	**77.62**	**336**	iP	**P**	**05 03 36.9**	**-1.1**
CLL				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
BRG	**Berggiesshubel**	**77.75**	**336**	P	**P**	**05 03 38.3**	**-0.3**
	comp=Z,2.3nm,1.2s,mb4.0						
BRG	**Berggiesshubel**	**77.75**	**336**	P	**P**	**05 03 38.3**	**-0.3**
BRG				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.9						
BRG	**Berggiesshubel**	**77.75**	**336**	e(P)	**P**	**05 03 38.3**	**-0.3**
	comp=Z,3.8nm,1.2s,mb4.2						
KECS	**Kecovo**	**77.76**	**331**	eP	**P**	**05 03 37.9**	**-0.9**
	comp=Z,3.5nm,1.0s,mb4.2						
KECS	**Kecovo**	**77.76**	**331**	eP	**P**	**05 03 37.9**	**-0.9**
KECS				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
TIRR	**Tirgusor**	**78.12**	**324**	⇓P	**P**	**05 03 41.1**	**+0.3**
TIRR	**Tirgusor**	**78.12**	**324**	⇓iP	**P**	**05 03 41.1**	**+0.3**
MLR	**Muntele Rosu**	**78.27**	**326**	⇑P	**P**	**05 03 41.8**	**+0.2**
MLR	**Muntele Rosu**	**78.27**	**326**	P	**P**	**05 03 42.3**	**+0.7**
MLR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MLR	**Muntele Rosu**	**78.27**	**326**	P	**P**	**05 03 42.3**	**+0.7**
	comp=Z,4.9nm,0.7s,mb4.5,baz=177,slow=3.2,SNR=12						
MLR	**Muntele Rosu**	**78.27**	**326**	⇑iP	**P**	**05 03 41.8**	**+0.2**
VYHS	**Vyhne**	**78.31**	**332**	eP	**P**	**05 03 39.6**	**-2.2**
VRAC	**Vranov**	**78.33**	**333**	⇑P	**P**	**05 03 42.3**	**+0.4**
VRAC	**Vranov**	**78.33**	**333**	⇑iP	**P**	**05 03 42.3**	**+0.4**
MALT	**Malatya**	**78.35**	**314**	⇑P	**P**	**05 03 43.9**	**+1.6**
MALT	**Malatya**	**78.35**	**314**	⇑iP	**P**	**05 03 43.9**	**+1.7**
PRU	**Pruhonice**	**78.36**	**335**	eP	**P**	**05 03 42.2**	**+0.2**
DRGR		**78.41**	**328**	⇓P	**P**	**05 03 42.0**	**-0.4**
DRGR		**78.41**	**328**	⇓iP	**P**	**05 03 42.0**	**-0.4**
PSZ	**Piszkesteto**	**78.45**	**331**	⇓P	**P**	**05 03 42.4**	**-0.2**
PSZ	**Piszkesteto**	**78.45**	**331**	⇓iP	**P**	**05 03 42.4**	**-0.2**
VOIR		**78.66**	**326**	⇓P	**P**	**05 03 44.2**	**+0.4**
VOIR		**78.66**	**326**	⇓iP	**P**	**05 03 44.2**	**+0.4**
NKC	**Novy Kostel**	**78.75**	**336**	eP	**P**	**05 03 45.2**	**+1.0**
SMOL	**Smolenice**	**78.76**	**332**	eP	**P**	**05 03 44.9**	**+0.6**
JCT	**Junction City**	**78.77**	**58**	eP	**P**	**05 03 43.0**	**-1.6**
KHC	**Kasperske Hory**	**79.41**	**335**	eP	**P**	**05 03 48.2**	**+0.4**
KHC				e	pP	05 03 54.4	+1.2
KHC	**Kasperske Hory**	**79.41**	**335**	eP	**P**	**05 03 48.2**	**+0.4**
KHC				epP	pP	05 03 54.4	+1.2
GZR	**Gura Zlata**	**79.57**	**328**	⇑P	**P**	**05 03 48.6**	**-0.2**
GZR	**Gura Zlata**	**79.57**	**328**	⇑iP	**P**	**05 03 48.6**	**-0.2**
GRA1	**Grafenberg Arr**	**79.58**	**337**	eP	**P**	**05 03 49.1**	**+0.4**
	comp=Z,12nm,1.0s,mb4.8						
GRF	**Grafenberg Arr**	**79.58**	**337**	eP	**P**	**05 03 49.1**	**+0.4**
GRF				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
GRF	**Grafenberg Arr**	**79.58**	**337**	eP	**P**	**05 03 49.1**	**+0.4**
GRF				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
GRF	**Grafenberg Arr**	**79.58**	**337**	eP	**P**	**05 03 49.1**	**+0.4**
	comp=Z,12nm,1.0s,mb4.8						
BRTR	**Keskin Array B**	**79.59**	**318**	P	**P**	**05 03 49.7**	**+0.7**
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BRTR	**Keskin Array B**	**79.59**	**318**	P	**P**	**05 03 49.6**	**+0.6**
	comp=Z,3.3nm,0.9s,mb4.2,baz=46,slow=5.3,SNR=18						
GERES	**GERESS Array B**	**79.62**	**335**	P	**P**	**05 03 48.6**	**-0.4**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	**GERESS Array B**	**79.62**	**335**	P	**P**	**05 03 48.6**	**-0.4**
	comp=Z,1.2nm,0.7s,mb3.9,baz=28,slow=6.0,SNR=11						
BZS	**Buzias**	**79.81**	**328**	⇓P	**P**	**05 03 50.0**	**-0.1**
BZS	**Buzias**	**79.81**	**328**	⇓iP	**P**	**05 03 50.0**	**-0.1**
ALLY	**Alegheny Colle**	**80.33**	**38**	eP	**P**	**05 03 52.5**	**-0.5**
ALLY				e		05 03 55.0	
BAIF	**Baives**	**81.02**	**341**	eP	**P**	**05 03 57.2**	**+0.7**
KBA	**Koelnbreinsper**	**81.31**	**334**	⇑iP	**P**	**05 03 58.9**	**+0.8**
	comp=Z,7.9nm,1.1s,mb4.6						
KBA	**Koelnbreinsper**	**81.31**	**334**	⇑ipP	pP	05 03 58.9	-4.6
	comp=Z,7.9nm,1.1s						
KBA	**Koelnbreinsper**	**81.31**	**334**	⇑iP	**P**	**05 03 58.9**	**+0.8**
KBA				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
MOTA	**Moosalm**	**81.74**	**336**	⇑iP	**P**	**05 04 00.9**	**+0.5**
	comp=Z,12nm,1.2s,mb4.7						
MOTA	**Moosalm**	**81.74**	**336**	⇑ipP	pP	05 04 00.9	-4.9
	comp=Z,12nm,1.2s						
MOTA	**Moosalm**	**81.74**	**336**	⇑iP	**P**	**05 04 00.9**	**+0.5**
MOTA				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
CDF	**Champ du Feu**	**81.80**	**338**	⇑iP	**P**	**05 04 00.7**	**0.0**
	comp=Z,28nm,1.1s,mb4.8						
CDF	**Champ du Feu**	**81.80**	**338**	⇑iP	**P**	**05 04 00.7**	**0.0**
	comp=Z,14nm,1.1s,mb4.8						
CDF	**Champ du Feu**	**81.80**	**338**	⇑iP	**P**	**05 04 00.7**	**0.0**
CDF				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
SQTA	**Sankt Quirin**	**81.82**	**336**	⇓iP	**P**	**05 04 01.5**	**+0.7**
	comp=Z,14nm,1.3s,mb4.7						
SQTA	**Sankt Quirin**	**81.82**	**336**	⇓ipP	pP	05 04 01.5	-4.7
	comp=Z,14nm,1.3s						
SQTA	**Sankt Quirin**	**81.82**	**336**	⇓iP	**P**	**05 04 01.5**	**+0.7**
SQTA				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.7						
HAU	**Haudompre**	**82.42**	**339**	eP	**P**	**05 04 03.9**	**0.0**
LOR	**Lormes**	**83.71**	**340**	eP	**P**	**05 04 10.5**	**-0.1**
	comp=Z,37nm,1.3s,mb5.1						
LOR	**Lormes**	**83.71**	**340**	eP	**P**	**05 04 10.5**	**-0.1**
	comp=Z,18nm,1.3s,mb5.0						
LOR	**Lormes**	**83.71**	**340**	eP	**P**	**05 04 10.5**	**-0.1**
LOR				pmax	pmax		
	comp=Z,18nm,1.3s,mb5.0						
CABF	**La Chapelle**	**83.78**	**339**	⇑iP	**P**	**05 04 11.3**	**+0.3**
SSF	**Saint Saulge**	**83.99**	**340**	eP	**P**	**05 04 12.1**	**0.0**
LPL	**La Plagne**	**84.62**	**338**	eP	**P**	**05 04 15.8**	**+0.5**
	comp=Z,20nm,1.1s,mb4.9						
LPL	**La Plagne**	**84.62**	**338**	eP	**P**	**05 04 15.8**	**+0.5**
	comp=Z,9.9nm,1.0s,mb4.9						
LPL	**La Plagne**	**84.62**	**338**	eP	**P**	**05 04 15.8**	**+0.5**
LPL				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
LPG	**La Plagne**	**84.64**	**338**	eP	**P**	**05 04 15.4**	**0.0**
	comp=Z,31nm,1.1s,mb5.0						
LPG	**La Plagne**	**84.64**	**338**	eP	**P**	**05 04 15.4**	**0.0**
	comp=Z,16nm,1.1s,mb5.0						
LPG	**La Plagne**	**84.64**	**338**	eP	**P**	**05 04 15.4**	**0.0**
LPG				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.1						
MBDF	**Montbardon**	**85.34**	**337**	eP	**P**	**05 04 17.6**	**-1.3**
	comp=Z,19nm,1.2s,mb4.8						
MBDF	**Montbardon**	**85.34**	**337**	eP	**P**	**05 04 17.6**	**-1.3**
	comp=Z,9.7nm,1.2s,mb4.8						
MBDF	**Montbardon**	**85.34**	**337**	eP	**P**	**05 04 17.6**	**-1.3**
MBDF				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.8						
ORIF	**Oris-en-Rattie**	**85.40**	**338**	eP	**P**	**05 04 19.7**	**+0.5**
SBF	**Sospel**	**85.96**	**337**	eP	**P**	**05 04 21.9**	**-0.1**
	comp=Z,55nm,1.0s,mb5.5						
SBF	**Sospel**	**85.96**	**337**	eP	**P**	**05 04 21.9**	**-0.1**
	comp=Z,28nm,1.0s,mb5.4						
SBF	**Sospel**	**85.96**	**337**	eP	**P**	**05 04 21.9**	**-0.1**
SBF				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.5						
PGF	**Pioggiola**	**86.72**	**335**	eP	**P**	**05 04 26.0**	**+0.2**
	comp=Z,15nm,0.7s,mb5.0						
PGF	**Pioggiola**	**86.72**	**335**	eP	**P**	**05 04 26.0**	**+0.2**
	comp=Z,7.3nm,0.7s,mb5.0						
PGF	**Pioggiola**	**86.72**	**335**	eP	**P**	**05 04 26.0**	**+0.2**
PGF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.0						
TORD	**Torodi Ar. Bea**	**116.28**	**330**	PKP	PKPdf	05 10 24.6	-1.1
TORD	**Torodi Ar. Bea**	**116.28**	**330**	PKP	PKPdf	05 10 24.6	-1.1
	comp=Z,0.5nm,1.0s,baz=318,slow=1.9,SNR=3.7						
CFAA	**Coronel Fontan**	**144.38**	**82**	PKP	PKPdf	05 11 17.6	-0.4
CFAA	**Coronel Fontan**	**144.38**	**82**	PKP	PKPdf	05 11 17.6	-0.4
	comp=Z,0.1nm,0.5s,baz=211,slow=1.5,SNR=3.6						

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*NEIC **12** 05:11:00.9±1.4, 2627S×17655W, h35^{km}, Error ellipse: s-maj=50.5km s-min=14.6km az=136.0*

IDC 12 05:11:20.5±13.0, 2457S×17770W, h156^{km}±87^{km}, mb3.6/2, mb1 4.0/3, mb1mx3.5/13, mbtmp3.9/3, Error ellipse: s-maj=219.0km s-min=24.6km az=146.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**11.98**	**29**	ePn	Pn	05 14 04.7	-1.8
	16nm,0.4s						
AFI	**Afiamalu**	**11.98**	**29**	P	Pn	05 14 07.2	+0.8
	5.5nm,0.3s,baz=14,slow=8.3,SNR=6.8						
AFI				S	Sn	05 16 18.1	-1.0
	2.2nm,0.3s,baz=18,slow=20,SNR=3.0						
ASAR	**Alice Springs**	**44.00**	**261**	P	P	05 19 12.3	-0.3
	2.0nm,0.4s,baz=90,slow=7.7,SNR=27						
WB2	**Warramunga Arr**	**44.45**	**266**	eP	P	05 19 15.4	-0.8
WRA	**Warramunga Arr**	**44.46**	**266**	P	P	05 19 16.5	+0.1
	0.6nm,0.3s,baz=106,slow=8.0,SNR=15						
MKAR	**Makanchi Array**	**114.15**	**312**	PKPdf	PKiKP	05 29 40.4	-0.7
MKAR	**Makanchi Array**	**114.15**	**312**	PKiKP	PKiKP	05 29 40.4	-0.7
	0.2nm,0.3s,baz=107,slow=1.9,SNR=2.5						
NOA	**NORSAR Array B**	**143.03**	**353**	PKP	PKPdf	05 30 33.7	-1.4
NOA	**NORSAR Array B**	**143.03**	**353**	PKP	PKPdf	05 30 33.7	-1.4
	0.7nm,0.6s,baz=2.3,slow=2.7,SNR=3.0						
AKASG	**Malin Array Be**	**146.65**	**328**	PKPbc	PKPbc	05 30 43.1	-0.5
AKASG	**Malin Array Be**	**146.65**	**328**	PKPbc	PKPbc	05 30 43.1	-0.5
	0.6nm,0.5s,baz=44,slow=4.0,SNR=4.6						
BRTR	**Keskin Array B**	**149.65**	**307**	PKPbc	PKPbc	05 30 51.9	+0.1
BRTR	**Keskin Array B**	**149.65**	**307**	PKPbc	PKPbc	05 30 51.9	+0.1
	0.3nm,0.5s,baz=140,slow=5.8,SNR=4.1						

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*IDC **12** 05:26:06.9±2.5, 2003N×14693E, h0^{km}, mb3.7/6, mb1 3.8/6, mb1mx3.7/19, mbtmp3.7/6, MS3.4/2, Ms1 3.4/2, ms1mx2.7/33, Error ellipse: s-maj=104.5km s-min=26.4km az=79.0*

NEIC 12 05:26:12.5±1.6, 1998N×14679E, h35^{km}, Error ellipse: s-maj=68.9km s-min=14.3km az=82.0, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**6.62**	**196**	LR	LR	05 30 15.9	
	comp=Z,89nm,18.5s,baz=114,slow=37						
KSRS	**Korea Array**	**23.94**	**321**	P	P	05 31 23.5	+0.1
	0.7nm,0.3s,baz=148,slow=9.3,SNR=4.5						
WB2	**Warramunga Arr**	**41.50**	**198**	eP	P	05 33 56.3	-0.1
WRA	**Warramunga Arr**	**41.51**	**198**	P	P	05 33 56.7	+0.3
	0.5nm,0.6s,baz=17,slow=8.9,SNR=8.6						
SONM	**Songino Array**	**42.81**	**320**	P	P	05 34 07.3	+0.5
	0.3nm,0.5s,baz=127,slow=6.2,SNR=4.9						
ZALV	**Zalesovo Beam**	**57.64**	**322**	P	P	05 35 59.0	-0.1
ZALV	**Zalesovo Beam**	**57.64**	**322**	P	P	05 35 59.0	-0.1
	1.6nm,0.6s,baz=104,slow=7.6,SNR=7.6						
MKAR	**Makanchi Array**	**58.33**	**313**	P	P	05 36 04.0	0.0
MKAR				PcP	PcP	05 36 54.6	-0.2
MKAR	**Makanchi Array**	**58.33**	**313**	P	P	05 36 04.0	0.0
	0.2nm,0.3s,baz=94,slow=9.3,SNR=6.0						
MKAR				PcP	PcP	05 36 54.6	-0.2
	0.2nm,0.3s,baz=107,slow=2.4,SNR=2.9						
FINES	**FINESS Array B**	**86.16**	**336**	P	P	05 38 49.7	-0.1
	0.8nm,0.7s,baz=46,slow=5.5,SNR=5.2						
EIL	**Elat**	**97.89**	**305**	LR	LR	06 27 17.1	
	comp=Z,47nm,18.1s,baz=298,slow=38						
TORD	**Torodi Ar. Bea**	**132.43**	**311**	PKP	PKPdf	05 45 24.5	+0.5
TORD	**Torodi Ar. Bea**	**132.43**	**311**	PKP	PKPdf	05 45 24.5	+0.5
	0.4nm,1.0s,baz=9.3,slow=2.4,SNR=3.3						

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*NIED **12** 05:40:00, 2450N×12180E, h11^{km}, Mw3.8 Best double couple: $M_0$6.52000×10^{14} NP1:ϕ_s188.00000°, δ42.00000°, λ164.00000°. NP2:ϕ_s290.00000°, δ80.00000°, λ49.00000°.*

*NEIC **12** 05:40:21.3±5.7, 2427N×12220E, h10^{km}, Error ellipse: s-maj=53.6km s-min=16.8km az=94.0*

*ISCJB **12** 05:40:26.1±0.8, 2432N±006×12177E±005, h38^{km}±13^{km}, Error ellipse: s-maj=11.2km s-min=6.0km az=21.8*

*JMA **12** 05:40:26.7±0.3, 2446N×12182E, h44^{km}, M4.0*

ISC 12 05:40:26.6±0.6, 2436N±005×12184E±005, h21^{km}±10^{km}, n10, $\sigma 0^{s}47$/18, 1C, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	**Ninganchiao**	**0.29**	**231**	eP	**Pb**	**05 40 32.7**	**-0.5**
NACB				eS	**Sb**	**05 40 38.3**	**+0.6**
YHNB	**Yeheng**	**0.53**	**306**	eP	**Pb**	**05 40 37.1**	**0.0**
YHNB				eS	**Sb**	**05 40 44.1**	**-0.1**
TATO	**Taipei**	**0.69**	**332**	⇑iP	**Pb**	**05 40 40.2**	**+0.2**
TATO				eS	**Sb**	**05 40 49.1**	**+0.1**
YOJ	**Yonaguni jima**	**1.07**	**84**	P	**Pn**	**05 40 45.8**	**-0.5**
YOJ				S	**Sb**	**05 40 59.5**	**-0.4**
IRIF	**Iriomote-Funau**	**1.72**	**91**	P	**Pn**	**05 40 55.1**	**-0.2**
IRIF				S	**Sn**	**05 41 17.0**	**+0.3**
HATJ	**Hateruma jima**	**1.82**	**99**	P	**Pn**	**05 40 56.9**	**+0.3**
JKRS	**Kuro-shima**	**1.98**	**93**	P	**Pn**	**05 40 59.4**	**+0.5**
JKRS				S	**Sn**	**05 41 23.4**	**+0.3**
JIJ	**Ishigaki jima**	**2.10**	**89**	P	**Pn**	**05 41 00.2**	**-0.3**
JIJ				S	**Sn**	**05 41 24.9**	**-1.0**
JTJ	**Tarama**	**2.62**	**83**	P	**Pn**	**05 41 08.3**	**+0.6**
JTJ				S	**Sn**	**05 41 39.4**	**+0.6**
QIZ	**Qiongzhong**	**12.35**	**247**	ePn	**Pn**	**05 43 20.7**	**-0.5**

IDC 12 06:26:21.5±8.3, 3119S×17936E, h386^{km}±94^{km}, mb3.0/1, mb1 3.5/2, mb1mx3.1/12, mbtmp3.3/2, Error ellipse: s-maj=99.8km s-min=38.0km az=11.0, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**7.30**	**194**	P	Pn	06 28 10.0	+2.0
	9.1nm,0.3s,baz=10,slow=6.4,SNR=43						
URZ				S	S	06 29 32.4	-2.6
	3.5nm,0.3s,baz=74,slow=23,SNR=9.9						
WRA	**Warramunga Arr**	**41.87**	**274**	P	P	06 33 36.0	+0.1
	0.5nm,0.3s,baz=111,slow=8.0,SNR=15						
FINES	**FINESS Array B**	**145.06**	**338**	PKPbc	PKPbc	06 45 10.4	-2.6
	0.5nm,0.3s,baz=48,slow=5.0,SNR=7.7						
NOA	**NORSAR Array B**	**149.13**	**349**	PKPbc	PKPbc	06 45 25.1	+1.0
	1.1nm,0.9s,baz=7.7,slow=1.7,SNR=2.7						

IDC 12 06:32:00.6±3.6, 4979S×11725E, h0^{km}, mb3.8/3, mb1 4.1/4, mb1mx3.9/13, mbtmp4.0/4, ML2.5/1, MS3.5/3, Ms1 3.5/3, ms1mx3.1/20, Error ellipse: s-maj=121.8km s-min=58.6km az=96.0, Western Indian-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NWAO	**Narrogin (SRO)**	**16.85**	**360**	Pn	Pn	06 35 58.2	+0.5
	0.9nm,0.3s,baz=175,slow=11,SNR=6.2						
NWAO				LR	LR	06 40 50.3	
	comp=Z,114nm,18.4s,baz=23,slow=31						
ASAR	**Alice Springs**	**29.16**	**33**	P	P	06 38 03.7	+0.4
	0.3nm,0.4s,baz=209,slow=8.6,SNR=5.5						
FITZ	**Fitzroy Crossi**	**32.32**	**15**	P	P	06 38 31.1	-0.2
	1.4nm,0.7s,baz=188,slow=7.2,SNR=3.6						
WRA	**Warramunga Arr**	**32.75**	**31**	P	P	06 38 34.8	-0.3
	1.0nm,0.7s,baz=202,slow=8.7,SNR=6.9						
CTA	**Charters Tower**	**37.55**	**48**	LR	LR	06 54 43.1	
	comp=Z,73nm,18.2s,baz=51,slow=36						
PSI	**Prapat**	**54.72**	**337**	LR	LR	07 02 12.3	
	comp=Z,55nm,18.0s,baz=186,slow=33						
YKA	**Yellowknife Ar**	**149.35**	**46**	PKPbc	PKPbc	06 51 49.6	-0.4
	0.4nm,0.8s,baz=270,slow=2.6,SNR=6.1						

WEL 12 06:33:49.8±0.2, 4008S×17622E, h34^{km}±2^{km}, ML3.5/17, 4C, Error ellipse: s-maj=2.2km s-min=1.5km az=90.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TSZ	**Takapari Road**	**0.20**	**276**	P*	Pb	06 33 55.8	-0.7
TSZ				S*	Sb	06 34 00.9	-0.1
PXZ	**Pawanui**	**0.49**	**85**	P*	Pb	06 34 00.3	0.0
PXZ				S*	Sb	06 34 08.8	+1.2
BFZ	**Birch Farm**	**0.60**	**178**	P*	Pb	06 34 02.5	+0.4
BFZ				S*	Sb	06 34 10.5	0.0
TIWZ	**Tintock**	**0.74**	**200**	P*	Pb	06 34 04.5	+0.1
TIWZ				S*	Sb	06 34 14.4	+0.1
MRZ	**Mangatainoka R**	**0.76**	**220**	P*	Pb	06 34 04.4	-0.3
MRZ				S*	Sb	06 34 14.7	-0.2
MOVZ	**Moawhango**	**0.76**	**331**	⇑PN	Pn	06 34 02.7	-1.4
WNVZ	**Wahianoa**	**0.89**	**327**	⇑PN	Pn	06 34 05.1	-0.8
WNVZ				SN	Sn	06 34 17.1	-0.5
MTVZ	**Mangateitei**	**0.90**	**320**	PN	Pn	06 34 05.4	-0.7
TUVZ	**Tukino**	**0.92**	**331**	⇑PN	Pn	06 34 05.6	-0.7
BKZ	**Black Stump Fm**	**0.94**	**13**	PN	Pn	06 34 05.3	-1.2
TRVZ	**Turoa**	**0.94**	**326**	PN	Pn	06 34 05.8	-0.7
DRZ	**Dome Shelter**	**0.95**	**327**	SN	Sn	06 34 17.3	-1.7
FWVZ	**Far West T-bar**	**0.97**	**328**	PN	Pn	06 34 06.3	-0.7
WAZ	**Wanganui**	**1.00**	**288**	PN	Pn	06 34 07.8	+0.4
WPVZ	**Whakapapa**	**1.02**	**329**	PN	Pn	06 34 07.1	-0.6
NGZ	**Ngauruhoe**	**1.02**	**332**	⇑PN	Pn	06 34 07.1	-0.6
PKVZ	**Pokaka**	**1.04**	**319**	PN	Pn	06 34 07.3	-0.6
WTVZ	**West Tongariro**	**1.08**	**333**	PN	Pn	06 34 07.8	-0.7
KRVZ	**Karewarewa**	**1.08**	**335**	PN	Pn	06 34 07.9	-0.6
RITZ	**Rihia Road**	**1.14**	**346**	PN	Pn	06 34 08.8	-0.5
TWVZ	**Taurewa**	**1.18**	**329**	PN	Pn	06 34 09.0	-0.8
KATZ	**Kakaramea**	**1.18**	**340**	PN	Pn	06 34 09.2	-0.7
HATZ	**Hinemaiaia**	**1.19**	**355**	PN	Pn	06 34 09.0	-1.0
MTW	**Mount Morrison**	**1.21**	**207**	P*	Pb	06 34 09.9	-2.2
RATZ	**Rangitukua**	**1.26**	**344**	PN	Pn	06 34 10.4	-0.5
KIW	**Kapiti Island**	**1.27**	**232**	PN	Pn	06 34 11.1	0.0
CAW	**Cannon Point**	**1.35**	**220**	PN	Pn	06 34 12.0	-0.3
TRWZ	**Traveller**	**1.38**	**197**	PN	Pn	06 34 12.3	-0.3
PAWZ	**Paruwai Farm**	**1.44**	**205**	PN	Pn	06 34 12.7	-0.7
VRZ	**Vera Road**	**1.48**	**310**	PN	Pn	06 34 13.6	-0.4
MSWZ	**Moikau Station**	**1.52**	**209**	PN	Pn	06 34 13.6	-1.0
MRW	**Makara Radio**	**1.63**	**225**	PN	Pn	06 34 15.3	-0.8
WEL	**Wellington**	**1.64**	**222**	PN	Pn	06 34 15.5	-0.6
BHW	**Baring Head**	**1.68**	**217**	PN	Pn	06 34 15.7	-1.1
SNZO	**South Karori**	**1.69**	**223**	PN	Pn	06 34 15.8	-1.0
HIZ	**Hauiti**	**1.89**	**325**	PN	Pn	06 34 18.4	-1.2
URZ	**Urewera**	**1.94**	**21**	PN	Pn	06 34 17.8	-2.5
MWZ	**Matawai**	**2.02**	**31**	PN	Pn	06 34 19.0	-2.4
TUWZ	**Tuamarina**	**2.19**	**231**	PN	Pn	06 34 22.4	-1.5
BSWZ	**Blackbirch Sta**	**2.42**	**227**	PN	Pn	06 34 25.5	-1.4
QRZ	**Quartz Range**	**2.92**	**254**	PN	Pn	06 34 32.2	-1.5
THZ	**Tophouse**	**3.02**	**235**	PN	Pn	06 34 34.4	-0.8
KHZ	**Kahutara**	**3.09**	**220**	PN	Pn	06 34 34.4	-1.7

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*MOS **12** 06:48:59.6±1.7, 4627N×15280E, h33^{km}, mb4.1/1, Error ellipse: s-maj=53.2km s-min=24.5km az=82.5*

*IDC **12** 06:49:00.5±3.5, 4709N×15307E, h0^{km}, mb3.5/6, mb1 3.7/6, mb1mx3.5/21, mbtmp3.5/6, Error ellipse: s-maj=101.9km s-min=31.4km az=4.0*

*ISCJB **12** 06:49:13.7±8.0, 473N±07×1530E±03, h115^{km}±45^{km}, mb3.4/6, Error ellipse: s-maj=115.0km s-min=32.2km az=179.4*

ISC 12 06:49:12.8±7.7, 471N±07×1530E±03, h99^{km}±44^{km}, n10, $\sigma 0^{s}82$/10, mb3.4/6, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**4.16**	**28**	ePN	**Pn**	**06 50 14.1**	**+0.1**
MKAR	**Makanchi Array**	**46.73**	**297**	P	**P**	**06 57 31.1**	**-0.5**
	0.1nm,0.4s,mb2.9,baz=60,slow=7.3,SNR=3.8						
YKA	**Yellowknife Ar**	**50.71**	**37**	P	**P**	**06 58 00.3**	**-1.5**
YKA	**Yellowknife Ar**	**50.71**	**37**	P	**P**	**06 58 00.3**	**-1.4**
	0.2nm,0.6s,mb3.3,baz=297,slow=7.5,SNR=2.6						
FINES	**FINESS Array B**	**63.72**	**335**	P	**P**	**06 59 34.0**	**+0.7**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FINES	**FINESS Array B**	**63.72**	**335**	P	**P**	**06 59 34.0**	**+0.7**
	comp=Z,1.4nm,0.9s,mb3.8,baz=45,slow=8.4,SNR=4.7						
NOA	**NORSAR Array B**	**67.91**	**341**	P	**P**	**07 00 01.1**	**+1.0**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	**NORSAR Array B**	**67.91**	**341**	P	**P**	**07 00 01.1**	**+1.0**
	comp=Z,0.6nm,0.6s,mb3.6,baz=28,slow=6.5,SNR=2.8						
AKASG	**Malin Array Be**	**71.24**	**326**	P	**P**	**07 00 20.2**	**-0.6**
	comp=Z,0.4nm,0.4s,mb3.6,baz=28,slow=5.3,SNR=5.4						
TXAR	**Lajitas Array**	**77.40**	**61**	P	**P**	**07 00 57.6**	**+0.8**
	comp=Z,0.1nm,0.5s,mb2.9,baz=311,slow=5.8,SNR=2.8						

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*ISCJB **12** 06:50:35.3±0.4, 2692S±008×7550E±010, h10^{km}, mb4.5/28, MS4.0/4, Error ellipse: s-maj=12.8km s-min=11.6km az=140.6*

*IDC **12** 06:50:35.5±0.5, 2685S×7547E, h0^{km}, mb4.4/17, mb1 4.4/17, mb1mx4.4/23, mbtmp4.4/17, MS4.0/4, Ms1 4.0/4, ms1mx3.5/23, Error ellipse: s-maj=21.2km s-min=14.5km az=23.0*

*NEIC **12** 06:50:36.7±0.4, 2693S×7544E, h10^{km}, mb4.5/7, Error ellipse: s-maj=13.8km s-min=11.8km az=219.0*

ISC 12 06:50:37.3±0.4, 2690S±008×7547E±010, h10^{km}, n45, $\sigma 0^{s}75$/33, mb4.5/28, MS4.0/4, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OPO	**Ambohidratompo**	**27.32**	**282**	P	**P**	**06 56 23.2**	**+0.7**
	5.8nm,0.9s,mb4.1,baz=113,slow=8.1,SNR=3.6						
KMBO	**Kilima Mbogo**	**44.74**	**299**	eP	**P**	**06 58 51.2**	**0.0**
	3.8nm,0.8s,mb4.3						
KMBO				P	pP	06 58 52.1	-2.2
KMBO	**Kilima Mbogo**	**44.74**	**299**	P	**P**	**06 58 52.1**	**+1.0**
	3.7nm,0.8s,mb4.3,baz=101,slow=6.6,SNR=10						
LSZ	**Lusaka**	**45.37**	**275**	P	**P**	**06 58 57.0**	**+0.9**
	2.8nm,0.7s,mb4.2,baz=94,slow=5.5,SNR=3.9						
ASAR	**Alice Springs**	**52.54**	**100**	P	**P**	**06 59 51.2**	**+0.1**
	2.1nm,0.8s,mb4.2,baz=257,slow=6.5,SNR=18						
ASAR				PcP	PcP	07 01 01.1	-0.4
	0.9nm,0.8s,baz=252,slow=2.5,SNR=6.3						
WRA	**Warramunga Arr**	**54.06**	**96**	P	**P**	**07 00 02.8**	**+0.4**
	3.6nm,0.8s,mb4.4,baz=255,slow=7.3,SNR=22						
WRA				PcP	PcP	07 01 06.8	-0.5
	1.2nm,0.9s,baz=251,slow=2.6,SNR=13						
WRA				LR	LR	07 20 49.5	
	comp=Z,53nm,21.5s,MS3.6,baz=235,slow=34						
ODAN	**Odare**	**54.67**	**13**	eP	**P**	**07 00 03.6**	**-2.9**
	18nm,0.8s,mb5.2						
KOLN	**Koldanda**	**54.92**	**9**	eP	**P**	**07 00 08.8**	**+0.5**
	6.7nm,0.6s,mb4.9						
TAPN	**Taplejung**	**55.21**	**13**	eP	**P**	**07 00 11.5**	**+1.1**
	25nm,0.8s,mb5.3						
GKN	**Gorkha**	**55.30**	**10**	eP	**P**	**07 00 11.2**	**+0.2**
	10nm,0.6s,mb5.1						
GUN	**Gumba**	**55.41**	**11**	eP	**P**	**07 00 12.5**	**+0.7**
	31nm,1.0s,mb5.3						
STKA	**Stephens Creek**	**57.04**	**112**	P	**P**	**07 00 24.0**	**+0.3**
STKA				eP		07 00 24.0	
STKA				LR	LR	07 24 15.1	
STKA	**Stephens Creek**	**57.04**	**112**	P	**P**	**07 00 24.0**	**+0.3**
	5.6nm,1.1s,mb4.5,baz=282,slow=6.8,SNR=6.1						
STKA				LR	LR	07 24 15.1	
	comp=Z,76nm,18.9s,MS3.8,baz=17,slow=35						
SNAA	**Sanae**	**61.04**	**201**	P	**P**	**07 00 50.6**	**-0.1**
	2.4nm,1.0s,mb4.3,baz=342,slow=6.3,SNR=3.9						
VNDA	**Vanda**	**63.16**	**166**	P	**P**	**07 01 04.5**	**-0.4**
	2.9nm,0.8s,mb4.5,baz=277,slow=5.8,SNR=4.6						
VNDA				LR	LR	07 23 48.3	
	comp=Z,94nm,18.0s,MS4.0,baz=69,slow=32						
QSPA	**South Pole Qui**	**63.23**	**180**	eP	**P**	**07 01 05.2**	**0.0**
	5.4nm,0.7s,mb4.8						
CTA	**Charters Tower**	**64.54**	**101**	P	**P**	**07 01 15.4**	**+0.6**
	3.2nm,0.8s,mb4.4,baz=322,slow=3.6,SNR=4.6						
AAK	**Ala-Archa**	**69.19**	**359**	eP	**P**	**07 01 43.6**	**-0.2**
	4.6nm,1.3s,mb4.2						
EKS2	**Erkin-Say**	**69.23**	**359**	eP	**P**	**07 01 45.1**	**+0.9**
	2.0nm,0.6s,mb4.2						
TKM2	**Tokmak 2**	**69.47**	**0**	eP	**P**	**07 01 46.0**	**+0.4**
	6.9nm,0.9s,mb4.6						
MK31	**Makanchi Array**	**73.61**	**5**	eP	**P**	**07 02 09.4**	**-1.1**
MKAR	**Makanchi Array**	**73.61**	**5**	P	**P**	**07 02 09.5**	**-1.0**
	3.2nm,0.7s,mb4.4,baz=186,slow=5.9,SNR=42						
BRTR	**Keskin Array B**	**76.90**	**328**	P	**P**	**07 02 29.8**	**+0.2**
	2.1nm,0.7s,mb4.2,baz=144,slow=7.5,SNR=15						
KURK	**Kurchatov**	**77.32**	**2**	eP	**P**	**07 02 31.5**	**-0.2**
	2.2nm,1.1s,mb4.0						
SONM	**Songino Array**	**79.42**	**21**	P	**P**	**07 02 43.9**	**+0.5**
	1.4nm,0.7s,mb4.0,baz=204,slow=6.4,SNR=17						
ULN	**Ulaanbaatar**	**79.66**	**21**	eP	**P**	**07 02 45.1**	**+0.5**
BRVK	**Borovoye**	**79.75**	**357**	eP	**P**	**07 02 45.0**	**0.0**
	4.4nm,0.9s,mb4.4						
KSRS	**Korea Array**	**80.76**	**40**	P	**P**	**07 02 50.9**	**0.0**
	1.2nm,0.7s,mb3.9,baz=226,slow=4.8,SNR=4.7						
ZALV	**Zalesovo Beam**	**80.92**	**6**	P	**P**	**07 02 50.1**	**-1.2**
	3.0nm,0.6s,mb4.4,baz=193,slow=4.7,SNR=18						
TOA0	**Torodi Ar. Sit**	**81.88**	**289**	eP	**P**	**07 02 56.8**	**-0.5**
TORD	**Torodi Ar. Bea**	**81.88**	**289**	P	**P**	**07 02 55.8**	**-1.5**
	3.1nm,0.8s,mb4.3,baz=112,slow=4.9,SNR=18						
MJAR	**Matsushiro Arr**	**86.41**	**46**	P	**P**	**07 03 19.0**	**-0.9**
	4.2nm,0.9s,mb4.7,baz=216,slow=4.5,SNR=6.6						
AKASG	**Malin Array Be**	**87.40**	**333**	P	**P**	**07 03 24.4**	**0.0**
	4.7nm,0.8s,mb4.8,baz=138,slow=4.2,SNR=18						
DAVOX	**Davos/Dischmat**	**94.20**	**321**	LR	LR	07 46 16.1	
	comp=Z,282nm,19.8s,MS4.7,baz=72,slow=36						
OTAV	**Otavalo**	**143.51**	**228**	ePKPdf	PKPdf	07 10 11.6	-1.5
YKA	**Yellowknife Ar**	**143.79**	**8**	PKP	PKPdf	07 10 08.3	-3.7
YKA	**Yellowknife Ar**	**143.79**	**8**	PKhKP		07 10 08.3	
	1.4nm,0.7s,baz=336,slow=3.6,SNR=22						
ROSC	**El Rosal**	**143.80**	**238**	PKP	PKPdf	07 10 10.7	-2.9
ROSC				PKP	PKPdf	07 10 14.2	+0.6
ROSC	**El Rosal**	**143.80**	**238**	PKhKP		07 10 10.7	

	2.7nm,0.6s,baz=102,slow=22,SNR=3.1						
ROSC				PKP	PKPdf	07 10 14.1	+0.6
	2.7nm,0.6s,baz=101,slow=19,SNR=2.9						
EDM	**Edmonton**	**152.90**	**12**	*e*PKPdf	PKPdf	07 10 27.2	+0.1
EDM				*e*PKPbc	PKPbc	07 10 34.1	-0.2
EDM				*e*PKPab	PKPab	07 10 45.3	-0.1
PDAR	**Pinedale Array**	**163.65**	**13**	PKP	PKPdf	07 10 38.9	-1.5
PDAR				PKPab	PKPab	07 11 30.9	-1.3
PDAR	**Pinedale Array**	**163.65**	**13**	PKP	PKPdf	07 10 38.9	-1.5
	0.9nm,1.0s,baz=238,slow=1.4,SNR=5.4						
PDAR				PKPab	PKPab	07 11 30.9	-1.3
	0.6nm,0.7s,baz=40,slow=2.5,SNR=5.2						
NVAR	**Mina Array Bea**	**163.69**	**42**	PKPab	PKPab	07 11 32.8	+0.2
	0.6nm,0.7s,baz=302,slow=5.1,SNR=6.6						
JCT	**Junction City**	**174.53**	**312**	*e*PKPdf	PKPdf	07 10 47.8	+0.1
TXAR	**Lajitas Array**	**177.46**	**343**	PKPab	PKPab	07 12 32.5	-1.1
	1.0nm,0.9s,baz=64,slow=2.9,SNR=8.5						

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*NEIC **12** 07:12:14.9, 3486S×7103W, h106^{km}, MD3.5(GUC), After GUC.*

GUC 12 07:12:14.9±0.7**, 3486S×7103W, h106**^{km}±3^{km}**, MD3.5, ML3.2, 8C-7D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NICH	**Los Niches**	**0.22**	**230**	⇓*e*P	Pn	07 12 29.4	-0.5
NICH				*i* S	Sn	07 12 41.2	+0.1
SFDO	**San Fernando**	**0.25**	**3**	⇓*i*P	Pn	07 12 29.7	-0.3
SFDO				*i* S	Sn	07 12 41.2	0.0
TALC	**Talca**	**0.73**	**223**	⇑*i*P	Pn	07 12 28.1	-5.0
TALC				*i* S	Sn	07 12 41.4	-5.4
TALC	**Talca**	**0.73**	**223**	⇑*i*P	Pn	07 12 28.1	-5.0
TALC				*i* S	Sn	07 12 41.4	-5.4
TALC				AML	AML	07 12 43.1	
	comp=E,3μm,0.1s						
CICH	**Cipreses**	**0.74**	**43**	⇓*i*P	Pn	07 12 33.3	+0.1
CACH	**El Canelo**	**0.82**	**25**	⇑*i*P	Pn	07 12 34.5	+0.5
CACH				*i* S	Sn	07 12 49.1	+0.7
LNV	**Longovilo**	**0.96**	**341**	⇑*i*P	Pn	07 12 35.5	+0.1
LNV				*i* S	Sn	07 12 50.9	+0.1
CHCH	**Chadas Angostu**	**0.98**	**19**	⇓*i*P	Pn	07 12 35.5	-0.1
CHCH				*i* S	Sn	07 12 51.4	+0.3
TACH	**Talagante**	**1.21**	**4**	⇓*i*P	Pn	07 12 38.1	+0.1
TACH				*i* S	Sn	07 12 55.3	-0.2
PCH	**Pirque**	**1.31**	**19**	⇑*i*P	Pn	07 12 39.7	+0.4
PCH				*i* S	Sn	07 12 58.6	+1.0
ANTU	**Antumapu**	**1.33**	**14**	⇑*e*P	Pn	07 12 39.9	+0.4
ANTU				*i* S	Sn	07 12 58.8	+0.7
ANTU	**Antumapu**	**1.33**	**14**	⇑*e*P	Pn	07 12 39.9	+0.4
ANTU				*i* S	Sn	07 12 58.8	+0.7
ANTU				AML	AML	07 13 00.0	
	comp=N,376nm,0.3s						
RCDM	**Rinconada Maip**	**1.38**	**8**	*e*P	Pn	07 12 40.0	0.0
RCDM				*i* S	Sn	07 12 59.3	+0.2
RCDM	**Rinconada Maip**	**1.38**	**8**	*e*P	Pn	07 12 40.0	0.0
RCDM				*i* S	Sn	07 12 59.3	+0.2
RCDM				AML	AML	07 13 01.4	
	comp=E,448nm,0.4s						
FSR	**Penalolen**	**1.44**	**17**	⇓*e*P	Pn	07 12 41.2	+0.4
FSR				*i* S	Sn	07 13 01.2	+0.8
FSR	**Penalolen**	**1.44**	**17**	⇓*e*P	Pn	07 12 41.2	+0.4
FSR				*i* S	Sn	07 13 01.2	+0.8
FSR				AML	AML	07 13 02.3	
	comp=E,344nm,0.4s						
FCH	**Farellones**	**1.65**	**22**	⇑*e*P	Pn	07 12 44.0	+0.7
FCH				*i* S	Sn	07 13 06.5	+1.6
FCH				AML	AML	07 13 09.2	
	comp=N,244nm,0.6s						
PEL	**Peldehue**	**1.74**	**9**	*e*P	Pn	07 12 44.8	+0.3
PEL				*i* S	Sn	07 13 07.3	+0.4
PEL				AML	AML	07 13 09.3	
	comp=N,322nm,0.3s						

KRSC 12 07:22:44.2±0.8**, 4979N×15598E, h147**^{km}±86^{km}**, ML3.8, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALID	**Alaid**	**1.11**	**346**	*e*P	Pn	07 23 09.7	+0.1
MIPR	**Malaya Ipel'ka**	**2.54**	**11**	*i* P	Pn	07 23 26.4	+0.9
MIPR				*i* S	Sn	07 23 58.0	+0.5
GRL	**Gorelyy**	**3.06**	**25**	*e*P	Pn	07 23 35.8	+3.7
GRL				*e*S	Sn	07 24 13.0	+3.7
RUS	**Russkaya**	**3.09**	**30**	*e*P	Pn	07 23 35.6	+3.1
RUS				*i* S	Sn	07 24 12.8	+2.9
PET	**Petropavlovsk**	**3.65**	**26**	*e*P	Pn	07 23 41.7	+2.1
SDLR	**Sedlovina**	**3.94**	**26**	*e*P	Pn	07 23 46.6	+3.2
SDLR				*i* S	Sn	07 24 30.8	+1.4
NLC	**Nalytchevo**	**3.99**	**31**	*e*P	Pn	07 23 46.0	+2.0
NLC				*i* S	Sn	07 24 30.2	-0.4
GNL	**Ganaly**	**4.10**	**17**	*e*P	Pn	07 23 46.8	+1.3
SPN	**Mys Shipunski**	**4.17**	**36**	*e*P	Pn	07 23 49.0	+2.6
SPN				*i* S	Sn	07 24 34.9	+0.1
MKZ	**Mys Kozlova**	**5.94**	**34**	*e*P	Pn	07 24 11.6	+1.7
MKZ				*i* S	Sn	07 25 14.4	-2.5
TUMR	**Tumrok**	**6.06**	**23**	*e*P	Pn	07 24 14.0	+2.5
KMNR	**Kamenistaya**	**6.51**	**22**	*e*P	Pn	07 24 20.2	+2.7
KBTR	**Krutoberegovo**	**7.64**	**30**	*e*P	Pn	07 24 34.9	+2.4

MAN 12 07:25:03, 779N×12491E, h32^{km}**, mb4.0, ML2.8, MS2.5, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BUKP	**Musuan**	**0.17**	**59**	*e*P	Pb	07 25 10.8	+1.6
CGP	**Cagayan de Oro**	**0.70**	**342**	⇑*i*P	Pn	07 25 17.8	+1.2
CGP				*i* S	Sb	07 25 27.4	+1.2
PAGZ	**Pagadian**	**1.52**	**272**	*e*P	Pn	07 25 28.3	+0.4

CASC 12 08:09:47.4±1.4**, 920N×8400W, h29**^{km}±4^{km}**, MD3.6, 1C-4D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QCR	**Quepos**	**0.28**	**324**	⇓*i*P	Pb	08 09 54.5	+0.1
QCR				*e*S	Sb	08 10 00.3	+1.0
LCR2	**La Lucha 2**	**0.54**	**359**	⇓*e*P	Pb	08 09 58.6	+0.2
LCR2				*e*S	Sb	08 10 07.3	+1.3
URSC	**Urasca**	**0.67**	**19**	⇓*e*P	Pb	08 10 00.8	+0.2
URSC				*e*S	Sb	08 10 10.8	+1.2
LAJ	**Bijagual**	**0.67**	**350**	⇓*e*P	Pb	08 10 01.9	+1.3
LAJ				*e*S	Sb	08 10 12.2	+2.6
BAR1		**0.68**	**86**	⇑*e*P	Pb	08 10 00.1	-0.7
BAR1				*e*S	Sb	08 10 09.8	-0.1
ICR	**Volcan Irazu**	**0.79**	**12**	*e*P	Pn	08 10 03.7	+1.0
ICR				*e*S	Sb	08 10 14.5	+1.4
PRS1	**Puriscal**	**0.84**	**338**	*e*P	Pn	08 10 02.2	-1.1
PRS1				*e*S	Sb	08 10 13.8	-0.6
CGA2	**Cerro Gallo 2**	**0.93**	**330**	*e*P	Pn	08 10 04.8	+0.3
CGA2				*e*S	Sn	08 10 18.5	+1.5
CTCR	**Cotoan**	**1.26**	**104**	*e*S	Sn	08 10 26.3	+1.3
JCR	**Jicaral**	**1.27**	**301**	*e*P	Pn	08 10 08.3	-1.0
CNI	**Changuinola**	**1.48**	**81**	*e*P	Pn	08 10 12.8	+0.7

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*HLW **12** 08:54:26.3, 31.14N×35.26E, h6^{km}, Mb3.5*

*ISCJB **12** 08:54:30.7±0.4, 3086N±002×3497E±004, h0^{km}, Error ellipse: s-maj=5.6km s-min=3.1km az=12.6*

*CSEM **12** 08:54:30.8±0.1, 3085N×3499E, h1^{km}, ML2.7, Error ellipse: s-maj=2.0km s-min=1.2km az=96.0, Mining explosion.*

*GII **12** 08:54:30.4±0.3, 3086N×3499E, h0^{km}±2^{km}, ML2.7/4*

ISC 12 08:54:31.1±0.4**, 3087N**±002×**3496E**±004**, h0**^{km}**, n35, σ1^{s}07**/45**, 2C, Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MASH	**Mash'abbe Sade**	**0.20**	**310**	Pg	**Pg**	**08 54 36.2**	**+1.3**
MASH	**Mash'abbe Sade**	**0.20**	**310**	Pg	**Pg**	**08 54 36.2**	**+1.3**
SVTA	**Shivta**	**0.30**	**282**	Pg	**Pg**	**08 54 37.8**	**+1.0**
SVTA	**Shivta**	**0.30**	**282**	Pg	**Pg**	**08 54 37.8**	**+1.0**
RMNI	**Mount Ramon**	**0.32**	**212**	Pg	**Pg**	**08 54 38.0**	**+0.7**
RMNI	**Mount Ramon**	**0.32**	**212**	Pg	**Pg**	**08 54 38.0**	**+0.7**
ZFRI	**Zfri**	**0.37**	**149**	Pg	**Pg**	**08 54 38.2**	**0.0**
ZFRI	**Zfri**	**0.37**	**149**	Pg	**Pg**	**08 54 38.2**	**0.0**
KZIT	**Kziot**	**0.48**	**274**	Pg	**Pg**	**08 54 41.2**	**+0.8**
KZIT	**Kziot**	**0.48**	**274**	Pg	**Pg**	**08 54 41.2**	**+0.8**
YTIR	**Yattir**	**0.51**	**15**	Pg	**Pg**	**08 54 41.8**	**+0.8**
YTIR	**Yattir**	**0.51**	**15**	Pg	**Pg**	**08 54 41.8**	**+0.9**
PRNI	**Paran**	**0.52**	**176**	Pg	**Pg**	**08 54 41.3**	**+0.2**
PRNI				Sg	**Sg**	**08 54 49.4**	**+1.6**
PRNI	**Paran**	**0.52**	**176**	Pg	**Pg**	**08 54 41.3**	**+0.2**
PRNI				Sg	**Sg**	**08 54 49.4**	**+1.6**
MZDA	**Masada**	**0.56**	**38**	Pg	**Pg**	**08 54 41.8**	**-0.1**
MZDA				Sg	**Sg**	**08 54 50.6**	**+1.5**
MZDA	**Masada**	**0.56**	**38**	Pg	**Pg**	**08 54 41.8**	**-0.1**
MZDA				Sg	**Sg**	**08 54 50.6**	**+1.4**
DRGI	**Dragot**	**0.81**	**27**	Pg	**Pg**	**08 54 47.3**	**+0.6**
DRGI	**Dragot**	**0.81**	**27**	Pg	**Pg**	**08 54 47.3**	**+0.6**
HRFI	**Mount Harif**	**0.83**	**175**	Pg	**Pg**	**08 54 46.9**	**-0.2**
HRFI	**Mount Harif**	**0.83**	**175**	Pg	**Pg**	**08 54 46.9**	**-0.2**
EIL	**Elat**	**1.20**	**180**	Pg	**Pg**	**08 54 53.7**	**-0.3**
EIL				Sg	**Sg**	**08 55 11.5**	**+1.9**
EIL	**Elat**	**1.20**	**180**	Pg	**Pg**	**08 54 53.7**	**-0.4**
EIL				Sg	**Sg**	**08 55 11.5**	**+1.9**
HNKL	**Nakhl**	**1.26**	**222**	⇑P	**Pg**	**08 54 55.0**	**-0.3**
SLTI	**Sal'it**	**1.37**	**3**	Pn	**Pn**	**08 54 56.4**	**-1.1**
SLTI				Sn	**Sn**	**08 55 16.1**	**-0.3**
SLTI	**Sal'it**	**1.37**	**3**	Pn	**Pn**	**08 54 56.4**	**-1.1**
SLTI				Sn	**Sn**	**08 55 16.1**	**-0.2**
HMDT	**Nahal Hemdat**	**1.46**	**19**	Pn	**Pn**	**08 54 58.2**	**-0.6**
HMDT	**Nahal Hemdat**	**1.46**	**19**	Pn	**Pn**	**08 54 58.2**	**-0.6**
AMAG	**Maghara**	**1.52**	**262**	P	**Pn**	**08 54 57.6**	**-2.0**
AMAG				S	**Sg**	**08 55 20.5**	**+0.4**
MMLI	**Mount Malkishu**	**1.61**	**14**	Pn	**Pn**	**08 55 00.2**	**-0.6**
MMLI	**Mount Malkishu**	**1.61**	**14**	Pn	**Pn**	**08 55 00.2**	**-0.7**
HBST	**Basata**	**1.66**	**187**	P	**Pn**	**08 54 59.9**	**-1.6**
HDHB	**Dhahab**	**2.16**	**188**	⇑P	**Pn**	**08 55 06.3**	**-2.1**
HKAT	**Jabal Katrina**	**2.48**	**200**	P	**Pn**	**08 55 11.4**	**-1.4**
HKAT				S	**Sn**	**08 55 44.8**	**+0.9**
HHRG	**Al Ghardaqah**	**3.83**	**199**	P	**Pn**	**08 55 30.1**	**-1.4**
HHRG	**Al Ghardaqah**	**3.83**	**199**	P	**Pn**	**08 55 30.0**	**-1.4**

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*ISCJB **12** 08:55:09.5±0.5, 3994N±003×2699E±005, h6^{km}±8^{km}, Error ellipse: s-maj=6.5km s-min=4.6km az=38.8*

*CSEM **12** 08:55:09.1, 3992N×2698E, h8^{km}, MD2.8, After ISK*

*DDA **12** 08:55:09.8, 3993N×2701E, h7^{km}±1^{km}, Md2.5*

*ISK **12** 08:55:09.1, 3992N×2698E, h8^{km}, MD2.8*

ISC 12 08:55:10.1±0.5**, 3994N**±003×**2697E**±004**, h11**^{km}±7^{km}**, n22, σ0^{s}63**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EZN	**Ezine**	**0.51**	**258**	*e*PG	**Pg**	**08 55 19.8**	**-0.3**
EZN				*e*SG	**Sg**	**08 55 27.0**	**+0.2**
EZN	**Ezine**	**0.51**	**258**	*e*Pg	**Pg**	**08 55 19.8**	**-0.3**
EZN				*e*Sg	**Sg**	**08 55 27.0**	**+0.2**
AYVA	**Ayvalik**	**0.67**	**199**	*i* P	**Pg**	**08 55 22.9**	**-0.1**
AYVA				*i* S	**Sg**	**08 55 32.7**	**+1.0**
RKY	**Sarkoy-Tekirda**	**0.77**	**12**	*e*PG	**Pg**	**08 55 24.7**	**-0.2**
RKY				*e*SG	**Sg**	**08 55 35.7**	**+0.8**
RKY	**Sarkoy-Tekirda**	**0.77**	**12**	*e*Pg	**Pg**	**08 55 24.7**	**-0.2**
RKY				*e*Sg	**Sg**	**08 55 35.7**	**+0.8**
SART	**Tekirdag**	**0.77**	**12**	*i* P	**Pg**	**08 55 24.7**	**-0.2**
SART				*i* S	**Sg**	**08 55 35.9**	**+0.9**
EDC	**Edincik**	**0.80**	**59**	PG	**Pg**	**08 55 25.1**	**-0.4**
EDC	**Edincik**	**0.80**	**59**	*e*Pg	**Pg**	**08 55 25.1**	**-0.4**
BTOK	**Tokmak**	**0.83**	**102**	*e*P	**Pg**	**08 55 25.4**	**-0.8**
BTOK				*e*S	**Sg**	**08 55 37.1**	**0.0**
BNT	**Bandirma**	**0.84**	**60**	PG	**Pg**	**08 55 25.3**	**-1.0**
GADA	**Gvkgeada**	**0.86**	**287**	PG	**Pg**	**08 55 26.3**	**-0.4**
GADA	**Gvkgeada**	**0.86**	**287**	*e*Pg	**Pg**	**08 55 26.3**	**-0.4**
ENEZ	**Enez**	**1.01**	**322**	*e*PG	**Pg**	**08 55 29.1**	**-0.5**
ENEZ	**Enez**	**1.01**	**322**	*e*Pg	**Pg**	**08 55 29.1**	**-0.5**
KCT	**Karacabey**	**1.11**	**72**	*e*PN	**Pn**	**08 55 30.5**	**-1.0**
KCT	**Karacabey**	**1.11**	**72**	*e*Pn	**Pn**	**08 55 30.5**	**-1.0**
DST	**Dursunbey**	**1.32**	**104**	*e*PN	**Pn**	**08 55 34.0**	**-0.4**
ULDT	**Uludag**	**1.67**	**82**	*i* P	**Pn**	**08 55 39.8**	**+0.6**
ULDT				*i* S	**Sg**	**08 56 04.6**	**+0.6**
YLV	**Yalova**	**1.94**	**70**	*e*PN	**Pn**	**08 55 44.0**	**+1.0**
YLV	**Yalova**	**1.94**	**70**	*e*Pn	**Pn**	**08 55 44.0**	**+1.0**
IZI	**Iznik**	**1.96**	**77**	*e*PN	**Pn**	**08 55 43.4**	**+0.2**
IZI	**Iznik**	**1.96**	**77**	*e*Pn	**Pn**	**08 55 43.4**	**+0.2**

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*NEIC **12** 08:57:16.1±1.8, 46.19N×153.34E, h10^{km}, mb3.8/1, Error ellipse: s-maj=48.5km s-min=14.7km az=175.0*

*ISCJB **12** 08:57:18.2±1.0, 462N±01×1532E±02, h33^{km}, mb3.9/11, Error ellipse: s-maj=25.3km s-min=4.9km az=143.5*

*MOS **12** 08:57:19.8±0.8, 4626N×15323E, h51^{km}, mb4.2/7, Error ellipse: s-maj=20.0km s-min=15.0km az=78.2*

*IDC **12** 08:57:19.8±6.4, 4609N×15335E, h38^{km}±63^{km}, mb3.7/9, mb1 3.9/10, mb1mx3.6/23, mbtmp3.7/10, ML3.3/1, MS2.9/1, Ms1 2.9/1, ms1mx2.4/28, Error ellipse: s-maj=69.7km s-min=24.9km az=179.0*

ISC 12 08:57:20.5±1.0**, 462N**±01×**1533E**±02**, h35**^{km}**, n40, σ1^{s}21**/46**, mb3.9**/11**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	**3.93**	**257**	*e*PN	**Pn**	**08 58 20.0**	**+1.8**
KUR				*e*S	**Sn**	**08 59 07.5**	**+4.4**
KUR				pmax	pmax		
	comp=Z,150nm,0.5s						
KUR				smax			
	comp=N,170nm,0.7s						
KUR				smax			
	comp=E,150nm,0.7s						
SKR	**Severo-Kuril's**	**4.84**	**22**	*e*PN	**Pn**	**08 58 31.5**	**+0.8**
NEM2	**Nemuro 2**	**6.09**	**245**	P	**Pn**	**08 58 47.1**	**-0.8**
NEM2				*e*S	**Sn**	**08 59 54.3**	**-1.9**
JRA	**Rausu**	**6.22**	**251**	P	**Pn**	**08 58 51.8**	**+2.1**
JNK	**Nakash**	**6.64**	**250**	P	**Pn**	**08 58 56.8**	**+1.4**
JAK	**Akkeshi**	**6.93**	**245**	P	**Pn**	**08 58 58.9**	**-0.6**
JAK				*e*S	**Sn**	**09 00 14.7**	**-2.4**
JTKR	**Abashiri--Toko**	**7.02**	**255**	P	**Pn**	**08 59 02.8**	**+2.2**
JAR	**Ashorobuto**	**7.38**	**250**	P	**Pn**	**08 59 07.4**	**+1.7**
JAR				*e*S	**Sn**	**09 00 30.0**	**+1.8**
JKK2	**Kamakawa 2**	**7.83**	**256**	P	**Pn**	**08 59 14.4**	**+2.6**
ASAJ	**Asahikawa**	**7.85**	**258**	PN	**Pn**	**08 59 11.8**	**-0.2**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**7.85**	**258**	Pn	**Pn**	**08 59 11.8**	**-0.2**
	comp=Z,0.5nm,0.3s,baz=105,slow=12,SNR=3.5						
JCH	**Churui**	**7.97**	**247**	P	**Pn**	**08 59 13.9**	**+0.1**
JCH				*e*S	**Sn**	**09 00 40.8**	**-1.9**
JNBK	**Urakawa-nobuka**	**8.53**	**246**	P	**Pn**	**08 59 20.7**	**-0.7**
JNBK				*e*S	**Sn**	**09 00 51.9**	**-4.5**
JBT2	**Biratori 2**	**8.54**	**250**	P	**Pn**	**08 59 22.7**	**+1.2**
JNB	**Noboribetsu**	**9.55**	**251**	P	**Pn**	**08 59 35.9**	**+0.5**
JNB				*e*S	**Sn**	**09 01 20.5**	**-0.9**
JTH	**Tanohata**	**10.45**	**237**	*e*S	**Sn**	**09 01 34.9**	**-8.7**
JRG	**Rokugo**	**11.53**	**238**	*e*S	**Sn**	**09 02 03.5**	**-6.3**
JHJ	**Hachijo jima 2**	**16.69**	**223**	LR	LR	09 06 16.1	
	comp=Z,43nm,20.7s,baz=89,slow=32						
INK	**Inuvik**	**42.03**	**32**	P	**P**	**09 05 07.6**	**-0.4**
INK	**Inuvik**	**42.03**	**32**	P	**P**	**09 05 07.6**	**-0.3**
INK				pmax	pmax		
	comp=Z,1.0nm,0.8s						
INK	**Inuvik**	**42.03**	**32**	P	**P**	**09 05 07.6**	**-0.4**
	comp=Z,1.1nm,0.8s,mb3.5,baz=246,slow=7.1,SNR=4.5						
ZALV	**Zalesovo Beam**	**43.02**	**306**	P	**P**	**09 05 15.2**	**-1.0**
	comp=Z,0.4nm,0.3s,mb3.6,baz=57,slow=6.6,SNR=3.1						
ZAL	**Zalesovo**	**43.04**	**306**	P	**P**	**09 05 15.2**	**-1.1**
MK31	**Makanchi Array**	**47.30**	**298**	*e*P	**P**	**09 05 50.3**	**+0.1**
MKAR	**Makanchi Array**	**47.30**	**298**	P	**P**	**09 05 50.1**	**-0.1**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	**Makanchi Array**	**47.30**	**298**	P	**P**	**09 05 50.1**	**-0.1**
	comp=Z,0.8nm,0.8s,mb3.7,baz=66,slow=7.1,SNR=7.7						
YKA	**Yellowknife Ar**	**51.27**	**36**	P	**P**	**09 06 19.8**	**-0.5**
YKA	**Yellowknife Ar**	**51.27**	**36**	P	**P**	**09 06 19.8**	**-0.5**
	comp=Z,0.3nm,0.7s,mb3.4,baz=298,slow=7.3,SNR=5.1						
KEV	**Kevo**	**57.88**	**341**	*e*p	**P**	**09 07 06.7**	**-1.5**
	comp=Z,0.3nm,0.3s,mb3.8						
ARCES	**ARCESS Array B**	**58.39**	**341**	P	**P**	**09 07 11.7**	**0.0**
ARCES				pmax	pmax		
	comp=Z,7.0nm,1.1s						
ARCES	**ARCESS Array B**	**58.39**	**341**	P	**P**	**09 07 11.7**	**0.0**
	comp=Z,7.0nm,1.1s,mb4.6,baz=50,slow=11,SNR=2.6						
JOF	**Joensuu**	**61.86**	**334**	*e*p	**P**	**09 07 28.8**	**-6.8**
	comp=Z,0.3nm,0.3s,mb3.9						
FINES	**FINESS Array B**	**64.57**	**335**	P	**P**	**09 07 53.4**	**-0.1**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
FINES	**FINESS Array B**	**64.57**	**335**	P	**P**	**09 07 53.4**	**-0.1**
	comp=Z,2.6nm,0.6s,mb4.5,baz=41,slow=7.7,SNR=18						
NB2	**NORSAR Subarra**	**68.77**	**341**	P	**P**	**09 08 20.1**	**-0.2**
	comp=Z,2.0nm,0.7s,mb4.2,baz=29,slow=6.5						
NOA	**NORSAR Array B**	**68.77**	**341**	P	**P**	**09 08 20.6**	**+0.3**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	**NORSAR Array B**	**68.77**	**341**	P	**P**	**09 08 20.6**	**+0.3**
	comp=Z,1.8nm,0.8s,mb4.1,baz=27,slow=6.3,SNR=5.0						
AKASG	**Malin Array Be**	**72.05**	**326**	P	**P**	**09 08 40.6**	**+0.1**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	**Malin Array Be**	**72.05**	**326**	P	**P**	**09 08 40.6**	**+0.1**
	comp=Z,1.6nm,0.5s,mb4.2,baz=35,slow=6.4,SNR=9.1						
TXAR	**Lajitas Array**	**77.64**	**61**	P	**P**	**09 09 12.4**	**-0.8**
	comp=Z,0.4nm,0.6s,mb3.5,baz=300,slow=3.8,SNR=7.6						

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*MDD **12** 09:50:42.9±2.5, 3703N×1304W, h0^{km}, mb3.8/6, Error ellipse: s-maj=21.2km s-min=18.8km az=107.0, PRXIMO*

*NEIC **12** 09:50:43.8, 3723N×1301W, h0^{km}, MN3.2(MDD), After MDD.*

*INMG **12** 09:50:44.2±0.7, 3688N×1345W, h10^{km}, ML2.6, Error ellipse: s-maj=6.3km s-min=4.2km az=100.0*

*CSEM **12** 09:50:45.3±0.8, 3732N×1270W, h10^{km}, mb3.8/4, Error ellipse: s-maj=15.4km s-min=14.1km az=67.0*

ISC 12 09:50:45.4±1.4**, 3719N**±006×**1284W**±009**, h10**^{km}**, n47, σ0^{s}94**/74**, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	**Sao Teotonio**	**3.29**	**83**	*e*Pn	**Pn**	**09 51 37.0**	**0.0**
PTEO				*e*Sn	**Sn**	**09 52 16.7**	**+0.5**
PTEO	**Sao Teotonio**	**3.29**	**83**	*e*Pn	**Pn**	**09 51 37.0**	**0.0**
PTEO				*e*Sn	**Sn**	**09 52 16.7**	**+0.5**
PMAFR	**Mafra**	**3.31**	**57**	*e*Sn	**Sn**	**09 52 18.7**	**+2.1**
PMAFR				A		09 52 22.9	
	26nm,0.2s						
PMAFR	**Mafra**	**3.31**	**57**	S	**Sn**	**09 52 18.7**	**+2.1**
	26nm,0.2s						
PMAFR	**Mafra**	**3.31**	**57**	*e*Sn	**Sn**	**09 52 18.7**	**+2.1**
	26nm,0.2s						
MORF	**Marmelete**	**3.34**	**87**	*e*Pn	**Pn**	**09 51 37.4**	**-0.2**
MORF				*e*Sn	**Sn**	**09 52 17.7**	**+0.3**
MORF				A		09 52 21.7	
	14nm,0.1s						
MORF	**Marmelete**	**3.34**	**87**	P	**Pn**	**09 51 37.4**	**-0.2**
MORF				S	**Sn**	**09 52 17.7**	**+0.3**
	14nm,0.1s						
MORF	**Marmelete**	**3.34**	**87**	P	**Pn**	**09 51 37.4**	**-0.2**
MORF				S	**Sn**	**09 52 18.4**	**+1.0**
MOE	**Montemor**	**3.79**	**68**	*e*Pn	**Pn**	**09 51 44.3**	**+0.5**
MOE				*e*Sn	**Sn**	**09 52 29.4**	**+1.0**
MOE	**Montemor**	**3.79**	**68**	P	**Pn**	**09 51 44.2**	**+0.4**
MOE				S	**Sn**	**09 52 29.2**	**+0.8**
PBDV	**Barranco-do-Ve**	**3.92**	**88**	*e*Pn	**Pn**	**09 51 45.5**	**0.0**
PBDV				*e*Sn	**Sn**	**09 52 31.8**	**+0.3**
PBDV				A		09 52 38.3	
	5.0nm,0.1s						
PBDV	**Barranco-do-Ve**	**3.92**	**88**	P	**Pn**	**09 51 45.5**	**0.0**
PBDV				S	**Sn**	**09 52 31.8**	**+0.3**
	2.5nm,0.1s						
PBDV	**Barranco-do-Ve**	**3.92**	**88**	*e*Pn	**Pn**	**09 51 45.5**	**0.0**
PBEJ	**Beja**	**4.03**	**77**	*e*Sn	**Sn**	**09 52 35.9**	**+1.5**
PBEJ				A		09 52 39.3	
	3.7nm,0.1s						
PBEJ	**Beja**	**4.03**	**77**	S	**Sn**	**09 52 35.9**	**+1.5**
	1.9nm,0.1s						
PBEJ	**Beja**	**4.03**	**77**	*e*Sn	**Sn**	**09 52 35.9**	**+1.5**
	3.7nm,0.1s						
PVAQ	**Vaqueiros**	**4.09**	**86**	*e*Pn	**Pn**	**09 51 48.0**	**+0.1**
PVAQ				*e*Sn	**Sn**	**09 52 35.4**	**-0.3**
PVAQ				A		09 52 39.3	
	9.3nm,0.1s						
PVAQ	**Vaqueiros**	**4.09**	**86**	P	**Pn**	**09 51 48.0**	**+0.1**
PVAQ				S	**Sn**	**09 52 35.4**	**-0.3**
	4.7nm,0.1s						
PVAQ	**Vaqueiros**	**4.09**	**86**	*e*Pn	**Pn**	**09 51 48.0**	**+0.1**
EGRO	**El Granado**	**4.28**	**84**	P	**Pn**	**09 51 50.6**	**+0.1**
	0.9nm,0.1s,SNR=6.3						
EGRO				S	**Sn**	**09 52 40.2**	**-0.2**
	7.4nm,0.1s,SNR=8.1						
EGRO	**El Granado**	**4.28**	**84**	P	**Pn**	**09 51 50.7**	**+0.2**
EGRO				S	**Sn**	**09 52 40.2**	**-0.3**
	7.4nm,0.1s,SNR=8.1						
PESTR	**Estremoz**	**4.47**	**66**	*e*Sn	**Sn**	**09 52 46.0**	**+0.9**
EBAD	**Badajoz**	**4.86**	**70**	P	**Pn**	**09 51 58.1**	**-0.4**
EBAD				S	**Sn**	**09 52 53.1**	**-1.7**
EBAD	**Badajoz**	**4.86**	**70**	P	**Pn**	**09 51 58.5**	**0.0**
	0.4nm,0.1s,SNR=7.9						
EBAD				S	**Sn**	**09 52 54.4**	**-0.3**
	2.4nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	**4.86**	**70**	P	**Pn**	**09 51 58.1**	**-0.4**
	0.4nm,0.1s,SNR=7.9						
EBAD				S	**Sn**	**09 52 53.1**	**-1.6**
	2.4nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	**4.94**	**81**	P	**Pn**	**09 51 59.7**	**+0.1**
EMIN				S	**Sn**	**09 52 54.7**	**-2.0**
EMIN	**Mina Concepcio**	**4.94**	**81**	P	**Pn**	**09 51 59.7**	**+0.1**
	0.6nm,0.2s,SNR=7.9						
EMIN				S	**Sn**	**09 52 55.8**	**-0.9**
	2.9nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**4.94**	**81**	P	**Pn**	**09 51 59.7**	**+0.2**
	0.6nm,0.2s,SNR=7.9						
EMIN				S	**Sn**	**09 52 54.7**	**-2.0**
	2.9nm,0.2s,SNR=7.9						
PCBR	**Castelo Branco**	**4.96**	**56**	*e*Sn	**Sn**	**09 52 57.8**	**+0.4**
PCBR	**Castelo Branco**	**4.96**	**56**	S	**Sn**	**09 52 57.8**	**+0.4**
PVIS	**Viseu**	**5.21**	**46**	*e*Sn	**Sn**	**09 53 04.1**	**+0.6**
PVIS				A		09 53 06.2	
	9.7nm,0.1s						
PVIS	**Viseu**	**5.21**	**46**	S	**Sn**	**09 53 04.1**	**+0.6**
	4.8nm,0.1s						
MTE	**Manteigas**	**5.23**	**51**	S	**Sn**	**09 53 05.1**	**+1.2**
ESPR	**Espera**	**5.59**	**91**	P	**Pn**	**09 52 09.3**	**+0.7**
ESPR				S	**Sn**	**09 53 12.0**	**-0.9**
ESPR	**Espera**	**5.59**	**91**	P	**Pn**	**09 52 08.6**	**0.0**
	1.8nm,0.2s,SNR=7.9						
ESPR				S	**Sn**	**09 53 11.2**	**-1.7**
	7.9nm,0.3s,SNR=7.9						
ESPR	**Espera**	**5.59**	**91**	P	**Pn**	**09 52 09.3**	**+0.7**
ESPR				S	**Sn**	**09 53 12.0**	**-0.9**
	7.9nm,0.3s,SNR=7.9						
PCAB	**Cabril**	**5.85**	**38**	*e*Sn	**Sn**	**09 53 18.4**	**-0.7**
PCAB	**Cabril**	**5.85**	**38**	S	**Sn**	**09 53 18.4**	**-0.7**
ELOB	**Lobios**	**5.95**	**37**	P	**Pn**	**09 52 13.1**	**-0.3**
ELOB				S	**Sn**	**09 53 19.4**	**-2.2**
ELOB	**Lobios**	**5.95**	**37**	P	**Pn**	**09 52 14.6**	**+1.2**
	1.8nm,0.4s,SNR=7.9						
ELOB				S	**Sn**	**09 53 20.5**	**-1.1**
	2.2nm,0.1s,SNR=7.9						
ELOB	**Lobios**	**5.95**	**37**	P	**Pn**	**09 52 13.1**	**-0.4**
ELOB				S	**Sn**	**09 53 19.4**	**-2.2**
	2.2nm,0.1s,SNR=7.9						
MVO	**Moncorvo**	**6.00**	**47**	*e*Sn	**Sn**	**09 53 22.2**	**-0.8**
MVO				A		09 53 25.7	
	5.0nm,0.1s						
MVO	**Moncorvo**	**6.00**	**47**	S	**Sn**	**09 53 22.2**	**-0.8**
	2.5nm,0.1s						
MVO	**Moncorvo**	**6.00**	**47**	S	**Sn**	**09 53 22.1**	**-0.9**
EMAZ	**Mazaricos**	**6.46**	**26**	S	**Sn**	**09 53 30.3**	**-4.0**
	4.2nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**6.62**	**79**	P	**Pn**	**09 52 22.6**	**-0.1**
	0.4nm,0.2s,SNR=7.9						
EADA				S	**Sn**	**09 53 36.1**	**-2.2**
	1.6nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**6.62**	**79**	P	**Pn**	**09 52 22.6**	**-0.1**
	0.4nm,0.2s,SNR=7.9						
EADA				S	**Sn**	**09 53 36.1**	**-2.1**

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*ISCJB **12** 10:17:34.0±1.4, 5429N±009×870E±02, h10^{km}, mb3.4/1, Error ellipse: s-maj=17.2km s-min=11.2km az=25.1*

*IDC **12** 10:17:33.7±1.6, 54.18N×87.44E, h0^{km}, mb3.2/1, mb1 3.5/2, mb1mx3.2/22, mbtmp3.3/2, ML3.4/1, Error ellipse: s-maj=19.1km s-min=14.9km az=125.0*

ISC 12 10:17:36.0±2.4**, 544N**±01×**869E**±02**, h6**^{km}±14^{km}**, n5, σ1^{s}55**/8**, mb3.4**/1**, 4C-1D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZALV	**Zalesovo Beam**	**1.28**	**252**	Pg	**Pg**	**10 18 00.2**	**-0.3**
	17nm,0.3s,baz=79,slow=16,SNR=71						
ZALV				Lg		10 18 24.5	
	5.0nm,0.3s,baz=72,slow=28,SNR=12						
KURK	**Kurchatov**	**6.22**	**237**	⇑Pn	**Pn**	**10 19 09.4**	**+1.2**
	3.1nm,1.1s						

KURK				⇓Sn	Sn	10 20 19.2	-0.3
	1.6nm,0.6s						
KURK				⇑Lg		10 20 52.6	
	9.1nm,0.9s						
MK31	Makanchi Array	8.11	203	Pn	Pn	10 19 34.1	0.0
	0.3nm,0.3s,baz=29,slow=13,SNR=11						
MK31				⇑Sn	Sn	10 21 08.0	+2.0
	1.0nm,0.5s,baz=27,slow=27,SNR=5.1						
MK31				⇑Lg		10 21 48.7	
	6.9nm,0.8s,baz=24,slow=29,SNR=6.3						
MKAR	Makanchi Array	8.11	203	Pn	Pn	10 19 34.0	-0.2
	0.5nm,0.3s,baz=28,slow=14,SNR=20						
MKAR				Sn	Sn	10 21 03.8	-2.3
	0.4nm,0.3s,baz=26,slow=26,SNR=5.4						
MKAR				Lg		10 21 49.0	
	0.3nm,0.3s,baz=14,slow=24,SNR=4.0						
YKA	Yellowknife Ar	62.28	11	P	P	10 27 57.7	-0.3
	0.2nm,0.7s,mb3.4,baz=342,slow=7.0,SNR=5.3						

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*CSEM **12** 10:26:44.4, 3998N×3324E, h47^{km}, MD2.8, After ERD*

DDA 12 10:26:44.4, 3998N×3324E, h47^{km}±2^{km}, Md2.8, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ANTO	Ankara	0.36	252	PG	Pn	10 26 47.7	-6.1
LOD	Lodumlu	0.38	256	PG	Pn	10 26 48.6	-5.4
ELDT	Eldivan	0.53	16	*i* P	Pn	10 26 56.7	+0.9
KAMT	Kaman	0.71	149	*e*PG	Pn	10 26 57.3	-0.9
KAMT				*e*SG	Sn	10 27 08.7	+0.6
CDAG	Cicekdag	0.94	112	*i* P	Pn	10 27 03.2	+1.9
CDAG				*e*S	Sn	10 27 20.5	+6.8
SGKT	Sivrigoynuk	1.08	304	*i* P	Pn	10 27 04.2	+1.1
SGKT				*i* S	Sn	10 27 20.7	+3.7

CASC 12 10:32:04.1±2.0, 975N×8440W, h5^{km}±3^{km}, MD3.5, 4C-6D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRS1	Puriscal	0.25	21	⇓*i*P	Pg	10 32 08.6	-0.4
PRS1				*e*P		10 32 07.8	
CGA2	Cerro Gallo 2	0.27	346	⇑*i*P	Pg	10 32 10.7	+1.3
CGA2				*e*P		10 32 10.7	
LAJ	Bijagual	0.30	68	⇓*e*P	Pg	10 32 09.3	-0.6
LAJ				*e*P		10 32 07.8	
SJS	Escuela Geolog	0.39	61	*e*P	Pg	10 32 12.4	+0.8
LCR2	La Lucha 2	0.39	91	⇓*e*P	Pg	10 32 12.3	+0.6
LCR2				*e*P		10 32 11.3	
LCR2				*e*S	Sg	10 32 18.1	+1.3
QCR	Quepos	0.40	144	⇑*i*P	Pg	10 32 12.4	+0.6
QCR				*e*P		10 32 11.5	
URSC	Urasca	0.62	82	⇓*e*P	Pg	10 32 16.8	+0.8
URSC				⇓*i*P		10 32 16.7	
URSC				*e*S	Sg	10 32 25.9	+1.8
BUS	Buena Vista	0.66	107	*e*P	Pg	10 32 17.3	+0.5
BUS				*e*S	Sg	10 32 27.5	+2.1
JCR	Jicaral	0.71	278	⇑*e*P	Pg	10 32 18.0	+0.3
JCR				*e*P		10 32 16.6	
JCR				*e*S	Sg	10 32 28.2	+1.3
FORC	Fortuna	0.76	340	*e*P	Pg	10 32 19.3	+0.5
FORC				*e*S	Sg	10 32 30.8	+2.1
BAR1		1.19	115	⇓*e*P	Pg	10 32 25.9	-1.0
BAR1				*e*P		10 32 25.9	
BAR1				*e*S	Sg	10 32 41.9	-0.4
BAR1				*e*S	Sg	10 32 42.8	+0.4
CUI		1.19	320	*i* P	Pg	10 32 25.7	-1.2
CUI				*i* S	Sg	10 32 41.8	-0.6
LIM1	Limonal	1.26	318	*i* P	Pg	10 32 26.9	-1.5
LIM1				*i* S	Sg	10 32 44.1	-0.6
VCR	Vista de Mar	1.27	287	*e*P	Pg	10 32 27.2	-1.2
VCR				*e*S	Sg	10 32 45.0	+0.1
CTCR	Cotoan	1.83	118	*e*P	Pn	10 32 36.4	+0.2
CNI	Changuinola	1.89	100	*e*P	Pn	10 32 36.6	-0.4
CNI				*e*S	Sn	10 33 02.4	+1.2
BRU2	Volcan	1.94	119	*e*P	Pn	10 32 38.2	+0.5
BRU2				*e*S	Sn	10 33 02.8	+0.4
TBS2		1.97	119	⇑*e*P	Pn	10 32 39.9	+1.9
TBS2				*e*S	Sn	10 33 06.2	+3.1
BRU	Baru	2.04	117	*e*P	Pn	10 32 39.8	+0.7
BRU				*e*S	Sn	10 33 07.7	+2.6

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*SZGRF **12** 10:35:14.7, 3520N×1069W, h10^{km}, mb6.1, MS5.9, Azores-Cape St. Vincent Ridge*

*CSEM **12** 10:35:19.6±0.0, 3587N×1029W, h11^{km}, mb6.2/99, Ms5.5, Mw6.1, Error ellipse: s-maj=1.1km s-min=0.7km az=170.0*

*BJI **12** 10:35:19.7, 3647N×1074W, h10^{km}, mB6.2, mb6.1, Ms6.2, Msz5.9*

*IDC **12** 10:35:19.2±0.4, 3584N×1038W, h0^{km}, mb5.7/27, mb1 5.8/31, mb1mx5.8/31, mbtmp5.7/31, ML6.8/2, MS5.7/30, Ms1 5.7/30, ms1mx5.6/34, Error ellipse: s-maj=12.8km s-min=10.6km az=168.0*

*MOS **12** 10:35:19.5±0.9, 3586N×1033W, h10^{km}, mb6.3/117, MS5.7/96, Error ellipse: s-maj=4.8km s-min=2.0km az=47.7*

*ISCJB **12** 10:35:20.8±0.1, 3589N±001×10250W±0009, h15^{km}, mb6.1/319, MS5.8/241, Error ellipse: s-maj=1.8km s-min=1.0km az=170.3*

*PDA **12** 10:35:21.1, 3580N×1033W, h10^{km}, mb6.2*

*GCMT **12** 10:35:21.2±0.1, 3590N×1037W, h45^{km}, MW6.0/108, Moment Tensor Solution. s104,c237; s108,c345; Duration: 2^{s}4 Moment tensor: Scale 10^{18}Nm; M$_{rr}$0.63±.01; M$_{\theta\theta}$-1.12±.01; M$_{\phi\phi}$0.48±.01; M$_{r\theta}$-0.28±.01; M$_{\theta\phi}$0.03±.01; M$_{\phi r}$-0.52±.01; Best double couple: M$_0$1.13800×10^{18} NP1:φ$_s$125.00000°, δ49.00000°, λ146.00000°. NP2:φ$_s$238.00000°, δ65.00000°, λ46.00000°. Principal axes: T 1.1100, Plg49.0000°, Azm99.0000°; N 0.0520, Plg39.0000°, Azm260.0000°; P -1.1650, Plg9.0000°, Azm358.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC **12** 10:35:22.8±0.1, 3580N×1031W, h20^{km}, mb6.2/221, ME6.2, MS5.8/181, MW5.9 Error ellipse: s-maj=2.8km s-min=1.4km az=165.0 Broadband fault plane solution: P waves. NP1:φ$_s$240.00000°, δ70.00000°, λ50.00000°. NP2:φ$_s$128.00000°, δ44.00000°, λ150.00000°. Principal axes: T Plg49.0000°, Azm107.0000°; N Plg0.0000°, Azm0.0000°; P Plg15.0000°, Azm358.0000°; Moment Tensor Solution. s70 Moment tensor: Scale 10^{17} Nm; M$_{rr}$0.79; M$_{\theta\theta}$-2.18; M$_{\phi\phi}$1.39; M$_{r\theta}$-0.57; M$_{\theta\phi}$-5.38; M$_{\phi r}$-5.11; Best double couple: M$_0$7.70000×10^{17} NP1:φ$_s$97.00000°, δ48.00000°, λ174.00000°. NP2:φ$_s$191.00000°, δ86.00000°, λ42.00000°. Principal axes: T 7.6900, Plg32.0000°, Azm63.0000°; N 0.0000, Plg47.0000°, Azm196.0000°; P -7.6900, Plg25.0000°, Azm316.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC Felt [V] at Portimao; [IV] at Albufeira, Algueirao-Mem Martins, Almada, Almancil, Alverca, Amora, Armacao de Pera, Beja, Caparica, Evora, Faro, Lagos, Lisbon, Loule, Loures, Lourinha, Luz, Montemor-o-Novo, Moscavide, Quarteira, Sao Bras de Alportel, Sao Domingos de Rana, Setubal, Sines, Sintra and Tavira; [III] at Alges, Aljezur, Amadora, Barreiro, Boliqueime, Caldas da Rainha, Carnaxide, Cascais, Coimbra, Corroios, Coruche, Estoril, Mafra, Odivelas, Oeiras, Oliveira do Hospital, Paco de Arcos, Pontinha, Porto Salvo, Sacavem, Santiago do Cacem, Silves and Torres Vedras; [II] at Carcavelos, Leiria, Linda-a-Velha, Maia, Palmela, Portalegre and Porto, Portugal. Felt [IV] at Lagoa, Azores, Portugal. Felt [IV] at Aljaraque, Almonte, Ayamonte, Beas, Bollullos de la Mitacion, Bollullos par del Condado, Bormujos, Brenes, Camas, Cartaya, Cordoba, Coria del Rio, Espartinas, Gelves, Huelva, Isla-Cristina, Lepe, Lora del Rio, Lucena del Puerto, Mazagon, Moguer, San Juan de Aznalfarache, Sevilla and Tomares; [III] at Acala de Guadaira, Alcolea del Rio, Andujar, Aracena, Badajoz, Bonares, Caceres, Campanillas, Carmona, Cortegana, Cuidad Real, Dos Hermanas, Ecija, El Carpio, El Puerto de Santa Maria, El Rompido, El Viso del Alcor, Gibraleon, Hinojos, Jaen, Jerez de los Caballeros, La Linea, La Palma del Condado, La Puebla del Rio, La Rinconada, Linares, Los Palacios y Villafranca, Mairena del Aljarafe, Malaga, Montoro, Moraleja, Navas de San Juan, Niebla, Olivenza, Osuna, Palma del Rio. Palos de la Frontera, Pedro Abad, Pilas, Porcuna, Puertollano, Punta Umbria, Salteras, San Vicente de Alcantara, Sanlucar la Mayor, Torre del Campo, Torremolinos and Villa del Rio; [II] at Albacete, Alcobendas, Baena, Bilbao, Cadiz, Constantina, Estepona, Fuengirola, Getafe, Granada, Guadalajara, Jerez de la Frontera, Leganes, Madrid, Marbella, Merida, Miguelturra, Nigran, Oviedo, Pontevedra, Rosal de la Frontera, Salmanca, Santiago, Talavera de la Reina, Teruel, Tobarra, Toledo, Valladolid, Valverde del Camino, Villanueva de Cordoba, Zamora and Zaragoza, Spain. Felt [IV] at Casablanca, Marrakech and Rabat; [III] at Tangier, Morocco.

*LDG **12** 10:35:22.4±0.1, 3583N×1029W, h30^{km}, Md5.5/5, Ml6.2/40, ms5.6 Error ellipse: s-maj=3.5km s-min=2.7km az=148.0*

*MDD **12** 10:35:24.4±0.4, 3591N×1047W, h65^{km}±16^{km}, mb6.2/36, Error ellipse: s-maj=5.4km s-min=3.8km az=114.0, PRXIMO IV BEAS BOLLULLOS DE LA N IV BOLLULLOS PAR DEL CONDADO BORMUJOS IV CAMAS CARTAYA GELVES IV HUELVA ISLA CRISTINA LEPE IV N SEVILLA III-IV BRENES CORIA DEL O III-IV ESPARTINAS LORA DEL O III-IV LUCENA DEL PUERTO MOGUER III-IV SAN JUAN DE AZNALFARACHE TOMARES III ACAL DE GUADAIRA ALCOLEA DEL O III JAR ARACENA BADAJOZ BONARES III CERES CAMPANILLAS CARMONA III RDOBA CORTEGANA DOS HERMANAS III CIJA EL CARPIO EL PUERTO DE SANTA A III EL ROMPIDO EL VISO DEL ALCOR N III HINOJOS ISLANTILLA JEREZ DE LOS CABALLEROS. BA III LA PALMA DEL CONDADO LA PUEBLA DEL O III LA RINCONADA LINARES LOS PALACIOS Y VILLAFRANCA III MAIRENA DEL ALJARAFE AS MONTORO III NAVAS DE SAN JUAN NIEBLA OLIVENZA III PALOS DE LA FRONTERA PUNTA A SALTERAS III SAN JOS DE LA RINCONADA SANLCAR LA MAYOR III TORREDELCAMPO TORREMOLINOS VILLA DEL O II-III CIUDAD REAL N LA LNEA DE LA N II-III LAGA MONTEQUINTO MORALEJA OSUNA II-III PALMA DEL O PEDRO ABAD PORCUNA PUERTOLLANO II-III SAN VICENTE DE NTARA II ALBACETE ALCOBENDAS BAENA BILBAO DIZ II CARAVACA DE LA CRUZ CONSTANTINA A II ESTEPONA FUENGIROLA GETAFE GIRONA GRANADA II GUADALAJARA JEREZ DE LA FRONTERA S MADRID II MARBELLA RIDA MIGUELTURRA N OVIEDO II PONTEVEDRA ROSAL DE LA FRONTERA SALAMANCA II SANTIAGO DE COMPOSTELA TALAVERA DE LA REINA TERUEL II TOBARRA TOLEDO VALLADOLID VALVERDE DEL CAMINO II VILLANUEVA DE RDOBA ZAMORA ZARAGOZA*

MDD EMS: IV ALJARAQE ALMONTE AYAMONTE.

*SFS **12** 10:35:25.0, 3596N×1040W, h0^{km}, ML6.1*

*INMG **12** 10:35:25.5±2.2, 3593N×1050W, h37^{km}±11^{km}, MD5.8, ML5.9, Error ellipse: s-maj=4.2km s-min=2.4km az=119.0*

*IGIL **12** 10:35:27.0, 3600N×1035W, h67^{km}, ML5.9*

*CNRM **12** 10:35:31.1, 3553N×984W, h61^{km}, MD5.4*

*BGS **12** 10:35:34.7, 3730N×1158W, h10^{km}, mb6.1*

*NAO **12** 10:36:00.7, 3981N×922W, h33^{km}, mb6.2*

ISC 12 10:35:24.9±0.1**, 3592N**±001×**10244W**±0009**, h30^{km}, h30^{km}**±1.7^{km}**:pP-P, n2327, σ0^{s}98**/2545**, mb6.1**/319**, MS5.8**/240**, 368C-329D, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	Vila Bisbo	1.67	43	*i* P	Pn	10 35 53.0	+1.1
PFVI				*i* S	Sn	10 36 11.7	-0.6
MORF	Marmelete	1.89	42	*i* P	Pn	10 35 56.1	+1.1
MORF				*e*S	Sn	10 36 17.4	-0.4
MORF				A		10 36 23.8	
	72μm,0.5s						
MORF	Marmelete	1.89	42	⇓P	Pn	10 35 56.1	+1.1
MORF				S	Sn	10 36 17.4	-0.4
	2μm,0.5s						
PTEO	Sao Teotonio	2.03	36	*i* P	Pn	10 35 57.9	+0.9
PTEO				*e*S	Sn	10 36 20.6	-0.7
PBDV	Barranco-do-Ve	2.28	54	*e*P	Pn	10 36 01.9	+1.5
PBDV				*e*S	Sn	10 36 27.5	0.0
PBDV				A		10 36 32.6	
	55μm,0.8s						
PBDV	Barranco-do-Ve	2.28	54	⇑P	Pn	10 36 01.9	+1.5
PBDV				S	Sn	10 36 27.5	0.0
	3μm,0.8s						
PVAQ	Vaqueiros	2.52	53	*e*P	Pn	10 36 05.0	+1.4
PVAQ				*e*S	Sn	10 36 32.6	-0.6
PVAQ				A		10 36 36.1	
	49μm,0.5s						
PVAQ	Vaqueiros	2.52	53	⇑P	Pn	10 36 05.0	+1.4
PVAQ				S	Sn	10 36 32.6	-0.6
	5μm,0.5s						
EGRO	El Granado	2.74	53	⇑P	Pn	10 36 07.9	+1.1
EGRO				S	Sn	10 36 38.1	-0.8
EGRO	El Granado	2.74	53	⇑P	Pn	10 36 07.9	+1.1
	1μm,0.1s,SNR=18						
EGRO				S	Sn	10 36 38.5	-0.3
	159μm,0.4s,SNR=5.3						
EGRO	El Granado	2.74	53	P	Pn	10 36 07.9	+1.2
	1μm,0.1s,SNR=18						
EGRO				S	Sn	10 36 38.1	-0.7
	159μm,0.4s,SNR=5.3						
PBEJ	Beja	2.84	41	*e*P	Pn	10 36 08.8	+0.7
PBEJ				*e*S	Sn	10 36 40.0	-1.2
PLML	Palmela	2.84	22	*i* P	Pn	10 36 08.6	+0.5
PLML	Palmela	2.84	22	P	Pn	10 36 08.8	+0.7
LIS	Lisbon	2.93	17	*e*P	Pn	10 36 09.2	-0.1
INMG	Instituto de M	2.99	17	*e*P	Pn	10 36 10.3	+0.2
INMG				*e*S	Sn	10 36 44.0	-0.9
INMG				A		10 36 52.0	
	34μm,0.8s						
INMG	Instituto de M	2.99	17	P	Pn	10 36 10.3	+0.2
INMG				*e*S	Sn	10 36 44.0	-0.9
	34μm,0.8s						
MOE	Montemor	3.01	30	*i* P	Pn	10 36 11.2	+0.8
MOE				*e*S	Sn	10 36 44.4	-1.0
MOE	Montemor	3.01	30	P	Pn	10 36 11.1	+0.7
MOE				S	Sn	10 36 44.8	-0.6
PACT	Alcochete	3.06	21	*i* P	Pn	10 36 11.5	+0.4
PACT				*e*S	Sn	10 36 45.3	-1.4
PACT				A		10 37 01.5	
	45μm,0.7s						
PACT	Alcochete	3.06	21	⇓P	Pn	10 36 11.5	+0.4
PACT				S	Sn	10 36 45.3	-1.4
	3μm,0.7s						
EVOP	Sao Brissos	3.11	32	⇓*i*Pn	Pn	10 36 12.1	+0.3
EVOP				*e*Sn	Sn	10 36 45.6	-2.2
	96μm,0.5s						
PMAFR	Mafra	3.13	14	*i* P	Pn	10 36 11.7	-0.3
PMAFR				*e*S	Sn	10 36 45.9	-2.4
PMAFR				A		10 36 51.1	
	82μm,0.7s						
PMAFR	Mafra	3.13	14	⇓P	Pn	10 36 11.7	-0.3
PMAFR				S	Sn	10 36 45.9	-2.4
	1μm,0.7s						
EVO	Evora	3.16	34	⇓*i*Pn	Pn	10 36 12.1	-0.4
	baz=211						
EVO				*e*Sn	Sn	10 36 45.6	-3.5
	191μm,0.5s						
EVO				*e*MLR	MLR		
	comp=Z,216μm,24.1s						
EVO	Evora	3.16	34	*i* P	Pn	10 36 12.8	+0.3
EVO				*e*S	Sn	10 36 47.0	-2.1
EVO				A		10 36 49.7	
	comp=Z,84μm,0.4s						
EVO	Evora	3.16	34	⇓P	Pn	10 36 12.8	+0.3
EVO				S	Sn	10 36 47.0	-2.1
	comp=Z,2μm,0.4s						
SFS	San Fernando	3.31	79	*e*Pn	Pn	10 36 16.5	+1.9
SFS				*e*Sn	Sn	10 36 49.2	-3.7
SFS	San Fernando	3.31	79	P	Pn	10 36 16.4	+1.9
SFS				S	Sn	10 36 54.4	+1.5
SFS	San Fernando	3.31	79	*e*P	Pn	10 36 16.5	+1.9
SFS				*e*Sn	Sn	10 36 49.2	-3.7
SFS				*e*S	Sn	10 36 54.4	+1.5
SCRT	Cerro San Cris	3.37	77	⇑P	Pn	10 36 18.0	+2.7
RTC	Rabat Centre	3.38	124	*i* P	Pn	10 36 15.5	-0.1
EMIN	Mina Concepcio	3.41	56	⇑P	Pn	10 36 16.9	+1.0
	comp=Z,928nm,0.1s,SNR=18						
EMIN				S	Sn	10 36 54.2	-1.1
	comp=Z,58μm,0.5s						
EMIN	Mina Concepcio	3.41	56	P	Pn	10 36 16.9	+1.0
	comp=Z,928nm,0.1s,SNR=18						
EMIN				S	Sn	10 36 54.2	-1.1
	comp=Z,58μm,0.5s						
CNIL	Conil	3.42	81	⇑P	Pn	10 36 19.0	+2.9
ALMR	Almeirim	3.49	22	*e*P	Pn	10 36 17.0	-0.1
ALMR				AML	AML	10 36 39.3	
	comp=Z,15μm,0.6s						
ALMR				*e*S	Sn	10 36 53.4	-4.0
ALMR				*e*S	Sn	10 36 53.4	-4.0
ALMR	Almeirim	3.49	22	*e*P	Pn	10 36 17.0	-0.1
ALMR				A		10 36 39.3	
	comp=Z,15μm,0.6s						
ALMR				*e*S	Sn	10 36 53.4	-4.0
ALMR	Almeirim	3.49	22	*e*P	Pn	10 36 17.0	-0.1
	comp=Z,15μm,0.6s						
AVE	Averroes	3.50	137	P	Pn	10 36 18.5	+1.3
TSY	Tnine Yamani	3.52	98	P	Pn	10 36 20.0	+2.5
TSY	Tnine Yamani	3.52	98	*e*S	Sn	10 36 54.0	-4.1
GIBL	Gibalbin	3.57	74	⇑P	Pn	10 36 20.4	+2.3
GIBL	Gibalbin	3.57	74	*i* P	Pn	10 36 20.4	+2.3
PESTR	Estremoz	3.62	35	*i* P	Pn	10 36 19.1	+0.2
PESTR				*e*S	Sn	10 36 58.2	-2.4
PESTR				A		10 37 02.1	
	comp=Z,25μm,0.5s						
ESPR	Espera	3.67	74	⇑P	Pn	10 36 21.1	+1.6
	comp=Z,336nm,0.1s,SNR=18						
ESPR				S	Sn	10 37 01.1	-0.5
	comp=Z,233μm,0.5s						
ESPR	Espera	3.67	74	P	Pn	10 36 21.1	+1.7
	comp=Z,336nm,0.1s,SNR=18						
ESPR				S	Sn	10 37 01.1	-0.5
	comp=Z,233μm,0.5s						
MOMI	Momias	3.69	82	⇓P	Pn	10 36 22.3	+2.6
MOMI				S	Sn	10 37 00.9	-1.2
RSA	Sarsar	3.75	105	*i* P	Pn	10 36 21.0	+0.3
EBAD	Badajoz	3.83	41	⇓P	Pn	10 36 22.1	+0.4
	comp=Z,19nm,0.0s,SNR=18						
EBAD				S	Sn	10 37 04.0	-1.6
	comp=Z,86μm,0.5s						
EBAD	Badajoz	3.83	41	P	Pn	10 36 22.1	+0.4
	comp=Z,19nm,0.0s,SNR=18						
EBAD				S	Sn	10 37 04.0	-1.6
	comp=Z,86μm,0.5s						
MDAL	Dalia	3.87	89	P	Pn	10 36 24.5	+2.3
EJIF	Jimena Fronter	3.90	81	⇑P	Pn	10 36 24.6	+1.9
EJIF	Jimena Fronter	3.90	81	⇑P	Pn	10 36 24.6	+1.9
	SNR=18						
PTOM	Tomar	3.97	21	*e*P	Pn	10 36 23.5	-0.1
PTOM				*e*S	Sn	10 37 06.0	-3.1
LIJA	Lijar	4.03	74	P	Pn	10 36 26.9	+2.5
REAL	Reales	4.11	81	⇓P	Pn	10 36 28.0	+2.4
EMIJ	Mijas	4.47	80	⇑P	Pn	10 36 31.1	+0.6
EMIJ				S	Sn	10 37 19.3	-2.2
EMIJ	Mijas	4.47	80	⇑P	Pn	10 36 31.3	+0.8
	comp=Z,5μm,1.0s,SNR=18						
EMIJ				S	Sn	10 37 20.0	-1.4
	comp=Z,31μm,0.6s						
EMIJ	Mijas	4.47	80	P	Pn	10 36 31.1	+0.6
	comp=Z,5μm,1.0s,SNR=18						
EMIJ				S	Sn	10 37 19.3	-2.1
	comp=Z,31μm,0.6s						
PCBR	Castelo Branco	4.49	28	*i* P	Pn	10 36 31.0	+0.3
PCBR				*e*S	Sn	10 37 18.1	-3.7
CIA	Chichaoua	4.51	164	*i* P	Pn	10 36 31.0	-0.1
TGT	Taghat	4.64	112	*i* P	Pn	10 36 33.0	+0.1
EMAL	Malaga-Limoner	4.77	78	P	Pn	10 36 36.6	+2.0
EMAL				S	Sn	10 37 27.6	-1.3
EMAL	Malaga-Limoner	4.77	78	⇑P	Pn	10 36 36.8	+2.2
	comp=Z,5μm,0.4s						
EMAL				S	Sn	10 37 28.3	-0.6
	comp=Z,22μm,0.5s						
EMAL	Malaga-Limoner	4.77	78	*i* P	Pn	10 36 35.9	+1.3
EMAL				*e*S	Sn	10 37 28.3	-0.5
KIB	El Ksiba	4.82	133	*i* P	Pn	10 36 35.0	-0.3
MIF	Mishlifen	4.83	120	*i* P	Pn	10 36 35.0	-0.5
IFR	Ifrane	4.85	118	P	Pn	10 36 36.0	+0.3
TZC	Tazercounte	4.88	139	*i* P	Pn	10 36 35.0	-1.2
MTE	Manteigas	4.96	25	*i* P	Pn	10 36 37.8	+0.7
MTE				*e*S	Sn	10 37 29.6	-3.8
MTE				A		10 37 37.0	
	comp=Z,24μm,0.8s						
MTE	Manteigas	4.96	25	P	Pn	10 36 37.8	+0.7
MTE				S	Sn	10 37 29.6	-3.8
ELOJ	Sierra Loja	5.06	74	⇑P	Pn	10 36 40.4	+1.8
	SNR=18						
EADA	Adamuz	5.06	62	⇑P	Pn	10 36 39.4	+0.9
	comp=Z,24nm,0.0s,SNR=18						
EADA				S	Sn	10 37 33.6	-2.3
	comp=Z,16μm,0.5s						
EADA	Adamuz	5.06	62	P	Pn	10 36 39.4	+0.8
	comp=Z,24nm,0.0s,SNR=18						
EADA				S	Sn	10 37 33.6	-2.4
	comp=Z,16μm,0.5s						
ELUQ	Luque	5.07	69	⇑P	Pn	10 36 40.0	+1.2
	comp=Z,1μm,0.5s,SNR=18						
OUK	Oukaimeden	5.10	156	*i* P	Pn	10 36 37.5	-1.6
PVIS	Viseu	5.13	20	*i* P	Pn	10 36 39.2	-0.4
PVIS				*e*S	Sn	10 37 32.8	-5.0
CZD	Col de Zad	5.17	122	*i* P	Pn	10 36 38.0	-2.1
MPAL	Palemas	5.18	96	*i* P	Pn	10 36 40.5	+0.2
TZK	Tazeka	5.30	108	*i* P	Pn	10 36 42.0	+0.1
ERON	Agron	5.30	76	⇑P	Pn	10 36 43.8	+1.8
	comp=Z,303nm,0.2s,SNR=18						
PTO	Porto	5.37	13	*e*P	Pn	10 36 41.9	-0.9
PTO				*e*S	Sn	10 37 38.7	-4.9
TOU	Touzarine	5.38	98	*i* P	Pn	10 36 43.5	+0.4
EGUA	Guajares	5.47	78	⇓P	Pn	10 36 44.8	+0.6
	SNR=18						
AFS	Agadir Fac de	5.52	173	*i* P	Pn	10 36 44.0	-0.9
ECOG	Cogollos-Vega	5.54	74	⇓P	Pn	10 36 47.1	+1.9
	SNR=18						
TIO	Tiouine	5.57	153	P	Pn	10 36 45.0	-0.6
MDT	Midelt	5.59	122	Pn	Pn	10 36 46.2	+0.4
MDT				Sn	Sn	10 37 45.0	-4.0
MDT				LR	LR	10 39 15.2	
MDT	Midelt	5.59	122	Pn	Pn	10 36 46.2	+0.3
	comp=Z,2μm,0.3s,baz=310,slow=13,SNR=9476						
MDT				Sn	Sn	10 37 45.0	-4.0
	comp=Z,8μm,0.3s,baz=205,slow=23,SNR=26						
MDT				LR	LR	10 39 15.2	
	comp=Z,76μm,18.5s,baz=306,slow=42						
EQUE	Quentar	5.63	75	⇑P	Pn	10 36 48.2	+1.8
	comp=Z,35nm,0.1s,SNR=18						
EQUE				S	Sn	10 37 48.7	-1.2
	comp=Z,40μm,1.4s,SNR=7.9						
EBAN	Banos Encina	5.63	65	⇑P	Pn	10 36 47.1	+0.6
	comp=Z,347nm,0.3s,SNR=18						
PVRL	Vila Real	5.70	20	*i* P	Pn	10 36 46.6	-0.8
PVRL				*e*S	Sn	10 37 46.7	-5.1
PMPS	Porto Santo	5.78	242	*e*P	Pn	10 36 44.7	-3.8
PMPS				*e*S	Sn	10 37 42.1	-12
PMPS				A		10 37 56.6	
	comp=Z,4μm,0.6s						
PMPS				T		10 43 18.9	
PMPS	Porto Santo	5.78	242	⇑P	Pn	10 36 44.7	-3.8
PMPS				S	Sn	10 37 42.1	-12
	comp=Z,2μm,0.6s						
MVO	Moncorvo	5.81	25	*i* P	Pn	10 36 48.5	-0.4
MVO				*e*S	Sn	10 37 49.7	-4.8
MVO				A		10 37 53.7	
	comp=Z,16μm,0.5s						
MVO	Moncorvo	5.81	25	P	Pn	10 36 48.3	-0.6
MVO				S	Sn	10 37 49.7	-4.8
MVO	Moncorvo	5.81	25	⇓P	Pn	10 36 48.5	-0.4
MVO				S	Sn	10 37 49.7	-4.8
EALB	Alboran	5.85	88	⇓P	Pn	10 36 48.0	-1.5
EALB				S	Sn	10 37 51.4	-4.1
EALB	Alboran	5.85	88	⇓P	Pn	10 36 48.8	-0.7
	comp=Z,513nm,0.3s,SNR=18						
EALB				S	Sn	10 37 52.3	-3.2
	comp=Z,7μm,0.4s						
EALB	Alboran	5.85	88	P	Pn	10 36 48.0	-1.5
	comp=Z,513nm,0.3s,SNR=18						
PAB	San Pablo	5.91	50	*e*Pn	Pn	10 36 50.9	+0.6
	comp=Z,848nm,0.4s						
PAB				*e*Sn	Sn	10 37 54.7	-2.3
PAB	San Pablo	5.91	50	*e*P	Pn	10 36 50.9	+0.6

PAB				pmax	pmax		
	comp=Z,850nm,0.4s						
PAB	San Pablo	5.91	50	*e*P	Pn	10 36 50.9	+0.6
	comp=Z,850nm,0.4s						
PAB				*e*Sn	Sn	10 37 54.7	-2.3
MELI	Melilla	5.99	94	⇑P	Pn	10 36 50.8	-0.5
MELI				S	Sn	10 37 55.2	-3.6
MELI	Melilla	5.99	94	*i* P	Pn	10 36 50.8	-0.5
EBER	Berja	6.01	78	⇓P	Pn	10 36 51.9	+0.3
EBER				S	Sn	10 37 58.0	-1.4
EBER	Berja	6.01	78	⇓P	Pn	10 36 52.5	+0.8
	comp=Z,1µm,0.4s,SNR=18						
EBER				S	Sn	10 37 58.0	-1.4
	comp=Z,48µm,1.2s,SNR=7.9						
EBER	Berja	6.01	78	P	Pn	10 36 51.9	+0.2
	comp=Z,1µm,0.4s,SNR=18						
PCAB	Cabril	6.04	16	*e*P	Pn	10 36 51.0	-1.0
PCAB				*e*S	Sn	10 37 54.4	-5.6
PCAB				A		10 38 23.6	
	comp=Z,7µm,0.5s						
PCAB	Cabril	6.04	16	⇓P	Pn	10 36 51.0	-1.0
PCAB				S	Sn	10 37 54.4	-5.6
	comp=Z,3µm,0.5s						
EQES	Quesada	6.05	70	⇑P	Pn	10 36 53.0	+0.8
EQES				S	Sn	10 37 57.1	-3.3
EQES	Quesada	6.05	70	⇑P	Pn	10 36 53.0	+0.8
	comp=Z,118nm,0.1s,SNR=18						
EQES				S	Sn	10 37 58.1	-2.3
	comp=Z,25µm,0.5s						
EQES	Quesada	6.05	70	P	Pn	10 36 53.0	+0.8
	comp=Z,118nm,0.1s,SNR=18						
YBT	Youssef Ben Ta	6.07	175	P	Pn	10 36 51.0	-1.5
ELOB	Lobios	6.18	15	⇓P	Pn	10 36 52.9	-1.0
	comp=Z,66nm,0.0s,SNR=18						
ELOB				S	Sn	10 37 57.6	-6.0
	comp=Z,8µm,0.5s						
ELOB	Lobios	6.18	15	P	Pn	10 36 52.9	-1.1
	comp=Z,66nm,0.0s,SNR=18						
ZAI	Zaio	6.19	97	*i* P	Pn	10 36 54.0	-0.2
ESDC	Sonseca Array	6.23	51	Pn	Pn	10 36 54.6	0.0
	comp=Z,766nm,0.3s,baz=239,slow=13,SNR=1116						
ESDC				Sn	Sn	10 38 01.7	-3.0
	comp=Z,16µm,0.3s,baz=238,slow=23,SNR=104						
ESDC				LR	LR	10 39 33.7	
	comp=Z,60µm,19.8s,baz=235,slow=40						
ESDC	Sonseca Array	6.23	51	⇑P	Pn	10 36 54.6	0.0
	comp=Z,432nm,0.3s,baz=240,slow=13,SNR=18						
ESDC				S	Sn	10 38 01.5	-3.3
	comp=Z,24µm,0.5s,baz=238,slow=23,SNR=7.9						
ESLA	Sonseca Array	6.23	51	*e*Pn	Pn	10 36 54.8	+0.1
ESLA				*e*Sn	Sn	10 38 02.1	-2.6
ZFT	Errachidia	6.24	127	*i* P	Pn	10 36 53.0	-1.8
EZAM	Zamans	6.34	10	⇓P	Pn	10 36 55.1	-1.1
	SNR=18						
PMAR	Madeira	6.37	242	*e*P	Pn	10 36 53.3	-3.3
PMAR				*e*S	Sn	10 37 57.9	-10
PMAR				T		10 43 55.3	
PMAR	Madeira	6.37	242	P	Pn	10 36 53.3	-3.3
PMAR				S	Sn	10 37 57.9	-10
FUL	Funchal	6.41	241	*e*P	Pn	10 36 53.2	-4.0
FUL				*e*S	Sn	10 37 59.8	-9.5
ENIJ	Nijar	6.56	78	⇑P	Pn	10 36 59.6	+0.3
ENIJ	Nijar	6.56	78	⇑P	Pn	10 36 59.8	+0.5
	comp=Z,733nm,0.5s,SNR=18						
ENIJ	Nijar	6.56	78	P	Pn	10 36 59.6	+0.3
	comp=Z,733nm,0.5s,SNR=18						
ECAL	Calabor	6.61	23	⇓P	Pn	10 36 59.2	-0.6
ECAL				S	Sn	10 38 07.2	-6.8
ECAL	Calabor	6.61	23	⇓P	Pn	10 36 59.2	-0.6
	comp=Z,102nm,0.1s,SNR=18						
ECAL				S	Sn	10 38 10.1	-4.0
	comp=Z,37µm,0.7s						
ECAL	Calabor	6.61	23	P	Pn	10 36 59.2	-0.6
	comp=Z,102nm,0.1s,SNR=18						
GUD	Guadarrama	6.72	44	⇓P	Pn	10 37 01.6	+0.2
GUD	Guadarrama	6.72	44	⇓P	Pn	10 37 01.3	-0.2
	SNR=18						
GUD	Guadarrama	6.72	44	P	Pn	10 37 01.6	+0.2
	SNR=18						
EVIA	Vianos	6.74	64	⇑P	Pn	10 37 01.7	0.0
	comp=Z,449nm,0.4s,SNR=18						
ERUA	La Rua	6.90	19	⇓P	Pn	10 37 02.9	-1.0
	comp=Z,338nm,0.5s,SNR=18						
STS	Santiago	7.08	10	P	Pn	10 37 04.9	-1.5
	comp=Z,181nm,0.4s,SNR=48						
EMAZ	Mazaricos	7.09	8	⇓P	Pn	10 37 04.5	-1.9
	comp=Z,36nm,0.1s,SNR=18						
EMAZ				S	Sn	10 38 19.0	-6.9
	comp=Z,6µm,0.4s						
EMAZ	Mazaricos	7.09	8	P	Pn	10 37 04.5	-2.0
	comp=Z,36nm,0.1s,SNR=18						
OLHC	Oulhaca	7.22	93	P	Pn	10 37 06.0	-2.3
EFAM	Famara	7.32	203	P	Pn	10 37 04.4	-5.2
	comp=Z,171nm,0.2s,SNR=27						
EFAM				S	Sn	10 38 22.0	-10
	comp=Z,16µm,1.0s						
ODZI	Dziouia	7.37	92	P	Pn	10 37 08.0	-2.3
ETOB	Tobarra	7.45	66	⇑P	Pn	10 37 11.3	-0.1
	comp=Z,39nm,0.1s,SNR=18						
ETOB				S	Sn	10 38 30.8	-4.0
	comp=Z,8µm,0.5s						
ETOB	Tobarra	7.45	66	P	Pn	10 37 11.3	-0.1
	comp=Z,39nm,0.1s,SNR=18						
EMUR	La Murta	7.47	72	⇑P	Pn	10 37 11.7	+0.1
	comp=Z,1µm,0.4s,SNR=18						
EMUR				S	Sn	10 38 31.3	-4.0
	comp=Z,11µm,0.8s						
EMUR	La Murta	7.47	72	P	Pn	10 37 11.7	0.0
	comp=Z,1µm,0.4s,SNR=18						
CART	Cartagena	7.61	75	*e*Pn	Pn	10 37 12.9	-0.7
	comp=Z,3µm,0.6s						
CART				*e*Sn	Sn	10 38 30.7	-8.0
CART	Cartagena	7.61	75	⇑P	Pn	10 37 13.1	-0.5
CART				S	Sn	10 38 32.8	-5.9
CART	Cartagena	7.61	75	*e*Pn	Pn	10 37 12.9	-0.6
	comp=Z,3µm,0.6s						
CART	Cartagena	7.61	75	*i* P	Pn	10 37 13.1	-0.4
OTSS	Djebel Tessala	7.72	92	P	Pn	10 37 10.0	-5.2
EPON	Pontenova	7.78	17	⇓P	Pn	10 37 14.2	-1.6
	comp=Z,844nm,0.4s,SNR=18						
EPON				S	Sn	10 38 35.5	-7.3
	comp=Z,1µm,0.3s						
EPON	Pontenova	7.78	17	P	Pn	10 37 14.2	-1.6
	comp=Z,844nm,0.4s,SNR=18						
USTO	Oran	7.88	89	P	Pn	10 37 16.0	-1.3
CFUE	Fuerteventura	7.89	204	P	Pn	10 37 12.6	-5.0
	SNR=7.9						
CFUE				S	Sn	10 38 37.1	-8.8
	comp=Z,851nm,0.2s,SNR=7.9						
ETOR	Torete	8.08	50	P	Pn	10 37 20.2	+0.1
	comp=Z,226nm,0.0s,SNR=1155						
ETOR				S	Sn	10 38 45.7	-4.6
	comp=Z,32µm,0.4s						
CFTV	Fuerteventura	8.16	205	P	Pn	10 37 16.1	-5.1
	comp=Z,138nm,0.6s,SNR=30						
CFTV				S	Sn	10 38 42.9	-9.4
	SNR=7.9						
ECHE	Chera	8.21	61	P	Pn	10 37 22.3	+0.4
	comp=Z,420nm,0.4s,SNR=7.9						
ODJA	Bouhanifia	8.24	91	P	Pn	10 37 24.0	+1.7
EARI	Arriondas	8.33	26	⇓P	Pn	10 37 23.1	-0.4
EARI				S	Sn	10 38 48.9	-7.7
EARI	Arriondas	8.33	26	⇓P	Pn	10 37 23.1	-0.4
	comp=Z,311nm,0.3s,SNR=18						
EARI				S	Sn	10 38 50.5	-6.0
	comp=Z,4µm,0.8s,SNR=7.9						
EARI	Arriondas	8.33	26	P	Pn	10 37 23.1	-0.4
	comp=Z,311nm,0.3s,SNR=18						
EBEN	Beniarda	8.45	68	⇑P	Pn	10 37 25.0	-0.2
	comp=Z,820nm,0.5s,SNR=18						
EBEN				S	Sn	10 38 54.4	-5.1
	comp=Z,6µm,0.6s,SNR=7.9						
EBEN	Beniarda	8.45	68	P	Pn	10 37 25.0	-0.2
	comp=Z,820nm,0.5s,SNR=18						
OJBR	Djebel Berber	8.62	89	P	Pn	10 37 29.0	+1.6
OKGL	Djebel Kef Gue	8.83	86	P	Pn	10 37 31.0	+0.7
EMOS	Mosqueruela	8.88	57	P	Pn	10 37 32.4	+1.3
EMOS				S	Sn	10 39 06.6	-3.5
EMOS	Mosqueruela	8.88	57	P	Pn	10 37 32.2	+1.1
	comp=Z,2µm,0.6s,SNR=252						
EMOS				S	Sn	10 39 05.3	-4.8
	comp=Z,18µm,1.1s,SNR=7.9						
EMOS	Mosqueruela	8.88	57	P	Pn	10 37 32.4	+1.3
	comp=Z,2µm,0.6s,SNR=252						
OJGS	Djebel Guires	8.95	89	P	Pn	10 37 38.0	+6.0
ECRI	Cripan	8.97	40	P	Pn	10 37 32.3	0.0
	SNR=7.9						
EBAJ	Bajamar	8.99	217	P	Pn	10 37 25.8	-6.8
EBAJ				S	Sn	10 38 57.9	-15
EBAJ	Bajamar	8.99	217	P	Pn	10 37 25.8	-6.8
	comp=Z,113nm,0.3s,SNR=21						
EBAJ				S	Sn	10 38 59.5	-13
	comp=Z,5µm,0.9s,SNR=7.9						
ELAN	Lanestosa	9.00	34	P	Pn	10 37 32.9	+0.3
	comp=Z,100nm,0.2s,SNR=80						
ELAN				S	Sn	10 39 06.0	-6.8
	comp=Z,3µm,0.5s,SNR=7.9						
ELAN	Lanestosa	9.00	34	P	Pn	10 37 32.9	+0.3
	comp=Z,100nm,0.2s,SNR=80						
EOSO	Osorio	9.03	211	P	Pn	10 37 27.5	-5.6
EOSO				S	Sn	10 39 01.1	-13
EOSO	Osorio	9.03	211	P	Pn	10 37 27.5	-5.6
	comp=Z,27nm,0.1s,SNR=16						
EOSO				S	Sn	10 39 01.8	-12
	comp=Z,20µm,2.6s,SNR=7.9						
EANR	'Ain N'Sour	9.20	86	P	Pn	10 37 34.2	-1.2
CICO	Icod de los Vi	9.33	218	P	Pn	10 37 31.2	-6.0
	comp=Z,14nm,0.2s,SNR=13						
CICO				S	Sn	10 39 08.7	-12
	comp=Z,28nm,0.7s						
CRAJ	Montana Rajada	9.34	217	P	Pn	10 37 33.2	-4.2
	comp=Z,73nm,0.2s,SNR=10.0						
CRAJ				S	Sn	10 39 09.3	-12
	comp=Z,3µm,0.3s,SNR=7.9						
CCAN	Las Canadas	9.38	217	P	Pn	10 37 31.0	-6.9
CCAN				S	Sn	10 39 09.4	-13
CCAN	Las Canadas	9.38	217	P	Pn	10 37 31.0	-6.9
	comp=Z,56nm,0.6s,SNR=36						
CCAN				S	Sn	10 39 10.3	-12
	comp=Z,53nm,0.2s						
ECHF	Ech Chlef	9.39	85	P	Pn	10 37 37.1	-0.9
ECHA	Ech Chlef	9.41	85	P	Pn	10 37 37.1	-1.2
ETRT	Tiaret	9.41	90	P	Pn	10 37 38.8	+0.5
CHIO	Chio	9.47	218	P	Pn	10 37 32.5	-6.6
	comp=Z,183nm,0.2s,SNR=18						
CHIO				S	Sn	10 39 12.4	-12
	SNR=7.9						
ESAC	San Caprasio	9.58	50	⇓P	Pn	10 37 41.0	+0.4
ESAC				S	Sn	10 39 22.3	-4.8
ESAC	San Caprasio	9.58	50	⇓P	Pn	10 37 41.0	+0.4
	comp=Z,630nm,0.3s,SNR=18						
ESAC				S	Sn	10 39 20.8	-6.3
	comp=Z,13µm,0.4s,SNR=7.9						
ESAC	San Caprasio	9.58	50	P	Pn	10 37 41.0	+0.5
	comp=Z,630nm,0.3s,SNR=18						
ERTA	Horta de San J	9.70	56	P	Pn	10 37 43.3	+1.1
ERTA				S	Sn	10 39 23.9	-6.2
ERTA	Horta de San J	9.70	56	P	Pn	10 37 43.0	+0.7
	comp=Z,277nm,0.5s,SNR=55						
ERTA				S	Sn	10 39 23.9	-6.2
	comp=Z,3µm,0.4s,SNR=7.9						
ERTA	Horta de San J	9.70	56	P	Pn	10 37 43.3	+1.0
	comp=Z,277nm,0.5s,SNR=55						
IUSE	Utxeti	9.72	41	P	Pn	10 37 43.1	+0.6
	comp=Z,395nm,0.3s,SNR=233						
IUSE				S	Sn	10 39 23.9	-6.6
	comp=Z,2µm,0.4s,SNR=7.9						
EIBI	Ibiza	9.72	68	⇑P	Pn	10 37 41.6	-0.9
EIBI				S	Sn	10 39 22.7	-7.9
EIBI	Ibiza	9.72	68	⇑P	Pn	10 37 41.6	-0.9
	comp=Z,222nm,0.6s,SNR=18						
EIBI				S	Sn	10 39 24.7	-5.9
	comp=Z,2µm,0.6s,SNR=7.9						
EIBI	Ibiza	9.72	68	P	Pn	10 37 41.6	-0.9
	comp=Z,222nm,0.6s,SNR=18						
IPRE	Itoiz	9.73	42	⇓P	Pn	10 37 43.1	+0.5
	comp=Z,647nm,0.7s,SNR=18						
IPRE				S	Sn	10 39 24.6	-6.1
	comp=Z,2µm,0.6s,SNR=7.9						
EGOM	La Gomera	9.73	219	P	Pn	10 37 35.3	-7.4
EGOM				S	Sn	10 39 15.9	-15
EGOM	La Gomera	9.73	219	P	Pn	10 37 35.3	-7.4
	comp=Z,43nm,0.2s,SNR=22						
EGOM				S	Sn	10 39 16.4	-15
	comp=Z,5.4nm,0.2s,SNR=7.9						
ELIZ	Elizondo	9.88	40	P	Pn	10 37 44.3	-0.4
ELIZ				S	Sn	10 39 22.8	-12
ELIZ	Elizondo	9.88	40	P	Pn	10 37 44.3	-0.4
	comp=Z,550nm,0.4s,SNR=298						
ELIZ				S	Sn	10 39 26.0	-8.5
	SNR=7.9						
SJPF	Ste Jean	10.00	41	*e*Pn	Pn	10 37 43.5	-2.9
SJPF	Ste Jean	10.00	41	⇑*e*P	Pn	10 37 47.2	+0.8
SJPF				⇓*i*Sn	Sn	10 39 29.6	-7.9
	comp=Z,9µm,0.6s						
SJPF	Ste Jean	10.00	41	P	Pn	10 37 47.2	+0.8
SJPF				S	Sn	10 39 29.6	-7.9
	comp=Z,4µm,0.6s						
SJPF	Ste Jean	10.00	41	*e*Pn	Pn	10 37 43.5	-2.9
SJPF				⇓*i*Sn	Sn	10 39 29.6	-7.9
	comp=Z,4µm,0.6s						
LARF	Larrau	10.08	42	*e*P	Pn	10 37 48.4	+0.9
OSSF	Osses	10.08	41	*e*P	Pn	10 37 48.1	+0.6
ATE	Arette	10.27	43	*e*P	Pn	10 37 50.9	+0.8
EPOB	Poblet	10.38	55	P	Pn	10 37 50.5	-1.1
	comp=Z,177nm,0.4s						
EPOB				S	Sn	10 39 36.5	-10
EPOB	Poblet	10.38	55	P	Pn	10 37 50.5	-1.1
	comp=Z,177nm,0.4s,SNR=7.9						
EPOB				S	Sn	10 39 40.5	-6.3
	comp=Z,1µm,0.5s,SNR=7.9						
EBIE	Bielsa	10.51	47	P	Pn	10 37 53.3	+0.1
	comp=Z,315nm,0.3s						
EBIE				S	Sn	10 39 44.5	-5.4
EBIE	Bielsa	10.51	47	P	Pn	10 37 53.3	+0.1
	comp=Z,315nm,0.3s,SNR=287						
EBIE				S	Sn	10 39 43.4	-6.4
	comp=Z,6µm,0.5s,SNR=7.9						
VIEF	Viey	10.55	46	*e*P	Pn	10 37 54.8	+0.9
LABF	Labassere	10.68	45	*e*P	Pn	10 37 56.7	+1.0
EMHD	Djebel Mahouad	10.69	85	P	Pn	10 37 56.2	+0.4
RESF	Ens	10.69	47	*e*P	Pn	10 37 56.5	+0.7
ABA	Alger-Bouzarea	10.75	81	P	Pn	10 37 45.5	-11
EPF	Esparros	10.83	46	⇑*i*P	Pn	10 37 58.7	+1.0
EPF				⇓*i*Sn	Sn	10 39 48.0	-10
	comp=Z,7µm,0.6s						
EPF	Esparros	10.83	46	P	Pn	10 37 59.7	+2.0
EPF				S	Sn	10 39 29.5	-28
EMIR	Miracle	10.95	53	⇑P	Pn	10 37 58.1	-1.2
	comp=Z,502nm,0.5s,SNR=18						
EMIR				S	Sn	10 39 55.0	-5.6
	comp=Z,3µm,0.5s,SNR=6.5						
ETOS	Mallorca	11.02	66	P	Pn	10 37 59.5	-0.7
	comp=Z,245nm,0.7s						
ETOS				S	Sn	10 39 55.2	-7.2
ETOS	Mallorca	11.02	66	P	Pn	10 37 59.8	-0.4
	comp=Z,245nm,0.7s,SNR=55						
ETOS				S	Sn	10 39 55.2	-7.2
	comp=Z,914nm,0.6s,SNR=7.9						
ADJB	Djebel Djouab	11.08	85	P	Pn	10 38 02.4	+1.2
SALF	Salau	11.18	49	*e*P	Pn	10 38 03.1	+0.6
MLS	Moulis	11.23	48	*e*P	Pn	10 38 04.1	+0.9
AKET	Djebel Ketaf	11.45	85	P	Pn	10 38 07.4	+1.2
CARF	Carcanieres	11.72	51	*e*P	Pn	10 38 11.3	+1.4
FILF	Fillols	11.93	52	*e*P	Pn	10 38 12.3	-0.5
PSMN	Pico do Norte,	11.98	280	*e*Pn	Pn	10 38 10.3	-3.2
PSMN				*e*Sn	Sn	10 40 09.2	-17
PSMN	Pico do Norte,	11.98	280	*e*Pn	Pn	10 38 10.3	-3.2
OLEF	Ile d'Oleron	12.06	31	*e*P	Pn	10 38 14.1	-0.4
EJON	La Jonquera	12.09	53	P	Pn	10 38 15.0	+0.1
	comp=Z,227nm,0.7s						
EJON				S	Sn	10 40 19.6	-9.0
EJON	La Jonquera	12.09	53	P	Pn	10 38 15.0	+0.1
	comp=Z,227nm,0.7s,SNR=7.9						
EJON				S	Sn	10 40 21.1	-7.6
	comp=Z,1µm,0.6s,SNR=7.9						
SJAF	Saint Jean de	12.10	53	*e*P	Pn	10 38 13.9	-1.2
LRDF	Laroque-de-Fa	12.11	51	*e*P	Pn	10 38 15.5	+0.3
MTLF	Montolieu	12.13	49	*e*Pn	Pn	10 38 14.1	-1.3
MTLF				⇓*i*Sn	Sn	10 40 20.0	-10
	comp=Z,1µm,0.6s						
MTLF	Montolieu	12.13	49	P	Pn	10 38 16.8	+1.4
MTLF				S	Sn	10 40 20.0	-10
	comp=Z,721nm,0.6s						
MAHO	Mahon	12.13	67	⇓P	Pn	10 38 15.4	-0.1
MAHO				S	Sn	10 40 21.9	-7.7
MIRA	Miradouro	12.19	283	*e*Pn	Pn	10 38 17.3	+1.0
MIRA	Miradouro	12.19	283	*e*Pn	Pn	10 38 17.3	+1.0
PFAD	Fenais da Ajud	12.23	283	*e*Pn	Pn	10 38 17.1	+0.2
PFAD	Fenais da Ajud	12.23	283	*e*Pn	Pn	10 38 17.1	+0.2
FRA1	Furnas	12.25	283	*e*Pn	Pn	10 38 18.2	+1.1
FRA1				*e*Sn	Sn	10 40 19.3	-13
PCNG	Congro	12.28	283	*e*Sn	Sn	10 40 19.6	-14
LFF	La Frestale	12.29	39	*e*Pn	Pn	10 38 16.5	-1.1
LFF				⇓*i*Sn	Sn	10 40 21.1	-12
	comp=Z,3µm,0.8s						
LFF	La Frestale	12.29	39	P	Pn	10 38 17.8	+0.2
VIF	Vila Franca	12.31	283	*e*Pn	Pn	10 38 17.7	-0.3
VIF				*e*Sn	Sn	10 40 19.9	-14
VIF							
	comp=Z,117nm,0.8s						
VIF	Vila Franca	12.31	283	*e*Pn	Pn	10 38 17.7	-0.3
MESC	Monte Escuro	12.32	283	*e*Sn	Sn	10 40 19.3	-15
PMAT	Coroa da Mata	12.34	283	*e*Pn	Pn	10 38 16.7	-1.7
PMAT				*e*Sn	Sn	10 40 17.9	-17
PMAT							
	comp=Z,178nm,1.6s						
PMAT	Coroa da Mata	12.34	283	*e*Pn	Pn	10 38 16.7	-1.7
PRCH	Ribeira Ch	12.34	283	*e*Pn	Pn	10 38 14.7	-3.8
PRCH				*e*Sn	Sn	10 40 19.7	-15
PRCH							
	comp=Z,168nm,0.7s						
PRCH	Ribeira Ch	12.34	283	*e*Pn	Pn	10 38 14.7	-3.8
LFA	Lagoa do Fogo	12.35	283	*e*Pn	Pn	10 38 16.2	-2.3
LFA	Lagoa do Fogo	12.35	283	*e*Pn	Pn	10 38 16.2	-2.3
PVER	Pico Vermelho	12.38	283	*e*Pn	Pn	10 38 20.6	+1.7
CML	Cha da Macela	12.40	283	*e*Pn	Pn	10 38 20.1	+0.9
CML				*e*Sn	Sn	10 40 21.8	-14
FAC	Faja de Cima	12.48	283	*e*Sn	Sn	10 40 21.9	-16
PDA	Ponta Delgada	12.49	283	*e*Pn	Pn	10 38 21.0	+0.6
PDA				*i* Sn	Sn	10 41 02.5	+24
PDA	Ponta Delgada	12.49	283	*e*Pn	Pn	10 38 21.0	+0.6
PFET	Feteiras	12.59	283	*e*Pn	Pn	10 38 19.4	-2.5
PFET	Feteiras	12.59	283	*e*Pn	Pn	10 38 19.4	-2.5
SET2	Ginetes	12.61	283	*e*Pn	Pn	10 38 19.3	-2.8
SET2	Ginetes	12.61	283	*e*Pn	Pn	10 38 19.3	-2.8
SET	Setif	12.67	84	P	Pn	10 38 24.5	+1.6
CKHR	Kef el Ahmar	12.77	85	P	Pn	10 38 26.0	+1.7
RJF	Les Rejaudoux	12.94	40	*e*Pn	Pn	10 38 24.6	-1.9
RJF				⇓*i*Sn	Sn	10 40 37.7	-12
	comp=Z,3µm,0.6s						
RJF				*e*MLR	MLR		
	comp=Z,57µm,19.2s						
RJF	Les Rejaudoux	12.94	40	P	Pn	10 38 25.8	-0.7
CAF	Calviac	12.98	42	*e*Pn	Pn	10 38 25.5	-1.6
CAF				⇓*i*Sn	Sn	10 40 39.8	-11
	comp=Z,4µm,0.6s						
CAF	Calviac	12.98	42	P	Pn	10 38 26.8	-0.3
CAF				S	Sn	10 40 39.8	-11
	comp=Z,2µm,0.6s						
DFRA	Djebel Bou Aff	13.03	83	P	Pn	10 38 29.0	+1.1
MFF	Saint Martin d	13.09	32	*e*Pn	Pn	10 38 26.4	-2.1
MFF				⇓*i*Sn	Sn	10 40 42.8	-10
	comp=Z,2µm,0.7s						
MFF	Saint Martin d	13.09	32	P	Pn	10 38 28.3	-0.2
MFF	Saint Martin d	13.09	32	P	Pn	10 38 26.4	-2.1
MFF				S	Sn	10 40 42.8	-10
	comp=Z,826nm,0.7s						
QUIF	Quistinic	13.09	21	*e*Pn	Pn	10 38 26.7	-1.8
QUIF				⇓*i*Sn	Sn	10 40 40.8	-12
	comp=Z,815nm,0.7s						
QUIF	Quistinic	13.09	21	P	Pn	10 38 27.8	-0.7
QUIF				S	Sn	10 40 41.8	-11
QUIF	Quistinic	13.09	21	P	Pn	10 38 26.7	-1.8
QUIF				S	Sn	10 40 40.8	-12
	comp=Z,408nm,0.7s						
CMER	Merouana	13.12	87	P	Pn	10 38 31.0	+2.0
ROSF	Rostrenen	13.44	20	*e*Pn	Pn	10 38 31.3	-2.0
ROSF				⇓*i*Sn	Sn	10 40 47.4	-14
	comp=Z,883nm,0.8s						
ROSF	Rostrenen	13.44	20	P	Pn	10 38 33.4	+0.1
ROSF				S	Sn	10 40 51.8	-10
CTEI	Djebel Teioual	13.49	84	P	Pn	10 38 35.0	+0.9
LASF	Ste Croix	13.52	49	*e*Pn	Pn	10 38 31.0	-3.5
LASF				⇓*i*Sn	Sn	10 40 53.6	-10
	comp=Z,3µm,1.0s						
LASF	Ste Croix	13.52	49	*e*Pn	Pn	10 38 31.0	-3.5
LASF				*i* Sn	Sn	10 40 53.6	-10
LASF	Ste Croix	13.52	49	P	Pn	10 38 35.9	+1.4
LASF				S	Sn	10 40 53.6	-10
	comp=Z,2µm,1.0s						
LASF	Ste Croix	13.52	49	*e*Pn	Pn	10 38 31.0	-3.5
LASF				⇓*i*Sn	Sn	10 40 53.6	-10
	comp=Z,2µm,1.0s						
CASM	Ain Smara	13.54	84	P	Pn	10 38 35.5	+0.7
FRNF	Fournols	13.55	42	*e*P	Pn	10 38 33.9	-0.9
PFAV	Pico das Favas	13.69	287	*e*Pn	Pn	10 38 33.3	-3.5
PFAV							
	comp=Z,141nm,0.9s						
PFAV	Pico das Favas	13.69	287	*e*Pn	Pn	10 38 33.3	-3.5
CKFL	Kef-Lekhel	13.72	83	P	Pn	10 38 38.5	+1.3
PVNV	Vila Nova	13.75	287	*e*Pn	Pn	10 38 34.1	-3.6
PVNV							
	comp=Z,148nm,0.9s						
RIB2	Ribeirinha	13.76	287	*e*Pn	Pn	10 38 34.1	-3.6
RIB2							
	comp=Z,75nm,0.6s						
LBL	Lubilhac	13.83	44	*e*P	Pn	10 38 37.9	-0.8
PBIS	Biscoitos	13.83	287	*e*Pn	Pn	10 38 35.9	-2.8
PBIS							
	comp=Z,130nm,1.1s						
PBIS	Biscoitos	13.83	287	*e*Pn	Pn	10 38 35.9	-2.8
ASBA	Santa Barbara	13.88	287	*e*Pn	Pn	10 38 36.0	-3.4
ASBA							
	comp=Z,174nm,0.9s						
TCF	Toulx Ste Croi	13.96	38	*e*Pn	Pn	10 38 38.9	-1.6
TCF				⇓*i*Sn	Sn	10 41 02.6	-12
	comp=Z,2µm,0.8s						
TCF	Toulx Ste Croi	13.96	38	P	Pn	10 38 39.4	-1.1
TCF				S	Sn	10 41 02.6	-12
	comp=Z,966nm,0.8s						
PYM	Petit Puy Mans	14.02	41	*e*P	Pn	10 38 40.4	-0.9
GELF	Grande-Etoile	14.18	54	*e*P	Pn	10 38 44.2	+0.8
PRAF	Pradon	14.20	52	*e*P	Pn	10 38 44.0	+0.2
COLF	Collangettes	14.25	43	*e*P	Pn	10 38 43.8	-0.6
GRR	Gorron	14.26	26	*e*Pn	Pn	10 38 42.3	-2.2
GRR				⇓*i*Sn	Sn	10 41 08.9	-13
	comp=Z,557nm,0.5s						
GRR	Gorron	14.26	26	P	Pn	10 38 43.9	-0.6
GRR				S	Sn	10 41 13.4	-8.1
GRR	Gorron	14.26	26	P	Pn	10 38 42.3	-2.2
GRR				S	Sn	10 41 08.9	-13
	comp=Z,279nm,0.5s						
TREF	Trevaresse	14.26	53	*e*P	Pn	10 38 44.9	+0.4
CMAH	Djebel Manchou	14.27	82	P	Pn	10 38 44.5	-0.3
AGO	Saint Agoulin	14.28	41	*e*P	Pn	10 38 43.5	-1.3
ABSA	Djebel Ababsia	14.34	83	P	Pn	10 38 45.5	-0.2
CABS	Djebel Ababsia	14.34	83	P	Pn	10 38 45.5	-0.2
VIVF	Saint-Julien-l	14.44	47	*e*Pn	Pn	10 38 43.4	-3.6
VIVF				⇓*i*Sn	Sn	10 41 14.7	-11
	comp=Z,1µm,0.9s						
VIVF	Saint-Julien-l	14.44	47	*e*Pn	Pn	10 38 43.4	-3.6
VIVF				*i* Sn	Sn	10 41 14.7	-11
VIVF	Saint-Julien-l	14.44	47	P	Pn	10 38 48.4	+1.4
VIVF				S	Sn	10 41 14.7	-11
	comp=Z,659nm,0.9s						
VIVF	Saint-Julien-l	14.44	47	*e*Pn	Pn	10 38 43.4	-3.6
VIVF				⇓*i*Sn	Sn	10 41 14.7	-11
	comp=Z,659nm,0.9s						
STGR	Santa Cruz	14.45	288	*e*Pn	Pn	10 38 41.1	-6.0
STGR							
	comp=Z,97nm,0.8s						
BGF	Bois d'Agland	14.47	39	*e*Pn	Pn	10 38 45.4	-2.0
BGF				⇓*i*Sn	Sn	10 41 14.6	-12
	comp=Z,5µm,0.6s						
BGF	Bois d'Agland	14.47	39	P	Pn	10 38 46.9	-0.5
BGF				S	Sn	10 41 15.9	-11
BGF	Bois d'Agland	14.47	39	P	Pn	10 38 46.9	-0.5
BGF				S	Sn	10 41 14.6	-12
	comp=Z,3µm,0.6s						
PVIA	Vitoria	14.48	288	*e*Pn	Pn	10 38 40.7	-6.9
PVIA							
	comp=Z,93nm,0.9s						
PLDF	La Plantade	14.49	42	*e*P	Pn	10 38 46.3	-1.4
PAMA	Santo Amaro	14.54	286	*e*Pn	Pn	10 38 43.4	-5.0
PAMA							
	comp=Z,141nm,1.3s						
SMRF	Simiane la Rot	14.54	52	*e*Pn	Pn	10 38 45.8	-2.6
SMRF	Simiane la Rot	14.54	52	⇓*e*P	Pn	10 38 49.1	+0.7
SMRF				⇓*i*Sn	Sn	10 41 17.4	-11
	comp=Z,2µm,1.5s						
SMRF	Simiane la Rot	14.54	52	⇓*e*P	Pn	10 38 49.1	+0.7
SMRF				*i* Sn	Sn	10 41 17.4	-11
SMRF	Simiane la Rot	14.54	52	P	Pn	10 38 49.1	+0.7

SMRF				S	Sn	10 41 17.4	-11
	comp=Z,2µm,1.5s						
SMRF	**Simiane la Rot**	**14.54**	**52**	*e*Pn	**Pn**	**10 38 45.8**	**-2.6**
SMRF				⇓*i*Sn	**Sn**	**10 41 17.4**	**-11**
	comp=Z,1µm,1.5s						
ROSA	**Rosais**	**14.59**	**286**	*e*Pn	**Pn**	**10 38 45.4**	**-3.7**
CPZ	**Penzance**	**14.63**	**12**	⇓*e*P	**Pn**	**10 38 47.7**	**-1.8**
CMA1	**Manaccan**	**14.64**	**13**	⇓*e*P	**Pn**	**10 38 48.1**	**-1.6**
PTEI	**Pico do Teixo**	**14.66**	**285**	*e*Pn	**Pn**	**10 38 50.8**	**+0.7**
PTEI							
	comp=Z,164nm,1.0s						
OCF	**Saint Nazaire**	**14.67**	**49**	*e*P	**Pn**	**10 38 51.6**	**+1.5**
OG26	**St.-Nazaire-De**	**14.67**	**49**	*e*P	**Pn**	**10 38 51.6**	**+1.5**
PBOI	**Pico dos Bois**	**14.67**	**285**	*e*Pn	**Pn**	**10 38 50.3**	**+0.1**
PBOI							
	comp=Z,111nm,1.0s						
TAVF	**Tavernes**	**14.69**	**53**	*e*P	**Pn**	**10 38 50.9**	**+0.5**
LDF	**La Druitiere**	**14.70**	**27**	*e*Pn	**Pn**	**10 38 48.1**	**-2.4**
LDF				⇓*i*Sn	**Sn**	**10 41 20.4**	**-12**
	comp=Z,1µm,0.7s						
LDF	**La Druitiere**	**14.70**	**27**	*e*Pn	**Pn**	**10 38 48.1**	**-2.4**
LDF				*i* Sn	**Sn**	**10 41 20.4**	**-12**
FLN	**La Foliniere**	**14.71**	**26**	*e*Pn	**Pn**	**10 38 48.4**	**-2.2**
	baz=212						
FLN				⇓*i*Sn	**Sn**	**10 41 21.2**	**-11**
	comp=Z,715nm,0.6s						
FLN				*e*MLR	MLR		
	comp=Z,57µm,19.0s						
FLN	**La Foliniere**	**14.71**	**26**	P	**Pn**	**10 38 48.8**	**-1.8**
FLN				S	**Sn**	**10 41 24.4**	**-8.1**
FLN	**La Foliniere**	**14.71**	**26**	P	**Pn**	**10 38 48.4**	**-2.2**
FLN				S	**Sn**	**10 41 21.2**	**-11**
	comp=Z,358nm,0.6s						
CRQ2	**Rosemanowes 2**	**14.71**	**13**	⇓*e*P	**Pn**	**10 38 48.9**	**-1.8**
PICO	**Pico**	**14.72**	**285**	*e*Pn	**Pn**	**10 38 49.6**	**-1.2**
PICO	**Pico**	**14.72**	**285**	*e*Pn	**Pn**	**10 38 49.6**	**-1.2**
CCA1	**Carnmenellis**	**14.72**	**13**	⇓*e*P	**Pn**	**10 38 49.0**	**-1.7**
PCND	**Candelaria**	**14.74**	**285**	*e*Pn	**Pn**	**10 38 50.8**	**-0.4**
PCND							
	comp=Z,185nm,1.0s						
STOF	**St-Etienne Org**	**14.77**	**52**	*e*P	**Pn**	**10 38 51.3**	**-0.2**
LMR	**La Mourre**	**14.87**	**55**	*e*Pn	**Pn**	**10 38 48.2**	**-4.6**
LMR	**La Mourre**	**14.87**	**55**	⇑*i*P	**Pn**	**10 38 53.0**	**+0.2**
LMR				⇓*i*Sn	**Sn**	**10 41 25.1**	**-11**
	comp=Z,355nm,0.7s						
LMR	**La Mourre**	**14.87**	**55**	⇑*i*P	**Pn**	**10 38 53.0**	**+0.2**
LMR				*i* Sn	**Sn**	**10 41 25.1**	**-11**
LMR	**La Mourre**	**14.87**	**55**	P	**Pn**	**10 38 53.0**	**+0.2**
LMR				S	**Sn**	**10 41 25.1**	**-11**
	comp=Z,177nm,0.7s						
HOR	**Horta**	**14.88**	**286**	*e*Pn	**Pn**	**10 38 49.3**	**-3.7**
AVF	**Avril sur Loir**	**14.88**	**39**	*e*Pn	**Pn**	**10 38 50.6**	**-2.4**
AVF				⇓*i*Sn	**Sn**	**10 41 23.9**	**-13**
	comp=Z,1µm,0.6s						
AVF	**Avril sur Loir**	**14.88**	**39**	P	**Pn**	**10 38 51.9**	**-1.1**
AVF				⇓*i*Sn	**Sn**	**10 41 23.9**	**-13**
	comp=Z,563nm,0.6s						
CALA	**Caldeira**	**14.94**	**286**	*e*Pn	**Pn**	**10 38 48.1**	**-5.7**
CSA1	**St Austell**	**14.94**	**13**	⇓*e*P	**Pn**	**10 38 52.1**	**-1.6**
CSA1	**St Austell**	**14.94**	**13**	⇓*e*P	**Pn**	**10 38 52.1**	**-1.6**
	comp=Z,526nm,1.5s						
PTCA	**Ponta do Capel**	**15.02**	**286**	*e*Pn	**Pn**	**10 38 50.7**	**-4.1**
PTCA							
	comp=Z,153nm,0.9s						
SMF	**Signal de Mont**	**15.04**	**40**	*e*Pn	**Pn**	**10 38 53.0**	**-2.1**
SMF				⇓*i*Sn	**Sn**	**10 41 26.8**	**-14**
	comp=Z,1µm,0.9s						
SMF	**Signal de Mont**	**15.04**	**40**	P	**Pn**	**10 38 54.4**	**-0.7**
SMF				⇓*i*Sn	**Sn**	**10 41 26.8**	**-14**
	comp=Z,620nm,0.9s						
FRF	**La Foret Royal**	**15.05**	**54**	*e*Pn	**Pn**	**10 38 51.0**	**-4.3**
FRF	**La Foret Royal**	**15.05**	**54**	⇑*i*P	**Pn**	**10 38 55.5**	**+0.2**
FRF				⇓*i*Sn	**Sn**	**10 41 30.3**	**-11**
	comp=Z,360nm,0.7s						
FRF	**La Foret Royal**	**15.05**	**54**	⇑*i*P	**Pn**	**10 38 55.5**	**+0.2**
FRF				*i* Sn	**Sn**	**10 41 30.3**	**-11**
FRF	**La Foret Royal**	**15.05**	**54**	P	**Pn**	**10 38 55.5**	**+0.2**
FRF				S	**Sn**	**10 41 30.3**	**-11**
	comp=Z,180nm,0.7s						
SSF	**Saint Saulge**	**15.14**	**38**	*e*Pn	**Pn**	**10 38 54.3**	**-2.1**
SSF				⇓*i*Sn	**Sn**	**10 41 30.0**	**-13**
	comp=Z,1µm,0.6s						
SSF	**Saint Saulge**	**15.14**	**38**	P	**Pn**	**10 38 55.4**	**-1.0**
SSF				⇓*i*Sn	**Sn**	**10 41 30.0**	**-13**
	comp=Z,546nm,0.6s						
ORIF	**Oris-en-Rattie**	**15.20**	**49**	*e*Pn	**Pn**	**10 38 54.0**	**-3.2**
ORIF				*e*MLR	MLR		
	comp=Z,61µm,18.8s						
ORIF	**Oris-en-Rattie**	**15.20**	**49**	⇑*i*P	**Pn**	**10 38 57.9**	**+0.7**
ORIF				⇓*i*Sn	**Sn**	**10 41 35.3**	**-9.1**
	comp=Z,515nm,0.6s						
ORIF	**Oris-en-Rattie**	**15.20**	**49**	P	**Pn**	**10 38 59.4**	**+2.2**
ORIF	**Oris-en-Rattie**	**15.20**	**49**	P	**Pn**	**10 38 57.9**	**+0.7**
ORIF				S	**Sn**	**10 41 35.3**	**-9.1**
	comp=Z,257nm,0.6s						
ORIF	**Oris-en-Rattie**	**15.20**	**49**	⇑*i*P	**Pn**	**10 38 57.9**	**+0.7**
DYA	**Yadsworthy**	**15.21**	**16**	⇓*e*P	**Pn**	**10 38 56.3**	**-1.0**
DYA				AMb	AMB	10 39 06.8	
	comp=Z,1µm,1.4s						
DYA				*e*S	**Sn**	**10 41 31.8**	**-13**
CALN	**Calern**	**15.29**	**54**	*e*P	**Pn**	**10 39 00.8**	**+2.4**
LOR	**Lormes**	**15.46**	**38**	*e*Pn	**Pn**	**10 38 58.6**	**-2.0**
	baz=224						
LOR				⇓*i*Sn	**Sn**	**10 41 36.8**	**-14**
	comp=Z,555nm,0.6s						
LOR				*e*MLR	MLR		
	comp=Z,42µm,17.0s						
LOR	**Lormes**	**15.46**	**38**	P	**Pn**	**10 39 00.4**	**-0.2**
LOR				⇓*i*Sn	**Sn**	**10 41 36.8**	**-14**
	comp=Z,277nm,0.6s						
MVIF	**Mont Vial**	**15.53**	**54**	*e*P	**Pn**	**10 39 02.4**	**+0.9**
REVF	**Revere**	**15.61**	**55**	*e*P	**Pn**	**10 39 03.1**	**+0.6**
HTL	**Hartland**	**15.63**	**14**	*e*P	**Pn**	**10 39 01.5**	**-1.2**
HTL				AMb	AMB	10 39 11.8	
	comp=Z,526nm,1.5s						
HTL				*e*S	**Sn**	**10 41 39.7**	**-15**
TOUF	**Mont Tournerai**	**15.64**	**54**	*e*P	**Pn**	**10 39 05.5**	**+2.6**
LUCF	**Luceram**	**15.65**	**54**	*e*P	**Pn**	**10 39 05.5**	**+2.4**
MBDF	**Montbardon**	**15.66**	**51**	*e*Pn	**Pn**	**10 39 01.3**	**-1.8**
MBDF	**Montbardon**	**15.66**	**51**	⇑*i*P	**Pn**	**10 39 05.2**	**+2.1**
MBDF				⇓*i*Sn	**Sn**	**10 41 40.9**	**-15**
	comp=Z,260nm,0.8s						
MBDF	**Montbardon**	**15.66**	**51**	P	**Pn**	**10 39 07.5**	**+4.4**
MBDF	**Montbardon**	**15.66**	**51**	*e*Pn	**Pn**	**10 39 01.3**	**-1.8**
MBDF	**Montbardon**	**15.66**	**51**	⇑*i*P	**Pn**	**10 39 05.2**	**+2.1**
SBF	**Sospel**	**15.70**	**54**	*e*Pn	**Pn**	**10 39 00.5**	**-3.2**
SBF	**Sospel**	**15.70**	**54**	⇑*i*P	**Pn**	**10 39 05.8**	**+2.1**
SBF				⇓*i*Sn	**Sn**	**10 41 44.0**	**-13**
	comp=Z,566nm,0.6s						
SBF	**Sospel**	**15.70**	**54**	⇑*i*P	**Pn**	**10 39 05.8**	**+2.1**
SBF				*i* Sn	**Sn**	**10 41 44.0**	**-13**
SBF	**Sospel**	**15.70**	**54**	S	**Sn**	**10 41 44.0**	**-13**
	comp=Z,283nm,0.6s						
AUTN	**L'Aution**	**15.75**	**54**	*e*P	**Pn**	**10 39 07.0**	**+2.7**
BNI	**Bardonecchia**	**15.76**	**49**	*e*Pn	**Pn**	**10 39 04.5**	**+0.1**
	comp=Z,1µm,1.4s						
BNI	**Bardonecchia**	**15.76**	**49**	*e*P	**Pn**	**10 39 04.5**	**+0.1**
BNI				pmax	pmax		
	comp=Z,1µm,1.4s						
BNI	**Bardonecchia**	**15.76**	**49**	*e*P	**Pn**	**10 39 04.5**	**+0.1**
	comp=Z,1µm,1.4s						
STV	**Sta Anna Valdi**	**15.79**	**53**	P	**Pn**	**10 39 05.8**	**+1.0**
SAOF	**Saorge**	**15.83**	**54**	*e*P	**Pn**	**10 39 08.6**	**+3.2**
ENR	**Entracque**	**15.84**	**53**	P	**Pn**	**10 39 07.2**	**+1.6**
DOI	**San Damiano**	**15.85**	**52**	P	**Pn**	**10 39 07.8**	**+2.1**
NEGI	**Negi**	**15.87**	**55**	P	**Pn**	**10 39 06.2**	**+0.3**
KEST	**Kesra**	**15.89**	**85**	Pn	**Pn**	**10 39 06.6**	**+0.3**
	comp=Z,1.8nm,0.3s,baz=210,slow=5.1,SNR=128						
KEST				Sn	**Sn**	**10 42 13.3**	**+12**
	comp=Z,1.6nm,0.3s,baz=192,slow=19,SNR=2.9						
VSL	**Villasalto**	**15.93**	**71**	*e*Pn	**Pn**	**10 39 06.1**	**-0.6**
	comp=Z,2µm,1.2s						
VSL				*e*Sn	**Sn**	**10 41 59.3**	**-3.1**
VSL	**Villasalto**	**15.93**	**71**	*e*Pn	**Pn**	**10 39 06.1**	**-0.6**
	comp=Z,2µm,1.2s						
MONE	**Monesi**	**16.00**	**54**	P	**Pn**	**10 39 08.7**	**+1.1**
VAL	**Valentia**	**16.02**	**0**	*e*P	**Pn**	**10 39 07.0**	**-0.7**
IMI	**Imperia**	**16.02**	**55**	P	**Pn**	**10 39 09.6**	**+1.8**
LPL	**La Plagne**	**16.02**	**48**	⇑*i*P	**Pn**	**10 39 09.6**	**+1.8**
LPL				⇓*i*Sn	**Sn**	**10 41 52.2**	**-12**
	comp=Z,481nm,0.8s						
LPL	**La Plagne**	**16.02**	**48**	P	**Pn**	**10 39 11.0**	**+3.2**
LPL	**La Plagne**	**16.02**	**48**	S	**Sn**	**10 41 52.2**	**-12**
	comp=Z,240nm,0.8s						
LPG	**La Plagne**	**16.02**	**48**	*e*Pn	**Pn**	**10 39 05.8**	**-2.1**
LPG	**La Plagne**	**16.02**	**48**	⇓*e*P	**Pn**	**10 39 10.2**	**+2.3**
LPG				⇓*i*Sn	**Sn**	**10 41 52.6**	**-12**
	comp=Z,803nm,1.1s						
LPG	**La Plagne**	**16.02**	**48**	P	**Pn**	**10 39 11.5**	**+3.6**
LPG	**La Plagne**	**16.02**	**48**	S	**Sn**	**10 41 52.6**	**-12**
	comp=Z,402nm,1.1s						
LPG	**La Plagne**	**16.02**	**48**	*e*Pn	**Pn**	**10 39 05.8**	**-2.1**
LPG	**La Plagne**	**16.02**	**48**	⇓*e*P	**Pn**	**10 39 10.2**	**+2.3**
RSP	**Reno Superiore**	**16.16**	**50**	P	**Pn**	**10 39 13.4**	**+3.8**
OSPF	**L'Ospedale**	**16.19**	**63**	*e*P	**Pn**	**10 39 09.1**	**-0.9**
RORO		**16.22**	**54**	P	**Pn**	**10 39 10.9**	**+0.6**
CABF	**La Chapelle**	**16.24**	**44**	⇓*e*P	**Pn**	**10 39 11.4**	**+0.7**
CABF				⇓*i*Sn	**Sn**	**10 41 59.4**	**-10**
	comp=Z,3µm,1.2s						
CABF	**La Chapelle**	**16.24**	**44**	⇓*e*P	**Pn**	**10 39 11.4**	**+0.7**
CABF				⇓*i*Sn	**Sn**	**10 41 59.4**	**-10**
	comp=Z,1µm,1.2s						
PGF	**Pioggiola**	**16.30**	**60**	*e*Pn	**Pn**	**10 39 09.3**	**-2.1**
PGF	**Pioggiola**	**16.30**	**60**	⇑*i*P	**Pn**	**10 39 11.6**	**+0.2**
PGF				⇓*i*Sn	**Sn**	**10 42 00.4**	**-11**
	comp=Z,197nm,0.4s						
PGF	**Pioggiola**	**16.30**	**60**	*e*Pn	**Pn**	**10 39 09.3**	**-2.1**
PGF	**Pioggiola**	**16.30**	**60**	⇑*i*P	**Pn**	**10 39 11.6**	**+0.2**
PGF				⇓*i*Sn	**Sn**	**10 42 00.4**	**-11**
	comp=Z,98nm,0.4s						
FIN	**Finale Ligure**	**16.35**	**54**	P	**Pn**	**10 39 13.9**	**+1.9**
QLNO	**Quiliano**	**16.49**	**54**	P	**Pn**	**10 39 15.6**	**+1.8**
HGH	**Gray Hill**	**16.59**	**16**	*e*P	**Pn**	**10 39 14.3**	**-0.7**
HGH				*e*S	**Sn**	**10 42 04.9**	**-13**
TRAV		**16.64**	**49**	P	**Pn**	**10 39 16.8**	**+1.1**
SFTF	**Sexfontaines**	**16.68**	**38**	⇓*i*Pn	**Pn**	**10 39 14.4**	**-1.8**
	baz=219						
SFTF	**Sexfontaines**	**16.68**	**38**	⇓*i*P	**Pn**	**10 39 16.7**	**+0.5**
	baz=227						
SFTF				⇓*i*Sn	**Sn**	**10 42 07.7**	**-13**
	comp=Z,2µm,1.2s						
SFTF	**Sexfontaines**	**16.68**	**38**	P	**Pn**	**10 39 14.4**	**-1.8**
SFTF				S	**Sn**	**10 42 07.7**	**-13**
	comp=Z,2µm,1.2s						
SFTF	**Sexfontaines**	**16.68**	**38**	⇓*i*Pn	**Pn**	**10 39 14.4**	**-1.8**
SFTF	**Sexfontaines**	**16.68**	**38**	⇓*i*P	**Pn**	**10 39 16.7**	**+0.5**
SFTF				⇓*i*Sn	**Sn**	**10 42 07.7**	**-13**
	comp=Z,833nm,1.2s						
PCP	**Pian Castagno**	**16.71**	**53**	P	**Pn**	**10 39 18.0**	**+1.4**
SWN1	**Swindon**	**16.72**	**19**	*e*P	**Pn**	**10 39 17.3**	**+0.6**
SWN1	**Swindon**	**16.72**	**19**	*e*P	**Pn**	**10 39 17.3**	**+0.6**
	comp=Z,2µm,1.8s						
MCH1	**Michaelchurch**	**16.89**	**16**	*e*P	**Pn**	**10 39 18.6**	**-0.1**
MCH1				AMb	AMB	10 39 25.7	
	comp=Z,2µm,1.8s						
MCH1				*e*S	**Sn**	**10 42 11.7**	**-14**
MEZF	**Maizieres J'vi**	**16.89**	**37**	⇓*i*Pn	**Pn**	**10 39 19.5**	**+0.7**
	baz=220						
MEZF				⇓*i*Sn	**Sn**	**10 42 09.7**	**-16**
	comp=Z,2µm,1.2s						
MEZF	**Maizieres J'vi**	**16.89**	**37**	P	**Pn**	**10 39 20.5**	**+1.7**
HTR	**Trewern Hill**	**16.90**	**15**	*e*P	**Pn**	**10 39 19.2**	**+0.3**
HTR				*e*S	**Sn**	**10 42 12.8**	**-13**
HBL2	**Bonnylands**	**16.93**	**15**	P	**Pn**	**10 39 19.2**	**0.0**
GENL	**Genova Univers**	**16.93**	**54**	P	**Pn**	**10 39 19.9**	**+0.6**
MMK	**Mattmark**	**17.04**	**48**	P	**Pn**	**10 39 23.0**	**+2.3**
LOMF	**Lomont**	**17.09**	**43**	*e*P	**Pn**	**10 39 23.7**	**+2.4**
SSW	**Stow on the Wo**	**17.12**	**18**	*e*P	**Pn**	**10 39 21.8**	**+0.1**
MENF	**Mencas**	**17.16**	**28**	*e*P	**Pn**	**10 39 23.0**	**+0.8**
THEF	**They Montfort**	**17.17**	**39**	*e*P	**Pn**	**10 39 22.4**	**0.0**
SKP1	**Kophill**	**17.18**	**20**	⇓*e*P	**Pn**	**10 39 22.8**	**+0.4**
RFYF	**Reffroy**	**17.18**	**37**	⇓*i*P	**Pn**	**10 39 23.3**	**+0.9**
	baz=225						
RFYF				⇓*i*Sn	**Sn**	**10 42 21.1**	**-11**
	comp=Z,626nm,0.7s						
RFYF	**Reffroy**	**17.18**	**37**	S	**Sn**	**10 42 21.1**	**-11**
	comp=Z,626nm,0.7s						
RFYF	**Reffroy**	**17.18**	**37**	⇓*i*P	**Pn**	**10 39 23.3**	**+0.9**
RFYF				⇓*i*Sn	**Sn**	**10 42 21.1**	**-11**
	comp=Z,313nm,0.7s						
GROG	**Isola di Gorgo**	**17.20**	**58**	P	**Pn**	**10 39 22.1**	**-0.6**
HAU	**Haudompre**	**17.22**	**40**	⇓*i*Pn	**Pn**	**10 39 21.4**	**-1.6**
HAU				*e*MLR	MLR		
	comp=Z,36µm,17.8s						
HAU	**Haudompre**	**17.22**	**40**	*e*P	**Pn**	**10 39 24.0**	**+1.0**
HAU				⇓*i*Sn	**Sn**	**10 42 19.6**	**-14**
	comp=Z,520nm,0.6s						
HAU	**Haudompre**	**17.22**	**40**	S	**Sn**	**10 42 19.6**	**-14**
	comp=Z,260nm,0.6s						
HAU	**Haudompre**	**17.22**	**40**	⇓*i*Pn	**Pn**	**10 39 21.4**	**-1.6**
HAU	**Haudompre**	**17.22**	**40**	*e*P	**Pn**	**10 39 24.0**	**+1.0**
HAU				⇓*i*Sn	**Sn**	**10 42 19.6**	**-14**
	comp=Z,260nm,0.6s						
HINF	**Hinteralfeld**	**17.38**	**42**	⇓*i*P	**Pn**	**10 39 25.7**	**+0.8**
HINF				⇓*i*Sn	**Sn**	**10 42 25.3**	**-12**
	comp=Z,784nm,1.2s						
HINF	**Hinteralfeld**	**17.38**	**42**	P	**Pn**	**10 39 27.5**	**+2.6**
HINF	**Hinteralfeld**	**17.38**	**42**	S	**Sn**	**10 42 25.3**	**-12**
	comp=Z,392nm,1.2s						
HINF	**Hinteralfeld**	**17.38**	**42**	⇓*i*P	**Pn**	**10 39 25.7**	**+0.8**
HINF				⇓*i*Sn	**Sn**	**10 42 25.3**	**-12**
	comp=Z,392nm,1.2s						
BOB	**Bobbio (Coli)**	**17.39**	**53**	P	**Pn**	**10 39 27.5**	**+2.5**
BOB	**Bobbio (Coli)**	**17.39**	**53**	P	**Pn**	**10 39 27.1**	**+2.0**
HLM1	**Long Mynd**	**17.40**	**15**	⇓*e*P	**Pn**	**10 39 25.0**	**-0.1**
VAI	**Varese**	**17.44**	**49**	P	**Pn**	**10 39 27.7**	**+2.0**
CODM		**17.51**	**55**	P	**Pn**	**10 39 26.1**	**-0.4**
LGHD	**Ghdames**	**17.53**	**104**	*i* P	**Pn**	**10 39 26.7**	**-0.2**
	SNR=63						
BBS	**Basel-Blauen**	**17.53**	**43**	*e*P	**Pn**	**10 39 29.6**	**+2.8**
DSB	**Dublin**	**17.54**	**8**	*e*Pn	**Pn**	**10 39 27.9**	**+1.1**
	comp=Z,271nm,1.0s						
DSB				*e*Sn	**Sn**	**10 42 31.9**	**-9.2**
DSB	**Dublin**	**17.54**	**8**	*e*Pn	**Pn**	**10 39 27.9**	**+1.1**
	comp=Z,271nm,1.0s						
MOF	**Molkenrain**	**17.55**	**42**	*e*P	**Pn**	**10 39 28.7**	**+1.7**
YRE	**Yr Eifl**	**17.55**	**12**	*e*P	**Pn**	**10 39 26.7**	**-0.3**
DCN	**Croghan**	**17.55**	**6**	⇓*i*P	**Pn**	**10 39 26.3**	**-0.7**
DCN				*e*S	**Sn**	**10 42 31.0**	**-10**
DLF	**Lyons Farm**	**17.57**	**7**	⇓*i*P	**Pn**	**10 39 26.6**	**-0.6**
DLF				*e*S	**Sn**	**10 42 33.0**	**-8.9**
BAIF	**Baives**	**17.60**	**32**	*e*Pn	**Pn**	**10 39 27.0**	**-0.7**
BAIF	**Baives**	**17.60**	**32**	⇓*i*P	**Pn**	**10 39 28.5**	**+0.8**
BAIF				⇓*i*Sn	**Sn**	**10 42 29.8**	**-13**
	comp=Z,3µm,1.3s						
BAIF	**Baives**	**17.60**	**32**	P	**Pn**	**10 39 27.0**	**-0.7**
BAIF				S	**Sn**	**10 42 29.8**	**-13**
	comp=Z,2µm,1.3s						
BAIF	**Baives**	**17.60**	**32**	*e*Pn	**Pn**	**10 39 27.0**	**-0.7**
BAIF	**Baives**	**17.60**	**32**	⇓*i*P	**Pn**	**10 39 28.5**	**+0.8**
BAIF				⇓*i*Sn	**Sn**	**10 42 29.8**	**-13**
	comp=Z,2µm,1.3s						
BACM		**17.61**	**56**	P	**Pn**	**10 39 28.8**	**+1.0**
GRAM		**17.69**	**55**	P	**Pn**	**10 39 29.9**	**+1.1**
SBD1	**Bryn Du**	**17.69**	**14**	*e*P	**Pn**	**10 39 29.1**	**+0.4**
SBD1				*e*S	**Sn**	**10 42 33.2**	**-11**
VALM		**17.75**	**55**	P	**Pn**	**10 39 30.9**	**+1.3**
MAIM		**17.77**	**57**	P	**Pn**	**10 39 29.8**	**0.0**
ECH	**Echery**	**17.78**	**41**	*e*P	**Pn**	**10 39 31.5**	**+1.6**
MAON	**Monte Argentar**	**17.78**	**62**	P	**Pn**	**10 39 28.3**	**-1.6**
VLC	**Villacollemand**	**17.78**	**56**	*e*P	**Pn**	**10 39 31.5**	**+1.6**
	comp=Z,2µm,1.7s						
VLC	**Villacollemand**	**17.78**	**56**	*e*P	**Pn**	**10 39 31.5**	**+1.6**
	comp=Z,2µm,1.7s						
YRC	**Rhoscolyn**	**17.78**	**11**	⇓*e*P	**Pn**	**10 39 30.1**	**+0.3**
YRC	**Rhoscolyn**	**17.78**	**11**	⇓*e*P	**Pn**	**10 39 30.1**	**+0.2**
DOU	**Dourbes**	**17.80**	**33**	P	**Pn**	**10 39 30.6**	**+0.5**
	comp=Z,705nm,1.9s						
SARO	**Sassorosso**	**17.80**	**56**	P	**Pn**	**10 39 30.8**	**+0.6**
WLF1	**Llynfaes**	**17.85**	**12**	*e*P	**Pn**	**10 39 31.2**	**+0.5**
GRFL	**Gerfalco**	**17.86**	**60**	P	**Pn**	**10 39 30.8**	**-0.2**
BDI	**Bagni Di Lucca**	**17.89**	**57**	P	**Pn**	**10 39 32.5**	**+1.2**
ERBM	**Eremo**	**17.89**	**55**	P	**Pn**	**10 39 33.9**	**+2.6**
GIVF	**Givet**	**17.91**	**33**	⇓*i*P	**Pn**	**10 39 31.9**	**+0.5**
GIVF				⇓*i*Sn	**Sn**	**10 42 36.3**	**-14**
	comp=Z,1µm,1.0s						
GIVF	**Givet**	**17.91**	**33**	P	**Pn**	**10 39 33.1**	**+1.7**
GIVF	**Givet**	**17.91**	**33**	S	**Sn**	**10 42 36.3**	**-14**
	comp=Z,690nm,1.0s						
GIVF	**Givet**	**17.91**	**33**	⇓*i*P	**Pn**	**10 39 31.9**	**+0.5**
GIVF				⇓*i*Sn	**Sn**	**10 42 36.3**	**-14**
	comp=Z,690nm,1.0s						
WCB1	**Church Bay**	**17.91**	**11**	*e*P	**Pn**	**10 39 30.7**	**-0.7**
PTS	**Pantelleria**	**17.93**	**81**	P	**Pn**	**10 39 32.4**	**+0.5**
CDF	**Champ du Feu**	**17.96**	**41**	⇓*i*P	**Pn**	**10 39 33.0**	**+0.9**
CDF				⇓*i*Sn	**Sn**	**10 42 36.5**	**-15**
	comp=Z,370nm,1.0s						
CDF	**Champ du Feu**	**17.96**	**41**	P	**Pn**	**10 39 34.6**	**+2.5**
CDF	**Champ du Feu**	**17.96**	**41**	⇓*i*P	**Pn**	**10 39 33.0**	**+0.9**
CDF				⇓*i*Sn	**Sn**	**10 42 36.5**	**-15**
	comp=Z,185nm,1.0s						
SNF	**Seneffe**	**17.97**	**31**	P	**Pn**	**10 39 33.5**	**+1.3**
	comp=Z,500nm,2.0s						
MDI	**Monti di Nese**	**17.98**	**51**	P	**Pn**	**10 39 33.1**	**+0.7**
GSCL	**Gusciola**	**17.98**	**56**	P	**Pn**	**10 39 34.7**	**+2.3**
KIZ	**Kirchzarten**	**18.04**	**43**	P	**Pn**	**10 39 34.7**	**+1.7**
FELD	**Feldberg im Sc**	**18.04**	**43**	*e*P	**Pn**	**10 39 35.0**	**+1.9**
KWE	**Weaver Farm**	**18.09**	**17**	⇓*e*P	**Pn**	**10 39 33.5**	**-0.2**
ARCI	**Arcidosso**	**18.14**	**61**	P	**Pn**	**10 39 33.6**	**-0.7**
CSNT	**Castellina Chi**	**18.18**	**59**	P	**Pn**	**10 39 35.2**	**+0.4**
WLF	**Walferdange**	**18.21**	**36**	P	**Pn**	**10 39 36.7**	**+1.6**
	comp=Z,695nm,1.9s						
UCC	**Uccle**	**18.22**	**31**	P	**Pn**	**10 39 36.0**	**+0.7**
	comp=Z,482nm,1.4s						
NOVE	**Novellara**	**18.23**	**54**	P	**Pn**	**10 39 35.9**	**+0.5**
FNVD	**Fontana Vidola**	**18.28**	**57**	P	**Pn**	**10 39 37.9**	**+1.8**
ALAS	**Alassa**	**18.30**	**93**	*i* P	**Pn**	**10 39 37.4**	**+1.1**
	comp=Z,3µm,1.4s,SNR=53						
STR	**Strasbourg**	**18.33**	**41**	*e*P	**Pn**	**10 39 39.1**	**+2.5**
BCLA	**Clavier**	**18.35**	**33**	P	**Pn**	**10 39 37.6**	**+0.9**
	comp=Z,424nm,1.7s						
BCLA	**Clavier**	**18.35**	**33**	P	**Pn**	**10 39 37.6**	**+0.8**
	comp=Z,424nm,1.7s						
KBI1	**Birley Grange**	**18.39**	**17**	⇓*e*P	**Pn**	**10 39 37.5**	**+0.2**
SEI	**Scarperia**	**18.40**	**57**	P	**Pn**	**10 39 39.1**	**+1.6**
SISB	**Singen-Schiene**	**18.47**	**45**	P	**Pn**	**10 39 40.4**	**+2.1**
BFO	**Black Forest**	**18.48**	**42**	Pn	**Pn**	**10 39 39.1**	**+0.7**
	comp=Z,1µm,1.2s,SNR=52						
BFO	**Black Forest**	**18.48**	**42**	*e*P	**Pn**	**10 39 39.8**	**+1.4**
BFO				*e*S	**Sn**	**10 43 09.6**	**+5.7**
BFO				pmax	pmax		
	comp=Z,477nm,1.3s						
BFO	**Black Forest**	**18.48**	**42**	*e*P	**Pn**	**10 39 39.8**	**+1.4**
	comp=Z,477nm,1.3s						
BFO				*e*S	**Sn**	**10 43 09.6**	**+5.7**
RAVA	**Ravarino**	**18.48**	**55**	P	**Pn**	**10 39 39.5**	**+1.0**
VMG	**Vicchio**	**18.50**	**58**	P	**Pn**	**10 39 39.9**	**+1.1**
DAVOX	**Davos/Dischmat**	**18.55**	**48**	P	**Pn**	**10 39 40.8**	**+1.5**
DAVOX				S	**Sn**	**10 43 01.4**	**-4.2**
DAVOX				LR	LR	10 47 40.6	
DAVOX	**Davos/Dischmat**	**18.55**	**48**	P	**Pn**	**10 39 40.8**	**+1.5**
	comp=Z,2.9nm,0.3s,baz=242,slow=8.0,SNR=74						
DAVOX				S	**Sn**	**10 43 01.4**	**-4.2**
	comp=Z,1.8nm,0.3s,baz=285,slow=20,SNR=4.3						
DAVOX				LR	LR	10 47 40.7	
	comp=Z,42µm,18.2s,baz=243,slow=40						
DAVOX	**Davos/Dischmat**	**18.55**	**48**	P	**Pn**	**10 39 40.8**	**+1.5**
DAVOX				S	**Sn**	**10 43 01.4**	**-4.2**
GMM	**Mts of Mourne**	**18.56**	**8**	⇓*e*P	**Pn**	**10 39 39.0**	**-0.4**
LANF	**Langenberg**	**18.59**	**40**	*e*P	**Pn**	**10 39 41.0**	**+1.3**
SPAK	**Spaichingen-Ko**	**18.60**	**43**	*e*P	**Pn**	**10 39 41.5**	**+1.6**
WIM	**Isle of Man**	**18.64**	**10**	*e*P	**Pn**	**10 39 39.7**	**-0.6**
WIM	**Isle of Man**	**18.64**	**10**	*e*P	**Pn**	**10 39 39.7**	**-0.6**
	comp=Z,3µm,1.6s						
ROM9	**Roma**	**18.66**	**65**	P	**Pn**	**10 39 40.3**	**-0.3**
RUP	**Ruppelstein**	**18.67**	**37**	*e*P	**Pn**	**10 39 41.7**	**+1.0**
CRE	**Caprese Michel**	**18.68**	**59**	P	**Pn**	**10 39 42.2**	**+1.3**
SFI	**Santa Sofia**	**18.69**	**58**	P	**Pn**	**10 39 42.4**	**+1.3**
LAV9	**Lanuvio**	**18.76**	**65**	P	**Pn**	**10 39 41.8**	**-0.1**
GUT	**Gutenstein**	**18.77**	**44**	P	**Pn**	**10 39 43.3**	**+1.4**
BEBN	**Eben Emael**	**18.79**	**33**	P	**Pn**	**10 39 42.7**	**+0.6**
BEBN	**Eben Emael**	**18.79**	**33**	P	**Pn**	**10 39 42.6**	**+0.5**
RDP	**Rocca di Papa**	**18.79**	**65**	P	**Pn**	**10 39 41.0**	**-1.3**
MEM	**Membach**	**18.80**	**34**	P	**Pn**	**10 39 42.7**	**+0.4**
	comp=Z,244nm,1.4s						
MEM	**Membach**	**18.80**	**34**	P	**Pn**	**10 39 42.6**	**+0.4**
	comp=Z,244nm,1.4s						
CDCA	**Citt' di Caste**	**18.83**	**60**	P	**Pn**	**10 39 43.8**	**+1.0**
BADI	**Badiali**	**18.85**	**59**	P	**Pn**	**10 39 43.9**	**+0.9**
MTCE	**Montecelio**	**18.86**	**64**	P	**Pn**	**10 39 41.7**	**-1.4**
CLTB	**Caltabellotta**	**18.87**	**78**	P	**Pn**	**10 39 43.0**	**-0.2**
HGN	**Heimansgroeve**	**18.87**	**33**	*e*P	**Pn**	**10 39 43.3**	**+0.2**
	comp=Z,610nm,2.1s						
HGN				*e*S	**Sn**	**10 42 57.8**	**-16**
LBG	**Lerchenberg**	**18.92**	**42**	P	**Pn**	**10 39 45.2**	**+1.4**
KTD	**Kalmit**	**18.94**	**39**	*e*P	**Pn**	**10 39 44.7**	**+0.7**
MPG	**Monte Pellegri**	**18.97**	**76**	P	**Pn**	**10 39 45.1**	**+0.7**
MURB	**Monte Urbino**	**18.98**	**60**	P	**Pn**	**10 39 45.3**	**+0.7**
ASS	**Assisi**	**19.02**	**61**	P	**Pn**	**10 39 45.8**	**+0.7**
ABH	**Alteburg**	**19.03**	**37**	*e*P	**Pn**	**10 39 44.9**	**-0.1**
BUCH	**Bad Urach**	**19.11**	**43**	P	**Pn**	**10 39 47.1**	**+1.1**
RSM	**Repubblica di**	**19.12**	**58**	P	**Pn**	**10 39 45.9**	**-0.3**
UBR	**Ueberruh**	**19.13**	**46**	P	**Pn**	**10 39 47.2**	**+0.9**
FETA	**Feichten**	**19.18**	**48**	*i* Pn	**Pn**	**10 39 47.2**	**+0.3**
	comp=Z,994nm,1.7s,SNR=104						
FETA	**Feichten**	**19.18**	**48**	Pn	**Pn**	**10 39 47.2**	**+0.4**
	comp=Z,994nm,1.7s,SNR=104						
MCT	**Mte Cammarata**	**19.20**	**78**	P	**Pn**	**10 39 45.4**	**-1.8**
STU	**Stuttgart**	**19.20**	**42**	*e*P	**Pn**	**10 39 47.8**	**+0.6**
	comp=Z,1µm,1.4s						
STU				*e*S	**Sn**	**10 43 22.7**	**+1.3**
GUAR	**Guarcino**	**19.23**	**65**	P	**Pn**	**10 39 47.2**	**-0.4**
APPI	**Appiano**	**19.24**	**50**	P	**Pn**	**10 39 47.3**	**-0.3**
FAVR	**Favara**	**19.24**	**79**	P	**Pn**	**10 39 49.3**	**+1.6**
SNTG	**Esanatoglia**	**19.28**	**61**	P	**Pn**	**10 39 48.7**	**+0.6**
FSSB	**Fossombrone**	**19.28**	**59**	P	**Pn**	**10 39 48.7**	**+0.6**
NRCA	**Norcia**	**19.30**	**62**	P	**Pn**	**10 39 48.9**	**+0.5**
GAL1	**Galloway**	**19.33**	**10**	*e*P	**Pn**	**10 39 47.1**	**-1.6**
GAL1				AMb	AMB	10 39 52.3	
	comp=Z,3µm,1.6s						
GAL1				*e*S	**Sn**	**10 43 10.1**	**-14**
SWS	**Schriesheim-Wi**	**19.36**	**40**	P	**Pn**	**10 39 50.3**	**+1.3**
GCL	**Cushendall**	**19.37**	**7**	*e*P	**Pn**	**10 39 47.2**	**-1.9**
PESA	**Pesaro**	**19.39**	**59**	P	**Pn**	**10 39 49.7**	**+0.3**
AQU	**L'Aquila**	**19.41**	**63**	*e*P	**Pn**	**10 39 49.7**	**+0.1**
	comp=Z,6µm,1.3s						
AQU	**L'Aquila**	**19.41**	**63**	*e*P	**Pn**	**10 39 49.7**	**+0.1**
AQU				pmax	pmax		
	comp=Z,6µm,1.3s						
AQU	**L'Aquila**	**19.41**	**63**	⇑*i*P	**Pn**	**10 39 50.3**	**+0.7**
AQU	**L'Aquila**	**19.41**	**63**	*e*P	**Pn**	**10 39 49.7**	**+0.1**
	comp=Z,6µm,1.3s						
RETA	**Reutte**	**19.42**	**47**	*i* Pn	**Pn**	**10 39 49.5**	**-0.2**
	comp=Z,2µm,1.8s,SNR=31						
RETA	**Reutte**	**19.42**	**47**	Pn	**Pn**	**10 39 49.5**	**-0.2**
	comp=Z,2µm,1.8s,SNR=31						
GCD	**Castle Douglas**	**19.44**	**11**	⇓*e*P	**Pn**	**10 39 49.4**	**-0.5**
CING	**Cingoli**	**19.49**	**60**	P	**Pn**	**10 39 51.1**	**+0.5**
TOD	**Tromm**	**19.49**	**40**	*e*P	**Pn**	**10 39 50.3**	**-0.3**
GIB	**Gibilmanna**	**19.50**	**77**	P	**Pn**	**10 39 49.5**	**-1.3**
CSLB	**Castelbuono**	**19.52**	**77**	P	**Pn**	**10 39 50.0**	**-1.1**
LTRP	**Tripoli**	**19.55**	**92**	*i* P	**Pn**	**10 39 52.2**	**+0.7**
	SNR=52						
MOTA	**Moosalm**	**19.55**	**48**	*i* P	**Pn**	**10 39 50.9**	**-0.4**
	comp=Z,2µm,2.2s,SNR=54						
MOTA	**Moosalm**	**19.55**	**48**	*i* Pn	**Pn**	**10 39 50.9**	**-0.4**
	comp=Z,2µm,2.2s,SNR=54						
MOTA	**Moosalm**	**19.55**	**48**	*i* P	**Pn**	**10 39 50.9**	**-0.5**
MOTA				pmax	pmax		
	comp=Z,2µm,2.2s						
SQTA	**Sankt Quirin**	**19.56**	**48**	*i* P	**Pn**	**10 39 51.1**	**-0.3**
	comp=Z,986nm,1.6s,SNR=75						
SQTA	**Sankt Quirin**	**19.56**	**48**	*i* Pn	**Pn**	**10 39 51.1**	**-0.3**
	comp=Z,986nm,1.6s,SNR=75						
SQTA	**Sankt Quirin**	**19.56**	**48**	*i* P	**Pn**	**10 39 51.1**	**-0.3**
SQTA				pmax	pmax		
	comp=Z,986nm,1.6s						
TERO	**Teramo**	**19.61**	**63**	P	**Pn**	**10 39 52.3**	**+0.3**
RFI	**Roccamonfina**	**19.66**	**67**	P	**Pn**	**10 39 52.0**	**-0.6**
HDH	**Heidenheim-Cha**	**19.66**	**44**	P	**Pn**	**10 39 53.1**	**+0.5**
TNS	**Taunus Mts**	**19.69**	**38**	*e*P	**Pn**	**10 39 52.4**	**-0.6**
TNS				*e*S	**Sn**	**10 43 35.1**	**+2.0**
TNS				pmax	pmax		
	comp=Z,520nm,1.0s						
TNS	**Taunus Mts**	**19.69**	**38**	*e*P	**Pn**	**10 39 52.4**	**-0.6**
	comp=Z,520nm,1.0s						
TNS				*e*S	**Sn**	**10 43 35.1**	**+2.0**
GMK	**Mull of Kintyr**	**19.69**	**8**	*e*P	**Pn**	**10 39 51.2**	**-1.7**
OFFI	**Offida**	**19.73**	**62**	P	**Pn**	**10 39 54.3**	**+0.8**
XAL	**Allendale**	**19.74**	**14**	⇓*e*P	**Pn**	**10 39 52.5**	**-1.0**
XAL	**Allendale**	**19.74**	**14**	⇓*e*P	**Pn**	**10 39 52.5**	**-1.0**
	comp=Z,1µm,1.8s						
SIND	**Sindeldorf**	**19.76**	**41**	P	**Pn**	**10 39 53.5**	**-0.2**
AOI	**Ancona**	**19.82**	**60**	P	**Pn**	**10 39 53.8**	**-0.7**
VAE	**Valguarnera**	**19.82**	**78**	P	**Pn**	**10 39 54.2**	**-0.5**
	comp=Z,6.8nm,0.3s,baz=98,slow=2.7,SNR=58						
VAE				LR	LR	10 47 24.1	
	comp=Z,23µm,21.4s,baz=257,slow=36						
WATA	**Walderalm**	**19.83**	**48**	⇑*i*P	**Pn**	**10 39 53.8**	**-0.9**
	comp=Z,1µm,1.4s,SNR=80						

WATA	Walderalm	19.83	48⇑	iP	Pn	10 39 53.8	-0.9
WATA				pmax	pmax		
	comp=Z,1µm,1.4s						
WTTA	Wattenberg	19.84	48	i P	Pn	10 39 54.0	-0.7
	comp=Z,2µm,1.9s,SNR=104						
WTTA	Wattenberg	19.84	48	i Pn	Pn	10 39 54.0	-0.7
	comp=Z,2µm,1.9s,SNR=104						
WTTA	Wattenberg	19.84	48	i P	Pn	10 39 54.0	-0.7
WTTA				pmax	pmax		
	comp=Z,2µm,1.9s						
RNI2	Rionero Sannit	19.84	66	P	Pn	10 39 54.3	-0.5
MIDA	Miranda	19.91	66	P	Pn	10 39 54.7	-0.9
BUG	Bochum--Univer	19.95	34	eP	Pn	10 39 55.7	-0.3
	comp=Z,902nm,1.3s						
BUG				eS	Sn	10 43 37.3	-2.0
SGG	Gregorio Mates	19.96	67	P	Pn	10 39 55.5	-0.8
ESK	Eskdalemuir	20.00	12	eP	Pn	10 39 54.4	-2.1
ESK				AMb	AMB	10 40 00.3	
	comp=Z,1µm,1.8s						
ESK	Eskdalemuir	20.00	12	eP	Pn	10 39 55.2	-1.3
	comp=Z,1µm,1.4s						
ESK				eS	Sn	10 43 24.4	-16
ESK				LR	LR		
	comp=Z,14µm,22.0s						
ESK	Eskdalemuir	20.00	12	eP	Pn	10 39 55.2	-1.3
	comp=Z,1µm,1.4s						
EKA	Eskdalemuir Ar	20.02	12	P	P	10 39 55.8	+0.9
EKA				S	S	10 43 33.6	-4.6
EKA				pmax	pmax		
	comp=Z,339nm,1.1s						
EKA				smax			
	comp=N,16nm,0.6s						
EKA	Eskdalemuir Ar	20.02	12	P	P	10 39 55.8	+0.9
	comp=N,339nm,1.1s,baz=190,slow=9.2,SNR=103						
EKA				S	S	10 43 33.5	-4.7
	comp=N,16nm,0.6s,baz=198,slow=24,SNR=5.5						
FUR	Furstenfeldbru	20.05	46	eP	P	10 39 56.8	+1.5
FUR				eS	S	10 43 41.3	+2.3
FUR				pmax	pmax		
	comp=Z,2µm,1.4s						
FUR	Furstenfeldbru	20.05	46	eP	P	10 39 56.8	+1.5
	comp=Z,2µm,1.4s						
FUR				eS	S	10 43 41.3	+2.3
WDD	Wield Dalam	20.06	83	P	P	10 39 55.2	-0.3
WTSB	Winterswijk	20.12	32	eP	P	10 39 57.5	+1.5
WTSB				eS	S	10 43 27.8	-12
SLNA	Salina	20.12	75	P	P	10 39 56.4	+0.2
CSMI	Casera Mimoias	20.15	51⇑	iP	P	10 39 57.0	+0.6
ABTA	Abfaltersbach	20.15	51	i P	P	10 39 57.2	+0.8
	comp=Z,2µm,2.1s,SNR=97						
ABTA	Abfaltersbach	20.15	51	P	P	10 39 57.2	+0.7
	comp=Z,2µm,2.1s,SNR=97						
LLI	Lipari	20.21	75	P	P	10 39 58.0	+0.8
PSB1	Pescosannita	20.26	67	P	P	10 39 59.1	+1.4
PGBU	Glenifferbraes	20.28	9	eP	P	10 39 57.7	0.0
PGBU				AMb	AMB	10 40 06.4	
	comp=Z,2µm,2.5s						
PMSU	Muirshiel	20.28	9	eP	P	10 39 57.2	-0.5
XSO	Sourhope Farm	20.33	13⇓	eP	P	10 39 59.0	+0.7
ZOU	Zoufplan	20.37	51⇑	iP	P	10 39 59.0	+0.2
CSSN	Cassano Irpino	20.38	68	P	P	10 39 59.8	+0.8
CIGN	Sant'Elia a Pi	20.39	66	P	P	10 40 00.9	+1.8
BAD	Bernadia	20.42	52⇑	iP	P	10 39 59.0	-0.3
EAU	Auchinoon	20.46	11⇓	eP	P	10 39 59.6	-0.1
EAU	Auchinoon	20.46	11⇓	eP	P	10 39 59.6	-0.1
	comp=Z,2µm,1.5s						
COLI	Coloredo	20.47	53⇑	iP	P	10 40 00.0	+0.1
PLRO	Paularo	20.48	52⇑	iP	P	10 40 00.0	0.0
CAFE	Carife	20.56	68	P	P	10 40 02.3	+1.4
SGO	Sicignano	20.57	69	P	P	10 40 01.3	+0.3
EDI	Edinburgh	20.58	11	eP	P	10 40 01.2	+0.2
EDI				AMb	AMB	10 40 07.7	
	comp=Z,2µm,1.5s						
ROBS	Robic	20.59	53	eP	P	10 40 01.6	+0.3
FG2	Serracapriola	20.60	66	P	P	10 40 02.3	+0.9
FG5	Orsara di Pugl	20.61	67	P	P	10 40 03.3	+1.8
DRE	Drenchia	20.65	53⇑	iP	P	10 40 02.0	+0.1
EAB	Aberfoyle	20.67	9	eP	P	10 40 02.2	+0.3
ESY	Stoneypath	20.67	12	eP	P	10 40 02.1	+0.1
LSR	Lussari	20.69	52⇑	iP	P	10 40 03.0	+0.7
MSI	Messina ING	20.70	76	P	P	10 40 02.5	+0.1
MRLC	Muro Lucano	20.73	69	P	P	10 40 03.8	+1.1
MGR	Morigerati	20.73	71	P	P	10 40 02.7	0.0
VOY	Vojsko	20.77	53⇑	iP	P	10 40 03.8	+0.7
IBBN	Ibbenburen	20.77	32	eP	P	10 40 04.9	+1.8
	comp=Z,413nm,0.9s						
IBBN				eS	S	10 43 53.9	+0.7
FG4	Candela	20.78	68	P	P	10 40 04.6	+1.3
KBA	Koelnbreinsper	20.81	50	i P	P	10 40 03.9	+0.4
	comp=Z,946nm,1.3s,SNR=105						
KBA	Koelnbreinsper	20.81	50	i P	P	10 40 03.9	+0.3
KBA				pmax	pmax		
	comp=Z,946nm,1.3s						
GRFO	Grafenberg	20.82	42	eP	P	10 40 05.0	+1.3
	comp=Z,1µm,1.3s						
GRFO				LR	LR		
	comp=Z,12µm,20.0s,MS5.3						
GRFO	Grafenberg	20.82	42	eP	P	10 40 05.0	+1.4
GRFO				pmax	pmax		
	comp=Z,1µm,1.3s						
GRFO				MLR	MLR		
	comp=Z,12µm,20.0s,MS5.3						
GRFO	Grafenberg	20.82	42	eS	S	10 43 56.5	+2.3
GRFO	Grafenberg	20.82	42	eP	P	10 40 05.0	+1.4
	comp=Z,12µm,20.0s						
GRA1	Grafenberg Arr	20.82	42	eP	P	10 40 05.1	+1.5
	comp=Z,2µm,1.4s						
GRA1				eS	S	10 43 56.7	+2.5
GRA1				LR	LR		
	comp=Z,37µm,16.9s,MS5.8						
GRF	Grafenberg Arr	20.82	42	eP	P	10 40 05.1	+1.5
GRF				eS	S	10 43 56.7	+2.5
GRF				pmax	pmax		
	comp=Z,2µm,1.4s						
GRF				MLR	MLR		
	comp=Z,37µm,16.9s,MS5.8						
GRF	Grafenberg Arr	20.82	42	eP	P	10 40 05.1	+1.5
GRF				eS	S	10 43 56.7	+2.5
GRF				pmax	pmax		
	comp=Z,2µm,1.4s						
GRF				MLR	MLR		
	comp=Z,37µm,16.9s,MS5.8						
GRF	Grafenberg Arr	20.82	42	eP	P	10 40 05.1	+1.5
	comp=Z,2µm,1.4s						
GRF				eS	S	10 43 56.7	+2.5
GRF				eL		10 49 30.7	
	comp=Z,37µm,16.9s						
MYKA	Terra Mystica	20.82	52⇑	iP	P	10 40 04.3	+0.6
	comp=Z,6µm,1.6s						
SCLL	Scilla	20.82	76	P	P	10 40 03.7	-0.1
JAVS	Javornik	20.83	54	i P	P	10 40 04.8	+1.0
JAVS				eS	S	10 43 54.5	+0.1
RGNG	Rignano Grg	20.90	66	P	P	10 40 04.6	0.0
NVLJ	Novalja	20.96	58	iP	P	10 40 05.0	-0.3
SGRT	San Giovanni R	21.03	66	P	P	10 40 05.7	-0.3
SOI	Samo	21.09	76	P	P	10 40 05.6	-1.1
MSAG	Monte S. Angel	21.14	66	P	P	10 40 06.7	-0.5
FGMS	Monte Sant'Ang	21.18	66	P	P	10 40 07.0	-0.6
LJU	Ljubljana	21.18	54	i P	P	10 40 08.6	+1.0
LJU				eS	S	10 44 02.5	+1.1
LJU	Ljubljana	21.18	54	i P	P	10 40 08.6	+1.0
LJU				eS	S	10 44 02.5	+1.0
LJU				eSS		10 47 15.1	
LMSR	Misrath	21.20	92	i P	P	10 40 09.5	+1.6
	SNR=51						
KAR1	Arisaig	21.22	7	eP	P	10 40 07.8	-0.1
KAR1	Arisaig	21.22	7	eP	P	10 40 07.8	-0.1
	comp=Z,2µm,1.7s,mb6.2						
TDS	Terranova Siba	21.31	72	P	P	10 40 09.3	+0.3
CDT	Castel del Mon	21.35	68⇑	iP	P	10 40 09.0	-0.4
OBKA	Obir	21.36	53	i P	P	10 40 09.9	+0.4
	comp=Z,5µm,2.6s,mb6.3,SNR=234						
LSHF	Shwairf	21.36	99	i P	P	10 40 10.9	+1.2
	comp=Z,10µm,1.5s,mb6.9,SNR=51						
GRI	Girifalco	21.36	74	P	P	10 40 08.9	-0.7
ORI	Oriolo Calabro	21.41	71	P	P	10 40 11.2	+1.1
WET	Wettzell	21.46	45	eP	P	10 40 11.9	+1.4
WET				eS	S	10 44 10.2	+3.4
WET				pmax	pmax		
	comp=Z,3µm,1.5s,mb6.4						
WET	Wettzell	21.46	45	eP	P	10 40 11.9	+1.4
	comp=Z,3µm,1.5s,mb6.4						
WET				eS	S	10 44 10.2	+3.4
BOJS	Bojanci	21.49	56	i P	P	10 40 11.6	+0.6
BOJS				eS	S	10 44 07.7	+0.2
MOX	Moxa	21.56	40	eP	P	10 40 12.7	+1.1
	comp=Z,1µm,1.8s,mb6.1						
MOX				eS	S	10 44 15.0	+6.2
MOX				LR	LR		
	comp=Z,19µm,20.0s,MS5.5						
MOX	Moxa	21.56	40	eP	P	10 40 12.7	+1.1
MOX				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.1						
MOX				MLR	MLR		
	comp=Z,19µm,20.0s,MS5.5						
MOX	Moxa	21.56	40	eP	P	10 40 12.6	+1.0
	comp=Z,1µm,1.5s,mb6.1						
MOX				eS	S	10 44 10.5	+1.7
AMUR	Altamura	21.58	69	P	P	10 40 11.0	-0.9
TIP	Timpagrande	21.63	73	eP	P	10 40 11.5	-1.0
	comp=Z,2µm,1.3s,mb6.3						
TIP	Timpagrande	21.63	73	eP	P	10 40 11.5	-0.9
	comp=Z,2µm,1.3s,mb6.3						
SG1	Sgolgore (BA)	21.63	69⇑	iP	P	10 40 11.7	-0.8
KPL	Plockton	21.65	7	eP	P	10 40 12.1	-0.4
KPL				AMb	AMB	10 40 21.5	
	comp=Z,2µm,1.7s,mb6.3						
KSK	Scoval	21.69	5	eP	P	10 40 12.8	-0.1
MOA	Molln	21.70	49	i P	P	10 40 12.4	-0.7
	comp=Z,1µm,2.9s,mb5.8,SNR=259						
WERN	Wernitzgruen	21.77	42	eP	P	10 40 14.8	+1.0
	comp=Z,829nm,1.4s,mb6.0						
NKC	Novy Kostel	21.78	42⇑	iP	P	10 40 15.3	+1.3
NKC				eS	S	10 44 16.4	+3.4
NKC	Novy Kostel	21.78	42⇑	iP	P	10 40 15.3	+1.3
NKC				eS	S	10 44 16.4	+3.4
NKC				AMS	AMS	10 49 50.0	
	comp=Z,34µm,15.4s						
GUNZ	Gunzen	21.79	41	eP	P	10 40 15.1	+1.1
	comp=Z,624nm,1.6s,mb5.8						
GEC2	GERESS Array S	21.79	46	eP	P	10 40 14.7	+0.6
GEC2	GERESS Array S	21.79	46	eP	P	10 40 14.7	+0.6
GERES	GERESS Array B	21.79	46	P	P	10 40 14.7	+0.5
GERES				PcP	PcP	10 44 12.7	-0.7
GERES				LR	LR	10 49 58.5	
GERES	GERESS Array B	21.79	46	P	P	10 40 14.7	+0.6
GERES						10 44 12.7	
GERES				pmax	pmax		
	comp=Z,237nm,0.9s						
GERES				pmax	pmax		
	comp=Z,32nm,0.9s						
GERES				MLR	MLR		
	comp=Z,27µm,18.2s						
GERES	GERESS Array B	21.79	46	P	P	10 40 14.7	+0.5
	comp=Z,237nm,0.9s,mb5.6,baz=232,slow=8.3,SNR=599						
GERES				PcP	PcP	10 44 12.7	-0.7
	comp=Z,32nm,0.9s,baz=158,slow=1.4,SNR=5.8						
GERES				LR	LR	10 49 58.5	
	comp=Z,27µm,18.2s,MS5.7,baz=246,slow=40						
GERES				P3KP		11 14 41.5	
	comp=Z,0.2nm,0.3s,baz=134,slow=3.9,SNR=3.5						
GERES	GERESS Array B	21.79	46	P	P	10 40 14.7	+0.6
	comp=Z,237nm,0.9s,mb5.6						
GERES				S	S	10 44 12.7	-0.6
	comp=Z,27µm,18.2s						
GERES	GERESS Array B	21.79	46	PcP	PcP	10 44 12.7	-0.7
BAI	Bari	21.80	68⇑	iP	P	10 40 13.2	-1.1
WERD	Werda	21.82	41	eP	P	10 40 15.4	+1.0
	comp=Z,530nm,1.5s,mb5.8						
KAC	Achnashellach	21.84	7⇓	eP	P	10 40 14.4	-0.1
KHC	Kasperske Hory	21.86	45⇑	iP	P	10 40 15.9	+1.1
KHC				e		10 40 19.5	
KHC				eS	S	10 44 16.6	+2.1
KHC				MLR	MLR		
	comp=Z,22µm,13.4s,MS5.7						
KHC	Kasperske Hory	21.86	45⇑	iP	P	10 40 15.9	+1.1
KHC				epP		10 40 19.5	
KHC				ex	x	10 40 33.0	
KHC				eS	S	10 44 16.6	+2.1
KHC				AMS	AMS	10 49 50.0	
	comp=Z,22µm,13.4s						
TANN	Tannenbergstha	21.88	41	eP	P	10 40 16.1	+1.0
	comp=Z,596nm,1.3s,mb5.9						
TANN				eS	S	10 44 18.0	+2.9
MDO	Dochfour	21.89	9⇓	eP	P	10 40 14.3	-0.8
NOCI	Noci	21.92	69	P	P	10 40 14.3	-1.3
MME1	Meikle Cairn	21.95	11⇓	eP	P	10 40 15.8	+0.1
RRH	Rhenigidale	22.14	5⇓	eP	P	10 40 17.6	-0.1
RRR	Rubha Reidh	22.15	6⇓	eP	P	10 40 17.8	0.0
MCD	Coleburn Disti	22.17	10	eP	P	10 40 18.0	-0.1
HLG	Helgoland	22.19	29	eP	P	10 40 20.8	+2.5
	comp=Z,1µm,1.2s,mb6.2						
HLG				eS	S	10 44 19.9	-1.1
PE1	Pezze di Greco	22.19	69⇑	iP	P	10 40 16.9	-1.6
SISC	Sisak	22.24	56	iP	P	10 40 17.4	-1.5
SISC	Sisak	22.24	56	i P	P	10 40 17.4	-1.5
ARSA	Arzberg	22.25	51⇑	iP	P	10 40 17.7	-1.3
	comp=Z,1µm,2.0s,mb6.0,SNR=24						
MVH1	Achvaich	22.38	9⇓	eP	P	10 40 19.8	-0.5
KOGS	Kog	22.45	54	P	P	10 40 20.8	-0.3
REB	Eisghbrachaidh	22.45	7⇓	eP	P	10 40 20.6	-0.5
STON	Ston	22.62	64	iP	P	10 40 20.6	-2.4
STON	Ston	22.62	64	P	P	10 40 21.1	-1.9
STON	Ston	22.62	64	i P	P	10 40 20.5	-2.5
FBE	Freiberg	22.64	41	eP	P	10 40 24.3	+1.2
	comp=Z,3µm,2.1s,mb6.4						
CLL	Collm	22.66	40⇑	iP	P	10 40 24.0	+0.7
	comp=Z,835nm,1.3s,mb6.0						
CLL				i		10 40 39.5	
CLL				i PcP	PcP	10 44 15.0	-0.1
CLL				eS	S	10 44 30.0	+0.3
CLL				LR	LR		
	comp=Z,24µm,16.5s,MS5.7						
CLL	Collm	22.66	40⇑	iP	P	10 40 24.0	+0.7
CLL				i		10 44 15.0	
CLL				eS	S	10 44 30.0	+0.3
CLL				pmax	pmax		
	comp=Z,835nm,1.3s,mb6.0						
CLL				pmax	pmax		
	comp=Z,85nm,1.2s,mb5.0						
CLL				MLR	MLR		
	comp=Z,24µm,16.5s,MS5.7						
CLL	Collm	22.66	40⇑	iP	P	10 40 24.0	+0.7
	comp=Z,849nm,1.3s,mb6.0						
CLL				ePcP	PcP	10 44 15.0	-0.1
CLL				eS	S	10 44 32.1	+2.4
CLL				eLR	LR	10 46 22.2	
CLL				eL		10 50 23.9	
	comp=Z,24µm,18.0s						
CLL	Collm	22.66	40⇑	iP	P	10 40 24.0	+0.7
	comp=Z,835nm,1.3s,mb6.0						
CLL				i x	x	10 40 39.5	
CLL				i PcP	PcP	10 44 15.0	-0.1
	comp=Z,85nm,1.2s						
CLL				eS	S	10 44 30.0	+0.3
	comp=N,10µm,12.0s						
CLL				eS	S	10 44 30.0	+0.3
	comp=E,14µm,10.2s						
CLL				ex	x	10 45 29.0	
CLL	Collm	22.66	40	i PcP	PcP	10 44 15.0	-0.1
	comp=E,24µm,16.5s						
RSC	Scourie	22.69	7⇓	eP	P	10 40 23.0	-0.6
RSC	Scourie	22.69	7⇓	eP	P	10 40 23.0	-0.6
	comp=E,502nm,1.4s,mb5.7						
LCI	Lecce	22.69	70	P	P	10 40 21.1	-2.7
CONA	Conrad Observa	22.71	50	i P	P	10 40 23.0	-0.9
	comp=E,2µm,1.8s,mb6.2,SNR=296						
PRA	Prague	22.79	44	⇑P	P	10 40 25.0	+0.3
PRA				ex	x	10 40 43.0	
PRA				S	S	10 44 36.0	+4.1
PRU	Pruhonice	22.82	44⇑	iP	P	10 40 25.2	+0.2
PRU				ex	x	10 40 41.0	
PRU				eS	S	10 44 34.0	+1.7
PRU				AMS	AMS	10 49 00.0	
	comp=Z,17µm,22.5s						
LSRT	Sirt	22.91	94	i P	P	10 40 26.7	+0.5
	SNR=49						
BRG	Berggiesshubel	22.93	42⇑	iP	P	10 40 27.0	+0.9
	comp=Z,2µm,1.8s,mb6.1						
BRG				i		10 40 37.9	
BRG				S	S	10 44 38.0	+3.9
BRG				e		10 47 58.3	
BRG				LR	LR		
	comp=Z,19µm,16.0s,MS5.6						
BRG	Berggiesshubel	22.93	42	eP	P	10 40 27.1	+1.0
	comp=Z,3µm,1.8s,mb6.4						
BRG				eS	S	10 44 40.4	+6.3
BRG	Berggiesshubel	22.93	42⇑	iP	P	10 40 27.0	+0.9
	comp=Z,3µm,1.8s,mb6.3						
BRG				i		10 40 37.9	
	comp=Z,944nm,1.6s						
BRG				S	S	10 44 38.0	+3.9
BRG				e		10 47 58.3	
	comp=Z,0.7nm,2.5s						
BRG							
	comp=N,20µm,16.2s						
BRG							
	comp=E,17µm,14.8s						
BRG							
	comp=Z,32µm,16.0s						
LJFR	Jufra	22.96	100	i P	P	10 40 27.1	+0.4
	comp=Z,7µm,1.4s,mb6.9,SNR=49						
BSEG	Bad Segeberg	23.02	32	eP	P	10 40 27.6	+0.5
BSEG				eS	S	10 44 38.6	+3.1
BSEG				pmax	pmax		
	comp=Z,778nm,1.2s,mb6.0						
BSEG	Bad Segeberg	23.02	32	eP	P	10 40 27.6	+0.5
	comp=Z,778nm,1.2s,mb6.0						
BSEG				eS	S	10 44 38.6	+3.1
TREC	Trest	23.04	47⇑	iP	P	10 40 27.0	-0.4
TREC				eS	S	10 44 35.6	-0.4
TREC				AMS	AMS	10 50 20.0	
	comp=Z,29µm,17.2s						
TREC	Trest	23.04	47⇑	iP	P	10 40 27.0	-0.4
TREC				eS	S	10 44 35.6	-0.4
SOP	Sopron	23.06	51	eP	P	10 40 26.5	-1.1
PVCC	Panska Ves	23.09	43⇑	iP	P	10 40 29.1	+1.2
PVCC				eS	S	10 44 38.6	+1.8
PVCC				AMS	AMS	10 49 50.0	
	comp=Z,16µm,19.7s						
HCY	Herceg Novi	23.15	65⇑	iP	P	10 40 25.9	-2.7
BRY	Bratogost	23.24	64⇑	iP	P	10 40 27.2	-2.3
BUM	Brajici-Budva	23.43	65⇑	iP	P	10 40 29.1	-2.4
LUMB	Murzuk	23.48	108	i P	P	10 40 32.5	+0.4
	comp=Z,4µm,1.9s,mb6.5,SNR=41						
KRUC	Moravsky	23.49	48	P	P	10 40 30.9	-1.1
UPM	Unac-Piva	23.55	63⇓	iP	P	10 40 30.8	-1.8
NKY	Niksic	23.56	64⇑	iP	P	10 40 30.5	-2.2
ZST	Bratislava	23.59	50	i P	P	10 40 32.3	-0.6
ZST				pmax	pmax		
	comp=Z,1µm,1.4s,mb6.2						
ZST	Bratislava	23.59	50	i P	P	10 40 32.3	-0.6
	comp=Z,1µm,1.4s,mb6.2						
ZST				eS	S	10 44 43.5	-1.4
RHK3	Tenkes	23.62	56	eP	P	10 40 32.9	-0.3
ULC	Ulcinj	23.65	66⇓	iP	P	10 40 31.4	-2.2
PDG	Podgorica	23.70	65⇑	iP	P	10 40 31.4	-2.6
TTG	Podgorica	23.70	65⇑	iP	P	10 40 31.4	-2.6
VRAC	Vranov	23.71	47	P	P	10 40 33.8	-0.1
VRAC	Vranov	23.71	47	P	P	10 40 33.5	-0.5
VRAC				S	S	10 44 41.2	-5.6
VRAC				pmax	pmax		
	comp=Z,373nm,1.1s						
VRAC				smax			
	comp=N,7.0nm,0.8s						
VRAC				MLR	MLR		
	comp=Z,31µm,19.5s						
VRAC	Vranov	23.71	47	P	P	10 40 33.5	-0.5
	comp=Z,373nm,1.1s,mb5.7,baz=246,slow=9.9,SNR=258						
VRAC				S	S	10 44 41.2	-5.5
	comp=Z,7.4nm,0.8s,baz=280,slow=17,SNR=1.9						
VRAC				LR	LR	10 50 56.8	
	comp=Z,31µm,19.5s,MS5.8,baz=245,slow=39						
VRAC	Vranov	23.71	47⇑	iP	P	10 40 33.5	-0.5
VRAC	Vranov	23.71	47	eP	P	10 40 33.5	-0.5
VRAC				eS	S	10 44 42.6	-4.2
RUE	Ruedersdorf	23.72	38	eP	P	10 40 34.5	+0.5
	comp=Z,368nm,1.1s,mb5.7						
RUE	Ruedersdorf	23.72	38	eP	P	10 40 34.7	+0.6
	comp=Z,1µm,1.6s,mb6.1						
RUE				eS	S	10 44 53.1	+6.2
RUE	Ruedersdorf	23.72	38	eP	P	10 40 34.5	+0.4
	comp=Z,368nm,1.1s,mb5.7						
UPC	Upice	23.89	44⇑	iP	P	10 40 35.7	0.0
UPC				ex	x	10 40 51.5	
SMOL	Smolenice	23.91	50	i P	P	10 40 35.6	-0.2
PLE	Pljevlja	23.91	63⇑	iP	P	10 40 34.2	-1.7
PKSM	Moragy	23.96	56	P	P	10 40 36.1	-0.3
PKSM	Moragy	23.96	56⇑	iP	P	10 40 36.0	-0.4
KEK	Kerkira	23.98	72	eP	P	10 40 34.1	-2.5
DPC	Dobruska-Polom	24.00	45⇑	iP	P	10 40 36.6	0.0
DPC				ex	x	10 40 51.9	
DPC				eS	S	10 44 57.5	+6.0
DPC				AMS	AMS	10 49 00.0	
	comp=Z,15µm,21.2s						
BBLS	Bajina Basta -	24.00	62	P	P	10 40 36.1	-0.7
TIR	Tirane	24.07	68	eP	P	10 40 35.9	-1.5
SRN	Sarande	24.13	71	i P	P	10 40 36.2	-1.8
JAVC	Velka Javorina	24.18	49	P	P	10 40 38.1	-0.2
KSP	Ksiaz	24.21	44	ePc	P	10 40 38.5	-0.1
	comp=Z,4µm,3.3s						
KSP				eS	S	10 45 01.6	+6.8
KSP				esS	sS	10 45 08.8	-0.5
KSP				LMZ		10 49 11.9	
	comp=Z,23µm,24.6s						
KSP	Ksiaz	24.21	44⇑	eP	P	10 40 38.3	-0.2
KSP				eS	S	10 44 54.0	-0.8
KSP				LR	LR		
	comp=Z,27µm,24.6s,MS5.6						
KSP	Ksiaz	24.21	44⇑	eP	P	10 40 38.3	-0.2
KSP				eS	S	10 44 54.0	-0.8
KSP				MLR	MLR		
	comp=N,53µm,20.1s,MS6.1						
KSP				MLR	MLR		
	comp=E,40µm,20.4s,MS6.1						
KSP				MLR	MLR		
	comp=Z,27µm,24.6s,MS5.6						
KSP	Ksiaz	24.21	44⇑	eP	P	10 40 38.3	-0.2
KSP				eS	S	10 44 54.0	-0.8
BEY	Berane	24.22	64⇓	iP	P	10 40 36.8	-1.9
IVA	Berane	24.22	64⇓	iP	P	10 40 36.8	-1.9
PVY	Plav	24.25	65⇑	iP	P	10 40 36.4	-2.6
SJES	Sjenica	24.30	63	P	P	10 40 38.8	-0.7
MUD	Monsted U'grnd	24.39	27⇑	iP	P	10 40 40.8	+0.7
MUD				i		10 41 08.4	
MUD				i S	S	10 44 56.2	-1.4
MUD				pmax	pmax		
	comp=Z,460nm,1.2s,mb5.8						
MUD				MLR	MLR		
	comp=Z,25µm,18.0s,MS5.8						
MUD	Monsted U'grnd	24.39	27⇑	iP	P	10 40 40.8	+0.7
	comp=Z,461nm,1.2s,mb5.8						
MUD				i		10 41 08.4	
MUD				i S	S	10 44 56.2	-1.4
MUD							
	comp=Z,25µm,18.0s						
MUD	Monsted U'grnd	24.39	27	i P	P	10 40 40.8	+0.7
	comp=Z,460nm,1.2s,mb5.8						
MUD				i S	S	10 44 56.2	-1.4
PKS2	Kecel	24.42	55⇑	eP	P	10 40 41.2	+0.7
DIVS	Divcibare	24.45	61	eP	P	10 40 40.5	-0.3
MORC	Moravsky Berou	24.46	47	eP	P	10 40 40.6	-0.3
	comp=Z,1µm,1.4s,mb6.1						
MORC	Moravsky Berou	24.46	47	eP	P	10 40 40.6	-0.3
MORC				pmax	pmax		
	comp=Z,1µm,1.4s,mb6.0						
MORC	Moravsky Berou	24.46	47⇑	iP	P	10 40 41.0	+0.1
MORC	Moravsky Berou	24.46	47	eP	P	10 40 40.6	-0.3
MORC				eS	S	10 44 56.3	-2.7
FGSL	Fruska Gora	24.52	59	P	P	10 40 41.0	-0.4
PHP	Peshkopia	24.52	67	i P	P	10 40 40.6	-0.9
BUD	Budapest	24.57	53	eP	P	10 40 41.9	0.0
BUD	Budapest	24.57	53	eP	P	10 40 41.8	-0.1
LZLA	Zalla	24.59	99	i P	P	10 40 43.1	+0.9
	comp=Z,2µm,1.2s,mb6.5,SNR=41						
VLS	Valsamata	24.66	76	eP	P	10 40 40.9	-1.9
LKD	Levkas	24.67	74	eP	P	10 40 41.1	-1.8
KBN	Korca	24.74	70	i P	P	10 40 43.4	-0.1
RGN	Rugen	24.75	34	eP	P	10 40 43.9	+0.4
	comp=Z,448nm,1.2s,mb5.9						
RGN	Rugen	24.75	34	eP	P	10 40 43.4	0.0
	comp=Z,409nm,1.0s,mb5.9						
RGN				eS	S	10 45 05.6	+2.1
RGN	Rugen	24.75	34	eP	P	10 40 43.8	+0.4
	comp=Z,448nm,1.2s,mb5.9						
OHR	Ohrid	24.76	68	eP	P	10 40 42.7	-1.0
OHR	Ohrid	24.76	68⇑	iP	P	10 40 42.7	-1.0
OHR				i S	S	10 45 06.0	+2.0
VYHS	Vyhne	24.77	50	i P	P	10 40 43.2	-0.5
	comp=Z,280nm,1.3s,mb5.6						
VYHS				e		10 44 19.9	
VYHS				eS	S	10 45 03.5	-0.5

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VYHS                                  eS      S      10 45 04.5 +0.5
VYHS   Vyhne              24.77  50   i P     P      10 40 43.2 -0.5
VYHS                                  e              10 44 19.9
VYHS                                   pmax   pmax
       comp=Z,280nm,1.3s,mb5.6
VYHS   Vyhne              24.77  50   i P     P      10 40 43.1 -0.6
VYHS                                  ePCP    PcP    10 44 19.9 +0.3
VYHS                                  eS      S      10 45 04.5 +0.5
VYHS   Vyhne              24.77  50   i P     P      10 40 43.2 -0.5
       comp=Z,280nm,1.3s,mb5.6
VYHS   Vyhne              24.77  50   ePcP    PcP    10 44 19.9 +0.3
VYHS                                  eS      S      10 45 03.5 -0.5
JAN    Janina             24.79  72   eP      P      10 40 43.3 -0.7
PENC   Penc               24.83  52⇑  eP      P      10 40 44.2  0.0
OKC    Ostrava-Krasne     24.84  47⇑  iP      P      10 40 44.3 -0.1
OKC                                   eS      S      10 45 05.4 +0.3
OKC                                    AMS    AMS    10 51 30.0
       comp=Z,25µm,20.2s
OKC    Ostrava-Krasne     24.84  47⇑  iP      P      10 40 44.3 -0.1
OKC                                   eS      S      10 45 05.4 +0.3
BEO    Belgrade           24.90  60    P      P      10 40 43.9 -1.0
LRW    Lerwick            24.93  11⇓  eP      P      10 40 46.5 +1.4
LRW                                    AMb    AMB    10 40 49.0
       comp=Z,502nm,1.4s,mb5.8
GRUS   Gruza              24.94  62    P      P      10 40 44.4 -0.9
PKSN   Nyarlorinc         24.96  55⇑  eP      P      10 40 45.5 +0.1
RAC    Raciborz           24.97  47   eP      P      10 40 46.0 +0.5
WAL1   Walls              24.98  10⇓  eP      P      10 40 46.8 +1.3
TOA0   Torodi Ar. Sit     25.09 152   eP      P      10 40 45.9 -0.9
TOA0   Torodi Ar. Sit     25.09 152   eP      P      10 40 45.9 -1.0
TORD   Torodi Ar. Bea     25.09 152    P      P      10 40 46.0 -0.9
TORD                                   S      S      10 45 04.2 -5.4
TORD                                   LR     LR     10 51 04.5
TORD   Torodi Ar. Bea     25.09 152    P      P      10 40 46.0 -0.9
       comp=Z,498nm,0.8s,mb6.1,baz=334,slow=10.0,SNR=1907
TORD                                   S      S      10 45 04.2 -5.4
       comp=Z,24nm,1.0s,baz=336,slow=18,SNR=2.3
TORD                                   LR     LR     10 51 04.5
       comp=Z,30µm,18.9s,MS5.8,baz=335,slow=38
TORD                                   P3KPbc        11 13 48.2
       comp=Z,1.0nm,1.0s,baz=158,slow=3.9,SNR=4.3
COP    Copenhagen         25.11  31⇑  iP      P      10 40 47.0 +0.3
COP                                   i S     S      10 45 10.6 +1.4
COP                                    pmax   pmax
       comp=Z,300nm,1.3s,mb5.7
COP                                    MLR    MLR
       comp=Z,10µm,19.0s,MS5.3
COP    Copenhagen         25.11  31⇑  iP      P      10 40 47.0 +0.3
       comp=Z,298nm,1.3s,mb5.7
COP                                   i              10 40 58.5
COP                                   i S     S      10 45 10.6 +1.4
COP
       comp=Z,10µm,19.0s
COP    Copenhagen         25.11  31⇑  iP      P      10 40 47.0 +0.3
       comp=Z,298nm,1.3s,mb5.7
COP                                   i S     S      10 45 10.6 +1.4
KRUS   Krusevo            25.11  68⇑  iP      P      10 40 46.4 -0.4
KRUS                                  i S     S      10 45 14.7 +5.1
LIKS   Likavka            25.13  49   i P     P      10 40 48.3 +1.3
LIKS                                   pmax   pmax
       comp=Z,352nm,1.0s,mb5.8
LIKS   Likavka            25.13  49   i P     P      10 40 48.3 +1.3
       comp=Z,352nm,1.0s,mb5.8
BIA    Bitola             25.16  69   eP      P      10 40 45.9 -1.4
BIA    Bitola             25.16  69⇑  iP      P      10 40 45.9 -1.4
FNA    Florina            25.19  69   eP      P      10 40 46.4 -1.2
SNART  Snartemo           25.23  22   eP      P      10 40 48.0 +0.3
SNART                                 epP     pP     10 40 50.2 -6.3
SNART                                  AMb    AMB    10 40 52.6
       comp=Z,450nm,1.3s,mb5.8
PSZ    Piszkesteto        25.26  52   eP      P      10 40 47.9 -0.3
PSZ    Piszkesteto        25.26  52   eP      P      10 40 48.1 -0.1
PSZ    Piszkesteto        25.26  52⇑  iP      P      10 40 47.9 -0.3
PSZ    Piszkesteto        25.26  52   eP      P      10 40 47.9 -0.3
SKO    Skopje             25.28  67   eP      P      10 40 48.5 +0.1
SKO    Skopje             25.28  67⇑  iP      P      10 40 48.4  0.0
SKO                                   i S     S      10 45 16.1 +3.9
STAV   Stavanger          25.30  19   eP      P      10 40 50.4 +2.1
STAV                                   AMb    AMB    10 41 10.9
       comp=Z,440nm,1.2s,mb5.9
STAV   Stavanger          25.30  19   eP      P      10 40 50.4 +2.1
       comp=Z,440nm,1.2s,mb5.9,SNR=28
RLS    Riolos of Patr     25.36  76   eP      P      10 40 48.8 -0.4
SVIS   Svilajnac          25.36  61    P      P      10 40 48.4 -0.7
KZN    Kozani             25.49  70   eP      P      10 40 49.4 -0.9
EVR    Evrytania          25.56  74   eP      P      10 40 51.2 +0.2
BARS   Barje              25.63  65    P      P      10 40 52.0 +0.5
THL    Klokotos Trika     25.69  72   eP      P      10 40 51.4 -0.8
KECS   Kecovo             25.81  51   i P     P      10 40 53.3 +0.2
       comp=Z,600nm,1.1s,mb6.0
KECS                                  e              10 44 22.1
KECS                                  eS      S      10 45 27.7 +7.2
KECS   Kecovo             25.81  51   i P     P      10 40 53.3 +0.2
KECS                                  e              10 44 22.1
KECS                                   pmax   pmax
       comp=Z,600nm,1.1s,mb6.0
ITM    Ithomi             25.81  78   eP      P      10 40 52.7 -0.6
BSD    Bornholm Skovb     25.82  34⇑  iP      P      10 40 53.2  0.0
BSD                                   i S     S      10 45 19.8 -0.7
BSD                                    pmax   pmax
       comp=Z,240nm,1.0s,mb5.7
BSD                                    MLR    MLR
       comp=Z,18µm,18.0s,MS5.6
BSD    Bornholm Skovb     25.82  34⇑  iP      P      10 40 53.2  0.0
       comp=Z,236nm,1.0s,mb5.7
BSD                                   i              10 41 14.1
BSD                                   i S     S      10 45 19.8 -0.7
BSD
       comp=Z,18µm,18.0s
BSD    Bornholm Skovb     25.82  34⇑  iP      P      10 40 53.2  0.0
       comp=Z,236nm,1.0s,mb5.7
BSD                                   i S     S      10 45 19.8 -0.7
BOLS   Boljevac           25.82  62    P      P      10 40 53.2 -0.1
STIP   Stip               25.82  67   eP      P      10 40 52.4 -0.9
STIP   Stip               25.82  67⇑  iP      P      10 40 52.5 -0.8
LJBD   Adjabya            25.84  92   i P     P      10 40 53.7 +0.1
       SNR=41
BZS    Buzias             25.86  58    P      P      10 40 53.5 -0.1
BZS    Buzias             25.86  58⇑  iP      P      10 40 53.4 -0.2
GKP    Gorka Klasztor     25.91  39   ePc     P      10 40 55.2 +1.2
       comp=Z,2µm,1.2s,mb6.5
GKP                                   epP     pP     10 40 57.7 -5.1
GKP                                   eS      S      10 45 23.1 +1.2
GKP                                   esS     sS     10 45 33.4 -3.2
GKP                                    LMZ           10 52 27.4
       comp=Z,16µm,18.9s
GKP    Gorka Klasztor     25.91  39⇑  eP      P      10 40 55.2 +1.2
       comp=Z,1.8nm,1.2s
GKP                                   epP     pP     10 40 57.7 -5.1
GKP                                   eS      S      10 45 23.2 +1.3
GKP                                   eSS            10 45 33.4
GKP                                    LR     LR
       comp=Z,16µm,18.9s,MS5.6
GKP    Gorka Klasztor     25.91  39⇑  eP      P      10 40 55.2 +1.2
GKP                                   e*PP    pP     10 40 57.7 -5.1
GKP                                   eS      S      10 45 23.2 +1.3
GKP                                    pmax   pmax
       comp=Z,2µm,1.2s,mb6.5
GKP                                    MLR    MLR
       comp=Z,16µm,18.9s,MS5.6
GKP    Gorka Klasztor     25.91  39⇑  eP      P      10 40 55.2 +1.2
       comp=Z,0.9nm,1.2s
GKP                                   epP     pP     10 40 57.7 -5.1
GKP                                   eS      S      10 45 23.2 +1.3
BLS5   Blasjo             25.92  20   eP      P      10 40 55.2 +1.3
BLS5                                  epP     pP     10 40 57.7 -5.1
BLS5                                   AMb    AMB    10 41 00.2
       comp=Z,331nm,1.0s,mb5.8
BLS5   Blasjo             25.92  20   eP      P      10 40 55.2 +1.2
       SNR=28
BLS5                                  epP     pP     10 40 57.7 -5.1
       SNR=152
AGG    Agios Georgios     25.96  73   eP      P      10 40 54.0 -0.6
GRG    Griva              25.97  69   eP      P      10 40 53.9 -0.7
OJC    Ojcow              25.98  47⇑  iP      P      10 40 54.6  0.0
OJC                                   eS      S      10 45 27.4 +4.3
OJC                                    LR     LR
       comp=Z,22µm,20.6s,MS5.7
NIE    Niedzica           26.00  49⇑  iP      P      10 40 55.3 +0.4
LIT    Litokhoron         26.04  71   eP      P      10 40 53.9 -1.5
LIT    Litokhoron         26.04  71    P      P      10 40 53.8 -1.5
VAY    Valandovo          26.10  68   eP      P      10 40 54.7 -1.1
VAY    Valandovo          26.10  68⇑  iP      P      10 40 54.8 -1.1
VAY                                   i S     S      10 45 15.4  -10
DJES   Djerdap            26.33  61    P      P      10 40 57.0 -0.9
KNT    Kendrikon          26.35  68   eP      P      10 40 57.9 -0.2
ODD1   Odda               26.38  19   eP      P      10 40 57.3 -0.8
ODD1                                   AMb    AMB    10 41 21.6
       comp=Z,617nm,1.8s,mb5.8
ODD1   Odda               26.38  19   eP      P      10 40 57.3 -0.8
       comp=Z,617nm,1.8s,mb5.8,SNR=28
THE    Thessaloniki       26.40  70   eP      P      10 40 57.3 -1.2
BER    Bergen             26.46  17   eP      P      10 40 58.4 -0.5
BER                                    AMb    AMB    10 41 20.8
       comp=Z,605nm,1.4s,mb6.0
BER                                   eS      S      10 45 33.6 +3.2
BER    Bergen             26.46  17   eP      P      10 40 58.3 -0.5
       comp=Z,605nm,1.4s,mb6.0,SNR=28
BER                                   eS      S      10 45 33.6 +3.2
       SNR=29
RUND   Rundenannen        26.49  17   eP      P      10 41 01.4 +2.3
       comp=Z,684nm,1.4s,mb6.0
RUND   Rundenannen        26.49  17   eP      P      10 41 01.4 +2.3
RUND                                   AMb    AMB    10 41 23.2
       comp=Z,684nm,1.4s,mb6.0
RUND   Rundenannen        26.49  17   eP      P      10 41 01.4 +2.3
       comp=Z,684nm,1.4s,mb6.0,SNR=28
HORT   Hortiatis          26.50  70   eP      P      10 40 58.4 -1.0
KKB    Krupnik            26.50  67   i P     P      10 40 59.8 +0.3
LKR    Lokris             26.51  74   eP      P      10 40 58.7 -0.9
CRVS   Cervenica-Dubn     26.55  51   i P     P      10 40 59.9 +0.1
CRVS                                  eS      S      10 45 39.8 +7.6
STHS   Stebnicka Huta     26.58  50   i P     P      10 41 00.6 +0.6
       comp=Z,63nm,1.0s,mb5.1
STHS                                  e              10 44 21.0
STHS   Stebnicka Huta     26.58  50   i P     P      10 41 00.6 +0.6
STHS                                  e              10 44 21.0
STHS                                   pmax   pmax
       comp=Z,63nm,1.0s,mb5.1
STHS   Stebnicka Huta     26.58  50   ePcP    PcP    10 44 21.0 -2.7
XOR    Xorichti           26.61  72   eP      P      10 40 59.8 -0.7
GZR    Gura Zlata         26.62  59    P      P      10 41 00.5  0.0
GZR    Gura Zlata         26.62  59⇑  iP      P      10 41 00.2 -0.3
GZR    Gura Zlata         26.62  59    P      P      10 41 00.5  0.0
VTS    Vitosha            26.63  65   eP      P      10 41 00.6  0.0
VTS    Vitosha            26.63  65   i P     P      10 41 00.7 +0.1
VTS    Vitosha            26.63  65⇑  iP      P      10 41 00.5 -0.1
NEO    Neokhori           26.64  73   eP      P      10 41 00.1 -0.6
VLI    Veliai             26.68  78   eP      P      10 41 01.2 +0.1
SOH    Sokhos             26.69  69   eP      P      10 41 00.5 -0.7
SOF    Sofiya             26.73  65    P      P      10 41 03.4 +1.9
PLG    Polygyros          26.77  70   eP      P      10 41 01.1 -0.8
DRGR                      26.83  56    P      P      10 41 02.3 -0.1
DRGR                      26.83  56⇑  iP      P      10 41 02.2 -0.2
SRS    Serrai             26.87  69   eP      P      10 41 02.0 -0.8
PAIG   Paliouri           26.96  71   eP      P      10 41 02.2 -1.4
PAIG   Paliouri           26.96  71    P      P      10 41 02.2 -1.4
MMB    Musomiste          26.98  68   i P     P      10 41 03.7  0.0
NAIG   Nisos Aigina       26.98  76   eP      P      10 41 03.0 -0.8
UZH    Uzhgorod           27.00  52d  iP      P      10 41 05.0 +1.1
UZH                                    MLR    MLR
       comp=Z,13µm,15.5s,MS5.6
UZH    Uzhgorod           27.00  52   i P     P      10 41 05.0 +1.1
       comp=Z,13µm,15.5s
KONO   Kongsberg          27.02  22   eP      P      10 41 03.6 -0.3
       comp=Z,154nm,1.4s,mb5.3
KONO                                   LR     LR
       comp=Z,12µm,20.0s,MS5.5
KONO   Kongsberg          27.02  22   eP      P      10 41 04.3 +0.4
KONO                                  eS      S      10 45 42.6 +3.3
KONO   Kongsberg          27.02  22   eP      P      10 41 03.4 -0.5
KONO                                  eS      S      10 45 42.6 +3.3
       SNR=28
KOLS   Kolonicke sedl     27.07  51   i P     P      10 41 04.1 -0.4
NVR    Nevrokopi          27.08  68   eP      P      10 41 04.1 -0.5
ATH    Athens Observa     27.14  75   eP      P      10 41 04.6 -0.6
AOS    Alonnisos          27.16  73   eP      P      10 41 04.0 -1.3
OUR    Ouranopolis        27.18  70   eP      P      10 41 04.3 -1.3
CRAR   CRAIOVA            27.20  62⇑  iP      P      10 41 06.1 +0.4
PTL    Penteli            27.24  75   eP      P      10 41 05.5 -0.7
PGB    Panagyurishte      27.33  65    P      P      10 41 07.9 +1.0
WAR    Warsaw             27.48  44   ePc     P      10 41 09.2 +1.1
       comp=Z,2µm,1.0s,mb6.6
WAR                                   epP     pP     10 41 12.3 -4.6
WAR                                    LMZ           10 51 40.0
       comp=Z,13µm,20.6s
WAR    Warsaw             27.48  44⇑  eP      P      10 41 09.2 +1.1
WAR                                   epP     pP     10 41 12.3 -4.6
WAR                                    LR     LR
       comp=Z,13µm,20.6s,MS5.5
WAR    Warsaw             27.48  44⇑  eP      P      10 41 09.2 +1.1
WAR                                   e*PP    pP     10 41 12.3 -4.6
WAR                                    pmax   pmax
       comp=Z,2µm,0.0s
WAR                                    MLR    MLR
       comp=Z,13µm,20.6s,MS5.5
WAR    Warsaw             27.48  44⇑  eP      P      10 41 09.2 +1.1
WAR                                   epP     pP     10 41 12.3 -4.6
KWP    Kalwaria           27.55  50   ePc     P      10 41 09.1 +0.3
KWP                                   eS      S      10 45 44.8 -3.1
KWP                                    LMZ           10 53 02.8
       comp=Z,26µm,20.9s
KWP    Kalwaria           27.55  50⇑  eP      P      10 41 09.1 +0.3
KWP                                   eS      S      10 45 44.8 -3.1
KARN   Karanos            27.68  81   eP      P      10 41 10.3 +0.2
PLD    Plovdiv            27.72  66   eP      P      10 41 10.4 +0.1
PLD    Plovdiv            27.72  66   i P     P      10 41 10.5 +0.1
RZN    Rozhen             27.72  67   i P     P      10 41 10.5 +0.1
VAM    Vamos              27.91  81   eP      P      10 41 12.5 +0.4
GVD    Gavdhos            27.93  82   eP      P      10 41 12.3 -0.1
LOS    Limnos             28.04  71   eP      P      10 41 12.8 -0.5
LIA    Limnos Island      28.12  71   eP      P      10 41 15.9 +1.9
VOIR                      28.21  59    P      P      10 41 15.0 +0.2
VOIR                      28.21  59⇓  iP      P      10 41 14.7  0.0
PVL    Pavlikeni          28.22  64   i P     P      10 41 13.9 -0.9
KDZ    Kurdzhali          28.24  67   i P     P      10 41 14.7 -0.4
ZIMR                      28.27  63    P      P      10 41 15.9 +0.6
ZIMR                      28.27  63⇓  iP      P      10 41 15.7 +0.4
DIM    Dimitrovgrad       28.33  67   i P     P      10 41 16.1 +0.2
RDO    Rodhopi            28.34  68   eP      P      10 41 16.1 +0.2
NAO01  NORSAR Array S     28.36  22   eP      P      10 41 16.3 +0.4
       comp=Z,10nm,0.6s,mb4.6
NAO01                                  LR     LR
       comp=Z,10µm,21.0s,MS5.4
NAO01  NORSAR Array S     28.36  22   eP      P      10 41 16.3 +0.4
       comp=Z,10nm,0.6s,mb4.6
LVV    L'vov              28.43  50   eP      P      10 41 15.5 -1.1
LVV                                   e              10 42 08.9
LVV                                   ePPP           10 42 18.7
LVV                                   eS      S      10 45 55.7 -6.0
LVV                                   eSS     SS     10 47 30.1  -32
LVV                                    MLR    MLR
       comp=Z,4µm,15.0s,MS5.1
LVV                                    MLR    MLR
       comp=E,1µm,13.0s,MS5.4
LVV                                    MLR    MLR
       comp=N,7µm,15.0s,MS5.4
LVV    L'vov              28.43  50   i P     P      10 41 15.2 -1.4
SIVA   Sivas              28.48  81   eP      P      10 41 16.8 -0.4
IDI    Anoyia             28.48  81    P      P      10 41 17.8 +0.5
       comp=N,390nm,0.9s,mb6.1,baz=281,slow=8.7,SNR=146
IDI                                    PcP    PcP    10 44 28.8 +0.1
       comp=N,132nm,0.9s,baz=333,slow=4.7,SNR=5.3
LTBQ   Tobruq             28.50  88   i P     P      10 41 17.8 +0.3
       SNR=40
NB2    NORSAR Subarra     28.61  22    P      P      10 41 18.1  0.0
       comp=Z,2µm,2.5s,mb6.4,baz=220,slow=10
NB2    NORSAR Subarra     28.61  22    P      P      10 41 20.4 +2.3
NOA    NORSAR Array B     28.61  22    P      P      10 41 18.1  0.0
NOA                                    PcP    PcP    10 44 28.4  0.0
NOA    NORSAR Array B     28.61  22    P      P      10 41 18.1  0.0
NOA                                                  10 44 28.4
NOA                                    pmax   pmax
       comp=Z,20nm,1.1s
NOA                                    pmax   pmax
       comp=Z,42nm,1.0s
NOA    NORSAR Array B     28.61  22    P      P      10 41 18.1  0.0
       comp=Z,20nm,1.1s,mb4.8,baz=215,slow=8.7,SNR=12
NOA                                    PcP    PcP    10 44 28.4  0.0
       comp=Z,42nm,1.0s,baz=220,slow=2.7,SNR=5.4
NOA                                    PKiKP  PKiKP  10 52 01.7 -1.3
       comp=Z,3.3nm,0.9s,baz=230,slow=0.8,SNR=3.3
NOA                                    LR     LR     10 53 30.9
       comp=Z,6µm,20.6s,MS5.2,baz=220,slow=38
NOA                                    P3KPbc        11 13 32.9
       comp=Z,2.8nm,1.0s,baz=42,slow=4.5,SNR=7.6
NOA    NORSAR Array B     28.61  22    PcP    PcP    10 44 28.4  0.0
       comp=Z,42nm,1.0s
GADA   Gvkgeada           28.65  70    P      P      10 41 18.4 -0.3
SZH    Strazhica          28.66  64   i P     P      10 41 18.9 +0.1
BURAR  Bucovina Array     28.67  55⇑  iP      P      10 41 18.9 +0.1
BURAR  Bucovina Array     28.67  55    P      P      10 41 19.1 +0.3
APE    Apeiranthos        28.68  77   eP      P      10 41 18.0 -1.0
APE    Apeiranthos        28.68  77    P      P      10 41 18.7 -0.3
APE    Apeiranthos        28.68  77   eP      P      10 41 18.1 -0.9
APE    Apeiranthos        28.68  77⇑  iP      P      10 41 18.0 -1.0
HFS    Hagfors            28.72  25    P      P      10 41 18.9 -0.2
HFS                                                  10 44 27.2
HFS                                    pmax   pmax
       comp=Z,159nm,1.0s
HFS                                    pmax   pmax
       comp=Z,27nm,1.0s
HFS                                    MLR    MLR
       comp=Z,18µm,20.6s
HFS    Hagfors            28.72  25    P      P      10 41 18.9 -0.2
       comp=Z,159nm,1.0s,mb5.7,baz=210,slow=8.0,SNR=73
HFS                                    PcP    PcP    10 44 27.2 -1.5
       comp=Z,27nm,1.0s,baz=165,slow=6.2,SNR=3.7
HFS                                    LR     LR     10 53 31.2
       comp=Z,18µm,20.6s,MS5.7,baz=219,slow=38
HFS    Hagfors            28.72  25    PcP    PcP    10 44 27.2 -1.5
       comp=Z,18µm,20.6s
ALN    Alexandroupoli     28.73  69   eP      P      10 41 19.3 -0.1
BUC1   Bucharest          28.79  62    P      P      10 41 20.2 +0.2
BUC1   Bucharest          28.79  62    P      P      10 41 20.2 +0.3
ENEZ   Enez               28.82  69    P      P      10 41 20.0 -0.2
DOMB   Dombas             28.82  19   eP      P      10 41 21.1 +1.1
       comp=Z,207nm,2.1s,mb5.5
DOMB   Dombas             28.82  19   eP      P      10 41 21.1 +1.1
DOMB                                   AMb    AMB    10 41 38.4
       comp=Z,207nm,2.1s,mb5.5
DOMB   Dombas             28.82  19   eP      P      10 41 21.1 +1.2
       comp=Z,207nm,2.1s,mb5.5,SNR=28
MLR    Muntele Rosu       28.84  59    P      P      10 41 21.3 +1.0
MLR    Muntele Rosu       28.84  59    P      P      10 41 20.3 -0.1
MLR                                    pmax   pmax
       comp=Z,655nm,1.2s
MLR                                    MLR    MLR
       comp=Z,7µm,21.6s
MLR    Muntele Rosu       28.84  59    P      P      10 41 20.3 -0.1
       comp=Z,655nm,1.1s,mb6.3,baz=315,slow=4.7,SNR=230
MLR                                    LR     LR     10 53 05.6
       comp=Z,7µm,21.6s,MS5.2,baz=272,slow=37
MLR    Muntele Rosu       28.84  59⇑  iP      P      10 41 20.5 +0.1
CHOS   Chios island       28.92  74   eP      P      10 41 21.4 +0.3
LAST   Lasithi            28.98  81   eP      P      10 41 21.9 +0.2
EZN    Ezine              29.00  71    P      P      10 41 21.3 -0.6
PRK    Paraskevi          29.00  72   eP      P      10 41 21.9  0.0
NPS    Neapolis           29.07  81   eP      P      10 41 21.0 -1.5
JMB    Yambol             29.12  66   eP      P      10 41 22.4 -0.4
JMB    Yambol             29.12  66   i P     P      10 41 22.4 -0.4
EDRB   Edirne             29.24  67    P      P      10 41 23.8 -0.1
PLOR   Plostina           29.38  59    P      P      10 41 24.8 -0.3
SUW    Suwalki            29.39  41   ePc     P      10 41 25.2 +0.2
       comp=Z,2µm,1.6s,mb6.7
SUW                                   epP     pP     10 41 29.6 -4.4
SUW                                   eS      S      10 46 15.6 -1.1
SUW                                    LMZ           10 52 16.3
       comp=Z,9µm,23.4s
SUW    Suwalki            29.39  41⇑  eP      P      10 41 25.2 +0.1
SUW                                   epP     pP     10 41 29.6 -4.3
SUW                                   eS      S      10 46 15.6 -1.1
SUW    Suwalki            29.39  41⇑  eP      P      10 41 25.2 +0.1
SUW                                   e*PP    pP     10 41 29.6 -4.3
SUW                                   eS      S      10 46 15.6 -1.1
SUW                                    pmax   pmax
       comp=Z,2µm,1.6s,mb6.7
SUW                                    MLR    MLR
       comp=Z,9µm,23.4s,MS5.3
SUW    Suwalki            29.39  41⇑  eP      P      10 41 25.2 +0.1
       comp=Z,1.2nm,1.6s
SUW                                   epP     pP     10 41 29.6 -4.3
VRI    Vrincioaia         29.43  59    P      P      10 41 25.4 -0.2
VRI    Vrincioaia         29.43  59⇑  iP      P      10 41 25.1 -0.5
TIC    Toumodi            29.53 169   eP      P      10 41 25.8 -0.8
       comp=Z,2µm,0.8s,mb6.8
ZKR    Zakros             29.58  81   eP      P      10 41 26.9 -0.1
RKY    Sarkoy-Tekirda     29.60  69    P      P      10 41 27.2 +0.1
SMG    Samos              29.62  75   eP      P      10 41 27.0 -0.3
BORG   Borgarnes          29.62 350   eP      P      10 41 28.9 +1.9
       comp=Z,488nm,1.4s,mb6.0
BORG                                   LR     LR
       comp=Z,4µm,19.0s,MS5.1
BORG   Borgarnes          29.62 350   eP      P      10 41 28.9 +1.8
       comp=Z,488nm,1.4s,mb6.0
KMPD   K-Podol'skiy       29.67  53    P      P      10 41 25.0 -2.7
BLCB   Balcova            29.69  74    P      P      10 41 28.0 +0.1
BLCB   Balcova            29.69  74   eP      P      10 41 28.0 +0.1
PRD    Provadia           29.73  64   i P     P      10 41 28.1 -0.1
KIC    Kosan Boka         29.85 169   eP      P      10 41 28.6 -0.9
       comp=Z,1µm,0.8s,mb6.8
IZM    Izmir              29.86  74    P      P      10 41 29.5  0.0
MRMT   Marmara Adasi      29.92  69    P      P      10 41 29.1 -0.8
LIC    Lamto              29.94 170⇑  iP      P      10 41 29.3 -1.0
       comp=Z,662nm,0.8s,mb6.1,baz=352
LIC                                   eMLR    MLR
       comp=Z,25µm,20.8s,MS5.5
LIC    Lamto              29.94 170   eP      P      10 41 29.3 -1.0
       comp=Z,1µm,0.8s,mb6.6
LIC    Lamto              29.94 170⇑  iP      P      10 41 29.3 -1.0
       comp=Z,331nm,0.8s,mb6.1
LIC                                    LR     LR
       comp=Z,12µm,20.8s,MS5.5
BODT   Bodrum             30.09  77    P      P      10 41 29.9 -1.6
HARR   Harsova            30.18  61    P      P      10 41 40.5 +8.3
BNT    Bandirma           30.18  70    P      P      10 41 32.3  0.0
AKS    Akhisar            30.23  73    P      P      10 41 32.6 -0.2
KARP   Karpathos          30.25  80   eP      P      10 41 31.8 -1.1
PSN    Preselentsi        30.31  63   i P     P      10 41 32.4 -1.0
CFR    Carcaliu           30.35  60    P      P      10 41 40.4 +6.7
DAT    Datca              30.36  77    P      P      10 41 32.2 -1.7
MLSB   Milas              30.42  76    P      P      10 41 34.2 -0.2
TIRR   Tirgusor           30.51  62    P      P      10 41 34.4 -0.7
TIRR   Tirgusor           30.51  62⇑  iP      P      10 41 34.0 -1.1
CTT    Catalca            30.52  68    P      P      10 41 35.1 -0.1
DST    Dursunbey          30.79  71    P      P      10 41 37.3 -0.3
YER    Yerkesik           30.84  76    P      P      10 41 38.6 +0.4
KLYT   Kilyos             30.98  68    P      P      10 41 38.8 -0.5
KIS    Kishinev           31.00  57c  iP      P      10 41 36.5 -2.9
KIS                                   e              10 42 42.0
KIS                                    pmax   pmax
       comp=Z,1µm,1.0s,mb6.7
KIS                                    pmax   pmax
       comp=E,600nm,1.5s
KIS                                    pmax   pmax
       comp=Z,3µm,7.0s
KIS                                    pmax   pmax
       comp=E,2µm,2.0s
KIS                                    MLR    MLR
       comp=Z,9µm,17.0s,MS5.5
KIS                                    MLR    MLR
       comp=E,7µm,16.0s
KIS                                    MLR    MLR
       comp=Z,8µm,16.0s
KIS    Kishinev           31.00  57⇑  iP      P      10 41 36.5 -2.9
       comp=Z,1µm,1.0s,mb6.7
KIS    Kishinev           31.00  57   ePP     PP     10 42 19.0  -31
KIS                                   eS      S      10 46 34.0 -8.1
KIS                                   eSS     SS     10 48 12.0  -43
KIS                                   i Li           10 50 48.0
KIS                                   i LQ           10 51 40.0
KIS                                   i LR    LR     10 54 32.0
       comp=Z,8µm,16.0s
ISK    Istanbul-Kandi     31.00  68    P      P      10 41 39.4 -0.1
LKFR   Kufra              31.09 103   i P     P      10 41 41.0 +0.5
       comp=Z,2µm,1.4s,mb6.7,SNR=39
GEMT   Gemlik             31.14  70    P      P      10 41 40.5 -0.2
YLV    Yalova             31.27  69    P      P      10 41 41.3 -0.7
DENT   Denizli            31.34  75    P      P      10 41 42.7 +0.2
IZI    Iznik              31.37  70    P      P      10 41 42.3 -0.4
IIGN   Ignalina           31.54  40   eP      P      10 41 44.3 +0.2
IIGN                                   AMb    AMB    10 41 46.6
       comp=Z,138nm,1.3s,mb5.6
IIGN   Ignalina           31.54  40   eP      P      10 41 44.3 +0.2
       comp=Z,138nm,1.3s,mb5.6,SNR=27
ADVT   Abdulvahap         31.56  70    P      P      10 41 43.6 -0.8
FETY   Fethiye            31.56  77    P      P      10 41 41.5 -3.0
KHL    Karahalli          31.64  74    P      P      10 41 45.0 -0.1
NE53   Naroch'            31.68  41   ePcP    PcP    10 44 32.1 -4.4
IZAR   Zarasai            31.71  40   eP      P      10 41 45.6  0.0
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IZAR                                  AMb     AMB     10 41 47.9
       comp=Z,64nm,1.3s,mb5.3
IZAR   Zarasai           31.71  40   eP      P       10 41 45.6  0.0
       comp=Z,64nm,1.3s,mb5.3,SNR=27
IDID   Didziasalis       31.80  41   eP      P       10 41 46.6 +0.3
IDID                                  AMb     AMB     10 41 48.7
       comp=Z,90nm,1.1s,mb5.5
IDID   Didziasalis       31.80  41   eP      P       10 41 46.7 +0.3
       comp=Z,90nm,1.1s,mb5.5,SNR=27
KIEV   Kiev              31.86  50   eP      P       10 41 44.9 -2.1
       comp=Z,203nm,1.4s,mb5.8
KIEV                                  LR      LR
       comp=Z,10μm,20.0s,MS5.5
KIEV   Kiev              31.86  50   eP      P       10 41 44.9 -2.1
KIEV                                  pmax    pmax
       comp=Z,203nm,1.4s,mb5.8
KIEV                                  MLR     MLR
       comp=Z,10μm,20.0s,MS5.5
KIEV   Kiev              31.86  50   eP      P       10 41 44.9 -2.1
       comp=Z,10μm,20.0s
AKASG  Malin Array Be    31.87  50    P      P       10 41 45.0 -2.0
AKASG                                 PcP     PcP     10 44 35.8 -1.3
AKASG  Malin Array Be    31.87  50    P      P       10 41 45.0 -2.0
       comp=Z,18nm,0.8s,mb4.9,baz=249,slow=9.5,SNR=106
AKASG                                 PcP     PcP     10 44 35.8 -1.3
       comp=Z,46nm,1.0s,baz=269,slow=3.4,SNR=14
AKASG                                 PKiKP   PKiKP   10 52 03.3 -2.1
       comp=Z,3.9nm,0.9s,baz=257,slow=1.1,SNR=9.3
AKASG                                 LR      LR      10 56 01.0
       comp=Z,10μm,20.2s,MS5.5,baz=260,slow=39
AKASG  Malin Array Be    31.87  50    PcP     PcP     10 44 35.8 -1.3
       comp=Z,46nm,1.0s
AKBB   Malin Array Si    31.87  50   eP      P       10 41 44.8 -2.3
ALT    Altintas          31.99  72    P      P       10 41 48.7 +0.5
MNK    Minsk             32.10  43c iP      P       10 41 47.0 -2.0
MNK                                  eS      S       10 46 54.0 -5.2
MNK                                   pmax    pmax
       comp=E,2μm,1.2s
MNK                                   pmax    pmax
       comp=Z,1μm,1.1s,mb6.7
MNK                                   pmax    pmax
       comp=N,7μm,1.4s
MNK                                   MLR     MLR
       comp=Z,28μm,20.0s,MS6.0
MNK                                   MLR     MLR
       comp=N,10μm,12.0s
MNK                                   MLR     MLR
       comp=E,21μm,16.0s
GULT   Gulveren          32.15  69    P      P       10 41 50.0 +0.4
SHUT   Suhut-Afyon       32.40  73    P      P       10 41 51.6 -0.2
ISP    Isparta           32.48  74    P      P       10 41 51.7 -0.8
ISP    Isparta           32.48  74   eP      P       10 41 51.6 -0.9
ISP    Isparta           32.48  74c iP      P       10 41 52.0 -0.5
ESKT   Eskisehir         32.51  71    P      P       10 41 52.1 -0.6
MDU    Mudurnu           32.68  69    P      P       10 41 53.8 -0.5
ANTB   Antalya           32.75  76    P      P       10 41 54.6 -0.3
KDZE   Karadeniz Ereo    32.78  68    P      P       10 41 54.0 -1.1
VSU    Vasula            33.10  35  i P      P       10 41 57.2 -0.5
KIZT   Kizilcal          33.38  72    P      P       10 42 00.5  0.0
MOR8   Moi Rana          33.56  18   eP      P       10 42 03.4 +1.8
       comp=E,192nm,1.8s,mb5.7
MOR8   Moi Rana          33.56  18   eP      P       10 42 03.4 +1.8
MOR8                                  AMb     AMB     10 42 21.1
       comp=Z,192nm,1.8s,mb5.7
MOR8   Moi Rana          33.56  18   eP      P       10 42 03.4 +1.8
       comp=Z,192nm,1.8s,mb5.7,SNR=27
SAFT   Safranbolu        33.72  68    P      P       10 42 02.8 -0.5
KONT   Konya--Tatoy      33.90  74    P      P       10 42 03.9 -1.1
LOD    Lodumlu           33.93  70    P      P       10 42 04.3 -0.8
ANTO   Ankara            33.95  70   eP      P       10 42 05.3 -0.1
       comp=Z,651nm,1.3s,mb6.4
ANTO                                 ePcP    PcP     10 44 42.8 -0.3
ANTO                                  LR      LR
       comp=Z,5μm,20.0s,MS5.2
ANTO   Ankara            33.95  70   eP      P       10 42 05.3 -0.1
ANTO                                 e               10 44 42.8
ANTO                                  pmax    pmax
       comp=Z,651nm,1.3s,mb6.4
ANTO                                  MLR     MLR
       comp=Z,5μm,20.0s,MS5.2
ANTO   Ankara            33.95  70⇓iP      P       10 42 06.1 +0.7
ANTO   Ankara            33.95  70   eP      P       10 42 05.3 -0.1
       comp=Z,651nm,1.3s,mb6.4
ANTO   Ankara            33.95  70   ePcP    PcP     10 44 42.8 -0.3
       comp=Z,5μm,20.0s
FINES  FINESS Array B    34.26  30    P      P       10 42 08.0 +0.2
FINES                                                10 44 43.2
FINES                                 pmax    pmax
       comp=Z,456nm,1.0s
FINES                                 pmax    pmax
       comp=Z,20nm,1.0s
FINES                                 MLR     MLR
       comp=Z,22μm,18.6s
FINES  FINESS Array B    34.26  30    P      P       10 42 08.0 +0.2
       comp=Z,456nm,1.0s,mb6.3,baz=235,slow=6.7,SNR=410
FINES                                 PcP     PcP     10 44 43.2 -0.4
       comp=Z,20nm,1.0s,baz=285,slow=5.3,SNR=2.8
FINES                                 LR      LR      10 57 51.0
       comp=Z,22μm,18.6s,MS5.9,baz=238,slow=39
FINES  FINESS Array B    34.26  30    PcP     PcP     10 44 43.2 -0.4
       comp=Z,22μm,18.6s
FIA1   FINESS Array S    34.27  30   eP      P       10 42 07.6 -0.2
FIA1   FINESS Array S    34.27  30   eP      P       10 42 07.6 -0.2
AKMC   Akamas            34.48  79    P      P       10 42 08.9 -1.1
CANT   Cankiri           34.49  69    P      P       10 42 09.2 -0.8
PPCY   Paphos            34.53  79    P      P       10 42 09.5 -1.0
SIM    Simferopol’       34.58  61c iP      P       10 42 10.3 -0.5
SIM                                  i S     S       10 47 35.7 -2.2
SIM                                   pmax    pmax
       comp=Z,382nm,1.1s,mb6.2
SIM                                   MLR     MLR
       comp=Z,9μm,17.5s,MS5.5
SIM    Simferopol’       34.58  61  i P      P       10 42 10.2 -0.6
BR131  Keskin Array S    34.62  70   eP      P       10 42 11.3 +0.2
       comp=Z,248nm,1.3s,mb6.0
BR131                                 LR      LR
       comp=Z,3μm,20.0s,MS5.1
BR131  Keskin Array S    34.62  70   eP      P       10 42 11.3 +0.2
       comp=Z,248nm,1.3s,mb6.0
BRTR   Keskin Array B    34.62  70    P      P       10 42 11.1  0.0
BRTR                                                 10 44 44.7
BRTR                                  pmax    pmax
       comp=Z,189nm,1.2s
BRTR                                  pmax    pmax
       comp=Z,27nm,1.0s
BRTR                                  MLR     MLR
       comp=Z,5μm,21.7s
BRTR   Keskin Array B    34.62  70    P      P       10 42 11.1 -0.1
       comp=Z,189nm,1.2s,mb5.9,baz=274,slow=5.9,SNR=260
BRTR                                  PcP     PcP     10 44 44.7 -0.3
       comp=Z,27nm,1.0s,baz=90,slow=1.2,SNR=5.5
BRTR                                  LR      LR      10 56 56.5
       comp=Z,5μm,21.7s,MS5.2,baz=293,slow=37
BRTR   Keskin Array B    34.62  70    PcP     PcP     10 44 44.7 -0.3
       comp=Z,5μm,21.7s
BZK    Bozkurt           34.64  66    P      P       10 42 10.1 -1.2
ALFC   Alevga            34.67  78    P      P       10 42 09.5 -2.1
       comp=Z,2.4nm,0.8s
KAF    Kangasniemi       34.71  29   ep      P       10 42 11.6  0.0
       comp=Z,6.9nm,0.4s,mb4.9,baz=239,slow=8.7
KAF    Kangasniemi       34.71  29   eP      P       10 42 11.6  0.0
KAF                                   pmax    pmax
       comp=Z,7.0nm,0.4s,mb4.9
KAMT   Kaman             34.72  71    P      P       10 42 12.3 +0.3
TOS    Tosya             34.75  68    P      P       10 42 12.3 +0.1
LOF    Lofoten           34.94  15   eP      P       10 42 16.2 +2.7
       comp=Z,341nm,1.8s,mb6.0
LOF    Lofoten           34.94  15   eP      P       10 42 16.2 +2.7
LOF                                   AMb     AMB     10 42 38.0
       comp=Z,341nm,1.8s,mb6.0
LOF    Lofoten           34.94  15   eP      P       10 42 16.2 +2.7
       comp=Z,341nm,1.8s,mb6.0,SNR=27
SZAC   Souni-Zanaja      34.99  79⇑iP      P       10 42 14.3 -0.1
JMIC   Jan Mayen         35.15   1    AMS     AMS     10 55 02.8
       comp=Z,11μm,19.9s,MS5.6
JMIC   Jan Mayen         35.15   1    P      P       10 42 14.7 -0.6
       comp=Z,42nm,0.4s,mb5.7,baz=203,slow=4.6,SNR=4.7
MAMC   Mammari           35.16  78    P      P       10 42 15.8  0.0
IKL    Isikli            35.28  76    P      P       10 42 15.4 -1.5
CSS    Prodhromos        35.30  78   eP      P       10 42 16.4 -0.7
CSS    Prodhromos        35.30  78    P      P       10 42 16.1 -1.0
CORM   Corum             35.31  69    P      P       10 42 12.0 -5.1
DIKM   Dikmen            35.60  67    P      P       10 42 19.3 -0.3
NIG    Nigde             35.62  73    P      P       10 42 19.8 -0.1
MERS   Mersin            35.80  75    P      P       10 42 20.4 -0.9
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YOZ    Yozgat            35.91  70    P      P       10 42 23.1 +0.8
KARA   Karaisali         36.13  74    P      P       10 42 22.0 -2.2
KVT    Kavak             36.26  68    P      P       10 42 24.9 -0.3
BNN    Bunyan            36.44  71    P      P       10 42 26.4 -0.4
KRTS   Karatas           36.53  75    P      P       10 42 25.5 -2.1
KOZT   Kozan             36.69  74    P      P       10 42 26.9 -2.1
CEYT   Ceyhan            36.73  74    P      P       10 42 27.5 -1.8
TOKT   Tokat             36.74  69    P      P       10 42 30.3 +1.0
ANN    Anapa             36.94  61   eP      P       10 42 27.8 -3.2
ANN                                  e               10 43 56.8
ANN                                  eS      S       10 48 10.7 -3.4
ANN                                  e               10 52 40.3
ANN                                   pmax    pmax
       comp=Z,2μm,1.3s,mb6.7
ANN                                   MLR     MLR
       comp=N,6μm,19.0s,MS5.5
ANN                                   MLR     MLR
       comp=E,5μm,19.0s,MS5.5
ANN                                   MLR     MLR
       comp=Z,10μm,19.0s,MS5.6
ANN    Anapa             36.94  61  i P      P       10 42 30.1 -0.9
JOF    Joensuu           37.13  30   ep      P       10 42 31.5 -0.8
       comp=Z,7.1nm,0.3s,mb5.0
JOF    Joensuu           37.13  30   eP      P       10 42 31.5 -0.8
JOF                                   pmax    pmax
       comp=Z,7.0nm,0.3s,mb5.0
OBN    Obninsk           37.14  44    P      P       10 42 32.6 +0.1
       comp=Z,2μm,1.4s,mb6.8,SNR=16
OBN    Obninsk           37.14  44   eP      P       10 42 32.5  0.0
       comp=Z,729nm,1.3s,mb6.3
OBN                                   LR      LR
       comp=Z,9μm,20.0s,MS5.6
OBN    Obninsk           37.14  44c iP      P       10 42 32.2 -0.3
OBN                                  i               10 42 37.1
OBN                                  i               10 43 59.3
OBN                                  i PPP           10 44 16.0
OBN                                  i               10 44 52.2
OBN                                  i S     S       10 48 14.5 -2.3
OBN                                  i SS    SS      10 50 57.4 -2.4
OBN                                   pmax    pmax
       comp=Z,821nm,1.4s,mb6.4
OBN                                   MLR     MLR
       comp=Z,6μm,16.0s,MS5.5
OBN    Obninsk           37.14  44  i P      P       10 42 32.2 -0.3
       comp=Z,821nm,1.4s,mb6.4
OBN    Obninsk           37.14  44  i PcP    PcP     10 44 52.2  0.0
HTY    Hatay             37.24  76    P      P       10 42 33.1 -0.5
OFRI   ‘Ofer             37.27  82  ⇑P      P       10 42 33.9  0.0
TRO    Tromso            37.33  16   eP      P       10 42 33.8 -0.1
       comp=Z,198nm,1.6s,mb5.7
TRO    Tromso            37.33  16   eP      P       10 42 33.8 -0.1
TRO                                   AMb     AMB     10 42 51.5
       comp=Z,198nm,1.6s,mb5.7
TRO    Tromso            37.33  16   eP      P       10 42 33.8 -0.1
       comp=Z,198nm,1.6s,mb5.7,SNR=26
KZIT   Kziot             37.35  85    P      P       10 42 34.9 +0.2
BHL    Bhannes           37.43  79   eP      P       10 42 35.1 -0.1
SLTI   Sal’it            37.43  82  ⇑P      P       10 42 36.1 +0.8
SVTA   Shivta            37.52  84  ⇑P      P       10 42 36.5 +0.4
HWQ    Hawqa             37.56  79   eP      P       10 42 36.9 +0.5
MASH   Mash‘abbe Sade    37.63  84  ⇑P      P       10 42 37.4 +0.4
MMLI   Mount Malkishu    37.68  82  ⇑P      P       10 42 38.4 +1.0
RCY    Rachaya           37.68  80   eP      P       10 42 38.0 +0.6
GLH    Golan-Tel Qazi    37.78  81    P      P       10 42 39.4 +1.2
HMDT   Nahal Hemdat      37.82  82  ⇑P      P       10 42 39.5 +0.9
GAZ    Gaziantep         37.84  74    P      P       10 42 38.7  0.0
MOS    Moscow            37.85  43α iP      P       10 42 39.1 +0.6
MOS                                  e               10 44 06.2
MOS                                  ePPP            10 44 23.9
MOS                                  e               10 44 52.4
MOS                                  eS      S       10 48 27.0 -0.6
MOS                                  eSS     SS      10 51 06.5 -7.6
MOS                                   pmax    pmax
       comp=Z,1μm,1.8s,mb6.4
MOS                                   pmax    pmax
       comp=N,251nm,1.1s
MOS                                   pmax    pmax
       comp=E,380nm,1.1s
MOS                                   smax
       comp=N,4μm,4.6s
MOS                                   smax
       comp=E,2μm,4.0s
MOS                                   MLR     MLR
       comp=Z,9μm,13.4s,MS5.8
MOS                                   MLR     MLR
       comp=E,9μm,13.0s
MOS    Moscow            37.85  43⇑iP      P       10 42 39.0 +0.5
MOS    Moscow            37.85  43   ePcP    PcP     10 44 52.4 -2.0
       comp=E,4μm,4.6s
DRGI   Dragot            37.92  83  ⇑P      P       10 42 39.8 +0.3
KTK1   Kautokeino        37.93  19   eP      P       10 42 40.1 +1.0
       comp=E,242nm,1.3s,mb5.8
KTK1   Kautokeino        37.93  19   eP      P       10 42 40.1 +1.0
KTK1                                  AMb     AMB     10 42 42.7
       comp=Z,242nm,1.3s,mb5.8
KTK1   Kautokeino        37.93  19   eP      P       10 42 40.1 +1.0
       comp=Z,242nm,1.3s,mb5.8,SNR=26
MZDA   Masada            38.00  83  ⇑P      P       10 42 40.6 +0.5
PRNI   Paran             38.03  85    P      P       10 42 41.3 +0.9
ZFRI   Zfri              38.10  85  ⇑P      P       10 42 41.5 +0.5
VRSR   Storozhevoye      38.18  51c iP      P       10 42 41.1 -0.3
VRSR                                 e*PP    pP      10 42 46.0 -4.4
VRSR                                 eS      S       10 48 30.7 -2.0
VRSR                                  pmax    pmax
       comp=Z,310nm,3.0s
VRSR                                  pmax    pmax
       comp=N,7.0nm,1.5s
VRSR                                  pmax    pmax
       comp=E,270nm,3.2s
VRSR                                  smax
       comp=N,370nm,4.0s
VRSR                                  smax
       comp=Z,60nm,4.0s
VRSR                                  smax
       comp=E,190nm,4.3s
VRSR                                  MLR     MLR
       comp=Z,1μm,17.0s,MS4.8
VRSR                                  MLR     MLR
       comp=N,550nm,18.0s,MS4.9
VRSR                                  MLR     MLR
       comp=E,1μm,17.0s,MS4.9
VRSR   Storozhevoye      38.18  51  i P      P       10 42 41.1 -0.3
       comp=E,7.0nm,1.5s
VOR    Voronezh          38.23  50⇑iP      P       10 42 41.0 -0.8
VOR                                   pmax    pmax
       comp=Z,1μm,1.8s,mb6.4
VOR    Voronezh          38.23  50  i P      P       10 42 41.0 -0.8
       comp=Z,1μm,1.8s,mb6.4
VORD   Divnogorie        38.23  51   eP      P       10 42 41.2 -0.6
VORD                                 e*PP    pP      10 42 46.5 -4.3
VORD                                 eS      S       10 48 31.9 -1.5
VORD                                  pmax    pmax
       comp=Z,590nm,1.4s,mb6.1
VORD                                  pmax    pmax
       comp=N,100nm,0.9s
VORD                                  pmax    pmax
       comp=E,800nm,1.1s
VORD                                  smax
       comp=Z,410nm,4.6s
VORD                                  smax
       comp=N,2μm,4.0s
VORD                                  smax
       comp=E,710nm,3.0s
VORD                                  MLR     MLR
       comp=Z,10μm,17.0s,MS5.7
VORD                                  MLR     MLR
       comp=N,1μm,9.0s
VORD                                  MLR     MLR
       comp=E,5μm,15.0s
VORD   Divnogorie        38.23  51   eP      P       10 42 41.2 -0.6
       comp=E,100nm,0.9s,mb5.5
EIL    Elat              38.24  86  ⇑P      P       10 42 42.8 +0.7
MYA    Malataya          38.53  71    P      P       10 42 44.3 -0.2
MALT   Malatya           38.53  71    P      P       10 42 44.2 -0.4
MALT   Malatya           38.53  71   eP      P       10 42 44.8 +0.2
       comp=E,507nm,1.2s,mb6.1
MALT                                 ePP     PP      10 44 11.2 -1.7
MALT   Malatya           38.53  71   eP      P       10 42 44.8 +0.3
MALT                                  pmax    pmax
       comp=Z,510nm,1.2s,mb6.1
MALT   Malatya           38.53  71⇑iP      P       10 42 44.8 +0.3
MALT   Malatya           38.53  71   ePP     PP      10 44 11.2 -1.7
SOC    Sochi             38.68  63c iP      P       10 42 46.0 +0.3
SOC                                  e*PP    pP      10 42 53.5 -1.2
SOC                                  e               10 44 14.8
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SOC                                  e               10 44 56.6
SOC                                  i S     S       10 48 39.5 -0.9
SOC                                   pmax    pmax
       comp=Z,637nm,0.9s,mb6.3
SOC                                   pmax    pmax
       comp=Z,991nm,1.0s,mb6.5
SOC                                   MLR     MLR
       comp=Z,6μm,16.0s,MS5.5
SOC    Sochi             38.68  63  i P      P       10 42 45.7  0.0
SOC    Sochi             38.68  63   ePcP    PcP     10 44 56.6 -0.6
SFJD   Kangerlussuaq     38.73 336   eP      P       10 42 44.9 -0.9
       comp=Z,1μm,1.9s,mb6.3
SFJD                                 ePcP    PcP     10 44 55.6 -1.3
SFJD                                  LR      LR
       comp=Z,14μm,21.0s,MS5.8
SFJD   Kangerlussuaq     38.73 336⇓iP      P       10 42 44.9 -0.9
SFJD                                 i S     S       10 48 40.1 -0.5
SFJD                                  pmax    pmax
       comp=Z,200nm,1.1s,mb5.8
SFJD                                  MLR     MLR
       comp=Z,13μm,21.0s,MS5.7
SFJD   Kangerlussuaq     38.73 336    P      P       10 42 45.1 -0.7
       comp=Z,85nm,1.0s,mb5.4,baz=110,slow=9.3,SNR=17
SFJD   Kangerlussuaq     38.73 336⇓iP      P       10 42 44.9 -0.9
       comp=Z,205nm,1.1s,mb5.8
SFJD                                 i S     S       10 48 40.1 -0.5
SFJD
       comp=Z,13μm,21.0s
SFJD   Kangerlussuaq     38.73 336   ePcP    PcP     10 44 55.7 -1.2
ARE0   ARCESS Array S    38.88  19   eP      P       10 42 47.0 -0.1
ARE0                                 ePcP    PcP     10 44 56.4 -1.0
ARCES  ARCESS Array B    38.88  19    P      P       10 42 46.9 -0.2
ARCES                                 PcP     PcP     10 44 56.4 -0.9
ARCES                                 LR      LR      10 59 52.0
ARCES  ARCESS Array B    38.88  19    P      P       10 42 46.9 -0.2
ARCES                                                10 44 56.4
ARCES                                 pmax    pmax
       comp=Z,95nm,0.9s
ARCES                                 pmax    pmax
       comp=Z,47nm,0.8s
ARCES                                 MLR     MLR
       comp=Z,5μm,19.7s
ARCES  ARCESS Array B    38.88  19    P      P       10 42 46.9 -0.2
       comp=Z,95nm,0.9s,mb5.5,baz=224,slow=6.1,SNR=92
ARCES                                 PcP     PcP     10 44 56.4 -0.9
       comp=Z,47nm,0.8s,baz=224,slow=3.2,SNR=5.2
ARCES                                 LR      LR      10 59 52.0
       comp=Z,5μm,19.7s,MS5.3,baz=228,slow=38
ARCES  ARCESS Array B    38.88  19    P      P       10 42 46.8 -0.3
ARCES  ARCESS Array B    38.88  19    PcP     PcP     10 44 56.4 -1.0
       comp=Z,5μm,19.7s
GUMT   Gumushane         38.93  68    P      P       10 42 47.2 -0.6
URFA   Urfa              39.02  73    P      P       10 42 48.6 -0.1
PTK    Pertek            39.16  70    P      P       10 42 49.8  0.0
KEV    Kevo              39.43  19   ep      P       10 42 51.4 -0.2
       comp=Z,6.0nm,0.5s,mb4.6
KEV    Kevo              39.43  19    P      P       10 42 51.1 -0.5
KEV                                   pmax    pmax
       comp=Z,270nm,1.4s,mb5.8
KEV    Kevo              39.43  19    P      P       10 42 51.1 -0.5
       comp=Z,270nm,1.4s,mb5.8
VRHR   Novokhopersk      39.71  51   eP      P       10 42 54.2  0.0
VRHR                                 e*PP    pP      10 43 00.3 -2.9
VRHR                                 eS      S       10 48 54.3 -1.3
VRHR                                  pmax    pmax
       comp=Z,520nm,1.2s,mb6.1
VRHR                                  pmax    pmax
       comp=N,30nm,0.7s
VRHR                                  pmax    pmax
       comp=E,470nm,1.3s
VRHR                                  smax
       comp=N,2μm,9.4s
VRHR                                  smax
       comp=Z,280nm,8.7s
VRHR                                  smax
       comp=E,530nm,9.8s
VRHR                                  MLR     MLR
       comp=Z,6μm,25.0s,MS5.3
VRHR                                  MLR     MLR
       comp=N,6μm,17.0s
VRHR                                  MLR     MLR
       comp=E,3μm,21.0s
VRHR   Novokhopersk      39.71  51   eP      P       10 42 54.2  0.0
       comp=E,30nm,0.7s,mb5.1
BINT   Bingol            40.00  70    P      P       10 42 56.8 +0.1
APA    Apatity           40.12  24⇓iP      P       10 42 57.6 +0.2
APA                                  i               10 44 33.0
APA                                  eS      S       10 49 00.0 -1.4
APA                                   pmax    pmax
       comp=Z,2μm,4.0s
APA                                   pmax    pmax
       comp=Z,680nm,1.6s,mb6.1
APA                                   MLR     MLR
       comp=Z,24μm,16.0s,MS6.1
APA    Apatity           40.12  24  i P      P       10 42 57.6 +0.2
       comp=Z,680nm,1.6s,mb6.1
BCA    Borcka            40.37  66    P      P       10 42 59.5 -0.3
EZM    Erzurum           40.45  68    P      P       10 43 01.2 +0.7
LVZ    Lovozero          40.69  24    P      P       10 43 02.7 +0.6
       comp=Z,2μm,1.1s,mb6.5,SNR=12
LVZ    Lovozero          40.69  24⇑iP      P       10 43 02.5 +0.4
LVZ                                   pmax    pmax
       comp=Z,463nm,1.2s,mb6.0
LVZ                                   MLR     MLR
       comp=Z,17μm,18.0s,MS5.9
LVZ    Lovozero          40.69  24  i P      P       10 43 02.5 +0.4
       comp=Z,17μm,18.0s
KIV    Kislovodsk        40.77  62    P      P       10 43 03.7 +0.6
       comp=Z,2μm,1.4s,mb6.5,SNR=52
KIV    Kislovodsk        40.77  62   eP      P       10 43 03.4 +0.3
       comp=Z,705nm,1.4s,mb6.1
KIV                                  ePcP    PcP     10 45 04.3 +0.4
KIV                                   LR      LR
       comp=Z,4μm,21.0s,MS5.3
KIV    Kislovodsk        40.77  62   eP      P       10 43 03.4 +0.3
KIV                                  e               10 44 34.1
KIV                                  e               10 45 04.3
KIV                                  eS      S       10 49 10.0 -1.7
KIV                                   pmax    pmax
       comp=Z,385nm,1.2s,mb5.9
KIV                                   pmax    pmax
       comp=Z,1μm,5.2s
KIV                                   MLR     MLR
       comp=Z,3μm,17.0s,MS5.2
KIV    Kislovodsk        40.77  62   eP      P       10 43 03.4 +0.3
       comp=Z,1μm,5.2s
KIV    Kislovodsk        40.77  62   ePcP    PcP     10 45 04.3 +0.4
       comp=Z,3μm,17.0s
BTMT   Batman            40.91  71    P      P       10 43 04.3  0.0
DAG    Danmarks Havn     41.13 357⇑eP      P       10 43 06.2 +0.6
DAG                                   pmax    pmax
       comp=Z,190nm,1.2s,mb5.6
DAG                                   MLR     MLR
       comp=N,5μm,18.0s
DAG                                   MLR     MLR
       comp=Z,7μm,18.0s,MS5.6
DAG    Danmarks Havn     41.13 357⇑iP      P       10 43 06.2 +0.6
       comp=Z,190nm,1.2s,mb5.6
DAG
       comp=Z,7μm,18.0s
DAG    Danmarks Havn     41.13 357⇑eP      P       10 43 06.2 +0.6
       comp=Z,12nm,1.2s
BJO    Bjornoya          41.19  12    AMS     AMS     10 57 35.8
       comp=Z,5μm,20.5s,MS5.3
KARS   Kars              41.61  67    P      P       10 43 10.5 +0.5
AGRB   Hanur-Agry        41.75  68    P      P       10 43 10.9 -0.2
ZEI    Tsey              41.82  64   eP      P       10 43 12.9 +1.2
ZEI                                   pmax    pmax
       comp=Z,669nm,1.3s,mb6.1
ZEI    Tsey              41.82  64   eP      P       10 43 12.9 +1.2
       comp=Z,669nm,1.3s,mb6.1
GOR    Gori              42.10  65    P      P       10 43 14.8 +0.8
VANB   Van               42.27  70    P      P       10 43 16.2 +0.7
TBLG   Delisi            42.61  65    P      P       10 43 18.7 +0.5
MSL    Mosul             42.63  73  i P      x       10 43 21.0
MSL                                  epP     x       10 43 38.0
MSL                                  ePP     x       10 44 56.0
MSL                                  ePPP    x       10 45 28.5
MSL                                  ePcP    x       10 46 14.0
MSL                                  eS      x       10 48 57.0
MTA    Mtatsminda        42.66  65    P      P       10 43 18.9 +0.4
MTA                                   S      S       10 49 39.1 -0.6
SCHQ   Schefferville     42.70 315   eP      P       10 43 17.9 -0.7
       comp=Z,711nm,1.4s,mb6.2
SCHQ                                  LR      LR
```

	comp=Z,17μm,21.0s,MS5.9						
SCHQ	**Schefferville**	42.70	315	P	P	10 43 18.1	-0.6
	comp=Z,50nm,1.1s,mb5.2,baz=100,slow=7.4,SNR=25						
SCHQ				LR	LR	10 57 12.8	
	comp=Z,12μm,21.7s,MS5.7,baz=88,slow=31						
SCHQ	**Schefferville**	42.70	315	*e*P	P	10 43 17.9	-0.8
	comp=Z,711nm,1.4s,mb6.2						
CUKT	**Cukurca**	42.77	72	P	P	10 43 19.5	0.0
HKR	**Hakkari**	42.79	71	P	P	10 43 19.8	+0.1
MRKH	**Merkhyat**	42.91	107	*i* P	P	10 43 21.8	+1.0
	baz=306,slow=10						
MRKH				AMb	AMB	10 43 23.8	
	comp=Z,1μm,1.4s,mb6.4						
MRKH				*e*PP	PP	10 45 01.4	+0.7
PRGR	**Permogore**	43.06	35⇑	*i*P	P	10 43 21.6	+0.1
PRGR				*e*S	S	10 49 47.0	+1.9
DGRG	**David-gareji**	43.13	65	P	P	10 43 23.0	+0.6
DGRG				S	S	10 49 41.9	-4.9
ASCN	**Ascension**	43.79	186	*e*P	P	10 43 26.4	-1.5
	comp=Z,200nm,1.1s,mb5.8						
ASCN				LR	LR		
	comp=Z,10μm,20.0s,MS5.7						
ASCN	**Ascension**	43.79	186	*e*P	P	10 43 26.4	-1.4
	comp=Z,200nm,1.1s,mb5.8						
SPB4	**Spitsbergen Ar**	43.85	8	*e*P	P	10 43 29.5	+1.7
SPB4	**Spitsbergen Ar**	43.85	8	*e*P	P	10 43 29.5	+1.8
GANJ	**Ganja**	44.01	66	P	P	10 43 29.4	0.0
	SNR=342						
KBS	**Kingsbay**	44.08	6	*e*P	P	10 43 31.7	+2.1
	comp=Z,72nm,0.9s,mb5.4						
KBS				LR	LR		
	comp=Z,4μm,21.0s,MS5.3						
KBS	**Kingsbay**	44.08	6	*e*P	P	10 43 31.4	+1.8
KBS				AMb	AMB	10 43 53.7	
	comp=Z,207nm,1.7s,mb5.6						
KBS				*e*S	S	10 50 03.9	+4.1
KBS				AMS	AMS	10 58 59.3	
	comp=Z,2μm,19.7s,MS5.0						
KBS	**Kingsbay**	44.08	6	*i* P	P	10 43 31.2	+1.6
KBS				*e*S	S	10 50 03.9	+4.2
	SNR=26						
MAK	**Makhachkala**	44.39	63	*e*P	P	10 43 32.5	0.0
MAK				*i*		10 45 16.7	
MAK				*e*PPP		10 45 54.4	
MAK				*e*S	S	10 50 04.0	-1.0
MAK				*i*		10 53 33.3	
MAK				pmax	pmax		
	comp=Z,3μm,1.4s,mb6.8						
MAK				pmax	pmax		
	comp=N,2μm,0.9s						
MAK				pmax	pmax		
	comp=E,1μm,0.9s						
MAK				smax			
	comp=N,2213μm,4.4s						
MAK				smax			
	comp=E,2174μm,4.7s						
MAK				MLR	MLR		
	comp=Z,6μm,19.0s,MS5.5						
MAK				MLR	MLR		
	comp=N,7μm,17.0s,MS5.8						
MAK				MLR	MLR		
	comp=E,6μm,16.0s,MS5.8						
MAK	**Makhachkala**	44.39	63	*e*P	P	10 43 32.5	0.0
	comp=E,2μm,0.9s,mb6.8						
SEKA	**Sheki**	44.53	65	P	P	10 43 33.5	-0.1
	SNR=164						
BHD	**Baghdad**	44.55	77	*i* P	x	10 43 33.0	
BHD				*i* pP	x	10 43 41.5	
BHD				*i* PP	x	10 45 18.0	
BHD				*e*S	x	10 50 03.0	
BBSR	**BB Station**	44.72	282	PFAKE		10 43 40.0	+4.7
BBSR				LR	LR		
	comp=Z,10μm,22.0s,MS5.7						
BRDA	**Brd**	44.73	66	P	P	10 43 36.3	+1.1
	SNR=104						
PKME	**Peaks-Kenny Pk**	44.90	301	P	P	10 43 35.8	-0.7
	comp=Z,425nm,1.7s,mb6.0						
PKME				LR	LR		
	comp=Z,9μm,22.0s,MS5.6						
WVL	**Waterville**	45.28	300	*e*P	P	10 43 42.2	+2.7
PQL	**Pirkuli**	45.65	65	P	P	10 43 42.9	+0.3
	SNR=218						
SIZA	**Siyzn**	45.81	65	P	P	10 43 44.1	+0.3
	SNR=96						
ALIB	**Ii-Bayraml**	46.16	66	P	P	10 43 48.0	+1.4
	SNR=38						
GOBA	**Gobu**	46.59	66	P	P	10 43 51.8	+1.9
	SNR=47						
NDR	**Nardaran**	46.73	65	P	P	10 43 52.6	+1.6
	SNR=6.0						
GALA	**Gala**	46.90	65	P	P	10 43 54.3	+1.9
	SNR=11						
FFD	**Franklin Falls**	46.91	299	*e*P	P	10 43 53.7	+1.3
	comp=Z,188nm,1.1s,mb5.9						
FFD	**Franklin Falls**	46.91	299	*e*P	P	10 43 53.7	+1.3
	comp=Z,188nm,1.1s,mb5.9						
WES	**Weston**	46.91	297	*e*P	P	10 43 55.3	+2.8
	comp=Z,2μm,1.8s,mb6.6						
WES				LR	LR		
	comp=Z,3μm,21.0s,MS5.2						
WES	**Weston**	46.91	297	*e*P	P	10 43 55.3	+2.9
WES				pmax	pmax		
	comp=Z,567nm,1.8s,mb6.2						
WES				MLR	MLR		
	comp=Z,3μm,21.0s,MS5.2						
LBNH	**Lisbon**	46.94	300	*e*P	P	10 43 53.2	+0.7
LBNH				LR	LR		
	comp=Z,14μm,19.0s,MS6.0						
LBNH	**Lisbon**	46.94	300	*e*P	P	10 43 53.2	+0.6
HRV	**Harvard--Oak R**	47.06	298	PFAKE		10 44 00.0	+6.5
HRV				LR	LR		
	comp=Z,5μm,20.0s,MS5.5						
QUA2	**Belchertown**	47.68	297	*e*P	P	10 44 01.2	+2.8
	comp=Z,1μm,1.8s,mb6.6						
FRNY	**Flat Rock**	47.97	301	*e*P	P	10 44 03.1	+2.5
	comp=Z,373nm,2.0s,mb6.1						
RCBR	**Riachuelo**	48.01	215	*e*P	P	10 44 01.5	+0.3
	comp=Z,121nm,1.5s,mb5.7						
RCBR				LR	LR		
	comp=Z,6μm,20.0s,MS5.5						
RCBR	**Riachuelo**	48.01	215	*e*P	P	10 44 01.5	+0.3
	comp=Z,121nm,1.5s,mb5.7						
RST	**Umm Al-Ruwaisa**	48.01	81	*e*P	P	10 44 00.0	-1.1
RST				AMb	AMB	10 44 02.5	
	comp=Z,616nm,1.3s,mb6.5						
RST	**Umm Al-Ruwaisa**	48.01	81	*e*P	P	10 44 00.0	-1.1
	comp=Z,616nm,1.3s,mb6.5						
MIB	**Mutribah**	48.16	80	*e*P	P	10 44 01.4	-0.9
MIB				AMb	AMB	10 44 04.3	
	comp=Z,489nm,1.3s,mb6.4						
MIB	**Mutribah**	48.16	80	*e*P	P	10 44 01.5	-0.8
	comp=Z,489nm,1.3s,mb6.4						
NAY	**Al-Naaiem**	48.30	81	*e*P	P	10 44 02.5	-0.9
NAY				AMb	AMB	10 44 04.5	
	comp=Z,199nm,1.1s,mb6.1						
NAY	**Al-Naaiem**	48.30	81	*e*P	P	10 44 02.5	-0.9
	comp=Z,199nm,1.1s,mb6.1						
ACCN	**Adirondack Com**	48.36	299	*e*P	P	10 44 04.9	+1.3
	comp=Z,22nm,1.0s,mb5.2						
ACCN	**Adirondack Com**	48.36	299	*e*P	P	10 44 04.9	+1.3
	comp=Z,22nm,1.0s,mb5.2						
SOKR	**Solikamsk**	48.40	39*c*	*i*P	P	10 44 03.0	-0.7
SOKR						10 46 03.9	
SOKR				S	S	10 51 00.6	-1.4
SOKR				SS	SS	10 54 28.0	-3.4
SOKR				pmax	pmax		
	comp=Z,460nm,1.1s,mb6.4						
SOKR				MLR	MLR		
	comp=Z,10μm,16.0s,MS5.9						
SOKR	**Solikamsk**	48.40	39	*i* P	P	10 44 03.0	-0.7
	comp=Z,460nm,1.1s,mb6.4						
UMR	**Umm Al-Rimmam**	48.56	80	*e*P	P	10 44 04.2	-1.2
UMR				AMb	AMB	10 44 07.0	
	comp=Z,592nm,1.3s,mb6.5						
UMR	**Umm Al-Rimmam**	48.56	80	*e*P	P	10 44 04.2	-1.2
	comp=Z,592nm,1.3s,mb6.5						
NCB	**Newcomb**	48.61	300	*e*P	P	10 44 05.9	+0.3
	comp=Z,226nm,1.2s,mb6.1						
NCB				LR	LR		
	comp=Z,8μm,19.0s,MS5.8						
NCB	**Newcomb**	48.61	300	*e*P	P	10 44 05.9	+0.3
	comp=Z,226nm,1.2s,mb6.1						
RDF	**Al-Radifah**	48.68	81	*e*P	P	10 44 05.6	-0.7
RDF				AMb	AMB	10 44 07.9	
	comp=Z,350nm,1.2s,mb6.3						
RDF	**Al-Radifah**	48.68	81	*e*P	P	10 44 05.6	-0.7
	comp=Z,350nm,1.2s,mb6.3						
KBD	**Kabd**	48.69	81	*e*P	P	10 44 05.7	-0.7
KBD				AMb	AMB	10 44 08.1	
	comp=Z,2μm,1.2s,mb7.1						
KBD	**Kabd**	48.69	81	*e*P	P	10 44 05.7	-0.7
	comp=Z,2μm,1.2s,mb7.1						
LONY	**Lake Ozonia**	48.71	301	*e*P	P	10 44 06.3	0.0
	comp=Z,32nm,0.8s,mb5.4						
LONY				LR	LR		
	comp=Z,10μm,21.0s,MS5.8						
LONY	**Lake Ozonia**	48.71	301	*e*P	P	10 44 06.3	0.0
	comp=Z,32nm,0.8s,mb5.4						
MSNY	**Massena**	48.82	302	*e*P	P	10 44 07.7	+0.5
MSNY	**Massena**	48.82	302	*e*P	P	10 44 07.7	+0.5
QRN	**Al-Qurain**	49.05	81	*e*P	P	10 44 08.4	-0.7
QRN				AMb	AMB	10 44 10.9	
	comp=Z,366nm,1.3s,mb6.2						
PAL	**Palisades**	49.14	296	*e*P	P	10 44 09.6	0.0
	comp=Z,66nm,1.1s,mb5.6						
PAL	**Palisades**	49.14	296	*e*P	P	10 44 09.6	0.0
CPNY	**Central Park**	49.23	296	P	P	10 44 14.0	+3.7
	comp=Z,583nm,2.0s,mb6.3						
ARU	**Arti**	49.56	43	*e*P	P	10 44 12.0	-0.7
	comp=Z,1μm,1.6s,mb6.8						
ARU				LR	LR		
	comp=Z,8μm,20.0s,MS5.7						
ARU	**Arti**	49.56	43⇑	*i*P	P	10 44 12.5	-0.1
ARU				*e*		10 45 31.0	
ARU				*e*		10 46 06.6	
ARU				*e*S	S	10 51 18.6	+0.2
ARU				*e*SS	SS	10 54 52.7	+2.5
ARU				*e*SSS		10 56 09.5	
ARU				pmax	pmax		
	comp=Z,663nm,1.4s,mb6.5						
ARU				MLR	MLR		
	comp=N,1μm,16.0s,MS5.7						
ARU				MLR	MLR		
	comp=Z,10μm,16.0s,MS5.9						
ARU				MLR	MLR		
	comp=E,7μm,17.0s,MS5.7						
ARU	**Arti**	49.56	43	*e*P	P	10 44 12.0	-0.6
	comp=E,1μm,1.6s,mb6.8						
ARU	**Arti**	49.56	43	*e*PcP	PcP	10 45 31.0	-3.0
ARU				*e*S	S	10 51 18.6	+0.2
BBGH	**Gun Hill**	49.65	256	PFAKE		10 44 20.0	+6.1
BBGH				LR	LR		
	comp=Z,6μm,21.0s,MS5.6						
BRNJ	**Basking Ridge**	49.70	296	*e*P	P	10 44 13.6	-0.4
	comp=Z,171nm,1.3s,mb5.9						
ALE	**Alert**	49.88	352	P	P	10 44 15.0	+0.2
	comp=Z,479nm,0.9s,mb6.5,SNR=43						
BINY	**Binghamton**	50.31	298	*e*P	P	10 44 18.9	+0.4
	comp=Z,88nm,1.0s,mb5.8						
BINY				LR	LR		
	comp=Z,8μm,19.0s,MS5.7						
BINY	**Binghamton**	50.31	298	*e*P	P	10 44 18.9	+0.3
	comp=Z,88nm,1.0s,mb5.8						
SVE	**Sverdlovsk**	50.65	42⇑	*i*P	P	10 44 21.0	+0.1
SVE				*e*		10 46 20.0	
SVE				*e*S	S	10 51 34.0	+0.4
SVE				*e*		10 54 06.0	
SVE				pmax	pmax		
	comp=Z,1μm,1.7s,mb6.5						
SVE				MLR	MLR		
	comp=E,8μm,16.0s						
SVE				MLR	MLR		
	comp=Z,11μm,16.0s,MS6.0						
SVE	**Sverdlovsk**	50.65	42	*i* P	P	10 44 21.0	+0.1
	comp=Z,1μm,1.7s,mb6.5						
SVE				*e*S	S	10 51 34.0	+0.4
MVL	**Millersville**	51.21	296	*e*P	P	10 44 25.4	0.0
	comp=Z,38nm,0.9s,mb5.3						
MVL	**Millersville**	51.21	296	*e*P	P	10 44 25.4	0.0
	comp=Z,38nm,0.9s,mb5.3						
DESE	**Dese**	51.30	106	*e*P	P	10 44 28.4	+2.1
MTP	**Monte Pirata**	51.70	265	*e*P	P	10 44 29.1	-0.2
MTP	**Monte Pirata**	51.70	265	*e*P	P	10 44 29.1	-0.2
SDMD	**Soldier's Deli**	51.75	295	*e*P	P	10 44 29.3	-0.2
SDMD	**Soldier's Deli**	51.75	295	*e*P	P	10 44 29.3	-0.1
CBYP	**Canovanas**	51.86	266	*e*P	P	10 44 29.8	-0.6
CBYP	**Canovanas**	51.86	266	*e*P	P	10 44 29.8	-0.7
FURI	**Furi**	51.92	109	*e*P	P	10 44 34.0	+3.0
FURI	**Furi**	51.92	109	*e*P	P	10 44 34.0	+3.0
HUMP	**Col San Antoni**	51.92	265	*e*P	P	10 44 30.7	-0.3
HUMP	**Col San Antoni**	51.92	265	*e*P	P	10 44 30.7	-0.2
CPD	**Cerro la Pandu**	52.03	265	*e*P	P	10 44 31.7	-0.1
	comp=Z,90nm,1.0s,mb5.7						
CPD	**Cerro la Pandu**	52.03	265	*e*P	P	10 44 31.7	0.0
SSPA	**Standing Stone**	52.13	297	*e*P	P	10 44 32.3	0.0
	comp=Z,319nm,1.6s,mb6.0						
SSPA				LR	LR		
	comp=Z,8μm,21.0s,MS5.7						
SSPA	**Standing Stone**	52.13	297	*e*P	P	10 44 32.3	0.0
	comp=Z,319nm,1.6s,mb6.0						
SJG	**San Juan**	52.18	266	*e*P	P	10 44 32.5	-0.4
	comp=Z,18nm,0.3s,mb5.5						
SJG				LR	LR		
	comp=Z,4μm,21.0s,MS5.4						
SJG	**San Juan**	52.18	266	*e*P	P	10 44 32.5	-0.4
SJG				pmax	pmax		
	comp=Z,18nm,0.3s						
SJG				MLR	MLR		
	comp=Z,4μm,21.0s						
SJG	**San Juan**	52.18	266	*e*P	P	10 44 32.5	-0.4
	comp=Z,4μm,21.0s						
CBN	**Corbin**	52.54	294	*e*P	P	10 44 36.0	+0.7
	comp=Z,278nm,1.5s,mb6.0						
CBN				LR	LR		
	comp=Z,8μm,22.0s,MS5.7						
CBN	**Corbin**	52.54	294	*e*P	P	10 44 36.0	+0.7
	comp=Z,278nm,1.5s,mb6.0						
URVA	**University of**	52.87	293	*e*P	P	10 44 38.3	+0.5
URVA	**University of**	52.87	293	*e*P	P	10 44 38.3	+0.5
MPR	**Mayaguez**	52.93	266	*e*P	P	10 44 37.9	-0.5
MPR	**Mayaguez**	52.93	266	*e*P	P	10 44 37.9	-0.5
DHBB	**Dhamar BB**	53.06	99⇑	*e*P	P	10 44 41.0	+1.6
ALLY	**Alegheny Colle**	53.44	299	*e*P	P	10 44 41.9	0.0
TRBA	**At Turbah**	53.60	101⇑	*e*P	P	10 44 44.9	+1.5
MCWV	**Mont Chateau**	53.87	296	*e*P	P	10 44 45.2	+0.2
	comp=Z,594nm,1.6s,mb6.3						
MCWV				LR	LR		
	comp=Z,10μm,21.0s,MS5.9						
MCWV	**Mont Chateau**	53.87	296	*e*P	P	10 44 45.2	+0.1
	comp=Z,594nm,1.6s,mb6.3						
CNNC	**Cliffs of the**	53.97	291	*e*P	P	10 44 46.2	+0.3
	comp=Z,371nm,1.5s,mb6.1						
CNNC				LR	LR		
	comp=Z,8μm,20.0s,MS5.8						
CNNC	**Cliffs of the**	53.97	291	*e*P	P	10 44 46.2	+0.3
	comp=Z,371nm,1.5s,mb6.1						
LBOS		54.15	99⇑	*e*P	P	10 44 49.0	+1.6
LBOS				AMb	AMB	10 44 49.3	
	comp=Z,782nm,1.0s,mb6.6						
RES	**Resolute Bay**	54.33	341	*e*P	P	10 44 48.5	+0.6
	comp=Z,5μm,1.1s						
BDHA	**Al Bayda'**	54.34	99⇑	*e*P	P	10 44 50.3	+1.5
BDHA				AMb	AMB	10 44 51.1	
	comp=Z,63nm,0.7s,mb5.7						
BDHA	**Al Bayda'**	54.34	99⇑	*e*P	P	10 44 50.3	+1.5
	comp=Z,31nm,0.7s,mb5.4						
BLA	**Blacksburg**	55.15	294	*e*P	P	10 44 54.1	-0.3
	comp=Z,318nm,1.5s,mb6.1						
BLA				LR	LR		
	comp=Z,7μm,20.0s,MS5.8						
BLA	**Blacksburg**	55.15	294	*e*P	P	10 44 54.1	-0.3
BLA				pmax	pmax		
	comp=Z,318nm,1.5s,mb6.1						
BLA				MLR	MLR		
	comp=Z,7μm,20.0s,MS5.8						
BLA	**Blacksburg**	55.15	294	*e*P	P	10 44 54.1	-0.3
	comp=Z,7μm,20.0s						
ELN	**Prospectdale**	55.39	294	*e*P	P	10 44 55.5	-0.6
ELN	**Prospectdale**	55.39	294	*e*P	P	10 44 55.5	-0.6
AAM	**Ann Arbor**	55.70	301	*e*P	P	10 44 58.5	+0.3
	comp=Z,34nm,0.3s,mb5.8						
AAM				LR	LR		
	comp=Z,10μm,19.0s,MS5.9						
AAM	**Ann Arbor**	55.70	301	*e*P	P	10 44 58.6	+0.3
AAM				pmax	pmax		
	comp=Z,34nm,0.3s,mb5.8						
AAM				MLR	MLR		
	comp=Z,10μm,19.0s,MS5.9						
AAM	**Ann Arbor**	55.70	301	*e*P	P	10 44 58.5	+0.2
	comp=Z,34nm,0.3s,mb5.8						
SDDR	**Presa de Saban**	55.90	270	*e*P	P	10 45 00.4	+0.4
	comp=Z,112nm,1.2s,mb5.8						
SDDR				LR	LR		
	comp=Z,10μm,21.0s,MS5.9						
ACSO	**Alum Creek Sta**	55.94	298	*e*P	P	10 44 59.6	-0.4
	comp=Z,227nm,1.2s,mb6.1						
ACSO				LR	LR		
	comp=Z,8μm,21.0s,MS5.8						
ACSO	**Alum Creek Sta**	55.94	298	*e*P	P	10 44 59.6	-0.4
	comp=Z,227nm,1.2s,mb6.1						
LHS	**Liberty Hill**	56.48	291	*e*P	P	10 45 04.2	+0.2
LHS	**Liberty Hill**	56.48	291	P	P	10 45 04.4	+0.4
LHS	**Liberty Hill**	56.48	291	*e*P	P	10 45 04.2	+0.2
NHSC	**New Hope**	56.55	289	*e*P	P	10 45 05.0	+0.5
	comp=Z,899nm,1.5s,mb6.6						
NHSC				LR	LR		
	comp=Z,6μm,21.0s,MS5.7						
ASUD	**Al Ashush, Dub**	56.80	82	P	P	10 45 06.3	-0.1
	SNR=64						
COW	**Cow Castle Cre**	56.84	290	*e*P	P	10 45 07.2	+0.7
COW	**Cow Castle Cre**	56.84	290	*e*P	P	10 45 07.2	+0.7
MUKL	**Al Mukalla**	56.86	96⇑	*e*P	P	10 45 08.1	+1.3
MUKL				AMb	AMB	10 45 08.7	
	comp=Z,306nm,0.8s,mb6.4						
BRVK	**Borovoye**	56.89	45	*e*P	P	10 45 06.9	+0.3
	comp=Z,121nm,0.9s,mb5.9						
BRVK				LR	LR		
	comp=Z,8μm,19.0s,MS5.9						
BRVK	**Borovoye**	56.89	45	P	P	10 45 06.8	+0.2
BRVK				pmax	pmax		
	comp=Z,120nm,0.9s,mb5.9						
BRVK	**Borovoye**	56.89	45	P	P	10 45 06.8	+0.2
	comp=Z,120nm,0.9s,mb5.9						
JSC	**Jenkinsville**	56.90	291	*e*P	P	10 45 07.4	+0.4
JSC	**Jenkinsville**	56.90	291	P	P	10 45 07.4	+0.4
NAZ	**Nazwa, Dubai**	56.90	81	P	P	10 45 06.5	-0.6
	SNR=94						
FAQ	**Al Faqa, Dubai**	56.96	82	P	P	10 45 06.7	-0.8
	SNR=55						
FCC	**Fort Churchill**	57.06	322	*e*P	P	10 45 07.1	-0.6
	comp=Z,722nm,1.4s,mb6.5						
FCC				*e*	pP	10 45 17.5	+0.5
FCC				*e*		10 45 23.7	
FCC	**Fort Churchill**	57.06	322	P	P	10 45 07.1	-0.6
FCC				pmax	pmax		
	comp=Z,720nm,1.4s,mb6.5						
FCC	**Fort Churchill**	57.06	322	P	P	10 45 07.1	-0.6
	comp=Z,720nm,1.4s,mb6.5						
KMBO	**Kilima Mbogo**	57.52	119	P	P	10 45 13.9	+2.3
KMBO				PP	PP	10 47 22.4	+2.9
KMBO	**Kilima Mbogo**	57.52	119	*e*P	P	10 45 13.7	+2.1
	comp=Z,396nm,1.2s,mb6.3						
KMBO				LR	LR		
	comp=Z,8μm,20.0s,MS5.8						
KMBO	**Kilima Mbogo**	57.52	119	*i* P	P	10 45 13.8	+2.2
KMBO				pmax	pmax		
	comp=Z,202nm,1.0s						
KMBO	**Kilima Mbogo**	57.52	119	P	P	10 45 13.6	+2.0
	comp=Z,202nm,1.0s,mb6.1,baz=316,slow=7.1,SNR=221						
KMBO				LR	LR	11 11 09.4	
	comp=Z,8μm,20.9s,MS5.8,baz=307,slow=37						
TZTN	**Tazewell**	57.72	294	*e*P	P	10 45 12.7	0.0
	comp=Z,392nm,1.5s,mb6.2						
TZTN				*e*		10 45 28.0	
TZTN				LR	LR		
	comp=Z,6μm,20.0s,MS5.7						
TZTN	**Tazewell**	57.72	294	*e*P	P	10 45 12.7	0.0
COWI	**Conover**	58.11	306	*e*P	P	10 45 14.7	-0.6
	comp=Z,267nm,1.6s,mb6.0						
COWI				*e*		10 45 31.1	
COWI				LR	LR		
	comp=Z,6μm,22.0s,MS5.7						
COWI	**Conover**	58.11	306	*e*P	P	10 45 14.7	-0.6
BLO	**Bloomington**	58.86	298	*e*P	P	10 45 20.4	-0.3
	comp=Z,523nm,1.5s,mb6.3						
BLO	**Bloomington**	58.86	298	*e*P	P	10 45 20.4	-0.3
BLO				pmax	pmax		
	comp=Z,523nm,1.5s,mb6.3						
BLO	**Bloomington**	58.86	298	*e*P	P	10 45 20.4	-0.3
	comp=Z,523nm,1.5s,mb6.3						
CPCT	**Cooper Cave**	58.88	293	*e*P	P	10 45 20.7	-0.2
CPCT				*e*		10 45 35.4	
GOGA	**Godfrey**	58.93	291	*e*P	P	10 45 21.3	0.0
	comp=Z,222nm,1.6s,mb5.9						
GOGA				*e*		10 45 37.8	
GOGA				LR	LR		
	comp=Z,7μm,20.0s,MS5.8						
GOGA	**Godfrey**	58.93	291	P	P	10 45 21.3	+0.1
	comp=Z,220nm,1.5s,mb6.0						
EYMN	**Ely**	58.98	309	*e*P	P	10 45 20.6	-0.8
	comp=Z,704nm,1.9s,mb6.4						
EYMN				LR	LR		
	comp=Z,18μm,20.0s,MS6.2						
EYMN	**Ely**	58.98	309	*e*P	P	10 45 20.6	-0.7
	comp=Z,704nm,1.9s,mb6.4						
WCI	**Wyandotte Cave**	59.07	297	*e*P	P	10 45 21.9	-0.2
	comp=Z,414nm,1.5s,mb6.2						
WCI				*e*		10 45 38.5	
WCI				LR	LR		
	comp=Z,7μm,19.0s,MS5.8						
WCI	**Wyandotte Cave**	59.07	297	*e*P	P	10 45 21.9	-0.2
WCI				pmax	pmax		
	comp=Z,414nm,1.5s,mb6.2						
WCI				MLR	MLR		
	comp=Z,7μm,19.0s,MS5.8						
WCI	**Wyandotte Cave**	59.07	297	*e*P	P	10 45 21.9	-0.2
	comp=Z,7μm,19.0s						
BSYO	**Bisya**	59.24	83	P	P	10 45 22.5	-1.1
	SNR=153						
DWPF	**Disney**	59.67	284	*e*P	P	10 45 27.1	+0.6
	comp=Z,300nm,1.4s,mb6.1						
DWPF				*e*	pP	10 45 35.0	-0.8
DWPF				*e*		10 45 45.6	
DWPF				LR	LR		
	comp=Z,9μm,21.0s,MS5.9						
DWPF	**Disney**	59.67	284	*e*P	P	10 45 27.1	+0.7
JFWS	**Jewell Farm**	60.02	303	*e*P	P	10 45 27.8	-0.8
	comp=Z,132nm,1.3s,mb5.8						
JFWS				LR	LR		
	comp=Z,15μm,20.0s,MS6.1						
JFWS	**Jewell Farm**	60.02	303	*e*P	P	10 45 27.8	-0.8
JFWS				pmax	pmax		
	comp=Z,132nm,1.3s,mb5.8						
JFWS				MLR	MLR		
	comp=Z,15μm,20.0s,MS6.1						
JFWS	**Jewell Farm**	60.02	303	*e*P	P	10 45 27.8	-0.8
	comp=Z,15μm,20.0s						
SWET	**Sewanee**	60.03	294	*e*P	P	10 45 28.2	-0.5
SWET				*e*		10 45 44.8	
SWET	**Sewanee**	60.03	294	*e*P	P	10 45 28.2	-0.6
CCCC	**Cccc**	60.03	276	*e*P	P	10 45 28.1	-0.9
USIN	**University of**	60.17	297	*e*P	P	10 45 28.9	-0.8
	comp=Z,367nm,1.4s,mb6.2						
USIN				*e*		10 45 45.2	
HDIL	**Hopedale**	60.28	301	*e*P	P	10 45 29.7	-0.7
	comp=Z,247nm,1.6s,mb6.0						
HDIL				*e*		10 45 46.0	
HDIL				LR	LR		
	comp=Z,7μm,20.0s,MS5.8						
HDIL	**Hopedale**	60.28	301	*e*P	P	10 45 29.7	-0.7
TSUM	**Tsumeb**	60.83	150	*e*P	P	10 45 34.2	0.0
	comp=Z,245nm,1.4s,mb6.1						
TSUM				LR	LR		
	comp=Z,8μm,21.0s,MS5.8						
ULM	**Lac du Bonnet**	60.83	313	*e*P	P	10 45 32.7	-1.2
	comp=Z,488nm,1.8s,mb6.3						
ULM				*e*		10 45 49.9	
ULM				LR	LR		
	comp=Z,11μm,21.0s,MS6.0						
ULM	**Lac du Bonnet**	60.83	313	P	P	10 45 32.9	-1.1
	comp=Z,52nm,1.1s,mb5.6,baz=66,slow=7.1,SNR=39						
ULM				LR	LR	11 07 52.2	
	comp=Z,8μm,21.6s,MS5.8,baz=69,slow=32						
ULM				PKPPKP		11 14 43.7	
	comp=Z,3.3nm,0.9s,baz=263,slow=2.7,SNR=6.0						
ULM	**Lac du Bonnet**	60.83	313	*e*P	P	10 45 32.7	-1.3
WVT	**Waverly**	61.05	295	*e*P	P	10 45 34.3	-1.4
	comp=Z,299nm,1.7s,mb6.2						
WVT				*e*		10 45 51.0	
WVT				LR	LR		
	comp=Z,7μm,22.0s,MS5.8						
WVT	**Waverly**	61.05	295	*e*P	P	10 45 34.3	-1.4
WVT				pmax	pmax		
	comp=Z,299nm,1.7s,mb6.2						
WVT				MLR	MLR		
	comp=Z,7μm,22.0s,MS5.8						
WVT	**Waverly**	61.05	295	*e*P	P	10 45 34.3	-1.4
	comp=Z,7μm,22.0s						

SIUC	Southern Illin	61.39	298	*e*P	P	10 45 36.5	-1.5
	comp=Z,262nm,1.6s,mb6.1						
SIUC				*e*	pP	10 45 46.6	-0.8
SIUC				*e*		10 45 53.4	
SIUC	Southern Illin	61.39	298	*e*P	P	10 45 36.5	-1.5
AGMN	Agassiz Refuge	61.57	311	*e*P	P	10 45 38.3	-0.8
	comp=Z,181nm,1.3s,mb6.0						
AGMN				LR	LR		
	comp=Z,11µm,20.0s,MS6.0						
AGMN	Agassiz Refuge	61.57	311	*e*P	P	10 45 38.3	-0.7
	comp=Z,181nm,1.3s,mb6.0						
UTMT	University of	61.71	296	*e*P	P	10 45 38.8	-1.4
	comp=Z,743nm,1.5s,mb6.6						
UTMT				*e*		10 45 55.9	
UTMT	University of	61.71	296	*e*P	P	10 45 38.8	-1.4
PLAL	Pickwick Lake	61.72	294	*e*P	P	10 45 39.5	-0.7
	comp=Z,1µm,1.4s,mb6.8						
PLAL				*e*		10 45 56.9	
PLAL				LR	LR		
	comp=Z,5µm,19.0s,MS5.7						
PLAL	Pickwick Lake	61.72	294	*e*P	P	10 45 39.5	-0.8
SLM	Saint Louis	61.73	299	*e*P	P	10 45 39.2	-1.0
	comp=Z,574nm,1.6s,mb6.5						
SLM				*e*		10 45 55.2	
SLM	Saint Louis	61.73	299	*e*P	P	10 45 39.3	-1.0
SLM				pmax	pmax		
	comp=Z,574nm,1.6s,mb6.5						
SLM	Saint Louis	61.73	299	*e*P	P	10 45 39.2	-1.1
LRAL	Lakeview Retre	61.76	292	*e*P	P	10 45 40.0	-0.7
	comp=Z,428nm,1.6s,mb6.3						
LRAL				*e*		10 45 57.3	
LRAL				LR	LR		
	comp=Z,8µm,20.0s,MS5.8						
LRAL	Lakeview Retre	61.76	292	*e*P	P	10 45 40.0	-0.6
GLAT	Glass	62.05	296	*e*P	P	10 45 41.0	-1.5
GLAT	Glass	62.05	296	*e*P	P	10 45 41.0	-1.5
FVM	French Village	62.14	298	*e*P	P	10 45 41.5	-1.6
	comp=Z,364nm,1.6s,mb6.3						
FVM				*e*		10 45 58.0	
FVM	French Village	62.14	298	*e*P	P	10 45 41.5	-1.6
FVM				pmax	pmax		
	comp=Z,363nm,1.6s,mb6.3						
FVM	French Village	62.14	298	*e*P	P	10 45 41.5	-1.6
	comp=Z,363nm,1.6s,mb6.3						
PARMO	Parma	62.22	297	*e*P	P	10 45 42.1	-1.5
PARMO				*e*		10 45 58.5	
PARMO	Parma	62.22	297	*e*P	P	10 45 42.2	-1.4
SCIA	State Center	62.43	303	*e*P	P	10 45 43.4	-1.5
	comp=Z,299nm,1.8s,mb6.1						
SCIA				*e*		10 46 00.4	
SCIA				LR	LR		
	comp=Z,14µm,20.0s,MS6.1						
SCIA	State Center	62.43	303	*e*P	P	10 45 43.4	-1.6
FFC	Flin Flon	62.52	319	*e*P	P	10 45 44.8	-0.5
	comp=Z,15nm,1.3s,mb5.0						
FFC				*e*		10 46 01.2	
FFC				LR	LR		
	comp=Z,4µm,20.0s,MS5.6						
FFC	Flin Flon	62.52	319	*e*P	P	10 45 44.8	-0.5
FFC				pmax	pmax		
	comp=Z,15nm,1.3s,mb5.0						
FFC				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.6						
FFC	Flin Flon	62.52	319	*e*P	P	10 45 44.8	-0.5
	comp=Z,4µm,20.0s						
KURK	Kurchatov	62.55	46	*e*P	P	10 45 45.3	-0.2
	comp=Z,447nm,1.3s,mb6.4						
KURK				LR	LR		
	comp=Z,5µm,19.0s,MS5.7						
KURK	Kurchatov	62.55	46	*i* P	P	10 45 45.3	-0.2
LSZ	Lusaka	62.56	137	*e*P	P	10 45 45.8	-0.2
	comp=Z,734nm,1.5s,mb6.6						
LSZ				LR	LR		
	comp=Z,15µm,19.0s,MS6.2						
LSZ	Lusaka	62.56	137	*e*P	P	10 45 45.8	-0.2
LSZ				pmax	pmax		
	comp=Z,734nm,1.5s,mb6.6						
LSZ				MLR	MLR		
	comp=Z,15µm,19.0s,MS6.2						
LSZ	Lusaka	62.56	137	*e*P	P	10 45 45.8	-0.2
	comp=Z,15µm,19.0s						
BRAL	Brewton	62.72	290	*e*P	P	10 45 46.6	-0.4
	comp=Z,370nm,1.6s,mb6.3						
BRAL				*e*		10 46 03.4	
BRAL				LR	LR		
	comp=Z,6µm,21.0s,MS5.7						
BRAL	Brewton	62.72	290	*e*P	P	10 45 46.7	-0.3
GNAR	Gosnell	62.72	296	*e*P	P	10 45 45.3	-1.6
	comp=Z,1µm,1.1s,mb7.0						
GNAR				*e*	pP	10 45 56.2	-0.2
GNAR				*e*		10 46 01.1	
GNAR	Gosnell	62.72	296	*e*P	P	10 45 45.3	-1.7
EKS2	Erkin-Say	62.83	56	P	P	10 45 48.4	+0.8
	SNR=375						
EKS2	Erkin-Say	62.83	56	*e*P	P	10 45 48.4	+0.8
	comp=Z,1µm,1.4s,mb6.8						
EKS2				LR	LR		
	comp=Z,7µm,19.0s,MS5.8						
EKS2	Erkin-Say	62.83	56	*e*P	P	10 45 48.4	+0.8
	comp=Z,1µm,1.4s,mb6.8						
OXF	Oxford	62.91	294	*e*P	P	10 45 46.1	-2.2
	comp=Z,256nm,1.0s,mb6.3						
OXF				*e*		10 46 03.2	
OXF				LR	LR		
	comp=Z,6µm,21.0s,MS5.7						
OXF	Oxford	62.91	294	*e*P	P	10 45 46.1	-2.2
OXF				pmax	pmax		
	comp=Z,256nm,1.0s,mb6.3						
OXF				MLR	MLR		
	comp=Z,6µm,21.0s,MS5.7						
KBL	Kabul	62.99	66	*e*P	P	10 45 48.7	-0.1
	comp=Z,314nm,1.1s,mb6.3						
KBL	Kabul	62.99	66	*e*P	P	10 45 48.7	-0.1
	comp=Z,314nm,1.1s,mb6.3						
AML	Almayashu	62.99	56	P	P	10 45 49.3	+0.6
	SNR=315						
AML	Almayashu	62.99	56	PFAKE		10 46 00.0	+11
AML				LR	LR		
	comp=Z,6µm,19.0s,MS5.8						
MET	Memphis--Engin	63.03	295	*e*P	P	10 45 47.2	-1.8
MET				*e*	pP	10 45 58.0	-0.5
MET	Memphis--Engin	63.03	295	*e*P	P	10 45 47.2	-1.8
USP	Ospenovka	63.05	55	P	P	10 45 48.8	-0.3
	SNR=87						
FRU	Bishkek	63.31	55	⇑*i*P	P	10 45 50.5	-0.3
FRU				*i*		10 46 31.0	
FRU				*i* S	S	10 54 23.0	+2.1
FRU				pmax	pmax		
	comp=Z,910nm,2.2s,mb6.5						
FRU				pmax	pmax		
	comp=Z,3µm,3.8s						
FRU				smax			
	comp=N,3µm,8.0s						
FRU	Bishkek	63.31	55	*i* P	P	10 45 50.5	-0.3
	comp=N,3µm,3.8s						
FRU				*i* S	S	10 54 23.0	+2.1
	comp=N,3µm,8.0s						
AAK	Ala-Archa	63.32	55	P	P	10 45 50.8	0.0
	comp=N,1µm,1.1s,mb7.0						
AAK	Ala-Archa	63.32	55	P	P	10 45 51.6	+0.8
	SNR=267						
AAK	Ala-Archa	63.32	55	*e*P	P	10 45 50.6	-0.2
	comp=N,373nm,1.1s,mb6.4						
AAK				LR	LR		
	comp=Z,5µm,19.0s,MS5.7						
AAK	Ala-Archa	63.32	55	⇑*i*P	P	10 45 50.6	-0.2
AAK				pmax	pmax		
	comp=Z,460nm,1.4s,mb6.4						
AAK				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.7						
AAK	Ala-Archa	63.32	55	P	P	10 45 50.6	-0.2
	SNR=165						
CHMS	Chumysh	63.33	55	P	P	10 45 51.2	+0.3
	SNR=150						
HBAR	Harrisburg	63.36	296	*e*P	P	10 45 49.7	-1.6
HBAR				*e*		10 46 06.2	
HBAR	Harrisburg	63.36	296	*e*P	P	10 45 49.7	-1.6
NVS	Novosibirsk	63.39	40	⇑*i*P	P	10 45 52.0	+0.9
NVS				*i*		10 48 09.0	
NVS				*i* S	S	10 54 22.9	+1.4
NVS				*i* PS		10 54 44.0	
NVS				pmax	pmax		
	comp=Z,595nm,1.6s,mb6.5						
NVS				pmax	pmax		
	comp=N,54nm,1.3s						
NVS				pmax	pmax		
	comp=E,132nm,1.6s						
NVS				pmax	pmax		
	comp=Z,222nm,1.8s,mb6.0						
NVS				pmax	pmax		
	comp=N,65nm,1.7s						
NVS				pmax	pmax		
	comp=E,97nm,1.7s						
NVS				smax			
	comp=N,452nm,2.2s						
NVS				smax			
	comp=E,89nm,2.2s						
NVS	Novosibirsk	63.39	40	*i* P	P	10 45 52.0	+0.9
	comp=E,54nm,1.3s,mb5.5						
NVS				*i* S	S	10 54 22.9	+1.4
UCH	Uchtor	63.50	56	P	P	10 45 53.4	+1.4
	SNR=275						
UCH	Uchtor	63.50	56	*e*P	P	10 45 53.4	+1.3
	comp=E,212nm,1.0s,mb6.1						
UCH				LR	LR		
	comp=Z,7µm,19.0s,MS5.9						
UCH	Uchtor	63.50	56	*e*P	P	10 45 53.4	+1.3
	comp=Z,212nm,1.0s,mb6.1						
KBK	Karagaybulak	63.61	55	P	P	10 45 53.5	+0.7
	SNR=54						
ECSD	EROS,Sioux Fal	63.92	306	*e*P	P	10 45 53.3	-1.5
	comp=Z,424nm,1.9s,mb6.2						
ECSD				LR	LR		
	comp=Z,12µm,19.0s,MS6.1						
ECSD	EROS,Sioux Fal	63.92	306	*e*P	P	10 45 53.3	-1.5
	comp=Z,424nm,1.9s,mb6.2						
TKM2	Tokmak 2	63.93	55	P	P	10 45 55.4	+0.5
	SNR=173						
TKM2	Tokmak 2	63.93	55	*e*P	P	10 45 55.0	+0.2
	comp=Z,288nm,1.3s,mb6.2						
TKM2				*e*PP	PP	10 48 10.3	-5.0
TKM2				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
TKM2	Tokmak 2	63.93	55	*e*P	P	10 45 55.0	+0.2
TKM2				pmax	pmax		
	comp=Z,288nm,1.3s,mb6.2						
TKM2				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.5						
TKM2	Tokmak 2	63.93	55	*e*P	P	10 45 55.0	+0.2
	comp=Z,3µm,19.0s						
KZA	Kyzart	64.06	56	P	P	10 45 57.4	+1.6
	SNR=474						
ZAL	Zalesovo	64.61	41	P	P	10 45 59.3	+0.2
ZAL				S	S	10 54 36.0	-0.6
ZALV	Zalesovo Beam	64.61	41	P	P	10 45 59.3	+0.1
	comp=Z,64nm,0.9s,mb5.6,baz=287,slow=7.6,SNR=184						
ZALV				S	S	10 54 36.0	-0.7
	comp=Z,1.2nm,0.7s,baz=259,slow=1.5,SNR=2.4						
ZALV				PKPPKP		11 14 38.3	
	comp=Z,0.2nm,0.3s,baz=74,slow=2.2,SNR=3.6						
ZALV				LR	LR	11 15 23.2	
	comp=Z,7µm,21.4s,MS5.8,baz=172,slow=37						
ULHL	Ulahol	64.65	55	P	P	10 46 00.3	+0.7
	SNR=241						
YKA	Yellowknife Ar	64.93	330	P	P	10 46 00.1	-0.9
YKA				LR	LR	11 11 37.5	
YKA				P'P'		11 14 45.3	
YKA	Yellowknife Ar	64.93	330	P	P	10 46 00.1	-0.9
	comp=Z,29nm,0.8s,mb5.4,baz=65,slow=6.9,SNR=320						
YKA				LR	LR	11 11 37.5	
	comp=Z,6µm,18.4s,MS5.8,baz=140,slow=34						
YKA				PKPPKP		11 14 45.3	
	comp=Z,5.4nm,0.9s,baz=241,slow=2.4,SNR=19						
UALR	University of	64.95	296	*e*P	P	10 45 59.5	-2.2
	comp=Z,409nm,1.6s,mb6.2						
UALR				*e*		10 46 15.8	
MIAR	Mount Ida	65.95	296	*e*P	P	10 46 06.6	-1.6
	comp=Z,278nm,1.3s,mb6.1						
MIAR				*e*		10 46 22.7	
MIAR				LR	LR		
	comp=Z,5µm,19.0s,MS5.8						
MIAR	Mount Ida	65.95	296	*e*P	P	10 46 06.6	-1.6
MIAR				pmax	pmax		
	comp=Z,278nm,1.3s,mb6.1						
MIAR				MLR	MLR		
	comp=Z,5µm,19.0s,MS5.8						
KSU1	Kansas State U	65.99	302	*e*P	P	10 46 07.0	-1.4
	comp=Z,108nm,1.1s,mb5.8						
KSU1				*e*		10 46 23.6	
KSU1				LR	LR		
	comp=Z,7µm,22.0s,MS5.8						
KSU1	Kansas State U	65.99	302	*e*P	P	10 46 07.0	-1.3
ROSC	El Rosal	66.26	258	*e*P	P	10 46 10.0	-0.4
ROSC	El Rosal	66.26	258	P	P	10 46 09.4	-1.0
	comp=Z,43nm,1.0s,mb5.4,baz=82,slow=4.6,SNR=34						
ROSC				LR	LR	11 10 48.1	
	comp=Z,3µm,21.6s,MS5.4,baz=264,slow=32						
ROSC				PKP2bc		11 14 45.4	
	comp=Z,17nm,0.8s,baz=280,slow=14,SNR=7.4						
ROSC	El Rosal	66.26	258	*e*P	P	10 46 10.0	-0.4
MK31	Makanchi Array	66.44	48	*e*P	P	10 46 10.8	-0.3
MK31	Makanchi Array	66.44	48	*e*P	P	10 46 10.8	-0.3
MKAR	Makanchi Array	66.44	48	P	P	10 46 11.0	-0.1
	comp=Z,43nm,0.7s,mb5.6,baz=298,slow=5.4,SNR=369						
MKAR				PKPPKP		11 14 39.4	
	comp=Z,0.8nm,1.0s,baz=101,slow=6.3,SNR=4.9						
MKAR				LR	LR	11 16 13.7	
	comp=Z,10µm,21.6s,MS6.0,baz=298,slow=37						
DGMT	Dagmar	66.50	314	*e*P	P	10 46 11.4	0.0
	comp=Z,946nm,1.4s,mb6.6						
DGMT				*e*		10 46 28.4	
DGMT				LR	LR		
	comp=Z,7µm,22.0s,MS5.8						
DGMT	Dagmar	66.50	314	*e*P	P	10 46 11.4	-0.1
INK	Inuvik	67.88	340	*e*P	P	10 46 18.8	-1.0
	comp=Z,15µm,1.5s						
INK				*e*	pP	10 46 28.9	-0.4
INK				*e*		10 46 36.0	
INK	Inuvik	67.88	340	*e*P	P	10 46 18.8	-1.0
NATX	Nacogdoches	68.09	294	*e*P	P	10 46 21.4	-0.4
	comp=Z,529nm,1.3s,mb6.4						
NATX				*e*	pP	10 46 31.2	-0.1
NATX				*e*		10 46 38.4	
NATX				LR	LR		
	comp=Z,8µm,20.0s,MS6.0						
CBKS	Cedar Bluff	68.27	303	*e*P	P	10 46 22.0	-0.8
	comp=Z,551nm,1.5s,mb6.4						
CBKS				*e*	pP	10 46 32.1	-0.2
CBKS				*e*		10 46 38.2	
CBKS				LR	LR		
	comp=Z,14µm,22.0s,MS6.2						
CBKS	Cedar Bluff	68.27	303	*e*P	P	10 46 22.0	-0.8
CBKS				pmax	pmax		
	comp=Z,551nm,1.5s,mb6.4						
CBKS				MLR	MLR		
	comp=Z,14µm,22.0s,MS6.2						
CBKS	Cedar Bluff	68.27	303	*e*P	P	10 46 22.0	-0.8
	comp=Z,14µm,22.0s						
RSSD	Black Hills	68.50	309	PFAKE		10 46 30.0	+5.9
RSSD				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
LAO	LASA Array	68.57	313	*e*P	P	10 46 24.3	-0.2
	comp=Z,1µm,1.7s,mb6.5						
LAO				*e*		10 46 41.0	
LAO				LR	LR		
	comp=Z,9µm,21.0s,MS6.0						
LAO	LASA Array	68.57	313	*e*P	P	10 46 24.3	-0.2
BHJ	Bhuj	68.89	76	*e*P	P	10 46 26.4	-0.5
THN	Thein Dam	68.89	65	*e*P	P	10 46 25.6	-1.2
TIXI	Tiksi	68.93	13	*e*P	P	10 46 26.3	0.0
	comp=Z,667nm,1.4s,mb6.4						
TIXI				*e*		10 46 37.7	
TIXI				*e*		10 46 43.8	
TIXI				LR	LR		
	comp=Z,4µm,22.0s,MS5.6						
TIXI	Tiksi	68.93	13*c*	*i*P	P	10 46 26.5	+0.2
TIXI				*e*S	S	10 55 28.2	-0.1
TIXI				*e*SS	SS	10 59 53.2	+0.3
TIXI				pmax	pmax		
	comp=Z,452nm,1.4s,mb6.2						
TIXI				pmax	pmax		
	comp=N,124nm,1.3s						
TIXI				pmax	pmax		
	comp=E,55nm,1.7s						
TIXI				pmax	pmax		
	comp=Z,245nm,6.5s						
TIXI				smax			
	comp=N,1µm,11.9s						
TIXI				smax			
	comp=E,535nm,9.6s						
TIXI				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
TIXI				MLR	MLR		
	comp=N,2µm,18.0s,MS5.5						
TIXI				MLR	MLR		
	comp=E,1µm,20.0s,MS5.5						
TIXI	Tiksi	68.93	13	*e*P	P	10 46 26.3	0.0
TIXI				*e*S	S	10 55 28.2	-0.1
TEIG	Tepich	68.97	280	*e*P	P	10 46 27.0	-0.5
TEIG				*e*		10 46 40.2	
TEIG				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
TEIG	Tepich	68.97	280	*e*P	P	10 46 27.0	-0.5
DLH	Dalhousie	69.03	65	*e*P	P	10 46 25.0	-2.6
EDM	Edmonton	69.15	321	*e*P	P	10 46 27.2	-0.8
EDM				*e*		10 46 44.6	
EDM	Edmonton	69.15	321	*e*P	P	10 46 27.2	-0.8
PONG	Pong	69.31	65	*e*x	x	10 46 24.0	
LBTB	Lobatse	69.42	145	*e*P	P	10 46 29.3	-0.7
	comp=Z,433nm,1.0s,mb6.3						
LBTB				LR	LR		
	comp=Z,6µm,20.0s,MS5.8						
LBTB	Lobatse	69.42	145	*e*P	P	10 46 29.3	-0.7
LBTB				pmax	pmax		
	comp=Z,433nm,1.0s,mb6.3						
LBTB				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.8						
LBTB	Lobatse	69.42	145	*e*P	P	10 46 29.3	-0.7
	comp=Z,6µm,20.0s						
WMOK	Wichita Mounta	69.61	299	*e*P	P	10 46 29.9	-1.3
	comp=Z,394nm,1.6s,mb6.1						
WMOK				*e*		10 46 47.1	
WMOK				LR	LR		
	comp=Z,9µm,22.0s,MS6.0						
WMOK	Wichita Mounta	69.61	299	*e*P	P	10 46 29.9	-1.3
WMOK				*e*		10 46 47.1	
WMOK				pmax	pmax		
	comp=Z,394nm,1.6s,mb6.1						
WMOK				MLR	MLR		
	comp=Z,9µm,22.0s,MS6.0						
WMOK	Wichita Mounta	69.61	299	*e*P	P	10 46 29.9	-1.3
	comp=Z,394nm,1.6s,mb6.1						
HKT	Hockley	69.86	293	*e*P	P	10 46 31.9	-0.9
	comp=Z,359nm,1.7s,mb6.0						
HKT				*e*		10 46 43.2	
HKT				*e*		10 46 48.5	
HKT				LR	LR		
	comp=Z,5µm,19.0s,MS5.8						
HKT	Hockley	69.86	293	*e*P	P	10 46 31.9	-0.9
HKT				*e*		10 46 48.5	
HKT				pmax	pmax		
	comp=Z,359nm,1.7s,mb6.0						
HKT				MLR	MLR		
	comp=Z,5µm,19.0s,MS5.8						
HKT	Hockley	69.86	293	*e*P	P	10 46 31.9	-0.9
	comp=Z,5µm,19.0s						
BHK	Bhakra	69.92	65	*e*P	P	10 46 30.0	-3.2
EGMT	Eagleton	69.95	315	*e*P	P	10 46 32.6	-0.5
	comp=Z,900nm,1.6s,mb6.5						
EGMT				*e*		10 46 48.8	
EGMT				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
EGMT	Eagleton	69.95	315	P	P	10 46 32.9	-0.1
	baz=70,SNR=78						
EGMT				⇓S	S	10 55 40.5	-0.5
	baz=70						
EGMT	Eagleton	69.95	315	*e*P	P	10 46 32.6	-0.5
SDNR	Sundarnagar	70.28	65	*e*P	P	10 46 35.0	-0.4
PHWY	Pilot Hill	70.83	307	*e*P	P	10 46 38.3	-0.3
PHWY				*e*		10 46 55.0	
PHWY	Pilot Hill	70.83	307	*e*P	P	10 46 38.3	-0.2
GCMT	Greycliff	71.08	313	*e*P	P	10 46 39.8	-0.2
GCMT				*e*		10 46 57.7	
AJM	Ajmer	71.11	71	⇑*i*P	P	10 46 39.4	-1.1
RLMT	Red Lodge	71.20	312	*e*P	P	10 46 40.5	-0.2
	comp=Z,366nm,1.5s,mb6.1						
RLMT				*e*	pP	10 46 51.1	+0.8
RLMT				*e*		10 46 57.4	
RLMT				LR	LR		
	comp=Z,10µm,22.0s,MS6.0						
RLMT	Red Lodge	71.20	312	*e*P	P	10 46 40.5	-0.2
WMQ	Urumqi	71.23	49	P	P	10 46 41.9	+1.0
WMQ				AP	pP	10 46 46.6	-3.9
WMQ				XP	sP	10 46 48.9	-5.1
WMQ				PCP	PcP	10 47 01.8	+1.0
WMQ				PP	PP	10 49 22.3	+3.7
WMQ				S	S	10 55 57.7	+1.6
WMQ				SCS	ScS	10 56 42.6	-0.6
WMQ				AMB	AMB		
	comp=Z,321nm,1.4s,mb6.1						
WMQ				AMB	AMB		
	comp=Z,413nm,10.0s						
WMQ				LR	LR		
	comp=N,9µm,20.4s,MS6.1						
WMQ				LR	LR		
	comp=E,5µm,19.6s,MS6.1						
WMQ				LR	LR		
	comp=Z,8µm,23.8s,MS5.9						
TGUH	Tegucigalpa,Un	71.47	274	*e*P	P	10 46 42.5	-0.3
	comp=Z,146nm,1.2s,mb5.8						
TGUH				*e*		10 46 58.9	
TGUH				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
TGUH	Tegucigalpa,Un	71.47	274	*e*P	P	10 46 42.5	-0.3
AMTX	Amarillo	71.59	300	*e*P	P	10 46 43.6	+0.3
	comp=Z,451nm,1.6s,mb6.2						
AMTX				*e*		10 46 60.0	
JTS	JuntasAbangare	71.68	270	PFAKE		10 46 50.0	+5.9
JTS				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
JTS	JuntasAbangare	71.68	270	*e*P	P	10 46 40.2	-3.9
DDI	Dehra Dun	71.69	66	*e*P	P	10 46 43.0	-0.9
ISCO	Idaho Springs	71.71	306	*e*P	P	10 46 43.9	-0.1
	comp=Z,396nm,1.8s,mb6.0						
ISCO				LR	LR		
	comp=Z,14µm,19.0s,MS6.2						
ISCO	Idaho Springs	71.71	306	*e*P	P	10 46 43.9	0.0
ISCO				pmax	pmax		
	comp=Z,396nm,1.8s,mb6.0						
ISCO				MLR	MLR		
	comp=Z,14µm,19.0s,MS6.2						
ISCO	Idaho Springs	71.71	306	*e*P	P	10 46 43.8	-0.1
	comp=Z,396nm,1.8s,mb6.0						
WALA	Waterton Lakes	71.72	318	*e*P	P	10 46 42.9	-0.9
	comp=Z,1µm,1.7s,mb6.5						
WALA				*e*		10 47 00.2	
WALA	Waterton Lakes	71.72	318	*e*P	P	10 46 42.9	-0.9
RWWY	Rawlins	71.75	308	*e*P	P	10 46 44.3	+0.2
	comp=Z,2µm,1.7s,mb6.7						
RWWY				*e*		10 47 01.1	
RWWY	Rawlins	71.75	308	*e*P	P	10 46 44.3	+0.2
NDI	New Delhi	71.91	67	*e*P	P	10 46 44.8	-0.5
D15A	Lincoln	72.06	315	P	P	10 46 46.0	+0.1
	baz=72,SNR=163						
D15A				⇓S	S	10 56 05.7	+0.2
	baz=72						
LKWY	Lake	72.17	312	*e*P	P	10 46 47.8	+1.2
	comp=Z,245nm,1.6s,mb5.9						
LKWY				*e*		10 47 05.2	
LKWY				LR	LR		
	comp=Z,15µm,22.0s,MS6.2						
LKWY	Lake	72.17	312	*e*P	P	10 46 47.8	+1.2
LKWY				*e*		10 47 05.2	
LKWY				pmax	pmax		
	comp=Z,245nm,1.6s,mb5.9						
LKWY				MLR	MLR		
	comp=Z,15µm,22.0s,MS6.2						
LKWY	Lake	72.17	312	*e*PcP	PcP	10 47 05.2	+0.4
	comp=Z,15µm,22.0s						
YNR	Norris Junctio	72.26	313	*e*P	P	10 46 47.9	+0.8
YNR				*e*		10 47 10.0	
YNR	Norris Junctio	72.26	313	*e*P	P	10 46 47.9	+0.8
BOZ	Bozeman (W)	72.31	314	*e*P	P	10 46 47.4	-0.1
	comp=Z,456nm,1.6s,mb6.2						
BOZ				*e*		10 47 04.8	
BOZ				LR	LR		
	comp=Z,5µm,21.0s,MS5.8						
BOZ	Bozeman (W)	72.31	314	*e*P	P	10 46 47.4	0.0
BOZ				*e*		10 47 04.8	
BOZ				pmax	pmax		
	comp=Z,456nm,1.6s,mb6.2						
BOZ				MLR	MLR		
	comp=Z,5µm,21.0s,MS5.8						
BOZ	Bozeman (W)	72.31	314	P	P	10 46 47.7	+0.3
	baz=72,SNR=45						
BOZ				⇓S	S	10 56 08.1	-0.4
	baz=72						

BOZ	Bozeman (W)	72.31	314	eP	P	10 46 47.4	0.0
	comp=Z,456nm,1.6s,mb6.2						
BOZ	Bozeman (W)	72.31	314	ePcP	PcP	10 47 04.8	-0.6
	comp=Z,5µm,21.0s						
OTAV	Otavalo	72.32	257	eP	P	10 46 47.8	-0.1
	comp=Z,245nm,1.5s,mb5.9						
OTAV				e		10 47 04.2	
OTAV				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
OTAV	Otavalo	72.32	257	eP	P	10 46 47.8	-0.1
C14A	Swan Lake	72.35	316	⇑P	P	10 46 46.7	-0.9
	baz=72						
C14A				⇑S	S	10 56 07.0	-1.8
	baz=72						
BOSA	Boshof	72.38	148	eP	P	10 46 47.0	-0.9
	comp=Z,578nm,1.1s,mb6.4						
BOSA				LR	LR		
	comp=Z,9µm,22.0s,MS6.0						
BOSA	Boshof	72.38	148	eP	P	10 46 47.0	-0.8
BOSA				pmax	pmax		
	comp=Z,579nm,1.1s,mb6.4						
BOSA				MLR	MLR		
	comp=Z,9µm,22.0s,MS6.0						
BOSA	Boshof	72.38	148	P	P	10 46 47.1	-0.7
	comp=Z,343nm,1.0s,mb6.2,baz=338,slow=5.9,SNR=154						
BOSA				LR	LR	11 18 31.7	
	comp=Z,7µm,21.2s,MS5.9,baz=329,slow=36						
BOSA	Boshof	72.38	148	eP	P	10 46 47.0	-0.8
	comp=Z,9µm,22.0s						
B13A	Whitefish	72.41	317	P	P	10 46 47.4	-0.5
	baz=72,SNR=30						
B13A				⇓S	S	10 56 07.8	-1.7
	baz=72						
YMR	Madison River	72.46	313	eP	P	10 46 48.6	+0.4
	comp=Z,531nm,1.6s,mb6.2						
YMR				e		10 47 05.6	
YMR				LR	LR		
	comp=Z,7µm,20.0s,MS5.9						
YMR	Madison River	72.46	313	eP	P	10 46 48.7	+0.4
E15A	Deer Lodge	72.47	315	P	P	10 46 48.5	+0.2
	baz=72,SNR=68						
E15A				⇓S	S	10 56 09.9	-0.4
	baz=72						
YFT	Old Faithful	72.50	312	eP	P	10 46 49.4	+0.9
YFT				e		10 47 07.4	
YFT	Old Faithful	72.50	312	eP	P	10 46 49.4	+0.9
JCT	Junction City	72.53	295	eP	P	10 46 47.8	-1.2
	comp=Z,172nm,1.1s,mb5.9						
JCT				e		10 47 04.4	
JCT				LR	LR		
	comp=Z,8µm,21.0s,MS6.0						
JCT	Junction City	72.53	295	eP	P	10 46 47.8	-1.2
JCT				e		10 47 04.4	
JCT				pmax	pmax		
	comp=Z,172nm,1.1s,mb5.9						
JCT				MLR	MLR		
	comp=Z,8µm,21.0s,MS6.0						
JCT	Junction City	72.53	295	eP	P	10 46 47.8	-1.2
	comp=Z,172nm,1.1s,mb5.9						
JCT	Junction City	72.53	295	ePcP	PcP	10 47 04.4	-2.2
	comp=Z,8µm,21.0s						
CHMT	Chamberlain Mo	72.55	316	eP	P	10 46 48.7	0.0
CHMT				e	pP	10 46 59.7	+1.4
CHMT				e		10 47 06.2	
CHMT	Chamberlain Mo	72.55	316	eP	P	10 46 48.7	-0.1
EGAK	Eagle	72.55	340	eP	P	10 46 48.1	-0.3
	comp=Z,439nm,1.4s,mb6.2						
EGAK				e	pP	10 46 56.7	-1.3
EGAK				e		10 47 05.2	
EGAK				LR	LR		
	comp=Z,5µm,19.0s,MS5.8						
EGAK	Eagle	72.55	340	eP	P	10 46 48.1	-0.4
DAWY	Dawson	72.59	339	eP	P	10 46 48.8	+0.1
DAWY				e	pP	10 46 59.5	+1.2
DAWY				e		10 47 05.9	
DAWY	Dawson	72.59	339	eP	P	10 46 48.8	+0.1
D14A	Greenough	72.60	316	P	P	10 46 48.5	-0.6
	baz=72,SNR=46						
D14A				⇓S	S	10 56 09.8	-1.9
	baz=72						
BW06	Boulder Array	72.64	310	eP	P	10 46 48.3	-1.2
	comp=Z,489nm,2.0s,mb6.1						
BW06				LR	LR		
	comp=Z,11µm,21.0s,MS6.1						
BW06	Boulder Array	72.64	310	eP	P	10 46 48.3	-1.1
	comp=Z,489nm,2.0s,mb6.1						
PDAR	Pinedale Array	72.64	310	P	P	10 46 48.4	-1.1
	comp=Z,48nm,0.8s,mb5.5,baz=67,slow=6.3,SNR=352						
PDAR				PKPPKP		11 14 28.8	
	comp=Z,0.9nm,0.9s,baz=116,slow=3.4,SNR=4.8						
PDAR				LR	LR	11 15 25.0	
	comp=Z,9µm,21.2s,MS6.0,baz=64,slow=33						
PDAR	Pinedale Array	72.64	310	P	P	10 46 48.3	-1.1
TRIS	Tristan da Cun	72.64	182	PFAKE		10 47 00.0	+11
TRIS				LR	LR		
	comp=Z,4µm,22.0s,MS5.6						
QLMT	Earthquake Lak	72.64	313	eP	P	10 46 49.6	+0.2
QLMT				e		10 47 00.9	
QLMT				e		10 47 06.9	
QLMT	Earthquake Lak	72.64	313	eP	P	10 46 49.7	+0.3
KVTX	Kingsville	72.65	292	PFAKE		10 47 00.0	+10
KVTX				LR	LR		
	comp=Z,5µm,19.0s,MS5.8						
F15A	Butte	72.71	314	P	P	10 46 50.1	+0.3
	baz=72,SNR=46						
F15A				⇑S	S	10 56 12.6	-0.4
	baz=72						
SDCO	Great Sand Dun	72.72	304	eP	P	10 46 49.6	-0.3
	comp=Z,268nm,1.5s,mb6.0						
SDCO				e		10 47 05.9	
SDCO				LR	LR		
	comp=Z,20µm,20.0s,MS6.4						
SDCO	Great Sand Dun	72.72	304	eP	P	10 46 49.7	-0.3
A12A	Yaak River Ran	72.73	318	⇑P	P	10 46 49.3	-0.6
	baz=72,SNR=14						
A12A				⇓S	S	10 56 11.4	-1.8
	baz=72						
LOHW	Long Hollow	72.82	312	eP	P	10 46 49.9	-0.5
	comp=Z,488nm,1.7s,mb6.2						
LOHW				e		10 47 06.5	
LOHW	Long Hollow	72.82	312	eP	P	10 46 49.9	-0.6
MOOW	Moose Ponds	72.83	312	eP	P	10 46 50.3	-0.2
	comp=Z,321nm,1.6s,mb6.0						
MOOW				e		10 47 07.0	
C13A	Hot Springs	72.86	317	P	P	10 46 50.4	-0.2
	baz=73,SNR=36						
C13A				⇑S	S	10 56 13.0	-1.6
	baz=73						
IMW	Indian Meadow	72.86	312	eP	P	10 46 50.8	+0.1
	comp=Z,470nm,1.5s,mb6.2						
IMW				e		10 47 05.4	
IMW	Indian Meadow	72.86	312	eP	P	10 46 50.8	+0.1
SMCO	Snowmass	72.93	306	eP	P	10 46 51.2	0.0
	comp=Z,345nm,1.5s,mb6.1						
SMCO				e		10 47 07.2	
SMCO	Snowmass	72.93	306	eP	P	10 46 51.2	0.0
E14A	Clinton	72.96	315	⇓P	P	10 46 51.3	+0.1
	baz=73						
E14A				⇓S	S	10 56 16.2	+0.3
	baz=73						
B12A	Libby	72.97	318	⇓P	P	10 46 51.0	-0.2
	baz=73,SNR=12						
B12A				⇑S	S	10 56 14.5	-1.4
	baz=73						
MSO	Missoula	72.98	316	PFAKE		10 47 00.0	+8.6
MSO				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
DLMT	Dillon	73.04	314	eP	P	10 46 52.2	+0.4
	comp=Z,1µm,1.5s,mb6.7						
DLMT				e		10 47 08.9	
DLMT	Dillon	73.04	314	eP	P	10 46 52.2	+0.5
G15A	Dillon	73.08	314	P	P	10 46 52.6	+0.7
	baz=73,SNR=128						
G15A				⇓S	S	10 56 16.9	-0.4
	baz=73						
TPAW	Teton Pass	73.10	312	eP	P	10 46 52.0	-0.2
	comp=Z,529nm,1.7s,mb6.2						
TPAW				e		10 47 09.0	
TPAW	Teton Pass	73.10	312	eP	P	10 46 52.0	-0.1
A11A	Hall Mountain,	73.10	319	⇑P	P	10 46 51.7	-0.3
	baz=73,SNR=59						
A11A				⇓S	S	10 56 16.1	-1.2
	baz=73						
REDW	Red Top Meadow	73.11	311	eP	P	10 46 52.1	-0.1
	comp=Z,1µm,1.6s,mb6.5						
REDW				e	pP	10 47 02.5	+0.8
REDW				e		10 47 09.6	
REDW	Red Top Meadow	73.11	311	eP	P	10 46 52.1	-0.1
D13A	Huson	73.13	316	P	P	10 46 51.9	-0.3
	baz=73,SNR=102						
D13A				⇓S	S	10 56 16.7	-1.0
	baz=73						
DCID1	Drake Creek	73.18	312	eP	P	10 46 53.4	+0.8
DCID1				e		10 47 10.1	
DCID1	Drake Creek	73.18	312	eP	P	10 46 53.4	+0.8
F14A	Wisdom	73.23	315	P	P	10 46 53.1	+0.2
	baz=73,SNR=58						
F14A				⇓S	S	10 56 19.1	+0.1
	baz=73						
E13A	Victor	73.34	316	P	P	10 46 53.4	-0.2
	baz=73,SNR=153						
E13A				⇑S	S	10 56 19.7	-0.5
	baz=73						
B11A	Sandpoint	73.41	318	P	P	10 46 53.3	-0.6
	baz=73,SNR=24						
B11A				⇓S	S	10 56 19.2	-1.6
	baz=73						
MSEY	Mahe Island	73.42	109	eP	P	10 46 54.2	-0.2
	comp=Z,3µm,2.0s,mb6.9						
MSEY				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
MSEY	Mahe Island	73.42	109	eP	P	10 46 54.2	-0.2
	comp=Z,3µm,2.0s,mb6.9						
DLBC	Dease Lake	73.46	332	eP	P	10 46 54.9	+0.9
DLBC				e	pP	10 47 05.3	+1.8
DLBC				e		10 47 12.1	
DLBC	Dease Lake	73.46	332	eP	P	10 46 54.9	+0.9
MCMT	McKenzie Canyo	73.48	314	eP	P	10 46 55.2	+0.8
MCMT				e		10 47 11.5	
MCMT	McKenzie Canyo	73.48	314	eP	P	10 46 55.2	+0.8
AHID	Auburn Hatcher	73.59	311	eP	P	10 46 54.7	-0.4
	comp=Z,616nm,1.5s,mb6.3						
AHID				LR	LR		
	comp=Z,9µm,21.0s,MS6.0						
AHID	Auburn Hatcher	73.59	311	eP	P	10 46 54.7	-0.3
	comp=Z,616nm,1.5s,mb6.3						
G14A	Jackson	73.61	314	P	P	10 46 55.8	+0.7
	baz=73,SNR=93						
G14A				⇓S	S	10 56 23.8	+0.6
	baz=73						
D12A	Red Ives Fores	73.65	317	⇓P	P	10 46 54.9	-0.4
	baz=74						
D12A				⇓S	S	10 56 22.6	-1.1
	baz=74						
A10A	Northport	73.73	319	P	P	10 46 55.1	-0.6
	baz=74,SNR=49						
A10A				⇓S	S	10 56 23.2	-1.2
	baz=74						
F13A	Darby	73.80	315	P	P	10 46 56.1	-0.1
	baz=74,SNR=38						
F13A				⇓S	S	10 56 24.7	-0.6
	baz=74						
SUR	Sutherland	73.91	153	P	P	10 46 56.8	0.0
	comp=Z,1µm,1.3s,mb6.8,SNR=12						
SUR	Sutherland	73.91	153	eP	P	10 46 56.4	-0.4
	comp=Z,1µm,1.4s,mb6.6						
SUR				LR	LR		
	comp=Z,33µm,21.0s,MS6.6						
SUR	Sutherland	73.91	153	eP	P	10 46 56.4	-0.4
	comp=Z,1µm,1.4s,mb6.6						
NEW	Newport	73.92	318	eP	P	10 46 55.9	-1.0
	comp=Z,637nm,1.9s,mb6.2						
NEW				e		10 47 13.0	
NEW				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
NEW	Newport	73.92	318	P	P	10 46 55.6	-1.2
NEW				pmax	pmax		
	comp=Z,640nm,1.8s						
NEW	Newport	73.92	318	P	P	10 46 55.6	-1.2
	comp=Z,640nm,1.8s,mb6.2						
B10A	Chitwood Farm,	73.95	318	⇑P	P	10 46 56.3	-0.7
	baz=74,SNR=7.5						
B10A				⇑S	S	10 56 25.1	-1.9
	baz=74						
MOY	Mondy	74.11	37	eP	P	10 46 59.4	+1.5
MOY				pmax	pmax		
	comp=Z,440nm,2.4s,mb6.0						
MOY	Mondy	74.11	37	eP	P	10 46 59.4	+1.5
	comp=Z,440nm,2.4s,mb6.0						
G13A	Cobalt	74.14	314	P	P	10 46 58.7	+0.5
	baz=74,SNR=89						
G13A				⇑S	S	10 56 29.1	-0.2
	baz=74						
CCIG	Comitan	74.18	279	i P	P	10 46 57.9	-0.9
CCIG	Comitan	74.18	279	i P	P	10 46 57.9	-1.0
D11A	Klaveano Farm,	74.20	317	P	P	10 46 57.3	-1.2
	baz=74,SNR=38						
D11A				⇓S	S	10 56 28.4	-1.5
	baz=74						
COLA	College	74.21	343	eP	P	10 46 58.8	+0.6
	comp=Z,462nm,1.7s,mb6.1						
COLA				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
COLA	College	74.21	343	eP	P	10 46 58.8	+0.6
COLA				pmax	pmax		
	comp=Z,462nm,1.7s,mb6.1						
COLA				MLR	MLR		
	comp=Z,5µm,20.0s,MS5.8						
COLA	College	74.21	343	eP	P	10 46 58.8	+0.6
	comp=Z,5µm,20.0s						
A09A	Danville	74.28	319	P	P	10 46 58.7	-0.2
	baz=74,SNR=16						
A09A				⇓S	S	10 56 29.0	-1.6
	baz=74						
C10A	Spilker Farm,	74.28	318	⇓P	P	10 46 57.9	-1.1
	baz=74,SNR=6.8						
B09A	Rice	74.37	319	P	P	10 46 58.9	-0.7
	baz=74,SNR=29						
B09A				⇑S	S	10 56 30.4	-1.3
	baz=74						
H13A	Challis	74.46	314	P	P	10 47 01.1	+1.1
	baz=74,SNR=279						
H13A				⇑S	S	10 56 34.3	+1.5
	baz=74						
IMA2	Indian Mountai	74.50	345	eP	P	10 47 00.4	+0.5
HWUT	Hardware Ranch	74.52	310	PFAKE		10 47 10.0	+9.5
HWUT				LR	LR		
	comp=Z,8µm,22.0s,MS6.0						
MENT	Mentasta	74.70	340	eP	P	10 47 02.2	+1.1
SKAG	Skagway	74.70	334	eP	P	10 47 01.8	+0.6
	comp=Z,197nm,1.4s,mb5.8						
POO	Poona	74.71	78	⇑iP	P	10 47 00.7	-1.2
POO				ex	x	10 47 03.3	
	comp=Z,426nm,1.5s						
D10A	Wagner Farm, O	74.72	317	P	P	10 47 00.1	-1.4
	baz=74,SNR=46						
D10A				⇑S	S	10 56 33.2	-2.4
	baz=74						
I13A	Wildhorse Cree	74.75	313	P	P	10 47 02.6	+0.9
	baz=75,SNR=63						
I13A				⇓S	S	10 56 39.4	+3.2
	baz=75						
F11A	Grangeville	74.78	316	P	P	10 47 01.2	-0.7
	baz=75,SNR=125						
F11A				⇓S	S	10 56 34.6	-1.8
	baz=75						
C09A	Chrisman Ranch	74.81	318	⇓P	P	10 47 00.8	-1.3
	baz=75						
C09A				⇓S	S	10 56 34.2	-2.4
	baz=75						
H12A	Diamond D Ranc	74.82	314	P	P	10 47 02.6	+0.5
	baz=75,SNR=131						
H12A				⇑S	S	10 56 38.4	+1.6
	baz=75						
ANMO	Albuquerque	74.88	302	eP	P	10 47 03.0	+0.4
	comp=Z,146nm,1.6s,mb5.7						
ANMO				e	pP	10 47 11.9	-0.4
ANMO				e		10 47 20.3	
ANMO				LR	LR		
	comp=Z,10µm,22.0s,MS6.1						
ANMO	Albuquerque	74.88	302	c iP	P	10 47 02.9	+0.2
ANMO	Albuquerque	74.88	302	i P	P	10 47 02.9	+0.2
BHPL	Bhopal	74.96	72	eP	P	10 47 02.7	-0.6
BHPL				ex	x	10 47 04.5	
	comp=Z,484nm,1.1s						
E10A	Myers Farm, Un	74.96	317	P	P	10 47 02.1	-0.8
	baz=75,SNR=38						
E10A				⇑S	S	10 56 36.7	-1.7
	baz=75						
K14A	Jones Ranch, D	74.98	312	⇑P	P	10 47 03.2	+0.1
	baz=75,SNR=90						
K14A				⇓S	S	10 56 38.9	+0.2
	baz=75						
DAU	Daniels Canyon	75.00	309	eP	P	10 47 02.8	-0.5
DAU	Daniels Canyon	75.00	309	eP	P	10 47 02.8	-0.5
MVCO	Mesa Verde	75.01	305	eP	P	10 47 03.8	+0.4
	comp=Z,570nm,1.7s,mb6.2						
MVCO				LR	LR		
	comp=Z,18µm,20.0s,MS6.4						
MVCO	Mesa Verde	75.01	305	⇑P	P	10 47 03.9	+0.4
	baz=75						
MVCO				⇓S	S	10 56 40.2	+0.9
	baz=75						
MVCO	Mesa Verde	75.01	305	eP	P	10 47 03.8	+0.4
	comp=Z,570nm,1.7s,mb6.2						
JLU	Jordanelle	75.02	309	eP	P	10 47 03.0	-0.4
JLU	Jordanelle	75.02	309	eP	P	10 47 03.0	-0.4
B08A	Colville Reser	75.04	319	P	P	10 47 02.9	-0.5
	baz=75,SNR=104						
B08A				⇑S	S	10 56 38.1	-1.1
	baz=75						
J13A	Cove Ranch, Pi	75.08	313	⇑P	P	10 47 04.6	+0.9
	baz=75,SNR=156						
J13A				⇑S	S	10 56 42.3	+2.5
	baz=75						
HLID	Hailey	75.13	313	eP	P	10 47 04.5	+0.5
	comp=Z,445nm,1.6s,mb6.1						
HLID				e		10 47 21.5	
HLID				LR	LR		
	comp=Z,6µm,21.0s,MS5.9						
HLID	Hailey	75.13	313	P	P	10 47 04.8	+0.8
	baz=75,SNR=97						
HLID				⇑S	S	10 56 43.6	+3.3
	baz=75						
CTU	Camp Tracy	75.16	310	eP	P	10 47 03.5	-0.7
	comp=Z,217nm,1.4s,mb5.9						
HVU	Hansel Valley	75.17	311	eP	P	10 47 03.3	-1.0
	comp=Z,591nm,1.6s,mb6.3						
HVU	Hansel Valley	75.17	311	eP	P	10 47 03.3	-0.9
HVU				pmax	pmax		
	comp=Z,591nm,1.6s,mb6.3						
HVU	Hansel Valley	75.17	311	eP	P	10 47 03.3	-0.9
	comp=Z,591nm,1.6s,mb6.3						
A07A	Ashnola River,	75.17	320	P	P	10 47 04.0	-0.2
	baz=75,SNR=34						
A07A				⇓S	S	10 56 40.4	-0.2
	baz=75						
C08A	Higginbotham F	75.24	319	⇑P	P	10 47 03.5	-1.1
	baz=75,SNR=22						
C08A				⇓S	S	10 56 39.0	-2.4
	baz=75						
SPUT	South Promonto	75.24	310	eP	P	10 47 04.5	-0.2
SPUT	South Promonto	75.24	310	eP	P	10 47 04.5	-0.2
SRU	San Rafael	75.27	308	eP	P	10 47 04.1	-0.8
	comp=Z,543nm,1.7s,mb6.2						
SRU	San Rafael	75.27	308	eP	P	10 47 04.1	-0.8
SRU				pmax	pmax		
	comp=Z,543nm,1.7s,mb6.2						
SRU	San Rafael	75.27	308	eP	P	10 47 04.1	-0.8
	comp=Z,543nm,1.7s,mb6.2						
D09A	Jones Farm, Ri	75.28	318	⇓P	P	10 47 03.2	-1.6
	baz=75						
D09A				⇓S	S	10 56 39.3	-2.6
	baz=75						
IRK	Irkutsk	75.32	35	⇑iP	P	10 47 04.8	-0.1
IRK				e		10 47 22.4	
IRK				eS	S	10 56 43.8	+1.7
IRK				pmax	pmax		
	comp=Z,530nm,1.9s,mb6.2						
IRK	Irkutsk	75.32	35	i P	P	10 47 04.8	-0.1
	comp=Z,530nm,1.9s,mb6.2						
IRK				eS	S	10 56 43.8	+1.7
F10A	Beach Ranch, E	75.33	316	⇑P	P	10 47 04.2	-0.9
	baz=75,SNR=32						
F10A				⇓S	S	10 56 40.9	-1.6
	baz=75						
LPM	Los Pinos Moun	75.35	302	eP	P	10 47 06.0	+0.6
LPM				e		10 47 22.8	
LPM	Los Pinos Moun	75.35	302	eP	P	10 47 06.0	+0.6
TLY	Talaya	75.38	36	eP	P	10 47 06.3	+1.0
	comp=Z,257nm,1.1s,mb6.1						
TLY				LR	LR		
	comp=Z,13µm,19.0s,MS6.3						
TLY	Talaya	75.38	36	c iP	P	10 47 06.4	+1.1
TLY				e		10 47 17.8	
TLY				e		10 49 53.4	
TLY				e		10 56 46.5	
TLY				e		10 57 07.5	
TLY				eSSS		11 04 47.9	
TLY				pmax	pmax		
	comp=Z,304nm,1.2s,mb6.1						
TLY				MLR	MLR		
	comp=Z,13µm,18.0s,MS6.3						
TLY	Talaya	75.38	36	eP	P	10 47 06.3	+1.0
	comp=Z,257nm,1.1s,mb6.1						
TLY	Talaya	75.38	36	ePcP	PcP	10 47 17.8	-0.6
TLY				eS	S	10 56 46.5	+3.6
B07A	Winthrop	75.39	320	⇓P	P	10 47 05.0	-0.4
	baz=75,SNR=35						
B07A				⇑S	S	10 56 42.0	-1.1
	baz=75						
H11A	Donnelly	75.40	315	P	P	10 47 04.7	-0.8
	baz=75,SNR=34						
H11A				⇓S	S	10 56 42.5	-0.7
	baz=75						
NOQ	North Oquirrh	75.41	310	eP	P	10 47 05.1	-0.5
	comp=Z,278nm,1.4s,mb6.0						
MCK	McKinley	75.42	342	eP	P	10 47 05.2	0.0
	comp=Z,516nm,1.3s,mb6.3						
MCK				e	pP	10 47 15.5	+0.7
MCK				e		10 47 22.5	
MCK				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
MCK	McKinley	75.42	342	eP	P	10 47 05.2	-0.1
MCK				e		10 47 22.5	
MCK				pmax	pmax		
	comp=Z,253nm,1.3s,mb6.0						
MCK				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.6						
MCK	McKinley	75.42	342	eP	P	10 47 05.2	-0.1
	comp=Z,3µm,19.0s						
LPAZ	La Paz	75.43	237	eP	P	10 47 05.3	-0.6
	comp=Z,50nm,1.1s,mb5.3						
LPAZ				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
LPAZ	La Paz	75.43	237	eP	P	10 47 05.3	-0.6
LPAZ				pmax	pmax		
	comp=Z,50nm,1.1s						
LPAZ				MLR	MLR		
	comp=Z,2µm,20.0s						
LPAZ	La Paz	75.43	237	P	P	10 47 05.4	-0.5
	comp=Z,20nm,0.9s,mb5.1,baz=44,slow=5.7,SNR=74						
LPAZ				PKPPKP		11 14 21.7	
	comp=Z,2.6nm,1.1s,baz=330,slow=0.8,SNR=4.7						
LPAZ				LR	LR	11 18 24.7	
	comp=Z,1µm,19.1s,MS5.3,baz=246,slow=34						
LPAZ	La Paz	75.43	237	eP	P	10 47 05.3	-0.6
	comp=Z,2µm,20.0s						
BNM	Barren Site	75.44	302	eP	P	10 47 06.5	+0.5
BNM	Barren Site	75.44	302	eP	P	10 47 06.4	+0.5
K13A	Stover Farm, H	75.47	312	P	P	10 47 06.8	+0.8
	baz=75,SNR=88						
K13A				⇑S	S	10 56 46.8	+2.8
	baz=75						
MPU	Maple Canyon	75.47	309	eP	P	10 47 05.2	-0.8
	comp=Z,217nm,1.7s,mb5.8						
MPU				LR	LR		
	comp=Z,17µm,20.0s,MS6.3						
MPU	Maple Canyon	75.47	309	eP	P	10 47 05.2	-0.8
	comp=Z,217nm,1.7s,mb5.8						
E09A	Wood Farm, Sta	75.52	317	⇑P	P	10 47 05.1	-1.1
	baz=75,SNR=19						
E09A				⇓S	S	10 56 42.2	-2.4
	baz=75						
BOD	Bodaibo	75.59	27	⇓iP	P	10 47 05.0	-1.3
BOD				pmax	pmax		
	comp=Z,272nm,1.1s,mb6.1						
BOD	Bodaibo	75.59	27	i P	P	10 47 05.0	-1.3
	comp=Z,272nm,1.1s,mb6.1						
TMUT	Trail Mountain	75.61	308	eP	P	10 47 06.8	0.0
TMUT	Trail Mountain	75.61	308	eP	P	10 47 06.8	0.0
D08A	Wollman Farm,	75.61	318	⇓P	P	10 47 05.3	-1.3
	baz=75,SNR=7.8						
D08A				⇓S	S	10 56 43.5	-2.1
	baz=75						
KAD	Karad	75.64	79	⇑iP	P	10 47 06.0	-1.3
KAD				ex	x	10 47 08.4	
	comp=Z,354nm,1.3s						
LAZ	Ladron	75.65	302	eP	P	10 47 07.6	+0.5

LAZ				*e*		10 47 24.6	
LAZ	**Ladron**	**75.65**	**302**	*e*P	**P**	**10 47 07.6**	**+0.5**
LENM	**Lemitar**	**75.67**	**302**	*e*P	**P**	**10 47 07.5**	**+0.2**
LENM				*e*		10 47 23.8	
LENM	**Lemitar**	**75.67**	**302**	*e*P	**P**	**10 47 07.4**	**+0.2**
Y22C	**IRIS PASSCAL I**	**75.68**	**302**	⇑P	**P**	**10 47 08.1**	**+0.8**
	baz=76,SNR=12						
A06A	**Chilliwack**	**75.71**	**321**	⇑P	**P**	**10 47 05.5**	**-1.7**
	baz=76						
A06A				⇓S	S	10 56 45.0	-1.5
	baz=76						
L13A	**Double Diamond**	**75.71**	**312**	P	**P**	**10 47 07.8**	**+0.5**
	baz=76,SNR=195						
L13A				⇓S	S	10 56 47.7	+0.9
	baz=76						
J12A	**Stokes Ranch,**	**75.72**	**313**	P	**P**	**10 47 07.9**	**+0.5**
	baz=76,SNR=76						
J12A				⇓S	S	10 56 49.8	+3.0
	baz=76						
WRAK	**Wrangell Islan**	**75.77**	**331**	PFAKE		10 47 20.0	+13
WRAK				LR	LR		
	comp=Z,8µm,20.0s,MS6.0						
WTV	**Waterville**	**75.78**	**319**	P	**P**	**10 47 07.2**	**-0.4**
WTV	**Waterville**	**75.78**	**319**	P	**P**	**10 47 07.2**	**-0.4**
NLU	**North Lily Min**	**75.78**	**309**	*e*P	**P**	**10 47 07.0**	**-0.7**
NLU				*e*		10 47 24.2	
NLU	**North Lily Min**	**75.78**	**309**	*e*P	**P**	**10 47 07.0**	**-0.8**
EPH	**Ephrata**	**75.80**	**319**	P	**P**	**10 47 07.3**	**-0.4**
EPH	**Ephrata**	**75.80**	**319**	P	**P**	**10 47 07.3**	**-0.4**
BGU	**Big Grassy Mou**	**75.82**	**310**	*e*P	**P**	**10 47 07.2**	**-0.8**
BGU				*e*		10 47 24.4	
BGU	**Big Grassy Mou**	**75.82**	**310**	*e*P	**P**	**10 47 07.2**	**-0.8**
I11A	**Placerville**	**75.83**	**314**	⇓P	**P**	**10 47 08.1**	**+0.1**
	baz=76						
I11A				⇑S	S	10 56 49.2	+1.1
	baz=76						
C07A	**Waterville**	**75.84**	**319**	P	**P**	**10 47 07.5**	**-0.5**
	baz=76,SNR=75						
C07A				⇑S	S	10 56 46.6	-1.4
	baz=76						
F09A	**S2 Ranch, Elgi**	**75.87**	**316**	P	**P**	**10 47 07.6**	**-0.6**
	baz=76,SNR=50						
F09A				⇑S	S	10 56 47.1	-1.4
	baz=76						
H10A	**Noah's Angus R**	**75.89**	**315**	⇓P	**P**	**10 47 06.9**	**-1.4**
	baz=76,SNR=24						
H10A				⇓S	S	10 56 46.6	-2.0
	baz=76						
MNTX	**Cornudas Mount**	**75.91**	**299**	*e*P	**P**	**10 47 07.3**	**-1.3**
	comp=Z,55nm,1.4s,mb5.3						
MNTX				*e*		10 47 24.1	
MNTX				LR	LR		
	comp=Z,8µm,21.0s,MS6.0						
MNTX	**Cornudas Mount**	**75.91**	**299**	*e*P	**P**	**10 47 07.3**	**-1.4**
K12A	**Draper Farm, C**	**75.96**	**313**	P	**P**	**10 47 09.6**	**+0.8**
	baz=76,SNR=72						
K12A				⇑S	S	10 56 52.0	+2.4
	baz=76						
LTX	**Lajitas**	**75.98**	**296**	*e*P	**P**	**10 47 09.2**	**+0.1**
	comp=Z,91nm,1.1s,mb5.6						
LTX				LR	LR		
	comp=Z,9µm,20.0s,MS6.1						
LTX	**Lajitas**	**75.98**	**296**	P	**P**	**10 47 09.0**	**-0.1**
LTX				pmax	pmax		
	comp=Z,91nm,1.1s,mb5.6						
LTX	**Lajitas**	**75.98**	**296**	P	**P**	**10 47 09.0**	**-0.1**
	comp=Z,91nm,1.1s,mb5.6						
TXAR	**Lajitas Array**	**75.98**	**296**	P	**P**	**10 47 09.0**	**-0.1**
TXAR				PKKPbc	PKKPbc	11 06 24.5	+1.1
TXAR				P'P'		11 14 12.5	
TXAR				LR	LR	11 17 58.5	
TXAR	**Lajitas Array**	**75.98**	**296**	P	**P**	**10 47 09.0**	**-0.1**
	comp=Z,42nm,0.9s,mb5.4,baz=76,slow=5.7,SNR=319						
TXAR				PKKPbc	PKKPbc	11 06 24.5	+1.1
	comp=Z,2.4nm,1.3s,baz=212,slow=5.0,SNR=6.1						
TXAR				PKPPKP		11 14 12.5	
	comp=Z,1.8nm,1.1s,baz=199,slow=2.7,SNR=3.7						
TXAR				LR	LR	11 17 58.5	
	comp=Z,8µm,20.7s,MS6.0,baz=350,slow=34						
AKL	**Akola**	**76.02**	**75**	⇓*i*P	**P**	**10 47 09.2**	**-0.3**
AKL				*e*x	x	10 47 10.7	
	comp=Z,677nm,1.2s						
AKL				*i* x	x	10 56 07.2	
E08A	**Dider Farm, El**	**76.03**	**318**	⇑P	**P**	**10 47 08.3**	**-0.8**
	baz=76						
E08A				⇑S	S	10 56 48.2	-2.0
	baz=76						
ZAK	**Zakamensk**	**76.04**	**37**	⇓*i*P	**P**	**10 47 09.7**	**+0.6**
ZAK				pmax	pmax		
	comp=Z,63nm,1.9s,mb5.2						
ZAK				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.7						
ZAK	**Zakamensk**	**76.04**	**37**	*i* P	**P**	**10 47 09.7**	**+0.6**
	comp=Z,15nm,1.5s,mb4.7						
BMO	**Blue Mountains**	**76.05**	**316**	*e*P	**P**	**10 47 08.3**	**-0.9**
	comp=Z,266nm,1.3s,mb6.0						
BMO				*e*		10 47 25.9	
BMO				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
MFID	**Camas Ranch**	**76.05**	**314**	P	**P**	**10 47 09.4**	**+0.1**
	baz=76,SNR=41						
MFID				⇑S	S	10 56 51.5	+0.9
	baz=76						
B06A	**Marblemount**	**76.07**	**320**	⇑P	**P**	**10 47 07.6**	**-1.7**
	baz=76						
A05A	**Maple Falls**	**76.08**	**321**	⇑P	**P**	**10 47 08.4**	**-0.9**
	baz=76						
A05A				⇑S	S	10 56 54.1	+3.5
	baz=76						
D07A	**Quincy**	**76.10**	**319**	P	**P**	**10 47 08.9**	**-0.5**
	baz=76,SNR=18						
D07A				⇑S	S	10 56 49.9	-1.0
	baz=76						
DUG	**Dugway**	**76.11**	**310**	*e*P	**P**	**10 47 08.7**	**-1.0**
	comp=Z,266nm,1.6s,mb5.9						
DUG				*e*		10 47 25.9	
DUG				LR	LR		
	comp=Z,8µm,20.0s,MS6.0						
DUG	**Dugway**	**76.11**	**310**	*e*P	**P**	**10 47 08.7**	**-0.9**
DUG				*e*		10 47 26.0	
DUG				pmax	pmax		
	comp=Z,267nm,1.6s,mb5.9						
DUG				MLR	MLR		
	comp=Z,8µm,20.0s,MS6.0						
DUG	**Dugway**	**76.11**	**310**	⇓P	**P**	**10 47 09.1**	**-0.5**
	baz=76,SNR=64						
DUG				⇑S	S	10 56 49.8	-1.5
	baz=76						
DUG	**Dugway**	**76.11**	**310**	*e*P	**P**	**10 47 08.7**	**-0.9**
	comp=Z,267nm,1.6s,mb5.9						
C06A	**Tall Timber Ra**	**76.14**	**320**	⇑P	**P**	**10 47 08.7**	**-0.9**
	baz=76,SNR=10						
C06A				⇑S	S	10 56 51.1	-0.2
	baz=76						
I10A	**Payette**	**76.22**	**315**	⇑P	**P**	**10 47 10.3**	**+0.1**
	baz=76,SNR=21						
M13A	**Montello**	**76.27**	**311**	P	**P**	**10 47 10.7**	**+0.2**
	baz=76,SNR=92						
M13A				⇓S	S	10 56 53.5	+0.5
	baz=76						
L12A	**House Creek Ra**	**76.32**	**312**	P	**P**	**10 47 11.7**	**+0.9**
	baz=76,SNR=54						
L12A				⇓S	S	10 56 55.3	+1.8
	baz=76						
BILL	**Bilibino**	**76.33**	**1**	*e*P	**P**	**10 47 10.5**	**+0.1**
	comp=Z,713nm,1.5s,mb6.4						
BILL				*e*		10 47 27.6	
BILL				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
BILL	**Bilibino**	**76.33**	**1** *c*	*i*P	**P**	**10 47 10.6**	**+0.2**
BILL				*i*	pP	10 47 21.1	+1.1
BILL				*i* S	S	10 56 53.2	+0.5
BILL				*i* SS	SS	11 01 48.4	+2.6
BILL				pmax	pmax		
	comp=Z,261nm,1.3s,mb6.0						
BILL	**Bilibino**	**76.33**	**1**	*e*P	**P**	**10 47 10.5**	**+0.1**
BILL	**Bilibino**	**76.33**	**1**	*i* PcP	PcP	10 47 21.1	-1.1
BILL				*i* S	S	10 56 53.2	+0.5
HAWA	**Hanford**	**76.35**	**318**	*e*P	**P**	**10 47 09.8**	**-1.1**
	comp=Z,268nm,1.6s,mb5.9						
HAWA				*e*	pP	10 47 20.7	+0.2
HAWA				*e*		10 47 27.1	
HAWA				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
HAWA	**Hanford**	**76.35**	**318**	*e*P	**P**	**10 47 09.8**	**-1.1**
H09A	**Durkee**	**76.36**	**316**	⇑P	**P**	**10 47 10.6**	**-0.4**
	baz=76						
H09A				⇑S	S	10 56 53.2	-0.7
	baz=76						
E07A	**Sunnyside**	**76.43**	**318**	P	**P**	**10 47 10.8**	**-0.5**
	baz=76,SNR=14						
E07A				⇓S	S	10 56 53.0	-1.5
	baz=76						
SIT	**Sitka**	**76.45**	**333**	*e*P	**P**	**10 47 12.3**	**+1.1**
	comp=Z,396nm,1.5s,mb6.1						
SIT				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
SIT	**Sitka**	**76.45**	**333**	*e*P	**P**	**10 47 12.3**	**+1.0**
SIT				pmax	pmax		
	comp=Z,396nm,1.5s,mb6.1						
SIT				MLR	MLR		
	comp=Z,8µm,19.0s,MS6.0						
SIT	**Sitka**	**76.45**	**333**	*e*P	**P**	**10 47 12.3**	**+1.0**
	comp=Z,8µm,19.0s						
B05A	**Bryant**	**76.55**	**320**	⇓P	**P**	**10 47 11.6**	**-0.3**
	baz=76						
B05A				⇓S	S	10 56 54.7	-1.1
	baz=76						
D06A	**Cle Elum**	**76.56**	**319**	⇑P	**P**	**10 47 11.1**	**-1.0**
	baz=76,SNR=8.1						
D06A				⇑S	S	10 56 56.4	+0.4
	baz=76						
N13A	**Wendover, West**	**76.58**	**311**	P	**P**	**10 47 12.6**	**+0.2**
	baz=76,SNR=31						
N13A				⇓S	S	10 56 56.1	-0.4
	baz=76						
J10A	**Berg Farm, Mel**	**76.59**	**314**	⇑P	**P**	**10 47 12.8**	**+0.5**
	baz=76,SNR=24						
J10A				⇑S	S	10 56 58.4	+1.9
	baz=76						
MXC	**Moxie City**	**76.65**	**318**	P	**P**	**10 47 12.9**	**+0.3**
MXC	**Moxie City**	**76.65**	**318**	P	**P**	**10 47 12.9**	**+0.3**
MSU	**Marysvale**	**76.67**	**308**	*e*P	**P**	**10 47 12.9**	**0.0**
MSU				*e*		10 47 28.6	
MSU	**Marysvale**	**76.67**	**308**	*e*P	**P**	**10 47 12.9**	**0.0**
M12A	**Wells**	**76.69**	**312**	P	**P**	**10 47 13.6**	**+0.7**
	baz=76,SNR=71						
M12A				⇑S	S	10 56 59.0	+1.4
	baz=76						
C05A	**Tolt Reservoir**	**76.70**	**320**	⇑P	**P**	**10 47 11.3**	**-1.5**
	baz=76,SNR=27						
C05A				⇑S	S	10 56 56.1	-1.3
	baz=76						
MVU	**Marysvale**	**76.70**	**308**	PFAKE		10 47 20.0	+7.0
MVU				LR	LR		
	comp=Z,6µm,22.0s,MS5.9						
G08A	**Pilot Rock**	**76.71**	**317**	⇑P	**P**	**10 47 11.8**	**-1.2**
	baz=76,SNR=21						
G08A				⇓S	S	10 56 55.2	-2.5
	baz=76						
DIV	**Divide**	**76.73**	**340**	PFAKE		10 47 20.0	+7.2
DIV				LR	LR		
	comp=Z,19µm,20.0s,MS6.4						
L11A	**Cat Creek Ranc**	**76.75**	**313**	P	**P**	**10 47 13.9**	**+0.7**
	baz=77,SNR=108						
L11A				⇑S	S	10 56 59.8	+1.6
	baz=77						
I09A	**Lost Marbles R**	**76.83**	**315**	P	**P**	**10 47 13.5**	**-0.1**
	baz=77,SNR=41						
I09A				⇓S	S	10 56 59.5	+0.5
	baz=77						
SML	**Sawmill**	**76.87**	**341**	*e*P	**P**	**10 47 14.1**	**+0.5**
F07A	**Phinny Hill Vi**	**76.88**	**318**	⇓P	**P**	**10 47 13.8**	**-0.1**
	baz=77,SNR=13						
F07A				⇓S	S	10 56 59.5	0.0
	baz=77						
LATR	**Latur**	**76.92**	**77**	*e*P	**P**	**10 47 11.6**	**-2.9**
PGC	**Sidney**	**77.00**	**321**	*e*P	**P**	**10 47 14.0**	**-0.5**
	comp=Z,216nm,1.1s,mb6.0						
PGC	**Sidney**	**77.00**	**321**	*e*P	**P**	**10 47 14.0**	**-0.5**
	comp=Z,216nm,1.1s,mb6.0						
H08A	**Prairie City**	**77.03**	**316**	⇑P	**P**	**10 47 13.7**	**-1.0**
	baz=77,SNR=9.1						
E06A	**Yakima**	**77.04**	**319**	P	**P**	**10 47 14.5**	**-0.3**
	baz=77,SNR=20						
E06A				⇓S	S	10 57 01.2	-0.1
	baz=77						
K10A	**MacKenzie Ranc**	**77.04**	**314**	P	**P**	**10 47 15.2**	**+0.3**
	baz=77,SNR=50						
K10A				⇑S	S	10 57 02.5	+1.1
	baz=77						
N12A	**Clover Valley,**	**77.10**	**311**	P	**P**	**10 47 15.7**	**+0.5**
	baz=77,SNR=57						
N12A				⇑S	S	10 57 02.6	+0.5
	baz=77						
G07A	**Ruggs Ranch, H**	**77.12**	**317**	P	**P**	**10 47 14.8**	**-0.5**
	baz=77,SNR=33						
G07A				⇑S	S	10 57 01.1	-1.1
	baz=77						
KOLN	**Koldanda**	**77.15**	**65**	*e*P	**P**	**10 47 15.3**	**-0.4**
	comp=Z,2µm,1.4s,mb6.8						
YAK	**Yakutsk**	**77.16**	**18**	*e*P	**P**	**10 47 14.7**	**-0.5**
	comp=Z,483nm,1.0s,mb6.4						
YAK				*e*		10 47 32.0	
YAK				LR	LR		
	comp=Z,5µm,19.0s,MS5.9						
YAK	**Yakutsk**	**77.16**	**18** *c*	*i*P	**P**	**10 47 15.1**	**-0.1**
YAK				*e*	pP	10 47 25.2	+0.4
YAK				*e*		10 50 09.9	
YAK				*e*PPP		10 52 01.1	
YAK				*i* S	S	10 57 01.1	-0.9
YAK				*e*		10 57 22.2	
YAK				*e**SS	sS	10 57 46.4	+28
YAK				*e*SS	SS	11 02 07.7	+9.0
YAK				pmax	pmax		
	comp=Z,546nm,1.3s,mb6.3						
YAK				pmax	pmax		
	comp=N,256nm,1.5s						
YAK				pmax	pmax		
	comp=E,194nm,1.5s						
YAK				pmax	pmax		
	comp=Z,188nm,2.5s,mb5.6						
YAK				pmax	pmax		
	comp=N,426nm,4.5s						
YAK				pmax	pmax		
	comp=E,129nm,1.8s						
YAK				smax			
	comp=E,1µm,5.8s						
YAK				smax			
	comp=N,1µm,3.5s						
YAK	**Yakutsk**	**77.16**	**18**	*e*P	**P**	**10 47 14.7**	**-0.5**
YAK	**Yakutsk**	**77.16**	**18**	*e*PcP	PcP	10 47 25.2	-0.7
YAK				*i* S	S	10 57 01.1	-0.9
	comp=N,1µm,3.5s						
D05A	**Enumclaw**	**77.17**	**319**	⇓S	S	10 57 01.4	-1.3
	baz=77						
ALBI	**Allahabad**	**77.17**	**68**	*i* P	**P**	**10 47 13.0**	**-2.9**
EYAK	**Cordova Ski Ar**	**77.20**	**339**	*e*P	**P**	**10 47 16.0**	**+0.6**
	comp=N,353nm,1.4s,mb6.1						
EYAK	**Cordova Ski Ar**	**77.20**	**339**	*e*P	**P**	**10 47 16.0**	**+0.6**
	comp=N,353nm,1.4s,mb6.1						
M11A	**Holland Ranch,**	**77.21**	**312**	P	**P**	**10 47 16.9**	**+1.0**
	baz=77,SNR=73						
M11A				⇑S	S	10 57 04.5	+1.2
	baz=77						
J09A	**Fry Pan Ranch,**	**77.22**	**314**	P	**P**	**10 47 16.5**	**+0.7**
	baz=77,SNR=75						
J09A				⇓S	S	10 57 05.5	+2.3
	baz=77						
L10A	**Juniper Basin**	**77.23**	**313**	P	**P**	**10 47 16.5**	**+0.6**
	baz=77,SNR=68						
L10A				⇓S	S	10 57 05.4	+1.9
	baz=77						
PMR	**Palmer**	**77.27**	**341**	*e*P	**P**	**10 47 15.9**	**+0.1**
PMR				pmax	pmax		
	comp=Z,108nm,1.2s,mb5.7						
PMR	**Palmer**	**77.27**	**341**	*e*P	**P**	**10 47 15.9**	**+0.1**
	comp=Z,108nm,1.2s,mb5.7						
ELK	**Elko**	**77.28**	**311**	*e*P	**P**	**10 47 16.3**	**0.0**
	comp=Z,443nm,1.7s,mb6.1						
ELK				*e*		10 47 33.9	
ELK				LR	LR		
	comp=Z,6µm,20.0s,MS5.9						
ELK	**Elko**	**77.28**	**311**	*e*P	**P**	**10 47 16.3**	**0.0**
ELK				*e*		10 47 33.9	
ELK				pmax	pmax		
	comp=Z,443nm,1.7s						
ELK				MLR	MLR		
	comp=Z,6µm,20.0s						
ELK	**Elko**	**77.28**	**311**	*e*P	**P**	**10 47 16.3**	**0.0**
	comp=Z,443nm,1.7s,mb6.1						
I08A	**Drewsey**	**77.34**	**315**	P	**P**	**10 47 16.1**	**-0.5**
	baz=77,SNR=13						
I08A				⇑S	S	10 57 03.1	-1.5
	baz=77						
C04A	**Brinnon**	**77.35**	**320**	⇑P	**P**	**10 47 16.7**	**+0.2**
	baz=77,SNR=21						
C04A				⇓S	S	10 57 05.7	+1.2
	baz=77						
NGP	**Nagpur**	**77.36**	**73**	⇑*i*P	**P**	**10 47 15.7**	**-1.3**
NGP				*e*x	x	10 47 17.6	
	comp=Z,759nm,1.3s						
NGP				*e*x	x	10 57 01.0	
TNA	**Tin City**	**77.37**	**351**	*e*P	**P**	**10 47 16.8**	**+0.5**
	comp=Z,105nm,0.5s,mb6.0						
TNA				*e*	pP	10 47 27.7	+1.8
TNA				*e*		10 47 34.4	
TNA				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
B04A	**Port Angeles**	**77.41**	**321**	⇓P	**P**	**10 47 17.1**	**+0.3**
	baz=77,SNR=13						
VHO	**Vista Hermosa**	**77.41**	**282**	*i* P	**P**	**10 47 17.7**	**+0.4**
VHO	**Vista Hermosa**	**77.41**	**282**	*i* P	**P**	**10 47 17.7**	**+0.4**
F06A	**Goldendale**	**77.42**	**318**	⇓P	**P**	**10 47 16.9**	**-0.1**
	baz=77,SNR=19						
F06A				⇓S	S	10 57 04.4	-1.1
	baz=77						
E05A	**Randle**	**77.45**	**319**	P	**P**	**10 47 16.4**	**-0.7**
	baz=77,SNR=9.0						
E05A				⇓S	S	10 57 04.5	-1.2
	baz=77						
N11A	**Elko Archery C**	**77.54**	**311**	⇓P	**P**	**10 47 18.2**	**+0.5**
	baz=77						
N11A				⇑S	S	10 57 07.2	+0.2
	baz=77						
IIO	**Organos**	**77.58**	**285**	*i* P	**P**	**10 47 18.9**	**+0.6**
K09A	**Rome**	**77.59**	**314**	P	**P**	**10 47 18.7**	**+0.7**
	baz=77,SNR=50						
K09A				⇑S	S	10 57 09.2	+1.8
	baz=77						
M10A	**I.L. Ranch, Tu**	**77.61**	**312**	⇓P	**P**	**10 47 18.7**	**+0.7**
	baz=77,SNR=30						
M10A				⇓S	S	10 57 08.8	+1.2
	baz=77						
J08A	**Circle Bar Ran**	**77.62**	**315**	⇑P	**P**	**10 47 18.4**	**+0.3**
	baz=77,SNR=141						
J08A				⇓S	S	10 57 09.1	+1.4
	baz=77						
HUIG	**Huatulco**	**77.64**	**281**	*i* P	**P**	**10 47 18.0**	**-0.6**
HUIG	**Huatulco**	**77.64**	**281**	*i* P	**P**	**10 47 18.0**	**-0.6**
D04A	**Dobbs Creek Ra**	**77.65**	**320**	⇓P	**P**	**10 47 18.4**	**+0.2**
	baz=77						
G06A	**Carlson Farm,**	**77.68**	**317**	⇑P	**P**	**10 47 18.2**	**-0.1**
	baz=78,SNR=9.8						
G06A				⇑S	S	10 57 08.9	+0.7
	baz=78						
F05A	**White Salmon**	**77.72**	**318**	⇓P	**P**	**10 47 18.4**	**-0.2**
	baz=78,SNR=10						
S14A	**Cedar City**	**77.75**	**308**	P	**P**	**10 47 18.9**	**0.0**
	baz=78,SNR=80						
S14A				⇑S	S	10 57 08.3	-0.9
	baz=78						
I07A	**Izee**	**77.77**	**316**	P	**P**	**10 47 18.6**	**-0.3**
	baz=78,SNR=15						
I07A				⇑S	S	10 57 09.4	+0.2
	baz=78						
GKN	**Gorkha**	**77.78**	**64**	*e*P	**P**	**10 47 19.0**	**-0.3**
	comp=Z,2µm,1.3s,mb7.0						
H06A	**Lindquist Farm**	**77.82**	**317**	⇑P	**P**	**10 47 19.2**	**0.0**
	baz=78,SNR=43						
H06A				⇓S	S	10 57 08.7	-1.1
	baz=78						
P12A	**McGill**	**77.83**	**310**	P	**P**	**10 47 19.4**	**+0.1**
	baz=78,SNR=41						
P12A				⇓S	S	10 57 09.1	-1.0
	baz=78						
ARE	**Arequipa**	**77.87**	**239**	*e*P	**P**	**10 47 18.0**	**-1.7**
WUAZ	**Wupatki**	**77.88**	**305**	*e*P	**P**	**10 47 19.8**	**+0.1**
	comp=Z,73nm,1.1s,mb5.5						
WUAZ				*e*		10 47 36.7	
WUAZ				LR	LR		
	comp=Z,12µm,21.0s,MS6.2						
WUAZ	**Wupatki**	**77.88**	**305**	P	**P**	**10 47 20.1**	**+0.4**
	baz=78,SNR=49						
WUAZ				⇑S	S	10 57 10.9	+0.2
	baz=78						
WUAZ	**Wupatki**	**77.88**	**305**	*e*P	**P**	**10 47 19.8**	**+0.1**
PTVM	**Pico Tres Padr**	**77.89**	**285**	*i* P	**P**	**10 47 16.9**	**-3.1**
PTVM	**Pico Tres Padr**	**77.89**	**285**	*i* P	**P**	**10 47 16.9**	**-3.1**
ARUT	**Antelope Range**	**77.91**	**308**	*e*P	**P**	**10 47 19.6**	**-0.1**
ARUT				*e*	pP	10 47 28.8	-0.7
ARUT	**Antelope Range**	**77.91**	**308**	*e*P	**P**	**10 47 19.6**	**-0.2**
ARUT	**Antelope Range**	**77.91**	**308**	*e*PcP	PcP	10 47 28.8	-0.8
O11A	**Cowboy Ranch,**	**77.91**	**311**	P	**P**	**10 47 20.2**	**+0.5**
	baz=78,SNR=97						
O11A				⇓S	S	10 57 10.5	-0.4
	baz=78						
E04A	**Onalaska**	**77.94**	**319**	⇑P	**P**	**10 47 19.7**	**-0.2**
	baz=78,SNR=9.5						
L09A	**Wilkinson Ranc**	**77.97**	**313**	⇓P	**P**	**10 47 20.7**	**+0.6**
	baz=78,SNR=15						
L09A				⇓S	S	10 57 11.9	+0.3
	baz=78						
CCUT	**Cedar City**	**78.00**	**308**	*e*P	**P**	**10 47 19.9**	**-0.4**
CCUT				*e*		10 47 36.6	
CCUT	**Cedar City**	**78.00**	**308**	*e*P	**P**	**10 47 19.9**	**-0.4**
K08A	**Mann Creek Ran**	**78.02**	**314**	P	**P**	**10 47 20.9**	**+0.6**
	baz=78,SNR=54						
K08A				⇑S	S	10 57 13.4	+1.4
	baz=78						
NLWA	**Neilton Lookou**	**78.03**	**320**	*e*P	**P**	**10 47 20.7**	**+0.4**
	comp=Z,584nm,1.5s,mb6.3						
NLWA				LR	LR		
	comp=Z,6µm,20.0s,MS5.9						
NLWA	**Neilton Lookou**	**78.03**	**320**	⇓P	**P**	**10 47 21.1**	**+0.8**
	baz=78						
NLWA				⇓S	S	10 57 12.9	+1.0
	baz=78						
NLWA	**Neilton Lookou**	**78.03**	**320**	*e*P	**P**	**10 47 20.7**	**+0.4**
	comp=Z,584nm,1.5s,mb6.3						
Q12A	**Willow Creek R**	**78.04**	**310**	P	**P**	**10 47 20.8**	**+0.2**
	baz=78,SNR=48						
Q12A				⇓S	S	10 57 11.5	-0.9
	baz=78						
G05A	**Wamic**	**78.05**	**318**	P	**P**	**10 47 20.6**	**+0.1**
	baz=78,SNR=6.4						
N10A	**Dunphy**	**78.07**	**312**	⇑P	**P**	**10 47 21.1**	**+0.5**
	baz=78						
N10A				⇑S	S	10 57 13.2	+0.6
	baz=78						
J07A	**Hines**	**78.09**	**315**	⇑P	**P**	**10 47 20.4**	**-0.3**
	baz=78,SNR=10						
J07A				⇓S	S	10 57 14.1	+1.3
	baz=78						
T14A	**Hurricane**	**78.10**	**307**	⇓P	**P**	**10 47 20.0**	**-0.9**
	baz=78,SNR=9.8						
D03A	**Wishkah Elem.**	**78.15**	**320**	⇓S	S	10 57 12.5	-0.7
	baz=78						
F04A	**Amboy**	**78.20**	**319**	⇑P	**P**	**10 47 20.4**	**-0.9**
	baz=78						
M09A	**Marrel Ranch,**	**78.21**	**313**	⇓P	**P**	**10 47 21.9**	**+0.5**
	baz=78,SNR=29						
I06A	**Prineville**	**78.25**	**316**	P	**P**	**10 47 22.6**	**+1.1**
	baz=78,SNR=56						
I06A				⇑S	S	10 57 14.4	0.0
	baz=78						
L08A	**Fields**	**78.27**	**314**	P	**P**	**10 47 22.5**	**+0.8**
	baz=78,SNR=56						
L08A				⇓S	S	10 57 16.6	+1.9
	baz=78						
WVOR	**Wild Horse Val**	**78.29**	**314**	*e*P	**P**	**10 47 22.0**	**+0.2**
	comp=Z,338nm,1.4s,mb6.1						
WVOR				*e*		10 47 38.8	
WVOR				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
WVOR	**Wild Horse Val**	**78.29**	**314**	*e*P	**P**	**10 47 22.0**	**+0.2**
WVOR				pmax	pmax		
	comp=Z,338nm,1.4s,mb6.1						
WVOR				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.6						
WVOR	**Wild Horse Val**	**78.29**	**314**	*e*P	**P**	**10 47 22.0**	**+0.2**
	comp=Z,3µm,20.0s						
P11A	**Circle Ranch,**	**78.31**	**310**	P	**P**	**10 47 22.4**	**+0.4**
	baz=78,SNR=29						
P11A				⇓S	S	10 57 14.8	-0.4
	baz=78						
O10A	**Cortez Mining,**	**78.32**	**311**	P	**P**	**10 47 22.5**	**+0.4**
	baz=78,SNR=20						
O10A				⇑S	S	10 57 14.9	-0.5
	baz=78						

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R12A  Pony Springs,     78.33 309   P       P        10 47 22.1  0.0
      baz=78,SNR=63
R12A                              ⇓S       S        10 57 14.7 -0.8
      baz=78
DMN   Daman             78.34  64  eP       P        10 47 22.6 +0.2
      comp=Z,4µm,1.4s,mb7.1
KKN   Kakani            78.37  64  eP       P        10 47 22.4 -0.1
      comp=Z,2µm,1.3s,mb6.9
H05A  Madras            78.37 317   P       P        10 47 22.6 +0.4
      baz=78,SNR=15
E03A  Lebam             78.42 320   P       P        10 47 23.1 +0.6
      baz=78,SNR=9.7
SLKM  Skilak Lake       78.47 341  eP       P        10 47 22.6 +0.2
SLKM                               e        pP       10 47 33.6 +1.5
SLKM                               e                 10 47 39.7
SLKM  Skilak Lake       78.47 341  eP       P        10 47 22.7 +0.2
SLKM                               e        pP       10 47 33.6 +1.5
SLKM  Skilak Lake       78.47 341  eP       P        10 47 22.6 +0.1
K07A  Rock Creek Ran    78.48 315  ⇓P       P        10 47 23.3 +0.4
      baz=78,SNR=29
K07A                              ⇑S       S        10 57 18.3 +1.3
      baz=78
MNGI  Mangalore         78.58  82  i P      P        10 47 23.6 -0.2
MNGI                                AMb     AMB      10 47 24.2
      comp=Z,522nm,2.0s,mb6.1
MNGI                               ex       x        10 57 16.2
PKI   Pulchoki          78.59  64  eP       P        10 47 23.6 -0.1
      comp=Z,2µm,1.4s,mb6.9
N09A  Rock Creek Ran    78.60 312   P       P        10 47 24.2 +0.6
      baz=78,SNR=34
N09A                              ⇓S       S        10 57 18.7 +0.4
      baz=78
J06A  Christmas Vall    78.65 316   P       P        10 47 24.3 +0.5
      baz=78,SNR=59
J06A                              ⇑S       S        10 57 20.0 +1.2
      baz=78
T13A  Saint George      78.66 308  ⇑P       P        10 47 24.2 +0.2
      baz=78
T13A                              ⇑S       S        10 57 18.8 -0.2
      baz=78
W15A  Williams          78.67 305  ⇓P       P        10 47 24.8 +0.8
      baz=78,SNR=7.5
W15A                              ⇓S       S        10 57 20.0 +0.7
      baz=78
Q11A  Duckwater         78.67 310  ⇑P       P        10 47 24.1 +0.1
      baz=78,SNR=87
Q11A                              ⇓S       S        10 57 17.9 -1.3
      baz=78
BMN   Battle Mountai    78.68 312   PFAKE            10 47 30.0 +6.0
BMN                                 LR      LR
      comp=Z,8µm,21.0s,MS6.0
G04A  Mulino            78.70 318  ⇓P       P        10 47 23.7 -0.4
      baz=78
I05A  Bend              78.70 317  ⇑P       P        10 47 25.0 +0.9
      baz=78,SNR=28
I05A                              ⇓S       S        10 57 20.3 +1.0
      baz=78
P10A  Eureka            78.71 311   P       P        10 47 24.9 +0.7
      baz=78,SNR=69
GUN   Gumba             78.74  64  eP       P        10 47 24.7 +0.1
      comp=Z,3µm,1.2s,mb7.0
M08A  Happy Creek Ra    78.74 313   P       P        10 47 25.2 +0.9
      baz=78,SNR=44
M08A                              ⇓S       S        10 57 21.0 +1.2
      baz=78
NNA   Nana              78.76 246   P       P        10 47 25.4 +0.7
      comp=Z,1µm,1.1s,mb6.7,SNR=17
NNA   Nana              78.76 246  eP       P        10 47 24.6 -0.2
      comp=Z,343nm,1.3s,mb6.1
NNA                                e                 10 47 41.0
NNA                                 LR      LR
      comp=Z,2µm,20.0s,MS5.5
NNA   Nana              78.76 246  eP       P        10 47 24.6 -0.1
ZAIG  Zacatecas         78.79 290  i P      P        10 47 26.2 +1.3
ZAIG  Zacatecas         78.79 290  i P      P        10 47 26.2 +1.3
F03A  Seaside           78.81 319  ⇓P       P        10 47 25.4 +0.7
      baz=79
O09A  Fish Creek Ran    78.82 312   P       P        10 47 25.4 +0.6
      baz=79,SNR=107
O09A                              ⇓S       S        10 57 20.9 +0.3
      baz=79
PLIG  Platanillo        78.86 285  i P      P        10 47 24.3 -1.1
PLIG  Platanillo        78.86 285  i P      P        10 47 24.3 -1.1
H04A  Detroit Lake      78.88 318   P       P        10 47 24.9 -0.2
      baz=79,SNR=13
TRCR  Troy Canyon       78.93 309  eP       P        10 47 25.2 -0.2
TRCR                               e                 10 47 41.9
L07A  Adell             78.95 314   P       P        10 47 26.7 +1.2
      baz=79,SNR=86
L07A                              ⇓S       S        10 57 24.8 +2.7
      baz=79
K06A  Valley Falls      78.99 315   P       P        10 47 26.2 +0.5
      baz=79,SNR=36
K06A                              ⇑S       S        10 57 25.0 +2.6
      baz=79
N08A  GE Springer Mi    79.01 313   P       P        10 47 26.3 +0.5
      baz=79,SNR=62
N08A                              ⇑S       S        10 57 24.3 +1.6
      baz=79
HYB   Hyderabad         79.05  76⇑eP       P        10 47 25.0 -1.4
      comp=Z,225nm,1.0s,mb6.0
HYB                                eS       S        10 57 18.0 -5.7
HYB   Hyderabad         79.05  76⇑eP       P        10 47 25.0 -1.4
HYB                                eS       S        10 57 18.0 -5.7
HYB                                 pmax    pmax
      comp=Z,225nm,1.0s,mb6.0
HYB   Hyderabad         79.05  76⇑iP       P        10 47 25.0 -1.4
      comp=Z,225nm,1.0s,mb6.0
HYB                                ePcP     PcP      10 47 36.0 +1.2
HYB                                ePP      PP       10 50 24.0 -1.5
HYB                                eS       S        10 57 18.0 -5.7
HYB                                eSKS              10 57 36.0
X15A  Humboldt          79.06 305   P       P        10 47 27.0 +0.8
      baz=79,SNR=67
X15A                              ⇑S       S        10 57 24.2 +0.8
      baz=79
G03A  Yamhill           79.06 319  ⇓P       P        10 47 26.6 +0.5
      baz=79,SNR=7.7
G03A                              ⇑S       S        10 57 23.8 +0.7
      baz=79
JIRN  Jiri              79.11  64  eP       P        10 47 26.8 +0.2
      comp=Z,2µm,1.4s,mb6.8
P09A  Austin            79.16 311  ⇑P       P        10 47 27.1 +0.4
      baz=79,SNR=31
P09A                              ⇑S       S        10 57 23.9 -0.5
      baz=79
W14A  Seligman          79.19 306  ⇓P       P        10 47 27.7 +0.8
      baz=79,SNR=94
BLSP  Bilaspur          79.19  71  eP       P        10 47 25.9 -1.3
M07A  Soldier Meadow    79.25 314   P       P        10 47 28.1 +0.9
      baz=79,SNR=58
M07A                              ⇓S       S        10 57 26.6 +1.5
      baz=79
SONM  Songino Array     79.26  38   P       P        10 47 27.7 +0.6
SONM                                pmax    pmax
      comp=Z,57nm,0.9s
SONM                                pmax    pmax
      comp=Z,10.0nm,1.0s
SONM                                MLR     MLR
      comp=Z,14µm,18.4s
SONM  Songino Array     79.26  38   P       P        10 47 27.7 +0.6
      comp=Z,57nm,0.9s,mb5.5,baz=303,slow=6.4,SNR=213
SONM                                PP      PP       10 50 15.6  -11
      comp=Z,9.5nm,1.0s,baz=294,slow=6.1,SNR=2.7
SONM                                LR      LR       11 27 06.7
      comp=Z,14µm,18.4s,MS6.3,baz=320,slow=39
SVW2  Sparrevohn        79.27 344  eP       P        10 47 27.4 +0.5
O08A  Rochester Mine    79.33 312  ⇓P       P        10 47 28.0 +0.4
      baz=79
TUC   Tucson            79.34 302  eP       P        10 47 27.8  0.0
      comp=Z,117nm,1.4s,mb5.6
TUC                                e                 10 47 45.4
TUC                                 LR      LR
      comp=Z,6µm,19.0s,MS6.0
TUC   Tucson            79.34 302  eP       P        10 47 27.8  0.0
TUC                                 pmax    pmax
      comp=Z,117nm,1.4s,mb5.6
TUC                                 MLR     MLR
      comp=Z,6µm,19.0s,MS6.0
TUC   Tucson            79.34 302  eP       P        10 47 27.8  0.0
      comp=Z,6µm,19.0s
T12A  Moapa             79.35 308  ⇑P       P        10 47 27.6 -0.2
      baz=79,SNR=5.9
K05A  Summer Lake       79.40 315  ⇓P       P        10 47 28.8 +0.8
      baz=79,SNR=32
K05A                              ⇑S       S        10 57 28.2 +1.5
      baz=79
R10A  Warm Springs      79.42 310   P       P        10 47 28.8 +0.7
      baz=79,SNR=96
R10A                              ⇑S       S        10 57 27.3 +0.3
      baz=79
U12A  Valley of Fire    79.42 307  ⇓P       P        10 47 28.2  0.0
      baz=79,SNR=11
S11A  Rachel            79.46 309   P       P        10 47 28.9 +0.5
      baz=79,SNR=59
S11A                              ⇓S       S        10 57 27.6 +0.1
      baz=79
MOIG  Morelia           79.46 287  i P      P        10 47 27.3 -1.4
MOIG  Morelia           79.46 287  i P      P        10 47 27.3 -1.3
H03A  Soap Creek Ran    79.48 318  ⇑P       P        10 47 28.9 +0.6
      baz=79
X14A  Yava              79.50 305   P       P        10 47 29.2 +0.6
      baz=79,SNR=40
N07B  Gerlach           79.51 313   P       P        10 47 29.3 +0.7
      baz=79,SNR=109
N07B                              ⇓S       S        10 57 28.6 +0.6
      baz=79
COR   Corvallis         79.55 318  eP       P        10 47 28.7  0.0
      comp=Z,215nm,1.4s,mb5.9
COR                                 LR      LR
      comp=Z,4µm,20.0s,MS5.7
COR   Corvallis         79.55 318  eP       P        10 47 28.7  0.0
COR                                 pmax    pmax
      comp=Z,215nm,1.4s,mb5.9
COR                                 MLR     MLR
      comp=Z,4µm,20.0s,MS5.7
COR   Corvallis         79.55 318  eP       P        10 47 28.7  0.0
      comp=Z,4µm,20.0s
GAMB  Gambell           79.55 352  eP       P        10 47 28.5 +0.2
      comp=Z,1µm,1.5s,mb6.6
GAMB                               e        pP       10 47 39.4 +1.4
GAMB                               e                 10 47 45.1
GAMB  Gambell           79.55 352  eP       P        10 47 28.5 +0.1
ULN   Ulaanbaatar       79.57  37   P       P        10 47 29.5 +0.8
ULN                                 sP      sP       10 47 47.2 +5.3
ULN                                 S       S        10 57 31.5 +3.1
ULN   Ulaanbaatar       79.57  37  eP       P        10 47 29.3 +0.6
      comp=Z,113nm,0.9s,mb5.8
ULN                                e                 10 47 46.9
ULN                                 LR      LR
      comp=Z,14µm,19.0s,MS6.3
ULN   Ulaanbaatar       79.57  37  eP       P        10 47 29.3 +0.6
ULN                                 pmax    pmax
      comp=Z,113nm,0.9s,mb5.8
ULN                                 MLR     MLR
      comp=Z,14µm,19.0s,MS6.3
ULN   Ulaanbaatar       79.57  37  eP       P        10 47 29.3 +0.6
      comp=Z,14µm,19.0s
I04A  Tendick Farm,     79.57 317  ⇓P       P        10 47 28.5 -0.3
      baz=79,SNR=9.3
I04A                              ⇓S       S        10 57 27.6 -0.9
      baz=79
MOD   Modoc             79.59 315  eP       P        10 47 29.4 +0.4
      comp=Z,318nm,1.3s,mb6.1
MOD                                e                 10 47 46.9
MOD                                 LR      LR
      comp=Z,4µm,20.0s,MS5.7
MOD   Modoc             79.59 315   P       P        10 47 29.6 +0.6
      baz=79,SNR=90
MOD                               ⇓S       S        10 57 31.1 +2.3
      baz=79
MOD   Modoc             79.59 315  eP       P        10 47 29.4 +0.4
CIT   Chita             79.62  31  eP       P        10 47 28.9  0.0
CIT                                e                 10 50 38.3
CIT                                 pmax    pmax
      comp=Z,362nm,1.7s,mb6.0
CIT   Chita             79.62  31  eP       P        10 47 28.9  0.0
      comp=Z,362nm,1.7s,mb6.0
Q09A  Carvers           79.63 311  ⇓P       P        10 47 29.4 +0.1
      baz=79,SNR=16
Q09A                              ⇓S       S        10 57 28.8 -0.5
      baz=79
P08A  Dixie Valley      79.65 312   P       P        10 47 29.7 +0.4
      baz=80,SNR=18
J04A  Umpqua Nationa    79.76 316   P       P        10 47 30.4 +0.5
      baz=80,SNR=14
J04A                              ⇑S       S        10 57 32.2 +1.7
      baz=80
W13A  Hualapai Mount    79.79 306  ⇑P       P        10 47 30.8 +0.6
      baz=80,SNR=23
W13A                              ⇑S       S        10 57 31.7 +0.6
      baz=80
L05A  Lakeview          79.80 315  ⇓P       P        10 47 31.1 +1.0
      baz=80,SNR=70
L05A                              ⇑S       S        10 57 32.7 +1.7
      baz=80
S10A  Tonopah Range,    79.82 310   P       P        10 47 30.4 +0.1
      baz=80,SNR=90
S10A                              ⇓S       S        10 57 30.3 -1.0
      baz=80
116A  Eloy              79.83 303  ⇓P       P        10 47 30.5 +0.1
      baz=80,SNR=14
O07A  Toulon            79.84 312   P       P        10 47 30.9 +0.5
      baz=80,SNR=94
O07A                              ⇑S       S        10 57 31.4 -0.1
      baz=80
Y14A  Wickenburg        79.89 305   P       P        10 47 31.1 +0.3
      baz=80,SNR=70
R09A  Tonopah           79.92 310  ⇑P       P        10 47 30.9  0.0
      baz=80,SNR=184
R09A                              ⇓S       S        10 57 31.7 -0.8
      baz=80
I03A  Eugene            79.94 318  ⇑P       P        10 47 30.6 -0.2
      baz=80
K04A  Chilquin          79.95 316   P       P        10 47 31.4 +0.4
      baz=80,SNR=27
U11A  Corn Creek        79.97 308  ⇑P       P        10 47 31.7 +0.6
      baz=80,SNR=16
N06A  Buffalo Meadow    80.04 313   P       P        10 47 32.2 +0.7
      baz=80,SNR=105
N06A                              ⇑S       S        10 57 35.6 +2.0
      baz=80
V12A  Nelson            80.04 307  ⇑P       P        10 47 31.7 +0.2
      baz=80,SNR=42
V12A                              ⇓S       S        10 57 32.9 -0.9
      baz=80
X13A  Yucca             80.05 305   P       P        10 47 32.1 +0.5
      baz=80,SNR=49
X13A                              ⇑S       S        10 57 33.4 -0.5
      baz=80
Q08A  Gabbs             80.07 311   P       P        10 47 31.4 -0.2
      baz=80,SNR=115
Q08A                              ⇓S       S        10 57 32.5 -1.5
      baz=80
115A  Sonoran Desert    80.10 303   P       P        10 47 32.7 +0.8
      baz=80,SNR=53
115A                              ⇓S       S        10 57 34.5  0.0
      baz=80
CLNS  Chul'man          80.11  23⇑iP       P        10 47 30.3 -1.2
CLNS                               e*PP     pP       10 47 38.9 -2.3
CLNS                               e                 10 57 49.3
CLNS                               ePS               10 58 49.1
CLNS                                pmax    pmax
      comp=Z,242nm,1.2s,mb6.0
CLNS                                pmax    pmax
      comp=N,127nm,1.7s
CLNS                                pmax    pmax
      comp=E,28nm,1.2s
CLNS                                pmax    pmax
      comp=Z,33nm,1.0s,mb5.2
CLNS                                pmax    pmax
      comp=N,38nm,1.1s
CLNS                                pmax    pmax
      comp=E,21nm,1.1s
CLNS                                MLR     MLR
      comp=Z,9µm,19.0s,MS6.2
CLNS                                MLR     MLR
      comp=N,2µm,17.0s
CLNS                                MLR     MLR
      comp=E,7µm,24.0s
CLNS  Chul'man          80.11  23  i P      P        10 47 30.3 -1.2
      comp=E,127nm,1.7s,mb5.6
TPH   Tonopah           80.12 310  eP       P        10 47 32.1 +0.2
      comp=E,465nm,1.6s,mb6.2
TPH                                e                 10 47 48.8
TPH                                 LR      LR
      comp=Z,5µm,19.0s,MS5.9
TPH   Tonopah           80.12 310  eP       P        10 47 32.2 +0.3
TPH                                 pmax    pmax
      comp=Z,465nm,1.6s,mb6.2
TPH                                 MLR     MLR
      comp=Z,5µm,19.0s,MS5.9
TPH   Tonopah           80.12 310  eP       P        10 47 32.2 +0.3
      comp=Z,5µm,19.0s
M06C  Likely Place G    80.13 314   P       P        10 47 32.7 +0.8
      baz=80,SNR=33
M06C                              ⇑S       S        10 57 37.1 +2.6
      baz=80
J03A  Ideyld Park       80.15 317  ⇑P       P        10 47 31.5 -0.5
      baz=80
J03A                              ⇑S       S        10 57 34.9 +0.2
      baz=80
Z14A  Wintersburg       80.19 304  ⇑P       P        10 47 32.8 +0.4
      baz=80,SNR=17
Z14A                              ⇓S       S        10 57 36.1 +0.6
      baz=80
I02A  Mapleton          80.22 318  ⇑P       P        10 47 33.0 +0.7
      baz=80
P07A  Fallon            80.23 312  ⇑P       P        10 47 33.0 +0.5
      baz=80,SNR=14
W12A  Cal Nev Ari       80.31 307  ⇓P       P        10 47 33.1 +0.1
      baz=80,SNR=15
L04A  Klamath Falls     80.32 316  ⇑P       P        10 47 33.0  0.0
      baz=80,SNR=16
L04A                              ⇓S       S        10 57 38.7 +2.1
      baz=80
S09A  Goldfield         80.34 310   P       P        10 47 33.1  0.0
      baz=80,SNR=155
S09A                              ⇓S       S        10 57 35.4 -1.4
      baz=80
V11A  Goodsprings       80.35 307   P       P        10 47 33.7 +0.5
      baz=80,SNR=50
V11A                              ⇑S       S        10 57 36.8 -0.2
      baz=80
TAPN  Taplejung         80.39  63  eP       P        10 47 33.2 -0.4
      comp=Z,421nm,1.1s,mb6.3
M05C  Lookout           80.42 315   P       P        10 47 34.1 +0.6
      baz=80,SNR=18
M05C                              ⇑S       S        10 57 38.1 +0.6
      baz=80
PDMCI Parker Dam,Lak    80.43 305   P       P        10 47 33.9 +0.2
      baz=80,SNR=40
PDMCI                             ⇓S       S        10 57 37.8 -0.1
      baz=80
ODAN  Odare             80.44  64  eP       P        10 47 33.0 -0.8
      comp=Z,595nm,1.1s,mb6.4
SFJM  Santa Fe          80.44 288  i P      P        10 47 34.0 +0.1
NEE2  Needles Airpor    80.47 306  ⇑P       P        10 47 34.0 +0.2
      baz=80
J02A  Umpqua            80.50 317  ⇑P       P        10 47 33.9  0.0
      baz=80
R08A  Mina              80.50 311  ⇓P       P        10 47 33.9 -0.1
      baz=80,SNR=40
SEY   Seymchan          80.51   8⇑iP       P        10 47 33.8 +0.3
Y13A  Salome            80.52 305  ⇓P       P        10 47 34.2 +0.1
      baz=80,SNR=19
Y13A                              ⇓S       S        10 57 38.5 -0.3
      baz=80
M04C  Macdoel           80.55 315   P       P        10 47 34.5 +0.3
      baz=80,SNR=33
Q07A  Schurz            80.56 311  ⇑P       P        10 47 34.0 -0.2
      baz=80
NVAR  Mina Array Bea    80.57 311   P       P        10 47 34.0 -0.3
NVAR                                PP      PP       10 50 38.2 +0.7
NVAR                                PKKPbc  PKKPbc   11 06 15.2 +1.6
NVAR                                P'P'             11 14 05.3
NVAR  Mina Array Bea    80.57 311   P       P        10 47 34.0 -0.3
      comp=Z,12nm,1.0s,mb4.8,baz=48,slow=5.5,SNR=72
NVAR                                PP      PP       10 50 38.2 +0.7
      comp=Z,4.2nm,1.1s,baz=61,slow=7.3,SNR=2.9
NVAR                                PKKPbc  PKKPbc   11 06 15.2 +1.6
      comp=Z,5.0nm,0.8s,baz=204,slow=3.6,SNR=26
NVAR                                PKPPKP           11 14 05.3
      comp=Z,2.3nm,1.0s,baz=195,slow=2.0,SNR=4.6
NVAR  Mina Array Bea    80.57 311   P       P        10 47 34.0 -0.3
U10A  Ash Meadows, A    80.57 308   P       P        10 47 35.5 +1.1
      baz=80,SNR=36
HUMO  Hull Mountain     80.65 316  eP       P        10 47 33.8 -0.9
      comp=Z,231nm,1.8s,mb5.8
HUMO                                LR      LR
      comp=Z,3µm,19.0s,MS5.7
HUMO  Hull Mountain     80.65 316  ⇑P       P        10 47 33.9 -0.8
      baz=80
HUMO                              ⇓S       S        10 57 39.3 -0.5
      baz=80
HUMO  Hull Mountain     80.65 316  eP       P        10 47 33.8 -0.9
      comp=Z,231nm,1.8s,mb5.8
ELFS  Eagle Lake Fie    80.65 314  ⇓P       P        10 47 35.4 +0.7
      baz=80,SNR=66
P06A  Stead Airport,    80.75 313  ⇓P       P        10 47 36.0 +0.7
      baz=81,SNR=49
P06A                              ⇑S       S        10 57 42.8 +1.7
      baz=81
K02A  Glendale          80.84 317   P       P        10 47 35.8 +0.1
      baz=81,SNR=12
K02A                              ⇓S       S        10 57 43.0 +1.1
      baz=81
SHOC  Shoshone          80.86 308   P       P        10 47 36.5 +0.6
      baz=81,SNR=26
SHOC                              ⇑S       S        10 57 42.6 +0.3
      baz=81
LHEM  Herd Peak         80.86 315   P       P        10 47 36.1 +0.2
LHEM  Herd Peak         80.86 315   P       P        10 47 36.1 +0.3
GRAC  Grapevine Rang    80.87 309  ⇓P       P        10 47 36.4 +0.4
      baz=81,SNR=12
FURC  Furnace Creek,    80.88 309  ⇑P       P        10 47 36.8 +0.7
      baz=81,SNR=45
WCN   Washoe City       80.91 312   P       P        10 47 36.8 +0.6
      baz=81,SNR=34
TUQ   Turquoise Mtn.    80.91 307  ⇑P       P        10 47 36.8 +0.6
      baz=81,SNR=15
HATC  Hat Creek Radi    80.95 314  ⇓P       P        10 47 36.8 +0.5
      baz=81,SNR=32
Y12C  Blythe            81.02 305   P       P        10 47 37.3 +0.5
      baz=81,SNR=47
M03C  McCloud           81.04 315  ⇑P       P        10 47 36.9 +0.1
      baz=81,SNR=33
M03C                              ⇓S       S        10 57 44.8 +0.8
      baz=81
O04C  Chester           81.05 314   P       P        10 47 37.1 +0.3
      baz=81,SNR=69
O04C                              ⇑S       S        10 57 45.1 +1.0
      baz=81
S08C  White Mtn Res     81.07 310   P       P        10 47 37.7 +0.7
      baz=81,SNR=74
S08C                              ⇑S       S        10 57 44.5 +0.1
      baz=81
YBH   Yreka Blue Hor    81.08 316  eP       P        10 47 36.1 -0.9
      comp=Z,140nm,1.5s,mb5.7
YBH                                 LR      LR
      comp=Z,3µm,20.0s,MS5.6
YBH   Yreka Blue Hor    81.08 316  eP       P        10 47 36.1 -0.9
YBH                                 pmax    pmax
      comp=Z,138nm,1.5s
YBH                                 MLR     MLR
      comp=Z,3µm,20.0s
YBH   Yreka Blue Hor    81.08 316  ⇓P       P        10 47 36.1 -0.8
      baz=81,SNR=8.7
YBH   Yreka Blue Hor    81.08 316  eP       P        10 47 36.1 -0.9
      comp=Z,3µm,20.0s
BOK   Bokaro            81.09  67⇑iP       P        10 47 36.7 -0.7
BOK                                ex       x        10 47 39.6
      comp=Z,833nm,1.7s
GMRC  Granite Mounta    81.14 307   P       P        10 47 37.9 +0.4
      baz=81,SNR=32
GTA   Gaotai            81.16  47⇑iP       P        10 47 38.1 +0.6
GTA                                 AP      pP       10 47 41.8 -5.4
GTA                                 XP      sP       10 47 43.9 -6.8
GTA                                 PP      PP       10 50 46.6 +4.2
GTA                                 S       S        10 57 49.2 +3.8
GTA                                 SKS              10 57 53.4
GTA                                 XS      sS       10 57 57.6 -3.8
GTA                                 AMB     AMB
      comp=Z,173nm,1.5s,mb5.8
GTA                                 AMB     AMB
      comp=Z,2µm,7.2s
GTA                                 LR      LR
      comp=N,3µm,20.5s,MS5.8
GTA                                 LR      LR
      comp=E,3µm,22.8s,MS5.8
GTA                                 LR      LR
      comp=Z,5µm,22.8s,MS5.8
O05C  Quincy            81.18 313   P       P        10 47 37.8 +0.3
      baz=81,SNR=62
O05C                              ⇑S       S        10 57 45.8 +0.3
      baz=81
IRM   Iron Mountain     81.18 306   P       P        10 47 38.2 +0.5
      baz=81,SNR=48
R06C  Coleville         81.21 311   P       P        10 47 38.6 +0.9
      baz=81,SNR=146
R06C                              ⇓S       S        10 57 46.0 +0.1
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      baz=81
R07C  Lee Vining       81.24 311 ⇑P      P       10 47 39.2 +1.2
      baz=81,SNR=58
R07C                             ⇑S      S       10 57 47.5 +1.3
      baz=81
L02A  Cave Junction    81.30 316 ⇑P      P       10 47 38.4 +0.2
      baz=81,SNR=11
K01A  Sixes            81.35 317 ⇓P      P       10 47 38.7 +0.2
      baz=81
TIN   Tinemaha         81.38 310 ⇓P      P       10 47 39.6 +0.9
      baz=81,SNR=20
M02C  Callahan         81.38 315  P      P       10 47 38.1  -0.5
      baz=81,SNR=10
MLAC  Mammoth Lakes    81.40 310 ⇓P      P       10 47 40.1 +1.4
      baz=81,SNR=21
MTUM  Tungsten Hills   81.40 310 eP      P       10 47 39.6 +0.8
MTUM                             e               10 47 56.1
MTUM  Tungsten Hills   81.40 310 eP      P       10 47 39.6 +0.8
KDAK  Kodiak Island    81.44 341  P      P       10 47 39.9 +1.3
      comp=Z,384nm,1.0s,mb6.3,SNR=6.0
KDAK  Kodiak Island    81.44 341 eP      P       10 47 38.9 +0.3
      comp=Z,712nm,1.8s,mb6.3
KDAK                             e               10 47 56.6
KDAK                              LR     LR
      comp=Z,2µm,20.0s,MS5.4
KDAK  Kodiak Island    81.44 341  LR     LR      11 21 37.5
      comp=Z,3µm,20.9s,MS5.7,baz=49,slow=34
KDAK  Kodiak Island    81.44 341 eP      P       10 47 38.9 +0.3
DAC   Darwin (Calif)   81.46 309 eP      P       10 47 39.6 +0.5
      comp=Z,440nm,1.6s,mb6.1
DAC                              e       pP      10 47 50.4 +1.6
DAC                              e               10 47 56.7
DAC                              e               10 50 59.7
DAC                               LR     LR
      comp=Z,7µm,21.0s,MS6.0
DAC   Darwin (Calif)   81.46 309  P      P       10 47 39.9 +0.8
DAC                               pmax   pmax
      comp=Z,440nm,1.5s,mb6.2
DAC   Darwin (Calif)   81.46 309 eP      P       10 47 39.7 +0.6
LSA   Lhasa            81.47  60  P      P       10 47 40.0 +0.7
LSA                               AMB    AMB
      comp=Z,320nm,1.0s,mb6.2
LSA                               AMB    AMB
      comp=Z,1µm,12.0s
LSA                               LR     LR
      comp=N,840nm,28.0s,MS5.3
LSA                               LR     LR
      comp=E,2µm,26.0s,MS5.3
LSA                               LR     LR
      comp=Z,2µm,20.0s
LSA   Lhasa            81.47  60 eP      P       10 47 39.8 +0.5
      comp=Z,516nm,1.1s,mb6.4
LSA                              ePP     PP      10 50 46.8 +1.6
LSA                               LR     LR
      comp=Z,2µm,19.0s,MS5.6
LSA   Lhasa            81.47  60 eP      P       10 47 39.8 +0.5
LSA                              e               10 50 46.8
LSA                               pmax   pmax
      comp=Z,515nm,1.1s,mb6.4
LSA                               MLR    MLR
      comp=Z,2µm,19.0s,MS5.6
LSA   Lhasa            81.47  60 eP      P       10 47 39.8 +0.5
      comp=Z,515nm,1.1s,mb6.4
MAIG  Mazatlaan        81.47 292 i P     P       10 47 39.9 +0.5
MAIG  Mazatlaan        81.47 292 i P     P       10 47 39.9 +0.5
R05C  Kirkwood Meado   81.48 312  P      P       10 47 39.8 +0.7
      baz=81,SNR=58
MPMC  Manual Prospec   81.53 309  P      P       10 47 40.4 +0.9
      baz=81,SNR=160
HEC   Hector,Ludlow    81.55 307 ⇓P      P       10 47 40.3 +0.7
      baz=81,SNR=8.7
GSC   Goldstone        81.56 308 ⇓P      P       10 47 40.3 +0.6
      baz=81,SNR=50
GLA   Glamis           81.64 305  P      P       10 47 40.7 +0.5
      baz=82,SNR=72
CWC   Cottonwood Cre   81.67 309  P      P       10 47 40.9 +0.7
      baz=82,SNR=64
BC3   Big Chuckw Mtn   81.69 306  P      P       10 47 40.9 +0.5
      baz=82,SNR=62
WDC   Whiskeytown Da   81.73 315 eP      P       10 47 38.7  -1.8
      comp=Z,108nm,1.5s,mb5.6
WDC                              e               10 47 53.6
WDC                               LR     LR
      comp=Z,2µm,19.0s,MS5.6
WDC   Whiskeytown Da   81.73 315 eP      P       10 47 38.7  -1.8
WDC                               pmax   pmax
      comp=Z,108nm,1.5s,mb5.6
WDC                               MLR    MLR
      comp=Z,2µm,19.0s,MS5.6
WDC   Whiskeytown Da   81.73 315 ⇑P      P       10 47 39.0  -1.4
      baz=82
WDC   Whiskeytown Da   81.73 315 eP      P       10 47 38.7  -1.8
      comp=Z,2µm,19.0s
ORV   Oroville         81.78 313  P      P       10 47 40.4  -0.4
      baz=82,SNR=84
ORV                              ⇑S      S       10 57 50.6  -1.2
      baz=82
CEN1  Los Morros       81.79 233⇓eP      P       10 47 41.9 +1.0
M01C  Crescent City    81.80 316 ⇑P      P       10 47 41.0 +0.2
      baz=82
O03C  Acorn Hollow,    81.81 314  P      P       10 47 40.5  -0.4
      baz=82,SNR=30
BELC  Belle Mtn.       81.84 306  P      P       10 47 42.1 +0.9
      baz=82,SNR=75
LAVA  Lava Cap Winer   81.84 312  P      P       10 47 41.1   0.0
      baz=82,SNR=46
LAVA                             ⇑S      S       10 57 52.7 +0.3
      baz=82
S06C  San Francisco    81.86 311 ⇓P      P       10 47 42.3 +1.1
      baz=82,SNR=116
S06C                             ⇓S      S       10 57 52.8 +0.2
      baz=82
KCC   Kaiser Creek     81.89 310 ⇑P      P       10 47 42.1 +0.8
      baz=82,SNR=35
KRMB  Red Mountain     81.89 316 eP      P       10 47 42.3 +1.0
KRMB                             e               10 47 58.6
KRMB  Red Mountain     81.89 316 eP      P       10 47 42.3 +1.0
OHCM  Honcut           81.92 313 eP      P       10 47 41.1  -0.4
OHCM                             e               10 47 58.7
OHCM                             ePP     PP      10 50 56.7 +8.1
OHCM  Honcut           81.92 313 eP      P       10 47 41.1  -0.4
RRX   Edison Barstow   81.95 307 ⇓P      P       10 47 42.6 +0.8
      baz=82,SNR=9.4
LRMC  Laurel Mountai   82.02 308  P      P       10 47 42.8 +0.7
      baz=82,SNR=44
CMB   Columbia Colle   82.09 312 eP      P       10 47 42.3  -0.1
      comp=Z,78nm,1.3s,mb5.5
CMB                               LR     LR
      comp=Z,7µm,22.0s,MS6.0
CMB   Columbia Colle   82.09 312 eP      P       10 47 42.3  -0.1
CMB                               pmax   pmax
      comp=Z,80nm,1.3s,mb5.5
CMB                               MLR    MLR
      comp=Z,8µm,22.0s,MS6.0
CMB   Columbia Colle   82.09 312  P      P       10 47 42.8 +0.4
      baz=82,SNR=56
CMB   Columbia Colle   82.09 312 eP      P       10 47 42.3  -0.1
      comp=Z,8µm,22.0s
HELL  Mitchell Peak,   82.11 310  P      P       10 47 43.0 +0.5
      baz=82,SNR=69
O02C  Red Bluff        82.14 314 ⇑P      P       10 47 41.9  -0.7
      baz=82,SNR=9.1
SUTB  Sutter Butte     82.16 313 ⇓P      P       10 47 42.1  -0.7
      baz=82
Q04C  Lincoln          82.17 313  P      P       10 47 43.6 +0.8
      baz=82,SNR=36
KOD   Kodaikanal       82.24  83 eP      P       10 47 44.3 +0.7
KOD                               AMb    AMB     10 47 45.5
      comp=Z,835nm,1.3s,mb6.5
BBRC  Big Bear Sol-O   82.28 307 ⇑P      P       10 47 44.6 +1.1
      baz=82,SNR=9.4
PAYG  Puerto Ayora     82.33 264  PFAKE          10 47 50.0 +6.0
PAYG                              LR     LR
      comp=Z,932nm,20.0s,MS5.2
T06C  Millerton Lake   82.33 310  P      P       10 47 43.9 +0.2
      baz=82,SNR=65
SWSC  Sam W. Stewart   82.35 305 ⇓P      P       10 47 44.6 +0.7
      baz=82,SNR=22
PFO   Pinyon Flat Ob   82.38 306 eP      P       10 47 45.0 +1.0
      comp=Z,150nm,1.2s,mb5.8
PFO                              e               10 48 02.7
PFO                               LR     LR
      comp=Z,7µm,21.0s,MS6.0
PFO   Pinyon Flat Ob   82.38 306 eP      P       10 47 45.0 +1.0
PFO                               pmax   pmax
      comp=Z,149nm,1.2s,mb5.8
PFO                               MLR    MLR
      comp=Z,7µm,21.0s,MS6.0
PFO   Pinyon Flat Ob   82.38 306  PKKPbc PKKPbc  11 06 10.5 +1.0
      comp=Z,5.3nm,1.1s,baz=301,slow=1.5,SNR=4.0
PFO                               LR     LR      11 22 19.8
      comp=Z,7µm,21.3s,MS6.0,baz=246,slow=34
PFO   Pinyon Flat Ob   82.38 306  P      P       10 47 45.1 +1.1
      baz=82,SNR=48
PFO   Pinyon Flat Ob   82.38 306 eP      P       10 47 45.0 +1.0
      comp=Z,7µm,21.0s
ISA   Isabella         82.40 309  P      P       10 47 45.1 +1.0
      baz=82,SNR=197
JCC   Jacoby Creek     82.43 316 ⇓P      P       10 47 44.7 +0.6
      baz=82
GASB  Alder Springs    82.44 314 ⇓P      P       10 47 44.0  -0.2
      baz=82
RCTC  Rector, Farmer   82.48 310 ⇑P      P       10 47 44.1  -0.3
      baz=82,SNR=16
S05C  Merced           82.50 311  P      P       10 47 45.4 +0.9
      baz=82,SNR=42
EDW2  Edwards Air Fo   82.58 308  P      P       10 47 45.9 +0.8
      baz=82,SNR=27
VIS   Vishakhapatnam   82.62  74⇑iP      P       10 47 44.4  -1.1
VIS                              ex      x       10 47 47.7
      comp=Z,397nm,1.6s
VES   Vestal, Richgr   82.67 309 ⇓P      P       10 47 45.2  -0.3
      baz=82,SNR=7.5
Q03C  Winters          82.69 313  P      P       10 47 47.2 +1.7
      baz=82,SNR=24
DVTC  Desert V Tower   82.73 305 ⇓P      P       10 47 46.9 +1.1
      baz=82
O01C  Eel River Cons   82.75 315 ⇓P      P       10 47 47.0 +1.2
      baz=82
BFSC  Mount Baldy St   82.77 307 ⇑P      P       10 47 46.3 +0.3
      baz=83,SNR=48
KIPM  Iron Peak        82.78 314 eP      P       10 47 46.4 +0.4
KIPM                             e               10 48 03.9
KIPM  Iron Peak        82.78 314 eP      P       10 47 46.4 +0.4
MNRC  McLaughlin Nat   82.78 313  P      P       10 47 47.2 +1.2
      baz=83,SNR=28
MONP  Monument Peak    82.80 305 ⇓P      P       10 47 47.3 +1.1
      baz=83,SNR=32
TRD   Trivandrum       82.82  85⇑iP      P       10 47 46.1  -0.5
TRD                              ex      x       10 47 48.4
      comp=Z,738nm,1.4s
MDRS  Chennai          82.85  79 eP      P       10 47 47.4 +0.7
MDRS                             ex      x       10 47 49.4
      comp=Z,614nm,1.4s
MURC  Murrieta         82.87 306 ⇑P      P       10 47 47.3 +0.7
      baz=83,SNR=19
KCPM  Cahto Peak       82.92 314 eP      P       10 47 47.1 +0.5
KCPM  Cahto Peak       82.92 314 eP      P       10 47 47.2 +0.5
P01C  Double 8 Ranch   82.92 314 ⇑P      P       10 47 47.5 +0.8
      baz=83,SNR=9.4
ARVC  Arvin            82.97 308 ⇓P      P       10 47 48.0 +0.9
      baz=83,SNR=9.1
T05C  Eagle Field, D   83.00 311 ⇓P      P       10 47 48.6 +1.5
      baz=83,SNR=11
S04C  Ingram Canyon,   83.00 312 ⇓P      P       10 47 47.7 +0.6
      baz=83,SNR=15
U05C  Westside ANR,    83.01 310 ⇓P      P       10 47 48.0 +0.8
      baz=83,SNR=13
BDM   Black Diamond    83.04 312 ⇓P      P       10 47 48.6 +1.2
      baz=83
HOPS  Hopland          83.08 314 eP      P       10 47 47.8 +0.3
      comp=Z,766nm,1.7s,mb6.5
HOPS                             e               10 48 06.7
HOPS                              LR     LR
      comp=Z,3µm,19.0s,MS5.7
HOPS  Hopland          83.08 314 ⇓P      P       10 47 48.8 +1.3
      baz=83,SNR=12
HOPS  Hopland          83.08 314 eP      P       10 47 47.8 +0.3
NSHM  Saint Helena R   83.11 313 eP      P       10 47 48.7 +1.0
NSHM                             e               10 48 06.5
NSHM  Saint Helena R   83.11 313 eP      P       10 47 48.7 +1.0
CVS   Carmenet Viney   83.14 313 ⇑P      P       10 47 48.5 +0.7
      baz=83,SNR=12
V05C  Boulder Hill,    83.17 310 ⇓P      P       10 47 48.4 +0.3
      baz=83
WENL  Wente Brothers   83.19 312 ⇑P      P       10 47 49.2 +1.1
      baz=83,SNR=6.0
DECC  Green Verdugo    83.20 308 ⇓P      P       10 47 48.7 +0.5
      baz=83,SNR=8.7
OSI   Osito Adit       83.22 308 ⇑P      P       10 47 49.5 +1.1
      baz=83,SNR=14
109C  Camp Elliot, M   83.25 306 ⇑P      P       10 47 49.3 +0.8
      baz=83,SNR=10
PACP  Pacheco Peak     83.30 311  P      P       10 47 50.0 +1.3
      baz=83,SNR=23
LPA   La Plata         83.32 218ceP      P       10 47 46.0  -2.5
LPA                              ePP     PP      10 50 58.0  -3.0
LPA
      comp=Z,3µm,22.0s
U04C  Hernandez Rese   83.40 310 ⇓P      P       10 47 50.5 +1.2
      baz=83,SNR=11
PTRM  Twissleman Ran   83.50 310 eP      P       10 47 50.2 +0.5
PTRM                             e               10 48 08.5
PTRM  Twissleman Ran   83.50 310 eP      P       10 47 50.2 +0.4
FMP   Fort Macarthur   83.51 307 ⇓P      P       10 47 50.6 +0.8
      baz=83
MCCM  Marconi Confer   83.52 313 eP      P       10 47 50.8 +1.0
      comp=Z,282nm,1.0s,mb6.3
MCCM                             e       pP      10 48 00.5 +0.9
MCCM                             e               10 48 08.0
MCCM                              LR     LR
      comp=Z,4µm,20.0s,MS5.8
MCCM  Marconi Confer   83.52 313 ⇓P      P       10 47 50.6 +0.8
      baz=83,SNR=6.5
MCCM  Marconi Confer   83.52 313 eP      P       10 47 50.8 +1.0
PKD   Parkfield        83.52 310  P      P       10 47 50.6 +0.7
      baz=83,SNR=24
SAO   San Andreas Ge   83.55 311 eP      P       10 47 49.8  -0.3
      comp=Z,293nm,1.6s,mb6.2
SAO                              e               10 48 08.8
SAO                               LR     LR
      comp=Z,5µm,21.0s,MS5.8
SAO   San Andreas Ge   83.55 311 eP      P       10 47 49.8  -0.2
      comp=Z,290nm,1.6s,mb6.2
MA2   Magadan          83.56  10 eP      P       10 47 50.1 +0.4
      comp=Z,153nm,1.1s,mb6.0
MA2                              e               10 48 07.4
MA2                               LR     LR
      comp=Z,2µm,19.0s,MS5.5
MA2   Magadan          83.56  10c iP     P       10 47 50.1 +0.5
MA2                               pmax   pmax
      comp=Z,252nm,1.9s,mb6.0
MA2   Magadan          83.56  10 i P     P       10 47 50.1 +0.5
      comp=Z,252nm,1.9s,mb6.0
SMMC  Simmler          83.59 309 ⇑P      P       10 47 50.8 +0.6
      baz=83
JRSC  Jasper Ridge     83.62 312  P      P       10 47 51.2 +0.8
      baz=83,SNR=14
PKM   Peak Mountain    83.74 309  P      P       10 47 52.8 +1.8
      baz=84,SNR=48
BNLO  Ben Lomond (Sa   83.76 312 ⇑P      P       10 47 52.0 +0.9
      baz=84,SNR=9.3
BLG   Laguna Peak      83.76 308 ⇓P      P       10 47 51.7 +0.6
      baz=84,SNR=7.3
CIS   Catalina Islan   83.78 307 ⇑P      P       10 47 52.1 +0.9
      baz=84,SNR=9.6
LPIG  La Paz           83.83 295 i P     P       10 47 51.6   0.0
LPIG  La Paz           83.83 295  LR     LR      11 24 25.4
      comp=Z,5µm,18.6s,MS5.9,baz=50,slow=35
LPIG  La Paz           83.83 295 i P     P       10 47 51.6   0.0
HAST  UC Hastings Re   83.86 311  P      P       10 47 52.6 +1.0
      baz=84,SNR=21
FARB  Farallon Islan   83.88 313 ⇓P      P       10 47 52.5 +0.8
      baz=84
V03C  Hunter Liggett   83.90 310 ⇓P      P       10 47 53.0 +1.2
      baz=84,SNR=11
V04C  Ramage Ranch,    83.92 310 ⇑P      P       10 47 53.2 +1.2
      baz=84
SBC   Santa Barbara    83.96 308 ⇓P      P       10 47 53.3 +1.2
      baz=84
SCI   San Clemente I   84.14 307 ⇓P      P       10 47 54.2 +1.1
      baz=84
BSC   Santa Cruz Isl   84.20 308 ⇓P      P       10 47 54.1 +0.7
      baz=84,SNR=7.7
HIA   Hailar           84.28  30 eP      P       10 47 53.7 +0.2
      comp=Z,384nm,1.4s,mb6.3
HIA                              e               10 48 10.9
HIA                              ePP     PP      10 51 07.6   0.0
HIA                               LR     LR
      comp=Z,14µm,19.0s,MS6.4
HIA   Hailar           84.28  30 eP      P       10 47 53.7 +0.2
HIA                              e               10 51 07.6
HIA                               pmax   pmax
      comp=Z,384nm,1.4s
HIA                               MLR    MLR
      comp=Z,14µm,19.0s
HIA   Hailar           84.28  30 eP      P       10 47 53.7 +0.2
      comp=Z,14µm,19.0s
SNCC  San Nicolas Is   84.60 307 ⇓P      P       10 47 56.2 +0.8
      baz=84
AGT   Agartala         85.00  64 i P     P       10 47 57.0  -0.6
SDPT  Sand Point       85.59 343 eP      P       10 47 59.5  -0.5
      comp=Z,729nm,0.8s,mb7.0
SDPT                             e               10 48 16.6
SDPT  Sand Point       85.59 343 eP      P       10 47 59.5  -0.4
LZH   Lanzhou          85.75  48⇑iP      P       10 48 02.0 +0.9
LZH                               AP     pP      10 48 05.3  -5.6
LZH                               XP     sP      10 48 07.3  -7.1
LZH                               PP     PP      10 51 21.3 +1.3
LZH                              eS      S       10 58 32.0 +0.2
LZH                               XS     sS      10 58 38.0   -10
LZH                               SS     SS      11 04 11.0 +3.2
LZH                               AMB    AMB
      comp=Z,382nm,1.2s,mb6.5
LZH                               AMB    AMB
      comp=Z,2µm,4.8s
LZH                               LR     LR
      comp=E,4µm,16.9s
LZH                               LR     LR
      comp=Z,5µm,17.4s,MS6.0
LZH   Lanzhou          85.75  48⇑iP      P       10 48 02.0 +0.9
      comp=Z,382nm,1.2s,mb6.5
LZH                               pP     pP      10 48 05.3  -5.6
LZH                               sP     sP      10 48 07.3  -7.1
LZH                               PP     PP      10 51 21.3 +1.3
LZH                              eS      S       10 58 32.0 +0.2
LZH                               sS     sS      10 58 38.0   -10
LZH                               SS     SS      11 04 11.0 +3.2
LZH                               LR     LR
      comp=Z,5µm,17.4s,MS6.0
LZH   Lanzhou          85.75  48⇑iP      P       10 48 02.0 +0.9
LZH                               *PP    pP      10 48 05.3  -5.6
LZH                               *SP    sP      10 48 07.3  -7.1
LZH                                              10 51 21.3
LZH                              eS      S       10 58 32.0 +0.2
LZH                               SS     SS      11 04 11.0 +3.2
LZH                               pmax   pmax
      comp=Z,382nm,1.2s,mb6.5
LZH                               MLR    MLR
      comp=Z,5µm,17.4s,MS6.0
LZH   Lanzhou          85.75  48 i P     P       10 48 02.0 +0.9
      comp=Z,382nm,1.2s,mb6.5
LZH                               pP     pP      10 48 05.3  -5.6
LZH                              eS      S       10 58 32.0 +0.2
      comp=Z,5µm,17.4s
LZH                               SS     SS      11 04 11.0 +3.2
LCO   Las Campanas     86.06 230 eP      P       10 48 01.6  -0.9
      comp=Z,125nm,1.0s,mb6.1
LCO                              e               10 48 18.7
LCO                               LR     LR
      comp=Z,4µm,19.0s,MS5.8
LCO   Las Campanas     86.06 230 eP      P       10 48 01.6  -0.9
BTO   Baotou           86.15  41 eP      P       10 48 03.4 +0.4
BTO                               AMB    AMB
      comp=Z,94nm,1.1s,mb5.9
IMP   Imphal           86.40  62 i P     P       10 48 05.0 +0.5
PALK  Pallekele        86.55  84  P      P       10 48 05.1  -0.3
      comp=Z,2µm,1.0s,mb7.2,SNR=55
PALK  Pallekele        86.55  84 eP      P       10 48 05.2  -0.2
      comp=Z,371nm,1.1s,mb6.5
PALK                              LR     LR
      comp=Z,1µm,20.0s,MS5.3
PALK  Pallekele        86.55  84 eP      P       10 48 05.2  -0.2
      comp=Z,371nm,1.1s,mb6.5
HHC   Hu-ho-hao-te     86.79  40 eP      P       10 48 06.4 +0.2
HHC                               AP     pP      10 48 11.1  -4.8
HHC                               XP     sP      10 48 13.4  -6.0
HHC                               PP     PP      10 51 28.9 +0.7
HHC                               SKS            10 58 29.6
HHC                               S      S       10 58 42.2 +0.4
HHC                               XS     sS      10 58 50.0  -8.0
HHC                               SS     SS      11 04 25.3 +2.6
HHC                               AMB    AMB
      comp=Z,88nm,1.6s,mb5.7
HHC                               AMB    AMB
      comp=Z,916nm,5.3s
HHC                               LR     LR
      comp=N,7µm,18.4s,MS6.3
HHC                               LR     LR
      comp=E,7µm,18.3s,MS6.3
HHC                               LR     LR
      comp=Z,9µm,18.6s,MS6.2
TLL   Tololo Astrono   86.93 229⇑eP      P       10 48 06.1  -0.7
UNV   Unalaska Valle   88.27 346  PFAKE          10 48 20.0 +7.0
UNV                               LR     LR
      comp=Z,12µm,22.0s,MS6.3
KLR   Kul'dur          88.75  24⇓iP      P       10 48 11.2  -4.2
KLR                              i               10 48 11.5
KLR                              eS      S       10 58 36.5   -24
KLR                               pmax   pmax
      comp=E,100nm,2.2s
KLR                               pmax   pmax
      comp=Z,320nm,2.2s,mb6.3
KLR                               smax
      comp=N,3µm,13.0s
KLR                               smax
      comp=E,900nm,13.0s
FCH   Farellones       88.86 227⇑eP      P       10 48 14.0  -1.9
CD2   Chengdu          89.16  52⇑iP      P       10 48 17.2  -0.4
CD2                               AP     pP      10 48 22.0  -5.4
CD2                               XP     sP      10 48 24.5  -6.4
CD2                               PP     PP      10 51 46.6  -0.9
CD2                               SKS            10 58 44.2
CD2                               S      S       10 59 02.9  -1.8
CD2                               XS     sS      10 59 10.9   -10
CD2                               SS     SS      11 04 56.3  -1.5
CD2                               AMB    AMB
      comp=Z,300nm,1.3s,mb6.5
CD2                               AMB    AMB
      comp=Z,1µm,4.9s
CD2                               LR     LR
      comp=N,3µm,20.2s,MS6.0
CD2                               LR     LR
      comp=E,4µm,19.0s,MS6.0
CD2                               LR     LR
      comp=Z,4µm,20.2s,MS5.8
TIY   Taiyuan          89.53  42⇑iP      P       10 48 18.9  -0.4
TIY                               PP     PP      10 51 50.5 +0.3
TIY                               SKS            10 58 45.7
TIY                               S      S       10 59 08.6 +0.6
TIY                               LR     LR
      comp=N,4µm,17.5s,MS6.2
TIY                               LR     LR
      comp=E,8µm,18.7s,MS6.2
BJI   Beijing          89.76  38  P      P       10 48 20.1  -0.2
BJI                               PP     PP      10 51 49.7  -2.2
BJI                               S      S       10 58 59.7   -10
BJI                               AMB    AMB
      comp=Z,83nm,1.4s,mb5.9
BJI                               AMB    AMB
      comp=Z,1µm,4.3s
BJI                               LR     LR
      comp=N,8µm,20.2s,MS6.3
BJI                               LR     LR
      comp=E,10µm,21.3s,MS6.3
BJI                               LR     LR
      comp=Z,3µm,23.4s,MS5.7
BJI   Beijing          89.76  38  P      P       10 48 20.1  -0.2
      comp=Z,0.1nm,1.4s
BJI                               PP     PP      10 51 49.7  -2.2
BJI                               SKS            10 58 32.2
BJI                               S      S       10 58 59.7   -10
BJI                               PS     PS      11 00 20.2 +1.5
BJI                               SS     PKKPbc  11 05 52.8 +0.6
BJI                               LR     LR
      comp=Z,3µm,23.4s,MS5.7
BJT   Baijiatuau       89.77  38 eP      P       10 48 19.9  -0.4
      comp=Z,211nm,1.5s,mb6.2
BJT                              ePP     PP      10 51 51.5  -0.5
BJT                               LR     LR
      comp=Z,10µm,19.0s,MS6.3
BJT   Baijiatuau       89.77  38 eP      P       10 48 19.9  -0.4
BJT                              e               10 51 51.6
BJT                               pmax   pmax
      comp=Z,211nm,1.5s
BJT                               MLR    MLR
      comp=Z,10µm,19.0s
BJT   Baijiatuau       89.77  38 eP      P       10 48 19.9  -0.4
      comp=Z,211nm,1.5s,mb6.2
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BJT	**Baijiatuau**	**89.77**	**38**	*e*PP	PP	10 51 51.5	-0.5
XAN	**Xi'an**	**90.18**	**46**	P	**P**	**10 48 22.4**	**0.0**
XAN				AMB	AMB		
	comp=Z,228nm,1.5s,mb6.3						
XAN				AMB	AMB		
	comp=Z,904nm,6.0s						
XAN				LR	LR		
	comp=Z,3µm,21.9s,MS5.7						
HABR	**Khabarovsk**	**90.47**	**22**	⇑*i*P	**P**	**10 48 21.6**	**-1.8**
HABR				*e*		10 51 58.1	
HABR				*e*S	S	10 58 49.7	-27
HABR				*e*		10 59 15.5	
HABR				*e*SS	SS	11 05 15.3	-0.1
HABR				pmax	pmax		
	comp=Z,83nm,1.5s,mb5.8						
HABR				pmax	pmax		
	comp=Z,453nm,3.6s						
HABR				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.8						
HABR	**Khabarovsk**	**90.47**	**22**	*i* P	**P**	**10 48 21.6**	**-1.8**
	comp=Z,453nm,3.6s						
HABR				*e*S	S	10 59 15.5	-0.7
	comp=Z,3µm,20.0s						
PET	**Petropavlovsk**	**90.90**	**7**	*e*P	**P**	**10 48 23.7**	**-1.6**
	comp=Z,218nm,1.4s,mb6.3						
PET				*e*		10 48 41.2	
PET				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
PET	**Petropavlovsk**	**90.90**	**7**	*c i*P	**P**	**10 48 23.7**	**-1.6**
PET				pmax	pmax		
	comp=Z,252nm,2.0s,mb6.2						
PET	**Petropavlovsk**	**90.90**	**7**	*i* P	**P**	**10 48 23.7**	**-1.6**
	comp=Z,252nm,2.0s,mb6.2						
CN2	**Changchun**	**91.02**	**30**	*e*P	**P**	**10 48 24.5**	**-1.6**
CN2				*e*XP	sP	10 48 31.5	-7.9
CN2				*e*S	S	10 59 18.1	-3.4
CN2				SS	SS	11 05 24.1	+0.4
CN2				AMB	AMB		
	comp=Z,60nm,1.3s,mb5.8						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,8µm,18.0s,MS6.2						
CN2				LR	LR		
	comp=E,3µm,18.0s,MS6.2						
CN2				LR	LR		
	comp=Z,8µm,19.0s,MS6.2						
ADK	**Adak**	**91.77**	**352**	PFAKE		10 48 40.0	+11
ADK				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
MDJ	**Mudanjiang**	**91.96**	**27**	P	**P**	**10 48 28.8**	**-1.6**
MDJ				AP	pP	10 48 32.7	-7.5
MDJ				PP	PP	10 52 07.0	-2.1
MDJ				S	S	10 59 28.5	-1.5
MDJ				XS	sS	10 59 35.3	-11
MDJ				AMB	AMB		
	comp=Z,43nm,1.5s,mb5.6						
MDJ				AMB	AMB		
	comp=Z,312nm,6.3s						
MDJ				LR	LR		
	comp=N,3µm,28.9s						
MDJ				LR	LR		
	comp=E,3µm,23.6s						
MDJ				LR	LR		
	comp=Z,2µm,23.6s						
MDJ	**Mudanjiang**	**91.96**	**27**	*e*P	**P**	**10 48 28.7**	**-1.7**
	comp=Z,90nm,1.4s,mb5.9						
MDJ				*e*PP	PP	10 52 07.3	-1.8
MDJ				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
MDJ	**Mudanjiang**	**91.96**	**27**	*e*P	**P**	**10 48 28.7**	**-1.7**
	comp=Z,90nm,1.4s,mb5.9						
KMI	**Kunming**	**92.33**	**57**	P	**P**	**10 48 32.5**	**0.0**
KMI				AP	pP	10 48 42.7	+0.4
KMI				PP	PP	10 52 11.8	-1.1
KMI				SKS		10 59 04.2	
KMI				S	S	10 59 30.9	-3.1
KMI				AMB	AMB		
	comp=Z,160nm,1.3s,mb6.2						
KMI				AMB	AMB		
	comp=Z,895nm,6.7s						
KMI				LR	LR		
	comp=N,1µm,24.5s,MS5.6						
KMI				LR	LR		
	comp=E,2µm,24.5s,MS5.6						
KMI				LR	LR		
	comp=Z,1µm,26.1s,MS5.3						
KMI	**Kunming**	**92.33**	**57**	P	**P**	**10 48 32.5**	**0.0**
	comp=Z,160nm,1.3s,mb6.2						
KMI				pP	pP	10 48 42.7	+0.4
KMI				PP	PP	10 52 11.8	-1.1
KMI				SKS		10 59 04.2	
KMI				S	S	10 59 30.9	-3.1
KMI				PS	PS	11 00 45.0	-2.9
KMI				SS	SS	11 05 37.8	-6.2
KMI				SSS		11 09 18.2	
KMI				LR	LR		
	comp=Z,1µm,26.1s,MS5.3						
KMI	**Kunming**	**92.33**	**57**	P	**P**	**10 48 32.5**	**0.0**
KMI						10 52 11.8	
KMI						10 59 04.2	
KMI				S	S	10 59 30.9	-3.1
KMI				PS	PS	11 00 45.0	-2.9
KMI				pmax	pmax		
	comp=Z,160nm,1.3s,mb6.2						
KMI				MLR	MLR		
	comp=Z,1µm,26.1s,MS5.3						
SKR	**Severo-Kuril's**	**92.94**	**9**	*e*P	**P**	**10 48 38.0**	**+3.2**
SKR				*e*		10 59 05.0	
TIA	**Tai'an**	**93.15**	**40**	P	**P**	**10 48 35.2**	**-0.9**
TIA				AMB	AMB		
	comp=Z,96nm,1.3s,mb6.1						
DL2	**Dalian**	**93.29**	**36**	⇑*i*P	**P**	**10 48 36.1**	**-0.6**
DL2				PP	PP	10 52 20.3	+0.5
DL2				SKS		10 59 10.5	
DL2				S	S	10 59 40.4	-1.6
DL2				SS	SS	11 05 54.0	-2.7
DL2				AMB	AMB		
	comp=Z,70nm,1.1s,mb6.0						
DL2				AMB	AMB		
	comp=Z,290nm,5.0s						
DL2				LR	LR		
	comp=N,4µm,19.4s,MS6.1						
DL2				LR	LR		
	comp=E,4µm,19.3s,MS6.1						
DL2				LR	LR		
	comp=Z,6µm,17.7s,MS6.1						
PBA	**Port Blair**	**93.53**	**73**	*e*P	**P**	**10 48 41.1**	**+2.9**
CHRT	**Chiangrai**	**93.69**	**62**	⇑P	**P**	**10 48 38.5**	**-0.3**
	comp=Z,316nm,0.8s,mb6.8						
CHG	**Chiang Mai**	**93.76**	**64**	⇑P	**P**	**10 48 33.8**	**-5.4**
	comp=Z,48nm,1.5s,mb5.7						
CHTO	**Chiang Mai**	**93.76**	**64**	*e*P	**P**	**10 48 38.5**	**-0.7**
	comp=Z,101nm,1.5s,mb6.0						
CHTO				*e*PP	PP	10 52 24.4	+0.2
CHTO				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
CHTO	**Chiang Mai**	**93.76**	**64**	*e*P	**P**	**10 48 38.5**	**-0.7**
CHTO				*e*		10 52 24.4	
CHTO				pmax	pmax		
	comp=Z,101nm,1.5s,mb6.0						
CHTO				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.3						
CHTO	**Chiang Mai**	**93.76**	**64**	*e*P	**P**	**10 48 38.5**	**-0.7**
	comp=Z,101nm,1.5s,mb6.0						
CHTO	**Chiang Mai**	**93.76**	**64**	*e*PP	PP	10 52 24.4	+0.2
CM31	**Chiang Mai Arr**	**93.98**	**64**	*e*P	**P**	**10 48 39.8**	**-0.4**
	comp=Z,103nm,1.4s,mb6.1						
CM31				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
CM31	**Chiang Mai Arr**	**93.98**	**64**	*e*P	**P**	**10 48 39.8**	**-0.4**
	comp=Z,103nm,1.4s,mb6.1						
YSS	**Yuzh-Sakhalins**	**94.01**	**18**	*e*P	**P**	**10 48 38.4**	**-1.4**
	comp=Z,171nm,1.5s,mb6.3						
YSS				*e*PP	PP	10 52 26.7	+1.7
YSS				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
YSS	**Yuzh-Sakhalins**	**94.01**	**18**	⇑*i*P	**P**	**10 48 38.2**	**-1.6**
YSS				*e*		10 52 27.0	
YSS				*e*		10 59 10.0	
YSS				*e*S	S	10 59 43.0	-5.0
YSS				*e*SS	SS	11 06 12.0	+5.7
YSS				*e*SSS		11 09 50.0	
YSS				pmax	pmax		
	comp=Z,180nm,1.5s,mb6.3						
YSS				pmax	pmax		
	comp=E,40nm,1.0s						
YSS				pmax	pmax		
	comp=Z,220nm,1.7s,mb6.3						
YSS				pmax	pmax		
	comp=Z,500nm,3.0s						
YSS				smax			
	comp=E,800nm,10.0s						
YSS	**Yuzh-Sakhalins**	**94.01**	**18**	*i* P	**P**	**10 48 38.2**	**-1.6**
	comp=E,500nm,3.0s						
GYA	**Guiyang**	**94.04**	**53**	⇓*i*P	**P**	**10 48 41.2**	**+0.8**
GYA				AP	pP	10 48 45.9	-4.3
GYA				XP	sP	10 48 48.6	-5.1
GYA				PP	PP	10 52 29.2	+3.0
GYA				SKS		10 59 14.5	
GYA				S	S	10 59 48.2	-0.9
GYA				SS	SS	11 06 11.0	+2.7
GYA				AMB	AMB		
	comp=Z,710nm,1.0s,mb7.0						
GYA				AMB	AMB		
	comp=Z,3µm,9.4s						
GYA				LR	LR		
	comp=N,14µm,19.0s,MS6.6						
GYA				LR	LR		
	comp=E,16µm,20.4s,MS6.6						
GYA				LR	LR		
	comp=Z,13µm,18.8s,MS6.4						
BDT	**Bhumibol Dam**	**94.80**	**65**	P	**P**	**10 48 43.0**	**-1.0**
	comp=Z,16nm,1.0s,mb5.4						
NANT	**Nan**	**95.04**	**63**	⇓P	**P**	**10 48 44.7**	**-0.3**
	comp=Z,200nm,1.0s,mb6.5						
ASAJ	**Asahikawa**	**96.61**	**19**	P	**P**	**10 48 50.5**	**-1.2**
ASAJ				pmax	pmax		
	comp=Z,69nm,1.1s						
ASAJ	**Asahikawa**	**96.61**	**19**	P	**P**	**10 48 50.5**	**-1.2**
	comp=Z,69nm,1.1s,mb6.0,baz=290,slow=11,SNR=15						
INCN	**Inchon**	**96.74**	**33**	PFAKE		10 49 00.0	+7.5
INCN				LR	LR		
	comp=Z,8µm,20.0s,MS6.2						
NJ2	**Nanjing**	**97.25**	**42**	*e*P	**P**	**10 48 54.0**	**-0.9**
NJ2				AP	pP	10 48 58.7	-6.0
NJ2				XP	sP	10 49 00.9	-7.3
NJ2				PP	PP	10 52 53.6	+2.8
NJ2				S	S	11 00 15.0	-1.7
NJ2				XS	sS	11 00 24.0	-9.0
NJ2				AMB	AMB		
	comp=Z,30nm,1.1s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,330nm,6.2s						
NJ2				LR	LR		
	comp=N,7µm,28.8s,MS6.2						
NJ2				LR	LR		
	comp=E,8µm,28.8s,MS6.2						
NJ2				LR	LR		
	comp=Z,8µm,28.8s,MS6.0						
KSRS	**Korea Array**	**97.33**	**32**	P	**P**	**10 48 53.2**	**-1.9**
	comp=Z,19nm,1.0s,mb5.5,baz=331,slow=4.3,SNR=51						
KSRS				PP	PP	10 52 40.9	-10
	comp=Z,7.7nm,1.0s,baz=328,slow=5.9,SNR=5.3						
KSRS				PKKP	PKKPbc	11 05 33.2	+0.6
	comp=Z,2.0nm,1.1s,baz=122,slow=1.6,SNR=4.9						
KSRS				LR	LR	11 36 28.8	
	comp=Z,6µm,21.7s,MS6.1,baz=324,slow=38						
ERM	**Erimo**	**98.71**	**20**	*e*P	**P**	**10 49 01.2**	**0.0**
ERM				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
ERM	**Erimo**	**98.71**	**20**	*e*P	**P**	**10 49 01.1**	**-0.1**
SSE	**Sheshan**	**99.24**	**41**	P	**P**	**10 49 02.5**	**-1.4**
SSE				PP	PP	10 53 06.5	+0.5
SSE				S	S	11 00 29.9	-3.7
SSE				SS	SS	11 07 21.1	-0.1
SSE				AMB	AMB		
	comp=Z,31nm,1.1s,mb5.8						
SSE				AMB	AMB		
	comp=Z,143nm,5.0s						
SSE				LR	LR		
	comp=N,2µm,29.0s,MS5.9						
SSE				LR	LR		
	comp=E,5µm,29.4s,MS5.9						
SSE				LR	LR		
	comp=Z,3µm,26.9s,MS5.6						
SSE	**Sheshan**	**99.24**	**41**	P	**P**	**10 49 02.5**	**-1.4**
	comp=Z,31nm,1.1s,mb5.8						
SSE				PP	PP	10 53 06.5	+0.5
SSE				S	S	11 00 29.9	-3.7
SSE				SS	SS	11 07 21.1	-0.1
SSE				LR	LR		
	comp=Z,3µm,26.9s,MS5.6						
QIZ	**Qiongzhong**	**101.28**	**57**	P	Pdif	10 49 09.6	-3.1
QIZ				XP		10 49 27.3	
QIZ				PP	PP	10 53 23.5	+1.5
QIZ				S	Sdif	11 00 55.3	+5.0
QIZ				AMB	AMB		
	comp=Z,17nm,1.6s						
QIZ				AMB	AMB		
	comp=Z,191nm,11.0s						
QIZ				LR	LR		
	comp=E,3µm,21.2s						
QIZ				LR	LR		
	comp=Z,3µm,23.1s,MS5.7						
QIZ	**Qiongzhong**	**101.28**	**57**	PFAKE		10 49 20.0	+7.3
QIZ				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
MAJO	**Matsushiro**	**102.17**	**26**	*e*Pdif	Pdif	10 49 15.1	-1.5
	comp=Z,16nm,1.3s						
MAJO				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
MAJO	**Matsushiro**	**102.17**	**26**	*e*P	Pdif	10 49 15.1	-1.6
MAJO				pmax	pmax		
	comp=Z,16nm,1.3s						
MAJO				MLR	MLR		
	comp=Z,3µm,22.0s,MS5.8						
MAJO	**Matsushiro**	**102.17**	**26**	*e*P	Pdif	10 49 15.1	-1.6
	comp=Z,3µm,22.0s						
MAT	**Matsushiro**	**102.17**	**26**	PDIF	Pdif	10 49 15.2	-1.5
MJAR	**Matsushiro Arr**	**102.17**	**26**	P	Pdif	10 49 15.3	-1.4
MJAR				pmax	pmax		
	comp=Z,11nm,1.1s						
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MJAR	**Matsushiro Arr**	**102.17**	**26**	P	Pdif	10 49 15.3	-1.3
	comp=Z,11nm,1.1s,baz=322,slow=4.9,SNR=16						
MJAR				PP	PP	10 53 19.9	-7.9
	comp=Z,1.8nm,0.7s,baz=321,slow=7.9,SNR=4.9						
JNU	**Nakatsue**	**102.28**	**33**	P	Pdif	10 49 15.2	-2.0
	comp=Z,14nm,1.1s,baz=60,slow=10,SNR=3.8						
JNU				PP	PP	10 53 22.0	-6.7
	comp=Z,7.3nm,1.0s,baz=335,slow=14,SNR=2.3						
JNU	**Nakatsue**	**102.28**	**33**	P	Pdif	10 49 15.1	-2.0
QZH	**Quanzhou**	**102.54**	**46**	*e*P	Pdif	10 49 18.6	+0.3
QZH				PP	PP	10 53 33.2	+2.1
QZH				S	Sdif	11 00 59.2	-1.6
QZH				SS	SS	11 08 08.1	+0.6
QZH				LR	LR		
	comp=N,8µm,19.5s,MS6.5						
QZH				LR	LR		
	comp=E,11µm,19.0s,MS6.5						
QZH				LR	LR		
	comp=Z,5µm,17.1s,MS6.1						
PSI	**Prapat**	**103.76**	**76**	Pdif	Pdif	10 49 22.3	-1.4
PSI				PP	PP	10 53 37.0	-4.1
PSI	**Prapat**	**103.76**	**76**	P	Pdif	10 49 22.3	-1.4
PSI						10 53 37.0	
PSI				pmax	pmax		
	comp=Z,6.0nm,0.9s						
PSI				pmax	pmax		
	comp=Z,28nm,1.1s						
PSI	**Prapat**	**103.76**	**76**	Pdiff	Pdif	10 49 22.3	-1.4
	comp=Z,6.2nm,0.9s,baz=251,slow=7.4,SNR=7.2						
PSI				PP	PP	10 53 37.0	-4.1
	comp=Z,28nm,1.1s,baz=267,slow=7.2,SNR=7.4						
TATO	**Taipei**	**104.19**	**44**	PFAKE		10 49 40.0	+14
TATO				LR	LR		
	comp=Z,4µm,19.0s,MS5.9						
PMSA	**Palmer Station**	**108.80**	**201**	PFAKE		10 54 00.0	+10
PMSA				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
KKM	**Kota Kinabalu**	**114.75**	**62**	*e*PKPdf	PKiKP	10 54 01.9	-1.0
KIP	**Kipapa**	**115.32**	**327**	PFAKE		10 54 10.0	+6.2
KIP				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
POHA	**Pohakuloa**	**115.61**	**324**	PFAKE		10 54 10.0	+5.6
POHA				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
MAW	**Mawson**	**116.69**	**156**	*e*P	PKPdf	10 54 04.5	-0.4
	comp=Z,14nm,0.9s						
MAW	**Mawson**	**116.69**	**156**	PKIKP	PKPdf	10 54 04.0	-0.9
MAW				pmax	pmax		
	comp=Z,18nm,1.0s						
MAW	**Mawson**	**116.69**	**156**	PKP	PKPdf	10 54 04.0	-0.9
	comp=Z,18nm,0.9s,baz=323,slow=4.7,SNR=10						
DAV	**Davao City (W)**	**120.42**	**53**	PFAKE		10 54 20.0	+6.2
DAV				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
GUMO	**Guam**	**125.43**	**30**	PFAKE		10 54 30.0	+6.6
GUMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
QSPA	**South Pole Qui**	**125.80**	**180**	PKPdf	PKPdf	10 54 21.6	-0.6
QSPA	**South Pole Qui**	**125.80**	**180**	*e*PKPdf	PKPdf	10 54 21.8	-0.3
QSPA				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
RKT	**Rikitea**	**130.82**	**269**	*e*PP	PP	10 56 50.1	+0.3
	comp=Z,492nm,27.8s						
RKT	**Rikitea**	**130.82**	**269**	*e*SS	SS	11 14 17.5	-0.8
	comp=Z,666nm,28.2s						
RKT				*e*LR	LR	11 36 03.6	
	comp=Z,1µm,34.5s						
MBWA	**Marble Bar**	**134.13**	**85**	*e*PKPdf	PKPdf	10 54 38.2	-1.5
MBWA				*e*PP	PP	10 57 03.0	-8.0
MBWA				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
CASY	**Casey**	**134.60**	**151**	PFAKE		10 54 50.0	+11
CASY				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
MUN	**Mundaring**	**135.86**	**101**	*e*PKP	PKPdf	10 54 42.6	0.0
MUN	**Mundaring**	**135.86**	**101**	*e*PKP	PKPdf	10 54 42.6	0.0
MUN	**Mundaring**	**135.86**	**101**	*e*PKIKP	PKPdf	10 54 42.6	0.0
KLBR	**Kellerberrin**	**136.96**	**100**	*e*PKP	PKPdf	10 54 43.6	-1.0
	comp=Z,69nm,1.2s						
KLBR	**Kellerberrin**	**136.96**	**100**	*e*PKP	PKPdf	10 54 43.6	-1.0
NWAO	**Narrogin (SRO)**	**137.00**	**102**	PKP	PKPdf	10 54 43.9	-0.8
NWAO				PP	PP	10 57 24.4	-4.7
NWAO				LR	LR		
	comp=Z,3µm,19.0s,MS6.1						
NWAO	**Narrogin (SRO)**	**137.00**	**102**	*i* PKIKP	PKPdf	10 54 37.5	-7.2
NWAO						10 54 43.9	
NWAO						10 57 24.4	
NWAO				pmax	pmax		
	comp=Z,31nm,1.0s						
NWAO				pmax	pmax		
	comp=Z,27nm,1.0s						
NWAO				pmax	pmax		
	comp=Z,18nm,1.2s						
NWAO	**Narrogin (SRO)**	**137.00**	**102**	PKhKP		10 54 37.5	
	comp=Z,31nm,1.0s,baz=230,slow=2.4,SNR=4.9						
NWAO				PKP	PKPdf	10 54 43.9	-0.8
	comp=Z,27nm,1.0s,baz=306,slow=2.1,SNR=4.0						
NWAO				PP	PP	10 57 24.4	-4.7
	comp=Z,18nm,1.2s,baz=301,slow=8.6,SNR=3.7						
FITZ	**Fitzroy Crossi**	**137.28**	**77**	*e*PKP		10 54 33.6	
	comp=Z,14nm,1.0s						
FITZ				*e*		10 54 45.3	
FITZ				*e*PP	PP	10 57 28.9	-1.9
FITZ				*e*PKS		10 58 18.8	
FITZ	**Fitzroy Crossi**	**137.28**	**77**	*e*PKP		10 54 33.6	
FITZ				*e*		10 54 45.3	
FITZ				PKP	PKPdf	10 54 45.7	+0.1
FITZ				PP	PP	10 57 17.7	-13
FITZ				*e*PP	PP	10 57 28.9	-1.9
FITZ				*e*PKS		10 58 18.8	
FITZ	**Fitzroy Crossi**	**137.28**	**77**	PKhKP		10 54 33.3	
	comp=Z,11nm,1.1s,baz=248,slow=1.1,SNR=10						
FITZ				PKP	PKPdf	10 54 45.7	+0.1
	comp=Z,21nm,1.0s,baz=325,slow=3.9,SNR=14						
FITZ				PP	PP	10 57 17.7	-13
	comp=Z,5.8nm,1.0s,baz=319,slow=11,SNR=3.0						
SBA	**Scott Base**	**137.94**	**179**	*e*PKPdf	PKPdf	10 54 45.1	0.0
SBA				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
SBA	**Scott Base**	**137.94**	**179**	*e*PKIKP	PKPdf	10 54 45.1	0.0
SBA				MLR	MLR		
	comp=Z,3µm,22.0s,MS6.0						
VNDA	**Vanda**	**138.16**	**177**	*e*PKP		10 54 35.1	
VNDA				PKP	PKPdf	10 54 45.1	-0.4
VNDA				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
VNDA	**Vanda**	**138.16**	**177**	*e*PKHKP		10 54 35.1	
VNDA						10 54 45.1	
VNDA				MLR	MLR		
	comp=Z,3µm,22.0s						
VNDA	**Vanda**	**138.16**	**177**	PKhKP		10 54 35.4	
	comp=Z,12nm,1.1s,baz=286,slow=2.6,SNR=4.1						
VNDA				PKP	PKPdf	10 54 45.1	-0.4
	comp=Z,11nm,0.9s,baz=257,slow=2.7,SNR=8.0						
KAKA	**Kakadu**	**139.26**	**65**	*e*PKP	PKPdf	10 54 42.1	-7.2
	comp=Z,60nm,1.0s						
KAKA	**Kakadu**	**139.26**	**65**	*e*PKPdf	PKPdf	10 54 47.6	-1.7
KAKA				*e*PP	PP	10 57 39.7	-3.1
PPT	**Papeete**	**139.69**	**286**	*e*PP	PP	10 57 40.6	-5.1
	comp=Z,849nm,26.8s						
PPT	**Papeete**	**139.69**	**286**	*e*SS	SS	11 15 57.1	-7.2
	comp=Z,1µm,27.0s						
PPT				*e*LR	LR	11 39 57.5	
	comp=Z,1µm,20.5s						
DRV	**Dumont d'Urvil**	**144.73**	**160**	PKP	PKPdf	10 54 55.0	-2.5
DRV	**Dumont d'Urvil**	**144.73**	**160**	PP	PP	10 58 17.0	+2.1
DRV				L		11 36 00.0	
DRV				R		11 43 00.0	
FORT	**Forrest**	**144.99**	**94**	⇑*i*PKP	PKPdf	10 54 58.1	-1.0
	comp=Z,1µm,0.8s						
FORT	**Forrest**	**144.99**	**94**	⇑*i*PKP	PKPdf	10 54 58.1	-1.0
WRA	**Warramunga Arr**	**145.12**	**72**	PKIKP	PKPdf	10 54 58.0	-1.6
WRA						10 58 15.5	
WRA				pmax	pmax		
	comp=Z,552nm,1.0s						
WRA				pmax	pmax		
	comp=Z,70nm,1.0s						
WRA	**Warramunga Arr**	**145.12**	**72**	PKPbc	PKPbc	10 54 58.0	-1.1
	comp=Z,552nm,0.9s,baz=313,slow=2.8,SNR=1012						
WRA				PP	PP	10 58 15.5	-3.1
	comp=Z,70nm,1.0s,baz=315,slow=5.8,SNR=13						
WB2	**Warramunga Arr**	**145.13**	**72**	⇑*i*PKP	PKPdf	10 54 57.8	-1.8
WB2				*e*PP	PP	10 58 15.5	-3.1
WB2				*e*PKS		10 58 37.5	
WB2	**Warramunga Arr**	**145.13**	**72**	⇑*i*PKP	PKPdf	10 54 57.8	-1.8
WB2				*e*PP	PP	10 58 15.5	-3.1
WB2				*e*PKS		10 58 37.5	
PMG	**Port Moresby**	**146.54**	**43**	*e*PKPdf	PKPdf	10 55 01.7	-0.5
PMG				*e*PKPbc	PKPbc	10 55 03.8	+0.1
PMG				*e*PKPab	PKPab	10 55 06.1	+1.4
PMG				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
PMG	**Port Moresby**	**146.54**	**43**	PKPbc	PKPbc	10 55 01.6	-2.1
	comp=Z,152nm,0.9s,baz=336,slow=2.9,SNR=64						
ASAR	**Alice Springs**	**146.76**	**78**	PKP	PKPdf	10 55 01.2	-1.1
ASAR				PKPbc	PKPbc	10 55 03.9	-0.2
ASAR				PP	PP	10 58 27.6	-0.8
ASAR	**Alice Springs**	**146.76**	**78**	PKIKP	PKPdf	10 55 01.2	-1.1
ASAR						10 55 03.9	
ASAR						10 58 27.6	
ASAR				pmax	pmax		
	comp=Z,456nm,1.0s						
ASAR				pmax	pmax		
	comp=Z,468nm,1.0s						
ASAR				pmax	pmax		
	comp=Z,76nm,1.2s						
ASAR	**Alice Springs**	**146.76**	**78**	PKP	PKPdf	10 55 01.2	-1.1
	comp=Z,456nm,1.0s,baz=307,slow=1.4,SNR=245						
ASAR				PKPbc	PKPbc	10 55 03.9	-0.2
	comp=Z,468nm,1.0s,baz=307,slow=2.6,SNR=574						
ASAR				PP	PP	10 58 27.6	-0.8
	comp=Z,76nm,1.2s,baz=309,slow=5.3,SNR=12						
COEN	**Coen**	**147.65**	**54**	*e*PKPdf	PKPdf	10 55 03.8	-0.2
COEN				*e*PKPbc	PKPbc	10 55 06.5	-0.2
RAR	**Rarotonga**	**149.64**	**291**	PKHKP		10 55 08.0	
RAR	**Rarotonga**	**149.64**	**291**	PKPbc	PKPbc	10 55 08.0	-3.7
	baz=253,slow=5.8						
FUNA	**Funafuti**	**151.41**	**340**	*e*PKPdf	PKPdf	10 55 10.3	+0.2
FUNA				*e*PKPbc	PKPbc	10 55 15.6	-0.6
FUNA				LR	LR		
	comp=Z,7µm,19.0s,MS6.5						
HNR	**Honiara**	**152.16**	**21**	PFAKE		10 55 20.0	+8.8
HNR				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
AFI	**Afiamalu**	**152.52**	**318**	*e*PKPdf	PKPdf	10 55 12.2	+0.5
AFI				*e*PKPbc	PKPbc	10 55 19.3	+0.6
AFI				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
AFI	**Afiamalu**	**152.52**	**318**	*e*PKIKP	PKPdf	10 55 12.2	+0.5
AFI				*e*		10 55 19.3	
AFI				MLR	MLR		

	comp=Z,3µm,20.0s,MS6.1						
CTA	**Charters Tower**	154.04	59	*e*PKP	PKPdf	10 55 13.4	-0.3
	comp=Z,29nm,1.2s						
CTA				*e*		10 55 21.4	
CTA				*e*		10 55 35.7	
CTA				*e*PP	PP	10 59 06.3	-3.6
CTA	**Charters Tower**	154.04	59	*e*PKP	PKPdf	10 55 13.4	-0.3
CTA				*e*		10 55 21.4	
CTA				*e*		10 55 35.7	
CTA				*e*PP	PP	10 59 06.3	-3.6
CTA	**Charters Tower**	154.04	59	PKIKP	PKPdf	10 55 12.5	-1.2
CTA				pmax	pmax		
	comp=Z,37nm,1.1s						
CTA				pmax	pmax		
	comp=Z,143nm,1.0s						
CTA				pmax	pmax		
	comp=Z,82nm,1.0s						
CTA				pmax	pmax		
	comp=Z,15nm,1.1s						
CTA	**Charters Tower**	154.04	59	PKP	PKPdf	10 55 12.5	-1.3
	comp=Z,37nm,1.1s,baz=299,slow=3.3,SNR=13						
CTA				PKPbc	PKPbc	10 55 21.7	-0.1
	comp=Z,143nm,1.0s,baz=308,slow=3.1,SNR=48						
CTA				PKPab	PKPab	10 55 35.1	-0.2
	comp=Z,82nm,1.0s,baz=318,slow=2.5,SNR=6.1						
CTA				PP	PP	10 58 59.4	-10
	comp=Z,15nm,1.1s,baz=356,slow=6.1,SNR=3.3						
CTAO	**Charters Tower**	154.04	59	PKPdf	PKPdf	10 55 12.6	-1.1
CTAO				PKPbc	PKPbc	10 55 21.6	-0.2
CTAO				sPKPdf		10 55 34.8	
CTAO	**Charters Tower**	154.04	59	*e*PKPdf	PKPdf	10 55 13.2	-0.5
CTAO				*e*PKPbc	PKPbc	10 55 21.6	-0.2
CTAO				*e*PKPab	PKPab	10 55 35.0	-0.3
CTAO				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
CTAO	**Charters Tower**	154.04	59	*e*PKIKP	PKPdf	10 55 13.2	-0.5
CTAO				*e*		10 55 21.6	
CTAO				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.9						
ADE	**Adelaide**	154.74	97	*e*P	PKPdf	10 55 13.3	-1.0
ADE	**Adelaide**	154.74	97	*e*PKIKP	PKPdf	10 55 13.3	-1.0
STKA	**Stephens Creek**	156.32	88	*e*PKP	PKPdf	10 55 15.5	-1.0
	comp=Z,26nm,1.4s						
STKA				*e*		10 55 25.9	
STKA				*e*		10 55 44.1	
STKA				*e*PP	PP	10 59 20.4	-2.7
STKA	**Stephens Creek**	156.32	88	*e*PKP	PKPdf	10 55 15.5	-1.0
STKA				*e*		10 55 25.9	
STKA				*e*		10 55 44.1	
STKA				*e*PP	PP	10 59 20.4	-2.7
STKA	**Stephens Creek**	156.32	88	PKP	PKPdf	10 55 14.6	-2.0
	comp=Z,40nm,1.2s,baz=327,slow=2.1,SNR=28						
STKA				PKPbc	PKPdf	10 55 26.0	+9.5
	comp=Z,59nm,1.0s,baz=299,slow=3.0,SNR=25						
STKA				PKPab	PKPab	10 55 43.4	-1.5
	comp=Z,85nm,0.9s,baz=335,slow=2.6,SNR=5.8						
STKA				PP	PP	10 59 15.3	-7.8
	comp=Z,7.9nm,1.1s,baz=324,slow=12,SNR=2.5						
TOO	**Toolangi**	160.49	102	*e*PKP	PKPab	10 56 03.2	+0.4
	comp=Z,78nm,1.0s						
EIDS	**Eidsvold**	160.83	62	*e*PKPdf	PKPdf	10 55 20.1	-2.0
EIDS				*e*PKPab	PKPab	10 56 03.8	-0.8
TAU	**Tasmania Unive**	161.34	119	PFAKE		10 55 30.0	+7.9
TAU				LR	LR		
	comp=Z,3µm,20.0s						
CNB	**Canberra Magne**	163.40	94	*e*PKP	PKPab	10 56 15.4	-0.2
	comp=Z,87nm,1.3s						
RAO	**Raoul Island**	167.67	299	PFAKE		10 55 40.0	+12
RAO				LR	LR		
	comp=Z,598nm,19.0s						
SNZO	**South Karori**	173.37	214	PFAKE		10 55 40.0	+9.2
SNZO				LR	LR		
	comp=Z,4µm,20.0s						

TRN 12 10:35:44.0, 1590N×5946W, h10^{km}, MD3.9, M3.5(FDF), M3.7(FDF), Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MGG	**Marie-Galante**	1.79	271	*e*P	Pn	10 36 17.2	+2.3
MVM	**Montagne Vaucl**	1.92	226	*e*P	Pn	10 36 17.7	+0.9
FDF	**Fort de France**	2.00	235	*e*P	Pn	10 36 20.2	+2.4
FDF				*e*S	Sn	10 36 46.1	+3.2
BIM	**Bigot**	2.07	229	*e*P	Pn	10 36 20.4	+1.5
BIM				*e*S	Sn	10 36 47.8	+3.1
TBG	**Guadaloupe-3**	2.10	269	*e*P	Pn	10 36 21.0	+1.7
SCG	**Saint Claude**	2.14	274	*e*P	Pn	10 36 21.8	+2.0
SCG				*e*S	Sn	10 36 49.9	+3.5
SLB	**Belfond**	2.56	217	*e*P	Pn	10 36 28.5	+2.9
SLB				*e*S	Sn	10 36 59.9	+3.0
BHS	**Barnard House**	3.05	212	*e*P	Pn	10 36 28.7	-3.6
BHS				*e*S	Sn	10 37 08.9	0.0
SVB	**Belmont**	3.13	214	*e*P	Pn	10 36 36.1	+2.7
SVB				*e*S	Sn	10 37 10.8	-0.1
FCV	**Fort Charlotte**	3.23	213	*e*P	Pn	10 36 37.2	+2.5
FCV				*e*S	Sn	10 37 13.2	0.0

GUC 12 10:39:08.9±1.0, 3287S×7169W, h0^{km}±10^{km}, MD3.7, ML2.4, 1C-2D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PEL	**Peldehue**	0.89	108	⇑*i*P	Pg	10 39 26.1	+0.3
PEL				*i* S	Sg	10 39 39.6	+2.3
PEL				AML	AML	10 39 41.6	
	comp=N,374nm,0.2s						
RCDM	**Rinconada Maip**	0.96	130	⇓*e*P	Pg	10 39 27.5	+0.1
RCDM				*i* S	Sg	10 39 40.2	+0.3
TACH	**Talagante**	1.00	141	*i* P	Pg	10 39 28.0	-0.1
TACH				*i* S	Sg	10 39 43.0	+1.8
PCH	**Pirque**	1.24	128	*e*P	Pg	10 39 32.4	-0.2
PCH				*i* S	Sg	10 39 50.2	+1.6
FCH	**Farellones**	1.26	112	*e*P	Pg	10 39 32.1	-1.0
FCH				*i* S	Sg	10 39 49.8	+0.5
FCH				AML	AML	10 39 52.3	
	comp=N,92nm,0.3s						
CHCH	**Chadas Angostu**	1.37	141	*e*P	Pg	10 39 34.4	-0.7
CACH	**El Canelo**	1.54	144	⇓*i*P	Pn	10 39 37.6	+0.1
SFDO	**San Fernando**	1.83	162	*e*P	Pn	10 39 40.6	-1.0
TLL	**Tololo Astrono**	2.80	16	*e*P	Pn	10 39 51.9	-2.9
TLL				*i* S	Sn	10 40 28.5	-0.8

ISCJB ***12*** *10:40:43.0±1.7, 1158N±004×12631E±005, h8^{km}±11^{km}, mb4.2/14, Error ellipse: s-maj=8.3km s-min=6.4km az=177.1*

IDC ***12*** *10:40:43.9±0.7, 1138N×12585E, h0^{km}, mb4.2/10, mb1 4.3/10, mb1mx4.2/21, mbtmp4.2/10, Error ellipse: s-maj=70.4km s-min=15.2km az=74.0*

MAN ***12*** *10:40:46, 1159N×12622E, h31^{km}, mb5.1, ML4.1, MS4.2*

NEIC ***12*** *10:40:48.7±0.9, 1156N×12625E, h35^{km}, mb4.5/3, Error ellipse: s-maj=71.7km s-min=11.7km az=72.0*

ISC 12 10:40:44.2±1.6, 1158N±004×12626E±005, h4^{km}±10^{km}, n40, σ1^{s}19/46, mb4.2/14, 4C, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BESP	**Borongan**	0.80	272	*e*P	Pg	10 40 59.4	-0.3
PLP	**Palo**	1.32	252	*e*P	Pn	10 41 07.1	-2.3
PLP				*e*S	Sg	10 41 21.2	-5.5
OCLP	**Ormoc**	1.70	252	*e*P	Pn	10 41 13.7	-0.9
CNP	**Catarman**	1.81	301	*e*P	Pn	10 41 15.9	-0.3
CNP				*e*S	Sn	10 41 41.0	+1.4
SCPH	**Surigao**	1.94	203	⇑*e*P	Pn	10 41 17.1	-0.8
MSLP	**Maasin**	1.99	224	*e*P	Pn	10 41 18.8	+0.2
MSLP				*e*S	Sn	10 41 45.4	+1.5
LLP	**Lapu-Lapu**	2.58	241	*e*P	Pn	10 41 25.7	-1.0
LLP				*e*S	Sn	10 41 56.3	-2.2
PVCP	**Virac**	2.87	314	⇑*e*P	Pn	10 41 29.8	-0.9
PVCP	**Virac**	2.87	314	*e*P	Pn	10 41 29.8	-0.9
TBP	**Tagbilaran**	3.01	232	*e*P	Pn	10 41 34.5	+1.8
TBP				*e*S	Sn	10 42 14.9	+5.7
RCP	**Roxas**	3.44	270	⇑*e*P	Pn	10 41 39.5	+0.9
CGP	**Cagayan de Oro**	3.47	207	⇑*e*P	Pn	10 41 40.0	+1.1
CGP				*e*S	Sn	10 42 19.6	-0.8
SNPH	**Sibulan**	3.71	233	*e*P	Pn	10 41 43.0	+0.7
GUIM	**Jordan**	3.73	256	*e*P	Pn	10 41 42.1	-0.3
BUKP	**Musuan**	3.86	198	*e*P	Pn	10 41 46.0	+1.6
OTRP	**Odiongan**	4.22	281	*e*P	Pn	10 41 50.0	+0.8
PAGZ	**Pagadian**	4.67	218	*e*P	Pn	10 41 55.9	+0.4
CUYO	**Cuyo Island**	5.19	262	*e*P	Pn	10 42 04.0	+1.4
BALP	**Baler**	6.15	313	*e*P	Pn	10 42 14.2	-1.6
CAUP	**Cauayan**	6.85	322	*e*P	Pn	10 42 25.1	-0.3
KAKA	**Kakadu**	24.90	166	*e*P	P	10 46 11.8	+3.5
	9.1nm,0.8s,mb4.4						
KAKA	**Kakadu**	24.90	166	*e*P	P	10 46 10.6	+2.3
KSRS	**Korea Array**	25.81	3	P	P	10 46 18.9	+2.5
	1.6nm,0.7s,mb3.7,baz=181,slow=10,SNR=7.6						
FITZ	**Fitzroy Crossi**	29.50	181	*e*P	P	10 46 49.4	-0.2
	4.6nm,1.0s,mb4.2						
FITZ	**Fitzroy Crossi**	29.50	181	P	P	10 46 47.9	-1.7
	2.5nm,0.8s,mb4.0,baz=40,slow=7.9,SNR=4.2						
WRA	**Warramunga Arr**	32.32	166	P	P	10 47 13.4	-1.1
	0.4nm,0.4s,mb3.6,baz=344,slow=9.1,SNR=11						
WRA				PcP	PcP	10 50 02.9	+0.2
	0.7nm,0.7s,baz=340,slow=3.0,SNR=5.9						
WB2	**Warramunga Arr**	32.32	166	*e*P	P	10 47 13.1	-1.4
ASAR	**Alice Springs**	35.82	168	P	P	10 47 44.3	-0.5
	0.5nm,0.4s,mb3.8,baz=351,slow=7.4,SNR=18						
ASAR				PcP	PcP	10 50 12.8	+0.2
	0.7nm,0.6s,baz=341,slow=2.8,SNR=10						
ASAR				ScP	ScP	10 53 58.7	-1.0
	0.6nm,0.9s,baz=337,slow=2.1,SNR=4.7						
FORT	**Forrest**	42.15	178	*e*P	P	10 48 39.1	+1.3
	7.2nm,0.7s,mb4.4						
KLBR	**Kellerberrin**	43.69	191	*e*P	P	10 48 49.4	-0.9
	66nm,1.9s,mb5.0						
STKA	**Stephens Creek**	45.64	162	*e*P	P	10 49 06.9	+1.0
	3.2nm,0.6s,mb4.4						
STKA	**Stephens Creek**	45.64	162	*e*P	P	10 49 06.3	+0.4
STKA	**Stephens Creek**	45.64	162	P	P	10 49 06.9	+1.1
	5.6nm,0.9s,mb4.5,baz=342,slow=4.9,SNR=9.0						
MKAR	**Makanchi Array**	50.99	322	P	P	10 49 48.6	+1.6
	6.7nm,0.6s,mb4.7,baz=118,slow=8.2,SNR=6.9						
JOF	**Joensuu**	82.03	333	*e*p	P	10 53 04.5	-0.8
	0.6nm,0.4s,mb3.9						
ARCES	**ARCESS Array B**	82.97	340	P	P	10 53 10.8	+0.7
ARCES	**ARCESS Array B**	82.97	340	P	P	10 53 10.8	+0.7
	5.6nm,1.0s,mb4.5,baz=63,slow=3.3,SNR=4.9						
FINES	**FINESS Array B**	84.74	332	P	P	10 53 19.2	-0.1
	2.0nm,0.6s,mb4.5,baz=77,slow=5.1,SNR=11						
AKASG	**Malin Array Be**	85.55	321	P	P	10 53 22.7	-0.9
	0.3nm,0.3s,mb4.0,baz=58,slow=4.8,SNR=5.2						
HFS	**Hagfors**	90.89	332	P	P	10 53 47.4	-1.5
	1.0nm,0.6s,mb4.4,baz=104,slow=6.1,SNR=4.1						

ISCJB ***12*** *11:10:55.6±1.4, 176N±01×6258W±009, h119^{km}±11^{km}, Error ellipse: s-maj=24.0km s-min=5.1km az=34.4*

TRN ***12*** *11:10:55.6, 1751N×6257W, h112^{km}, MD3.1, M3.3(FDF)*

RSPR ***12*** *11:10:59.1, 1859N×6270W, h135^{km}±2^{km}, MD4.1/3, MD4.1/3*

ISC 12 11:10:56.0±1.5, 176N±01×6253W±009, h119^{km}±12^{km}, n11, σ0^{s}88/19, 4C, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STMA	**St. Maarten, A**	0.70	309	⇑*i*P	Pn	11 11 16.8	+1.6
STMA				*i* S	Sn	11 11 30.0	+0.2
BPA	**Boggy Peak**	0.85	130	*e*P	Pn	11 11 17.2	+0.8
BPA				*e*S	Sn	11 11 31.3	-0.7
LZG	**Guadaloupe-1**	1.62	153	*e*P	Pn	11 11 24.8	0.0
LZG				*e*S	Sn	11 11 48.1	+1.3
SCG	**Saint Claude**	1.76	152	*e*P	Pn	11 11 26.4	0.0
SCG				*e*S	Sn	11 11 49.7	0.0
DEG	**La Desirade**	1.90	132	*e*P	Pn	11 11 28.0	-0.2
DEG				*e*S	Sn	11 11 50.8	-2.0
TBG	**Guadaloupe-3**	1.94	154	*e*P	Pn	11 11 28.3	-0.2
MGG	**Marie-Galante**	2.04	145	*e*P	Pn	11 11 30.1	+0.2
TBVI	**Tortola**	2.14	293	⇑*i*P	Pn	11 11 31.1	-0.1
TBVI				*e*S	Sn	11 11 56.0	-2.1
MTP	**Monte Pirata**	2.92	280	⇑*e*P	Pn	11 11 41.5	+0.4
MTP				*e*S	Sn	11 12 16.8	+0.9
CBYP	**Canovanas**	3.23	282	⇑*e*P	Pn	11 11 45.8	+0.5
CBYP				*e*S	Sn	11 12 22.9	-0.5
AOPR	**Arecibo Observ**	4.09	281	*e*S	Sn	11 12 43.0	-0.6

ISCJB ***12*** *11:50:26.1±0.8, 3596N±003×997W±007, h10^{km}, Error ellipse: s-maj=8.1km s-min=4.5km az=0.4*

CSEM ***12*** *11:50:27.3±0.6, 3590N×986W, h10^{km}, ML2.5, Error ellipse: s-maj=14.2km s-min=6.2km az=79.0*

MDD ***12*** *11:50:28.5±1.7, 3596N×1031W, h54^{km}±81^{km}, mb3.8/6, Error ellipse: s-maj=17.9km s-min=10.1km az=69.0, PRXIMO*

NEIC ***12*** *11:50:29.3, 36.14N×10.04W, h0^{km}, MN3.1(MDD), After MDD.*

INMG ***12*** *11:50:29.3±0.8, 36.06N×10.18W, h10^{km}, ML2.5, Error ellipse: s-maj=5.2km s-min=3.7km az=97.0*

CNRM ***12*** *11:50:31.2, 3550N×1042W, h68^{km}, MD3.5*

ISC 12 11:50:28.0±0.9, 3604N±003×999W±007, h10^{km}, n58, σ1^{s}04/95, West of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	1.44	40	*e*Pn	Pn	11 50 54.8	+0.7
PFVI				*e*Sn	Sn	11 51 13.7	+0.7
PFVI				A		11 51 15.3	
	48nm,0.2s						
PFVI	**Vila Bisbo**	1.44	40	P	Pn	11 50 54.8	+0.7
PFVI				S	Sn	11 51 13.7	+0.7
	24nm,0.2s						
PFVI	**Vila Bisbo**	1.44	40	*e*Pn	Pn	11 50 54.8	+0.7
PFVI				*e*Sn	Sn	11 51 13.7	+0.7
MORF	**Marmelete**	1.66	40	*e*Pn	Pn	11 50 58.0	+0.9
MORF				*e*Sn	Sn	11 51 19.5	+1.0
MORF				A		11 51 21.3	
	54nm,0.1s						
MORF	**Marmelete**	1.66	40	P	Pn	11 50 57.9	+0.8
MORF				S	Sn	11 51 18.6	+0.1
PTEO	**Sao Teotonio**	1.81	34	*e*Pn	Pn	11 50 59.8	+0.5
PTEO				*e*Sn	Sn	11 51 22.8	+0.5
PTEO				A		11 51 25.3	
	32nm,0.2s						
PTEO	**Sao Teotonio**	1.81	34	P	Pn	11 50 59.7	+0.4
PTEO				S	Sn	11 51 22.5	+0.2
PTEO	**Sao Teotonio**	1.81	34	P	Pn	11 50 59.7	+0.4
PTEO				*e*Sn	Sn	11 51 22.8	+0.5
PBDV	**Barranco-do-Ve**	2.04	54	*e*Pn	Pn	11 51 03.6	+1.2
PBDV				*e*Sn	Sn	11 51 29.2	+1.2
PBDV				A		11 51 32.0	
	16nm,0.2s						
PBDV	**Barranco-do-Ve**	2.04	54	P	Pn	11 51 03.6	+1.2
PBDV				S	Sn	11 51 29.2	+1.2
	8.1nm,0.2s						
PBDV	**Barranco-do-Ve**	2.04	54	*e*Pn	Pn	11 51 03.6	+1.2
PVAQ	**Vaqueiros**	2.28	53	*e*Pn	Pn	11 51 06.7	+1.1
PVAQ				*e*Sn	Sn	11 51 34.4	+0.7
PVAQ				A		11 51 35.1	
	50nm,0.1s						
PVAQ	**Vaqueiros**	2.28	53	P	Pn	11 51 06.7	+1.1
PVAQ				S	Sn	11 51 34.4	+0.7
	25nm,0.1s						
PVAQ	**Vaqueiros**	2.28	53	*e*Pn	Pn	11 51 06.7	+1.1
EGRO	**El Granado**	2.50	53	P	Pn	11 51 10.0	+1.2
	2.0nm,0.1s,SNR=9.8						
EGRO				S	Sn	11 51 39.5	+0.2
	25nm,0.1s						
EGRO	**El Granado**	2.50	53	P	Pn	11 51 10.0	+1.2
	2.0nm,0.1s,SNR=9.8						
EGRO				S	Sn	11 51 39.5	+0.1
	25nm,0.1s						
PBEJ	**Beja**	2.61	40	*e*Sn	Sn	11 51 42.2	+0.2
PBEJ				A		11 51 43.5	
	14nm,0.1s						
PBEJ	**Beja**	2.61	40	S	Sn	11 51 42.0	0.0
PBEJ	**Beja**	2.61	40	S	Sn	11 51 42.0	0.0
PBEJ				*e*Sn	Sn	11 51 42.2	+0.2
MOE	**Montemor**	2.80	27	P	Pn	11 51 13.2	+0.4
MOE				S	Sn	11 51 46.0	-0.7
MOE	**Montemor**	2.80	27	P	Pn	11 51 13.2	+0.4
MOE				*e*Sn	Sn	11 51 46.1	-0.6
EVO	**Evora**	2.94	32	*e*Pn	Pn	11 51 14.8	0.0
EVO				*e*Sn	Sn	11 51 49.6	-0.6
EVO				A		11 51 50.3	
	30nm,0.1s						
EVO	**Evora**	2.94	32	P	Pn	11 51 14.8	0.0
EVO				S	Sn	11 51 49.6	-0.6
	15nm,0.1s						
EVO	**Evora**	2.94	32	*e*Pn	Pn	11 51 14.8	0.0
PMAFR	**Mafra**	2.96	11	*e*Pn	Pn	11 51 14.1	-1.0
PMAFR				A		11 51 50.7	
	24nm,0.2s						
PMAFR	**Mafra**	2.96	11	*e*Pn	Pn	11 51 14.1	-1.0
	24nm,0.2s						
EMIN	**Mina Concepcio**	3.17	56	P	Pn	11 51 18.8	+0.9
	1.9nm,0.2s,SNR=9.8						
EMIN				S	Sn	11 51 55.7	-0.1
	5.5nm,0.1s						
EMIN	**Mina Concepcio**	3.17	56	P	Pn	11 51 18.8	+0.9
	1.9nm,0.2s,SNR=9.8						
EMIN				S	Sn	11 51 55.7	0.0
	5.5nm,0.1s						
TSY	**Tnine Yamani**	3.34	100	*e*P	Pn	11 51 25.0	+4.7
PESTR	**Estremoz**	3.41	33	*e*Pn	Pn	11 51 20.9	-0.3
PESTR				*e*Sn	Sn	11 52 00.8	-0.8
PESTR				A		11 52 02.7	
	6.6nm,0.2s						
ESPR	**Espera**	3.43	75	P	Pn	11 51 23.0	+1.5
	4.4nm,0.1s,SNR=12						
ESPR				S	Sn	11 52 03.1	+0.8
	50nm,0.4s						
ESPR	**Espera**	3.43	75	P	Pn	11 51 23.0	+1.5
	4.4nm,0.1s,SNR=12						
ESPR				S	Sn	11 52 03.1	+0.8
	50nm,0.4s						
EBAD	**Badajoz**	3.60	40	P	Pn	11 51 23.9	+0.1
	1.2nm,0.1s,SNR=5.8						
EBAD				S	Sn	11 52 05.5	-0.9
	24nm,0.2s						
EBAD	**Badajoz**	3.60	40	P	Pn	11 51 24.0	+0.2
EBAD				S	Sn	11 52 05.5	-0.9
	24nm,0.2s						
EJIF	**Jimena Fronter**	3.68	82	P	Pn	11 51 26.8	+1.9
EJIF	**Jimena Fronter**	3.68	82	P	Pn	11 51 26.1	+1.2
	1.1nm,0.1s,SNR=7.9						
EJIF				S	Sn	11 52 08.5	+0.2
	14nm,1.3s,SNR=7.9						
EJIF	**Jimena Fronter**	3.68	82	P	Pn	11 51 26.8	+1.9
	1.1nm,0.1s,SNR=7.9						
PTOM	**Tomar**	3.78	19	*e*Sn	Sn	11 52 09.0	-1.9
PTOM				A		11 52 13.4	
	11nm,0.4s						
PTOM	**Tomar**	3.78	19	S	Sn	11 52 08.6	-2.3
PTOM	**Tomar**	3.78	19	S	Sn	11 52 08.6	-2.3
PCBR	**Castelo Branco**	4.28	27	*e*Sn	Sn	11 52 21.2	-2.0
PCBR				A		11 52 24.4	
	6.0nm,0.2s						
PCBR	**Castelo Branco**	4.28	27	S	Sn	11 52 21.2	-2.0
	3.0nm,0.2s						
PCBR	**Castelo Branco**	4.28	27	S	Sn	11 52 21.2	-2.0
CIA	**Chichaoua**	4.58	167	*i* P	Pn	11 51 33.0	-4.3
MIF	**Mishlifen**	4.72	122	*e*P	Pn	11 51 39.0	-0.2
MIF				*i* S	Sn	11 52 32.0	-2.0
EADA	**Adamuz**	4.82	62	P	Pn	11 51 41.6	+1.0
	3.0nm,0.6s,SNR=9.6						
EADA				S	Sn	11 52 35.2	-1.3
	6.3nm,0.1s,SNR=7.2						
EADA	**Adamuz**	4.82	62	P	Pn	11 51 41.6	+1.0
	3.0nm,0.6s,SNR=9.6						
EADA				S	Sn	11 52 35.2	-1.2
	6.3nm,0.1s,SNR=7.2						
TZC	**Tazercounte**	4.85	142	*e*P	Pn	11 51 38.0	-3.0
CZD	**Col de Zad**	5.07	125	*e*P	Pn	11 51 43.0	-1.0
CZD				*i* S	Sn	11 52 39.0	-3.6
EBAN	**Banos Encina**	5.39	65	P	Pn	11 51 48.9	+0.4
EBAN				S	Sn	11 52 47.1	-3.5
EBAN	**Banos Encina**	5.39	65	P	Pn	11 51 48.9	+0.4
	2.6nm,0.1s,SNR=7.9						
EBAN				S	Sn	11 52 49.4	-1.2
	2.0nm,0.1s,SNR=8.6						
MVO	**Moncorvo**	5.62	24	*e*Pn	Pn	11 51 51.5	0.0
MVO				*e*Sn	Sn	11 52 52.7	-3.4
MVO	**Moncorvo**	5.62	24	P	Pn	11 51 51.3	-0.2
MVO				S	Sn	11 52 52.2	-3.9
MVO	**Moncorvo**	5.62	24	P	Pn	11 51 51.5	0.0
MVO				S	Sn	11 52 52.2	-3.9
ESDC	**Sonseca Array**	5.99	51	P	Pn	11 51 56.5	-0.1
	SNR=7.9						
ESDC				S	Sn	11 53 02.0	-3.3
	SNR=7.9						
ELOB	**Lobios**	6.01	14	S	Sn	11 53 00.9	-4.8
	SNR=7.9						
ZFT	**Errachidia**	6.16	129	*e*P	Pn	11 51 59.0	0.0
ETOR	**Torete**	7.84	50	P	Pn	11 52 22.1	0.0
	0.4nm,1.3s,SNR=7.9						

ISCJB ***12*** *12:03:55.4±0.7, 4094N±003×3087E±004, h2^{km}±6^{km}, Error ellipse: s-maj=5.8km s-min=5.1km az=168.4*

CSEM ***12*** *12:03:55.0±0.1, 4091N×3090E, h8^{km}, MD3.0, Error ellipse: s-maj=2.3km s-min=1.9km az=175.0*

ISK ***12*** *12:03:55.2, 4090N×3092E, h10^{km}, MD2.7*

DDA ***12*** *12:03:56.6, 4088N×3093E, h6^{km}, Md3.0*

ISC 12 12:03:55.8±0.7, 4093N±004×3084E±005, h4^{km}±7^{km}, n26, σ0^{s}56/35, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HENT	**Hendek**	0.11	158	*i* P	Pg	12 03 58.4	+0.3
HENT				*i* S	Sg	12 03 59.9	+0.3
HENT	**Hendek**	0.11	158	*i* P	Pg	12 03 58.3	+0.2
MDU	**Mudurnu**	0.54	149	*i* PG	Pg	12 04 05.3	-0.9
MDU				*i* SG	Sg	12 04 12.3	-0.9
MDU	**Mudurnu**	0.54	149	*i* Pg	Pg	12 04 05.3	-0.9
MDU				*i* Sg	Sg	12 04 12.3	-0.9
GULT	**Gulveren**	0.56	207	*i* PG	Pg	12 04 06.7	+0.2
GULT	**Gulveren**	0.56	207	*i* Pg	Pg	12 04 06.7	+0.2
KDZE	**Karadeniz Ereo**	0.59	50	PG	Pg	12 04 07.0	-0.2
KDZE				SG	Sg	12 04 14.9	0.0
KDZE	**Karadeniz Ereo**	0.59	50	*e*Pg	Pg	12 04 07.0	-0.2
KDZE				*e*Sg	Sg	12 04 14.9	0.0
HRT	**Hereke**	0.90	264	PG	Pg	12 04 13.7	+0.7
HRT	**Hereke**	0.90	264	*e*Pg	Pg	12 04 13.7	+0.7
SGKT	**Sivrigoynuk**	0.99	111	*i* P	Pg	12 04 14.1	-0.6
SGKT				*i* S	Sg	12 04 27.3	-0.2
YLV	**Yalova**	1.18	253	*e*PN	Pn	12 04 18.6	-0.4
YLV	**Yalova**	1.18	253	*e*Pn	Pn	12 04 18.6	-0.4
IZI	**Iznik**	1.20	241	*e*PN	Pn	12 04 18.8	-0.6
IZI	**Iznik**	1.20	241	*e*Pn	Pn	12 04 18.8	-0.6
GEMT	**Gemlik**	1.35	249	*e*PN	Pn	12 04 21.4	0.0
GEMT	**Gemlik**	1.35	249	*e*Pn	Pn	12 04 21.4	0.0
ISK	**Istanbul-Kandi**	1.36	276	*e*PN	Pn	12 04 21.5	0.0
ISK	**Istanbul-Kandi**	1.36	276	*e*Pn	Pn	12 04 21.5	0.0
KLYT	**Kilyos**	1.40	284	*e*PN	Pn	12 04 22.3	+0.2
KLYT	**Kilyos**	1.40	284	*e*Pn	Pn	12 04 22.3	+0.2
ESKT	**Eskisehir**	1.41	180	*e*PN	Pn	12 04 21.8	-0.4
ESKT	**Eskisehir**	1.41	180	*i* P	Pn	12 04 22.7	+0.5
ESKT				*i* S	Sb	12 04 41.7	+0.7
ESKT	**Eskisehir**	1.41	180	*e*Pn	Pn	12 04 21.8	-0.4
SEYT	**Eskypehyr**	1.41	180	*i* P	Pn	12 04 22.7	+0.5
SEYT				*i* S	Sb	12 04 41.7	+0.8
ELDT	**Eldivan**	2.01	102	*i* P	Pb	12 04 33.0	+0.1
ELDT				*i* S	Sg	12 05 01.8	+1.4

IDC ***12*** *12:41:09.3±1.5, 4722N×15524E, h0^{km}, mb3.7/8, mb1 3.9/10, mb1mx3.8/23, mbtmp3.8/10, ML3.5/2, Error ellipse: s-maj=45.3km s-min=20.0km az=162.0*

ISCJB ***12*** *12:41:12.9±1.0, 472N±01×1550E±02, h33^{km}, mb3.7/10, Error ellipse: s-maj=21.7km s-min=8.0km az=37.5*

MOS ***12*** *12:41:12.2±1.8, 4730N×15501E, h28^{km}, mb4.0/6, Error ellipse: s-maj=21.4km s-min=13.8km az=71.4*

ISC 12 12:41:14.9±1.0, 472N±01×1551E±02, h35^{km}, n22, σ1^{s}08/22, mb3.7/10, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	3.54	11	*e*PN	Pn	12 42 02.5	-4.9
SKR				*e*S	Sn	12 42 47.5	-0.5
SKR				smax			
	comp=N,80nm,0.4s						
SKR				smax			
	comp=E,80nm,0.4s						
SKR				smax			
	comp=Z,80nm,0.4s						
KUR	**Kuril'sk**	5.39	251	PN	Pn	12 42 32.5	-0.2
ASAJ	**Asahikawa**	9.28	255	PN	Pn	12 43 25.8	-0.3
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	9.28	255	Pn	Pn	12 43 25.8	-0.4
	comp=Z,0.9nm,0.3s,baz=77,slow=13,SNR=9.5						
MJAR	**Matsushiro Arr**	16.45	236	P	Pn	12 45 02.3	-0.6
MJAR	**Matsushiro Arr**	16.45	236	Pn	Pn	12 45 02.3	-0.6
	comp=Z,0.1nm,0.3s,baz=31,slow=10,SNR=7.4						

BILL	Bilibino	21.66	11	*e*P	P	12 46 04.3	+2.4
BILL				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.1						
KSRS	Korea Array	22.23	254	P	P	12 46 09.7	+1.4
	comp=Z,2.5nm,1.0s,mb3.6,baz=51,slow=10,SNR=6.5						
TIXI	Tiksi	27.43	342	*e*P	P	12 46 55.6	-1.2
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb3.9						
SONM	Songino Array	32.46	289	P	P	12 47 41.0	-0.6
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	Songino Array	32.46	289	P	P	12 47 41.0	-0.6
	comp=Z,0.5nm,0.8s,mb3.4,baz=68,slow=7.5,SNR=3.9						
ZALV	Zalesovo Beam	43.45	306	P	P	12 49 12.8	-1.2
	comp=Z,0.5nm,0.3s,mb3.7,baz=54,slow=7.5,SNR=4.1						
MKAR	Makanchi Array	47.94	298	P	P	12 49 49.2	-0.4
	comp=Z,0.4nm,0.6s,mb3.6,baz=67,slow=7.8,SNR=8.5						
YKA	Yellowknife Ar	49.74	37	P	P	12 50 02.1	-1.1
YKA	Yellowknife Ar	49.74	37	P	P	12 50 02.1	-1.1
	comp=Z,0.1nm,0.4s,mb3.2,baz=298,slow=7.4,SNR=3.3						
JOF	Joensuu	61.52	334	*e*P	P	12 51 28.9	+1.2
FINES	FINESS Array B	64.20	336	P	P	12 51 46.3	+0.8
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	FINESS Array B	64.20	336	P	P	12 51 46.3	+0.8
	comp=Z,1.3nm,0.7s,mb4.1,baz=34,slow=7.1,SNR=7.9						
TXAR	Lajitas Array	76.08	62	P	P	12 52 58.2	-0.6
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	76.08	62	P	P	12 52 58.2	-0.6
	comp=Z,0.5nm,0.7s,mb3.5,baz=310,slow=4.6,SNR=7.6						
BRTR	Keskin Array B	78.98	318	P	P	12 53 16.7	+1.9
	comp=Z,0.4nm,0.7s,mb3.5,baz=31,slow=2.9,SNR=4.8						
TORD	Torodi Ar. Bea	115.38	331	PKP	PKPdf	12 59 52.4	-0.7
	comp=Z,0.2nm,0.4s,baz=21,slow=1.7,SNR=5.4						

IDC ***12*** *12:42:58.0±1.7, 47.28N×155.21E, h0^{km}, mb3.7/9, mb1 3.8/11, mb1mx3.7/25, mbtmp3.7/11, ML3.4/1, Error ellipse: s-maj=47.3km s-min=20.7km az=161.0*

ISCJB ***12*** *12:43:02.2±2.5, 47.2N±0.1×155.1E±0.2, h43^{km}±19^{km}, mb3.6/10, Error ellipse: s-maj=28.9km s-min=10.9km az=36.9*

MOS ***12*** *12:43:03.3±1.4, 47.32N×154.97E, h49^{km}, mb4.1/5, Error ellipse: s-maj=22.0km s-min=19.7km az=51.0*

ISC 12 12:43:04.3±2.1, **47.2N**±0.1×**155.1E**±0.2, **h46**^{km}±16^{km}, **n20**, σ**0^{s}85**/20, **mb3.6**/10, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	3.54	11	*e*PN		12 44 14.0	
SKR				*e*S	Sn	12 44 37.7	+0.4
SKR				pmax	pmax		
	comp=Z,50nm,0.5s						
SKR				smax			
	comp=N,50nm,0.5s						
SKR				smax			
	comp=E,60nm,0.5s						
ASAJ	Asahikawa	9.29	255	PN	Pn	12 45 14.6	-0.8
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	9.29	255	Pn	Pn	12 45 14.6	-0.8
	comp=Z,0.5nm,0.3s,baz=55,slow=12,SNR=3.8						
MJAR	Matsushiro Arr	16.45	236	P	Pn	12 46 52.1	+0.4
MJAR	Matsushiro Arr	16.45	236	Pn	Pn	12 46 52.1	+0.4
	baz=35,slow=9.0,SNR=3.7						
KSRS	Korea Array	22.23	254	P	P	12 47 58.6	+1.8
	comp=Z,0.7nm,0.6s,mb3.2,baz=53,slow=11,SNR=3.5						
TIXI	Tiksi	27.43	342	*e*P	P	12 48 44.5	-0.6
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb3.8						
SONM	Songino Array	32.47	289	P	P	12 49 29.0	-0.9
	comp=Z,0.3nm,0.5s,mb3.4,baz=52,slow=9.6,SNR=4.3						
ZALV	Zalesovo Beam	43.45	306	P	P	12 51 01.5	-0.8
	comp=Z,0.5nm,0.4s,mb3.6,baz=57,slow=5.3,SNR=3.9						
ZAL	Zalesovo	43.46	306	P	P	12 51 01.5	-0.9
MKAR	Makanchi Array	47.94	298	P	P	12 51 37.4	-0.4
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	47.94	298	P	P	12 51 37.4	-0.4
	comp=Z,0.6nm,0.7s,mb3.7,baz=64,slow=7.9,SNR=6.9						
YKA	Yellowknife Ar	49.74	37	P	P	12 51 51.3	-0.1
	comp=Z,0.3nm,0.9s,mb3.3,baz=296,slow=7.7,SNR=4.0						
AKTO	Aktyubinsk	59.43	313	P	P	12 53 02.6	+0.8
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
AKTO	Aktyubinsk	59.43	313	P	P	12 53 02.6	+0.8
	comp=Z,1.0nm,0.5s,mb4.1,baz=81,slow=13,SNR=4.4						
FINES	FINESS Array B	64.20	336	P	P	12 53 34.8	+1.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	64.20	336	P	P	12 53 34.8	+1.2
	comp=Z,1.0nm,0.5s,mb4.1,baz=42,slow=8.8,SNR=6.0						
TXAR	Lajitas Array	76.08	62	P	P	12 54 46.1	-0.8
	comp=Z,0.4nm,0.7s,mb3.5,baz=318,slow=5.1,SNR=5.4						
BRTR	Keskin Array B	78.98	318	P	P	12 55 03.8	+0.9
BRTR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
BRTR	Keskin Array B	78.98	318	P	P	12 55 03.8	+0.9
	comp=Z,0.9nm,0.9s,mb3.7,baz=107,slow=1.7,SNR=4.1						

BJI ***12*** *12:45:25.3, 5.24N×126.32E, h15^{km}, mB6.0, mb5.8, Ms5.8, Msz5.7*

ISCJB ***12*** *12:45:27.5±0.2, 5.44N±0.02×126.48E±0.03, h18^{km}, mb5.9/181, MS5.7/237, Error ellipse: s-maj=3.9km s-min=2.9km az=164.5*

MAN ***12*** *12:45:28, 5.16N×126.56E, h54^{km}, mb6.3, ML5.4, MS6.1*

MAN INTENSITY III - DAVAO CITY; INTENSITY II - GENERAL SANTOS CITY.

NEIC ***12*** *12:45:31.7±0.1, 5.56N×126.07E, h24^{km}, mb5.9/101, ME5.5, MS5.7/180, MW6.0, Error ellipse: s-maj=6.5km s-min=4.4km az=69.0 Broadband fault plane solution: P waves. NP1:φ$_s$20.00000°, δ65.00000°, λ90.00000°. NP2:φ$_s$200.00000°, δ25.00000°, λ90.00000°. Principal axes: T Plg70.0000°, Azm290.0000°; N Plg0.0000°, Azm0.0000°; P Plg20.0000°, Azm110.0000°; Moment Tensor Solution. s40 Moment tensor: Scale 10^{18} Nm; M$_{rr}$0.00; M$_{\theta\theta}$0.00; M$_{\phi\phi}$0.00; M$_{r\theta}$0.00; M$_{\theta\phi}$0.00; M$_{\phi r}$0.00; Best double couple: M$_0$1.10000×10^{18} NP1:φ$_s$165.00000°, δ37.00000°, λ43.00000°. NP2:φ$_s$38.00000°, δ66.00000°, λ119.00000°. Principal axes: T 1.0300, Plg59.0000°, Azm350.0000°; N 0.1200, Plg26.0000°, Azm206.0000°; P -1.1600, Plg16.0000°, Azm107.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC Felt [III PIVS] at Davao and [II PIVS] at General Santos. Felt at Digos and Mati. Also felt [III] in the Kepulauan Talaud, Indonesia.

MOS ***12*** *12:45:31.3±1.4, 5.62N×126.10E, h33^{km}, mb6.0/62, MS5.7/77 Error ellipse: s-maj=8.1km s-min=4.1km az=114.2*

IDC ***12*** *12:45:33.0±1.3, 5.54N×126.07E, h33^{km}±8^{km}, mb5.4/29, mb1 5.5/29, mb1mx5.4/30, mbtmp5.4/29, MS5.5/26, Ms1 5.5/26, ms1mx5.5/29, Error ellipse: s-maj=17.4km s-min=7.6km az=75.0*

GCMT ***12*** *12:45:32.4±0.1, 5.58N×126.61E, h32^{km}, MW6.1/107, Moment Tensor Solution. s101,c230; s107,c354; Duration: 2^{s}7 Moment tensor: Scale 10^{18}Nm; M$_{rr}$1.30±.01; M$_{\theta\theta}$0.23±.01; M$_{\phi\phi}$-1.52±.01; M$_{r\theta}$0.48±.01; M$_{\theta\phi}$-0.09±.01; M$_{\phi r}$0.76±.02; Best double couple: M$_0$1.68500×10^{18} NP1:φ$_s$165.00000°, δ33.00000°, λ61.00000°. NP2:φ$_s$19.00000°, δ62.00000°, λ108.00000°. Principal axes: T 1.6350, Plg68.0000°, Azm324.0000°; N 0.1060, Plg16.0000°, Azm191.0000°; P -1.7360, Plg15.0000°, Azm96.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

ISC 12 12:45:29.2±0.2, **5.41N**±0.02×**126.49E**±0.03, **h19**^{km}, **h19**^{km}±1.8^{km}**:pP-P**, **n1080**, σ**1^{s}40**/645, **mb5.9**/180, **MS5.7**/237, **152C-108D**, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	1.54	352	*e*P	Pn	12 45 58.0	+2.3
MATI				*e*S	Sn	12 46 19.9	+4.8
GSPH	General Santos	1.67	294	⇑*e*P	Pn	12 46 00.9	+3.5
GSPH				*i* S	Sn	12 46 20.1	+1.8
DAV	Davao City (W)	1.88	331	*e*Pn	Pn	12 46 02.1	+1.8
DMPH	Davao City--Mi	1.92	330	⇓*i*P	Pn	12 46 02.2	+1.3
DMPH				*i* S	Sg	12 46 35.8	+4.6
KCP	Kidapawan	2.11	319	⇑*e*P	Pn	12 46 07.8	+4.3
KCP				*e*S	Sn	12 46 34.1	+4.9
BIPH	Bislig	2.75	357	⇑*i*P	Pn	12 46 13.9	+1.5
BIPH				*i* S	Sn	12 46 44.2	-0.9
BUKP	Musuan	2.83	330	*e*P	Pn	12 46 15.3	+1.9
CTBH	Cotabato--PC H	2.86	309	⇓*e*P	Pn	12 46 15.6	+1.7
CTBH				*i* S	Sn	12 46 51.4	+3.6
CGP	Cagayan de Oro	3.51	330	⇓*i*P	Pn	12 46 25.9	+3.2
CGP				*i* S	Sn	12 47 04.1	+0.4
PAGZ	Pagadian	3.92	308	*e*P	Pn	12 46 30.3	+1.9
SCPH	Surigao	4.45	347	⇓*e*P	Pn	12 46 38.0	+2.3
SCPH				*e*S	Sg	12 47 37.2	-15
ZMPH	Zamboanga City	4.66	289	⇑*i*P	Pn	12 46 40.2	+1.7
ZMPH				*i* S	Sn	12 47 32.7	+0.7
MSLP	Maasin	4.96	341	*e*P	Pn	12 46 46.4	+3.7
TBP	Tagbilaran	4.98	329	*e*P	Pn	12 46 44.8	+1.8
TBP				*e*S	Sg	12 47 55.4	-14
SNPH	Sibulan	5.06	321	⇓*e*P	Pn	12 46 45.0	+0.9
SNPH				*e*S	Pg	12 47 13.0	+6.8
LLP	Lapu-Lapu	5.47	333	*e*P	Pn	12 46 52.3	+2.5
LLP				*e*S	Sn	12 47 52.2	-0.1
OCLP	Ormoc	5.90	342	*e*P	Pn	12 46 54.5	-1.2
PLP	Palo	5.91	345	*e*P	Pn	12 46 55.3	-0.4
PLP				*e*S	Sn	12 48 05.4	+2.4
GUIM	Jordan	6.46	324	*e*P	Pn	12 47 05.9	+2.6
RCP	Roxas	7.14	329	⇑*e*P	Pn	12 47 15.5	+2.9
CNP	Catarman	7.28	346	*e*P	Pn	12 47 18.6	+4.0
KALP	Kalibo	7.45	327	*e*P	Pn	12 47 21.8	+4.8
	2713μm,9.0s						
CUYO	Cuyo Island	7.64	315	*e*P	Pn	12 47 23.0	+3.4
MYLDM	Lahad Datu	7.96	269	⇓P	Pn	12 47 29.2	+5.3
OTRP	Odiongan	8.19	328	*e*P	Pn	12 47 31.0	+3.9
PVCP	Virac	8.45	344	⇓*e*P	Pn	12 47 38.6	+7.9
PVCP	Virac	8.45	344	*e*P	Pn	12 47 34.2	+3.6
TSM	Tawau	8.65	263	⇑P	Pn	12 47 37.9	+4.4
PPR	Puerto Princes	8.82	300	*e*P	Pn	12 47 43.0	+7.2
BUSP	Coron	9.03	317	*e*P	Pn	12 47 41.2	+2.7
ENPP	El Nido	9.05	310	*e*P	Pn	12 47 42.9	+4.0
BOAC	Boac	9.21	331	*e*P	Pn	12 47 46.2	+5.1
BATP	Bataraza	9.25	292	*e*P	Pn	12 47 45.7	+4.0
SDKM	Sandakan	9.25	272	⇓P	Pn	12 47 45.0	+3.3
GQP	Guinayangan	9.33	335	⇑*e*P	Pn	12 47 47.9	+5.2
KDM	Kudat	9.71	279	⇑P	Pn	12 47 56.5	+8.5
TGY	Tagaytay City	10.22	328	Pn	Pn	12 48 02.3	+7.3
TGY				LR	LR	12 52 38.5	
TGY	Tagaytay City	10.22	328	P	Pn	12 48 02.3	+7.4
TGY				pmax	pmax		
	comp=Z,38nm,0.3s						
TGY				MLR	MLR		
	comp=Z,165nm,19.5s						
TGY	Tagaytay City	10.22	328	Pn	Pn	12 48 02.3	+7.3
	comp=Z,38nm,0.3s,baz=243,slow=0.8,SNR=20						
TGY				LR	LR	12 52 38.5	
	comp=Z,165nm,19.5s,baz=313,slow=43						
TGY	Tagaytay City	10.22	328	⇑*e*P	Pn	12 48 00.2	+5.3
KKM	Kota Kinabalu	10.24	274	*e*Pn	Pn	12 48 01.3	+6.1
KKM				*e*ScP	ScP	12 57 33.0	-1.9
KKM	Kota Kinabalu	10.24	274	⇓P	Pn	12 48 00.8	+5.6
POLP	Polilio Island	10.28	335	*e*P	Pn	12 48 01.1	+5.4
LUBP	Lubang	10.30	324	*e*P	Pn	12 48 01.6	+5.5
BALP	Baler	11.34	335	*e*P	Pn	12 48 13.3	+3.0
PCPH	Palayan	11.39	333	*e*P	Pn	12 48 16.7	+5.7
SCZP	Santa Cruz	12.15	328	*e*P	Pn	12 48 26.1	+4.7
CAUP	Cauayan	12.34	339	*e*P	Pn	12 48 26.6	+2.7
BCPH	Baguio City Da	12.34	332	*e*P	Pn	12 48 28.9	+4.9
	comp=Z,60μm,1.0s						
BCPH				*e*S	Sn	12 50 56.5	+15
KAPI	Kappang	12.35	213	Pn	Pn	12 48 29.7	+5.5
	comp=Z,2μm,1.1s,SNR=43						
BOLP	Bolinao	12.66	330	*e*P	Pn	12 48 33.7	+5.3
APYP	Conner	13.39	338	*e*P	Pn	12 48 41.7	+3.4
ABRA	Dolores	13.41	336	*e*P	Pn	12 48 42.5	+3.9
BTM	Bintulu	13.54	261	⇑P	Pn	12 48 46.9	+6.4
SBUM	Sibu	14.53	259	⇓P	Pn	12 49 00.1	+6.1
KSM	Kuching	16.61	257	*e*P	Pn	12 49 25.3	+4.1
KSM				*e*ScP	ScP	12 57 44.4	-1.0
KSM	Kuching	16.61	257	⇑P	Pn	12 49 25.7	+4.5
KAKA	Kakadu	18.95	162	*e*P	Pn	12 49 50.9	+0.8
	comp=Z,248nm,0.6s						
KAKA				*e*SCP	ScP	12 57 48.8	-1.3
NACB	Ninganchiao	19.24	346	*e*P	Pn	12 49 51.5	-2.0
	comp=Z,116nm,0.8s						
YHNB	Yeheng	19.77	346	*e*P	Pn	12 49 59.0	-0.8
	comp=Z,412nm,1.0s						
YHNB				*e*S	Sn	12 53 44.1	+2.6
GUMO	Guam	19.85	65	*e*P	Pn	12 50 04.1	+3.2
	comp=Z,689nm,1.4s						
GUMO				LR	LR		
	comp=Z,25μm,21.0s						
GUMO	Guam	19.85	65	*e*P	Pn	12 50 04.1	+3.2
GUMO				pmax	pmax		
	comp=Z,689nm,1.4s						
GUMO				MLR	MLR		
	comp=Z,25μm,21.0s						
GUMO	Guam	19.85	65	P	Pn	12 50 05.2	+4.3
	comp=Z,249nm,1.0s,baz=128,slow=8.6,SNR=4.3						
TATO	Taipei	20.03	347	*e*P	P	12 50 00.8	-0.4
	comp=Z,828nm,1.9s						
HKC	Hong Kong Obse	20.58	326	⇑*i*P	P	12 50 08.0	+0.8
HKC				*i* S	S	12 53 55.0	-1.7
QZH	Quanzhou	20.84	339	⇑*i*P	P	12 50 11.2	+1.2
QZH				S	S	12 53 57.0	-4.8
QZH				AMB	AMB		
	comp=Z,730nm,1.2s						
QZH				LR	LR		
	comp=N,40μm,21.0s,MS5.9						
QZH				LR	LR		
	comp=E,24μm,19.6s,MS5.9						
QZH				LR	LR		
	comp=Z,54μm,23.6s,MS5.8						
QIZ	Qiongzhong	21.13	311	P	P	12 50 13.9	+0.8
QIZ				S	S	12 54 08.3	+0.8
QIZ				SS		12 54 37.7	
QIZ				AMB	AMB		
	comp=Z,374nm,1.1s,mb5.6						
QIZ				LR	LR		
	comp=E,15μm,17.1s						
QIZ				LR	LR		
	comp=Z,24μm,20.5s,MS5.6						
QIZ	Qiongzhong	21.13	311	*e*P	P	12 50 14.9	+1.9
	comp=Z,505nm,1.1s,mb5.8						
QIZ				LR	LR		
	comp=Z,25μm,20.0s,MS5.6						
JOW	Kunigami	21.37	4	P	P	12 50 17.4	+1.8
	comp=Z,115nm,0.8s,mb5.2,baz=196,slow=9.0,SNR=18						
JOW				LR	LR	12 57 23.3	
	comp=Z,19μm,21.8s,MS5.4,baz=174,slow=33						
JOW				ScP	ScP	12 57 55.4	-0.2
	comp=Z,70nm,1.0s,baz=172,slow=1.8,SNR=10						
GZH	Guangzhou	21.67	325	P	P	12 50 20.6	+1.7
GZH				S	S	12 54 20.4	+2.3
GZH				LR	LR		
	comp=N,15μm,17.4s,MS5.7						
GZH				LR	LR		
	comp=E,19μm,16.5s,MS5.7						
GZH				LR	LR		
	comp=Z,28μm,19.6s,MS5.7						
MYKOM	Kota Tinggi	22.87	262	⇑P	P	12 50 35.3	+3.4
KTGM	Kuala Trenggan	23.25	271	⇓P	P	12 50 38.1	+2.3
KGM	Kluang	23.36	263	⇑P	P	12 50 39.5	+2.5
FITZ	Fitzroy Crossi	23.38	182	*e*P	P	12 50 37.5	+0.4
	comp=Z,688nm,1.0s,mb6.0						
FITZ				*e*S	S	12 54 48.2	-0.8
FITZ				*e*SCP	ScP	12 58 10.3	+9.4
FITZ	Fitzroy Crossi	23.38	182	P	P	12 50 40.1	+3.0
	comp=Z,322nm,1.1s,mb5.7,baz=22,slow=9.7,SNR=53						
FITZ				S	S	12 54 54.8	+5.8
	comp=Z,31nm,1.0s,baz=166,slow=20,SNR=4.8						
FRIM	Kepong	24.88	266	⇓P	P	12 50 53.0	+2.0
PMG	Port Moresby	25.32	125	*e*P	P	12 51 00.8	+5.8
	comp=Z,59nm,1.0s,mb5.1						
PMG				*e*ScP	ScP	12 58 08.1	+1.7
PMG				LR	LR		
	comp=Z,9μm,21.0s,MS5.3						
PMG	Port Moresby	25.32	125	*e*P	P	12 51 00.9	+5.9
PMG				pmax	pmax		
	comp=Z,59nm,1.0s						
PMG				MLR	MLR		
	comp=Z,9μm,21.0s						
PMG	Port Moresby	25.32	125	P	P	12 51 01.6	+6.5
	comp=Z,29nm,1.0s,mb4.8,baz=20,slow=9.0,SNR=8.4						
PMG				ScP	ScP	12 58 08.1	+1.7
	comp=Z,23nm,1.0s,baz=22,slow=5.3,SNR=4.4						
PMG				LR	LR	13 01 52.0	
	comp=Z,9μm,19.9s,MS5.3,baz=282,slow=38						
IPM	Ipoh	25.38	269	⇓P	P	12 50 57.4	+1.8
COEN	Coen	25.39	139	*e*P	P	12 50 57.5	+1.8
	comp=Z,162nm,1.3s,mb5.4						
COEN				*e*ScP	ScP	12 58 09.8	+3.3
KKTK	Khon Kaen	25.61	297	PN	P	12 50 58.5	+0.8
KKTK				PG	P	12 51 03.6	+5.9
KULM	Kulim	25.72	271	*e*P	P	12 51 00.6	+1.9
KULM				*e*PcP	PcP	12 54 30.5	+1.6
KULM				*e*ScP	ScP	12 58 08.7	+1.1
KULM	Kulim	25.72	271	⇑P	P	12 50 59.8	+1.1
SNG	Songkhla	25.77	275	P	P	12 51 01.0	+1.9
	comp=Z,1μm,1.0s,mb6.3						
SSE	Sheshan	26.03	350	P	P	12 51 00.8	-0.4
SSE				S	S	12 55 30.0	-1.3
SSE				AMB	AMB		
	comp=Z,400nm,1.3s,mb5.8						
SSE				AMB	AMB		
	comp=Z,3μm,5.8s						
SSE				LR	LR		
	comp=N,10μm,22.5s,MS5.3						
SSE				LR	LR		
	comp=E,3μm,22.5s,MS5.3						
SSE				LR	LR		
	comp=Z,8μm,20.6s,MS5.2						
SSE	Sheshan	26.03	350	P	P	12 51 00.8	-0.4
	comp=Z,400nm,1.3s,mb5.8						
SSE				sP	sP	12 51 04.9	-4.5
SSE				S	S	12 55 30.0	-1.3
SSE				sS	sS	12 55 36.0	-4.9
SSE				LR	LR		
	comp=Z,8μm,20.6s,MS5.2						
XMIS	Christmas Isla	26.07	233	*e*P	P	12 51 04.0	+2.2
CBIJ	Chichi jima	26.25	33	P	P	12 51 01.4	-1.9
	comp=Z,400nm,0.7s,mb6.1,baz=280,slow=5.2,SNR=13						
CBIJ				LR	LR	13 01 42.0	
	comp=Z,6μm,18.5s,MS5.2,baz=213,slow=37						
WRA	Warramunga Arr	26.35	163	P	P	12 51 09.2	+5.0
WRA				S	S	12 55 39.2	+2.6
WRA				ScP	ScP	12 58 10.5	+1.3
WRA				ScS	ScS	13 01 56.7	-2.8
WRA				*e*		13 23 50.2	
WRA	Warramunga Arr	26.35	163	P	P	12 51 09.2	+4.9
WRA				S	S	12 55 39.2	+2.6
WRA						13 01 56.7	
WRA				pmax	pmax		
	comp=Z,147nm,1.0s						
WRA				smax			
	comp=N,44nm,1.3s						
WRA				pmax	pmax		
	comp=N,23nm,1.0s						
WRA				pmax	pmax		
	comp=N,9.0nm,1.2s						
WRA				pmax	pmax		
	comp=Z,6.0nm,1.0s						
WRA	Warramunga Arr	26.35	163	P	P	12 51 09.2	+5.0
	comp=Z,147nm,1.0s,mb5.5,baz=344,slow=9.9,SNR=113						
WRA				S	S	12 55 39.2	+2.6
	comp=Z,44nm,1.3s,baz=346,slow=15,SNR=5.2						
WRA				ScP	ScP	12 58 10.5	+1.3
	comp=Z,23nm,1.0s,baz=341,slow=2.7,SNR=5.8						
WRA				ScS	ScS	13 01 56.7	-2.8
	comp=Z,9.1nm,1.2s,baz=308,slow=3.3,SNR=3.9						
WRA				P3KPbc		13 23 50.2	
	comp=Z,6.0nm,1.0s,baz=162,slow=3.9,SNR=20						
WB2	Warramunga Arr	26.36	163	⇓*i*P	P	12 51 06.3	+2.0
WB2				*e*S	S	12 55 35.1	-1.6
WB2	Warramunga Arr	26.36	163	*e*P	P	12 51 09.3	+5.0
WB2				*e*S	S	12 55 35.1	-1.6
MBWA	Marble Bar	27.23	194	*e*P	P	12 51 14.8	+2.6
	comp=Z,363nm,1.1s,mb5.8						
MBWA				LR	LR		
	comp=Z,5μm,22.0s,MS5.0						
MBWA	Marble Bar	27.23	194	⇑P	P	12 51 15.2	+3.1
	SNR=34						
NNT	Nongplab	27.35	287	P	P	12 51 15.0	+1.6
NJ2	Nanjing	27.45	346	*e*P	P	12 51 16.5	+2.5
NJ2				AP	pP	12 51 20.8	+1.0
NJ2				XP	sP	12 51 23.6	+1.4
NJ2				PP		12 52 02.5	
NJ2				S	S	12 55 49.0	-4.7
NJ2				AMB	AMB		
	comp=Z,460nm,1.0s,mb6.0						
NJ2				AMB	AMB		
	comp=Z,4μm,8.8s						
NJ2				LR	LR		
	comp=N,14μm,25.9s,MS5.6						
NJ2				LR	LR		
	comp=E,16μm,25.7s,MS5.6						
NJ2				LR	LR		
	comp=Z,16μm,25.7s,MS5.5						
WHN	Wuhan	27.48	337	*e*P	P	12 51 14.8	+0.4
WHN				LR	LR		
	comp=Z,63μm,20.6s,MS6.2						
PSI	Prapat	27.61	266	P	P	12 51 17.4	+1.7
PSI						12 54 33.6	
PSI						13 02 01.7	
PSI				pmax	pmax		
	comp=Z,347nm,0.9s,mb6.0						
PSI				pmax	pmax		
	comp=Z,158nm,1.1s,mb5.6						
PSI				pmax	pmax		
	comp=N,52nm,1.0s						
PSI				pmax	pmax		
	comp=N,9.0nm,0.8s						
PSI				MLR	MLR		
	comp=Z,6μm,19.2s,MS5.2						
PSI	Prapat	27.61	266	P	P	12 51 17.4	+1.7
	comp=Z,347nm,0.9s,mb6.0,baz=84,slow=2.0,SNR=14						
PSI				PcP	PcP	12 54 33.5	+0.2
	comp=Z,158nm,1.1s,baz=178,slow=4.8,SNR=7.0						
PSI				ScP	ScP	12 58 11.2	-2.0
	comp=Z,52nm,1.0s,baz=148,slow=2.9,SNR=13						
PSI				ScS	ScS	13 02 01.6	-3.7
	comp=Z,8.9nm,0.8s,baz=174,slow=22,SNR=8.3						
PSI				LR	LR	13 04 55.8	
	comp=Z,6μm,19.2s,MS5.2,baz=254,slow=43						
JNU	Nakatsue	27.87	8	P	P	12 51 17.8	0.0
	comp=Z,109nm,0.9s,mb5.5,baz=130,slow=6.6,SNR=23						
JNU				ScP	ScP	12 58 12.9	-0.7
	comp=Z,29nm,1.1s,baz=251,slow=1.1,SNR=5.9						
JNU				LR	LR	13 02 37.4	
	comp=Z,6μm,20.6s,MS5.1,baz=309,slow=37						
GYA	Guiyang	28.22	320	⇑*i*P	P	12 51 23.0	+2.0
GYA				AP	pP	12 51 27.8	+1.0
GYA				XP	sP	12 51 30.4	+1.2
GYA				PP	PP	12 52 13.0	-12
GYA				S	S	12 56 06.4	+0.4
GYA				SS		12 57 27.3	
GYA				SCS	ScS	13 02 08.2	+0.6
GYA				AMB	AMB		
	comp=Z,840nm,1.0s,mb6.3						
GYA				AMB	AMB		
	comp=Z,2μm,4.9s						
GYA				LR	LR		
	comp=N,11μm,17.0s,MS5.7						
GYA				LR	LR		
	comp=E,9μm,16.8s,MS5.7						
GYA				LR	LR		
	comp=Z,11μm,16.4s,MS5.5						
BDT	Bhumibol Dam	29.35	296	P	P	12 51 32.0	+0.8
	comp=Z,27nm,1.1s,mb4.9						
ENH	Enshi	29.46	329	PFAKE		12 51 40.0	+8.0
ENH				LR	LR		
	comp=Z,4.0nm,20.0s						
ASAR	Alice Springs	29.80	166	P	P	12 51 37.5	+2.5
ASAR				PcP	PcP	12 54 41.5	+3.1
ASAR				S	S	12 56 33.5	+2.7
ASAR				ScP	ScP	12 58 20.4	+0.7
ASAR				ScS	ScS	13 02 14.8	-0.2
ASAR				*e*		13 23 35.3	
ASAR	Alice Springs	29.80	166	P	P	12 51 37.5	+2.5
ASAR						12 54 41.6	
ASAR				S	S	12 56 33.5	+2.7
ASAR						12 58 20.5	
ASAR						13 02 14.8	
ASAR				pmax	pmax		
	comp=Z,9.0nm,0.5s						
ASAR				pmax	pmax		
	comp=Z,32nm,0.8s						
ASAR				smax			

	comp=N,7.0nm,1.1s						
ASAR				pmax	pmax		
	comp=N,27nm,0.9s						
ASAR				pmax	pmax		
	comp=N,6.0nm,1.1s						
ASAR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ASAR	**Alice Springs**	**29.80**	**166**	P	**P**	**12 51 37.5**	**+2.5**
	comp=Z,8.5nm,0.5s,mb4.7,baz=335,slow=5.3,SNR=63						
ASAR				PcP	PcP	12 54 41.5	+3.1
	comp=Z,32nm,0.8s,baz=343,slow=2.4,SNR=8.0						
ASAR				S	**S**	**12 56 33.5**	**+2.7**
	comp=Z,6.5nm,1.1s,baz=344,slow=14,SNR=2.3						
ASAR				ScP	ScP	12 58 20.4	+0.7
	comp=Z,26nm,0.9s,baz=359,slow=2.8,SNR=8.7						
ASAR				ScS	ScS	13 02 14.8	-0.2
	comp=Z,5.8nm,1.1s,baz=306,slow=3.2,SNR=4.6						
ASAR				P3KPbc		13 23 35.3	
	comp=Z,3.5nm,0.9s,baz=162,slow=3.5,SNR=21						
CM31	**Chiang Mai Arr**	**29.84**	**298**	*e*P	**P**	**12 51 36.8**	**+1.2**
	comp=Z,54nm,0.8s,mb5.3						
CM31				*e*PcP	PcP	12 54 40.3	+1.6
CM31				LR	LR		
	comp=Z,11µm,20.0s,MS5.5						
CHG	**Chiang Mai**	**29.98**	**299**	⇑P	**P**	**12 51 36.9**	**+0.2**
	comp=Z,80nm,1.0s,mb5.4						
CHTO	**Chiang Mai**	**29.98**	**299**	*e*P	**P**	**12 51 36.7**	**0.0**
	comp=Z,46nm,0.8s,mb5.3						
CHTO				*e*PcP	PcP	12 54 40.2	+1.1
CHTO				*e*ScP	ScP	12 58 19.1	-1.4
CHTO				LR	LR		
	comp=Z,11µm,19.0s,MS5.5						
CHTO	**Chiang Mai**	**29.98**	**299**	*e*P	**P**	**12 51 36.7**	**0.0**
CHTO				*e*		12 54 40.2	
CHTO				*e*		12 58 19.2	
CHTO				pmax	pmax		
	comp=Z,46nm,0.8s,mb5.3						
CHTO				MLR	MLR		
	comp=Z,11µm,19.0s,MS5.5						
CHTO	**Chiang Mai**	**29.98**	**299**	P	**P**	**12 51 36.9**	**+0.2**
	SNR=46						
KMI	**Kunming**	**30.04**	**313**	P	**P**	**12 51 37.5**	**+0.3**
KMI				PCP	PcP	12 54 41.1	+1.9
KMI				SCP	ScP	12 58 19.5	-1.1
KMI				SCS	ScS	13 02 16.0	-0.2
KMI				AMB	AMB		
	comp=Z,167nm,1.1s,mb5.7						
KMI				LR	LR		
	comp=N,8µm,19.0s,MS5.5						
KMI				LR	LR		
	comp=E,6µm,19.0s,MS5.5						
KMI				LR	LR		
	comp=Z,23µm,25.6s						
KMI	**Kunming**	**30.04**	**313**	P	**P**	**12 51 37.5**	**+0.3**
	comp=Z,167nm,1.1s,mb5.7						
KMI				pP	pP	12 52 02.1	+19
KMI				PcP	PcP	12 54 41.1	+1.9
KMI				S	**S**	**12 56 19.7**	**-15**
KMI				sS	sS	12 57 07.5	+23
KMI				SS	SS	12 58 02.8	-40
KMI				ScP	ScP	12 58 19.5	-1.1
KMI				PcS	PcS	12 58 25.3	+2.6
KMI				ScS	ScS	13 02 16.0	-0.2
KMI				LR	LR		
	comp=Z,23µm,25.6s,MS5.7						
KMI	**Kunming**	**30.04**	**313**	P	**P**	**12 51 37.5**	**+0.3**
KMI						12 54 41.1	
KMI				S	**S**	**12 56 19.7**	**-15**
KMI				SS	SS	12 58 02.8	-40
KMI						12 58 25.3	
KMI						13 02 16.0	
KMI				pmax	pmax		
	comp=Z,167nm,1.1s,mb5.7						
KMI				MLR	MLR		
	comp=Z,23µm,25.6s,MS5.7						
JHJ	**Hachijo jima 2**	**30.22**	**23**	LR	LR	13 04 34.1	
	comp=Z,11µm,18.4s,MS5.5,baz=57,slow=38						
TIA	**Tai’an**	**31.83**	**346**	*e*P	**P**	**12 51 53.2**	**+0.3**
TIA				S	**S**	**12 57 00.0**	**-2.5**
TIA				AMB	AMB		
	comp=Z,313nm,1.1s,mb6.0						
TIA				AMB	AMB		
	comp=Z,2µm,6.0s						
TIA				LR	LR		
	comp=E,3µm,15.0s						
KS15	**Wonju Array Si**	**31.90**	**2**	*e*P	**P**	**12 51 56.5**	**+3.0**
KS15				*e*ScP	ScP	12 58 26.8	+0.2
KSRS	**Korea Array**	**31.92**	**2**	P	**P**	**12 51 53.9**	**+0.3**
	comp=E,73nm,1.1s,mb5.4,baz=184,slow=9.6,SNR=32						
KSRS				PcP	PcP	12 54 46.4	+2.5
	comp=E,64nm,0.9s,baz=181,slow=2.5,SNR=32						
KSRS				ScP	ScP	12 58 27.1	+0.5
	comp=E,18nm,0.9s,baz=189,slow=3.2,SNR=17						
KSRS				LR	LR	13 06 39.6	
	comp=E,9µm,18.1s,MS5.5,baz=200,slow=40						
INCN	**Inchon**	**31.92**	**0**	*e*P	**P**	**12 51 56.0**	**+2.4**
	comp=E,63nm,0.8s,mb5.5						
INCN				*e*PcP	PcP	12 54 46.2	+2.3
INCN				LR	LR		
	comp=Z,11µm,19.0s,MS5.5						
CTA	**Charters Tower**	**31.94**	**143**	*e*P	**P**	**12 51 57.0**	**+3.0**
	comp=Z,62nm,1.1s,mb5.3						
CTA				*e*S	**S**	**12 57 01.9**	**-2.5**
CTA				*e*SCP	ScP	12 58 29.4	+2.5
CTA	**Charters Tower**	**31.94**	**143**	*e*P	**P**	**12 51 57.0**	**+3.0**
CTA				*e*S	**S**	**12 57 01.9**	**-2.5**
CTA				pmax	pmax		
	comp=Z,62nm,1.1s						
CTAO	**Charters Tower**	**31.94**	**143**	P	**P**	**12 51 56.8**	**+2.8**
CTAO				S	**S**	**12 57 08.0**	**+3.5**
CTAO				ScP	ScP	12 58 29.2	+2.2
CTAO	**Charters Tower**	**31.94**	**143**	*e*P	**P**	**12 51 57.2**	**+3.3**
	comp=Z,119nm,1.1s,mb5.6						
CTAO				*e*ScP	ScP	12 58 29.1	+2.1
CTAO				LR	LR		
	comp=Z,6µm,22.0s,MS5.2						
MAJO	**Matsushiro**	**32.79**	**18**	*e*P	**P**	**12 52 00.4**	**-0.9**
	comp=Z,56nm,0.8s,mb5.5						
MAJO				*e*PcP	PcP	12 54 49.5	+3.2
MAJO				*e*ScP	ScP	12 58 30.0	+0.4
MAJO				LR	LR		
	comp=Z,11µm,21.0s,MS5.5						
MAT	**Matsushiro**	**32.79**	**18**	P	**P**	**12 52 00.0**	**-1.3**
MAT				S	**S**	**12 57 12.8**	**-4.7**
MJAR	**Matsushiro Arr**	**32.79**	**18**	P	**P**	**12 52 00.4**	**-0.9**
MJAR				PcP	PcP	12 54 49.4	+3.1
MJAR				ScP	ScP	12 58 30.2	+0.6
MJAR				LR	LR	13 04 22.2	
MJAR				*e*		13 23 24.5	
MJAR	**Matsushiro Arr**	**32.79**	**18**	P	**P**	**12 52 00.4**	**-0.9**
MJAR						12 54 49.4	
MJAR				pmax	pmax		
	comp=Z,30nm,0.9s						
MJAR				pmax	pmax		
	comp=Z,29nm,0.8s						
MJAR				pmax	pmax		
	comp=N,40nm,1.1s						
MJAR				MLR	MLR		
	comp=Z,11µm,21.8s						
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MJAR	**Matsushiro Arr**	**32.79**	**18**	P	**P**	**12 52 00.4**	**-0.9**
	comp=Z,30nm,0.9s,mb5.2,baz=194,slow=8.3,SNR=49						
MJAR				PcP	PcP	12 54 49.4	+3.1
	comp=Z,29nm,0.8s,baz=181,slow=3.3,SNR=12						
MJAR				ScP	ScP	12 58 30.2	+0.6
	comp=Z,40nm,1.1s,baz=202,slow=3.4,SNR=16						
MJAR				LR	LR	13 04 22.2	
	comp=Z,11µm,21.8s,MS5.5,baz=215,slow=34						
MJAR				P3KPbc		13 23 24.5	
	comp=Z,1.4nm,0.9s,baz=15,slow=5.2,SNR=4.0						
XAN	**Xi’an**	**32.82**	**332**	P	**P**	**12 52 00.1**	**-1.4**
XAN				AP	pP	12 52 03.7	-3.7
XAN				PP	PP	12 53 07.3	-8.6
XAN				S	**S**	**12 57 11.3**	**-6.6**
XAN				AMB	AMB		
	comp=Z,69nm,1.3s,mb5.4						
XAN				LR	LR		
	comp=N,9µm,26.7s,MS5.6						
XAN				LR	LR		
	comp=E,13µm,22.4s,MS5.6						
XAN				LR	LR		
	comp=Z,21µm,26.7s,MS5.7						
CD2	**Chengdu**	**33.16**	**323**	⇑*i*P	**P**	**12 52 03.3**	**-1.3**
CD2				AP	pP	12 52 08.1	-2.3
CD2				XP	sP	12 52 10.5	-2.3
CD2				PCP	PcP	12 54 47.1	-0.3
CD2				S	**S**	**12 57 26.0**	**+2.7**
CD2				XS	sS	12 57 30.5	-2.4
CD2				SS	SS	12 59 21.2	-25
CD2				AMB	AMB		
	comp=Z,230nm,1.1s,mb6.0						
CD2				AMB	AMB		
	comp=Z,2µm,12.0s						
CD2				LR	LR		
	comp=N,20µm,19.0s,MS5.9						
CD2				LR	LR		
	comp=E,14µm,21.4s,MS5.9						
CD2				LR	LR		
	comp=Z,18µm,17.8s,MS5.8						
DL2	**Dalian**	**33.63**	**353**	⇑*i*P	**P**	**12 52 08.7**	**+0.1**
DL2				PCP	PcP	12 54 51.0	+2.4
DL2				S	**S**	**12 57 29.0**	**-1.4**
DL2				SCP	ScP	12 58 31.8	-0.6
DL2				PCS	PcS	12 58 35.6	+1.3
DL2				SCS	ScS	13 02 32.2	-1.4
DL2				AMB	AMB		
	comp=Z,350nm,0.8s,mb6.3						
DL2				AMB	AMB		
	comp=Z,1µm,7.3s						
DL2				LR	LR		
	comp=N,3µm,18.0s,MS5.2						
DL2				LR	LR		
	comp=E,2µm,19.1s,MS5.2						
DL2				LR	LR		
	comp=Z,4µm,17.9s,MS5.2						
PBA	**Port Blair**	**33.92**	**283**	*e*x	x	12 53 04.1	
PBA				AMb	AMB	12 53 05.8	
	comp=Z,331nm,0.4s,mb6.6						
COCO	**West Island**	**34.28**	**239**	PFAKE		12 52 20.0	+5.5
COCO				LR	LR		
	comp=Z,4µm,21.0s,MS5.1						
TIY	**Taiyuan**	**34.61**	**340**	⇑*i*P	**P**	**12 52 16.4**	**-0.7**
TIY				AP	pP	12 52 24.6	+1.6
TIY				S	**S**	**12 57 45.3**	**-0.3**
TIY				SS	SS	12 59 56.4	-20
TIY				LR	LR		
	comp=N,2µm,12.7s,MS5.5						
TIY				LR	LR		
	comp=E,6µm,14.4s,MS5.5						
BJT	**Baijiatuau**	**35.68**	**346**	PcP	PcP	12 54 56.0	+1.5
BJT				ScP	ScP	12 58 39.9	+0.1
BJT	**Baijiatuau**	**35.68**	**346**	*e*P	**P**	**12 52 27.1**	**+0.8**
	comp=E,1µm,1.1s,mb6.8						
BJT				*e*PcP	PcP	12 54 56.6	+2.1
BJT				*e*S	**S**	**12 58 03.6**	**+1.6**
BJT				*e*ScP	ScP	12 58 39.0	-0.8
BJT				LR	LR		
	comp=Z,12µm,20.0s,MS5.7						
BJT	**Baijiatuau**	**35.68**	**346**	*e*P	**P**	**12 52 27.1**	**+0.8**
BJT				*e*		12 54 56.6	
BJT				*e*S	**S**	**12 58 03.6**	**+1.6**
BJT				pmax	pmax		
	comp=Z,1µm,1.1s						
BJT				MLR	MLR		
	comp=Z,12µm,20.0s						
BJI	**Beijing**	**35.70**	**346**	P	**P**	**12 52 26.8**	**+0.3**
BJI				PP	PP	12 53 49.3	+1.5
BJI				PCP	PcP	12 54 56.1	+1.5
BJI				S	**S**	**12 58 00.4**	**-1.9**
BJI				AMB	AMB		
	comp=Z,1µm,1.1s,mb6.7						
BJI				LR	LR		
	comp=N,8µm,19.6s,MS5.5						
BJI				LR	LR		
	comp=E,4µm,19.6s,MS5.5						
BJI				LR	LR		
	comp=Z,9µm,21.1s,MS5.5						
BJI	**Beijing**	**35.70**	**346**	P	**P**	**12 52 26.8**	**+0.3**
	comp=Z,1.0nm,1.1s						
BJI				PP	PP	12 53 49.3	+1.5
BJI				PcP	PcP	12 54 56.1	+1.5
BJI				S	**S**	**12 58 00.4**	**-1.9**
BJI				SS	SS	13 00 38.0	-0.2
BJI				LR	LR		
	comp=Z,9µm,21.1s,MS5.5						
FORT	**Forrest**	**36.02**	**178**	⇑*i*P	**P**	**12 52 31.4**	**+2.1**
	comp=Z,230nm,0.7s,mb6.2						
SNY	**Shenyang**	**36.35**	**356**	⇑P	**P**	**12 52 33.7**	**+1.7**
SNY				AP	pP	12 52 37.4	-0.5
SNY				XP	sP	12 52 40.8	+0.6
SNY				AMB	AMB		
	comp=Z,669nm,1.1s,mb6.5						
SNY				AMB	AMB		
	comp=Z,1µm,10.4s						
SNY				LR	LR		
	comp=N,7µm,19.6s						
SNY				LR	LR		
	comp=Z,8µm,18.6s,MS5.5						
HNR	**Honiara**	**36.46**	**114**	PFAKE		12 52 50.0	+17
HNR				LR	LR		
	comp=Z,5µm,20.0s,MS5.3						
IMP	**Imphal**	**36.69**	**305**	*e*P	**P**	**12 52 33.0**	**-2.2**
IMP				*e*x	x	12 54 58.0	
LZH	**Lanzhou**	**36.94**	**329**	⇑*i*P	**P**	**12 52 37.0**	**-0.1**
LZH				AP	pP	12 52 42.7	-0.3
LZH				XP	sP	12 52 44.7	-0.7
LZH				PCP	PcP	12 55 00.6	+2.2
LZH				*e*S	**S**	**12 58 25.0**	**+3.6**
LZH				XS	sS	12 58 32.0	+0.9
LZH				AMB	AMB		
	comp=Z,323nm,1.5s,mb5.9						
LZH				AMB	AMB		
	comp=Z,1µm,6.0s						
LZH				LR	LR		
	comp=E,14µm,15.6s						
LZH				LR	LR		
	comp=Z,25µm,16.6s,MS6.1						
LZH	**Lanzhou**	**36.94**	**329**	⇑*i*P	**P**	**12 52 37.0**	**-0.1**
	comp=Z,323nm,1.5s,mb5.9						
LZH				pP	pP	12 52 42.7	-0.3
LZH				sP	sP	12 52 44.7	-0.7
LZH				PP	PP	12 54 09.0	+7.5
LZH				PcP	PcP	12 55 00.6	+2.2
LZH				*e*S	**S**	**12 58 25.0**	**+3.6**
LZH				sS	sS	12 58 32.0	+0.9
LZH				SS	SS	13 00 57.2	-6.2
LZH				LR	LR		
	comp=Z,25µm,16.6s,MS6.1						
LZH	**Lanzhou**	**36.94**	**329**	⇑*i*P	**P**	**12 52 37.0**	**-0.1**
LZH				*SP	sP	12 52 44.7	-0.7
LZH						12 55 00.6	
LZH				*e*S	**S**	**12 58 25.0**	**+3.6**
LZH				pmax	pmax		
	comp=Z,323nm,1.5s,mb5.9						
LZH				MLR	MLR		
	comp=Z,25µm,16.6s,MS6.1						
KLBR	**Kellerberrin**	**37.73**	**192**	*e*P	**P**	**12 52 46.0**	**+2.2**
	comp=Z,253nm,1.1s,mb5.9						
KLBR				*e*S	**S**	**12 58 35.3**	**+1.9**
HHC	**Hu-ho-hao-te**	**37.73**	**341**	*e*P	**P**	**12 52 43.8**	**0.0**
HHC				AP	pP	12 52 53.6	+3.9
HHC				XP	sP	12 52 57.6	+5.6
HHC				PP	PP	12 54 12.5	+2.4
HHC				PCP	PcP	12 55 02.5	+1.8
HHC				S	**S**	**12 58 30.6**	**-2.7**
HHC				SCP	ScP	12 58 45.6	-1.8
HHC				XS	sS	12 58 47.1	+4.1
HHC				PCS	PcS	12 58 49.5	+0.3
HHC				SCS	ScS	13 02 52.2	-3.8
HHC				AMB	AMB		
	comp=Z,64nm,1.5s,mb5.1						
HHC				LR	LR		
	comp=N,8µm,20.8s,MS5.6						
HHC				LR	LR		
	comp=E,7µm,21.2s,MS5.6						
HHC				LR	LR		
	comp=Z,9µm,29.2s						
VLA	**Vladivostok**	**37.85**	**6**	*i* P	**P**	**12 52 44.8**	**0.0**
BTO	**Baotou**	**38.03**	**339**	*e*P	**P**	**12 52 45.3**	**-1.0**
CN2	**Changchun**	**38.24**	**359**	*e*P	**P**	**12 52 49.0**	**+1.0**
CN2				*e*XP	sP	12 52 56.0	-0.3
CN2				*e*S	**S**	**12 58 43.1**	**+2.2**
CN2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.3						
CN2				AMB	AMB		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,5µm,20.0s,MS5.4						
CN2				LR	LR		
	comp=E,3µm,20.0s,MS5.4						
CN2				LR	LR		
	comp=Z,6µm,21.0s,MS5.4						
MUN	**Mundaring**	**38.45**	**194**	*e*P	**P**	**12 52 51.7**	**+1.8**
MUN				*e*S	**S**	**12 58 44.9**	**+0.6**
AGT	**Agartala**	**38.55**	**302**	*i* P	**P**	**12 52 51.0**	**+0.1**
AGT				*i* x	x	12 53 25.0	
SHL	**Shillong**	**38.70**	**305**	*e*P	**P**	**12 52 50.3**	**-1.9**
SHL				AMb	AMB	12 54 43.1	
	comp=Z,313nm,0.7s,mb6.1						
EIDS	**Eidsvold**	**38.83**	**143**	*e*P	**P**	**12 52 57.2**	**+4.0**
	comp=Z,27nm,0.7s,mb5.1						
EIDS				*e*		12 58 54.1	
NWAO	**Narrogin (SRO)**	**39.13**	**192**	*e*P	**P**	**12 52 58.4**	**+2.8**
	comp=Z,325nm,1.2s,mb5.9						
NWAO				LR	LR		
	comp=Z,3µm,20.0s,MS5.2						
NWAO	**Narrogin (SRO)**	**39.13**	**192**	*e*P	**P**	**12 52 57.2**	**+1.6**
NWAO				pmax	pmax		
	comp=Z,330nm,1.2s						
MDJ	**Mudanjiang**	**39.14**	**4**	P	**P**	**12 52 57.4**	**+1.8**
MDJ				XP	sP	12 53 02.0	-1.8
MDJ				PCP	PcP	12 55 07.3	+2.3
MDJ				S	**S**	**12 58 53.6**	**-0.9**
MDJ				AMB	AMB		
	comp=Z,400nm,1.2s,mb6.0						
MDJ				AMB	AMB		
	comp=Z,2µm,9.8s						
MDJ				LR	LR		
	comp=N,5µm,27.8s,MS5.4						
MDJ				LR	LR		
	comp=E,6µm,26.6s,MS5.4						
MDJ				LR	LR		
	comp=Z,6µm,21.8s,MS5.4						
MDJ	**Mudanjiang**	**39.14**	**4**	*e*P	**P**	**12 52 57.9**	**+2.4**
	comp=Z,502nm,1.1s,mb6.2						
MDJ				*e*PcP	PcP	12 55 07.4	+2.5
MDJ				*e*S	**S**	**12 58 52.0**	**-2.4**
MDJ				LR	LR		
	comp=Z,7µm,22.0s,MS5.5						
ERM	**Erimo**	**39.35**	**20**	*e*P	**P**	**12 52 59.4**	**+2.1**
	comp=Z,89nm,0.8s,mb5.5						
ERM				LR	LR		
	comp=Z,7µm,19.0s,MS5.5						
ERM	**Erimo**	**39.35**	**20**	*e*P	**P**	**12 52 58.1**	**+0.7**
STKA	**Stephens Creek**	**39.78**	**160**	*e*P	**P**	**12 53 02.8**	**+1.7**
	comp=Z,123nm,0.9s,mb5.6						
STKA				*e*S	**S**	**12 58 57.2**	**-7.2**
STKA	**Stephens Creek**	**39.78**	**160**	P	**P**	**12 53 03.9**	**+2.9**
	comp=Z,69nm,0.7s,mb5.5,baz=336,slow=7.8,SNR=59						
STKA				ScP	ScP	12 58 57.0	+1.6
	comp=Z,18nm,0.8s,baz=354,slow=6.3,SNR=3.8						
ASAJ	**Asahikawa**	**41.07**	**18**	P	**P**	**12 53 12.7**	**+1.1**
	comp=Z,281nm,1.1s,mb5.8,baz=236,slow=15,SNR=44						
ASAJ				LR	LR	13 08 58.6	
	comp=Z,11µm,21.7s,MS5.7,baz=54,slow=34						
LSA	**Lhasa**	**41.16**	**310**	P	**P**	**12 53 14.2**	**+1.6**
LSA				PP	PP	12 54 50.0	+2.2
LSA				S	**S**	**12 59 15.4**	**-10**
LSA				AMB	AMB		
	comp=Z,30nm,1.3s,mb4.8						
LSA				LR	LR		
	comp=N,3µm,21.0s,MS5.5						
LSA				LR	LR		
	comp=E,7µm,25.0s,MS5.5						
LSA				LR	LR		
	comp=Z,8µm,28.0s,MS5.4						
LSA	**Lhasa**	**41.16**	**310**	*e*P	**P**	**12 53 13.5**	**+0.9**
	comp=Z,217nm,1.3s,mb5.6						
LSA				*e*ScP	ScP	12 59 00.8	-0.1
LSA				LR	LR		
	comp=Z,7µm,21.0s,MS5.5						
LSA	**Lhasa**	**41.16**	**310**	*e*P	**P**	**12 53 13.5**	**+0.9**
LSA				pmax	pmax		
	comp=Z,217nm,1.3s,mb5.6						
LSA				MLR	MLR		
	comp=Z,7µm,21.0s,MS5.5						
GTA	**Gaotai**	**41.54**	**328**	⇑P	**P**	**12 53 15.2**	**-0.3**
GTA				AP	pP	12 53 19.6	-1.9
GTA				XP	sP	12 53 22.3	-1.5
GTA				PP	PP	12 54 54.8	+3.1
GTA				PCP	PcP	12 55 12.9	+0.1
GTA				PCS	PcS	12 59 02.6	-1.5
GTA				S	**S**	**12 59 30.8**	**+0.3**
GTA				XS	sS	12 59 38.4	-1.8
GTA				SS	SS	13 02 30.3	-5.3
GTA				SCS	ScS	13 03 15.4	-3.0
GTA				AMB	AMB		
	comp=Z,26nm,1.2s,mb4.7						
GTA				AMB	AMB		
	comp=Z,2µm,6.5s						
GTA				LR	LR		
	comp=N,11µm,21.3s,MS5.8						
GTA				LR	LR		
	comp=E,9µm,22.4s,MS5.8						
GTA				LR	LR		
	comp=Z,14µm,23.6s,MS5.8						
ADE	**Adelaide**	**41.78**	**165**	⇓*i*P	**P**	**12 53 22.0**	**+4.5**
YUK	**Yuzh-Kuril’sk**	**42.07**	**21**	*e*P	**P**	**12 53 22.5**	**+2.7**
YUK				*e*		12 53 33.2	
YUK				*e*S	ScS	13 03 19.0	-2.5
YUK				pmax	pmax		
	comp=Z,190µm,0.5s						
YUK				pmax	pmax		
	comp=N,4µm,3.0s						
YUK				pmax	pmax		
	comp=E,3µm,2.5s						
YUK				smax			
	comp=E,5µm,5.2s						
YUK				smax			
	comp=N,3µm,5.0s						
GTK	**Gangtok**	**42.10**	**305**	*e*P	**P**	**12 53 20.0**	**-0.3**
TAPN	**Taplejung**	**42.84**	**305**	*e*P	**P**	**12 53 26.4**	**0.0**
	comp=N,694nm,1.2s,mb6.3						
ODAN	**Odare**	**42.91**	**304**	*e*P	**P**	**12 53 27.4**	**+0.5**
	comp=N,379nm,0.8s,mb6.2						
BOK	**Bokaro**	**43.11**	**299**	*e*P	**P**	**12 53 29.2**	**+0.6**
BOK				AMb	AMB	12 53 32.0	
	comp=Z,85nm,0.6s,mb5.7						
HABR	**Khabarovsk**	**43.52**	**8**	⇓*i*P	**P**	**12 53 33.1**	**+1.6**
HABR				*e*SP		12 53 47.0	
HABR				*e*		12 55 22.0	
HABR				*e*S	**S**	**12 59 58.9**	**-0.5**
HABR				*e*		13 00 14.3	
HABR				*e*		13 03 30.9	
HABR				pmax	pmax		
	comp=Z,1.0nm,1.6s						
HABR				MLR	MLR		
	comp=Z,8µm,19.7s,MS5.6						
YSS	**Yuzh-Sakhalins**	**43.70**	**16**	*e*P	**P**	**12 53 33.9**	**+0.9**
	comp=Z,253nm,1.1s,mb5.9						
YSS				*e*PcP	PcP	12 55 23.0	+3.2
YSS				*e*ScP	ScP	12 59 11.3	+0.7
YSS				LR	LR		
	comp=Z,6µm,20.0s,MS5.5						
YSS	**Yuzh-Sakhalins**	**43.70**	**16**	⇑*e*P	**P**	**12 53 34.1**	**+1.2**
YSS				*e**SP	sP	12 53 40.0	-1.2
YSS				*e*		12 55 22.6	
YSS				*i* S	**S**	**12 59 56.0**	**-6.0**
YSS				*i* SSS		13 03 26.0	
YSS				pmax	pmax		
	comp=N,140nm,1.1s						
YSS				pmax	pmax		
	comp=Z,250nm,1.1s,mb5.9						
YSS				pmax	pmax		
	comp=E,130nm,1.2s						
YSS				smax			
	comp=N,1µm,12.0s						
YSS				smax			
	comp=E,2µm,12.0s						
YSS				MLR	MLR		
	comp=N,4µm,19.0s,MS5.6						
YSS				MLR	MLR		
	comp=Z,5µm,19.0s,MS5.4						
YSS				MLR	MLR		
	comp=E,5µm,18.0s,MS5.6						
KLR	**Kul’dur**	**43.89**	**5**	⇓*e*P	**P**	**12 53 31.7**	**-2.7**
KLR				*e*S	**S**	**12 59 57.5**	**-7.2**
KLR				*e*		13 03 09.0	
KLR				pmax	pmax		
	comp=N,50nm,1.2s						
KLR				pmax	pmax		
	comp=E,98nm,1.2s						
KLR				pmax	pmax		

	comp=Z,420nm,1.2s,mb6.0						
KLR				pmax	pmax		
	comp=Z,2µm,8.5s						
KLR				MLR	MLR		
	comp=Z,4µm,15.0s,MS5.5						
VIS	**Vishakhapatnam**	**43.90**	**290**	*i* P	**P**	**12 53 33.1**	**-1.9**
VIS				*e*x	x	12 53 57.3	
	comp=Z,255nm,2.2s						
VIS				*i* x	x	13 00 01.4	
HIA	**Hailar**	**44.07**	**354**	*e*P	**P**	**12 53 36.9**	**+1.0**
	comp=Z,392nm,1.1s,mb6.0						
HIA				*e*PcP	PcP	12 55 24.0	+2.9
HIA				*e*ScP	ScP	12 59 12.2	+0.1
HIA				LR	LR		
	comp=Z,10µm,20.0s,MS5.7						
HIA	**Hailar**	**44.07**	**354**	*e*P	**P**	**12 53 36.9**	**+1.0**
HIA				*e*		12 55 24.0	
HIA				pmax	pmax		
	comp=Z,392nm,1.1s						
HIA				MLR	MLR		
	comp=Z,10µm,20.0s						
JIRN	**Jiri**	**44.21**	**305**	*e*P	**P**	**12 53 38.0**	**+0.6**
	comp=Z,236nm,0.7s,mb6.0						
GUN	**Gumba**	**44.56**	**305**	*e*P	**P**	**12 53 39.7**	**-0.5**
	comp=Z,758nm,0.9s,mb6.5						
PKI	**Pulchoki**	**44.81**	**304**	*e*P	**P**	**12 53 42.4**	**+0.2**
	comp=Z,215nm,0.8s,mb6.0						
KKN	**Kakani**	**45.00**	**304**	*e*P	**P**	**12 53 43.0**	**-0.7**
	comp=Z,350nm,0.9s,mb6.2						
DMN	**Daman**	**45.08**	**304**	*e*P	**P**	**12 53 44.7**	**+0.4**
	comp=Z,372nm,0.9s,mb6.2						
ULN	**Ulaanbaatar**	**45.45**	**342**	PFAKE		12 54 00.0	+13
ULN				LR	LR		
	comp=Z,8µm,20.0s,MS5.7						
PALK	**Pallekele**	**45.53**	**275**	*e*P	**P**	**12 53 49.5**	**+1.4**
	comp=Z,29nm,0.9s,mb5.2						
PALK				*e*ScP	ScP	12 59 19.4	+0.5
PALK				LR	LR		
	comp=Z,5µm,21.0s,MS5.4						
GKN	**Gorkha**	**45.61**	**304**	*e*P	**P**	**12 53 48.0**	**-0.5**
	comp=Z,302nm,1.0s,mb6.2						
SONM	**Songino Array**	**45.63**	**341**	P	**P**	**12 53 48.7**	**+0.3**
SONM						12 55 28.7	
SONM				pmax	pmax		
	comp=Z,52nm,1.0s						
SONM				pmax	pmax		
	comp=Z,82nm,0.9s						
SONM				pmax	pmax		
	comp=N,7.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,10µm,21.4s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	**Songino Array**	**45.63**	**341**	P	**P**	**12 53 48.7**	**+0.3**
	comp=Z,52nm,1.0s,mb5.4,baz=165,slow=6.5,SNR=82						
SONM				PcP	PcP	12 55 28.7	+2.2
	comp=Z,82nm,0.9s,baz=156,slow=4.2,SNR=11						
SONM				ScP	ScP	12 59 17.7	-0.9
	comp=Z,6.8nm,0.8s,baz=155,slow=3.5,SNR=4.6						
SONM				LR	LR	13 14 42.1	
	comp=Z,10µm,21.4s,MS5.7,baz=254,slow=38						
SONM				PKPPKP		13 25 16.5	
	comp=Z,0.5nm,0.7s,baz=315,slow=0.6,SNR=3.5						
CNB	**Canberra Magne**	**45.87**	**154**	*e*P	**P**	**12 53 54.4**	**+4.0**
	comp=Z,214nm,1.4s,mb5.9						
MDRS	**Chennai**	**46.21**	**283**	*e*x	x	12 53 56.1	
MDRS				AMb	AMB	12 53 58.4	
	comp=Z,178nm,0.8s,mb6.0						
TOO	**Toolangi**	**46.29**	**159**	⇑*i*P	**P**	**12 53 57.5**	**+3.9**
	comp=Z,76nm,1.2s,mb5.5						
TOO	**Toolangi**	**46.29**	**159**	⇑*i*P	**P**	**12 53 57.5**	**+3.9**
TOO				pmax	pmax		
	comp=Z,76nm,1.2s,mb5.5						
KOLN	**Koldanda**	**46.38**	**304**	*e*P	**P**	**12 53 55.3**	**+0.7**
	comp=Z,578nm,0.8s,mb6.6						
ALBI	**Allahabad**	**47.11**	**300**	*e*P	**P**	**12 54 00.0**	**-0.4**
NOUC	**Port Laguerre**	**47.61**	**126**	*e*P	**P**	**12 54 09.4**	**+5.1**
CIT	**Chita**	**47.68**	**349**	⇑*i*P	**P**	**12 54 05.7**	**+1.4**
CIT				*e*		12 54 20.7	
CIT				*e*		12 55 35.9	
CIT				*e*S	**S**	**13 00 59.3**	**+0.1**
CIT				*e*		13 03 55.8	
CIT				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.7						
DZM	**Mont Dzumac**	**47.71**	**126**	*e*P	**P**	**12 54 09.1**	**+4.0**
DZM	**Mont Dzumac**	**47.71**	**126**	*e*P	**P**	**12 54 09.1**	**+4.0**
JBP	**Jabalpur**	**48.14**	**296**	⇑*i*P	**P**	**12 54 09.1**	**+0.7**
JBP				*e*x	x	12 54 16.5	
	comp=Z,116nm,1.1s						
JBP				*i* S	**S**	**13 01 05.0**	**-1.7**
HYB	**Hyderabad**	**48.34**	**288**	*e*P	**P**	**12 54 10.5**	**+0.5**
	comp=Z,175nm,1.0s,mb6.0						
HYB				*e*		12 54 26.0	
HYB				*e*S	**S**	**13 01 08.0**	**-1.6**
HYB	**Hyderabad**	**48.34**	**288**	*e*P	**P**	**12 54 10.5**	**+0.5**
HYB				*e*		12 54 26.0	
HYB				*e*S	**S**	**13 01 08.0**	**-1.6**
HYB				pmax	pmax		
	comp=Z,175nm,1.0s,mb6.0						
HYB	**Hyderabad**	**48.34**	**288**	*i* P	**P**	**12 54 10.5**	**+0.5**
	comp=Z,175nm,1.0s,mb6.0						
HYB				*e*sP	sP	12 54 20.0	+1.6
HYB				*e*PcP	PcP	12 55 39.0	+2.3
HYB				*e*		12 55 49.5	
HYB				*e*PP	PP	12 56 04.0	+1.3
HYB				*e*S	**S**	**13 01 06.0**	**-3.6**
HYB				*e*ScS	ScS	13 03 52.0	-11
NGP	**Nagpur**	**48.53**	**293**	*e*P	**P**	**12 54 09.4**	**-2.1**
NGP				AMb	AMB	12 54 30.2	
	comp=Z,255nm,1.6s,mb6.0						
NGP				*e*x	x	13 01 06.7	
KOD	**Kodaikanal**	**48.76**	**279**	*e*x	x	12 54 16.1	
KOD				AMb	AMB	12 54 19.8	
	comp=Z,226nm,1.1s,mb6.1						
ZAK	**Zakamensk**	**48.87**	**340**	*i* P	**P**	**12 54 13.0**	**-0.5**
ZAK				*e*		12 55 37.4	
ZAK				pmax	pmax		
	comp=Z,43nm,1.6s,mb5.2						
ZAK				pmax	pmax		
	comp=Z,89nm,1.2s,mb5.7						
TRD	**Trivandrum**	**49.23**	**277**	*e*P	**P**	**12 54 18.0**	**+1.0**
TRD				AMb	AMB	12 54 21.3	
	comp=Z,118nm,0.8s,mb6.0						
LGTI	**Lohaghat**	**49.73**	**304**	*e*P	**P**	**12 54 20.0**	**-0.5**
TLY	**Talaya**	**49.86**	**342**	*e*P	**P**	**12 54 22.0**	**+0.9**
	comp=Z,230nm,1.3s,mb6.0						
TLY				*e*ScP	ScP	12 59 36.6	+0.2
TLY				*e*S	**S**	**13 01 32.8**	**+2.7**
TLY				LR	LR		
	comp=Z,6µm,21.0s,MS5.6						
TLY	**Talaya**	**49.86**	**342**	*e*P	**P**	**12 54 21.4**	**+0.3**
TLY				*e*		12 54 32.4	
TLY				*e*		12 56 18.7	
TLY				*e*PPP		12 57 06.2	
TLY				*e*S	**S**	**13 01 31.4**	**+1.4**
TLY				*e*		13 04 08.4	
TLY				*e*SSS		13 06 25.9	
TLY				pmax	pmax		
	comp=Z,200µm,1.7s						
TLY				MLR	MLR		
	comp=Z,6µm,21.0s,MS5.6						
TLY	**Talaya**	**49.86**	**342**	⇓P	**P**	**12 54 21.6**	**+0.5**
	SNR=99						
IRK	**Irkutsk**	**50.16**	**342**	*e*P	**P**	**12 54 24.3**	**+0.9**
IRK				*e*S	**S**	**13 01 37.8**	**+3.7**
IRK				pmax	pmax		
	comp=Z,431nm,1.7s,mb6.2						
AKL	**Akola**	**50.31**	**292**	*e*P	**P**	**12 54 25.3**	**+0.3**
AKL				*e*x	x	12 54 45.5	
	comp=Z,688nm,1.1s						
AKL				*i* x	x	13 00 24.6	
LATR	**Latur**	**50.36**	**289**	*e*x	x	12 54 17.6	
BHPL	**Bhopal**	**50.44**	**296**	*e*P	**P**	**12 54 27.1**	**+1.0**
BHPL				AMb	AMB	12 54 32.8	
	comp=Z,135nm,0.9s,mb6.0						
MOY	**Mondy**	**50.73**	**340**	*e*P	**P**	**12 54 28.0**	**+0.3**
MOY				pmax	pmax		
	comp=Z,542nm,1.1s,mb6.4						
NRGR	**Nerungri**	**51.12**	**359**	*e*P	**P**	**12 54 33.7**	**+3.2**
NRGR				S	**S**	**13 01 49.0**	**+1.7**
NRGR				smax			
	comp=E,83nm,1.1s						
WMQ	**Urumqi**	**51.22**	**324**	P	**P**	**12 54 31.4**	**-0.1**
WMQ				AP	pP	12 54 35.9	-1.6
WMQ				XP	sP	12 54 38.4	-1.5
WMQ				PCP	PcP	12 55 47.6	+0.9
WMQ				PP	PP	12 56 28.8	+0.3
WMQ				S	**S**	**13 01 46.7**	**-2.4**
WMQ				SCS	ScS	13 04 18.5	-2.7
WMQ				SS	SS	13 05 19.4	-5.4
WMQ				AMB	AMB		
	comp=Z,129nm,1.0s,mb5.8						
WMQ				AMB	AMB		
	comp=Z,1µm,9.6s						
WMQ				LR	LR		
	comp=N,13µm,24.5s,MS6.0						
WMQ				LR	LR		
	comp=E,11µm,26.0s,MS6.0						
WMQ				LR	LR		
	comp=Z,13µm,26.0s,MS5.8						
CLNS	**Chul'man**	**51.30**	**359**	⇑*i*P	**P**	**12 54 32.5**	**+0.6**
CLNS				*e**PP	pP	12 54 39.6	+1.7
CLNS				*e*		12 55 47.6	
CLNS				*e*S	**S**	**13 01 48.1**	**-1.7**
CLNS				*e*SS	SS	13 05 17.4	-8.1
CLNS				pmax	pmax		
	comp=N,163nm,1.2s						
CLNS				pmax	pmax		
	comp=Z,279nm,1.2s,mb6.1						
CLNS				pmax	pmax		
	comp=E,68nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.3						
CLNS				pmax	pmax		
	comp=N,28nm,0.8s						
CLNS				pmax	pmax		
	comp=E,70nm,1.1s						
CLNS				smax			
	comp=E,1µm,13.0s						
CLNS				smax			
	comp=Z,549nm,12.5s						
CLNS				smax			
	comp=N,677nm,11.9s						
CLNS				MLR	MLR		
	comp=Z,5µm,18.0s,MS5.6						
CLNS				MLR	MLR		
	comp=N,1µm,17.0s,MS5.5						
CLNS				MLR	MLR		
	comp=E,4µm,17.0s,MS5.5						
MNGI	**Mangalore**	**51.47**	**282**	*i* P	**P**	**12 54 34.6**	**+0.8**
MNGI				AMb	AMB	12 54 38.0	
	comp=Z,81nm,1.0s,mb5.6						
MNGI				*i* S	**S**	**13 01 51.3**	**-2.1**
SKR	**Severo-Kuril's**	**51.48**	**24**	P	**P**	**12 54 30.0**	**-3.3**
SKR				*e*		12 56 28.0	
SKR				S	**S**	**13 01 48.0**	**-4.4**
SKR				*e*SS	SS	13 05 32.0	+3.4
SKR				pmax	pmax		
	comp=N,130nm,1.0s						
SKR				pmax	pmax		
	comp=E,130nm,1.0s						
SKR				pmax	pmax		
	comp=Z,180nm,1.0s,mb6.0						
SKR				pmax	pmax		
	comp=N,1µm,16.0s						
SKR				pmax	pmax		
	comp=Z,2µm,16.0s						
SKR				smax			
	comp=N,400nm,16.0s						
SKR				smax			
	comp=E,4µm,16.0s						
SKR				MLR	MLR		
	comp=N,2µm,20.0s,MS5.4						
SKR				MLR	MLR		
	comp=E,3µm,20.0s,MS5.4						
SKR				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.3						
TAU	**Tasmania Unive**	**51.68**	**161**	*e*P	**P**	**12 54 38.8**	**+3.9**
	comp=Z,142nm,1.3s,mb5.7						
TAU				LR	LR		
	comp=Z,5µm,19.0s,MS5.5						
DDI	**Dehra Dun**	**51.81**	**305**	*e*P	**P**	**12 54 36.0**	**-0.2**
NDI	**New Delhi**	**52.01**	**302**	*e*P	**P**	**12 54 36.5**	**-1.2**
NDI				AMb	AMB	12 54 39.7	
	comp=Z,169nm,0.8s,mb6.0						
NDI				*e*x	x	13 02 00.0	
KAD	**Karad**	**52.46**	**288**	*e*P	**P**	**12 54 42.3**	**+1.1**
KAD				AMb	AMB	12 54 45.9	
	comp=Z,125nm,0.9s,mb5.8						
POO	**Poona**	**52.92**	**289**	*e*P	**P**	**12 54 44.4**	**-0.3**
POO				AMb	AMB	12 54 49.3	
	comp=Z,127nm,0.7s,mb5.9						
SDNR	**Sundarnagar**	**53.07**	**306**	*e*P	**P**	**12 54 46.4**	**+0.9**
BOD	**Bodaibo**	**53.17**	**352**	⇑*i*P	**P**	**12 54 47.0**	**+1.2**
BOD				pmax	pmax		
	comp=Z,549nm,1.3s,mb6.3						
BHK	**Bhakra**	**53.49**	**305**	*e*x	**P**	**12 54 45.0**	**-3.6**
AJM	**Ajmer**	**53.64**	**299**	*e*P	**P**	**12 54 49.5**	**-0.3**
AJM				AMb	AMB	12 54 54.4	
	comp=Z,113nm,1.5s,mb5.6						
DLH	**Dalhousie**	**54.21**	**307**	*e*P	**P**	**12 54 53.0**	**-0.9**
DLH				*e*x	x	12 54 58.0	
PET	**Petropavlovsk**	**54.28**	**23**	*e*P	**P**	**12 54 55.0**	**+1.0**
	comp=Z,228nm,1.2s,mb6.0						
PET				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
PET	**Petropavlovsk**	**54.28**	**23**α	*i*P	**P**	**12 54 55.0**	**+1.0**
PET				*i* S	**S**	**13 02 28.6**	**-2.1**
PET				*e*PS		13 02 48.8	
PET				*e*SS	SS	13 06 08.8	-4.0
PET				pmax	pmax		
	comp=Z,2µm,17.6s						
PET				pmax	pmax		
	comp=Z,209nm,1.6s,mb5.8						
PET				pmax	pmax		
	comp=Z,1µm,10.6s						
PET				smax			
	comp=N,2µm,11.1s						
PET				smax			
	comp=N,2µm,7.6s						
PET				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
FUNA	**Funafuti**	**54.35**	**104**	PFAKE		12 55 10.0	+15
FUNA				LR	LR		
	comp=Z,11µm,22.0s,MS5.9						
THN	**Thein Dam**	**54.37**	**306**	*e*P	**P**	**12 54 53.0**	**-2.1**
THN				*e*S	**S**	**13 02 28.1**	**-4.5**
MK31	**Makanchi Array**	**56.05**	**325**	*e*P	**P**	**12 55 06.1**	**-0.7**
MK31				*e*ScP	ScP	13 00 01.8	-1.6
MKAR	**Makanchi Array**	**56.05**	**325**	P	**P**	**12 55 06.8**	**-0.1**
MKAR				PcP	PcP	12 56 06.8	+1.8
MKAR				ScP	ScP	13 00 01.6	-1.8
MKAR				LR	LR	13 20 11.0	
MKAR				P'P'		13 25 08.2	
MKAR	**Makanchi Array**	**56.05**	**325**	P	**P**	**12 55 06.8**	**-0.1**
	comp=Z,36nm,0.5s,mb5.7,baz=120,slow=7.5,SNR=187						
MKAR				PcP	PcP	12 56 06.8	+1.8
	comp=Z,60nm,0.8s,baz=116,slow=4.2,SNR=6.6						
MKAR				ScP	ScP	13 00 01.6	-1.8
	comp=Z,20nm,0.8s,baz=118,slow=4.8,SNR=9.2						
MKAR				LR	LR	13 20 11.0	
	comp=Z,9µm,21.9s,MS5.8,baz=115,slow=37						
MKAR				PKPPKP		13 25 08.2	
	comp=Z,2.4nm,1.0s,baz=286,slow=1.8,SNR=6.1						
MKAR				P4KPbc		13 32 23.4	
	comp=Z,2.1nm,0.8s,baz=106,slow=4.6,SNR=22						
YAK	**Yakutsk**	**56.54**	**2**	*e*P	**P**	**12 55 10.3**	**+0.2**
	comp=Z,668nm,0.9s,mb6.7						
YAK				*e*ScP	ScP	13 00 05.1	-0.2
YAK				LR	LR		
	comp=Z,5µm,22.0s,MS5.6						
YAK	**Yakutsk**	**56.54**	**2**	*e*P	**P**	**12 55 10.1**	**0.0**
YAK				*e**PP	pP	12 55 19.1	+2.9
YAK				*e*		12 56 08.8	
YAK				*e*		12 57 15.1	
YAK				*e*S	**S**	**13 02 52.5**	**-8.1**
YAK				*e**SS	sS	13 03 13.1	+2.5
YAK				*e*		13 04 55.5	
YAK				*e*SS	SS	13 06 47.4	-0.7
YAK				*e*SSS		13 09 00.0	
YAK				pmax	pmax		
	comp=N,269nm,1.0s						
YAK				pmax	pmax		
	comp=Z,624nm,1.0s,mb6.6						
YAK				pmax	pmax		
	comp=E,121nm,1.5s						
YAK				pmax	pmax		
	comp=Z,213nm,1.6s,mb5.9						
YAK				pmax	pmax		
	comp=N,525nm,6.2s						
YAK				pmax	pmax		
	comp=E,327nm,6.2s						
YAK				smax			
	comp=N,4µm,15.7s						
YAK				smax			
	comp=Z,2µm,14.3s						
YAK				smax			
	comp=E,666nm,4.3s						
MA2	**Magadan**	**57.14**	**14**	*e*P	**P**	**12 55 14.9**	**+0.5**
	comp=E,239nm,1.4s,mb6.0						
MA2				*e*ScP	ScP	13 00 08.4	+0.4
MA2				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
MA2	**Magadan**	**57.14**	**14***c*	*i*P	**P**	**12 55 14.8**	**+0.4**
MA2				pmax	pmax		
	comp=Z,312nm,2.2s,mb6.0						
MA2				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.4						
BHJ	**Bhuj**	**57.47**	**294**	*e*P	**P**	**12 55 16.7**	**-0.7**
BHJ				AMb	AMB	12 55 21.0	
	comp=Z,203nm,1.3s,mb6.0						
KZA	**Kyzart**	**58.22**	**317**	P	**P**	**12 55 22.9**	**+0.5**
	SNR=118						
TKM2	**Tokmak 2**	**58.34**	**318**	P	**P**	**12 55 22.7**	**-0.5**
	SNR=68						
TKM2	**Tokmak 2**	**58.34**	**318**	*e*P	**P**	**12 55 22.4**	**-0.8**
	comp=Z,142nm,1.2s,mb5.9						
TKM2				LR	LR		
	comp=Z,5µm,20.0s,MS5.7						
TKM2	**Tokmak 2**	**58.34**	**318**	*e*P	**P**	**12 55 22.4**	**-0.7**
TKM2				pmax	pmax		
	comp=Z,142nm,1.2s,mb5.9						
TKM2				MLR	MLR		
	comp=Z,5µm,20.0s,MS5.7						
KBK	**Karagaybulak**	**58.66**	**317**	P	**P**	**12 55 25.3**	**-0.1**
	SNR=38						
UCH	**Uchtor**	**58.78**	**317**	P	**P**	**12 55 26.7**	**+0.4**
	SNR=198						
UCH	**Uchtor**	**58.78**	**317**	*e*P	**P**	**12 55 26.5**	**+0.3**
	comp=Z,326nm,1.3s,mb6.2						
UCH				*e*		12 55 42.0	
UCH				*e*ScP	ScP	13 00 14.8	-0.8
UCH				LR	LR		
	comp=Z,8µm,20.0s,MS5.9						
CHMS	**Chumysh**	**58.93**	**318**	P	**P**	**12 55 26.4**	**-0.8**
	SNR=30						
FRU	**Bishkek**	**58.96**	**318**	⇑*e*P	**P**	**12 55 26.0**	**-1.5**
FRU				*e*		12 55 39.0	
FRU				*e*		13 03 52.0	
FRU				pmax	pmax		
	comp=Z,110nm,1.9s,mb5.6						
FRU				MLR	MLR		
	comp=N,9µm,22.3s,MS6.0						
FRU				MLR	MLR		
	comp=E,8µm,22.3s,MS6.0						
FRU				MLR	MLR		
	comp=Z,9µm,22.3s,MS5.8						
AAK	**Ala-Archa**	**58.96**	**317**	P	**P**	**12 55 26.7**	**-0.8**
	comp=Z,261nm,1.0s,mb6.2,SNR=31						
AAK	**Ala-Archa**	**58.96**	**317**	P	**P**	**12 55 27.3**	**-0.2**
	SNR=33						
AAK	**Ala-Archa**	**58.96**	**317**	*e*P	**P**	**12 55 26.1**	**-1.4**
	comp=Z,60nm,1.0s,mb5.6						
AAK				LR	LR		
	comp=Z,6µm,19.0s,MS5.8						
AAK	**Ala-Archa**	**58.96**	**317**	⇑*i*P	**P**	**12 55 26.1**	**-1.4**
AAK				pmax	pmax		
	comp=Z,78nm,1.5s,mb5.5						
AAK				MLR	MLR		
	comp=Z,17µm,22.0s,MS6.1						
AAK	**Ala-Archa**	**58.96**	**317**	⇓P	**P**	**12 55 26.6**	**-0.9**
	SNR=32						
ZALV	**Zalesovo Beam**	**58.99**	**333**	P	**P**	**12 55 27.3**	**-0.2**
ZALV				PcP	PcP	12 56 17.5	+1.2
ZALV				LR	LR	13 22 25.9	
ZALV				⇑*e*		13 25 13.3	
ZALV	**Zalesovo Beam**	**58.99**	**333**	P	**P**	**12 55 27.3**	**-0.2**
	comp=Z,21nm,0.5s,mb5.4,baz=112,slow=6.6,SNR=74						
ZALV				PcP	PcP	12 56 17.5	+1.2
	comp=Z,73nm,1.1s,baz=134,slow=6.4,SNR=4.0						
ZALV				LR	LR	13 22 25.9	
	comp=Z,4µm,21.0s,MS5.5,baz=133,slow=38						
ZALV				PKP2bc		13 25 13.3	
	comp=Z,13nm,1.1s,baz=304,slow=2.7,SNR=6.5						
ZALV				P4KPbc		13 32 34.9	
	comp=Z,0.3nm,0.3s,baz=108,slow=4.8,SNR=5.1						
ZAL	**Zalesovo**	**58.99**	**333**	P	**P**	**12 55 27.3**	**-0.2**
ZAL						12 56 17.5	
USP	**Ospenovka**	**59.21**	**318**	P	**P**	**12 55 28.5**	**-0.7**
	SNR=72						
AML	**Almayashu**	**59.30**	**316**	P	**P**	**12 55 30.1**	**+0.2**
	SNR=133						
AML	**Almayashu**	**59.30**	**316**	*e*P	**P**	**12 55 29.9**	**0.0**
	comp=Z,210nm,1.1s,mb6.1						
AML				*e*ScP	ScP	13 00 17.0	-1.0
AML				LR	LR		
	comp=Z,11µm,22.0s,MS6.0						
EKS2	**Erkin-Say**	**59.45**	**317**	P	**P**	**12 55 30.5**	**-0.4**
	SNR=81						
EKS2	**Erkin-Say**	**59.45**	**317**	*e*P	**P**	**12 55 30.7**	**-0.2**
	comp=Z,198nm,1.3s,mb6.0						
EKS2				LR	LR		
	comp=Z,9µm,22.0s,MS5.8						
KURK	**Kurchatov**	**60.20**	**327**	*e*P	**P**	**12 55 34.6**	**-1.3**
	comp=Z,465nm,1.0s,mb6.5						
KURK				LR	LR		
	comp=Z,6µm,22.0s,MS5.7						
KURK	**Kurchatov**	**60.20**	**327**	⇑*i*P	**P**	**12 55 34.7**	**-1.2**
KURK	**Kurchatov**	**60.20**	**327**	⇑P	**P**	**12 55 35.2**	**-0.7**
	SNR=234						
NVS	**Novosibirsk**	**60.27**	**333**	⇑*i*P	**P**	**12 55 34.4**	**-1.9**
NVS				*i*		12 56 21.3	
NVS				*e*S	**S**	**13 03 50.0**	**+0.6**
NVS				*i*		13 05 19.3	
NVS				pmax	pmax		
	comp=Z,440nm,1.5s,mb6.3						
NVS				pmax	pmax		
	comp=N,432nm,1.6s						
NVS				pmax	pmax		
	comp=E,342nm,1.6s						
NVS				smax			
	comp=N,116nm,2.3s						
NVS				smax			
	comp=E,100nm,2.4s						
KBL	**Kabul**	**60.32**	**307**	*e*P	**P**	**12 55 36.2**	**-0.8**
	comp=E,111nm,0.8s,mb5.9						
SEY	**Seymchan**	**60.46**	**13**	*e*P	**P**	**12 55 38.4**	**+1.0**
SMY	**Shemya**	**61.15**	**31**	PFAKE		12 55 50.0	+7.7
SMY				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
SNZO	**South Karori**	**64.02**	**141**	PFAKE		12 56 20.0	+18
SNZO				LR	LR		
	comp=Z,4µm,20.0s,MS5.6						
AFI	**Afiamalu**	**64.19**	**108**	PFAKE		12 56 20.0	+17
AFI				LR	LR		
	comp=Z,4µm,22.0s,MS5.6						
ADK	**Adak**	**65.72**	**35**	*e*P	**P**	**12 56 14.8**	**+2.2**
	comp=Z,81nm,0.8s,mb5.8						
ADK				LR	LR		
	comp=Z,7µm,22.0s,MS5.8						
ADK	**Adak**	**65.72**	**35**	*e*P	**P**	**12 56 14.8**	**+2.2**
ADK				pmax	pmax		
	comp=Z,81nm,0.8s,mb5.8						
ADK				MLR	MLR		
	comp=Z,7µm,22.0s,MS5.8						
BRVK	**Borovoye**	**65.86**	**327**	*e*P	**P**	**12 56 12.4**	**-1.0**
	comp=Z,511nm,1.1s,mb6.5						
BRVK				LR	LR		
	comp=Z,7µm,20.0s,MS5.8						
BRVK	**Borovoye**	**65.86**	**327**	⇑P	**P**	**12 56 12.8**	**-0.7**
	SNR=156						
TIXI	**Tiksi**	**66.17**	**1**	*e*P	**P**	**12 56 14.7**	**-0.5**
	comp=Z,392nm,1.0s,mb6.4						
TIXI				*e*PP	PP	12 58 38.6	-2.2
TIXI				*e*S	S	13 04 56.5	-6.1
TIXI				LR	LR		
	comp=Z,7µm,21.0s,MS5.8						
TIXI	**Tiksi**	**66.17**	**1**	*e*P	**P**	**12 56 13.8**	**-1.3**
TIXI				*e*		12 58 39.5	
TIXI				*e*PPP		13 00 12.7	
TIXI				*e*S	S	13 04 53.7	-9.0
TIXI				*e*SS	SS	13 09 16.0	-2.6
TIXI				pmax	pmax		
	comp=N,201nm,1.4s						
TIXI				pmax	pmax		
	comp=E,98nm,1.4s						

TIXI				pmax	pmax		
	comp=Z,639nm,1.4s,mb6.5						
TIXI				pmax	pmax		
	comp=Z,878nm,8.3s						
TIXI				smax			
	comp=N,2µm,13.1s						
TIXI				smax			
	comp=E,2µm,10.9s						
TIXI				MLR	MLR		
	comp=Z,5µm,18.0s,MS5.7						
WBK	**Wadi Bani Khal**	**67.19**	**292**	⇑P	**P**	**12 56 21.9**	**-0.7**
	SNR=6.7						
JMDO	**Jabal Madar**	**67.98**	**292**	⇑P	**P**	**12 56 26.1**	**-1.4**
	SNR=12						
BILL	**Bilibino**	**68.00**	**15**	*e*P	**P**	**12 56 26.8**	**0.0**
	comp=Z,190nm,1.5s,mb5.9						
BILL				LR	LR		
	comp=Z,4µm,21.0s,MS5.6						
BILL	**Bilibino**	**68.00**	**15**	c *i*P	**P**	**12 56 26.7**	**-0.1**
BILL				*e*		12 58 56.9	
BILL				*i* S	S	13 05 21.9	-2.9
BILL				*i* SS	SS	13 09 51.3	+4.3
BILL				pmax	pmax		
	comp=Z,199nm,1.8s,mb5.8						
BIDO	**Bidbid**	**68.02**	**293**	⇑P	**P**	**12 56 27.1**	**-0.7**
	SNR=15						
SMDO	**Samad**	**68.07**	**293**	⇑P	**P**	**12 56 25.7**	**-2.4**
	SNR=5.3						
HOQ	**Hoqain**	**68.78**	**293**	⇓P	**P**	**12 56 30.8**	**-1.7**
	SNR=10						
BSY	**Bisya**	**68.83**	**292**	⇑P	**P**	**12 56 32.2**	**-0.7**
	SNR=7.6						
ABKT	**Ailbek**	**69.66**	**308**	P	**P**	**12 56 37.4**	**-0.3**
	comp=Z,870nm,1.2s,mb6.6,SNR=33						
VAN	**Vannovskaya**	**69.67**	**308**	*e*P	**P**	**12 56 37.0**	**-0.8**
HATD	**Hatta, Dubai**	**69.92**	**294**	⇑P	**P**	**12 56 37.8**	**-1.8**
	SNR=7.9						
ASHO	**Ashiyiah**	**69.98**	**294**	⇑P	**P**	**12 56 38.7**	**-1.3**
	SNR=7.6						
SHAO	**Shalim**	**70.16**	**287**	⇓P	**P**	**12 56 41.2**	**0.0**
	SNR=6.4						
RBK	**Rabkut**	**71.51**	**287**	⇓P	**P**	**12 56 47.6**	**-1.8**
	SNR=16						
MSEY	**Mahe Island**	**71.62**	**263**	PFAKE		12 57 00.0	+10
MSEY				LR	LR		
	comp=Z,5µm,22.0s,MS5.7						
WHFO	**Wadi Hawf**	**71.92**	**287**	⇑P	**P**	**12 56 49.6**	**-2.2**
	SNR=49						
UNV	**Unalaska Valle**	**72.19**	**35**	*e*P	**P**	**12 56 53.5**	**+0.7**
	comp=Z,90nm,0.8s,mb5.8						
UNV				LR	LR		
	comp=Z,15µm,22.0s,MS6.2						
AKTK	**Aktyubinsk**	**72.20**	**321**	P	**P**	**12 56 51.8**	**-1.2**
AKTK				LR	LR	13 32 03.1	
AKTO	**Aktyubinsk**	**72.20**	**321**	P	**P**	**12 56 51.8**	**-1.1**
AKTO				pmax	pmax		
	comp=Z,73nm,0.8s,mb5.7						
AKTO				MLR	MLR		
	comp=Z,7µm,20.2s,MS6.0						
AKTO	**Aktyubinsk**	**72.20**	**321**	P	**P**	**12 56 51.8**	**-1.2**
	comp=Z,73nm,0.8s,mb5.7,baz=99,slow=7.3,SNR=108						
AKTO				LR	LR	13 32 03.1	
	comp=Z,7µm,20.2s,MS6.0,baz=107,slow=39						
ABTO	**Aybut**	**72.38**	**286**	⇓P	**P**	**12 56 52.8**	**-1.8**
	SNR=33						
SVE	**Sverdlovsk**	**72.41**	**328**	⇑*e*P	**P**	**12 56 53.0**	**-1.0**
SVE				*e*		13 06 12.0	
SVE				*e*PS		13 06 54.0	
SVE				pmax	pmax		
	comp=Z,540nm,1.2s,mb6.3						
SVE				MLR	MLR		
	comp=N,2µm,20.0s,MS5.7						
SVE				MLR	MLR		
	comp=E,4µm,20.0s,MS5.7						
SVE				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.9						
CASY	**Casey**	**72.45**	**187**	*e*P	**P**	**12 56 56.0**	**+2.0**
CASY				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
DRV	**Dumont d'Urvil**	**72.56**	**174**	P	**P**	**12 56 59.0**	**+4.3**
DRV				S	S	13 06 23.0	+5.0
DRV				SS	SS	13 11 03.0	+5.6
DRV				R		13 21 00.0	
AKUT	**Akutan**	**72.68**	**35**	*e*P	**P**	**12 56 58.0**	**+2.3**
	comp=Z,129nm,0.8s,mb5.9						
GAMB	**Gambell**	**72.97**	**24**	*e*P	**P**	**12 56 57.8**	**+0.6**
	comp=Z,82nm,1.1s,mb5.6						
ARU	**Arti**	**73.39**	**328**	P	**P**	**12 56 58.3**	**-1.6**
	comp=Z,885nm,0.7s,mb6.8,SNR=49						
ARU	**Arti**	**73.39**	**328**	*e*P	**P**	**12 56 58.3**	**-1.5**
	comp=Z,88nm,0.6s,mb5.9						
ARU				LR	LR		
	comp=Z,4µm,21.0s,MS5.7						
ARU	**Arti**	**73.39**	**328**	⇑*i*P	**P**	**12 56 58.3**	**-1.6**
ARU				*e*		12 57 14.6	
ARU				*e*S	S	13 06 21.3	-6.7
ARU				pmax	pmax		
	comp=Z,272nm,1.7s,mb5.9						
ARU				MLR	MLR		
	comp=Z,4µm,22.0s,MS5.7						
ARU				MLR	MLR		
	comp=N,1µm,19.0s,MS5.6						
ARU				MLR	MLR		
	comp=E,3µm,22.0s,MS5.6						
KIP	**Kipapa**	**74.56**	**69**	PFAKE		12 57 20.0	+13
KIP				LR	LR		
	comp=Z,4µm,21.0s,MS5.6						
KIP	**Kipapa**	**74.56**	**69**	*e*P	**P**	**12 57 10.7**	**+3.3**
HON	**Honolulu**	**74.57**	**69**	*e*P	**P**	**12 57 08.2**	**+0.8**
SOKR	**Solikamsk**	**75.14**	**330**	c *i*P	**P**	**12 57 10.2**	**+0.2**
SOKR				S	S	13 06 48.7	+1.3
SOKR				SSS		13 14 52.5	
SOKR				pmax	pmax		
	comp=Z,150nm,1.1s,mb5.8						
SOKR				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.9						
TNA	**Tin City**	**75.14**	**23**	*e*P	**P**	**12 57 11.3**	**+1.4**
TNA				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
SDPT	**Sand Point**	**75.95**	**34**	*e*P	**P**	**12 57 15.2**	**+0.5**
POHA	**Pohakuloa**	**76.89**	**71**	PFAKE		12 57 30.0	+9.2
POHA				LR	LR		
	comp=Z,5µm,21.0s,MS5.8						
RAR	**Rarotonga**	**76.92**	**113**	PFAKE		12 57 40.0	+19
RAR				LR	LR		
	comp=Z,2.0nm,19.0s						
QRN	**Al-Qurain**	**77.40**	**298**	*e*P	**P**	**12 57 21.8**	**-1.7**
QRN				AMb	AMB	12 57 28.0	
	comp=Z,229nm,0.9s,mb6.1						
UMR	**Umm Al-Rimmam**	**77.59**	**299**	*e*P	**P**	**12 57 22.2**	**-2.4**
UMR				AMb	AMB	12 57 26.1	
	comp=Z,222nm,1.1s,mb6.0						
RDF	**Al-Radifah**	**77.73**	**298**	*e*P	**P**	**12 57 22.7**	**-2.6**
RDF				AMb	AMB	12 57 28.1	
	comp=Z,238nm,1.1s,mb6.0						
MIB	**Mutribah**	**77.92**	**299**	*e*P	**P**	**12 57 24.2**	**-2.2**
MIB				AMb	AMB	12 57 27.7	
	comp=Z,224nm,1.0s,mb6.0						
NAY	**Al-Naaiem**	**78.00**	**299**	*e*P	**P**	**12 57 24.4**	**-2.5**
NAY				AMb	AMB	12 57 29.9	
	comp=Z,127nm,0.9s,mb5.9						
RST	**Umm Al-Ruwaisa**	**78.21**	**299**	*e*P	**P**	**12 57 25.4**	**-2.7**
RST				AMb	AMB	12 57 29.1	
	comp=Z,321nm,1.1s,mb6.2						
MAK	**Makhachkala**	**78.27**	**313**	*e*P	**P**	**12 57 22.9**	**-5.1**
MAK				*e*PPP		13 02 18.4	
MAK				*e*S	S	13 07 12.8	-10
MAK				*e*		13 08 03.1	
MAK				*e*SS	SS	13 12 24.8	+0.1
MAK				pmax	pmax		
	comp=Z,249nm,1.4s,mb6.0						
MAK				MLR	MLR		
	comp=Z,5µm,22.0s,MS5.8						
SVW2	**Sparrevohn**	**79.45**	**29**	*e*P	**P**	**12 57 35.5**	**+1.4**
DGRG	**David-gareji**	**79.78**	**311**	P	**P**	**12 57 36.3**	**0.0**
MTA	**Mtatsminda**	**80.22**	**311**	P	**P**	**12 57 38.2**	**-0.5**
TBLG	**Delisi**	**80.26**	**311**	P	**P**	**12 57 39.6**	**+0.6**
BHD	**Baghdad**	**80.46**	**303**	*e*P	x	12 57 38.5	
BHD				*e*pP	x	12 57 50.0	
BHD				*e*sP	x	12 57 55.0	
BHD				*e*S	x	13 07 40.5	
KDAK	**Kodiak Island**	**80.61**	**32**	P	**P**	**12 57 43.3**	**+2.9**
	comp=Z,584nm,0.8s,mb6.6,SNR=13						
KDAK	**Kodiak Island**	**80.61**	**32**	*e*P	**P**	**12 57 43.6**	**+3.1**
	comp=Z,81nm,0.8s,mb5.7						
KDAK				LR	LR		
	comp=Z,535nm,21.0s,MS4.9						
GOR	**Gori**	**80.74**	**312**	P	**P**	**12 57 40.5**	**-1.0**
ZEI	**Tsey**	**80.91**	**312**	*e*P	**P**	**12 57 41.5**	**-0.9**
ZEI				*e*S	S	13 07 42.3	-8.0
ZEI				pmax	pmax		
	comp=Z,99nm,1.0s,mb5.7						
PRGR	**Permogore**	**80.92**	**331**	⇓*i*P	**P**	**12 57 41.2**	**-0.8**
PRGR				*e*S	S	13 07 45.2	-4.4
IMA2	**Indian Mountai**	**80.95**	**24**	*e*P	**P**	**12 57 42.8**	**+0.7**
HAKT	**HAKKARI**	**81.00**	**307**	*i* P	**P**	**12 57 42.4**	**-0.7**
DYDN	**Diyadin**	**81.03**	**309**	*i* P	**P**	**12 57 43.4**	**+0.3**
CUKT	**Cukurca**	**81.08**	**307**	*e*P	**P**	**12 57 42.0**	**-1.5**
TVAN	**Van**	**81.24**	**308**	*i* P	**P**	**12 57 48.4**	**+4.1**
VANB	**Van**	**81.26**	**308**	*e*P	**P**	**12 57 46.2**	**+1.8**
DIGO	**Kars**	**81.28**	**310**	*i* P	**P**	**12 57 44.0**	**-0.4**
KARS	**Kars**	**81.49**	**310**	*e*P	**P**	**12 57 45.8**	**+0.3**
MSL	**Mosul**	**81.50**	**306**	*e*P	x	12 57 46.0	
MSL	**Mosul**	**81.50**	**306**	*e*S	x	13 07 51.0	
AGRB	**Hanur-Agry**	**81.57**	**309**	*e*P	**P**	**12 57 46.4**	**+0.4**
TUTA	**Tutak**	**81.70**	**309**	*i* P	**P**	**12 57 46.6**	**-0.1**
KIV	**Kislovodsk**	**81.81**	**313**	P	**P**	**12 57 46.7**	**-0.4**
	comp=Z,401nm,0.8s,mb6.4,SNR=5.8						
KIV	**Kislovodsk**	**81.81**	**313**	*e*P	**P**	**12 57 45.8**	**-1.4**
	comp=Z,97nm,1.0s,mb5.7						
KIV				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
KIV	**Kislovodsk**	**81.81**	**313**	c *i*P	**P**	**12 57 46.2**	**-0.9**
KIV				*e*		13 00 51.2	
KIV				*e*PPP		13 02 44.4	
KIV				*e*S	S	13 07 54.6	-5.0
KIV				*e*SSS		13 16 41.3	
KIV				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.6						
KIV				pmax	pmax		
	comp=Z,547nm,6.1s						
KIV	**Kislovodsk**	**81.81**	**313**	⇑P	**P**	**12 57 46.0**	**-1.1**
	SNR=20						
SLKM	**Skilak Lake**	**82.01**	**30**	*e*P	**P**	**12 57 49.4**	**+1.5**
SIRT	**Sirnak**	**82.01**	**307**	*e*P	**P**	**12 57 49.9**	**+1.6**
ARTV	**Artvin**	**82.37**	**311**	*i* P	**P**	**12 57 49.9**	**-0.2**
VRHR	**Novokhopersk**	**82.59**	**321**	*e*P	**P**	**12 57 50.7**	**-0.4**
VRHR				*e*S	S	13 08 05.1	-2.2
VRHR				pmax	pmax		
	comp=Z,130nm,0.5s,mb6.2						
VRHR				pmax	pmax		
	comp=N,40nm,0.4s						
VRHR				pmax	pmax		
	comp=E,20nm,0.3s						
VRHR				smax			
	comp=N,240nm,1.2s						
VRHR				smax			
	comp=Z,160nm,2.2s						
VRHR				smax			
	comp=E,410nm,2.3s						
VRHR				MLR	MLR		
	comp=Z,4µm,24.0s,MS5.7						
VRHR				MLR	MLR		
	comp=N,2µm,19.0s,MS5.7						
VRHR				MLR	MLR		
	comp=E,3µm,22.0s,MS5.7						
PMR	**Palmer**	**82.59**	**29**	*e*P	**P**	**12 57 49.2**	**-1.7**
	comp=E,140nm,1.3s,mb5.8						
PMR				LR	LR		
	comp=Z,2µm,23.0s,MS5.4						
PMR	**Palmer**	**82.59**	**29**	*e*P	**P**	**12 57 50.5**	**-0.4**
PMR				pmax	pmax		
	comp=Z,120nm,1.1s,mb5.8						
BCA	**Borcka**	**82.60**	**311**	*e*P	**P**	**12 57 48.3**	**-3.1**
MCK	**McKinley**	**82.77**	**27**	*e*P	**P**	**12 57 51.7**	**-0.1**
	comp=Z,276nm,1.2s,mb6.2						
MCK				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
ERZM	**Erzurum**	**82.82**	**309**	*i* P	**P**	**12 57 53.2**	**+0.7**
EZM	**Erzurum**	**82.82**	**309**	*e*P	**P**	**12 57 53.1**	**+0.6**
SML	**Sawmill**	**82.98**	**28**	*e*P	**P**	**12 57 53.2**	**+0.3**
BNGL	**BINGOL**	**83.00**	**308**	*i* P	**P**	**12 57 54.1**	**+0.6**
COLA	**College**	**83.29**	**25**	*e*P	**P**	**12 57 54.2**	**-0.2**
	comp=Z,131nm,1.4s,mb5.8						
COLA				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
COLA	**College**	**83.29**	**25**	*e*P	**P**	**12 57 54.2**	**-0.2**
COLA				pmax	pmax		
	comp=Z,131nm,1.4s,mb5.8						
COLA				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
MARD	**Mardin**	**83.34**	**307**	*i* P	**P**	**12 57 54.6**	**-0.7**
BINT	**Bingol**	**83.52**	**308**	*e*P	**P**	**12 57 57.4**	**+1.2**
DIY	**Diyarbakir**	**83.76**	**307**	*e*P	**P**	**12 58 00.2**	**+2.8**
SOC	**Sochi**	**83.96**	**313**	*i* P	**P**	**12 57 57.4**	**-0.9**
SOC	**Sochi**	**83.96**	**313**	*e*P	**P**	**12 57 55.0**	**-3.3**
SOC				e*PP	pP	12 58 08.9	+4.2
SOC				*e*PPP		13 03 04.5	
SOC				*e*S	S	13 08 15.0	-6.6
SOC				pmax	pmax		
	comp=Z,27nm,0.6s,mb5.5						
SOC				pmax	pmax		
	comp=Z,778nm,6.7s						
EZC	**Erzincan**	**84.01**	**309**	*e*P	**P**	**12 58 02.4**	**+3.7**
VORD	**Divnogorie**	**84.06**	**321**	*e*P	**P**	**12 57 56.5**	**-2.2**
VORD				e*SP	sP	12 58 13.9	+6.6
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=Z,50nm,0.6s,mb5.8						
VORD				pmax	pmax		
	comp=E,40nm,1.0s						
VORD				MLR	MLR		
	comp=Z,6µm,31.0s,MS5.8						
VORD				MLR	MLR		
	comp=N,4µm,25.0s						
VORD				MLR	MLR		
	comp=E,3µm,27.0s						
VOR	**Voronezh**	**84.11**	**321**	*e*P	**P**	**12 57 57.5**	**-1.4**
VOR				pmax	pmax		
	comp=Z,400nm,1.2s,mb6.4						
VRSR	**Storozhevoye**	**84.12**	**321**	*e*P	**P**	**12 57 57.9**	**-1.1**
VRSR				pmax	pmax		
	comp=N,1.0nm,0.9s						
VRSR				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.9						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.2s						
VRSR				MLR	MLR		
	comp=Z,550nm,22.0s,MS4.9						
VRSR				MLR	MLR		
	comp=N,220nm,19.0s						
VRSR				MLR	MLR		
	comp=E,1µm,57.0s						
DIV	**Divide**	**84.20**	**29**	PFAKE		12 58 10.0	+11
DIV				LR	LR		
	comp=Z,7µm,21.0s,MS6.0						
EYAK	**Cordova Ski Ar**	**84.22**	**30**	*e*P	**P**	**12 58 00.3**	**+1.0**
	comp=Z,166nm,1.2s,mb6.0						
GUMT	**Gumushane**	**84.25**	**310**	*e*P	**P**	**12 57 57.8**	**-2.0**
PTK	**Pertek**	**84.38**	**308**	*e*P	**P**	**12 58 00.5**	**0.0**
ELZG	**Elazig**	**84.71**	**308**	*i* P	**P**	**12 58 02.9**	**+0.6**
URFA	**Urfa**	**84.89**	**307**	*e*P	**P**	**12 58 00.8**	**-2.4**
MOS	**Moscow**	**84.92**	**325**	*e*P	**P**	**12 58 01.1**	**-1.8**
MOS				*e*S	S	13 08 18.7	-12
MOS				pmax	pmax		
	comp=Z,470nm,1.3s,mb6.5						
VNDA	**Vanda**	**85.12**	**173**	*e*P	**P**	**12 58 05.2**	**+1.8**
	comp=Z,61nm,1.2s,mb5.6						
VNDA				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
VNDA	**Vanda**	**85.12**	**173**	P	**P**	**12 58 04.8**	**+1.4**
VNDA				pmax	pmax		
	comp=Z,20nm,0.9s						
VNDA				MLR	MLR		
	comp=Z,3µm,20.7s						
VNDA	**Vanda**	**85.12**	**173**	P	**P**	**12 58 04.8**	**+1.3**
	comp=Z,20nm,0.9s,mb5.2,baz=313,slow=6.8,SNR=19						
VNDA				LR	LR	13 35 56.2	
	comp=Z,3µm,20.7s,MS5.6,baz=340,slow=35						
MENT	**Mentasta**	**85.13**	**27**	*e*P	**P**	**12 58 07.5**	**+3.7**
GRSN	**GIRESUNGRSN**	**85.15**	**311**	*i* P	**P**	**12 58 02.1**	**-2.3**
MALT	**Malatya**	**85.16**	**308**	*e*P	**P**	**12 58 04.7**	**+0.2**
	comp=Z,105nm,1.3s,mb5.8						
MALT	**Malatya**	**85.16**	**308**	*e*P	**P**	**12 58 03.1**	**-1.4**
MALT				pmax	pmax		
	comp=Z,100nm,1.2s,mb5.8						
MALT	**Malatya**	**85.16**	**308**	⇓*i*P	**P**	**12 58 04.8**	**+0.3**
MYA	**Malataya**	**85.16**	**308**	*e*P	**P**	**12 58 06.0**	**+1.5**
MAW	**Mawson**	**85.24**	**200**	*e*S	S	13 08 25.0	-8.2
MAW	**Mawson**	**85.24**	**200**	*e*P	**P**	**12 58 05.5**	**+1.3**
	comp=Z,37nm,0.9s,mb5.5						
MAW				*e*S	S	13 08 25.0	-8.2
MAW	**Mawson**	**85.24**	**200**	*e*P	**P**	**12 58 05.5**	**+1.3**
MAW				*e*S	S	13 08 25.0	-8.2
MAW				pmax	pmax		
	comp=Z,37nm,0.9s						
MAW	**Mawson**	**85.24**	**200**	P	**P**	**12 58 06.5**	**+2.3**
	comp=Z,46nm,1.0s,mb5.6,baz=62,slow=6.6,SNR=24						
MAW				PKPPKP		13 24 21.2	
	comp=Z,12nm,1.1s,baz=268,slow=9.0,SNR=4.0						
MAW				LR	LR	13 33 05.1	
	comp=Z,2µm,20.8s,MS5.4,baz=66,slow=34						
ANN	**Anapa**	**85.55**	**314**	*i* P	**P**	**12 58 04.4**	**-1.9**
ANN	**Anapa**	**85.55**	**314**	*e*P	**P**	**12 58 04.5**	**-1.8**
ANN				*e*		13 01 28.8	
ANN				*e*PPP		13 03 24.5	
ANN				*e*S	S	13 08 26.0	-11
ANN				*e*SS	SS	13 14 12.5	-0.5
ANN				*e*SSS		13 17 39.1	
ANN				pmax	pmax		
	comp=Z,479nm,1.2s,mb6.6						
OBN	**Obninsk**	**85.55**	**325**	P	**P**	**12 58 05.5**	**-0.6**
	comp=Z,3µm,1.3s,SNR=24						
OBN	**Obninsk**	**85.55**	**325**	*e*P	**P**	**12 58 05.2**	**-0.8**
	comp=Z,878nm,1.3s,mb6.8						
OBN				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
OBN	**Obninsk**	**85.55**	**325**	c *i*P	**P**	**12 58 05.0**	**-1.1**
OBN				*i*		12 58 16.2	
OBN				*i*		13 01 21.5	
OBN				*i* S	S	13 08 27.2	-10
OBN				*i* SS	SS	13 14 09.4	-3.0
OBN				pmax	pmax		
	comp=Z,598nm,1.0s,mb6.8						
OBN				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.7						
LVZ	**Lovozero**	**85.72**	**338**	P	**P**	**12 58 06.9**	**+0.3**
	comp=Z,915nm,1.2s,mb6.9,SNR=6.0						
LVZ	**Lovozero**	**85.72**	**338**	*e*P	**P**	**12 58 06.5**	**-0.1**
LVZ				LR	LR		
	comp=Z,8µm,22.0s,MS6.1						
LVZ	**Lovozero**	**85.72**	**338**	*e*P	**P**	**12 58 06.4**	**-0.2**
LVZ				pmax	pmax		
	comp=Z,283nm,1.4s,mb6.3						
LVZ				MLR	MLR		
	comp=Z,9µm,23.0s,MS6.1						
PPT	**Papeete**	**85.86**	**108**	*e*SS	SS	13 14 24.4	+5.4
	comp=Z,3µm,29.2s						
PPT				*e*LR	LR	13 25 44.7	
	comp=Z,8µm,26.8s,baz=291						
PPT	**Papeete**	**85.86**	**108**	LR	LR	13 28 34.6	
	comp=Z,2µm,20.6s,MS5.6,baz=190,slow=30						
SBA	**Scott Base**	**86.03**	**172**	*e*P	**P**	**12 58 12.9**	**+4.9**
SBA				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
SBA	**Scott Base**	**86.03**	**172**	*e*P	**P**	**12 58 09.5**	**+1.5**
SBA				pmax	pmax		
	comp=Z,91nm,1.2s,mb5.9						
EGAK	**Eagle**	**86.15**	**25**	*e*P	**P**	**12 58 08.4**	**-0.4**
	comp=Z,64nm,1.3s,mb5.7						
EGAK				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
GAZ	**Gaziantep**	**86.19**	**307**	*e*P	**P**	**12 58 08.2**	**-1.4**
APA	**Apatity**	**86.22**	**337**	⇑*i*P	**P**	**12 58 08.6**	**-0.5**
APA				*i*		13 01 23.0	
APA				*i* S	S	13 08 37.0	-5.9
APA				pmax	pmax		
	comp=Z,170nm,1.0s,mb6.2						
APA				pmax	pmax		
	comp=Z,2µm,15.0s						
APA				MLR	MLR		
	comp=Z,8µm,21.0s,MS6.1						
TOKT	**Tokat**	**86.49**	**310**	*e*P	**P**	**12 58 11.9**	**+0.8**
ASF	**Jabal al Asfar**	**86.81**	**302**	P	**P**	**12 58 14.7**	**+1.9**
ASF				LR	LR	13 40 36.4	
ASF	**Jabal al Asfar**	**86.81**	**302**	P	**P**	**12 58 14.7**	**+1.9**
ASF				pmax	pmax		
	comp=Z,44nm,0.9s						
ASF				MLR	MLR		
	comp=Z,571nm,20.3s						
ASF	**Jabal al Asfar**	**86.81**	**302**	P	**P**	**12 58 14.7**	**+1.9**
	comp=Z,44nm,0.9s,mb5.7,baz=333,slow=1.3,SNR=26						
ASF				LR	LR	13 40 36.4	
	comp=Z,571nm,20.3s,MS5.0,baz=315,slow=38						
KVT	**Kavak**	**86.81**	**311**	*e*P	**P**	**12 58 12.5**	**-0.1**
DAWY	**Dawson**	**86.98**	**26**	*e*P	**P**	**12 58 14.4**	**+1.5**
HTY	**Hatay**	**87.13**	**306**	*e*P	**P**	**12 58 16.3**	**+2.0**
BNN	**Bunyan**	**87.14**	**309**	*e*P	**P**	**12 58 12.4**	**-1.9**
KOZT	**Kozan**	**87.27**	**307**	*e*P	**P**	**12 58 13.2**	**-1.7**
DIKM	**Dikmen**	**87.36**	**311**	*e*P	**P**	**12 58 12.0**	**-3.3**
CEYT	**Ceyhan**	**87.37**	**307**	*e*P	**P**	**12 58 12.0**	**-3.4**
YURE	**YUREGIR**	**87.48**	**307**	*i* P	**P**	**12 58 08.0**	**-8.0**
JOF	**Joensuu**	**87.58**	**333**	*e*p	**P**	**12 58 14.4**	**-1.5**
	comp=Z,13nm,0.4s,mb5.5						
JOF	**Joensuu**	**87.58**	**333**	*e*P	**P**	**12 58 14.4**	**-1.5**
JOF				pmax	pmax		
	comp=Z,13nm,0.4s,mb5.5						
BOYT	**Boyabat**	**87.64**	**311**	*i* P	**P**	**12 58 15.9**	**-0.7**
BHL	**Bhannes**	**87.71**	**304**	*e*P	**P**	**12 58 17.8**	**+0.7**
CTKT	**Corum**	**87.80**	**310**	*i* P	**P**	**12 58 16.5**	**-0.9**
SIM	**Simferopol'**	**87.89**	**315**	*e*P	**P**	**12 58 16.9**	**-0.9**
SIM				*e*		13 01 46.0	
SIM				*e*S	S	13 08 48.9	-11
SIM				pmax	pmax		
	comp=Z,59nm,0.9s,mb5.8						
SIM				pmax	pmax		
	comp=Z,420nm,14.8s						
KARA	**Karaisali**	**87.90**	**307**	*e*P	**P**	**12 58 12.0**	**-6.0**
AVNT	**Avonos**	**87.92**	**309**	⇑*i*P	**P**	**12 58 16.9**	**-1.1**
CORM	**Corum**	**87.96**	**310**	*e*P	**P**	**12 58 12.8**	**-5.4**
MMAI	**Mount Meron Ar**	**87.99**	**303**	P	**P**	**12 58 18.4**	**-0.1**
	comp=Z,51nm,1.1s,mb5.7,baz=65,slow=4.0,SNR=20						
NIG	**Nigde**	**88.17**	**308**	*e*P	**P**	**12 58 21.6**	**+2.4**
CDAG	**Cicekdag**	**88.21**	**309**	*i* P	**P**	**12 58 18.8**	**-0.7**
KEV	**Kevo**	**88.24**	**340**	*e*p	**P**	**12 58 17.7**	**-1.2**
	comp=Z,2.5nm,0.4s,mb4.8						
KEV	**Kevo**	**88.24**	**340**	*e*P	**P**	**12 58 17.7**	**-1.2**
KEV				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.9						
TOS	**Tosya**	**88.34**	**311**	*e*P	**P**	**12 58 18.6**	**-1.4**
MERS	**Mersin**	**88.36**	**307**	*e*P	**P**	**12 58 16.6**	**-3.6**
EIL	**Elat**	**88.69**	**300**	P	**P**	**12 58 23.3**	**+1.5**
	comp=Z,17nm,0.8s,mb5.4,baz=56,slow=1.8,SNR=12						
EIL				LR	LR	13 38 31.9	
	comp=Z,1µm,20.9s,MS5.2,baz=80,slow=36						
INK	**Inuvik**	**88.70**	**21**	*e*P	**P**	**12 58 23.4**	**+2.4**
	comp=Z,3µm,1.1s						
INK	**Inuvik**	**88.70**	**21**	*e*P	**P**	**12 58 20.7**	**-0.4**
INK	**Inuvik**	**88.70**	**21**	PKKPbc	PKKPbc	13 16 02.9	-1.4
	comp=Z,5.2nm,1.0s,baz=146,slow=4.3,SNR=5.4						
INK				LR	LR	13 41 36.4	
	comp=Z,1µm,20.3s,MS5.3,baz=277,slow=38						
BR131	**Keskin Array S**	**88.77**	**310**	*e*P	**P**	**12 58 20.3**	**-1.7**
	comp=Z,30nm,0.9s,mb5.6						
BR131				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
BRTR	**Keskin Array B**	**88.77**	**310**	P	**P**	**12 58 20.4**	**-1.6**
BRTR						13 01 50.2	
BRTR				pmax	pmax		
	comp=Z,28nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,5.0nm,1.0s						
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	**Keskin Array B**	**88.77**	**310**	P	**P**	**12 58 20.4**	**-1.6**
	comp=Z,28nm,0.9s,mb5.6,baz=108,slow=4.0,SNR=45						
BRTR				PP	PP	13 01 50.2	-0.7
	comp=Z,5.2nm,1.0s,baz=104,slow=8.4,SNR=4.3						
BRTR				PKKP	PKKPbc	13 16 01.1	-2.0
	comp=Z,0.4nm,0.6s,baz=237,slow=4.3,SNR=3.7						
BRTR				PKKPbc	PKKPbc	13 16 07.2	+4.1
	comp=Z,0.9nm,0.7s,baz=193,slow=5.1,SNR=4.0						
BRTR				LR	LR	13 45 52.1	
	comp=Z,2µm,21.1s,MS5.6,baz=265,slow=41						
BALT	**Daday**	**88.77**	**311**	*i* P	**P**	**12 58 20.5**	**-1.5**
ARCES	**ARCESS Array B**	**88.79**	**340**	P	**P**	**12 58 20.8**	**-0.7**
	comp=Z,83nm,0.8s,mb6.1,baz=83,slow=6.3,SNR=67						
ARCES				PKiKP	PKiKP	13 03 23.1	+1.9
	comp=Z,4.2nm,0.9s,baz=62,slow=2.9,SNR=3.7						
ARCES				LR	LR	13 44 34.6	
	comp=Z,3µm,20.7s,MS5.8,baz=85,slow=40						
ARE0	**ARCESS Array S**	**88.80**	**340**	*e*P	**P**	**12 58 20.8**	**-0.7**
SPB4	**Spitsbergen Ar**	**88.80**	**349**	*e*P	**P**	**12 58 22.4**	**+1.0**
ELDT	**Eldivan**	**88.85**	**310**	*i* P	**P**	**12 58 21.1**	**-1.3**
KBS	**Kingsbay**	**89.31**	**350**	*e*P	**P**	**12 58 25.2**	**+1.4**

```
       comp=Z,69nm,1.0s,mb5.9
KBS                                LR       LR
       comp=Z,5µm,19.0s,MS6.0
KBS    Kingsbay           89.31 350c iP     P        12 58 24.7 +0.9
KMBO   Kilima Mbogo       89.34 269  eP     P        12 58 26.7 +1.4
       comp=Z,15nm,1.0s,mb5.3
KMBO                                LR       LR
       comp=Z,2µm,19.0s,MS5.5
KMBO   Kilima Mbogo       89.34 269  i P    P        12 58 25.8 +0.5
KMBO                                pmax     pmax
       comp=Z,6.0nm,0.8s
KMBO   Kilima Mbogo       89.34 269 ⇑P      P        12 58 22.9  -2.3
       SNR=5.5
KMBO   Kilima Mbogo       89.34 269   P     P        12 58 25.9 +0.7
       comp=Z,6.4nm,0.8s,mb5.0,baz=54,slow=4.5,SNR=13
KMBO                                LR       LR       13 40 16.7
       comp=Z,1µm,18.7s,MS5.4,baz=95,slow=37
ANTO   Ankara             89.40 310  eP     P        12 58 23.6  -1.3
       comp=Z,28nm,1.0s,mb5.5
ANTO                                LR       LR
       comp=Z,2µm,19.0s,MS5.5
ANTO   Ankara             89.40 310  eP     P        12 58 23.6  -1.4
ANTO                                pmax     pmax
       comp=Z,28nm,1.0s,mb5.5
ANTO                                MLR      MLR
       comp=Z,2µm,19.0s,MS5.5
ANTO   Ankara             89.40 310 ⇑P      P        12 58 23.3  -1.7
       SNR=7.5
ANTO   Ankara             89.40 310⇓iP      P        12 58 23.8  -1.2
CSS    Prodhromos         89.52 305  eP     P        12 58 26.4 +0.8
       comp=Z,44nm,0.9s,mb5.8
KTK1   Kautokeino         89.70 339  eP     P        12 58 26.1 +0.3
       comp=Z,213nm,1.4s,mb6.3
KTK1   Kautokeino         89.70 339  eP     P        12 58 26.1 +0.3
KTK1                                AMb      AMB      12 58 29.8
       comp=Z,213nm,1.4s,mb6.3
SGKT   Sivrigoynuk        89.88 311  i P    P        12 58 25.8  -1.4
SIT    Sitka              89.94  33   PFAKE           12 58 40.0  +13
SIT                                 LR       LR
       comp=Z,4µm,21.0s,MS5.8
KAF    Kangasniemi        90.00 332  ep     P        12 58 25.9  -1.4
       comp=Z,9.6nm,0.4s,mb5.5
KAF    Kangasniemi        90.00 332  eP     P        12 58 25.9  -1.4
KAF                                 pmax     pmax
       comp=Z,10.0nm,0.4s,mb5.5
KDHN   Kadinhani          90.08 309  i P    P        12 58 26.5  -1.7
FIA1   FINESS Array S     90.24 332  eP     P        12 58 27.7  -0.8
FINES  FINESS Array B     90.24 332   P     P        12 58 27.3  -1.1
FINES                               S        S        13 08 56.0   -25
FINES                                                 13 09 22.4
FINES                               pmax     pmax
       comp=Z,70nm,0.9s
FINES                               pmax     pmax
       comp=Z,2.0nm,0.6s
FINES                               smax
       comp=N,2.0nm,0.9s
FINES                               pmax     pmax
       comp=N,4.0nm,1.0s
FINES                               pmax     pmax
       comp=Z,2.0nm,0.8s
FINES                               MLR      MLR
       comp=Z,7µm,21.6s
FINES  FINESS Array B     90.24 332   P     P        12 58 27.2  -1.2
       comp=Z,70nm,0.9s,mb6.0,baz=90,slow=3.8,SNR=83
FINES                               PKiKP    PKiKP    13 03 24.4 +0.6
       comp=Z,2.0nm,0.6s,baz=56,slow=3.4,SNR=3.3
FINES                               S        S        13 08 56.0   -25
       comp=Z,2.1nm,0.9s,baz=91,slow=17,SNR=4.2
FINES                               ScS      ScS      13 09 22.4  -2.9
       comp=Z,4.0nm,1.0s,baz=44,slow=11,SNR=4.3
FINES                               PKKPbc   PKKPbc   13 16 01.4 +1.1
       comp=Z,2.4nm,0.8s,baz=20,slow=6.1,SNR=3.9
FINES                               LR       LR       13 42 41.9
       comp=Z,7µm,21.6s,MS6.1,baz=229,slow=38
AKASG  Malin Array Be     90.44 321   P     P        12 58 27.6  -2.0
       comp=Z,60nm,1.0s,mb5.9,baz=69,slow=4.1,SNR=80
AKASG                               LR       LR       13 44 02.0
       comp=Z,3µm,20.1s,MS5.7,baz=60,slow=39
AKBB   Malin Array Si     90.44 321  eP     P        12 58 27.4  -2.2
KIEV   Kiev               90.45 321  eP     P        12 58 27.7  -1.9
       comp=Z,54nm,1.0s,mb5.8
KIEV                                LR       LR
       comp=Z,3µm,19.0s,MS5.8
KIEV   Kiev               90.45 321  eP     P        12 58 27.7  -1.9
KIEV                                pmax     pmax
       comp=Z,54nm,1.0s,mb5.8
KIEV                                MLR      MLR
       comp=Z,3µm,19.0s,MS5.8
VSU    Vasula             90.51 329  eP     P        12 58 28.7  -1.0
MNK    Minsk              90.64 325⇓eP      P        12 58 28.0  -2.5
MNK                                 e                 13 02 08.0
MNK                                 e                 13 09 00.0
MNK                                 eS       S        13 09 22.0  -3.4
MNK                                 ePS      PS       13 11 00.0   +25
MNK                                 pmax     pmax
       comp=Z,440nm,1.2s,mb6.7
MNK                                 MLR      MLR
       comp=Z,14µm,24.0s,MS6.3
ESKT   Eskisehir          90.93 310  i P    P        12 58 30.1  -2.1
TRO    Tromso             91.00 340  eP     P        12 58 29.8  -2.0
TRO                                 AMb      AMB      12 58 35.2
       comp=Z,217nm,1.6s,mb6.2
KIS    Kishinev           91.30 317  eP     P        12 58 30.0  -3.7
KIS                                 e                 13 09 05.0
KIS                                 eS       S        13 09 20.0   -12
KIS    Kishinev           91.30 317  ePP    PP       13 02 25.0   +14
KIS    Kishinev           91.30 317  ePS    sS       13 10 12.0   +30
KIS                                 LRM               13 44 20.0
       comp=Z,2µm,18.0s
ISP    Isparta            91.42 308  eP     P        12 58 32.9  -1.6
ISP    Isparta            91.42 308  eP     P        12 58 32.8  -1.7
WRAK   Wrangell Islan     91.68  33   PFAKE           12 58 50.0   +15
WRAK                                LR       LR
       comp=Z,2µm,20.0s,MS5.5
TIRR   Tirgusor           91.99 315   P     P        12 58 36.2  -0.7
TIRR   Tirgusor           91.99 315⇓iP      P        12 58 36.5  -0.4
ALE    Alert              92.08   1   P     P        12 58 38.4 +1.7
       comp=Z,233nm,1.3s,mb6.3,SNR=14
ULDT   Uludag             92.15 310  i P    P        12 58 35.7  -2.1
DLBC   Dease Lake         92.43  31  eP     P        12 58 41.5 +2.8
VRI    Vrincioaia         92.92 316   P     P        12 58 40.6  -0.6
VRI    Vrincioaia         92.92 316⇑iP      P        12 58 41.0  -0.2
PLOR   Plostina           92.97 316   P     P        12 58 40.9  -0.5
LOF    Lofoten            93.35 340  eP     P        12 58 45.1 +2.4
       comp=Z,164nm,1.6s,mb6.2
LOF    Lofoten            93.35 340  eP     P        12 58 45.1 +2.4
LOF                                 AMb      AMB      12 58 47.0
       comp=Z,164nm,1.6s,mb6.2
SUW    Suwalki            93.42 325  eP     P        12 58 42.0  -1.3
SUW                                 eSKS              13 09 14.9
SUW                                 eS       S        13 09 42.5  -7.8
SUW                                 LMZ               13 41 16.0
       comp=Z,4µm,26.0s
SUW    Suwalki            93.42 325  eP     P        12 58 42.0  -1.3
SUW                                 eSKS              13 09 14.9
SUW                                 eS       S        13 09 42.5  -7.8
MLR    Muntele Rosu       93.53 316   P     P        12 58 43.1  -0.9
MLR    Muntele Rosu       93.53 316   P     P        12 58 42.9  -1.1
MLR                                                   13 02 32.0
MLR                                 pmax     pmax
       comp=Z,57nm,1.0s
MLR                                 pmax     pmax
       comp=Z,7.0nm,0.8s
MLR    Muntele Rosu       93.53 316   P     P        12 58 42.9  -1.1
       comp=Z,57nm,1.0s,mb6.0,baz=52,slow=2.8,SNR=29
MLR                                 PP       PP       13 02 32.0 +3.6
       comp=Z,6.7nm,0.8s,baz=140,slow=4.1,SNR=3.1
MLR    Muntele Rosu       93.53 316⇓iP      P        12 58 43.2  -0.8
BURAR  Bucovina Array     93.59 318 ⇓P      P        12 58 44.4 +0.1
BURAR  Bucovina Array     93.59 318⇓iP      P        12 58 44.4 +0.2
MOR8   Moi Rana           93.80 338  eP     P        12 58 42.8  -2.0
       comp=Z,115nm,1.5s,mb6.1
MOR8   Moi Rana           93.80 338  eP     P        12 58 42.8  -2.0
MOR8                                AMb      AMB      12 58 54.9
       comp=Z,115nm,1.5s,mb6.1
KDAG   Bornova            93.86 309  i P    P        12 58 43.2  -2.5
LVV    L’vov              93.88 321  eP     P        12 58 45.1  -0.4
LVV                                 ePPP              13 04 35.7
LVV                                 eS       S        13 09 48.5  -6.1
LVV                                 MLR      MLR
       comp=Z,3µm,23.0s,MS5.7
LVV                                 MLR      MLR
       comp=N,900nm,21.0s,MS5.7
LVV                                 MLR      MLR
       comp=E,3µm,21.0s,MS5.7
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SYO    Syowa Base         93.90 201⇑eX      P        12 58 45.3 +0.2
SYO    Syowa Base         93.90 201⇑isP     sP       12 59 01.3 +7.5
SZH    Strazhica          93.97 314   P     P        12 58 45.2  -0.9
TAOE   Nuku Hiva Isla     94.14  98  ePP    PP       13 02 35.9 +1.7
       comp=E,703nm,27.7s
TAOE   Nuku Hiva Isla     94.14  98  ePS    PS       13 11 21.8 +6.7
       comp=E,7µm,32.4s
TAOE   Nuku Hiva Isla     94.14  98  eSKSac SKSac    13 09 20.7  -1.5
       comp=E,7µm,26.1s
TAOE                                eSS      SS       13 16 26.0 +6.9
       comp=E,4µm,32.7s
TAOE                                eLR      LR       13 29 21.7
       comp=E,28µm,25.5s,baz=280
VOIR                      94.15 316⇓iP      P        12 58 48.7 +1.8
PVL    Pavlikeni          94.41 314  eP     P        12 58 47.8  -0.3
KWP    Kalwaria           94.76 321  eP     P        12 58 49.7 +0.1
KWP                                 epP      pP       12 58 54.9  -1.0
KWP                                 eS       S        13 09 54.2  -8.1
KWP                                 LMZ               13 44 00.1
       comp=E,4µm,22.5s
KWP    Kalwaria           94.76 321  eP     P        12 58 49.7 +0.1
KWP                                 epP      pP       12 58 54.9  -1.0
KWP                                 eS       S        13 09 54.2  -8.1
WAR    Warsaw             95.12 323  eP     P        12 58 51.5 +0.4
WAR                                 LMZ               13 43 14.2
       comp=E,4µm,23.4s
RZN    Rozhen             95.16 313  eP     P        12 58 49.9  -1.7
KOLS   Kolonicke sedl     95.21 320  eP     P        12 58 50.1  -1.5
UZH    Uzhgorod           95.27 320  eP     P        12 58 50.0  -1.9
UZH                                 e                 12 59 05.2
UZH                                 e                 13 02 47.0
UZH                                 eS       S        13 10 01.0  -5.7
UZH                                 e                 13 11 27.0
QSPA   South Pole Qui     95.31 180   P     P        12 58 53.5 +2.1
QSPA   South Pole Qui     95.31 180  eP     P        12 58 53.5 +2.1
       comp=E,194nm,1.7s,mb6.3
QSPA                                ePKKPbc  PKKPbc   13 15 46.4  -1.5
QSPA                                LR       LR
       comp=Z,2µm,20.0s,MS5.6
PGB    Panagyurishte      95.38 314   P     P        12 58 51.5  -1.1
DRGR                      95.44 318   P     P        12 58 51.7  -1.0
DRGR                      95.44 318⇓iP      P        12 58 51.8  -0.9
DAG    Danmarks Havn      95.56 352⇑iP      P        12 58 52.4  -0.3
DAG                                 pmax     pmax
       comp=Z,450nm,1.1s,mb6.8
DAG    Danmarks Havn      95.56 352⇑iP      P        12 58 52.4  -0.3
       comp=Z,453nm,1.1s,mb6.8
GZR    Gura Zlata         95.72 317   P     P        12 58 53.3  -0.7
GZR    Gura Zlata         95.72 317⇑iP      P        12 58 53.7  -0.4
CRVS   Cervenica-Dubn     95.73 320  eP     P        12 58 53.5  -0.5
STHS   Stebnicka Huta     95.74 321  i P    P        12 58 54.0   0.0
       comp=Z,15nm,1.1s,mb5.3
STHS   Stebnicka Huta     95.74 321  i P    P        12 58 54.0   0.0
STHS                                pmax     pmax
       comp=Z,15nm,1.1s,mb5.3
MMB    Musomiste          95.91 313   P     P        12 58 52.0  -3.0
VTS    Vitosha            96.06 314  eP     P        12 58 54.1  -1.6
VTS    Vitosha            96.06 314   P     P        12 58 54.8  -0.9
VTS    Vitosha            96.06 314  eP     P        12 58 55.0  -0.7
VTS    Vitosha            96.06 314⇓iP      P        12 58 55.3  -0.4
RES    Resolute Bay       96.21  10  eP     P        12 58 57.7 +2.0
       comp=Z,3µm,1.4s
RES                                 ePP      PP       13 02 46.7  -1.6
RES    Resolute Bay       96.21  10  eP     P        12 58 56.8 +1.1
PAIG   Paliouri           96.30 311  eP     P        12 58 53.8  -3.0
IDI    Anoyia             96.31 306   P     P        12 58 58.0 +1.1
       comp=Z,11nm,0.8s,mb5.3,baz=98,slow=5.4,SNR=5.3
KKB    Krupnik            96.32 313  eP     P        12 58 55.8  -1.1
NIE    Niedzica           96.32 321  eP     P        12 58 57.2 +0.5
SOH    Sokhos             96.35 312  eP     P        12 58 54.5  -2.6
OJC    Ojcow              96.42 322  eP     P        12 58 56.0  -1.1
OJC                                 epP      pP       12 58 59.1  -4.4
HFS    Hagfors            96.42 332   P     P        12 58 55.6  -1.3
HFS                                 pmax     pmax
       comp=Z,76nm,1.0s
HFS    Hagfors            96.42 332   P     P        12 58 55.6  -1.3
       comp=Z,76nm,1.0s,mb6.1,baz=101,slow=3.0,SNR=32
BZS    Buzias             96.46 317   P     P        12 58 56.4  -1.0
BZS    Buzias             96.46 317⇓iP      P        12 58 56.8  -0.6
KECS   Kecovo             96.47 320  i P    P        12 58 56.4  -1.0
       comp=Z,21nm,1.0s,mb5.5
KECS   Kecovo             96.47 320  i P    P        12 58 56.4  -1.0
KECS                                pmax     pmax
       comp=Z,21nm,1.0s,mb5.5
KNT    Kendrikon          96.61 312  eP     P        12 58 55.2  -3.1
VAY    Valandovo          96.82 313  eP     P        12 58 56.0  -3.2
VAY    Valandovo          96.82 313  i P    P        12 58 56.6  -2.6
PSZ    Piszkesteto        97.00 319  eP     P        12 58 58.5  -1.3
       comp=Z,31nm,1.2s,mb5.6
PSZ    Piszkesteto        97.00 319  eP     P        12 58 58.5  -1.3
PSZ                                 pmax     pmax
       comp=Z,31nm,1.2s,mb5.6
PSZ    Piszkesteto        97.00 319⇓ePcP    PcP      12 58 59.1  -0.8
PSZ    Piszkesteto        97.00 319⇓iP      P        12 58 59.0  -0.8
GKP    Gorka Klasztor     97.02 325  eP     P        12 58 57.9  -1.9
GKP                                 eS       S        13 10 12.5  -9.1
GKP                                 LMZ               13 45 42.9
       comp=Z,5µm,22.6s
GRG    Griva              97.03 312  eP     P        12 58 57.2  -2.9
LIT    Litokhoron         97.16 311  eP     P        12 58 58.6  -2.1
NB2    NORSAR Subarra     97.18 334   P     P        12 58 58.6  -1.7
       comp=Z,76nm,1.0s,mb6.1,baz=67,slow=4.6
NOA    NORSAR Array B     97.18 334   P     P        12 58 58.8  -1.6
       comp=Z,34nm,0.8s,mb5.8,baz=66,slow=4.6,SNR=53
NOA                                 PKKPbc   PKKPbc   13 15 44.5 +2.5
       comp=Z,1.3nm,0.8s,baz=70,slow=3.6,SNR=3.6
NOA                                 LR       LR       13 47 11.6
       comp=Z,6µm,21.2s,MS6.0,baz=65,slow=38
NAO01  NORSAR Array S     97.41 334  eP     P        12 59 00.1  -1.2
       comp=Z,42nm,0.9s,mb5.9
NAO01                               LR       LR
       comp=Z,9µm,19.0s,MS6.3
SKO    Skopje             97.49 313  eP     P        12 59 03.0 +0.8
VYHS   Vyhne              97.52 320  eP     P        12 59 00.7  -1.4
       comp=Z,13nm,1.4s,mb5.3
VYHS   Vyhne              97.52 320  eP     P        12 59 00.7  -1.4
VYHS                                pmax     pmax
       comp=Z,13nm,1.4s,mb5.3
OKC    Ostrava-Krasne     97.55 322  ePdif  P        12 59 02.1  -0.1
OKC                                 ePS      PS       13 12 29.6   +39
OKC    Ostrava-Krasne     97.55 322  eP     P        12 59 02.1  -0.1
OKC                                 ex       x        13 12 29.6
OKC                                 AMS      AMS      13 42 10.0
       comp=Z,3µm,26.2s
BSD    Bornholm Skovb     97.68 327  i P    P        12 59 02.6  -0.1
BSD                                 e                 13 03 02.2
BSD                                 pmax     pmax
       comp=Z,82nm,1.1s,mb6.2
BSD                                 MLR      MLR
       comp=Z,4µm,21.0s,MS5.8
BSD    Bornholm Skovb     97.68 327  i P    P        12 59 02.6  -0.1
       comp=Z,82nm,1.1s,mb6.2
BSD                                 e                 13 03 02.2
BSD                                 i                 13 12 06.2
BSD
       comp=Z,4µm,21.0s
BUD    Budapest           97.69 319⇑ePcP    PcP      12 59 03.3 +0.3
BIA    Bitola             97.80 313  eP     P        12 59 00.6  -3.0
MORC   Moravsky Berou     97.94 322  eP     P        12 59 03.6  -0.4
       comp=Z,32nm,1.3s,mb5.7
MORC   Moravsky Berou     97.94 322  eP     P        12 59 03.7  -0.3
MORC                                pmax     pmax
       comp=Z,32nm,1.3s,mb5.7
MORC   Moravsky Berou     97.94 322⇓iP      P        12 59 04.5 +0.5
DIVS   Divcibare          97.97 316  eP     P        12 59 03.0  -1.3
YKW3   Yellowknife Ar     98.04  24  eP     P        12 59 05.7 +1.5
YKA    Yellowknife Ar     98.08  24   P     P        12 59 05.5 +1.2
YKA                                 PP       PP       13 03 10.2 +7.2
YKA    Yellowknife Ar     98.08  24   P     P        12 59 05.5 +1.2
YKA                                                   13 03 10.2
YKA                                 S        SKSac    13 09 39.6  -1.4
YKA                                 pmax     pmax
       comp=Z,5.0nm,0.7s
YKA                                 pmax     pmax
       comp=Z,10.0nm,1.2s
YKA                                 pmax     pmax
       comp=Z,3.0nm,0.7s
YKA                                 smax
       comp=N,3.0nm,1.1s
YKA                                 pmax     pmax
       comp=Z,2.0nm,0.7s
YKA                                 MLR      MLR
       comp=Z,1µm,21.7s
YKA    Yellowknife Ar     98.08  24   P     P        12 59 05.5 +1.2
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       comp=Z,4.9nm,0.7s,mb5.2,baz=299,slow=4.5,SNR=92
YKA                                 PP       PP       13 03 10.2 +7.2
       comp=Z,9.5nm,1.2s,baz=303,slow=7.3,SNR=5.3
YKA                                 PKiKP    PKiKP    13 03 40.3 +3.0
       comp=Z,2.8nm,0.7s,baz=308,slow=1.5,SNR=18
YKA                                 S        SKSac    13 09 39.6  -1.4
       comp=Z,2.7nm,1.1s,baz=318,slow=4.6,SNR=4.9
YKA                                 PKKPbc   PKKPbc   13 15 37.9  -1.7
       comp=Z,1.6nm,0.7s,baz=117,slow=2.6,SNR=15
YKA                                 LR       LR       13 45 55.9
       comp=Z,1µm,21.7s,MS5.4,baz=230,slow=37
JMIC   Jan Mayen          98.17 346   P     P        12 59 07.1 +2.5
       comp=Z,44nm,0.5s,mb6.3,baz=103,slow=6.2,SNR=3.7
PKSM   Moragy             98.30 318   P     P        12 59 05.2  -0.6
PKSM   Moragy             98.30 318⇑iP      P        12 59 05.1  -0.6
KSP    Ksiaz              98.36 323  eP     P        12 59 06.5 +0.6
KSP                                 epP      pP       12 59 13.0 +0.7
KSP                                 eS       S        13 10 32.1  -1.1
KSP                                 LMZ               13 43 33.2
       comp=Z,6µm,26.1s
KSP    Ksiaz              98.36 323  eP     P        12 59 05.3  -0.6
KSP                                 eSKS              13 09 42.0
KSP                                 eSS      SS       13 17 33.0   +16
KSP                                 eSSS              13 21 28.0
KSP                                 LR       LR
       comp=Z,6µm,26.1s,MS6.0
KSP    Ksiaz              98.36 323  eP     P        12 59 05.3  -0.6
KSP                                 e                 13 09 42.0
KSP                                 MLR      MLR
       comp=Z,6µm,26.1s,MS6.0
DPC    Dobruska-Polom     98.50 323  eP     P        12 59 06.1  -0.4
DPC                                 ePP      PP       13 03 08.0 +1.3
DPC                                 AMS      AMS      13 43 50.0
       comp=Z,3µm,20.8s
KONO   Kongsberg          98.51 333   PFAKE           12 59 20.0   +14
KONO                                LR       LR
       comp=Z,8µm,22.0s,MS6.2
UPC    Upice              98.64 323  eP     P        12 59 06.9  -0.2
UPC                                 ePP      PP       13 03 12.0 +4.3
VRAC   Vranov             98.68 321   P     P        12 59 07.3   0.0
VRAC   Vranov             98.68 321   P     P        12 59 05.7  -1.6
       comp=Z,15nm,0.9s,mb5.5,baz=64,slow=4.9,SNR=10.0
VRAC   Vranov             98.68 321⇓iP      P        12 59 07.2  -0.1
RUE    Ruedersdorf        99.26 325  eP     P        12 59 10.0 +0.1
       comp=Z,177nm,1.2s,mb6.5
RUE    Ruedersdorf        99.26 325  ePdiff P        12 59 09.6  -0.2
TREC   Trest              99.36 322  eP     P        12 59 11.0 +0.6
TREC                                ex       x        13 18 14.8
TREC                                ex       x        13 22 20.2
TREC                                AMS      AMS      13 42 10.0
       comp=Z,3µm,23.6s
LSZ    Lusaka             99.39 255  eP     P        12 59 10.7  -0.5
LSZ                                 LR       LR
       comp=Z,3µm,20.0s,MS5.8
PVCC   Panska Ves         99.50 323  eP     P        12 59 11.3 +0.3
PVCC                                ex       x        13 17 51.4
PVCC                                ex       x        13 21 55.6
PVCC                                AMS      AMS      13 45 40.0
       comp=Z,4µm,21.4s
PRU    Pruhonice          99.70 323  eP     Pdif     12 59 11.2  -0.5
PRU                                 e                 13 03 19.6
PRU                                 ePS      PS       13 12 53.0   +39
PRU                                 eSS      SS       13 17 34.7  -0.7
PRU                                 MLR      MLR
       comp=Z,4µm,27.2s,MS5.7
PRU    Pruhonice          99.70 323  eP     Pdif     12 59 11.2  -0.5
PRU                                 ePP      PP       13 03 19.6 +3.7
PRU                                 ex       x        13 12 53.0
PRU                                 eSS      SS       13 17 34.7  -0.7
PRU                                 ex       x        13 22 21.8
PRU                                 AMS      AMS      13 44 10.0
       comp=Z,4µm,27.2s
ODD1   Odda               99.72 334  eP     Pdif     12 59 11.4  -0.4
       comp=Z,94nm,1.8s
ODD1   Odda               99.72 334  eP     Pdif     12 59 11.4  -0.4
ODD1                                AMb      AMB      12 59 17.3
       comp=Z,94nm,1.9s,mb5.9
BRG    Berggiesshubel     99.75 324  ePdiff Pdif     12 59 11.1  -0.8
BRG    Berggiesshubel     99.75 324  ePKP   Pdif     12 59 11.4  -0.5
       comp=Z,56nm,1.1s
BRG                                 e                 13 02 43.9
       comp=Z,11nm,1.1s
BRG                                 i                 13 03 26.1
       comp=Z,58nm,1.7s
BRG                                 SS                13 18 55.0
BRG
       comp=N,2µm,19.4s
BRG
       comp=E,3µm,22.2s
BRG
       comp=Z,4µm,21.3s
RKT    Rikitea            99.95 112  eSKSac SKSac    13 09 52.7 +0.8
       comp=Z,3µm,26.8s
RKT                                 eSP      SP       13 12 17.4 +1.8
       comp=Z,1µm,40.5s
RKT                                 eSS      SS       13 17 48.1 +7.3
       comp=Z,1µm,32.2s
RKT                                 eLR      LR       13 32 31.2
       comp=Z,4µm,25.0s,baz=288
FBE    Freiberg          100.08 324  ePdiff Pdif     12 59 12.7  -0.7
MUD    Monsted U’grnd    100.12 330  eP     Pdif     12 59 14.4 +0.8
MUD                                 pmax     pmax
       comp=Z,55nm,1.2s
MUD                                 MLR      MLR
       comp=Z,5µm,21.0s,MS6.0
MUD    Monsted U’grnd    100.12 330  i P    Pdif     12 59 14.4 +0.8
       comp=Z,55nm,1.2s
MUD                                 i                 13 18 12.5
MUD
       comp=Z,5µm,21.0s
CLL    Collm             100.14 324  i Pdif Pdif     12 59 13.3  -0.4
       comp=Z,48nm,1.3s
CLL                                 i                 12 59 21.9
CLL                                 i                 12 59 29.0
CLL                                 eSKS              13 09 47.0
CLL                                 eSdif    Sdif     13 10 55.0 +7.1
CLL                                 LR       LR
       comp=Z,4µm,21.7s,MS5.9
CLL    Collm             100.14 324  i P    Pdif     12 59 13.3  -0.4
CLL                                 i                 12 59 21.9
CLL                                 i                 12 59 29.0
CLL                                 e                 13 09 47.0
CLL                                 pmax     pmax
       comp=Z,48nm,1.3s
CLL                                 MLR      MLR
       comp=Z,4µm,21.7s,MS5.9
CLL    Collm             100.14 324  ePdiff Pdif     12 59 13.0  -0.7
       comp=Z,48nm,1.3s
CLL                                 ePP      PP       13 03 21.4 +2.3
CLL                                 eSKSac   SKSac    13 09 53.8 +2.0
CLL                                 eSdiff   Sdif     13 10 45.0  -2.9
CLL                                 eSP      SP       13 12 21.3 +5.4
CLL                                 ePPS              13 13 07.7
CLL                                 eSS      SS       13 18 19.6   +38
CLL                                 eSSS              13 21 35.3
CLL                                 eL                13 49 28.2
       comp=Z,5µm,22.0s
CLL    Collm             100.14 324⇓iPdif   Pdif     12 59 13.3  -0.4
       comp=Z,48nm,1.3s
CLL                                 i pPdif           12 59 21.9
CLL                                 i x      x        12 59 29.0
CLL                                 ex       x        13 02 56.0
CLL                                 ePP      PP       13 03 17.0  -2.1
       comp=Z,62nm,1.8s
CLL                                 ex       x        13 03 47.0
CLL                                 eSKSac   SKSac    13 09 47.0  -4.8
CLL                                 eSdif    Sdif     13 10 55.0 +7.1
CLL                                 ePS      PS       13 12 22.0 +3.1
CLL                                 e(PPS)            13 13 09.0
CLL                                 ex       x        13 14 20.0
CLL                                 eSS      SS       13 18 18.0   +37
CLL                                 ex       x        13 19 22.0
CLL                                 eSSS              13 22 12.0
CLL                                 Lm                13 49 00.0
       comp=N,4µm,21.4s
CLL                                 Lm                13 49 00.0
       comp=E,3µm,21.9s
CLL                                 Lm                13 49 00.0
       comp=Z,4µm,21.7s
COR    Corvallis         100.38  43   PFAKE           12 59 30.0   +15
COR                                 LR       LR
       comp=Z,4µm,22.0s,MS5.9
C05A   Tolt Reservoir    100.42  40 ⇑PKiKP  PKiKP    13 03 43.6 +1.7
       baz=100
```

PERS	**Pernice**	**100.49**	**319**	*i* P	Pdif	12 59 15.2	0.0
KHC	**Kasperske Hory**	**100.60**	**322**	*e*Pdif	Pdif	12 59 15.6	-0.1
KHC				*e*PP	PP	13 03 26.6	+4.0
KHC				*e*PS	PS	13 12 59.5	+36
KHC				*e*SS	SS	13 17 59.8	+12
KHC				*e*		13 22 36.9	
KHC				LR	LR		
	comp=Z,3µm,23.8s,MS5.8						
KHC	**Kasperske Hory**	**100.60**	**322**	*e*P	Pdif	12 59 15.3	-0.4
KHC	**Kasperske Hory**	**100.60**	**322**	*e*PDIF	Pdif	12 59 15.6	-0.1
KHC				*e*PP	PP	13 03 26.6	+4.0
KHC				*e*x	x	13 12 59.5	
KHC				*e*x	x	13 17 59.8	
KHC				*e*x	x	13 22 36.9	
KHC				AMS	AMS	13 43 50.0	
	comp=Z,3µm,23.8s						
BSEG	**Bad Segeberg**	**100.61**	**327**	*e*Pdif	Pdif	12 59 16.5	+0.8
BSEG	**Bad Segeberg**	**100.61**	**327**	*e*Pdiff	Pdif	12 59 16.5	+0.8
MOA	**Molln**	**100.62**	**321**	⇑*i*P	Pdif	12 59 16.0	+0.2
	comp=Z,31nm,1.0s						
MOA	**Molln**	**100.62**	**321**	⇑*i*Pdiff	Pdif	12 59 16.0	+0.2
	comp=Z,31nm,1.0s						
GEC2	**GERESS Array S**	**100.62**	**322**	*e*Pdif	Pdif	12 59 15.3	-0.6
GERES	**GERESS Array B**	**100.62**	**322**	P	Pdif	12 59 15.6	-0.2
GERES				PP	PP	13 03 26.0	+3.2
GERES	**GERESS Array B**	**100.62**	**322**	P	Pdif	12 59 15.6	-0.2
GERES						13 03 26.0	
GERES				pmax	pmax		
	comp=Z,12nm,1.0s						
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	**GERESS Array B**	**100.62**	**322**	P	Pdif	12 59 15.6	-0.2
	comp=Z,12nm,1.0s,baz=66,slow=3.3,SNR=32						
GERES				PP	PP	13 03 26.0	+3.2
	comp=Z,1.2nm,0.6s,baz=66,slow=4.5,SNR=3.5						
GERES				PKiKP	PKiKP	13 03 44.6	+2.3
	comp=Z,3.3nm,0.8s,baz=54,slow=2.3,SNR=4.4						
GERES				PKKPbc	PKKPbc	13 15 33.4	+1.4
	comp=Z,0.6nm,0.6s,baz=222,slow=1.8,SNR=4.0						
BOJS	**Bojanci**	**100.78**	**318**	*i* P	Pdif	12 59 17.0	+0.5
TANN	**Tannenbergstha**	**100.80**	**323**	*e*Pdiff	Pdif	12 59 16.0	-0.6
K02A	**Glendale**	**100.82**	**45**	⇓PKiKP	PKiKP	13 03 44.0	+1.2
	baz=101						
NKC	**Novy Kostel**	**100.87**	**323**	*e*P	Pdif	12 59 18.2	+1.3
NKC				MLR	MLR		
	comp=Z,3µm,27.9s,MS5.7						
NKC	**Novy Kostel**	**100.87**	**323**	*e*PDIF	Pdif	12 59 18.2	+1.3
NKC				AMS	AMS	13 40 00.0	
	comp=Z,3µm,27.9s						
WERD	**Werda**	**100.87**	**324**	*e*Pdiff	Pdif	12 59 16.8	-0.1
GUNZ	**Gunzen**	**100.89**	**323**	*e*Pdiff	Pdif	12 59 16.9	-0.1
WERN	**Wernitzgruen**	**100.89**	**323**	*e*Pdiff	Pdif	12 59 16.8	-0.2
WET	**Wettzell**	**101.02**	**322**	*e*Pdif	Pdif	12 59 17.0	-0.6
WET	**Wettzell**	**101.02**	**322**	*e*Pdiff	Pdif	12 59 17.0	-0.6
LJU	**Ljubljana**	**101.07**	**319**	*i* P	Pdif	12 59 20.8	+3.0
D06A	**Cle Elum**	**101.14**	**40**	⇑PKiKP	PKiKP	13 03 45.6	+2.3
	baz=101						
MOX	**Moxa**	**101.20**	**324**	*e*P	Pdif	12 59 18.9	+0.5
	comp=Z,42nm,1.4s						
MOX							
	comp=Z,4µm,22.0s						
MOX	**Moxa**	**101.20**	**324**	*e*P	Pdif	12 59 18.9	+0.5
MOX				pmax	pmax		
	comp=Z,42nm,1.4s						
MOX				MLR	MLR		
	comp=Z,4µm,22.0s,MS5.9						
MOX	**Moxa**	**101.20**	**324**	*e*Pdiff	Pdif	12 59 17.7	-0.7
HUMO	**Hull Mountain**	**101.24**	**45**	PFAKE		12 59 30.0	+11
HUMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
HUMO	**Hull Mountain**	**101.24**	**45**	⇑PKiKP	PKiKP	13 03 46.1	+2.6
	baz=101						
I04A	**Tendick Farm,**	**101.24**	**44**	⇑PKiKP	PKiKP	13 03 45.9	+2.3
	baz=101						
JAVS	**Javornik**	**101.43**	**319**	*i* P	Pdif	12 59 19.6	+0.2
KBA	**Koelnbreinsper**	**101.48**	**320**	⇑*i*P	Pdif	12 59 19.4	-0.2
	comp=Z,15nm,1.1s						
KBA	**Koelnbreinsper**	**101.48**	**320**	⇑*i*Pdiff	Pdif	12 59 19.4	-0.2
	comp=Z,15nm,1.1s						
KBA	**Koelnbreinsper**	**101.48**	**320**	⇑*i*P	Pdif	12 59 19.5	-0.1
KBA				pmax	pmax		
	comp=Z,15nm,1.0s						
VOY	**Vojsko**	**101.49**	**319**	*e*P	Pdif	12 59 19.6	-0.1
YBH	**Yreka Blue Hor**	**101.69**	**46**	PFAKE		12 59 30.0	+9.5
YBH				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
YBH	**Yreka Blue Hor**	**101.69**	**46**	⇓PKiKP	PKiKP	13 03 46.7	+2.3
	baz=102						
M02C	**Callahan**	**101.69**	**46**	⇓PKiKP	PKiKP	13 03 47.0	+2.5
	baz=102						
GRA1	**Grafenberg Arr**	**101.81**	**323**	*e*Pdif	Pdif	12 59 21.2	+0.1
GRA1				LR	LR		
	comp=Z,4µm,21.4s,MS6.0						
GRF	**Grafenberg Arr**	**101.81**	**323**	*e*Pdif	Pdif	12 59 21.2	+0.1
GRF				LR	LR		
	comp=Z,4µm,21.4s,MS6.0						
GRF	**Grafenberg Arr**	**101.81**	**323**	*e*Pdiff	Pdif	12 59 21.2	+0.1
GRF				*e*L		13 49 28.6	
	comp=Z,4µm,21.4s						
GRFO	**Grafenberg**	**101.81**	**323**	PFAKE		12 59 30.0	+8.9
GRFO				LR	LR		
	comp=Z,4µm,21.0s,MS5.9						
O02C	**Red Bluff**	**102.11**	**47**	⇑PKiKP	PKiKP	13 03 48.1	+2.9
	baz=102						
LBTB	**Lobatse**	**102.12**	**246**	PFAKE		12 59 30.0	+7.5
LBTB				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
ABTA	**Abfaltersbach**	**102.13**	**320**	⇑*i*Pdiff	Pdif	12 59 20.3	-2.3
	comp=Z,13nm,1.4s						
WDC	**Whiskeytown Da**	**102.16**	**47**	PFAKE		12 59 40.0	+17
WDC				LR	LR		
	comp=Z,4µm,21.0s,MS5.9						
HOPS	**Hopland**	**102.25**	**48**	PFAKE		12 59 40.0	+17
HOPS				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
HAWA	**Hanford**	**102.27**	**40**	PFAKE		12 59 40.0	+17
HAWA				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
MCCM	**Marconi Confer**	**102.65**	**49**	PFAKE		12 59 40.0	+15
MCCM				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
I06A	**Prineville**	**102.69**	**43**	⇓PKiKP	PKiKP	13 03 47.5	+1.3
	baz=103						
IBBN	**Ibbenburen**	**102.70**	**326**	*e*Pdiff	Pdif	12 59 26.6	+1.5
MNRC	**McLaughlin Nat**	**102.76**	**48**	⇓PKiKP	PKiKP	13 03 49.1	+2.6
	baz=103						
HATC	**Hat Creek Radi**	**102.87**	**46**	⇑PKiKP	PKiKP	13 03 48.8	+2.2
	baz=103						
CVS	**Carmenet Viney**	**102.91**	**49**	⇑PKiKP	PKiKP	13 03 49.8	+3.0
	baz=103						
J06A	**Christmas Vall**	**102.97**	**43**	⇓PKiKP	PKiKP	13 03 49.0	+2.2
	baz=103						
NEW	**Newport**	**103.06**	**38**	PFAKE		12 59 40.0	+13
NEW				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
FETA	**Feichten**	**103.16**	**321**	⇑*i*Pdiff	Pdif	12 59 26.2	-0.9
	comp=Z,18nm,1.2s						
TNS	**Taunus Mts**	**103.23**	**324**	*e*Pdif	Pdif	12 59 28.8	+1.4
TNS	**Taunus Mts**	**103.23**	**324**	*e*Pdiff	Pdif	12 59 28.8	+1.4
ORV	**Oroville**	**103.24**	**47**	⇓PKiKP	PKiKP	13 03 49.5	+2.2
	baz=103						
O04C	**Chester**	**103.30**	**47**	⇓PKiKP	PKiKP	13 03 49.8	+2.4
	baz=103						
OHCM	**Honcut**	**103.32**	**48**	*e*PKKPab		13 15 42.9	
MOD	**Modoc**	**103.33**	**45**	PFAKE		12 59 40.0	+12
MOD				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
MOD	**Modoc**	**103.33**	**45**	⇑PKiKP	PKiKP	13 03 49.9	+2.4
	baz=103						
ELFS	**Eagle Lake Fie**	**103.46**	**46**	⇓PKiKP	PKiKP	13 03 48.8	+1.1
	baz=104						
J07A	**Hines**	**103.50**	**43**	⇓PKiKP	PKiKP	13 03 49.4	+1.7
	baz=104						
F09A	**S2 Ranch, Elgi**	**103.57**	**41**	⇑PKiKP	PKiKP	13 03 49.6	+1.9
	baz=104						
A12A	**Yaak River Ran**	**103.67**	**37**	⇓PKiKP	PKiKP	13 03 49.2	+1.4
	baz=104						
E10A	**Myers Farm, Un**	**103.78**	**40**	⇓PKiKP	PKiKP	13 03 49.5	+1.4
	baz=104						
DAVOX	**Davos/Dischmat**	**103.79**	**321**	PP	PP	13 03 46.9	+0.2
	comp=Z,4.7nm,0.7s,baz=103,slow=10,SNR=3.5						
K07A	**Rock Creek Ran**	**103.79**	**44**	⇑PKiKP	PKiKP	13 03 48.7	+0.5
	baz=104						
B12A	**Libby**	**103.91**	**37**	⇑PKiKP	PKiKP	13 03 50.0	+1.8
	baz=104						
L07A	**Adell**	**103.96**	**44**	⇑PKiKP	PKiKP	13 03 50.2	+1.7
	baz=104						
S04C	**Ingram Canyon,**	**104.02**	**49**	⇑PKiKP	PKiKP	13 03 50.4	+1.6
	baz=104						
D11A	**Klaveano Farm,**	**104.04**	**39**	⇑PKiKP	PKiKP	13 03 49.7	+1.2
	baz=104						
N06A	**Buffalo Meadow**	**104.06**	**46**	⇑PKiKP	PKiKP	13 03 49.5	+0.7
	baz=104						
LAVA	**Lava Cap Winer**	**104.06**	**48**	⇓PKiKP	PKiKP	13 03 50.3	+1.4
	baz=104						
BFO	**Black Forest**	**104.11**	**323**	PFAKE		12 59 40.0	+8.7
BFO				LR	LR		
	comp=Z,5µm,21.0s,MS6.0						
H09A	**Durkee**	**104.13**	**41**	⇓PKiKP	PKiKP	13 03 49.7	+0.9
	baz=104						
SAO	**San Andreas Ge**	**104.15**	**50**	PFAKE		12 59 40.0	+8.5
SAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
PACP	**Pacheco Peak**	**104.20**	**50**	⇓PKiKP	PKiKP	13 03 49.7	+0.6
	baz=104						
BMO	**Blue Mountains**	**104.29**	**41**	PFAKE		12 59 50.0	+18
BMO				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
K08A	**Mann Creek Ran**	**104.30**	**44**	⇓PKiKP	PKiKP	13 03 50.5	+1.3
	baz=104						
WVOR	**Wild Horse Val**	**104.30**	**44**	*e*PKKPab	PKKPab	13 15 39.3	-0.4
	comp=Z,14nm,1.1s						
WVOR				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
V03C	**Hunter Liggett**	**104.54**	**51**	⇓PKiKP	PKiKP	13 03 51.3	+1.5
	baz=105						
CMB	**Columbia Colle**	**104.55**	**49**	*e*Pdif	Pdif	12 59 37.1	+3.8
CMB				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
CMB	**Columbia Colle**	**104.55**	**49**	⇑PKiKP	PKiKP	13 03 51.0	+1.3
	baz=105						
R05C	**Kirkwood Meado**	**104.57**	**48**	⇑PKiKP	PKiKP	13 03 51.3	+1.5
	baz=105						
J09A	**Fry Pan Ranch,**	**104.57**	**43**	⇑PKiKP	PKiKP	13 03 50.9	+1.3
	baz=105						
L08A	**Fields**	**104.59**	**44**	⇓PKiKP	PKiKP	13 03 51.3	+1.6
	baz=105						
WCN	**Washoe City**	**104.60**	**47**	⇑PKiKP	PKiKP	13 03 51.9	+2.1
	baz=105						
B13A	**Whitefish**	**104.62**	**37**	⇓PKiKP	PKiKP	13 03 50.8	+1.2
	baz=105						
F11A	**Grangeville**	**104.63**	**40**	⇓PKiKP	PKiKP	13 03 51.6	+1.9
	baz=105						
WALA	**Waterton Lakes**	**104.65**	**36**	Pdif	Pdif	12 59 36.2	+2.5
	comp=Z,5.8nm,1.4s						
WALA				*e*PKKPab	PKKPab	13 15 38.6	+0.5
N07B	**Gerlach**	**104.66**	**46**	⇑PKiKP	PKiKP	13 03 52.9	+3.0
	baz=105						
T05C	**Eagle Field, D**	**104.70**	**50**	⇓PKiKP	PKiKP	13 03 52.2	+2.1
	baz=105						
CDF	**Champ du Feu**	**104.70**	**323**	*e*P	Pdif	12 59 34.3	+0.3
	comp=Z,76nm,1.5s						
CDF	**Champ du Feu**	**104.70**	**323**	*e*P	Pdif	12 59 34.3	+0.3
	comp=Z,38nm,1.5s						
CDF	**Champ du Feu**	**104.70**	**323**	*e*P	Pdif	12 59 34.3	+0.3
CDF				pmax	pmax		
	comp=Z,38nm,1.5s						
H10A	**Noah's Angus R**	**104.76**	**41**	⇑PKiKP	PKiKP	13 03 52.7	+2.8
	baz=105						
U04C	**Hernandez Rese**	**104.79**	**50**	⇑PKiKP	PKiKP	13 03 53.1	+2.8
	baz=105						
S05C	**Merced**	**104.82**	**49**	⇑PKiKP	PKiKP	13 03 53.4	+3.1
	baz=105						
M08A	**Happy Creek Ra**	**104.84**	**45**	⇑PKiKP	PKiKP	13 03 53.4	+3.2
	baz=105						
O07A	**Toulon**	**104.94**	**46**	⇑PKiKP	PKiKP	13 03 52.7	+2.3
	baz=105						
S06C	**San Francisco**	**105.01**	**49**	⇑PKiKP	PKiKP	13 03 54.2	+3.6
	baz=105						
R06C	**Coleville**	**105.09**	**48**	⇑PKiKP	PKiKP	13 03 53.3	+2.6
	baz=105						
L09A	**Wilkinson Ranc**	**105.13**	**44**	⇑PKiKP	PKiKP	13 03 53.8	+3.1
	baz=105						
D13A	**Huson**	**105.19**	**38**	⇑PKiKP	PKiKP	13 03 52.9	+2.2
	baz=105						
H11A	**Donnelly**	**105.20**	**41**	⇑PKiKP	PKiKP	13 03 52.9	+2.2
	baz=105						
HINF	**Hinteralfeld**	**105.22**	**323**	*e*P	Pdif	12 59 36.8	+0.5
N08A	**GE Springer Mi**	**105.25**	**45**	⇑PKiKP	PKiKP	13 03 53.9	+2.9
	baz=105						
GIVF	**Givet**	**105.36**	**325**	*e*P	Pdif	12 59 36.8	-0.1
	comp=Z,130nm,1.4s						
GIVF	**Givet**	**105.36**	**325**	*e*P	Pdif	12 59 36.8	-0.1
	comp=Z,65nm,1.4s						
GIVF	**Givet**	**105.36**	**325**	*e*P	Pdif	12 59 36.8	-0.1
GIVF				pmax	pmax		
	comp=Z,65nm,1.4s						
K10A	**MacKenzie Ranc**	**105.39**	**43**	⇑PKiKP	PKiKP	13 03 55.4	+4.2
	baz=105						
T06C	**Millerton Lake**	**105.40**	**49**	⇑PKiKP	PKiKP	13 03 53.9	+2.5
	baz=106						
PTRM	**Twissleman Ran**	**105.45**	**51**	*e*PKPdf	PKiKP	13 03 54.2	+2.7
M09A	**Marrel Ranch,**	**105.50**	**45**	⇑PKiKP	PKiKP	13 03 54.3	+2.9
	baz=106						
R07C	**Lee Vining**	**105.53**	**48**	⇓PKiKP	PKiKP	13 03 56.3	+4.7
	baz=106						
I11A	**Placerville**	**105.55**	**42**	⇑PKiKP	PKiKP	13 03 54.4	+3.0
	baz=106						
MSO	**Missoula**	**105.62**	**38**	*e*PKPdf	PKiKP	13 03 53.9	+2.5
MSO				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
E13A	**Victor**	**105.64**	**39**	⇓PKiKP	PKiKP	13 03 53.9	+2.4
	baz=106						
N09A	**Rock Creek Ran**	**105.66**	**45**	⇓PKiKP	PKiKP	13 03 55.9	+4.2
	baz=106						
D14A	**Greenough**	**105.78**	**38**	⇑PKiKP	PKiKP	13 03 54.1	+2.4
	baz=106						
F13A	**Darby**	**105.83**	**39**	⇑PKiKP	PKiKP	13 03 54.9	+3.0
	baz=106						
MFID	**Camas Ranch**	**105.84**	**42**	⇓PKiKP	PKiKP	13 03 54.9	+3.0
	baz=106						
L10A	**Juniper Basin**	**105.93**	**44**	⇓PKiKP	PKiKP	13 03 54.2	+2.0
	baz=106						
NVAR	**Mina Array Bea**	**105.97**	**48**	Pdif	Pdif	12 59 43.0	+3.4
NVAR				PKPdf	PKiKP	13 03 56.9	+4.5
NVAR				PKKPbc	PKKPbc	13 15 18.1	+2.2
NVAR				PKKPab	PKKPab	13 15 33.4	+1.1
NVAR	**Mina Array Bea**	**105.97**	**48**	Pdiff	Pdif	12 59 43.0	+3.4
	comp=Z,2.0nm,0.8s,baz=260,slow=5.7,SNR=12						
NVAR				PKiKP	PKiKP	13 03 56.9	+4.5
	comp=Z,2.0nm,0.7s,baz=278,slow=0.3,SNR=11						
NVAR				PKKPbc	PKKPbc	13 15 18.1	+2.2
	comp=Z,2.8nm,1.1s,baz=132,slow=4.3,SNR=9.7						
NVAR				PKKPab	PKKPab	13 15 33.4	+1.1
	comp=Z,5.0nm,0.8s,baz=118,slow=5.5,SNR=13						
PKM	**Peak Mountain**	**105.99**	**52**	⇓PKiKP	PKiKP	13 03 57.2	+4.7
	baz=106						
CHMT	**Chamberlain Mo**	**106.01**	**38**	*e*Pdif	Pdif	12 59 43.0	+3.3
H12A	**Diamond D Ranc**	**106.02**	**41**	⇓PKiKP	PKiKP	13 03 55.6	+3.3
	baz=106						
BMN	**Battle Mountai**	**106.03**	**45**	*e*PKKPbc	PKKPbc	13 15 20.4	+4.7
BMN				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
Q08A	**Gabbs**	**106.09**	**47**	⇑PKiKP	PKiKP	13 03 56.1	+3.5
	baz=106						
SUR	**Sutherland**	**106.11**	**238**	PFAKE		13 04 00.0	+7.2
SUR				LR	LR		
	comp=Z,5µm,22.0s,MS6.1						
SBC	**Santa Barbara**	**106.22**	**52**	⇑PKiKP	PKiKP	13 03 55.7	+2.8
	baz=106						
L11A	**Cat Creek Ranc**	**106.38**	**43**	⇓PKiKP	PKiKP	13 03 56.9	+3.9
	baz=106						
S08C	**White Mtn Res**	**106.39**	**49**	⇓PKiKP	PKiKP	13 03 57.6	+4.4
	baz=106						
J12A	**Stokes Ranch,**	**106.39**	**42**	⇓PKiKP	PKiKP	13 03 55.6	+2.6
	baz=106						
H13A	**Challis**	**106.40**	**41**	⇑PKiKP	PKiKP	13 03 56.3	+3.3
	baz=106						
F14A	**Wisdom**	**106.42**	**39**	⇓PKiKP	PKiKP	13 03 56.3	+3.3
	baz=106						
G14A	**Jackson**	**106.61**	**40**	⇓PKiKP	PKiKP	13 03 56.3	+3.0
	baz=107						
EKA	**Eskdalemuir Ar**	**106.62**	**333**	Pdif	Pdif	12 59 42.5	+0.1
EKA				PKPdf	PKiKP	13 03 55.8	+2.7
EKA				PKKPbc	PKKPbc	13 15 15.8	+1.4
EKA	**Eskdalemuir Ar**	**106.62**	**333**	P	Pdif	12 59 42.6	+0.1
EKA				pmax	pmax		
	comp=Z,6.0nm,1.1s						
EKA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
EKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
EKA	**Eskdalemuir Ar**	**106.62**	**333**	Pdiff	Pdif	12 59 42.5	+0.1
	comp=Z,6.0nm,1.1s,baz=44,slow=6.1,SNR=3.6						
EKA				PKiKP	PKiKP	13 03 55.8	+2.7
	comp=Z,4.6nm,0.9s,baz=32,slow=3.5,SNR=4.1						
EKA				PKKPbc	PKKPbc	13 15 15.8	+1.4
	comp=Z,1.3nm,0.8s,baz=240,slow=3.4,SNR=3.8						
M11A	**Holland Ranch,**	**106.65**	**44**	⇑PKiKP	PKiKP	13 03 56.1	+2.6
	baz=107						
ESK	**Eskdalemuir**	**106.65**	**333**	PFAKE		13 04 00.0	+6.9
ESK				LR	LR		
	comp=Z,6µm,21.0s,MS6.1						
HLID	**Hailey**	**106.72**	**42**	*e*PKPdf	PKiKP	13 03 58.0	+4.4
HLID				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
HLID	**Hailey**	**106.72**	**42**	⇓PKiKP	PKiKP	13 03 56.5	+3.0
	baz=107						
I13A	**Wildhorse Cree**	**106.76**	**41**	⇑PKiKP	PKiKP	13 03 56.6	+3.0
	baz=107						
SNAA	**Sanae**	**106.77**	**195**	PKKPbc	PKKPbc	13 15 14.2	-0.2
	comp=Z,6.0nm,1.1s,baz=17,slow=3.6,SNR=5.6						
K12A	**Draper Farm, C**	**106.77**	**43**	⇓PKiKP	PKiKP	13 03 57.3	+3.6
	baz=107						
CWC	**Cottonwood Cre**	**106.82**	**50**	⇓PKiKP	PKiKP	13 03 56.8	+2.8
	baz=107						
TPH	**Tonopah**	**106.89**	**48**	PFAKE		13 04 10.0	+16
TPH				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
L12A	**House Creek Ra**	**106.89**	**43**	⇑PKiKP	PKiKP	13 03 57.2	+3.2
	baz=107						
N11A	**Elko Archery C**	**106.93**	**45**	⇑PKiKP	PKiKP	13 03 57.6	+3.5
	baz=107						
R09A	**Tonopah**	**106.94**	**47**	⇓PKiKP	PKiKP	13 03 57.3	+3.2
	baz=107						
J13A	**Cove Ranch, Pi**	**106.94**	**42**	⇓PKiKP	PKiKP	13 03 57.6	+3.6
	baz=107						
F15A	**Butte**	**106.96**	**39**	⇓PKiKP	PKiKP	13 03 56.0	+2.1
	baz=107						
S09A	**Goldfield**	**107.01**	**48**	⇑PKiKP	PKiKP	13 03 57.2	+2.8
	baz=107						
DLMT	**Dillon**	**107.11**	**39**	*e*PKKPbc	PKKPbc	13 15 13.1	+0.6
DLMT				*e*PKKPdf	PKKPdf	13 15 25.6	+0.6
GRAC	**Grapevine Rang**	**107.16**	**49**	⇓PKiKP	PKiKP	13 03 57.8	+3.2
	baz=107						
MCMT	**McKenzie Canyo**	**107.19**	**40**	*e*PKPdf	PKiKP	13 03 57.8	+3.4
MCMT				*e*PKKPdf	PKKPdf	13 15 26.8	+1.9
DAC	**Darwin (Calif)**	**107.25**	**50**	*e*PKKPbc	PKKPbc	13 15 13.2	+1.4
DAC				*e*PKKPdf	PKKPdf	13 15 26.1	+1.6
DAC				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
O11A	**Cowboy Ranch,**	**107.25**	**45**	⇑PKiKP	PKiKP	13 03 57.6	+2.9
	baz=107						
M12A	**Wells**	**107.26**	**44**	⇑PKiKP	PKiKP	13 03 58.2	+3.5
	baz=107						
G15A	**Dillon**	**107.27**	**39**	⇓PKiKP	PKiKP	13 03 56.9	+2.4
	baz=107						
ELK	**Elko**	**107.30**	**44**	PFAKE		13 04 10.0	+15
ELK				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
K13A	**Stover Farm, H**	**107.32**	**42**	⇑PKiKP	PKiKP	13 03 58.6	+3.9
	baz=107						
MPMC	**Manual Prospec**	**107.40**	**50**	⇓PKiKP	PKiKP	13 03 59.5	+4.4
	baz=108						
N12A	**Clover Valley,**	**107.40**	**44**	⇑PKiKP	PKiKP	13 03 58.8	+3.8
	baz=107						
P11A	**Circle Ranch,**	**107.40**	**46**	⇑PKiKP	PKiKP	13 03 57.9	+2.9
	baz=107						
S10A	**Tonopah Range,**	**107.40**	**48**	⇑PKiKP	PKiKP	13 03 58.5	+3.5
	baz=108						
EDW2	**Edwards Air Fo**	**107.42**	**51**	⇓PKiKP	PKiKP	13 03 59.2	+4.0
	baz=108						
LRMC	**Laurel Mountai**	**107.45**	**50**	⇓PKiKP	PKiKP	13 03 58.6	+3.4
	baz=108						
EGMT	**Eagleton**	**107.58**	**36**	*e*PKPdf	PKiKP	13 03 58.2	+3.2
EGMT				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
EGMT	**Eagleton**	**107.58**	**36**	⇓PKiKP	PKiKP	13 03 58.4	+3.3
	baz=108						
BOZ	**Bozeman (W)**	**107.58**	**39**	PKKPbc	PKKPbc	13 15 12.7	+1.7
BOZ				*e*PKKPdf	PKKPdf	13 15 25.5	+1.4
BOZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
BOZ	**Bozeman (W)**	**107.58**	**39**	⇑PKiKP	PKiKP	13 03 58.1	+3.0
	baz=108						
L13A	**Double Diamond**	**107.65**	**43**	⇑PKiKP	PKiKP	13 03 59.5	+4.2
	baz=108						
FURC	**Furnace Creek,**	**107.73**	**49**	⇓PKiKP	PKiKP	13 03 59.8	+4.1
	baz=108						
SFJD	**Kangerlussuaq**	**107.74**	**359**	PFAKE		13 04 10.0	+15
SFJD				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
SFJD	**Kangerlussuaq**	**107.74**	**359**	*i* P	PP	13 04 16.4	+1.5
	comp=Z,35nm,1.1s						
SFJD							
	comp=Z,2µm,23.0s						
Q11A	**Duckwater**	**107.75**	**46**	⇓PKiKP	PKiKP	13 03 59.8	+4.1
	baz=108						
M13A	**Montello**	**107.80**	**44**	⇓PKiKP	PKiKP	13 03 59.2	+3.5
	baz=108						
FFC	**Flin Flon**	**107.86**	**27**	PFAKE		13 04 10.0	+15
FFC				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
K14A	**Jones Ranch, D**	**107.97**	**42**	⇑PKiKP	PKiKP	13 03 59.5	+3.6
	baz=108						
N13A	**Wendover, West**	**107.98**	**44**	⇑PKiKP	PKiKP	13 03 59.5	+3.5
	baz=108						
TRCR	**Troy Canyon**	**107.98**	**47**	*e*PKPdf	PKiKP	13 03 59.9	+3.8
P12A	**McGill**	**108.04**	**46**	⇑PKiKP	PKiKP	13 03 60.0	+3.8
	baz=108						
S11A	**Rachel**	**108.13**	**48**	⇓PKiKP	PKiKP	13 04 00.2	+3.8
	baz=108						
U10A	**Ash Meadows, A**	**108.15**	**49**	⇑PKiKP	PKiKP	13 04 01.2	+4.7
	baz=108						
GSC	**Goldstone**	**108.19**	**50**	⇓PKiKP	PKiKP	13 04 00.0	+3.4
	baz=108						
FCC	**Fort Churchill**	**108.31**	**21**	*e*PKPdf	PKiKP	13 03 58.3	+2.2
SHOC	**Shoshone**	**108.37**	**50**	⇓PKiKP	PKiKP	13 04 01.0	+4.1
	baz=108						
VNA2	**Neumayer--Watz**	**108.38**	**194**	*e*PKiKP	PKiKP	13 04 00.1	+4.2
	baz=350,slow=0.9						
VNA2				*e*		13 04 22.1	
VNA2				*e*		13 15 08.5	
VNA2				*e*		13 15 17.8	
VNA2				*e*		13 15 22.8	
YMR	**Madison River**	**108.45**	**39**	PFAKE		13 04 10.0	+13
YMR				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
HVU	**Hansel Valley**	**108.57**	**43**	*e*PKPdf	PKiKP	13 04 00.7	+3.6
VNA3	**Neumayer Olymp**	**108.72**	**194**	*e*PKiKP	PKiKP	13 03 59.7	+3.2
VNA3				*e*		13 04 21.7	
VNA3				*e*		13 15 07.1	
VNA3				*e*		13 15 16.9	
VNA3				*e*		13 15 21.1	
GCMT	**Greycliff**	**108.73**	**38**	*e*PKKPab	PKKPab	13 15 18.8	-1.2
BGU	**Big Grassy Mou**	**108.76**	**44**	*e*PKPdf	PKiKP	13 04 01.4	+3.9
TUQ	**Turquoise Mtn.**	**108.81**	**50**	⇑PKiKP	PKiKP	13 04 00.9	+3.1
	baz=109						
IMW	**Indian Meadow**	**108.83**	**40**	*e*PKKPab	PKKPab	13 15 19.4	-0.1
U11A	**Corn Creek**	**108.86**	**49**	⇓PKiKP	PKiKP	13 04 01.2	+3.4
	baz=109						
LKWY	**Lake**	**108.86**	**39**	*e*PKKPab	PKKPab	13 15 20.4	+1.0
LKWY				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
TPAW	**Teton Pass**	**109.01**	**40**	*e*PKPdf	PKiKP	13 04 00.8	+2.9
TPAW				*e*PKKPab	PKKPab	13 15 17.8	-0.9
MOOW	**Moose Ponds**	**109.02**	**40**	*e*PKKPab	PKKPab	13 15 16.8	-1.8
V11A	**Goodsprings**	**109.04**	**49**	⇑PKiKP	PKiKP	13 04 02.2	+4.1
	baz=109						
PFO	**Pinyon Flat Ob**	**109.05**	**52**	PFAKE		13 04 10.0	+12
PFO				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
REDW	**Red Top Meadow**	**109.13**	**41**	*e*PKPdf	PKiKP	13 04 02.1	+4.0
REDW				PKKPbc	PKKPbc	13 15 06.8	+0.8
REDW				*e*PKKPab	PKKPab	13 15 18.3	+0.1
REDW				*e*		13 15 31.8	
LOHW	**Long Hollow**	**109.18**	**40**	*e*PKPdf	PKiKP	13 04 01.9	+3.7
LOHW				*e*PKKPab	PKKPab	13 15 17.1	-0.9
LOHW				*e*		13 15 34.2	
DUG	**Dugway**	**109.22**	**44**	*e*PKPdf	PKiKP	13 04 02.1	+3.8
DUG				*e*PKKPbc	PKKPbc	13 15 07.2	+1.4
DUG				*e*PKKPab	PKKPab	13 15 17.0	-0.8
DUG				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						

DUG	**Dugway**	**109.22**	**44**	⇑PKiKP	PKiKP	13 04 01.6	+3.2
	baz=109						
T12A	**Moapa**	**109.24**	**48**	⇓PKiKP	PKiKP	13 04 02.0	+3.4
	baz=109						
AHID	**Auburn Hatcher**	**109.25**	**41**	*e*PKKPab	PKKPab	13 15 16.1	-1.6
AHID				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
GMRC	**Granite Mounta**	**109.25**	**50**	⇓PKiKP	PKiKP	13 04 01.7	+3.1
	baz=109						
BELC	**Belle Mtn.**	**109.27**	**51**	⇑PKiKP	PKiKP	13 04 02.0	+3.4
	baz=109						
RLMT	**Red Lodge**	**109.30**	**38**	*e*PKKPab	PKKPab	13 15 17.0	-0.5
RLMT				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
MONP	**Monument Peak**	**109.32**	**53**	⇑PKiKP	PKiKP	13 04 02.5	+3.7
	baz=109						
HWUT	**Hardware Ranch**	**109.46**	**42**	*e*PKPdf	PKiKP	13 04 02.1	+3.3
HWUT				PKKPbc	PKKPbc	13 15 07.3	+2.3
HWUT				*e*PKKPab	PKKPab	13 15 16.0	-0.7
HWUT				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
U12A	**Valley of Fire**	**109.48**	**48**	⇓PKiKP	PKiKP	13 04 03.0	+4.1
	baz=110						
V12A	**Nelson**	**109.52**	**49**	⇓PKiKP	PKiKP	13 04 03.4	+4.4
	baz=110						
TSUM	**Tsumeb**	**109.60**	**252**	PFAKE		13 04 10.0	+10
TSUM				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
T13A	**Saint George**	**109.72**	**48**	⇑PKiKP	PKiKP	13 04 02.5	+3.1
	baz=110						
SWSC	**Sam W. Stewart**	**109.80**	**52**	⇑PKiKP	PKiKP	13 04 03.1	+3.4
	baz=110						
BC3	**Big Chuckw Mtn**	**109.81**	**51**	⇓PKiKP	PKiKP	13 04 02.1	+2.4
	baz=110						
IRM	**Iron Mountain**	**109.87**	**51**	⇓PKiKP	PKiKP	13 04 02.6	+2.8
	baz=110						
CCUT	**Cedar City**	**109.91**	**47**	*e*PKKPbc	PKKPbc	13 15 05.4	+2.0
CCUT				*e*PKKPab	PKKPab	13 15 15.9	+1.2
S14A	**Cedar City**	**109.97**	**47**	⇑PKiKP	PKiKP	13 04 04.2	+4.4
	baz=110						
JLU	**Jordanelle**	**109.98**	**43**	*e*PKPdf	PKiKP	13 04 03.5	+3.7
NEE2	**Needles Airpor**	**110.05**	**50**	⇑PKiKP	PKiKP	13 04 03.8	+3.7
	baz=110						
MPU	**Maple Canyon**	**110.11**	**44**	*e*PKPdf	PKiKP	13 04 03.9	+3.9
MPU				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
DAU	**Daniels Canyon**	**110.19**	**43**	*e*PKPdf	PKiKP	13 04 04.4	+4.2
DAU				*e*PKKPbc	PKKPbc	13 15 03.3	+0.7
DAU				*e*PKKPab	PKKPab	13 15 14.4	+1.0
DAU	**Daniels Canyon**	**110.19**	**43**	*e*PKIKP	PKiKP	13 04 04.4	+4.2
DAU				*e*		13 15 03.3	
DAU				*e*		13 15 14.4	
BW06	**Boulder Array**	**110.25**	**41**	*e*PKPdf	PKiKP	13 04 03.1	+2.9
BW06				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
PDAR	**Pinedale Array**	**110.25**	**41**	PKPdf	PKiKP	13 04 03.2	+3.0
PDAR				PKKPbc	PKKPbc	13 15 02.5	0.0
PDAR				PKKPab	PKKPab	13 15 12.7	-0.6
PDAR	**Pinedale Array**	**110.25**	**41**	PKiKP	PKiKP	13 04 03.2	+3.0
	comp=Z,1.9nm,0.6s,baz=138,slow=1.0,SNR=12						
PDAR				PKKPbc	PKKPbc	13 15 02.5	0.0
	comp=Z,2.2nm,1.0s,baz=126,slow=3.8,SNR=6.0						
PDAR				PKKPab	PKKPab	13 15 12.7	-0.6
	comp=Z,20nm,1.1s,baz=117,slow=5.2,SNR=20						
T14A	**Hurricane**	**110.31**	**47**	⇓PKiKP	PKiKP	13 04 04.6	+4.1
	baz=110						
LAO	**LASA Array**	**110.32**	**36**	*e*PKPdf	PKiKP	13 04 04.1	+3.9
LAO				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
MVU	**Marysvale**	**110.35**	**46**	PFAKE		13 04 10.0	+9.4
MVU				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
MSU	**Marysvale**	**110.37**	**46**	*e*PKPdf	PKiKP	13 04 05.5	+4.9
MSU	**Marysvale**	**110.37**	**46**	*e*PKIKP	PKiKP	13 04 05.5	+4.9
DGMT	**Dagmar**	**110.48**	**33**	PFAKE		13 04 10.0	+10
DGMT				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
W13A	**Hualapai Mount**	**110.48**	**50**	⇑PKiKP	PKiKP	13 04 05.3	+4.3
	baz=110						
Y12C	**Blythe**	**110.50**	**51**	⇓PKiKP	PKiKP	13 04 04.4	+3.4
	baz=111						
GLA	**Glamis**	**110.52**	**52**	⇓PKiKP	PKiKP	13 04 04.4	+3.4
	baz=111						
PDMCI	**Parker Dam,Lak**	**110.59**	**50**	⇓PKiKP	PKiKP	13 04 04.2	+3.1
	baz=111						
TMUT	**Trail Mountain**	**110.72**	**45**	*e*PKPdf	PKiKP	13 04 05.3	+4.1
TMUT				*e*PKKPbc	PKKPbc	13 15 03.1	+2.3
TMUT				*e*PKKPab	PKKPab	13 15 11.6	+0.5
X13A	**Yucca**	**110.72**	**50**	⇓PKiKP	PKiKP	13 04 05.1	+3.7
	baz=111						
Y13A	**Salome**	**111.01**	**51**	⇓PKiKP	PKiKP	13 04 05.3	+3.4
	baz=111						
W14A	**Seligman**	**111.05**	**49**	⇑PKiKP	PKiKP	13 04 06.0	+4.0
	baz=111						
SRU	**San Rafael**	**111.28**	**44**	*e*PKPdf	PKiKP	13 04 05.7	+3.4
SRU				*e*PKKPbc	PKKPbc	13 14 59.8	+0.7
SRU				*e*PKKPab	PKKPab	13 15 08.8	+0.2
SRU	**San Rafael**	**111.28**	**44**	*e*PKIKP	PKiKP	13 04 05.7	+3.4
X14A	**Yava**	**111.48**	**50**	⇑PKiKP	PKiKP	13 04 05.9	+3.1
	baz=112						
Y14A	**Wickenburg**	**111.60**	**50**	⇓PKiKP	PKiKP	13 04 06.4	+3.4
	baz=112						
W15A	**Williams**	**111.67**	**49**	⇓PKiKP	PKiKP	13 04 07.2	+4.0
	baz=112						
Z14A	**Wintersburg**	**111.87**	**51**	⇓PKiKP	PKiKP	13 04 06.0	+2.4
	baz=112						
X15A	**Humboldt**	**111.97**	**50**	⇑PKiKP	PKiKP	13 04 06.8	+3.1
	baz=112						
WUAZ	**Wupatki**	**112.20**	**48**	*e*PKPdf	PKiKP	13 04 08.4	+4.3
WUAZ				*e*PKKPbc	PKKPbc	13 14 56.9	+1.0
WUAZ				*e*PKKPab	PKKPab	13 15 06.0	+1.5
WUAZ				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
WUAZ	**Wupatki**	**112.20**	**48**	⇑PKiKP	PKiKP	13 04 07.2	+3.1
	baz=112						
RWWY	**Rawlins**	**112.30**	**41**	*e*PKKPbc	PKKPbc	13 14 57.2	+1.5
RWWY				*e*PKKPab	PKKPab	13 15 04.6	+0.5
RSSD	**Black Hills**	**113.01**	**37**	PFAKE		13 04 20.0	+15
RSSD				LR	LR		
	comp=Z,392nm,20.0s,MS5.0						
116A	**Eloy**	**113.14**	**51**	⇓PKiKP	PKiKP	13 04 09.4	+3.3
	baz=113						
MVCO	**Mesa Verde**	**113.56**	**46**	*e*PKPdf	PKiKP	13 04 10.4	+3.7
MVCO				*e*PKKPbc	PKKPbc	13 14 52.5	+1.2
MVCO				*e*PKKPab	PKKPab	13 14 59.2	+0.7
MVCO				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
MVCO	**Mesa Verde**	**113.56**	**46**	⇑PKiKP	PKiKP	13 04 09.8	+3.1
	baz=114						
ULM	**Lac du Bonnet**	**113.61**	**28**	*e*PKPdf	PKiKP	13 04 08.5	+2.1
ULM				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
ULM	**Lac du Bonnet**	**113.61**	**28**	PKiKP	PKiKP	13 04 08.5	+2.1
	comp=Z,9.1nm,0.6s,baz=323,slow=1.7,SNR=32						
ULM				PKKPab	PKKPab	13 15 00.7	+2.3
	comp=Z,3.8nm,0.9s,baz=140,slow=1.8,SNR=6.2						
SMCO	**Snowmass**	**113.69**	**43**	*e*PKPdf	PKiKP	13 04 10.9	+4.0
SMCO				*e*PKKPbc	PKKPbc	13 14 52.5	+1.6
SMCO				*e*PKKPab	PKKPab	13 14 59.3	+1.3
TUC	**Tucson**	**113.95**	**51**	*e*PKKPbc	PKKPbc	13 14 51.0	+1.1
TUC				*e*PKKPab	PKKPab	13 14 57.2	+0.4
TUC				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
ISCO	**Idaho Springs**	**114.29**	**42**	*e*PKPdf	PKiKP	13 04 11.5	+3.4
ISCO				*e*PKKPbc	PKKPbc	13 14 49.9	+1.0
ISCO				*e*PKKPab	PKKPab	13 14 55.7	+0.4
ISCO				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
ISCO	**Idaho Springs**	**114.29**	**42**	*e*PKIKP	PKiKP	13 04 11.5	+3.5
ISCO				MLR	MLR		
	comp=Z,3µm,22.0s,MS5.8						
AGMN	**Agassiz Refuge**	**114.94**	**30**	*e*PKKPbc	PKKPbc	13 14 47.0	-0.1
AGMN				*e*PKKPab	PKKPab	13 14 53.0	+0.6
AGMN				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
SDCO	**Great Sand Dun**	**115.40**	**44**	*e*PKPdf	PKPdf	13 04 13.8	+3.6
SDCO				*e*PKKPbc	PKKPbc	13 14 45.0	-0.1
SDCO				*e*PKKPab	PKKPab	13 14 51.4	+1.0
SDCO				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
LAZ	**Ladron**	**115.82**	**48**	*e*PKPdf	PKPdf	13 04 14.3	+3.2
LAZ				*e*PKKPab	PKKPab	13 14 49.0	+0.5
ESDC	**Sonseca Array**	**116.03**	**319**	PKP	PKPdf	13 04 11.4	0.0
ESDC				PP	PP	13 05 09.9	-5.4
ESDC	**Sonseca Array**	**116.03**	**319**	PKP	PKPdf	13 04 11.4	0.0
	comp=Z,0.6nm,0.4s,baz=11,slow=3.3,SNR=4.2						
ESDC				PP	PP	13 05 09.9	-5.4
	comp=Z,1.4nm,0.8s,baz=59,slow=8.4,SNR=4.9						
ESLA	**Sonseca Array**	**116.03**	**319**	PFAKE		13 04 20.0	+8.6
ESLA				LR	LR		
	comp=Z,20µm,22.0s,MS6.7						
ANMO	**Albuquerque**	**116.06**	**47**	*e*PKPdf	PKPdf	13 04 13.9	+2.4
ANMO				*e*PKKPab	PKKPab	13 14 47.7	+0.2
ANMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
ANMO	**Albuquerque**	**116.06**	**47***c*	*i*PKIKP	PKPdf	13 04 12.8	+1.2
LPM	**Los Pinos Moun**	**116.23**	**48**	*e*PKPdf	PKPdf	13 04 15.9	+4.0
LPM				*e*PKKPab	PKKPab	13 14 47.4	+0.7
BNM	**Barren Site**	**116.31**	**48**	*e*PKPdf	PKPdf	13 04 16.1	+4.0
BNM				*e*PKKPbc	PKKPbc	13 14 42.7	+0.9
BNM				*e*PKKPab	PKKPab	13 14 47.4	+1.0
PAB	**San Pablo**	**116.36**	**319**	PFAKE		13 04 20.0	+8.0
PAB				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
MVO	**Moncorvo**	**117.14**	**322**	*e*PKP	PKPdf	13 04 16.0	+2.5
MVO	**Moncorvo**	**117.14**	**322**	*e*LQ		13 44 53.3	
MVO				*e*LR	LR	13 47 57.9	
	comp=Z,2µm,20.4s						
EYMN	**Ely**	**117.27**	**28**	*e*PKPdf	PKPdf	13 04 15.9	+2.4
EYMN				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
PVRL	**Vila Real**	**117.49**	**322**	*e*PKP	PKPdf	13 04 17.3	+3.2
ECSD	**EROS,Sioux Fal**	**117.54**	**34**	*e*PKPdf	PKPdf	13 04 16.7	+2.5
ECSD				*e*PKKPbc	PKKPbc	13 14 39.0	+1.2
ECSD				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
MTE	**Manteigas**	**117.90**	**322**	*e*PKP	PKPdf	13 04 19.2	+4.2
MTE	**Manteigas**	**117.90**	**322**	*e*LR	LR	13 49 34.9	
	comp=Z,2µm,15.5s						
MTE	**Manteigas**	**117.90**	**322**	*e*PKPdf	PKPdf	13 04 18.1	+3.1
PVIS	**Viseu**	**117.93**	**322**	*e*PKP	PKPdf	13 04 17.3	+2.3
PCBR	**Castelo Branco**	**118.19**	**321**	*e*PKP	PKPdf	13 04 17.4	+1.9
MNTX	**Cornudas Mount**	**118.36**	**50**	*e*PKPdf	PKPdf	13 04 19.5	+3.4
MNTX				*e*PKKPbc	PKKPbc	13 14 34.1	-0.3
MNTX				*e*PKKPab	PKKPab	13 14 37.0	-0.4
MNTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
CBKS	**Cedar Bluff**	**118.66**	**40**	*e*PKPdf	PKPdf	13 04 19.6	+3.1
CBKS				*e*PKKPbc	PKKPbc	13 14 34.0	+0.4
CBKS				*e*PKKPab	PKKPab	13 14 36.5	+0.5
CBKS				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
CBKS	**Cedar Bluff**	**118.66**	**40**	*e*PKIKP	PKPdf	13 04 19.6	+3.1
CBKS				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.7						
PESTR	**Estremoz**	**118.82**	**320**	*e*PKP	PKPdf	13 04 18.9	+2.1
PTOM	**Tomar**	**118.90**	**321**	*e*PKP	PKPdf	13 04 19.2	+2.3
SCHQ	**Schefferville**	**118.95**	**9**	*e*PKPdf	PKPdf	13 04 17.4	+0.9
SCHQ				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
SCHQ	**Schefferville**	**118.95**	**9**	PKP	PKPdf	13 04 17.4	+0.8
	comp=Z,28nm,0.6s,baz=336,slow=2.4,SNR=62						
PBEJ	**Beja**	**119.48**	**320**	*e*PKP	PKPdf	13 04 21.2	+3.1
MOE	**Montemor**	**119.50**	**320**	*e*PKP	PKPdf	13 04 19.9	+1.8
COWI	**Conover**	**119.72**	**28**	*e*PKPdf	PKPdf	13 04 20.6	+2.3
COWI				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
PVAQ	**Vaqueiros**	**119.74**	**319**	*e*PKP	PKPdf	13 04 20.9	+2.3
PVAQ	**Vaqueiros**	**119.74**	**319**	*e*LQ		13 43 09.4	
PVAQ	**Vaqueiros**	**119.74**	**319**	*e*LR	LR	13 54 48.4	
	comp=Z,2µm,16.3s						
PMAFR	**Mafra**	**119.84**	**321**	*e*LQ		13 46 29.7	
PMAFR				A		14 01 02.8	
	comp=Z,3µm,22.8s						
PBDV	**Barranco-do-Ve**	**119.97**	**319**	*e*LQ		13 41 50.1	
PBDV	**Barranco-do-Ve**	**119.97**	**319**	*e*LR	LR	13 53 41.8	
	comp=Z,2µm,16.0s						
PMSA	**Palmer Station**	**120.28**	**175**	PFAKE		13 04 30.0	+11
PMSA				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
MORF	**Marmelete**	**120.41**	**319**	*e*PKP	PKPdf	13 04 23.2	+3.3
MORF	**Marmelete**	**120.41**	**319**	*e*LQ		13 45 08.8	
MORF				A		14 03 19.6	
	comp=Z,3µm,20.0s						
KSU1	**Kansas State U**	**120.45**	**38**	*e*PKPdf	PKPdf	13 04 22.8	+2.9
KSU1				*e*PKKPbc	PKKPbc	13 14 27.0	0.0
KSU1				*e*		13 14 43.3	
KSU1				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
SCIA	**State Center**	**120.63**	**34**	*e*PKPdf	PKPdf	13 04 23.0	+2.9
SCIA				*e*PKKPbc	PKKPbc	13 14 26.7	+0.2
SCIA				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
LTX	**Lajitas**	**120.75**	**51**	*e*PKPdf	PKPdf	13 04 23.8	+3.0
LTX				*e*PKKPbc	PKKPbc	13 14 25.8	+0.2
LTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
LTX	**Lajitas**	**120.75**	**51**	*e*PKIKP	PKPdf	13 04 23.8	+3.0
LTX				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.8						
TXAR	**Lajitas Array**	**120.75**	**51**	PKP	PKPdf	13 04 22.4	+1.7
TXAR				PKKPbc	PKKPbc	13 14 26.2	+0.5
TXAR	**Lajitas Array**	**120.75**	**51**	PKIKP	PKPdf	13 04 22.4	+1.6
TXAR				pmax	pmax		
	comp=Z,7.0nm,0.7s						
TXAR				pmax	pmax		
	comp=Z,9.0nm,1.1s						
TXAR	**Lajitas Array**	**120.75**	**51**	PKP	PKPdf	13 04 22.4	+1.7
	comp=Z,7.2nm,0.7s,baz=174,slow=0.5,SNR=44						
TXAR				PKKPbc	PKKPbc	13 14 26.2	+0.5
	comp=Z,8.9nm,1.1s,baz=130,slow=2.8,SNR=19						
JFWS	**Jewell Farm**	**121.51**	**31**	*e*PKPdf	PKPdf	13 04 23.8	+2.0
JFWS				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
JFWS	**Jewell Farm**	**121.51**	**31**	*e*PKIKP	PKPdf	13 04 23.8	+2.0
JFWS				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.7						
WMOK	**Wichita Mounta**	**121.59**	**43**	*e*PKPdf	PKPdf	13 04 24.9	+2.6
WMOK				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
WMOK	**Wichita Mounta**	**121.59**	**43**	*e*PKIKP	PKPdf	13 04 24.9	+2.7
WMOK				MLR	MLR		
	comp=Z,3µm,22.0s,MS5.8						
TOA0	**Torodi Ar. Sit**	**122.15**	**289**	*e*PKPdf	PKPdf	13 04 23.6	-0.2
TORD	**Torodi Ar. Bea**	**122.15**	**289**	PKP	PKPdf	13 04 23.6	-0.2
TORD				PKKPbc	PKKPbc	13 14 24.0	+4.0
TORD	**Torodi Ar. Bea**	**122.15**	**289**	PKP	PKPdf	13 04 23.6	-0.2
	comp=Z,68nm,0.8s,baz=41,slow=1.4,SNR=142						
TORD				PKKPbc	PKKPbc	13 14 24.0	+4.0
	comp=Z,4.7nm,1.1s,baz=254,slow=4.4,SNR=6.9						
GLMI	**Grayling**	**122.74**	**26**	PFAKE		13 04 40.0	+16
GLMI				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
RPN	**Rapa Nui**	**122.75**	**119**	PFAKE		13 04 40.0	+15
RPN				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
JCT	**Junction City**	**123.14**	**48**	*e*PKPdf	PKPdf	13 04 26.7	+1.4
JCT				*e*PKKPbc	PKKPbc	13 14 15.8	-0.7
JCT				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
JCT	**Junction City**	**123.14**	**48**	*e*PKIKP	PKPdf	13 04 26.7	+1.4
JCT				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.8						
HDIL	**Hopedale**	**123.69**	**32**	*e*PKPdf	PKPdf	13 04 28.2	+2.1
HDIL				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
ZAIG	**Zacatecas**	**124.48**	**58**	*i* P	PKPdf	13 04 32.9	+4.9
FVM	**French Village**	**124.86**	**35**	*e*PKPdf	PKPdf	13 04 30.6	+2.2
FVM	**French Village**	**124.86**	**35**	*e*PKIKP	PKPdf	13 04 30.6	+2.2
AAM	**Ann Arbor**	**125.16**	**27**	*e*PKPdf	PKPdf	13 04 31.5	+2.7
AAM				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
AAM	**Ann Arbor**	**125.16**	**27**	*e*PKIKP	PKPdf	13 04 31.5	+2.7
AAM				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.7						
MIAR	**Mount Ida**	**125.18**	**41**	*e*PKPdf	PKPdf	13 04 31.6	+2.5
MIAR				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
MIAR	**Mount Ida**	**125.18**	**41**	*e*PKIKP	PKPdf	13 04 31.6	+2.5
MIAR				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.8						
SIUC	**Southern Illin**	**125.74**	**35**	*e*PKPdf	PKPdf	13 04 32.7	+2.6
UALR	**University of**	**125.82**	**40**	*e*PKPdf	PKPdf	13 04 33.1	+2.7
KVTX	**Kingsville**	**126.07**	**50**	PFAKE		13 04 40.0	+9.0
KVTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
NATX	**Nacogdoches**	**126.12**	**44**	*e*PKPdf	PKPdf	13 04 34.9	+3.9
NATX				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
PARMO	**Parma**	**126.16**	**36**	*e*PKPdf	PKPdf	13 04 33.5	+2.6
BLO	**Bloomington**	**126.16**	**32**	*e*PKPdf	PKPdf	13 04 33.9	+3.0
BLO	**Bloomington**	**126.16**	**32**	*e*PKIKP	PKPdf	13 04 33.9	+3.0
MSNY	**Massena**	**126.29**	**19**	*e*PKPdf	PKPdf	13 04 33.2	+2.3
HKT	**Hockley**	**126.33**	**46**	*e*PKPdf	PKPdf	13 04 34.3	+2.9
HKT				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
HKT	**Hockley**	**126.33**	**46**	*e*PKIKP	PKPdf	13 04 34.3	+2.9
HKT				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.9						
HBAR	**Harrisburg**	**126.36**	**38**	*e*PKPdf	PKPdf	13 04 34.0	+2.7
USIN	**University of**	**126.43**	**33**	*e*PKPdf	PKPdf	13 04 34.1	+2.7
GNAR	**Gosnell**	**126.47**	**37**	*e*PKPdf	PKPdf	13 04 34.6	+3.0
GLAT	**Glass**	**126.70**	**36**	*e*PKPdf	PKPdf	13 04 34.9	+2.9
LONY	**Lake Ozonia**	**126.72**	**19**	*e*PKPdf	PKPdf	13 04 33.9	+2.2
LONY				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
UTMT	**University of**	**126.89**	**36**	*e*PKPdf	PKPdf	13 04 34.9	+2.5
WCI	**Wyandotte Cave**	**126.98**	**32**	*e*PKPdf	PKPdf	13 04 35.0	+2.5
WCI				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
WCI	**Wyandotte Cave**	**126.98**	**32**	*e*PKIKP	PKPdf	13 04 35.0	+2.6
WCI				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.6						
ACSO	**Alum Creek Sta**	**127.11**	**28**	*e*PKPdf	PKPdf	13 04 35.2	+2.6
ACSO				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
ALLY	**Alegheny Colle**	**127.22**	**25**	*e*PKPdf	PKPdf	13 04 35.1	+2.3
NCB	**Newcomb**	**127.41**	**19**	*e*PKPdf	PKPdf	13 04 35.7	+2.6
NCB				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
PKME	**Peaks-Kenny Pk**	**127.61**	**14**	*e*PKPdf	PKPdf	13 04 35.9	+2.4
PKME				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
WVT	**Waverly**	**127.64**	**35**	*e*PKPdf	PKPdf	13 04 34.7	+1.0
WVT				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
WVT	**Waverly**	**127.64**	**35**	*e*PKIKP	PKPdf	13 04 34.7	+0.9
WVT				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.7						
OXF	**Oxford**	**127.82**	**38**	*e*PKPdf	PKPdf	13 04 36.3	+2.1
OXF				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
OXF	**Oxford**	**127.82**	**38**	*e*PKIKP	PKPdf	13 04 36.3	+2.1
OXF				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.7						
LBNH	**Lisbon**	**127.87**	**17**	*e*PKPdf	PKPdf	13 04 36.9	+3.0
LBNH				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
LBNH	**Lisbon**	**127.87**	**17**	*e*PKIKP	PKPdf	13 04 36.9	+2.9
LBNH				MLR	MLR		
	comp=Z,3µm,22.0s,MS5.9						
HNH	**Hanover**	**128.25**	**17**	*e*PKPdf	PKPdf	13 04 38.1	+3.4
PLAL	**Pickwick Lake**	**128.30**	**36**	PFAKE		13 04 50.0	+15
PLAL				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
BINY	**Binghamton**	**128.38**	**21**	*e*PKPdf	PKPdf	13 04 37.9	+2.9
BINY				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
PMAR	**Madeira**	**128.56**	**320**	*e*PKP	PKPdf	13 04 42.8	+7.2
MCWV	**Mont Chateau**	**129.00**	**26**	*e*PKPdf	PKPdf	13 04 38.7	+2.5
MCWV				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
SSPA	**Standing Stone**	**129.00**	**24**	*e*PKPdf	PKPdf	13 04 38.7	+2.5
SSPA				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
USHA	**Ushuaia**	**129.28**	**169**	SKPbc		13 07 59.3	
	comp=Z,24nm,1.1s,baz=153,slow=4.5,SNR=3.6						
HRV	**Harvard--Oak R**	**129.56**	**17**	*e*PKPdf	PKPdf	13 04 40.0	+2.7
HRV				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
HRV	**Harvard--Oak R**	**129.56**	**17**	*e*PKIKP	PKPdf	13 04 40.0	+2.8
HRV				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.7						
TZTN	**Tazewell**	**129.68**	**32**	*e*PKPdf	PKPdf	13 04 40.3	+2.7
TZTN				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
WES	**Weston**	**129.74**	**17**	*e*PKPdf	PKPdf	13 04 40.2	+2.6
WES				LR	LR		
	comp=Z,770nm,19.0s,MS5.4						
WES	**Weston**	**129.74**	**17**	*e*PKIKP	PKPdf	13 04 40.2	+2.6
WES				MLR	MLR		
	comp=Z,770nm,19.0s,MS5.4						
KIC	**Kosan Boka**	**129.93**	**283**	*e*PKIKP	PKPdf	13 04 39.3	+0.6
	comp=Z,849nm,1.1s						
CPCT	**Cooper Cave**	**129.99**	**33**	*e*PKPdf	PKPdf	13 04 41.0	+2.7
TIC	**Toumodi**	**130.14**	**283**	*e*PKIKP	PKPdf	13 04 39.1	0.0
	comp=Z,477nm,1.0s						
MVL	**Millersville**	**130.16**	**23**	*e*PKPdf	PKPdf	13 04 40.1	+1.7
PAL	**Palisades**	**130.17**	**20**	*e*PKPdf	PKPdf	13 04 41.4	+2.9
PAL	**Palisades**	**130.17**	**20**	*e*PKIKP	PKPdf	13 04 41.4	+3.0
TKL	**Tuckaleechee C**	**130.24**	**33**	SKPbc	SKPbc	13 08 01.0	+0.1
	comp=Z,38nm,1.0s,baz=263,slow=0.9,SNR=12						
LIC	**Lamto**	**130.24**	**283**	*e*PKIKP	PKPdf	13 04 39.4	+0.1
	comp=Z,373nm,1.1s						
LIC	**Lamto**	**130.24**	**283**	*e*PKIKP	PKPdf	13 04 39.3	0.0
	comp=Z,456nm,1.1s						
LIC	**Lamto**	**130.24**	**283**	*e*PKPdf	PKPdf	13 04 39.4	+0.1
LRAL	**Lakeview Retre**	**130.29**	**37**	*e*PKPdf	PKPdf	13 04 40.0	+1.1
LRAL				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
SDMD	**Soldier's Deli**	**130.47**	**24**	*e*PKPdf	PKPdf	13 04 41.6	+2.6
ELN	**Prospectdale**	**130.55**	**29**	*e*PKPdf	PKPdf	13 04 41.3	+2.1
BLA	**Blacksburg**	**130.72**	**28**	*e*PKPdf	PKPdf	13 04 41.9	+2.3
BLA				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
BLA	**Blacksburg**	**130.72**	**28**	*e*PKIKP	PKPdf	13 04 41.9	+2.3
BLA				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.8						
TRIS	**Tristan da Cun**	**130.95**	**224**	PFAKE		13 04 50.0	+10
TRIS				LR	LR		
	comp=Z,970nm,20.0s,MS5.5						
CBN	**Corbin**	**131.27**	**25**	*e*PKPdf	PKPdf	13 04 43.7	+3.1
CBN				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
BRAL	**Brewton**	**131.64**	**39**	*e*PKPdf	PKPdf	13 04 44.4	+2.9
BRAL				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
URVA	**University of**	**131.73**	**26**	*e*PKPdf	PKPdf	13 04 44.4	+2.9
GOGA	**Godfrey**	**132.08**	**34**	*e*PKPdf	PKPdf	13 04 45.4	+3.1
GOGA				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
GOGA	**Godfrey**	**132.08**	**34**	*e*PKIKP	PKPdf	13 04 45.4	+3.1
GOGA				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.7						
JSC	**Jenkinsville**	**132.62**	**32**	*e*PKPdf	PKPdf	13 04 47.0	+3.7
JSC	**Jenkinsville**	**132.62**	**32**	*e*PKIKP	PKPdf	13 04 47.0	+3.7
LHS	**Liberty Hill**	**132.70**	**31**	*e*PKPdf	PKPdf	13 04 46.6	+3.2
LHS	**Liberty Hill**	**132.70**	**31**	*e*PKIKP	PKPdf	13 04 46.6	+3.2
CMIG	**Matias Romero**	**133.41**	**60**	SKPbc	SKPbc	13 08 13.8	+1.1
	comp=Z,9.1nm,1.0s,baz=48,slow=4.0,SNR=5.5						
CNNC	**Cliffs of the**	**133.51**	**28**	PFAKE		13 05 00.0	+15
CNNC				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
COW	**Cow Castle Cre**	**133.61**	**32**	*e*PKPdf	PKPdf	13 04 49.8	+4.6
NHSC	**New Hope**	**134.09**	**32**	PFAKE		13 05 00.0	+14
NHSC				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
DWPF	**Disney**	**137.15**	**37**	PFAKE		13 05 00.0	+8.1
DWPF				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
TEIG	**Tepich**	**137.38**	**52**	PFAKE		13 05 00.0	+7.5
TEIG				LR	LR		
	comp=Z,39µm,21.0s,MS7.1						
SOR	**Soroa**	**139.78**	**45**	*e*P	PKPdf	13 04 48.8	-8.1
BBSR	**BB Station**	**140.95**	**15**	PFAKE		13 05 10.0	+11
BBSR				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
ASCN	**Ascension**	**141.04**	**264**	PFAKE		13 05 10.0	+11
ASCN				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
TGUH	**Tegucigalpa,Un**	**141.32**	**60**	*e*PKPdf	PKPdf	13 05 04.2	+4.4
TGUH				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
PAYG	**Puerto Ayora**	**142.99**	**84**	*e*PKPdf	PKPdf	13 05 07.4	+4.4
PAYG				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
VCR	**Vista de Mar**	**144.48**	**64**	*e*P	PKPdf	13 05 09.6	+4.1
CCHI	**Chillan**	**144.60**	**154**	*e*P	PKPdf	13 05 02.7	-2.3
JTS	**JuntasAbangare**	**145.02**	**64**	*e*PKPdf	PKPdf	13 05 06.2	-0.2
JTS				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
JTS	**JuntasAbangare**	**145.02**	**64**	*e*PKP2	PKPab	13 05 06.2	+0.5
JTS				MLR	MLR		

	comp=Z,2µm,22.0s						
JTS	**JuntasAbangare**	**145.02**	**64**	PKPbc	PKPbc	13 05 06.5	+0.7
	comp=Z,164nm,0.8s,baz=294,slow=3.7,SNR=34						
JCR	**Jicaral**	**145.06**	**64**	*e*P	PKPab	13 05 11.0	+5.1
CGA2	**Cerro Gallo 2**	**145.57**	**64**	*e*P	PKPab	13 05 11.8	+4.1
LMGC	**Las Mercedes**	**145.73**	**42**	*e*P	PKPdf	13 05 00.2	-7.3
LAJ	**Bijagual**	**145.94**	**64**	*e*P	PKPab	13 05 13.0	+3.9
QCR	**Quepos**	**146.08**	**64**	*e*P	PKPab	13 05 13.0	+3.3
LCR2	**La Lucha 2**	**146.10**	**64**	*e*P	PKPdf	13 05 11.1	+2.8
ICR	**Volcan Irazu**	**146.15**	**63**	*e*P	PKPab	13 05 11.9	+2.0
URSC	**Urasca**	**146.26**	**63**	*e*P	PKPdf	13 05 11.3	+2.8
NICH	**Los Niches**	**146.31**	**153**	*e*P	PKPdf	13 05 10.8	+2.8
MOAC	**Moa**	**146.61**	**38**	*e*P	PKPab	13 05 14.9	+3.4
RCC	**Rio Carpintero**	**146.63**	**40**	*e*P	PKPdf	13 05 10.6	+1.6
BAR1		**146.92**	**64**	*e*P	PKPab	13 05 13.5	+0.5
MASC	**Masc**	**147.42**	**38**	*e*P	PKPab	13 05 15.2	+0.5
FCH	**Farellones**	**148.14**	**153**	⇑*e*P	PKPdf	13 05 13.2	+2.1
BCIP	**Isla Barro Col**	**150.03**	**61**	*e*PKPdf	PKPdf	13 05 17.3	+2.6
BCIP				*e*PKPbc	PKPbc	13 05 23.1	+3.4
SDDR	**Presa de Saban**	**150.10**	**35**	*e*PKPdf	PKPdf	13 05 17.1	+2.4
SDDR				*e*PKPbc	PKPbc	13 05 21.7	+2.0
SDDR				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
LPA	**La Plata**	**150.37**	**173**	c*e*PKP	PKPdf	13 05 15.0	+0.3
LPA				*e*pPKP	pPKPdf	13 05 24.0	+2.8
LPA				*e*SKS	SKSdf	13 12 20.0	-1.8
TLL	**Tololo Astrono**	**150.47**	**149**	*e*PKIKP	PKPdf	13 05 16.7	+1.7
TLL	**Tololo Astrono**	**150.47**	**149**	*e*P	PKPdf	13 05 16.7	+1.7
CFAA	**Coronel Fontan**	**150.51**	**154**	PKP	PKPdf	13 05 17.9	+2.9
CFAA				PKPbc	PKPbc	13 05 23.6	+3.3
CFAA	**Coronel Fontan**	**150.51**	**154**	PKP	PKPdf	13 05 17.9	+2.9
	comp=Z,3.3nm,1.0s,baz=214,slow=1.8,SNR=27						
CFAA				PKPbc	PKPbc	13 05 23.6	+3.3
	comp=Z,26nm,0.9s,baz=226,slow=1.8,SNR=91						
LCO	**Las Campanas**	**151.44**	**147**	*e*PKPdf	PKPdf	13 05 20.1	+3.6
LCO				*e*PKPbc	PKPbc	13 05 27.0	+4.4
LCO				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
SJG	**San Juan**	**153.51**	**28**	*e*PKPdf	PKPdf	13 05 21.4	+1.5
SJG				*e*PKPbc	PKPbc	13 05 29.3	+1.8
SJG				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
SJG	**San Juan**	**153.51**	**28**	PKIKP	PKPdf	13 05 21.1	+1.3
SJG						13 05 28.9	
SJG				pmax	pmax		
	comp=Z,10.0nm,0.3s						
SJG				pmax	pmax		
	comp=Z,32nm,0.5s						
SJG				pmax	pmax		
	comp=Z,44nm,0.6s						
SJG	**San Juan**	**153.51**	**28**	PKP	PKPdf	13 05 21.1	+1.2
	comp=Z,10nm,0.3s,baz=349,slow=21,SNR=6.5						
SJG				PKPbc	PKPbc	13 05 28.9	+1.4
	comp=Z,32nm,0.5s,baz=11,slow=21,SNR=10.0						
SJG				PKPab	PKPab	13 05 42.4	+2.8
	comp=Z,44nm,0.6s,baz=326,slow=14,SNR=6.1						
CPD	**Cerro la Pandu**	**153.68**	**27**	*e*PKPdf	PKPdf	13 05 22.7	+2.6
CPD				*e*PKPbc	PKPbc	13 05 30.5	+2.6
CPD	**Cerro la Pandu**	**153.68**	**27**	*e*PKIKP	PKPdf	13 05 22.7	+2.6
CPD				*e*		13 05 30.5	
MTP	**Monte Pirata**	**153.79**	**27**	*e*PKPdf	PKPdf	13 05 21.9	+1.7
MTP				*e*PKPbc	PKPbc	13 05 30.7	+2.5
OTAV	**Otavalo**	**154.47**	**78**	*e*PKPdf	PKPdf	13 05 24.4	+3.1
ATAH	**Atahualpa**	**155.22**	**95**	PKP	PKPdf	13 05 26.4	+4.0
	comp=Z,26nm,1.0s,baz=232,slow=0.7,SNR=28						
ATAH				PKPab	PKPab	13 05 51.2	+3.9
	comp=Z,20nm,0.8s,baz=180,slow=4.0,SNR=5.2						
NNA	**Nana**	**156.05**	**107**	*e*PKPdf	PKPdf	13 05 26.6	+3.2
NNA				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
NNA	**Nana**	**156.05**	**107**	PKP	PKPdf	13 05 26.4	+3.0
	comp=Z,14nm,0.7s,baz=296,slow=2.7,SNR=9.4						
ROSC	**El Rosal**	**156.84**	**64**	*e*PKPdf	PKPdf	13 05 28.4	+3.9
ROSC	**El Rosal**	**156.84**	**64**	PKP	PKPdf	13 05 27.4	+2.9
	comp=Z,23nm,0.7s,baz=105,slow=2.8,SNR=26						
ARE	**Arequipa**	**159.24**	**123**	*e*P	PKPdf	13 05 32.0	+4.7
ARE	**Arequipa**	**159.24**	**123**	*e*PKIKP	PKPdf	13 05 32.0	+4.7
BBGH	**Gun Hill**	**160.61**	**18**	PFAKE		13 05 40.0	+11
BBGH				LR	LR		
	comp=Z,5µm,22.0s						
PCRV	**Puerto La Cruz**	**160.96**	**36**	PKP	PKPdf	13 05 30.8	+1.5
PCRV	**Puerto La Cruz**	**160.96**	**36**	PKP	PKPdf	13 05 30.8	+1.5
	comp=Z,15nm,0.8s,baz=308,slow=1.8,SNR=5.4						
LPAZ	**La Paz**	**162.05**	**128**	*e*PKPdf	PKPdf	13 05 33.1	+2.7
LPAZ				*e*SKPdf	SKPdf	13 09 02.2	+0.6
LPAZ				LR	LR		
	comp=Z,1µm,21.0s						
LPAZ	**La Paz**	**162.05**	**128**	PKIKP	PKPdf	13 05 33.0	+2.6
LPAZ				pmax	pmax		
	comp=Z,46nm,1.1s						
LPAZ				pmax	pmax		
	comp=Z,14nm,0.9s						
LPAZ	**La Paz**	**162.05**	**128**	PKP	PKPdf	13 05 33.0	+2.6
	comp=Z,46nm,1.1s,baz=283,slow=2.9,SNR=65						
LPAZ				PKPab	PKPab	13 06 22.6	+5.9
	comp=Z,14nm,0.8s,baz=219,slow=6.5,SNR=5.8						
RCBR	**Riachuelo**	**162.47**	**268**	PFAKE		13 05 40.0	+9.1
RCBR				LR	LR		
	comp=Z,3µm,21.0s						
SIV	**San Ignacio**	**167.14**	**145**	PKP	PKPdf	13 05 36.2	+1.4
SIV	**San Ignacio**	**167.14**	**145**	PKP	PKPdf	13 05 36.2	+1.4
	comp=Z,21nm,1.1s,baz=209,slow=1.3,SNR=46						

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*GRAL **12** 12:59:25.9±1.8, 34.57N×36.78E, h15^{km}±105^{km}, MD3.2*

*NSSC **12** 12:59:26.9, 34.40N×36.66E, h7^{km}±1^{km}*

*ISCJB **12** 12:59:27.3±0.5, 34.38N±0.04×36.67E±0.03, h12^{km}±7^{km}, Error ellipse: s-maj=5.9km s-min=4.4km az=0.5*

ISC 12 12:59:27.7±0.5, 34.40N±0.03×36.68E±0.03, h10^{km}±7^{km}, n13, σ0^{s}.86/23, 1D, Jordan - Syria region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HAWK	**Haweek**	**0.25**	**298**	⇑P	**Pg**	**12 59 32.1**	**-0.8**
HAWK				⇑S	**Sg**	**12 59 36.6**	**+0.2**
MARH	**Ras Al Marh**	**0.41**	**203**	⇓P	**Pg**	**12 59 35.0**	**-0.8**
MARH				⇑S	**Sg**	**12 59 41.6**	**+0.4**
RABH	**Abou Rabah**	**0.44**	**86**	⇑P	**Pg**	**12 59 36.2**	**-0.2**
RABH				⇑S	**Sg**	**12 59 43.1**	**+0.9**
ROOS	**tl_alroos**	**0.56**	**115**	⇑P	**Pg**	**12 59 38.2**	**-0.4**
ROOS				⇑S	**Sg**	**12 59 46.4**	**+0.5**
HWQ	**Hawqa**	**0.62**	**259**	*e*Pg	**Pg**	**12 59 39.5**	**-0.2**
HWQ				*e*Sg	**Sg**	**12 59 49.2**	**+1.4**
HWQ	**Hawqa**	**0.62**	**259**	*e*Pg	**Pg**	**12 59 39.5**	**-0.2**
HWQ				*e*Sg	**Sg**	**12 59 49.2**	**+1.4**
BIDA	**Albida**	**0.68**	**334**	⇑P	**Pg**	**12 59 40.3**	**-0.5**
BIDA				⇑S	**Sg**	**12 59 50.3**	**+0.6**
BHL	**Bhannes**	**0.98**	**240**	*e*Sg	**Sg**	**12 59 58.9**	**-0.5**
BHL	**Bhannes**	**0.98**	**240**	*e*Sg	**Sg**	**12 59 58.9**	**-0.6**
WRDH	**Warideh**	**1.12**	**349**	⇑P	**Pb**	**12 59 48.3**	**-0.9**
RCY	**Rachaya**	**1.16**	**218**	*e*Pg	**Pg**	**12 59 48.3**	**-1.7**
RCY				*e*Sg	**Sg**	**13 00 06.6**	**+1.5**
RCY	**Rachaya**	**1.16**	**218**	*e*Pg	**Pg**	**12 59 48.3**	**-1.8**
RCY				*e*Sg	**Sg**	**13 00 06.6**	**+1.5**
ARNB	**Al Arnab**	**1.56**	**339**	⇑P	**Pn**	**12 59 55.0**	**-0.6**
ARNB				⇑S	**Sn**	**13 00 17.1**	**+1.2**

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*CSEM **12** 13:30:17.5±0.4, 35.83N×10.01W, h10^{km}, ML3.8/4, Error ellipse: s-maj=10.3km s-min=4.4km az=100.0*

*NEIC **12** 13:30:21.1, 36.14N×10.09W, h0^{km}, MN2.8(MDD), After MDD.*

*INMG **12** 13:30:22.0±0.8, 36.07N×10.16W, h10^{km}, ML2.6, Error ellipse: s-maj=4.3km s-min=2.9km az=88.0*

*CNRM **12** 13:30:24.1, 35.68N×10.11W, h57^{km}, MD3.5*

MDD 12 13:30:20.1±1.6, 35.95N×10.40W, h54^{km}±91^{km}, mb4.2/9, Error ellipse: s-maj=16.3km s-min=11.0km az=79.0, PRXIMO, Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	**1.73**	**46**	*i* Pn	Pn	13 30 47.2	-0.6
PFVI				*e*Sn	Sn	13 31 06.0	-2.8
PFVI				A		13 31 07.0	
	38nm,0.2s						
MORF	**Marmelete**	**1.96**	**45**	*e*Pn	Pn	13 30 50.3	-0.5
MORF				*e*Sn	Sn	13 31 11.4	-2.8
MORF				A		13 31 13.1	
	42nm,0.1s						
MORF	**Marmelete**	**1.96**	**45**	P	Pn	13 30 50.3	-0.5
MORF				S	Sn	13 31 11.4	-2.8
PTEO	**Sao Teotonio**	**2.09**	**40**	*e*Pn	Pn	13 30 52.2	-0.5
PTEO				*e*Sn	Sn	13 31 14.7	-2.8
PTEO				A		13 31 16.4	
	36nm,0.3s						
PTEO	**Sao Teotonio**	**2.09**	**40**	P	Pn	13 30 52.2	-0.5
PTEO				S	Sn	13 31 15.0	-2.5
PTEO	**Sao Teotonio**	**2.09**	**40**	P	Pn	13 30 52.2	-0.5
PTEO				*e*Sn	Sn	13 31 14.7	-2.8
	36nm,0.3s						
PBDV	**Barranco-do-Ve**	**2.37**	**56**	*e*Pn	Pn	13 30 56.1	-0.4
PBDV				*e*Sn	Sn	13 31 21.3	-3.1
PBDV				A		13 31 24.4	
	11nm,0.2s						
PBDV	**Barranco-do-Ve**	**2.37**	**56**	*e*Pn	Pn	13 30 56.1	-0.4
PVAQ	**Vaqueiros**	**2.60**	**55**	*e*Pn	Pn	13 30 59.2	-0.5
PVAQ				*e*Sn	Sn	13 31 26.7	-3.3
PVAQ				A		13 31 27.1	
	26nm,0.1s						
EGRO	**El Granado**	**2.83**	**55**	P	Pn	13 31 02.2	-0.6
	3.4nm,0.1s,SNR=20						
EGRO				S	Sn	13 31 32.3	-3.3
	19nm,0.2s,SNR=8.6						
EGRO	**El Granado**	**2.83**	**55**	P	Pn	13 31 02.2	-0.6
	3.4nm,0.1s,SNR=20						
EGRO				S	Sn	13 31 32.3	-3.3
	19nm,0.2s,SNR=8.6						
PBEJ	**Beja**	**2.90**	**44**	*e*Pn	Pn	13 31 03.3	-0.5
PBEJ				*e*Sn	Sn	13 31 34.7	-2.7
PBEJ				A		13 31 35.8	
	13nm,0.1s						
PBEJ	**Beja**	**2.90**	**44**	P	Pn	13 31 03.3	-0.5
PBEJ				S	Sn	13 31 34.7	-2.7
	6.3nm,0.1s						
PBEJ	**Beja**	**2.90**	**44**	P	Pn	13 31 03.2	-0.6
PBEJ				S	Sn	13 31 34.0	-3.4
MOE	**Montemor**	**3.05**	**32**	*e*Pn	Pn	13 31 05.7	-0.1
MOE				*e*Sn	Sn	13 31 38.6	-2.4
MOE	**Montemor**	**3.05**	**32**	P	Pn	13 31 05.4	-0.4
MOE				*e*Sn	Sn	13 31 38.6	-2.4
PMAFR	**Mafra**	**3.13**	**16**	*e*Sn	Sn	13 31 41.1	-2.0
PMAFR				A		13 31 42.8	
	33nm,0.2s						
PMAFR	**Mafra**	**3.13**	**16**	S	Sn	13 31 41.1	-2.0
	17nm,0.2s						
PMAFR	**Mafra**	**3.13**	**16**	*e*Sn	Sn	13 31 41.1	-2.0
	33nm,0.2s						
EVO	**Evora**	**3.21**	**36**	*e*Pn	Pn	13 31 07.3	-0.7
EVO				*e*Sn	Sn	13 31 41.7	-3.2
EVO				A		13 31 42.2	
	37nm,0.2s						
EVO	**Evora**	**3.21**	**36**	*e*Pn	Pn	13 31 07.3	-0.7
EVO				*e*Sn	Sn	13 31 41.7	-3.2
	37nm,0.2s						
EMIN	**Mina Concepcio**	**3.50**	**58**	P	Pn	13 31 11.4	-0.5
EMIN				S	Sn	13 31 48.0	-4.0
EMIN	**Mina Concepcio**	**3.50**	**58**	P	Pn	13 31 11.3	-0.7
	1.8nm,0.7s,SNR=7.9						
EMIN				S	Sn	13 31 48.3	-3.8
	22nm,3.9s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.50**	**58**	P	Pn	13 31 11.4	-0.5
	2.2nm,0.1s,SNR=12						
EMIN				S	Sn	13 31 48.0	-4.1
	1.9nm,0.1s						
PESTR	**Estremoz**	**3.67**	**37**	*e*Pn	Pn	13 31 13.4	-1.0
PESTR				*e*Sn	Sn	13 31 52.8	-3.6
PESTR				A		13 31 57.1	
	5.4nm,0.2s						
ESPR	**Espera**	**3.78**	**75**	P	Pn	13 31 15.5	-0.3
	18nm,0.2s,SNR=20						
ESPR				S	Sn	13 31 55.5	-3.5
	16nm,0.2s,SNR=7.9						
ESPR	**Espera**	**3.78**	**75**	P	Pn	13 31 15.5	-0.3
	18nm,0.2s,SNR=20						
ESPR				S	Sn	13 31 55.5	-3.5
	16nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**3.89**	**43**	P	Pn	13 31 16.3	-1.0
EBAD				S	Sn	13 31 57.8	-3.9
EBAD	**Badajoz**	**3.89**	**43**	P	Pn	13 31 16.3	-1.0
	1.9nm,0.1s,SNR=17						
EBAD				S	Sn	13 31 57.9	-3.8
	23nm,0.2s,SNR=5.5						
EBAD	**Badajoz**	**3.89**	**43**	P	Pn	13 31 16.3	-1.0
	1.9nm,0.1s,SNR=17						
EBAD				S	Sn	13 31 57.8	-3.9
	23nm,0.2s,SNR=5.5						
EJIF	**Jimena Fronter**	**4.02**	**81**	P	Pn	13 31 18.9	-0.1
	1.6nm,0.2s,SNR=7.9						
EJIF				S	Sn	13 32 01.2	-3.7
	2.0nm,0.3s,SNR=7.9						
EJIF	**Jimena Fronter**	**4.02**	**81**	P	Pn	13 31 19.5	+0.4
	1.6nm,0.2s,SNR=7.9						
EJIF				S	Sn	13 32 01.9	-3.0
	2.0nm,0.3s,SNR=7.9						
PCBR	**Castelo Branco**	**4.52**	**30**	*e*Pn	Pn	13 31 25.6	-0.4
PCBR				*e*Sn	Sn	13 32 13.2	-4.0
PCBR				A		13 32 15.8	
	4.5nm,0.2s						
PCBR	**Castelo Branco**	**4.52**	**30**	P	Pn	13 31 25.6	-0.4
PCBR				S	Sn	13 32 13.2	-4.0
	2.2nm,0.2s						
PCBR	**Castelo Branco**	**4.52**	**30**	P	Pn	13 31 25.5	-0.5
PCBR				S	Sn	13 32 12.8	-4.4
CIA	**Chichaoua**	**4.58**	**162**	*i* P	Pn	13 31 26.0	-0.8
EMIJ	**Mijas**	**4.59**	**81**	P	Pn	13 31 26.6	-0.3
EMIJ				S	Sn	13 32 15.8	-3.1
EMIJ	**Mijas**	**4.59**	**81**	P	Pn	13 31 26.6	-0.3
	3.7nm,0.4s,SNR=7.9						
EMIJ				S	Sn	13 32 15.6	-3.2
	3.0nm,0.3s,SNR=7.9						
EMIJ	**Mijas**	**4.59**	**81**	P	Pn	13 31 26.6	-0.3
	3.7nm,0.4s,SNR=7.9						
EMIJ				S	Sn	13 32 15.8	-3.1
	3.0nm,0.3s,SNR=7.9						
MIF	**Mishlifen**	**4.95**	**119**	*e*P	Pn	13 31 31.5	-0.4
MTE	**Manteigas**	**4.98**	**26**	*e*Sn	Sn	13 32 25.4	-3.2
MTE	**Manteigas**	**4.98**	**26**	S	Sn	13 32 25.4	-3.2
MTE	**Manteigas**	**4.98**	**26**	S	Sn	13 32 24.2	-4.4
TZC	**Tazercounte**	**4.99**	**138**	*i* P	Pn	13 31 31.0	-1.4
PVIS	**Viseu**	**5.15**	**22**	*e*Sn	Sn	13 32 28.8	-3.9
PVIS				A		13 32 31.7	
	7.7nm,0.1s						
PVIS	**Viseu**	**5.15**	**22**	S	Sn	13 32 28.8	-3.9
	3.8nm,0.1s						
EADA	**Adamuz**	**5.16**	**63**	P	Pn	13 31 33.7	-0.9
EADA				S	Sn	13 32 27.0	-5.8
EADA	**Adamuz**	**5.16**	**63**	P	Pn	13 31 34.1	-0.5
	4.5nm,0.3s,SNR=28						
EADA				S	Sn	13 32 28.6	-4.2
	3.1nm,0.1s						
EADA	**Adamuz**	**5.16**	**63**	P	Pn	13 31 33.7	-1.0
	4.5nm,0.3s,SNR=28						
EADA				S	Sn	13 32 27.0	-5.8
	3.1nm,0.1s						
OUK	**Oukaimeden**	**5.17**	**155**	*i* P	Pn	13 31 34.0	-0.9
CZD	**Col de Zad**	**5.29**	**122**	*i* P	Pn	13 31 37.5	+1.0
EBAN	**Banos Encina**	**5.73**	**65**	P	Pn	13 31 41.5	-1.0
	3.3nm,0.1s,SNR=7.9						
EBAN				S	Sn	13 32 41.9	-5.1
	2.5nm,0.1s,SNR=7.9						
MVO	**Moncorvo**	**5.84**	**26**	*e*Sn	Sn	13 32 45.0	-4.6
MVO				A		13 32 46.4	
	12nm,0.3s						
MVO	**Moncorvo**	**5.84**	**26**	S	Sn	13 32 45.0	-4.6
	6.2nm,0.3s						
EQES	**Quesada**	**6.16**	**70**	P	Pn	13 31 47.6	-0.8
EQES				S	Sn	13 32 52.9	-4.6
EQES	**Quesada**	**6.16**	**70**	P	Pn	13 31 47.6	-0.8
	1.3nm,0.2s,SNR=7.9						
EQES				S	Sn	13 32 53.0	-4.5
	1.2nm,0.2s,SNR=7.9						
EQES	**Quesada**	**6.16**	**70**	P	Pn	13 31 47.6	-0.8
	1.3nm,0.2s,SNR=7.9						
EQES				S	Sn	13 32 52.9	-4.6
	1.2nm,0.2s,SNR=7.9						
ELOB	**Lobios**	**6.19**	**16**	S	Sn	13 32 52.3	-5.8
	6.9nm,2.4s,SNR=7.9						
ESDC	**Sonseca Array**	**6.31**	**52**	P	Pn	13 31 49.8	-0.7
ESDC				S	Sn	13 32 55.4	-5.8
ESDC	**Sonseca Array**	**6.31**	**52**	P	Pn	13 31 49.8	-0.7
	5.8nm,0.1s,baz=237,slow=13,SNR=7.9						
ESDC	**Sonseca Array**	**6.31**	**52**	P	Pn	13 31 49.8	-0.7
	5.8nm,0.1s,SNR=7.9						
ZFT	**Errachidia**	**6.36**	**126**	*i* P	Pn	13 31 51.0	-0.2
ECAL	**Calabor**	**6.63**	**24**	S	Sn	13 33 03.4	-5.7
	6.7nm,3.5s,SNR=7.9						
EVIA	**Vianos**	**6.84**	**65**	P	Pn	13 31 56.7	-1.1
EVIA				S	Sn	13 33 07.2	-7.1
EVIA	**Vianos**	**6.84**	**65**	P	Pn	13 31 56.9	-0.9
	2.1nm,0.1s,SNR=6.9						
EVIA				S	Sn	13 33 09.1	-5.2
	190nm,3.6s,SNR=7.9						
EVIA	**Vianos**	**6.84**	**65**	P	Pn	13 31 56.7	-1.1
	2.1nm,0.1s,SNR=6.9						
ETOB	**Tobarra**	**7.55**	**66**	P	Pn	13 32 06.3	-1.2
	0.9nm,0.1s,SNR=7.9						
ETOB				S	Sn	13 33 27.9	-3.8
	6.2nm,4.9s,SNR=7.9						
ETOB	**Tobarra**	**7.55**	**66**	P	Pn	13 32 05.8	-1.7
	0.9nm,0.1s,SNR=7.9						
ETOR	**Torete**	**8.16**	**51**	P	Pn	13 32 14.5	-1.3
ETOR				S	Sn	13 33 40.2	-6.4
ETOR	**Torete**	**8.16**	**51**	P	Pn	13 32 14.9	-0.9
	5.0nm,0.2s,SNR=7.9						
ETOR				S	Sn	13 33 39.7	-6.8
	6.2nm,0.4s,SNR=7.9						
ETOR	**Torete**	**8.16**	**51**	P	Pn	13 32 14.5	-1.3
	5.0nm,0.2s,SNR=7.9						
ETOR	**Torete**	**8.16**	**51**	P	Pn	13 32 14.5	-1.3

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*MOS **12** 13:58:09.0±1.4, 42.78N×46.66E, h16^{km}, mb4.1/1, Error ellipse: s-maj=12.9km s-min=7.7km az=36.3*

*ISCJB **12** 13:58:10.7±0.5, 42.81N±0.03×46.52E±0.05, h10^{km}, Error ellipse: s-maj=5.3km s-min=3.4km az=152.1*

*CSEM **12** 13:58:11.3±0.1, 42.78N×46.56E, h2^{km}, mb4.1, Error ellipse: s-maj=4.9km s-min=2.9km az=40.0*

ISC 12 13:58:10.8±0.6, 42.83N±0.03×46.67E±0.08, h19^{km}±5^{km}, n37, σ1^{s}.30/51, 2C-2D, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DLMR	**Dylym**	**0.25**	**354**	⇓*i*PG	**Pg**	**13 58 14.8**	**-1.7**
DLMR				*i* S	**Sg**	**13 58 21.8**	**+1.4**
DLMR				pmax	pmax		
	comp=Z,700nm,0.2s						
DLMR	**Dylym**	**0.25**	**354**	*i* Pg	**Pg**	**13 58 14.8**	**-1.7**
	comp=Z,700nm,0.2s						
DLMR				*i* Sg	**Sg**	**13 58 21.8**	**+1.4**
XNZR	**Khunzakh**	**0.28**	**174**	⇓*i*PG	**Pg**	**13 58 14.1**	**-3.0**
XNZR				*i* S	**Sg**	**13 58 20.8**	**-0.6**
XNZR				pmax	pmax		
	comp=Z,218nm,0.2s						
XNZR	**Khunzakh**	**0.28**	**174**	*i* Pg	**Pg**	**13 58 14.1**	**-3.0**
	comp=Z,218nm,0.2s						
XNZR				*i* Sg	**Sg**	**13 58 20.8**	**-0.6**
URKR	**Urkarakh**	**0.97**	**132**	*i* PG	**Pg**	**13 58 30.0**	**+0.3**
URKR				*i* S	**Sg**	**13 58 48.0**	**+5.5**
URKR				pmax	pmax		
	comp=Z,100nm,0.2s						
URKR	**Urkarakh**	**0.97**	**132**	*i* Pg	**Pg**	**13 58 30.0**	**+0.3**
	comp=Z,100nm,0.2s						
URKR				*i* Sg	**Sg**	**13 58 48.0**	**+5.5**
VLKR	**Vladikavkaz**	**1.48**	**279**	*e*PG	**Pn**	**13 58 34.7**	**-1.6**
VLKR	**Vladikavkaz**	**1.48**	**279**	*e*Pg	**Pn**	**13 58 34.7**	**-1.6**
AKT	**Akhty**	**1.56**	**149**	*i* PG	**Pn**	**13 58 35.0**	**-2.5**
AKT				*e*S	**Sn**	**13 58 56.0**	**-1.1**
AKT				pmax	Sn		
	comp=Z,63nm,0.2s						
AKT	**Akhty**	**1.56**	**149**	*i* Pg	**Pn**	**13 58 35.0**	**-2.5**
	comp=Z,63nm,0.2s						
AKT				*e*Sg	**Sn**	**13 58 56.0**	**-1.1**
BTKR	**Batakoyurt**	**1.65**	**290**	*e*PN	**Pn**	**13 58 38.8**	**+0.1**
BTKR	**Batakoyurt**	**1.65**	**290**	*e*Pn	**Pn**	**13 58 38.8**	**+0.1**
SEKA	**Sheki**	**1.66**	**166**	P	**Pg**	**13 58 43.6**	**+0.8**
	SNR=7.1						
SEKA				S	**Sg**	**13 59 07.5**	**+3.1**
TRKR	**Terskaya**	**1.67**	**303**	*e*PN	**Pn**	**13 58 40.5**	**+1.5**
TRKR				*i* S	**Sn**	**13 59 01.8**	**+1.8**
TRKR	**Terskaya**	**1.67**	**303**	*e*Pn	**Pn**	**13 58 40.5**	**+1.5**
DGRG	**David-gareji**	**1.68**	**215**	P	**Pn**	**13 58 40.0**	**+1.0**
DGRG				S	**Sn**	**13 59 02.7**	**+2.7**
LACR	**Lac**	**1.74**	**271**	⇑*i*PN	**Pn**	**13 58 38.8**	**-1.2**
LACR	**Lac**	**1.74**	**271**	*i* Pn	**Pn**	**13 58 38.8**	**-1.2**
ARNR	**Ardon**	**1.79**	**283**	*e*PN	**Pn**	**13 58 40.5**	**-0.1**
ARNR	**Ardon**	**1.79**	**283**	*e*Pn	**Pn**	**13 58 40.5**	**-0.1**
MTA	**Mtatsminda**	**1.79**	**232**	P	**Pn**	**13 58 40.7**	**0.0**
MTA				S	**Sn**	**13 59 01.4**	**-1.5**
TBLG	**Delisi**	**1.80**	**233**	*e*PN	**Pn**	**13 58 40.7**	**-0.1**
TBLG	**Delisi**	**1.80**	**233**	*e*Pn	**Pn**	**13 58 40.7**	**-0.1**
TBLG	**Delisi**	**1.80**	**233**	P	**Pn**	**13 58 40.7**	**-0.1**
TBLG				S	**Sn**	**13 59 02.3**	**-0.8**
KMSR	**Komsomolskaya**	**1.82**	**288**	*e*PN	**Pn**	**13 58 41.4**	**+0.3**
KMSR	**Komsomolskaya**	**1.82**	**288**	*e*Pn	**Pn**	**13 58 41.4**	**+0.3**
KORR	**Kora**	**1.93**	**279**	*e*PN	**Pn**	**13 58 42.0**	**-0.5**
KORR	**Kora**	**1.93**	**279**	*e*Pn	**Pn**	**13 58 42.0**	**-0.5**
PRTR	**Priterechnaya**	**1.97**	**299**	⇑*i*PN	**Pn**	**13 58 44.1**	**+1.0**
PRTR	**Priterechnaya**	**1.97**	**299**	*i* Pn	**Pn**	**13 58 44.1**	**+1.0**
ZEI	**Tsey**	**2.04**	**269**	*e*PN	**Pn**	**13 58 43.1**	**-0.9**
ZEI	**Tsey**	**2.04**	**269**	*e*Pn	**Pn**	**13 58 43.1**	**-0.9**
LSNR	**Lesken**	**2.14**	**283**	*e*PN	**Pn**	**13 58 45.3**	**-0.1**
LSNR	**Lesken**	**2.14**	**283**	*e*Pn	**Pn**	**13 58 45.3**	**-0.1**
GANJ	**Ganja**	**2.19**	**187**	P	**Pn**	**13 58 49.4**	**+3.2**
	SNR=3.6						
GANJ				S	**Sb**	**13 59 18.3**	**+1.7**
DIGR	**Digorskoe uzhe**	**2.27**	**273**	*e*PN	**Pn**	**13 58 46.4**	**-0.8**
DIGR	**Digorskoe uzhe**	**2.27**	**273**	*e*Pn	**Pn**	**13 58 46.4**	**-0.8**

IDC 12 14:08:41.2±5.8, 46.72N×155.83E, h0^{km}, mb3.4/3, mb1 3.7/3, mb1mx3.3/22, mbtmp3.4/3, Error ellipse: s-maj=160.3km s-min=53.9km az=18.0, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YKA	**Yellowknife Ar**	**49.83**	**37**	P	P	14 17 35.3	-0.1
	0.1nm,0.8s,baz=292,slow=7.3,SNR=2.4						
FINES	**FINESS Array B**	**64.85**	**336**	P	P	14 19 21.4	-0.1
	0.9nm,0.9s,baz=30,slow=8.5,SNR=3.5						
TXAR	**Lajitas Array**	**75.87**	**62**	P	P	14 20 29.6	+0.2
	0.4nm,0.5s,baz=306,slow=5.2,SNR=6.4						

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*IDC **12** 14:09:11.9±1.6, 43.41N×146.88E, h0^{km}, mb3.4/5, mb1 3.6/6, mb1mx3.4/22, mbtmp3.5/6, ML3.9/1, MS2.8/1, Ms1 2.8/1, ms1mx2.2/21, Error ellipse: s-maj=45.9km s-min=23.3km az=58.0*

*MOS **12** 14:09:16.8±0.6, 43.41N×146.68E, h50^{km}, mb4.0/2, Error ellipse: s-maj=26.5km s-min=17.8km az=128.2*

*ISCJB **12** 14:09:18.4±1.1, 43.30N±0.06×146.36E±0.10, h50^{km}±8^{km}, mb3.4/5, Error ellipse: s-maj=12.6km s-min=9.2km az=32.0*

*NEIC **12** 14:09:19.2±3.5, 43.40N×146.56E, h48^{km}±25^{km}, Error ellipse: s-maj=46.3km s-min=15.3km az=90.0*

*JMA **12** 14:09:19.3±0.1, 43.25N×146.28E, h46^{km}±1^{km}, M4.0*

JMA Felt II J1.

ISC 12 14:09:19.4±1.3, 43.31N±0.06×146.4E±0.1, h40^{km}±11^{km}, n21, σ0^{s}.85/30, mb3.4/5, 1D, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	**0.44**	**278**	P	**Pn**	**14 09 29.2**	**-0.2**
NEM2				*e*S	**Sn**	**14 09 36.3**	**-0.2**
YUK	**Yuzh-Kuril’sk**	**0.81**	**334**	⇓*i*PN	**Pn**	**14 09 33.5**	**-0.8**
YUK				*i* S	**Sn**	**14 09 44.7**	**-0.4**
YUK				pmax	pmax		
	comp=N,1µm,0.2s						
YUK				pmax	pmax		
	comp=E,720nm,0.2s						
YUK				pmax	pmax		
	comp=Z,3µm,0.2s						
YUK				smax			
	comp=E,4µm,0.5s						
YUK				smax			
	comp=N,3µm,0.4s						
YUK				smax			
	comp=E,2µm,0.4s						
JRA	**Rausu**	**1.09**	**306**	P	**Pn**	**14 09 38.4**	**+0.2**
JRA				*e*S	**Sn**	**14 09 52.3**	**+0.3**
JNK	**Nakash**	**1.22**	**284**	P	**Pn**	**14 09 39.5**	**-0.4**
JNK				*e*S	**Sn**	**14 09 54.0**	**-1.2**
JAK	**Akkeshi**	**1.25**	**256**	P	**Pn**	**14 09 39.6**	**-0.8**
JAK				*e*S	**Sn**	**14 09 54.7**	**-1.2**
JAR	**Ashorobuto**	**1.88**	**271**	P	**Pn**	**14 09 49.1**	**+0.1**
JAR				*e*S	**Sn**	**14 10 11.8**	**+0.3**
JOB	**Onbets**	**1.88**	**258**	P	**Pn**	**14 09 48.8**	**-0.3**
JOB				*e*S	**Sn**	**14 10 11.3**	**-0.3**
JTKR	**Abashiri--Toko**	**1.89**	**291**	P	**Pn**	**14 09 50.1**	**+0.9**

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
JTKR				eS	Sn	14 10 12.9	+1.1
ERM	Erimo	2.68	242	ePn	Pn	14 10 02.4	+2.3
ERM	Erimo	2.68	242	ePN	Pn	14 10 02.4	+2.3
ASAJ	Asahikawa	2.84	288	PN	Pn	14 10 04.2	+2.0
ASAJ						14 10 42.6	
ASAJ				pmax	pmax		
	comp=Z,10.0nm,0.3s						
ASAJ				smax			
	comp=N,3.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,149nm,19.0s						
ASAJ	Asahikawa	2.84	288	Pn	Pn	14 10 04.2	+2.0
	comp=Z,9.8nm,0.3s,baz=123,slow=10,SNR=45						
ASAJ				Sn	Sn	14 10 42.6	+7.5
	comp=Z,2.9nm,0.3s,baz=234,slow=19,SNR=2.4						
ASAJ				LR	LR	14 11 31.3	
	comp=Z,149nm,19.0s,baz=330,slow=44						
YSS	Yuzh-Sakhalins	4.44	326	ePn	Pn	14 10 24.2	0.0
YSS	Yuzh-Sakhalins	4.44	326	ePN	Pn	14 10 24.3	+0.1
SONM	Songino Array	28.11	293	P	P	14 15 07.4	+0.2
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	28.11	293	P	P	14 15 07.4	+0.2
	comp=Z,0.6nm,0.6s,mb3.4,baz=97,slow=9.3,SNR=4.8						
MKAR	Makanchi Array	44.27	298	P	P	14 17 25.4	+0.6
	comp=Z,0.2nm,0.5s,mb3.1,baz=74,slow=9.3,SNR=4.1						
WRA	Warramunga Arr	63.90	193	P	P	14 19 47.1	-0.9
	comp=Z,0.1nm,0.7s,mb2.9,baz=9.0,slow=7.7,SNR=2.5						
FINES	FINESS Array B	65.00	333	P	P	14 19 53.8	-1.0
FINES				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FINES	FINESS Array B	65.00	333	P	P	14 19 53.8	-1.0
	comp=Z,1.4nm,0.9s,mb4.0,baz=57,slow=5.1,SNR=2.4						
ASAR	Alice Springs	67.62	192	P	P	14 20 12.3	+0.4
	comp=Z,0.4nm,0.9s,mb3.5,baz=12,slow=4.3,SNR=4.4						

CSEM **12** *14:13:25.5±0.2, 38.47N×39.14E, h8^{km}, MD2.6, Error ellipse: s-maj=5.2km s-min=2.6km az=125.0*

ISK **12** *14:13:25.3, 38.49N×39.10E, h4^{km}, MD2.7*

ISCJB **12** *14:13:26.4±0.5, 38.44N±0.03×39.14E±0.04, h4^{km}, Error ellipse: s-maj=5.3km s-min=3.6km az=151.8*

DDA **12** *14:13:28.0, 38.45N×39.11E, h6^{km}±3^{km}, Md2.6*

ISC 12 14:13:27.0±0.5**, 38.48N**±0.06×**39.09E**±0.06**, h12**^{km}±7^{km}**, n13, σ0^{s}77**/22**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.09	282	iP	Pg	14 13 29.8	+0.2
ELZG				iS	Sg	14 13 32.2	+0.7
PTK	Pertek	0.47	30	PG	Pg	14 13 35.2	-1.2
PTK				SG	Sg	14 13 42.3	-0.4
PTK	Pertek	0.47	30	ePg	Pg	14 13 35.2	-1.2
PTK				eSg	Sg	14 13 42.3	-0.4
MYA	Malataya	0.54	254	PG	Pg	14 13 37.4	-0.3
MYA	Malataya	0.54	254	ePg	Pg	14 13 37.4	-0.3
MALT	Malatya	0.55	253	PG	Pg	14 13 36.3	-1.4
MALT				SG	Sg	14 13 45.2	+0.3
MALT	Malatya	0.55	253	ePg	Pg	14 13 36.3	-1.4
MALT				eSg	Sg	14 13 45.2	+0.3
URFA	Urfa	1.06	192	PG	Pg	14 13 46.5	-0.9
URFA	Urfa	1.06	192	ePg	Pg	14 13 46.5	-0.9
ATAB	Bozova	1.19	212	iP	Pn	14 13 50.0	+0.5
ATAB				iS	Sb	14 14 05.0	+0.2
GZT	Gaziantep	1.65	228	eP	Pn	14 13 56.6	+0.8
GZT				iS	Sg	14 14 20.5	+0.5
BNGL	BINGOL	1.68	73	eP	Pn	14 13 57.1	+0.9
BNGL				iS	Sg	14 14 22.4	+1.4
MARD	Mardin	1.77	131	eP	Pn	14 13 56.8	-0.8
MARD				iS	Sn	14 14 19.5	-0.5

KISR **12** *14:23:05.0±0.8, 27.17N×53.39E, h3^{km}±689^{km}, ML3.1*

IDC **12** *14:23:06.9±8.6, 27.19N×53.68E, h0^{km}, mb3.6/5, mb1 3.6/5, mb1mx3.4/23, mbtmp3.6/5, Error ellipse: s-maj=161.1km s-min=35.2km az=3.0*

CSEM **12** *14:23:09.8±0.1, 27.32N×53.59E, h30^{km}, ML3.6/4, Error ellipse: s-maj=2.5km s-min=2.0km az=24.0*

ISCJB **12** *14:23:09.5±1.7, 27.31N±0.04×53.55E±0.03, h24^{km}±16^{km}, mb3.7/6, Error ellipse: s-maj=6.8km s-min=4.7km az=10.5*

NEIC **12** *14:23:11.0, 27.17N×53.67E, h22^{km}, mb3.9/2, MN3.5(TEH), After TEH.*

OMAN **12** *14:23:44.8, 25.25N×55.22E, h75^{km}*

ISC 12 14:23:10.1±2.0**, 27.31N**±0.04×**53.60E**±0.04**, h15**^{km}±15^{km}**, n44, σ0^{s}89**/53**, mb3.7**/6**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BANOM	Banah	2.78	119	P	Pn	14 23 54.4	+0.3
NAZ	Nazwa, Dubai	2.96	141	P	Pn	14 23 56.6	0.0
ASUD	Al Ashush, Dub	3.09	149	P	Pn	14 23 59.4	+1.0
FAQ	Al Faqa, Dubai	3.12	145	P	Pn	14 23 59.1	+0.3
HATD	Hatta, Dubai	3.36	137	P	Pn	14 24 01.7	-0.4
ASHO	Ashiyiah	3.42	139	P	Pn	14 24 02.9	-0.1
	SNR=16						
BOQSS		4.05	250	P	Pn	14 24 12.1	+0.5
BOQSS				S	Sn	14 25 01.0	+2.3
BOQSS		4.05	250	P	Pn	14 24 12.1	+0.5
BTHS		4.09	218	P	Pn	14 24 11.9	-0.3
IBAF	Bafgh	4.60	21	Pn	Pn	14 24 20.3	+1.2
IBAF	Bafgh	4.60	21	Pn	Pn	14 24 20.3	+1.2
ICHK	Chekchek	4.97	8	Pn	Pn	14 24 25.7	+1.5
ICHK	Chekchek	4.97	8	Pn	Pn	14 24 25.7	+1.5
KFJS		5.09	281	P	Pn	14 24 26.6	+0.7
KFJS				S	Sn	14 25 21.6	-2.9
KFJS		5.09	281	P	Pn	14 24 26.6	+0.6
QRN	Al-Qurain	5.22	287	eP	Pn	14 24 26.4	-1.4
QRN				eS	Sn	14 25 27.8	0.0
KBD	Kabd	5.54	291	eP	Pn	14 24 31.4	-0.6
KBD				AML	AML	14 25 36.0	
	comp=Z,26nm,0.3s						
KBD				eS	Sn	14 25 36.1	+0.7
RDF	Al-Radifah	5.58	288	eP	Pn	14 24 32.0	-0.6
RDF				eS	Sn	14 25 36.7	+0.1
RDF				AML	AML	14 25 39.5	
	comp=Z,16nm,0.3s						
RDF	Al-Radifah	5.58	288	eP	Pn	14 24 32.0	-0.7
RDF				eS	Sn	14 25 36.7	+0.1
	comp=Z,16nm,0.3s						
HRDDS		5.75	222	S	Sn	14 25 40.6	-0.2
HRDDS		5.75	222	P	Pn	14 24 35.2	+0.2
NAY	Al-Naaiem	5.93	290	eP	Pn	14 24 36.6	-0.8
NAY				eS	Sn	14 25 45.1	-0.1
NAY				AML	AML	14 25 45.2	
	comp=Z,1.7nm,0.3s						
MIB	Mutribah	6.04	296	eP	Pn	14 24 38.3	-0.7
MIB				eS	Sn	14 25 48.9	+0.9
MIB				AML	AML	14 25 49.2	
	comp=Z,8.4nm,0.4s						
MIB	Mutribah	6.04	296	eP	Pn	14 24 38.3	-0.7
MIB				eS	Sn	14 25 48.9	+0.9
ASYS		8.23	273	P	Pn	14 25 08.4	-0.7
IAFJ	Afjeh	8.67	350	Pn	Pn	14 25 16.0	+0.9
IAFJ	Afjeh	8.67	350	Pn	Pn	14 25 16.0	+0.9
BRTR	Keskin Array B	20.69	312	P	P	14 27 51.0	+1.3
	comp=Z,0.3nm,0.5s,baz=128,slow=9.3,SNR=3.0						
AML	Almayashu	22.09	43	eP	P	14 28 03.2	-1.5
	comp=Z,2.5nm,0.6s,mb3.8						
AML	Almayashu	22.09	43	eP	P	14 28 03.2	-1.5
AAK	Ala-Archa	22.86	43	eP	P	14 28 13.6	+0.7
	comp=Z,7.5nm,1.5s,mb3.9						
AAK	Ala-Archa	22.86	43	eP	P	14 28 13.6	+0.7
AKTK	Aktyubinsk	23.34	7	P	P	14 28 18.1	+0.2
AKTK	Aktyubinsk	23.34	7	P	P	14 28 18.0	+0.2
AKTO	Aktyubinsk	23.34	7	P	P	14 28 18.1	+0.2
	comp=Z,0.6nm,0.4s,mb3.3,baz=198,slow=13,SNR=4.4						
MK31	Makanchi Array	29.79	42	eP	P	14 29 16.0	-0.2
MK31	Makanchi Array	29.79	42	eP	P	14 29 16.0	-0.2
MKAR	Makanchi Array	29.79	42	P	P	14 29 16.0	-0.2
MKAR	Makanchi Array	29.79	42	P	P	14 29 16.0	-0.2
	comp=Z,0.7nm,0.5s,mb3.6,baz=229,slow=10,SNR=18						
ZALV	Zalesovo Beam	35.12	32	P	P	14 30 02.1	-0.7
	comp=Z,0.4nm,0.3s,mb3.8,baz=244,slow=9.5,SNR=2.7						
FINES	FINESS Array B	38.80	339	P	P	14 30 33.2	-0.8
FINES	FINESS Array B	38.80	339	P	P	14 30 33.2	-0.8
	comp=Z,1.1nm,0.6s,mb3.8,baz=140,slow=9.9,SNR=4.4						
INK	Inuvik	84.53	3	eP	P	14 35 40.4	-1.8
	comp=Z,315nm,1.0s						
INK	Inuvik	84.53	3	eP	P	14 35 40.4	-1.8

WEL 12 15:53:16.7±0.4**, 36.77S×178.28E, h5**^{km}**, ML3.9**/12**, Error ellipse: s-maj=2.5km s-min=2.3km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	0.80	178	P*	Pb	15 53 31.7	-1.3
MXZ				S*	Sb	15 53 42.4	-1.7
PUZ	Puketiti	1.30	181	P*	Pb	15 53 40.5	-1.2
PUZ				S*	Sb	15 53 58.8	+0.1
MWZ	Matawai	1.68	201	P*	Pb	15 53 45.1	-2.9
MYRZ	Mayor Island	1.71	252	P*	Pb	15 53 45.3	-3.3
MYRZ				S*	Sb	15 54 06.6	-3.8
URZ	Urewera	1.76	212	P*	Pb	15 53 45.7	-3.7
URZ				S*	Sb	15 54 06.2	-5.5
MARZ	Manawahe	1.77	226	P*	Pb	15 53 46.1	-3.4
TGRZ	Tauranga	1.88	239	P*	Pb	15 53 47.6	-3.8
TGRZ				S*	Sb	15 54 10.4	-4.7
KARZ	Kaharoa	2.05	232	P*	Pb	15 53 50.2	-4.2
KUZ	Kuaotunu	2.06	270	PN	Pn	15 53 49.5	-2.4
KUZ				SN	Sn	15 54 13.5	-4.3
PATZ	Paeroa	2.27	224	P*	Pb	15 53 54.4	-3.8
KNZ	Kokohu	2.30	192	PN	Pn	15 53 52.9	-2.4
TOZ	Tahuroa Road	2.42	246	P*	Pb	15 53 55.0	-5.6
MKAZ	Moumakai	2.52	261	PN	Pn	15 53 56.5	-1.7
OTAZ	Otara	2.70	265	PN	Pn	15 53 59.3	-1.3
BKZ	Black Stump Fm	2.78	210	P*	Pb	15 54 00.2	-6.7
RITZ	Rihia Road	2.92	220	P*	Pb	15 54 04.1	-5.2
WTAZ	Waiatarua	2.98	266	PN	Pn	15 54 03.3	-1.2
KRVZ	Karewarewa	3.12	221	P*	Pb	15 54 06.8	-5.9
OTVZ	Oturere	3.16	220	P*	Pb	15 54 06.2	-7.2
WTVZ	West Tongariro	3.17	221	P*	Pb	15 54 07.4	-6.0
NGZ	Ngauruhoe	3.20	221	P*	Pb	15 54 07.0	-7.0
TWVZ	Taurewa	3.22	223	P*	Pb	15 54 07.4	-6.9
HIZ	Hauiti	3.23	236	PN	Pn	15 54 05.2	-2.8
TUVZ	Tukino	3.25	219	P*	Pb	15 54 07.9	-6.9
WPVZ	Whakapapa	3.25	221	P*	Pb	15 54 08.4	-6.5
WCZ	Waipu Caves	3.28	283	PN	Pn	15 54 06.6	-2.1
FWVZ	Far West T-bar	3.29	220	P*	Pb	15 54 10.6	-4.9
MOVZ	Moawhango	3.31	216	P*	Pb	15 54 07.7	-8.1
WNVZ	Wahianoa	3.32	219	P*	Pb	15 54 08.7	-7.3
PKVZ	Pokaka	3.42	222	P*	Pb	15 54 10.5	-7.3
MTVZ	Mangateitei	3.43	219	P*	Pb	15 54 09.8	-8.0
PXZ	Pawanui	3.44	198	PN	Pn	15 54 06.9	-4.1
VRZ	Vera Road	3.65	229	P*	Pb	15 54 13.6	-8.0
WAZ	Wanganui	3.95	220	PN	Pn	15 54 16.8	-1.1
NEZ	North Egmont	4.14	232	PN	Pn	15 54 21.7	+1.1
BFZ	Birch Farm	4.22	202	PN	Pn	15 54 16.9	-4.8
TIWZ	Tintock	4.42	204	PN	Pn	15 54 14.8	-10
MRZ	Mangatainoka R	4.42	208	PN	Pn	15 54 19.2	-5.2
KIW	Kapiti Island	4.86	212	PN	Pn	15 54 26.2	-4.3
MTW	Mount Morrison	4.89	205	PN	Pn	15 54 25.1	-5.7
CAW	Cannon Point	5.01	209	PN	Pn	15 54 26.9	-5.5
PAWZ	Paruwai Farm	5.12	205	PN	Pn	15 54 29.0	-4.9
WEL	Wellington	5.28	210	PN	Pn	15 54 32.3	-3.8
SNZO	South Karori	5.32	210	PN	Pn	15 54 31.3	-5.5
TCW	Tory Channel	5.42	214	PN	Pn	15 54 32.9	-5.3
TUWZ	Tuamarina	5.75	215	PN	Pn	15 54 37.4	-5.2
QRZ	Quartz Range	6.05	226	PN	Pn	15 54 42.4	-4.4

IDC **12** *15:53:49.8±1.7, 29.29N×81.06E, h0^{km}, mb3.8/5, mb1 3.8/6, mb1mx3.5/22, mbtmp3.7/6, Error ellipse: s-maj=52.8km s-min=26.6km az=63.0*

NEIC **12** *15:53:51.2±1.1, 29.28N×80.94E, h10^{km}, mb3.6/1, Error ellipse: s-maj=20.7km s-min=10.5km az=224.0*

ISCJB **12** *15:53:54.4±0.4, 29.37N±0.04×81.37E±0.03, h33^{km}, mb3.7/6, Error ellipse: s-maj=6.3km s-min=4.0km az=173.1*

NDI **12** *15:53:55.5±3.9, 29.40N×81.31E, h10^{km}, ML3.3*

ISC 12 15:53:56.9±0.4**, 29.40N**±0.04×**81.35E**±0.03**, h35**^{km}**, n25, σ1^{s}47**/35**, mb3.7**/6**, Nepal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LGTI	Lohaghat	0.96	273	eP	Pn	15 54 14.5	+0.6
LGTI				eS	Sn	15 54 29.0	+2.6
JOSI	Joshimath	1.94	307	eP	Pn	15 54 28.4	+1.2
JOSI				eS	Sn	15 54 54.9	+4.5
JOSI				AML	AML	15 54 56.6	
	comp=N,2µm,0.4s						
JOSI				AML	AML	15 54 56.8	
	comp=Z,1µm,0.4s						
DDI	Dehra Dun	3.01	289	eP	Pn	15 54 43.2	+1.2
NDI	New Delhi	3.69	260	eP	Pn	15 54 49.4	-2.0
NDI				eS	Sn	15 55 34.0	+0.3
NDI				AML	AML	15 55 53.5	
	comp=N,75nm,0.2s						
NDI				AML	AML	15 55 53.5	
	comp=E,127nm,0.5s						
AGRA	Agra	3.70	235	eP	Pn	15 54 54.2	+2.6
AGRA				eS	Sn	15 55 34.6	+0.7
AGRA				AML	AML	15 55 53.5	
	comp=N,197nm,0.6s						
AGRA				AML	AML	15 55 54.0	
	comp=E,143nm,0.4s						
AYAN	Aya Nagar	3.81	257	eP	Pn	15 54 55.7	+2.6
AYAN				eS	Sn	15 55 36.0	-0.7
SMLA	Simla	4.01	296	ex	x	15 55 02.9	
SMLA				eS	Sn	15 55 41.1	-0.4
ALBI	Allahabad	4.10	174	ex	x	15 55 07.5	
ALBI				ex	x	15 55 37.5	
SDNR	Sundarnagar	4.32	300	eP	Pn	15 55 02.4	+2.3
SDNR				ex	x	15 56 10.4	
KUDL	Kundal	4.45	255	eP	Pn	15 55 02.2	+0.4
KUDL				ex	x	15 55 19.3	
KUDL				eS	Sn	15 55 51.3	-1.1
KUDL				AML	AML	15 56 24.2	
	comp=E,51nm,0.6s						
KUDL				AML	AML	15 56 28.9	
	comp=N,38nm,0.5s						
KHET	Khetri	5.05	256	eP	Pn	15 55 10.4	+0.4
KHET				eS	Sn	15 56 06.5	-0.6
KHET				AML	AML	15 56 09.9	
	comp=E,43nm,0.4s						
KHET				AML	AML	15 56 10.1	
	comp=N,25nm,0.1s						
THN	Thein Dam	5.71	303	eP	Pn	15 55 19.4	+0.3
THN				eS	Sn	15 56 19.9	-3.5
AJM	Ajmer	6.61	245	eS	Sn	15 56 43.0	-2.6
BOK	Bokaro	6.90	143	eP	Pn	15 55 34.9	-0.7
BOK				eS	Sn	15 56 51.0	-1.9
BOK				AML	AML	15 57 40.9	
	comp=E,12nm,0.6s						
BOK				AML	AML	15 57 42.1	
	comp=N,12nm,0.4s						
BHPL	Bhopal	7.08	211	eP	Pn	15 55 39.5	+1.5
BHPL				eS	Sn	15 56 52.3	-4.8
BHPL				AML	AML	15 57 38.3	
	comp=E,45nm,0.4s						
BHPL				AML	AML	15 57 39.0	
	comp=N,25nm,0.3s						
LSA	Lhasa	8.54	86	ePn	Pn	15 56 00.6	+2.6
	comp=N,2.2nm,0.5s						
LSA				Sn	Sn	15 57 35.4	+2.3
UCH	Uchtor	13.94	338	eP	Pn	15 57 08.3	-3.5
	comp=N,2.3nm,0.8s						
MK31	Makanchi Array	17.38	2	eP	Pn	15 57 55.9	-0.6
MKAR	Makanchi Array	17.38	2	P	Pn	15 57 56.2	-0.2
	comp=N,0.2nm,0.3s,baz=189,slow=12,SNR=6.9						
KURK	Kurchatov	21.39	355	eP	P	15 58 39.5	-1.7
	comp=N,1.7nm,0.6s,mb3.5						
ZALV	Zalesovo Beam	24.66	5	P	P	15 59 13.3	-0.7
	comp=N,2.0nm,0.5s,mb3.9,baz=190,slow=10.0,SNR=15						
SONM	Songino Array	26.67	39	P	P	15 59 32.5	+0.1
	comp=N,0.2nm,0.4s,mb3.0,baz=238,slow=11,SNR=2.4						
FINES	FINESS Array B	48.15	328	P	P	16 02 31.1	-2.1
	comp=N,0.5nm,0.4s,mb3.9,baz=104,slow=9.4,SNR=5.7						
ARCES	ARCESS Array B	50.98	338	P	P	16 02 52.5	-2.2
	comp=N,3.8nm,0.9s,mb4.3,baz=116,slow=8.1,SNR=4.4						
ASAR	Alice Springs	73.05	130	P	P	16 05 22.9	-0.6
	comp=N,0.2nm,0.3s,mb3.5,baz=316,slow=6.2,SNR=7.2						

IDC **12** *15:56:46.6±1.1, 20.87S×70.30W, h0^{km}, mb4.2/2, mb1 4.3/4, mb1mx3.9/16, mbtmp4.2/4, ML4.0/1, Error ellipse: s-maj=47.8km s-min=29.4km az=129.0*

NEIC 12 15:56:55.0±4.2**, 20.72S×70.04W, h55**^{km}±31^{km}**, Error ellipse: s-maj=44.9km s-min=29.7km az=207.0, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	4.77	23	ePn	Pn	15 58 05.5	+1.1
LPAZ				Pg	Pn	15 58 18.7	+14
LPAZ				Lg		15 59 19.0	
LPAZ	La Paz	4.77	23	Pn	Pn	15 58 05.4	+1.0
	3.8nm,0.3s,baz=234,slow=8.3,SNR=67						
LPAZ				Pg	Pn	15 58 18.7	+14
	2.2nm,0.3s,baz=227,slow=10.0,SNR=14						
LPAZ				Lg		15 59 19.0	
	0.9nm,0.3s,baz=58,slow=9.5,SNR=1.3						
SIV	San Ignacio	9.73	63	Pn	Pn	15 59 11.9	-0.4
SIV	San Ignacio	9.73	63	Pn	Pn	15 59 11.9	-0.4
	baz=260,slow=0.0						
TOA0	Torodi Ar. Sit	78.09	71	eP	P	16 08 48.8	+0.2
TORD	Torodi Ar. Bea	78.09	71	P	P	16 08 48.6	0.0
	2.0nm,0.8s,baz=252,slow=5.4,SNR=12						
YKA	Yellowknife Ar	90.11	341	P	P	16 09 46.9	-1.6
	0.8nm,0.8s,baz=135,slow=4.7,SNR=13						
ASAR	Alice Springs	130.09	209	PKP	PKPdf	16 15 58.6	-0.9
ASAR	Alice Springs	130.09	209	PKP	PKPdf	16 15 58.6	-0.9
	0.2nm,0.7s,baz=127,slow=2.3,SNR=4.6						
WRA	Warramunga Arr	133.07	212	PKP	PKPdf	16 16 06.3	+1.1
WRA	Warramunga Arr	133.07	212	PKP	PKPdf	16 16 06.3	+1.1
	0.3nm,0.8s,baz=145,slow=1.7,SNR=4.0						
ZALV	Zalesovo Beam	141.69	24	PKP	PKPdf	16 16 21.0	+1.1
ZALV	Zalesovo Beam	141.69	24	PKP	PKPdf	16 16 21.0	+1.1
	0.4nm,0.5s,baz=353,slow=3.6,SNR=3.7						
MK31	Makanchi Array	145.61	34	ePKPbc	PKPbc	16 16 28.2	+0.9
MKAR	Makanchi Array	145.61	34	PKPbc	PKPbc	16 16 28.3	+0.9
MKAR	Makanchi Array	145.61	34	PKPbc	PKPbc	16 16 28.3	+0.9
	1.8nm,0.8s,baz=319,slow=4.0,SNR=17						
SONM	Songino Array	152.80	5	PKPbc	PKPbc	16 16 45.4	-0.3
SONM				PKPab	PKPab	16 16 56.9	+0.2
SONM	Songino Array	152.80	5	PKPbc	PKPbc	16 16 45.4	-0.3
	0.3nm,0.4s,baz=45,slow=1.7,SNR=3.9						
SONM				PKPab	PKPab	16 16 56.9	+0.2
	0.5nm,0.7s,baz=300,slow=2.9,SNR=4.3						

NIED **12** *16:21:00, 33.10N×136.80E, h11^{km}, Mw3.7 Best double couple: M$_0$3.85000×10^{14} NP1:φ$_s$276.00000°, δ38.00000°, λ158.00000°. NP2:φ$_s$24.00000°, δ77.00000°, λ54.00000°.*

JMA **12** *16:21:05.6±0.1, 33.11N×136.84E, h39^{km}, M3.9*

ISC 12 16:21:05.8±1.2**, 33.18N**±0.08×**136.82E**±0.04**, h22**^{km}±9^{km}**, n14, σ0^{s}65**/28**, 7D, Near south coast of western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TK01	Tokai 1	0.87	47	P	Pb	16 21 21.8	-0.4
TK01				S	Sb	16 21 33.6	+0.2
JWZ	Kozaga	0.99	291	⇓P	Pn	16 21 23.7	-0.7
JWZ				S	Sb	16 21 36.3	-0.6
TK02	Tokai 2	1.10	45	P	Pn	16 21 25.2	-0.6
TK02				S	Sb	16 21 39.6	-0.3
JKN2	Miekihoku	1.16	337	⇓P	Pn	16 21 26.9	+0.3
JKN2				S	Sn	16 21 41.1	-0.6
JIE	Ise	1.22	355	⇓P	Pn	16 21 28.0	+0.5
JIE				S	Sn	16 21 43.2	-0.1
JWM	Minabe	1.40	299	⇓P	Pn	16 21 29.8	-0.1
JWM				S	Sn	16 21 46.8	-0.9
JWY	Kouya	1.46	316	⇓P	Pn	16 21 31.1	+0.3
JWY				S	Sn	16 21 49.5	+0.2
TK04	Tokai 4	1.49	36	P	Pn	16 21 31.2	0.0
TK04				S	Sn	16 21 49.6	-0.4
TSUJ	Tsu 2	1.57	348	⇓P	Pn	16 21 32.9	+0.6
TSUJ				S	Sn	16 21 51.8	-0.1
JHE	Heguri	1.75	328	P	Pn	16 21 35.6	+0.8
JHE				S	Sn	16 21 57.4	+1.0
JAJ2	Tsuna	2.04	308	⇓P	Pn	16 21 39.6	+0.9
JAJ2				S	Sn	16 22 03.8	+0.4
JAI	Aioi	2.08	288	P	Pn	16 21 39.5	+0.3
JAI				S	Sn	16 22 03.4	-1.0
SHZ3	Shizuoka 3	2.21	31	P	Pn	16 21 40.7	-0.4
SHZ3				S	Sn	16 22 06.5	-1.2
MAT	Matsushiro	3.55	18	P	Pn	16 22 01.2	+1.7
MAT				S	Sn	16 22 41.0	+0.3

MAN 12 16:44:48, 19.19N×121.16E, h25^{km}**, mb4.4, ML3.2, MS3.1, 1D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SGCP	Mt. Cagua	1.26	138	eP	Pn	16 45 09.9	-0.1
APYP	Conner	1.32	177	eP	Pn	16 45 11.4	+0.5
APYP				eS	Sn	16 45 28.6	+1.0
ABRA	Dolores	1.59	196	eP	Pn	16 45 14.9	+0.4
CVP	Callao Caves	1.60	157	⇓iP	Pn	16 45 15.4	+0.7
CVP				iS	Sn	16 45 36.3	+1.6
CAUP	Cauayan	2.32	164	eP	Pn	16 45 27.5	+2.9
BOLP	Bolinao	3.03	203	eP	Pn	16 45 35.3	+0.8
BALP	Baler	3.45	173	eP	Pn	16 45 42.7	+2.6

ISCJB **12** *16:46:45.9±1.3, 16.3N±0.1×145.7E±0.4, h521^{km}±10^{km}, mb3.1/6, Error ellipse: s-maj=56.6km s-min=21.0km az=179.2*

NEIC **12** *16:46:46.6±1.2, 16.33N×145.82E, h522^{km}±12^{km}, Error ellipse: s-maj=44.8km s-min=14.2km az=89.0*

IDC **12** *16:46:46.1±1.4, 16.31N×145.83E, h512^{km}±12^{km}, mb2.7/6, mb1 2.9/7, mb1mx2.8/21, mbtmp2.8/7, Error ellipse: s-maj=46.9km s-min=18.5km az=87.0*

ISC 12 16:46:46.4±1.3**, 16.3N**±0.1×**145.8E**±0.4**, h515**^{km}±11^{km}**, n8, σ0^{s}83**/9**, mb3.1**/6**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	2.84	199	P	P	16 47 58.7	+1.0
	5.2nm,0.3s,baz=15,slow=20,SNR=5.5						
GUMO				S	S	16 48 54.6	-0.8
	2.8nm,0.3s,baz=45,slow=18,SNR=4.8						
WB2	Warramunga Arr	37.73	198	eP	P	16 53 17.9	0.0
WRA	Warramunga Arr	37.73	198	P	P	16 53 18.1	+0.2
	0.1nm,0.3s,mb2.9,baz=19,slow=8.2,SNR=7.9						
ASAR	Alice Springs	41.38	197	P	P	16 53 47.5	+0.2
	0.2nm,0.4s,mb3.0,baz=19,slow=6.7,SNR=4.8						
SONM	Songino Array	45.10	323	P	P	16 54 16.9	+0.8
	0.2nm,0.4s,mb3.0,baz=140,slow=8.9,SNR=3.5						
MKAR	Makanchi Array	60.22	315	P	P	16 56 04.4	+0.1
	0.4nm,0.3s,mb3.2,baz=105,slow=4.9,SNR=7.2						
YKA	Yellowknife Ar	80.05	28	P	P	16 58 02.1	+0.3
	0.1nm,0.3s,mb2.6,baz=294,slow=6.0,SNR=3.9						
FINES	FINESS Array B	89.11	335	P	P	16 58 44.2	-2.0
	1.9nm,0.9s,mb3.9,baz=90,slow=5.7,SNR=3.7						

NIED **12** *16:49:00, 31.00N×142.20E, h5^{km}, Mw4.2 Best double couple: M$_0$1.97000×10^{15} NP1:φ$_s$36.00000°, δ47.00000°, λ124.00000°. NP2:φ$_s$171.00000°, δ53.00000°, λ59.00000°.*

BJI **12** *16:49:16.2, 30.98N×142.02E, h11^{km}, mB4.8, mb4.5, Ms4.4, Msz4.2*

ISCJB **12** *16:49:17.5±1.4, 30.90N±0.03×141.95E±0.06, h15^{km}±9^{km}, mb4.4/44, MS3.4/1, Error ellipse: s-maj=9.4km s-min=4.4km az=164.6*

IDC **12** *16:49:17.1±0.5, 30.90N×142.01E, h0^{km}, mb4.4/17, mb1 4.5/21, mb1mx4.4/25, mbtmp4.4/21, ML4.2/4, Error ellipse: s-maj=20.2km s-min=12.5km az=76.0*

NEIC **12** *16:49:18.4±4.9, 30.91N×141.90E, h8^{km}±30^{km}, mb4.5/16, MW4.1(NIED), Error ellipse: s-maj=10.8km s-min=7.2km az=87.0*

JMA **12** *16:49:18.5±0.1, 30.96N×142.17E, h37^{km}, M4.3*

MOS **12** *16:49:20.3±1.0, 30.94N×141.91E, h33^{km}, mb4.7/29, Error ellipse: s-maj=17.4km s-min=6.5km az=119.7*

ISC 12 16:49:19.8±1.5**, 30.93N**±0.03×**142.00E**±0.06**, h19**^{km}±9^{km}**, h27**^{km}±5.4^{km}**:pP-P, n127, σ1^{s}08**/135**, mb4.4**/44**, MS3.4**/1**, 3C, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	Mitsune	2.86	320	P	Pn	16 50 04.1	-0.3
JHJ2				S	Sn	16 50 38.7	+0.4
JHJ	Hachijo jima 2	2.88	320	Pn	Pn	16 50 04.0	-0.7
	27nm,0.3s,baz=177,slow=13,SNR=18						
JHJ				Sn	Sn	16 50 37.0	-1.9
	84nm,0.3s,baz=70,slow=22,SNR=8.4						
BSO1	Boso 1	3.81	347	P	Pn	16 50 16.7	-0.8
BSO1				S	Sn	16 51 01.7	-0.1
CBIJ	Chichi jima	3.83	178	P	Pn	16 50 17.1	-0.7
CBIJ				eS	Sn	16 51 00.8	-1.5
CBIJ	Chichi jima	3.83	178	Pn	Pn	16 50 17.2	-0.6
	56nm,0.3s,baz=90,slow=23,SNR=15						
CBIJ				Sn	Sn	16 50 58.7	-3.6

	32nm,0.3s,baz=272,slow=22,SNR=3.6						
BSO3	**Boso 3**	**4.06**	**342**	P	**Pn**	**16 50 21.2**	**+0.3**
CHOJ	**Chosi**	**4.85**	**349**	P	**Pn**	**16 50 31.1**	**-0.7**
CHOJ				*e*S	**Sn**	**16 51 25.2**	**-2.3**
JOD2	**Odawara 2**	**4.96**	**331**	P	**Pn**	**16 50 34.9**	**+1.6**
JOD2				*e*S	**Sn**	**16 51 29.9**	**-0.3**
JIE	**Ise**	**5.64**	**309**	P	**Pn**	**16 50 44.3**	**+1.6**
JRY	**Ryogami san**	**5.69**	**334**	P	**Pn**	**16 50 44.4**	**+1.0**
JRY				S	**Sn**	**16 51 47.8**	**-0.4**
MJAR	**Matsushiro Arr**	**6.42**	**332**	P	**Pn**	**16 50 54.4**	**+1.0**
MJAR						16 52 08.2	
MJAR				pmax	pmax		
	comp=Z,11nm,0.3s						
MJAR				smax			
	comp=N,2.0nm,0.3s						
MJAR	**Matsushiro Arr**	**6.42**	**332**	Pn	**Pn**	**16 50 54.4**	**+0.9**
	comp=N,11nm,0.3s,baz=159,slow=11,SNR=132						
MJAR				Sn	**Sn**	**16 52 08.2**	**+2.0**
	comp=N,2.2nm,0.3s,baz=177,slow=15,SNR=3.7						
MAJO	**Matsushiro**	**6.42**	**332**	*e*Pn	**Pn**	**16 50 54.4**	**+1.0**
	comp=N,36nm,0.4s						
MAJO	**Matsushiro**	**6.42**	**332**	*e*P	**Pn**	**16 50 54.4**	**+1.0**
MAJO				pmax	pmax		
	comp=Z,36nm,0.4s						
MAT	**Matsushiro**	**6.42**	**332**	P	**Pn**	**16 50 54.6**	**+1.2**
MAT				S	**Sn**	**16 52 07.4**	**+1.1**
JNU	**Nakatsue**	**9.69**	**286**	Pn	**Pn**	**16 51 40.8**	**+2.5**
JNU	**Nakatsue**	**9.69**	**286**	Pn	**Pn**	**16 51 40.8**	**+2.5**
	comp=Z,0.3nm,0.3s,baz=69,slow=8.6,SNR=4.5						
ERM	**Erimo**	**11.10**	**4**	*e*Pn	**Pn**	**16 51 55.4**	**-2.1**
ERM				*e*Sn	**Sn**	**16 53 49.5**	**-12**
ASAJ	**Asahikawa**	**13.17**	**2**	P	**Pn**	**16 52 22.7**	**-3.1**
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	**Asahikawa**	**13.17**	**2**	Pn	**Pn**	**16 52 22.7**	**-3.1**
	comp=Z,1.5nm,0.3s,baz=178,slow=15,SNR=18						
KSRS	**Korea Array**	**13.34**	**303**	Pn	**Pn**	**16 52 30.3**	**+2.2**
	comp=Z,0.3nm,0.3s,baz=114,slow=13,SNR=12						
YSS	**Yuzh-Sakhalins**	**16.01**	**2**	P	**Pn**	**16 53 01.2**	**-2.7**
	comp=Z,13nm,0.8s						
YSS	**Yuzh-Sakhalins**	**16.01**	**2**⇑	*e*P	**Pn**	**16 53 01.2**	**-2.7**
MDJ	**Mudanjiang**	**16.79**	**328**	P	**Pn**	**16 53 14.1**	**+0.3**
MDJ				AMB	AMB		
	comp=Z,11nm,1.2s						
MDJ				AMB	AMB		
	comp=Z,42nm,4.4s						
MDJ	**Mudanjiang**	**16.79**	**328**	P	**Pn**	**16 53 12.4**	**-1.5**
	comp=Z,5.4nm,0.6s						
HABR	**Khabarovsk**	**18.30**	**345**	*e*P	**Pn**	**16 53 32.3**	**-0.2**
HABR				*e*S	**Sn**	**16 56 55.1**	**-1.2**
CN2	**Changchun**	**18.34**	**319**	*e*P	**Pn**	**16 53 32.5**	**-0.6**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.2s						
YHNB	**Yeheng**	**19.27**	**256**	*e*P	**Pn**	**16 53 42.9**	**-1.6**
NJ2	**Nanjing**	**19.77**	**279**	*e*P	**Pn**	**16 53 50.4**	**0.0**
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s						
BJT	**Baijiatuau**	**22.84**	**300**	*e*P	**P**	**16 54 20.2**	**-1.7**
	comp=Z,10nm,0.6s,mb4.4						
BJT	**Baijiatuau**	**22.84**	**300**	*e*P	**P**	**16 54 20.2**	**-1.7**
BJT				pmax	pmax		
	comp=Z,10.0nm,0.6s						
BJI	**Beijing**	**22.84**	**301**	P	**P**	**16 54 19.6**	**-2.3**
BJI				AMB	AMB		
	comp=Z,11nm,0.7s,mb4.4						
BJI				LR	LR		
	comp=N,142nm,18.7s,MS3.6						
BJI				LR	LR		
	comp=E,131nm,17.2s,MS3.6						
BJI				LR	LR		
	comp=Z,91nm,20.1s,MS3.2						
HIA	**Hailar**	**24.85**	**324**	*e*P	**P**	**16 54 39.4**	**-1.6**
	comp=Z,7.8nm,0.6s,mb4.4						
HIA	**Hailar**	**24.85**	**324**	*e*P	**P**	**16 54 39.4**	**-1.6**
HIA				pmax	pmax		
	comp=Z,8.0nm,0.6s						
XAN	**Xi’an**	**28.01**	**285**	P	**P**	**16 55 08.6**	**-1.1**
XAN				AP	pP	16 55 17.8	+2.5
XAN				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.1						
CIT	**Chita**	**29.66**	**323**	*e*P	**P**	**16 55 22.3**	**-1.8**
CIT				*e*		16 55 34.3	
CIT				pmax	pmax		
	comp=Z,25nm,2.5s,mb4.5						
ULN	**Ulaanbaatar**	**31.52**	**312**	*e*P	**P**	**16 55 40.4**	**-0.2**
	comp=Z,14nm,1.2s,mb4.7						
ULN	**Ulaanbaatar**	**31.52**	**312**	*e*P	**P**	**16 55 40.4**	**-0.2**
ULN				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.7						
SONM	**Songino Array**	**31.93**	**312**	P	**P**	**16 55 45.6**	**+1.4**
SONM				pmax	pmax		
	comp=Z,10.0nm,1.2s						
SONM	**Songino Array**	**31.93**	**312**	P	**P**	**16 55 45.6**	**+1.4**
	comp=Z,10nm,1.2s,mb4.5,baz=131,slow=10.0,SNR=22						
LZH	**Lanzhou**	**32.09**	**290**	*e*P	**P**	**16 55 47.0**	**+1.3**
LZH				AP	pP	16 55 55.5	+4.1
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.8						
LZH	**Lanzhou**	**32.09**	**290**	*e*P	**P**	**16 55 47.0**	**+1.3**
	comp=Z,15nm,1.0s,mb4.8						
LZH				pP	pP	16 55 55.5	+4.1
LZH				sP	sP	16 56 01.0	+7.3
LZH	**Lanzhou**	**32.09**	**290**	*e*P	**P**	**16 55 47.0**	**+1.3**
LZH				*PP	pP	16 55 55.5	+4.1
LZH				*SP	sP	16 56 01.0	+7.3
LZH				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.8						
YAK	**Yakutsk**	**32.13**	**349**	*e*P	**P**	**16 55 42.4**	**-3.3**
	comp=Z,3.3nm,0.5s,mb4.4						
YAK	**Yakutsk**	**32.13**	**349**	*e*P	**P**	**16 55 42.4**	**-3.3**
YAK				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.4						
SEY	**Seymchan**	**32.70**	**9**	*e*P	**P**	**16 55 50.9**	**+0.1**
BOD	**Bodaibo**	**33.06**	**333**	*e*P	**P**	**16 55 53.6**	**-0.3**
BOD				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
ZAK	**Zakamensk**	**34.70**	**315**	*e*P	**P**	**16 56 09.3**	**+1.0**
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.2						
TLY	**Talaya**	**34.94**	**318**	*e*P	**P**	**16 56 11.8**	**+1.5**
TLY				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
GTA	**Gaotai**	**35.25**	**296**	P	**P**	**16 56 12.7**	**-0.5**
GTA				AP	pP	16 56 16.9	-2.0
GTA				XP	sP	16 56 19.3	-1.9
GTA				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.6						
TIXI	**Tiksi**	**41.39**	**354**	*e*P	**P**	**16 57 04.4**	**0.0**
	comp=Z,1.3nm,0.6s,mb3.7						
TIXI	**Tiksi**	**41.39**	**354**	*e*P	**P**	**16 57 04.2**	**-0.2**
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.7						
LSA	**Lhasa**	**43.60**	**282**	*e*P	**P**	**16 57 24.7**	**+1.7**
	comp=Z,1.1nm,0.6s,mb3.8						
LSA	**Lhasa**	**43.60**	**282**	*e*P	**P**	**16 57 24.7**	**+1.7**
LSA				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.7						
ZALV	**Zalesovo Beam**	**46.54**	**317**	P	**P**	**16 57 46.5**	**+0.5**
	comp=Z,2.8nm,0.5s,mb4.5,baz=95,slow=6.4,SNR=18						
ZALV				PcP	PcP	16 59 20.3	+0.3
	comp=Z,1.2nm,0.6s,baz=72,slow=4.7,SNR=3.6						
ZAL	**Zalesovo**	**46.55**	**317**	P	**P**	**16 57 46.6**	**+0.5**
ZAL						16 59 20.3	
TAPN	**Taplejung**	**47.17**	**280**	*e*P	**P**	**16 57 50.6**	**-0.7**
NVS	**Novosibirsk**	**47.55**	**318**	*e*P	**P**	**16 57 54.2**	**+0.3**
ODAN	**Odare**	**47.59**	**279**	*e*P	**P**	**16 57 53.5**	**-1.1**
MK31	**Makanchi Array**	**47.98**	**307**	*e*P	**P**	**16 57 57.6**	**+0.3**
MKAR	**Makanchi Array**	**47.98**	**307**	P	**P**	**16 57 57.9**	**+0.6**
MKAR	**Makanchi Array**	**47.98**	**307**	*i* P	**P**	**16 57 58.0**	**+0.7**
MKAR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
MKAR	**Makanchi Array**	**47.98**	**307**	P	**P**	**16 57 57.9**	**+0.6**
	comp=Z,5.7nm,0.7s,mb4.7,baz=91,slow=9.7,SNR=42						
JIRN	**Jiri**	**48.36**	**281**	*e*P	**P**	**16 58 00.2**	**-0.3**
GUN	**Gumba**	**48.54**	**281**	*e*P	**P**	**16 58 01.0**	**-1.0**
KKN	**Kakani**	**49.09**	**281**	*e*P	**P**	**16 58 05.2**	**-0.9**
GKN	**Gorkha**	**49.56**	**282**	*e*P	**P**	**16 58 08.8**	**-1.0**
KURK	**Kurchatov**	**50.24**	**312**	*e*P	**P**	**16 58 14.2**	**-0.4**
	comp=Z,8.8nm,0.8s,mb4.8						
KURK	**Kurchatov**	**50.24**	**312**⇑	*i*P	**P**	**16 58 14.6**	**0.0**
KOLN	**Koldanda**	**50.50**	**282**	*e*P	**P**	**16 58 16.9**	**0.0**
CTA	**Charters Tower**	**50.89**	**175**	P	**P**	**16 58 20.0**	**+0.3**
CTA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
CTA	**Charters Tower**	**50.89**	**175**	P	**P**	**16 58 20.0**	**+0.3**
	comp=Z,1.6nm,0.5s,mb4.2,baz=350,slow=6.1,SNR=3.2						
WB2	**Warramunga Arr**	**51.11**	**189**	*e*P	**P**	**16 58 20.8**	**-0.6**
WRA	**Warramunga Arr**	**51.12**	**189**	P	**P**	**16 58 20.9**	**-0.5**
WRA				pmax	pmax		
	comp=Z,6.0nm,0.4s						
WRA	**Warramunga Arr**	**51.12**	**189**	P	**P**	**16 58 20.9**	**-0.5**
	comp=Z,5.9nm,0.4s,mb4.9,baz=4.9,slow=7.5,SNR=330						
FITZ	**Fitzroy Crossi**	**51.23**	**200**	*e*P	**P**	**16 58 22.7**	**+0.4**
	comp=Z,7.7nm,1.2s,mb4.5						
KDAK	**Kodiak Island**	**51.43**	**39**	P	**P**	**16 58 24.0**	**+0.6**
KDAK	**Kodiak Island**	**51.43**	**39**	P	**P**	**16 58 24.0**	**+0.6**
	comp=Z,15nm,1.0s,mb4.9,baz=318,slow=15,SNR=8.5						
AAK	**Ala-Archa**	**54.00**	**303**	*e*P	**P**	**16 58 42.0**	**-0.7**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.2						
AML	**Almayashu**	**54.68**	**302**	*e*P	**P**	**16 58 49.4**	**+1.8**
	comp=Z,3.3nm,0.6s,mb4.5						
ASAR	**Alice Springs**	**54.84**	**189**	P	**P**	**16 58 49.0**	**+0.1**
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAR	**Alice Springs**	**54.84**	**189**	P	**P**	**16 58 49.0**	**+0.1**
	comp=Z,1.9nm,0.3s,mb4.5,baz=1.0,slow=4.8,SNR=99						
BRVK	**Borovoye**	**55.22**	**316**	P	**P**	**16 58 50.4**	**-1.0**
	comp=Z,4.0nm,0.8s,mb4.5						
BRVK	**Borovoye**	**55.22**	**316**	P	**P**	**16 58 50.4**	**-0.9**
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
DAWY	**Dawson**	**57.72**	**31**	*e*P	**P**	**16 59 11.9**	**+2.9**
INK	**Inuvik**	**59.63**	**25**	*e*P	**P**	**16 59 22.9**	**+0.6**
INK	**Inuvik**	**59.63**	**25**	P	**P**	**16 59 22.3**	**0.0**
	comp=Z,1.1nm,0.5s,mb4.1,baz=292,slow=6.4,SNR=5.0						
KBL	**Kabul**	**60.23**	**295**	*e*P	**P**	**16 59 27.3**	**+0.4**
ARU	**Arti**	**61.33**	**321**	*e*P	**P**	**16 59 33.8**	**-0.2**
	comp=Z,5.6nm,0.6s,mb4.9						
ARU	**Arti**	**61.33**	**321**⇑	*i*P	**P**	**16 59 34.0**	**0.0**
ARU				*e*		17 00 12.0	
ARU				*e*S	**S**	**17 07 54.0**	**+0.7**
ARU				*e*SS	SS	17 11 52.7	-0.6
ARU				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.9						
STKA	**Stephens Creek**	**62.47**	**180**	*e*P	**P**	**16 59 41.9**	**+0.1**
	comp=Z,5.1nm,0.5s,mb4.9						
STKA	**Stephens Creek**	**62.47**	**180**	*e*P	**P**	**16 59 41.7**	**-0.2**
STKA	**Stephens Creek**	**62.47**	**180**	P	**P**	**16 59 41.6**	**-0.2**
	comp=Z,1.5nm,0.4s,mb4.4,baz=339,slow=7.8,SNR=10						
FORT	**Forrest**	**62.78**	**193**	*e*P	**P**	**16 59 44.4**	**+0.4**
	comp=Z,52nm,0.4s						
YKA	**Yellowknife Ar**	**68.86**	**29**	P	**P**	**17 00 23.0**	**+0.2**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**68.86**	**29**	P	**P**	**17 00 23.0**	**+0.2**
	comp=Z,0.9nm,0.8s,mb3.7,baz=295,slow=6.2,SNR=12						
ARCES	**ARCESS Array B**	**69.88**	**340**	P	**P**	**17 00 29.9**	**+0.9**
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES	**ARCESS Array B**	**69.88**	**340**	P	**P**	**17 00 29.9**	**+0.9**
	comp=Z,4.2nm,0.8s,mb4.4,baz=349,slow=4.9,SNR=4.9						
JOF	**Joensuu**	**71.59**	**333**	*e*p	**P**	**17 00 39.6**	**+0.1**
	comp=Z,1.6nm,0.4s,mb4.3						
JOF	**Joensuu**	**71.59**	**333**	*e*P	**P**	**17 00 39.6**	**+0.1**
JOF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
OBN	**Obninsk**	**73.31**	**325**	*e*P	**P**	**17 00 50.9**	**+1.0**
OBN				pmax	pmax		
	comp=Z,11nm,1.7s,mb4.5						
KAF	**Kangasniemi**	**73.96**	**334**	*e*p	**P**	**17 00 53.5**	**-0.1**
	comp=Z,1.2nm,0.5s,mb4.1						
KAF	**Kangasniemi**	**73.96**	**334**	*e*P	**P**	**17 00 53.5**	**-0.1**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
FINES	**FINESS Array B**	**74.45**	**333**	*i* P	**P**	**17 00 57.2**	**+0.7**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	**FINESS Array B**	**74.45**	**333**	P	**P**	**17 00 55.5**	**-0.9**
	comp=Z,1.3nm,0.4s,mb4.2,baz=82,slow=5.6,SNR=12						
KIV	**Kislovodsk**	**75.33**	**313**	*e*P	**P**	**17 01 02.8**	**+0.9**
KIV				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
SOC	**Sochi**	**77.38**	**313**	*e*P	**P**	**17 01 11.9**	**-1.6**
SOC				*e*		17 04 12.5	
SOC				*e*PPP		17 05 55.2	
SOC				*e*S	S	17 10 57.7	-5.3
SOC				*e**SS	sS	17 11 21.6	+8.4
SOC				*e*SS	SS	17 16 03.9	+3.0
SOC				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
ANN	**Anapa**	**78.15**	**315**	*e*P	**P**	**17 01 17.6**	**-0.2**
ANN				*e*S	S	17 11 07.9	-3.5
ANN				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.0						
AKASG	**Malin Array Be**	**79.44**	**323**	P	**P**	**17 01 25.1**	**+0.3**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
AKASG	**Malin Array Be**	**79.44**	**323**	P	**P**	**17 01 25.1**	**+0.2**
	comp=Z,2.8nm,0.6s,mb4.4,baz=49,slow=5.7,SNR=19						
AKBB	**Malin Array Si**	**79.44**	**323**	*e*P	**P**	**17 01 25.0**	**+0.2**
KIEV	**Kiev**	**79.46**	**323**	*e*P	**P**	**17 01 24.9**	**+0.1**
	comp=Z,3.6nm,0.6s,mb4.5						
KIEV	**Kiev**	**79.46**	**323**	*e*P	**P**	**17 01 24.9**	**0.0**
KIEV				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
NB2	**NORSAR Subarra**	**80.00**	**338**	P	**P**	**17 01 27.7**	**+0.1**
	comp=Z,0.9nm,0.6s,mb3.9,baz=40,slow=5.6						
NOA	**NORSAR Array B**	**80.00**	**338**	P	**P**	**17 01 28.1**	**+0.5**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	**NORSAR Array B**	**80.00**	**338**	P	**P**	**17 01 28.1**	**+0.4**
	comp=Z,1.1nm,0.5s,mb4.0,baz=41,slow=5.4,SNR=5.5						
PDAR	**Pinedale Array**	**81.61**	**45**	P	**P**	**17 01 37.2**	**+0.6**
	comp=Z,1.2nm,0.9s,mb3.8,baz=276,slow=2.8,SNR=6.6						
BRTR	**Keskin Array B**	**83.29**	**313**	*i* P	**P**	**17 01 46.5**	**+1.1**
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BRTR	**Keskin Array B**	**83.29**	**313**	P	**P**	**17 01 46.1**	**+0.6**
	comp=Z,3.4nm,0.9s,mb4.3,baz=103,slow=3.9,SNR=19						
CLL	**Collm**	**86.63**	**331**	*e*P	**P**	**17 02 03.0**	**+1.0**
TXAR	**Lajitas Array**	**93.43**	**53**	P	**P**	**17 02 36.1**	**+1.7**
TXAR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
TXAR	**Lajitas Array**	**93.43**	**53**	P	**P**	**17 02 36.1**	**+1.8**
	comp=Z,3.0nm,1.1s,mb4.6,baz=298,slow=2.7,SNR=8.4						
TORD	**Torodi Ar. Bea**	**121.90**	**313**	PKP	PKPdf	17 08 12.7	-0.8
TORD	**Torodi Ar. Bea**	**121.90**	**313**	PKP	PKPdf	17 08 12.7	-0.8
	comp=Z,1.2nm,1.2s,baz=56,slow=1.2,SNR=3.0						
LPAZ	**La Paz**	**148.90**	**69**	*e*PKPbc	PKPbc	17 09 09.1	+2.1
LPAZ	**La Paz**	**148.90**	**69**	PKP2	PKPbc	17 09 08.7	+1.7
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LPAZ	**La Paz**	**148.90**	**69**	PKPbc	PKPbc	17 09 08.7	+1.7
	comp=Z,1.6nm,0.7s,baz=189,slow=1.0,SNR=7.9						

JMA 12 16:56:46.9±0.3,2558N×12293E,h218^{km},M3.6,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**1.44**	**149**	P	Pn	16 57 21.7	0.0
IRIF				*e*S	S	16 57 49.3	+0.4
JIJ	**Ishigaki jima**	**1.64**	**137**	P	Pn	16 57 23.2	-0.2
JIJ				S	S	16 57 50.9	-1.0
JKRS	**Kuro-shima**	**1.66**	**144**	P	Pn	16 57 23.7	+0.1
JKRS				*e*S	S	16 57 52.1	-0.1
HATJ	**Hateruma jima**	**1.71**	**152**	P	Pn	16 57 24.3	+0.2
JTJ	**Tarama**	**1.86**	**120**	P	Pn	16 57 25.8	+0.4
JTJ				S	S	16 57 55.7	+0.2
JMJ	**Miyako jima 2**	**2.27**	**109**	*e*S	S	16 58 02.6	-0.3
JOGS	**Gusukube**	**2.39**	**109**	P	Pn	16 57 31.0	+0.3
JOGS				*e*S	S	16 58 04.7	-0.3

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*MOS **12** 17:16:58.3±1.7,5190N×10520E,h24^{km},mb4.3/1,Error ellipse: s-maj=19.5km s-min=11.5km az=135.0*

BYKL 12 17:16:58.0±0.2,5184N×10521E,h25^{km}±3^{km},7C,FELT I=III-IV MSK at Listvyanka, Nikola,Lake Baykal region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSTR	**Listvyanka**	**0.24**	**277**⇑	*i*PG	Pb	17 17 04.2	+0.1
LSTR				*e*		17 17 07.8	
LSTR				pmax	pmax		
	comp=Z,1µm,0.2s						
LSTR				smax			
	comp=E,10µm,0.1s						
LSTR	**Listvyanka**	**0.24**	**277**⇑	*i*Pg	Pb	17 17 04.2	+0.1
LSTR				*e*Sg	Sb	17 17 08.1	-0.1
LSTR				Pmax			
	comp=E,586nm,0.1s						
LSTR				Smax			
	comp=E,4µm,0.1s						
BTMB	**Babushkin**	**0.41**	**110**⇑	*i*Pg	Pb	17 17 06.0	-0.7
BTMB				*e*Sg	Sb	17 17 11.8	-0.8
BTMB				Pmax			
	comp=E,832nm,0.2s						
BTMB				Smax			
	comp=E,3µm,0.2s						
IRK	**Irkutsk**	**0.71**	**305**	*e*PG	Pb	17 17 11.4	-0.2
IRK				*e*		17 17 21.2	
IRK				pmax	pmax		
	comp=Z,2µm,0.3s						
IRK				smax			
	comp=N,2µm,0.5s						
IRK	**Irkutsk**	**0.71**	**305**⇑	*i*Pg	Pb	17 17 12.1	+0.5
IRK				*e*Sg	Sb	17 17 21.6	+0.6
IRK				Pmax			
	comp=N,2µm,0.3s						
IRK				Smax			
	comp=N,2µm,0.3s						
KAB	**Kabansk**	**0.92**	**76**⇑	*i*PG	Pb	17 17 15.5	+0.3
KAB				*e*		17 17 28.1	
KAB				pmax	pmax		
	comp=Z,349nm,0.3s						
KAB				smax			
	comp=E,5µm,0.6s						
KAB	**Kabansk**	**0.92**	**76**	*e*Pg	Pb	17 17 15.5	+0.3
KAB				*e*Sg	Sb	17 17 28.1	+1.1
KAB				Pmax			
	comp=E,146nm,0.1s						
KAB				Smax			
	comp=E,4µm,0.7s						
FFNB	**Fofonovo**	**0.98**	**77**	*e*Pg	Pn	17 17 16.6	+0.4
FFNB				*e*Sg	Sb	17 17 29.3	+0.4
FFNB				Pmax			
	comp=E,2µm,0.1s						
FFNB				Smax			
	comp=E,2µm,0.2s						
TLY	**Talaya**	**0.99**	**261**⇑	*i*PG	Pn	17 17 16.6	+0.4
TLY				*e*		17 17 30.1	
TLY				pmax	pmax		
	comp=Z,474nm,0.1s						
TLY				smax			
	comp=E,1µm,0.1s						
TLY	**Talaya**	**0.99**	**261**	*e*Pg	Pn	17 17 16.6	+0.4
TLY				*e*Sg	Sb	17 17 30.0	+1.1
TLY				*e*Sb	Sb	17 17 33.1	+4.2
TLY				Pmax			
	comp=E,465nm,0.1s						
TLY				max			
	comp=E,959nm,0.2s						
TRG	**Tyrgan**	**1.16**	**37**	*e*PG	Pn	17 17 19.3	+0.8
TRG				*e*		17 17 34.3	
TRG				pmax	pmax		
	comp=Z,72nm,0.1s						
TRG				smax			
	comp=E,1µm,0.3s						
TRG	**Tyrgan**	**1.16**	**37**	*e*Pg	Pn	17 17 19.3	+0.8
TRG				*e*Sg	Sn	17 17 34.3	+0.8
TRG				*e*Sb	Sb	17 17 36.4	+2.6
TRG				Pmax			
	comp=E,72nm,0.1s						
TRG				max			
	comp=E,1µm,0.3s						
ZRHB	**Zarechye**	**1.39**	**58**	*e*Pg	Pn	17 17 23.6	+1.8
ZRHB				*e*Sg	Sn	17 17 42.0	+2.6
ZRHB				Pmax			
	comp=E,55nm,0.1s						
ZRHB				Smax			
	comp=E,2µm,0.7s						
TRTB	**Turuntaevo**	**1.54**	**74**	*e*Pg	Pn	17 17 25.5	+1.6
TRTB				*e*Pb	Pb	17 17 26.4	+0.5
TRTB				*e*Sg	Sn	17 17 46.4	+3.3
TRTB				max			
	comp=E,63nm,0.2s						
TRTB				Smax			
	comp=E,606nm,0.4s						
ARS	**Arshan**	**1.73**	**274**	*e*PN	Pn	17 17 28.9	+2.5
ARS				*e*		17 17 52.2	
ARS				pmax	pmax		
	comp=Z,121nm,0.2s						
ARS				smax			
	comp=E,1µm,0.4s						
ARS	**Arshan**	**1.73**	**274**⇑	*i*Pg	Pn	17 17 29.2	+2.8
ARS				*e*Sg	Sn	17 17 51.5	+3.9
ARS				Pmax			
	comp=E,122nm,0.3s						
ARS				Smax			
	comp=E,1µm,0.4s						
ZAK	**Zakamensk**	**1.90**	**221**	*e*Pg	Pn	17 17 32.8	+4.0
ZAK				*e*Sg	Sn	17 17 58.4	+6.5
ZAK				Pmax			
	comp=E,30nm,0.1s						
ZAK				Smax			
	comp=E,226nm,0.1s						
OGRR	**Ongureny**	**2.32**	**38**	*e*PN	Pn	17 17 36.7	+2.2
OGRR				*e*		17 17 39.5	
OGRR				*e*		17 18 08.9	
OGRR				pmax	pmax		
	comp=Z,25nm,0.4s						
OGRR				smax			
	comp=E,220nm,0.4s						
OGRR	**Ongureny**	**2.32**	**38**	*e*Pn	Pn	17 17 36.5	+2.0
OGRR				*e*Pg	Pn	17 17 39.2	+4.7
OGRR				*e*Sg	Sn	17 18 08.9	+6.8
OGRR				Pmax			
	comp=E,16nm,0.1s						
OGRR				Smax			
	comp=E,220nm,0.2s						
MXMB	**Maximikha**	**2.59**	**55**	*e*Pg	Pn	17 17 44.7	+6.5
MXMB				*e*Sg	Sn	17 18 18.5	+10
MXMB				Pmax			
	comp=E,18nm,0.1s						
MXMB				Smax			
	comp=E,201nm,0.5s						
MOY	**Mondy**	**2.63**	**268**	*e*PN	Pn	17 17 44.7	+6.0
MOY				*e*		17 18 19.8	
MOY				pmax	pmax		
	comp=Z,71nm,0.3s						
MOY				smax			
	comp=E,357nm,0.7s						
MOY	**Mondy**	**2.63**	**268**	*e*Pg	Pn	17 17 44.8	+6.1
MOY				*e*		17 17 45.9	
MOY				*e*Sg	Sn	17 18 19.4	+10
MOY				max			
	comp=E,73nm,0.3s						
MOY				Smax			
	comp=E,361nm,0.7s						
ORL	**Orlik**	**3.40**	**284**	*e*	Pn	17 17 53.6	+4.3
ORL				*e*Pg	Pn	17 17 58.2	+8.9
ORL				*e*Sg	Sn	17 18 42.2	+13
ORL				Pmax			
	comp=E,53nm,0.4s						
ORL				Smax			
	comp=E,169nm,0.6s						
SYVR	**Suvo**	**3.43**	**56**	*e*Pn	Pn	17 17 50.8	+1.0
SYVR				*e*Pg	Pn	17 17 59.8	+10
SYVR				*e*Sg	Sn	17 18 44.9	+15
SYVR				Pmax			
	comp=E,8.0nm,0.2s						
SYVR				Smax			
	comp=E,57nm,0.4s						
NIZ	**Nizh Angarsk**	**4.70**	**31**	*e*PN	Pn	17 18 09.0	+1.7
NIZ				*e*		17 18 21.2	
NIZ				*e*S	Sn	17 19 00.8	-0.1
NIZ				*e*		17 19 20.8	
NIZ				pmax	pmax		
	comp=Z,6.0nm,0.6s						
NIZ				smax			
	comp=N,58nm,0.8s						
NIZ	**Nizh Angarsk**	**4.70**	**31**	*e*Pn	Pn	17 18 08.8	+1.5
NIZ				*e*Sn	Sn	17 19 01.0	+0.1
NIZ				*e*Sg	Sn	17 19 23.2	+22
NIZ				Smax			
	comp=N,58nm,0.7s						
KPC	**Khapcheranga**	**5.03**	**112**	*e*Pn	Pn	17 18 11.7	0.0
KPC				*e*Pg	Pn	17 18 27.7	+16
KPC				*e*Sg	Sn	17 19 33.4	+24
KPC				Pmax			
	comp=N,7.0nm,0.4s						
KPC				Smax			
	comp=N,56nm,1.2s						

CIT	**Chita**	5.17	85	*e*PN	Pn	17 18 14.1	+0.5
CIT				*e*		17 18 29.1	
CIT				*e*		17 19 37.0	
CIT				pmax	pmax		
	comp=Z,13nm,0.8s						
CIT				smax			
	comp=N,58nm,1.0s						
CIT	**Chita**	5.17	85	*e*Pg	Pn	17 18 30.4	+17
CIT				*e*Sg	Sn	17 19 38.5	+26
CIT				Pmax			
	comp=N,12nm,0.4s						
CIT				Smax			
	comp=N,67nm,1.1s						
KMO	**Kumora**	5.38	39	*e*PN	Pn	17 18 18.1	+1.5
KMO				*e*		17 18 33.7	
KMO				*e*		17 19 42.9	
KMO				pmax	pmax		
	comp=Z,3.0nm,0.3s						
KMO				smax			
	comp=N,56nm,1.2s						
KMO	**Kumora**	5.38	39	*e*Pn	Pn	17 18 18.2	+1.6
KMO				*e*Sg	Sn	17 19 44.1	+26
KMO				Smax			
	comp=N,60nm,1.4s						
TDJR	**Todzha**	5.64	279	*e*Pg	Pn	17 18 38.2	+18
TDJR				*e*Sg	Sn	17 19 51.3	+27
UKT	**Uakit**	6.20	51	*e*PG	Pn	17 18 50.1	+22
UKT				*e*		17 20 09.6	
UKT				pmax	pmax		
	comp=Z,1.0nm,0.2s						
UKT				smax			
	comp=N,23nm,1.3s						
UKT	**Uakit**	6.20	51	*e*Sg	Sn	17 20 09.4	+32
UKT				Smax			
	comp=N,24nm,1.2s						

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*IDC **12** 17:21:52.4±9.4, 31.06S×65.35W, h149^{km}±75^{km}, mb3.5/3, mb1 4.0/5, mb1mx3.7/14, mbtmp3.7/5, Error ellipse: s-maj=51.4km s-min=29.8km az=13.0*

*ISCJB **12** 17:21:55.8±1.3, 30.86S±0.08×65.5W±0.1, h187^{km}±16^{km}, mb3.5/3, Error ellipse: s-maj=18.5km s-min=13.3km az=13.0*

*NEIC **12** 17:21:55.8±2.1, 30.90S×65.29W, h178^{km}±17^{km}, mb4.6/1, Error ellipse: s-maj=24.2km s-min=14.1km az=138.0*

ISC 12 17:21:56.9±1.3**, 30.93S**±0.06×**65.5W**±0.1**, h184**^{km}±16^{km}**, n27, σ0^{s}92**/20**, mb3.5**/3**, 1C-1D, Cordoba Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TLL	**Tololo Astrono**	4.64	278	*e*S	Sn	17 23 58.3	-2.3
FCH	**Farellones**	4.71	238	*e*P	Pn	17 23 07.8	+0.6
CMCH	**Combarbala**	4.73	266	*e*P	Pn	17 23 07.8	+0.5
CMCH				*e*S	Sn	17 24 01.5	-1.1
LCO	**Las Campanas**	4.90	292	*e*P	Pn	17 23 11.0	+1.4
	23nm,0.5s						
PEL	**Peldehue**	4.92	242	⇓*e*P	Pn	17 23 09.8	-0.1
PCH	**Pirque**	5.02	236	*e*P	Pn	17 23 11.7	+0.5
RCDM	**Rinconada Maip**	5.17	239	*e*P	Pn	17 23 13.0	0.0
RCDM				*i* S	Sn	17 24 13.0	+0.1
CHCH	**Chadas Angostu**	5.29	234	⇑*e*P	Pn	17 23 14.6	0.0
CICH	**Cipreses**	5.35	230	*e*P	Pn	17 23 15.8	+0.4
LPAZ	**La Paz**	14.77	350	*e*Pn	Pn	17 25 16.1	-0.9
LPAZ				S	Sn	17 28 03.5	+1.5
LPAZ	**La Paz**	14.77	350	P	Pn	17 25 16.2	-0.8
	4.2nm,0.3s,baz=154,slow=5.9,SNR=31						
LPAZ				S	Sn	17 28 03.5	+1.5
	baz=279,slow=19,SNR=3.8						
SIV	**San Ignacio**	15.41	16	P	Pn	17 25 23.4	-1.5
	1.1nm,0.3s,baz=202,slow=11,SNR=37						
TXAR	**Lajitas Array**	70.08	325	P	P	17 32 49.8	+0.8
	0.4nm,0.5s,mb3.4,baz=153,slow=6.9,SNR=10						
TOA0	**Torodi Ar. Sit**	77.94	67	*e*P	P	17 33 34.2	-0.6
TORD	**Torodi Ar. Bea**	77.94	67	P	P	17 33 34.1	-0.7
	1.6nm,0.6s,mb3.9,baz=276,slow=5.5,SNR=11						
TORD				pP	pP	17 34 18.5	-0.9
	0.8nm,0.6s,baz=268,slow=5.5,SNR=3.3						
PDAR	**Pinedale Array**	83.76	329	P	P	17 34 05.7	+0.7
	0.5nm,0.7s,mb3.4,baz=118,slow=7.6,SNR=5.6						
YKA	**Yellowknife Ar**	101.05	339	P	Pdif	17 35 25.0	-0.6
	0.1nm,0.3s,baz=139,slow=3.6,SNR=5.2						
ASAR	**Alice Springs**	122.62	201	PKP	PKPdf	17 40 30.4	-0.6
ASAR	**Alice Springs**	122.62	201	PKP	PKPdf	17 40 30.4	-0.6
	0.3nm,0.5s,baz=139,slow=1.6,SNR=12						
WRA	**Warramunga Arr**	125.95	203	PKP	PKPdf	17 40 37.2	-0.3
WRA	**Warramunga Arr**	125.95	203	PKP	PKPdf	17 40 37.2	-0.3
	0.6nm,0.4s,baz=166,slow=1.6,SNR=33						
ZALV	**Zalesovo Beam**	148.63	34	PKPbc	PKPbc	17 41 21.1	-0.5
ZALV	**Zalesovo Beam**	148.63	34	PKPbc	PKPbc	17 41 21.1	-0.5
	1.3nm,0.7s,baz=292,slow=3.3,SNR=8.2						
MKAR	**Makanchi Array**	150.59	48	PKPbc	PKPbc	17 41 25.7	-0.9
MKAR				PKPab	PKPab	17 41 33.4	-0.7
MKAR	**Makanchi Array**	150.59	48	PKPbc	PKPbc	17 41 25.7	-0.9
	1.0nm,0.8s,baz=289,slow=2.7,SNR=9.7						
MKAR				PKPab	PKPab	17 41 33.4	-0.7
	0.3nm,0.3s,baz=288,slow=2.5,SNR=13						
SONM	**Songino Array**	162.01	18	PKP	PKPdf	17 41 35.4	-0.3
SONM	**Songino Array**	162.01	18	PKP	PKPdf	17 41 35.4	-0.3
	0.3nm,0.7s,baz=53,slow=0.7,SNR=3.3						

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*IDC **12** 17:37:57.3±1.1, 8.12S×125.67E, h0^{km}, mb3.8/4, mb1 4.0/7, mb1mx3.9/15, mbtmp3.9/7, ML4.1/3, MS3.3/2, Ms1 3.3/2, ms1mx2.5/27, Error ellipse: s-maj=99.6km s-min=19.7km az=67.0*

*NEIC **12** 17:38:03.4±0.6, 8.30S×125.24E, h35^{km}, mb4.1/3, Error ellipse: s-maj=33.0km s-min=10.5km az=59.0*

*ISCJB **12** 17:38:07.6±2.1, 8.61S±0.09×125.5E±0.1, h116^{km}±23^{km}, mb3.8/7, Error ellipse: s-maj=21.1km s-min=10.8km az=147.8*

ISC 12 17:38:02.0±0.6**, 8.30S**±0.07×**125.77E**±0.10**, h35**^{km}**, n19, σ1^{s}24**/26**, mb3.9**/7**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	7.89	124	*e*P	Pn	17 40 01.9	+7.6
	16nm,0.3s						
KAKA	**Kakadu**	7.89	124	*e*P	Pn	17 40 01.9	+7.6
KAKA				*e*Sn	Sn	17 41 21.0	-1.4
FITZ	**Fitzroy Crossi**	9.75	181	*e*P	Pn	17 40 21.9	+2.1
	4.0nm,0.2s						
FITZ				*e*S	Sn	17 42 06.1	-2.0
FITZ	**Fitzroy Crossi**	9.75	181	Pn	Pn	17 40 21.6	+1.8
	0.7nm,0.3s,baz=5.0,slow=11,SNR=24						
FITZ				Sn	Sn	17 42 06.3	-1.8
	3.9nm,0.3s,baz=328,slow=19,SNR=16						
FITZ				LR	LR	17 44 43.2	
	comp=Z,55nm,19.1s,baz=283,slow=41						
WRA	**Warramunga Arr**	14.24	145	Pn	Pn	17 41 23.2	+1.9
WRA				Sn	Sn	17 43 58.2	+0.1
WRA	**Warramunga Arr**	14.24	145	Pn	Pn	17 41 23.2	+1.9
	1.3nm,0.3s,baz=316,slow=14,SNR=63						
WRA				Sn	Sn	17 43 58.2	+0.1
	0.7nm,0.3s,baz=320,slow=24,SNR=7.1						
WB2	**Warramunga Arr**	14.25	145	*e*P	Pn	17 41 23.0	+1.6
WB2				*e*S	Sn	17 43 56.8	-1.5
WB2	**Warramunga Arr**	14.25	145	*e*Pn	Pn	17 41 23.1	+1.8
WB2				*e*S	Sx	17 43 56.8	
ASAR	**Alice Springs**	17.16	154	P	Pn	17 42 02.9	+3.8
	0.6nm,0.3s,baz=322,slow=9.8,SNR=72						
ASAR				S	S	17 45 08.4	-9.0
	0.2nm,0.3s,baz=320,slow=22,SNR=4.9						
QLP	**Quilpie**	25.25	138	*e*P	P	17 43 31.9	+6.9
STKA	**Stephens Creek**	27.70	150	P	P	17 43 48.1	+1.1
	0.6nm,0.6s,mb3.4,baz=346,slow=12,SNR=2.2						
CHTO	**Chiang Mai**	37.76	316	*e*P	P	17 45 14.4	-0.5
	1.1nm,0.8s,mb3.6						
LSA	**Lhasa**	50.36	320	*e*P	P	17 46 56.3	+0.4
	2.0nm,0.8s,mb4.2						
SONM	**Songino Array**	58.46	345	P	P	17 47 55.0	+0.6
	0.4nm,0.7s,mb3.6,baz=157,slow=7.8,SNR=3.7						
SONM				LR	LR	18 12 57.5	
	comp=Z,68nm,18.5s,baz=266,slow=36						
MK31	**Makanchi Array**	67.09	329	*e*P	P	17 48 51.5	-0.4
MKAR	**Makanchi Array**	67.09	329	P	P	17 48 51.5	-0.3
	1.4nm,0.5s,mb4.2,baz=125,slow=7.4,SNR=34						
ZALV	**Zalesovo Beam**	70.96	336	P	P	17 49 14.3	-1.4
ZALV	**Zalesovo Beam**	70.96	336	P	P	17 49 14.3	-1.4
	0.8nm,0.6s,mb3.9,baz=131,slow=6.1,SNR=6.3						
KURK	**Kurchatov**	71.50	331	*e*P	P	17 49 18.4	-0.7
	1.8nm,0.8s,mb4.0						

IDC 12 17:50:54.9±6.8**, 18.29S**×**71.10W, h98**^{km}±51^{km}**, mb3.5**/2**, mb1 3.8**/3**, mb1mx3.5**/14**, mbtmp3.5**/3**, Error ellipse: s-maj=73.9km s-min=57.2km az=30.0, Off coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	**La Paz**	3.46	55	P	Pn	17 51 47.5	+0.6
	4.4nm,0.3s,baz=244,slow=9.3,SNR=30						
TORD	**Torodi Ar. Bea**	78.27	72	P	P	18 02 44.4	-0.1
	0.4nm,0.6s,baz=247,slow=5.5,SNR=3.8						
YKA	**Yellowknife Ar**	87.50	341	P	P	18 03 30.8	-0.3
	0.7nm,0.6s,baz=135,slow=4.8,SNR=20						
ASAR	**Alice Springs**	131.68	211	PKP	PKPdf	18 09 56.5	-0.6
	0.3nm,0.7s,baz=137,slow=3.3,SNR=3.7						
WRA	**Warramunga Arr**	134.54	215	PKP	PKPdf	18 10 02.4	-0.1
	0.5nm,0.6s,baz=151,slow=1.9,SNR=6.9						
MKAR	**Makanchi Array**	144.12	32	PKP	PKPdf	18 10 18.5	-0.6
	0.2nm,0.7s,baz=295,slow=3.1,SNR=6.6						
SONM	**Songino Array**	150.47	3	PKPbc	PKPbc	18 10 35.6	+0.6
	0.4nm,0.7s,baz=336,slow=1.8,SNR=5.4						

JMA 12 18:01:56.9±0.3**, 45.17N**×**149.60E, h175**^{km}**, M3.5, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	3.31	238	P	Pn	18 02 49.4	+0.4
NEM2				*e*S	Sn	18 03 30.3	+0.7
JRA	**Rausu**	3.43	251	P	Pn	18 02 51.1	+0.5
JRA				*e*S	Sn	18 03 32.6	+0.3
JNK	**Nakash**	3.84	247	P	Pn	18 02 56.7	+0.9
JAK	**Akkeshi**	4.15	240	P	Pn	18 03 00.2	+0.5
JAK				*e*S	Sn	18 03 49.2	+0.5
JAR	**Ashorobuto**	4.59	248	P	Pn	18 03 06.1	+0.7
JOB	**Onbets**	4.73	243	*e*S	Sn	18 04 02.9	+0.6
JKK2	**Kamakawa 2**	5.07	258	P	Pn	18 03 12.2	+0.6
JCH	**Churui**	5.18	243	P	Pn	18 03 13.6	+0.6
JCH				*e*S	Sn	18 04 12.4	-0.3
JEM	**Erimo**	5.64	238	*e*S	Sn	18 04 23.9	+0.3
JNBK	**Urakawa-nobuka**	5.74	242	P	Pn	18 03 21.0	+0.6
JNBK				*e*S	Sn	18 04 23.0	-2.9
JBT2	**Biratori 2**	5.74	248	*e*S	Sn	18 04 26.2	+0.2
JNB	**Noboribetsu**	6.76	249	P	Pn	18 03 33.9	+0.2
JNB				*e*S	Sn	18 04 48.2	-1.8
JKB	**Kayabe**	7.04	245	P	Pn	18 03 37.4	0.0
JKB				*e*S	Sn	18 04 52.3	-4.4
JYM2	**Yakumo 2**	7.36	249	P	Pn	18 03 41.2	-0.4
JTM	**Tenmabayashi**	7.63	238	*e*S	Sn	18 05 06.8	-4.2
JANG	**Nango**	7.64	234	*e*S	Sn	18 05 06.9	-4.1
JTH	**Tanohata**	7.74	230	*e*S	Sn	18 05 10.6	-2.9
JIO	**Ouri**	9.11	225	*e*S	Sn	18 05 44.4	-1.7

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*TEH **12** 18:29:43.2, 29.84N×50.62E, h10^{km}, ML4.4*

*IDC **12** 18:30:15.1±0.5, 29.74N×50.59E, h0^{km}, mb4.3/28, mb1 4.4/31, mb1mx4.3/36, mbtmp4.3/31, ML4.2/3, MS3.5/8, Ms1 3.5/8, ms1mx3.2/40, Error ellipse: s-maj=12.3km s-min=11.9km az=12.0*

*NEIC **12** 18:30:16.8±0.3, 29.63N×50.47E, h10^{km}, mb4.4/26, MN4.5(TEH), Error ellipse: s-maj=5.5km s-min=4.0km az=181.0*

*BJI **12** 18:30:17.3, 29.60N×50.50E, h10^{km}, mB5.2, mb4.4*

*MOS **12** 18:30:18.0±1.2, 29.61N×50.45E, h33^{km}, mb4.5/35, Error ellipse: s-maj=8.8km s-min=5.3km az=105.8*

*ISCJB **12** 18:30:19.2±0.3, 29.66N±0.02×50.64E±0.02, h42^{km}±3^{km}, mb4.3/63, MS3.5/6, Error ellipse: s-maj=3.4km s-min=3.1km az=14.2*

*CSEM **12** 18:30:20.8±0.1, 29.75N×50.58E, h54^{km}, mb4.3/43, Ms4.6, Error ellipse: s-maj=2.1km s-min=1.2km az=152.0*

ISC 12 18:30:21.2±0.3**, 29.72N**±0.02×**50.61E**±0.02**, h40**^{km}±3^{km}**, n303, σ1^{s}27**/351**, mb4.3**/63**, MS3.5**/6**, 27C-8D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IMOK	**Mook**	1.96	110	Pn	Pn	18 30 52.9	+1.0
IMOK				Sn	Sn	18 31 19.2	+3.9
IMOK	**Mook**	1.96	110	*e*Pn	Pn	18 30 53.0	+1.1
IMOK				*e*Sn	Sn	18 31 19.3	+4.0
IMOK				*e*		18 31 28.6	
	comp=Z,8μm,0.3s						
IMOK	**Mook**	1.96	110	*e*Pn	Pn	18 30 53.0	+1.1
IMOK				Sn	Sn	18 31 19.2	+3.9
ISRV	**Sarvestan**	2.21	98	Pn	Pn	18 30 57.3	+1.9
ISRV	**Sarvestan**	2.21	98	*e*Pn	Pn	18 30 57.4	+2.0
ISRV				*e*		18 31 42.4	
	comp=N,84μm,0.3s						
ISRV	**Sarvestan**	2.21	98	*e*Pn	Pn	18 30 57.4	+2.0
UMR	**Umm Al-Rimmam**	2.52	267	*e*P	Pn	18 31 00.1	+0.5
UMR				*e*S	Sn	18 31 30.6	+1.4
UMR				AML	AML	18 31 34.4	
	comp=Z,2μm,0.4s						
UMR	**Umm Al-Rimmam**	2.52	267	*e*P	Pn	18 31 00.1	+0.4
UMR				*e*S	Sn	18 31 30.6	+1.4
	comp=Z,2μm,0.4s						
QRN	**Al-Qurain**	2.54	248	*e*P	Pn	18 31 00.7	+0.8
QRN				*e*S	Sn	18 31 31.4	+1.7
QRN				AML	AML	18 31 32.5	
	comp=Z,667nm,0.3s						
KBD	**Kabd**	2.60	259	*e*P	Pn	18 31 01.3	+0.6
KBD				*e*S	Sn	18 31 32.8	+1.7
KBD				AML	AML	18 31 34.4	
	comp=Z,4μm,0.4s						
KBD	**Kabd**	2.60	259	*e*P	Pn	18 31 01.3	+0.6
KBD				*e*S	Sn	18 31 32.8	+1.8
	comp=Z,4μm,0.4s						
RDF	**Al-Radifah**	2.78	254	*e*P	Pn	18 31 04.0	+0.7
RDF				*e*S	Sn	18 31 38.1	+2.5
RDF				AML	AML	18 31 40.1	
	comp=Z,803nm,0.5s						
RDF	**Al-Radifah**	2.78	254	*e*P	Pn	18 31 04.0	+0.7
RDF				*e*S	Sn	18 31 38.1	+2.5
MIB	**Mutribah**	2.84	272	*e*P	Pn	18 31 04.3	+0.3
MIB				*e*S	Sn	18 31 38.1	+1.0
MIB				AML	AML	18 31 41.3	
	comp=Z,810nm,0.5s						
MIB	**Mutribah**	2.84	272	*e*P	Pn	18 31 04.3	+0.2
MIB				*e*S	Sn	18 31 38.1	+1.0
	comp=Z,810nm,0.5s						
IGAR	**Garneh**	2.86	28	⇑*e*Pn	Pn	18 31 06.7	+2.4
IGAR				*e*Sn	Sn	18 31 39.6	+2.0
IGAR				*e*		18 31 54.5	
	comp=Z,18μm,0.2s						
IGAR	**Garneh**	2.86	28	⇑*e*Pn	Pn	18 31 06.7	+2.4
IPIR	**Pirpir**	2.96	5	Pn	Pn	18 31 07.7	+2.0
IPIR				Sn	Sn	18 31 40.0	-0.1
IPIR	**Pirpir**	2.96	5	*e*Pn	Pn	18 31 07.7	+2.0
IPIR				*e*Sn	Sn	18 31 40.0	-0.1
IPIR				*e*		18 31 56.6	
	comp=Z,15μm,0.2s						
IPIR	**Pirpir**	2.96	5	*e*Pn	Pn	18 31 07.7	+2.0
IPIR				*e*Sn	Sn	18 31 40.0	-0.1
NAY	**Al-Naaiem**	2.97	262	*e*P	Pn	18 31 06.7	+0.9
NAY				*e*S	Sn	18 31 42.4	+2.2
NAY				AML	AML	18 31 45.0	
	comp=Z,629nm,0.5s						
NAY	**Al-Naaiem**	2.97	262	*e*P	Pn	18 31 06.7	+0.9
NAY				*e*S	Sn	18 31 42.4	+2.2
IZEF	**Zefreh**	3.49	25	Pn	Pn	18 31 13.7	+0.7
IZEF				Sn	Sn	18 31 52.7	-0.4
IZEF	**Zefreh**	3.49	25	*e*Pn	Pn	18 31 13.7	+0.7
IZEF				*e*		18 31 15.9	
	comp=Z,6μm,0.2s						
IZEF				*e*Sn	Sn	18 31 52.7	-0.4
IZEF	**Zefreh**	3.49	25	*e*Pn	Pn	18 31 13.7	+0.7
IZEF				*e*Sn	Sn	18 31 52.7	-0.4
IKLH	**Kalahroud**	3.68	13	Pn	Pn	18 31 16.1	+0.5
IKLH				Sn	Sn	18 31 56.2	-1.6
IKLH	**Kalahroud**	3.68	13	*e*Pn	Pn	18 31 16.1	+0.5
IKLH				*e*Sn	Sn	18 31 56.3	-1.5
IKLH				*e*		18 32 22.7	
	comp=Z,5μm,0.3s						
IKLH	**Kalahroud**	3.68	13	*e*Pn	Pn	18 31 16.1	+0.5
IKLH				*e*Sn	Sn	18 31 56.3	-1.5
IMEH	**Mehriz**	3.84	63	Pn	Pn	18 31 18.8	+1.1
IMEH	**Mehriz**	3.84	63	*e*Pn	Pn	18 31 18.8	+1.1
IMEH				*e*		18 31 31.0	
	comp=Z,5μm,0.3s						
IMEH	**Mehriz**	3.84	63	*e*Pn	Pn	18 31 18.8	+1.1
ICHK	**Chekchek**	4.12	51	Pn	Pn	18 31 22.3	+0.7
ICHK				Sn	Sn	18 32 07.9	-0.7
ICHK	**Chekchek**	4.12	51	⇑*e*Pn	Pn	18 31 22.4	+0.8
ICHK				*e*		18 31 37.4	
	comp=Z,5μm,0.4s						
ICHK				*e*Sn	Sn	18 32 07.9	-0.7
ICHK	**Chekchek**	4.12	51	⇑*e*Pn	Pn	18 31 22.4	+0.8
ICHK				*e*Sn	Sn	18 32 07.9	-0.7
IBAF	**Bafgh**	4.66	65	Pn	Pn	18 31 29.9	+0.8
IBAF	**Bafgh**	4.66	65	⇑*e*Pn	Pn	18 31 30.0	+0.9
IBAF				*e*		18 31 44.6	
	comp=Z,2μm,0.3s						
IBAF	**Bafgh**	4.66	65	⇑*e*Pn	Pn	18 31 30.0	+0.9
ISFB	**Sefidab**	4.82	16	Pn	Pn	18 31 31.3	0.0
ISFB				Sn	Sn	18 32 23.4	-2.5
ISFB	**Sefidab**	4.82	16	*e*Pn	Pn	18 31 31.3	0.0
ISFB				*e*		18 31 49.3	
	comp=Z,2μm,0.3s						
ISFB				*e*Sn	Sn	18 32 23.5	-2.4
ISFB	**Sefidab**	4.82	16	*e*Pn	Pn	18 31 31.3	0.0
ISFB				*e*Sn	Sn	18 32 23.5	-2.4
IKOM	**Komasi**	5.16	330	Pn	Pn	18 31 35.9	0.0
IKOM				Sn	Sn	18 32 31.9	-2.3
IKOM	**Komasi**	5.16	330	*e*Pn	Pn	18 31 35.9	0.0
IKOM				*e*Sn	Sn	18 32 32.0	-2.2
IKOM				*e*		18 32 46.0	
	comp=Z,6μm,0.2s						
IKOM	**Komasi**	5.16	330	*e*Pn	Pn	18 31 35.9	0.0
IKOM				*e*Sn	Sn	18 32 32.0	-2.2
IVRN	**Varamin**	5.35	10	Pn	Pn	18 31 38.4	-0.1
IVRN				Sn	Sn	18 32 36.1	-2.6
IVRN	**Varamin**	5.35	10	*e*Pn	Pn	18 31 38.4	-0.1
IVRN				*e*		18 31 44.3	
	comp=Z,2μm,0.1s						
IVRN				*e*Sn	Sn	18 32 36.1	-2.6
IVRN	**Varamin**	5.35	10	*e*Pn	Pn	18 31 38.4	-0.1
IVRN				*e*Sn	Sn	18 32 36.1	-2.6
IRAZ	**Razeghan**	5.70	354	Pn	Pn	18 31 43.9	+0.6
IRAZ	**Razeghan**	5.70	354	*e*Pn	Pn	18 31 44.0	+0.7
IRAZ				*e*		18 32 52.9	
	comp=Z,2μm,0.2s						
IRAZ	**Razeghan**	5.70	354	*e*Pn	Pn	18 31 44.0	+0.7
IGHG	**Ghaleghazi**	5.73	324	Pn	Pn	18 31 42.9	-0.9
IGHG				Sn	Sn	18 32 45.9	-2.4
IGHG	**Ghaleghazi**	5.73	324	*e*Pn	Pn	18 31 43.0	-0.8
IGHG				*e*Sn	Sn	18 32 46.0	-2.3
IGHG				*e*		18 33 41.7	
	comp=Z,6μm,0.3s						
IGHG	**Ghaleghazi**	5.73	324	*e*Pn	Pn	18 31 43.0	-0.8
IGHG				*e*Sn	Sn	18 32 46.0	-2.3
IVIS	**Veys**	5.75	327	Pn	Pn	18 31 43.4	-0.6
IVIS				Sn	Sn	18 32 46.4	-2.3
IVIS	**Veys**	5.75	327	*e*Pn	Pn	18 31 43.4	-0.6
IVIS				*e*Sn	Sn	18 32 46.1	-2.6
IVIS				*e*		18 32 51.1	
	comp=Z,3μm,0.2s						
IVIS	**Veys**	5.75	327	*e*Pn	Pn	18 31 43.4	-0.6
IVIS				*e*Sn	Sn	18 32 46.1	-2.6
IMHD	**Mahdasht**	5.95	0	Pn	Pn	18 31 46.7	0.0
IMHD	**Mahdasht**	5.95	0	*e*Pn	Pn	18 31 46.8	+0.1
IMHD				*e*		18 31 50.9	
	comp=Z,1μm,0.1s						
IMHD	**Mahdasht**	5.95	0	*e*Pn	Pn	18 31 46.8	+0.1
IDMV	**Damavand**	5.96	11	Pn	Pn	18 31 46.8	-0.1
IDMV				Sn	Sn	18 32 50.9	-3.0
IDMV	**Damavand**	5.96	11	*e*Pn	Pn	18 31 46.9	0.0
IDMV				*e*		18 31 48.5	
	comp=Z,3μm,0.3s						
IDMV				*e*Sn	Sn	18 32 50.9	-3.0
IDMV	**Damavand**	5.96	11	*e*Pn	Pn	18 31 46.9	0.0
IDMV				*e*Sn	Sn	18 32 50.9	-3.0
ILAS	**Lasjerd**	5.99	19	Pn	Px	18 32 12.8	
ILAS	**Lasjerd**	5.99	19	⇓*e*Pn	Px	18 32 12.8	
ILAS				*e*		18 33 24.2	
	comp=Z,877nm,0.2s						
ILIN	**Laeen**	6.03	330	Pn	Pn	18 31 47.2	-0.7
ILIN				Sn	Sn	18 32 52.5	-3.1
ILIN	**Laeen**	6.03	330	*e*Pn	Pn	18 31 47.3	-0.6
ILIN				*e*Sn	Sn	18 32 52.5	-3.1
ILIN				*e*		18 32 58.1	
	comp=Z,5μm,0.1s						
ILIN	**Laeen**	6.03	330	*e*Pn	Pn	18 31 47.3	-0.6
ILIN				*e*Sn	Sn	18 32 52.5	-3.1
IFIR	**Firoozkooh**	6.17	16	Pn	Pn	18 31 49.9	+0.1
IFIR	**Firoozkooh**	6.17	16	*e*Pn	Pn	18 31 49.9	+0.1
IFIR				*e*		18 31 53.4	
	comp=Z,2μm,0.2s						
IFIR	**Firoozkooh**	6.17	16	*e*Pn	Pn	18 31 49.9	+0.1
IAFJ	**Afjeh**	6.19	8	Pn	Pn	18 31 50.2	+0.2
IAFJ	**Afjeh**	6.19	8	*e*Pn	Pn	18 31 50.3	+0.3
IAFJ				*e*		18 31 53.8	
	comp=Z,2μm,0.4s						
IAFJ	**Afjeh**	6.19	8	*e*Pn	Pn	18 31 50.3	+0.3
BANOM	**Banah**	6.30	126	P	Pn	18 31 51.1	-0.5
	SNR=27						
BANOM				⇓S	Sn	18 33 01.5	-0.8
IANJ	**Anjiloo**	6.37	25	Pn	Px	18 32 18.0	
IANJ	**Anjiloo**	6.37	25	⇑*e*Pn	Px	18 32 18.1	
IANJ				*e*		18 32 23.3	
	comp=Z,2μm,0.4s						
BHD	**Baghdad**	6.39	305	*e*Pn	x	18 31 56.0	
BHD				*e*Pg	x	18 32 26.0	
BHD				*e*Sn	x	18 33 12.0	
BHD				*i* Sg	x	18 33 52.0	
ISHM	**Shahmirzad**	6.48	20	*e*	Px	18 32 39.8	
	comp=Z,1μm,0.2s						
NAZ	**Nazwa, Dubai**	6.51	135	P	Pn	18 31 54.5	0.0
	SNR=12						
ASUD	**Al Ashush, Dub**	6.59	139	P	Pn	18 31 56.0	+0.4
	SNR=260						
IPRN	**Paran-Amol**	6.65	12	*e*	Pn	18 31 59.9	+3.6
	comp=Z,2μm,0.2s						
FAQ	**Al Faqa, Dubai**	6.65	137	P	Pn	18 31 56.2	-0.2
	SNR=13						
HATD	**Hatta, Dubai**	6.92	133	⇓P	Pn	18 32 00.2	0.0
HATD				⇑S	Sn	18 33 14.3	-3.3
HATD	**Hatta, Dubai**	6.92	133	P	Pn	18 31 59.6	-0.6
	SNR=23						
ASHO	**Ashiyiah**	6.98	135	P	Pn	18 32 00.1	-0.8
	SNR=80						
ASHO	**Ashiyiah**	6.98	135	P	Pn	18 32 00.0	-0.9
	SNR=80						
IGLO	**Galoogah**	7.00	20	Pn	Pn	18 32 06.2	+5.0
IGLO	**Galoogah**	7.00	20	⇓*e*Pn	Pn	18 32 06.2	+5.0
IGLO				*e*		18 32 09.7	
	comp=Z,3μm,0.5s						
ITEG		7.65	63	*e*Pn	Pn	18 32 09.9	-0.2
IKOO		7.69	67	*e*Pn	Pn	18 32 11.1	+0.5
ARQ	**Araqi**	8.27	139	⇑P	Pn	18 32 17.7	-1.0
	SNR=25						
ARQ				⇑S	Sn	18 33 45.8	-5.1
MSL	**Mosul**	9.09	318	*e*P	x	18 32 30.0	
MSL				*e*S	x	18 34 08.5	
BSY	**Bisya**	9.12	138	P	Pn	18 32 29.6	-0.8
	SNR=13						
SMDO	**Samad**	9.41	133	P	Pn	18 32 33.3	-0.9
	SNR=13						
HAKT	**HAKKARI**	9.70	325	*i* P	Pn	18 32 36.3	-1.9
JMDO	**Jabal Madar**	9.95	136	⇓P	Pn	18 32 39.8	-1.8
	SNR=7.2						
TVAN	**Van**	10.62	328	*e*P	Pn	18 32 49.5	-1.2
MARD	**Mardin**	11.16	315	*i* P	Pn	18 32 54.0	-4.1
ASF	**Jabal al Asfar**	12.02	285	Pn	Pn	18 33 05.5	-4.5
ASF				Sn	Sn	18 35 13.0	-10
ASF				Lg		18 36 45.7	
ASF	**Jabal al Asfar**	12.02	285	P	Pn	18 33 05.5	-4.4
ASF						18 35 13.0	
ASF				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASF				smax			
	comp=N,4.0nm,0.3s						
ASF	**Jabal al Asfar**	12.02	285	Pn	Pn	18 33 05.5	-4.5
	comp=N,2.1nm,0.3s,baz=330,slow=8.8,SNR=15						
ASF				Sn	Sn	18 35 13.0	-10
	comp=N,3.8nm,0.3s,baz=207,slow=22,SNR=6.7						
ASF				Lg		18 36 45.7	
	baz=139,slow=19,SNR=1.8						
WHFO	**Wadi Hawf**	12.10	165	P	Pn	18 33 08.4	-2.7
	SNR=40						
SHAO	**Shalim**	12.51	157	⇓P	Pn	18 33 14.0	-2.8
	SNR=43						
ABTO	**Aybut**	12.55	168	P	Pn	18 33 13.5	-3.8
	SNR=36						

RBK	Rabkut	12.60	164	P	Pn	18 33 15.2	-2.7
	SNR=25						
RBK				P		18 33 16.4	
	SNR=8.0						
MALT	Malatya	13.24	314	*e*Pn	Pn	18 33 25.1	-1.4
	comp=N,8.3nm,0.8s						
MALT	Malatya	13.24	314	*e*P	Pn	18 33 25.1	-1.4
MALT				pmax	pmax		
	comp=Z,8.0nm,0.8s						
MMAI	Mount Meron Ar	13.40	288	Pn	Pn	18 33 22.6	-6.2
	comp=Z,2.2nm,0.3s,baz=95,slow=17,SNR=13						
MMAI				Sn	Sn	18 35 43.1	-13
	comp=Z,1.2nm,0.3s,baz=104,slow=18,SNR=3.3						
MMAI				Lg		18 37 26.2	
	baz=122,slow=38,SNR=2.4						
EIL	Elat	13.61	274	Pn	Pn	18 33 27.6	-4.1
EIL				Sn	Sn	18 35 50.4	-11
EIL				Lg		18 37 26.0	
EIL				LR	LR	18 39 27.9	
EIL	Elat	13.61	274	Pn	Pn	18 33 27.6	-4.1
	comp=Z,1.1nm,0.3s,baz=48,slow=6.6,SNR=12						
EIL				Sn	Sn	18 35 50.4	-11
	comp=Z,1.5nm,0.3s,baz=356,slow=14,SNR=2.8						
EIL				Lg		18 37 26.0	
	baz=299,slow=19,SNR=2.8						
EIL				LR	LR	18 39 27.9	
	comp=Z,85nm,18.8s,baz=290,slow=41						
ZEI	Tsey	14.10	339	*e*P	Pn	18 33 39.7	+1.5
MUKL	Al Mukalla	15.24	186	*e*P	Pn	18 33 49.8	-3.9
CSS	Prodhromos	15.50	294	*e*P	Pn	18 33 57.8	+0.9
	comp=Z,37nm,1.1s						
CSS	Prodhromos	15.50	294	*e*P	Pn	18 33 57.8	+0.9
	comp=Z,37nm,1.1s						
KIV	Kislovodsk	15.54	338	*e*P	Pn	18 33 58.6	+1.2
	comp=Z,27nm,0.8s						
KIV	Kislovodsk	15.54	338	*e*P	Pn	18 33 57.5	+0.1
KIV				pmax	pmax		
	comp=Z,38nm,1.4s						
KIV	Kislovodsk	15.54	338	P	Pn	18 34 00.0	+2.6
	SNR=16						
KIV	Kislovodsk	15.54	338	*e*P	Pn	18 33 57.5	+0.1
	comp=Z,38nm,1.4s						
AVNT	Avonos	15.83	309	*e*P	Pn	18 34 02.9	+1.7
DHBB	Dhamar BB	16.13	202	*e*P	Pn	18 34 01.4	-3.8
KBL	Kabul	16.34	68	*e*P	Pn	18 34 08.4	+0.8
KBL	Kabul	16.34	68	*e*P	Pn	18 34 08.4	+0.8
SOC	Sochi	16.34	331	*e*P	Pn	18 34 10.5	+2.9
SOC				*e*		18 37 07.2	
SOC				pmax	pmax		
	comp=Z,14nm,0.8s						
SOC				MLR	MLR		
	comp=Z,148nm,11.0s						
SOC	Sochi	16.34	331	*e*S	S	18 37 07.2	-12
LBOS		16.53	199	*e*P	Pn	18 34 06.6	-3.6
CTKT	Corum	16.87	314	*i* P	Pn	18 34 16.3	+2.1
BR131	Keskin Array S	17.12	310	*e*P	Pn	18 34 15.6	-1.9
	comp=Z,4.1nm,0.5s						
BR131	Keskin Array S	17.12	310	*e*P	Pn	18 34 15.6	-1.9
	comp=Z,4.1nm,0.5s						
BRTR	Keskin Array B	17.12	310	P	Pn	18 34 16.2	-1.3
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
BRTR	Keskin Array B	17.12	310	P	Pn	18 34 16.1	-1.3
	comp=Z,0.5nm,0.3s,baz=130,slow=12,SNR=19						
BOYT	Boyabat	17.27	317	*i* P	Pn	18 34 21.2	+1.9
TRBA	At Turbah	17.48	202	*e*P	Pn	18 34 18.3	-3.6
TRBA				AMb	AMB	18 34 20.8	
	comp=Z,59nm,2.3s						
ELDT	Eldivan	17.66	312	*i* P	Pn	18 34 26.1	+2.0
ANTO	Ankara	17.76	309	P	Pn	18 34 24.3	-1.1
ANTO	Ankara	17.76	309	P	Pn	18 34 24.3	-1.0
BALT	Daday	18.26	315	*i* P	Pn	18 34 33.5	+2.0
ANN	Anapa	18.31	329	*e*P	Pn	18 34 35.0	+3.1
ANN				*e*S	S	18 37 59.4	+0.5
ANN				pmax	pmax		
	comp=Z,13nm,1.3s						
ISP	Isparta	18.54	301	*e*P	Pn	18 34 38.6	+3.8
	comp=Z,9.5nm,0.6s						
ISP	Isparta	18.54	301	*e*P	Pn	18 34 36.8	+1.9
ATD	Arta Tunnel	19.49	203	LR	LR	18 42 45.1	
	comp=Z,152nm,21.6s,baz=24,slow=38						
AKTK	Aktyubinsk	21.43	13	P	P	18 35 05.2	-0.5
AKTK				LR	LR	18 45 39.0	
AKTK	Aktyubinsk	21.43	13	P	P	18 35 05.2	-0.5
	comp=Z,144nm,18.8s						
AKTO	Aktyubinsk	21.43	13	P	P	18 35 05.2	-0.5
AKTO				pmax	pmax		
	comp=Z,11nm,0.5s,mb4.4						
AKTO				MLR	MLR		
	comp=Z,144nm,18.8s,MS3.4						
AKTO	Aktyubinsk	21.43	13	P	P	18 35 05.2	-0.5
	comp=Z,11nm,0.5s,mb4.4,baz=202,slow=9.1,SNR=31						
AKTO				LR	LR	18 45 39.0	
	comp=Z,144nm,18.8s,MS3.4,baz=16,slow=43						
THN	Thein Dam	21.66	76	*e*P	P	18 35 10.2	+1.8
AML	Almayashu	22.35	50	*e*P	P	18 35 15.4	-0.2
AML	Almayashu	22.35	50	*e*P	P	18 35 15.4	-0.1
IDI	Anoyia	22.36	291	P	P	18 35 14.7	-1.0
	comp=Z,14nm,0.6s,mb4.5,baz=91,slow=8.4,SNR=12						
VRHR	Novokhopersk	22.39	345	*e*P	P	18 35 17.3	+1.4
VRHR				pmax	pmax		
	comp=N,80nm,0.9s						
VRHR				pmax	pmax		
	comp=Z,40nm,0.9s,mb4.8						
VRHR				pmax	pmax		
	comp=E,20nm,0.6s						
EKS2	Erkin-Say	22.64	49	*e*P	P	18 35 20.4	+1.7
	comp=E,8.6nm,0.8s,mb4.2						
EKS2	Erkin-Say	22.64	49	*e*P	P	18 35 20.4	+1.8
	comp=E,8.6nm,0.8s,mb4.2						
TIRR	Tirgusor	22.92	316	⇑P	P	18 35 21.4	-0.1
TIRR	Tirgusor	22.92	316	⇑*i*P	P	18 35 21.4	-0.1
AAK	Ala-Archa	23.10	50	*e*P	P	18 35 24.2	+0.7
	comp=E,7.8nm,0.8s,mb4.2						
AAK	Ala-Archa	23.10	50	*e*P	P	18 35 24.0	+0.5
AAK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.1						
AAK	Ala-Archa	23.10	50	*e*P	P	18 35 24.0	+0.5
	comp=Z,7.0nm,0.9s,mb4.1						
VRSR	Storozhevoye	23.11	342	*e*P	P	18 35 23.1	-0.4
VRSR				*e*S	S	18 39 29.0	-2.6
VRSR				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.3						
VRSR				pmax	pmax		
	comp=N,2.0nm,1.9s						
VRSR				pmax	pmax		
	comp=E,1.0nm,0.7s						
VRSR				smax			
	comp=N,30nm,1.1s						
VRSR				smax			
	comp=Z,4.0nm,0.8s						
VRSR				smax			
	comp=E,10.0nm,0.9s						
VRSR	Storozhevoye	23.11	342	*e*P	P	18 35 23.1	-0.4
	comp=E,2.0nm,1.9s,mb3.2						
VRSR				*e*S	S	18 39 29.0	-2.6
	comp=E,4.0nm,0.8s						
TKM2	Tokmak 2	23.96	50	*e*P	P	18 35 32.8	+1.1
	comp=E,6.4nm,0.9s,mb4.0						
TKM2	Tokmak 2	23.96	50	*e*P	P	18 35 32.8	+1.1
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.0						
TKM2	Tokmak 2	23.96	50	*e*P	P	18 35 32.8	+1.1
	comp=Z,6.0nm,0.9s,mb4.0						
MLR	Muntele Rosu	24.95	316	P	P	18 35 41.5	+0.8
	comp=Z,6.7nm,0.6s,mb4.3,baz=350,slow=9.0,SNR=11						
MLR	Muntele Rosu	24.95	316	⇑*i*P	P	18 35 43.2	+2.5
VOIR		25.47	315	⇑P	P	18 35 47.6	+2.2
VOIR		25.47	315	⇑*i*P	P	18 35 47.6	+2.2
AKASG	Malin Array Be	26.39	329	P	P	18 35 52.7	-1.0
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.4s						
AKASG	Malin Array Be	26.39	329	P	P	18 35 52.7	-1.0
	comp=Z,3.3nm,0.4s,mb4.2,baz=124,slow=7.3,SNR=33						
AKBB	Malin Array Si	26.39	329	*e*P	P	18 35 52.4	-1.3
AKBB	Malin Array Si	26.39	329	*e*P	P	18 35 52.4	-1.3
KIEV	Kiev	26.39	329	*e*P	P	18 35 52.7	-1.0
	comp=Z,14nm,0.7s,mb4.6						
KIEV	Kiev	26.39	329	*e*P	P	18 35 52.7	-1.0
KIEV				pmax	pmax		
	comp=Z,14nm,0.7s,mb4.6						
KIEV	Kiev	26.39	329	*e*P	P	18 35 52.7	-1.0
	comp=Z,14nm,0.7s,mb4.6						
BURAR	Bucovina Array	26.50	319	⇑P	P	18 35 55.6	+0.9
BURAR	Bucovina Array	26.50	319	⇑*i*P	P	18 35 55.7	+1.0
GZR	Gura Zlata	26.87	313	⇓P	P	18 35 57.6	-0.4
GZR	Gura Zlata	26.87	313	⇓*i*P	P	18 35 57.6	-0.4
ARU	Arti	27.29	10	P	P	18 36 02.3	+0.7
	comp=Z,3.3nm,0.5s,mb4.1						
ARU	Arti	27.29	10	⇑*i*P	P	18 36 01.7	+0.1
ARU				*e*		18 36 43.4	
ARU				*e*		18 39 17.2	
ARU				*e*S	S	18 40 40.4	+2.3
ARU				*e*SS		18 41 50.8	
ARU				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.1						
ARU	Arti	27.29	10	*i* P	P	18 36 01.7	+0.1
	comp=Z,4.0nm,0.7s,mb4.1						
ARU	Arti	27.29	10	*e*PcP	PcP	18 39 17.2	-3.2
OBN	Obninsk	27.30	342	*e*P	P	18 36 02.8	+1.0
OBN				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.3						
OBN	Obninsk	27.30	342	*e*P	P	18 36 02.8	+1.0
	comp=Z,15nm,1.4s,mb4.3						
BRVK	Borovoye	27.42	26	*e*P	P	18 36 03.6	+0.7
	comp=Z,4.9nm,0.6s,mb4.2						
BRVK	Borovoye	27.42	26	*e*P	P	18 36 03.6	+0.7
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.2						
BRVK	Borovoye	27.42	26	*e*P	P	18 36 03.6	+0.7
	comp=Z,5.0nm,0.6s,mb4.2						
KURK	Kurchatov	29.66	37	*e*P	P	18 36 24.1	+1.2
	comp=Z,7.3nm,0.9s,mb4.4						
KURK	Kurchatov	29.66	37	*e*P	P	18 36 23.3	+0.4
MK31	Makanchi Array	29.89	46	*e*P	P	18 36 25.1	+0.2
MK31	Makanchi Array	29.89	46	*e*P	P	18 36 25.1	+0.2
MKAR	Makanchi Array	29.89	46	P	P	18 36 25.6	+0.7
MKAR						18 39 26.9	
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR				MLR	MLR		
	comp=Z,88nm,20.9s						
MKAR	Makanchi Array	29.89	46	P	P	18 36 25.6	+0.7
	comp=Z,2.7nm,0.5s,mb4.2,baz=248,slow=8.6,SNR=25						
MKAR				PcP	PcP	18 39 26.9	-0.2
	comp=Z,0.5nm,0.6s,baz=237,slow=2.4,SNR=5.2						
MKAR				LR	LR	18 48 43.9	
	comp=Z,88nm,20.9s,MS3.4,baz=40,slow=37						
MKAR	Makanchi Array	29.89	46	PcP	PcP	18 39 26.9	-0.2
	comp=Z,88nm,20.9s						
PRGR	Permogore	32.09	356	⇑*i*P	P	18 36 42.7	-1.4
PRGR				*e*S	S	18 41 54.8	+1.4
KMBO	Kilima Mbogo	33.22	205	LR	LR	18 51 08.8	
	comp=Z,201nm,19.1s,MS3.9,baz=64,slow=38						
GERES	GERESS Array B	33.92	315	P	P	18 36 59.1	-1.2
	comp=Z,0.2nm,0.4s,mb3.4,baz=80,slow=12,SNR=2.3						
NVS	Novosibirsk	34.30	34	*e*P	P	18 37 06.7	+3.2
NVS				*e*S	S	18 42 30.0	+2.2
NVS				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
NVS				pmax	pmax		
	comp=N,5.0nm,1.3s						
NVS				smax			
	comp=N,16nm,1.9s						
NVS	Novosibirsk	34.30	34	*e*P	P	18 37 06.7	+3.2
	comp=N,16nm,1.9s,mb4.6						
NVS				*e*S	S	18 42 30.0	+2.2
ZAL	Zalesovo	34.59	36	P	P	18 37 06.5	+0.5
ZAL						18 39 38.1	
ZAL	Zalesovo	34.59	36	PcP	PcP	18 39 38.1	-1.7
ZALV	Zalesovo Beam	34.61	36	P	P	18 37 06.5	+0.3
	comp=N,7.9nm,0.6s,mb4.8,baz=245,slow=9.0,SNR=21						
ZALV				PcP	PcP	18 39 38.1	-1.8
	comp=N,1.1nm,0.5s,baz=225,slow=2.5,SNR=3.7						
ZALV				LR	LR	18 52 28.5	
	comp=N,51nm,20.6s,MS3.2,baz=133,slow=38						
SQTA	Sankt Quirin	35.00	311	⇑*i*P	P	18 37 08.7	-1.0
	comp=N,4.9nm,0.5s,mb4.7						
SQTA	Sankt Quirin	35.00	311	⇑*i*P	P	18 37 08.7	-1.0
SQTA				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
LSA	Lhasa	35.09	80	*e*P	P	18 37 11.8	+1.2
	comp=Z,2.3nm,0.8s,mb4.2						
LSA	Lhasa	35.09	80	*e*P	P	18 37 11.8	+1.2
LSA				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
LSA	Lhasa	35.09	80	*e*P	P	18 37 11.8	+1.2
	comp=Z,2.0nm,0.8s,mb4.1						
MOTA	Moosalm	35.11	311	⇑*i*P	P	18 37 09.6	-0.9
	comp=Z,2.4nm,0.5s,mb4.4						
MOTA	Moosalm	35.11	311	⇑*i*P	P	18 37 09.6	-1.0
MOTA				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
FETA	Feichten	35.27	311	⇑*i*P	P	18 37 11.1	-0.8
	comp=Z,2.3nm,0.6s,mb4.3						
JOF	Joensuu	35.48	345	*e*p	P	18 37 13.1	-0.4
	comp=Z,0.7nm,0.3s,mb4.1						
JOF	Joensuu	35.48	345	*e*P	P	18 37 13.1	-0.4
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
FIA1	FINESS Array S	35.63	340	*e*P	P	18 37 15.1	+0.3
FIA1	FINESS Array S	35.63	340	*e*P	P	18 37 15.1	+0.3
FINES	FINESS Array B	35.63	340	*i* P	P	18 37 14.3	-0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	35.63	340	P	P	18 37 13.8	-1.1
	comp=Z,1.2nm,0.4s,mb4.2,baz=149,slow=9.7,SNR=10						
FINES	FINESS Array B	35.63	340	*i* P	P	18 37 14.3	-0.5
	comp=Z,1.0nm,0.4s,mb4.1						
DAVOX	Davos/Dischmat	35.77	310	LR	LR	18 55 08.0	
	comp=Z,162nm,19.4s,MS3.8,baz=83,slow=42						
DAVA	Damuels	35.90	311	⇑*i*P	P	18 37 16.3	-1.1
	comp=Z,8.5nm,0.5s,mb4.9						
BSD	Bornholm Skovb	35.94	325	*e*P	P	18 37 15.0	-2.6
BSD				*e*S	PP	18 38 36.9	-2.8
BSD	Bornholm Skovb	35.94	325	*i* P	P	18 37 15.0	-2.6
BSD				*e*S	PP	18 38 36.9	-2.8
KAF	Kangasniemi	36.09	341	*e*p	P	18 37 18.5	-0.3
	comp=Z,0.5nm,0.3s,mb3.9						
KAF	Kangasniemi	36.09	341	*e*P	P	18 37 18.5	-0.3
KAF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
MBDF	Montbardon	37.51	306	*e*P	P	18 37 29.2	-1.9
	comp=Z,9.2nm,0.6s,mb4.4						
MBDF	Montbardon	37.51	306	*e*P	P	18 37 29.2	-1.9
MBDF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
MBDF	Montbardon	37.51	306	*e*P	P	18 37 29.2	-1.9
	comp=Z,5.0nm,0.6s,mb4.4						
LPG	La Plagne	37.65	307	*e*P	P	18 37 31.2	-1.0
LPL	La Plagne	37.66	307	*e*P	P	18 37 30.4	-2.0
	comp=Z,15nm,0.9s,mb4.4						
LPL	La Plagne	37.66	307	*e*P	P	18 37 30.4	-2.0
LPL				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
LPL	La Plagne	37.66	307	*e*P	P	18 37 30.4	-2.0
	comp=Z,7.0nm,0.9s,mb4.4						
HFS	Hagfors	39.18	332	P	P	18 37 44.1	-0.9
HFS				pmax	pmax		
	comp=Z,6.0nm,0.4s						
HFS	Hagfors	39.18	332	P	P	18 37 44.1	-0.8
	comp=Z,5.6nm,0.4s,mb4.6,baz=125,slow=9.5,SNR=46						
SMF	Signal de Mont	39.82	308	*e*P	P	18 37 49.0	-1.5
	comp=Z,4.9nm,0.5s,mb4.2						
SMF	Signal de Mont	39.82	308	*e*P	P	18 37 49.0	-1.5
SMF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.1						
SMF	Signal de Mont	39.82	308	*e*P	P	18 37 49.0	-1.5
	comp=Z,2.0nm,0.5s,mb4.1						
LOR	Lormes	39.90	309	*e*P	P	18 37 49.5	-1.7
NB2	NORSAR Subarra	40.70	332	P	P	18 37 55.9	-1.7
	comp=Z,1.9nm,0.5s,mb4.0,baz=122,slow=8.6						
NOA	NORSAR Array B	40.70	332	P	P	18 37 56.3	-1.3
NOA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NOA	NORSAR Array B	40.70	332	P	P	18 37 56.2	-1.3
	comp=Z,2.1nm,0.5s,mb4.0,baz=123,slow=8.4,SNR=11						
NAO01	NORSAR Array S	40.74	331	*e*P	P	18 37 57.5	-0.3
NAO01	NORSAR Array S	40.74	331	*e*P	P	18 37 57.5	-0.3
GTA	Gaotai	41.22	63	*e*P	P	18 38 04.1	+1.9
GTA				AP	pP	18 38 07.5	-5.9
GTA				XP	sP	18 38 09.2	-9.0
GTA				AMB	AMB		
	comp=Z,3.0nm,0.5s,mb4.2						
KEV	Kevo	42.28	348	*e*p	P	18 38 07.5	-2.9
	comp=Z,0.4nm,0.3s,mb3.5						
ARCES	ARCESS Array B	42.37	347	P	P	18 38 10.8	-0.3
ARCES						18 40 03.1	
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ARCES				pmax	pmax		
	comp=Z,15nm,1.2s						
ARCES	ARCESS Array B	42.37	347	P	P	18 38 10.8	-0.3
	comp=Z,3.1nm,0.8s,mb4.0,baz=150,slow=9.8,SNR=5.2						
ARCES				PcP	PcP	18 40 03.1	-0.7
	comp=Z,15nm,1.2s,baz=144,slow=5.1,SNR=4.0						
ARCES	ARCESS Array B	42.37	347	PcP	PcP	18 40 03.1	-0.7
	comp=Z,15nm,1.2s						
MOY	Mondy	43.00	45	*e*P	P	18 38 19.9	+3.4
SJPF	Ste Jean	43.15	303	*e*P	P	18 38 17.1	-0.7
	comp=Z,24nm,0.7s,mb4.8						
SJPF	Ste Jean	43.15	303	*e*P	P	18 38 17.1	-0.7
SJPF				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.7						
SJPF	Ste Jean	43.15	303	*e*P	P	18 38 17.1	-0.7
	comp=Z,12nm,0.7s,mb4.7						
ZAK	Zakamensk	44.23	47	*e*P	P	18 38 29.0	+2.7
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.8						
ZAK	Zakamensk	44.23	47	*e*P	P	18 38 29.0	+2.7
	comp=Z,2.0nm,1.0s,mb3.8						
ESDC	Sonseca Array	45.34	298	P	P	18 38 33.9	-1.6
	comp=Z,0.4nm,0.4s,mb3.6,baz=78,slow=7.8,SNR=3.8						
EKA	Eskdalemuir Ar	45.69	320	P	P	18 38 36.8	-1.1
EKA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
EKA	Eskdalemuir Ar	45.69	320	P	P	18 38 36.8	-1.1
	comp=Z,0.9nm,0.4s,mb4.1,baz=106,slow=8.4,SNR=10						
SONM	Songino Array	46.05	51	P	P	18 38 41.7	+0.8
SONM				pmax	pmax		
	comp=Z,2.0nm,1.0s						
SONM	Songino Array	46.05	51	P	P	18 38 41.7	+0.8
	comp=Z,2.0nm,1.0s,mb4.0,baz=263,slow=9.6,SNR=11						
ULN	Ulaanbaatar	46.49	51	*e*P	P	18 38 45.4	+1.0
	comp=Z,4.9nm,1.0s,mb4.4						
ULN	Ulaanbaatar	46.49	51	*e*P	P	18 38 45.4	+1.0
ULN				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
ULN	Ulaanbaatar	46.49	51	*e*P	P	18 38 45.4	+1.0
	comp=Z,5.0nm,1.0s,mb4.4						
MDT	Midelt	46.85	289	P	P	18 38 48.2	+0.8
	comp=Z,1.7nm,0.8s,mb4.0,baz=76,slow=3.4,SNR=4.4						
TOA0	Torodi Ar. Sit	48.06	261	*e*P	P	18 38 56.6	-0.4
TOA0	Torodi Ar. Sit	48.06	261	*e*P	P	18 38 56.6	-0.3
TORD	Torodi Ar. Bea	48.06	261	P	P	18 38 56.7	-0.3
TORD	Torodi Ar. Bea	48.06	261	P	P	18 38 56.7	-0.3
	comp=Z,2.5nm,0.6s,mb4.4,baz=54,slow=8.4,SNR=21						
OPO	Ambohidratompo	48.12	184	LR	LR	18 58 07.9	
	comp=Z,44nm,20.5s,MS3.4,baz=212,slow=35						
XAN	Xi’an	49.14	69	P	P	18 39 05.3	+0.2
XAN				AMB	AMB		
	comp=Z,2.0nm,0.5s,mb4.4						
CIT	Chita	50.78	45	*e*P	P	18 39 16.2	-1.0
BOD	Bodaibo	51.31	38	⇑*i*P	P	18 39 21.7	+0.6
BOD				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
BOD	Bodaibo	51.31	38	*i* P	P	18 39 21.7	+0.6
	comp=Z,8.0nm,1.2s,mb4.5						
PSI	Prapat	53.01	111	P	P	18 39 33.5	-0.8
PSI				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
PSI	Prapat	53.01	111	P	P	18 39 33.5	-0.8
	comp=Z,2.9nm,0.5s,mb4.5,baz=332,slow=17,SNR=3.9						
MATP	Matopo	54.21	206	P	P	18 39 43.6	+0.7
	comp=Z,3.0nm,0.6s,mb4.4,baz=355,slow=3.5,SNR=12						
KIC	Kosan Boka	56.91	257	*e*P	P	18 40 02.3	-0.3
	comp=Z,54nm,1.1s,mb5.5						
TIC	Toumodi	57.01	258	*e*P	P	18 40 05.2	+2.0
	comp=Z,8.1nm,0.2s,mb5.4						
LIC	Lamto	57.23	257	*e*P	P	18 40 04.9	+0.1
	comp=Z,14nm,0.8s,mb4.8						
LIC	Lamto	57.23	257	*e*P	P	18 40 04.7	-0.1
	comp=Z,22nm,0.8s,mb5.3						
LIC	Lamto	57.23	257	*e*P	P	18 40 04.9	+0.1
	comp=Z,6.9nm,0.8s,mb4.7						
NJ2	Nanjing	57.71	69	*e*P	P	18 40 09.0	+1.0
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.3						
TSUM	Tsumeb	58.13	217	P	P	18 40 11.6	+0.7
	comp=Z,2.0nm,0.8s,mb4.2,baz=338,slow=13,SNR=4.1						
TIXI	Tiksi	58.41	21	*e*P	P	18 40 11.9	-0.4
	comp=Z,4.7nm,0.9s,mb4.5						
TIXI	Tiksi	58.41	21	*e*P	P	18 40 11.2	-1.0
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.4						
TIXI	Tiksi	58.41	21	*e*P	P	18 40 11.2	-1.0
	comp=Z,4.0nm,1.1s,mb4.4						
LBTB	Lobatse	59.48	206	P	P	18 40 21.0	+0.8
LBTB				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
LBTB	Lobatse	59.48	206	P	P	18 40 21.0	+0.8
	comp=Z,9.8nm,0.6s,mb5.0,baz=23,slow=6.4,SNR=24						
BOSA	Boshof	62.86	205	P	P	18 40 43.1	+0.1
BOSA				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
BOSA	Boshof	62.86	205	P	P	18 40 43.0	0.0
	comp=Z,5.3nm,0.7s,mb4.8,baz=90,slow=8.5,SNR=8.4						
KSRS	Korea Array	63.21	60	P	P	18 40 45.0	-0.5
	comp=Z,2.4nm,0.6s,mb4.5,baz=282,slow=6.3,SNR=16						
SEY	Seymchan	69.06	29	⇑*i*P	P	18 41 23.4	+0.9
MA2	Magadan	69.73	32	*e*P	P	18 41 27.0	+0.3
MA2				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
MA2	Magadan	69.73	32	*e*P	P	18 41 27.0	+0.3
	comp=Z,3.0nm,0.6s,mb4.4						
YSS	Yuzh-Sakhalins	70.31	47	P	P	18 41 31.2	+0.7
BILL	Bilibino	71.62	21	*e*P	P	18 41 38.9	+0.8
	comp=Z,5.6nm,0.9s,mb4.5						
BILL	Bilibino	71.62	21	*e*P	P	18 41 39.7	+1.6
BILL				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.6						
BILL	Bilibino	71.62	21	*e*P	P	18 41 39.7	+1.6
	comp=Z,11nm,1.5s,mb4.6						
SCHQ	Schefferville	80.19	329	P	P	18 42 27.1	0.0
	comp=Z,2.4nm,0.9s,mb4.1,baz=135,slow=5.7,SNR=2.6						
SCHQ	Schefferville	80.19	329	P	P	18 42 27.1	-0.1
INK	Inuvik	82.22	2	P	P	18 42 37.8	+0.1
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	Inuvik	82.22	2	P	P	18 42 37.8	0.0
	comp=Z,1.1nm,0.6s,mb4.0,baz=329,slow=7.3,SNR=3.7						
FITZ	Fitzroy Crossi	86.48	113	P	P	18 42 59.9	-0.2
	comp=Z,4.0nm,0.7s,mb4.8,baz=258,slow=2.7,SNR=16						
FITZ	Fitzroy Crossi	86.48	113	*e*P	P	18 42 59.8	-0.3
	comp=Z,7.0nm,0.6s,mb5.1						
YKA	Yellowknife Ar	87.34	353	P	P	18 43 03.1	-0.5
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	87.34	353	P	P	18 43 03.1	-0.5
	comp=Z,1.0nm,0.8s,mb4.1,baz=10,slow=5.1,SNR=18						
WRA	Warramunga Arr	94.47	110	P	P	18 43 36.6	-0.9
	comp=Z,0.4nm,0.5s,mb4.1,baz=310,slow=4.2,SNR=7.8						
ASAR	Alice Springs	95.96	114	P	P	18 43 42.8	-1.4
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ASAR	Alice Springs	95.96	114	P	P	18 43 42.8	-1.4
	comp=Z,0.7nm,0.9s,mb4.1,baz=302,slow=4.5,SNR=6.3						

NEIC **12** *18:53:18.0±2.9, 524S×14721E, h187^{km}±20^{km}, mb4.2/1, Error ellipse: s-maj=33.8km s-min=27.4km az=186.0*

IDC **12** *18:53:19.8±4.9, 549S×14727E, h188^{km}±34^{km}, mb3.2/3, mb1 3.3/5, mb1mx3.0/14, mbtmp3.2/5, Error ellipse: s-maj=49.8km s-min=45.7km az=76.0*

ISC 12 18:53:22.5±5.6, **56S**±04×**1470E**±03, **h190**^{km}±25^{km}**, n13,** σ**0**^{s}**40**/13, **mb3.6**/3, **Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	3.76	177	*e*Pn	Pn	18 54 21.2	+0.2
PMG				*e*Sn	Sn	18 54 59.3	-7.6
PMG	Port Moresby	3.76	177	P	Pn	18 54 21.2	+0.2
	1.9nm,0.3s,baz=38,slow=4.5,SNR=22						
PMG				S	Sn	18 55 06.6	-0.2
	3.6nm,0.3s,baz=234,slow=23,SNR=11						
KAKA	Kakadu	15.99	243	*e*P	Pn	18 56 56.8	-0.5
	4.8nm,0.4s						
KAKA	Kakadu	15.99	243	*e*P	Pn	18 56 56.6	-0.7
WB2	Warramunga Arr	18.81	220	*e*P	P	18 57 28.2	+0.4
WB2	Warramunga Arr	18.81	220	*e*P	P	18 57 28.1	+0.3
WRA	Warramunga Arr	18.82	220	P	P	18 57 28.3	+0.5
	0.8nm,0.3s,baz=38,slow=11,SNR=59						
ASAR	Alice Springs	21.92	214	P	P	18 58 00.9	0.0
	1.3nm,0.6s,mb3.5,baz=51,slow=8.3,SNR=14						
FITZ	Fitzroy Crossi	24.26	237	*e*P	P	18 58 22.2	-0.1
	3.0nm,0.4s,mb4.2						

FITZ	**Fitzroy Crossi**	**24.26**	**237**	P	**P**	**18 58 22.7**	**+0.4**
	1.8nm,0.5s,mb3.9,baz=61,slow=9.2,SNR=12						
STKA	**Stephens Creek**	**26.60**	**190**	P	**P**	**18 58 42.7**	**-0.5**
	0.6nm,0.6s,mb3.4,baz=0.0,slow=6.1,SNR=2.4						
TORD	**Torodi Ar. Bea**	**144.99**	**285**	PKPbc	PKPdf	19 12 34.4	-3.7
TORD	**Torodi Ar. Bea**	**144.99**	**285**	PKPbc	PKPdf	19 12 34.4	-3.7
	0.2nm,0.6s,baz=62,slow=3.9,SNR=4.1						

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*NEIC **12** 19:03:57.3, 16.86N×100.49W, h6^{km}, MD4.0(MEX), After MEX.*

MEX 12 19:03:57.7±0.6**, 16.87N×100.48W, h7**^{km}±4^{km}**, MD4.0, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	**El Cayaco**	**0.27**	**49**	*i* P	Pg	19 04 02.5	-0.4
CAIG				*i* S	Sg	19 04 06.7	+0.2
ACX	**Acapulco**	**0.54**	**90**	*i* P	Pg	19 04 07.5	-0.5
ACX				*i* S	Sg	19 04 15.5	+0.5
ZIIG	**Zihuatanejo**	**1.20**	**308**	*i* P	Pg	19 04 17.5	-3.2
ZIIG				*i* S	Sg	19 04 33.1	-3.1
MEIG	**Mezcala**	**1.33**	**38**	*i* P	Pn	19 04 18.1	-4.7
MEIG				*i* S	Sb	19 04 36.1	-4.2
PLIG	**Platanillo**	**1.77**	**31**	*e*P	Pn	19 04 22.1	-6.8
PLIG				*i* S	Sn	19 04 42.7	-9.0
PLIG	**Platanillo**	**1.77**	**31**	*e*P	Pn	19 04 25.1	-3.8
PLIG				*i* S	Sn	19 04 47.7	-4.0
UTMO	**Huajuapan**	**2.73**	**69**	*i* P	Pn	19 04 39.0	-2.9
UTMO				*i* S	Sn	19 05 15.3	+0.2
PTVM	**Pico Tres Padr**	**3.00**	**25**	*i* P	Pn	19 04 46.5	+0.8
PTVM				*i* S	Sn	19 05 17.4	-4.6
MMIG	**Aquila**	**3.08**	**298**	*e*P	Pn	19 04 43.9	-2.9
MMIG				*i* S	Sn	19 05 19.7	-4.2
IIO	**Organos**	**3.18**	**31**	*i* P	Pn	19 04 42.3	-5.8
IIO				*i* S	Sn	19 05 25.0	-1.3

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*NIED **12** 19:10:00, 46.90N×153.50E, h11^{km}, Mw4.2 Best double couple: M$_0$2.54000×10^{15} NP1:ϕ_s158.00000°, δ34.00000°, λ27.00000°. NP2:ϕ_s46.00000°, δ75.00000°, λ121.00000°.*

*IDC **12** 19:10:32.0±0.6, 46.58N×153.35E, h0^{km}, mb4.2/18, mb1 4.3/19, mb1mx4.3/24, mbtmp4.2/19, ML3.3/1, MS3.6/6, Ms1 3.6/6, ms1mx3.2/28, Error ellipse: s-maj=18.9km s-min=15.4km az=144.0*

*ISCJB **12** 19:10:34.0±1.0, 46.47N±0.05×153.39E±0.06, h25^{km}±7^{km}, mb4.3/47, MS3.6/12, Error ellipse: s-maj=9.5km s-min=4.3km az=146.3*

*NEIC **12** 19:10:33.6±0.5, 46.53N×153.43E, h10^{km}, mb4.4/15, Error ellipse: s-maj=12.7km s-min=7.4km az=132.0*

*BJI **12** 19:10:33.6, 46.87N×153.53E, h23^{km}, mB5.0, mb4.4, Ms4.1, Msz3.9*

*SKHL **12** 19:10:35.4±2.1, 46.14N×153.75E, h66^{km}±10^{km}, mb5.0/3, Ms3.8/1*

*MOS **12** 19:10:36.4±1.2, 46.56N×153.32E, h40^{km}, mb4.5/26, Error ellipse: s-maj=8.9km s-min=6.8km az=105.8*

*SZGRF **12** 19:10:38.6, 46.21N×152.75E, h33^{km}, mb4.5, Kuril Islands, Russia*

ISC 12 19:10:37.9±0.6**, 46.51N**±0.05×**153.33E**±0.07**, h38**^{km}±5^{km}**, h44**^{km}±3.7^{km}**:pP-P, n170, σ1^{s}25**/190**, mb4.3**/47**, MS3.6**/12**, 12C-7D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	**4.03**	**254**	*e*PN	**Pn**	**19 11 36.5**	**-0.5**
KUR				*e*S	**Sn**	**19 12 27.0**	**+4.1**
KUR				pmax	pmax		
	comp=Z,150nm,0.5s						
KUR				smax			
	comp=N,460nm,0.5s						
KUR				smax			
	comp=E,460nm,0.5s						
KUR	**Kuril'sk**	**4.03**	**254**	*e*P	**Pn**	**19 11 36.5**	**-0.5**
KUR				AMB	AMB	19 11 39.8	
	comp=E,150nm,0.5s						
KUR				*e*S	**Sn**	**19 12 27.0**	**+4.1**
KUR				A		19 12 47.0	
	comp=E,460nm,0.5s						
SKR	**Severo-Kuril's**	**4.57**	**23**	*e*PN	**Pn**	**19 11 43.0**	**-1.4**
SKR				pmax	pmax		
	comp=N,30nm,0.5s						
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				pmax	pmax		
	comp=E,270nm,1.0s						
YUK	**Yuzh-Kuril'sk**	**5.83**	**248**	*e*PN	**Pn**	**19 12 03.4**	**+1.7**
YUK				*e*S	**Sn**	**19 13 11.0**	**+3.8**
YUK				pmax	pmax		
	comp=Z,210nm,0.5s						
YUK				pmax	pmax		
	comp=N,190nm,0.6s						
YUK				pmax	pmax		
	comp=E,120nm,0.4s						
YUK				smax			
	comp=N,330nm,0.7s						
YUK				smax			
	comp=E,490nm,0.7s						
YUK				smax			
	comp=N,2μm,1.0s						
YUK				smax			
	comp=E,2μm,1.0s						
YUK	**Yuzh-Kuril'sk**	**5.83**	**248**	*e*P	**Pn**	**19 12 03.4**	**+1.7**
YUK				AMB	AMB	19 12 13.0	
	comp=E,190nm,0.5s						
YUK				AMB	AMB	19 12 13.0	
	comp=E,120nm,0.5s						
YUK				AMB	AMB	19 12 13.0	
	comp=E,210nm,0.5s						
YUK				*e*S	**Sn**	**19 13 11.0**	**+3.8**
YUK				A		19 13 29.5	
	comp=E,330nm,0.7s						
YUK				A		19 13 29.5	
	comp=E,490nm,0.7s						
YUK				A		19 13 38.0	
	comp=E,2μm,1.0s						
YUK				A		19 13 38.0	
	comp=E,2μm,1.0s						
NEM2	**Nemuro 2**	**6.24**	**242**	P	**Pn**	**19 12 06.3**	**-1.0**
NEM2				*e*S	**Sn**	**19 13 15.1**	**-2.2**
JRA	**Rausu**	**6.34**	**249**	P	**Pn**	**19 12 10.2**	**+1.4**
JNK	**Nakash**	**6.77**	**248**	P	**Pn**	**19 12 15.5**	**+0.9**
JNK				*e*S	**Sn**	**19 13 32.5**	**+2.2**
JAK	**Akkeshi**	**7.08**	**243**	P	**Pn**	**19 12 17.4**	**-1.5**
JAK				*e*S	**Sn**	**19 13 35.3**	**-2.8**
JTKR	**Abashiri--Toko**	**7.12**	**253**	P	**Pn**	**19 12 21.1**	**+1.6**
YSS	**Yuzh-Sakhalins**	**7.29**	**277**	*e*Pn	**Pn**	**19 12 25.4**	**+3.6**
	comp=E,22nm,0.8s						
YSS	**Yuzh-Sakhalins**	**7.29**	**277**⇑	*e*PN	**Pn**	**19 12 25.2**	**+3.5**
YSS				pmax	pmax		
	comp=Z,30nm,0.9s						
YSS				pmax	pmax		
	comp=E,30nm,1.0s						
YSS				MLR	MLR		
	comp=E,400nm,15.0s						
YSS				MLR	MLR		
	comp=Z,500nm,15.0s						
YSS	**Yuzh-Sakhalins**	**7.29**	**277**	*e*P	**Pn**	**19 12 25.2**	**+3.5**
YSS				AMB	AMB	19 12 27.5	
	comp=Z,30nm,0.9s						
YSS				*e*S	**Sn**	**19 13 46.0**	**+2.9**
YSS				AMS	AMS	19 15 04.0	
	comp=Z,400nm,15.0s						
YSS				AMS	AMS	19 15 04.0	
	comp=Z,500nm,15.0s						
PET	**Petropavlovsk**	**7.37**	**26**	*e*PN	**Pn**	**19 12 23.9**	**+1.0**
PET				pmax	pmax		
	comp=Z,15nm,0.6s						
PET	**Petropavlovsk**	**7.37**	**26**	*e*P	**Pn**	**19 12 25.2**	**+2.3**
JMP	**Maruseppu**	**7.47**	**254**	P	**Pn**	**19 12 26.3**	**+2.0**
JAR	**Ashorobuto**	**7.51**	**248**	P	**Pn**	**19 12 25.8**	**+1.0**
JAR				*e*S	**Sn**	**19 13 48.8**	**+0.1**
JOB	**Onbets**	**7.67**	**245**	P	**Pn**	**19 12 26.6**	**-0.4**
JOB				*e*S	**Sn**	**19 13 50.9**	**-1.6**
JKK2	**Kamakawa 2**	**7.93**	**254**	P	**Pn**	**19 12 32.8**	**+2.3**
ASAJ	**Asahikawa**	**7.94**	**256**	P	**Pn**	**19 12 33.3**	**+2.6**
ASAJ	**Asahikawa**	**7.94**	**256**	PN	**Pn**	**19 12 33.1**	**+2.4**
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	**Asahikawa**	**7.94**	**256**	Pn	**Pn**	**19 12 33.0**	**+2.4**
	comp=Z,1.6nm,0.3s,baz=100,slow=17,SNR=16						
UGL	**Uglegorsk**	**8.01**	**293**	PN	**Pn**	**19 12 32.0**	**+0.3**
UGL				pmax	pmax		
	comp=Z,78nm,1.0s						
UGL				MLR	MLR		
	comp=N,500nm,16.0s						
UGL				MLR	MLR		
	comp=E,500nm,16.0s						
UGL				MLR	MLR		
	comp=Z,600nm,16.0s						
JWK2	**Keihoku**	**8.07**	**266**	P	**Pn**	**19 12 40.9**	**+8.5**
JCH	**Churui**	**8.11**	**245**	P	**Pn**	**19 12 32.7**	**-0.4**
JCH				*e*S	**Sn**	**19 13 59.7**	**-3.8**
JFR	**Furan**	**8.33**	**250**	P	**Pn**	**19 12 36.6**	**+0.5**
JEM	**Erimo**	**8.57**	**242**	P	**Pn**	**19 12 39.8**	**+0.4**
ERM	**Erimo**	**8.57**	**242**	*e*Pn	**Pn**	**19 12 39.6**	**+0.2**
ERM	**Erimo**	**8.57**	**242**	*i* PN	**Pn**	**19 12 39.5**	**+0.1**
JBT2	**Biratori 2**	**8.66**	**248**	P	**Pn**	**19 12 40.8**	**+0.2**
JBT2				*e*S	**Sn**	**19 14 14.5**	**-2.5**
JNBK	**Urakawa-nobuka**	**8.67**	**245**	P	**Pn**	**19 12 39.7**	**-1.1**
JNBK				*e*S	**Sn**	**19 14 13.0**	**-4.2**
JEW	**Eniwo**	**9.23**	**251**	P	**Pn**	**19 12 47.4**	**-0.9**
JNB	**Noboribetsu**	**9.67**	**250**	P	**Pn**	**19 12 54.2**	**-0.2**
JNB				*e*S	**Sn**	**19 14 39.4**	**-2.3**
JKB	**Kayabe**	**9.97**	**247**	P	**Pn**	**19 12 56.8**	**-1.7**
JKB				*e*S	**Sn**	**19 14 42.4**	**-6.5**
JOT	**Ohata**	**10.23**	**244**	P	**Pn**	**19 13 00.6**	**-1.5**
JSH	**Shimam**	**10.24**	**253**	P	**Pn**	**19 13 03.3**	**+1.1**
JYM2	**Yakumo 2**	**10.27**	**249**	P	**Pn**	**19 13 02.5**	**-0.2**
JANG	**Nango**	**10.55**	**239**	P	**Pn**	**19 13 02.5**	**-4.0**
JANG				*e*S	**Sn**	**19 14 53.7**	**-10**
JTM	**Tenmabayashi**	**10.56**	**242**	P	**Pn**	**19 13 04.0**	**-2.7**
JTM				*e*S	**Sn**	**19 14 55.1**	**-8.5**
JOM	**Ohasama**	**11.27**	**236**	P	**Pn**	**19 13 12.7**	**-3.6**
JRG	**Rokugo**	**11.70**	**237**	*e*S	**Sn**	**19 15 22.3**	**-9.1**
HABR	**Khabarovsk**	**12.52**	**286**	*e*PN	**Pn**	**19 13 40.1**	**+6.7**
HABR				*e*S	**Sn**	**19 16 02.8**	**+11**
MA2	**Magadan**	**13.18**	**354**	*e*Pn	**Pn**	**19 13 42.9**	**+0.7**
	comp=Z,3.5nm,0.6s						
MA2	**Magadan**	**13.18**	**354**	*e*PN	**Pn**	**19 13 43.3**	**+1.0**
MA2				pmax	pmax		
	comp=Z,5.0nm,0.9s						
KLR	**Kul'dur**	**14.73**	**289**	*e*P	**Pn**	**19 14 05.0**	**+1.5**
MAJO	**Matsushiro**	**15.06**	**234**	P	**Pn**	**19 14 06.7**	**-1.1**
	comp=Z,6.3nm,0.9s						
MAJO				*e*		19 14 14.3	
MAJO				*e*		19 14 24.6	
MAJO	**Matsushiro**	**15.06**	**234**	P	**Pn**	**19 14 06.7**	**-1.1**
MAJO				pmax	pmax		
	comp=Z,6.0nm,0.9s						
MAT	**Matsushiro**	**15.06**	**234**	P	**Pn**	**19 14 07.3**	**-0.5**
MAT	**Matsushiro**	**15.06**	**234**	P	**Pn**	**19 14 14.4**	**+6.6**
MJAR	**Matsushiro Arr**	**15.06**	**234**	P	**Pn**	**19 14 04.6**	**-3.2**
MJAR				MLR	MLR		
	comp=Z,90nm,18.7s						
MJAR	**Matsushiro Arr**	**15.06**	**234**	Pn	**Pn**	**19 14 04.6**	**-3.2**
	comp=Z,0.1nm,0.3s,baz=30,slow=13,SNR=5.0						
MJAR				LR	LR	19 20 55.4	
	comp=Z,90nm,18.7s,baz=350,slow=41						
MDJ	**Mudanjiang**	**16.72**	**272**	P	**Pn**	**19 14 29.7**	**+0.6**
MDJ				S	**S**	**19 17 34.7**	**-8.8**
MDJ				SCP	ScP	19 22 51.3	+3.5
MDJ				PCS	PcS	19 22 57.0	+4.9
MDJ				SCS	ScS	19 26 29.4	+2.3
MDJ				AMB	AMB		
	comp=Z,7.0nm,1.5s						
MDJ				AMB	AMB		
	comp=Z,113nm,5.2s						
MDJ				LR	LR		
	comp=N,132nm,15.5s						
MDJ				LR	LR		
	comp=Z,235nm,15.1s						
JWT	**Wachi**	**17.55**	**237**	P	**Pn**	**19 14 41.4**	**+1.9**
CN2	**Changchun**	**19.81**	**272**	*e*P	**Pn**	**19 15 06.0**	**-0.8**
CN2				*e*AP	pP	19 15 16.4	+1.8
CN2				*e*S	**S**	**19 18 41.3**	**-4.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s						
CN2				LR	LR		
	comp=N,200nm,13.0s						
CN2				LR	LR		
	comp=E,300nm,13.0s						
CN2				LR	LR		
	comp=Z,400nm,15.0s						
YAK	**Yakutsk**	**20.61**	**327**	P	**P**	**19 15 12.4**	**-1.1**
	comp=Z,8.1nm,0.4s						
YAK	**Yakutsk**	**20.61**	**327**	*e*P	**P**	**19 15 13.1**	**-0.4**
YAK				*e*		19 15 27.2	
YAK				*e*S	**S**	**19 19 00.0**	**-1.5**
YAK				*e*SS		19 19 26.2	
YAK				*e*SSS		19 19 36.3	
YAK				*e*		19 26 40.4	
YAK				pmax	pmax		
	comp=N,3.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,9.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,147nm,7.0s						
YAK				pmax	pmax		
	comp=N,37nm,2.5s						
YAK				pmax	pmax		
	comp=E,44nm,3.0s						
YAK				smax			
	comp=N,152nm,5.4s						
YAK				smax			
	comp=E,156nm,4.7s						
YAK				MLR	MLR		
	comp=Z,166nm,17.0s,MS3.5						
YAK				MLR	MLR		
	comp=N,188nm,15.0s,MS3.7						
YAK				MLR	MLR		
	comp=E,117nm,14.0s,MS3.7						
KSRS	**Korea Array**	**20.87**	**253**	P	**P**	**19 15 17.7**	**+1.1**
	comp=E,4.1nm,0.6s,baz=61,slow=9.5,SNR=23						
KSRS				LR	LR	19 22 05.2	
	comp=E,70nm,19.9s,MS3.0,baz=55,slow=33						
INCN	**Inchon**	**21.71**	**255**	P	**P**	**19 15 27.4**	**+1.8**
JNU	**Nakatsue**	**21.73**	**240**	LR	LR	19 23 46.2	
	comp=E,83nm,20.3s,MS3.1,baz=42,slow=36						
BILL	**Bilibino**	**22.59**	**13**	*e*P	**P**	**19 15 31.6**	**-3.1**
	comp=E,3.4nm,0.6s,mb4.0						
BILL	**Bilibino**	**22.59**	**13**	*e*P	**P**	**19 15 34.5**	**-0.2**
BILL				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.0						
BILL				MLR	MLR		
	comp=Z,100nm,18.0s,MS3.3						
BOD	**Bodaibo**	**26.26**	**310**	*e*P	**P**	**19 16 07.4**	**-1.8**
BOD				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb3.6						
BJI	**Beijing**	**27.63**	**270**	P	**P**	**19 16 24.2**	**+2.5**
BJI				S	**S**	**19 21 11.3**	**+11**
BJI				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.2						
BJI				LR	LR		
	comp=N,139nm,18.7s,MS3.9						
BJI				LR	LR		
	comp=E,295nm,19.8s,MS3.9						
BJI				LR	LR		
	comp=Z,115nm,21.1s,MS3.4						
TIXI	**Tiksi**	**27.74**	**344**	*e*P	**P**	**19 16 16.0**	**-6.4**
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb3.8						
TIXI				MLR	MLR		
	comp=Z,64nm,12.0s,MS3.4						
NJ2	**Nanjing**	**30.07**	**254**	*e*P	**P**	**19 16 44.4**	**+0.9**
NJ2				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
HHC	**Hu-ho-hao-te**	**30.46**	**275**	*e*P	**P**	**19 16 47.8**	**+1.0**
HHC				AP	pP	19 16 59.7	+2.3
HHC				XP	sP	19 17 05.1	+3.1
HHC				PP	PP	19 17 48.1	-7.8
HHC				PCP	PcP	19 19 45.5	+0.1
HHC				S	**S**	**19 21 45.0**	**-0.3**
HHC				XS	sS	19 22 05.8	+2.9
HHC				SCP	ScP	19 23 23.6	-1.1
HHC				SS	SS	19 23 27.2	-29
HHC				PCS	PcS	19 23 28.4	-0.6
HHC				SCS	ScS	19 27 17.9	-2.8
HHC				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
HHC				LR	LR		
	comp=N,166nm,16.1s,MS3.9						
HHC				LR	LR		
	comp=E,171nm,16.1s,MS3.9						
HHC				LR	LR		
	comp=Z,220nm,15.3s,MS3.9						
ULN	**Ulaanbaatar**	**31.12**	**290**	*e*P	**P**	**19 16 54.6**	**+2.0**
	comp=Z,4.2nm,1.0s,mb4.2						
ULN	**Ulaanbaatar**	**31.12**	**290**	*e*P	**P**	**19 16 54.6**	**+2.0**
ULN				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.2						
SONM	**Songino Array**	**31.56**	**290**	P	**P**	**19 16 55.8**	**-0.6**
SONM						19 19 48.5	
SONM				pmax	pmax		
	comp=Z,1.0nm,1.0s						
SONM				MLR	MLR		
	comp=Z,162nm,18.7s						
SONM	**Songino Array**	**31.56**	**290**	P	**P**	**19 16 55.8**	**-0.6**
	comp=Z,1.3nm,0.9s,mb3.7,baz=80,slow=7.9,SNR=5.7						
SONM				PcP	PcP	19 19 48.5	+0.4
	comp=Z,0.4nm,0.8s,baz=79,slow=3.2,SNR=3.7						
SONM				LR	LR	19 30 40.2	
	comp=Z,162nm,18.7s,MS3.7,baz=75,slow=38						
TLY	**Talaya**	**32.43**	**298**	*e*P	**P**	**19 17 03.8**	**-0.2**
TLY				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
TLY				MLR	MLR		
	comp=Z,216nm,14.0s,MS4.0						
ZAK	**Zakamensk**	**32.92**	**295**	*e*P	**P**	**19 17 07.4**	**-0.9**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.9						
IMA2	**Indian Mountai**	**33.91**	**36**	P	**P**	**19 17 16.8**	**+0.1**
XAN	**Xi'an**	**35.65**	**266**	P	**P**	**19 17 33.1**	**+1.0**
XAN				AMB	AMB		
	comp=Z,4.0nm,1.1s,mb4.3						
LZH	**Lanzhou**	**38.05**	**272**	*e*P	**P**	**19 17 54.0**	**+1.5**
LZH				AP	pP	19 18 04.0	+0.7
LZH				XP	sP	19 18 10.0	+2.2
LZH				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.9						
LZH				AMB	AMB		
	comp=Z,116nm,4.3s						
LZH	**Lanzhou**	**38.05**	**272**	*e*P	**P**	**19 17 54.0**	**+1.5**
	comp=Z,25nm,1.0s,mb4.9						
LZH				pP	pP	19 18 04.0	+0.7
LZH				sP	sP	19 18 10.0	+2.2
LZH	**Lanzhou**	**38.05**	**272**	*e*P	**P**	**19 17 54.0**	**+1.5**
LZH				*PP	pP	19 18 04.0	+0.7
LZH				*SP	sP	19 18 10.0	+2.2
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.9						
GTA	**Gaotai**	**39.16**	**279**	*e*P	**P**	**19 18 03.3**	**+1.5**
GTA				AP	pP	19 18 14.9	+2.3
GTA				PP	PP	19 19 38.4	+6.6
GTA				S	**S**	**19 24 01.5**	**+2.5**
GTA				SS	SS	19 26 49.6	-2.9
GTA				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.1						
GTA				AMB	AMB		
	comp=Z,106nm,5.3s						
GTA				LR	LR		
	comp=N,129nm,14.4s,MS4.1						
GTA				LR	LR		
	comp=E,150nm,15.2s,MS4.1						
GTA				LR	LR		
	comp=Z,153nm,15.6s,MS3.9						
CD2	**Chengdu**	**41.01**	**266**	*e*P	**P**	**19 18 16.8**	**-0.4**
CD2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.5						
INK	**Inuvik**	**41.77**	**32**	*e*P	**P**	**19 18 22.9**	**-0.2**
INK	**Inuvik**	**41.77**	**32**	P	**P**	**19 18 21.9**	**-1.2**
	comp=Z,1.2nm,0.7s,mb3.7,baz=212,slow=3.5,SNR=5.6						
GYA	**Guiyang**	**41.81**	**258**	P	**P**	**19 18 25.2**	**+1.4**
GYA				AP	pP	19 18 37.7	+3.0
GYA				PP	PP	19 20 05.6	+4.7
GYA				PCP	PcP	19 20 21.0	+1.6
GYA				SCP	ScP	19 24 06.3	-0.2
GYA				S	**S**	**19 24 39.7**	**+0.9**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
ZALV	**Zalesovo Beam**	**42.88**	**306**	P	**P**	**19 18 30.6**	**-1.5**
	comp=Z,1.3nm,0.5s,mb3.9,baz=59,slow=6.7,SNR=10						
ZALV				PcP	PcP	19 20 22.6	+0.2
	comp=Z,0.8nm,0.6s,baz=73,slow=5.1,SNR=5.0						
ZALV				LR	LR	19 37 40.6	
	comp=Z,166nm,19.1s,MS4.0,baz=264,slow=38						
ZAL	**Zalesovo**	**42.89**	**306**	P	**P**	**19 18 30.6**	**-1.7**
ZAL						19 20 22.6	
WMQ	**Urumqi**	**45.16**	**292**	*e*P	**P**	**19 18 51.3**	**+0.7**
MK31	**Makanchi Array**	**47.19**	**298**	*e*P	**P**	**19 19 05.9**	**-0.6**
MKAR	**Makanchi Array**	**47.19**	**298**	P	**P**	**19 19 05.9**	**-0.6**
MKAR						19 20 37.9	
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR				MLR	MLR		
	comp=Z,199nm,19.8s						
MKAR	**Makanchi Array**	**47.19**	**298**	P	**P**	**19 19 05.9**	**-0.6**
	comp=Z,4.4nm,0.8s,mb4.4,baz=66,slow=7.7,SNR=43						
MKAR				PcP	PcP	19 20 37.9	+0.4
	comp=Z,0.8nm,0.8s,baz=60,slow=4.8,SNR=3.8						
MKAR				LR	LR	19 40 05.5	
	comp=Z,199nm,19.8s,MS4.1,baz=343,slow=38						
KURK	**Kurchatov**	**47.63**	**304**	*e*P	**P**	**19 19 08.5**	**-1.3**
	comp=Z,3.2nm,0.7s,mb4.5						
KURK	**Kurchatov**	**47.63**	**304**	*i* P	**P**	**19 19 08.7**	**-1.1**
LSA	**Lhasa**	**50.44**	**273**	*e*P	**P**	**19 19 36.6**	**+4.9**
YKA	**Yellowknife Ar**	**51.03**	**37**	P	**P**	**19 19 35.6**	**0.0**
	comp=Z,2.4nm,0.7s,mb4.2,baz=295,slow=7.1,SNR=33						
BRVK	**Borovoye**	**51.17**	**310**	*e*P	**P**	**19 19 35.7**	**-1.1**
	comp=Z,2.1nm,0.6s,mb4.2						
BRVK	**Borovoye**	**51.17**	**310**	*e*P	**P**	**19 19 35.7**	**-1.1**
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
CHTO	**Chiang Mai**	**52.21**	**257**	*e*P	**P**	**19 19 46.5**	**+1.5**
	comp=Z,8.9nm,0.9s,mb4.7						
CHTO	**Chiang Mai**	**52.21**	**257**	*e*P	**P**	**19 19 46.5**	**+1.5**
CHTO				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
AAK	**Ala-Archa**	**54.08**	**297**	*e*P	**P**	**19 19 57.5**	**-1.1**
	comp=Z,3.6nm,0.9s,mb4.3						
AAK	**Ala-Archa**	**54.08**	**297**	*i* P	**P**	**19 19 57.4**	**-1.1**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
ARU	**Arti**	**55.29**	**318**⇑	*i*P	**P**	**19 20 05.6**	**-1.5**
ARU				*e*		19 22 07.3	
ARU				*e*S	**S**	**19 27 45.4**	**-2.6**
ARU				*e*SS	SS	19 31 27.4	-4.5
ARU				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
ARCES	**ARCESS Array B**	**58.13**	**341**	P	**P**	**19 20 26.3**	**-0.7**
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ARCES	**ARCESS Array B**	**58.13**	**341**	P	**P**	**19 20 26.3**	**-0.7**
	comp=Z,2.7nm,0.8s,mb4.3,baz=17,slow=8.9,SNR=5.1						
AKTK	**Aktyubinsk**	**59.00**	**312**	P	**P**	**19 20 32.1**	**-1.3**
AKTO	**Aktyubinsk**	**59.00**	**312**	P	**P**	**19 20 32.1**	**-1.3**
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
AKTO	**Aktyubinsk**	**59.00**	**312**	P	**P**	**19 20 32.1**	**-1.3**
	comp=Z,1.0nm,0.5s,mb4.1,baz=64,slow=9.7,SNR=5.9						
JOF	**Joensuu**	**61.62**	**334**	*e*p	**P**	**19 20 48.7**	**-2.4**
	comp=Z,0.8nm,0.4s,mb4.2						
JOF	**Joensuu**	**61.62**	**334**	*e*P	**P**	**19 20 48.7**	**-2.4**
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.3						
KBL	**Kabul**	**62.30**	**292**	*e*P	**P**	**19 20 56.1**	**0.0**
KAF	**Kangasniemi**	**63.73**	**335**	*e*p	**P**	**19 21 00.5**	**-4.6**
	comp=Z,0.2nm,0.2s,mb3.8						
FINES	**FINESS Array B**	**64.33**	**335**	*i* P	**P**	**19 21 08.3**	**-0.7**
FINES				pmax	pmax		
	comp=Z,5.0nm,0.7s						
FINES	**FINESS Array B**	**64.33**	**335**	P	**P**	**19 21 07.9**	**-1.1**
	comp=Z,4.7nm,0.7s,mb4.7,baz=36,slow=6.3,SNR=17						
PDAR	**Pinedale Array**	**64.77**	**54**	P	**P**	**19 21 12.1**	**-0.2**
	comp=Z,0.8nm,0.7s,mb3.8,baz=202,slow=2.7,SNR=7.8						
OBN	**Obninsk**	**65.60**	**326**	*e*P	**P**	**19 21 16.0**	**-1.4**
OBN				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.5						
ULM	**Lac du Bonnet**	**66.61**	**41**	P	**P**	**19 21 22.6**	**-1.4**
	comp=Z,1.6nm,0.9s,mb4.1,baz=304,slow=7.6,SNR=4.1						
WB2	**Warramunga Arr**	**68.33**	**199**	*e*P	**P**	**19 21 35.1**	**0.0**
WRA	**Warramunga Arr**	**68.33**	**199**	P	**P**	**19 21 34.7**	**-0.4**
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
WRA	**Warramunga Arr**	**68.33**	**199**	P	**P**	**19 21 34.7**	**-0.5**
	comp=Z,2.3nm,0.9s,mb4.2,baz=17,slow=6.7,SNR=10						
NB2	**NORSAR Subarra**	**68.51**	**341**	P	**P**	**19 21 35.3**	**-0.5**
	comp=Z,8.2nm,0.7s,mb4.8,baz=28,slow=6.5						
NOA	**NORSAR Array B**	**68.51**	**341**	P	**P**	**19 21 35.7**	**-0.1**

NOA	**NORSAR Array B**	68.51	341	P	P	19 21 35.7	-0.1
NOA				pmax	pmax		
	comp=Z,5.0nm,0.6s						
NOA	**NORSAR Array B**	68.51	341	P	P	19 21 35.7	-0.1
	comp=Z,5.4nm,0.6s,mb4.7,baz=28,slow=6.3,SNR=24						
KIV	**Kislovodsk**	71.08	314	*e*P	P	19 21 50.8	-1.1
KIV				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
AKASG	**Malin Array Be**	71.83	326	P	P	19 21 55.7	-0.7
AKASG	**Malin Array Be**	71.83	326	P	P	19 21 55.7	-0.6
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.6s						
AKASG	**Malin Array Be**	71.83	326	P	P	19 21 55.7	-0.7
	comp=Z,6.1nm,0.6s,mb4.7,baz=33,slow=6.2,SNR=26						
KIEV	**Kiev**	71.84	326	*e*P	P	19 21 55.4	-1.1
	comp=Z,2.9nm,0.6s,mb4.4						
KIEV	**Kiev**	71.84	326	*e*P	P	19 21 55.4	-1.0
KIEV				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
ASAR	**Alice Springs**	72.03	199	P	P	19 21 58.6	+0.9
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ASAR	**Alice Springs**	72.03	199	P	P	19 21 58.5	+0.9
	comp=Z,2.2nm,0.7s,mb4.2,baz=14,slow=5.7,SNR=17						
KWP	**Kalwaria**	75.11	329	*e*P	P	19 22 16.2	+0.6
BURAR	**Bucovina Array**	75.88	327	⇑P	P	19 22 20.4	+0.4
BURAR	**Bucovina Array**	75.88	327	⇑*i*P	P	19 22 20.4	+0.4
DPC	**Dobruska-Polom**	76.61	333	*e*P	P	19 22 31.9	+7.7
DPC	**Dobruska-Polom**	76.61	333	*e*pP	pP	19 22 31.9	-3.8
MORC	**Moravsky Berou**	76.72	332	⇓P	P	19 22 25.6	+0.7
MORC	**Moravsky Berou**	76.72	332	⇓*i*P	P	19 22 25.6	+0.8
CLL	**Collm**	76.75	336	*i* P	P	19 22 24.8	-0.1
CLL				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
CLL	**Collm**	76.75	336	*i* P	P	19 22 24.8	-0.1
	comp=Z,10.0nm,0.7s,mb4.8						
MLR	**Muntele Rosu**	77.35	325	⇑P	P	19 22 29.5	+1.0
MLR	**Muntele Rosu**	77.35	325	⇑*i*P	P	19 22 29.5	+1.1
MALT	**Malatya**	77.43	313	*e*P	P	19 22 30.6	+1.7
	comp=Z,9.5nm,1.3s,mb4.6						
MALT	**Malatya**	77.43	313	⇓*i*P	P	19 22 31.1	+2.1
VRAC	**Vranov**	77.44	333	⇓P	P	19 22 29.8	+1.0
VRAC	**Vranov**	77.44	333	⇓*i*P	P	19 22 29.8	+1.0
TXAR	**Lajitas Array**	77.48	61	P	P	19 22 29.2	-0.2
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
TXAR	**Lajitas Array**	77.48	61	P	P	19 22 29.1	-0.3
	comp=Z,1.8nm,0.8s,mb4.1,baz=307,slow=4.5,SNR=14						
DRGR		77.50	328	⇑P	P	19 22 29.7	+0.4
DRGR		77.50	328	⇑*i*P	P	19 22 29.7	+0.5
VOIR		77.75	326	⇑P	P	19 22 31.7	+1.0
VOIR		77.75	326	⇑*i*P	P	19 22 31.7	+1.1
KHC	**Kasperske Hory**	78.52	334	*e*P	P	19 22 34.4	-0.5
GZR	**Gura Zlata**	78.66	327	⇑P	P	19 22 36.1	+0.4
GZR	**Gura Zlata**	78.66	327	⇑*i*P	P	19 22 36.1	+0.4
BRTR	**Keskin Array B**	78.67	317	*i* P	P	19 22 36.9	+1.0
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BRTR	**Keskin Array B**	78.67	317	P	P	19 22 36.3	+0.4
	comp=Z,2.7nm,0.9s,mb4.2,baz=57,slow=4.6,SNR=16						
GRA1	**Grafenberg Arr**	78.70	336	*e*P	P	19 22 36.7	+0.9
	comp=Z,4.0nm,0.8s,mb4.4						
GRF	**Grafenberg Arr**	78.70	336	*e*P	P	19 22 36.7	+0.9
GRF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
GRF	**Grafenberg Arr**	78.70	336	*e*P	P	19 22 36.7	+0.9
GRF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
GRF	**Grafenberg Arr**	78.70	336	*e*P	P	19 22 36.7	+0.9
	comp=Z,4.0nm,0.8s,mb4.4						
GERES	**GERESS Array B**	78.74	334	P	P	19 22 36.3	+0.2
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GERES	**GERESS Array B**	78.74	334	P	P	19 22 36.3	+0.2
	comp=Z,0.8nm,0.5s,mb3.9,baz=15,slow=5.8,SNR=8.1						
BZS	**Buzias**	78.90	328	⇓P	P	19 22 37.2	+0.2
BZS	**Buzias**	78.90	328	⇓*i*P	P	19 22 37.2	+0.2
MIB	**Mutribah**	78.92	302	*e*P	P	19 22 38.4	+1.0
MIB				AMb	AMB	19 22 39.9	
	comp=Z,34nm,0.7s,mb5.4						
RST	**Umm Al-Ruwaisa**	79.34	302	*e*P	P	19 22 40.1	+0.4
RST				AML	AML	19 22 41.8	
	comp=Z,21nm,0.6s						
NAY	**Al-Naaiem**	79.39	301	*e*P	P	19 22 40.6	+0.7
NAY				AMb	AMB	19 22 42.5	
	comp=Z,9.0nm,0.8s,mb4.7						
RDF	**Al-Radifah**	79.44	301	*e*P	P	19 22 41.4	+1.2
RDF				AMb	AMB	19 22 43.8	
	comp=Z,30nm,1.0s,mb5.2						
TORD	**Torodi Ar. Bea**	115.38	329	PKP	PKPdf	19 29 15.1	-0.7
TORD	**Torodi Ar. Bea**	115.38	329	PKP	PKPdf	19 29 15.0	-0.7
	comp=Z,0.3nm,0.7s,baz=351,slow=2.1,SNR=3.0						
VNA2	**Neumayer--Watz**	153.81	194	*e*PKPdf	PKPbc	19 30 30.0	-1.4
VNA2				*e*		19 30 51.1	
VNA3	**Neumayer Olymp**	153.89	192	*e*PKPdf	PKPbc	19 30 29.8	-1.8
VNA3				*e*		19 30 50.3	

ISCJB ***12*** *19:11:16.2±3.8, 30.40S±0.07×177.1W±0.5, h10^{km}, mb4.5/5, Error ellipse: s-maj=67.2km s-min=9.4km az=4.3*

IDC ***12*** *19:11:19.3±1.1, 30.05S×177.39W, h0^{km}, mb4.5/3, mb1 4.7/3, mb1mx4.2/11, mbtmp4.5/3, MS3.5/2, Ms1 3.5/2, ms1mx2.8/18, Error ellipse: s-maj=30.8km s-min=27.2km az=87.0*

NEIC ***12*** *19:11:20.2±1.0, 30.23S×177.28W, h10^{km}, mb4.4/2, Error ellipse: s-maj=22.1km s-min=14.4km az=88.0*

ISC 12 19:11:24.4±3.6**, 30.15S**±0.06×**177.5W**±0.5**, h35**^{km}**, n35, σ1**^{s}**53**/20**, mb4.4**/5**, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	0.95	340	*e*Pg	**Pn**	**19 11 40.1**	**-1.2**
RAO				Sn	**Sn**	**19 11 52.2**	**-1.5**
RAO	**Raoul Island**	0.95	340	Pn	**Pn**	**19 11 40.4**	**-1.0**
	1μm,0.3s,baz=64,slow=22,SNR=12						
RAO				Sn	**Sn**	**19 11 52.2**	**-1.5**
	2μm,0.3s,baz=114,slow=19,SNR=12						
URZ	**Urewera**	9.22	207	Pn	**Pn**	**19 13 31.6**	**-3.3**
URZ				Sn	**Sn**	**19 15 16.5**	**-0.9**
URZ	**Urewera**	9.22	207	Pn	**Pn**	**19 13 31.6**	**-3.3**
	0.3nm,0.3s,baz=3.4,slow=19,SNR=3.4						
URZ				Sn	**Sn**	**19 15 16.5**	**-0.9**
	2.4nm,0.3s,baz=130,slow=23,SNR=7.9						
RPZ	**Rata Peaks**	16.30	211	Pn	**Pn**	**19 15 04.2**	**-6.4**
RPZ	**Rata Peaks**	16.30	211	Pn	**Pn**	**19 15 04.2**	**-6.4**
	0.3nm,0.3s,baz=270,slow=20,SNR=2.0						
DZM	**Mont Dzumac**	16.47	295	LR	LR	19 19 39.4	
	comp=Z,134nm,19.5s,baz=132,slow=30						
PPT	**Papeete**	28.39	70	*e*LR	LR	19 24 12.1	
	123nm,27.2s						
VAH	**Vaihoa**	31.21	68	*e*T		19 49 41.6	
	12nm,0.2s						
CTA	**Charters Tower**	34.15	279	*e*P	**P**	**19 18 08.8**	**+2.4**
	5.5nm,0.8s,mb4.5						
CTAO	**Charters Tower**	34.15	279	*e*P	**P**	**19 18 08.6**	**+2.2**
STKA	**Stephens Creek**	34.92	256	*e*P	**P**	**19 18 15.9**	**+3.0**
	2.8nm,0.4s,mb4.5						
STKA	**Stephens Creek**	34.92	256	*e*P	**P**	**19 18 15.6**	**+2.7**
STKA	**Stephens Creek**	34.92	256	P	**P**	**19 18 15.2**	**+2.3**
	3.2nm,0.4s,mb4.6,baz=100,slow=11,SNR=39						
ASAR	**Alice Springs**	43.52	266	P	**P**	**19 19 25.4**	**+0.6**
	1.8nm,0.4s,mb4.1,baz=106,slow=7.2,SNR=49						
ASAR				PcP	PcP	19 21 14.1	+1.8
	0.5nm,0.6s,baz=130,slow=4.3,SNR=4.5						
WB2	**Warramunga Arr**	44.48	272	*e*P	**P**	**19 19 33.0**	**+0.5**
WB2	**Warramunga Arr**	44.48	272	*e*P	**P**	**19 19 33.3**	**+0.8**
WRA	**Warramunga Arr**	44.49	272	P	**P**	**19 19 32.7**	**+0.2**
	5.8nm,0.4s,mb4.6,baz=111,slow=7.9,SNR=74						
FITZ	**Fitzroy Crossi**	52.76	269	*e*P	**P**	**19 20 39.6**	**+3.4**
	2.6nm,0.6s,mb4.3						
MKAR	**Makanchi Array**	117.92	310	PKP	PKPdf	19 30 07.0	0.0
MKAR	**Makanchi Array**	117.92	310	PKP	PKPdf	19 30 07.0	0.0
	0.1nm,0.5s,baz=108,slow=1.8,SNR=2.8						
ARCES	**ARCESS Array B**	138.43	348	PKP	PKPdf	19 30 46.1	+0.9
ARCES	**ARCESS Array B**	138.43	348	PKP	PKPdf	19 30 46.1	+0.9
	3.5nm,1.1s,baz=46,slow=3.9,SNR=3.4						
JOF	**Joensuu**	142.33	339	*e*p	PKPdf	19 30 43.9	-8.6
	0.2nm,0.3s						
KAF	**Kangasniemi**	144.45	341	*e*p	PKPdf	19 31 02.4	+6.2
	0.6nm,0.3s						
FINES	**FINESS Array B**	145.05	340	PKPbc	PKPbc	19 30 56.5	-0.2
FINES	**FINESS Array B**	145.05	340	PKPbc	PKPbc	19 30 56.5	-0.2
	3.4nm,0.5s,baz=72,slow=3.3,SNR=28						
NB2	**NORSAR Subarra**	148.56	352	PKPa	PKPbc	19 31 06.9	0.0
	comp=Z,5.5nm,1.2s,baz=19,slow=4.1						
NOA	**NORSAR Array B**	148.56	352	PKPbc	PKPbc	19 31 07.2	+0.3
NOA	**NORSAR Array B**	148.56	352	PKPbc	PKPbc	19 31 07.2	+0.3
	comp=Z,1.3nm,0.6s,baz=14,slow=4.2,SNR=4.5						
AKASG	**Malin Array Be**	151.34	323	PKPbc	PKPbc	19 31 14.2	+0.2
AKASG				PKPab	PKPab	19 31 21.2	-0.9
AKASG	**Malin Array Be**	151.34	323	PKPbc	PKPbc	19 31 14.2	+0.2
	comp=Z,0.5nm,0.4s,baz=44,slow=2.8,SNR=24						
AKASG				PKPab	PKPab	19 31 21.2	-0.9
	comp=Z,1.6nm,0.5s,baz=48,slow=2.8,SNR=16						
BRTR	**Keskin Array B**	152.83	299	PKPbc	PKPbc	19 31 17.8	+0.1
BRTR	**Keskin Array B**	152.83	299	PKPbc	PKPbc	19 31 17.8	+0.1
	comp=Z,0.8nm,0.6s,baz=90,slow=4.9,SNR=6.2						
TORD	**Torodi Ar. Bea**	163.06	177	PKPab	PKPab	19 32 15.1	+1.8
	comp=Z,0.5nm,0.9s,baz=181,slow=4.1,SNR=3.1						

GUC 12 19:16:08.2±0.8**, 28.25S×70.78W, h2**^{km}±3^{km}**, MD3.5, ML2.2, 1C-2D, Central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VACH	**Vallenar**	0.33	177	*e*P	Pg	19 16 14.6	+0.1
VACH				*i* S	Sg	19 16 20.0	+1.3
CPCH	**Copiapo**	0.96	23	⇑*i*P	Pg	19 16 26.7	0.0
CPCH				*i* S	Sg	19 16 40.7	+1.5
CDCH	**Caldera**	1.17	358	⇓*e*P	Pg	19 16 30.2	-0.4
CDCH				*i* S	Sg	19 16 44.1	-1.7
LSCH	**La Serena**	1.70	194	⇓*i*P	Pn	19 16 38.5	-0.4
LSCH				*i* S	Sn	19 17 00.9	-0.4
LSCH				AML	AML	19 17 03.9	
	comp=E,47nm,0.2s						
TLL	**Tololo Astrono**	1.91	181	*e*P	Pn	19 16 42.4	+0.6
TLL				*i* S	Sn	19 17 08.8	+2.4
TLL				AML	AML	19 17 11.1	
	comp=N,28nm,0.2s						

IDC 12 19:35:18.2±70.0**, 20.60S×179.51W, h0**^{km}**, mb3.5**/3**, mb1 3.7**/3**, mb1mx3.5**/12**, mbtmp3.5**/3**, Error ellipse: s-maj=1257.0km s-min=166.7km az=83.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	36.47	244	P	P	19 42 24.8	-0.3
	0.4nm,0.5s,baz=86,slow=12,SNR=3.2						
ASAR	**Alice Springs**	43.12	257	P	P	19 43 20.9	+0.3
	0.4nm,0.5s,baz=97,slow=6.9,SNR=9.2						
WRA	**Warramunga Arr**	43.19	262	P	P	19 43 20.9	-0.2
	0.2nm,0.4s,baz=97,slow=8.4,SNR=17						

IDC ***12*** *19:56:26.7±0.9, 46.18N×154.87E, h0^{km}, mb3.5/9, mb1 3.8/10, mb1mx3.6/22, mbtmp3.6/10, ML4.3/1, Error ellipse: s-maj=26.2km s-min=22.4km az=124.0*

ISCJB ***12*** *19:56:27.7±0.9, 45.73N±0.09×154.9E±0.1, h33^{km}, mb3.5/11, Error ellipse: s-maj=17.2km s-min=7.5km az=136.5*

NEIC ***12*** *19:56:28.0±0.9, 46.06N×154.65E, h10^{km}, mb4.0/2, Error ellipse: s-maj=20.1km s-min=12.2km az=129.0*

MOS ***12*** *19:56:30.1±1.4, 46.05N×154.64E, h43^{km}, mb4.0/4, Error ellipse: s-maj=13.4km s-min=10.0km az=60.7*

BJI ***12*** *19:56:31.0, 46.57N×154.21E, h10^{km}, mB4.5, mb4.3, Ms4.3, Msz4.1*

ISC 12 19:56:29.4±0.9**, 45.70N**±0.10×**155.0E**±0.1**, h35**^{km}**, n52, σ1**^{s}**10**/56**, mb3.5**/11**, 1C-1D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	5.03	267	⇑*i*PN	**Pn**	**19 57 42.0**	**-0.2**
KUR				pmax	pmax		
	comp=N,140nm,0.5s						
KUR				pmax	pmax		
	comp=E,80nm,0.5s						
KUR				pmax	pmax		
	comp=Z,140nm,0.5s						
SKR	**Severo-Kuril's**	5.04	8	*e*PN	**Pn**	**19 57 38.8**	**-3.6**
SKR				pmax	pmax		
	comp=Z,50nm,0.5s						
YUK	**Yuzh-Kuril'sk**	6.69	259	*e*PN	**Pn**	**19 58 05.8**	**+0.7**
YUK				pmax	pmax		
	comp=Z,240nm,0.4s						
PET	**Petropavlovsk**	7.71	17	*e*PN	**Pn**	**19 58 16.8**	**-2.2**
JMP	**Maruseppu**	8.43	263	P	**Pn**	**19 58 30.4**	**+1.5**
YSS	**Yuzh-Sakhalins**	8.55	283	*e*P	**Pn**	**19 58 31.8**	**+1.2**
	comp=Z,41nm,0.9s						
YSS	**Yuzh-Sakhalins**	8.55	283	⇓*e*PN	**Pn**	**19 58 31.8**	**+1.2**
YSS				pmax	pmax		
	comp=E,40nm,0.9s						
YSS				pmax	pmax		
	comp=Z,40nm,0.9s						
ASAJ	**Asahikawa**	8.93	264	P	**Pn**	**19 58 37.0**	**+1.2**
ASAJ	**Asahikawa**	8.93	264	PN	**Pn**	**19 58 37.0**	**+1.2**
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ	**Asahikawa**	8.93	264	Pn	**Pn**	**19 58 37.0**	**+1.1**
	comp=Z,4.0nm,0.3s,baz=83,slow=19,SNR=30						
JWK2	**Keihoku**	9.20	272	P	**Pn**	**19 58 43.9**	**+4.4**
JEM	**Erimo**	9.30	251	P	**Pn**	**19 58 41.5**	**+0.6**
JEM				*e*S	**Sn**	**20 00 19.0**	**-5.2**
ERM	**Erimo**	9.30	251	*e*P	**Pn**	**19 58 41.7**	**+0.8**
	comp=Z,53nm,1.0s						
ERM	**Erimo**	9.30	251	*e*PN	**Pn**	**19 58 41.7**	**+0.8**
ERM				pmax	pmax		
	comp=Z,53nm,1.0s						
JEW	**Eniwo**	10.12	258	P	**Pn**	**19 58 53.2**	**+1.1**
JOT	**Ohata**	10.99	252	P	**Pn**	**19 59 02.6**	**-1.5**
JOT				*e*S	**Sn**	**20 00 55.5**	**-10**
JSH	**Shimam**	11.15	259	P	**Pn**	**19 59 06.7**	**+0.4**
JTM	**Tenmabayashi**	11.27	249	P	**Pn**	**19 59 06.6**	**-1.3**
JOM	**Ohasama**	11.85	243	P	**Pn**	**19 59 14.9**	**-0.9**
JOM				*e*S	**Sn**	**20 01 17.0**	**-10**
JMM	**Marumori**	13.15	238	P	**Pn**	**19 59 32.7**	**-0.9**
JMM				*e*S	**Sn**	**20 01 49.6**	**-9.0**
JYA	**Atsumi**	13.36	243	P	**Pn**	**19 59 36.0**	**-0.4**
MA2	**Magadan**	14.12	351	P	**Pn**	**19 59 41.6**	**-5.1**
MA2	**Magadan**	14.12	351	*e*P	**Pn**	**19 59 45.1**	**-1.6**
MA2				pmax	pmax		
	comp=Z,30nm,0.4s						
JSD	**Sado**	14.61	244	P	**Pn**	**19 59 52.1**	**-1.3**
JRY	**Ryogami san**	15.52	237	P	**Pn**	**20 00 06.3**	**+0.9**
MJAR	**Matsushiro Arr**	15.58	240	Pn	**Pn**	**20 00 05.6**	**-0.6**
MJAR	**Matsushiro Arr**	15.58	240	Pn	**Pn**	**20 00 05.6**	**-0.6**
	comp=Z,0.4nm,0.3s,baz=29,slow=13,SNR=9.7						
MAJO	**Matsushiro**	15.58	240	Pn	**Pn**	**20 00 04.9**	**-1.3**
	comp=Z,18nm,0.9s						
MAJO	**Matsushiro**	15.58	240	P	**Pn**	**20 00 04.9**	**-1.3**
MAJO				pmax	pmax		
	comp=Z,18nm,0.9s						
MAT	**Matsushiro**	15.58	240	P	**Pn**	**20 00 07.2**	**+1.0**
MAT	**Matsushiro**	15.58	240	P	**Pn**	**20 00 05.0**	**-1.2**
MDJ	**Mudanjiang**	17.92	276	P	**Pn**	**20 00 34.5**	**-1.1**
MDJ				AMB	AMB		
	comp=Z,12nm,1.1s						
MDJ				AMB	AMB		
	comp=Z,53nm,5.8s						
MDJ	**Mudanjiang**	17.92	276	*e*P	**Pn**	**20 00 34.4**	**-1.2**
	comp=Z,4.5nm,0.7s						
KSRS	**Korea Array**	21.78	257	P	**P**	**20 01 20.6**	**+2.6**
	comp=Z,2.2nm,0.8s,mb3.6,baz=65,slow=9.2,SNR=11						
BILL	**Bilibino**	23.15	11	*e*P	**P**	**20 01 39.7**	**+7.4**
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.5						
TIXI	**Tiksi**	28.84	343	*e*P	**P**	**20 02 30.9**	**+7.0**
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb3.6						
ZALV	**Zalesovo Beam**	44.28	307	P	**P**	**20 04 35.2**	**0.0**
	comp=Z,0.3nm,0.4s,mb3.4,baz=64,slow=6.6,SNR=2.1						
ZAL	**Zalesovo**	44.29	307	P	**P**	**20 04 35.2**	**-0.1**
MK31	**Makanchi Array**	48.58	299	*e*P	**P**	**20 05 09.4**	**+0.4**
MKAR	**Makanchi Array**	48.58	299	P	**P**	**20 05 09.6**	**+0.5**
MKAR	**Makanchi Array**	48.58	299	P	**P**	**20 05 09.6**	**+0.5**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	**Makanchi Array**	48.58	299	P	**P**	**20 05 09.6**	**+0.5**
	comp=Z,1.2nm,0.8s,mb4.0,baz=72,slow=7.1,SNR=14						
KURK	**Kurchatov**	49.02	305	*e*P	**P**	**20 05 18.0**	**+5.6**
YKA	**Yellowknife Ar**	50.99	37	P	**P**	**20 05 27.4**	**+0.3**
YKA	**Yellowknife Ar**	50.99	37	P	**P**	**20 05 27.4**	**+0.3**
	comp=Z,0.1nm,0.3s,mb3.2,baz=295,slow=7.2,SNR=3.1						
ARU	**Arti**	56.66	319	*e*P	**P**	**20 06 08.2**	**-0.5**
FINES	**FINESS Array B**	65.53	336	P	**P**	**20 07 09.1**	**+0.4**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	**FINESS Array B**	65.53	336	P	**P**	**20 07 09.1**	**+0.3**
	comp=Z,1.8nm,0.9s,mb4.1,baz=47,slow=8.2,SNR=2.0						
WRA	**Warramunga Arr**	67.97	201	P	**P**	**20 07 29.5**	**+4.9**
	comp=Z,0.3nm,0.8s,mb3.4,baz=21,slow=6.9,SNR=8.1						
ASAR	**Alice Springs**	71.65	200	P	**P**	**20 07 53.2**	**+5.9**
	comp=Z,0.1nm,0.5s,mb3.0,baz=28,slow=6.2,SNR=3.5						
AKASG	**Malin Array Be**	73.13	327	P	**P**	**20 07 54.9**	**-1.0**
	comp=Z,0.1nm,0.2s,mb3.3,baz=36,slow=7.9,SNR=4.8						
TXAR	**Lajitas Array**	76.87	62	P	**P**	**20 08 19.9**	**+2.0**
	comp=Z,0.4nm,0.8s,mb3.4,baz=302,slow=6.0,SNR=2.4						

NEIC ***12*** *20:12:39.3, 15.99N×96.82W, h9^{km}, MD4.1(MEX), After MEX.*

MEX 12 20:12:39.4±0.9**, 15.98N×96.82W, h9**^{km}±9^{km}**, MD4.1, 1C, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	**Huatulco**	0.72	107	*i* P	Pg	20 12 51.6	-1.7
HUIG				*i* S	Sg	20 13 01.5	-1.1
VHO	**Vista Hermosa**	1.09	5	*i* P	Pg	20 12 56.7	-3.8
VHO				*i* S	Sg	20 13 10.8	-3.9
VHO	**Vista Hermosa**	1.09	5	⇑*i*P	Pg	20 12 57.0	-3.5
VHO				*i* S	Sg	20 13 10.9	-3.8
OXX	**Oaxaca**	1.10	5	*i* P	Pg	20 12 57.0	-3.7
OXX				*i* S	Sg	20 13 10.5	-4.5
OXX	**Oaxaca**	1.10	5	*i* P	Pg	20 12 57.5	-3.2
OXX				*i* S	Sg	20 13 11.0	-4.0
PNIG	**Pinotepa**	1.32	289	*i* P	Pn	20 12 59.3	-4.8
PNIG				*i* S	Sb	20 13 16.2	-5.2
PNIG	**Pinotepa**	1.32	289	*i* P	Pn	20 12 59.9	-4.2
PNIG				*i* S	Sb	20 13 16.5	-4.9
UTMO	**Huajuapan**	2.07	333	*i* P	Pn	20 13 12.6	-1.8
UTMO				*i* S	Sn	20 13 36.8	-3.5
CMIG	**Matias Romero**	2.17	59	*e*P	Pn	20 13 11.8	-3.8
CMIG				*i* S	Sn	20 13 38.7	-4.0
CMIG	**Matias Romero**	2.17	59	*e*P	Pn	20 13 12.1	-3.6
CMIG				*i* S	Sn	20 13 38.7	-4.0
TPIG	**Tehuac#an**	2.48	348	*e*P	Pn	20 13 19.0	-1.1
TPIG				*i* S	Sn	20 13 46.8	-3.8
ACX	**Acapulco**	3.10	287	*e*P	Pn	20 13 26.0	-2.5
MEIG	**Mezcala**	3.31	306	*e*P	Pn	20 13 29.0	-2.4
MEIG				*i* S	Sn	20 14 06.8	-4.0
CAIG	**El Cayaco**	3.47	288	*i* P	Pn	20 13 31.1	-2.6
CAIG				*i* S	Sn	20 14 06.3	-8.6
CAIG	**El Cayaco**	3.47	288	*i* P	Pn	20 13 31.1	-2.6
CAIG				*i* S	Sn	20 14 11.6	-3.3
PLIG	**Platanillo**	3.51	314	*i* P	Pn	20 13 41.2	+7.0
PLIG				*i* S	Sn	20 14 09.3	-6.6
PLIG	**Platanillo**	3.51	314	*e*P	Pn	20 13 32.0	-2.2
PLIG				*i* S	Sn	20 14 14.3	-1.6
PPM	**Popocatepetl**	3.52	331	*e*P	Pn	20 13 30.9	-3.4
PPM				*i* P		20 13 38.1	
PPM	**Popocatepetl**	3.52	331	*i* P	Pn	20 13 32.1	-2.3
PPM				*i* S	Sn	20 14 13.0	-3.2
LVIG	**Laguna Verde**	3.75	6	*i* P	Pn	20 13 46.3	+8.8
LVIG				*i* S	Sn	20 14 24.6	+2.9
LVIG	**Laguna Verde**	3.75	6	*i* S	Sn	20 14 16.4	-5.3
IIO	**Organos**	4.03	334	*i* P	Pn	20 13 49.2	+7.9
IIO				*i* S	Sn	20 14 38.1	+10
SCX	**San Cristobal**	4.09	79	*e*P	Pn	20 13 38.5	-3.7

NIED ***12*** *20:33:00, 47.50N×154.50E, h35^{km}, Mw5.0   Best double couple: M$_0$3.23000×10^{16} NP1:φ$_s$21.00000°, δ7.00000°, λ57.00000°.   NP2:φ$_s$234.00000°, δ84.00000°, λ94.00000°.*

BJI ***12*** *20:33:24.7, 48.00N×155.01E, h10^{km}, mB4.9, mb4.8, Ms4.5, Msz4.3*

IDC ***12*** *20:33:28.6±0.5, 47.71N×154.35E, h0^{km}, mb4.5/28, mb1 4.6/30, mb1mx4.6/33, mbtmp4.5/30, ML3.3/2, MS4.2/18, Ms1 4.2/18, ms1mx4.1/25, Error ellipse: s-maj=16.7km s-min=12.8km az=136.0*

ISCJB ***12*** *20:33:29.4±0.1, 47.62N±0.03×154.38E±0.02, h16^{km}, mb4.8/137, MS4.3/38, Error ellipse: s-maj=4.4km s-min=1.7km az=158.9*

GCMT ***12*** *20:33:30.6±0.6, 47.74N×154.53E, h38^{km}±1^{km}, MW4.9/51, Moment Tensor Solution.   s28,c37;   s51,c79;   Duration: 0   Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.50±.16; M$_{θθ}$-1.26±.12; M$_{φφ}$-1.24±.10; M$_{rθ}$-0.46±.09; M$_{θφ}$-1.19±.06; M$_{φr}$-1.15±.07;   Best double couple: M$_0$2.76200×10^{16} NP1:φ$_s$54.00000°, δ33.00000°, λ106.00000°.   NP2: φ$_s$215.00000°, δ58.00000°, λ80.00000°.   Principal axes: T 2.8290, Plg75.0000°, Azm97.0000°; N -0.1350, Plg9.0000°, Azm221.0000°; P -2.6940, Plg13.0000°, Azm313.0000°;   nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***12*** *20:33:30.6±0.2, 47.71N×154.32E, h10^{km}, mb5.1/79 Error ellipse: s-maj=5.9km s-min=3.2km az=162.0*

MOS ***12*** *20:33:32.8±1.0, 47.71N×154.40E, h37^{km}, mb5.0/55, MS4.2/21, Error ellipse: s-maj=7.2km s-min=5.2km az=99.8*

SKHL ***12*** *20:33:32.6±1.6, 47.61N×154.65E, h64^{km}±34^{km}, mb6.0/1, mbh5.8/2, Ms4.3/2, msh5.8/1*

SZGRF ***12*** *20:33:33.9, 47.59N×155.00E, h33^{km}, mb4.9, Kuril Islands, Russia*

JMA ***12*** *20:33:34.6±0.8, 47.49N×154.52E, h30^{km}, M5.2*

ISC 12 20:33:31.9±0.1**, 47.70N**±0.03×**154.33E**±0.02**, h16**^{km}**, h16**^{km}±3.8^{km}**:pP-P, n636, σ0**^{s}**83**/675**, mb4.8**/137**, MS4.3**/37**, 134C-92D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	3.21	21	*e*PN	**Pn**	**20 34 21.5**	**0.0**
SKR				*i* S	**Sn**	**20 34 57.5**	**-1.8**
SKR				pmax	pmax		
	comp=E,90nm,1.0s						
SKR				pmax	pmax		
	comp=Z,1μm,1.0s						
SKR				pmax	pmax		
	comp=N,260nm,0.5s						
SKR				pmax	pmax		
	comp=N,1μm,2.0s						
SKR				pmax	pmax		
	comp=E,2μm,2.0s						
SKR				pmax	pmax		
	comp=Z,2μm,2.0s						
SKR				smax			
	comp=N,1μm,0.2s						
SKR				smax			
	comp=E,950nm,0.2s						
SKR				smax			
	comp=N,3μm,2.0s						
SKR				smax			
	comp=E,6μm,8.0s						
SKR				MLR	MLR		
	comp=N,3μm,12.0s						
SKR				MLR	MLR		
	comp=E,4μm,14.0s						
SKR				MLR	MLR		
	comp=Z,5μm,14.0s						
SKR	**Severo-Kuril's**	3.21	21	*e*P	**Pn**	**20 34 21.5**	**0.0**
SKR				AMB	AMB	20 34 26.6	
	comp=Z,260nm,1.0s						
SKR				AMB	AMB	20 34 26.6	
	comp=Z,90nm,1.0s						
SKR				AMB	AMB	20 34 26.6	
	comp=Z,1μm,1.0s						
SKR				AMB	AMB	20 34 27.0	
	comp=Z,1μm,2.0s						
SKR				AMB	AMB	20 34 27.0	
	comp=Z,2μm,2.0s						
SKR				AMB	AMB	20 34 27.0	
	comp=Z,2μm,2.0s						
SKR				*i* S	**Sn**	**20 34 57.5**	**-1.8**
SKR				A		20 35 01.3	
	comp=Z,1μm,0.2s						
SKR				A		20 35 01.3	
	comp=Z,950nm,0.2s						
SKR				A		20 35 06.0	
	comp=Z,3μm,2.0s						
SKR				A		20 35 06.0	
	comp=Z,6μm,2.0s						
SKR				AMS	AMS	20 35 54.0	
	comp=Z,3μm,14.0s						
SKR				AMS	AMS	20 35 54.0	
	comp=Z,4μm,14.0s						
SKR				AMS	AMS	20 35 54.0	
	comp=Z,5μm,14.0s						
KUR	**Kuril'sk**	5.10	243	*e*PN	**Pn**	**20 34 51.0**	**+3.5**

KUR				*i* S	**Sn**	**20 35 51.5**	**+5.6**
KUR				pmax	pmax		
	comp=Z,840nm,0.5s						
KUR				smax			
	comp=N,10µm,3.0s						
KUR				smax			
	comp=E,3µm,3.0s						
KUR				smax			
	comp=N,3µm,0.9s						
KUR				smax			
	comp=E,980nm,0.9s						
KUR	**Kuril'sk**	**5.10**	**243**	*e*P	**Pn**	**20 34 51.0**	**+3.5**
KUR				AMB	AMB	20 34 52.5	
	comp=E,840nm,0.5s						
KUR				*i* S	**Sn**	**20 35 51.5**	**+5.6**
KUR				A		20 35 58.0	
	comp=E,10µm,3.0s						
KUR				A		20 35 58.0	
	comp=E,3µm,3.0s						
KUR				A		20 36 09.5	
	comp=E,3µm,0.9s						
KUR				A		20 36 09.5	
	comp=E,980nm,0.9s						
PET	**Petropavlovsk**	**6.00**	**26**	*e*P	**Pn**	**20 34 59.2**	**-0.7**
	comp=E,56nm,0.5s						
PET	**Petropavlovsk**	**6.00**	**26**	⇑*i*PN	**Pn**	**20 34 59.3**	**-0.6**
PET				pmax	pmax		
	comp=Z,300nm,1.5s						
PET				pmax	pmax		
	comp=Z,154nm,0.9s						
PET				MLR	MLR		
	comp=Z,1µm,15.0s						
PET				MLR	MLR		
	comp=Z,1µm,15.0s						
PET	**Petropavlovsk**	**6.00**	**26**	*e*P	**Pn**	**20 35 00.1**	**+0.2**
YUK	**Yuzh-Kuril'sk**	**6.95**	**241**	*i* P	**Pn**	**20 35 16.0**	**+3.1**
YUK				AMB	AMB	20 35 22.8	
	comp=Z,180nm,0.3s						
YUK				AMB	AMB	20 35 22.8	
	comp=Z,200nm,0.3s						
YUK				AMB	AMB	20 35 22.8	
	comp=Z,360nm,0.3s						
YUK				*i* S	**Sn**	**20 36 33.5**	**+1.9**
YUK				A		20 36 50.7	
	comp=Z,850nm,0.7s						
YUK				A		20 36 50.7	
	comp=Z,1µm,0.7s						
YUK				A		20 37 06.0	
	comp=Z,5µm,1.2s						
NEM2	**Nemuro 2**	**7.42**	**237**	P	**Pn**	**20 35 19.3**	**-0.1**
NEM2				*e*S	**Sn**	**20 36 36.3**	**-6.8**
JRA	**Rausu**	**7.45**	**243**	P	**Pn**	**20 35 24.4**	**+4.7**
JNK	**Nakash**	**7.89**	**242**	P	**Pn**	**20 35 27.5**	**+1.7**
JNK				*e*S	**Sn**	**20 36 53.8**	**-0.8**
YSS	**Yuzh-Sakhalins**	**7.90**	**269**	*e*P	**Pn**	**20 35 30.6**	**+4.7**
	comp=Z,81nm,0.6s						
YSS	**Yuzh-Sakhalins**	**7.90**	**269**	⇑*i*PN	**Pn**	**20 35 30.0**	**+4.1**
YSS				pmax	pmax		
	comp=E,220nm,0.9s						
YSS				pmax	pmax		
	comp=Z,110nm,0.9s						
YSS				pmax	pmax		
	comp=N,70nm,0.8s						
YSS				MLR	MLR		
	comp=E,2µm,18.0s						
YSS				MLR	MLR		
	comp=Z,2µm,18.0s						
YSS	**Yuzh-Sakhalins**	**7.90**	**269**	*i* P	**Pn**	**20 35 30.0**	**+4.1**
YSS				AMB	AMB	20 35 34.0	
	comp=Z,70nm,0.8s						
YSS				AMB	AMB	20 35 34.0	
	comp=Z,220nm,0.8s						
YSS				AMB	AMB	20 35 34.0	
	comp=Z,110nm,0.8s						
YSS				*e*S	**Sn**	**20 36 57.0**	**+2.2**
YSS				A		20 36 59.4	
	comp=Z,60nm,0.6s						
YSS				AMS	AMS	20 38 05.0	
	comp=Z,2µm,18.0s						
YSS				AMS	AMS	20 38 05.0	
	comp=Z,2µm,18.0s						
JTKR	**Abashiri--Toko**	**8.17**	**247**	P	**Pn**	**20 35 32.9**	**+3.2**
JTKR				*e*S	**Sn**	**20 37 04.6**	**+3.0**
JAK	**Akkeshi**	**8.25**	**239**	P	**Pn**	**20 35 30.8**	**+0.1**
JAK				*e*S	**Sn**	**20 36 57.4**	**-6.1**
UGL	**Uglegorsk**	**8.28**	**284**	*e*PN	**Pn**	**20 35 36.0**	**+4.9**
UGL				pmax	pmax		
	comp=Z,64nm,0.7s						
UGL				MLR	MLR		
	comp=N,3µm,15.0s						
UGL				MLR	MLR		
	comp=Z,2µm,15.0s						
JMP	**Maruseppu**	**8.50**	**248**	P	**Pn**	**20 35 40.5**	**+6.4**
JAR	**Ashorobuto**	**8.62**	**243**	P	**Pn**	**20 35 38.0**	**+2.2**
JAR				*e*S	**Sn**	**20 37 13.1**	**+0.5**
JOB	**Onbets**	**8.81**	**241**	P	**Pn**	**20 35 39.2**	**+0.8**
JOB				*e*S	**Sn**	**20 37 14.3**	**-3.0**
JWK2	**Keihoku**	**8.90**	**259**	P	**Pn**	**20 35 46.9**	**+7.3**
ASAJ	**Asahikawa**	**8.93**	**251**	P	**Pn**	**20 35 44.8**	**+4.8**
ASAJ	**Asahikawa**	**8.93**	**251**	PN	**Pn**	**20 35 38.5**	**-1.5**
ASAJ				MLR	MLR		
	comp=Z,2µm,20.0s						
ASAJ	**Asahikawa**	**8.93**	**251**	Pn	**Pn**	**20 35 38.5**	**-1.5**
	comp=Z,0.2nm,0.3s,baz=56,slow=7.3,SNR=2.2						
ASAJ				LR	LR	20 38 55.0	
	comp=Z,2µm,20.0s,baz=44,slow=36						
JKK2	**Kamakawa 2**	**8.95**	**249**	P	**Pn**	**20 35 44.7**	**+4.4**
JCH	**Churui**	**9.26**	**241**	P	**Pn**	**20 35 44.9**	**+0.3**
JCH				*e*S	**Sn**	**20 37 23.5**	**-4.9**
OKH	**Okha**	**9.31**	**313**	*e*PN	**Pn**	**20 35 45.0**	**-0.1**
OKH				pmax	pmax		
	comp=Z,900nm,4.0s						
JFR	**Furan**	**9.41**	**245**	P	**Pn**	**20 35 50.7**	**+4.1**
JAB	**Ashibetsu**	**9.46**	**248**	P	**Pn**	**20 35 52.5**	**+5.2**
JHR	**Hokuryu**	**9.66**	**250**	P	**Pn**	**20 35 57.1**	**+7.1**
JEM	**Erimo**	**9.75**	**238**	P	**Pn**	**20 35 52.5**	**+1.2**
JEM				*e*S	**Sn**	**20 37 33.8**	**-6.6**
ERM	**Erimo**	**9.75**	**238**	Pn	**Pn**	**20 35 54.8**	**+3.5**
	comp=Z,390nm,0.7s,SNR=8.3						
ERM	**Erimo**	**9.75**	**238**	*e*P	**Pn**	**20 35 53.9**	**+2.6**
	comp=Z,56nm,0.6s						
ERM	**Erimo**	**9.75**	**238**	*i* PN	**Pn**	**20 35 53.1**	**+1.8**
JBT2	**Biratori 2**	**9.77**	**244**	P	**Pn**	**20 35 52.5**	**+1.0**
JNBK	**Urakawa-nobuka**	**9.82**	**241**	P	**Pn**	**20 35 51.9**	**-0.4**
JNBK				*e*S	**Sn**	**20 37 35.9**	**-6.2**
JEW	**Eniwo**	**10.29**	**247**	P	**Pn**	**20 36 01.5**	**+2.8**
JNB	**Noboribetsu**	**10.75**	**246**	P	**Pn**	**20 36 05.4**	**+0.4**
JKB	**Kayabe**	**11.09**	**243**	P	**Pn**	**20 36 08.9**	**-0.6**
JKB				*e*S	**Sn**	**20 38 05.5**	**-7.6**
JSH	**Shimam**	**11.27**	**249**	P	**Pn**	**20 36 15.3**	**+3.2**
JYM2	**Yakumo 2**	**11.36**	**246**	P	**Pn**	**20 36 13.7**	**+0.4**
JOT	**Ohata**	**11.38**	**241**	P	**Pn**	**20 36 12.4**	**-1.2**
JOT				*e*S	**Sn**	**20 38 09.4**	**-11**
JSR	**Shiriuchi**	**11.67**	**243**	P	**Pn**	**20 36 17.0**	**-0.5**
JTM	**Tenmabayashi**	**11.75**	**239**	P	**Pn**	**20 36 16.5**	**-2.1**
JTM				*e*S	**Sn**	**20 38 17.7**	**-12**
JANG	**Nango**	**11.77**	**236**	P	**Pn**	**20 36 15.9**	**-3.0**
JANG				*e*S	**Sn**	**20 38 17.1**	**-13**
JTH	**Tanohata**	**11.87**	**234**	P	**Pn**	**20 36 17.6**	**-2.7**
JTH				*e*S	**Sn**	**20 38 17.5**	**-15**
JOSM	**Okushiri--Mats**	**11.93**	**247**	P	**Pn**	**20 36 21.4**	**+0.3**
MA2	**Magadan**	**12.08**	**351**	*e*P	**Pn**	**20 36 24.9**	**+1.9**
	comp=Z,22nm,0.6s						
MA2	**Magadan**	**12.08**	**351**	*d i*PN	**Pn**	**20 36 24.8**	**+1.7**
MA2				pmax	pmax		
	comp=Z,25nm,0.7s						
JOM	**Ohasama**	**12.51**	**234**	P	**Pn**	**20 36 27.7**	**-1.4**
JOM				*e*S	**Sn**	**20 38 37.1**	**-11**
OFUJ	**Ofunato**	**12.60**	**231**	P	**Pn**	**20 36 27.5**	**-2.7**
OFUJ				*e*S	**Sn**	**20 38 34.4**	**-16**
HABR	**Khabarovsk**	**12.91**	**281**	*e*PN	**Pn**	**20 36 34.6**	**+0.1**
HABR				pmax	pmax		
	comp=Z,83nm,2.0s						
JRG	**Rokugo**	**12.93**	**235**	P	**Pn**	**20 36 32.8**	**-2.0**
JRG				*e*S	**Sn**	**20 38 47.0**	**-11**
JIO	**Ouri**	**13.23**	**230**	P	**Pn**	**20 36 36.0**	**-2.8**
JIO				*e*S	**Sn**	**20 38 50.9**	**-15**
JMM	**Marumori**	**13.96**	**230**	P	**Pn**	**20 36 46.5**	**-2.3**
JMM				*e*S	**Sn**	**20 39 08.9**	**-14**
JYA	**Atsumi**	**14.00**	**235**	P	**Pn**	**20 36 45.3**	**-4.1**
JYA				*e*S	**Sn**	**20 39 16.4**	**-8.0**
JFK	**Kawauchi**	**14.30**	**229**	P	**Pn**	**20 36 50.7**	**-2.7**
JFK				*e*S	**Sn**	**20 39 18.9**	**-13**
JFY	**Yanaizu**	**14.87**	**232**	P	**Pn**	**20 36 58.9**	**-2.4**
KLR	**Kul'dur**	**15.05**	**284**	*e*P	**Pn**	**20 37 04.0**	**+0.4**
KLR				*e*S	**Sn**	**20 40 00.0**	**+10**
KLR				pmax	pmax		
	comp=E,70nm,1.8s						
KLR				pmax	pmax		
	comp=Z,64nm,1.8s						
KLR				MLR	MLR		
	comp=E,500nm,13.0s						
KLR				MLR	MLR		
	comp=Z,1µm,13.0s						
JSD	**Sado**	**15.21**	**236**	P	**Pn**	**20 37 07.1**	**+1.4**
MJAR	**Matsushiro Arr**	**16.31**	**233**	Pn	**Pn**	**20 37 17.2**	**-2.8**
MJAR	**Matsushiro Arr**	**16.31**	**233**	P	**Pn**	**20 37 17.2**	**-2.9**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	**Matsushiro Arr**	**16.31**	**233**	Pn	**Pn**	**20 37 17.2**	**-2.9**
	comp=Z,0.5nm,0.3s,baz=30,slow=12,SNR=20						
MAJO	**Matsushiro**	**16.31**	**233**	*e*P	**Pn**	**20 37 18.3**	**-1.8**
	comp=Z,47nm,0.9s						
MAJO	**Matsushiro**	**16.31**	**233**	*e*P	**Pn**	**20 37 18.3**	**-1.8**
MAJO				pmax	pmax		
	comp=Z,47nm,0.9s						
MAT	**Matsushiro**	**16.31**	**233**	P	**Pn**	**20 37 18.0**	**-2.1**
MAT				S	**Sn**	**20 40 29.0**	**+8.4**
MAT	**Matsushiro**	**16.31**	**233**	P	**Pn**	**20 37 18.3**	**-1.8**
JRY	**Ryogami san**	**16.34**	**230**	P	**Pn**	**20 37 19.1**	**-1.4**
MDJ	**Mudanjiang**	**17.39**	**269**	P	**Pn**	**20 37 35.2**	**+1.6**
MDJ				XP	sP	20 37 39.9	-1.7
MDJ				PP		20 37 48.4	
MDJ				S	**Sn**	**20 40 52.0**	**+5.4**
MDJ				PCP	PcP	20 42 13.4	-1.2
MDJ				PCS	PcS	20 45 51.6	+1.0
MDJ				AMB	AMB		
	comp=Z,7.0nm,0.9s						
MDJ				AMB	AMB		
	comp=Z,67nm,5.7s						
MDJ				LR	LR		
	comp=E,420nm,24.8s						
MDJ				LR	LR		
	comp=Z,651nm,22.7s						
MDJ	**Mudanjiang**	**17.39**	**269**	*e*P	**Pn**	**20 37 35.6**	**+2.0**
	comp=Z,17nm,0.8s						
JGF	**Kuroka**	**17.47**	**232**	P	**Pn**	**20 37 37.9**	**+3.2**
JHJ	**Hachijo jima 2**	**18.25**	**222**	LR	LR	20 44 13.1	
	comp=Z,141nm,20.9s,baz=166,slow=35						
JWT	**Wachi**	**18.78**	**236**	P	**Pn**	**20 37 50.5**	**-0.2**
JAD	**Aida**	**19.72**	**237**	P	**Pn**	**20 38 03.2**	**+1.2**
JWZ	**Kozaga**	**19.93**	**231**	P	**Pn**	**20 38 04.5**	**+0.1**
YAK	**Yakutsk**	**19.99**	**325**	*e*P	**P**	**20 38 05.8**	**+2.6**
	comp=Z,56nm,0.6s						
YAK	**Yakutsk**	**19.99**	**325**	*e*P	**P**	**20 38 05.9**	**+2.7**
YAK				*e*		20 38 20.9	
YAK				*e*S	**S**	**20 41 41.8**	**-5.4**
YAK				*e*		20 42 27.9	
YAK				pmax	pmax		
	comp=Z,96nm,1.0s						
YAK				pmax	pmax		
	comp=N,45nm,1.5s						
YAK				pmax	pmax		
	comp=E,47nm,1.4s						
YAK				pmax	pmax		
	comp=Z,282nm,5.5s						
YAK				pmax	pmax		
	comp=N,82nm,1.5s						
YAK				pmax	pmax		
	comp=E,81nm,1.4s						
YAK				smax			
	comp=N,82nm,2.4s						
YAK				smax			
	comp=E,93nm,2.3s						
YAK				MLR	MLR		
	comp=N,500nm,14.0s						
YAK				MLR	MLR		
	comp=E,300nm,14.0s						
YAK				MLR	MLR		
	comp=Z,600nm,14.0s						
CLNS	**Chul'man**	**20.06**	**308**	*e*P	**P**	**20 38 08.1**	**+4.1**
CLNS				*e*		20 38 23.1	
CLNS				*e*PPP		20 38 31.9	
CLNS				pmax	pmax		
	comp=E,47nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,107nm,0.8s						
CLNS				pmax	pmax		
	comp=N,34nm,1.2s						
CLNS				pmax	pmax		
	comp=Z,64nm,1.0s						
CLNS				pmax	pmax		
	comp=N,31nm,0.9s						
CLNS				pmax	pmax		
	comp=E,37nm,1.3s						
CLNS				MLR	MLR		
	comp=Z,900nm,19.0s,MS4.1						
CLNS				MLR	MLR		
	comp=N,200nm,13.0s						
CLNS				MLR	MLR		
	comp=E,400nm,15.0s						
NRGR	**Nerungri**	**20.10**	**307**	*e*P	**P**	**20 38 08.6**	**+4.1**
JHS	**Saijyo**	**20.28**	**239**	P	**P**	**20 38 09.1**	**+2.5**
CN2	**Changchun**	**20.47**	**270**	*e*P	**P**	**20 38 08.0**	**-0.6**
CN2				*e*XP	sP	20 38 15.0	-0.4
CN2				*e*S	**S**	**20 41 51.0**	**-6.0**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.1s						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,500nm,15.0s,MS4.2						
CN2				LR	LR		
	comp=E,500nm,15.0s,MS4.2						
CN2				LR	LR		
	comp=Z,500nm,21.0s						
BILL	**Bilibino**	**21.28**	**12**	*e*P	**P**	**20 38 14.1**	**-3.1**
	comp=Z,8.3nm,0.8s,mb4.1						
BILL	**Bilibino**	**21.28**	**12**	*e*P	**P**	**20 38 15.2**	**-1.9**
BILL				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.2						
BILL				MLR	MLR		
	comp=Z,700nm,17.0s,MS4.1						
KSRS	**Korea Array**	**21.88**	**252**	P	**P**	**20 38 25.0**	**+1.2**
	comp=Z,31nm,1.0s,mb4.7,baz=52,slow=10,SNR=33						
KSRS				PcP	PcP	20 42 22.4	-0.4
	comp=Z,1.7nm,0.8s,baz=31,slow=1.5,SNR=6.6						
KSRS				LR	LR	20 45 43.4	
	comp=Z,440nm,20.3s,MS3.9,baz=35,slow=34						
CBIJ	**Chichi jima**	**22.66**	**209**	LR	LR	20 45 38.5	
	comp=Z,208nm,20.6s,MS3.5,baz=312,slow=32						
INCN	**Inchon**	**22.69**	**253**	*e*P	**P**	**20 38 34.4**	**+1.9**
JTU	**Tsushima**	**22.81**	**244**	P	**P**	**20 38 36.5**	**+2.7**
HIA	**Hailar**	**22.86**	**287**	*e*P	**P**	**20 38 34.0**	**-0.1**
	comp=Z,6.2nm,0.8s,mb4.1						
HIA	**Hailar**	**22.86**	**287**	*e*P	**P**	**20 38 34.1**	**-0.1**
HIA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
JNU	**Nakatsue**	**22.92**	**239**	P	**P**	**20 38 35.0**	**+0.2**
	comp=Z,9.1nm,0.8s,mb4.3,baz=84,slow=8.0,SNR=6.2						
JNU				LR	LR	20 47 51.2	
	comp=Z,314nm,19.4s,MS3.8,baz=275,slow=38						
JFU	**Fukue jima 2**	**24.50**	**241**	P	**P**	**20 38 51.6**	**+1.4**
GAMB	**Gambell**	**24.57**	**37**	*e*P	**P**	**20 38 50.2**	**-0.3**
DL2	**Dalian**	**25.21**	**262**	*e*P	**P**	**20 39 00.1**	**+3.5**
DL2				S	**S**	**20 43 24.2**	**+3.0**
DL2				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.8						
DL2				LR	LR		
	comp=N,230nm,12.1s,MS4.0						
DL2				LR	LR		
	comp=E,150nm,11.8s,MS4.0						
DL2				LR	LR		
	comp=Z,260nm,17.6s						
BOD	**Bodaibo**	**26.04**	**308**	*e*P	**P**	**20 39 02.5**	**-1.4**
BOD				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb3.9						
CIT	**Chita**	**26.38**	**295**	*e*P	**P**	**20 39 09.0**	**+1.9**
TNA	**Tin City**	**26.78**	**34**	*e*P	**P**	**20 39 10.7**	**+0.1**
	comp=Z,28nm,1.4s,mb4.6						
TIXI	**Tiksi**	**26.80**	**342**	*e*P	**P**	**20 39 07.5**	**-3.1**
	comp=Z,11nm,1.2s,mb4.2						
TIXI	**Tiksi**	**26.80**	**342**	*e*P	**P**	**20 39 06.8**	**-3.8**
TIXI				*e*S	**S**	**20 43 43.5**	**-2.2**
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.1						
TIXI				MLR	MLR		
	comp=Z,306nm,11.0s,MS4.1						
BJI	**Beijing**	**28.32**	**269**	P	**P**	**20 39 24.7**	**+0.1**
BJI				PCP	PcP	20 42 40.3	+3.2
BJI				S	**S**	**20 44 10.8**	**+0.6**
BJI				SCP	ScP	20 46 12.3	-4.9
BJI				AMB	AMB		
	comp=Z,3.0nm,1.1s,mb3.8						
BJI				LR	LR		
	comp=N,475nm,16.6s						
BJI				LR	LR		
	comp=E,454nm,23.9s						
BJI				LR	LR		
	comp=Z,573nm,21.5s,MS4.1						
BJT	**Baijiatuau**	**28.34**	**268**	P	**P**	**20 39 24.7**	**0.0**
	comp=Z,8.0nm,0.8s,mb4.4						
BJT	**Baijiatuau**	**28.34**	**268**	P	**P**	**20 39 24.7**	**0.0**
BJT				pmax	pmax		
	comp=Z,8.0nm,0.8s						
SSE	**Sheshan**	**30.21**	**249**	P	**P**	**20 39 43.1**	**+1.7**
SSE				S	**S**	**20 44 50.6**	**+11**
SSE				AMB	AMB		
	comp=Z,15nm,0.8s,mb4.8						
SSE				AMB	AMB		
	comp=Z,106nm,5.2s						
SSE				LR	LR		
	comp=N,88nm,23.0s,MS3.7						
SSE				LR	LR		
	comp=E,194nm,23.4s,MS3.7						
SSE				LR	LR		
	comp=Z,255nm,25.5s,MS3.8						
SSE	**Sheshan**	**30.21**	**249**	P	**P**	**20 39 43.1**	**+1.7**
	comp=Z,15nm,0.8s,mb4.8						
SSE				S	**S**	**20 44 50.6**	**+11**
SSE				LR	LR		
	comp=Z,260nm,25.5s,MS3.8						
HHC	**Hu-ho-hao-te**	**31.06**	**273**	*e*P	**P**	**20 39 51.1**	**+2.3**
HHC				AP	pP	20 39 55.6	+1.8
HHC				XP	sP	20 39 58.1	+2.2
HHC				PP	PP	20 40 53.2	-5.6
HHC				S	**S**	**20 44 55.1**	**+2.0**
HHC				XS	sS	20 45 01.7	+0.3
HHC				SCP	ScP	20 46 29.0	+3.0
HHC				SS	SS	20 46 38.5	-27
HHC				SCS	ScS	20 50 23.3	+0.3
HHC				AMB	AMB		
	comp=Z,13nm,0.8s,mb4.8						
HHC				AMB	AMB		
	comp=Z,159nm,4.3s						
HHC				LR	LR		
	comp=N,329nm,14.2s						
HHC				LR	LR		
	comp=E,295nm,19.9s						
HHC				LR	LR		
	comp=Z,312nm,23.3s						
NJ2	**Nanjing**	**31.07**	**253**	*e*P	**P**	**20 39 50.3**	**+1.3**
NJ2				AP	pP	20 39 54.6	+0.6
NJ2				XP	sP	20 39 57.2	+1.1
NJ2				PP	PP	20 40 52.1	-7.0
NJ2				S	**S**	**20 44 54.0**	**+0.6**
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,180nm,4.1s						
NJ2				LR	LR		
	comp=N,750nm,28.1s,MS4.4						
NJ2				LR	LR		
	comp=E,950nm,26.5s,MS4.4						
NJ2				LR	LR		
	comp=Z,950nm,26.5s,MS4.3						
ULN	**Ulaanbaatar**	**31.38**	**288**	*e*P	**P**	**20 39 50.9**	**-0.6**
	comp=Z,2.3nm,0.6s,mb4.2						
ULN	**Ulaanbaatar**	**31.38**	**288**	*e*P	**P**	**20 39 50.9**	**-0.6**
ULN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
SONM	**Songino Array**	**31.81**	**288**	P	**P**	**20 39 54.5**	**-0.8**
SONM						20 42 44.7	
SONM				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SONM				MLR	MLR		
	comp=Z,615nm,18.6s						
SONM	**Songino Array**	**31.81**	**288**	P	**P**	**20 39 54.5**	**-0.8**
	comp=Z,2.3nm,0.7s,mb4.1,baz=86,slow=9.6,SNR=27						
SONM				PcP	PcP	20 42 44.7	-1.3
	comp=Z,0.5nm,0.6s,baz=151,slow=3.4,SNR=4.2						
SONM				LR	LR	20 53 49.3	
	comp=Z,615nm,18.6s,MS4.3,baz=63,slow=38						
TLY	**Talaya**	**32.49**	**296**	*e*P	**P**	**20 40 03.1**	**+1.8**
TLY				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.5						
TLY				MLR	MLR		
	comp=Z,767nm,19.0s,MS4.4						
IMA2	**Indian Mountai**	**32.55**	**37**	*e*P	**P**	**20 40 01.3**	**-0.3**
ZAK	**Zakamensk**	**33.03**	**294**	*e*P	**P**	**20 40 06.8**	**+0.7**
ZAK				*e*		20 41 19.8	
ZAK				*e*		20 42 49.0	
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
MCK	**McKinley**	**34.39**	**41**	*e*P	**P**	**20 40 17.0**	**-0.7**
	comp=Z,21nm,1.3s,mb4.9						
MCK	**McKinley**	**34.39**	**41**	*e*P	**P**	**20 40 17.0**	**-0.7**
MCK				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.9						
SML	**Sawmill**	**34.71**	**45**	*e*P	**P**	**20 40 19.4**	**-1.1**
COLA	**College**	**34.88**	**39**	*e*P	**P**	**20 40 21.9**	**+0.1**
	comp=Z,64nm,1.4s,mb5.4						
COLA	**College**	**34.88**	**39**	⇑*i*P	**P**	**20 40 21.4**	**-0.5**
WHN	**Wuhan**	**34.97**	**255**	*e*P	**P**	**20 40 22.5**	**-0.6**
XAN	**Xi'an**	**36.42**	**265**	P	**P**	**20 40 35.4**	**-0.1**
XAN				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.6						
XAN				LR	LR		
	comp=N,259nm,13.8s,MS4.3						
XAN				LR	LR		
	comp=E,257nm,15.8s,MS4.3						
XAN				LR	LR		
	comp=Z,311nm,16.6s,MS4.2						
MENT	**Mentasta**	**36.78**	**42**	*e*P	**P**	**20 40 38.6**	**+0.4**
EGAK	**Eagle**	**37.74**	**39**	*e*P	**P**	**20 40 45.4**	**-1.0**
	comp=Z,73nm,1.5s,mb5.2						
DAWY	**Dawson**	**38.58**	**40**	*e*P	**P**	**20 40 53.3**	**-0.1**
LZH	**Lanzhou**	**38.69**	**271**	*e*P	**P**	**20 40 55.0**	**+0.4**
LZH				AP	pP	20 41 05.5	+5.8
LZH				XP	sP	20 41 09.0	+7.2
LZH				PP	PP	20 42 28.4	+5.2
LZH				*e*S	**S**	**20 46 47.1**	**-3.5**
LZH				XS	sS	20 47 04.0	+5.0
LZH				AMB	AMB		
	comp=Z,27nm,1.3s,mb4.8						
LZH				AMB	AMB		
	comp=Z,104nm,5.7s						
LZH				LR	LR		
	comp=N,1µm,14.8s						
LZH				LR	LR		
	comp=Z,1µm,16.0s,MS4.9						
LZH	**Lanzhou**	**38.69**	**271**	*e*P	**P**	**20 40 55.0**	**+0.4**
	comp=Z,27nm,1.3s,mb4.8						
LZH				pP	pP	20 41 05.5	+5.8
LZH				sP	sP	20 41 09.0	+7.2
LZH				PP	PP	20 42 28.4	+5.2
LZH				PcP	PcP	20 43 10.5	+4.2
LZH				*e*S	**S**	**20 46 47.1**	**-3.5**
LZH				sS	sS	20 47 04.0	+5.0
LZH				SS	SS	20 49 27.0	-14
LZH				LR	LR		
	comp=Z,1µm,16.0s,MS4.9						
LZH	**Lanzhou**	**38.69**	**271**	*e*P	**P**	**20 40 55.0**	**+0.4**
LZH				*PP	pP	20 41 05.5	+5.8
LZH				*SP	sP	20 41 09.0	+7.2
LZH						20 42 28.4	
LZH						20 43 10.5	
LZH				*e*S	**S**	**20 46 47.1**	**-3.5**
LZH				*SS	sS	20 47 04.0	+5.0
LZH				SS	SS	20 49 27.0	-14
LZH				pmax	pmax		
	comp=Z,27nm,1.3s,mb4.8						
LZH				MLR	MLR		
	comp=Z,1µm,16.0s,MS4.9						
GTA	**Gaotai**	**39.64**	**279**	P	**P**	**20 41 02.9**	**+0.3**
GTA				AP	pP	20 41 07.4	-0.3
GTA				XP	sP	20 41 09.9	+0.2
GTA				PP	PP	20 42 38.2	+4.7
GTA				S	**S**	**20 47 05.8**	**+0.9**
GTA				SS	SS	20 49 52.8	-7.2
GTA				AMB	AMB		
	comp=Z,6.0nm,1.3s,mb4.2						
GTA				AMB	AMB		

	comp=Z,105nm,5.7s						
GTA				LR	LR		
	comp=N,375nm,15.2s,MS4.4						
GTA				LR	LR		
	comp=E,299nm,16.0s,MS4.4						
GTA				LR	LR		
	comp=Z,482nm,14.8s,MS4.5						
INK	Inuvik	40.41	33	P	P	20 41 08.9	+0.3
INK				pmax	pmax		
	comp=Z,7.0nm,0.8s						
INK	Inuvik	40.41	33	P	P	20 41 08.9	+0.3
	comp=Z,7.4nm,0.8s,mb4.5,baz=236,slow=6.4,SNR=7.8						
CD2	Chengdu	41.78	265	⇑iP	P	20 41 19.9	-0.5
CD2				AP	pP	20 41 24.4	-1.1
CD2				XP	sP	20 41 27.0	-0.5
CD2				PP	PP	20 43 00.2	+3.3
CD2				PCP	PcP	20 43 16.6	+0.2
CD2				S	S	20 47 36.4	-0.6
CD2				SS	SS	20 50 37.4	-5.5
CD2				SCS	ScS	20 51 20.5	-2.2
CD2				AMB	AMB		
	comp=Z,30nm,1.4s,mb4.7						
CD2				AMB	AMB		
	comp=Z,90nm,8.3s						
CD2				LR	LR		
	comp=N,310nm,20.2s,MS4.5						
CD2				LR	LR		
	comp=E,480nm,17.8s,MS4.5						
CD2				LR	LR		
	comp=Z,320nm,17.8s,MS4.2						
GYA	Guiyang	42.73	258	⇑iP	P	20 41 29.4	+1.3
GYA				AP	pP	20 41 32.4	-0.8
GYA				XP	sP	20 41 36.8	+1.5
GYA				PP	PP	20 43 11.2	+4.0
GYA				PCP	PcP	20 43 21.9	+2.4
GYA				SCP	ScP	20 47 11.6	+2.0
GYA				S	S	20 47 52.5	+1.5
GYA				SS	SS	20 50 56.0	-5.6
GYA				SCS	ScS	20 51 28.8	+0.2
GYA				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
GYA				AMB	AMB		
	comp=Z,140nm,6.2s						
GYA				LR	LR		
	comp=N,1µm,17.0s,MS5.1						
GYA				LR	LR		
	comp=E,2µm,17.4s,MS5.1						
GYA				LR	LR		
	comp=Z,2µm,16.2s,MS5.1						
ZALV	Zalesovo Beam	42.73	305	P	P	20 41 27.6	-0.2
	comp=Z,1.8nm,0.5s,mb4.0,baz=68,slow=7.4,SNR=11						
ZALV				PcP	PcP	20 43 17.6	-1.5
	comp=Z,4.1nm,1.0s,baz=79,slow=3.8,SNR=6.4						
ZALV				LR	LR	21 00 25.4	
	comp=Z,308nm,19.0s,MS4.2,baz=62,slow=38						
ZAL	Zalesovo	42.75	305	P	P	20 41 27.6	-0.3
ZAL						20 43 17.6	
NVS	Novosibirsk	43.27	307	eP	P	20 41 32.1	-0.1
NVS				eS	S	20 47 47.9	-10
NVS				e		20 51 24.2	
NVS				pmax	pmax		
	comp=Z,18nm,2.4s,mb4.4						
NVS				smax			
	comp=N,26nm,2.4s						
WMQ	Urumqi	45.35	291	eP	P	20 41 49.1	+0.1
WMQ				AP	pP	20 41 53.6	-0.5
WMQ				XP	sP	20 41 56.1	-0.1
WMQ				PP	PP	20 43 35.7	+0.8
WMQ				eS	S	20 48 28.5	-0.4
WMQ				SCS	ScS	20 51 42.9	-1.8
WMQ				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,57nm,7.9s						
WMQ				LR	LR		
	comp=N,274nm,17.5s,MS4.5						
WMQ				LR	LR		
	comp=E,356nm,16.2s,MS4.5						
WMQ				LR	LR		
	comp=Z,443nm,16.6s,MS4.5						
QIZ	Qiongzhong	45.98	247	P	P	20 41 57.6	+3.4
QIZ				PP	PP	20 43 42.1	+0.1
QIZ				S	S	20 48 43.3	+4.9
QIZ				LR	LR		
	comp=E,226nm,17.5s						
QIZ				LR	LR		
	comp=Z,281nm,15.0s,MS4.3						
KMI	Kunming	46.23	260	P	P	20 41 56.2	+0.1
KMI				AP	pP	20 42 05.9	+4.6
KMI				AMB	AMB		
	comp=Z,19nm,1.1s,mb4.9						
KMI				LR	LR		
	comp=N,268nm,19.5s,MS4.2						
KMI				LR	LR		
	comp=E,144nm,19.9s,MS4.2						
KMI				LR	LR		
	comp=Z,225nm,19.5s,MS4.1						
KMI	Kunming	46.23	260	P	P	20 41 56.2	+0.1
	comp=Z,19nm,1.1s,mb4.9						
KMI				pP	pP	20 42 05.9	+4.6
KMI				PPP		20 44 24.5	
KMI				S	S	20 48 33.1	-8.8
KMI				SS	SS	20 51 47.5	-20
KMI				LR	LR		
	comp=Z,230nm,19.5s,MS4.1						
KMI	Kunming	46.23	260	P	P	20 41 56.2	+0.1
KMI				*PP	pP	20 42 05.9	+4.6
KMI				PPP		20 44 24.5	
KMI				S	S	20 48 33.1	-8.8
KMI				SS	SS	20 51 47.5	-20
KMI				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.9						
KMI				MLR	MLR		
	comp=Z,230nm,19.5s,MS4.1						
MK31	Makanchi Array	47.24	297	eP	P	20 42 02.5	-1.2
MKAR	Makanchi Array	47.24	297	P	P	20 42 02.7	-1.0
MKAR				LR	LR	21 03 19.3	
MKAR	Makanchi Array	47.24	297	P	P	20 42 02.7	-1.1
MKAR				pmax	pmax		
	comp=Z,16nm,0.8s						
MKAR				MLR	MLR		
	comp=Z,316nm,18.7s						
MKAR	Makanchi Array	47.24	297	P	P	20 42 02.7	-1.0
	comp=Z,16nm,0.8s,mb5.0,baz=65,slow=7.1,SNR=76						
MKAR				LR	LR	21 03 19.3	
	comp=Z,316nm,18.7s,MS4.3,baz=30,slow=38						
KURK	Kurchatov	47.53	303	eP	P	20 42 04.0	-2.0
	comp=Z,18nm,0.9s,mb5.1						
KURK	Kurchatov	47.53	303	eP	P	20 42 04.0	-1.9
KURK				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
ALE	Alert	48.71	6	P	P	20 42 14.0	-0.7
	comp=Z,63nm,1.0s,mb5.6,SNR=6.2						
YKA	Yellowknife Ar	49.67	38	P	P	20 42 21.5	-0.7
YKA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
YKA	Yellowknife Ar	49.67	38	P	P	20 42 21.5	-0.7
	comp=Z,3.7nm,0.7s,mb4.5,baz=296,slow=7.4,SNR=54						
RES	Resolute Bay	49.67	19	eP	P	20 42 21.9	-0.3
	comp=Z,314nm,0.5s						
BRVK	Borovoye	50.93	309	eP	P	20 42 33.1	+1.2
	comp=Z,9.4nm,0.6s,mb4.9						
BRVK	Borovoye	50.93	309	eP	P	20 42 33.1	+1.2
BRVK				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
LSA	Lhasa	51.05	273	P	P	20 42 35.0	+1.9
LSA				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
LSA	Lhasa	51.05	273	eP	P	20 42 34.6	+1.5
	comp=Z,14nm,0.6s,mb5.1						
LSA	Lhasa	51.05	273	eP	P	20 42 34.6	+1.5
LSA				pmax	pmax		
	comp=Z,14nm,0.6s,mb5.1						
NANT	Nan	52.00	255	P	P	20 42 41.0	+0.7
	comp=Z,66nm,1.0s,mb5.5						
A05A	Maple Falls	52.80	55	⇓P	P	20 42 46.0	+0.1
	baz=53						
C04A	Brinnon	53.00	57	⇓P	P	20 42 47.2	-0.3
	baz=53						
A06A	Chilliwack	53.09	55	⇑P	P	20 42 47.6	-0.4
	baz=53						
CHG	Chiang Mai	53.14	257	⇑P	P	20 42 49.1	+0.3
	comp=Z,18nm,0.9s,mb5.0						
CHTO	Chiang Mai	53.14	257	eP	P	20 42 49.1	+0.3
	comp=Z,25nm,1.2s,mb5.0						
CHTO	Chiang Mai	53.14	257	eP	P	20 42 49.1	+0.3
CHTO				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.0						
B05A	Bryant	53.20	56	⇓P	P	20 42 48.4	-0.5
	baz=53						
TKM2	Tokmak 2	53.32	296	eP	P	20 42 49.1	-0.7
	comp=Z,3.9nm,0.8s,mb4.4						
TKM2	Tokmak 2	53.32	296	eP	P	20 42 49.1	-0.8
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
CM31	Chiang Mai Arr	53.40	257	eP	P	20 42 51.4	+0.7
	comp=Z,6.0nm,0.6s,mb4.7						
B06A	Marblemount	53.40	55	⇑P	P	20 42 49.8	-0.6
	baz=53						
A07A	Ashnola River,	53.72	54	⇓P	P	20 42 52.4	-0.2
	baz=54						
C05A	Tolt Reservoir	53.74	56	⇓P	P	20 42 52.2	-0.6
	baz=54						
USP	Ospenovka	53.79	297	P	P	20 42 53.3	+0.1
	SNR=9.0						
CHMS	Chumysh	53.79	297	P	P	20 42 52.6	-0.7
	SNR=5.8						
KBK	Karagaybulak	53.87	296	P	P	20 42 52.0	-1.8
	SNR=6.4						
KZA	Kyzart	54.01	295	P	P	20 42 55.7	+0.7
	SNR=11						
C06A	Tall Timber Ra	54.06	56	⇑P	P	20 42 54.9	-0.2
	baz=54						
G03A	Yamhill	54.15	60	⇓P	P	20 42 55.9	0.0
	baz=54						
B07A	Winthrop	54.19	55	⇓P	P	20 42 55.8	-0.3
	baz=54						
F04A	Amboy	54.31	59	⇓P	P	20 42 56.6	-0.4
	baz=54						
E05A	Randle	54.33	58	⇓P	P	20 42 56.6	-0.6
	baz=54						
A08A	Turner Farm, O	54.38	54	⇑P	P	20 42 56.9	-0.6
	baz=54						
D06A	Cle Elum	54.49	57	⇑P	P	20 42 57.8	-0.5
	baz=54						
ETW	Entiat	54.55	56	P	P	20 42 58.9	+0.1
C07A	Waterville	54.65	56	P	P	20 42 59.0	-0.5
	baz=54,SNR=5.4						
B08A	Colville Reser	54.68	55	P	P	20 42 59.5	-0.2
	baz=54,SNR=6.8						
A09A	Danville	54.74	54	⇑P	P	20 42 59.7	-0.5
	baz=54,SNR=6.6						
E06A	Yakima	54.78	57	⇓P	P	20 43 00.3	-0.1
	baz=54						
EBG	Ellensburg	54.81	57	P	P	20 43 01.1	+0.4
ARU	Arti	54.87	317	⇑iP	P	20 43 01.9	+1.0
ARU				e		20 44 00.0	
ARU				e		20 45 02.3	
ARU				ePPP		20 46 12.2	
ARU				eS	S	20 50 42.2	+1.1
ARU				eSS	SS	20 54 22.0	-1.8
ARU				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
D07A	Quincy	54.98	56	⇓P	P	20 43 01.9	+0.1
	baz=55						
EDM	Edmonton	55.06	47	eP	P	20 43 01.8	-0.6
J02A	Umpqua	55.09	62	⇓P	P	20 43 02.1	-0.7
	baz=55						
H04A	Detroit Lake	55.15	60	⇓P	P	20 43 02.6	-0.6
	baz=55						
C08A	Higginbotham F	55.16	55	⇓P	P	20 43 02.5	-0.7
	baz=55						
B09A	Rice	55.29	54	P	P	20 43 04.0	-0.1
	baz=55,SNR=5.5						
A10A	Northport	55.29	53	⇓P	P	20 43 03.7	-0.4
	baz=55						
G05A	Wamic	55.34	59	⇑P	P	20 43 04.3	-0.2
	baz=55						
F06A	Goldendale	55.34	58	⇑P	P	20 43 04.5	0.0
	baz=55						
E07A	Sunnyside	55.41	57	⇑P	P	20 43 05.4	+0.4
	baz=55						
J03A	Ideyld Park	55.45	61	⇑P	P	20 43 06.3	+0.9
	baz=55						
K02A	Glendale	55.49	62	⇓P	P	20 43 06.2	+0.5
	baz=55						
I04A	Tendick Farm,	55.53	61	⇑P	P	20 43 06.0	+0.1
	baz=55,SNR=5.6						
C09A	Chrisman Ranch	55.58	55	⇓P	P	20 43 06.4	+0.2
	baz=55						
D08A	Wollman Farm,	55.65	56	⇑P	P	20 43 06.6	-0.1
	baz=55						
CROR	Criterion Ridg	55.67	59	P	P	20 43 07.5	+0.6
G06A	Carlson Farm,	55.73	58	⇑P	P	20 43 07.8	+0.5
	baz=56						
H05A	Madras	55.73	59	⇓P	P	20 43 07.2	-0.1
	baz=56						
F07A	Phinny Hill Vi	55.75	57	⇓P	P	20 43 07.9	+0.4
	baz=56						
L02A	Cave Junction	55.78	63	⇑P	P	20 43 07.6	-0.1
	baz=56						
B10A	Chitwood Farm,	55.87	54	⇑P	P	20 43 08.3	+0.1
	baz=56						
E08A	Dider Farm, El	55.90	56	⇑P	P	20 43 08.6	+0.1
	baz=56						
HUMO	Hull Mountain	55.91	62	⇑P	P	20 43 09.1	+0.5
	baz=56						
A11A	Hall Mountain,	55.95	53	P	P	20 43 09.3	+0.5
	baz=56,SNR=6.6						
D09A	Jones Farm, Ri	55.99	55	⇑P	P	20 43 08.8	-0.3
	baz=56						
J04A	Umpqua Nationa	56.04	61	⇓P	P	20 43 10.0	+0.4
	baz=56,SNR=6.6						
C10A	Spilker Farm,	56.10	54	⇓P	P	20 43 09.9	-0.1
	baz=56						
VIPM	Ingram Point	56.17	59	P	P	20 43 10.5	0.0
H06A	Lindquist Farm	56.20	59	P	P	20 43 10.9	+0.3
	baz=56,SNR=6.7						
B11A	Sandpoint	56.25	53	⇓P	P	20 43 11.4	+0.5
	baz=56						
G07A	Ruggs Ranch, H	56.27	58	⇑P	P	20 43 10.8	-0.4
	baz=56						
A12A	Yaak River Ran	56.35	52	⇑P	P	20 43 12.1	+0.4
	baz=56						
E09A	Wood Farm, Sta	56.40	56	P	P	20 43 11.8	-0.3
	baz=56,SNR=6.3						
J05A	Fort Rock	56.53	61	⇑P	P	20 43 13.9	+0.9
	baz=56,SNR=14						
D10A	Wagner Farm, O	56.57	55	P	P	20 43 13.1	-0.2
	baz=56,SNR=5.1						
YBH	Yreka Blue Hor	56.57	63	⇑P	P	20 43 13.7	+0.4
	baz=56						
K04A	Chilquin	56.63	62	⇓P	P	20 43 14.6	+0.8
	baz=56						
G08A	Pilot Rock	56.66	58	P	P	20 43 14.0	+0.1
	baz=56,SNR=5.9						
M02C	Callahan	56.69	63	⇓P	P	20 43 15.0	+0.8
	baz=56						
I06A	Prineville	56.74	59	⇑P	P	20 43 15.1	+0.6
	baz=56,SNR=9.4						
APA	Apatity	56.79	337	⇑iP	P	20 43 22.0	+7.5
APA				pmax	pmax		
	comp=Z,260nm,2.0s,mb5.9						
L04A	Klamath Falls	56.80	62	⇑P	P	20 43 15.3	+0.3
	baz=57						
E10A	Myers Farm, Un	56.99	55	⇑P	P	20 43 16.0	-0.3
	baz=57						
F09A	S2 Ranch, Elgi	57.01	57	⇓P	P	20 43 16.7	+0.3
	baz=57						
K05A	Summer Lake	57.06	61	⇑P	P	20 43 17.3	+0.5
	baz=57,SNR=7.5						
M04C	Macdoel	57.06	62	⇑P	P	20 43 17.2	+0.3
	baz=57,SNR=6.0						
I07A	Izee	57.06	59	⇑P	P	20 43 17.1	+0.3
	baz=57,SNR=9.1						
D11A	Klaveano Farm,	57.09	55	⇑P	P	20 43 16.3	-0.7
	baz=57						
J06A	Christmas Vall	57.18	60	⇓P	P	20 43 18.0	+0.3
	baz=57,SNR=8.4						
M03C	McCloud	57.20	63	⇑P	P	20 43 18.0	+0.2
	baz=57						
ARCES	ARCESS Array B	57.23	341	P	P	20 43 17.3	-0.3
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES				MLR	MLR		
	comp=Z,213nm,18.8s						
ARCES	ARCESS Array B	57.23	341	P	P	20 43 17.3	-0.3
	comp=Z,2.1nm,0.8s,mb4.2,baz=33,slow=8.6,SNR=2.5						
ARCES				LR	LR	21 09 43.0	
	comp=Z,213nm,18.8s,MS4.3,baz=26,slow=38						
F10A	Beach Ranch, E	57.23	56	⇓P	P	20 43 17.8	-0.2
	baz=57						
H08A	Prairie City	57.28	58	P	P	20 43 18.8	+0.5
	baz=57,SNR=8.4						
B13A	Whitefish	57.31	52	P	P	20 43 18.9	+0.4
	baz=57,SNR=8.9						
G09A	Cove	57.34	57	⇑P	P	20 43 18.8	+0.1
	baz=57,SNR=5.8						
WDC	Whiskeytown Da	57.36	64	eP	P	20 43 18.8	-0.2
	comp=Z,12nm,1.1s,mb4.8						
WDC	Whiskeytown Da	57.36	64	eP	P	20 43 18.8	-0.2
WDC				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
WDC	Whiskeytown Da	57.36	64	⇓P	P	20 43 19.3	+0.3
	baz=57						
K06A	Valley Falls	57.40	61	P	P	20 43 20.0	+0.8
	baz=57,SNR=12						
O02C	Red Bluff	57.46	64	⇓P	P	20 43 20.0	+0.3
	baz=57						
L05A	Lakeview	57.50	62	⇑P	P	20 43 20.9	+0.9
	baz=57,SNR=8.4						
E11A	Bogner Ranch,	57.57	55	P	P	20 43 20.0	-0.4
	baz=57,SNR=7.8						
J07A	Hines	57.60	60	⇓P	P	20 43 21.0	+0.3
	baz=57						
D12A	Red Ives Fores	57.62	54	⇑P	P	20 43 20.5	-0.3
	baz=57						
LTIM	Timbered Crate	57.64	63	P	P	20 43 21.5	+0.6
C13A	Hot Springs	57.67	53	⇑P	P	20 43 21.5	+0.4
	baz=57						
I08A	Drewsey	57.71	59	⇑P	P	20 43 21.9	+0.6
	baz=58,SNR=6.8						
M05C	Lookout	57.73	62	⇑P	P	20 43 21.8	+0.2
	baz=58,SNR=7.0						
H09A	Durkee	57.77	57	⇑P	P	20 43 22.4	+0.6
	baz=58						
GASB	Alder Springs	57.82	65	⇑P	P	20 43 22.6	+0.4
	baz=58						
BMO	Blue Mountains	57.86	57	eP	P	20 43 22.4	-0.1
	comp=Z,27nm,1.3s,mb5.1						
HATC	Hat Creek Radi	57.87	63	⇑P	P	20 43 22.9	+0.3
	baz=58						
F11A	Grangeville	57.88	56	⇓P	P	20 43 22.2	-0.3
	baz=58						
MOD	Modoc	57.91	61	eP	P	20 43 22.9	+0.1
	comp=Z,16nm,1.2s,mb4.9						
MOD	Modoc	57.91	61	⇑P	P	20 43 22.8	0.0
	baz=58,SNR=10						
O03C	Acorn Hollow,	58.03	64	⇑P	P	20 43 23.6	-0.1
	baz=58						
K07A	Rock Creek Ran	58.05	60	P	P	20 43 24.6	+0.8
	baz=58,SNR=8.4						
D13A	Huson	58.09	54	⇑P	P	20 43 23.6	-0.4
	baz=58,SNR=8.8						
J08A	Circle Bar Ran	58.09	59	⇑P	P	20 43 24.8	+0.7
	baz=58,SNR=7.6						
I09A	Lost Marbles R	58.15	58	⇑P	P	20 43 25.2	+0.7
	baz=58						
M06C	Likely Place G	58.23	62	⇓P	P	20 43 25.4	+0.4
	baz=58						
H10A	Noah’s Angus R	58.34	57	P	P	20 43 26.0	+0.2
	baz=58,SNR=20						
O04C	Chester	58.40	63	P	P	20 43 26.9	+0.6
	baz=58,SNR=9.6						
L07A	Adell	58.40	61	P	P	20 43 27.2	+0.9
	baz=58,SNR=6.2						
ELFS	Eagle Lake Fie	58.44	63	P	P	20 43 27.2	+0.7
	baz=58,SNR=8.8						
BOK	Bokaro	58.45	272	eP	P	20 43 24.9	-2.0
BOK				AMb	AMB	20 43 29.5	
	comp=Z,21nm,1.1s,mb5.1						
F12A	Elk City	58.46	55	⇑P	P	20 43 26.9	+0.2
	baz=58						
K08A	Mann Creek Ran	58.47	60	P	P	20 43 27.6	+0.8
	baz=58,SNR=8.5						
J09A	Fry Pan Ranch,	58.52	59	P	P	20 43 27.8	+0.8
	baz=58,SNR=15						
WVOR	Wild Horse Val	58.56	60	eP	P	20 43 27.5	+0.1
	comp=Z,42nm,1.6s,mb5.2						
WVOR	Wild Horse Val	58.56	60	eP	P	20 43 27.5	+0.1
WVOR				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.2						
D14A	Greenough	58.61	53	P	P	20 43 27.7	+0.1
	baz=58,SNR=12						
I10A	Payette	58.61	58	⇑P	P	20 43 28.3	+0.6
	baz=58						
ORV	Oroville	58.62	64	⇑P	P	20 43 27.3	-0.5
	baz=58						
SUTB	Sutter Butte	58.65	65	⇓P	P	20 43 27.8	-0.2
	baz=58						
H11A	Donnelly	58.68	57	⇓P	P	20 43 28.1	-0.1
	baz=58,SNR=12						
O05C	Quincy	58.72	64	⇑P	P	20 43 28.9	+0.3
	baz=58						
OHCM	Honcut	58.77	64	eP	P	20 43 28.4	-0.4
FARB	Farallon Islan	58.85	67	⇑P	P	20 43 29.1	-0.3
	baz=59						
CHMT	Chamberlain Mo	58.85	53	eP	P	20 43 29.1	-0.3
L08A	Fields	58.88	60	P	P	20 43 30.2	+0.6
	baz=59,SNR=11						
N06A	Buffalo Meadow	58.89	62	⇑P	P	20 43 29.6	-0.1
	baz=59,SNR=9.1						
M07A	Soldier Meadow	58.89	61	P	P	20 43 30.3	+0.6
	baz=59,SNR=19						
K09A	Rome	58.93	59	P	P	20 43 30.4	+0.5
	baz=59,SNR=7.0						
F13A	Darby	58.95	55	P	P	20 43 30.0	-0.1
	baz=59,SNR=14						
E14A	Clinton	59.03	54	⇑P	P	20 43 30.5	-0.1
	baz=59,SNR=6.0						
J10A	Berg Farm, Mel	59.04	58	⇓P	P	20 43 30.7	0.0
	baz=59						
D15A	Lincoln	59.17	53	⇓P	P	20 43 31.5	0.0
	baz=59,SNR=8.4						
I11A	Placerville	59.20	57	⇑P	P	20 43 31.7	-0.1
	baz=59						
M08A	Happy Creek Ra	59.32	61	P	P	20 43 33.0	+0.3
	baz=59,SNR=8.6						
K10A	MacKenzie Ranc	59.38	59	P	P	20 43 33.7	+0.7
	baz=59,SNR=15						
N07B	Gerlach	59.39	62	⇑P	P	20 43 33.4	+0.2
	baz=59,SNR=9.8						
H12A	Diamond D Ranc	59.43	56	P	P	20 43 33.0	-0.4
	baz=59,SNR=8.7						
G13A	Cobalt	59.44	55	⇑P	P	20 43 33.3	-0.1
	baz=59,SNR=35						
F14A	Wisdom	59.47	54	⇑P	P	20 43 33.5	-0.1
	baz=59,SNR=8.0						
E15A	Deer Lodge	59.48	53	P	P	20 43 34.0	+0.3
	baz=59,SNR=9.8						
LAVA	Lava Cap Winer	59.58	65	⇓P	P	20 43 34.3	-0.2
	baz=59						
MFID	Camas Ranch	59.58	58	⇓P	P	20 43 34.5	0.0
	baz=59						
WENL	Wente Brothers	59.66	66	⇓P	P	20 43 35.1	0.0
	baz=59						
BNLO	Ben Lomond (Sa	59.72	67	⇑P	P	20 43 34.8	-0.7
	baz=60						
H13A	Challis	59.76	56	P	P	20 43 35.9	+0.2
	baz=60,SNR=21						
G14A	Jackson	59.77	55	⇓P	P	20 43 35.6	-0.1
	baz=60						
O07A	Toulon	59.83	62	⇓P	P	20 43 36.6	+0.4
	baz=60,SNR=15						
WCN	Washoe City	59.84	64	⇓P	P	20 43 36.0	-0.3
	baz=60						
N08A	GE Springer Mi	59.88	61	P	P	20 43 36.7	+0.2
	baz=60,SNR=11						
F15A	Butte	59.93	54	⇑P	P	20 43 36.8	0.0
	baz=60,SNR=22						
FCC	Fort Churchill	60.01	34	eP	P	20 43 36.3	-0.9
	comp=Z,30nm,1.4s,mb5.1						
FCC	Fort Churchill	60.01	34	eP	P	20 43 36.3	-0.8
FCC				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.1						
EGMT	Eagleton	60.02	50	eP	P	20 43 37.2	-0.1
	comp=Z,44nm,1.5s,mb5.3						
R05C	Kirkwood Meado	60.02	64	⇓P	P	20 43 37.3	-0.2
	baz=60,SNR=5.0						
L10A	Juniper Basin	60.05	59	⇓P	P	20 43 37.8	+0.2
	baz=60,SNR=12						
J12A	Stokes Ranch,	60.10	57	P	P	20 43 38.7	+0.7
	baz=60,SNR=19						
N09A	Rock Creek Ran	60.20	61	⇓P	P	20 43 39.0	+0.3
	baz=60,SNR=5.3						
I13A	Wildhorse Cree	60.24	56	P	P	20 43 39.5	+0.5
	baz=60,SNR=19						
CMB	Columbia Colle	60.25	65	eP	P	20 43 39.0	-0.1
	comp=Z,30nm,1.5s,mb5.1						
CMB	Columbia Colle	60.25	65	eP	P	20 43 39.0	-0.1
CMB				pmax	pmax		

	comp=Z,30nm,1.5s,mb5.1						
CMB	Columbia Colle	60.25	65	⇑P	P	20 43 39.2	+0.1
	baz=60,SNR=6.8						
HLID	Hailey	60.29	57	eP	P	20 43 39.4	+0.1
	comp=Z,19nm,1.3s,mb5.0						
HLID	Hailey	60.29	57	⇑P	P	20 43 39.8	+0.5
	baz=60,SNR=14						
PACP	Pacheco Peak	60.34	66	⇓P	P	20 43 39.8	+0.1
	baz=60						
M10A	I.L. Ranch, Tu	60.35	60	⇓P	P	20 43 40.3	+0.6
	baz=60,SNR=12						
G15A	Dillon	60.36	54	P	P	20 43 39.8	+0.1
	baz=60,SNR=11						
MCMT	McKenzie Canyo	60.37	55	eP	P	20 43 39.6	-0.2
L11A	Cat Creek Ranc	60.41	59	P	P	20 43 40.9	+0.8
	baz=60,SNR=23						
R06C	Coleville	60.51	64	⇓P	P	20 43 41.2	+0.4
	baz=60,SNR=7.2						
BOZ	Bozeman (W)	60.52	53	eP	P	20 43 41.3	+0.5
	comp=Z,46nm,1.4s,mb5.4						
BOZ	Bozeman (W)	60.52	53	P	P	20 43 41.4	+0.6
BOZ				pmax	pmax		
	comp=Z,47nm,1.4s,mb5.4						
BOZ	Bozeman (W)	60.52	53	⇑P	P	20 43 41.4	+0.6
	baz=60						
J13A	Cove Ranch, Pi	60.53	57	P	P	20 43 41.6	+0.7
	baz=60,SNR=12						
HAST	UC Hastings Re	60.57	67	⇑P	P	20 43 40.9	-0.4
	baz=60						
P08A	Dixie Valley	60.60	62	⇑P	P	20 43 42.0	+0.6
	baz=60						
K12A	Draper Farm, C	60.60	58	P	P	20 43 42.0	+0.6
	baz=60,SNR=7.5						
BMN	Battle Mountai	60.64	61	P	P	20 43 33.5	-8.2
BMN				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.9						
S06C	San Francisco	60.67	65	⇓P	P	20 43 42.0	0.0
	baz=60,SNR=8.2						
S05C	Merced	60.72	66	⇓P	P	20 43 42.0	-0.3
	baz=60						
O09A	Fish Creek Ran	60.83	61	⇑P	P	20 43 43.6	+0.5
	baz=61,SNR=11						
L12A	House Creek Ra	60.84	58	⇑P	P	20 43 43.9	+0.8
	baz=61,SNR=7.0						
JOF	Joensuu	60.85	334	ep	P	20 43 41.6	-1.2
	comp=Z,0.7nm,0.3s,mb4.3						
JOF	Joensuu	60.85	334	eP	P	20 43 41.6	-1.2
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.4						
M11A	Holland Ranch,	60.85	59	⇑P	P	20 43 43.9	+0.8
	baz=61,SNR=13						
NDI	New Delhi	61.02	282	eP	P	20 43 44.9	+0.4
NDI				AMb	AMB	20 43 46.0	
	comp=Z,24nm,0.9s,mb5.3						
R07C	Lee Vining	61.03	64	⇑P	P	20 43 44.9	+0.4
	baz=61,SNR=9.6						
K13A	Stover Farm, H	61.06	57	⇓P	P	20 43 44.7	+0.2
	baz=61						
U04C	Hernandez Rese	61.06	67	⇓P	P	20 43 44.9	+0.2
	baz=61						
QLMT	Earthquake Lak	61.15	54	eP	P	20 43 45.6	+0.5
QLMT				e		20 43 55.8	
O10A	Cortez Mining,	61.16	61	⇑P	P	20 43 46.0	+0.7
	baz=61,SNR=7.6						
Q08A	Gabbs	61.22	63	⇓P	P	20 43 45.7	+0.1
	baz=61						
N11A	Elko Archery C	61.27	60	⇑P	P	20 43 46.1	+0.1
	baz=61						
T06C	Millerton Lake	61.32	66	⇑P	P	20 43 46.5	+0.1
	baz=61						
KCC	Kaiser Creek	61.35	65	⇑P	P	20 43 46.9	+0.3
	baz=61						
M12A	Wells	61.37	59	⇓P	P	20 43 47.0	+0.4
	baz=61,SNR=13						
PKD	Parkfield	61.48	67	⇑P	P	20 43 47.0	-0.6
	baz=61						
GCMT	Greycliff	61.49	52	eP	P	20 43 48.0	+0.6
GCMT				e		20 43 57.7	
L13A	Double Diamond	61.49	58	⇓P	P	20 43 48.0	+0.5
	baz=61						
YMR	Madison River	61.51	54	eP	P	20 43 48.3	+0.7
	comp=Z,50nm,1.5s,mb5.4						
P10A	Eureka	61.61	61	⇑P	P	20 43 48.8	+0.5
	baz=61						
ELK	Elko	61.61	60	eP	P	20 43 48.8	+0.5
YNR	Norris Junctio	61.63	54	eP	P	20 43 49.7	+1.3
K14A	Jones Ranch, D	61.64	57	P	P	20 43 49.5	+1.0
	baz=61,SNR=9.8						
N12A	Clover Valley,	61.66	60	⇑P	P	20 43 48.9	+0.3
	baz=61,SNR=7.1						
Q09A	Carvers	61.68	62	⇑P	P	20 43 49.0	+0.2
	baz=61						
YFT	Old Faithful	61.72	54	eP	P	20 43 51.0	+2.0
O11A	Cowboy Ranch,	61.76	60	⇑P	P	20 43 49.6	+0.3
	baz=62,SNR=7.3						
MTUM	Tungsten Hills	61.80	65	eP	P	20 43 50.2	+0.6
M13A	Montello	61.84	59	⇑P	P	20 43 50.1	+0.3
	baz=62,SNR=12						
V05C	Boulder Hill,	61.93	67	⇑P	P	20 43 50.4	-0.1
	baz=62						
S08C	White Mtn Res	61.94	64	⇑P	P	20 43 51.0	+0.5
	baz=62,SNR=6.6						
HELL	Mitchell Peak,	61.95	65	P	P	20 43 50.2	-0.4
	baz=62,SNR=10						
IMW	Indian Meadow	62.02	55	eP	P	20 43 51.6	+0.6
	comp=Z,34nm,1.3s,mb5.3						
IMW				e		20 44 02.3	
P11A	Circle Ranch,	62.07	61	⇑P	P	20 43 51.6	+0.1
	baz=62						
R09A	Tonopah	62.13	63	⇓P	P	20 43 51.8	0.0
	baz=62,SNR=24						
RLMT	Red Lodge	62.13	53	eP	P	20 43 52.4	+0.7
	comp=Z,31nm,1.3s,mb5.3						
RLMT				e		20 44 01.9	
N13A	Wendover, West	62.14	59	⇑P	P	20 43 52.2	+0.4
	baz=62						
Q10A	Clear Creek Ra	62.16	62	⇓P	P	20 43 52.1	+0.1
	baz=62						
TIN	Tinemaha	62.19	65	⇓P	P	20 43 52.3	+0.1
	baz=62						
MOOW	Moose Ponds	62.22	55	eP	P	20 43 53.2	+0.8
	comp=Z,29nm,1.5s,mb5.2						
LOHW	Long Hollow	62.39	55	eP	P	20 43 54.6	+1.1
	comp=Z,46nm,1.4s,mb5.4						
REDW	Red Top Meadow	62.41	55	eP	P	20 43 54.7	+1.0
	comp=Z,68nm,1.4s,mb5.6						
VES	Vestal, Richgr	62.45	66	⇓P	P	20 43 53.4	-0.7
	baz=62						
KBL	Kabul	62.48	292	eP	P	20 43 52.6	-1.6
R10A	Warm Springs	62.56	62	⇑P	P	20 43 54.7	0.0
	baz=62						
Q11A	Duckwater	62.59	62	⇓P	P	20 43 54.8	-0.1
	baz=62,SNR=6.1						
PKM	Peak Mountain	62.61	67	⇑P	P	20 43 55.2	+0.1
	baz=62						
P12A	McGill	62.62	61	⇓P	P	20 43 55.1	0.0
	baz=62						
S10A	Tonopah Range,	62.62	63	P	P	20 43 55.3	+0.1
	baz=62,SNR=10						
CWC	Cottonwood Cre	62.68	65	⇓P	P	20 43 55.4	-0.2
	baz=62						
GRAC	Grapevine Rang	62.75	64	⇑P	P	20 43 55.7	-0.3
	baz=62						
KAF	Kangasniemi	62.92	335	ep	P	20 43 55.9	-0.9
	comp=Z,0.4nm,0.3s,mb4.0						
ISA	Isabella	62.94	66	⇓P	P	20 43 56.0	-1.3
	baz=63						
Q12A	Willow Creek R	62.95	61	⇑P	P	20 43 57.4	+0.1
	baz=63,SNR=6.6						
HWUT	Hardware Ranch	63.16	57	eP	P	20 43 59.1	+0.4
	comp=Z,59nm,1.8s,mb5.4						
KAKA	Kakadu	63.23	204	eP	P	20 43 58.9	-0.4
	comp=Z,6.1nm,0.6s,mb4.9						
MPMC	Manual Prospec	63.29	65	⇓P	P	20 43 59.4	-0.2
	baz=63,SNR=10.0						
BSC	Santa Cruz Isl	63.31	68	⇑P	P	20 43 59.6	-0.2
	baz=63						
DUG	Dugway	63.37	59	eP	P	20 44 00.2	+0.1
	comp=Z,41nm,1.4s,mb5.4						
DUG	Dugway	63.37	59	eP	P	20 44 00.2	+0.1
DUG				pmax	pmax		
	comp=Z,41nm,1.3s,mb5.4						
DUG	Dugway	63.37	59	⇓P	P	20 44 00.3	+0.2
	baz=63						
FURC	Furnace Creek,	63.41	64	P	P	20 44 00.5	+0.1
	baz=63,SNR=6.9						
PDAR	Pinedale Array	63.52	55	P	P	20 44 01.1	+0.1
	comp=Z,8.4nm,1.0s,mb4.7,baz=300,slow=2.9,SNR=43						
FINES	FINESS Array B	63.53	335	P	P	20 43 59.6	-1.2
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
FINES				MLR	MLR		
	comp=Z,228nm,20.8s						
FINES	FINESS Array B	63.53	335	P	P	20 43 59.6	-1.1
	comp=Z,1.5nm,0.5s,mb4.3,baz=40,slow=6.9,SNR=7.2						
FINES				LR	LR	21 13 46.5	
	comp=Z,228nm,20.8s,MS4.3,baz=354,slow=38						
R12A	Pony Springs,	63.54	61	⇓P	P	20 44 01.2	-0.1
	baz=63,SNR=10						
LRMC	Laurel Mountai	63.55	66	⇑P	P	20 44 01.5	+0.2
	baz=63						
BLG	Laguna Peak	63.59	68	⇓P	P	20 44 01.2	-0.5
	baz=63						
EDW2	Edwards Air Fo	63.76	66	⇑P	P	20 44 02.5	-0.2
	baz=64,SNR=9.2						
U10A	Ash Meadows, A	63.76	64	⇓P	P	20 44 02.8	0.0
	baz=64						
NLU	North Lily Min	63.96	59	eP	P	20 44 04.2	+0.2
DECC	Green Verdugo	63.96	67	⇓P	P	20 44 03.4	-0.6
	baz=64						
DAU	Daniels Canyon	64.12	58	eP	P	20 44 05.7	+0.6
MPU	Maple Canyon	64.17	58	eP	P	20 44 05.7	+0.4
	comp=Z,4.0nm,0.5s,mb4.7						
GSC	Goldstone	64.21	65	⇑P	P	20 44 05.4	-0.3
	baz=64						
VIS	Vishakhapatnam	64.36	268	eP	P	20 44 06.7	-0.2
VIS				AMb	AMB	20 44 12.4	
	comp=Z,26nm,1.1s,mb5.2						
BFSC	Mount Baldy St	64.38	67	⇓P	P	20 44 06.4	-0.4
	baz=64						
BHPL	Bhopal	64.53	277	eP	P	20 44 07.0	-1.0
BHPL				AMb	AMB	20 44 09.8	
	comp=Z,48nm,1.0s,mb5.5						
T12A	Moapa	64.54	63	⇑P	P	20 44 07.5	-0.3
	baz=64						
TUQ	Turquoise Mtn.	64.66	65	⇓P	P	20 44 07.9	-0.7
	baz=64						
V11A	Goodsprings	64.69	64	⇓P	P	20 44 08.5	-0.3
	baz=64						
CCUT	Cedar City	64.80	61	eP	P	20 44 09.8	+0.3
HEC	Hector,Ludlow	64.81	65	⇓P	P	20 44 09.2	-0.4
	baz=65,SNR=9.9						
T13A	Saint George	64.83	62	⇓P	P	20 44 09.8	+0.1
	baz=65						
U12A	Valley of Fire	64.84	63	⇑P	P	20 44 09.6	-0.1
	baz=65						
MSU	Marysvale	64.85	60	eP	P	20 44 10.2	+0.3
MSU	Marysvale	64.85	60	P	P	20 44 10.9	+1.1
NGP	Nagpur	64.86	274	eP	P	20 44 09.1	-1.1
NGP				AMb	AMB	20 44 11.4	
	comp=Z,46nm,0.7s,mb5.6						
TMUT	Trail Mountain	64.89	59	eP	P	20 44 10.3	+0.3
MURC	Murrieta	65.09	67	⇑P	P	20 44 10.9	-0.6
	baz=65						
V12A	Nelson	65.12	64	⇓P	P	20 44 11.4	-0.2
	baz=65						
GMRC	Granite Mounta	65.26	65	P	P	20 44 12.4	-0.1
	baz=65,SNR=10						
ULM	Lac du Bonnet	65.26	42	P	P	20 44 11.0	-1.3
	comp=Z,3.7nm,0.8s,mb4.5,baz=313,slow=11,SNR=11						
T14A	Hurricane	65.29	62	⇑P	P	20 44 12.7	+0.1
	baz=65						
W12A	Cal Nev Ari	65.39	64	⇓P	P	20 44 13.0	-0.4
	baz=65						
SRU	San Rafael	65.41	58	eP	P	20 44 13.4	-0.1
	comp=Z,53nm,1.5s,mb5.3						
SRU	San Rafael	65.41	58	P	P	20 44 13.5	0.0
SRU				pmax	pmax		
	comp=Z,53nm,1.4s,mb5.4						
PFO	Pinyon Flat Ob	65.55	66	⇑P	P	20 44 13.7	-0.7
	baz=65						
BELC	Belle Mtn.	65.57	66	⇓P	P	20 44 13.6	-1.0
	baz=65						
109C	Camp Elliot, M	65.63	67	⇓P	P	20 44 14.2	-0.7
	baz=65						
NEE2	Needles Airpor	65.90	64	⇑P	P	20 44 16.2	-0.5
	baz=66						
IRM	Iron Mountain	65.98	65	⇓P	P	20 44 17.0	-0.3
	baz=66,SNR=16						
MONP	Monument Peak	66.05	67	⇓P	P	20 44 17.5	-0.2
	baz=66						
W13A	Hualapai Mount	66.12	64	⇑P	P	20 44 17.9	-0.2
	baz=66,SNR=5.4						
BC3	Big Chuckw Mtn	66.14	66	⇓P	P	20 44 17.5	-0.7
	baz=66,SNR=6.4						
SWSC	Sam W. Stewart	66.41	67	⇑P	P	20 44 19.1	-0.9
	baz=66						
X13A	Yucca	66.50	64	⇑P	P	20 44 20.2	-0.3
	baz=66,SNR=7.8						
PDMCI	Parker Dam,Lak	66.51	64	⇑P	P	20 44 20.2	-0.3
	baz=66,SNR=6.9						
W14A	Seligman	66.53	63	⇓P	P	20 44 20.9	+0.2
	baz=66,SNR=14						
AKL	Akola	66.54	275	eP	P	20 44 21.3	+0.3
AKL				AMb	AMB	20 44 23.4	
	comp=Z,32nm,1.2s,mb5.2						
Y12C	Blythe	66.64	65	P	P	20 44 21.4	0.0
	baz=66,SNR=5.1						
GLA	Glamis	66.93	66	P	P	20 44 23.3	0.0
	baz=67,SNR=8.6						
Y13A	Salome	67.03	65	⇑P	P	20 44 24.2	+0.3
	baz=67						
W15A	Williams	67.04	63	⇓P	P	20 44 24.4	+0.4
	baz=67						
X14A	Yava	67.15	64	⇓P	P	20 44 25.1	+0.4
	baz=67,SNR=11						
WUAZ	Wupatki	67.35	62	eP	P	20 44 26.3	+0.4
	comp=Z,28nm,1.5s,mb5.1						
WUAZ	Wupatki	67.35	62	⇑P	P	20 44 26.1	+0.2
	baz=67						
SMCO	Snowmass	67.39	56	eP	P	20 44 26.3	+0.2
	comp=Z,14nm,1.0s,mb4.9						
SMCO				e		20 44 36.5	
Y14A	Wickenburg	67.44	64	⇑P	P	20 44 26.8	+0.2
	baz=67						
X15A	Humboldt	67.53	63	P	P	20 44 27.7	+0.6
	baz=67,SNR=6.2						
NB2	NORSAR Subarra	67.59	342	P	P	20 44 25.7	-1.3
	comp=Z,10nm,1.2s,mb4.7,baz=30,slow=6.5						
NOA	NORSAR Array B	67.59	342	P	P	20 44 25.5	-1.5
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,158nm,20.0s						
NOA	NORSAR Array B	67.59	342	P	P	20 44 25.4	-1.6
	comp=Z,2.3nm,0.8s,mb4.3,baz=26,slow=6.4,SNR=6.2						
NOA				LR	LR	21 18 41.9	
	comp=Z,158nm,20.0s,MS4.2,baz=5.0,slow=40						
ISCO	Idaho Springs	67.72	55	eP	P	20 44 28.2	0.0
	comp=Z,21nm,1.4s,mb5.0						
ISCO	Idaho Springs	67.72	55	eP	P	20 44 28.2	0.0
ISCO				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.0						
HYB	Hyderabad	67.80	272	eP	P	20 44 30.0	+1.0
HYB	Hyderabad	67.80	272	i P	P	20 44 30.0	+1.0
HFS	Hagfors	67.85	340	P	P	20 44 27.5	-1.2
HFS				pmax	pmax		
	comp=Z,3.0nm,0.5s						
HFS	Hagfors	67.85	340	P	P	20 44 27.5	-1.1
	comp=Z,3.1nm,0.5s,mb4.6,baz=53,slow=3.7,SNR=17						
Z14A	Wintersburg	67.87	64	⇑P	P	20 44 29.2	0.0
	baz=68						
MVCO	Mesa Verde	67.87	59	eP	P	20 44 29.3	+0.1
	comp=Z,16nm,1.3s,mb4.9						
MVCO				e		20 44 39.2	
MVCO	Mesa Verde	67.87	59	⇑P	P	20 44 29.3	+0.1
	baz=68						
115A	Sonoran Desert	68.76	65	P	P	20 44 35.1	+0.3
	baz=68,SNR=5.7						
116A	Eloy	69.18	64	⇓P	P	20 44 37.6	+0.2
	baz=69						
ECSD	EROS,Sioux Fal	69.63	47	eP	P	20 44 38.8	-1.3
	comp=Z,35nm,1.4s,mb5.1						
WB2	Warramunga Arr	69.68	200	eP	P	20 44 39.7	-0.8
WB2				e		20 44 57.2	
WRA	Warramunga Arr	69.69	200	P	P	20 44 39.6	-0.9
WRA				pmax	pmax		
	comp=Z,10.0nm,1.1s						
WRA	Warramunga Arr	69.69	200	P	P	20 44 39.6	-0.8
	comp=Z,10nm,1.1s,mb4.7,baz=18,slow=6.4,SNR=30						
TUC	Tucson	69.91	64	eP	P	20 44 42.0	0.0
	comp=Z,18nm,1.5s,mb4.8						
TUC	Tucson	69.91	64	eP	P	20 44 42.0	0.0
TUC				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.8						
POO	Poona	70.19	276	eP	P	20 44 42.9	-0.9
POO				AMb	AMB	20 44 48.9	
	comp=Z,38nm,1.1s,mb5.2						
FITZ	Fitzroy Crossi	70.37	209	eP	P	20 44 44.8	+0.1
	comp=Z,10nm,1.2s,mb4.6						
FITZ				e		20 45 01.2	
LAZ	Ladron	70.62	60	eP	P	20 44 47.2	+0.9
ANMO	Albuquerque	70.63	59	eP	P	20 44 44.7	-1.6
KIV	Kislovodsk	70.72	315	eP	P	20 44 46.7	0.0
KIV				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
KIV				MLR	MLR		
	comp=Z,276nm,18.0s,MS4.6						
KAD	Karad	70.82	275	eP	P	20 44 48.1	+0.4
KAD				AMb	AMB	20 44 52.8	
	comp=Z,43nm,0.8s,mb5.4						
BNM	Barren Site	71.10	60	eP	P	20 44 49.7	+0.6
AKASG	Malin Array Be	71.21	327	P	P	20 44 48.0	-1.6
AKASG				LR	LR	21 18 21.6	
AKASG	Malin Array Be	71.21	327	P	P	20 44 48.0	-1.6
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG				MLR	MLR		
	comp=Z,204nm,20.4s						
AKASG	Malin Array Be	71.21	327	P	P	20 44 48.0	-1.6
	comp=Z,1.1nm,0.5s,mb4.1,baz=32,slow=5.6,SNR=6.0						
AKASG				LR	LR	21 18 21.6	
	comp=Z,204nm,20.4s,MS4.4,baz=355,slow=38						
SCHQ	Schefferville	72.11	24	LR	LR	21 20 39.6	
	comp=Z,180nm,18.1s,MS4.4,baz=319,slow=39						
SCIA	State Center	72.66	46	eP	P	20 44 57.7	-0.7
	comp=Z,83nm,1.4s,mb5.5						
ASAR	Alice Springs	73.38	200	P	P	20 45 03.0	+0.3
ASAR				pmax	pmax		
	comp=Z,8.0nm,1.1s						
ASAR	Alice Springs	73.38	200	P	P	20 45 03.0	+0.3
	comp=Z,8.1nm,1.1s,mb4.6,baz=9.4,slow=5.0,SNR=41						
KOD	Kodaikanal	73.66	267	eP	P	20 45 03.6	-1.1
KOD				AMb	AMB	20 45 06.8	
	comp=Z,16nm,1.1s,mb4.9						
KWP	Kalwaria	74.42	330	eP	P	20 45 08.6	-0.1
	comp=Z,31nm,0.6s,mb5.4						
KWP	Kalwaria	74.42	330	eP	P	20 45 08.6	-0.1
KWP				pmax	pmax		
	comp=Z,31nm,0.6s,mb5.4						
STHS	Stebnicka Huta	75.10	330	i P	P	20 45 13.0	+0.4
	comp=Z,3.5nm,0.8s,mb4.3						
STHS	Stebnicka Huta	75.10	330	i P	P	20 45 13.0	+0.4
STHS				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
WMOK	Wichita Mounta	75.13	55	eP	P	20 45 12.3	-0.8
	comp=Z,11nm,1.3s,mb4.6						
WMOK	Wichita Mounta	75.13	55	eP	P	20 45 12.3	-0.7
WMOK				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
KOLS	Kolonicke sedl	75.17	330	eP	P	20 45 12.6	-0.4
BURAR	Bucovina Array	75.25	327	⇓P	P	20 45 13.3	-0.1
BURAR	Bucovina Array	75.25	327	⇓iP	P	20 45 13.3	-0.1
CRVS	Cervenica-Dubn	75.47	330	eP	P	20 45 17.0	+2.3
HDIL	Hopedale	75.59	45	eP	P	20 45 15.0	-0.6
	comp=Z,44nm,1.2s,mb5.3						
EKA	Eskdalemuir Ar	75.61	347	P	P	20 45 14.7	-0.7
EKA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
EKA	Eskdalemuir Ar	75.61	347	P	P	20 45 14.7	-0.7
	comp=Z,2.2nm,0.5s,mb4.3,baz=17,slow=5.6,SNR=7.3						
OKC	Ostrava-Krasne	75.74	332	eP	P	20 45 16.7	+0.5
DPC	Dobruska-Polom	75.84	334	eP	P	20 45 17.2	+0.4
CLL	Collm	75.94	336	i P	P	20 45 17.3	0.0
CLL				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
CLL	Collm	75.94	336	i P	P	20 45 17.3	0.0
	comp=Z,9.0nm,1.0s,mb4.7						
MORC	Moravsky Berou	75.98	333	⇓P	P	20 45 17.4	-0.2
MORC	Moravsky Berou	75.98	333	⇓iP	P	20 45 17.4	-0.2
KECS	Kecovo	76.16	330	eP	P	20 45 20.3	+1.6
	comp=Z,1.8nm,0.9s,mb4.0						
KECS	Kecovo	76.16	330	eP	P	20 45 20.3	+1.6
KECS				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
LTX	Lajitas	76.31	62	eP	P	20 45 19.3	-0.6
	comp=Z,40nm,1.5s,mb5.1						
LTX	Lajitas	76.31	62	eP	P	20 45 19.3	-0.5
LTX				pmax	pmax		
	comp=Z,40nm,1.5s,mb5.1						
TXAR	Lajitas Array	76.31	62	P	P	20 45 19.4	-0.4
TXAR				pmax	pmax		
	comp=Z,7.0nm,0.7s						
TXAR	Lajitas Array	76.31	62	P	P	20 45 19.4	-0.5
	comp=Z,6.5nm,0.7s,mb4.7,baz=301,slow=4.2,SNR=31						
VRAC	Vranov	76.68	333	P	P	20 45 22.3	+0.7
VRAC				pmax	pmax		
	comp=Z,3.0nm,0.5s						
VRAC	Vranov	76.68	333	P	P	20 45 22.3	+0.7
	comp=Z,2.6nm,0.5s,mb4.4,baz=52,slow=2.1,SNR=4.6						
PRU	Pruhonice	76.69	335	eP	P	20 45 22.2	+0.6
VYHS	Vyhne	76.69	331	i P	P	20 45 21.9	+0.2
	comp=Z,7.7nm,1.6s,mb4.4						
VYHS	Vyhne	76.69	331	i P	P	20 45 21.9	+0.2
VYHS				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb4.4						
MLR	Muntele Rosu	76.76	325	⇑P	P	20 45 22.6	+0.5
MLR	Muntele Rosu	76.76	325	P	P	20 45 22.6	+0.5
MLR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
MLR	Muntele Rosu	76.76	325	P	P	20 45 22.6	+0.5
	comp=Z,2.7nm,0.5s,mb4.4,baz=322,slow=12,SNR=5.8						
MLR	Muntele Rosu	76.76	325	⇑iP	P	20 45 22.6	+0.5
DRGR		76.85	328	⇑P	P	20 45 22.9	+0.3
DRGR		76.85	328	⇑iP	P	20 45 22.9	+0.3
NKC	Novy Kostel	77.06	336	eP	P	20 45 22.5	-1.2
VOIR		77.14	326	⇑P	P	20 45 25.6	+1.3
VOIR		77.14	326	⇑iP	P	20 45 25.6	+1.3
JCT	Junction City	77.72	58	eP	P	20 45 26.9	-0.9
	comp=Z,26nm,1.3s,mb5.0						
JCT	Junction City	77.72	58	eP	P	20 45 26.9	-0.9
JCT				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.0						
KHC	Kasperske Hory	77.74	335	i P	P	20 45 27.5	0.0
KHC	Kasperske Hory	77.74	335	eP	P	20 45 27.7	+0.2
GRA1	Grafenberg Arr	77.88	336	eP	P	20 45 28.4	+0.1
	comp=Z,10.0nm,1.1s,mb4.7						
GRF	Grafenberg Arr	77.88	336	eP	P	20 45 28.4	+0.1
GRF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
GRF	Grafenberg Arr	77.88	336	eP	P	20 45 28.4	+0.1
GRF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
GRF	Grafenberg Arr	77.88	336	eP	P	20 45 28.4	+0.1
	comp=Z,10.0nm,1.1s,mb4.7						
GERES	GERESS Array B	77.96	335	P	P	20 45 28.2	-0.6
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES				MLR	MLR		
	comp=Z,264nm,20.6s						
GERES	GERESS Array B	77.96	335	P	P	20 45 28.2	-0.5
	comp=Z,1.4nm,0.6s,mb4.0,baz=47,slow=5.9,SNR=12						
GERES				LR	LR	21 22 01.7	
	comp=Z,264nm,20.6s,MS4.5,baz=96,slow=37						
MIAR	Mount Ida	78.09	51	eP	P	20 45 28.9	-0.8
	comp=Z,38nm,1.7s,mb5.0						
MIAR	Mount Ida	78.09	51	eP	P	20 45 28.9	-0.8
MIAR				pmax	pmax		
	comp=Z,38nm,1.6s,mb5.1						
BZS	Buzias	78.25	328	⇑P	P	20 45 30.1	-0.4
BZS	Buzias	78.25	328	⇑iP	P	20 45 30.0	-0.4
BRTR	Keskin Array B	78.26	317	P	P	20 45 30.3	-0.3
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRTR				MLR	MLR		
	comp=Z,93nm,19.3s						
BRTR	Keskin Array B	78.26	317	P	P	20 45 30.3	-0.3
	comp=Z,2.3nm,0.7s,mb4.2,baz=47,slow=4.2,SNR=14						
BRTR				LR	LR	21 25 18.5	
	comp=Z,93nm,19.3s,MS4.1,baz=148,slow=40						
USIN	University of	78.40	45	eP	P	20 45 31.1	-0.3
	comp=Z,13nm,0.5s,mb5.1						
PKSM	Moragy	78.76	330	⇓P	P	20 45 32.0	-1.2
PKSM	Moragy	78.76	330	⇓iP	P	20 45 32.0	-1.2
WCI	Wyandotte Cave	78.85	44	eP	P	20 45 33.1	-0.8
	comp=Z,39nm,1.2s,mb5.2						
WCI	Wyandotte Cave	78.85	44	eP	P	20 45 33.1	-0.8
WCI				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.2						
MIB	Mutribah	78.87	302	eP	P	20 45 33.4	-0.7

MIB				AMb	AMB	20 45 38.3	
	comp=Z,34nm,0.7s,mb5.4						
GIVF	Givet	79.09	341	eP	P	20 45 34.2	-0.8
KBD	Kabd	79.13	301	eP	P	20 45 34.4	-1.2
KBD				AMb	AMB	20 45 40.4	
	comp=Z,73nm,0.9s,mb5.6						
BAIF	Baives	79.26	341	eP	P	20 45 35.3	-0.6
	comp=Z,28nm,1.2s,mb4.8						
BAIF	Baives	79.26	341	eP	P	20 45 35.3	-0.6
	comp=Z,14nm,1.2s,mb4.8						
BAIF	Baives	79.26	341	eP	P	20 45 35.3	-0.6
BAIF				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
RST	Umm Al-Ruwaisa	79.29	302	eP	P	20 45 35.2	-1.3
RST				AMb	AMB	20 45 38.4	
	comp=Z,39nm,1.0s,mb5.3						
NAY	Al-Naaiem	79.34	302	eP	P	20 45 35.7	-1.0
NAY				AMb	AMB	20 45 38.9	
	comp=Z,20nm,1.2s,mb4.9						
RDF	Al-Radifah	79.40	301	eP	P	20 45 35.8	-1.3
RDF				AMb	AMB	20 45 39.6	
	comp=Z,61nm,1.1s,mb5.4						
KBA	Koelnbreinsper	79.65	334	⇑iP	P	20 45 39.0	+0.9
	comp=Z,25nm,0.8s,mb5.2						
KBA	Koelnbreinsper	79.65	334	⇑ipP	P	20 45 39.0	+0.9
	comp=Z,25nm,0.8s,mb5.2						
KBA	Koelnbreinsper	79.65	334	⇑iP	P	20 45 39.0	+0.9
KBA				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.2						
WATA	Walderalm	79.93	335	⇑iP	P	20 45 40.2	+0.6
	comp=Z,28nm,1.5s,mb5.0						
WATA	Walderalm	79.93	335	⇑ipP	P	20 45 40.2	+0.6
	comp=Z,28nm,1.5s,mb5.0						
WATA	Walderalm	79.93	335	⇑iP	P	20 45 40.2	+0.6
WATA				pmax	pmax		
	comp=Z,28nm,1.5s,mb5.0						
WTTA	Wattenberg	79.98	335	⇑iP	P	20 45 39.9	0.0
	comp=Z,14nm,0.9s,mb4.9						
WTTA	Wattenberg	79.98	335	⇑ipP	P	20 45 39.9	0.0
	comp=Z,14nm,0.9s,mb4.9						
WTTA	Wattenberg	79.98	335	⇑iP	P	20 45 39.9	0.0
WTTA				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
STKA	Stephens Creek	80.03	191	P	P	20 45 38.6	-1.5
	comp=Z,1.7nm,0.9s,mb4.0,baz=315,slow=5.2,SNR=3.6						
STKA				LR	LR	21 20 48.1	
	comp=Z,85nm,18.9s,MS4.1,baz=206,slow=36						
MOTA	Moosalm	80.06	336	⇑iP	P	20 45 42.1	+1.8
	comp=Z,9.2nm,1.0s,mb4.7						
MOTA	Moosalm	80.06	336	⇑ipP	P	20 45 42.1	+1.8
	comp=Z,9.2nm,1.0s,mb4.7						
MOTA	Moosalm	80.06	336	⇑iP	P	20 45 42.1	+1.8
MOTA				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
CDF	Champ du Feu	80.08	338	eP	P	20 45 39.7	-0.7
	comp=Z,93nm,1.6s,mb5.2						
CDF	Champ du Feu	80.08	338	eP	P	20 45 39.7	-0.7
	comp=Z,47nm,1.6s,mb5.2						
CDF	Champ du Feu	80.08	338	eP	P	20 45 39.7	-0.7
CDF				pmax	pmax		
	comp=Z,47nm,1.6s,mb5.2						
SQTA	Sankt Quirin	80.14	335	⇑iP	P	20 45 41.3	+0.6
	comp=Z,20nm,1.5s,mb4.8						
SQTA	Sankt Quirin	80.14	335	⇑ipP	P	20 45 41.3	+0.6
	comp=Z,20nm,1.5s,mb4.8						
SQTA	Sankt Quirin	80.14	335	⇑iP	P	20 45 41.3	+0.6
SQTA				pmax	pmax		
	comp=Z,20nm,1.5s,mb4.8						
MEZF	Maizieres J'vi	80.53	340	eP	P	20 45 42.3	-0.5
TAOE	Nuku Hiva Isla	80.57	114	eLR	LR	21 10 53.2	
	comp=Z,800nm,23.0s						
HAU	Haudompre	80.69	339	eP	P	20 45 42.8	-0.9
HAU				eMLR	MLR		
	comp=Z,319nm,21.2s,MS4.3						
HAU	Haudompre	80.69	339	eP	P	20 45 42.8	-0.9
HAU				MLR	MLR		
	comp=Z,320nm,21.3s,MS4.6						
DAVOX	Davos/Dischmat	80.91	336	P	P	20 45 44.4	-0.5
	comp=Z,6.7nm,0.7s,mb4.7,baz=19,slow=7.5,SNR=6.9						
SWET	Sewanee	81.44	46	eP	P	20 45 46.6	-1.3
SWET				e		20 45 57.7	
CPCT	Cooper Cave	81.93	45	eP	P	20 45 49.6	-0.9
LOR	Lormes	81.97	340	eP	P	20 45 49.4	-1.1
LOR				eMLR	MLR		
	comp=Z,341nm,21.8s,MS4.4						
LOR	Lormes	81.97	340	eP	P	20 45 49.4	-1.1
LOR				MLR	MLR		
	comp=Z,340nm,21.8s,MS4.7						
CABF	La Chapelle	82.06	339	eP	P	20 45 50.4	-0.6
PPT	Papeete	82.06	127	eLR	LR	21 11 36.1	
	comp=Z,333nm,22.2s,baz=335						
PPT	Papeete	82.06	127	LR	LR	21 14 23.4	
	comp=Z,285nm,20.4s,MS4.6,baz=3.9,slow=30						
ELN	Prospectdale	82.21	41	eP	P	20 45 51.0	-0.9
SSF	Saint Saulge	82.25	340	eP	P	20 45 52.1	+0.2
	comp=Z,24nm,1.1s,mb4.8						
SSF	Saint Saulge	82.25	340	eP	P	20 45 52.1	+0.2
	comp=Z,12nm,1.1s,mb4.7						
SSF	Saint Saulge	82.25	340	eP	P	20 45 52.1	+0.2
SSF				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
AVF	Avril sur Loir	82.54	340	eP	P	20 45 52.8	-0.7
	comp=Z,95nm,1.4s,mb5.3						
AVF	Avril sur Loir	82.54	340	eP	P	20 45 52.8	-0.7
	comp=Z,48nm,1.4s,mb5.3						
AVF	Avril sur Loir	82.54	340	eP	P	20 45 52.8	-0.7
AVF				pmax	pmax		
	comp=Z,48nm,1.4s,mb5.3						
SMF	Signal de Mont	82.56	340	eP	P	20 45 52.9	-0.7
	comp=Z,67nm,1.2s,mb5.2						
SMF	Signal de Mont	82.56	340	eP	P	20 45 52.9	-0.7
	comp=Z,34nm,1.2s,mb5.2						
SMF	Signal de Mont	82.56	340	eP	P	20 45 52.9	-0.7
SMF				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.2						
ASF	Jabal al Asfar	82.71	311	P	P	20 45 54.7	+0.1
ASF				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ASF	Jabal al Asfar	82.71	311	P	P	20 45 54.7	+0.1
	comp=Z,1.1nm,0.4s,mb4.2,baz=117,slow=3.8,SNR=5.9						
MMAI	Mount Meron Ar	82.80	312	P	P	20 45 55.5	+0.4
	comp=Z,3.8nm,0.5s,mb4.7,baz=40,slow=6.6,SNR=14						
LPL	La Plagne	82.91	338	eP	P	20 45 55.6	+0.1
	comp=Z,16nm,0.9s,mb4.8						
LPL	La Plagne	82.91	338	eP	P	20 45 55.6	+0.1
	comp=Z,8.0nm,0.9s,mb4.8						
LPL	La Plagne	82.91	338	eP	P	20 45 55.6	+0.1
LPL				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
LPG	La Plagne	82.93	338	eP	P	20 45 55.9	+0.4
	comp=Z,68nm,1.4s,mb5.2						
LPG	La Plagne	82.93	338	eP	P	20 45 55.9	+0.4
	comp=Z,34nm,1.4s,mb5.2						
LPG	La Plagne	82.93	338	eP	P	20 45 55.9	+0.4
LPG				pmax	pmax		
	comp=Z,34nm,1.4s,mb5.2						
TCF	Toulx Ste Croi	83.27	341	eP	P	20 45 56.8	-0.5
MFF	Saint Martin d	83.47	343	eP	P	20 45 57.7	-0.6
ORIF	Oris-en-Rattie	83.69	338	eP	P	20 45 59.5	0.0
	comp=Z,31nm,0.9s,mb5.1						
ORIF				eMLR	MLR		
	comp=Z,270nm,21.0s,MS4.3						
ORIF	Oris-en-Rattie	83.69	338	eP	P	20 45 59.5	0.0
	comp=Z,16nm,0.9s,mb5.1						
ORIF	Oris-en-Rattie	83.69	338	eP	P	20 45 59.5	0.0
ORIF				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
FRF	La Foret Royal	84.76	337	eP	P	20 46 04.2	-0.7
	comp=Z,84nm,1.3s,mb5.4						
FRF	La Foret Royal	84.76	337	eP	P	20 46 04.2	-0.7
	comp=Z,42nm,1.3s,mb5.4						
FRF	La Foret Royal	84.76	337	eP	P	20 46 04.2	-0.7
FRF				pmax	pmax		
	comp=Z,42nm,1.3s,mb5.4						
LMR	La Mourre	85.00	337	eP	P	20 46 05.3	-0.9
	comp=Z,46nm,1.1s,mb5.2						
LMR	La Mourre	85.00	337	eP	P	20 46 05.3	-0.9
	comp=Z,23nm,1.1s,mb5.2						
LMR	La Mourre	85.00	337	eP	P	20 46 05.3	-0.9
LMR				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.2						
EIL	Elat	85.71	310	P	P	20 46 10.3	+0.3
EIL	Elat	85.71	310	P	P	20 46 10.3	+0.3
	comp=Z,6.3nm,0.7s,mb4.9,baz=357,slow=6.8,SNR=9.5						
KEST	Kesra	91.22	332	P	P	20 46 37.1	+1.0
	comp=Z,1.1nm,0.8s,mb4.2,baz=317,slow=6.4,SNR=3.8						
KEST				LR	LR	21 29 55.6	
	comp=Z,73nm,18.0s,MS4.2,baz=240,slow=37						
RKT	Rikitea	94.72	119	eLR	LR	21 17 27.5	
	comp=Z,162nm,35.0s						
TORD	Torodi Ar. Bea	114.69	330	PKP	PKiKP	20 52 09.7	-1.9
TORD	Torodi Ar. Bea	114.69	330	PKP	PKiKP	20 52 09.7	-1.9
	comp=Z,0.3nm,0.5s,baz=16,slow=2.2,SNR=5.7						
LPAZ	La Paz	133.17	63	PKP	PKPdf	20 52 46.9	+0.1
LPAZ	La Paz	133.17	63	PKIKP	PKPdf	20 52 46.9	+0.1
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPAZ	La Paz	133.17	63	PKP	PKPdf	20 52 46.9	+0.1
	comp=Z,1.0nm,0.7s,baz=21,slow=4.2,SNR=7.1						

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*MOS **12** 20:35:15.5±1.3, 36.60N×21.41E, h33km, mb4.3/16, Error ellipse: s-maj=7.8km s-min=3.2km az=84.1*
*CSEM **12** 20:35:16.5±0.1, 36.49N×21.60E, h30km, ML4.0, Error ellipse: s-maj=1.5km s-min=1.4km az=150.0*
*ISCJB **12** 20:35:17.5±0.4, 36.70N±0.03×21.41E±0.03, h59km±4km, mb4.1/26, Error ellipse: s-maj=4.6km s-min=3.6km az=9.4*
*NEIC **12** 20:35:17.1, 36.62N×21.45E, h39km, mb4.2/5, MD4.2(ATH), After ATH.*
*ATH **12** 20:35:17.1, 36.62N×21.45E, h39km±5km, MD4.2/13, ML4.0*
*IDC **12** 20:35:18.4±2.1, 36.81N×21.56E, h35km±18km, mb3.9/18, mb1 4.0/27, mb1mx3.9/32, mbtmp3.8/27, ML3.6/9, MS3.0/1, Ms1 3.0/1, ms1mx2.4/32, Error ellipse: s-maj=16.4km s-min=12.2km az=19.0*
*PDG **12** 20:35:18.4±0.1, 36.84N×20.55E, h11km±1km, ML4.1/9, Error ellipse: s-maj=98.2km s-min=21.7km az=90.0*
*THE **12** 20:35:20.0, 36.74N×21.61E, h31km, ML4.2*
*HLW **12** 20:35:22.4, 36.12N×21.72E, h33km, Mb3.5*
*PRU **12** 20:35:25.3, 37.40N×16.84E, h0km, M4.2*
ISC 12 20:35:18.6±0.3, **36.65N**±0.02×**21.45E**±0.03, **h49**km±3km, **n273**, σ1§**14**/332, **mb4.1**/26, **32C-29D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.65	36	⇓iPn	Pn	20 35 30.7	-1.0
ITM				eSn	Sn	20 35 41.4	+0.3
ITM	Ithomi	0.65	36	⇓iPN	Pn	20 35 30.7	-1.0
ITM				eSN	Sn	20 35 41.4	+0.3
ITM	Ithomi	0.65	36	⇓iPn	Pn	20 35 30.7	-1.0
ITM				eSn	Sn	20 35 41.4	+0.3
VLI	Veliai	1.20	86	ePn	Pn	20 35 40.0	+1.0
VLI	Veliai	1.20	86	ePN	Pn	20 35 40.0	+1.0
VLI	Veliai	1.20	86	ePn	Pn	20 35 40.0	+1.0
RLS	Riolos of Patr	1.40	1	ePn	Pn	20 35 43.3	+1.5
RLS	Riolos of Patr	1.40	1	ePN	Pn	20 35 43.3	+1.5
RLS	Riolos of Patr	1.40	1	ePn	Pn	20 35 43.3	+1.5
VLS	Valsamata	1.67	336	ePn	Pn	20 35 46.1	+0.7
VLS	Valsamata	1.67	336	ePN	Pn	20 35 46.1	+0.7
VLS	Valsamata	1.67	336	ePn	Pn	20 35 46.1	+0.7
NAIG	Nisos Aigina	1.97	55	ePn	Pn	20 35 49.5	0.0
NAIG	Nisos Aigina	1.97	55	ePN	Pn	20 35 49.5	0.0
NAIG	Nisos Aigina	1.97	55	ePn	Pn	20 35 49.5	0.0
LKD	Levkas	2.15	343	ePn	Pn	20 35 53.8	+1.9
LKD	Levkas	2.15	343	ePn	Pn	20 35 53.8	+1.9
ATH	Athens Observa	2.24	53	ePn	Pn	20 35 53.5	+0.3
ATH	Athens Observa	2.24	53	ePN	Pn	20 35 53.5	+0.3
ATH	Athens Observa	2.24	53	ePn	Pn	20 35 53.5	+0.3
EVR	Evrytania	2.28	7	ePn	Pn	20 35 55.3	+1.6
EVR	Evrytania	2.28	7	ePN	Pn	20 35 55.3	+1.6
EVR	Evrytania	2.28	7	ePn	Pn	20 35 55.3	+1.6
LKR	Lokris	2.35	31	ePn	Pn	20 35 55.0	+0.4
LKR	Lokris	2.35	31	ePN	Pn	20 35 55.0	+0.4
LKR	Lokris	2.35	31	ePn	Pn	20 35 55.0	+0.4
PTL	Penteli	2.38	53	ePn	Pn	20 35 55.0	-0.1
PTL	Penteli	2.38	53	ePN	Pn	20 35 55.0	-0.1
PTL	Penteli	2.38	53	ePn	Pn	20 35 55.0	-0.1
AGG	Agios Georgios	2.47	16	ePn	Pn	20 35 58.0	+1.7
AGG	Agios Georgios	2.47	16	ePn	Pn	20 35 58.0	+1.7
VAM	Vamos	2.56	118	ePn	Pn	20 35 57.7	+0.2
VAM	Vamos	2.56	118	ePN	Pn	20 35 57.7	+0.2
VAM	Vamos	2.56	118	ePn	Pn	20 35 57.7	+0.2
GVD	Gavdhos	2.81	129	eP	Pn	20 36 10.9	+10
THL	Klokotos Trika	2.94	9	ePN	Pn	20 36 04.2	+1.4
THL	Klokotos Trika	2.94	9	ePn	Pn	20 36 04.2	+1.4
NEO	Neokhori	3.00	27	ePn	Pn	20 36 04.4	+0.8
NEO	Neokhori	3.00	27	ePN	Pn	20 36 04.4	+0.8
NEO	Neokhori	3.00	27	ePn	Pn	20 36 04.4	+0.8
JAN	Janina	3.04	351	ePn	Pn	20 36 05.6	+1.5
JAN	Janina	3.04	351	ePN	Pn	20 36 05.6	+1.5
JAN	Janina	3.04	351	ePn	Pn	20 36 05.6	+1.5
XOR	Xorichti	3.04	26	P	Pn	20 36 05.1	+1.0
XOR	Xorichti	3.04	26	ePn	Pn	20 36 05.1	+1.0
XOR	Xorichti	3.04	26	ePn	Pn	20 36 05.1	+0.9
IDI	Anoyia	3.11	115	Pn	Pn	20 36 05.1	0.0
IDI				Sn	Sn	20 36 37.3	-3.7
IDI				Lg		20 36 59.1	
IDI				LR	LR	20 37 39.0	
IDI	Anoyia	3.11	115	Pn	Pn	20 36 05.1	0.0
	1.3nm,0.3s,baz=294,slow=17,SNR=14						
IDI				Sn	Sn	20 36 37.3	-3.7
	8.5nm,0.3s,baz=342,slow=21,SNR=7.8						
IDI				Lg		20 36 59.1	
	7.5nm,0.3s,baz=195,slow=22,SNR=3.8						
IDI				LR	LR	20 37 39.0	
	comp=Z,214nm,18.6s,baz=330,slow=45						
IDI	Anoyia	3.11	115	Pn	Pn	20 36 05.1	0.0
IDI				Sn	Sn	20 36 37.3	-3.7
AOS	Alonnisos	3.17	37	P	Pn	20 36 05.6	-0.3
AOS	Alonnisos	3.17	37	ePn	Pn	20 36 05.6	-0.3
AOS	Alonnisos	3.17	37	ePn	Pn	20 36 05.6	-0.3
APE	Apeiranthos	3.30	82	P	Pn	20 36 06.8	-0.9
APE	Apeiranthos	3.30	82	ePn	Pn	20 36 06.8	-0.9
APE	Apeiranthos	3.30	82	i P	Pn	20 36 05.9	-1.9
APE	Apeiranthos	3.30	82	ePn	Pn	20 36 06.8	-1.0
KEK	Kerkira	3.32	338	ePn	Pn	20 36 08.5	+0.5
KEK	Kerkira	3.32	338	ePN	Pn	20 36 08.5	+0.5
KEK	Kerkira	3.32	338	ePn	Pn	20 36 08.5	+0.5
LIT	Litokhoron	3.54	13	ePn	Pn	20 36 11.7	+0.7
LIT	Litokhoron	3.54	13	ePn	Pn	20 36 11.7	+0.7
KZN	Kozani	3.66	4	ePn	Pn	20 36 14.4	+1.8
KZN	Kozani	3.66	4	ePN	Pn	20 36 14.4	+1.8
KZN	Kozani	3.66	4	ePn	Pn	20 36 14.4	+1.8
PAIG	Paliouri	3.71	28	ePn	Pn	20 36 13.5	+0.1
PAIG				eSn	Sn	20 36 55.1	-0.8
PAIG	Paliouri	3.71	28	ePn	Pn	20 36 13.5	+0.1
PAIG				eSn	Sn	20 36 55.1	-0.7
PLG	Polygyros	4.03	22	ePn	Pn	20 36 18.7	+0.9
PLG	Polygyros	4.03	22	ePn	Pn	20 36 18.2	+0.4
PLG	Polygyros	4.03	22	ePN	Pn	20 36 18.7	+0.9
PLG	Polygyros	4.03	22	ePn	Pn	20 36 18.2	+0.4
CHOS	Chios island	4.05	63	ePn	Pn	20 36 17.5	-0.6
CHOS	Chios island	4.05	63	ePn	Pn	20 36 17.5	-0.6
FNA	Florina	4.13	359	ePn	Pn	20 36 19.1	0.0
FNA				eSn	Sn	20 37 06.1	+0.1
FNA	Florina	4.13	359	ePn	Pn	20 36 19.1	+0.1
FNA				eSn	Sn	20 37 06.1	+0.1
HORT	Hortiatis	4.15	18	ePn	Pn	20 36 19.6	+0.3
HORT	Hortiatis	4.15	18	ePn	Pn	20 36 19.6	+0.3
OUR	Ouranopolis	4.18	28	ePn	Pn	20 36 19.8	0.0
OUR	Ouranopolis	4.18	28	ePn	Pn	20 36 19.8	0.0
BIA	Bitola	4.36	359	P	Pn	20 36 22.8	+0.5
BIA				S	Sn	20 37 12.2	+0.4
BIA	Bitola	4.36	359	ePn	Pn	20 36 22.8	+0.5
BIA				eSn	Sn	20 37 12.2	+0.4
BIA	Bitola	4.36	359	ePn	Pn	20 36 23.8	+1.5
BIA				i Sn	Sn	20 37 13.6	+1.8
BIA	Bitola	4.36	359	ePn	Pn	20 36 22.8	+0.5
BIA				eSn	Sn	20 37 12.2	+0.4
GRG	Griva	4.36	10	ePn	Pn	20 36 22.8	+0.5
GRG	Griva	4.36	10	ePn	Pn	20 36 22.8	+0.5
PLAC	Placanica	4.36	296	Pn	Pn	20 36 22.7	+0.4
	52nm,0.5s						
SOH	Sokhos	4.42	19	ePn	Pn	20 36 23.9	+0.8
SOH	Sokhos	4.42	19	ePn	Pn	20 36 23.9	+0.8
TIP	Timpagrande	4.48	306	eP	Pn	20 36 23.6	-0.3
TIP	Timpagrande	4.48	306	eP	Pn	20 36 23.6	-0.3
TIP	Timpagrande	4.48	306	Pn	Pn	20 36 24.2	+0.3
	59nm,0.7s						
LCI	Lecce	4.51	326	i P	Pn	20 36 24.3	0.0
SOI	Samo	4.52	290	Pn	Pn	20 36 25.2	+0.7
SOI	Samo	4.52	290	Pn	Pn	20 36 25.2	+0.7
MPAZ	Palizzi	4.53	288	Pn	Pn	20 36 25.0	+0.5
	316nm,0.5s						
GRI	Girifalco	4.53	300	Pn	Pn	20 36 25.6	+1.0
GRI	Girifalco	4.53	300	Pn	Pn	20 36 25.6	+1.0
KNT	Kendrikon	4.64	14	ePn	Pn	20 36 26.8	+0.6
KNT	Kendrikon	4.64	14	ePn	Pn	20 36 26.8	+0.7
KRUS	Krusevo	4.71	358	i Pn	Pn	20 36 27.9	+0.8
KRUS				i Sn	Sn	20 37 20.7	+0.3
KRUS	Krusevo	4.71	358	i Pn	Pn	20 36 27.8	+0.7
KRUS				i Sn	Sn	20 37 20.7	+0.3
VAY	Valandovo	4.74	10	ePn	Pn	20 36 27.9	+0.4
VAY	Valandovo	4.74	10	⇑iPn	Pn	20 36 27.9	+0.4
VAY	Valandovo	4.74	10	ePn	Pn	20 36 27.9	+0.4
SRS	Serrai	4.76	20	ePn	Pn	20 36 28.1	+0.3
SRS	Serrai	4.76	20	ePn	Pn	20 36 28.1	+0.3
MTTG	Motta San Giov	4.78	288	Pn	Pn	20 36 28.3	+0.3
MTTG	Motta San Giov	4.78	288	Pn	Pn	20 36 28.3	+0.3
JOPP	Joppolo	4.83	296	Pn	Pn	20 36 29.0	+0.4
	141nm,0.5s						
TIR	Tirane	4.85	346	ePn	Pn	20 36 29.3	+0.3
TIR	Tirane	4.85	346	ePn	Pn	20 36 29.3	+0.4
CARO	Carolei	4.88	304	Pn	Pn	20 36 30.9	+1.5
	564nm,0.7s						
AGST	Augusta-Monte	5.02	279	Pn	Pn	20 36 30.5	-0.8
	423nm,1.6s						
LTBQ	Tobruq	5.02	155	i P	Pn	20 36 32.6	+1.2
	SNR=48						
LTBQ				eS	Sn	20 37 25.2	-2.9
	SNR=48						
HAVL	Avola	5.08	275	Pn	Pn	20 36 31.8	-0.4
	356nm,0.3s						
HAVL	Avola	5.08	275	Pn	Pn	20 36 31.8	-0.4
	356nm,0.3s						
PE1	Pezze di Greco	5.20	324	ePn	Pn	20 36 33.6	-0.2
MMB	Musomiste	5.24	19	P	Pn	20 36 34.1	-0.2
KKB	Krupnik	5.36	13	P	Pn	20 36 36.3	+0.3
HVZN	Vizzini	5.42	278	Pn	Pn	20 36 37.1	+0.3
	913nm,0.5s						
HVZN	Vizzini	5.42	278	Pn	Pn	20 36 37.1	+0.3
	913nm,0.5s						
RDO	Rodhopi	5.51	34	P	Pn	20 36 39.0	+1.0
ULC	Ulcinj	5.57	343	⇑iPn	Pn	20 36 38.0	-0.9
ULC				eSn	Sn	20 37 38.0	-3.5
ULC	Ulcinj	5.57	343	⇑iPn	Pn	20 36 38.0	-0.9
ULC				eSn	Sn	20 37 38.0	-3.5
SG1	Sgolgore (BA)	5.60	320	ePn	Pn	20 36 38.8	-0.5
RZN	Rozhen	5.63	26	P	Pn	20 36 41.0	+1.3
VAE	Valguarnera	5.68	280	Pn	Pn	20 36 42.9	+2.5
VAE				Sn	Sn	20 37 44.2	-0.1
VAE	Valguarnera	5.68	280	Pn	Pn	20 36 42.9	+2.5
	2.3nm,0.3s,baz=292,slow=7.7,SNR=8.9						
VAE				Sn	Sn	20 37 44.2	-0.1
	21nm,0.3s,baz=76,slow=7.5,SNR=11						
VAE	Valguarnera	5.68	280	Sn	Sn	20 37 44.2	-0.2
BAI	Bari	5.70	323	ePn	Pn	20 36 40.3	-0.3
KDZ	Kurdzhali	5.87	31	P	Pn	20 36 42.7	-0.2
BUM	Brajici-Budva	5.97	342	⇓iPn	Pn	20 36 43.5	-0.9
BUM				eSn	Sn	20 37 47.2	-4.3
BUM	Brajici-Budva	5.97	342	⇓iPn	Pn	20 36 43.5	-0.9
BUM				eSn	Sn	20 37 47.2	-4.3
BUM	Brajici-Budva	5.97	342	⇓iPn	Pn	20 36 43.5	-0.9
PDG	Podgorica	6.01	344	⇑iPn	Pn	20 36 44.0	-0.9
TTG	Podgorica	6.01	344	⇑iPn	Pn	20 36 44.0	-0.9
TTG				eSn	Sn	20 37 49.0	-3.4
TTG	Podgorica	6.01	344	⇑iPn	Pn	20 36 44.0	-0.9
TTG				eSn	Sn	20 37 49.0	-3.4
PVY	Plav	6.04	350	⇑iPn	Pn	20 36 45.5	+0.2
PVY				eSn	Sn	20 37 51.3	-1.8
PVY	Plav	6.04	350	⇑iPn	Pn	20 36 45.5	+0.2
PVY				eSn	Sn	20 37 51.3	-1.8
PVY	Plav	6.04	350	⇑iPn	Pn	20 36 45.5	+0.2
PVY				eSn	Sn	20 37 51.3	-1.8
VTS	Vitosha	6.09	12	P	Pn	20 36 47.5	+1.6
BARS	Barje	6.17	3	Pn	Pn	20 36 47.8	+0.8
HCY	Herceg Novi	6.22	339	⇓iPn	Pn	20 36 46.2	-1.5
HCY				eSn	Sn	20 37 52.5	-5.0
HCY	Herceg Novi	6.22	339	⇓iPn	Pn	20 36 46.2	-1.5
HCY				eSn	Sn	20 37 52.5	-5.0
BEY	Berane	6.33	350	⇑iPn	Pn	20 36 49.1	-0.1
BEY				eSn	Sn	20 37 57.7	-2.4
IVA	Berane	6.33	350	⇑iPn	Pn	20 36 49.1	-0.1
IVA				eSn	Sn	20 37 57.7	-2.4
IVA	Berane	6.33	350	⇑iPn	Pn	20 36 49.1	-0.1
IVA				eSn	Sn	20 37 57.7	-2.4
IVA	Berane	6.33	350	⇑iPn	Pn	20 36 49.1	-0.1
IVA				eSn	Sn	20 37 57.7	-2.4
NKY	Niksic	6.43	344	⇑iPn	Pn	20 36 50.2	-0.5
NKY				eSn	Sn	20 37 59.1	-3.7
NKY	Niksic	6.43	344	⇑iPn	Pn	20 36 50.2	-0.5
NKY				eSn	Sn	20 37 59.1	-3.7
FGMS	Monte Sant'Ang	6.61	321	i Pnr	Pn	20 36 53.2	+0.1
	38nm,0.3s						
BRY	Bratogost	6.63	341	⇓iPn	Pn	20 36 52.0	-1.3
BRY				eSn	Sn	20 38 02.5	-5.0
BRY	Bratogost	6.63	341	⇓iPn	Pn	20 36 52.0	-1.3
BRY				eSn	Sn	20 38 02.5	-5.0
MSAG	Monte S. Angel	6.63	321	Pn	Pn	20 36 53.2	-0.2
	167nm,0.6s						
UPM	Unac-Piva	6.83	344	⇓iPn	Pn	20 36 55.6	-0.5
UPM				eSn	Sn	20 38 08.6	-3.8
UPM	Unac-Piva	6.83	344	⇓iPn	Pn	20 36 55.6	-0.5
UPM				eSn	Sn	20 38 08.6	-3.8
UPM	Unac-Piva	6.83	344	⇓iPn	Pn	20 36 55.6	-0.5
STON	Ston	6.85	336	ePn	Pn	20 36 54.5	-1.9
STON				Sn	Sn	20 38 07.0	-5.9
PLE	Pljevlja	6.85	347	⇑iPn	Pn	20 36 56.4	0.0
PLE				eSn	Sn	20 38 09.8	-3.2
PLE	Pljevlja	6.85	347	⇑iPn	Pn	20 36 56.4	0.0
PLE				eSn	Sn	20 38 09.8	-3.2
FG2	Serracapriola	7.09	318	Pn	Pn	20 37 00.1	+0.4
	171nm,0.7s						
FG2	Serracapriola	7.09	318	Pn	Pn	20 37 00.1	+0.4
	171nm,0.7s						
HMAT	Matruh	7.27	138	P	Pn	20 36 59.6	-2.6
SZH	Strazhica	7.45	26	P	Pn	20 37 07.2	+2.6
GZR	Gura Zlata	8.79	6	⇓P	Pn	20 37 23.0	+0.1
GZR	Gura Zlata	8.79	6	⇓iP	Pn	20 37 23.0	0.0
BZS	Buzias	8.96	1	⇑P	Pn	20 37 23.6	-1.7
BZS	Buzias	8.96	1	⇑iP	Pn	20 37 23.6	-1.6
NVLJ	Novalja	9.35	330	Sn	Sn	20 39 09.4	-4.8
TIRR	Tirgusor	9.43	32	⇑P	Pn	20 37 33.2	+1.5
TIRR	Tirgusor	9.43	32	⇑iP	Pn	20 37 33.2	+1.5
MLR	Muntele Rosu	9.46	20	⇓P	Pn	20 37 33.3	+1.2
MLR	Muntele Rosu	9.46	20	Pn	Pn	20 37 32.2	0.0
	0.2nm,0.3s,baz=154,slow=13,SNR=4.8						
MLR	Muntele Rosu	9.46	20	⇓iP	Pn	20 37 33.3	+1.2
PKSM	Moragy	9.78	348	⇓P	Pn	20 37 33.7	-2.8
PKSM	Moragy	9.78	348	⇓iP	Pn	20 37 33.7	-2.8
KEST	Kesra	9.82	268	Pn	Pn	20 37 38.8	+1.6
	0.1nm,0.3s,baz=37,slow=8.2,SNR=4.0						
KEST				Sn	Sn	20 39 23.4	-2.6
	0.1nm,0.3s,baz=280,slow=19,SNR=6.4						
BRTR	Keskin Array B	10.08	69	Pn	Pn	20 37 39.9	-0.8
BRTR	Keskin Array B	10.08	69	Pn	Pn	20 37 39.9	-0.8
	0.1nm,0.3s,baz=245,slow=14,SNR=3.6						
VOY	Vojsko	10.95	331	ePn	Pn	20 37 51.8	-0.7
VOY				eSn	Sn	20 39 46.8	-6.6
VOY	Vojsko	10.95	331	ePn	Pn	20 37 51.8	-0.7
VOY				eSn	Sn	20 39 46.8	-6.6
OBKA	Obir	11.11	335	⇓iPn	Pn	20 37 54.0	-0.7
OBKA	Obir	11.11	335	⇓iPn	Pn	20 37 54.0	-0.7
OBKA				i Sn	Sn	20 39 51.6	-5.9
OBKA	Obir	11.11	335	⇓iPn	Pn	20 37 54.0	-0.7
OBKA				⇑iSn	Sn	20 39 51.6	-5.9
HFRF	Wahat Farafira	11.12	146	⇓P	Pn	20 37 52.8	-2.2
HFRF				S	Sn	20 39 42.3	-16
PSZ	Piszkesteto	11.32	355	⇓P	Pn	20 37 56.3	-1.2
PSZ	Piszkesteto	11.32	355	⇓iP	Pn	20 37 56.3	-1.2
ARSA	Arzberg	11.47	339	⇑iPn	Pn	20 37 57.0	-2.6
ARSA	Arzberg	11.47	339	⇑iPn	Pn	20 37 57.0	-2.6
ARSA				i Sn	Sn	20 39 59.1	-6.9
ARSA	Arzberg	11.47	339	⇑iPn	Pn	20 37 57.0	-2.6
ARSA				⇓iSn	Sn	20 39 59.2	-6.9
AMAG	Maghara	11.48	118	P	Pn	20 37 59.0	-0.9
AMAG				S	Sn	20 39 54.3	-12
SUZ		11.70	122	⇑P	Pn	20 38 02.1	-0.7
KECS	Kecovo	11.85	357	ePN	Pn	20 38 05.0	+0.3
KECS	Kecovo	11.85	357	ePn	Pn	20 38 05.0	+0.3
VYHS	Vyhne	11.99	352	ePN	Pn	20 38 10.5	+3.8
VYHS				eSN	Sn	20 40 08.3	-11
MMAI	Mount Meron Ar	12.03	103	Pn	Pn	20 38 08.3	+1.0
	0.6nm,0.3s,baz=295,slow=10.0,SNR=5.1						
MOA	Molln	12.38	337	⇑iPn	Pn	20 38 09.9	-2.1
MOA	Molln	12.38	337	⇑iPn	Pn	20 38 09.9	-2.1
MOA				i Sn	Sn	20 40 21.0	-7.4

MOA	**Molln**	12.38	337	⇑*i*Pn	Pn	20 38 09.9	-2.1
MOA				⇑*i*Sn	Sn	20 40 21.0	-7.4
HDK1	**Dakhla**	13.00	146	⇑P	Pn	20 38 18.2	-2.4
EIL	**Elat**	13.28	118	Pn	Pn	20 38 23.8	-0.6
EIL	**Elat**	13.28	118	Pn	Pn	20 38 23.8	-0.6
	0.5nm,0.3s,baz=332,slow=17,SNR=2.3						
OKC	**Ostrava-Krasne**	13.39	351	*e*P	Pn	20 38 36.1	+10
MORC	**Moravsky Berou**	13.42	349	⇓*i*P	Pn	20 38 36.0	+10
GERES	**GERESS Array B**	13.44	337	Pn	Pn	20 38 24.3	-2.1
GERES				Sn	Sn	20 40 44.2	-10
GERES	**GERESS Array B**	13.44	337	Pn	Pn	20 38 24.3	-2.1
	0.4nm,0.3s,baz=158,slow=14,SNR=12						
GERES				Sn	Sn	20 40 44.2	-10
	0.3nm,0.3s,baz=151,slow=22,SNR=4.6						
GERES	**GERESS Array B**	13.44	337	Pn	Pn	20 38 24.3	-2.1
MALT	**Malatya**	13.59	78	⇓P	Pn	20 38 31.4	+2.8
MALT	**Malatya**	13.59	78	⇓*i*P	Pn	20 38 31.4	+2.8
KHC	**Kasperske Hory**	13.73	338	*e*P	Pn	20 38 40.0	+10
DPC	**Dobruska-Polom**	14.18	346	*e*P	Pn	20 38 44.2	+7.7
ANN	**Anapa**	14.58	51	*e*P	Pn	20 38 45.9	+4.0
ANN				*e*S	Sn	20 41 31.4	+9.3
ANN				pmax	pmax		
	comp=Z,15nm,1.0s						
KIEV	**Kiev**	15.11	19	*e*P	Pn	20 38 46.5	-2.2
	comp=Z,7.2nm,0.9s						
KIEV	**Kiev**	15.11	19	*e*P	Pn	20 38 46.5	-2.2
KIEV				pmax	pmax		
	comp=Z,7.0nm,0.9s						
KIEV	**Kiev**	15.11	19	*e*P	Pn	20 38 46.5	-2.2
	comp=Z,7.2nm,0.9s						
AKASG	**Malin Array Be**	15.12	19	Pn	Pn	20 38 46.2	-2.6
AKASG	**Malin Array Be**	15.12	19	P	Pn	20 38 46.2	-2.6
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	**Malin Array Be**	15.12	19	Pn	Pn	20 38 46.2	-2.6
	comp=Z,0.7nm,0.3s,baz=207,slow=12,SNR=5.4						
AKASG	**Malin Array Be**	15.12	19	Pn	Pn	20 38 46.2	-2.6
CLL	**Collm**	15.84	340	*e*pP	Pn	20 39 02.0	+3.8
CLL				*e*sPP	pP	20 39 15.0	+2.7
SUW	**Suwalki**	17.40	3	*e*P	Pn	20 39 17.6	-0.1
KIV	**Kislovodsk**	17.74	59	*e*P	Pn	20 39 21.8	-0.1
ESDC	**Sonseca Array**	20.19	286	P	P	20 39 50.0	+1.0
	comp=Z,0.4nm,0.5s,baz=86,slow=10.0,SNR=3.4						
OBN	**Obninsk**	21.17	25	*e*P	P	20 39 58.7	-0.8
	comp=Z,14nm,0.5s,mb4.5						
OBN	**Obninsk**	21.17	25	*e*P	P	20 39 59.1	-0.4
OBN				*e*		20 40 12.2	
OBN				pmax	pmax		
	comp=Z,21nm,1.0s,mb4.4						
OBN	**Obninsk**	21.17	25	*e*P	P	20 39 59.1	-0.4
	comp=Z,21nm,1.0s,mb4.4						
MOS	**Moscow**	22.03	25	*e*P	P	20 40 09.8	+1.1
MOS				*e*		20 40 26.2	
HFS	**Hagfors**	24.02	350	P	P	20 40 28.2	-0.4
HFS				pmax	pmax		
	comp=Z,4.0nm,0.4s						
HFS	**Hagfors**	24.02	350	P	P	20 40 28.2	-0.4
	comp=Z,4.4nm,0.4s,mb4.2,baz=156,slow=11,SNR=35						
FINES	**FINESS Array B**	24.99	5	P	P	20 40 37.5	+0.1
FINES	**FINESS Array B**	24.99	5	P	P	20 40 37.5	+0.1
FINES				pmax	pmax		
	comp=Z,3.0nm,0.5s						
FINES	**FINESS Array B**	24.99	5	P	P	20 40 37.5	+0.1
	comp=Z,3.4nm,0.5s,mb4.1,baz=163,slow=11,SNR=31						
EKA	**Eskdalemuir Ar**	25.10	326	P	P	20 40 38.7	+0.2
EKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
EKA	**Eskdalemuir Ar**	25.10	326	P	P	20 40 38.6	+0.2
	comp=Z,2.3nm,0.6s,mb3.9,baz=121,slow=10.0,SNR=9.0						
NB2	**NORSAR Subarra**	25.26	348	P	P	20 40 39.8	0.0
	comp=Z,0.5nm,0.6s,mb3.2,baz=153,slow=10						
NOA	**NORSAR Array B**	25.26	348	P	P	20 40 40.1	+0.3
NOA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
NOA	**NORSAR Array B**	25.26	348	P	P	20 40 40.1	+0.3
	comp=Z,3.7nm,0.6s,mb4.1,baz=158,slow=9.0,SNR=17						
KAF	**Kangasniemi**	25.67	5	*e*p	P	20 40 43.4	-0.1
	comp=Z,3.3nm,0.4s,mb4.2						
KAF	**Kangasniemi**	25.67	5	*e*P	P	20 40 43.4	-0.1
KAF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.2						
JOF	**Joensuu**	26.99	10	*e*p	P	20 40 55.0	-0.4
	comp=Z,1.6nm,0.3s,mb4.0						
JOF	**Joensuu**	26.99	10	*e*P	P	20 40 55.0	-0.4
JOF				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.1						
TORD	**Torodi Ar. Bea**	29.35	222	P	P	20 41 18.9	+2.0
TORD	**Torodi Ar. Bea**	29.35	222	P	P	20 41 18.9	+2.0
	comp=Z,0.8nm,0.6s,mb3.6,baz=33,slow=9.6,SNR=6.3						
AKTK	**Aktyubinsk**	29.55	51	P	P	20 41 17.1	-1.3
AKTO	**Aktyubinsk**	29.55	51	P	P	20 41 17.1	-1.3
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.7						
AKTO	**Aktyubinsk**	29.55	51	P	P	20 41 17.1	-1.3
	comp=Z,1.4nm,0.6s,mb3.9,baz=266,slow=8.8,SNR=6.4						
ARU	**Arti**	31.74	40	⇑*i*P	P	20 41 37.5	-0.1
ARU				*e*S	S	20 46 46.4	+2.6
ARU				pmax	pmax		
	comp=Z,12nm,2.7s,mb4.2						
ARCES	**ARCESS Array B**	33.02	3	P	P	20 41 48.4	-0.3
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	**ARCESS Array B**	33.02	3	P	P	20 41 48.4	-0.3
	comp=Z,3.3nm,0.9s,mb4.3,baz=191,slow=10.0,SNR=13						
KEV	**Kevo**	33.30	4	*e*p	P	20 41 49.7	-1.4
	comp=Z,0.4nm,0.4s,mb3.7						
EKS2	**Erkin-Say**	40.20	65	P	P	20 42 51.0	+0.9
	SNR=10						
EKS2	**Erkin-Say**	40.20	65	*e*P	P	20 42 50.6	+0.5
	comp=Z,8.0nm,0.8s,mb4.5						
AAK	**Ala-Archa**	40.73	65	P	P	20 42 55.3	+0.8
	SNR=13						
AAK	**Ala-Archa**	40.73	65	*e*P	P	20 42 54.2	-0.3
AAK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
MKAR	**Makanchi Array**	45.49	57	P	P	20 43 32.4	-0.5
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	45.49	57	P	P	20 43 32.4	-0.5
	comp=Z,1.0nm,0.4s,mb4.0,baz=268,slow=7.8,SNR=12						
ZAL	**Zalesovo**	46.16	47	P	P	20 43 36.4	-1.7
ZALV	**Zalesovo Beam**	46.18	47	P	P	20 43 36.4	-1.8
	comp=Z,6.5nm,0.7s,mb4.7,baz=271,slow=8.6,SNR=15						
TIXI	**Tiksi**	60.82	20	*e*P	P	20 45 25.8	+0.5
TIXI	**Tiksi**	60.82	20	*e*P	P	20 45 25.8	+0.6
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
TIXI	**Tiksi**	60.82	20	*e*P	P	20 45 25.8	+0.6
	comp=Z,2.0nm,0.8s,mb4.3						
SONM	**Songino Array**	60.86	50	P	P	20 45 25.6	-0.3
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	**Songino Array**	60.86	50	P	P	20 45 25.6	-0.3
	comp=Z,0.7nm,0.8s,mb3.8,baz=278,slow=7.5,SNR=4.3						
BOD	**Bodaibo**	61.13	38	*e*P	P	20 45 26.9	-0.6
BOD				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
BOD	**Bodaibo**	61.13	38	*e*P	P	20 45 26.9	-0.6
	comp=Z,2.0nm,0.9s,mb4.2						
INK	**Inuvik**	73.69	351	P	P	20 46 47.1	+0.4
INK				pmax	pmax		
	comp=Z,1.0nm,0.8s						
INK	**Inuvik**	73.69	351	P	P	20 46 47.1	+0.4
	comp=Z,0.9nm,0.8s,mb3.7,baz=24,slow=6.2,SNR=3.9						
YKA	**Yellowknife Ar**	75.07	341	P	P	20 46 56.5	+1.7
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	**Yellowknife Ar**	75.07	341	P	P	20 46 56.5	+1.7
	comp=Z,1.2nm,0.6s,mb4.0,baz=30,slow=5.5,SNR=15						
ULM	**Lac du Bonnet**	77.36	324	P	P	20 47 09.5	+1.5
	comp=Z,2.1nm,0.7s,mb4.2,baz=101,slow=1.5,SNR=4.9						
KSRS	**Korea Array**	79.72	51	P	P	20 47 21.7	+0.4
	comp=Z,1.7nm,0.8s,mb4.0,baz=317,slow=4.7,SNR=6.8						
MJAR	**Matsushiro Arr**	86.52	46	P	P	20 47 56.5	+0.2
	comp=Z,0.3nm,0.3s,mb3.9,baz=318,slow=6.0,SNR=4.5						
PDAR	**Pinedale Array**	89.22	326	P	P	20 48 10.3	+1.2
	comp=Z,0.5nm,0.9s,mb3.8,baz=59,slow=5.6,SNR=3.0						
TXAR	**Lajitas Array**	96.56	314	P	P	20 48 45.8	+2.6
	comp=Z,0.3nm,0.6s,mb3.9,baz=18,slow=6.2,SNR=2.8						

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*UCR **12** 20:41:09.9, 856N×8321W, h7^{km}, MD3.7*
*UPA **12** 20:41:11.2, 865N×8323W, h8^{km}, MW4.3*
CASC 12 20:41:11.1±2.3**, 865N×8323W, h7**^{km}**, MD3.8, 1C-3D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRU2	**Volcan**	0.55	75	⇓*i*P	Pg	20 41 22.6	+0.9
BRU2				*e*S	Sg	20 41 31.6	+2.7
TBS2		0.58	76	*e*P	Pg	20 41 23.7	+1.4
TBS2				*e*S	Sg	20 41 33.4	+3.5
BAR1		0.59	352	⇑*i*P	Pg	20 41 23.4	+0.9
BAR1				*e*S	Sg	20 41 32.5	+2.3
BRU	**Baru**	0.68	77	*e*P	Pg	20 41 25.0	+0.9
BRU				*e*S	Sg	20 41 32.1	-0.8
CNI	**Changuinola**	1.03	43	⇓*i*P	Pg	20 41 30.7	-0.3
QCR	**Quepos**	1.20	310	*e*P	Pb	20 41 32.8	-1.4
QCR				*e*S	Sg	20 41 49.9	0.0
URSC	**Urasca**	1.29	335	*e*P	Pn	20 41 34.4	-1.2
URSC				*e*S	Sb	20 41 52.7	+0.2
LCR2	**La Lucha 2**	1.32	325	*e*P	Pn	20 41 34.6	-1.4
LCR2				*e*S	Sb	20 41 53.9	+0.4
LCR2				*e*S	Sb	20 41 54.4	+0.9
LAJ	**Bijagual**	1.49	324	*e*P	Pn	20 41 39.7	+1.4
PRS1	**Puriscal**	1.70	321	*e*P	Pn	20 41 38.8	-2.3
PRS1				⇓*e*P		20 41 40.2	
PRS1				*e*S	Sn	20 42 03.1	-0.1
CGA2	**Cerro Gallo 2**	1.82	318	*e*P	Pn	20 41 42.9	0.0
CGA2				*e*S	Sn	20 42 07.2	+1.0

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*NEIC **12** 21:17:11.5, 2758S×7082W, h44^{km}, MD3.7(GUC), After GUC.*
GUC 12 21:17:11.5±0.7**, 2758S×7082W, h44**^{km}±86^{km}**, MD3.7, ML3.2, 2C, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPCH	**Copiapo**	0.47	62	*e*P	Pn	21 17 22.0	0.0
CPCH				*i* S	Sn	21 17 30.5	+1.1
CPCH	**Copiapo**	0.47	62	*e*P	Pn	21 17 22.0	0.0
CPCH				*i* S	Sn	21 17 30.5	+1.1
CPCH				AML	AML	21 17 31.0	
	comp=E,12µm,0.1s						
CDCH	**Caldera**	0.50	359	*e*P	Pn	21 17 22.7	+0.2
CDCH				*i* S	Sn	21 17 30.9	+0.7
VACH	**Vallenar**	1.00	177	⇑*i*P	Pn	21 17 29.9	+0.8
VACH				*i* S	Sn	21 17 43.9	+1.9
VACH	**Vallenar**	1.00	177	⇑*i*P	Pn	21 17 29.9	+0.8
VACH				*i* S	Sn	21 17 43.9	+1.9
VACH				AML	AML	21 17 45.7	
	comp=E,1µm,0.1s						
TLL	**Tololo Astrono**	2.58	180	*e*P	Pn	21 17 52.5	+1.7
TLL				*i* S	Sn	21 18 22.8	+1.9
TLL	**Tololo Astrono**	2.58	180	*e*P	Pn	21 17 52.5	+1.7
TLL				*i* S	Sn	21 18 22.8	+1.9
TLL				AML	AML	21 18 38.6	
	comp=E,21nm,0.7s						

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*BJI **12** 21:56:21.4, 1250S×16630E, h10^{km}, mb4.6*
*ISCJB **12** 21:56:26.2±2.7, 125S±01×1662E±02, h47^{km}±21^{km}, mb4.3/14, MS3.5/6, Error ellipse: s-maj=27.9km s-min=12.7km az=148.9*
*NEIC **12** 21:56:28.4±1.9, 1245S×16629E, h58^{km}±15^{km}, mb4.2/1, Error ellipse: s-maj=24.0km s-min=12.9km az=73.0*
*IDC **12** 21:56:28.9±4.0, 1248S×16625E, h59^{km}±31^{km}, mb3.9/9, mb1 3.9/11, mb1mx3.8/18, mbtmp3.9/11, ML4.0/2, MS3.5/7, Ms1 3.5/7, ms1mx3.2/31, Error ellipse: s-maj=33.6km s-min=19.7km az=80.0*
ISC 12 21:56:28.9±2.2**, 125S**±01×**1662E**±02**, h55**^{km}±17^{km}**, n26, σ0^{s}72**/18**, mb4.3**/14**, MS3.5**/6**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	6.88	296	P	Pn	21 58 06.9	-0.3
	9.6nm,0.3s,baz=152,slow=0.5,SNR=6.2						
HNR				S	Sn	21 59 24.4	+0.2
	25nm,0.3s,baz=92,slow=23,SNR=4.4						
DZM	**Mont Dzumac**	9.54	179	P	Pn	21 58 43.7	+0.1
	0.5nm,0.3s,baz=6.9,slow=20,SNR=8.3						
DZM				LR	LR	22 02 03.3	
	comp=Z,267nm,19.6s,baz=51,slow=35						
CTA	**Charters Tower**	20.61	246	LR	LR	22 08 10.8	
	comp=Z,128nm,19.7s,MS3.3,baz=46,slow=34						
AFI	**Afiamalu**	21.45	96	LR	LR	22 07 02.0	
	comp=Z,26nm,19.5s,MS2.6,baz=291,slow=30						
STKA	**Stephens Creek**	29.76	226	P	P	22 02 31.1	+0.8
	1.8nm,0.7s,mb3.9,baz=49,slow=7.7,SNR=5.8						
STKA				LR	LR	22 14 18.1	
	comp=Z,126nm,20.3s,MS3.5,baz=27,slow=36						
WRA	**Warramunga Arr**	31.48	252	P	P	22 02 45.0	-0.6
	0.2nm,0.5s,mb3.2,baz=81,slow=9.2,SNR=3.7						
ASAR	**Alice Springs**	32.61	246	P	P	22 02 54.8	-0.7
	0.7nm,0.6s,mb3.8,baz=67,slow=9.8,SNR=12						
PPT	**Papeete**	42.90	102	*e*LR	LR	22 16 22.8	
	87nm,23.8s						
PPT	**Papeete**	42.90	102	LR	LR	22 19 49.6	
	comp=Z,150nm,19.6s,MS3.9,baz=35,slow=33						
NWAO	**Narrogin (SRO)**	49.08	237	LR	LR	22 26 03.9	
	comp=Z,114nm,20.4s,MS3.9,baz=142,slow=36						
MJAR	**Matsushiro Arr**	55.46	333	P	P	22 05 57.6	-0.4
	1.0nm,0.2s,mb4.4,baz=103,slow=8.2,SNR=12						
JNU	**Nakatsue**	56.52	324	P	P	22 06 05.8	+0.1
	7.5nm,0.8s,mb4.8,baz=112,slow=7.7,SNR=6.3						
ASAJ	**Asahikawa**	60.30	341	LR	LR	22 30 53.8	
	comp=Z,45nm,19.6s,MS3.6,baz=188,slow=34						
KSRS	**Korea Array**	61.33	326	P	P	22 06 39.1	+0.2
	1.7nm,0.8s,mb4.2,baz=144,slow=7.2,SNR=6.1						
BJI	**Beijing**	69.89	321	P	P	22 07 34.1	-0.1
BJI				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.5						
XAN	**Xi'an**	71.44	313	P	P	22 07 44.1	+0.4
XAN				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.5						
LZH	**Lanzhou**	76.07	312	*e*P	P	22 08 12.0	+1.2
LZH				AP	pP	22 08 15.0	-11
LZH				XP	sP	22 08 17.0	-15
LZH				AMB	AMB		
	comp=Z,19nm,1.0s,mb5.0						
ULN	**Ulaanbaatar**	79.74	324	*e*P	P	22 08 31.0	+0.2
	comp=Z,3.0nm,0.9s,mb4.2						
SONM	**Songino Array**	80.10	324	P	P	22 08 33.0	+0.2
	comp=Z,0.7nm,0.3s,mb4.0,baz=142,slow=6.0,SNR=26						
GTA	**Gaotai**	80.39	314	*e*P	P	22 08 36.0	+1.4
GTA				AP	pP	22 08 39.3	-11
GTA				XP	sP	22 08 41.2	-15
GTA				AMB	AMB		
	comp=Z,4.0nm,1.1s,mb4.3						
MK31	**Makanchi Array**	94.89	317	*e*P	P	22 09 44.6	-0.5
MKAR	**Makanchi Array**	94.89	317	P	P	22 09 44.8	-0.3
	comp=Z,3.2nm,0.7s,mb4.8,baz=98,slow=6.3,SNR=35						
ZALV	**Zalesovo Beam**	94.99	324	P	P	22 09 43.2	-2.2
	comp=Z,0.5nm,0.5s,mb4.2,baz=106,slow=5.3,SNR=5.1						
ARCES	**ARCESS Array B**	117.84	345	PKP	PKPdf	22 15 06.4	-2.2
ARCES	**ARCESS Array B**	117.84	345	PKP	PKPdf	22 15 06.4	-2.2
	comp=Z,3.5nm,0.9s,baz=17,slow=1.8,SNR=5.1						
TORD	**Torodi Ar. Bea**	164.91	274	PKPab	PKPab	22 17 23.7	-0.6
	comp=Z,1.5nm,0.9s,baz=81,slow=3.7,SNR=8.1						

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*NEIC **12** 21:59:48.8, 3390S×7208W, h37^{km}, MD3.8(GUC), After GUC.*
GUC 12 21:59:48.8±0.6**, 3390S×7208W, h37**^{km}±2^{km}**, MD3.8, ML2.9, 3C, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LNV	**Longovilo**	0.56	96	⇑*i*P	Pn	22 00 00.4	+0.2
LNV				*i* S	Sn	22 00 08.7	+0.4
TACH	**Talagante**	0.98	76	⇑*i*P	Pn	22 00 06.6	+0.5
TACH				*i* S	Sn	22 00 20.1	+1.3
SFDO	**San Fernando**	1.14	129	*e*P	Pn	22 00 08.8	+0.6
SFDO				*i* S	Sn	22 00 24.6	+2.1
RCDM	**Rinconada Maip**	1.14	69	*e*P	Pn	22 00 08.9	+0.7
RCDM				*i* S	Sn	22 00 23.7	+1.1
RCDM	**Rinconada Maip**	1.14	69	*e*P	Pn	22 00 08.9	+0.7
RCDM				*i* S	Sn	22 00 23.7	+1.1
RCDM				AML	AML	22 00 26.3	
	comp=N,612nm,0.1s						
CHCH	**Chadas Angostu**	1.19	92	⇑*i*P	Pn	22 00 09.9	+1.0
CHCH				*i* S	Sn	22 00 26.0	+2.2
CACH	**El Canelo**	1.25	100	*i* P	Pn	22 00 10.9	+1.2
PCH	**Pirque**	1.33	78	*e*P	Pn	22 00 12.1	+1.2
PCH				*i* S	Sn	22 00 30.4	+3.0
PEL	**Peldehue**	1.39	57	*e*P	Pn	22 00 13.1	+1.4
PEL				*i* S	Sn	22 00 31.8	+3.0
PEL				AML	AML	22 00 35.3	
	comp=N,382nm,0.6s						
CICH	**Cipreses**	1.44	107	*i* P	Pn	22 00 14.1	+1.8
CICH				*i* S	Sn	22 00 33.1	+3.1
FCH	**Farellones**	1.60	70	*e*P	Pn	22 00 16.7	+2.1
FCH				*i* S	Sn	22 00 37.6	+3.6
FCH				AML	AML	22 00 42.6	
	comp=N,193nm,0.4s						

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*IDC **12** 22:07:24.2±0.8, 978N×126.14E, h0^{km}, mb4.0/10, mb1 4.1/10, mb1mx4.0/20, mbtmp4.0/10, Error ellipse: s-maj=72.1km s-min=14.8km az=72.0*
*NEIC **12** 22:07:29.5±0.3, 976N×12608E, h35^{km}, mb4.1/10, Error ellipse: s-maj=19.5km s-min=5.5km az=72.0*
*ISCJB **12** 22:07:32.4±0.7, 976N±004×12619E±007, h79^{km}±6^{km}, mb4.0/19, Error ellipse: s-maj=12.6km s-min=5.3km az=154.5*
*MAN **12** 22:07:33, 977N×12612E, h46^{km}, mb5.0, ML4.0, MS4.1*
ISC 12 22:07:33.5±0.7**, 974N**±004×**12618E**±007**, h73**^{km}±6^{km}**, n50, σ0^{s}81**/57**, mb4.0**/19**, 2C-3D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	**Surigao**	0.68	274	⇓*e*P	Pn	22 07 47.1	-1.4
SCPH				*e*S	Sn	22 07 57.9	-1.6
MSLP	**Maasin**	1.36	287	*e*P	Pn	22 07 57.1	+0.3
MSLP				*e*S	Sn	22 08 15.0	+0.7
BIPH	**Bislig**	1.55	173	⇓*i*P	Pn	22 07 58.9	-0.5
BIPH				*e*S	Sn	22 08 17.6	-1.2
PLP	**Palo**	1.85	320	*e*P	Pn	22 08 03.4	+0.1
PLP				*e*S	Sn	22 08 21.5	-4.3
CGP	**Cagayan de Oro**	1.94	229	⇑*e*P	Pn	22 08 04.8	+0.2
CGP				*i* S	Sn	22 08 27.1	-1.0
OCLP	**Ormoc**	2.02	310	*e*P	Pn	22 08 07.0	+1.4
BUKP	**Musuan**	2.15	211	*e*P	Pn	22 08 08.5	+1.2
LLP	**Lapu-Lapu**	2.26	285	*e*P	Pn	22 08 08.9	+0.2
LLP				*e*S	Sn	22 08 34.7	-1.0
TBP	**Tagbilaran**	2.29	269	*e*P	Pn	22 08 09.3	+0.2
TBP				*e*S	Sn	22 08 32.2	-4.2
DAV	**Davao City (W)**	2.72	193	Pn	Pn	22 08 08.9	-6.1
MATI	**Mati**	2.77	178	*e*P	Pn	22 08 16.5	+0.7
SNPH	**Sibulan**	2.93	263	⇓*e*P	Pn	22 08 18.1	+0.2
CNP	**Catarman**	3.13	332	*e*P	Pn	22 08 20.6	0.0
PAGZ	**Pagadian**	3.34	236	*e*P	Pn	22 08 24.1	+0.6
GUIM	**Jordan**	3.65	284	*e*P	Pn	22 08 27.8	+0.2
RCP	**Roxas**	3.83	299	⇑*e*P	Pn	22 08 31.7	+1.6
OTRP	**Odiongan**	4.85	303	*e*P	Pn	22 08 44.7	+0.7
ENPP	**El Nido**	6.80	283	*e*P	Pn	22 09 11.3	+0.6
BALP	**Baler**	7.47	323	*e*P	Pn	22 09 20.7	+0.9
KAKA	**Kakadu**	23.15	164	*e*P	P	22 12 34.2	+0.3
	5.3nm,0.6s,mb4.0						
ENH	**Enshi**	25.69	325	*e*P	P	22 12 55.1	-1.8
	0.3nm,0.4s,mb3.1						
FITZ	**Fitzroy Crossi**	27.67	181	*e*P	P	22 13 14.3	-0.4
	3.5nm,0.9s,mb3.9						
FITZ	**Fitzroy Crossi**	27.67	181	P	P	22 13 14.5	-0.2
	0.9nm,0.5s,mb3.6,baz=142,slow=6.8,SNR=5.5						
PMG	**Port Moresby**	28.24	132	P	P	22 13 19.2	-0.7
WRA	**Warramunga Arr**	30.57	165	P	P	22 13 39.7	-0.7
	0.3nm,0.2s,mb3.6,baz=344,slow=8.1,SNR=18						
WRA				PcP	PcP	22 16 37.8	0.0
	0.4nm,0.8s,baz=335,slow=2.3,SNR=3.2						
WB2	**Warramunga Arr**	30.57	165	*e*P	P	22 13 41.6	+1.1
BJT	**Baijiatuau**	31.45	345	*e*P	P	22 13 48.6	+0.6
ASAR	**Alice Springs**	34.05	167	P	P	22 14 11.1	+0.2
	0.6nm,0.3s,mb3.9,baz=348,slow=7.0,SNR=22						
ASAR				PcP	PcP	22 16 48.2	+1.0
	0.5nm,0.7s,baz=3.5,slow=2.7,SNR=4.8						
FORT	**Forrest**	40.32	178	*e*P	P	22 15 05.5	+1.6
	16nm,0.9s,mb4.8						
ULN	**Ulaanbaatar**	41.29	340	*e*P	P	22 15 10.8	-0.9
	0.7nm,0.5s,mb3.8						
SONM	**Songino Array**	41.48	340	P	P	22 15 13.2	-0.1
	0.3nm,0.5s,mb3.4,baz=159,slow=10.0,SNR=6.3						
STKA	**Stephens Creek**	43.93	161	*e*P	P	22 15 34.0	+0.8
	2.3nm,1.2s,mb3.8						
STKA	**Stephens Creek**	43.93	161	P	P	22 15 34.1	+0.9
	1.0nm,0.5s,mb3.8,baz=282,slow=6.5,SNR=5.1						
MK31	**Makanchi Array**	52.40	323	*e*P	P	22 16 38.1	-0.3
MKAR	**Makanchi Array**	52.40	323	P	P	22 16 38.2	-0.1
MKAR	**Makanchi Array**	52.40	323	P	P	22 16 38.2	-0.1
	1.6nm,0.5s,mb4.3,baz=120,slow=8.1,SNR=24						
ZALV	**Zalesovo Beam**	55.05	332	P	P	22 16 56.8	-0.8
	0.8nm,0.3s,mb4.2,baz=124,slow=7.2,SNR=6.5						
UCH	**Uchtor**	55.49	315	*e*P	P	22 17 01.5	+0.5
	0.6nm,0.5s,mb3.9						
AML	**Almayashu**	56.03	315	P	P	22 17 05.4	+0.5
KURK	**Kurchatov**	56.45	326	P	P	22 17 07.1	-0.6
TIXI	**Tiksi**	61.88	1	*e*P	P	22 17 43.4	-1.5
	1.5nm,0.5s,mb4.3						
BRVK	**Borovoye**	62.12	326	*e*P	P	22 17 47.0	+0.2
	1.7nm,0.6s,mb4.2						
ARU	**Arti**	69.62	327	*e*P	P	22 18 34.1	-0.8
	4.0nm,0.6s,mb4.4						
KIV	**Kislovodsk**	78.65	313	*e*P	P	22 19 27.2	-0.5
OBN	**Obninsk**	81.87	325	P	P	22 19 44.6	-0.2
JOF	**Joensuu**	83.62	333	*e*p	P	22 19 53.4	-0.3
	0.8nm,0.4s,mb3.9						
ARCES	**ARCESS Array B**	84.66	340	P	P	22 19 59.0	+0.1
	1.4nm,0.6s,mb4.1,baz=79,slow=6.1,SNR=10						
FINES	**FINESS Array B**	86.32	332	P	P	22 20 07.0	-0.2
	0.9nm,0.5s,mb4.0,baz=64,slow=4.4,SNR=6.6						
YKA	**Yellowknife Ar**	94.28	24	P	P	22 20 45.2	+0.7
YKA	**Yellowknife Ar**	94.28	24	P	P	22 20 45.2	+0.7
	0.5nm,0.8s,mb3.9,baz=300,slow=4.9,SNR=7.9						

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*NEIC **12** 22:17:05.8, 19.17N×9599W, h17^{km}, MD3.7(MEX), After MEX.*
MEX 12 22:17:05.7±0.6**, 1915N×9598W, h16**^{km}±8^{km}**, MD3.7, Veracruz**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVIG	**Laguna Verde**	0.70	324	*i* P	Pg	22 17 16.7	-2.7
LVIG				*i* S	Sg	22 17 25.4	-3.4
TPIG	**Tehuac#an**	1.50	241	*i* S	Sn	22 17 46.5	-4.7
UTMO	**Huajuapan**	2.17	233	*i* P	Pn	22 17 39.0	-2.2
UTMO				*i* S	Sn	22 18 03.2	-4.7
OXX	**Oaxaca**	2.18	199	*i* P	Pn	22 17 38.0	-3.3
VHO	**Vista Hermosa**	2.19	199	*i* P	Pn	22 17 38.7	-2.8
VHO				*i* S	Sn	22 18 03.8	-4.5
CMIG	**Matias Romero**	2.30	153	*i* P	Pn	22 17 40.0	-3.0
CMIG				*i* S	Sn	22 18 05.7	-5.3

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*ISCJB **12** 22:29:08.1±0.8, 3537N±004×13690E±006, h7^{km}±8^{km}, Error ellipse: s-maj=8.3km s-min=6.2km az=164.9*
*JMA **12** 22:29:08.3, 3539N×13692E, h8^{km}±1^{km}, M2.8 Broadband fault plane solution: P waves. NP1: φ$_s$287.00000°, δ41.00000°, λ43.00000°. NP2: φ$_s$162.00000°, δ64.00000°, λ123.00000°. Principal axes: T Plg58.0000°, Azm118.0000°; N Plg29.0000°, Azm326.0000°; P Plg13.0000°, Azm229.0000°;*
JMA Felt I J1.
ISC 12 22:29:08.4±0.7**, 3537N**±004×**13690E**±006**, h7**^{km}±9^{km}**, n6, σ0^{s}23**/10**, 3C, Western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAO	**Obara**	0.31	109	⇑P	Pg	22 29 14.4	-0.1
JAO				*e*S	Sg	22 29 18.8	+0.1
JGM	**Miyama**	0.36	336	⇑P	Pg	22 29 15.5	+0.1
JGM				*e*S	Sg	22 29 20.1	0.0
TSUJ	**Tsu 2**	0.77	211	P	Pg	22 29 23.4	+0.3
JIE	**Ise**	0.99	189	P	Pg	22 29 27.0	-0.3
JIE				*e*S	Sg	22 29 40.1	-0.1
JKG	**Kaga**	1.01	333	⇑P	Pg	22 29 27.7	-0.2
MAT	**Matsushiro**	1.58	42	P	Pn	22 29 37.2	+0.4
MAT				S	Sn	22 29 57.2	-0.3

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*CSEM **12** 22:37:56.7±0.2, 3643N×2678E, h148^{km}±2^{km}, Error ellipse: s-maj=3.9km s-min=2.9km az=21.0*
*ISCJB **12** 22:37:57.2±0.7, 3638N±006×2682E±005, h139^{km}±10^{km}, Error ellipse: s-maj=9.9km s-min=7.2km az=179.4*
*NEIC **12** 22:37:57.4, 3643N×2675E, h138^{km}, MG3.0(ATH), After ATH.*
*ATH **12** 22:37:57.4, 3643N×2675E, h138^{km}±1^{km}*
*HLW **12** 22:38:00.7, 36.14N×27.02E, h33^{km}, Mb3.6*

ISC 12 22:37:58.1±0.8**,3639N**±006×**2683E**±005**,h134**^{km}±11^{km}**,n22,**σ**0**^{s}**68**/24**,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BDRM	Kayabasi	0.84	36	iP	Pn	22 38 19.2	-0.7
KARP	Karpathos	0.88	162	eP	Pn	22 38 21.1	+0.8
ARG	Arkhangelos	1.06	99	eP	Pn	22 38 23.0	+1.1
APE	Apeiranthos	1.25	304	eP	Pn	22 38 23.4	-0.3
SMG	Samos	1.32	0	P	Pn	22 38 24.2	-0.3
NPS	Neapolis	1.49	222	eP	Pn	22 38 26.5	+0.1
NPS				eS	Sn	22 38 47.4	-0.5
XRY	Khrisi	1.77	212	eP	Pn	22 38 30.0	+0.5
IDI	Anoyia	1.92	236	P	Pn	22 38 31.7	+0.4
AKAS	Kas	2.25	93	iP	Pn	22 38 36.3	+1.0
AKAS	Kas	2.25	93	iP	Pn	22 38 36.3	+1.0
AKAS				iS	Sn	22 39 02.1	-1.7
VAM	Vamos	2.35	246	eP	Pn	22 38 36.8	+0.3
GOLH	Golhisar	2.35	68	iP	Pn	22 38 37.5	+1.0
VLI	Veliai	3.15	277	eP	Pn	22 38 46.0	-0.7
ITM	Ithomi	4.01	283	P	Pn	22 38 58.4	+0.4
SLUM		5.06	196	P	Pn	22 39 12.0	-0.1
HMAT	Matruh	5.28	177	P	Pn	22 39 14.0	-1.0
VLS	Valsamata	5.29	292	P	Pn	22 39 14.7	-0.3
HHAG	Hagoal	7.79	144	P	Pn	22 39 48.8	0.0
AMAG	Maghara	7.82	135	P	Pn	22 39 48.6	-0.6
SUZ		8.24	141	P	Pn	22 39 55.0	+0.1
SUZ		8.24	141	P	Pn	22 39 55.0	+0.2
	2μm,0.1s						
HFRF	Wahat Farafira	9.30	172	P	Pn	22 40 09.1	+0.2

FUNV 12 22:44:23.5,672N×7318W,h163^{km}**,MW3.5,4C,Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAPV	Capacho	1.42	37	eS	Sn	22 45 14.6	-1.7
VIGV	El Vigia	2.77	40	⇑iP	Pn	22 45 07.7	-0.9
VIGV				eS	Sn	22 45 39.5	-3.9
SOCV	Socops	2.78	56	⇑iP	Pn	22 45 08.0	-0.7
SOCV				eS	Sn	22 45 40.5	-3.1
VIRV	Villa del Rosa	3.83	11	⇑eP	Pn	22 45 19.9	-2.1
VIRV				eS	Sn	22 46 02.6	-4.9
QARV	Quebrada Arrib	4.35	37	⇑iP	Pn	22 45 27.6	-1.0
QARV				eS	Sn	22 46 14.8	-4.6
SANV	Sanarito	4.54	52	eP	Pn	22 45 29.6	-1.5
CURV	Curarigua	4.56	44	eP	Pn	22 45 29.8	-1.7
DABV	Dabajuro	4.87	31	eP	Pn	22 45 34.4	-1.1
TEPV	Terepaima	5.09	51	eP	Pn	22 45 36.9	-1.5
BAUV	El Baul	5.55	66	eP	Pn	22 45 41.9	-2.5
BAUV				eS	Sn	22 46 40.6	-7.1
TURV	Turiamo	6.45	55	eP	Pn	22 45 54.7	-1.6
CAOV	Caicara del Or	6.83	85	eP	Pn	22 45 58.8	-2.6
CUPV	Cœpira	8.03	65	eP	Pn	22 46 14.9	-2.4

IDC ***12*** *23:11:57.5±0.7,3676N×7948E,h0^{km},mb3.8/13, mb1 4.0/15,mb1mx3.9/24,mbtmp3.9/15,ML4.0/2,MS3.9/10, Ms1 3.9/10,ms1mx3.7/25,Error ellipse: s-maj=23.3km s-min=15.0km az=44.0*

BJI ***12*** *23:11:59.3,3698N×7931E,h22^{km},mB4.6,mb4.1,ML4.6, Ms4.1,Msz3.9*

ISCJB ***12*** *23:12:00.0±1.2,3681N±003×7954E±004,h23^{km}±9^{km}, mb4.1/32,MS3.9/12,Error ellipse: s-maj=5.8km s-min=4.3km az=5.7*

MOS ***12*** *23:12:01.5±1.6,3688N×7945E,h33^{km},mb4.3/23, MS3.9/9,Error ellipse: s-maj=10.0km s-min=5.8km az=96.6*

NEIC ***12*** *23:12:02.1±2.2,3685N×7953E,h26^{km}±16^{km},mb4.3/12, Error ellipse: s-maj=8.7km s-min=5.9km az=213.0*

NNC ***12*** *23:12:09.0±5.1,3786N×7933E,h0^{km},mb4.5,mpv4.2, Error ellipse: s-maj=43.1km s-min=23.0km az=166.0*

ISC 12 23:12:02.8±1.1**,3685N**±002×**7957E**±004**,h28**^{km}±8^{km}**,n132,**σ**1**^{s}**30**/151**,mb4.1**/32**,MS3.9**/12**,8C-8D,Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	3.89	314	⇓iPG	Pn	23 13 02.5	+1.7
KSH				S	Sn	23 13 49.3	+3.8
KSH				Smax			
	comp=N,3μm,0.5s						
KSH				Smax			
	comp=E,3μm,0.5s						
DLH	Dalhousie	5.22	216	eP	Pn	23 13 22.0	+2.9
DLH				ex	x	23 14 28.0	
THN	Thein Dam	5.43	217	eP	Pn	23 13 23.9	+1.9
THN				eS	Sn	23 14 23.9	+0.3
PONG	Pong	5.73	213	ex	x	23 13 20.0	
SDNR	Sundarnagar	5.75	203	eP	Pn	23 13 29.4	+3.0
ULHL	Ulahol	5.97	336	P	Pb	23 13 45.5	-0.7
	SNR=7.2						
KZA	Kyzart	6.20	329	P	Pn	23 13 33.5	+1.0
	SNR=17						
JOSI	Joshimath	6.28	180	eP	Pn	23 13 37.8	+4.2
JOSI				eS	Sn	23 14 52.5	+8.1
JOSI				AML	AML	23 14 53.7	
	comp=E,315nm,0.6s						
JOSI				AML	AML	23 14 56.2	
	comp=N,315nm,0.7s						
UCH	Uchtor	6.64	326	P	Pn	23 13 39.8	+1.2
	SNR=11						
UCH	Uchtor	6.64	326	ePn	Pn	23 13 39.1	+0.6
	comp=N,34nm,0.6s						
UCH				eSn	Sn	23 15 00.4	+7.1
KNDC	Almaty	6.67	343	⇓Pn	Pn	23 13 38.7	-0.2
	comp=N,17nm,0.5s						
KNDC				⇑Pg	Pn	23 13 52.6	+14
	comp=N,102nm,1.0s						
KNDC				⇑Lg		23 15 13.0	
	comp=N,506nm,1.3s						
TKM2	Tokmak 2	6.79	334	P	Pn	23 13 39.6	-0.9
	SNR=8.0						
TKM2	Tokmak 2	6.79	334	⇑Pn	Pn	23 13 41.1	+0.5
	comp=N,15nm,1.3s						
TKM2				Pg	Pn	23 14 00.8	+20
TKM2				⇓Lg		23 15 19.4	
	comp=N,2.4nm,0.6s						
TKM2	Tokmak 2	6.79	334	ePn	Pn	23 13 42.7	+2.1
	comp=N,30nm,0.6s						
TKM2				eSn	Sn	23 15 04.7	+7.7
TKM2	Tokmak 2	6.79	334	eP	Pn	23 13 42.7	+2.1
TKM2				e		23 15 04.7	
TKM2				pmax	pmax		
	comp=Z,30nm,0.6s						
KBK	Karagaybulak	6.81	330	P	Pn	23 13 42.8	+1.9
	SNR=7.5						
AML	Almayashu	6.96	321	P	Pn	23 13 43.3	+0.4
	SNR=17						
AML	Almayashu	6.96	321	ePn	Pn	23 13 43.6	+0.7
	comp=Z,44nm,0.6s						
AML				eSn	Sn	23 15 08.8	+7.6
AAK	Ala-Archa	6.98	327	ePn	Pn	23 13 43.5	+0.4
	comp=Z,38nm,0.8s						
AAK				eSn	Sn	23 15 10.2	+8.6
AAK	Ala-Archa	6.98	327	eP	Pn	23 13 43.5	+0.4
AAK				e		23 15 10.2	
AAK				pmax	pmax		
	comp=Z,38nm,0.8s						
FRU	Bishkek	7.09	329	eP	Pn	23 13 45.0	+0.3
CHMS	Chumysh	7.17	330	P	Pn	23 13 46.9	+1.0
	SNR=7.1						
EKS2	Erkin-Say	7.32	324	ePn	Pn	23 13 50.0	+2.1
	comp=Z,27nm,0.7s						
EKS2				eSn	Sn	23 15 17.2	+7.2
RTK	Rohtak	8.23	200	ex	x	23 14 07.4	
NDI	New Delhi	8.38	194	eP	Pn	23 14 02.0	-0.5
NDI				eS	Sn	23 15 36.0	-0.2
AYAN	Aya Nagar	8.59	195	eP	Pn	23 14 05.3	-0.1
KBL	Kabul	8.87	258	ePn	Pn	23 14 07.8	-1.3
KBL				eSn	Sn	23 15 43.6	-4.6
KUDL	Kundal	9.06	198	eP	Pn	23 14 12.8	+1.0
WMQ	Urumqi	9.32	39	P	Pn	23 14 14.7	-0.6
WMQ				S	Sn	23 15 59.5	+0.4
WMQ				LR	LR		
	comp=N,566nm,4.0s						
KK31	Karatay Array	9.34	315	Pn	Pn	23 14 14.2	-1.4
	comp=N,2.9nm,0.5s,baz=141,slow=13,SNR=27						
KK31				⇑Sn	Sn	23 15 56.1	-3.7
	comp=N,12nm,0.5s,baz=151,slow=28,SNR=6.4						
AGRA	Agra	9.69	189	eP	Pn	23 14 19.9	-0.5
MK31	Makanchi Array	10.14	11	Pn	Pn	23 14 24.6	-2.0
	comp=N,17nm,0.7s,baz=187,slow=11,SNR=203						
MK31				⇑Sn	Sn	23 16 11.6	-7.7
	comp=N,13nm,0.5s,baz=188,slow=24,SNR=6.6						
MK31	Makanchi Array	10.14	11	ePn	Pn	23 14 24.8	-1.7
MK31				eSn	Sn	23 16 17.3	-1.9
MK31	Makanchi Array	10.14	11	eP	Pn	23 14 24.8	-1.7
MK31				e		23 16 17.3	
MKAR	Makanchi Array	10.14	11	Pn	Pn	23 14 25.2	-1.3
MKAR				Sn	Sn	23 16 14.3	-5.0
MKAR				LR	LR	23 19 01.3	
MKAR	Makanchi Array	10.14	11	P	Pn	23 14 25.2	-1.3
MKAR						23 16 14.3	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MKAR				smax			
	comp=N,4.0nm,0.3s						
MKAR				MLR	MLR		
	comp=Z,834nm,18.2s						
MKAR	Makanchi Array	10.14	11	Pn	Pn	23 14 25.2	-1.3
	comp=Z,1.3nm,0.3s,baz=186,slow=13,SNR=98						
MKAR				Sn	Sn	23 16 14.3	-5.0
	comp=Z,3.9nm,0.3s,baz=194,slow=20,SNR=8.2						
MKAR				LR	LR	23 19 01.3	
	comp=Z,834nm,18.1s,baz=208,slow=41						
AJM	Ajmer	11.16	203	eP	Pn	23 14 40.0	-0.5
AJM				iS	Sn	23 16 40.0	-4.3
LSA	Lhasa	12.02	123	eP	Pn	23 14 59.2	+6.9
LSA	Lhasa	12.02	123	ePn	Pn	23 14 50.3	-2.0
	comp=Z,59nm,1.8s						
LSA	Lhasa	12.02	123	eP	Pn	23 14 50.3	-2.0
LSA				pmax	pmax		
	comp=Z,59nm,1.8s						
JBP	Jabalpur	13.64	178	⇑ix	Pn	23 15 13.8	-0.7
JBP				ix	x	23 17 36.9	
KURK	Kurchatov	13.88	357	⇑Pn	Pn	23 15 13.9	-3.6
	comp=Z,33nm,1.4s						
KURK				⇑Lg		23 18 58.9	
	comp=Z,44nm,2.1s						
KURK	Kurchatov	13.88	357	ePn	Pn	23 15 14.3	-3.3
	comp=Z,66nm,1.3s						
KURK				eSn	Sn	23 17 57.3	+6.7
KURK	Kurchatov	13.88	357	eP	Pn	23 15 14.3	-3.3
KURK				e		23 17 57.3	
KURK				pmax	pmax		
	comp=Z,66nm,1.3s						
GTA	Gaotai	16.13	75	eP	Pn	23 15 51.6	+4.0
GTA				AP	pP	23 15 56.0	-2.0
GTA				XP	sP	23 15 58.5	-3.0
GTA				S	Sn	23 18 45.8	+0.2
GTA				SS		23 19 04.4	
GTA				AMB	AMB		
	comp=Z,2.0nm,1.0s						
GTA				AMB	AMB		
	comp=Z,108nm,4.2s						
GTA				LR	LR		
	comp=N,233nm,14.1s						
GTA				LR	LR		
	comp=E,359nm,15.6s						
GTA				LR	LR		
	comp=Z,394nm,14.8s						
BRVK	Borovoye	17.46	341	P	Pn	23 16 03.4	-0.8
	comp=Z,9.2nm,1.7s						
BRVK	Borovoye	17.46	341	Pn	Pn	23 16 03.9	-0.3
	comp=Z,19nm,1.0s						
BRVK	Borovoye	17.46	341	P	Pn	23 16 03.9	-0.3
BRVK				pmax	pmax		
	comp=Z,19nm,1.0s						
ZAL	Zalesovo	17.47	10	P	Pn	23 16 02.4	-1.9
ZALV	Zalesovo Beam	17.48	10	P	Pn	23 16 02.4	-2.1
	comp=Z,0.5nm,0.3s,baz=195,slow=10,SNR=29						
ZALV				LR	LR	23 23 45.4	
	comp=Z,305nm,20.3s,baz=159,slow=40						
NVS	Novosibirsk	18.17	7	eP	Pn	23 16 10.6	-2.3
NVS				pmax	pmax		
	comp=Z,45nm,1.9s						
NVS				pmax	pmax		
	comp=N,55nm,1.7s						
AB31	Akbulak array	18.89	317	⇓P	Pn	23 16 21.3	-0.4
	comp=N,2.4nm,0.6s,baz=122,slow=13,SNR=17						
HYB	Hyderabad	19.38	183	eP	Pn	23 16 26.5	-1.3
HYB	Hyderabad	19.38	183	iP	Pn	23 16 26.5	-1.3
HYB				eS	Sn	23 20 09.0	+4.7
LZH	Lanzhou	19.53	85	eP	Pn	23 16 29.5	0.0
LZH				AMB	AMB		
	comp=Z,14nm,1.0s						
LZH				AMB	AMB		
	comp=Z,120nm,4.0s						
LZH				LR	LR		
	comp=E,417nm,14.4s						
LZH				LR	LR		
	comp=Z,328nm,14.5s						
LZH	Lanzhou	19.53	85	eP	Pn	23 16 29.5	0.0
	comp=Z,14nm,1.0s						
LZH				pP	pP	23 16 32.0	-3.5
LZH				sP	sP	23 16 33.5	-5.5
AKTK	Aktyubinsk	20.58	318	P	P	23 16 39.2	-0.2
AKTO	Aktyubinsk	20.58	318	P	P	23 16 39.3	-0.1
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKTO	Aktyubinsk	20.58	318	P	P	23 16 39.2	-0.2
	comp=Z,1.7nm,0.5s,baz=117,slow=15,SNR=5.9						
MOY	Mondy	21.21	39	eP	P	23 16 47.4	+1.2
MOY				pmax	pmax		
	comp=Z,30nm,2.1s,mb4.2						
ZAK	Zakamensk	21.73	44	⇓iP	P	23 16 52.1	+0.3
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb3.8						
SONM	Songino Array	22.55	52	P	P	23 17 01.4	+0.9
SONM				pmax	pmax		
	comp=Z,5.0nm,1.0s						
SONM				MLR	MLR		
	comp=Z,572nm,18.2s						
SONM	Songino Array	22.55	52	P	P	23 17 01.4	+0.9
	comp=Z,4.8nm,1.0s,mb3.9,baz=249,slow=9.2,SNR=23						
SONM				LR	LR	23 27 05.9	
	comp=Z,572nm,18.2s,MS4.0,baz=355,slow=40						
TLY	Talaya	22.59	41	eP	P	23 17 03.5	+2.6
TLY				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.0						
TLY				MLR	MLR		
	comp=Z,203nm,13.0s,MS3.7						
ULN	Ulaanbaatar	22.98	53	eP	P	23 17 05.9	+0.9
	comp=Z,6.5nm,0.8s,mb4.1						
ULN	Ulaanbaatar	22.98	53	eP	P	23 17 05.9	+0.8
ULN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.1						
KMI	Kunming	22.98	114	P	P	23 17 06.4	+1.1
KMI				AMB	AMB		
	comp=Z,8.0nm,1.1s,mb4.1						
KMI				LR	LR		
	comp=Z,59nm,23.0s,MS3.0						
KMI	Kunming	22.98	114	P	P	23 17 06.4	+1.1
	comp=Z,8.0nm,1.1s,mb4.1						
KMI				LR	LR		
	comp=Z,60nm,23.0s,MS3.0						
IRK	Irkutsk	23.22	41	eP	P	23 17 13.1	+5.6
IRK				pmax	pmax		
	comp=N,21nm,0.8s						
BTO	Baotou	23.99	72	eP	P	23 17 17.1	+2.1
ARU	Arti	24.15	331	eP	P	23 17 14.9	-1.3
	comp=N,14nm,1.0s,mb4.4						
ARU	Arti	24.15	331	⇓iP	P	23 17 20.3	+4.0
ARU				e		23 17 45.6	
ARU				ePPP		23 17 56.0	
ARU				eS	S	23 21 33.2	+0.8
ARU				eSS		23 22 15.2	
ARU				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.2						
CHTO	Chiang Mai	24.74	131	eP	P	23 17 22.4	+0.3
	comp=Z,11nm,0.8s,mb4.4						
CHTO	Chiang Mai	24.74	131	eP	P	23 17 22.4	+0.4
CHTO				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.4						
KIV	Kislovodsk	28.79	296	P	P	23 17 58.7	+0.4
KIV	Kislovodsk	28.79	296	P	P	23 17 58.7	+0.4
BOD	Bodaibo	30.85	36	eP	P	23 18 13.7	-2.6
BOD				pmax	pmax		
	comp=Z,3.0nm,2.0s,mb3.8						
MALT	Malatya	32.45	285	P	P	23 18 31.7	+1.0
	comp=Z,2.5nm,1.0s,mb4.0						
MALT	Malatya	32.45	285	P	P	23 18 31.7	+1.0
MALT				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.9						
PRGR	Permogore	32.60	330	eP	P	23 18 35.4	+3.7
PRGR				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
SIM	Simferopol’	34.92	298	eP	P	23 18 57.5	+5.5
SIM				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
BR131	Keskin Array S	35.87	289	P	P	23 19 00.2	-0.1
BRTR	Keskin Array B	35.87	289	P	P	23 18 58.8	-1.5
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	35.87	289	P	P	23 18 58.8	-1.5
	comp=Z,0.7nm,0.8s,mb3.6,baz=69,slow=6.8,SNR=5.8						
AKASG	Malin Array Be	38.16	308	P	P	23 19 18.1	-1.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	38.16	308	P	P	23 19 18.1	-1.5
	comp=Z,1.2nm,0.4s,mb4.0,baz=76,slow=8.2,SNR=4.3						
KSRS	Korea Array	38.20	74	LR	LR	23 36 51.0	
	comp=Z,82nm,18.4s,MS3.6,baz=324,slow=39						
PSI	Prapat	38.29	148	P	P	23 19 19.1	-1.9
PSI				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.4						
PSI	Prapat	38.29	148	P	P	23 19 19.1	-1.9
	comp=Z,2.5nm,0.4s,mb4.3,baz=325,slow=19,SNR=3.8						
JOF	Joensuu	39.16	327	ep	P	23 19 27.0	-0.9
	comp=Z,0.7nm,0.3s,mb3.9						
JOF	Joensuu	39.16	327	eP	P	23 19 27.0	-0.9
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.0						
KLR	Kul’dur	39.34	55	eP	P	23 19 32.7	+3.2
MLR	Muntele Rosu	40.62	300	⇓iP	P	23 19 41.5	+1.3
FINES	FINESS Array B	41.15	324	iP	P	23 19 48.5	+4.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	41.15	324	P	P	23 19 43.7	-0.6
	comp=Z,1.3nm,0.8s,mb3.6,baz=119,slow=13,SNR=4.9						
FINES				LR	LR	23 37 53.2	
	comp=Z,119nm,20.8s,MS3.7,baz=14,slow=38						
TIXI	Tiksi	42.94	21	eP	P	23 19 57.3	-1.5
TIXI				e		23 21 48.1	
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
TIXI				MLR	MLR		
	comp=Z,318nm,14.0s,MS4.4						
KEV	Kevo	43.16	336	ep	P	23 20 00.7	+0.1
	comp=Z,0.3nm,0.4s,mb3.4						
ARCES	ARCESS Array B	43.57	336	P	P	23 20 02.2	-1.7
ARCES				LR	LR	23 41 36.5	
ARCES	ARCESS Array B	43.57	336	P	P	23 20 02.2	-1.7
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES				MLR	MLR		
	comp=Z,238nm,19.5s						
ARCES	ARCESS Array B	43.57	336	P	P	23 20 02.2	-1.7
	comp=Z,2.0nm,0.7s,mb4.0,baz=99,slow=8.1,SNR=7.4						
ARCES				LR	LR	23 41 36.4	
	comp=Z,238nm,19.4s,MS4.1,baz=25,slow=41						
OJC	Ojcow	44.19	307	eP	P	23 20 13.3	+4.1
MORC	Moravsky Berou	45.69	307	⇓iP	P	23 20 21.8	+0.7
MAJO	Matsushiro	46.35	72	P	P	23 20 26.9	+0.4
NB2	NORSAR Subarra	48.27	323	P	P	23 20 40.8	-0.3
	comp=Z,4.9nm,1.1s,mb4.5,baz=88,slow=7.9						
NOA	NORSAR Array B	48.27	323	P	P	23 20 40.3	-0.8
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA				MLR	MLR		
	comp=Z,122nm,21.7s						
NOA	NORSAR Array B	48.27	323	P	P	23 20 40.3	-0.8
	comp=Z,0.6nm,0.5s,mb3.9,baz=101,slow=6.8,SNR=3.2						
NOA				LR	LR	23 42 04.8	
	comp=Z,122nm,21.7s,MS3.8,baz=180,slow=37						
GERES	GERESS Array B	48.33	306	P	P	23 20 40.6	-1.0
GERES				LR	LR	23 43 29.7	
GERES	GERESS Array B	48.33	306	P	P	23 20 40.6	-1.1
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES				MLR	MLR		
	comp=Z,202nm,20.1s						
GERES	GERESS Array B	48.33	306	P	P	23 20 40.6	-1.0
	comp=Z,0.7nm,0.6s,mb3.8,baz=66,slow=7.8,SNR=4.3						
GERES				LR	LR	23 43 29.7	
	comp=Z,202nm,20.1s,MS4.1,baz=306,slow=39						
MA2	Magadan	49.79	39	eP	P	23 20 54.3	+1.6
MA2				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.7						
SEY	Seymchan	50.25	35	eP	P	23 20 57.3	+1.1
WLF	Walferdange	52.94	309	P	P	23 21 17.5	+1.0
LPG	La Plagne	53.77	304	eP	P	23 21 20.6	-2.0
	comp=Z,18nm,0.9s,mb4.7						
LPG	La Plagne	53.77	304	eP	P	23 21 20.6	-2.0
	comp=Z,9.0nm,0.9s,mb4.7						
LPG	La Plagne	53.77	304	eP	P	23 21 20.6	-2.0
LPG				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
LPL	La Plagne	53.77	304	eP	P	23 21 20.9	-1.8
	comp=Z,9.4nm,0.8s,mb4.5						
LPL	La Plagne	53.77	304	eP	P	23 21 20.9	-1.8
	comp=Z,4.7nm,0.8s,mb4.5						
LPL	La Plagne	53.77	304	eP	P	23 21 20.9	-1.8
LPL				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
KMBO	Kilima Mbogo	54.46	236	LR	LR	23 45 02.0	
	comp=Z,112nm,18.2s,MS4.0,baz=98,slow=36						
BILL	Bilibino	55.20	27	eP	P	23 21 34.0	+1.3
BILL				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
BILL				MLR	MLR		
	comp=Z,100nm,14.0s,MS4.0						
IMA2	Indian Mountai	69.55	20	eP	P	23 23 13.2	+4.5
COLA	College	72.05	19	eP	P	23 23 26.2	+2.3
	comp=Z,5.7nm,0.7s,mb4.6						
COLA	College	72.05	19	eP	P	23 23 26.2	+2.3
COLA				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
TORD	Torodi Ar. Bea	72.60	274	P	P	23 23 26.4	-1.6
	comp=Z,1.3nm,0.8s,mb3.9,baz=47,slow=5.3,SNR=36						
EGAK	Eagle	73.80	17	eP	P	23 23 38.3	+4.1
	comp=Z,5.3nm,1.1s,mb4.4						
WRA	Warramunga Arr	76.53	128	P	P	23 23 49.8	-0.8
WRA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
WRA	Warramunga Arr	76.53	128	P	P	23 23 49.8	-0.8
	comp=Z,3.2nm,0.9s,mb4.3,baz=327,slow=5.6,SNR=19						
WB2	Warramunga Arr	76.54	128	eP	P	23 23 50.0	-0.6
ASAR	Alice Springs	79.02	131	P	P	23 24 04.0	-0.3
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	Alice Springs	79.02	131	P	P	23 24 04.0	-0.4
	comp=Z,1.3nm,0.8s,mb3.9,baz=322,slow=5.4,SNR=14						
YKA	Yellowknife Ar	80.34	7	P	P	23 24 10.8	-0.3
	comp=Z,0.1nm,0.3s,mb3.2,baz=340,slow=6.1,SNR=4.2						
YKA				LR	LR	00 01 39.1	
	comp=Z,32nm,21.0s,MS3.6,baz=105,slow=37						

IDC ***12*** *23:18:59.2±2.5,1253N×8832W,h0^{km},mb3.6/3,mb1 3.9/5, mb1mx3.7/17,mbtmp3.7/5,ML3.6/2,MS2.8/1,Ms1 2.8/1, ms1mx2.2/26,Error ellipse: s-maj=73.8km s-min=22.0km az=36.0*

ISCJB ***12*** *23:19:01.4±0.8,1210N±007×8867W±004,h45^{km}±11^{km}, mb3.6/5,Error ellipse: s-maj=12.3km s-min=6.0km az=21.2*

CASC ***12*** *23:19:02.1±3.1,1207N×8858W,h18^{km}±25^{km},MD4.1, ML3.6*

NEIC ***12*** *23:19:03.4±1.3,1233N×8847W,h39^{km}±14^{km},mb3.9/4, Error ellipse: s-maj=22.6km s-min=11.9km az=211.0*

ISC 12 23:19:03.0±0.8**,1221N**±008×**8864W**±005**,h37**^{km}±14^{km}**,n43,**σ**1**^{s}**06**/48**,mb3.6**/5**,3C-4D,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSM	San Miguel	1.26	16	eP	x	23 20 00.0	
VSM				eS	x	23 20 19.2	
BLLM	Bellamira	1.29	18	⇓iP	x	23 20 00.2	
BLLM				eS	x	23 20 19.0	
CNCH	Conchagua	1.32	36	⇓eP	x	23 20 00.5	
CNCH				eS	x	23 20 21.4	
SNVI	San Vicente	1.41	352	eP	x	23 19 58.7	
SNVI				eS	x	23 20 22.3	
LFU	La Fuente	1.60	343	⇓eP	x	23 20 04.3	
LFU				eS	x	23 20 26.7	
TEL3	Telica 3	1.79	78	⇑eP	Pn	23 19 30.9	-0.5
TELN	Telica	1.81	77	eP	Pn	23 19 31.2	-0.4
SBLS	San Blas	1.89	329	eP	x	23 20 08.5	

SBLS				*e*S	x	23 20 34.0	
SNJE	**San Jose**	**1.90**	**330**	*e*P	x	23 20 08.0	
SNJE				*e*S	x	23 20 33.8	
RTR	**El Retiro**	**1.95**	**330**	*e*P	x	23 20 09.3	
RTR				*e*S	x	23 20 35.5	
COPN	**Copaltepe**	**2.00**	**91**⇑	*e*P	**Pn**	**23 19 33.9**	**-0.4**
COPN				*e*S	**Sn**	**23 19 59.8**	**+1.8**
	comp=Z,595nm,0.4s						
MOMJ	**Momotombo**	**2.06**	**84**	*e*P	**Pn**	**23 19 34.6**	**-0.5**
MOMJ				*e*S	**Sn**	**23 20 02.8**	**+3.2**
RBDL	**Robledal**	**2.15**	**332**	*e*P	x	23 20 12.6	
RBDL				*e*S	x	23 20 40.1	
APYN	**Apoyeque**	**2.23**	**89**	*e*P	**Pn**	**23 19 37.0**	**-0.5**
APYN				*e*S	**Sn**	**23 20 04.9**	**+1.0**
XAVN	**Gruta Xavier**	**2.26**	**91**	*e*P	**Pn**	**23 19 37.7**	**-0.1**
XAVN				*e*S	**Sn**	**23 20 05.1**	**+0.6**
	comp=Z,465nm,0.5s						
TGUH	**Tegucigalpa,Un**	**2.27**	**36**	*e*Pn	**Pn**	**23 19 36.4**	**-1.5**
TGUH				*e*Sn	**Sn**	**23 19 57.2**	**-7.5**
TISN	**Laguna Tiscapa**	**2.31**	**91**	*e*P	**Pn**	**23 19 38.6**	**0.0**
TISN				*e*S	**Sn**	**23 20 05.6**	**-0.3**
MGAN	**Managua**	**2.34**	**91**⇓	*e*P	**Pn**	**23 19 38.4**	**-0.5**
MGAN				*e*S	**Sn**	**23 20 07.2**	**+0.9**
	comp=N,860nm,0.6s						
TICN	**Ticuantepe**	**2.36**	**94**	*e*P	**Pn**	**23 19 39.5**	**+0.3**
TICN				*e*S	**Sn**	**23 20 07.6**	**+0.7**
HUEN		**2.41**	**87**	*e*P	**Pn**	**23 19 39.6**	**-0.3**
HUEN				*e*S	**Sn**	**23 20 09.9**	**+1.7**
APON	**Apoyo**	**2.53**	**96**	*e*P	**Pn**	**23 19 40.8**	**-0.8**
CONN	**Concepcion**	**3.02**	**102**	*e*P	**Pn**	**23 19 47.9**	**-0.3**
CONN				*e*S	**Sn**	**23 20 21.6**	**-1.6**
MADN	**Villa Maderas**	**3.14**	**104**	*e*P	**Pn**	**23 19 49.1**	**-0.9**
MADN				*e*S	**Sn**	**23 20 23.8**	**-2.5**
JTS	**JuntasAbangare**	**4.08**	**117**	Pn	**Pn**	**23 20 02.0**	**-0.9**
JTS				Sn	**Sn**	**23 20 49.5**	**-0.1**
JTS	**JuntasAbangare**	**4.08**	**117**	Pn	**Pn**	**23 20 02.0**	**-0.9**
	comp=N,5.2nm,0.3s,baz=319,slow=14,SNR=20						
JTS				Sn	**Sn**	**23 20 49.5**	**-0.1**
	comp=N,4.6nm,0.3s,baz=281,slow=22,SNR=4.0						
JCR	**Jicaral**	**4.18**	**124**	*e*P	**Pn**	**23 20 03.6**	**-0.6**
PRS1	**Puriscal**	**4.79**	**117**	*e*P	**Pn**	**23 20 13.0**	**+0.4**
LAJ	**Bijagual**	**5.01**	**117**	*e*P	**Pn**	**23 20 12.2**	**-3.4**
LCR2	**La Lucha 2**	**5.17**	**118**	*e*P	**Pn**	**23 20 19.5**	**+1.6**
QCR	**Quepos**	**5.19**	**122**	*e*P	**Pn**	**23 20 18.3**	**+0.2**
URSC	**Urasca**	**5.32**	**116**	*e*P	**Pn**	**23 20 21.7**	**+1.7**
BAR1		**6.00**	**119**⇑	*e*P	**Pn**	**23 20 30.1**	**+0.7**
CMIG	**Matias Romero**	**7.75**	**310**	Pn	**Pn**	**23 20 54.2**	**+0.8**
CMIG				Sn	**Sn**	**23 22 24.4**	**+4.5**
CMIG	**Matias Romero**	**7.75**	**310**	Pn	**Pn**	**23 20 54.2**	**+0.8**
	comp=N,0.6nm,0.3s,baz=124,slow=10,SNR=10						
CMIG				Sn	**Sn**	**23 22 24.4**	**+4.5**
	comp=N,0.4nm,0.3s,baz=231,slow=22,SNR=2.5						
TEIG	**Tepich**	**7.98**	**2**	LR	LR	23 24 12.9	
	comp=N,72nm,21.3s,baz=178,slow=41						
NATX	**Nacogdoches**	**20.23**	**345**	*e*P	**P**	**23 23 32.8**	**-2.2**
	comp=N,8.8nm,0.3s						
JCT	**Junction City**	**20.92**	**332**	*e*P	**P**	**23 23 42.1**	**-0.3**
	comp=N,4.9nm,0.6s						
LTX	**Lajitas**	**22.05**	**323**	*e*P	**P**	**23 23 55.7**	**+1.2**
	comp=N,1.4nm,0.6s,mb3.6						
TXAR	**Lajitas Array**	**22.05**	**323**	P	**P**	**23 23 55.5**	**+1.0**
	comp=N,0.9nm,0.6s,mb3.4,baz=147,slow=11,SNR=9.3						
WMOK	**Wichita Mounta**	**24.25**	**339**	*e*P	**P**	**23 24 16.9**	**+0.4**
	comp=N,1.1nm,0.5s,mb3.5						
ANMO	**Albuquerque**	**27.82**	**327**	P	**P**	**23 24 50.5**	**+1.6**
SCHQ	**Schefferville**	**45.85**	**17**	P	**P**	**23 27 20.0**	**-1.3**
	comp=N,2.1nm,0.8s,mb4.1,baz=226,slow=12,SNR=4.3						
YKA	**Yellowknife Ar**	**53.55**	**345**	P	**P**	**23 28 19.1**	**-0.6**
	comp=N,0.4nm,0.6s,mb3.5,baz=146,slow=6.8,SNR=7.5						

CASC 12 23:46:43.4±2.8**,11.97N**×**88.87W,h33**^{km}±73^{km}**,MD3.7, ML3.1,1C,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VSM	**San Miguel**	**1.56**	**22**	*e*P	x	23 47 44.2	
VSM				*e*S	x	23 48 05.7	
BLLM	**Bellamira**	**1.59**	**23**	*e*P	x	23 47 44.0	
BLLM				*e*S	x	23 48 03.2	
CAHU	**Cacacuatique**	**1.90**	**20**⇑	*e*P	x	23 47 49.2	
CAHU				*e*S	x	23 48 13.7	
SNJE	**San Jose**	**2.02**	**339**	*e*P	x	23 47 51.5	
SNJE				*e*S	x	23 48 17.6	
TEL3	**Telica 3**	**2.07**	**73**	*e*P	Pn	23 47 16.3	+0.5
COPN	**Copaltepe**	**2.24**	**84**	*e*P	Pn	23 47 18.8	+0.6
COPN				*e*S	Sn	23 47 45.4	+0.7
COPN				*i*		23 47 46.0	
	comp=Z,142nm,0.5s						
RBDL	**Robledal**	**2.27**	**340**	*e*P	x	23 47 55.5	
RBDL				*e*S	x	23 48 22.2	
MOMJ	**Momotombo**	**2.32**	**79**	*e*P	Pn	23 47 18.6	-0.7
APYN	**Apoyeque**	**2.48**	**84**	*e*P	Pn	23 47 22.1	+0.6

IDC ***12*** *23:53:32.0±1.3, 0.69N×127.55E, h0*^{km}*, mb3.8/5, mb1 4.0/5, mb1mx3.8/16, mbtmp3.8/5, Error ellipse: s-maj=127.9km s-min=19.4km az=70.0*

NEIC ***12*** *23:53:33.4±0.4, 0.69N×127.58E, h10*^{km}*, mb4.2/4, Error ellipse: s-maj=14.3km s-min=6.8km az=58.0*

ISCJB ***12*** *23:53:34.7±0.6, 0.68N±0.10×127.5E±0.1, h33*^{km}*, mb4.0/10, Error ellipse: s-maj=21.1km s-min=10.1km az=148.9*

ISC 12 23:53:37.0±0.6**,0.66N**±0.10×**127.6E**±0.1**,h35**^{km}**,n15, σ0**^{s}**.75**/15**,mb4.0**/10**,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KKM	**Kota Kinabalu**	**12.52**	**296**	Pn	**Pn**	**23 56 31.3**	**-1.5**
WRA	**Warramunga Arr**	**21.53**	**162**	P	**P**	**23 58 22.0**	**-1.3**
	4.2nm,0.8s,mb3.9,baz=341,slow=11,SNR=28						
WB2	**Warramunga Arr**	**21.53**	**162**	*e*P	**P**	**23 58 23.1**	**-0.2**
PMG	**Port Moresby**	**21.93**	**118**	P	**P**	**23 58 27.5**	**-0.1**
ASAR	**Alice Springs**	**24.95**	**166**	P	**P**	**23 58 58.5**	**+1.2**
	1.8nm,0.7s,mb3.7,baz=352,slow=14,SNR=24						
COCO	**West Island**	**33.07**	**246**	P	**P**	**00 00 10.1**	**+0.5**
ENH	**Enshi**	**34.09**	**331**	*e*P	**P**	**00 00 18.6**	**+0.2**
	0.4nm,0.3s,mb3.8						
MDJ	**Mudanjiang**	**43.80**	**2**	*e*P	**P**	**00 01 38.4**	**-1.1**
	1.9nm,0.4s,mb4.2						
SONM	**Songino Array**	**50.45**	**342**	P	**P**	**00 02 31.4**	**+0.2**
	0.6nm,0.6s,mb3.8,baz=151,slow=5.1,SNR=7.5						
MK31	**Makanchi Array**	**60.54**	**326**	*e*P	**P**	**00 03 44.2**	**+0.5**
MKAR	**Makanchi Array**	**60.54**	**326**	P	**P**	**00 03 44.3**	**+0.5**
	1.4nm,0.6s,mb4.3,baz=118,slow=8.3,SNR=24						
UCH	**Uchtor**	**62.99**	**318**	*e*P	**P**	**00 04 01.3**	**+0.9**
	1.9nm,0.8s,mb4.3						
EKS2	**Erkin-Say**	**63.67**	**318**	*e*P	**P**	**00 04 05.5**	**+0.6**
	0.8nm,0.6s,mb3.9						
ZALV	**Zalesovo Beam**	**63.68**	**333**	P	**P**	**00 04 04.3**	**-0.4**
	0.5nm,0.7s,mb3.7,baz=114,slow=6.6,SNR=3.7						
KURK	**Kurchatov**	**64.76**	**328**	*e*P	**P**	**00 04 11.8**	**-0.1**
	5.1nm,1.0s,mb4.5						

ISCJB ***13*** *00:58:17.9±0.4, 4.72S±0.07×12.42W±0.06, h10*^{km}*, mb4.7/42, MS3.9/10, Error ellipse: s-maj=10.8km s-min=7.7km az=141.9*

IDC ***13*** *00:58:17.8±0.6, 4.60S×12.38W, h0*^{km}*, mb4.3/17, mb1 4.4/17, mb1mx4.3/26, mbtmp4.3/17, MS3.9/10, Ms1 3.9/10, ms1mx3.7/21, Error ellipse: s-maj=17.3km s-min=15.0km az=151.0*

NEIC ***13*** *00:58:19.4±0.3, 4.77S×12.44W, h10*^{km}*, mb5.0/31, Error ellipse: s-maj=10.9km s-min=7.9km az=140.0*

SZGRF ***13*** *00:58:25.1, 4.31S×11.60W, h24*^{km}*, mb4.8, North of Ascension Island*

ISC 13 00:58:19.7±0.4**,4.76S**±0.07×**12.44W**±0.06**,h10**^{km}**,n87, σ1**^{s}**.09**/77**,mb4.7**/42**,MS3.9**/10**,2C,North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIC	**Lamto**	**13.19**	**34**	*e*P	**Pn**	**01 01 28.9**	**+1.7**
	25nm,1.0s						
LIC				*e*MLR	MLR		
	comp=Z,102nm,17.5s						
LIC	**Lamto**	**13.19**	**34**	*e*P	**Pn**	**01 01 28.9**	**+1.7**
	comp=Z,12nm,1.0s						
TOA0	**Torodi Ar. Sit**	**22.67**	**38**	*e*P	**P**	**01 03 17.3**	**-4.0**
TOA0				*e*S	**S**	**01 07 24.5**	**-5.6**
TORD	**Torodi Ar. Bea**	**22.67**	**38**	P	**P**	**01 03 17.2**	**-4.1**
	comp=Z,11nm,0.8s,mb4.3,baz=217,slow=12,SNR=64						
TORD				LR	LR	01 10 46.9	
	comp=Z,185nm,20.7s,MS3.5,baz=205,slow=33						
RCBR	**Riachuelo**	**23.38**	**266**	*e*P	**P**	**01 03 29.6**	**+0.7**
	comp=Z,16nm,1.2s,mb4.3						
MDT	**Midelt**	**38.10**	**11**	P	**P**	**01 05 39.6**	**+0.7**
	comp=Z,3.5nm,1.0s,mb4.0,baz=185,slow=12,SNR=7.0						
LSZ	**Lusaka**	**41.28**	**108**	*e*P	**P**	**01 06 03.9**	**-1.7**
	comp=Z,14nm,1.3s,mb4.4						
LSZ	**Lusaka**	**41.28**	**108**	P	**P**	**01 06 05.6**	**+0.1**
	comp=Z,3.6nm,0.9s,mb4.0,baz=282,slow=9.0,SNR=4.0						
SUR	**Sutherland**	**41.49**	**136**	P	**P**	**01 06 07.5**	**+0.4**
	comp=Z,12nm,0.9s,mb4.5,baz=57,slow=18,SNR=4.8						
LBTB	**Lobatse**	**41.69**	**123**	*e*P	**P**	**01 06 03.2**	**-5.6**
	comp=Z,31nm,1.3s,mb4.8						
LBTB	**Lobatse**	**41.69**	**123**	P	**P**	**01 06 08.7**	**-0.1**
	comp=Z,24nm,1.2s,mb4.7,baz=285,slow=9.6,SNR=7.7						
BOSA	**Boshof**	**42.90**	**128**	P	**P**	**01 06 18.5**	**-0.1**
BOSA				LR	LR	01 20 12.3	
BOSA	**Boshof**	**42.90**	**128**	P	**P**	**01 06 18.5**	**-0.1**
	comp=Z,10nm,0.7s,mb4.7,baz=295,slow=9.3,SNR=16						
BOSA				LR	LR	01 20 12.3	
	comp=Z,154nm,20.7s,MS3.9,baz=286,slow=31						
ESDC	**Sonseca Array**	**44.90**	**9**	P	**P**	**01 06 33.8**	**-0.8**
	comp=Z,1.3nm,0.7s,mb3.8,baz=297,slow=39,SNR=4.4						
KEST	**Kesra**	**45.17**	**25**	LR	LR	01 24 20.9	
	comp=Z,34nm,19.3s,MS3.3,baz=219,slow=35						
ETSF	**Etsaut**	**48.64**	**12**	*e*P	**P**	**01 07 04.7**	**+0.9**
	comp=Z,94nm,1.4s,mb5.3						
ETSF	**Etsaut**	**48.64**	**12**	*e*P	**P**	**01 07 04.7**	**+0.9**
	comp=Z,47nm,1.4s,mb5.3						
SJPF	**Ste Jean**	**48.72**	**11**	*e*P	**P**	**01 07 04.7**	**+0.3**
	comp=Z,302nm,1.6s,mb5.8						
SJPF	**Ste Jean**	**48.72**	**11**	*e*P	**P**	**01 07 04.7**	**+0.3**
	comp=Z,151nm,1.6s,mb5.8						
EPF	**Esparros**	**48.96**	**12**	*e*P	**P**	**01 07 07.4**	**+1.2**
SIV	**San Ignacio**	**49.00**	**253**	P	**P**	**01 07 08.8**	**+1.8**
KMBO	**Kilima Mbogo**	**49.75**	**87**	*e*P	**P**	**01 07 13.9**	**+1.0**
	comp=Z,8.7nm,1.4s,mb4.6						
KMBO				LR	LR	01 26 42.9	
KMBO	**Kilima Mbogo**	**49.75**	**87**	P	**P**	**01 07 13.2**	**+0.3**
	comp=Z,2.4nm,0.9s,mb4.2,baz=228,slow=10,SNR=4.4						
KMBO				LR	LR	01 26 42.9	
	comp=Z,288nm,18.6s,MS4.3,baz=97,slow=34						
TCF	**Toulx Ste Croi**	**52.47**	**13**	*e*P	**P**	**01 07 34.3**	**+1.7**
	comp=Z,48nm,1.1s,mb5.0						
TCF	**Toulx Ste Croi**	**52.47**	**13**	*e*P	**P**	**01 07 34.3**	**+1.7**
	comp=Z,24nm,1.1s,mb5.0						
AVF	**Avril sur Loir**	**53.20**	**14**	*e*P	**P**	**01 07 38.1**	**+0.1**
	comp=Z,47nm,1.3s,mb5.0						
AVF	**Avril sur Loir**	**53.20**	**14**	*e*P	**P**	**01 07 38.1**	**+0.1**
	comp=Z,24nm,1.3s,mb5.0						
SSF	**Saint Saulge**	**53.49**	**14**	*e*P	**P**	**01 07 41.9**	**+1.7**
	comp=Z,48nm,1.3s,mb5.0						
SSF	**Saint Saulge**	**53.49**	**14**	*e*P	**P**	**01 07 41.9**	**+1.7**
	comp=Z,24nm,1.3s,mb5.0						
CABF	**La Chapelle**	**53.72**	**16**	*e*P	**P**	**01 07 42.7**	**+0.8**
	comp=Z,50nm,1.1s,mb5.0						
CABF	**La Chapelle**	**53.72**	**16**	*e*P	**P**	**01 07 42.7**	**+0.8**
	comp=Z,25nm,1.1s,mb5.1						
LOR	**Lormes**	**53.77**	**14**	*e*P	**P**	**01 07 43.6**	**+1.4**
HAU	**Haudompre**	**55.08**	**15**	*e*P	**P**	**01 07 53.0**	**+1.3**
	comp=Z,54nm,1.2s,mb5.2						
HAU	**Haudompre**	**55.08**	**15**	*e*P	**P**	**01 07 53.0**	**+1.3**
	comp=Z,27nm,1.2s,mb5.2						
LPAZ	**La Paz**	**55.77**	**254**	*e*P	**P**	**01 07 57.9**	**+0.6**
	comp=Z,9.5nm,1.3s,mb4.7						
LPAZ				LR	LR	01 32 52.9	
LPAZ	**La Paz**	**55.77**	**254**	P	**P**	**01 07 57.4**	**+0.1**
	comp=Z,3.7nm,1.0s,mb4.4,baz=78,slow=4.9,SNR=8.8						
LPAZ				LR	LR	01 32 52.9	
	comp=Z,89nm,18.5s,MS3.9,baz=312,slow=37						
SQTA	**Sankt Quirin**	**55.81**	**19**⇑	*i*pP	pP	01 08 02.8	+2.6
WTTA	**Wattenberg**	**55.99**	**20**⇑	*i*pP	pP	01 08 04.2	+2.8
	comp=Z,14nm,0.9s						
BAIF	**Baives**	**56.47**	**13**	*e*P	**P**	**01 08 01.0**	**-0.7**
	comp=Z,60nm,1.3s,mb5.2						
BAIF	**Baives**	**56.47**	**13**	*e*P	**P**	**01 08 01.0**	**-0.7**
	comp=Z,30nm,1.3s,mb5.2						
GIVF	**Givet**	**56.65**	**13**	*e*P	**P**	**01 08 03.9**	**+1.0**
GRA1	**Grafenberg Arr**	**57.99**	**18**	*e*P	**P**	**01 08 11.4**	**-1.0**
	comp=Z,10.0nm,1.0s,mb4.8						
GRA1				*e*pP	pP	01 08 18.0	+2.4
GRF	**Grafenberg Arr**	**57.99**	**18**	*e*P	**P**	**01 08 11.4**	**-1.0**
	comp=Z,10.0nm,1.0s,mb4.8						
GRF				*e*pP	pP	01 08 18.0	+2.4
GEC2	**GERESS Array S**	**58.05**	**20**	*e*P	**P**	**01 08 11.7**	**-1.2**
GERES	**GERESS Array B**	**58.05**	**20**	P	**P**	**01 08 11.5**	**-1.4**
	comp=Z,3.5nm,0.9s,mb4.4,baz=197,slow=4.2,SNR=11						
GERES				LR	LR	01 34 03.4	
	comp=Z,91nm,18.7s,MS3.9,baz=294,slow=37						
CFAA	**Coronel Fontan**	**58.60**	**236**	P	**P**	**01 08 16.7**	**-0.4**
CFAA	**Coronel Fontan**	**58.60**	**236**	P	**P**	**01 08 16.7**	**-0.4**
	comp=Z,0.4nm,0.6s,baz=77,slow=4.7,SNR=9.7						
NKC	**Novy Kostel**	**58.84**	**18**	*e*pP	pP	01 08 24.6	+3.0
ARE	**Arequipa**	**59.00**	**254**	*e*P	**P**	**01 08 20.0**	**-0.1**
PVCC	**Panska Ves**	**59.79**	**20**	*e*P	**P**	**01 08 26.6**	**+1.7**
MORC	**Moravsky Berou**	**60.21**	**22**	*e*P	**P**	**01 08 26.5**	**-1.3**
	comp=Z,72nm,2.2s,mb5.3						
DPC	**Dobruska-Polom**	**60.24**	**21**	*e*P	**P**	**01 08 32.0**	**+4.0**
DPC	**Dobruska-Polom**	**60.24**	**21**	*e*pP	pP	01 08 32.0	+0.8
OKC	**Ostrava-Krasne**	**60.48**	**22**	*e*pP	pP	01 08 35.8	+2.9
BRTR	**Keskin Array B**	**61.27**	**39**	P	**P**	**01 08 34.8**	**-0.5**
	comp=Z,1.2nm,0.7s,mb4.2,baz=244,slow=3.8,SNR=9.1						
KWP	**Kalwaria**	**62.15**	**25**	*e*P	**P**	**01 08 40.5**	**-0.4**
	comp=Z,20nm,1.0s,mb5.2						
ROSC	**El Rosal**	**62.55**	**278**	P	**P**	**01 08 45.7**	**+1.4**
ROSC				LR	LR	01 33 59.6	
ROSC	**El Rosal**	**62.55**	**278**	P	**P**	**01 08 45.7**	**+1.4**
	comp=Z,4.2nm,0.5s,mb4.8,baz=103,slow=17,SNR=4.1						
ROSC				LR	LR	01 33 59.6	
	comp=Z,134nm,19.0s,MS4.1,baz=189,slow=34						
MALT	**Malatya**	**63.65**	**43**	*e*P	**P**	**01 08 52.0**	**+0.8**
	comp=Z,2.6nm,1.0s,mb4.2						
KIEV	**Kiev**	**65.80**	**28**	*e*P	**P**	**01 09 03.8**	**-1.2**
	comp=Z,16nm,0.9s,mb5.0						
AKASG	**Malin Array Be**	**65.81**	**28**	P	**P**	**01 09 03.3**	**-1.7**
	comp=Z,2.1nm,0.7s,mb4.3,baz=229,slow=7.1,SNR=16						
AKBB	**Malin Array Si**	**65.81**	**28**	*e*P	**P**	**01 09 03.3**	**-1.7**
NB2	**NORSAR Subarra**	**68.14**	**12**	P	**P**	**01 09 17.8**	**-1.9**
	comp=Z,6.9nm,1.2s,mb4.6,baz=206,slow=6.5						
NOA	**NORSAR Array B**	**68.14**	**12**	P	**P**	**01 09 17.8**	**-1.9**
	comp=Z,1.9nm,0.8s,mb4.2,baz=206,slow=6.4,SNR=4.3						
NOA				LR	LR	01 42 15.7	
	comp=Z,66nm,18.0s,MS3.9,baz=0.0,slow=39						
KIV	**Kislovodsk**	**69.24**	**39**	*e*P	**P**	**01 09 27.4**	**+0.5**
	comp=Z,8.3nm,0.8s,mb4.7						
FINES	**FINESS Array B**	**72.40**	**18**	P	**P**	**01 09 44.5**	**-1.2**
	comp=Z,7.8nm,1.1s,mb4.5,baz=226,slow=5.0,SNR=6.3						
BRNJ	**Basking Ridge**	**72.49**	**315**	P	**P**	**01 09 46.8**	**+0.1**
ACSO	**Alum Creek Sta**	**78.39**	**313**	*e*P	**P**	**01 10 20.2**	**-0.4**
	comp=Z,18nm,1.0s,mb4.9						
ACSO				*e*PcP	PcP	01 10 26.5	-3.4
SWET	**Sewanee**	**79.36**	**307**	*e*P	**P**	**01 10 24.4**	**-1.8**
SWET				*e*PcP	PcP	01 10 32.1	-2.2
PLAL	**Pickwick Lake**	**81.02**	**306**	*e*P	**P**	**01 10 32.8**	**-2.3**
	comp=Z,4.7nm,0.9s,mb4.4						
PLAL				*e*PcP	PcP	01 10 39.9	-1.6
WVT	**Waverly**	**81.07**	**308**	*e*P	**P**	**01 10 34.4**	**-0.9**
	comp=Z,9.5nm,0.9s,mb4.7						
WVT				*e*PcP	PcP	01 10 41.1	-0.6
SIUC	**Southern Illin**	**82.49**	**309**	*e*P	**P**	**01 10 43.6**	**+0.8**
	comp=Z,16nm,0.9s,mb4.9						
FVM	**French Village**	**83.48**	**309**	*e*P	**P**	**01 10 46.8**	**-1.2**
	comp=Z,16nm,0.9s,mb5.0						
FVM				*e*PcP	PcP	01 10 52.6	+0.3
QSPA	**South Pole Qui**	**85.34**	**180**	*e*P	**P**	**01 10 58.0**	**+1.5**
	comp=Z,6.6nm,0.1s,mb5.7						
ECSD	**EROS,Sioux Fal**	**89.05**	**314**	*e*P	**P**	**01 11 13.8**	**-1.3**
	comp=Z,7.8nm,1.1s,mb5.0						
WMOK	**Wichita Mounta**	**89.67**	**305**	*e*P	**P**	**01 11 18.8**	**+0.4**
	comp=Z,2.9nm,1.0s,mb4.6						
AAK	**Ala-Archa**	**90.94**	**47**	*e*P	**P**	**01 11 23.5**	**-0.5**
	comp=Z,1.4nm,0.9s,mb4.3						
RES	**Resolute Bay**	**92.56**	**345**	*e*P	**P**	**01 11 31.0**	**+0.1**
	comp=Z,140nm,1.1s						
TXAR	**Lajitas Array**	**93.37**	**299**	P	**P**	**01 11 35.5**	**-0.1**
	comp=Z,0.2nm,0.6s,mb3.8,baz=114,slow=5.8,SNR=2.5						
SDCO	**Great Sand Dun**	**95.30**	**307**	*e*P	**P**	**01 11 44.2**	**-0.1**
	comp=Z,3.4nm,1.1s,mb4.7						
MKAR	**Makanchi Array**	**96.69**	**44**	P	**P**	**01 11 49.7**	**-0.7**
MKAR				LR	LR	01 56 33.4	
MKAR	**Makanchi Array**	**96.69**	**44**	P	**P**	**01 11 49.7**	**-0.7**
	comp=Z,0.7nm,1.0s,mb4.0,baz=268,slow=4.8,SNR=5.5						
MKAR				LR	LR	01 56 33.4	
	comp=Z,50nm,20.8s,MS4.0,baz=343,slow=36						
PDAR	**Pinedale Array**	**98.43**	**312**	LR	LR	01 53 13.7	
	comp=Z,80nm,18.8s,MS4.2,baz=311,slow=34						
STKA	**Stephens Creek**	**135.97**	**148**	PKP	PKPdf	01 17 42.2	+0.5
STKA	**Stephens Creek**	**135.97**	**148**	PKP	PKPdf	01 17 42.2	+0.5
	comp=Z,2.7nm,1.1s,baz=231,slow=6.5,SNR=3.9						
ASAR	**Alice Springs**	**136.70**	**132**	PKP	PKPdf	01 17 43.4	+0.1
ASAR	**Alice Springs**	**136.70**	**132**	PKP	PKPdf	01 17 43.4	+0.1
	comp=Z,1.4nm,1.0s,baz=226,slow=1.7,SNR=7.5						

ISCJB ***13*** *01:45:09.3±1.0, 24.27S±0.07×179.96E±0.07, h493*^{km}*±13*^{km}*, mb4.5/22, Error ellipse: s-maj=12.2km s-min=9.0km az=144.7*

NEIC ***13*** *01:45:10.9±0.7, 24.31S×179.95W, h507*^{km}*±8*^{km}*, mb4.5/19, Error ellipse: s-maj=10.9km s-min=7.4km az=158.0*

IDC ***13*** *01:45:11.2±1.7, 24.31S×180.00W, h506*^{km}*±16*^{km}*, mb4.0/8, mb1 4.2/10, mb1mx3.9/17, mbtmp4.0/10, Error ellipse: s-maj=21.5km s-min=16.2km az=168.0*

ISC 13 01:45:10.3±0.9**,24.27S**±0.09×**179.99W**±0.07**,h494**^{km}±12^{km}**, n65,σ0**^{s}**.94**/47**,mb4.5**/22**,1C-4D,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**5.29**	**160**	P	**P**	**01 46 39.1**	**-0.4**
DZM	**Mont Dzumac**	**12.67**	**277**	P	**P**	**01 47 58.6**	**+2.6**
	2.3nm,0.3s,baz=84,slow=16,SNR=42						
NOUC	**Port Laguerre**	**12.79**	**277**	*e*P	**P**	**01 48 00.6**	**+3.3**
NOUC	**Port Laguerre**	**12.79**	**277**	*e*P	**P**	**01 48 00.6**	**+3.3**
AFI	**Afiamalu**	**12.90**	**38**	*e*P	**P**	**01 47 56.6**	**-2.0**
AFI				*e*S	**S**	**01 50 11.2**	**-6.1**
AFI	**Afiamalu**	**12.90**	**38**	S	**S**	**01 50 08.3**	**-9.0**
	3.4nm,0.3s,baz=220,slow=23,SNR=3.5						
URZ	**Urewera**	**14.16**	**189**	P	**P**	**01 48 12.0**	**+0.4**
	1.1nm,0.3s,baz=27,slow=9.0,SNR=6.6						
URZ				S	**S**	**01 50 37.3**	**-3.8**
	1.3nm,0.3s,baz=214,slow=22,SNR=13						
SNZO	**South Karori**	**17.56**	**193**	P	**P**	**01 48 46.4**	**-0.3**
RPZ	**Rata Peaks**	**20.74**	**199**	P	**P**	**01 49 15.9**	**+0.1**
	5.3nm,0.4s,baz=19,slow=21,SNR=3.9						
EIDS	**Eidsvold**	**26.26**	**262**	*e*P	**P**	**01 50 06.0**	**+0.7**
CNB	**Canberra Magne**	**28.67**	**240**	*e*P	**P**	**01 50 27.6**	**+1.2**
	40nm,1.5s,mb4.6						
CTA	**Charters Tower**	**31.49**	**271**⇓	*i*P	**P**	**01 50 51.6**	**+0.6**
	34nm,0.3s,mb5.3						
CTA	**Charters Tower**	**31.49**	**271**	P	**P**	**01 50 51.7**	**+0.8**
	50nm,0.4s,mb5.3,baz=95,slow=11,SNR=118						
CTAO	**Charters Tower**	**31.49**	**271**	*e*P	**P**	**01 50 51.3**	**+0.3**
	57nm,0.6s,mb5.2						
TOO	**Toolangi**	**32.25**	**238**	*e*P	**P**	**01 50 57.8**	**+0.5**
	7.1nm,0.5s,mb4.3						
TAU	**Tasmania Unive**	**32.69**	**227**	*e*P	**P**	**01 51 01.5**	**+0.6**
	5.1nm,0.4s,mb4.3						
STKA	**Stephens Creek**	**34.59**	**249**⇓	*i*P	**P**	**01 51 17.3**	**+0.1**
	11nm,0.6s,mb4.5						
STKA	**Stephens Creek**	**34.59**	**249**	P	**P**	**01 51 17.4**	**+0.3**
	10nm,0.5s,mb4.5,baz=94,slow=9.6,SNR=75						
PMG	**Port Moresby**	**34.62**	**290**	*e*P	**P**	**01 51 17.7**	**0.0**
	22nm,0.7s,mb4.7						
PMG	**Port Moresby**	**34.62**	**290**	P	**P**	**01 51 17.7**	**0.0**
	21nm,0.7s,mb4.7,baz=117,slow=3.9,SNR=12						
COEN	**Coen**	**36.18**	**280**	*e*P	**P**	**01 51 31.1**	**+0.5**
WB2	**Warramunga Arr**	**42.38**	**267**⇓	*i*P	**P**	**01 52 19.8**	**-0.9**
WB2				*e*ScP	ScP	01 57 06.8	+0.4
WRA	**Warramunga Arr**	**42.39**	**267**	P	**P**	**01 52 20.0**	**-0.8**
	21nm,0.3s,mb5.0,baz=98,slow=8.4,SNR=216						
WRA				ScP	ScP	01 57 06.2	-0.2
	7.8nm,0.9s,baz=100,slow=4.1,SNR=25						
WRA				S	**S**	**01 58 00.7**	**-5.4**
	1.2nm,0.9s,baz=116,slow=14,SNR=4.9						
FORT	**Forrest**	**46.19**	**250**	*e*P	**P**	**01 52 48.7**	**-1.4**
	45nm,0.6s,mb5.1						
KAKA	**Kakadu**	**46.35**	**276**	*e*P	**P**	**01 52 50.4**	**-1.2**
	13nm,0.3s,mb4.8						
FITZ	**Fitzroy Crossi**	**50.81**	**266**⇓	*i*P	**P**	**01 53 24.3**	**-0.5**
	22nm,0.6s,mb4.7						
KLBR	**Kellerberrin**	**54.85**	**247**	*e*P	**P**	**01 53 52.3**	**-1.2**
	10nm,0.6s,mb4.3						
MBWA	**Marble Bar**	**55.32**	**260**	*e*P	**P**	**01 53 55.8**	**-1.2**
	7.8nm,0.3s,mb4.5						
MUN	**Mundaring**	**56.09**	**247**	*e*P	**P**	**01 54 01.4**	**-0.8**
QSPA	**South Pole Qui**	**65.81**	**180**	*e*P	**P**	**01 55 06.1**	**+0.7**
	12nm,0.9s,mb4.5						
CMB	**Columbia Colle**	**83.47**	**43**	*e*P	**P**	**01 56 45.8**	**+0.3**
	6.1nm,1.1s,mb4.0						
NVAR	**Mina Array Bea**	**85.01**	**44**	P	**P**	**01 56 53.9**	**+0.8**
	2.0nm,0.9s,mb3.8,baz=209,slow=6.6,SNR=9.2						
MSU	**Marysvale**	**89.03**	**47**	*e*P	**P**	**01 57 13.7**	**+1.6**
PMR	**Palmer**	**89.10**	**14**	*e*P	**P**	**01 57 10.9**	**-0.9**
	6.3nm,1.0s,mb4.4						
TMUT	**Trail Mountain**	**90.09**	**46**	*e*P	**P**	**01 57 17.3**	**+0.3**
TXAR	**Lajitas Array**	**90.62**	**58**	P	**P**	**01 57 20.5**	**+0.8**
	4.6nm,0.7s,mb4.5,baz=214,slow=6.4,SNR=47						
MCK	**McKinley**	**91.04**	**13**	P	**P**	**01 57 20.2**	**-0.5**
HWUT	**Hardware Ranch**	**91.08**	**44**	*e*P	**P**	**01 57 21.8**	**+0.3**
	2.5nm,0.6s,mb4.3						
ANMO	**Albuquerque**	**91.18**	**52**	*e*P	**P**	**01 57 22.4**	**+0.3**
	6.1nm,1.4s,mb4.3						
NEW	**Newport**	**91.49**	**37**	*e*P	**P**	**01 57 24.0**	**+0.8**
	0.7nm,0.6s,mb3.8						
COLA	**College**	**92.28**	**13**	P	**P**	**01 57 25.6**	**-0.9**
PDAR	**Pinedale Array**	**92.95**	**44**	P	**P**	**01 57 30.2**	**+0.1**
	1.2nm,0.8s,mb4.0,baz=221,slow=3.0,SNR=11						
SDCO	**Great Sand Dun**	**93.19**	**50**	*e*P	**P**	**01 57 32.1**	**+0.8**
	2.2nm,0.8s,mb4.2						
NNA	**Nana**	**96.82**	**106**	P	**P**	**01 57 47.3**	**-1.0**
MKAR	**Makanchi Array**	**112.41**	**313**	PKPdf	PKiKP	02 02 47.7	-1.8
MKAR	**Makanchi Array**	**112.41**	**313**	PKiKP	PKiKP	02 02 47.7	-1.8
	0.4nm,0.7s,baz=124,slow=0.8,SNR=4.4						
ARU	**Arti**	**127.19**	**323**	*e*PKPdf	PKPdf	02 03 16.5	-1.1
AKTK	**Aktyubinsk**	**128.57**	**316**	PKP	PKPdf	02 03 18.7	-1.7
AKTK				SKPbc		02 05 52.5	
AKTO	**Aktyubinsk**	**128.57**	**316**	PKP	PKPdf	02 03 18.7	-1.7
	0.9nm,0.7s,baz=40,slow=1.0,SNR=5.2						
AKTO				SKPbc		02 05 52.5	
	0.9nm,0.8s,baz=73,slow=16,SNR=3.6						
ARCES	**ARCESS Array B**	**132.25**	**348**	PKP	PKPdf	02 03 25.6	-1.3
ARCES				SKPbc	SKPbc	02 06 05.7	-1.3
ARCES	**ARCESS Array B**	**132.25**	**348**	PKP	PKPdf	02 03 25.6	-1.3
	2.7nm,0.8s,baz=70,slow=2.7,SNR=12						
ARCES				SKPbc	SKPbc	02 06 05.7	-1.3
	8.0nm,1.1s,baz=18,slow=4.2,SNR=5.7						
FINES	**FINESS Array B**	**138.80**	**341**	PKP		02 03 29.1	
FINES				SKPbc	SKPbc	02 06 24.9	-2.4
FINES	**FINESS Array B**	**138.80**	**341**	PKhKP		02 03 29.1	
	0.8nm,0.6s,baz=67,slow=4.4,SNR=7.6						
FINES				SKPbc	SKPbc	02 06 24.9	-2.4
	2.3nm,0.5s,baz=57,slow=3.5,SNR=15						
NOA	**NORSAR Array B**	**142.45**	**351**	PKP	PKPdf	02 03 41.1	-4.6
NOA				SKPbc	SKPbc	02 06 33.2	-3.5
NOA	**NORSAR Array B**	**142.45**	**351**	PKhKP		02 03 41.1	
	1.0nm,0.8s,baz=337,slow=2.5,SNR=5.2						
NOA				SKPbc	SKPbc	02 06 33.2	-3.5
	1.5nm,0.8s,baz=14,slow=4.0,SNR=3.5						
AKASG	**Malin Array Be**	**145.29**	**327**	PKPbc	PKPbc	02 03 50.7	-1.3
AKASG				SKPbc	SKPbc	02 06 41.7	-2.0
AKASG	**Malin Array Be**	**145.29**	**327**	PKPbc	PKPbc	02 03 50.7	-1.3
	2.0nm,0.5s,baz=46,slow=3.5,SNR=20						
AKASG				SKPbc	SKPbc	02 06 41.7	-2.0
	0.7nm,0.4s,baz=44,slow=2.5,SNR=5.8						
BRTR	**Keskin Array B**	**147.81**	**307**	PKPbc	PKPbc	02 03 58.5	-0.7
BRTR	**Keskin Array B**	**147.81**	**307**	PKPbc	PKPbc	02 03 58.5	-0.7
	2.3nm,0.7s,baz=105,slow=3.9,SNR=0.2						
KWP	**Kalwaria**	**149.09**	**331**	PKPdf	PKPdf	02 03 57.0	-0.4
KWP				*e*PKPbc	PKPbc	02 04 02.5	+0.3
CLL	**Collm**	**151.21**	**343**⇑	*i*P	PKPbc	02 04 06.5	-0.5
GERES	**GERESS Array B**	**153.21**	**340**	PKPbc	PKPbc	02 04 10.7	-0.8
GERES	**GERESS Array B**	**153.21**	**340**	PKPbc	PKPbc	02 04 10.7	-0.8
	0.2nm,0.3s,baz=4.4,slow=1.7,SNR=3.7						
TORD	**Torodi Ar. Bea**	**168.82**	**189**	PKP	PKPdf	02 04 19.1	-1.8
TORD				PKPab	PKPab	02 05 33.7	-0.9
TORD	**Torodi Ar. Bea**	**168.82**	**189**	PKP	PKPdf	02 04 19.1	-1.8
	2.1nm,1.1s,baz=1.3,slow=1.4,SNR=6.0						
TORD				PKPab	PKPab	02 05 33.7	-0.9
	1.5nm,0.7s,baz=191,slow=3.7,SNR=12						

IDC ***13*** *02:05:02.1±0.9, 15.16N×146.94E, h0*^{km}*, mb3.7/7, mb1 3.9/8, mb1mx3.7/21, mbtmp3.7/8, ML4.0/1, Error ellipse: s-maj=31.6km s-min=19.0km az=104.0*

ISCJB ***13*** *02:05:04.5±0.9, 15.2N±0.1×147.2E±0.1, h33*^{km}*, mb3.7/7, Error ellipse: s-maj=24.5km s-min=10.2km az=40.4*

NEIC ***13*** *02:05:06.8±0.9, 15.11N×147.02E, h35*^{km}*, Error ellipse: s-maj=26.1km s-min=12.7km az=106.0*

ISC 13 02:05:06.6±0.9**,15.1N**±0.1×**147.2E**±0.1**,h35**^{km}**,n12, σ0**^{s}**.79**/13**,mb3.7**/7**,Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	2.70	236	Pn	Pn	02 05 46.4	-1.1
GUMO				Sn	Sn	02 06 20.1	+1.2
GUMO	Guam	2.70	236	Pn	Pn	02 05 46.4	-1.1
	30nm,0.3s,baz=157,slow=1.0,SNR=12						
GUMO				Sn	Sn	02 06 20.1	+1.2
	21nm,0.3s,baz=26,slow=22,SNR=6.8						
WRA	Warramunga Arr	37.05	200	P	P	02 12 12.8	-0.6
	2.5nm,0.9s,mb4.0,baz=22,slow=9.3,SNR=14						
ASAR	Alice Springs	40.67	199	P	P	02 12 43.5	-0.1
	0.7nm,1.0s,mb3.3,baz=12,slow=9.7,SNR=4.8						
SONM	Songino Array	46.83	323	P	P	02 13 32.5	-0.4
	0.6nm,0.7s,mb3.6,baz=137,slow=6.2,SNR=5.3						
ZALV	Zalesovo Beam	61.71	324	P	P	02 15 20.2	-0.9
ZALV	Zalesovo Beam	61.71	324	P	P	02 15 20.3	-0.9
	0.4nm,0.3s,mb4.0,baz=98,slow=9.1,SNR=5.9						
MKAR	Makanchi Array	61.97	315	P	P	02 15 23.1	0.0
	1.0nm,0.4s,mb4.3,baz=88,slow=8.8,SNR=13						
INK	Inuvik	72.11	23	P	P	02 16 28.2	+1.1
INK	Inuvik	72.11	23	P	P	02 16 28.2	+1.1
	0.6nm,0.7s,mb3.6,baz=254,slow=7.4,SNR=3.0						
YKA	Yellowknife Ar	80.48	28	P	P	02 17 15.4	+0.7
	0.1nm,0.3s,mb3.2,baz=290,slow=5.8,SNR=3.0						
LPAZ	La Paz	146.02	97	PKPbc	PKPbc	02 24 47.6	+4.0
	0.8nm,0.6s,baz=292,slow=3.3,SNR=2.6						

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*NIED **13** 02:05:00, 43.10N×146.60E, h44^{km}, Mw3.8 Best double couple: M$_0$6.58000×10^{14} NP1:φ$_s$213.00000°, δ41.00000°, λ55.00000°. NP2:φ$_s$77.00000°, δ57.00000°, λ117.00000°.*
*NEIC **13** 02:05:15.3±1.2, 43.19N×146.49E, h35^{km}, mb4.2/1, Error ellipse: s-maj=33.8km s-min=9.3km az=172.0*
*SKHL **13** 02:05:15.7±0.1, 43.09N×146.69E, h55^{km}±7^{km}, mb5.0/3*
*ISCJB **13** 02:05:16.0±0.9, 43.15N±0.06×146.55E±0.07, h60^{km}±6^{km}, mb4.0/16, Error ellipse: s-maj=12.1km s-min=6.0km az=145.7*
*MOS **13** 02:05:16.7±1.0, 43.23N×146.52E, h64^{km}, mb4.4/8, Error ellipse: s-maj=15.8km s-min=11.8km az=117.4*
*JMA **13** 02:05:16.1±0.1, 43.09N×146.55E, h55^{km}±2^{km}, M4.2*
JMA Felt I J1.
*IDC **13** 02:05:19.9±1.8, 43.34N×146.52E, h70^{km}±7^{km}, mb3.7/14, mb1 3.9/15, mb1mx3.7/24, mbtmp3.7/15, MS2.5/1, Ms1 2.5/1, ms1mx2.1/31, Error ellipse: s-maj=56.3km s-min=14.6km az=180.0*
ISC 13 02:05:16.9±0.9**, 43.14N**±0.06×**146.55E**±0.07**, h52**^{km}±6^{km}**, n50, σ0^{s}75**/61**, mb4.0**/16**, 1C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	0.63	291	P	Pn	02 05 29.6	-0.2
NEM2				S	Sn	02 05 39.3	+0.2
YUK	Yuzh-Kuril'sk	1.02	331	*i* P	Pn	02 05 34.1	-0.9
YUK				AMB	AMB	02 05 35.6	
	1μm,0.3s						
YUK				AMB	AMB	02 05 35.6	
	1μm,0.3s						
YUK				AMB	AMB	02 05 35.6	
	5μm,0.3s						
YUK				AMB	AMB	02 05 36.0	
	5μm,0.5s						
YUK				*i* S	Sn	02 05 48.0	-0.3
YUK				A		02 05 50.5	
	4μm,0.5s						
YUK				A		02 05 50.5	
	4μm,0.5s						
YUK				A		02 05 51.0	
	8μm,0.9s						
YUK				A		02 05 51.0	
	5μm,0.9s						
JRA	Rausu	1.31	308	P	Pn	02 05 38.9	+0.1
JRA				*e*S	Sn	02 05 56.0	+0.9
JAK	Akkeshi	1.36	264	P	Pn	02 05 39.2	-0.4
JAK				S	Sn	02 05 55.9	-0.6
JNK	Nakash	1.41	289	P	Pn	02 05 39.6	-0.5
JNK				*e*S	Sn	02 05 56.9	-0.6
JOB	Onbets	2.00	264	P	Pn	02 05 48.1	-0.2
JOB				*e*S	Sn	02 06 11.5	-0.7
JAR	Ashorobuto	2.04	275	P	Pn	02 05 48.8	+0.1
JAR				*e*S	Sn	02 06 13.1	+0.1
JTKR	Abashiri--Toko	2.09	294	P	Pn	02 05 50.2	+0.7
JTKR				*e*S	Sn	02 06 15.4	+1.1
KUR	Kuril'sk	2.29	24	*e*PN	Pn	02 05 52.0	-0.3
KUR				*i* S	Sn	02 06 18.0	-1.3
KUR				pmax	pmax		
	comp=N,80nm,0.4s						
KUR				pmax	pmax		
	comp=E,80nm,0.4s						
KUR				pmax	pmax		
	comp=Z,160nm,0.4s						
KUR				smax			
	comp=N,650nm,0.4s						
KUR				smax			
	comp=E,900nm,0.4s						
KUR	Kuril'sk	2.29	24	*e*P	Pn	02 05 52.0	-0.3
KUR				AMB	AMB	02 06 02.0	
	comp=E,80nm,0.4s						
KUR				AMB	AMB	02 06 02.0	
	comp=E,160nm,0.4s						
KUR				*i* S	Sn	02 06 18.0	-1.3
KUR				A		02 06 21.5	
	comp=E,650nm,0.4s						
KUR				A		02 06 21.5	
	comp=E,900nm,0.4s						
JCH	Churui	2.40	258	P	Pn	02 05 53.7	0.0
JCH				*e*S	Sn	02 06 20.7	-1.2
JMP	Maruseppu	2.47	292	P	Pn	02 05 55.7	+1.0
ERM	Erimo	2.75	247	*e*PN	Pn	02 05 59.7	+1.2
ASAJ	Asahikawa	3.03	290	P	Pn	02 06 04.0	+1.7
	comp=E,12nm,0.3s,baz=110,slow=13,SNR=24						
ASAJ				S	Sn	02 06 43.1	+5.8
	comp=E,8.5nm,0.3s,baz=5.4,slow=30,SNR=11						
YSS	Yuzh-Sakhalins	4.66	326⇑	*e*PN	Pn	02 06 26.0	+1.3
YSS				pmax	pmax		
	comp=Z,20nm,0.7s						
YSS				pmax	pmax		
	comp=N,20nm,0.7s						
KSRS	Korea Array	15.29	254	LR	LR	02 14 43.6	
	comp=N,19nm,20.5s,baz=305,slow=37						
BJT	Baijiatuau	22.88	273	P	P	02 10 14.1	-1.8
	comp=N,3.2nm,0.4s,mb4.1						
BJT	Baijiatuau	22.88	273	P	P	02 10 14.1	-1.8
BJT				pmax	pmax		
	comp=Z,3.0nm,0.4s						
SONM	Songino Array	28.31	294	P	P	02 11 06.0	+0.6
SONM				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SONM	Songino Array	28.31	294	P	P	02 11 06.0	+0.6
	comp=Z,1.6nm,0.6s,mb3.8,baz=90,slow=8.7,SNR=16						
IMA2	Indian Mountai	39.43	34	*e*P	P	02 12 41.5	+0.1
ZALV	Zalesovo Beam	41.02	308	P	P	02 12 55.1	+0.4
	comp=Z,0.3nm,0.4s,mb3.3,baz=74,slow=11,SNR=3.5						
ZALV				PcP	PcP	02 14 53.8	0.0
	comp=Z,0.3nm,0.3s,baz=64,slow=3.4,SNR=2.7						
ZAL	Zalesovo	41.03	307	P	P	02 12 55.2	+0.4
ZAL						02 14 53.8	
MK31	Makanchi Array	44.48	298	*e*P	P	02 13 22.8	0.0
MKAR	Makanchi Array	44.48	298	*e*P	P	02 13 23.0	+0.2
MKAR	Makanchi Array	44.48	298	P	P	02 13 23.0	+0.2
	comp=Z,1.6nm,0.5s,mb4.0,baz=83,slow=8.8,SNR=18						
MKAR				pP	pP	02 13 40.3	+3.8
	comp=Z,0.3nm,0.3s,baz=81,slow=11,SNR=1.3						
MKAR				sP	sP	02 13 50.5	+8.0
	comp=Z,0.4nm,0.5s,baz=289,slow=3.7,SNR=2.6						
INK	Inuvik	47.15	30	P	P	02 13 43.9	+0.3
INK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
INK	Inuvik	47.15	30	P	P	02 13 43.9	+0.3
	comp=Z,3.7nm,0.6s,mb4.5,baz=307,slow=6.3,SNR=26						
ARU	Arti	54.49	317	*e*P	P	02 14 38.2	-0.7
YKA	Yellowknife Ar	56.55	33	P	P	02 14 53.5	-0.1
YKA	Yellowknife Ar	56.55	33	*e*P	P	02 14 53.5	-0.1
YKA	Yellowknife Ar	56.55	33	P	P	02 14 53.5	-0.1
	comp=Z,0.6nm,0.7s,mb3.8,baz=299,slow=6.8,SNR=14						
AKTK	Aktyubinsk	57.60	311	P	P	02 15 00.8	-0.5
AKTO	Aktyubinsk	57.60	311	P	P	02 15 00.8	-0.4
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
AKTO	Aktyubinsk	57.60	311	P	P	02 15 00.8	-0.5
	comp=Z,0.9nm,0.6s,mb4.0,baz=60,slow=6.9,SNR=6.2						
ARCES	ARCESS Array B	59.66	340	P	P	02 15 14.4	-0.9
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES	ARCESS Array B	59.66	340	P	P	02 15 14.4	-0.9
	comp=Z,3.8nm,0.9s,mb4.4,baz=48,slow=5.9,SNR=9.4						
FINES	FINESS Array B	65.22	333	*e*P	P	02 15 51.8	-0.6
FINES	FINESS Array B	65.22	333	P	P	02 15 51.8	-0.7
	comp=Z,1.6nm,0.6s,mb4.3,baz=42,slow=9.2,SNR=8.7						
NVAR	Mina Array Bea	68.27	57	P	P	02 16 13.3	+1.0
	comp=Z,1.1nm,0.6s,mb4.1,baz=304,slow=5.4,SNR=7.7						
KIV	Kislovodsk	69.84	312	*e*P	P	02 16 22.7	+0.8
KIV				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
NB2	NORSAR Subarra	70.01	339	P	P	02 16 22.0	-0.7
	comp=Z,0.9nm,0.5s,mb4.0,baz=32,slow=6.2						
NOA	NORSAR Array B	70.01	339	P	P	02 16 22.0	-0.7
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	NORSAR Array B	70.01	339	P	P	02 16 22.0	-0.7
	comp=Z,1.0nm,0.5s,mb4.0,baz=32,slow=6.3,SNR=4.6						
PDAR	Pinedale Array	70.64	49	P	P	02 16 27.4	+0.6
	comp=Z,0.8nm,0.6s,mb3.8,baz=277,slow=0.7,SNR=8.1						
AKASG	Malin Array Be	71.81	324	*e*P	P	02 16 33.0	-0.7
AKASG	Malin Array Be	71.81	324	P	P	02 16 32.9	-0.9
	comp=Z,0.4nm,0.4s,mb3.7,baz=39,slow=6.1,SNR=7.7						
BRTR	Keskin Array B	77.64	313	P	P	02 17 08.5	+0.7
	comp=Z,0.2nm,0.4s,mb3.4,baz=64,slow=4.3,SNR=3.6						
TXAR	Lajitas Array	83.35	56	P	P	02 17 38.9	+0.4
TXAR				*PP	pP	02 17 56.4	+3.1
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
TXAR	Lajitas Array	83.35	56	P	P	02 17 38.9	+0.4
	comp=Z,1.1nm,0.8s,mb4.0,baz=306,slow=4.6,SNR=9.2						
TXAR				pP	pP	02 17 56.4	+3.0
	comp=Z,0.4nm,0.6s,baz=289,slow=3.8,SNR=3.2						

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*IDC **13** 02:25:02.0±1.3, 0.88S×120.38E, h0^{km}, mb3.6/5, mb1 3.8/6, mb1mx3.6/19, mbtmp3.7/6, ML3.4/1, Error ellipse: s-maj=144.8km s-min=19.0km az=64.0*
*ISCJB **13** 02:25:04.9±1.0, 0.9S±0.3×120.2E±0.6, h33^{km}, mb3.6/5, Error ellipse: s-maj=90.4km s-min=14.4km az=155.6*
*NEIC **13** 02:25:07.0±0.8, 0.91S×120.40E, h35^{km}, Error ellipse: s-maj=66.7km s-min=10.9km az=65.0*
ISC 13 02:25:07.2±1.0**, 0.9S**±0.3×**120.5E**±0.6**, h35**^{km}**, n9, σ0^{s}39**/9**, mb3.6**/5**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	17.85	164	*e*Pn	Pn	02 29 12.6	-0.3
FITZ	Fitzroy Crossi	17.85	164	P	Pn	02 29 13.3	+0.4
	0.1nm,0.3s,baz=23,slow=5.8,SNR=6.9						
WRA	Warramunga Arr	23.31	145	P	P	02 30 11.9	-0.5
	2.6nm,1.0s,mb3.6,baz=321,slow=10,SNR=9.5						
WB2	Warramunga Arr	23.32	145	*e*P	P	02 30 12.3	-0.2
ASAR	Alice Springs	26.13	151	P	P	02 30 38.8	+0.6
	0.4nm,0.6s,mb3.1,baz=322,slow=8.3,SNR=5.8						
STKA	Stephens Creek	36.73	149	P	P	02 32 11.3	+0.1
STKA	Stephens Creek	36.73	149	P	P	02 32 11.3	+0.1
	1.2nm,0.5s,mb4.0,baz=316,slow=11,SNR=4.8						
SONM	Songino Array	50.05	348	P	P	02 33 58.7	+0.4
	0.4nm,0.6s,mb3.6,baz=167,slow=8.0,SNR=4.9						
MKAR	Makanchi Array	58.06	330	P	P	02 34 56.5	-0.4
	0.3nm,0.6s,mb3.5,baz=137,slow=7.4,SNR=6.4						

IDC 13 02:41:26.2±74.0**, 17.10S**×**178.26E, h0**^{km}**, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.7**/13**, mbtmp3.8**/3**, Error ellipse: s-maj=1315.0km s-min=153.7km az=76.0, Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	36.27	239	P	P	02 48 31.8	+0.4
	0.5nm,0.3s,baz=85,slow=11,SNR=5.7						
WRA	Warramunga Arr	41.65	259	P	P	02 49 16.3	-0.4
	0.1nm,0.3s,baz=95,slow=7.8,SNR=4.9						
ASAR	Alice Springs	41.96	253	P	P	02 49 18.9	-0.2
	1.6nm,0.4s,baz=89,slow=8.1,SNR=39						

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*IDC **13** 03:05:29.5±9.4, 5.70S×129.98E, h124^{km}±106^{km}, mb3.5/4, mb1 3.6/7, mb1mx3.5/14, mbtmp3.4/7, ML3.7/3, Error ellipse: s-maj=61.8km s-min=44.2km az=101.0*
*NEIC **13** 03:05:30.5±3.2, 5.73S×129.86E, h135^{km}±38^{km}, Error ellipse: s-maj=34.9km s-min=22.7km az=90.0*
*ISCJB **13** 03:05:31.6±2.0, 5.86S±0.09×130.1E±0.3, h173^{km}±21^{km}, mb3.7/4, Error ellipse: s-maj=43.1km s-min=11.5km az=166.3*
ISC 13 03:05:33.1±1.7**, 5.96S**±0.09×**130.3E**±0.3**, h177**^{km}±17^{km}**, n8, σ1^{s}13**/12**, mb3.6**/4**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	7.04	162	*e*Pn	Pn	03 07 15.6	+1.7
KAKA				*e*Sn	Sn	03 08 31.4	-2.0
FITZ	Fitzroy Crossi	12.88	200	P	Pn	03 08 29.4	-0.5
	0.3nm,0.3s,baz=21,slow=13,SNR=30						
FITZ				S	Sn	03 10 43.4	-10
	1.1nm,0.3s,baz=107,slow=17,SNR=9.4						
WRA	Warramunga Arr	14.45	164	P	Pn	03 08 53.7	+4.1
	0.3nm,0.3s,baz=336,slow=14,SNR=13						
WRA				S	Sn	03 11 26.4	-4.3
	0.6nm,0.3s,baz=337,slow=22,SNR=6.9						
ASAR	Alice Springs	17.95	169	P	Pn	03 09 33.3	+1.4
	0.4nm,0.3s,baz=347,slow=9.7,SNR=29						
ASAR				S	S	03 12 46.9	0.0
	0.1nm,0.3s,baz=351,slow=21,SNR=15						
MJAR	Matsushiro Arr	42.93	9	P	P	03 13 13.7	-0.8
	1.6nm,0.7s,mb3.8,baz=187,slow=10,SNR=4.8						
SONM	Songino Array	57.54	341	P	P	03 15 04.8	+0.8
	0.4nm,0.5s,mb3.5,baz=164,slow=7.2,SNR=7.5						
MKAR	Makanchi Array	67.50	326	P	P	03 16 09.9	-0.1
	1.2nm,0.6s,mb3.8,baz=123,slow=7.8,SNR=20						
ZALV	Zalesovo Beam	70.77	334	P	P	03 16 29.1	-0.9
	0.4nm,0.4s,mb3.5,baz=140,slow=5.6,SNR=3.7						

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*NEIC **13** 03:31:41.8, 17.05N×100.21W, h6^{km}, MD4.0(MEX), After MEX.*
MEX 13 03:31:41.9±0.8**, 17.05N**×**100.21W, h4**^{km}±12^{km}**, MD4.0, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	0.05	269	*i* P	Pg	03 31 42.6	-0.5
CAIG				*i* S	Sg	03 31 43.6	-0.3
ACX	Acapulco	0.34	123	*i* P	Pg	03 31 48.0	-0.4
MEIG	Mezcala	1.04	33	*i* P	Pg	03 31 59.8	-2.1
MEIG				*i* S	Sg	03 32 12.3	-3.0
ZIIG	Zihuatanejo	1.32	295	*e*P	Pn	03 32 03.9	-3.2
ZIIG				*e*S	Sg	03 32 19.3	-5.0
ZIIG	Zihuatanejo	1.32	295	*e*P	Pn	03 32 03.9	-3.2
ZIIG				*i* S	Sg	03 32 20.2	-4.1
PLIG	Platanillo	1.50	27	*i* P	Pn	03 32 07.6	-2.0
PLIG				*i* S	Sn	03 32 26.0	-3.6
PLIG	Platanillo	1.50	27	*e*P	Pn	03 32 07.4	-2.2
PLIG				*i* S	Sn	03 32 23.8	-5.8
PNIG	Pinotepa	2.10	108	*i* P	Pn	03 32 20.9	+2.9
PNIG				*i* S	Sn	03 32 37.2	-7.4
PNIG	Pinotepa	2.10	108	*e*P	Pn	03 32 15.3	-2.6
PNIG				*i* S	Sn	03 32 40.6	-3.9
YAIG	Yautepec	2.11	31	*i* P	Pn	03 32 18.6	+0.6
YAIG				*i* S	Sn	03 32 44.9	+0.2
YAIG	Yautepec	2.11	31	*i* P	Pn	03 32 14.6	-3.4
YAIG				*i* S	Sn	03 32 40.9	-3.8
SZVM	Salazar	2.40	19	*e*P	Pn	03 32 16.6	-5.4
SZVM				*i* S	Sn	03 32 47.4	-4.5
UTMO	Huajuapan	2.43	71	*e*P	Pn	03 32 19.5	-2.9
UTMO				*i* S	Sn	03 32 49.3	-3.3
MOIG	Morelia	2.77	341	*e*P	Pn	03 32 26.5	-0.7
MOIG				*i* S	Sn	03 32 57.5	-3.7
IIO	Organos	2.90	29	*e*P	Pn	03 32 29.7	+0.8
IIO				*i* S	Sn	03 33 09.5	+5.3
TPIG	Tehuac#an	3.04	63	*i* P	Pn	03 32 30.4	-0.4
TPIG				*i* S	Sn	03 33 03.2	-4.5
VHO	Vista Hermosa	3.33	89	*i* P	Pn	03 32 25.4	-9.4
VHO				*i* S	Sn	03 33 22.9	+8.1
VHO	Vista Hermosa	3.33	89	*i* P	Pn	03 32 32.5	-2.4
VHO				*i* S	Sn	03 33 10.7	-4.1
OXX	Oaxaca	3.34	89	*e*P	Pn	03 32 35.0	+0.1
SFJM	Santa Fe	4.34	322	*e*P	Pn	03 32 58.5	+10
SFJM	Santa Fe	4.34	322	*e*P	Pn	03 32 50.5	+1.7

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*ISCJB **13** 03:37:18.8±0.8, 21.9N±0.1×143.1E±0.2, h33^{km}, mb3.8/8, Error ellipse: s-maj=29.9km s-min=15.2km az=169.4*
*NEIC **13** 03:37:21.0±3.7, 21.95N×143.06E, h35^{km}, Error ellipse: s-maj=166.0km s-min=14.1km az=74.0*
*IDC **13** 03:37:27.6±9.7, 21.92N×143.07E, h97^{km}±88^{km}, mb3.5/9, mb1 3.7/9, mb1mx3.6/21, mbtmp3.5/9, MS3.1/3, Ms1 3.1/3, ms1mx2.7/20, Error ellipse: s-maj=38.3km s-min=15.5km az=81.0*
ISC 13 03:37:20.8±0.8**, 22.0N**±0.1×**143.2E**±0.2**, h35**^{km}**, n13, σ0^{s}49**/10**, mb3.8**/8**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	8.48	169	LR	LR	03 41 54.7	
	comp=Z,87nm,22.0s,baz=281,slow=32						
MJAR	Matsushiro Arr	15.15	345	LR	LR	03 46 07.5	
	comp=Z,131nm,19.0s,baz=65,slow=34						
KSRS	Korea Array	20.29	323	P	P	03 41 57.5	+4.0
	1.6nm,0.8s,baz=144,slow=8.5,SNR=6.5						
KSRS				LR	LR	03 48 46.4	
	comp=Z,34nm,18.2s,baz=345,slow=34						
SONM	Songino Array	39.12	320	P	P	03 44 44.9	+0.1
	1.9nm,1.0s,mb3.8,baz=130,slow=5.0,SNR=11						
WRA	Warramunga Arr	42.52	192	P	P	03 45 13.5	+0.4
	1.3nm,0.7s,mb3.8,baz=15,slow=8.8,SNR=11						
ASAR	Alice Springs	46.23	192	P	P	03 45 42.0	-0.7
	0.6nm,0.7s,mb3.7,baz=17,slow=10,SNR=11						
STKA	Stephens Creek	53.55	182	P	P	03 46 38.5	+0.4
	0.8nm,0.6s,mb3.9,baz=355,slow=2.1,SNR=3.1						
ZALV	Zalesovo Beam	53.99	322	P	P	03 46 40.6	-0.6
	2.7nm,0.8s,mb4.2,baz=104,slow=6.3,SNR=11						
MKAR	Makanchi Array	54.50	313	P	P	03 46 45.2	+0.1
MKAR				PcP	PcP	03 47 48.1	-0.1
MKAR	Makanchi Array	54.50	313	P	P	03 46 45.2	+0.1
	0.3nm,0.2s,mb3.9,baz=93,slow=8.9,SNR=5.0						
MKAR				PcP	PcP	03 47 48.1	-0.1
	0.2nm,0.2s,baz=90,slow=4.9,SNR=4.3						
YKA	Yellowknife Ar	76.24	28	P	P	03 49 05.8	+0.3
	0.6nm,0.7s,mb3.6,baz=294,slow=5.7,SNR=9.7						
NVAR	Mina Array Bea	83.00	51	P	P	03 49 42.4	-0.3
	1.0nm,0.8s,mb3.9,baz=278,slow=3.6,SNR=6.2						
LPAZ	La Paz	149.94	85	PKPbc	PKPbc	03 57 09.4	+1.1
	1.6nm,0.9s,baz=321,slow=5.0,SNR=4.8						

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*NEIC **13** 03:41:29.4, 16.98N×100.31W, h10^{km}, MD3.7(MEX), After MEX.*
MEX 13 03:41:30.5±0.7**, 17.01N**×**100.25W, h9**^{km}±7^{km}**, MD3.8, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	0.04	338	*i* P	Pg	03 41 31.4	-0.8
CAIG				*e*S	Sg	03 41 32.4	-1.1
ACX	Acapulco	0.35	114	*i* P	Pg	03 41 36.5	-0.9
ACX				*i* S	Sg	03 41 43.0	+0.9
MEIG	Mezcala	1.09	33	*i* P	Pg	03 41 47.7	-3.8
MEIG				*i* S	Sg	03 42 01.8	-3.9
PLIG	Platanillo	1.55	27	*i* P	Pn	03 41 55.7	-2.6
PLIG				*i* S	Sn	03 42 16.3	-2.2
PLIG	Platanillo	1.55	27	*i* P	Pn	03 41 55.7	-2.6
PLIG				*i* S	Sn	03 42 14.3	-4.2
UTMO	Huajuapan	2.48	70	*e*P	Pn	03 42 08.0	-3.0
UTMO				*i* S	Sn	03 42 36.9	-4.5
IIO	Organos	2.95	29	*i* P	Pn	03 42 23.6	+6.0
IIO				*i* S	Sn	03 42 58.5	+5.3

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*MOS **13** 03:45:17.1±1.4, 29.11N×51.26E, h34^{km}, mb4.4/11, Error ellipse: s-maj=14.4km s-min=7.9km az=118.9*
*CSEM **13** 03:45:18.3±0.1, 29.27N×51.50E, h40^{km}, mb4.1/11, Ms3.9, Error ellipse: s-maj=2.0km s-min=1.6km az=50.0*
*ISCJB **13** 03:45:18.2±0.4, 29.22N±0.02×51.43E±0.03, h42^{km}±5^{km}, mb4.0/24, Error ellipse: s-maj=4.5km s-min=3.4km az=148.5*
*IDC **13** 03:45:19.4±7.7, 29.29N×51.37E, h32^{km}±56^{km}, mb3.9/17, mb1 4.0/20, mb1mx3.9/29, mbtmp3.8/20, ML3.6/3, MS3.0/1, Ms1 3.0/1, ms1mx2.6/33, Error ellipse: s-maj=30.4km s-min=17.8km az=168.0*
*NEIC **13** 03:45:19.8±0.6, 29.25N×51.31E, h35^{km}, mb4.2/7, MN4.0(TEH), Error ellipse: s-maj=9.2km s-min=5.2km az=175.0*
*TEH **13** 03:45:38.2, 29.29N×51.34E, h28^{km}, ML4.0*
ISC 13 03:45:20.2±0.3**, 29.24N**±0.02×**51.40E**±0.03**, h41**^{km}±5^{km}**, n133, σ1^{s}10**/146**, mb4.0**/24**, 3C-3D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QRN	Al-Qurain	3.09	262	*e*P	Pn	03 46 06.8	+0.3
QRN				*e*S	Sn	03 46 45.4	+3.2
QRN				AML	AML	03 46 47.9	
	comp=Z,108nm,0.4s						
KFJS		3.22	252	P	Pn	03 46 09.5	+1.3
KFJS		3.22	252	S	Sn	03 46 40.6	-4.7
KBD	Kabd	3.24	270	*e*P	Pn	03 46 09.1	+0.5
KBD				AML	AML	03 46 48.8	
	comp=Z,227nm,0.4s						
KBD				*e*S	Sn	03 46 48.9	+3.0
KBD	Kabd	3.24	270	*e*P	Pn	03 46 09.1	+0.5
KBD				*e*S	Sn	03 46 48.9	+3.0
RDF	Al-Radifah	3.39	266	*e*P	Pn	03 46 11.4	+0.9
RDF				*e*S	Sn	03 46 52.5	+3.0
RDF				AML	AML	03 46 55.2	
	comp=Z,75nm,0.4s						
RDF	Al-Radifah	3.39	266	*e*P	Pn	03 46 11.4	+0.9
RDF				*e*S	Sn	03 46 52.5	+3.0
IPIR	Pirpir	3.46	353	Pn	Pn	03 46 11.8	+0.2
IPIR				Sn	Sn	03 46 49.9	-1.4
IPIR	Pirpir	3.46	353	*e*Sn	Sn	03 46 50.0	-1.3
IPIR				*e*		03 47 24.8	
	comp=Z,2μm,0.3s						
IPIR	Pirpir	3.46	353	Pn	Pn	03 46 11.8	+0.2
IPIR				Sn	Sn	03 46 49.9	-1.4
IMEH	Mehriz	3.51	52	Pn	Pn	03 46 13.6	+1.4
IMEH	Mehriz	3.51	52	*e*Pn	Pn	03 46 13.6	+1.4
IMEH				*e*		03 46 15.2	
	comp=Z,3μm,0.1s						
IMEH	Mehriz	3.51	52	*e*Pn	Pn	03 46 13.6	+1.4
MIB	Mutribah	3.59	280	*e*P	Pn	03 46 13.5	+0.2
MIB				*e*S	Sn	03 46 56.4	+2.0
MIB				AML	AML	03 46 57.2	
	comp=Z,52nm,0.5s						
MIB	Mutribah	3.59	280	*e*P	Pn	03 46 13.5	+0.2
MIB				*e*S	Sn	03 46 56.4	+2.0
	comp=Z,52nm,0.5s						
BOQSS		3.81	209	P	Pn	03 46 17.8	+1.5
ICHK	Chekchek	3.96	40	Pn	Pn	03 46 18.7	+0.3
ICHK	Chekchek	3.96	40	*e*	Pn	03 46 20.6	+2.2
	comp=Z,1μm,0.1s						
ICHK	Chekchek	3.96	40	Pn	Pn	03 46 18.7	+0.3
IKLH	Kalahroud	4.07	2	Pn	Pn	03 46 19.7	-0.2
IKLH	Kalahroud	4.07	2⇑	*e*Pn	Pn	03 46 19.8	-0.1
IKLH				*e*		03 47 16.4	
	comp=Z,906nm,0.3s						
IKLH	Kalahroud	4.07	2	Pn	Pn	03 46 19.7	-0.2
IBAF	Bafgh	4.29	56	Pn	Pn	03 46 23.8	+0.8
IBAF	Bafgh	4.29	56	*e*Pn	Pn	03 46 23.8	+0.8
IBAF				*e*		03 46 24.6	
	comp=Z,1μm,0.1s						
IBAF	Bafgh	4.29	56	*e*Pn	Pn	03 46 23.8	+0.8
SLWS		4.47	189	P	Pn	03 46 25.9	+0.4
SLWS				S	Sn	03 47 16.4	+0.1
SLWS		4.47	189	P	Pn	03 46 25.9	+0.4
ISFB	Sefidab	5.15	8	Pn	Pn	03 46 33.8	-0.9
ISFB	Sefidab	5.15	8	*e*Pn	Pn	03 46 33.9	-0.8
ISFB				*e*		03 46 35.3	
	comp=Z,657nm,0.2s						
ISFB	Sefidab	5.15	8	Pn	Pn	03 46 33.8	-0.9
BTHS		5.20	186	P	Pn	03 46 35.4	0.0
BTHS				S	Sn	03 47 33.8	-0.3
BTHS		5.20	186	P	Pn	03 46 35.4	0.0
BANOM	Banah	5.46	126	P	Pn	03 46 38.6	-0.4
	SNR=24						
BANOM				⇓S	Sn	03 47 42.4	+1.9
NAZ	Nazwa, Dubai	5.68	137	P	Pn	03 46 42.2	+0.1
IVRN	Varamin	5.75	3	Pn	Pn	03 46 42.2	-0.7
IVRN	Varamin	5.75	3	*e*Pn	Pn	03 46 42.2	-0.7
IVRN				*e*		03 46 43.7	
	comp=Z,855nm,0.1s						
IVRN	Varamin	5.75	3	*e*Pn	Pn	03 46 42.2	-0.7
ASUD	Al Ashush, Dub	5.78	142	P	Pn	03 46 43.7	+0.3
	SNR=34						

ASUD				S	Sn	03 47 49.4	+1.0
FAQ	**Al Faqa, Dubai**	5.83	139	P	Pn	03 46 43.9	-0.2
	SNR=7.0						
FAQ				S	Sn	03 47 48.2	-1.5
HATD	**Hatta, Dubai**	6.09	135	⇓P	Pn	03 46 47.9	+0.2
HATD				⇑S	Sn	03 47 54.0	-2.1
ASHO	**Ashiyiah**	6.15	136	P	Pn	03 46 47.7	-0.8
	SNR=33						
ASHO	**Ashiyiah**	6.15	136	P	Pn	03 46 47.8	-0.7
	SNR=33						
ILAS	**Lasjerd**	6.27	12	*e*	Px	03 47 06.1	
	comp=Z,310nm,0.3s						
IRAZ	**Razeghan**	6.27	349	Pn	Pn	03 46 49.2	-1.0
IRAZ	**Razeghan**	6.27	349	*e*	Pn	03 46 54.7	+4.6
	comp=Z,392nm,0.2s						
IRAZ	**Razeghan**	6.27	349	Pn	Pn	03 46 49.2	-1.0
IDMV	**Damavand**	6.34	5	Pn	Pn	03 46 50.6	-0.5
IDMV	**Damavand**	6.34	5	*e*	Pn	03 46 51.8	+0.7
	comp=Z,700nm,0.1s						
IDMV	**Damavand**	6.34	5	Pn	Pn	03 46 50.6	-0.5
ASYS		6.46	256	S	Sn	03 47 59.2	-5.9
ASYS		6.46	256	P	Pn	03 46 50.4	-2.3
IMHD	**Mahdasht**	6.46	355	*e*	Px	03 47 04.4	
	comp=Z,374nm,0.2s						
IFIR	**Firoozkooh**	6.49	10	Pn	Pn	03 46 52.4	-0.7
IFIR	**Firoozkooh**	6.49	10	*e*	Pn	03 46 55.2	+2.2
	comp=Z,678nm,0.1s						
IFIR	**Firoozkooh**	6.49	10	Pn	Pn	03 46 52.4	-0.7
HRDDS		6.52	196	S	Sn	03 48 05.8	-1.0
HRDDS		6.52	196	P	Pn	03 46 53.5	-0.1
IGHG	**Ghaleghazi**	6.53	322	Pn	Pn	03 46 53.3	-0.4
IGHG	**Ghaleghazi**	6.53	322	*e*Pn	Pn	03 46 53.3	-0.4
IGHG				*e*		03 48 12.5	
	comp=Z,807nm,0.3s						
IGHG	**Ghaleghazi**	6.53	322	*e*Pn	Pn	03 46 53.3	-0.4
IANJ	**Anjiloo**	6.56	18	*e*	Px	03 47 10.3	
	comp=Z,511nm,0.2s						
ILIN	**Laeen**	6.80	328	Pn	Pn	03 46 56.3	-1.1
ILIN	**Laeen**	6.80	328	*e*Pn	Pn	03 46 56.7	-0.7
ILIN				*e*		03 48 16.4	
	comp=Z,1µm,0.2s						
ILIN	**Laeen**	6.80	328	Pn	Pn	03 46 56.3	-1.1
IPRN	**Paran-Amol**	7.02	6	*e*	Pn	03 47 02.6	+2.2
	comp=Z,523nm,0.1s						
BHD	**Baghdad**	7.23	306	*e*Pn	x	03 47 03.0	
BHD	**Baghdad**	7.23	306	*e*Pg	x	03 47 35.0	
BHD				*e*Sn	x	03 48 25.0	
IGLO	**Galoogah**	7.27	13	*e*	Pn	03 47 09.2	+5.5
	comp=Z,866nm,0.3s						
ARQ	**Araqi**	7.46	141	P	Pn	03 47 05.7	-0.8
	SNR=8.2						
BSY	**Bisya**	8.30	140	P	Pn	03 47 17.4	-0.7
	SNR=9.9						
BSYO	**Bisya**	8.34	140	P	Pn	03 47 17.4	-1.2
	SNR=9.9						
ASF	**Jabal al Asfar**	12.82	287	Pn	Pn	03 48 17.4	-2.5
ASF				Sn	Sn	03 50 31.0	-10
ASF	**Jabal al Asfar**	12.82	287	Pn	Pn	03 48 17.4	-2.5
	comp=Z,0.3nm,0.3s,baz=327,slow=9.4,SNR=5.8						
ASF				Sn	Sn	03 50 31.0	-10
	comp=Z,0.2nm,0.3s,baz=330,slow=20,SNR=2.6						
ASF	**Jabal al Asfar**	12.82	287	Pn	Pn	03 48 17.4	-2.4
ASF				Sn	Sn	03 50 31.0	-10
MALT	**Malatya**	14.07	313	*e*Pn	Pn	03 48 33.6	-3.3
	comp=Z,1.5nm,0.5s						
MALT				*e*Sn	Sn	03 51 09.8	-1.9
MALT	**Malatya**	14.07	313	*e*P	Pn	03 48 33.6	-3.3
MALT				*e*		03 51 09.8	
MALT				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MMAI	**Mount Meron Ar**	14.21	289	Pn	Pn	03 48 37.0	-1.8
	comp=Z,0.4nm,0.3s,baz=110,slow=17,SNR=2.7						
ZEI	**Tsey**	14.80	338	*e*P	Pn	03 48 52.3	+5.7
KIV	**Kislovodsk**	16.25	337	*e*Pn	Pn	03 49 06.3	+0.9
	comp=Z,43nm,1.5s						
KIV	**Kislovodsk**	16.25	337	*e*P	Pn	03 49 08.0	+2.6
KIV				pmax	pmax		
	comp=Z,17nm,1.2s						
KIV				MLR	MLR		
	comp=Z,34nm,11.0s						
KIV	**Kislovodsk**	16.25	337	*e*Pn	Pn	03 49 06.3	+0.9
	comp=Z,43nm,1.5s						
KIV	**Kislovodsk**	16.25	337	*e*P	Pn	03 49 08.0	+2.6
	comp=Z,34nm,11.0s						
BRTR	**Keskin Array B**	17.97	310	P	Pn	03 49 26.8	0.0
	comp=Z,0.1nm,0.3s,baz=127,slow=12,SNR=14						
ATD	**Arta Tunnel**	19.34	206	LR	LR	03 58 14.4	
	comp=Z,45nm,19.5s,baz=284,slow=40						
AKTK	**Aktyubinsk**	21.75	11	P	P	03 50 08.0	0.0
	comp=Z,3.0nm,0.6s,mb3.9						
AKTO	**Aktyubinsk**	21.75	11	P	P	03 50 08.0	0.0
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
AKTO	**Aktyubinsk**	21.75	11	P	P	03 50 08.0	0.0
	comp=Z,3.2nm,0.6s,mb4.0,baz=201,slow=10,SNR=14						
AML	**Almayashu**	22.13	48	*e*P	P	03 50 14.0	+1.9
	comp=Z,3.5nm,0.5s,mb4.0						
AML	**Almayashu**	22.13	48	*e*P	P	03 50 14.0	+1.9
	comp=Z,3.5nm,0.5s,mb4.0						
UCH	**Uchtor**	22.72	49	*e*P	P	03 50 19.6	+1.3
	comp=Z,1.8nm,0.7s,mb3.6						
UCH	**Uchtor**	22.72	49	*e*P	P	03 50 19.6	+1.3
	comp=Z,1.8nm,0.7s,mb3.6						
AAK	**Ala-Archa**	22.89	48	*e*P	P	03 50 21.9	+1.7
	comp=Z,4.4nm,0.8s,mb3.9						
AAK	**Ala-Archa**	22.89	48	*e*P	P	03 50 21.9	+1.7
AAK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.9						
IDI	**Anoyia**	23.18	292	P	P	03 50 23.7	+0.4
	comp=Z,6.1nm,0.6s,mb4.2,baz=308,slow=3.3,SNR=6.7						
MLR	**Muntele Rosu**	25.78	316	⇓P	P	03 50 49.0	+2.0
MLR	**Muntele Rosu**	25.78	316	P	P	03 50 48.6	+1.5
	comp=Z,4.7nm,0.6s,mb4.2,baz=34,slow=7.3						
AKASG	**Malin Array Be**	27.17	328	P	P	03 50 58.7	-0.8
AKASG	**Malin Array Be**	27.17	328	P	P	03 50 58.7	-0.8
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	**Malin Array Be**	27.17	328	P	P	03 50 58.7	-0.8
	comp=Z,1.1nm,0.4s,mb3.7,baz=124,slow=7.2,SNR=11						
BURAR	**Bucovina Array**	27.32	319	⇑P	P	03 51 02.0	+1.0
MK31	**Makanchi Array**	29.73	45	*e*P	P	03 51 22.9	+0.5
MK31	**Makanchi Array**	29.73	45	*e*P	P	03 51 22.9	+0.6
MKAR	**Makanchi Array**	29.73	45	P	P	03 51 22.8	+0.5
	comp=Z,0.4nm,0.3s,mb3.7,baz=237,slow=8.5,SNR=6.4						
KWP	**Kalwaria**	29.81	321	*e*P	P	03 51 23.2	+0.2
	comp=Z,3.9nm,0.6s,mb4.3						
KWP	**Kalwaria**	29.81	321	*e*P	P	03 51 23.2	+0.2
KWP				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.3						
KWP	**Kalwaria**	29.81	321	*e*P	P	03 51 23.2	+0.2
	comp=Z,3.9nm,0.6s,mb4.3						
MORC	**Moravsky Berou**	32.81	318	*e*P	P	03 51 48.7	-0.7
	comp=Z,3.1nm,0.7s,mb4.3						
MORC	**Moravsky Berou**	32.81	318	*e*P	P	03 51 48.7	-0.7
MORC				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
MORC	**Moravsky Berou**	32.81	318	*e*P	P	03 51 48.7	-0.7
	comp=Z,3.1nm,0.7s,mb4.3						
VRAC	**Vranov**	33.17	317	P	P	03 51 51.4	-1.2
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.6s						
VRAC	**Vranov**	33.17	317	P	P	03 51 51.4	-1.2
	comp=Z,2.0nm,0.6s,mb4.2,baz=140,slow=14,SNR=2.9						
ZAL	**Zalesovo**	34.58	35	P	P	03 52 04.1	-0.7
ZALV	**Zalesovo Beam**	34.60	35	P	P	03 52 04.0	-0.9
	comp=Z,1.6nm,0.4s,mb4.3,baz=254,slow=9.5,SNR=7.7						
GERES	**GERESS Array B**	34.75	315	P	P	03 52 05.6	-0.8
	comp=Z,0.4nm,0.5s,mb3.6,baz=108,slow=8.7,SNR=4.8						
FINES	**FINESS Array B**	36.32	340	P	P	03 52 18.9	-0.7
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	**FINESS Array B**	36.32	340	P	P	03 52 18.9	-0.7
	comp=Z,1.9nm,0.9s,mb4.0,baz=145,slow=7.0,SNR=5.0						
HFS	**Hagfors**	39.94	332	P	P	03 52 49.5	-0.6
HFS				pmax	pmax		
	comp=Z,3.0nm,0.5s						
HFS	**Hagfors**	39.94	332	P	P	03 52 49.5	-0.6
	comp=Z,3.4nm,0.5s,mb4.3,baz=128,slow=9.6,SNR=24						
NB2	**NORSAR Subarra**	41.46	332	P	P	03 53 01.3	-1.3
	comp=Z,1.0nm,0.5s,mb3.7,baz=122,slow=8.6						
NOA	**NORSAR Array B**	41.46	332	P	P	03 53 01.5	-1.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA	**NORSAR Array B**	41.46	332	P	P	03 53 01.5	-1.1
	comp=Z,1.6nm,0.7s,mb3.8,baz=122,slow=8.3,SNR=5.6						
ARCES	**ARCESS Array B**	42.99	347	P	P	03 53 14.9	-0.1
ARCES				pmax	pmax		
	comp=Z,9.0nm,1.1s						
ARCES	**ARCESS Array B**	42.99	347	P	P	03 53 14.9	-0.1
	comp=Z,9.1nm,1.1s,mb4.4,baz=162,slow=7.5,SNR=15						
SONM	**Songino Array**	45.82	50	P	P	03 53 38.7	+0.8
	comp=Z,0.3nm,0.6s,mb3.4,baz=265,slow=8.4,SNR=4.9						
TORD	**Torodi Ar. Bea**	48.67	262	P	P	03 54 00.6	+0.1
TORD	**Torodi Ar. Bea**	48.67	262	P	P	03 54 00.6	+0.1
	comp=Z,2.0nm,0.6s,mb4.3,baz=59,slow=7.8,SNR=8.5						
SCHQ	**Schefferville**	80.96	329	P	P	03 57 30.1	-0.1
	comp=Z,2.6nm,0.9s,mb4.2,baz=66,slow=10.0,SNR=5.1						
MCK	**McKinley**	85.96	9	*e*P	P	03 57 55.5	-0.1
MCK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.2						
MCK	**McKinley**	85.96	9	*e*P	P	03 57 55.5	-0.1
	comp=Z,1.3nm,0.6s,mb4.3						
YKA	**Yellowknife Ar**	87.90	354	P	P	03 58 05.1	0.0
YKA	**Yellowknife Ar**	87.90	354	P	P	03 58 05.1	0.0
	comp=Z,0.4nm,0.7s,mb3.8,baz=9.1,slow=5.1,SNR=8.4						
YKA	**Yellowknife Ar**	87.90	354	P	P	03 58 05.1	0.0
WRA	**Warramunga Arr**	93.65	111	P	P	03 58 32.8	+0.2
	comp=Z,0.2nm,0.6s,mb3.7,baz=310,slow=4.1,SNR=3.0						

GUC 13 03:48:08.8±0.8**, 31.47S**×**71.66W, h9**^{km}±10^{km}**, MD3.5, ML2.4, 1C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	**Los Chungos**	0.44	161	⇓*i*P	Pg	03 48 07.0	-10
CHNG				*i* S	Sg	03 48 14.2	-8.9
CHNG				AML	AML	03 48 14.8	
	comp=N,182nm,0.4s						
CMCH	**Combarbala**	0.64	63	⇑*i*P	Pg	03 48 21.6	+0.5
CMCH				*i* S	Sg	03 48 31.1	+1.6
CMCH				AML	AML	03 48 33.3	
	comp=N,700nm,0.6s						
TLL	**Tololo Astrono**	1.49	30	*e*P	Pn	03 48 35.7	0.0
TLL				*i* S	Sn	03 48 55.7	+0.4
TLL				AML	AML	03 48 58.5	
	comp=N,81nm,0.6s						
PEL	**Peldehue**	1.86	154	*e*P	Pn	03 48 41.5	+0.6
PEL				AML	AML	03 49 11.2	
	comp=E,112nm,0.3s						
RCDM	**Rinconada Maip**	2.14	160	*e*P	Pn	03 48 45.0	+0.3
RCDM				AML	AML	03 49 22.5	
	comp=N,82nm,0.4s						
FCH	**Farellones**	2.19	148	*e*P	Pn	03 48 46.3	+1.0
FCH				*i* S	Sn	03 49 15.6	+3.1
FCH				AML	AML	03 49 23.5	
	comp=E,30nm,0.1s						

IDC 13 03:50:05.2±2.7**, 21.29S**×**69.45W, h0**^{km}**, mb3.7**/2**, mb1 3.9**/3**, mb1mx3.7**/15**, mbtmp3.7**/3**, ML3.3**/1**, Error ellipse: s-maj=71.4km s-min=54.9km az=51.0, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	**La Paz**	5.13	14	Pn	Pn	03 51 24.0	+0.6
	0.7nm,0.3s,baz=190,slow=8.4,SNR=32						
TORD	**Torodi Ar. Bea**	77.76	71	P	P	04 02 04.8	+0.1
	0.2nm,0.3s,baz=253,slow=5.5,SNR=9.3						
YKA	**Yellowknife Ar**	90.83	341	P	P	04 03 09.9	-0.1
	0.3nm,0.6s,baz=136,slow=4.6,SNR=9.6						

IDC ***13*** *04:20:28.7±3.6, 3.31S×137.41E, h0*^{km}*, mb4.1/3, mb1 4.3/3, mb1mx3.8/10, mbtmp4.1/3, MS3.1/1, Ms1 3.0/1, ms1mx2.7/15, Error ellipse: s-maj=187.8km s-min=30.9km az=77.0*

ISCJB ***13*** *04:20:35.3±1.2, 3.88S±0.07×137.10E±0.09, h59*^{km}*±17*^{km}*, mb3.7/3, Error ellipse: s-maj=15.8km s-min=12.1km az=0.3*

NEIC ***13*** *04:20:36.5±3.5, 3.86S×137.09E, h35*^{km}*, mb4.2/2, Error ellipse: s-maj=50.3km s-min=16.9km az=174.0*

ISC 13 04:20:36.9±1.1**, 3.83S**±0.07×**137.09E**±0.09**, h57**^{km}±17^{km}**, n13,** σ1^{s}.**29**/17**, mb3.7**/3**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BAKI	**Biak**	2.80	339	P	Pn	04 21 19.5	+0.2
	0.0nm,0.0s						
KAKA	**Kakadu**	9.95	207	*e*Pn	Pn	04 22 58.0	+0.7
KAKA				*e*Sn	Sn	04 24 46.1	-1.4
PMG	**Port Moresby**	11.43	119	*e*Pn	Pn	04 23 16.9	-0.6
	4.9nm,0.4s						
COEN	**Coen**	11.72	150	*e*Pn	Pn	04 23 22.7	+1.3
WB2	**Warramunga Arr**	16.24	189	*e*Pn	Pn	04 24 21.2	-0.2
WRA	**Warramunga Arr**	16.24	189	Pn	Pn	04 24 20.2	-1.2
WRA				Sn	Sn	04 27 13.4	-7.3
WRA	**Warramunga Arr**	16.24	189	Pn	Pn	04 24 20.2	-1.2
	0.3nm,0.3s,baz=0.8,slow=13,SNR=15						
WRA				Sn	Sn	04 27 13.4	-7.3
	0.4nm,0.3s,baz=7.2,slow=21,SNR=6.7						
FITZ	**Fitzroy Crossi**	18.08	217	*e*P	Pn	04 24 44.3	+0.1
CTAO	**Charters Tower**	18.46	152	*e*P	Pn	04 24 47.3	-1.5
	12nm,1.0s						
ASAR	**Alice Springs**	19.96	189	P	Pn	04 25 08.7	+2.1
	35nm,0.8s,baz=12,slow=10,SNR=374						
ASAR				S	S	04 28 40.6	-5.3
	2.5nm,1.0s,baz=10,slow=23,SNR=4.8						
MBWA	**Marble Bar**	24.12	223	*e*P	P	04 25 49.1	+1.6
	8.6nm,0.9s,mb4.2						
STKA	**Stephens Creek**	28.22	172	P	P	04 26 27.6	+3.2
	0.8nm,0.4s,mb3.7,baz=341,slow=11,SNR=2.8						
STKA				LR	LR	04 38 55.1	
	comp=Z,35nm,18.3s,baz=26,slow=39						
MKAR	**Makanchi Array**	69.70	323	P	P	04 31 39.1	-1.6
	0.1nm,0.3s,mb3.3,baz=111,slow=7.9,SNR=3.7						

FUNV 13 04:22:47.9, 8.01N×**72.75W, h24**^{km}**, MW3.5, 1C-1D, Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	**Capacho**	0.46	108	*e*S	Sb	04 23 04.7	+0.9
VIGV	**El Vigia**	1.60	59	*e*P	Pn	04 23 13.7	-1.1
VIGV				*e*S	Sn	04 23 34.1	-0.6
SOCV	**Socops**	1.90	82	*e*P	Pn	04 23 18.2	-0.6
SOCV				*e*S	Sn	04 23 41.4	-0.5
VIRV	**Villa del Rosa**	2.50	8	*e*P	Pn	04 23 26.6	-0.5
VIRV				*e*S	Sn	04 23 55.9	-1.0
QARV	**Quebrada Arrib**	3.10	45	⇓*i*P	Pn	04 23 34.2	-1.2
QARV				*e*S	Sn	04 24 09.6	-2.0
ELOV	**Elorza**	3.39	107	*e*P	Pn	04 23 39.2	-0.2
ELOV				*e*S	Sn	04 24 15.7	-3.2
CURV	**Curarigua**	3.40	54	*e*P	Pn	04 23 38.6	-0.9
CURV				*e*S	Sn	04 24 15.4	-3.7
SANV	**Sanarito**	3.51	65	*e*P	Pn	04 23 40.0	-0.9
SANV				*e*S	Sn	04 24 18.3	-3.5
DABV	**Dabajuro**	3.57	36	*e*P	Pn	04 23 40.5	-1.3
SIQV	**Siquisique**	3.91	48	*e*P	Pn	04 23 45.2	-1.3
SIQV				*e*S	Sn	04 24 28.1	-3.7
TEPV	**Terepaima**	4.02	61	*e*P	Pn	04 23 47.1	-0.8
TEPV				*e*S	Sn	04 24 30.5	-3.8
BAUV	**El Baul**	4.75	78	⇑*i*P	Pn	04 23 56.0	-2.1
BAUV				*e*S	Sn	04 24 47.0	-5.4
JACV	**Jacura**	4.93	51	*e*P	Pn	04 23 59.4	-1.2
JACV				*e*S	Sn	04 24 51.8	-5.1
TURV	**Turiamo**	5.42	63	*e*P	Pn	04 24 05.7	-1.6
TURV				*e*S	Sn	04 25 03.4	-5.6
CAOV	**Caicara del Or**	6.41	96	*e*P	Pn	04 24 19.1	-1.8
CAOV				*e*S	Sn	04 25 26.8	-6.6
MERV	**Las Mercedes**	6.50	79	*e*P	Pn	04 24 19.9	-2.3
BIRV	**Birongo**	6.85	69	*e*P	Pn	04 24 24.6	-2.4
CUPV	**Cœpira**	7.17	73	*e*P	Pn	04 24 29.1	-2.2
PCRV	**Puerto La Cruz**	8.30	74	*e*P	Pn	04 24 44.6	-2.2

ISCJB ***13*** *04:35:34.7±1.9, 15.2S±1.0×178.4W±0.5, h450*^{km}*, mb3.5/6, Error ellipse: s-maj=144.9km s-min=18.1km az=152.4*

IDC ***13*** *04:35:34.9±7.8, 15.50S×178.12W, h445*^{km}*±90*^{km}*, mb3.2/6, mb1 3.6/6, mb1mx3.3/14, mbtmp3.2/6, Error ellipse: s-maj=137.5km s-min=24.7km az=155.0*

NEIC ***13*** *04:35:35.7±5.2, 15.48S×178.16W, h457*^{km}*±60*^{km}*, Error ellipse: s-maj=90.1km s-min=17.9km az=156.0*

ISC 13 04:35:36.0±1.9**, 15.1S**±1.0×**178.4W**±0.5**, h450**^{km}**, n16,** σ0^{s}.**28**/8**, mb3.4**/6**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	45.25	257	P	P	04 43 11.7	-0.3
	0.6nm,0.8s,mb3.1,baz=90,slow=6.6,SNR=4.9						
WRA				sP	sP	04 45 28.6	-0.1
	0.1nm,0.3s,baz=95,slow=7.5,SNR=2.1						
ASAR	**Alice Springs**	45.66	252	P	P	04 43 15.4	+0.3
	1.4nm,0.6s,mb3.6,baz=85,slow=8.0,SNR=12						
ASAR				sP	sP	04 45 30.7	-1.2
	0.5nm,0.5s,baz=87,slow=9.6,SNR=4.9						
NVAR	**Mina Array Bea**	77.39	44	P	P	04 46 43.9	+0.4
	1.1nm,0.8s,mb3.5,baz=218,slow=7.2,SNR=5.4						
MCMT	**McKenzie Canyo**	84.10	41	*e*P	P	04 47 18.1	-0.2
TXAR	**Lajitas Array**	84.47	58	P	P	04 47 20.5	0.0
TXAR	**Lajitas Array**	84.47	58	P	P	04 47 20.5	0.0
	0.7nm,0.6s,mb3.4,baz=209,slow=7.8,SNR=5.2						
PDAR	**Pinedale Array**	85.30	44	P	P	04 47 23.9	-0.3
	0.9nm,0.6s,mb3.6,baz=216,slow=3.0,SNR=11						
YKA	**Yellowknife Ar**	91.79	25	P	P	04 47 54.4	+0.2
	0.4nm,0.6s,mb3.5,baz=247,slow=4.3,SNR=9.9						
MKAR	**Makanchi Array**	107.23	315	PKPdf	PKiKP	04 53 10.3	+0.2
MKAR	**Makanchi Array**	107.23	315	PKiKP	PKiKP	04 53 10.3	+0.2
	0.2nm,0.2s,baz=137,slow=2.2,SNR=2.2						
BRTR	**Keskin Array B**	142.82	317	PKP	PKPdf	04 54 16.8	-0.8
BRTR	**Keskin Array B**	142.82	317	PKP	PKPdf	04 54 16.8	-0.8
	3.0nm,0.8s,baz=80,slow=2.9,SNR=18						
MLR	**Muntele Rosu**	143.46	331	PKP	PKPdf	04 54 17.7	-0.7
MLR	**Muntele Rosu**	143.46	331	PKP	PKPdf	04 54 17.7	-0.7
	1.6nm,0.6s,baz=231,slow=6.5,SNR=5.3						
GERES	**GERESS Array B**	144.94	346	PKPbc	PKPdf	04 54 21.9	+1.1
GERES	**GERESS Array B**	144.94	346	PKPbc	PKPdf	04 54 21.9	+1.1
	0.4nm,0.6s,baz=46,slow=3.9,SNR=5.9						

ISCJB ***13*** *04:54:09.1±2.4, 19.1S±0.1×174.7W±0.1, h40*^{km}*±21*^{km}*, mb4.4/14, MS3.5/3, Error ellipse: s-maj=28.7km s-min=11.3km az=140.4*

NEIC ***13*** *04:54:10.1±0.4, 19.04S×174.65W, h35*^{km}*, mb4.6/5, Error ellipse: s-maj=18.9km s-min=7.8km az=140.0*

IDC ***13*** *04:54:11.8±3.7, 19.01S×174.60W, h52*^{km}*±33*^{km}*, mb3.9/10, mb1 4.2/11, mb1mx4.0/18, mbtmp4.0/11, ML2.5/1, MS3.5/4, Ms1 3.5/4, ms1mx2.9/28, Error ellipse: s-maj=32.9km s-min=14.9km az=143.0*

ISC 13 04:54:11.8±2.0**, 19.0S**±0.1×**174.7W**±0.1**, h50**^{km}±18^{km}**, n42,** σ0^{s}.**80**/28**, mb4.4**/14**, MS3.5**/3**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	5.79	29	P	Pn	04 55 35.5	+0.3
AFI				S	Sn	04 56 32.3	-8.0
AFI				*e*Sn	Sn	04 56 35.9	-4.4
AFI	**Afiamalu**	5.79	29	P	Pn	04 55 35.4	+0.3
	7.6nm,0.3s,baz=186,slow=10,SNR=6.2						
AFI				S	Sn	04 56 32.3	-8.0
	29nm,0.3s,baz=80,slow=19,SNR=6.7						
DZM	**Mont Dzumac**	17.94	257	LR	LR	05 02 40.7	
	comp=Z,100nm,18.6s,baz=189,slow=28						
URZ	**Urewera**	20.47	199	P	P	04 58 44.5	-0.9
	4.3nm,0.5s,baz=86,slow=13,SNR=7.8						
PAE	**Paea**	23.86	91	*e*T		05 23 25.4	
	106nm,0.3s						
PPT	**Papeete**	23.88	91	*e*LR	LR	05 05 02.4	
	204nm,27.0s						
PPT	**Papeete**	23.88	91	*e*T		05 23 26.8	
	11nm,0.3s						
PPT	**Papeete**	23.88	91	LR	LR	05 05 12.7	
	comp=Z,139nm,20.8s,MS3.4,baz=288,slow=28						
TVO	**Taravao**	24.16	91	*e*T		05 23 42.5	
	23nm,0.4s						
VAH	**Vaihoa**	26.11	86	*e*T		05 26 14.1	
	3.5nm,0.2s						
TAOE	**Nuku Hiva Isla**	34.94	78	*e*T		05 37 15.0	
	554nm,0.3s						
CTA	**Charters Tower**	36.77	262	P	P	05 01 16.6	+1.6
	baz=90,slow=9.9						
CTA				LR	LR	05 13 51.8	
	comp=Z,76nm,18.6s,MS3.5,baz=50,slow=32						
CTAO	**Charters Tower**	36.77	262	*e*P	P	05 01 14.9	0.0
	8.1nm,0.6s,mb4.7						
RKT	**Rikitea**	37.20	103	*e*LR	LR	05 10 58.4	
	89nm,30.2s						
RKT	**Rikitea**	37.20	103	*e*T		05 40 04.5	
	3.6nm,0.3s						
STKA	**Stephens Creek**	41.25	243	P	P	05 01 52.6	+0.4
	0.8nm,0.6s,mb3.6,baz=112,slow=11,SNR=2.1						
STKA				LR	LR	05 15 14.1	
	comp=Z,78nm,21.5s,MS3.5,baz=25,slow=31						
WB2	**Warramunga Arr**	47.91	260	*e*P	P	05 02 44.9	-0.6
ASAR	**Alice Springs**	47.91	255	P	P	05 02 45.9	+0.4
	6.5nm,0.6s,mb4.8,baz=91,slow=8.4,SNR=52						
WRA	**Warramunga Arr**	47.92	260	P	P	05 02 44.1	-1.5
	2.5nm,0.6s,mb4.5,baz=97,slow=8.6,SNR=36						
KAKA	**Kakadu**	51.10	269	*e*P	P	05 03 10.7	+0.8
MBWA	**Marble Bar**	61.24	256	*e*P	P	05 04 21.9	-0.3
	1.2nm,0.6s,mb4.2						
NWAO	**Narrogin (SRO)**	61.83	242	*e*P	P	05 04 26.5	+0.5
CASY	**Casey**	66.64	205	*e*P	P	05 04 56.3	-0.5
	188nm,1.3s						
NVAR	**Mina Array Bea**	77.82	42	P	P	05 06 03.6	-0.4
	1.5nm,0.8s,mb4.0,baz=213,slow=7.1,SNR=9.5						
TMUT	**Trail Mountain**	82.90	44	*e*P	P	05 06 32.7	+1.4
MNTX	**Cornudas Mount**	83.35	53	*e*P	P	05 06 34.1	+0.4
	1.9nm,0.6s,mb4.3						
TXAR	**Lajitas Array**	83.63	56	P	P	05 06 35.4	+0.1
	2.1nm,1.1s,mb4.2,baz=198,slow=7.9,SNR=8.1						
MAW	**Mawson**	84.00	199	P	P	05 06 38.1	+1.6
	5.3nm,0.7s,mb4.8,baz=180,slow=8.1,SNR=4.7						
ANMO	**Albuquerque**	84.05	50	P	P	05 06 37.5	+0.2
	2.7nm,1.1s,mb4.3,baz=219,slow=6.4,SNR=6.5						
MCMT	**McKenzie Canyo**	84.82	39	*e*P	P	05 06 41.2	+0.2
PDAR	**Pinedale Array**	85.75	42	P	P	05 06 44.8	-0.9
	0.6nm,0.9s,mb3.8,baz=221,slow=3.4,SNR=5.3						
COLA	**College**	86.12	11	*e*P	P	05 06 46.4	-0.6
	11nm,0.8s,mb5.1						
ISCO	**Idaho Springs**	86.91	46	*e*P	P	05 06 44.9	-6.5
	3.1nm,0.7s,mb4.7						
YKA	**Yellowknife Ar**	93.88	24	P	P	05 07 22.2	-1.3
YKA	**Yellowknife Ar**	93.88	24	P	P	05 07 22.2	-1.3
	0.7nm,0.8s,mb4.2,baz=238,slow=4.4,SNR=16						
AKASG	**Malin Array Be**	143.12	335	PKP	PKPdf	05 13 35.1	-5.1
AKASG				PKP	PKPdf	05 13 39.7	-0.4
AKASG	**Malin Array Be**	143.12	335	PKhKP		05 13 35.1	
	0.2nm,0.4s,baz=41,slow=4.4,SNR=5.5						
AKASG				PKP	PKPdf	05 13 39.7	-0.4
	0.2nm,0.4s,baz=40,slow=4.3,SNR=4.4						
BRTR	**Keskin Array B**	148.05	316	PKPbc	PKPbc	05 13 51.8	-0.3
BRTR	**Keskin Array B**	148.05	316	PKPbc	PKPbc	05 13 51.8	-0.3
	1.4nm,0.7s,baz=127,slow=4.0,SNR=9.0						
GERES	**GERESS Array B**	149.48	349	PKPbc	PKPbc	05 13 55.2	-0.3
GERES	**GERESS Array B**	149.48	349	PKPbc	PKPbc	05 13 55.2	-0.3
	1.7nm,0.8s,baz=267,slow=2.7,SNR=4.9						
TORD	**Torodi Ar. Bea**	173.21	149	PKPab	PKPab	05 15 42.3	-1.8
	0.6nm,0.9s,baz=224,slow=4.0,SNR=3.2						

IDC 13 04:59:23.6±0.9**, 21.91N**×**143.02E, h0**^{km}**, mb3.7**/8**, mb1 3.9**/8**, mb1mx3.7**/21**, mbtmp3.7**/8**, Error ellipse: s-maj=34.8km s-min=21.3km az=85.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	39.08	320	P	P	05 06 52.4	+0.1
	0.4nm,0.6s,baz=126,slow=6.6,SNR=6.7						
WRA	**Warramunga Arr**	42.45	192	P	P	05 07 20.9	+0.6
	0.7nm,0.7s,baz=13,slow=8.7,SNR=6.6						
ASAR	**Alice Springs**	46.16	192	P	P	05 07 49.3	-0.7
	0.3nm,0.6s,baz=11,slow=10,SNR=3.3						
ZALV	**Zalesovo Beam**	53.95	322	P	P	05 08 49.0	+0.1
	1.1nm,0.4s,baz=107,slow=7.9,SNR=7.3						
MKAR	**Makanchi Array**	54.44	313	P	P	05 08 53.4	+0.8
	0.2nm,0.3s,baz=95,slow=7.7,SNR=5.1						
YKA	**Yellowknife Ar**	76.34	28	P	P	05 11 13.8	-0.4
	0.4nm,0.5s,baz=292,slow=6.1,SNR=7.0						
FINES	**FINESS Array B**	82.93	334	P	P	05 11 48.9	-1.2
	1.4nm,0.9s,baz=101,slow=9.9,SNR=4.2						
NVAR	**Mina Array Bea**	83.14	51	P	P	05 11 52.8	+1.1
	0.4nm,0.7s,baz=274,slow=6.1,SNR=2.5						

IDC ***13*** *05:11:43.6±0.8, 22.01N×120.55E, h0*^{km}*, mb3.8/7, mb1 4.0/7, mb1mx3.8/20, mbtmp3.8/7, MS3.0/1, Ms1 3.0/1, ms1mx2.2/30, Error ellipse: s-maj=68.2km s-min=16.8km az=67.0*

*ISCJB **13** 05:11:48.2±2.3, 21.94N±0.09×120.5E±0.2, h47^{km}±23^{km}, mb3.7/7, Error ellipse: s-maj=28.4km s-min=14.0km az=171.5*

*NEIC **13** 05:11:48.8±0.5, 21.93N×120.39E, h35^{km}, Error ellipse: s-maj=16.8km s-min=8.9km az=89.0*

ISC 13 05:11:49.7±2.5, 21.96N±0.10×120.5E±0.2, h43^{km}±25^{km}, n12, σ0^{s}.74/14, mb3.7/7, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NACB	Ninganchiao	2.44	25	*e*Pn	Pn	05 12 26.2	-0.8
NACB				*e*Sn	Sn	05 12 55.0	-0.7
YHNB	Yeheng	2.83	17	*e*Pn	Pn	05 12 32.2	-0.2
YHNB				*e*Sn	Sn	05 13 04.5	-0.7
TATO	Taipei	3.15	17	Pn	Pn	05 12 37.8	+1.1
TATO				*e*Sn	Sn	05 13 14.9	+1.8
KSRS	Korea Array	16.74	21	LR	LR	05 22 56.8	
	comp=Z,50nm,20.1s,baz=205,slow=40						
SONM	Songino Array	28.19	340	P	P	05 17 36.9	-1.1
	0.5nm,0.5s,mb3.4,baz=159,slow=9.1,SNR=6.0						
MK31	Makanchi Array	39.51	318	*e*P	P	05 19 16.1	+0.1
MKAR	Makanchi Array	39.51	318	P	P	05 19 16.1	+0.1
	0.6nm,0.7s,mb3.5,baz=114,slow=9.7,SNR=9.0						
ZALV	Zalesovo Beam	41.77	329	P	P	05 19 34.9	+0.2
	1.5nm,0.7s,mb3.8,baz=126,slow=9.3,SNR=8.7						
WRA	Warramunga Arr	43.80	161	P	P	05 19 50.9	-0.5
	2.3nm,0.7s,mb4.0,baz=342,slow=9.0,SNR=12						
WRA				PcP	PcP	05 21 37.9	+0.4
	0.3nm,0.8s,baz=65,slow=39,SNR=3.2						
ASAR	Alice Springs	47.20	163	P	P	05 20 18.6	+0.4
	1.0nm,0.5s,mb4.0,baz=345,slow=6.9,SNR=22						
STKA	Stephens Creek	57.23	159	P	P	05 21 33.0	+0.3
	1.0nm,0.7s,mb4.0,baz=181,slow=10.0,SNR=3.7						
YKA	Yellowknife Ar	85.27	22	P	P	05 24 21.9	+0.3
	0.2nm,0.5s,mb3.5,baz=315,slow=5.1,SNR=8.4						

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*NEIC **13** 05:29:26.8±0.4, 18.70N×63.33W, h10^{km}, mb4.4/16, MD4.2(RSPR), MD4.1(TRN), Error ellipse: s-maj=8.6km s-min=6.2km az=64.0*

NEIC Felt on Saint Martin.

*ISCJB **13** 05:29:29.4±0.8, 18.67N±0.06×63.34W±0.03, h39^{km}±8^{km}, mb4.2/23, MS3.2/3, Error ellipse: s-maj=10.6km s-min=4.0km az=19.7*

*IDC **13** 05:29:30.3±3.2, 18.62N×63.26W, h44^{km}±30^{km}, mb3.8/10, mb1 4.1/12, mb1mx3.8/23, mbtmp3.9/12, ML3.9/1, MS3.3/6, Ms1 3.3/6, ms1mx3.0/24, Error ellipse: s-maj=25.7km s-min=17.1km az=45.0*

*TRN **13** 05:29:30.2, 18.53N×62.97W, h10^{km}, MD4.1, M4.2(FDF)*

TRN Felt in St. Martin.

*BJI **13** 05:29:36.8, 18.70N×63.30W, h10^{km}, mB5.4*

ISC 13 05:29:29.5±1.2, 18.68N±0.04×63.33W±0.03, h24^{km}±9^{km}, n188, σ0^{s}.72/199, mb4.2/23, MS3.2/3, 62C-44D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STMA	St. Maarten, A	0.67	161	⇑*i*P	Pb	05 29 42.5	0.0
STMA				*e*S	Sb	05 29 51.0	-0.4
CPB	Codrington	1.77	126	*e*P	Pn	05 29 57.8	-0.8
CPB				*e*S	Sn	05 30 21.3	+0.9
CPB	Codrington	1.77	126	*e*P	Pn	05 29 57.8	-0.8
CPB				*e*S	Sn	05 30 21.3	+0.9
BPA	Boggy Peak	2.15	139	*e*P	Pn	05 30 03.0	-0.8
BPA				*e*S	Sn	05 30 28.1	-1.8
MTP	Monte Pirata	2.19	255	*e*Pn	Pn	05 30 04.4	0.0
MTP				*e*Sn	Sn	05 30 28.8	-1.9
CBYP	Canovanas	2.43	261	*e*Pb	Pn	05 30 07.4	-0.3
HUMP	Col San Antoni	2.45	258	*e*Pn	Pn	05 30 08.2	+0.2
HUMP				*e*Sn	Sn	05 30 36.1	-1.1
CPD	Cerro la Pandu	2.54	256	*e*Pb	Pn	05 30 09.7	+0.5
SJG	San Juan	2.73	258	*e*Pn	Pn	05 30 11.9	0.0
SJG				*e*Sg	Sn	05 30 46.7	+2.4
SJG	San Juan	2.73	258	P	Pn	05 30 12.3	+0.4
	148nm,0.3s,baz=99,slow=12,SNR=216						
SJG				S	Sn	05 30 45.4	+1.1
	147nm,0.3s,baz=301,slow=15,SNR=8.8						
SJG				LR	LR	05 31 19.8	
	comp=Z,532nm,19.4s,baz=149,slow=39						
LZG	Guadaloupe-1	2.93	149	*e*P	Pn	05 30 15.1	+0.4
LZG				*e*S	Sn	05 30 50.3	+1.1
SCG	Saint Claude	3.07	149	*e*P	Pn	05 30 17.0	+0.4
DEG	La Desirade	3.20	137	*e*P	Pn	05 30 17.1	-1.3
TBG	Guadaloupe-3	3.24	150	⇓*e*P	Pn	05 30 19.4	+0.4
MGG	Marie-Galante	3.36	145	⇓*e*P	Pn	05 30 20.7	+0.2
MPR	Mayaguez	3.64	263	*e*Pg	Pn	05 30 24.7	+0.3
MPR				*e*Sg	Sn	05 31 06.6	-0.1
FDF	Fort de France	4.45	152	*e*P	Pn	05 30 37.5	+2.0
BIM	Bigot	4.67	152	*e*P	Pn	05 30 39.5	+0.9
MVM	Montagne Vaucl	4.72	150	*e*P	Pn	05 30 39.7	+0.4
SLW	Petit Monier	5.17	153	*e*P	Pn	05 30 47.1	+1.7
GRGR	Grenville	6.71	166	*e*Pn	Pn	05 31 05.0	-1.6
SDDR	Presa de Saban	7.54	274	*e*Pn	Pn	05 31 17.9	-0.1
	127nm,0.5s						
SDDR				*e*Sn	Sn	05 32 42.3	-0.5
PCRV	Puerto La Cruz	8.55	189	P	Pn	05 31 31.2	-0.7
	1.5nm,0.3s,baz=360,slow=4.9,SNR=12						
PCRV				S	Sn	05 33 02.7	-4.9
	0.2nm,0.3s,baz=17,slow=10,SNR=2.7						
PCRV				LR	LR	05 34 54.8	
	comp=Z,186nm,19.4s,baz=352,slow=38						
BBSR	BB Station	13.69	355	*e*Pn	Pn	05 32 38.0	-4.2
	33nm,1.0s						
BBSR				*e*Sn	Sn	05 34 52.6	-21
ROSC	El Rosal	17.44	219	P	Pn	05 33 32.3	+0.9
	1.9nm,0.3s,baz=98,slow=17,SNR=9.6						
ROSC				S	Sn	05 36 48.6	+3.6
	0.4nm,0.3s,baz=263,slow=22,SNR=2.9						
ROSC				LR	LR	05 40 60.0	
	comp=Z,108nm,19.2s,baz=21,slow=40						
COW	Cow Castle Cre	21.35	317	P	P	05 34 15.1	0.0
COW				*e*S	S	05 38 09.9	-1.1
JSC	Jenkinsville	22.28	318	*e*S	S	05 38 33.4	+4.2
JTS	JuntasAbangare	22.51	251	*e*P	P	05 34 27.6	-0.1
	12nm,1.0s,mb4.3						
JTS	JuntasAbangare	22.51	251	P	P	05 34 28.6	+0.9
	7.1nm,1.0s,mb4.0,baz=59,slow=16,SNR=3.7						
JTS				S	S	05 38 16.9	-17
	3.7nm,0.8s,baz=218,slow=18,SNR=3.2						
GOGA	Godfrey	23.23	313	*e*S	S	05 38 49.3	+3.8
TEIG	Tepich	23.57	278	*e*P	P	05 34 37.2	-1.4
	13nm,0.8s,mb4.4						
TEIG	Tepich	23.57	278	P	P	05 34 37.1	-1.5
	5.3nm,0.5s,mb4.3,baz=238,slow=9.6,SNR=10						
OTAV	Otavalo	23.59	221	*e*P	P	05 34 37.3	-1.5
	4.1nm,0.6s,mb4.0						
BLA	Blacksburg	23.77	324	*e*P	P	05 34 40.2	-0.2
	34nm,0.4s,mb5.1						
BLA				*e*		05 35 01.9	
BLA				*e*S	S	05 38 58.0	+3.6
ELN	Prospectdale	23.97	324	*e*S	S	05 39 04.5	+7.0
TKL	Tuckaleechee C	24.75	317	P	P	05 34 48.6	-0.7
	1.2nm,0.6s,mb3.6,baz=114,slow=10.0,SNR=3.1						
TKL				LR	LR	05 44 25.2	
	comp=Z,51nm,20.3s,MS3.0,baz=1.9,slow=36						
CPCT	Cooper Cave	25.11	316	P	P	05 34 52.6	+0.1
CPCT				*i*		05 35 18.5	
CPCT				*e*S	S	05 39 24.1	+8.1
SSPA	Standing Stone	25.20	333	*e*S	S	05 39 29.6	+12
ACCN	Adirondack Com	26.13	343	*e*P	P	05 35 00.5	-1.1
JCT	Junction City	35.03	297	*e*P	P	05 36 20.0	-0.5
	5.5nm,0.8s,mb4.5						
LPAZ	La Paz	35.07	188	*e*P	P	05 36 19.7	-1.1
	2.9nm,1.0s,mb4.2						
LPAZ	La Paz	35.07	188	P	P	05 36 18.5	-2.4
	1.1nm,0.5s,mb4.0,baz=3.5,slow=9.5,SNR=5.3						
KSU1	Kansas State U	35.25	312	*e*P	P	05 36 20.2	-2.0
	5.4nm,0.6s,mb4.7						
WMOK	Wichita Mounta	35.26	304	*e*P	P	05 36 23.4	+1.1
ECSD	EROS,Sioux Fal	37.46	319	*e*P	P	05 36 40.0	-1.0
	4.8nm,0.7s,mb4.4						
TXAR	Lajitas Array	38.17	294	P	P	05 36 46.1	-1.2
	1.3nm,0.7s,mb3.8,baz=136,slow=7.4,SNR=19						
MNTX	Cornudas Mount	39.96	297	*e*P	P	05 37 01.4	-0.8
	4.1nm,0.8s,mb4.2						
ULM	Lac du Bonnet	40.79	328	P	P	05 37 06.8	-1.9
	1.5nm,0.5s,mb3.9,baz=126,slow=10,SNR=5.9						
SDCO	Great Sand Dun	41.32	306	*e*P	P	05 37 12.8	-0.5
	4.9nm,0.9s,mb4.1						
BNM	Barren Site	41.40	301	*e*P	P	05 37 14.8	+0.7
ISCO	Idaho Springs	41.98	309	*e*P	P	05 37 19.6	+0.8
	5.2nm,0.9s,mb4.2						
SMCO	Snowmass	42.82	308	*e*P	P	05 37 26.0	+0.4
TUC	Tucson	44.59	297	*e*P	P	05 37 39.2	-0.8
	6.9nm,1.3s,mb4.3						
116A	Eloy	45.39	298	⇓P	P	05 37 46.7	+0.4
	baz=44						
WUAZ	Wupatki	45.48	302	⇓P	P	05 37 47.5	+0.5
	baz=44						
BW06	Boulder Array	45.70	312	*e*P	P	05 37 49.0	+0.3
	6.0nm,0.9s,mb4.5						
PDAR	Pinedale Array	45.70	312	P	P	05 37 48.2	-0.4
	4.4nm,0.7s,mb4.5,baz=114,slow=9.3,SNR=36						
PDAR				PcP	PcP	05 39 25.1	-1.3
	0.7nm,0.5s,baz=105,slow=5.3,SNR=4.9						
115A	Sonoran Desert	45.84	298	⇓P	P	05 37 50.3	+0.4
	baz=44						
X15A	Humboldt	46.04	300	⇑P	P	05 37 51.8	+0.4
	baz=44						
Z14A	Wintersburg	46.50	299	⇑P	P	05 37 55.4	+0.3
	baz=45						
JLU	Jordanelle	46.51	309	*e*P	P	05 37 56.1	+1.1
X14A	Yava	46.57	300	⇓P	P	05 37 55.8	+0.2
	baz=45						
Y14A	Wickenburg	46.61	299	⇓P	P	05 37 56.4	+0.5
	baz=45,SNR=5.5						
LOHW	Long Hollow	46.68	313	*e*P	P	05 37 56.5	+0.2
	3.3nm,0.7s,mb4.4						
GCMT	Greycliff	46.73	316	*e*P	P	05 37 57.0	+0.3
MOOW	Moose Ponds	46.82	313	*e*P	P	05 37 57.8	+0.4
W14A	Seligman	46.82	301	⇓P	P	05 37 58.2	+0.7
	baz=45						
HWUT	Hardware Ranch	46.83	310	*e*P	P	05 37 57.4	-0.2
IMW	Indian Meadow	47.00	313	*e*P	P	05 37 59.1	+0.3
	1.4nm,0.6s,mb4.1						
S14A	Cedar City	47.26	304	⇓P	P	05 38 01.7	+0.8
	baz=46						
Y13A	Salome	47.28	299	⇑P	P	05 38 01.8	+0.7
	baz=46						
X13A	Yucca	47.36	300	⇑P	P	05 38 02.2	+0.4
	baz=46						
SPUT	South Promonto	47.41	309	*e*P	P	05 38 02.3	+0.3
DUG	Dugway	47.43	308	⇓P	P	05 38 02.6	+0.4
	baz=46						
W13A	Hualapai Mount	47.46	301	⇑P	P	05 38 03.3	+0.7
	baz=46						
EGMT	Eagleton	47.57	319	⇑P	P	05 38 03.9	+0.7
	baz=46						
QLMT	Earthquake Lak	47.61	314	*e*P	P	05 38 05.3	+1.7
BGU	Big Grassy Mou	47.75	309	*e*P	P	05 38 04.6	-0.1
Y12C	Blythe	47.85	299	⇑P	P	05 38 05.5	-0.1
	baz=46						
BOZ	Bozeman (W)	47.99	315	⇑P	P	05 38 07.1	+0.6
	baz=46						
K14A	Jones Ranch, D	48.22	311	P	P	05 38 09.0	+0.7
	baz=47,SNR=7.6						
IRM	Iron Mountain	48.40	299	⇑P	P	05 38 10.3	+0.5
	baz=47						
G15A	Dillon	48.42	314	⇑P	P	05 38 10.7	+0.8
	baz=47						
R12A	Pony Springs,	48.47	305	⇑P	P	05 38 10.8	+0.5
	baz=47						
MCMT	McKenzie Canyo	48.57	314	*e*P	P	05 38 07.8	-3.2
BC3	Big Chuckw Mtn	48.62	299	⇑P	P	05 38 11.4	-0.1
	baz=47						
F15A	Butte	48.62	315	⇑P	P	05 38 11.9	+0.5
	baz=47						
L13A	Double Diamond	48.67	310	⇓P	P	05 38 11.9	+0.1
	baz=47						
M13A	Montello	48.68	309	⇑P	P	05 38 12.3	+0.4
	baz=47						
Q12A	Willow Creek R	48.75	306	⇑P	P	05 38 12.3	-0.2
	baz=47						
K13A	Stover Farm, H	48.90	311	P	P	05 38 13.9	+0.4
	baz=47,SNR=5.1						
D15A	Lincoln	49.00	317	⇓P	P	05 38 15.1	+0.8
	baz=48						
G14A	Jackson	49.10	314	⇓P	P	05 38 15.7	+0.6
	baz=48						
J13A	Cove Ranch, Pi	49.13	312	P	P	05 38 16.1	+0.8
	baz=48,SNR=5.7						
TUQ	Turquoise Mtn.	49.15	301	⇓P	P	05 38 15.8	+0.2
	baz=48						
F14A	Wisdom	49.20	315	P	P	05 38 16.6	+0.9
	baz=48,SNR=5.8						
I13A	Wildhorse Cree	49.22	312	⇑P	P	05 38 16.5	+0.6
	baz=48						
N12A	Clover Valley,	49.23	308	⇓P	P	05 38 16.5	+0.4
	baz=48						
M12A	Wells	49.24	309	⇑P	P	05 38 16.3	+0.1
	baz=48						
S11A	Rachel	49.26	304	⇓P	P	05 38 16.0	-0.4
	baz=48						
HLID	Hailey	49.34	312	⇑P	P	05 38 17.5	+0.5
	baz=48,SNR=5.3						
Q11A	Duckwater	49.36	305	⇓P	P	05 38 17.0	-0.1
	baz=48						
L12A	House Creek Ra	49.46	310	⇓P	P	05 38 18.0	+0.2
	baz=48						
H13A	Challis	49.47	313	⇑P	P	05 38 17.9	0.0
	baz=48						
K12A	Draper Farm, C	49.48	310	⇓P	P	05 38 18.4	+0.4
	baz=48						
O11A	Cowboy Ranch,	49.56	307	⇑P	P	05 38 19.1	+0.5
	baz=48,SNR=7.4						
D14A	Greenough	49.66	316	⇑P	P	05 38 19.3	+0.1
	baz=48						
J12A	Stokes Ranch,	49.76	311	⇓P	P	05 38 20.6	+0.5
	baz=48						
F13A	Darby	49.84	315	⇓P	P	05 38 20.8	+0.1
	baz=48						
M11A	Holland Ranch,	49.89	309	⇑P	P	05 38 21.5	+0.3
	baz=48						
E13A	Victor	49.92	316	⇑P	P	05 38 21.8	+0.5
	baz=48						
Q10A	Clear Creek Ra	49.93	305	⇑P	P	05 38 21.5	+0.1
	baz=48						
S10A	Tonopah Range,	49.96	304	⇑P	P	05 38 22.2	+0.4
	baz=48						
L11A	Cat Creek Ranc	50.00	310	⇑P	P	05 38 22.0	0.0
	baz=48						
CFAA	Coronel Fontan	50.22	185	LR	LR	06 01 18.7	
	comp=Z,6.3nm,18.6s,MS2.6,baz=172,slow=38						
D13A	Huson	50.28	316	⇑P	P	05 38 24.2	+0.2
	baz=49						
MFID	Camas Ranch	50.31	311	⇓P	P	05 38 24.1	-0.2
	baz=49						
F12A	Elk City	50.46	314	⇑P	P	05 38 25.4	+0.1
	baz=49						
I11A	Placerville	50.51	312	⇑P	P	05 38 25.6	-0.2
	baz=49						
L10A	Juniper Basin	50.51	309	⇓P	P	05 38 26.0	+0.2
	baz=49						
C13A	Hot Springs	50.53	317	⇑P	P	05 38 25.9	+0.1
	baz=49						
H11A	Donnelly	50.73	313	⇑P	P	05 38 27.6	+0.2
	baz=49						
O09A	Fish Creek Ran	50.73	307	⇑P	P	05 38 28.0	+0.5
	baz=49						
K10A	MacKenzie Ranc	50.93	310	⇑P	P	05 38 28.9	-0.1
	baz=49						
N09A	Rock Creek Ran	51.08	308	⇓P	P	05 38 30.0	-0.1
	baz=49						
F11A	Grangeville	51.10	314	⇓P	P	05 38 29.9	-0.3
	baz=50						
M09A	Marrel Ranch,	51.12	308	⇓P	P	05 38 30.7	+0.3
	baz=50						
Q08A	Gabbs	51.12	305	⇓P	P	05 38 30.5	+0.1
	baz=50						
H10A	Noah's Angus R	51.21	313	⇑P	P	05 38 30.2	-0.8
	baz=50						
E11A	Bogner Ranch,	51.25	315	P	P	05 38 31.1	-0.2
	baz=50,SNR=7.6						
NVAR	Mina Array Bea	51.36	305	P	P	05 38 32.6	+0.3
	0.6nm,0.7s,mb3.7,baz=100,slow=7.3,SNR=5.6						
L09A	Wilkinson Ranc	51.38	309	⇑P	P	05 38 32.2	-0.1
	baz=50						
B12A	Libby	51.40	318	⇑P	P	05 38 32.8	+0.4
	baz=50						
D11A	Klaveano Farm,	51.51	316	⇑P	P	05 38 32.9	-0.3
	baz=50						
N08A	GE Springer Mi	51.53	308	⇓P	P	05 38 33.6	+0.1
	baz=50						
K09A	Rome	51.54	310	⇑P	P	05 38 33.6	+0.1
	baz=50						
A12A	Yaak River Ran	51.58	318	⇓P	P	05 38 34.3	+0.6
	baz=50						
BMO	Blue Mountains	51.66	313	*e*P	P	05 38 33.8	-0.6
M08A	Happy Creek Ra	51.81	308	⇓P	P	05 38 34.8	-0.8
	baz=50						
L08A	Fields	51.90	309	P	P	05 38 36.6	+0.3
	baz=50,SNR=5.6						
O07A	Toulon	52.01	307	⇑P	P	05 38 36.4	-0.7
	baz=50						
D10A	Wagner Farm, O	52.13	316	⇑P	P	05 38 37.8	-0.1
	baz=51						
N07B	Gerlach	52.16	307	⇓P	P	05 38 37.7	-0.5
	baz=50						
J08A	Circle Bar Ran	52.19	311	⇑P	P	05 38 38.2	-0.2
	baz=51						
NEW	Newport	52.33	317	*e*P	P	05 38 38.3	-1.0
	5.5nm,0.8s,mb4.5						
I08A	Drewsey	52.36	311	P	P	05 38 40.1	+0.5
	baz=51,SNR=6.7						
M07A	Soldier Meadow	52.39	308	⇑P	P	05 38 39.7	-0.3
	baz=51						
SMMC	Simmler	52.47	300	⇓P	P	05 38 40.5	-0.1
	baz=51						
H08A	Prairie City	52.54	312	P	P	05 38 41.1	+0.1
	baz=51,SNR=12						
E09A	Wood Farm, Sta	52.59	315	⇑P	P	05 38 41.5	+0.2
	baz=51						
L07A	Adell	52.61	309	⇑P	P	05 38 41.0	-0.5
	baz=51						
O06A	Flanigan	52.73	307	⇑P	P	05 38 42.9	+0.5
	baz=51						
R05C	Kirkwood Meado	52.77	305	⇓P	P	05 38 43.1	+0.3
	baz=51						
N06A	Buffalo Meadow	52.81	307	⇑P	P	05 38 42.7	-0.3
	baz=51						
F08A	Pendleton	52.87	314	⇓P	P	05 38 42.8	-0.5
	baz=51						
C09A	Chrisman Ranch	52.97	316	⇓P	P	05 38 43.5	-0.6
	baz=51						
B09A	Rice	53.04	317	⇑P	P	05 38 43.7	-0.8
	baz=52						
I07A	Izee	53.05	311	⇑P	P	05 38 44.2	-0.6
	baz=51						
T05C	Eagle Field, D	53.10	302	⇓P	P	05 38 43.7	-1.5
	baz=51						
LAVA	Lava Cap Winer	53.29	305	⇑P	P	05 38 46.7	+0.1
	baz=52						
M06C	Likely Place G	53.34	308	⇓P	P	05 38 46.1	-0.8
	baz=52						
G07A	Ruggs Ranch, H	53.38	313	⇑P	P	05 38 46.7	-0.4
	baz=52						
A09A	Danville	53.45	318	⇑P	P	05 38 47.7	+0.1
	baz=52						
ELFS	Eagle Lake Fie	53.47	307	⇑P	P	05 38 47.1	-0.7
	baz=52						
C08A	Higginbotham F	53.47	316	⇓P	P	05 38 47.4	-0.4
	baz=52						
E07A	Sunnyside	53.75	314	⇑P	P	05 38 50.1	+0.3
	baz=52						
K05A	Summer Lake	53.85	310	⇑P	P	05 38 50.6	0.0
	baz=52						
ORV	Oroville	53.95	306	⇓P	P	05 38 51.5	0.0
	baz=52						
D07A	Quincy	53.96	315	⇑P	P	05 38 51.2	-0.1
	baz=52						
SUTB	Sutter Butte	54.14	305	⇑P	P	05 38 53.0	+0.2
	baz=52						
J05A	Fort Rock	54.17	310	⇓P	P	05 38 53.4	+0.4
	baz=52						
B07A	Winthrop	54.32	317	⇓P	P	05 38 53.7	-0.2
	baz=53						
L04A	Klamath Falls	54.51	309	⇑P	P	05 38 55.3	-0.2
	baz=53						
D06A	Cle Elum	54.54	315	⇑P	P	05 38 55.2	-0.4
	baz=53						
A07A	Ashnola River,	54.62	317	⇓P	P	05 38 56.5	+0.3
	baz=53						
C06A	Tall Timber Ra	54.72	316	⇑P	P	05 38 57.4	+0.5
	baz=53						
F05A	White Salmon	54.73	313	⇑P	P	05 38 56.9	-0.1
	baz=53						
J04A	Umpqua Nationa	54.80	310	⇑P	P	05 38 58.0	+0.5
	baz=53						
H04A	Detroit Lake	55.05	312	⇓P	P	05 38 59.3	0.0
	baz=53						
YBH	Yreka Blue Hor	55.07	308	⇓P	P	05 38 58.0	-1.6
	baz=53						
YKA	Yellowknife Ar	56.13	334	P	P	05 39 05.7	-1.1
	2.1nm,0.6s,mb4.3,baz=107,slow=7.5,SNR=53						
TORD	Torodi Ar. Bea	62.50	85	P	P	05 39 49.5	-2.0
	0.5nm,0.7s,mb3.7,baz=291,slow=8.3,SNR=4.8						
TORD				LR	LR	06 01 56.1	
	comp=Z,72nm,19.0s,MS3.9,baz=355,slow=31						
IMA2	Indian Mountai	73.24	335	*e*P	P	05 40 58.1	-0.2
WMQ	Urumqi	112.37	22	*e*PKP	PKiKP	05 48 16.1	+12
HHC	Hu-ho-hao-te	120.59	4	*e*PKP	PKPdf	05 48 27.3	+7.8
HHC				PP	PP	05 49 54.8	+9.4
HHC				PKS		05 52 02.8	
HHC				SKS	SKSdf	05 55 37.8	+7.5
HHC				SKKS	SKKSac	05 56 48.0	+2.8
HHC				PP	PP		
	comp=Z,120nm,9.3s						
CD2	Chengdu	129.16	14	*e*PKP	PKPdf	05 48 47.0	+11
GYA	Guiyang	134.09	13	*e*PDIF	Pdif	05 45 54.3	+10
GYA				PKP	PKPdf	05 48 56.8	+11
GYA				PP	PP	05 51 28.8	+14
GYA				PP	PP		
	comp=Z,100nm,7.8s						
ASAR	Alice Springs	163.18	250	PKPab	PKPab	05 50 18.6	-2.5
	comp=Z,0.9nm,0.6s,baz=110,slow=4.5,SNR=16						

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*NEIC **13** 05:42:56.7, 17.17N×95.32W, h115^{km}, mb4.7/1, MD4.0(MEX), After MEX.*

MEX 13 05:42:55.8±1.1, 17.21N×95.33W, h121^{km}±13^{km}, MD4.0, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.44	106	*i* P	Pn	05 43 12.4	-1.1
CMIG				*i* S	Sn	05 43 24.5	-2.4
OXX	Oaxaca	1.34	265	*i* P	Pn	05 43 20.5	-1.0
OXX				*i* S	Sn	05 43 40.0	-1.1
HUIG	Huatulco	1.62	208	*e*P	Pn	05 43 22.9	-1.8
HUIG				*i* S	Sn	05 43 44.6	-2.1
CCIG	Comitan	3.19	106	*e*P	Pn	05 43 45.8	+1.2
CCIG				*i* S	Sn	05 44 21.5	-0.9
TEIG	Tepich	7.32	65	*e*Pn	Pn	05 44 37.9	-2.2
	7.3nm,0.3s						
TEIG				*e*Sn	Sn	05 45 55.5	-6.2

IDC 13 05:57:28.7±26.0, 18.33S×69.97W, h174^{km}±143^{km}, mb3.5/2, mb1 3.5/3, mb1mx3.2/16, mbtmp3.3/3, ML2.8/1, MS3.5/1, Ms1 3.5/1, ms1mx2.3/15, Error ellipse: s-maj=418.9km s-min=47.6km az=22.0, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	2.69	41	P	Pn	05 58 14.0	+0.7
	1.4nm,0.3s,baz=209,slow=6.2,SNR=22						
PCRV	Puerto La Cruz	28.81	11	LR	LR	06 16 41.1	
	comp=Z,80nm,18.2s,baz=209,slow=40						
TORD	Torodi Ar. Bea	77.26	71	P	P	06 09 04.3	+0.1
	1.1nm,0.8s,baz=248,slow=5.1,SNR=8.7						
YKA	Yellowknife Ar	87.88	341	P	P	06 09 58.0	0.0
	0.4nm,0.6s,baz=134,slow=4.6,SNR=11						
MKAR	Makanchi Array	143.59	33	PKP	PKPdf	06 16 42.2	-0.5
	1.0nm,0.7s,baz=336,slow=3.2,SNR=11						

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*CSEM **13** 06:27:12.0, 42.49N×46.89E, h15^{km}, mb3.9, After OBN*

MOS 13 06:27:12.0±1.8, 42.49N×46.89E, h15^{km}, mb3.9/1, Error ellipse: s-maj=65.6km s-min=9.5km az=25.9, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XNZR	Khunzakh	0.15	291	*e*PG	Pg	06 27 17.5	+1.6
XNZR				*i* S	Sg	06 27 26.3	+7.8
XNZR	Khunzakh	0.15	291	*e*Pg	Pg	06 27 17.5	+1.6
XNZR				*i* Sg	Sg	06 27 26.3	+7.8
BTLR	Botlikh	0.53	290	*e*PG	Pg	06 27 19.5	-2.9
BTLR				*e*S	Sg	06 27 29.8	+0.4
BTLR	Botlikh	0.53	290	*e*Pg	Pg	06 27 19.5	-2.9
BTLR				*e*Sg	Sg	06 27 29.8	+0.4
URKR	Urkarakh	0.64	120	*e*PG	Pg	06 27 25.0	+0.6
URKR				*e*S	Sg	06 27 37.5	+4.6
URKR	Urkarakh	0.64	120	*e*Pg	Pg	06 27 25.0	+0.6
URKR				*e*Sg	Sg	06 27 37.5	+4.6
VLKR	Vladikavkaz	1.73	290	*e*PN	Pn	06 27 43.5	+2.1
VLKR				*i* S	Sn	06 28 09.3	+6.1

VLKR	**Vladikavkaz**	**1.73**	**290**	ePn	Pn	06 27 43.5	+2.1
VLKR				i Sg	Sg	06 28 09.3	+1.8
BTKR	**Batakoyurt**	**1.94**	**298**	ePN	Pn	06 27 45.2	+0.8
BTKR				i S	Sn	06 28 12.2	+3.7
BTKR	**Batakoyurt**	**1.94**	**298**	ePn	Pn	06 27 45.2	+0.8
BTKR				i Sg	Sg	06 28 12.2	-2.2
LACR	**Lac**	**1.95**	**281**	ePN	Pn	06 27 45.3	+0.8
LACR				i S	Sn	06 28 12.4	+3.8
LACR	**Lac**	**1.95**	**281**	ePn	Pn	06 27 45.3	+0.8
LACR				i Sg	Sg	06 28 12.4	-2.2
ARNR	**Ardon**	**2.05**	**291**	ePN	Pn	06 27 47.8	+1.9
ARNR				eS	Sn	06 28 16.7	+5.6
ARNR	**Ardon**	**2.05**	**291**	ePn	Pn	06 27 47.8	+1.9
ARNR				eSg	Sg	06 28 16.7	-1.1
KMSR	**Komsomolskaya**	**2.10**	**296**	ePN	Pn	06 27 49.1	+2.5
KMSR				eS	Sn	06 28 18.9	+6.4
KMSR	**Komsomolskaya**	**2.10**	**296**	ePn	Pn	06 27 49.1	+2.5
KMSR				eSb	Sb	06 28 18.9	+3.2
KORR	**Kora**	**2.16**	**287**	ePN	Pn	06 27 48.9	+1.4
KORR				eS	Sn	06 28 18.6	+4.6
KORR	**Kora**	**2.16**	**287**	ePn	Pn	06 27 48.9	+1.4
KORR				eSn	Sn	06 28 18.6	+4.6
ZEI	**Tsey**	**2.23**	**278**	ePN	Pn	06 27 51.5	+3.2
ZEI				eS	Sn	06 28 20.9	+5.3
ZEI	**Tsey**	**2.23**	**278**	ePn	Pn	06 27 51.5	+3.2
ZEI				eSn	Sn	06 28 20.9	+5.3
DIGR	**Digorskoe uzhe**	**2.48**	**281**	ePN	Pn	06 27 52.1	+0.3
DIGR				eS	Sn	06 28 24.2	+2.5
DIGR	**Digorskoe uzhe**	**2.48**	**281**	ePn	Pn	06 27 52.1	+0.3
DIGR				eSn	Sn	06 28 24.2	+2.5

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*ISCJB **13** 06:29:13.5±0.8, 32.40N±0.04×115.22W±0.03, h4^{km}±5^{km}, Error ellipse: s-maj=7.3km s-min=3.5km az=148.4*

*ECX **13** 06:29:15.4±0.6, 32.42N×115.23W, h4^{km}, MD2.5, ML2.6*

ISC 13 06:29:13.8±0.8, 32.38N±0.04×115.22W±0.04, h6^{km}±4^{km}, n21, σ0^{s}44/30, 14C-9D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPBX	**Cerro Prieto**	**0.08**	**297**	⇓eP	**Pg**	**06 29 16.4**	**+0.9**
CPBX				e		06 29 21.3	
	comp=E,18μm,0.3s						
COA	**Coachella**	**0.49**	**10**	⇑eP	**Pg**	**06 29 24.0**	**+0.8**
SGL	**Mount Signal**	**0.50**	**302**	⇓eP	**Pg**	**06 29 23.6**	**+0.2**
YMD	**Yuma Desert**	**0.60**	**73**	⇑eP	**Pg**	**06 29 25.5**	**+0.2**
COK	**Cook Ranch**	**0.63**	**318**	⇓eP	**Pg**	**06 29 26.2**	**+0.3**
YUH	**Yuha Desert**	**0.65**	**294**	⇓eP	**Pg**	**06 29 26.1**	**-0.2**
SWSC	**Sam W. Stewart**	**0.74**	**319**	⇑P	**Pg**	**06 29 27.2**	**-0.8**
	baz=0.8						
SWSC				⇑S	**Sg**	**06 29 37.5**	**-0.1**
	baz=0.8						
GLA	**Glamis**	**0.75**	**26**	⇓P	**Pg**	**06 29 27.6**	**-0.6**
	baz=0.8						
GLA				⇓S	**Sg**	**06 29 38.0**	**+0.2**
	baz=0.8						
DVTC	**Desert V Tower**	**0.79**	**291**	⇑S	**Sg**	**06 29 39.0**	**-0.3**
	baz=0.8						
CBX	**Cerro Bola**	**1.22**	**267**	eP	**Pg**	**06 29 36.6**	**-0.6**
CBX				eS	**Sg**	**06 29 53.0**	**-0.1**
ENX	**Ensenada**	**1.32**	**248**	eP	**Pn**	**06 29 38.6**	**-0.2**
ENX				eS	**Sb**	**06 29 56.3**	**+0.1**
ENX				e		06 29 58.3	
	comp=E,77nm,0.3s						
ECNX	**Esteban Cantu**	**1.37**	**239**	⇓eP	**Pn**	**06 29 39.3**	**-0.2**
ECNX				eS	**Sb**	**06 29 58.2**	**+0.5**
PBX	**Punta Banda**	**1.43**	**244**	eP	**Pn**	**06 29 40.2**	**0.0**
PBX				eS	**Sb**	**06 29 59.7**	**+0.4**
Y12C	**Blythe**	**1.48**	**23**	⇑P	**Pn**	**06 29 41.1**	**+0.1**
	baz=1.5,SNR=13						
Y12C				⇑S	**Sn**	**06 30 00.4**	**-0.4**
	baz=1.5						
109C	**Camp Elliot, M**	**1.67**	**288**	⇑P	**Pn**	**06 29 43.6**	**0.0**
	baz=1.7						
109C				⇑S	**Sn**	**06 30 05.4**	**+0.1**
	baz=1.7						
IRM	**Iron Mountain**	**1.77**	**2**	⇑P	**Pn**	**06 29 44.6**	**-0.5**
	baz=1.8						
IRM				⇑S	**Sn**	**06 30 08.3**	**+0.3**
	baz=1.8						
Y13A	**Salome**	**1.85**	**39**	⇑S	**Sn**	**06 30 10.8**	**+1.1**
	baz=1.9						
X13A	**Yucca**	**2.49**	**27**	⇑P	**Pn**	**06 29 54.6**	**-0.3**
	baz=2.5						
115A	**Sonoran Desert**	**2.55**	**82**	⇑P	**Pn**	**06 29 55.1**	**-0.6**
	baz=2.5						
W13A	**Hualapai Mount**	**2.93**	**22**	⇓P	**Pn**	**06 30 00.7**	**-0.2**
	baz=3.0						
X15A	**Humboldt**	**3.26**	**49**	⇓P	**Pn**	**06 30 05.4**	**-0.1**
	baz=3.3						

MAN 13 06:29:47, 11.86N×125.22E, h25^{km}, mb3.9, ML2.7, MS2.3, 1C, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	**Borongan**	**0.34**	**140**	eP	Pb	06 29 56.4	+1.7
PLP	**Palo**	**0.73**	**199**	eP	Pb	06 30 01.9	+0.8
PLP				eS	Sb	06 30 10.7	0.0
CNP	**Catarman**	**0.84**	**320**	eP	Pb	06 30 04.0	+1.0
CNP				eS	Sb	06 30 16.3	+2.5
MSLP	**Maasin**	**1.75**	**192**	eP	Pn	06 30 17.2	+1.4
PVCP	**Virac**	**2.01**	**329**	eP	Pn	06 30 20.2	+0.9
SCPH	**Surigao**	**2.08**	**173**	⇑eP	Pn	06 30 22.4	+2.0
OTRP	**Odiongan**	**3.16**	**279**	eP	Pn	06 30 36.8	+1.6

IDC 13 07:10:32.1±6.2, 55.94S×142.59W, h0^{km}, mb3.8/2, mb1 4.0/2, mb1mx3.7/11, mbtmp3.8/2, MS4.0/12, Ms1 4.0/12, ms1mx3.8/25, Error ellipse: s-maj=1177.0km s-min=109.2km az=168.0, Pacific-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	**Vanda**	**28.82**	**202**	LR	LR	07 24 45.7	
	comp=Z,113nm,18.7s,baz=80,slow=30						
URZ	**Urewera**	**32.05**	**286**	LR	LR	07 27 46.6	
	comp=Z,295nm,19.8s,baz=22,slow=32						
PPT	**Papeete**	**38.67**	**349**	LR	LR	07 28 49.6	
	comp=Z,290nm,20.0s,baz=214,slow=28						
DZM	**Mont Dzumac**	**50.39**	**291**	LR	LR	07 36 36.5	
	comp=Z,182nm,19.2s,baz=79,slow=31						
MAW	**Mawson**	**55.33**	**192**	LR	LR	07 41 04.2	
	comp=Z,115nm,19.0s,baz=134,slow=33						
STKA	**Stephens Creek**	**56.51**	**261**	LR	LR	07 42 04.0	
	comp=Z,144nm,19.6s,baz=204,slow=34						
ASAR	**Alice Springs**	**67.15**	**261**	P	P	07 21 27.7	+0.2
	0.8nm,1.1s,baz=145,slow=6.3,SNR=4.2						
WRA	**Warramunga Arr**	**69.87**	**264**	P	P	07 21 44.6	0.0
	0.9nm,0.9s,baz=145,slow=5.4,SNR=8.4						
ATAH	**Atahualpa**	**69.93**	**72**	LR	LR	07 42 44.7	
	comp=Z,114nm,19.3s,baz=349,slow=28						
FITZ	**Fitzroy Crossi**	**76.19**	**258**	LR	LR	07 54 34.3	
	comp=Z,96nm,18.1s,baz=99,slow=35						
ROSC	**El Rosal**	**82.06**	**69**	LR	LR	07 49 02.1	
	comp=Z,46nm,19.8s,baz=176,slow=28						
LPIG	**La Paz**	**84.32**	**29**	LR	LR	07 50 41.9	
	comp=Z,68nm,19.4s,baz=189,slow=29						
PFO	**Pinyon Flat Ob**	**91.94**	**22**	LR	LR	07 53 57.1	
	comp=Z,153nm,21.0s,baz=214,slow=28						
BOSA	**Boshof**	**95.15**	**169**	LR	LR	07 58 59.8	
	comp=Z,257nm,21.8s,baz=175,slow=31						
MKAR	**Makanchi Array**	**151.00**	**271**	PKPbc	PKPbc	07 30 25.6	-0.1
	0.4nm,0.7s,baz=116,slow=3.4,SNR=4.6						

CASC 13 07:26:24.5±2.9, 12.16N×88.50W, h20^{km}±18^{km}, MD4.0, ML3.4, 1C, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNCH	**Conchagua**	**1.29**	**30**	eP	x	07 27 25.0	
CNCH				eS	x	07 27 39.7	
BLLM	**Bellamira**	**1.30**	**11**	eP	x	07 27 24.6	
BLLM				eS	x	07 27 43.5	
LFRS	**El Faro**	**1.56**	**340**	eP	x	07 27 26.0	
LFRS				eS	x	07 27 44.9	
LCBS	**La Ceiba**	**1.56**	**343**	eP	x	07 27 26.4	
LCBS				eS	x	07 27 46.0	
LBRS	**Las Brisas**	**1.66**	**342**	eP	x	07 27 27.5	
TEL3	**Telica 3**	**1.67**	**76**	eP	Pn	07 26 52.3	-0.3
SNET	**Serv Nac Est T**	**1.68**	**335**	eP	x	07 26 48.8	
SNET				eS	x	07 27 10.5	
BOQS	**Boqueron**	**1.74**	**334**	eP	x	07 27 28.4	
BOQS				eS	x	07 27 50.7	
COPN	**Copaltepe**	**1.87**	**89**	⇑iP	Pn	07 26 55.0	-0.4
COPN				eS	Sn	07 27 19.6	+1.2
MOMJ	**Momotombo**	**1.94**	**82**	eP	Pn	07 26 55.6	-0.7
MOMJ				eS	Sn	07 27 21.3	+1.3
SBLS	**San Blas**	**2.00**	**327**	eP	x	07 27 31.3	
SBLS				eS	x	07 27 57.8	
SNJE	**San Jose**	**2.01**	**328**	eP	x	07 27 31.5	
SNJE				eS	x	07 27 57.5	
APYN	**Apoyeque**	**2.11**	**88**	eP	Pn	07 26 58.5	-0.1
APYN				eS	Sn	07 27 27.1	+2.9
XAVN	**Gruta Xavier**	**2.13**	**90**	eP	Pn	07 26 58.2	-0.8
XAVN				eS	Sn	07 27 24.7	-0.1
TISN	**Laguna Tiscapa**	**2.19**	**90**	eP	Pn	07 26 59.6	-0.1
TISN				eS	Sn	07 27 26.5	+0.3
MGAN	**Managua**	**2.21**	**90**	eP	Pn	07 26 59.5	-0.5
MGAN				eS	Sn	07 27 28.3	+1.6
MGAN				i		07 27 28.6	
	comp=N,317nm,0.4s						
TICN	**Ticuantepe**	**2.23**	**93**	eP	Pn	07 27 00.3	0.0
TICN				eS	Sn	07 27 28.2	+1.0
RBDL	**Robledal**	**2.26**	**329**	eP	x	07 27 36.2	
HUEN		**2.29**	**85**	eP	Pn	07 27 00.8	-0.3
HUEN				eS	Sn	07 27 28.6	-0.1
APON	**Apoyo**	**2.40**	**95**	eP	Pn	07 27 02.6	0.0
APON				eS	Sn	07 27 33.0	+1.6
JCR	**Jicaral**	**4.04**	**124**	eP	Pn	07 27 25.6	+0.3
PRS1	**Puriscal**	**4.65**	**117**	eP	Pn	07 27 34.3	+0.7
LCR2	**La Lucha 2**	**5.03**	**118**	eP	Pn	07 27 40.6	+1.8
LCR2				eS	Sn	07 28 36.3	-0.1
QCR	**Quepos**	**5.05**	**122**	eP	Pn	07 27 39.6	+0.4
URSC	**Urasca**	**5.18**	**116**	eP	Pn	07 27 42.6	+1.7
URSC				eS	Sn	07 28 40.6	+0.4
BAR1		**5.87**	**119**	eP	Pn	07 27 51.6	+1.2

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*IDC **13** 07:29:45.1±1.9, 6.30S×146.69E, h0^{km}, mb3.5/4, mb1 3.8/6, mb1mx3.6/15, mbtmp3.6/6, ML3.2/2, Error ellipse: s-maj=52.1km s-min=23.3km az=85.0*

*ISCJB **13** 07:29:48.4±1.8, 6.3S±0.1×146.6E±0.2, h33^{km}, mb3.4/4, Error ellipse: s-maj=33.4km s-min=12.8km az=156.5*

*NEIC **13** 07:29:50.0±1.4, 6.36S×146.71E, h35^{km}, Error ellipse: s-maj=32.9km s-min=19.0km az=83.0*

ISC 13 07:29:50.1±1.8, 6.3S±0.1×146.6E±0.2, h35^{km}, n9, σ1^{s}43/9, mb3.4/4, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.17**	**170**	Pn	**Pn**	**07 30 36.0**	**-1.5**
PMG				Sn	**Sn**	**07 31 16.1**	**+1.9**
PMG	**Port Moresby**	**3.17**	**170**	Pn	**Pn**	**07 30 36.0**	**-1.5**
	13nm,0.3s,baz=335,slow=6.8,SNR=18						
PMG				Sn	**Sn**	**07 31 16.1**	**+1.9**
	20nm,0.3s,baz=212,slow=23,SNR=12						
WRA	**Warramunga Arr**	**18.07**	**220**	P	**Pn**	**07 33 58.3**	**-0.3**
	0.1nm,0.3s,baz=46,slow=12,SNR=11						
ASAR	**Alice Springs**	**21.18**	**214**	P	**P**	**07 34 34.4**	**+1.8**
	0.8nm,0.4s,mb3.4,baz=55,slow=8.0,SNR=12						
FITZ	**Fitzroy Crossi**	**23.59**	**238**	P	**P**	**07 34 57.1**	**-0.9**
	1.6nm,0.5s,mb3.7,baz=85,slow=14,SNR=3.7						
STKA	**Stephens Creek**	**25.91**	**190**	P	**P**	**07 35 17.4**	**-1.6**
	0.9nm,0.6s,mb3.5,baz=342,slow=8.9,SNR=3.4						
MKAR	**Makanchi Array**	**77.45**	**321**	P	**P**	**07 41 43.2**	**+1.3**
	0.2nm,0.7s,mb3.2,baz=86,slow=5.9,SNR=3.2						
TORD	**Torodi Ar. Bea**	**144.77**	**284**	PKP	PKPdf	07 49 24.7	+0.4
TORD	**Torodi Ar. Bea**	**144.77**	**284**	PKP	PKPdf	07 49 24.7	+0.3
	1.6nm,0.7s,baz=73,slow=3.4,SNR=12						

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*CSEM **13** 07:41:01.8±0.1, 38.27N×38.62E, h2^{km}, MD3.7, Error ellipse: s-maj=3.2km s-min=2.5km az=177.0*

*ISCJB **13** 07:41:02.8±0.5, 38.22N±0.03×38.65E±0.03, h3^{km}±5^{km}, Error ellipse: s-maj=5.2km s-min=3.3km az=144.8*

*ISK **13** 07:41:02.8, 38.24N×38.60E, h8^{km}, MD3.7*

*DDA **13** 07:41:03.7, 38.26N×38.65E, h5^{km}±2^{km}, Md3.5*

ISC 13 07:41:03.7±0.5, 38.24N±0.03×38.64E±0.03, h7^{km}±4^{km}, n24, σ0^{s}94/37, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MALT	**Malatya**	**0.18**	**293**	i PG	**Pg**	**07 41 06.0**	**-1.4**
MALT				i SG	**Sg**	**07 41 09.9**	**0.0**
MALT	**Malatya**	**0.18**	**293**	i Pg	**Pg**	**07 41 06.0**	**-1.4**
MALT				i Sg	**Sg**	**07 41 09.9**	**0.0**
ELZG	**Elazig**	**0.37**	**47**	i P	**Pg**	**07 41 10.2**	**-0.8**
ELZG				i S	**Sg**	**07 41 15.4**	**-0.4**
URFA	**Urfa**	**0.81**	**170**	i PG	**Pg**	**07 41 19.4**	**+0.1**
URFA	**Urfa**	**0.81**	**170**	i Pg	**Pg**	**07 41 19.4**	**+0.1**
ATAB	**Bozova**	**0.82**	**200**	i P	**Pg**	**07 41 19.2**	**-0.2**
ATAB				i S	**Sg**	**07 41 30.4**	**+0.3**
ATAB	**Bozova**	**0.82**	**200**	i P	**Pg**	**07 41 19.2**	**-0.2**
ATAB				i S	**Sg**	**07 41 30.4**	**+0.4**
PTK	**Pertek**	**0.88**	**42**	i PG	**Pg**	**07 41 19.7**	**-0.9**
PTK				i SG	**Sg**	**07 41 34.1**	**+2.1**
PTK	**Pertek**	**0.88**	**42**	i Pg	**Pg**	**07 41 19.7**	**-0.9**
PTK				i Sg	**Sg**	**07 41 34.1**	**+2.1**
GZT	**Gaziantep**	**1.23**	**224**	i P	**Pb**	**07 41 26.4**	**-0.8**
GZT				i S	**Sg**	**07 41 44.2**	**+1.0**
ANDN	**Andirin**	**1.93**	**251**	i P	**Pn**	**07 41 36.0**	**-0.9**
ANDN				i S	**Sb**	**07 42 04.1**	**+0.6**
MARD	**Mardin**	**1.93**	**118**	i P	**Pn**	**07 41 36.3**	**-0.7**
MARD				i S	**Sn**	**07 42 00.4**	**-1.1**
BNGL	**BINGOL**	**2.09**	**69**	i P	**Pn**	**07 41 41.0**	**+1.8**
BNGL				i S	**Sg**	**07 42 11.9**	**+1.0**
BNN	**Bunyan**	**2.27**	**286**	PN	**Pn**	**07 41 41.3**	**-0.4**
BNN	**Bunyan**	**2.27**	**286**	ePn	**Pn**	**07 41 41.3**	**-0.4**
KOZT	**Kozan**	**2.35**	**252**	PN	**Pn**	**07 41 42.3**	**-0.4**
COBT	**Iskenderun**	**2.56**	**229**	eP	**Pg**	**07 41 52.0**	**-0.8**
COBT				i S	**Sg**	**07 42 26.9**	**+1.0**
GRSN	**GIRESUNGRSN**	**2.69**	**354**	i P	**Pn**	**07 41 49.6**	**+2.1**
GRSN				i S	**Sb**	**07 42 24.9**	**-0.6**
AVNT	**Avonos**	**3.02**	**281**	eP	**Pn**	**07 41 52.1**	**+0.3**
SIRT	**Sirnak**	**3.10**	**103**	ePN	**Pn**	**07 41 53.6**	**+0.6**
SIRT	**Sirnak**	**3.10**	**103**	ePn	**Pn**	**07 41 53.6**	**+0.6**
GULE	**Gulek**	**3.21**	**254**	i P	**Pn**	**07 41 55.3**	**+0.8**
TUTA	**Tutak**	**3.46**	**69**	eP	**Pb**	**07 42 04.2**	**-1.1**
HAKT	**HAKKARI**	**4.07**	**98**	eP	**Pn**	**07 42 05.9**	**-0.4**

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*ISCJB **13** 07:45:26.7±4.0, 6.7S±0.2×154.5E±0.2, h72^{km}±33^{km}, mb4.2/13, Error ellipse: s-maj=32.8km s-min=26.0km az=16.9*

*IDC **13** 07:45:29.6±5.4, 6.70S×154.46E, h91^{km}±44^{km}, mb3.6/7, mb1 3.8/9, mb1mx3.7/16, mbtmp3.6/9, MS3.4/6, Ms1 3.4/6, ms1mx3.1/22, Error ellipse: s-maj=45.8km s-min=27.6km az=113.0*

*NEIC **13** 07:45:30.9±3.0, 6.66S×154.39E, h102^{km}±25^{km}, Error ellipse: s-maj=33.3km s-min=19.5km az=113.0*

ISC 13 07:45:28.2±3.3, 6.8S±0.2×154.6E±0.2, h77^{km}±27^{km}, n26, σ0^{s}95/20, mb4.2/13, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	**5.88**	**117**	LR	LR	07 49 06.5	
	comp=Z,215nm,20.1s,baz=181,slow=36						
PMG	**Port Moresby**	**7.84**	**250**	P	**Pn**	**07 47 19.1**	**-0.4**
PMG				LR	LR	07 49 16.7	
PMG	**Port Moresby**	**7.84**	**250**	P	**Pn**	**07 47 19.1**	**-0.4**
	1.5nm,0.3s,baz=53,slow=9.8,SNR=9.0						
PMG				LR	LR	07 49 16.8	
	comp=Z,126nm,19.4s,baz=269,slow=29						
CTA	**Charters Tower**	**15.52**	**211**	P	**Pn**	**07 49 05.3**	**+2.7**
	0.1nm,0.3s,baz=27,slow=12,SNR=5.7						
CTA				LR	LR	07 54 27.4	
	comp=Z,120nm,18.8s,baz=40,slow=35						
WB2	**Warramunga Arr**	**23.63**	**234**	eP	**P**	**07 50 31.7**	**-0.8**
WRA	**Warramunga Arr**	**23.64**	**234**	P	**P**	**07 50 31.4**	**-1.2**
	7.3nm,1.1s,mb3.9,baz=58,slow=9.7,SNR=15						
ASAR	**Alice Springs**	**26.04**	**228**	P	**P**	**07 50 53.9**	**-0.5**
	1.0nm,0.8s,mb3.3,baz=59,slow=9.0,SNR=9.7						
STKA	**Stephens Creek**	**27.77**	**204**	LR	LR	08 02 59.9	
	comp=Z,83nm,19.4s,baz=23,slow=38						
FITZ	**Fitzroy Crossi**	**30.41**	**246**	LR	LR	08 03 59.5	
	comp=Z,72nm,18.5s,baz=65,slow=37						
AFI	**Afiamalu**	**33.76**	**105**	LR	LR	08 03 59.4	
	comp=Z,129nm,18.6s,baz=98,slow=33						
SONM	**Songino Array**	**68.97**	**327**	P	**P**	**07 56 24.5**	**-0.7**
	0.2nm,0.5s,mb3.2,baz=129,slow=4.1,SNR=2.9						
TAPN	**Taplejung**	**72.99**	**301**	eP	**P**	**07 56 50.3**	**+0.3**
ODAN	**Odare**	**73.12**	**301**	eP	**P**	**07 56 51.3**	**+0.5**
	17nm,0.7s,mb5.0						
GUN	**Gumba**	**74.70**	**301**	eP	**P**	**07 57 00.8**	**+0.8**
	20nm,0.7s,mb5.0						
PKI	**Pulchoki**	**75.01**	**301**	eP	**P**	**07 57 02.5**	**+0.7**
KKN	**Kakani**	**75.18**	**301**	eP	**P**	**07 57 03.5**	**+0.7**
	14nm,0.6s,mb4.9						
DMN	**Daman**	**75.28**	**301**	eP	**P**	**07 57 04.4**	**+1.1**
	18nm,0.7s,mb4.9						
GKN	**Gorkha**	**75.79**	**301**	eP	**P**	**07 57 06.5**	**+0.3**
	11nm,0.5s,mb4.8						
KOLN	**Koldanda**	**76.61**	**301**	eP	**P**	**07 57 11.1**	**+0.2**
	12nm,0.7s,mb4.7						
MKAR	**Makanchi Array**	**83.02**	**319**	P	**P**	**07 57 44.8**	**-0.3**
	1.1nm,0.7s,mb3.8,baz=102,slow=5.5,SNR=16						
ZALV	**Zalesovo Beam**	**83.81**	**326**	P	**P**	**07 57 46.5**	**-2.5**
	0.9nm,0.7s,mb3.7,baz=107,slow=5.1,SNR=3.7						
NVAR	**Mina Array Bea**	**91.88**	**52**	P	**P**	**07 58 28.6**	**+0.4**
	0.7nm,0.8s,mb3.9,baz=255,slow=4.7,SNR=5.2						
YKA	**Yellowknife Ar**	**96.33**	**28**	P	**P**	**07 58 47.2**	**-0.8**
YKA	**Yellowknife Ar**	**96.33**	**28**	P	**P**	**07 58 47.2**	**-0.8**
	0.3nm,0.7s,mb3.8,baz=264,slow=4.7,SNR=3.8						
TORD	**Torodi Ar. Bea**	**152.62**	**285**	PKP	PKPdf	08 05 08.2	-1.7
TORD				PKPbc	PKPbc	08 05 16.6	-0.4
TORD	**Torodi Ar. Bea**	**152.62**	**285**	PKP	PKPdf	08 05 08.2	-1.7
	0.7nm,0.9s,baz=168,slow=1.0,SNR=3.6						
TORD				PKPbc	PKPbc	08 05 16.6	-0.4
	3.1nm,0.7s,baz=65,slow=2.4,SNR=22						

IDC 13 07:47:37.1±28.0, 5.24N×127.28E, h0^{km}, mb3.9/4, mb1 4.1/4, mb1mx3.6/19, mbtmp3.9/4, Error ellipse: s-maj=476.1km s-min=96.4km az=154.0, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**23.25**	**184**	P	P	07 52 47.0	+0.7
	1.7nm,1.0s,baz=28,slow=15,SNR=4.1						
WRA	**Warramunga Arr**	**25.97**	**165**	P	P	07 53 11.1	-0.6
	1.9nm,0.3s,baz=344,slow=10,SNR=33						
ASAR	**Alice Springs**	**29.45**	**168**	P	P	07 53 42.7	-0.1
	0.6nm,0.7s,baz=358,slow=8.5,SNR=8.9						
STKA	**Stephens Creek**	**39.35**	**161**	P	P	07 55 08.5	+0.1
	1.9nm,0.3s,baz=344,slow=7.3,SNR=13						

IDC 13 07:53:00.3±71.0, 15.26S×172.34W, h0^{km}, mb3.8/3, mb1 4.0/3, mb1mx3.6/16, mbtmp3.8/3, Error ellipse: s-maj=1370.0km s-min=204.9km az=79.0, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**44.99**	**240**	P	P	08 01 17.6	-0.1
	0.7nm,0.6s,baz=94,slow=14,SNR=4.1						
WRA	**Warramunga Arr**	**50.87**	**257**	P	P	08 02 03.2	-0.2
	0.4nm,0.5s,baz=94,slow=7.0,SNR=5.9						
ASAR	**Alice Springs**	**51.13**	**252**	P	P	08 02 05.3	0.0
	2.4nm,0.6s,baz=88,slow=8.1,SNR=64						

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*CSEM **13** 08:03:44.4±0.1, 38.27N×38.66E, h5^{km}, MD3.5, Error ellipse: s-maj=4.6km s-min=3.0km az=136.0*

*ISK **13** 08:03:44.7, 38.26N×38.65E, h6^{km}, ML2.9*

*ISCJB **13** 08:03:45.4±0.5, 38.29N±0.04×38.68E±0.04, h6^{km}, Error ellipse: s-maj=6.9km s-min=3.7km az=151.5*

*DDA **13** 08:03:45.8, 38.31N×38.66E, h7^{km}±4^{km}, Md3.5*

ISC 13 08:03:45.6±0.7, 38.27N±0.05×38.67E±0.04, h1^{km}±7^{km}, n11, σ0^{s}91/19, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MALT	**Malatya**	**0.20**	**283**	PG	**Pg**	**08 03 48.0**	**-1.4**
MALT				SG	**Sg**	**08 03 52.3**	**+0.3**
MALT	**Malatya**	**0.20**	**283**	ePg	**Pg**	**08 03 48.0**	**-1.4**
MALT				eSg	**Sg**	**08 03 52.3**	**+0.3**
ELZG	**Elazig**	**0.34**	**47**	i P	**Pg**	**08 03 52.1**	**+0.1**
ELZG				i S	**Sg**	**08 03 55.5**	**-0.9**
URFA	**Urfa**	**0.83**	**172**	PG	**Pg**	**08 04 01.3**	**-0.3**
URFA	**Urfa**	**0.83**	**172**	ePg	**Pg**	**08 04 01.3**	**-0.3**
PTK	**Pertek**	**0.84**	**42**	PG	**Pg**	**08 04 01.2**	**-0.5**
PTK				SG	**Sg**	**08 04 14.4**	**+1.8**
PTK	**Pertek**	**0.84**	**42**	ePg	**Pg**	**08 04 01.2**	**-0.5**
PTK				eSg	**Sg**	**08 04 14.4**	**+1.8**
GZT	**Gaziantep**	**1.27**	**224**	i P	**Pg**	**08 04 10.3**	**+0.5**
GZT				i S	**Sg**	**08 04 26.7**	**+0.5**
MARD	**Mardin**	**1.92**	**119**	i P	**Pn**	**08 04 20.9**	**+1.5**
MARD				i S	**Sn**	**08 04 43.1**	**-1.0**
ANDN	**Andirin**	**1.97**	**250**	i P	**Pn**	**08 04 19.3**	**-0.7**
ANDN				i S	**Sn**	**08 04 46.2**	**+0.9**
KOZT	**Kozan**	**2.39**	**252**	ePN	**Pn**	**08 04 25.2**	**-0.6**

MEX 13 08:16:45.1±0.4, 16.72N×99.71W, h9^{km}±5^{km}, MD4.0, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	**Acapulco**	**0.25**	**307**	i P	Pg	08 16 49.5	-0.6
ACX				i S	Sg	08 16 53.0	-0.5
CAIG	**El Cayaco**	**0.63**	**302**	i P	Pg	08 16 56.2	-1.0
CAIG				i S	Sg	08 17 04.5	-1.0
MEIG	**Mezcala**	**1.20**	**4**	i P	Pb	08 17 04.7	-3.4
MEIG				i S	Sb	08 17 19.3	-4.5
UTMO	**Huajuapan**	**2.13**	**58**	eP	Pn	08 17 17.6	-3.3
UTMO				i S	Sn	08 17 43.4	-4.1
SZVM	**Salazar**	**2.61**	**7**	eP	Pn	08 17 24.4	-3.0
SZVM				i S	Sn	08 17 56.7	-2.6

IDC 13 08:17:49.2±7.7, 6.25S×146.37E, h124^{km}±73^{km}, mb2.3/1, mb1 2.7/3, mb1mx2.6/14, mbtmp2.6/3, Error ellipse: s-maj=81.4km s-min=59.2km az=126.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.23**	**166**	P	Pn	08 18 38.9	+0.3
	15nm,0.3s,baz=333,slow=4.8,SNR=41						
PMG				S	Sn	08 19 17.3	+0.4
	4.0nm,0.3s,baz=308,slow=19,SNR=3.9						
CTA	**Charters Tower**	**13.76**	**180**	P	Pn	08 21 04.5	+5.5
	0.7nm,0.3s,baz=2.4,slow=15,SNR=9.5						
WRA	**Warramunga Arr**	**17.94**	**220**	P	Pn	08 21 49.1	-1.8
	0.1nm,0.3s,baz=44,slow=11,SNR=4.6						
ASAR	**Alice Springs**	**21.07**	**213**	P	P	08 22 24.2	+0.7
	0.1nm,0.6s,baz=41,slow=8.0,SNR=4.3						
TORD	**Torodi Ar. Bea**	**144.54**	**284**	PKP	PKPdf	08 37 11.3	-0.8
	0.2nm,0.5s,baz=66,slow=3.0,SNR=4.2						

CASC 13 08:19:20.9±1.0, 4.44N×85.23W, h20^{km}, MD4.3, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BAR1		**5.14**	**22**	eP	Pn	08 20 37.7	+1.0
JCR	**Jicaral**	**5.38**	**1**	eP	Pn	08 20 41.1	+1.1
JCR				eS	Sn	08 21 42.6	+1.3
LCR2	**La Lucha 2**	**5.41**	**13**	eP	Pn	08 20 41.0	+0.5
LCR2				eS	Sn	08 21 43.1	+1.0
LAJ	**Bijagual**	**5.50**	**11**	eP	Pn	08 20 38.7	-3.1
LAJ				eS	Sn	08 21 36.6	-7.8
URSC	**Urasca**	**5.55**	**15**	eP	Pn	08 20 43.5	+1.1
URSC				eS	Sn	08 21 47.9	+2.2
PRS1	**Puriscal**	**5.58**	**9**	eP	Pn	08 20 41.2	-1.6
PRS1				eS	Sn	08 21 45.6	-0.8
CNI	**Changuinola**	**5.63**	**28**	eP	Pn	08 20 43.7	+0.2

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*ISCJB **13** 08:38:07.1±1.0, 54.2N±0.2×35.2W±0.2, h10^{km}, mb3.7/7, Error ellipse: s-maj=29.9km s-min=14.8km az=6.4*

*IDC **13** 08:38:07.4±1.1, 54.14N×35.30W, h0^{km}, mb3.7/7, mb1 3.8/8, mb1mx3.6/24, mbtmp3.7/8, ML2.7/1, Error ellipse: s-maj=35.7km s-min=20.8km az=11.0*

*NEIC **13** 08:38:08.8±0.7, 54.13N×35.27W, h10^{km}, Error ellipse: s-maj=24.4km s-min=12.1km az=187.0*

ISC 13 08:38:09.0±1.0, 54.2N±0.2×35.3W±0.2, h10^{km}, n11, σ0^{s}66/9, mb3.7/7, Reykjanes Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCHQ	Schefferville	18.27	285	P	Pn	08 42 22.8	+0.4
	0.2nm,0.3s,baz=225,slow=15,SNR=7.3						
ARCES	ARCESS Array B	30.90	37	P	P	08 44 24.3	-1.0
ARCES	ARCESS Array B	30.90	37	P	P	08 44 24.3	-1.0
	5.5nm,1.1s,mb4.3,baz=268,slow=6.1,SNR=4.3						
YKA	Yellowknife Ar	39.93	315	P	P	08 45 42.7	-0.1
	0.4nm,0.7s,mb3.3,baz=62,slow=9.0,SNR=5.9						
BRTR	Keskin Array B	47.31	78	P	P	08 46 43.9	+1.4
	1.3nm,0.9s,mb3.9,baz=296,slow=6.7,SNR=5.2						
PDAR	Pinedale Array	48.36	288	P	P	08 46 50.3	-0.3
	0.2nm,0.7s,mb3.2,baz=61,slow=9.4,SNR=2.5						
TORD	Torodi Ar. Bea	50.16	130	P	P	08 47 04.0	-0.6
	1.1nm,0.8s,mb4.0,baz=332,slow=8.1,SNR=7.3						
ZALV	Zalesovo Beam	61.45	36	P	P	08 48 25.4	+0.3
	0.3nm,0.3s,mb3.9,baz=311,slow=7.5,SNR=2.4						
MKAR	Makanchi Array	66.38	42	P	P	08 48 57.6	-0.1
	0.3nm,0.6s,mb3.5,baz=340,slow=6.0,SNR=4.8						
ASAR	Alice Springs	148.49	19	PKPbc	PKPbc	08 57 55.4	-0.2
ASAR	Alice Springs	148.49	19	PKPbc	PKPbc	08 57 55.4	-0.2
	1.4nm,0.6s,baz=355,slow=2.5,SNR=24						

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*GII **13** 08:55:30.9±1.1, 30.86N×35.01E, h0^{km}, ML2.8/6*
*SGS **13** 08:56:23.0, 31.17N×35.86E, h7^{km}*
*HLW **13** 08:56:24.7, 31.28N×35.47E, h22^{km}, Mb3.7*
*ISCJB **13** 08:56:29.3±0.4, 30.84N±0.02×35.02E±0.04, h0^{km}, Error ellipse: s-maj=5.3km s-min=3.3km az=7.8*
*CSEM **13** 08:56:29.0±0.1, 30.83N×35.01E, h1^{km}, ML2.8, Error ellipse: s-maj=1.7km s-min=1.1km az=105.0, Mining explosion.*
ISC 13 08:56:29.6±0.4**, 30.84N**±0.02×**35.02E**±0.04**, h0^{km}, n38, σ1^{s}12**/47**, Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MASH	Mash'abbe Sade	0.26	308	Pg	Pg	08 56 34.8	+0.2
MASH	Mash'abbe Sade	0.26	308	Pg	Pg	08 56 34.8	+0.2
ZFRI	Zfri	0.31	154	Pg	Pg	08 56 36.7	+1.1
ZFRI	Zfri	0.31	154	Pg	Pg	08 56 36.7	+1.2
RMNI	Mount Ramon	0.33	223	Pg	Pg	08 56 37.8	+2.0
RMNI	Mount Ramon	0.33	223	Pg	Pg	08 56 37.8	+2.0
SVTA	Shivta	0.36	285	Pg	Pg	08 56 36.6	+0.1
SVTA	Shivta	0.36	285	Pg	Pg	08 56 36.6	+0.1
PRNI	Paran	0.48	182	Pg	Pg	08 56 39.8	+1.0
PRNI				Sg	Sg	08 56 48.0	+2.9
PRNI	Paran	0.48	182	Pg	Pg	08 56 39.8	+1.0
PRNI				Sg	Sg	08 56 48.0	+2.9
YTIR	Yattir	0.53	9	Pg	Pg	08 56 40.3	+0.5
YTIR	Yattir	0.53	9	Pg	Pg	08 56 40.3	+0.5
KZIT	Kziot	0.54	278	Pg	Pg	08 56 40.0	0.0
KZIT				Sg	Sg	08 56 48.6	+1.6
KZIT	Kziot	0.54	278	Pg	Pg	08 56 40.0	0.0
KZIT				Sg	Sg	08 56 48.6	+1.6
MZDA	Masada	0.56	32	Pg	Pg	08 56 40.4	+0.1
MZDA				Sg	Sg	08 56 48.7	+1.2
MZDA	Masada	0.56	32	Pg	Pg	08 56 40.4	+0.2
MZDA				Sg	Sg	08 56 48.7	+1.2
HRFI	Mount Harif	0.80	179	Pg	Pg	08 56 45.2	+0.4
HRFI	Mount Harif	0.80	179	Pg	Pg	08 56 45.2	+0.4
DRGI	Dragot	0.82	23	Pg	Pg	08 56 46.1	+0.8
DRGI	Dragot	0.82	23	Pg	Pg	08 56 46.1	+0.8
AQBJ	Aqaba	1.10	179	Pg	Pg	08 56 51.2	+0.5
EIL	Elat	1.16	183	Pg	Pg	08 56 52.3	+0.4
EIL	Elat	1.16	183	Pg	Pg	08 56 52.3	+0.4
HNKL	Nakhl	1.27	225	P	Pg	08 56 53.7	-0.3
SLTI	Sal'it	1.40	1	Pn	Pn	08 56 55.2	-1.2
SLTI				Sn	Sn	08 57 15.3	-0.2
SLTI	Sal'it	1.40	1	Pn	Pn	08 56 55.2	-1.2
HMDT	Nahal Hemdat	1.48	17	Pn	Pn	08 56 56.4	-1.0
HMDT	Nahal Hemdat	1.48	17	Pn	Pn	08 56 56.4	-1.0
HQLS		1.53	179	P	Pn	08 56 57.6	-0.5
HQLS				S	Sn	08 57 19.1	+0.4
HQLS		1.53	179	P	Pn	08 56 57.6	-0.6
AMAG	Maghara	1.57	263	P	Pn	08 56 56.9	-1.8
HBST	Basata	1.63	189	P	Pn	08 56 57.9	-1.6
JLOS		2.13	169	P	Pn	08 57 01.4	-5.0
JLOS				S	Sn	08 57 30.3	-3.3
JLOS		2.13	169	P	Pn	08 57 01.4	-5.0
HDHB	Dhahab	2.13	190	P	Pn	08 57 05.5	-1.0
SUZ		2.14	243	P	Pn	08 57 05.6	-0.9
HKAT	Jabal Katrina	2.47	201	P	Pn	08 57 10.6	-0.5
RSHS		2.54	184	P	Pn	08 57 09.2	-2.8

MAN 13 09:40:15, 11.53N×125.85E, h6^{km}, mb4.1, ML3.0, MS2.7, 1C, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	0.41	280	*e*P	Pg	09 40 24.9	+2.0
PLP	Palo	0.93	247	*e*P	Pg	09 40 32.4	-0.4
PLP				*e*S	Sg	09 40 49.0	+4.1
CNP	Catarman	1.52	310	*e*P	Pn	09 40 42.3	-0.4
MSLP	Maasin	1.69	215	*e*P	Pn	09 40 44.8	-0.4
MSLP				*e*S	Sn	09 41 10.2	+3.1
SCPH	Surigao	1.77	192	⇑*e*P	Pn	09 40 47.2	+1.0
PVCP	Virac	2.64	321	*e*P	Pn	09 41 03.2	+5.0

IDC 13 09:46:37.4±2.0**, 7.60S×126.93E, h0^{km}, mb3.7**/1**, mb1 4.2**/3**, mb1mx3.8**/14**, mbtmp3.9**/3**, ML4.2**/1**, Error ellipse: s-maj=250.9km s-min=31.2km az=63.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	7.43	134	*e*P	Pn	09 48 29.0	+1.8
	35nm,0.2s						
KAKA				*e*S	Sn	09 49 38.1	-14
WRA	Warramunga Arr	14.22	150	Pn	Pn	09 49 58.5	-1.7
	0.5nm,0.3s,baz=325,slow=13,SNR=27						
WRA				Sn	Sn	09 52 23.1	-16
	2.4nm,0.3s,baz=28,slow=22,SNR=10						
ASAR	Alice Springs	17.32	158	P	Pn	09 50 42.1	+1.4
	0.8nm,0.3s,baz=335,slow=10,SNR=133						
ASAR				S	Sn	09 53 41.8	-12
	0.6nm,0.3s,baz=102,slow=33,SNR=7.3						
MKAR	Makanchi Array	67.09	328	P	P	09 57 32.8	+0.1
	0.5nm,0.6s,baz=122,slow=8.1,SNR=7.0						

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*ISCJB **13** 09:50:35.4±1.6, 28.82S±0.07×178.4W±0.1, h136^{km}±16^{km}, mb4.0/11, Error ellipse: s-maj=19.7km s-min=10.1km az=21.6*
*NEIC **13** 09:50:35.3±0.6, 28.73S×178.21W, mb4.6/5, Error ellipse: s-maj=17.2km s-min=10.6km az=130.0*
*IDC **13** 09:50:35.4±1.0, 28.74S×178.20W, h127^{km}±6^{km}, mb3.8/9, mb1 4.0/11, mb1mx4.0/15, mbtmp3.8/11, Error ellipse: s-maj=22.0km s-min=16.4km az=137.0*
ISC 13 09:50:33.7±1.4**, 28.71S**±0.08×**178.3W**±0.1**, h108^{km}**±16^{km}**, n53, σ1^{s}19**/47**, mb4.1**/11**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	9.29	197	*e*PN	Pn	09 52 47.0	+2.4
MXZ				SN	Sn	09 54 30.5	+3.4
PUZ	Puketiti	9.78	196	PN	Pn	09 52 52.2	+0.9
PUZ				SN	Sn	09 54 39.1	0.0
MWZ	Matawai	10.22	199	PN	Pn	09 52 58.0	+0.8
MWZ				*e*SN	Sn	09 54 50.8	+1.0
URZ	Urewera	10.28	201	P	Pn	09 52 59.4	+1.4
	1.0nm,0.3s,baz=350,slow=16,SNR=11						
URZ				S	Sn	09 54 52.4	+1.2
	16nm,0.3s,baz=106,slow=22,SNR=14						
URZ	Urewera	10.28	201	PN	Pn	09 52 59.9	+1.8
URZ				SN	Sn	09 54 53.9	+2.8
BKZ	Black Stump Fm	11.30	201	PN	Pn	09 53 11.9	+0.1
BKZ				SN	Sn	09 55 16.3	+0.3
PXZ	Pawanui	11.99	198	SN	Sn	09 55 25.9	-6.8
TSZ	Takapari Road	12.28	201	PN	Pn	09 53 24.2	-0.6
BFZ	Birch Farm	12.77	199	*e*PN	Pn	09 53 29.2	-1.9
BFZ				SN	Sn	09 55 45.3	-6.2
MRZ	Mangatainoka R	12.95	201	PN	Pn	09 53 31.3	-2.2
CAW	Cannon Point	13.52	202	PN	Pn	09 53 39.5	-1.5
PAWZ	Paruwai Farm	13.65	201	SN	Sn	09 56 05.8	-7.1
TCW	Tory Channel	13.88	204	PN	Pn	09 53 45.9	+0.2
TUWZ	Tuamarina	14.20	205	PN	Pn	09 53 51.3	+1.6
NNZ	Nelson	14.23	207	*e*PN	Pn	09 53 48.7	-1.4
NNZ				SN	Sn	09 56 20.5	-6.4
QRZ	Quartz Range	14.25	210	PN	Pn	09 53 49.2	-1.2
THZ	Tophouse	14.88	207	PN	Pn	09 53 57.4	-1.0
THZ				SN	Sn	09 56 36.7	-5.9
KHZ	Kahutara	15.21	204	PN	Pn	09 54 01.2	-1.3
KHZ				SN	Sn	09 56 41.6	-8.8
DZM	Mont Dzumac	15.32	292	P	Pn	09 54 11.8	+7.7
	1.2nm,0.3s,baz=96,slow=21,SNR=15						
AFI	Afiamalu	15.91	24	*e*Pn	Pn	09 54 10.9	-0.7
	32nm,0.6s						
LTZ	Lake Taylor	15.99	206	PN	Pn	09 54 10.1	-2.2
LTZ				*e*SN	Sx	09 56 56.9	
MQZ	McQueen's Vall	16.65	204	*e*SN	Sx	09 57 10.4	
RPZ	Rata Peaks	17.26	207	P	Pn	09 54 26.4	-1.4
RPZ				S	Sx	09 57 25.3	
RPZ	Rata Peaks	17.26	207	P	Pn	09 54 26.4	-1.4
	0.4nm,0.3s,baz=65,slow=19,SNR=3.1						
RPZ				S	Sx	09 57 25.3	
	2.6nm,0.3s,baz=62,slow=12,SNR=10						
HNR	Honiara	28.05	309	*e*P	P	09 56 15.0	0.0
	206nm,1.1s						
CTA	Charters Tower	33.34	277	P	P	09 57 02.0	+0.4
	5.5nm,1.0s,mb4.4,baz=98,slow=14,SNR=4.0						
CTAO	Charters Tower	33.34	277	*e*P	P	09 57 02.0	+0.5
	14nm,1.2s,mb4.7						
STKA	Stephens Creek	34.67	255	P	P	09 57 15.0	+2.0
	0.9nm,0.3s,mb4.1,baz=104,slow=11,SNR=8.5						
ASAR	Alice Springs	43.00	265	P	P	09 58 22.7	+0.2
	0.5nm,0.4s,mb3.6,baz=97,slow=7.5,SNR=11						
ASAR				pP	pP	09 58 52.7	+5.3
	0.6nm,0.4s,baz=101,slow=6.7,SNR=3.1						
ASAR				sP	sP	09 59 06.0	+6.3
	0.7nm,0.7s,baz=103,slow=9.1,SNR=2.3						
WRA	Warramunga Arr	43.83	271	P	P	09 58 29.2	0.0
	1.4nm,0.4s,mb4.0,baz=109,slow=7.8,SNR=21						
WRA				pP	pP	09 58 56.9	+2.7
	1.0nm,0.3s,baz=110,slow=7.9,SNR=5.0						
WRA				sP	sP	09 59 13.0	+6.6
	1.9nm,1.0s,baz=111,slow=7.1,SNR=1.8						
MJAR	Matsushiro Arr	76.73	325	P	P	10 02 12.5	-0.5
	3.0nm,0.7s,mb4.1,baz=162,slow=5.5,SNR=9.8						
KSRS	Korea Array	82.92	320	P	P	10 02 46.6	+0.2
	2.8nm,1.0s,mb4.0,baz=141,slow=4.4,SNR=5.4						
MDJ	Mudanjiang	87.11	326	*e*P	P	10 03 08.2	+1.0
	7.3nm,0.9s,mb4.6						
NVAR	Mina Array Bea	87.16	43	P	P	10 03 08.2	+0.7
	2.3nm,0.8s,mb4.2,baz=207,slow=6.9,SNR=18						
MSU	Marysvale	90.97	46	*e*P	P	10 03 27.4	+1.9
BJT	Baijiatuau	91.55	316	*e*P	P	10 03 27.4	-0.7
	2.8nm,0.6s,mb4.7						
TXAR	Lajitas Array	91.67	57	P	P	10 03 28.9	0.0
	0.4nm,0.9s,mb3.7,baz=207,slow=5.3,SNR=4.0						
PDAR	Pinedale Array	95.07	44	P	P	10 03 44.0	-0.2
	0.5nm,0.9s,mb3.9,baz=232,slow=4.4,SNR=3.6						
MKAR	Makanchi Array	116.51	311	PKP	PKPdf	10 09 02.7	-1.9
	0.6nm,0.5s,baz=224,slow=1.5,SNR=14						
KURK	Kurchatov	119.71	315	*e*PKPdf	PKPdf	10 09 08.2	-2.5
AKTO	Aktyubinsk	132.79	314	PKP	PKPdf	10 09 33.6	-2.0
	2.0nm,0.8s,baz=46,slow=1.2,SNR=7.2						
ARCES	ARCESS Array B	136.90	348	PKhKP		10 09 34.0	
	11nm,1.2s,baz=1.7,slow=3.1,SNR=5.4						
ARCES				PKP	PKPdf	10 09 42.0	-0.8
	6.1nm,1.1s,baz=83,slow=1.0,SNR=12						
KAF	Kangasniemi	142.88	341	*e*PKP	PKPdf	10 09 46.1	-7.7
FIA1	FINESS Array S	143.48	341	*e*PKPdf	PKPdf	10 09 50.7	-4.2
FINES	FINESS Array B	143.48	341	PKhKP		10 09 50.9	
	2.9nm,0.4s,baz=56,slow=4.0,SNR=21						
NOA	NORSAR Array B	147.05	352	PKPbc	PKPbc	10 10 01.8	-1.5
	9.5nm,0.8s,baz=15,slow=4.5,SNR=19						
ASF	Jabal al Asfar	149.57	285	PKPbc	PKPbc	10 10 10.6	-0.1
	3.0nm,0.8s,baz=1.9,slow=3.1,SNR=3.6						
AKASG	Malin Array Be	149.81	324	PKPbc	PKPbc	10 10 09.4	-1.3
	4.5nm,0.4s,baz=45,slow=2.6,SNR=40						
AKASG				PKPab	PKPab	10 10 15.6	-0.9
	5.6nm,0.7s,baz=44,slow=4.2,SNR=14						
AKBB	Malin Array Si	149.81	324	*e*PKPbc	PKPbc	10 10 09.7	-1.0
AKBB				*e*PKPab	PKPab	10 10 15.5	-1.0
KIEV	Kiev	149.82	324	*e*PKPbc	PKPbc	10 10 09.8	-0.9
KIEV				*e*PKPab	PKPab	10 10 15.5	-1.0
BRTR	Keskin Array B	151.57	301	PKPbc	PKPbc	10 10 14.1	-1.2
	1.9nm,0.7s,baz=101,slow=3.1,SNR=15						
BRTR				PKPab	PKPab	10 10 22.4	-1.7
	1.1nm,0.8s,baz=101,slow=6.5,SNR=4.2						
GERES	GERESS Array B	157.89	339	PKPab	PKPab	10 10 50.1	-0.6
	1.0nm,0.7s,baz=2.9,slow=2.0,SNR=6.2						
TORD	Torodi Ar. Bea	164.51	180	PKP	PKPdf	10 10 23.6	-1.7
	0.8nm,1.0s,baz=339,slow=3.3,SNR=4.0						
TORD				PKPab	PKPab	10 11 19.6	-0.8
	1.1nm,0.8s,baz=172,slow=3.5,SNR=5.0						

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*NEIC **13** 09:52:53.0, 19.13N×69.62W, h76^{km}, MD3.8(RSPR), After RSPR.*
RSPR 13 09:52:53.8, 19.13N×69.62W, h76^{km}±33^{km}**, MD3.8**/6**, MD3.8**/6**, 4C-2D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGPR	Aguadilla, PR	2.47	105	⇑*e*P	Pn	09 53 31.4	-0.4
AGPR				*e*S	Sn	09 54 00.0	-1.0
LSP	Las Mesas	2.58	111	⇑*e*P	Pn	09 53 33.3	-0.1
LSP				*e*S	Sn	09 54 04.3	+0.4
CRPR	Cabo Rojo, PR	2.63	115	⇓*e*P	Pn	09 53 33.3	-0.8
CRPR				*e*S	Sn	09 54 04.1	-0.9
LRS	Lares	2.76	107	⇑*e*P	Pn	09 53 35.8	0.0
LRS				*e*S	Sn	09 54 08.3	+0.2
AOPR	Arecibo Observ	2.83	105	⇑*e*P	Pn	09 53 35.4	-1.3
AOPR				*e*S	Sn	09 54 09.9	+0.2
CELP	Cerrillos	3.07	109	⇓*e*P	Pn	09 53 41.3	+1.3
CELP				*e*S	Sn	09 54 15.4	-0.3

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*SZGRF **13** 09:59:31.6, 24.83S×177.72W, h83^{km}, South of Fiji Islands*
*BJI **13** 09:59:35.7, 24.40S×177.80W, h87^{km}, mB5.1, mb4.7, Ms5.1, Msz4.4*
*NEIC **13** 09:59:38.7±1.3, 24.40S×177.82W, h127^{km}±11^{km}, mb4.6/34, Error ellipse: s-maj=10.1km s-min=5.6km az=146.0*
*ISCJB **13** 09:59:38.2±1.6, 24.62S±0.07×177.80W±0.06, h135^{km}±15^{km}, mb4.5/44, Error ellipse: s-maj=12.2km s-min=6.4km az=148.1*
*IDC **13** 09:59:44.3±2.3, 24.60S×177.69W, h181^{km}±20^{km}, mb4.0/11, mb1 4.2/13, mb1mx4.1/17, mbtmp4.0/13, Error ellipse: s-maj=20.6km s-min=13.2km az=156.0*
*MOS **13** 09:59:52.0±3.0, 22.65S×178.51W, h190^{km}, mb4.7/15, Error ellipse: s-maj=15.2km s-min=12.0km az=48.5*
ISC 13 09:59:35.6±1.4**, 24.51S**±0.06×**177.75W**±0.07**, h97^{km}**±13^{km}**, h78^{km}**±4.8^{km}**:pP-P, n384, σ0^{s}73**/302**, mb4.6**/44**, 87C-92D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	11.95	29	*e*Pn	Pn	10 02 22.9	+0.1
AFI				*e*Sn	Sn	10 04 25.6	-8.7
PUZ	Puketiti	13.94	193	PN	Pn	10 02 52.3	+3.5
PUZ				SN	Sn	10 05 14.5	-7.7
MWZ	Matawai	14.36	195	*e*PN	Pn	10 02 56.2	+2.0
MWZ				*e*SN	Sn	10 05 23.0	-9.2
URZ	Urewera	14.39	196	P	Pn	10 02 57.7	+3.2
	6.5nm,0.3s,baz=302,slow=3.8,SNR=30						
URZ				S	Sn	10 05 24.6	-8.5
	3.7nm,0.3s,baz=103,slow=22,SNR=11						
URZ	Urewera	14.39	196	PN	Pn	10 02 56.8	+2.3
BKZ	Black Stump Fm	15.41	197	PN	Pn	10 03 07.9	+0.4
PXZ	Pawanui	16.13	195	*e*PN	Pn	10 03 14.4	-2.1
TSZ	Takapari Road	16.39	197	PN	Pn	10 03 19.0	-0.7
RAR	Rarotonga	16.89	82	P	Pn	10 03 29.0	+2.9
	1.2nm,0.3s,baz=125,slow=3.4,SNR=4.1						
RAR				S	S	10 06 31.7	-6.2
	1.3nm,0.3s,baz=34,slow=17,SNR=2.2						
BFZ	Birch Farm	16.89	196	PN	Pn	10 03 25.6	-0.4
BFZ				SN	Sn	10 06 20.8	-13
MRZ	Mangatainoka R	17.05	198	PN	Pn	10 03 25.4	-2.5
MRZ				*e*SN	Sn	10 06 20.6	-17
SNZO	South Karori	17.90	199	*e*P	Pn	10 03 37.3	-0.8
	15nm,0.8s						
QRZ	Quartz Range	18.19	204	PN	Pn	10 03 41.1	-0.6
THZ	Tophouse	18.88	202	PN	Pn	10 03 48.1	-1.8
DSZ	Denniston Nort	19.26	204	*e*PN	Pn	10 03 55.9	+1.6
KHZ	Kahutara	19.26	200	PN	Pn	10 03 51.4	-2.9
KHZ				SN	Sn	10 07 11.0	-19
LTZ	Lake Taylor	20.00	202	PN	Pn	10 04 02.7	-0.3
MQZ	McQueen's Vall	20.71	200	SN	S	10 07 42.0	-12
WVZ	Waitaha Valley	20.81	204	PN	P	10 04 10.9	+1.8
RPZ	Rata Peaks	21.25	203	P	P	10 04 15.2	+1.5
RPZ				S	S	10 07 54.0	-10
RPZ	Rata Peaks	21.25	203	P	P	10 04 15.2	+1.5
	6.9nm,0.5s,mb4.2,baz=326,slow=5.7,SNR=12						
RPZ				S	S	10 07 54.0	-10
	9.0nm,0.7s,baz=26,slow=16,SNR=7.2						
FOZ	Fox Glacier	21.62	205	PN	P	10 04 17.4	-0.4
CTA	Charters Tower	33.53	270	*e*P	P	10 06 08.3	+2.1
CTA				pmax	pmax		
	comp=Z,6.0nm,0.4s						
CTA	Charters Tower	33.53	270	P	P	10 06 08.5	+2.3
	comp=Z,7.7nm,0.5s,mb4.8,baz=95,slow=9.9,SNR=31						
CTAO	Charters Tower	33.53	270	*e*P	P	10 06 06.6	+0.4
	comp=Z,6.6nm,0.5s,mb4.7						
CTAO	Charters Tower	33.53	270	*e*P	P	10 06 06.6	+0.4
CTAO				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
STKA	Stephens Creek	36.41	249	P	P	10 06 32.0	+1.2
STKA	Stephens Creek	36.41	249	P	P	10 06 31.6	+0.7
	comp=Z,0.8nm,0.4s,mb4.0,baz=87,slow=11,SNR=5.7						
STKA				PcP	PcP	10 08 52.6	-0.6
	comp=Z,2.4nm,0.5s,baz=102,slow=4.9,SNR=7.5						
PMG	Port Moresby	36.63	288	*e*P	P	10 06 33.0	+0.1
	comp=Z,6.7nm,0.4s,mb4.9						
PMG				*e*pP	pP	10 06 48.2	-6.9
PMG				*e*sP	sP	10 06 55.0	-11
PMG	Port Moresby	36.63	288	*e*P	P	10 06 33.0	+0.1
PMG				pmax	pmax		
	comp=Z,7.0nm,0.4s						
PMG	Port Moresby	36.63	288	P	P	10 06 34.6	+1.7
	comp=Z,9.9nm,0.6s,mb5.0,baz=62,slow=7.4,SNR=12						
ASAR	Alice Springs	43.96	261	P	P	10 07 34.0	+0.7
ASAR						10 09 16.1	
ASAR				S	S	10 13 47.5	-11
ASAR	Alice Springs	43.96	261	P	P	10 07 34.0	+0.6
	comp=Z,1.7nm,0.4s,mb4.2,baz=96,slow=7.3,SNR=59						
ASAR				PcP	PcP	10 09 16.1	-1.6
	comp=Z,1.0nm,0.6s,baz=111,slow=4.1,SNR=5.7						
ASAR				ScP	ScP	10 12 50.6	-10
	comp=Z,0.4nm,0.9s,baz=120,slow=3.8,SNR=4.3						
ASAR				S	S	10 13 47.5	-11
	comp=Z,0.7nm,0.7s,baz=98,slow=15,SNR=10						
WRA	Warramunga Arr	44.41	266	P	P	10 07 36.9	-0.1
WRA						10 09 17.5	
WRA				S	S	10 13 52.2	-13
WRA	Warramunga Arr	44.41	266	P	P	10 07 36.9	-0.1
	comp=Z,4.8nm,0.5s,mb4.5,baz=97,slow=8.2,SNR=96						
WRA				PcP	PcP	10 09 17.5	-1.7
	comp=Z,0.8nm,0.6s,baz=100,slow=3.3,SNR=5.6						
WRA				ScP	ScP	10 12 52.5	-10
	comp=Z,3.4nm,0.9s,baz=99,slow=4.2,SNR=5.1						
WRA				S	S	10 13 52.2	-13
	comp=Z,1.1nm,1.0s,baz=100,slow=16,SNR=3.6						
MBWA	Marble Bar	57.29	260	*e*P	P	10 09 13.2	-0.3
	comp=Z,7.3nm,1.0s,mb4.7						
QSPA	South Pole Qui	65.58	180	*e*P	P	10 10 09.6	+1.2
	comp=Z,16nm,1.1s,mb4.8						
MJAR	Matsushiro Arr	73.57	324	P	P	10 10 56.5	-1.6
	comp=Z,2.4nm,0.6s,mb4.1,baz=157,slow=5.9,SNR=8.5						
ADK	Adak	76.06	1	*e*P	P	10 11 10.9	-1.2
	comp=Z,44nm,0.6s,mb5.4						
ADK	Adak	76.06	1	*e*P	P	10 11 10.9	-1.2
ADK				pmax	pmax		
	comp=Z,44nm,0.6s,mb5.4						
MAW	Mawson	77.89	200	*e*P	P	10 11 22.9	+0.5
	comp=Z,13nm,1.2s,mb4.5						
MAW	Mawson	77.89	200	*e*P	P	10 11 22.9	+0.5
MAW				pmax	pmax		
	comp=Z,13nm,1.2s						
KSRS	Korea Array	80.04	319	P	P	10 11 34.0	-0.4
	comp=Z,1.2nm,0.6s,mb3.9,baz=127,slow=5.7,SNR=3.9						
HAST	UC Hastings Re	80.49	43	⇓P	P	10 11 37.6	+0.7
	baz=81						
U04C	Hernandez Rese	80.95	43	⇓P	P	10 11 39.8	+0.4
	baz=81						
PACP	Pacheco Peak	81.05	42	⇓P	P	10 11 40.0	+0.1
	baz=81						
ARVC	Arvin	81.42	45	⇓P	P	10 11 41.3	-0.6
	baz=82						
P01C	Double 8 Ranch	81.42	40	⇑P	P	10 11 41.5	-0.3
	baz=82						
MNRC	McLaughlin Nat	81.56	40	⇑P	P	10 11 43.0	+0.5
	baz=82						
MURC	Murrieta	81.57	47	⇓P	P	10 11 41.5	-1.2
	baz=82						
O01C	Eel River Cons	81.59	39	⇓P	P	10 11 43.2	+0.6
	baz=82						
BFSC	Mount Baldy St	81.65	47	⇓P	P	10 11 43.1	0.0
	baz=82						
VES	Vestal, Richgr	81.70	45	⇓P	P	10 11 43.1	-0.3
	baz=82						
EDW2	Edwards Air Fo	81.82	46	⇑P	P	10 11 43.7	-0.3
	baz=82						
GASB	Alder Springs	81.90	40	⇑P	P	10 11 45.8	+1.5
	baz=82						
T06C	Millerton Lake	82.03	43	⇓P	P	10 11 44.5	-0.5
	baz=82						
O02C	Red Bluff	82.20	39	⇓P	P	10 11 46.7	+0.9
	baz=82						
CMB	Columbia Colle	82.25	42	*e*P	P	10 11 40.2	-5.9
	comp=Z,1.7nm,0.3s,mb4.3						
CMB				*e*PcP	PcP	10 11 46.2	-5.0
CMB	Columbia Colle	82.25	42	*e*P	P	10 11 40.2	-6.0
CMB				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.4						
CMB	Columbia Colle	82.25	42	⇑P	P	10 11 46.0	-0.1
	baz=82						
HELL	Mitchell Peak,	82.25	44	⇑P	P	10 11 46.0	-0.2
	baz=82						
S06C	San Francisco	82.48	43	⇓P	P	10 11 47.8	+0.4
	baz=83						
LAVA	Lava Cap Winer	82.49	41	⇑P	P	10 11 47.0	-0.4
	baz=83						
ORV	Oroville	82.55	40	⇑P	P	10 11 47.6	-0.1
	baz=83						
BELC	Belle Mtn.	82.61	48	⇑P	P	10 11 48.4	+0.2
	baz=83						
MPMC	Manual Prospec	82.85	45	⇓P	P	10 11 49.4	0.0
	baz=83						
R05C	Kirkwood Meado	82.86	42	⇑P	P	10 11 49.2	-0.1
	baz=83						
HEC	Hector,Ludlow	82.88	47	⇓P	P	10 11 49.2	-0.4
	baz=83						
M02C	Callahan	82.97	38	⇑P	P	10 11 50.4	+0.6
	baz=83						
R07C	Lee Vining	83.11	43	⇓P	P	10 11 51.6	+1.0
	baz=83						
R06C	Coleville	83.13	42	⇑P	P	10 11 50.6	-0.2
	baz=83						
O05C	Quincy	83.16	40	⇓P	P	10 11 50.8	-0.1
	baz=83						
YBH	Yreka Blue Hor	83.27	38	⇓P	P	10 11 51.4	0.0
	baz=83						
IRM	Iron Mountain	83.28	48	⇓P	P	10 11 52.1	+0.5
	baz=83						
O04C	Chester	83.29	40	P	P	10 11 52.1	+0.6
	baz=83,SNR=7.0						
S08C	White Mtn Res	83.29	44	P	P	10 11 52.4	+0.8
	baz=83,SNR=6.5						
M03C	McCloud	83.31	39	⇑P	P	10 11 51.8	+0.3
	baz=83						
HATC	Hat Creek Radi	83.39	39	⇑P	P	10 11 52.2	+0.3
	baz=84						
BEKR	Beckwourth	83.43	41	P	P	10 11 52.6	+0.4
	baz=84,SNR=7.4						
WCN	Washoe City	83.43	41	P	P	10 11 52.8	+0.5
	baz=84,SNR=5.4						
Y12C	Blythe	83.47	48	⇑P	P	10 11 53.0	+0.5
	baz=84						
GRAC	Grapevine Rang	83.50	44	⇑P	P	10 11 52.7	0.0
	baz=84						
TUQ	Turquoise Mtn.	83.50	46	⇑P	P	10 11 52.4	-0.3
	baz=84						
K02A	Glendale	83.53	37	⇑P	P	10 11 53.0	+0.4
	baz=84						
SHOC	Shoshone	83.55	46	⇓P	P	10 11 53.2	+0.3
	baz=84						
ELFS	Eagle Lake Fie	83.69	40	⇓P	P	10 11 54.1	+0.5
	baz=84						
HUMO	Hull Mountain	83.71	37	⇓P	P	10 11 53.4	-0.2
	baz=84						
NVAR	Mina Array Bea	83.78	43	P	P	10 11 54.2	+0.1
	comp=Z,3.4nm,0.7s,mb4.3,baz=210,slow=6.4,SNR=20						
M04C	Macdoel	83.80	39	⇓P	P	10 11 54.4	+0.3
	baz=84						
U10A	Ash Meadows, A	83.82	45	⇓P	P	10 11 55.2	+0.9
	baz=84						
M05C	Lookout	83.92	39	P	P	10 11 55.1	+0.4
	baz=84,SNR=8.2						

MDJ	Mudanjiang	83.92	325	P	P	10 11 56.4	+1.8
MDJ				AMB	AMB		
	comp=Z,8.0nm,1.4s,mb4.4						
MDJ				AMB	AMB		
	comp=Z,105nm,4.0s						
MDJ	Mudanjiang	83.92	325	eP	P	10 11 52.5	-2.1
	comp=Z,3.7nm,0.4s,mb4.6						
O06A	Flanigan	83.93	41	P	P	10 11 55.0	+0.3
	baz=84,SNR=10						
Y13A	Salome	83.98	49	⇑P	P	10 11 55.9	+0.7
	baz=84						
L04A	Klamath Falls	84.03	38	P	P	10 11 55.5	+0.3
	baz=84,SNR=6.9						
PDMCI	Parker Dam,Lak	84.04	48	⇓P	P	10 11 55.1	-0.4
	baz=84						
V11A	Goodsprings	84.07	46	⇓P	P	10 11 55.5	0.0
	baz=84						
I02A	Mapleton	84.17	36	⇑P	P	10 11 56.3	+0.4
	baz=84						
M06C	Likely Place G	84.21	40	P	P	10 11 56.5	+0.4
	baz=84,SNR=7.6						
TPH	Tonopah	84.24	44	eP	P	10 11 56.3	-0.1
	comp=Z,5.4nm,0.8s,mb4.4						
TPH	Tonopah	84.24	44	eP	P	10 11 56.3	-0.1
TPH				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
Q08A	Gabbs	84.27	43	P	P	10 11 56.9	+0.3
	baz=84,SNR=6.4						
N06A	Buffalo Meadow	84.30	40	⇑P	P	10 11 56.8	+0.2
	baz=84						
Z14A	Wintersburg	84.33	50	⇓P	P	10 11 57.4	+0.4
	baz=84						
V12A	Nelson	84.38	47	⇑P	P	10 11 56.5	-0.7
	baz=84						
X13A	Yucca	84.42	48	⇑P	P	10 11 57.6	+0.2
	baz=84						
R09A	Tonopah	84.43	44	⇑P	P	10 11 57.4	+0.1
	baz=84						
O07A	Toulon	84.50	41	P	P	10 11 58.0	+0.3
	baz=85,SNR=9.3						
L05A	Lakeview	84.54	39	⇓P	P	10 11 58.4	+0.6
	baz=85						
S10A	Tonopah Range,	84.54	44	⇑P	P	10 11 57.4	-0.5
	baz=85						
J04A	Umpqua Nationa	84.60	37	⇓P	P	10 11 58.1	0.0
	baz=85						
Y14A	Wickenburg	84.61	49	⇑P	P	10 11 58.2	-0.2
	baz=85						
W13A	Hualapai Mount	84.67	48	⇑P	P	10 11 58.2	-0.4
	baz=85						
MOD	Modoc	84.75	39	eP	P	10 11 58.8	-0.1
MOD	Modoc	84.75	39	P	P	10 11 59.0	+0.1
	baz=85,SNR=6.1						
I04A	Tendick Farm,	84.80	37	⇑P	P	10 11 58.8	-0.2
	baz=85						
N07B	Gerlach	84.83	41	⇓P	P	10 12 00.1	+0.8
	baz=85						
H03A	Soap Creek Ran	84.91	36	⇑P	P	10 11 59.7	+0.1
	baz=85						
S11A	Rachel	84.92	45	⇑P	P	10 12 00.4	+0.6
	baz=85						
K05A	Summer Lake	84.94	38	⇑P	P	10 12 00.1	+0.3
	baz=85						
R10A	Warm Springs	84.95	44	P	P	10 12 00.7	+0.7
	baz=85,SNR=5.7						
X14A	Yava	84.99	49	⇑P	P	10 12 01.0	+0.7
	baz=85						
U12A	Valley of Fire	85.00	46	⇓P	P	10 12 00.5	+0.2
	baz=85						
T12A	Moapa	85.05	46	⇑P	P	10 12 00.5	0.0
	baz=85						
M07A	Soldier Meadow	85.09	40	⇑P	P	10 12 00.5	-0.1
	baz=85						
J05A	Fort Rock	85.11	38	P	P	10 12 01.2	+0.5
	baz=85,SNR=6.2						
Q10A	Clear Creek Ra	85.20	43	⇓P	P	10 12 02.2	+1.0
	baz=85						
W14A	Seligman	85.28	48	⇑P	P	10 12 01.5	-0.1
	baz=85						
N08A	GE Springer Mi	85.33	41	⇓P	P	10 12 02.0	+0.2
	baz=85						
K06A	Valley Falls	85.35	39	⇓P	P	10 12 02.1	+0.3
	baz=86						
L07A	Adell	85.38	40	⇑P	P	10 12 02.3	+0.2
	baz=86						
X15A	Humboldt	85.45	49	⇓P	P	10 12 03.3	+0.7
	baz=86						
M08A	Happy Creek Ra	85.59	40	⇓P	P	10 12 03.0	-0.1
	baz=86						
CN2	Changchun	85.60	323	eP	P	10 12 04.3	+1.2
P10A	Eureka	85.64	43	⇓P	P	10 12 03.5	+0.1
	baz=86						
I05A	Bend	85.66	37	⇑P	P	10 12 03.1	-0.3
	baz=86						
Q11A	Duckwater	85.69	44	⇑P	P	10 12 03.4	-0.2
	baz=86						
N09A	Rock Creek Ran	85.74	41	⇓P	P	10 12 04.0	+0.2
	baz=86						
T13A	Saint George	85.75	46	⇑P	P	10 12 03.9	0.0
	baz=86						
K07A	Rock Creek Ran	85.86	39	⇑P	P	10 12 04.3	0.0
	baz=86						
R12A	Pony Springs,	86.05	45	P	P	10 12 06.0	+0.6
	baz=86,SNR=5.5						
L08A	Fields	86.07	40	P	P	10 12 05.7	+0.3
	baz=86,SNR=5.4						
I06A	Prineville	86.11	38	⇑P	P	10 12 05.9	+0.3
	baz=86						
M09A	Marrel Ranch,	86.13	41	⇓P	P	10 12 05.3	-0.4
	baz=86						
T14A	Hurricane	86.32	46	⇑P	P	10 12 06.4	-0.4
	baz=86						
Q12A	Willow Creek R	86.32	44	⇑P	P	10 12 06.2	-0.5
	baz=86						
K08A	Mann Creek Ran	86.32	39	P	P	10 12 07.0	+0.4
	baz=86,SNR=5.8						
O11A	Cowboy Ranch,	86.44	43	⇓P	P	10 12 06.8	-0.5
	baz=87						
P12A	McGill	86.52	44	⇓P	P	10 12 07.2	-0.5
	baz=87						
H06A	Lindquist Farm	86.54	37	⇓P	P	10 12 07.4	-0.3
	baz=87						
WUAZ	Wupatki	86.61	48	⇓P	P	10 12 06.6	-1.6
	baz=87						
S14A	Cedar City	86.66	46	⇑P	P	10 12 08.4	0.0
	baz=87						
G06A	Carlson Farm,	86.70	36	⇓P	P	10 12 07.9	-0.5
	baz=87						
J08A	Circle Bar Ran	86.72	39	⇓P	P	10 12 08.2	-0.3
	baz=87						
M10A	I.L. Ranch, Tu	86.73	41	⇑P	P	10 12 08.8	+0.2
	baz=87						
K09A	Rome	86.75	40	⇓P	P	10 12 09.2	+0.5
	baz=87						
N11A	Elko Archery C	86.80	42	⇓P	P	10 12 09.4	+0.4
	baz=87						
E05A	Randle	86.96	35	⇑P	P	10 12 09.5	-0.2
	baz=87						
I08A	Drewsey	87.01	38	⇓P	P	10 12 10.5	+0.6
	baz=87						
C04A	Brinnon	87.11	34	⇓P	P	10 12 11.1	+0.7
	baz=87						
L10A	Juniper Basin	87.11	41	P	P	10 12 10.4	0.0
	baz=87,SNR=5.6						
J09A	Fry Pan Ranch,	87.12	39	⇑P	P	10 12 10.8	+0.2
	baz=87						
M11A	Holland Ranch,	87.13	42	⇑P	P	10 12 11.3	+0.7
	baz=87						
G07A	Ruggs Ranch, H	87.25	37	⇓P	P	10 12 10.8	-0.3
	baz=87						
N12A	Clover Valley,	87.25	42	⇑P	P	10 12 11.3	+0.1
	baz=87						
D05A	Enumclaw	87.25	34	⇓P	P	10 12 11.8	+0.7
	baz=87						
K10A	MacKenzie Ranc	87.29	40	⇑P	P	10 12 11.3	-0.1
	baz=87						
F07A	Phinny Hill Vi	87.50	36	⇓P	P	10 12 12.0	-0.3
	baz=88						
I09A	Lost Marbles R	87.52	39	⇓P	P	10 12 12.6	+0.2
	baz=88						
L11A	Cat Creek Ranc	87.59	41	⇓P	P	10 12 13.2	+0.4
	baz=88						
G08A	Pilot Rock	87.65	37	P	P	10 12 13.2	+0.1
	baz=88,SNR=6.5						
M12A	Wells	87.65	42	⇑P	P	10 12 13.2	+0.1
	baz=88						
MA2	Magadan	87.69	345	eP	P	10 12 11.2	-1.6
	comp=Z,11nm,0.8s,mb4.9						
MA2	Magadan	87.69	345	⇑iP	P	10 12 10.9	-1.9
MA2				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
MSU	Marysvale	87.72	46	eP	P	10 12 13.7	+0.1
C05A	Tolt Reservoir	87.74	34	⇑P	P	10 12 13.5	+0.1
	baz=88						
J10A	Berg Farm, Mel	87.75	40	⇓P	P	10 12 13.4	-0.1
	baz=88						
N13A	Wendover, West	87.76	43	⇓P	P	10 12 13.4	-0.2
	baz=88						
D06A	Cle Elum	87.85	35	⇓P	P	10 12 14.0	+0.1
	baz=88						
A04A	Legoe Bay, Lum	87.91	33	⇓P	P	10 12 14.6	+0.5
	baz=88						
B05A	Bryant	87.91	34	⇓P	P	10 12 14.9	+0.7
	baz=88						
E07A	Sunnyside	87.97	36	P	P	10 12 14.9	+0.5
	baz=88,SNR=8.1						
L12A	House Creek Ra	88.02	41	⇓P	P	10 12 14.4	-0.5
	baz=88						
HAWA	Hanford	88.03	36	eP	P	10 12 14.8	+0.1
M13A	Montello	88.08	42	⇑P	P	10 12 14.6	-0.5
	baz=88						
MFID	Camas Ranch	88.28	40	⇓P	P	10 12 16.2	+0.2
	baz=88						
C06A	Tall Timber Ra	88.30	34	⇑P	P	10 12 15.8	-0.2
	baz=88						
BMO	Blue Mountains	88.30	38	eP	P	10 12 15.9	-0.2
D07A	Quincy	88.31	35	⇑P	P	10 12 15.8	-0.2
	baz=88						
K12A	Draper Farm, C	88.37	41	⇓P	P	10 12 15.8	-0.8
	baz=88						
A05A	Maple Falls	88.40	33	⇑P	P	10 12 16.6	+0.2
	baz=88						
F09A	S2 Ranch, Elgi	88.49	37	⇓P	P	10 12 17.0	0.0
	baz=89						
I11A	Placerville	88.50	40	⇓P	P	10 12 16.7	-0.4
	baz=89						
C07A	Waterville	88.58	35	⇓P	P	10 12 17.4	+0.1
	baz=89						
J12A	Stokes Ranch,	88.62	40	⇑P	P	10 12 17.5	-0.1
	baz=89						
L13A	Double Diamond	88.63	42	⇓P	P	10 12 17.8	+0.1
	baz=89						
A06A	Chilliwack	88.76	33	⇑P	P	10 12 18.6	+0.4
	baz=89						
D08A	Wollman Farm,	88.78	36	P	P	10 12 18.4	+0.1
	baz=89,SNR=8.6						
TMUT	Trail Mountain	88.79	45	eP	P	10 12 18.9	+0.3
GYA	Guiyang	88.83	300	P	P	10 12 20.6	+1.6
GYA				AP	pP	10 12 43.8	-0.8
GYA				XP	sP	10 12 52.6	-2.3
GYA				PP	PP	10 15 53.8	+4.0
GYA				SKS		10 22 40.8	
GYA				S	S	10 23 00.8	+2.0
GYA				XS	sS	10 23 38.9	-3.7
GYA				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.7						
GYA				AMB	AMB		
	comp=Z,70nm,5.9s						
GYA				LR	LR		
	comp=N,420nm,19.0s						
GYA				LR	LR		
	comp=E,460nm,18.4s						
GYA				LR	LR		
	comp=Z,390nm,19.2s						
PMR	Palmer	88.85	13	eP	P	10 12 17.1	-1.1
	comp=Z,6.0nm,0.6s,mb4.8						
PMR	Palmer	88.85	13	eP	P	10 12 17.1	-1.2
PMR				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
E09A	Wood Farm, Sta	88.86	37	⇓P	P	10 12 18.4	-0.3
	baz=89						
K13A	Stover Farm, H	88.87	41	⇑P	P	10 12 19.0	+0.1
	baz=89						
MNTX	Cornudas Mount	88.88	54	eP	P	10 12 19.1	0.0
	comp=Z,3.3nm,0.8s,mb4.4						
BJI	Beijing	88.89	315	P	P	10 12 20.3	+1.3
BJI				AP	pP	10 12 42.1	-2.5
BJI				XP	sP	10 12 51.0	-3.9
BJI				S	S	10 23 00.0	+1.2
BJI				SS	SS	10 28 59.1	+5.0
BJI				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.5						
BJI				AMB	AMB		
	comp=Z,165nm,4.3s						
BJI				LR	LR		
	comp=N,196nm,12.9s						
BJI				LR	LR		
	comp=E,132nm,4.8s						
BJI				LR	LR		
	comp=Z,55nm,20.6s						
BJI	Beijing	88.89	315	P	P	10 12 20.2	+1.2
BJI				pP	pP	10 12 42.1	-2.5
BJI				sP	sP	10 12 51.0	-3.9
BJI				S	S	10 23 00.0	+1.2
BJI				ScS	ScS	10 23 07.1	+3.4
BJI				SS	SS	10 28 59.1	+5.0
BJI				LR	LR		
	comp=Z,60nm,20.6s						
H11A	Donnelly	88.94	39	P	P	10 12 19.2	+0.1
	baz=89,SNR=6.8						
TXAR	Lajitas Array	89.02	57	P	P	10 12 19.6	-0.3
	comp=Z,1.5nm,0.8s,mb4.1,baz=212,slow=7.1,SNR=19						
F10A	Beach Ranch, E	89.03	37	P	P	10 12 18.9	-0.6
	baz=89,SNR=12						
B07A	Winthrop	89.04	34	⇓P	P	10 12 19.3	-0.2
	baz=89						
D09A	Jones Farm, Ri	89.11	36	P	P	10 12 19.8	-0.1
	baz=89,SNR=6.0						
SRU	San Rafael	89.13	46	eP	P	10 12 20.4	+0.2
	comp=Z,4.6nm,0.6s,mb4.7						
SRU	San Rafael	89.13	46	eP	P	10 12 20.4	+0.2
SRU				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
C08A	Higginbotham F	89.17	35	⇓P	P	10 12 20.2	+0.1
	baz=89						
HLID	Hailey	89.20	41	eP	P	10 12 20.8	+0.4
	comp=Z,3.3nm,0.9s,mb4.4						
HLID	Hailey	89.20	41	P	P	10 12 20.9	+0.5
	baz=89,SNR=5.4						
J13A	Cove Ranch, Pi	89.25	41	⇓P	P	10 12 20.8	+0.1
	baz=89						
A07A	Ashnola River,	89.28	34	⇑P	P	10 12 20.7	+0.1
	baz=89						
K14A	Jones Ranch, D	89.36	42	⇓P	P	10 12 21.3	+0.1
	baz=90						
B08A	Colville Reser	89.38	35	P	P	10 12 20.4	-0.7
	baz=90,SNR=5.8						
E10A	Myers Farm, Un	89.40	37	⇑P	P	10 12 20.9	-0.3
	baz=90						
MVCO	Mesa Verde	89.47	48	⇑P	P	10 12 20.2	-1.7
	baz=90						
H12A	Diamond D Ranc	89.52	40	P	P	10 12 22.0	+0.2
	baz=90,SNR=7.8						
F11A	Grangeville	89.57	38	⇑P	P	10 12 19.6	-2.4
	baz=90						
I13A	Wildhorse Cree	89.58	40	⇓P	P	10 12 21.1	-1.0
	baz=90						
D10A	Wagner Farm, O	89.66	37	P	P	10 12 21.8	-0.6
	baz=90,SNR=9.1						
ANMO	Albuquerque	89.73	51	eP	P	10 12 23.4	+0.3
	comp=Z,2.4nm,0.9s,mb4.3						
ANMO	Albuquerque	89.73	51	eP	P	10 12 23.4	+0.3
ANMO				pmax	pmax		
	comp=Z,2.0nm,0.9s						
A08A	Turner Farm, O	89.78	34	P	P	10 12 22.9	0.0
	baz=90,SNR=6.1						
E11A	Bogner Ranch,	89.82	38	⇑P	P	10 12 21.7	-1.5
	baz=90						
HWUT	Hardware Ranch	89.83	43	eP	P	10 12 22.9	-0.5
	comp=Z,1.3nm,0.5s,mb4.3						
H13A	Challis	89.88	40	⇓P	P	10 12 24.0	+0.5
	baz=90						
B09A	Rice	90.03	35	⇑P	P	10 12 24.2	+0.1
	baz=90						
C10A	Spilker Farm,	90.11	36	⇑P	P	10 12 23.6	-0.9
	baz=90						
A09A	Danville	90.15	34	⇓P	P	10 12 23.9	-0.8
	baz=90						
D11A	Klaveano Farm,	90.17	37	⇓P	P	10 12 24.2	-0.6
	baz=90						
G13A	Cobalt	90.20	39	⇑P	P	10 12 23.4	-1.6
	baz=90						
SEY	Seymchan	90.31	347	⇑iP	P	10 12 23.6	-1.5
NEW	Newport	90.48	36	eP	P	10 12 25.6	-0.7
	comp=Z,1.4nm,0.7s,mb4.2						
NEW	Newport	90.48	36	eP	P	10 12 25.6	-0.6
NEW				pmax	pmax		
	comp=Z,1.0nm,0.7s						
F13A	Darby	90.54	39	P	P	10 12 26.1	-0.5
	baz=91,SNR=9.2						
A10A	Northport	90.69	35	⇑P	P	10 12 26.6	-0.5
	baz=91						
D12A	Red Ives Fores	90.71	37	⇑P	P	10 12 27.0	-0.3
	baz=91						
G14A	Jackson	90.73	40	P	P	10 12 27.6	+0.1
	baz=91,SNR=5.7						
MCK	McKinley	90.82	12	eP	P	10 12 27.0	-0.4
	comp=Z,4.4nm,1.1s,mb4.5						
MCK	McKinley	90.82	12	eP	P	10 12 27.0	-0.4
MCK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.5						
B11A	Sandpoint	90.98	36	⇓P	P	10 12 28.6	0.0
	baz=91						
E13A	Victor	91.00	38	⇓P	P	10 12 28.6	-0.1
	baz=91						
F14A	Wisdom	91.11	39	⇑P	P	10 12 29.1	-0.1
	baz=91						
REDW	Red Top Meadow	91.23	42	eP	P	10 12 30.1	+0.2
G15A	Dillon	91.25	40	P	P	10 12 29.9	0.0
	baz=91,SNR=12						
A11A	Hall Mountain,	91.30	35	⇓P	P	10 12 30.3	+0.3
	baz=91						
KMI	Kunming	91.36	297	P	P	10 12 30.4	-0.5
KMI				AMB	AMB		
	comp=Z,8.0nm,1.1s,mb4.8						
KMI	Kunming	91.36	297	P	P	10 12 30.4	-0.5
	comp=Z,8.0nm,1.1s,mb4.8						
E14A	Clinton	91.38	39	⇑P	P	10 12 29.8	-0.7
	baz=92						
B12A	Libby	91.42	36	⇓P	P	10 12 29.7	-0.9
	baz=92						
IMW	Indian Meadow	91.47	42	eP	P	10 12 31.4	+0.5
	comp=Z,4.8nm,0.8s,mb4.7						
LOHW	Long Hollow	91.52	42	eP	P	10 12 31.3	+0.1
	comp=Z,2.4nm,0.7s,mb4.5						
F15A	Butte	91.63	39	⇓P	P	10 12 31.2	-0.4
	baz=92						
A12A	Yaak River Ran	91.66	36	⇓P	P	10 12 31.4	-0.3
	baz=92						
QLMT	Earthquake Lak	91.69	41	eP	P	10 12 32.3	+0.4
BW06	Boulder Array	91.71	43	eP	P	10 12 31.7	-0.4
	comp=Z,3.1nm,0.8s,mb4.6						
PDAR	Pinedale Array	91.71	43	P	P	10 12 31.3	-0.8
	comp=Z,3.4nm,0.9s,mb4.6,baz=209,slow=3.5,SNR=26						
SDCO	Great Sand Dun	91.79	49	eP	P	10 12 32.4	-0.2
	comp=Z,1.9nm,0.8s,mb4.4						
E15A	Deer Lodge	91.87	39	⇓P	P	10 12 32.6	-0.1
	baz=92						
B13A	Whitefish	91.97	37	⇑P	P	10 12 32.2	-0.9
	baz=92						
BOZ	Bozeman (W)	92.02	40	eP	P	10 12 33.5	+0.1
	comp=Z,2.9nm,0.8s,mb4.6						
BOZ	Bozeman (W)	92.02	40	eP	P	10 12 33.5	0.0
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.6						
BOZ	Bozeman (W)	92.02	40	⇑P	P	10 12 33.6	+0.1
	baz=92						
COLA	College	92.05	12	eP	P	10 12 32.0	-1.1
	comp=Z,2.9nm,0.8s,mb4.6						
COLA	College	92.05	12	i P	P	10 12 31.7	-1.4
LKWY	Lake	92.16	41	eP	P	10 12 35.1	+0.9
	comp=Z,1.8nm,0.5s,mb4.6						
LKWY	Lake	92.16	41	eP	P	10 12 35.1	+1.0
LKWY				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.6						
D15A	Lincoln	92.29	38	⇑P	P	10 12 34.8	+0.2
	baz=92						
HHC	Hu-ho-hao-te	92.30	314	eP	P	10 12 37.6	+2.7
HHC				AP	pP	10 12 58.4	-2.1
HHC				XP	sP	10 13 07.3	-3.4
HHC				PP	PP	10 16 21.8	+4.7
HHC				SKS		10 23 02.9	
HHC				S	S	10 23 29.5	-0.4
HHC				XS	sS	10 24 09.3	-4.8
HHC				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.7						
HHC				AMB	AMB		
	comp=Z,91nm,6.2s						
HHC				LR	LR		
	comp=N,109nm,39.8s						
HHC				LR	LR		
	comp=E,110nm,36.1s						
HHC				LR	LR		
	comp=Z,115nm,38.9s						
HRY	Holter Researc	92.50	39	eP	P	10 12 36.2	+0.6
WALA	Waterton Lakes	92.67	36	eP	P	10 12 35.4	-1.0
	comp=Z,1.7nm,0.7s,mb4.5						
BILL	Bilibino	93.03	354	eP	P	10 12 36.6	-0.9
	comp=Z,6.5nm,0.8s,mb5.0						
BILL	Bilibino	93.03	354	deP	P	10 12 36.5	-1.1
BILL				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.0						
CD2	Chengdu	93.13	302	eP	P	10 12 41.0	+2.0
CD2				XP	sP	10 13 13.0	-1.8
CD2				PP	PP	10 16 28.4	+4.6
CD2				SKS		10 23 06.9	
CD2				S	S	10 23 39.6	+1.9
CD2				XS	sS	10 24 15.5	-6.5
CD2				SS	SS	10 30 01.6	+6.1
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb5.2						
CD2				AMB	AMB		
	comp=Z,30nm,8.4s						
CD2				LR	LR		
	comp=N,240nm,13.2s						
CD2				LR	LR		
	comp=Z,120nm,13.2s						
DAWY	Dawson	93.23	16	eP	P	10 12 38.2	-0.4
RSSD	Black Hills	95.87	44	eP	P	10 12 52.8	+1.6
	comp=Z,15nm,0.5s,mb5.7						
RSSD	Black Hills	95.87	44	eP	P	10 12 52.8	+1.7
RSSD				pmax	pmax		
	comp=Z,15nm,0.5s,mb5.7						
YAK	Yakutsk	95.90	338	⇓eP	P	10 12 49.7	-1.1
YAK				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.5						
INK	Inuvik	98.06	15	P	P	10 12 58.4	-2.1
	comp=Z,25nm,1.0s,mb5.7						
INK	Inuvik	98.06	15	P	P	10 12 58.4	-2.1
INK				pmax	pmax		
	comp=Z,25nm,1.0s						
YKA	Yellowknife Ar	100.04	25	P	Pdif	10 13 08.1	-1.9
	comp=Z,0.2nm,0.7s,baz=248,slow=4.6,SNR=2.9						
RES	Resolute Bay	111.56	16	ePKPdf	PKiKP	10 17 55.7	-2.0
ZALV	Zalesovo Beam	113.73	320	PKPdf	PKiKP	10 17 59.2	-3.2
ZALV	Zalesovo Beam	113.73	320	PKiKP	PKiKP	10 17 59.2	-3.2
	comp=Z,1.4nm,0.6s,baz=174,slow=1.4,SNR=7.0						
ZAL	Zalesovo	113.74	320	PKIKP	PKiKP	10 17 59.2	-3.2
MK31	Makanchi Array	114.08	312	ePKPdf	PKiKP	10 18 00.4	-2.9
MK31	Makanchi Array	114.08	312	ePKIKP	PKiKP	10 18 00.4	-2.9
MKAR	Makanchi Array	114.08	312	PKPdf	PKiKP	10 18 00.6	-2.7
MKAR	Makanchi Array	114.08	312	PKIKP	PKiKP	10 18 00.6	-2.7
MKAR	Makanchi Array	114.08	312	PKiKP	PKiKP	10 18 00.6	-2.7
	comp=Z,1.1nm,0.6s,baz=86,slow=0.7,SNR=13						
KBL	Kabul	121.95	297	ePKPdf	PKPdf	10 18 17.0	-1.8
BOSA	Boshof	122.73	204	PKP	PKPdf	10 18 18.7	-2.0
	comp=Z,6.7nm,1.1s,baz=26,slow=5.6,SNR=3.7						
ARCES	ARCESS Array B	132.88	349	PKP	PKPdf	10 18 36.5	-2.1
	comp=Z,2.1nm,0.5s,baz=12,slow=6.6,SNR=21						
JOF	Joensuu	136.99	341	ePKHKP		10 18 30.1	
KAF	Kangasniemi	139.04	343	ePKHKP		10 18 33.6	
FINES	FINESS Array B	139.66	343	PKhKP		10 18 41.1	
	comp=Z,1.2nm,0.5s,baz=53,slow=3.5,SNR=4.7						
FINES				PKP	PKPdf	10 18 51.5	+0.1
	comp=Z,2.0nm,0.4s,baz=110,slow=3.4,SNR=12						
OBN	Obninsk	140.34	329	⇑ePKHKP		10 18 46.3	
OBN				pmax	pmax		
	comp=Z,11nm,0.5s						
NOA	NORSAR Array B	142.97	353	PKhKP		10 18 52.0	
	comp=Z,1.7nm,0.7s,baz=21,slow=3.8,SNR=8.8						
NOA				PKP	PKPdf	10 18 57.9	+0.6
	comp=Z,1.4nm,0.7s,baz=15,slow=4.5,SNR=6.2						
ANN	Anapa	145.06	314	i PKHKP		10 18 58.4	
ANN				pmax	pmax		
	comp=Z,74nm,0.8s						
MALT	Malatya	146.42	303	ePKPdf	PKPdf	10 19 04.7	+0.6
MALT	Malatya	146.42	303	⇓PKIKP	PKPdf	10 19 04.5	+0.4
AKASG	Malin Array Be	146.58	328	i PKIKP	PKiKP	10 19 15.1	+6.8
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	146.58	328	PKPbc	PKPbc	10 19 03.1	-2.5

	comp=Z,12nm,0.6s,baz=41,slow=4.1,SNR=63						
AKBB	**Malin Array Si**	**146.58**	**328**	ePKPdf	PKPdf	10 19 03.3	-0.6
AKBB				ePKPab	PKPab	10 19 07.6	+0.8
AKBB	**Malin Array Si**	**146.58**	**328**	ePKHKP		10 19 03.3	
AKBB				e		10 19 07.6	
KIEV	**Kiev**	**146.59**	**328**	ePKPdf	PKPdf	10 19 03.1	-0.8
KIEV				ePKPab	PKPab	10 19 07.6	+0.7
KIEV	**Kiev**	**146.59**	**328**	ePKHKP		10 19 03.1	
KIEV				e		10 19 07.6	
SUW	**Suwalki**	**146.63**	**337**	ePKP	PKPdf	10 19 03.9	0.0
SUW	**Suwalki**	**146.63**	**337**	ePKIKP	PKPdf	10 19 03.9	0.0
ASF	**Jabal al Asfar**	**148.66**	**292**	PKPbc	PKPbc	10 19 11.0	-0.8
	comp=Z,7.5nm,0.7s,baz=23,slow=2.1,SNR=11						
BR131	**Keskin Array S**	**149.58**	**308**	ePKPbc	PKPbc	10 19 12.0	-1.9
BRTR	**Keskin Array B**	**149.58**	**308**	PKP	PKPdf	10 19 06.5	-2.7
	comp=Z,0.6nm,0.7s,baz=123,slow=1.7,SNR=4.8						
BRTR				PKPbc	PKPbc	10 19 12.1	-1.8
	comp=Z,4.8nm,0.7s,baz=152,slow=5.6,SNR=4.9						
BRTR				PKPab	PKPab	10 19 20.0	+0.8
	comp=Z,1.6nm,0.5s,baz=116,slow=3.2,SNR=8.6						
ANTO	**Ankara**	**150.13**	**308**	ePKPbc	PKPbc	10 19 13.6	-1.6
ANTO	**Ankara**	**150.13**	**308**	ePKIKP	PKPbc	10 19 13.6	-1.6
BURAR	**Bucovina Array**	**150.60**	**327**	⇓P	PKPbc	10 19 15.4	-0.7
BURAR	**Bucovina Array**	**150.60**	**327**	⇓PKIKP	PKPbc	10 19 15.4	-0.7
TIRR	**Tirgusor**	**150.86**	**320**	⇓P	PKPbc	10 19 14.9	-1.9
TIRR	**Tirgusor**	**150.86**	**320**	⇓PKHKP	PKPbc	10 19 14.9	-1.9
OJC	**Ojcow**	**150.94**	**336**	ePKP	PKPbc	10 19 14.8	-2.0
OJC	**Ojcow**	**150.94**	**336**	ePKHKP	PKPbc	10 19 14.8	-2.0
KOLS	**Kolonicke sedl**	**150.99**	**332**	ePKP	PKPbc	10 19 16.0	-0.9
KOLS	**Kolonicke sedl**	**150.99**	**332**	ePKHKP	PKPbc	10 19 16.0	-0.9
KOLS				e		10 42 32.2	
STHS	**Stebnicka Huta**	**151.04**	**334**	ePKP	PKPbc	10 19 16.2	-0.8
STHS				e		10 19 20.7	
STHS	**Stebnicka Huta**	**151.04**	**334**	ePKHKP	PKPbc	10 19 16.2	-0.8
STHS				e		10 19 20.7	
CRVS	**Cervenica-Dubn**	**151.35**	**333**	ePKP	PKPbc	10 19 16.7	-1.1
CRVS	**Cervenica-Dubn**	**151.35**	**333**	ePKHKP	PKPbc	10 19 16.7	-1.1
NIE	**Niedzica**	**151.40**	**335**	ePKP	PKPbc	10 19 17.2	-0.7
NIE	**Niedzica**	**151.40**	**335**	ePKHKP	PKPbc	10 19 17.2	-0.7
KSP	**Ksiaz**	**151.56**	**341**	ePKP	PKPbc	10 19 16.9	-1.3
KSP				e		10 19 22.2	
KSP				e		10 19 26.2	
KSP	**Ksiaz**	**151.56**	**341**	ePKHKP	PKPbc	10 19 16.9	-1.3
KSP				e		10 19 22.2	
MLR	**Muntele Rosu**	**151.64**	**323**	⇓PKHKP	PKPdf	10 19 15.4	+3.2
MLR	**Muntele Rosu**	**151.64**	**323**	PKPbc	PKPbc	10 19 16.3	-2.3
	comp=Z,1.7nm,0.4s,baz=11,slow=4.1,SNR=4.0						
UPC	**Upice**	**151.94**	**341**	ePKHKP	PKPbc	10 19 17.6	-1.4
UPC				e		10 19 23.2	
UPC	**Upice**	**151.94**	**341**	⇑ePKPB	PKPbc	10 19 17.6	-1.4
UPC				ex	x	10 19 23.2	
UPC				ePKPAB	PKPab	10 19 27.6	-1.0
DPC	**Dobruska-Polom**	**151.99**	**341**	ePKHKP	PKPbc	10 19 17.9	-1.3
DPC				e		10 19 23.2	
DPC	**Dobruska-Polom**	**151.99**	**341**	⇑ePKPB	PKPbc	10 19 17.9	-1.3
DPC				ePKP	PKiKP	10 19 23.2	+3.7
DPC				ePKPAB	PKPab	10 19 28.1	-0.7
CLL	**Collm**	**151.99**	**346**	⇓iPKP	PKPbc	10 19 17.5	-1.6
CLL				i PKP	PKiKP	10 19 23.3	+3.8
CLL				i PKP	PKPab	10 19 27.3	-1.5
CLL				epPKP	pPKPdf	10 19 39.0	-0.3
CLL	**Collm**	**151.99**	**346**	⇓iPKIKP	PKPbc	10 19 17.5	-1.6
CLL				i		10 19 27.3	
CLL	**Collm**	**151.99**	**346**	ePKPbc	PKPbc	10 19 17.5	-1.6
CLL				e		10 19 23.5	
CLL				ePKPab	PKPab	10 19 27.4	-1.4
CLL				e(pPKPbc)		10 19 39.2	
CLZ	**Clausthal**	**152.01**	**349**	ePKPbc	PKPbc	10 19 17.8	-1.4
CLZ	**Clausthal**	**152.01**	**349**	ePKIKP	PKPbc	10 19 17.8	-1.4
CLZ	**Clausthal**	**152.01**	**349**	ePKPbc	PKPbc	10 19 17.8	-1.4
MORC	**Moravsky Berou**	**152.10**	**339**	ePKPbc	PKPbc	10 19 18.4	-1.1
MORC				ePKPab	PKPab	10 19 28.5	-0.8
MORC	**Moravsky Berou**	**152.10**	**339**	ePKIKP	PKPbc	10 19 18.4	-1.0
MORC				e		10 19 28.5	
BRG	**Berggiesshubel**	**152.17**	**344**	ePKPbc	PKPbc	10 19 18.1	-1.5
BRG				ePKPab	PKPab	10 19 28.4	-1.1
FBE	**Freiberg**	**152.27**	**345**	ePKPbc	PKPbc	10 19 18.4	-1.4
FBE				ePKPab	PKPab	10 19 29.0	-0.9
PVCC	**Panska Ves**	**152.32**	**343**	ePKIKP	PKPbc	10 19 18.6	-1.3
PVCC				e		10 19 24.2	
PVCC	**Panska Ves**	**152.32**	**343**	⇑ePKPB	PKPbc	10 19 18.6	-1.3
PVCC				ex	x	10 19 24.2	
PVCC				ePKPAB	PKPab	10 19 29.6	-0.6
DRGR		**152.39**	**329**	⇓P	PKPbc	10 19 18.9	-1.3
DRGR		**152.39**	**329**	⇓PKIKP	PKPbc	10 19 18.9	-1.3
VRAC	**Vranov**	**152.81**	**339**	PKPab	PKPab	10 19 31.7	-0.6
	baz=0.2,slow=4.1						
PRU	**Pruhonice**	**152.82**	**342**	ePKIKP	PKPbc	10 19 18.7	-2.3
PRU				e		10 19 31.5	
PRU	**Pruhonice**	**152.82**	**342**	⇑ePKPB	PKPbc	10 19 18.7	-2.3
PRU				ex	x	10 19 25.1	
PRU				ePKPAB	PKPab	10 19 31.5	-0.8
MOX	**Moxa**	**152.92**	**347**	ePKIKP	PKiKP	10 19 25.2	+3.8
TANN	**Tannenbergstha**	**152.95**	**346**	ePKPab	PKPab	10 19 31.9	-0.9
WERD	**Werda**	**152.96**	**346**	ePKPbc	PKPbc	10 19 20.0	-1.3
GUNZ	**Gunzen**	**153.03**	**346**	ePKPab	PKPab	10 19 32.3	-0.8
NKC	**Novy Kostel**	**153.12**	**345**	ePKPAB	PKPab	10 19 32.3	-1.2
GZR	**Gura Zlata**	**153.36**	**327**	⇑P	PKPbc	10 19 19.8	-2.5
GZR	**Gura Zlata**	**153.36**	**327**	⇑PKIKP	PKPbc	10 19 19.8	-2.6
ROTZ	**Rotzenmuhle**	**153.62**	**345**	ePKPab	PKPab	10 19 34.7	-0.9
KHC	**Kasperske Hory**	**153.86**	**343**	ePKIKP	PKPbc	10 19 21.0	-2.3
KHC				e		10 19 35.6	
KHC	**Kasperske Hory**	**153.86**	**343**	⇑ePKPB	PKPbc	10 19 21.0	-2.3
KHC				ex	x	10 19 27.7	
KHC				ePKPAB	PKPab	10 19 35.6	-1.1
GRA1	**Grafenberg Arr**	**153.90**	**347**	ePKPab	PKPab	10 19 36.3	-0.6
GRF	**Grafenberg Arr**	**153.90**	**347**	ePKPab	PKPab	10 19 36.3	-0.6
GRFO	**Grafenberg**	**153.90**	**347**	ePKPab	PKPab	10 19 36.3	-0.6
GRFO	**Grafenberg**	**153.90**	**347**	ePKPab	PKPab	10 19 36.3	-0.6
WET	**Wettzell**	**154.03**	**344**	ePKPab	PKPab	10 19 36.7	-0.7
WET	**Wettzell**	**154.03**	**344**	ePKPab	PKPab	10 19 36.7	-0.7
GERES	**GERESS Array B**	**154.09**	**343**	PKPbc	PKPbc	10 19 22.2	-1.6
	comp=Z,0.5nm,0.4s,baz=34,slow=2.6,SNR=3.0						
GERES				PKPab	PKPab	10 19 36.4	-1.3
	comp=Z,2.3nm,0.6s,baz=20,slow=4.3,SNR=8.7						
PKSM	**Moragy**	**154.65**	**333**	⇑PKIKP	PKPbc	10 19 23.5	-1.6
FUR	**Furstenfeldbru**	**155.33**	**345**	ePKPab	PKPab	10 19 42.3	-0.7
FUR	**Furstenfeldbru**	**155.33**	**345**	ePKP2	PKPab	10 19 42.3	-0.7
FUR	**Furstenfeldbru**	**155.33**	**345**	ePKPab	PKPab	10 19 42.3	-0.7
WTTA	**Wattenberg**	**156.09**	**344**	⇑iPKPab	PKPab	10 19 45.8	-0.5
	comp=Z,17nm,0.6s						
MOTA	**Moosalm**	**156.14**	**345**	⇑iPKPab	PKPab	10 19 45.7	-0.8
	comp=Z,5.7nm,0.8s						

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*ISCJB **13** 10:22:03.4±0.6, 59.36N±0.03×26.6E±0.1, h0km, Error ellipse: s-maj=7.8km s-min=4.0km az=179.9*

*HEL **13** 10:22:05.7±0.1, 59.30N×27.23E, h0km, ML1.9, ML2.2(NAO), Explosion*

*BER **13** 10:22:05.7±2.1, 59.31N×27.17E, h0km, ML2.2(NAO), Suspected explosion*

*NAO **13** 10:22:05.0±1.1, 59.30N×27.05E, ML2.2*

*IDC **13** 10:22:08.7±2.1, 59.49N×26.90E, h0km, mb1 3.4/3, mb1mx3.0/21, mbtmp3.3/3, ML2.8/3, Error ellipse: s-maj=18.1km s-min=9.8km az=129.0*

ISC 13 10:22:05.2±0.6**, 59.33N**±0.03×**27.0E**±0.1**, h0km, n22, σ1.42**/32**, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSU	**Vasula**	**0.88**	**190**	i P	**Pg**	**10 22 21.4**	**-0.7**
VSU				i S	**Sg**	**10 22 32.9**	**-0.6**
VSU	**Vasula**	**0.88**	**190**	Pg	**Pg**	**10 22 21.4**	**-0.7**
VSU				Lg		10 22 32.9	
VJF	**Virojoki**	**1.24**	**12**	eP	**Pg**	**10 22 27.2**	**-1.8**
VJF				eSN	**Sn**	**10 22 48.6**	**+1.4**
VJF				MSG		10 22 48.6	
	comp=Z,12nm,0.4s						
MEF	**Metsahovi**	**1.61**	**305**	eP	**Pn**	**10 22 35.8**	**+1.0**
MEF				MSG		10 22 58.0	
	comp=Z,7.2nm,0.2s						
MEF				eSG	**Sg**	**10 22 58.0**	**+1.2**
FIA0	**FINESS Array S**	**2.17**	**348**	Pn	**Pn**	**10 22 43.2**	**+0.6**
	baz=164,slow=18						
FIA0				Lg		10 23 13.8	
	baz=172,slow=28						
FIA0				Rg		10 23 27.5	
	baz=164,slow=37						
FIA0	**FINESS Array S**	**2.17**	**348**	Pn	**Pn**	**10 22 43.2**	**+0.6**
	baz=164,slow=18						
FIA0				Lg		10 23 13.8	
	baz=172,slow=28						
FIA0				Rg		10 23 27.5	
	baz=164,slow=37						
FINES	**FINESS Array B**	**2.17**	**348**	Pg	**Pg**	**10 22 43.1**	**-3.7**
	comp=Z,1.6nm,0.3s,baz=164,slow=16,SNR=44						
FINES				Lg		10 23 12.5	
	comp=Z,2.6nm,0.3s,baz=170,slow=25,SNR=18						
FIA1	**FINESS Array S**	**2.17**	**348**	eP	**Pn**	**10 22 43.4**	**+0.8**
FIA1				eSG	**Sg**	**10 23 13.5**	**-1.5**
KAF	**Kangasniemi**	**2.82**	**353**	eP	**Pn**	**10 22 52.2**	**+0.8**
KAF				MSG		10 23 34.8	
	comp=Z,4.9nm,0.4s						
KAF				eSG	**Sg**	**10 23 34.8**	**-0.8**
KEF	**Keuruu**	**3.04**	**340**	eP	**Pn**	**10 22 57.0**	**+2.5**
KEF				eSG	**Sg**	**10 23 40.8**	**-2.0**
KEF				MSG		10 23 40.8	
	comp=Z,3.2nm,0.2s						
RAF	**Rauma**	**3.13**	**305**	eP	**Pn**	**10 22 57.3**	**+1.5**
SUF	**Sumiainen**	**3.43**	**353**	eP	**Pn**	**10 23 01.5**	**+1.7**
SUF				eS	**Sn**	**10 23 43.7**	**+2.6**
SUF				MSG		10 23 43.7	
	comp=Z,1.1nm,0.2s						
JOF	**Joensuu**	**4.16**	**28**	eP	**Pn**	**10 23 10.7**	**+1.0**
JOF				eSG	**Sg**	**10 24 11.7**	**-6.8**
JOF				MSG		10 24 11.7	
	comp=Z,2.3nm,0.4s						
HFS	**Hagfors**	**6.79**	**283**	Sn	**Sn**	**10 24 59.8**	**-4.2**
	baz=88,slow=28						
HFS				Lg		10 25 37.6	
	baz=81,slow=28						
HFS	**Hagfors**	**6.79**	**283**	eS	**Sn**	**10 24 59.8**	**-4.2**
HFS				eSG		10 25 37.6	
HFS	**Hagfors**	**6.79**	**283**	Sn	**Sn**	**10 24 59.8**	**-4.2**
	baz=88,slow=28						
HFS				Lg		10 25 37.6	
	baz=81,slow=28						
HFS	**Hagfors**	**6.79**	**283**	Pn	**Pn**	**10 23 45.9**	**-0.1**
	comp=Z,0.1nm,0.3s,baz=131,slow=6.5,SNR=2.3						
HFS				Sn	**Sn**	**10 24 59.8**	**-4.2**
	comp=Z,0.3nm,0.3s,baz=101,slow=30,SNR=4.3						
HFS				Lg		10 25 37.4	
	comp=Z,0.6nm,0.3s,baz=92,slow=32,SNR=6.2						
NOA	**NORSAR Array B**	**8.07**	**289**	Pn	**Pn**	**10 24 02.2**	**-1.3**
	comp=Z,0.2nm,0.3s,baz=88,slow=14,SNR=3.2						
NOA				Sn	**Sn**	**10 25 29.4**	**-5.9**
	comp=Z,0.1nm,0.3s,baz=303,slow=5.6,SNR=2.7						
NOA				Lg		10 26 17.1	
	comp=Z,0.3nm,0.3s,baz=162,slow=16,SNR=3.5						
ARA0	**ARCESS Array S**	**10.27**	**357**	Pn	**Pn**	**10 24 31.6**	**-1.9**
	baz=172,slow=16						
ARA0	**ARCESS Array S**	**10.27**	**357**	eP	**Pn**	**10 24 31.6**	**-1.9**
ARA0	**ARCESS Array S**	**10.27**	**357**	Pn	**Pn**	**10 24 31.6**	**-1.9**
	baz=172,slow=16						
ARCES	**ARCESS Array B**	**10.27**	**357**	Pn	**Pn**	**10 24 31.9**	**-1.7**
	comp=Z,0.1nm,0.3s,baz=176,slow=14,SNR=5.0						

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*MOS **13** 10:30:44.6±1.3, 47.45N×155.55E, h56km, mb4.3/12, Error ellipse: s-maj=14.4km s-min=8.7km az=105.8*

*ISCJB **13** 10:30:45.8±2.1, 47.5N±0.1×154.5E±0.2, h58km±12km, mb4.0/18, Error ellipse: s-maj=33.4km s-min=11.3km az=41.2*

*NEIC **13** 10:30:46.1±1.5, 47.76N×153.77E, h10km, mb4.5/2, Error ellipse: s-maj=33.6km s-min=16.2km az=135.0*

*IDC **13** 10:30:46.8±2.7, 48.14N×153.58E, h0km, mb3.9/12, mb1 4.0/13, mb1mx3.9/24, mbtmp3.9/13, ML3.3/1, Error ellipse: s-maj=64.8km s-min=23.8km az=147.0*

ISC 13 10:30:46.2±2.0**, 47.5N**±0.1×**154.6E**±0.2**, h47km**±10km**, n46, σ1.09**/47**, mb4.0**/18**, 4C-2D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**3.39**	**17**	ePN	**Pn**	**10 31 37.0**	**+0.5**
SKR				e		10 32 15.0	
YSS	**Yuzh-Sakhalins**	**8.06**	**271**	ePN	**Pn**	**10 32 42.8**	**+2.2**
ASAJ	**Asahikawa**	**9.01**	**253**	PN	**Pn**	**10 32 51.4**	**-2.1**
ASAJ	**Asahikawa**	**9.01**	**253**	Pn	**Pn**	**10 32 51.4**	**-2.1**
	0.4nm,0.3s,baz=183,slow=34,SNR=3.2						
ERM	**Erimo**	**9.77**	**240**	i PN	**Pn**	**10 32 58.3**	**-5.6**
MA2	**Magadan**	**12.35**	**351**	⇑ePN	**Pn**	**10 33 38.8**	**-0.3**
MA2				pmax	pmax		
	comp=Z,4.0nm,1.1s						
KLR	**Kul'dur**	**15.27**	**285**	eP	**Pn**	**10 34 19.8**	**+1.4**
SEY	**Seymchan**	**15.56**	**356**	⇑eP	**Pn**	**10 34 21.9**	**-0.2**
MJAR	**Matsushiro Arr**	**16.30**	**234**	Pn	**Pn**	**10 34 31.2**	**-0.5**
MJAR	**Matsushiro Arr**	**16.30**	**234**	Pn	**Pn**	**10 34 31.2**	**-0.5**
	baz=17,slow=13,SNR=5.1						
YAK	**Yakutsk**	**20.29**	**325**	⇑eP	**P**	**10 35 17.5**	**-0.1**
YAK				pmax	pmax		
	comp=Z,8.0nm,0.5s						
BILL	**Bilibino**	**21.49**	**12**	⇓eP	**P**	**10 35 30.4**	**0.0**
BILL				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb3.8						
KSRS	**Korea Array**	**21.96**	**253**	P	**P**	**10 35 37.0**	**+1.3**
	comp=Z,1.6nm,0.8s,mb3.5,baz=38,slow=9.6,SNR=4.4						
BOD	**Bodaibo**	**26.32**	**308**	eP	**P**	**10 36 14.5**	**-2.6**
TIXI	**Tiksi**	**27.08**	**342**	eP	**P**	**10 36 21.4**	**-2.5**
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.1						
SONM	**Songino Array**	**32.04**	**289**	P	**P**	**10 37 08.0**	**0.0**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	**Songino Array**	**32.04**	**289**	P	**P**	**10 37 08.0**	**0.0**
	comp=Z,0.6nm,0.7s,mb3.6,baz=61,slow=9.5,SNR=7.2						
ZALV	**Zalesovo Beam**	**43.01**	**306**	P	**P**	**10 38 40.0**	**-0.5**
	comp=Z,1.9nm,0.5s,mb4.0,baz=54,slow=7.0,SNR=10						
ZAL	**Zalesovo**	**43.02**	**306**	P	**P**	**10 38 40.1**	**-0.6**
MK31	**Makanchi Array**	**47.50**	**297**	eP	**P**	**10 39 16.5**	**+0.3**
MKAR	**Makanchi Array**	**47.50**	**297**	P	**P**	**10 39 16.4**	**+0.1**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	**47.50**	**297**	P	**P**	**10 39 16.4**	**+0.1**
	comp=Z,0.9nm,0.6s,mb4.0,baz=70,slow=8.4,SNR=9.9						
KURK	**Kurchatov**	**47.80**	**304**	eP	**P**	**10 39 18.6**	**+0.1**
	comp=Z,4.0nm,0.8s,mb4.5						
KURK	**Kurchatov**	**47.80**	**304**	⇓eP	**P**	**10 39 18.3**	**-0.2**
YKA	**Yellowknife Ar**	**49.76**	**37**	P	**P**	**10 39 39.1**	**+5.7**
YKA	**Yellowknife Ar**	**49.76**	**37**	P	**P**	**10 39 39.1**	**+5.8**
	comp=Z,0.2nm,0.5s,mb3.4,baz=298,slow=7.2,SNR=5.0						
BRVK	**Borovoye**	**51.22**	**310**	eP	**P**	**10 39 44.9**	**+0.4**
	comp=Z,5.3nm,0.8s,mb4.5						
BRVK	**Borovoye**	**51.22**	**310**	eP	**P**	**10 39 44.9**	**+0.4**
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
AAK	**Ala-Archa**	**54.41**	**297**	eP	**P**	**10 40 07.8**	**-0.4**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.7s,mb4.1						
ARU	**Arti**	**55.16**	**318**	⇑iP	**P**	**10 40 13.2**	**-0.2**
ARU				e		10 42 12.0	
ARU				ePPP		10 43 26.5	
ARU				eS	**S**	**10 48 00.0**	**+7.2**
ARU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
ARCES	**ARCESS Array B**	**57.51**	**341**	P	**P**	**10 40 29.5**	**-0.5**
ARCES				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ARCES	**ARCESS Array B**	**57.51**	**341**	P	**P**	**10 40 29.5**	**-0.4**
	comp=Z,6.2nm,1.0s,mb4.6,baz=38,slow=7.4,SNR=3.2						
AKTK	**Aktyubinsk**	**58.99**	**312**	P	**P**	**10 40 41.0**	**+0.4**
AKTO	**Aktyubinsk**	**58.99**	**312**	P	**P**	**10 40 41.0**	**+0.4**
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
AKTO	**Aktyubinsk**	**58.99**	**312**	P	**P**	**10 40 41.0**	**+0.4**
	comp=Z,1.0nm,0.5s,mb4.1,baz=58,slow=6.8,SNR=7.9						
FINES	**FINESS Array B**	**63.82**	**335**	i P	**P**	**10 41 13.6**	**+0.6**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES	**FINESS Array B**	**63.82**	**335**	P	**P**	**10 41 13.6**	**+0.6**
	comp=Z,2.1nm,0.6s,mb4.4,baz=44,slow=8.2,SNR=13						
NOA	**NORSAR Array B**	**67.88**	**342**	P	**P**	**10 41 41.0**	**+1.9**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	**NORSAR Array B**	**67.88**	**342**	P	**P**	**10 41 41.0**	**+1.9**
	comp=Z,0.6nm,0.6s,mb3.8,baz=27,slow=6.4,SNR=3.4						
AKASG	**Malin Array Be**	**71.51**	**327**	P	**P**	**10 42 02.6**	**+1.0**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKASG	**Malin Array Be**	**71.51**	**327**	P	**P**	**10 42 02.6**	**+1.0**
	comp=Z,1.0nm,0.6s,mb3.9,baz=32,slow=6.2,SNR=5.3						
STHS	**Stebnicka Huta**	**75.40**	**331**	eP	**P**	**10 42 22.2**	**-2.3**
GERES	**GERESS Array B**	**78.25**	**335**	P	**P**	**10 42 44.5**	**+3.9**
GERES	**GERESS Array B**	**78.25**	**335**	P	**P**	**10 42 44.5**	**+3.9**
	comp=Z,0.4nm,0.3s,mb3.9,baz=25,slow=4.9,SNR=3.7						
BRTR	**Keskin Array B**	**78.55**	**318**	P	**P**	**10 42 46.8**	**+4.4**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	**Keskin Array B**	**78.55**	**318**	P	**P**	**10 42 46.8**	**+4.4**
	comp=Z,0.8nm,0.8s,mb3.7,baz=58,slow=4.7,SNR=4.9						

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*NIED **13** 10:33:00, 31.00N×141.80E, h104km, Mw4.8 Best double couple: $M_0$1.97000×10^{16} NP1:ϕ_s46.00000°, δ18.00000°, λ-171.00000°. NP2:ϕ_s308.00000°, δ87.00000°, λ-72.00000°.*

JMA 13 10:33:57.2±0.6**, 31.01N×141.84E, h0km, M3.7, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	**Mitsune**	**2.71**	**321**	P	Pn	10 34 43.6	+1.6
JHU	**Hanno**	**5.28**	**337**	P	Pn	10 35 20.3	+3.0
JRY	**Ryogami san**	**5.56**	**335**	P	Pn	10 35 24.7	+3.5
JHO	**Hitachi**	**5.69**	**350**	P	Pn	10 35 24.8	+1.9
JAG	**Ashikaga**	**5.75**	**340**	P	Pn	10 35 26.4	+2.5
JMK	**Ichinoseki**	**7.94**	**356**	P	Pn	10 35 52.8	-1.0

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*IDC **13** 10:36:32.7±1.5, 2.33S×140.41E, h0km, mb3.8/4, mb1 4.0/5, mb1mx3.8/13, mbtmp3.9/5, ML3.9/1, MS3.6/5, Ms1 3.6/5, ms1mx3.1/27, Error ellipse: s-maj=58.5km s-min=22.6km az=93.0*

*ISCJB **13** 10:36:35.0±2.7, 2.4S±0.1×140.6E±0.7, h33km, mb3.8/4, MS3.6/3, Error ellipse: s-maj=93.6km s-min=15.9km az=2.4*

*NEIC **13** 10:36:34.2±0.8, 2.40S×140.42E, h10km, mb4.1/1, Error ellipse: s-maj=30.2km s-min=12.0km az=102.0*

ISC 13 10:36:36.7±2.5**, 2.4S**±0.1×**140.7E**±0.6**, h35km, n13, σ0.74**/6**, mb3.8**/4**, MS3.6**/3**, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**16.45**	**15**	LR	LR	10 46 14.2	
	comp=Z,136nm,19.9s,baz=53,slow=35						
WB2	**Warramunga Arr**	**18.46**	**199**	eP	**Pn**	**10 40 49.5**	**-0.4**
WB2				eP		10 40 50.7	
WRA	**Warramunga Arr**	**18.47**	**199**	P	**Pn**	**10 40 49.5**	**-0.5**
	0.4nm,0.3s,baz=21,slow=12,SNR=46						
WRA				LR	LR	10 48 28.0	
	comp=Z,237nm,18.8s,baz=20,slow=39						
FITZ	**Fitzroy Crossi**	**21.44**	**222**	P	**P**	**10 41 22.2**	**+0.1**
	2.1nm,0.5s,mb3.7,baz=36,slow=7.5,SNR=14						
FITZ				LR	LR	10 50 08.7	
	comp=Z,121nm,18.4s,MS3.3,baz=47,slow=38						
ASAR	**Alice Springs**	**22.10**	**197**	P	**P**	**10 41 29.9**	**+0.9**
	3.5nm,0.8s,mb3.8,baz=28,slow=10,SNR=41						
STKA	**Stephens Creek**	**29.30**	**178**	LR	LR	10 56 20.1	
	comp=Z,241nm,18.8s,MS3.8,baz=21,slow=40						
JHJ	**Hachijo jima 2**	**35.37**	**359**	LR	LR	10 55 18.6	
	comp=Z,102nm,20.3s,MS3.6,baz=171,slow=32						
MKAR	**Makanchi Array**	**70.78**	**322**	P	**P**	**10 47 50.0**	**+0.4**
	1.2nm,0.8s,mb3.9,baz=116,slow=8.5,SNR=12						
ZALV	**Zalesovo Beam**	**72.69**	**329**	P	**P**	**10 48 00.4**	**-0.5**
	0.4nm,0.4s,mb3.7,baz=92,slow=4.3,SNR=3.0						
TORD	**Torodi Ar. Bea**	**138.05**	**287**	PKP	PKPdf	10 56 01.1	+2.2
TORD	**Torodi Ar. Bea**	**138.05**	**287**	PKP	PKPdf	10 56 01.1	+2.2
	0.4nm,0.9s,baz=29,slow=3.3,SNR=2.6						
LPAZ	**La Paz**	**146.00**	**124**	PKPbc	PKPbc	10 56 16.6	+2.8
LPAZ	**La Paz**	**146.00**	**124**	PKPbc	PKPbc	10 56 16.6	+2.8
	1.3nm,0.9s,baz=281,slow=2.8,SNR=3.8						

IDC 13 10:47:08.0±5.0**, 2.35S×140.46E, h0km, mb3.2**/2**, mb1 3.6**/3**, mb1mx3.4**/12**, mbtmp3.4**/3**, MS4.0**/1**, Ms1 4.0**/1**, ms1mx2.7**/15**, Error ellipse: s-maj=189.0km s-min=30.5km az=89.0, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**18.48**	**198**	P	Pn	10 51 25.3	-0.4
	0.2nm,0.3s,baz=19,slow=12,SNR=12						
ASAR	**Alice Springs**	**22.12**	**196**	P	P	10 52 05.4	+0.2
	0.6nm,0.7s,baz=31,slow=10,SNR=10.0						
RPZ	**Rata Peaks**	**49.33**	**151**	LR	LR	11 15 05.1	
	comp=Z,146nm,18.4s,baz=330,slow=34						
MKAR	**Makanchi Array**	**70.59**	**322**	P	P	10 58 25.2	+0.1
	0.1nm,0.3s,baz=112,slow=8.0,SNR=3.8						

IDC 13 10:47:34.6±4.2**, 2.37S×140.79E, h0km, mb3.7**/3**, mb1 4.0**/4**, mb1mx3.7**/13**, mbtmp3.8**/4**, ML3.8**/1**, Error ellipse: s-maj=135.7km s-min=28.3km az=93.0, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**18.56**	**199**	P	Pn	10 51 52.5	-0.8
	0.3nm,0.3s,baz=21,slow=13,SNR=6.7						
FITZ	**Fitzroy Crossi**	**21.57**	**223**	P	P	10 52 25.9	-0.1
	1.9nm,0.7s,baz=57,slow=11,SNR=4.8						
ASAR	**Alice Springs**	**22.19**	**197**	P	P	10 52 33.3	+0.7
	2.7nm,0.9s,baz=32,slow=9.1,SNR=5.3						
MKAR	**Makanchi Array**	**70.80**	**322**	P	P	10 58 53.1	+0.1
	0.6nm,0.6s,baz=114,slow=7.0,SNR=7.3						

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*CSEM **13** 10:52:13.9±0.2, 36.54N×3.09E, h15km, ML2.9, Error ellipse: s-maj=7.1km s-min=5.0km az=44.0*

*CRAAG **13** 10:52:13.2, 36.51N×3.16E, Ml2.9*

*ISCJB **13** 10:52:14.2±0.6, 36.57N±0.04×3.06E±0.06, h10km, Error ellipse: s-maj=7.7km s-min=4.8km az=136.7*

*MDD **13** 10:52:15.5±0.5, 36.51N×3.16E, h5km±7km, mb3.4/6, Error ellipse: s-maj=6.7km s-min=4.6km az=85.0, PRXIMO*

*NEIC **13** 10:52:16.7, 36.64N×3.13E, h0km, MG3.4(MDD), After MDD.*

ISC 13 10:52:14.8±0.6**, 36.55N**±0.04×**3.11E**±0.06**, h10km, n26, σ1.00**/43**, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABA	**Alger-Bouzarea**	**0.26**	**346**	P	**Pg**	**10 52 21.0**	**+0.9**
ABMS	**Boumerdes**	**0.36**	**56**	P	**Pg**	**10 52 22.3**	**+0.4**
EMHD	**Djebel Mahouad**	**0.37**	**200**	P	**Pg**	**10 52 22.3**	**+0.2**
ADJB	**Djebel Djouab**	**0.47**	**146**	P	**Pg**	**10 52 22.8**	**-1.2**
ATAF	**Djebel Tarf**	**1.16**	**125**	P	**Pb**	**10 52 36.0**	**-0.9**
AKF	**Akfadou**	**1.17**	**86**	P	**Pb**	**10 52 27.4**	**-10**
EBNR	**Beni Rached**	**1.30**	**259**	P	**Pg**	**10 52 48.5**	**+8.7**
ECHA	**Ech Chlef**	**1.47**	**255**	P	**Pg**	**10 52 50.0**	**+7.1**
EANR	**'Ain N'Sour**	**1.73**	**250**	P	**Pg**	**10 52 52.0**	**+3.9**
EIBI	**Ibiza**	**2.84**	**331**	P	**Pn**	**10 53 01.2**	**+1.0**
EIBI				S	**Sn**	**10 53 33.5**	**-1.0**
EIBI	**Ibiza**	**2.84**	**331**	P	**Pn**	**10 53 01.2**	**+1.0**
	1.1nm,0.1s,SNR=7.9						
EIBI				S	**Sn**	**10 53 33.9**	**-0.6**
	14nm,0.8s,SNR=6.9						
EIBI	**Ibiza**	**2.84**	**331**	P	**Pn**	**10 53 01.2**	**+1.0**
	1.1nm,0.1s,SNR=7.9						
EIBI				S	**Sn**	**10 53 33.5**	**-1.0**
	14nm,0.8s,SNR=6.9						
ETOS	**Mallorca**	**3.22**	**356**	P	**Pn**	**10 53 06.0**	**+0.6**
	0.6nm,0.1s,SNR=7.9						
ETOS				S	**Sn**	**10 53 43.0**	**-0.9**
	29nm,0.7s,SNR=7.9						
ETOS	**Mallorca**	**3.22**	**356**	P	**Pn**	**10 53 06.0**	**+0.6**
	0.6nm,0.1s,SNR=7.9						
ETOS				S	**Sn**	**10 53 42.6**	**-1.2**
	29nm,0.7s,SNR=7.9						
EBEN	**Beniarda**	**3.41**	**310**	P	**Pn**	**10 53 09.4**	**+1.4**
	0.1nm,0.1s,SNR=7.9						
EBEN				S	**Sn**	**10 53 48.5**	**0.0**
	17nm,1.1s,SNR=7.9						
EBEN	**Beniarda**	**3.41**	**310**	P	**Pn**	**10 53 09.4**	**+1.4**
	0.1nm,0.1s,SNR=7.9						
EBEN				S	**Sn**	**10 53 48.5**	**0.0**
	17nm,1.1s,SNR=7.9						
EMUR	**La Murta**	**3.71**	**292**	P	**Pn**	**10 53 11.6**	**-0.5**
EMUR				S	**Sn**	**10 53 55.1**	**-0.7**
EMUR	**La Murta**	**3.71**	**292**	P	**Pn**	**10 53 11.6**	**-0.5**
EMUR				S	**Sn**	**10 53 55.2**	**-0.6**
ETOB	**Tobarra**	**4.25**	**301**	P	**Pn**	**10 53 20.6**	**+1.1**
	0.8nm,0.2s,SNR=7.9						
ETOB				S	**Sn**	**10 54 08.2**	**-1.0**
	4.4nm,0.6s,SNR=9.5						
ETOB	**Tobarra**	**4.25**	**301**	P	**Pn**	**10 53 20.6**	**+1.0**
	0.8nm,0.2s,SNR=7.9						
ETOB				S	**Sn**	**10 54 08.2**	**-1.0**
	4.4nm,0.6s,SNR=9.5						

ECHE	**Chera**	**4.42**	**315**	P	**Pn**	**10 53 22.9**	**+1.0**
ECHE				S	**Sn**	**10 54 13.2**	**-0.3**
ECHE	**Chera**	**4.42**	**315**	P	**Pn**	**10 53 22.9**	**+1.0**
	0.9nm,0.3s,SNR=7.9						
ECHE				S	**Sn**	**10 54 12.5**	**-1.0**
	10nm,1.0s,SNR=4.0						
ECHE	**Chera**	**4.42**	**315**	P	**Pn**	**10 53 22.9**	**+0.9**
	0.9nm,0.3s,SNR=7.9						
ECHE				S	**Sn**	**10 54 13.2**	**-0.3**
	10nm,1.0s,SNR=4.0						
EMOS	**Mosqueruela**	**4.73**	**325**	P	**Pn**	**10 53 27.5**	**+1.3**
EMOS				S	**Sn**	**10 54 18.6**	**-2.6**
EMOS	**Mosqueruela**	**4.73**	**325**	P	**Pn**	**10 53 27.5**	**+1.3**
	0.5nm,0.2s,SNR=7.9						
EMOS				S	**Sn**	**10 54 19.3**	**-1.8**
	19nm,0.7s,SNR=7.9						
EMOS	**Mosqueruela**	**4.73**	**325**	P	**Pn**	**10 53 27.5**	**+1.3**
	0.5nm,0.2s,SNR=7.9						
EMOS				S	**Sn**	**10 54 18.5**	**-2.6**
	19nm,0.7s,SNR=7.9						

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*IDC **13** 10:56:53.1±0.4, 6.61S×154.59E, h0^{km}, mb4.9/18, mb1 5.0/20, mb1mx5.0/22, mbtmp4.9/20, ML4.0/2, MS4.7/14, Ms1 4.6/14, ms1mx4.4/18, Error ellipse: s-maj=16.9km s-min=11.7km az=110.0*

*BJI **13** 10:56:55.3, 5.98S×154.96E, h13^{km}, mB5.2, mb5.0, Ms5.0, Msz4.7*

*ISCJB **13** 10:56:56.7±0.1, 6.66S±0.03×154.61E±0.02, h30^{km}, mb5.2/85, MS4.7/32, Error ellipse: s-maj=4.8km s-min=3.2km az=166.2*

*MOS **13** 10:56:57.1±1.1, 6.55S×154.60E, h33^{km}, mb5.4/26, MS4.5/7, Error ellipse: s-maj=9.6km s-min=8.0km az=100.4*

*NEIC **13** 10:56:58.4±0.1, 6.66S×154.66E, mb5.2/29, Error ellipse: s-maj=5.0km s-min=4.2km az=129.0*

*GCMT **13** 10:56:58.4±0.1, 6.88S×154.63E, h25^{km}, MW5.4/86, Moment Tensor Solution. s86,c140; s83,c151; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}1.11±.03; $M_{\theta\theta}$-0.69±.02; $M_{\phi\phi}$-0.41±.02; $M_{r\theta}$0.86±.04; $M_{\theta\phi}$0.70±.02; $M_{\phi r}$-0.87±.05; Best double couple: $M_0$1.71000×10^{17} NP1:ϕ_s304.00000°,δ22.00000°, λ81.00000°. NP2:ϕ_s134.00000°,δ68.00000°,λ94.00000°. Principal axes: T 1.6350, Plg67.0000°, Azm51.0000°; N 0.1550, Plg4.0000°, Azm313.0000°; P -1.7850, Plg23.0000°, Azm221.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 13 10:56:58.4±0.1**, 6.66S**±0.03×**154.66E**±0.02**, h31^{km}, h31^{km}**±1.4^{km}**:pP-P, n469, σ0^{s}83**/440**, mb5.2**/85**, MS4.7**/32**, 93C-85D, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**5.92**	**118**	*e*Pn	**Pn**	**10 58 23.9**	**-0.1**
	929nm,0.9s						
HNR				Pn	**Pn**	**10 58 28.0**	**+4.0**
HNR				Sn	**Sn**	**10 59 37.8**	**+7.1**
HNR	**Honiara**	**5.92**	**118**	*e*P	**Pn**	**10 58 23.9**	**-0.1**
HNR						10 59 37.8	
HNR				pmax	pmax		
	comp=Z,929nm,0.9s						
HNR	**Honiara**	**5.92**	**118**	Pn	**Pn**	**10 58 28.0**	**+4.0**
	comp=Z,7.8nm,0.3s,baz=262,slow=4.4,SNR=3.4						
HNR				Sn	**Sn**	**10 59 37.8**	**+7.1**
	comp=Z,22nm,0.3s,baz=284,slow=12,SNR=4.3						
PMG	**Port Moresby**	**7.91**	**249**	*e*Pn	**Pn**	**10 58 51.9**	**+0.6**
PMG				*e*Sn	**Sn**	**11 00 20.4**	**+0.5**
PMG	**Port Moresby**	**7.91**	**249**	Pn	**Pn**	**10 58 52.5**	**+1.2**
	comp=Z,11nm,0.3s,baz=50,slow=8.3,SNR=41						
PMG				Sn	**Sn**	**11 00 23.1**	**+3.3**
	comp=Z,8.3nm,0.3s,baz=77,slow=20,SNR=13						
PMG				LR	LR	11 01 47.5	
	comp=Z,7μm,21.1s,baz=53,slow=37						
COEN	**Coen**	**13.42**	**236**	*e*Pn	**Pn**	**11 00 06.5**	**-0.3**
CTA	**Charters Tower**	**15.64**	**211**	*e*P	**Pn**	**11 00 41.3**	**+4.6**
	comp=Z,116nm,0.9s						
CTA				*e*S	**Sn**	**11 03 45.1**	**+16**
CTA	**Charters Tower**	**15.64**	**211**	Pn	**Pn**	**11 00 37.0**	**+0.3**
CTA				*e*P		11 00 41.3	
CTA				Sn	**Sn**	**11 03 30.7**	**+1.6**
CTA				*e*S	**Sn**	**11 03 45.1**	**+16**
CTA	**Charters Tower**	**15.64**	**211**	Pn	**Pn**	**11 00 37.0**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=34,slow=14,SNR=8.4						
CTA				Sn	**Sn**	**11 03 30.7**	**+1.6**
	comp=Z,0.1nm,0.3s,baz=213,slow=11,SNR=1.7						
CTAO	**Charters Tower**	**15.64**	**211**	*e*P	**Pn**	**11 00 42.3**	**+5.6**
	comp=Z,160nm,0.8s						
CTAO	**Charters Tower**	**15.64**	**211**	*e*P	**Pn**	**11 00 42.3**	**+5.6**
CTAO				pmax	pmax		
	comp=Z,160nm,0.8s						
EIDS	**Eidsvold**	**18.91**	**190**	*e*P	**Pn**	**11 01 17.2**	**-0.2**
NOUC	**Port Laguerre**	**19.02**	**145**	*e*P	**Pn**	**11 01 17.7**	**-1.1**
DZM	**Mont Dzumac**	**19.08**	**145**	*e*P	**Pn**	**11 01 19.4**	**-0.1**
DZM	**Mont Dzumac**	**19.08**	**145**	P	**Pn**	**11 01 20.0**	**+0.5**
	comp=Z,1.4nm,0.3s,baz=352,slow=9.1,SNR=30						
DZM				LR	LR	11 06 30.8	
	comp=Z,1μm,20.4s,baz=319,slow=30						
KAKA	**Kakadu**	**22.70**	**253**	*e*P	**P**	**11 01 57.1**	**-0.6**
	comp=Z,70nm,0.7s,mb5.2						
KAKA				*e*SCP	ScP	11 09 03.7	-22
WB2	**Warramunga Arr**	**23.73**	**234**	*e*P	**P**	**11 02 07.0**	**-1.0**
WB2				*e*S	**S**	**11 06 18.5**	**-2.7**
WB2				*e*SCP	ScP	11 09 30.3	+2.4
WB2				*e*SCS	ScS	11 13 17.5	+2.7
WB2	**Warramunga Arr**	**23.73**	**234**	*e*P	**P**	**11 02 07.3**	**-0.8**
WRA	**Warramunga Arr**	**23.73**	**234**	*i* P	**P**	**11 02 07.3**	**-0.8**
WRA				pmax	pmax		
	comp=Z,74nm,1.0s						
WRA	**Warramunga Arr**	**23.73**	**234**	P	**P**	**11 02 07.3**	**-0.8**
	comp=Z,74nm,0.9s,mb5.1,baz=56,slow=9.6,SNR=164						
WRA				PcP	PcP	11 05 51.9	+0.2
	comp=Z,8.1nm,0.8s,baz=57,slow=2.3,SNR=7.2						
WRA				S	**S**	**11 06 23.5**	**+2.1**
	comp=Z,2.2nm,0.9s,baz=149,slow=27,SNR=5.1						
WRA				ScP	ScP	11 09 29.2	+1.2
	comp=Z,11nm,1.0s,baz=56,slow=2.8,SNR=13						
WRA				LR	LR	11 11 16.3	
	comp=Z,2μm,20.0s,MS4.7,baz=55,slow=36						
ASAR	**Alice Springs**	**26.14**	**228**	P	**P**	**11 02 29.3**	**-0.7**
ASAR						11 05 57.6	
ASAR	**Alice Springs**	**26.14**	**228**	P	**P**	**11 02 29.3**	**-0.7**
	comp=Z,14nm,0.8s,mb4.6,baz=61,slow=8.6,SNR=162						
ASAR				PcP	PcP	11 05 57.6	+0.6
	comp=Z,3.6nm,0.9s,baz=54,slow=3.8,SNR=3.8						
ASAR				ScP	ScP	11 09 36.6	+1.9
	comp=Z,12nm,1.0s,baz=55,slow=3.2,SNR=23						
STKA	**Stephens Creek**	**27.89**	**204**	*e*P	**P**	**11 02 44.6**	**-1.1**
	comp=Z,24nm,0.8s,mb4.9						
STKA				*e*PCP	PcP	11 06 00.8	-0.2
STKA				*e*S	**S**	**11 07 24.8**	**-2.5**
STKA				*e*SCP	ScP	11 09 41.2	+1.5
STKA	**Stephens Creek**	**27.89**	**204**	*e*P	**P**	**11 02 45.0**	**-0.6**
STKA	**Stephens Creek**	**27.89**	**204**	P	**P**	**11 02 44.8**	**-0.9**
	comp=Z,17nm,0.9s,mb4.7,baz=14,slow=9.6,SNR=27						
STKA				ScP	ScP	11 09 41.2	+1.5
	comp=Z,15nm,1.1s,baz=29,slow=5.1,SNR=11						
STKA				LR	LR	11 13 59.6	
	comp=Z,3μm,19.4s,MS4.8,baz=21,slow=37						
FITZ	**Fitzroy Crossi**	**30.48**	**245**	*e*P	**P**	**11 03 08.5**	**-0.3**
	comp=Z,38nm,0.9s,mb5.1						
FITZ				*e*PCP	PcP	11 06 08.8	+1.0
FITZ				*e*S	**S**	**11 08 05.3**	**-3.1**
FITZ				*e*SCP	ScP	11 09 50.7	+2.5
FITZ	**Fitzroy Crossi**	**30.48**	**245**	P	**P**	**11 03 08.8**	**0.0**
	comp=Z,21nm,0.8s,mb4.9,baz=85,slow=8.6,SNR=39						
FORT	**Forrest**	**34.60**	**223**	*e*P	**P**	**11 03 43.8**	**-0.9**
	comp=Z,74nm,0.7s,mb5.7						
FORT				*e*SCP	ScP	11 10 04.7	+2.5
PVCP	**Virac**	**36.37**	**304**	*e*P	**P**	**11 04 00.9**	**+0.9**
TAU	**Tasmania Unive**	**36.68**	**189**	*e*P	**P**	**11 04 01.5**	**-0.8**
MBWA	**Marble Bar**	**36.72**	**243**	*e*P	**P**	**11 04 03.0**	**-0.1**
	comp=Z,54nm,1.5s,mb5.2						
URZ	**Urewera**	**37.46**	**150**	P	**P**	**11 04 09.4**	**+0.3**
	comp=Z,29nm,1.0s,mb5.0,baz=41,slow=6.1,SNR=4.2						
URZ				LR	LR	11 16 32.4	
	comp=Z,643nm,19.5s,MS4.4,baz=246,slow=31						
OTRP	**Odiongan**	**37.55**	**300**	*e*P	**P**	**11 04 11.2**	**+1.0**
BALP	**Baler**	**39.61**	**304**	*e*P	**P**	**11 04 26.7**	**-0.8**
RPZ	**Rata Peaks**	**39.62**	**161**	P	**P**	**11 04 27.0**	**-0.1**
	comp=Z,26nm,0.8s,mb5.0,baz=94,slow=2.5,SNR=8.7						
CAUP	**Cauayan**	**40.05**	**306**	*e*P	**P**	**11 04 32.7**	**+1.6**
KKM	**Kota Kinabalu**	**40.39**	**287**	*e*P	**P**	**11 04 34.8**	**+0.8**
BCPH	**Baguio City Da**	**40.76**	**305⇑**	*e*P	**P**	**11 04 36.6**	**-0.3**
APYP	**Conner**	**41.02**	**307**	*e*P	**P**	**11 04 50.8**	**+12**
BOLP	**Bolinao**	**41.31**	**304**	*e*P	**P**	**11 04 47.3**	**+5.8**
KLBR	**Kellerberrin**	**42.45**	**229**	*e*P	**P**	**11 04 49.5**	**-1.1**
	comp=Z,13nm,0.7s,mb4.7						
KLBR				*e*SCP	ScP	11 10 35.8	+3.8
MUN	**Mundaring**	**43.79**	**230**	*e*P	**P**	**11 05 01.4**	**-0.1**
NACB	**Ninganchiao**	**44.49**	**315**	*e*P	**P**	**11 05 08.2**	**+1.0**
YHNB	**Yeheng**	**44.96**	**315**	*e*P	**P**	**11 05 12.1**	**+1.2**
KSM	**Kuching**	**45.00**	**279**	*e*P	**P**	**11 05 10.1**	**-1.4**
TATO	**Taipei**	**45.07**	**315**	*e*P	**P**	**11 05 12.4**	**+0.6**
	comp=Z,199nm,2.0s,mb5.6						
MJAR	**Matsushiro Arr**	**45.66**	**341**	LR	LR	11 23 36.2	
	comp=Z,232nm,19.0s,MS4.1,baz=200,slow=35						
MAT	**Matsushiro**	**45.66**	**341**	P	**P**	**11 05 16.9**	**+0.6**
MAT				*e*S	**S**	**11 11 50.0**	**-7.2**
QZH	**Quanzhou**	**47.11**	**313⇑**	*i*P	**P**	**11 05 30.0**	**+2.1**
QZH				S	**S**	**11 12 20.4**	**+2.0**
QZH				LR	LR		
	comp=N,1μm,16.9s,MS5.0						
QZH				LR	LR		
	comp=E,580nm,13.8s,MS5.0						
QZH				LR	LR		
	comp=Z,2μm,19.7s						
SSE	**Sheshan**	**49.34**	**321**	P	pP	11 05 56.8	+2.4
SSE				S	**S**	**11 12 57.3**	**+7.6**
SSE				LR	LR		
	comp=Z,500nm,21.5s,MS4.5						
GZH	**Guangzhou**	**50.05**	**308**	P	**P**	**11 05 50.3**	**-0.2**
GZH				S	**S**	**11 13 00.9**	**+1.0**
GZH				LR	LR		
	comp=N,178nm,15.9s,MS4.7						
GZH				LR	LR		
	comp=E,646nm,16.9s,MS4.7						
GZH				LR	LR		
	comp=Z,986nm,18.3s,MS4.8						
KSRS	**Korea Array**	**50.49**	**332**	P	**P**	**11 05 53.0**	**-0.6**
	comp=Z,7.2nm,0.8s,mb4.7,baz=147,slow=8.6,SNR=23						
QIZ	**Qiongzhong**	**51.00**	**301**	P	**P**	**11 05 58.5**	**+0.7**
QIZ				XP	sP	11 06 08.3	-2.6
QIZ				S	**S**	**11 13 16.8**	**+3.5**
QIZ				AMB	AMB		
	comp=Z,17nm,1.6s,mb4.7						
QIZ				AMB	AMB		
	comp=Z,179nm,7.7s						
QIZ				LR	LR		
	comp=E,682nm,20.4s						
QIZ				LR	LR		
	comp=Z,987nm,19.8s,MS4.8						
ASAJ	**Asahikawa**	**51.70**	**349**	P	**P**	**11 06 02.5**	**-0.1**
	comp=Z,4.4nm,0.7s,mb4.5,baz=217,slow=5.1,SNR=3.6						
YSS	**Yuzh-Sakhalins**	**54.42**	**350**	*e*P	**P**	**11 06 21.0**	**-1.5**
YSS				*e*		11 06 39.0	
YSS				*e*		11 14 11.0	
YSS				*e*		11 16 08.0	
YSS				MLR	MLR		
	comp=Z,400nm,17.0s,MS4.5						
YSS				MLR	MLR		
	comp=N,400nm,18.0s						
KULM	**Kulim**	**55.20**	**281**	*e*P	**P**	**11 06 29.4**	**+0.5**
PPT	**Papeete**	**55.41**	**107**	*e*S	**S**	**11 14 06.5**	**-6.9**
	comp=N,269nm,25.5s						
PPT				*e*SS	SS	11 17 54.9	-3.5
	comp=N,264nm,28.2s						
PPT				*e*LQ		11 20 17.3	
	comp=N,938nm,27.0s						
PPT				*e*LR	LR	11 22 44.7	
	comp=N,375nm,20.8s,baz=286						
PPT	**Papeete**	**55.41**	**107**	LR	LR	11 26 19.7	
	comp=N,420nm,19.2s,MS4.5,baz=2.4,slow=32						
CN2	**Changchun**	**56.75**	**335**	*e*P	**P**	**11 06 37.3**	**-2.1**
CN2				*e*XP	sP	11 06 50.3	-2.3
CN2				*e*S	**S**	**11 14 26.9**	**-3.3**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
CN2				AMB	AMB		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,300nm,17.0s,MS4.5						
CN2				LR	LR		
	comp=E,200nm,17.0s,MS4.5						
CN2				LR	LR		
	comp=Z,400nm,18.0s,MS4.6						
GYA	**Guiyang**	**56.99**	**307⇑**	*i*P	**P**	**11 06 43.0**	**+1.6**
GYA				AP	pP	11 06 52.8	+1.9
GYA				PCP	PcP	11 07 37.9	+1.5
GYA				PP	PP	11 08 52.0	+3.6
GYA				SCP	ScP	11 11 33.8	-0.2
GYA				S	**S**	**11 14 34.0**	**0.0**
GYA				SCS	ScS	11 16 26.5	-2.4
GYA				SS	SS	11 18 23.5	+0.4
GYA				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.3						
GYA				AMB	AMB		
	comp=Z,640nm,4.9s						
GYA				LR	LR		
	comp=N,1μm,18.0s,MS5.3						
GYA				LR	LR		
	comp=E,2μm,18.4s,MS5.3						
GYA				LR	LR		
	comp=Z,2μm,17.2s,MS5.3						
HABR	**Khabarovsk**	**57.54**	**345**	*e*P	**P**	**11 06 43.2**	**-1.7**
HABR				*e**PP	pP	11 06 50.9	-3.5
HABR				*e*S	**S**	**11 14 39.1**	**-1.4**
NST	**Nakhon Sawan**	**58.37**	**293**	P	**P**	**11 06 52.5**	**+1.2**
BJI	**Beijing**	**58.46**	**326**	P	**P**	**11 06 50.8**	**-0.7**
BJI				AP	pP	11 07 01.0	0.0
BJI				PCP	PcP	11 07 41.6	-0.3
BJI				PP	PP	11 08 57.9	-3.3
BJI				SCS	ScS	11 16 38.3	-0.8
BJI				SS	SS	11 18 40.4	-5.4
BJI				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.7						
BJI				AMB	AMB		
	comp=Z,201nm,4.1s						
BJI				LR	LR		
	comp=N,308nm,14.3s,MS4.7						
BJI				LR	LR		
	comp=E,305nm,16.0s,MS4.7						
BJI				LR	LR		
	comp=Z,436nm,24.1s						
BJI	**Beijing**	**58.46**	**326**	P	**P**	**11 06 50.7**	**-0.8**
BJI				*PP	pP	11 07 01.0	0.0
BJI				*SP	sP	11 07 04.7	0.0
BJI						11 07 41.6	
BJI						11 08 57.9	
BJI				S	**S**	**11 14 59.8**	**+7.0**
BJI				*SS	sS	11 15 05.1	-3.4
BJI						11 16 38.3	
BJI				SS	SS	11 18 40.4	-5.4
BJI				MLR	MLR		
	comp=Z,440nm,24.1s,MS4.5						
NANT	**Nan**	**58.89**	**297**	⇑P	**P**	**11 06 57.0**	**+2.1**
	comp=Z,84nm,1.0s,mb5.7						
TIY	**Taiyuan**	**59.12**	**322**	*e*P	**P**	**11 06 55.8**	**-0.4**
TIY				S	**S**	**11 14 55.3**	**-6.2**
TIY				LR	LR		
	comp=N,651nm,19.6s,MS4.9						
TIY				LR	LR		
	comp=E,608nm,19.6s,MS4.9						
KLR	**Kul'dur**	**59.15**	**343**	*e*P	**P**	**11 06 53.4**	**-2.7**
KLR				pmax	pmax		
	comp=Z,53nm,1.8s,mb5.3						
XAN	**Xi'an**	**59.24**	**316**	P	**P**	**11 06 56.5**	**-0.5**
XAN				AP	pP	11 07 03.1	-3.5
XAN				AMB	AMB		
	comp=Z,21nm,1.5s,mb5.0						
PET	**Petropavlovsk**	**59.55**	**3**	*e*pP	pP	11 06 58.5	-10
PET	**Petropavlovsk**	**59.55**	**3**	*e*P	**P**	**11 07 03.5**	**+4.7**
PET				*e*S	**S**	**11 15 13.2**	**+6.7**
PET				*e*SS	SS	11 19 01.8	-0.7
PET				pmax	pmax		
	comp=Z,44nm,1.4s,mb5.3						
PET				pmax	pmax		
	comp=Z,100nm,22.4s						
PET				smax			
	comp=E,200nm,24.8s						
PET				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.5						
KMI	**Kunming**	**59.55**	**304**	P	**P**	**11 07 00.8**	**+1.4**
KMI				PP	PP	11 09 10.8	-0.4
KMI				S	**S**	**11 15 06.9**	**-0.6**
KMI				SS	SS	11 19 01.9	-1.6
KMI				AMB	AMB		
	comp=Z,54nm,1.1s,mb5.5						
KMI				LR	LR		
	comp=N,343nm,18.1s,MS4.7						
KMI				LR	LR		
	comp=E,360nm,19.6s,MS4.7						
KMI				LR	LR		
	comp=Z,551nm,22.5s,MS4.6						
KMI	**Kunming**	**59.55**	**304**	P	**P**	**11 07 00.7**	**+1.3**
	comp=Z,54nm,1.1s,mb5.5						
KMI				pP	pP	11 07 11.8	+2.8
KMI				sP	sP	11 07 16.6	+4.0
KMI				PP	PP	11 09 10.8	-0.4
KMI				S	**S**	**11 15 06.9**	**-0.6**
KMI				SS	SS	11 19 01.9	-1.6
KMI				LR	LR		
	comp=Z,550nm,22.5s,MS4.6						
KMI	**Kunming**	**59.55**	**304**	P	**P**	**11 07 00.7**	**+1.3**
KMI				*PP	pP	11 07 11.8	+2.8
KMI				*SP	sP	11 07 16.6	+4.0
KMI						11 09 10.8	
KMI				S	**S**	**11 15 06.9**	**-0.6**
KMI				SS	SS	11 19 01.9	-1.6
KMI				pmax	pmax		
	comp=Z,54nm,1.1s,mb5.5						
KMI				MLR	MLR		
	comp=Z,550nm,22.5s,MS4.6						
CHRT	**Chiangrai**	**60.07**	**297**	⇑P	**P**	**11 07 04.0**	**+1.0**
	comp=Z,124nm,1.0s,mb5.9						
CM31	**Chiang Mai Arr**	**60.34**	**296**	*e*P	**P**	**11 07 07.7**	**+2.8**
CHTO	**Chiang Mai**	**60.46**	**296**	*e*P	**P**	**11 07 06.5**	**+0.8**
	comp=Z,28nm,1.2s,mb5.2						
CHTO	**Chiang Mai**	**60.46**	**296**	*e*P	**P**	**11 07 06.5**	**+0.8**
CHTO				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.2						
CD2	**Chengdu**	**61.34**	**311⇑**	*i*P	**P**	**11 07 12.0**	**+0.5**
CD2				AP	pP	11 07 22.3	+1.2
CD2				PP	PP	11 09 29.4	+2.5
CD2				PCS	PcS	11 11 55.3	-1.3
CD2				S	**S**	**11 15 28.9**	**-1.4**
CD2				SCS	ScS	11 16 57.0	-4.0
CD2				SS	SS	11 19 31.3	-0.1
CD2				AMB	AMB		
	comp=Z,100nm,1.0s,mb5.9						
CD2				AMB	AMB		
	comp=Z,330nm,8.4s						
CD2				LR	LR		
	comp=N,620nm,16.8s,MS5.0						
CD2				LR	LR		
	comp=E,530nm,16.8s,MS5.0						
CD2				LR	LR		
	comp=Z,570nm,19.2s,MS4.7						
HHC	**Hu-ho-hao-te**	**61.63**	**324**	*e*P	**P**	**11 07 16.3**	**+3.1**
HHC				PCP	PcP	11 07 56.9	+2.3
HHC				SCP	ScP	11 11 55.3	+1.0
HHC				PCS	PcS	11 11 58.9	+1.4
HHC				S	**S**	**11 15 36.1**	**+2.6**
HHC				SCS	ScS	11 17 02.0	-0.7
HHC				AMB	AMB		
	comp=Z,15nm,1.2s,mb5.0						
HHC				AMB	AMB		
	comp=Z,209nm,5.4s						
HHC				LR	LR		
	comp=N,336nm,20.0s,MS4.6						
HHC				LR	LR		
	comp=E,344nm,21.0s,MS4.6						
HHC				LR	LR		
	comp=Z,469nm,22.8s,MS4.6						
BTO	**Baotou**	**62.39**	**323**	*e*P	**P**	**11 07 17.8**	**-0.5**
HIA	**Hailar**	**63.48**	**335**	*e*P	**P**	**11 07 24.4**	**-1.0**
	comp=Z,14nm,0.8s,mb5.1						
HIA	**Hailar**	**63.48**	**335⇑**	*i*P	**P**	**11 07 23.9**	**-1.5**
LZH	**Lanzhou**	**63.84**	**316⇑**	*i*P	**P**	**11 07 29.5**	**+1.4**
	comp=Z,56nm,1.5s,mb5.4						
LZH				pP	pP	11 07 38.0	+0.3
LZH				sP	sP	11 07 41.0	-0.4
LZH				PcP	PcP	11 08 08.3	+4.6
LZH				PP	PP	11 09 53.7	+4.8
LZH				*e*S	**S**	**11 16 03.0**	**+1.5**
LZH				sS	sS	11 16 14.2	-3.2
LZH				SS	SS	11 20 15.2	+4.8
LZH				LR	LR		
	comp=Z,2μm,17.1s,MS5.3						
LZH	**Lanzhou**	**63.84**	**316⇑**	*i*P	**P**	**11 07 29.5**	**+1.4**
LZH				*PP	pP	11 07 38.0	+0.3
LZH				*SP	sP	11 07 41.0	-0.4
LZH						11 08 08.3	
LZH						11 09 53.7	
LZH				*e*S	**S**	**11 16 03.0**	**+1.5**
LZH				*SS	sS	11 16 14.2	-3.2
LZH				SS	SS	11 20 15.2	+4.8
LZH				pmax	pmax		
	comp=Z,56nm,1.5s,mb5.4						
LZH				MLR	MLR		
	comp=Z,2μm,17.1s,MS5.3						
TAOE	**Nuku Hiva Isla**	**64.56**	**97**	*e*S	**S**	**11 16 03.7**	**-7.5**
	comp=Z,468nm,25.6s						
TAOE				*e*SS	SS	11 20 16.0	-6.3
	comp=Z,2μm,36.9s						
TAOE				*e*LQ		11 23 47.5	
	comp=Z,1μm,29.5s						
TAOE				*e*LR	LR	11 26 07.3	
	comp=Z,4μm,36.0s,baz=268						
MA2	**Magadan**	**66.10**	**358**	*e*P	**P**	**11 07 41.2**	**-1.0**
	comp=Z,10.0nm,0.6s,mb5.0						
MA2	**Magadan**	**66.10**	**358⇑**	*e*P	**P**	**11 07 40.3**	**-1.9**
MA2				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
CLNS	**Chul'man**	**67.81**	**343*c***	*i*P	**P**	**11 07 53.0**	**-0.2**
CLNS				*e**PP	pP	11 07 58.9	-4.0
CLNS				*e*		11 08 14.7	
CLNS				*e*PS		11 17 30.4	
CLNS				*e*		11 17 49.2	
CLNS				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
CLNS				pmax	pmax		
	comp=N,6.0nm,1.1s						
CLNS				pmax	pmax		
	comp=E,3.0nm,0.7s						
CLNS				pmax	pmax		
	comp=N,12nm,1.3s						
CLNS				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.9						
CLNS				pmax	pmax		
	comp=E,3.0nm,0.8s						
CLNS				MLR	MLR		
	comp=Z,200nm,16.0s,MS4.4						
CLNS				MLR	MLR		
	comp=N,100nm,13.0s,MS4.5						
CLNS				MLR	MLR		
	comp=E,200nm,15.0s,MS4.5						
CIT	**Chita**	**68.17**	**334**	*e*P	**P**	**11 07 54.9**	**-0.6**
GTA	**Gaotai**	**68.27**	**317**	P	**P**	**11 07 56.8**	**+0.3**
GTA				AP	pP	11 08 07.3	+1.1
GTA				PP	PP	11 10 29.6	+2.1
GTA				S	S	11 16 55.6	+0.3
GTA				AMB	AMB		
	comp=Z,13nm,2.2s,mb4.6						
GTA				AMB	AMB		
	comp=Z,270nm,8.0s						
GTA				LR	LR		
	comp=N,314nm,20.5s,MS4.7						
GTA				LR	LR		
	comp=E,345nm,18.3s,MS4.7						
GTA				LR	LR		
	comp=Z,469nm,21.3s,MS4.7						
ULN	**Ulaanbaatar**	**68.55**	**328**	*e*P	**P**	**11 07 58.8**	**+0.8**
	comp=Z,8.7nm,1.0s,mb4.6						
ULN	**Ulaanbaatar**	**68.55**	**328⇑**	*e*P	**P**	**11 07 57.7**	**-0.3**
SHL	**Shillong**	**68.84**	**301**	*e*P	**P**	**11 08 01.0**	**+0.7**
SONM	**Songino Array**	**68.88**	**327**	P	**P**	**11 08 00.6**	**+0.5**
	comp=Z,4.5nm,0.9s,mb4.4,baz=130,slow=4.9,SNR=36						
RKT	**Rikitea**	**69.38**	**112**	*e*SS	SS	11 21 34.2	-2.4
	comp=Z,201nm,34.0s						
RKT				*e*LR	LR	11 29 06.5	
	comp=Z,936nm,23.0s,baz=279						
SEY	**Seymchan**	**69.42**	**359⇓**	*i*P	**P**	**11 08 01.5**	**-1.6**
LSA	**Lhasa**	**70.81**	**304**	P	**P**	**11 08 14.3**	**+1.9**
LSA				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.4						
LSA				AMB	AMB		
	comp=Z,290nm,6.0s						
LSA				LR	LR		
	comp=N,170nm,24.0s,MS4.6						
LSA				LR	LR		
	comp=E,330nm,24.0s,MS4.6						
LSA				LR	LR		

	comp=Z,490nm,24.0s,MS4.7						
LSA	**Lhasa**	70.81	304	*e*P	P	11 08 13.9	+1.5
	comp=Z,50nm,0.8s,mb5.5						
LSA	**Lhasa**	70.81	304	*e*P	P	11 08 13.9	+1.5
LSA				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.5						
VNDA	**Vanda**	70.92	178	P	P	11 08 12.5	+0.3
VNDA				*e*P		11 08 13.0	
VNDA				LR	LR	11 34 26.5	
VNDA	**Vanda**	70.92	178	P	P	11 08 12.5	+0.3
	comp=Z,7.9nm,0.8s,mb4.7,baz=333,slow=4.4,SNR=9.6						
VNDA				LR	LR	11 34 26.5	
	comp=Z,332nm,18.4s,MS4.6,baz=1.2,slow=32						
YAK	**Yakutsk**	71.16	348	*e*P	P	11 08 12.0	-1.8
YAK				*e**PP	pP	11 08 19.4	-4.1
YAK				*e*		11 08 31.6	
YAK				*e*		11 10 58.8	
YAK				*e**SS	sS	11 18 00.7	+16
YAK				*e*		11 18 17.6	
YAK				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
YAK				pmax	pmax		
	comp=N,8.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.4s						
YAK				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.0						
YAK				pmax	pmax		
	comp=N,2.0nm,0.4s						
YAK				pmax	pmax		
	comp=E,2.0nm,0.5s						
YAK				MLR	MLR		
	comp=Z,344nm,21.0s,MS4.6						
YAK				MLR	MLR		
	comp=N,235nm,17.0s,MS4.6						
YAK				MLR	MLR		
	comp=E,116nm,14.0s,MS4.6						
ZAK	**Zakamensk**	72.04	328	*e*P	P	11 08 18.9	-0.4
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
BOD	**Bodaibo**	72.19	339	*e*P	P	11 08 15.4	-4.6
BOD				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
TLY	**Talaya**	72.61	330	*e*P	P	11 08 22.1	-0.6
TLY				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
TLY				pmax	pmax		
	comp=N,204nm,17.0s						
IRK	**Irkutsk**	72.63	330	*e*P	P	11 08 21.5	-1.3
IRK				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
TAPN	**Taplejung**	72.94	301	*e*P	P	11 08 26.4	+1.2
	comp=Z,162nm,0.9s,mb6.0						
ODAN	**Odare**	73.08	301	*e*P	P	11 08 26.8	+0.8
	comp=Z,251nm,0.8s,mb6.2						
BOK	**Bokaro**	73.55	297	*e*P	P	11 08 29.1	+0.3
BOK				AMb	AMB	11 08 31.8	
	comp=Z,53nm,0.9s,mb5.5						
MOY	**Mondy**	73.96	329	*e*P	P	11 08 30.6	0.0
JIRN	**Jiri**	74.33	301	*e*P	P	11 08 34.4	+1.1
VIS	**Vishakhapatnam**	74.44	290	*e*P	P	11 08 34.1	-0.1
VIS				AMb	AMB	11 08 42.4	
	comp=Z,48nm,1.3s,mb5.3						
GUN	**Gumba**	74.66	301	*e*P	P	11 08 36.2	+0.9
	comp=Z,235nm,0.8s,mb6.2						
GAMB	**Gambell**	74.68	15	*e*P	P	11 08 34.5	-0.1
GAMB				*e*	pP	11 08 45.3	+0.9
PKI	**Pulchoki**	74.97	301	*e*P	P	11 08 37.6	+0.5
	comp=Z,145nm,1.0s,mb5.9						
BILL	**Bilibino**	74.98	4	*e*P	P	11 08 35.6	-0.7
	comp=Z,43nm,1.1s,mb5.3						
BILL				*e*		11 08 46.9	
BILL	**Bilibino**	74.98	4	⇑*i*P	P	11 08 35.6	-0.6
BILL				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
PALK	**Pallekele**	75.06	279	*e*P	P	11 08 37.6	-0.3
	comp=Z,48nm,1.4s,mb5.2						
KKN	**Kakani**	75.14	301	*e*P	P	11 08 38.7	+0.7
	comp=Z,125nm,0.7s,mb5.9						
DMN	**Daman**	75.24	301	*e*P	P	11 08 39.4	+0.8
	comp=Z,314nm,0.9s,mb6.2						
GKN	**Gorkha**	75.74	301	*e*P	P	11 08 42.0	+0.5
	comp=Z,258nm,0.9s,mb6.2						
BLSP	**Bilaspur**	76.50	295	*e*P	P	11 08 45.4	-0.6
BLSP				AMb	AMB	11 08 52.1	
	comp=Z,41nm,1.5s,mb5.2						
KOLN	**Koldanda**	76.57	300	*e*P	P	11 08 46.5	+0.3
	comp=Z,135nm,0.7s,mb6.0						
TNA	**Tin City**	77.09	15	*e*P	P	11 08 48.2	-0.1
WMQ	**Urumqi**	78.36	317	P	P	11 08 56.3	+0.4
WMQ				AP	pP	11 09 06.8	+1.1
WMQ				S	S	11 18 47.8	-1.6
WMQ				SCS	ScS	11 19 10.6	-3.6
WMQ				SS	SS	11 23 53.3	+0.5
WMQ				AMB	AMB		
	comp=Z,21nm,1.4s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,68nm,7.5s						
WMQ				LR	LR		
	comp=N,257nm,24.0s,MS4.6						
WMQ				LR	LR		
	comp=E,187nm,24.0s,MS4.6						
WMQ				LR	LR		
	comp=Z,203nm,22.1s,MS4.4						
KOD	**Kodaikanal**	78.67	282	*e*P	P	11 08 57.6	-0.6
KOD				AMb	AMB	11 09 06.3	
	comp=Z,33nm,1.8s,mb5.0						
HYB	**Hyderabad**	78.85	289	*e*P	P	11 08 59.5	+0.4
HYB	**Hyderabad**	78.85	289	*i* P	P	11 08 59.5	+0.4
TRD	**Trivandrum**	78.91	280	*e*P	P	11 08 58.5	-1.1
TRD				AMb	AMB	11 09 07.6	
	comp=Z,46nm,1.8s,mb5.1						
NGP	**Nagpur**	79.10	293	*e*P	P	11 08 59.6	-0.8
NGP				AMb	AMB	11 09 06.3	
	comp=Z,58nm,2.8s,mb5.0						
TIXI	**Tiksi**	79.98	352	*e*P	P	11 09 03.8	-0.4
TIXI	**Tiksi**	79.98	352	⇓*e*P	P	11 09 02.8	-1.4
TIXI				pmax	pmax		
	comp=Z,14nm,1.9s,mb4.6						
AKL	**Akola**	80.88	292	*e*P	P	11 09 09.8	-0.3
AKL				AMb	AMB	11 09 16.6	
	comp=Z,64nm,1.9s,mb5.2						
BHPL	**Bhopal**	80.99	295	*e*P	P	11 09 10.3	-0.3
BHPL				AMb	AMB	11 09 12.0	
	comp=Z,40nm,0.9s,mb5.3						
IMA2	**Indian Mountai**	81.59	19	*e*P	P	11 09 12.4	-0.5
MCK	**McKinley**	81.87	22	*e*P	P	11 09 13.2	-1.2
	comp=Z,38nm,1.2s,mb5.2						
MCK	**McKinley**	81.87	22	*e*P	P	11 09 13.2	-1.2
MCK				pmax	pmax		
	comp=Z,38nm,1.2s,mb5.2						
NDI	**New Delhi**	82.26	300	*e*P	P	11 09 15.0	-2.2
NDI				AMb	AMB	11 09 17.4	
	comp=Z,64nm,1.7s,mb5.3						
COLA	**College**	82.89	21	*e*P	P	11 09 18.4	-1.3
	comp=Z,19nm,1.0s,mb5.1						
COLA	**College**	82.89	21	⇓*e*P	P	11 09 16.8	-2.9
MK31	**Makanchi Array**	82.94	319	*e*P	P	11 09 20.7	+0.4
MKAR	**Makanchi Array**	82.94	319	*i* P	P	11 09 20.1	-0.2
MKAR				pmax	pmax		
	comp=Z,16nm,0.7s						
MKAR	**Makanchi Array**	82.94	319	P	P	11 09 20.1	-0.2
	comp=Z,16nm,0.7s,mb5.1,baz=103,slow=4.7,SNR=145						
QSPA	**South Pole Qui**	83.31	180	*e*P	P	11 09 22.5	+0.8
POO	**Poona**	83.45	289	*e*P	P	11 09 23.0	-0.6
POO				*e*P		11 09 23.6	
POO				AMb	AMB	11 09 25.1	
	comp=Z,33nm,1.2s,mb5.2						
ZALV	**Zalesovo Beam**	83.72	326	P	P	11 09 22.8	-1.4
	comp=Z,10nm,0.8s,mb5.0,baz=110,slow=5.6,SNR=47						
ZAL	**Zalesovo**	83.73	326	P	P	11 09 22.8	-1.4
AJM	**Ajmer**	84.07	297	*e*P	P	11 09 26.1	-0.6
AJM				AMb	AMB	11 09 27.5	
	comp=Z,115nm,1.1s,mb5.9						
THN	**Thein Dam**	84.28	303	*e*P	P	11 09 26.2	-1.4
MAW	**Mawson**	84.57	203	*e*P	P	11 09 28.4	+0.1
	comp=Z,7.4nm,0.6s,mb5.0						
MAW				*e*P		11 09 29.0	
MAW	**Mawson**	84.57	203	*e*P	P	11 09 28.4	+0.1
MAW				pmax	pmax		
	comp=Z,7.0nm,0.6s						
MAW	**Mawson**	84.57	203	P	P	11 09 28.4	+0.1
	comp=Z,10.0nm,0.6s,mb5.1,baz=99,slow=8.1,SNR=13						
MAW				LR	LR	11 44 27.2	
	comp=Z,396nm,18.0s,MS4.8,baz=73,slow=34						
EGAK	**Eagle**	85.34	23	*e*P	P	11 09 32.1	0.0
	comp=Z,18nm,1.1s,mb5.1						
KSH	**Kashi**	85.54	310	*e*P	P	11 09 35.6	+1.9
KSH				*e*PP	PP	11 12 57.3	+4.6
KSH				*e*SKS		11 19 56.6	
KSH				*e*S	S	11 20 02.8	-0.8
KSH				LR	LR		
	comp=N,1µm,7.6s						
KSH				LR	LR		
	comp=E,1µm,8.1s						
KSH				LR	LR		
	comp=Z,793nm,6.4s						
DAWY	**Dawson**	85.73	24	*e*P	P	11 09 34.5	+0.4
KURK	**Kurchatov**	86.36	322	*e*P	P	11 09 36.5	-1.0
KURK	**Kurchatov**	86.36	322*c*	*i*P	P	11 09 35.6	-1.9
FRU	**Bishkek**	87.23	314	*e*P	P	11 09 42.0	0.0
FRU				pmax	pmax		
	comp=Z,40nm,2.0s,mb5.3						
AAK	**Ala-Archa**	87.28	313	*e*P	P	11 09 42.3	+0.1
	comp=Z,5.0nm,0.8s,mb4.8						
AAK	**Ala-Archa**	87.28	313*c*	*i*P	P	11 09 41.1	-1.1
AAK				pmax	pmax		
	comp=Z,22nm,2.3s,mb5.0						
BBB	**Bella Bella**	87.46	37	LR	LR	11 44 29.7	
	comp=Z,568nm,18.9s,MS5.0,baz=83,slow=33						
O01C	**Eel River Cons**	87.81	49	⇑P	P	11 09 45.8	+1.0
	baz=88						
DLBC	**Dease Lake**	88.03	31	*e*P	P	11 09 46.1	+0.7
BHJ	**Bhuj**	88.03	294	*e*P	P	11 09 43.8	-2.4
BHJ				AMb	AMB	11 09 47.4	
	comp=Z,27nm,0.2s,mb6.0						
H02A	**Toledo**	88.51	45	⇓P	P	11 09 48.8	+0.8
	baz=89						
K02A	**Glendale**	88.53	47	⇓P	P	11 09 48.0	-0.1
	baz=89						
CVS	**Carmenet Viney**	88.53	51	⇓P	P	11 09 49.2	+0.9
	baz=89						
GASB	**Alder Springs**	88.55	50	⇓P	P	11 09 48.7	+0.4
	baz=89						
J02A	**Umpqua**	88.57	46	⇑P	P	11 09 48.5	+0.2
	baz=89						
O02C	**Red Bluff**	88.59	49	⇑P	P	11 09 48.3	-0.2
	baz=89						
MNRC	**McLaughlin Nat**	88.64	51	⇑P	P	11 09 49.1	+0.3
	baz=89						
M02C	**Callahan**	88.75	48	⇓P	P	11 09 50.2	+1.0
	baz=89						
HUMO	**Hull Mountain**	88.89	47	⇑P	P	11 09 50.0	+0.1
	baz=89						
YBH	**Yreka Blue Hor**	88.92	48	⇓P	P	11 09 50.4	+0.4
	baz=89						
HAST	**UC Hastings Re**	88.93	53	⇓P	P	11 09 50.5	+0.3
	baz=89						
J03A	**Ideyld Park**	89.01	46	⇑P	P	11 09 50.6	+0.2
	baz=89						
D03A	**Wishkah Elem.**	89.12	43	⇑P	P	11 09 50.8	0.0
	baz=89						
V03C	**Hunter Liggett**	89.13	54	⇑P	P	11 09 49.9	-1.2
	baz=89						
O03C	**Acorn Hollow,**	89.13	50	⇑P	P	11 09 51.7	+0.7
	baz=89						
E03A	**Lebam**	89.16	43	⇑P	P	11 09 51.0	-0.1
	baz=89						
SUTB	**Sutter Butte**	89.20	51	⇑P	P	11 09 51.1	-0.2
	baz=89						
PACP	**Pacheco Peak**	89.24	53	⇓P	P	11 09 51.3	-0.3
	baz=89						
M03C	**McCloud**	89.27	48	⇑P	P	11 09 52.1	+0.4
	baz=89						
S04C	**Ingram Canyon,**	89.28	52	⇑P	P	11 09 52.1	+0.3
	baz=89						
OHCM	**Honcut**	89.45	50	*e*P	P	11 09 52.6	0.0
Q04C	**Lincoln**	89.45	51	⇓P	P	11 09 52.3	-0.3
	baz=90						
ORV	**Oroville**	89.47	50	P	P	11 09 52.7	+0.1
	baz=90,SNR=7.2						
B04A	**Port Angeles**	89.48	42	⇑P	P	11 09 52.5	0.0
	baz=90						
INK	**Inuvik**	89.53	21	*e*P	P	11 09 50.7	-1.5
	comp=Z,572nm,1.3s						
INK	**Inuvik**	89.53	21	P	P	11 09 50.4	-1.9
	comp=Z,3.6nm,1.1s,mb4.6,baz=266,slow=7.3,SNR=5.2						
INK				LR	LR	11 47 29.8	
	comp=Z,706nm,20.2s,MS5.1,baz=254,slow=34						
U04C	**Hernandez Rese**	89.54	53	⇑P	P	11 09 54.2	+1.1
	baz=90						
M04C	**Macdoel**	89.57	48	⇑P	P	11 09 52.6	-0.5
	baz=90						
J04A	**Umpqua Nationa**	89.61	47	⇓P	P	11 09 53.4	+0.1
	baz=90						
G04A	**Mulino**	89.67	45	⇓P	P	11 09 52.5	-1.0
	baz=90						
PKD	**Parkfield**	89.67	54	⇑P	P	11 09 54.0	+0.2
	baz=90						
HATC	**Hat Creek Radi**	89.69	49	⇓P	P	11 09 54.1	+0.4
	baz=90						
C04A	**Brinnon**	89.77	42	⇑P	P	11 09 53.8	0.0
	baz=90						
H04A	**Detroit Lake**	89.79	45	⇑P	P	11 09 53.3	-0.7
	baz=90						
GNW	**Green Mountain**	89.84	42	*e*P	P	11 09 53.8	-0.3
O04C	**Chester**	89.90	50	P	P	11 09 55.2	+0.6
	baz=90,SNR=6.6						
LAVA	**Lava Cap Winer**	89.93	51	P	P	11 09 55.2	+0.4
	baz=90,SNR=5.6						
O05C	**Quincy**	89.97	50	⇑P	P	11 09 54.8	-0.2
	baz=90						
M05C	**Lookout**	90.01	48	⇑P	P	11 09 55.8	+0.7
	baz=90						
SMMC	**Simmler**	90.02	55	⇓P	P	11 09 55.3	-0.1
	baz=90						
S05C	**Merced**	90.05	53	⇓P	P	11 09 55.7	+0.3
	baz=90						
CMB	**Columbia Colle**	90.10	52	⇓P	P	11 09 55.9	+0.3
	baz=90						
PKM	**Peak Mountain**	90.11	55	⇓P	P	11 09 56.6	+0.8
	baz=90						
KBL	**Kabul**	90.14	305	*e*P	P	11 09 55.2	-0.6
ELFS	**Eagle Lake Fie**	90.22	49	P	P	11 09 57.0	+0.9
	baz=90,SNR=7.5						
J05A	**Fort Rock**	90.24	47	P	P	11 09 56.7	+0.5
	baz=90,SNR=5.2						
L05A	**Lakeview**	90.35	48	⇓P	P	11 09 56.8	+0.1
	baz=90						
BEKR	**Beckwourth**	90.39	50	⇑P	P	11 09 57.3	+0.3
	baz=90						
E05A	**Randle**	90.39	43	⇑P	P	11 09 55.8	-1.0
	baz=90						
K05A	**Summer Lake**	90.41	47	⇓P	P	11 09 56.5	-0.5
	baz=90						
R05C	**Kirkwood Meado**	90.44	51	⇑P	P	11 09 57.2	0.0
	baz=90						
B05A	**Bryant**	90.44	42	⇑P	P	11 09 56.6	-0.3
	baz=90						
H05A	**Madras**	90.46	45	⇑P	P	11 09 57.0	-0.1
	baz=90						
G05A	**Wamic**	90.49	45	⇓P	P	11 09 56.0	-1.3
	baz=90						
T06C	**Millerton Lake**	90.49	53	P	P	11 09 57.9	+0.4
	baz=90,SNR=9.0						
F05A	**White Salmon**	90.49	44	⇓P	P	11 09 57.2	-0.1
	baz=90						
M06C	**Likely Place G**	90.49	49	⇓P	P	11 09 57.2	-0.2
	baz=90						
S06C	**San Francisco**	90.50	52	P	P	11 09 58.0	+0.4
	baz=90,SNR=7.2						
C05A	**Tolt Reservoir**	90.62	42	⇓P	P	11 09 57.5	-0.4
	baz=91						
MOD	**Modoc**	90.72	48	*e*P	P	11 09 58.5	0.0
	comp=Z,3.6nm,1.1s,mb4.6						
MOD	**Modoc**	90.72	48	⇓P	P	11 09 57.9	-0.5
	baz=91						
WCN	**Washoe City**	90.77	51	P	P	11 09 59.2	+0.5
	baz=91,SNR=9.4						
RCTC	**Rector, Farmer**	90.77	54	⇓P	P	11 09 57.8	-1.0
	baz=91						
O06A	**Flanigan**	90.83	50	P	P	11 09 59.6	+0.6
	baz=91,SNR=9.6						
VES	**Vestal, Richgr**	90.83	54	⇑P	P	11 09 58.7	-0.4
	baz=91						
KCC	**Kaiser Creek**	90.84	53	⇑P	P	11 09 59.4	+0.3
	baz=91						
K06A	**Valley Falls**	90.89	47	⇓P	P	11 09 58.4	-0.8
	baz=91						
R06C	**Coleville**	90.90	51	P	P	11 10 00.4	+1.0
	baz=91,SNR=8.9						
N06A	**Buffalo Meadow**	90.91	49	P	P	11 09 59.3	0.0
	baz=91,SNR=8.7						
E06A	**Yakima**	90.92	43	⇓P	P	11 09 58.3	-1.0
	baz=91						
F06A	**Goldendale**	90.94	44	⇓P	P	11 09 59.8	+0.5
	baz=91						
ARVC	**Arvin**	90.94	55	⇑P	P	11 09 59.3	-0.4
	baz=91						
A06A	**Chilliwack**	90.98	41	⇓P	P	11 09 58.5	-0.9
	baz=91						
HELL	**Mitchell Peak,**	90.99	53	P	P	11 10 00.2	+0.4
	baz=91,SNR=6.4						
J06A	**Christmas Vall**	91.02	47	⇓P	P	11 09 59.0	-0.8
	baz=91						
CIS	**Catalina Islan**	91.08	57	⇓P	P	11 09 59.8	-0.5
	baz=91						
I06A	**Prineville**	91.08	46	⇓P	P	11 09 59.6	-0.5
	baz=91						
H06A	**Lindquist Farm**	91.10	45	⇓P	P	11 09 59.4	-0.7
	baz=91						
D06A	**Cle Elum**	91.11	43	⇓P	P	11 10 00.0	-0.1
	baz=91						
PAHR	**Pah Rah Range**	91.11	50	*e*P	P	11 10 00.4	+0.1
	comp=Z,16nm,1.1s,mb5.3						
R07C	**Lee Vining**	91.15	52	P	P	11 10 01.6	+1.1
	baz=91,SNR=6.1						
C06A	**Tall Timber Ra**	91.18	42	⇓P	P	11 09 59.8	-0.7
	baz=91						
ISA	**Isabella**	91.30	54	⇑P	P	11 10 02.1	+0.8
	baz=91						
MTUM	**Tungsten Hills**	91.44	53	*e*P	P	11 10 02.3	+0.4
MTUM				*e*	pP	11 10 11.9	0.0
L07A	**Adell**	91.45	48	P	P	11 10 02.5	+0.7
	baz=92,SNR=5.6						
P07A	**Fallon**	91.46	51	⇑P	P	11 10 02.0	0.0
	baz=92						
M07A	**Soldier Meadow**	91.49	49	⇓P	P	11 10 02.4	+0.3
	baz=92						
O07A	**Toulon**	91.55	50	P	P	11 10 02.6	+0.2
	baz=92,SNR=13						
N07B	**Gerlach**	91.56	49	P	P	11 10 03.1	+0.7
	baz=92,SNR=11						
EDW2	**Edwards Air Fo**	91.60	55	P	P	11 10 03.8	+1.1
	baz=92,SNR=7.8						
I07A	**Izee**	91.60	46	⇓P	P	11 10 01.7	-0.8
	baz=92						
K07A	**Rock Creek Ran**	91.60	47	⇓P	P	11 10 02.3	-0.2
	baz=92						
G07A	**Ruggs Ranch, H**	91.64	45	P	P	11 10 02.3	-0.3
	baz=92,SNR=5.6						
J07A	**Hines**	91.65	47	⇑P	P	11 10 02.5	-0.2
	baz=92						
TIN	**Tinemaha**	91.67	53	⇑P	P	11 10 04.4	+1.4
	baz=92						
A07A	**Ashnola River,**	91.68	41	⇓P	P	11 10 01.8	-0.9
	baz=92						
E07A	**Sunnyside**	91.69	43	P	P	11 10 02.8	-0.1
	baz=92,SNR=5.0						
D07A	**Quincy**	91.70	43	P	P	11 10 02.5	-0.3
	baz=92,SNR=8.4						
C07A	**Waterville**	91.70	42	P	P	11 10 02.1	-0.7
	baz=92,SNR=5.2						
CWC	**Cottonwood Cre**	91.71	54	⇑P	P	11 10 03.7	+0.5
	baz=92						
S08C	**White Mtn Res**	91.77	53	P	P	11 10 04.7	+1.3
	baz=92,SNR=6.7						
B07A	**Winthrop**	91.77	42	⇓P	P	11 10 02.5	-0.7
	baz=92						
NVAR	**Mina Array Bea**	91.78	52	P	P	11 10 04.2	+0.8
	comp=Z,11nm,0.9s,mb5.2,baz=248,slow=4.3,SNR=61						
BFSC	**Mount Baldy St**	91.79	56	⇓P	P	11 10 02.6	-1.0
	baz=92						
BRVK	**Borovoye**	91.90	323	*e*P	P	11 10 01.9	-1.7
	comp=Z,12nm,0.9s,mb5.2						
BRVK				*e*	pP	11 10 10.5	-3.1
BRVK	**Borovoye**	91.90	323	*e*P	P	11 10 02.0	-1.6
BRVK				*e*	pP	11 10 10.5	-3.1
BRVK				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.2						
LRMC	**Laurel Mountai**	91.91	55	P	P	11 10 05.3	+1.2
	baz=92,SNR=10						
R08A	**Mina**	91.92	52	⇑P	P	11 10 04.7	+0.5
	baz=92						
WVOR	**Wild Horse Val**	92.02	48	*e*P	P	11 10 04.4	-0.1
	comp=Z,6.1nm,1.0s,mb4.9						
WVOR	**Wild Horse Val**	92.02	48	*e*P	P	11 10 04.4	-0.1
WVOR				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.9						
DAC	**Darwin (Calif)**	92.08	54	*e*P	P	11 10 05.7	+0.7
	comp=Z,16nm,0.9s,mb5.3						
DAC	**Darwin (Calif)**	92.08	54	*e*P	P	11 10 05.7	+0.8
DAC				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.3						
M08A	**Happy Creek Ra**	92.09	49	⇑P	P	11 10 05.7	+0.9
	baz=92						
P08A	**Dixie Valley**	92.10	50	⇑P	P	11 10 06.4	+1.5
	baz=92						
O08A	**Rochester Mine**	92.12	50	⇓P	P	11 10 06.1	+1.2
	baz=92						
Q08A	**Gabbs**	92.12	51	P	P	11 10 05.3	+0.3
	baz=92,SNR=18						
MPMC	**Manual Prospec**	92.14	54	P	P	11 10 06.2	+1.0
	baz=92,SNR=12						
G08A	**Pilot Rock**	92.14	45	P	P	11 10 04.8	-0.2
	baz=92,SNR=6.5						
K08A	**Mann Creek Ran**	92.16	47	⇓P	P	11 10 04.3	-0.8
	baz=92						
N08A	**GE Springer Mi**	92.19	49	P	P	11 10 06.0	+0.7
	baz=92,SNR=10						
L08A	**Fields**	92.20	48	P	P	11 10 05.8	+0.5
	baz=92,SNR=5.7						
E08A	**Dider Farm, El**	92.22	44	⇑P	P	11 10 04.6	-0.7
	baz=92						
I08A	**Drewsey**	92.25	46	⇑P	P	11 10 05.0	-0.5
	baz=92						
J08A	**Circle Bar Ran**	92.25	47	⇑P	P	11 10 05.0	-0.5
	baz=92						
B08A	**Colville Reser**	92.28	42	P	P	11 10 04.3	-1.2
	baz=92,SNR=6.6						
GRAC	**Grapevine Rang**	92.34	53	⇓P	P	11 10 06.9	+0.8
	baz=92						
D08A	**Wollman Farm,**	92.39	43	⇓P	P	11 10 05.3	-0.7
	baz=92						
A08A	**Turner Farm, O**	92.39	41	⇓P	P	11 10 05.3	-0.7
	baz=92						
C08A	**Higginbotham F**	92.40	42	P	P	11 10 05.5	-0.6
	baz=92,SNR=5.6						
GSC	**Goldstone**	92.61	55	P	P	11 10 07.9	+0.5
	baz=93,SNR=6.3						
N09A	**Rock Creek Ran**	92.66	49	⇓P	P	11 10 07.5	0.0
	baz=93						
L09A	**Wilkinson Ranc**	92.68	48	⇓P	P	11 10 07.6	0.0
	baz=93						
FURC	**Furnace Creek,**	92.69	54	P	P	11 10 08.2	+0.5
	baz=93,SNR=16						
Q09A	**Carvers**	92.70	51	⇑P	P	11 10 08.2	+0.5
	baz=93						
PFO	**Pinyon Flat Ob**	92.72	57	⇑P	P	11 10 08.0	+0.1
	baz=93						
K09A	**Rome**	92.72	48	⇑P	P	11 10 07.4	-0.3
	baz=93						
R09A	**Tonopah**	92.72	52	P	P	11 10 08.1	+0.3
	baz=93,SNR=17						
J09A	**Fry Pan Ranch,**	92.77	47	⇑P	P	11 10 07.7	-0.2
	baz=93						
M09A	**Marrel Ranch,**	92.78	49	⇓P	P	11 10 08.9	+0.9
	baz=93						
D09A	**Jones Farm, Ri**	92.81	43	⇑P	P	11 10 07.2	-0.7
	baz=93						
P09A	**Austin**	92.81	51	⇓P	P	11 10 08.4	+0.3
	baz=93						
O09A	**Fish Creek Ran**	92.84	50	P	P	11 10 08.8	+0.5
	baz=93,SNR=14						
BMN	**Battle Mountai**	92.84	50	*e*P	P	11 10 08.9	+0.6
	comp=Z,14nm,1.1s,mb5.3						
BMN	**Battle Mountai**	92.84	50	*e*P	P	11 10 08.9	+0.6
BMN				pmax	pmax		
	comp=Z,14nm,1.1s,mb5.3						
A09A	**Danville**	92.85	41	⇓P	P	11 10 07.4	-0.7
	baz=93						
E09A	**Wood Farm, Sta**	92.85	44	⇑P	P	11 10 07.8	-0.5
	baz=93						
DVTC	**Desert V Tower**	92.91	58	⇑P	P	11 10 07.4	-1.4
	baz=93						
F09A	**S2 Ranch, Elgi**	92.93	45	⇑P	P	11 10 07.5	-1.1
	baz=93						
HEC	**Hector,Ludlow**	92.95	55	P	P	11 10 09.8	+0.8
	baz=93,SNR=5.3						
H09A	**Durkee**	92.98	46	⇑P	P	11 10 09.2	+0.4
	baz=93						

S10A	Tonopah Range,	93.06	52	P	P	11 10 10.1	+0.7
	baz=93,SNR=24						
B09A	Rice	93.07	42	⇓P	P	11 10 08.1	-1.0
	baz=93						
SHOC	Shoshone	93.10	54	P	P	11 10 10.3	+0.7
	baz=93,SNR=5.6						
U10A	Ash Meadows, A	93.11	54	⇑P	P	11 10 10.1	+0.5
	baz=93,SNR=8.5						
BELC	Belle Mtn.	93.14	56	P	P	11 10 10.6	+0.8
	baz=93,SNR=8.2						
SWSC	Sam W. Stewart	93.20	57	⇓P	P	11 10 09.9	-0.2
	baz=93						
BMO	Blue Mountains	93.26	45	*e*P	P	11 10 09.4	-0.7
	comp=Z,38nm,2.1s,mb5.5						
BMO	Blue Mountains	93.26	45	*e*P	P	11 10 09.4	-0.7
BMO				pmax	pmax		
	comp=Z,38nm,2.1s,mb5.5						
Q10A	Clear Creek Ra	93.30	51	P	P	11 10 11.3	+0.8
	baz=93,SNR=8.9						
R10A	Warm Springs	93.33	52	⇑P	P	11 10 11.4	+0.8
	baz=93						
P10A	Eureka	93.33	51	⇓P	P	11 10 10.3	-0.4
	baz=93						
TUQ	Turquoise Mtn.	93.34	55	P	P	11 10 11.6	+0.8
	baz=93,SNR=7.0						
K10A	MacKenzie Ranc	93.35	47	⇓P	P	11 10 10.6	0.0
	baz=93						
O10A	Cortez Mining,	93.38	50	⇑P	P	11 10 11.6	+0.8
	baz=93						
N10A	Dunphy	93.41	50	⇑P	P	11 10 11.8	+0.9
	baz=94						
F10A	Beach Ranch, E	93.43	44	⇓P	P	11 10 09.5	-1.4
	baz=94						
GMRC	Granite Mounta	93.49	56	P	P	11 10 12.4	+0.9
	baz=94,SNR=5.9						
J10A	Berg Farm, Mel	93.49	47	⇓P	P	11 10 10.1	-1.2
	baz=94						
D10A	Wagner Farm, O	93.51	43	P	P	11 10 10.7	-0.5
	baz=94,SNR=9.8						
A10A	Northport	93.52	41	P	P	11 10 11.0	-0.2
	baz=94,SNR=5.6						
BC3	Big Chuckw Mtn	93.55	57	P	P	11 10 12.7	+0.9
	baz=94,SNR=5.5						
E10A	Myers Farm, Un	93.56	44	⇓P	P	11 10 10.1	-1.4
	baz=94						
C10A	Spilker Farm,	93.56	42	⇑P	P	11 10 10.7	-0.8
	baz=94						
L10A	Juniper Basin	93.58	48	P	P	11 10 12.0	+0.3
	baz=94,SNR=5.3						
S11A	Rachel	93.70	53	⇑P	P	11 10 12.8	+0.5
	baz=94						
NEW	Newport	93.73	42	P	P	11 10 11.6	-0.7
NEW	Newport	93.73	42	P	P	11 10 11.6	-0.6
	comp=Z,3.5nm,0.8s,mb4.8,baz=280,slow=3.6,SNR=8.9						
V11A	Goodsprings	93.78	55	P	P	11 10 13.7	+1.0
	baz=94,SNR=8.5						
IRM	Iron Mountain	93.85	56	P	P	11 10 14.1	+1.0
	baz=94,SNR=5.3						
U11A	Corn Creek	93.87	54	⇑P	P	11 10 13.6	+0.4
	baz=94						
P11A	Circle Ranch,	93.88	51	⇓P	P	11 10 13.6	+0.5
	baz=94						
Q11A	Duckwater	93.89	52	⇑P	P	11 10 14.0	+0.8
	baz=94						
O11A	Cowboy Ranch,	94.00	50	P	P	11 10 14.6	+0.9
	baz=94,SNR=6.3						
N11A	Elko Archery C	94.01	50	⇓P	P	11 10 13.3	-0.3
	baz=94						
GLA	Glamis	94.02	57	⇓P	P	11 10 14.0	+0.1
	baz=94						
M11A	Holland Ranch,	94.02	49	⇑P	P	11 10 14.3	+0.6
	baz=94						
SHPR	Sheep Range	94.06	54	*e*P	P	11 10 14.8	+0.8
L11A	Cat Creek Ranc	94.11	48	⇑P	P	11 10 13.8	-0.3
	baz=94						
I11A	Placerville	94.12	46	⇑P	P	11 10 13.6	-0.6
	baz=94						
D11A	Klaveano Farm,	94.15	43	⇓P	P	11 10 13.4	-0.8
	baz=94						
H11A	Donnelly	94.16	46	⇑P	P	11 10 13.1	-1.1
	baz=94						
F11A	Grangeville	94.17	44	⇓P	P	11 10 13.2	-1.1
	baz=94						
E11A	Bogner Ranch,	94.17	44	P	P	11 10 13.2	-1.1
	baz=94,SNR=5.4						
MFID	Camas Ranch	94.17	47	⇑P	P	11 10 14.7	+0.3
	baz=94						
W12A	Cal Nev Ari	94.19	55	⇑P	P	11 10 14.4	-0.2
	baz=94						
V12A	Nelson	94.24	55	P	P	11 10 15.4	+0.5
	baz=94,SNR=7.6						
B11A	Sandpoint	94.25	42	⇑P	P	11 10 13.8	-0.8
	baz=94						
A11A	Hall Mountain,	94.30	41	P	P	11 10 15.2	+0.4
	baz=94,SNR=9.8						
Y12C	Blythe	94.33	57	⇑P	P	11 10 14.8	-0.5
	baz=94						
NEE2	Needles Airpor	94.34	56	⇓P	P	11 10 15.2	-0.2
	baz=94						
T12A	Moapa	94.44	54	⇓P	P	11 10 15.3	-0.5
	baz=94						
P12A	McGill	94.52	51	P	P	11 10 17.0	+1.0
	baz=95,SNR=9.8						
N12A	Clover Valley,	94.54	50	P	P	11 10 16.9	+0.8
	baz=95,SNR=12						
Q12A	Willow Creek R	94.54	51	P	P	11 10 17.3	+1.1
	baz=95,SNR=10						
U12A	Valley of Fire	94.55	54	⇑P	P	11 10 17.0	+0.7
	baz=95						
R12A	Pony Springs,	94.66	52	P	P	11 10 17.4	+0.6
	baz=95,SNR=16						
L12A	House Creek Ra	94.66	48	⇑P	P	11 10 16.6	0.0
	baz=95						
M12A	Wells	94.68	49	⇑P	P	11 10 16.1	-0.7
	baz=95						
J12A	Stokes Ranch,	94.69	47	⇑P	P	11 10 16.7	0.0
	baz=95						
PDMCI	Parker Dam,Lak	94.70	56	⇑P	P	11 10 16.8	-0.2
	baz=95						
A12A	Yaak River Ran	94.77	41	⇑P	P	11 10 16.2	-0.8
	baz=95						
B12A	Libby	94.77	42	⇓P	P	11 10 16.2	-0.8
	baz=95						
K12A	Draper Farm, C	94.78	48	⇑P	P	11 10 16.3	-0.9
	baz=95						
D12A	Red Ives Fores	94.82	43	⇓P	P	11 10 15.5	-1.7
	baz=95						
Y13A	Salome	94.92	57	⇑P	P	11 10 18.6	+0.6
	baz=95						
W13A	Hualapai Mount	94.97	55	P	P	11 10 19.5	+1.2
	baz=95,SNR=8.9						
X13A	Yucca	94.98	56	⇑P	P	11 10 18.3	+0.1
	baz=95						
T13A	Saint George	95.11	53	P	P	11 10 19.7	+0.9
	baz=95,SNR=8.5						
N13A	Wendover, West	95.17	50	⇓P	P	11 10 19.2	+0.2
	baz=95						
HLID	Hailey	95.21	47	⇓P	P	11 10 19.1	0.0
	baz=95						
M13A	Montello	95.23	49	P	P	11 10 19.4	+0.2
	baz=95,SNR=7.3						
H13A	Challis	95.40	46	P	P	11 10 19.8	-0.1
	baz=95,SNR=7.3						
F13A	Darby	95.43	45	⇓P	P	11 10 19.2	-0.9
	baz=96						
G13A	Cobalt	95.45	45	⇓P	P	11 10 20.5	+0.3
	baz=96						
I13A	Wildhorse Cree	95.45	47	⇓P	P	11 10 19.9	-0.3
	baz=96						
L13A	Double Diamond	95.45	48	⇑P	P	11 10 21.1	+0.8
	baz=96						
B13A	Whitefish	95.51	42	⇑P	P	11 10 20.1	-0.2
	baz=96						
ARUT	Antelope Range	95.53	53	*e*P	P	11 10 21.6	+0.8
ARUT				*e*	pP	11 10 31.4	+0.7
E13A	Victor	95.57	44	⇓P	P	11 10 20.1	-0.6
	baz=96						
CCUT	Cedar City	95.58	53	*e*P	P	11 10 21.8	+0.9
Y14A	Wickenburg	95.61	57	⇓P	P	11 10 20.9	-0.3
	baz=96						
W14A	Seligman	95.64	55	⇑P	P	11 10 21.6	+0.3
	baz=96						
X14A	Yava	95.74	56	⇓P	P	11 10 22.4	+0.6
	baz=96						
S14A	Cedar City	95.75	53	P	P	11 10 22.6	+0.9
	baz=96,SNR=5.8						
T14A	Hurricane	95.77	53	P	P	11 10 23.0	+1.2
	baz=96,SNR=7.8						
WALA	Waterton Lakes	95.92	41	*e*P	P	11 10 22.2	0.0
G14A	Jackson	96.00	45	⇓P	P	11 10 23.0	+0.3
	baz=96						
DUG	Dugway	96.18	50	⇓P	P	11 10 23.8	+0.1
	baz=96						
YKA	Yellowknife Ar	96.20	28	P	P	11 10 22.6	-0.5
YKA				PKKP	PKKPbc	11 27 08.7	-3.7
YKA				LR	LR	11 54 01.6	
YKA	Yellowknife Ar	96.20	28	P	P	11 10 22.6	-0.5
	comp=Z,2.6nm,0.8s,mb4.7,baz=266,slow=4.5,SNR=40						
YKA				PKKP	PKKPbc	11 27 08.7	-3.6
	comp=Z,0.4nm,0.6s,baz=88,slow=2.8,SNR=11						
YKA				LR	LR	11 54 01.6	
	comp=Z,240nm,19.2s,MS4.7,baz=215,slow=36						
X15A	Humboldt	96.28	56	⇑P	P	11 10 23.9	-0.3
	baz=96						
EDM	Edmonton	96.48	37	*e*P	P	11 10 24.1	-0.5
EDM				*e*	pP	11 10 33.7	-1.0
MSU	Marysvale	96.57	52	*e*P	P	11 10 26.8	+1.3
E15A	Deer Lodge	96.64	44	⇓P	P	11 10 25.2	-0.3
	baz=97						
G15A	Dillon	96.69	45	⇓P	P	11 10 26.0	+0.2
	baz=97						
WUAZ	Wupatki	97.05	55	⇓P	P	11 10 28.6	+0.9
	baz=97						
BOZ	Bozeman (W)	97.31	45	⇓P	P	11 10 27.9	-0.7
	baz=97						
EGMT	Eagleton	98.65	43	⇑P	P	11 10 33.0	-1.6
	baz=99						
PDAR	Pinedale Array	98.72	48	P	P	11 10 34.1	-0.9
	comp=Z,1.3nm,0.8s,mb4.5,baz=262,slow=2.8,SNR=12						
PDAR				LR	LR	11 52 00.8	
	comp=Z,557nm,19.0s,MS5.1,baz=295,slow=34						
ARU	Arti	98.88	326	⇓*i*P	P	11 10 33.5	-1.9
ARU				*e*		11 14 35.3	
ARU				*e*S	SKSac	11 21 08.9	-2.3
ARU				*e*SP	SP	11 23 25.5	-3.1
ARU				*e*SS	SS	11 28 48.9	-1.7
ARU				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.8						
ARU				MLR	MLR		
	comp=Z,300nm,19.0s,MS4.8						
ARU				MLR	MLR		
	comp=N,70nm,18.0s,MS4.7						
ARU				MLR	MLR		
	comp=E,200nm,19.0s,MS4.7						
AKTO	Aktyubinsk	99.33	320	LR	LR	11 55 03.8	
	comp=E,183nm,18.9s,MS4.6,baz=84,slow=35						
MVCO	Mesa Verde	99.43	53	⇓P	P	11 10 38.2	-0.1
	baz=100						
SMCO	Snowmass	100.65	51	*e*P	Pdif	11 10 44.8	+1.4
	comp=E,5.1nm,1.1s						
TXAR	Lajitas Array	103.40	62	Pdif	Pdif	11 10 56.1	+0.5
TXAR				PKKPbc	PKKPbc	11 26 51.5	+0.8
TXAR	Lajitas Array	103.40	62	Pdiff	Pdif	11 10 56.1	+0.5
	comp=E,0.1nm,0.6s,baz=36,slow=18,SNR=2.6						
TXAR				PKKPbc	PKKPbc	11 26 51.5	+0.8
	comp=E,0.6nm,0.8s,baz=106,slow=4.5,SNR=6.9						
KIV	Kislovodsk	110.37	314	*i* PKIKP	PKiKP	11 15 24.6	-3.1
MALT	Malatya	114.62	309	*e*PKPdf	PKiKP	11 15 35.0	-1.0
MALT	Malatya	114.62	309	*e*PKIKP	PKiKP	11 15 35.0	-1.0
KMBO	Kilima Mbogo	117.06	265	PKP	PKPdf	11 15 41.4	0.0
KMBO				*e*PKPdf	PKPdf	11 15 42.6	+1.2
KMBO	Kilima Mbogo	117.06	265	PKIKP	PKPdf	11 15 41.4	0.0
KMBO	Kilima Mbogo	117.06	265	PKP	PKPdf	11 15 41.4	0.0
	comp=E,2.3nm,0.7s,baz=225,slow=24,SNR=6.8						
AKASG	Malin Array Be	117.08	324	PKP	PKPdf	11 15 39.3	-1.0
AKASG				PKKPbc	PKKPbc	11 26 05.0	-1.9
AKASG	Malin Array Be	117.08	324	PKIKP	PKPdf	11 15 39.3	-1.0
AKASG	Malin Array Be	117.08	324	PKP	PKPdf	11 15 39.3	-1.0
	comp=E,1.8nm,0.6s,baz=64,slow=1.9,SNR=9.6						
AKASG				PKKPbc	PKKPbc	11 26 05.0	-1.9
	comp=E,0.8nm,0.6s,baz=260,slow=4.1,SNR=8.3						
BRTR	Keskin Array B	117.92	312	PKP	PKPdf	11 15 41.2	-1.0
BRTR				PKKPbc	PKKPbc	11 26 03.8	+0.1
BRTR	Keskin Array B	117.92	312	PKIKP	PKPdf	11 15 41.3	-1.0
BRTR	Keskin Array B	117.92	312	PKP	PKPdf	11 15 41.2	-1.0
	comp=E,1.7nm,0.8s,baz=123,slow=2.1,SNR=8.9						
BRTR				PKKPbc	PKKPbc	11 26 03.8	+0.1
	comp=E,1.2nm,0.7s,baz=216,slow=4.1,SNR=7.6						
NOA	NORSAR Array B	119.28	341	PKP	PKPdf	11 15 43.6	-0.6
NOA	NORSAR Array B	119.28	341	PKIKP	PKPdf	11 15 43.6	-0.6
NOA	NORSAR Array B	119.28	341	PKP	PKPdf	11 15 43.6	-0.6
	comp=E,1.3nm,0.7s,baz=46,slow=1.9,SNR=7.4						
BOSA	Boshof	119.97	232	PKP	PKPdf	11 15 46.1	-0.5
BOSA	Boshof	119.97	232	PKIKP	PKPdf	11 15 46.1	-0.5
BOSA	Boshof	119.97	232	PKP	PKPdf	11 15 46.1	-0.5
	comp=E,3.3nm,0.8s,baz=134,slow=14,SNR=5.3						
SCHQ	Schefferville	121.63	27	PKP	PKPdf	11 15 48.0	-1.0
SCHQ	Schefferville	121.63	27	PKP	PKPdf	11 15 48.0	-1.0
	comp=E,2.2nm,0.8s,baz=260,slow=10,SNR=2.6						
LHS	Liberty Hill	122.02	53	*e*PKPdf	PKPdf	11 15 49.9	-0.5
LHS	Liberty Hill	122.02	53	*e*PKIKP	PKPdf	11 15 49.9	-0.4
LSZ	Lusaka	122.66	247	*e*PKPdf	PKPdf	11 15 52.7	+0.6
LSZ	Lusaka	122.66	247	*e*PKIKP	PKPdf	11 15 52.7	+0.6
VYHS	Vyhne	124.05	326	*e*PKP	PKPdf	11 15 53.7	-0.1
VYHS	Vyhne	124.05	326	*e*PKIKP	PKPdf	11 15 53.7	-0.1
BRG	Berggiesshubel	125.19	331	*e*PKP	PKPdf	11 15 55.2	-0.7
BRG				*e*		11 19 30.5	
BRG	Berggiesshubel	125.19	331	*e*PKIKP	PKPdf	11 15 55.3	-0.6
CLL	Collm	125.36	331	*i* PKP	PKPdf	11 15 55.6	-0.6
CLL	Collm	125.36	331	*i* PKIKP	PKPdf	11 15 55.6	-0.6
CLL				pmax	pmax		
	comp=Z,6.0nm,0.8s						
KHC	Kasperske Hory	126.48	329	*e*PKP	PKPdf	11 15 58.0	-0.4
KHC				*e*		11 16 12.5	
KHC	Kasperske Hory	126.48	329	*e*PKIKP	PKPdf	11 15 58.0	-0.4
KHC				*e*		11 16 12.5	
KHC	Kasperske Hory	126.48	329	*e*PKPDF	PKPdf	11 15 58.0	-0.4
KHC				*e*pPKP	pPKPdf	11 16 12.5	+3.8
GERES	GERESS Array B	126.60	329	PKP	PKPdf	11 15 56.5	-2.1
GERES	GERESS Array B	126.60	329	PKIKP	PKPdf	11 15 56.5	-2.2
GERES	GERESS Array B	126.60	329	PKP	PKPdf	11 15 56.5	-2.1
	comp=Z,2.1nm,0.7s,baz=4.1,slow=1.9,SNR=9.9						
TSUM	Tsumeb	130.52	238	*e*PKPdf	PKPdf	11 16 08.0	+1.0
ROSC	El Rosal	131.24	89	PKP	PKPdf	11 16 08.6	+0.1
ROSC	El Rosal	131.24	89	PKP	PKPdf	11 16 08.6	+0.1
	comp=Z,5.1nm,0.4s,baz=102,slow=24,SNR=2.4						
LPAZ	La Paz	131.91	119	*e*PKPdf	PKPdf	11 16 10.6	+0.8
LPAZ	La Paz	131.91	119	*e*PKIKP	PKPdf	11 16 10.6	+0.9
LPAZ	La Paz	131.91	119	PKP	PKPdf	11 16 09.9	+0.2
	comp=Z,1.9nm,0.7s,baz=288,slow=0.9,SNR=6.9						
LPL	La Plagne	132.36	330	*e*PKPdf	PKPdf	11 16 07.8	-1.9
LPL	La Plagne	132.36	330	*e*PKIKP	PKPdf	11 16 07.8	-1.9
LPG	La Plagne	132.36	330	*e*PKPdf	PKPdf	11 16 07.9	-1.8
LPG	La Plagne	132.36	330	*e*PKIKP	PKPdf	11 16 07.9	-1.8
TOA0	Torodi Ar. Sit	152.62	286	*e*PKPdf	PKPdf	11 16 45.1	-0.8
TOA0				*e*PKPbc	PKPbc	11 16 52.6	-0.4
TORD	Torodi Ar. Bea	152.62	286	PKP	PKPdf	11 16 44.7	-1.2
TORD				PKPbc	PKPbc	11 16 52.2	-0.8
TORD	Torodi Ar. Bea	152.62	286	PKP	PKPdf	11 16 44.7	-1.2
	comp=Z,4.7nm,0.9s,baz=38,slow=1.6,SNR=27						
TORD				PKPbc	PKPbc	11 16 52.2	-0.8
	comp=Z,45nm,0.8s,baz=62,slow=2.2,SNR=115						
LIC	Lamto	159.81	270	*e*PKPdf	PKPdf	11 16 51.8	-3.6

CASC 13 11:00:11.2±3.1,1196N×8874W,h37^{km}±999^{km},MD3.9, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LFRS	El Faro	1.69	349	*e*P	x	11 01 13.9	
LFRS				*e*S	x	11 01 34.2	
LCBS	La Ceiba	1.70	352	*e*P	x	11 01 15.7	
LCBS				*e*S	x	11 01 37.3	
SNET	Serv Nac Est T	1.78	344	*e*P	x	11 01 14.3	
SNET				*e*S	x	11 01 35.0	
BOQS	Boqueron	1.84	343	*e*P	x	11 01 18.0	
BOQS				*e*S	x	11 01 39.4	
CAHU	Cacacuatique	1.87	16	*e*P	x	11 01 18.8	
CAHU				*e*S	x	11 01 43.2	
TEL3	Telica 3	1.95	72	*e*P	Pn	11 00 43.5	+1.7
TEL3				*e*S	Sn	11 01 07.5	+2.4
COPN	Copaltepe	2.11	84	*e*P	Pn	11 00 43.8	-0.3
COPN				*e*S	Sn	11 01 08.9	-0.2
APYN	Apoyeque	2.35	83	*e*P	Pn	11 00 47.4	0.0
APYN				*e*S	Sn	11 01 15.0	0.0
TISN	Laguna Tiscapa	2.42	85	*e*P	Pn	11 00 48.0	-0.4
MGAN	Managua	2.45	85	*e*S	Sn	11 01 17.2	-0.1
TICN	Ticuantepe	2.46	88	*i* P	Pn	11 00 49.0	+0.3
HUEN		2.54	81	*e*P	Pn	11 00 49.7	-0.3
HUEN				*e*S	Sn	11 01 18.8	-0.8

IDC 13 11:26:48.0±0.9,5702S×12579W,h0^{km},mb3.8/5, mb1 4.1/5,mb1mx4.0/11,mbtmp3.8/5,Error ellipse: s-maj=45.0km s-min=27.1km az=144.0,Southern East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAW	Mawson	55.52	184	P	P	11 36 23.9	-0.2
	1.4nm,0.4s,baz=117,slow=6.8,SNR=4.1						
LPAZ	La Paz	59.05	71	P	P	11 36 50.5	+0.8
	1.3nm,0.7s,baz=204,slow=2.3,SNR=5.6						
ASAR	Alice Springs	75.85	248	P	P	11 38 36.8	+0.9
	0.4nm,0.8s,baz=144,slow=6.8,SNR=9.9						
WRA	Warramunga Arr	78.72	251	P	P	11 38 51.8	-0.3
	0.9nm,1.0s,baz=145,slow=5.0,SNR=11						
TXAR	Lajitas Array	88.03	19	P	P	11 39 39.8	+0.2
	0.2nm,0.8s,baz=308,slow=4.4,SNR=3.3						
SONM	Songino Array	147.62	276	PKPbc	PKPbc	11 46 32.1	-1.1
	0.8nm,0.6s,baz=142,slow=2.5,SNR=6.6						

CASC 13 11:27:26.8±3.7,1264N×8807W,h32^{km}±17^{km},MD3.9, 4C-4D,Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNCH	Conchagua	0.68	20	⇓*e*P	x	11 28 20.6	
CNCH				*e*S	x	11 28 32.8	
BLLM	Bellamira	0.82	348	⇓*e*P	x	11 28 21.8	
BLLM				*e*S	x	11 28 34.8	
CAHU	Cacacuatique	1.14	353	⇓*e*P	x	11 28 26.9	
CAHU				*e*S	x	11 28 44.0	
TEL3	Telica 3	1.20	93	*e*P	Pn	11 27 47.3	0.0
TEL3				*e*S	Sn	11 28 04.7	+2.3
TELN	Telica	1.21	91	*e*P	Pn	11 27 45.0	-2.5
SNVI	San Vicente	1.23	322	*e*P	x	11 28 26.2	
SNVI				*e*S	x	11 28 43.8	
LCBS	La Ceiba	1.35	319	*e*P	x	11 28 27.5	
LCBS				*e*S	x	11 28 45.1	
LFRS	El Faro	1.38	316	⇑*e*P	x	11 28 27.7	
LFRS				*e*S	x	11 28 44.2	
LBRS	Las Brisas	1.45	319	*e*P	x	11 28 29.5	
LBRS				*e*S	x	11 28 48.0	
LFU	La Fuente	1.50	317	⇓*e*P	x	11 28 30.3	
LFU				*e*S	x	11 28 47.4	
MOMJ	Momotombo	1.51	98	⇑*e*P	Pn	11 27 51.3	-0.3
MOMJ				*e*S	Sn	11 28 11.2	+1.1
COPN	Copaltepe	1.51	107	*e*P	Pn	11 27 50.8	-0.9
COPN				*e*S	Sn	11 28 10.0	-0.2
BOQS	Boqueron	1.61	313	⇑*e*P	x	11 28 31.3	
BOQS				*e*S	x	11 28 53.0	
APYN	Apoyeque	1.73	103	*e*P	Pn	11 27 54.3	-0.2
APYN				*e*S	Sn	11 28 15.7	+0.2
XAVN	Gruta Xavier	1.77	106	*e*P	Pn	11 27 54.7	-0.5
XAVN				*e*S	Sn	11 28 16.3	-0.2
TISN	Laguna Tiscapa	1.82	105	*e*P	Pn	11 27 55.5	-0.4
TISN				*e*S	Sn	11 28 18.9	+0.9
MGAN	Managua	1.84	105	*e*S	Sn	11 28 19.0	+0.6
HUEN		1.88	99	⇑*e*P	Pn	11 27 56.5	-0.1
HUEN				*e*S	Sn	11 28 18.9	-0.3
TICN	Ticuantepe	1.89	108	*e*P	Pn	11 27 56.2	-0.7
TICN				*e*S	Sn	11 28 21.4	+1.8
SBLS	San Blas	1.93	308	*e*P	x	11 28 36.9	
SBLS				*e*S	x	11 28 59.3	
RBDL	Robledal	2.15	313	*e*P	x	11 28 39.0	
RBDL				*e*S	x	11 29 05.7	
SSNN	San Juan del S	2.55	121	*e*S	Sn	11 28 35.5	-0.4
JCR	Jicaral	4.01	133	*e*P	Pn	11 28 26.3	+0.3
CGA2	Cerro Gallo 2	4.39	126	*e*P	Pn	11 28 33.8	+2.5
PRS1	Puriscal	4.53	125	*e*P	Pn	11 28 35.4	+2.2
LCR2	La Lucha 2	4.92	125	*e*P	Pn	11 28 41.3	+2.8
QCR	Quepos	4.99	129	*e*P	Pn	11 28 40.6	+1.1
URSC	Urasca	5.04	123	*e*P	Pn	11 28 43.8	+3.5
URSC				*e*S	Sn	11 29 39.5	+2.0
BAR1		5.76	125	*e*P	Pn	11 28 51.7	+1.6

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*IDC **13** 11:27:57.9±0.9,3433N×8625E,h0^{km},mb3.7/11, mb1 3.9/13,mb1mx3.8/23,mbtmp3.7/13,ML3.4/2,Error ellipse: s-maj=28.5km s-min=18.4km az=42.0*

*NEIC **13** 11:27:59.8±1.0,3432N×8616E,h10^{km},mb4.0/2,Error ellipse: s-maj=19.2km s-min=14.8km az=160.0*

*MOS **13** 11:28:02.7±2.1,3442N×8628E,h33^{km},mb4.0/8,Error ellipse: s-maj=16.5km s-min=8.9km az=99.1*

*ISCJB **13** 11:28:03.5±1.0,3440N±005×8617E±009,h45^{km}±12^{km}, mb3.8/14,Error ellipse: s-maj=12.8km s-min=8.1km az=166.9*

*BJI **13** 11:28:03.6,3450N×8609E,h24^{km},mB5.0,mb4.4,Ms4.7, Msz4.4*

ISC 13 11:28:06.3±0.7,3438N±005×8612E±009,h54^{km}±10^{km}, n47,σ1^{s}18/46,mb3.8/14,5C,Xizang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	Lhasa	6.33	136	*e*PG	Px	11 29 56.8	
GUN	Gumba	6.46	182	*e*P	Pn	11 29 39.4	+0.6
	38nm,0.7s						
GKN	Gorkha	6.49	192	*e*P	Pn	11 29 39.8	+0.6
	15nm,0.6s						
KKN	Kakani	6.61	186	*e*P	Pn	11 29 40.5	-0.4
	18nm,0.5s						
JIRN	Jiri	6.70	179	*e*P	Pn	11 29 42.8	+0.6
	10nm,0.2s						
DMN	Daman	6.81	188	*e*P	Pn	11 29 43.8	+0.2
	14nm,0.4s						
PKI	Pulchoki	6.82	185	*e*P	Pn	11 29 44.3	+0.6
	21nm,0.4s						
KOLN	Koldanda	6.94	199	*e*P	Pn	11 29 45.9	+0.5
	31nm,0.8s						
TAPN	Taplejung	7.14	169	*e*P	Pn	11 29 47.6	-0.6
	19nm,0.4s						
ODAN	Odare	7.58	171	*e*P	Pn	11 29 53.3	-0.9
	17nm,0.4s						
AAK	Ala-Archa	12.27	316	*i* P	Pn	11 30 59.9	+1.7
AAK				pmax	pmax		
	comp=Z,5.0nm,2.0s						
MK31	Makanchi Array	12.73	348	*e*Pn	Pn	11 31 03.5	-0.9
MKAR	Makanchi Array	12.73	348	Pn	Pn	11 31 00.3	-4.1
MKAR	Makanchi Array	12.73	348	*i* P	Pn	11 31 03.5	-0.9
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	12.73	348	Pn	Pn	11 31 00.3	-4.1
	comp=Z,0.1nm,0.3s,baz=157,slow=14,SNR=14						
KBL	Kabul	14.09	275	*e*Pn	Pn	11 31 21.1	-1.9
KURK	Kurchatov	17.21	344	*e*P	Pn	11 32 04.0	+1.2
	comp=Z,16nm,1.1s						
KURK	Kurchatov	17.21	344	*i* P	Pn	11 32 01.8	-1.0
ZAL	Zalesovo	19.57	358	P	Pn	11 32 27.1	-4.2
ZALV	Zalesovo Beam	19.58	358	P	Pn	11 32 27.1	-4.3
	comp=Z,0.2nm,0.3s,baz=188,slow=10,SNR=7.8						
SONM	Songino Array	20.27	42	P	P	11 32 36.3	-0.8
SONM				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SONM	Songino Array	20.27	42	P	P	11 32 36.3	-0.9
	comp=Z,2.9nm,0.9s,baz=232,slow=12,SNR=14						
ZAK	Zakamensk	20.32	33	*e*P	P	11 32 36.0	-1.7
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.0s						
ULN	Ulaanbaatar	20.65	43	*e*P	P	11 32 41.7	+0.4
	comp=Z,5.9nm,0.9s						
ULN	Ulaanbaatar	20.65	43	*e*P	P	11 32 41.7	+0.4
ULN				pmax	pmax		
	comp=Z,6.0nm,0.9s						
AKTK	Aktyubinsk	26.01	317	P	P	11 33 34.8	+0.8
AKTO	Aktyubinsk	26.01	317	P	P	11 33 34.8	+0.8
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.6						
AKTO	Aktyubinsk	26.01	317	P	P	11 33 34.8	+0.8
	comp=Z,2.0nm,0.9s,mb3.6,baz=151,slow=9.6,SNR=2.9						
KIV	Kislovodsk	34.66	299	⇑*e*P	P	11 34 54.4	+4.0
KIV				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
ANN	Anapa	38.42	301	*e*P	P	11 35 29.4	+6.9
ANN				pmax	pmax		
	comp=Z,56nm,1.7s						
BRTR	Keskin Array B	41.73	293	*i* P	P	11 35 55.0	+5.1
BRTR	Keskin Array B	41.73	293	P	P	11 35 50.9	+0.9
	comp=Z,0.3nm,0.3s,mb3.4,baz=4.8,slow=19,SNR=3.0						
TIXI	Tiksi	43.48	18	⇑*e*P	P	11 36 04.6	+0.9
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.6s,mb3.9						
AKASG	Malin Array Be	43.85	310	P	P	11 36 04.9	-2.1

	comp=Z,0.2nm,0.3s,mb3.3,baz=59,slow=37,SNR=7.0						
MA2	Magadan	48.39	38	⇑eP	P	11 36 44.5	+2.0
MA2				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
SEY	Seymchan	49.30	34	⇑eP	P	11 36 51.0	+1.6
NOA	NORSAR Array B	53.42	324	P	P	11 37 19.1	-1.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	53.42	324	P	P	11 37 19.1	-1.2
	comp=Z,0.7nm,0.8s,mb3.6,baz=40,slow=15,SNR=2.6						
GERES	GERESS Array B	54.05	309	P	P	11 37 25.8	+0.7
	comp=Z,0.4nm,0.6s,mb3.5,baz=161,slow=38,SNR=3.0						
BILL	Bilibino	54.97	27	i P	P	11 37 33.8	+2.4
BILL				pmax	pmax		
	comp=Z,7.0nm,2.2s,mb4.3						
WRA	Warramunga Arr	70.86	132	P	P	11 39 16.0	-1.6
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	Warramunga Arr	70.86	132	P	P	11 39 16.0	-1.6
	comp=Z,0.8nm,0.9s,mb3.7,baz=327,slow=6.5,SNR=6.7						
ASAR	Alice Springs	73.43	135	P	P	11 39 31.8	-1.1
	comp=Z,0.4nm,0.9s,mb3.4,baz=330,slow=6.5,SNR=5.0						
TORD	Torodi Ar. Bea	78.15	278	P	P	11 39 59.6	-0.5
	comp=Z,0.6nm,0.8s,mb3.5,baz=29,slow=5.5,SNR=3.3						
YKA	Yellowknife Ar	82.03	10	⇑eP	P	11 40 21.3	+1.1
YKA	Yellowknife Ar	82.03	10	P	P	11 40 18.3	-1.9
	comp=Z,0.2nm,0.7s,mb3.1,baz=335,slow=4.7,SNR=4.0						
ULM	Lac du Bonnet	95.72	1	P	P	11 41 26.1	0.0
	comp=Z,1.3nm,0.7s,mb4.4,baz=18,slow=3.2,SNR=3.2						

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*NIED **13** 11:36:00, 24.00N×122.50E, h29^{km}, Mw4.2   Best double couple: M₀2.66000×10^{15} NP1:ϕ_s334.00000°, δ14.00000°, λ174.00000°. NP2:ϕ_s69.00000°, δ89.00000°, λ76.00000°.*

*IDC **13** 11:36:50.1±0.6, 24.08N×122.57E, h0^{km}, mb4.2/17, mb1 4.2/19, mb1mx4.2/25, mbtmp4.2/19, ML3.7/2, MS3.6/5, Ms1 3.6/5, ms1mx3.2/32, Error ellipse: s-maj=22.6km s-min=13.2km az=70.0*

*BJI **13** 11:36:52.4, 24.20N×122.81E, h24^{km}, mB4.6, mb4.4, ML4.3, Ms3.9, Msz3.8*

*MOS **13** 11:36:53.7±1.1, 24.17N×122.63E, h33^{km}, mb4.6/7, Error ellipse: s-maj=16.3km s-min=9.2km az=110.5*

*NEIC **13** 11:36:54.7±2.1, 24.02N×122.55E, h29^{km}±15^{km}, mb4.4/3, Error ellipse: s-maj=8.7km s-min=7.0km az=221.0*

*ISCJB **13** 11:36:55.9±0.5, 24.14N±0.05×122.53E±0.03, h51^{km}±4^{km}, mb4.2/25, MS3.8/3, Error ellipse: s-maj=8.9km s-min=4.0km az=2.4*

*JMA **13** 11:36:55.1±0.3, 24.04N×122.48E, h32^{km}, M4.3*

ISC 13 11:36:55.2±1.0, **24.06N**±0.05×**122.48E**±0.02, **h29**^{km}±6^{km}, **n79,** $\sigma 1\overset{s}{.}$**13**/91, **mb4.2**/25, **MS3.8**/3, **7C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	Yonaguni jima	0.63	50	P	Pb	11 37 07.6	-0.2
YOJ				S	Sb	11 37 16.0	-0.2
NACB	Ninganchiao	0.82	278	ePg	Pn	11 37 09.2	-1.6
IRIF	Iriomote-Funau	1.17	76	P	Pn	11 37 15.9	+0.3
IRIF				S	Sn	11 37 32.2	+1.6
YHNB	Yeheng	1.18	301	ePn	Pn	11 37 16.9	+1.1
YHNB				eSn	Sn	11 37 31.7	+0.8
HATJ	Hateruma jima	1.21	90	P	Pn	11 37 16.0	-0.1
HATJ				S	Sn	11 37 31.9	+0.4
TATO	Taipei	1.29	315	ePn	Pn	11 37 18.9	+1.7
TATO				eSn	Sn	11 37 37.3	+3.8
JKRS	Kuro-shima	1.41	82	P	Pn	11 37 19.2	+0.4
JKRS				S	Sn	11 37 38.3	+1.9
JIJ	Ishigaki jima	1.54	78	P	Pn	11 37 20.5	-0.3
JIJ				S	Sn	11 37 40.0	+0.2
JTJ	Tarama	2.10	74	P	Pn	11 37 29.6	+1.1
JMJ	Miyako jima 2	2.67	73	P	Pn	11 37 38.3	+2.1
JOGS	Gusukube	2.75	75	eS	Sn	11 38 11.2	+1.5
QZH	Quanzhou	3.65	285	⇑iP	Pn	11 37 51.5	+1.7
QZH				S	Sn	11 38 32.5	+0.6
QZH				Smax			
	comp=N,420nm,0.8s						
QZH				Smax			
	comp=E,350nm,0.8s						
QZH				LR	LR		
	comp=N,1μm,9.1s						
QZH				LR	LR		
	comp=E,1μm,13.6s						
QZH				LR	LR		
	comp=Z,1μm,12.4s						
JKE	Kume jima 2	4.50	59	P	Pn	11 38 01.7	+0.2
JKE				S	Sn	11 38 55.4	+2.5
JAGN	Aguni-jima	4.99	59	P	Pn	11 38 07.8	-0.3
JAGN				eS	Sn	11 39 03.8	-1.0
JIH	Iheya	5.77	58	P	Pn	11 38 17.8	-1.1
JOW	Kunigami	5.92	61	Pn	Pn	11 38 20.0	-0.9
JOW	Kunigami	5.92	61	P	Pn	11 38 19.9	-1.0
JOW				eS	Sn	11 39 27.3	-0.5
JOW	Kunigami	5.92	61	Pn	Pn	11 38 20.0	-0.9
	comp=Z,5.5nm,0.3s,baz=243,slow=9.0,SNR=9.6						
JTK	Tokunoshima	6.91	56	P	Pn	11 38 33.0	-1.5
JTK				S	Sn	11 39 52.5	+0.5
SSE	Sheshan	7.11	351	P	Pn	11 38 38.1	+0.9
SSE				AMB	AMB		
	comp=Z,72nm,0.6s						
SSE				AMB	AMB		
	comp=Z,107nm,4.0s						
SSE				LR	LR		
	comp=N,162nm,20.8s						
SSE				LR	LR		
	comp=E,111nm,20.8s						
SSE				LR	LR		
	comp=Z,277nm,18.7s						
SSE	Sheshan	7.11	351	P	Pn	11 38 38.1	+0.9
	comp=Z,72nm,0.6s						
JAM	Amami Oshima	7.72	54	P	Pn	11 38 44.0	-1.7
NJ2	Nanjing	8.59	339	eP	Pn	11 38 55.0	-2.5
NJ2				AP		11 39 01.9	
NJ2				XP		11 39 06.8	
NJ2				S	Sn	11 40 27.5	-5.9
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s						
NJ2				AMB	AMB		
	comp=Z,70nm,5.6s						
NJ2				Smax			
	comp=N,100nm,0.8s						
NJ2				Smax			
	comp=E,60nm,1.0s						
NJ2				LR	LR		
	comp=N,420nm,8.3s						
NJ2				LR	LR		
	comp=E,220nm,7.3s						
NJ2				LR	LR		
	comp=Z,220nm,7.3s						
JNU	Nakatsue	11.65	37	LR	LR	11 44 19.9	
	comp=Z,183nm,18.9s,baz=193,slow=39						
KSRS	Korea Array	14.14	18	Pn	Pn	11 40 17.0	+3.5
	comp=Z,3.1nm,0.3s,baz=197,slow=11,SNR=45						
KSRS				LR	LR	11 46 16.8	
	comp=Z,232nm,19.1s,baz=188,slow=40						
XAN	Xi'an	15.46	313	P	Pn	11 40 37.4	+6.2
XAN				AMB	AMB		
	comp=Z,8.0nm,0.9s						
SNY	Shenyang	17.75	3	eP	Pn	11 40 55.5	-4.5
SNY				LR	LR		
	comp=N,409nm,16.2s						
SNY				LR	LR		
	comp=E,269nm,15.0s						
SNY				LR	LR		
	comp=Z,343nm,15.0s						
CBIJ	Chichi jima	18.03	76	LR	LR	11 47 08.5	
	comp=Z,149nm,19.2s,baz=215,slow=34						
MJAR	Matsushiro Arr	18.39	44	P	Pn	11 41 06.6	-1.3
	comp=Z,0.2nm,0.3s,baz=248,slow=12,SNR=4.1						
HHC	Hu-ho-hao-te	19.08	334	eP	Pn	11 41 17.6	+1.3
HHC				AMB	AMB		
	comp=Z,5.0nm,0.8s						
HHC				AMB	AMB		
	comp=Z,311nm,4.2s						
LZH	Lanzhou	20.06	311	eP	P	11 41 31.5	+5.4
LZH				AP		11 41 34.5	
LZH				XP	sP	11 41 35.5	-2.3
LZH				AMB	AMB		
	comp=Z,18nm,1.0s						
LZH	Lanzhou	20.06	311	eP	P	11 41 31.5	+5.4
	comp=Z,18nm,1.0s						
LZH				pP		11 41 34.5	
LZH				sP	sP	11 41 35.5	-2.3
GTA	Gaotai	24.52	314	eP	P	11 42 12.6	+0.5
GTA				AP		11 42 17.5	
GTA				XP	sP	11 42 20.4	-3.9
GTA				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.2						
ERM	Erimo	24.81	39	i P	P	11 42 10.9	-3.8
ASAJ	Asahikawa	25.91	35	P	P	11 42 22.6	-2.1
	comp=Z,3.1nm,0.5s,mb4.1,baz=349,slow=31,SNR=7.7						
ASAJ				LR	LR	11 54 40.5	
	comp=Z,195nm,18.0s,MS3.7,baz=7.2,slow=41						
ULN	Ulaanbaatar	26.74	337	i P	P	11 42 31.0	-1.1
SONM	Songino Array	26.96	336	P	P	11 42 33.6	-0.5
SONM						11 45 55.0	
SONM	Songino Array	26.96	336	P	P	11 42 33.6	-0.4
	comp=Z,2.4nm,0.8s,mb3.8,baz=154,slow=8.8,SNR=16						
SONM				PcP	PcP	11 45 55.0	-0.4
	comp=Z,0.4nm,0.5s,baz=172,slow=3.8,SNR=7.0						
SONM				LR	LR	11 54 19.8	
	comp=Z,166nm,19.5s,MS3.6,baz=1.6,slow=39						
YAK	Yakutsk	38.27	5	⇑eP	P	11 44 10.0	-2.6
YAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.5						
MK31	Makanchi Array	39.26	316	eP	P	11 44 21.4	+0.3
MKAR	Makanchi Array	39.26	316	P	P	11 44 21.2	+0.1
MKAR				PcP	PcP	11 46 29.4	-0.3
MKAR	Makanchi Array	39.26	316	P	P	11 44 21.2	+0.1
	comp=Z,3.4nm,0.5s,mb4.3,baz=100,slow=10,SNR=50						
MKAR				PcP	PcP	11 46 29.4	-0.3
	comp=Z,0.5nm,0.5s,baz=93,slow=4.7,SNR=4.1						
ZALV	Zalesovo Beam	41.00	327	P	P	11 44 34.5	-1.0
ZALV				PcP	PcP	11 46 34.5	-0.6
ZALV	Zalesovo Beam	41.00	327	P	P	11 44 34.5	-1.0
	comp=Z,4.2nm,0.7s,mb4.2,baz=109,slow=8.2,SNR=21						
ZALV				PcP	PcP	11 46 34.5	-0.6
	comp=Z,1.1nm,0.5s,baz=117,slow=5.0,SNR=4.2						
ZAL	Zalesovo	41.01	327	P	P	11 44 34.5	-1.0
ZAL						11 46 34.5	
FITZ	Fitzroy Crossi	42.01	176	P	P	11 44 42.4	-1.6
	comp=Z,1.1nm,0.8s,mb3.5,baz=243,slow=18,SNR=2.5						
KURK	Kurchatov	42.95	320	eP	P	11 44 51.2	-0.3
KURK	Kurchatov	42.95	320	⇑eP	P	11 44 50.5	-0.9
AAK	Ala-Archa	43.53	307	eP	P	11 44 56.7	+0.5
	comp=Z,3.9nm,1.0s,mb4.1						
AAK	Ala-Archa	43.53	307	d iP	P	11 44 56.9	+0.7
AAK				pmax	pmax		
	comp=Z,11nm,1.7s,mb4.3						
WRA	Warramunga Arr	45.23	164	P	P	11 45 09.0	-0.9
	comp=Z,2.8nm,0.6s,mb4.3,baz=346,slow=8.7,SNR=28						
KBL	Kabul	47.29	296	eP	P	11 45 28.3	+2.1
TIXI	Tiksi	47.76	3	eP	P	11 45 24.4	-4.8
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
TIXI				MLR	MLR		
	comp=Z,194nm,15.0s,MS4.2						
ASAR	Alice Springs	48.72	166	P	P	11 45 37.1	0.0
	comp=Z,2.3nm,0.5s,mb4.5,baz=353,slow=13,SNR=42						
BILL	Bilibino	51.40	19	i P	P	11 45 55.7	-1.3
BILL				pmax	pmax		
	comp=Z,7.0nm,2.3s,mb4.2						
AKTK	Aktyubinsk	55.69	316	P	P	11 46 28.9	+0.1
AKTO	Aktyubinsk	55.69	316	P	P	11 46 28.9	+0.2
	comp=Z,0.8nm,0.5s,mb4.0,baz=87,slow=14,SNR=4.3						
ARU	Arti	55.92	323	eP	P	11 46 29.8	-0.5
ARU	Arti	55.92	323	⇑iP	P	11 46 29.0	-1.3
ARU				e		11 47 23.5	
ARU				e		11 48 29.9	
ARU				eS	S	11 54 14.2	-1.8
ARU				eSS	SS	11 57 56.8	-5.0
ARU				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
STKA	Stephens Creek	58.54	161	P	P	11 46 48.9	-0.2
STKA				eP		11 46 49.1	
STKA	Stephens Creek	58.54	161	P	P	11 46 48.9	-0.2
	comp=Z,1.4nm,0.5s,mb4.3,baz=21,slow=6.7,SNR=5.2						
KIV	Kislovodsk	66.59	309	⇑eP	P	11 47 43.9	+1.1
KIV				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
ANN	Anapa	70.07	311	eP	P	11 48 05.7	+1.1
ARCES	ARCESS Array B	70.10	338	P	P	11 48 02.5	-1.7
	comp=Z,3.2nm,0.9s,mb4.2,baz=91,slow=8.1,SNR=3.3						
MALT	Malatya	71.05	304	eP	P	11 48 11.9	+1.3
	comp=Z,15nm,1.2s,mb4.8						
MALT	Malatya	71.05	304	eP	P	11 48 12.0	+1.3
MALT				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
FINES	FINESS Array B	72.15	330	i P	P	11 48 17.2	+0.4
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	72.15	330	P	P	11 48 16.9	+0.1
	comp=Z,1.0nm,0.4s,mb4.1,baz=58,slow=6.5,SNR=14						
INK	Inuvik	72.90	22	eP	P	11 48 20.3	-0.9
AKASG	Malin Array Be	73.75	319	P	P	11 48 26.2	-0.3
	comp=Z,0.5nm,0.3s,mb3.9,baz=64,slow=6.1,SNR=3.0						
BRTR	Keskin Array B	74.20	307	P	P	11 48 29.9	+0.5
	comp=Z,3.1nm,0.9s,mb4.2,baz=91,slow=6.2,SNR=15						
NOA	NORSAR Array B	78.89	332	P	P	11 48 54.9	-0.6
	comp=Z,1.4nm,0.7s,mb4.0,baz=60,slow=5.2,SNR=5.4						
YKA	Yellowknife Ar	82.62	23	⇑eP	P	11 49 14.6	-0.8
YKA	Yellowknife Ar	82.62	23	P	P	11 49 14.6	-0.8
	comp=Z,1.7nm,0.7s,mb4.2,baz=311,slow=5.0,SNR=48						
GERES	GERESS Array B	83.69	321	P	P	11 49 21.7	+0.5
	comp=Z,0.3nm,0.4s,mb3.8,baz=325,slow=23,SNR=3.7						
KMBO	Kilima Mbogo	86.10	267	⇑eP	P	11 49 35.4	+1.5
KMBO	Kilima Mbogo	86.10	267	P	P	11 49 34.7	+0.8
	comp=Z,1.8nm,0.8s,mb4.3,baz=41,slow=6.0,SNR=3.5						
EDM	Edmonton	89.13	30	eP	P	11 49 47.8	0.0
NEW	Newport	90.43	35	eP	P	11 49 54.6	+0.7

IDC 13 12:15:14.4±2.2, **18.02S**×**70.26W, h0**^{km}**, mb3.6**/2, **mb1 3.8**/4, **mb1mx3.7**/17, **mbtmp3.7**/4, **ML3.9**/2, **MS3.2**/1, **Ms1 3.3**/1, **ms1mx2.5**/19, **Error ellipse: s-maj=64.7km s-min=31.9km az=161.0, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	2.66	50	Pn	Pn	12 15 58.5	0.0
	13nm,0.3s,baz=240,slow=12,SNR=109						
LPAZ				Pg	Pg	12 16 03.6	-1.9
	20nm,0.3s,baz=261,slow=9.0,SNR=57						
LPAZ				Lg		12 16 26.6	
	16nm,0.3s,baz=14,slow=13,SNR=8.7						
LPAZ				LR	LR	12 17 12.5	
	comp=Z,370nm,18.4s,baz=260,slow=44						
SIV	San Ignacio	9.02	78	Pn	Pn	12 17 27.0	+1.0
	0.9nm,0.3s,baz=265,slow=15,SNR=11						
SIV				Lg		12 19 45.6	
	0.3nm,0.3s,baz=204,slow=19,SNR=4.1						
TORD	Torodi Ar. Bea	77.43	72	P	P	12 27 11.8	-0.3
	0.6nm,0.8s,baz=266,slow=4.3,SNR=4.0						
YKA	Yellowknife Ar	87.50	341	P	P	12 28 03.8	+0.3
	0.3nm,0.8s,baz=133,slow=4.5,SNR=3.5						

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*IDC **13** 12:26:39.0±0.7, 46.58N×155.91E, h0^{km}, mb4.0/14, mb1 4.1/16, mb1mx4.0/24, mbtmp4.0/16, ML3.9/2, MS3.2/4, Ms1 3.2/4, ms1mx2.7/28, Error ellipse: s-maj=20.2km s-min=15.6km az=126.0*

*NEIC **13** 12:26:40.5±0.6, 46.55N×156.01E, h10^{km}, mb4.4/6, Error ellipse: s-maj=15.9km s-min=11.0km az=132.0*

*ISCJB **13** 12:26:41.3±1.7, 46.49N±0.06×155.74E±0.07, h27^{km}±12^{km}, mb4.1/31, MS3.5/2, Error ellipse: s-maj=10.9km s-min=6.4km az=145.3*

*MOS **13** 12:26:42.8±1.0, 46.58N×155.77E, h36^{km}, mb4.6/13, Error ellipse: s-maj=11.5km s-min=8.6km az=111.4*

*SKHL **13** 12:26:44.4±1.0, 46.70N×155.86E, h59^{km}±8^{km}, mb4.8/3*

*BJI **13** 12:26:45.4, 47.22N×155.11E, h10^{km}, mB4.8, mb4.4, Ms4.8, Msz4.1*

ISC 13 12:26:43.7±1.6, **46.51N**±0.06×**155.81E**±0.07, **h30**^{km}±12^{km}, **n103,** $\sigma 1\overset{s}{.}$**25**/117, **mb4.1**/31, **MS3.5**/2, **7C-1D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	4.18	3	eP	Pn	12 27 41.4	-4.0
SKR				AMB	AMB	12 27 44.1	
	80nm,0.5s						
SKR				eS	Sn	12 28 24.4	-8.7
SKR				A		12 28 28.4	
	630nm,0.5s						
SKR				A		12 28 28.4	
	510nm,0.5s						
KUR	Kuril'sk	5.69	260	eP	Pn	12 28 07.0	+0.9
KUR				AMB	AMB	12 28 11.4	
	170nm,0.7s						
KUR				i S	Sn	12 29 10.0	-0.4
KUR				A		12 29 11.5	
	730nm,0.7s						
KUR				A		12 29 11.5	
	190nm,0.7s						
PET	Petropavlovsk	6.77	15	ePn	Pn	12 28 16.9	-4.1
	26nm,0.4s						
PET				eSn	Sn	12 29 28.1	-8.9
PET	Petropavlovsk	6.77	15	i PN	Pn	12 28 16.9	-4.1
YUK	Yuzh-Kuril'sk	7.44	254	eP	Pn	12 28 32.3	+2.2
YUK				eS	Sn	12 29 52.5	-1.0
YUK				A		12 29 59.0	
	380nm,0.5s						
NEM2	Nemuro 2	7.80	250	P	Pn	12 28 35.1	0.0
NEM2				eS	Sn	12 29 55.9	-6.5
JRA	Rausu	7.97	255	P	Pn	12 28 38.7	+1.3
JRA				eS	Sn	12 30 05.0	-1.5
JNK	Nakash	8.38	254	P	Pn	12 28 43.8	+0.8
JAK	Akkeshi	8.65	250	P	Pn	12 28 46.2	-0.6
JAK				eS	Sn	12 30 16.4	-6.8
JTKR	Abashiri--Toko	8.77	257	P	Pn	12 28 49.7	+1.3
JTKR				eS	Sn	12 30 22.3	-3.9
YSS	Yuzh-Sakhalins	8.98	278	ePn	Pn	12 28 54.9	+3.7
	20nm,0.8s						
YSS	Yuzh-Sakhalins	8.98	278	⇑iPN	Pn	12 28 55.0	+3.8
YSS				pmax	pmax		
	comp=Z,40nm,1.0s						
YSS	Yuzh-Sakhalins	8.98	278	i P	Pn	12 28 55.0	+3.8
YSS				AMB	AMB	12 28 56.0	
	comp=Z,40nm,1.0s						
YSS				eS	Sn	12 30 33.5	+2.3
YSS				A		12 30 36.0	
	comp=Z,20nm,0.8s						
JAR	Ashorobuto	9.13	254	P	Pn	12 28 54.3	+1.0
JAR				eS	Sn	12 30 31.5	-3.4
JMP	Maruseppu	9.13	259	P	Pn	12 28 53.3	0.0
JSE	Soyaes	9.38	265	P	Pn	12 28 59.9	+3.2
JKK2	Kamakawa 2	9.59	259	P	Pn	12 29 01.3	+1.7
ASAJ	Asahikawa	9.61	260	P	Pn	12 29 02.3	+2.4
ASAJ	Asahikawa	9.61	260	PN	Pn	12 29 01.0	+1.1
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,64nm,18.0s						
ASAJ	Asahikawa	9.61	260	Pn	Pn	12 29 01.0	+1.1
	comp=Z,1.6nm,0.3s,baz=99,slow=18,SNR=19						
ASAJ				LR	LR	12 33 24.5	
	comp=Z,64nm,18.0s,baz=148,slow=42						
JCH	Churui	9.70	251	P	Pn	12 29 01.0	-0.1
JCH				eS	Sn	12 30 38.7	-10
JWK2	Keihoku	9.77	268	P	Pn	12 29 07.8	+5.7
JFR	Furan	9.96	255	P	Pn	12 29 06.8	+2.1
JAB	Ashibetsu	10.08	258	P	Pn	12 29 08.6	+2.3
ERM	Erimo	10.12	248	ePN	Pn	12 29 09.0	+2.1
JEM	Erimo	10.12	248	P	Pn	12 29 07.7	+0.8
JNBK	Urakawa-nobuka	10.25	250	P	Pn	12 29 07.9	-0.8
JBT2	Biratori 2	10.28	254	P	Pn	12 29 09.6	+0.5
JEW	Eniwo	10.86	255	P	Pn	12 29 20.4	+3.4
JEW				eS	Sn	12 31 12.8	-4.7
JNB	Noboribetsu	11.29	254	P	Pn	12 29 22.4	-0.6
JKB	Kayabe	11.56	252	P	Pn	12 29 25.8	-0.9
JOT	Ohata	11.80	250	P	Pn	12 29 28.1	-1.8
JOT				eS	Sn	12 31 30.1	-10
JYM2	Yakumo 2	11.89	254	P	Pn	12 29 30.5	-0.7
JANG	Nango	12.06	245	P	Pn	12 29 30.8	-2.6
JTM	Tenmabayashi	12.11	247	P	Pn	12 29 32.2	-1.9
JOSM	Okushiri--Mats	12.51	255	P	Pn	12 29 38.7	-0.8
OFUJ	Ofunato	12.75	239	P	Pn	12 29 41.5	-1.4
JRG	Rokugo	13.18	243	P	Pn	12 29 45.7	-3.0
MA2	Magadan	13.43	349	⇑ePN	Pn	12 29 50.7	-1.3
MA2				pmax	pmax		
	comp=Z,2.0nm,0.6s						
JSD	Sado	15.48	243	P	Pn	12 30 18.5	-1.3
KLR	Kul'dur	16.35	288	eP	Pn	12 30 28.8	-2.1
MAJO	Matsushiro	16.48	239	eP	Pn	12 30 39.4	+6.7
	comp=Z,16nm,1.3s						
MAJO	Matsushiro	16.48	239	eP	Pn	12 30 39.4	+6.7
MAJO				pmax	pmax		
	comp=Z,16nm,1.3s						
MAT	Matsushiro	16.48	239	P	Pn	12 30 32.0	-0.7
MJAR	Matsushiro Arr	16.48	239	Pn	Pn	12 30 31.5	-1.2
MJAR				LR	LR	12 36 04.9	
MJAR	Matsushiro Arr	16.48	239	P	Pn	12 30 31.5	-1.2
MJAR				MLR	MLR		
	comp=Z,42nm,19.0s						
MJAR	Matsushiro Arr	16.48	239	Pn	Pn	12 30 31.5	-1.2
	comp=Z,0.2nm,0.3s,baz=29,slow=12,SNR=8.7						
MJAR				LR	LR	12 36 04.9	
	comp=Z,42nm,19.0s,baz=50,slow=34						
SEY	Seymchan	16.57	355	⇑eP	Pn	12 30 33.1	-0.5
CN2	Changchun	21.52	274	eP	P	12 31 29.4	-0.7
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
YAK	Yakutsk	21.55	326	eP	P	12 31 30.4	+0.2
YAK				pmax	pmax		
	comp=Z,18nm,1.0s,mb4.5						
CLNS	Chul'man	21.59	310	eP	P	12 31 28.6	-2.1
CLNS				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.3						
CLNS				pmax	pmax		
	comp=N,3.0nm,0.6s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.6s						
BILL	Bilibino	22.25	10	eP	P	12 31 38.6	+0.9
	comp=E,9.6nm,0.9s,mb4.2						
BILL	Bilibino	22.25	10	⇑eP	P	12 31 38.1	+0.4
BILL				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.0						
KSRS	Korea Array	22.52	256	P	P	12 31 45.0	+4.1
	comp=Z,3.4nm,0.6s,mb4.0,baz=53,slow=11,SNR=14						
BOD	Bodaibo	27.57	310	eP	P	12 32 36.2	+8.5
BOD				pmax	pmax		
	comp=Z,4.0nm,2.2s,mb3.7						
TIXI	Tiksi	28.24	342	⇑eP	P	12 32 33.7	+0.1
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.9s,mb4.0						
NJ2	Nanjing	31.72	256	eP	P	12 33 09.3	+4.5
NJ2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.1						
ULN	Ulaanbaatar	32.72	291	⇑eP	P	12 33 13.6	+0.2
SONM	Songino Array	33.16	291	P	P	12 33 17.7	+0.5
SONM				pmax	pmax		
	comp=Z,1.0nm,0.9s						
SONM	Songino Array	33.16	291	P	P	12 33 17.7	+0.5
	comp=Z,1.4nm,0.9s,mb3.9,baz=60,slow=9.4,SNR=8.7						
ZAK	Zakamensk	34.45	296	eP	P	12 33 29.0	+0.6
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.7						
GTA	Gaotai	40.84	281	eP	P	12 34 25.5	+3.0
GTA				AP	pP	12 34 29.8	-1.5
GTA				XP	sP	12 34 32.9	-2.0
GTA				AMB	AMB		
	comp=Z,3.0nm,1.2s,mb3.8						
INK	Inuvik	40.86	32	P	P	12 34 21.7	-0.6
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	Inuvik	40.86	32	P	P	12 34 21.7	-0.6
	comp=Z,0.6nm,0.5s,mb3.5,baz=325,slow=8.0,SNR=9.9						
ZALV	Zalesovo Beam	44.25	307	P	P	12 34 49.6	-0.4
	comp=Z,0.9nm,0.5s,mb3.8,baz=67,slow=7.3,SNR=7.2						
ZALV				LR	LR	12 54 45.4	
	comp=Z,56nm,18.2s,MS3.5,baz=153,slow=38						
ZAL	Zalesovo	44.26	307	P	P	12 34 49.6	-0.5
MK31	Makanchi Array	48.69	299	eP	P	12 35 26.2	+1.2
MKAR	Makanchi Array	48.69	299	P	P	12 35 25.7	+0.7
MKAR				LR	LR	12 59 38.0	
MKAR	Makanchi Array	48.69	299	i P	P	12 35 25.7	+0.7
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	Makanchi Array	48.69	299	P	P	12 35 25.7	+0.7
	comp=Z,1.9nm,0.7s,mb4.2,baz=71,slow=8.1,SNR=17						
MKAR				LR	LR	12 59 38.0	
	comp=Z,39nm,18.6s,MS3.4,baz=185,slow=41						
KURK	Kurchatov	49.03	305	i P	P	12 35 27.9	+0.4
YKA	Yellowknife Ar	50.00	37	P	P	12 35 34.5	-0.2
YKA	Yellowknife Ar	50.00	37	eP	P	12 35 34.5	-0.2
YKA	Yellowknife Ar	50.00	37	P	P	12 35 34.5	-0.2
	comp=Z,0.8nm,1.0s,mb3.7,baz=291,slow=7.5,SNR=5.5						
BRVK	Borovoye	52.47	311	eP	P	12 35 54.3	+0.9
	comp=Z,7.6nm,0.7s,mb4.7						
BRVK	Borovoye	52.47	311	eP	P	12 35 54.3	+0.9
BRVK				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
AAK	Ala-Archa	55.60	298	eP	P	12 36 17.3	+1.0

	comp=Z,1.3nm,0.6s,mb4.1						
AAK	**Ala-Archa**	**55.60**	**298**	⇓*e*P	**P**	**12 36 16.1**	**-0.2**
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
ARU	**Arti**	**56.43**	**319**	*e*P	**P**	**12 36 22.7**	**+0.6**
	comp=Z,6.7nm,0.6s,mb4.8						
ARU	**Arti**	**56.43**	**319**	⇑*i*P	**P**	**12 36 22.3**	**+0.2**
ARU				*e*		12 38 26.2	
ARU				*e*PPP		12 39 44.2	
ARU				*e*S	**S**	**12 44 13.9**	**+3.2**
ARU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
PRGR	**Permogore**	**58.56**	**328**	*e*P	**P**	**12 36 36.9**	**-0.1**
PRGR				pmax	pmax		
	comp=Z,11nm,0.5s,mb5.1						
ARCES	**ARCESS Array B**	**58.67**	**342**	P	**P**	**12 36 37.2**	**-0.5**
ARCES	**ARCESS Array B**	**58.67**	**342**	P	**P**	**12 36 37.2**	**-0.5**
ARCES				pmax	pmax		
	comp=Z,9.0nm,1.1s						
ARCES	**ARCESS Array B**	**58.67**	**342**	P	**P**	**12 36 37.2**	**-0.5**
	comp=Z,8.5nm,1.1s,mb4.7,baz=35,slow=9.2,SNR=5.1						
PDAR	**Pinedale Array**	**63.37**	**55**	P	**P**	**12 37 08.6**	**-1.3**
	comp=Z,0.3nm,1.0s,mb3.4,baz=291,slow=5.7,SNR=2.0						
FINES	**FINESS Array B**	**65.03**	**336**	P	**P**	**12 37 20.3**	**-0.2**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	**FINESS Array B**	**65.03**	**336**	P	**P**	**12 37 20.3**	**-0.3**
	comp=Z,1.4nm,0.5s,mb4.2,baz=236,slow=3.4,SNR=4.8						
WB2	**Warramunga Arr**	**68.93**	**202**	*e*P	**P**	**12 37 46.1**	**+0.4**
WRA	**Warramunga Arr**	**68.93**	**202**	P	**P**	**12 37 46.0**	**+0.3**
WRA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
WRA	**Warramunga Arr**	**68.93**	**202**	P	**P**	**12 37 46.0**	**+0.3**
	comp=Z,2.9nm,0.8s,mb4.3,baz=22,slow=6.8,SNR=23						
NB2	**NORSAR Subarra**	**69.03**	**342**	P	**P**	**12 37 49.9**	**+3.9**
	comp=Z,5.8nm,1.2s,mb4.4,baz=26,slow=6.5						
FITZ	**Fitzroy Crossi**	**69.84**	**211**	*e*P	**P**	**12 37 52.2**	**+0.8**
	comp=Z,2.5nm,0.8s,mb4.2						
FITZ	**Fitzroy Crossi**	**69.84**	**211**	P	**P**	**12 37 51.9**	**+0.5**
	comp=Z,1.6nm,0.9s,mb4.0,baz=20,slow=15,SNR=3.4						
KIV	**Kislovodsk**	**72.28**	**316**	*e*P	**P**	**12 38 08.3**	**+2.3**
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
ASAR	**Alice Springs**	**72.61**	**201**	P	**P**	**12 38 09.2**	**+1.2**
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ASAR	**Alice Springs**	**72.61**	**201**	P	**P**	**12 38 09.2**	**+1.1**
	comp=Z,1.8nm,0.7s,mb4.1,baz=17,slow=5.5,SNR=35						
AKASG	**Malin Array Be**	**72.76**	**328**	P	**P**	**12 38 07.8**	**-0.9**
AKASG	**Malin Array Be**	**72.76**	**328**	*i* P	**P**	**12 38 08.1**	**-0.7**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
AKASG	**Malin Array Be**	**72.76**	**328**	P	**P**	**12 38 07.8**	**-0.9**
	comp=Z,3.3nm,0.5s,mb4.5,baz=31,slow=6.0,SNR=12						
TXAR	**Lajitas Array**	**75.98**	**62**	P	**P**	**12 38 28.0**	**+0.2**
TXAR	**Lajitas Array**	**75.98**	**62**	P	**P**	**12 38 28.0**	**+0.2**
	comp=Z,0.2nm,0.5s,mb3.3,baz=323,slow=5.4,SNR=5.4						
GERES	**GERESS Array B**	**79.46**	**336**	P	**P**	**12 38 46.7**	**-0.2**
	comp=Z,0.4nm,0.5s,mb3.6,baz=43,slow=4.7,SNR=3.0						
BRTR	**Keskin Array B**	**79.82**	**318**	P	**P**	**12 38 46.5**	**-2.6**
	comp=Z,0.2nm,0.5s,mb3.4,baz=56,slow=7.0,SNR=2.2						

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*IDC **13** 13:24:45.2±0.8, 46.49N×156.28E, h0^{km}, mb3.7/9, mb1 3.9/11, mb1mx3.8/24, mbtmp3.7/11, ML3.2/2, Error ellipse: s-maj=24.7km s-min=18.8km az=157.0*

*NEIC **13** 13:24:46.5±0.7, 46.48N×156.25E, h10^{km}, mb3.8/1, Error ellipse: s-maj=18.5km s-min=13.4km az=142.0*

*ISCJB **13** 13:24:48.2±0.7, 46.44N±0.10×156.2E±0.1, h33^{km}, mb3.7/11, Error ellipse: s-maj=16.7km s-min=10.8km az=42.6*

*MOS **13** 13:24:48.9±2.0, 46.57N×156.06E, h39^{km}, mb4.2/6, Error ellipse: s-maj=21.8km s-min=12.2km az=81.6*

ISC 13 13:24:50.3±0.7**, 46.45N**±0.10×**156.2E**±0.1**, h35**^{km}**, n25, σ0**^{s}**95**/26**, mb3.7**/11**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**4.23**	**360**	*e*P	**Pn**	**13 25 52.7**	**+0.4**
SKR				*e*S	**Sn**	**13 26 30.5**	**-10**
SKR				smax			
	comp=N,110nm,0.5s						
SKR				smax			
	comp=Z,60nm,0.5s						
SKR				smax			
	comp=E,90nm,0.3s						
PET	**Petropavlovsk**	**6.77**	**13**	*e*P	**Pn**	**13 26 22.4**	**-4.7**
ASAJ	**Asahikawa**	**9.84**	**261**	P	**Pn**	**13 27 08.6**	**-0.6**
ASAJ	**Asahikawa**	**9.84**	**261**	Pn	**Pn**	**13 27 08.6**	**-0.7**
	comp=E,0.3nm,0.3s,baz=98,slow=16,SNR=4.0						
MJAR	**Matsushiro Arr**	**16.67**	**240**	Pn	**Pn**	**13 28 39.6**	**-1.5**
MJAR	**Matsushiro Arr**	**16.67**	**240**	Pn	**Pn**	**13 28 39.6**	**-1.5**
	comp=E,0.0nm,0.3s,baz=30,slow=9.9,SNR=4.0						
BILL	**Bilibino**	**22.26**	**10**	P	**P**	**13 29 44.0**	**+0.2**
BILL				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.1						
TIXI	**Tiksi**	**28.37**	**342**	*e*P	**P**	**13 30 40.0**	**-0.7**
	comp=Z,1.2nm,0.6s,mb3.7						
TIXI	**Tiksi**	**28.37**	**342**	*e*P	**P**	**13 30 39.0**	**-1.7**
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb4.1						
SONM	**Songino Array**	**33.41**	**291**	P	**P**	**13 31 26.9**	**+1.6**
	comp=Z,0.2nm,0.6s,mb3.2,baz=72,slow=9.3,SNR=2.9						
ZALV	**Zalesovo Beam**	**44.48**	**307**	P	**P**	**13 32 58.0**	**+0.2**
	comp=Z,0.4nm,0.3s,mb3.6,baz=62,slow=5.7,SNR=3.2						
ZAL	**Zalesovo**	**44.50**	**307**	P	**P**	**13 32 58.0**	**+0.1**
MKAR	**Makanchi Array**	**48.94**	**299**	P	**P**	**13 33 33.2**	**+0.5**
	comp=Z,0.2nm,0.2s,mb3.7,baz=64,slow=9.8,SNR=3.1						
YKA	**Yellowknife Ar**	**49.90**	**37**	P	**P**	**13 33 38.6**	**-1.2**
YKA	**Yellowknife Ar**	**49.90**	**37**	P	**P**	**13 33 38.6**	**-1.2**
	comp=Z,0.3nm,0.7s,mb3.4,baz=296,slow=7.3,SNR=4.5						
PDAR	**Pinedale Array**	**63.20**	**55**	P	**P**	**13 35 13.6**	**-1.2**
	comp=Z,0.5nm,0.8s,mb3.7,baz=333,slow=1.7,SNR=4.3						
WRA	**Warramunga Arr**	**68.97**	**202**	P	**P**	**13 35 51.8**	**0.0**
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
WRA	**Warramunga Arr**	**68.97**	**202**	P	**P**	**13 35 51.8**	**-0.1**
	comp=Z,1.5nm,0.9s,mb3.9,baz=22,slow=6.7,SNR=9.3						
ASAR	**Alice Springs**	**72.64**	**201**	P	**P**	**13 36 15.7**	**+1.6**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	**Alice Springs**	**72.64**	**201**	P	**P**	**13 36 15.7**	**+1.6**
	comp=Z,1.0nm,0.8s,mb3.8,baz=15,slow=5.2,SNR=9.5						
TXAR	**Lajitas Array**	**75.79**	**62**	P	**P**	**13 36 33.7**	**+1.1**
TXAR	**Lajitas Array**	**75.79**	**62**	P	**P**	**13 36 33.7**	**+1.1**
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
TXAR	**Lajitas Array**	**75.79**	**62**	P	**P**	**13 36 33.7**	**+1.1**
	comp=Z,1.7nm,0.6s,mb4.2,baz=310,slow=5.0,SNR=25						
BRTR	**Keskin Array B**	**80.03**	**319**	P	**P**	**13 36 56.1**	**+0.1**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
BRTR	**Keskin Array B**	**80.03**	**319**	P	**P**	**13 36 56.0**	**+0.1**
	comp=Z,0.7nm,0.9s,mb3.6,baz=56,slow=0.4,SNR=4.8						

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*IDC **13** 13:47:59.7±16.0, 36.98N×72.10E, h141^{km}±105^{km}, mb3.3/5, mb1 3.4/8, mb1mx3.2/23, mbtmp3.3/8, ML3.9/3, Error ellipse: s-maj=146.2km s-min=25.7km az=8.0*

*ISCJB **13** 13:48:01.2±0.5, 37.20N±0.05×71.99E±0.07, h160^{km}±10^{km}, mb3.4/5, Error ellipse: s-maj=10.3km s-min=5.4km az=139.5*

*NEIC **13** 13:48:02.7±1.1, 37.15N×72.10E, h160^{km}±12^{km}, mb4.0/2, Error ellipse: s-maj=22.6km s-min=11.3km az=136.0*

ISC 13 13:48:02.4±0.5**, 37.18N**±0.05×**72.03E**±0.07**, h153**^{km}±10^{km}**, n32, σ0**^{s}**88**/46**, mb3.4**/5**, 1C-2D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	**3.58**	**224**	*e*P	**Pn**	**13 48 58.5**	**+1.2**
KBL				*e*S	**Sn**	**13 49 39.6**	**-0.2**
THN	**Thein Dam**	**5.62**	**146**	*e*P	**Pn**	**13 49 24.8**	**+0.7**
THN				*e*S	**Sn**	**13 50 26.7**	**-1.2**
DLH	**Dalhousie**	**5.64**	**144**	*e*P	**Pn**	**13 49 25.0**	**+0.6**
DLH				*e*S	**Sn**	**13 50 26.0**	**-2.4**
AAK	**Ala-Archa**	**5.77**	**18**	*e*P	**Pn**	**13 49 25.6**	**-0.2**
	11nm,0.6s						
AAK				*e*S	**Sn**	**13 50 19.7**	**-12**
KK31	**Karatay Array**	**6.03**	**349**	Pn	**Pn**	**13 49 28.7**	**-0.7**
	2.7nm,0.3s,baz=180,slow=14,SNR=55						
KK31				⇓Sn	**Sn**	**13 50 31.2**	**-6.3**
	57nm,0.3s,baz=186,slow=26						
SDNR	**Sundarnagar**	**6.98**	**143**	*e*P	**Pn**	**13 49 43.0**	**+0.8**
SDNR				*e*S	**Sn**	**13 50 55.6**	**-4.9**
KLP	**Kalpa**	**7.62**	**136**	*e*P	**Pn**	**13 49 51.9**	**+1.2**
KLP				AMb	AMB	13 49 53.6	
	comp=Z,15nm,0.2s						
KLP				*e*S	**Sn**	**13 51 10.2**	**-5.7**
JOSI	**Joshimath**	**9.10**	**134**	*e*P	**Pn**	**13 50 11.3**	**+1.0**
JOSI				AMb	AMB	13 50 13.2	
	comp=Z,68nm,0.7s						
JOSI				*e*S	**Sn**	**13 51 45.5**	**-5.8**
KHET	**Khetri**	**9.62**	**160**	*e*P	**Pn**	**13 50 17.0**	**-0.3**
KHET				AMb	AMB	13 50 18.9	
	comp=Z,4.0nm,1.0s						
KHET				*e*S	**Sn**	**13 51 55.7**	**-8.3**
KUDL	**Kundal**	**9.76**	**156**	*e*P	**Pn**	**13 50 18.8**	**-0.4**
KUDL				AMb	AMB	13 50 19.2	
	comp=Z,4.3nm,0.4s						
KUDL				*e*S	**Sn**	**13 52 00.1**	**-7.2**
SONA	**Sohna**	**9.87**	**153**	*e*S	**Sn**	**13 52 01.5**	**-8.4**
MK31	**Makanchi Array**	**12.26**	**35**	*e*P	**Pn**	**13 50 59.2**	**+7.5**
MKAR	**Makanchi Array**	**12.26**	**35**	P	**Pn**	**13 50 51.9**	**+0.2**
	comp=Z,0.1nm,0.3s,baz=218,slow=13,SNR=5.2						
KOLN	**Koldanda**	**13.53**	**131**	*e*P	**Pn**	**13 51 08.5**	**+0.3**
GKN	**Gorkha**	**14.01**	**127**	*e*P	**Pn**	**13 51 13.6**	**-0.7**
	comp=Z,15nm,0.3s						
GKN				*e*S	**Sn**	**13 53 39.3**	**-10**
KURK	**Kurchatov**	**14.33**	**17**	*e*P	**Pn**	**13 51 20.5**	**+2.4**
	comp=Z,4.7nm,1.1s						
KKN	**Kakani**	**14.57**	**126**	*e*P	**Pn**	**13 51 20.9**	**-0.4**
	comp=Z,19nm,0.6s						
DMN	**Daman**	**14.58**	**127**	*e*P	**Pn**	**13 51 21.3**	**-0.1**
	comp=Z,9.7nm,0.3s						
PKI	**Pulchoki**	**14.80**	**126**	*e*P	**Pn**	**13 51 25.0**	**+0.8**
	comp=Z,13nm,0.4s						
GUN	**Gumba**	**14.88**	**124**	*e*P	**Pn**	**13 51 24.8**	**-0.3**
AB31	**Akbulak array**	**14.92**	**328**	⇓Pn	**Pn**	**13 51 22.7**	**-2.8**
	comp=Z,0.8nm,0.3s						
AB31				⇑Sn	**Sn**	**13 53 55.6**	**-15**
	comp=Z,7.3nm,0.7s						
JIRN	**Jiri**	**15.25**	**124**	*e*P	**Pn**	**13 51 29.6**	**-0.1**
	comp=Z,16nm,0.2s						
TAPN	**Taplejung**	**16.47**	**122**	*e*P	**Pn**	**13 51 45.5**	**+0.9**
	comp=Z,6.9nm,0.3s						
AKTK	**Aktyubinsk**	**16.63**	**327**	P	**Pn**	**13 51 46.3**	**-0.1**
AKTK				S	**S**	**13 54 42.0**	**-9.1**
AKTO	**Aktyubinsk**	**16.63**	**327**	P	**Pn**	**13 51 46.3**	**-0.1**
	comp=Z,1.0nm,0.3s,baz=135,slow=9.8,SNR=17						
AKTO				S	**S**	**13 54 42.0**	**-9.1**
	comp=Z,0.4nm,0.3s,baz=344,slow=21,SNR=8.1						
ZALV	**Zalesovo Beam**	**18.96**	**24**	P	**P**	**13 52 11.3**	**-0.2**
	comp=Z,1.6nm,0.3s,baz=214,slow=10,SNR=26						
SONM	**Songino Array**	**27.27**	**56**	P	**P**	**13 53 31.3**	**-0.8**
	comp=Z,0.1nm,0.3s,mb2.9,baz=270,slow=5.2,SNR=3.0						
FINES	**FINESS Array B**	**37.39**	**325**	P	**P**	**13 55 00.3**	**+0.3**
	comp=Z,0.7nm,0.5s,mb3.6,baz=130,slow=11,SNR=5.6						
ARCES	**ARCESS Array B**	**40.84**	**337**	P	**P**	**13 55 28.7**	**+0.2**
	comp=Z,3.9nm,1.0s,mb4.0,baz=113,slow=9.3,SNR=5.8						
NOA	**NORSAR Array B**	**44.34**	**323**	P	**P**	**13 55 56.5**	**-0.4**
	comp=Z,0.9nm,0.6s,mb3.6,baz=95,slow=7.7,SNR=3.8						
YKA	**Yellowknife Ar**	**80.53**	**3**	P	**P**	**13 59 57.0**	**0.0**
YKA	**Yellowknife Ar**	**80.53**	**3**	P	**P**	**13 59 57.0**	**0.0**
	comp=Z,0.4nm,0.7s,mb3.2,baz=347,slow=5.5,SNR=8.1						

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*ISCJB **13** 13:55:28.8±0.8, 13.5N±0.1×51.27E±0.06, h10^{km}, mb3.7/6, Error ellipse: s-maj=18.7km s-min=8.6km az=1.1*

*IDC **13** 13:55:28.8±1.4, 13.46N×51.37E, h0^{km}, mb3.7/6, mb1 3.9/7, mb1mx3.6/23, mbtmp3.8/7, ML4.6/1, MS2.9/2, Ms1 2.9/2, ms1mx2.6/34, Error ellipse: s-maj=38.2km s-min=30.4km az=110.0*

*NEIC **13** 13:55:30.3±0.8, 13.45N×51.35E, h10^{km}, Error ellipse: s-maj=25.3km s-min=14.5km az=150.0*

ISC 13 13:55:30.7±0.8**, 13.6N**±0.1×**51.22E**±0.06**, h10**^{km}**, n12, σ1**^{s}**08**/14**, mb3.7**/6**, 1D, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MUKL	**Al Mukalla**	**2.31**	**294**	⇓*i*P	**Pn**	**13 56 09.2**	**+0.4**
MUKL				*e*		13 56 09.6	
	baz=93,slow=6.2						
MUKL				*i* S	**Sn**	**13 56 36.9**	**-0.3**
MUKL				AML	AML	13 56 38.2	
	comp=N,1µm,0.2s						
BDHA	**Al Bayda'**	**5.51**	**275**	*i* P	**Pn**	**13 56 54.4**	**+1.6**
BDHA				AML	AML	13 56 55.1	
	comp=E,57nm,0.3s						
BDHA				*i* S	**Sn**	**13 57 53.6**	**-2.6**
ATD	**Arta Tunnel**	**8.42**	**257**	Pn	**Pn**	**13 57 34.0**	**+1.2**
ATD	**Arta Tunnel**	**8.42**	**257**	Pn	**Pn**	**13 57 34.0**	**+1.2**
	comp=E,7.3nm,0.3s,baz=130,slow=22,SNR=14						
ATD				LR	LR	14 00 02.6	
	comp=E,78nm,19.9s,baz=79,slow=32						
AKTK	**Aktyubinsk**	**37.20**	**7**	P	**P**	**14 02 42.1**	**+0.2**
AKTO	**Aktyubinsk**	**37.20**	**7**	P	**P**	**14 02 42.1**	**+0.2**
	comp=E,0.7nm,0.5s,mb3.8,baz=65,slow=18,SNR=3.7						
MK31	**Makanchi Array**	**42.14**	**32**	*e*P	**P**	**14 03 24.0**	**+0.8**
MKAR	**Makanchi Array**	**42.14**	**32**	P	**P**	**14 03 23.6**	**+0.4**
	comp=E,0.6nm,0.4s,mb3.5,baz=220,slow=7.9,SNR=11						
ZALV	**Zalesovo Beam**	**48.19**	**26**	P	**P**	**14 04 10.2**	**-1.0**
	comp=E,1.6nm,0.7s,mb4.2,baz=237,slow=8.1,SNR=9.2						
SONM	**Songino Array**	**56.89**	**41**	P	**P**	**14 05 15.6**	**-0.2**
	comp=E,0.4nm,0.6s,mb3.6,baz=242,slow=5.8,SNR=5.3						
WRA	**Warramunga Arr**	**88.25**	**111**	P	**P**	**14 08 20.5**	**-2.3**
	comp=E,0.3nm,0.8s,mb3.6,baz=298,slow=3.7,SNR=2.8						
ASAR	**Alice Springs**	**88.82**	**115**	P	**P**	**14 08 25.6**	**+0.1**
	comp=E,0.4nm,0.9s,mb3.7,baz=282,slow=4.8,SNR=3.2						

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*IDC **13** 14:05:16.1±1.1, 0.83N×125.98E, h0^{km}, mb3.6/5, mb1 3.8/5, mb1mx3.6/17, mbtmp3.6/5, Error ellipse: s-maj=134.5km s-min=18.7km az=68.0*

NEIC 13 14:05:17.4±0.8**, 0.84N×125.94E, h10**^{km}**, mb4.4**/1**, Error ellipse: s-maj=150.0km s-min=11.5km az=67.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**22.23**	**159**	P	P	14 10 14.7	+0.3
	1.0nm,0.5s,baz=337,slow=11,SNR=20						
ASAR	**Alice Springs**	**25.56**	**163**	P	P	14 10 47.4	+0.7
	1.0nm,0.4s,baz=346,slow=12,SNR=35						
STKA	**Stephens Creek**	**35.76**	**157**	P	P	14 12 15.4	-1.3
	0.8nm,0.6s,baz=324,slow=12,SNR=3.8						
SONM	**Songino Array**	**49.79**	**343**	P	P	14 14 11.0	+0.8
	0.2nm,0.6s,baz=168,slow=9.6,SNR=2.7						
MKAR	**Makanchi Array**	**59.49**	**327**	P	P	14 15 21.1	+0.3
	0.4nm,0.4s,baz=120,slow=7.4,SNR=11						
KURK	**Kurchatov**	**63.76**	**329**	*e*P	P	14 15 48.9	-0.6
	2.3nm,0.8s						

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*NEIC **13** 14:05:48.2, 10.56N×61.02W, h34^{km}, MD3.0(TRN), After TRN.*

TRN 13 14:05:48.2, 10.56N×61.02W, h35^{km}**, MD3.0, 1C-1D, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBH	**Brigand Hill**	**0.09**	**215**	⇓*i*P	Pb	14 05 53.8	-0.3
TBH				*e*S	Sb	14 05 58.4	+0.2
TRN	**Trinidad (W)**	**0.39**	**283**	⇑*i*P	Pb	14 05 57.1	-0.2
TRN				*e*S	Sb	14 06 05.2	+1.6
TPP	**Pointe-a-Pierr**	**0.49**	**241**	*e*S	Sb	14 06 06.5	+0.4
TPR	**Prospect**	**0.67**	**21**	*e*P	Pn	14 06 02.4	+1.2
TPR				*e*S	Sn	14 06 10.2	-0.2
TCE	**Chacachacare**	**0.74**	**281**	*e*P	Pn	14 06 01.9	-0.2
TCE				*e*S	Sn	14 06 11.8	-0.4
GRW	**Mount Saint Ca**	**1.71**	**338**	*e*P	Pn	14 06 19.4	+3.9

WEL 13 14:18:19.6±0.3**, 35.53S×179.01E, h276**^{km}±5^{km}**, ML3.5**/8**, Error ellipse: s-maj=9.7km s-min=7.2km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**2.11**	**195**	PN	Pn	14 19 04.8	-0.2
MXZ				SN	S	14 19 40.1	-1.0
PUZ	**Puketiti**	**2.61**	**193**	PN	Pn	14 19 09.9	+0.3
PUZ				SN	S	14 19 48.2	-1.3
MWZ	**Matawai**	**3.04**	**203**	PN	Pn	14 19 14.7	+0.7
MWZ				SN	S	14 19 57.3	-0.1
URZ	**Urewera**	**3.12**	**209**	PN	Pn	14 19 15.0	+0.2
BKZ	**Black Stump Fm**	**4.15**	**208**	PN	Pn	14 19 27.3	+1.2
PXZ	**Pawanui**	**4.81**	**200**	PN	Pn	14 19 34.3	+0.5
BFZ	**Birch Farm**	**5.59**	**202**	PN	Pn	14 19 45.4	+2.3
MRZ	**Mangatainoka R**	**5.80**	**207**	PN	Pn	14 19 46.1	+0.4

IDC 13 14:28:34.0±1.1**, 46.71N×155.34E, h0**^{km}**, mb3.6**/6**, mb1 3.7**/7**, mb1mx3.5**/23**, mbtmp3.6**/7**, ML3.4**/1**, Error ellipse: s-maj=32.4km s-min=26.3km az=8.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAJ	**Asahikawa**	**9.33**	**259**	Pn	Pn	14 30 51.5	+1.8
	0.5nm,0.3s,baz=114,slow=8.7,SNR=8.4						
SONM	**Songino Array**	**32.79**	**290**	P	P	14 35 08.2	-0.5
	0.3nm,0.7s,baz=85,slow=9.1,SNR=2.8						
ZALV	**Zalesovo Beam**	**43.88**	**306**	P	P	14 36 41.4	-0.4
	0.4nm,0.4s,baz=60,slow=6.8,SNR=3.6						
MKAR	**Makanchi Array**	**48.32**	**298**	P	P	14 37 17.1	+0.2
	0.2nm,0.6s,baz=69,slow=7.9,SNR=5.0						
FINES	**FINESS Array B**	**64.72**	**336**	P	P	14 39 13.7	+0.3
	0.9nm,0.6s,baz=36,slow=7.1,SNR=5.1						
ASAR	**Alice Springs**	**72.68**	**201**	P	P	14 40 03.4	-0.1
	0.3nm,0.6s,baz=19,slow=6.4,SNR=7.8						
TXAR	**Lajitas Array**	**76.17**	**62**	P	P	14 40 24.3	+0.4
	0.6nm,0.6s,baz=300,slow=4.7,SNR=8.4						

IDC 13 14:30:41.3±1.3**, 46.77N×155.23E, h0**^{km}**, mb3.4**/4**, mb1 3.7**/5**, mb1mx3.3**/23**, mbtmp3.4**/5**, ML3.0**/1**, Error ellipse: s-maj=37.1km s-min=32.6km az=155.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAJ	**Asahikawa**	**9.27**	**258**	Pn	Pn	14 32 57.6	+1.6
	0.2nm,0.3s,baz=294,slow=12,SNR=4.2						
MKAR	**Makanchi Array**	**48.22**	**298**	P	P	14 39 22.9	-0.5
	0.1nm,0.5s,baz=67,slow=11,SNR=2.4						
WRA	**Warramunga Arr**	**69.03**	**201**	P	P	14 41 47.8	-0.7
	0.4nm,0.9s,baz=25,slow=6.5,SNR=2.8						
ASAR	**Alice Springs**	**72.71**	**200**	P	P	14 42 11.7	+0.9
	0.1nm,0.6s,baz=15,slow=6.0,SNR=5.0						
TXAR	**Lajitas Array**	**76.21**	**62**	P	P	14 42 31.9	+0.5
	0.4nm,0.6s,baz=294,slow=4.0,SNR=4.1						

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*IDC **13** 14:31:33.1±0.7, 46.66N×155.53E, h0^{km}, mb3.8/11, mb1 4.0/13, mb1mx3.9/24, mbtmp3.8/13, ML3.7/2, MS3.0/2, Ms1 3.0/2, ms1mx2.4/32, Error ellipse: s-maj=22.2km s-min=16.9km az=149.0*

*NEIC **13** 14:31:34.8±0.6, 46.68N×155.60E, h10^{km}, mb4.0/4, Error ellipse: s-maj=16.3km s-min=10.2km az=132.0*

*ISCJB **13** 14:31:36.4±0.7, 46.71N±0.09×155.5E±0.1, h33^{km}, mb3.8/15, Error ellipse: s-maj=15.6km s-min=8.5km az=135.1*

*MOS **13** 14:31:36.5±0.9, 46.74N×155.37E, h34^{km}, mb4.1/9, Error ellipse: s-maj=16.3km s-min=12.0km az=73.0*

ISC 13 14:31:38.5±0.7**, 46.72N**±0.09×**155.5E**±0.1**, h35**^{km}**, n37, σ0**^{s}**93**/37**, mb3.8**/15**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**3.99**	**6**	*e*PN	**Pn**	**14 32 36.4**	**-0.7**
KUR	**Kuril'sk**	**5.50**	**257**	PN	**Pn**	**14 32 56.3**	**-1.5**
PET	**Petropavlovsk**	**6.64**	**17**	*e*PN	**Pn**	**14 33 09.9**	**-3.5**
ASAJ	**Asahikawa**	**9.42**	**259**	PN	**Pn**	**14 33 50.7**	**-0.8**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,37nm,18.1s						
ASAJ	**Asahikawa**	**9.42**	**259**	Pn	**Pn**	**14 33 50.6**	**-0.9**
	comp=Z,1.2nm,0.3s,baz=84,slow=4.2,SNR=11						
ASAJ				LR	LR	14 37 11.2	
	comp=Z,37nm,18.1s,baz=111,slow=36						
MJAR	**Matsushiro Arr**	**16.39**	**238**	Pn	**Pn**	**14 35 26.6**	**+0.9**
MJAR	**Matsushiro Arr**	**16.39**	**238**	Pn	**Pn**	**14 35 26.6**	**+0.9**
	comp=Z,0.1nm,0.3s,baz=39,slow=9.4,SNR=8.0						
MAJO	**Matsushiro**	**16.39**	**238**	*e*P	**Pn**	**14 35 25.3**	**-0.4**
	comp=Z,7.9nm,0.8s						
MAJO	**Matsushiro**	**16.39**	**238**	*e*P	**Pn**	**14 35 25.3**	**-0.4**
MAJO				pmax	pmax		
	comp=Z,8.0nm,0.8s						
BILL	**Bilibino**	**22.09**	**11**	*e*P	**P**	**14 36 28.9**	**-1.2**
	comp=Z,2.5nm,0.7s,mb3.8						
BILL	**Bilibino**	**22.09**	**11**	*e*P	**P**	**14 36 28.9**	**-1.2**
BILL				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.7						
KSRS	**Korea Array**	**22.34**	**255**	P	**P**	**14 36 33.9**	**+0.8**
	comp=Z,1.9nm,0.8s,mb3.6,baz=59,slow=9.5,SNR=4.6						
TIXI	**Tiksi**	**27.97**	**342**	*e*P	**P**	**14 37 26.4**	**+1.1**
	comp=Z,1.4nm,0.4s,mb3.9						
TIXI	**Tiksi**	**27.97**	**342**	*e*P	**P**	**14 37 26.4**	**+1.1**
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.8						
SONM	**Songino Array**	**32.86**	**290**	P	**P**	**14 38 08.4**	**-0.3**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	**Songino Array**	**32.86**	**290**	P	**P**	**14 38 08.4**	**-0.3**
	comp=Z,0.7nm,0.7s,mb3.7,baz=56,slow=9.0,SNR=7.3						
ZAK	**Zakamensk**	**34.15**	**296**	*e*P	**P**	**14 38 19.9**	**0.0**
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.5s,mb3.5						
ZALV	**Zalesovo Beam**	**43.93**	**307**	P	**P**	**14 39 41.7**	**+0.1**
	comp=Z,1.4nm,0.5s,mb4.0,baz=63,slow=6.5,SNR=8.6						
ZAL	**Zalesovo**	**43.95**	**306**	P	**P**	**14 39 41.7**	**0.0**
MKAR	**Makanchi Array**	**48.38**	**298**	P	**P**	**14 40 17.0**	**+0.3**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	**48.38**	**298**	P	**P**	**14 40 16.9**	**+0.3**
	comp=Z,0.5nm,0.6s,mb3.7,baz=54,slow=7.3,SNR=6.9						
KURK	**Kurchatov**	**48.72**	**305**	*e*P	**P**	**14 40 19.2**	**0.0**
	comp=Z,2.8nm,0.8s,mb4.3						
KURK	**Kurchatov**	**48.72**	**305**	*e*P	**P**	**14 40 19.2**	**0.0**
KURK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
YKA	**Yellowknife Ar**	**49.98**	**37**	P	**P**	**14 40 28.4**	**-0.2**
YKA				PcP	PcP	14 41 48.4	+0.2
YKA	**Yellowknife Ar**	**49.98**	**37**	P	**P**	**14 40 28.4**	**-0.2**
YKA						14 41 48.3	
YKA	**Yellowknife Ar**	**49.98**	**37**	P	**P**	**14 40 28.4**	**-0.1**
	comp=Z,0.3nm,0.6s,mb3.5,baz=295,slow=7.4,SNR=6.0						
YKA				PcP	PcP	14 41 48.3	+0.2
	comp=Z,0.1nm,0.6s,baz=289,slow=2.9,SNR=4.0						
BRVK	**Borovoye**	**52.16**	**310**	P	**P**	**14 40 47.9**	**+2.8**
PDAR	**Pinedale Array**	**63.45**	**55**	P	**P**	**14 42 04.0**	**-0.5**
	comp=Z,0.4nm,0.7s,mb3.6,baz=318,slow=2.0,SNR=4.6						
FINES	**FINESS Array B**	**64.75**	**336**	P	**P**	**14 42 12.7**	**0.0**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	**64.75**	**336**	P	**P**	**14 42 12.7**	**0.0**
	comp=Z,1.3nm,0.6s,mb4.2,baz=38,slow=7.6,SNR=8.4						
NOA	**NORSAR Array B**	**68.77**	**342**	P	**P**	**14 42 39.7**	**+1.4**
	comp=Z,0.3nm,0.6s,mb3.4,baz=25,slow=6.3,SNR=2.7						
WRA	**Warramunga Arr**	**69.04**	**201**	P	**P**	**14 42 39.2**	**-1.2**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	**Warramunga Arr**	**69.04**	**201**	P	**P**	**14 42 39.2**	**-1.2**
	comp=Z,0.8nm,0.7s,mb3.8,baz=21,slow=6.9,SNR=7.5						
ASAR	**Alice Springs**	**72.72**	**201**	P	**P**	**14 43 03.2**	**+0.5**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	**Alice Springs**	**72.72**	**201**	P	**P**	**14 43 03.1**	**+0.4**
	comp=Z,0.8nm,0.6s,mb3.8,baz=18,slow=5.8,SNR=20						
TXAR	**Lajitas Array**	**76.09**	**62**	P	**P**	**14 43 23.4**	**+0.9**
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
TXAR	**Lajitas Array**	**76.09**	**62**	P	**P**	**14 43 23.4**	**+0.9**
	comp=Z,2.0nm,0.7s,mb4.2,baz=301,slow=4.3,SNR=18						

MEX 13 14:44:55.6±1.0**, 17.69N×101.31W, h20**^{km}±19^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIIG	**Zihuatanejo**	**0.17**	**241**	*i* P	Pb	14 44 58.8	-1.5
ZIIG				*i* S	Sb	14 45 03.1	-0.4
CAIG	**El Cayaco**	**1.18**	**122**	*i* P	Pn	14 45 14.1	-2.9
CAIG				*i* S	Sb	14 45 27.7	-4.5
ACX	**Acapulco**	**1.56**	**121**	*e*P	Pn	14 45 20.0	-2.2
ACX				*i* S	Sn	14 45 39.0	-2.9
MEIG	**Mezcala**	**1.63**	**81**	*i* P	Pn	14 45 21.1	-2.1
MEIG				*i* S	Sn	14 45 39.3	-4.2

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*SZGRF **13** 14:56:38.5, 2.28S×78.24W, h166^{km}, mb5.6, Ecuador*

*IGQ **13** 14:56:41.0, 1.50S×78.04W, h191^{km}±5^{km}, Mb5.3, Ms5.3, Error ellipse: s-maj=2.9km s-min=1.8km az=66.9*

ISCJB **13** *14:56:42.3±0.1, 1.38S±0.03×77.80W±0.02, $h174^{km}$, mb5.2/235, Error ellipse: s-maj=3.8km s-min=2.6km az=29.4*

BJI **13** *14:56:42.4, 1.40S×77.80W, $h174^{km}$, mB5.2*

IDC **13** *14:56:43.2±0.5, 1.38S×77.71W, $h171^{km}\pm 4^{km}$, mb4.8/19, mb1 4.9/24, mb1mx4.9/24, mbtmp4.8/24, MS4.1/11, Ms1 4.1/11, ms1mx3.9/24, Error ellipse: s-maj=13.7km s-min=9.8km az=61.0*

MOS **13** *14:56:43.9±0.9, 1.29S×77.85W, $h186^{km}$, mb5.3/90, MS4.4/8, Error ellipse: s-maj=6.4km s-min=4.3km az=85.4*

GCMT **13** *14:56:43.5±0.2, 1.60S×78.05W, $h176^{km}\pm 1^{km}$, MW5.6/89, Moment Tensor Solution. s78,c124; s89,c171; Duration: $1^{s}5$ Moment tensor: Scale 10^{17}Nm; M_{rr}-1.93±.04; $M_{\theta\theta}$0.57±.04; $M_{\phi\phi}$1.36±.05; $M_{r\theta}$1.00±.03; $M_{\theta\phi}$-1.41±.04; $M_{\phi r}$-1.48±.04; Best double couple: $M_0$2.81800×10^{17} NP1:ϕ_s139.00000°,δ25.00000°, λ-95.00000°. NP2:ϕ_s325.00000°,δ65.00000°, λ-88.00000°. Principal axes: T 3.0660, Plg20.0000°, Azm53.0000°; N -0.4950, Plg2.0000°, Azm144.0000°; P -2.5700, Plg70.0000°, Azm240.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC **13** *14:56:43.5±0.1, 1.42S×77.78W, mb5.2/199, MD5.2(IGQ) Error ellipse: s-maj=3.6km s-min=2.6km az=31.0*

NEIC Felt [II] in Amazonas, Peru. Felt at Guayaquil, Manta and Portoviejo. Felt lightly at Bahia, Chone and Quito.

BGS **13** *14:56:46.2, 0.92S×77.51W, $h175^{km}$, mb5.2*

ISC 13 14:56:44.1±0.1, **1.39S**±0.03×**77.72W**±0.02, **$h176^{km}$, $h176^{km}\pm.6^{km}$:pP-P, n1046, $\sigma 0^{s}68$**/883, **mb5.2**/235, **118C-172D, Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ULBA	**Ulba**	**0.69**	**265**	⇓P	**Pn**	**14 57 07.0**	**-2.3**
RUN5	**Runtun**	**0.70**	**268**	⇓P	**Pn**	**14 57 07.4**	**-2.1**
PATA	**Patacocha**	**0.72**	**261**	⇓P	**Pn**	**14 57 07.4**	**-2.2**
RETU	**Refugio**	**0.73**	**265**	⇓P	**Pn**	**14 57 07.6**	**-2.0**
PISA	**Pisayambo**	**0.74**	**296**	⇓P	**Pn**	**14 57 08.3**	**-1.4**
ARRY	**Arrayan**	**0.74**	**261**	⇓P	**Pn**	**14 57 07.0**	**-2.7**
JUIV	**Juive**	**0.75**	**267**	⇓P	**Pn**	**14 57 07.3**	**-2.4**
BILB	**Tungurahua vol**	**0.78**	**266**	⇓P	**Pn**	**14 57 07.7**	**-2.2**
IGUA	**Igualata**	**0.93**	**264**	⇑P	**Pn**	**14 57 08.7**	**-2.1**
TAMB	**Tambo**	**0.95**	**317**	⇓P	**Pn**	**14 57 10.2**	**-0.9**
COV1	**Cotopaxi Volc**	**0.95**	**319**	⇓P	**Pn**	**14 57 10.9**	**-0.1**
MOV1	**Cotopaxi Vol s**	**0.98**	**313**	⇓P	**Pn**	**14 57 10.3**	**-1.0**
VC1	**Cotopaxi 1**	**1.01**	**317**	⇓P	**Pn**	**14 57 10.7**	**-0.8**
ANTI	**Antisana**	**1.03**	**335**	⇓P	**Pn**	**14 57 11.3**	**-0.4**
CAMI	**Rancho Maria**	**1.06**	**312**	⇓P	**Pn**	**14 57 10.7**	**-1.1**
PITA	**Cotopaxi Volc**	**1.09**	**319**	⇓P	**Pn**	**14 57 11.1**	**-1.0**
LAV3	**Lava3-Reventad**	**1.29**	**4**	⇓P	**Pn**	**14 57 13.9**	**+0.1**
CONE	**Cono NE Rev Vo**	**1.31**	**3**	⇓P	**Pn**	**14 57 14.3**	**+0.3**
CAYR	**Refugio Cayamb**	**1.42**	**348**	⇓P	**Pn**	**14 57 15.4**	**+0.4**
JUA2	**San Juan 2**	**1.47**	**323**	⇓P	**Pn**	**14 57 14.0**	**-1.4**
CAYA	**Cayambe**	**1.48**	**349**	⇓P	**Pn**	**14 57 16.0**	**+0.5**
GGP	**Refugio Guagua**	**1.49**	**324**	⇓P	**Pn**	**14 57 14.5**	**-1.2**
TERV	**Terraza Guagua**	**1.50**	**324**	⇓P	**Pn**	**14 57 14.6**	**-1.1**
PINO	**Pino**	**1.51**	**324**	⇓P	**Pn**	**14 57 14.8**	**-1.1**
YANA	**Yana**	**1.52**	**326**	⇓P	**Pn**	**14 57 14.8**	**-1.2**
OTAV	**Otavalo**	**1.77**	**336**	eP	**Pn**	**14 57 16.9**	**-1.6**
COTA	**Cotacachi**	**1.82**	**340**	⇓P	**Pn**	**14 57 18.8**	**-0.2**
MAG1	**Magdalena**	**2.43**	**302**	⇓P	**Pn**	**14 57 22.3**	**-3.5**
JAMA	**Jama**	**2.73**	**294**	⇑P	**Pn**	**14 57 24.3**	**-4.9**
JAMA				⇑S	**Sn**	**14 57 55.2**	**-9.1**
ATAH	**Atahualpa**	**5.62**	**187**	P	**Pn**	**14 58 06.5**	**+0.4**
	126nm,0.3s,baz=1.1,slow=9.7,SNR=574						
ATAH				S	**Sn**	**14 59 08.8**	**-1.6**
	314nm,0.3s,baz=177,slow=19,SNR=11						
ATAH				LR	LR	15 00 48.6	
	comp=Z,2µm,18.5s,baz=288,slow=43						
ROSC	**El Rosal**	**7.07**	**29**	eP	**Pn**	**14 58 25.0**	**-0.1**
ROSC	**El Rosal**	**7.07**	**29**	P	**Pn**	**14 58 24.9**	**-0.2**
	13nm,0.3s,baz=240,slow=7.4,SNR=16						
NNA	**Nana**	**10.57**	**175**	Pn	**Pn**	**14 59 09.5**	**-1.6**
	1µm,0.8s,SNR=22						
NNA	**Nana**	**10.57**	**175**	eP	**Pn**	**14 59 08.8**	**-2.3**
	142nm,0.4s						
NNA				eSn	**Sn**	**15 00 54.0**	**-15**
NNA	**Nana**	**10.57**	**175**	P	**Pn**	**14 59 09.0**	**-2.1**
	25nm,0.3s,baz=347,slow=11,SNR=33						
NNA				S	**Sn**	**15 00 55.8**	**-13**
	80nm,0.3s,baz=97,slow=24,SNR=6.1						
BCIP	**Isla Barro Col**	**10.70**	**349**	ePn	**Pn**	**14 59 12.6**	**-0.2**
BCIP				eSn	**Sn**	**15 01 11.0**	**-0.7**
PAYG	**Puerto Ayora**	**12.58**	**273**	eP	**Pn**	**14 59 33.7**	**-3.5**
	159nm,0.8s						
JTS	**JuntasAbangare**	**13.65**	**328**	eP	**Pn**	**14 59 50.6**	**-0.1**
	120nm,0.9s						
JTS	**JuntasAbangare**	**13.65**	**328**	d iP	**Pn**	**14 59 50.6**	**-0.1**
JTS	**JuntasAbangare**	**13.65**	**328**	P	**Pn**	**14 59 50.2**	**-0.5**
	1.6nm,0.3s,baz=140,slow=6.6,SNR=22						
JTS				LR	LR	15 04 15.7	
	comp=Z,2µm,19.2s,baz=1.0,slow=33						
ARE	**Arequipa**	**16.19**	**158**	⇓iP	**Pn**	**15 00 24.0**	**+2.1**
PCRV	**Puerto La Cruz**	**17.37**	**48**	P	**Pn**	**15 00 36.8**	**+0.8**
	26nm,0.3s,baz=313,slow=2.0,SNR=29						
LPAZ	**La Paz**	**17.56**	**148**	eP	**Pn**	**15 00 37.9**	**-0.5**
	1.6nm,0.4s						
LPAZ	**La Paz**	**17.56**	**148**	eP	**Pn**	**15 00 37.9**	**-0.4**
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.4s						
LPAZ	**La Paz**	**17.56**	**148**	P	**Pn**	**15 00 38.4**	**+0.1**
	comp=Z,14nm,0.3s,baz=333,slow=13,SNR=248						
TGUH	**Tegucigalpa,Un**	**18.03**	**329**	eP	**P**	**15 00 41.8**	**-0.2**
	comp=Z,226nm,1.3s						
TGUH				ePcP	PcP	15 05 08.9	+0.3
SDDR	**Presa de Saban**	**21.21**	**17**	eP	**P**	**15 01 17.6**	**+1.5**
	comp=Z,223nm,0.8s,mb5.5						
SIV	**San Ignacio**	**21.91**	**132**	P	**P**	**15 01 23.5**	**0.0**
	comp=Z,123nm,0.8s,mb5.4,baz=311,slow=9.5,SNR=115						
SJG	**San Juan**	**22.48**	**30**	eP	**P**	**15 01 27.3**	**-1.5**
	comp=Z,162nm,0.9s,mb5.5						
SJG	**San Juan**	**22.48**	**30**	eP	**P**	**15 01 27.3**	**-1.5**
SJG				pmax	pmax		
	comp=Z,162nm,0.9s						
SJG	**San Juan**	**22.48**	**30**	P	**P**	**15 01 28.0**	**-0.8**
	comp=Z,56nm,0.6s,mb5.2,baz=193,slow=3.7,SNR=19						
CPD	**Cerro la Pandu**	**22.53**	**31**	eP	**P**	**15 01 28.1**	**-1.2**
MTP	**Monte Pirata**	**22.77**	**31**	eP	**P**	**15 01 30.2**	**-1.3**
CEN1	**Los Morros**	**23.05**	**162**	⇑iP	**P**	**15 01 36.2**	**+2.2**
TEIG	**Tepich**	**23.84**	**335**	eP	**P**	**15 01 41.1**	**-0.1**
	comp=Z,82nm,1.3s,mb5.1						
TEIG	**Tepich**	**23.84**	**335**	P	**P**	**15 01 41.1**	**-0.2**
	comp=Z,20nm,0.7s,mb4.8,baz=131,slow=7.9,SNR=8.2						
TEIG				PcP	PcP	15 05 19.5	-0.2
	comp=Z,11nm,0.6s,baz=65,slow=2.5,SNR=3.6						
CMIG	**Matias Romero**	**24.97**	**318**	P	**P**	**15 01 51.1**	**-0.4**
	comp=Z,65nm,0.7s,mb5.3,baz=110,slow=6.3,SNR=107						
CMIG				PcP	PcP	15 05 21.9	-0.3
	comp=Z,7.5nm,0.8s,baz=91,slow=1.0,SNR=4.2						
LCO	**Las Campanas**	**28.27**	**167**	eP	**P**	**15 02 21.7**	**+0.7**
	comp=Z,89nm,0.8s,mb5.5						
LCO				epP	pP	15 02 50.4	-7.0
LCO				ePcP	PcP	15 05 30.3	+0.5
TLL	**Tololo Astrono**	**29.36**	**168**	⇓iP	**P**	**15 02 31.8**	**+1.1**
DWPF	**Disney**	**29.55**	**353**	P	**P**	**15 02 33.0**	**+0.7**
FCH	**Farellones**	**32.53**	**168**	⇓iP	**P**	**15 03 00.1**	**+1.7**
NHSC	**New Hope**	**34.39**	**356**	eP	**P**	**15 03 15.4**	**+0.9**
	comp=Z,108nm,1.0s,mb5.5						
COW	**Cow Castle Cre**	**34.70**	**356**	eP	**P**	**15 03 17.8**	**+0.7**
GOGA	**Godfrey**	**35.03**	**352**	eP	**P**	**15 03 19.8**	**-0.2**
	comp=Z,12nm,0.8s,mb4.6						
GOGA				epP	pP	15 03 57.5	+0.4
GOGA				ePcP	PcP	15 05 47.1	-1.0
GOGA	**Godfrey**	**35.03**	**352**	eP	**P**	**15 03 19.8**	**-0.2**
GOGA				e*PP	pP	15 03 57.5	+0.4
GOGA				e		15 05 47.1	
GOGA				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.6						
LRAL	**Lakeview Retre**	**35.34**	**346**	eP	**P**	**15 03 22.1**	**-0.5**
	comp=Z,18nm,0.7s,mb4.8						
JSC	**Jenkinsville**	**35.64**	**355**	eP	**P**	**15 03 25.5**	**+0.4**
CNNC	**Cliffs of the**	**36.44**	**360**	eP	**P**	**15 03 32.2**	**+0.3**
	comp=Z,361nm,2.1s,mb5.6						
CPCT	**Cooper Cave**	**37.19**	**351**	eP	**P**	**15 03 37.9**	**-0.4**
CPCT				epP	pP	15 04 15.4	-0.3
SWET	**Sewanee**	**37.22**	**349**	eP	**P**	**15 03 37.2**	**-1.3**
OXF	**Oxford**	**37.36**	**344**	eP	**P**	**15 03 39.3**	**-0.4**
	comp=Z,60nm,1.1s,mb5.1						
OXF	**Oxford**	**37.36**	**344**	eP	**P**	**15 03 39.3**	**-0.4**
OXF				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.1						
PLAL	**Pickwick Lake**	**37.46**	**346**	eP	**P**	**15 03 39.2**	**-1.3**
	comp=Z,20nm,1.0s,mb4.7						
PLAL				epP	pP	15 04 17.3	-0.7
PLAL				ePcP	PcP	15 05 54.0	-1.3
JCT	**Junction City**	**38.04**	**328**	eP	**P**	**15 03 45.6**	**+0.1**
	comp=Z,141nm,1.4s,mb5.4						
JCT				ePcP	PcP	15 05 56.2	-1.0
JCT	**Junction City**	**38.04**	**328**	eP	**P**	**15 03 45.6**	**+0.1**
JCT				e		15 05 56.2	
JCT				pmax	pmax		
	comp=Z,141nm,1.4s,mb5.4						
TZTN	**Tazewell**	**38.13**	**352**	eP	**P**	**15 03 45.6**	**-0.5**
	comp=Z,14nm,0.6s,mb4.8						
TZTN				epP	pP	15 04 23.4	-0.3
BLA	**Blacksburg**	**38.49**	**357**	eP	**P**	**15 03 48.9**	**-0.2**
	comp=Z,26nm,0.7s,mb5.0						
BLA				epP	pP	15 04 27.4	+0.6
BLA				ePcP	PcP	15 05 56.0	-2.4
BLA	**Blacksburg**	**38.49**	**357**	eP	**P**	**15 03 48.9**	**-0.2**
BLA				e*PP	pP	15 04 27.4	+0.6
BLA				e		15 05 56.0	
BLA				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.0						
WVT	**Waverly**	**38.50**	**347**	eP	**P**	**15 03 47.4**	**-1.8**
	comp=Z,17nm,0.8s,mb4.7						
WVT				ePcP	PcP	15 05 57.7	-0.8
WVT	**Waverly**	**38.50**	**347**	eP	**P**	**15 03 47.4**	**-1.8**
WVT				e		15 05 57.7	
WVT				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.7						
UALR	**University of**	**38.50**	**340**	eP	**P**	**15 03 47.8**	**-1.5**
	comp=Z,47nm,0.8s,mb5.2						
UALR				epP	pP	15 04 26.2	-0.7
ELN	**Prospectdale**	**38.52**	**356**	eP	**P**	**15 03 49.9**	**+0.5**
ELN				epP	pP	15 04 28.2	+1.1
URVA	**University of**	**38.76**	**0**	eP	**P**	**15 03 51.7**	**+0.3**
URVA				epP	pP	15 04 28.9	-0.3
LTX	**Lajitas**	**39.36**	**323**	eP	**P**	**15 03 56.2**	**-0.2**
	comp=Z,29nm,0.9s,mb4.9						
LTX				ePcP	PcP	15 06 01.1	-0.3
LTX	**Lajitas**	**39.36**	**323**	eP	**P**	**15 03 56.3**	**-0.2**
LTX				e		15 06 01.1	
LTX				pmax	pmax		
	comp=Z,29nm,0.9s,mb4.9						
TXAR	**Lajitas Array**	**39.36**	**323**	P	**P**	**15 03 56.5**	**+0.1**
TXAR				pP	pP	15 04 34.9	+0.6
TXAR				PcP	PcP	15 06 01.6	+0.3
TXAR				ScP	ScP	15 09 33.8	+0.3
TXAR				LR	LR	15 20 58.9	
TXAR	**Lajitas Array**	**39.36**	**323**	P	**P**	**15 03 56.5**	**0.0**
TXAR				*PP	pP	15 04 34.9	+0.6
TXAR						15 06 01.6	
TXAR						15 09 33.8	
TXAR	**Lajitas Array**	**39.36**	**323**	P	**P**	**15 03 56.5**	**+0.1**
	comp=Z,13nm,0.6s,mb4.7,baz=148,slow=8.1,SNR=66						
TXAR				pP	pP	15 04 34.9	+0.7
	comp=Z,4.0nm,0.8s,baz=230,slow=9.7,SNR=2.9						
TXAR				PcP	PcP	15 06 01.6	+0.2
	comp=Z,11nm,0.8s,baz=146,slow=6.6,SNR=12						
TXAR				ScP	ScP	15 09 33.8	+0.3
	comp=Z,0.8nm,0.7s,baz=142,slow=6.3,SNR=3.5						
TXAR				LR	LR	15 20 58.9	
	comp=Z,180nm,21.9s,baz=240,slow=37						
CBN	**Corbin**	**39.40**	**0**	P	**P**	**15 03 56.5**	**-0.1**
	comp=Z,59nm,0.4s,mb5.6						
PARMO	**Parma**	**39.48**	**345**	eP	**P**	**15 03 56.3**	**-1.0**
WCI	**Wyandotte Cave**	**40.21**	**350**	eP	**P**	**15 04 02.0**	**-1.3**
	comp=Z,18nm,0.8s,mb4.8						
WCI	**Wyandotte Cave**	**40.21**	**350**	eP	**P**	**15 04 02.0**	**-1.3**
WCI				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.8						
USIN	**University of**	**40.22**	**348**	eP	**P**	**15 04 02.2**	**-1.2**
	comp=Z,93nm,1.0s,mb5.4						
SIUC	**Southern Illin**	**40.34**	**346**	eP	**P**	**15 04 02.9**	**-1.5**
	comp=Z,61nm,0.8s,mb5.3						
SIUC				ePcP	PcP	15 06 04.0	-0.3
FVM	**French Village**	**40.90**	**345**	eP	**P**	**15 04 07.3**	**-1.7**
	comp=Z,67nm,0.8s,mb5.3						
FVM				epP	pP	15 04 46.5	-0.5
FVM				ePcP	PcP	15 06 06.0	-0.2
FVM	**French Village**	**40.90**	**345**	eP	**P**	**15 04 07.4**	**-1.6**
FVM				e*PP	pP	15 04 46.5	-0.6
FVM				e		15 06 06.0	
FVM				pmax	pmax		
	comp=Z,67nm,0.8s,mb5.3						
WMOK	**Wichita Mounta**	**41.00**	**333**	eP	**P**	**15 04 07.4**	**-2.5**
	comp=Z,69nm,1.0s,mb5.2						
WMOK				epP	pP	15 04 48.2	+0.2
WMOK				ePcP	PcP	15 06 06.4	-0.1
WMOK	**Wichita Mounta**	**41.00**	**333**	eP	**P**	**15 04 07.4**	**-2.5**
WMOK				e*PP	pP	15 04 48.2	+0.2
WMOK				e		15 06 06.4	
WMOK				pmax	pmax		
	comp=Z,69nm,1.0s,mb5.2						
BLO	**Bloomington**	**41.16**	**350**	eP	**P**	**15 04 09.9**	**-1.2**
	comp=Z,33nm,0.6s,mb5.1						
BLO				epP	pP	15 04 48.3	-0.9
BLO				ePcP	PcP	15 06 06.8	-0.1
BLO	**Bloomington**	**41.16**	**350**	eP	**P**	**15 04 09.9**	**-1.3**
BLO				e*PP	pP	15 04 48.3	-0.9
BLO				e		15 06 06.8	
BLO				pmax	pmax		
	comp=Z,33nm,0.6s,mb5.1						
MVL	**Millersville**	**41.21**	**2**	eP	**P**	**15 04 12.5**	**+1.1**
MVL				epP	pP	15 04 50.6	+1.1
SLM	**Saint Louis**	**41.46**	**345**	eP	**P**	**15 04 11.6**	**-2.0**
	comp=Z,18nm,0.3s,mb5.2						
SLM				ePcP	PcP	15 06 07.9	0.0
SLM	**Saint Louis**	**41.46**	**345**	eP	**P**	**15 04 11.6**	**-2.0**
SLM				e		15 06 07.9	
SLM				pmax	pmax		
	comp=Z,18nm,0.3s,mb5.2						
ACSO	**Alum Creek Sta**	**41.70**	**354**	eP	**P**	**15 04 15.0**	**-0.5**
	comp=Z,24nm,0.6s,mb5.0						
ACSO				epP	pP	15 04 53.6	0.0
SSPA	**Standing Stone**	**41.82**	**360**	eP	**P**	**15 04 16.9**	**+0.4**
	comp=Z,55nm,0.8s,mb5.2						
SSPA				epP	pP	15 04 55.1	+0.4
LUPA	**Lehigh Univers**	**41.84**	**3**	eP	**P**	**15 04 15.8**	**-0.8**
RCBR	**Riachuelo**	**41.95**	**97**	eP	**P**	**15 04 18.0**	**0.0**
	comp=Z,96nm,1.0s,mb5.4						
MNTX	**Cornudas Mount**	**42.08**	**324**	eP	**P**	**15 04 18.2**	**-0.5**
	comp=Z,62nm,1.0s,mb5.2						
MNTX				eScP	ScP	15 09 41.8	-2.4
PAL	**Palisades**	**42.34**	**4**	eP	**P**	**15 04 20.8**	**+0.2**
	comp=Z,64nm,1.1s,mb5.2						
PAL				epP	pP	15 04 58.8	-0.1
PAL	**Palisades**	**42.34**	**4**	eP	**P**	**15 04 20.8**	**+0.2**
PAL				e*PP	pP	15 04 58.8	-0.1
PAL				pmax	pmax		
	comp=Z,64nm,1.1s,mb5.2						
ALLY	**Alegheny Colle**	**42.89**	**357**	eP	**P**	**15 04 25.2**	**+0.1**
ALLY				epP	pP	15 05 03.4	-0.1
HDIL	**Hopedale**	**43.06**	**347**	eP	**P**	**15 04 24.4**	**-2.1**
	comp=Z,80nm,0.6s,mb5.5						
BINY	**Binghamton**	**43.41**	**2**	eP	**P**	**15 04 30.1**	**+0.9**
	comp=Z,73nm,0.8s,mb5.4						
BINY				epP	pP	15 05 08.5	+0.8
KSU1	**Kansas State U**	**43.87**	**339**	eP	**P**	**15 04 31.9**	**-1.1**
	comp=Z,126nm,1.1s,mb5.5						
KSU1				epP	pP	15 05 11.6	0.0
WES	**Weston**	**43.95**	**7**	eP	**P**	**15 04 34.1**	**+0.6**
	comp=Z,50nm,0.8s,mb5.2						
WES	**Weston**	**43.95**	**7**	eP	**P**	**15 04 34.2**	**+0.6**
WES				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.2						
HRV	**Harvard--Oak R**	**44.05**	**7**	eP	**P**	**15 04 34.6**	**+0.3**
	comp=Z,46nm,0.8s,mb5.2						
HRV	**Harvard--Oak R**	**44.05**	**7**	eP	**P**	**15 04 34.6**	**+0.3**
HRV				pmax	pmax		
	comp=Z,46nm,0.8s,mb5.2						
BNM	**Barren Site**	**44.58**	**325**	eP	**P**	**15 04 39.4**	**+0.7**
BNM				epP	pP	15 05 18.8	+1.5
BNM				ePcP	PcP	15 06 18.4	-0.2
Y22C	**IRIS PASSCAL I**	**44.69**	**325**	⇑P	**P**	**15 04 40.3**	**+0.7**
	baz=45						
LPM	**Los Pinos Moun**	**44.70**	**325**	eP	**P**	**15 04 40.0**	**+0.4**
ACCN	**Adirondack Com**	**44.72**	**4**	eP	**P**	**15 04 40.3**	**+0.7**
LENM	**Lemitar**	**44.78**	**325**	eP	**P**	**15 04 41.0**	**+0.6**
CBKS	**Cedar Bluff**	**44.84**	**335**	eP	**P**	**15 04 40.8**	**0.0**
	comp=Z,126nm,0.8s,mb5.6						
CBKS				epP	pP	15 05 19.3	-0.1
CBKS	**Cedar Bluff**	**44.84**	**335**	eP	**P**	**15 04 40.8**	**+0.1**
CBKS				e*PP	pP	15 05 19.3	-0.1
CBKS				pmax	pmax		
	comp=Z,126nm,0.8s,mb5.6						
LAZ	**Ladron**	**45.05**	**325**	eP	**P**	**15 04 43.3**	**+0.9**
ANMO	**Albuquerque**	**45.06**	**326**	eP	**P**	**15 04 43.1**	**+0.6**
	comp=Z,118nm,0.8s,mb5.6						
ANMO				epP	pP	15 05 21.2	0.0
ANMO	**Albuquerque**	**45.06**	**326**	eP	**P**	**15 04 43.1**	**+0.6**
ANMO				e*PP	pP	15 05 21.2	0.0
ANMO				pmax	pmax		
	comp=Z,118nm,0.8s						
HNH	**Hanover**	**45.16**	**6**	eP	**P**	**15 04 44.0**	**+0.9**
	comp=Z,8.5nm,1.2s,mb4.2						
NCB	**Newcomb**	**45.27**	**4**	eP	**P**	**15 04 44.5**	**+0.5**
	comp=Z,92nm,1.3s,mb5.2						
NCB				epP	pP	15 05 22.6	-0.1
SCIA	**State Center**	**45.32**	**344**	eP	**P**	**15 04 42.6**	**-1.8**
	comp=Z,122nm,1.0s,mb5.5						
JFWS	**Jewell Farm**	**45.52**	**347**	eP	**P**	**15 04 44.4**	**-1.5**
	comp=Z,49nm,0.6s,mb5.3						
JFWS				ePcP	PcP	15 06 21.5	-0.2
JFWS	**Jewell Farm**	**45.52**	**347**	eP	**P**	**15 04 44.4**	**-1.6**
JFWS				e		15 06 21.5	
JFWS				pmax	pmax		
	comp=Z,49nm,0.6s,mb5.3						
LBNH	**Lisbon**	**45.72**	**6**	eP	**P**	**15 04 48.0**	**+0.6**
	comp=Z,157nm,1.3s,mb5.5						
LBNH				epP	pP	15 05 27.1	+0.8
LBNH	**Lisbon**	**45.72**	**6**	eP	**P**	**15 04 48.1**	**+0.6**
LBNH				e*PP	pP	15 05 27.1	+0.8
LBNH				pmax	pmax		
	comp=Z,157nm,1.3s,mb5.5						
TUC	**Tucson**	**45.84**	**320**	eP	**P**	**15 04 49.0**	**+0.3**
	comp=Z,50nm,0.8s,mb5.2						
TUC				epP	pP	15 05 28.1	+0.6
TUC				ePcP	PcP	15 06 20.5	-2.5
TUC	**Tucson**	**45.84**	**320**	eP	**P**	**15 04 49.0**	**+0.3**
TUC				e*PP	pP	15 05 28.1	+0.6
TUC				e		15 06 20.5	
TUC				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.2						
LONY	**Lake Ozonia**	**45.89**	**3**	eP	**P**	**15 04 49.1**	**+0.3**
	comp=Z,82nm,1.1s,mb5.3						
LONY				epP	pP	15 05 27.4	-0.2
FRNY	**Flat Rock**	**46.17**	**4**	eP	**P**	**15 04 51.3**	**+0.3**
FRNY				epP	pP	15 05 30.1	+0.2
MSNY	**Massena**	**46.25**	**3**	eP	**P**	**15 04 51.8**	**+0.1**
MSNY				epP	pP	15 05 30.7	+0.2
116A	**Eloy**	**46.60**	**319**	⇓P	**P**	**15 04 54.8**	**+0.3**
	baz=47						
SDCO	**Great Sand Dun**	**46.65**	**329**	eP	**P**	**15 04 55.8**	**+0.9**
	comp=Z,8.8nm,0.9s,mb4.4						
SDCO				epP	pP	15 05 35.2	+1.4
115A	**Sonoran Desert**	**47.03**	**319**	⇓P	**P**	**15 04 58.3**	**+0.4**
	baz=47,SNR=13						
PKME	**Peaks-Kenny Pk**	**47.05**	**8**	eP	**P**	**15 04 58.8**	**+0.9**
	comp=Z,84nm,0.7s,mb5.5						
MVCO	**Mesa Verde**	**47.84**	**327**	eP	**P**	**15 05 04.3**	**+0.2**
	comp=Z,26nm,0.8s,mb4.9						
MVCO	**Mesa Verde**	**47.84**	**327**	⇑P	**P**	**15 05 04.4**	**+0.3**
	baz=48						
Z14A	**Wintersburg**	**47.91**	**319**	P	**P**	**15 05 05.0**	**+0.2**
	baz=48,SNR=9.9						
ECSD	**EROS,Sioux Fal**	**48.01**	**342**	eP	**P**	**15 05 03.2**	**-2.0**
	comp=Z,32nm,0.9s,mb4.9						
X15A	**Humboldt**	**48.17**	**321**	⇑P	**P**	**15 05 07.3**	**+0.6**
	baz=48,SNR=40						
ISCO	**Idaho Springs**	**48.29**	**331**	eP	**P**	**15 05 08.0**	**+0.5**
	comp=Z,20nm,0.8s,mb4.8						
ISCO	**Idaho Springs**	**48.29**	**331**	eP	**P**	**15 05 08.0**	**+0.5**
ISCO				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.8						
Y14A	**Wickenburg**	**48.31**	**320**	P	**P**	**15 05 08.2**	**+0.4**
	baz=48,SNR=17						
WUAZ	**Wupatki**	**48.32**	**323**	eP	**P**	**15 05 08.5**	**+0.7**
	comp=Z,108nm,0.9s,mb5.5						
COWI	**Conover**	**48.35**	**349**	eP	**P**	**15 05 06.8**	**-1.1**
	comp=Z,10nm,0.3s,mb4.9						
COWI				ePcP	PcP	15 06 31.1	-0.5
SMCO	**Snowmass**	**48.49**	**330**	eP	**P**	**15 05 09.6**	**+0.6**
	comp=Z,45nm,1.0s,mb5.1						
X14A	**Yava**	**48.58**	**321**	P	**P**	**15 05 10.6**	**+0.8**
	baz=49,SNR=71						
W15A	**Williams**	**48.64**	**322**	⇑P	**P**	**15 05 11.3**	**+1.0**
	baz=49,SNR=16						
Y13A	**Salome**	**48.77**	**319**	⇑P	**P**	**15 05 11.3**	**+0.1**
	baz=49						
GLA	**Glamis**	**48.96**	**318**	⇓P	**P**	**15 05 12.8**	**0.0**
	baz=49,SNR=19						
W14A	**Seligman**	**49.17**	**321**	P	**P**	**15 05 15.2**	**+0.8**
	baz=49,SNR=30						
Y12C	**Blythe**	**49.19**	**319**	⇑P	**P**	**15 05 14.6**	**+0.2**
	baz=49,SNR=8.7						
X13A	**Yucca**	**49.26**	**320**	P	**P**	**15 05 15.1**	**+0.2**
	baz=49,SNR=17						
PDMCI	**Parker Dam,Lak**	**49.27**	**320**	⇓P	**P**	**15 05 15.0**	**-0.1**
	baz=49,SNR=16						
PHWY	**Pilot Hill**	**49.39**	**332**	eP	**P**	**15 05 15.8**	**0.0**
PHWY				epP	pP	15 05 56.0	+0.7
PHWY				ePcP	PcP	15 06 35.0	-0.6
SWSC	**Sam W. Stewart**	**49.55**	**317**	⇓P	**P**	**15 05 17.3**	**+0.1**
	baz=50,SNR=10.0						
DVTC	**Desert V Tower**	**49.60**	**317**	⇑P	**P**	**15 05 17.9**	**+0.3**
	baz=50,SNR=7.0						
W13A	**Hualapai Mount**	**49.61**	**321**	⇑P	**P**	**15 05 18.4**	**+0.8**
	baz=50,SNR=71						
BC3	**Big Chuckw Mtn**	**49.74**	**318**	⇑P	**P**	**15 05 19.0**	**+0.3**
	baz=50,SNR=17						
IRM	**Iron Mountain**	**49.85**	**319**	P	**P**	**15 05 19.9**	**+0.4**
	baz=50,SNR=17						
NEE2	**Needles Airpor**	**49.87**	**320**	⇓P	**P**	**15 05 19.9**	**+0.3**
	baz=50,SNR=8.4						
MONP	**Monument Peak**	**49.95**	**317**	⇑P	**P**	**15 05 20.6**	**+0.3**
	baz=50						
SRU	**San Rafael**	**50.31**	**327**	eP	**P**	**15 05 23.0**	**+0.2**
	comp=Z,113nm,1.1s,mb5.4						
SRU				ePcP	PcP	15 06 38.8	-0.2
SRU	**San Rafael**	**50.31**	**327**	eP	**P**	**15 05 23.0**	**+0.2**
SRU				e		15 06 38.8	
SRU				pmax	pmax		
	comp=Z,113nm,1.1s,mb5.4						
BELC	**Belle Mtn.**	**50.31**	**318**	⇓P	**P**	**15 05 23.3**	**+0.4**
	baz=50,SNR=20						
W12A	**Cal Nev Ari**	**50.36**	**320**	⇓P	**P**	**15 05 23.5**	**+0.2**
	baz=50,SNR=7.3						
T14A	**Hurricane**	**50.38**	**323**	P	**P**	**15 05 24.2**	**+0.8**
	baz=50,SNR=16						
PFO	**Pinyon Flat Ob**	**50.39**	**317**	P	**P**	**15 05 23.2**	**-0.3**
	comp=Z,192nm,1.4s,mb5.5,SNR=6.0						
PFO	**Pinyon Flat Ob**	**50.39**	**317**	eP	**P**	**15 05 23.8**	**+0.3**
	comp=Z,57nm,1.3s,mb5.0						
PFO	**Pinyon Flat Ob**	**50.39**	**317**	eP	**P**	**15 05 23.8**	**+0.3**
PFO				pmax	pmax		
	comp=Z,57nm,1.3s,mb5.0						
PFO	**Pinyon Flat Ob**	**50.39**	**317**	⇓P	**P**	**15 05 23.8**	**+0.3**
	baz=50,SNR=6.9						
109C	**Camp Elliot, M**	**50.42**	**316**	⇑P	**P**	**15 05 23.7**	**-0.1**
	baz=50						
RWWY	**Rawlins**	**50.52**	**331**	eP	**P**	**15 05 24.2**	**-0.1**
	comp=Z,131nm,1.1s,mb5.5						
RWWY				epP	pP	15 06 04.4	+0.6
RWWY				ePcP	PcP	15 06 39.1	-0.6
GMRC	**Granite Mounta**	**50.56**	**319**	⇑P	**P**	**15 05 25.2**	**+0.4**
	baz=51,SNR=34						
EYMN	**Ely**	**50.58**	**348**	eP	**P**	**15 05 23.2**	**-1.4**
	comp=Z,23nm,0.6s,mb5.0						
EYMN				epP	pP	15 06 02.6	-1.6
EYMN				ePcP	PcP	15 06 39.9	+0.1
V12A	**Nelson**	**50.62**	**321**	P	**P**	**15 05 25.6**	**+0.5**
	baz=51,SNR=30						
TMUT	**Trail Mountain**	**50.82**	**326**	eP	**P**	**15 05 26.9**	**+0.3**
MSU	**Marysvale**	**50.82**	**325**	eP	**P**	**15 05 26.9**	**+0.3**
MSU				ePcP	PcP	15 06 41.6	+0.7
MSU				ePP	PP	15 07 26.2	+1.4
MSU				eScP	ScP	15 10 21.2	+0.6
MSU	**Marysvale**	**50.82**	**325**	eP	**P**	**15 05 26.9**	**+0.3**
MSU				e		15 06 41.6	
MSU				e		15 07 26.2	
T13A	**Saint George**	**50.85**	**322**	P	**P**	**15 05 27.7**	**+0.8**
	baz=51,SNR=10						
U12A	**Valley of Fire**	**50.86**	**321**	⇑P	**P**	**15 05 27.4**	**+0.4**
	baz=51,SNR=12						
CCUT	**Cedar City**	**50.87**	**323**	eP	**P**	**15 05 27.7**	**+0.7**
S14A	**Cedar City**	**50.89**	**324**	⇑P	**P**	**15 05 27.7**	**+0.5**
	baz=51,SNR=14						
MURC	**Murrieta**	**50.89**	**317**	⇑P	**P**	**15 05 27.5**	**+0.2**
	baz=51,SNR=13						

HEC	Hector,Ludlow	51.03	319	⇓P	P	15 05 28.9	+0.6
	baz=51,SNR=11						
V11A	Goodsprings	51.05	320	⇑P	P	15 05 28.7	+0.3
	baz=51,SNR=18						
ARUT	Antelope Range	51.07	324	eP	P	15 05 29.2	+0.7
BBRC	Big Bear Sol-O	51.09	318	⇓P	P	15 05 29.8	+1.1
	baz=51,SNR=8.7						
TUQ	Turquoise Mtn.	51.12	320	⇓P	P	15 05 29.3	+0.3
	baz=51,SNR=16						
T12A	Moapa	51.16	322	⇓P	P	15 05 29.5	+0.3
	baz=51						
U11A	Corn Creek	51.39	321	⇑P	P	15 05 31.4	+0.5
	baz=52						
RRX	Edison Barstow	51.50	318	⇑P	P	15 05 32.3	+0.5
	baz=52						
MPU	Maple Canyon	51.56	327	eP	P	15 05 31.7	-0.4
	comp=Z,44nm,0.9s,mb5.1						
BFSC	Mount Baldy St	51.57	317	⇑P	P	15 05 32.5	+0.2
	baz=52,SNR=12						
CIS	Catalina Islan	51.61	316	⇓P	P	15 05 33.9	+1.2
	baz=52						
GSC	Goldstone	51.62	319	P	P	15 05 33.3	+0.6
	baz=52,SNR=34						
DAU	Daniels Canyon	51.63	327	eP	P	15 05 33.3	+0.7
DAU				ePcP	PcP	15 06 44.2	+0.4
SHOC	Shoshone	51.64	320	P	P	15 05 33.2	+0.4
	baz=52,SNR=22						
FMP	Fort Macarthur	51.70	316	⇑P	P	15 05 33.6	+0.3
	baz=52						
NLU	North Lily Min	51.76	326	eP	P	15 05 33.9	+0.3
NLU				ePcP	PcP	15 06 44.6	+0.2
JLU	Jordanelle	51.87	327	eP	P	15 05 34.9	+0.5
JLU				ePcP	PcP	15 06 45.2	+0.5
AGMN	Agassiz Refuge	51.94	345	eP	P	15 05 33.7	-1.1
	comp=Z,52nm,0.6s,mb5.3						
U10A	Ash Meadows, A	51.98	320	P	P	15 05 36.0	+0.7
	baz=52,SNR=20						
DECC	Green Verdugo	52.03	317	⇓P	P	15 05 36.2	+0.5
	baz=52,SNR=8.6						
CTU	Camp Tracy	52.09	327	eP	P	15 05 36.2	+0.1
	comp=Z,35nm,0.9s,mb5.0						
R12A	Pony Springs,	52.12	323	⇑P	P	15 05 37.1	+0.8
	baz=52,SNR=57						
EDW2	Edwards Air Fo	52.16	318	P	P	15 05 37.0	+0.3
	baz=52,SNR=39						
NOQ	North Oquirrh	52.27	327	eP	P	15 05 37.6	+0.3
	comp=Z,72nm,0.8s,mb5.3						
LRMC	Laurel Mountai	52.31	319	⇓P	P	15 05 37.9	+0.2
	baz=52,SNR=19						
DUG	Dugway	52.33	326	eP	P	15 05 38.4	+0.6
	comp=Z,220nm,1.3s,mb5.6						
DUG	Dugway	52.33	326	eP	P	15 05 38.4	+0.6
DUG				pmax	pmax		
	comp=Z,220nm,1.3s,mb5.6						
DUG	Dugway	52.33	326	⇑P	P	15 05 38.3	+0.5
	baz=52						
FURC	Furnace Creek,	52.35	320	P	P	15 05 38.7	+0.6
	baz=52,SNR=22						
S11A	Rachel	52.38	322	⇓P	P	15 05 39.1	+0.9
	baz=52,SNR=20						
BLG	Laguna Peak	52.46	316	⇑P	P	15 05 39.0	+0.1
	baz=53						
PDAR	Pinedale Array	52.47	331	P	P	15 05 38.2	-0.6
	comp=Z,11nm,0.7s,mb4.6,baz=124,slow=8.8,SNR=89						
PDAR				PcP	PcP	15 06 46.4	-0.6
	comp=Z,17nm,1.0s,baz=160,slow=4.7,SNR=7.5						
PDAR				ScP	ScP	15 10 27.4	-0.2
	comp=Z,1.3nm,0.9s,baz=178,slow=4.3,SNR=4.8						
PDAR				LR	LR	15 29 08.7	
	comp=Z,186nm,19.2s,baz=333,slow=37						
OSI	Osito Adit	52.51	317	⇓P	P	15 05 39.0	-0.2
	baz=53						
MPMC	Manual Prospec	52.52	319	⇑P	P	15 05 39.2	-0.1
	baz=53,SNR=18						
HWUT	Hardware Ranch	52.65	328	eP	P	15 05 40.0	-0.1
HWUT				ePcP	PcP	15 06 47.3	-0.4
DAC	Darwin (Calif)	52.71	319	eP	P	15 05 40.7	0.0
	comp=Z,12nm,0.8s,mb4.7						
DAC				ePcP	PcP	15 06 47.6	-0.5
DAC	Darwin (Calif)	52.71	319	eP	P	15 05 40.7	0.0
DAC				e		15 06 47.6	
DAC				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.7						
Q12A	Willow Creek R	52.72	324	⇑P	P	15 05 41.0	+0.3
	baz=53,SNR=32						
TRCR	Troy Canyon	52.72	323	eP	P	15 05 41.3	+0.6
BSC	Santa Cruz Isl	52.79	316	⇑P	P	15 05 41.4	+0.1
	baz=53						
ARVC	Arvin	52.87	317	⇑P	P	15 05 42.2	+0.3
	baz=53,SNR=17						
SPUT	South Promonto	52.90	327	eP	P	15 05 42.3	+0.3
ISA	Isabella	52.94	318	⇓P	P	15 05 42.7	+0.3
	baz=53,SNR=23						
BGU	Big Grassy Mou	52.95	327	eP	P	15 05 42.0	-0.4
GRAC	Grapevine Rang	53.00	320	⇓P	P	15 05 43.3	+0.5
	baz=53,SNR=16						
P12A	McGill	53.04	324	P	P	15 05 43.9	+0.9
	baz=53,SNR=49						
S10A	Tonopah Range,	53.08	322	⇓P	P	15 05 44.2	+0.9
	baz=53,SNR=172						
Q11A	Duckwater	53.08	323	P	P	15 05 44.1	+0.7
	baz=53,SNR=112						
R10A	Warm Springs	53.12	322	⇓P	P	15 05 44.7	+1.1
	baz=53,SNR=18						
CWC	Cottonwood Cre	53.13	319	P	P	15 05 44.4	+0.6
	baz=53,SNR=20						
AHID	Auburn Hatcher	53.24	330	eP	P	15 05 43.8	-0.6
	comp=Z,46nm,0.8s,mb5.3						
HVU	Hansel Valley	53.41	328	eP	P	15 05 45.1	-0.6
	comp=Z,195nm,1.0s,mb5.8						
HVU	Hansel Valley	53.41	328	eP	P	15 05 45.1	-0.6
HVU				pmax	pmax		
	comp=Z,195nm,1.0s,mb5.8						
PKM	Peak Mountain	53.41	317	P	P	15 05 46.3	+0.4
	baz=54,SNR=16						
VES	Vestal, Richgr	53.44	318	P	P	15 05 46.4	+0.4
	baz=54,SNR=29						
Q10A	Clear Creek Ra	53.52	323	⇑P	P	15 05 47.3	+0.8
	baz=54,SNR=11						
REDW	Red Top Meadow	53.55	330	eP	P	15 05 46.5	-0.1
	comp=Z,133nm,1.3s,mb5.5						
REDW				epP	pP	15 06 27.0	+0.3
N13A	Wendover, West	53.56	326	⇑P	P	15 05 47.0	+0.2
	baz=54,SNR=26						
TPH	Tonopah	53.56	321	eP	P	15 05 47.2	+0.4
	comp=Z,78nm,1.2s,mb5.3						
TPH				epP	pP	15 06 28.5	+1.6
TPH				ePcP	PcP	15 06 50.3	-0.9
TPH	Tonopah	53.56	321	eP	P	15 05 47.2	+0.3
TPH				e*PP	pP	15 06 28.5	+1.7
TPH				e		15 06 50.3	
TPH				pmax	pmax		
	comp=Z,78nm,1.2s,mb5.3						
R09A	Tonopah	53.57	322	P	P	15 05 47.4	+0.5
	baz=54,SNR=44						
TIN	Tinemaha	53.58	320	⇓P	P	15 05 47.6	+0.6
	baz=54						
P11A	Circle Ranch,	53.59	324	⇓P	P	15 05 47.5	+0.5
	baz=54,SNR=7.0						
LOHW	Long Hollow	53.61	331	eP	P	15 05 46.9	-0.2
	comp=Z,53nm,0.9s,mb5.3						
ULM	Lac du Bonnet	53.74	346	eP	P	15 05 46.0	-1.9
	comp=Z,34nm,0.6s,mb5.3						
ULM				epP	pP	15 06 25.6	-2.3
ULM				ePcP	PcP	15 06 50.7	-0.9
ULM	Lac du Bonnet	53.74	346	P	P	15 05 46.1	-1.8
	comp=Z,25nm,0.5s,mb5.2,baz=157,slow=7.7,SNR=70						
ULM				pP	pP	15 06 25.9	-2.0
	comp=Z,16nm,1.1s,baz=160,slow=7.0,SNR=2.7						
ULM				PcP	PcP	15 06 50.7	-0.9
	comp=Z,11nm,0.7s,baz=143,slow=5.9,SNR=4.7						
ULM				LR	LR	15 27 10.3	
	comp=Z,174nm,21.6s,baz=142,slow=34						
SMMC	Simmler	53.77	317	⇓P	P	15 05 48.8	+0.4
	baz=54,SNR=11						
MOOW	Moose Ponds	53.78	331	eP	P	15 05 48.0	-0.4
	comp=Z,58nm,1.1s,mb5.2						
MOOW				ePcP	PcP	15 06 51.5	-0.5
S08C	White Mtn Res	53.81	320	⇓P	P	15 05 49.4	+0.7
	baz=54,SNR=56						
M13A	Montello	53.88	326	P	P	15 05 49.0	-0.1
	baz=54,SNR=29						
HELL	Mitchell Peak,	53.88	319	⇓P	P	15 05 49.4	+0.1
	baz=54,SNR=54						
DCID1	Drake Creek	53.89	330	eP	P	15 05 49.2	+0.1
O11A	Cowboy Ranch,	53.91	324	P	P	15 05 49.9	+0.5
	baz=54,SNR=58						
MTUM	Tungsten Hills	53.98	320	eP	P	15 05 50.3	+0.4
IMW	Indian Meadow	53.99	331	eP	P	15 05 49.9	+0.1
	comp=Z,40nm,0.7s,mb5.3						
IMW				ePcP	PcP	15 06 53.5	+0.8
Q09A	Carvers	54.00	322	⇑P	P	15 05 50.7	+0.6
	baz=54						
V05C	Boulder Hill,	54.01	318	⇓P	P	15 05 50.4	+0.2
	baz=54						
N12A	Clover Valley,	54.03	325	P	P	15 05 50.2	0.0
	baz=54,SNR=17						
LAO	LASA Array	54.03	336	eP	P	15 05 49.6	-0.5
	comp=Z,69nm,1.3s,mb5.2						
LAO				epP	pP	15 06 29.8	-0.3
P10A	Eureka	54.06	323	P	P	15 05 51.3	+0.9
	baz=54,SNR=25						
ELK	Elko	54.07	325	eP	P	15 05 50.3	-0.2
	comp=Z,20nm,0.8s,mb4.9						
ELK	Elko	54.07	325	eP	P	15 05 50.3	-0.2
ELK				pmax	pmax		
	comp=Z,20nm,0.8s						
PTRM	Twissleman Ran	54.10	317	eP	P	15 05 51.0	+0.2
RLMT	Red Lodge	54.11	333	eP	P	15 05 50.4	-0.4
	comp=Z,25nm,0.8s,mb5.0						
K14A	Jones Ranch, D	54.16	328	P	P	15 05 50.9	-0.2
	baz=54,SNR=50						
LKWY	Lake	54.22	332	eP	P	15 05 52.5	+1.0
	comp=Z,68nm,1.3s,mb5.2						
LKWY	Lake	54.22	332	eP	P	15 05 52.5	+1.0
LKWY				pmax	pmax		
	comp=Z,68nm,1.3s,mb5.2						
L13A	Double Diamond	54.25	327	P	P	15 05 51.9	+0.1
	baz=54,SNR=18						
R08A	Mina	54.28	321	⇓P	P	15 05 52.6	+0.5
	baz=54						
MLAC	Mammoth Lakes	54.31	320	⇓P	P	15 05 52.9	+0.5
	baz=54,SNR=6.0						
M12A	Wells	54.33	326	P	P	15 05 52.2	-0.1
	baz=54,SNR=42						
YFT	Old Faithful	54.34	331	eP	P	15 05 53.6	+1.2
N11A	Elko Archery C	54.40	325	⇓P	P	15 05 53.0	+0.1
	baz=54,SNR=8.7						
P09A	Austin	54.42	323	⇑P	P	15 05 53.7	+0.6
	baz=55						
KCC	Kaiser Creek	54.45	319	⇓P	P	15 05 52.9	-0.4
	baz=55,SNR=12						
NVAR	Mina Array Bea	54.45	321	P	P	15 05 54.0	+0.6
	comp=Z,22nm,0.6s,mb5.1,baz=129,slow=7.1						
NVAR				pP	pP	15 06 33.6	+0.2
	comp=Z,18nm,0.9s,baz=130,slow=7.8,SNR=3.9						
NVAR				PcP	PcP	15 06 54.5	-0.2
	comp=Z,14nm,0.7s,baz=120,slow=5.0,SNR=6.5						
YNR	Norris Junctio	54.47	332	eP	P	15 05 53.9	+0.6
Q08A	Gabbs	54.48	322	P	P	15 05 53.9	+0.4
	baz=55,SNR=19						
PKD	Parkfield	54.48	317	P	P	15 05 53.4	-0.1
	baz=55,SNR=8.4						
O10A	Cortez Mining,	54.51	324	⇓P	P	15 05 54.4	+0.8
	baz=55,SNR=58						
T06C	Millerton Lake	54.52	319	⇓P	P	15 05 52.7	-1.1
	baz=55,SNR=7.3						
V04C	Ramage Ranch,	54.54	317	⇑P	P	15 05 54.1	+0.1
	baz=55						
YMR	Madison River	54.57	331	eP	P	15 05 54.8	+0.7
	comp=Z,50nm,0.7s,mb5.4						
K13A	Stover Farm, H	54.71	328	P	P	15 05 55.0	0.0
	baz=55,SNR=22						
R07C	Lee Vining	54.72	320	⇑P	P	15 05 56.0	+0.8
	baz=55,SNR=13						
DGMT	Dagmar	54.72	339	eP	P	15 05 55.0	0.0
	comp=Z,33nm,0.8s,mb5.1						
N10A	Dunphy	54.78	324	⇑P	P	15 05 55.5	-0.1
	baz=55						
GCMT	Greycliff	54.81	333	eP	P	15 05 55.8	0.0
M11A	Holland Ranch,	54.84	325	⇓P	P	15 05 55.9	-0.1
	baz=55,SNR=8.3						
O09A	Fish Creek Ran	54.84	323	⇓P	P	15 05 56.4	+0.4
	baz=55,SNR=24						
L12A	House Creek Ra	54.88	327	P	P	15 05 56.5	+0.2
	baz=55,SNR=30						
U04C	Hernandez Rese	54.88	318	⇓P	P	15 05 56.1	-0.3
	baz=55,SNR=15						
QLMT	Earthquake Lak	54.91	331	eP	P	15 05 57.4	+0.9
QLMT				epP	pP	15 06 38.4	+1.7
V03C	Hunter Liggett	55.00	317	⇓P	P	15 05 57.6	+0.3
	baz=55,SNR=6.8						
BMN	Battle Mountai	55.02	324	eP	P	15 05 57.2	-0.2
	comp=Z,57nm,0.8s,mb5.4						
BMN	Battle Mountai	55.02	324	eP	P	15 05 57.2	-0.2
BMN				pmax	pmax		
	comp=Z,57nm,0.8s,mb5.3						
Q07A	Schurz	55.07	321	⇑P	P	15 05 57.9	+0.1
	baz=55						
P08A	Dixie Valley	55.08	322	⇓P	P	15 05 58.3	+0.5
	baz=55,SNR=16						
T05C	Eagle Field, D	55.10	318	⇓P	P	15 05 58.0	0.0
	baz=55						
S06C	San Francisco	55.11	320	P	P	15 05 58.3	+0.2
	baz=55,SNR=38						
S05C	Merced	55.12	319	⇑P	P	15 05 58.0	-0.2
	baz=55,SNR=32						
K12A	Draper Farm, C	55.14	327	P	P	15 05 58.6	+0.4
	baz=55,SNR=34						
R06C	Coleville	55.23	321	P	P	15 05 59.7	+0.8
	baz=55,SNR=29						
J13A	Cove Ranch, Pi	55.27	328	P	P	15 05 59.4	+0.3
	baz=55,SNR=93						
L11A	Cat Creek Ranc	55.30	326	P	P	15 05 59.4	0.0
	baz=55,SNR=47						
M10A	I.L. Ranch, Tu	55.32	325	P	P	15 05 59.5	0.0
	baz=56,SNR=22						
HAST	UC Hastings Re	55.41	317	P	P	15 06 00.2	0.0
	baz=56,SNR=17						
N09A	Rock Creek Ran	55.47	324	⇑P	P	15 06 00.4	-0.1
	baz=56,SNR=23						
P07A	Fallon	55.48	322	⇓P	P	15 06 01.0	+0.3
	baz=56						
HLID	Hailey	55.52	328	eP	P	15 06 01.1	+0.3
	comp=Z,33nm,0.8s,mb5.2						
HLID	Hailey	55.52	328	⇑P	P	15 06 01.2	+0.4
	baz=56						
CMB	Columbia Colle	55.55	320	eP	P	15 06 00.6	-0.6
	comp=Z,12nm,0.8s,mb4.8						
CMB	Columbia Colle	55.55	320	eP	P	15 06 00.6	-0.6
CMB				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.8						
CMB	Columbia Colle	55.55	320	P	P	15 06 00.9	-0.3
	baz=56,SNR=9.7						
PACP	Pacheco Peak	55.57	318	P	P	15 06 01.7	+0.3
	baz=56,SNR=20						
I13A	Wildhorse Cree	55.60	329	⇓P	P	15 06 01.8	+0.4
	baz=56,SNR=114						
MCMT	McKenzie Canyo	55.60	330	eP	P	15 06 01.9	+0.5
BOZ	Bozeman (W)	55.61	332	eP	P	15 06 01.3	-0.1
	comp=Z,109nm,1.3s,mb5.5						
BOZ				epP	pP	15 06 41.0	-0.8
BOZ	Bozeman (W)	55.61	332	eP	P	15 06 01.3	-0.1
BOZ				e*PP	pP	15 06 41.0	-0.7
BOZ				pmax	pmax		
	comp=Z,109nm,1.3s,mb5.5						
BOZ	Bozeman (W)	55.61	332	⇓P	P	15 06 01.5	0.0
	baz=56						
L10A	Juniper Basin	55.64	326	P	P	15 06 01.9	+0.1
	baz=56,SNR=69						
J12A	Stokes Ranch,	55.66	328	P	P	15 06 02.0	+0.1
	baz=56,SNR=42						
G15A	Dillon	55.67	331	P	P	15 06 02.1	+0.2
	baz=56,SNR=17						
R05C	Kirkwood Meado	55.73	320	P	P	15 06 03.2	+0.8
	baz=56,SNR=36						
N08A	GE Springer Mi	55.78	323	⇓P	P	15 06 02.1	-0.7
	baz=56,SNR=22						
M09A	Marrel Ranch,	55.78	324	⇑P	P	15 06 02.5	-0.3
	baz=56,SNR=9.2						
O07A	Toulon	55.85	322	P	P	15 06 03.1	-0.2
	baz=56,SNR=31						
DLMT	Dillon	55.87	331	eP	P	15 06 03.4	+0.1
	comp=Z,59nm,1.2s,mb5.3						
S04C	Ingram Canyon,	55.87	318	P	P	15 06 03.5	0.0
	baz=56,SNR=7.5						
WCN	Washoe City	55.88	321	P	P	15 06 04.3	+0.7
	baz=56,SNR=27						
R04C	Big Horse Ranc	56.03	319	⇓P	P	15 06 05.4	+0.8
	baz=56,SNR=28						
H13A	Challis	56.13	329	⇑P	P	15 06 05.2	+0.1
	baz=56,SNR=44						
F15A	Butte	56.16	331	P	P	15 06 05.3	-0.1
	baz=56,SNR=33						
MFID	Camas Ranch	56.17	327	P	P	15 06 06.0	+0.5
	baz=56,SNR=100						
LAVA	Lava Cap Winer	56.19	320	P	P	15 06 05.8	+0.1
	baz=56,SNR=11						
P06A	Stead Airport,	56.19	321	⇓P	P	15 06 06.2	+0.5
	baz=56						
G14A	Jackson	56.20	330	P	P	15 06 05.8	+0.1
	baz=56,SNR=61						
WENL	Wente Brothers	56.22	318	⇓P	P	15 06 06.6	+0.6
	baz=56,SNR=12						
BNLO	Ben Lomond (Sa	56.23	318	⇑P	P	15 06 05.8	-0.3
	baz=56						
N07B	Gerlach	56.28	323	⇓P	P	15 06 05.8	-0.6
	baz=56,SNR=40						
L09A	Wilkinson Ranc	56.29	325	P	P	15 06 06.7	+0.3
	baz=56,SNR=5.8						
K10A	MacKenzie Ranc	56.32	326	P	P	15 06 07.0	+0.4
	baz=56,SNR=129						
M08A	Happy Creek Ra	56.34	324	P	P	15 06 06.6	-0.1
	baz=56,SNR=41						
JRSC	Jasper Ridge	56.42	318	⇑P	P	15 06 07.5	+0.1
	baz=56						
H12A	Diamond D Ranc	56.43	329	P	P	15 06 07.5	+0.2
	baz=57,SNR=40						
BDM	Black Diamond	56.47	319	⇑P	P	15 06 08.5	+0.7
	baz=57,SNR=16						
G13A	Cobalt	56.48	330	P	P	15 06 07.6	-0.1
	baz=57,SNR=28						
EGMT	Eagleton	56.56	335	eP	P	15 06 07.6	-0.6
	comp=Z,71nm,1.2s,mb5.4						
EGMT	Eagleton	56.56	335	⇓P	P	15 06 07.9	-0.2
	baz=57						
F14A	Wisdom	56.57	331	P	P	15 06 08.4	+0.2
	baz=57,SNR=54						
I11A	Placerville	56.57	328	⇑P	P	15 06 08.2	-0.2
	baz=57,SNR=86						
BEKR	Beckwourth	56.59	321	P	P	15 06 08.6	+0.1
	baz=57,SNR=84						
Q04C	Lincoln	56.65	320	⇑P	P	15 06 09.5	+0.6
	baz=57,SNR=14						
E15A	Deer Lodge	56.66	332	P	P	15 06 08.8	0.0
	baz=57,SNR=14						
J10A	Berg Farm, Mel	56.69	327	⇓P	P	15 06 08.8	-0.3
	baz=57,SNR=8.1						
SCHQ	Schefferville	56.74	8	eP	P	15 06 09.1	-0.2
	comp=Z,30nm,0.8s,mb5.2						
SCHQ	Schefferville	56.74	8	P	P	15 06 09.2	-0.2
	comp=Z,22nm,0.6s,mb5.2,baz=200,slow=4.9,SNR=74						
K09A	Rome	56.75	325	P	P	15 06 10.2	+0.6
	baz=57,SNR=310						
L08A	Fields	56.78	325	P	P	15 06 10.0	+0.2
	baz=57,SNR=216						
N06A	Buffalo Meadow	56.78	322	P	P	15 06 09.9	0.0
	baz=57,SNR=95						
Q03C	Winters	56.94	319	⇑P	P	15 06 12.0	+0.9
	baz=57,SNR=8.7						
O05C	Quincy	56.99	321	⇑P	P	15 06 11.9	+0.5
	baz=57,SNR=31						
OHCM	Honcut	56.99	320	eP	P	15 06 11.4	0.0
OHCM				epP	pP	15 06 52.7	+0.9
OHCM				ePcP	PcP	15 07 04.2	-0.3
F13A	Darby	57.02	330	P	P	15 06 11.3	-0.2
	baz=57,SNR=66						
D15A	Lincoln	57.05	332	⇓P	P	15 06 11.5	-0.2
	baz=57,SNR=19						
E14A	Clinton	57.06	331	P	P	15 06 11.8	+0.1
	baz=57,SNR=30						
CVS	Carmenet Viney	57.08	319	⇑P	P	15 06 11.8	-0.2
	baz=57,SNR=6.7						
FARB	Farallon Islan	57.09	318	⇓P	P	15 06 11.7	-0.4
	baz=57						
WVOR	Wild Horse Val	57.11	325	eP	P	15 06 11.7	-0.5
	comp=Z,171nm,1.3s,mb5.7						
WVOR				epP	pP	15 06 51.8	-0.7
WVOR	Wild Horse Val	57.11	325	eP	P	15 06 11.7	-0.4
WVOR				e*PP	pP	15 06 51.8	-0.8
WVOR				pmax	pmax		
	comp=Z,171nm,1.3s,mb5.7						
ORV	Oroville	57.13	320	P	P	15 06 12.7	+0.4
	baz=57,SNR=95						
SUTB	Sutter Butte	57.13	320	⇓P	P	15 06 12.1	-0.2
	baz=57						
H11A	Donnelly	57.13	328	⇓P	P	15 06 11.7	-0.6
	baz=57,SNR=14						
I10A	Payette	57.14	327	P	P	15 06 12.3	0.0
	baz=57,SNR=13						
J09A	Fry Pan Ranch,	57.18	326	⇑P	P	15 06 12.6	0.0
	baz=57,SNR=90						
K08A	Mann Creek Ran	57.21	325	P	P	15 06 12.9	+0.1
	baz=57,SNR=112						
MCCM	Marconi Confer	57.25	318	eP	P	15 06 12.6	-0.6
	comp=Z,190nm,1.3s,mb5.8						
MCCM	Marconi Confer	57.25	318	⇑P	P	15 06 13.2	0.0
	baz=57						
ELFS	Eagle Lake Fie	57.26	322	P	P	15 06 13.8	+0.6
	baz=57,SNR=122						
L07A	Adell	57.26	324	P	P	15 06 13.2	0.0
	baz=57,SNR=56						
NSHM	Saint Helena R	57.27	319	eP	P	15 06 13.2	-0.1
NSHM				epP	pP	15 06 55.5	+1.6
NSHM				ePcP	PcP	15 07 05.3	-0.3
CHMT	Chamberlain Mo	57.30	332	eP	P	15 06 12.8	-0.6
O04C	Chester	57.30	321	⇓P	P	15 06 13.6	0.0
	baz=57,SNR=65						
MNRC	McLaughlin Nat	57.36	319	P	P	15 06 14.2	+0.2
	baz=58,SNR=13						
E13A	Victor	57.41	331	P	P	15 06 14.2	+0.1
	baz=58,SNR=18						
M06C	Likely Place G	57.45	323	P	P	15 06 14.6	+0.1
	baz=58,SNR=25						
D14A	Greenough	57.54	332	P	P	15 06 14.8	-0.3
	baz=58,SNR=9.6						
MSO	Missoula	57.57	331	eP	P	15 06 15.1	-0.1
	comp=Z,58nm,1.2s,mb5.3						
MSO				epP	pP	15 06 55.8	0.0
I09A	Lost Marbles R	57.58	327	P	P	15 06 15.0	-0.4
	baz=58,SNR=45						
J08A	Circle Bar Ran	57.59	326	P	P	15 06 15.4	-0.1
	baz=58,SNR=52						
K07A	Rock Creek Ran	57.62	325	P	P	15 06 15.4	-0.3
	baz=58,SNR=30						
MOD	Modoc	57.76	323	eP	P	15 06 15.9	-0.8
	comp=Z,56nm,1.3s,mb5.2						
MOD	Modoc	57.76	323	⇓P	P	15 06 16.0	-0.7
	baz=58,SNR=30						
LBCM	Butte Creek Ri	57.77	322	P	P	15 06 16.6	-0.2
HATC	Hat Creek Radi	57.83	322	⇑P	P	15 06 17.0	-0.2
	baz=58,SNR=19						
BMO	Blue Mountains	57.92	328	eP	P	15 06 16.6	-1.2
	comp=Z,10nm,0.8s,mb4.7						
BMO	Blue Mountains	57.92	328	eP	P	15 06 16.6	-1.2
BMO				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
M05C	Lookout	57.95	322	⇓P	P	15 06 18.0	0.0
	baz=58,SNR=98						
GASB	Alder Springs	57.96	320	P	P	15 06 18.8	+0.6
	baz=58,SNR=23						
H09A	Durkee	57.99	327	P	P	15 06 17.6	-0.6
	baz=58,SNR=15						
I08A	Drewsey	58.00	326	P	P	15 06 18.1	-0.3
	baz=58,SNR=15						
D13A	Huson	58.01	331	P	P	15 06 18.4	+0.1
	baz=58,SNR=58						
F11A	Grangeville	58.01	329	P	P	15 06 17.8	-0.5
	baz=58,SNR=23						
J07A	Hines	58.08	325	⇓P	P	15 06 18.5	-0.4
	baz=58,SNR=18						
L05A	Lakeview	58.16	323	P	P	15 06 19.8	+0.3
	baz=58,SNR=46						
P01C	Double 8 Ranch	58.26	319	⇑P	P	15 06 20.8	+0.6
	baz=58,SNR=9.9						
K06A	Valley Falls	58.27	324	P	P	15 06 20.1	-0.1
	baz=58,SNR=18						
O02C	Red Bluff	58.30	320	P	P	15 06 19.4	-1.1
	baz=58,SNR=19						
E11A	Bogner Ranch,	58.36	330	P	P	15 06 20.1	-0.7
	baz=58,SNR=56						
WDC	Whiskeytown Da	58.37	321	eP	P	15 06 18.8	-2.2
	comp=Z,33nm,0.7s,mb5.3						
WDC	Whiskeytown Da	58.37	321	eP	P	15 06 18.8	-2.1
WDC				pmax	pmax		
	comp=Z,33nm,0.7s,mb5.3						
WDC	Whiskeytown Da	58.37	321	⇑P	P	15 06 18.8	-2.2
	baz=58,SNR=25						
H08A	Prairie City	58.44	327	⇓P	P	15 06 21.1	-0.3
	baz=59,SNR=82						
C13A	Hot Springs	58.48	332	P	P	15 06 21.8	+0.2
	baz=59,SNR=36						

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J06A  Christmas Vall   58.49 325   P      P      15 06 21.3 -0.5
      baz=59,SNR=40
M03C  McCloud          58.50 322   P      P      15 06 21.1 -0.7
      baz=59,SNR=28
KCPM  Cahto Peak       58.54 320  eP      P      15 06 22.9 +0.7
KIPM  Iron Peak        58.54 320  eP      P      15 06 22.7 +0.5
K05A  Summer Lake      58.60 324   P      P      15 06 23.0 +0.5
      baz=59,SNR=52
M04C  Macdoel          58.62 322 ⇓P      P      15 06 22.6  0.0
      baz=59,SNR=35
F10A  Beach Ranch, E   58.62 329   P      P      15 06 22.5 -0.1
      baz=59,SNR=47
I07A  Izee             58.63 326   P      P      15 06 22.8  0.0
      baz=59,SNR=104
BSMT  Bassoo Peak      58.70 332   P      P      15 06 23.6 +0.5
HOG   Hogback Mounta   58.80 323   P      P      15 06 24.1 +0.2
F09A  S2 Ranch, Elgi   58.80 328   P      P      15 06 24.4 +0.6
      baz=59,SNR=36
L04A  Klamath Falls    58.87 323 ⇑P      P      15 06 24.3 -0.1
      baz=59,SNR=11
D11A  Klaveano Farm,   58.90 330 ⇑P      P      15 06 23.8 -0.6
      baz=59,SNR=9.7
E10A  Myers Farm, Un   58.90 329 ⇓P      P      15 06 24.2 -0.3
      baz=59,SNR=29
B13A  Whitefish        58.92 332 ⇑P      P      15 06 24.8 +0.1
      baz=59,SNR=13
O01C  Eel River Cons   58.94 320 ⇑P      P      15 06 24.9  0.0
      baz=59,SNR=5.7
I06A  Prineville       58.95 325   P      P      15 06 25.5 +0.6
      baz=59,SNR=148
M02C  Callahan         59.02 322 ⇑P      P      15 06 24.2 -1.2
      baz=59,SNR=13
K04A  Chilquin         59.03 323 ⇓P      P      15 06 25.5  0.0
      baz=59,SNR=7.5
G08A  Pilot Rock       59.09 327   P      P      15 06 26.2 +0.3
      baz=59,SNR=136
YBH   Yreka Blue Hor   59.12 322  eP      P      15 06 24.5 -1.6
      comp=Z,70nm,1.3s,mb5.3
YBH   Yreka Blue Hor   59.12 322  eP      P      15 06 24.5 -1.6
YBH                        pmax   pmax
      comp=Z,70nm,1.3s
YBH   Yreka Blue Hor   59.12 322   P      P      15 06 24.8 -1.3
      baz=59,SNR=30
J05A  Fort Rock        59.14 324   P      P      15 06 26.7 +0.5
      baz=59,SNR=110
WALA  Waterton Lakes   59.16 333  eP      P      15 06 26.0 -0.3
      comp=Z,29nm,0.9s,mb5.1
PINOR Pine Mountain    59.24 325   P      P      15 06 27.7 +0.8
D10A  Wagner Farm, O   59.37 330   P      P      15 06 27.3 -0.5
      baz=60,SNR=66
FFC   Flin Flon        59.40 344  eP      P      15 06 26.3 -1.4
      comp=Z,31nm,1.1s,mb5.1
FFC                               epP     pP     15 07 06.9 -1.6
FFC   Flin Flon        59.40 344  eP      P      15 06 26.3 -1.4
FFC                               e*PP    pP     15 07 06.9 -1.6
FFC                                pmax   pmax
      comp=Z,31nm,1.1s,mb5.0
JCC   Jacoby Creek     59.44 320 ⇓P      P      15 06 28.6 +0.3
      baz=60,SNR=7.9
E09A  Wood Farm, Sta   59.46 329   P      P      15 06 28.1 -0.2
      baz=60,SNR=22
G07A  Ruggs Ranch, H   59.47 327   P      P      15 06 28.8 +0.3
      baz=60,SNR=26
H06A  Lindquist Farm   59.50 326   P      P      15 06 29.3 +0.6
      baz=60,SNR=53
B12A  Libby            59.52 332 ⇓P      P      15 06 28.8 +0.1
      baz=60,SNR=19
RKT   Rikitea          59.52 244  eS      S      15 14 19.7 -5.6
      comp=Z,642nm,29.5s
RKT                               eLR     LR     15 24 05.1
      comp=Z,417nm,27.2s
RKT   Rikitea          59.52 244⇓iP      P      15 06 28.6 -0.6
      comp=Z,212nm,1.1s,mb5.9
RKT                               eS      S      15 14 19.7 -5.6
RKT   Rikitea          59.52 244⇓iP      P      15 06 28.6 -0.6
RKT                               eS      S      15 14 19.7 -5.6
RKT                                pmax   pmax
      comp=Z,212nm,1.1s,mb5.9
VIPM  Ingram Point     59.52 326   P      P      15 06 29.4 +0.5
J04A  Umpqua Nationa   59.63 324   P      P      15 06 29.8 +0.2
      baz=60,SNR=55
I05A  Bend             59.68 325 ⇑P      P      15 06 30.7 +0.7
      baz=60,SNR=17
KRMB  Red Mountain     59.75 321  eP      P      15 06 30.7 +0.3
HUMO  Hull Mountain    59.77 323  eP      P      15 06 28.5 -2.0
      comp=Z,20nm,1.1s,mb4.9
HUMO  Hull Mountain    59.77 323 ⇓P      P      15 06 29.1 -1.4
      baz=60,SNR=10
B11A  Sandpoint        59.87 331 ⇓P      P      15 06 31.1  0.0
      baz=60,SNR=50
A12A  Yaak River Ran   59.88 332   P      P      15 06 31.7 +0.5
      baz=60,SNR=12
D09A  Jones Farm, Ri   59.90 329   P      P      15 06 31.3  0.0
      baz=60,SNR=47
C10A  Spilker Farm,    59.90 330 ⇑P      P      15 06 31.2 -0.2
      baz=60
L02A  Cave Junction    59.91 322   P      P      15 06 31.2 -0.3
      baz=60,SNR=14
WIFE  Three Sisters-   59.94 325   P      P      15 06 32.2 +0.5
H05A  Madras           59.95 325   P      P      15 06 32.4 +0.7
      baz=60,SNR=22
G06A  Carlson Farm,    59.98 326 ⇑P      P      15 06 32.8 +0.9
      baz=60,SNR=75
F07A  Phinny Hill Vi   60.01 327 ⇓P      P      15 06 32.5 +0.4
      baz=60,SNR=16
CROR  Criterion Ridg   60.02 326   P      P      15 06 33.2 +0.9
M01C  Crescent City    60.06 321   P      P      15 06 33.0 +0.4
      baz=60,SNR=7.5
HBO   Huckleberry Mo   60.10 324   P      P      15 06 32.5 -0.3
HAWA  Hanford          60.11 328  eP      P      15 06 32.4 -0.4
      comp=Z,40nm,0.6s,mb5.4
NEW   Newport          60.12 331  eP      P      15 06 32.1 -0.6
      comp=Z,82nm,1.2s,mb5.4
NEW   Newport          60.12 331  eP      P      15 06 32.2 -0.6
NEW                                pmax   pmax
      comp=Z,82nm,1.2s
I04A  Tendick Farm,    60.13 324 ⇓P      P      15 06 32.3 -0.7
      baz=60,SNR=17
K02A  Glendale         60.18 323   P      P      15 06 33.1 -0.2
      baz=60,SNR=25
B10A  Chitwood Farm,   60.19 331 ⇑P      P      15 06 33.2 -0.1
      baz=60
GBL   Gable Mountain   60.20 328   P      P      15 06 33.4  0.0
J03A  Ideyld Park      60.21 323 ⇑P      P      15 06 33.0 -0.5
      baz=60,SNR=8.4
D08A  Wollman Farm,    60.22 329   P      P      15 06 33.6 +0.1
      baz=60,SNR=14
A11A  Hall Mountain,   60.23 332   P      P      15 06 33.9 +0.3
      baz=60,SNR=22
KBO   Bosley Butte     60.33 322  eP      P      15 06 35.1 +0.8
G05A  Wamic            60.37 326 ⇑P      P      15 06 35.3 +0.7
      baz=60,SNR=39
E07A  Sunnyside        60.39 328   P      P      15 06 34.9 +0.2
      baz=60,SNR=34
F06A  Goldendale       60.39 327   P      P      15 06 35.6 +0.9
      baz=60,SNR=35
H04A  Detroit Lake     60.52 325   P      P      15 06 35.4 -0.3
      baz=61,SNR=32
J02A  Umpqua           60.57 323   P      P      15 06 36.3 +0.3
      baz=61,SNR=24
B09A  Rice             60.73 330   P      P      15 06 37.0 +0.1
      baz=61,SNR=138
I03A  Eugene           60.74 324 ⇑P      P      15 06 36.9 -0.2
      baz=61,SNR=12
C08A  Higginbotham F   60.76 329   P      P      15 06 37.2 +0.1
      baz=61,SNR=26
KEBM  Edson Butte      60.76 322  eP      P      15 06 37.6 +0.4
A10A  Northport        60.81 331 ⇓P      P      15 06 37.0 -0.5
      baz=61,SNR=19
D07A  Quincy           60.85 328   P      P      15 06 38.4 +0.6
      baz=61,SNR=51
E06A  Yakima           60.98 327   P      P      15 06 39.2 +0.6
      baz=61,SNR=42
G04A  Mulino           61.00 325 ⇓P      P      15 06 38.5 -0.3
      baz=61,SNR=6.1
I02A  Mapleton         61.09 324 ⇓P      P      15 06 39.6 +0.2
      baz=61,SNR=11
COR   Corvallis        61.11 324  eP      P      15 06 39.6  0.0
      comp=Z,151nm,1.0s,mb5.8
COR   Corvallis        61.11 324  eP      P      15 06 39.6  0.0
COR                                pmax   pmax
      comp=Z,151nm,1.0s,mb5.8
H03A  Soap Creek Ran   61.16 324   P      P      15 06 40.1 +0.2
      baz=61,SNR=37
TBM   Table Mountain   61.17 328   P      P      15 06 40.5 +0.6
C07A  Waterville       61.22 329   P      P      15 06 40.5 +0.3
      baz=61,SNR=47
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B08A  Colville Reser   61.28 330   P      P      15 06 40.5 -0.1
      baz=61,SNR=35
A09A  Danville         61.31 331 ⇓P      P      15 06 40.8 -0.1
      baz=62,SNR=22
D06A  Cle Elum         61.31 328   P      P      15 06 41.4 +0.5
      baz=62,SNR=15
FCC   Fort Churchill   61.36 350  eP      P      15 06 39.6 -1.3
      comp=Z,51nm,1.3s,mb5.2
FCC                               e       pP     15 07 19.4 -2.6
FCC   Fort Churchill   61.36 350  eP      P      15 06 39.6 -1.3
FCC                               e       pP     15 07 19.4 -2.6
FCC                                pmax   pmax
      comp=Z,51nm,1.3s,mb5.2
F04A  Amboy            61.40 326   P      P      15 06 41.4 -0.1
      baz=62,SNR=21
E05A  Randle           61.41 327 ⇓P      P      15 06 41.5 -0.1
      baz=62,SNR=25
G03A  Yamhill          61.52 325 ⇓P      P      15 06 42.7 +0.4
      baz=62,SNR=16
H02A  Toledo           61.57 324 ⇓P      P      15 06 42.6  0.0
      baz=62
A08A  Turner Farm, O   61.64 330   P      P      15 06 43.2 +0.2
      baz=62,SNR=78
B07A  Winthrop         61.74 329   P      P      15 06 43.6 -0.2
      baz=62,SNR=27
C06A  Tall Timber Ra   61.80 329 ⇑P      P      15 06 44.3 +0.2
      baz=62,SNR=7.8
D05A  Enumclaw         61.92 327   P      P      15 06 45.2 +0.2
      baz=62,SNR=21
E04A  Onalaska         61.96 326 ⇓P      P      15 06 45.1 -0.2
      baz=62
EDM   Edmonton         62.01 337  eP      P      15 06 44.3 -1.1
F03A  Seaside          62.04 325   P      P      15 06 46.3 +0.5
      baz=62,SNR=7.4
C05A  Tolt Reservoir   62.08 328   P      P      15 06 45.4 -0.6
      baz=62,SNR=11
A07A  Ashnola River,   62.25 330   P      P      15 06 47.9 +0.7
      baz=62,SNR=34
D04A  Dobbs Creek Ra   62.32 327 ⇓P      P      15 06 47.9 +0.3
      baz=62
E03A  Lebam            62.40 326   P      P      15 06 48.6 +0.4
      baz=62,SNR=18
B06A  Marblemount      62.48 329 ⇑P      P      15 06 48.2 -0.4
      baz=63,SNR=21
TAOE  Nuku Hiva Isla   62.55 261⇓iP      P      15 06 49.1 -0.7
      comp=Z,1µm,1.2s
B05A  Bryant           62.64 328 ⇓P      P      15 06 48.9 -0.8
      baz=63,SNR=15
C04A  Brinnon          62.77 327   P      P      15 06 50.7 +0.1
      baz=63,SNR=30
A06A  Chilliwack       62.84 329 ⇓P      P      15 06 50.7 -0.3
      baz=63
D03A  Wishkah Elem.    62.85 326 ⇓P      P      15 06 52.1 +0.9
      baz=63
NLWA  Neilton Lookou   63.07 327  eP      P      15 06 52.9 +0.4
      comp=Z,170nm,1.3s,mb5.7
NLWA  Neilton Lookou   63.07 327 ⇑P      P      15 06 53.3 +0.7
      baz=63
A05A  Maple Falls      63.09 329 ⇑P      P      15 06 52.5 -0.2
      baz=63,SNR=17
A04A  Legoe Bay, Lum   63.24 328   P      P      15 06 54.1 +0.4
      baz=63,SNR=19
B04A  Port Angeles     63.27 327 ⇑P      P      15 06 54.4 +0.6
      baz=63,SNR=33
ASCN  Ascension        63.43  98  eP      P      15 06 55.3 -0.3
      comp=Z,100nm,0.6s,mb5.8
PGC   Sidney           63.59 328  eP      P      15 06 56.0  0.0
      comp=Z,122nm,0.8s,mb5.8
C03A  Quillayute Air   63.78 327 ⇓P      P      15 06 58.4 +1.2
      baz=64
PMSA  Palmer Station   64.02 174  eP      P      15 06 59.1 +0.7
      comp=Z,85nm,0.8s,mb5.6
YKA   Yellowknife Ar   69.52 343   P      P      15 07 32.2 -1.0
YKA                               *PP     pP     15 08 13.3 -2.0
YKA   Yellowknife Ar   69.52 343   P      P      15 07 32.1 -1.1
      comp=Z,14nm,0.7s,mb4.8,baz=138,slow=5.7,SNR=163
YKA                                pP     pP     15 08 13.3 -2.0
      comp=Z,4.0nm,0.9s,baz=136,slow=6.5,SNR=1.6
YKA                                LR     LR     15 43 34.6
      comp=Z,89nm,18.3s,baz=165,slow=40
VAH   Vaihoa           70.26 254⇓iP      P      15 07 38.6 -0.1
      comp=Z,191nm,1.3s,mb5.7
VAH                               epP     pP     15 08 19.6 -1.2
      comp=Z,57nm,1.2s
PMOR  Pomariorio Ree   70.50 255⇓iP      P      15 07 40.0 -0.2
      comp=Z,117nm,1.1s,mb5.5
PMOR                              epP     pP     15 08 20.5 -1.8
      comp=Z,32nm,0.9s
SFJD  Kangerlussuaq    70.87  11  eP      P      15 07 40.6 -0.8
      comp=Z,148nm,1.3s,mb5.6
SFJD  Kangerlussuaq    70.87  11⇑iP      P      15 07 40.7 -0.7
SFJD                              i              15 16 32.4
SFJD                               pmax   pmax
      comp=Z,73nm,0.9s,mb5.4
SFJD                               MLR    MLR
      comp=Z,100nm,18.0s
TVO   Taravao          72.00 252⇓iP      P      15 07 49.1 -0.1
      comp=Z,190nm,1.4s,mb5.6
TVO   Taravao          72.00 252⇓iP      P      15 07 49.1 -0.1
TVO                                pmax   pmax
      comp=Z,190nm,1.4s,mb5.6
PPT   Papeete          72.29 252⇓iP      P      15 07 50.8 -0.1
      comp=Z,95nm,1.4s,mb5.3
PPT   Papeete          72.29 252  eS      S      15 16 51.6 -8.4
      comp=Z,418nm,25.8s
PPT                               eLR     LR     15 29 59.5
      comp=Z,252nm,24.2s
PPT   Papeete          72.29 252  eP      P      15 07 51.0 +0.1
PPT   Papeete          72.29 252   P      P      15 07 50.8 -0.1
      comp=Z,26nm,0.6s,mb5.2,baz=90,slow=5.4,SNR=5.7
PPT                                LR     LR     15 30 51.3
      comp=Z,195nm,19.0s,baz=3.3,slow=28
PAE   Paea             72.30 252⇓iP      P      15 07 50.8 -0.2
      comp=Z,320nm,1.1s,mb6.0
DLBC  Dease Lake       72.48 334  eP      P      15 07 51.3 +0.1
LIC   Lamto            72.96  83⇑iP      P      15 07 54.6 -0.3
      comp=Z,210nm,0.8s,mb5.6,baz=269
LIC                               epP     pP     15 08 37.1 -0.2
LIC                               eMLR    MLR
      comp=Z,242nm,21.8s
LIC   Lamto            72.96  83⇑iP      P      15 07 54.6 -0.3
      comp=Z,105nm,0.8s,mb5.6
LIC                               epP     pP     15 08 37.1 -0.2
LIC                                LR     LR
      comp=Z,120nm,21.8s
MORF  Marmelete        74.32  51  eP      P      15 08 02.5 +0.1
      comp=Z,91nm,1.2s,mb5.4
PTEO  Sao Teotonio     74.32  50  eP      P      15 08 02.4  0.0
PBDV  Barranco-do-Ve   74.86  51  eP      P      15 08 04.6 -0.9
      comp=Z,67nm,1.6s,mb5.0
PBEJ  Beja             75.10  50  eP      P      15 08 09.2 +2.3
EVO   Evora            75.11  50⇑iP      P      15 08 05.6 -1.3
      comp=Z,11nm,0.6s,mb4.3
EVO                               eMLR    MLR
      comp=Z,202nm,19.2s
EGRO  El Granado       75.28  51   P      P      15 08 07.6 -0.3
      comp=Z,20nm,0.8s,mb4.8
PESTR Estremoz         75.51  49  eP      P      15 08 09.2  0.0
      comp=Z,51nm,1.4s,mb5.0
PESTR                             epP     pP     15 08 51.9 +0.1
PVIS  Viseu            75.73  47  eP      P      15 08 10.0 -0.4
PVIS                              epP     pP     15 08 52.3 -0.8
PCBR  Castelo Branco   75.83  48  eP      P      15 08 10.3 -0.7
PVRL  Vila Real        76.00  47  eP      P      15 08 11.5 -0.4
MVO   Moncorvo         76.48  47  eP      P      15 08 14.3 -0.3
MVO                               epP     pP     15 08 56.4 -1.0
EJIF  Jimena Fronter   76.61  52   P      P      15 08 15.1 -0.4
      comp=Z,11nm,0.8s,mb4.5
EJIF  Jimena Fronter   76.61  52   P      P      15 08 15.1 -0.4
EJIF                               pmax   pmax
      comp=Z,11nm,0.8s,mb4.5
RES   Resolute Bay     76.67 355  eP      P      15 08 14.0 -1.0
      comp=Z,254nm,0.4s,mb6.2
EPON  Pontenova        76.92  45   P      P      15 08 15.5 -1.6
      comp=Z,99nm,1.2s,mb5.3
EMIJ  Mijas            77.19  52   P      P      15 08 18.6 -0.1
      comp=Z,11nm,0.6s,mb4.7
BORG  Borgarnes        77.55  21   P      P      15 08 21.0 +0.9
      comp=Z,481nm,1.5s,mb5.9,SNR=5.3
EADA  Adamuz           77.66  51   P      P      15 08 21.6 +0.3
      comp=Z,18nm,0.7s,mb4.8
ELOJ  Sierra Loja      77.79  52   P      P      15 08 22.8 +0.8
      comp=Z,9.0nm,0.8s,mb4.5
ELOJ  Sierra Loja      77.79  52   P      P      15 08 22.8 +0.8
ELOJ                               pmax   pmax
      comp=Z,9.0nm,0.8s,mb4.5
ERON  Agron            78.04  52   P      P      15 08 23.7 +0.3
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      comp=Z,15nm,0.7s,mb4.7
EARI  Arriondas        78.29  45   P      P      15 08 23.9 -0.7
      comp=Z,17nm,0.6s,mb4.8
ESDC  Sonseca Array    78.43  49   P      P      15 08 24.6 -1.0
      comp=Z,10nm,0.4s,mb4.8
ESDC  Sonseca Array    78.43  49   P      P      15 08 24.9 -0.6
      comp=Z,6.4nm,0.6s,mb4.4,baz=259,slow=6.4,SNR=13
ESDC                               pP     pP     15 09 07.0 -1.5
      comp=Z,0.3nm,0.3s,baz=154,slow=28,SNR=1.9
GUD   Guadarrama       78.49  48   P      P      15 08 25.4 -0.4
      comp=Z,4.9nm,0.6s,mb4.3
GUD   Guadarrama       78.49  48   P      P      15 08 25.4 -0.4
GUD                                pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.3
EBER  Berja            78.74  52   P      P      15 08 26.7 -0.5
      comp=Z,83nm,1.1s,mb5.3
EQES  Quesada          78.76  51   P      P      15 08 27.4  0.0
      comp=Z,11nm,0.5s,mb4.7
DAWY  Dawson           79.22 337  eP      P      15 08 28.8 -0.5
INK   Inuvik           79.25 342  eP      P      15 08 29.3  0.0
      comp=Z,5µm,1.1s
EVIA  Vianos           79.35  50   P      P      15 08 31.0 +0.5
      comp=Z,26nm,0.8s,mb4.9
EVIA  Vianos           79.35  50   P      P      15 08 31.0 +0.5
EVIA                               pmax   pmax
      comp=Z,26nm,0.8s,mb4.9
CRQ2  Rosemanowes 2    79.96  39  eP      P      15 08 33.5 -0.1
TOA0  Torodi Ar. Sit   80.01  76  eP      P      15 08 33.5 -1.1
TOA0                              epP     pP     15 09 15.2 -2.5
TORD  Torodi Ar. Bea   80.01  76   P      P      15 08 33.7 -0.8
TORD                               pP     pP     15 09 15.9 -1.8
TORD  Torodi Ar. Bea   80.01  76   P      P      15 08 33.7 -0.8
      comp=Z,28nm,0.4s,mb5.2,baz=281,slow=5.9,SNR=593
TORD                               pP     pP     15 09 15.9 -1.8
      comp=Z,13nm,0.8s,baz=254,slow=4.2,SNR=3.5
ETOR  Torete           80.08  48   P      P      15 08 34.4  0.0
      comp=Z,26nm,0.8s,mb4.9
ETOR  Torete           80.08  48   P      P      15 08 34.4  0.0
ETOR                               pmax   pmax
      comp=Z,26nm,0.8s,mb4.9
ECRI  Cripan           80.08  46   P      P      15 08 35.1 +0.7
      comp=Z,5.3nm,0.4s,mb4.5
ECRI  Cripan           80.08  46   P      P      15 08 35.1 +0.7
ECRI                               pmax   pmax
      comp=Z,5.0nm,0.4s,mb4.5
ETOB  Tobarra          80.09  51   P      P      15 08 35.1 +0.6
      comp=Z,37nm,0.7s,mb5.1
EGAK  Eagle            80.22 337  eP      P      15 08 34.3 -0.4
      comp=Z,84nm,0.8s,mb5.4
EGAK                              epP     pP     15 09 17.1 -0.7
ECHE  Chera            80.69  50   P      P      15 08 38.6 +0.9
      comp=Z,13nm,0.6s,mb4.7
ECHE  Chera            80.69  50   P      P      15 08 38.6 +0.9
ECHE                               pmax   pmax
      comp=Z,13nm,0.6s,mb4.7
QUIF  Quistinic        80.72  41  eP      P      15 08 37.2 -0.4
      comp=Z,168nm,1.3s,mb5.2
QUIF                              epP     pP     15 09 19.9 -0.9
QUIF  Quistinic        80.72  41  eP      P      15 08 37.2 -0.4
      comp=Z,84nm,1.3s,mb5.2
QUIF                              epP     pP     15 09 19.9 -0.9
QUIF  Quistinic        80.72  41  eP      P      15 08 37.2 -0.4
QUIF                              e*PP    pP     15 09 19.9 -0.9
QUIF                               pmax   pmax
      comp=Z,84nm,1.3s,mb5.2
ROSF  Rostrenen        80.74  41  eP      P      15 08 37.3 -0.4
      comp=Z,47nm,0.9s,mb4.8
ROSF  Rostrenen        80.74  41  eP      P      15 08 37.3 -0.4
      comp=Z,24nm,0.9s,mb4.8
ROSF  Rostrenen        80.74  41  eP      P      15 08 37.3 -0.4
ROSF                               pmax   pmax
      comp=Z,24nm,0.9s,mb4.8
HEX   Exmoor           81.02  38⇓eP      P      15 08 39.3 +0.1
SJPF  Ste Jean         81.11  46  eP      P      15 08 39.6 -0.2
      comp=Z,22nm,0.5s,mb4.7
SJPF                              epP     pP     15 09 22.1 -0.9
SJPF  Ste Jean         81.11  46  eP      P      15 08 39.6 -0.2
      comp=Z,11nm,0.5s,mb4.8
SJPF                              epP     pP     15 09 22.1 -0.9
SJPF  Ste Jean         81.11  46  eP      P      15 08 39.6 -0.2
SJPF                              e*PP    pP     15 09 22.1 -0.9
SJPF                               pmax   pmax
      comp=Z,11nm,0.5s,mb4.7
EBEN  Beniarda         81.12  51   P      P      15 08 39.7 -0.3
      comp=Z,56nm,0.9s,mb5.2
EMOS  Mosqueruela      81.19  49   P      P      15 08 40.8 +0.5
      comp=Z,52nm,0.9s,mb5.2
RRH   Rhenigidale      81.19  31⇓eP      P      15 08 39.2 -0.8
GIM   North Isle of    81.41  35⇓eP      P      15 08 41.6 +0.5
GAL1  Galloway         81.42  34⇓eP      P      15 08 40.6 -0.5
GAL1                               AMb    AMB    15 08 44.9
      comp=Z,86nm,1.9s,mb5.1
ESAC  San Caprasio     81.42  48   P      P      15 08 40.7 -0.8
      comp=Z,112nm,0.8s,mb5.5
ETSF  Etsaut           81.55  46  eP      P      15 08 42.1 -0.1
      comp=Z,18nm,0.7s,mb4.5
ETSF  Etsaut           81.55  46  eP      P      15 08 42.1 -0.1
      comp=Z,9.1nm,0.7s,mb4.5
ETSF  Etsaut           81.55  46  eP      P      15 08 42.1 -0.1
ETSF                               pmax   pmax
      comp=Z,9.0nm,0.7s,mb4.5
KPL   Plockton         81.56  31  eP      P      15 08 41.6 -0.3
KPL                                AMb    AMB    15 08 42.9
      comp=Z,157nm,1.1s,mb5.5
RTO   Tolsta           81.57  30⇓eP      P      15 08 42.1 +0.2
RRR   Rubha Reidh      81.63  31⇓eP      P      15 08 42.2 -0.1
KSB   Sheil Bridge     81.65  32⇓eP      P      15 08 42.3  0.0
MCH1  Michaelchurch    81.72  37⇓eP      P      15 08 42.7 -0.1
VNA3  Neumayer Olymp   81.74 162⇓iP      P      15 08 42.8 +0.2
VNA3                              e              15 08 48.4
SBD1  Bryn Du          81.77  36⇓eP      P      15 08 42.7 -0.4
KAC   Achnashellach    81.79  31⇓eP      P      15 08 43.2 +0.1
ERTA  Horta de San J   81.89  48   P      P      15 08 43.8 -0.2
      comp=Z,30nm,0.7s,mb5.0
HLM1  Long Mynd        81.91  37⇓eP      P      15 08 43.1 -0.7
REB   Eisghbrachaidh   81.97  31⇓eP      P      15 08 43.8 -0.2
VNA1  Neumayer--Stat   81.97 162⇓iP      P      15 08 44.3 +0.5
VNA1                              e              15 08 49.8
EBIE  Bielsa           82.03  47   P      P      15 08 44.6  0.0
      comp=Z,12nm,0.5s,mb4.8
BWH   Wardlaw          82.08  34  eP      P      15 08 44.4 -0.2
LCHF  La Chataignera   82.09  43  eP      P      15 08 45.6 +0.7
SML   Sawmill          82.16 333  eP      P      15 08 44.5 -0.4
EPF   Esparros         82.22  46  eP      P      15 08 45.9 +0.2
      comp=Z,94nm,1.0s,mb5.1
EPF   Esparros         82.22  46  eP      P      15 08 45.9 +0.2
      comp=Z,47nm,1.0s,mb5.1
EPF   Esparros         82.22  46  eP      P      15 08 45.9 +0.2
EPF                                pmax   pmax
      comp=Z,47nm,1.0s,mb5.1
CKE   Keswick          82.25  34⇓eP      P      15 08 45.8 +0.3
MDO   Dochfour         82.27  32⇓eP      P      15 08 45.7 +0.1
GRR   Gorron           82.33  41  eP      P      15 08 45.6 -0.5
      comp=Z,36nm,0.7s,mb4.8
GRR                               epP     pP     15 09 28.2 -1.2
GRR   Gorron           82.33  41  eP      P      15 08 45.6 -0.5
      comp=Z,18nm,0.7s,mb4.8
GRR                               epP     pP     15 09 28.2 -1.2
GRR   Gorron           82.33  41  eP      P      15 08 45.6 -0.5
GRR                               e*PP    pP     15 09 28.2 -1.2
GRR                                pmax   pmax
      comp=Z,18nm,0.7s,mb4.8
VNA2  Neumayer--Watz   82.33 162⇓iP      P      15 08 45.7  0.0
      baz=298,slow=5.3
VNA2                              e              15 08 50.8
ESK   Eskdalemuir      82.37  34   P      P      15 08 45.8 -0.3
      comp=Z,242nm,0.7s,mb5.9,SNR=5.3
ESK   Eskdalemuir      82.37  34⇓eP      P      15 08 45.9 -0.3
ESK                                AMb    AMB    15 08 48.3
      comp=Z,89nm,1.9s,mb5.1
PMR   Palmer           82.46 333  eP      P      15 08 45.5 -1.0
      comp=Z,13nm,0.5s,mb4.8
PMR   Palmer           82.46 333  eP      P      15 08 45.5 -1.0
PMR                                pmax   pmax
      comp=Z,13nm,0.5s,mb4.8
BBH   Bruntsheil       82.48  34  eP      P      15 08 46.8 +0.1
MFF   Saint Martin d   82.48  43  eP      P      15 08 46.5 -0.4
      comp=Z,118nm,0.9s,mb5.2
MFF   Saint Martin d   82.48  43  eP      P      15 08 46.5 -0.4
      comp=Z,59nm,0.9s,mb5.2
MFF   Saint Martin d   82.48  43  eP      P      15 08 46.5 -0.4
MFF                                pmax   pmax
      comp=Z,59nm,0.9s,mb5.2
MVH1  Achvaich         82.48  31  eP      P      15 08 46.3 -0.4
EPOB  Poblet           82.51  48   P      P      15 08 45.8 -1.4
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      comp=Z,27nm,0.7s,mb5.1
EDI   Edinburgh        82.52  33  eP     P      15 08 47.1 +0.2
EDI                                AMb   AMB    15 08 47.9
      comp=Z,108nm,1.6s,mb5.3
KWE   Weaver Farm      82.63  36⇓eP     P      15 08 48.0 +0.4
FLN   La Foliniere     82.64  41  eP     P      15 08 47.3 -0.4
      comp=Z,72nm,0.8s,mb5.2
FLN                               eMLR   MLR
      comp=Z,164nm,23.0s
FLN   La Foliniere     82.64  41  eP     P      15 08 47.3 -0.4
      comp=Z,36nm,0.8s,mb5.2
FLN                                LR    LR
      comp=Z,160nm,23.0s
FLN   La Foliniere     82.64  41  eP     P      15 08 47.3 -0.4
FLN                                pmax  pmax
      comp=Z,36nm,0.8s,mb5.2
FLN                                MLR   MLR
      comp=Z,160nm,23.0s
SLKM  Skilak Lake      82.66 332  eP     P      15 08 46.8 -0.7
LHO   Holmfirth        82.74  36  eP     P      15 08 47.7 -0.3
MLS   Moulis           82.76  47  eP     P      15 08 49.3 +0.8
SALF  Salau            82.80  47  eP     P      15 08 49.5 +0.8
LFF   La Frestale      82.81  45⇑iP     P      15 08 48.3 -0.4
      comp=Z,180nm,1.1s,mb5.4
LFF   La Frestale      82.81  45⇑iP     P      15 08 48.3 -0.4
      comp=Z,90nm,1.1s,mb5.4
LFF   La Frestale      82.81  45⇑iP     P      15 08 48.3 -0.4
LFF                                pmax  pmax
      comp=Z,90nm,1.1s,mb5.4
XAL   Allendale        82.82  34⇓eP     P      15 08 48.5 +0.1
LDF   La Druitiere     82.84  41  eP     P      15 08 48.2 -0.6
      comp=Z,63nm,0.9s,mb5.0
LDF   La Druitiere     82.84  41  eP     P      15 08 48.2 -0.6
      comp=Z,31nm,0.9s,mb5.0
LDF   La Druitiere     82.84  41  eP     P      15 08 48.2 -0.6
LDF                                pmax  pmax
      comp=Z,31nm,0.9s,mb5.0
KBI1  Birley Grange    82.87  36⇓eP     P      15 08 48.5 -0.2
MCD   Coleburn Disti   82.88  32⇓eP     P      15 08 48.9 +0.2
COLA  College          82.92 336  eP     P      15 08 47.8 -1.0
      comp=Z,24nm,0.8s,mb5.0
COLA  College          82.92 336⇓iP     P      15 08 47.9 -0.9
EMIR  Miracle          82.92  48   P     P      15 08 49.0 -0.4
      comp=Z,34nm,0.5s,mb5.3
XSO   Sourhope Farm    82.94  34⇓eP     P      15 08 49.1 +0.1
MME1  Meikle Cairn     82.97  32⇓eP     P      15 08 48.6 -0.5
SKP1  Kophill          82.99  38  eP     P      15 08 49.0 -0.4
MLA1  Latheron         83.00  31⇓eP     P      15 08 49.5 +0.2
MCK   McKinley         83.01 335  eP     P      15 08 48.8 -0.5
      comp=Z,28nm,0.9s,mb5.0
MCK   McKinley         83.01 335  eP     P      15 08 48.8 -0.5
MCK                                pmax  pmax
      comp=Z,28nm,0.9s,mb5.0
VALF  Valcebollere     83.35  47  eP     P      15 08 52.0 +0.5
RJF   Les Rejaudoux    83.41  44  eP     P      15 08 51.2 -0.5
      comp=Z,113nm,0.9s,mb5.3
RJF                               eMLR   MLR
      comp=Z,192nm,18.5s
RJF   Les Rejaudoux    83.41  44  eP     P      15 08 51.2 -0.5
      comp=Z,56nm,0.9s,mb5.3
RJF                                LR    LR
      comp=Z,190nm,18.5s
RJF   Les Rejaudoux    83.41  44  eP     P      15 08 51.2 -0.5
RJF                                pmax  pmax
      comp=Z,57nm,0.9s,mb5.3
RJF                                MLR   MLR
      comp=Z,190nm,18.5s
ETOS  Mallorca         83.60  50   P     P      15 08 52.5 -0.3
      comp=Z,86nm,1.0s,mb5.4
MTLF  Montolieu        83.63  46⇑iP     P      15 08 52.4 -0.5
      comp=Z,104nm,0.9s,mb5.2
MTLF                              epP    pP     15 09 34.8 -1.6
MTLF  Montolieu        83.63  46⇑iP     P      15 08 52.4 -0.5
      comp=Z,52nm,0.9s,mb5.3
MTLF                              epP    pP     15 09 34.8 -1.6
MTLF  Montolieu        83.63  46⇑iP     P      15 08 52.4 -0.5
MTLF                              e*PP   pP     15 09 34.8 -1.6
MTLF                               pmax  pmax
      comp=Z,52nm,0.9s,mb5.3
CAF   Calviac          83.74  45  eP     P      15 08 53.0 -0.4
      comp=Z,75nm,0.9s,mb5.1
CAF   Calviac          83.74  45  eP     P      15 08 53.0 -0.4
      comp=Z,38nm,0.9s,mb5.1
CAF   Calviac          83.74  45  eP     P      15 08 53.0 -0.4
CAF                                pmax  pmax
      comp=Z,38nm,0.9s,mb5.1
EJON  La Jonquera      84.00  47   P     P      15 08 54.5 -0.3
      comp=Z,24nm,0.6s,mb5.1
TCF   Toulx Ste Croi   84.04  43⇑iP     P      15 08 54.2 -0.7
      comp=Z,63nm,0.7s,mb5.2
TCF                               epP    pP     15 09 36.8 -1.6
TCF   Toulx Ste Croi   84.04  43⇑iP     P      15 08 54.2 -0.7
      comp=Z,32nm,0.7s,mb5.2
TCF                               epP    pP     15 09 36.8 -1.6
TCF   Toulx Ste Croi   84.04  43⇑iP     P      15 08 54.2 -0.7
TCF                               e*PP   pP     15 09 36.8 -1.6
TCF                                pmax  pmax
      comp=Z,32nm,0.7s,mb5.2
ALE   Alert            84.10   2   P     P      15 08 54.0 -0.6
      comp=Z,106nm,0.5s,mb5.8,SNR=9.9
WAL1  Walls            84.33  29⇓eP     P      15 08 56.2 +0.1
BGF   Bois d'Agland    84.51  43  eP     P      15 08 56.7 -0.6
      comp=Z,246nm,1.2s,mb5.5
BGF                               epP    pP     15 09 39.5 -1.3
BGF   Bois d'Agland    84.51  43  eP     P      15 08 56.7 -0.6
      comp=Z,123nm,1.2s,mb5.5
BGF                               epP    pP     15 09 39.5 -1.3
BGF   Bois d'Agland    84.51  43  eP     P      15 08 56.7 -0.6
BGF                               e*PP   pP     15 09 39.5 -1.3
BGF                                pmax  pmax
      comp=Z,123nm,1.2s,mb5.5
LRW   Lerwick          84.51  29⇓eP     P      15 08 57.1 +0.1
LRW                                AMb   AMB    15 08 60.0
      comp=Z,146nm,1.7s,mb5.4
PYM   Petit Puy Mans   84.51  44  eP     P      15 08 58.0 +0.7
DAG   Danmarks Havn    84.55  11⇓iP     P      15 08 56.8 -0.1
DAG                               i      pP     15 09 40.0 -0.4
DAG                                pmax  pmax
      comp=Z,34nm,1.2s,mb5.0
DAG   Danmarks Havn    84.55  11⇓iP     P      15 08 56.8 -0.1
      comp=Z,34nm,1.2s,mb5.0
DAG                               i      pP     15 09 40.0 -0.4
LBL   Lubilhac         84.61  45  eP     P      15 08 58.7 +0.9
AGO   Saint Agoulin    84.64  44  eP     P      15 08 58.0 +0.1
AVF   Avril sur Loir   84.89  43⇑iP     P      15 08 58.1 -1.0
      comp=Z,63nm,0.9s,mb5.1
AVF                               epP    pP     15 09 41.1 -1.6
AVF   Avril sur Loir   84.89  43⇑iP     P      15 08 58.1 -1.0
      comp=Z,32nm,0.9s,mb5.0
AVF                               epP    pP     15 09 41.1 -1.6
AVF   Avril sur Loir   84.89  43⇑iP     P      15 08 58.1 -1.0
AVF                               e*PP   pP     15 09 41.1 -1.6
AVF                                pmax  pmax
      comp=Z,32nm,0.9s,mb5.0
LASF  Ste Croix        84.90  46⇑iP     P      15 08 59.2 -0.1
      comp=Z,84nm,1.1s,mb5.1
PLDF  La Plantade      84.97  44  eP     P      15 08 59.9 +0.3
SSF   Saint Saulge     85.03  43  eP     P      15 08 58.7 -1.1
      comp=Z,53nm,0.9s,mb5.0
SSF   Saint Saulge     85.03  43  eP     P      15 08 58.7 -1.1
      comp=Z,26nm,0.9s,mb5.0
SSF   Saint Saulge     85.03  43  eP     P      15 08 58.7 -1.1
SSF                                pmax  pmax
      comp=Z,27nm,0.9s,mb5.0
SMF   Signal de Mont   85.20  43⇑iP     P      15 08 59.8 -0.9
      comp=Z,127nm,1.2s,mb5.2
SMF   Signal de Mont   85.20  43⇑iP     P      15 08 59.8 -0.9
      comp=Z,64nm,1.2s,mb5.2
SMF   Signal de Mont   85.20  43⇑iP     P      15 08 59.8 -0.9
SMF                                pmax  pmax
      comp=Z,64nm,1.2s,mb5.2
LOR   Lormes           85.29  43⇑iP     P      15 09 00.1 -1.0
      comp=Z,56nm,0.8s,mb5.1
LOR                               epP    pP     15 09 43.0 -1.8
LOR                               eMLR   MLR
      comp=Z,175nm,17.8s
LOR   Lormes           85.29  43⇑iP     P      15 09 00.1 -1.0
      comp=Z,28nm,0.8s,mb5.0
LOR                               epP    pP     15 09 43.0 -1.8
LOR                                LR    LR
      comp=Z,170nm,17.8s
LOR   Lormes           85.29  43⇑iP     P      15 09 00.1 -1.0
LOR                               e*PP   pP     15 09 43.0 -1.8
LOR                                pmax  pmax
      comp=Z,28nm,0.8s,mb5.0
LOR                                MLR   MLR
      comp=Z,170nm,17.8s
SVW2  Sparrevohn       85.35 332  eP     P      15 09 00.0 -1.1
VIVF  Saint-Julien-l   85.57  45  eP     P      15 09 02.5 -0.1
      comp=Z,23nm,0.9s,mb4.6
VIVF                              epP    pP     15 09 45.4 -0.8
VIVF  Saint-Julien-l   85.57  45  eP     P      15 09 02.5 -0.1
      comp=Z,11nm,0.9s,mb4.6
VIVF                              epP    pP     15 09 45.4 -0.8
VIVF  Saint-Julien-l   85.57  45  eP     P      15 09 02.5 -0.1
VIVF                              e*PP   pP     15 09 45.4 -0.8
VIVF                               pmax  pmax
      comp=Z,11nm,0.9s,mb4.6
IMA2  Indian Mountai   85.59 337  eP     P      15 09 01.1 -1.1
BAIF  Baives           85.87  40⇑iP     P      15 09 03.2 -0.7
      comp=Z,46nm,0.8s,mb5.0
BAIF  Baives           85.87  40⇑iP     P      15 09 03.2 -0.7
      comp=Z,23nm,0.8s,mb5.0
BAIF  Baives           85.87  40⇑iP     P      15 09 03.2 -0.7
BAIF                               pmax  pmax
      comp=Z,23nm,0.8s,mb5.0
SNF   Seneffe          85.97  39   P     P      15 09 04.8 +0.4
      comp=Z,21nm,1.3s,mb4.7
UCC   Uccle            86.05  39   P     P      15 09 04.4 -0.5
      comp=Z,28nm,0.9s,mb5.0
DOU   Dourbes          86.12  40   P     P      15 09 05.2  0.0
SMRF  Simiane la Rot   86.12  46  eP     P      15 09 05.0 -0.3
      comp=Z,48nm,1.2s,mb4.8
SMRF  Simiane la Rot   86.12  46  eP     P      15 09 05.0 -0.3
      comp=Z,48nm,1.2s,mb5.1
MEZF  Maizieres J'vi   86.23  41  eP     P      15 09 05.1 -0.7
      comp=Z,69nm,0.6s,mb5.2
MEZF  Maizieres J'vi   86.23  41  eP     P      15 09 05.1 -0.7
      comp=Z,69nm,0.6s,mb5.6
GIVF  Givet            86.27  40⇑iP     P      15 09 05.5 -0.4
      comp=Z,195nm,0.9s,mb5.5
GIVF                              epP    pP     15 09 48.7 -0.9
GIVF  Givet            86.27  40⇑iP     P      15 09 05.5 -0.4
      comp=Z,98nm,0.9s,mb5.5
GIVF                              epP    pP     15 09 48.7 -0.9
GIVF  Givet            86.27  40⇑iP     P      15 09 05.5 -0.4
GIVF                              e*PP   pP     15 09 48.7 -0.9
GIVF                               pmax  pmax
      comp=Z,98nm,0.9s,mb5.5
ORIF  Oris-en-Rattie   86.43  45  eP     P      15 09 06.7 -0.1
      comp=Z,33nm,0.8s,mb4.8
ORIF                              epP    pP     15 09 49.1 -1.4
ORIF                              eMLR   MLR
      comp=Z,231nm,21.2s
ORIF  Oris-en-Rattie   86.43  45  eP     P      15 09 06.7 -0.1
      comp=Z,16nm,0.8s,mb4.8
ORIF                              epP    pP     15 09 49.1 -1.4
ORIF  Oris-en-Rattie   86.43  45  eP     P      15 09 06.7 -0.1
ORIF                              e*PP   pP     15 09 49.1 -1.4
ORIF                               pmax  pmax
      comp=Z,16nm,0.8s,mb4.8
BCLA  Clavier          86.61  40   P     P      15 09 08.0 +0.5
CABF  La Chapelle      86.74  43  eP     P      15 09 07.6 -0.7
      comp=Z,53nm,0.8s,mb5.1
CABF  La Chapelle      86.74  43  eP     P      15 09 07.6 -0.7
      comp=Z,26nm,0.8s,mb5.1
CABF  La Chapelle      86.74  43  eP     P      15 09 07.6 -0.7
CABF                               pmax  pmax
      comp=Z,27nm,0.8s,mb5.1
LMR   La Mourre        86.74  47  eP     P      15 09 07.3 -1.0
THEF  They Montfort    86.82  42  eP     P      15 09 09.1 +0.5
FRF   La Foret Royal   86.86  46  eP     P      15 09 08.0 -0.9
      comp=Z,61nm,0.8s,mb5.2
FRF   La Foret Royal   86.86  46  eP     P      15 09 08.0 -0.9
      comp=Z,31nm,0.8s,mb5.2
FRF   La Foret Royal   86.86  46  eP     P      15 09 08.0 -0.9
FRF                                pmax  pmax
      comp=Z,31nm,0.8s,mb5.2
BEBN  Eben Emael       86.88  39   P     P      15 09 09.4 +0.6
BNI   Bardonecchia     87.01  45  eP     P      15 09 10.0 +0.4
      comp=Z,9.1nm,0.6s,mb4.8
BNI   Bardonecchia     87.01  45  eP     P      15 09 10.0 +0.4
BNI                                pmax  pmax
      comp=Z,9.0nm,0.6s,mb4.8
HAU   Haudompre        87.05  42  eP     P      15 09 08.7 -1.0
      comp=Z,24nm,0.8s,mb4.8
HAU                               eMLR   MLR
      comp=Z,196nm,20.8s
HAU   Haudompre        87.05  42  eP     P      15 09 08.7 -1.0
      comp=Z,12nm,0.8s,mb4.8
HAU                                LR    LR
      comp=Z,200nm,20.8s
HAU   Haudompre        87.05  42  eP     P      15 09 08.7 -1.0
HAU                                pmax  pmax
      comp=Z,12nm,0.8s,mb4.8
HAU                                MLR   MLR
      comp=Z,200nm,20.8s
MBDF  Montbardon       87.05  45  eP     P      15 09 09.4 -0.4
      comp=Z,37nm,1.1s,mb4.8
MBDF  Montbardon       87.05  45  eP     P      15 09 09.4 -0.4
      comp=Z,18nm,1.1s,mb4.8
MBDF  Montbardon       87.05  45  eP     P      15 09 09.4 -0.4
MBDF                               pmax  pmax
      comp=Z,18nm,1.1s,mb4.8
MEM   Membach          87.07  39   P     P      15 09 09.8  0.0
      comp=Z,44nm,1.5s,mb5.1
WLF   Walferdange      87.07  40  eP     P      15 09 10.4 +0.6
      comp=Z,119nm,1.0s,mb5.7
WLF                               epP    pP     15 09 55.1 +1.5
WLF   Walferdange      87.07  40  eP     P      15 09 10.4 +0.6
WLF                               e*PP   pP     15 09 55.1 +1.5
WLF                                pmax  pmax
      comp=Z,119nm,1.0s,mb5.7
WLF   Walferdange      87.07  40   P     P      15 09 10.6 +0.8
      comp=Z,68nm,1.3s,mb5.3
WLF   Walferdange      87.07  40  eP     P      15 09 10.7 +0.9
      comp=Z,106nm,0.8s,mb5.7
LPL   La Plagne        87.08  44  eP     P      15 09 10.0  0.0
      comp=Z,21nm,0.7s,mb4.8
LPL   La Plagne        87.08  44  eP     P      15 09 10.0  0.0
      comp=Z,10nm,0.7s,mb4.8
LPL   La Plagne        87.08  44  eP     P      15 09 10.0  0.0
LPL                                pmax  pmax
      comp=Z,10.0nm,0.7s,mb4.8
LPG   La Plagne        87.10  45  eP     P      15 09 10.1 +0.1
      comp=Z,14nm,0.6s,mb4.7
LPG   La Plagne        87.10  45  eP     P      15 09 10.1 +0.1
      comp=Z,7.0nm,0.6s,mb4.7
LPG   La Plagne        87.10  45  eP     P      15 09 10.1 +0.1
LPG                                pmax  pmax
      comp=Z,7.0nm,0.6s,mb4.7
HINF  Hinteralfeld     87.37  42  eP     P      15 09 10.0 -1.2
      comp=Z,13nm,0.6s,mb4.7
HINF  Hinteralfeld     87.37  42  eP     P      15 09 10.0 -1.2
      comp=Z,6.6nm,0.6s,mb4.6
HINF  Hinteralfeld     87.37  42  eP     P      15 09 10.0 -1.2
HINF                               pmax  pmax
      comp=Z,7.0nm,0.6s,mb4.7
SBF   Sospel           87.45  46  eP     P      15 09 10.7 -1.1
      comp=Z,66nm,0.7s,mb5.3
SBF   Sospel           87.45  46  eP     P      15 09 10.7 -1.1
      comp=Z,33nm,0.7s,mb5.3
SBF   Sospel           87.45  46  eP     P      15 09 10.7 -1.1
SBF                                pmax  pmax
      comp=Z,33nm,0.7s,mb5.3
MOF   Molkenrain       87.56  42  eP     P      15 09 12.1 -0.1
ECH   Echery           87.60  42  eP     P      15 09 11.8 -0.6
RUP   Ruppelstein      87.66  40  eP     P      15 09 13.4 +0.8
WTSB  Winterswijk      87.70  38  eP     P      15 09 13.5 +0.8
      comp=Z,112nm,1.2s,mb5.5
CDF   Champ du Feu     87.70  42  eP     P      15 09 12.1 -0.7
      comp=Z,79nm,0.9s,mb5.2
CDF                               epP    pP     15 09 55.1 -1.6
CDF   Champ du Feu     87.70  42  eP     P      15 09 12.1 -0.7
      comp=Z,40nm,0.9s,mb5.2
CDF                               epP    pP     15 09 55.1 -1.6
CDF   Champ du Feu     87.70  42  eP     P      15 09 12.1 -0.7
CDF                               e*PP   pP     15 09 55.1 -1.6
CDF                                pmax  pmax
      comp=Z,40nm,0.9s,mb5.2
BUG   Bochum--Univer   87.94  39  eP     P      15 09 14.5 +0.6
      comp=Z,72nm,1.1s,mb5.4
ABH   Alteburg         87.99  40  eP     P      15 09 14.8 +0.6
LANF  Langenberg       88.09  41  eP     P      15 09 15.2 +0.5
FELD  Feldberg im Sc   88.14  42  eP     P      15 09 15.1 +0.2
IBBN  Ibbenburen       88.31  38  eP     P      15 09 16.1 +0.5
      comp=Z,30nm,1.0s,mb5.1
BFO   Black Forest     88.39  42  eP     P      15 09 15.7 -0.4
      comp=Z,16nm,1.3s,mb4.7
BFO   Black Forest     88.39  42  eP     P      15 09 15.7 -0.4
BFO                                pmax  pmax
      comp=Z,16nm,1.3s,mb4.7
KEST  Kesra            88.42  54   P     P      15 09 16.9 +0.3
      comp=Z,6.8nm,0.7s,mb4.6,baz=204,slow=1.3,SNR=9.4
PGF   Pioggiola        88.51  48  eP     P      15 09 15.8 -1.0
MAIT  Maitri           88.52 161  eP     P      15 09 14.8 -1.4
TNS   Taunus Mts       88.60  40  eP     P      15 09 17.5 +0.5
TNS                                pmax  pmax
      comp=Z,48nm,1.2s,mb5.3
TNS   Taunus Mts       88.60  40  eP     P      15 09 17.5 +0.5
      comp=Z,48nm,1.2s,mb5.3
QSPA  South Pole Qui   88.67 180  eP     P      15 09 17.7 +0.9
      comp=Z,366nm,1.0s,mb6.3
STU   Stuttgart        88.99  41  eP     P      15 09 19.2 +0.3
      comp=Z,53nm,0.9s,mb5.5
DAVA  Damuels          89.38  43⇓iP     P      15 09 21.4 +0.7
      comp=Z,57nm,1.1s,mb5.4
DAVA  Damuels          89.38  43⇓iP     P      15 09 21.4 +0.7
      comp=Z,57nm,1.1s,mb5.4
DAVA  Damuels          89.38  43⇓iPcP   PcP    15 09 21.4 -0.6
      comp=Z,57nm,1.1s
CLZ   Clausthal        89.90  38  eP     P      15 09 23.5 +0.5
CLZ                                pmax  pmax
      comp=Z,38nm,1.2s,mb5.2
CLZ   Clausthal        89.90  38  eP     P      15 09 23.5 +0.5
      comp=Z,38nm,1.2s,mb5.2
FETA  Feichten         89.94  43⇓iPcP   PcP    15 09 24.0 -0.5
      comp=Z,44nm,1.0s,SNR=22
BSEG  Bad Segeberg     89.95  36  eP     P      15 09 23.7 +0.5
BSEG                               pmax  pmax
      comp=Z,42nm,1.5s,mb5.2
BSEG  Bad Segeberg     89.95  36  eP     P      15 09 23.7 +0.5
      comp=Z,42nm,1.5s,mb5.2
RETA  Reutte           89.98  43⇓iPcP   PcP    15 09 24.1 -0.6
      comp=Z,20nm,1.1s
MOTA  Moosalm          90.21  43⇑iP     P      15 09 25.1 +0.5
      comp=Z,30nm,1.1s,mb5.1,SNR=9.0
MOTA  Moosalm          90.21  43⇑iPcP   PcP    15 09 25.1 -0.6
      comp=Z,30nm,1.1s,SNR=9.0
MOTA  Moosalm          90.21  43⇑iP     P      15 09 25.1 +0.5
MOTA                               pmax  pmax
      comp=Z,31nm,1.1s,mb5.2
SQTA  Sankt Quirin     90.28  43⇓iP     P      15 09 25.3 +0.3
      comp=Z,17nm,0.7s,mb5.1,SNR=20
SQTA  Sankt Quirin     90.28  43⇓iPcP   PcP    15 09 25.3 -0.7
      comp=Z,17nm,0.7s,SNR=20
SQTA  Sankt Quirin     90.28  43⇓iP     P      15 09 25.3 +0.4
SQTA                               pmax  pmax
      comp=Z,17nm,0.7s,mb5.1
GRA1  Grafenberg Arr   90.36  40  eP     P      15 09 25.5 +0.2
      comp=Z,13nm,1.0s,mb4.8
GRA1                              epP    pP     15 10 07.0 -2.3
GRF   Grafenberg Arr   90.36  40  eP     P      15 09 25.5 +0.2
GRF                                pmax  pmax
      comp=Z,13nm,1.0s,mb4.8
GRF   Grafenberg Arr   90.36  40  eP     P      15 09 25.5 +0.2
GRF                                pmax  pmax
      comp=Z,13nm,1.0s,mb4.8
GRF   Grafenberg Arr   90.36  40  eP     P      15 09 25.5 +0.2
      comp=Z,13nm,1.0s,mb4.8
GRF                               epP    pP     15 10 07.0 -2.3
NAO01 NORSAR Array S   90.52  29  eP     P      15 09 25.7  0.0
      comp=Z,14nm,1.0s,mb5.0
WTTA  Wattenberg       90.57  43⇑iP     P      15 09 26.7 +0.4
      comp=Z,23nm,0.7s,mb5.3
WTTA  Wattenberg       90.57  43⇑iP     P      15 09 26.6 +0.4
      comp=Z,23nm,0.7s,mb5.3
WTTA  Wattenberg       90.57  43⇑iPcP   PcP    15 09 26.7 -0.6
      comp=Z,23nm,0.7s
WTTA  Wattenberg       90.57  43⇑iP     P      15 09 26.7 +0.4
WTTA                               pmax  pmax
      comp=Z,23nm,0.7s,mb5.3
MOX   Moxa             90.64  40  eP     P      15 09 27.3 +0.8
      comp=Z,33nm,1.7s,mb5.1
NOA   NORSAR Array B   90.69  29   P     P      15 09 27.0 +0.5
      comp=Z,6.1nm,0.6s,mb4.8,baz=269,slow=4.6,SNR=25
NOA                                LR    LR     15 44 59.5
      comp=Z,109nm,18.8s,baz=260,slow=32
MANZ  Manzenberg       90.94  40  eP     P      15 09 28.8 +0.9
      comp=Z,20nm,1.1s,mb5.1
ROTZ  Rotzenmuhle      91.00  40  eP     P      15 09 28.7 +0.5
      comp=Z,34nm,1.3s,mb5.2
ABTA  Abfaltersbach    91.16  43⇓iPcP   PcP    15 09 29.6 -0.3
      comp=Z,32nm,1.0s,SNR=8.3
NKC   Novy Kostel      91.16  40  eP     P      15 09 29.9 +0.9
TANN  Tannenbergstha   91.17  40  eP     P      15 09 29.5 +0.5
      comp=Z,31nm,1.1s,mb5.2
TNA   Tin City         91.34 335  eP     P      15 09 29.8 +0.3
      comp=Z,4.7nm,0.8s,mb4.6
WET   Wettzell         91.43  41  eP     P      15 09 31.2 +1.0
WET                                pmax  pmax
      comp=Z,24nm,1.0s,mb5.2
WET   Wettzell         91.43  41  eP     P      15 09 31.2 +1.0
      comp=Z,24nm,1.0s,mb5.2
CLL   Collm            91.53  39⇑iP     P      15 09 31.2 +0.6
      comp=Z,34nm,1.4s,mb5.2
CLL                               epP    pP     15 10 11.0 -3.7
CLL                               eSKS          15 19 42.0
CLL                               eSSS          15 30 07.0
CLL   Collm            91.53  39⇑iP     P      15 09 31.2 +0.6
CLL                               e             15 19 42.0
CLL                               eSSS          15 30 07.0
CLL                                pmax  pmax
      comp=Z,34nm,1.4s,mb5.2
CLL   Collm            91.53  39  eP     P      15 09 31.0 +0.4
      comp=Z,34nm,1.4s,mb5.2
CLL   Collm            91.53  39⇑iP     P      15 09 31.2 +0.6
      comp=Z,34nm,1.4s,mb5.2
CLL                               e(pP)  pP     15 10 11.0 -3.7
CLL                               eSKSac SKSac  15 19 45.0 -1.4
CLL                               eSP    SP     15 21 24.0 -1.0
CLL                               ePPS          15 22 26.0
CLL                               eSS    SS     15 26 18.0 -7.6
CLL                               eSSS          15 30 07.0
CLL                               ex     x      15 34 34.0
KHC   Kasperske Hory   91.89  41  eP     P      15 09 32.7 +0.3
KHC                               epP    pP     15 10 17.2 +0.8
MYKA  Terra Mystica    91.94  44⇓iPcP   PcP    15 09 32.8 -0.6
      comp=Z,16nm,0.5s
GEC2  GERESS Array S   91.97  41  eP     P      15 09 32.5 -0.3
GEC2                               pmax  pmax
      comp=Z,11nm,1.1s,mb4.8
GEC2  GERESS Array S   91.97  41  eP     P      15 09 32.5 -0.3
      comp=Z,11nm,1.1s,mb4.8
GERES GERESS Array B   91.97  41   P     P      15 09 32.6 -0.2
GERES                              *PP   pP     15 10 16.0 -0.8
GERES GERESS Array B   91.97  41   P     P      15 09 32.6 -0.2
      comp=Z,3.3nm,0.7s,mb4.5,baz=258,slow=3.8,SNR=14
GERES                              pP    pP     15 10 16.0 -0.8
      comp=Z,1.5nm,0.7s,baz=224,slow=11,SNR=3.0
GERES                              LR    LR     15 43 31.3
      comp=Z,121nm,21.7s,baz=281,slow=30
BRG   Berggiesshubel   92.12  39  eP     P      15 09 34.1 +0.7
BRG                                pmax  pmax
      comp=Z,19nm,1.1s,mb5.0
BRG   Berggiesshubel   92.12  39  eP     P      15 09 33.9 +0.5
      comp=Z,32nm,1.1s,mb5.3
BRG   Berggiesshubel   92.12  39  eP     P      15 09 34.1 +0.8
      comp=Z,32nm,1.1s,mb5.3
JAVS  Javornik         92.23  44  i P    P      15 09 34.6 +0.6
MOA   Molln            92.36  42⇓iP     P      15 09 33.8 -0.8
      comp=Z,18nm,1.1s,mb5.0
PRU   Pruhonice        92.51  40  eP     P      15 09 35.7 +0.5
PVCC  Panska Ves       92.52  40  eP     P      15 09 36.2 +1.0
LJU   Ljubljana        92.55  44  i P    P      15 09 36.2 +0.7
PERS  Pernice          92.95  44  eP     P      15 09 37.4  0.0
GAMB  Gambell          93.00 334  eP     P      15 09 37.4 +0.3
GAMB                              epP    pP     15 10 20.4 -0.9
TREC  Trest            93.14  41  eP     P      15 09 38.7 +0.6
ARSA  Arzberg          93.22  43⇑iP     P      15 09 38.6 +0.1
      comp=Z,11nm,0.6s,mb5.2
ARSA  Arzberg          93.22  43⇑iPcP   PcP    15 09 38.6 -0.4
      comp=Z,11nm,0.6s
CONA  Conrad Observa   93.43  42⇑iPcP   PcP    15 09 40.0  0.0
      comp=Z,13nm,0.8s
UPC   Upice            93.44  40  eP     P      15 09 40.3 +0.8
UPC                               epP    pP     15 10 25.2 +1.6
KSP   Ksiaz            93.61  39  eP     P      15 09 41.6 +1.4
KSP   Ksiaz            93.61  39  eP     P      15 09 41.2 +1.0
KSP                               eSP    SP     15 21 51.0 +3.0
DPC   Dobruska-Polom   93.65  40  eP     P      15 09 41.4 +1.0
DPC                               epP    pP     15 10 26.2 +1.7
GKP   Gorka Klasztor   94.08  37  eP     P      15 09 43.6 +1.3
ZST   Bratislava       94.25  42  eP     P      15 09 43.8 +0.6
      comp=Z,22nm,0.9s,mb5.3
ZST   Bratislava       94.25  42  eP     P      15 09 43.8 +0.6
ZST                                pmax  pmax
```

	comp=Z,22nm,0.9s,mb5.3						
TSUM	**Tsumeb**	**94.56**	**109**	*e*P	**P**	**15 09 46.7**	**+1.4**
	comp=Z,9.3nm,0.8s,mb5.1						
TSUM				*e*pP	pP	15 10 29.7	+0.3
OKC	**Ostrava-Krasne**	**94.85**	**40**	*e*P	**P**	**15 09 47.1**	**+1.2**
VNDA	**Vanda**	**94.97**	**191**	P	**P**	**15 09 46.1**	**+0.1**
	comp=Z,8.1nm,0.7s,mb5.0,baz=121,slow=4.9,SNR=13						
VNDA				LR	LR	15 51 53.6	
	comp=Z,72nm,18.1s,baz=215,slow=35						
VYHS	**Vyhne**	**95.39**	**42**	*e*P	**P**	**15 09 48.6**	**+0.2**
	comp=Z,12nm,1.2s,mb5.0						
VYHS	**Vyhne**	**95.39**	**42**	*e*P	**P**	**15 09 48.6**	**+0.2**
VYHS				pmax	pmax		
	comp=Z,12nm,1.2s,mb5.0						
OJC	**Ojcow**	**95.88**	**40**	*e*P	**P**	**15 09 50.8**	**+0.2**
ARCES	**ARCESS Array B**	**95.91**	**20**	P	**P**	**15 09 49.7**	**-0.6**
ARCES				PP	PP	15 13 47.7	+3.0
ARCES	**ARCESS Array B**	**95.91**	**20**	P	**P**	**15 09 49.7**	**-0.6**
	comp=Z,7.9nm,0.7s,mb5.2,baz=269,slow=3.7,SNR=34						
ARCES				PP	PP	15 13 47.7	+3.0
	comp=Z,2.4nm,0.8s,baz=284,slow=9.8,SNR=4.1						
KECS	**Kecovo**	**96.48**	**42**	*e*P	**P**	**15 09 54.4**	**+1.0**
	comp=Z,6.6nm,1.1s,mb4.9						
KECS	**Kecovo**	**96.48**	**42**	*e*P	**P**	**15 09 54.4**	**+1.0**
KECS				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.9						
CRVS	**Cervenica-Dubn**	**97.08**	**41**	*e*P	**P**	**15 09 56.7**	**+0.6**
SUW	**Suwalki**	**97.53**	**36**	*e*P	**P**	**15 09 58.0**	**0.0**
KOLS	**Kolonicke sedl**	**97.61**	**41**	*e*P	**P**	**15 09 59.5**	**+1.0**
KOLS				*e*		16 04 02.1	
KOLS				*e*		16 04 39.9	
KAF	**Kangasniemi**	**97.77**	**27**	*e*p	**P**	**15 09 57.6**	**-1.3**
	comp=Z,2.5nm,0.5s,mb4.9						
KAF	**Kangasniemi**	**97.77**	**27**	*e*P	**P**	**15 09 57.6**	**-1.3**
KAF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb5.0						
FINES	**FINESS Array B**	**97.80**	**28**	P	**P**	**15 09 58.4**	**-0.6**
FINES				LR	LR	15 53 40.2	
FINES	**FINESS Array B**	**97.80**	**28**	P	**P**	**15 09 58.4**	**-0.6**
	comp=Z,6.4nm,0.7s,mb5.2,baz=270,slow=1.9,SNR=26						
FINES				LR	LR	15 53 40.2	
	comp=Z,68nm,20.2s,baz=357,slow=35						
JOF	**Joensuu**	**99.82**	**26**	*e*p	Pdif	15 10 05.9	-2.3
	comp=Z,1.8nm,0.5s						
JOF	**Joensuu**	**99.82**	**26**	*e*P	Pdif	15 10 05.9	-2.3
JOF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.8						
BOSA	**Boshof**	**100.71**	**119**	PKiKP	PKiKP	15 14 38.1	0.0
	comp=Z,3.7nm,0.9s,baz=246,slow=3.2,SNR=3.6						
BILL	**Bilibino**	**100.79**	**340**	*e*Pdif	Pdif	15 10 11.2	-1.3
	comp=Z,11nm,1.2s						
BILL	**Bilibino**	**100.79**	**340**	⇑*e*P	Pdif	15 10 11.7	-0.8
BILL				pmax	pmax		
	comp=Z,10.0nm,1.3s						
BILL				MLR	MLR		
	comp=Z,100nm,26.0s						
AKASG	**Malin Array Be**	**101.76**	**38**	P	Pdif	15 10 16.7	-0.1
	comp=Z,0.3nm,0.5s,baz=272,slow=4.4,SNR=4.9						
ARU	**Arti**	**114.92**	**25**	*e*PKIKP	PKiKP	15 15 02.5	-1.3
YAK	**Yakutsk**	**116.08**	**346**	*i* PKP	PKPdf	15 15 04.5	-1.3
YAK	**Yakutsk**	**116.08**	**346**	*i* PKIKP	PKPdf	15 15 04.5	-1.3
AB31	**Akbulak array**	**120.16**	**31**	*i* PKIKP	PKPdf	15 15 14.1	0.0
AB31				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MIB	**Mutribah**	**120.73**	**56**	*e*P	PKPdf	15 15 14.9	-0.8
MIB				AMb	AMB	15 15 17.8	
	comp=Z,21nm,0.8s						
NAY	**Al-Naaiem**	**120.82**	**57**	*e*P	PKPdf	15 15 14.7	-1.2
NAY				AMb	AMB	15 15 20.5	
	comp=Z,6.3nm,0.8s						
UMR	**Umm Al-Rimmam**	**121.12**	**56**	*e*P	PKPdf	15 15 16.1	-0.4
UMR				AMb	AMB	15 15 18.6	
	comp=Z,19nm,0.5s						
RDF	**Al-Radifah**	**121.17**	**57**	*e*P	PKPdf	15 15 16.3	-0.3
RDF				AMb	AMB	15 15 19.6	
	comp=Z,12nm,0.8s						
CLNS	**Chul'man**	**121.82**	**346**	*e*PKIKP	PKPdf	15 15 15.2	-1.8
CLNS				pmax	pmax		
	comp=Z,20nm,0.8s						
CLNS				pmax	pmax		
	comp=N,3.0nm,0.6s						
CLNS				pmax	pmax		
	comp=E,4.0nm,0.7s						
BRVK	**Borovoye**	**122.07**	**22**	*e*PKPdf	PKPdf	15 15 17.0	-0.6
BRVK	**Borovoye**	**122.07**	**22**	PKIKP	PKPdf	15 15 17.1	-0.5
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
OPO	**Ambohidratompo**	**122.35**	**113**	PKP	PKPdf	15 15 18.4	-0.8
OPO	**Ambohidratompo**	**122.35**	**113**	PKP	PKPdf	15 15 18.4	-0.8
	comp=Z,1.8nm,0.4s,baz=256,slow=3.7,SNR=5.5						
YSS	**Yuzh-Sakhalins**	**122.58**	**328**	*e*PKPdf	PKPdf	15 15 17.5	-1.3
YSS	**Yuzh-Sakhalins**	**122.58**	**328**	⇑*i*PKIKP	PKPdf	15 15 18.0	-0.8
YSS				pmax	pmax		
	comp=Z,20nm,0.7s						
CNB	**Canberra Magne**	**122.88**	**225**	*e*PKP	PKPdf	15 15 19.3	-0.5
	comp=Z,20nm,1.0s						
CNB	**Canberra Magne**	**122.88**	**225**	*e*PKP	PKPdf	15 15 19.3	-0.5
BOD	**Bodaibo**	**122.97**	**353**	*e*PKIKP	PKPdf	15 15 16.6	-2.6
BOD				pmax	pmax		
	comp=Z,4.0nm,0.7s						
JWK2	**Keihoku**	**124.08**	**327**	P	PKPdf	15 15 21.2	-0.5
JMP	**Maruseppu**	**124.09**	**325**	P	PKPdf	15 15 21.0	-0.8
TOO	**Toolangi**	**124.36**	**221**	*e*PKP	PKPdf	15 15 21.8	-0.7
	comp=Z,11nm,0.6s						
TOO	**Toolangi**	**124.36**	**221**	*e*PKP	PKPdf	15 15 21.8	-0.7
TOO	**Toolangi**	**124.36**	**221**	*e*PKIKP	PKPdf	15 15 21.8	-0.7
ASAJ	**Asahikawa**	**124.45**	**326**	P	PKPdf	15 15 22.4	-0.1
NVS	**Novosibirsk**	**124.49**	**13**	*i* PKIKP	PKPdf	15 15 21.1	-1.1
ZALV	**Zalesovo Beam**	**125.67**	**13**	PKP	PKPdf	15 15 23.8	-0.7
ZALV				PKKPab		15 24 58.6	
ZALV	**Zalesovo Beam**	**125.67**	**13**	PKP	PKPdf	15 15 23.8	-0.7
	comp=Z,17nm,0.7s,baz=279,slow=2.9,SNR=52						
ZALV				PKKPab		15 24 58.6	
	comp=Z,1.3nm,0.6s,baz=173,slow=3.9,SNR=7.3						
ZAL	**Zalesovo**	**125.68**	**13**	PKIKP	PKPdf	15 15 23.8	-0.7
KLR	**Kul'dur**	**126.07**	**336**	*e*PKIKP	PKPdf	15 15 20.8	-4.6
KLR				pmax	pmax		
	comp=Z,30nm,1.2s						
JSH	**Shimam**	**126.83**	**326**	P	PKPdf	15 15 25.9	-1.2
KURK	**Kurchatov**	**126.92**	**19**	*e*PKPdf	PKPdf	15 15 26.9	-0.1
KURK	**Kurchatov**	**126.92**	**19**	*e*PKIKP	PKPdf	15 15 26.9	-0.1
JOT	**Ohata**	**127.04**	**324**	P	PKPdf	15 15 26.7	-0.8
JTM	**Tenmabayashi**	**127.40**	**323**	P	PKPdf	15 15 27.4	-0.8
JOM	**Ohasama**	**128.06**	**322**	P	PKPdf	15 15 28.5	-1.0
CIT	**Chita**	**128.67**	**351**	*e*PKIKP	PKPdf	15 15 30.3	0.0
JMM	**Marumori**	**129.33**	**320**	P	PKPdf	15 15 31.1	-0.9
JYA	**Atsumi**	**129.57**	**322**	P	PKPdf	15 15 32.2	-0.2
KKAR	**Karatay Array**	**129.71**	**30**	*i* PKIKP	PKPdf	15 15 32.8	+0.2
KKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TLY	**Talaya**	**129.87**	**359**	PKPdf	PKPdf	15 15 32.8	+0.2
TLY	**Talaya**	**129.87**	**359**	*e*PKIKP	PKPdf	15 15 33.0	+0.4
TLY				*e*		15 27 32.6	
TLY				*e*SS	SS	15 34 52.1	-2.3
TLY				pmax	pmax		
	comp=Z,7.0nm,0.8s						
TLY				MLR	MLR		
	comp=Z,124nm,23.0s						
MOY	**Mondy**	**129.89**	**1**	*e*PKIKP	PKPdf	15 15 33.3	+0.7
MOY				pmax	pmax		
	comp=Z,13nm,1.3s						
HIA	**Hailar**	**130.01**	**345**	*e*PKPdf	PKPdf	15 15 31.9	-1.0
HIA				*e*pPKPdf	pPKPdf	15 16 17.4	-1.6
HIA				*e*PP	PP	15 17 43.9	-2.2
HIA				*e*SKP		15 18 39.3	
HIA	**Hailar**	**130.01**	**345**	*e*PKIKP	PKPdf	15 15 31.9	-1.0
HIA				*e*		15 16 17.5	
HIA				*e*		15 17 43.9	
STKA	**Stephens Creek**	**130.19**	**225**	⇓*i*P	PKPdf	15 15 33.1	-0.7
	comp=Z,26nm,0.9s						
STKA				*e*PKS		15 18 56.7	
STKA	**Stephens Creek**	**130.19**	**225**	PKP		15 15 18.1	
STKA				⇓*i*P	PKPdf	15 15 33.1	-0.7
STKA				*e*PKS		15 18 56.7	
STKA	**Stephens Creek**	**130.19**	**225**	PKhKP		15 15 18.1	
	comp=Z,1.4nm,0.8s,baz=328,slow=14,SNR=5.3						
STKA				PKP	PKPdf	15 15 32.9	-0.9
	comp=Z,30nm,0.7s,baz=96,slow=1.7,SNR=57						
MDJ	**Mudanjiang**	**130.63**	**334**	*e*PKP	PKPdf	15 15 34.3	0.0
MDJ				XPKP		15 16 33.0	
MDJ				PP	PP	15 17 50.8	+0.3
MDJ				SS	SS	15 35 06.4	+1.8
MDJ				PP	PP		
	comp=Z,135nm,5.7s						
MDJ				LR	LR		
	comp=N,30nm,31.4s						
MDJ				LR	LR		
	comp=E,60nm,38.0s						
MDJ				LR	LR		
	comp=Z,33nm,34.0s						
JYT	**Yasato**	**130.68**	**319**	P	PKPdf	15 15 34.5	-0.1
JSD	**Sado**	**130.81**	**322**	P	PKPdf	15 15 33.9	-0.9
ZAK	**Zakamensk**	**131.18**	**359**	*e*PKIKP	PKPdf	15 15 34.9	-0.2
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.1s						
MK31	**Makanchi Array**	**131.53**	**18**	*e*PKPdf	PKPdf	15 15 34.6	-1.3
MK31				*e*SKPbc	SKPbc	15 18 44.9	-0.1
MK31	**Makanchi Array**	**131.53**	**18**	*e*PKIKP	PKPdf	15 15 34.6	-1.3
MKAR	**Makanchi Array**	**131.53**	**18**	PKP		15 15 18.0	
MKAR				PKP	PKPdf	15 15 35.3	-0.6
MKAR				PP	PP	15 17 50.8	-5.3
MKAR				SKPbc	SKPbc	15 18 45.9	+1.0
MKAR	**Makanchi Array**	**131.53**	**18**	PKHKP		15 15 18.0	
MKAR						15 15 35.3	
MKAR	**Makanchi Array**	**131.53**	**18**	PKhKP		15 15 18.0	
	comp=Z,0.1nm,0.4s,baz=261,slow=3.3,SNR=2.0						
MKAR				PKP	PKPdf	15 15 35.3	-0.6
	comp=Z,4.4nm,0.5s,baz=328,slow=1.9,SNR=33						
MKAR				PP	PP	15 17 50.8	-5.3
	comp=Z,1.9nm,0.8s,baz=326,slow=7.6,SNR=4.2						
MKAR				SKPbc	SKPbc	15 18 45.9	+1.0
	comp=Z,4.0nm,0.8s,baz=1.9,slow=3.6,SNR=8.1						
JRY	**Ryogami san**	**131.65**	**320**	P	PKPdf	15 15 35.9	-0.6
MJAR	**Matsushiro Arr**	**131.77**	**321**	PKP	PKPdf	15 15 35.7	-1.0
MJAR				pPKP	pPKPdf	15 16 21.0	-1.8
MJAR				SKPbc	SKPbc	15 18 45.5	-0.7
MJAR	**Matsushiro Arr**	**131.77**	**321**	PKIKP	PKPdf	15 15 35.7	-1.0
MJAR						15 16 21.0	
MJAR	**Matsushiro Arr**	**131.77**	**321**	PKP	PKPdf	15 15 35.7	-1.0
	comp=Z,7.1nm,0.6s,baz=92,slow=0.3,SNR=23						
MJAR				pPKP	pPKPdf	15 16 21.0	-1.8
	comp=Z,3.5nm,0.9s,baz=79,slow=1.3,SNR=2.2						
MJAR				SKPbc	SKPbc	15 18 45.5	-0.7
	comp=Z,6.4nm,1.1s,baz=11,slow=0.8,SNR=8.6						
MAJO	**Matsushiro**	**131.78**	**321**	*e*PKPdf	PKPdf	15 15 35.5	-1.2
MAJO	**Matsushiro**	**131.78**	**321**	*e*PKIKP	PKPdf	15 15 35.5	-1.2
MAT	**Matsushiro**	**131.78**	**321**	PKP	PKPdf	15 15 35.4	-1.3
MAT	**Matsushiro**	**131.78**	**321**	P	PKPdf	15 15 35.5	-1.2
CTA	**Charters Tower**	**131.91**	**241**	⇓*i*P	PKPdf	15 15 36.7	-0.7
	comp=Z,15nm,0.6s						
CTA				*e*pPKP	pPKPdf	15 16 22.3	-1.2
CTA	**Charters Tower**	**131.91**	**241**	⇓*i*PKIKP	PKPdf	15 15 36.7	-0.7
CTA				*e*		15 16 22.3	
CTAO	**Charters Tower**	**131.91**	**241**	*e*PKPdf	PKPdf	15 15 36.7	-0.7
CTAO	**Charters Tower**	**131.91**	**241**	*e*PKIKP	PKPdf	15 15 36.7	-0.7
JOD2	**Odawara 2**	**131.98**	**319**	P	PKPdf	15 15 36.1	-1.0
AAK	**Ala-Archa**	**131.99**	**28**	*e*PKPdf	PKPdf	15 15 36.8	-0.1
AAK				*e*pPKPdf	pPKPdf	15 16 23.9	+0.9
AAK				*e*SKPbc	SKPbc	15 18 47.1	+0.4
AAK	**Ala-Archa**	**131.99**	**28**	*e*PKIKP	PKPdf	15 15 36.8	-0.1
AAK				*e*		15 16 23.9	
CN2	**Changchun**	**133.01**	**337**	*e*PKP	PKPdf	15 15 38.3	-0.5
CN2				*e*PP	PP	15 18 09.3	+3.6
CN2				*e*SS	SS	15 35 35.1	+1.9
CN2				PP	PP		
	comp=Z,200nm,6.0s						
ULN	**Ulaanbaatar**	**133.52**	**356**	*e*PKPdf	PKPdf	15 15 39.4	-0.2
ULN				*e*SKPbc	SKPbc	15 18 52.7	+0.9
ULN	**Ulaanbaatar**	**133.52**	**356**	*e*PKIKP	PKPdf	15 15 39.4	-0.2
SONM	**Songino Array**	**133.60**	**356**	PKP		15 15 27.6	
SONM				PKP	PKPdf	15 15 39.6	-0.1
SONM				pPKP	pPKPdf	15 16 24.0	-1.9
SONM				SKPbc	SKPbc	15 18 52.6	+0.5
SONM	**Songino Array**	**133.60**	**356**	PKHKP		15 15 27.6	
SONM						15 15 39.6	
SONM						15 16 24.0	
SONM	**Songino Array**	**133.60**	**356**	PKhKP		15 15 27.6	
	comp=Z,1.2nm,0.7s,baz=339,slow=2.3,SNR=7.0						
SONM				PKP	PKPdf	15 15 39.6	-0.1
	comp=Z,5.2nm,0.5s,baz=333,slow=1.4,SNR=34						
SONM				pPKP	pPKPdf	15 16 24.0	-1.9
	comp=Z,3.5nm,1.1s,baz=37,slow=0.7,SNR=1.7						
SONM				SKPbc	SKPbc	15 18 52.6	+0.5
	comp=Z,6.1nm,0.8s,baz=331,slow=1.5,SNR=8.6						
JWT	**Wachi**	**134.34**	**321**	P	PKPdf	15 15 41.1	-0.4
KSH	**Kashi**	**135.11**	**29**	*e*PKP	PKPdf	15 15 45.1	+2.2
KSH				*e*XPKP		15 16 44.1	
KSH				*e*PKS		15 19 19.1	
KSH				*e*SKS	SKSdf	15 22 37.3	-0.2
KSH				PP	PP		
	comp=Z,311nm,4.6s						
KSH				LR	LR		
	comp=N,600nm,5.1s						
KSH				LR	LR		
	comp=E,674nm,5.2s						
KSH				LR	LR		
	comp=Z,761nm,4.8s						
WMQ	**Urumqi**	**135.80**	**15**	*e*PKP	PKPdf	15 15 44.8	+0.8
WMQ				XPKP		15 16 44.0	
WMQ				PP	PP	15 18 29.4	+6.3
WMQ				PKS		15 19 19.8	
WMQ				SKS	SKSdf	15 22 37.8	-0.7
WMQ				SKKS	SKKSac	15 25 03.1	+1.4
WMQ				SS	SS	15 36 12.3	+5.9
WMQ				PP	PP		
	comp=Z,88nm,11.0s						
WMQ				LR	LR		
	comp=N,115nm,21.0s						
WMQ				LR	LR		
	comp=E,73nm,18.0s						
WMQ				LR	LR		
	comp=Z,84nm,22.5s						
JMN	**Monobe**	**136.30**	**321**	P	PKPdf	15 15 45.2	0.0
COEN	**Coen**	**136.71**	**248**	*e*PKPdf	PKPdf	15 15 45.9	-0.6
KSRS	**Korea Array**	**137.04**	**330**	PKhKP		15 15 34.1	
	comp=Z,2.7nm,0.8s,baz=57,slow=3.4,SNR=8.5						
KSRS				PKP	PKPdf	15 15 46.0	-0.5
	comp=Z,35nm,0.7s,baz=12,slow=1.8,SNR=45						
BJI	**Beijing**	**139.50**	**344**	PKP	Pdif	15 13 03.6	-1.1
BJI				PP	PP	15 18 40.3	-5.8
BJI				SS	SS	15 36 10.6	-40
BJI				LR	LR		
	comp=Z,120nm,32.2s						
BJT	**Baijiatuau**	**139.53**	**344**	*e*PKPdf	PKPdf	15 15 50.0	-0.9
BJT	**Baijiatuau**	**139.53**	**344**	*e*PKIKP	PKPdf	15 15 50.1	-0.9
FORT	**Forrest**	**139.69**	**215**	*e*PKP	PKPdf	15 15 43.8	-7.8
	comp=Z,43nm,0.6s						
FORT	**Forrest**	**139.69**	**215**	*e*PKP	PKPdf	15 15 43.8	-7.8
HHC	**Hu-ho-hao-te**	**139.83**	**349**	*e*PKP	PKPdf	15 15 50.3	-1.2
HHC				PP	PP	15 18 52.8	+4.8
HHC				PKS		15 19 25.1	
HHC				SKS	SKSdf	15 22 42.4	-3.0
HHC				SKKS	SKKSac	15 25 24.6	-1.0
HHC				SS	SS	15 36 58.8	+5.0
HHC				PP	PP		
	comp=Z,52nm,6.8s						
ASAR	**Alice Springs**	**140.44**	**229**	PKP		15 15 43.2	
ASAR				PKP	PKPdf	15 15 52.6	-0.5
ASAR				pPKP	pPKPdf	15 16 36.8	-2.5
ASAR	**Alice Springs**	**140.44**	**229**	PKHKP		15 15 43.3	
ASAR						15 15 52.6	
ASAR						15 16 36.8	
ASAR	**Alice Springs**	**140.44**	**229**	PKhKP		15 15 43.2	
	comp=Z,7.9nm,0.5s,baz=128,slow=3.8,SNR=103						
ASAR				PKP	PKPdf	15 15 52.6	-0.5
	comp=Z,19nm,0.6s,baz=119,slow=2.3,SNR=36						
ASAR				pPKP	pPKPdf	15 16 36.8	-2.5
	comp=Z,6.1nm,0.9s,baz=124,slow=2.2,SNR=1.6						
WB2	**Warramunga Arr**	**142.07**	**234**	*e*PKP	PKPdf	15 15 49.5	-6.6
WB2				*e*PKS		15 19 31.3	
WB2	**Warramunga Arr**	**142.07**	**234**	*e*PKP	PKPdf	15 15 49.5	-6.6
WB2				*e*PKS		15 19 31.3	
WRA	**Warramunga Arr**	**142.09**	**234**	PKP	PKPdf	15 15 49.6	-6.5
WRA				PKP	PKPdf	15 15 54.9	-1.3
WRA				PP	PP	15 18 59.6	-3.7
WRA				SKPbc	SKPbc	15 19 15.5	-1.9
WRA	**Warramunga Arr**	**142.09**	**234**	PKHKP		15 15 49.6	
WRA						15 15 54.9	
WRA						15 18 59.6	
WRA	**Warramunga Arr**	**142.09**	**234**	PKhKP		15 15 49.6	
	comp=Z,23nm,0.7s,baz=125,slow=3.2,SNR=227						
WRA				PKP	PKPdf	15 15 54.9	-1.3
	comp=Z,32nm,0.7s,baz=115,slow=2.0,SNR=65						
WRA				PP	PP	15 18 59.6	-3.7
	comp=Z,6.7nm,1.2s,baz=123,slow=5.5,SNR=7.5						
WRA				SKPbc	SKPbc	15 19 15.5	-1.9
	comp=Z,11nm,1.2s,baz=106,slow=2.6,SNR=7.2						
GTA	**Gaotai**	**142.09**	**3**	*e*PKP	PKPdf	15 15 53.0	-2.6
GTA				APKP		15 16 34.6	
GTA				XPKP		15 16 52.5	
GTA				PP	PP	15 19 04.0	+2.3
GTA				PKS		15 19 28.8	
GTA				SKS	SKSdf	15 22 45.8	-3.3
GTA				SKKS	SKKSac	15 25 36.4	-2.4
GTA				SS	SS	15 37 22.1	+2.1
GTA				PP	PP		
	comp=Z,94nm,8.7s						
GTA				LR	LR		
	comp=N,90nm,18.7s						
GTA				LR	LR		
	comp=E,118nm,14.9s						
GTA				LR	LR		
	comp=Z,220nm,17.6s						
AJM	**Ajmer**	**143.56**	**44**	*e*P	PKPdf	15 15 55.6	-3.0
NDI	**New Delhi**	**143.82**	**39**	*e*P	PKPdf	15 15 55.9	-3.2
NDI				*e*P		15 15 56.0	
KLBR	**Kellerberrin**	**144.06**	**203**	⇓*i*PKP	PKPdf	15 15 56.2	-3.2
	comp=Z,76nm,0.4s						
KLBR	**Kellerberrin**	**144.06**	**203**	⇓*i*PKP	PKPdf	15 15 56.2	-3.2
MUN	**Mundaring**	**144.29**	**201**	⇓*i*PKP	PKPdf	15 15 57.3	-2.4
MUN	**Mundaring**	**144.29**	**201**	⇓*i*PKP	PKPdf	15 15 57.3	-2.4
MUN	**Mundaring**	**144.29**	**201**	⇓*i*PKIKP	PKPdf	15 15 57.3	-2.4
JOW	**Kunigami**	**144.46**	**318**	P	PKPdf	15 15 58.4	-1.8
LZH	**Lanzhou**	**145.44**	**358**	*e*PKP	PKPdf	15 16 02.4	+0.8
LZH				APKP		15 16 47.3	
LZH				XPKP		15 17 05.1	
LZH				PP	PP	15 19 26.0	+4.3
LZH				PP	PP		
	comp=Z,65nm,3.9s						
LZH				LR	LR		
	comp=N,125nm,19.3s						
LZH				LR	LR		
	comp=Z,189nm,20.4s						
LZH	**Lanzhou**	**145.44**	**358**	*e*PKP	PKPdf	15 16 02.4	+0.8
LZH				pPKP	pPKPdf	15 16 47.3	-0.5
LZH				sPKP		15 17 05.1	
LZH				PP	PP	15 19 26.0	+4.3
LZH				LR	LR		
	comp=Z,190nm,20.4s						
LZH	**Lanzhou**	**145.44**	**358**	*e*PKP2	PKPab	15 16 02.4	+0.2
LZH						15 19 26.0	
LZH				MLR	MLR		
	comp=Z,190nm,20.4s						
SSE	**Sheshan**	**145.46**	**331**	PKP	PKPdf	15 16 00.8	-1.0
SSE				LR	LR		
	comp=N,56nm,28.9s						
SSE				LR	LR		
	comp=E,37nm,29.1s						
SSE				LR	LR		
	comp=Z,47nm,24.7s						
SSE	**Sheshan**	**145.46**	**331**	PKP	PKPdf	15 16 00.7	-1.1
SSE				SS	SS	15 38 13.7	+14
SSE				LR	LR		
	comp=Z,50nm,24.7s						
NJ2	**Nanjing**	**145.73**	**335**	*e*PKP	PKPdf	15 16 02.1	-0.1
NJ2				PKP2	PKPab	15 16 05.5	+2.0
NJ2				APKP		15 16 45.9	
NJ2				XPKP		15 17 01.5	
NJ2				PP	PP	15 19 30.0	+6.1
NJ2				SKKS	SKKSac	15 26 01.0	+1.1
NJ2				PP	PP		
	comp=Z,240nm,9.4s						
NJ2				LR	LR		
	comp=N,340nm,25.4s						
NJ2				LR	LR		
	comp=E,770nm,31.5s						
NJ2				LR	LR		
	comp=Z,360nm,25.2s						
XAN	**Xi'an**	**146.93**	**350**	PKP	PKPdf	15 16 03.8	-0.4
KAKA	**Kakadu**	**146.95**	**244**	*e*P	PKPdf	15 16 03.4	-1.3
	comp=Z,101nm,0.6s						
POO	**Poona**	**147.32**	**57**	*e*P	PKPdf	15 16 04.5	-0.7
BHPL	**Bhopal**	**147.54**	**46**	*e*P	PKPdf	15 16 06.6	+1.1
KOLN	**Koldanda**	**148.25**	**33**	*e*P	PKPdf	15 16 06.3	-0.2
GKN	**Gorkha**	**148.61**	**31**	*e*P	PKPdf	15 16 07.0	-0.1
AKL	**Akola**	**148.75**	**50**	*e*P	PKPdf	15 16 08.2	+0.6
WHN	**Wuhan**	**148.82**	**340**	PKP	PKPdf	15 16 06.6	-0.8
WHN				APKP		15 16 54.3	
ALBI	**Allahabad**	**149.09**	**38**	*e*P	PKPdf	15 16 04.5	-3.5
KKN	**Kakani**	**149.11**	**30**	*e*P	PKPdf	15 16 07.0	-0.9
DMN	**Daman**	**149.17**	**31**	*e*P	PKPdf	15 16 08.5	+0.5
GUN	**Gumba**	**149.31**	**29**	*e*P	PKPdf	15 16 08.5	+0.3
PKI	**Pulchoki**	**149.35**	**30**	*e*P	PKPdf	15 16 08.4	+0.1
YOJ	**Yonaguni jima**	**149.54**	**320**	P	PKPdf	15 16 12.1	+3.4
JIRN	**Jiri**	**149.67**	**29**	*e*P	PKPdf	15 16 09.6	+0.8
LSA	**Lhasa**	**149.92**	**20**	PKP	PKPdf	15 16 10.4	+1.2
LSA	**Lhasa**	**149.92**	**20**	*e*PKPdf	PKPdf	15 16 10.1	+0.9
LSA	**Lhasa**	**149.92**	**20**	*e*PKHKP		15 16 10.1	
FITZ	**Fitzroy Crossi**	**149.94**	**229**	⇓*i*PKP	PKPdf	15 16 08.8	-0.7
	comp=Z,165nm,0.8s						
FITZ				*e*pPKP	pPKPdf	15 16 58.7	+3.0
FITZ	**Fitzroy Crossi**	**149.94**	**229**	⇓*i*PKP	PKPdf	15 16 08.8	-0.7
FITZ				*e*pPKP	pPKPdf	15 16 58.7	+3.0
NGP	**Nagpur**	**150.01**	**47**	*e*P	PKPdf	15 16 11.0	+1.5
YHNB	**Yeheng**	**150.40**	**323**	*e*PKPbc	PKPbc	15 16 13.9	-1.5
CD2	**Chengdu**	**150.61**	**357**	*e*PKP	PKPdf	15 16 10.3	+0.1
CD2				PKP2	PKPab	15 16 25.4	+2.4
CD2				APKP		15 16 52.8	
CD2				PP	PP	15 19 56.8	+5.0
CD2				SKS	SKSdf	15 23 00.3	-1.3
CD2				SKKS	SKKSac	15 26 28.0	+1.0
CD2				SS	SS	15 39 00.8	+4.5
CD2				PP	PP		
	comp=Z,150nm,10.8s						
CD2				LR	LR		
	comp=N,380nm,24.0s						
CD2				LR	LR		
	comp=Z,140nm,23.0s						
NACB	**Ninganchiao**	**150.63**	**322**	*e*PKPbc	PKPbc	15 16 14.6	-1.4
TAPN	**Taplejung**	**150.65**	**27**	*e*P	PKPdf	15 16 10.6	+0.2
ODAN	**Odare**	**150.91**	**28**	*e*P	PKPdf	15 16 10.8	0.0
BLSP	**Bilaspur**	**151.55**	**42**	*e*P	PKPdf	15 16 08.7	-3.2
HYB	**Hyderabad**	**151.75**	**54**	*e*P	PKPdf	15 16 12.0	-0.3
HYB	**Hyderabad**	**151.75**	**54**	*e*PKIKP	PKPdf	15 16 12.0	-0.3
HYB	**Hyderabad**	**151.75**	**54**	*i* PKP	PKPdf	15 16 12.0	-0.3
HYB				*e*		15 16 28.0	
HYB				*e*		15 17 12.5	
BOK	**Bokaro**	**152.64**	**34**	*e*P	PKPdf	15 16 13.9	+0.4
TRD	**Trivandrum**	**153.82**	**73**	*e*P	PKPdf	15 16 15.4	0.0
KOD	**Kodaikanal**	**153.82**	**69**	*e*P	PKPdf	15 16 15.9	+0.5
GYA	**Guiyang**	**154.72**	**351**	PKP	PKPdf	15 16 14.3	-2.0
GYA				PKP2	PKPab	15 16 41.3	+0.9
GYA				APKP		15 16 59.5	
GYA				XPKP		15 17 16.8	
GYA				PKS		15 19 47.6	
GYA				PP	PP	15 20 18.4	+3.3
GYA				SKKS	SKKSac	15 26 48.0	-1.4
GYA				SS	SS	15 39 42.8	+1.4
GYA				PP	PP		
	comp=Z,130nm,8.9s						
GYA				LR	LR		
	comp=N,630nm,20.0s						
GYA				LR	LR		
	comp=E,610nm,21.4s						
GYA				LR	LR		
	comp=Z,940nm,21.2s						
KMI	**Kunming**	**156.40**	**359**	PKP	PKPdf	15 16 16.4	-2.2
KMI				PKP2	PKPab	15 16 48.6	+1.0
KMI				APKP		15 17 01.5	
KMI				XPKP		15 17 18.6	
KMI				PP	PP	15 20 28.0	+3.6
KMI				SKS	SKSdf	15 23 03.9	-4.7
KMI				SKKS	SKKSac	15 26 57.4	-1.0
KMI				SS	SS	15 40 02.3	+2.9
KMI				LR	LR		
	comp=Z,93nm,24.1s						
KMI	**Kunming**	**156.40**	**359**	PKP	PKPdf	15 16 16.4	-2.2
KMI	**Kunming**	**156.40**	**359**	PKIKP	PKPdf	15 16 16.4	-2.2
QIZ	**Qiongzhong**	**160.97**	**338**	PKP	PKPdf	15 16 24.3	+0.1
QIZ				PKP2	PKPab	15 17 07.8	+0.2
QIZ				PP	PP	15 20 47.8	-1.8
QIZ				SS	SS	15 40 51.3	+2.9
QIZ				PP	PP		
	comp=Z,112nm,6.2s						
QIZ				LR	LR		
	comp=E,100nm,29.3s						
QIZ				LR	LR		
	comp=Z,140nm,25.2s						
CHTO	**Chiang Mai**	**162.38**	**10**	*e*PKPdf	PKPdf	15 16 24.4	-1.2
CHTO	**Chiang Mai**	**162.38**	**10**	*e*PKIKP	PKPdf	15 16 24.4	-1.2

KSM	Kuching	171.97	271	ePKPdf	PKPdf	15 16 31.4	-1.4
KSM				epPKPdf	pPKPdf	15 17 17.1	-2.3

IDC 13 15:36:56.8±6.2,189N×3066W,h0^{km},mb3.8/5,mb1 4.2/5, mb1mx3.8/20,mbtmp3.8/5,MS3.3/1,Ms1 3.3/1, ms1mx2.7/37,Error ellipse: s-maj=262.3km s-min=32.5km az=1.0,Central Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TORD	Torodi Ar. Bea	33.92	69	P	P	15 43 41.8	-0.1
	1.0nm,0.6s,baz=250,slow=9.1,SNR=7.2						
ROSC	El Rosal	43.69	275	LR	LR	16 03 30.6	
	comp=Z,37nm,20.9s,baz=172,slow=36						
TXAR	Lajitas Array	74.27	300	P	P	15 48 35.8	-0.6
	0.3nm,0.7s,baz=106,slow=6.7,SNR=5.2						
PDAR	Pinedale Array	80.56	313	P	P	15 49 11.7	+0.3
	0.5nm,0.6s,baz=111,slow=4.9,SNR=5.1						
YKA	Yellowknife Ar	85.53	332	P	P	15 49 36.5	0.0
	0.7nm,0.9s,baz=94,slow=5.0,SNR=6.6						
NVAR	Mina Array Bea	86.98	308	P	P	15 49 45.6	+1.3
	0.6nm,0.8s,baz=104,slow=5.7,SNR=2.5						

GUC 13 15:47:51.3±0.3,4539S×7306W,h4^{km}±3^{km},ML3.9, Southern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COYC	Coyhaique	0.71	105	eP	Pg	15 48 04.0	-0.9
COYC				i S	Sg	15 48 13.3	-0.8

ISCJB 13 15:51:33.9±0.7,1154N±004×12625E±006,h10^{km}, mb3.7/7,Error ellipse: s-maj=9.0km s-min=6.4km az=6.7

IDC 13 15:51:34.0±1.5,1133N×12587E,h0^{km},mb3.7/7, mb1 3.8/7,mb1mx3.6/19,mbtmp3.7/7,Error ellipse: s-maj=176.9km s-min=17.5km az=68.0

NEIC 13 15:51:35.4±1.1,1136N×12598E,h10^{km},Error ellipse: s-maj=124.0km s-min=12.5km az=67.0

MAN 13 15:51:36,1161N×126.14E,h18^{km},mb4.6,ML3.5,MS3.4

ISC 13 15:51:35.5±0.7,1153N±005×12619E±007,h10^{km},n22, σ1^{s}06/25,mb3.7/7,2D,Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BESP	Borongan	0.74	275	eP	Pg	15 51 49.3	-0.6
PLP	Palo	1.24	253	i P	Pn	15 51 56.7	-2.3
PLP				i S	Sb	15 52 11.6	-3.6
OCLP	Ormoc	1.62	253	eP	Pn	15 52 03.5	-0.7
CNP	Catarman	1.78	303	eP	Pn	15 52 06.7	+0.3
SCPH	Surigao	1.87	202	⇓eP	Pn	15 52 07.3	-0.3
MSLP	Maasin	1.91	223	eP	Pn	15 52 09.2	+1.1
MSLP				eS	Sn	15 52 33.1	+0.8
LLP	Lapu-Lapu	2.50	241	⇓eP	Pn	15 52 16.6	+0.3
PVCP	Virac	2.85	316	eP	Pn	15 52 21.6	+0.5
TBP	Tagbilaran	2.93	232	eP	Pn	15 52 24.8	+2.6
CGP	Cagayan de Oro	3.40	206	eP	Pn	15 52 27.5	-1.1
CGP				eS	Sn	15 53 09.4	+0.5
GUIM	Jordan	3.65	256	eP	Pn	15 52 32.1	0.0
BUKP	Musuan	3.80	197	eP	Pn	15 52 36.0	+1.9
OTRP	Odiongan	4.16	282	eP	Pn	15 52 39.6	+0.4
BOAC	Boac	4.66	295	eP	Pn	15 52 45.9	0.0
WRA	Warramunga Arr	32.29	166	P	P	15 58 02.7	-2.0
	0.2nm,0.5s,mb3.2,baz=345,slow=9.2,SNR=3.7						
ASAR	Alice Springs	35.79	168	P	P	15 58 34.5	-0.6
	0.2nm,0.5s,mb3.3,baz=352,slow=7.3,SNR=15						
ASAR				PcP	PcP	16 01 02.9	0.0
	0.4nm,0.6s,baz=345,slow=2.8,SNR=6.0						
SONM	Songino Array	39.82	339	P	P	15 59 10.1	+1.2
	0.6nm,0.8s,mb3.4,baz=154,slow=9.9,SNR=5.2						
STKA	Stephens Creek	45.62	162	P	P	15 59 56.0	-0.1
	2.0nm,0.9s,mb4.1,baz=330,slow=16,SNR=3.3						
MK31	Makanchi Array	50.98	322	eP	P	16 00 37.9	+0.5
MKAR	Makanchi Array	50.98	322	P	P	16 00 38.2	+0.8
	1.9nm,0.6s,mb4.2,baz=119,slow=8.0,SNR=33						
MKAR				pP	pP	16 00 48.0	+7.3
	1.6nm,0.7s,baz=123,slow=7.8,SNR=9.1						
FINES	FINESS Array B	84.75	332	P	P	16 04 09.4	-0.3
	1.0nm,0.8s,mb4.0,baz=95,slow=10,SNR=5.6						
AKASG	Malin Array Be	85.54	321	P	P	16 04 12.5	-1.4
	0.4nm,0.5s,mb3.9,baz=63,slow=5.0,SNR=4.0						

ISCJB 13 16:03:08.8±0.3,4989N±003×1836E±003,h0^{km},Error ellipse: s-maj=3.8km s-min=2.1km az=19.0

NEIC 13 16:03:10.6±0.5,4983N×1841E,h5^{km},ML3.2(SZGRF), Error ellipse: s-maj=7.8km s-min=4.6km az=204.0

CSEM 13 16:03:10.3±0.1,4985N×1845E,h0^{km},ML3.4/7

IPEC 13 16:03:10.1±0.1,4984N×1851E,h0^{km},ML2.3/4,Error ellipse: s-maj=2.1km s-min=0.7km az=163.0

VIE 13 16:03:11.7±0.9,4973N×1836E,h0^{km},mb2.3/4,ML2.7/4, Error ellipse: s-maj=6.1km s-min=3.7km az=89.0, Suspected Mining induced.

PRU 13 16:03:11.7,4986N×1837E,h0^{km},Rockburst In Mine Doubrava, Felt In Karvina, E=1.6e6 Mining induced.

BGR 13 16:03:18.7±1.2,4984N×1795E,h1^{km},ML3.2,Error ellipse: s-maj=12.2km s-min=8.9km az=74.0

ISC 13 16:03:10.2±0.3,4986N±002×1839E±002,h0^{km},n89, σ1^{s}31/151,7C-5D,Czech and Slovak Republics

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKC	Ostrava-Krasne	0.16	262	ePg	Pg	16 03 15.3	+2.1
OKC				eSg	Sg	16 03 18.5	+3.2
OKC	Ostrava-Krasne	0.16	262	ePG	Pg	16 03 15.3	+2.1
OKC				eSG	Sg	16 03 18.5	+3.2
	257nm,0.3s						
OKC	Ostrava-Krasne	0.16	262	ePg	Pg	16 03 15.1	+1.9
OKC				eSg	Sg	16 03 18.3	+3.0
RAC	Raciborz	0.26	330	ePg	Pg	16 03 17.6	+2.5
RAC				eSg	Sg	16 03 22.9	+4.4
RAC	Raciborz	0.26	330	ePg	Pg	16 03 17.6	+2.5
RAC				eSg	Sg	16 03 22.9	+4.4
MORC	Moravsky Berou	0.56	262	ePg	Pg	16 03 21.7	+0.9
MORC				eSg	Sg	16 03 30.2	+2.2
MORC	Moravsky Berou	0.56	262	⇓iP	Pg	16 03 21.9	+1.1
MORC	Moravsky Berou	0.56	262	ePg	Pg	16 03 21.7	+0.9
MORC				eSg	Sg	16 03 30.2	+2.2
LIKS	Likavka	0.94	150	ePn	Pn	16 03 30.0	-0.5
LIKS				eSn	Sn	16 03 44.6	0.0
LIKS	Likavka	0.94	150	ePN	Pn	16 03 30.0	-0.5
LIKS				eSN	Sn	16 03 44.6	0.0
LIKS	Likavka	0.94	150	ePn	Pn	16 03 30.0	-0.5
OJC	Ojcow	0.97	68	ePg	Pg	16 03 27.5	-1.3
OJC				eSg	Sg	16 03 40.1	-1.4
OJC	Ojcow	0.97	68	ePg	Pg	16 03 27.5	-1.3
OJC				eSg	Sg	16 03 40.1	-1.4
JAVC	Velka Javorina	1.11	206	eSg	Sg	16 03 49.8	+4.1
	34nm,0.3s						
VRAC	Vranov	1.29	245	⇓iP	Pg	16 03 35.5	+0.5
VRAC	Vranov	1.29	245	ePg	Pg	16 03 35.4	+0.4
VRAC				eSg	Sg	16 03 53.0	+1.3
	62nm,0.3s						
NIE	Niedzica	1.32	109	ePg	Pg	16 03 34.7	-0.8
NIE				eSg	Sg	16 03 53.1	+0.4
NIE	Niedzica	1.32	109	ePg	Pg	16 03 34.7	-0.8
NIE				eSg	Sg	16 03 53.1	+0.4
VYHS	Vyhne	1.40	168	i Pn	Pn	16 03 36.3	-0.6
VYHS				eSn	Sn	16 03 56.3	+0.3
VYHS	Vyhne	1.40	168	i PN	Pn	16 03 36.2	-0.7
VYHS				eSN	Sn	16 03 56.3	+0.3
VYHS	Vyhne	1.40	168	i Pn	Pn	16 03 36.3	-0.6
VYHS				eSn	Sn	16 03 56.3	+0.3
DPC	Dobruska-Polom	1.42	291	ePg	Pg	16 03 37.7	+0.3
DPC				eSg	Sg	16 03 56.9	+1.1
DPC	Dobruska-Polom	1.42	291	ePG	Pg	16 03 37.7	+0.3
DPC				eSG	Sg	16 03 56.9	+1.1
	91nm,0.6s						
DPC	Dobruska-Polom	1.42	291	ePn	Pn	16 03 37.6	+0.4
DPC	Dobruska-Polom	1.42	291	ePg	Pg	16 03 37.7	+0.3
DPC				eSg	Sg	16 03 56.9	+1.1
SMOL	Smolenice	1.49	206	ePn	Pn	16 03 38.0	-0.1
SMOL	Smolenice	1.49	206	ePN	Pn	16 03 38.0	-0.1
SMOL	Smolenice	1.49	206	ePn	Pn	16 03 38.0	-0.1
KRUC	Moravsky	1.53	239	eSg	Sg	16 03 59.9	+0.7
	28nm,0.3s						
UPC	Upice	1.66	294	ePg	Pg	16 03 41.9	-0.1
UPC				eSg	Sg	16 04 04.0	+0.5
UPC	Upice	1.66	294	ePG	Pg	16 03 41.9	-0.1
UPC				eSG	Sg	16 04 04.0	+0.5
UPC	Upice	1.66	294	ePg	Pg	16 03 41.9	-0.1
UPC				eSg	Sg	16 04 04.0	+0.5
KSP	Ksiaz	1.67	307	ePn	Pn	16 03 41.8	+1.2
KSP				ePg	Pg	16 03 44.5	+2.4
KSP				eSn	Sg	16 04 04.5	+0.8
KSP				eSg	Sg	16 04 07.2	+3.6
KSP	Ksiaz	1.67	307	ePn	Pn	16 03 41.4	+0.8
KSP				ePg	Pg	16 03 44.2	+2.1
KSP				eSg	Sg	16 04 04.5	+0.8
KSP	Ksiaz	1.67	307	ePn	Pn	16 03 41.4	+0.8
KSP	Ksiaz	1.67	307	ePg	Pg	16 03 44.2	+2.1
KSP				eSg	Sg	16 04 04.5	+0.8
ZST	Bratislava	1.87	208	ePn	Pn	16 03 43.6	+0.2
ZST				eSn	Sn	16 04 08.0	+0.4
ZST	Bratislava	1.87	208	ePN	Pn	16 03 43.6	+0.2
ZST				eSN	Sn	16 04 08.0	+0.4
ZST	Bratislava	1.87	208	ePn	Pn	16 03 43.6	+0.2
ZST				eSn	Sn	16 04 08.0	+0.4
STHS	Stebnicka Huta	1.91	102	ePn	Pn	16 03 45.9	+2.0
STHS				eSn	Sn	16 04 13.0	+4.5
STHS	Stebnicka Huta	1.91	102	ePN	Pn	16 03 45.9	+2.0
STHS				eSN	Sn	16 04 13.0	+4.5
STHS	Stebnicka Huta	1.91	102	ePn	Pn	16 03 45.9	+2.0
STHS				eSn	Sn	16 04 13.0	+4.5
KECS	Kecovo	1.94	134	ePn	Pn	16 03 43.9	-0.5
KECS				eSn	Sn	16 04 09.2	-0.3
KECS	Kecovo	1.94	134	ePN	Pn	16 03 43.9	-0.5
KECS				eSN	Sn	16 04 09.2	-0.3
PSZ	Piszkesteto	2.18	152	ePg	Pg	16 03 51.6	-0.3
PSZ	Piszkesteto	2.18	152	⇑iP	Pn	16 03 45.6	-2.0
PSZ	Piszkesteto	2.18	152	ePg	Pg	16 03 51.6	-0.3
CRVS	Cervenica-Dubn	2.22	114	ePn	Pn	16 03 50.9	+2.7
CRVS				eSn	Sn	16 04 19.4	+3.1
CRVS	Cervenica-Dubn	2.22	114	ePN	Pn	16 03 50.9	+2.7
CRVS				eSN	Sn	16 04 19.4	+3.1
PRU	Pruhonice	2.49	274	eSG	Sg	16 04 28.8	-1.4
	25nm,0.5s						
PRU	Pruhonice	2.49	274	eSg	Sg	16 04 28.8	-1.4
	25nm,0.5s						
PVCC	Panska Ves	2.55	287	eSG	Sg	16 04 31.3	-0.6
	87nm,0.7s						
PVCC	Panska Ves	2.55	287	eSg	Sg	16 04 31.3	-0.6
	87nm,0.7s						
CONA	Conrad Observa	2.56	222	⇑iPn	Pn	16 03 52.5	-0.3
CONA				⇑iSg	Sg	16 04 33.9	+1.7
	11nm,0.6s						
CONA	Conrad Observa	2.56	222	Pn	Pn	16 03 52.5	-0.3
CONA				Sg	Sg	16 04 33.9	+1.7
	11nm,0.6s						
KOLS	Kolonicke sedl	2.70	109	eP	Pn	16 04 02.1	+7.3
KOLS				e		16 04 39.9	
BRG	Berggiesshubel	3.02	291	ePg	Pg	16 04 06.6	-1.5
BRG				eSg	Sg	16 04 46.8	-0.5
BRG	Berggiesshubel	3.02	291	Pg	Pg	16 04 06.8	-1.3
BRG				Sg	Sg	16 04 46.9	-0.4
BRG	Berggiesshubel	3.02	291	Pg	Pg	16 04 06.8	-1.3
BRG				Sg	Sg	16 04 46.8	-0.5
KHC	Kasperske Hory	3.22	259	ePn	Pn	16 04 01.5	-0.5
KHC				ePg	Pg	16 04 09.4	-2.5
KHC				eSg	Sg	16 04 51.0	-2.6
KHC	Kasperske Hory	3.22	259	ePN	Pn	16 04 01.5	-0.5
KHC				ePG	Pg	16 04 09.4	-2.5
KHC				eSG	Sg	16 04 51.0	-2.6
	20nm,0.5s						
KHC	Kasperske Hory	3.22	259	ePn	Pn	16 04 01.5	-0.5
GEC2	GERESS Array S	3.23	253	ePg	Pg	16 04 10.9	-1.1
GEC2				eSg	Sg	16 04 51.8	-2.2
GEC2	GERESS Array S	3.23	253	ePg	Pg	16 04 10.9	-1.2
GEC2				eSg	Sg	16 04 55.3	+1.4
GEC2	GERESS Array S	3.23	253	Pg	Pg	16 04 10.9	-1.2
GEC2				Sg	Sg	16 04 51.8	-2.1
MOA	Molln	3.39	235	⇑iPn	Pn	16 04 04.4	+0.2
MOA				⇓iSg	Sg	16 04 59.1	+0.1
	comp=Z,10nm,0.4s						
MOA	Molln	3.39	235	⇑iPn	Pn	16 04 04.4	+0.2
MOA				i Sg	Sg	16 04 59.1	+0.1
MOA	Molln	3.39	235	⇑iPn	Pn	16 04 04.4	+0.2
MOA				⇓iSg	Sg	16 04 59.1	+0.1
	10nm,0.4s						
MOA	Molln	3.39	235	Pn	Pn	16 04 04.4	+0.2
MOA				Sg	Sg	16 04 59.1	+0.2
	10nm,0.4s						
FBE	Freiberg	3.40	290	eSg	Sg	16 04 58.2	-1.0
FBE	Freiberg	3.40	290	Sg	Sg	16 04 58.2	-1.0
PKSM	Moragy	3.65	177	⇓iP	Pn	16 04 06.9	-1.0
WET	Wettzell	3.67	261	ePg	Pg	16 04 20.7	+0.3
WET				eSg	Sg	16 05 06.3	-1.6
WET	Wettzell	3.67	261	ePg	Pg	16 04 20.7	+0.3
WET				eSg	Sg	16 05 06.3	-1.5
WET	Wettzell	3.67	261	Pg	Pg	16 04 20.7	+0.3
WET				Sg	Sg	16 05 06.3	-1.5
CLL	Collm	3.73	295	ePg	Pg	16 04 24.0	+2.4
CLL				eSg	Sg	16 05 09.4	-0.5
CLL	Collm	3.73	295	ePg	Pg	16 04 24.0	+2.4
CLL				eSg	Sg	16 05 09.0	-0.9
CLL	Collm	3.73	295	ePg	Pg	16 04 24.0	+2.4
CLL				eSg	Sg	16 05 09.0	-0.9
	comp=Z,24nm,0.6s						
CLL	Collm	3.73	295	Pg	Pg	16 04 24.0	+2.4
CLL				eSg	Sg	16 05 09.0	-0.9
NKC	Novy Kostel	3.85	278	eSG	Sg	16 05 11.6	-2.2
	comp=Z,22nm,0.5s						
NKC	Novy Kostel	3.85	278	eSg	Sg	16 05 11.6	-2.2
	comp=Z,22nm,0.5s						
TANN	Tannenbergstha	3.86	281	ePg	Pg	16 04 23.6	-0.4
TANN	Tannenbergstha	3.86	281	Pg	Pg	16 04 23.6	-0.4
WERD	Werda	3.96	281	eSg	Sg	16 05 14.8	-2.5
WERD	Werda	3.96	281	Sg	Sg	16 05 14.8	-2.5
DRGR		4.21	135	⇑iP	Pn	16 04 14.9	-0.6
MOX	Moxa	4.42	283	eSg	Sg	16 05 34.1	+2.0
MOX	Moxa	4.42	283	eSG	Sg	16 05 34.1	+2.0
GRF	Grafenberg Arr	4.65	271	eSg	Sg	16 05 37.3	-2.1

IDC 13 16:13:07.2±3.4,655S×15456E,h0^{km},mb3.4/3,mb1 3.6/3, mb1mx3.4/14,mbtmp3.4/3,MS3.2/1,Ms1 3.2/1, ms1mx2.5/11,Error ellipse: s-maj=120.7km s-min=35.4km az=117.0,Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	23.72	234	P	P	16 18 21.0	-0.3
	0.9nm,0.8s,baz=56,slow=9.4,SNR=13						
ASAR	Alice Springs	26.15	227	P	P	16 18 43.5	+0.2
	0.3nm,0.6s,baz=60,slow=9.7,SNR=7.6						
FITZ	Fitzroy Crossi	30.44	245	LR	LR	16 32 07.9	
	comp=Z,50nm,21.4s,baz=327,slow=38						
MKAR	Makanchi Array	82.78	319	P	P	16 25 34.4	+1.1
	0.5nm,0.7s,baz=95,slow=6.1,SNR=6.7						
TORD	Torodi Ar. Bea	152.49	286	PKPbc	PKPbc	16 33 05.7	-1.0
	1.1nm,0.7s,baz=74,slow=2.3,SNR=7.9						

NEIC 13 16:20:02.9±0.5,104N×12632E,h10^{km},mb4.6/1,Error ellipse: s-maj=45.8km s-min=8.5km az=70.0

ISCJB 13 16:20:04.4±0.8,10N±02×126.1E±05,h33^{km},mb4.0/7, Error ellipse: s-maj=68.9km s-min=11.5km az=161.0

IDC 13 16:20:09.9±0.9,086N×12605E,h63^{km}±8^{km},mb3.7/6, mb1 3.8/7,mb1mx3.6/18,mbtmp3.6/7,Error ellipse: s-maj=79.6km s-min=12.8km az=70.0

ISC 13 16:20:06.8±0.8,10N±02×1262E±04,h35^{km},n14,σ0^{s}55/10, mb4.0/7,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	18.94	182	P	Pn	16 24 26.2	+0.5
	0.1nm,0.3s,baz=23,slow=8.7,SNR=4.7						
WRA	Warramunga Arr	22.25	159	P	P	16 25 00.4	-0.3
	11nm,0.6s,mb4.5,baz=339,slow=11,SNR=132						
WRA				pP		16 25 15.1	
	4.3nm,0.7s,baz=340,slow=11,SNR=5.2						
ASAR	Alice Springs	25.59	163	P	P	16 25 33.0	+0.2
	3.3nm,0.8s,mb3.9,baz=344,slow=8.8,SNR=33						
ASAR				pP	pP	16 25 47.9	+5.1
	2.9nm,0.6s,baz=344,slow=11,SNR=11						
ASAR				PcP	PcP	16 29 04.2	+0.7
	0.3nm,0.5s,baz=352,slow=2.3,SNR=5.5						
STKA	Stephens Creek	35.77	157	P	P	16 27 02.2	-0.3
STKA	Stephens Creek	35.77	157	P	P	16 27 02.2	-0.3
	2.3nm,0.6s,mb4.3,baz=333,slow=10,SNR=13						
SONM	Songino Array	49.76	343	P	P	16 28 56.9	+1.2
	0.2nm,0.5s,mb3.4,baz=156,slow=8.3,SNR=2.7						
SONM				pP	pP	16 29 13.0	+6.8
	0.6nm,0.8s,baz=160,slow=8.4,SNR=4.2						
MK31	Makanchi Array	59.53	326	eP	P	16 30 06.3	-0.3
MKAR	Makanchi Array	59.53	326	P	P	16 30 05.8	-0.9
	0.8nm,0.6s,mb4.0,baz=124,slow=9.2,SNR=10						
ZALV	Zalesovo Beam	62.81	334	P	P	16 30 28.7	0.0
	0.4nm,0.4s,mb3.9,baz=153,slow=5.2,SNR=3.2						
KURK	Kurchatov	63.79	328	eP	P	16 30 35.3	0.0
	3.0nm,0.7s,mb4.4						
TORD	Torodi Ar. Bea	123.21	286	PKP	PKPdf	16 39 00.7	-0.3
TORD	Torodi Ar. Bea	123.21	286	PKP	PKPdf	16 39 00.7	-0.3
	0.3nm,0.8s,baz=82,slow=3.1,SNR=2.2						
TXAR	Lajitas Array	123.71	53	PKP	PKPdf	16 39 01.6	+0.1
TXAR	Lajitas Array	123.71	53	PKP	PKPdf	16 39 01.6	+0.1
	0.3nm,0.7s,baz=222,slow=1.2,SNR=4.4						

IDC 13 16:39:39.5±0.9,55.19N×16162E,h0^{km},mb3.6/6, mb1 3.9/6,mb1mx3.5/22,mbtmp3.6/6,Error ellipse: s-maj=42.0km s-min=21.4km az=129.0

KRSC 13 16:39:44.3±0.4,5506N×16229E,h34^{km}±33^{km},ML4.4

MOS 13 16:39:44.6±0.5,5500N×16242E,h38^{km},mb4.1/3,Error ellipse: s-maj=24.5km s-min=10.5km az=71.8

ISCJB 13 16:39:45.0±0.6,5503N±002×16239E±008,h43^{km}±8^{km}, mb3.5/6,Error ellipse: s-maj=7.6km s-min=3.4km az=10.1

ISC 13 16:39:45.9±0.7,5505N±002×16240E±008,h37^{km}±10^{km}, n35,σ0^{s}88/60,mb3.5/6,Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKZ	Mys Kozlova	0.63	219	i P	Pn	16 39 56.9	-1.3
MKZ				i S	Sn	16 40 05.7	-1.3
KBTR	Krutoberegovo	1.19	11	eP	Pn	16 40 06.2	+0.3
KBTR				i S	Sn	16 40 21.8	+1.0
TUMR	Tumrok	1.32	281	eP	Pn	16 40 07.3	-0.4
TUMR				i S	Sn	16 40 24.4	+0.4
ZLN	Zelenaya	1.33	318	eP	Pn	16 40 07.6	-0.3
ZLN				i S	Sn	16 40 24.4	+0.1
BZMR	Bezymyannaya	1.41	310	eP	Pn	16 40 08.5	-0.4
BZMR				i S	Sn	16 40 26.4	+0.2
CIRR	Tsirk	1.42	319	eP	Pn	16 40 09.2	0.0
CIRR				i S	Sn	16 40 27.2	+0.5
KMNR	Kamenistaya	1.42	301	eP	Pn	16 40 08.7	-0.5
KMNR				i S	Sn	16 40 26.2	-0.5
KIRR	Kirishev	1.48	309	eP	Pn	16 40 09.8	-0.2
KIRR				i S	Sn	16 40 28.2	+0.1
KPT	Kopyto	1.54	307	eP	Pn	16 40 10.7	-0.1
KPT				i S	Sn	16 40 29.9	+0.3
KRSR	Krestovskiy	1.57	319	eP	Pn	16 40 10.4	-0.8
KRSR				i S	Sn	16 40 29.5	-0.7
KLY	Klyuchi	1.61	323	eP	Pn	16 40 10.0	-1.7
KLY				i S	Sn	16 40 28.9	-2.3
SMKR	Semkarok	1.63	341	eP	Pn	16 40 11.7	-0.3
SMKR				i S	Sn	16 40 31.8	+0.2
BDR	Baidarnaya	1.67	337	eP	Pn	16 40 12.9	+0.4
BDR				i S	Sn	16 40 33.2	+0.6
KOZR	Kozyr	1.75	307	PN	Pn	16 40 13.8	+0.1
KOZR				S	Sn	16 40 35.3	+0.6
SRKR	Sorokina	1.75	337	eP	Pn	16 40 13.7	0.0
SRKR				i S	Sn	16 40 35.7	+0.9
KOZ	Kozyrevsk	1.76	306	eP	Pn	16 40 13.8	0.0
KOZ				i S	Sn	16 40 35.3	+0.4
SRDR	Sredinnyy	1.98	311	eP	Pn	16 40 16.6	-0.3
SRDR				i S	Sn	16 40 40.0	-0.4
KII	Karymskiy	2.00	241	eP	Pn	16 40 17.2	+0.2
KII				i S	Sn	16 40 41.5	+0.7
SPN	Mys Shipunski	2.40	217	eP	Pn	16 40 21.2	-1.4
SPN				i S	Sn	16 40 48.4	-2.4
NLC	Nalytchevo	2.60	225	eP	Pn	16 40 25.1	-0.3
NLC				i S	Sn	16 40 55.5	-0.2
AVH	Avacha	2.80	232	eP	Pn	16 40 29.2	+1.1
AVH				i S	Sn	16 41 01.9	+1.4
GNL	Ganaly	2.94	244	eP	Pn	16 40 30.8	+0.8
PET	Petropavlovsk	3.00	229	ePN	Pn	16 40 31.6	+0.8
PET				eS	Sn	16 41 06.3	+0.8
PET				pmax	pmax		
	comp=Z,122nm,0.3s						
PET				smax			
	comp=N,435nm,0.4s						
PET				smax			
	comp=N,500nm,0.4s						
PET	Petropavlovsk	3.00	229	eP	Pn	16 40 31.8	+1.0
PET				i S	Sn	16 41 06.6	+1.1
RUS	Russkaya	3.49	223	eP	Pn	16 40 38.1	+0.5
RUS				i S	Sn	16 41 16.9	-0.7
GRL	Gorelyy	3.58	228	eP	Pn	16 40 40.3	+1.5
GRL				i S	Sn	16 41 21.7	+1.8
MJAR	Matsushiro Arr	24.83	232	P	P	16 44 59.7	-4.7
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MJAR	Matsushiro Arr	24.83	232	P	P	16 44 59.7	-4.7
	comp=Z,0.9nm,0.5s,mb3.5,baz=35,slow=8.8,SNR=2.9						
YKA	Yellowknife Ar	40.81	45	P	P	16 47 23.8	+0.7
	comp=Z,0.4nm,0.6s,mb3.2,baz=300,slow=7.7,SNR=6.9						
FINES	FINESS Array B	58.85	337	P	P	16 49 37.3	-2.8
FINES				pmax	pmax		
	comp=Z,4.0nm,1.2s						
FINES	FINESS Array B	58.85	337	P	P	16 49 37.2	-2.8
	comp=Z,3.7nm,1.2s,mb4.3,baz=55,slow=7.3,SNR=3.0						
TXAR	Lajitas Array	68.64	69	P	P	16 50 46.2	+1.2
	comp=Z,0.2nm,0.5s,mb3.3,baz=310,slow=4.2,SNR=2.2						
WRA	Warramunga Arr	78.44	207	P	P	16 51 41.7	-0.7
	comp=Z,0.2nm,0.5s,mb3.3,baz=17,slow=6.0,SNR=5.2						
ASAR	Alice Springs	82.11	206	P	P	16 52 02.1	0.0
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	82.11	206	P	P	16 52 02.0	-0.1
	comp=Z,0.5nm,0.6s,mb3.6,baz=15,slow=4.9,SNR=17						

IDC 13 17:22:53.9±2.1,674S×12919E,h0^{km},mb3.3/1,mb1 3.8/3, mb1mx3.5/14,mbtmp3.5/3,ML3.8/2,Error ellipse: s-maj=116.0km s-min=31.7km az=68.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	14.05	160	Pn	Pn	17 26 14.8	+0.6
	0.5nm,0.3s,baz=338,slow=13,SNR=38						
WRA				Sn	Sn	17 28 39.8	-11
	0.2nm,0.3s,baz=341,slow=22,SNR=4.0						
ASAR	Alice Springs	17.43	165	P	Pn	17 26 58.2	-0.3
	0.2nm,0.3s,baz=343,slow=11,SNR=43						
MKAR	Makanchi Array	67.57	327	P	P	17 33 52.3	+0.2
	0.1nm,0.5s,baz=132,slow=7.5,SNR=5.2						

IGQ 13 17:48:54.5,213S×7987W,h12^{km}±4^{km},Mb4.4,Ms4.2, 12C-17D,Error ellipse: s-maj=5.7km s-min=1.4km az=93.0,Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHIS	Cerro-Chispas-	1.37	321	⇑P	Pn	17 49 20.5	+1.0
CHIS	Cerro-Chispas-	1.37	321	⇑S	Sn	17 49 38.5	+0.9
IGUA	Igualata	1.38	63	⇑P	Pn	17 49 21.4	+1.9
IGUA	Igualata	1.38	63	⇑S	Sn	17 49 39.5	+1.8
BILB	Tungurahua vol	1.53	63	⇓P	Pn	17 49 23.7	+2.1
BILB	Tungurahua vol	1.53	63	⇓S	Sn	17 49 43.1	+1.7
ARRY	Arrayan	1.54	66	⇓P	Pn	17 49 23.2	+1.5
ARRY	Arrayan	1.54	66	⇓S	Sn	17 49 43.4	+1.7
PATA	Patacocha	1.56	67	⇑P	Pn	17 49 23.9	+1.9
PATA	Patacocha	1.56	67	⇑S	Sn	17 49 44.1	+1.9
JUIV	Juive	1.56	63	⇓P	Pn	17 49 24.0	+1.9
JUIV	Juive	1.56	63	⇓S	Sn	17 49 42.9	+0.6
RETU	Refugio	1.57	65	⇓P	Pn	17 49 24.3	+2.1
RUN5	Runtun	1.60	64	P	Pn	17 49 24.7	+2.0
RUN5	Runtun	1.60	64	S	Sn	17 49 45.4	+2.1
ULBA	Ulba	1.60	65	⇓P	Pn	17 49 24.8	+2.1
ULBA	Ulba	1.60	65	⇓S	Sn	17 49 45.6	+2.2
PISA	Pisayambo	1.82	54	⇓P	Pn	17 49 28.6	+2.9
PISA	Pisayambo	1.82	54	⇓S	Sn	17 49 54.7	+6.0
JAMA	Jama	1.89	350	P	Pn	17 49 27.1	+0.6
JAMA	Jama	1.89	350	S	Sn	17 49 51.6	+1.3
MAG1	Magdalena	2.04	3	P	Pn	17 49 29.7	+1.0
JUA2	San Juan 2	2.28	34	⇑P	Pn	17 49 35.0	+3.0
JUA2	San Juan 2	2.28	34	⇑S	Sn	17 50 04.6	+4.6
TERV	Terraza Guagua	2.31	33	⇓P	Pn	17 49 35.3	+2.9
TERV	Terraza Guagua	2.31	33	⇓S	Sn	17 50 05.2	+4.3
GGP	Refugio Guagua	2.32	33	⇓P	Pn	17 49 35.4	+2.9

GGP	Refugio Guagua	2.32	33	⇓S	Sn	17 50 04.2	+3.3
PINO	Pino	2.33	33	⇑P	Pn	17 49 35.4	+2.8
PINO	Pino	2.33	33	⇑S	Sn	17 50 05.9	+4.8
YANA	Yana	2.38	33	⇓P	Pn	17 49 36.2	+2.9
YANA	Yana	2.38	33	⇓S	Sn	17 50 05.4	+3.0
CAYR	Refugio Cayamb	2.83	41	P	Pn	17 49 42.6	+3.1
CAYA	Cayambe	2.88	41	P	Pn	17 49 44.5	+4.3
COTA	Cotacachi	2.88	32	⇑P	Pn	17 49 43.4	+3.1
COTA	Cotacachi	2.88	32	⇑S	Sn	17 50 23.0	+8.1
CONE	Cono NE Rev Vo	3.02	47	P	Pn	17 49 50.1	+8.0

IDC 13 17:57:33.3±2.2**,506N×12610E,h0^{km},mb3.3**/3**,mb1 3.5**/3**, mb1mx3.3**/18**,mbtmp3.3**/3**,Error ellipse: s-maj=169.7km s-min=27.2km az=65.0,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	26.13	162	P	P	18 03 09.9	+0.6
	0.5nm,0.4s,baz=342,slow=10,SNR=11						
ASAR	Alice Springs	29.55	165	P	P	18 03 39.2	-0.5
	0.2nm,0.6s,baz=343,slow=7.4,SNR=7.0						
MKAR	Makanchi Array	56.11	325	P	P	18 07 14.4	0.0
	0.2nm,0.4s,baz=122,slow=8.0,SNR=4.6						

IDC 13 18:01:08.2±2.1**,2307N×1129W,h0^{km},mb3.7**/5**, mb1 3.8**/6**,mb1mx3.5**/21**,mbtmp3.7**/6**,Error ellipse: s-maj=60.3km s-min=33.9km az=83.0,Mauritania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TORD	Torodi Ar. Bea	15.79	126	Pn	Pn	18 04 53.0	+1.0
	0.2nm,0.3s,baz=314,slow=12,SNR=11						
TORD				Sn	Sn	18 07 47.3	-0.5
	0.1nm,0.3s,baz=307,slow=22,SNR=3.0						
KEST	Kesra	21.91	50	P	P	18 06 03.6	+0.6
	0.7nm,0.5s,baz=186,slow=23,SNR=4.2						
GERES	GERESS Array B	32.44	31	P	P	18 07 38.3	-1.6
	1.0nm,0.7s,baz=232,slow=11,SNR=3.0						
FINES	FINESS Array B	46.09	24	P	P	18 09 34.0	+0.3
	1.2nm,0.6s,baz=197,slow=6.0,SNR=6.2						
MKAR	Makanchi Array	75.90	45	P	P	18 12 57.5	+0.9
	0.4nm,0.5s,baz=290,slow=5.2,SNR=6.9						
SONM	Songino Array	90.02	37	P	P	18 14 10.8	+1.1
	0.3nm,0.7s,baz=270,slow=2.9,SNR=3.0						
WRA	Warramunga Arr	147.91	91	PKPbc	PKPbc	18 20 54.8	-1.2
	0.6nm,0.7s,baz=288,slow=2.6,SNR=8.0						
ASAR	Alice Springs	148.09	98	PKPbc	PKPbc	18 20 55.5	-1.0
	0.6nm,0.7s,baz=294,slow=1.9,SNR=13						

IDC 13 18:17:16.8±1.7**,477S×14545E,h0^{km},mb3.7**/4**,mb1 4.0**/5**, mb1mx3.8**/13**,mbtmp3.8**/5**,ML4.5**/1**,Error ellipse: s-maj=50.1km s-min=14.9km az=109.0,Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	18.56	215	P	Pn	18 21 37.2	+1.7
	1.5nm,0.3s,baz=38,slow=12,SNR=105						
WRA				S	Sn	18 25 03.9	+0.3
	0.0nm,0.3s,baz=42,slow=19,SNR=5.7						
ASAR	Alice Springs	21.84	210	P	P	18 22 11.0	0.0
	2.5nm,0.5s,baz=49,slow=8.2,SNR=37						
STKA	Stephens Creek	27.20	187	P	P	18 23 04.2	+1.8
	1.0nm,0.4s,baz=29,slow=11,SNR=7.4						
SONM	Songino Array	62.59	331	P	P	18 27 43.6	+0.8
	0.3nm,0.5s,baz=120,slow=2.2,SNR=4.0						
MKAR	Makanchi Array	75.58	321	P	P	18 29 02.2	-1.3
	0.1nm,0.4s,baz=98,slow=5.8,SNR=2.4						

MAN 13 18:24:02,839N×12596E,h37^{km},mb4.2,ML3.0,MS2.8, 1C-2D,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	0.45	117	⇓*i*P	Pn	18 24 12.5	+0.5
BIPH				*i* S	Sn	18 24 19.8	+0.9
BUKP	Musuan	1.02	240	*e*P	Pn	18 24 20.8	+0.9
CGP	Cagayan de Oro	1.25	273	⇑*i*P	Pn	18 24 24.3	+1.2
CGP				*i* S	Sn	18 24 40.1	+1.4
SCPH	Surigao	1.46	341	⇓*e*P	Pn	18 24 26.8	+0.9
PLP	Palo	2.92	341	*e*P	Pn	18 24 48.0	+2.0

*CASC **13** 18:38:44.6±3.0, 1323N×9143W, h2^{km}±25^{km}, MD4.4, mb4.5(NEIC)*

*BJI **13** 18:38:48.0, 1340N×9110W, h44^{km}, mB5.2, Ms5.3, Msz5.1*

*MOS **13** 18:38:48.2±1.4, 1364N×9093W, h33^{km}, mb4.6/5, Error ellipse: s-maj=20.8km s-min=8.4km az=113.0*

*GCMT **13** 18:38:49.8±0.5, 1311N×9153W, h18^{km}±1^{km}, MW5.0/56, Moment Tensor Solution. s25,c30; s56,c77; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.88±.22; $M_{\theta\theta}$-2.29±.15; $M_{\phi\phi}$-0.58±.18; $M_{r\theta}$1.99±.33; $M_{\theta\phi}$0.57±.11; $M_{\phi r}$-1.28±.46; Best double couple: $M_0$3.56200×10^{16} NP1:ϕ_s281.00000°,δ25.00000°,λ75.00000°. NP2: ϕ_s117.00000°,δ66.00000°,λ97.00000°. Principal axes: T 3.8050, Plg68.0000°, Azm40.0000°; N -0.4850, Plg6.0000°, Azm294.0000°; P -3.3190, Plg21.0000°, Azm202.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **13** 18:38:49.8±0.8, 1344N×9106W, h44^{km}±7^{km}, mb4.5/27 Error ellipse: s-maj=11.4km s-min=6.3km az=51.0*

*ISCJB **13** 18:38:51.5±0.7, 1354N±005×9094W±005, h70^{km}±6^{km}, mb4.3/34, Error ellipse: s-maj=10.3km s-min=5.0km az=136.2*

*IDC **13** 18:38:53.4±3.1, 1369N×9074W, h64^{km}±27^{km}, mb4.0/12, mb1 4.2/14, mb1mx4.1/19, mbtmp4.0/14, ML4.5/2, MS4.2/15, Ms1 4.2/15, ms1mx3.9/26, Error ellipse: s-maj=29.2km s-min=11.8km az=61.0*

ISC 13 18:38:53.2±0.6**,1357N**±005×**9094W**±005**,h67**^{km}±5^{km}**, n250,**σ**0^{s}85**/226**,mb4.3**/34**,62C-70D,Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FUG	Fuego 3	0.87	6	⇓*i*P	Pn	18 39 09.7	-0.2
PCG	Pacaya	0.88	21	*e*P	Pn	18 39 11.0	+1.1
FG6		0.98	3	*e*P	Pn	18 39 11.0	-0.3
BOQS	Boqueron	1.62	84	*e*P	x	18 40 02.4	
BOQS				*e*S	x	18 40 29.7	
PICS	Picacho	1.64	84	*e*P	x	18 40 02.8	
SNET	Serv Nac Est T	1.66	86	*e*P	x	18 39 20.3	
LFU	La Fuente	1.78	84	*e*P	x	18 40 05.1	
LFU				*e*S	x	18 40 35.7	
LBRS	Las Brisas	1.85	85	*e*P	x	18 40 05.9	
LBRS				*e*S	x	18 40 36.8	
LCBS	La Ceiba	1.91	87	⇓*e*P	x	18 40 06.6	
LCBS				*e*S	x	18 40 36.7	
SNVI	San Vicente	2.04	89	⇓*e*P	x	18 40 07.9	
SNVI				*e*S	x	18 40 40.4	
CCIG	Comitan	2.93	337	*i* P	Pn	18 39 35.6	-1.9
CCIG				*i* S	Sn	18 40 13.0	+1.5
SCX	San Cristobal	3.55	333	*e*P	Pn	18 39 43.0	-2.8
TGUH	Tegucigalpa,Un	3.59	82	*e*Pn	Pn	18 39 47.2	+0.8
TGUH				*e*Pn	Pn	18 39 47.3	+0.9
CMIG	Matias Romero	5.17	313	P	Pn	18 40 02.3	-5.7
CMIG				*i* P		18 40 02.8	
CMIG				*e*S	Sn	18 40 59.1	-7.2
CMIG				S	Sn	18 41 12.5	+6.1
CMIG				LR	LR	18 42 12.4	
CMIG	Matias Romero	5.17	313	P	Pn	18 40 02.3	-5.7
	3.8nm,0.3s,baz=123,slow=9.9,SNR=24						
CMIG				S	Sn	18 41 12.5	+6.2
	6.4nm,0.3s,baz=121,slow=20,SNR=5.7						
CMIG				LR	LR	18 42 12.4	
	comp=Z,2μm,19.8s,baz=143,slow=38						
OXX	Oaxaca	6.58	303	*e*P	Pn	18 40 23.0	-4.4
JTS	JuntasAbangare	6.70	118	*e*Pn	Pn	18 40 26.1	-2.9
	22nm,0.6s						
JTS				*e*Sn	Sn	18 41 37.3	-6.7
JTS	JuntasAbangare	6.70	118	*e*P	Pn	18 40 26.1	-2.9
JTS				*e*		18 41 37.3	
JTS				pmax	pmax		
	comp=Z,22nm,0.6s						
JTS	JuntasAbangare	6.70	118	P	Pn	18 40 27.3	-1.7
	comp=Z,1.9nm,0.3s,baz=300,slow=18,SNR=8.3						
JTS				S	Sn	18 41 44.2	+0.2
	comp=Z,2.2nm,0.3s,baz=260,slow=23,SNR=1.9						
JCR	Jicaral	6.80	122	*e*P	Pn	18 40 30.7	+0.4
TEIG	Tepich	7.09	21	*e*Pn	Pn	18 40 36.2	+1.9
	comp=Z,150nm,0.8s						
TEIG	Tepich	7.09	21	P	Pn	18 40 36.4	+2.2
	comp=Z,15nm,0.3s,baz=207,slow=3.8,SNR=98						
TEIG				S	Sn	18 41 54.2	+0.8
	baz=343,slow=20,SNR=1.0						
PRS1	Puriscal	7.40	118	*e*P	Pn	18 40 39.3	+0.7
LAJ	Bijagual	7.62	118	*e*P	Pn	18 40 37.0	-4.6
LCR2	La Lucha 2	7.79	119	*e*P	Pn	18 40 43.9	0.0
BAR1		8.62	119	*e*P	Pn	18 40 55.1	-0.2
IIO	Organos	9.56	310	*i* P	Pn	18 41 07.1	-1.0
PAYG	Puerto Ayora	14.17	177	*e*Pn	Pn	18 42 04.0	-6.6
	comp=Z,192nm,1.8s						
NATX	Nacogdoches	18.42	350	*e*P	Pn	18 43 03.1	-0.8
ROSC	El Rosal	18.53	116	P	Pn	18 43 09.4	+4.1
	comp=Z,1.0nm,0.3s,baz=94,slow=22,SNR=9.2						
JCT	Junction City	18.71	335	*e*P	Pn	18 43 06.5	-0.9
	comp=Z,23nm,1.0s						
JCT	Junction City	18.71	335	*e*P	Pn	18 43 06.5	-0.9
JCT				pmax	pmax		
	comp=Z,23nm,1.0s						
LTX	Lajitas	19.63	325	*e*P	Pn	18 43 15.3	-3.0
	comp=Z,36nm,1.4s						
LTX	Lajitas	19.63	325	*e*P	Pn	18 43 15.3	-3.0
LTX				pmax	pmax		
	comp=Z,36nm,1.4s						
TXAR	Lajitas Array	19.63	325	P	Pn	18 43 16.8	-1.5
TXAR				PcP	PcP	18 47 36.4	+2.8
TXAR	Lajitas Array	19.63	325	P	Pn	18 43 16.8	-1.5
	comp=Z,0.9nm,0.3s,baz=154,slow=13,SNR=37						
TXAR				PcP	PcP	18 47 36.4	+2.8
	comp=Z,0.1nm,0.3s,baz=198,slow=20,SNR=2.9						
LRAL	Lakeview Retre	19.70	10	*e*P	Pn	18 43 20.3	+1.2
	comp=Z,31nm,1.3s						
OXF	Oxford	20.89	4	*e*P	P	18 43 30.6	+0.7
	comp=Z,25nm,1.3s						
OXF	Oxford	20.89	4	*e*P	P	18 43 30.6	+0.6
OXF				pmax	pmax		
	comp=Z,25nm,1.3s						
LPIG	La Paz	21.09	303	LR	LR	18 52 07.9	
	comp=Z,306nm,21.9s,baz=122,slow=38						
UALR	University of	21.15	357	*e*P	P	18 43 32.6	-0.1
	comp=Z,12nm,0.6s,mb4.4						
SWET	Sewanee	22.02	11	*e*P	P	18 43 42.0	0.0
WMOK	Wichita Mounta	22.24	343	P	P	18 43 38.6	-5.7
	comp=Z,4.9nm,0.8s,mb3.9						
WMOK	Wichita Mounta	22.24	343	P	P	18 43 38.7	-5.6
WMOK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb3.9						
MNTX	Cornudas Mount	22.39	326	*e*P	P	18 43 44.5	-1.5
	comp=Z,44nm,1.3s,mb4.6						
WVT	Waverly	22.63	7	*e*P	P	18 43 47.4	-1.1
	comp=Z,30nm,1.5s,mb4.4						
WVT	Waverly	22.63	7	*e*P	P	18 43 47.4	-1.1
WVT				pmax	pmax		
	comp=Z,31nm,1.5s,mb4.4						
TKL	Tuckaleechee C	22.92	15	P	P	18 43 52.3	+0.8
	comp=Z,8.6nm,0.6s,mb4.3,baz=168,slow=10,SNR=15						
TKL				LR	LR	18 53 45.1	
	comp=Z,1μm,20.1s,baz=192,slow=39						
AMTX	Amarillo	23.34	337	*e*P	P	18 43 54.1	-1.4
	comp=Z,19nm,0.8s,mb4.5						
TZTN	Tazewell	23.81	15	*e*P	P	18 44 00.3	+0.4
	comp=Z,7.6nm,0.7s,mb4.1						
ATAH	Atahualpa	23.93	148	P	P	18 44 04.1	+2.9
	comp=Z,3.5nm,0.4s,mb4.1,baz=22,slow=3.2,SNR=4.9						
SIUC	Southern Illin	24.09	3	*e*P	P	18 43 59.4	-3.1
	comp=Z,16nm,0.9s,mb4.4						
ANMO	Albuquerque	25.49	329	*e*P	P	18 44 14.3	-0.9
	comp=Z,2.5nm,0.6s,mb3.8						
ANMO	Albuquerque	25.49	329	*e*P	P	18 44 14.3	-0.9
ANMO				pmax	pmax		
	comp=Z,3.0nm,0.6s						
SDCO	Great Sand Dun	27.35	334	*e*P	P	18 44 32.6	+0.7
	comp=Z,14nm,1.7s,mb4.2						
ACSO	Alum Creek Sta	27.46	13	*e*P	P	18 44 32.9	0.0
	comp=Z,17nm,0.7s,mb4.7						
MVCO	Mesa Verde	28.29	329	*e*P	P	18 44 40.9	+0.6
	comp=Z,15nm,1.2s,mb4.4						
MVCO	Mesa Verde	28.29	329	⇓P	P	18 44 41.1	+0.8
	baz=29						
X15A	Humboldt	28.38	321	⇓P	P	18 44 41.2	0.0
	baz=29						
Y14A	Wickenburg	28.50	319	⇓P	P	18 44 42.2	-0.1
	baz=29						
X14A	Yava	28.77	320	⇓P	P	18 44 45.2	+0.6
	baz=29						
Y13A	Salome	28.95	318	⇑P	P	18 44 46.1	-0.2
	baz=29						
PV01	Paradox Valley	29.05	331	*e*P	P	18 44 41.8	-5.3
ISCO	Idaho Springs	29.14	336	*e*P	P	18 44 47.9	0.0
	comp=Z,170nm,0.8s						
W14A	Seligman	29.38	321	⇓P	P	18 44 49.2	-0.9
	baz=30						
X13A	Yucca	29.44	319	⇓P	P	18 44 50.5	-0.1
	baz=30						
PDMCI	Parker Dam,Lak	29.46	318	⇓P	P	18 44 51.5	+0.8
	baz=30						
BC3	Big Chuckw Mtn	29.93	316	⇑P	P	18 44 55.0	0.0
	baz=30						
PFO	Pinyon Flat Ob	30.59	315	LR	LR	18 58 12.5	
	comp=Z,313nm,18.0s,baz=342,slow=38						
GMRC	Granite Mounta	30.74	318	⇑P	P	18 45 01.6	-0.5
	baz=31						
V12A	Nelson	30.81	320	⇓P	P	18 45 03.2	+0.5
	baz=31						
T13A	Saint George	31.09	323	⇓P	P	18 45 06.4	+1.3
	baz=31						
ARUT	Antelope Range	31.34	324	P	P	18 45 07.5	+0.1
COWI	Conover	32.46	2	*e*P	P	18 45 15.6	-1.5
	comp=Z,7.7nm,0.6s,mb4.6						
MPMC	Manual Prospec	32.70	318	⇓P	P	18 45 19.3	0.0
	baz=33						
Q12A	Willow Creek R	33.00	325	⇓P	P	18 45 22.0	+0.1
	baz=33						
HWUT	Hardware Ranch	33.20	331	*e*P	P	18 45 22.9	-0.6
	comp=Z,5.0nm,0.8s,mb4.4						
PDAR	Pinedale Array	33.24	335	PcP	PcP	18 48 07.0	+1.9
	comp=Z,0.5nm,0.5s,baz=146,slow=3.7,SNR=4.2						
S10A	Tonopah Range,	33.29	321	⇑P	P	18 45 25.5	+1.1
	baz=34						
Q11A	Duckwater	33.34	324	⇓P	P	18 45 25.4	+0.6
	baz=34						
P12A	McGill	33.34	325	⇑P	P	18 45 26.2	+1.3
	baz=34						
R10A	Warm Springs	33.35	322	⇑P	P	18 45 26.4	+1.5
	baz=34						
R09A	Tonopah	33.78	321	⇓P	P	18 45 29.2	+0.5
	baz=34						
HVU	Hansel Valley	33.91	330	*e*P	P	18 45 29.2	-0.5
	comp=Z,25nm,1.5s,mb4.8						
HVU	Hansel Valley	33.91	330	*e*P	P	18 45 29.2	-0.5
HVU				pmax	pmax		
	comp=Z,25nm,1.5s,mb4.8						
S08C	White Mtn Res	34.00	319	⇓P	P	18 45 30.7	+0.1
	baz=34						
HELL	Mitchell Peak,	34.07	317	⇓P	P	18 45 31.1	0.0
	baz=34						
O11A	Cowboy Ranch,	34.21	325	⇓P	P	18 45 33.7	+1.3
	baz=34						
EYMN	Ely	34.27	359	*e*P	P	18 45 30.8	-2.0
	comp=Z,8.9nm,1.0s,mb4.5						
M13A	Montello	34.29	328	⇑P	P	18 45 34.2	+1.2
	baz=34						
KCC	Kaiser Creek	34.63	318	⇑P	P	18 45 36.6	+0.6
	baz=35						
NVAR	Mina Array Bea	34.65	321	P	P	18 45 37.0	+0.8
	comp=Z,3.1nm,0.6s,mb4.3,baz=125,slow=9.1,SNR=26						
NVAR				PcP	PcP	18 48 10.1	+0.9
	comp=Z,0.6nm,0.6s,baz=105,slow=4.7,SNR=3.6						
K14A	Jones Ranch, D	34.69	331	⇑P	P	18 45 36.8	+0.4
	baz=35						
M12A	Wells	34.72	328	⇑P	P	18 45 38.2	+1.4
	baz=35						
IMW	Indian Meadow	34.74	334	*e*P	P	18 45 37.5	+0.6
	comp=Z,3.0nm,0.6s,mb4.3						
O09A	Fish Creek Ran	35.10	324	⇓P	P	18 45 40.7	+0.6
	baz=35						
M11A	Holland Ranch,	35.19	327	⇓P	P	18 45 42.5	+1.7
	baz=35						
L12A	House Creek Ra	35.30	328	⇓P	P	18 45 42.6	+0.8
	baz=36						
S06C	San Francisco	35.30	319	⇓P	P	18 45 41.5	-0.3
	baz=36						
R06C	Coleville	35.42	320	⇑P	P	18 45 42.6	-0.3
	baz=36						
K12A	Draper Farm, C	35.60	329	⇑P	P	18 45 44.9	+0.6
	baz=36						
L11A	Cat Creek Ranc	35.70	328	⇓P	P	18 45 46.2	+1.1
	baz=36						
CMB	Columbia Colle	35.73	318	P	P	18 45 44.1	-1.4
CMB	Columbia Colle	35.73	318	⇓P	P	18 45 46.1	+0.5
	baz=36						
N09A	Rock Creek Ran	35.75	324	⇑P	P	18 45 46.5	+0.9
	baz=36						
J13A	Cove Ranch, Pi	35.81	331	⇓P	P	18 45 46.1	0.0
	baz=36						
R05C	Kirkwood Meado	35.92	320	⇓P	P	18 45 48.1	+0.9
	baz=36						
L10A	Juniper Basin	36.01	327	⇑P	P	18 45 47.9	+0.1
	baz=36						
N08A	GE Springer Mi	36.05	324	⇑P	P	18 45 49.0	+0.9
	baz=36						
HLID	Hailey	36.05	331	*e*P	P	18 45 47.7	-0.4
	comp=Z,14nm,1.5s,mb4.7						
HLID	Hailey	36.05	331	⇑P	P	18 45 49.1	+0.9
	baz=36						
O07A	Toulon	36.08	322	⇓P	P	18 45 49.3	+0.8
	baz=36						
J12A	Stokes Ranch,	36.15	330	⇑P	P	18 45 48.4	-0.6
	baz=36						
I13A	Wildhorse Cree	36.17	331	⇑P	P	18 45 49.9	+0.7
	baz=36						
MCMT	McKenzie Canyo	36.31	333	*e*P	P	18 45 51.8	+1.5
LAVA	Lava Cap Winer	36.38	319	⇓P	P	18 45 51.3	+0.3
	baz=37						
G15A	Dillon	36.42	334	⇑P	P	18 45 50.6	-0.7
	baz=37						
M08A	Happy Creek Ra	36.63	324	⇑P	P	18 45 52.2	-0.9
	baz=37						
MFID	Camas Ranch	36.63	329	⇓P	P	18 45 53.6	+0.5
	baz=37						
K10A	MacKenzie Ranc	36.71	327	⇑P	P	18 45 53.9	+0.1
	baz=37						
H13A	Challis	36.73	332	⇓P	P	18 45 54.9	+1.0
	baz=37						
BEKR	Beckwourth	36.79	321	⇑P	P	18 45 54.6	+0.1
	baz=37						
ULM	Lac du Bonnet	36.80	355	P	P	18 45 53.0	-1.3
	comp=Z,2.9nm,0.6s,mb4.4,baz=172,slow=8.4,SNR=10						
ULM				LR	LR	19 04 57.9	
	comp=Z,289nm,18.4s,baz=212,slow=43						
G14A	Jackson	36.90	333	⇑P	P	18 45 54.9	-0.5
	baz=37						
F15A	Butte	36.97	335	⇓P	P	18 45 56.7	+0.8
	baz=37						
H12A	Diamond D Ranc	37.00	331	⇓P	P	18 45 56.6	+0.3
	baz=37						
N06A	Buffalo Meadow	37.02	322	⇓P	P	18 45 57.2	+0.8
	baz=37						
I11A	Placerville	37.06	330	⇓P	P	18 45 57.6	+0.8
	baz=37						
L08A	Fields	37.10	325	⇑P	P	18 45 56.5	-0.6
	baz=37						
K09A	Rome	37.11	327	⇓P	P	18 45 57.0	-0.2
	baz=37						
O05C	Quincy	37.20	321	⇓P	P	18 45 58.3	+0.3
	baz=37						
LPAZ	La Paz	37.26	142	P	P	18 45 58.7	0.0
	comp=Z,1.5nm,0.8s,mb4.0						
LPAZ	La Paz	37.26	142	P	P	18 45 58.7	0.0
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.8s						
LPAZ	La Paz	37.26	142	P	P	18 45 59.1	+0.4
	comp=Z,0.6nm,0.6s,mb3.7,baz=355,slow=10,SNR=3.6						
LPAZ				LR	LR	19 02 13.3	
	comp=Z,114nm,19.9s,baz=276,slow=38						
ORV	Oroville	37.32	320	⇑P	P	18 45 59.0	0.0
	baz=38						
ELFS	Eagle Lake Fie	37.47	322	⇓P	P	18 46 01.3	+1.0
	baz=38						
E15A	Deer Lodge	37.50	335	⇓P	P	18 46 00.9	+0.5
	baz=38						
O04C	Chester	37.51	321	⇑P	P	18 46 00.7	0.0
	baz=38						
K08A	Mann Creek Ran	37.54	326	⇓P	P	18 46 02.7	+1.8
	baz=38						
L07A	Adell	37.54	324	⇑P	P	18 46 01.1	+0.2
	baz=38						
J09A	Fry Pan Ranch,	37.57	327	⇑P	P	18 46 02.1	+1.0
	baz=38						
I10A	Payette	37.60	329	⇓P	P	18 46 01.5	+0.2
	baz=38						
H11A	Donnelly	37.67	330	⇓P	P	18 46 01.5	-0.3
	baz=38						
M06C	Likely Place G	37.68	323	⇑P	P	18 46 01.6	-0.5
	baz=38						
F13A	Darby	37.71	333	⇑P	P	18 46 02.0	-0.2
	baz=38						
EGMT	Eagleton	37.74	339	*e*P	P	18 46 01.6	-0.9
	comp=Z,3.6nm,0.5s,mb4.5						
EGMT	Eagleton	37.74	339	⇑P	P	18 46 02.5	+0.1
	baz=38						
K07A	Rock Creek Ran	37.93	325	⇑P	P	18 46 04.1	0.0
	baz=38						
J08A	Circle Bar Ran	37.96	327	⇑P	P	18 46 05.9	+1.6
	baz=38						
I09A	Lost Marbles R	38.00	328	⇓P	P	18 46 04.8	+0.1
	baz=38						
MOD	Modoc	38.02	324	⇑P	P	18 46 04.5	-0.4
	baz=38						
GASB	Alder Springs	38.15	319	⇓P	P	18 46 06.5	+0.5
	baz=38						
E13A	Victor	38.16	334	⇓P	P	18 46 06.1	+0.1
	baz=38						
M05C	Lookout	38.18	322	⇑P	P	18 46 06.3	+0.1
	baz=38						
I08A	Drewsey	38.39	327	⇑P	P	18 46 08.0	+0.1
	baz=39						
BMO	Blue Mountains	38.41	329	*e*P	P	18 46 06.3	-1.8
L05A	Lakeview	38.42	323	⇓P	P	18 46 07.2	-1.0
	baz=39						
K06A	Valley Falls	38.56	325	⇓P	P	18 46 09.7	+0.2
	baz=39						
F11A	Grangeville	38.62	332	⇓P	P	18 46 09.5	-0.3
	baz=39						
M03C	McCloud	38.71	321	⇑P	P	18 46 09.8	-0.9
	baz=39						
J06A	Christmas Vall	38.80	325	⇑P	P	18 46 11.1	-0.3
	baz=39						
M04C	Macdoel	38.85	322	⇓P	P	18 46 11.9	+0.1
	baz=39						
H08A	Prairie City	38.86	328	⇓P	P	18 46 11.1	-0.8
	baz=39						
E11A	Bogner Ranch,	38.99	332	⇑P	P	18 46 11.7	-1.2
	baz=39						
I07A	Izee	39.00	327	⇓P	P	18 46 12.5	-0.6
	baz=39						
L04A	Klamath Falls	39.12	323	⇓P	P	18 46 14.2	+0.1
	baz=39						
F10A	Beach Ranch, E	39.18	331	⇓P	P	18 46 14.5	-0.1
	baz=39						
I06A	Prineville	39.29	326	⇑P	P	18 46 15.1	-0.3
	baz=40						
F09A	S2 Ranch, Elgi	39.32	330	⇑P	P	18 46 15.6	-0.1
	baz=40						
YBH	Yreka Blue Hor	39.34	322	⇓P	P	18 46 14.8	-1.2
	baz=40						
J05A	Fort Rock	39.43	325	⇓P	P	18 46 16.5	-0.1
	baz=40						
B13A	Whitefish	39.80	335	⇑P	P	18 46 19.5	-0.2
	baz=40						
H06A	Lindquist Farm	39.88	327	⇑P	P	18 46 20.4	0.0
	baz=40						
G07A	Ruggs Ranch, H	39.89	328	⇑P	P	18 46 19.9	-0.5
	baz=40						
J04A	Umpqua Nationa	39.90	324	⇓P	P	18 46 21.3	+0.7
	baz=40						
D10A	Wagner Farm, O	40.00	332	⇓P	P	18 46 20.7	-0.6
	baz=40						
E09A	Wood Farm, Sta	40.01	331	⇑P	P	18 46 21.0	-0.4
	baz=40						
WALA	Waterton Lakes	40.13	337	*e*P	P	18 46 22.6	+0.2
	comp=Z,4.1nm,0.9s,mb4.3						
B12A	Libby	40.34	335	⇓P	P	18 46 24.8	+0.7
	baz=41						
I04A	Tendick Farm,	40.41	324	⇑P	P	18 46 24.4	-0.4
	baz=41						
K02A	Glendale	40.42	322	⇑P	P	18 46 23.7	-1.2
	baz=41						
D09A	Jones Farm, Ri	40.49	331	⇓P	P	18 46 25.6	+0.2
	baz=41						
B11A	Sandpoint	40.64	334	⇑P	P	18 46 26.4	-0.2
	baz=41						

A12A	**Yaak River Ran**	**40.73**	**335**	⇓P	**P**	**18 46 28.0**	**+0.7**
	baz=41						
G05A	**Wamic**	**40.74**	**327**	⇓P	**P**	**18 46 28.6**	**+1.2**
	baz=41						
D08A	**Wollman Farm,**	**40.77**	**331**	⇓P	**P**	**18 46 27.6**	**-0.1**
	baz=41						
J02A	**Umpqua**	**40.82**	**323**	⇑P	**P**	**18 46 28.6**	**+0.4**
	baz=41						
NEW	**Newport**	**40.84**	**333**	*e*P	**P**	**18 46 27.5**	**-0.7**
	comp=Z,1.7nm,0.6s,mb4.0						
NEW	**Newport**	**40.84**	**333**	*e*P	**P**	**18 46 27.5**	**-0.7**
NEW				pmax	pmax		
	comp=Z,2.0nm,0.6s						
H04A	**Detroit Lake**	**40.85**	**326**	⇓P	**P**	**18 46 28.3**	**-0.1**
	baz=41						
E07A	**Sunnyside**	**40.88**	**329**	⇑P	**P**	**18 46 28.4**	**-0.2**
	baz=41						
C09A	**Chrisman Ranch**	**41.01**	**332**	⇑P	**P**	**18 46 29.6**	**-0.1**
	baz=41						
I03A	**Eugene**	**41.02**	**324**	⇑P	**P**	**18 46 29.0**	**-0.8**
	baz=41						
A11A	**Hall Mountain,**	**41.04**	**334**	⇑P	**P**	**18 46 30.3**	**+0.4**
	baz=41						
F05A	**White Salmon**	**41.23**	**327**	⇑P	**P**	**18 46 31.2**	**-0.3**
	baz=42						
C08A	**Higginbotham F**	**41.35**	**331**	⇓P	**P**	**18 46 32.4**	**-0.1**
	baz=42						
D07A	**Quincy**	**41.38**	**330**	⇑P	**P**	**18 46 32.2**	**-0.5**
	baz=42						
B09A	**Rice**	**41.41**	**333**	⇓P	**P**	**18 46 32.9**	**0.0**
	baz=42						
E06A	**Yakima**	**41.43**	**329**	⇓P	**P**	**18 46 33.2**	**+0.1**
	baz=42						
H03A	**Soap Creek Ran**	**41.46**	**325**	⇑P	**P**	**18 46 33.8**	**+0.4**
	baz=42						
SIV	**San Ignacio**	**41.65**	**134**	P	**P**	**18 46 33.4**	**-1.8**
	comp=Z,5.4nm,0.9s,mb4.3,baz=309,slow=9.3,SNR=13						
C07A	**Waterville**	**41.77**	**330**	⇑P	**P**	**18 46 35.7**	**-0.2**
	baz=42						
E05A	**Randle**	**41.84**	**328**	⇑P	**P**	**18 46 35.9**	**-0.6**
	baz=42						
B08A	**Colville Reser**	**41.90**	**332**	⇓P	**P**	**18 46 36.5**	**-0.4**
	baz=42						
A09A	**Danville**	**42.01**	**333**	⇑P	**P**	**18 46 37.5**	**-0.3**
	baz=42						
A08A	**Turner Farm, O**	**42.31**	**332**	⇓P	**P**	**18 46 39.5**	**-0.7**
	baz=43						
C06A	**Tall Timber Ra**	**42.33**	**330**	⇑P	**P**	**18 46 40.6**	**+0.1**
	baz=43						
B07A	**Winthrop**	**42.34**	**331**	⇑P	**P**	**18 46 40.1**	**-0.4**
	baz=43						
A07A	**Ashnola River,**	**42.88**	**332**	⇑P	**P**	**18 46 45.7**	**+0.8**
	baz=43						
A06A	**Chilliwack**	**43.43**	**331**	⇓P	**P**	**18 46 48.8**	**-0.5**
	baz=44						
A04A	**Legoe Bay, Lum**	**43.76**	**330**	⇓P	**P**	**18 46 52.0**	**0.0**
	baz=44						
FCC	**Fort Churchill**	**45.17**	**358**	*e*P	**P**	**18 47 01.4**	**-1.6**
	comp=Z,4.3nm,0.9s,mb4.2						
FCC	**Fort Churchill**	**45.17**	**358**	*e*P	**P**	**18 47 01.4**	**-1.6**
FCC				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
SCHQ	**Schefferville**	**45.27**	**19**	P	**P**	**18 47 02.6**	**-1.3**
	comp=Z,6.1nm,0.6s,mb4.5,baz=219,slow=6.9,SNR=13						
SCHQ				PcP	PcP	18 48 42.6	-0.2
	comp=Z,2.7nm,0.8s,baz=215,slow=5.5,SNR=3.9						
SCHQ				LR	LR	19 07 07.1	
	comp=Z,730nm,19.1s,baz=29,slow=38						
BBB	**Bella Bella**	**48.64**	**330**	LR	LR	19 11 56.2	
	comp=Z,208nm,18.2s,baz=113,slow=41						
CFAA	**Coronel Fontan**	**49.92**	**155**	P	**P**	**18 47 41.0**	**+0.7**
CFAA	**Coronel Fontan**	**49.92**	**155**	P	**P**	**18 47 41.0**	**+0.7**
	comp=Z,0.1nm,0.3s,baz=326,slow=5.5,SNR=5.2						
YKA	**Yellowknife Ar**	**51.68**	**346**	P	**P**	**18 47 52.0**	**-1.0**
YKA				PcP	PcP	18 49 06.2	+0.5
YKA				LR	LR	19 14 31.4	
YKA	**Yellowknife Ar**	**51.68**	**346**	P	**P**	**18 47 52.0**	**-1.0**
YKA						18 49 06.2	
YKA	**Yellowknife Ar**	**51.68**	**346**	P	**P**	**18 47 52.0**	**-1.0**
	comp=Z,3.1nm,0.6s,mb4.5,baz=148,slow=7.6,SNR=66						
YKA				PcP	PcP	18 49 06.2	+0.5
	comp=Z,1.5nm,0.8s,baz=150,slow=3.6,SNR=8.0						
YKA				LR	LR	19 14 31.4	
	comp=Z,125nm,18.3s,baz=170,slow=41						
RKT	**Rikitea**	**56.46**	**230**	*e*S	**S**	**18 56 22.3**	**+7.5**
	comp=Z,80nm,29.0s						
RKT				*e*LR	LR	19 04 48.4	
	comp=Z,195nm,27.8s						
INK	**Inuvik**	**61.14**	**343**	LR	LR	19 20 48.2	
	comp=Z,160nm,18.7s,baz=109,slow=41						
RES	**Resolute Bay**	**61.14**	**359**	*e*P	**P**	**18 48 58.6**	**-1.5**
	comp=Z,95nm,0.6s						
PPT	**Papeete**	**65.62**	**243**	*e*S	S	18 58 21.2	+10
	comp=Z,55nm,26.2s						
PPT				*e*LR	LR	19 08 49.5	
	comp=Z,246nm,25.8s						
PPT	**Papeete**	**65.62**	**243**	LR	LR	19 12 11.9	
	comp=Z,271nm,19.3s,baz=1.0,slow=30						
BILL	**Bilibino**	**82.24**	**338**	*e*P	**P**	**18 51 07.1**	**+0.3**
	comp=Z,54nm,1.6s,mb5.1						
BILL				*e*		18 51 14.2	
BILL	**Bilibino**	**82.24**	**338**	*e*P	**P**	**18 51 07.1**	**+0.3**
BILL				*e*		18 51 14.2	
BILL				pmax	pmax		
	comp=Z,5.0nm,1.6s,mb4.1						
NOA	**NORSAR Array B**	**84.03**	**29**	P	**P**	**18 51 17.4**	**+1.2**
	comp=Z,0.8nm,0.9s,mb3.6,baz=312,slow=7.3,SNR=3.4						
NOA				LR	LR	19 25 34.4	
	comp=Z,106nm,20.4s,baz=295,slow=33						
ARCES	**ARCESS Array B**	**86.22**	**18**	P	**P**	**18 51 25.4**	**-1.6**
	comp=Z,3.0nm,0.9s,mb4.2,baz=297,slow=5.3,SNR=8.6						
ARCES				LR	LR	19 30 52.4	
	comp=Z,293nm,21.7s,baz=357,slow=36						
TORD	**Torodi Ar. Bea**	**89.47**	**77**	P	**P**	**18 51 42.7**	**-1.0**
TORD				LR	LR	19 26 07.6	
TORD	**Torodi Ar. Bea**	**89.47**	**77**	P	**P**	**18 51 42.7**	**-1.0**
	comp=Z,0.7nm,0.5s,mb3.9,baz=304,slow=5.8,SNR=6.9						
TORD				LR	LR	19 26 07.6	
	comp=Z,126nm,21.2s,baz=265,slow=32						
FINES	**FINESS Array B**	**90.44**	**25**	P	**P**	**18 51 46.9**	**-0.3**
	comp=Z,0.3nm,0.6s,mb3.6,baz=131,slow=26,SNR=3.1						
FINES				LR	LR	19 33 53.6	
	comp=Z,114nm,18.4s,baz=334,slow=37						
MKAR	**Makanchi Array**	**119.61**	**5**	PKP	PKPdf	18 57 35.3	-0.2
MKAR	**Makanchi Array**	**119.61**	**5**	PKIKP	PKPdf	18 57 35.3	-0.3
MKAR	**Makanchi Array**	**119.61**	**5**	PKP	PKPdf	18 57 35.3	-0.2
	comp=Z,0.2nm,0.8s,baz=90,slow=0.3,SNR=3.8						
BJI	**Beijing**	**121.00**	**336**	PKP	PKPdf	18 57 35.3	-3.2
BJI				PP	PP		
	comp=Z,240nm,3.6s						
HHC	**Hu-ho-hao-te**	**121.98**	**340**	*e*PKP	PKPdf	18 57 33.9	-6.4
HHC				PKS		19 01 09.6	
HHC				SKS	SKSdf	19 04 41.3	-5.4
HHC				SKKS	SKKSac	19 06 00.9	-7.5
HHC				SS	SS	19 15 46.0	-0.1
HHC				PP	PP		
	comp=Z,99nm,8.7s						
HHC				LR	LR		
	comp=N,340nm,21.8s						
HHC				LR	LR		
	comp=E,320nm,22.8s						
HHC				LR	LR		
	comp=Z,690nm,39.8s						
WMQ	**Urumqi**	**122.87**	**1**	*e*PKP	PKPdf	18 57 39.3	-2.6
GTA	**Gaotai**	**126.35**	**350**	*e*PKP	PKPdf	18 57 50.8	+2.1
GTA				PP	PP	18 59 50.0	+7.0
GTA				PKS		19 01 26.3	
GTA				SKKS	SKKSac	19 06 37.8	+1.4
GTA				SS	SS	19 16 48.3	+7.5
GTA				PP	PP		
	comp=Z,113nm,7.6s						
GTA				LR	LR		
	comp=N,240nm,22.2s						
GTA				LR	LR		
	comp=E,270nm,16.8s						
GTA				LR	LR		
	comp=Z,430nm,18.0s						
CD2	**Chengdu**	**133.57**	**342**	*e*PKP	PKPdf	18 57 59.0	-3.7
WRA	**Warramunga Arr**	**136.29**	**255**	PKP	PKPdf	18 58 09.2	+1.2
WRA	**Warramunga Arr**	**136.29**	**255**	PKIKP	PKPdf	18 58 09.2	+1.2
WRA	**Warramunga Arr**	**136.29**	**255**	PKP	PKPdf	18 58 09.2	+1.2
	comp=Z,0.6nm,0.6s,baz=92,slow=2.7,SNR=8.4						
ASAR	**Alice Springs**	**136.49**	**250**	PKP	PKPdf	18 58 10.6	+2.3
ASAR	**Alice Springs**	**136.49**	**250**	PKIKP	PKPdf	18 58 10.6	+2.3
ASAR	**Alice Springs**	**136.49**	**250**	PKP	PKPdf	18 58 10.6	+2.3
	comp=Z,0.6nm,1.1s,baz=58,slow=2.0,SNR=4.4						
GYA	**Guiyang**	**136.69**	**337**	*e*PDIF	Pdif	18 55 10.6	-3.4
GYA				PKP	PKPdf	18 58 04.9	-3.7
GYA				PP	PP	19 00 51.8	+1.9
GYA				PP	PP		
	comp=Z,100nm,7.6s						
HYB	**Hyderabad**	**147.51**	**19**	*e*P	PKPdf	18 58 31.0	+3.0
HYB	**Hyderabad**	**147.51**	**19**	*e*PKP2	PKPab	18 58 31.0	-1.7
HYB	**Hyderabad**	**147.51**	**19**	*i* PKP	PKPdf	18 58 31.0	+3.0

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*ISCJB **13** 18:39:32.6±0.2, 45.14N±0.02×120.91W±0.02, h22^{km}±3^{km}, Error ellipse: s-maj=2.9km s-min=2.4km az=143.6*

*PNSN **13** 18:39:32.6, 45.12N×120.94W, h20^{km}, MD2.9, Fault plane solution: NP1:ϕ_s159.00000°, δ33.00000°, NP2: ϕ_s45.00000°, δ75.00000°, Principal axes: T Plg24.0000°, Azm112.0000°; P Plg51.0000°, Azm349.0000°; Fault plane solution: NP1:ϕ_s233.00000°, δ70.00000°, NP2: ϕ_s325.00000°, δ85.00000°, Principal axes: T Plg10.0000°, Azm97.0000°; P Plg18.0000°, Azm191.0000°;*

*NEIC **13** 18:39:32.6, 45.12N×120.94W, h20^{km}, MD2.9(SEA), After SEA.*

ISC 13 18:39:32.6±0.3, **45.13N**±0.02×**120.92W**±0.02, **h17**^{km}±2^{km}, **n77, σ0ˢ55**/98, **34C-27D, Washington-Oregon border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CROR	**Criterion Ridg**	**0.16**	**197**	⇑P	**Pg**	**18 39 37.2**	**+0.4**
G06A	**Carlson Farm,**	**0.23**	**63**	P	**Pg**	**18 39 38.4**	**+0.5**
	baz=0.2,SNR=745						
G06A				⇓S	**Sg**	**18 39 41.9**	**+0.5**
	baz=0.2						
VTHM	**Trough**	**0.26**	**79**	⇑P	**Pg**	**18 39 38.8**	**+0.5**
G05A	**Wamic**	**0.30**	**292**	⇑P	**Pg**	**18 39 39.4**	**+0.4**
	baz=0.3,SNR=122						
G05A				⇓S	**Sg**	**18 39 43.2**	**-0.2**
	baz=0.3						
VGB	**Gordon Butte**	**0.40**	**15**	⇓P	**Pg**	**18 39 41.1**	**+0.4**
VFP	**Flag Point**	**0.43**	**296**	⇑P	**Pg**	**18 39 41.3**	**0.0**
VBEM	**Beaver Butte**	**0.48**	**262**	⇑P	**Pg**	**18 39 42.1**	**-0.1**
H05A	**Madras**	**0.53**	**204**	P	**Pg**	**18 39 43.0**	**-0.2**
	baz=0.5,SNR=70						
H05A				⇑S	**Sg**	**18 39 50.3**	**0.0**
	baz=0.5						
HOOD	**Mount Hood Mea**	**0.55**	**290**	⇑P	**Pg**	**18 39 42.9**	**-0.6**
H06A	**Lindquist Farm**	**0.58**	**133**	P	**Pg**	**18 39 43.7**	**-0.3**
	baz=0.6,SNR=336						
H06A				⇑S	**Sg**	**18 39 51.7**	**0.0**
	baz=0.6						
TDH	**Tom, Dick, Har**	**0.63**	**285**	⇑P	**Pg**	**18 39 44.3**	**-0.7**
VIPM	**Ingram Point**	**0.66**	**161**	P	**Pg**	**18 39 45.4**	**-0.1**
APM	**Augspurger Mou**	**0.81**	**319**	P	**Pb**	**18 39 48.0**	**-0.1**
GL2	**New Goldendale**	**0.83**	**5**	⇓P	**Pb**	**18 39 48.5**	**-0.1**
F05A	**White Salmon**	**0.84**	**334**	⇑P	**Pb**	**18 39 48.5**	**-0.3**
	baz=0.8						
F05A				⇑S	**Sb**	**18 39 59.3**	**-0.5**
	baz=0.8						
VLMM	**Larch Mountain**	**0.89**	**298**	P	**Pb**	**18 39 49.2**	**-0.3**
G07A	**Ruggs Ranch, H**	**0.90**	**81**	P	**Pb**	**18 39 49.5**	**-0.2**
	baz=0.9,SNR=128						
G07A				⇑S	**Sb**	**18 40 01.4**	**+0.1**
	baz=0.9						
GULW	**Guler Mountain**	**0.92**	**329**	P	**Pb**	**18 39 50.1**	**-0.1**
BKCOR	**Black Crater**	**1.00**	**214**	⇓P	**Pb**	**18 39 51.0**	**-0.4**
I05A	**Bend**	**1.00**	**194**	⇓P	**Pb**	**18 39 50.5**	**-1.0**
	baz=1.0						
I05A				⇑S	**Sb**	**18 40 04.1**	**-0.2**
	baz=1.0						
H04A	**Detroit Lake**	**1.00**	**244**	⇓P	**Pb**	**18 39 50.4**	**-1.2**
	baz=1.0						
H04A				⇓S	**Sb**	**18 40 03.7**	**-0.7**
	baz=1.0						
G04A	**Mulino**	**1.10**	**274**	⇓P	**Pb**	**18 39 52.4**	**-0.8**
	baz=1.1,SNR=16						
G04A				⇓S	**Sb**	**18 40 07.3**	**0.0**
	baz=1.1						
ASR	**Mount Adams--S**	**1.12**	**335**	P	**Pn**	**18 39 53.5**	**-0.1**
SSOR	**Sweet Springs**	**1.13**	**256**	P	**Pn**	**18 39 53.1**	**-0.4**
HUOR	**Husband**	**1.21**	**213**	P	**Pn**	**18 39 54.3**	**-0.4**
WIFE	**Three Sisters-**	**1.25**	**211**	⇓P	**Pn**	**18 39 54.8**	**-0.5**
CDFW	**Cedar Flats**	**1.26**	**322**	P	**Pn**	**18 39 55.0**	**-0.4**
MTMW	**Mount Mitchell**	**1.27**	**315**	⇑P	**Pn**	**18 39 55.2**	**-0.4**
I06A	**Prineville**	**1.29**	**157**	⇓P	**Pn**	**18 39 55.7**	**-0.1**
	baz=1.3,SNR=36						
I06A				⇓S	**Sb**	**18 40 12.7**	**0.0**
	baz=1.3						
F04A	**Amboy**	**1.32**	**308**	⇑P	**Pn**	**18 39 55.9**	**-0.3**
	baz=1.3,SNR=24						
F04A				⇑S	**Sn**	**18 40 13.4**	**-0.1**
	baz=1.3						
ESD	**East Dome**	**1.37**	**321**	P	**Pn**	**18 39 57.4**	**+0.4**
PRW	**Prosser**	**1.39**	**38**	P	**Pn**	**18 39 57.4**	**+0.3**
BROR	**Big Rock Looko**	**1.39**	**232**	⇓P	**Pn**	**18 39 57.0**	**-0.2**
E06A	**Yakima**	**1.41**	**358**	⇓P	**Pn**	**18 39 57.5**	**0.0**
	baz=1.4,SNR=183						
I07A	**Izee**	**1.46**	**136**	⇓P	**Pn**	**18 39 58.8**	**+0.6**
	baz=1.5,SNR=235						
FL2	**Flat Top 2**	**1.46**	**317**	P	**Pn**	**18 39 58.6**	**+0.5**
IRO	**Indian Ridge**	**1.48**	**221**	⇓P	**Pn**	**18 39 58.5**	**+0.1**
MXC	**Moxie City**	**1.51**	**17**	P	**Pn**	**18 39 59.0**	**+0.2**
E05A	**Randle**	**1.54**	**338**	⇑P	**Pn**	**18 40 00.1**	**+0.8**
	baz=1.5						
RSW	**Rattlesnake Hi**	**1.57**	**36**	P	**Pn**	**18 39 59.6**	**0.0**
HAWA	**Hanford**	**1.59**	**37**	*e*Pn	**Pn**	**18 39 59.3**	**-0.6**
HAWA				*e*Sn	**Sn**	**18 40 20.5**	**+0.4**
NAC	**Naches**	**1.60**	**2**	P	**Pn**	**18 40 01.2**	**+1.0**
E07A	**Sunnyside**	**1.61**	**27**	⇑P	**Pn**	**18 40 00.2**	**0.0**
	baz=1.6,SNR=23						
WPW	**White Pass**	**1.63**	**345**	P	**Pn**	**18 40 02.0**	**+1.5**
HBO	**Huckleberry Mo**	**1.63**	**218**	⇓P	**Pn**	**18 40 00.9**	**+0.5**
H2OWA	**Water**	**1.64**	**39**	P	**Pn**	**18 40 00.8**	**+0.1**
G03A	**Yamhill**	**1.68**	**277**	⇑P	**Pn**	**18 40 01.3**	**+0.2**
	baz=1.7,SNR=14						
MDW	**Midway**	**1.69**	**28**	P	**Pn**	**18 40 01.5**	**+0.2**
I04A	**Tendick Farm,**	**1.71**	**219**	⇓P	**Pn**	**18 40 01.6**	**0.0**
	baz=1.7,SNR=28						
H08A	**Prairie City**	**1.72**	**110**	P	**Pn**	**18 40 01.9**	**+0.2**
	baz=1.7,SNR=60						
WIW	**Wooded Island**	**1.73**	**41**	P	**Pn**	**18 40 02.0**	**+0.2**
H03A	**Soap Creek Ran**	**1.75**	**256**	⇑P	**Pn**	**18 40 02.7**	**+0.6**
	baz=1.7,SNR=11						
COR	**Corvallis**	**1.78**	**253**	*e*Pn	**Pn**	**18 40 03.9**	**+1.4**
COR				*e*Sn	**Sn**	**18 40 25.5**	**+0.8**
J05A	**Fort Rock**	**1.86**	**187**	⇓P	**Pn**	**18 40 04.6**	**+1.0**
	baz=1.9,SNR=36						
E08A	**Dider Farm, El**	**1.88**	**43**	⇑P	**Pn**	**18 40 04.1**	**+0.1**
	baz=1.9,SNR=8.3						
E08A				⇑S	**Sn**	**18 40 27.5**	**+0.2**
	baz=1.9						
LOCW	**Locke Island**	**1.90**	**33**	P	**Pn**	**18 40 05.0**	**+0.9**
J06A	**Christmas Vall**	**1.96**	**163**	⇑P	**Pn**	**18 40 05.3**	**+0.2**
	baz=2.0,SNR=23						
F03A	**Seaside**	**2.02**	**294**	⇓P	**Pn**	**18 40 06.0**	**+0.2**
	baz=2.0,SNR=9.9						
I03A	**Eugene**	**2.04**	**236**	P	**Pn**	**18 40 06.7**	**+0.5**
	baz=2.0,SNR=15						
I03A				⇑S	**Sn**	**18 40 31.3**	**0.0**
	baz=2.0						
D06A	**Cle Elum**	**2.06**	**1**	⇓P	**Pn**	**18 40 07.3**	**+0.9**
	baz=2.1						
I08A	**Drewsey**	**2.08**	**125**	⇓P	**Pn**	**18 40 06.7**	**0.0**
	baz=2.1						
J03A	**Ideyld Park**	**2.29**	**221**	⇓P	**Pn**	**18 40 09.9**	**+0.4**
	baz=2.3						
D08A	**Wollman Farm,**	**2.38**	**35**	P	**Pn**	**18 40 10.7**	**-0.1**
	baz=2.4,SNR=20						
E09A	**Wood Farm, Sta**	**2.38**	**54**	⇑P	**Pn**	**18 40 10.6**	**-0.2**
	baz=2.4						
E09A				⇑S	**Sn**	**18 40 39.6**	**0.0**
	baz=2.4						
J08A	**Circle Bar Ran**	**2.50**	**134**	⇑P	**Pn**	**18 40 12.5**	**+0.1**
	baz=2.5						
BMO	**Blue Mountains**	**2.58**	**95**	*e*Pn	**Pn**	**18 40 13.3**	**-0.2**
BMO				*e*Pg	**Pg**	**18 40 18.9**	**-3.2**
BMO				*e*Sn	**Sn**	**18 40 45.3**	**+0.8**
BMO				*e*Sg	**Sg**	**18 40 51.4**	**-4.2**
J02A	**Umpqua**	**2.60**	**228**	⇑P	**Pn**	**18 40 14.2**	**+0.4**
	baz=2.6						
C07A	**Waterville**	**2.63**	**13**	⇑P	**Pn**	**18 40 14.3**	**+0.1**
	baz=2.6						
D09A	**Jones Farm, Ri**	**2.65**	**42**	P	**Pn**	**18 40 13.9**	**-0.6**
	baz=2.7,SNR=20						
D09A				⇑S	**Sn**	**18 40 45.0**	**-1.2**
	baz=2.7						
C08A	**Higginbotham F**	**2.95**	**25**	P	**Pn**	**18 40 18.5**	**-0.2**
	baz=3.0,SNR=5.8						
WVOR	**Wild Horse Val**	**3.16**	**148**	*e*Pn	**Pn**	**18 40 28.2**	**+6.6**
D10A	**Wagner Farm, O**	**3.18**	**52**	⇑S	**Sn**	**18 40 58.7**	**-0.7**
	baz=3.2						
C09A	**Chrisman Ranch**	**3.24**	**33**	⇑P	**Pn**	**18 40 21.8**	**-0.8**
	baz=3.2						
B07A	**Winthrop**	**3.38**	**9**	⇑P	**Pn**	**18 40 25.0**	**+0.6**
	baz=3.4,SNR=8.7						
B07A				⇓S	**Sn**	**18 41 04.2**	**+0.1**
	baz=3.4						
F11A	**Grangeville**	**3.44**	**76**	⇓S	**Sn**	**18 41 05.5**	**-0.1**
	baz=3.4						
E11A	**Bogner Ranch,**	**3.52**	**68**	⇑S	**Sn**	**18 41 07.2**	**-0.4**
	baz=3.5						
C10A	**Spilker Farm,**	**3.67**	**42**	⇓S	**Sn**	**18 41 09.6**	**-1.7**
	baz=3.7						

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*ISCJB **13** 18:42:38.7±0.3, 45.14N±0.02×120.93W±0.02, h20^{km}±3^{km}, Error ellipse: s-maj=3.2km s-min=2.9km az=169.3*

*PNSN **13** 18:42:38.7, 45.12N×120.93W, h20^{km}, MD2.7, Fault plane solution: NP1:ϕ_s151.00000°, δ80.00000°, NP2: ϕ_s60.00000°, δ85.00000°, Principal axes: T Plg3.0000°, Azm106.0000°; P Plg11.0000°, Azm15.0000°;*

*NEIC **13** 18:42:38.7, 45.12N×120.93W, h20^{km}, MD2.7(SEA), After SEA.*

ISC 13 18:42:38.7±0.3, **45.13N**±0.02×**120.94W**±0.02, **h16**^{km}±2^{km}, **n44, σ0ˢ57**/60, **18C-24D, Washington-Oregon border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CROR	**Criterion Ridg**	**0.15**	**193**	⇑P	**Pg**	**18 42 43.1**	**+0.4**
G06A	**Carlson Farm,**	**0.24**	**64**	⇓P	**Pg**	**18 42 44.3**	**+0.3**
	baz=0.2,SNR=328						
G06A				⇑S	**Sg**	**18 42 47.9**	**+0.2**
	baz=0.2						
VTHM	**Trough**	**0.27**	**80**	⇑P	**Pg**	**18 42 44.8**	**+0.2**
G05A	**Wamic**	**0.29**	**292**	P	**Pg**	**18 42 45.5**	**+0.6**
	baz=0.3,SNR=150						
G05A				⇑S	**Sg**	**18 42 49.4**	**+0.3**
	baz=0.3						
VGB	**Gordon Butte**	**0.40**	**16**	⇓P	**Pg**	**18 42 47.1**	**+0.3**
VFP	**Flag Point**	**0.41**	**297**	⇑P	**Pg**	**18 42 47.3**	**+0.2**
VBEM	**Beaver Butte**	**0.47**	**261**	⇑P	**Pg**	**18 42 48.1**	**+0.1**
H05A	**Madras**	**0.53**	**203**	⇑P	**Pg**	**18 42 48.9**	**-0.2**
	baz=0.5						
H05A				⇓S	**Sg**	**18 42 56.3**	**+0.1**
	baz=0.5						
H06A	**Lindquist Farm**	**0.59**	**133**	P	**Pg**	**18 42 49.8**	**-0.4**
	baz=0.6,SNR=116						
H06A				⇑S	**Sg**	**18 42 57.6**	**-0.5**
	baz=0.6						
TDH	**Tom, Dick, Har**	**0.62**	**285**	P	**Pg**	**18 42 50.4**	**-0.6**
VIPM	**Ingram Point**	**0.67**	**160**	P	**Pg**	**18 42 51.4**	**-0.3**
GL2	**New Goldendale**	**0.83**	**6**	⇓P	**Pb**	**18 42 54.5**	**-0.2**
F05A	**White Salmon**	**0.83**	**334**	⇓S	**Sb**	**18 43 05.7**	**0.0**
	baz=0.8						
VLMM	**Larch Mountain**	**0.88**	**298**	P	**Pb**	**18 42 55.3**	**-0.2**
G07A	**Ruggs Ranch, H**	**0.91**	**81**	⇓P	**Pb**	**18 42 55.5**	**-0.5**
	baz=0.9,SNR=29						
G07A				⇓S	**Sb**	**18 43 08.1**	**+0.3**
	baz=0.9						
BKCOR	**Black Crater**	**0.99**	**213**	P	**Pb**	**18 42 56.9**	**-0.5**
H04A	**Detroit Lake**	**0.99**	**244**	⇑P	**Pb**	**18 42 56.4**	**-1.1**
	baz=1.0						
H04A				⇓S	**Sb**	**18 43 09.7**	**-0.6**
	baz=1.0						
I05A	**Bend**	**1.00**	**194**	⇓S	**Sb**	**18 43 10.4**	**0.0**
	baz=1.0						
G04A	**Mulino**	**1.09**	**274**	⇓P	**Pb**	**18 42 58.5**	**-0.6**
	baz=1.1						
G04A				⇑S	**Sb**	**18 43 13.5**	**+0.4**
	baz=1.1						
ASR	**Mount Adams--S**	**1.12**	**336**	P	**Pb**	**18 42 59.5**	**-0.1**
HUOR	**Husband**	**1.20**	**213**	P	**Pn**	**18 43 00.4**	**-0.4**
FRIS	**Frissel Point**	**1.24**	**222**	P	**Pn**	**18 43 00.9**	**-0.3**
MTMW	**Mount Mitchell**	**1.26**	**315**	P	**Pn**	**18 43 01.3**	**-0.3**
I06A	**Prineville**	**1.30**	**156**	⇓P	**Pn**	**18 43 01.8**	**-0.3**
	baz=1.3,SNR=6.3						
I06A				⇑S	**Sb**	**18 43 19.5**	**+0.4**
	baz=1.3						
F04A	**Amboy**	**1.31**	**308**	⇓P	**Pn**	**18 43 02.1**	**-0.2**
	baz=1.3,SNR=14						
F04A				⇓S	**Sn**	**18 43 19.6**	**+0.1**
	baz=1.3						
BROR	**Big Rock Looko**	**1.38**	**232**	P	**Pn**	**18 43 03.0**	**-0.3**
E06A	**Yakima**	**1.41**	**359**	P	**Pn**	**18 43 03.6**	**0.0**
	baz=1.4,SNR=101						
E06A				⇓S	**Sn**	**18 43 22.5**	**+0.7**
	baz=1.4						
I07A	**Izee**	**1.47**	**135**	⇓P	**Pn**	**18 43 04.7**	**+0.3**
	baz=1.5,SNR=106						
IRO	**Indian Ridge**	**1.47**	**220**	P	**Pn**	**18 43 04.4**	**0.0**
E05A	**Randle**	**1.54**	**338**	⇑P	**Pn**	**18 43 06.2**	**+0.7**
	baz=1.6						
RSW	**Rattlesnake Hi**	**1.57**	**36**	P	**Pn**	**18 43 06.4**	**+0.5**
HAWA	**Hanford**	**1.60**	**38**	*e*Pn	**Pn**	**18 43 05.9**	**-0.4**
HAWA				*e*Sn	**Sn**	**18 43 25.9**	**-0.6**
E07A	**Sunnyside**	**1.61**	**28**	⇓P	**Pn**	**18 43 06.2**	**-0.3**
	baz=1.6,SNR=9.5						
E07A				⇑S	**Sn**	**18 43 27.5**	**+0.6**
	baz=1.6						
G03A	**Yamhill**	**1.67**	**277**	⇓P	**Pn**	**18 43 07.2**	**+0.1**
	baz=1.7						
G03A				⇑S	**Sn**	**18 43 28.5**	**+0.4**
	baz=1.7						
I04A	**Tendick Farm,**	**1.70**	**219**	⇑P	**Pn**	**18 43 07.5**	**-0.1**
	baz=1.7,SNR=11						
H08A	**Prairie City**	**1.73**	**110**	⇓P	**Pn**	**18 43 07.8**	**-0.2**
	baz=1.7,SNR=19						
H08A				⇓S	**Sn**	**18 43 30.2**	**+0.6**
	baz=1.7						
H03A	**Soap Creek Ran**	**1.73**	**256**	⇑S	**Sn**	**18 43 30.3**	**+0.4**
	baz=1.7						
J05A	**Fort Rock**	**1.86**	**187**	⇑P	**Pn**	**18 43 10.7**	**+0.9**
	baz=1.8,SNR=16						
J06A	**Christmas Vall**	**1.96**	**163**	⇓P	**Pn**	**18 43 12.2**	**+1.0**
	baz=1.9,SNR=15						
F03A	**Seaside**	**2.01**	**294**	⇑P	**Pn**	**18 43 13.0**	**+1.2**
	baz=2.0						
D08A	**Wollman Farm,**	**2.38**	**35**	⇓P	**Pn**	**18 43 16.6**	**-0.4**
	baz=2.4,SNR=10						
E09A	**Wood Farm, Sta**	**2.39**	**54**	⇓S	**Sn**	**18 43 45.4**	**-0.6**
	baz=2.4						
BMO	**Blue Mountains**	**2.59**	**95**	*e*Pn	**Pn**	**18 43 19.5**	**-0.4**
BMO				*e*Sn	**Sn**	**18 43 53.6**	**+2.6**
D09A	**Jones Farm, Ri**	**2.66**	**43**	⇓P	**Pn**	**18 43 19.7**	**-1.1**
	baz=2.7,SNR=8.3						
D09A				⇓S	**Sn**	**18 43 51.2**	**-1.4**
	baz=2.7						

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*CASC **13** 18:43:08.9±3.1, 13.02N×91.51W, h20^{km}±32^{km}, MD4.1, mb3.9(NEIC)*

*IDC **13** 18:43:09.7±1.6, 13.61N×90.85W, h0^{km}, mb3.9/5, mb1 4.0/7, mb1mx3.8/18, mbtmp3.8/7, ML3.9/2, Error ellipse: s-maj=58.0km s-min=24.2km az=49.0*

*ISCJB **13** 18:43:12.3±1.0, 13.14N±0.07×91.24W±0.09, h57^{km}±10^{km}, mb3.9/6, Error ellipse: s-maj=16.3km s-min=8.9km az=144.7*

*NEIC **13** 18:43:13.4±1.0, 13.23N×91.26W, h39^{km}±13^{km}, mb3.9/2, Error ellipse: s-maj=17.1km s-min=9.6km az=49.0*

ISC 13 18:43:13.8±0.9, **13.22N**±0.07×**91.24W**±0.09, **h49**^{km}±10^{km}, **n29, σ1ˢ07**/27, **mb3.9**/6, **4C-1D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAT	**Jato**	**1.16**	**340**	*e*P	**Pn**	**18 43 33.1**	**-0.5**
JAT				*e*S	**Sn**	**18 43 49.1**	**+0.7**
FUG	**Fuego 3**	**1.28**	**17**	⇑*e*P	**Pn**	**18 43 35.4**	**+0.1**
FUG				*e*S	**Sn**	**18 43 56.4**	**+5.0**
FG6		**1.37**	**14**	*e*P	**Pn**	**18 43 36.8**	**+0.1**
FG6				*e*S	**Sn**	**18 43 58.0**	**+4.3**
SBLS	**San Blas**	**1.69**	**68**	*e*P	x	18 44 23.7	
SBLS				*e*S	x	18 44 49.7	
SNJE	**San Jose**	**1.71**	**68**	⇑*e*P	x	18 44 24.1	
SNJE				*e*S	x	18 44 51.7	
RBDL	**Robledal**	**1.75**	**59**	⇑*i*P	x	18 44 25.4	
RBDL				*e*S	x	18 44 52.9	
BOQS	**Boqueron**	**1.97**	**75**	⇑*e*P	x	18 44 28.2	
BOQS				*e*S	x	18 44 58.6	
SNVI	**San Vicente**	**2.37**	**80**	*e*P	x	18 44 34.2	

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNVI				eS	x	18 45 05.7	
BLLM	Bellamira	2.93	85	⇓eP	x	18 44 41.8	
BLLM				eS	x	18 45 21.5	
CCIG	Comitan	3.17	344	iP	Pn	18 44 01.8	+0.7
CCIG				iS	Sn	18 44 41.9	+4.2
SCX	San Cristobal	3.75	339	eP	Pn	18 44 09.0	-0.1
TGUH	Tegucigalpa,Un	3.94	77	ePn	Pn	18 44 12.7	+0.8
CMIG	Matias Romero	5.21	318	Pn	Pn	18 44 29.4	+0.1
CMIG	Matias Romero	5.21	318	Pn	Pn	18 44 29.4	+0.1
	1.1nm,0.3s,baz=128,slow=10.0,SNR=8.3						
VHO	Vista Hermosa	6.54	306	iP	Pn	18 44 44.0	-3.5
VHO				iS	Sn	18 46 22.8	+22
JTS	JuntasAbangare	6.81	115	Pn	Pn	18 44 49.1	-2.0
TEIG	Tepich	7.52	22	P	Pn	18 45 00.8	-0.2
	62nm,0.7s						
TEIG	Tepich	7.52	22	Pn	Pn	18 45 00.9	0.0
	3.5nm,0.3s,baz=190,slow=4.4,SNR=6.7						
PAYG	Puerto Ayora	13.84	176	P	Pn	18 46 27.9	+0.5
LTX	Lajitas	19.75	326	P	Pn	18 47 40.3	-1.3
	3.8nm,0.9s						
TXAR	Lajitas Array	19.75	326	P	Pn	18 47 40.6	-0.9
	0.2nm,0.3s,baz=158,slow=14,SNR=9.8						
MNTX	Cornudas Mount	22.52	327	eP	P	18 48 10.2	+0.7
	4.3nm,0.7s,mb4.0						
NVAR	Mina Array Bea	34.74	321	P	P	18 50 01.1	+1.7
	0.9nm,0.7s,mb3.8,baz=126,slow=9.1,SNR=5.9						
ULM	Lac du Bonnet	37.12	355	P	P	18 50 18.5	-1.0
ULM	Lac du Bonnet	37.12	355	P	P	18 50 18.5	-1.0
	0.8nm,0.8s,mb3.6,baz=162,slow=9.6,SNR=3.2						
SIV	San Ignacio	41.62	133	P	P	18 50 59.8	+2.3
	1.2nm,0.6s,mb3.7,baz=288,slow=11,SNR=4.1						
SCHQ	Schefferville	45.70	20	P	P	18 51 28.4	-1.4
	3.2nm,0.9s,mb4.2,baz=204,slow=15,SNR=3.4						
YKA	Yellowknife Ar	51.95	346	P	P	18 52 17.8	+0.2
YKA				PcP	PcP	18 53 31.7	+2.1
YKA	Yellowknife Ar	51.95	346	P	P	18 52 17.8	+0.2
	0.9nm,0.6s,mb3.9,baz=148,slow=7.5,SNR=16						
YKA				PcP	PcP	18 53 31.7	+2.1
	0.4nm,0.8s,baz=143,slow=3.2,SNR=5.3						

MAN 13 18:54:16, 845N×12589E, h16^{km}, mb4.6, ML3.5, MS3.4, 2C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUKP	Musuan	1.00	235	eP	Pb	18 54 34.1	-0.8
CGP	Cagayan de Oro	1.19	270	⇑iP	Pn	18 54 37.6	-0.3
CGP				iS	Sb	18 54 53.7	+0.5
SCPH	Surigao	1.38	343	⇑eP	Pn	18 54 39.4	-1.2
MATI	Mati	1.54	166	eP	Pn	18 54 42.1	-0.7
MSLP	Maasin	1.96	329	eP	Pn	18 54 47.5	-1.1
DCPH	Dipolog City	2.52	273	⇓eP	Pn	18 54 58.0	+1.8
PAGZ	Pagadian	2.56	257	eP	Pn	18 54 60.0	+3.2
PLP	Palo	2.84	342	eP	Pn	18 55 02.9	+2.1
PLP				eS	Sn	18 55 40.2	+5.5
OCLP	Ormoc	2.88	334	eP	Pn	18 55 02.5	+1.3

ISCJB **13** *19:03:20.5±0.5, 4360N±005×10512W±007, h0^{km}, mb3.8/1, Error ellipse: s-maj=8.7km s-min=5.8km az=136.3*

NEIC **13** *19:03:21.4±0.7, 4358N×10524W, h0^{km}, ML3.2, Error ellipse: s-maj=11.1km s-min=7.8km az=139.0, Suspected Mining explosion.*

NEIC 80 km [50 miles] SSE of Gillette.

IDC **13** *19:03:22.8±1.8, 4363N×10533W, h0^{km}, mb3.8/1, mb1 3.7/5, mb1mx3.5/22, mbtmp3.5/5, ML2.8/3, Error ellipse: s-maj=49.6km s-min=8.6km az=150.0*

ISC 13 19:03:22.4±0.5, 4362N±005×10510W±007, h0^{km}, n35, σ1^{s}49/34, mb3.8/1, Wyoming

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.92	57	ePn	Pn	19 03 42.2	-0.2
BW06	Boulder Array	3.37	257	ePn	Pn	19 04 17.7	+1.5
PDAR	Pinedale Array	3.37	257	Pn	Pn	19 04 17.1	+0.9
PDAR				Lg		19 05 03.4	
PDAR	Pinedale Array	3.37	257	Pn	Pn	19 04 17.1	+0.9
	7.9nm,0.3s,baz=70,slow=13,SNR=16						
PDAR				Lg		19 05 03.4	
	16nm,0.3s,baz=68,slow=31,SNR=11						
MOOW	Moose Ponds	4.09	274	ePn	Pn	19 04 27.2	+1.0
YNR	Norris Junctio	4.16	287	Pn	Pn	19 04 30.7	+3.6
IMW	Indian Meadow	4.24	276	ePn	Pn	19 04 27.2	-0.9
DGMT	Dagmar	4.89	7	ePn	Pn	19 04 38.3	+1.2
EGMT	Eagleton	5.47	325	Pn	Pn	19 04 44.6	-0.4
	13nm,0.8s						
DAU	Daniels Canyon	5.59	237	ePn	Pn	19 04 47.0	+0.2
JLU	Jordanelle	5.60	240	ePn	Pn	19 04 44.5	-2.4
DLMT	Dillon	5.64	291	Pn	Pn	19 04 48.3	+1.0
	7.2nm,0.5s						
MCMT	McKenzie Canyo	5.70	285	Pn	Pn	19 04 44.9	-3.3
CTU	Camp Tracy	5.74	242	Pn	Pn	19 04 45.6	-3.2
	6.3nm,0.4s						
SDCO	Great Sand Dun	5.88	183	eP	Pn	19 04 49.4	-1.3
	2.5nm,0.6s						
SPUT	South Promonto	5.91	249	ePn	Pn	19 04 46.8	-4.2
HVU	Hansel Valley	5.95	255	ePn	Pn	19 04 47.7	-3.9
	7.8nm,0.6s						
PV10	Paradox Valley	6.03	211	eP	Pn	19 04 53.5	+0.8
SRU	San Rafael	6.08	224	ePn	Pn	19 04 53.4	0.0
	20nm,0.6s						
PV01	Paradox Valley	6.08	207	ePn	Pn	19 04 50.0	-3.4
ECSD	EROS,Sioux Fal	6.16	86	ePn	Pn	19 04 55.6	+1.2
	8.3nm,0.6s						
TMUT	Trail Mountain	6.30	229	ePn	Pn	19 04 58.7	+2.3
NLU	North Lily Min	6.37	237	ePn	Pn	19 04 55.3	-2.1
BGU	Big Grassy Mou	6.47	248	ePn	Pn	19 04 55.9	-2.9
CHMT	Chamberlain Mo	6.62	303	ePn	Pn	19 05 00.7	-0.2
DUG	Dugway	6.69	242	ePn	Pn	19 05 02.0	+0.1
	4.7nm,0.5s						
HLID	Hailey	6.76	273	ePn	Pn	19 05 04.9	+2.1
	2.1nm,0.5s						
MSU	Marysvale	7.39	229	ePn	Pn	19 05 13.7	+2.2
WALA	Waterton Lakes	8.16	315	ePn	Pn	19 05 18.6	-3.4
	6.7nm,0.9s						
ULM	Lac du Bonnet	9.15	40	Pn	Pn	19 05 35.2	-0.3
ULM				Pg	Pn	19 06 08.8	+33
ULM				Lg		19 08 08.7	
ULM	Lac du Bonnet	9.15	40	Pn	Pn	19 05 35.2	-0.3
	0.8nm,0.3s,baz=232,slow=11,SNR=10						
ULM				Pg	Pn	19 06 08.8	+33
	0.8nm,0.3s,baz=222,slow=16,SNR=5.5						
ULM				Lg		19 08 08.7	
	0.6nm,0.3s,baz=307,slow=20,SNR=3.9						
NVAR	Mina Array Bea	11.24	247	Pn	Pn	19 06 06.2	+2.1
	0.1nm,0.3s,baz=57,slow=12,SNR=3.2						
TXAR	Lajitas Array	14.31	175	Pg	Px	19 07 54.7	
	0.2nm,0.3s,baz=12,slow=6.4,SNR=3.9						
YKA	Yellowknife Ar	19.71	347	P	Pn	19 07 52.9	-1.4
	0.1nm,0.3s,baz=158,slow=12,SNR=5.4						
MKAR	Makanchi Array	89.73	355	P	P	19 16 22.2	0.0
	0.4nm,0.7s,mb3.8,baz=12,slow=4.6,SNR=6.1						

BJI **13** *19:22:06.9, 106S×12466E, h84^{km}, mB5.3, mb5.7, Ms4.6, Msz4.5*

MOS **13** *19:22:07.5±1.0, 032S×124.18E, h33^{km}, mb5.8/56, MS4.5/15, Error ellipse: s-maj=9.9km s-min=4.9km az=114.2*

IDC **13** *19:22:12.4±1.2, 043S×12421E, h63^{km}±9^{km}, mb5.1/26, mb1 5.1/27, mb1mx5.1/28, mbtmp5.1/27, MS4.4/17, Ms1 4.4/17, ms1mx4.2/24, Error ellipse: s-maj=14.4km s-min=7.4km az=67.0*

GCMT **13** *19:22:14.6±0.1, 035S×12453E, h78^{km}±1^{km}, MW5.4/85, Moment Tensor Solution. s75,c138; s85,c183; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.56±.03; M$_{\theta\theta}$0.63±.02; M$_{\phi\phi}$-1.19±.03; M$_{r\theta}$0.87±.01; M$_{\theta\phi}$-0.17±.02; M$_{\phi r}$0.63±.02; Best double couple: M$_0$1.50000×10^{17} NP1:φ$_s$149.00000°, δ40.00000°, λ22.00000°. NP2:φ$_s$42.00000°, δ76.00000°, λ128.00000°. Principal axes: T 1.5050, Plg46.0000°, Azm350.0000°; N -0.0070, Plg36.0000°, Azm211.0000°; P -1.4960, Plg22.0000°, Azm104.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC **13** *19:22:14.6±1.0, 044S×124.19E, h85^{km}±8^{km}, mb5.5/50, MW5.5 Error ellipse: s-maj=6.9km s-min=4.3km az=65.0, Moment Tensor Solution. s9 Moment tensor: Scale 10^{17} Nm; M$_{rr}$0.61; M$_{\theta\theta}$1.35; M$_{\phi\phi}$-1.96; M$_{r\theta}$0.91; M$_{\theta\phi}$0.43; M$_{\phi r}$0.33; Best double couple: M$_0$2.00000×10^{17} NP1: φ$_s$133.00000°, δ63.00000°, λ22.00000°. NP2:φ$_s$33.00000°, δ71.00000°, λ151.00000°. Principal axes: T 2.0400, Plg34.0000°, Azm351.0000°; N 0.0000, Plg56.0000°, Azm182.0000°; P -2.0400, Plg5.0000°, Azm84.0000°;*

NEIC Felt [II] at Manado, Indonesia.

ISCJB **13** *19:22:16.2±0.5, 044S±002×12428E±003, h116^{km}±3^{km}, mb5.5/135 Error ellipse: s-maj=4.6km s-min=3.8km az=168.8*

ISC 13 19:22:17.6±0.4, 044S±002×12428E±003, h113^{km}±3^{km}, h102^{km}±2.6^{km}:pP-P, n495, σ1^{s}18/390, mb5.5/135, 85C-49D, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCI	Palu	4.46	264	P	Pn	19 23 20.3	-2.9
	629nm,0.9s						
AAI	Ambon	5.08	130	P	Pn	19 23 25.6	-5.9
	3µm,0.6s						
GSPH	General Santos	6.51	6	⇓eP	Pn	19 23 50.1	-0.8
KCP	Kidapawan	7.44	6	⇑eP	Pn	19 24 09.0	+5.5
DAV	Davao City (W)	7.57	10	ePn	Pn	19 24 05.9	+0.6
	5µm,1.4s						
DAV	Davao City (W)	7.57	10	⇓P	Pn	19 24 06.9	+1.7
	SNR=120						
DAV	Davao City (W)	7.57	10	⇓eP	Pn	19 24 07.0	+1.7
DMPH	Davao City--Mi	7.57	9	⇑eP	Pn	19 24 06.8	+1.6
MATI	Mati	7.59	15	eP	Pn	19 24 02.7	-2.9
ZMPH	Zamboanga City	7.66	343	⇓iP	Pn	19 24 05.2	-1.4
TARAI	Tarakan	7.67	299	P	Pn	19 24 04.7	-2.0
	793nm,1.1s						
TSM	Tawau	7.94	306	⇓P	Pn	19 24 09.6	-0.7
MYLDM	Lahad Datu	8.02	314	⇓P	Pn	19 24 12.6	+1.2
PAGZ	Pagadian	8.28	354	eP	Pn	19 24 13.3	-1.6
BUKP	Musuan	8.30	5	eP	Pn	19 24 14.7	-0.4
BIPH	Bislig	8.81	14	⇑eP	Pn	19 24 19.7	-2.5
CGP	Cagayan de Oro	8.84	3	⇓iP	Pn	19 24 22.4	-0.2
DCPH	Dipolog City	9.01	354	⇑eP	Pn	19 24 24.6	-0.2
SDKM	Sandakan	9.29	311	⇓P	Pn	19 24 28.7	0.0
SCPH	Surigao	10.22	7	⇓eP	Pn	19 24 40.3	-1.0
KKM	Kota Kinabalu	10.30	309	⇑iPn	Pn	19 24 42.7	+0.4
KKM				eSn	Sn	19 26 37.3	+1.4
KKM	Kota Kinabalu	10.30	309	⇓P	Pn	19 24 43.5	+1.2
KDM	Kudat	10.41	315	⇓P	Pn	19 24 45.5	+1.7
MSLP	Maasin	10.52	3	eP	Pn	19 24 45.4	+0.2
LLP	Lapu-Lapu	10.69	358	⇑eP	Pn	19 24 47.9	+0.5
GUIM	Jordan	11.12	351	eP	Pn	19 24 53.4	+0.1
BATP	Bataraza	11.21	325	eP	Pn	19 24 54.5	0.0
OCLP	Ormoc	11.42	2	eP	Pn	19 24 57.7	+0.4
PPR	Puerto Princes	11.55	332	eP	Pn	19 25 04.0	+5.0
CUYO	Cuyo Island	11.67	344	eP	Pn	19 25 03.0	+2.4
BTM	Bintulu	11.75	288	⇓P	Pn	19 25 04.5	+2.8
RCP	Roxas	12.01	353	⇑eP	Pn	19 25 06.9	+1.8
KALP	Kalibo	12.19	351	⇓eP	Pn	19 25 10.5	+3.1
KMMI	Kalianget	12.20	237	P	Pn	19 25 08.5	+0.9
	58nm,1.8s						
SBUM	Sibu	12.39	283	⇑P	Pn	19 25 14.2	+4.1
ENPP	El Nido	12.53	338	eP	Pn	19 25 11.7	-0.3
CNP	Catarman	12.87	2	eP	Pn	19 25 18.8	+2.4
OTRP	Odiongan	12.91	350	eP	Pn	19 25 17.6	+0.7
BUSP	Coron	13.00	342	eP	Pn	19 25 17.7	-0.4
PVCP	Virac	13.94	360	eP	Pn	19 25 32.2	+1.9
BOAC	Boac	14.01	350	eP	Pn	19 25 31.7	+0.5
KSM	Kuching	14.09	278	⇑ePn	Pn	19 25 31.0	-1.3
KSM				e		19 25 37.7	
KSM				ePcP	PcP	19 30 46.0	+1.9
KSM				eScP	ScP	19 34 13.1	+5.5
KSM	Kuching	14.09	278	⇓P	Pn	19 25 38.3	+6.0
LUBP	Lubang	14.63	344	eP	Pn	19 25 40.2	+1.0
KAKA	Kakadu	14.64	147	⇓iP	Pn	19 25 34.8	-4.4
	233nm,0.8s						
TGY	Tagaytay City	14.82	347	P	Pn	19 25 42.7	+1.3
	baz=220,slow=5.1,SNR=14						
TGY	Tagaytay City	14.82	347	eP	Pn	19 25 44.5	+3.0
POLP	Polilio Island	15.24	351	eP	Pn	19 25 46.5	-0.3
BJII	Banjamegara	16.06	244	P	Pn	19 25 59.6	+2.6
	246nm,1.7s						
PCPH	Palayan	16.20	349	⇓eP	Pn	19 25 58.7	-0.1
BALP	Baler	16.29	351	eP	Pn	19 25 59.0	-0.9
JAY	Jayapura	16.55	97	P	Pn	19 26 00.4	-2.8
	324nm,1.3s						
SCZP	Santa Cruz	16.67	345	eP	Pn	19 26 03.5	-1.1
TPI	Tanjungpandan	16.77	262	P	Pn	19 26 07.9	+2.1
	94nm,1.0s						
BCPH	Baguio City Da	17.10	348	⇑eP	Pn	19 26 09.2	-0.6
BOLP	Bolinao	17.25	346	eP	Pn	19 26 11.8	+0.2
CAUP	Cauayan	17.44	352	eP	Pn	19 26 13.4	-0.4
PALP	Palanan	17.48	354	eP	Pn	19 26 13.5	-0.9
FITZ	Fitzroy Crossi	17.61	176	P	Pn	19 26 13.1	-2.8
	4.9nm,0.3s,baz=12,slow=9.5,SNR=89						
FITZ				LR	LR	19 33 10.3	
	comp=Z,574nm,21.2s,baz=2.6,slow=37						
LEM	Lembang	17.79	249	P	Pn	19 26 18.9	+0.8
	320nm,1.1s						
MMPI	Merauke	17.92	117	P	Pn	19 26 18.9	-0.8
	1µm,1.3s						
CVP	Callao Caves	18.18	352	⇓eP	P	19 26 22.1	+0.5
ABRA	Dolores	18.31	349	eP	P	19 26 22.1	-0.9
CBJI	Citeko	18.37	251	P	P	19 26 24.6	+0.8
	1µm,1.7s						
APYP	Conner	18.43	351	eP	P	19 26 24.3	0.0
SGCP	Mt. Cagua	18.69	353	eP	P	19 26 27.3	+0.2
SBJI	Serang	18.97	252	P	P	19 26 32.9	+2.6
	347nm,1.7s						
MYKOM	Kota Tinggi	20.54	276	⇓P	P	19 26 49.0	+1.7
MBWA	Marble Bar	21.07	192	⇓iP	P	19 26 52.5	-0.4
	97nm,0.6s,mb5.3						
KGM	Kluang	21.09	277	⇑P	P	19 26 54.9	+1.6
WRA	Warramunga Arr	21.75	154	P	P	19 26 57.6	-2.5
WRA				S	S	19 30 56.2	+1.9
WRA				pmax	pmax		
	comp=Z,84nm,0.7s						
WRA				smax			
	comp=N,7.0nm,1.0s						
WRA				pmax	pmax		
	comp=N,7.0nm,1.2s						
WRA	Warramunga Arr	21.75	154	P	P	19 26 57.6	-2.5
	comp=N,84nm,0.7s,mb5.2,baz=331,slow=11,SNR=223						
WRA				S	S	19 30 56.2	+1.9
	comp=N,6.5nm,0.9s,baz=330,slow=22,SNR=4.1						
WRA				ScP	ScP	19 34 29.5	+5.9
	comp=N,6.9nm,1.2s,baz=344,slow=3.3,SNR=6.0						
WB2	Warramunga Arr	21.75	154	⇓iP	P	19 26 57.7	-2.4
WB2				eS	S	19 30 52.9	-1.5
KTGM	Kuala Trenggan	21.88	285	⇑P	P	19 27 04.4	+2.8
KSI	Kapahiang	21.90	261	P	P	19 27 08.0	+6.2
	comp=N,80nm,1.1s,mb5.0						
FRIM	Kepong	22.93	279	⇓P	P	19 27 14.1	+1.8
IPM	Ipoh	23.73	282	⇑P	P	19 27 20.8	+1.1
PPI	Padang Panjang	23.88	270	P	P	19 27 20.3	-0.7
	comp=N,113nm,1.7s,mb4.9						
QIZ	Qiongzhong	23.98	325	P	P	19 27 22.4	+0.6
QIZ				AP		19 27 43.8	
QIZ				PP		19 28 06.8	
QIZ				S	S	19 31 33.1	+2.5
QIZ				SS		19 32 36.8	
QIZ				SCP	ScP	19 34 25.1	-4.4
QIZ				AMB	AMB		
	comp=Z,137nm,1.1s,mb5.2						
QIZ				AMB	AMB		
	comp=Z,703nm,8.0s						
QIZ	Qiongzhong	23.98	325	⇑eP	P	19 27 21.3	-0.4
	comp=Z,329nm,1.4s,mb5.5						
QIZ				LR	LR		
	comp=Z,1µm,20.0s						
KULM	Kulim	24.27	284	⇑eP	P	19 27 24.4	-0.1
KULM				e		19 27 38.9	
KULM	Kulim	24.27	284	⇑P	P	19 27 26.0	+1.4
PMG	Port Moresby	24.46	112	⇓iP	P	19 27 25.5	-0.7
	comp=Z,242nm,1.0s,mb5.5						
PMG				LR	LR		
	comp=Z,632nm,19.0s						
PMG	Port Moresby	24.46	112	P	P	19 27 26.0	-0.2
	comp=Z,114nm,0.5s,mb5.4,baz=312,slow=6.1,SNR=94						
NACB	Ninganchiao	24.60	354	eP	P	19 27 22.0	-5.4
GUMO	Guam	24.71	55	P	P	19 27 28.5	0.0
GUMO				pmax	pmax		
	comp=Z,49nm,0.5s,mb5.2						
GUMO	Guam	24.71	55	P	P	19 27 28.5	0.0
	comp=Z,49nm,0.5s,mb5.2,baz=178,slow=18,SNR=5.1						
SNG	Songkhla	24.78	288	P	P	19 27 30.0	+0.8
	comp=Z,400nm,1.0s,mb5.8						
ASAR	Alice Springs	24.91	159	P	P	19 27 30.1	-0.1
ASAR						19 31 05.0	
ASAR				S	S	19 31 47.1	+1.7
ASAR						19 38 23.6	
ASAR				pmax	pmax		
	comp=Z,187nm,0.8s						
ASAR				pmax	pmax		
	comp=Z,9.0nm,0.5s						
ASAR				smax			
	comp=N,4.0nm,1.0s						
ASAR				pmax	pmax		
	comp=N,8.0nm,0.9s						
ASAR				pmax	pmax		
	comp=N,1.0nm,0.8s						
ASAR	Alice Springs	24.91	159	P	P	19 27 30.1	-0.2
	comp=N,187nm,0.8s,mb5.6,baz=329,slow=6.6,SNR=823						
ASAR				PcP	PcP	19 31 05.0	+1.8
	comp=N,9.4nm,0.5s,baz=358,slow=2.0,SNR=11						
ASAR				S	S	19 31 47.1	+1.7
	comp=N,4.2nm,1.0s,baz=343,slow=18,SNR=3.1						
ASAR				ScP	ScP	19 34 38.1	+6.1
	comp=N,8.0nm,0.9s,baz=335,slow=2.3,SNR=11						
ASAR				ScS	ScS	19 38 23.6	+3.1
	comp=N,1.3nm,0.8s,baz=331,slow=3.4,SNR=4.9						
YHNB	Yeheng	25.11	354	eP	P	19 27 28.0	-4.0
TATO	Taipei	25.40	354	eP	P	19 27 31.9	-2.8
	comp=N,208nm,1.3s,mb5.4						
TATO				LR	LR		
	comp=Z,785nm,22.0s						
PSI	Prapat	25.55	277	P	P	19 27 35.4	-0.7
PSI				ScP	ScP	19 34 39.5	+5.4
PSI				LR	LR	19 38 16.8	
PSI	Prapat	25.55	277	P	P	19 27 35.4	-0.7
PSI				pmax	pmax		
	comp=Z,61nm,1.2s,mb4.9						
PSI				pmax	pmax		
	comp=N,7.0nm,0.9s						
PSI				MLR	MLR		
	comp=Z,2µm,21.9s						
PSI	Prapat	25.55	277	P	P	19 27 35.4	-0.7
	comp=Z,61nm,1.2s,mb4.9,baz=146,slow=4.3,SNR=28						
PSI				ScP	ScP	19 34 39.5	+5.4
	comp=Z,7.3nm,0.9s,baz=200,slow=7.3,SNR=5.0						
PSI				LR	LR	19 38 16.8	
	comp=Z,2µm,21.9s,baz=254,slow=38						
GZH	Guangzhou	25.68	336	P	P	19 27 40.0	+2.8
GZH				S	S	19 32 08.5	+11
GZH				LR	LR		
	comp=N,830nm,16.5s						
GZH				LR	LR		
	comp=E,484nm,14.6s						
GZH				LR	LR		
	comp=Z,1µm,15.2s						
QZH	Quanzhou	25.82	348	⇓iP	P	19 27 39.6	+1.2
QZH				S	S	19 32 01.8	+2.1
QZH				XS	sS	19 32 39.0	-3.7
QZH				AMB	AMB		
	comp=Z,260nm,1.2s,mb5.5						
QZH				LR	LR		
	comp=Z,2µm,25.8s						
TSI	Tuntungan	25.99	279	P	P	19 27 40.2	+0.1
	comp=Z,76nm,1.2s,mb5.0						
KKTK	Khon Kaen	26.94	309	P	P	19 27 49.0	+0.4
JOW	Kunigami	27.38	8	P	P	19 27 52.6	+0.2
	comp=Z,266nm,0.9s,mb5.8,baz=191,slow=8.1,SNR=27						
NNT	Nongplab	27.57	299	P	P	19 27 56.0	+1.7
NST	Nakhon Sawan	28.72	305	P	P	19 28 04.4	-0.1
CTA	Charters Tower	29.06	134	⇓iP	P	19 28 08.3	+0.9
	comp=Z,41nm,0.9s,mb5.1						
CTA				eS	S	19 32 55.9	+5.0
CTA				eSCP	ScP	19 34 51.7	+7.1
CTA	Charters Tower	29.06	134	⇓iP	P	19 28 08.3	+0.9
CTA				eS	S	19 32 55.9	+5.0
CTA				e		19 34 51.7	
CTA				pmax	pmax		
	comp=Z,41nm,0.9s						
CTA	Charters Tower	29.06	134	P	P	19 28 08.3	+0.9
	comp=Z,49nm,0.9s,mb5.1,baz=315,slow=11,SNR=38						
CTA				ScP	ScP	19 34 51.3	+6.7
	comp=Z,18nm,1.1s,baz=225,slow=5.7,SNR=4.0						
CTA				LR	LR	19 40 41.6	
	comp=Z,854nm,20.2s,baz=313,slow=38						
CTAO	Charters Tower	29.06	134	⇓iP	P	19 28 07.9	+0.5
	comp=Z,103nm,1.3s,mb5.3						
CTAO				eScP	ScP	19 34 51.5	+7.0
CTAO				LR	LR		
	comp=Z,905nm,21.0s						
BSI	Banda Aceh	29.53	282	P	P	19 28 10.1	-1.6
	comp=Z,41nm,1.1s,mb5.0						
COCO	West Island	29.62	246	PFAKE		19 28 20.0	+7.5
COCO				LR	LR		
	comp=Z,858nm,22.0s						
NANT	Nan	30.02	311	⇓P	P	19 28 17.0	+1.0
	comp=Z,988nm,0.8s,mb6.5						
FORT	Forrest	30.39	174	⇓iP	P	19 28 19.0	0.0
	comp=Z,190nm,0.6s,mb5.9						
BDT	Bhumibol Dam	30.47	306	P	P	19 28 21.0	+1.1
	comp=Z,22nm,1.0s,mb4.8						
CHRT	Chiangrai	31.36	311	⇑P	P	19 28 27.5	-0.2
	comp=Z,363nm,0.9s,mb6.1						
CHG	Chiang Mai	31.38	309	⇑P	P	19 28 28.4	+0.5
	comp=Z,94nm,0.9s,mb5.5						
CHTO	Chiang Mai	31.38	309	⇑iP	P	19 28 28.2	+0.2
	comp=Z,60nm,0.8s,mb5.4						
CHTO				e	pP	19 28 50.3	-2.5
CHTO				ePcP	PcP	19 31 21.5	+2.3
CHTO	Chiang Mai	31.38	309	⇑iP	P	19 28 28.2	+0.3
CHTO				e		19 31 21.5	
CHTO				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.3						
SSE	Sheshan	31.49	355	P	P	19 28 29.9	+1.1
SSE				AMB	AMB		
	comp=Z,72nm,1.4s,mb5.2						
SSE				AMB	AMB		
	comp=Z,191nm,3.8s						
SSE				LR	LR		
	comp=N,450nm,34.7s						
SSE				LR	LR		
	comp=E,190nm,35.1s						
SSE				LR	LR		
	comp=Z,692nm,36.6s						
SSE	Sheshan	31.49	355	P	P	19 28 29.9	+1.1
	comp=Z,72nm,1.4s,mb5.2						
SSE				S	S	19 33 46.4	+18
SSE				LR	LR		
	comp=Z,690nm,36.6s						
KLBR	Kellerberrin	31.60	191	⇓iP	P	19 28 29.5	-0.1
	comp=Z,35nm,1.2s,mb5.0						
GYA	Guiyang	31.67	329	⇑iP	P	19 28 33.4	+3.0
GYA				PP	PP	19 29 42.3	-1.8
GYA				S	S	19 33 34.8	+3.1
GYA				XS	sS	19 34 15.6	+0.6
GYA				SCP	ScP	19 34 55.3	+2.3
GYA				SCS	ScS	19 38 52.1	+0.7
GYA				AMB	AMB		
	comp=Z,490nm,1.0s,mb6.2						
GYA				AMB	AMB		
	comp=Z,1µm,5.4s						
GYA				LR	LR		
	comp=Z,9µm,18.4s						
WHN	Wuhan	32.22	344	⇓P	P	19 28 35.5	+0.3
WHN				AMB	AMB		
	comp=Z,309nm,1.0s,mb6.0						
MUN	Mundaring	32.29	193	eP	P	19 28 35.9	+0.2
NJ2	Nanjing	32.72	351	eP	P	19 28 39.8	+0.4
NJ2				AP	pP	19 29 01.9	-2.5
NJ2				XP	sP	19 29 13.3	-4.1
NJ2				PP	PP	19 29 52.1	-3.5
NJ2				S	S	19 33 48.0	+0.3
NJ2				XS	sS	19 34 28.0	-3.2
NJ2				AMB	AMB		
	comp=Z,130nm,0.9s,mb5.8						
NJ2				AMB	AMB		
	comp=Z,300nm,7.2s						
NJ2				LR	LR		
	comp=N,460nm,21.7s						
NJ2				LR	LR		
	comp=E,490nm,19.7s						
NJ2				LR	LR		
	comp=Z,450nm,22.3s						
KMI	Kunming	32.86	322	⇑P	P	19 28 41.8	+1.0
KMI				AP	pP	19 29 04.8	-1.0
KMI				PP	PP	19 29 53.3	-4.0
KMI				PCP	PcP	19 31 23.8	+0.7
KMI				S	S	19 33 51.8	+1.6
KMI				XS	sS	19 34 31.3	-2.3
KMI				PCS	PcS	19 35 08.3	-0.4
KMI				AMB	AMB		

	comp=Z,53nm,1.5s,mb5.2						
KMI				AMB	AMB		
	comp=Z,355nm,7.8s						
KMI				LR	LR		
	comp=N,467nm,13.9s						
KMI				LR	LR		
	comp=E,569nm,22.7s						
KMI				LR	LR		
	comp=Z,1µm,35.1s						
KMI	**Kunming**	**32.86**	**322**	⇑P	**P**	**19 28 41.8**	**+1.0**
	comp=Z,53nm,1.5s,mb5.2						
KMI				pP	pP	19 29 04.7	-1.1
KMI				PP	PP	19 29 53.2	-4.1
KMI				PcP	PcP	19 31 23.8	+0.7
KMI				S	**S**	**19 33 51.8**	**+1.6**
KMI				sS	sS	19 34 31.3	-2.3
KMI				ScP	ScP	19 35 02.9	+5.8
KMI				PcS	PcS	19 35 08.2	-0.5
KMI				SS	SS	19 35 57.5	-19
KMI				SSS		19 36 24.0	
KMI				LR	LR		
	comp=Z,1µm,35.1s						
KMI	**Kunming**	**32.86**	**322**	⇑P	**P**	**19 28 41.8**	**+1.0**
KMI						19 29 53.2	
KMI						19 31 23.8	
KMI				S	**S**	**19 33 51.8**	**+1.6**
KMI				SS	SS	19 35 57.5	-19
KMI				pmax	pmax		
	comp=Z,53nm,1.5s,mb5.2						
KMI				MLR	MLR		
	comp=Z,1µm,35.1s						
NWAO	**Narrogin (SRO)**	**32.99**	**191**	*e*P	**P**	**19 28 41.6**	**-0.2**
	comp=Z,54nm,1.3s,mb5.2						
NWAO				LR	LR		
	comp=Z,732nm,19.0s						
NWAO	**Narrogin (SRO)**	**32.99**	**191**	P	**P**	**19 28 41.5**	**-0.3**
	comp=Z,4.6nm,0.5s,mb4.6,baz=18,slow=8.9,SNR=11						
PBA	**Port Blair**	**33.54**	**292**	*e*P	**P**	**19 28 49.0**	**+2.1**
ENH	**Enshi**	**33.63**	**337**	PFAKE		19 29 00.0	+13
ENH				LR	LR		
	comp=Z,3.0nm,21.0s						
STKA	**Stephens Creek**	**35.30**	**154**	*e*P	**P**	**19 29 01.8**	**0.0**
	comp=Z,27nm,0.6s,mb5.3						
STKA				*e*SCP	ScP	19 35 11.5	+5.9
STKA	**Stephens Creek**	**35.30**	**154**	P	**P**	**19 29 02.0**	**+0.2**
	comp=Z,28nm,0.5s,mb5.3,baz=326,slow=8.7,SNR=86						
STKA				ScP	ScP	19 35 10.9	+5.3
	comp=Z,22nm,1.2s,baz=318,slow=7.9,SNR=5.9						
STKA				LR	LR	19 45 06.6	
	comp=Z,626nm,21.1s,baz=332,slow=39						
EIDS	**Eidsvold**	**35.84**	**136**	*e*P	**P**	**19 29 05.7**	**-0.9**
JHJ	**Hachijo jima 2**	**36.44**	**22**	P	**P**	**19 29 11.4**	**0.0**
	comp=Z,19nm,0.3s,mb5.5,baz=201,slow=15,SNR=5.8						
HNR	**Honiara**	**36.61**	**105**	*e*P	**P**	**19 29 12.2**	**-1.1**
	comp=Z,489nm,0.9s,mb6.4						
HNR	**Honiara**	**36.61**	**105**	*e*P	**P**	**19 29 12.2**	**-1.0**
HNR				pmax	pmax		
	comp=Z,490nm,1.0s,mb6.4						
HNR	**Honiara**	**36.61**	**105**	P	**P**	**19 29 12.7**	**-0.5**
	comp=Z,345nm,0.8s,mb6.3,baz=108,slow=0.8,SNR=7.2						
CD2	**Chengdu**	**36.77**	**330**	⇑*i*P	**P**	**19 29 14.3**	**0.0**
CD2				AP	pP	19 29 39.3	-0.3
CD2				PP	PP	19 30 40.4	+0.1
CD2				PCP	PcP	19 31 33.3	-1.1
CD2				S	**S**	**19 34 56.3**	**+6.3**
CD2				XS	sS	19 35 34.5	+0.6
CD2				SCS	ScS	19 39 15.0	-3.3
CD2				AMB	AMB		
	comp=Z,160nm,1.1s,mb5.9						
CD2				AMB	AMB		
	comp=Z,460nm,7.3s						
CD2				LR	LR		
	comp=N,700nm,21.6s						
CD2				LR	LR		
	comp=Z,750nm,15.5s						
ADE	**Adelaide**	**36.90**	**160**	*e*P	**P**	**19 29 16.9**	**+1.5**
TIA	**Tai’an**	**37.06**	**350**	⇓P	**P**	**19 29 15.8**	**-0.9**
TIA				AMB	AMB		
	comp=Z,148nm,1.0s,mb5.9						
XAN	**Xi’an**	**37.20**	**339**	P	**P**	**19 29 16.8**	**-1.1**
XAN				SS	SS	19 37 43.3	-1.0
XAN				AMB	AMB		
	comp=Z,198nm,1.1s,mb6.0						
XAN				AMB	AMB		
	comp=Z,239nm,12.0s						
XAN				LR	LR		
	comp=N,404nm,25.4s						
XAN				LR	LR		
	comp=E,452nm,16.5s						
XAN				LR	LR		
	comp=Z,696nm,17.2s						
INCN	**Inchon**	**37.79**	**3**	P	**P**	**19 29 24.0**	**+1.1**
	comp=Z,152nm,1.4s,mb5.6						
KSRS	**Korea Array**	**37.85**	**5**	P	**P**	**19 29 23.5**	**+0.1**
	comp=Z,58nm,1.0s,mb5.4,baz=182,slow=9.7,SNR=65						
KSRS				PcP	PcP	19 31 39.5	+1.9
	comp=Z,9.4nm,0.9s,baz=181,slow=3.6,SNR=6.7						
KSRS				ScP	ScP	19 35 20.3	+5.3
	comp=Z,5.0nm,1.1s,baz=188,slow=3.3,SNR=6.6						
KSRS				LR	LR	19 43 43.7	
	comp=Z,472nm,21.1s,baz=193,slow=34						
MAJO	**Matsushiro**	**39.00**	**18**	⇑*i*P	**P**	**19 29 31.3**	**-1.7**
	comp=Z,112nm,0.9s,mb5.7						
MAJO				*e*PP	PP	19 31 02.1	-2.6
MAJO				*e*PcP	PcP	19 31 42.6	+1.5
MAJO				*e*S	**S**	**19 35 20.5**	**-3.1**
MAJO				LR	LR		
	comp=Z,398nm,20.0s						
MAT	**Matsushiro**	**39.00**	**18**	P	**P**	**19 29 31.6**	**-1.4**
MAT				S	**S**	**19 35 21.0**	**-2.6**
MJAR	**Matsushiro Arr**	**39.00**	**18**	P	**P**	**19 29 31.3**	**-1.7**
MJAR						19 31 42.9	
MJAR						19 35 24.8	
MJAR				pmax	pmax		
	comp=Z,41nm,0.9s						
MJAR				pmax	pmax		
	comp=Z,13nm,1.0s						
MJAR				pmax	pmax		
	comp=N,12nm,1.1s						
MJAR				MLR	MLR		
	comp=Z,248nm,18.2s						
MJAR	**Matsushiro Arr**	**39.00**	**18**	P	**P**	**19 29 31.3**	**-1.8**
	comp=Z,41nm,0.9s,mb5.3,baz=195,slow=8.7,SNR=83						
MJAR				PcP	PcP	19 31 42.9	+1.7
	comp=Z,13nm,1.0s,baz=197,slow=3.6,SNR=4.8						
MJAR				ScP	ScP	19 35 24.8	+5.4
	comp=Z,12nm,1.1s,baz=204,slow=3.8,SNR=12						
MJAR				LR	LR	19 46 26.3	
	comp=Z,248nm,18.2s,baz=205,slow=37						
DL2	**Dalian**	**39.23**	**357**	⇓*i*P	**P**	**19 29 36.1**	**+1.3**
DL2				AMB	AMB		
	comp=Z,110nm,0.9s,mb5.7						
TIY	**Taiyuan**	**39.50**	**345**	*i* PR	**P**	**19 29 37.9**	**+0.7**
TIY				S	**S**	**19 35 27.3**	**-3.8**
TIY				LR	LR		
	comp=N,188nm,5.9s						
TIY				LR	LR		
	comp=E,113nm,2.4s						
AGT	**Agartala**	**40.14**	**309**	*i* P	**P**	**19 29 43.0**	**+0.3**
AGT				*i* x	x	19 30 07.0	
SHL	**Shillong**	**40.59**	**312**	*e*P	**P**	**19 29 42.4**	**-4.0**
SHL				AMb	AMB	19 29 45.1	
	comp=Z,440nm,1.2s,mb6.2						
BJT	**Baijiatuau**	**40.94**	**350**	P	**P**	**19 29 47.6**	**-1.4**
BJT				PcP	PcP	19 31 49.2	+1.9
BJT	**Baijiatuau**	**40.94**	**350**	⇑*e*P	**P**	**19 29 47.4**	**-1.6**
	comp=Z,316nm,1.1s,mb6.1						
BJT				*e*PcP	PcP	19 31 48.4	+1.0
BJT				*e*ScP	ScP	19 35 32.1	+5.3
BJT				LR	LR		
	comp=Z,485nm,21.0s						
BJT	**Baijiatuau**	**40.94**	**350**	⇑*e*P	**P**	**19 29 47.4**	**-1.6**
BJT				*e*		19 31 48.4	
BJT				pmax	pmax		
	comp=Z,320nm,1.1s						
BJI	**Beijing**	**40.96**	**351**	P	**P**	**19 29 47.8**	**-1.3**
BJI				AP	pP	19 30 13.9	-0.9
BJI				PP	PP	19 31 24.9	-1.0
BJI				S	**S**	**19 35 58.0**	**+5.3**
BJI				XS	sS	19 36 37.9	+0.7
BJI				SS	SS	19 39 03.8	+4.7
BJI				AMB	AMB		
	comp=Z,265nm,1.1s,mb6.0						
BJI				LR	LR		
	comp=N,322nm,19.1s						
BJI				LR	LR		
	comp=E,491nm,18.8s						
BJI				LR	LR		
	comp=Z,1µm,38.4s						
BJI	**Beijing**	**40.96**	**351**	P	**P**	**19 29 47.8**	**-1.3**
	comp=Z,0.3nm,1.1s						
BJI				pP	pP	19 30 13.9	-0.9
BJI				sP	sP	19 30 25.7	-1.9
BJI				PP	PP	19 31 24.9	-1.0
BJI				S	**S**	**19 35 58.0**	**+5.3**
BJI				sS	sS	19 36 37.9	+0.7
BJI				SS	SS	19 39 03.7	+4.6
BJI				LR	LR		
	comp=Z,1µm,38.4s						
LZH	**Lanzhou**	**41.01**	**334**	*e*P	**P**	**19 29 50.1**	**+0.5**
LZH				AP	pP	19 30 11.8	-3.5
LZH				XP	sP	19 30 20.3	-7.8
LZH				PP	PP	19 31 28.3	+1.8
LZH				*e*S	**S**	**19 35 50.0**	**-3.6**
LZH				XS	sS	19 36 32.0	-6.1
LZH				SS	SS	19 39 05.0	+4.7
LZH				AMB	AMB		
	comp=Z,33nm,1.1s,mb5.1						
LZH				AMB	AMB		
	comp=Z,211nm,4.7s						
LZH				LR	LR		
	comp=E,739nm,15.2s						
LZH				LR	LR		
	comp=Z,2µm,17.0s						
LZH	**Lanzhou**	**41.01**	**334**	*e*P	**P**	**19 29 50.1**	**+0.5**
	comp=Z,33nm,1.1s,mb5.1						
LZH				pP	pP	19 30 11.8	-3.5
LZH				sP	sP	19 30 20.2	-7.9
LZH				PP	PP	19 31 28.2	+1.7
LZH				PcP	PcP	19 31 50.5	+2.9
LZH				*e*S	**S**	**19 35 50.0**	**-3.6**
LZH				sS	sS	19 36 32.0	-6.1
LZH				SS	SS	19 39 05.0	+4.7
LZH				LR	LR		
	comp=Z,2µm,17.0s						
LZH	**Lanzhou**	**41.01**	**334**	*e*P	**P**	**19 29 50.1**	**+0.5**
LZH						19 31 28.2	
LZH						19 31 50.5	
LZH				*e*S	**S**	**19 35 50.0**	**-3.6**
LZH				pmax	pmax		
	comp=Z,33nm,1.1s,mb5.1						
LZH				MLR	MLR		
	comp=Z,2µm,17.0s						
TOO	**Toolangi**	**41.82**	**154**	⇓*i*P	**P**	**19 29 58.0**	**+1.8**
	comp=Z,11nm,0.5s,mb4.8						
TOO	**Toolangi**	**41.82**	**154**	⇓*i*P	**P**	**19 29 58.0**	**+1.8**
TOO				pmax	pmax		
	comp=Z,11nm,0.5s,mb4.8						
CNB	**Canberra Magne**	**41.84**	**149**	⇓*i*P	**P**	**19 29 58.1**	**+1.6**
	comp=Z,90nm,1.0s,mb5.5						
SNY	**Shenyang**	**42.07**	**359**	⇑P	**P**	**19 29 57.0**	**-1.2**
SNY				AMB	AMB		
	comp=Z,69nm,1.3s,mb5.2						
SNY				LR	LR		
	comp=N,559nm,24.9s						
SNY				LR	LR		
	comp=E,380nm,19.8s						
SNY				LR	LR		
	comp=Z,703nm,33.0s						
HHC	**Hu-ho-hao-te**	**42.69**	**346**	*e*P	**P**	**19 30 03.5**	**+0.3**
HHC				AP	pP	19 30 26.3	-2.8
HHC				XP	sP	19 30 37.9	-3.9
HHC				PP	PP	19 31 48.3	+3.8
HHC				PCP	PcP	19 31 53.9	+0.8
HHC				SCP	ScP	19 35 34.5	+0.7
HHC				PCS	PcS	19 35 45.4	+0.2
HHC				S	**S**	**19 36 19.5**	**+1.3**
HHC				XS	sS	19 37 00.3	-2.6
HHC				SCS	ScS	19 39 52.6	-0.2
HHC				AMB	AMB		
	comp=Z,106nm,1.1s,mb5.5						
HHC				AMB	AMB		
	comp=Z,159nm,3.5s						
HHC				LR	LR		
	comp=N,329nm,21.0s						
HHC				LR	LR		
	comp=E,290nm,19.2s						
HHC				LR	LR		
	comp=Z,417nm,18.6s						
BTO	**Baotou**	**42.86**	**344**	*e*P	**P**	**19 30 03.9**	**-0.7**
LSA	**Lhasa**	**43.54**	**316**	P	**P**	**19 30 11.4**	**+1.1**
LSA				AMB	AMB		
	comp=Z,20nm,1.5s,mb4.6						
LSA				AMB	AMB		
	comp=Z,250nm,11.0s						
LSA				LR	LR		
	comp=N,420nm,28.0s						
LSA				LR	LR		
	comp=E,660nm,34.0s						
LSA				LR	LR		
	comp=Z,1µm,36.0s						
LSA	**Lhasa**	**43.54**	**316**	⇑*i*P	**P**	**19 30 11.2**	**+0.9**
	comp=Z,198nm,1.4s,mb5.7						
LSA				*e*PcP	PcP	19 31 58.4	+2.2
LSA				*e*ScP	ScP	19 35 44.1	+6.6
LSA				LR	LR		
	comp=Z,373nm,21.0s						
LSA	**Lhasa**	**43.54**	**316**	⇑*i*P	**P**	**19 30 11.2**	**+0.9**
LSA				*e*		19 31 58.4	
LSA				pmax	pmax		
	comp=Z,200nm,1.4s,mb5.7						
VLA	**Vladivostok**	**43.90**	**8**	*i* P	**P**	**19 30 12.9**	**0.0**
VLA	**Vladivostok**	**43.90**	**8**	*i* P	**P**	**19 30 12.8**	**-0.1**
VLA				pmax	pmax		
	comp=Z,151nm,1.5s,mb5.5						
CN2	**Changchun**	**44.05**	**1**	*e*P	**P**	**19 30 15.8**	**+1.7**
CN2				*e*S	**S**	**19 36 41.3**	**+3.3**
CN2				AMB	AMB		
	comp=Z,30nm,1.3s,mb4.9						
CN2				AMB	AMB		
	comp=Z,200nm,6.0s						
PALK	**Pallekele**	**44.13**	**281**	PFAKE		19 30 30.0	+15
PALK				LR	LR		
	comp=Z,740nm,22.0s						
BOK	**Bokaro**	**44.36**	**306**	*e*x	x	19 32 00.8	
ODAN	**Odare**	**44.67**	**310**	*e*P	**P**	**19 30 19.2**	**-0.2**
TAPN	**Taplejung**	**44.69**	**311**	*e*P	**P**	**19 30 18.4**	**-1.1**
	comp=Z,127nm,1.2s,mb5.5						
MDJ	**Mudanjiang**	**45.10**	**5**	P	**P**	**19 30 22.6**	**+0.1**
MDJ				AP	pP	19 30 46.0	-2.6
MDJ				PP	PP	19 32 09.8	-0.4
MDJ				S	**S**	**19 36 54.3**	**+1.1**
MDJ				XS	sS	19 37 33.3	-5.0
MDJ				AMB	AMB		
	comp=Z,194nm,0.8s,mb5.9						
MDJ				LR	LR		
	comp=N,536nm,25.6s						
MDJ				LR	LR		
	comp=E,277nm,22.0s						
MDJ				LR	LR		
	comp=Z,656nm,28.8s						
GTA	**Gaotai**	**45.54**	**333**	⇑P	**P**	**19 30 26.1**	**+0.1**
GTA				AP	pP	19 30 49.1	-3.1
GTA				XP	sP	19 31 00.3	-4.6
GTA				PCP	PcP	19 32 04.5	+1.6
GTA				PP	PP	19 32 13.8	-1.1
GTA				PCS	PcS	19 35 56.6	-0.4
GTA				S	**S**	**19 37 00.8**	**+1.1**
GTA				XS	sS	19 37 40.6	-4.2
GTA				SCS	ScS	19 40 14.9	+3.9
GTA				AMB	AMB		
	comp=Z,35nm,1.0s,mb5.0						
GTA				AMB	AMB		
	comp=Z,567nm,8.0s						
GTA				LR	LR		
	comp=N,437nm,21.4s						
GTA				LR	LR		
	comp=E,303nm,22.5s						
GTA				LR	LR		
	comp=Z,559nm,19.5s						
JIRN	**Jiri**	**46.00**	**310**	*e*P	**P**	**19 30 30.0**	**+0.2**
NOUC	**Port Laguerre**	**46.24**	**121**	*e*P	**P**	**19 30 32.7**	**+1.0**
NOUC	**Port Laguerre**	**46.24**	**121**	*e*P	**P**	**19 30 32.7**	**+1.0**
DZM	**Mont Dzumac**	**46.35**	**121**	*e*P	**P**	**19 30 34.1**	**+1.4**
GUN	**Gumba**	**46.37**	**311**	*e*P	**P**	**19 30 32.7**	**0.0**
PKI	**Pulchoki**	**46.55**	**310**	*e*P	**P**	**19 30 33.8**	**-0.4**
	comp=Z,184nm,1.4s,mb5.6						
KKN	**Kakani**	**46.76**	**310**	*e*P	**P**	**19 30 35.4**	**-0.4**
	comp=Z,210nm,1.4s,mb5.7						
BLSP	**Bilaspur**	**46.79**	**301**	*e*x	x	19 32 09.1	
DMN	**Daman**	**46.80**	**310**	*e*P	**P**	**19 30 36.2**	**+0.1**
	comp=Z,254nm,1.3s,mb5.8						
TAU	**Tasmania Unive**	**47.06**	**157**	*e*P	**P**	**19 30 39.0**	**+1.1**
	comp=Z,24nm,1.0s,mb4.9						
TAU				LR	LR		
	comp=Z,870nm,21.0s						
GKN	**Gorkha**	**47.36**	**310**	*e*P	**P**	**19 30 39.8**	**-0.6**
	comp=Z,192nm,1.2s,mb5.7						
KOD	**Kodaikanal**	**47.75**	**284**	*e*P	**P**	**19 30 42.0**	**-1.7**
TRD	**Trivandrum**	**47.97**	**282**	*e*P	**P**	**19 30 44.4**	**-1.0**
HYB	**Hyderabad**	**48.37**	**294**	*e*P	**P**	**19 30 47.5**	**-0.9**
	comp=Z,165nm,1.0s,mb5.8						
HYB	**Hyderabad**	**48.37**	**294**	*e*P	**P**	**19 30 47.5**	**-0.9**
HYB				pmax	pmax		
	comp=Z,165nm,1.0s,mb5.8						
HYB	**Hyderabad**	**48.37**	**294**	*i* P	**P**	**19 30 47.5**	**-0.9**
	comp=Z,165nm,1.0s,mb5.8						
NGP	**Nagpur**	**49.10**	**299**	*e*P	**P**	**19 30 52.4**	**-1.6**
NGP				AMb	AMB	19 30 55.9	
	comp=Z,140nm,3.0s						
HABR	**Khabarovsk**	**49.60**	**9**	⇑*i*P	**P**	**19 30 57.8**	**+0.6**
HABR				*e*		19 32 17.4	
HABR				*e*S	**S**	**19 38 06.9**	**+10**
HABR				*e*		19 40 46.0	
HABR				pmax	pmax		
	comp=Z,272nm,1.6s,mb5.9						
HIA	**Hailar**	**49.66**	**356**	⇑*i*P	**P**	**19 30 57.0**	**-0.6**
	comp=Z,199nm,0.9s,mb6.0						
HIA				*e*PcP	PcP	19 32 18.7	+1.3
HIA				*e*ScP	ScP	19 36 04.5	+1.8
HIA				LR	LR		
	comp=Z,470nm,19.0s						
HIA	**Hailar**	**49.66**	**356**	⇑*i*P	**P**	**19 30 57.0**	**-0.7**
HIA				*e*		19 32 18.7	
HIA				pmax	pmax		
	comp=Z,200nm,1.0s						
KLR	**Kul’dur**	**49.89**	**6**	⇓*i*P	**P**	**19 30 55.5**	**-3.9**
KLR				pmax	pmax		
	comp=N,34nm,1.6s						
KLR				pmax	pmax		
	comp=E,45nm,1.6s						
KLR				pmax	pmax		
	comp=Z,170nm,1.6s,mb5.7						
YSS	**Yuzh-Sakhalins**	**49.89**	**16**	⇑*i*P	**P**	**19 30 59.1**	**-0.4**
	comp=Z,84nm,1.1s,mb5.6						
YSS				*e*PcP	PcP	19 32 20.3	+2.0
YSS				*e*PP	PP	19 32 58.8	+3.4
YSS				LR	LR		
	comp=Z,280nm,19.0s						
YSS	**Yuzh-Sakhalins**	**49.89**	**16**	⇑*i*P	**P**	**19 30 59.0**	**-0.5**
YSS				*e*		19 32 59.0	
YSS				*e*		19 38 00.0	
YSS				pmax	pmax		
	comp=Z,80nm,1.1s,mb5.6						
ULN	**Ulaanbaatar**	**50.39**	**345**	PFAKE		19 31 20.0	+17
ULN				LR	LR		
	comp=Z,323nm,20.0s						
SONM	**Songino Array**	**50.53**	**344**	P	**P**	**19 31 03.7**	**-0.6**
SONM						19 32 21.9	
SONM				pmax	pmax		
	comp=Z,100nm,1.0s						
SONM				pmax	pmax		
	comp=Z,22nm,0.9s						
SONM				pmax	pmax		
	comp=N,2.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,477nm,19.6s						
SONM	**Songino Array**	**50.53**	**344**	P	**P**	**19 31 03.7**	**-0.6**
	comp=Z,100nm,1.0s,mb5.8,baz=160,slow=8.9,SNR=135						
SONM				PcP	PcP	19 32 21.9	+1.3
	comp=Z,22nm,0.9s,baz=150,slow=3.7,SNR=7.2						
SONM				ScP	ScP	19 36 09.2	+2.8
	comp=Z,1.8nm,0.8s,baz=174,slow=4.8,SNR=4.3						
SONM				LR	LR	19 54 48.2	
	comp=Z,477nm,19.6s,baz=167,slow=39						
SONM				PKP2ab		20 02 44.5	
	comp=Z,0.9nm,1.1s,baz=328,slow=2.3,SNR=4.6						
AKL	**Akola**	**50.75**	**297**	⇑*i*P	**P**	**19 31 05.2**	**-1.2**
AKL				*e*x	x	19 31 08.6	
	comp=Z,327nm,1.1s						
AKL				*i* x	x	19 38 12.0	
BHPL	**Bhopal**	**51.24**	**301**	*e*P	**P**	**19 31 09.7**	**-0.4**
BHPL				AMb	AMB	19 31 12.5	
	comp=Z,194nm,1.5s,mb5.9						
KAD	**Karad**	**52.37**	**292**	*e*P	**P**	**19 31 16.4**	**-2.1**
KAD				*i* P		19 31 16.5	
KAD				AMb	AMB	19 31 20.1	
	comp=Z,60nm,0.9s,mb5.6						
POO	**Poona**	**52.98**	**294**	*e*P	**P**	**19 31 21.6**	**-1.5**
POO				AMb	AMB	19 31 24.6	
	comp=Z,78nm,1.1s,mb5.7						
CIT	**Chita**	**53.04**	**352**	*e*P	**P**	**19 31 23.4**	**+0.5**
CIT				pmax	pmax		
	comp=Z,214nm,1.8s,mb5.9						
NDI	**New Delhi**	**53.49**	**307**	*e*P	**P**	**19 31 23.8**	**-2.8**
NDI				AMb	AMB	19 31 27.8	
	comp=Z,102nm,1.6s,mb5.6						
ZAK	**Zakamensk**	**53.71**	**343**	⇑*i*P	**P**	**19 31 27.1**	**-0.7**
ZAK				*e*		19 32 33.9	
ZAK				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.3						
ZAK				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
AJM	**Ajmer**	**54.75**	**303**	*e*P	**P**	**19 31 34.5**	**-1.3**
AJM				AMb	AMB	19 31 37.8	
	comp=Z,111nm,1.2s,mb5.8						
TLY	**Talaya**	**54.78**	**344**	⇑*e*P	**P**	**19 31 35.0**	**-0.5**
	comp=Z,100nm,1.0s,mb5.8						
TLY				LR	LR		
	comp=Z,314nm,20.0s						
TLY	**Talaya**	**54.78**	**344**	*e*P	**P**	**19 31 35.2**	**-0.3**
TLY				*e*		19 34 51.7	
TLY				*e*S	**S**	**19 39 16.3**	**+8.9**
TLY				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.2						
TLY				MLR	MLR		
	comp=Z,291nm,19.0s						
TLY	**Talaya**	**54.78**	**344**	P	**P**	**19 31 35.6**	**+0.1**
	SNR=40						
WMQ	**Urumqi**	**54.83**	**328**	P	**P**	**19 31 37.6**	**+1.6**
WMQ				AP	pP	19 32 02.6	-0.4
WMQ				PCP	PcP	19 32 38.6	+1.6
WMQ				PP	PP	19 33 43.3	+3.3
WMQ				S	**S**	**19 39 08.6**	**+0.2**
WMQ				SCS	ScS	19 41 13.6	-0.7
WMQ				SS	SS	19 42 53.3	-0.1
WMQ				AMB	AMB		
	comp=Z,178nm,1.0s,mb6.0						
WMQ				AMB	AMB		
	comp=Z,64nm,9.2s						
WMQ				LR	LR		
	comp=N,421nm,22.8s						
WMQ				LR	LR		
	comp=E,445nm,24.0s						
WMQ				LR	LR		
	comp=Z,568nm,23.6s						
IRK	**Irkutsk**	**55.12**	**345**	*e*P	**P**	**19 31 37.1**	**-0.9**
IRK				*e*		19 32 38.9	
IRK				pmax	pmax		
	comp=Z,118nm,1.4s,mb5.7						
FUNA	**Funafuti**	**55.28**	**100**	*e*P	**P**	**19 31 41.2**	**+1.3**
	comp=Z,40nm,1.0s,mb5.4						
MOY	**Mondy**	**55.52**	**343**	*e*P	**P**	**19 31 41.0**	**+0.2**
MOY				pmax	pmax		
	comp=Z,154nm,1.9s,mb5.7						
THN	**Thein Dam**	**56.24**	**310**	*e*P	**P**	**19 31 44.3**	**-2.1**
THN				*e*x	x	19 36 35.8	
NRGR	**Nerungri**	**56.91**	**0**	*e*P	**P**	**19 31 43.8**	**-6.8**
CLNS	**Chul’man**	**57.09**	**0**	*c i*P	**P**	**19 31 52.5**	**+0.6**
CLNS				*e*		19 32 42.3	
CLNS				*e*S	**S**	**19 39 33.4**	**-4.6**
CLNS				*e*		19 41 41.2	
CLNS				pmax	pmax		
	comp=Z,217nm,0.9s,mb6.2						
CLNS				pmax	pmax		
	comp=N,135nm,1.0s						
CLNS				pmax	pmax		
	comp=E,54nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,46nm,1.1s,mb5.4						
CLNS				pmax	pmax		
	comp=N,30nm,1.0s						
CLNS				pmax	pmax		
	comp=E,25nm,1.2s						

CLNS				smax			
	comp=N,109nm,13.6s						
CLNS				smax			
	comp=Z,54nm,13.2s						
CLNS				smax			
	comp=E,132nm,14.3s						
BHJ	**Bhuj**	**58.03**	**298**	*e*P	**P**	**19 31 58.0**	**-1.1**
BHJ				AMb	AMB	19 31 60.0	
	comp=Z,105nm,1.3s,mb5.7						
BOD	**Bodaibo**	**58.65**	**354**	*e*P	**P**	**19 32 02.3**	**-0.5**
BOD				pmax	pmax		
	comp=Z,177nm,1.2s,mb6.0						
KSH	**Kashi**	**59.35**	**318**	⇑*i*P	**P**	**19 32 10.0**	**+2.0**
KSH				*e*PCP	PcP	19 32 55.1	+0.3
KSH				*e*PP	PP	19 34 26.0	+5.6
KSH				*e*PCS	PcS	19 36 55.6	-1.3
KSH				*e*S	**S**	**19 40 06.4**	**-1.6**
KSH				*e*SCS	ScS	19 41 41.3	-6.2
KSH				*e*SS	SS	19 44 08.3	+3.5
KSH				AMB	AMB		
	comp=Z,1µm,1.9s,mb6.5						
KSH				LR	LR		
	comp=Z,633nm,7.2s						
MK31	**Makanchi Array**	**59.65**	**328**	*i* P	**P**	**19 32 08.0**	**-1.9**
MK31	**Makanchi Array**	**59.65**	**328**	*i* P	**P**	**19 32 08.9**	**-1.0**
MK31				pmax	pmax		
	comp=Z,176nm,0.9s,mb6.1						
MKAR	**Makanchi Array**	**59.65**	**328**	P	**P**	**19 32 09.3**	**-0.6**
MKAR				PcP	PcP	19 32 56.5	+0.7
MKAR				ScP	ScP	19 36 50.0	+3.5
MKAR				LR	LR	19 59 01.1	
MKAR				⇑*e*		20 01 46.4	
MKAR	**Makanchi Array**	**59.65**	**328**	P	**P**	**19 32 09.3**	**-0.6**
MKAR						19 32 56.5	
MKAR				pmax	pmax		
	comp=Z,71nm,0.7s						
MKAR				pmax	pmax		
	comp=Z,48nm,0.9s						
MKAR				pmax	pmax		
	comp=N,3.0nm,0.8s						
MKAR				MLR	MLR		
	comp=Z,378nm,20.6s						
MKAR	**Makanchi Array**	**59.65**	**328**	P	**P**	**19 32 09.3**	**-0.6**
	comp=Z,71nm,0.7s,mb5.8,baz=131,slow=7.7,SNR=290						
MKAR				PcP	PcP	19 32 56.5	+0.7
	comp=Z,48nm,0.9s,baz=114,slow=5.4,SNR=9.9						
MKAR				ScP	ScP	19 36 50.0	+3.5
	comp=Z,3.0nm,0.8s,baz=138,slow=4.6,SNR=4.1						
MKAR				LR	LR	19 59 01.1	
	comp=Z,378nm,20.6s,baz=93,slow=37						
MKAR				PKP2bc		20 01 46.4	
	comp=Z,0.5nm,0.8s,baz=265,slow=7.2,SNR=3.8						
RPZ	**Rata Peaks**	**59.88**	**142**	LR	LR	19 58 27.5	
	comp=Z,713nm,21.0s,baz=311,slow=36						
PET	**Petropavlovsk**	**60.49**	**23**	⇑*i*P	**P**	**19 32 16.8**	**+1.3**
	comp=Z,246nm,1.2s,mb6.1						
PET	**Petropavlovsk**	**60.49**	**23**	⇓*i*P	**P**	**19 32 16.6**	**+1.1**
PET				pmax	pmax		
	comp=Z,233nm,1.2s,mb6.1						
SNZO	**South Karori**	**61.00**	**138**	*e*P	**P**	**19 32 19.4**	**+0.2**
	comp=Z,34nm,0.6s,mb5.5						
AAK	**Ala-Archa**	**61.87**	**320**	P	**P**	**19 32 24.3**	**-0.7**
	comp=Z,336nm,1.0s,mb6.3,SNR=50						
AAK	**Ala-Archa**	**61.87**	**320**	⇑*i*P	**P**	**19 32 23.9**	**-1.1**
	comp=Z,90nm,1.2s,mb5.7						
AAK				*e*PcP	PcP	19 33 05.6	+0.7
AAK				LR	LR		
	comp=Z,406nm,22.0s						
AAK	**Ala-Archa**	**61.87**	**320**	P	**P**	**19 32 24.0**	**-1.0**
	SNR=54						
FRU	**Bishkek**	**61.90**	**321**	*e*P	**P**	**19 32 24.0**	**-1.2**
FRU				pmax	pmax		
	comp=Z,120nm,2.0s,mb5.6						
RAO	**Raoul Island**	**62.02**	**123**	LR	LR	19 56 16.8	
	comp=Z,354nm,19.7s,baz=335,slow=33						
YAK	**Yakutsk**	**62.44**	**3**	⇑*i*P	**P**	**19 32 28.4**	**0.0**
	comp=Z,510nm,0.8s,mb6.6						
YAK				LR	LR		
	comp=Z,206nm,22.0s						
YAK	**Yakutsk**	**62.44**	**3**	*c* *i*P	**P**	**19 32 28.7**	**+0.3**
YAK				pmax	pmax		
	comp=Z,509nm,0.8s,mb6.6						
ZALV	**Zalesovo Beam**	**63.24**	**335**	P	**P**	**19 32 32.2**	**-1.6**
ZALV				PcP	PcP	19 33 08.8	-1.4
ZALV				LR	LR	20 01 11.6	
ZALV				⇑*e*		20 01 38.7	
ZALV	**Zalesovo Beam**	**63.24**	**335**	P	**P**	**19 32 32.2**	**-1.6**
	comp=Z,34nm,0.9s,mb5.3,baz=120,slow=5.9,SNR=110						
ZALV				PcP	PcP	19 33 08.8	-1.4
	comp=Z,17nm,0.9s,baz=151,slow=3.4,SNR=6.7						
ZALV				LR	LR	20 01 11.6	
	comp=Z,216nm,18.8s,baz=293,slow=37						
ZALV				PKP2bc		20 01 38.7	
	comp=Z,2.1nm,0.9s,baz=292,slow=4.7,SNR=9.1						
ZAL	**Zalesovo**	**63.24**	**335**	P	**P**	**19 32 32.2**	**-1.7**
ZAL						19 33 08.8	
MA2	**Magadan**	**63.32**	**15**	⇑*i*P	**P**	**19 32 35.3**	**+1.0**
	comp=Z,107nm,0.9s,mb5.8						
MA2				*e*PcP	PcP	19 33 11.1	+0.7
MA2				LR	LR		
	comp=Z,263nm,20.0s						
KURK	**Kurchatov**	**63.99**	**330**	⇑*i*P	**P**	**19 32 38.0**	**-0.9**
	comp=Z,286nm,0.9s,mb6.1						
KURK				*e*PcP	PcP	19 33 13.1	-0.3
KURK				*e*PP	PP	19 34 56.3	-4.7
KURK				LR	LR		
	comp=Z,209nm,19.0s						
KURK	**Kurchatov**	**63.99**	**330**	P	**P**	**19 32 38.3**	**-0.5**
	SNR=121						
NVS	**Novosibirsk**	**64.52**	**335**	*i* P	**P**	**19 32 40.4**	**-1.9**
NVS				*i*		19 33 14.4	
NVS				*i* S	**S**	**19 41 14.7**	**+2.2**
NVS				pmax	pmax		
	comp=Z,105nm,1.1s,mb5.6						
NVS				pmax	pmax		
	comp=N,80nm,1.4s						
NVS				pmax	pmax		
	comp=E,65nm,1.4s						
NVS				smax			
	comp=N,19nm,1.7s						
NVS				smax			
	comp=E,33nm,1.7s						
KK31	**Karatay Array**	**64.67**	**319**	*i* P	**P**	**19 32 42.3**	**-1.2**
KK31				pmax	pmax		
	comp=Z,49nm,1.1s,mb5.2						
KKAR	**Karatay Array**	**64.67**	**319**	*i* P	**P**	**19 32 42.3**	**-1.2**
KKAR				pmax	pmax		
	comp=Z,57nm,1.2s,mb5.3						
SEY	**Seymchan**	**66.62**	**14**	⇑*e*P	**P**	**19 32 56.9**	**+1.3**
JMDO	**Jabal Madar**	**68.22**	**294**	⇓P	**P**	**19 33 05.2**	**-1.3**
	SNR=8.5						
SMDO	**Samad**	**68.39**	**295**	⇑P	**P**	**19 33 08.0**	**+0.4**
	SNR=8.8						
BIDO	**Bidbid**	**68.40**	**295**	⇑P	**P**	**19 33 06.5**	**-1.1**
	SNR=14						
BSY	**Bisya**	**69.10**	**294**	⇓P	**P**	**19 33 11.1**	**-0.9**
	SNR=12						
HOQ	**Hoqain**	**69.14**	**295**	⇑P	**P**	**19 33 13.4**	**+1.1**
	SNR=13						
BRVK	**Borovoye**	**69.58**	**329**	P	**P**	**19 33 13.0**	**-1.3**
	comp=Z,817nm,1.1s,mb6.5,SNR=75						
BRVK	**Borovoye**	**69.58**	**329**	*e*P	**P**	**19 33 13.6**	**-0.7**
	comp=Z,170nm,1.1s,mb5.8						
BRVK				LR	LR		
	comp=Z,266nm,19.0s						
BRVK	**Borovoye**	**69.58**	**329**	P	**P**	**19 33 13.3**	**-1.0**
	SNR=62						
HATD	**Hatta, Dubai**	**70.42**	**296**	P	**P**	**19 33 18.8**	**-1.2**
	SNR=9.7						
RBK	**Rabkut**	**71.16**	**289**	⇑P	**P**	**19 33 23.6**	**-1.0**
	SNR=5.4						
WHFO	**Wadi Hawf**	**71.61**	**289**	P	**P**	**19 33 25.8**	**-1.5**
	SNR=10						
ABKT	**Ailbek**	**71.64**	**310**	P	**P**	**19 33 26.1**	**-1.0**
	comp=Z,138nm,0.9s,mb5.8,SNR=14						
ABTO	**Aybut**	**72.00**	**288**	⇑P	**P**	**19 33 28.2**	**-1.5**
	SNR=14						
AB31	**Akbulak array**	**73.85**	**322**	*i* P	**P**	**19 33 39.1**	**-0.9**
AB31				pmax	pmax		
	comp=Z,1.0nm,0.3s						
BILL	**Bilibino**	**74.18**	**15**	*e*P	**P**	**19 33 41.0**	**-0.6**
	comp=Z,67nm,1.4s,mb5.2						
BILL				*e*PP	PP	19 36 25.0	-3.6
BILL				LR	LR		
	comp=Z,201nm,20.0s						
BILL	**Bilibino**	**74.18**	**15**	⇑*i*P	**P**	**19 33 42.0**	**+0.5**
BILL				pmax	pmax		
	comp=Z,47nm,1.4s,mb5.0						
AKTK	**Aktyubinsk**	**75.42**	**323**	P	**P**	**19 33 48.4**	**-0.6**
AKTO	**Aktyubinsk**	**75.42**	**323**	P	**P**	**19 33 48.4**	**-0.6**
AKTO				pmax	pmax		
	comp=Z,45nm,0.8s,mb5.2						
AKTO	**Aktyubinsk**	**75.42**	**323**	P	**P**	**19 33 48.4**	**-0.6**
	comp=Z,45nm,0.8s,mb5.3,baz=106,slow=6.9,SNR=108						
SVE	**Sverdlovsk**	**76.24**	**330**	⇑*e*P	**P**	**19 33 54.0**	**+0.5**
SVE				pmax	pmax		
	comp=Z,250nm,1.5s,mb5.7						
ARU	**Arti**	**77.16**	**329**	P	**P**	**19 33 57.7**	**-1.0**
	comp=Z,340nm,0.9s,mb6.1,SNR=21						
ARU	**Arti**	**77.16**	**329**	⇑*i*P	**P**	**19 33 57.3**	**-1.4**
	comp=Z,55nm,0.9s,mb5.3						
ARU				LR	LR		
	comp=Z,341nm,22.0s						
ARU	**Arti**	**77.16**	**329**	⇑*i*P	**P**	**19 33 57.6**	**-1.1**
ARU				*e*		19 34 07.2	
ARU				*e*		19 36 51.4	
ARU				*e*PPP		19 38 36.4	
ARU				*e*S	S	19 43 45.2	+6.5
ARU				*e*SSS		19 52 04.4	
ARU				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.3						
UNV	**Unalaska Valle**	**78.22**	**34**	⇑*i*P	**P**	**19 34 05.7**	**+1.0**
	comp=Z,794nm,1.6s,mb6.2						
UMR	**Umm Al-Rimmam**	**78.53**	**300**	*e*P	**P**	**19 34 05.7**	**-1.2**
UMR				AMb	AMB	19 34 10.2	
	comp=Z,83nm,1.3s,mb5.4						
RDF	**Al-Radifah**	**78.60**	**299**	*e*P	**P**	**19 34 06.1**	**-1.2**
RDF				AMb	AMB	19 34 09.8	
	comp=Z,58nm,1.2s,mb5.3						
AKUT	**Akutan**	**78.72**	**34**	*e*P	**P**	**19 34 08.9**	**+1.5**
	comp=Z,431nm,1.2s,mb6.2						
AKUT				LR	LR		
	comp=Z,500nm,19.0s						
MIB	**Mutribah**	**78.89**	**300**	*e*P	**P**	**19 34 07.6**	**-1.3**
MIB				AMb	AMB	19 34 11.3	
	comp=Z,92nm,0.8s,mb5.6						
NAY	**Al-Naaiem**	**78.91**	**300**	*e*P	**P**	**19 34 07.6**	**-1.3**
NAY				AMb	AMB	19 34 12.1	
	comp=Z,50nm,1.3s,mb5.2						
MAW	**Mawson**	**79.03**	**200**	P	**P**	**19 34 11.0**	**+2.2**
MAW				pmax	pmax		
	comp=Z,6.0nm,1.0s						
MAW				MLR	MLR		
	comp=Z,155nm,19.8s						
MAW	**Mawson**	**79.03**	**200**	P	**P**	**19 34 11.0**	**+2.2**
	comp=Z,5.7nm,1.0s,baz=26,slow=5.2,SNR=3.6						
MAW				LR	LR	20 07 36.7	
	comp=Z,155nm,19.8s,baz=195,slow=34						
SOKR	**Solikamsk**	**79.14**	**331**	*d* *i*P	**P**	**19 34 09.2**	**-0.4**
SOKR				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.1						
GAMB	**Gambell**	**79.17**	**24**	⇑*i*P	**P**	**19 34 11.5**	**+1.9**
VNDA	**Vanda**	**79.64**	**172**	P	**P**	**19 34 14.1**	**+2.1**
VNDA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
VNDA				MLR	MLR		
	comp=Z,308nm,18.6s						
VNDA	**Vanda**	**79.64**	**172**	P	**P**	**19 34 14.1**	**+2.1**
	comp=Z,4.1nm,0.8s,baz=296,slow=6.6,SNR=12						
VNDA				LR	LR	20 11 37.8	
	comp=Z,308nm,18.6s,baz=330,slow=37						
TNA	**Tin City**	**81.35**	**23**	⇑*e*P	**P**	**19 34 22.5**	**+1.2**
	comp=Z,40nm,1.1s,mb5.2						
SDPT	**Sand Point**	**82.00**	**34**	*e*P	**P**	**19 34 25.9**	**+1.0**
ZEI	**Tsey**	**83.22**	**313**	*e*P	**P**	**19 34 32.1**	**+0.5**
ZEI				*i*		19 34 40.1	
ZEI				*e*		19 37 41.1	
ZEI				pmax	pmax		
	comp=Z,47nm,1.1s,mb5.2						
GOF	**Gofitskoye**	**84.11**	**315**	⇑*i*P	**P**	**19 34 53.2**	**+17**
GOF				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.2						
KIV	**Kislovodsk**	**84.24**	**314**	⇑*i*P	**P**	**19 34 36.2**	**-0.5**
	comp=Z,13nm,0.8s,mb4.8						
KIV				LR	LR		
	comp=Z,234nm,19.0s						
KIV	**Kislovodsk**	**84.24**	**314**	*e*P	**P**	**19 34 36.6**	**-0.1**
KIV				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.7						
KIV				MLR	MLR		
	comp=Z,147nm,20.0s						
PRGR	**Permogore**	**84.99**	**332**	⇑*i*P	**P**	**19 34 39.6**	**-0.5**
PRGR				*e*S	S	19 44 56.1	-3.5
SVW2	**Sparrevohn**	**85.61**	**29**	*e*P	**P**	**19 34 45.2**	**+2.0**
VRHR	**Novokhopersk**	**85.71**	**321**	*e*P	**P**	**19 34 43.4**	**-0.5**
VRHR				pmax	pmax		
	comp=Z,70nm,0.8s,mb5.6						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VRHR				pmax	pmax		
	comp=E,30nm,0.7s						
PPT	**Papeete**	**86.20**	**107**	*e*S	S	19 45 12.4	-0.8
	comp=E,237nm,25.2s						
PPT				*e*SS	SS	19 50 58.0	+3.2
	comp=E,136nm,27.8s						
PPT				*e*LR	LR	20 02 51.6	
	comp=E,414nm,32.0s						
PPT	**Papeete**	**86.20**	**107**	LR	LR	20 12 25.1	
	comp=E,53nm,18.2s,baz=180,slow=35						
SOC	**Sochi**	**86.35**	**314**	*i* P	**P**	**19 34 46.8**	**-0.4**
SOC	**Sochi**	**86.35**	**314**	*c* *i*P	**P**	**19 34 46.3**	**-0.9**
SOC				*e*		19 38 07.9	
SOC				*e*PPP		19 40 01.8	
SOC				*e*S	S	19 45 08.4	-5.2
SOC				*e*SSS		19 54 32.4	
SOC				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.2						
MALT	**Malatya**	**87.00**	**308**	⇑*e*P	**P**	**19 34 51.1**	**+0.5**
	comp=Z,23nm,1.0s,mb5.0						
MALT	**Malatya**	**87.00**	**308**	⇑*e*P	**P**	**19 34 51.1**	**+0.6**
MALT				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.1						
MALT	**Malatya**	**87.00**	**308**	⇑*i*P	**P**	**19 34 51.6**	**+1.1**
KMBO	**Kilima Mbogo**	**87.01**	**269**	P	**P**	**19 34 53.1**	**+2.0**
KMBO				pmax	pmax		
	comp=Z,67nm,1.0s						
KMBO				MLR	MLR		
	comp=Z,222nm,20.5s						
KMBO	**Kilima Mbogo**	**87.01**	**269**	P	**P**	**19 34 53.0**	**+1.9**
	comp=Z,66nm,0.9s,mb5.5,baz=65,slow=6.1,SNR=118						
KMBO				LR	LR	20 10 22.4	
	comp=Z,222nm,20.5s,baz=278,slow=33						
IMA2	**Indian Mountai**	**87.16**	**24**	*e*P	**P**	**19 34 52.3**	**+1.6**
VORD	**Divnogorie**	**87.16**	**321**	*e*P	**P**	**19 34 50.2**	**-0.8**
VORD				*e**PP	pP	19 35 01.1	-19
VORD				pmax	pmax		
	comp=N,120nm,0.8s						
VORD				pmax	pmax		
	comp=Z,70nm,0.8s,mb5.6						
VORD				pmax	pmax		
	comp=E,40nm,0.4s						
VRSR	**Storozhevoye**	**87.25**	**321**	*e*P	**P**	**19 34 50.6**	**-0.8**
VRSR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
VRSR				pmax	pmax		
	comp=N,5.0nm,1.1s						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.0s						
SYO	**Syowa Base**	**87.68**	**201**	⇑*i*P	**P**	**19 34 55.0**	**+1.9**
SYO	**Syowa Base**	**87.68**	**201**	⇓*i*PcP	PcP	19 34 56.2	+1.3
ANN	**Anapa**	**88.06**	**315**	*e*P	**P**	**19 34 54.1**	**-1.3**
ANN				pmax	pmax		
	comp=Z,77nm,1.0s,mb5.7						
SLKM	**Skilak Lake**	**88.15**	**30**	*e*P	**P**	**19 34 55.6**	**+0.1**
MOS	**Moscow**	**88.46**	**326**	*e*P	**P**	**19 34 55.7**	**-1.4**
MOS				*e*		19 38 25.3	
MOS				pmax	pmax		
	comp=Z,185nm,1.8s,mb5.8						
MCK	**McKinley**	**88.96**	**26**	*e*P	**P**	**19 34 59.3**	**+0.1**
	comp=Z,20nm,1.0s,mb5.1						
MCK	**McKinley**	**88.96**	**26**	*e*P	**P**	**19 34 59.3**	**+0.1**
MCK				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
OBN	**Obninsk**	**89.04**	**325**	P	**P**	**19 34 59.0**	**-0.8**
	comp=Z,455nm,1.0s,mb6.5,SNR=6.1						
OBN	**Obninsk**	**89.04**	**325**	*e*P	**P**	**19 34 58.9**	**-0.9**
	comp=Z,359nm,1.7s,mb6.1						
OBN				LR	LR		
	comp=Z,321nm,21.0s						
OBN	**Obninsk**	**89.04**	**325**	α *i*P	**P**	**19 34 59.4**	**-0.4**
OBN				*e*		19 35 12.7	
OBN				pmax	pmax		
	comp=Z,209nm,1.8s,mb5.9						
COLA	**College**	**89.48**	**25**	*e*P	**P**	**19 35 01.3**	**-0.3**
	comp=Z,11nm,0.9s,mb4.9						
COLA	**College**	**89.48**	**25**	⇓*e*P	**P**	**19 35 02.1**	**+0.4**
QSPA	**South Pole Qui**	**89.50**	**180**	PFAKE		19 35 10.0	+8.5
QSPA				LR	LR		
	comp=Z,397nm,19.0s						
EIL	**Elat**	**89.62**	**300**	P	**P**	**19 35 03.5**	**+0.3**
EIL	**Elat**	**89.62**	**300**	P	**P**	**19 35 03.5**	**+0.3**
	comp=Z,10nm,0.9s,mb4.9,baz=1.3,slow=4.7,SNR=6.1						
SIM	**Simferopol’**	**90.42**	**315**	*e*P	**P**	**19 35 05.9**	**-0.6**
SIM				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.2						
APA	**Apatity**	**90.73**	**337**	⇓*i*P	**P**	**19 35 06.4**	**-1.0**
APA				*i*		19 35 25.4	
APA				pmax	pmax		
	comp=Z,64nm,1.3s,mb5.6						
APA				MLR	MLR		
	comp=Z,700nm,16.0s						
BRTR	**Keskin Array B**	**90.77**	**310**	P	**P**	**19 35 07.7**	**-0.5**
BRTR						19 38 43.8	
BRTR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BRTR	**Keskin Array B**	**90.77**	**310**	P	**P**	**19 35 07.7**	**-0.6**
	comp=Z,8.4nm,0.9s,mb4.9,baz=109,slow=5.7,SNR=43						
BRTR				PP	PP	19 38 43.8	-1.5
	comp=Z,2.1nm,0.9s,baz=99,slow=8.1,SNR=5.1						
CSS	**Prodhromos**	**91.02**	**305**	*e*P	**P**	**19 35 09.0**	**-0.6**
	comp=Z,28nm,0.9s,mb5.4						
MENT	**Mentasta**	**91.30**	**27**	*e*P	**P**	**19 35 11.5**	**+1.3**
ANTO	**Ankara**	**91.42**	**310**	PFAKE		19 35 20.0	+8.8
ANTO				LR	LR		
	comp=Z,185nm,19.0s						
JOF	**Joensuu**	**91.74**	**333**	*e*p	**P**	**19 35 10.2**	**-2.0**
EGAK	**Eagle**	**92.35**	**25**	*e*P	**P**	**19 35 15.7**	**+0.7**
	comp=Z,15nm,1.0s,mb5.2						
DAWY	**Dawson**	**93.17**	**26**	⇑*e*P	**P**	**19 35 19.9**	**+1.1**
DAWY				*e*PP	PP	19 39 03.8	+0.4
ARCES	**ARCESS Array B**	**93.48**	**340**	P	**P**	**19 35 19.4**	**-0.7**
ARCES	**ARCESS Array B**	**93.48**	**340**	P	**P**	**19 35 19.4**	**-0.7**
ARCES				pmax	pmax		
	comp=Z,22nm,0.9s						
ARCES	**ARCESS Array B**	**93.48**	**340**	P	**P**	**19 35 19.4**	**-0.7**
	comp=Z,22nm,0.9s,mb5.5,baz=77,slow=5.2,SNR=23						
AKASG	**Malin Array Be**	**93.54**	**321**	P	**P**	**19 35 19.8**	**-1.0**
AKASG						19 39 07.8	
AKASG				pmax	pmax		
	comp=Z,10.0nm,0.8s						
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.9s						
AKASG				MLR	MLR		
	comp=Z,137nm,19.5s						
AKASG	**Malin Array Be**	**93.54**	**321**	P	**P**	**19 35 19.8**	**-1.0**
	comp=Z,10nm,0.8s,mb5.2,baz=69,slow=4.4,SNR=38						
AKASG				PP	PP	19 39 07.8	+1.1
	comp=Z,2.7nm,0.9s,baz=69,slow=7.3,SNR=6.9						
AKASG				LR	LR	20 25 38.9	
	comp=Z,137nm,19.5s,baz=75,slow=41						
KIEV	**Kiev**	**93.55**	**321**	*e*P	**P**	**19 35 19.5**	**-1.3**
	comp=Z,12nm,1.0s,mb5.2						
KIEV	**Kiev**	**93.55**	**321**	*e*P	**P**	**19 35 19.5**	**-1.3**
KIEV				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.2						
MNK	**Minsk**	**94.10**	**324**	*e*P	**P**	**19 35 26.0**	**+2.7**
KAF	**Kangasniemi**	**94.12**	**332**	*e*p	**P**	**19 35 21.5**	**-1.7**
FINES	**FINESS Array B**	**94.31**	**332**	P	**P**	**19 35 23.4**	**-0.7**
FINES				pmax	pmax		
	comp=Z,6.0nm,0.9s						
FINES	**FINESS Array B**	**94.31**	**332**	P	**P**	**19 35 23.4**	**-0.7**
	comp=Z,6.2nm,0.9s,mb4.9,baz=75,slow=10,SNR=14						
KBS	**Kingsbay**	**94.64**	**350**	⇑*e*P	**P**	**19 35 26.0**	**+0.7**
INK	**Inuvik**	**94.91**	**21**	⇑*i*P	**P**	**19 35 26.9**	**+0.2**
	comp=Z,1µm,1.1s						
VRI	**Vrincioaia**	**95.58**	**316**	⇑P	**P**	**19 35 30.6**	**+0.4**
VRI	**Vrincioaia**	**95.58**	**316**	⇑*i*P	**P**	**19 35 30.6**	**+0.4**
SKAG	**Skagway**	**95.66**	**30**	*e*P	**P**	**19 35 32.5**	**+2.2**
	comp=Z,42nm,1.0s,mb5.8						
LSZ	**Lusaka**	**95.76**	**255**	PFAKE		19 35 40.0	+8.3
LSZ				LR	LR		
	comp=Z,399nm,19.0s						
MLR	**Muntele Rosu**	**96.16**	**316**	⇑P	**P**	**19 35 33.4**	**+0.5**
MLR	**Muntele Rosu**	**96.16**	**316**	⇑*i*P	**P**	**19 35 33.4**	**+0.5**
BURAR	**Bucovina Array**	**96.44**	**318**	⇓P	**P**	**19 35 34.9**	**+0.8**
BURAR	**Bucovina Array**	**96.44**	**318**	⇓*i*P	**P**	**19 35 34.9**	**+0.8**
SUW	**Suwalki**	**96.87**	**324**	*e*P	**P**	**19 35 35.7**	**-0.2**
LVV	**L’vov**	**96.95**	**320**	*e*P	**P**	**19 35 36.1**	**-0.2**
BOSA	**Boshof**	**97.71**	**241**	P	**P**	**19 35 40.9**	**+0.6**
BOSA				LR	LR	20 12 25.2	
BOSA	**Boshof**	**97.71**	**241**	P	**P**	**19 35 40.9**	**+0.6**
BOSA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb5.0						
BOSA				MLR	MLR		
	comp=Z,310nm,20.4s						
BOSA	**Boshof**	**97.71**	**241**	P	**P**	**19 35 40.9**	**+0.6**
	comp=Z,4.4nm,0.9s,mb5.0,baz=97,slow=11,SNR=3.8						
BOSA				LR	LR	20 12 25.2	
	comp=Z,310nm,20.4s,baz=111,slow=31						
KOLS	**Kolonicke sedl**	**98.21**	**319**	*e*P	**P**	**19 35 42.5**	**+0.5**
KOLS	**Kolonicke sedl**	**98.21**	**319**	PDIF	**P**	**19 35 42.5**	**+0.5**
DRGR		**98.23**	**317**	⇓P	**P**	**19 35 42.4**	**+0.2**
DRGR		**98.23**	**317**	⇓*i*P	**P**	**19 35 42.4**	**+0.2**
UZH	**Uzhgorod**	**98.24**	**319**	*e*P	**P**	**19 35 42.2**	**0.0**
UZH				*i*		19 35 51.0	
GZR	**Gura Zlata**	**98.38**	**316**	⇑P	**P**	**19 35 43.5**	**+0.5**
GZR	**Gura Zlata**	**98.38**	**316**	⇑*i*P	**P**	**19 35 43.5**	**+0.6**
CRVS	**Cervenica-Dubn**	**98.74**	**319**	*e*P	**P**	**19 35 44.9**	**+0.5**
CRVS	**Cervenica-Dubn**	**98.74**	**319**	PDIF	**P**	**19 35 44.9**	**+0.5**
STHS	**Stebnicka Huta**	**98.80**	**320**	*e*P	**P**	**19 35 45.4**	**+0.7**
	comp=Z,9.1nm,1.4s,mb5.1						
STHS	**Stebnicka Huta**	**98.80**	**320**	*e*P	**P**	**19 35 45.4**	**+0.7**
STHS				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb5.1						
STHS	**Stebnicka Huta**	**98.80**	**320**	PDIF	**P**	**19 35 45.4**	**+0.7**
KECS	**Kecovo**	**99.45**	**319**	*e*P	Pdif	19 35 48.1	+0.6
	comp=Z,3.3nm,1.1s						
KECS	**Kecovo**	**99.45**	**319**	*e*P	Pdif	19 35 48.1	+0.6
KECS				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.7						
KECS	**Kecovo**	**99.45**	**319**	PDIF	Pdif	19 35 48.0	+0.5
OJC	**Ojcow**	**99.58**	**321**	*e*P	Pdif	19 35 48.4	+0.4
RKT	**Rikitea**	**99.72**	**113**	*e*LR	LR	20 08 50.2	
	comp=Z,280nm,38.8s						
VYHS	**Vyhne**	**100.53**	**319**	*e*P	Pdif	19 35 53.0	+0.8
VYHS	**Vyhne**	**100.53**	**319**	PDIF	Pdif	19 35 53.0	+0.8
OKC	**Ostrava-Krasne**	**100.70**	**321**	*e*PP	PP	19 40 03.2	+1.6
DAG	**Danmarks Havn**	**101.02**	**352**	⇓*i*P	Pdif	19 35 53.9	-0.5
DAG				pmax	pmax		
	comp=Z,51nm,1.4s						
DAG	**Danmarks Havn**	**101.02**	**352**	⇓*i*P	Pdif	19 35 53.9	-0.5
	comp=Z,51nm,1.4s						
PKSM	**Moragy**	**101.10**	**317**	⇑P	Pdif	19 35 55.7	+0.9
PKSM	**Moragy**	**101.10**	**317**	⇑*i*P	Pdif	19 35 55.7	+0.9
NOA	**NORSAR Array B**	**101.38**	**333**	P	Pdif	19 35 54.4	-1.6
NOA						19 40 05.4	
NOA				pmax	pmax		
	comp=Z,9.0nm,1.1s						
NOA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
NOA	**NORSAR Array B**	**101.38**	**333**	P	Pdif	19 35 54.4	-1.6
	comp=Z,9.4nm,1.1s,baz=69,slow=4.5,SNR=10						
NOA				PP	PP	19 40 05.4	-1.0
	comp=Z,1.8nm,0.9s,baz=246,slow=3.0,SNR=3.8						
DPC	**Dobruska-Polom**	**101.73**	**322**	*e*Pdif	Pdif	19 35 58.8	+1.2
DPC				*e*PP	PP	19 40 03.9	-5.4
DPC	**Dobruska-Polom**	**101.73**	**322**	*e*PDIF	Pdif	19 35 58.8	+1.2
DPC				*e*PP	PP	19 40 03.9	-5.4
UPC	**Upice**	**101.88**	**322**	*e*Pdif	Pdif	19 35 59.2	+0.9
UPC				*e*PP	PP	19 40 08.7	-1.8
UPC	**Upice**	**101.88**	**322**	*e*PDIF	Pdif	19 35 59.2	+0.9
UPC				*e*PP	PP	19 40 08.7	-1.8
RES	**Resolute Bay**	**102.31**	**10**	⇑*i*Pdif	Pdif	19 36 00.8	+0.6
	comp=Z,1µm,1.5s						
RES	**Resolute Bay**	**102.31**	**10**	⇑*i*P	Pdif	19 36 00.8	+0.6
RES				pmax	pmax		
	comp=Z,1µm,1.5s						
TREC	**Trest**	**102.51**	**321**	*e*PP	PP	19 40 17.7	+2.5
PVCC	**Panska Ves**	**102.77**	**322**	*e*Pdif	Pdif	19 36 02.5	+0.3
PVCC				*e*PP	PP	19 40 20.5	+3.4
PVCC	**Panska Ves**	**102.77**	**322**	*e*PDIF	Pdif	19 36 02.5	+0.3
PVCC				*e*PP	PP	19 40 20.5	+3.4
PRU	**Pruhonice**	**102.93**	**321**	*e*Pdif	Pdif	19 36 03.7	+0.8
PRU				*e*PP	PP	19 40 09.6	-8.7

PRU	**Pruhonice**	**102.93**	**321**	*e*PDIF	Pdif	19 36 03.7	+0.8
PRU				*e*PP	PP	19 40 09.6	-8.7
BRG	**Berggiesshubel**	**103.06**	**322**	*e*P	Pdif	19 36 04.1	+0.6
BRG				*e*		19 40 21.7	
BRG				pmax	pmax		
	comp=Z,26nm,1.9s						
BRG	**Berggiesshubel**	**103.06**	**322**	*e*P	Pdif	19 36 04.1	+0.6
	comp=Z,44nm,1.9s						
BRG				*e*		19 40 21.7	
	comp=Z,3.7nm,0.8s						
CLL	**Collm**	**103.51**	**323**	*e*Pdif	Pdif	19 36 11.0	+5.5
CLL				*e*PP	PP	19 40 12.0	-11
CLL				*e*SKKS	SKKSac	19 47 10.0	-7.1
CLL				LR	LR		
	comp=Z,300nm,21.9s						
GERES	**GERESS Array B**	**103.76**	**320**	Pdif	Pdif	19 36 04.6	-2.0
GERES				PP	PP	19 40 24.3	-0.3
GERES	**GERESS Array B**	**103.76**	**320**	P	Pdif	19 36 04.6	-2.0
GERES						19 40 24.3	
GERES				pmax	pmax		
	comp=Z,3.0nm,1.1s						
GERES	**GERESS Array B**	**103.76**	**320**	Pdiff	Pdif	19 36 04.6	-2.0
	comp=Z,0.2nm,0.3s,baz=154,slow=37,SNR=3.0						
GERES				PP	PP	19 40 24.3	-0.3
	comp=Z,2.9nm,1.1s,baz=66,slow=6.6,SNR=4.2						
KHC	**Kasperske Hory**	**103.76**	**321**	*e*Pdif	Pdif	19 36 08.2	+1.6
KHC				*e*PP	PP	19 40 13.3	-11
KHC				*e*		19 40 27.5	
KHC	**Kasperske Hory**	**103.76**	**321**	*e*PDIF	Pdif	19 36 08.2	+1.6
KHC				*e*x	x	19 40 13.3	
KHC				*e*PP	PP	19 40 27.5	+2.9
YKA	**Yellowknife Ar**	**104.28**	**24**	Pdif	Pdif	19 36 09.2	+0.3
YKA	**Yellowknife Ar**	**104.28**	**24**	P	Pdif	19 36 09.2	+0.3
YKA						19 40 25.5	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**104.28**	**24**	Pdiff	Pdif	19 36 09.2	+0.3
	comp=Z,1.0nm,0.8s,baz=301,slow=4.8,SNR=9.3						
YKA				PKiKP	PKiKP	19 40 25.5	+0.7
	comp=Z,0.4nm,0.6s,baz=299,slow=2.3,SNR=5.9						
GRF	**Grafenberg Arr**	**105.07**	**322**	*e*PP	PP	19 40 36.1	+1.8
EDM	**Edmonton**	**109.15**	**33**	*e*PKPdf	PKiKP	19 40 34.0	-0.1
EDM				*e*PP	PP	19 41 01.5	-2.3
LPG	**La Plagne**	**109.29**	**319**	*e*PKPdf	PKiKP	19 40 34.3	-0.3
LPL	**La Plagne**	**109.30**	**319**	*e*PKPdf	PKiKP	19 40 34.2	-0.5
SBF	**Sospel**	**109.38**	**317**	*e*PKPdf	PKiKP	19 40 33.8	-1.1
MBDF	**Montbardon**	**109.54**	**318**	*e*PKPdf	PKiKP	19 40 35.3	+0.2
KEST	**Kesra**	**110.32**	**308**	PP	PP	19 41 13.3	+0.3
	comp=Z,2.9nm,0.9s,baz=252,slow=5.7,SNR=4.0						
SMF	**Signal de Mont**	**110.76**	**321**	*e*PKIKP	PKiKP	19 40 36.9	-0.5
	comp=Z,34nm,1.3s						
SMF	**Signal de Mont**	**110.76**	**321**	*e*PKPdf	PKiKP	19 40 36.9	-0.5
SMF	**Signal de Mont**	**110.76**	**321**	*e*PKIKP	PKiKP	19 40 36.9	-0.5
PTRM	**Twissleman Ran**	**110.80**	**52**	*e*Pdif	Pdif	19 36 37.7	-0.2
SSF	**Saint Saulge**	**110.81**	**321**	*e*PKIKP	PKiKP	19 40 37.0	-0.5
	comp=Z,18nm,1.0s						
SSF	**Saint Saulge**	**110.81**	**321**	*e*PKPdf	PKiKP	19 40 37.0	-0.5
SSF	**Saint Saulge**	**110.81**	**321**	*e*PKIKP	PKiKP	19 40 37.0	-0.5
BGF	**Bois d'Agland**	**111.42**	**321**	*e*PKIKP	PKiKP	19 40 38.8	+0.2
	comp=Z,42nm,1.2s						
BGF	**Bois d'Agland**	**111.42**	**321**	*e*PKPdf	PKiKP	19 40 38.8	+0.2
BGF	**Bois d'Agland**	**111.42**	**321**	*e*PKIKP	PKiKP	19 40 38.8	+0.2
NVAR	**Mina Array Bea**	**111.49**	**49**	PKPdf	PKiKP	19 40 42.5	+3.5
NVAR				PP	PP	19 41 22.6	+1.2
NVAR	**Mina Array Bea**	**111.49**	**49**	PKiKP	PKiKP	19 40 42.5	+3.5
	comp=Z,1.2nm,0.8s,baz=225,slow=1.2,SNR=5.3						
NVAR				PP	PP	19 41 22.6	+1.2
	comp=Z,2.1nm,1.0s,baz=268,slow=13,SNR=5.7						
MSO	**Missoula**	**111.54**	**39**	*e*PKPdf	PKiKP	19 40 40.0	+1.2
HLID	**Hailey**	**112.52**	**42**	*e*PKPdf	PKiKP	19 40 43.0	+2.2
HLID				LR	LR		
	comp=Z,112nm,21.0s						
ELK	**Elko**	**112.98**	**45**	PFAKE		19 40 50.0	+8.2
ELK				LR	LR		
	comp=Z,269nm,22.0s						
EGMT	**Eagleton**	**113.57**	**36**	*e*PKPdf	PKiKP	19 40 43.7	+1.0
FFC	**Flin Flon**	**114.03**	**27**	PFAKE		19 41 00.0	+17
FFC				LR	LR		
	comp=Z,175nm,20.0s						
FCC	**Fort Churchill**	**114.52**	**21**	*e*PKPdf	PKiKP	19 40 44.3	+0.2
FCC	**Fort Churchill**	**114.52**	**21**	*e*PKIKP	PKiKP	19 40 44.3	+0.1
GCMT	**Greycliff**	**114.66**	**38**	*e*PKPdf	PKiKP	19 40 46.1	+1.3
IMW	**Indian Meadow**	**114.69**	**41**	*e*PKPdf	PKiKP	19 40 46.8	+1.8
REDW	**Red Top Meadow**	**114.97**	**41**	*e*PKPdf	PKiKP	19 40 48.1	+2.6
HWUT	**Hardware Ranch**	**115.22**	**43**	*e*PKPdf	PKPdf	19 40 47.5	+1.5
HWUT				LR	LR		
	comp=Z,199nm,20.0s						
BW06	**Boulder Array**	**116.08**	**41**	PFAKE		19 41 00.0	+12
BW06				LR	LR		
	comp=Z,197nm,19.0s						
PDAR	**Pinedale Array**	**116.08**	**41**	PKP	PKPdf	19 40 49.5	+1.8
PDAR				PP	PP	19 41 54.6	+1.1
PDAR	**Pinedale Array**	**116.08**	**41**	PKP	PKPdf	19 40 49.5	+1.8
	comp=Z,1.9nm,0.8s,baz=153,slow=1.3,SNR=13						
PDAR				PP	PP	19 41 54.6	+1.1
	comp=Z,2.9nm,1.1s,baz=285,slow=2.9,SNR=4.9						
LAO	**LASA Array**	**116.32**	**36**	*e*Pdif	Pdif	19 36 58.4	-4.0
RWWY	**Rawlins**	**118.12**	**42**	*e*PKPdf	PKPdf	19 40 53.3	+1.7
PV10	**Paradox Valley**	**118.31**	**46**	*e*PKPdf	PKPdf	19 40 54.8	+2.7
PV01	**Paradox Valley**	**118.75**	**46**	*e*PKPdf	PKPdf	19 40 55.4	+2.5
ESDC	**Sonseca Array**	**118.85**	**316**	PKP	PKPdf	19 40 53.6	+0.5
ESDC				PP	PP	19 42 14.3	+1.4
ESDC	**Sonseca Array**	**118.85**	**316**	PKP	PKPdf	19 40 53.6	+0.5
	comp=Z,2.1nm,0.9s,baz=7.9,slow=5.2,SNR=6.0						
ESDC				PP	PP	19 42 14.3	+1.4
	comp=Z,2.2nm,0.9s,baz=53,slow=8.0,SNR=5.0						
ULM	**Lac du Bonnet**	**119.77**	**28**	PKP	PKPdf	19 40 55.4	+0.9
ULM	**Lac du Bonnet**	**119.77**	**28**	PKP	PKPdf	19 40 55.4	+0.9
	comp=Z,5.9nm,0.9s,baz=286,slow=2.6,SNR=11						
ISCO	**Idaho Springs**	**120.08**	**43**	*e*PKPdf	PKPdf	19 40 57.8	+2.3
ISCO				*e*PP	PP	19 42 22.5	+1.2
ISCO				LR	LR		
	comp=Z,228nm,22.0s						
ISCO	**Idaho Springs**	**120.08**	**43**	*e*PKIKP	PKPdf	19 40 57.8	+2.3
ISCO				*e*		19 42 22.5	
SDCO	**Great Sand Dun**	**121.10**	**45**	*e*PKPdf	PKPdf	19 40 59.0	+1.5
SDCO				*e*PP	PP	19 42 26.9	-1.4
SDCO				LR	LR		
	comp=Z,240nm,19.0s						
ANMO	**Albuquerque**	**121.61**	**48**	*e*PKPdf	PKPdf	19 40 59.9	+1.3
ANMO				LR	LR		
	comp=Z,180nm,20.0s						
ANMO	**Albuquerque**	**121.61**	**48**	*e*PKIKP	PKPdf	19 40 59.9	+1.3
LPM	**Los Pinos Moun**	**121.75**	**49**	*e*PKPdf	PKPdf	19 41 00.8	+2.0
TORD	**Torodi Ar. Bea**	**121.75**	**285**	PKP	PKPdf	19 41 00.3	+1.0
TORD				SKP		19 44 31.2	
TORD				PKKPab	PKKPab	19 51 02.7	+3.5
TORD	**Torodi Ar. Bea**	**121.75**	**285**	PKP	PKPdf	19 41 00.3	+1.0
	comp=Z,6.3nm,0.9s,baz=61,slow=1.8,SNR=28						
TORD				SKP		19 44 31.2	
	comp=Z,1.8nm,0.9s,baz=43,slow=3.7,SNR=3.9						
TORD				PKKPab	PKKPab	19 51 02.7	+3.5
	comp=Z,1.9nm,0.9s,baz=276,slow=4.3,SNR=7.6						
BNM	**Barren Site**	**121.82**	**49**	*e*PKPdf	PKPdf	19 41 00.4	+1.4
EYMN	**Ely**	**123.44**	**28**	*e*PKPdf	PKPdf	19 41 02.3	+0.7
ECSD	**EROS,Sioux Fal**	**123.59**	**35**	*e*PKPdf	PKPdf	19 41 03.1	+1.0
SCHQ	**Schefferville**	**125.02**	**8**	PKP	PKPdf	19 41 06.1	+1.6
SCHQ				PP	PP	19 42 55.6	+2.0
SCHQ	**Schefferville**	**125.02**	**8**	PKP	PKPdf	19 41 06.1	+1.6
	comp=Z,13nm,0.9s,baz=151,slow=0.1,SNR=10						
SCHQ				PP	PP	19 42 55.6	+2.0
	comp=Z,9.9nm,1.0s,baz=359,slow=9.7,SNR=3.9						
COWI	**Conover**	**125.89**	**28**	*e*PKPdf	PKPdf	19 41 07.8	+1.3
LTX	**Lajitas**	**126.06**	**53**	PFAKE		19 41 20.0	+13
LTX				LR	LR		
	comp=Z,146nm,20.0s						
TXAR	**Lajitas Array**	**126.06**	**53**	PKP	PKPdf	19 41 09.8	+2.5
TXAR	**Lajitas Array**	**126.06**	**53**	PKIKP	PKPdf	19 41 09.8	+2.5
TXAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
TXAR	**Lajitas Array**	**126.06**	**53**	PKP	PKPdf	19 41 09.8	+2.5
	comp=Z,3.1nm,0.9s,baz=225,slow=1.6,SNR=20						
KSU1	**Kansas State U**	**126.37**	**39**	*e*PKPdf	PKPdf	19 41 08.8	+1.2
JCT	**Junction City**	**128.61**	**50**	*e*PKPdf	PKPdf	19 41 14.2	+2.1
JCT	**Junction City**	**128.61**	**50**	*e*PKIKP	PKPdf	19 41 14.2	+2.1
MIAR	**Mount Ida**	**131.00**	**42**	PFAKE		19 41 30.0	+13
MIAR				LR	LR		
	comp=Z,273nm,20.0s						
WVT	**Waverly**	**133.64**	**36**	*e*PKPdf	PKPdf	19 41 21.7	+0.3
WVT				*e*SKP		19 44 44.8	
WVT	**Waverly**	**133.64**	**36**	*e*PKIKP	PKPdf	19 41 21.7	+0.2
OXF	**Oxford**	**133.74**	**39**	*e*PKPdf	PKPdf	19 41 22.2	+0.5
OXF				*e*SKP		19 44 45.3	
OXF				LR	LR		
	comp=Z,399nm,20.0s						
OXF	**Oxford**	**133.74**	**39**	*e*PKIKP	PKPdf	19 41 22.2	+0.5
PLAL	**Pickwick Lake**	**134.26**	**38**	*e*PKPdf	PKPdf	19 41 22.9	+0.2
PLAL				*e*SKP		19 44 44.4	
LRAL	**Lakeview Retre**	**136.22**	**39**	*e*PKPdf	PKPdf	19 41 27.2	+0.8
LRAL				*e*SKP		19 44 52.5	
MVL	**Millersville**	**136.37**	**23**	*e*PKPdf	PKPdf	19 41 24.9	-1.6
ELN	**Prospectdale**	**136.70**	**29**	*e*PKPdf	PKPdf	19 41 28.9	+1.7
GOGA	**Godfrey**	**138.11**	**36**	*e*PKPdf	PKPdf	19 41 30.2	+0.3
GOGA				*e*SKP		19 44 58.3	
GOGA	**Godfrey**	**138.11**	**36**	*e*PKIKP	PKPdf	19 41 30.2	+0.3
TEIG	**Tepich**	**142.57**	**56**	*e*PKPdf	PKPdf	19 41 36.1	-2.1
TEIG				LR	LR		
	comp=Z,126nm,22.0s						
SOR	**Soroa**	**145.39**	**48**	*e*P	PKPdf	19 41 44.3	+1.1
TGUH	**Tegucigalpa,Un**	**145.98**	**65**	*e*PKPbc	PKPbc	19 41 47.2	+1.9
TGUH				LR	LR		
	comp=Z,171nm,20.0s						
BBSR	**BB Station**	**147.13**	**14**	*e*PKPbc	PKPbc	19 41 48.7	+0.6
LCO	**Las Campanas**	**147.40**	**155**	*e*PKPdf	PKPdf	19 41 48.8	+2.4
MGV	**Manicaragua**	**148.03**	**46**	*e*P	PKPdf	19 41 51.9	+4.3
JTS	**JuntasAbangare**	**149.33**	**70**	*e*PKPdf	PKPdf	19 41 50.6	+0.7
JTS				*e*PKPbc	PKPbc	19 41 55.7	+1.3
JTS				PKPbc	PKPbc	19 41 56.0	+1.6
JTS				LR	LR		
	comp=Z,294nm,21.0s						
JTS	**JuntasAbangare**	**149.33**	**70**	*e*PKHKP		19 41 50.6	
JTS				*e*		19 41 55.7	
JTS	**JuntasAbangare**	**149.33**	**70**	PKPbc	PKPbc	19 41 56.0	+1.6
	comp=Z,53nm,1.0s,baz=331,slow=20,SNR=5.7						
NNA	**Nana**	**155.67**	**121**	PFAKE		19 42 10.0	+11
NNA				LR	LR		
	comp=Z,150nm,22.0s						
OTAV	**Otavalo**	**157.27**	**90**	*e*PKPdf	PKPdf	19 42 04.7	+3.3
OTAV				LR	LR		
	comp=Z,178nm,22.0s						
RCBR	**Riachuelo**	**159.25**	**252**	PFAKE		19 42 20.0	+16
RCBR				LR	LR		
	comp=Z,220nm,19.0s						
LPAZ	**La Paz**	**159.36**	**144**	PKP	PKPdf	19 42 07.8	+4.0
LPAZ				PKPab	PKPab	19 42 46.1	+4.5
LPAZ	**La Paz**	**159.36**	**144**	PKIKP	PKPdf	19 42 07.8	+4.1
LPAZ				pmax	pmax		
	comp=Z,4.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.7s						
LPAZ	**La Paz**	**159.36**	**144**	PKP	PKPdf	19 42 07.8	+4.0
	comp=Z,4.4nm,1.0s,baz=55,slow=2.4,SNR=13						
LPAZ				PKPab	PKPab	19 42 46.1	+4.5
	comp=Z,4.4nm,0.7s,baz=164,slow=1.4,SNR=8.4						
SJG	**San Juan**	**159.66**	**30**	PFAKE		19 42 20.0	+16
SJG				LR	LR		
	comp=Z,213nm,19.0s						
ROSC	**El Rosal**	**160.91**	**76**	PKP	PKPdf	19 42 08.6	+3.0
ROSC				PKPab	PKPab	19 42 51.7	+3.0
ROSC	**El Rosal**	**160.91**	**76**	PKP	PKPdf	19 42 08.6	+3.0
	comp=Z,5.7nm,0.4s,baz=106,slow=17,SNR=6.7						
ROSC				PKPab	PKPab	19 42 51.7	+3.0
	comp=Z,5.0nm,0.3s,baz=256,slow=22,SNR=6.2						

BJI ***13*** *20:03:02.8, 606S×12776E, h20^{km}, mB5.1, mb5.0, Ms4.8, Msz4.4*

ISCJB ***13*** *20:03:04.3±0.9, 570S±003×12758E±004, h8^{km}±5^{km}, mb5.1/80, MS4.4/33, Error ellipse: s-maj=6.5km s-min=4.4km az=177.5*

IDC ***13*** *20:03:05.5±0.4, 566S×12726E, h0^{km}, mb5.0/18, mb1 5.1/19, mb1mx5.1/21, mbtmp5.0/19, ML5.4/2, MS4.4/15, Ms1 4.4/15, ms1mx4.2/25, Error ellipse: s-maj=19.5km s-min=11.5km az=68.0*

NEIC ***13*** *20:03:06.9±0.2, 567S×12731E, h10^{km}, mb5.2/32, MS4.4/3, Error ellipse: s-maj=8.1km s-min=4.4km az=75.0*

GCMT ***13*** *20:03:06.9±0.2, 554S×12740E, h18^{km}, MW5.3/85, Moment Tensor Solution. s58,c81; s85,c166; Duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.34±.02; $M_{\theta\theta}$-0.56±.02; $M_{\phi\phi}$0.90±.02; $M_{r\theta}$-0.08±.04; $M_{\theta\phi}$-0.68±.02; $M_{\phi r}$0.10±.04; Best double couple: $M_0$1.00300×10^{17} NP1: ϕ_s24.00000°, δ84.00000°, λ0.00000°. NP2: ϕ_s294.00000°, δ90.00000°, λ174.00000°. Principal axes: T 1.1770, Plg5.0000°, Azm249.0000°; N -0.3470, Plg84.0000°, Azm112.0000°; P -0.8290, Plg4.0000°, Azm339.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

MOS ***13*** *20:03:10.1±1.1, 542S×12743E, h33^{km}, mb5.3/34, MS4.4/11 Error ellipse: s-maj=13.9km s-min=6.3km az=116.0*

ISC 13 20:03:07.6±1.0**, 567S**±003×**12755E**±004**, h15**^{km}±6^{km}**, h18**^{km}±3.0^{km}**:pP-P, n326,** σ1^{s}**17**/252**, mb5.1**/79**, MS4.4**/33**, 26C-18D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAI	**Ambon**	**2.07**	**18**	P	**Pn**	**20 03 39.8**	**-2.1**
	2µm,0.6s						
WSI	**Waingapu**	**8.21**	**241**	P	**Pn**	**20 05 07.7**	**+1.4**
	2µm,1.0s						
KAKA	**Kakadu**	**8.50**	**146**	*e*P	**Pn**	**20 05 10.4**	**+0.1**
	272nm,0.4s						
KAKA				*e*S	**Sn**	**20 06 52.1**	**+6.1**
PCI	**Palu**	**9.04**	**301**	P	**Pn**	**20 05 20.1**	**+2.4**
	145nm,1.0s						
BAKI	**Biak**	**9.63**	**63**	P	**Pn**	**20 05 27.6**	**+1.8**
	753nm,1.3s						
FITZ	**Fitzroy Crossi**	**12.49**	**188**	Pn	**Pn**	**20 06 02.5**	**-2.5**
FITZ				Sn	**Sn**	**20 08 13.7**	**-10**
FITZ				LR	LR	20 11 50.4	
FITZ	**Fitzroy Crossi**	**12.49**	**188**	Pn	**Pn**	**20 06 02.5**	**-2.5**
	17nm,0.3s,baz=22,slow=12,SNR=202						
FITZ				Sn	**Sn**	**20 08 13.7**	**-10**
	8.5nm,0.3s,baz=68,slow=19,SNR=8.0						
FITZ				LR	LR	20 11 50.4	
	comp=Z,2µm,18.5s,baz=11,slow=42						
DNP	**Denpasar**	**12.60**	**256**	P	**Pn**	**20 06 08.6**	**+2.1**
	491nm,1.2s						
MATI	**Mati**	**12.60**	**354**	*e*P	**Pn**	**20 06 06.2**	**-0.3**
DAV	**Davao City (W)**	**12.81**	**351**	*e*Pn	**Pn**	**20 06 09.3**	**0.0**
KMMI	**Kalianget**	**13.57**	**263**	P	**Pn**	**20 06 21.2**	**+1.5**
	306nm,1.2s						
BUKP	**Musuan**	**13.69**	**350**	*e*P	**Pn**	**20 06 20.2**	**-1.1**
TSM	**Tawau**	**13.83**	**315**	⇓P	**Pn**	**20 06 24.5**	**+1.1**
PAGZ	**Pagadian**	**14.06**	**343**	*e*P	**Pn**	**20 06 25.8**	**-0.6**
MYLDM	**Lahad Datu**	**14.06**	**320**	⇑P	**Pn**	**20 06 32.5**	**+6.0**
DCPH	**Dipolog City**	**14.77**	**344**	⇑*e*P	**Pn**	**20 06 45.5**	**+9.4**
KRKI	**Karangkates**	**15.19**	**260**	P	**Pn**	**20 06 45.5**	**+3.8**
	532nm,0.9s						
SDKM	**Sandakan**	**15.27**	**317**	⇓P	**Pn**	**20 06 45.2**	**+2.4**
SCPH	**Surigao**	**15.49**	**352**	⇓*e*P	**Pn**	**20 06 45.0**	**-0.6**
WRA	**Warramunga Arr**	**15.65**	**156**	Pn	**Pn**	**20 06 43.2**	**-4.5**
WRA				Sn	**Sn**	**20 09 33.7**	**-7.2**
WRA				LR	LR	20 12 47.0	
WRA	**Warramunga Arr**	**15.65**	**156**	P	**Pn**	**20 06 43.2**	**-4.5**
WRA				pmax	pmax		
	comp=Z,5.0nm,0.3s						
WRA				MLR	MLR		
	comp=Z,2µm,21.9s						
WRA	**Warramunga Arr**	**15.65**	**156**	Pn	**Pn**	**20 06 43.2**	**-4.5**
	comp=Z,5.3nm,0.3s,baz=326,slow=13,SNR=106						
WRA				Sn	**Sn**	**20 09 33.7**	**-7.2**
	comp=Z,2.3nm,0.3s,baz=326,slow=22,SNR=4.0						
WRA				LR	LR	20 12 47.0	
	comp=Z,2µm,21.9s,baz=335,slow=37						
WB2	**Warramunga Arr**	**15.65**	**156**	*e*P	**Pn**	**20 06 43.1**	**-4.7**
MSLP	**Maasin**	**15.93**	**350**	*e*P	**Pn**	**20 06 49.2**	**-2.2**
KKM	**Kota Kinabalu**	**16.23**	**316**	*e*Pn	**Pn**	**20 06 51.1**	**-4.2**
KKM	**Kota Kinabalu**	**16.23**	**316**	⇑P	**Pn**	**20 06 57.2**	**+1.9**
LLP	**Lapu-Lapu**	**16.28**	**347**	*e*P	**Pn**	**20 06 55.7**	**-0.2**
KDM	**Kudat**	**16.45**	**319**	⇑P	**Pn**	**20 07 04.3**	**+6.1**
PLP	**Palo**	**16.92**	**351**	*e*P	**Pn**	**20 07 04.3**	**+0.3**
BTM	**Bintulu**	**16.92**	**301**	⇓P	**Pn**	**20 07 08.4**	**+4.3**
MBWA	**Marble Bar**	**17.16**	**205**	*e*Pn	**Pn**	**20 07 04.0**	**-3.1**
	comp=Z,227nm,0.8s						
MBWA				*e*		20 07 10.1	
MBWA				*e*Sn	**Sn**	**20 10 02.0**	**-16**
SBUM	**Sibu**	**17.30**	**297**	⇓P	**Pn**	**20 07 12.3**	**+3.4**
BATP	**Bataraza**	**17.35**	**326**	*e*P	**Pn**	**20 07 10.6**	**+1.2**
CUYO	**Cuyo Island**	**17.65**	**338**	*e*P	**Pn**	**20 07 15.2**	**+2.0**
BJII	**Banjamegara**	**17.80**	**264**	P	**Pn**	**20 07 15.0**	**0.0**
	comp=Z,216nm,1.4s						
ENPP	**El Nido**	**18.61**	**334**	*e*P	**Pn**	**20 07 25.2**	**+0.3**
KSM	**Kuching**	**18.62**	**292**	*e*P	**Pn**	**20 07 25.0**	**-0.1**
KSM	**Kuching**	**18.62**	**292**	⇓P	**Pn**	**20 07 25.6**	**+0.5**
OTRP	**Odiongan**	**18.74**	**343**	*e*P	**Pn**	**20 07 26.5**	**0.0**
ASAR	**Alice Springs**	**18.91**	**162**	P	**Pn**	**20 07 27.4**	**-1.1**
ASAR				S	**Sn**	**20 10 53.5**	**-6.5**
ASAR				pmax	pmax		
	comp=Z,9.0nm,0.3s						
ASAR				smax			
	comp=N,1.0nm,0.3s						
ASAR	**Alice Springs**	**18.91**	**162**	P	**Pn**	**20 07 27.4**	**-1.1**
	comp=N,9.4nm,0.3s,baz=332,slow=9.5,SNR=401						
ASAR				S	**Sn**	**20 10 53.5**	**-6.6**
	comp=N,0.9nm,0.3s,baz=317,slow=20,SNR=4.7						
BUSP	**Coron**	**19.02**	**337**	*e*P	**Pn**	**20 07 30.4**	**+0.5**
PVCP	**Virac**	**19.44**	**350**	*e*P	**Pn**	**20 07 34.0**	**-0.9**
PMG	**Port Moresby**	**19.79**	**102**	*e*P	**Pn**	**20 07 42.9**	**+3.7**
	comp=N,293nm,1.1s						
PMG	**Port Moresby**	**19.79**	**102**	*d i*P	**Pn**	**20 07 43.3**	**+4.1**
PMG	**Port Moresby**	**19.79**	**102**	P	**Pn**	**20 07 41.9**	**+2.8**
	comp=N,141nm,0.8s,baz=283,slow=7.5,SNR=78						
PMG				LR	LR	20 15 44.8	
	comp=N,879nm,20.5s,baz=74,slow=38						
LEM	**Lembang**	**19.84**	**266**	P	**Pn**	**20 07 38.2**	**-1.6**
	comp=N,863nm,0.8s						
TPI	**Tanjungpandan**	**20.05**	**277**	P	**P**	**20 07 41.2**	**+0.7**
	comp=N,416nm,1.2s						
CBJI	**Citeko**	**20.60**	**267**	P	**P**	**20 07 44.4**	**-2.0**
	comp=N,1µm,1.0s						
LUBP	**Lubang**	**20.60**	**339**	*e*P	**P**	**20 07 47.9**	**+1.5**
TGY	**Tagaytay City**	**20.71**	**342**	P	**P**	**20 07 48.0**	**+0.4**
TGY				pmax	pmax		
	comp=Z,403nm,0.8s						
TGY	**Tagaytay City**	**20.71**	**342**	P	**P**	**20 07 48.0**	**+0.5**
	comp=Z,403nm,0.8s,baz=180,slow=5.7,SNR=17						
TGY	**Tagaytay City**	**20.71**	**342**	*e*P	**P**	**20 07 47.6**	**+0.1**
TNG	**Tangerang**	**20.80**	**268**	P	**P**	**20 07 48.9**	**+0.3**
	comp=Z,1µm,1.1s						
POLP	**Polilio Island**	**21.02**	**345**	*e*P	**P**	**20 07 50.8**	**-0.1**
SBJI	**Serang**	**21.31**	**268**	P	**P**	**20 07 52.6**	**-1.5**
	comp=Z,634nm,1.2s,mb5.8						
PCPH	**Palayan**	**22.04**	**343**	⇑*e*P	**P**	**20 08 02.5**	**+0.6**
BALP	**Baler**	**22.08**	**345**	*e*P	**P**	**20 08 01.1**	**-1.2**
XMIS	**Christmas Isla**	**22.19**	**256**	*e*P	**P**	**20 08 01.0**	**-2.6**
KLI	**Kotabumi**	**22.61**	**271**	P	**P**	**20 08 06.5**	**-1.5**
	comp=Z,1µm,1.3s,mb6.1						
BCPH	**Baguio City Da**	**22.97**	**343**	⇑*e*P	**P**	**20 08 12.3**	**+0.5**
CTA	**Charters Tower**	**23.15**	**130**	*e*P	**P**	**20 08 16.3**	**+2.6**
	comp=Z,48nm,0.7s,mb5.0						
CTA				*e*S	**S**	**20 12 30.6**	**+5.9**
CTA	**Charters Tower**	**23.15**	**130**	*e*P	**P**	**20 08 16.3**	**+2.6**
CTA				*e*S	**S**	**20 12 30.6**	**+5.9**
CTA				pmax	pmax		
	comp=Z,49nm,0.7s						
CTA	**Charters Tower**	**23.15**	**130**	P	**P**	**20 08 16.6**	**+3.0**
	comp=Z,75nm,0.8s,mb5.2,baz=309,slow=12,SNR=67						
CTA				LR	LR	20 17 56.6	
	comp=Z,2µm,18.6s,MS4.6,baz=310,slow=38						
CTAO	**Charters Tower**	**23.15**	**130**	*e*P	**P**	**20 08 16.4**	**+2.7**
	comp=Z,81nm,0.8s,mb5.2						
CTAO	**Charters Tower**	**23.15**	**130**	*e*P	**P**	**20 08 16.4**	**+2.7**
CTAO				pmax	pmax		
	comp=Z,81nm,0.8s,mb5.2						
BOLP	**Bolinao**	**23.18**	**341**	*e*P	**P**	**20 08 09.3**	**-4.7**
ABRA	**Dolores**	**24.14**	**344**	*e*P	**P**	**20 08 21.8**	**-1.4**
APYP	**Conner**	**24.20**	**345**	*e*P	**P**	**20 08 22.6**	**-1.1**
MYKOM	**Kota Tinggi**	**24.80**	**287**	⇓P	**P**	**20 08 30.0**	**+0.6**
KSI	**Kapahiang**	**24.95**	**274**	P	**P**	**20 08 27.6**	**-3.1**
	comp=Z,140nm,1.1s,mb5.4						
FORT	**Forrest**	**24.98**	**179**	*e*P	**P**	**20 08 32.0**	**+1.2**
	comp=Z,404nm,0.7s,mb6.1						
KGM	**Kluang**	**25.37**	**287**	⇑P	**P**	**20 08 35.5**	**+0.9**
GUMO	**Guam**	**25.73**	**42**	LR	LR	20 17 57.9	
	comp=Z,352nm,19.6s,MS3.9,baz=216,slow=34						
KTGM	**Kuala Trenggan**	**26.71**	**294**	⇑P	**P**	**20 08 50.7**	**+4.0**
FRIM	**Kepong**	**27.36**	**288**	⇑P	**P**	**20 08 53.4**	**+0.9**
KLBR	**Kellerberrin**	**27.37**	**198**	*e*P	**P**	**20 08 52.0**	**-0.4**
	comp=Z,146nm,1.2s,mb5.4						
KLBR				*e*		20 09 21.7	
PPI	**Padang Panjang**	**27.59**	**280**	P	**P**	**20 08 52.8**	**-1.8**
	comp=Z,182nm,1.1s,mb5.6						
MUN	**Mundaring**	**28.24**	**201**	*e*P	**P**	**20 08 59.8**	**-0.4**
MUN				*e*S	S	20 14 21.0	+35
IPM	**Ipoh**	**28.34**	**290**	⇑P	**P**	**20 09 01.9**	**+0.6**
NWAO	**Narrogin (SRO)**	**28.77**	**198**	*e*P	**P**	**20 09 04.5**	**-0.4**
	comp=Z,108nm,1.1s,mb5.5						
NWAO	**Narrogin (SRO)**	**28.77**	**198**	*e*P	**P**	**20 09 04.5**	**-0.4**
NWAO				pmax	pmax		
	comp=Z,108nm,1.1s						
NWAO	**Narrogin (SRO)**	**28.77**	**198**	P	**P**	**20 09 05.0**	**+0.1**
	comp=Z,93nm,1.0s,mb5.5,baz=28,slow=9.6,SNR=31						
NWAO				LR	LR	20 21 37.8	
	comp=Z,1µm,18.7s,MS4.5,baz=206,slow=39						
KULM	**Kulim**	**28.98**	**292**	*e*P	**P**	**20 09 06.1**	**-0.9**
KULM				*e*PcP	PcP	20 12 16.7	+0.9
KULM	**Kulim**	**28.98**	**292**	⇓P	**P**	**20 09 07.1**	**+0.1**
STKA	**Stephens Creek**	**29.20**	**155**	⇓*i*P	**P**	**20 09 10.4**	**+1.7**
	comp=Z,46nm,0.7s,mb5.3						
STKA				*e*S	**S**	**20 14 02.3**	**+1.6**
STKA	**Stephens Creek**	**29.20**	**155**	P	**P**	**20 09 10.8**	**+2.1**
	comp=Z,69nm,0.8s,mb5.4,baz=325,slow=8.8,SNR=135						
STKA				LR	LR	20 20 55.7	
	comp=Z,1µm,21.1s,MS4.5,baz=332,slow=36						
PSI	**Prapat**	**29.80**	**286**	P	**P**	**20 09 13.5**	**-0.8**
PSI				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.2						
PSI	**Prapat**	**29.80**	**286**	P	**P**	**20 09 13.5**	**-0.8**
	comp=Z,50nm,1.1s,mb5.2,baz=165,slow=5.4,SNR=29						
QIZ	**Qiongzhong**	**30.11**	**325**	P	**P**	**20 09 15.3**	**-1.6**
QIZ				PP	PP	20 10 18.8	-6.2
QIZ				S	**S**	**20 14 17.8**	**+2.5**
QIZ				LR	LR		
	comp=N,449nm,14.2s						
QIZ				LR	LR		
	comp=Z,404nm,16.4s,MS4.2						
QIZ	**Qiongzhong**	**30.11**	**325**	*e*P	**P**	**20 09 07.7**	**-9.2**
YHNB	**Yeheng**	**30.75**	**349**	*e*P	**P**	**20 09 19.7**	**-2.8**
ADE	**Adelaide**	**30.92**	**162**	*e*P	**P**	**20 09 27.0**	**+3.1**
QZH	**Quanzhou**	**31.65**	**344**	P	**P**	**20 09 30.3**	**-0.1**
QZH				S	**S**	**20 14 31.6**	**-7.7**
QZH				AMB	AMB		
	comp=Z,80nm,1.1s,mb5.5						
QZH				LR	LR		
	comp=Z,1µm,17.2s,MS4.6						
GZH	**Guangzhou**	**31.77**	**335**	P	**P**	**20 09 34.1**	**+2.6**
GZH				S	**S**	**20 14 45.1**	**+3.8**
GZH				LR	LR		
	comp=N,253nm,11.5s,MS4.5						
GZH				LR	LR		
	comp=E,436nm,10.3s,MS4.5						
GZH				LR	LR		
	comp=Z,538nm,16.2s						
KKTK	**Khon Kaen**	**32.81**	**312**	P	**P**	**20 09 41.0**	**+0.3**
BSI	**Banda Aceh**	**34.06**	**288**	P	**P**	**20 09 56.6**	**+4.9**
	comp=Z,36nm,1.4s,mb5.1						
CNB	**Canberra Magne**	**35.70**	**149**	*e*P	**P**	**20 10 09.2**	**+3.6**
	comp=Z,49nm,0.9s,mb5.4						
TOO	**Toolangi**	**35.72**	**155**	⇓*i*P	**P**	**20 10 09.5**	**+3.8**
	comp=Z,57nm,1.1s,mb5.4						
TOO				*e*		20 11 25.8	
TOO	**Toolangi**	**35.72**	**155**	⇓*i*P	**P**	**20 10 09.5**	**+3.8**
TOO				*e*		20 11 25.8	
TOO				pmax	pmax		
	comp=Z,57nm,1.1s,mb5.4						
SSE	**Sheshan**	**37.06**	**351**	P	**P**	**20 10 17.6**	**+0.4**
SSE				S	**S**	**20 16 08.1**	**+5.4**
SSE				AMB	AMB		
	comp=Z,25nm,1.0s,mb5.0						
SSE				LR	LR		
	comp=N,149nm,19.2s,MS3.9						
SSE				LR	LR		
	comp=E,96nm,19.4s,MS3.9						
SSE				LR	LR		
	comp=Z,184nm,18.8s,MS3.9						
SSE	**Sheshan**	**37.06**	**351**	P	**P**	**20 10 17.6**	**+0.4**
	comp=Z,25nm,1.0s,mb5.0						
SSE				S	**S**	**20 16 08.1**	**+5.4**
SSE				LR	LR		
	comp=Z,180nm,18.8s,MS3.9						
CHG	**Chiang Mai**	**37.24**	**311**	⇑P	**P**	**20 10 19.9**	**+1.0**
	comp=Z,25nm,0.7s,mb5.2						
CHTO	**Chiang Mai**	**37.24**	**311**	*e*P	**P**	**20 10 19.3**	**+0.4**
	comp=Z,32nm,1.2s,mb5.0						
CHTO				*e*		20 10 33.1	
CHTO	**Chiang Mai**	**37.24**	**311**	*e*P	**P**	**20 10 19.3**	**+0.4**
CHTO				*e*		20 10 33.1	

CHTO				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.0						
CHRT	**Chiangrai**	**37.28**	**314** ⇑	P	**P**	**20 10 20.0**	**+0.7**
	comp=Z,105nm,1.4s,mb5.5						
GYA	**Guiyang**	**37.81**	**329**⇑	*i*P	**P**	**20 10 25.4**	**+1.7**
GYA				PP	PP	20 11 54.4	+4.2
GYA				PCP	PcP	20 12 42.0	+1.7
GYA				S	**S**	**20 16 16.4**	**+2.1**
GYA				SS	SS	20 18 51.3	-9.4
GYA				SCS	ScS	20 20 36.6	+0.2
GYA				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.1						
GYA				AMB	AMB		
	comp=Z,140nm,6.4s						
GYA				LR	LR		
	comp=N,830nm,17.0s,MS4.7						
GYA				LR	LR		
	comp=E,510nm,18.4s,MS4.7						
GYA				LR	LR		
	comp=Z,740nm,17.2s,MS4.5						
WHN	**Wuhan**	**38.16**	**341** ⇓	P	**P**	**20 10 27.5**	**+0.9**
NJ2	**Nanjing**	**38.42**	**348**	*e*P	**P**	**20 10 29.3**	**+0.6**
NJ2				AP	pP	20 10 33.6	+0.2
NJ2				XP	sP	20 10 36.4	+1.2
NJ2				PP	PP	20 12 00.8	+4.0
NJ2				S	**S**	**20 16 22.0**	**-1.2**
NJ2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,930nm,6.4s						
NJ2				LR	LR		
	comp=N,890nm,18.8s,MS4.7						
NJ2				LR	LR		
	comp=E,720nm,21.9s,MS4.7						
NJ2				LR	LR		
	comp=Z,720nm,21.9s,MS4.5						
KMI	**Kunming**	**38.98**	**323**	P	**P**	**20 10 34.8**	**+1.3**
KMI				XP	sP	20 10 46.8	+6.8
KMI				S	**S**	**20 16 32.8**	**+0.9**
KMI				XS	sS	20 16 47.1	+7.5
KMI				SS	SS	20 19 18.3	-5.8
KMI				AMB	AMB		
	comp=Z,27nm,1.3s,mb4.8						
KMI				AMB	AMB		
	comp=Z,232nm,6.5s						
KMI				LR	LR		
	comp=N,240nm,21.0s,MS4.3						
KMI				LR	LR		
	comp=E,418nm,17.0s,MS4.3						
KMI				LR	LR		
	comp=Z,390nm,31.6s						
KMI	**Kunming**	**38.98**	**323**	P	**P**	**20 10 34.8**	**+1.3**
	comp=Z,27nm,1.3s,mb4.8						
KMI				P		20 10 46.7	
KMI				S	**S**	**20 16 32.8**	**+0.9**
KMI				sS	sS	20 16 47.1	+7.5
KMI				SS	SS	20 19 18.2	-5.9
DZM	**Mont Dzumac**	**40.96**	**117**	P	**P**	**20 10 52.7**	**+2.6**
	comp=Z,10nm,0.9s,mb4.5,baz=318,slow=17,SNR=5.0						
TAU	**Tasmania Unive**	**41.01**	**158**	P	**P**	**20 10 51.6**	**+1.4**
	comp=Z,59nm,1.1s,mb5.1						
TAU	**Tasmania Unive**	**41.01**	**158**	P	**P**	**20 10 51.6**	**+1.5**
TAU				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.1						
KSRS	**Korea Array**	**42.90**	**0**	P	**P**	**20 11 06.5**	**+0.9**
	comp=Z,25nm,0.9s,mb5.0,baz=176,slow=11,SNR=49						
KSRS				LR	LR	20 26 20.4	
	comp=Z,312nm,21.5s,MS4.2,baz=184,slow=32						
CD2	**Chengdu**	**42.90**	**329**	*e*P	**P**	**20 11 05.8**	**0.0**
CD2				XP	sP	20 11 12.5	+0.1
CD2				PP	PP	20 12 48.3	+2.7
CD2				PCP	PcP	20 12 56.6	0.0
CD2				PCS	PcS	20 16 47.8	-1.1
CD2				SS	SS	20 20 39.6	-2.5
CD2				SCS	ScS	20 21 00.6	-6.0
CD2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.1						
CD2				AMB	AMB		
	comp=Z,60nm,5.8s						
CD2				LR	LR		
	comp=N,520nm,16.3s,MS4.6						
CD2				LR	LR		
	comp=E,350nm,19.2s,MS4.6						
CD2				LR	LR		
	comp=Z,300nm,16.8s,MS4.3						
MJAR	**Matsushiro Arr**	**43.16**	**13**	P	**P**	**20 11 07.0**	**-0.8**
MJAR				pmax	pmax		
	comp=Z,12nm,0.9s						
MJAR				MLR	MLR		
	comp=Z,351nm,20.6s						
MJAR	**Matsushiro Arr**	**43.16**	**13**	P	**P**	**20 11 07.0**	**-0.7**
	comp=Z,12nm,0.9s,mb4.6,baz=188,slow=9.6,SNR=21						
MJAR				LR	LR	20 28 10.3	
	comp=Z,351nm,20.6s,MS4.2,baz=190,slow=35						
MAJO	**Matsushiro**	**43.16**	**13**	*e*P	**P**	**20 11 06.6**	**-1.2**
	comp=Z,43nm,1.4s,mb5.0						
MAJO	**Matsushiro**	**43.16**	**13**	*e*P	**P**	**20 11 06.6**	**-1.2**
MAJO				pmax	pmax		
	comp=Z,43nm,1.4s,mb5.0						
MAT	**Matsushiro**	**43.16**	**13**	P	**P**	**20 11 06.8**	**-1.0**
MAT				S	**S**	**20 17 33.0**	**-0.8**
XAN	**Xi’an**	**43.25**	**337**	P	**P**	**20 11 07.8**	**-0.7**
XAN				AP	pP	20 11 13.8	+0.6
XAN				AMB	AMB		
	comp=Z,17nm,1.4s,mb4.6						
BJT	**Baijiatuau**	**46.66**	**348**	*e*P	**P**	**20 11 35.0**	**-0.5**
	comp=Z,40nm,1.1s,mb5.3						
BJT	**Baijiatuau**	**46.66**	**348**	*e*P	**P**	**20 11 35.0**	**-0.6**
BJT				pmax	pmax		
	comp=Z,40nm,1.1s						
BJI	**Beijing**	**46.68**	**348**	P	**P**	**20 11 35.0**	**-0.7**
BJI				PP	PP	20 13 21.4	-4.2
BJI				AMB	AMB		
	comp=Z,33nm,1.2s,mb5.1						
BJI				AMB	AMB		
	comp=Z,221nm,3.7s						
BJI				LR	LR		
	comp=N,252nm,35.4s						
BJI				LR	LR		
	comp=E,287nm,28.1s						
LZH	**Lanzhou**	**47.12**	**334**⇑	*i*P	**P**	**20 11 40.0**	**+0.8**
LZH				AP	pP	20 11 43.0	-1.0
LZH				PP	PP	20 13 25.4	-4.9
LZH				*e*S	**S**	**20 18 37.0**	**+5.9**
LZH				XS	sS	20 18 42.0	+3.1
LZH				SS	SS	20 21 58.1	-0.4
LZH				AMB	AMB		
	comp=Z,59nm,1.5s,mb5.3						
LZH				AMB	AMB		
	comp=Z,167nm,4.6s						
LZH				LR	LR		
	comp=N,923nm,14.6s						
LZH				LR	LR		
	comp=Z,1µm,15.8s,MS5.0						
LZH	**Lanzhou**	**47.12**	**334**⇑	*i*P	**P**	**20 11 40.0**	**+0.8**
	comp=Z,59nm,1.5s,mb5.3						
LZH				pP	pP	20 11 43.0	-1.0
LZH				sP	sP	20 11 44.5	-1.3
LZH				PcP	PcP	20 13 18.9	+7.9
LZH				PP	PP	20 13 25.4	-4.9
LZH				*e*S	**S**	**20 18 37.0**	**+5.9**
LZH				sS	sS	20 18 42.0	+3.1
LZH				SS	SS	20 21 58.1	-0.4
LZH				LR	LR		
	comp=Z,1µm,15.8s,MS5.0						
LZH	**Lanzhou**	**47.12**	**334**⇑	*i*P	**P**	**20 11 40.0**	**+0.8**
LZH						20 13 18.9	
LZH						20 13 25.4	
LZH				*e*S	**S**	**20 18 37.0**	**+5.9**
LZH				*SS	sS	20 18 42.0	+3.1
LZH				pmax	pmax		
	comp=Z,59nm,1.5s,mb5.3						
LZH				MLR	MLR		
	comp=Z,1µm,15.8s,MS5.0						
HHC	**Hu-ho-hao-te**	**48.56**	**344**	*e*P	**P**	**20 11 49.6**	**-0.8**
HHC				PCP	PcP	20 13 16.3	+0.3
HHC				PP	PP	20 13 42.6	-0.8
HHC				PCS	PcS	20 17 09.4	-2.6
HHC				SCP	ScP	20 17 10.4	-0.2
HHC				S	**S**	**20 18 49.9**	**-1.6**
HHC				SCS	ScS	20 21 41.0	-1.7
HHC				SS	SS	20 22 16.8	-5.0
HHC				AMB	AMB		
	comp=Z,137nm,6.7s						
HHC				LR	LR		
	comp=N,208nm,22.8s,MS4.2						
HHC				LR	LR		
	comp=E,243nm,23.7s,MS4.2						
HHC				LR	LR		
	comp=Z,198nm,25.6s,MS4.0						
CN2	**Changchun**	**49.28**	**358**	*e*P	**P**	**20 11 55.3**	**-0.5**
CN2				*e*XP	sP	20 12 02.0	-0.4
CN2				*e*S	**S**	**20 19 01.3**	**-0.1**
CN2				LR	LR		
	comp=N,700nm,18.0s,MS4.8						
CN2				LR	LR		
	comp=E,500nm,18.0s,MS4.8						
CN2				LR	LR		
	comp=Z,800nm,19.0s,MS4.7						
LSA	**Lhasa**	**49.57**	**317**	P	**P**	**20 11 59.8**	**+1.5**
LSA				AMB	AMB		
	comp=Z,30nm,1.2s,mb5.2						
LSA	**Lhasa**	**49.57**	**317**	*e*P	**P**	**20 11 59.2**	**+1.0**
	comp=Z,11nm,0.6s,mb5.1						
LSA	**Lhasa**	**49.57**	**317**	*e*P	**P**	**20 11 59.2**	**+0.9**
LSA				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
MDJ	**Mudanjiang**	**50.09**	**2**	P	**P**	**20 12 02.6**	**+0.6**
MDJ				PP	PP	20 13 57.8	+0.5
MDJ				S	**S**	**20 19 12.6**	**-0.2**
MDJ				SCS	ScS	20 21 53.3	+0.4
MDJ				SS	SS	20 22 46.8	+0.5
MDJ				AMB	AMB		
	comp=Z,42nm,1.2s,mb5.3						
MDJ				LR	LR		
	comp=N,245nm,30.6s,MS4.1						
MDJ				LR	LR		
	comp=E,105nm,29.7s,MS4.1						
MDJ				LR	LR		
	comp=Z,288nm,29.7s,MS4.1						
ODAN	**Odare**	**50.55**	**312**	*e*P	**P**	**20 12 05.6**	**-0.2**
	comp=Z,27nm,0.7s,mb5.3						
TAPN	**Taplejung**	**50.59**	**312**	*e*P	**P**	**20 12 06.0**	**-0.1**
	comp=Z,52nm,1.0s,mb5.4						
GTA	**Gaotai**	**51.66**	**333**	P	**P**	**20 12 13.8**	**-0.1**
GTA				AP	pP	20 12 18.1	-0.6
GTA				XP	sP	20 12 21.6	+1.0
GTA				PCP	PcP	20 13 26.3	-1.1
GTA				PP	PP	20 14 13.0	+1.4
GTA				SCP	ScP	20 17 21.3	-2.6
GTA				PCS	PcS	20 17 22.9	-2.4
GTA				S	**S**	**20 19 37.4**	**+2.7**
GTA				SCS	ScS	20 22 00.5	-3.4
GTA				SS	SS	20 23 09.9	-1.5
GTA				AMB	AMB		
	comp=Z,16nm,1.5s,mb4.7						
GTA				AMB	AMB		
	comp=Z,127nm,6.9s						
GTA				LR	LR		
	comp=N,274nm,16.4s,MS4.4						
GTA				LR	LR		
	comp=E,187nm,19.5s,MS4.4						
GTA				LR	LR		
	comp=Z,217nm,20.6s,MS4.2						
GUN	**Gumba**	**52.25**	**312**	*e*P	**P**	**20 12 18.1**	**-0.4**
PKI	**Pulchoki**	**52.42**	**311**	*e*P	**P**	**20 12 19.8**	**0.0**
	comp=Z,25nm,0.7s,mb5.2						
KKN	**Kakani**	**52.63**	**311**	*e*P	**P**	**20 12 21.1**	**-0.3**
	comp=Z,34nm,0.8s,mb5.3						
DMN	**Daman**	**52.67**	**311**	*e*P	**P**	**20 12 21.9**	**+0.3**
	comp=Z,38nm,0.7s,mb5.4						
GKN	**Gorkha**	**53.23**	**311**	*e*P	**P**	**20 12 25.4**	**-0.4**
	comp=Z,41nm,0.7s,mb5.5						
HYB	**Hyderabad**	**53.55**	**296**	*e*P	**P**	**20 12 33.0**	**+4.7**
HYB	**Hyderabad**	**53.55**	**296**	*i* P	**P**	**20 12 26.0**	**-2.3**
YSS	**Yuzh-Sakhalins**	**54.10**	**13**	*e*P	**P**	**20 12 31.0**	**-0.8**
YSS				*e*		20 12 47.0	
HABR	**Khabarovsk**	**54.32**	**6**⇓	*i*P	**P**	**20 12 32.2**	**-1.1**
HABR				*e*		20 13 33.3	
HABR				*e*S	**S**	**20 20 07.3**	**-3.3**
HABR				*e*		20 22 18.9	
HABR				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.2						
KLR	**Kul’dur**	**54.80**	**3**	*e*P	**P**	**20 12 33.7**	**-3.1**
KLR				pmax	pmax		
	comp=Z,94nm,2.2s,mb5.4						
HIA	**Hailar**	**55.13**	**354**	*e*P	**P**	**20 12 39.1**	**-0.1**
	comp=Z,59nm,2.0s,mb5.3						
HIA	**Hailar**	**55.13**	**354**	*e*P	**P**	**20 12 39.1**	**-0.1**
HIA				pmax	pmax		
	comp=Z,59nm,2.0s						
ULN	**Ulaanbaatar**	**56.28**	**344**	*e*P	**P**	**20 12 47.5**	**0.0**
	comp=Z,17nm,1.0s,mb5.0						
ULN	**Ulaanbaatar**	**56.28**	**344**⇓	*i*P	**P**	**20 12 47.6**	**+0.1**
SONM	**Songino Array**	**56.44**	**343**	P	**P**	**20 12 48.8**	**+0.1**
SONM				pmax	pmax		
	comp=Z,9.0nm,1.0s						
SONM				MLR	MLR		
	comp=Z,190nm,19.5s						
SONM	**Songino Array**	**56.44**	**343**	P	**P**	**20 12 48.8**	**+0.1**
	comp=Z,8.8nm,1.0s,mb4.7,baz=155,slow=5.6,SNR=45						
SONM				LR	LR	20 39 04.9	
	comp=Z,190nm,19.5s,MS4.2,baz=22,slow=38						
CIT	**Chita**	**58.70**	**350**	*e*P	**P**	**20 13 05.1**	**+0.6**
CIT				*e*		20 13 15.6	
ZAK	**Zakamensk**	**59.64**	**342**	*e*P	**P**	**20 13 12.6**	**+1.6**
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.3						
TLY	**Talaya**	**60.68**	**343**	*e*P	**P**	**20 13 18.1**	**-0.1**
	comp=Z,8.3nm,1.0s,mb4.8						
TLY	**Talaya**	**60.68**	**343**	*e*P	**P**	**20 13 18.6**	**+0.4**
TLY				*e*		20 15 35.3	
TLY				*e*S	**S**	**20 21 35.8**	**+1.6**
TLY				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.8						
WMQ	**Urumqi**	**60.97**	**328**	P	**P**	**20 13 21.3**	**+1.0**
WMQ				PCP	PcP	20 14 05.0	+1.4
WMQ				PP	PP	20 15 37.4	+2.6
WMQ				S	**S**	**20 21 38.0**	**-0.1**
WMQ				SCS	ScS	20 23 09.9	-1.1
WMQ				SS	SS	20 25 38.0	+0.1
WMQ				AMB	AMB		
	comp=Z,16nm,1.0s,mb5.1						
WMQ				AMB	AMB		
	comp=Z,52nm,10.0s						
WMQ				LR	LR		
	comp=N,191nm,24.0s,MS4.3						
WMQ				LR	LR		
	comp=E,165nm,20.0s,MS4.3						
WMQ				LR	LR		
	comp=Z,136nm,22.1s,MS4.0						
IRK	**Irkutsk**	**61.01**	**344**	*e*P	**P**	**20 13 14.8**	**-5.5**
IRK				*e*		20 21 29.2	
IRK				pmax	pmax		
	comp=Z,40nm,1.5s,mb5.3						
MOY	**Mondy**	**61.47**	**342**	*e*P	**P**	**20 13 23.6**	**+0.1**
MOY				pmax	pmax		
	comp=Z,37nm,2.2s,mb5.1						
CLNS	**Chul’man**	**62.33**	**358**	*e*P	**P**	**20 13 22.2**	**-7.0**
CLNS				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.1						
CLNS				pmax	pmax		
	comp=N,7.0nm,1.1s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.8s						
BOD	**Bodaibo**	**64.22**	**352**	*e*P	**P**	**20 13 40.6**	**-1.1**
KSH	**Kashi**	**65.40**	**318**	*e*P	**P**	**20 13 50.4**	**+0.6**
KSH				*e*AP	pP	20 13 55.5	+0.8
KSH				*e*XP	sP	20 13 57.4	+0.8
KSH				*e*PCP	PcP	20 14 22.1	+0.3
KSH				*e*PP	PP	20 16 16.5	+2.6
KSH				*e*SCP		20 18 23.4	
KSH				*e*S	S	20 22 32.1	-1.7
KSH				*e*SCS	ScS	20 23 41.4	-3.5
KSH				*e*SS	SS	20 26 47.5	+0.1
KSH				AMB	AMB		
	comp=Z,608nm,5.0s						
KSH				LR	LR		
	comp=N,1µm,5.2s						
KSH				LR	LR		
	comp=E,756nm,6.6s						
MK31	**Makanchi Array**	**65.80**	**328**	*i* P	**P**	**20 13 51.3**	**-0.9**
MK31				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
MKAR	**Makanchi Array**	**65.80**	**328**	P	**P**	**20 13 51.4**	**-0.8**
MKAR	**Makanchi Array**	**65.80**	**328**⇑	*e*P	**P**	**20 13 51.4**	**-0.8**
MKAR	**Makanchi Array**	**65.80**	**328**	P	**P**	**20 13 51.4**	**-0.8**
	comp=Z,7.5nm,0.8s,mb4.8,baz=124,slow=7.5,SNR=29						
YAK	**Yakutsk**	**67.53**	**1**	*e*P	**P**	**20 14 02.6**	**-0.3**
	comp=Z,81nm,0.8s,mb5.8						
YAK	**Yakutsk**	**67.53**	**1**	*e*P	**P**	**20 14 03.2**	**+0.3**
YAK				*e**PP	pP	20 14 12.5	+4.7
YAK				*e*		20 14 18.5	
YAK				*e*		20 16 31.3	
YAK				*e*S	S	20 23 04.2	+5.6
YAK				*e**SS	sS	20 23 24.2	+17
YAK				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.5						
YAK				pmax	pmax		
	comp=N,28nm,1.5s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,69nm,3.9s						
YAK				pmax	pmax		
	comp=N,90nm,3.8s						
YAK				pmax	pmax		
	comp=E,59nm,2.6s						
YAK				smax			
	comp=N,78nm,2.6s						
YAK				smax			
	comp=Z,22nm,2.4s						
YAK				smax			
	comp=E,137nm,3.9s						
YAK				MLR	MLR		
	comp=Z,170nm,16.0s,MS4.4						
YAK				MLR	MLR		
	comp=N,104nm,15.0s,MS4.3						
YAK				MLR	MLR		
	comp=E,80nm,16.0s,MS4.3						
MA2	**Magadan**	**67.61**	**13**	*e*P	**P**	**20 14 05.0**	**+1.6**
	comp=E,20nm,1.0s,mb5.1						
MA2	**Magadan**	**67.61**	**13***d*	*i*P	**P**	**20 14 04.7**	**+1.2**
MA2				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.2						
AAK	**Ala-Archa**	**67.96**	**320**	P	**P**	**20 14 05.3**	**-0.8**
	comp=Z,56nm,0.8s,mb5.7,SNR=8.4						
AAK	**Ala-Archa**	**67.96**	**320**	*e*P	**P**	**20 14 05.0**	**-1.1**
	comp=Z,8.6nm,0.9s,mb4.8						
AAK	**Ala-Archa**	**67.96**	**320**⇓	*i*P	**P**	**20 14 05.3**	**-0.8**
AAK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
ZALV	**Zalesovo Beam**	**69.33**	**335**	P	**P**	**20 14 12.5**	**-1.9**
	comp=Z,8.4nm,1.0s,mb4.6,baz=108,slow=4.8,SNR=33						
ZALV				LR	LR	20 48 08.4	
	comp=Z,78nm,18.9s,MS4.0,baz=254,slow=39						
ZAL	**Zalesovo**	**69.33**	**335**	P	**P**	**20 14 12.5**	**-1.9**
KURK	**Kurchatov**	**70.13**	**329**	*e*P	**P**	**20 14 18.5**	**-0.9**
	comp=Z,12nm,0.8s,mb4.9						
KURK	**Kurchatov**	**70.13**	**329**⇑	*e*P	**P**	**20 14 18.1**	**-1.3**
KURK				pmax	pmax		
	comp=Z,12nm,1.5s,mb4.6						
NVS	**Novosibirsk**	**70.62**	**335**	*e*P	**P**	**20 14 20.9**	**-1.4**
NVS				*e*S	S	20 23 29.6	-5.9
NVS				pmax	pmax		
	comp=N,13nm,1.2s						
NVS				pmax	pmax		
	comp=E,14nm,1.2s						
NVS				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
NVS				smax			
	comp=N,4.0nm,1.0s						
NVS				smax			
	comp=E,10.0nm,1.2s						
KK31	**Karatay Array**	**70.75**	**319**	*i* P	**P**	**20 14 24.1**	**+0.8**
KK31				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
KKAR	**Karatay Array**	**70.75**	**319**	*i* P	**P**	**20 14 24.1**	**+0.8**
SEY	**Seymchan**	**70.98**	**12**⇓	*e*P	**P**	**20 14 24.7**	**+0.4**
VNDA	**Vanda**	**74.06**	**173**	P	**P**	**20 14 41.6**	**-0.9**
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
VNDA				MLR	MLR		
	comp=Z,493nm,18.6s						
VNDA	**Vanda**	**74.06**	**173**	P	**P**	**20 14 41.6**	**-0.9**
	comp=Z,2.6nm,0.8s,mb4.2,baz=0.0,slow=7.1,SNR=2.5						
VNDA				LR	LR	20 45 47.3	
	comp=Z,493nm,18.6s,MS4.8,baz=328,slow=35						
MAW	**Mawson**	**75.30**	**201**	P	**P**	**20 14 49.3**	**-0.5**
MAW				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MAW				MLR	MLR		
	comp=Z,435nm,18.4s						
MAW	**Mawson**	**75.30**	**201**	P	**P**	**20 14 49.3**	**-0.5**
	comp=Z,6.2nm,0.8s,mb4.6,baz=89,slow=7.7,SNR=5.6						
MAW				LR	LR	20 45 52.3	
	comp=Z,435nm,18.4s,MS4.8,baz=62,slow=34						
BRVK	**Borovoye**	**75.73**	**328**	*e*P	**P**	**20 14 51.2**	**-1.3**
	comp=Z,14nm,1.1s,mb4.8						
BRVK	**Borovoye**	**75.73**	**328**	*e*P	**P**	**20 14 51.2**	**-1.3**
BRVK				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
BILL	**Bilibino**	**78.40**	**14**	P	**P**	**20 15 06.9**	**-0.3**
	comp=Z,2.2nm,0.6s,mb4.3						
BILL	**Bilibino**	**78.40**	**14**⇑	*e*P	**P**	**20 15 09.1**	**+1.9**
BILL				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.3						
AB31	**Akbulak array**	**79.96**	**322**	*i* P	**P**	**20 15 15.6**	**-0.6**
PPT	**Papeete**	**81.54**	**107**	*e*LQ		20 37 39.7	
	comp=Z,726nm,27.2s						
PPT				*e*LR	LR	20 41 09.0	
	comp=Z,545nm,30.8s						
SVE	**Sverdlovsk**	**82.38**	**329**	*e*P	**P**	**20 15 29.0**	**+0.1**
GAMB	**Gambell**	**82.64**	**23**	*e*P	**P**	**20 15 31.6**	**+1.5**
ARU	**Arti**	**83.30**	**329**	P	**P**	**20 15 33.4**	**-0.3**
	comp=Z,64nm,1.0s,mb5.6,SNR=6.0						
ARU	**Arti**	**83.30**	**329**	*e*P	**P**	**20 15 32.5**	**-1.2**
	comp=Z,20nm,1.1s,mb5.1						
ARU	**Arti**	**83.30**	**329**⇑	*i*P	**P**	**20 15 33.3**	**-0.4**
ARU				*e*		20 18 43.6	
ARU				*e*PPP		20 20 32.8	
ARU				*e*S	S	20 25 50.0	-3.8
ARU				*e*SS	SS	20 31 11.6	-7.4
ARU				*e*SSS		20 34 35.6	
ARU				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.1						
QRN	**Al-Qurain**	**83.67**	**300**	*e*P	**P**	**20 15 35.4**	**-0.8**
QRN				AMb	AMB	20 15 36.9	
	comp=Z,82nm,0.7s,mb6.0						
UMR	**Umm Al-Rimmam**	**83.98**	**300**	*e*P	**P**	**20 15 37.2**	**-0.6**
UMR				AMb	AMB	20 15 38.6	
	comp=Z,36nm,0.8s,mb5.5						
RDF	**Al-Radifah**	**84.01**	**300**	*e*P	**P**	**20 15 37.4**	**-0.5**
RDF				AMb	AMB	20 15 40.2	
	comp=Z,75nm,1.3s,mb5.7						
NAY	**Al-Naaiem**	**84.33**	**300**	*e*P	**P**	**20 15 38.9**	**-0.7**
NAY				AMb	AMB	20 15 40.5	
	comp=Z,32nm,0.9s,mb5.4						
MIB	**Mutribah**	**84.34**	**301**	*e*P	**P**	**20 15 39.1**	**-0.5**
MIB				AMb	AMB	20 15 41.7	
	comp=Z,70nm,0.9s,mb5.8						
ZEI	**Tsey**	**89.16**	**313**	*e*P	**P**	**20 16 03.9**	**+1.1**
ZEI				*i*		20 16 15.5	
ZEI				*e*		20 19 34.0	
ZEI				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.1						
KMBO	**Kilima Mbogo**	**90.18**	**269**	*e*P	**P**	**20 16 07.5**	**-0.8**
	comp=Z,3.8nm,0.8s,mb4.8						
KMBO	**Kilima Mbogo**	**90.18**	**269**	*i* P	**P**	**20 16 09.1**	**+0.8**
KMBO				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KMBO	**Kilima Mbogo**	**90.18**	**269**	P	**P**	**20 16 07.9**	**-0.4**
	comp=Z,4.3nm,0.8s,mb4.8,baz=53,slow=7.2,SNR=14						
KMBO				LR	LR	20 51 56.8	
	comp=Z,239nm,20.7s,MS4.6,baz=274,slow=33						
KIV	**Kislovodsk**	**90.20**	**314**	*e*P	**P**	**20 16 09.1**	**+1.4**
KIV				*e*		20 26 36.3	
KIV				*e*SS	SS	20 33 00.2	-0.4
KIV				*e*SSS		20 36 35.3	
KIV				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.8						
KIV				MLR	MLR		
	comp=Z,71nm,20.0s,MS4.1						
IMA2	**Indian Mountai**	**90.60**	**24**	*e*P	**P**	**20 16 09.6**	**+0.6**
MCK	**McKinley**	**92.17**	**26**	*e*P	**P**	**20 16 15.2**	**-1.1**
	comp=Z,14nm,1.5s,mb5.1						
MCK	**McKinley**	**92.17**	**26**	*e*P	**P**	**20 16 15.2**	**-1.2**
MCK				pmax	pmax		
	comp=Z,14nm,1.5s,mb5.1						
MALT	**Malatya**	**92.78**	**308**	*e*P	**P**	**20 16 20.1**	**+0.3**
	comp=Z,3.4nm,0.8s,mb4.8						
MALT	**Malatya**	**92.78**	**308**	*e*P	**P**	**20 16 20.1**	**+0.3**
MALT				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.8						
COLA	**College**	**92.80**	**25**	P	**P**	**20 16 20.5**	**+1.3**
	comp=Z,9.1nm,1.1s,mb5.1						

COLA	College	92.80	25	P	P	20 16 20.5	+1.3
COLA				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.1						
VRSR	Storozhevoye	93.35	321	*e*P	P	20 16 21.1	-1.0
VRSR				pmax	pmax		
	comp=N,1.0nm,0.9s						
VRSR				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb4.2						
VRSR				pmax	pmax		
	comp=E,4.0nm,1.0s						
RKT	Rikitea	94.64	114	*e*LR	LR	20 47 11.7	
	comp=E,171nm,25.2s						
OBN	Obninsk	95.17	325	P	P	20 16 31.0	+0.6
OBN				*e*		20 16 41.3	
OBN				MLR	MLR		
	comp=Z,100nm,21.0s,MS4.3						
DAWY	Dawson	96.40	26	*e*P	P	20 16 36.7	+1.0
BRTR	Keskin Array B	96.59	309	*i* P	P	20 16 36.9	-0.3
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	96.59	309	P	P	20 16 36.9	-0.4
	comp=Z,1.1nm,0.7s,mb4.4,baz=117,slow=6.0,SNR=8.1						
BRTR				PP	PP	20 20 30.8	-1.0
	comp=Z,0.6nm,0.9s,baz=102,slow=8.1,SNR=3.9						
LSZ	Lusaka	97.50	254	*e*P	P	20 16 41.2	-0.6
	comp=Z,20nm,1.2s,mb5.4						
LSZ	Lusaka	97.50	254	*e*P	P	20 16 41.2	-0.6
LSZ				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.4						
BOSA	Boshof	98.02	240	P	P	20 16 43.0	-1.0
BOSA				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb5.1						
BOSA				MLR	MLR		
	comp=Z,158nm,20.8s,MS4.5						
BOSA	Boshof	98.02	240	P	P	20 16 43.0	-0.9
	comp=Z,7.4nm,1.1s,mb5.1,baz=93,slow=6.2,SNR=7.8						
BOSA				LR	LR	20 51 56.9	
	comp=Z,158nm,20.8s,MS4.5,baz=118,slow=30						
AKASG	Malin Array Be	99.64	320	P	Pdif	20 16 48.7	-1.8
AKASG	Malin Array Be	99.64	320	*i* P	Pdif	20 16 48.2	-2.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	99.64	320	P	Pdif	20 16 48.7	-1.8
	comp=Z,0.5nm,0.5s,baz=66,slow=4.2,SNR=4.1						
FINES	FINESS Array B	100.44	331	P	Pdif	20 16 52.5	-1.6
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	FINESS Array B	100.44	331	P	Pdif	20 16 52.5	-1.6
	comp=Z,0.9nm,0.7s,baz=122,slow=6.7,SNR=3.5						
NOA	NORSAR Array B	107.49	333	Pdif	Pdif	20 17 24.2	-1.2
NOA	NORSAR Array B	107.49	333	P	Pdif	20 17 24.3	-1.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	107.49	333	Pdiff	Pdif	20 17 24.2	-1.2
	comp=Z,0.5nm,0.7s,baz=45,slow=5.2,SNR=3.7						
YKA	Yellowknife Ar	107.62	26	Pdif	Pdif	20 17 29.4	+3.3
YKA				PKPdf	PKiKP	20 21 34.4	+0.6
YKA				PKKPbc	PKKPbc	20 32 48.3	-2.3
YKA	Yellowknife Ar	107.62	26	P	Pdif	20 17 29.4	+3.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	Yellowknife Ar	107.62	26	Pdiff	Pdif	20 17 29.4	+3.3
	comp=Z,0.3nm,0.8s,baz=284,slow=4.4,SNR=3.8						
YKA				PKiKP	PKiKP	20 21 34.4	+0.6
	comp=Z,0.8nm,0.8s,baz=295,slow=1.9,SNR=6.4						
YKA				PKKPbc	PKKPbc	20 32 48.3	-2.3
	comp=Z,0.4nm,0.7s,baz=107,slow=2.8,SNR=6.6						
GERES	GERESS Array B	109.84	320	PKPdf	PKiKP	20 21 39.1	+0.7
GERES	GERESS Array B	109.84	320	PKiKP	PKiKP	20 21 39.1	+0.7
	comp=Z,1.4nm,0.5s,baz=222,slow=1.8,SNR=8.1						
CDF	Champ du Feu	114.05	321	*e*PKP1	PKiKP	20 21 45.4	-0.9
CDF	Champ du Feu	114.05	321	*e*PKP	PKiKP	20 21 45.4	-0.9
CDF	Champ du Feu	114.05	321	*e*PKIKP	PKiKP	20 21 45.4	-0.9
HINF	Hinteralfeld	114.51	320	*e*PKP1	PKiKP	20 21 47.1	-0.2
	comp=Z,5.9nm,0.6s						
HINF	Hinteralfeld	114.51	320	*e*PKP	PKiKP	20 21 47.1	-0.2
HINF	Hinteralfeld	114.51	320	*e*PKIKP	PKiKP	20 21 47.1	-0.2
HAU	Haudompre	114.77	321	*e*PKP1	PKiKP	20 21 47.8	+0.1
	comp=Z,12nm,1.0s						
HAU				*e*MLR	MLR		
	comp=Z,113nm,20.8s,MS4.2						
HAU	Haudompre	114.77	321	*e*PKP	PKiKP	20 21 47.8	+0.1
HAU				LR	LR		
	comp=Z,110nm,20.8s,MS4.4						
HAU	Haudompre	114.77	321	*e*PKIKP	PKiKP	20 21 47.8	+0.1
HAU				MLR	MLR		
	comp=Z,110nm,20.8s,MS4.4						
LPG	La Plagne	115.35	318	⇑*i*PKP1	PKiKP	20 21 49.6	+0.7
	comp=Z,10.0nm,0.9s						
LPG	La Plagne	115.35	318	⇑*i*PKP	PKPdf	20 21 49.6	+0.7
LPG	La Plagne	115.35	318	⇑*i*PKIKP	PKPdf	20 21 49.6	+0.7
LPL	La Plagne	115.36	318	*e*PKP1	PKiKP	20 21 49.5	+0.5
	comp=Z,10nm,0.8s						
LPL	La Plagne	115.36	318	*e*PKP	PKPdf	20 21 49.5	+0.5
LPL	La Plagne	115.36	318	*e*PKIKP	PKPdf	20 21 49.5	+0.5
SBF	Sospel	115.40	316	*e*PKP1	PKiKP	20 21 48.4	-0.7
	comp=Z,32nm,0.9s						
SBF	Sospel	115.40	316	*e*PKP	PKPdf	20 21 48.4	-0.7
SBF	Sospel	115.40	316	*e*PKIKP	PKPdf	20 21 48.4	-0.7
CABF	La Chapelle	115.42	319	*e*PKP1	PKiKP	20 21 49.5	+0.5
	comp=Z,14nm,0.7s						
CABF	La Chapelle	115.42	319	*e*PKP	PKPdf	20 21 49.5	+0.5
CABF	La Chapelle	115.42	319	*e*PKIKP	PKPdf	20 21 49.5	+0.5
MBDF	Montbardon	115.58	317	*e*PKP1	PKiKP	20 21 49.5	+0.1
	comp=Z,8.7nm,0.8s						
MBDF	Montbardon	115.58	317	*e*PKP	PKPdf	20 21 49.5	+0.1
MBDF	Montbardon	115.58	317	*e*PKIKP	PKPdf	20 21 49.5	+0.1
FRF	La Foret Royal	116.04	316	*e*PKP1	PKPdf	20 21 50.3	0.0
FRF	La Foret Royal	116.04	316	*e*PKP	PKPdf	20 21 50.3	0.0
FRF	La Foret Royal	116.04	316	*e*PKIKP	PKPdf	20 21 50.3	0.0
ORIF	Oris-en-Rattie	116.12	318	*e*PKP1	PKPdf	20 21 50.7	+0.3
	comp=Z,9.6nm,0.9s						
ORIF				*e*MLR	MLR		
	comp=Z,99nm,22.2s,MS4.1						
ORIF	Oris-en-Rattie	116.12	318	*e*PKP	PKPdf	20 21 50.7	+0.3
ORIF	Oris-en-Rattie	116.12	318	*e*PKIKP	PKPdf	20 21 50.7	+0.3
LOR	Lormes	116.60	321	*e*PKP1	PKPdf	20 21 51.4	+0.1
	comp=Z,7.4nm,0.7s						
LOR				*e*MLR	MLR		
	comp=Z,148nm,19.0s,MS4.3						
LOR	Lormes	116.60	321	*e*PKP	PKPdf	20 21 51.4	+0.1
LOR				LR	LR		
	comp=Z,150nm,19.0s,MS4.6						
LOR	Lormes	116.60	321	*e*PKIKP	PKPdf	20 21 51.4	+0.1
LOR				MLR	MLR		
	comp=Z,150nm,19.0s,MS4.6						
SMRF	Simiane la Rot	116.64	317	*e*PKP1	PKPdf	20 21 51.6	+0.1
SMRF	Simiane la Rot	116.64	317	*e*PKP	PKPdf	20 21 51.6	+0.1
SMF	Signal de Mont	116.85	320	*e*PKP1	PKPdf	20 21 51.7	-0.1
	comp=Z,11nm,0.7s						
SMF	Signal de Mont	116.85	320	*e*PKP	PKPdf	20 21 51.7	-0.1
SMF	Signal de Mont	116.85	320	*e*PKIKP	PKPdf	20 21 51.7	-0.1
SSF	Saint Saulge	116.91	321	⇑*i*PKP1	PKPdf	20 21 52.8	+0.9
	comp=Z,11nm,0.7s						
SSF	Saint Saulge	116.91	321	⇑*i*PKP	PKPdf	20 21 52.8	+0.9
SSF	Saint Saulge	116.91	321	⇑*i*PKIKP	PKPdf	20 21 52.8	+0.9
AVF	Avril sur Loir	117.11	320	*e*PKP1	PKPdf	20 21 52.3	0.0
AVF	Avril sur Loir	117.11	320	*e*PKP	PKPdf	20 21 52.3	0.0
AVF	Avril sur Loir	117.11	320	*e*PKIKP	PKPdf	20 21 52.3	0.0
BGF	Bois d'Agland	117.52	320	*e*PKP1	PKPdf	20 21 53.6	+0.5
	comp=Z,19nm,0.7s						
BGF	Bois d'Agland	117.52	320	*e*PKP	PKPdf	20 21 53.6	+0.5
BGF	Bois d'Agland	117.52	320	*e*PKIKP	PKPdf	20 21 53.6	+0.5
PDAR	Pinedale Array	117.67	44	PKP	PKPdf	20 21 53.4	-0.1
PDAR				PKKPbc	PKKPbc	20 32 15.7	-0.6
PDAR	Pinedale Array	117.67	44	PKP	PKPdf	20 21 53.4	-0.1
	comp=Z,0.8nm,0.8s,baz=186,slow=1.5,SNR=6.3						
PDAR				PKKPbc	PKKPbc	20 32 15.7	-0.6
	comp=Z,0.8nm,0.8s,baz=111,slow=8.1,SNR=5.7						
TCF	Toulx Ste Croi	118.03	320	*e*PKP1	PKPdf	20 21 54.5	+0.4
	comp=Z,5.0nm,0.7s						
TCF	Toulx Ste Croi	118.03	320	*e*PKP	PKPdf	20 21 54.5	+0.4
TCF	Toulx Ste Croi	118.03	320	*e*PKIKP	PKPdf	20 21 54.5	+0.4
CAF	Calviac	118.65	319	*e*PKP1	PKPdf	20 21 56.0	+0.7
	comp=Z,14nm,1.0s						
CAF	Calviac	118.65	319	*e*PKP	PKPdf	20 21 56.0	+0.7
CAF	Calviac	118.65	319	*e*PKIKP	PKPdf	20 21 56.0	+0.7
MTLF	Montolieu	119.14	317	*e*PKP1	PKPdf	20 21 56.5	+0.2
MTLF	Montolieu	119.14	317	*e*PKP	PKPdf	20 21 56.5	+0.2
MTLF	Montolieu	119.14	317	*e*PKIKP	PKPdf	20 21 56.5	+0.2
MFF	Saint Martin d	119.38	321	*e*PKP1	PKPdf	20 21 56.8	+0.1
	comp=Z,41nm,1.0s						
MFF	Saint Martin d	119.38	321	*e*PKP	PKPdf	20 21 56.8	+0.1
MFF	Saint Martin d	119.38	321	*e*PKIKP	PKPdf	20 21 56.8	+0.1
EPF	Esparros	120.53	317	*e*PKP1	PKPdf	20 21 59.2	+0.2
EPF	Esparros	120.53	317	*e*PKP	PKPdf	20 21 59.2	+0.2
EPF	Esparros	120.53	317	*e*PKIKP	PKPdf	20 21 59.2	+0.2
ETSF	Etsaut	121.19	317	*e*PKP1	PKPdf	20 22 00.4	+0.1
	comp=Z,15nm,0.9s						
ETSF	Etsaut	121.19	317	*e*PKP	PKPdf	20 22 00.4	+0.1
ETSF	Etsaut	121.19	317	*e*PKIKP	PKPdf	20 22 00.4	+0.1
SJPF	Ste Jean	121.55	318	*e*PKP1	PKPdf	20 22 00.4	-0.6
	comp=Z,8.7nm,0.8s						
SJPF	Ste Jean	121.55	318	*e*PKP	PKPdf	20 22 00.4	-0.6
SJPF	Ste Jean	121.55	318	*e*PKIKP	PKPdf	20 22 00.4	-0.6
ANMO	Albuquerque	122.44	52	PKP	PKPdf	20 22 04.7	+1.8
ANMO	Albuquerque	122.44	52	PKIKP	PKPdf	20 22 04.7	+1.8
ANMO				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ANMO	Albuquerque	122.44	52	PKP	PKPdf	20 22 04.7	+1.8
	comp=Z,2.4nm,0.6s,baz=135,slow=4.3,SNR=2.4						
ULM	Lac du Bonnet	122.64	32	PKP	PKPdf	20 22 02.0	-0.8
ULM	Lac du Bonnet	122.64	32	PKP	PKPdf	20 22 02.0	-0.8
	comp=Z,1.7nm,0.6s,baz=335,slow=3.1,SNR=3.8						
MNTX	Cornudas Mount	124.24	55	*e*PKPdf	PKPdf	20 22 06.0	-0.5
TORD	Torodi Ar. Bea	126.16	282	PKP	PKPdf	20 22 10.9	+0.3
TORD	Torodi Ar. Bea	126.16	282	PKP	PKPdf	20 22 10.9	+0.3
	comp=Z,18nm,0.8s,baz=66,slow=1.9,SNR=97						
TXAR	Lajitas Array	126.31	58	PKP	PKPdf	20 22 11.4	+0.9
TXAR	Lajitas Array	126.31	58	PKIKP	PKPdf	20 22 11.4	+0.9
TXAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
TXAR	Lajitas Array	126.31	58	PKP	PKPdf	20 22 11.4	+0.9
	comp=Z,1.4nm,0.9s,baz=329,slow=4.7,SNR=6.2						
JCT	Junction City	129.17	55	*e*PKPdf	PKPdf	20 22 17.5	+1.5
JCT	Junction City	129.17	55	*e*PKIKP	PKPdf	20 22 17.5	+1.6
LIC	Lamto	132.84	273	*e*PKIKP	PKPdf	20 22 23.6	+0.3
	comp=Z,29nm,0.8s						
LIC				*e*MLR	MLR		
	comp=Z,187nm,22.8s,MS4.4						
LIC	Lamto	132.84	273	*e*PKPdf	PKPdf	20 22 23.6	+0.3
LIC				LR	LR		
	comp=Z,90nm,22.8s,MS4.4						
NNA	Nana	150.06	126	*e*PKPdf	PKPbc	20 23 00.5	+1.6
LPAZ	La Paz	153.23	145	PKP	PKPdf	20 23 01.5	+2.9
LPAZ				PKPbc	PKPbc	20 23 08.2	+2.1
LPAZ				PKPab	PKPab	20 23 20.6	+3.0
LPAZ	La Paz	153.23	145	PKIKP	PKPdf	20 23 01.5	+2.9
LPAZ						20 23 08.2	
LPAZ						20 23 20.6	
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.6s						
LPAZ				pmax	pmax		
	comp=Z,7.0nm,0.9s						
LPAZ				pmax	pmax		
	comp=Z,6.0nm,0.8s						
LPAZ	La Paz	153.23	145	PKP	PKPdf	20 23 01.5	+2.9
	comp=Z,2.1nm,0.6s,baz=278,slow=1.5,SNR=4.0						
LPAZ				PKPbc	PKPbc	20 23 08.2	+2.1
	comp=Z,6.5nm,0.9s,baz=260,slow=1.2,SNR=12						
LPAZ				PKPab	PKPab	20 23 20.6	+3.0
	comp=Z,6.3nm,0.8s,baz=300,slow=3.2,SNR=7.9						

IDC 13 20:18:12.0±1.7**,2.59N×127.71E,h0^{km},mb3.4**/3**,mb1 3.5**/3**,**
mb1mx3.3/16**,mbtmp3.4**/3**,MS3.4**/1**,Ms1 3.4**/1**,**
ms1mx2.6/16**,Error ellipse: s-maj=136.8km**
s-min=26.8km az=70.0,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	22.75	122	LR	LR	20 30 48.1	
	comp=Z,100nm,20.1s,baz=206,slow=33						
WRA	Warramunga Arr	23.32	164	P	P	20 23 21.4	-0.5
	0.4nm,0.8s,baz=344,slow=10,SNR=8.0						
SONM	Songino Array	48.69	341	P	P	20 26 58.2	+0.2
	0.4nm,0.5s,baz=149,slow=8.2,SNR=4.3						
MKAR	Makanchi Array	59.05	325	P	P	20 28 14.2	+0.3
	0.4nm,0.6s,baz=118,slow=8.8,SNR=5.9						

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*IDC **13** 21:05:40.2±1.3,5.73S×127.23E,h0^{km},mb3.8/3,mb1 4.1/5,*
mb1mx3.8/17,mbtmp4.0/5,ML3.9/1,MS2.7/1,Ms1 2.7/1,
ms1mx2.1/24,Error ellipse: s-maj=66.0km s-min=22.3km
az=62.0
*NEIC **13** 21:05:42.0±1.1,5.77S×127.16E,h10^{km},mb4.0/4,Error*
ellipse: s-maj=19.7km s-min=16.2km az=60.0
*ISCJB **13** 21:05:47.5±1.6,6.3S±0.1×127.4E±0.1,h33^{km},mb3.7/3,*
Error ellipse: s-maj=20.9km s-min=13.2km az=24.7
ISC 13 21:05:49.7±1.6**,6.2S**±0.1×**127.5E**±0.1**,h35^{km},n13,σ0^{s}91**/16**,**
mb3.7/3**,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	8.11	143	*e*P	Pn	21 07 47.4	+2.3
	6.5nm,0.3s						
FITZ	Fitzroy Crossi	11.97	189	Pn	Pn	21 08 37.7	-0.3
	0.5nm,0.3s,baz=19,slow=13,SNR=14						
FITZ				Sn	Sn	21 10 50.1	-0.2
	0.3nm,0.3s,baz=116,slow=19,SNR=4.1						
WRA	Warramunga Arr	15.20	155	Pn	Pn	21 09 20.4	-1.5
WRA				Sn	Sn	21 12 09.1	-0.1
WRA				LR	LR	21 15 00.9	
WRA	Warramunga Arr	15.20	155	Pn	Pn	21 09 20.4	-1.5
	0.4nm,0.3s,baz=342,slow=13,SNR=22						
WRA				Sn	Sn	21 12 09.1	-0.1
	0.1nm,0.3s,baz=329,slow=24,SNR=3.4						
WRA				LR	LR	21 15 00.9	
	comp=Z,26nm,19.7s,baz=305,slow=36						
MBWA	Marble Bar	16.66	206	*e*Pn	Pn	21 09 44.6	+4.0
	8.7nm,0.9s						
ASAR	Alice Springs	18.43	161	P	Pn	21 10 02.7	+0.1
	1.3nm,0.3s,baz=343,slow=11,SNR=145						
PMG	Port Moresby	19.75	101	*e*P	Pn	21 10 17.6	-0.8
	7.4nm,0.8s						
CTA	Charters Tower	22.87	129	P	P	21 10 50.3	+0.1
	4.6nm,0.9s,mb3.9,baz=309,slow=12,SNR=3.2						
CTAO	Charters Tower	22.87	129	P	P	21 10 50.3	0.0
	7.0nm,1.1s,mb4.0						
STKA	Stephens Creek	28.75	154	P	P	21 11 44.7	+0.6
	1.8nm,0.6s,mb4.0,baz=331,slow=12,SNR=5.1						
CASY	Casey	61.13	188	P	P	21 16 00.2	0.0
	68nm,1.0s						
MKAR	Makanchi Array	66.21	328	P	P	21 16 26.2	-7.8
MKAR				PcP	PcP	21 16 58.1	-5.8
MKAR	Makanchi Array	66.21	328	P	P	21 16 26.2	-7.8
	0.1nm,0.5s,mb3.1,baz=120,slow=7.8,SNR=4.4						
MKAR				PcP	PcP	21 16 58.1	-5.8
	0.3nm,0.6s,baz=115,slow=4.1,SNR=5.0						

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*ISCJB **13** 21:09:24.2±2.0,21.97N±0.06×143.00E±0.08,h33^{km}±17^{km},*
mb4.4/48,MS3.9/15,Error ellipse: s-maj=13.0km
s-min=9.3km az=179.4
*MOS **13** 21:09:24.1±1.2,21.98N×143.00E,h33^{km},mb4.8/19,Error*
ellipse: s-maj=16.4km s-min=8.1km az=105.8
*NEIC **13** 21:09:25.8±0.3,22.01N×143.05E,h35^{km},mb4.7/21,Error*
ellipse: s-maj=11.4km s-min=8.1km az=84.0
*BJI **13** 21:09:25.8,22.00N×143.00E,h45^{km},mB5.0,mb4.5,Ms4.3,*
Msz3.9
*IDC **13** 21:09:27.8±2.7,22.02N×143.02E,h54^{km}±24^{km},mb4.0/19,*
mb1 4.1/20,mb1mx4.1/25,mbtmp4.0/20,ML3.9/1,MS3.9/14,
Ms1 3.9/14,ms1mx3.6/34,Error ellipse: s-maj=22.1km
s-min=10.6km az=89.0
ISC 13 21:09:27.3±1.7**,21.99N**±0.06×**143.06E**±0.08**,h45^{km}**±14^{km}**,**
n97,σ1^{s}10/86**,mb4.4**/48**,MS3.9**/15**,7C,Mariana Islands**
region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	5.15	351	P	Pn	21 10 41.0	-0.9
	9.1nm,0.3s,baz=261,slow=20,SNR=9.8						
CBIJ				S	Sn	21 11 40.5	+0.4
	4.7nm,0.3s,baz=143,slow=21,SNR=3.2						
CBIJ				LR	LR	21 12 22.6	
	comp=Z,593nm,20.6s,baz=141,slow=34						
GUMO	Guam	8.53	168	LR	LR	21 14 09.4	
	comp=Z,633nm,18.7s,baz=352,slow=33						
JHJ	Hachijo jima 2	11.46	346	LR	LR	21 16 20.6	
	comp=Z,576nm,19.8s,baz=107,slow=36						
MJAR	Matsushiro Arr	15.11	345	LR	LR	21 18 14.0	
	comp=Z,544nm,21.3s,baz=150,slow=35						
JNU	Nakatsue	15.47	318	LR	LR	21 18 06.8	
	comp=Z,124nm,20.2s,baz=228,slow=34						
KSRS	Korea Array	20.21	323	P	P	21 14 03.4	+5.0
	5.4nm,0.8s,baz=145,slow=8.5,SNR=12						
KSRS				LR	LR	21 20 54.3	
	comp=Z,201nm,19.6s,MS3.5,baz=273,slow=34						
ASAJ	Asahikawa	22.07	359	LR	LR	21 23 35.8	
	comp=Z,168nm,19.6s,MS3.5,baz=179,slow=38						
NJ2	Nanjing	23.73	300	*e*P	P	21 14 39.3	+3.9
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.5						
YSS	Yuzh-Sakhalins	24.91	360	⇑*e*P	P	21 14 47.3	+1.4
YSS				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.4						
MDJ	Mudanjiang	25.15	337	P	P	21 14 47.6	-0.6
MDJ				PCS	PcS	21 22 00.9	-0.6
MDJ				LR	LR		
	comp=N,102nm,19.0s,MS3.5						
MDJ				LR	LR		
	comp=E,94nm,17.0s,MS3.5						
MDJ				LR	LR		
	comp=Z,157nm,18.0s,MS3.6						
CN2	Changchun	26.20	330	*e*P	P	21 14 59.0	+1.3
KLR	Kul'dur	28.63	344	*e*P	P	21 15 16.3	-3.1
BJI	Beijing	29.07	314	P	P	21 15 23.8	+0.4
BJI				PP	PP	21 16 22.1	-7.4
BJI				AMB	AMB		
	comp=Z,188nm,4.0s						
BJI				LR	LR		
	comp=N,305nm,6.6s						
BJI				LR	LR		
	comp=E,208nm,5.8s						
BJI				LR	LR		
	comp=Z,98nm,19.5s,MS3.4						
BJI	Beijing	29.07	314	P	P	21 15 23.7	+0.3
BJI				pP	pP	21 16 19.1	+44
BJI				PP	PP	21 16 22.1	-7.4
BJI				sP		21 16 52.6	
BJI				S	S	21 19 27.3	-45
BJI				sS	sS	21 21 28.8	+57
BJI				SS	SS	21 21 57.7	-19
BJI				LR	LR		
	comp=Z,100nm,19.5s,MS3.4						
BJI	Beijing	29.07	314	P	P	21 15 23.7	+0.3
BJI				*PP	pP	21 16 19.1	+44
BJI				SS	SS	21 21 57.7	-19
BJI				MLR	MLR		
	comp=Z,100nm,19.5s,MS3.4						
PMG	Port Moresby	31.45	172	⇑*e*P	P	21 15 44.0	-0.7
PMG	Port Moresby	31.45	172	P	P	21 15 43.3	-1.4
	comp=Z,5.5nm,0.8s,mb4.5,baz=285,slow=9.4,SNR=3.5						
HHC	Hu-ho-hao-te	32.55	313	*e*P	P	21 15 52.4	-1.7
HHC				PCS	PcS	21 22 23.6	-1.3
HHC				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.4						
HHC				AMB	AMB		
	comp=Z,85nm,5.4s						
HHC				LR	LR		
	comp=N,104nm,17.1s,MS3.8						
HHC				LR	LR		
	comp=E,144nm,19.9s,MS3.8						
HHC				LR	LR		
	comp=Z,120nm,19.9s,MS3.6						
GYA	Guiyang	33.42	285	P	P	21 16 07.3	+5.4
GYA				PCP	PcP	21 18 45.3	+2.7
GYA				PCS	PcS	21 22 29.9	+1.5
GYA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
CD2	Chengdu	36.14	293	*e*P	P	21 16 30.1	+4.8
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
LZH	Lanzhou	36.80	301	*e*P	P	21 16 35.9	+5.0
	comp=Z,16nm,1.4s,mb4.7						
LZH				pP	pP	21 17 38.7	+56
LZH				sP		21 18 14.2	
LZH	Lanzhou	36.80	301	*e*P	P	21 16 35.9	+5.0
LZH				*SP		21 18 14.2	
LZH				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.7						
ULN	Ulaanbaatar	38.67	321	*e*P	P	21 16 46.3	-0.2
	comp=Z,3.4nm,0.8s,mb4.1						
ULN	Ulaanbaatar	38.67	321	*e*P	P	21 16 46.3	-0.2
ULN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
SONM	Songino Array	39.04	320	P	P	21 16 49.9	+0.3
	comp=Z,3.4nm,0.8s,mb4.1,baz=130,slow=6.9,SNR=23						
SONM				LR	LR	21 34 17.2	
	comp=Z,168nm,18.8s,MS3.9,baz=167,slow=38						
GTA	Gaotai	40.61	305	*e*P	P	21 17 03.3	+0.5
GTA				PP	PP	21 18 43.3	+6.4
GTA				PCP	PcP	21 19 05.9	+1.7
GTA				AMB	AMB		
	comp=Z,4.0nm,2.4s,mb3.6						
GTA				AMB	AMB		
	comp=Z,113nm,7.3s						
GTA				LR	LR		
	comp=N,148nm,13.8s,MS4.2						
GTA				LR	LR		
	comp=E,149nm,11.9s,MS4.2						
GTA				LR	LR		
	comp=Z,145nm,15.7s,MS3.9						
YAK	Yakutsk	41.06	350	P	P	21 17 05.7	-0.4
	comp=Z,15nm,0.7s,mb4.7						
YAK	Yakutsk	41.06	350	⇑*e*P	P	21 17 06.0	-0.2
YAK				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.7						
SEY	Seymchan	41.41	6	⇑*e*P	P	21 17 09.6	+0.6
CTA	Charters Tower	41.93	176	*e*P	P	21 17 15.3	+1.6
CTA				pmax	pmax		
	comp=Z,7.0nm,1.0s						
CTA	Charters Tower	41.93	176	P	P	21 17 14.9	+1.2
	comp=Z,10.0nm,1.0s,mb4.4,baz=347,slow=8.9,SNR=6.7						
ZAK	Zakamensk	42.05	322	⇑*i*P	P	21 17 14.2	-0.2
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.8s,mb4.0						
TLY	Talaya	42.46	324	*e*P	P	21 17 25.5	+7.8
TLY				pmax	pmax		
	comp=Z,14nm,1.7s,mb4.3						
TLY				MLR	MLR		
	comp=Z,103nm,18.0s,MS3.8						
WRA	Warramunga Arr	42.53	192	⇑*e*P	P	21 17 19.0	+0.4
WRA	Warramunga Arr	42.53	192	P	P	21 17 17.7	-0.9
	comp=Z,5.9nm,0.9s,mb4.3,baz=14,slow=8.7,SNR=24						
FITZ	Fitzroy Crossi	43.34	205	P	P	21 17 26.1	+1.0
	comp=Z,2.7nm,0.8s,mb4.0,baz=48,slow=8.3,SNR=6.1						
ASAR	Alice Springs	46.24	192	P	P	21 17 47.5	-0.8
	comp=Z,1.7nm,0.6s,mb4.1,baz=17,slow=8.4,SNR=19						
LSA	Lhasa	47.02	291	*e*P	P	21 17 55.5	+1.0
	comp=Z,6.9nm,1.4s,mb4.4						
LSA	Lhasa	47.02	291	*e*P	P	21 17 55.5	+1.1
LSA				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.4						
BILL	Bilibino	48.26	11	*e*P	P	21 18 03.1	-0.3
	comp=Z,8.1nm,1.4s,mb4.6						
BILL	Bilibino	48.26	11	*e*P	P	21 18 04.2	+0.8
BILL				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.4						
WMQ	Urumqi	50.31	309	*e*P	P	21 18 22.0	+2.6
WMQ				PP	PP	21 20 20.0	+4.9
WMQ				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.8						
TIXI	Tiksi	50.35	354	*e*P	P	21 18 19.3	0.0
TIXI				pmax	pmax		
	comp=Z,6.0nm,2.1s,mb4.3						
STKA	Stephens Creek	53.57	182	P	P	21 18 43.0	-0.7
	comp=Z,2.6nm,0.8s,mb4.2,baz=336,slow=7.3,SNR=5.7						
STKA				LR	LR	21 40 11.6	
	comp=Z,127nm,20.9s,MS4.0,baz=213,slow=34						
ZALV	Zalesovo Beam	53.91	322	P	P	21 18 45.7	-0.3
ZALV	Zalesovo Beam	53.91	322	P	P	21 18 45.7	-0.3
	comp=Z,7.8nm,0.9s,mb4.6,baz=98,slow=7.6,SNR=28						
ZAL	Zalesovo	53.92	322	P	P	21 18 45.7	-0.4
MKAR	Makanchi Array	54.42	313	P	P	21 18 49.9	0.0
	comp=Z,1.0nm,0.7s,mb3.9,baz=90,slow=8.6,SNR=15						
MKAR				PcP	PcP	21 19 51.1	-2.0
	comp=Z,1.5nm,0.9s,baz=89,slow=6.6,SNR=4.6						
NVS	Novosibirsk	55.01	322	*i* P	P	21 18 47.8	-6.2
KURK	Kurchatov	57.19	317	*e*P	P	21 19 09.2	-0.4
	comp=Z,5.7nm,0.9s,mb4.6						
KURK				*e*		21 19 16.2	
KURK	Kurchatov	57.19	317	*e*P	P	21 19 09.2	-0.4
KURK				*e*		21 19 16.2	
KURK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
KDAK	Kodiak Island	58.03	35	LR	LR	21 40 47.6	
	comp=Z,310nm,21.0s,MS4.4,baz=257,slow=32						
AAK	Ala-Archa	59.90	307	P	P	21 19 28.5	-0.2
	comp=Z,7.9nm,1.4s,mb4.5						
AAK	Ala-Archa	59.90	307	*i* P	P	21 19 28.6	-0.1
AAK				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.5						

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PMR   Palmer             60.36  31   P      P      21 19 33.8 +2.3
      comp=Z,7.9nm,0.7s,mb4.8
PMR   Palmer             60.36  31   P      P      21 19 33.8 +2.3
PMR                                  pmax   pmax
      comp=Z,8.0nm,0.7s,mb4.9
PALK  Pallekele          61.70 266   P      P      21 19 44.2 +2.8
BRVK  Borovoye           62.44 319  eP      P      21 19 45.1 -0.6
      comp=Z,7.3nm,0.9s,mb4.8
BRVK  Borovoye           62.44 319  eP      P      21 19 45.1 -0.6
BRVK                                 pmax   pmax
      comp=Z,7.0nm,0.9s,mb4.8
INK   Inuvik             67.35  24  eP      P      21 20 17.0 -0.4
INK   Inuvik             67.35  24   P      P      21 20 16.3 -1.1
      comp=Z,2.4nm,0.9s,mb4.2,baz=255,slow=10,SNR=7.3
ARU   Arti               68.96 324  eP      P      21 20 25.7 -1.9
      comp=Z,6.6nm,1.0s,mb4.5
ARU   Arti               68.96 324 ⇑iP      P      21 20 26.2 -1.5
ARU                                 e              21 20 52.0
ARU                                 e              21 23 00.9
ARU                                 ePPP           21 24 40.4
ARU                                 eS      S      21 29 28.8  0.0
ARU                                  pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.4
YKA   Yellowknife Ar     76.26  28   P      P      21 21 10.5 -0.4
YKA   Yellowknife Ar     76.26  28   P      P      21 21 10.5 -0.4
      comp=Z,0.9nm,0.5s,mb3.9,baz=293,slow=5.6,SNR=18
PPT   Papeete            76.76 115   LR     LR     21 50 34.0
      comp=Z,86nm,18.6s,MS4.1,baz=1.3,slow=32
RES   Resolute Bay       76.82  13  eP      P      21 21 13.5 -0.4
ARCES ARCESS Array B     78.61 341   P      P      21 21 23.1 -0.8
      comp=Z,4.1nm,0.8s,mb4.4,baz=62,slow=6.4,SNR=5.8
OBN   Obninsk            81.18 326   P      P      21 21 40.0 +1.9
OBN                                  MLR    MLR
      comp=Z,100nm,16.0s,MS4.3
VRSR  Storozhevoye       81.41 322  eP      P      21 21 39.9 +0.5
VRSR                                 pmax   pmax
      comp=Z,2.0nm,0.9s,mb4.0
VRSR                                 pmax   pmax
      comp=N,1.0nm,0.7s
VRSR                                 pmax   pmax
      comp=E,3.0nm,0.9s
KIV   Kislovodsk         82.14 314  eP      P      21 21 44.2 +0.9
      comp=E,14nm,1.0s,mb4.8
KIV   Kislovodsk         82.14 314  eP      P      21 21 44.9 +1.5
KIV                                  pmax   pmax
      comp=Z,12nm,1.0s,mb4.8
FINES FINESS Array B     82.87 334   P      P      21 21 44.5 -2.3
      comp=Z,2.1nm,0.9s,mb4.2,baz=66,slow=3.6,SNR=6.7
NVAR  Mina Array Bea     83.06  51   P      P      21 21 49.2 +0.9
      comp=Z,2.9nm,0.8s,mb4.3,baz=267,slow=3.9,SNR=13
YMR   Madison River      85.50  43  eP      P      21 22 02.1 +1.6
      comp=Z,16nm,1.0s,mb5.1
FFC   Flin Flon          85.64  32  eP      P      21 22 00.9 -0.1
      comp=Z,13nm,0.9s,mb5.2
FFC   Flin Flon          85.64  32  eP      P      21 22 00.9 -0.1
FFC                                  pmax   pmax
      comp=Z,13nm,0.9s,mb5.2
IMW   Indian Meadow      85.86  44  eP      P      21 22 03.1 +0.7
      comp=Z,5.0nm,0.9s,mb4.7
LKWY  Lake               85.91  43  eP      P      21 22 04.2 +1.7
      comp=Z,3.8nm,0.9s,mb4.6
LKWY  Lake               85.91  43  eP      P      21 22 04.2 +1.6
LKWY                                 pmax   pmax
      comp=Z,4.0nm,0.9s,mb4.7
RLMT  Red Lodge          86.37  43  eP      P      21 22 05.3 +0.4
      comp=Z,26nm,1.6s,mb5.2
HWUT  Hardware Ranch     86.47  46  eP      P      21 22 05.6 +0.3
      comp=Z,8.0nm,1.1s,mb4.9
FCC   Fort Churchill     86.83  26  eP      P      21 22 05.8 -1.0
      comp=Z,7.2nm,1.0s,mb4.9
FCC   Fort Churchill     86.83  26  eP      P      21 22 05.8 -1.0
FCC                                  pmax   pmax
      comp=Z,7.0nm,1.0s,mb4.8
AKASG Malin Array Be     87.21 324   P      P      21 22 06.8 -2.0
AKASG Malin Array Be     87.21 324   P      P      21 22 06.8 -2.0
      comp=Z,2.0nm,0.9s,mb4.3,baz=44,slow=4.8,SNR=7.2
PDAR  Pinedale Array     87.27  45   P      P      21 22 09.3 +0.1
      comp=Z,0.9nm,0.8s,mb4.0,baz=225,slow=1.9,SNR=4.9
MALT  Malatya            87.40 310   P      P      21 22 09.1 -0.9
MSU   Marysvale          87.41  49  eP      P      21 22 07.5 -2.5
NOA   NORSAR Array B     88.64 339   LR     LR     22 07 09.0
      comp=Z,43nm,18.3s,MS3.9,baz=70,slow=39
BRTR  Keskin Array B     90.06 313   P      P      21 22 21.9 -0.7
      comp=Z,2.6nm,0.9s,mb4.6,baz=80,slow=3.0,SNR=13
ULM   Lac du Bonnet      91.27  33   P      P      21 22 27.2 -0.7
      comp=Z,0.5nm,0.5s,mb4.1,baz=315,slow=2.9,SNR=2.9
ULM                                  LR     LR     22 06 55.7
      comp=Z,92nm,18.0s,MS4.3,baz=350,slow=38
GERES GERESS Array B     96.28 329   LR     LR     22 09 36.1
      comp=Z,95nm,18.4s,MS4.3,baz=293,slow=38
TXAR  Lajitas Array      97.98  54   P      P      21 22 58.5 -0.6
      comp=Z,0.2nm,0.7s,mb3.8,baz=328,slow=18,SNR=3.6
LPAZ  La Paz            150.03  85   PKPbc  PKPbc  21 29 14.2 +0.4
LPAZ  La Paz            150.03  85   PKIKP  PKPbc  21 29 14.2 +0.5
LPAZ  La Paz            150.03  85   PKPbc  PKPbc  21 29 14.2 +0.4
      comp=Z,3.1nm,0.9s,baz=19,slow=11,SNR=7.8
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*BJI **13** 21:15:45.9, 36.10N×34.10W, h10^{km}, mB5.6, mb4.9, Ms4.8, Msz4.4*

*ISCJB **13** 21:15:46.2±0.3, 36.16N±0.07×33.99W±0.02, h10^{km}, mb4.6/88, MS4.2/30, Error ellipse: s-maj=10.3km s-min=2.6km az=177.7*

*IDC **13** 21:15:46.4±0.6, 36.11N×34.00W, h0^{km}, mb4.3/23, mb1 4.5/23, mb1mx4.4/26, mbtmp4.3/23, MS4.2/20, Ms1 4.2/20, ms1mx4.1/24, Error ellipse: s-maj=19.4km s-min=11.9km az=179.0*

*GCMT **13** 21:15:47.9±0.3, 36.31N×33.99W, h12^{km}±1^{km}, MW5.0/75, Moment Tensor Solution. s22,c24; s75,c113; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.18±.24; $M_{\theta\theta}$1.20±.15; $M_{\phi\phi}$1.99±.15; $M_{r\theta}$0.32±.42; $M_{\theta\phi}$1.50±.10; $M_{\phi r}$-0.54±.37; Best double couple: $M_0$3.22200×10^{16} NP1:ϕ_s227.00000°, δ44.00000°, λ-76.00000°. NP2: ϕ_s28.00000°, δ48.00000°, λ-103.00000°. Principal axes: T 3.1540, Plg2.0000°, Azm127.0000°; N 0.1460, Plg10.0000°, Azm37.0000°; P -3.2900, Plg80.0000°, Azm229.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*CSEM **13** 21:15:47.7±0.1, 36.12N×34.14W, h22^{km}, mb4.8/52, Mw4.9 Error ellipse: s-maj=5.1km s-min=1.6km az=178.0*

*NEIC **13** 21:15:47.9±0.2, 36.07N×34.10W, h10^{km}, mb4.7/51, Error ellipse: s-maj=7.8km s-min=3.2km az=176.0*

*MOS **13** 21:15:50.4±0.9, 36.29N×34.14W, h33^{km}, mb4.8/31, Error ellipse: s-maj=10.2km s-min=5.9km az=136.1*

*SZGRF **13** 21:15:57.5, 36.77N×33.72W, h33^{km}, mb4.5, MS3.9, Azores Islands region*

ISC 13 21:15:48.3±0.3, **36.15N**±0.07×**33.97W**±0.02, **h10**^{km}, **(h19**^{km}±2.3^{km}**:pP-P), n418,** σ**0**$\overset{s}{.}$**78**/403, **mb4.6**/88, **MS4.2**/30, **99C-73D, Azores Islands region**

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Code  Station Name        Δ°   AZ°    Phase ID        Time     Res
                                     Op     ISC     h  m  s    ISC
CALA  Caldeira            4.85  58  eP      Pn     21 16 59.8 -1.5
PICO  Pico                5.00  60  eP      Pn     21 17 00.7 -2.7
PID   Ribeirinha          5.20  62  eP      Pn     21 17 02.8 -3.2
SET2  Ginetes             6.75  73  eP      Pn     21 17 26.3 -1.1
PFET  Feteiras            6.76  73  eP      Pn     21 17 26.3 -1.2
SET4  Mosteiros           6.76  73  eP      Pn     21 17 26.2 -1.4
PSAN  Santo Antonio       6.81  73  eP      Pn     21 17 27.0 -1.3
FAC   Faja de Cima        6.86  74  eP      Pn     21 17 27.7 -1.2
CML   Cha da Macela       6.94  74  eP      Pn     21 17 28.8 -1.2
LFA   Lagoa do Fogo       6.99  74  eP      Pn     21 17 29.7 -0.9
PMAT  Coroa da Mata       7.00  74  eP      Pn     21 17 30.1 -0.8
VIF   Vila Franca         7.02  74  eP      Pn     21 17 30.1 -0.9
MESC  Monte Escuro        7.02  74  eP      Pn     21 17 29.8 -1.3
FRA1  Furnas              7.08  74  eP      Pn     21 17 30.4 -1.5
PFAD  Fenais da Ajud      7.12  74  eP      Pn     21 17 31.6 -0.9
MIRA  Miradouro           7.15  74  eP      Pn     21 17 32.4 -0.5
PSMN  Pico do Norte,      7.22  81  eP      Pn     21 17 32.9 -0.9
ESDC  Sonseca Array      23.88  72   P      P      21 21 01.7 -0.3
      5.3nm,1.0s,mb3.9,baz=279,slow=10.0,SNR=13
ESDC                                 LR     LR     21 28 14.3
      comp=Z,356nm,19.7s,MS3.8,baz=225,slow=31
MDT   Midelt             24.39  89   P      P      21 21 06.6  0.0
      7.6nm,1.1s,mb4.0,baz=304,slow=12,SNR=9.1
MDT                                  LR     LR     21 28 30.7
      comp=Z,532nm,20.0s,MS4.0,baz=282,slow=31
ESK   Eskdalemuir        28.43  38   P      P      21 21 42.9 +0.1
      31nm,1.2s,mb4.8
ESK   Eskdalemuir        28.43  38   P      P      21 21 42.9 +0.1
ESK                                  pmax   pmax
      comp=Z,31nm,1.2s,mb4.8
ESK   Eskdalemuir        28.43  38   P      P      21 21 42.9 +0.1
      comp=Z,31nm,1.2s,mb4.8
EKA   Eskdalemuir Ar     28.46  38   P      P      21 21 43.8 +0.6
      comp=Z,4.4nm,0.8s,mb4.1,baz=240,slow=6.7,SNR=7.6
MTLF  Montolieu          28.57  64  eP      P      21 21 45.6 +1.3
      comp=Z,23nm,1.2s,mb4.5
MTLF  Montolieu          28.57  64  eP      P      21 21 45.6 +1.3
MTLF                                 pmax   pmax
      comp=Z,12nm,1.2s,mb4.5
MTLF  Montolieu          28.57  64  eP      P      21 21 45.6 +1.3
      comp=Z,12nm,1.2s,mb4.5
TCF   Toulx Ste Croi     28.82  58  eP      P      21 21 47.6 +1.2
      comp=Z,13nm,0.8s,mb4.4
TCF   Toulx Ste Croi     28.82  58  eP      P      21 21 47.6 +1.2
TCF                                  pmax   pmax
      comp=Z,7.0nm,0.8s,mb4.4
TCF   Toulx Ste Croi     28.82  58  eP      P      21 21 47.6 +1.2
      comp=Z,7.0nm,0.8s,mb4.4
SCHQ  Schefferville      29.26 320   P      P      21 21 51.6 +1.3
      comp=Z,4.1nm,1.0s,mb4.1,baz=212,slow=8.6,SNR=3.6
SCHQ                                 LR     LR     21 32 16.9
      comp=Z,976nm,20.7s,MS4.4,baz=263,slow=34
BGF   Bois d'Agland      29.29  58  eP      P      21 21 52.7 +2.1
LASF  Ste Croix          29.79  63  eP      P      21 21 56.6 +1.5
      comp=Z,47nm,1.4s,mb4.7
SSF   Saint Saulge       29.80  57  eP      P      21 21 55.8 +0.6
SMF   Signal de Mont     29.98  58  eP      P      21 21 57.7 +1.0
      comp=Z,141nm,1.9s,mb5.1
SMF   Signal de Mont     29.98  58  eP      P      21 21 57.7 +1.0
SMF                                  pmax   pmax
      comp=Z,70nm,1.9s,mb5.1
SMF   Signal de Mont     29.98  58  eP      P      21 21 57.7 +1.0
      comp=Z,70nm,1.9s,mb5.1
LOR   Lormes             30.07  56  eP      P      21 21 58.6 +1.1
MEZF  Maizieres J'vi     31.04  54  eP      P      21 22 07.7 +1.6
HAU   Haudompre          31.83  55  eP      P      21 22 14.2 +1.1
LPL   La Plagne          31.89  60  eP      P      21 22 15.5 +1.9
      comp=Z,15nm,1.1s,mb4.5
LPL   La Plagne          31.89  60  eP      P      21 22 15.5 +1.9
LPL                                  pmax   pmax
      comp=Z,7.0nm,1.0s,mb4.5
LPL   La Plagne          31.89  60  eP      P      21 22 15.5 +1.9
      comp=Z,7.0nm,1.0s,mb4.5
SFJD  Kangerlussuaq      32.35 348   LR     LR     21 32 11.0
      comp=Z,927nm,18.8s,MS4.5,baz=137,slow=30
CDF   Champ du Feu       32.50  55  eP      P      21 22 20.4 +1.5
      comp=Z,18nm,1.0s,mb4.5
CDF   Champ du Feu       32.50  55  eP      P      21 22 20.4 +1.5
CDF                                  pmax   pmax
      comp=Z,9.0nm,1.0s,mb4.5
CDF   Champ du Feu       32.50  55  eP      P      21 22 20.4 +1.5
      comp=Z,9.0nm,1.0s,mb4.5
GRA1  Grafenberg Arr     35.21  53  eP      P      21 22 43.6 +1.1
      comp=Z,6.0nm,1.0s,mb4.5
GRA1                                 LR     LR
      comp=Z,200nm,20.7s,MS3.9
GRF   Grafenberg Arr     35.21  53  eP      P      21 22 43.6 +1.1
GRF                                  pmax   pmax
      comp=Z,6.0nm,1.0s,mb4.5
GRF                                  MLR    MLR
      comp=Z,200nm,20.7s,MS3.9
GRF   Grafenberg Arr     35.21  53  eP      P      21 22 43.6 +1.1
GRF                                  pmax   pmax
      comp=Z,6.0nm,1.0s,mb4.5
GRF                                  MLR    MLR
      comp=Z,200nm,20.7s,MS3.9
GRF   Grafenberg Arr     35.21  53  eP      P      21 22 43.6 +1.1
      comp=Z,6.0nm,1.0s,mb4.5
GRF                                 eL             21 34 37.4
      comp=Z,238nm,20.7s
NKC   Novy Kostel        36.05  52  eP      P      21 22 50.8 +1.1
CLL   Collm              36.50  50  eP      P      21 22 54.0 +0.5
CLL                                 e              21 23 01.0
CLL                                  LR     LR
      comp=Z,300nm,19.3s,MS4.1
CLL   Collm              36.50  50  eP      P      21 22 54.0 +0.5
CLL                                 esP     sP     21 23 01.0 +3.2
CLL                                 ePP     PP     21 24 18.0 +1.6
CLL   Collm              36.50  50  eP      P      21 22 54.0 +0.5
      comp=Z,300nm,19.3s
KHC   Kasperske Hory     36.71  54  i P     P      21 22 54.7 -0.6
KHC   Kasperske Hory     36.71  54  eP      P      21 22 57.7 +2.4
GERES GERESS Array B     36.78  55   P      P      21 22 57.5 +1.6
      comp=Z,2.3nm,0.9s,mb4.0,baz=265,slow=7.6,SNR=7.5
GERES                                LR     LR     21 35 20.5
      comp=Z,91nm,19.6s,MS3.6,baz=276,slow=32
AQU   L'Aquila           36.82  66  eP      P      21 23 01.9 +5.5
      comp=Z,40nm,1.1s,mb5.2
AQU   L'Aquila           36.82  66  eP      P      21 23 01.9 +5.5
AQU                                  pmax   pmax
      comp=Z,40nm,1.1s,mb5.2
BRG   Berggiesshubel     37.05  51  eP      P      21 22 58.1 -0.1
      comp=Z,3.7nm,1.4s,mb4.0
BRG                                 e              21 23 12.4
BRG                                  LR     LR
      comp=Z,380nm,20.8s,MS4.2
BRG   Berggiesshubel     37.05  51  eP      P      21 22 58.1 -0.1
BRG                                 e              21 23 12.5
BRG                                  pmax   pmax
      comp=Z,4.0nm,1.4s,mb4.1
BRG                                  MLR    MLR
      comp=Z,380nm,20.8s,MS4.2
BRG   Berggiesshubel     37.05  51  eP      P      21 22 58.1 -0.1
      comp=Z,6.2nm,1.4s,mb4.3
BRG                                 e              21 23 12.4
      comp=Z,9.9nm,1.3s
BRG
      comp=N,175nm,15.3s
BRG
      comp=E,384nm,21.9s
BRG
      comp=Z,628nm,20.8s
PRU   Pruhonice          37.38  53  eP      P      21 23 03.4 +2.4
PVCC  Panska Ves         37.42  52   AMS    AMS    21 36 20.0
      comp=Z,400nm,19.4s
NB2   NORSAR Subarra     37.75  34   P      P      21 23 04.6 +0.6
      comp=Z,2.4nm,0.8s,mb4.0,baz=251,slow=9.3
NOA   NORSAR Array B     37.75  34   P      P      21 23 04.9 +0.9
      comp=Z,3.5nm,0.8s,mb4.1,baz=251,slow=8.7,SNR=10
NOA                                  LR     LR     21 35 56.1
      comp=Z,108nm,21.5s,MS3.6,baz=245,slow=32
UPC   Upice              38.34  52  eP      P      21 23 10.6 +1.5
DPC   Dobruska-Polom     38.54  52  eP      P      21 23 12.1 +1.3
MORC  Moravsky Berou     39.31  53  eP      P      21 23 18.3 +1.1
      comp=Z,3.6nm,1.1s,mb4.0
MORC  Moravsky Berou     39.31  53  eP      P      21 23 18.3 +1.0
MORC                                 pmax   pmax
      comp=Z,4.0nm,1.1s,mb4.1
MORC  Moravsky Berou     39.31  53  eP      P      21 23 18.3 +1.0
      comp=Z,3.6nm,1.1s,mb4.0
TOA0  Torodi Ar. Sit     39.35 116  eP      P      21 23 17.1 -0.9
TOA0  Torodi Ar. Sit     39.35 116  eP      P      21 23 17.1 -0.9
TORD  Torodi Ar. Bea     39.35 116   P      P      21 23 17.8 -0.2
TORD                                 LR     LR     21 38 48.0
TORD  Torodi Ar. Bea     39.35 116   P      P      21 23 17.8 -0.2
      comp=Z,2.1nm,0.6s,mb4.0,baz=310,slow=5.5,SNR=18
TORD                                 LR     LR     21 38 48.0
      comp=Z,498nm,18.1s,MS4.4,baz=320,slow=35
LIC   Lamto              39.88 131  eP      P      21 23 22.1 -0.3
      comp=Z,6.8nm,0.8s,mb4.4
TKL   Tuckaleechee C     39.98 285   P      P      21 23 23.0  0.0
TKL   Tuckaleechee C     39.98 285   P      P      21 23 23.0  0.0
      comp=Z,6.0nm,0.8s,mb4.4,baz=109,slow=11,SNR=4.3
VYHS  Vyhne              40.18  55  eP      P      21 23 24.9 +0.4
OJC   Ojcow              40.77  53  eP      P      21 23 30.9 +1.6
OJC                                 epP     pP     21 23 37.7 +5.3
KECS  Kecovo             41.28  55  eP      P      21 23 35.5 +1.9
      comp=Z,1.3nm,0.8s,mb3.6
KECS  Kecovo             41.28  55  eP      P      21 23 35.5 +1.9
KECS                                 pmax   pmax
      comp=Z,1.0nm,0.8s,mb3.5
STHS  Stebnicka Huta     41.73  54  eP      P      21 23 40.3 +3.0
STHS                                 pmax   pmax
      comp=Z,3.0nm,0.9s,mb3.9
STHS  Stebnicka Huta     41.73  54  eP      P      21 23 40.3 +3.0
      comp=Z,3.2nm,0.9s,mb4.0
CRVS  Cervenica-Dubn     41.90  54  eP      P      21 23 41.0 +2.3
CRVS  Cervenica-Dubn     41.90  54  eP      P      21 23 41.1 +2.4
KOLS  Kolonicke sedl     42.43  54  eP      P      21 23 45.1 +2.1
KWP   Kalwaria           42.67  53  eP      P      21 23 45.8 +0.9
      comp=Z,13nm,0.9s,mb4.7
KWP   Kalwaria           42.67  53  eP      P      21 23 45.8 +0.9
KWP                                  pmax   pmax
      comp=Z,13nm,0.9s,mb4.7
KWP   Kalwaria           42.67  53  eP      P      21 23 45.8 +0.9
      comp=Z,13nm,0.9s,mb4.7
WVT   Waverly            43.01 287  eP      P      21 23 47.5 -0.3
      comp=Z,10nm,1.0s,mb4.5
WVT   Waverly            43.01 287  eP      P      21 23 47.6 -0.3
WVT                                  pmax   pmax
      comp=Z,10.0nm,1.0s,mb4.5
WVT   Waverly            43.01 287  eP      P      21 23 47.5 -0.4
      comp=Z,10nm,1.0s,mb4.5
EYMN  Ely                43.37 304  eP      P      21 23 49.3 -1.3
      comp=Z,4.4nm,0.7s,mb4.3
EYMN  Ely                43.37 304  eP      P      21 23 49.3 -1.3
      comp=Z,4.4nm,0.7s,mb4.3
FCC   Fort Churchill     44.65 320  eP      P      21 24 00.3 -0.4
      comp=Z,11nm,1.1s,mb4.6
FCC   Fort Churchill     44.65 320  eP      P      21 24 00.4 -0.3
FCC                                  pmax   pmax
      comp=Z,11nm,1.1s,mb4.6
FCC   Fort Churchill     44.65 320  eP      P      21 24 00.3 -0.4
      comp=Z,11nm,1.1s,mb4.6
OXF   Oxford             44.73 285   P      P      21 24 00.1 -1.7
      comp=Z,54nm,1.2s,mb5.2
OXF   Oxford             44.73 285   P      P      21 24 00.1 -1.6
OXF                                  pmax   pmax
      comp=Z,54nm,1.2s,mb5.2
OXF   Oxford             44.73 285   P      P      21 24 00.1 -1.6
      comp=Z,54nm,1.2s,mb5.2
FINES FINESS Array B     44.83  36   P      P      21 24 01.3 -0.8
      comp=Z,1.3nm,0.8s,mb3.8,baz=270,slow=7.1,SNR=4.7
FINES                                LR     LR     21 40 04.5
      comp=Z,190nm,20.9s,MS4.0,baz=340,slow=32
ULM   Lac du Bonnet      45.97 308   P      P      21 24 10.4 -0.9
      comp=Z,4.6nm,0.9s,mb4.4,baz=67,slow=8.0,SNR=11
ULM                                  LR     LR     21 43 14.2
      comp=Z,671nm,18.4s,MS4.6,baz=76,slow=36
ARCES ARCESS Array B     46.02  25   P      P      21 24 11.2 -0.3
      comp=Z,5.7nm,0.9s,mb4.5,baz=267,slow=10,SNR=5.3
AGMN  Agassiz Refuge     46.22 305  eP      P      21 24 13.3  0.0
      comp=Z,10nm,0.8s,mb4.8
AGMN  Agassiz Refuge     46.22 305  eP      P      21 24 13.3 -0.1
      comp=Z,10nm,0.8s,mb4.8
AKASG Malin Array Be     46.74  51   P      P      21 24 17.4 +0.1
      comp=Z,3.2nm,0.8s,mb4.3,baz=273,slow=7.9,SNR=11
AKASG                                LR     LR     21 43 13.3
      comp=Z,158nm,18.6s,MS4.0,baz=280,slow=35
ECSD  EROS,Sioux Fal     47.61 299  eP      P      21 24 23.2 -1.0
      comp=Z,12nm,0.9s,mb4.9
RES   Resolute Bay       47.88 342  eP      P      21 24 20.4 -5.5
      comp=Z,432nm,1.1s
MIAR  Mount Ida          47.96 287  eP      P      21 24 26.0 -1.1
      comp=Z,12nm,0.8s,mb5.0
MIAR  Mount Ida          47.96 287  eP      P      21 24 26.0 -1.2
MIAR                                 pmax   pmax
      comp=Z,13nm,0.8s,mb5.0
MIAR  Mount Ida          47.96 287  eP      P      21 24 26.0 -1.2
      comp=Z,12nm,0.8s,mb5.0
ROSC  El Rosal           48.40 240   LR     LR     21 42 43.4
      comp=Z,129nm,18.2s,MS4.0,baz=201,slow=33
KSU1  Kansas State U     48.82 293  eP      P      21 24 32.5 -1.2
      comp=Z,20nm,0.8s,mb5.2
KSU1  Kansas State U     48.82 293  eP      P      21 24 32.5 -1.2
      comp=Z,20nm,0.8s,mb5.2
TEIG  Tepich             49.81 267  eP      P      21 24 40.7 -0.7
      comp=Z,25nm,1.2s,mb5.1
TEIG  Tepich             49.81 267  eP      P      21 24 40.7 -0.8
      comp=Z,25nm,1.2s,mb5.1
OBN   Obninsk            50.53  45  eP      P      21 24 45.8 -0.7
      comp=Z,31nm,0.9s,mb5.2
OBN   Obninsk            50.53  45κeP      P      21 24 46.9 +0.4
OBN                                 e              21 24 56.7
OBN                                  pmax   pmax
      comp=Z,27nm,0.9s,mb5.2
OBN                                  MLR    MLR
      comp=Z,200nm,16.0s,MS4.2
OBN   Obninsk            50.53  45  eP      P      21 24 45.8 -0.7
      comp=Z,31nm,0.9s,mb5.2
WMOK  Wichita Mounta     51.91 289  eP      P      21 24 55.7 -1.5
      comp=Z,7.3nm,0.9s,mb4.6
WMOK  Wichita Mounta     51.91 289  eP      P      21 24 55.7 -1.5
WMOK                                 pmax   pmax
      comp=Z,7.0nm,0.9s,mb4.6
WMOK  Wichita Mounta     51.91 289  eP      P      21 24 55.7 -1.5
      comp=Z,7.3nm,0.9s,mb4.6
BRTR  Keskin Array B     52.29  64   P      P      21 25 00.1 +0.2
      comp=Z,2.3nm,1.0s,mb4.1,baz=270,slow=3.7,SNR=6.4
VRSR  Storozhevoye       52.84  49  eP      P      21 25 03.9 +0.1
VRSR                                 pmax   pmax
      comp=Z,2.0nm,1.0s,mb4.0
VRSR                                 pmax   pmax
      comp=N,3.0nm,2.6s
VRSR                                 pmax   pmax
      comp=E,3.0nm,0.9s
VORD  Divnogorie         52.96  49  eP      P      21 25 04.1 -0.6
VORD                                 pmax   pmax
      comp=Z,10.0nm,0.8s,mb4.8
VORD                                 pmax   pmax
      comp=N,10.0nm,0.9s
VORD                                 pmax   pmax
      comp=E,20nm,0.8s
JCT   Junction City      54.37 284  eP      P      21 25 14.4 -1.0
      comp=E,18nm,0.9s,mb5.0
JCT   Junction City      54.37 284  eP      P      21 25 14.4 -1.0
JCT                                  pmax   pmax
      comp=Z,18nm,0.9s,mb5.0
JCT   Junction City      54.37 284  eP      P      21 25 14.4 -1.0
      comp=Z,18nm,0.9s,mb5.0
YKA   Yellowknife Ar     54.45 326   P      P      21 25 15.3 -0.1
      comp=Z,3.6nm,0.8s,mb4.4,baz=78,slow=7.2,SNR=36
YKA                                  LR     LR     21 47 44.5
      comp=Z,175nm,19.2s,MS4.1,baz=170,slow=35
OTAV  Otavalo            54.56 239  eP      P      21 25 17.7 +0.9
      comp=Z,14nm,1.3s,mb4.8
OTAV  Otavalo            54.56 239  eP      P      21 25 17.7 +0.9
      comp=Z,14nm,1.3s,mb4.8
ISCO  Idaho Springs      55.19 297   P      P      21 25 20.1 -1.0
ISCO                                 pmax   pmax
      comp=Z,3.0nm,0.9s,mb4.3
ISCO  Idaho Springs      55.19 297   P      P      21 25 20.1 -1.0
      comp=Z,2.6nm,0.9s,mb4.3
EGMT  Eagleton           55.34 308  eP      P      21 25 21.3 -0.7
      comp=Z,6.4nm,0.8s,mb4.7
EGMT  Eagleton           55.34 308  ⇓P      P      21 25 21.6 -0.4
      baz=55
EGMT  Eagleton           55.34 308  eP      P      21 25 21.3 -0.8
      comp=Z,6.4nm,0.8s,mb4.7
RLMT  Red Lodge          55.93 304   P      P      21 25 26.5 +0.2
      comp=Z,28nm,1.6s,mb5.0
RLMT  Red Lodge          55.93 304   P      P      21 25 26.5 +0.1
      comp=Z,28nm,1.6s,mb5.0
EDM   Edmonton           56.01 315  eP      P      21 25 26.4 -0.4
EDM   Edmonton           56.01 315  eP      P      21 25 26.4 -0.4
MALT  Malatya            56.28  64  eP      P      21 25 29.6 +0.6
      comp=Z,20nm,1.6s,mb4.9
MALT  Malatya            56.28  64  eP      P      21 25 29.6 +0.6
MALT                                 pmax   pmax
      comp=Z,20nm,1.6s,mb4.9
MALT  Malatya            56.28  64  eP      P      21 25 29.6 +0.6
      comp=Z,20nm,1.6s,mb4.9
PDAR  Pinedale Array     56.92 302   P      P      21 25 32.8 -0.7
      comp=Z,1.1nm,0.6s,mb4.0,baz=70,slow=11,SNR=7.1
PDAR                                 LR     LR     21 49 27.2
      comp=Z,479nm,19.1s,MS4.6,baz=22,slow=36
KIV   Kislovodsk         57.24  57  eP      P      21 25 36.7 +1.0
KIV                                  pmax   pmax
      comp=Z,3.0nm,1.1s,mb4.2
KIV                                  MLR    MLR
      comp=Z,55nm,16.0s,MS3.8
BOZ   Bozeman (W)        57.32 305  eP      P      21 25 35.2 -1.0
      comp=Z,6.7nm,1.1s,mb4.6
BOZ   Bozeman (W)        57.32 305  eP      P      21 25 35.2 -1.1
BOZ                                  pmax   pmax
      comp=Z,7.0nm,1.1s,mb4.6
BOZ   Bozeman (W)        57.32 305  ⇑P      P      21 25 35.7 -0.6
      baz=57
BOZ   Bozeman (W)        57.32 305  eP      P      21 25 35.2 -1.1
      comp=Z,6.7nm,1.1s,mb4.6
D15A  Lincoln            57.42 307  ⇑P      P      21 25 36.5 -0.5
      baz=57
IMW   Indian Meadow      57.47 303  eP      P      21 25 36.9 -0.4
      comp=Z,13nm,1.1s,mb4.9
IMW   Indian Meadow      57.47 303  eP      P      21 25 36.9 -0.4
      comp=Z,13nm,1.1s,mb4.9
WALA  Waterton Lakes     57.63 310  eP      P      21 25 37.4 -1.0
      comp=Z,7.9nm,1.0s,mb4.7
WALA  Waterton Lakes     57.63 310  eP      P      21 25 37.3 -1.1
      comp=Z,7.8nm,1.0s,mb4.7
ANMO  Albuquerque        57.66 292  i P     P      21 25 39.3 +0.5
E15A  Deer Lodge         57.71 307  ⇑P      P      21 25 38.4 -0.6
      baz=57
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F15A	**Butte**	**57.82**	**306**	⇓P	**P**	**21 25 39.4**	**-0.4**
	baz=57						
LTX	**Lajitas**	**57.89**	**285**	eP	**P**	**21 25 40.0**	**-0.6**
	comp=Z,3.1nm,0.8s,mb4.4						
LTX	**Lajitas**	**57.89**	**285**	eP	**P**	**21 25 40.0**	**-0.5**
LTX				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
LTX	**Lajitas**	**57.89**	**285**	eP	**P**	**21 25 40.0**	**-0.5**
	comp=Z,3.0nm,0.8s,mb4.4						
TXAR	**Lajitas Array**	**57.89**	**285**	P	**P**	**21 25 40.1**	**-0.4**
	comp=Z,3.4nm,0.8s,mb4.4,baz=78,slow=7.7,SNR=22						
TXAR				LR	LR	21 47 37.5	
	comp=Z,310nm,21.6s,MS4.4,baz=5.0,slow=33						
D14A	**Greenough**	**58.05**	**308**	⇓P	**P**	**21 25 40.8**	**-0.5**
	baz=58						
G15A	**Dillon**	**58.05**	**305**	⇑P	**P**	**21 25 41.4**	**0.0**
	baz=58,SNR=9.8						
B13A	**Whitefish**	**58.21**	**309**	⇓P	**P**	**21 25 41.9**	**-0.6**
	baz=58						
MVCO	**Mesa Verde**	**58.26**	**295**	⇑P	**P**	**21 25 43.3**	**+0.3**
	baz=58						
E14A	**Clinton**	**58.27**	**307**	⇑P	**P**	**21 25 42.5**	**-0.4**
	baz=58						
F14A	**Wisdom**	**58.40**	**306**	⇓P	**P**	**21 25 43.5**	**-0.4**
	baz=58						
ZEI	**Tsey**	**58.49**	**58**	eP	**P**	**21 25 45.7**	**+1.2**
ZEI				e*PP	pP	21 25 53.1	+5.4
ZEI				e		21 26 36.7	
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
C13A	**Hot Springs**	**58.52**	**309**	P	**P**	**21 25 44.1**	**-0.5**
	baz=58,SNR=5.6						
D13A	**Huson**	**58.65**	**308**	⇓P	**P**	**21 25 45.1**	**-0.5**
	baz=58						
G14A	**Jackson**	**58.67**	**306**	⇓P	**P**	**21 25 45.8**	**+0.1**
	baz=58						
HWUT	**Hardware Ranch**	**58.74**	**301**	eP	**P**	**21 25 45.9**	**-0.3**
	comp=Z,7.3nm,0.9s,mb4.7						
HWUT	**Hardware Ranch**	**58.74**	**301**	eP	**P**	**21 25 45.9**	**-0.4**
	comp=Z,7.3nm,0.9s,mb4.7						
A12A	**Yaak River Ran**	**58.75**	**310**	⇑P	**P**	**21 25 45.7**	**-0.6**
	baz=58						
B12A	**Libby**	**58.88**	**310**	⇓P	**P**	**21 25 46.7**	**-0.4**
	baz=58						
F13A	**Darby**	**59.04**	**306**	⇓P	**P**	**21 25 47.7**	**-0.6**
	baz=59						
JLU	**Jordanelle**	**59.04**	**300**	eP	**P**	**21 25 48.0**	**-0.4**
JLU	**Jordanelle**	**59.04**	**300**	eP	**P**	**21 25 48.0**	**-0.4**
A11A	**Hall Mountain,**	**59.18**	**310**	⇑P	**P**	**21 25 49.1**	**-0.1**
	baz=59						
G13A	**Cobalt**	**59.23**	**306**	⇑P	**P**	**21 25 49.4**	**-0.2**
	baz=59						
D12A	**Red Ives Fores**	**59.23**	**308**	⇑P	**P**	**21 25 49.2**	**-0.5**
	baz=59						
B11A	**Sandpoint**	**59.37**	**310**	⇑P	**P**	**21 25 51.0**	**+0.5**
	baz=59						
H13A	**Challis**	**59.44**	**305**	⇑P	**P**	**21 25 50.8**	**-0.3**
	baz=59						
K14A	**Jones Ranch, D**	**59.49**	**303**	⇓P	**P**	**21 25 51.1**	**-0.3**
	baz=59						
I13A	**Wildhorse Cree**	**59.60**	**304**	⇓P	**P**	**21 25 52.2**	**0.0**
	baz=59						
F12A	**Elk City**	**59.65**	**307**	⇑P	**P**	**21 25 52.4**	**-0.2**
	baz=59						
H12A	**Diamond D Ranc**	**59.85**	**305**	⇑P	**P**	**21 25 53.7**	**-0.2**
	baz=60,SNR=6.9						
D11A	**Klaveano Farm,**	**59.86**	**308**	⇑P	**P**	**21 25 53.9**	**0.0**
	baz=60						
NEW	**Newport**	**59.90**	**310**	eP	**P**	**21 25 53.8**	**-0.4**
	comp=Z,19nm,1.0s,mb5.1						
NEW	**Newport**	**59.90**	**310**	eP	**P**	**21 25 53.8**	**-0.4**
NEW				pmax	pmax		
	comp=Z,19nm,1.0s						
NEW	**Newport**	**59.90**	**310**	eP	**P**	**21 25 53.8**	**-0.4**
	comp=Z,19nm,1.0s,mb5.1						
A10A	**Northport**	**59.91**	**311**	⇑P	**P**	**21 25 53.5**	**-0.7**
	baz=60						
HLID	**Hailey**	**59.93**	**304**	eP	**P**	**21 25 54.8**	**+0.3**
	comp=Z,10nm,1.6s,mb4.6						
HLID	**Hailey**	**59.93**	**304**	⇓P	**P**	**21 25 54.3**	**-0.2**
	baz=60						
HLID	**Hailey**	**59.93**	**304**	eP	**P**	**21 25 54.8**	**+0.3**
	comp=Z,10nm,1.6s,mb4.6						
M14A	**Sheep Mountain**	**60.01**	**302**	⇑P	**P**	**21 25 54.5**	**-0.5**
	baz=60						
E11A	**Bogner Ranch,**	**60.04**	**308**	⇑P	**P**	**21 25 54.4**	**-0.8**
	baz=60,SNR=7.2						
DUG	**Dugway**	**60.16**	**300**	eP	**P**	**21 25 55.1**	**-1.0**
	comp=Z,16nm,1.2s,mb4.9						
DUG	**Dugway**	**60.16**	**300**	eP	**P**	**21 25 55.1**	**-1.0**
DUG				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.9						
DUG	**Dugway**	**60.16**	**300**	⇓P	**P**	**21 25 55.9**	**-0.2**
	baz=60						
DUG	**Dugway**	**60.16**	**300**	eP	**P**	**21 25 55.1**	**-1.0**
	comp=Z,16nm,1.2s,mb4.9						
F11A	**Grangeville**	**60.18**	**307**	⇑P	**P**	**21 25 55.2**	**-1.0**
	baz=60						
L13A	**Double Diamond**	**60.19**	**302**	⇓P	**P**	**21 25 56.3**	**0.0**
	baz=60						
INK	**Inuvik**	**60.31**	**335**	P	**P**	**21 25 56.1**	**-0.5**
	comp=Z,4.2nm,0.9s,mb4.5,baz=54,slow=8.4,SNR=11						
MSU	**Marysvale**	**60.40**	**298**	eP	**P**	**21 25 58.5**	**+0.7**
MSU	**Marysvale**	**60.40**	**298**	eP	**P**	**21 25 58.5**	**+0.8**
G11A	**Walters Elk Ra**	**60.45**	**307**	⇓P	**P**	**21 25 57.5**	**-0.5**
	baz=60						
D10A	**Wagner Farm, O**	**60.45**	**309**	⇑P	**P**	**21 25 57.3**	**-0.7**
	baz=60						
B09A	**Rice**	**60.48**	**310**	⇑P	**P**	**21 25 57.5**	**-0.7**
	baz=60,SNR=8.5						
J12A	**Stokes Ranch,**	**60.51**	**304**	⇓P	**P**	**21 25 58.1**	**-0.4**
	baz=60						
A09A	**Danville**	**60.53**	**311**	⇓P	**P**	**21 25 58.1**	**-0.4**
	baz=60						
H11A	**Donnelly**	**60.55**	**306**	⇑P	**P**	**21 25 58.2**	**-0.5**
	baz=60						
E10A	**Myers Farm, Un**	**60.57**	**308**	⇑P	**P**	**21 25 58.1**	**-0.7**
	baz=60						
K12A	**Draper Farm, C**	**60.62**	**303**	⇑P	**P**	**21 25 59.0**	**-0.2**
	baz=60						
M13A	**Montello**	**60.63**	**302**	⇑P	**P**	**21 25 59.1**	**-0.2**
	baz=60						
C09A	**Chrisman Ranch**	**60.79**	**310**	⇑P	**P**	**21 25 59.9**	**-0.4**
	baz=60						
F10A	**Beach Ranch, E**	**60.84**	**308**	⇑P	**P**	**21 26 00.3**	**-0.3**
	baz=60						
N13A	**Wendover, West**	**60.86**	**301**	⇓P	**P**	**21 26 00.8**	**-0.1**
	baz=60						
L12A	**House Creek Ra**	**60.90**	**303**	⇓P	**P**	**21 26 01.5**	**+0.4**
	baz=60						
MFID	**Camas Ranch**	**60.94**	**304**	⇓P	**P**	**21 26 01.3**	**-0.1**
	baz=61						
A08A	**Turner Farm, O**	**60.96**	**311**	⇓P	**P**	**21 26 01.2**	**-0.3**
	baz=61						
WUAZ	**Wupatki**	**61.07**	**295**	⇓P	**P**	**21 26 02.9**	**+0.5**
	baz=61						
D09A	**Jones Farm, Ri**	**61.10**	**309**	⇑P	**P**	**21 26 02.0**	**-0.4**
	baz=61						
M12A	**Wells**	**61.12**	**302**	⇓P	**P**	**21 26 02.9**	**+0.2**
	baz=61,SNR=6.2						
E09A	**Wood Farm, Sta**	**61.22**	**308**	⇑P	**P**	**21 26 02.9**	**-0.3**
	baz=61						
B08A	**Colville Reser**	**61.23**	**311**	⇓P	**P**	**21 26 03.5**	**+0.2**
	baz=61						
C08A	**Higginbotham F**	**61.28**	**310**	⇑P	**P**	**21 26 03.0**	**-0.6**
	baz=61						
K11A	**Parker Ranch,**	**61.33**	**304**	⇓P	**P**	**21 26 03.7**	**-0.4**
	baz=61						
BMO	**Blue Mountains**	**61.34**	**306**	eP	**P**	**21 26 03.2**	**-0.9**
	comp=Z,5.4nm,1.0s,mb4.6						
BMO	**Blue Mountains**	**61.34**	**306**	eP	**P**	**21 26 03.2**	**-0.8**
BMO				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
BMO	**Blue Mountains**	**61.34**	**306**	eP	**P**	**21 26 03.2**	**-0.8**
	comp=Z,5.4nm,1.0s,mb4.6						
LPAZ	**La Paz**	**61.35**	**218**	P	**P**	**21 26 05.2**	**+0.8**
	comp=Z,11nm,0.8s,mb5.0,baz=14,slow=5.9,SNR=36						
LPAZ				LR	LR	21 50 30.4	
	comp=Z,142nm,20.4s,MS4.1,baz=176,slow=34						
F09A	**S2 Ranch, Elgi**	**61.38**	**307**	⇓P	**P**	**21 26 03.9**	**-0.4**
	baz=61						
L11A	**Cat Creek Ranc**	**61.39**	**303**	⇑P	**P**	**21 26 04.4**	**-0.1**
	baz=61						
S14A	**Cedar City**	**61.42**	**298**	⇑P	**P**	**21 26 04.7**	**-0.1**
	baz=61						
G09A	**Cove**	**61.47**	**307**	⇑P	**P**	**21 26 04.8**	**-0.1**
	baz=61						
D08A	**Wollman Farm,**	**61.49**	**309**	⇑P	**P**	**21 26 04.8**	**-0.3**
	baz=61						
A07A	**Ashnola River,**	**61.60**	**312**	⇓P	**P**	**21 26 05.4**	**-0.3**
	baz=61,SNR=8.2						
H09A	**Durkee**	**61.65**	**306**	⇓P	**P**	**21 26 05.5**	**-0.7**
	baz=61						
T14A	**Hurricane**	**61.66**	**297**	⇓P	**P**	**21 26 05.8**	**-0.5**
	baz=61						
B07A	**Winthrop**	**61.67**	**311**	⇑P	**P**	**21 26 05.7**	**-0.5**
	baz=61						
M11A	**Holland Ranch,**	**61.72**	**302**	⇓P	**P**	**21 26 07.2**	**+0.5**
	baz=61						
E08A	**Dider Farm, El**	**61.80**	**309**	⇑P	**P**	**21 26 06.9**	**-0.2**
	baz=61						
W15A	**Williams**	**61.88**	**295**	⇑P	**P**	**21 26 07.9**	**+0.1**
	baz=62						
K10A	**MacKenzie Ranc**	**61.89**	**304**	⇓P	**P**	**21 26 07.7**	**-0.2**
	baz=62						
F08A	**Pendleton**	**61.90**	**308**	⇑P	**P**	**21 26 07.6**	**-0.2**
	baz=62						
L10A	**Juniper Basin**	**61.91**	**303**	⇓P	**P**	**21 26 07.9**	**-0.1**
	baz=62						
P12A	**McGill**	**61.93**	**300**	⇑P	**P**	**21 26 07.8**	**-0.3**
	baz=62						
C07A	**Waterville**	**61.95**	**310**	⇑P	**P**	**21 26 06.9**	**-1.2**
	baz=62						
I09A	**Lost Marbles R**	**61.98**	**306**	⇑P	**P**	**21 26 08.4**	**0.0**
	baz=62						
Q12A	**Willow Creek R**	**62.06**	**300**	⇓P	**P**	**21 26 09.3**	**+0.3**
	baz=62						
ARU	**Arti**	**62.06**	**39**	eP	**P**	**21 26 08.7**	**-0.1**
	comp=Z,20nm,1.3s,mb5.1						
ARU	**Arti**	**62.06**	**39**	⇓iP	**P**	**21 26 07.9**	**-0.8**
ARU				e		21 28 35.5	
ARU				eS	**S**	**21 34 29.9**	**-3.4**
ARU				eSS	SS	21 38 30.2	-5.0
ARU				eSSS		21 41 19.4	
ARU				pmax	pmax		
	comp=Z,16nm,1.2s,mb5.0						
ARU				MLR	MLR		
	comp=N,60nm,18.0s,MS4.0						
ARU				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.3						
ARU				MLR	MLR		
	comp=E,70nm,17.0s,MS4.0						
ARU	**Arti**	**62.06**	**39**	eP	**P**	**21 26 08.6**	**-0.1**
	comp=E,20nm,1.3s,mb5.1						
D07A	**Quincy**	**62.09**	**310**	⇑P	**P**	**21 26 08.8**	**-0.3**
	baz=62						
X15A	**Humboldt**	**62.16**	**294**	⇑P	**P**	**21 26 10.2**	**+0.4**
	baz=62						
O11A	**Cowboy Ranch,**	**62.17**	**301**	⇑P	**P**	**21 26 10.1**	**+0.3**
	baz=62,SNR=6.3						
R12A	**Pony Springs,**	**62.20**	**299**	⇓P	**P**	**21 26 10.3**	**+0.3**
	baz=62						
G08A	**Pilot Rock**	**62.23**	**307**	⇓P	**P**	**21 26 09.9**	**-0.1**
	baz=62						
J09A	**Fry Pan Ranch,**	**62.25**	**305**	⇑P	**P**	**21 26 10.8**	**+0.6**
	baz=62,SNR=13						
T13A	**Saint George**	**62.27**	**297**	⇑P	**P**	**21 26 10.7**	**+0.3**
	baz=62						
E07A	**Sunnyside**	**62.28**	**309**	⇑P	**P**	**21 26 10.7**	**+0.4**
	baz=62						
H08A	**Prairie City**	**62.36**	**306**	⇓P	**P**	**21 26 11.4**	**+0.4**
	baz=62						
C06A	**Tall Timber Ra**	**62.36**	**311**	⇓P	**P**	**21 26 10.5**	**-0.4**
	baz=62						
W14A	**Seligman**	**62.46**	**295**	⇑P	**P**	**21 26 12.4**	**+0.6**
	baz=62						
P11A	**Circle Ranch,**	**62.49**	**300**	⇑P	**P**	**21 26 12.3**	**+0.5**
	baz=62						
K09A	**Rome**	**62.50**	**304**	⇑P	**P**	**21 26 12.0**	**+0.1**
	baz=62						
I08A	**Drewsey**	**62.55**	**306**	⇑P	**P**	**21 26 12.4**	**+0.2**
	baz=62						
F07A	**Phinny Hill Vi**	**62.60**	**308**	⇑P	**P**	**21 26 12.3**	**-0.2**
	baz=62						
D06A	**Cle Elum**	**62.63**	**310**	⇑P	**P**	**21 26 11.5**	**-1.2**
	baz=62						
X14A	**Yava**	**62.65**	**294**	⇑P	**P**	**21 26 13.7**	**+0.7**
	baz=62						
G07A	**Ruggs Ranch, H**	**62.70**	**308**	⇑P	**P**	**21 26 12.9**	**-0.2**
	baz=62						
J08A	**Circle Bar Ran**	**62.72**	**305**	⇓P	**P**	**21 26 13.5**	**+0.2**
	baz=62						
Q11A	**Duckwater**	**62.72**	**300**	⇑P	**P**	**21 26 14.0**	**+0.6**
	baz=62						
L09A	**Wilkinson Ranc**	**62.75**	**304**	⇓P	**P**	**21 26 13.8**	**+0.2**
	baz=62						
H07A	**Lands Inn, Kim**	**62.91**	**307**	⇓P	**P**	**21 26 14.3**	**-0.4**
	baz=62						
Y14A	**Wickenburg**	**62.97**	**294**	⇓P	**P**	**21 26 15.5**	**+0.3**
	baz=63						
U12A	**Valley of Fire**	**62.98**	**297**	⇑P	**P**	**21 26 15.5**	**+0.3**
	baz=63						
E06A	**Yakima**	**62.99**	**309**	⇑P	**P**	**21 26 14.7**	**-0.4**
	baz=63,SNR=5.1						
K08A	**Mann Creek Ran**	**62.99**	**305**	⇑P	**P**	**21 26 16.1**	**+0.9**
	baz=63						
I07A	**Izee**	**63.09**	**306**	⇓P	**P**	**21 26 16.1**	**+0.3**
	baz=63						
W13A	**Hualapai Mount**	**63.10**	**295**	⇓P	**P**	**21 26 16.9**	**+0.8**
	baz=63						
L08A	**Fields**	**63.13**	**304**	P	**P**	**21 26 17.0**	**+0.9**
	baz=63,SNR=7.4						
N09A	**Rock Creek Ran**	**63.15**	**302**	⇑P	**P**	**21 26 16.4**	**+0.1**
	baz=63						
F06A	**Goldendale**	**63.19**	**308**	⇑P	**P**	**21 26 16.6**	**+0.1**
	baz=63						
O09A	**Fish Creek Ran**	**63.22**	**302**	⇑P	**P**	**21 26 17.0**	**+0.3**
	baz=63						
WVOR	**Wild Horse Val**	**63.22**	**304**	eP	**P**	**21 26 17.0**	**+0.3**
	comp=E,12nm,1.4s,mb4.8						
WVOR	**Wild Horse Val**	**63.22**	**304**	eP	**P**	**21 26 17.0**	**+0.3**
WVOR				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.8						
WVOR	**Wild Horse Val**	**63.22**	**304**	eP	**P**	**21 26 17.0**	**+0.3**
	comp=Z,12nm,1.4s,mb4.8						
Q10A	**Clear Creek Ra**	**63.25**	**300**	⇑P	**P**	**21 26 17.3**	**+0.3**
	baz=63						
X13A	**Yucca**	**63.29**	**295**	⇓P	**P**	**21 26 17.8**	**+0.5**
	baz=63,SNR=8.2						
S11A	**Rachel**	**63.31**	**298**	⇑P	**P**	**21 26 17.6**	**+0.2**
	baz=63						
G06A	**Carlson Farm,**	**63.33**	**308**	⇑P	**P**	**21 26 17.4**	**+0.1**
	baz=63						
H06A	**Lindquist Farm**	**63.35**	**307**	⇑P	**P**	**21 26 17.7**	**+0.2**
	baz=63						
M08A	**Happy Creek Ra**	**63.47**	**303**	⇑P	**P**	**21 26 18.4**	**0.0**
	baz=63						
K07A	**Rock Creek Ran**	**63.52**	**305**	⇓P	**P**	**21 26 18.6**	**-0.1**
	baz=63						
V12A	**Nelson**	**63.52**	**296**	⇓P	**P**	**21 26 19.6**	**+0.8**
	baz=63						
F05A	**White Salmon**	**63.57**	**309**	⇑P	**P**	**21 26 18.8**	**-0.1**
	baz=63						
N08A	**GE Springer Mi**	**63.60**	**302**	⇓P	**P**	**21 26 19.8**	**+0.5**
	baz=63						
I06A	**Prineville**	**63.61**	**306**	⇑P	**P**	**21 26 20.2**	**+1.0**
	baz=63						
Y13A	**Salome**	**63.64**	**294**	⇑P	**P**	**21 26 20.2**	**+0.6**
	baz=63						
PDMCI	**Parker Dam,Lak**	**63.65**	**294**	⇑P	**P**	**21 26 20.7**	**+1.0**
	baz=63						
S10A	**Tonopah Range,**	**63.79**	**299**	P	**P**	**21 26 20.7**	**+0.2**
	baz=63,SNR=7.9						
J06A	**Christmas Vall**	**63.87**	**306**	⇓P	**P**	**21 26 21.2**	**+0.2**
	baz=64						
L07A	**Adell**	**63.87**	**304**	⇓P	**P**	**21 26 21.7**	**+0.7**
	baz=64						
D04A	**Dobbs Creek Ra**	**63.88**	**310**	⇑P	**P**	**21 26 21.3**	**+0.3**
	baz=64						
B04A	**Port Angeles**	**63.90**	**312**	⇑P	**P**	**21 26 21.3**	**+0.2**
	baz=64						
R09A	**Tonopah**	**63.98**	**300**	P	**P**	**21 26 22.2**	**+0.4**
	baz=64,SNR=6.8						
M07A	**Soldier Meadow**	**64.03**	**303**	⇓P	**P**	**21 26 22.4**	**+0.3**
	baz=64						
K06A	**Valley Falls**	**64.13**	**305**	⇓P	**P**	**21 26 23.2**	**+0.5**
	baz=64						
N07B	**Gerlach**	**64.17**	**303**	⇓P	**P**	**21 26 23.1**	**+0.1**
	baz=64,SNR=7.0						
Y12C	**Blythe**	**64.18**	**294**	⇑P	**P**	**21 26 23.6**	**+0.4**
	baz=64						
U10A	**Ash Meadows, A**	**64.28**	**297**	⇑P	**P**	**21 26 24.5**	**+0.7**
	baz=64						
Q08A	**Gabbs**	**64.31**	**301**	⇑P	**P**	**21 26 23.6**	**-0.3**
	baz=64						
DAWY	**Dawson**	**64.35**	**332**	eP	**P**	**21 26 24.0**	**+0.2**
O07A	**Toulon**	**64.38**	**302**	⇑P	**P**	**21 26 24.5**	**+0.1**
	baz=64						
TUQ	**Turquoise Mtn.**	**64.43**	**296**	⇓P	**P**	**21 26 25.4**	**+0.5**
	baz=64						
IRM	**Iron Mountain**	**64.46**	**295**	⇓P	**P**	**21 26 25.4**	**+0.4**
	baz=64						
G04A	**Mulino**	**64.51**	**308**	⇑P	**P**	**21 26 25.9**	**+0.7**
	baz=64						
GMRC	**Granite Mounta**	**64.54**	**296**	⇓P	**P**	**21 26 26.7**	**+1.2**
	baz=64						
H04A	**Detroit Lake**	**64.56**	**308**	⇓P	**P**	**21 26 25.5**	**0.0**
	baz=64						
J05A	**Fort Rock**	**64.57**	**306**	⇑P	**P**	**21 26 26.3**	**+0.7**
	baz=64,SNR=9.7						
MOD	**Modoc**	**64.57**	**304**	⇑P	**P**	**21 26 26.2**	**+0.6**
	baz=64						
K05A	**Summer Lake**	**64.59**	**305**	⇑P	**P**	**21 26 26.5**	**+0.8**
	baz=64,SNR=7.0						
EGAK	**Eagle**	**64.64**	**333**	eP	**P**	**21 26 24.6**	**-1.1**
	comp=Z,9.7nm,1.1s,mb4.8						
EGAK	**Eagle**	**64.64**	**333**	eP	**P**	**21 26 24.6**	**-1.1**
	comp=Z,9.7nm,1.1s,mb4.8						
NVAR	**Mina Array Bea**	**64.76**	**300**	P	**P**	**21 26 26.9**	**0.0**
	comp=Z,2.8nm,0.9s,mb4.3,baz=68,slow=7.6,SNR=14						
N06A	**Buffalo Meadow**	**64.77**	**303**	P	**P**	**21 26 27.6**	**+0.7**
	baz=64,SNR=5.7						
L05A	**Lakeview**	**64.86**	**305**	⇑P	**P**	**21 26 28.4**	**+1.0**
	baz=64						
BC3	**Big Chuckw Mtn**	**64.91**	**294**	⇓P	**P**	**21 26 28.9**	**+0.9**
	baz=65						
M06C	**Likely Place G**	**65.00**	**304**	⇑P	**P**	**21 26 29.1**	**+0.7**
	baz=65						
HEC	**Hector,Ludlow**	**65.01**	**296**	⇓P	**P**	**21 26 29.4**	**+0.8**
	baz=65						
S08C	**White Mtn Res**	**65.10**	**299**	⇓P	**P**	**21 26 29.1**	**0.0**
	baz=65						
I04A	**Tendick Farm,**	**65.10**	**307**	⇓P	**P**	**21 26 29.0**	**0.0**
	baz=65						
GSC	**Goldstone**	**65.14**	**297**	⇑P	**P**	**21 26 30.1**	**+0.7**
	baz=65						
BELC	**Belle Mtn.**	**65.15**	**295**	⇓P	**P**	**21 26 30.4**	**+0.9**
	baz=65						
J04A	**Umpqua Nationa**	**65.16**	**306**	⇓P	**P**	**21 26 30.3**	**+0.9**
	baz=65						
H03A	**Soap Creek Ran**	**65.27**	**308**	⇓P	**P**	**21 26 30.5**	**+0.4**
	baz=65						
MPMC	**Manual Prospec**	**65.28**	**298**	⇓P	**P**	**21 26 31.0**	**+0.7**
	baz=65						
M05C	**Lookout**	**65.38**	**304**	⇑P	**P**	**21 26 31.3**	**+0.5**
	baz=65						
ELFS	**Eagle Lake Fie**	**65.43**	**303**	⇑P	**P**	**21 26 31.8**	**+0.6**
	baz=65,SNR=9.7						
R07C	**Lee Vining**	**65.44**	**300**	⇑P	**P**	**21 26 32.1**	**+0.8**
	baz=65						
BEKR	**Beckwourth**	**65.53**	**302**	⇑P	**P**	**21 26 31.8**	**0.0**
	baz=65,SNR=6.0						
M04C	**Macdoel**	**65.64**	**305**	⇓P	**P**	**21 26 33.0**	**+0.4**
	baz=65						
PFO	**Pinyon Flat Ob**	**65.67**	**295**	⇓P	**P**	**21 26 33.4**	**+0.5**
	baz=65						
HATC	**Hat Creek Radi**	**65.84**	**304**	⇑P	**P**	**21 26 33.7**	**-0.1**
	baz=65						
P05C	**Yuba Gap, Truc**	**65.96**	**302**	⇑P	**P**	**21 26 34.9**	**+0.2**
	baz=66						
HUMO	**Hull Mountain**	**66.00**	**306**	⇓P	**P**	**21 26 34.6**	**-0.3**
	baz=66						
M03C	**McCloud**	**66.07**	**304**	⇑P	**P**	**21 26 35.3**	**0.0**
	baz=66						
HELL	**Mitchell Peak,**	**66.08**	**299**	P	**P**	**21 26 36.2**	**+0.7**
	baz=66,SNR=5.9						
S06C	**San Francisco**	**66.10**	**300**	⇓P	**P**	**21 26 35.7**	**+0.2**
	baz=66,SNR=5.2						
YBH	**Yreka Blue Hor**	**66.24**	**305**	⇑P	**P**	**21 26 37.7**	**+1.2**
	baz=66						
K02A	**Glendale**	**66.27**	**306**	⇓P	**P**	**21 26 36.4**	**-0.2**
	baz=66						
ORV	**Oroville**	**66.45**	**303**	⇑P	**P**	**21 26 37.6**	**-0.2**
	baz=66						
OHCM	**Honcut**	**66.54**	**302**	eP	**P**	**21 26 38.2**	**-0.2**
OHCM	**Honcut**	**66.54**	**302**	eP	**P**	**21 26 38.2**	**-0.2**
MIB	**Mutribah**	**66.63**	**69**	eP	**P**	**21 26 37.5**	**-1.6**
MIB				AMb	AMB	21 26 43.0	
	comp=Z,28nm,1.0s,mb5.2						
MIB	**Mutribah**	**66.63**	**69**	eP	**P**	**21 26 37.5**	**-1.6**
	comp=Z,28nm,1.0s,mb5.2						
NAY	**Al-Naaiem**	**66.83**	**70**	eP	**P**	**21 26 41.1**	**+0.7**
NAY				AMb	AMB	21 26 43.8	
	comp=Z,13nm,0.9s,mb5.0						
NAY	**Al-Naaiem**	**66.83**	**70**	eP	**P**	**21 26 41.1**	**+0.7**
	comp=Z,13nm,0.9s,mb5.0						
RDF	**Al-Radifah**	**67.22**	**70**	eP	**P**	**21 26 40.5**	**-2.4**
RDF				AMb	AMB	21 26 50.8	
	comp=Z,34nm,1.5s,mb5.1						
IMA2	**Indian Mountai**	**68.12**	**338**	eP	**P**	**21 26 47.9**	**0.0**
IMA2	**Indian Mountai**	**68.12**	**338**	eP	**P**	**21 26 47.9**	**-0.1**
BRVK	**Borovoye**	**69.64**	**39**	eP	**P**	**21 26 57.9**	**+0.3**
	comp=Z,5.5nm,1.0s,mb4.4						
BRVK	**Borovoye**	**69.64**	**39**	eP	**P**	**21 26 57.9**	**+0.3**
BRVK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
BRVK	**Borovoye**	**69.64**	**39**	eP	**P**	**21 26 57.8**	**+0.2**
	comp=Z,5.5nm,1.0s,mb4.4						
TIXI	**Tiksi**	**71.81**	**6**	eP	**P**	**21 27 10.6**	**0.0**
	comp=Z,8.9nm,1.1s,mb4.6						
TIXI	**Tiksi**	**71.81**	**6**	eP	**P**	**21 27 09.7**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
TIXI	**Tiksi**	**71.81**	**6**	eP	**P**	**21 27 10.6**	**+0.1**
	comp=Z,8.9nm,1.1s,mb4.6						
TNA	**Tin City**	**72.52**	**342**	eP	**P**	**21 27 14.7**	**-0.2**
	comp=Z,3.1nm,0.8s,mb4.3						
TNA	**Tin City**	**72.52**	**342**	eP	**P**	**21 27 14.6**	**-0.2**
	comp=Z,3.1nm,0.8s,mb4.3						
NVS	**Novosibirsk**	**74.63**	**32**	i P	**P**	**21 27 27.5**	**+0.1**
BILL	**Bilibino**	**75.02**	**352**	eP	**P**	**21 27 28.2**	**-1.2**
	comp=Z,16nm,1.5s,mb4.7						
BILL	**Bilibino**	**75.02**	**352**	⇓eP	**P**	**21 27 29.2**	**-0.2**
BILL				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.6						
BILL	**Bilibino**	**75.02**	**352**	eP	**P**	**21 27 28.2**	**-1.2**
	comp=Z,16nm,1.5s,mb4.7						
KURK	**Kurchatov**	**75.19**	**37**	eP	**P**	**21 27 29.6**	**-1.1**
	comp=Z,12nm,1.0s,mb4.8						
KURK	**Kurchatov**	**75.19**	**37**	⇑eP	**P**	**21 27 30.5**	**-0.2**
KURK	**Kurchatov**	**75.19**	**37**	eP	**P**	**21 27 29.6**	**-1.1**
	comp=Z,12nm,1.0s,mb4.8						
KMBO	**Kilima Mbogo**	**75.58**	**102**	P	**P**	**21 27 32.5**	**-1.1**
	comp=Z,0.6nm,0.5s,mb3.8,baz=223,slow=20,SNR=2.1						
KMBO				LR	LR	22 00 25.9	
	comp=Z,193nm,20.0s,MS4.4,baz=98,slow=35						
ZAL	**Zalesovo**	**75.92**	**32**	P	**P**	**21 27 35.0**	**+0.1**
ZALV	**Zalesovo Beam**	**75.92**	**32**	P	**P**	**21 27 35.0**	**+0.1**
ZALV				LR	LR	22 00 01.4	
ZALV	**Zalesovo Beam**	**75.92**	**32**	P	**P**	**21 27 35.0**	**+0.1**
	comp=Z,3.5nm,1.0s,mb4.3,baz=302,slow=8.4,SNR=14						
ZALV				LR	LR	22 00 01.4	
	comp=Z,95nm,20.9s,MS4.1,baz=331,slow=35						
LSZ	**Lusaka**	**77.82**	**119**	eP	**P**	**21 27 49.4**	**+3.3**
AAK	**Ala-Archa**	**78.04**	**46**	eP	**P**	**21 27 47.1**	**0.0**
	comp=Z,3.9nm,1.0s,mb4.3						
AAK	**Ala-Archa**	**78.04**	**46**	⇑eP	**P**	**21 27 47.2**	**+0.1**
AAK				pmax	pmax		
	comp=Z,12nm,2.3s,mb4.4						
AAK	**Ala-Archa**	**78.04**	**46**	eP	**P**	**21 27 47.1**	**0.0**
	comp=Z,3.9nm,1.0s,mb4.3						
MKAR	**Makanchi Array**	**79.59**	**39**	P	**P**	**21 27 55.0**	**-0.5**
MKAR				LR	LR	22 02 34.6	
MKAR	**Makanchi Array**	**79.59**	**39**	⇑eP	**P**	**21 27 55.5**	**0.0**
MKAR	**Makanchi Array**	**79.59**	**39**	P	**P**	**21 27 55.0**	**-0.5**
	comp=Z,5.5nm,1.1s,mb4.4,baz=316,slow=5.1,SNR=24						
MKAR				LR	LR	22 02 34.6	
	comp=Z,123nm,20.1s,MS4.2,baz=329,slow=35						
SEY	**Seymchan**	**81.12**	**357**	⇑eP	**P**	**21 28 03.2**	**-0.2**
YAK	**Yakutsk**	**81.27**	**8**	eP	**P**	**21 28 04.1**	**-0.1**
	comp=Z,32nm,1.3s,mb5.1						
YAK	**Yakutsk**	**81.27**	**8**	⇑eP	**P**	**21 28 04.2**	**0.0**
YAK				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.0						
YAK	**Yakutsk**	**81.27**	**8**	eP	**P**	**21 28 04.1**	**-0.1**
	comp=Z,32nm,1.3s,mb5.1						
BOD	**Bodaibo**	**82.59**	**17**	eP	**P**	**21 28 10.0**	**-1.3**
WMQ	**Urumqi**	**84.39**	**38**	eP	**P**	**21 28 20.6**	**-0.2**
WMQ				AP	pP	21 28 25.4	+1.3
WMQ				XP	sP	21 28 27.6	+2.3
WMQ				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.8						
WMQ				LR	LR		

	comp=N,133nm,20.8s,MS4.4						
WMQ				LR	LR		
	comp=E,96nm,20.0s,MS4.4						
WMQ				LR	LR		
	comp=Z,108nm,19.5s,MS4.2						
TLY	Talaya	84.99	25	*e*P	P	21 28 24.3	+0.7
TLY				pmax	pmax		
	comp=Z,12nm,1.6s,mb4.8						
BOSA	Boshof	85.17	131	LR	LR	22 03 11.2	
	comp=Z,150nm,20.6s,MS4.4,baz=349,slow=33						
ZAK	Zakamensk	85.95	26	*e*P	P	21 28 28.1	-0.3
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.6						
SONM	Songino Array	89.19	25	P	P	21 28 44.4	+0.3
	comp=Z,1.8nm,1.0s,mb4.4,baz=300,slow=4.7,SNR=9.6						
SONM				LR	LR	22 10 31.5	
	comp=Z,65nm,18.0s,MS4.1,baz=11,slow=37						
ULN	Ulaanbaatar	89.40	25	*e*P	P	21 28 44.8	-0.3
	comp=Z,3.1nm,1.0s,mb4.6						
ULN	Ulaanbaatar	89.40	25	⇑*e*P	P	21 28 45.0	-0.1
ULN	Ulaanbaatar	89.40	25	*e*P	P	21 28 44.8	-0.3
	comp=Z,3.1nm,1.0s,mb4.6						
GTA	Gaotai	93.58	34	*e*P	P	21 29 04.8	+0.1
GTA				AP	pP	21 29 08.9	+0.9
GTA				XP	sP	21 29 12.4	+3.2
GTA				PP	PP	21 32 52.8	+4.3
GTA				SKS		21 39 38.3	
GTA				S	S	21 40 10.0	-3.4
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.8						
GTA				AMB	AMB		
	comp=Z,124nm,7.3s						
GTA				LR	LR		
	comp=N,75nm,10.7s,MS4.5						
GTA				LR	LR		
	comp=E,80nm,12.2s,MS4.5						
GTA				LR	LR		
	comp=Z,87nm,13.8s,MS4.4						
HHC	Hu-ho-hao-te	97.10	26	*e*P	P	21 29 18.1	-2.6
HHC				AP	pP	21 29 22.9	-1.1
HHC				XP	sP	21 29 25.1	-0.1
HHC				PP	PP	21 33 15.6	0.0
HHC				SKS		21 39 53.1	
HHC				S	S	21 40 36.8	-7.0
HHC				AMB	AMB		
	comp=Z,3.0nm,1.3s,mb4.6						
HHC				AMB	AMB		
	comp=Z,90nm,7.1s						
HHC				LR	LR		
	comp=N,154nm,33.2s,MS4.4						
HHC				LR	LR		
	comp=E,143nm,29.4s,MS4.4						
HHC				LR	LR		
	comp=Z,85nm,33.2s,MS4.0						
BJI	Beijing	99.36	23	P	P	21 29 28.1	-2.7
BJI				AMB	AMB		
	comp=Z,7.0nm,2.4s,mb4.8						
BJI				LR	LR		
	comp=Z,51nm,35.9s,MS3.8						
CD2	Chengdu	102.39	36	*e*P	Pdif	21 29 43.3	-1.0
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s						
GYA	Guiyang	107.50	37	*e*PDIF	Pdif	21 30 07.0	0.0
GYA				PP	PP	21 34 37.3	+3.2
GYA				PP	PP		
	comp=Z,70nm,7.8s						
WRA	Warramunga Arr	160.87	36	PKP	PKPdf	21 35 47.8	-1.2
WRA				PKPab	PKPab	21 36 31.5	+0.1
WRA	Warramunga Arr	160.87	36	PKIKP	PKPdf	21 35 47.8	-1.2
WRA						21 36 31.5	
WRA	Warramunga Arr	160.87	36	PKP	PKPdf	21 35 47.8	-1.2
	comp=Z,0.4nm,0.9s,baz=81,slow=5.2,SNR=3.8						
WRA				PKPab	PKPab	21 36 31.5	+0.1
	comp=Z,2.3nm,1.0s,baz=339,slow=4.1,SNR=9.1						
WRA	Warramunga Arr	160.87	36	PKIKP	PKPdf	21 35 47.8	-1.2
ASAR	Alice Springs	163.73	43	PKP	PKPdf	21 35 51.4	-0.4
ASAR				PKPab	PKPab	21 36 43.1	-0.7
ASAR	Alice Springs	163.73	43	PKIKP	PKPdf	21 35 51.4	-0.4
ASAR						21 36 43.1	
ASAR	Alice Springs	163.73	43	PKP	PKPdf	21 35 51.4	-0.4
	comp=Z,0.7nm,0.9s,baz=5.7,slow=1.9,SNR=4.7						
ASAR				PKPab	PKPab	21 36 43.1	-0.7
	comp=Z,0.7nm,0.9s,baz=317,slow=4.9,SNR=4.8						
ASAR	Alice Springs	163.73	43	PKPab	PKPab	21 36 43.1	-0.7
STKA	Stephens Creek	174.37	42	PKP	PKPdf	21 35 58.4	+0.1
STKA	Stephens Creek	174.37	42	PKP	PKPdf	21 35 58.4	+0.1
	comp=Z,2.7nm,1.1s,baz=12,slow=4.8,SNR=2.9						

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*NIED **13** 21:24:00,43.00N×145.40E,h41^{km},Mw3.9 Best double couple: $M_0$9.01000×10^{14} NP1:ϕ_s252.00000°,δ28.00000°,λ138.00000°. NP2:ϕ_s20.00000°,δ71.00000°,λ68.00000°.*
*MOS **13** 21:24:51.2±1.0,42.89N×145.50E,h60^{km},mb4.3/9,Error ellipse: s-maj=14.8km s-min=9.7km az=84.7*
*ISCJB **13** 21:24:51.3±0.6,42.95N±0.04×145.43E±0.06,h52^{km}±4^{km},mb3.8/14,Error ellipse: s-maj=9.1km s-min=4.4km az=137.4*
*NEIC **13** 21:24:53.0±1.5,42.97N×145.42E,h52^{km}±16^{km},mb4.2/2,Error ellipse: s-maj=16.1km s-min=12.6km az=165.0*
NEIC Recorded [2 JMA] in eastern Hokkaido.
*JMA **13** 21:24:52.3±0.1,42.98N×145.41E,h47^{km}±1^{km},M3.9*
JMA Felt II J1.
*IDC **13** 21:24:53.4±3.0,43.01N×145.40E,h54^{km}±26^{km},mb3.5/12,mb1 3.7/14,mb1mx3.6/24,mbtmp3.5/14,ML3.8/2,Error ellipse: s-maj=22.4km s-min=21.0km az=110.0*
ISC 13 21:24:52.8±0.6,**43.00N**±0.04×**145.39E**±0.06,**h46**^{km}±4^{km},**n48**,σ0^{s}.**82**/61,**mb3.8**/14,**1C-7D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.44	35	⇑P	Pn	21 25 02.6	-0.5
NEM2				*e*S	Sn	21 25 09.8	-0.6
JAK	Akkeshi	0.51	270	⇓P	Pn	21 25 03.6	-0.3
JAK				*e*S	Sn	21 25 11.7	-0.1
JNK	Nakash	0.77	320	⇓P	Pn	21 25 06.8	-0.4
JNK				*e*S	Sn	21 25 17.3	-0.4
JRA	Rausu	0.96	348	⇓P	Pn	21 25 09.7	-0.1
JRA				*e*S	Sn	21 25 22.5	+0.2
YUK	Yuzh-Kuril’sk	1.09	18	⇓*i*PN	Pn	21 25 11.5	-0.1
YUK				*i* S	Sn	21 25 25.0	-0.5
YUK				pmax	pmax		
	comp=Z,490nm,0.3s						
YUK				smax			
	comp=E,10µm,1.0s						
YUK				smax			
	comp=N,4µm,0.5s						
YUK				smax			
	comp=E,4µm,0.5s						
JOB	Onbets	1.15	266	⇓P	Pn	21 25 12.0	-0.4
JOB				*e*S	Sn	21 25 26.4	-0.6
JAR	Ashorobuto	1.23	285	⇓P	Pn	21 25 13.4	0.0
JAR				*e*S	Sn	21 25 28.8	0.0
JTKR	Abashiri--Toko	1.45	312	⇓P	Pn	21 25 17.1	+0.6
JCH	Churui	1.54	256	P	Pn	21 25 17.0	-0.8
JCH				*e*S	Sn	21 25 35.5	-1.1
ERM	Erimo	1.93	240	*e*Pn	Pn	21 25 24.7	+1.7
ERM				*e*Sn	Sn	21 25 47.6	+1.6
ERM	Erimo	1.93	240	*e*PN	Pn	21 25 24.7	+1.7
ERM				*e*		21 25 47.6	
ASAJ	Asahikawa	2.32	300	PN	Pn	21 25 30.0	+1.6
ASAJ				S	Sn	21 26 00.9	+5.2
ASAJ				pmax	pmax		
	comp=Z,22nm,0.3s						
ASAJ				smax			
	comp=N,10.0nm,0.3s						
ASAJ	Asahikawa	2.32	300	P	Pn	21 25 29.9	+1.5
	comp=N,22nm,0.3s,baz=124,slow=12,SNR=97						
ASAJ				S	Sn	21 26 00.9	+5.2
	comp=N,10.0nm,0.3s,baz=349,slow=22,SNR=6.4						
KUR	Kuril’sk	2.85	38	*e*PN	Pn	21 25 36.6	+0.8
KUR				*e*S	Sn	21 26 10.0	+1.1
KUR				pmax	pmax		
	comp=N,50nm,0.6s						
KUR				pmax	pmax		
	comp=E,80nm,0.6s						
KUR				pmax	pmax		
	comp=Z,110nm,0.6s						
KUR				smax			
	comp=N,430nm,0.7s						
KUR				smax			
	comp=E,220nm,0.7s						
YSS	Yuzh-Sakhalins	4.37	336	*e*PN	Pn	21 25 59.0	+2.4
MAJO	Matsushiro	8.49	223	*e*Pn	Pn	21 26 52.5	-0.7
MAJO	Matsushiro	8.49	223	*e*PN	Pn	21 26 52.5	-0.7
MAT	Matsushiro	8.49	223	P	Pn	21 26 51.8	-1.4
MAT				*e*S	Sn	21 28 30.0	+2.4
MJAR	Matsushiro Arr	8.49	223	PN	Pn	21 26 52.2	-1.0
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	8.49	223	P	Pn	21 26 52.2	-0.9
	comp=Z,0.6nm,0.3s,baz=31,slow=14,SNR=7.5						
SONM	Songino Array	27.59	294	P	P	21 30 35.8	+0.4
SONM				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SONM	Songino Array	27.59	294	P	P	21 30 35.8	+0.4
	comp=Z,1.8nm,0.7s,mb3.8,baz=84,slow=8.1,SNR=15						
IMA2	Indian Mountai	40.01	34	*e*P	P	21 32 22.7	+0.1
ZALV	Zalesovo Beam	40.43	307	P	P	21 32 26.5	+0.2
	comp=Z,0.3nm,0.4s,mb3.4,baz=25,slow=28,SNR=2.4						
ZALV				PcP	PcP	21 34 28.2	-0.2
	comp=Z,1.1nm,0.4s,baz=76,slow=3.2,SNR=6.7						
ZAL	Zalesovo	40.45	307	P	P	21 32 26.5	+0.1
ZAL						21 34 28.2	
MKAR	Makanchi Array	43.80	298	P	P	21 32 53.5	-0.3
MKAR						21 34 39.4	
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MKAR	Makanchi Array	43.80	298	P	P	21 32 53.5	-0.3
	comp=Z,1.7nm,0.8s,mb3.9,baz=81,slow=9.0,SNR=12						
MKAR				PcP	PcP	21 34 39.4	-0.2
	comp=Z,0.4nm,0.7s,baz=46,slow=6.2,SNR=3.4						
KURK	Kurchatov	44.89	304	*e*P	P	21 33 02.0	-0.5
	comp=Z,2.8nm,1.0s,mb4.0						
KURK	Kurchatov	44.89	304	*e*P	P	21 33 02.0	-0.5
KURK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.1						
INK	Inuvik	47.69	30	P	P	21 33 24.2	0.0
INK				pmax	pmax		
	comp=Z,1.0nm,0.4s						
INK	Inuvik	47.69	30	P	P	21 33 24.2	0.0
	comp=Z,0.7nm,0.4s,mb4.0,baz=257,slow=6.9,SNR=5.4						
YKA	Yellowknife Ar	57.13	33	P	P	21 34 33.6	-0.6
	comp=Z,0.1nm,0.2s,mb3.5,baz=301,slow=7.0,SNR=4.8						
WRA	Warramunga Arr	63.45	192	P	P	21 35 17.9	+0.1
WRA	Warramunga Arr	63.45	192	P	P	21 35 17.9	+0.1
	comp=Z,0.3nm,0.8s,mb3.5,baz=19,slow=6.6,SNR=3.9						
FINES	FINESS Array B	64.95	332	P	P	21 35 26.4	-0.8
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	64.95	332	P	P	21 35 26.4	-0.8
	comp=Z,0.9nm,0.4s,mb4.1,baz=46,slow=6.8,SNR=9.8						
KIV	Kislovodsk	69.30	311	*e*P	P	21 35 55.8	+0.7
	comp=Z,4.0nm,0.9s,mb4.3						
KIV	Kislovodsk	69.30	311	*e*P	P	21 35 55.8	+0.7
KIV				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
NB2	NORSAR Subarra	69.83	338	P	P	21 35 57.3	-0.7
	comp=Z,1.0nm,0.5s,mb4.0,baz=33,slow=6.5						
NOA	NORSAR Array B	69.83	338	P	P	21 35 57.2	-0.8
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA	NORSAR Array B	69.83	338	P	P	21 35 57.2	-0.8
	comp=Z,2.3nm,0.7s,mb4.2,baz=34,slow=6.1,SNR=9.8						
PDAR	Pinedale Array	71.37	49	P	P	21 36 08.1	+0.3
	comp=Z,0.5nm,0.5s,mb3.7,baz=358,slow=0.1,SNR=6.1						
AKASG	Malin Array Be	71.42	323	P	P	21 36 07.0	-0.9
AKASG	Malin Array Be	71.42	323	P	P	21 36 07.0	-0.9
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKASG	Malin Array Be	71.42	323	P	P	21 36 07.0	-0.9
	comp=Z,1.9nm,0.6s,mb4.2,baz=40,slow=6.1,SNR=15						
BRTR	Keskin Array B	77.12	313	P	P	21 36 41.8	+0.5
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	77.12	313	P	P	21 36 41.8	+0.5
	comp=Z,0.5nm,0.7s,mb3.5,baz=57,slow=5.6,SNR=3.2						
GERES	GERESS Array B	79.18	330	P	P	21 36 52.0	-0.4
	comp=Z,0.3nm,0.4s,mb3.6,baz=248,slow=16,SNR=3.1						

IDC 13 21:39:55.0±1.4,**22.03N×143.16E,h0**^{km}**,mb3.6**/6,**mb1 3.7**/6,**mb1mx3.5**/21,**mbtmp3.6**/6,**Error ellipse: s-maj=51.0km s-min=27.2km az=80.0,Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	39.07	320	P	P	21 47 24.5	+0.8
	0.3nm,0.5s,baz=122,slow=7.8,SNR=8.0						
WRA	Warramunga Arr	42.60	192	P	P	21 47 53.1	+0.1
	0.4nm,0.7s,baz=12,slow=8.7,SNR=3.8						
ZALV	Zalesovo Beam	53.94	322	P	P	21 49 19.3	-0.9
	0.8nm,0.7s,baz=85,slow=6.4,SNR=4.8						
MKAR	Makanchi Array	54.46	312	P	P	21 49 24.8	+0.6
	0.2nm,0.6s,baz=98,slow=6.6,SNR=2.7						
MKAR				PcP	PcP	21 50 27.2	-0.6
	0.2nm,0.7s,baz=76,slow=6.1,SNR=2.5						
YKA	Yellowknife Ar	76.17	28	P	P	21 51 45.2	+0.5
	0.2nm,0.5s,baz=294,slow=5.9,SNR=3.9						
FINES	FINESS Array B	82.87	334	P	P	21 52 20.6	-0.6
	1.7nm,1.0s,baz=68,slow=9.2,SNR=2.8						

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*IDC **13** 21:51:21.5±1.1,5.56N×126.42E,h0^{km},mb3.8/8,mb1 3.9/8,mb1mx3.8/18,mbtmp3.8/8,Error ellipse: s-maj=166.1km s-min=17.8km az=69.0*
*MAN **13** 21:51:25,5.48N×126.56E,h8^{km},mb4.9,ML3.8,MS3.9*
*NEIC **13** 21:51:26.2±0.6,5.69N×126.88E,h35^{km},mb4.3/2,Error ellipse: s-maj=20.3km s-min=10.3km az=72.0*
*ISCJB **13** 21:51:29.0±1.3,5.59N±0.08×126.7E±0.2,h77^{km}±12^{km},mb3.8/10,Error ellipse: s-maj=27.7km s-min=12.8km az=168.3*
ISC 13 21:51:30.4±1.3,**5.60N**±0.08×**126.7E**±0.2,**h72**^{km}±12^{km},**n18**,σ0^{s}.**87**/18,**mb3.8**/10,**1C-2D,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	1.42	341	*e*P	Pn	21 51 51.8	-2.5
MATI				*e*S	Sn	21 52 13.0	+0.7
GSPH	General Santos	1.83	285	⇓*i*P	Pn	21 51 52.1	-7.7
BUKP	Musuan	2.80	324	*e*P	Pn	21 52 13.1	+0.2
CGP	Cagayan de Oro	3.48	325	⇓*e*P	Pn	21 52 21.5	-0.7
CGP				*e*S	Sn	21 53 09.6	+7.4
SCPH	Surigao	4.33	344	⇑*e*P	Pn	21 52 35.1	+1.3
KSM	Kuching	16.89	257	P	Pn	21 55 22.9	+0.7
WRA	Warramunga Arr	26.46	164	P	P	21 57 01.5	+0.7
	0.4nm,0.4s,mb3.2,baz=343,slow=10,SNR=6.9						
MBWA	Marble Bar	27.46	194	P	P	21 57 09.1	-0.7
	3.9nm,1.0s,mb3.9						
ASAR	Alice Springs	29.92	167	P	P	21 57 31.9	+0.2
	0.2nm,0.5s,mb3.0,baz=338,slow=6.9,SNR=3.1						
STKA	Stephens Creek	39.87	160	P	P	21 58 56.8	-0.3
	0.8nm,0.5s,mb3.8,baz=336,slow=22,SNR=2.5						
SONM	Songino Array	45.54	341	P	P	21 59 43.1	+0.2
	0.2nm,0.6s,mb3.1,baz=162,slow=9.0,SNR=4.0						
SONM				PcP	PcP	22 01 20.7	+0.3
	0.2nm,0.7s,baz=158,slow=4.7,SNR=2.4						
MKAR	Makanchi Array	56.03	325	P	P	22 01 01.2	-0.5
	1.4nm,0.5s,mb4.2,baz=118,slow=7.8,SNR=49						
MKAR				PcP	PcP	22 01 59.6	+0.3
	0.7nm,0.7s,baz=115,slow=3.7,SNR=5.6						
ZALV	Zalesovo Beam	58.94	333	P	P	22 01 21.3	-0.7
	0.3nm,0.3s,mb3.7,baz=132,slow=8.4,SNR=2.4						
KURK	Kurchatov	60.18	327	*e*P	P	22 01 29.8	-0.8
	2.1nm,0.5s,mb4.4						
ARCES	ARCESS Array B	88.70	340	P	P	22 04 17.0	+1.4
	2.9nm,0.8s,mb4.3,baz=60,slow=5.3,SNR=3.9						
FINES	FINESS Array B	90.19	332	P	P	22 04 22.6	-0.1
	0.9nm,0.8s,mb4.0,baz=97,slow=4.4,SNR=5.8						
TORD	Torodi Ar. Bea	122.32	289	PKP	PKPdf	22 10 18.8	+0.6
TORD	Torodi Ar. Bea	122.32	289	PKP	PKPdf	22 10 18.8	+0.6
	0.4nm,0.8s,baz=62,slow=3.1,SNR=4.2						

IDC 13 22:12:12.7±6.1,**56.43N×35.18W,h0**^{km}**,mb3.5**/3,**mb1 3.5**/3,**mb1mx3.2**/23,**mbtmp3.5**/3,**Error ellipse: s-maj=151.4km s-min=46.0km az=84.0,Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRTR	Keskin Array B	46.84	80	P	P	22 20 44.1	+0.1
	0.9nm,1.0s,baz=328,slow=5.1,SNR=4.4						
TORD	Torodi Ar. Bea	51.62	132	P	P	22 21 20.7	-0.1
	1.2nm,1.0s,baz=346,slow=8.4,SNR=5.8						
MKAR	Makanchi Array	64.66	42	P	P	22 22 51.9	+0.1
	0.4nm,1.0s,baz=343,slow=6.6,SNR=2.9						

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*ISCJB **13** 22:19:36.6±0.6,36.1N±0.1×34.1W±0.1,h10^{km},mb3.8/10,MS3.6/11,Error ellipse: s-maj=17.1km s-min=14.5km az=156.9*
*IDC **13** 22:19:37.0±1.0,36.17N×34.06W,h0^{km},mb3.7/10,mb1 3.9/10,mb1mx3.7/23,mbtmp3.7/10,MS3.6/11,Ms1 3.6/11,ms1mx3.3/28,Error ellipse: s-maj=29.3km s-min=22.5km az=164.0*
*CSEM **13** 22:19:38.2,36.10N×34.06W,h10^{km},mb5.0/2,After NEIC*
*NEIC **13** 22:19:38.2±0.4,36.10N×34.06W,h10^{km},mb4.8/1,Error ellipse: s-maj=12.9km s-min=10.9km az=156.0*
ISC 13 22:19:38.4±0.6,**36.1N**±0.1×**34.1W**±0.1,**h10**^{km}**,n27**,σ0^{s}.**66**/20,**mb3.8**/10,**MS3.6**/11,**Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDT	Midelt	24.46	89	LR	LR	22 31 58.4	
	comp=Z,84nm,19.8s,MS3.2,baz=56,slow=30						
EKA	Eskdalemuir Ar	28.52	38	P	P	22 25 34.0	+0.1
	2.2nm,0.8s,mb3.9,baz=236,slow=5.8,SNR=4.9						
SCHQ	Schefferville	29.24	320	LR	LR	22 36 17.5	
	comp=Z,113nm,19.8s,MS3.5,baz=72,slow=34						
NOA	NORSAR Array B	37.81	34	P	P	22 26 55.3	+0.6
	0.7nm,0.8s,mb3.5,baz=252,slow=8.4,SNR=2.7						
TORD	Torodi Ar. Bea	39.40	116	P	P	22 27 08.6	0.0
TORD				LR	LR	22 41 02.3	
TORD	Torodi Ar. Bea	39.40	116	P	P	22 27 08.6	0.0
	0.2nm,0.6s,baz=309,slow=7.5,SNR=3.7						
TORD				LR	LR	22 41 02.3	
	comp=Z,70nm,19.9s,MS3.5,baz=335,slow=33						
RCBR	Riachuelo	41.76	183	P	P	22 27 27.0	-1.0
RCBR	Riachuelo	41.76	183	P	P	22 27 27.0	-1.0
ULM	Lac du Bonnet	45.93	308	LR	LR	22 46 05.6	
	comp=Z,80nm,19.3s,MS3.7,baz=69,slow=35						
UALR	University of	46.87	286	*e*P	P	22 28 08.0	-0.8
	16nm,0.6s						
UALR	University of	46.87	286	*e*P	P	22 28 08.0	-0.8
	16nm,0.6s						
ROSC	El Rosal	48.32	240	LR	LR	22 44 35.0	
	comp=Z,52nm,19.2s,MS3.5,baz=41,slow=31						
YKA	Yellowknife Ar	54.44	326	P	P	22 29 05.6	+0.2
YKA				LR	LR	22 53 46.4	
YKA	Yellowknife Ar	54.44	326	P	P	22 29 05.6	+0.2
	0.5nm,0.6s,mb3.6,baz=79,slow=7.2,SNR=9.2						
YKA				LR	LR	22 53 46.4	
	comp=Z,29nm,18.4s,MS3.4,baz=210,slow=38						
YKA	Yellowknife Ar	54.44	326	P	P	22 29 05.6	+0.1
YKA				LR	LR	22 53 46.4	
PDAR	Pinedale Array	56.88	302	P	P	22 29 22.9	-0.5
	0.5nm,0.6s,mb3.7,baz=83,slow=7.4,SNR=4.3						
PDAR				LR	LR	22 51 32.1	
	comp=Z,50nm,19.2s,MS3.6,baz=79,slow=34						
LTX	Lajitas	57.83	285	P	P	22 29 30.5	+0.2
	8.5nm,0.8s,mb4.8						
LTX	Lajitas	57.83	285	P	P	22 29 30.5	+0.2
	8.5nm,0.8s,mb4.8						
TXAR	Lajitas Array	57.83	285	P	P	22 29 30.6	+0.3
	0.7nm,0.7s,mb3.8,baz=89,slow=8.3,SNR=4.9						
TXAR				LR	LR	22 53 43.3	
	comp=Z,30nm,19.0s,MS3.4,baz=95,slow=35						
TXAR	Lajitas Array	57.83	285	P	P	22 29 30.5	+0.2
TXAR				LR	LR	22 53 43.3	
NEW	Newport	59.87	310	LR	LR	22 55 00.4	
	comp=Z,74nm,18.3s,MS3.9,baz=262,slow=36						
LPAZ	La Paz	61.28	218	P	P	22 29 55.6	+1.6
	1.8nm,0.8s,mb4.2,baz=24,slow=12,SNR=3.8						
BBB	Bella Bella	64.71	317	LR	LR	22 55 37.4	
	comp=Z,68nm,19.9s,MS3.8,baz=298,slow=33						
ZALV	Zalesovo Beam	75.98	32	P	P	22 31 24.9	-0.5
	0.4nm,0.6s,mb3.6,baz=298,slow=7.5,SNR=2.4						
MKAR	Makanchi Array	79.66	39	P	P	22 31 45.4	-0.6
	0.6nm,0.9s,mb3.5,baz=330,slow=4.3,SNR=5.5						
BOSA	Boshof	85.20	131	LR	LR	23 10 56.1	
	comp=Z,80nm,18.1s,MS4.2,baz=311,slow=36						
SONM	Songino Array	89.25	25	P	P	22 32 35.0	+0.5
	0.3nm,0.7s,mb3.7,baz=350,slow=5.9,SNR=3.3						

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*ISCJB **13** 22:37:03.4±1.9,48.8N±0.3×153.7E±0.4,h56^{km}±18^{km},mb3.5/5,Error ellipse: s-maj=69.7km s-min=11.6km az=138.2*
*MOS **13** 22:37:03.7±2.2,49.24N×153.18E,h33^{km},mb3.9/2,Error ellipse: s-maj=47.6km s-min=20.3km az=59.1*
*IDC **13** 22:37:08.5±5.9,48.54N×153.71E,h101^{km}±78^{km},mb3.1/5,mb1 3.3/6,mb1mx3.1/23,mbtmp3.2/6,ML3.6/1,Error ellipse: s-maj=96.7km s-min=29.9km az=161.0*
ISC 13 22:37:06.1±1.9,**48.9N**±0.3×**153.6E**±0.4,**h61**^{km}±16^{km},**n12**,σ1^{s}.**21**/13,**mb3.5**/5,**Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril’s	2.40	41	*e*PN	Pn	22 37 39.0	-4.0
SKR				*e*S	Sn	22 38 10.0	-1.3
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=N,90nm,0.5s						
SKR				smax			
	comp=E,80nm,0.5s						
SKR				smax			
	comp=Z,80nm,0.5s						
PET	Petropavlovsk	5.21	36	*e*PN	Pn	22 38 23.5	+2.2
ASAJ	Asahikawa	8.99	242	PN	Pn	22 39 13.5	+0.4
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	8.99	242	P	Pn	22 39 13.5	+0.4
	comp=Z,0.8nm,0.3s,baz=87,slow=14,SNR=6.5						
KSRS	Korea Array	21.86	248	P	P	22 41 51.8	-1.7
	comp=Z,1.6nm,0.6s,mb3.6,baz=48,slow=11,SNR=4.6						
MKAR	Makanchi Array	46.30	296	P	P	22 45 26.4	+1.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	46.30	296	P	P	22 45 26.4	+1.0
	comp=Z,0.6nm,0.6s,mb3.7,baz=65,slow=8.2,SNR=11						
YKA	Yellowknife Ar	49.00	38	P	P	22 45 46.8	+0.7
YKA	Yellowknife Ar	49.00	38	P	P	22 45 46.8	+0.8
	comp=Z,0.1nm,0.4s,mb3.2,baz=293,slow=7.3,SNR=3.2						
FINES	FINESS Array B	62.25	335	P	P	22 47 21.1	+0.1
	comp=Z,0.1nm,0.3s,mb3.4,baz=38,slow=9.6,SNR=3.5						
NOA	NORSAR Array B	66.31	341	P	P	22 47 46.7	-0.8
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	66.31	341	P	P	22 47 46.6	-0.9
	comp=Z,0.5nm,0.7s,mb3.6,baz=38,slow=4.5,SNR=2.6						

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*ISCJB **13** 23:05:10.8±0.5,46.49N±0.07×155.20E±0.08,h10^{km},mb4.3/36,MS3.4/4,Error ellipse: s-maj=11.8km s-min=5.8km az=144.8*
*IDC **13** 23:05:10.5±0.7,46.42N×155.21E,h0^{km},mb3.9/17,mb1 4.1/19,mb1mx4.0/25,mbtmp3.9/19,ML3.7/2,MS3.1/5,Ms1 3.1/5,ms1mx2.8/34,Error ellipse: s-maj=20.7km s-min=14.5km az=157.0*
*NEIC **13** 23:05:12.1±0.4,46.42N×155.23E,h10^{km},mb4.4/10,Error ellipse: s-maj=9.5km s-min=5.7km az=147.0*
*MOS **13** 23:05:15.6±1.1,46.50N×155.01E,h48^{km},mb4.5/17,Error ellipse: s-maj=10.5km s-min=8.0km az=92.9*
*BJI **13** 23:05:15.2,47.38N×154.89E,h10^{km},mB4.8,mb4.4*
ISC 13 23:05:12.7±0.5,**46.50N**±0.07×**155.22E**±0.08,**h10**^{km}**,n92**,σ1^{s}.**11**/93,**mb4.3**/36,**MS3.4**/4,**8C-2D,East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril’s	4.22	8	*e*PN	Pn	23 06 15.9	-1.2
SKR				pmax	pmax		
	comp=Z,50nm,0.5s						
KUR	Kuril’sk	5.29	259	*e*PN	Pn	23 06 32.3	+0.6
KUR				*i* S	Sn	23 07 30.2	-2.5
KUR				pmax	pmax		
	comp=Z,120nm,0.6s						
KUR				smax			
	comp=N,230nm,0.6s						
KUR				smax			
	comp=E,150nm,0.6s						
PET	Petropavlovsk	6.89	18	*e*PN	Pn	23 06 50.8	-2.9
PET				MLR	MLR		
	comp=Z,100nm,13.0s						
YSS	Yuzh-Sakhalins	8.58	278	Pn	Pn	23 07 17.2	+0.4
YSS	Yuzh-Sakhalins	8.58	278	PN	Pn	23 07 17.2	+0.4
ASAJ	Asahikawa	9.21	260	PN	Pn	23 07 25.5	0.0
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						

ASAJ				MLR	MLR		
	comp=Z,31nm,18.4s						
ASAJ	Asahikawa	9.21	260	Pn	Pn	23 07 25.4	-0.1
	comp=Z,1.0nm,0.3s,baz=107,slow=9.7,SNR=8.5						
ASAJ				LR	LR	23 11 05.7	
	comp=Z,31nm,18.4s,baz=181,slow=39						
ERM	Erimo	9.74	247	*i* PN	Pn	23 07 33.4	+0.5
MA2	Magadan	13.36	350	*e*Pn	Pn	23 08 21.6	-0.6
MA2	Magadan	13.36	350	*e*PN	Pn	23 08 21.6	-0.6
MAJO	Matsushiro	16.14	238	*e*Pn	Pn	23 08 57.8	-1.7
	comp=Z,8.1nm,0.6s						
MAJO	Matsushiro	16.14	238	*e*P	Pn	23 08 57.8	-1.7
MAJO				pmax	pmax		
	comp=Z,8.0nm,0.6s						
MJAR	Matsushiro Arr	16.14	238	Pn	Pn	23 08 58.0	-1.5
MJAR				LR	LR	23 15 54.5	
MJAR	Matsushiro Arr	16.14	238	P	Pn	23 08 58.0	-1.5
MJAR				MLR	MLR		
	comp=Z,49nm,18.7s						
MJAR	Matsushiro Arr	16.14	238	Pn	Pn	23 08 58.0	-1.5
	comp=Z,0.2nm,0.3s,baz=45,slow=14,SNR=4.0						
MJAR				LR	LR	23 15 54.5	
	comp=Z,49nm,18.7s,baz=275,slow=40						
KSRS	Korea Array	22.13	256	P	P	23 10 08.6	+0.3
	comp=Z,1.7nm,0.7s,mb3.6,baz=62,slow=12,SNR=4.7						
BILL	Bilibino	22.33	11	*e*P	P	23 10 09.8	-0.3
	comp=Z,9.0nm,0.9s,mb4.2						
BILL	Bilibino	22.33	11	P	P	23 10 11.0	+0.8
BILL				*e*		23 10 18.6	
BILL				*e*		23 10 32.6	
BILL				pmax	pmax		
	comp=Z,16nm,1.6s,mb4.2						
BILL				MLR	MLR		
	comp=Z,100nm,15.0s,MS3.4						
INCN	Inchon	22.98	257	P	P	23 10 15.3	-2.0
BOD	Bodaibo	27.26	310	*e*P	P	23 10 55.1	-1.7
TIXI	Tiksi	28.12	343	⇑*e*P	P	23 11 03.8	-0.6
TIXI				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.4						
BJT	Baijiatuau	28.94	271	P	P	23 11 10.7	-1.3
NJ2	Nanjing	31.33	256	*e*P	P	23 11 38.5	+5.4
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.1						
ULN	Ulaanbaatar	32.35	290	P	P	23 11 41.1	-0.9
ULN	Ulaanbaatar	32.35	290	⇑*e*P	P	23 11 44.3	+2.4
SONM	Songino Array	32.78	291	P	P	23 11 45.3	-0.5
	comp=Z,0.4nm,0.6s,mb3.6,baz=71,slow=7.7,SNR=5.9						
SONM				LR	LR	23 25 42.8	
	comp=Z,38nm,20.1s,MS3.1,baz=319,slow=38						
TLY	Talaya	33.58	298	*e*P	P	23 11 51.8	-0.8
ZAK	Zakamensk	34.09	296	*e*P	P	23 11 55.3	-1.9
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
LZH	Lanzhou	39.35	274	*e*P	P	23 12 44.5	+2.4
LZH				AP	pP	23 12 46.0	+0.8
LZH				AMB	AMB		
	comp=Z,15nm,1.5s,mb4.5						
LZH	Lanzhou	39.35	274	*e*P	P	23 12 44.5	+2.4
	comp=Z,15nm,1.5s,mb4.5						
LZH				pP	pP	23 12 46.0	+0.8
LZH				sP	sP	23 12 47.5	+1.1
GTA	Gaotai	40.44	281	*e*P	P	23 12 53.1	+2.0
GTA				AP	pP	23 12 57.4	+3.2
GTA				XP	sP	23 13 01.1	+5.6
GTA				AMB	AMB		
	comp=Z,3.0nm,1.6s,mb3.8						
INK	Inuvik	41.08	32	P	P	23 12 56.5	+0.5
INK				pmax	pmax		
	comp=Z,2.0nm,1.2s						
INK	Inuvik	41.08	32	P	P	23 12 56.5	+0.4
	comp=Z,1.7nm,1.2s,mb3.6,baz=301,slow=4.8,SNR=2.9						
ZALV	Zalesovo Beam	43.93	307	P	P	23 13 18.8	-0.6
	comp=Z,2.1nm,0.5s,mb4.1,baz=64,slow=6.8,SNR=12						
ZALV				LR	LR	23 32 36.4	
	comp=Z,43nm,18.3s,MS3.4,baz=66,slow=37						
ZAL	Zalesovo	43.94	307	P	P	23 13 18.8	-0.7
MK31	Makanchi Array	48.34	298	*e*P	P	23 13 54.8	+0.6
MKAR	Makanchi Array	48.34	298	*i* P	P	23 13 54.9	+0.7
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	48.34	298	P	P	23 13 54.2	0.0
	comp=Z,1.2nm,0.6s,mb4.1,baz=69,slow=8.2,SNR=13						
KURK	Kurchatov	48.70	305	*e*P	P	23 13 57.1	+0.2
	comp=Z,8.7nm,0.7s,mb4.9						
KURK	Kurchatov	48.70	305	⇑*e*P	P	23 13 56.1	-0.8
YKA	Yellowknife Ar	50.25	37	P	P	23 14 08.4	-0.1
YKA	Yellowknife Ar	50.25	37	*i* P	P	23 14 08.3	-0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	50.25	37	P	P	23 14 08.4	-0.1
	comp=Z,0.6nm,0.7s,mb3.8,baz=296,slow=7.3,SNR=8.4						
RES	Resolute Bay	50.60	19	P	P	23 14 10.6	-0.5
LSA	Lhasa	51.74	275	P	P	23 14 23.4	+3.2
LSA				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
LSA	Lhasa	51.74	275	*e*P	P	23 14 23.5	+3.3
	comp=Z,3.6nm,0.6s,mb4.5						
LSA	Lhasa	51.74	275	*e*P	P	23 14 23.5	+3.3
LSA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
BRVK	Borovoye	52.17	310	*e*P	P	23 14 23.3	+0.2
	comp=Z,3.2nm,0.7s,mb4.4						
BRVK	Borovoye	52.17	310	*e*P	P	23 14 23.3	+0.2
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
AAK	Ala-Archa	55.24	298	*e*P	P	23 14 45.9	+0.1
	comp=Z,3.3nm,0.8s,mb4.4						
AAK	Ala-Archa	55.24	298	⇑*i*P	P	23 14 45.5	-0.2
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
TAPN	Taplejung	55.56	275	*e*P	P	23 14 49.0	+0.7
	comp=Z,7.0nm,0.7s,mb4.8						
ARU	Arti	56.17	318	*e*P	P	23 14 52.5	+0.3
	comp=Z,5.6nm,0.6s,mb4.8						
ARU	Arti	56.17	318	⇓*i*P	P	23 14 51.9	-0.3
ARU				*e*		23 15 47.5	
ARU				*e*S	S	23 22 27.6	-13
ARU				*e*SS	SS	23 26 15.9	-11
ARU				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
GUN	Gumba	56.47	277	*e*P	P	23 14 56.6	+1.8
KKN	Kakani	56.96	277	*e*P	P	23 15 00.3	+2.1
	comp=Z,52nm,1.2s,mb5.4						
PKI	Pulchoki	57.01	277	*e*P	P	23 15 00.0	+1.4
DMN	Daman	57.19	277	*e*P	P	23 15 01.9	+2.0
	comp=Z,23nm,0.7s,mb5.3						
GKN	Gorkha	57.26	278	*e*P	P	23 15 02.1	+1.7
	comp=Z,18nm,0.7s,mb5.2						
PRGR	Permogore	58.35	328	*e*P	P	23 15 07.7	+0.2
ARCES	ARCESS Array B	58.55	342	P	P	23 15 09.0	+0.2
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	ARCESS Array B	58.55	342	P	P	23 15 09.0	+0.1
	comp=Z,2.2nm,0.8s,mb4.2,baz=45,slow=10,SNR=3.4						
FCC	Fort Churchill	60.66	34	*e*P	P	23 15 23.0	-0.5
	comp=Z,1.9nm,0.8s,mb4.3						
FCC	Fort Churchill	60.66	34	*e*P	P	23 15 23.0	-0.5
FCC				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
NVAR	Mina Array Bea	61.26	63	P	P	23 15 27.8	-0.1
	comp=Z,0.5nm,0.6s,mb3.8,baz=313,slow=15,SNR=2.5						
JOF	Joensuu	62.19	335	*e*p	P	23 15 33.7	-0.1
	comp=Z,0.8nm,0.4s,mb4.2						
JOF	Joensuu	62.19	335	*e*P	P	23 15 33.7	-0.1
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.3						
KBL	Kabul	63.50	293	*e*P	P	23 15 42.8	-0.2
PDAR	Pinedale Array	63.71	55	P	P	23 15 44.5	+0.3
	comp=Z,0.6nm,0.9s,mb3.6,baz=233,slow=0.7,SNR=5.3						
KAF	Kangasniemi	64.27	336	*e*p	P	23 15 48.5	+0.9
	comp=Z,4.9nm,0.7s,mb4.7						
KAF	Kangasniemi	64.27	336	*e*P	P	23 15 48.5	+0.9
KAF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
FINES	FINESS Array B	64.87	336	*i* P	P	23 15 53.2	+1.7
FINES				pmax	pmax		
	comp=Z,3.0nm,0.5s						
FINES	FINESS Array B	64.87	336	P	P	23 15 50.9	-0.6
	comp=Z,3.0nm,0.5s,mb4.6,baz=46,slow=8.6,SNR=15						
ULM	Lac du Bonnet	65.75	42	P	P	23 15 56.5	-0.8
	comp=Z,1.3nm,0.6s,mb4.1,baz=297,slow=5.6,SNR=3.9						
WRA	Warramunga Arr	68.78	201	P	P	23 16 15.3	-1.5
	comp=Z,0.4nm,0.9s,mb3.4,baz=17,slow=7.4,SNR=2.7						
NB2	NORSAR Subarra	68.92	342	P	P	23 16 16.4	-0.9
	comp=Z,2.3nm,0.8s,mb4.2,baz=26,slow=6.5						
NOA	NORSAR Array B	68.92	342	P	P	23 16 17.1	-0.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	68.92	342	P	P	23 16 17.1	-0.2
	comp=Z,0.9nm,0.8s,mb3.8,baz=25,slow=6.2,SNR=3.2						
KIV	Kislovodsk	72.00	315	*e*P	P	23 16 36.3	-0.1
KIV				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
ASAR	Alice Springs	72.46	200	P	P	23 16 38.1	-1.1
	comp=Z,0.3nm,0.6s,mb3.4,baz=14,slow=6.4,SNR=5.1						
AKASG	Malin Array Be	72.55	327	*i* P	P	23 16 40.4	+0.8
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	72.55	327	P	P	23 16 38.5	-1.0
	comp=Z,2.3nm,0.7s,mb4.2,baz=32,slow=5.8,SNR=7.6						
TXAR	Lajitas Array	76.34	62	P	P	23 17 02.4	+0.4
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
TXAR	Lajitas Array	76.34	62	P	P	23 17 02.4	+0.4
	comp=Z,2.1nm,0.6s,mb4.2,baz=298,slow=4.3,SNR=15						
BURAR	Bucovina Array	76.58	328	⇑*i*P	P	23 17 03.4	+0.4
CLL	Collm	77.28	337	*e*P	P	23 17 06.0	-0.9
CLL				*e*sP	sP	23 17 13.0	+1.6
MLR	Muntele Rosu	78.09	326	⇓*i*P	P	23 17 12.8	+1.3
MALT	Malatya	78.38	314	⇑*i*P	P	23 17 15.1	+1.9
BRTR	Keskin Array B	79.55	318	⇑*e*P	P	23 17 20.1	+0.4
BRTR	Keskin Array B	79.55	318	P	P	23 17 20.1	+0.4
	comp=Z,1.6nm,0.9s,mb4.0,baz=66,slow=4.6,SNR=8.6						
VTS	Vitosha	81.59	326	⇑*i*P	P	23 17 31.0	+0.4
CMIG	Matias Romero	90.78	64	LR	LR	23 59 08.2	
	comp=Z,25nm,19.6s,MS3.6,baz=176,slow=36						

CNRM ***13*** *23:10:08.2, 32.54N×3.23W, h30^{km}, MD3.8*

CSEM 13 23:10:08.5±0.5, **32.55N×3.66W, h2**^{km}**, MD3.8, Error ellipse: s-maj=10.0km s-min=5.8km az=82.0, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZFT	Errachidia	0.78	229	*i* P	Pg	23 10 25.0	+1.6
ZFT				*i* S	Sg	23 10 39.0	+5.5
CZD	Col de Zad	1.26	293	*i* P	Pg	23 10 33.0	+0.3
CZD				*i* S	Sg	23 10 51.0	+1.9
IFR	Ifrane	1.57	309	P	Pn	23 10 38.0	+0.7
IFR				S	Sn	23 11 00.0	+1.8
MIF	Mishlifen	1.57	304	*i* P	Pn	23 10 37.0	-0.5
MIF				*i* S	Sn	23 10 58.5	+0.1
KIB	El Ksiba	2.01	271	*e*P	Pn	23 10 45.0	+1.6
KIB				*i* S	Sn	23 11 10.0	+0.9
TZC	Tazercounte	2.43	261	*e*P	Pn	23 10 50.5	+1.3
TZC				*i* S	Sn	23 11 21.0	+1.5

IDC ***13*** *23:38:03.2±0.8, 21.99N×120.68E, h0^{km}, mb3.8/9, mb1 4.0/9, mb1mx3.8/20, mbtmp3.8/9, MS3.0/1, Ms1 3.0/1, ms1mx2.2/32, Error ellipse: s-maj=73.2km s-min=16.4km az=66.0*

ISCJB ***13*** *23:38:08.7±2.2, 21.95N±0.09×120.6E±0.2, h56^{km}±20^{km}, mb3.8/11, Error ellipse: s-maj=26.4km s-min=13.6km az=166.6*

NEIC ***13*** *23:38:09.4±1.8, 21.99N×120.64E, h46^{km}±17^{km}, mb4.0/2, Error ellipse: s-maj=24.9km s-min=9.9km az=68.0*

ISC 13 23:38:10.4±2.2, **21.97N**±0.09×**120.6E**±0.2, **h56**^{km}±20^{km}**, n18,** σ**0^{s}75**/19**, mb3.8**/11**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	Ninganchiao	2.36	22	*e*Pn	Pn	23 38 46.2	-0.6
NACB				Sn	Sn	23 39 14.0	-0.7
YHNB	Yeheng	2.77	14	*e*Pn	Pn	23 38 52.7	+0.3
YHNB				*e*Sn	Sn	23 39 26.3	+1.7
TATO	Taipei	3.09	15	Pn	Pn	23 38 53.1	-3.6
JNU	Nakatsue	14.34	37	LR	LR	23 47 27.3	
	comp=Z,60nm,20.1s,baz=223,slow=40						
ULN	Ulaanbaatar	28.04	340	P	P	23 43 55.4	-0.9
SONM	Songino Array	28.22	339	P	P	23 43 58.6	+0.6
	0.4nm,0.7s,mb3.2,baz=155,slow=10.0,SNR=3.6						
MKAR	Makanchi Array	39.60	318	P	P	23 45 37.0	+0.6
	0.8nm,0.6s,mb3.6,baz=112,slow=9.5,SNR=11						
YAK	Yakutsk	40.51	7	P	P	23 45 43.4	-0.3
ZALV	Zalesovo Beam	41.84	329	P	P	23 45 55.5	+0.8
	2.3nm,0.8s,mb3.9,baz=118,slow=8.3,SNR=13						
PET	Petropavlovsk	42.42	33	*e*P	P	23 45 59.1	-0.4
KURK	Kurchatov	43.48	322	*e*P	P	23 46 07.8	-0.2
	0.8nm,0.5s,mb3.7						
WRA	Warramunga Arr	43.76	161	P	P	23 46 10.2	-0.4
	3.1nm,0.8s,mb4.1,baz=343,slow=8.8,SNR=22						
WRA				pP	pP	23 46 23.0	-2.1
	1.5nm,0.7s,baz=343,slow=8.9,SNR=6.3						
ASAR	Alice Springs	47.17	163	P	P	23 46 37.9	+0.4
	1.1nm,0.5s,mb4.1,baz=345,slow=7.1,SNR=26						
BRVK	Borovoye	49.14	322	*e*P	P	23 46 52.2	-0.3
	2.2nm,0.7s,mb4.3						
STKA	Stephens Creek	57.19	159	P	P	23 47 52.6	+0.8
	0.8nm,0.5s,mb4.0,baz=203,slow=19,SNR=3.2						
NOA	NORSAR Array B	79.93	332	P	P	23 50 12.8	-0.4
	0.5nm,0.7s,mb3.5,baz=64,slow=5.2,SNR=3.3						
GERES	GERESS Array B	84.22	321	P	P	23 50 35.0	-0.9
	0.8nm,0.8s,mb3.9,baz=91,slow=6.7,SNR=5.0						
YKA	Yellowknife Ar	85.20	23	P	P	23 50 41.1	+0.5
	0.2nm,0.5s,mb3.5,baz=315,slow=5.2,SNR=3.9						

MAN 14 00:29:07, 9.66N×126.18E, h5^{km}**, mb3.9, ML2.7, MS2.3, 1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCPH	Surigao	0.69	280	⇓*e*P	Pg	00 29 21.4	+1.1
SCPH				*e*S	Sg	00 29 32.7	+3.5

CSEM ***14*** *00:47:45.9±0.1, 38.46N×39.09E, h30^{km}, MD3.1, Error ellipse: s-maj=4.6km s-min=2.9km az=134.0*

ISCJB ***14*** *00:47:46.5±0.7, 38.39N±0.06×39.24E±0.07, h14^{km}±11^{km}, Error ellipse: s-maj=11.5km s-min=5.6km az=138.3*

ISK ***14*** *00:47:46.7, 38.42N×39.20E, h17^{km}, MD3.1*

DDA ***14*** *00:47:48.3, 38.57N×39.23E, h6^{km}, Md2.6*

ISC 14 00:47:47.1±0.6, **38.41N**±0.06×**39.23E**±0.07**, h18**^{km}±10^{km}**, n16,** σ**0^{s}81**/23**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.21	294	*i* P	Pg	00 47 52.3	+0.1
ELZG				*i* S	Sg	00 47 55.2	-0.4
PTK	Pertek	0.50	15	*i* PG	Pg	00 47 57.5	+0.4
PTK				*i* SG	Sg	00 48 04.4	+0.6
PTK	Pertek	0.50	15	*i* Pg	Pg	00 47 57.5	+0.4
PTK				*i* Sg	Sg	00 48 04.4	+0.6
MALT	Malatya	0.64	261	*i* PG	Pg	00 47 59.6	-0.1
MALT				*i* SG	Sg	00 48 07.4	-0.8
MALT	Malatya	0.64	261	*i* Pg	Pg	00 47 59.6	-0.1
MALT				*i* Sg	Sg	00 48 07.4	-0.8
MYA	Malataya	0.64	263	*i* PG	Pg	00 47 59.8	+0.1
MYA	Malataya	0.64	263	*i* Pg	Pg	00 47 59.8	+0.1
DIY	Diyarbakir	0.94	123	*e*PG	Pg	00 48 05.2	-0.2
DIY	Diyarbakir	0.94	123	*e*Pg	Pg	00 48 05.2	-0.2
URFA	Urfa	1.02	199	*e*PG	Pn	00 48 07.0	+0.5
URFA	Urfa	1.02	199	*e*Pg	Pn	00 48 07.0	+0.5
BINT	Bingol	1.09	64	*e*PN	Pn	00 48 07.7	+0.3
BINT	Bingol	1.09	64	*e*Pn	Pn	00 48 07.7	+0.3
MARD	Mardin	1.65	131	*i* P	Pn	00 48 19.2	+4.1
MARD				*i* S	Sn	00 48 41.7	+6.0
GZT	Gaziantep	1.69	232	*i* P	Pg	00 48 18.5	-1.1
GZT				*i* S	Sg	00 48 43.2	+1.7
BTMT	Batman	1.79	96	*e*PN	Pn	00 48 15.4	-1.7

NNC 14 00:53:15.9±0.6, **41.66N×72.82E, h0**^{km}**, mb3.5, mpv3.1, 5C-2D, Error ellipse: s-maj=7.0km s-min=2.4km az=13.0, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KK31	Karatay Array	2.24	311	⇑Pn	Pn	00 53 56.8	+2.7
	5.7nm,0.2s,baz=129,slow=14,SNR=360						
KK31				⇓Lg		00 54 26.2	
	28nm,0.4s,baz=128,slow=28,SNR=16						
MK31	Makanchi Array	8.51	50	⇑Pn	Pn	00 55 22.5	+2.2
	0.2nm,0.4s,baz=229,slow=7.1,SNR=4.1						
MK31				⇑Sn	Sn	00 57 03.8	+6.8
	0.8nm,0.7s						
MK31				⇑Lg		00 57 43.2	
	1.3nm,0.7s						
AB31	Akbulak array	11.80	314	⇓Pn	Pn	00 56 05.5	+0.2
	0.4nm,0.3s,baz=116,slow=14,SNR=13						
AB31				⇑Sn	Sn	00 58 18.9	+1.4
	0.9nm,0.8s,baz=117,slow=25,SNR=3.7						

ISCJB ***14*** *01:29:05.7±0.2, 29.52S±0.03×112.08W±0.04, h10^{km}, mb5.4/92, MS5.7/198, Error ellipse: s-maj=5.3km s-min=4.8km az=32.7*

IDC ***14*** *01:29:05.3±0.5, 29.52S×112.03W, h0^{km}, mb4.9/16, mb1 5.0/17, mb1mx5.0/17, mbtmp4.9/17, ML4.1/1, MS5.7/14, Ms1 5.6/14, ms1mx5.5/19, Error ellipse: s-maj=17.1km s-min=15.7km az=131.0*

BJI ***14*** *01:29:07.1, 29.60S×112.10W, h10^{km}, mB5.9, Ms5.9, Msz5.8*

NEIC ***14*** *01:29:07.2±0.1, 29.59S×112.05W, h10^{km}, mb5.6/77, MS5.7/170, MW5.9, Error ellipse: s-maj=5.5km s-min=4.4km az=113.0, Moment Tensor Solution. s35 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.15; M$_{\theta\theta}$-7.34; M$_{\phi\phi}$7.49; M$_{r\theta}$-1.43; M$_{\theta\phi}$-4.89; M$_{\phi r}$-2.46; Best double couple: M$_0$9.30000×10^{17} NP1:φ$_s$118.00000°, δ72.00000°, λ-179.00000°. NP2:φ$_s$28.00000°, δ89.00000°, λ-18.00000°. Principal axes: T 9.3700, Plg12.0000°, Azm75.0000°; N -0.0800, Plg72.0000°, Azm206.0000°; P -9.2900, Plg13.0000°, Azm342.0000°;*

GCMT ***14*** *01:29:07.2±0.1, 29.74S×112.17W, h17^{km}, MW5.9/98, Moment Tensor Solution. s93,c179; s98,c320; Duration: 2^{s}2 Moment tensor: Scale 10^{18}Nm; M$_{rr}$-0.08±.01; M$_{\theta\theta}$-0.80±.01; M$_{\phi\phi}$0.87±.01; M$_{r\theta}$-0.27±.02; M$_{\theta\phi}$-0.29±.01; M$_{\phi r}$-0.07±.02; Best double couple: M$_0$0.93200×10^{18} NP1:φ$_s$127.00000°, δ76.00000°, λ-168.00000°. NP2:φ$_s$34.00000°, δ79.00000°, λ-14.00000°. Principal axes: T 0.9270, Plg2.0000°, Azm81.0000°; N 0.0110, Plg72.0000°, Azm176.0000°; P -0.9370, Plg18.0000°, Azm350.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

MOS ***14*** *01:29:11.2±1.2, 29.25S×112.15W, h37^{km}, mb5.7/40, MS5.6/44 Error ellipse: s-maj=11.4km s-min=6.2km az=80.8*

ISC 14 01:29:07.5±0.2, **29.58S**±0.03×**112.08W**±0.04**, h10**^{km}**, (h11**^{km}±.5^{km}**:pP-P), n954,** σ**0^{s}62**/580**, mb5.4**/92**, MS5.7**/198**, 174C-201D, Easter Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPN	Rapa Nui	3.44	45	⇑*e*Pn	Pn	01 29 58.9	-2.1
RPN	Rapa Nui	3.44	45	Pn	Pn	01 29 59.1	-1.9
	18nm,0.3s,baz=231,slow=5.9,SNR=11						
RPN				Sn	Sn	01 30 41.2	-0.6
	baz=115,slow=14,SNR=2.4						
RPN				T		01 33 34.8	
	37nm,0.3s,baz=92,slow=21,SNR=4.3						
RKT	Rikitea	21.48	282	*e*LQ		01 38 00.7	
	55µm,28.0s						
RKT				*e*LR	LR	01 38 57.0	
	43µm,27.0s						
RKT	Rikitea	21.48	282	*e*P	P	01 33 56.4	0.0
	249nm,1.3s,mb5.4						
RKT				*e*LQ		01 38 00.7	
RKT	Rikitea	21.48	282	*e*P	P	01 33 56.4	0.0
RKT				pmax	pmax		
	comp=Z,249nm,1.3s,mb5.4						
TAOE	Nuku Hiva Isla	33.42	302	*e*S	S	01 41 06.0	-1.9
	comp=Z,5µm,24.8s						
TAOE				*e*LQ		01 43 15.3	
	comp=Z,41µm,27.2s						
TAOE				*e*LR	LR	01 44 42.3	
	comp=Z,41µm,26.2s						
MEH	Mehetia	34.81	281	*e*P	P	01 35 58.3	-0.3
PAYG	Puerto Ayora	35.46	40	⇓*e*P	P	01 36 04.1	0.0
	comp=Z,130nm,1.4s,mb5.7						
PAYG				LR	LR		
	comp=Z,7µm,22.0s,MS5.4						
VAH	Vaihoa	35.67	286	*e*P	P	01 36 05.8	-0.2
	comp=Z,148nm,1.3s,mb5.8						
FCH	Farellones	35.67	107	⇑*e*P	P	01 36 05.2	-0.7
TVO	Taravao	35.86	281	*e*P	P	01 36 07.3	-0.4
	comp=Z,67nm,1.0s,mb5.5						
TVO	Taravao	35.86	281	*e*P	P	01 36 07.3	-0.4
TVO				pmax	pmax		
	comp=Z,67nm,1.0s,mb5.5						
LCO	Las Campanas	35.95	100	⇑*e*P	P	01 36 07.6	-0.8
	comp=Z,66nm,1.1s,mb5.5						
LCO				*e*PP	PP	01 37 27.5	-2.5
LCO				PcP	PcP	01 38 37.4	+2.2
LCO				*e*S	S	01 41 50.6	+3.7
LCO				LR	LR		
	comp=Z,20µm,22.0s,MS5.8						
PMOR	Pomariorio Ree	36.01	286	*e*P	P	01 36 08.5	-0.4
	comp=Z,112nm,1.1s,mb5.7						
PAE	Paea	36.20	281	*e*P	P	01 36 10.0	-0.5
	comp=Z,75nm,1.2s,mb5.5						
PAE	Paea	36.20	281	*e*P	P	01 36 10.0	-0.5
PAE				pmax	pmax		
	comp=Z,75nm,1.2s,mb5.5						
PPT	Papeete	36.23	281	*e*P	P	01 36 10.3	-0.6
	comp=Z,92nm,1.3s,mb5.5						
PPT	Papeete	36.23	281	*e*S	S	01 41 50.0	-1.3
	comp=Z,4µm,25.5s						
PPT				*e*LQ		01 44 17.7	
	comp=Z,14µm,28.0s						
PPT				*e*LR	LR	01 45 42.2	
	comp=Z,42µm,26.8s,baz=110						
PPT	Papeete	36.23	281	P	P	01 36 10.4	-0.4
	comp=Z,26nm,0.3s,mb5.6,baz=80,slow=3.6,SNR=4.9						
PPT				LR	LR	01 46 33.8	
	comp=Z,14µm,21.6s,MS5.7,baz=90,slow=29						
NNA	Nana	37.10	69	⇑*e*P	P	01 36 17.3	-0.9
	comp=Z,152nm,1.5s,mb5.6						
NNA				*e*PP	PP	01 37 40.6	-2.3
NNA				*e*S	S	01 42 10.3	+5.7
NNA				LR	LR		
	comp=Z,26µm,22.0s,MS6.0						
CFAA	Coronel Fontan	37.61	104	P	P	01 36 20.1	-2.4
	comp=Z,4.0nm,1.1s,baz=257,slow=7.3,SNR=33						
ARE	Arequipa	39.37	80	*e*P	P	01 36 38.0	+0.6
USHA	Ushuaia	40.07	142	P	P	01 36 43.1	+0.4
	comp=Z,18nm,1.1s,mb4.7,baz=250,slow=15,SNR=3.5						
LPAZ	La Paz	42.34	82	⇑*e*P	P	01 37 02.4	+0.5
LPAZ				*e*PcP	PcP	01 39 07.4	+12
LPAZ				*e*ScP	ScP	01 42 50.0	+3.8
LPAZ				*e*S	S	01 43 28.0	+4.9
LPAZ				LR	LR		
	comp=Z,11µm,20.0s,MS5.7						
LPAZ	La Paz	42.34	82	P	P	01 37 01.7	-0.1
	comp=Z,37nm,1.3s,mb4.9,baz=251,slow=6.2,SNR=40						
RAR	Rarotonga	43.64	270	P	P	01 37 12.2	-0.2
RAR				LR	LR		
	comp=Z,2.0nm,22.0s						
RAR	Rarotonga	43.64	270	P	P	01 37 12.2	-0.2
	comp=Z,18nm,0.9s,mb4.8,baz=140,slow=14,SNR=4.3						
LPA	La Plata	45.64	111	*ce*P	P	01 37 27.0	-1.2
LPA				*e*PCP	PcP	01 39 11.0	+4.6
LPA				*e*S	S	01 44 15.0	+4.0
LPA				*e*SS	SS	01 47 38.0	+2.9
PMSA	Palmer Station	46.10	154	P	P	01 37 31.5	+0.1
JTS	JuntasAbangare	47.48	38	⇑*i*P	P	01 37 43.3	+0.5
JTS				*e*		01 39 22.1	
JTS				LR	LR		
	comp=Z,4µm,21.0s,MS5.4						
HUIG	Huatulco	47.64	21	*i* P	P	01 37 44.2	+0.2
CAIG	El Cayaco	47.73	15	*i* P	P	01 37 44.7	+0.1
VHO	Vista Hermosa	48.68	20	*i* P	P	01 37 51.7	-0.3
PLIG	Platanillo	49.21	16	*i* P	P	01 37 56.3	+0.3
CMIG	Matias Romero	49.27	22	*i* P	P	01 37 56.1	-0.4
BCIP	Isla Barro Col	49.47	44	⇑*e*P	P	01 37 57.6	-0.5
CCIG	Comitan	49.49	26	*i* P	P	01 37 57.9	-0.2
TGUH	Tegucigalpa,Un	49.55	32	⇓*e*P	P	01 37 58.6	0.0
	comp=Z,115nm,1.4s,mb5.7						
TGUH				*e*PcP	PcP	01 39 23.7	+3.3
TGUH				*e*PP	PP	01 39 58.2	+5.1
TGUH				*e*S	S	01 45 07.5	+0.9
TGUH				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
ROSC	El Rosal	49.83	53	P	P	01 38 03.2	+2.3
	comp=Z,67nm,1.2s,mb5.5,baz=105,slow=23,SNR=40						
ROSC				LR	LR	01 55 37.9	
	comp=Z,9µm,19.4s,MS5.8,baz=204,slow=32						

MOIG	Morelia	50.08	13	*i* P	P	01 38 02.1	-0.5
LVIG	Laguna Verde	51.29	19	*i* P	P	01 38 11.6	-0.1
LPIG	La Paz	53.40	2	P	P	01 38 27.5	+0.2
LPIG	La Paz	53.40	2	P	P	01 38 27.5	+0.2
	comp=Z,23nm,0.4s,mb5.5,baz=121,slow=0.4,SNR=2.5						
TEIG	Tepich	54.57	28	⇓*e*P	P	01 38 34.3	-1.7
	comp=Z,62nm,1.4s,mb5.4						
TEIG				PcP	PcP	01 39 36.8	-2.3
TEIG				*e*PP	PP	01 40 38.5	-0.1
TEIG				LR	LR		
	comp=Z,2μm,20.0s,MS5.2						
RAO	Raoul Island	56.61	253	PFAKE		01 39 00.0	+9.2
RAO				LR	LR		
	comp=Z,12μm,21.0s,MS6.0						
AFI	Afiamalu	57.04	272	P	P	01 38 58.0	+4.0
AFI				LR	LR		
	comp=Z,7μm,19.0s,MS5.8						
AFI	Afiamalu	57.04	272	P	P	01 38 57.9	+4.0
	comp=Z,8.7nm,0.3s,mb5.3,baz=227,slow=15,SNR=3.9						
HOPE	Hope Point	58.34	138	PFAKE		01 39 10.0	+7.5
HOPE				LR	LR		
	comp=Z,3.0nm,19.0s						
KVTX	Kingsville	58.40	15	PFAKE		01 39 20.0	+17
KVTX				LR	LR		
	comp=Z,3μm,21.0s,MS5.4						
SOR	Soroa	59.10	32	*e*P	P	01 38 58.0	-10
LTX	Lajitas	59.13	9	P	P	01 39 08.6	+0.4
	comp=Z,59nm,1.7s,mb5.3						
LTX				LR	LR		
	comp=Z,4μm,19.0s,MS5.5						
LTX	Lajitas	59.13	9	P	P	01 39 00.3	-7.9
LTX				*e*		01 39 09.0	
LTX				pmax	pmax		
	comp=Z,59nm,1.7s,mb5.3						
TXAR	Lajitas Array	59.13	9	P	P	01 39 07.5	-0.7
	comp=Z,4.3nm,1.0s,mb4.4,baz=192,slow=9.0,SNR=22						
TXAR				LR	LR	01 59 51.4	
	comp=Z,3μm,19.8s,MS5.4,baz=335,slow=31						
SNZO	South Karori	59.17	237	PFAKE		01 39 20.0	+11
SNZO				LR	LR		
	comp=Z,10μm,19.0s,MS5.9						
SBA	Scott Base	59.45	194	*e*P	P	01 39 13.1	+3.1
SBA				*e*S	S	01 47 29.2	+10
SBA				LR	LR		
	comp=Z,4μm,19.0s,MS5.6						
CCCC	Cccc	60.34	37	*e*P	P	01 39 20.5	+3.8
VNDA	Vanda	60.51	194	*e*P	P	01 39 19.6	+2.4
VNDA				LR	LR	02 01 03.9	
VNDA	Vanda	60.51	194	P	P	01 39 18.6	+1.5
	comp=Z,18nm,1.2s,mb5.1,baz=110,slow=3.0,SNR=4.1						
VNDA				LR	LR	02 01 03.9	
	comp=Z,5μm,18.6s,MS5.7,baz=91,slow=32						
QSPA	South Pole Qui	60.60	180	⇓*e*P	P	01 39 16.9	-0.8
	comp=Z,433nm,2.1s,mb6.2						
QSPA				*e*PcP	PcP	01 40 05.1	+3.0
QSPA				LR	LR		
	comp=Z,7μm,19.0s,MS5.8						
JCT	Junction City	60.86	12	⇓*e*P	P	01 39 19.4	-0.7
JCT				*e*PcP	PcP	01 40 02.7	-1.0
JCT				*e*ScP	ScP	01 44 09.7	+4.5
JCT				*e*S	S	01 47 46.5	+8.8
JCT				LR	LR		
	comp=Z,5μm,20.0s,MS5.7						
JCT	Junction City	60.86	12	⇓*e*P	P	01 39 19.4	-0.6
JCT				*e*		01 40 02.7	
JCT				*e*S	S	01 47 46.5	+8.8
JCT				MLR	MLR		
	comp=Z,5μm,20.0s,MS5.7						
HKT	Hockley	61.19	16	⇓*e*P	P	01 39 22.0	-0.3
	comp=Z,266nm,1.7s,mb6.1						
HKT				*e*PP	PP	01 41 36.0	-1.4
HKT				*e*S	S	01 47 43.5	+1.6
HKT				LR	LR		
	comp=Z,2μm,19.0s,MS5.3						
HKT	Hockley	61.19	16	⇓*e*P	P	01 39 22.0	-0.3
HKT				*e*		01 41 36.0	
HKT				*e*S	S	01 47 43.5	+1.6
HKT				pmax	pmax		
	comp=Z,266nm,1.7s,mb6.1						
HKT				MLR	MLR		
	comp=Z,2μm,19.0s,MS5.3						
MNTX	Cornudas Mount	61.27	7	⇓*e*P	P	01 39 21.9	-0.9
MNTX				*e*PP	PP	01 41 38.0	-0.1
MNTX				*e*S	S	01 47 43.9	+1.0
MNTX				LR	LR		
	comp=Z,2μm,20.0s,MS5.3						
TUC	Tucson	61.56	1	⇓*e*P	P	01 39 24.6	-0.1
	comp=Z,43nm,1.6s,mb5.3						
TUC				*e*PcP	PcP	01 40 07.2	+0.8
TUC				*e*PP	PP	01 41 57.0	+16
TUC				*e*S	S	01 47 54.1	+7.5
TUC				LR	LR		
	comp=Z,8μm,20.0s,MS5.9						
TUC	Tucson	61.56	1	⇓*e*P	P	01 39 24.6	-0.2
TUC				*e*		01 40 07.2	
TUC				*e*S	S	01 47 54.1	+7.5
TUC				pmax	pmax		
	comp=Z,43nm,1.6s,mb5.3						
TUC				MLR	MLR		
	comp=Z,8μm,20.0s,MS5.9						
116A	Eloy	61.80	0	⇓P	P	01 39 26.5	+0.1
	baz=62						
115A	Sonoran Desert	61.94	360	⇓P	P	01 39 27.1	-0.2
	baz=62						
DVTC	Desert V Tower	62.01	356	⇑P	P	01 39 27.6	-0.2
	baz=62						
MONP	Monument Peak	62.26	356	⇓P	P	01 39 29.9	+0.5
	baz=62						
SDDR	Presa de Saban	62.27	44	⇓*e*P	P	01 39 32.7	+2.9
	comp=Z,83nm,1.5s,mb5.6						
SDDR				*e*PP	PP	01 41 50.7	+3.6
SDDR				*e*S	S	01 48 02.1	+6.1
SDDR				LR	LR		
	comp=Z,2μm,20.0s,MS5.3						
SWSC	Sam W. Stewart	62.28	356	⇓P	P	01 39 29.6	0.0
	baz=62						
109C	Camp Elliot, M	62.31	355	⇓P	P	01 39 29.6	-0.2
	baz=62						
GLA	Glamis	62.34	357	⇑P	P	01 39 29.8	-0.2
	baz=63						
Z14A	Wintersburg	62.60	359	⇓P	P	01 39 31.6	-0.2
	baz=63						
CIS	Catalina Islan	62.93	354	⇓P	P	01 39 34.0	0.0
	baz=63						
BC3	Big Chuckw Mtn	62.97	357	⇑P	P	01 39 34.4	+0.2
	baz=63,SNR=16						
PFO	Pinyon Flat Ob	62.98	356	⇓*e*P	P	01 39 34.0	-0.3
	comp=Z,17nm,1.0s,mb5.1						
PFO				*e*PcP	PcP	01 40 14.2	+2.1
PFO				*e*PP	PP	01 41 56.4	+3.2
PFO				*e*S	S	01 48 14.8	+10
PFO				LR	LR		
	comp=Z,7μm,20.0s,MS5.8						
PFO	Pinyon Flat Ob	62.98	356	⇓*e*P	P	01 39 34.0	-0.3
PFO				*e*		01 40 14.3	
PFO				*e*		01 41 56.4	
PFO				*e*S	S	01 48 14.8	+10
PFO				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.1						
PFO				MLR	MLR		
	comp=Z,7μm,20.0s,MS5.8						
PFO	Pinyon Flat Ob	62.98	356	⇓P	P	01 39 34.3	0.0
	baz=63						
MURC	Murrieta	63.02	355	⇓P	P	01 39 34.4	-0.2
	baz=63						
Y12C	Blythe	63.03	358	⇓P	P	01 39 34.5	0.0
	baz=63						
Y13A	Salome	63.07	358	⇑P	P	01 39 35.0	+0.2
	baz=63,SNR=7.7						
Y14A	Wickenburg	63.18	359	⇑P	P	01 39 35.7	+0.1
	baz=63,SNR=8.5						
NATX	Nacogdoches	63.20	17	⇓*e*P	P	01 39 35.9	+0.1
NATX				PcP	PcP	01 40 12.2	-0.9
NATX				LR	LR		
	comp=Z,1μm,21.0s,MS5.0						
BELC	Belle Mtn.	63.34	356	⇑P	P	01 39 37.3	+0.6
	baz=64,SNR=8.4						
IRM	Iron Mountain	63.46	357	⇑P	P	01 39 37.6	+0.2
	baz=64,SNR=7.8						
Y22C	IRIS PASSCAL I	63.49	5	⇑P	P	01 39 37.5	-0.2
	baz=64						
PDMCI	Parker Dam,Lak	63.56	358	⇓P	P	01 39 38.2	+0.1
	baz=64,SNR=8.8						
LENM	Lemitar	63.58	5	*e*P	P	01 39 38.7	+0.5
LENM				*e*PP	PP	01 41 55.1	-3.4
BNM	Barren Site	63.59	5	*e*P	P	01 39 38.4	+0.1
BBRC	Big Bear Sol-O	63.66	356	⇑P	P	01 39 38.7	0.0
	baz=64						
BLG	Laguna Peak	63.69	354	⇓P	P	01 39 38.7	-0.3
	baz=64						
BFSC	Mount Baldy St	63.69	355	⇓P	P	01 39 38.9	0.0
	baz=64,SNR=7.3						
X14A	Yava	63.71	359	⇑P	P	01 39 39.2	+0.1
	baz=64,SNR=13						
X15A	Humboldt	63.72	360	P	P	01 39 39.4	+0.3
	baz=64,SNR=24						
LPM	Los Pinos Moun	63.75	5	*e*P	P	01 39 39.9	+0.6
DECC	Green Verdugo	63.76	354	⇑P	P	01 39 39.5	+0.1
	baz=64						
LAZ	Ladron	63.80	5	*e*P	P	01 39 41.0	+1.3
X13A	Yucca	63.85	358	⇓P	P	01 39 39.8	-0.1
	baz=64,SNR=7.9						
NEE2	Needles Airpor	64.04	358	⇑P	P	01 39 41.2	-0.1
	baz=64						
GMRC	Granite Mounta	64.10	357	⇑P	P	01 39 42.3	+0.7
	baz=64,SNR=9.9						
OSI	Osito Adit	64.15	354	⇑P	P	01 39 41.2	-0.8
	baz=64						
HEC	Hector,Ludlow	64.19	356	⇓P	P	01 39 42.5	+0.3
	baz=64						
RRX	Edison Barstow	64.28	356	⇑P	P	01 39 42.9	0.0
	baz=64						
MPR	Mayaguez	64.31	48	*e*P	P	01 39 47.5	+4.2
W13A	Hualapai Mount	64.35	358	⇓P	P	01 39 43.9	+0.6
	baz=65,SNR=8.4						
EDW2	Edwards Air Fo	64.35	355	⇑P	P	01 39 43.0	-0.3
	baz=65						
ANMO	Albuquerque	64.40	5	⇓*e*P	P	01 39 43.0	-0.6
	comp=Z,34nm,1.4s,mb5.2						
ANMO				PcP	PcP	01 40 19.3	+1.3
ANMO				*e*S	S	01 48 24.2	+2.2
ANMO				LR	LR		
	comp=Z,4μm,21.0s,MS5.6						
ANMO	Albuquerque	64.40	5	⇓*i*P	P	01 39 43.0	-0.6
W15A	Williams	64.41	360	⇓P	P	01 39 44.1	+0.5
	baz=65						
DWPF	Disney	64.41	30	⇓*e*P	P	01 39 47.4	+3.6
	comp=Z,357nm,1.5s,mb6.2						
DWPF				*e*PP	PP	01 42 05.2	-0.6
DWPF				*e*S	S	01 48 42.9	+20
DWPF				LR	LR		
	comp=Z,1μm,22.0s,MS5.1						
W14A	Seligman	64.45	359	P	P	01 39 44.5	+0.6
	baz=65,SNR=24						
PKM	Peak Mountain	64.54	353	⇑P	P	01 39 44.7	+0.2
	baz=65						
W12A	Cal Nev Ari	64.58	357	⇓P	P	01 39 45.1	+0.3
	baz=65						
ARVC	Arvin	64.67	354	⇑P	P	01 39 45.3	-0.1
	baz=65						
GSC	Goldstone	64.69	356	⇓P	P	01 39 45.3	-0.2
	baz=65,SNR=12						
WUAZ	Wupatki	64.75	1	⇓*e*P	P	01 39 46.1	+0.2
	comp=Z,53nm,1.4s,mb5.4						
WUAZ				PcP	PcP	01 40 20.1	+0.7
WUAZ				*e*PP	PP	01 42 15.1	+6.4
WUAZ				*e*S	S	01 48 37.3	+11
WUAZ				LR	LR		
	comp=Z,6μm,22.0s,MS5.7						
WUAZ	Wupatki	64.75	1	⇑P	P	01 39 45.9	0.0
	baz=65						
TUQ	Turquoise Mtn.	64.77	357	⇓P	P	01 39 46.4	+0.5
	baz=65,SNR=7.4						
BRAL	Brewton	64.79	24	PFAKE		01 40 00.0	+14
BRAL				LR	LR		
	comp=Z,1μm,20.0s,MS5.1						
AMTX	Amarillo	64.86	9	⇓*e*P	P	01 39 45.9	-0.8
AMTX				PcP	PcP	01 40 14.5	-5.3
AMTX				*e*S	S	01 48 34.4	+6.6
AMTX				LR	LR		
	comp=Z,2μm,21.0s,MS5.2						
SJG	San Juan	64.88	49	*e*P	P	01 39 41.4	-5.7
SJG				*e*PP	PP	01 42 02.8	-7.3
SJG				*e*S	S	01 48 26.7	-1.9
SJG				LR	LR		
	comp=Z,3μm,22.0s,MS5.5						
LRMC	Laurel Mountai	64.92	355	⇑P	P	01 39 46.7	-0.3
	baz=65,SNR=7.9						
SMMC	Simmler	64.97	353	⇑P	P	01 39 47.2	-0.1
	baz=65						
CPD	Cerro la Pandu	64.98	49	⇑*e*P	P	01 39 46.7	-1.1
V12A	Nelson	65.01	358	⇓P	P	01 39 47.8	+0.2
	baz=65,SNR=7.9						
HUMP	Col San Antoni	65.10	49	*e*P	P	01 39 49.2	+0.7
V11A	Goodsprings	65.14	357	⇑P	P	01 39 48.5	+0.1
	baz=65						
ISA	Isabella	65.17	354	⇓P	P	01 39 48.5	-0.1
	baz=65,SNR=7.7						
CBYP	Canovanas	65.19	49	*e*P	P	01 39 50.5	+1.4
WMOK	Wichita Mounta	65.19	12	⇓*e*P	P	01 39 46.9	-1.9
WMOK				*e*PcP	PcP	01 40 19.0	-2.2
WMOK				*e*PP	PP	01 42 09.2	-3.4
WMOK				*e*S	S	01 48 40.3	+8.5
WMOK				LR	LR		
	comp=Z,4μm,21.0s,MS5.6						
SHOC	Shoshone	65.25	356	⇓P	P	01 39 49.2	+0.1
	baz=66,SNR=6.5						
MTP	Monte Pirata	65.26	49	*e*P	P	01 39 49.9	+0.3
PTRM	Twissleman Ran	65.33	353	*e*P	P	01 39 48.7	-1.0
VES	Vestal, Richgr	65.40	354	⇓P	P	01 39 49.8	-0.3
	baz=66,SNR=8.4						
MPMC	Manual Prospec	65.49	355	⇑P	P	01 39 51.2	+0.5
	baz=66,SNR=17						
V05C	Boulder Hill,	65.51	353	⇑P	P	01 39 51.1	+0.3
	baz=66						
PKD	Parkfield	65.66	352	⇓P	P	01 39 51.5	-0.2
	baz=66						
U12A	Valley of Fire	65.70	358	⇓P	P	01 39 51.7	-0.3
	baz=66						
DAC	Darwin (Calif)	65.71	355	*e*P	P	01 39 53.0	+0.9
	comp=Z,64nm,1.4s,mb5.5						
DAC				*e*PcP	PcP	01 40 28.2	+4.8
DAC				*e*PP	PP	01 42 18.6	+1.5
DAC				*e*S	S	01 48 55.7	+18
DAC				LR	LR		
	comp=Z,7μm,19.0s,MS5.9						
U10A	Ash Meadows, A	65.77	356	⇑P	P	01 39 52.7	+0.2
	baz=66						
SHPR	Sheep Range	65.80	357	*e*P	P	01 39 53.3	+0.6
V03C	Hunter Liggett	65.82	352	⇓P	P	01 39 52.8	0.0
	baz=66						
FURC	Furnace Creek,	65.85	356	⇑P	P	01 39 53.1	+0.1
	baz=66,SNR=9.8						
CWC	Cottonwood Cre	65.91	355	⇓P	P	01 39 53.7	+0.3
	baz=66						
T12A	Moapa	66.00	358	⇓P	P	01 39 54.1	+0.2
	baz=66						
BBGH	Gun Hill	66.08	58	PFAKE		01 40 10.0	+15
BBGH				LR	LR		
	comp=Z,8μm,22.0s,MS5.9						
U04C	Hernandez Rese	66.10	352	⇓P	P	01 39 55.2	+0.6
	baz=66,SNR=11						
MIAR	Mount Ida	66.13	17	⇓*e*P	P	01 39 52.6	-2.2
	comp=Z,62nm,1.3s,mb5.5						
MIAR				*e*PcP	PcP	01 40 19.9	-5.3
MIAR				*e*PP	PP	01 42 12.0	-8.8
MIAR				*e*S	S	01 48 34.8	-8.5
MIAR				LR	LR		
	comp=Z,2μm,19.0s,MS5.4						
MIAR	Mount Ida	66.13	17	⇓*e*P	P	01 39 52.6	-2.2
MIAR				*e*		01 40 19.9	
MIAR				*e*S	S	01 48 34.8	-8.5
MIAR				pmax	pmax		
	comp=Z,62nm,1.3s,mb5.5						
MIAR				MLR	MLR		
	comp=Z,2μm,19.0s,MS5.4						
VNA3	Neumayer Olymp	66.16	160	*e*P	P	01 39 55.0	+0.3
VNA3				*e*	pP	01 39 58.1	+0.2
VNA3				*e*		01 40 04.4	
VNA3				*e*		01 40 13.9	
HAST	UC Hastings Re	66.22	352	⇓P	P	01 39 55.2	-0.2
	baz=66						
HELL	Mitchell Peak,	66.23	354	P	P	01 39 55.5	+0.1
	baz=66,SNR=8.4						
T13A	Saint George	66.27	358	⇑P	P	01 39 55.6	-0.1
	baz=66,SNR=14						
T14A	Hurricane	66.30	359	⇓P	P	01 39 55.7	-0.1
	baz=66,SNR=8.1						
GRAC	Grapevine Rang	66.41	355	⇑P	P	01 39 56.9	+0.3
	baz=67,SNR=11						
MVCO	Mesa Verde	66.52	3	⇓*e*P	P	01 39 57.0	-0.3
	comp=Z,149nm,1.5s,mb5.8						
MVCO				*e*S	S	01 48 59.0	+11
MVCO				LR	LR		
	comp=Z,6μm,22.0s,MS5.8						
MVCO	Mesa Verde	66.52	3	⇑P	P	01 39 57.1	-0.2
	baz=67						
TIN	Tinemaha	66.53	355	⇑P	P	01 39 57.4	0.0
	baz=67						
SAO	San Andreas Ge	66.58	352	*e*P	P	01 39 57.9	+0.2
SAO				PcP	PcP	01 40 22.4	-4.5
SAO				*e*PP	PP	01 42 29.9	+5.2
SAO				*e*S	S	01 48 55.4	+6.8
SAO				LR	LR		
	comp=Z,11μm,20.0s,MS6.1						
SAO	San Andreas Ge	66.58	352	*e*P	P	01 39 57.9	+0.3
SAO						01 40 22.4	
SAO				*e*		01 42 29.9	
SAO				MLR	MLR		
	comp=Z,11μm,20.0s,MS6.1						
T05C	Eagle Field, D	66.61	352	⇓P	P	01 39 58.4	+0.6
	baz=67						
T06C	Millerton Lake	66.62	353	⇓P	P	01 39 57.5	-0.4
	baz=67,SNR=10						
LRAL	Lakeview Retre	66.65	23	⇓*e*P	P	01 39 57.4	-0.8
LRAL				*e*PP	PP	01 42 24.9	-0.5
LRAL				*e*S	S	01 48 45.9	-3.9
LRAL				LR	LR		
	comp=Z,838nm,22.0s,MS4.9						
UALR	University of	66.66	18	⇓*e*P	P	01 39 57.5	-0.7
CCUT	Cedar City	66.79	359	⇓*e*P	P	01 39 59.5	+0.5
CCUT				*e*PcP	PcP	01 40 26.9	-0.9
CCUT				*e*PP	PP	01 42 24.5	-2.0
PACP	Pacheco Peak	66.80	352	⇑P	P	01 39 58.5	-0.5
	baz=67						
VNA1	Neumayer--Stat	66.82	159	*e*P	P	01 39 59.9	+1.0
VNA1				*e*	pP	01 40 03.2	+1.1
VNA1				*e*		01 40 08.4	
VNA1				*e*		01 40 20.8	
MTUM	Tungsten Hills	66.86	354	*e*P	P	01 40 00.3	+0.9
KCC	Kaiser Creek	66.89	354	⇓P	P	01 40 00.1	+0.4
	baz=67						
S11A	Rachel	66.96	357	⇓P	P	01 40 00.9	+0.8
	baz=67						
S08C	White Mtn Res	66.97	355	⇓P	P	01 40 00.8	+0.7
	baz=67,SNR=19						
VNA2	Neumayer--Watz	66.97	160	*e*P	P	01 39 59.2	-0.7
	baz=241,slow=5.1						
VNA2				*e*	pP	01 40 02.9	-0.2
VNA2				*e*		01 40 08.6	
VNA2				*e*		01 40 18.6	
S14A	Cedar City	66.99	359	⇑P	P	01 40 00.5	+0.2
	baz=67,SNR=8.8						
S05C	Merced	67.02	353	⇑P	P	01 39 59.9	-0.6
	baz=67						
ARUT	Antelope Range	67.03	359	*e*P	P	01 40 01.3	+0.8
BNLO	Ben Lomond (Sa	67.03	351	⇓P	P	01 40 00.2	-0.4
	baz=67						
MLAC	Mammoth Lakes	67.16	354	⇑P	P	01 40 01.3	-0.1
	baz=67						
OXF	Oxford	67.24	20	⇓*e*P	P	01 40 02.3	+0.3
OXF				*e*PP	PP	01 42 26.2	-4.4
OXF				*e*S	S	01 49 03.5	+6.7
OXF				LR	LR		
	comp=Z,983nm,19.0s,MS5.0						
OXF	Oxford	67.24	20	⇓*e*P	P	01 40 02.3	+0.3
OXF				*e*		01 42 26.2	
OXF				MLR	MLR		
	comp=Z,983nm,19.0s,MS5.0						
SDCO	Great Sand Dun	67.25	6	⇓*e*P	P	01 40 01.7	-0.2
	comp=Z,64nm,1.3s,mb5.5						
SDCO				*e*PcP	PcP	01 40 29.0	-0.7
SDCO				*e*PP	PP	01 42 30.5	-0.1
SDCO				*e*S	S	01 48 49.5	-7.3
SDCO				LR	LR		
	comp=Z,6μm,19.0s,MS5.8						
S10A	Tonopah Range,	67.28	356	⇓P	P	01 40 02.5	+0.3
	baz=68,SNR=14						
KIP	Kipapa	67.29	313	PFAKE		01 40 10.0	+7.5
KIP				LR	LR		
	comp=Z,3μm,19.0s,MS5.6						
S04C	Ingram Canyon,	67.29	352	⇓P	P	01 40 02.5	+0.3
	baz=68						
JRSC	Jasper Ridge	67.31	351	⇓P	P	01 40 02.3	0.0
	baz=68						
FUNA	Funafuti	67.36	273	PFAKE		01 40 20.0	+17
FUNA				LR	LR		
	comp=Z,3μm,20.0s,MS5.5						
PV01	Paradox Valley	67.44	3	*e*P	P	01 40 03.2	+0.1
WENL	Wente Brothers	67.46	352	⇑P	P	01 40 03.9	+0.6
	baz=68						
TPH	Tonopah	67.47	356	⇑*e*P	P	01 40 02.9	-0.4
	comp=Z,62nm,1.3s,mb5.5						
TPH				PcP	PcP	01 40 30.6	0.0
TPH				*e*PP	PP	01 42 32.5	0.0
TPH				*e*S	S	01 48 56.0	-3.4
TPH				LR	LR		
	comp=Z,4μm,21.0s,MS5.6						
TPH	Tonopah	67.47	356	⇑*e*P	P	01 40 02.9	-0.4
TPH						01 40 30.6	
TPH				*e*		01 42 32.5	
TPH				*e*S	S	01 48 56.0	-3.4
TPH				pmax	pmax		
	comp=Z,62nm,1.3s,mb5.5						
TPH				MLR	MLR		
	comp=Z,4μm,21.0s,MS5.6						
S06C	San Francisco	67.50	353	⇑P	P	01 40 03.5	0.0
	baz=68,SNR=7.6						
R12A	Pony Springs,	67.59	358	⇑P	P	01 40 04.4	+0.3
	baz=68,SNR=17						
R09A	Tonopah	67.63	356	P	P	01 40 05.0	+0.8
	baz=68,SNR=10						
R07C	Lee Vining	67.63	354	⇓P	P	01 40 04.9	+0.6
	baz=68						
R10A	Warm Springs	67.63	356	⇑P	P	01 40 04.7	+0.4
	baz=68						
TRCR	Troy Canyon	67.65	357	⇓*e*P	P	01 40 04.9	+0.4
TRCR				*e*PcP	PcP	01 40 32.5	+1.1
TRCR				*e*PP	PP	01 42 36.4	+2.4
PV10	Paradox Valley	67.66	3	*e*P	P	01 40 04.7	+0.2
CMB	Columbia Colle	67.71	353	⇓*e*P	P	01 40 04.9	+0.1
	comp=Z,31nm,1.3s,mb5.2						
CMB				PcP	PcP	01 40 32.3	+0.7
CMB				*e*S	S	01 49 10.7	+8.5
CMB				LR	LR		
	comp=Z,13μm,20.0s,MS6.2						
CMB	Columbia Colle	67.71	353	⇓*e*P	P	01 40 04.9	+0.1
CMB						01 40 32.3	
CMB				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.2						
CMB				MLR	MLR		
	comp=Z,13μm,20.0s,MS6.2						
CMB	Columbia Colle	67.71	353	⇑P	P	01 40 05.0	+0.2
	baz=68,SNR=9.6						
MVU	Marysvale	67.73	360	PFAKE		01 40 20.0	+15
MVU				LR	LR		
	comp=Z,4μm,21.0s,MS5.6						
MSU	Marysvale	67.74	360	*e*P	P	01 40 05.4	+0.4
BDM	Black Diamond	67.80	352	⇑P	P	01 40 05.7	+0.3
	baz=68						
R08A	Mina	67.81	355	⇓P	P	01 40 05.5	+0.1
	baz=68						
R04C	Big Horse Ranc	67.99	352	⇑P	P	01 40 06.9	+0.3
	baz=68						
WAKR	Walker	68.08	354	*e*P	P	01 40 07.6	+0.5
PLAL	Pickwick Lake	68.09	21	⇓*e*P	P	01 40 05.2	-2.1
	comp=Z,46nm,1.1s,mb5.4						
PLAL				*e*S	S	01 49 22.2	+15
PLAL				LR	LR		
	comp=Z,1μm,21.0s,MS5.1						
R06C	Coleville	68.10	354	⇑P	P	01 40 07.7	+0.4
	baz=68,SNR=7.0						
MCCM	Marconi Confer	68.12	351	PFAKE		01 40 20.0	+13
MCCM				LR	LR		
	comp=Z,8μm,19.0s,MS6.0						
MCCM	Marconi Confer	68.12	351	⇑P	P	01 40 07.8	+0.4
	baz=68						
Q11A	Duckwater	68.15	357	⇑P	P	01 40 08.2	+0.6
	baz=68,SNR=32						
Q10A	Clear Creek Ra	68.17	356	⇓P	P	01 40 08.0	+0.3
	baz=68,SNR=10						
Q09A	Carvers	68.22	356	⇓P	P	01 40 08.9	+0.8
	baz=68						
GOGA	Godfrey	68.25	26	⇑*e*P	P	01 40 08.2	-0.1
GOGA				*e*PcP	PcP	01 40 34.5	+0.5
GOGA				*e*S	S	01 49 23.9	+15

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GOGA                                LR      LR
       comp=Z,1µm,21.0s,MS5.1
CVS    Carmenet Viney    68.26 351 ⇑P      P        01 40 08.3  0.0
       baz=68
Q12A   Willow Creek R    68.31 358 ⇑P      P        01 40 08.7 +0.1
       baz=68
R05C   Kirkwood Meado    68.34 353 ⇓P      P        01 40 09.3 +0.6
       baz=69,SNR=12
SRU    San Rafael        68.35   1⇓iP      P        01 40 08.2 -0.6
SRU                                ePP     PP       01 42 38.1 -1.9
GNAR   Gosnell           68.42  19 eP      P        01 40 09.2 -0.1
Q07A   Schurz            68.45 354 ⇓P      P        01 40 09.8 +0.3
       baz=69
NSHM   Saint Helena R    68.45 351  P      P        01 40 09.8 +0.3
LAVA   Lava Cap Winer    68.46 353 ⇑P      P        01 40 09.7 +0.1
       baz=69
Q03C   Winters           68.49 352 ⇓P      P        01 40 09.2 -0.5
       baz=69
TMUT   Trail Mountain    68.52   1⇓eP      P        01 40 09.9  0.0
SMCO   Snowmass          68.57   4⇓eP      P        01 40 09.9 -0.3
       comp=Z,46nm,1.3s,mb5.2
SMCO                               ePP     PP       01 42 49.0 +7.1
SMCO                               eS      S        01 49 25.6  +13
Q04C   Lincoln           68.61 352 ⇑P      P        01 40 10.6 +0.2
       baz=69
P12A   McGill            68.75 358 ⇓P      P        01 40 11.3  0.0
       baz=69,SNR=13
MNRC   McLaughlin Nat    68.79 351 ⇑P      P        01 40 11.7 +0.2
       baz=69
P11A   Circle Ranch,     68.86 357 ⇓P      P        01 40 11.9 -0.1
       baz=69
WCN    Washoe City       68.90 354 ⇓P      P        01 40 12.3 +0.1
       baz=69
P09A   Austin            68.94 356 ⇓P      P        01 40 12.7 +0.2
       baz=69
P10A   Eureka            68.96 356 ⇓P      P        01 40 12.9 +0.2
       baz=69
HOPS   Hopland           68.98 351 eP      P        01 40 14.8 +2.0
       comp=Z,126nm,1.4s,mb5.7
HOPS                               ePP     PP       01 42 31.2  -14
HOPS                               eS      S        01 49 24.8 +7.4
HOPS                                LR     LR
       comp=Z,10µm,19.0s,MS6.1
HOPS   Hopland           68.98 351 ⇑P      P        01 40 13.3 +0.5
       baz=69
P05C   Yuba Gap, Truc    68.98 353 ⇓P      P        01 40 12.6 -0.1
       baz=69,SNR=8.2
SWET   Sewanee           69.00  23⇓eP      P        01 40 11.6 -1.4
CBKS   Cedar Bluff       69.01  10⇓eP      P        01 40 11.9 -1.1
       comp=Z,120nm,1.4s,mb5.6
CBKS                               ePP     PP       01 42 48.1 +2.3
CBKS                               eS      S        01 49 19.1 +1.4
CBKS                                LR     LR
       comp=Z,4µm,19.0s,MS5.7
CBKS   Cedar Bluff       69.01  10⇓eP      P        01 40 11.9 -1.0
CBKS                               e                01 42 48.1
CBKS                               eS      S        01 49 19.1 +1.4
CBKS                                pmax   pmax
       comp=Z,120nm,1.4s,mb5.6
CBKS                                MLR    MLR
       comp=Z,4µm,19.0s,MS5.7
SUTB   Sutter Butte      69.05 352 ⇑P      P        01 40 12.7 -0.4
       baz=69
P07A   Fallon            69.06 354 ⇓P      P        01 40 13.9 +0.7
       baz=69
UTMT   University of     69.11  20⇓eP      P        01 40 12.9 -0.7
OHCM   Honcut            69.12 352 eP      P        01 40 14.0 +0.4
P08A   Dixie Valley      69.14 355 ⇓P      P        01 40 14.1 +0.4
       baz=69
PARMO  Parma             69.15  19 eP      P        01 40 13.4 -0.5
NLU    North Lily Min    69.18   0 eP      P        01 40 14.8 +0.8
NLU                                ePcP    PcP      01 40 37.1 -0.7
NLU                                ePP     PP       01 42 49.9 +2.6
WVT    Waverly           69.22  21 eP      P        01 40 13.4 -0.9
       comp=Z,69nm,1.3s,mb5.4
WVT                                ePcP    PcP      01 40 44.3 +6.3
WVT                                ePP     PP       01 42 21.6  -26
WVT                                eS      S        01 49 32.6  +12
WVT    Waverly           69.22  21 eP      P        01 40 13.5 -0.8
WVT                                e                01 40 44.3
WVT                                 pmax   pmax
       comp=Z,69nm,1.3s,mb5.4
MPU    Maple Canyon      69.24   0 eP      P        01 40 14.9 +0.5
MPU                                ePcP    PcP      01 40 39.5 +1.5
MPU                                eS      SKSac    01 50 19.2 +4.9
MPU                                 LR     LR
       comp=Z,8µm,21.0s,MS6.0
NHSC   New Hope          69.28  28 eP      P        01 40 18.3 +3.5
NHSC                               ePP     PP       01 43 04.2  +16
NHSC                               eS      S        01 49 29.7 +8.5
NHSC                                LR     LR
       comp=Z,1µm,20.0s,MS5.2
ISCO   Idaho Springs     69.28   5 eP      P        01 40 15.0 +0.4
       comp=Z,63nm,1.4s,mb5.3
ISCO                               ePcP    PcP      01 40 39.0 +0.8
ISCO                               ePP     PP       01 42 49.2 +1.0
ISCO                               eS      S        01 49 16.0 -4.9
ISCO                                LR     LR
       comp=Z,4µm,19.0s,MS5.7
ORV    Oroville          69.33 352 ⇓P      P        01 40 15.0 +0.1
       baz=70,SNR=9.3
DUG    Dugway            69.42 359  PFAKE           01 40 30.0  +15
DUG                                 LR     LR
       comp=Z,4µm,19.0s,MS5.6
DUG    Dugway            69.42 359 eP      P        01 40 16.0 +0.5
DUG    Dugway            69.42 359 ⇑P      P        01 40 15.4 -0.1
       baz=70
O11A   Cowboy Ranch,     69.43 357 ⇑P      P        01 40 15.8 +0.3
       baz=70
P01C   Double 8 Ranch    69.49 351 ⇓P      P        01 40 15.7 -0.2
       baz=70
BEKR   Beckwourth        69.52 353 ⇑P      P        01 40 16.3 +0.2
       baz=70,SNR=12
O09A   Fish Creek Ran    69.55 356 ⇓P      P        01 40 16.7 +0.4
       baz=70,SNR=9.5
GASB   Alder Springs     69.58 351 ⇓P      P        01 40 17.7 +1.2
       baz=70,SNR=17
O10A   Cortez Mining,    69.64 356 ⇑P      P        01 40 16.9 +0.1
       baz=70
DAU    Daniels Canyon    69.64   1 eP      P        01 40 17.5 +0.7
DAU                                ePcP    PcP      01 40 40.6 +1.0
O05C   Quincy            69.67 353 ⇓P      P        01 40 17.2 +0.2
       baz=70,SNR=5.1
O07A   Toulon            69.67 354 ⇓P      P        01 40 17.4 +0.4
       baz=70,SNR=22
CPCT   Cooper Cave       69.70  24⇑eP      P        01 40 16.9 -0.4
O06A   Flanigan          69.76 354 ⇓P      P        01 40 18.1 +0.5
       baz=70,SNR=14
BMN    Battle Mountai    69.82 356⇓eP      P        01 40 18.0 +0.1
       comp=Z,53nm,1.2s,mb5.3
BMN                                ePcP    PcP      01 40 39.6 -0.8
BMN                                ePP     PP       01 42 46.9 -5.9
BMN                                eS      S        01 49 34.7 +7.6
BMN                                 LR     LR
       comp=Z,5µm,20.0s,MS5.8
BMN    Battle Mountai    69.82 356⇓eP      P        01 40 18.0 +0.1
BMN                                e                01 40 39.6
BMN                                e                01 42 46.9
BMN                                 pmax   pmax
       comp=Z,53nm,1.2s,mb5.3
BMN                                 MLR    MLR
       comp=Z,5µm,20.0s,MS5.8
JLU    Jordanelle        69.83   1⇓eP      P        01 40 17.7 -0.2
JLU                                ePcP    PcP      01 40 40.5  0.0
KSU1   Kansas State U    69.83  13⇓eP      P        01 40 16.1 -2.0
KSU1                               ePP     PP       01 42 47.5 -5.4
KSU1                               eS      S        01 49 42.1  +15
KSU1                                LR     LR
       comp=Z,3µm,19.0s,MS5.5
O03C   Acorn Hollow,     69.83 352 ⇑P      P        01 40 19.1 +1.1
       baz=70
KIPM   Iron Peak         69.84 351  P      P        01 40 17.6 -0.4
JSC    Jenkinsville      69.87  27  P      P        01 40 20.7 +2.3
NOQ    North Oquirrh     69.87 360⇓eP      P        01 40 18.0 -0.3
NOQ                                 PcP    PcP      01 40 41.8 +1.2
CTU    Camp Tracy        69.92   0 eP      P        01 40 18.9 +0.5
ELK    Elko              70.03 357 eP      P        01 40 21.6 +2.4
       comp=Z,214nm,2.3s,mb5.7
ELK    Elko              70.03 357 eP      P        01 40 21.6 +2.4
ELK                                 pmax   pmax
       comp=Z,210nm,2.2s
O04C   Chester           70.04 353 ⇑P      P        01 40 19.3  0.0
       baz=70
N10A   Dunphy            70.06 356 ⇓P      P        01 40 19.4  0.0
       baz=70
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N13A   Wendover, West    70.11 358 ⇑P      P        01 40 19.3 -0.3
       baz=70
O02C   Red Bluff         70.11 351 ⇓P      P        01 40 20.2 +0.5
       baz=70,SNR=6.7
N11A   Elko Archery C    70.12 357 ⇑P      P        01 40 19.6 -0.1
       baz=70
N12A   Clover Valley,    70.13 358 ⇑P      P        01 40 19.9 +0.1
       baz=70,SNR=8.2
BGU    Big Grassy Mou    70.15 359 eP      P        01 40 19.9  0.0
BGU                                ePcP    PcP      01 40 45.5 +3.6
FVM    French Village    70.20  18 eP      P        01 40 19.9 -0.4
       comp=Z,99nm,1.3s,mb5.6
FVM    French Village    70.20  18 eP      P        01 40 19.9 -0.4
FVM                                 pmax   pmax
       comp=Z,99nm,1.3s,mb5.6
N08A   GE Springer Mi    70.23 355 ⇑P      P        01 40 20.9 +0.4
       baz=70,SNR=18
N09A   Rock Creek Ran    70.25 356 ⇑P      P        01 40 20.8 +0.2
       baz=70,SNR=8.9
SIUC   Southern Illin    70.28  19 eP      P        01 40 20.6 -0.2
N07B   Gerlach           70.29 354 ⇓P      P        01 40 21.4 +0.6
       baz=70,SNR=24
ELFS   Eagle Lake Fie    70.30 353 ⇑P      P        01 40 20.7 -0.2
       baz=70
N06A   Buffalo Meadow    70.34 354 ⇓P      P        01 40 21.4 +0.3
       baz=71,SNR=25
WDC    Whiskeytown Da    70.47 352⇓eP      P        01 40 21.1 -0.8
       comp=Z,54nm,1.2s,mb5.3
WDC                                ePcP    PcP      01 40 44.9 +1.7
WDC                                 LR     LR
       comp=Z,9µm,22.0s,MS6.0
WDC    Whiskeytown Da    70.47 352⇓eP      P        01 40 21.1 -0.8
WDC                                e                01 40 44.9
WDC                                 pmax   pmax
       comp=Z,54nm,1.2s,mb5.3
WDC                                 MLR    MLR
       comp=Z,9µm,22.0s,MS6.0
WDC    Whiskeytown Da    70.47 352 ⇓P      P        01 40 21.6 -0.3
       baz=71,SNR=18
HATC   Hat Creek Radi    70.58 352 ⇓P      P        01 40 22.0 -0.6
       baz=71,SNR=7.4
LBCM   Butte Creek Ri    70.58 353  P      P        01 40 22.6  0.0
M13A   Montello          70.61 358 ⇓P      P        01 40 22.5 -0.2
       baz=71,SNR=16
M12A   Wells             70.69 358  P      P        01 40 23.3 +0.1
       baz=71,SNR=19
M11A   Holland Ranch,    70.73 357 ⇓P      P        01 40 23.9 +0.3
       baz=71,SNR=11
PHWY   Pilot Hill        70.79   5 eP      P        01 40 24.1 +0.2
HWUT   Hardware Ranch    70.83   0 eP      P        01 40 23.5 -0.6
HWUT                                LR     LR
       comp=Z,5µm,21.0s,MS5.7
M06C   Likely Place G    70.85 353 ⇑P      P        01 40 24.5 +0.3
       baz=71,SNR=8.8
SLM    Saint Louis       70.86  18 eP      P        01 40 25.7 +1.4
M10A   I.L. Ranch, Tu    70.86 356 ⇓P      P        01 40 24.5 +0.3
       baz=71,SNR=13
M08A   Happy Creek Ra    70.91 355 ⇓P      P        01 40 25.3 +0.7
       baz=71,SNR=21
M07A   Soldier Meadow    70.91 354 ⇓P      P        01 40 25.3 +0.7
       baz=71,SNR=26
KHMM   Horse Mountain    70.92 351 eP      P        01 40 24.7  0.0
USIN   University of     70.97  20 eP      P        01 40 24.6 -0.4
HVU    Hansel Valley     71.00 359 eP      P        01 40 24.2 -0.9
       comp=Z,80nm,2.1s,mb5.3
HVU                                ePcP    PcP      01 40 46.1 +0.7
HVU    Hansel Valley     71.00 359 eP      P        01 40 24.2 -0.9
HVU                                e                01 40 46.1
HVU                                 pmax   pmax
       comp=Z,80nm,2.1s,mb5.3
TZTN   Tazewell          71.02  24 eP      P        01 40 24.6 -0.8
TZTN                                LR     LR
       comp=Z,1µm,21.0s,MS5.2
RWWY   Rawlins           71.05   4 eP      P        01 40 25.2 -0.2
M05C   Lookout           71.08 353 ⇑P      P        01 40 25.6  0.0
       baz=71,SNR=17
M03C   McCloud           71.11 352 ⇑P      P        01 40 25.7 -0.1
       baz=71,SNR=11
M02C   Callahan          71.31 351 ⇓P      P        01 40 27.2 +0.2
       baz=72,SNR=10.0
L13A   Double Diamond    71.33 359 ⇓P      P        01 40 26.8 -0.3
       baz=72
L10A   Juniper Basin     71.41 357 ⇑P      P        01 40 27.7 +0.1
       baz=72,SNR=23
L12A   House Creek Ra    71.42 358 ⇓P      P        01 40 27.7 +0.1
       baz=72,SNR=13
L09A   Wilkinson Ranc    71.43 356 ⇓P      P        01 40 27.9 +0.2
       baz=72
L11A   Cat Creek Ranc    71.47 357  P      P        01 40 28.1 +0.2
       baz=72,SNR=26
MOD    Modoc             71.53 354 eP      P        01 40 29.0 +0.7
       comp=Z,44nm,1.2s,mb5.3
MOD                                 LR     LR
       comp=Z,6µm,20.0s,MS5.9
MOD    Modoc             71.53 354  P      P        01 40 29.1 +0.8
       baz=72,SNR=21
L07A   Adell             71.55 354 ⇑P      P        01 40 28.8 +0.3
       baz=72,SNR=39
M04C   Macdoel           71.57 352 ⇓P      P        01 40 28.5 -0.1
       baz=72,SNR=15
YBH    Yreka Blue Hor    71.63 352 eP      P        01 40 28.9 -0.1
YBH                                 LR     LR
       comp=Z,8µm,20.0s,MS6.0
YBH    Yreka Blue Hor    71.63 352 ⇓P      P        01 40 28.4 -0.5
       baz=72
WCI    Wyandotte Cave    71.63  21⇓eP      P        01 40 27.5 -1.6
       comp=Z,55nm,1.3s,mb5.3
WCI                                 LR     LR
       comp=Z,1µm,19.0s,MS5.2
WCI    Wyandotte Cave    71.63  21  P      P        01 40 26.9 -2.1
WCI                                 pmax   pmax
       comp=Z,55nm,1.3s,mb5.3
L08A   Fields            71.64 355 ⇑P      P        01 40 29.2 +0.2
       baz=72,SNR=14
L05A   Lakeview          71.72 353 ⇓P      P        01 40 30.0 +0.6
       baz=72,SNR=17
K14A   Jones Ranch, D    71.77 359 ⇑P      P        01 40 29.0 -0.8
       baz=72,SNR=12
KTRM   Thompson Ridge    71.89 351  P      P        01 40 31.4 +0.9
K13A   Stover Farm, H    71.89 358  P      P        01 40 30.5  0.0
       baz=72,SNR=17
K12A   Draper Farm, C    71.90 358 ⇓P      P        01 40 30.3 -0.2
       baz=72,SNR=10
WVOR   Wild Horse Val    71.91 355⇓eP      P        01 40 30.8 +0.2
       comp=Z,77nm,1.3s,mb5.5
WVOR                               ePcP    PcP      01 40 50.1 +0.8
WVOR                                LR     LR
       comp=Z,13µm,20.0s,MS6.2
WVOR   Wild Horse Val    71.91 355⇓eP      P        01 40 30.8 +0.2
WVOR                               e                01 40 50.1
WVOR                                pmax   pmax
       comp=Z,77nm,1.3s,mb5.5
WVOR                                MLR    MLR
       comp=Z,13µm,20.0s,MS6.2
M01C   Crescent City     71.93 351 ⇓P      P        01 40 30.7  0.0
       baz=72
L04A   Klamath Falls     71.97 352 ⇓P      P        01 40 30.2 -0.7
       baz=72
AHID   Auburn Hatcher    71.99   1  PFAKE           01 40 40.0 +8.9
AHID                                LR     LR
       comp=Z,468nm,20.0s,MS4.8
HOG    Hogback Mounta    72.01 352  P      P        01 40 31.8 +0.6
BW06   Boulder Array     72.02   2 eP      P        01 40 30.5 -0.7
       comp=Z,68nm,1.4s,mb5.4
BW06                                LR     LR
       comp=Z,5µm,20.0s,MS5.8
PDAR   Pinedale Array    72.02   2  P      P        01 40 30.2 -1.1
       comp=Z,30nm,1.3s,mb5.1,baz=174,slow=6.0,SNR=34
PDAR                                LR     LR       02 07 22.7
       comp=Z,4µm,18.7s,MS5.8,baz=192,slow=32
CNNC   Cliffs of the     72.08  29  PFAKE           01 40 40.0 +8.2
CNNC                                LR     LR
       comp=Z,1µm,19.0s,MS5.3
K09A   Rome              72.11 356 ⇑P      P        01 40 31.9 +0.1
       baz=72,SNR=20
K10A   MacKenzie Ranc    72.13 356  P      P        01 40 31.9  0.0
       baz=72,SNR=24
L02A   Cave Junction     72.16 351 ⇓P      P        01 40 32.0 -0.1
       baz=72
K08A   Mann Creek Ran    72.19 355 ⇓P      P        01 40 32.6 +0.3
       baz=72,SNR=12
K07A   Rock Creek Ran    72.21 354 ⇑P      P        01 40 33.0 +0.6
       baz=72,SNR=36
KBO    Bosley Butte      72.31 351 eP      P        01 40 35.4 +2.4
DZM    Mont Dzumac       72.35 254  LR     LR       02 04 51.3
       comp=Z,8µm,21.1s,MS6.0,baz=52,slow=30
K04A   Chilquin          72.38 353 ⇓P      P        01 40 33.6 +0.2
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       baz=73
K05A   Summer Lake       72.40 353  P      P        01 40 34.1 +0.6
       baz=73,SNR=22
NVL    N'lazarevskaya    72.41 163c iP     P        01 40 35.2 +1.8
NVL                                eS      S        01 49 58.8 +2.1
NVL                                e                01 50 45.3
NVL                                 pmax   pmax
       comp=Z,70nm,1.6s,mb5.3
K06A   Valley Falls      72.41 354 ⇑P      P        01 40 34.0 +0.4
       baz=73,SNR=23
BLO    Bloomington       72.42  21 eP      P        01 40 33.5 -0.2
       comp=Z,70nm,1.3s,mb5.4
BLO    Bloomington       72.42  21 eP      P        01 40 33.5 -0.3
BLO                                 pmax   pmax
       comp=Z,70nm,1.2s,mb5.5
HUMO   Hull Mountain     72.52 352⇓eP      P        01 40 33.6 -0.6
       comp=Z,85nm,1.5s,mb5.5
HUMO                               ePcP    PcP      01 40 52.0 +0.2
HUMO                                LR     LR
       comp=Z,10µm,21.0s,MS6.0
HUMO   Hull Mountain     72.52 352 ⇑P      P        01 40 34.0 -0.2
       baz=73,SNR=17
J12A   Stokes Ranch,     72.52 358 ⇑P      P        01 40 34.0 -0.2
       baz=73,SNR=23
REDW   Red Top Meadow    72.59   1 eP      P        01 40 34.2 -0.4
       comp=Z,42nm,1.2s,mb5.2
J13A   Cove Ranch, Pi    72.64 358 ⇓P      P        01 40 34.7 -0.3
       baz=73,SNR=24
ELN    Prospectdale      72.66  26  P      P        01 40 34.9 -0.3
MFID   Camas Ranch       72.72 357 ⇑P      P        01 40 35.0 -0.4
       baz=73,SNR=14
K02A   Glendale          72.75 351 ⇑P      P        01 40 35.4 -0.2
       baz=73,SNR=8.8
J09A   Fry Pan Ranch,    72.75 356 ⇑P      P        01 40 36.0 +0.4
       baz=73,SNR=46
BLA    Blacksburg        72.77  26 eP      P        01 40 36.1 +0.3
       comp=Z,164nm,1.4s,mb5.8
BLA                                 LR     LR
       comp=Z,1µm,22.0s,MS5.2
BLA    Blacksburg        72.77  26 eP      P        01 40 36.1 +0.3
BLA                                 pmax   pmax
       comp=Z,164nm,1.4s,mb5.8
BLA                                 MLR    MLR
       comp=Z,1µm,22.0s,MS5.2
J10A   Berg Farm, Mel    72.77 356 ⇑P      P        01 40 35.3 -0.5
       baz=73
HLID   Hailey            72.81 358 eP      P        01 40 35.9 -0.1
       comp=Z,91nm,1.4s,mb5.5
HLID                                LR     LR
       comp=Z,7µm,19.0s,MS5.9
HLID   Hailey            72.81 358  P      P        01 40 36.0 +0.1
       baz=73,SNR=69
J08A   Circle Bar Ran    72.81 355 ⇑P      P        01 40 36.2 +0.3
       baz=73,SNR=21
DCID1  Drake Creek       72.82   1 eP      P        01 40 36.0  0.0
LOHW   Long Hollow       72.84   1 eP      P        01 40 35.2 -0.9
       comp=Z,60nm,1.3s,mb5.4
J06A   Christmas Vall    72.85 354 ⇑P      P        01 40 36.4 +0.2
       baz=73,SNR=24
J07A   Hines             72.90 354 ⇑P      P        01 40 37.1 +0.6
       baz=73,SNR=11
HDIL   Hopedale          72.91  18 eP      P        01 40 36.1 -0.5
       comp=Z,136nm,1.4s,mb5.7
HDIL                                LR     LR
       comp=Z,2µm,20.0s,MS5.4
K01A   Sixes             72.93 350 ⇑P      P        01 40 36.8 +0.1
       baz=73
MOOW   Moose Ponds       72.98   1 eP      P        01 40 36.4 -0.5
J05A   Fort Rock         72.99 353  P      P        01 40 37.5 +0.5
       baz=73,SNR=32
J04A   Umpqua Nationa    73.04 352 ⇑P      P        01 40 37.3  0.0
       baz=73,SNR=10
I13A   Wildhorse Cree    73.16 358  P      P        01 40 38.1 +0.1
       baz=73,SNR=27
I11A   Placerville       73.22 357 ⇑P      P        01 40 38.1 -0.2
       baz=74
SCIA   State Center      73.23  15 eP      P        01 40 37.8 -0.6
       comp=Z,99nm,1.2s,mb5.6
SCIA                                LR     LR
       comp=Z,1µm,19.0s,MS5.2
J03A   Ideyld Park       73.28 352 ⇓P      P        01 40 38.5 -0.2
       baz=74,SNR=14
J02A   Umpqua            73.35 351 ⇑P      P        01 40 39.0 -0.2
       baz=74
I08A   Drewsey           73.37 355 ⇓P      P        01 40 39.3 +0.1
       baz=74
I09A   Lost Marbles R    73.38 356 ⇑P      P        01 40 39.5 +0.2
       baz=74
I10A   Payette           73.43 356 ⇑P      P        01 40 39.8 +0.2
       baz=74
I06A   Prineville        73.54 354 ⇓P      P        01 40 40.7 +0.4
       baz=74,SNR=25
I07A   Izee              73.62 354 ⇑P      P        01 40 41.2 +0.5
       baz=74,SNR=41
I04A   Tendick Farm,     73.62 352 ⇓P      P        01 40 40.6 -0.2
       baz=74,SNR=9.5
YFT    Old Faithful      73.68   1 eP      P        01 40 42.3 +1.3
RSSD   Black Hills       73.71   6 eP      P        01 40 41.1 -0.1
RSSD                               ePcP    PcP      01 40 56.2 -0.7
RSSD                                LR     LR
       comp=Z,702nm,20.0s,MS5.0
LKWY   Lake              73.80   1 eP      P        01 40 42.8 +1.0
LKWY                                LR     LR
       comp=Z,6µm,21.0s,MS5.8
H13A   Challis           73.81 358 ⇓P      P        01 40 41.6 -0.2
       baz=74,SNR=11
H12A   Diamond D Ranc    73.81 358  P      P        01 40 41.8  0.0
       baz=74,SNR=11
I05A   Bend              73.86 353 ⇓P      P        01 40 42.4 +0.3
       baz=74
YMR    Madison River     73.89   1 eP      P        01 40 42.9 +0.6
       comp=Z,139nm,1.7s,mb5.6
YMR                                 LR     LR
       comp=Z,4µm,21.0s,MS5.7
I03A   Eugene            73.91 352 ⇓P      P        01 40 42.0 -0.4
       baz=74
YNR    Norris Junctio    73.95   1 eP      P        01 40 47.1 +4.5
H08A   Prairie City      73.98 355 ⇓P      P        01 40 42.9  0.0
       baz=74,SNR=32
H11A   Donnelly          74.01 357 ⇑P      P        01 40 42.6 -0.4
       baz=74,SNR=11
I02A   Mapleton          74.01 351 ⇑P      P        01 40 42.9 -0.1
       baz=74
MCMT   McKenzie Canyo    74.05 359  P      P        01 40 43.4 +0.2
QLMT   Earthquake Lak    74.05   0 eP      P        01 40 44.0 +0.8
BROR   Big Rock Looko    74.10 352  P      P        01 40 43.5 -0.1
VIPM   Ingram Point      74.14 354  P      P        01 40 44.5 +0.7
URVA   University of     74.22  28 eP      P        01 40 44.3 -0.1
BMO    Blue Mountains    74.22 356 eP      P        01 40 44.1 -0.1
BMO                                 LR     LR
       comp=Z,7µm,20.0s,MS6.0
ECSD   EROS,Sioux Fal    74.32  12 eP      P        01 40 44.4 -0.4
       comp=Z,67nm,1.2s,mb5.5
ECSD                                LR     LR
       comp=Z,3µm,21.0s,MS5.5
H06A   Lindquist Farm    74.34 354 ⇓P      P        01 40 44.8  0.0
       baz=75,SNR=26
G13A   Cobalt            74.34 358 ⇑P      P        01 40 44.7 -0.2
       baz=75,SNR=17
H05A   Madras            74.34 353 ⇑P      P        01 40 44.9  0.0
       baz=75
RLMT   Red Lodge         74.39   2 eP      P        01 40 44.9 -0.3
       comp=Z,52nm,1.3s,mb5.3
RLMT                               ePcP    PcP      01 40 58.5 -1.3
RLMT                               ePP     PP       01 43 34.5 +2.7
RLMT                                LR     LR
       comp=Z,4µm,20.0s,MS5.7
G15A   Dillon            74.39 360  P      P        01 40 44.8 -0.4
       baz=75,SNR=16
G14A   Jackson           74.47 359 ⇑P      P        01 40 45.3 -0.4
       baz=75,SNR=7.7
H04A   Detroit Lake      74.48 353 ⇓P      P        01 40 45.4 -0.3
       baz=75,SNR=13
COR    Corvallis         74.51 352 eP      P        01 40 45.5 -0.4
       comp=Z,83nm,1.2s,mb5.5
COR                                ePcP    PcP      01 41 00.7 +0.4
COR                                 LR     LR
       comp=Z,3µm,21.0s,MS5.6
COR    Corvallis         74.51 352 eP      P        01 40 45.5 -0.4
COR                                e                01 41 00.7
COR                                 pmax   pmax
       comp=Z,83nm,1.2s,mb5.5
COR                                 MLR    MLR
       comp=Z,3µm,21.0s,MS5.6
ACSO   Alum Creek Sta    74.53  23 eP      P        01 40 47.2 +1.1
ACSO                                LR     LR
       comp=Z,1µm,20.0s,MS5.2
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DLMT  Dillon           74.58 360 eP     P       01 40 46.2 -0.1
H03A  Soap Creek Ran   74.60 352 ⇓P     P       01 40 46.6 +0.2
      baz=75,SNR=5.0
G08A  Pilot Rock       74.77 355  P     P       01 40 47.7 +0.3
      baz=75,SNR=45
G07A  Ruggs Ranch, H   74.81 354 ⇓P     P       01 40 47.9 +0.3
      baz=75,SNR=13
CBN   Corbin           74.83  28  PFAKE         01 41 00.0  +12
CBN                               LR    LR
      comp=Z,2μm,19.0s,MS5.5
G06A  Carlson Farm,    74.86 354 ⇑P     P       01 40 48.0 +0.1
      baz=75,SNR=15
BOZ   Bozeman (W)      74.87   0 eP     P       01 40 47.6 -0.4
BOZ                               LR    LR
      comp=Z,3μm,19.0s,MS5.7
BOZ   Bozeman (W)      74.87   0 ⇓P     P       01 40 47.6 -0.4
      baz=75
JFWS  Jewell Farm      74.88  16  PFAKE         01 41 00.0  +12
JFWS                              LR    LR
      comp=Z,1μm,20.0s,MS5.3
G05A  Wamic            74.94 353 ⇑P     P       01 40 48.1 -0.2
      baz=75,SNR=9.4
G04A  Mulino           75.03 352 ⇑P     P       01 40 48.3 -0.6
      baz=75
F12A  Elk City         75.03 358 ⇑P     P       01 40 48.6 -0.3
      baz=75,SNR=34
F13A  Darby            75.04 358  P     P       01 40 48.4 -0.5
      baz=75,SNR=46
F14A  Wisdom           75.04 359  P     P       01 40 48.8 -0.1
      baz=75,SNR=16
LRM   Limekiln Ridge   75.04 360 eP     P       01 40 49.1 +0.2
HOOD  Mount Hood Mea   75.05 353 eP     P       01 40 49.4 +0.4
F15A  Butte            75.06 360 ⇑P     P       01 40 48.8 -0.3
      baz=75,SNR=12
F09A  S2 Ranch, Elgi   75.11 356 ⇓P     P       01 40 48.9 -0.4
      baz=75
MCWV  Mont Chateau     75.13  25 eP     P       01 40 50.4 +0.8
      comp=Z,180nm,1.6s,mb5.8
MCWV                              LR    LR
      comp=Z,1μm,21.0s,MS5.2
RCBR  Riachuelo        75.13  88 eP     P       01 40 51.8 +1.5
      comp=Z,110nm,1.4s,mb5.6
RCBR                              LR    LR
      comp=Z,8μm,20.0s,MS6.0
F11A  Grangeville      75.20 357 ⇑P     P       01 40 49.4 -0.4
      baz=75,SNR=26
G03A  Yamhill          75.23 352 ⇑P     P       01 40 50.0 -0.1
      baz=76
F10A  Beach Ranch, E   75.34 356 ⇓P     P       01 40 50.1 -0.5
      baz=76,SNR=21
F07A  Phinny Hill Vi   75.45 354 ⇑P     P       01 40 51.3  0.0
      baz=76,SNR=11
F05A  White Salmon     75.58 353 ⇓P     P       01 40 51.8 -0.3
      baz=76
E14A  Clinton          75.65 359  P     P       01 40 52.3 -0.1
      baz=76,SNR=21
E15A  Deer Lodge       75.65 360 ⇓P     P       01 40 52.1 -0.3
      baz=76,SNR=14
E11A  Bogner Ranch,    75.67 357  P     P       01 40 52.1 -0.4
      baz=76,SNR=42
E13A  Victor           75.69 358 ⇑P     P       01 40 52.5 -0.1
      baz=76,SNR=19
F04A  Amboy            75.74 353 ⇓P     P       01 40 52.5 -0.5
      baz=76,SNR=11
E10A  Myers Farm, Un   75.84 356 ⇓P     P       01 40 52.6 -0.9
      baz=76
F03A  Seaside          75.87 352 ⇑P     P       01 40 53.5 -0.3
      baz=76
HAWA  Hanford          75.91 355 eP     P       01 40 54.5 +0.6
HAWA                              LR    LR
      comp=Z,7μm,20.0s,MS6.0
E09A  Wood Farm, Sta   75.93 356 ⇑P     P       01 40 53.3 -0.7
      baz=76
E08A  Dider Farm, El   75.97 355 ⇓P     P       01 40 54.5 +0.2
      baz=76,SNR=12
MSO   Missoula         76.07 359 eP     P       01 40 55.1 +0.3
MSO                               LR    LR
      comp=Z,4μm,19.0s,MS5.7
SDMD  Soldier's Deli   76.07  27 eP     P       01 40 55.2 +0.2
LAO   LASA Array       76.09   4 eP     P       01 40 55.1 +0.1
      comp=Z,56nm,1.1s,mb5.4
LAO                               LR    LR
      comp=Z,4μm,19.0s,MS5.8
E07A  Sunnyside        76.10 354 ⇓P     P       01 40 55.5 +0.5
      baz=76,SNR=8.7
GBL   Gable Mountain   76.11 355  P     P       01 40 55.6 +0.5
CHMT  Chamberlain Mo   76.14 359 eP     P       01 40 55.1 -0.1
AAM   Ann Arbor        76.17  21 eP     P       01 40 55.3 -0.2
      comp=Z,127nm,1.3s,mb5.7
AAM                              ePcP   PcP     01 41 06.8 -0.7
AAM                               LR    LR
      comp=Z,1μm,19.0s,MS5.2
AAM   Ann Arbor        76.17  21 eP     P       01 40 55.3 -0.2
AAM                              e              01 41 06.8
AAM                               pmax  pmax
      comp=Z,127nm,1.3s,mb5.7
AAM                               MLR   MLR
      comp=Z,1μm,19.0s,MS5.2
E06A  Yakima           76.19 354 ⇓P     P       01 40 55.5  0.0
      baz=76,SNR=8.7
D15A  Lincoln          76.26 360 ⇑P     P       01 40 55.6 -0.3
      baz=76,SNR=16
BBSR  BB Station       76.26  40 eP     P       01 40 58.6 +2.3
BBSR                              LR    LR
      comp=Z,2μm,22.0s,MS5.3
E05A  Randle           76.28 353 ⇑P     P       01 40 55.5 -0.6
      baz=76
D14A  Greenough        76.31 359 ⇑P     P       01 40 56.1 -0.1
      baz=77,SNR=21
D13A  Huson            76.34 358 ⇓P     P       01 40 55.9 -0.5
      baz=77,SNR=23
D11A  Klaveano Farm,   76.36 357 ⇑P     P       01 40 55.9 -0.6
      baz=77,SNR=27
D10A  Wagner Farm, O   76.42 356  P     P       01 40 56.4 -0.4
      baz=77,SNR=11
E04A  Onalaska         76.42 352 ⇑P     P       01 40 56.8  0.0
      baz=77
E03A  Lebam            76.48 352 ⇑P     P       01 40 56.8 -0.3
      baz=77
LON   Longmire         76.48 353 eP     P       01 40 56.9 -0.2
D09A  Jones Farm, Ri   76.49 356  P     P       01 40 57.3 +0.1
      baz=77,SNR=12
EBG   Ellensburg       76.52 354  P     P       01 40 58.0 +0.6
D08A  Wollman Farm,    76.53 355 ⇓P     P       01 40 57.4  0.0
      baz=77,SNR=7.2
FMW   Mount Fremont    76.64 353  P     P       01 40 58.3 +0.2
SSPA  Standing Stone   76.72  26 eP     P       01 40 58.6 -0.1
      comp=Z,171nm,2.0s,mb5.6
SSPA                             ePcP   PcP     01 41 09.4 -0.6
SSPA                              LR    LR
      comp=Z,1μm,20.0s,MS5.3
D07A  Quincy           76.75 354 ⇓P     P       01 40 58.3 -0.3
      baz=77,SNR=8.0
ALLY  Alegheny Colle   76.77  24 eP     P       01 40 59.3 +0.4
MVL   Millersville     76.77  27 eP     P       01 40 59.2 +0.2
D06A  Cle Elum         76.82 354 ⇑P     P       01 40 58.8 -0.3
      baz=77
EPH   Ephrata          76.87 355  P     P       01 41 00.4 +1.0
D05A  Enumclaw         76.93 353 ⇑P     P       01 40 59.6 -0.1
      baz=77,SNR=9.7
C13A  Hot Springs      76.93 358  P     P       01 40 59.3 -0.4
      baz=77,SNR=30
D04A  Dobbs Creek Ra   76.94 353 ⇓P     P       01 40 59.3 -0.4
      baz=77
D03A  Wishkah Elem.    77.06 352 ⇑P     P       01 41 00.4 -0.1
      baz=77
BSMT  Bassoo Peak      77.11 358 eP     P       01 41 00.3 -0.4
C09A  Chrisman Ranch   77.22 356 ⇓P     P       01 41 01.0 -0.3
      baz=78,SNR=11
C07A  Waterville       77.25 354 ⇑P     P       01 41 01.3 -0.1
      baz=78,SNR=14
C08A  Higginbotham F   77.26 355 ⇓P     P       01 41 00.9 -0.6
      baz=78
EGMT  Eagleton         77.27   2 eP     P       01 41 01.9 +0.3
EGMT                              LR    LR
      comp=Z,5μm,21.0s,MS5.8
EGMT  Eagleton         77.27   2 ⇓P     P       01 41 01.2 -0.4
      baz=78
NLWA  Neilton Lookou   77.35 352 eP     P       01 41 02.5 +0.4
      comp=Z,45nm,1.1s,mb5.3
NLWA                             ePcP   PcP     01 41 12.5  0.0
NLWA                              LR    LR
      comp=Z,5μm,22.0s,MS5.8
NLWA  Neilton Lookou   77.35 352 ⇑P     P       01 41 02.0  0.0
      baz=78
GNW   Green Mountain   77.39 353 eP     P       01 41 02.3  0.0
C05A  Tolt Reservoir   77.40 353 ⇓P     P       01 41 01.7 -0.6
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      baz=78
C06A  Tall Timber Ra   77.55 354 ⇑P     P       01 41 02.6 -0.5
      baz=78
C04A  Brinnon          77.56 352 ⇓P     P       01 41 02.9 -0.3
      baz=78
TAU   Tasmania Unive   77.56 228  PFAKE         01 41 10.0 +6.3
TAU                               LR    LR
      comp=Z,4μm,19.0s,MS5.8
NEW   Newport          77.62 357 eP     P       01 41 03.7 +0.2
      comp=Z,60nm,1.3s,mb5.4
NEW                               LR    LR
      comp=Z,10μm,20.0s,MS6.2
B13A  Whitefish        77.62 358 ⇓P     P       01 41 03.1 -0.4
      baz=78,SNR=16
B10A  Chitwood Farm,   77.66 356 ⇑P     P       01 41 03.4 -0.3
      baz=78
B11A  Sandpoint        77.75 357 ⇑P     P       01 41 03.8 -0.4
      baz=78,SNR=9.1
B09A  Rice             77.83 356 ⇓P     P       01 41 04.2 -0.5
      baz=78,SNR=12
B08A  Colville Reser   77.85 355 ⇑P     P       01 41 04.1 -0.7
      baz=78,SNR=8.0
B04A  Port Angeles     77.96 352 ⇑P     P       01 41 05.2 -0.3
      baz=78,SNR=6.2
C03A  Quillayute Air   77.98 351 ⇑P     P       01 41 05.6 +0.1
      baz=78
B05A  Bryant           78.00 353 ⇑P     P       01 41 05.5 -0.2
      baz=78
DGMT  Dagmar           78.01   5 eP     P       01 41 06.0 +0.3
DGMT                              LR    LR
      comp=Z,5μm,21.0s,MS5.8
B07A  Winthrop         78.02 355 ⇑P     P       01 41 05.1 -0.6
      baz=78
COWI  Conover          78.14  16 eP     P       01 41 06.1 -0.4
      comp=Z,80nm,1.2s,mb5.5
COWI                             ePcP   PcP     01 41 17.5 +1.5
COWI                              LR    LR
      comp=Z,1μm,19.0s,MS5.2
CMW   Cultus Mountai   78.17 353  P     P       01 41 06.9 +0.3
GLMI  Grayling         78.17  20  PFAKE         01 47 50.0
GLMI                              LR    LR
      comp=Z,665nm,21.0s,MS4.9
B06A  Marblemount      78.19 354 ⇑P     P       01 41 06.0 -0.7
      baz=78
A12A  Yaak River Ran   78.22 358 ⇑P     P       01 41 06.5 -0.4
      baz=78
A11A  Hall Mountain,   78.27 357 ⇓P     P       01 41 06.9 -0.3
      baz=78,SNR=17
WALA  Waterton Lakes   78.30 359 eP     P       01 41 07.8 +0.5
      comp=Z,94nm,1.8s,mb5.4
A10A  Northport        78.36 356 ⇓P     P       01 41 07.2 -0.4
      baz=79,SNR=13
A09A  Danville         78.41 356 ⇓P     P       01 41 07.9 -0.1
      baz=79
A08A  Turner Farm, O   78.44 355 ⇓P     P       01 41 07.5 -0.6
      baz=79,SNR=11
A04A  Legoe Bay, Lum   78.52 353 ⇓P     P       01 41 08.6 +0.1
      baz=79
PGC   Sidney           78.53 352 eP     P       01 41 09.0 +0.4
      comp=Z,162nm,1.5s,mb5.7
A07A  Ashnola River,   78.62 354 ⇓P     P       01 41 08.9 -0.1
      baz=79,SNR=11
A05A  Maple Falls      78.73 353 ⇓P     P       01 41 09.0 -0.7
      baz=79
A06A  Chilliwack       78.77 354 ⇓P     P       01 41 09.4 -0.4
      baz=79
BINY  Binghamton       78.79  27 eP     P       01 41 10.5 +0.3
BINY                              LR    LR
      comp=Z,2μm,19.0s,MS5.4
AGMN  Agassiz Refuge   78.87  11 eP     P       01 41 10.2 -0.2
      comp=Z,76nm,1.3s,mb5.5
AGMN                             ePcP   PcP     01 41 19.9 +0.8
AGMN                             ePP    PP      01 44 11.2 +1.7
AGMN                              LR    LR
      comp=Z,2μm,19.0s,MS5.4
CASY  Casey            79.06 196  P     P       01 41 12.1 +0.5
CASY                              LR    LR
      comp=Z,3μm,20.0s,MS5.6
EYMN  Ely              79.35  14 eP     P       01 41 12.6 -0.5
EYMN                              LR    LR
      comp=Z,4μm,20.0s,MS5.8
SYO   Syowa Base       79.53 170⇓eP     P       01 41 14.2 +0.2
CNB   Canberra Magne   79.83 235 eP     P       01 41 15.9 -0.4
      comp=Z,94nm,1.5s,mb5.5
QUA2  Belchertown      80.33  29 eP     P       01 41 19.1 +0.6
      comp=Z,54nm,1.4s,mb5.3
ACCN  Adirondack Com   80.70  27 eP     P       01 41 21.2 +0.7
ULM   Lac du Bonnet    80.76  10  P     P       01 41 19.7 -1.0
      comp=Z,18nm,0.8s,mb5.1,baz=205,slow=5.2,SNR=40
ULM                               LR    LR      02 13 51.9
      comp=Z,1μm,18.4s,MS5.3,baz=192,slow=33
HRV   Harvard--Oak R   80.85  29  PFAKE         01 41 30.0 +8.7
HRV                               LR    LR
      comp=Z,1μm,22.0s,MS5.3
WES   Weston           80.85  29 eP     P       01 41 21.7 +0.4
      comp=Z,49nm,1.2s,mb5.3
WES                               LR    LR
      comp=Z,1μm,19.0s,MS5.3
NCB   Newcomb          80.98  27 eP     P       01 41 22.4 +0.4
      comp=Z,86nm,1.3s,mb5.5
NCB                               LR    LR
      comp=Z,1μm,21.0s,MS5.2
LONY  Lake Ozonia      81.38  26 eP     P       01 41 24.2  0.0
LONY                              LR    LR
      comp=Z,1μm,20.0s,MS5.3
TOO   Toolangi         81.42 232 eP     P       01 41 24.6 -0.2
      comp=Z,27nm,1.5s,mb5.0
TOO   Toolangi         81.42 232 eP     P       01 41 24.6 -0.2
TOO                               pmax  pmax
      comp=Z,27nm,1.5s,mb5.0
FRNY  Flat Rock        81.95  27 eP     P       01 41 28.7 +1.6
LBNH  Lisbon           82.12  28  PFAKE         01 41 40.0  +12
LBNH                              LR    LR
      comp=Z,1μm,20.0s,MS5.3
EDM   Edmonton         82.46 359 eP     P       01 41 29.2 -0.4
MAW   Mawson           83.05 178 eP     P       01 41 33.7 +1.0
      comp=Z,23nm,2.0s,mb4.9
MAW   Mawson           83.05 178 eP     P       01 41 31.7 -1.0
      comp=Z,115nm,1.8s,mb5.6
MAW                              ePcP   PcP     01 41 36.4 -1.0
MAW                               LR    LR
      comp=Z,6μm,21.0s,MS6.0
MAW   Mawson           83.05 178 eP     P       01 41 31.7 -1.0
MAW                               pmax  pmax
      comp=Z,115nm,1.8s
MAW                               MLR   MLR
      comp=Z,6μm,21.0s
MAW   Mawson           83.05 178  P     P       01 41 32.5 -0.2
      comp=Z,8.2nm,1.0s,mb4.7,baz=183,slow=5.8,SNR=5.7
MAW                               LR    LR      02 16 09.2
      comp=Z,5μm,18.1s,MS5.9,baz=176,slow=34
EIDS  Eidsvold         83.38 245 eP     P       01 41 34.9 -0.3
EIDS                             ePcP   PcP     01 41 38.9 -0.8
HNR   Honiara          83.67 263  PFAKE         01 41 50.0  +13
HNR                               LR    LR
      comp=Z,5μm,22.0s,MS5.9
HNR   Honiara          83.67 263  P     P       01 41 47.7  +11
HNR   Honiara          83.67 263  LR    LR      02 10 25.2
      comp=Z,5μm,21.7s,MS5.8,baz=179,slow=30
PKME  Peaks-Kenny Pk   84.04  29  PFAKE         01 41 50.0  +12
PKME                              LR    LR
      comp=Z,5μm,20.0s,MS5.9
FFC   Flin Flon        84.41   6 eP     P       01 41 38.5 -1.0
      comp=Z,98nm,1.3s,mb5.8
FFC                               LR    LR
      comp=Z,4μm,22.0s,MS5.7
STKA  Stephens Creek   87.15 235 eP     P       01 41 47.8 -6.2
      comp=Z,10nm,1.4s,mb4.9
STKA  Stephens Creek   87.15 235 eS     S       01 52 20.2  -14
STKA  Stephens Creek   87.15 235 eP     P       01 41 53.4 -0.6
STKA                              LR    LR      02 17 10.4
STKA  Stephens Creek   87.15 235  P     P       01 41 53.0 -1.0
      comp=Z,16nm,1.2s,mb5.1,baz=120,slow=6.1,SNR=7.1
STKA                              LR    LR      02 17 10.4
      comp=Z,2μm,18.2s,MS5.6,baz=122,slow=33
WRAK  Wrangell Islan   87.37 349  PFAKE         01 42 00.0 +5.8
WRAK                              LR    LR
      comp=Z,7μm,19.0s,MS6.1
SIT   Sitka            88.51 348  PFAKE         01 42 10.0  +10
SIT                               LR    LR
      comp=Z,5μm,20.0s,MS6.0
DLBC  Dease Lake       88.95 351 eP     P       01 42 01.8 +0.1
FCC   Fort Churchill   89.28   9 eP     P       01 42 03.3 +0.1
      comp=Z,70nm,2.1s,mb5.6
FCC   Fort Churchill   89.28   9 eP     P       01 42 03.3 +0.1
FCC                               pmax  pmax
      comp=Z,70nm,2.1s,mb5.6
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CTA   Charters Tower   89.88 247 eS     S       01 52 38.8  -21
CTA   Charters Tower   89.88 247⇓iP     P       01 42 07.3 +0.2
      comp=Z,12nm,1.1s,mb5.1
CTA                              eS     S       01 52 38.8  -21
CTA   Charters Tower   89.88 247⇓iP     P       01 42 07.3 +0.2
CTA                              eS     S       01 52 38.8  -21
CTA                               pmax  pmax
      comp=Z,12nm,1.1s
CTAO  Charters Tower   89.88 247 eP     P       01 42 07.6 +0.4
      comp=Z,56nm,1.4s,mb5.7
CTAO                              LR    LR
      comp=Z,4μm,21.0s,MS5.8
CTAO  Charters Tower   89.88 247 eP     P       01 42 07.6 +0.5
CTAO                              pmax  pmax
      comp=Z,56nm,1.4s,mb5.7
CTAO                              MLR   MLR
      comp=Z,4μm,21.0s,MS5.8
YKA   Yellowknife Ar   91.77 359  P     P       01 42 13.7 -1.0
YKA                               LR    LR      02 19 09.3
YKA   Yellowknife Ar   91.77 359  P     P       01 42 13.7 -1.0
      comp=Z,3.7nm,0.9s,mb4.7,baz=172,slow=4.7,SNR=39
YKA                               LR    LR      02 19 09.3
      comp=Z,6μm,18.4s,MS6.1,baz=175,slow=33
YKW3  Yellowknife Ar   91.84 359 eP     P       01 42 14.2 -0.8
SCHQ  Schefferville    92.62  24 eP     P       01 42 19.5 +0.7
      comp=Z,20nm,1.0s,mb5.5
SCHQ                             ePP    PP      01 46 04.3 +3.3
SCHQ                              LR    LR      02 23 14.2
SCHQ  Schefferville    92.62  24  P     P       01 42 18.9 +0.1
      comp=Z,13nm,1.0s,mb5.3,baz=287,slow=2.5,SNR=7.4
SCHQ                              LR    LR      02 23 14.2
      comp=Z,1μm,19.8s,MS5.3,baz=46,slow=35
ASCN  Ascension        92.78 101  PFAKE         01 42 30.0 +9.3
ASCN                              LR    LR
      comp=Z,3μm,19.0s,MS5.7
KDAK  Kodiak Island    93.43 340  PFAKE         01 42 30.0 +7.5
KDAK                              LR    LR
      comp=Z,1μm,20.0s,MS5.4
DIV   Divide           94.45 344  PFAKE         01 42 40.0  +13
DIV                               LR    LR
      comp=Z,11μm,20.0s,MS6.3
PMG   Port Moresby     94.63 257 eP     P       01 42 30.0 +0.8
      comp=Z,33nm,1.4s,mb5.6
PMG                               LR    LR
      comp=Z,5μm,21.0s,MS6.0
PMG   Port Moresby     94.63 257⇓iP     P       01 42 30.4 +1.2
UNV   Unalaska Valle   95.47 331  PFAKE         01 42 40.0 +8.0
UNV                               LR    LR
      comp=Z,8μm,20.0s,MS6.2
PMR   Palmer           95.67 343 eP     P       01 42 33.0 +0.3
      comp=Z,92nm,1.9s,mb5.9
PMR                               LR    LR
      comp=Z,3μm,19.0s,MS5.7
PMR   Palmer           95.67 343 eP     P       01 42 33.0 +0.3
PMR                               pmax  pmax
      comp=Z,92nm,1.9s,mb5.9
PMR                               MLR   MLR
      comp=Z,3μm,19.0s,MS5.7
DAWY  Dawson           95.78 348 eP     P       01 42 31.4 -1.7
EGAK  Eagle            96.75 348  PFAKE         01 42 50.0  +12
EGAK                              LR    LR
      comp=Z,4μm,19.0s,MS5.9
ASAR  Alice Springs    97.42 238  P     P       01 42 39.7 -2.0
      comp=Z,1.0nm,1.0s,mb4.2,baz=141,slow=4.4,SNR=5.9
ASAR                              PP    PP      01 46 38.5 +0.2
      comp=Z,2.4nm,1.2s,baz=127,slow=7.9,SNR=5.3
MCK   McKinley         97.45 344 eP     P       01 42 41.4 +0.6
MCK                               LR    LR
      comp=Z,2μm,19.0s,MS5.5
COLA  College          98.18 345 eP     P       01 42 43.2 -0.8
      comp=Z,14nm,1.1s,mb5.4
COLA                              LR    LR
      comp=Z,3μm,19.0s,MS5.8
COLA  College          98.18 345 eP     P       01 42 43.2 -0.8
COLA                              pmax  pmax
      comp=Z,14nm,1.1s,mb5.4
COLA                              MLR   MLR
      comp=Z,3μm,19.0s,MS5.8
INK   Inuvik           98.88 352 eP     P       01 42 46.4 -0.7
      comp=Z,434nm,1.4s
INK   Inuvik           98.88 352  LR    LR      02 20 09.6
      comp=Z,4μm,21.1s,MS5.9,baz=148,slow=31
WRA   Warramunga Arr   99.29 241  P     P       01 42 49.5 -0.7
WRA                                             01 46 50.0
WRA   Warramunga Arr   99.29 241  P     P       01 42 49.5 -0.6
      comp=Z,2.4nm,1.2s,mb4.6,baz=132,slow=3.9,SNR=8.2
WRA                               PP    PP      01 46 50.0 -2.7
      comp=Z,0.6nm,0.4s,baz=122,slow=6.4,SNR=4.8
WRA                               LR    LR      02 21 27.8
      comp=Z,8μm,21.5s,MS6.2,baz=125,slow=32
NWAO  Narrogin (SRO)  102.24 221  PFAKE         01 43 10.0 +7.2
NWAO                              LR    LR
      comp=Z,1μm,19.0s,MS5.5
SUR   Sutherland      103.88 140  PFAKE         01 43 20.0  +10
SUR                               LR    LR
      comp=Z,2μm,20.0s,MS5.7
SMY   Shemya          104.02 323  PFAKE         01 43 20.0 +9.3
SMY                               LR    LR
      comp=Z,2μm,20.0s,MS5.6
TNA   Tin City        104.07 339  PFAKE         01 43 20.0 +9.1
TNA                               LR    LR
      comp=Z,2μm,21.0s,MS5.6
SFJD  Kangerlussuaq   106.74  21  PFAKE         01 47 40.0 +7.8
SFJD                              LR    LR
      comp=Z,2μm,20.0s,MS5.7
GUMO  Guam            107.82 276  PFAKE         01 47 50.0  +14
GUMO                              LR    LR
      comp=Z,2μm,20.0s,MS5.7
MBWA  Marble Bar      109.06 231  PFAKE         01 47 50.0  +12
MBWA                              LR    LR
      comp=Z,5μm,20.0s,MS6.1
BOSA  Boshof          109.22 141  PFAKE         01 47 50.0  +12
BOSA                              LR    LR
      comp=Z,2μm,21.0s,MS5.7
LBTB  Lobatse         112.20 139  PFAKE         01 48 00.0  +16
LBTB                              LR    LR
      comp=Z,2μm,21.0s,MS5.7
PET   Petropavlovsk   112.62 319  PFAKE         01 48 00.0  +16
PET                               LR    LR
      comp=Z,2μm,20.0s,MS5.6
BILL  Bilibino        114.05 336  PFAKE         01 48 00.0  +14
BILL                              LR    LR
      comp=Z,2μm,20.0s,MS5.8
TORD  Torodi Ar. Bea  116.94  90  PKP   PKPdf   01 47 50.9 -2.2
TORD                              PP    PP      01 48 50.5  -12
TORD  Torodi Ar. Bea  116.94  90  PKP   PKPdf   01 47 50.9 -2.2
      comp=Z,1.1nm,0.9s,baz=230,slow=1.7,SNR=3.9
TORD                              PP    PP      01 48 50.5  -12
      comp=Z,2.8nm,1.2s,baz=251,slow=4.5,SNR=4.8
SEY   Seymchan        118.37 329⇑ePKP   PKPdf   01 47 55.1 +0.7
SEY   Seymchan        118.37 329⇑iPKIKP PKPdf   01 47 55.1 +0.7
MA2   Magadan         118.55 325  PFAKE         01 48 10.0  +15
MA2                               LR    LR
      comp=Z,1μm,19.0s,MS5.5
ERM   Erimo           119.53 304  PFAKE         01 48 10.0  +13
ERM                               LR    LR
      comp=Z,3μm,20.0s,MS5.9
ERM   Erimo           119.53 304  PKIKP         01 47 44.6
YSS   Yuzh-Sakhalins  120.92 310  PFAKE         01 48 10.0  +10
YSS                               LR    LR
      comp=Z,2μm,19.0s,MS5.8
PAB   San Pablo       121.10  59  PFAKE         01 48 10.0  +10
PAB                               LR    LR
      comp=Z,2μm,21.0s,MS5.7
LSZ   Lusaka          121.19 134  PFAKE         01 48 10.0 +8.7
LSZ                               LR    LR
      comp=Z,2μm,19.0s,MS5.7
ESDC  Sonseca Array   121.42  59  PKP   PKPdf   01 47 59.0 -2.0
ESDC  Sonseca Array   121.42  59  PKP   PKPdf   01 47 59.0 -2.0
      comp=Z,0.5nm,0.6s,baz=290,slow=3.7,SNR=2.9
ESLA  Sonseca Array   121.42  59  PKPdf PKPdf   01 48 00.7 -0.3
ESLA                              LR    LR
      comp=Z,8μm,19.0s,MS6.4
DAV   Davao City (W)  121.51 260  PFAKE         01 48 10.0 +8.0
DAV                               LR    LR
      comp=Z,2μm,20.0s,MS5.7
MAJO  Matsushiro      121.86 297  PFAKE         01 48 10.0 +8.1
MAJO                              LR    LR
      comp=Z,2μm,22.0s,MS5.6
SJPF  Ste Jean        124.16  56 ePKIKP PKPdf   01 48 04.0 -2.1
      comp=Z,59nm,1.4s
SJPF  Ste Jean        124.16  56 ePKPdf PKPdf   01 48 04.0 -2.1
SJPF  Ste Jean        124.16  56 ePKIKP PKPdf   01 48 04.0 -2.1
ESK   Eskdalemuir     124.33  41  PFAKE         01 48 20.0  +14
ESK                               LR    LR
      comp=Z,1μm,19.0s,MS5.6
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KBS	**Kingsbay**	**125.17**	**11**	PFAKE		01 48 20.0	+13
KBS				LR	LR		
	comp=Z,3μm,19.0s,MS6.0						
EPF	**Esparros**	**125.28**	**56**	*e*PKIKP	PKPdf	01 48 06.8	-1.5
	comp=Z,48nm,1.3s						
EPF	**Esparros**	**125.28**	**56**	*e*PKPdf	PKPdf	01 48 06.8	-1.5
EPF	**Esparros**	**125.28**	**56**	*e*PKIKP	PKPdf	01 48 06.8	-1.5
HABR	**Khabarovsk**	**126.29**	**310**	*i* PKIKP	PKPdf	01 48 10.5	+0.5
MTLF	**Montolieu**	**126.68**	**56**	*e*PKIKP	PKPdf	01 48 09.0	-2.0
	comp=Z,71nm,1.8s						
MTLF	**Montolieu**	**126.68**	**56**	*e*PKPdf	PKPdf	01 48 09.0	-2.0
MTLF	**Montolieu**	**126.68**	**56**	*e*PKIKP	PKPdf	01 48 09.0	-2.0
CAF	**Calviac**	**126.78**	**54**	*e*PKIKP	PKPdf	01 48 08.4	-2.7
	comp=Z,39nm,1.3s						
CAF	**Calviac**	**126.78**	**54**	*e*PKPdf	PKPdf	01 48 08.4	-2.7
CAF	**Calviac**	**126.78**	**54**	*e*PKIKP	PKPdf	01 48 08.4	-2.7
TIXI	**Tiksi**	**126.86**	**340**	⇑*e*PKP	PKPdf	01 48 10.8	+0.3
TIXI	**Tiksi**	**126.86**	**340**	*e*PKHKP		01 47 51.5	
TIXI				*i*		01 48 10.4	
TIXI				*e*		01 48 25.2	
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.4s						
TIXI				pmax	pmax		
	comp=Z,15nm,1.4s						
TIXI				MLR	MLR		
	comp=Z,2μm,19.0s,MS5.7						
BGF	**Bois d'Agland**	**127.50**	**52**	*e*PKIKP	PKPdf	01 48 12.1	-0.3
	comp=Z,101nm,1.5s						
BGF	**Bois d'Agland**	**127.50**	**52**	*e*PKPdf	PKPdf	01 48 12.1	-0.3
BGF	**Bois d'Agland**	**127.50**	**52**	*e*PKIKP	PKPdf	01 48 12.1	-0.3
LASF	**Ste Croix**	**127.95**	**55**	*e*PKIKP	PKPdf	01 48 11.3	-2.1
	comp=Z,45nm,1.4s						
LASF	**Ste Croix**	**127.95**	**55**	*e*PKPdf	PKPdf	01 48 11.3	-2.1
SMF	**Signal de Mont**	**128.19**	**52**	*e*PKIKP	PKPdf	01 48 11.9	-1.8
	comp=Z,38nm,1.4s						
SMF	**Signal de Mont**	**128.19**	**52**	*e*PKPdf	PKPdf	01 48 11.9	-1.8
SMF	**Signal de Mont**	**128.19**	**52**	*e*PKIKP	PKPdf	01 48 11.9	-1.8
LOR	**Lormes**	**128.25**	**51**	*e*PKIKP	PKPdf	01 48 11.3	-2.5
	comp=Z,55nm,1.5s						
LOR	**Lormes**	**128.25**	**51**	*e*PKPdf	PKPdf	01 48 11.3	-2.5
LOR	**Lormes**	**128.25**	**51**	*e*PKIKP	PKPdf	01 48 11.3	-2.5
KLR	**Kul'dur**	**128.52**	**311**	*e*PKIKP	PKPdf	01 48 09.2	-5.1
BAIF	**Baives**	**128.62**	**48**	*e*PKIKP	PKPdf	01 48 12.6	-1.8
	comp=Z,38nm,1.3s						
BAIF	**Baives**	**128.62**	**48**	*e*PKPdf	PKPdf	01 48 12.6	-1.8
BAIF	**Baives**	**128.62**	**48**	*e*PKIKP	PKPdf	01 48 12.6	-1.8
YAK	**Yakutsk**	**128.86**	**328**	⇑*e*PKP	PKPdf	01 48 15.9	+1.4
YAK				LR	LR		
	comp=Z,2μm,20.0s,MS5.8						
YAK	**Yakutsk**	**128.86**	**328**	⇑*i*PKIKP	PKPdf	01 48 15.8	+1.3
MEZF	**Maizieres J'vi**	**129.12**	**50**	*e*PKIKP	PKPdf	01 48 13.8	-1.6
MEZF	**Maizieres J'vi**	**129.12**	**50**	*e*PKPdf	PKPdf	01 48 13.8	-1.6
MDJ	**Mudanjiang**	**129.72**	**305**	PKP	PKPdf	01 48 16.8	+0.1
MDJ				PP	PP		
	comp=Z,356nm,4.4s						
MDJ				LR	LR		
	comp=N,650nm,28.5s,MS5.5						
MDJ				LR	LR		
	comp=E,1μm,25.6s,MS5.5						
MDJ				LR	LR		
	comp=Z,2μm,25.6s,MS5.6						
MDJ	**Mudanjiang**	**129.72**	**305**	PFAKE		01 48 30.0	+13
MDJ				LR	LR		
	comp=Z,1μm,19.0s,MS5.7						
COCO	**West Island**	**129.98**	**218**	PFAKE		01 48 30.0	+12
COCO				LR	LR		
	comp=Z,1μm,20.0s,MS5.7						
BNI	**Bardonecchia**	**130.05**	**54**	*e*PKPdf	PKPdf	01 48 21.3	+4.0
BNI	**Bardonecchia**	**130.05**	**54**	*e*PKIKP	PKPdf	01 48 21.3	+4.0
KSRS	**Korea Array**	**130.09**	**296**	PKP	PKPdf	01 48 18.5	+0.8
	comp=Z,0.9nm,0.8s,baz=129,slow=9.6,SNR=3.8						
LPL	**La Plagne**	**130.12**	**54**	*e*PKIKP	PKPdf	01 48 15.6	-1.8
	comp=Z,97nm,1.7s						
LPL	**La Plagne**	**130.12**	**54**	*e*PKPdf	PKPdf	01 48 15.6	-1.8
LPL	**La Plagne**	**130.12**	**54**	*e*PKIKP	PKPdf	01 48 15.6	-1.8
LPG	**La Plagne**	**130.13**	**54**	*e*PKIKP	PKPdf	01 48 16.3	-1.2
	comp=Z,72nm,1.5s						
LPG	**La Plagne**	**130.13**	**54**	*e*PKPdf	PKPdf	01 48 16.3	-1.2
LPG	**La Plagne**	**130.13**	**54**	*e*PKIKP	PKPdf	01 48 16.3	-1.2
KEST	**Kesra**	**130.92**	**67**	PKP	PKPdf	01 48 18.7	-0.6
	comp=Z,1.7nm,1.0s,baz=66,slow=5.1,SNR=3.7						
KONO	**Kongsberg**	**130.95**	**35**	PFAKE		01 48 30.0	+11
KONO				LR	LR		
	comp=Z,1μm,19.0s,MS5.6						
INCN	**Inchon**	**131.11**	**296**	PFAKE		01 48 30.0	+10
INCN				LR	LR		
	comp=Z,2μm,20.0s,MS5.9						
BFO	**Black Forest**	**131.30**	**50**	PFAKE		01 48 30.0	+10
BFO				LR	LR		
	comp=Z,1μm,20.0s,MS5.7						
NOA	**NORSAR Array B**	**131.43**	**33**	PKP	PKPdf	01 48 19.3	-0.1
NOA	**NORSAR Array B**	**131.43**	**33**	PKIKP	PKPdf	01 48 19.3	-0.1
NOA	**NORSAR Array B**	**131.43**	**33**	PKP	PKPdf	01 48 19.3	-0.1
	comp=Z,6.5nm,1.3s,baz=296,slow=2.0,SNR=2.8						
DAVA	**Damuels**	**132.35**	**51**	⇑*i*P	PKPdf	01 48 24.3	+2.7
	comp=Z,21nm,1.4s						
DAVA	**Damuels**	**132.35**	**51**	⇑*i*pPKPdf	pPKPdf	01 48 24.3	-0.7
	comp=Z,21nm,1.4s						
TATO	**Taipei**	**132.51**	**278**	PFAKE		01 48 30.0	+7.4
TATO				LR	LR		
	comp=Z,2μm,19.0s,MS5.8						
CN2	**Changchun**	**132.64**	**304**	*e*PKP	PKPdf	01 48 19.4	-2.9
CN2				*e*PP	PP	01 50 46.4	-0.6
CN2				LR	LR		
	comp=N,1μm,22.0s,MS5.9						
CN2				LR	LR		
	comp=E,2μm,22.0s,MS5.9						
CN2				LR	LR		
	comp=Z,2μm,21.0s,MS5.8						
FETA	**Feichten**	**132.93**	**52**	⇑*i*PKiKP	PKiKP	01 48 24.2	+0.4
	comp=Z,22nm,1.6s						
GRFO	**Grafenberg**	**133.16**	**48**	*e*PKPdf	PKPdf	01 48 24.5	+1.5
GRFO				LR	LR		
	comp=Z,935nm,20.0s,MS5.5						
GRFO	**Grafenberg**	**133.16**	**48**	*e*PKIKP	PKPdf	01 48 24.5	+1.5
GRFO				MLR	MLR		
	comp=Z,935nm,20.0s,MS5.5						
GRA1	**Grafenberg Arr**	**133.16**	**48**	*e*PKPdf	PKPdf	01 48 26.9	+3.9
GRF	**Grafenberg Arr**	**133.16**	**48**	*e*PKP	PKPdf	01 48 26.9	+3.9
GRF	**Grafenberg Arr**	**133.16**	**48**	*e*PKIKP	PKPdf	01 48 26.9	+3.9
GRF	**Grafenberg Arr**	**133.16**	**48**	*e*PKIKP	PKPdf	01 48 26.9	+3.9
GRF	**Grafenberg Arr**	**133.16**	**48**	*e*PKPdf	PKPdf	01 48 26.9	+3.9
MOTA	**Moosalm**	**133.18**	**51**	⇑*i*P	PKPdf	01 48 25.9	+2.7
	comp=Z,45nm,1.4s						
MOTA	**Moosalm**	**133.18**	**51**	⇑*i*pPKPdf	pPKPdf	01 48 25.9	-0.7
	comp=Z,45nm,1.4s						
MOTA	**Moosalm**	**133.18**	**51**	⇑*i*PKIKP	PKPdf	01 48 25.9	+2.7
ARCES	**ARCESS Array B**	**133.31**	**19**	PKP	PKPdf	01 48 23.2	+0.5
ARCES				PP	PP	01 50 53.0	+2.9
ARCES	**ARCESS Array B**	**133.31**	**19**	PKIKP	PKPdf	01 48 23.2	+0.5
ARCES						01 50 53.1	
ARCES	**ARCESS Array B**	**133.31**	**19**	PKP	PKPdf	01 48 23.2	+0.5
	comp=Z,4.9nm,1.0s,baz=8.9,slow=8.6,SNR=4.6						
ARCES				PP	PP	01 50 53.0	+2.9
	comp=Z,5.4nm,1.0s,baz=306,slow=10,SNR=4.2						
MOX	**Moxa**	**133.34**	**47**	*e*PKP	PKPdf	01 48 27.0	+3.6
MOX	**Moxa**	**133.34**	**47**	*e*PKP	PKPdf	01 48 27.0	+3.6
	comp=Z,38nm,1.9s						
MOX	**Moxa**	**133.34**	**47**	*e*PKIKP	PKPdf	01 48 27.0	+3.6
MOX				pmax	pmax		
	comp=Z,38nm,1.9s						
WTTA	**Wattenberg**	**133.54**	**51**	⇑*i*P	PKPdf	01 48 28.0	+4.2
	comp=Z,36nm,1.7s						
WTTA	**Wattenberg**	**133.54**	**51**	⇑*i*pPKiKP		01 48 28.0	
	comp=Z,36nm,1.7s						
WTTA	**Wattenberg**	**133.54**	**51**	⇑*i*PKIKP	PKPdf	01 48 28.0	+4.2
KEV	**Kevo**	**133.59**	**18**	PFAKE		01 48 30.0	+6.7
KEV				LR	LR		
	comp=Z,2μm,19.0s,MS5.7						
NKC	**Novy Kostel**	**133.91**	**47**	*e*PKP	PKPdf	01 48 27.6	+3.2
NKC	**Novy Kostel**	**133.91**	**47**	*e*PKIKP	PKPdf	01 48 27.6	+3.2
NKC	**Novy Kostel**	**133.91**	**47**	*e*pPKP	PKPdf	01 48 27.6	+3.2
CLL	**Collm**	**134.15**	**46**	⇓*i*PKP	PKPdf	01 48 25.8	+0.9
CLL				*i*		01 48 28.7	
CLL				*e*PP	PP	01 50 57.0	+0.7
CLL				LR	LR		
	comp=Z,1μm,19.0s,MS5.7						
CLL	**Collm**	**134.15**	**46**	⇓*i*PKIKP	PKPdf	01 48 25.8	+0.9
CLL				*e*		01 50 57.0	
CLL				MLR	MLR		
	comp=Z,1μm,19.0s,MS5.7						
CLL	**Collm**	**134.15**	**46**	*e*PKPdf	PKPdf	01 48 28.3	+3.4
CLL				*e*PP	PP	01 50 56.8	+0.5
CLL				*e*SKPdf	SKPdf	01 52 01.7	+1.6
CLL				*e*(SKSac)		01 55 53.3	
CLL				*e*(Sdiff)		01 59 19.7	
CLL				*e*SP	SP	02 01 13.5	-0.6
CLL				*e*SS	SS	02 08 50.4	+5.1
CLL				*e*SSS		02 13 38.2	
CLL				*e*SSSS		02 17 18.8	
CLL				*e*LR	LR	02 34 28.6	
CLL				*e*L		02 54 10.4	
	comp=Z,1μm,20.0s						
CLL	**Collm**	**134.15**	**46**	⇓*i*PKPdf	PKPdf	01 48 25.8	+0.9
CLL				⇑*i*PKPdfmax		01 48 28.7	
	comp=Z,75nm,2.0s						
CLL				*e*x	x	01 48 39.0	
CLL				*e*PP	PP	01 50 57.0	+0.7
CLL				*e*PKSdf		01 52 02.0	
CLL				*e*SKSac	SKSac	01 55 42.0	+4.9
CLL				*e*SKKSac	SKKSac	01 57 54.0	+2.6
CLL				*e*Sdif	Sdif	01 59 18.0	+5.6
CLL				*e*x	x	02 00 10.0	
CLL				*e*PS	PS	02 01 12.0	-4.3
CLL				*e*x	x	02 02 48.0	
CLL				*e*SS	SS	02 08 44.0	-1.3
CLL				*e*SSS		02 13 39.0	
CLL				LmH		02 46 00.0	
	comp=N,500nm,21.4s						
CLL				LmH		02 46 00.0	
	comp=E,1μm,19.1s						
CLL				LmV		02 53 00.0	
	comp=Z,1μm,19.0s						
KBA	**Koelnbreinsper**	**134.71**	**52**	⇑*i*P	PKPdf	01 48 25.6	-0.4
	comp=Z,12nm,1.3s						
KBA	**Koelnbreinsper**	**134.71**	**52**	⇑*i*PKPdf	PKPdf	01 48 25.6	-0.4
	comp=Z,12nm,1.3s						
KBA	**Koelnbreinsper**	**134.71**	**52**	⇑*i*PKIKP	PKPdf	01 48 25.6	-0.5
KHC	**Kasperske Hory**	**134.74**	**49**	⇑*e*PKP	PKPdf	01 48 26.2	+0.2
KHC				LR	LR		
	comp=Z,1μm,19.7s,MS5.5						
KHC	**Kasperske Hory**	**134.74**	**49**	⇑*i*PKIKP	PKPdf	01 48 26.2	+0.2
KHC	**Kasperske Hory**	**134.74**	**49**	*e*PKPdf	PKPdf	01 48 22.5	-3.5
KHC				*e*x	x	01 48 29.4	
KHC				AMS	AMS	02 54 50.0	
	comp=Z,1μm,19.7s						
BRG	**Berggiesshubel**	**134.79**	**46**	*e*PKP	PKPdf	01 48 29.9	+3.8
BRG	**Berggiesshubel**	**134.79**	**46**	*e*PKIKP	PKPdf	01 48 29.9	+3.8
BRG	**Berggiesshubel**	**134.79**	**46**	*e*PKP	PKPdf	01 48 29.9	+3.8
	comp=Z,52nm,1.8s						
GERES	**GERESS Array B**	**134.84**	**49**	PKP	PKPdf	01 48 25.0	-1.2
GERES				PP	PP	01 51 00.2	-0.5
GERES	**GERESS Array B**	**134.84**	**49**	PKIKP	PKPdf	01 48 25.0	-1.2
GERES						01 51 00.2	
GERES	**GERESS Array B**	**134.84**	**49**	PKP	PKPdf	01 48 25.0	-1.2
	comp=Z,1.0nm,0.8s,baz=318,slow=1.8,SNR=5.0						
GERES				PP	PP	01 51 00.2	-0.5
	comp=Z,2.2nm,1.2s,baz=247,slow=5.1,SNR=5.3						
PVCC	**Panska Ves**	**135.23**	**47**	*e*PKP	PKPdf	01 48 30.5	+3.6
PVCC				LR	LR		
	comp=Z,1μm,18.2s,MS5.7						
PVCC	**Panska Ves**	**135.23**	**47**	*e*PKIKP	PKPdf	01 48 30.5	+3.6
PVCC				MLR	MLR		
	comp=Z,1μm,18.2s,MS5.7						
PVCC	**Panska Ves**	**135.23**	**47**	*e*pPKP	PKPdf	01 48 30.5	+3.6
PVCC				AMS	AMS	02 44 20.0	
	comp=Z,1μm,18.2s						
PRU	**Pruhonice**	**135.27**	**47**	*e*PKP	PKPdf	01 48 29.9	+2.9
PRU				LR	LR		
	comp=Z,1μm,21.0s,MS5.6						
PRU	**Pruhonice**	**135.27**	**47**	*e*PKIKP	PKPdf	01 48 29.9	+2.9
PRU				MLR	MLR		
	comp=Z,1μm,21.0s,MS5.6						
PRU	**Pruhonice**	**135.27**	**47**	*e*pPKP	PKPdf	01 48 29.9	+2.9
PRU				AMS	AMS	02 51 20.0	
	comp=Z,1μm,21.0s						
UPC	**Upice**	**136.14**	**46**	*e*PKP	PKPdf	01 48 31.5	+2.9
UPC	**Upice**	**136.14**	**46**	*e*PKIKP	PKPdf	01 48 31.5	+2.9
UPC	**Upice**	**136.14**	**46**	*e*pPKP	PKPdf	01 48 31.5	+2.9
CONA	**Conrad Observa**	**136.35**	**50**	⇑*i*PKPdf	PKPdf	01 48 29.8	+0.7
	comp=Z,11nm,1.3s						
DPC	**Dobruska-Polom**	**136.36**	**47**	*e*PKP	PKPdf	01 48 30.2	+1.2
DPC				LR	LR		
	comp=Z,1μm,16.6s,MS5.7						
DPC	**Dobruska-Polom**	**136.36**	**47**	*e*PKIKP	PKPdf	01 48 30.2	+1.2
DPC				MLR	MLR		
	comp=Z,1μm,16.6s,MS5.7						
DPC	**Dobruska-Polom**	**136.36**	**47**	*e*pPKP	PKPdf	01 48 30.2	+1.2
DPC				AMS	AMS	02 45 20.0	
	comp=Z,1μm,16.6s						
HIA	**Hailar**	**136.37**	**312**	PFAKE		01 48 40.0	+11
HIA				LR	LR		
	comp=Z,2μm,20.0s,MS5.7						
GKP	**Gorka Klasztor**	**136.40**	**42**	*e*PKP	PKPdf	01 48 29.9	+0.9
GKP	**Gorka Klasztor**	**136.40**	**42**	*e*PKP	PKPdf	01 48 29.9	+0.9
GKP	**Gorka Klasztor**	**136.40**	**42**	*e*PKIKP	PKPdf	01 48 29.9	+0.9
NJ2	**Nanjing**	**136.52**	**287**	*e*PKP	PKPdf	01 48 26.6	-3.3
NJ2				PP	PP	01 51 12.0	+0.1
NJ2				PKS		01 52 01.0	
NJ2				PP	PP		
	comp=Z,660nm,5.4s						
NJ2				LR	LR		
	comp=N,2μm,30.5s,MS6.0						
NJ2				LR	LR		
	comp=E,3μm,26.0s,MS6.0						
NJ2				LR	LR		
	comp=Z,3μm,26.1s,MS6.0						
VRAC	**Vranov**	**136.68**	**48**	PKP	PKPdf	01 48 30.3	+0.7
VRAC	**Vranov**	**136.68**	**48**	PKIKP	PKPdf	01 48 30.3	+0.7
VRAC	**Vranov**	**136.68**	**48**	PKP	PKPdf	01 48 30.3	+0.7
	comp=Z,2.3nm,0.8s,baz=218,slow=2.6,SNR=4.1						
ZST	**Bratislava**	**137.15**	**50**	*e*PKP	PKPdf	01 48 30.2	-0.4
ZST				*e*PP	PP	01 51 14.6	-0.7
ZST				LR	LR		
	comp=Z,900nm,20.3s,MS5.5						
ZST	**Bratislava**	**137.15**	**50**	*e*PKIKP	PKPdf	01 48 30.2	-0.4
ZST				*e*		01 51 14.6	
ZST				MLR	MLR		
	comp=Z,900nm,20.3s,MS5.5						
ZST	**Bratislava**	**137.15**	**50**	*e*PKP	PKPdf	01 48 30.2	-0.4
ZST				*e*PP	PP	01 51 14.6	-0.7
MORC	**Moravsky Berou**	**137.23**	**47**	*e*PKPdf	PKPdf	01 48 34.4	+3.7
MORC	**Moravsky Berou**	**137.23**	**47**	*e*PKIKP	PKPdf	01 48 34.4	+3.8
BOD	**Bodaibo**	**137.58**	**325**	*e*PKIKP	PKPdf	01 48 30.2	-0.8
BOD				pmax	pmax		
	comp=Z,13nm,1.8s						
OKC	**Ostrava-Krasne**	**137.60**	**47**	*e*PKP	PKPdf	01 48 31.5	+0.2
OKC	**Ostrava-Krasne**	**137.60**	**47**	*e*PKIKP	PKPdf	01 48 31.5	+0.2
OKC				MLR	MLR		
	comp=Z,1μm,24.9s,MS5.6						
OKC	**Ostrava-Krasne**	**137.60**	**47**	*e*pPKP	PKPdf	01 48 31.5	+0.2
OKC				AMS	AMS	02 42 00.0	
	comp=Z,1μm,24.9s						
KMBO	**Kilima Mbogo**	**137.69**	**131**	*e*PKPdf	PKPdf	01 48 33.0	+0.3
KMBO				PKP	PKPdf	01 48 33.7	+1.0
KMBO				LR	LR		
	comp=Z,2μm,20.0s,MS5.8						
KMBO	**Kilima Mbogo**	**137.69**	**131**	*e*PKIKP	PKPdf	01 48 33.0	+0.3
KMBO				MLR	MLR		
	comp=Z,2μm,20.0s						
KMBO	**Kilima Mbogo**	**137.69**	**131**	PKP	PKPdf	01 48 33.7	+1.0
	comp=Z,1.5nm,0.8s,baz=209,slow=16,SNR=4.1						
KAF	**Kangasniemi**	**137.70**	**28**	*e*pkp	PKPdf	01 48 30.6	-0.5
KAF	**Kangasniemi**	**137.70**	**28**	*e*p	PP	01 51 17.6	-0.4
KAF	**Kangasniemi**	**137.70**	**28**	*e*PKP	PKPdf	01 48 30.6	-0.5
KAF	**Kangasniemi**	**137.70**	**28**	*e*PKIKP	PKPdf	01 48 30.6	-0.5
FINES	**FINESS Array B**	**137.94**	**29**	PKP	PKPdf	01 48 30.1	-1.5
FINES				PP	PP	01 51 20.8	+1.2
FINES	**FINESS Array B**	**137.94**	**29**	PKIKP	PKPdf	01 48 30.1	-1.5
FINES						01 51 20.8	
FINES	**FINESS Array B**	**137.94**	**29**	PKP	PKPdf	01 48 30.1	-1.5
	comp=Z,4.5nm,1.0s,baz=5.7,slow=1.9,SNR=7.2						
FINES				PP	PP	01 51 20.8	+1.2
	comp=Z,5.1nm,1.0s,baz=245,slow=8.2,SNR=7.4						
VYHS	**Vyhne**	**138.26**	**49**	*e*PKP	PKPdf	01 48 35.9	+3.3
VYHS				*e*PP	PP	01 51 16.9	-5.3
VYHS	**Vyhne**	**138.26**	**49**	*e*PKIKP	PKPdf	01 48 35.9	+3.3
VYHS	**Vyhne**	**138.26**	**49**	*e*PKP	PKPdf	01 48 35.9	+3.3
VYHS				*e*PP	PP	01 51 16.9	-5.3
PKSM	**Moragy**	**138.42**	**52**	P	PKPdf	01 48 32.7	-0.2
PKSM	**Moragy**	**138.42**	**52**	PKIKP	PKPdf	01 48 32.7	-0.3
PKSM	**Moragy**	**138.42**	**52**	⇑*i*P	PKPdf	01 48 33.1	+0.1
NIE	**Niedzica**	**139.06**	**47**	*e*PKP	PKPdf	01 48 34.3	+0.3
NIE	**Niedzica**	**139.06**	**47**	*e*PKIKP	PKPdf	01 48 34.3	+0.3
JOF	**Joensuu**	**139.17**	**25**	*e*pkp	PKPdf	01 48 27.6	-6.2
JOF	**Joensuu**	**139.17**	**25**	*e*PKP	PKPdf	01 48 27.6	-6.2
JOF	**Joensuu**	**139.17**	**25**	*e*PKHKP		01 48 27.6	
BJI	**Beijing**	**139.46**	**298**	PKP	PKPdf	01 48 34.4	-0.7
BJI				LR	LR		
	comp=N,649nm,22.9s,MS5.5						
BJI				LR	LR		
	comp=E,870nm,25.5s,MS5.5						
BJI				LR	LR		
	comp=Z,1μm,27.2s,MS5.5						
BJI	**Beijing**	**139.46**	**298**	PKP	PKPdf	01 48 34.4	-0.7
BJI				PP	PP	01 51 26.1	-3.9
BJI				SKS	SKSdf	01 55 45.1	-0.5
BJI				SS	SS	02 09 47.8	-1.6
BJI				LR	LR		
	comp=Z,1μm,27.2s,MS5.5						
BJI	**Beijing**	**139.46**	**298**	PKIKP	PKPdf	01 48 34.4	-0.7
BJI						01 51 26.1	
BJI						01 55 45.1	
BJI				SS	SS	02 09 47.8	-1.6
BJI				MLR	MLR		
	comp=Z,1μm,27.2s,MS5.5						
BJT	**Baijiatuau**	**139.47**	**298**	PFAKE		01 48 50.0	+15
BJT				LR	LR		
	comp=Z,1μm,22.0s,MS5.7						
SUW	**Suwalki**	**139.61**	**40**	*e*PKP	PKPdf	01 48 35.2	+0.3
SUW				*e*		01 48 38.4	
SUW	**Suwalki**	**139.61**	**40**	*e*PKP	PKPdf	01 48 35.2	+0.3
SUW				*e*		01 48 38.4	
SUW	**Suwalki**	**139.61**	**40**	*e*PKIKP	PKPdf	01 48 35.2	+0.3
STHS	**Stebnicka Huta**	**139.66**	**47**	*e*PKP	PKPdf	01 48 39.9	+4.8
STHS	**Stebnicka Huta**	**139.66**	**47**	*e*PKIKP	PKPdf	01 48 39.9	+4.8
STHS	**Stebnicka Huta**	**139.66**	**47**	*e*PKP	PKPdf	01 48 39.9	+4.8
UZH	**Uzhgorod**	**140.50**	**48**	*e*PKHKP		01 48 24.0	
KWP	**Kalwaria**	**140.54**	**47**	*e*PKP	PKPdf	01 48 34.4	-2.3
KWP	**Kalwaria**	**140.54**	**47**	*e*PKP	PKPdf	01 48 34.4	-2.3
KWP	**Kalwaria**	**140.54**	**47**	*e*PKIKP	PKPdf	01 48 34.4	-2.3
QIZ	**Qiongzhong**	**140.56**	**264**	PKP	PKPdf	01 48 33.3	-4.4
QIZ				PP	PP	01 51 44.3	+7.2
QIZ				LR	LR		
	comp=E,649nm,19.3s						
QIZ				LR	LR		
	comp=Z,944nm,22.4s,MS5.5						
QIZ	**Qiongzhong**	**140.56**	**264**	PFAKE		01 48 50.0	+12
QIZ				LR	LR		
	comp=Z,1μm,22.0s,MS5.5						
KULM	**Kulim**	**140.78**	**238**	*e*PKPdf	PKPdf	01 48 37.2	-1.0
DRGR		**141.12**	**51**	⇓P	PKPdf	01 48 36.1	-1.7
DRGR		**141.12**	**51**	⇓PKIKP	PKPdf	01 48 36.1	-1.8
DRGR		**141.12**	**51**	⇓*i*P	PKPdf	01 48 36.1	-1.8
BURAR	**Bucovina Array**	**142.63**	**49**	⇑PKHKP		01 48 35.5	
BURAR	**Bucovina Array**	**142.63**	**49**	⇑*i*P	PKPdf	01 48 35.5	-5.0
HHC	**Hu-ho-hao-te**	**142.96**	**300**	*e*PKP	PKPdf	01 48 39.1	-2.2
HHC				LR	LR		
	comp=N,662nm,18.6s,MS5.5						
HHC				LR	LR		
	comp=E,287nm,17.3s,MS5.5						
HHC				LR	LR		
	comp=Z,179nm,20.2s,MS4.8						
VOIR		**142.96**	**53**	P	PKPdf	01 48 40.6	-0.6
VOIR		**142.96**	**53**	PKIKP	PKPdf	01 48 40.6	-0.6
MLR	**Muntele Rosu**	**143.57**	**52**	P	PKPdf	01 48 41.6	-0.6
MLR	**Muntele Rosu**	**143.57**	**52**	⇓PKIKP	PKPdf	01 48 40.9	-1.4
MLR	**Muntele Rosu**	**143.57**	**52**	PKP	PKPdf	01 48 40.7	-1.5
	comp=Z,61nm,1.2s,baz=318,slow=1.2,SNR=20						
MLR				PP	PP	01 51 55.8	+1.0
	comp=Z,4.2nm,1.0s,baz=295,slow=7.9,SNR=3.2						
MLR	**Muntele Rosu**	**143.57**	**52**	⇓*i*P	PKPdf	01 48 40.9	-1.4
RDO	**Rodhopi**	**143.88**	**60**	*e*P	PKPdf	01 48 41.5	-1.5
MSEY	**Mahe Island**	**143.91**	**159**	PFAKE		01 49 00.0	+16
MSEY				LR	LR		
	comp=Z,1μm,20.0s,MS5.7						
PLOR	**Plostina**	**143.98**	**52**	⇑*i*P	PKPdf	01 48 41.9	-1.1
VRI	**Vrincioaia**	**144.03**	**52**	P	PKPdf	01 48 44.0	+1.0
VRI	**Vrincioaia**	**144.03**	**52**	⇓PKIKP	PKPdf	01 48 42.7	-0.3
VRI	**Vrincioaia**	**144.03**	**52**	⇓*i*P	PKPdf	01 48 42.7	-0.3
APE	**Apeiranthos**	**144.03**	**67**	*e*P	PKPdf	01 48 45.0	+1.6
ENH	**Enshi**	**144.11**	**282**	PFAKE		01 49 00.0	+16
ENH				LR	LR		
	comp=Z,4.0nm,20.0s						
BTO	**Baotou**	**144.15**	**299**	*e*PKP	PKPdf	01 48 38.9	-4.5
KIEV	**Kiev**	**144.22**	**43**	*e*PKPdf	PKPdf	01 48 41.8	-1.5
KIEV				LR	LR		
	comp=Z,2μm,20.0s,MS5.8						
KIEV	**Kiev**	**144.22**	**43**	*e*PKIKP	PKPdf	01 48 41.8	-1.4
KIEV				MLR	MLR		
	comp=Z,2μm,20.0s,MS5.8						
AKASG	**Malin Array Be**	**144.23**	**43**	PKP	PKPdf	01 48 41.1	-2.1
AKASG				PP	PP	01 51 57.2	-1.2
AKASG	**Malin Array Be**	**144.23**	**43**	PKIKP	PKPdf	01 48 41.2	-2.0
AKASG						01 51 57.2	
AKASG	**Malin Array Be**	**144.23**	**43**	PKP	PKPdf	01 48 41.1	-2.1
	comp=Z,19nm,1.1s,baz=275,slow=4.2,SNR=26						
AKASG				PP	PP	01 51 57.2	-1.2
	comp=Z,0.1nm,0.3s,baz=280,slow=6.0,SNR=4.2						
AKBB	**Malin Array Si**	**144.23**	**43**	*e*PKPdf	PKPdf	01 48 41.3	-1.9
AKBB	**Malin Array Si**	**144.23**	**43**	*e*PKIKP	PKPdf	01 48 41.3	-1.9
IAS	**Iasi**	**144.28**	**49**	P	PKPdf	01 48 43.3	-0.1
IAS	**Iasi**	**144.28**	**49**	PKIKP	PKPdf	01 48 43.3	-0.1
PRK	**Paraskevi**	**144.57**	**63**	*e*P	PKPdf	01 48 44.5	+0.3
PRGR	**Permogore**	**144.72**	**18**	*e*PKIKP	PKPdf	01 48 42.5	-1.2
ULN	**Ulaanbaatar**	**144.89**	**312**	*i* P	PKPdf	01 48 42.6	-1.9
ULN	**Ulaanbaatar**	**144.89**	**312**	*i* PKIKP	PKPdf	01 48 42.6	-1.9
AYVA	**Ayvalik**	**144.90**	**63**	*i* P	PKPdf	01 48 44.0	-0.8
IRK	**Irkutsk**	**144.96**	**321**	*e*PKIKP	PKPdf	01 48 43.9	-0.5
IRK				pmax	pmax		
	comp=Z,285nm,2.5s						
XAN	**Xi'an**	**145.04**	**288**	PKP	PKPdf	01 48 42.9	-2.3
XAN				PP	PP		
	comp=Z,428nm,5.2s						
XAN				LR	LR		
	comp=N,797nm,17.5s,MS5.7						
XAN				LR	LR		
	comp=E,404nm,13.5s,MS5.7						
XAN				LR	LR		
	comp=Z,409nm,22.6s						
HARR	**Harsova**	**145.11**	**53**	P	PKPbc	01 48 45.8	+1.3
HARR	**Harsova**	**145.11**	**53**	PKIKP	PKPdf	01 48 45.8	+0.8
CFR	**Carcaliu**	**145.15**	**52**	P	PKPbc	01 48 45.4	+0.8
CFR	**Carcaliu**	**145.15**	**52**	PKIKP	PKPdf	01 48 45.4	+0.4
KIS	**Kishinev**	**145.16**	**49**	*i* PKIKP	PKPdf	01 48 44.0	-1.0
KIS				pmax	pmax		
	comp=Z,600nm,2.0s						
KIS				MLR	MLR		
	comp=E,1μm,20.0s						
KIS				MLR	MLR		
	comp=Z,1μm,20.0s,MS5.6						
KIS				MLR	MLR		
	comp=Z,2μm,20.0s						
KIS	**Kishinev**	**145.16**	**49**	*e*PKiKP	PKiKP	01 48 44.0	-4.8
KIS				M		01 48 48.0	
	comp=Z,600nm,2.0s						
KIS				*e*SKP		01 52 17.0	
KIS	**Kishinev**	**145.16**	**49**	*e*PPP		01 54 40.0	
KIS				*e*SKKS	SKKSac	01 58 40.0	-16
KIS				LRM		02 53 04.0	
	comp=Z,2μm,20.0s						
SART	**Tekirdag**	**145.16**	**60**	*i* P	PKPbc	01 48 45.2	+0.4
KARP	**Karpathos**	**145.31**	**69**	*e*P	PKPbc	01 48 47.0	+1.5
SONM	**Songino Array**	**145.32**	**313**	PKPbc	PKPbc	01 48 44.0	-1.1
SONM	**Songino Array**	**145.32**	**313**	PKP2	PKPab	01 48 44.0	-1.2
SONM	**Songino Array**	**145.32**	**313**	PKPbc	PKPbc	01 48 44.0	-1.1
	comp=Z,31nm,1.1s,baz=115,slow=2.6,SNR=93						
KKTK	**Khon Kaen**	**145.41**	**255**	P	PKPbc	01 48 46.0	-0.3
TIRR	**Tirgusor**	**145.49**	**54**	⇓P	PKPdf	01 48 45.7	+0.1
TIRR	**Tirgusor**	**145.49**	**54**	⇓PKIKP	PKPdf	01 48 45.7	+0.1
TIRR	**Tirgusor**	**145.49**	**54**	⇓*i*P	PKPdf	01 48 45.7	+0.1
TLY	**Talaya**	**145.55**	**320**	*e*PKPdf	PKPdf	01 48 45.8	+0.3
TLY				LR	LR		
	comp=Z,2μm,22.0s,MS5.9						
TLY	**Talaya**	**145.55**	**320**	*e*PKIKP	PKPdf	01 48 46.2	+0.7
TLY				pmax	pmax		
	comp=Z,162nm,1.3s						
BDRM	**Kayabasi**	**145.56**	**67**	*i* P	PKPdf	01 48 44.5	-1.5
GYA	**Guiyang**	**145.76**	**274**	*i* PKP	PKPdf	01 48 46.8	+0.1
GYA				PKP2	PKPab	01 48 49.5	+2.0
GYA				PP	PP	01 52 11.5	+3.0
GYA				PKS		01 52 20.8	
GYA				PP	PP		
	comp=Z,2μm,8.7s						
GYA				LR	LR		
	comp=Z,11μm,21.4s,MS6.6						
OBN	**Obninsk**	**146.03**	**32**	*i* PKPr	PKPdf	01 48 46.5	+0.3
OBN	**Obninsk**	**146.03**	**32**	*d* *i*PKP2	PKPab	01 48 46.4	-1.2
OBN				*e*		01 52 10.9	
OBN				*e*SS	SS	02 10 55.5	-8.2

OBN				pmax	pmax		
	comp=Z,101nm,1.3s						
OBN				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.8						
ARG	**Arkhangelos**	**146.11**	**68**	*e*P	PKPdf	01 48 48.8	+1.8
MOS	**Moscow**	**146.14**	**31**	*e*PKP2	PKPab	01 48 46.6	-1.4
MOS				*e*		01 52 12.2	
MOS				pmax	pmax		
	comp=Z,186nm,1.9s						
MOS				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.8						
ZAK	**Zakamensk**	**146.31**	**318**	*e*PKP2	PKPab	01 48 47.3	-1.5
ZAK				pmax	pmax		
	comp=Z,44nm,1.4s						
ULDT	**Uludag**	**146.71**	**61**	*i* P	PKPdf	01 48 47.6	-0.3
MOY	**Mondy**	**147.02**	**321**	*e*PKP2	PKPab	01 48 51.6	+0.1
MOY				pmax	pmax		
	comp=Z,189nm,2.4s						
GDZ	**Gediz**	**147.07**	**63**	*i* P	PKPdf	01 48 49.9	+1.4
GOLH	**Golhisar**	**147.25**	**66**	*i* P	PKPbc	01 48 53.6	+2.5
NST	**Nakhon Sawan**	**147.33**	**252**	P	PKPdf	01 48 51.0	+1.4
BORA	**Eskisehir**	**147.74**	**61**	*i* P	PKPdf	01 48 52.4	+2.8
ISP	**Isparta**	**147.97**	**65**	*e*PKPdf	PKPbc	01 48 55.9	+2.8
ISP	**Isparta**	**147.97**	**65**	PKP2	PKPab	01 48 55.1	-0.7
ESKT	**Eskisehir**	**148.09**	**62**	*i* P	PKPdf	01 48 53.1	+3.0
NANT	**Nan**	**148.34**	**258**	⇑P	PKPdf	01 48 52.0	+0.8
	comp=Z,48nm,1.0s						
KMI	**Kunming**	**148.83**	**270**	PKP	PKPdf	01 48 53.3	+1.5
KMI				APKP		01 48 55.4	
KMI				XPKP		01 48 56.9	
KMI				PKP2	PKPab	01 49 01.8	+2.2
KMI				PKS		01 52 24.3	
KMI				PP	PP	01 52 30.9	+4.3
KMI				PP	PP		
	comp=Z,289nm,8.4s						
KMI				LR	LR		
	comp=N,815nm,18.1s,MS5.8						
KMI				LR	LR		
	comp=E,1µm,21.5s,MS5.8						
KMI				LR	LR		
	comp=Z,2µm,24.4s,MS5.8						
KMI	**Kunming**	**148.83**	**270**	PKP	PKPdf	01 48 53.2	+1.4
KMI				pPKP	pPKPdf	01 48 55.4	+0.1
KMI				sPKP		01 48 56.9	
KMI				PKP	PKPab	01 49 01.7	+2.1
KMI				PKS		01 52 24.2	
KMI				PP	PP	01 52 30.9	+4.3
KMI				PPP		01 55 51.1	
KMI				SKS	SKSdf	01 55 57.4	-2.9
KMI				SKKS	SKKSac	01 59 17.2	-0.8
KMI				SS	SS	02 11 39.5	+1.7
KMI				SSS		02 17 14.0	
KMI				LR	LR		
	comp=Z,2µm,24.4s,MS5.8						
KMI	**Kunming**	**148.83**	**270**	PKIKP	PKPdf	01 48 53.2	+1.4
KMI						01 48 56.9	
KMI						01 49 01.7	
KMI						01 52 30.9	
KMI				PPP		01 55 51.1	
KMI						01 55 57.4	
KMI				SS	SS	02 11 39.5	+1.7
KMI				SSS		02 17 14.0	
KMI				MLR	MLR		
	comp=Z,2µm,24.4s,MS5.8						
SGKT	**Sivrigoynuk**	**148.86**	**60**	*i* P	PKPbc	01 48 54.4	-1.0
BDT	**Bhumibol Dam**	**149.05**	**254**	P	PKPbc	01 48 56.0	-0.5
	comp=Z,20nm,1.0s						
SOKR	**Solikamsk**	**149.07**	**11***c*	*i*PKIKP	PKPdf	01 48 52.7	+1.6
SOKR				pmax	pmax		
	comp=Z,50nm,1.0s						
CD2	**Chengdu**	**149.09**	**282**	*e*PKP	PKPdf	01 48 52.6	+0.5
CD2				APKP		01 48 58.0	
CD2				PP	PP	01 52 29.6	+1.6
CD2				PP	PP		
	comp=Z,800nm,6.0s						
CD2				LR	LR		
	comp=N,780nm,16.8s,MS5.8						
CD2				LR	LR		
	comp=E,970nm,18.0s,MS5.8						
CD2				LR	LR		
	comp=Z,910nm,18.0s,MS5.6						
KDHN	**Kadinhani**	**149.18**	**64**	*i* P	PKPbc	01 48 55.7	-0.5
LZH	**Lanzhou**	**149.25**	**292**	*e*PKP	PKPdf	01 48 48.8	-3.4
LZH				PP	PP		
	comp=Z,364nm,3.9s						
LZH				LR	LR		
	comp=E,1µm,18.2s						
LZH				LR	LR		
	comp=Z,3µm,19.9s,MS6.0						
LZH	**Lanzhou**	**149.25**	**292**	*e*PKP	PKPdf	01 48 48.7	-3.5
LZH				sPKP		01 49 08.3	
LZH				pPKP	pPKPdf	01 49 14.2	+19
LZH				PP	PP	01 52 17.2	-12
LZH				SKS	SKSdf	01 55 56.1	-4.3
LZH				SKKS	SKKSac	01 59 11.5	-8.3
LZH				SS	SS	02 11 31.0	-11
LZH				LR	LR		
	comp=Z,3µm,19.9s,MS6.0						
LZH	**Lanzhou**	**149.25**	**292**	*e*PKHKP		01 48 48.7	
LZH						01 55 56.1	
LZH				SS	SS	02 11 31.0	-11
LZH				MLR	MLR		
	comp=Z,3µm,19.9s,MS6.0						
VOR	**Voronezh**	**149.28**	**36**	*e*PKP2	PKPab	01 48 56.0	-4.6
VOR				pmax	pmax		
	comp=Z,400nm,0.1s						
SIM	**Simferopol'**	**149.29**	**51***d*	*i*PKP2	PKPab	01 48 56.6	-4.3
SIM				pmax	pmax		
	comp=Z,30nm,1.2s						
SIM				pmax	pmax		
	comp=Z,2µm,18.4s						
ANTO	**Ankara**	**149.53**	**61**	P	PKPbc	01 48 58.2	+1.2
ANTO	**Ankara**	**149.53**	**61**	⇑PKP2	PKPbc	01 48 57.1	+0.1
ANTO	**Ankara**	**149.53**	**61**	⇑*i*P	PKPbc	01 48 57.1	+0.1
VRSR	**Storozhevoye**	**149.57**	**37**	*i* PKP2	PKPbc	01 48 55.9	-0.8
VRSR				pmax	pmax		
	comp=N,2.0nm,0.9s						
VRSR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,3.0nm,1.1s						
CHRT	**Chiangrai**	**149.57**	**259**	⇑P	PKPdf	01 48 55.0	+1.8
	comp=E,210nm,0.9s						
BALT	**Daday**	**149.67**	**57**	*i* P	PKPdf	01 48 55.9	+3.3
CM31	**Chiang Mai Arr**	**149.67**	**256**	PFAKE		01 49 00.0	+6.7
CM31				LR	LR		
	comp=Z,989nm,20.0s,MS5.6						
VORD	**Divnogorie**	**149.76**	**37**	*i* PKP2	PKPab	01 48 57.1	-5.5
VORD				pmax	pmax		
	comp=Z,30nm,1.0s						
VORD				pmax	pmax		
	comp=N,10.0nm,0.8s						
VORD				pmax	pmax		
	comp=E,30nm,1.5s						
CHG	**Chiang Mai**	**149.83**	**256**	⇓P	PKPdf	01 48 56.0	+2.4
	comp=E,150nm,1.1s						
CHTO	**Chiang Mai**	**149.83**	**256**	*e*PKPdf	PKPdf	01 48 54.1	+0.5
CHTO				*e*PKPbc	PKPbc	01 48 58.1	-0.2
CHTO				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
CHTO	**Chiang Mai**	**149.83**	**256**	*e*PKHKP		01 48 54.1	
CHTO				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.7						
ELDT	**Eldivan**	**149.90**	**59**	*i* P	PKPdf	01 48 55.7	+2.7
BR131	**Keskin Array S**	**150.19**	**61**	*e*PKPdf	PKPbc	01 49 00.0	+1.4
BR131				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
BRTR	**Keskin Array B**	**150.19**	**61**	PKP	PKPdf	01 48 53.5	-0.1
BRTR				PKPbc	PKPbc	01 48 58.3	-0.3
BRTR	**Keskin Array B**	**150.19**	**61**	PKIKP	PKPdf	01 48 53.5	0.0
BRTR	**Keskin Array B**	**150.19**	**61**	PKP	PKPdf	01 48 53.5	-0.1
	comp=Z,8.2nm,1.0s,baz=112,slow=1.3,SNR=21						
BRTR				PKPbc	PKPbc	01 48 58.3	-0.3
	comp=Z,14nm,1.1s,baz=248,slow=1.1,SNR=31						
CSS	**Prodhromos**	**150.36**	**71**	*e*PKPbc	PKPbc	01 48 58.5	-0.7
CDAG	**Cicekdag**	**150.77**	**61**	*i* P	PKPdf	01 48 56.7	+2.2
BOYT	**Boyabat**	**150.81**	**57**	*i* P	PKPbc	01 48 59.2	-0.9
VRHR	**Novokhopersk**	**150.88**	**35**	*e*PKIKP	PKPbc	01 49 00.4	+0.5
VRHR				pmax	pmax		
	comp=Z,40nm,1.0s						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VRHR				pmax	pmax		
	comp=E,20nm,0.6s						
CTKT	**Corum**	**150.90**	**59**	*i* P	PKPdf	01 48 58.2	+3.6
EIL	**Elat**	**151.39**	**82**	PKP	PKPdf	01 48 55.8	+0.1
EIL	**Elat**	**151.39**	**82**	PKP	PKPdf	01 48 55.8	+0.1
	comp=E,12nm,1.0s,baz=6.4,slow=8.0,SNR=10						
ANN	**Anapa**	**151.56**	**49**	*i* PKIKP		01 48 44.1	
ANN				pmax	pmax		
	comp=Z,24nm,1.7s						
MMAI	**Mount Meron Ar**	**152.06**	**75**	PKP	PKPdf	01 48 53.4	-3.2
	comp=Z,4.1nm,1.0s,baz=349,slow=4.7,SNR=2.7						
GTA	**Gaotai**	**152.07**	**299**	*e*PKP	PKPdf	01 48 56.6	+0.2
GTA				PKS		01 52 30.0	
GTA				PP	PP		
	comp=Z,226nm,9.2s						
GTA				LR	LR		
	comp=N,804nm,19.5s,MS5.7						
GTA				LR	LR		
	comp=E,735nm,21.4s,MS5.7						
GTA				LR	LR		
	comp=Z,848nm,22.9s,MS5.5						
SVE	**Sverdlovsk**	**152.28**	**9**	⇑*e*PKIKP	PKPdf	01 48 58.0	+1.8
SVE				*e*		01 52 46.0	
SVE				pmax	pmax		
	comp=Z,140nm,2.3s						
ARU	**Arti**	**152.35**	**11**	*e*PKPdf	PKPdf	01 48 56.0	-0.2
ARU				*e*PKPbc	PKPbc	01 49 03.9	+0.8
ARU				LR	LR		
	comp=Z,2µm,19.0s,MS6.0						
ARU	**Arti**	**152.35**	**11**	*i* PKIKP	PKPdf	01 48 57.8	+1.5
NVS	**Novosibirsk**	**152.45**	**341**	*e*PKIKP		01 48 44.7	
NVS				pmax	pmax		
	comp=Z,56nm,1.7s						
NVS				pmax	pmax		
	comp=N,26nm,1.5s						
NVS				pmax	pmax		
	comp=E,21nm,1.5s						
YAYL	**Yayladag**	**152.57**	**68**	*i* P	PKPdf	01 48 58.2	+0.9
ANDN	**Andirin**	**152.60**	**65**	*i* P	PKPdf	01 48 58.6	+1.3
COBT	**Iskenderun**	**152.65**	**67**	*i* P	PKPdf	01 49 01.3	+3.9
ZALV	**Zalesovo Beam**	**152.72**	**338**	PKP	PKPdf	01 48 55.0	-1.9
ZALV	**Zalesovo Beam**	**152.72**	**338**	PKP	PKPdf	01 48 55.0	-1.9
	comp=E,18nm,1.2s,baz=11,slow=1.5,SNR=19						
ZAL	**Zalesovo**	**152.74**	**338**	PKIKP	PKPdf	01 48 55.0	-1.9
ASF	**Jabal al Asfar**	**153.29**	**77**	PKP	PKPdf	01 48 59.3	+0.9
ASF	**Jabal al Asfar**	**153.29**	**77**	PKIKP	PKPdf	01 48 59.3	+0.8
ASF	**Jabal al Asfar**	**153.29**	**77**	PKP	PKPdf	01 48 59.3	+0.9
	comp=E,12nm,1.1s,baz=280,slow=0.5,SNR=12						
GRSN	**GIRESUNGRSN**	**153.39**	**57**	*i* P	PKPdf	01 48 54.0	-4.3
SOC	**Sochi**	**153.54**	**50**	*i* PKIKP	PKPbc	01 49 09.2	+3.1
SOC				*e*		01 52 51.9	
SOC				*e*SS	SS	02 12 22.3	-6.2
SOC				*e*SSS		02 18 08.0	
SOC				pmax	pmax		
	comp=Z,26nm,0.8s						
GZT	**Gaziantep**	**153.59**	**65**	*i* P	PKPdf	01 48 59.8	+1.1
MALT	**Malatya**	**154.11**	**63**	⇑P	PKPdf	01 49 01.0	+1.6
MALT				P		01 49 04.1	
MALT	**Malatya**	**154.11**	**63**	⇑PKIKP	PKPdf	01 49 01.0	+1.6
MALT	**Malatya**	**154.11**	**63**	⇑*i*P	PKPdf	01 49 01.0	+1.6
MACK	**Trabzon**	**154.47**	**56**	*i* P	PKPdf	01 48 59.5	-0.4
PALK	**Pallekele**	**154.76**	**211**	*e*PKPdf	PKPdf	01 49 01.8	+0.7
PALK				*e*PKPbc	PKPbc	01 49 12.7	+3.0
PALK				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
KIV	**Kislovodsk**	**155.33**	**48**	*e*PKPdf	PKPdf	01 49 02.5	+1.6
KIV				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
KIV	**Kislovodsk**	**155.33**	**48**	*e*PKIKP	PKPdf	01 48 59.4	-1.5
KIV				*e*		01 53 01.5	
KIV				*e*SS	SS	02 12 47.2	-0.6
KIV				*e*SSS		02 18 42.0	
KIV				pmax	pmax		
	comp=Z,15nm,1.2s						
ARTV	**Artvin**	**155.94**	**54**	*i* P	PKPdf	01 49 03.4	+1.6
MARD	**Mardin**	**156.13**	**64**	*i* P	PKPdf	01 49 03.6	+1.4
BRVK	**Borovoye**	**156.48**	**356**	*e*PKPdf	PKPdf	01 49 02.9	+0.8
BRVK				LR	LR		
	comp=Z,2µm,22.0s,MS6.0						
BRVK	**Borovoye**	**156.48**	**356**	PKIKP	PKPdf	01 49 02.7	+0.6
ZEI	**Tsey**	**156.66**	**49**	*e*PKIKP	PKPdf	01 49 03.9	+1.2
ZEI				*e*		01 53 13.3	
DIGO	**Kars**	**157.24**	**55**	*i* P	PKPdf	01 49 04.4	+0.9
KURK	**Kurchatov**	**157.41**	**342**	*e*PKPdf	PKPdf	01 49 02.5	-0.9
KURK				*e*PKPab	PKPab	01 49 34.2	-0.6
KURK				LR	LR		
	comp=Z,2µm,22.0s,MS6.0						
KURK	**Kurchatov**	**157.41**	**342**	*e*PKIKP	PKPdf	01 49 02.5	-0.9
KURK				MLR	MLR		
	comp=Z,2µm,22.0s,MS6.0						
AKTK	**Aktyubinsk**	**157.87**	**17**	PKP	PKPdf	01 49 04.0	0.0
AKTO	**Aktyubinsk**	**157.87**	**17**	PKIKP	PKPdf	01 49 04.0	0.0
AKTO	**Aktyubinsk**	**157.87**	**17**	PKP	PKPdf	01 49 04.0	0.0
	comp=Z,6.7nm,1.2s,baz=13,slow=4.8,SNR=7.2						
MSL	**Mosul**	**158.14**	**66**	*e*PKP	x	01 49 09.0	
WMQ	**Urumqi**	**158.78**	**317**	PKP	PKPdf	01 49 05.6	+0.3
WMQ				PKS		01 52 37.8	
WMQ				PP	PP	01 53 24.4	+2.8
WMQ				LR	LR		
	comp=N,1µm,24.0s,MS5.8						
WMQ				LR	LR		
	comp=E,1µm,22.0s,MS5.8						
WMQ				LR	LR		
	comp=Z,2µm,24.0s,MS5.8						
MAK	**Makhachkala**	**158.87**	**45**	*e*PKIKP	PKPdf	01 49 06.6	+1.1
MAK				*i*		01 53 29.2	
MAK				pmax	pmax		
	comp=Z,177nm,1.6s						
MK31	**Makanchi Array**	**159.49**	**331**	*e*PKPdf	PKPdf	01 49 06.3	+0.3
MK31				*e*PKPab	PKPab	01 49 43.6	-0.3
MK31				*e*PP	PP	01 53 26.7	+1.7
MK31	**Makanchi Array**	**159.49**	**331**	*e*PKIKP	PKPdf	01 49 06.3	+0.2
MK31				*e*		01 49 43.7	
MK31				*e*		01 53 26.7	
MKAR	**Makanchi Array**	**159.49**	**331**	PKP	PKPdf	01 49 03.1	-3.0
MKAR				PKPab	PKPab	01 49 42.4	-1.6
MKAR	**Makanchi Array**	**159.49**	**331**	PKIKP	PKPdf	01 49 03.1	-3.0
MKAR						01 49 42.4	
MKAR	**Makanchi Array**	**159.49**	**331**	PKP	PKPdf	01 49 03.1	-3.0
	comp=Z,3.5nm,1.1s,baz=38,slow=2.2,SNR=14						
MKAR				PKPab	PKPab	01 49 42.4	-1.6
	comp=Z,2.9nm,0.9s,baz=46,slow=4.2,SNR=5.3						
BHD	**Baghdad**	**159.59**	**74**	*e*PKP	x	01 49 08.5	
BHD				*e*PP	x	01 53 24.0	
BHD				*e*SKS	x	01 56 14.0	
LSA	**Lhasa**	**159.81**	**276**	PKP	PKPdf	01 49 08.4	+1.4
LSA	**Lhasa**	**159.81**	**276**	*e*PKPdf	PKPdf	01 49 08.2	+1.2
LSA				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
LSA	**Lhasa**	**159.81**	**276**	*e*PKIKP	PKPdf	01 49 08.2	+1.2
LSA				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.7						
TAPN	**Taplejung**	**162.46**	**268**	*e*P	PKPdf	01 49 10.3	+0.4
	comp=Z,112nm,1.8s						
ODAN	**Odare**	**162.63**	**266**	*e*P	PKPdf	01 49 10.2	+0.1
	comp=Z,163nm,1.9s						
HYB	**Hyderabad**	**164.47**	**221**	*e*P	PKPdf	01 49 14.0	+2.0
HYB	**Hyderabad**	**164.47**	**221**	*e*PKIKP	PKPdf	01 49 14.0	+2.0
HYB	**Hyderabad**	**164.47**	**221**	*i* PKP	PKPdf	01 49 14.0	+2.0
KKN	**Kakani**	**164.66**	**268**	*e*P	PKPdf	01 49 13.1	+1.2
	comp=Z,72nm,1.5s						
GKN	**Gorkha**	**165.26**	**268**	*e*P	PKPdf	01 49 13.6	+1.2
	comp=Z,128nm,1.8s						
FRU	**Bishkek**	**165.72**	**340**	*e*PKIKP	PKPdf	01 49 13.5	+1.2
FRU				pmax	pmax		
	comp=Z,38nm,1.8s						
AAK	**Ala-Archa**	**165.94**	**340**	*e*PKPdf	PKPdf	01 49 13.2	+0.7
AAK				*e*PKPab	PKPab	01 50 12.1	-0.2
AAK				LR	LR		
	comp=Z,2µm,20.0s						
AAK	**Ala-Archa**	**165.94**	**340**	*e*PKIKP	PKPdf	01 49 13.2	+0.7
AAK				*e*		01 50 12.1	
AAK				MLR	MLR		
	comp=Z,2µm,20.0s						
KSH	**Kashi**	**168.08**	**328**	*e*PKP	PKPdf	01 49 13.1	-1.1
KSH				*e*PKS		01 52 43.9	
KSH				*e*SKS	SKSdf	01 56 10.1	-7.9
KSH				LR	LR		
	comp=N,852nm,6.4s						
KSH				LR	LR		
	comp=E,896nm,6.6s						
KSH				LR	LR		
	comp=Z,925nm,5.9s						

IDC ***14*** *01:30:14.5±1.1, 32.69N×139.05E, h0^{km}, mb3.6/3, mb1 3.8/4, mb1mx3.4/20, mbtmp3.5/4, ML3.1/1, Error ellipse: s-maj=24.8km s-min=15.8km az=131.0*

JMA ***14*** *01:30:14.9±0.1, 33.43N×140.95E, h37^{km}, M3.2*

ISC 14 01:30:14.9±1.3**, 33.34N**±0.06×**141.0E**±0.1**, h50**^{km}±14^{km}**, n15, σ0ˢ.81**/20**, mb3.6**/3**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	**Mitsune**	**1.02**	**258**	P	**Pn**	**01 30 32.8**	**0.0**
JHJ2				S	**Sn**	**01 30 46.2**	**+0.1**
JHJ	**Hachijo jima 2**	**1.04**	**258**	Pn	**Pn**	**01 30 32.8**	**-0.4**
	405nm,0.3s,baz=82,slow=6.4,SNR=76						
JHJ				Sn	**Sn**	**01 30 46.4**	**-0.3**
	167nm,0.3s,baz=67,slow=23,SNR=5.7						
BSO1	**Boso 1**	**1.31**	**359**	P	**Pn**	**01 30 36.4**	**-0.5**
BSO3	**Boso 3**	**1.52**	**345**	P	**Pn**	**01 30 38.9**	**-0.8**
BSO4	**Boso 4**	**1.74**	**342**	S	**Sn**	**01 31 03.8**	**+0.1**
JKO	**Kozu shima**	**1.77**	**299**	*e*S	**Sn**	**01 31 04.1**	**-0.3**
JIM2	**Oshima 3**	**1.90**	**317**	P	**Pn**	**01 30 44.2**	**-0.6**
JIZS	**Izushimoda**	**2.24**	**309**	P	**Pn**	**01 30 49.8**	**+0.3**
JOD2	**Odawara 2**	**2.49**	**321**	P	**Pn**	**01 30 52.5**	**-0.5**
JOD2				S	**Sn**	**01 31 20.4**	**-1.7**
SHZ3	**Shizuoka 3**	**2.88**	**308**	P	**Pn**	**01 30 59.8**	**+1.4**
JYN	**Shimob**	**2.96**	**317**	P	**Pn**	**01 31 00.5**	**+1.1**
JYN				S	**Sn**	**01 31 34.3**	**+0.6**
MJAR	**Matsushiro Arr**	**3.93**	**325**	Pn	**Pn**	**01 31 14.1**	**+1.3**
	1.4nm,0.3s,baz=158,slow=12,SNR=6.2						
MJAR				Sn	**Sn**	**01 32 01.2**	**+3.6**
	0.8nm,0.3s,baz=177,slow=28,SNR=4.3						
MKAR	**Makanchi Array**	**45.88**	**305**	P	**P**	**01 38 31.6**	**-0.6**
	0.1nm,0.6s,mb2.9,baz=96,slow=9.7,SNR=2.5						
WRA	**Warramunga Arr**	**53.36**	**188**	P	**P**	**01 39 28.8**	**-0.4**
	0.7nm,0.4s,mb4.0,baz=4.6,slow=7.6,SNR=5.0						
ASAR	**Alice Springs**	**57.09**	**188**	P	**P**	**01 39 56.7**	**+0.6**
	0.4nm,0.4s,mb3.8,baz=3.3,slow=6.5,SNR=11						

ISCJB ***14*** *01:34:25.4±0.5, 37.28S±0.09×96.6W±0.1, h10^{km}, mb4.5/15, MS5.2/3, Error ellipse: s-maj=15.4km s-min=13.0km az=179.4*

IDC ***14*** *01:34:25.9±4.5, 37.30S×96.53W, h0^{km}, mb4.3/5, mb1 4.6/5, mb1mx4.4/11, mbtmp4.3/5, MS5.2/3, Ms1 5.2/3, ms1mx4.8/12, Error ellipse: s-maj=110.6km s-min=33.9km az=19.0*

NEIC ***14*** *01:34:27.2±0.4, 37.27S×96.54W, h10^{km}, mb4.8/9, Error ellipse: s-maj=11.4km s-min=9.8km az=94.0*

ISC 14 01:34:27.3±0.5**, 37.28S**±0.09×**96.6W**±0.1**, h10**^{km}**, n35, σ0ˢ.74**/32**, mb4.5**/15**, MS5.2**/3**, Southeast of Easter Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCO	**Las Campanas**	**23.13**	**77**	*e*P	**P**	**01 39 34.5**	**+0.8**
	81nm,1.1s,mb5.1						
CFAA	**Coronel Fontan**	**24.00**	**85**	P	**P**	**01 39 42.0**	**-0.1**
	1.7nm,0.8s,mb3.5,baz=253,slow=9.2,SNR=11						
USHA	**Ushuaia**	**25.99**	**141**	LR	LR	01 46 57.6	
	comp=Z,3µm,21.7s,MS4.8,baz=270,slow=29						
ARE	**Arequipa**	**30.34**	**54**	*e*P	**P**	**01 40 39.0**	**-0.2**
NNA	**Nana**	**30.79**	**40**	*e*P	**P**	**01 40 40.4**	**-2.8**
LPAZ	**La Paz**	**32.69**	**58**	P	**P**	**01 41 00.3**	**+0.5**
	37nm,0.9s,mb5.3,baz=209,slow=6.2,SNR=29						
PAYG	**Puerto Ayora**	**36.88**	**11**	P	**P**	**01 41 35.2**	**-0.9**
ROSC	**El Rosal**	**46.77**	**31**	P	**P**	**01 42 57.6**	**+0.6**
	5.9nm,0.8s,mb4.6,baz=270,slow=13,SNR=3.8						
JTS	**JuntasAbangare**	**48.56**	**15**	*e*P	**P**	**01 43 09.3**	**-1.6**
	10nm,1.1s,mb4.8						
QSPA	**South Pole Qui**	**52.94**	**180**	P	**P**	**01 43 43.4**	**+0.2**
VNDA	**Vanda**	**56.37**	**195**	P	**P**	**01 44 07.2**	**-0.8**
RAR	**Rarotonga**	**56.45**	**268**	LR	LR	02 04 09.3	
	comp=Z,3µm,18.1s,MS5.4,baz=249,slow=32						
RCBR	**Riachuelo**	**63.29**	**76**	*e*P	**P**	**01 44 57.0**	**+0.4**
	37nm,1.6s,mb5.3						
LTX	**Lajitas**	**66.59**	**353**	P	**P**	**01 45 17.8**	**+0.1**
TXAR	**Lajitas Array**	**66.59**	**353**	P	**P**	**01 45 17.9**	**+0.2**
	1.2nm,0.9s,mb3.9,baz=166,slow=8.8,SNR=3.3						
MIAR	**Mount Ida**	**71.51**	**3**	*e*P	**P**	**01 45 48.8**	**+0.7**
	5.6nm,1.0s,mb4.5						
WMOK	**Wichita Mounta**	**71.68**	**358**	*e*P	**P**	**01 45 48.8**	**-0.2**
	1.5nm,0.6s,mb4.1						
OXF	**Oxford**	**71.74**	**6**	*e*P	**P**	**01 45 49.1**	**-0.4**
AMTX	**Amarillo**	**71.95**	**356**	*e*P	**P**	**01 45 51.0**	**+0.3**
	18nm,0.9s,mb5.0						
ANMO	**Albuquerque**	**72.45**	**351**	P	**P**	**01 45 54.0**	**+0.4**
SWET	**Sewanee**	**72.80**	**9**	*e*P	**P**	**01 45 55.0**	**-0.8**
CASY	**Casey**	**74.67**	**191**	P	**P**	**01 46 06.2**	**-0.3**
SDCO	**Great Sand Dun**	**75.11**	**353**	*e*P	**P**	**01 46 09.6**	**+0.4**
	2.6nm,1.0s,mb4.1						
KSU1	**Kansas State U**	**76.00**	**360**	P	**P**	**01 46 14.8**	**+0.4**
CMB	**Columbia Colle**	**78.10**	**341**	*e*P	**P**	**01 46 26.5**	**+0.4**
ACSO	**Alum Creek Sta**	**78.14**	**11**	*e*P	**P**	**01 46 26.9**	**+0.6**
	5.4nm,0.6s,mb4.7						
HWUT	**Hardware Ranch**	**79.69**	**349**	P	**P**	**01 46 33.6**	**-1.2**
PDAR	**Pinedale Array**	**80.54**	**350**	P	**P**	**01 46 40.2**	**+0.9**
PDAR	**Pinedale Array**	**80.54**	**350**	P	**P**	**01 46 40.2**	**+0.9**
	1.7nm,0.6s,mb4.1,baz=155,slow=5.0,SNR=14						
ECSD	**EROS,Sioux Fal**	**80.63**	**360**	*e*P	**P**	**01 46 39.9**	**+0.1**
	11nm,1.2s,mb4.7						
HLID	**Hailey**	**82.08**	**347**	*e*P	**P**	**01 46 48.4**	**+1.0**
HLID				*e*PcP	PcP	01 46 54.1	+1.2
NEW	**Newport**	**87.11**	**346**	P	**P**	**01 47 12.7**	**-0.1**
ULM	**Lac du Bonnet**	**87.16**	**0**	P	**P**	**01 47 18.0**	**+5.0**
ULM	**Lac du Bonnet**	**87.16**	**0**	P	**P**	**01 47 18.0**	**+5.1**
	0.8nm,0.4s,mb4.3,baz=164,slow=5.2,SNR=3.0						
BOSA	**Boshof**	**94.74**	**131**	LR	LR	02 25 37.7	
	comp=Z,2µm,19.4s,MS5.5,baz=219,slow=32						

BJI 14 01:39:05.0, 43.34N×87.71E, h9^{km}, ML2.8, 4C-2D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	**Urumqi**	**0.48**	**359**	⇑*i*PG	Pg	01 39 13.5	-0.9
WMQ				SG	Sg	01 39 21.5	+0.8
WMQ				Smax			
	comp=N,350nm,0.5s						
WMQ				Smax			
	comp=E,388nm,0.3s						
MK31	**Makanchi Array**	**5.16**	**314**	Pn	Pn	01 40 22.5	+0.1
	comp=E,0.7nm,0.2s,baz=131,slow=14,SNR=201						
MK31				⇑Sn	Sn	01 41 22.0	0.0
	comp=E,2.6nm,0.6s,baz=130,slow=26,SNR=5.2						
MK31				⇓Lg		01 41 41.5	
	comp=E,6.4nm,0.6s,baz=137,slow=26,SNR=7.7						
KURK	**Kurchatov**	**9.63**	**323**	⇓Pn	Pn	01 41 23.3	-0.4
	comp=E,5.4nm,2.2s						
KURK				⇑Sn	Sn	01 43 03.3	-8.7
	comp=E,3.4nm,2.6s						
KURK				⇑Lg		01 43 59.7	
	comp=E,2.0nm,0.7s						

NEIC ***14*** *01:44:01.2, 37.27N×13.49W, h0^{km}, MG3.7(MDD), After MDD.*

CSEM ***14*** *01:44:05.8±0.3, 37.14N×13.13W, h40^{km}, ML2.2, Error ellipse: s-maj=8.2km s-min=6.3km az=159.0*

MDD ***14*** *01:44:08.2±3.4, 37.13N×13.01W, h94^{km}±92^{km}, mb2.7/4, Error ellipse: s-maj=27.3km s-min=24.4km az=51.0, PRXIMO*

INMG 14 01:44:05.4±0.8**, 36.95N×13.62W, h10**^{km}**, ML2.2, Error ellipse: s-maj=9.0km s-min=6.9km az=135.0, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTEO	**Sao Teotonio**	**3.95**	**80**	*e*P	Pn	01 44 59.9	-6.1
PTEO				*e*S	Sn	01 45 40.5	-12
PMAFR	**Mafra**	**3.97**	**58**	*e*P	Pn	01 44 59.9	-6.4
PMAFR				*e*S	Sn	01 45 41.4	-11
PMAFR				A		01 45 47.5	
	7.6nm,0.2s						
PMAFR	**Mafra**	**3.97**	**58**	*e*P	Pn	01 44 59.9	-6.4
PMAFR				*e*S	Sn	01 45 41.4	-11
	7.6nm,0.2s						
PBDV	**Barranco-do-Ve**	**4.55**	**85**	*e*P	Pn	01 45 08.6	-5.7
PBDV				*e*S	Sn	01 45 54.8	-13
PVAQ	**Vaqueiros**	**4.73**	**83**	*e*P	Pn	01 45 11.0	-5.8
PVAQ				*e*S	Sn	01 46 00.4	-11
EGRO	**El Granado**	**4.93**	**81**	P	Pn	01 45 13.5	-6.0
EGRO				S	Sn	01 46 06.0	-11
EGRO	**El Granado**	**4.93**	**81**	P	Pn	01 45 13.5	-6.0
	0.3nm,0.1s,SNR=7.9						

EGRO				S	Sn	01 46 05.1	-11
	0.2nm,0.1s,SNR=7.9						
EGRO	**El Granado**	**4.93**	**81**	P	Pn	01 45 13.5	-6.0
	0.3nm,0.1s,SNR=7.9						
EGRO				S	Sn	01 46 06.0	-11
	0.2nm,0.1s,SNR=7.9						
PESTR	**Estremoz**	**5.13**	**66**	*e*P	Pn	01 45 16.4	-5.9
PESTR				*e*S	Sn	01 46 10.3	-11
EBAD	**Badajoz**	**5.53**	**69**	P	Pn	01 45 20.7	-7.0
	0.3nm,0.1s,SNR=7.9						
EBAD				S	Sn	01 46 19.2	-12
	0.3nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	**5.53**	**69**	P	Pn	01 45 20.7	-7.0
	0.3nm,0.1s,SNR=7.9						
EBAD				S	Sn	01 46 19.2	-12
	0.3nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	**5.59**	**80**	P	Pn	01 45 22.2	-6.3
EMIN				S	Sn	01 46 22.5	-10
EMIN	**Mina Concepcio**	**5.59**	**80**	P	Pn	01 45 22.2	-6.3
	0.2nm,0.1s,SNR=7.9						
EMIN				S	Sn	01 46 21.6	-11
	0.4nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**5.59**	**80**	P	Pn	01 45 22.2	-6.4
	0.2nm,0.1s,SNR=7.9						
EMIN				S	Sn	01 46 22.5	-10
	0.4nm,0.2s,SNR=7.9						
PCBR	**Castelo Branco**	**5.62**	**57**	*e*P	Pn	01 45 22.7	-6.3
PCBR				*e*S	Sn	01 46 21.3	-12
ESPR	**Espera**	**6.22**	**88**	P	Pn	01 45 31.6	-5.6
	0.4nm,0.1s,SNR=7.9						
ESPR	**Espera**	**6.22**	**88**	P	Pn	01 45 31.6	-5.6
	0.4nm,0.1s,SNR=7.9						

IDC ***14*** *01:46:56.8±0.4, 46.54N×155.32E, h0^{km}, mb4.9/30, mb1 5.0/32, mb1mx5.0/33, mbtmp4.9/32, ML4.4/2, MS4.5/6, Ms1 4.5/6, ms1mx3.9/39, Error ellipse: s-maj=14.4km s-min=11.2km az=142.0*

NEIC ***14*** *01:46:58.9±0.1, 46.54N×155.26E, h10^{km}, mb5.4/164, MS4.7/35, Error ellipse: s-maj=3.8km s-min=2.4km az=168.0*

GCMT ***14*** *01:46:58.9±0.5, 46.60N×155.16E, h20^{km}±1^{km}, MW5.1/43, Moment Tensor Solution. s25,c40; s43,c73; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-4.97±.35; $M_{\theta\theta}$2.97±.26; $M_{\phi\phi}$2.00±.21; $M_{r\theta}$-0.73±.45; $M_{\theta\phi}$2.41±.14; $M_{\phi r}$2.29±.46; Best double couple: $M_0$5.45900×10^{16} NP1:ϕ_s69.00000°,δ43.00000°,λ-60.00000°. NP2: ϕ_s210.00000°,δ54.00000°,λ-115.00000°. Principal axes: T 5.0310, Plg6.0000°, Azm318.0000°; N 0.8560, Plg20.0000°, Azm226.0000°; P -5.8860, Plg69.0000°, Azm63.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISCJB ***14*** *01:46:58.1±0.1, 46.51N±0.03×155.29E±0.02, h16^{km}, mb5.3/282, MS4.7/58 Error ellipse: s-maj=4.4km s-min=1.8km az=173.8*

BJI ***14*** *01:47:01.0, 46.85N×154.67E, h10^{km}, mB5.2, mb5.1, Ms4.8, Msz4.3*

SKHL ***14*** *01:47:01.6±1.2, 46.80N×155.08E, h40^{km}±10^{km}, mb6.1/3, mbh5.5/1, Ms4.7/4, msh5.6/2*

BGS ***14*** *01:47:02.4, 47.10N×154.94E, h10^{km}, mb5.6*

MOS ***14*** *01:47:02.9±0.9, 46.68N×155.23E, h45^{km}, mb5.5/122, MS4.4/20, Error ellipse: s-maj=7.5km s-min=3.9km az=106.7*

SZGRF ***14*** *01:47:02.0, 46.27N×154.21E, h20^{km}, mb5.4, East of Kuril Islands, Russia*

ISC 14 01:47:00.5±0.1**, 46.63N**±0.03×**155.20E**±0.02**, h17**^{km}**, h17**^{km}±.6^{km}**:pP-P, n1056, σ0^{s}74**/1047**, mb5.3**/282**, MS4.7**/58**, 133C-196D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**4.10**	**8**	*e*P	**Pn**	**01 48 01.2**	**-1.2**
SKR	**Severo-Kuril's**	**4.10**	**8**	*e*P	**Pn**	**01 47 59.1**	**-3.3**
SKR				AMB	AMB	01 48 05.0	
	270nm,1.0s						
SKR				AMB	AMB	01 48 05.0	
	450nm,1.0s						
SKR				AMB	AMB	01 48 07.0	
	2μm,3.0s						
SKR				*e*S	**Sn**	**01 48 43.0**	**-6.9**
SKR				A		01 48 47.0	
	1μm,0.6s						
SKR				A		01 48 47.0	
	730nm,0.6s						
SKR				A		01 48 47.5	
	2μm,6.0s						
SKR				AMS	AMS	01 50 10.0	
	3μm,14.0s						
SKR				AMS	AMS	01 50 10.0	
	11μm,14.0s						
SKR				AMS	AMS	01 50 10.0	
	8μm,14.0s						
KUR	**Kuril'sk**	**5.30**	**257**	⇓*i*PN	**Pn**	**01 48 18.3**	**-0.6**
KUR	**Kuril'sk**	**5.30**	**257**	*i* P	**Pn**	**01 48 18.3**	**-0.6**
KUR				AMB	AMB	01 48 23.4	
	300nm,0.6s						
KUR				AMB	AMB	01 48 23.4	
	240nm,0.6s						
KUR				AMB	AMB	01 48 23.4	
	1μm,0.6s						
KUR				AMB	AMB	01 48 29.2	
	3μm,2.0s						
KUR				*i* S	**Sn**	**01 49 15.2**	**-4.3**
KUR				A		01 49 17.5	
	4μm,0.6s						
KUR				A		01 49 17.5	
	3μm,0.6s						
KUR				A		01 49 20.0	
	10μm,2.0s						
KUR				A		01 49 20.0	
	9μm,2.0s						
PET	**Petropavlovsk**	**6.78**	**18**	*e*Pn	**Pn**	**01 48 35.8**	**-3.3**
	95nm,0.8s						
PET				*e*S	**Sn**	**01 49 50.1**	**-5.7**
PET	**Petropavlovsk**	**6.78**	**18**	*e*PN	**Pn**	**01 48 36.4**	**-2.7**
PET				pmax	pmax		
	comp=Z,126nm,0.8s						
PET				MLR	MLR		
	comp=Z,2μm,19.0s						
YUK	**Yuzh-Kuril'sk**	**7.07**	**252**	*e*P	**Pn**	**01 48 42.5**	**-0.7**
YUK				AMB	AMB	01 48 43.6	
	comp=Z,170nm,0.3s						
YUK				AMB	AMB	01 48 43.6	
	comp=Z,420nm,0.3s						
YUK				*i* S	**Sn**	**01 49 57.3**	**-5.8**
YUK				A		01 50 03.0	
	comp=Z,4μm,0.8s						
YUK				A		01 50 03.0	
	comp=Z,5μm,0.8s						
YUK				A		01 50 03.5	
	comp=Z,2μm,0.6s						
YUK				A		01 50 03.5	
	comp=Z,2μm,0.6s						
YUK				AMS	AMS	01 51 24.0	
	comp=Z,3μm,17.0s						
YUK				AMS	AMS	01 51 24.0	
	comp=Z,2μm,17.0s						
YUK				AMS	AMS	01 51 24.0	
	comp=Z,2μm,17.0s						
YSS	**Yuzh-Sakhalins**	**8.55**	**277**	*e*P	**Pn**	**01 49 05.8**	**+2.4**
	comp=Z,113nm,0.7s						
YSS	**Yuzh-Sakhalins**	**8.55**	**277**	⇓*i*PN	**Pn**	**01 49 06.0**	**+2.6**
YSS				pmax	pmax		
	comp=Z,150nm,0.8s						
YSS				MLR	MLR		
	comp=N,1μm,12.0s						
YSS				MLR	MLR		
	comp=E,1μm,15.0s						
YSS				MLR	MLR		
	comp=Z,2μm,15.0s						
YSS	**Yuzh-Sakhalins**	**8.55**	**277**	*i* P	**Pn**	**01 49 06.0**	**+2.6**
YSS				AMB	AMB	01 49 07.0	
	comp=Z,150nm,0.8s						
YSS				*e*S	**Sn**	**01 50 40.0**	**+0.7**
YSS				AMS	AMS	01 53 26.0	
	comp=Z,1μm,13.0s						
YSS				AMS	AMS	01 53 26.0	
	comp=Z,1μm,13.0s						
YSS				AMS	AMS	01 53 26.0	
	comp=Z,2μm,13.0s						
UGL	**Uglegorsk**	**9.16**	**290**	*e*PN	**Pn**	**01 49 14.5**	**+2.7**
UGL				pmax	pmax		
	comp=Z,132nm,0.8s						
UGL				MLR	MLR		
	comp=N,2μm,12.0s						
UGL				MLR	MLR		
	comp=E,800nm,14.0s						
UGL				MLR	MLR		
	comp=Z,2μm,14.0s						
ASAJ	**Asahikawa**	**9.22**	**259**	Pn	**Pn**	**01 49 12.3**	**-0.3**
	comp=Z,5.3nm,0.3s,baz=93,slow=15,SNR=15						
ASAJ				LR	LR	01 53 15.0	
	comp=Z,296nm,19.6s,baz=165,slow=41						
ERM	**Erimo**	**9.78**	**246**	Pn	**Pn**	**01 49 19.7**	**-0.6**
	comp=Z,637nm,0.5s,SNR=15						
ERM	**Erimo**	**9.78**	**246**	*e*Pn	**Pn**	**01 49 19.5**	**-0.8**
	comp=Z,111nm,0.6s						
ERM				*e*Sn	**Sn**	**01 51 00.2**	**-9.4**
ERM	**Erimo**	**9.78**	**246**	*e*PN	**Pn**	**01 49 19.5**	**-0.8**
OKH	**Okha**	**10.48**	**316**	*i* P	**Pn**	**01 49 28.4**	**-1.4**
OKH				AMB	AMB	01 49 30.2	
	comp=Z,1μm,5.0s						
OKH				AMB	AMB	01 49 30.2	
	comp=Z,1μm,5.0s						
OKH				*e*S	**Sn**	**01 51 24.1**	**-2.6**
OKH				AMS	AMS	01 55 26.0	
	comp=Z,3μm,13.0s						
OKH				AMS	AMS	01 55 26.0	
	comp=Z,2μm,13.0s						
OKH				AMS	AMS	01 55 26.0	
	comp=Z,3μm,13.0s						
MA2	**Magadan**	**13.23**	**350**	*e*P	**Pn**	**01 50 05.5**	**-1.9**
	comp=Z,36nm,0.9s						
MA2	**Magadan**	**13.23**	**350**	c *i*PN	**Pn**	**01 50 05.8**	**-1.6**
MA2				pmax	pmax		
	comp=Z,54nm,1.5s						
HABR	**Khabarovsk**	**13.73**	**285**	*e*P	**Pn**	**01 50 11.3**	**-3.0**
HABR				*e*S	**Sn**	**01 52 44.6**	**-1.6**
HABR				pmax	pmax		
	comp=Z,33nm,0.8s						
KLR	**Kul'dur**	**15.92**	**288**	*e*P	**Pn**	**01 50 41.0**	**-2.5**
KLR				MLR	MLR		
	comp=N,800nm,13.0s						
KLR				MLR	MLR		
	comp=E,1μm,13.0s						
KLR				MLR	MLR		
	comp=Z,2μm,13.0s						
MAJO	**Matsushiro**	**16.19**	**238**	*e*Pn	**Pn**	**01 50 43.9**	**-3.2**
	comp=Z,121nm,1.3s						
MAJO	**Matsushiro**	**16.19**	**238**	*e*P	**Pn**	**01 50 43.9**	**-3.2**
MAJO				pmax	pmax		
	comp=Z,120nm,1.3s						
MAT	**Matsushiro**	**16.19**	**238**	P	**Pn**	**01 50 44.5**	**-2.6**
MAT				S	**Sn**	**01 53 44.0**	**-2.2**
MJAR	**Matsushiro Arr**	**16.19**	**238**	Pn	**Pn**	**01 50 44.6**	**-2.5**
MJAR	**Matsushiro Arr**	**16.19**	**238**	P	**Pn**	**01 50 44.6**	**-2.5**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	**Matsushiro Arr**	**16.19**	**238**	Pn	**Pn**	**01 50 44.6**	**-2.5**
	comp=Z,0.7nm,0.3s,baz=31,slow=11,SNR=21						
SEY	**Seymchan**	**16.42**	**355**	⇑*e*P	**Pn**	**01 50 46.6**	**-3.2**
SEY	**Seymchan**	**16.42**	**355**	⇑*e*P	**Pn**	**01 50 46.5**	**-3.3**
MDJ	**Mudanjiang**	**18.00**	**273**	P	**Pn**	**01 51 08.8**	**-1.0**
MDJ				AP	pP	01 51 12.3	-2.7
MDJ				XP	sP	01 51 13.5	-3.8
MDJ				S	**Sn**	**01 54 29.5**	**-0.5**
MDJ				SCP	ScP	01 59 20.8	+2.4
MDJ				AMB	AMB		
	comp=Z,13nm,0.9s						
MDJ				LR	LR		
	comp=N,667nm,21.6s						
MDJ				LR	LR		
	comp=E,337nm,22.6s						
MDJ				LR	LR		
	comp=Z,807nm,14.3s						
MDJ	**Mudanjiang**	**18.00**	**273**	*e*P	**Pn**	**01 51 08.7**	**-1.0**
	comp=Z,72nm,1.0s						
CN2	**Changchun**	**21.09**	**273**	*e*P	**P**	**01 51 41.3**	**-2.6**
CN2				*e*XP	sP	01 51 47.8	-3.2
CN2				*e*PP		01 52 02.4	
CN2				*e*S	**S**	**01 55 30.0**	**-7.8**
CN2				*e*SS		01 56 02.0	
CN2				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.6						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,1μm,14.0s,MS4.5						
CN2				LR	LR		
	comp=E,800nm,14.0s,MS4.5						
CN2				LR	LR		
	comp=Z,700nm,13.0s,MS4.2						
CLNS	**Chul'man**	**21.19**	**310**	*e*P	**P**	**01 51 44.6**	**-0.3**
CLNS				pmax	pmax		
	comp=Z,36nm,0.7s,mb4.8						
CLNS				pmax	pmax		
	comp=N,35nm,0.8s						
CLNS				pmax	pmax		
	comp=E,30nm,0.8s						
YAK	**Yakutsk**	**21.21**	**326**	*e*Pn	**P**	**01 51 42.2**	**-2.8**
	comp=E,142nm,0.8s						
YAK				*e*S	**S**	**01 55 37.5**	**-2.5**
YAK				LR	LR		
	comp=Z,441nm,21.0s						
YAK	**Yakutsk**	**21.21**	**326**	*e*P	**P**	**01 51 43.4**	**-1.6**
YAK				*e*		01 52 01.1	
YAK				*e*S	**S**	**01 55 34.3**	**-5.6**
YAK				*e*		01 55 49.4	
YAK				*e*SSS		01 56 17.1	
YAK				pmax	pmax		
	comp=Z,189nm,1.2s,mb5.3						
YAK				pmax	pmax		
	comp=N,42nm,1.3s						
YAK				pmax	pmax		
	comp=E,44nm,1.3s						
YAK				smax			
	comp=E,621nm,1.8s						
YAK				smax			
	comp=Z,507nm,2.3s						
YAK				smax			
	comp=N,727nm,2.5s						
YAK				MLR	MLR		
	comp=N,263nm,14.0s,MS3.9						
YAK				MLR	MLR		
	comp=E,206nm,13.0s,MS3.9						
YAK				MLR	MLR		
	comp=Z,313nm,13.0s,MS3.9						
NRGR	**Nerungri**	**21.24**	**309**	*e*P	**P**	**01 51 44.4**	**-0.9**
NRGR				S	**S**	**01 55 27.3**	**-13**
NRGR				smax			
	comp=E,38nm,0.5s						
KSRS	**Korea Array**	**22.14**	**255**	P	**P**	**01 51 56.0**	**+0.8**
	comp=E,22nm,0.8s,mb4.7,baz=53,slow=11,SNR=18						
KSRS				PcP	PcP	01 55 51.8	-0.1
	comp=E,2.2nm,0.8s,baz=0.0,slow=3.8,SNR=4.3						
KSRS				LR	LR	01 59 59.5	
	comp=E,310nm,19.3s,baz=195,slow=35						
BILL	**Bilibino**	**22.21**	**11**	⇓*e*P	**P**	**01 51 55.1**	**-0.6**
	comp=E,145nm,1.0s,mb5.4						
BILL				LR	LR		
	comp=Z,919nm,19.0s,MS4.2						
BILL	**Bilibino**	**22.21**	**11**	*d i*P	**P**	**01 51 55.0**	**-0.7**
BILL				pmax	pmax		
	comp=Z,167nm,1.3s,mb5.3						
JNU	**Nakatsue**	**22.92**	**243**	P	**P**	**01 52 03.9**	**+0.4**
	comp=Z,24nm,1.0s,mb4.6,baz=33,slow=13,SNR=6.7						
INCN	**Inchon**	**22.99**	**257**	*e*P	**P**	**01 52 06.4**	**+2.2**
	comp=Z,62nm,0.8s,mb5.1						
SNY	**Shenyang**	**23.07**	**270**	⇓P	**P**	**01 52 04.8**	**-0.2**
SNY				AP		01 52 08.1	
SNY				XP	sP	01 52 11.8	-0.4
SNY				AMB	AMB		
	comp=Z,42nm,0.5s,mb5.1						
SNY				AMB	AMB		
	comp=Z,631nm,5.1s						
SNY				LR	LR		
	comp=E,917nm,13.9s						
SNY				LR	LR		
	comp=Z,594nm,12.2s,MS4.2						
HIA	**Hailar**	**23.76**	**289**	*e*P	**P**	**01 52 09.4**	**-2.5**
	comp=Z,10nm,0.6s,mb4.4						
HIA				LR	LR		
	comp=Z,385nm,20.0s,MS3.9						
HIA	**Hailar**	**23.76**	**289**	*e*P	**P**	**01 52 09.4**	**-2.5**
HIA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
HIA				MLR	MLR		
	comp=Z,385nm,20.0s						
GAMB	**Gambell**	**25.09**	**35**	*e*P	**P**	**01 52 23.0**	**-0.8**
GAMB				*e*PcP	PcP	01 55 53.6	-4.0
GAMB				*e*S	**S**	**01 56 46.4**	**-0.9**
DL2	**Dalian**	**25.68**	**265**	P	**P**	**01 52 34.9**	**+5.5**
DL2				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.2						
BOD	**Bodaibo**	**27.17**	**309**	*e*P	**P**	**01 52 41.2**	**-1.5**
BOD				*e*		01 57 24.5	
BOD				pmax	pmax		
	comp=Z,49nm,1.4s,mb4.8						
TNA	**Tin City**	**27.34**	**33**	*e*P	**P**	**01 52 45.5**	**+1.3**
	comp=Z,22nm,1.0s,mb4.7						
CIT	**Chita**	**27.39**	**297**	*e*P	**P**	**01 52 44.0**	**-0.7**
CIT				*e*		01 52 54.6	
TIXI	**Tiksi**	**28.00**	**343**	⇑*e*P	**P**	**01 52 49.8**	**-0.2**
TIXI	**Tiksi**	**28.00**	**343**	*e*P	**P**	**01 52 49.7**	**-0.3**
TIXI				*e*S	**S**	**01 57 31.3**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,140nm,1.1s,mb5.5						
TIXI				MLR	MLR		
	comp=Z,904nm,13.0s,MS4.5						
BJI	**Beijing**	**28.91**	**271**	P	**P**	**01 53 01.9**	**+3.5**
BJI				AP	pP	01 53 04.9	+1.2
BJI				XP	sP	01 53 06.3	+0.5
BJI				S	**S**	**01 57 53.9**	**+5.9**
BJI				SCS	ScS	02 03 42.3	+1.0
BJI				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
BJI				AMB	AMB		
	comp=Z,329nm,7.8s						
BJI				LR	LR		
	comp=N,446nm,13.7s,MS4.5						
BJI				LR	LR		
	comp=E,741nm,13.2s,MS4.5						
BJI				LR	LR		
	comp=Z,358nm,16.3s,MS4.1						
BJT	**Baijiatuau**	**28.93**	**271**	*e*P	**P**	**01 52 60.0**	**+1.4**
	comp=Z,32nm,0.8s,mb5.1						
BJT				*e*PP	PP	01 54 03.2	-0.6
BJT				*e*S	**S**	**01 57 58.2**	**+10**
BJT				LR	LR		
	comp=Z,489nm,22.0s,MS4.1						
BJT	**Baijiatuau**	**28.93**	**271**	*e*P	**P**	**01 53 00.0**	**+1.4**
BJT				*e*		01 54 03.2	
BJT				pmax	pmax		
	comp=Z,32nm,0.8s						
BJT				MLR	MLR		
	comp=Z,489nm,22.0s						
SSE	**Sheshan**	**30.41**	**251**	P	**P**	**01 53 11.5**	**-0.3**
SSE				S	**S**	**01 58 12.8**	**+1.1**
SSE				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.6						
SSE				AMB	AMB		
	comp=Z,299nm,4.1s						
SSE				LR	LR		
	comp=N,447nm,29.6s,MS4.2						
SSE				LR	LR		
	comp=E,765nm,29.9s,MS4.2						
SSE				LR	LR		
	comp=Z,242nm,22.7s						
SSE	**Sheshan**	**30.41**	**251**	P	**P**	**01 53 11.5**	**-0.3**
	comp=Z,15nm,1.1s,mb4.6						
SSE				S	**S**	**01 58 12.7**	**+1.0**
SSE				LR	LR		
	comp=Z,240nm,22.7s						
NJ2	**Nanjing**	**31.35**	**255**	*e*P	**P**	**01 53 22.8**	**+2.8**
NJ2				AP	pP	01 53 27.3	+2.0
NJ2				XP	sP	01 53 29.8	+2.4
NJ2				PP	PP	01 54 26.3	-4.5
NJ2				S	**S**	**01 58 27.0**	**+0.7**
NJ2				XS	sS	01 58 34.0	-1.0
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,660nm,4.5s						
NJ2				LR	LR		
	comp=N,1μm,19.1s,MS4.6						
NJ2				LR	LR		
	comp=E,600nm,19.2s,MS4.6						
NJ2				LR	LR		
	comp=Z,520nm,23.6s,MS4.1						
HHC	**Hu-ho-hao-te**	**31.73**	**276**	*e*P	**P**	**01 53 25.1**	**+1.8**
HHC				AP	pP	01 53 29.6	+1.0
HHC				XP	sP	01 53 32.3	+1.6
HHC				PP	PP	01 54 29.6	-5.4
HHC				PCP	PcP	01 56 17.3	+2.8
HHC				S	**S**	**01 58 32.3**	**+0.1**
HHC				XS	sS	01 58 39.1	-1.8
HHC				SCP	ScP	01 59 58.6	+1.8
HHC				PCS	PcS	02 00 00.5	+1.6
HHC				SS	SS	02 00 21.4	-27
HHC				SCS	ScS	02 03 55.8	+0.9
HHC				AMB	AMB		
	comp=Z,55nm,1.0s,mb5.3						
HHC				AMB	AMB		
	comp=Z,407nm,4.1s						
HHC				LR	LR		
	comp=N,573nm,17.6s,MS4.3						
HHC				LR	LR		
	comp=E,224nm,17.1s,MS4.3						
HHC				LR	LR		
	comp=Z,523nm,14.4s,MS4.3						
ULN	**Ulaanbaatar**	**32.29**	**290**	*e*P	**P**	**01 53 28.0**	**-0.2**
	comp=Z,8.7nm,0.9s,mb4.6						
ULN				*e*S	**S**	**01 58 47.0**	**+6.2**
ULN				LR	LR		
	comp=Z,369nm,20.0s,MS4.1						
ULN	**Ulaanbaatar**	**32.29**	**290**	*e*P	**P**	**01 53 28.0**	**-0.2**
ULN				*e*S	**S**	**01 58 47.0**	**+6.2**
ULN				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.6						
ULN				MLR	MLR		
	comp=Z,369nm,20.0s,MS4.1						
SONM	**Songino Array**	**32.73**	**290**	P	**P**	**01 53 32.4**	**+0.4**
SONM						01 56 16.5	
SONM				pmax	pmax		
	comp=Z,5.0nm,0.7s						
SONM				MLR	MLR		
	comp=Z,303nm,18.6s						
SONM	**Songino Array**	**32.73**	**290**	P	**P**	**01 53 32.4**	**+0.4**
	comp=Z,4.5nm,0.7s,mb4.5,baz=66,slow=7.9,SNR=17						
SONM				PcP	PcP	01 56 16.5	-0.5
	comp=Z,3.4nm,0.9s,baz=80,slow=2.3,SNR=4.2						
SONM				LR	LR	02 07 10.9	
	comp=Z,303nm,18.6s,MS4.0,baz=76,slow=37						
IMA2	**Indian Mountai**	**33.06**	**36**	*e*P	**P**	**01 53 34.4**	**-0.3**
KDAK	**Kodiak Island**	**33.06**	**51**	P	**P**	**01 53 32.7**	**-2.1**
KDAK	**Kodiak Island**	**33.06**	**51**	P	**P**	**01 53 32.7**	**-2.1**
	comp=Z,58nm,1.1s,mb5.4,baz=240,slow=1.3,SNR=11						
TLY	**Talaya**	**33.51**	**298**	*i* Pr	**P**	**01 53 38.8**	**+0.1**
TLY	**Talaya**	**33.51**	**298**	*e*P	**P**	**01 53 38.9**	**+0.2**
TLY				*e*		01 53 49.9	
TLY				pmax	pmax		
	comp=Z,34nm,0.7s,mb5.4						
ZAK	**Zakamensk**	**34.03**	**296**	*e*P	**P**	**01 53 43.3**	**0.0**
ZAK				*e*		01 54 52.6	
ZAK				*e*		01 56 18.9	
ZAK				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb4.1						
GUMO	**Guam**	**34.06**	**198**	P	**P**	**01 53 52.7**	**+8.8**
TATO	**Taipei**	**34.46**	**243**	*e*P	**P**	**01 53 46.9**	**-0.4**
	comp=Z,159nm,1.1s,mb5.9						
TATO				LR	LR		
	comp=Z,990nm,21.0s,MS4.5						
PMR	**Palmer**	**34.69**	**44**	P	**P**	**01 53 48.4**	**-0.4**
PMR				*e*S	**S**	**01 59 18.9**	**+1.3**
PMR				LR	LR		
	comp=Z,795nm,19.0s,MS4.5						
YHNB	**Yeheng**	**34.75**	**243**	P	**P**	**01 53 50.4**	**+0.6**
MCK	**McKinley**	**34.81**	**40**	*e*P	**P**	**01 53 48.8**	**-1.2**
	comp=Z,6.9nm,1.3s,mb4.4						
MCK				*e*PP	PP	01 55 08.2	-0.5
MCK				*e*PcP	PcP	01 56 22.2	-0.5
MCK				LR	LR		
	comp=Z,261nm,20.0s,MS4.0						
MCK	**McKinley**	**34.81**	**40**	*e*P	**P**	**01 53 48.8**	**-1.1**
MCK				*e*		01 55 08.2	
MCK				*e*		01 56 22.2	
MCK				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
MCK				MLR	MLR		
	comp=Z,261nm,20.0s,MS4.0						
NACB	**Ninganchiao**	**34.98**	**242**	*e*P	**P**	**01 53 49.9**	**-1.9**

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WHN  Wuhan            35.30 258 ⇓P     P      01 53 58.1 +3.6
COLA College          35.34  38⇑iP     P      01 53 54.9 +0.4
COLA College          35.34  38  P     P      01 53 54.0 -0.5
COLA                             pmax  pmax
     comp=Z,15nm,0.9s,mb4.9
XAN  Xi'an            36.94 267  P     P      01 54 09.5 +1.0
XAN                              AP    pP     01 54 13.9 +0.1
XAN                              AMB   AMB
     comp=Z,21nm,1.4s,mb4.8
XAN                              AMB   AMB
     comp=Z,348nm,6.9s
EGAK Eagle            38.20  38 eP     P      01 54 17.6 -1.2
     comp=Z,18nm,0.8s,mb4.8
EGAK                            ePcP   PcP    01 56 31.1 -1.8
DAWY Dawson           39.02  39 eP     P      01 54 26.0 +0.3
LZH  Lanzhou          39.33 273 eP     P      01 54 31.0 +2.4
LZH                              AP    pP     01 54 34.8 +0.9
LZH                              XP    sP     01 54 36.0  0.0
LZH                              PCP   PcP    01 56 38.8 +1.9
LZH                             eS     S      02 00 27.3 -1.5
LZH                              AMB   AMB
     comp=Z,68nm,1.2s,mb5.2
LZH                              AMB   AMB
     comp=Z,267nm,4.0s
LZH                              LR    LR
     comp=E,1µm,15.0s
LZH                              LR    LR
     comp=Z,1µm,16.5s,MS4.8
LZH  Lanzhou          39.33 273 eP     P      01 54 31.0 +2.4
     comp=Z,68nm,1.2s,mb5.2
LZH                              pP    pP     01 54 34.8 +0.9
LZH                              sP    sP     01 54 36.0  0.0
LZH                              PP    PP     01 56 10.1  +11
LZH                              PcP   PcP    01 56 38.7 +1.8
LZH                             eS     S      02 00 27.2 -1.6
LZH                              sS    sS     02 00 32.0 -5.6
LZH                              LR    LR
     comp=Z,1µm,16.5s,MS4.8
LZH  Lanzhou          39.33 273 eP     P      01 54 31.0 +2.4
LZH                                           01 56 10.1
LZH                                           01 56 38.7
LZH                             eS     S      02 00 27.2 -1.6
LZH                              pmax  pmax
     comp=Z,68nm,1.2s,mb5.2
LZH                              MLR   MLR
     comp=Z,1µm,16.5s,MS4.8
GTA  Gaotai           40.41 280 eP     P      01 54 39.4 +1.9
GTA                              AP    pP     01 54 43.4 +0.6
GTA                              XP    sP     01 54 46.8 +1.8
GTA                              PP    PP     01 56 16.0 +5.5
GTA                              PCP   PcP    01 56 40.6 +0.3
GTA                              PCS   PcS    02 00 32.0 +1.2
GTA                              S     S      02 00 51.3 +6.4
GTA                              XS    sS     02 00 56.1 +2.4
GTA                              SS    SS     02 03 37.3 -6.5
GTA                              SCS   ScS    02 04 42.8 +0.2
GTA                              AMB   AMB
     comp=Z,9.0nm,1.4s,mb4.3
GTA                              AMB   AMB
     comp=Z,541nm,9.2s
GTA                              LR    LR
     comp=N,540nm,16.1s,MS4.6
GTA                              LR    LR
     comp=E,303nm,15.3s,MS4.6
GTA                              LR    LR
     comp=Z,373nm,17.2s,MS4.3
INK  Inuvik           40.98  32 eP     P      01 54 41.7 -0.2
     comp=Z,225nm,0.6s,mb6.0
INK  Inuvik           40.98  32  P     P      01 54 41.0 -0.9
     comp=Z,10.0nm,1.0s,mb4.4,baz=278,slow=6.0,SNR=21
SKAG Skagway          41.72  46 eP     P      01 54 48.5 +0.4
     comp=Z,79nm,1.9s,mb5.0
CD2  Chengdu          42.30 267⇑iP     P      01 54 53.9 +0.7
CD2                              AP    pP     01 54 58.4 -0.1
CD2                              XP    sP     01 55 00.9 +0.2
CD2                              PP    PP     01 56 35.3 +4.2
CD2                              PCP   PcP    01 56 47.6 +0.9
CD2                              S     S      02 01 14.8 +1.6
CD2                              XS    sS     02 01 21.3 -0.7
CD2                              SS    SS     02 04 17.8 -3.9
CD2                              SCS   ScS    02 04 53.1 -1.3
CD2                              AMB   AMB
     comp=Z,70nm,0.8s,mb5.3
CD2                              AMB   AMB
     comp=Z,120nm,5.8s
CD2                              LR    LR
     comp=E,430nm,16.8s
CD2                              LR    LR
     comp=Z,490nm,14.3s,MS4.5
GYA  Guiyang          43.10 259⇑iP     P      01 55 01.8 +2.1
GYA                              AP    pP     01 55 05.8 +0.8
GYA                              XP    sP     01 55 08.0 +0.8
GYA                              PP    PP     01 56 44.3 +4.5
GYA                              PCP   PcP    01 56 52.3 +2.9
GYA                              SCP   ScP    02 00 42.3 +2.7
GYA                              S     S      02 01 27.6 +2.6
GYA                              SS    SS     02 04 32.9 -4.5
GYA                              SCS   ScS    02 05 00.3 +0.9
GYA                              AMB   AMB
     comp=Z,170nm,1.0s,mb5.7
GYA                              AMB   AMB
     comp=Z,1µm,7.8s
GYA                              LR    LR
     comp=N,2µm,17.8s,MS5.2
GYA                              LR    LR
     comp=E,2µm,18.0s,MS5.2
GYA                              LR    LR
     comp=Z,2µm,17.6s,MS5.0
ZALV Zalesovo Beam    43.84 307  P     P      01 55 04.9 -0.4
ZALV                             PcP   PcP    01 56 50.9 -0.5
ZALV                             LR    LR     02 14 13.3
ZALV Zalesovo Beam    43.84 307  P     P      01 55 04.9 -0.4
     comp=Z,22nm,0.5s,mb5.1,baz=61,slow=7.1,SNR=40
ZALV                             PcP   PcP    01 56 50.9 -0.5
     comp=Z,7.9nm,0.8s,baz=92,slow=4.7,SNR=5.6
ZALV                             LR    LR     02 14 13.4
     comp=Z,446nm,20.0s,MS4.4,baz=213,slow=37
ZAL  Zalesovo         43.86 306  P     P      01 55 04.9 -0.6
ZAL                                           01 56 50.9
NVS  Novosibirsk      44.40 308 eP     P      01 55 10.2 +0.4
NVS                             i S    S      02 01 41.8 -1.5
NVS                              pmax  pmax
     comp=Z,52nm,1.6s,mb5.0
NVS                              pmax  pmax
     comp=N,30nm,1.4s
NVS                              pmax  pmax
     comp=E,45nm,1.4s
NVS                              smax
     comp=N,25nm,1.5s
NVS                              smax
     comp=E,25nm,1.9s
DLBC Dease Lake       44.65  46 eP     P      01 55 12.7 +0.9
QIZ  Qiongzhong       46.13 249  P     P      01 55 24.8 +0.8
QIZ                              AMB   AMB
     comp=Z,18nm,1.7s,mb4.7
QIZ                              AMB   AMB
     comp=Z,105nm,5.8s
QIZ  Qiongzhong       46.13 249  PFAKE        01 55 40.0  +16
QIZ                              LR    LR
     comp=Z,525nm,22.0s,MS4.4
WMQ  Urumqi           46.30 292  P     P      01 55 26.0 +0.9
WMQ                              AP    pP     01 55 30.5 +0.1
WMQ                              XP    sP     01 55 33.0 +0.4
WMQ                              PCP   PcP    01 57 01.6 +1.5
WMQ                              PP    PP     01 57 14.8 +1.2
WMQ                             eS     S      02 02 11.8 +0.7
WMQ                              SCS   ScS    02 05 18.3 -1.0
WMQ                              SS    SS     02 05 29.8 -6.5
WMQ                              AMB   AMB
     comp=Z,22nm,0.7s,mb5.2
WMQ                              AMB   AMB
     comp=Z,47nm,8.8s
WMQ                              LR    LR
     comp=N,793nm,20.6s,MS4.7
WMQ                              LR    LR
     comp=E,486nm,22.1s,MS4.7
WMQ                              LR    LR
     comp=Z,276nm,15.2s
KMI  Kunming          46.64 261 ⇑P     P      01 55 28.9 +1.0
KMI                              AP    pP     01 55 32.6 -0.7
KMI                              XP    sP     01 55 34.0 -1.4
KMI                              PCP   PcP    01 57 04.4 +2.8
KMI                              PP    PP     01 57 17.8 +0.4
KMI                              S     S      02 02 16.8 +0.5
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KMI                              XS    sS     02 02 21.4 -3.8
KMI                              SS    SS     02 05 37.3 -5.0
KMI                              AMB   AMB
     comp=Z,18nm,1.4s,mb4.8
KMI                              AMB   AMB
     comp=Z,251nm,4.3s
KMI                              LR    LR
     comp=N,407nm,14.6s,MS4.7
KMI                              LR    LR
     comp=E,492nm,17.9s,MS4.7
KMI                              LR    LR
     comp=Z,692nm,27.5s
KMI  Kunming          46.64 261 ⇑P     P      01 55 28.9 +1.0
     comp=Z,18nm,1.4s,mb4.8
KMI                              pP    pP     01 55 32.6 -0.7
KMI                              sP    sP     01 55 34.0 -1.4
KMI                              PcP   PcP    01 57 04.4 +2.8
KMI                              PP    PP     01 57 17.8 +0.4
KMI                              PPP          01 58 04.5
KMI                              S     S      02 02 16.8 +0.5
KMI                              sS    sS     02 02 21.4 -3.8
KMI                              SS    SS     02 05 37.3 -5.0
KMI                              SSS          02 06 44.2
KMI  Kunming          46.64 261 ⇑P     P      01 55 28.9 +1.0
KMI                                           01 57 04.4
KMI                                           01 57 17.8
KMI                              PPP          01 58 04.5
KMI                              S     S      02 02 16.8 +0.5
KMI                              *SS   sS     02 02 21.4 -3.8
KMI                              SS    SS     02 05 37.3 -5.0
KMI                              SSS          02 06 44.2
KMI                              pmax  pmax
     comp=Z,18nm,1.4s,mb4.8
POHA Pohakuloa        48.16 107  P     P      01 55 40.6 +0.8
MK31 Makanchi Array   48.27 298 eP     P      01 55 40.4 +0.1
MK31                            ePcP   PcP    01 57 05.1 -1.9
MKAR Makanchi Array   48.27 298  P     P      01 55 40.5 +0.2
MKAR Makanchi Array   48.27 298 i P    P      01 55 40.4 +0.1
MKAR                             pmax  pmax
     comp=Z,8.0nm,0.6s
MKAR Makanchi Array   48.27 298  P     P      01 55 40.5 +0.2
     comp=Z,16nm,0.6s,mb5.2,baz=69,slow=7.5,SNR=93
KURK Kurchatov        48.62 305⇑eP     P      01 55 42.7 -0.3
KURK Kurchatov        48.62 305  P     P      01 55 42.9 -0.1
KURK                             pmax  pmax
     comp=Z,40nm,0.8s,mb5.5
ALE  Alert            49.72   6  P     P      01 55 51.6 +0.6
     comp=Z,112nm,0.7s,mb6.0,SNR=9.0
YKA  Yellowknife Ar   50.16  37  P     P      01 55 54.3 -0.2
YKA                              PcP   PcP    01 57 13.3 -0.3
YKA  Yellowknife Ar   50.16  37  P     P      01 55 54.3 -0.2
YKA                                           01 57 13.3
YKA                              pmax  pmax
     comp=Z,18nm,0.9s
YKA  Yellowknife Ar   50.16  37  P     P      01 55 54.3 -0.2
     comp=Z,18nm,0.9s,mb5.1,baz=295,slow=7.4,SNR=107
YKA                              PcP   PcP    01 57 13.3 -0.3
     comp=Z,2.6nm,0.7s,baz=300,slow=3.6,SNR=8.5
RES  Resolute Bay     50.49  19 eP     P      01 55 57.0 +0.1
     comp=Z,292nm,0.5s,mb6.6
RES                             ePcP   PcP    01 57 13.9 -0.7
LSA  Lhasa            51.71 275  P     P      01 56 09.4 +2.7
LSA                              AMB   AMB
     comp=Z,20nm,1.1s,mb5.0
LSA  Lhasa            51.71 275 eP     P      01 56 09.0 +2.3
     comp=Z,71nm,0.6s,mb5.8
LSA                             e      pP     01 56 14.7 +2.5
LSA                              PcP   PcP    01 57 19.6 -0.4
LSA                              LR    LR
     comp=Z,295nm,19.0s,MS4.3
LSA  Lhasa            51.71 275 eP     P      01 56 09.0 +2.3
LSA                                           01 57 19.6
LSA                              pmax  pmax
     comp=Z,71nm,0.6s,mb5.8
LSA                              MLR   MLR
     comp=Z,295nm,19.0s,MS4.3
C03A Quillayute Air   52.05  57 ⇓P     P      01 56 09.5 +0.6
     baz=52
BRVK Borovoye         52.08 310  P     P      01 56 09.3 +0.2
     comp=Z,278nm,1.0s,mb6.1,SNR=21
BRVK Borovoye         52.08 310 i Pr   P      01 56 09.0 -0.1
BRVK Borovoye         52.08 310  P     P      01 56 09.1  0.0
BRVK                             pmax  pmax
     comp=Z,21nm,1.1s,mb5.0
OBC  Olympics--Boni   52.29  57  P     P      01 56 11.2 +0.5
NANT Nan              52.32 257  P     P      01 56 10.0 -1.3
B04A Port Angeles     52.60  57 ⇑P     P      01 56 12.6 -0.5
     baz=52,SNR=5.7
A04A Legoe Bay, Lum   52.72  56 ⇑P     P      01 56 13.5 -0.4
     baz=52
NLWA Neilton Lookou   52.74  57 eP     P      01 56 13.8 -0.3
     comp=Z,46nm,1.3s,mb5.2
NLWA                            e             01 57 31.6
NLWA Neilton Lookou   52.74  57 ⇓P     P      01 56 14.2 +0.1
     baz=52
KBS  Kingsbay         52.83 352 eP     P      01 56 15.0 +0.7
     comp=Z,53nm,0.8s,mb5.5
KBS                             ePcP   PcP    01 57 22.4 -0.9
KBS  Kingsbay         52.83 352⇑eP     P      01 56 11.6 -2.7
A05A Maple Falls      52.93  55 ⇓P     P      01 56 14.8 -0.7
     baz=53,SNR=6.1
D03A Wishkah Elem.    52.94  58 ⇑P     P      01 56 16.0 +0.4
     baz=53
SPB4 Spitsbergen Ar   52.98 350 eP     P      01 56 16.0 +0.5
SPB4                            ePcP   PcP    01 57 25.4 +1.4
C04A Brinnon          53.09  57 ⇓P     P      01 56 16.3 -0.3
     baz=53,SNR=5.2
MBW  Mount Baker      53.14  55  P     P      01 56 16.6 -0.4
A06A Chilliwack       53.22  55 ⇓P     P      01 56 16.7 -0.9
     baz=53
B05A Bryant           53.30  56 ⇓P     P      01 56 17.9 -0.3
     baz=53,SNR=8.7
E03A Lebam            53.36  58 ⇓P     P      01 56 18.3 -0.3
     baz=53
CHG  Chiang Mai       53.49 258 ⇓P     P      01 56 20.7 +0.7
     comp=Z,61nm,1.2s,mb5.4
CHTO Chiang Mai       53.49 258 eP     P      01 56 20.4 +0.5
     comp=Z,17nm,0.8s,mb5.0
CHTO                            e             01 56 32.1
CHTO                            ePcP   PcP    01 57 26.9 +0.1
CHTO Chiang Mai       53.49 258 eP     P      01 56 20.4 +0.4
CHTO                            e             01 56 32.1
CHTO                            e             01 57 26.9
CHTO                             pmax  pmax
     comp=Z,17nm,0.8s,mb5.0
B06A Marblemount      53.52  55 ⇓P     P      01 56 18.9 -0.9
     baz=53
F03A Seaside          53.69  59 ⇓P     P      01 56 20.4 -0.7
     baz=53
CM31 Chiang Mai Arr   53.74 258 eP     P      01 56 23.1 +1.2
CM31                            e             01 56 34.0
CM31                            ePcP   PcP    01 57 28.4 +0.7
SHL  Shillong         53.80 270 eP     P      01 56 23.5 +1.3
E04A Onalaska         53.83  58 ⇓P     P      01 56 22.2 +0.1
     baz=54
C05A Tolt Reservoir   53.84  56 ⇑P     P      01 56 21.7 -0.5
     baz=54,SNR=7.5
A07A Ashnola River,   53.86  54 ⇓P     P      01 56 21.8 -0.5
     baz=54,SNR=9.0
D05A Enumclaw         53.93  57 ⇓P     P      01 56 23.0 +0.2
     baz=54,SNR=7.8
H02A Toledo           54.10  60 ⇑P     P      01 56 23.8 -0.3
     baz=54
C06A Tall Timber Ra   54.17  56 ⇓P     P      01 56 24.2 -0.4
     baz=54
G03A Yamhill          54.19  59 ⇑P     P      01 56 24.9 +0.2
     baz=54
B07A Winthrop         54.32  55  P     P      01 56 25.4 -0.3
     baz=54,SNR=9.8
F04A Amboy            54.36  58 ⇑P     P      01 56 25.5 -0.4
     baz=54,SNR=5.2
E05A Randle           54.40  57  P     P      01 56 25.8 -0.5
     baz=54,SNR=7.6
H03A Soap Creek Ran   54.53  60 ⇓P     P      01 56 27.3 +0.1
     baz=54
A08A Turner Farm, O   54.53  54  P     P      01 56 26.8 -0.4
     baz=54,SNR=17
COR  Corvallis        54.57  60 eP     P      01 56 28.4 +0.9
     comp=Z,13nm,0.9s,mb5.0
COR                              PcP   PcP    01 57 30.8 +0.3
COR  Corvallis        54.57  60  P     P      01 56 28.4 +0.9
COR                              pmax  pmax
     comp=Z,13nm,0.9s,mb5.0
I02A Mapleton         54.57  61 ⇑P     P      01 56 27.5  0.0
     baz=54
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D06A Cle Elum         54.59  56 ⇑P     P      01 56 27.3 -0.3
     baz=54,SNR=6.2
G04A Mulino           54.72  59 ⇓P     P      01 56 28.7 +0.1
     baz=54
C07A Waterville       54.77  55 ⇑P     P      01 56 27.9 -1.0
     baz=54,SNR=12
B08A Colville Reser   54.81  54 ⇓P     P      01 56 28.5 -0.7
     baz=54,SNR=15
WTV  Waterville       54.82  55  P     P      01 56 28.8 -0.5
E06A Yakima           54.87  57 ⇑P     P      01 56 29.5 -0.1
     baz=55,SNR=8.0
A09A Danville         54.90  53 ⇑P     P      01 56 29.6 -0.3
     baz=55,SNR=22
EBG  Ellensburg       54.90  56  P     P      01 56 29.9  0.0
I03A Eugene           54.92  61 ⇑P     P      01 56 30.5 +0.4
     baz=55,SNR=5.9
F05A White Salmon     54.95  58 ⇑P     P      01 56 29.9 -0.3
     baz=55
FRU  Bishkek          54.98 298 eP     P      01 56 31.0 +0.4
J02A Umpqua           55.08  62 ⇑P     P      01 56 31.6 +0.4
     baz=55,SNR=13
SOKR Solikamsk        55.08 322c iP    P      01 56 31.5 +0.5
SOKR                                          01 58 36.7
D07A Quincy           55.09  56 ⇑P     P      01 56 30.7 -0.5
     baz=55,SNR=5.3
AAK  Ala-Archa        55.17 297  P     P      01 56 32.7 +0.8
     comp=Z,162nm,0.8s,mb6.1,SNR=12
AAK  Ala-Archa        55.17 297 eP     P      01 56 31.7 -0.2
AAK                             e             01 56 43.9
AAK                             ePcP   PcP    01 57 32.0 -0.9
AAK                             ePP    PP     01 58 39.0 +3.9
AAK                              LR    LR
     comp=Z,433nm,22.0s,MS4.5
AAK  Ala-Archa        55.17 297⇑eP     P      01 56 31.8 -0.1
AAK                              pmax  pmax
     comp=Z,37nm,1.3s,mb5.2
H04A Detroit Lake     55.18  60 ⇑P     P      01 56 32.0  0.0
     baz=55,SNR=23
BROR Big Rock Looko   55.25  60  P     P      01 56 33.0 +0.5
C08A Higginbotham F   55.29  55  P     P      01 56 32.0 -0.7
     baz=55,SNR=9.6
EDM  Edmonton         55.35  47 eP     P      01 56 32.6 -0.4
EDM                             ePcP   PcP    01 57 31.9 -1.5
G05A Wamic            55.38  59  P     P      01 56 33.9 +0.5
     baz=55,SNR=14
F06A Goldendale       55.41  58 ⇓P     P      01 56 33.8 +0.2
     baz=55
B09A Rice             55.44  54  P     P      01 56 33.4 -0.4
     baz=55,SNR=12
J03A Ideyld Park      55.45  61 ⇑P     P      01 56 34.2 +0.3
     baz=55,SNR=16
A10A Northport        55.46  53 ⇓P     P      01 56 33.5 -0.4
     baz=55
K02A Glendale         55.47  62  P     P      01 56 34.6 +0.6
     baz=55,SNR=7.3
FRIS Frissel Point    55.49  60  P     P      01 56 34.8 +0.6
E07A Sunnyside        55.51  57 ⇑P     P      01 56 34.0 -0.2
     baz=55,SNR=8.6
IRO  Indian Ridge     55.52  60  P     P      01 56 34.6 +0.2
TAPN Taplejung        55.54 275 eP     P      01 56 36.2 +1.4
     comp=Z,86nm,0.7s,mb5.9
I04A Tendick Farm,    55.54  61 ⇑P     P      01 56 34.7 +0.1
     baz=55,SNR=32
M01C Crescent City    55.60  63 ⇑P     P      01 56 35.5 +0.5
     baz=55
C09A Chrisman Ranch   55.72  55 ⇓P     P      01 56 35.0 -0.7
     baz=55,SNR=6.5
CROR Criterion Ridg   55.72  59  P     P      01 56 36.1 +0.3
L02A Cave Junction    55.74  63 ⇓P     P      01 56 36.4 +0.4
     baz=56
D08A Wollman Farm,    55.76  56 ⇑P     P      01 56 35.5 -0.6
     baz=55
H05A Madras           55.77  59 ⇓P     P      01 56 36.1 -0.1
     baz=56,SNR=5.2
HAWA Hanford          55.78  57 eP     P      01 56 36.1 -0.2
     comp=Z,36nm,1.4s,mb5.2
HAWA                            ePcP   PcP    01 57 34.7 -0.4
G06A Carlson Farm,    55.79  58 ⇑P     P      01 56 36.4 +0.1
     baz=56,SNR=13
F07A Phinny Hill Vi   55.83  57  P     P      01 56 36.8 +0.2
     baz=56,SNR=12
HUMO Hull Mountain    55.88  62 eP     P      01 56 37.5 +0.5
     comp=Z,43nm,1.4s,mb5.3
HUMO                            ePP    PP     01 58 42.9 +1.5
HUMO Hull Mountain    55.88  62 ⇓P     P      01 56 37.4 +0.4
     baz=56,SNR=14
E08A Dider Farm, El   56.00  56 ⇑P     P      01 56 37.3 -0.5
     baz=56
I05A Bend             56.02  60 ⇑P     P      01 56 38.1 +0.1
     baz=56
KTRM Thompson Ridge   56.02  63  P     P      01 56 39.0 +0.9
KSH  Kashi            56.02 294 eP     P      01 56 41.1 +3.0
KSH                             eAP    pP     01 56 45.0 +1.4
KSH                             eXP    sP     01 56 47.8 +2.1
KSH                             ePCP   PcP    01 57 38.3 +2.1
KSH                             ePP    PP     01 58 47.1 +4.4
KSH                             eSCP   ScP    02 01 35.1 +0.7
KSH                             ePCS   PcS    02 01 37.1 +0.5
KSH                             eS     S      02 04 27.0 +1.4
KSH                             eXS    sS     02 04 35.4 +0.8
KSH                             eSCS   ScS    02 06 25.6 -0.8
KSH                              AMB   AMB
     comp=Z,2µm,4.9s
KSH                              LR    LR
     comp=N,1µm,5.8s
KSH                              LR    LR
     comp=E,1µm,5.2s
KSH                              LR    LR
     comp=Z,793nm,5.7s
B10A Chitwood Farm,   56.02  54 ⇑P     P      01 56 37.7 -0.3
     baz=56
J04A Umpqua Nationa   56.03  61 ⇓P     P      01 56 38.6 +0.5
     baz=56,SNR=26
ARU  Arti             56.06 318  P     P      01 56 38.8 +0.7
     comp=Z,635nm,0.6s,mb6.8,SNR=20
ARU  Arti             56.06 318⇑eP     P      01 56 37.8 -0.3
ARU  Arti             56.06 318⇓iP     P      01 56 37.9 -0.2
ARU                             e             01 57 34.5
ARU                             eS     S      02 04 26.8 +1.2
ARU                             eSS    SS     02 08 10.1 -1.0
ARU                              pmax  pmax
     comp=Z,52nm,0.7s,mb5.7
ODAN Odare            56.07 275 eP     P      01 56 39.7 +1.1
     comp=Z,33nm,0.6s,mb5.5
NEW  Newport          56.10  54 eP     P      01 56 37.8 -0.7
     comp=Z,39nm,1.4s,mb5.2
NEW                             ePcP   PcP    01 57 36.0 -0.4
NEW  Newport          56.10  54  P     P      01 56 37.7 -0.8
NEW                              pmax  pmax
     comp=Z,39nm,1.4s
D09A Jones Farm, Ri   56.11  55 ⇓P     P      01 56 37.9 -0.6
     baz=56
A11A Hall Mountain,   56.13  53 ⇓P     P      01 56 38.6 -0.1
     baz=56,SNR=16
VIPM Ingram Point     56.21  59  P     P      01 56 39.8 +0.4
JCC  Jacoby Creek     56.24  64 ⇑P     P      01 56 39.7 +0.1
     baz=56
PMG  Port Moresby     56.24 190 eP     P      01 56 37.9 -1.9
     comp=Z,7.7nm,0.7s,mb4.8
PMG                             ePcP   PcP    01 57 37.8 +0.6
PMG                              LR    LR
     comp=Z,5µm,21.0s,MS5.6
PMG  Port Moresby     56.24 190⇑eP     P      01 56 46.2 +6.4
C10A Spilker Farm,    56.24  54 ⇓P     P      01 56 38.8 -0.7
     baz=56
H06A Lindquist Farm   56.25  59 ⇓P     P      01 56 39.5 -0.1
     baz=56,SNR=24
G07A Ruggs Ranch, H   56.34  58 ⇑P     P      01 56 40.0 -0.3
     baz=56,SNR=8.3
B11A Sandpoint        56.42  53 ⇑P     P      01 56 40.4 -0.4
     baz=56,SNR=11
GUN  Gumba            56.44 277 eP     P      01 56 42.6 +1.4
     comp=Z,175nm,0.9s,mb6.1
E09A Wood Farm, Sta   56.51  56 ⇑P     P      01 56 40.9 -0.5
     baz=56,SNR=9.8
YBH  Yreka Blue Hor   56.53  63 eP     P      01 56 42.5 +0.8
     comp=Z,33nm,1.4s,mb5.2
YBH  Yreka Blue Hor   56.53  63 eP     P      01 56 42.5 +0.8
YBH                              pmax  pmax
     comp=Z,33nm,1.4s
YBH  Yreka Blue Hor   56.53  63 ⇑P     P      01 56 42.3 +0.6
     baz=56,SNR=16
A12A Yaak River Ran   56.53  52 ⇑P     P      01 56 41.5 -0.1
     baz=56,SNR=5.9
J05A Fort Rock        56.53  60 ⇑P     P      01 56 42.2 +0.5
     baz=56,SNR=36
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K04A  Chilquin           56.62  61 ⇓P     P       01 56 42.6 +0.3
      baz=56
M02C  Callahan           56.64  63  P     P       01 56 43.5 +1.1
      baz=56,SNR=9.7
D10A  Wagner Farm, O     56.69  55  P     P       01 56 42.1 -0.6
      baz=56,SNR=8.4
G08A  Pilot Rock         56.73  57  P     P       01 56 42.9 -0.2
      baz=56,SNR=17
O01C  Eel River Cons     56.76  65 ⇓P     P       01 56 43.7 +0.4
      baz=56
I06A  Prineville         56.77  59  P     P       01 56 44.0 +0.6
      baz=56,SNR=21
L04A  Klamath Falls      56.77  62 ⇓P     P       01 56 43.7 +0.3
      baz=56,SNR=9.5
DAG   Danmarks Havn      56.82 358⇑iP     P       01 56 43.0 -0.2
DAG                                 pmax  pmax
      comp=Z,16nm,1.1s,mb5.0
DAG                                 MLR   MLR
      comp=Z,5µm,18.0s,MS5.6
DAG                                 MLR   MLR
      comp=E,2µm,19.0s
DAG   Danmarks Havn      56.82 358⇑iP     P       01 56 43.0 -0.2
      comp=E,16nm,1.1s,mb5.0
DAG
      comp=Z,5µm,18.0s
B12A  Libby              56.83  53 ⇓P     P       01 56 43.6 -0.1
      baz=56
KKN   Kakani             56.93 277 eP     P       01 56 45.9 +1.2
      comp=Z,218nm,1.0s,mb6.2
PKI   Pulchoki           56.98 277 eP     P       01 56 46.4 +1.4
      comp=Z,94nm,0.7s,mb5.9
M04C  Macdoel            57.03  62 ⇓P     P       01 56 45.8 +0.6
      baz=57,SNR=16
K05A  Summer Lake        57.06  61  P     P       01 56 46.3 +0.9
      baz=57,SNR=19
F09A  S2 Ranch, Elgi     57.10  56  P     P       01 56 46.0 +0.3
      baz=57,SNR=5.6
I07A  Izee               57.11  59  P     P       01 56 46.1 +0.4
      baz=57,SNR=25
E10A  Myers Farm, Un     57.11  55 ⇑P     P       01 56 45.2 -0.5
      baz=57,SNR=9.4
M03C  McCloud            57.16  63 ⇓P     P       01 56 46.6 +0.5
      baz=57,SNR=6.4
DMN   Daman              57.16 277 eP     P       01 56 47.9 +1.6
      comp=Z,319nm,0.9s,mb6.3
KIPM  Iron Peak          57.17  65 eP     P       01 56 47.0 +0.8
J06A  Christmas Vall     57.20  60 ⇑P     P       01 56 46.8 +0.4
      baz=57,SNR=19
D11A  Klaveano Farm,     57.23  54  P     P       01 56 45.7 -0.8
      baz=57,SNR=16
GKN   Gorkha             57.23 277 eP     P       01 56 48.2 +1.4
      comp=Z,214nm,0.6s,mb6.3
WDC   Whiskeytown Da     57.30  64 eP     P       01 56 47.2  0.0
      comp=Z,12nm,1.0s,mb4.9
WDC                                ePcP   PcP     01 57 40.9 -0.3
WDC                                ePP    PP      01 58 54.8 +0.7
WDC   Whiskeytown Da     57.30  64 eP     P       01 56 47.2 +0.1
WDC                                e              01 57 40.9
WDC                                e              01 58 54.8
WDC                                 pmax  pmax
      comp=Z,12nm,1.0s,mb4.9
WDC   Whiskeytown Da     57.30  64 ⇓P     P       01 56 47.4 +0.2
      baz=57,SNR=7.4
KKAR  Karatay Array      57.31 300 i P    P       01 56 47.2  0.0
KKAR                                pmax  pmax
      comp=Z,10.0nm,0.7s,mb5.0
F10A  Beach Ranch, E     57.34  56 ⇓P     P       01 56 47.3 -0.1
      baz=57,SNR=9.5
H08A  Prairie City       57.34  58 ⇓P     P       01 56 47.4  0.0
      baz=57,SNR=21
O02C  Red Bluff          57.38  64 ⇓P     P       01 56 48.4 +0.7
      baz=57
WALA  Waterton Lakes     57.40  51 eP     P       01 56 47.4 -0.4
      comp=Z,29nm,0.9s,mb5.3
WALA                               ePcP   PcP     01 57 41.6 +0.2
WALA                               ePP    PP      01 58 57.1 +2.3
K06A  Valley Falls       57.40  60  P     P       01 56 48.6 +0.8
      baz=57,SNR=32
P01C  Double 8 Ranch     57.46  65 ⇓P     P       01 56 48.5 +0.2
      baz=57
L05A  Lakeview           57.49  61 ⇓P     P       01 56 49.2 +0.7
      baz=57,SNR=14
B13A  Whitefish          57.50  52  P     P       01 56 48.5 +0.1
      baz=57,SNR=45
BSMT  Bassoo Peak        57.62  53  P     P       01 56 49.2 -0.1
J07A  Hines              57.63  59 ⇓P     P       01 56 50.1 +0.7
      baz=57
E11A  Bogner Ranch,      57.70  55  P     P       01 56 49.4 -0.5
      baz=57,SNR=11
M05C  Lookout            57.70  62 ⇓P     P       01 56 50.5 +0.5
      baz=57
GASB  Alder Springs      57.74  65 ⇑P     P       01 56 50.8 +0.6
      baz=58,SNR=5.8
I08A  Drewsey            57.76  59  P     P       01 56 51.0 +0.6
      baz=58,SNR=9.0
HATC  Hat Creek Radi     57.83  63  P     P       01 56 51.4 +0.5
      baz=58,SNR=7.2
C13A  Hot Springs        57.84  53  P     P       01 56 50.9 +0.1
      baz=58,SNR=10
MOD   Modoc              57.90  61 eP     P       01 56 51.4  0.0
      comp=Z,23nm,1.3s,mb5.0
MOD                                ePcP   PcP     01 57 43.7 +0.2
MOD   Modoc              57.90  61 ⇑P     P       01 56 51.4 +0.1
      baz=58,SNR=21
HOPS  Hopland            57.90  66 ⇑P     P       01 56 51.5 +0.1
      baz=58
KEV   Kevo               57.93 341 ep     P       01 56 50.4 -0.7
      comp=Z,11nm,0.5s,mb5.1
KEV   Kevo               57.93 341 eP     P       01 56 50.4 -0.7
KEV                                 pmax  pmax
      comp=Z,11nm,0.5s,mb5.1
BMO   Blue Mountains     57.94  57 eP     P       01 56 51.4 -0.2
      comp=Z,42nm,1.4s,mb5.3
BMO                                ePcP   PcP     01 57 43.0 -0.7
O03C  Acorn Hollow,      57.96  64 ⇑P     P       01 56 51.6 -0.2
      baz=58
F11A  Grangeville        58.00  55  P     P       01 56 51.7 -0.3
      baz=58,SNR=15
K07A  Rock Creek Ran     58.07  60  P     P       01 56 53.1 +0.6
      baz=58,SNR=19
J08A  Circle Bar Ran     58.13  59 ⇑P     P       01 56 53.4 +0.4
      baz=58,SNR=5.8
M06C  Likely Place G     58.20  62  P     P       01 56 54.1 +0.6
      baz=58,SNR=5.8
I09A  Lost Marbles R     58.21  58 ⇑P     P       01 56 53.6 +0.2
      baz=58
PRGR  Permogore          58.24 328⇑iP     P       01 56 53.7 +0.3
PRGR                               eS     S       02 04 59.2 +5.1
D13A  Huson              58.24  53  P     P       01 56 53.1 -0.5
      baz=58,SNR=13
O04C  Chester            58.35  63 ⇑P     P       01 56 54.7 +0.2
      baz=58,SNR=14
MNRC  McLaughlin Nat     58.37  65 ⇓P     P       01 56 55.1 +0.4
      baz=58
ELFS  Eagle Lake Fie     58.39  63  P     P       01 56 55.6 +0.8
      baz=58,SNR=12
L07A  Adell              58.41  61  P     P       01 56 55.6 +0.7
      baz=58,SNR=16
ARCES ARCESS Array B     58.43 341  P     P       01 56 54.9 +0.3
ARCES                               pmax  pmax
      comp=Z,9.0nm,0.6s
ARCES ARCESS Array B     58.43 341  P     P       01 56 54.9 +0.3
      comp=Z,8.7nm,0.6s,mb4.9,baz=35,slow=6.8,SNR=20
ARE0  ARCESS Array S     58.43 341 eP     P       01 56 54.8 +0.2
ARE0                               ePcP   PcP     01 57 49.6 +4.4
ARE0                               ePP    PP      01 58 53.1  -10
K08A  Mann Creek Ran     58.50  60  P     P       01 56 55.9 +0.4
      baz=58,SNR=20
MCCM  Marconi Confer     58.53  66 ⇑P     P       01 56 56.3 +0.4
      baz=58
ORV   Oroville           58.55  64 ⇓P     P       01 56 55.0 -0.9
      baz=58,SNR=12
J09A  Fry Pan Ranch,     58.57  59  P     P       01 56 56.5 +0.5
      baz=58,SNR=25
SUTB  Sutter Butte       58.57  65 ⇓P     P       01 56 55.3 -0.8
      baz=58
WVOR  Wild Horse Val     58.58  60 eP     P       01 56 56.5 +0.4
      comp=Z,18nm,1.0s,mb5.1
WVOR                               ePcP   PcP     01 57 47.9 +1.7
WVOR                               ePP    PP      01 59 05.7 +0.3
WVOR  Wild Horse Val     58.58  60 eP     P       01 56 56.5 +0.4
WVOR                               e              01 57 47.9
WVOR                               e              01 59 05.7
WVOR                                pmax  pmax
      comp=Z,18nm,1.0s,mb5.1
F12A  Elk City           58.59  55  P     P       01 56 56.2 +0.2
      baz=58,SNR=27
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O05C  Quincy             58.67  63 ⇑P     P       01 56 56.7  0.0
      baz=58
CVS   Carmenet Viney     58.67  66 ⇓P     P       01 56 56.2 -0.6
      baz=58
I10A  Payette            58.69  57 ⇑P     P       01 56 57.1 +0.3
      baz=58
MSO   Missoula           58.69  53 eP     P       01 56 56.2 -0.5
      comp=Z,38nm,1.4s,mb5.2
OHCM  Honcut             58.69  64 eP     P       01 56 56.3 -0.6
OHCM                               ePcP   PcP     01 57 46.0 -0.8
FARB  Farallon Islan     58.72  67 ⇑P     P       01 56 57.6 +0.5
      baz=58
H11A  Donnelly           58.78  56  P     P       01 56 57.4  0.0
      baz=58,SNR=33
D14A  Greenough          58.78  53  P     P       01 56 57.2 -0.2
      baz=58,SNR=38
E13A  Victor             58.78  54 ⇑P     P       01 56 57.2 -0.2
      baz=58,SNR=12
Q03C  Winters            58.78  65 ⇑P     P       01 56 58.3 +0.7
      baz=58
N06A  Buffalo Meadow     58.86  62 ⇑P     P       01 56 58.0 -0.1
      baz=59,SNR=24
M07A  Soldier Meadow     58.88  61 ⇑P     P       01 56 58.5 +0.3
      baz=59,SNR=32
L08A  Fields             58.90  60  P     P       01 56 58.7 +0.4
      baz=59,SNR=17
K09A  Rome               58.97  59  P     P       01 56 59.0 +0.2
      baz=59,SNR=11
CHMT  Chamberlain Mo     59.02  53 eP     P       01 56 58.6 -0.5
CHMT                               ePcP   PcP     01 57 46.9 -0.9
Q04C  Lincoln            59.06  65 ⇓P     P       01 56 59.5 +0.1
      baz=59
BEKR  Beckwourth         59.07  63  P     P       01 56 59.4 -0.1
      baz=59,SNR=23
JOSI  Joshimath          59.07 283 eP     P       01 57 01.0 +1.4
F13A  Darby              59.09  55  P     P       01 56 59.3 -0.2
      baz=59,SNR=19
J10A  Berg Farm, Mel     59.10  58 ⇓P     P       01 56 59.3 -0.4
      baz=59
E14A  Clinton            59.18  54  P     P       01 57 00.1 -0.1
      baz=59,SNR=28
P05C  Yuba Gap, Truc     59.25  64 ⇑P     P       01 57 00.5 -0.3
      baz=59
I11A  Placerville        59.28  57  P     P       01 57 00.8 -0.2
      baz=59,SNR=9.1
BDM   Black Diamond      59.28  66 ⇑P     P       01 57 00.9 -0.1
      baz=59
M08A  Happy Creek Ra     59.33  61  P     P       01 57 01.8 +0.6
      baz=59,SNR=16
KTK1  Kautokeino         59.34 342 eP     P       01 57 02.4 +1.4
KTK1  Kautokeino         59.34 342 eP     P       01 57 02.0 +1.0
KTK1                               esP    sP      01 57 06.2 -2.4
D15A  Lincoln            59.34  53 ⇓P     P       01 57 01.3  0.0
      baz=59,SNR=16
N07B  Gerlach            59.37  62 ⇑P     P       01 57 01.6  0.0
      baz=59,SNR=5.3
L09A  Wilkinson Ranc     59.41  60 ⇓P     P       01 57 02.0 +0.1
      baz=59
K10A  MacKenzie Ranc     59.42  59 ⇓P     P       01 57 02.2 +0.3
      baz=59,SNR=19
LAVA  Lava Cap Winer     59.50  64  P     P       01 57 02.3 -0.2
      baz=59,SNR=8.8
H12A  Diamond D Ranc     59.53  56 ⇑P     P       01 57 02.1 -0.5
      baz=59,SNR=11
WENL  Wente Brothers     59.55  66 ⇑P     P       01 57 02.8 -0.1
      baz=59
G13A  Cobalt             59.56  55  P     P       01 57 02.7 -0.1
      baz=59,SNR=47
KSM   Kuching            59.56 235 eP     P       01 57 03.5 +0.3
KSM                                e              01 57 15.1
AB31  Akbulak array      59.60 311⇑eP     P       01 57 02.9 -0.1
AB31  Akbulak array      59.60 311  P     P       01 57 02.9 -0.1
AB31                                pmax  pmax
      comp=Z,32nm,0.9s,mb5.3
F14A  Wisdom             59.61  54  P     P       01 57 03.2  0.0
      baz=59,SNR=13
E15A  Deer Lodge         59.65  53  P     P       01 57 03.2 -0.2
      baz=59,SNR=20
MFID  Camas Ranch        59.65  58  P     P       01 57 03.6 +0.1
      baz=59,SNR=11
R04C  Big Horse Ranc     59.68  65 ⇓P     P       01 57 03.4 -0.4
      baz=59
TRO   Tromso             59.71 344 eP     P       01 57 02.7 -0.7
TRO                                 AMb   AMB     01 57 07.4
      comp=Z,133nm,1.8s,mb5.7
WCN   Washoe City        59.78  63 ⇑P     P       01 57 04.7 +0.2
      baz=60,SNR=12
O07A  Toulon             59.80  62 ⇓P     P       01 57 04.8 +0.2
      baz=60,SNR=26
H13A  Challis            59.87  56  P     P       01 57 05.0  0.0
      baz=60,SNR=22
N08A  GE Springer Mi     59.88  61 ⇑P     P       01 57 05.2 +0.1
      baz=60,SNR=9.3
S04C  Ingram Canyon,     59.90  66 ⇑P     P       01 57 05.1 -0.2
      baz=60
FFC   Flin Flon          59.90  41 eP     P       01 57 04.9 -0.2
      comp=Z,57nm,0.9s,mb5.6
FFC                                ePcP   PcP     01 57 48.6 -2.6
FFC   Flin Flon          59.90  41  P     P       01 57 04.8 -0.2
FFC                                 pmax  pmax
      comp=Z,57nm,0.9s,mb5.6
G14A  Jackson            59.91  55 ⇑P     P       01 57 04.5 -0.7
      baz=60,SNR=7.8
R05C  Kirkwood Meado     59.95  64  P     P       01 57 05.8 +0.2
      baz=60,SNR=10
F15A  Butte              60.08  54  P     P       01 57 06.6 +0.2
      baz=60,SNR=39
L10A  Juniper Basin      60.08  59  P     P       01 57 06.8 +0.3
      baz=60,SNR=15
CMB   Columbia Colle     60.16  65 eP     P       01 57 07.0 -0.1
      comp=Z,34nm,1.4s,mb5.2
CMB                                ePcP   PcP     01 57 52.3 -0.3
CMB                                 PP    PP      01 59 20.5 +1.0
CMB                                 LR    LR
      comp=Z,279nm,21.0s,MS4.4
CMB   Columbia Colle     60.16  65  P     P       01 57 07.0  0.0
      baz=60,SNR=16
J12A  Stokes Ranch,      60.18  57  P     P       01 57 07.3 +0.2
      baz=60,SNR=19
N09A  Rock Creek Ran     60.20  61 ⇓P     P       01 57 07.6 +0.3
      baz=60,SNR=7.3
DLH   Dalhousie          60.22 287 ex     x       01 57 10.0
PACP  Pacheco Peak       60.22  66 ⇑P     P       01 57 07.6 +0.1
      baz=60
EGMT  Eagleton           60.24  50 eP     P       01 57 07.0 -0.4
      comp=Z,48nm,1.1s,mb5.4
EGMT                               ePcP   PcP     01 57 49.8 -3.0
EGMT  Eagleton           60.24  50 ⇓P     P       01 57 07.2 -0.2
      baz=60
I13A  Wildhorse Cree     60.34  56  P     P       01 57 08.6 +0.4
      baz=60,SNR=21
M10A  I.L. Ranch, Tu     60.38  60 ⇑P     P       01 57 08.8 +0.3
      baz=60,SNR=21
HLID  Hailey             60.38  57 eP     P       01 57 08.4 -0.1
      comp=Z,18nm,1.1s,mb5.0
HLID                               ePcP   PcP     01 57 53.6 +0.3
HLID                                LR    LR
      comp=Z,442nm,19.0s,MS4.6
HLID  Hailey             60.38  57  P     P       01 57 08.7 +0.1
      baz=60,SNR=20
HAST  UC Hastings Re     60.44  67 ⇑P     P       01 57 09.7 +0.7
      baz=60
R06C  Coleville          60.45  64 ⇓P     P       01 57 09.3 +0.3
      baz=60,SNR=15
L11A  Cat Creek Ranc     60.45  59 ⇑P     P       01 57 09.2 +0.2
      baz=60,SNR=23
THN   Thein Dam          60.45 287 eP     P       01 57 08.3 -0.9
G15A  Dillon             60.50  54  P     P       01 57 09.2 -0.1
      baz=60,SNR=13
MCMT  McKenzie Canyo     60.50  55 eP     P       01 57 09.0 -0.3
MCMT                               ePcP   PcP     01 57 51.1 -2.7
FCC   Fort Churchill     60.57  34 eP     P       01 57 09.0 -0.5
      comp=Z,33nm,0.9s,mb5.5
FCC                                ePcP   PcP     01 57 52.7 -1.2
FCC                                ePP    PP      01 59 18.1 -4.4
FCC   Fort Churchill     60.57  34  P     P       01 57 09.0 -0.5
FCC                                 pmax  pmax
      comp=Z,33nm,0.9s,mb5.5
P08A  Dixie Valley       60.57  62  P     P       01 57 10.8 +1.0
      baz=60,SNR=5.5
S06C  San Francisco      60.59  65 ⇓P     P       01 57 09.7 -0.3
      baz=60,SNR=13
J13A  Cove Ranch, Pi     60.62  57  P     P       01 57 10.6 +0.4
      baz=60,SNR=15
BMN   Battle Mountai     60.64  61 eP     P       01 57 10.6 +0.3
      comp=Z,13nm,0.8s,mb5.1
BMN                                ePcP   PcP     01 57 54.5  0.0
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BMN   Battle Mountai     60.64  61 eP     P       01 57 10.6 +0.3
BMN                                e              01 57 54.5
BMN                                 pmax  pmax
      comp=Z,13nm,0.8s,mb5.1
K12A  Draper Farm, C     60.66  58 ⇑P     P       01 57 10.6 +0.2
      baz=60,SNR=9.3
BOZ   Bozeman (W)        60.68  53 eP     P       01 57 10.7 +0.2
      comp=Z,38nm,1.1s,mb5.4
BOZ   Bozeman (W)        60.68  53 eP     P       01 57 10.7 +0.2
BOZ                                 pmax  pmax
      comp=Z,39nm,1.1s,mb5.5
BOZ   Bozeman (W)        60.68  53 ⇓P     P       01 57 11.0 +0.5
      baz=60
T05C  Eagle Field, D     60.68  66 ⇑P     P       01 57 10.7  0.0
      baz=60
O09A  Fish Creek Ran     60.82  61  P     P       01 57 12.3 +0.7
      baz=60,SNR=6.7
V03C  Hunter Liggett     60.87  67 ⇑P     P       01 57 12.0  0.0
      baz=61
M11A  Holland Ranch,     60.88  59  P     P       01 57 12.6 +0.7
      baz=61,SNR=18
N10A  Dunphy             60.89  60 ⇓P     P       01 57 12.4 +0.4
      baz=61
L12A  House Creek Ra     60.90  58  P     P       01 57 12.7 +0.6
      baz=61,SNR=21
U04C  Hernandez Rese     60.94  67 ⇓P     P       01 57 12.6 +0.2
      baz=61
R07C  Lee Vining         60.96  64  P     P       01 57 13.2 +0.7
      baz=61,SNR=10
K13A  Stover Farm, H     61.13  57 ⇓P     P       01 57 13.8 +0.2
      baz=61
O10A  Cortez Mining,     61.16  61 ⇑P     P       01 57 14.4 +0.6
      baz=61
Q08A  Gabbs              61.17  63  P     P       01 57 14.2 +0.2
      baz=61,SNR=16
NVAR  Mina Array Bea     61.21  63  P     P       01 57 14.0 -0.2
      comp=Z,10nm,0.8s,mb5.0,baz=303,slow=5.6,SNR=59
T06C  Millerton Lake     61.22  66 ⇑P     P       01 57 13.8 -0.5
      baz=61,SNR=8.2
P09A  Austin             61.23  62 ⇑P     P       01 57 14.5 +0.1
      baz=61
KCC   Kaiser Creek       61.27  65 ⇓P     P       01 57 14.4 -0.3
      baz=61,SNR=6.4
COEN  Coen               61.27 193 eP     P       01 57 13.9 -0.8
COEN                               ePcP   PcP     01 57 56.4 -0.7
N11A  Elko Archery C     61.29  60 ⇓P     P       01 57 15.2 +0.5
      baz=61
QLMT  Earthquake Lak     61.30  54 eP     P       01 57 14.9 +0.2
V04C  Ramage Ranch,      61.34  67 ⇓P     P       01 57 15.3 +0.2
      baz=61
PKD   Parkfield          61.35  67 ⇓P     P       01 57 15.7 +0.4
      baz=61
U05C  Westside ANR,      61.38  66 ⇓P     P       01 57 15.8 +0.4
      baz=61
MLAC  Mammoth Lakes      61.38  64 ⇓P     P       01 57 16.0 +0.7
      baz=61
R08A  Mina               61.38  63 ⇓P     P       01 57 15.4  0.0
      baz=61
M12A  Wells              61.41  59  P     P       01 57 16.0 +0.5
      baz=61,SNR=22
L13A  Double Diamond     61.56  58  P     P       01 57 17.3 +0.8
      baz=61,SNR=11
P10A  Eureka             61.60  61  P     P       01 57 17.3 +0.5
      baz=61,SNR=9.9
ELK   Elko               61.63  60 eP     P       01 57 16.6 -0.5
      comp=Z,11nm,0.8s,mb5.0
ELK                                 LR    LR
      comp=Z,517nm,19.0s,MS4.7
ELK   Elko               61.63  60 eP     P       01 57 16.6 -0.4
ELK                                 pmax  pmax
      comp=Z,11nm,0.8s
ELK                                 MLR   MLR
      comp=Z,517nm,19.0s
Q09A  Carvers            61.65  62 ⇓P     P       01 57 17.4 +0.2
      baz=61
YMR   Madison River      61.66  54 eP     P       01 57 17.6 +0.5
      comp=Z,56nm,1.3s,mb5.5
YMR                                ePcP   PcP     01 57 58.1 -0.4
GCMT  Greycliff          61.67  52 eP     P       01 57 17.8 +0.5
GCMT                               ePcP   PcP     01 57 57.2 -1.4
N12A  Clover Valley,     61.69  60 ⇓P     P       01 57 17.6 +0.2
      baz=61,SNR=7.3
MTUM  Tungsten Hills     61.72  65 eP     P       01 57 18.1 +0.4
MTUM                               ePcP   PcP     01 57 58.7 -0.2
K14A  Jones Ranch, D     61.72  57 ⇓P     P       01 57 18.1 +0.5
      baz=61,SNR=14
PTRM  Twissleman Ran     61.74  67 eP     P       01 57 16.6 -1.3
O11A  Cowboy Ranch,      61.77  60  P     P       01 57 18.3 +0.4
      baz=62,SNR=11
YNR   Norris Junctio     61.79  54 eP     P       01 57 19.0 +1.0
YNR                                ePcP   PcP     01 57 58.1 -0.9
V05C  Boulder Hill,      61.81  67 ⇑P     P       01 57 18.0 -0.3
      baz=62
NDI   New Delhi          61.83 283 eP     P       01 57 17.5 -1.1
HELL  Mitchell Peak,     61.85  65  P     P       01 57 18.1 -0.5
      baz=62,SNR=19
YFT   Old Faithful       61.86  54 eP     P       01 57 19.4 +0.8
S08C  White Mtn Res      61.87  64 ⇑P     P       01 57 19.0 +0.3
      baz=62,SNR=8.5
M13A  Montello           61.88  59  P     P       01 57 19.0 +0.3
      baz=62,SNR=11
RCTC  Rector, Farmer     61.95  66 ⇑P     P       01 57 19.1 -0.1
      baz=62
AYAN  Aya Nagar          62.02 283 eP     P       01 57 19.9  0.0
AYAN                                AMb   AMB     01 57 25.1
      comp=Z,38nm,0.4s,mb5.8
LKWY  Lake               62.03  54 eP     P       01 57 21.1 +1.4
      comp=Z,18nm,0.9s,mb5.2
LKWY  Lake               62.03  54 eP     P       01 57 21.1 +1.4
LKWY                                pmax  pmax
      comp=Z,17nm,0.9s,mb5.2
P11A  Circle Ranch,      62.07  61 ⇓P     P       01 57 20.2 +0.2
      baz=62
JOF   Joensuu            62.07 335 ep     P       01 57 19.4 -0.2
      comp=Z,6.3nm,0.4s,mb5.1
JOF   Joensuu            62.07 335 eP     P       01 57 19.4 -0.2
JOF                                 pmax  pmax
      comp=Z,6.0nm,0.4s,mb5.1
R09A  Tonopah            62.09  63  P     P       01 57 20.2 +0.1
      baz=62,SNR=40
SMMC  Simmler            62.09  67 ⇑P     P       01 57 20.4 +0.1
      baz=62
TPH   Tonopah            62.10  63 eP     P       01 57 20.4 +0.1
      comp=Z,71nm,1.4s,mb5.6
TPH                                ePcP   PcP     01 58 00.8 +0.4
TPH                                 LR    LR
      comp=Z,678nm,22.0s,MS4.8
TPH   Tonopah            62.10  63 eP     P       01 57 20.4 +0.2
TPH                                e              01 58 00.9
TPH                                 pmax  pmax
      comp=Z,71nm,1.4s,mb5.6
TPH                                 MLR   MLR
      comp=Z,678nm,22.0s,MS4.8
Q10A  Clear Creek Ra     62.13  62 ⇑P     P       01 57 20.5 +0.1
      baz=62
N13A  Wendover, West     62.18  59 ⇑P     P       01 57 20.8 +0.1
      baz=62
DCID1 Drake Creek        62.20  55 eP     P       01 57 21.8 +0.9
AGRA  Agra               62.28 281 eP     P       01 57 21.5 -0.1
AGRA                                AMb   AMB     01 57 22.6
      comp=Z,43nm,0.9s,mb5.6
RLMT  Red Lodge          62.31  53 eP     P       01 57 22.0 +0.5
      comp=Z,80nm,1.5s,mb5.6
RLMT                               ePcP   PcP     01 58 01.8 +0.7
VES   Vestal, Richgr     62.34  66 ⇓P     P       01 57 22.0 +0.1
      baz=62,SNR=8.6
MOOW  Moose Ponds        62.36  55 eP     P       01 57 22.4 +0.5
      comp=Z,28nm,1.2s,mb5.3
MOOW                               ePcP   PcP     01 57 59.6 -1.7
PKM   Peak Mountain      62.47  67 ⇑P     P       01 57 22.6 -0.2
      baz=62
KAKA  Kakadu             62.50 205 eP     P       01 57 21.7 -1.3
      comp=Z,12nm,0.6s,mb5.2
KAKA                               ePcP   PcP     01 58 00.8 -1.4
LOHW  Long Hollow        62.52  55 eP     P       01 57 23.2 +0.3
      comp=Z,36nm,1.2s,mb5.4
LOHW                               ePcP   PcP     01 58 04.1 +2.1
R10A  Warm Springs       62.53  62 ⇓P     P       01 57 22.9 -0.2
      baz=62,SNR=5.6
REDW  Red Top Meadow     62.54  55 eP     P       01 57 23.8 +0.7
      comp=Z,55nm,1.0s,mb5.6
REDW                                PcP   PcP     01 58 02.8 +0.7
Q11A  Duckwater          62.57  62  P     P       01 57 23.3 -0.1
      baz=62,SNR=10
S10A  Tonopah Range,     62.58  63  P     P       01 57 23.5  0.0
      baz=62,SNR=24
CWC   Cottonwood Cre     62.59  65 ⇑P     P       01 57 23.2 -0.3
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	baz=62						
P12A	**McGill**	62.63	61	P	P	01 57 23.9	+0.2
	baz=62,SNR=14						
KUDL	**Kundal**	62.67	283	*e*P	P	01 57 24.7	+0.5
KUDL				AMb	AMB	01 57 26.1	
	comp=Z,50nm,1.1s,mb5.6						
GRAC	**Grapevine Rang**	62.68	64	⇓P	P	01 57 24.3	+0.2
	baz=62,SNR=11						
ISA	**Isabella**	62.84	66	⇑P	P	01 57 24.3	-0.9
	baz=63						
DGMT	**Dagmar**	62.84	47	*e*P	P	01 57 25.2	+0.1
	comp=Z,15nm,0.6s,mb5.3						
DGMT				PcP	PcP	01 57 58.9	-4.4
TRCR	**Troy Canyon**	62.93	62	*e*P	P	01 57 25.6	-0.1
LAO	**LASA Array**	62.95	50	*e*P	P	01 57 26.1	+0.3
	comp=Z,69nm,1.2s,mb5.7						
LAO				*e*PcP	PcP	01 58 03.3	-0.4
Q12A	**Willow Creek R**	62.95	61	⇑P	P	01 57 25.8	0.0
	baz=63,SNR=15						
ARVC	**Arvin**	62.95	67	⇓P	P	01 57 25.2	-0.7
	baz=63						
KHET	**Khetri**	63.17	283	*e*P	P	01 57 27.3	-0.2
KHET				AMb	AMB	01 57 28.7	
	comp=Z,19nm,1.0s,mb5.2						
MPMC	**Manual Prospec**	63.20	65	P	P	01 57 27.6	0.0
	baz=63,SNR=16						
HWUT	**Hardware Ranch**	63.25	57	*e*P	P	01 57 28.0	+0.2
	comp=Z,78nm,1.9s,mb5.5						
HWUT				*e*PcP	PcP	01 58 05.4	+0.4
HWUT				*e*PP	PP	01 59 46.6	0.0
HWUT				LR	LR		
	comp=Z,538nm,21.0s,MS4.7						
S11A	**Rachel**	63.27	63	⇑P	P	01 57 28.3	+0.2
	baz=63,SNR=11						
FURC	**Furnace Creek,**	63.33	64	P	P	01 57 28.5	0.0
	baz=63,SNR=14						
OSI	**Osito Adit**	63.34	67	⇓P	P	01 57 28.3	-0.2
	baz=63						
DUG	**Dugway**	63.42	59	*e*P	P	01 57 29.1	+0.1
	comp=Z,39nm,1.3s,mb5.4						
DUG				LR	LR		
	comp=Z,491nm,20.0s,MS4.7						
DUG	**Dugway**	63.42	59	*e*P	P	01 57 29.1	+0.1
DUG				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.4						
DUG				MLR	MLR		
	comp=Z,491nm,20.0s,MS4.7						
DUG	**Dugway**	63.42	59	⇓P	P	01 57 29.1	+0.1
	baz=63						
KBL	**Kabul**	63.44	293	*e*P	P	01 57 29.1	-0.1
KBL				*e*PcP	PcP	01 58 09.0	+3.1
LRMC	**Laurel Mountai**	63.45	66	⇓P	P	01 57 28.8	-0.4
	baz=63						
NOQ	**North Oquirrh**	63.53	58	*e*P	P	01 57 30.2	+0.5
	comp=Z,37nm,1.0s,mb5.4						
R12A	**Pony Springs,**	63.53	61	P	P	01 57 29.6	-0.2
	baz=63,SNR=22						
MOR8	**Moi Rana**	63.56	343	*e*P	P	01 57 28.8	-0.7
MOR8	**Moi Rana**	63.56	343	*e*P	P	01 57 28.1	-1.4
MOR8				*e*sP	sP	01 57 33.6	-3.5
EDW2	**Edwards Air Fo**	63.64	66	⇓P	P	01 57 30.2	-0.3
	baz=63,SNR=7.9						
BW06	**Boulder Array**	63.65	55	*e*P	P	01 57 30.5	+0.1
	comp=Z,32nm,1.1s,mb5.3						
BW06				LR	LR		
	comp=Z,703nm,19.0s,MS4.9						
PDAR	**Pinedale Array**	63.65	55	P	P	01 57 30.4	-0.1
	comp=Z,19nm,0.9s,mb5.1,baz=287,slow=2.5,SNR=113						
U10A	**Ash Meadows, A**	63.70	64	⇑P	P	01 57 30.9	0.0
	baz=63,SNR=6.9						
DECC	**Green Verdugo**	63.83	67	⇑P	P	01 57 31.3	-0.5
	baz=64						
JLU	**Jordanelle**	63.95	58	*e*P	P	01 57 32.9	+0.3
NLU	**North Lily Min**	64.00	59	*e*P	P	01 57 33.3	+0.5
SHOC	**Shoshone**	64.06	64	P	P	01 57 33.0	-0.2
	baz=64,SNR=7.4						
GSC	**Goldstone**	64.11	65	⇓P	P	01 57 33.3	-0.4
	baz=64,SNR=5.2						
KAF	**Kangasniemi**	64.15	336	*e*p	P	01 57 34.4	+1.0
	comp=Z,23nm,0.6s,mb5.4,baz=35,slow=6.1						
KAF	**Kangasniemi**	64.15	336	*e*P	P	01 57 34.4	+1.0
KAF				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.4						
MPU	**Maple Canyon**	64.22	58	*e*P	P	01 57 34.4	+0.1
	comp=Z,21nm,1.0s,mb5.1						
BFSC	**Mount Baldy St**	64.26	67	⇑P	P	01 57 34.1	-0.6
	baz=64						
U11A	**Corn Creek**	64.28	64	⇓P	P	01 57 35.1	+0.4
	baz=64,SNR=5.6						
T12A	**Moapa**	64.50	63	⇑P	P	01 57 36.1	0.0
	baz=64						
TUQ	**Turquoise Mtn.**	64.58	65	⇑P	P	01 57 36.4	-0.3
	baz=64,SNR=12						
ARUT	**Antelope Range**	64.59	61	*e*P	P	01 57 36.3	-0.4
ARUT				*e*PcP	PcP	01 58 10.6	0.0
V11A	**Goodsprings**	64.63	64	P	P	01 57 37.1	+0.1
	baz=64,SNR=12						
BBRC	**Big Bear Sol-O**	64.71	66	⇑P	P	01 57 37.3	-0.2
	baz=64						
HEC	**Hector,Ludlow**	64.72	65	⇑P	P	01 57 37.2	-0.4
	baz=64,SNR=6.0						
FIA1	**FINESS Array S**	64.75	336	*e*P	P	01 57 37.1	-0.3
FINES	**FINESS Array B**	64.75	336	P	P	01 57 36.7	-0.7
FINES	**FINESS Array B**	64.75	336	⇑*e*P	P	01 57 37.2	-0.2
FINES	**FINESS Array B**	64.75	336	P	P	01 57 36.7	-0.7
	comp=Z,18nm,0.4s,mb5.4,baz=47,slow=8.2,SNR=103						
S14A	**Cedar City**	64.77	61	⇓P	P	01 57 37.9	0.0
	baz=64,SNR=5.8						
CCUT	**Cedar City**	64.79	61	*e*P	P	01 57 38.2	+0.2
U12A	**Valley of Fire**	64.79	63	⇓P	P	01 57 38.0	0.0
	baz=64,SNR=5.5						
T13A	**Saint George**	64.80	62	⇓P	P	01 57 38.5	+0.4
	baz=64,SNR=23						
MSU	**Marysvale**	64.88	60	*e*P	P	01 57 38.6	0.0
MSU				*e*PcP	PcP	01 58 09.5	-2.2
TMUT	**Trail Mountain**	64.94	59	*e*P	P	01 57 39.2	+0.2
MURC	**Murrieta**	64.96	67	⇓P	P	01 57 38.5	-0.7
	baz=65						
AJM	**Ajmer**	65.00	283	*i* P	P	01 57 39.0	-0.5
SFJD	**Kangerlussuaq**	65.01	11	*i* P	P	01 57 39.1	+0.1
SFJD				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.4						
SFJD				MLR	MLR		
	comp=Z,1μm,20.0s,MS5.1						
SFJD	**Kangerlussuaq**	65.01	11	P	P	01 57 38.8	-0.2
	comp=Z,22nm,0.9s,mb5.2,baz=343,slow=3.5,SNR=7.0						
SFJD	**Kangerlussuaq**	65.01	11	*i* P	P	01 57 39.1	+0.1
	comp=Z,36nm,0.9s,mb5.4						
SFJD				*i*		01 57 46.5	
SFJD							
	comp=Z,1μm,20.0s						
V12A	**Nelson**	65.06	64	⇑P	P	01 57 39.6	-0.1
	baz=65,SNR=13						
GMRC	**Granite Mounta**	65.17	65	⇑P	P	01 57 40.2	-0.4
	baz=65,SNR=9.7						
T14A	**Hurricane**	65.27	62	P	P	01 57 41.6	+0.4
	baz=65,SNR=22						
W12A	**Cal Nev Ari**	65.32	64	⇑P	P	01 57 41.5	0.0
	baz=65						
PFO	**Pinyon Flat Ob**	65.43	67	⇓P	P	01 57 41.5	-0.7
	baz=65						
BELC	**Belle Mtn.**	65.46	66	⇓P	P	01 57 41.7	-0.7
	baz=65						
SRU	**San Rafael**	65.46	59	*e*P	P	01 57 42.3	-0.1
	comp=Z,35nm,1.0s,mb5.3						
SRU				*e*PcP	PcP	01 58 13.9	-0.3
SRU	**San Rafael**	65.46	59	P	P	01 57 42.3	-0.1
SRU				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.3						
109C	**Camp Elliot, M**	65.49	68	⇑P	P	01 57 41.8	-0.8
	baz=65						
NSS	**Namsos**	65.50	343	*e*P	P	01 57 45.1	+2.9
ULM	**Lac du Bonnet**	65.67	42	P	P	01 57 42.9	-0.6
	comp=Z,15nm,0.7s,mb5.1,baz=314,slow=7.5,SNR=50						
RWWY	**Rawlins**	65.67	55	*e*P	P	01 57 43.3	-0.4
	comp=Z,39nm,1.2s,mb5.3						
RSSD	**Black Hills**	65.80	51	PFAKE		01 58 00.0	+16
RSSD				LR	LR		
	comp=Z,516nm,19.0s,MS4.8						
IRM	**Iron Mountain**	65.89	65	⇓P	P	01 57 44.8	-0.5
	baz=66,SNR=8.9						
BC3	**Big Chuckw Mtn**	66.03	66	P	P	01 57 45.7	-0.4
	baz=66,SNR=7.4						
W13A	**Hualapai Mount**	66.06	64	P	P	01 57 46.3	0.0
	baz=66,SNR=16						
OBN	**Obninsk**	66.21	327	⇑*i*P	P	01 57 46.0	-0.9
OBN				*e*		01 58 00.3	
OBN				*e*		02 00 12.7	
OBN				*e*S	S	02 06 35.4	+0.6
OBN				*e*SS	SS	02 10 50.1	+0.3
OBN				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.3						
OBN				MLR	MLR		
	comp=Z,200nm,16.0s,MS4.4						
X13A	**Yucca**	66.43	64	P	P	01 57 48.4	-0.3
	baz=66,SNR=24						
PDMCI	**Parker Dam,Lak**	66.43	65	P	P	01 57 48.4	-0.3
	baz=66,SNR=20						
W14A	**Seligman**	66.48	63	P	P	01 57 49.4	+0.4
	baz=66,SNR=51						
Y12C	**Blythe**	66.55	65	P	P	01 57 49.3	-0.1
	baz=66,SNR=7.2						
PV10	**Paradox Valley**	66.82	58	*e*P	P	01 57 51.1	0.0
GLA	**Glamis**	66.82	66	⇓P	P	01 57 50.9	-0.3
	baz=66,SNR=6.4						
CTA	**Charters Tower**	66.89	189	*e*P	P	01 57 49.8	-1.8
	comp=Z,4.2nm,0.7s,mb4.6						
CTA	**Charters Tower**	66.89	189	*e*P	P	01 57 49.8	-1.8
CTA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CTAO	**Charters Tower**	66.89	189	*e*P	P	01 57 49.9	-1.7
	comp=Z,5.0nm,0.6s,mb4.7						
CTAO				LR	LR		
	comp=Z,4μm,21.0s,MS5.6						
CTAO	**Charters Tower**	66.89	189	*e*P	P	01 57 49.9	-1.7
CTAO				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
CTAO				MLR	MLR		
	comp=Z,4μm,21.0s,MS5.6						
Y13A	**Salome**	66.94	65	P	P	01 57 51.7	-0.3
	baz=67,SNR=9.8						
W15A	**Williams**	67.01	63	P	P	01 57 53.2	+0.8
	baz=67,SNR=14						
AGMN	**Agassiz Refuge**	67.04	43	*e*P	P	01 57 51.6	-0.7
	comp=Z,44nm,1.1s,mb5.4						
AGMN				*e*PcP	PcP	01 58 19.3	-1.3
X14A	**Yava**	67.09	64	P	P	01 57 53.3	+0.4
	baz=67,SNR=30						
PV01	**Paradox Valley**	67.26	58	*e*P	P	01 57 53.9	0.0
WUAZ	**Wupatki**	67.33	62	*e*P	P	01 57 54.6	+0.2
	comp=Z,42nm,1.2s,mb5.3						
WUAZ				*e*PcP	PcP	01 58 22.3	+0.3
WUAZ	**Wupatki**	67.33	62	⇓P	P	01 57 54.8	+0.4
	baz=67						
Y14A	**Wickenburg**	67.37	64	P	P	01 57 54.5	-0.1
	baz=67,SNR=18						
SMCO	**Snowmass**	67.48	56	*e*P	P	01 57 55.1	-0.2
	comp=Z,45nm,1.3s,mb5.3						
SMCO				*e*PcP	PcP	01 58 24.3	+1.7
X15A	**Humboldt**	67.48	63	P	P	01 57 55.8	+0.4
	baz=67,SNR=43						
Z14A	**Wintersburg**	67.79	65	⇑P	P	01 57 56.9	-0.5
	baz=68						
ISCO	**Idaho Springs**	67.84	55	*e*P	P	01 57 57.8	+0.2
	comp=Z,30nm,1.0s,mb5.3						
ISCO				LR	LR		
	comp=Z,764nm,20.0s,MS4.9						
ABKT	**Ailbek**	67.89	302	P	P	01 57 58.9	+1.0
	comp=Z,247nm,0.8s,mb6.3,SNR=7.1						
MVCO	**Mesa Verde**	67.92	59	*e*P	P	01 57 57.8	-0.2
	comp=Z,40nm,1.3s,mb5.3						
MVCO	**Mesa Verde**	67.92	59	⇓P	P	01 57 58.1	0.0
	baz=68						
VRSR	**Storozhevoye**	68.08	322	*e*P	P	01 57 58.3	-0.6
VRSR				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
VRSR				pmax	pmax		
	comp=N,3.0nm,2.3s						
VRSR				pmax	pmax		
	comp=E,3.0nm,2.3s						
VORD	**Divnogorie**	68.22	322	*e*P	P	01 57 59.2	-0.6
VORD				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
VORD				pmax	pmax		
	comp=N,20nm,1.0s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.7s						
115A	**Sonoran Desert**	68.68	65	P	P	01 58 03.2	+0.3
	baz=68,SNR=12						
NB2	**NORSAR Subarra**	68.80	342	P	P	01 58 02.8	-0.3
	comp=Z,25nm,0.8s,mb5.2,baz=30,slow=6.5						
NOA	**NORSAR Array B**	68.80	342	P	P	01 58 02.9	-0.2
NOA	**NORSAR Array B**	68.80	342	P	P	01 58 02.9	-0.2
NOA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
NOA	**NORSAR Array B**	68.80	342	P	P	01 58 02.9	-0.2
	comp=Z,10nm,0.9s,mb4.8,baz=26,slow=6.3,SNR=25						
WB2	**Warramunga Arr**	68.89	201	*e*P	P	01 58 02.0	-2.1
WRA	**Warramunga Arr**	68.89	201	P	P	01 58 02.2	-1.9
WRA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
WRA	**Warramunga Arr**	68.89	201	P	P	01 58 02.2	-2.0
	comp=Z,5.5nm,0.9s,mb4.5,baz=19,slow=6.5,SNR=20						
BORG	**Borgarnes**	68.93	358	*e*P	P	01 58 06.6	+2.6
NAO01	**NORSAR Array S**	69.04	342	*e*P	P	01 58 04.4	-0.3
	comp=Z,8.7nm,1.1s,mb4.6						
NAO01				*e*PcP	PcP	01 58 30.1	+1.4
HFS	**Hagfors**	69.06	341	P	P	01 58 03.8	-1.0
HFS				pmax	pmax		
	comp=Z,11nm,0.4s						
HFS	**Hagfors**	69.06	341	P	P	01 58 03.8	-1.0
	comp=Z,11nm,0.4s,mb5.1,baz=64,slow=3.4,SNR=66						
116A	**Eloy**	69.10	64	P	P	01 58 05.5	0.0
	baz=69,SNR=9.3						
SDCO	**Great Sand Dun**	69.30	57	*e*P	P	01 58 06.9	+0.2
	comp=Z,32nm,1.4s,mb5.1						
SDCO				*e*PcP	PcP	01 58 29.3	-0.9
SDCO				LR	LR		
	comp=Z,528nm,19.0s,MS4.8						
EYMN	**Ely**	69.32	41	*e*P	P	01 58 05.8	-0.8
	comp=Z,109nm,1.7s,mb5.5						
EYMN				*e*PcP	PcP	01 58 30.1	-0.1
FITZ	**Fitzroy Crossi**	69.73	210	*e*P	P	01 58 08.5	-0.9
	comp=Z,7.9nm,0.9s,mb4.6						
FITZ				*e*PP	PP	02 00 43.3	-0.8
MNK	**Minsk**	69.84	330	*e*P	P	01 58 11.0	+1.3
TUC	**Tucson**	69.84	64	*e*P	P	01 58 10.0	-0.1
	comp=Z,15nm,1.2s,mb4.8						
TUC	**Tucson**	69.84	64	*e*P	P	01 58 10.0	-0.1
TUC				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
ECSD	**EROS,Sioux Fal**	69.92	47	*e*P	P	01 58 09.5	-0.9
	comp=Z,32nm,1.1s,mb5.2						
ECSD				*e*PcP	PcP	01 58 32.9	+0.2
MAK	**Makhachkala**	70.23	312	*e*P	P	01 58 10.8	-1.5
MAK				*i*		01 58 33.4	
MAK				*i*		02 00 51.7	
MAK				pmax	pmax		
	comp=Z,104nm,1.2s,mb5.6						
KONO	**Kongsberg**	70.40	342	*e*P	P	01 58 12.9	-0.1
KONO				*e*PP	PP	02 00 58.6	+10
RUND	**Rundenannen**	70.52	345	*e*P	P	01 58 16.8	+3.0
RUND	**Rundenannen**	70.52	345	*e*P	P	01 58 16.5	+2.7
LAZ	**Ladron**	70.64	60	*e*P	P	01 58 17.2	+2.2
ANMO	**Albuquerque**	70.66	59	*e*P	P	01 58 15.1	0.0
	comp=Z,19nm,1.1s,mb4.9						
ANMO				LR	LR		
	comp=Z,408nm,20.0s,MS4.7						
ANMO	**Albuquerque**	70.66	59	*e*P	P	01 58 15.1	0.0
ANMO				pmax	pmax		
	comp=Z,19nm,1.1s						
ANMO				MLR	MLR		
	comp=Z,408nm,20.0s						
LENM	**Lemitar**	70.90	60	*e*P	P	01 58 16.7	+0.2
POO	**Poona**	70.90	277	⇓*i*P	P	01 58 17.0	+0.2
	comp=Z,80nm,1.0s,mb5.6						
Y22C	**IRIS PASSCAL I**	70.99	60	⇓P	P	01 58 17.6	+0.5
	baz=71						
LPM	**Los Pinos Moun**	71.00	60	*e*P	P	01 58 17.6	+0.4
BNM	**Barren Site**	71.12	60	*e*P	P	01 58 18.0	+0.1
KAD	**Karad**	71.52	276	*e*P	P	01 58 20.0	-0.5
SUW	**Suwalki**	71.78	333	*e*P	P	01 58 20.1	-1.4
SUW				*e*pP	pP	01 58 25.2	-1.9
SUW				*e*PcP	PcP	01 58 35.1	-5.3
SUW				*e*S	S	02 07 24.6	-16
SUW	**Suwalki**	71.78	333	*e*P	P	01 58 20.1	-1.4
SUW				*e*pP	pP	01 58 25.2	-1.9
SUW				*e*PcP	PcP	01 58 35.1	-5.3
SUW				*e*S	S	02 07 24.6	-16
SUW	**Suwalki**	71.78	333	*e*P	P	01 58 20.1	-1.4
SUW				*e*		01 58 35.1	
CBKS	**Cedar Bluff**	71.80	53	*e*P	P	01 58 20.4	-1.5
	comp=Z,56nm,1.3s,mb5.3						
CBKS	**Cedar Bluff**	71.80	53	*e*P	P	01 58 20.4	-1.5
CBKS				pmax	pmax		
	comp=Z,56nm,1.3s,mb5.3						
KIV	**Kislovodsk**	71.90	315	P	P	01 58 23.2	+0.7
	comp=Z,275nm,0.8s,mb6.2,SNR=5.5						
KIV	**Kislovodsk**	71.90	315	*i* Pr	P	01 58 22.0	-0.5
KIV	**Kislovodsk**	71.90	315	*d i*P	P	01 58 22.9	+0.4
KIV				pmax	pmax		
	comp=Z,38nm,1.2s,mb5.2						
ZEI	**Tsey**	72.19	314	*e*P	P	01 58 24.5	+0.3
ZEI				*e*		01 58 40.8	
ZEI				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
DGRG	**David-gareji**	72.41	312	P	P	01 58 26.0	+0.5
AKASG	**Malin Array Be**	72.44	327	P	P	01 58 24.3	-1.2
AKASG				PP	PP	02 01 07.7	+1.8
AKASG	**Malin Array Be**	72.44	327	P	P	01 58 24.3	-1.2
AKASG						02 01 07.7	
AKASG				pmax	pmax		
	comp=Z,8.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	**Malin Array Be**	72.44	327	P	P	01 58 24.3	-1.2
	comp=Z,8.4nm,0.6s,mb4.9,baz=33,slow=6.0,SNR=37						
AKASG				PP	PP	02 01 07.7	+1.8
	comp=Z,0.5nm,0.4s,baz=28,slow=8.5,SNR=4.2						
AKBB	**Malin Array Si**	72.44	327	*e*P	P	01 58 25.0	-0.5
AKBB	**Malin Array Si**	72.44	327	P	P	01 58 24.9	-0.6
KIEV	**Kiev**	72.45	327	*e*P	P	01 58 25.0	-0.6
	comp=Z,24nm,0.8s,mb5.2						
KIEV	**Kiev**	72.45	327	*e*P	P	01 58 25.0	-0.6
KIEV				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.2						
MTA	**Mtatsminda**	72.53	313	P	P	01 58 27.2	+0.9
TBLG	**Delisi**	72.53	313	*i* P	P	01 58 27.3	+1.1
TBLG	**Delisi**	72.53	313	P	P	01 58 27.3	+1.1
ASAR	**Alice Springs**	72.57	200	P	P	01 58 25.8	-0.7
ASAR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
ASAR	**Alice Springs**	72.57	200	P	P	01 58 25.8	-0.7
	comp=Z,6.1nm,0.7s,mb4.7,baz=13,slow=5.5,SNR=46						
SCHQ	**Schefferville**	72.85	24	*e*P	P	01 58 27.4	-0.5
SCHQ				*e*PcP	PcP	01 58 41.6	-3.3
SCHQ				LR	LR		
	comp=Z,2μm,22.0s,MS5.3						
SCHQ	**Schefferville**	72.85	24	P	P	01 58 27.4	-0.5
	comp=Z,15nm,0.8s,mb5.0,baz=341,slow=5.9,SNR=19						
SCIA	**State Center**	72.97	47	*e*P	P	01 58 28.1	-0.7
	comp=Z,128nm,1.3s,mb5.7						
BSD	**Bornholm Skovb**	73.23	337	⇓*i*P	P	01 58 34.8	+4.6
BSD				*e*		02 02 53.4	
BSD				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.4						
BSD				MLR	MLR		
	comp=Z,1μm,20.0s,MS5.2						
BSD	**Bornholm Skovb**	73.23	337	⇓*i*P	P	01 58 34.8	+4.6
	comp=Z,48nm,1.0s,mb5.4						
BSD				*e*		02 02 53.4	
BSD							
	comp=Z,1μm,20.0s						
KSU1	**Kansas State U**	73.28	51	*e*P	P	01 58 28.3	-2.4
	comp=Z,42nm,1.1s,mb5.3						
COP	**Copenhagen**	73.35	339	*i* P	P	01 58 31.0	+0.1
COP				*e*S	S	02 08 30.0	+31
COP				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.4						
COP				MLR	MLR		
	comp=Z,560nm,19.0s,MS4.9						
COP	**Copenhagen**	73.35	339	*i* P	P	01 58 31.0	+0.1
	comp=Z,47nm,0.9s,mb5.4						
COP				*e*S	S	02 08 30.0	+31
COP							
	comp=Z,560nm,19.0s						
MUD	**Monsted U’grnd**	73.42	341	*i* P	P	01 58 37.2	+6.0
MUD				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.2						
MUD	**Monsted U’grnd**	73.42	341	*i* P	P	01 58 37.2	+6.0
	comp=Z,35nm,1.0s,mb5.2						
AMTX	**Amarillo**	73.50	57	*e*P	P	01 58 31.7	-0.4
	comp=Z,58nm,1.2s,mb5.4						
MNTX	**Cornudas Mount**	73.58	61	*e*P	P	01 58 32.3	-0.3
	comp=Z,28nm,1.1s,mb5.1						
SOC	**Sochi**	73.60	317	*e*P	P	01 58 31.9	-0.6
SOC				*e*		01 58 42.3	
SOC				*e*		02 01 13.4	
SOC				*e*S	S	02 08 00.2	-1.6
SOC				*e*		02 08 28.0	
SOC				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.2						
ANN	**Anapa**	73.72	319	*e*P	P	01 58 31.7	-1.5
ANN				*e*S	S	02 08 01.9	-1.2
ANN				*e*SS	SS	02 12 44.2	-1.4
ANN				*e*SSS		02 16 02.1	
ANN				pmax	pmax		
	comp=Z,60nm,1.8s,mb5.2						
WAR	**Warsaw**	73.97	333	*e*P	P	01 58 35.2	+0.7
WAR				*e*pP	pP	01 58 39.2	-1.0
WAR				*e*S	S	02 07 55.1	-11
WAR				LMZ		02 38 38.9	
	comp=Z,1μm,26.2s						
WAR	**Warsaw**	73.97	333	*e*P	P	01 58 35.2	+0.6
WAR				*e*pP	pP	01 58 39.2	-1.0
WAR				*e*S	S	02 07 55.1	-11
PALK	**Pallekele**	74.11	264	P	P	01 58 36.8	+0.9
	comp=Z,157nm,1.0s,mb5.9,SNR=6.7						
PALK	**Pallekele**	74.11	264	*e*P	P	01 58 36.2	+0.3
	comp=Z,36nm,1.1s,mb5.2						
PALK				LR	LR		
	comp=Z,324nm,20.0s,MS4.6						
GKP	**Gorka Klasztor**	74.22	335	*e*P	P	01 58 35.4	-0.6
GKP				*e*pP	pP	01 58 40.1	-1.6
GKP				*e*S	S	02 07 59.4	-9.1
GKP				*e*sS	sS	02 08 14.4	-3.3
GKP				*e*SKS		02 09 12.0	
GKP				LMZ		02 42 22.1	
	comp=Z,2μm,22.2s						
GKP	**Gorka Klasztor**	74.22	335	*e*P	P	01 58 35.4	-0.6
GKP				*e*pP	pP	01 58 40.1	-1.5
GKP				*e*S	S	02 07 59.4	-9.1
GKP				*e*SS	sS	02 08 14.4	-3.3
GKP				*e*SKS		02 09 12.0	
GKP	**Gorka Klasztor**	74.22	335	*e*P	P	01 58 35.4	-0.6
GKP				*e*S	S	02 07 59.4	-9.1
MVH1	**Achvaich**	74.42	349	*e*P	P	01 58 37.1	0.0
MCD	**Coleburn Disti**	74.62	348	*e*P	P	01 58 38.3	+0.1
MBWA	**Marble Bar**	74.70	214	*e*P	P	01 58 38.3	-0.8
MBWA				LR	LR		
	comp=Z,5μm,20.0s						
MDO	**Dochfour**	74.91	349	*e*P	P	01 58 40.0	0.0
KAC	**Achnashellach**	74.98	349	*e*P	P	01 58 40.1	-0.2
LVV	**L’vov**	75.04	330	*e*P	P	01 58 39.8	-1.0
SIM	**Simferopol’**	75.08	321	*e*P	P	01 58 40.9	-0.2
SIM				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
KPL	**Plockton**	75.18	349	*e*P	P	01 58 41.4	-0.1
KPL				AMb	AMB	01 58 49.4	
	comp=Z,130nm,1.5s,mb5.6						
WMOK	**Wichita Mounta**	75.26	55	*e*P	P	01 58 41.6	-0.7
	comp=Z,28nm,1.1s,mb5.1						
WMOK				LR	LR		
	comp=Z,345nm,21.0s,MS4.6						
WMOK	**Wichita Mounta**	75.26	55	*e*P	P	01 58 41.6	-0.8
WMOK				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.1						
WMOK				MLR	MLR		
	comp=Z,345nm,21.0s,MS4.6						
KSB	**Sheil Bridge**	75.28	349	*e*P	P	01 58 42.1	+0.1
BSEG	**Bad Segeberg**	75.46	339	*e*P	P	01 58 42.7	-0.4
BSEG	**Bad Segeberg**	75.46	339	*e*P	P	01 58 42.7	-0.4
BSEG				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
BSEG	**Bad Segeberg**	75.46	339	*e*P	P	01 58 42.7	-0.4
	comp=Z,32nm,0.9s,mb5.2						
KAR1	**Arisaig**	75.61	349	*e*P	P	01 58 44.0	0.0
KIS	**Kishinev**	75.61	325	*e*P	P	01 58 42.0	-2.2
KWP	**Kalwaria**	75.65	330	*e*P	P	01 58 44.6	+0.3
KWP				*e*PcP	PcP	01 58 51.2	-5.9
KWP				LMZ		02 43 31.6	
	comp=Z,900nm,23.4s						
KWP	**Kalwaria**	75.65	330	*e*P	P	01 58 44.6	+0.3
KWP				*e*	pP	01 58 51.2	+1.2
RUE	**Ruedersdorf**	75.89	337	*e*P	P	01 58 45.7	0.0
	comp=Z,87nm,1.1s,mb5.6						
HDIL	**Hopedale**	75.92	45	*e*P	P	01 58 45.1	-1.0

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              comp=Z,80nm,1.0s,mb5.6
IAS   Iasi              75.94 326   P      P      01 58 46.0  0.0
OJC   Ojcow             76.11 332  eP      P      01 58 46.8 -0.1
OJC                                eSP            01 58 52.0
EAB   Aberfoyle         76.12 348  eP      P      01 58 47.5 +0.6
EDI   Edinburgh         76.22 348  eP      P      01 58 47.2 -0.2
EDI                                 AMb    AMB    01 58 51.7
              comp=Z,90nm,1.5s,mb5.5
LTX   Lajitas           76.29  62  eP      P      01 58 48.2 -0.1
              comp=Z,53nm,0.8s,mb5.5
LTX                                 LR     LR
              comp=Z,487nm,19.0s,MS4.8
LTX   Lajitas           76.29  62  eP      P      01 58 48.2 -0.1
LTX                                 pmax   pmax
              comp=Z,53nm,0.8s,mb5.5
LTX                                 MLR    MLR
              comp=Z,487nm,19.0s,MS4.8
TXAR  Lajitas Array     76.29  62   P      P      01 58 48.0 -0.3
TXAR                                pmax   pmax
              comp=Z,48nm,0.8s
TXAR  Lajitas Array     76.29  62   P      P      01 58 48.0 -0.3
              comp=Z,48nm,0.8s,mb5.5,baz=300,slow=4.1,SNR=211
STHS  Stebnicka Huta    76.33 331  i P     P      01 58 49.0 +0.8
              comp=Z,24nm,0.8s,mb5.2
STHS                               e              01 58 56.7
STHS  Stebnicka Huta    76.33 331  i P     P      01 58 49.0 +0.8
STHS                               e              01 58 56.7
STHS                                pmax   pmax
              comp=Z,24nm,0.8s,mb5.2
KOLS  Kolonicke sedl    76.40 330  eP      P      01 58 48.5 -0.1
KOLS                               epP     pP     01 58 56.4 +2.2
BURAR Bucovina Array    76.47 328 ⇓P       P      01 58 48.9 -0.1
BURAR Bucovina Array    76.47 328⇓iP       P      01 58 48.9 -0.1
XSO   Sourhope Farm     76.49 347  eP      P      01 58 49.6 +0.6
PGBU  Glenifferbraes    76.51 348  eP      P      01 58 49.4 +0.3
PGBU                                AMb    AMB    01 58 50.6
              comp=Z,231nm,1.7s,mb5.8
NIE   Niedzica          76.64 332  eP      P      01 58 50.4 +0.5
NIE                                esP     sP     01 58 56.0 -1.6
KSP   Ksiaz             76.64 335  eP      P      01 58 49.8 -0.1
KSP                                ePcP    PcP    01 58 55.5 -5.8
KSP                                eSKS           02 09 16.5
KSP                                 LMZ           02 47 20.0
              comp=Z,2µm,19.6s
KSP   Ksiaz             76.64 335  eP      P      01 58 50.0 +0.1
KSP                                epP     pP     01 58 55.3 -0.3
KSP                                e              01 59 08.6
UZH   Uzhgorod          76.65 330⇓iP       P      01 58 49.8 -0.2
UZH                                e              01 59 02.4
CRVS  Cervenica-Dubn    76.70 331  eP      P      01 58 50.4 +0.1
EKA   Eskdalemuir Ar    76.78 347   P      P      01 58 50.1 -0.5
EKA                                 pmax   pmax
              comp=Z,3.0nm,0.8s
EKA   Eskdalemuir Ar    76.78 347   P      P      01 58 50.0 -0.6
              comp=Z,3.1nm,0.8s,mb4.3,baz=20,slow=5.0,SNR=10
ESK   Eskdalemuir       76.81 348  eP      P      01 58 50.9 +0.1
ESK                                 AMb    AMB    01 58 52.8
              comp=Z,66nm,1.7s,mb5.3
OKC   Ostrava-Krasne    76.96 333⇓eP       P      01 58 51.8  0.0
OKC                                ePS            02 09 25.0
UPC   Upice             77.02 335⇓iP       P      01 58 52.2 +0.1
UPC                                epP     pP     01 58 57.6 -0.1
DPC   Dobruska-Polom    77.07 334⇓iP       P      01 58 52.7 +0.4
DPC                                epP     pP     01 58 58.0  0.0
DPC                                ex      x      02 09 12.2
XAL   Allendale         77.09 347  eP      P      01 58 52.1 -0.3
CLL   Collm             77.16 337⇓iP       P      01 58 52.5 -0.3
              comp=Z,32nm,1.1s,mb5.2
CLL                                i       pP     01 58 58.2 -0.3
CLL   Collm             77.16 337⇓iP       P      01 58 52.5 -0.3
CLL                                i       pP     01 58 58.2 -0.3
CLL                                 pmax   pmax
              comp=Z,32nm,1.1s,mb5.2
CLL   Collm             77.16 337  eP      P      01 58 51.8 -1.0
              comp=Z,50nm,1.0s,mb5.4
CLL   Collm             77.16 337⇓iP       P      01 58 52.5 -0.3
              comp=Z,32nm,1.1s,mb5.2
CLL                                i pP    pP     01 58 58.2 -0.3
              comp=Z,50nm,1.0s
CLL                                i sP    sP     01 59 00.4 -0.1
CLL                                i (sPcP)       01 59 11.9
CLL                                ePP     PP     02 01 46.0 +0.2
MORC  Moravsky Berou    77.20 333  eP      P      01 58 53.0 -0.1
MORC  Moravsky Berou    77.20 333   P      P      01 58 53.4 +0.3
MORC                                pmax   pmax
              comp=Z,44nm,1.0s,mb5.3
MORC  Moravsky Berou    77.20 333⇑iP       P      01 58 53.8 +0.7
BRG   Berggiesshubel    77.29 336  i PKP   P      01 58 53.4 -0.1
              comp=Z,7.0nm,1.0s,mb4.5
BRG                                i       pP     01 58 59.0 -0.3
BRG                                i              01 59 12.5
BRG                                i              02 08 56.0
BRG                                i              02 14 04.0
BRG   Berggiesshubel    77.29 336  i P     P      01 58 53.4 -0.2
BRG                                i       pP     01 58 59.0 -0.2
BRG                                i              01 59 12.5
BRG                                i              02 08 56.0
BRG                                 pmax   pmax
              comp=Z,7.0nm,1.0s,mb4.5
BRG   Berggiesshubel    77.29 336  eP      P      01 58 52.7 -0.9
              comp=Z,20nm,1.0s,mb5.0
BRG   Berggiesshubel    77.29 336  i PKP   P      01 58 53.4 -0.1
              comp=Z,12nm,1.0s,mb4.8
BRG                                i       pP     01 58 59.0 -0.3
              comp=Z,17nm,1.0s
BRG                                i              01 59 12.5
              comp=Z,14nm,0.9s
BRG                                i              02 08 56.0
BRG                                i              02 14 04.0
FVM   French Village    77.33  48  eP      P      01 58 53.0 -1.0
              comp=Z,44nm,1.4s,mb5.2
FVM   French Village    77.33  48   P      P      01 58 53.0 -1.0
FVM                                 pmax   pmax
              comp=Z,44nm,1.4s,mb5.2
CLZ   Clausthal         77.36 339  eP      P      01 58 54.0  0.0
              comp=Z,74nm,1.2s,mb5.5
CLZ   Clausthal         77.36 339  eP      P      01 58 54.0  0.0
CLZ                                 pmax   pmax
              comp=Z,74nm,1.2s,mb5.5
VRI   Vrincioaia        77.36 326 ⇑P       P      01 58 54.5 +0.4
VRI   Vrincioaia        77.36 326⇑iP       P      01 58 54.5 +0.4
CFR   Carcaliu          77.38 325   P      P      01 58 54.2  0.0
KECS  Kecovo            77.39 331  i P     P      01 58 54.0 -0.2
              comp=Z,8.0nm,0.8s,mb4.7
KECS                               e       pP     01 58 59.3 -0.5
KECS                               ePP     PP     02 01 33.7  -14
KECS  Kecovo            77.39 331  i P     P      01 58 54.0 -0.2
KECS                               e       pP     01 58 59.3 -0.5
KECS                                pmax   pmax
              comp=Z,8.0nm,0.8s,mb4.7
PLOR  Plostina          77.41 326⇑iP       P      01 58 54.7 +0.4
PVCC  Panska Ves        77.42 335⇓eP       P      01 58 54.7 +0.4
MSL   Mosul             77.44 310  eP      x      01 58 58.0
GCL   Cushendall        77.45 349  eP      P      01 58 54.5 +0.1
GAL1  Galloway          77.46 348  eP      P      01 58 53.9 -0.6
GAL1                                AMb    AMB    01 58 59.1
              comp=Z,53nm,1.4s,mb5.3
IBBN  Ibbenburen        77.57 340  eP      P      01 58 54.8 -0.3
              comp=Z,76nm,1.1s,mb5.5
JCT   Junction City     77.78  59  eP      P      01 58 55.6 -1.1
              comp=Z,60nm,1.1s,mb5.4
JCT                                ePcP    PcP    01 59 06.8 +0.1
JCT   Junction City     77.78  59  eP      P      01 58 55.6 -1.1
JCT                                e              01 59 06.8
JCT                                 pmax   pmax
              comp=Z,60nm,1.1s,mb5.4
HARR  Harsova           77.87 325   P      P      01 58 57.4 +0.4
PRA   Prague            77.87 335 ⇓P       P      01 58 57.0 +0.2
VRAC  Vranov            77.91 334   P      P      01 58 57.7 +0.6
VRAC  Vranov            77.91 334   P      P      01 58 57.5 +0.4
VRAC                                pmax   pmax
              comp=Z,16nm,1.0s
VRAC  Vranov            77.91 334   P      P      01 58 57.5 +0.5
              comp=Z,16nm,1.0s,mb4.9,baz=23,slow=5.9,SNR=13
VRAC  Vranov            77.91 334⇑iP       P      01 58 58.0 +0.9
PRU   Pruhonice         77.91 335⇓iP       P      01 58 57.1  0.0
PRU                                epP     pP     01 59 01.8 -0.9
PRU                                ex      x      02 09 01.4
VYHS  Vyhne             77.92 332  i P     P      01 58 57.2 +0.1
              comp=Z,13nm,0.9s,mb4.9
VYHS                               e       pP     01 59 03.0 +0.2
VYHS                               ePP     PP     02 01 41.8  -11
VYHS  Vyhne             77.92 332  i P     P      01 58 57.2 +0.1
VYHS                               e       pP     01 59 03.0 +0.2
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VYHS                                pmax   pmax
              comp=Z,13nm,0.9s,mb4.9
MLR   Muntele Rosu      77.98 326   P      P      01 58 58.9 +1.4
MLR   Muntele Rosu      77.98 326   P      P      01 58 57.7 +0.2
MLR                                 pmax   pmax
              comp=Z,20nm,0.7s
MLR   Muntele Rosu      77.98 326   P      P      01 58 57.7 +0.2
              comp=Z,20nm,0.7s,mb5.2,baz=186,slow=2.4,SNR=44
MLR   Muntele Rosu      77.98 326⇑iP       P      01 58 58.0 +0.5
DRGR                    78.07 329   P      P      01 58 58.0  0.0
DRGR                    78.07 329 ⇑P       P      01 58 57.9 -0.1
DRGR                    78.07 329⇓iP       P      01 58 54.8 -3.2
PSZ   Piszkesteto       78.08 331   P      P      01 58 58.8 +0.8
PSZ   Piszkesteto       78.08 331   P      P      01 58 58.2 +0.2
PSZ                                 pmax   pmax
              comp=Z,19nm,0.9s,mb5.0
PSZ   Piszkesteto       78.08 331⇑iP       P      01 58 59.0 +1.0
WTSB  Winterswijk       78.11 341  eP      P      01 59 03.9 +5.8
              comp=Z,50nm,0.6s,mb5.6
WTSB                               eP             20 02 58.0
              comp=Z,55nm,2.4s
WTSB                               eP             20 59 32.6
              comp=Z,64nm,2.0s
TANN  Tannenbergstha    78.11 337  eP      P      01 58 57.9 -0.3
              comp=Z,39nm,1.5s,mb5.1
MOX   Moxa              78.13 337  eP      P      01 58 58.4 +0.1
              comp=Z,39nm,1.6s,mb5.1
MOX                                epP     pP     01 59 04.1 +0.2
MOX                                eS      S      02 08 36.0  -16
MOX                                eLR     LR     02 23 59.0
MOX   Moxa              78.13 337  eP      P      01 58 58.4 +0.1
              comp=Z,39nm,1.6s,mb5.1
MOX                                e       pP     01 59 04.1 +0.2
MOX
              comp=Z,1µm,20.0s
MOX   Moxa              78.13 337  eP      P      01 58 58.4 +0.1
MOX                                e       pP     01 59 04.1 +0.2
MOX                                 pmax   pmax
              comp=Z,39nm,1.6s,mb5.1
MOX                                 MLR    MLR
              comp=Z,1µm,20.0s,MS5.2
MOX   Moxa              78.13 337  eP      P      01 58 57.9 -0.4
              comp=Z,37nm,1.1s,mb5.2
SIUC  Southern Illin    78.15  47  eP      P      01 58 58.2 -0.4
              comp=Z,59nm,1.2s,mb5.4
SIUC                               ePcP    PcP    01 59 09.2 +1.0
GMM   Mts of Mourne     78.24 349  eP      P      01 58 59.1 +0.3
TREC  Trest             78.25 334⇓eP       P      01 58 59.1 +0.1
TREC                               epP     pP     01 59 04.8 +0.2
MALT  Malatya           78.28 314   P      P      01 59 01.1 +1.7
MALT  Malatya           78.28 314   P      P      01 59 00.6 +1.3
MALT                                pmax   pmax
              comp=Z,29nm,1.0s,mb5.2
MALT  Malatya           78.28 314⇓iP       P      01 59 01.0 +1.7
NKC   Novy Kostel       78.28 337⇓eP       P      01 58 59.5 +0.4
NKC                                epP     pP     01 59 05.0 +0.2
NKC                                ex      x      02 08 41.4
MIAR  Mount Ida         78.28  52  eP      P      01 58 58.9 -0.5
              comp=Z,25nm,1.1s,mb5.1
MIAR                               ePcP    PcP    01 59 10.4 +1.6
MIAR  Mount Ida         78.28  52  eP      P      01 58 58.9 -0.5
MIAR                               e              01 59 10.4
MIAR                                pmax   pmax
              comp=Z,25nm,1.1s,mb5.1
LHO   Holmfirth         78.31 346  eP      P      01 58 59.1  0.0
VOIR                    78.36 327   P      P      01 59 00.2 +0.6
VOIR                    78.36 327 ⇑P       P      01 59 00.5 +0.8
VOIR                    78.36 327⇑iP       P      01 59 00.4 +0.7
UBBA  Unterbreizbach    78.39 338  eP      P      01 58 59.3 -0.4
              comp=Z,44nm,1.4s,mb5.2
BUG   Bochum--Univer    78.48 340  eP      P      01 59 00.0 -0.2
              comp=Z,42nm,1.1s,mb5.3
KBI1  Birley Grange     78.53 346  eP      P      01 59 00.6 +0.2
MANZ  Manzenberg        78.60 337  eP      P      01 59 00.5 -0.4
              comp=Z,24nm,1.1s,mb5.0
ZST   Bratislava        78.73 333  eP      P      01 59 02.3 +0.6
              comp=Z,18nm,1.1s,mb4.9
ZST                                e       pP     01 59 06.6 -0.7
ZST                                 LR     LR
              comp=Z,900nm,20.3s,MS5.1
ZST   Bratislava        78.73 333  eP      P      01 59 02.2 +0.5
ZST                                epP     pP     01 59 06.5 -0.8
ROTZ  Rotzenmuhle       78.77 337  eP      P      01 59 01.8  0.0
              comp=Z,56nm,1.5s,mb5.3
KWE   Weaver Farm       78.81 346  eP      P      01 59 02.4 +0.4
KHC   Kasperske Hory    78.96 335⇓iP       P      01 59 03.3 +0.4
KHC                                epP     pP     01 59 08.8 +0.3
KHC                                ex      x      02 08 50.3
BHD   Baghdad           79.02 307  eP      x      01 59 03.5
GNAR  Gosnell           79.09  49  eP      P      01 59 03.2 -0.6
STKA  Stephens Creek    79.10 192  eP      P      01 59 02.4 -1.2
              comp=Z,3.5nm,0.7s,mb4.4
STKA  Stephens Creek    79.10 192   P      P      01 59 02.5 -1.2
              comp=Z,5.8nm,0.9s,mb4.5,baz=20,slow=6.9,SNR=7.7
GRA1  Grafenberg Arr    79.10 337  eP      P      01 59 03.9 +0.3
              comp=Z,72nm,0.9s,mb5.6
GRA1                               epP     pP     01 59 09.9 +0.6
GRF   Grafenberg Arr    79.10 337  eP      P      01 59 03.9 +0.3
GRF                                e*PP    pP     01 59 09.9 +0.6
GRF                                 pmax   pmax
              comp=Z,72nm,0.9s,mb5.6
GRF   Grafenberg Arr    79.10 337  eP      P      01 59 03.9 +0.3
GRF                                e*PP    pP     01 59 09.9 +0.6
GRF                                 pmax   pmax
              comp=Z,72nm,0.9s,mb5.6
GRF   Grafenberg Arr    79.10 337  eP      P      01 59 03.9 +0.3
              comp=Z,72nm,0.9s,mb5.6
GRF                                epP     pP     01 59 09.9 +0.6
GRFO  Grafenberg        79.11 337  eP      P      01 59 04.3 +0.7
              comp=Z,57nm,0.9s,mb5.5
GRFO                               ePcP    PcP    01 59 11.6 -0.5
GRFO  Grafenberg        79.11 337   P      P      01 59 04.1 +0.4
GRFO                                pmax   pmax
              comp=Z,57nm,0.9s,mb5.5
WET   Wettzell          79.15 336  eP      P      01 59 04.1 +0.2
              comp=Z,53nm,1.3s,mb5.3
WET   Wettzell          79.15 336  eP      P      01 59 04.1 +0.2
WET                                 pmax   pmax
              comp=Z,53nm,1.3s,mb5.3
SBD1  Bryn Du           79.15 347  eP      P      01 59 03.1 -0.7
ACSO  Alum Creek Sta    79.16  41  eP      P      01 59 03.1 -1.0
              comp=Z,41nm,1.1s,mb5.3
GEC2  GERESS Array S    79.18 335  eP      P      01 59 03.8 -0.3
              comp=Z,35nm,1.8s,mb5.0
GEC2  GERESS Array S    79.18 335  eP      P      01 59 03.8 -0.3
GEC2                                pmax   pmax
              comp=Z,35nm,1.8s,mb5.0
GERES GERESS Array B    79.18 335   P      P      01 59 04.4 +0.3
GERES                               pmax   pmax
              comp=Z,6.0nm,0.8s
GERES GERESS Array B    79.18 335   P      P      01 59 04.4 +0.3
              comp=Z,5.5nm,0.8s,mb4.5,baz=34,slow=5.0,SNR=41
WCI   Wyandotte Cave    79.19  45  eP      P      01 59 04.1 -0.3
              comp=Z,50nm,1.0s,mb5.4
WCI   Wyandotte Cave    79.19  45  eP      P      01 59 04.1 -0.3
WCI                                 pmax   pmax
              comp=Z,50nm,1.0s,mb5.4
DLF   Lyons Farm        79.24 349  eP      P      01 59 02.8 -1.5
GZR   Gura Zlata        79.25 328   P      P      01 59 04.7 +0.2
GZR   Gura Zlata        79.25 328⇓iP       P      01 59 04.8 +0.3
DCN   Croghan           79.29 349  eP      P      01 59 03.7 -0.9
TNS   Taunus Mts        79.33 339  eP      P      01 59 04.9  0.0
TNS                                 pmax   pmax
              comp=Z,42nm,1.0s,mb5.3
TNS   Taunus Mts        79.33 339  eP      P      01 59 04.9  0.0
              comp=Z,42nm,1.0s,mb5.3
CONA  Conrad Observa    79.36 334⇓ipP      pP     01 59 06.0 -4.7
              comp=Z,17nm,1.3s,SNR=7.7
HGN   Heimansgroeve     79.42 341  eP      P      01 59 05.2 -0.2
              comp=Z,44nm,1.3s,mb5.2
BR131 Keskin Array S    79.45 318  eP      P      01 59 05.5 -0.2
              comp=Z,6.5nm,0.6s,mb4.7
BRTR  Keskin Array B    79.45 318⇑eP       P      01 59 06.0 +0.3
BRTR  Keskin Array B    79.45 318   P      P      01 59 06.0 +0.3
              comp=Z,15nm,0.9s,mb4.9,baz=60,slow=4.4,SNR=69
BEBN  Eben Emael        79.45 341   P      P      01 59 05.9 +0.4
HLM1  Long Mynd         79.46 347  eP      P      01 59 05.2 -0.4
MEM   Membach           79.55 341   P      P      01 59 06.4 +0.3
              comp=Z,25nm,1.2s,mb5.0
ANTO  Ankara            79.72 319   P      P      01 59 08.0 +0.8
ANTO  Ankara            79.72 319   P      P      01 59 08.0 +0.8
ANTO                                pmax   pmax
              comp=Z,29nm,0.8s,mb5.3
ANTO  Ankara            79.72 319⇑iP       P      01 59 08.3 +1.1
NATX  Nacogdoches       79.78  54  eP      P      01 59 04.8 -2.9
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              comp=Z,39nm,0.8s,mb5.4
TOD   Tromm             79.81 339  eP      P      01 59 08.1 +0.6
ABH   Alteburg          79.87 339  eP      P      01 59 08.1 +0.3
SKP1  Kophill           79.88 345  eP      P      01 59 07.8  0.0
BCLA  Clavier           79.89 341   P      P      01 59 08.3 +0.4
              comp=Z,29nm,1.1s,mb5.1
MOA   Molln             79.91 334  i P     P      01 59 08.6 +0.6
              comp=Z,18nm,1.4s,mb4.8,SNR=9.3
MOA   Molln             79.91 334  i pP    pP     01 59 08.6 -5.1
              comp=Z,18nm,1.4s,SNR=9.3
UMR   Umm Al-Rimmam     79.91 302  eP      P      01 59 07.5 -0.9
UMR                                 AMb    AMB    01 59 16.6
              comp=Z,99nm,0.7s,mb5.9
MIB   Mutribah          79.94 303  eP      P      01 59 08.2 -0.3
MIB                                 AMb    AMB    01 59 17.2
              comp=Z,116nm,0.7s,mb6.0
PKSM  Moragy            79.98 331   P      P      01 59 08.1 -0.4
PKSM  Moragy            79.98 331⇑iP       P      01 59 08.0 -0.5
MCH1  Michaelchurch     79.98 347  eP      P      01 59 08.6 +0.2
MCH1                                AMb    AMB    01 59 13.0
              comp=Z,111nm,1.5s,mb5.6
SNF   Seneffe           80.03 342   P      P      01 59 09.1 +0.4
              comp=Z,17nm,1.6s,mb4.7
ARSA  Arzberg           80.07 333  i P     P      01 59 09.4 +0.5
              comp=Z,30nm,1.4s,mb5.0,SNR=8.4
ARSA  Arzberg           80.07 333  i pP    pP     01 59 09.4 -5.2
              comp=Z,30nm,1.4s,SNR=8.4
RUP   Ruppelstein       80.15 340  eP      P      01 59 09.3  0.0
KBD   Kabd              80.20 302  eP      P      01 59 09.2 -0.8
KBD                                 AMb    AMB    01 59 18.4
              comp=Z,160nm,0.9s,mb6.0
SWN1  Swindon           80.25 346⇑eP       P      01 59 10.6 +0.7
JMB   Yambol            80.26 324  eP      P      01 59 09.9 -0.2
GIVF  Givet             80.29 341  eP      P      01 59 10.0 -0.1
              comp=Z,81nm,1.0s,mb5.3
GIVF  Givet             80.29 341  eP      P      01 59 10.0 -0.1
              comp=Z,41nm,1.0s,mb5.3
GIVF  Givet             80.29 341  eP      P      01 59 10.0 -0.1
GIVF                                pmax   pmax
              comp=Z,41nm,1.0s,mb5.3
HGH   Gray Hill         80.30 346  eP      P      01 59 10.6 +0.5
DOU   Dourbes           80.35 341   P      P      01 59 10.7 +0.3
              comp=Z,15nm,1.4s,mb4.7
QRN   Al-Qurain         80.39 302  eP      P      01 59 10.4 -0.6
QRN                                 AMb    AMB    01 59 19.4
              comp=Z,70nm,0.7s,mb5.7
NAY   Al-Naaiem         80.41 303  eP      P      01 59 10.6 -0.5
NAY                                 AMb    AMB    01 59 12.1
              comp=Z,60nm,0.9s,mb5.5
BAIF  Baives            80.47 342⇓iP       P      01 59 11.1  0.0
RDF   Al-Radifah        80.47 302  eP      P      01 59 11.0 -0.4
RDF                                 AMb    AMB    01 59 20.1
              comp=Z,84nm,1.1s,mb5.6
FUR   Furstenfeldbru    80.48 336  eP      P      01 59 11.3 +0.2
FUR                                 pmax   pmax
              comp=Z,69nm,1.2s,mb5.5
FUR   Furstenfeldbru    80.48 336  eP      P      01 59 11.3 +0.2
              comp=Z,69nm,1.2s,mb5.5
STU   Stuttgart         80.48 338  eP      P      01 59 11.2 +0.1
              comp=Z,28nm,0.9s,mb5.2
OXF   Oxford            80.52  49  eP      P      01 59 10.9 -0.8
              comp=Z,53nm,1.0s,mb5.4
OXF   Oxford            80.52  49  eP      P      01 59 10.9 -0.7
OXF                                 pmax   pmax
              comp=Z,53nm,1.0s,mb5.4
LANF  Langenberg        80.64 339  eP      P      01 59 12.5 +0.5
FORT  Forrest           80.86 203  eP      P      01 59 10.1 -3.1
              comp=Z,24nm,0.8s,mb5.2
KBA   Koelnbreinsper    80.88 335⇑iP       P      01 59 14.3 +1.0
              comp=Z,125nm,1.4s,mb5.7,SNR=9.1
KBA   Koelnbreinsper    80.88 335⇑ipP      pP     01 59 14.3 -4.7
              comp=Z,125nm,1.4s,SNR=9.1
KBA   Koelnbreinsper    80.88 335⇑iP       P      01 59 14.3 +1.0
KBA                                 pmax   pmax
              comp=Z,125nm,1.4s,mb5.7
STR   Strasbourg        81.02 339  eP      P      01 59 14.9 +0.9
OBKA  Obir              81.03 334⇓iP       P      01 59 14.2 +0.1
              comp=Z,20nm,1.0s,mb5.0
SSPA  Standing Stone    81.08  38  eP      P      01 59 13.9 -0.6
              comp=Z,87nm,1.6s,mb5.4
SSPA                               ePcP    PcP    01 59 21.4 +0.6
BFO   Black Forest      81.11 338   P      P      01 59 14.4 -0.1
              comp=Z,169nm,1.1s,mb5.9,SNR=9.0
BFO   Black Forest      81.11 338  eP      P      01 59 14.7 +0.1
BFO                                ePcP    PcP    01 59 21.3 +0.4
BFO   Black Forest      81.11 338  eP      P      01 59 14.5  0.0
BFO                                 pmax   pmax
              comp=Z,38nm,1.2s,mb5.2
BFO   Black Forest      81.11 338  eP      P      01 59 14.5  0.0
              comp=Z,38nm,1.2s,mb5.2
WATA  Walderalm         81.15 336⇓iP       P      01 59 15.4 +0.6
              comp=Z,46nm,1.1s,mb5.3
WATA  Walderalm         81.15 336⇓ipP      pP     01 59 15.4 -5.1
              comp=Z,46nm,1.1s
WATA  Walderalm         81.15 336⇓iP       P      01 59 15.4 +0.6
WATA                                pmax   pmax
              comp=Z,46nm,1.1s,mb5.3
WTTA  Wattenberg        81.20 336⇓iP       P      01 59 16.1 +1.0
              comp=Z,90nm,1.3s,mb5.5
WTTA  Wattenberg        81.20 336⇓ipP      pP     01 59 16.1 -4.6
              comp=Z,90nm,1.3s
WTTA  Wattenberg        81.20 336⇓iP       P      01 59 16.1 +1.1
WTTA                                pmax   pmax
              comp=Z,90nm,1.3s,mb5.5
RETA  Reutte            81.24 336  i pP    pP     01 59 16.0 -4.9
              comp=Z,41nm,1.4s,SNR=14
MOTA  Moosalm           81.28 336⇓iP       P      01 59 15.9 +0.5
              comp=Z,72nm,1.3s,mb5.5,SNR=18
MOTA  Moosalm           81.28 336⇓ipP      pP     01 59 15.9 -5.2
              comp=Z,72nm,1.3s,SNR=18
MOTA  Moosalm           81.28 336⇓iP       P      01 59 15.9 +0.5
MOTA                                pmax   pmax
              comp=Z,72nm,1.3s,mb5.4
LEGS  Legarje           81.29 333  eP      P      01 59 15.1 -0.5
CDF   Champ du Feu      81.30 339⇓iP       P      01 59 15.6 +0.1
              comp=Z,86nm,1.0s,mb5.3
CDF   Champ du Feu      81.30 339⇓iP       P      01 59 15.6 +0.1
              comp=Z,43nm,1.0s,mb5.3
CDF   Champ du Feu      81.30 339⇓iP       P      01 59 15.6 +0.1
CDF                                 pmax   pmax
              comp=Z,43nm,1.0s,mb5.3
PLD   Plovdiv           81.31 325  eP      P      01 59 14.9 -0.8
SQTA  Sankt Quirin      81.36 336  i P     P      01 59 16.7 +0.8
              comp=Z,59nm,1.2s,mb5.4,SNR=13
SQTA  Sankt Quirin      81.36 336  i pP    pP     01 59 16.7 -4.9
              comp=Z,59nm,1.2s,SNR=13
SQTA  Sankt Quirin      81.36 336  i P     P      01 59 16.7 +0.8
SQTA                                pmax   pmax
              comp=Z,59nm,1.2s,mb5.4
KDZ   Kurdzhali         81.42 324  i P     P      01 59 15.8 -0.5
ABTA  Abfaltersbach     81.42 335⇑iP       P      01 59 16.2  0.0
              comp=Z,24nm,1.4s,mb4.9
FVI   Forni Avoltri     81.48 335   P      P      01 59 19.6 +3.1
VTS   Vitosha           81.48 326  eP      P      01 59 15.6 -1.0
VTS   Vitosha           81.48 326  i P     P      01 59 16.4 -0.2
VTS   Vitosha           81.48 326⇓iP       P      01 59 16.8 +0.2
PTCC  Patocco-Chiusa    81.48 334  i Pu    P      01 59 15.9 -0.6
              comp=Z,6.4nm,0.5s,mb4.8
ECH   Echery            81.51 339  eP      P      01 59 16.5 -0.1
FELD  Feldberg im Sc    81.61 338  eP      P      01 59 17.2  0.0
GMNA  Gemona            81.64 334   P      P      01 59 16.7 -0.6
              comp=Z,114nm,0.8s,mb5.8
RZN   Rozhen            81.66 325  i P     P      01 59 17.0 -0.6
DAVA  Damuels           81.67 337  i P     P      01 59 18.2 +0.8
              comp=Z,54nm,0.9s,mb5.5,SNR=11
DAVA  Damuels           81.67 337  i pP    pP     01 59 18.2 -4.9
              comp=Z,54nm,0.9s,SNR=11
FETA  Feichten          81.68 336⇑ipP      pP     01 59 18.6 -4.7
              comp=Z,53nm,1.4s,SNR=11
MEZF  Maizieres J'vi    81.75 340⇓iP       P      01 59 18.4 +0.5
              comp=Z,99nm,0.9s,mb5.5
MEZF  Maizieres J'vi    81.75 340⇓iP       P      01 59 18.4 +0.5
              comp=Z,99nm,0.9s,mb5.7
SWET  Sewanee           81.75  46  eP      P      01 59 17.0 -1.1
THEF  They Montfort     81.78 340  eP      P      01 59 18.2 +0.1
RDO   Rodhopi           81.79 324  eP      P      01 59 18.5 +0.2
MOF   Molkenrain        81.86 339  eP      P      01 59 18.2 -0.3
HAU   Haudompre         81.90 339⇓iP       P      01 59 18.9 +0.2
              comp=Z,64nm,1.0s,mb5.2
HAU   Haudompre         81.90 339⇓iP       P      01 59 18.9 +0.2
              comp=Z,32nm,1.0s,mb5.2
HAU   Haudompre         81.90 339⇓iP       P      01 59 18.9 +0.2
HAU                                 pmax   pmax
              comp=Z,32nm,1.0s,mb5.2
HINF  Hinteralfeld      81.96 339⇓iP       P      01 59 18.9 -0.1
              comp=Z,30nm,0.8s,mb5.0
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HINF	Hinteralfeld	81.96	339	⇓*i*P	P	01 59 18.9	-0.1
	comp=Z,15nm,0.8s,mb5.0						
HINF	Hinteralfeld	81.96	339	⇓*i*P	P	01 59 18.9	-0.1
HINF				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
APPI	Appiano	82.03	336	P	P	01 59 25.0	+5.6
	comp=Z,361nm,4.0s						
DAVOX	Davos/Dischmat	82.13	337	P	P	01 59 20.8	+0.8
	comp=Z,14nm,0.7s,mb5.0,baz=2.4,slow=4.6,SNR=22						
MMB	Musomiste	82.14	325	*i* P	P	01 59 20.3	+0.2
KKB	Krupnik	82.15	326	*i* P	P	01 59 20.0	-0.1
CPCT	Cooper Cave	82.26	45	*e*P	P	01 59 20.1	-0.7
BRMO	Bormio	82.28	336	P	P	01 59 21.9	+1.2
	comp=Z,24nm,0.8s,mb5.2						
CTI	Castel Tesino	82.31	335	*i* Pu	P	01 59 20.6	-0.3
	comp=Z,39nm,1.2s,mb5.2						
CTI	Castel Tesino	82.31	335	*i* P	P	01 59 20.6	-0.3
CTI				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.2						
LOMF	Lomont	82.40	339	*e*P	P	01 59 21.3	0.0
TUE	Stuetta	82.56	337	P	P	01 59 23.4	+1.2
SRS	Serrai	82.59	325	*e*P	P	01 59 21.7	-0.8
ELN	Prospectdale	82.62	42	*e*P	P	01 59 21.9	-0.8
STIP	Stip	82.64	326	*e*P	P	01 59 21.5	-1.2
STIP	Stip	82.64	326	*i* P	P	01 59 22.1	-0.6
FLN	La Foliniere	82.66	344	⇓*i*P	P	01 59 22.5	-0.2
	comp=Z,41nm,0.6s,mb5.3						
FLN	La Foliniere	82.66	344	⇓*i*P	P	01 59 22.5	-0.2
	comp=Z,20nm,0.6s,mb5.3						
FLN	La Foliniere	82.66	344	⇓*i*P	P	01 59 22.5	-0.2
FLN				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
SKO	Skopje	82.68	327	*i* P	P	01 59 23.5	+0.6
LDF	La Druitiere	82.75	344	⇓*i*P	P	01 59 22.8	-0.3
VAY	Valandovo	82.81	326	*i* P	P	01 59 23.2	-0.4
PRK	Paraskevi	83.09	323	*e*P	P	01 59 25.0	-0.1
GRR	Gorron	83.09	344	⇓*i*P	P	01 59 24.9	0.0
	comp=Z,126nm,1.0s,mb5.6						
GRR	Gorron	83.09	344	⇓*i*P	P	01 59 24.9	0.0
	comp=Z,63nm,1.0s,mb5.6						
GRR	Gorron	83.09	344	⇓*i*P	P	01 59 24.9	0.0
GRR				pmax	pmax		
	comp=Z,63nm,1.0s,mb5.6						
LOR	Lormes	83.18	341	⇓*i*P	P	01 59 25.3	-0.1
	comp=Z,110nm,0.9s,mb5.6						
LOR	Lormes	83.18	341	⇓*i*P	P	01 59 25.3	-0.1
	comp=Z,55nm,0.9s,mb5.6						
LOR	Lormes	83.18	341	⇓*i*P	P	01 59 25.3	-0.1
LOR				pmax	pmax		
	comp=Z,55nm,0.9s,mb5.6						
CABF	La Chapelle	83.27	339	⇓*i*P	P	01 59 26.1	+0.2
	comp=Z,94nm,1.0s,mb5.5						
CABF	La Chapelle	83.27	339	⇓*i*P	P	01 59 26.1	+0.2
	comp=Z,47nm,1.0s,mb5.5						
CABF	La Chapelle	83.27	339	⇓*i*P	P	01 59 26.1	+0.2
CABF				pmax	pmax		
	comp=Z,47nm,1.0s,mb5.5						
VAI	Varese	83.27	337	P	P	01 59 26.1	+0.2
	comp=Z,20nm,0.6s,mb5.3						
VAI	Varese	83.27	337	P	P	01 59 26.1	+0.2
VAI				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
KRUS	Krusevo	83.28	327	*i* P	P	01 59 26.2	+0.2
PLG	Polygyros	83.28	325	*e*P	P	01 59 24.7	-1.3
CSS	Prodhromos	83.42	315	*e*P	P	01 59 26.3	-0.6
HYF	Humbligny	83.45	342	⇓*i*P	P	01 59 27.0	+0.2
SSF	Saint Saulge	83.45	341	⇓*i*P	P	01 59 26.7	-0.1
	comp=Z,70nm,0.9s,mb5.4						
SSF	Saint Saulge	83.45	341	⇓*i*P	P	01 59 26.7	-0.1
	comp=Z,35nm,0.9s,mb5.4						
SSF	Saint Saulge	83.45	341	⇓*i*P	P	01 59 26.7	-0.1
SSF				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.4						
SGMF	Saint Gilles	83.53	345	⇓*i*P	P	01 59 27.2	0.0
	comp=Z,53nm,0.5s,mb5.6						
SGMF	Saint Gilles	83.53	345	⇓*i*P	P	01 59 27.2	0.0
	comp=Z,27nm,0.5s,mb5.6						
SGMF	Saint Gilles	83.53	345	⇓*i*P	P	01 59 27.2	0.0
SGMF				pmax	pmax		
	comp=Z,27nm,0.5s,mb5.6						
ROSF	Rostrenen	83.57	346	⇓*i*P	P	01 59 27.6	+0.2
	comp=Z,120nm,1.0s,mb5.7						
ROSF	Rostrenen	83.57	346	⇓*i*P	P	01 59 27.6	+0.2
	comp=Z,60nm,1.0s,mb5.7						
ROSF	Rostrenen	83.57	346	⇓*i*P	P	01 59 27.6	+0.2
ROSF				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.7						
OHR	Ohrid	83.67	327	*i* P	P	01 59 27.1	-0.9
ORO	Oropa	83.70	338	*i* Pu	P	01 59 28.3	+0.2
	comp=Z,48nm,1.0s,mb5.6						
ORO	Oropa	83.70	338	*i* P	P	01 59 28.3	+0.2
ORO				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.6						
FNA	Florina	83.73	327	*e*P	P	01 59 27.6	-0.7
AVF	Avril sur Loir	83.74	341	⇓*i*P	P	01 59 28.3	0.0
	comp=Z,94nm,0.9s,mb5.6						
AVF	Avril sur Loir	83.74	341	⇓*i*P	P	01 59 28.3	0.0
	comp=Z,47nm,0.9s,mb5.6						
AVF	Avril sur Loir	83.74	341	⇓*i*P	P	01 59 28.3	0.0
AVF				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.6						
SMF	Signal de Mont	83.77	341	⇓*i*P	P	01 59 28.3	-0.1
	comp=Z,144nm,1.0s,mb5.8						
SMF	Signal de Mont	83.77	341	⇓*i*P	P	01 59 28.3	-0.1
	comp=Z,72nm,1.0s,mb5.8						
SMF	Signal de Mont	83.77	341	⇓*i*P	P	01 59 28.3	-0.1
SMF				pmax	pmax		
	comp=Z,72nm,1.0s,mb5.8						
ASF	Jabal al Asfar	83.86	311	P	P	01 59 29.8	+0.6
ASF				pmax	pmax		
	comp=Z,23nm,1.0s						
ASF	Jabal al Asfar	83.86	311	P	P	01 59 29.8	+0.6
	comp=Z,22nm,0.9s,mb5.3,baz=327,slow=1.4,SNR=29						
QUIF	Quistinic	83.96	346	*e*P	P	01 59 30.3	+0.9
BGF	Bois d’Agland	84.08	341	⇓*i*P	P	01 59 30.0	0.0
	comp=Z,36nm,0.6s,mb5.3						
BGF	Bois d’Agland	84.08	341	⇓*i*P	P	01 59 30.0	0.0
	comp=Z,18nm,0.6s,mb5.4						
BGF	Bois d’Agland	84.08	341	⇓*i*P	P	01 59 30.0	0.0
BGF				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.4						
FSSB	Fossombrone	84.11	334	*i* Pu	P	01 59 30.6	+0.4
	comp=Z,41nm,1.0s,mb5.5						
LPL	La Plagne	84.13	338	⇓*i*P	P	01 59 31.2	+0.9
	comp=Z,118nm,0.9s,mb5.7						
LPL	La Plagne	84.13	338	⇓*i*P	P	01 59 31.2	+0.9
	comp=Z,59nm,0.9s,mb5.7						
LPL	La Plagne	84.13	338	⇓*i*P	P	01 59 31.2	+0.9
LPL				pmax	pmax		
	comp=Z,59nm,0.9s,mb5.7						
LPG	La Plagne	84.14	338	⇓*i*P	P	01 59 31.4	+1.0
	comp=Z,143nm,1.0s,mb5.8						
LPG	La Plagne	84.14	338	⇓*i*P	P	01 59 31.4	+1.0
	comp=Z,71nm,1.0s,mb5.8						
LPG	La Plagne	84.14	338	⇓*i*P	P	01 59 31.4	+1.0
LPG				pmax	pmax		
	comp=Z,71nm,1.0s,mb5.8						
SFI	Santa Sofia	84.20	334	P	P	01 59 31.3	+0.6
	comp=Z,39nm,1.0s,mb5.5						
SFI	Santa Sofia	84.20	334	P	P	01 59 31.3	+0.6
SFI				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.5						
SEI	Scarperia	84.21	335	*i* Pr	P	01 59 32.5	+1.8
	comp=Z,114nm,0.7s,mb6.1						
VMG	Vicchio	84.24	335	P	P	01 59 32.5	+1.6
	comp=Z,41nm,0.8s,mb5.6						
CRE	Caprese Michel	84.43	334	*i* Pu	P	01 59 34.7	+2.9
SNTG	Esanatoglia	84.46	333	*i* Pr	P	01 59 32.5	+0.5
	comp=Z,21nm,0.8s,mb5.3						
PLDF	La Plantade	84.46	341	*e*P	P	01 59 33.0	+1.1
TCF	Toulx Ste Croi	84.47	342	⇓*i*P	P	01 59 32.1	+0.1
	comp=Z,79nm,0.9s,mb5.5						
TCF	Toulx Ste Croi	84.47	342	⇓*i*P	P	01 59 32.1	+0.1
	comp=Z,40nm,0.9s,mb5.5						
TCF	Toulx Ste Croi	84.47	342	⇓*i*P	P	01 59 32.1	+0.1
TCF				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.5						
AGO	Saint Agoulin	84.49	341	*e*P	P	01 59 33.7	+1.6
BNI	Bardonecchia	84.58	338	*e*P	P	01 59 34.0	+1.5
	comp=Z,53nm,1.2s,mb5.5						
BNI	Bardonecchia	84.58	338	P	P	01 59 34.0	+1.4
BNI				pmax	pmax		
	comp=Z,53nm,1.2s,mb5.5						
MFF	Saint Martin d	84.67	343	*e*P	P	01 59 33.0	0.0
	comp=Z,76nm,1.1s,mb5.5						
MFF	Saint Martin d	84.67	343	*e*P	P	01 59 33.0	0.0
	comp=Z,38nm,1.1s,mb5.4						
MFF	Saint Martin d	84.67	343	*e*P	P	01 59 33.0	0.0
MFF				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.4						
JSC	Jenkinsville	84.78	44	*e*P	P	01 59 33.1	-0.7
NRCA	Norcia	84.78	333	*i* Pu	P	01 59 34.5	+0.8
	comp=Z,42nm,1.1s,mb5.5						
PYM	Petit Puy Mans	84.81	341	*e*P	P	01 59 41.2	+7.5
MBDF	Montbardon	84.86	338	⇓*i*P	P	01 59 34.2	+0.2
	comp=Z,80nm,1.1s,mb5.5						
MBDF	Montbardon	84.86	338	⇓*i*P	P	01 59 34.2	+0.2
	comp=Z,40nm,1.1s,mb5.5						
MBDF	Montbardon	84.86	338	⇓*i*P	P	01 59 34.2	+0.2
MBDF				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.5						
KLBR	Kellerberrin	84.88	211	*e*P	P	01 59 32.7	-1.3
	comp=Z,9.2nm,0.6s,mb5.1						
ORIF	Oris-en-Rattie	84.91	339	⇓*i*P	P	01 59 35.0	+0.8
	comp=Z,90nm,0.9s,mb5.6						
ORIF	Oris-en-Rattie	84.91	339	⇓*i*P	P	01 59 35.0	+0.8
	comp=Z,45nm,0.9s,mb5.6						
ORIF	Oris-en-Rattie	84.91	339	⇓*i*P	P	01 59 35.0	+0.8
ORIF				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.6						
JAN	Janina	84.91	326	*e*P	P	01 59 34.5	+0.1
DOI	San Damiano	84.94	338	*i* Pu	P	01 59 33.3	-1.1
AQU	L’Aquila	85.13	333	*e*P	P	01 59 35.7	+0.3
	comp=Z,44nm,1.1s,mb5.5						
AQU	L’Aquila	85.13	333	*e*P	P	01 59 35.7	+0.3
AQU				pmax	pmax		
	comp=Z,44nm,1.1s,mb5.5						
EVR	Evrytania	85.18	325	*e*P	P	01 59 35.0	-0.7
LBL	Lubilhac	85.24	341	*e*P	P	01 59 37.7	+1.8
VIVF	Saint-Julien-l	85.26	339	*e*P	P	01 59 36.5	+0.5
	comp=Z,68nm,1.0s,mb5.5						
VIVF	Saint-Julien-l	85.26	339	*e*P	P	01 59 36.5	+0.5
	comp=Z,34nm,1.0s,mb5.4						
VIVF	Saint-Julien-l	85.26	339	*e*P	P	01 59 36.5	+0.5
VIVF				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.4						
AUTN	L’Aution	85.36	337	*e*P	P	01 59 37.0	+0.5
TOUF	Mont Tournerai	85.40	337	*e*P	P	01 59 37.0	+0.3
SBF	Sospel	85.49	337	*e*P	P	01 59 36.9	-0.2
	comp=Z,139nm,1.0s,mb5.7						
SBF	Sospel	85.49	337	*e*P	P	01 59 36.9	-0.2
	comp=Z,70nm,1.0s,mb5.7						
SBF	Sospel	85.49	337	*e*P	P	01 59 36.9	-0.2
SBF				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.8						
MVIF	Mont Vial	85.53	337	*e*P	P	01 59 37.5	+0.1
RJF	Les Rejaudoux	85.56	342	*e*P	P	01 59 37.7	+0.2
	comp=Z,82nm,1.0s,mb5.6						
RJF	Les Rejaudoux	85.56	342	*e*P	P	01 59 37.7	+0.2
	comp=Z,41nm,1.0s,mb5.6						
RJF	Les Rejaudoux	85.56	342	*e*P	P	01 59 37.7	+0.2
RJF				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.6						
CALN	Calern	85.73	338	*e*P	P	01 59 38.7	+0.3
STOF	St-Etienne Org	85.76	338	*e*P	P	01 59 45.9	+7.4
CAF	Calviac	85.80	341	*e*P	P	01 59 38.4	-0.3
	comp=Z,66nm,1.0s,mb5.5						
CAF	Calviac	85.80	341	*e*P	P	01 59 38.4	-0.3
	comp=Z,33nm,1.0s,mb5.5						
CAF	Calviac	85.80	341	*e*P	P	01 59 38.4	-0.3
CAF				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.5						
KARP	Karpathos	85.81	320	*e*P	P	01 59 38.0	-0.9
SMRF	Simiane la Rot	85.86	339	*e*P	P	01 59 39.8	+0.8
	comp=Z,56nm,1.1s,mb5.4						
SMRF	Simiane la Rot	85.86	339	*e*P	P	01 59 39.8	+0.8
	comp=Z,56nm,1.1s,mb5.7						
FRF	La Foret Royal	85.98	338	*e*P	P	01 59 39.4	-0.2
LFF	La Frestale	86.07	342	*e*P	P	01 59 40.2	+0.2
TAVF	Tavernes	86.08	338	*e*P	P	01 59 47.5	+7.4
PRAF	Pradon	86.13	339	*e*P	P	01 59 48.0	+7.7
LASF	Ste Croix	86.19	340	*e*P	P	01 59 41.3	+0.7
	comp=Z,77nm,1.1s,mb5.5						
LMR	La Mourre	86.22	338	⇓*i*P	P	01 59 41.0	+0.2
	comp=Z,117nm,1.1s,mb5.7						
LMR	La Mourre	86.22	338	⇓*i*P	P	01 59 41.0	+0.2
	comp=Z,58nm,1.1s,mb5.7						
LMR	La Mourre	86.22	338	⇓*i*P	P	01 59 41.0	+0.2
LMR				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.7						
PGF	Pioggiola	86.27	336	*e*P	P	01 59 41.3	+0.2
	comp=Z,41nm,0.8s,mb5.4						
PGF	Pioggiola	86.27	336	*e*P	P	01 59 41.3	+0.2
	comp=Z,20nm,0.8s,mb5.4						
PGF	Pioggiola	86.27	336	*e*P	P	01 59 41.3	+0.2
PGF				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.4						
NWAO	Narrogin (SRO)	86.28	211	*e*P	P	01 59 39.8	-1.1
	comp=Z,18nm,0.9s,mb5.3						
NWAO				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
NWAO	Narrogin (SRO)	86.28	211	*e*P	P	01 59 39.8	-1.1
NWAO				pmax	pmax		
	comp=Z,18nm,0.9s						
NWAO				MLR	MLR		
	comp=Z,1µm,20.0s						
VLI	Veliai	86.62	323	*e*P	P	01 59 41.5	-1.4
NPS	Neapolis	86.73	321	*e*P	P	01 59 42.0	-1.4
VAM	Vamos	87.21	322	*e*P	P	01 59 43.5	-2.3
VAE	Valguarnera	89.19	330	LR	LR	02 44 10.5	
	comp=Z,3µm,20.7s,MS5.7,baz=283,slow=38						
TAU	Tasmania Unive	89.43	186	PFAKE		02 00 10.0	+14
TAU				LR	LR		
	comp=Z,283nm,21.0s,MS4.7						
PVRL	Vila Real	91.17	347	*e*P	P	02 00 03.8	-0.5
	comp=Z,69nm,2.6s,mb5.5						
MVO	Moncorvo	91.17	347	*e*P	P	02 00 03.5	-0.8
	comp=Z,51nm,1.4s,mb5.7						
MVO	Moncorvo	91.17	347	*e*LQ		02 25 52.2	
MVO				A		02 35 58.9	
	comp=Z,2µm,13.4s						
PVIS	Viseu	91.74	347	*e*P	P	02 00 07.5	+0.5
	comp=Z,42nm,1.2s,mb5.7						
MTE	Manteigas	92.00	347	*e*P	P	02 00 08.3	+0.1
	comp=Z,58nm,1.4s,mb5.7						
MTE	Manteigas	92.00	347	*e*LQ		02 25 45.0	
MTE				A		02 39 13.2	
	comp=Z,2µm,24.3s						
ESDC	Sonseca Array	92.08	344	P	P	02 00 06.6	-2.0
	comp=Z,2.2nm,0.8s,mb4.6,baz=5.5,slow=4.7,SNR=7.7						
KEST	Kesra	92.45	333	P	P	02 00 09.8	-0.5
	comp=Z,5.6nm,1.0s,mb4.9,baz=266,slow=3.8,SNR=7.6						
KEST				LR	LR	02 47 23.2	
	comp=Z,1µm,18.9s,MS5.4,baz=204,slow=39						
PESTR	Estremoz	93.50	347	*e*LQ		02 25 21.6	
PESTR				*e*LR	LR	02 28 28.9	
	comp=Z,1µm,15.8s						
PMAFR	Mafra	93.67	348	*e*LQ		02 25 19.4	
PMAFR				A		02 35 36.6	
	comp=Z,2µm,20.8s						
EVO	Evora	93.89	347	*e*P	P	02 00 17.8	+0.8
	comp=Z,158nm,1.9s,mb5.8						
PBEJ	Beja	94.37	347	*e*P	P	02 00 19.1	0.0
	comp=Z,23nm,1.2s,mb5.5						
PVAQ	Vaqueiros	94.95	346	*e*LQ		02 25 47.5	
PVAQ				*e*LR	LR	02 29 10.5	
	comp=Z,2µm,15.9s						
PBDV	Barranco-do-Ve	95.14	347	*e*LR	LR	02 29 08.3	
	comp=Z,2µm,17.3s						
MORF	Marmelete	95.19	347	*e*LQ		02 25 16.4	
MORF				*e*LR	LR	02 28 32.7	
	comp=Z,2µm,15.4s						
JTS	JuntasAbangare	102.06	61	PFAKE		02 01 00.0	+6.1
JTS				LR	LR		
	comp=Z,514nm,20.0s,MS5.0						
TORD	Torodi Ar. Bea	115.92	331	PKP	PKPdf	02 05 40.3	-2.2
TORD				PP	PP	02 06 37.0	-8.4
TORD	Torodi Ar. Bea	115.92	331	PKP	PKPdf	02 05 40.3	-2.2
	comp=Z,1.7nm,0.9s,baz=359,slow=2.8,SNR=8.3						
TORD				PP	PP	02 06 37.0	-8.4
	comp=Z,2.1nm,1.0s,baz=21,slow=7.5,SNR=4.4						
TIC	Toumodi	124.12	336	*e*PKP1	PKPdf	02 05 56.0	-2.4
	comp=Z,108nm,1.5s						
KIC	Kosan Boka	124.31	336	*e*PKP1	PKPdf	02 05 57.4	-1.3
	comp=Z,107nm,1.6s						
NNA	Nana	124.35	69	PFAKE		02 06 10.0	+11
NNA				LR	LR		
	comp=Z,917nm,20.0s,MS5.4						
LIC	Lamto	124.52	336	*e*PKIKP	PKPdf	02 05 57.4	-1.7
	comp=Z,7.0nm,0.7s						
LIC	Lamto	124.52	336	*e*PKP1	PKPdf	02 05 57.0	-2.1
	comp=Z,64nm,1.9s						
LIC	Lamto	124.52	336	*e*PKPdf	PKPdf	02 05 57.4	-1.7
MAW	Mawson	132.85	211	PKP	PKPdf	02 06 12.3	-0.9
MAW	Mawson	132.85	211	PKIKP	PKPdf	02 06 12.3	-0.9
MAW				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MAW	Mawson	132.85	211	PKP	PKPdf	02 06 12.3	-0.9
	comp=Z,2.9nm,0.7s,baz=45,slow=2.9,SNR=3.8						
LPAZ	La Paz	133.11	65	*e*PKPdf	PKPdf	02 06 15.3	0.0
LPAZ				LR	LR		
	comp=Z,643nm,20.0s,MS5.3						
LPAZ	La Paz	133.11	65	*e*PKIKP	PKPdf	02 06 15.3	0.0
LPAZ				MLR	MLR		
	comp=Z,643nm,20.0s						
QSPA	South Pole Qui	136.37	180	PFAKE		02 06 30.0	+11
QSPA				LR	LR		
	comp=Z,655nm,20.0s,MS5.4						
USHA	Ushuaia	151.59	123	PKPbc	PKPbc	02 06 50.9	-1.8
USHA	Ushuaia	151.59	123	PKPbc	PKPbc	02 06 50.9	-1.8
	comp=Z,10nm,0.9s,baz=297,slow=9.0,SNR=4.1						
SNAA	Sanae	152.82	195	PKP	PKPdf	02 06 45.5	-2.3
SNAA				PKPbc	PKPbc	02 06 52.9	-2.2
SNAA	Sanae	152.82	195	PKIKP	PKPdf	02 06 45.5	-2.3
SNAA						02 06 52.9	
SNAA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
SNAA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SNAA	Sanae	152.82	195	PKP	PKPdf	02 06 45.5	-2.3
	comp=Z,0.6nm,0.9s,baz=285,slow=18,SNR=31						
SNAA				PKPbc	PKPbc	02 06 52.9	-2.2
	comp=Z,3.5nm,1.0s,baz=201,slow=1.6,SNR=6.9						
VNA2	Neumayer--Watz	154.23	193	*e*PKPdf	PKPdf	02 06 50.6	+0.7
VNA2				*e*		02 06 56.6	
VNA2				*e*		02 07 00.7	
VNA2				*e*		02 07 08.8	
VNA2				*e*		02 07 15.2	
VNA2				*e*		02 07 23.6	
VNA3	Neumayer Olymp	154.27	191	*e*PKPdf	PKPbc	02 06 56.5	-1.7
VNA3				*e*		02 07 00.2	
VNA3				*e*		02 07 15.2	
VNA3				*e*		02 07 23.7	
VNA1	Neumayer--Stat	154.61	193	*e*PKPdf	PKPbc	02 06 59.6	+0.7
VNA1				*e*		02 07 03.2	
VNA1				*e*		02 07 15.4	
VNA1				*e*		02 07 24.1	

SZGRF ***14*** *02:00:58.4, 1961S×17836W, h33*^{km}*, Fiji Islands region*

ISCJB ***14*** *02:01:50.2±0.9, 1872S±008×17773W±008, h475*^{km}*±11*^{km}*, mb4.3/26, Error ellipse: s-maj=13.5km s-min=9.6km az=140.9*

MOS ***14*** *02:01:52.6±2.1, 1855S×17793W, h478*^{km}*, mb4.5/7, Error ellipse: s-maj=14.0km s-min=13.7km az=157.9*

NEIC ***14*** *02:01:52.4±0.9, 1873S×17770W, h493*^{km}*±9*^{km}*, mb4.6/16, Error ellipse: s-maj=12.8km s-min=8.2km az=147.0*

IDC ***14*** *02:01:54.0±1.4, 1883S×17780W, h501*^{km}*±14*^{km}*, mb3.9/12, mb1 4.0/14, mb1mx3.9/18, mbtmp3.9/14, Error ellipse: s-maj=13.2km s-min=12.2km az=149.0*

ISC 14 02:01:52.5±1.1**, 1875S**±008×**17774W**±008**, h490**^{km}±12^{km}**, n209,** $\sigma 0^{s}85$/54**, mb4.3**/26**, 27C-20D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.48	51	P	P	02 03 42.3	-1.0
	8.5nm,0.3s,baz=146,slow=1.7,SNR=10.0						
AFI				S	S	02 05 07.9	-6.2
	25nm,0.3s,baz=39,slow=23,SNR=13						
DZM	Mont Dzumac	15.19	255	P	P	02 05 06.2	+1.3
	0.7nm,0.3s,baz=58,slow=15,SNR=12						
URZ	Urewera	19.95	192	P	P	02 05 49.3	-1.8
	7.5nm,0.3s,baz=314,slow=1.9,SNR=37						
CTA	Charters Tower	33.95	262	*e*P	P	02 07 54.9	+0.5
	10nm,0.3s,mb4.7						
CTA	Charters Tower	33.95	262	*e*P	P	02 07 54.9	+0.5
CTA				pmax	pmax		
	comp=Z,10.0nm,0.3s						
CTAO	Charters Tower	33.95	262	*e*P	P	02 07 54.6	+0.2
	comp=Z,19nm,0.6s,mb4.7						
CTAO	Charters Tower	33.95	262	*e*P	P	02 07 54.6	+0.2
CTAO				pmax	pmax		
	comp=Z,19nm,0.6s,mb4.7						
PMG	Port Moresby	35.23	280	*e*P	P	02 08 06.0	+0.7
	comp=Z,36nm,0.8s,mb4.8						
PMG	Port Moresby	35.23	280	⇑*e*P	P	02 08 05.9	+0.6
PMG	Port Moresby	35.23	280	P	P	02 08 06.6	+1.3
	comp=Z,29nm,0.7s,mb4.8,baz=84,slow=4.4,SNR=20						
COEN	Coen	37.76	271	*e*P	P	02 08 26.2	0.0
STKA	Stephens Creek	38.79	242	⇓*i*P	P	02 08 35.4	+1.0
	comp=Z,9.2nm,0.8s,mb4.3						
STKA	Stephens Creek	38.79	242	P	P	02 08 35.7	+1.3
	comp=Z,6.3nm,0.3s,mb4.5,baz=80,slow=9.0,SNR=23						
WB2	Warramunga Arr	45.10	260	*e*P	P	02 09 23.9	-0.6
WRA	Warramunga Arr	45.11	260	P	P	02 09 24.5	-0.1
	comp=Z,16nm,0.5s,mb4.7,baz=96,slow=7.9,SNR=96						
WRA				ScP	ScP	02 14 01.5	+0.8
	comp=Z,1.1nm,1.0s,baz=98,slow=4.2,SNR=2.9						
WRA				S	S	02 15 26.3	-1.4
	comp=Z,0.5nm,0.6s,baz=100,slow=13,SNR=2.8						
ASAR	Alice Springs	45.18	255	P	P	02 09 25.4	+0.4
	comp=Z,62nm,0.6s,mb5.2,baz=89,slow=8.5,SNR=764						
ASAR				ScP	ScP	02 14 01.6	+0.7
	comp=Z,1.1nm,0.6s,baz=100,slow=4.4,SNR=5.0						
ASAR				S	S	02 15 25.9	-2.7
	comp=Z,2.6nm,1.1s,baz=88,slow=16,SNR=17						
KAKA	Kakadu	48.21	270	*e*P	P	02 09 47.9	-0.3
	comp=Z,50nm,0.3s,mb5.3						
FORT	Forrest	50.23	245	*e*P	P	02 10 00.4	-2.5
	comp=Z,15nm,0.5s,mb4.6						
FITZ	Fitzroy Crossi	53.52	261	⇓*i*P	P	02 10 27.1	+0.2
	comp=Z,10nm,0.3s,mb4.6						
MBWA	Marble Bar	58.49	256	*e*P	P	02 11 00.7	-0.7
	comp=Z,12nm,0.6s,mb4.4						
KLBR	Kellerberrin	59.03	244	*e*P	P	02 11 04.6	-0.3
	comp=Z,12nm,0.6s,mb4.4						
VNDA	Vanda	59.66	185	*e*P	P	02 11 09.6	+1.3
	comp=Z,8.5nm,0.6s,mb4.3						
VNDA	Vanda	59.66	185	*e*P	P	02 11 09.6	+1.3
VNDA				pmax	pmax		
	comp=Z,9.0nm,0.6s						
VNDA	Vanda	59.66	185	P	P	02 11 09.0	+0.7
	comp=Z,5.1nm,0.6s,mb4.2,baz=356,slow=5.9,SNR=20						
MJAR	Matsushiro Arr	68.96	323	P	P	02 12 07.9	-0.1
	comp=Z,6.5nm,0.5s,mb4.5,baz=155,slow=5.9,SNR=16						
MAJO	Matsushiro	68.96	323	*e*P	P	02 12 07.4	-0.6
	comp=Z,8.8nm,0.5s,mb4.5						
MAJO	Matsushiro	68.96	323	*e*P	P	02 12 07.4	-0.6
MAJO				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb4.6						
QSPA	South Pole Qui	71.31	180	*e*P	P	02 12 22.6	+1.3
	comp=Z,32nm,0.9s,mb4.9						
KSM	Kuching	73.42	277	*e*P	P	02 12 35.7	+0.9
YSS	Yuzh-Sakhalins	74.45	333	P	P	02 12 40.0	+0.1
KSRS	Korea Array	75.75	318	P	P	02 12 48.4	+0.9
	comp=Z,2.0nm,0.6s,mb3.8,baz=124,slow=5.9,SNR=6.2						
TUC	Tucson	81.71	52	*e*P	P	02 13 19.9	+0.5
	comp=Z,3.9nm,1.2s,mb3.8						
TUC	Tucson	81.71	52	*e*P	P	02 13 19.9	+0.5
TUC				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb3.8						
MA2	Magadan	82.17	344	⇑*e*P	P	02 13 20.5	-0.6
MA2				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.0						
MAW	Mawson	83.29	200	P	P	02 13 27.1	+0.3
	comp=Z,3.4nm,0.5s,mb4.2,baz=141,slow=6.6,SNR=7.3						
SEY	Seymchan	84.74	347	⇑*e*P	P	02 13 33.2	-0.6
MCK	McKinley	85.22	12	*e*P	P	02 13 36.1	-0.1
	comp=Z,1.4nm,0.6s,mb3.8						
MCK	McKinley	85.22	12	*e*P	P	02 13 36.1	-0.1
MCK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.6						
TXAR	Lajitas Array	85.91	57	P	P	02 13 41.8	+1.5
	comp=Z,1.0nm,0.7s,mb3.5,baz=210,slow=7.2,SNR=4.7						
ANMO	Albuquerque	86.12	51	*i* P	P	02 13 36.1	-5.1
BILL	Bilibino	87.33	354	*e*P	P	02 13 45.4	-0.7
BILL				*e*		02 23 36.6	
BILL				pmax	pmax		
	comp=Z,1.0nm,1.2s,mb3.4						
SNAA	Sanae	89.74	178	P	P	02 13 57.4	-0.1
	comp=Z,1.6nm,0.6s,mb4.1,baz=201,slow=7.2,SNR=19						
VNA3	Neumayer Olymp	89.86	176	*e*P	P	02 13 57.1	-1.0
CHTO	Chiang Mai	89.89	290	*e*P	P	02 13 59.8	+0.6
	comp=Z,4.3nm,0.8s,mb4.3						
CHTO	Chiang Mai	89.89	290	*e*P	P	02 13 59.8	+0.6
CHTO				pmax	pmax		

	comp=Z,4.0nm,0.8s,mb4.3						
VNA2	Neumayer--Watz	90.31	177	*e*P	P	02 14 00.3	+0.1
	baz=190,slow=4.2						
VNA1	Neumayer--Stat	90.53	177	*e*P	P	02 14 01.0	-0.2
ULN	Ulaanbaatar	94.21	319	*e*P	P	02 14 18.1	-0.2
	comp=Z,2.8nm,1.1s,mb4.2						
ULN	Ulaanbaatar	94.21	319	⇑*e*P	P	02 14 18.6	+0.2
SONM	Songino Array	94.60	319	P	P	02 14 20.5	+0.3
	comp=Z,0.6nm,0.7s,mb3.8,baz=128,slow=4.4,SNR=6.3						
YKA	Yellowknife Ar	94.83	25	P	P	02 14 20.6	-0.2
	comp=Z,0.4nm,0.8s,mb3.5,baz=245,slow=4.4,SNR=4.3						
ZALV	Zalesovo Beam	109.29	322	PKPdf	PKiKP	02 19 24.8	-1.3
ZALV	Zalesovo Beam	109.29	322	PKiKP	PKiKP	02 19 24.8	-1.3
	comp=Z,0.7nm,0.6s,baz=190,slow=0.5,SNR=4.1						
MK31	Makanchi Array	110.18	314	*e*PKP	PKiKP	02 19 27.3	-0.8
MKAR	Makanchi Array	110.18	314	PKPdf	PKiKP	02 19 26.9	-1.1
MKAR	Makanchi Array	110.18	314	⇑*i*PKIKP	PKiKP	02 19 27.5	-0.5
MKAR	Makanchi Array	110.18	314	PKiKP	PKiKP	02 19 26.9	-1.1
	comp=Z,0.8nm,0.5s,baz=187,slow=0.4,SNR=16						
KBL	Kabul	119.26	300	*e*PKPdf	PKPdf	02 19 46.1	+0.2
ARU	Arti	123.90	326	*e*PKPdf	PKPdf	02 19 53.5	-0.5
ARU	Arti	123.90	326	*i* PKIKP	PKPdf	02 19 53.7	-0.4
ARU				*e*		02 21 43.6	
ARCES	ARCESS Array B	127.25	350	PKP	PKPdf	02 20 00.2	+0.1
ARCES	ARCESS Array B	127.25	350	PKIKP	PKPdf	02 20 00.2	+0.1
ARCES	ARCESS Array B	127.25	350	PKP	PKPdf	02 20 00.2	+0.1
	comp=Z,1.3nm,0.7s,baz=269,slow=2.1,SNR=15						
JOF	Joensuu	131.55	343	*e*pkp	PKPdf	02 20 05.7	-2.7
JOF	Joensuu	131.55	343	*e*PKP	PKPdf	02 20 05.7	-2.7
JOF	Joensuu	131.55	343	*e*PKIKP	PKPdf	02 20 05.7	-2.7
KAF	Kangasniemi	133.54	345	*e*pkp	PKPdf	02 20 11.5	-0.7
KAF	Kangasniemi	133.54	345	*e*PKP	PKPdf	02 20 11.5	-0.7
KAF	Kangasniemi	133.54	345	*e*PKIKP	PKPdf	02 20 11.5	-0.7
FINES	FINESS Array B	134.17	344	PKP	PKPdf	02 20 13.8	+0.4
FINES	FINESS Array B	134.17	344	⇑*i*PKIKP	PKPdf	02 20 14.3	+0.9
FINES	FINESS Array B	134.17	344	PKP	PKPdf	02 20 13.8	+0.4
	comp=Z,0.9nm,0.5s,baz=96,slow=3.8,SNR=12						
OBN	Obninsk	135.34	333	*e*PKIKP	PKPdf	02 20 18.1	+2.3
OBN				*e*		02 23 00.2	
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s						
OBN				MLR	MLR		
	comp=Z,700nm,18.0s						
AKASG	Malin Array Be	141.60	332	PKP	PKPdf	02 20 22.1	-5.2
AKASG				SKPbc	SKPbc	02 23 16.6	-1.5
AKASG	Malin Array Be	141.60	332	PKHKP		02 20 22.2	
AKASG	Malin Array Be	141.60	332	PKhKP		02 20 22.1	
	comp=Z,1.9nm,0.3s,baz=43,slow=4.0,SNR=24						
AKASG				SKPbc	SKPbc	02 23 16.6	-1.5
	comp=Z,0.2nm,0.4s,baz=32,slow=1.9,SNR=5.1						
AKBB	Malin Array Si	141.60	332	*e*PKPdf	PKPdf	02 20 22.0	-5.3
AKBB	Malin Array Si	141.60	332	*e*PKHKP		02 20 22.0	
KIEV	Kiev	141.61	332	*e*PKPpre		02 20 21.5	
KIEV	Kiev	141.61	332	*e*PKHKP		02 20 21.5	
SIM	Simferopol’	142.80	322	*c* *i*PKHKP		02 20 27.2	
SIM				pmax	pmax		
	comp=Z,14nm,0.9s						
MALT	Malatya	143.04	309	*e*PKPdf	PKPdf	02 20 28.9	-1.4
MALT	Malatya	143.04	309	⇓PKIKP	PKPdf	02 20 29.4	-0.9
MALT	Malatya	143.04	309	⇓*i*P	PKPdf	02 20 29.4	-0.9
WAR	Warsaw	143.48	341	*e*PKP	PKPdf	02 20 30.9	+0.2
WAR	Warsaw	143.48	341	*e*PKP	PKPdf	02 20 30.9	+0.3
WAR				LR	LR		
	comp=Z,1µm,26.2s						
WAR	Warsaw	143.48	341	*e*PKIKP	PKPdf	02 20 30.9	+0.3
WAR				MLR	MLR		
	comp=Z,1µm,26.2s						
GKP	Gorka Klasztor	143.64	345	*e*PKP	PKPdf	02 20 29.4	-1.5
GKP	Gorka Klasztor	143.64	345	*e*PKP	PKPdf	02 20 29.4	-1.5
GKP				LR	LR		
	comp=Z,2µm,22.2s						
BSEG	Bad Segeberg	144.34	352	*e*PKIKP	PKPdf	02 20 31.5	-0.6
BSEG	Bad Segeberg	144.34	352	*e*PKPbc	PKPdf	02 20 31.5	-0.6
KIS	Kishinev	144.40	328	⇑*i*P	PKPdf	02 20 31.0	-1.4
KIS				M		02 20 31.5	
	comp=Z,200nm,1.0s						
LVV	L’vov	144.43	336	*e*PKIKP	PKPdf	02 20 31.8	-0.6
LVV				*e*		02 27 11.2	
KWP	Kalwaria	145.09	337	*e*PKP	PKPdf	02 20 34.1	+0.6
KWP	Kalwaria	145.09	337	*e*PKP	PKPdf	02 20 34.1	+0.6
KWP	Kalwaria	145.09	337	*e*PKIKP	PKPdf	02 20 34.1	+0.6
BURAR	Bucovina Array	145.65	332	⇑P	PKPbc	02 20 37.1	+1.2
BURAR	Bucovina Array	145.65	332	⇑PKP2	PKPab	02 20 37.1	-0.2
BURAR	Bucovina Array	145.65	332	⇑*i*P	PKPbc	02 20 37.1	+1.2
STHS	Stebnicka Huta	145.81	338	*e*PKP	PKPdf	02 20 35.7	+1.0
STHS	Stebnicka Huta	145.81	338	*e*PKIKP	PKPdf	02 20 35.7	+1.0
STHS	Stebnicka Huta	145.81	338	*e*PKP	PKPdf	02 20 35.7	+1.0
BR131	Keskin Array S	145.82	314	*e*PKPbc	PKPbc	02 20 36.9	+0.3
BRTR	Keskin Array B	145.83	314	PKPbc	PKPbc	02 20 36.5	-0.2
BRTR				SKPbc	SKPbc	02 23 28.8	+0.2
BRTR	Keskin Array B	145.83	314	PKIKP	PKPdf	02 20 36.5	+1.4
BRTR	Keskin Array B	145.83	314	PKPbc	PKPbc	02 20 36.5	-0.2
	comp=Z,4.3nm,0.6s,baz=126,slow=4.1,SNR=33						
BRTR				SKPbc	SKPbc	02 23 28.8	+0.2
	comp=Z,0.5nm,0.7s,baz=64,slow=2.9,SNR=4.3						
KOLS	Kolonicke sedl	145.83	336	*e*PKP	PKPbc	02 20 36.8	+0.4
KOLS	Kolonicke sedl	145.83	336	*e*PKIKP	PKPbc	02 20 36.8	+0.4
KOLS	Kolonicke sedl	145.83	336	*e*PKP	PKPbc	02 20 36.8	+0.4
UZH	Uzhgorod	146.07	336	⇓*i*PKIKP	PKPbc	02 20 37.6	+0.5
KSP	Ksiaz	146.09	344	*e*PKP	PKPbc	02 20 37.5	+0.4
KSP	Ksiaz	146.09	344	*e*PKP	PKPab	02 20 37.1	+0.1
KSP	Ksiaz	146.09	344	*e*PKIKP	PKPbc	02 20 37.1	+0.1
NIE	Niedzica	146.13	339	*e*PKP	PKPbc	02 20 37.7	+0.5
NIE	Niedzica	146.13	339	*e*PKIKP	PKPbc	02 20 37.7	+0.5
ASF	Jabal al Asfar	146.15	300	PKPbc	PKPbc	02 20 38.0	+0.2
ASF	Jabal al Asfar	146.15	300	PKIKP	PKPbc	02 20 38.0	+0.2
ASF	Jabal al Asfar	146.15	300	PKPbc	PKPbc	02 20 38.0	+0.2
	comp=Z,4.9nm,0.9s,baz=247,slow=0.9,SNR=6.2						
CRVS	Cervenica-Dubn	146.16	337	*e*PKP	PKPdf	02 20 36.9	+1.6
CRVS	Cervenica-Dubn	146.16	337	*e*PKIKP	PKPdf	02 20 36.9	+1.6
CRVS	Cervenica-Dubn	146.16	337	*e*PKP	PKPdf	02 20 36.9	+1.6
VRI	Vrincioaia	146.23	329	⇑P	PKPbc	02 20 37.9	+0.3
VRI	Vrincioaia	146.23	329	⇑PKIKP	PKPbc	02 20 37.9	+0.3
VRI	Vrincioaia	146.23	329	⇑*i*P	PKPbc	02 20 37.9	+0.3
PLOR	Plostina	146.28	329	⇓*i*P	PKPbc	02 20 38.0	+0.3
ANTO	Ankara	146.32	315	*e*PKPbc	PKPbc	02 20 37.8	-0.3
ANTO	Ankara	146.32	315	*e*PKIKP	PKPbc	02 20 37.8	-0.3
CLZ	Clausthal	146.37	351	*e*PKIKP	PKPbc	02 20 37.0	-0.8
CLZ	Clausthal	146.37	351	*e*PKPbc	PKPbc	02 20 37.0	-0.8
CLL	Collm	146.42	348	⇓*i*PKP	PKPbc	02 20 37.9	0.0
CLL	Collm	146.42	348	⇓*i*PKIKP	PKPbc	02 20 37.9	0.0
CLL	Collm	146.42	348	*e*PKPbc	PKPbc	02 20 37.8	-0.1
CLL	Collm	146.42	348	⇓*i*PKPbc	PKPbc	02 20 37.9	0.0
	comp=Z,14nm,0.7s						
UPC	Upice	146.47	344	*e*PKP	PKPdf	02 20 33.0	-2.8
UPC				*e*		02 20 37.4	
UPC	Upice	146.47	344	*e*PKPbc	PKPbc	02 20 33.0	-5.1
UPC				*e*PKPab	PKPab	02 20 37.4	-3.0
DPC	Dobruska-Polom	146.53	344	*e*PKP	PKPbc	02 20 37.8	-0.5
DPC	Dobruska-Polom	146.53	344	*e*PKPbc	PKPbc	02 20 37.8	-0.5
BRG	Berggiesshubel	146.63	347	*i* PKP	PKPbc	02 20 38.2	-0.3
BRG	Berggiesshubel	146.63	347	*i* PKIKP	PKPbc	02 20 38.2	-0.3
BRG	Berggiesshubel	146.63	347	*e*PKPbc	PKPbc	02 20 38.7	+0.2
BRG	Berggiesshubel	146.63	347	*i* PKP	PKPbc	02 20 38.2	-0.3
	comp=Z,13nm,1.1s						
MORC	Moravsky Berou	146.71	342	*e*PKPbc	PKPbc	02 20 38.8	0.0
MORC	Moravsky Berou	146.71	342	*e*PKIKP	PKPbc	02 20 38.8	0.0
PVCC	Panska Ves	146.81	346	*e*PKP	PKPbc	02 20 38.8	-0.2
PVCC				*e*		02 20 44.1	
PVCC	Panska Ves	146.81	346	*e*PKIKP	PKPbc	02 20 38.8	-0.2
PVCC				*e*		02 20 44.1	
PVCC	Panska Ves	146.81	346	*e*PKPbc	PKPbc	02 20 38.8	-0.2
PVCC				*e*PKPab	PKPab	02 20 44.1	+2.4
KECS	Kecovo	146.86	338	*e*PKP	PKPbc	02 20 39.6	+0.3
KECS	Kecovo	146.86	338	*e*PKIKP	PKPbc	02 20 39.6	+0.3
KECS	Kecovo	146.86	338	*e*PKP	PKPbc	02 20 39.6	+0.3
MLR	Muntele Rosu	146.88	329	⇓PKP2	PKPbc	02 20 40.2	+0.8
MLR	Muntele Rosu	146.88	329	⇓*i*P	PKPbc	02 20 40.2	+0.8
MOX	Moxa	147.32	349	*e*PKP	PKPbc	02 20 41.3	+0.9
MOX	Moxa	147.32	349	*e*PKP	PKPbc	02 20 41.3	+0.9
MOX	Moxa	147.32	349	*e*PKP2	PKPbc	02 20 41.3	+0.9
MOX	Moxa	147.32	349	*e*PKPbc	PKPbc	02 20 40.7	+0.3
PRU	Pruhonice	147.32	345	*e*PKP	PKPbc	02 20 40.0	-0.4
PRU	Pruhonice	147.32	345	*e*PKIKP	PKPbc	02 20 40.0	-0.4
PRU	Pruhonice	147.32	345	*e*PKPbc	PKPbc	02 20 40.0	-0.4
DRGR		147.37	334	⇑P	PKPbc	02 20 41.0	+0.4
DRGR		147.37	334	⇑PKIKP	PKPbc	02 20 41.0	+0.3
DRGR		147.37	334	⇑*i*P	PKPbc	02 20 41.0	+0.3
TANN	Tannenbergstha	147.38	348	*e*PKPbc	PKPbc	02 20 40.7	+0.2
VYHS	Vyhne	147.43	339	*e*PKP	PKPbc	02 20 41.2	+0.5
VYHS	Vyhne	147.43	339	*e*PKIKP	PKPbc	02 20 41.2	+0.5
VYHS	Vyhne	147.43	339	*e*PKP	PKPbc	02 20 41.2	+0.5
NKC	Novy Kostel	147.55	348	*e*PKP	PKPdf	02 20 38.9	+1.3
NKC	Novy Kostel	147.55	348	*e*PKIKP	PKPdf	02 20 38.9	+1.3
NKC	Novy Kostel	147.55	348	*e*PKPbc	PKPdf	02 20 38.9	+1.3
PSZ	Piszkesteto	147.55	338	*e*PKPdf	PKPdf	02 20 36.2	-1.4
PSZ				*e*PKPbc	PKPbc	02 20 41.5	+0.4
MANZ	Manzenberg	147.85	348	*e*PKPbc	PKPbc	02 20 41.8	0.0
ROTZ	Rotzenmuhle	148.04	348	*e*PKPbc	PKPbc	02 20 41.8	-0.5
CSS	Prodhromos	148.09	307	*e*PKPbc	PKPbc	02 20 42.4	-0.5
GRA1	Grafenberg Arr	148.30	349	*e*PKPbc	PKPbc	02 20 43.2	+0.3
GRF	Grafenberg Arr	148.30	349	*e*PKP	PKPbc	02 20 43.2	+0.3
GRF	Grafenberg Arr	148.30	349	*e*PKHKP	PKPbc	02 20 43.2	+0.3
GRF	Grafenberg Arr	148.30	349	*e*PKHKP	PKPbc	02 20 43.2	+0.3
GRF	Grafenberg Arr	148.30	349	*e*PKPbc	PKPbc	02 20 43.2	+0.3
KHC	Kasperske Hory	148.35	346	*e*PKP	PKPbc	02 20 43.4	+0.3
KHC				*e*		02 20 48.4	
KHC	Kasperske Hory	148.35	346	*e*PKHKP	PKPbc	02 20 43.4	+0.3
KHC				*e*		02 20 48.4	
KHC	Kasperske Hory	148.35	346	*e*PKPbc	PKPbc	02 20 43.4	+0.3
KHC				*e*PKPab	PKPab	02 20 48.4	+0.4
GZR	Gura Zlata	148.44	332	⇓P	PKPbc	02 20 43.6	+0.2
GZR	Gura Zlata	148.44	332	⇓PKHKP	PKPbc	02 20 43.7	+0.3
GZR	Gura Zlata	148.44	332	⇓*i*P	PKPbc	02 20 43.7	+0.3
WET	Wettzell	148.49	347	*e*PKHKP	PKPbc	02 20 43.8	+0.4
WET	Wettzell	148.49	347	*e*PKPbc	PKPbc	02 20 43.8	+0.4
GEC2	GERESS Array S	148.59	345	*e*PKPbc	PKPbc	02 20 43.9	+0.2
GERES	GERESS Array B	148.59	345	PKPbc	PKPbc	02 20 43.8	+0.1
GERES	GERESS Array B	148.59	345	PKPbc	PKPbc	02 20 43.8	+0.1
	comp=Z,1.4nm,0.6s,baz=5.7,slow=2.7,SNR=14						
CONA	Conrad Observa	148.86	342	⇑*i*PKiKP	PKiKP	02 20 45.1	-0.3
	comp=Z,11nm,1.1s						
WLF	Walferdange	149.00	355	*e*PKPbc	PKPbc	02 20 45.9	+1.2
MOA	Molln	149.37	344	⇑*i*P	PKPbc	02 20 45.7	+0.1
	comp=Z,7.8nm,1.1s						
MOA	Molln	149.37	344	⇑*i*PKiKP	PKiKP	02 20 45.7	-0.7
	comp=Z,7.8nm,1.1s						
PKSM	Moragy	149.46	337	⇑P	PKPbc	02 20 45.8	-0.1
PKSM	Moragy	149.46	337	⇑PKHKP	PKPbc	02 20 45.8	-0.1
PKSM	Moragy	149.46	337	⇑*i*P	PKPbc	02 20 45.8	-0.1
BFO	Black Forest	150.09	352	*e*PKPbc	PKPbc	02 20 46.9	-0.4
BFO	Black Forest	150.09	352	*e*PKHKP	PKPbc	02 20 47.1	-0.2
BFO	Black Forest	150.09	352	*e*PKPbc	PKPbc	02 20 47.1	-0.2
WATA	Walderalm	150.49	347	⇓*i*P	PKPbc	02 20 48.0	-0.2
	comp=Z,3.8nm,1.0s						
WATA	Walderalm	150.49	347	⇓*i*PKiKP	PKiKP	02 20 48.0	-0.8
	comp=Z,3.8nm,1.0s						
WATA	Walderalm	150.49	347	⇓*i*PKIKP	PKPbc	02 20 48.0	-0.3
WTTA	Wattenberg	150.54	347	⇓*i*P	PKPbc	02 20 48.6	+0.2
	comp=Z,9.4nm,0.7s						
WTTA	Wattenberg	150.54	347	⇓*i*PKiKP	PKiKP	02 20 48.6	-0.3
	comp=Z,9.4nm,0.7s						
WTTA	Wattenberg	150.54	347	⇓*i*PKIKP	PKPbc	02 20 48.6	+0.2
MYKA	Terra Mystica	150.66	344	⇑*i*PKiKP	PKiKP	02 20 48.2	-1.0
	comp=Z,13nm,0.9s						
ABTA	Abfaltersbach	150.83	345	⇑*i*PKiKP	PKiKP	02 20 48.7	-0.8
	comp=Z,6.3nm,0.6s						
DAVA	Damuels	150.86	349	⇑*i*P	PKPbc	02 20 49.0	-0.1
	comp=Z,13nm,1.3s						
DAVA	Damuels	150.86	349	⇑*i*PKiKP	PKiKP	02 20 49.0	-0.5
	comp=Z,13nm,1.3s						
TORD	Torodi Ar. Bea	174.40	174	PKPab	PKPab	02 22 42.1	0.0
	comp=Z,0.7nm,0.6s,baz=173,slow=5.4,SNR=7.9						
TORD				PP	PP	02 26 33.1	-0.3
	comp=Z,1.8nm,1.2s,baz=179,slow=4.8,SNR=4.0						

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*NEIC **14** 02:16:16.2, 1830N×9939W, h51^{km}, MD3.5(MEX), After MEX.*

MEX 14 02:16:16.4±0.8**, 1841N×9966W, h48**^{km}±10^{km}**, MD3.5, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLIG	Platanillo	0.15	95	*i* P	Pn	02 16 22.7	-1.5
PLIG				*i* S	Sn	02 16 28.7	-1.0
MEIG	Mezcala	0.48	175	*i* P	Pn	02 16 25.3	-2.0
MEIG				*i* S	Sn	02 16 32.7	-2.4
CAIG	El Cayaco	1.47	203	*i* P	Pn	02 16 39.2	-1.3
CAIG				*i* S	Sn	02 16 57.2	-1.3
IIO	Organos	1.48	37	*e*P	Pn	02 16 39.9	-0.7
IIO				*i* S	Sn	02 16 56.9	-1.8
ACX	Acapulco	1.55	189	*i* P	Pn	02 16 40.0	-1.6
ACX				*i* S	Sn	02 16 59.0	-1.5
MOIG	Morelia	1.92	311	*i* P	Pn	02 16 50.5	+3.8
MOIG				*i* S	Sn	02 17 02.9	-6.8
MOIG	Morelia	1.92	311	*i* P	Pn	02 16 50.5	+3.9
MOIG				*i* S	Sn	02 17 07.0	-2.6

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*ISCJB **14** 02:19:25.9±0.3, 63.12N±0.03×149.81W±0.09, h105^{km}±3^{km}, mb3.9/8, Error ellipse: s-maj=7.1km s-min=5.5km az=174.9*

*IDC **14** 02:19:25.0±2.4, 63.09N×149.77W, h79^{km}±32^{km}, mb3.6/8, mb1 3.7/11, mb1mx3.5/23, mbtmp3.6/11, Error ellipse: s-maj=34.7km s-min=13.3km az=129.0*

*NEIC **14** 02:19:27.6, 63.10N×149.76W, h89^{km}, MG3.8(AEIC), After AEIC.*

ISC 14 02:19:27.1±0.3**, 6310N**±003×**14979W**±009**, h98**^{km}±4^{km}**, n44, σ0^{s}69**/49**, mb3.9**/8**, Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRF	Thorofare Moun	0.42	327	P	Pn	02 19 41.9	-0.1
TRF				S	Sn	02 19 53.1	-0.1
KTH	Kantishna Hill	0.68	312	P	Pn	02 19 44.0	-0.1
KTH				S	Sn	02 19 56.2	-0.6
MCK	McKinley	0.74	31	P	Pn	02 19 44.4	-0.1
MCK				S	Sn	02 19 57.3	-0.5
GHO	Glory Hole Cre	1.40	163	P	Pn	02 19 52.2	+0.4
SML	Sawmill	1.47	152	P	Pn	02 19 53.0	+0.3
PMR	Palmer	1.55	168	P	Pn	02 19 53.9	+0.1
KNK	Knik Glacier	1.81	159	P	Pn	02 19 57.4	+0.4
FIB	Fire Island	1.95	186	P	Pn	02 19 59.8	+1.0
COLA	College	1.97	25	P	Pn	02 19 59.1	+0.1
PAX	Paxson	1.97	92	P	Pn	02 20 00.2	+1.1
RC01	Rabbit Creek A	2.02	179	P	Pn	02 20 00.2	+0.4
IL1	Eielson Array	2.11	36	P	Pn	02 20 00.7	-0.2
SLKM	Skilak Lake	2.61	185	P	Pn	02 20 07.7	+0.2
DOT	Dot Lake	2.64	75	P	Pn	02 20 07.5	-0.3
DIV	Divide	2.74	135	*e*Pn	Pn	02 19 53.9	-15
DIV				*e*Sn	Sn	02 20 31.0	-10
SEW	Seward	3.02	177	P	Pn	02 20 12.8	0.0
EYAK	Cordova Ski Ar	3.20	141	P	Pn	02 20 15.2	-0.2
BMRM	Bremner River	3.25	129	P	Pn	02 20 15.3	-0.7
IM3	Indian Mountai	3.36	331	P	Pn	02 20 17.7	+0.3
SVW2	Sparrevohn	3.39	236	P	Pn	02 20 18.0	+0.2
IMA2	Indian Mountai	3.42	332	P	Pn	02 20 18.5	+0.3
BCA3	Beaver Creek A	3.64	87	P	Pn	02 20 21.4	+0.1
COLD	Coldfoot	4.15	358	P	Pn	02 20 28.8	+0.7
EGAK	Eagle	4.16	62	P	Pn	02 20 28.5	+0.3
DAWY	Dawson	4.74	74	P	Pn	02 20 36.4	+0.3
BM3	Burnt Mountain	4.85	24	P	Pn	02 20 38.0	+0.4
KDAK	Kodiak Island	5.51	196	P	Pn	02 20 45.4	-1.2
KDAK				S	Sn	02 21 45.1	-3.5
KDAK	Kodiak Island	5.51	196	P	Pn	02 20 45.4	-1.2
	3.5nm,0.3s,baz=52,slow=11,SNR=60						
KDAK				S	Sn	02 21 45.1	-3.5
	8.2nm,0.3s,baz=303,slow=22,SNR=8.4						
INK	Inuvik	8.48	45	*e*Pn	Pn	02 21 27.3	+0.5
	695nm,1.0s						
INK	Inuvik	8.48	45	P	Pn	02 21 26.7	-0.1
	1.5nm,0.3s,baz=233,slow=17,SNR=51						
INK				S	Sn	02 22 57.1	-3.4
	0.6nm,0.3s,baz=198,slow=9.6,SNR=2.1						
DLBC	Dease Lake	10.71	107	P	Pn	02 21 55.5	-1.6
	baz=333,slow=14						
YKA	Yellowknife Ar	15.98	76	P	Pn	02 23 06.3	+0.6
YKA	Yellowknife Ar	15.98	76	P	Pn	02 23 06.3	+0.6
	0.1nm,0.3s,baz=294,slow=10,SNR=7.1						
RES	Resolute Bay	21.86	36	*e*P	P	02 24 12.2	+1.0
ARCES	ARCESS Array B	47.60	2	P	P	02 27 51.9	-0.4
	2.9nm,0.7s,mb4.2,baz=357,slow=7.3,SNR=16						
KSRS	Korea Array	54.00	283	P	P	02 28 41.0	+0.4
	1.2nm,0.6s,mb4.1,baz=20,slow=6.3,SNR=4.0						
SONM	Songino Array	54.20	306	P	P	02 28 43.7	+1.8
	1.3nm,0.7s,mb4.0,baz=26,slow=7.1,SNR=13						
NOA	NORSAR Array B	55.34	11	P	P	02 28 49.8	-0.1
	0.5nm,0.7s,mb3.6,baz=350,slow=7.3,SNR=3.0						
FINES	FINESS Array B	55.73	2	P	P	02 28 52.0	-0.7
	0.8nm,0.6s,mb3.9,baz=358,slow=6.5,SNR=5.3						
ZALV	Zalesovo Beam	55.76	324	P	P	02 28 52.5	-0.5
	0.9nm,0.4s,mb4.1,baz=11,slow=8.3,SNR=6.9						
MKAR	Makanchi Array	62.93	323	P	P	02 29 41.5	-1.0
	0.3nm,0.3s,mb3.7,baz=48,slow=7.9,SNR=8.5						
AKASG	Malin Array Be	66.54	1	P	P	02 30 05.2	-0.7
	0.4nm,0.4s,mb3.6,baz=1.7,slow=6.1,SNR=4.1						
BOSA	Boshof	145.35	8	PKPbc	PKPbc	02 38 53.4	+0.6
BOSA	Boshof	145.35	8	PKPbc	PKPbc	02 38 53.4	+0.6
	3.4nm,0.5s,baz=351,slow=3.8,SNR=13						

IDC 14 02:26:31.5±6.7**, 231N×12435E, h0**^{km}**, mb4.0**/4**, mb1 4.2**/4**, mb1mx3.7**/19**, mbtmp4.0**/4**, Error ellipse: s-maj=139.1km s-min=99.3km az=90.0, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	20.32	176	P	P	02 31 09.3	0.0
	1.4nm,0.3s,baz=6.1,slow=10,SNR=16						
WRA	Warramunga Arr	24.18	157	P	P	02 31 50.0	+0.2
	3.4nm,0.3s,baz=336,slow=10.0,SNR=39						
ASAR	Alice Springs	27.44	161	P	P	02 32 19.3	0.0
	0.4nm,0.3s,baz=340,slow=7.7,SNR=15						
STKA	Stephens Creek	37.73	156	P	P	02 33 49.1	0.0
	0.6nm,0.3s,baz=336,slow=12,SNR=4.4						

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*ISCJB **14** 02:41:56.5±0.4, 36.13N±0.08×34.07W±0.04, h10^{km}, mb4.3/66, MS4.6/20, Error ellipse: s-maj=11.4km s-min=4.6km az=177.9*

*IDC **14** 02:41:56.4±0.7, 36.16N×34.07W, h0^{km}, mb4.1/21, mb1 4.3/21, mb1mx4.2/25, mbtmp4.1/21, MS4.5/17, Ms1 4.5/17, ms1mx4.3/33, Error ellipse: s-maj=20.5km s-min=12.3km az=176.0*

*BJI **14** 02:41:56.0, 36.10N×34.10W, h10^{km}, mB5.5, mb4.8, Ms5.2, Msz4.8*

*CSEM **14** 02:41:57.2±0.1, 36.09N×34.12W, h18^{km}, mb4.5/42, Ms4.2, Mw5.1, Error ellipse: s-maj=4.2km s-min=1.9km az=1.0*

*GCMT **14** 02:41:58.1±0.4, 36.37N×34.04W, h19^{km}±1^{km}, MW5.2/69, Moment Tensor Solution. s13,c14; s69,c98; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-6.31±.58; $M_{\theta\theta}$2.09±.33; $M_{\phi\phi}$4.22±.35; $M_{r\theta}$2.26±.71; $M_{\theta\phi}$2.78±.21; $M_{\phi r}$-0.12±.61; Best double couple: $M_0$6.59500×10^{16} NP1:ϕ_s20.00000°,δ41.00000°,λ-113.00000°. NP2: ϕ_s230.00000°,δ52.00000°,λ-71.00000°. Principal axes: T 6.2490, Plg6.0000°, Azm306.0000°; N 0.6920, Plg15.0000°, Azm38.0000°; P -6.9400, Plg74.0000°, Azm196.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SZGRF **14** 02:41:58.9, 35.90N×34.52W, h22^{km}, mb4.6, Azores Islands region*

*NEIC **14** 02:41:58.1±0.3, 36.09N×34.09W, h10^{km}, mb4.6/43, Error ellipse: s-maj=8.8km s-min=3.9km az=180.0*

*MOS **14** 02:42:00.3±0.8, 36.18N×34.09W, h33^{km}, mb4.7/28, Error ellipse: s-maj=11.9km s-min=6.2km az=47.2*

ISC 14 02:41:58.3±0.4**, 3613N**±008×**3403W**±004**, h10**^{km}**, (h18**^{km}±2.0^{km}**:pP-P), n213, σ0^{s}91**/190**, mb4.3**/66**, MS4.6**/20**, 5C-2D, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CALA	Caldeira	4.90	58	*e*P	Pb	02 43 25.8	+1.5
PICO	Pico	5.06	60	*e*P	Pb	02 43 26.0	-0.9
ROSA	Rosais	5.29	59	*e*P	Pb	02 43 27.6	-3.2
CML	Cha da Macela	6.99	74	*e*P	Pn	02 43 39.2	-1.5
LFA	Lagoa do Fogo	7.04	74	*e*P	Pn	02 43 39.9	-1.5
FRA1	Furnas	7.13	74	*e*P	Pn	02 43 41.0	-1.7
PFAD	Fenais da Ajud	7.18	74	*e*P	Pn	02 43 41.4	-1.9
MIRA	Miradouro	7.20	74	*e*P	Pn	02 43 42.5	-1.1
PSMN	Pico do Norte,	7.27	80	*e*P	Pn	02 43 42.4	-2.2
ESDC	Sonseca Array	23.94	72	P	P	02 47 11.8	-0.7
	2.6nm,0.9s,mb3.7,baz=274,slow=8.8,SNR=7.2						
MDT	Midelt	24.43	89	P	P	02 47 17.3	+0.2
	5.2nm,0.9s,mb3.9,baz=306,slow=12,SNR=9.1						
MDT				LR	LR	02 54 40.2	
	comp=Z,586nm,20.6s,MS4.1,baz=147,slow=31						
ROSF	Rostrenen	25.66	52	*e*P	P	02 47 28.1	0.0
	351nm,1.7s,mb5.3						
ROSF	Rostrenen	25.66	52	*e*P	P	02 47 28.1	0.0
ROSF				pmax	pmax		
	comp=Z,175nm,1.7s,mb5.3						
ROSF	Rostrenen	25.66	52	*e*P	P	02 47 28.1	0.0
	comp=Z,175nm,1.7s,mb5.3						
SJPF	Ste Jean	26.10	64	*e*P	P	02 47 32.3	+0.1
	comp=Z,20nm,1.1s,mb4.3						
SJPF	Ste Jean	26.10	64	*e*P	P	02 47 32.3	+0.1
SJPF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.3						
SJPF	Ste Jean	26.10	64	*e*P	P	02 47 32.3	+0.1
	comp=Z,9.9nm,1.1s,mb4.3						
CART	Cartagena	26.40	77	*e*P	P	02 47 36.1	+1.2
	comp=Z,13nm,0.6s,mb4.7						
CART	Cartagena	26.40	77	*e*P	P	02 47 36.1	+1.2
	comp=Z,13nm,0.6s,mb4.7						
ETSF	Etsaut	26.57	65	*e*P	P	02 47 36.9	+0.5
	comp=Z,119nm,1.9s,mb4.8						
ETSF	Etsaut	26.57	65	*e*P	P	02 47 36.9	+0.5
ETSF				pmax	pmax		
	comp=Z,59nm,1.9s,mb4.8						
ETSF	Etsaut	26.57	65	*e*P	P	02 47 36.9	+0.5
	comp=Z,60nm,1.9s,mb4.8						
EPF	Esparros	27.24	65	*e*P	P	02 47 43.6	+1.2
	comp=Z,55nm,1.4s,mb4.6						
EPF	Esparros	27.24	65	*e*P	P	02 47 43.6	+1.2
EPF				pmax	pmax		
	comp=Z,27nm,1.4s,mb4.6						
EPF	Esparros	27.24	65	*e*P	P	02 47 43.6	+1.2
	comp=Z,27nm,1.4s,mb4.6						
LDF	La Druitiere	27.75	53	*e*P	P	02 47 47.4	+0.5
EKA	Eskdalemuir Ar	28.51	38	P	P	02 47 52.5	-1.1
	comp=Z,3.3nm,0.8s,mb4.1,baz=240,slow=8.4,SNR=7.5						
EKA	Eskdalemuir Ar	28.51	38	P	P	02 47 52.5	-1.1
MTLF	Montolieu	28.63	64	*e*P	P	02 47 55.9	+1.1
	comp=Z,27nm,1.3s,mb4.5						
MTLF	Montolieu	28.63	64	*e*P	P	02 47 55.9	+1.1
MTLF				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.5						
MTLF	Montolieu	28.63	64	*e*P	P	02 47 55.9	+1.1
	comp=Z,14nm,1.3s,mb4.5						
TCF	Toulx Ste Croi	28.87	58	*e*P	P	02 47 57.9	+0.9
SCHQ	Schefferville	29.25	320	P	P	02 47 59.0	-1.2
	comp=Z,2.1nm,0.9s,mb3.9,baz=108,slow=20,SNR=1.9						
SCHQ				LR	LR	02 58 27.2	
	comp=Z,1µm,19.4s,MS4.5,baz=281,slow=34						
BGF	Bois d’Agland	29.34	58	*e*P	P	02 48 02.0	+0.9
	comp=Z,24nm,1.1s,mb4.5						
BGF	Bois d’Agland	29.34	58	*e*P	P	02 48 02.0	+0.9
BGF				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.5						
BGF	Bois d’Agland	29.34	58	*e*P	P	02 48 02.0	+0.9
	comp=Z,12nm,1.1s,mb4.5						
LASF	Ste Croix	29.84	63	*e*P	P	02 48 06.7	+1.1
	comp=Z,29nm,1.3s,mb4.6						
LASF	Ste Croix	29.84	63	*e*P	P	02 48 06.7	+1.1
	comp=Z,14nm,1.3s,mb4.6						
SSF	Saint Saulge	29.86	57	*e*P	P	02 48 06.1	+0.4
LOR	Lormes	30.12	56	*e*P	P	02 48 08.7	+0.6
BAIF	Baives	30.84	51	*e*P	P	02 48 15.0	+0.7
	comp=Z,84nm,1.6s,mb5.0						
BAIF	Baives	30.84	51	*e*P	P	02 48 15.0	+0.7
BAIF				pmax	pmax		
	comp=Z,42nm,1.6s,mb5.0						
BAIF	Baives	30.84	51	*e*P	P	02 48 15.0	+0.7
	comp=Z,42nm,1.6s,mb5.0						
MEZF	Maizieres J’vi	31.10	54	*e*P	P	02 48 17.8	+1.2
ORIF	Oris-en-Rattie	31.32	61	*e*P	P	02 48 19.9	+1.2
	comp=Z,26nm,1.3s,mb4.6						
ORIF	Oris-en-Rattie	31.32	61	*e*P	P	02 48 19.9	+1.2
ORIF				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.6						
ORIF	Oris-en-Rattie	31.32	61	*e*P	P	02 48 19.9	+1.2
	comp=Z,13nm,1.3s,mb4.6						
SFJD	Kangerlussuaq	32.36	348	LR	LR	02 58 21.1	
	comp=Z,883nm,19.5s,MS4.5,baz=141,slow=30						
CDF	Champ du Feu	32.55	55	*e*P	P	02 48 30.5	+1.1
	comp=Z,11nm,0.9s,mb4.5						
CDF	Champ du Feu	32.55	55	*e*P	P	02 48 30.5	+1.1
CDF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
CDF	Champ du Feu	32.55	55	*e*P	P	02 48 30.5	+1.1
	comp=Z,5.5nm,0.9s,mb4.5						
GRA1	Grafenberg Arr	35.27	53	*e*P	P	02 48 53.9	+0.9
	comp=Z,11nm,1.2s,mb4.7						
GRA1				*e*pP	pP	02 48 59.7	+3.6
GRF	Grafenberg Arr	35.27	53	*e*P	P	02 48 53.9	+0.9

GRF				e*PP	pP	02 48 59.7	+3.6
GRF				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
GRF	**Grafenberg Arr**	**35.27**	**53**	eP	**P**	**02 48 53.9**	**+0.9**
GRF				e*PP	pP	02 48 59.7	+3.6
GRF				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
GRF	**Grafenberg Arr**	**35.27**	**53**	eP	**P**	**02 48 53.9**	**+0.9**
	comp=Z,11nm,1.2s,mb4.7						
GRF				epP	pP	02 48 59.7	+3.6
CLL	**Collm**	**36.55**	**50**	eP	**P**	**02 49 05.0**	**+1.0**
KHC	**Kasperske Hory**	**36.77**	**54⇑**	eP	**P**	**02 49 07.1**	**+1.3**
KHC	**Kasperske Hory**	**36.77**	**54**	eP	**P**	**02 49 07.0**	**+1.2**
GERES	**GERESS Array B**	**36.84**	**55**	P	**P**	**02 49 06.5**	**0.0**
	comp=Z,2.3nm,1.0s,mb4.0,baz=269,slow=6.7,SNR=8.5						
NB2	**NORSAR Subarra**	**37.80**	**34**	P	**P**	**02 49 14.4**	**0.0**
	comp=Z,1.3nm,0.8s,mb3.7,baz=251,slow=9.3						
NOA	**NORSAR Array B**	**37.80**	**34**	P	**P**	**02 49 14.8**	**+0.4**
NOA				LR	LR	03 02 39.1	
NOA	**NORSAR Array B**	**37.80**	**34**	P	**P**	**02 49 14.8**	**+0.4**
	comp=Z,2.5nm,0.8s,mb4.0,baz=251,slow=8.6,SNR=7.5						
NOA				LR	LR	03 02 39.1	
	comp=Z,303nm,18.6s,MS4.1,baz=115,slow=33						
TOA0	**Torodi Ar. Sit**	**39.38**	**116**	eP	**P**	**02 49 28.2**	**-0.1**
TORD	**Torodi Ar. Bea**	**39.38**	**116**	P	**P**	**02 49 28.0**	**-0.3**
	comp=Z,1.9nm,0.9s,mb3.8,baz=309,slow=6.3,SNR=14						
TORD				LR	LR	03 03 21.8	
	comp=Z,655nm,20.3s,MS4.5,baz=145,slow=33						
LIC	**Lamto**	**39.90**	**131**	eP	**P**	**02 49 32.2**	**-0.3**
	comp=Z,6.0nm,0.7s,mb4.1						
LIC				eMLR	MLR		
	comp=Z,910nm,19.2s,MS4.3						
LIC	**Lamto**	**39.90**	**131**	eP	**P**	**02 49 32.2**	**-0.3**
	comp=Z,3.0nm,0.7s,mb4.1						
LIC				LR	LR		
	comp=Z,460nm,19.3s,MS4.3						
LIC	**Lamto**	**39.90**	**131**	eP	**P**	**02 49 32.2**	**-0.3**
	comp=Z,3.0nm,0.7s,mb4.1						
TKL	**Tuckaleechee C**	**39.94**	**285**	P	**P**	**02 49 33.5**	**+0.8**
	comp=Z,4.6nm,0.7s,mb4.3,baz=73,slow=10,SNR=5.1						
VYHS	**Vyhne**	**40.24**	**55**	eP	**P**	**02 49 34.7**	**-0.3**
OJC	**Ojcow**	**40.82**	**52**	eP	**P**	**02 49 40.4**	**+0.6**
PSZ	**Piszkesteto**	**40.98**	**56**	eP	**P**	**02 49 42.5**	**+1.4**
	comp=Z,5.4nm,1.0s,mb4.1						
PSZ	**Piszkesteto**	**40.98**	**56**	eP	**P**	**02 49 42.5**	**+1.4**
PSZ				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.1						
PSZ	**Piszkesteto**	**40.98**	**56**	eP	**P**	**02 49 42.5**	**+1.4**
	comp=Z,5.4nm,1.0s,mb4.1						
KECS	**Kecovo**	**41.34**	**55**	eP	**P**	**02 49 43.8**	**-0.3**
	comp=Z,4.3nm,1.3s,mb3.9						
KECS	**Kecovo**	**41.34**	**55**	eP	**P**	**02 49 43.8**	**-0.3**
KECS				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb3.9						
STHS	**Stebnicka Huta**	**41.78**	**54**	eP	**P**	**02 49 49.2**	**+1.5**
STHS				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb3.9						
STHS	**Stebnicka Huta**	**41.78**	**54**	eP	**P**	**02 49 49.2**	**+1.5**
	comp=Z,3.5nm,1.2s,mb3.9						
CRVS	**Cervenica-Dubn**	**41.95**	**54**	eP	**P**	**02 49 50.5**	**+1.4**
KOLS	**Kolonicke sedl**	**42.49**	**54**	eP	**P**	**02 49 53.1**	**-0.4**
KWP	**Kalwaria**	**42.72**	**53**	eP	**P**	**02 49 56.3**	**+0.9**
	comp=Z,12nm,1.1s,mb4.5						
KWP	**Kalwaria**	**42.72**	**53**	eP	**P**	**02 49 56.3**	**+0.9**
KWP				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.5						
KWP	**Kalwaria**	**42.72**	**53**	eP	**P**	**02 49 56.3**	**+0.9**
	comp=Z,12nm,1.1s,mb4.5						
FCC	**Fort Churchill**	**44.64**	**320**	eP	**P**	**02 50 10.8**	**+0.1**
	comp=Z,13nm,1.4s,mb4.6						
FCC	**Fort Churchill**	**44.64**	**320**	eP	**P**	**02 50 10.8**	**+0.1**
FCC				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.6						
FCC	**Fort Churchill**	**44.64**	**320**	eP	**P**	**02 50 10.8**	**+0.1**
	comp=Z,13nm,1.4s,mb4.6						
FINES	**FINESS Array B**	**44.88**	**36**	P	**P**	**02 50 13.8**	**+1.3**
	comp=Z,2.6nm,0.8s,mb4.1,baz=242,slow=4.1,SNR=4.6						
KAF	**Kangasniemi**	**45.06**	**35**	ep	**P**	**02 50 11.2**	**-2.8**
	comp=Z,0.5nm,0.4s,mb3.7						
KAF	**Kangasniemi**	**45.06**	**35**	eP	**P**	**02 50 11.2**	**-2.8**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
ULM	**Lac du Bonnet**	**45.95**	**308**	eP	**P**	**02 50 20.8**	**-0.4**
	comp=Z,4.3nm,0.8s,mb4.4						
ULM	**Lac du Bonnet**	**45.95**	**308**	P	**P**	**02 50 20.4**	**-0.8**
	comp=Z,2.9nm,0.8s,mb4.3,baz=74,slow=4.6,SNR=9.9						
ULM				LR	LR	03 08 12.7	
	comp=Z,904nm,20.1s,MS4.7,baz=70,slow=34						
ULM	**Lac du Bonnet**	**45.95**	**308**	eP	**P**	**02 50 20.8**	**-0.4**
	comp=Z,4.2nm,0.8s,mb4.4						
ARCES	**ARCESS Array B**	**46.07**	**25**	P	**P**	**02 50 20.8**	**-1.0**
	comp=Z,3.6nm,0.8s,mb4.3,baz=270,slow=7.9,SNR=6.1						
AGMN	**Agassiz Refuge**	**46.20**	**305**	eP	**P**	**02 50 23.2**	**0.0**
	comp=Z,6.6nm,0.7s,mb4.7						
AGMN	**Agassiz Refuge**	**46.20**	**305**	eP	**P**	**02 50 23.2**	**0.0**
	comp=Z,6.6nm,0.7s,mb4.7						
AKASG	**Malin Array Be**	**46.79**	**51**	i P	**P**	**02 50 27.8**	**0.0**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.8s						
AKASG	**Malin Array Be**	**46.79**	**51**	P	**P**	**02 50 27.1**	**-0.7**
	comp=Z,2.0nm,0.8s,mb4.1,baz=273,slow=7.5,SNR=12						
AKASG	**Malin Array Be**	**46.79**	**51**	P	**P**	**02 50 27.1**	**-0.7**
JOF	**Joensuu**	**47.43**	**34**	ep	**P**	**02 50 29.2**	**-3.4**
ECSD	**EROS,Sioux Fal**	**47.58**	**299**	eP	**P**	**02 50 33.4**	**-0.6**
	comp=Z,3.9nm,0.8s,mb4.5						
RES	**Resolute Bay**	**47.89**	**342**	eP	**P**	**02 50 36.1**	**0.0**
	comp=Z,261nm,1.0s						
RES	**Resolute Bay**	**47.89**	**342**	eP	**P**	**02 50 36.1**	**+0.1**
	comp=Z,261nm,1.0s						
MIAR	**Mount Ida**	**47.93**	**287**	eP	**P**	**02 50 36.7**	**-0.2**
	comp=Z,6.6nm,0.8s,mb4.7						
MIAR	**Mount Ida**	**47.93**	**287**	eP	**P**	**02 50 36.7**	**-0.2**
MIAR				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
MIAR	**Mount Ida**	**47.93**	**287**	eP	**P**	**02 50 36.7**	**-0.2**
	comp=Z,6.6nm,0.8s,mb4.7						
ROSC	**El Rosal**	**48.34**	**240**	LR	LR	03 08 11.8	
	comp=Z,190nm,18.4s,MS4.1,baz=25,slow=33						
FFC	**Flin Flon**	**49.12**	**315**	eP	**P**	**02 50 46.1**	**+0.3**
	comp=Z,4.8nm,0.9s,mb4.5						
FFC	**Flin Flon**	**49.12**	**315**	eP	**P**	**02 50 46.1**	**+0.3**
FFC				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
FFC	**Flin Flon**	**49.12**	**315**	eP	**P**	**02 50 46.1**	**+0.3**
	comp=Z,4.8nm,0.9s,mb4.5						
OBN	**Obninsk**	**50.59**	**45**	eP	**P**	**02 50 56.8**	**-0.1**
	comp=Z,17nm,0.9s,mb5.0						
OBN	**Obninsk**	**50.59**	**45**	d iP	**P**	**02 50 56.7**	**-0.2**
OBN				eSS	SS	03 01 36.8	-8.0
OBN				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
OBN	**Obninsk**	**50.59**	**45**	eP	**P**	**02 50 56.8**	**-0.1**
	comp=Z,17nm,0.9s,mb5.0						
WMOK	**Wichita Mounta**	**51.88**	**289**	eP	**P**	**02 51 06.3**	**-0.6**
	comp=Z,2.4nm,0.7s,mb4.2						
WMOK	**Wichita Mounta**	**51.88**	**289**	eP	**P**	**02 51 06.4**	**-0.5**
WMOK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
WMOK	**Wichita Mounta**	**51.88**	**289**	eP	**P**	**02 51 06.3**	**-0.6**
	comp=Z,2.4nm,0.7s,mb4.2						
BRTR	**Keskin Array B**	**52.35**	**64**	P	**P**	**02 51 10.9**	**+0.5**
	comp=Z,1.8nm,1.0s,mb4.0,baz=295,slow=6.4,SNR=5.8						
BRTR				PcP	PcP	02 52 21.3	-0.1
	comp=Z,1.1nm,0.9s,baz=336,slow=3.2,SNR=5.1						
BRTR	**Keskin Array B**	**52.35**	**64**	PcP	PcP	02 52 21.3	-0.1
AMTX	**Amarillo**	**54.04**	**290**	eP	**P**	**02 51 22.5**	**-0.4**
	comp=Z,5.5nm,0.8s,mb4.5						
YKA	**Yellowknife Ar**	**54.45**	**326**	P	**P**	**02 51 25.5**	**+0.1**
YKA				PcP	PcP	02 52 27.7	-1.2
YKA				LR	LR	03 13 34.2	
YKA	**Yellowknife Ar**	**54.45**	**326**	P	**P**	**02 51 25.5**	**+0.1**
YKA						02 52 27.7	
YKA	**Yellowknife Ar**	**54.45**	**326**	P	**P**	**02 51 25.5**	**+0.1**
	comp=Z,1.5nm,0.7s,mb4.0,baz=79,slow=7.4,SNR=27						
YKA				PcP	PcP	02 52 27.7	-1.2
	comp=Z,0.2nm,0.3s,baz=74,slow=4.3,SNR=4.3						
YKA				LR	LR	03 13 34.2	
	comp=Z,216nm,19.4s,MS4.2,baz=180,slow=35						
YKA	**Yellowknife Ar**	**54.45**	**326**	PcP	PcP	02 52 27.7	-1.2
SDCO	**Great Sand Dun**	**55.82**	**295**	eP	**P**	**02 51 36.3**	**+0.6**
	comp=Z,1.4nm,0.8s,mb4.0						
SDCO	**Great Sand Dun**	**55.82**	**295**	eP	**P**	**02 51 36.3**	**+0.5**
	comp=Z,1.4nm,0.8s,mb4.0						
MALT	**Malatya**	**56.34**	**64**	P	**P**	**02 51 38.8**	**-0.6**
MALT				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.5						
MALT	**Malatya**	**56.34**	**64**	P	**P**	**02 51 38.8**	**-0.6**
	comp=Z,5.6nm,1.2s,mb4.5						
BW06	**Boulder Array**	**56.90**	**302**	eP	**P**	**02 51 43.3**	**-0.1**
	comp=Z,2.3nm,0.9s,mb4.2						
BW06	**Boulder Array**	**56.90**	**302**	eP	**P**	**02 51 43.3**	**-0.1**
	comp=Z,2.3nm,0.9s,mb4.2						
PDAR	**Pinedale Array**	**56.90**	**302**	P	**P**	**02 51 42.1**	**-1.2**
	comp=Z,0.7nm,0.7s,mb3.8,baz=71,slow=7.1,SNR=7.0						
PDAR				LR	LR	03 15 37.8	
	comp=Z,816nm,18.5s,MS4.9,baz=26,slow=36						
BOZ	**Bozeman (W)**	**57.30**	**305**	eP	**P**	**02 51 45.9**	**-0.2**
	comp=Z,1.8nm,1.0s,mb4.1						
BOZ	**Bozeman (W)**	**57.30**	**305**	eP	**P**	**02 51 45.9**	**-0.2**
BOZ				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
BOZ	**Bozeman (W)**	**57.30**	**305**	eP	**P**	**02 51 45.9**	**-0.2**
	comp=Z,1.8nm,1.0s,mb4.1						
LOHW	**Long Hollow**	**57.32**	**303**	eP	**P**	**02 51 46.8**	**+0.5**
	comp=Z,1.0nm,0.7s,mb4.0						
LOHW	**Long Hollow**	**57.32**	**303**	eP	**P**	**02 51 46.8**	**+0.5**
	comp=Z,1.0nm,0.7s,mb4.0						
ANMO	**Albuquerque**	**57.62**	**292**	LR	LR	03 15 29.5	
	comp=Z,742nm,18.3s,MS4.8,baz=280,slow=35						
TXAR	**Lajitas Array**	**57.85**	**285**	P	**P**	**02 51 49.8**	**-0.5**
	comp=Z,1.6nm,0.7s,mb4.1,baz=71,slow=7.0,SNR=8.0						
TXAR				LR	LR	03 13 59.3	
	comp=Z,513nm,20.2s,MS4.6,baz=20,slow=33						
JLU	**Jordanelle**	**59.02**	**300**	eP	**P**	**02 51 58.5**	**+0.3**
JLU	**Jordanelle**	**59.02**	**300**	eP	**P**	**02 51 58.5**	**+0.3**
NEW	**Newport**	**59.88**	**310**	eP	**P**	**02 52 03.9**	**-0.2**
	comp=Z,7.4nm,1.0s,mb4.7						
NEW	**Newport**	**59.88**	**310**	eP	**P**	**02 52 03.9**	**-0.2**
NEW				pmax	pmax		
	comp=Z,7.0nm,1.0s						
NEW	**Newport**	**59.88**	**310**	LR	LR	03 17 38.7	
	comp=Z,821nm,18.7s,MS4.9,baz=58,slow=36						
NEW	**Newport**	**59.88**	**310**	eP	**P**	**02 52 03.9**	**-0.2**
	comp=Z,7.4nm,1.0s,mb4.7						
DUG	**Dugway**	**60.13**	**300**	eP	**P**	**02 52 06.6**	**+0.6**
	comp=Z,4.8nm,1.1s,mb4.4						
DUG	**Dugway**	**60.13**	**300**	eP	**P**	**02 52 06.6**	**+0.6**
DUG				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
DUG	**Dugway**	**60.13**	**300**	eP	**P**	**02 52 06.6**	**+0.6**
	comp=Z,4.8nm,1.1s,mb4.4						
INK	**Inuvik**	**60.31**	**335**	eP	**P**	**02 52 07.2**	**+0.4**
	comp=Z,304nm,1.4s						
INK	**Inuvik**	**60.31**	**335**	LR	LR	03 15 50.1	
	comp=Z,408nm,18.2s,MS4.6,baz=257,slow=34						
INK	**Inuvik**	**60.31**	**335**	eP	**P**	**02 52 07.2**	**+0.5**
	comp=Z,304nm,1.4s						
LPAZ	**La Paz**	**61.30**	**218**	eP	**P**	**02 52 14.4**	**+0.4**
	comp=Z,7.4nm,0.8s,mb4.9						
LPAZ	**La Paz**	**61.30**	**218**	eP	**P**	**02 52 14.4**	**+0.4**
LPAZ				pmax	pmax		
	comp=Z,7.0nm,0.8s						
LPAZ	**La Paz**	**61.30**	**218**	P	**P**	**02 52 14.9**	**+0.8**
	comp=Z,7.7nm,0.8s,mb4.9,baz=5.7,slow=4.6,SNR=30						
LPAZ	**La Paz**	**61.30**	**218**	eP	**P**	**02 52 14.4**	**+0.4**
	comp=Z,7.4nm,0.8s,mb4.9						
ARU	**Arti**	**62.12**	**39**	eP	**P**	**02 52 18.8**	**-0.3**
	comp=Z,8.9nm,1.0s,mb4.8						
ARU	**Arti**	**62.12**	**39⇑**	iP	**P**	**02 52 18.4**	**-0.7**
ARU				eS	**S**	**03 00 37.1**	**-6.9**
ARU				eSSS		03 07 21.7	
ARU				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
ARU	**Arti**	**62.12**	**39**	eP	**P**	**02 52 18.8**	**-0.3**
	comp=Z,8.9nm,1.0s,mb4.8						
DAWY	**Dawson**	**64.35**	**332**	eP	**P**	**02 52 35.1**	**+1.3**
DAWY	**Dawson**	**64.35**	**332**	eP	**P**	**02 52 35.1**	**+1.3**
BBB	**Bella Bella**	**64.72**	**317**	LR	LR	03 19 00.2	
	comp=Z,639nm,19.8s,MS4.8,baz=99,slow=34						
NVAR	**Mina Array Bea**	**64.74**	**300**	P	**P**	**02 52 35.5**	**-1.3**
	comp=Z,0.7nm,0.7s,mb3.8,baz=72,slow=7.2,SNR=5.9						
LPIG	**La Paz**	**65.55**	**283**	LR	LR	03 18 20.8	
	comp=Z,216nm,18.7s,MS4.4,baz=255,slow=33						
PFO	**Pinyon Flat Ob**	**65.64**	**295**	LR	LR	03 21 13.2	
	comp=Z,574nm,18.5s,MS4.8,baz=347,slow=36						
IMA2	**Indian Mountai**	**68.13**	**338**	eP	**P**	**02 52 58.6**	**+0.5**
IMA2	**Indian Mountai**	**68.13**	**338**	eP	**P**	**02 52 58.6**	**+0.6**
BRVK	**Borovoye**	**69.69**	**39**	eP	**P**	**02 53 08.2**	**+0.3**
	comp=Z,2.7nm,0.7s,mb4.3						
BRVK	**Borovoye**	**69.69**	**39**	eP	**P**	**02 53 08.2**	**+0.3**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
BRVK	**Borovoye**	**69.69**	**39**	eP	**P**	**02 53 08.2**	**+0.3**
	comp=Z,2.7nm,0.7s,mb4.3						
TIXI	**Tiksi**	**71.84**	**6**	eP	**P**	**02 53 20.1**	**-0.6**
	comp=Z,3.7nm,0.8s,mb4.4						
TIXI	**Tiksi**	**71.84**	**6**	eP	**P**	**02 53 19.7**	**-1.1**
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.4						
TIXI	**Tiksi**	**71.84**	**6**	eP	**P**	**02 53 20.1**	**-0.7**
	comp=Z,3.7nm,0.8s,mb4.4						
KDAK	**Kodiak Island**	**73.24**	**331**	LR	LR	03 25 05.0	
	comp=Z,399nm,20.5s,MS4.7,baz=256,slow=35						
NVS	**Novosibirsk**	**74.68**	**32**	i P	**P**	**02 53 37.6**	**-0.2**
BILL	**Bilibino**	**75.03**	**352**	eP	**P**	**02 53 39.9**	**+0.3**
BILL				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.9						
KURK	**Kurchatov**	**75.24**	**37**	eP	**P**	**02 53 40.5**	**-0.5**
	comp=Z,8.9nm,1.1s,mb4.6						
KURK	**Kurchatov**	**75.24**	**37⇑**	eP	**P**	**02 53 40.9**	**-0.2**
KURK	**Kurchatov**	**75.24**	**37**	eP	**P**	**02 53 40.5**	**-0.6**
	comp=Z,8.9nm,1.1s,mb4.6						
KMBO	**Kilima Mbogo**	**75.62**	**102**	i P	**P**	**02 53 48.5**	**+4.6**
ZAL	**Zalesovo**	**75.97**	**32**	P	**P**	**02 53 44.8**	**-0.4**
ZALV	**Zalesovo Beam**	**75.97**	**32**	P	**P**	**02 53 44.8**	**-0.4**
	comp=Z,2.2nm,0.9s,mb4.1,baz=308,slow=7.3,SNR=9.4						
LSZ	**Lusaka**	**77.85**	**119**	eP	**P**	**02 53 57.4**	**+1.1**
LSZ				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
LSZ	**Lusaka**	**77.85**	**119**	eP	**P**	**02 53 57.4**	**+1.1**
	comp=Z,4.9nm,0.9s,mb4.4						
AAK	**Ala-Archa**	**78.10**	**46**	eP	**P**	**02 53 57.3**	**-0.1**
AAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
AAK	**Ala-Archa**	**78.10**	**46**	eP	**P**	**02 53 57.3**	**-0.1**
	comp=Z,2.2nm,0.9s,mb4.1						
MK31	**Makanchi Array**	**79.64**	**39**	eP	**P**	**02 54 05.4**	**-0.4**
MK31	**Makanchi Array**	**79.64**	**39**	eP	**P**	**02 54 05.4**	**-0.4**
MKAR	**Makanchi Array**	**79.64**	**39**	P	**P**	**02 54 05.3**	**-0.5**
	comp=Z,2.1nm,0.9s,mb4.1,baz=319,slow=4.8,SNR=17						
SEY	**Seymchan**	**81.15**	**357⇑**	eP	**P**	**02 54 14.3**	**+0.7**
BOD	**Bodaibo**	**82.63**	**17**	eP	**P**	**02 54 20.4**	**-1.1**
BOD				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
WMQ	**Urumqi**	**84.44**	**38**	eP	**P**	**02 54 31.6**	**+0.5**
ZAK	**Zakamensk**	**85.99**	**26⇓**	iP	**P**	**02 54 39.0**	**+0.3**
ZAK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.5						
SONM	**Songino Array**	**89.24**	**25**	P	**P**	**02 54 54.5**	**+0.2**
	comp=Z,1.1nm,0.9s,mb4.2,baz=324,slow=3.4,SNR=8.2						
ULN	**Ulaanbaatar**	**89.44**	**25**	eP	**P**	**02 54 55.6**	**+0.3**
	comp=Z,2.1nm,0.8s,mb4.5						
ULN	**Ulaanbaatar**	**89.44**	**25⇑**	eP	**P**	**02 54 55.5**	**+0.2**
ULN	**Ulaanbaatar**	**89.44**	**25**	eP	**P**	**02 54 55.6**	**+0.3**
	comp=Z,2.1nm,0.8s,mb4.5						
GTA	**Gaotai**	**93.63**	**34**	eP	**P**	**02 55 14.8**	**-0.1**
GTA				AP	pP	02 55 18.8	+0.5
GTA				XP	sP	02 55 21.9	+2.5
GTA				SKS		03 05 47.3	
GTA				S	S	03 06 17.9	-5.9
GTA				SS	SS	03 12 46.8	+6.9
GTA				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.8						
GTA				AMB	AMB		
	comp=Z,631nm,11.5s						
GTA				LR	LR		
	comp=N,331nm,18.3s,MS5.0						
GTA				LR	LR		
	comp=E,311nm,17.6s,MS5.0						
GTA				LR	LR		
	comp=Z,327nm,16.8s,MS4.9						
LZH	**Lanzhou**	**98.18**	**33**	eP	**P**	**02 55 34.5**	**-1.2**
	comp=Z,16nm,1.3s,mb5.4						
LZH				pP	pP	02 55 39.6	+0.6
LZH				sP	sP	02 55 41.5	+1.3
LZH	**Lanzhou**	**98.18**	**33**	eP	**P**	**02 55 34.5**	**-1.2**
LZH				*SP	sP	02 55 41.5	+1.3
LZH				pmax	pmax		
	comp=Z,16nm,1.3s,mb5.4						
LZH	**Lanzhou**	**98.18**	**33**	eP	**P**	**02 55 34.5**	**-1.2**
	comp=Z,16nm,1.3s,mb5.4						
LZH				pP	pP	02 55 39.6	+0.6
MDJ	**Mudanjiang**	**98.28**	**12**	P	**P**	**02 55 34.3**	**-1.6**
CN2	**Changchun**	**98.29**	**15**	eP	**P**	**02 55 31.8**	**-4.2**
BJI	**Beijing**	**99.40**	**23**	P	**P**	**02 55 38.3**	**-2.7**
BJI				S	S	03 07 09.4	-4.0
BJI				LR	LR		
	comp=N,1µm,15.2s,MS5.7						
BJI				LR	LR		
	comp=E,2µm,16.4s,MS5.7						
BJI				LR	LR		
	comp=Z,742nm,18.4s,MS5.2						
BJI	**Beijing**	**99.40**	**23**	P	**P**	**02 55 38.2**	**-2.8**
BJI						02 59 39.7	
BJI				S	S	03 07 09.4	-4.0
BJI				SS	SS	03 13 56.3	-4.7
BJI				MLR	MLR		
	comp=Z,740nm,18.4s,MS5.2						
BJI	**Beijing**	**99.40**	**23**	PP	PP	02 59 39.7	-3.5
CD2	**Chengdu**	**102.44**	**36**	eP	Pdif	02 55 54.3	-0.2
CD2				AMB	AMB		
	comp=Z,40nm,5.2s						
GYA	**Guiyang**	**107.55**	**37**	ePDIF	Pdif	02 56 17.0	-0.2
GYA				PP	PP	03 00 47.5	+3.0
GYA				S	Sdif	03 08 16.6	-4.7
GYA				PP	PP		
	comp=Z,110nm,7.9s						
WRA	**Warramunga Arr**	**160.92**	**35**	PKP	PKPdf	03 01 58.4	-0.8
WRA				PKPab	PKPab	03 02 40.7	-0.9
WRA	**Warramunga Arr**	**160.92**	**35**	PKIKP	PKPdf	03 01 58.4	-0.7
WRA						03 02 40.7	
WRA	**Warramunga Arr**	**160.92**	**35**	PKP	PKPdf	03 01 58.4	-0.8
	comp=Z,0.4nm,0.4s,baz=213,slow=3.0,SNR=3.9						
WRA				PKPab	PKPab	03 02 40.7	-0.9
	comp=Z,0.8nm,0.8s,baz=337,slow=3.9,SNR=5.8						
WRA	**Warramunga Arr**	**160.92**	**35**	PKIKP	PKPdf	03 01 58.4	-0.7
WRA	**Warramunga Arr**	**160.92**	**35**	PKPab	PKPab	03 02 40.7	-0.9
ASAR	**Alice Springs**	**163.78**	**43**	PKP	PKPdf	03 02 01.3	-0.6
ASAR				PKPab	PKPab	03 02 53.3	-0.8
ASAR	**Alice Springs**	**163.78**	**43**	PKIKP	PKPdf	03 02 01.3	-0.6
ASAR						03 02 53.3	
ASAR	**Alice Springs**	**163.78**	**43**	PKP	PKPdf	03 02 01.3	-0.6
	comp=Z,0.7nm,1.0s,baz=270,slow=0.1,SNR=3.8						
ASAR				PKPab	PKPab	03 02 53.3	-0.8
	comp=Z,0.5nm,0.7s,baz=340,slow=3.5,SNR=4.6						
ASAR	**Alice Springs**	**163.78**	**43**	PKIKP	PKPdf	03 02 01.3	-0.6
ASAR	**Alice Springs**	**163.78**	**43**	PKPab	PKPab	03 02 53.3	-0.8

CASC 14 02:43:10.2±1.9**,1062N×8709W,h34^{km}**±21^{km}**,MD3.7, ML3.3,3C-1D,Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SSNN	**San Juan del S**	**1.39**	**61**	eP	Pn	02 43 32.3	-0.8
SSNN				eS	Sn	02 43 52.4	+2.1
COPN	**Copaltepe**	**1.62**	**17⇓**	eP	Pn	02 43 36.2	-0.2
COPN				eS	Sn	02 43 57.8	+1.6
TICN	**Ticuantepe**	**1.64**	**31**	eP	Pn	02 43 36.6	0.0
TICN				eS	Sn	02 43 57.5	+1.0
TISN	**Laguna Tiscapa**	**1.71**	**28**	eP	Pn	02 43 37.2	-0.5
TISN				eS	Sn	02 43 59.1	+0.7
CONN	**Concepcion**	**1.72**	**57**	eP	Pn	02 43 37.5	-0.2
MADN	**Villa Maderas**	**1.72**	**63**	eP	Pn	02 43 37.7	0.0
MADN				eS	Sn	02 43 54.8	-3.7
MGAN	**Managua**	**1.73**	**29**	eS	Sn	02 43 59.7	+1.0
	comp=N,345nm,0.4s						
APYN	**Apoyeque**	**1.76**	**24⇑**	eP	Pn	02 43 38.2	-0.1
APYN				eS	Sn	02 43 59.9	+0.3
LIM1	**Limonal**	**1.81**	**87⇑**	iP	Pn	02 43 38.6	-0.4
LIM1				eS	Sn	02 44 01.0	+0.3
2RIO	**Dos Rios de Up**	**1.83**	**93**	eP	Pn	02 43 37.2	-2.1
2RIO				eS	Sn	02 43 58.3	-3.0
HUEN		**1.93**	**28**	eP	Pn	02 43 40.2	-0.4
HUEN				eS	Sn	02 44 04.2	+0.4
TEL3	**Telica 3**	**1.95**	**7**	eP	Pn	02 43 41.5	+0.6
CGA2	**Cerro Gallo 2**	**2.65**	**103**	eP	Pn	02 43 51.6	+1.0
CGA2				eS	Sn	02 44 22.3	+0.6
PRS1	**Puriscal**	**2.81**	**103**	eP	Pn	02 43 54.4	+1.6
LAJ	**Bijagual**	**3.02**	**104⇑**	eP	Pn	02 43 51.5	-4.2
LAJ				eS	Sn	02 44 22.5	-8.1
QCR	**Quepos**	**3.12**	**112**	eP	Pn	02 43 58.1	+1.1
QCR				eS	Sn	02 44 33.5	+0.4
LCR2	**La Lucha 2**	**3.16**	**106**	eP	Pn	02 43 58.8	+1.2
LCR2				eS	Sn	02 44 35.6	+1.4
BAR1		**3.97**	**110**	eP	Pn	02 44 09.8	+1.1
BAR1				eS	Sn	02 44 53.7	-0.4

GUC 14 02:56:45.8±0.3**,4540S×7305W,h5^{km}**±1^{km}**,ML3.8, Southern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COYC	**Coyhaique**	**0.70**	**105**	eP	Pg	02 56 58.5	-0.8
COYC				i S	Sg	02 57 07.9	-0.6

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*ISCJB **14** 03:14:06.5±1.4,5005N±004×12978W±006,h0^{km}±11^{km}, mb4.0/14,Error ellipse: s-maj=7.7km s-min=5.5km az=140.5*

*NEIC **14** 03:14:07.0,4979N×12995W,h10^{km},mb3.9/14, ML3.3(PGC),After PGC.*

*IDC **14** 03:14:06.0±1.5,4987N×13020W,h0^{km},mb3.8/6, mb1 4.0/11,mb1mx3.8/25,mbtmp3.8/11,ML3.9/5,Error ellipse: s-maj=27.0km s-min=12.3km az=58.0*

*PGC **14** 03:14:07.0±3.5,4979N×12995W,h10^{km},ML3.3/8*

PGC 207km Wsw of Pt. Hardy, Bc Vancouver Island Region Felt (I) at Port Alice.

ISC 14 03:14:10.8±1.8**,5007N**±004×**12972W**±007**,h16^{km}**±13^{km}**, n80,**$\sigma 1^{s}20$**/80,mb3.9**/14**,Vancouver Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOLB	**Holberg**	**1.17**	**60**	Trac			
HOLB	**Holberg**	**1.17**	**60**	Pn	**Pn**	**03 14 31.0**	**-1.3**
HOLB				Sn	**Sn**	**03 14 48.0**	**0.0**
BPBC	**Brooks Peninsu**	**1.26**	**85**	Trac			
BPBC	**Brooks Peninsu**	**1.26**	**85**	Pn	**Pn**	**03 14 30.4**	**-3.2**
BPBC				Sn	**Sn**	**03 14 49.3**	**-0.9**
PHC	**Port Hardy**	**1.60**	**65**	Trac			
PHC	**Port Hardy**	**1.60**	**65**	Pn	**Pn**	**03 14 37.2**	**-1.1**
PHC				Sn	**Sn**	**03 14 58.2**	**-0.4**
MAYB	**Maynard**	**1.67**	**77**	Trac			
MAYB	**Maynard**	**1.67**	**77**	Pn	**Pn**	**03 14 37.4**	**-1.9**
MAYB				Sn	**Sn**	**03 14 59.8**	**-0.5**
EDB	**Eliza Dome**	**1.69**	**96**	Trac			
EDB	**Eliza Dome**	**1.69**	**96**	Pn	**Pn**	**03 14 35.5**	**-4.0**
WOSB	**Woss**	**2.03**	**86**	Trac			
WOSB	**Woss**	**2.03**	**86**	Pn	**Pn**	**03 14 42.6**	**-1.6**
WOSB				Sn	**Sn**	**03 15 09.8**	**+0.6**
BBB	**Bella Bella**	**2.35**	**25**	Pn	**Pn**	**03 14 48.5**	**-0.1**
BBB				Sn	**Sn**	**03 15 18.2**	**+1.1**
BBB	**Bella Bella**	**2.35**	**25**	Pn	**Pn**	**03 14 48.5**	**-0.1**
	83nm,0.3s,baz=226,slow=9.7,SNR=918						
BBB				Sn	**Sn**	**03 15 18.2**	**+1.1**
	51nm,0.3s,baz=308,slow=22,SNR=22						
BBB	**Bella Bella**	**2.35**	**25**	Trac			
BBB	**Bella Bella**	**2.35**	**25**	Pn	**Pn**	**03 14 48.5**	**-0.1**
BBB				Sn	**Sn**	**03 15 17.1**	**+0.1**
GDR	**Gold River**	**2.40**	**95**	Trac			
GDR	**Gold River**	**2.40**	**95**	Pn	**Pn**	**03 14 48.2**	**-1.1**
DIB	**Dawson Inlet,**	**3.58**	**332**	Pn	**Pn**	**03 15 03.0**	**-2.5**
VIB	**Van Inlet**	**3.64**	**332**	Pn	**Pn**	**03 15 03.2**	**-3.1**
VIB				T		03 18 19.1	
OBC	**Olympics--Boni**	**4.23**	**117**	P	**Pn**	**03 15 13.3**	**-1.1**
PGC	**Sidney**	**4.34**	**107**	ePn	**Pn**	**03 15 14.6**	**-1.3**
NLWA	**Neilton Lookou**	**4.71**	**122**	ePn	**Pn**	**03 15 19.4**	**-1.6**
MCW	**Mount Constitu**	**4.71**	**105**	P	**Pn**	**03 15 20.6**	**-0.5**
VDB	**Vedder Mountai**	**5.07**	**99**	P	**Pn**	**03 15 26.0**	**+0.1**
CMW	**Cultus Mountai**	**5.24**	**105**	P	**Pn**	**03 15 28.5**	**+0.2**
MBW	**Mount Baker**	**5.26**	**101**	P	**Pn**	**03 15 28.8**	**+0.1**
JCW	**Jim Creek**	**5.45**	**107**	P	**Pn**	**03 15 30.9**	**-0.3**
RPW	**Rockport**	**5.61**	**104**	P	**Pn**	**03 15 33.3**	**-0.1**
TBM	**Table Mountain**	**6.71**	**112**	P	**Pn**	**03 15 49.0**	**+0.6**
WTV	**Waterville**	**6.86**	**106**	P	**Pn**	**03 15 50.8**	**+0.2**
DLBC	**Dease Lake**	**8.39**	**359**	Pn	**Pn**	**03 16 12.3**	**+0.8**
DLBC	**Dease Lake**	**8.39**	**359**	Pn	**Pn**	**03 16 12.3**	**+0.8**
	baz=180,slow=13						
NEW	**Newport**	**8.45**	**97**	ePn	**Pn**	**03 16 12.7**	**+0.3**
	6.4nm,1.1s						
NEW	**Newport**	**8.45**	**97**	Pn	**Pn**	**03 16 12.7**	**+0.3**
	0.4nm,0.3s,baz=287,slow=11,SNR=6.2						

WALA	Waterton Lakes	10.32	90	*e*Pn	Pn	03 16 39.7	+1.7
	14nm,1.5s						
WDC	Whiskeytown Da	10.74	149	*e*Pn	Pn	03 16 44.9	+1.1
	8.1nm,1.1s						
WVOR	Wild Horse Val	10.82	131	*e*Pn	Pn	03 16 45.3	+0.5
CHMT	Chamberlain Mo	11.38	100	*e*Pn	Pn	03 16 52.4	0.0
HLID	Hailey	12.33	116	*e*Pn	Pn	03 17 08.7	+3.2
BOZ	Bozeman (W)	12.92	103	*e*Pn	Pn	03 17 13.5	0.0
EGMT	Eagleton	13.26	91	*e*Pn	Pn	03 17 20.4	+2.3
	7.5nm,0.9s						
NVAR	Mina Array Bea	14.20	141	Pn	Pn	03 17 30.4	-0.7
NVAR	Mina Array Bea	14.20	141	Pn	Pn	03 17 30.4	-0.7
	0.1nm,0.3s,baz=331,slow=13,SNR=6.2						
MOOW	Moose Ponds	14.41	109	*e*Pn	Pn	03 17 42.8	+8.9
REDW	Red Top Meadow	14.56	110	*e*Pn	Pn	03 17 44.7	+8.9
LOHW	Long Hollow	14.57	109	*e*P	Pn	03 17 38.5	+2.5
	11nm,0.8s						
YKA	Yellowknife Ar	14.96	28	Pn	Pn	03 17 41.0	-0.2
YKA	Yellowknife Ar	14.96	28	Pn	Pn	03 17 41.0	-0.2
	0.2nm,0.3s,baz=214,slow=12,SNR=18						
BW06	Boulder Array	15.68	110	*e*P	Pn	03 17 52.8	+2.0
	5.7nm,1.1s						
PDAR	Pinedale Array	15.68	110	Pn	Pn	03 17 53.0	+2.3
PDAR	Pinedale Array	15.68	110	Pn	Pn	03 17 53.0	+2.3
	0.2nm,0.3s,baz=310,slow=9.8,SNR=23						
MCK	McKinley	17.14	330	*e*P	Pn	03 18 12.4	+3.1
	2.6nm,0.8s						
SRU	San Rafael	17.46	122	*e*P	Pn	03 18 15.5	+2.0
	4.9nm,0.9s						
FFC	Flin Flon	17.50	64	*e*P	Pn	03 18 17.2	+3.4
	9.8nm,0.7s						
INK	Inuvik	18.39	356	*e*P	Pn	03 18 26.9	+2.3
	106nm,0.9s						
INK	Inuvik	18.39	356	P	Pn	03 18 26.2	+1.6
	0.0nm,0.3s,baz=182,slow=10,SNR=10						
PHWY	Pilot Hill	19.02	108	*e*P	Pn	03 18 31.7	-0.8
PV01	Paradox Valley	19.24	120	*e*P	Pn	03 18 34.0	-1.1
SMCO	Snowmass	19.43	115	*e*P	Pn	03 18 36.5	-0.9
	3.6nm,0.8s						
WUAZ	Wupatki	19.74	131	*e*P	Pn	03 18 39.7	-1.4
	5.2nm,0.9s						
IMA2	Indian Mountai	20.22	331	*e*P	P	03 18 44.9	+0.3
SDCO	Great Sand Dun	21.25	116	*e*P	P	03 18 56.1	+0.1
	4.4nm,0.9s,mb3.8						
ULM	Lac du Bonnet	21.58	76	*e*P	P	03 19 02.5	+3.1
	6.9nm,0.8s,mb4.1						
ULM	Lac du Bonnet	21.58	76	P	P	03 19 01.8	+2.4
	6.5nm,0.8s,mb4.1,baz=288,slow=10,SNR=17						
FCC	Fort Churchill	22.25	53	*e*P	P	03 19 08.4	+2.0
	11nm,1.3s,mb4.1						
TUC	Tucson	22.64	134	*e*P	P	03 19 11.1	+0.2
	4.0nm,1.1s,mb3.8						
ANMO	Albuquerque	22.72	123	*e*P	P	03 19 11.7	0.0
	4.3nm,0.9s,mb3.9						
ANMO	Albuquerque	22.72	123	P	P	03 19 11.6	-0.1
	3.6nm,0.9s,mb3.8,baz=312,slow=9.8,SNR=14						
BNM	Barren Site	23.24	124	*e*P	P	03 19 16.9	-0.3
ECSD	EROS,Sioux Fal	23.36	93	*e*P	P	03 19 19.2	+0.9
	5.9nm,0.7s,mb4.1						
EYMN	Ely	24.99	80	*e*P	P	03 19 34.1	+0.8
	9.5nm,0.8s,mb4.4						
AMTX	Amarillo	25.45	116	*e*P	P	03 19 37.3	-0.4
	12nm,0.8s,mb4.5						
MNTX	Cornudas Mount	25.80	126	*e*P	P	03 19 40.1	-0.7
	3.9nm,1.0s,mb3.9						
LTX	Lajitas	28.57	127	*e*P	P	03 20 05.8	0.0
	2.6nm,0.9s,mb4.0						
TXAR	Lajitas Array	28.57	127	P	P	03 20 06.3	+0.5
TXAR	Lajitas Array	28.57	127	P	P	03 20 06.3	+0.5
	0.9nm,0.7s,mb3.6,baz=289,slow=5.4,SNR=5.3						
GERES	GERESS Array B	76.58	24	P	P	03 25 59.7	-0.2
	0.2nm,0.4s,mb3.4,baz=267,slow=4.9,SNR=3.9						
AKASG	Malin Array Be	78.01	14	P	P	03 26 07.0	-0.9
	0.1nm,0.3s,mb3.3,baz=345,slow=6.7,SNR=3.1						
MKAR	Makanchi Array	79.62	338	P	P	03 26 15.5	-1.4
	0.2nm,0.2s,mb3.6,baz=37,slow=5.8,SNR=3.4						

NIED **14** *03:26:00, 22.00N×121.20E, h14^{km}, Mw4.7 Best double couple: M$_0$1.18000×10^{16} NP1:ϕ_s176.00000°, δ50.00000°, λ-12.00000°. NP2:ϕ_s273.00000°, δ81.00000°, λ-140.00000°.*

IDC **14** *03:26:14.7±0.5, 22.13N×120.99E, h0^{km}, mb4.2/17, mb1 4.3/19, mb1mx4.3/25, mbtmp4.2/19, ML2.9/1, MS3.8/1, Ms1 3.8/1, ms1mx2.6/34, Error ellipse: s-maj=25.6km s-min=11.8km az=67.0*

NEIC **14** *03:26:16.5±0.2, 22.11N×120.96E, h10^{km}, mb4.4/21, ML4.8(TAP), Error ellipse: s-maj=8.1km s-min=4.7km az=80.0*

NEIC Recorded [3 TAP] in T'ai-tung and [2 TAP] in P'ing-tung Counties.

ISCJB **14** *03:26:18.0±1.9, 22.08N±0.04×121.11E±0.06, h31^{km}±13^{km}, mb4.3/37, MS4.5/1, Error ellipse: s-maj=10.2km s-min=5.6km az=162.5*

MOS **14** *03:26:18.3±1.0, 22.12N×120.98E, h33^{km}, mb4.6/18, Error ellipse: s-maj=15.5km s-min=7.4km az=110.5*

BJI **14** *03:26:19.4, 22.33N×120.61E, h10^{km}, mB4.9, mb4.4, ML4.0, Ms4.7, Msz4.3*

ISC 14 03:26:17.9±2.3**, 22.06N**±0.04×**121.04E**±0.07**, h18**^{km}±14^{km}**, n93,** σ1^{s}**16**/95**, mb4.3**/36**, MS4.5**/1**, 4C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	Ninganchiao	2.16	14	*e*Pn	Pn	03 26 51.8	-1.3
NACB				*e*		03 26 55.5	
YHNB	Yeheng	2.61	7	*e*Pn	Pn	03 26 59.8	+0.5
YHNB				*e*Sn	Sn	03 27 32.1	+1.5
TATO	Taipei	2.93	8	*e*Pn	Pn	03 27 04.3	+0.7
TATO				*e*		03 27 09.8	
QZH	Quanzhou	3.64	322	P	Pn	03 27 12.9	-0.5
QZH				Smax			
	comp=N,460nm,1.0s						
QZH				Smax			
	comp=E,430nm,0.9s						
QZH				LR	LR		
	comp=N,3µm,12.4s						
QZH				LR	LR		
	comp=E,4µm,12.4s						
QZH				LR	LR		
	comp=Z,4µm,14.5s						
GZH	Guangzhou	7.18	280	P	Pn	03 27 56.4	-5.7
GZH				Smax			
	comp=N,90nm,1.0s						
GZH				Smax			
	comp=E,52nm,0.9s						
JOW	Kunigami	8.12	53	Pn	Pn	03 28 13.3	-1.7
JOW				LR	LR	03 31 22.9	
JOW	Kunigami	8.12	53	Pn	Pn	03 28 13.3	-1.7
	comp=E,3.0nm,0.3s,baz=131,slow=11,SNR=8.1						
JOW				LR	LR	03 31 22.9	
	comp=E,756nm,21.5s,baz=47,slow=38						
NJ2	Nanjing	10.14	349	*e*P	Pn	03 28 46.0	+3.4
NJ2				PP		03 28 56.4	
NJ2				S	Sn	03 30 37.5	+1.6
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s						
NJ2				LR	LR		
	comp=N,5µm,12.7s						
NJ2				LR	LR		
	comp=E,3µm,11.6s						
NJ2				LR	LR		
	comp=Z,3µm,11.6s						
WHN	Wuhan	10.36	326	P	Pn	03 28 41.0	-4.6
WHN				S	Sn	03 30 45.4	+4.1
WHN				LR	LR		
	comp=Z,2µm,13.2s						
KSRS	Korea Array	16.45	20	Pn	Pn	03 30 07.7	-0.2
	comp=Z,0.0nm,0.3s,baz=202,slow=14,SNR=3.4						
CD2	Chengdu	17.78	303	*e*P	Pn	03 30 25.9	+1.3
CD2				AMB	AMB		
	comp=Z,40nm,0.8s						
CD2				AMB	AMB		
	comp=Z,80nm,8.2s						
CD2				LR	LR		
	comp=N,2µm,12.0s						
CD2				LR	LR		
	comp=E,2µm,9.6s						
CD2				LR	LR		
	comp=Z,990nm,14.4s						
BJT	Baijiatuau	18.37	348	*e*P	Pn	03 30 31.7	-0.1
	comp=Z,6.8nm,0.8s						
BJT	Baijiatuau	18.37	348	*e*P	Pn	03 30 31.7	-0.1
BJT				pmax	pmax		
	comp=Z,7.0nm,0.8s						
HHC	Hu-ho-hao-te	20.37	339	*e*P	P	03 30 55.8	+2.2
HHC				AMB	AMB		
	comp=Z,13nm,0.8s						
HHC				AMB	AMB		
	comp=Z,875nm,3.6s						
LZH	Lanzhou	20.48	317	*e*P	P	03 30 58.8	+4.0
LZH				AMB	AMB		
	comp=Z,30nm,1.2s						
LZH				AMB	AMB		
	comp=Z,178nm,5.5s						
LZH				LR	LR		
	comp=N,759nm,14.1s						
LZH				LR	LR		
	comp=Z,2µm,16.0s,MS4.5						
MAJO	Matsushiro	20.74	42	*e*P	P	03 30 58.2	+0.6
	comp=Z,10nm,0.8s						
MAJO	Matsushiro	20.74	42	*e*P	P	03 30 58.2	+0.5
MAJO				pmax	pmax		
	comp=Z,11nm,0.8s						
MJAR	Matsushiro Arr	20.75	42	P	P	03 30 58.7	+1.0
	comp=Z,5.8nm,0.8s,baz=232,slow=9.2,SNR=12						
CHTO	Chiang Mai	20.95	265	*e*P	P	03 31 04.4	+4.3
	comp=Z,14nm,0.9s						
CHTO	Chiang Mai	20.95	265	*e*P	P	03 31 04.4	+4.3
CHTO				pmax	pmax		
	comp=Z,14nm,0.9s						
KSM	Kuching	22.98	208	*e*P	P	03 31 22.6	+0.9
LSA	Lhasa	27.89	292	*e*P	P	03 32 09.0	+2.1
ULN	Ulaanbaatar	28.09	340	*e*P	P	03 32 07.6	-0.9
	comp=Z,2.7nm,0.7s,mb4.0						
ULN	Ulaanbaatar	28.09	340	⇑*e*P	P	03 32 06.6	-1.9
SONM	Songino Array	28.28	339	P	P	03 32 09.1	-1.1
	comp=Z,2.1nm,0.8s,mb3.8,baz=152,slow=8.8,SNR=7.5						
YSS	Yuzh-Sakhalins	30.41	30	⇑*e*P	P	03 32 29.6	+0.5
YSS				pmax	pmax		
	comp=Z,22nm,1.4s,mb4.7						
ZAK	Zakamensk	31.52	338	*e*P	P	03 32 40.7	+1.9
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.1s,mb3.6						
TLY	Talaya	32.50	340	*e*P	P	03 32 50.3	+2.9
TLY				*e*		03 32 58.0	
TLY				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
KAKA	Kakadu	36.32	161	*e*P	P	03 33 19.9	-1.0
	comp=Z,11nm,0.9s,mb4.8						
MK31	Makanchi Array	39.79	318	*e*P	P	03 33 49.1	-0.7
MKAR	Makanchi Array	39.79	318	*i* P	P	03 33 49.2	-0.6
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	Makanchi Array	39.79	318	P	P	03 33 48.8	-1.0
	comp=Z,2.4nm,0.7s,mb4.0,baz=117,slow=9.6,SNR=32						
FITZ	Fitzroy Crossi	40.17	173	*e*P	P	03 33 53.5	+0.3
	comp=Z,5.9nm,0.9s,mb4.3						
FITZ	Fitzroy Crossi	40.17	173	P	P	03 33 53.8	+0.6
	comp=Z,3.2nm,0.9s,mb4.0,baz=8.2,slow=12,SNR=8.9						
PMG	Port Moresby	40.43	138	*e*P	P	03 33 55.1	-0.4
	comp=Z,7.7nm,0.9s,mb4.4						
PMG	Port Moresby	40.43	138	⇑*e*P	P	03 33 55.8	+0.3
PMG	Port Moresby	40.43	138	P	P	03 33 54.7	-0.7
	comp=Z,2.3nm,0.3s,mb4.3,baz=302,slow=16,SNR=4.2						
ZALV	Zalesovo Beam	41.96	329	P	P	03 34 06.0	-1.7
ZALV	Zalesovo Beam	41.96	329	P	P	03 34 06.0	-1.7
	comp=Z,2.9nm,0.6s,mb4.1,baz=120,slow=8.0,SNR=12						
ZAL	Zalesovo	41.96	328	P	P	03 34 06.0	-1.7
MBWA	Marble Bar	42.98	182	*e*P	P	03 34 16.3	+0.1
	comp=Z,7.9nm,1.0s,mb4.4						
TKM2	Tokmak 2	42.99	310	*e*P	P	03 34 15.3	-0.8
	comp=Z,3.0nm,0.9s,mb4.0						
TKM2	Tokmak 2	42.99	310	*e*P	P	03 34 15.3	-0.9
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
MA2	Magadan	42.99	22	*e*P	P	03 34 14.7	-1.2
	comp=Z,2.7nm,0.4s,mb4.3						
MA2	Magadan	42.99	22	P	P	03 34 15.9	0.0
MA2				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.5						
KURK	Kurchatov	43.64	322	*e*P	P	03 34 19.8	-1.6
	comp=Z,9.2nm,1.2s,mb4.4						
KURK	Kurchatov	43.64	322	⇑*i*P	P	03 34 19.9	-1.5
AAK	Ala-Archa	43.71	309	*e*P	P	03 34 20.7	-1.3
WRA	Warramunga Arr	43.73	162	P	P	03 34 22.3	0.0
	comp=Z,9.0nm,0.9s,mb4.5,baz=344,slow=8.7,SNR=38						
WB2	Warramunga Arr	43.73	162	*e*P	P	03 34 22.2	-0.1
ASAR	Alice Springs	47.15	164	P	P	03 34 50.0	+0.7
	comp=Z,3.5nm,0.8s,mb4.3,baz=342,slow=7.0,SNR=26						
ASAR				PcP	PcP	03 36 21.5	+0.6
	comp=Z,1.5nm,0.8s,baz=342,slow=2.9,SNR=5.8						
CTA	Charters Tower	48.60	148	*e*P	P	03 35 01.4	+0.7
	comp=Z,3.1nm,0.7s,mb4.5						
CTA	Charters Tower	48.60	148	*e*P	P	03 35 01.4	+0.7
CTA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
CTA	Charters Tower	48.60	148	P	P	03 34 59.6	-1.1
	comp=Z,4.5nm,0.8s,mb4.6,baz=350,slow=9.7,SNR=6.9						
CTAO	Charters Tower	48.60	148	*e*P	P	03 35 01.4	+0.8
	comp=Z,4.5nm,0.8s,mb4.5						
CTAO	Charters Tower	48.60	148	*e*P	P	03 35 01.5	+0.8
CTAO				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
BRVK	Borovoye	49.31	322	*e*P	P	03 35 04.8	-1.0
	comp=Z,7.9nm,1.3s,mb4.6						
BRVK				*e*pP	pP	03 35 15.1	+3.8
BRVK	Borovoye	49.31	322	*e*P	P	03 35 04.8	-1.0
BRVK				*e**PP	pP	03 35 15.1	+3.7
BRVK				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.6						
TIXI	Tiksi	49.81	3	*e*P	P	03 35 05.5	-3.8
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
FORT	Forrest	52.97	172	*e*P	P	03 35 34.7	+1.2
	comp=Z,28nm,0.8s,mb5.2						
BILL	Bilibino	53.72	19	*e*P	P	03 35 37.9	-0.6
BILL				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.4						
AKTK	Aktyubinsk	56.20	317	P	P	03 36 01.3	+4.5
AKTO	Aktyubinsk	56.20	317	P	P	03 36 01.3	+4.5
	comp=Z,0.9nm,0.7s,mb3.9,baz=87,slow=13,SNR=3.9						
ARU	Arti	56.72	324	⇓*i*P	P	03 35 59.2	-1.2
ARU				*e*PPP		03 39 21.0	
ARU				*e*S	S	03 43 51.3	-0.9
ARU				*e*SS	SS	03 47 30.5	-9.3
ARU				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
STKA	Stephens Creek	57.13	159	*e*P	P	03 36 04.3	+0.8
	comp=Z,3.1nm,0.6s,mb4.5						
STKA	Stephens Creek	57.13	159	P	P	03 36 03.9	+0.4
	comp=Z,3.5nm,0.6s,mb4.6,baz=342,slow=6.0,SNR=9.5						
TOO	Toolangi	63.63	158	*e*P	P	03 36 49.6	+1.8
	comp=Z,4.0nm,0.7s,mb4.6						
TOO	Toolangi	63.63	158	*e*P	P	03 36 49.6	+1.8
TOO				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
OBN	Obninsk	69.08	322	*e*P	P	03 37 22.9	+0.2
OBN				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
JOF	Joensuu	70.48	331	*e*p	P	03 37 33.1	+1.9
	comp=Z,1.5nm,0.5s,mb4.2						
MALT	Malatya	71.07	304	*e*P	P	03 37 35.7	+0.5
	comp=Z,4.4nm,1.2s,mb4.3						
MALT				*e*pP	pP	03 37 45.5	+4.5
MALT	Malatya	71.07	304	*e*P	P	03 37 35.7	+0.5
MALT				*e**PP	pP	03 37 45.5	+4.5
MALT				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.2						
ARCES	ARCESS Array B	71.45	338	P	P	03 37 38.7	+1.7
ARCES	ARCESS Array B	71.45	338	P	P	03 37 38.7	+1.7
	baz=61,slow=9.4,SNR=4.9						
FINES	FINESS Array B	73.20	330	P	P	03 37 46.7	-0.9
FINES	FINESS Array B	73.20	330	P	P	03 37 46.7	-0.9
	comp=Z,1.4nm,0.7s,mb4.0,baz=90,slow=7.6,SNR=7.9						
BRTR	Keskin Array B	74.32	307	P	P	03 37 54.5	-0.1
	comp=Z,0.3nm,0.5s,mb3.5,baz=86,slow=6.4,SNR=3.9						
AKASG	Malin Array Be	74.36	319	P	P	03 37 53.1	-1.5
	comp=Z,0.1nm,0.3s,baz=59,slow=5.8,SNR=4.3						
INK	Inuvik	75.23	22	*e*P	P	03 37 57.7	-1.5
	comp=Z,162nm,1.0s						
NB2	NORSAR Subarra	80.03	332	P	P	03 38 27.4	+1.2
	comp=Z,2.0nm,0.9s,mb4.0,baz=62,slow=5.6						
NOA	NORSAR Array B	80.03	332	P	P	03 38 24.9	-1.2
	comp=Z,0.4nm,0.6s,mb3.5,baz=60,slow=5.3,SNR=3.1						
RES	Resolute Bay	80.77	9	*e*P	P	03 38 30.2	+0.3
	comp=Z,137nm,1.1s						
MORC	Moravsky Berou	81.72	320	*e*P	P	03 38 34.7	-0.8
	comp=Z,1.8nm,0.7s,mb4.1						
MORC	Moravsky Berou	81.72	320	*e*P	P	03 38 34.7	-0.7
MORC				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
VRAC	Vranov	82.48	320	P	P	03 38 39.4	0.0
	comp=Z,1.9nm,0.7s,mb4.2,baz=45,slow=2.9,SNR=3.9						
GERES	GERESS Array B	84.39	321	P	P	03 38 49.3	0.0
	comp=Z,1.5nm,0.8s,mb4.2,baz=57,slow=4.9,SNR=14						
YKA	Yellowknife Ar	84.97	23	P	P	03 38 50.8	-1.1
YKA	Yellowknife Ar	84.97	23	*i* P	P	03 38 50.7	-1.2
YKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
YKA	Yellowknife Ar	84.97	23	P	P	03 38 50.8	-1.1
	comp=Z,2.6nm,0.9s,mb4.4,baz=315,slow=4.7,SNR=20						
MAW	Mawson	99.06	199	*e*P	P	03 39 50.0	-7.2
	comp=Z,4.1nm,0.8s,mb5.0						
MAW	Mawson	99.06	199	*e*P	P	03 39 50.0	-7.2
MAW				pmax	pmax		
	comp=Z,4.0nm,0.8s						
VNA2	Neumayer--Watz	122.84	198	*e*PKPdf	PKPdf	03 45 13.8	+1.6
	baz=152,slow=0.9						
VNA2				*e*		03 45 17.1	
VNA2				*e*		03 45 25.3	
VNA3	Neumayer Olymp	123.31	197	*e*PKPdf	PKPdf	03 45 13.5	+0.5
VNA3				*e*		03 45 16.9	
VNA3				*e*		03 45 24.5	

ISK **14** *03:26:28.0, 38.92N×44.30E, h5^{km}, MD3.1*

ISCJB **14** *03:26:32.0±1.6, 38.85N±0.04×44.1E±0.1, h4^{km}±13^{km}, Error ellipse: s-maj=14.6km s-min=6.5km az=7.2*

CSEM **14** *03:26:33.1±0.6, 38.85N×43.91E, h16^{km}±3^{km}, MD3.2, Error ellipse: s-maj=13.2km s-min=6.3km az=86.0*

DDA **14** *03:26:33.4, 38.83N×44.04E, h7^{km}±3^{km}, Md3.2*

ISC 14 03:26:32.2±1.5**, 38.83N**±0.04×**44.2E**±0.1**, h2**^{km}±14^{km}**, n13,** σ1^{s}**05**/18**, 2C-1D, Turkey-Iran border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VANB	Van	0.64	249	PG	Pg	03 26 43.9	-0.6
VANB				SG	Sg	03 26 56.2	+3.3
VANB	Van	0.64	249	*e*Pg	Pg	03 26 43.9	-0.6
TVAN	Van	0.66	243	⇑*i*P	Pg	03 26 44.0	-0.9
TVAN				*i* S	Sg	03 26 53.7	+0.3
VANT	Van	0.71	238	PG	Pg	03 26 46.7	+0.9
DYDN	Diyadin	0.80	333	⇑*i*P	Pg	03 26 48.4	+0.8
DYDN				*i* S	Sg	03 26 59.2	+1.2
AGRB	Hanur-Agry	1.17	310	*e*PN	Pg	03 26 53.1	-1.6
AGRB				*e*SN	Sg	03 27 09.5	-0.4
AGRB	Hanur-Agry	1.17	310	*e*Pn	Pg	03 26 53.1	-1.6
AGRB				*e*Sn	Sg	03 27 09.5	-0.4
TUTA	Tutak	1.19	299	⇓*i*P	Pg	03 26 53.1	-2.0
HKR	Hakkari	1.29	195	*e*PN	Pn	03 26 56.5	-0.8
HKR	Hakkari	1.29	195	*e*Pn	Pn	03 26 56.5	-0.8
HAKT	HAKKARI	1.32	196	*i* P	Pg	03 26 58.0	+0.5
DIGO	Kars	1.70	339	*e*P	Pg	03 27 05.2	+0.5
BTMT	Batman	2.19	254	*e*PN	Pn	03 27 10.4	+0.8

NIED **14** *03:30:00, 22.30N×121.10E, h14^{km}, Mw4.6 Best double couple: M$_0$9.23000×10^{15} NP1:ϕ_s164.00000°, δ47.00000°, λ-13.00000°. NP2:ϕ_s263.00000°, δ81.00000°, λ-136.00000°.*

NEIC **14** *03:30:30.9±0.2, 22.14N×121.09E, h10^{km}, mb4.7/42, ML5.0(TAP), Error ellipse: s-maj=7.4km s-min=5.2km az=76.0*

NEIC Recorded [3 TAP] in T'ai-tung; [2 TAP] in Kao-hsiung and P'ing-tung Counties.

JMA **14** *03:30:31.2±0.5, 22.32N×121.07E, h0^{km}, M4.8*

MOS **14** *03:30:32.8±1.1, 22.19N×121.16E, h33^{km}, mb4.9/37, Error ellipse: s-maj=11.8km s-min=5.8km az=114.0*

IDC **14** *03:30:32.3±2.2, 22.13N×121.01E, h18^{km}±13^{km}, mb4.3/21, mb1 4.4/23, mb1mx4.4/28, mbtmp4.3/23, ML4.0/2, MS4.3/8, Ms1 4.3/8, ms1mx3.8/32, Error ellipse: s-maj=22.7km s-min=9.6km az=66.0*

ISCJB **14** *03:30:33.7±0.8, 22.12N±0.03×121.11E±0.04, h42^{km}±7^{km}, mb4.6/62, MS4.3/8, Error ellipse: s-maj=6.1km s-min=5.1km az=35.9*

BJI **14** *03:30:37.1, 22.41N×120.56E, h20^{km}, mB5.0, mb4.6, ML4.3, Ms4.6, Msz4.3*

ISC 14 03:30:35.5±0.7**, 22.12N**±0.04×**121.10E**±0.04**, h42**^{km}±6^{km}**, n178,** σ1^{s}**12**/174**, mb4.6**/62**, MS4.3**/8**, 11C-1D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	Ninganchiao	2.09	13	*e*Pn	Pn	03 31 06.5	-1.5
YHNB	Yeheng	2.55	6	*e*Pn	Pn	03 31 14.6	+0.3
YHNB				*e*Sn	Sn	03 31 43.4	-0.6
TATO	Taipei	2.86	7	*e*Pn	Pn	03 31 22.3	+3.8
YOJ	Yonaguni jima	2.92	37	P	Pn	03 31 18.1	-1.3
YOJ				S	Sn	03 31 52.8	-0.4
HATJ	Hateruma jima	3.15	52	P	Pn	03 31 21.8	-0.8
HATJ				S	Sn	03 31 59.2	+0.3
IRIF	Iriomote-Funau	3.27	47	P	Pn	03 31 23.8	-0.5
IRIF				S	Sn	03 32 03.8	+1.8
JKRS	Kuro-shima	3.41	51	P	Pn	03 31 26.1	0.0
JIJ	Ishigaki jima	3.58	51	P	Pn	03 31 28.7	+0.2
JIJ				S	Sn	03 32 09.4	-0.2
QZH	Quanzhou	3.63	321	P	Pn	03 31 27.8	-1.3
QZH				Smax			
	comp=N,880nm,1.0s						
QZH				Smax			
	comp=E,770nm,0.9s						
QZH				LR	LR		
	comp=N,4µm,11.1s						
QZH				LR	LR		
	comp=E,8µm,15.2s						
QZH				LR	LR		
	comp=Z,5µm,17.2s						
JTJ	Tarama	4.15	52	P	Pn	03 31 35.7	-0.7
JTJ				S	Sn	03 32 22.8	-0.9
JMJ	Miyako jima 2	4.69	54	S	Sn	03 32 38.4	+1.4
JOGS	Gusukube	4.75	56	S	Sn	03 32 40.6	+2.2
JKE	Kume jima 2	6.67	50	P	Pn	03 32 11.7	+0.8
JOW	Kunigami	8.04	53	Pn	Pn	03 32 28.9	-0.8
JOW	Kunigami	8.04	53	Pn	Pn	03 32 28.9	-0.8
	comp=Z,5.3nm,0.3s,baz=180,slow=6.1,SNR=9.8						
NJ2	Nanjing	10.09	349	*e*P	Pn	03 33 02.0	+4.2
NJ2				S	Sn	03 34 53.1	+3.5
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s						
NJ2				LR	LR		
	comp=N,4µm,12.7s						
NJ2				LR	LR		
	comp=E,3µm,15.0s						
NJ2				LR	LR		
	comp=Z,3µm,15.0s						
WHN	Wuhan	10.34	326	⇑P	Pn	03 32 59.0	-2.2
WHN				S	Sn	03 34 57.8	+2.1
WHN				LR	LR		
	comp=Z,3µm,12.0s						
JNU	Nakatsue	13.96	36	Pn	Pn	03 33 45.8	-4.9
JNU				LR	LR	03 39 06.2	
JNU	Nakatsue	13.96	36	Pn	Pn	03 33 45.8	-4.9
	comp=Z,0.7nm,0.3s,baz=125,slow=16,SNR=3.8						
JNU				LR	LR	03 39 06.2	
	comp=Z,766nm,19.2s,baz=242,slow=37						
XAN	Xi'an	15.99	321	P	Pn	03 34 16.3	-1.1
XAN				AP	pP	03 34 22.3	-8.2
XAN				AMB	AMB		
	comp=Z,10.0nm,1.4s						
KSRS	Korea Array	16.38	20	Pn	Pn	03 34 21.9	-0.4
	comp=Z,0.3nm,0.3s,baz=200,slow=12,SNR=5.8						
CD2	Chengdu	17.80	303	*e*P	Pn	03 34 39.8	-0.2
CD2				AMB	AMB		
	comp=Z,40nm,0.8s						
CD2				AMB	AMB		
	comp=Z,120nm,5.8s						
BJT	Baijiatuau	18.32	348	*e*P	Pn	03 34 49.2	+2.8
	comp=Z,17nm,0.9s						
BJT	Baijiatuau	18.32	348	*e*P	Pn	03 34 49.2	+2.8
BJT				pmax	pmax		
	comp=Z,17nm,0.9s						
HHC	Hu-ho-hao-te	20.34	339	*e*P	P	03 35 10.5	+2.4
HHC				AMB	AMB		
	comp=Z,18nm,1.2s						
LZH	Lanzhou	20.47	317	*e*P	P	03 35 12.3	+2.7
LZH				AMB	AMB		
	comp=Z,107nm,1.5s						
LZH				AMB	AMB		
	comp=Z,501nm,4.2s						

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LZH   Lanzhou             20.47 317  eP      P        03 35 12.3 +2.7
            comp=Z,107nm,1.5s
LZH                                   pP              03 35 24.1
LZH                                   sP     sP       03 35 32.6 +7.5
LZH   Lanzhou             20.47 317  eP      P        03 35 12.3 +2.7
LZH                                   *PP             03 35 24.1
LZH                                   *SP    sP       03 35 32.6 +7.5
LZH                                   pmax   pmax
            comp=Z,107nm,1.5s
MAJO  Matsushiro          20.66  42  eP      P        03 35 10.7 -1.0
            comp=Z,19nm,0.8s
MAJO  Matsushiro          20.66  42  eP      P        03 35 10.7 -1.0
MAJO                                  pmax   pmax
            comp=Z,19nm,0.8s
MAT   Matsushiro          20.66  42   P      P        03 35 12.7 +1.0
MJAR  Matsushiro Arr      20.66  42   P      P        03 35 13.0 +1.3
            comp=Z,13nm,0.8s,baz=232,slow=8.1,SNR=24
BTO   Baotou              20.68 336  eP      P        03 35 17.1 +5.3
CHTO  Chiang Mai          21.01 265  eP      P        03 35 17.2 +1.6
            comp=Z,21nm,0.6s,mb4.6
CHTO  Chiang Mai          21.01 265  eP      P        03 35 17.2 +1.6
CHTO                                  pmax   pmax
            comp=Z,21nm,0.6s,mb4.6
KSM   Kuching             23.05 209  eP      P        03 35 36.1 -1.3
HIA   Hailar              27.11 358  eP      P        03 36 12.6 -1.7
LSA   Lhasa               27.92 292  eP      P        03 36 22.0 +0.2
LSA   Lhasa               27.92 292  eP      P        03 36 24.3 +2.5
            comp=Z,4.3nm,0.6s,mb4.3
LSA   Lhasa               27.92 292  eP      P        03 36 24.3 +2.5
LSA                                   pmax   pmax
            comp=Z,4.0nm,0.6s,mb4.2
ULN   Ulaanbaatar         28.05 340  eP      P        03 36 23.1 +0.4
            comp=Z,5.4nm,0.8s,mb4.2
ULN   Ulaanbaatar         28.05 340  eP      P        03 36 23.1 +0.4
ULN                                   pmax   pmax
            comp=Z,5.0nm,0.8s,mb4.2
SONM  Songino Array       28.24 339   P      P        03 36 23.8 -0.6
SONM                                                  03 39 37.7
SONM  Songino Array       28.24 339   P      P        03 36 23.8 -0.6
            comp=Z,4.2nm,0.9s,mb4.1,baz=154,slow=9.0,SNR=9.6
SONM                                  PcP    PcP      03 39 37.7 +0.7
            comp=Z,1.6nm,1.1s,baz=142,slow=5.4,SNR=4.4
SONM                                  ScP    ScP      03 43 17.8 +3.0
            comp=Z,1.8nm,1.1s,baz=150,slow=2.5,SNR=6.7
SONM                                  LR     LR       03 48 50.9
            comp=Z,877nm,18.7s,MS4.4,baz=266,slow=39
PSI   Prapat              28.85 231   LR     LR       03 49 45.1
            comp=Z,310nm,18.6s,MS4.0,baz=12,slow=40
YSS   Yuzh-Sakhalins      30.33  30  eP      P        03 36 43.0  0.0
YSS                                  e                03 47 17.0
ZAK   Zakamensk           31.48 338  eP      P        03 36 52.5 -0.6
ZAK                                   pmax   pmax
            comp=Z,2.0nm,1.0s,mb3.9
TLY   Talaya              32.46 340  eP      P        03 37 04.1 +2.5
TLY                                  e                03 44 05.7
TLY                                   pmax   pmax
            comp=Z,6.0nm,1.0s,mb4.4
TLY                                   MLR    MLR
            comp=Z,586nm,19.0s,MS4.3
MOY   Mondy               33.36 337  eP      P        03 37 11.7 +2.2
WMQ   Urumqi              35.05 316  eP      P        03 37 26.5 +2.3
KAKA  Kakadu              36.36 161  eP      P        03 37 33.0 -2.7
            comp=Z,15nm,1.0s,mb4.9
MK31  Makanchi Array      39.78 318  eP      P        03 38 03.2 -1.1
MKAR  Makanchi Array      39.78 318   P      P        03 38 03.8 -0.4
MKAR                                                  03 40 11.6
MKAR                                                  03 44 01.0
MKAR  Makanchi Array      39.78 318   P      P        03 38 03.8 -0.5
            comp=Z,7.0nm,0.8s,mb4.4,baz=114,slow=9.8,SNR=23
MKAR                                  PcP    PcP      03 40 11.6 +1.7
            comp=Z,1.1nm,0.7s,baz=103,slow=4.6,SNR=3.5
MKAR                                  ScP    ScP      03 44 01.0 +5.4
            comp=Z,0.3nm,0.3s,baz=104,slow=4.6,SNR=6.2
MKAR                                  LR     LR       03 55 56.6
            comp=Z,405nm,18.0s,MS4.3,baz=107,slow=38
FITZ  Fitzroy Crossi      40.22 173   P      P        03 38 07.6 -0.6
            comp=Z,4.4nm,0.8s,mb4.2,baz=349,slow=14,SNR=4.9
YAK   Yakutsk             40.32   6⇑eP      P        03 38 07.2 -1.3
YAK                                   pmax   pmax
            comp=Z,16nm,0.7s,mb4.9
PMG   Port Moresby        40.44 138  eP      P        03 38 10.5 +0.4
            comp=Z,14nm,1.0s,mb4.6
PMG   Port Moresby        40.44 138  eP      P        03 38 10.5 +0.4
PMG                                   pmax   pmax
            comp=Z,14nm,1.0s
PMG   Port Moresby        40.44 138   P      P        03 38 10.8 +0.7
            comp=Z,10nm,0.9s,mb4.5,baz=314,slow=12,SNR=4.7
ZALV  Zalesovo Beam       41.94 328   P      P        03 38 20.3 -1.6
            comp=Z,9.9nm,0.9s,mb4.5,baz=117,slow=8.5,SNR=19
ZALV                                  ScP    ScP      03 44 07.5 +3.6
            comp=Z,0.4nm,0.3s,baz=130,slow=2.3,SNR=4.5
ZALV                                  LR     LR       03 58 46.9
            comp=Z,125nm,18.4s,MS3.8,baz=218,slow=40
ZAL   Zalesovo            41.94 328   P      P        03 38 20.3 -1.6
MA2   Magadan             42.92  22  eP      P        03 38 29.6 -0.2
            comp=Z,8.5nm,0.9s,mb4.5
MA2   Magadan             42.92  22⇑eP      P        03 38 29.7 -0.1
MA2                                   pmax   pmax
            comp=Z,9.0nm,1.1s,mb4.4
TKM2  Tokmak 2            42.99 310  eP      P        03 38 31.2 +0.5
            comp=Z,14nm,1.3s,mb4.5
TKM2  Tokmak 2            42.99 310  eP      P        03 38 31.2 +0.5
TKM2                                  pmax   pmax
            comp=Z,14nm,1.3s,mb4.5
MBWA  Marble Bar          43.04 182  eP      P        03 38 30.9 -0.2
            comp=Z,7.1nm,0.9s,mb4.4
NVS   Novosibirsk         43.21 329  i P     P        03 38 33.7 +1.5
UCH   Uchtor              43.61 309  eP      P        03 38 36.4 +0.7
            comp=Z,21nm,1.5s,mb4.7
KURK  Kurchatov           43.63 322  eP      P        03 38 34.6 -1.1
            comp=Z,40nm,1.5s,mb4.9
KURK  Kurchatov           43.63 322⇑eP      P        03 38 35.6 -0.1
AAK   Ala-Archa           43.71 309  eP      P        03 38 35.8 -0.7
            comp=Z,2.1nm,0.9s,mb3.9
AAK   Ala-Archa           43.71 309⇑iP      P        03 38 35.9 -0.6
AAK                                   pmax   pmax
            comp=Z,5.0nm,1.5s,mb4.0
WRA   Warramunga Arr      43.77 162   P      P        03 38 36.8 -0.3
            comp=Z,14nm,0.9s,mb4.7,baz=344,slow=8.7,SNR=37
WRA                                   PcP    PcP      03 40 23.4  0.0
            comp=Z,2.3nm,0.8s,baz=342,slow=3.6,SNR=5.1
WRA                                   S      S        03 45 04.7 -0.1
            comp=Z,1.0nm,0.9s,baz=344,slow=14,SNR=4.5
WB2   Warramunga Arr      43.77 162  eP      P        03 38 36.7 -0.4
AML   Almayashu           44.18 308  eP      P        03 38 41.3 +1.0
            comp=Z,12nm,1.3s,mb4.5
KBL   Kabul               47.00 297  eP      P        03 39 03.0 +0.4
ASAR  Alice Springs       47.19 164   P      P        03 39 04.7 +0.6
ASAR                                                  03 40 36.0
ASAR  Alice Springs       47.19 164   P      P        03 39 04.7 +0.6
            comp=Z,6.8nm,0.9s,mb4.6,baz=340,slow=6.6,SNR=30
ASAR                                  PcP    PcP      03 40 36.0 +0.8
            comp=Z,3.2nm,0.7s,baz=346,slow=3.3,SNR=7.7
ASAR                                  ScP    ScP      03 44 29.5 +3.7
            comp=Z,0.6nm,0.9s,baz=351,slow=4.0,SNR=5.1
CTA   Charters Tower      48.62 148  eP      P        03 39 16.1 +0.8
            comp=Z,7.2nm,0.9s,mb4.7
CTA                                  e                03 40 42.2
CTA   Charters Tower      48.62 148  eP      P        03 39 16.1 +0.8
CTA                                  e                03 40 42.2
CTA                                   pmax   pmax
            comp=Z,7.0nm,0.9s
CTA   Charters Tower      48.62 148   P      P        03 39 15.9 +0.7
            comp=Z,9.4nm,0.9s,mb4.8,baz=319,slow=6.8,SNR=8.9
CTA                                   PcP    PcP      03 40 41.6 +1.2
            comp=Z,4.0nm,0.8s,baz=329,slow=7.3,SNR=3.9
CTAO  Charters Tower      48.62 148  eP      P        03 39 14.1 -1.2
            comp=Z,14nm,1.3s,mb4.8
CTAO  Charters Tower      48.62 148  eP      P        03 39 14.1 -1.2
CTAO                                  pmax   pmax
            comp=Z,14nm,1.3s,mb4.8
BRVK  Borovoye            49.30 322  eP      P        03 39 19.4 -0.7
            comp=Z,16nm,1.0s,mb5.0
BRVK  Borovoye            49.30 322  eP      P        03 39 19.4 -0.7
BRVK                                  pmax   pmax
            comp=Z,16nm,1.0s,mb5.0
TIXI  Tiksi               49.75   3  eP      P        03 39 21.3 -1.9
            comp=Z,4.5nm,0.5s,mb4.8
TIXI  Tiksi               49.75   3⇑eP      P        03 39 21.2 -2.0
TIXI                                  pmax   pmax
            comp=Z,3.0nm,0.6s,mb4.5
FORT  Forrest             53.02 172  eP      P        03 39 48.9 +0.7
            comp=Z,50nm,0.8s,mb5.5
KLBR  Kellerberrin        53.50 184  eP      P        03 39 52.2 +0.5
            comp=Z,6.0nm,0.6s,mb4.7
BILL  Bilibino            53.64  19  eP      P        03 39 52.1 -0.3
            comp=Z,5.0nm,0.7s,mb4.5
BILL  Bilibino            53.64  19⇓eP      P        03 39 52.6 +0.2
BILL                                  pmax   pmax
            comp=Z,9.0nm,1.2s,mb4.6
NWAO  Narrogin (SRO)      54.86 184   P      P        03 40 02.7 +1.0
NWAO  Narrogin (SRO)      54.86 184   P      P        03 40 02.7 +1.0
            comp=Z,5.6nm,0.7s,mb4.7,baz=347,slow=11,SNR=3.2
AKTK  Aktyubinsk          56.20 317   P      P        03 40 11.6 +0.5
AKTO  Aktyubinsk          56.20 317   P      P        03 40 11.6 +0.5
            comp=Z,2.4nm,0.9s,mb4.2,baz=143,slow=5.0,SNR=8.2
ARU   Arti                56.71 324  eP      P        03 40 16.3 +1.7
            comp=Z,18nm,1.3s,mb4.9
ARU   Arti                56.71 324⇑iP      P        03 40 14.1 -0.5
ARU                                  e                03 41 10.7
ARU                                  e                03 42 21.9
ARU                                  eS      S        03 48 01.1 -3.0
ARU                                  eSS     SS       03 51 48.0 -4.0
ARU                                   pmax   pmax
            comp=Z,11nm,1.2s,mb4.8
STKA  Stephens Creek      57.17 159  eP      P        03 40 18.8 +0.7
            comp=Z,5.6nm,0.6s,mb4.8
STKA  Stephens Creek      57.17 159  eP      P        03 40 18.8 +0.6
STKA  Stephens Creek      57.17 159   P      P        03 40 19.2 +1.1
            comp=Z,7.2nm,0.6s,mb4.9,baz=348,slow=6.5,SNR=17
DZM   Mont Dzumac         62.31 132   LR     LR       04 02 19.9
            comp=Z,304nm,21.2s,MS4.4,baz=152,slow=31
TOO   Toolangi            63.66 159  eP      P        03 41 04.0 +1.6
            comp=Z,7.8nm,0.7s,mb4.8
TOO   Toolangi            63.66 159  eP      P        03 41 04.0 +1.6
TOO                                   pmax   pmax
            comp=Z,8.0nm,0.7s,mb4.9
PRGR  Permogore           63.89 329  eP      P        03 41 06.1 +2.4
PRGR                                  pmax   pmax
            comp=Z,5.0nm,0.3s,mb5.0
KIV   Kislovodsk          66.83 310  i P     P        03 41 23.8 +0.8
KIV                                   pmax   pmax
            comp=Z,16nm,1.3s,mb4.9
OBN   Obninsk             69.07 322  eP      P        03 41 36.2 -0.6
OBN                                  eS      S        03 50 36.5 -2.4
OBN                                   pmax   pmax
            comp=Z,6.0nm,0.9s,mb4.5
JOF   Joensuu             70.46 331  ep      P        03 41 44.0 -1.3
            comp=Z,5.9nm,0.6s,mb4.7
KEV   Kevo                70.85 338  ep      P        03 41 46.2 -1.4
            comp=Z,5.7nm,0.5s,mb4.8
KEV   Kevo                70.85 338  eP      P        03 41 46.2 -1.4
KEV                                   pmax   pmax
            comp=Z,6.0nm,0.5s,mb4.8
MALT  Malatya             71.08 304  eP      P        03 41 50.3 +0.8
            comp=Z,6.6nm,1.0s,mb4.5
MALT  Malatya             71.08 304  eP      P        03 41 50.3 +0.8
MALT                                  pmax   pmax
            comp=Z,7.0nm,1.0s,mb4.5
ARCES ARCESS Array B      71.41 338   P      P        03 41 51.0 +0.1
            comp=Z,3.0nm,0.7s,mb4.4,baz=61,slow=7.6,SNR=11
KAF   Kangasniemi         72.90 331  ep      P        03 41 58.5 -1.5
            comp=Z,2.0nm,0.6s,mb4.2,baz=73,slow=5.5
KAF   Kangasniemi         72.90 331  eP      P        03 41 58.5 -1.5
KAF                                   pmax   pmax
            comp=Z,2.0nm,0.6s,mb4.2
FINES FINESS Array B      73.18 330   P      P        03 42 00.6 -1.1
            comp=Z,3.0nm,0.7s,mb4.3,baz=94,slow=7.8,SNR=13
BRTR  Keskin Array B      74.33 307   P      P        03 42 09.1 +0.2
            comp=Z,0.7nm,0.8s,mb3.6,baz=96,slow=8.8,SNR=6.7
AKASG Malin Array Be      74.35 319   P      P        03 42 06.8 -1.9
            comp=Z,2.1nm,0.9s,mb4.1,baz=60,slow=5.7,SNR=9.1
AKBB  Malin Array Si      74.35 319  eP      P        03 42 08.2 -0.5
DAWY  Dawson              74.40  27  eP      P        03 42 08.6 -0.1
INK   Inuvik              75.16  22  eP      P        03 42 12.0 -1.1
            comp=Z,283nm,1.1s
CSS   Prodhromos          75.92 302  eP      P        03 42 18.0 -0.1
            comp=Z,7.9nm,0.7s,mb4.8
SUW   Suwalki             76.89 323  eP      P        03 42 23.2 +0.1
KWP   Kalwaria            78.67 319  eP      P        03 42 33.6 +0.5
HFS   Hagfors             79.32 331   LR     LR       04 21 06.7
            comp=Z,317nm,19.6s,MS4.7,baz=59,slow=38
STHS  Stebnicka Huta      79.63 319  eP      P        03 42 34.8 -3.6
NB2   NORSAR Subarra      80.00 332   P      P        03 42 38.5 -1.7
            comp=Z,15nm,1.4s,mb4.7,baz=63,slow=5.6
NOA   NORSAR Array B      80.00 332   P      P        03 42 39.0 -1.2
            comp=Z,1.6nm,0.9s,mb4.0,baz=61,slow=5.3,SNR=4.9
NOA                                   LR     LR       04 21 45.8
            comp=Z,253nm,18.4s,MS4.6,baz=70,slow=38
OJC   Ojcow               80.20 320  eP      P        03 42 41.5  0.0
KECS  Kecovo              80.45 318  eP      P        03 42 44.0 +1.1
            comp=Z,2.7nm,1.1s,mb4.1
KECS  Kecovo              80.45 318  eP      P        03 42 44.0 +1.1
KECS                                  pmax   pmax
            comp=Z,3.0nm,1.1s,mb4.1
KECS  Kecovo              80.45 318  eP      P        03 42 43.9 +1.0
RES   Resolute Bay        80.70   9  eP      P        03 42 43.2 -0.6
            comp=Z,263nm,1.1s
VYHS  Vyhne               81.45 319  eP      P        03 42 48.6 +0.4
            comp=Z,7.4nm,1.4s,mb4.4
VYHS  Vyhne               81.45 319  eP      P        03 42 48.6 +0.4
VYHS                                  pmax   pmax
            comp=Z,7.0nm,1.4s,mb4.4
MORC  Moravsky Berou      81.71 320  eP      P        03 42 48.8 -0.7
            comp=Z,3.1nm,0.9s,mb4.2
MORC  Moravsky Berou      81.71 320  eP      P        03 42 48.8 -0.7
MORC                                  pmax   pmax
            comp=Z,3.0nm,0.9s,mb4.2
VRAC  Vranov              82.47 320   P      P        03 42 53.9 +0.4
            comp=Z,3.2nm,0.7s,mb4.4,baz=86,slow=5.7,SNR=3.8
BRG   Berggiesshubel      83.31 322  eP      P        03 42 57.9  0.0
BRG                                   pmax   pmax
            comp=Z,6.0nm,1.4s,mb4.4
BRG   Berggiesshubel      83.31 322  eP      P        03 42 57.9 +0.1
            comp=Z,9.2nm,1.4s,mb4.6
CLL   Collm               83.64 323  eP      P        03 43 02.0 +2.4
            comp=Z,6.0nm,1.0s,mb4.7
CLL   Collm               83.64 323  e(P)    P        03 43 02.0 +2.4
            comp=Z,6.0nm,1.0s,mb4.7
CLL                                   LmH             04 17 00.0
            comp=N,200nm,21.7s
CLL                                   LmH             04 17 00.0
            comp=E,200nm,20.6s
CLL                                   LmV             04 25 00.0
            comp=Z,200nm,18.0s
KHC   Kasperske Hory      84.32 321  eP      P        03 43 03.0  0.0
GERES GERESS Array B      84.38 321   P      P        03 43 03.7 +0.3
            comp=Z,3.1nm,0.8s,mb4.5,baz=57,slow=4.9,SNR=19
MOA   Molln               84.50 320⇑iP      P        03 43 03.0 -1.0
            comp=Z,8.3nm,1.1s,mb4.8
KMBO  Kilima Mbogo        84.72 267  eP      P        03 43 06.8 +1.1
            comp=Z,7.9nm,1.4s,mb4.7
KMBO  Kilima Mbogo        84.72 267  eP      P        03 43 06.8 +1.1
KMBO                                  pmax   pmax
            comp=Z,8.0nm,1.4s
KMBO  Kilima Mbogo        84.72 267   P      P        03 43 07.5 +1.7
            comp=Z,1.2nm,0.6s,mb4.2,baz=45,slow=7.5,SNR=4.9
YKA   Yellowknife Ar      84.89  23   P      P        03 43 05.5 -0.2
YKA   Yellowknife Ar      84.89  23   P      P        03 43 05.5 -0.2
            comp=Z,3.1nm,0.8s,mb4.5,baz=314,slow=4.7,SNR=25
SQTA  Sankt Quirin        86.62 320⇑iP      P        03 43 15.1 +0.6
            comp=Z,5.4nm,0.9s,mb4.8
SQTA  Sankt Quirin        86.62 320⇑iPcP    PcP      03 43 15.1 -1.8
            comp=Z,5.4nm,0.9s
SQTA  Sankt Quirin        86.62 320⇑iP      P        03 43 15.1 +0.5
SQTA                                  pmax   pmax
            comp=Z,5.0nm,0.9s,mb4.7
LPG   La Plagne           90.15 320  eP      P        03 43 31.0 -0.4
            comp=Z,16nm,1.0s,mb5.0
LPG   La Plagne           90.15 320  eP      P        03 43 31.0 -0.4
            comp=Z,8.1nm,1.0s,mb5.0
LPG   La Plagne           90.15 320  eP      P        03 43 31.0 -0.4
LPG                                   pmax   pmax
            comp=Z,8.0nm,1.0s,mb5.0
LPL   La Plagne           90.15 320  eP      P        03 43 30.8 -0.6
            comp=Z,12nm,0.9s,mb4.9
LPL   La Plagne           90.15 320  eP      P        03 43 30.8 -0.6
            comp=Z,6.3nm,0.9s,mb5.0
LPL   La Plagne           90.15 320  eP      P        03 43 30.8 -0.6
LPL                                   pmax   pmax
            comp=Z,6.0nm,0.9s,mb4.9
AVF   Avril sur Loir      91.41 323  eP      P        03 43 35.7 -1.5
            comp=Z,21nm,1.1s,mb5.1
AVF   Avril sur Loir      91.41 323  eP      P        03 43 35.7 -1.5
            comp=Z,11nm,1.1s,mb5.1
AVF   Avril sur Loir      91.41 323  eP      P        03 43 35.7 -1.5
AVF                                   pmax   pmax
            comp=Z,11nm,1.1s,mb5.1
EDM   Edmonton            91.44  29  eP      P        03 43 37.6 +0.4
NEW   Newport             92.74  35  eP      P        03 43 43.6 +0.3
            comp=Z,3.6nm,0.9s,mb4.8
NEW   Newport             92.74  35  eP      P        03 43 43.6 +0.3
NEW                                   pmax   pmax
            comp=Z,4.0nm,0.9s
FCC   Fort Churchill      94.33  18  eP      P        03 43 49.9 -0.5
            comp=Z,2.3nm,0.8s,mb4.7
FCC   Fort Churchill      94.33  18  eP      P        03 43 49.9 -0.5
FCC                                   pmax   pmax
            comp=Z,2.0nm,0.8s,mb4.6
FFC   Flin Flon           95.05  23  eP      P        03 43 53.7  0.0
            comp=Z,1.6nm,0.7s,mb4.6
FFC   Flin Flon           95.05  23  eP      P        03 43 53.7  0.0
FFC                                   pmax   pmax
            comp=Z,2.0nm,0.7s,mb4.7
TORD  Torodi Ar. Bea     111.03 295   PKPdf  PKiKP    03 49 05.8 +0.6
TORD  Torodi Ar. Bea     111.03 295   PKiKP  PKiKP    03 49 05.8 +0.6
            comp=Z,0.5nm,1.0s,baz=116,slow=2.0,SNR=2.5
WVT   Waverly            115.93  26  ePKPdf  PKPdf    03 49 14.0 -0.1
WVT   Waverly            115.93  26  ePKIKP  PKPdf    03 49 14.0 -0.1
VNA2  Neumayer--Watz     122.91 198  ePKPdf  PKPdf    03 49 27.3 +1.0
            baz=81,slow=1.0
VNA3  Neumayer Olymp     123.38 197  ePKPdf  PKPdf    03 49 28.1 +0.9
ROSC  El Rosal           149.23  31  ePKPbc  PKPbc    03 50 22.3 +1.8
ROSC  El Rosal           149.23  31   PKPbc  PKPbc    03 50 21.8 +1.4
            comp=Z,5.5nm,0.6s,baz=90,slow=2.0,SNR=6.5
LPAZ  La Paz             169.53  58  ePKPdf  PKPdf    03 50 43.9 +4.7
LPAZ  La Paz             169.53  58  ePKIKP  PKPdf    03 50 43.9 +4.8
```

KRSC 14 03:45:28.7±0.4**,5389N**×**16145E,h16**^{km}±16^{km}**,ML3.6,Off east coast of Kamchatka Peninsula**

```
Code  Station Name          Δ°   AZ°   Phase ID          Time      Res
                                       Op     ISC      h  m  s    ISC
MKZ   Mys Kozlova          0.69  14  eP     Pg       03 45 40.2 -1.9
MKZ                                  i S    Sg       03 45 48.3 -3.0
SPN   Mys Shipunski        1.17 228  eP     Pn       03 45 49.2 -1.1
SPN                                  i S    Sb       03 46 03.5 -1.7
KII   Karymskiy            1.19 278  eP     Pn       03 45 50.8 +0.1
KII                                  i S    Sb       03 46 06.4 +0.4
NLC   Nalytchevo           1.45 241  eP     Pn       03 45 53.8 -0.4
NLC                                  i S    Sn       03 46 12.1 -0.7
TUMR  Tumrok               1.59 332  eP     Pn       03 45 56.5 +0.4
TUMR                                 i S    Sn       03 46 16.1 -0.2
AVH   Avacha               1.73 250  eP     Pn       03 45 59.1 +1.0
AVH                                  i S    Sn       03 46 21.4 +1.5
PET   Petropavlovsk        1.88 244  eP     Pn       03 46 01.3 +1.1
PET                                  i S    Sn       03 46 24.9 +1.3
KMNR  Kamenistaya          2.00 340  eP     Pn       03 46 02.8 +1.1
KMNR                                 i S    Sn       03 46 28.3 +1.9
GNL   Ganaly               2.09 266  eP     Pn       03 46 05.0 +2.0
BZMR  Bezymyannaya         2.12 345  eP     Pn       03 46 05.0 +1.5
BZMR                                 i S    Sn       03 46 31.3 +1.8
KIRR  Kirishev             2.16 343  eP     Pn       03 46 05.7 +1.7
KIRR                                 i S    Sn       03 46 33.0 +2.5
KPT   Kopyto               2.20 342  eP     Pn       03 46 05.8 +1.3
CIRR  Tsirk                2.27 350   P     Pn       03 46 08.2 +2.8
RUS   Russkaya             2.29 232  eP     Pn       03 46 07.8 +2.0
RUS                                  i S    Sn       03 46 36.4 +2.8
KOZ   Kozyrevsk            2.35 338  eP     Pn       03 46 08.9 +2.3
KOZ                                  i S    Sn       03 46 38.5 +3.3
KRSR  Krestovskiy          2.39 348  eP     Pn       03 46 07.6 +0.5
KRSR                                 i S    Sn       03 46 36.2 +0.2
KBTR  Krutoberegovo        2.45  18  eP     Pn       03 46 09.7 +1.7
KBTR                                 i S    Sn       03 46 40.0 +2.4
KLY   Klyuchi              2.47 350  eP     Pn       03 46 09.0 +0.8
KLY                                  i S    Sn       03 46 38.1 +0.1
SRDR  Sredinnyy            2.63 338  eP     Pn       03 46 10.9 +0.5
BDR   Baidarnaya           2.69 357   P     Pn       03 46 14.0 +2.8
SMKR  Semkarok             2.70   0   P     Pn       03 46 14.4 +3.0
```

JMA ***14*** *03:50:00.3±0.2,3203N×14195E,h1*^{km}*,M4.4*

NIED ***14*** *03:50:00,3200N×14190E,h5*^{km}*,Mw4.4 Best double couple:* M_0*4.15000×10*^{15} *NP1:*ϕ_s*173.00000°,δ25.00000°, λ91.00000°. NP2:*ϕ_s*351.00000°,δ65.00000°,λ89.00000°.*

BJI ***14*** *03:50:04.2,3205N×14127E,h12*^{km}*,mB4.9,mb4.6,Ms4.4, Msz4.1*

ISCJB ***14*** *03:50:05.0±1.2,3196N±003×14154E±004,h27*^{km}*±8*^{km}*, mb4.4/61,MS4.1/5,Error ellipse: s-maj=6.1km s-min=4.6km az=34.1*

MOS ***14*** *03:50:05.7±0.9,3199N×14156E,h33*^{km}*,mb4.6/31,Error ellipse: s-maj=14.6km s-min=6.6km az=120.2*

NEIC ***14*** *03:50:06.9±2.7,3197N×14161E,h31*^{km}*±18*^{km}*,mb4.5/33, MW4.3(NIED),Error ellipse: s-maj=6.7km s-min=5.6km az=98.0*

IDC ***14*** *03:50:07.0±4.0,3194N×14173E,h33*^{km}*±30*^{km}*,mb4.2/16, mb1 4.3/20,mb1mx4.2/25,mbtmp4.2/20,ML3.5/4,MS3.6/3, Ms1 3.6/3,ms1mx3.1/28,Error ellipse: s-maj=18.9km s-min=13.7km az=71.0*

ISC 14 03:50:06.3±1.3**,3196N**±003×**14158E**±004**,h24**^{km}±9^{km}**, h26**^{km}±.6^{km}**:pP-P,n230,**σ**0**^{s}**91**/242**,mb4.4**/61**,MS4.1**/5**, 46C-37D,Southeast of Honshu**

```
Code  Station Name          Δ°   AZ°   Phase ID          Time      Res
                                       Op     ISC      h  m  s    ISC
JHJ2  Mitsune              1.88 308   P     Pn       03 50 37.2 +0.3
JHJ2                                 eS     Sn       03 51 04.8 +5.0
JHJ   Hachijo jima 2       1.91 308   Pn    Pn       03 50 37.4 +0.1
            146nm,0.3s,baz=89,slow=20,SNR=30
JHJ                                   Sn    Sn       03 51 03.8 +3.3
            163nm,0.3s,baz=73,slow=19,SNR=6.2
JHJ                                   LR    LR       03 51 06.3
            comp=Z,508nm,20.3s,baz=202,slow=30
BSO1  Boso 1               2.74 350   P     Pn       03 50 46.8 -1.8
BSO3  Boso 3               2.97 343   P     Pn       03 50 50.8 -1.1
JOD2  Odawara 2            3.90 328   P     Pn       03 51 03.9 -0.7
JYN   Shimob               4.34 325   P     Pn       03 51 11.8 +1.1
JRY   Ryogami san          4.62 332   P     Pn       03 51 14.5  0.0
JRY                                  eS     Sn       03 52 08.7 +1.3
JIE   Ise                  4.75 302   P     Pn       03 51 18.0 +1.7
JAG   Ashikaga             4.79 339   P     Pn       03 51 16.1 -0.8
JAG                                  eS     Sn       03 52 11.2 -0.4
CBIJ  Chichi jima          4.87 174   P     Pn       03 51 17.4 -0.6
CBIJ  Chichi jima          4.87 174   Pn    Pn       03 51 16.7 -1.3
            5.3nm,0.3s,baz=244,slow=19,SNR=5.3
CBIJ                                  Sn    Sn       03 52 10.6 -3.1
            42nm,0.3s,baz=90,slow=20,SNR=5.2
CBIJ                                  LR    LR       03 53 14.6
            comp=Z,596nm,18.1s,baz=84,slow=39
MJAR  Matsushiro Arr       5.36 330   Pn    Pn       03 51 25.1 +0.5
MJAR  Matsushiro Arr       5.36 330   P     Pn       03 51 25.1 +0.4
MJAR                                  pmax  pmax
            comp=Z,6.0nm,0.3s
MJAR  Matsushiro Arr       5.36 330   Pn    Pn       03 51 25.1 +0.5
            comp=Z,5.5nm,0.3s,baz=148,slow=12,SNR=42
MAJO  Matsushiro           5.36 330  ePn    Pn       03 51 24.3 -0.4
            comp=Z,51nm,0.6s
MAJO  Matsushiro           5.36 330  eP     Pn       03 51 24.3 -0.4
MAJO                                  pmax  pmax
            comp=Z,51nm,0.6s
MAT   Matsushiro           5.36 330   P     Pn       03 51 24.1 -0.6
MAT                                   S     Sn       03 52 25.2 -0.4
JNU   Nakatsue             9.11 280   Pn    Pn       03 52 19.4 +3.3
JNU                                   LR    LR       03 55 53.8
JNU   Nakatsue             9.11 280   Pn    Pn       03 52 19.4 +3.3
            comp=Z,0.2nm,0.3s,baz=55,slow=12,SNR=2.1
JNU                                   LR    LR       03 55 53.8
            comp=Z,405nm,19.0s,baz=308,slow=38
ASAJ  Asahikawa           12.17   3   P     Pn       03 52 52.8 -5.2
ASAJ                                  pmax  pmax
            comp=Z,2.0nm,0.3s
ASAJ  Asahikawa           12.17   3   Pn    Pn       03 52 52.8 -5.2
            comp=Z,1.5nm,0.3s,baz=204,slow=15,SNR=6.4
ASAJ                                  Sn    Sn       03 55 02.2  -11
            comp=Z,0.6nm,0.3s,baz=110,slow=29,SNR=3.3
KSRS  Korea Array         12.50 300   Pn    Pn       03 53 05.3 +2.8
            comp=Z,0.3nm,0.3s,baz=108,slow=13,SNR=6.2
KSRS                                  LR    LR       03 58 03.5
            comp=Z,217nm,18.8s,baz=156,slow=38
YSS   Yuzh-Sakhalins      15.01   3   P     Pn       03 53 31.7 -4.9
MDJ   Mudanjiang          15.73 327   P     Pn       03 53 46.0 -0.2
MDJ                                   S     Sn       03 56 40.5 +0.7
MDJ                                   SCP   ScP      04 02 18.6 +0.4
MDJ                                   PCS   PcS      04 02 21.3 +0.5
MDJ                                   AMB   AMB
            comp=Z,23nm,3.6s
HABR  Khabarovsk          17.22 345  eP     Pn       03 54 00.1 -4.9
HABR                                  S     Sn       03 57 06.0  -10
CN2   Changchun           17.34 318  eP     Pn       03 54 05.3 -1.3
KLR   Kul'dur             18.77 340  eP     Pn       03 54 19.4 -4.6
NJ2   Nanjing             19.27 276  eP     Pn       03 54 30.5 +0.3
NJ2                                   AMB   AMB
```

	comp=Z,20nm,0.7s						
BJI	**Beijing**	**22.03**	**299**	P	**P**	**03 54 57.0**	**-1.9**
BJI				AP		03 55 02.8	
BJI				XP	sP	03 55 05.5	-3.3
BJI				PCP	PcP	03 58 56.1	-0.4
BJI				S	**S**	**03 59 01.5**	**+0.8**
BJI				AMB	AMB		
	comp=Z,7.0nm,1.2s,mb4.0						
BJI				LR	LR		
	comp=N,49nm,17.3s,MS3.5						
BJI				LR	LR		
	comp=E,148nm,18.2s,MS3.5						
BJI				LR	LR		
	comp=Z,214nm,17.3s,MS3.6						
BJI	**Beijing**	**22.03**	**299**	P	**P**	**03 54 57.0**	**-1.9**
BJI				pP		03 55 02.7	
BJI				sP	sP	03 55 05.5	-3.3
BJI				PcP	PcP	03 58 56.1	-0.4
BJI				S	**S**	**03 59 01.5**	**+0.8**
BJI				sS	sS	03 59 11.1	-0.4
BJI				LR	LR		
	comp=Z,210nm,17.3s,MS3.6						
HIA	**Hailar**	**23.82**	**323**	*e*P	**P**	**03 55 15.8**	**-1.4**
	comp=Z,7.6nm,0.7s,mb4.2						
HIA	**Hailar**	**23.82**	**323**	*e*P	**P**	**03 55 15.8**	**-1.4**
HIA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
HHC	**Hu-ho-hao-te**	**25.64**	**299**	*e*P	**P**	**03 55 31.8**	**-2.1**
HHC				AP	pP	03 55 38.8	-2.3
HHC				XP	sP	03 55 42.3	-1.8
HHC				PP		03 56 12.3	
HHC				PCP	PcP	03 59 02.9	-1.2
HHC				S	**S**	**03 59 56.1**	**-4.6**
HHC				XS	sS	04 00 08.4	-4.2
HHC				SS		04 01 00.6	
HHC				SCP	ScP	04 02 40.3	-1.7
HHC				PCS	PcS	04 02 43.0	-1.7
HHC				AMB	AMB		
	comp=Z,12nm,1.3s,mb4.3						
HHC				AMB	AMB		
	comp=Z,111nm,4.7s						
HHC				LR	LR		
	comp=N,168nm,18.0s,MS4.0						
HHC				LR	LR		
	comp=E,302nm,15.2s,MS4.0						
HHC				LR	LR		
	comp=Z,231nm,16.1s,MS3.8						
ULN	**Ulaanbaatar**	**30.57**	**311**	*e*P	**P**	**03 56 19.7**	**+1.8**
	comp=Z,6.5nm,0.8s,mb4.5						
ULN	**Ulaanbaatar**	**30.57**	**311**	⇑*e*P	**P**	**03 56 16.9**	**-1.0**
GYA	**Guiyang**	**30.88**	**269**	⇑*i*P	**P**	**03 56 22.3**	**+1.5**
GYA				AP	pP	03 56 29.0	+0.9
GYA				XP	sP	03 56 31.8	+0.7
GYA				PP	PP	03 57 24.0	-6.7
GYA				PCP	PcP	03 59 19.3	+2.0
GYA				S	**S**	**04 01 23.5**	**0.0**
GYA				XS	sS	04 01 34.9	-0.5
GYA				SCP	ScP	04 02 59.3	+0.8
GYA				SCS	ScS	04 06 54.5	-0.9
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.6						
GYA				AMB	AMB		
	comp=Z,80nm,4.9s						
GYA				LR	LR		
	comp=N,480nm,17.0s,MS4.3						
GYA				LR	LR		
	comp=E,440nm,18.4s,MS4.3						
GYA				LR	LR		
	comp=Z,390nm,18.2s,MS4.1						
SONM	**Songino Array**	**30.98**	**311**	P	**P**	**03 56 22.6**	**+1.1**
SONM				pmax	pmax		
	comp=Z,3.0nm,0.6s						
SONM	**Songino Array**	**30.98**	**311**	P	**P**	**03 56 22.6**	**+1.1**
	comp=Z,3.0nm,0.6s,mb4.3,baz=113,slow=7.4,SNR=32						
LZH	**Lanzhou**	**31.41**	**288**	*e*P	**P**	**03 56 26.8**	**+1.3**
LZH				AP	pP	03 56 34.3	+1.6
LZH				XP	sP	03 56 37.0	+1.3
LZH				PCP	PcP	03 59 16.8	-1.8
LZH				*e*S	**S**	**04 01 27.3**	**-4.4**
LZH				SS	SS	04 03 10.1	-36
LZH				AMB	AMB		
	comp=Z,38nm,1.4s,mb5.0						
LZH				AMB	AMB		
	comp=Z,154nm,4.0s						
LZH				LR	LR		
	comp=N,1µm,14.4s						
LZH				LR	LR		
	comp=Z,2µm,15.4s,MS4.8						
LZH	**Lanzhou**	**31.41**	**288**	*e*P	**P**	**03 56 26.8**	**+1.3**
	comp=Z,38nm,1.4s,mb5.0						
LZH				pP	pP	03 56 34.2	+1.5
LZH				sP	sP	03 56 37.0	+1.3
LZH				PP	PP	03 57 34.2	-2.3
LZH				PcP	PcP	03 59 16.7	-1.9
LZH				*e*S	**S**	**04 01 27.2**	**-4.5**
LZH				sS	sS	04 01 33.0	-11
LZH				SS	SS	04 03 10.1	-36
LZH				LR	LR		
	comp=Z,2µm,15.4s,MS4.8						
LZH	**Lanzhou**	**31.41**	**288**	*e*P	**P**	**03 56 26.8**	**+1.3**
LZH				*SP	sP	03 56 37.0	+1.3
LZH						03 57 34.2	
LZH						03 59 16.7	
LZH				*e*S	**S**	**04 01 27.2**	**-4.5**
LZH				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.0						
LZH				MLR	MLR		
	comp=Z,2µm,15.4s,MS4.8						
BOD	**Bodaibo**	**31.98**	**332**	*e*P	**P**	**03 56 28.5**	**-1.7**
BOD				pmax	pmax		
	comp=Z,5.0nm,1.8s,mb4.0						
CD2	**Chengdu**	**32.18**	**278**	*e*P	**P**	**03 56 31.9**	**-0.4**
CD2				AP	pP	03 56 39.1	-0.4
CD2				XP	sP	03 56 42.8	+0.3
CD2				PP	PP	03 57 38.9	-6.2
CD2				S	**S**	**04 01 41.9**	**-1.9**
CD2				XS	sS	04 01 53.8	-2.0
CD2				SS	SS	04 03 36.4	-26
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
CD2				AMB	AMB		
	comp=Z,30nm,4.8s						
CD2				LR	LR		
	comp=N,150nm,12.5s,MS4.0						
CD2				LR	LR		
	comp=E,120nm,14.2s,MS4.0						
CD2				LR	LR		
	comp=Z,160nm,13.8s,MS3.9						
ZAK	**Zakamensk**	**33.73**	**314**	*e*P	**P**	**03 56 47.4**	**+1.9**
ZAK				*e*		03 56 59.0	
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
TLY	**Talaya**	**33.94**	**317**	*e*P	**P**	**03 56 48.1**	**+0.7**
TLY				*e*		03 56 58.8	
TLY				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
KMI	**Kunming**	**34.66**	**269**	P	**P**	**03 56 54.9**	**+1.0**
KMI				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.4						
KMI	**Kunming**	**34.66**	**269**	P	**P**	**03 56 54.9**	**+1.0**
	comp=Z,4.0nm,0.8s,mb4.4						
TIXI	**Tiksi**	**40.34**	**354**	⇑*e*P	**P**	**03 57 40.4**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
WMQ	**Urumqi**	**43.44**	**302**	*e*P	**P**	**03 58 07.3**	**+0.2**
ZALV	**Zalesovo Beam**	**45.55**	**316**	P	**P**	**03 58 23.9**	**0.0**
	comp=Z,4.8nm,0.8s,mb4.5,baz=90,slow=6.2,SNR=14						
ZALV				PcP	PcP	04 00 00.8	-1.3
	comp=Z,1.8nm,0.4s,baz=104,slow=3.4,SNR=5.3						
ZAL	**Zalesovo**	**45.56**	**316**	P	**P**	**03 58 23.9**	**0.0**
ZAL						04 00 00.8	
COEN	**Coen**	**45.68**	**178**	*e*P	**P**	**03 58 26.0**	**+0.9**
NVS	**Novosibirsk**	**46.55**	**317**	*i* P	**P**	**03 58 31.3**	**-0.4**
MK31	**Makanchi Array**	**47.08**	**306**	*e*P	**P**	**03 58 36.0**	**0.0**
MKAR	**Makanchi Array**	**47.08**	**306**	P	**P**	**03 58 36.7**	**+0.7**
MKAR						04 00 07.5	
MKAR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	**Makanchi Array**	**47.08**	**306**	P	**P**	**03 58 36.6**	**+0.7**
	comp=Z,10nm,0.7s,mb4.9,baz=90,slow=9.5,SNR=133						
MKAR				PcP	PcP	04 00 07.5	-0.1
	comp=Z,1.5nm,0.7s,baz=76,slow=6.1,SNR=2.4						
KURK	**Kurchatov**	**49.29**	**312**	*e*P	**P**	**03 58 52.7**	**-0.3**
	comp=Z,27nm,0.8s,mb5.3						
KURK	**Kurchatov**	**49.29**	**312**	⇑*e*P	**P**	**03 58 52.8**	**-0.2**
KDAK	**Kodiak Island**	**50.87**	**39**	P	**P**	**03 59 03.1**	**-1.7**
	comp=Z,5.9nm,0.8s,mb4.6,baz=156,slow=12,SNR=4.9						
FITZ	**Fitzroy Crossi**	**52.07**	**199**	*e*P	**P**	**03 59 14.3**	**+0.1**
	comp=Z,2.4nm,0.4s,mb4.5						
WB2	**Warramunga Arr**	**52.07**	**189**	*e*P	**P**	**03 59 12.6**	**-1.5**
WB2	**Warramunga Arr**	**52.07**	**189**	*e*P	**P**	**03 59 13.2**	**-0.9**
WRA	**Warramunga Arr**	**52.07**	**189**	P	**P**	**03 59 13.5**	**-0.7**
WRA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
WRA	**Warramunga Arr**	**52.07**	**189**	P	**P**	**03 59 13.5**	**-0.7**
	comp=Z,10nm,0.6s,mb5.0,baz=4.6,slow=7.6,SNR=91						
AAK	**Ala-Archa**	**53.15**	**302**	*e*P	**P**	**03 59 21.4**	**-0.7**
	comp=Z,2.7nm,0.8s,mb4.2						
AAK	**Ala-Archa**	**53.15**	**302**	⇑*e*P	**P**	**03 59 21.5**	**-0.6**
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
COLA	**College**	**53.34**	**30**	*e*P	**P**	**03 59 23.1**	**0.0**
	comp=Z,2.4nm,0.6s,mb4.3						
COLA	**College**	**53.34**	**30**	*e*P	**P**	**03 59 23.1**	**0.0**
COLA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
EKS2	**Erkin-Say**	**53.66**	**302**	*e*P	**P**	**03 59 25.2**	**-0.7**
	comp=Z,77nm,0.6s						
BRVK	**Borovoye**	**54.23**	**315**	*e*P	**P**	**03 59 29.8**	**-0.1**
	comp=Z,5.1nm,0.8s,mb4.5						
BRVK	**Borovoye**	**54.23**	**315**	*e*P	**P**	**03 59 29.8**	**0.0**
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
ASAR	**Alice Springs**	**55.79**	**189**	P	**P**	**03 59 41.4**	**+0.1**
ASAR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
ASAR	**Alice Springs**	**55.79**	**189**	P	**P**	**03 59 41.4**	**0.0**
	comp=Z,3.0nm,0.5s,mb4.6,baz=359,slow=5.9,SNR=71						
KKAR	**Karatay Array**	**55.90**	**303**	P	**P**	**03 59 42.2**	**+0.2**
KKAR				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
MBWA	**Marble Bar**	**56.81**	**205**	*e*P	**P**	**03 59 49.0**	**+0.3**
	comp=Z,3.7nm,0.6s,mb4.6						
INK	**Inuvik**	**58.87**	**26**	*e*P	**P**	**04 00 01.9**	**-0.6**
INK	**Inuvik**	**58.87**	**26**	P	**P**	**04 00 02.2**	**-0.3**
	comp=Z,1.7nm,0.4s,mb4.5,baz=291,slow=5.6,SNR=41						
KBL	**Kabul**	**59.48**	**294**	*e*P	**P**	**04 00 07.5**	**+0.1**
ARU	**Arti**	**60.30**	**321**	*e*P	**P**	**04 00 12.2**	**-0.4**
	comp=Z,3.7nm,0.5s,mb4.7						
ARU	**Arti**	**60.30**	**321**	⇓*i*P	**P**	**04 00 12.7**	**+0.1**
ARU				*e*		04 00 56.8	
ARU				*e*		04 02 23.8	
ARU				*e*S	**S**	**04 08 23.3**	**-2.0**
ARU				*e*SS	SS	04 12 20.1	-2.3
ARU				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
AB31	**Akbulak array**	**61.38**	**312**	P	**P**	**04 00 19.9**	**-0.2**
AB31				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.7						
STKA	**Stephens Creek**	**63.49**	**180**	P	**P**	**04 00 37.3**	**+3.1**
	comp=Z,0.8nm,0.5s,mb4.1,baz=359,slow=10,SNR=3.1						
FORT	**Forrest**	**63.70**	**193**	*e*P	**P**	**04 00 35.8**	**+0.2**
	comp=Z,6.4nm,0.6s,mb4.8						
PRGR	**Permogore**	**65.12**	**328**	*e*P	**P**	**04 00 44.1**	**-0.6**
KLBR	**Kellerberrin**	**67.11**	**202**	*e*P	**P**	**04 00 57.6**	**-0.1**
	comp=Z,8.9nm,0.8s,mb4.8						
YKA	**Yellowknife Ar**	**68.15**	**29**	P	**P**	**04 01 02.9**	**-1.0**
YKA	**Yellowknife Ar**	**68.15**	**29**	P	**P**	**04 01 02.9**	**-1.0**
	comp=Z,0.4nm,0.5s,mb3.7,baz=301,slow=6.5,SNR=7.2						
KEV	**Kevo**	**68.24**	**340**	*e*p	**P**	**04 01 04.1**	**-0.3**
NWAO	**Narrogin (SRO)**	**68.51**	**202**	*e*P	**P**	**04 01 04.8**	**-1.6**
	comp=Z,13nm,0.9s,mb4.8						
NWAO	**Narrogin (SRO)**	**68.51**	**202**	*e*P	**P**	**04 01 04.8**	**-1.7**
NWAO				pmax	pmax		
	comp=Z,13nm,0.9s						
ARCES	**ARCESS Array B**	**68.80**	**340**	P	**P**	**04 01 08.1**	**+0.2**
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES	**ARCESS Array B**	**68.80**	**340**	P	**P**	**04 01 08.1**	**+0.1**
	comp=Z,4.0nm,0.9s,mb4.3,baz=119,slow=7.5,SNR=4.2						
JOF	**Joensuu**	**70.52**	**333**	*e*p	**P**	**04 01 17.3**	**-1.3**
	comp=Z,0.7nm,0.3s,mb4.1						
JOF	**Joensuu**	**70.52**	**333**	*e*P	**P**	**04 01 17.3**	**-1.3**
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
C07A	**Waterville**	**72.25**	**45**	⇑P	**P**	**04 01 28.5**	**-0.9**
	baz=72						
B08A	**Colville Reser**	**72.37**	**44**	⇓P	**P**	**04 01 30.8**	**+0.7**
	baz=72						
KAF	**Kangasniemi**	**72.89**	**334**	*e*p	**P**	**04 01 31.1**	**-1.8**
	comp=Z,1.9nm,0.4s,mb4.4,baz=51,slow=5.6						
KAF	**Kangasniemi**	**72.89**	**334**	*e*P	**P**	**04 01 31.1**	**-1.8**
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
C09A	**Chrisman Ranch**	**73.26**	**44**	⇓P	**P**	**04 01 35.3**	**-0.1**
	baz=73						
FINES	**FINESS Array B**	**73.38**	**333**	⇑*e*P	**P**	**04 01 35.4**	**-0.4**
FINES	**FINESS Array B**	**73.38**	**333**	P	**P**	**04 01 35.4**	**-0.4**
	comp=Z,4.9nm,1.0s,mb4.4,baz=57,slow=7.0,SNR=12						
YBH	**Yreka Blue Hor**	**73.38**	**51**	⇑P	**P**	**04 01 36.4**	**+0.2**
	baz=73						
J05A	**Fort Rock**	**73.61**	**49**	⇑P	**P**	**04 01 37.1**	**-0.4**
	baz=73						
GOF	**Gofitskoye**	**73.62**	**313**	*e*P	**P**	**04 01 43.9**	**+6.4**
NEW	**Newport**	**73.70**	**43**	*e*P	**P**	**04 01 38.5**	**+0.5**
	comp=Z,3.3nm,1.1s,mb4.2						
NEW	**Newport**	**73.70**	**43**	*e*P	**P**	**04 01 38.5**	**+0.5**
NEW				pmax	pmax		
	comp=Z,3.0nm,1.1s						
K05A	**Summer Lake**	**74.10**	**49**	⇓P	**P**	**04 01 40.0**	**-0.4**
	baz=74						
KIV	**Kislovodsk**	**74.37**	**312**	*e*P	**P**	**04 01 42.9**	**+0.9**
	comp=Z,8.7nm,0.9s,mb4.7						
KIV	**Kislovodsk**	**74.37**	**312**	*e*P	**P**	**04 01 42.6**	**+0.7**
KIV				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
H08A	**Prairie City**	**74.63**	**47**	⇓P	**P**	**04 01 43.6**	**+0.2**
	baz=74						
D11A	**Klaveano Farm,**	**74.78**	**44**	⇑P	**P**	**04 01 43.9**	**-0.4**
	baz=75						
J07A	**Hines**	**74.80**	**48**	⇓P	**P**	**04 01 44.3**	**-0.1**
	baz=75						
K07A	**Rock Creek Ran**	**75.17**	**49**	⇑P	**P**	**04 01 47.7**	**+1.1**
	baz=75						
B13A	**Whitefish**	**75.17**	**42**	⇑P	**P**	**04 01 48.7**	**+2.2**
	baz=75						
E11A	**Bogner Ranch,**	**75.20**	**44**	⇓P	**P**	**04 01 46.4**	**-0.4**
	baz=75						
J08A	**Circle Bar Ran**	**75.33**	**48**	⇓P	**P**	**04 01 48.0**	**+0.5**
	baz=75						
L07A	**Adell**	**75.45**	**49**	⇑P	**P**	**04 01 49.0**	**+0.8**
	baz=75						
F11A	**Grangeville**	**75.48**	**45**	⇑P	**P**	**04 01 49.1**	**+0.8**
	baz=75						
C13A	**Hot Springs**	**75.48**	**43**	⇑P	**P**	**04 01 49.4**	**+1.1**
	baz=75						
J09A	**Fry Pan Ranch,**	**75.79**	**48**	⇓P	**P**	**04 01 51.3**	**+1.2**
	baz=76						
BEKR	**Beckwourth**	**75.85**	**52**	⇑P	**P**	**04 01 50.3**	**-0.2**
	baz=76						
D13A	**Huson**	**75.85**	**43**	⇑P	**P**	**04 01 50.2**	**-0.2**
	baz=76						
L08A	**Fields**	**76.00**	**49**	⇓P	**P**	**04 01 52.8**	**+1.5**
	baz=76						
O06A	**Flanigan**	**76.05**	**51**	⇑P	**P**	**04 01 51.1**	**-0.6**
	baz=76						
F12A	**Elk City**	**76.08**	**45**	⇓P	**P**	**04 01 52.2**	**+0.5**
	baz=76						
H11A	**Donnelly**	**76.17**	**46**	⇑P	**P**	**04 01 51.4**	**-0.9**
	baz=76						
D14A	**Greenough**	**76.41**	**43**	⇑P	**P**	**04 01 53.2**	**-0.4**
	baz=76						
F13A	**Darby**	**76.61**	**44**	⇑P	**P**	**04 01 54.7**	**-0.1**
	baz=76						
K10A	**MacKenzie Ranc**	**76.64**	**48**	⇓P	**P**	**04 01 56.1**	**+1.1**
	baz=76						
CMB	**Columbia Colle**	**76.74**	**53**	⇑P	**P**	**04 01 53.9**	**-1.8**
	baz=77						
H12A	**Diamond D Ranc**	**76.96**	**46**	⇓P	**P**	**04 01 56.2**	**-0.5**
	baz=77						
MFID	**Camas Ranch**	**76.96**	**47**	⇓P	**P**	**04 01 57.6**	**+0.8**
	baz=77						
G13A	**Cobalt**	**77.04**	**45**	⇑P	**P**	**04 01 56.3**	**-0.9**
	baz=77						
L10A	**Juniper Basin**	**77.25**	**48**	⇓P	**P**	**04 01 57.9**	**-0.6**
	baz=77						
E15A	**Deer Lodge**	**77.27**	**43**	⇑P	**P**	**04 01 58.2**	**-0.3**
	baz=77						
H13A	**Challis**	**77.31**	**45**	⇓P	**P**	**04 01 58.2**	**-0.6**
	baz=77						
M10A	**I.L. Ranch, Tu**	**77.50**	**49**	⇑P	**P**	**04 01 59.3**	**-0.6**
	baz=77						
L11A	**Cat Creek Ranc**	**77.66**	**48**	⇓P	**P**	**04 02 01.8**	**+1.1**
	baz=78						
F15A	**Butte**	**77.67**	**43**	⇑P	**P**	**04 02 00.8**	**+0.1**
	baz=78						
I13A	**Wildhorse Cree**	**77.75**	**46**	⇑P	**P**	**04 02 00.9**	**-0.2**
	baz=78						
HLID	**Hailey**	**77.75**	**46**	*e*P	**P**	**04 02 01.4**	**+0.1**
	comp=Z,2.3nm,1.0s,mb4.1						
HLID	**Hailey**	**77.75**	**46**	⇓P	**P**	**04 02 00.7**	**-0.6**
	baz=78						
O09A	**Fish Creek Ran**	**77.79**	**50**	⇓P	**P**	**04 02 02.9**	**+1.5**
	baz=78						
FFC	**Flin Flon**	**77.91**	**32**	*e*P	**P**	**04 02 01.7**	**-0.2**
	comp=Z,2.4nm,1.0s,mb4.1						
FFC	**Flin Flon**	**77.91**	**32**	*e*P	**P**	**04 02 01.7**	**-0.2**
FFC				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
K12A	**Draper Farm, C**	**77.95**	**47**	⇓P	**P**	**04 02 02.7**	**+0.4**
	baz=78						
NVAR	**Mina Array Bea**	**77.95**	**52**	P	**P**	**04 02 01.9**	**-0.5**
NVAR	**Mina Array Bea**	**77.95**	**52**	P	**P**	**04 02 01.9**	**-0.5**
	comp=Z,0.9nm,0.7s,mb3.8,baz=272,slow=7.0,SNR=5.3						
J13A	**Cove Ranch, Pi**	**77.99**	**46**	⇓P	**P**	**04 02 03.3**	**+0.8**
	baz=78						
M11A	**Holland Ranch,**	**78.03**	**49**	⇑P	**P**	**04 02 03.6**	**+0.8**
	baz=78						
G15A	**Dillon**	**78.04**	**44**	⇑P	**P**	**04 02 02.4**	**-0.4**
	baz=78						
L12A	**House Creek Ra**	**78.14**	**48**	⇓P	**P**	**04 02 04.2**	**+0.8**
	baz=78						
BOZ	**Bozeman (W)**	**78.28**	**43**	*e*P	**P**	**04 02 05.0**	**+0.9**
	comp=Z,2.1nm,0.9s,mb4.1						
BOZ	**Bozeman (W)**	**78.28**	**43**	*e*P	**P**	**04 02 05.0**	**+0.9**
BOZ				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
BOZ	**Bozeman (W)**	**78.28**	**43**	⇓P	**P**	**04 02 02.5**	**-1.6**
	baz=78						
AKASG	**Malin Array Be**	**78.41**	**323**	P	**P**	**04 02 04.2**	**-0.5**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKASG	**Malin Array Be**	**78.41**	**323**	P	**P**	**04 02 04.2**	**-0.5**
	comp=Z,1.8nm,0.6s,mb4.2,baz=47,slow=5.5,SNR=13						
K13A	**Stover Farm, H**	**78.45**	**47**	⇓P	**P**	**04 02 05.5**	**+0.4**
	baz=78						
FCC	**Fort Churchill**	**78.48**	**26**	*e*P	**P**	**04 02 04.3**	**-0.7**
	comp=Z,3.1nm,1.0s,mb4.2						
FCC	**Fort Churchill**	**78.48**	**26**	*e*P	**P**	**04 02 04.3**	**-0.7**
FCC				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
S08C	**White Mtn Res**	**78.52**	**53**	⇑P	**P**	**04 02 05.7**	**+0.1**
	baz=78						
P10A	**Eureka**	**78.55**	**50**	⇓P	**P**	**04 02 06.4**	**+0.7**
	baz=78						
M12A	**Wells**	**78.59**	**48**	⇓P	**P**	**04 02 06.0**	**+0.1**
	baz=78						
N12A	**Clover Valley,**	**78.82**	**49**	⇑P	**P**	**04 02 07.6**	**+0.4**
	baz=79						
L13A	**Double Diamond**	**78.84**	**47**	⇑P	**P**	**04 02 08.4**	**+1.1**
	baz=79						
R09A	**Tonopah**	**78.88**	**52**	⇑P	**P**	**04 02 05.8**	**-1.7**
	baz=79						
NB2	**NORSAR Subarra**	**78.92**	**338**	P	**P**	**04 02 06.7**	**-0.6**
	comp=Z,1.6nm,0.7s,mb4.1,baz=41,slow=5.3						
NOA	**NORSAR Array B**	**78.92**	**338**	P	**P**	**04 02 06.8**	**-0.5**
NOA	**NORSAR Array B**	**78.92**	**338**	P	**P**	**04 02 06.8**	**-0.5**
NOA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
NOA	**NORSAR Array B**	**78.92**	**338**	P	**P**	**04 02 06.8**	**-0.5**
	comp=Z,4.4nm,0.9s,mb4.4,baz=40,slow=5.3,SNR=14						
K14A	**Jones Ranch, D**	**79.07**	**47**	⇓P	**P**	**04 02 09.1**	**+0.7**
	baz=79						
M13A	**Montello**	**79.10**	**48**	⇓P	**P**	**04 02 09.0**	**+0.3**
	baz=79						
R10A	**Warm Springs**	**79.36**	**52**	⇑P	**P**	**04 02 10.3**	**+0.1**
	baz=79						
S10A	**Tonopah Range,**	**79.36**	**52**	⇑P	**P**	**04 02 10.3**	**+0.1**
	baz=79						
BLG	**Laguna Peak**	**79.67**	**56**	⇓P	**P**	**04 02 12.9**	**+0.9**
	baz=80						
MOOW	**Moose Ponds**	**79.87**	**45**	*e*P	**P**	**04 02 12.0**	**-0.9**
	comp=Z,1.4nm,0.9s,mb3.9						
MALT	**Malatya**	**80.03**	**309**	*e*P	**P**	**04 02 14.0**	**+0.2**
	comp=Z,1.9nm,0.8s,mb4.1						
MALT	**Malatya**	**80.03**	**309**	*e*P	**P**	**04 02 14.0**	**+0.2**
MALT				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
R12A	**Pony Springs,**	**80.47**	**51**	⇑P	**P**	**04 02 15.2**	**-0.9**
	baz=80						
HWUT	**Hardware Ranch**	**80.59**	**47**	*e*P	**P**	**04 02 16.9**	**+0.2**
	comp=Z,7.7nm,1.3s,mb4.5						
DUG	**Dugway**	**80.60**	**48**	*e*P	**P**	**04 02 16.7**	**-0.1**
	comp=Z,3.4nm,0.8s,mb4.3						
DUG	**Dugway**	**80.60**	**48**	*e*P	**P**	**04 02 16.7**	**-0.1**
DUG				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
DUG	**Dugway**	**80.60**	**48**	⇑P	**P**	**04 02 16.2**	**-0.6**
	baz=80						
BW06	**Boulder Array**	**81.14**	**45**	*e*P	**P**	**04 02 20.2**	**+0.5**
	comp=Z,1.1nm,0.7s,mb3.9						
PDAR	**Pinedale Array**	**81.14**	**45**	P	**P**	**04 02 19.0**	**-0.7**
	comp=Z,0.7nm,0.8s,mb3.7,baz=246,slow=1.0,SNR=6.2						
T13A	**Saint George**	**81.65**	**52**	⇑P	**P**	**04 02 22.6**	**+0.1**
	baz=82						
GMRC	**Granite Mounta**	**81.69**	**54**	⇓P	**P**	**04 02 22.6**	**-0.2**
	baz=82						
109C	**Camp Elliot, M**	**81.70**	**56**	⇑P	**P**	**04 02 27.5**	**+4.6**
	baz=82,SNR=8.2						
PFO	**Pinyon Flat Ob**	**81.77**	**56**	⇓P	**P**	**04 02 25.7**	**+2.5**
	baz=82,SNR=24						
BELC	**Belle Mtn.**	**81.88**	**55**	⇑P	**P**	**04 02 24.5**	**+0.8**
	baz=82						
MONP	**Monument Peak**	**82.19**	**56**	⇑P	**P**	**04 02 26.8**	**+1.4**
	baz=82,SNR=14						
BRTR	**Keskin Array B**	**82.34**	**312**	⇑*e*P	**P**	**04 02 26.7**	**+0.7**
BRTR	**Keskin Array B**	**82.34**	**312**	P	**P**	**04 02 26.6**	**+0.6**
	comp=Z,1.5nm,0.8s,mb4.0,baz=107,slow=5.2,SNR=11						
KWP	**Kalwaria**	**82.34**	**325**	P	**P**	**04 02 26.1**	**+0.3**
	comp=Z,11nm,1.0s,mb4.7						
KWP				*e*		04 02 38.7	
KWP	**Kalwaria**	**82.34**	**325**	P	**P**	**04 02 26.1**	**+0.2**
KWP				*e*		04 02 38.7	
KWP				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
BC3	**Big Chuckw Mtn**	**82.45**	**55**	⇓P	**P**	**04 02 26.6**	**-0.2**
	baz=82,SNR=14						
DVTC	**Desert V Tower**	**82.54**	**56**	⇓P	**P**	**04 02 23.4**	**-3.9**
	baz=82,SNR=6.5						
SWSC	**Sam W. Stewart**	**82.60**	**56**	⇑P	**P**	**04 02 23.7**	**-3.9**
	baz=82,SNR=26						
KOLS	**Kolonicke sedl**	**83.02**	**325**	*e*P	**P**	**04 02 29.4**	**0.0**
Y12C	**Blythe**	**83.04**	**55**	⇑P	**P**	**04 02 29.1**	**-0.7**
	baz=83						
STHS	**Stebnicka Huta**	**83.19**	**325**	*e*P	**P**	**04 02 29.3**	**-1.0**
	comp=Z,2.8nm,0.9s,mb4.3						
STHS	**Stebnicka Huta**	**83.19**	**325**	*e*P	**P**	**04 02 29.3**	**-1.0**
STHS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
OJC	**Ojcow**	**83.33**	**327**	*e*P	**P**	**04 02 31.1**	**+0.1**
CRVS	**Cervenica-Dubn**	**83.44**	**325**	*e*P	**P**	**04 02 30.0**	**-1.6**
Y13A	**Salome**	**83.49**	**54**	⇑P	**P**	**04 02 32.0**	**-0.2**
	baz=83						
W15A	**Williams**	**83.78**	**52**	⇓P	**P**	**04 02 35.0**	**+1.4**
	baz=84						
Y14A	**Wickenburg**	**83.98**	**54**	⇓P	**P**	**04 02 35.4**	**+0.7**
	baz=84						
PV10	**Paradox Valley**	**84.04**	**48**	*e*P	**P**	**04 02 35.0**	**+0.1**
WUAZ	**Wupatki**	**84.19**	**52**	⇑P	**P**	**04 02 35.7**	**0.0**
	baz=84						
KECS	**Kecovo**	**84.19**	**325**	*e*P	**P**	**04 02 35.0**	**-0.5**
X15A	**Humboldt**	**84.19**	**53**	⇓P	**P**	**04 02 36.1**	**+0.4**
	baz=84						
PV01	**Paradox Valley**	**84.48**	**48**	*e*P	**P**	**04 02 36.7**	**-0.4**
SMCO	**Snowmass**	**84.85**	**47**	*e*P	**P**	**04 02 39.4**	**+0.5**
	comp=Z,4.1nm,1.1s,mb4.5						
VYHS	**Vyhne**	**84.98**	**326**	*i* P	**P**	**04 02 39.8**	**+0.4**
	comp=Z,2.3nm,1.0s,mb4.3						
VYHS	**Vyhne**	**84.98**	**326**	*i* P	**P**	**04 02 39.8**	**+0.4**
VYHS				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.2						
MVCO	**Mesa Verde**	**85.07**	**49**	⇓P	**P**	**04 02 38.9**	**-1.2**
	baz=85						
CLL	**Collm**	**85.57**	**331**	*i* P	**P**	**04 02 42.6**	**+0.3**

CLL				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.9						
CLL	**Collm**	**85.57**	**331**	*i* P	**P**	**04 02 42.6**	**+0.3**
	comp=Z,8.0nm,1.0s,mb4.9						
CLL				*i* PcP	PcP	04 02 45.6	+0.4
ANMO	**Albuquerque**	**87.75**	**50**	*e*P	**P**	**04 02 56.1**	**+2.8**
	comp=Z,1.1nm,0.9s,mb4.1						
ANMO	**Albuquerque**	**87.75**	**50**	*e*P	**P**	**04 02 56.1**	**+2.8**
ANMO				pmax	pmax		
	comp=Z,1.0nm,0.9s						
LTX	**Lajitas**	**93.10**	**53**	*e*P	**P**	**04 03 18.2**	**-0.2**
	comp=Z,6.0nm,1.0s,mb5.0						
LTX	**Lajitas**	**93.10**	**53**	*e*P	**P**	**04 03 18.2**	**-0.2**
LTX				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb5.0						
TXAR	**Lajitas Array**	**93.10**	**53**	P	**P**	**04 03 17.9**	**-0.5**
TXAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
TXAR	**Lajitas Array**	**93.10**	**53**	P	**P**	**04 03 17.9**	**-0.5**
	comp=Z,2.6nm,0.8s,mb4.7,baz=308,slow=3.0,SNR=11						
TORD	**Torodi Ar. Bea**	**120.94**	**313**	PKP	PKPdf	04 08 55.6	-1.6
TORD	**Torodi Ar. Bea**	**120.94**	**313**	PKP	PKPdf	04 08 55.6	-1.6
	comp=Z,0.6nm,0.7s,baz=49,slow=1.4,SNR=9.5						
LPAZ	**La Paz**	**148.85**	**67**	*e*PKPbc	PKPbc	04 09 52.7	+0.4
LPAZ	**La Paz**	**148.85**	**67**	*e*PKP2	PKPbc	04 09 52.7	+0.3
LPAZ	**La Paz**	**148.85**	**67**	PKPbc	PKPbc	04 09 52.6	+0.2
	comp=Z,1.2nm,0.6s,baz=27,slow=2.3,SNR=5.2						
LCO	**Las Campanas**	**152.08**	**92**	*e*PKPbc	PKPbc	04 09 59.4	-0.4

NEIC ***14*** *03:56:20.5, 18.36N×99.52W, h52^{km}, MD3.7(MEX), After MEX.*

MEX 14 03:56:20.7±0.6**, 18.31N×99.44W, h51**^{km}±6^{km}**, MD3.7, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLIG	**Platanillo**	**0.11**	**324**	*i* P	Pn	03 56 27.0	-1.6
PLIG				*i* S	Sn	03 56 33.0	-1.3
MEIG	**Mezcala**	**0.42**	**205**	*i* P	Pn	03 56 29.4	-1.6
MEIG				*i* S	Sn	03 56 37.0	-1.4
IIO	**Organos**	**1.45**	**28**	*i* P	Pn	03 56 48.7	+4.2
IIO				*i* S	Sn	03 57 11.8	+9.4
CAIG	**El Cayaco**	**1.48**	**212**	*i* P	Pn	03 56 43.6	-1.3
CAIG				*i* S	Sn	03 57 00.9	-2.3
ACX	**Acapulco**	**1.50**	**198**	*e*P	Pn	03 56 44.0	-1.3
ACX				*i* S	Sn	03 57 05.0	+1.3
ACX	**Acapulco**	**1.50**	**198**	*e*P	Pn	03 56 44.0	-1.3
ACX				*i* S	Sn	03 57 03.5	-0.2

ISK ***14*** *04:33:30.8, 39.24N×40.80E, h5^{km}, MD2.8*

ISCJB ***14*** *04:33:31.1±0.8, 39.19N±0.04×40.91E±0.05, h10^{km}±6^{km}, Error ellipse: s-maj=8.1km s-min=5.4km az=148.9*

CSEM ***14*** *04:33:31.1±0.1, 39.17N×40.87E, h15^{km}, MD2.8, Error ellipse: s-maj=4.5km s-min=2.2km az=146.0*

DDA ***14*** *04:33:32.1, 39.18N×41.08E, h4^{km}±7^{km}, Md2.3*

ISC 14 04:33:31.5±0.7**, 39.19N**±0.04×**40.91E**±0.05**, h11**^{km}±5^{km}**, n12,** σ**0^{s}57**/19**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNGL	**BINGOL**	**0.30**	**141**	*i* P	**Pg**	**04 33 36.8**	**-0.8**
BNGL				*i* S	**Sg**	**04 33 41.5**	**-0.1**
BINT	**Bingol**	**0.45**	**227**	PG	**Pg**	**04 33 40.3**	**-0.1**
BINT				SG	**Sg**	**04 33 47.2**	**+0.8**
BINT	**Bingol**	**0.45**	**227**	*e*Pg	**Pg**	**04 33 40.3**	**-0.1**
BINT				*e*Sg	**Sg**	**04 33 47.2**	**+0.8**
EZM	**Erzurum**	**0.80**	**26**	PG	**Pg**	**04 33 47.1**	**+0.1**
ERZM	**Erzurum**	**0.80**	**26**	*i* P	**Pg**	**04 33 47.0**	**0.0**
EZC	**Erzincan**	**1.02**	**304**	*e*PN	**Pn**	**04 33 55.7**	**+4.0**
PTK	**Pertek**	**1.22**	**257**	PN	**Pn**	**04 33 53.6**	**-0.8**
PTK				SN	**Sn**	**04 34 10.4**	**-0.5**
PTK	**Pertek**	**1.22**	**257**	*e*Pn	**Pn**	**04 33 53.6**	**-0.8**
PTK				*e*Sn	**Sn**	**04 34 10.4**	**-0.5**
TUTA	**Tutak**	**1.49**	**81**	*e*P	**Pn**	**04 33 58.5**	**+0.3**
TUTA				*i* S	**Sn**	**04 34 17.9**	**+0.3**
AGRB	**Hanur-Agry**	**1.66**	**76**	*e*PN	**Pg**	**04 34 03.2**	**-0.2**
AGRB	**Hanur-Agry**	**1.66**	**76**	*e*Pn	**Pg**	**04 34 03.2**	**-0.2**
MARD	**Mardin**	**1.87**	**183**	*i* P	**Pn**	**04 34 04.4**	**+1.0**
MARD				*i* S	**Sn**	**04 34 26.8**	**-0.2**

ISCJB ***14*** *04:49:54.6±0.8, 39.82N±0.06×26.5E±0.1, h12^{km}±13^{km}, Error ellipse: s-maj=15.2km s-min=8.9km az=22.4*

CSEM ***14*** *04:49:54.3±0.2, 39.80N×26.44E, h12^{km}, MD2.8, Error ellipse: s-maj=6.0km s-min=5.0km az=28.0*

DDA ***14*** *04:49:54.9, 39.78N×26.47E, h7^{km}±1^{km}, Md2.6*

ISK ***14*** *04:49:55.0, 39.85N×26.42E, h13^{km}, MD2.8*

ISC 14 04:49:55.1±0.7**, 39.82N**±0.05×**26.49E**±0.08**, h9**^{km}±14^{km}**, n11,** σ**0^{s}38**/15**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EZN	**Ezine**	**0.13**	**272**	PG	**Pg**	**04 49 57.8**	**-0.1**
EZN				SG	**Sg**	**04 50 00.2**	**+0.3**
EZN	**Ezine**	**0.13**	**272**	*e*Pg	**Pg**	**04 49 57.8**	**-0.1**
EZN				*e*Sg	**Sg**	**04 50 00.2**	**+0.3**
BOZC	**Bozcaada**	**0.34**	**274**	*i* P	**Pg**	**04 50 01.9**	**+0.2**
BOZC				*i* S	**Sg**	**04 50 06.6**	**+0.4**
AYVA	**Ayvalik**	**0.53**	**163**	*i* P	**Pg**	**04 50 05.4**	**0.0**
AYVA				*i* S	**Sg**	**04 50 12.2**	**-0.2**
GADA	**Gvkgeada**	**0.59**	**309**	*e*PG	**Pg**	**04 50 05.5**	**-0.9**
GADA	**Gvkgeada**	**0.59**	**309**	*e*Pg	**Pg**	**04 50 05.5**	**-0.9**
ENEZ	**Enez**	**0.95**	**344**	*e*PG	**Pg**	**04 50 13.1**	**-0.2**
ENEZ	**Enez**	**0.95**	**344**	*e*Pg	**Pg**	**04 50 13.1**	**-0.2**
RKY	**Sarkoy-Tekirda**	**1.01**	**31**	*e*PG	**Pg**	**04 50 14.9**	**+0.4**
RKY	**Sarkoy-Tekirda**	**1.01**	**31**	*e*Pg	**Pg**	**04 50 14.9**	**+0.4**
BNT	**Bandirma**	**1.22**	**64**	*e*PN	**Pn**	**04 50 18.6**	**+0.3**

BJI ***14*** *05:02:12.2, 22.14N×143.26E, h23^{km}, mB5.1, mb4.8, Ms4.8, Msz4.5*

MOS ***14*** *05:02:13.5±0.8, 21.95N×142.94E, h33^{km}, mb5.0/34, Error ellipse: s-maj=12.7km s-min=7.0km az=106.2*

ISCJB ***14*** *05:02:14.4±1.6, 21.94N±0.04×142.95E±0.06, h39^{km}±13^{km}, mb4.6/70, MS3.8/14, Error ellipse: s-maj=9.2km s-min=7.4km az=176.7*

NEIC ***14*** *05:02:15.4±0.2, 21.97N×143.03E, h35^{km}, mb4.8/45, Error ellipse: s-maj=6.7km s-min=6.1km az=89.0*

IDC ***14*** *05:02:17.6±2.5, 21.98N×143.01E, h58^{km}±23^{km}, mb4.1/20, mb1 4.2/21, mb1mx4.2/27, mbtmp4.1/21, ML4.1/1, MS3.7/19, Ms1 3.7/19, ms1mx3.5/39, Error ellipse: s-maj=20.8km s-min=9.9km az=87.0*

ISC 14 05:02:17.6±1.4**, 21.96N**±0.04×**143.02E**±0.06**, h53**^{km}±12^{km}**, n161,** σ**0^{s}89**/146**, mb4.6**/70**, MS3.8**/14**, 8C-3D, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	**Chichi jima**	**5.17**	**352**	P	**Pn**	**05 03 32.6**	**+0.2**
	15nm,0.3s,baz=119,slow=21,SNR=7.4						
CBIJ				S	**Sn**	**05 04 30.0**	**-0.8**
	7.4nm,0.3s,baz=291,slow=22,SNR=3.9						
CBIJ				LR	LR	05 05 11.9	
	comp=Z,433nm,18.3s,baz=113,slow=34						
GUMO	**Guam**	**8.51**	**168**	LR	LR	05 06 59.3	
	comp=Z,429nm,19.1s,baz=260,slow=33						
MJAR	**Matsushiro Arr**	**15.12**	**345**	LR	LR	05 11 02.8	
	comp=Z,366nm,21.0s,baz=150,slow=35						
JNU	**Nakatsue**	**15.47**	**319**	LR	LR	05 10 32.6	
	comp=Z,157nm,21.4s,baz=317,slow=32						
KSRS	**Korea Array**	**20.22**	**323**	P	**P**	**05 06 49.4**	**+1.2**
	0.8nm,0.6s,baz=154,slow=6.5,SNR=4.7						
KSRS				LR	LR	05 13 42.4	
	comp=Z,134nm,19.2s,baz=343,slow=34						
ASAJ	**Asahikawa**	**22.10**	**359**	LR	LR	05 16 13.5	
	comp=Z,115nm,19.0s,baz=199,slow=38						
YSS	**Yuzh-Sakhalins**	**24.94**	**360⇓**	*e*P	**P**	**05 07 36.5**	**+0.7**
YSS				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.6						
HABR	**Khabarovsk**	**27.22**	**348**	*e*P	**P**	**05 07 53.4**	**-2.9**
HABR				S	**S**	**05 12 30.7**	**-0.8**
HABR				*e*SS		05 13 42.2	
HABR				*e*		05 18 40.1	
KLR	**Kul'dur**	**28.65**	**345**	*e*P	**P**	**05 08 05.7**	**-3.4**
KLR				pmax	pmax		
	comp=Z,38nm,1.4s,mb4.9						
PMG	**Port Moresby**	**31.43**	**172**	*e*P	**P**	**05 08 33.1**	**-0.9**
	comp=Z,15nm,1.0s,mb4.8						
PMG	**Port Moresby**	**31.43**	**172⇑**	*e*P	**P**	**05 08 32.9**	**-1.1**
PMG	**Port Moresby**	**31.43**	**172**	P	**P**	**05 08 32.0**	**-2.0**
	comp=Z,13nm,0.9s,mb4.8,baz=317,slow=3.2,SNR=8.9						
PMG				LR	LR	05 18 10.4	
	comp=Z,90nm,20.3s,baz=244,slow=30						
HNR	**Honiara**	**35.34**	**150**	LR	LR	05 22 23.6	
	comp=Z,106nm,18.5s,MS3.6,baz=0.3,slow=34						
COEN	**Coen**	**35.69**	**180**	*e*P	**P**	**05 09 10.6**	**-0.5**
MA2	**Magadan**	**37.99**	**6⇓**	*e*P	**P**	**05 09 30.1**	**0.0**
MA2				pmax	pmax		
	comp=Z,9.0nm,1.6s,mb4.2						
ULN	**Ulaanbaatar**	**38.67**	**321**	*e*P	**P**	**05 09 36.3**	**+0.3**
	comp=Z,8.7nm,1.0s,mb4.4						
ULN	**Ulaanbaatar**	**38.67**	**321**	*e*P	**P**	**05 09 36.3**	**+0.3**
ULN				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
SONM	**Songino Array**	**39.04**	**320**	P	**P**	**05 09 38.8**	**-0.3**
	comp=Z,3.6nm,0.9s,mb4.1,baz=188,slow=12,SNR=3.8						
GTA	**Gaotai**	**40.60**	**305**	*e*P	**P**	**05 09 53.1**	**+0.9**
GTA				AP	pP	05 09 57.3	-8.7
GTA				XP	sP	05 10 00.4	-12
GTA				AMB	AMB		
	comp=Z,5.0nm,1.8s,mb3.8						
YAK	**Yakutsk**	**41.09**	**350⇑**	*e*P	**P**	**05 09 55.4**	**-0.5**
YAK				pmax	pmax		
	comp=Z,22nm,0.8s,mb4.8						
CHTO	**Chiang Mai**	**41.33**	**274**	*e*P	**P**	**05 09 58.3**	**-0.1**
	comp=Z,3.4nm,0.9s,mb4.0						
CHTO	**Chiang Mai**	**41.33**	**274**	*e*P	**P**	**05 09 58.3**	**-0.2**
CHTO				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.9						
SEY	**Seymchan**	**41.45**	**6⇑**	*e*P	**P**	**05 09 58.2**	**-0.6**
CTA	**Charters Tower**	**41.91**	**175**	*e*P	**P**	**05 10 03.8**	**+0.8**
	comp=Z,16nm,0.9s,mb4.7						
CTA	**Charters Tower**	**41.91**	**175**	*e*P	**P**	**05 10 03.8**	**+0.8**
CTA				pmax	pmax		
	comp=Z,16nm,0.9s						
CTA	**Charters Tower**	**41.91**	**175**	P	**P**	**05 10 03.1**	**+0.1**
	comp=Z,26nm,1.0s,mb4.8,baz=358,slow=8.4,SNR=20						
CTAO	**Charters Tower**	**41.91**	**175**	*e*P	**P**	**05 10 03.3**	**+0.3**
	comp=Z,36nm,1.1s,mb4.9						
CTAO	**Charters Tower**	**41.91**	**175**	*e*P	**P**	**05 10 03.3**	**+0.3**
CTAO				pmax	pmax		
	comp=Z,36nm,1.1s,mb4.9						
ZAK	**Zakamensk**	**42.05**	**322**	*e*P	**P**	**05 10 04.0**	**+0.1**
ZAK				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.4						
IRK	**Irkutsk**	**42.41**	**325**	*e*P	**P**	**05 10 07.1**	**+0.3**
IRK				pmax	pmax		
	comp=Z,50nm,1.9s,mb4.8						
TLY	**Talaya**	**42.47**	**324**	*e*P	**P**	**05 10 08.0**	**+0.7**
	comp=Z,12nm,1.2s,mb4.4						
TLY	**Talaya**	**42.47**	**324**	*e*P	**P**	**05 10 08.1**	**+0.8**
TLY				*e*		05 12 00.9	
TLY				pmax	pmax		
	comp=Z,19nm,1.6s,mb4.5						
TLY				MLR	MLR		
	comp=Z,91nm,19.0s,MS3.7						
WB2	**Warramunga Arr**	**42.49**	**192**	*e*P	**P**	**05 10 07.0**	**-0.8**
WRA	**Warramunga Arr**	**42.50**	**192**	*i* P	**P**	**05 10 07.1**	**-0.7**
WRA				pmax	pmax		
	comp=Z,7.0nm,1.0s						
WRA	**Warramunga Arr**	**42.50**	**192**	P	**P**	**05 10 07.2**	**-0.6**
	comp=Z,7.1nm,1.0s,mb4.3,baz=14,slow=8.8,SNR=27						
WRA				LR	LR	05 27 11.9	
	comp=Z,82nm,18.5s,MS3.6,baz=355,slow=35						
FITZ	**Fitzroy Crossi**	**43.29**	**204**	*e*P	**P**	**05 10 15.8**	**+1.5**
	comp=Z,7.0nm,0.7s,mb4.5						
FITZ	**Fitzroy Crossi**	**43.29**	**204**	P	**P**	**05 10 15.3**	**+1.0**
	comp=Z,4.1nm,0.7s,mb4.2,baz=21,slow=8.6,SNR=10						
FITZ				LR	LR	05 26 34.9	
	comp=Z,58nm,18.9s,MS3.5,baz=38,slow=34						
MOY	**Mondy**	**43.92**	**323**	*e*P	**P**	**05 10 19.6**	**+0.6**
ASAR	**Alice Springs**	**46.21**	**192**	P	**P**	**05 10 37.0**	**-0.5**
	comp=Z,2.0nm,0.6s,mb4.2,baz=18,slow=9.6,SNR=32						
PSI	**Prapat**	**46.84**	**252**	LR	LR	05 30 40.9	
	comp=Z,100nm,20.3s,MS3.8,baz=264,slow=36						
LSA	**Lhasa**	**47.00**	**291**	*e*P	**P**	**05 10 46.1**	**+2.3**
	comp=Z,4.9nm,0.8s,mb4.5						
LSA	**Lhasa**	**47.00**	**291**	*e*P	**P**	**05 10 46.1**	**+2.3**
LSA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
BILL	**Bilibino**	**48.30**	**11⇑**	*e*P	**P**	**05 10 53.5**	**+0.3**
BILL				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
MBWA	**Marble Bar**	**48.51**	**210**	*e*P	**P**	**05 10 55.0**	**-0.4**
	comp=Z,8.4nm,1.0s,mb4.7						
DZM	**Mont Dzumac**	**49.36**	**151**	LR	LR	05 28 59.9	
	comp=Z,124nm,19.2s,MS3.9,baz=19,slow=32						
WMQ	**Urumqi**	**50.30**	**309**	P	**P**	**05 11 09.8**	**+1.0**
TIXI	**Tiksi**	**50.38**	**354⇑**	*e*P	**P**	**05 11 08.3**	**-0.7**
TIXI				pmax	pmax		
	comp=Z,9.0nm,1.6s,mb4.5						
STKA	**Stephens Creek**	**53.54**	**182**	*e*P	**P**	**05 11 32.4**	**-0.6**
	comp=Z,2.0nm,0.6s,mb4.2						
STKA	**Stephens Creek**	**53.54**	**182**	P	**P**	**05 11 32.2**	**-0.7**
	comp=Z,2.7nm,0.7s,mb4.3,baz=332,slow=10,SNR=6.3						
ZALV	**Zalesovo Beam**	**53.91**	**322**	P	**P**	**05 11 34.7**	**-0.9**
ZALV				PcP	PcP	05 12 39.1	-1.3
ZALV				LR	LR	05 36 48.1	
ZALV	**Zalesovo Beam**	**53.91**	**322**	P	**P**	**05 11 34.7**	**-0.8**
	comp=Z,15nm,1.0s,mb4.9,baz=102,slow=6.7,SNR=26						
ZALV				PcP	PcP	05 12 39.1	-1.3
	comp=Z,3.1nm,0.9s,baz=90,slow=4.4,SNR=3.8						
ZALV				LR	LR	05 36 48.1	
	comp=Z,42nm,19.4s,MS3.5,baz=13,slow=38						
ZAL	**Zalesovo**	**53.92**	**322**	P	**P**	**05 11 34.7**	**-0.9**
ZAL						05 12 39.1	
MK31	**Makanchi Array**	**54.41**	**313**	*e*P	**P**	**05 11 39.7**	**+0.4**
MKAR	**Makanchi Array**	**54.41**	**313**	P	**P**	**05 11 39.2**	**-0.1**
MKAR				PcP	PcP	05 12 41.5	-0.9
MKAR				LR	LR	05 36 34.8	
MKAR	**Makanchi Array**	**54.41**	**313**	P	**P**	**05 11 39.2**	**-0.1**
MKAR						05 12 41.5	
MKAR	**Makanchi Array**	**54.41**	**313**	P	**P**	**05 11 39.2**	**-0.1**
	comp=Z,1.4nm,0.6s,mb4.1,baz=91,slow=9.2,SNR=21						
MKAR				PcP	PcP	05 12 41.5	-0.9
	comp=Z,1.6nm,0.7s,baz=91,slow=4.9,SNR=5.9						
MKAR				LR	LR	05 36 34.8	
	comp=Z,51nm,19.8s,MS3.6,baz=354,slow=38						
NVS	**Novosibirsk**	**55.01**	**322**	*i* P	**P**	**05 11 42.7**	**-0.7**
KURK	**Kurchatov**	**57.18**	**317**	*e*P	**P**	**05 11 59.0**	**0.0**
	comp=Z,12nm,1.0s,mb4.9						
KURK	**Kurchatov**	**57.18**	**317⇑**	*i*P	**P**	**05 11 58.3**	**-0.8**
TKM2	**Tokmak 2**	**59.07**	**308**	P	**P**	**05 12 14.2**	**+1.8**
	SNR=9.9						
TKM2	**Tokmak 2**	**59.07**	**308**	*e*P	**P**	**05 12 13.7**	**+1.4**
	comp=Z,11nm,1.0s,mb4.8						
TKM2	**Tokmak 2**	**59.07**	**308**	*e*P	**P**	**05 12 13.7**	**+1.3**
TKM2				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
KZA	**Kyzart**	**59.36**	**307**	P	**P**	**05 12 16.6**	**+2.2**
	SNR=12						
NWAO	**Narrogin (SRO)**	**59.87**	**205**	LR	LR	05 37 05.8	
	comp=Z,108nm,18.4s,MS4.0,baz=278,slow=35						
AAK	**Ala-Archa**	**59.89**	**307**	*e*P	**P**	**05 12 18.0**	**0.0**
	comp=Z,16nm,1.6s,mb4.8						
AAK	**Ala-Archa**	**59.89**	**307⇑**	*e*P	**P**	**05 12 18.4**	**+0.3**
AAK				pmax	pmax		
	comp=Z,12nm,1.8s,mb4.6						
UCH	**Uchtor**	**59.90**	**307**	P	**P**	**05 12 20.6**	**+2.5**
	SNR=17						
UCH	**Uchtor**	**59.90**	**307**	*e*P	**P**	**05 12 20.1**	**+2.0**
	comp=Z,21nm,1.3s,mb5.0						
EKS2	**Erkin-Say**	**60.42**	**308**	P	**P**	**05 12 22.8**	**+1.1**
	SNR=5.7						
EKS2	**Erkin-Say**	**60.42**	**308**	*e*P	**P**	**05 12 22.2**	**+0.6**
	comp=Z,7.3nm,1.1s,mb4.6						
AML	**Almayashu**	**60.51**	**307**	P	**P**	**05 12 24.5**	**+2.2**
	SNR=9.2						
AML	**Almayashu**	**60.51**	**307**	*e*P	**P**	**05 12 24.3**	**+2.0**
	comp=Z,109nm,0.6s						
BRVK	**Borovoye**	**62.44**	**319**	*e*P	**P**	**05 12 34.9**	**-0.2**
	comp=Z,18nm,1.0s,mb5.2						
BRVK	**Borovoye**	**62.44**	**319**	*e*P	**P**	**05 12 34.9**	**-0.2**
BRVK				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.2						
KBL	**Kabul**	**65.08**	**299**	*e*P	**P**	**05 12 53.3**	**+0.4**
INK	**Inuvik**	**67.39**	**24**	P	**P**	**05 13 06.4**	**-0.6**
	comp=Z,4.3nm,1.0s,mb4.4,baz=284,slow=7.1,SNR=10						
ARU	**Arti**	**68.97**	**324**	*e*P	**P**	**05 13 16.5**	**-0.6**
	comp=Z,6.1nm,0.6s,mb4.7						
ARU	**Arti**	**68.97**	**324⇓**	*i*P	**P**	**05 13 16.4**	**-0.7**
ARU				*e*PPP		05 17 26.5	
ARU				*e*S	S	05 22 18.8	+1.1
ARU				*e*SS	SS	05 26 41.7	-1.8
ARU				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
AKTK	**Aktyubinsk**	**70.28**	**317**	P	**P**	**05 13 24.7**	**-0.5**
AKTO	**Aktyubinsk**	**70.28**	**317**	P	**P**	**05 13 24.7**	**-0.6**
	comp=Z,1.0nm,0.6s,mb3.9,baz=84,slow=12,SNR=6.0						
YKA	**Yellowknife Ar**	**76.30**	**28**	P	**P**	**05 13 59.7**	**-0.8**
YKA				LR	LR	05 44 56.8	
YKA	**Yellowknife Ar**	**76.30**	**28**	*i* P	**P**	**05 14 00.2**	**-0.3**
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA	**Yellowknife Ar**	**76.30**	**28**	P	**P**	**05 13 59.7**	**-0.8**
	comp=Z,2.4nm,0.7s,mb4.2,baz=293,slow=5.5,SNR=19						
YKA				LR	LR	05 44 56.8	
	comp=Z,68nm,20.8s,MS3.9,baz=200,slow=34						
RES	**Resolute Bay**	**76.86**	**13**	*e*P	**P**	**05 14 02.9**	**-0.7**
	comp=Z,385nm,1.3s						
ARCES	**ARCESS Array B**	**78.63**	**341**	P	**P**	**05 14 13.0**	**-0.4**
ARCES	**ARCESS Array B**	**78.63**	**341**	P	**P**	**05 14 13.0**	**-0.4**
	comp=Z,5.5nm,1.0s,mb4.5,baz=79,slow=6.3,SNR=6.5						
JOF	**Joensuu**	**80.02**	**334**	*e*p	**P**	**05 14 19.8**	**-1.3**
	comp=Z,2.8nm,0.5s,mb4.5						
NEW	**Newport**	**80.19**	**42**	*e*P	**P**	**05 14 22.2**	**-0.1**
	comp=Z,8.3nm,1.1s,mb4.6						
NEW	**Newport**	**80.19**	**42**	*e*P	**P**	**05 14 22.2**	**-0.1**
NEW				pmax	pmax		
	comp=Z,8.0nm,1.1s						
EDM	**Edmonton**	**80.47**	**36**	*e*P	**P**	**05 14 23.4**	**-0.3**
OBN	**Obninsk**	**81.19**	**326⇑**	*e*P	**P**	**05 14 27.5**	**0.0**
OBN				*e*		05 14 33.8	
OBN				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
BMO	**Blue Mountains**	**81.35**	**45**	*e*P	**P**	**05 14 28.3**	**-0.3**
	comp=Z,9.6nm,1.3s,mb4.6						
BMO	**Blue Mountains**	**81.35**	**45**	*e*P	**P**	**05 14 28.3**	**-0.3**
BMO				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
WVOR	**Wild Horse Val**	**81.36**	**48**	*e*P	**P**	**05 14 28.6**	**-0.1**
	comp=Z,44nm,2.2s,mb5.0						
WVOR	**Wild Horse Val**	**81.36**	**48**	*e*P	**P**	**05 14 28.6**	**-0.1**
WVOR				pmax	pmax		
	comp=Z,44nm,2.2s,mb5.0						
VRSR	**Storozhevoye**	**81.41**	**322**	*e*P	**P**	**05 14 28.9**	**+0.1**
VRSR				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
VRSR				pmax	pmax		
	comp=N,3.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,4.0nm,1.0s						
CMB	**Columbia Colle**	**81.73**	**52**	*e*P	**P**	**05 14 30.9**	**+0.1**
	comp=E,13nm,1.3s,mb4.7						
CMB	**Columbia Colle**	**81.73**	**52**	*e*P	**P**	**05 14 30.9**	**+0.2**
CMB				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
ZEI	**Tsey**	**81.77**	**313**	*e*P	**P**	**05 14 30.1**	**-0.8**
ZEI				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
KIV	**Kislovodsk**	**82.13**	**314**	*e*P	**P**	**05 14 33.2**	**+0.4**
	comp=Z,16nm,1.0s,mb4.9						
KIV	**Kislovodsk**	**82.13**	**314**	*e*P	**P**	**05 14 33.3**	**+0.6**
KIV				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
KIV				MLR	MLR		
	comp=Z,39nm,20.0s,MS3.8						
KAF	**Kangasniemi**	**82.42**	**335**	*e*p	**P**	**05 14 31.1**	**-2.8**
	baz=53,slow=4.9						
FINES	**FINESS Array B**	**82.88**	**334**	*i* P	**P**	**05 14 35.7**	**-0.6**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
FINES	**FINESS Array B**	**82.88**	**334**	P	**P**	**05 14 35.0**	**-1.3**
	comp=Z,2.1nm,0.8s,mb4.2,baz=68,slow=4.2,SNR=9.9						
NVAR	**Mina Array Bea**	**83.10**	**51**	P	**P**	**05 14 38.8**	**+0.9**
	comp=Z,3.8nm,0.8s,mb4.5,baz=268,slow=4.0,SNR=17						
HLID	**Hailey**	**83.78**	**46**	*e*P	**P**	**05 14 41.6**	**+0.4**
	comp=Z,2.4nm,1.0s,mb4.3						
BOZ	**Bozeman (W)**	**84.69**	**43**	*e*P	**P**	**05 14 46.2**	**+0.3**
	comp=Z,0.9nm,0.7s,mb4.0						
BOZ	**Bozeman (W)**	**84.69**	**43**	*e*P	**P**	**05 14 46.2**	**+0.4**
BOZ				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
QLMT	**Earthquake Lak**	**85.18**	**43**	*e*P	**P**	**05 14 49.2**	**+0.9**
YMR	**Madison River**	**85.55**	**43**	*e*P	**P**	**05 14 51.1**	**+1.0**
	comp=Z,32nm,1.3s,mb5.4						
FFC	**Flin Flon**	**85.69**	**32**	*e*P	**P**	**05 14 50.6**	**-0.1**
	comp=Z,30nm,1.2s,mb5.4						
FFC	**Flin Flon**	**85.69**	**32**	*e*P	**P**	**05 14 50.6**	**0.0**
FFC				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.4						
YNR	**Norris Junctio**	**85.71**	**43**	*e*P	**P**	**05 14 53.1**	**+2.2**
GCMT	**Greycliff**	**85.86**	**42**	*e*P	**P**	**05 14 52.0**	**+0.3**
LKWY	**Lake**	**85.95**	**43**	*e*P	**P**	**05 14 54.2**	**+2.0**
	comp=Z,3.9nm,0.8s,mb4.7						
LKWY	**Lake**	**85.95**	**43**	*e*P	**P**	**05 14 54.2**	**+2.0**
LKWY				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.7						
MOOW	**Moose Ponds**	**86.10**	**44**	*e*P	**P**	**05 14 53.3**	**+0.4**
	comp=Z,5.9nm,1.3s,mb4.7						
LOHW	**Long Hollow**	**86.25**	**44**	*e*P	**P**	**05 14 54.3**	**+0.6**
	comp=Z,4.8nm,1.3s,mb4.6						
DUG	**Dugway**	**86.28**	**48**	*e*P	**P**	**05 14 53.7**	**-0.2**
	comp=Z,19nm,1.4s,mb5.1						
DUG	**Dugway**	**86.28**	**48**	*e*P	**P**	**05 14 53.7**	**-0.2**
DUG				pmax	pmax		
	comp=Z,19nm,1.4s,mb5.1						
RLMT	**Red Lodge**	**86.41**	**43**	*e*P	**P**	**05 14 55.3**	**+0.8**
	comp=Z,5.4nm,0.6s,mb5.0						
HWUT	**Hardware Ranch**	**86.51**	**46**	*e*P	**P**	**05 14 55.0**	**+0.1**
	comp=Z,16nm,1.3s,mb5.1						
ARUT	**Antelope Range**	**86.87**	**50**	*e*P	**P**	**05 14 57.0**	**+0.2**
FCC	**Fort Churchill**	**86.88**	**26**	*e*P	**P**	**05 14 55.3**	**-1.1**
	comp=Z,16nm,1.2s,mb5.1						
FCC	**Fort Churchill**	**86.88**	**26**	*e*P	**P**	**05 14 55.3**	**-1.1**
FCC				pmax	pmax		
	comp=Z,16nm,1.2s,mb5.1						
JLU	**Jordanelle**	**87.03**	**47**	*e*P	**P**	**05 14 57.9**	**+0.3**
AKASG	**Malin Array Be**	**87.21**	**324**	P	**P**	**05 14 56.7**	**-1.5**
	comp=Z,2.9nm,0.9s,mb4.5,baz=47,slow=5.0,SNR=11						
AKBB	**Malin Array Si**	**87.21**	**324**	*e*P	**P**	**05 14 56.1**	**-2.1**
BW06	**Boulder Array**	**87.32**	**45**	*e*P	**P**	**05 14 58.4**	**-0.5**
	comp=Z,3.1nm,1.0s,mb4.5						
PDAR	**Pinedale Array**	**87.32**	**45**	P	**P**	**05 14 58.7**	**-0.2**
	comp=Z,1.5nm,0.9s,mb4.2,baz=291,slow=4.1,SNR=10.0						
PDAR				LR	LR	05 48 28.0	
	comp=Z,104nm,19.0s,MS4.3,baz=215,slow=32						
MALT	**Malatya**	**87.39**	**310**	*e*P	**P**	**05 14 59.4**	**+0.1**
	comp=Z,3.4nm,1.0s,mb4.5						
MALT	**Malatya**	**87.39**	**310**	*e*P	**P**	**05 14 59.4**	**+0.1**
MALT				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.5						
MSU	**Marysvale**	**87.45**	**49**	*e*P	**P**	**05 15 00.0**	**+0.4**
LAO	**LASA Array**	**87.53**	**40**	*e*P	**P**	**05 15 00.4**	**+0.6**
	comp=Z,23nm,1.1s,mb5.3						
SRU	**San Rafael**	**88.34**	**48**	*e*P	**P**	**05 15 03.7**	**-0.2**
	comp=Z,14nm,1.4s,mb5.0						
SRU	**San Rafael**	**88.34**	**48**	*e*P	**P**	**05 15 03.7**	**-0.1**
SRU				pmax	pmax		
	comp=Z,14nm,1.4s,mb5.0						
NOA	**NORSAR Array B**	**88.65**	**339**	LR	LR	05 58 51.6	
	comp=Z,42nm,18.7s,MS3.9,baz=70,slow=38						
PV10	**Paradox Valley**	**89.71**	**48**	*e*P	**P**	**05 15 10.5**	**+0.2**
BR131	**Keskin Array S**	**90.06**	**313**	*e*P	**P**	**05 15 10.5**	**-1.4**
	comp=Z,5.3nm,0.9s,mb4.9						
BRTR	**Keskin Array B**	**90.06**	**313**	*i* P	**P**	**05 15 11.0**	**-0.9**
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BRTR	**Keskin Array B**	**90.06**	**313**	P	**P**	**05 15 10.1**	**-1.8**
	comp=Z,3.9nm,0.9s,mb4.7,baz=87,slow=4.2,SNR=18						
PV01	**Paradox Valley**	**90.15**	**48**	*e*P	**P**	**05 15 12.2**	**-0.1**
SMCO	**Snowmass**	**90.74**	**47**	*e*P	**P**	**05 15 15.5**	**+0.4**
	comp=Z,13nm,1.3s,mb5.1						
TUC	**Tucson**	**91.23**	**54**	*e*P	**P**	**05 15 18.1**	**+0.6**
	comp=Z,3.3nm,1.3s,mb4.5						
TUC	**Tucson**	**91.23**	**54**	*e*P	**P**	**05 15 18.1**	**+0.6**
TUC				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.5						
KWP	**Kalwaria**	**91.28**	**326**	*e*P	**P**	**05 15 15.8**	**-1.5**
	comp=Z,16nm,1.2s,mb5.2						
KWP	**Kalwaria**	**91.28**	**326**	*e*P	**P**	**05 15 15.8**	**-1.5**
KWP				pmax	pmax		
	comp=Z,16nm,1.2s,mb5.2						
ULM	**Lac du Bonnet**	**91.31**	**33**	*e*P	**P**	**05 15 16.4**	**-1.1**
	comp=Z,3.0nm,0.8s,mb4.7						
ULM	**Lac du Bonnet**	**91.31**	**33**	P	**P**	**05 15 16.5**	**-0.9**
	comp=Z,2.4nm,0.9s,mb4.5,baz=318,slow=5.0,SNR=5.7						
SDCO	**Great Sand Dun**	**92.46**	**48**	*e*P	**P**	**05 15 23.2**	**+0.1**
	comp=Z,6.7nm,1.3s,mb4.8						
ANMO	**Albuquerque**	**93.17**	**50**	*e*P	**P**	**05 15 26.4**	**0.0**
	comp=Z,1.0nm,0.8s,mb4.3						

ANMO	Albuquerque	93.17	50	eP	P	05 15 26.4	0.0
ANMO				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MNTX	Cornudas Mount	95.56	53	eP	P	05 15 38.2	+0.8
	comp=Z,2.4nm,1.3s,mb4.5						
TXAR	Lajitas Array	98.03	54	LR	LR	05 51 38.1	
	comp=Z,60nm,21.9s,MS4.0,baz=5.0,slow=30						
LBTB	Lobatse	122.97	254	ePKPdf	PKPdf	05 21 08.0	-0.5
LBTB	Lobatse	122.97	254	ePKIKP	PKPdf	05 21 08.0	-0.6
LPAZ	La Paz	150.07	85	ePKPdf	PKPdf	05 21 57.6	-0.5
LPAZ				PKPbc	PKPbc	05 22 03.5	+0.3
LPAZ				ePKPab	PKPab	05 22 10.0	+0.9
LPAZ	La Paz	150.07	85	ePKIKP	PKPdf	05 21 57.6	-0.5
LPAZ						05 22 03.5	
LPAZ				e		05 22 10.0	
LPAZ	La Paz	150.07	85	PKPbc	PKPbc	05 22 03.5	+0.3
	comp=Z,8.8nm,1.0s,baz=356,slow=6.0,SNR=4.2						
CFAA	Coronel Fontan	150.57	116	PKPbc	PKPbc	05 22 02.8	-1.2
CFAA	Coronel Fontan	150.57	116	PKPbc	PKPbc	05 22 02.8	-1.2
	comp=Z,0.5nm,0.8s,baz=272,slow=0.8,SNR=6.1						

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*IDC **14** 05:08:28.6±1.4, 5.77N×127.43E, h0^{km}, mb3.9/9, mb1 4.0/9, mb1mx3.9/20, mbtmp4.0/9, MS3.6/1, Ms1 3.5/1, ms1mx2.3/40, Error ellipse: s-maj=113.8km s-min=17.3km az=74.0*

*ISCJB **14** 05:08:32.0±1.1, 5.8N±0.2×127.4E±0.5, h33^{km}, mb4.0/12, Error ellipse: s-maj=77.6km s-min=12.2km az=162.3*

*NEIC **14** 05:08:34.0±0.9, 5.73N×127.40E, h35^{km}, mb4.2/3, Error ellipse: s-maj=67.5km s-min=10.4km az=72.0*

ISC 14 05:08:34.1±1.1, **5.7N**±0.2×**127.4E**±0.5, **h35**^{km}, **n14**, σ0.^{s}**76**/14, **mb4.0**/12, **Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	23.73	184	P	P	05 13 42.8	-0.4
	1.8nm,0.6s,mb3.7,baz=337,slow=1.0,SNR=8.5						
WRA	Warramunga Arr	26.41	165	P	P	05 14 08.8	+1.2
	0.8nm,0.6s,mb3.4,baz=345,slow=10,SNR=4.6						
ASAR	Alice Springs	29.90	168	P	P	05 14 38.4	-0.3
	0.2nm,0.3s,mb3.3,baz=342,slow=7.0,SNR=4.2						
SONM	Songino Array	45.64	340	P	P	05 16 52.2	+1.1
	0.4nm,0.5s,mb3.6,baz=155,slow=9.0,SNR=6.0						
MK31	Makanchi Array	56.31	324	eP	P	05 18 12.1	+0.7
MKAR	Makanchi Array	56.31	324	P	P	05 18 11.7	+0.3
	1.5nm,0.3s,mb4.5,baz=114,slow=7.4,SNR=39						
ZALV	Zalesovo Beam	59.12	332	P	P	05 18 31.0	-0.1
	1.4nm,0.3s,mb4.4,baz=126,slow=7.5,SNR=5.6						
EKS2	Erkin-Say	59.83	317	eP	P	05 18 36.0	-0.2
	1.2nm,0.8s,mb4.0						
KURK	Kurchatov	60.43	327	eP	P	05 18 40.7	+0.7
	0.8nm,0.4s,mb4.1						
BRVK	Borovoye	66.09	326	eP	P	05 19 17.6	+0.1
	2.2nm,0.6s,mb4.4						
AKTK	Aktyubinsk	72.51	321	P	P	05 19 57.2	-0.2
AKTO	Aktyubinsk	72.51	321	P	P	05 19 57.2	-0.2
	1.1nm,0.5s,mb4.0,baz=92,slow=8.9,SNR=5.2						
ARCES	ARCESS Array B	88.81	340	P	P	05 21 22.4	-1.7
	1.4nm,0.7s,mb4.4,baz=88,slow=5.8,SNR=8.2						
FINES	FINESS Array B	90.39	332	P	P	05 21 30.6	-1.1
	0.2nm,0.3s,mb3.9,baz=116,slow=6.3,SNR=3.3						

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*IDC **14** 05:11:39.0±26.0, 37.24N×99.02E, h84^{km}±123^{km}, mb3.8/1, mb1 3.5/4, mb1mx3.1/24, mbtmp3.4/4, ML3.5/2, Error ellipse: s-maj=294.0km s-min=65.7km az=176.0*

BJI 14 05:11:28.9, 36.70N×98.73E, h14^{km}, ML3.2, Qinghai

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GTA	Gaotai	2.84	17	PG	Pg	05 12 20.5	-2.8
GTA				S	Sn	05 12 50.8	+3.1
GTA				SG	Sg	05 12 53.5	-6.6
GTA				Smax			
	comp=N,19nm,1.0s						
GTA				Smax			
	comp=E,16nm,1.1s						
SONM	Songino Array	12.48	25	P	Pn	05 14 25.6	-0.4
	comp=E,0.3nm,0.3s,baz=210,slow=15,SNR=14						
MKAR	Makanchi Array	15.85	315	P	Pn	05 15 14.5	+3.0
	comp=E,0.2nm,0.3s,baz=122,slow=12,SNR=11						
ZALV	Zalesovo Beam	19.76	335	P	Pn	05 15 57.6	-2.2
	comp=E,0.2nm,0.3s,baz=138,slow=12,SNR=3.4						
ARCES	ARCESS Array B	50.31	334	P	P	05 20 23.6	-1.0
	comp=E,2.4nm,0.9s,baz=92,slow=8.2,SNR=4.5						

IDC 14 05:14:56.8±3.3, **30.29S×138.45E, h0^{km}, mb1 3.1**/3, **mb1mx3.0**/13, **mbtmp2.8**/3, **ML2.9**/3, **Error ellipse: s-maj=80.2km s-min=15.5km az=44.0, South Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	3.13	121	Pn	Pn	05 15 46.6	-0.7
	0.3nm,0.3s,baz=302,slow=13,SNR=10						
STKA				Pg	Pg	05 15 54.4	-2.3
	1.4nm,0.3s,baz=291,slow=15,SNR=14						
STKA				Sn	Sn	05 16 22.8	-2.5
	2.0nm,0.3s,baz=282,slow=12,SNR=4.5						
STKA				Lg		05 16 36.2	
	5.6nm,0.3s,baz=27,slow=19,SNR=9.8						
ASAR	Alice Springs	7.75	327	Pn	Pn	05 16 50.9	+0.1
	0.1nm,0.3s,baz=148,slow=12,SNR=6.4						
ASAR				Sn	Sn	05 18 22.8	+3.5
	0.2nm,0.3s,baz=150,slow=21,SNR=5.7						
WRA	Warramunga Arr	10.96	339	Pn	Pn	05 17 35.2	+0.3
	0.2nm,0.3s,baz=155,slow=11,SNR=3.3						
WRA				Sn	Sn	05 19 36.9	-1.3
	0.1nm,0.3s,baz=162,slow=24,SNR=2.6						

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*BJI **14** 05:19:10.0, 12.60N×88.20W, h68^{km}, mB5.1, Ms4.8, Msz4.4*

*CASC **14** 05:19:10.7±3.1, 12.61N×88.27W, h40^{km}±273^{km}, MD4.3, ML4.8, mb4.6(NEIC)*

*IDC **14** 05:19:10.7±0.7, 12.82N×87.99W, h67^{km}±6^{km}, mb4.0/16, mb1 4.2/19, mb1mx4.0/25, mbtmp4.0/19, MS3.5/13, Ms1 3.5/13, ms1mx3.3/31, Error ellipse: s-maj=20.7km s-min=8.1km az=53.0*

*NEIC **14** 05:19:10.5±0.3, 12.65N×88.19W, mb4.4/39, MD4.6(SNET), Error ellipse: s-maj=8.6km s-min=5.3km az=221.0*

NEIC Felt [II] at San Salvador.

*ISCJB **14** 05:19:10.3±0.5, 12.69N±0.04×88.22W±0.04, h78^{km}±5^{km}, mb4.3/50, Error ellipse: s-maj=7.8km s-min=4.0km az=44.7*

*MEX **14** 05:19:17.2±0.2, 12.95N×88.71W, h195^{km}±20^{km}, MD4.9*

ISC 14 05:19:11.9±0.4, **12.72N**±0.04×**88.16W**±0.04, **h77**^{km}±4^{km}, **h71**^{km}±.7^{km}**:pP-P, n236,** σ0.^{s}**97**/223, **mb4.3**/50, **40C-36D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VSM	San Miguel	0.71	351	⇓iP	x	05 20 12.9	
VSM				eS	x	05 20 26.9	
CAHU	Cacacuatique	1.04	357	⇑eP	x	05 20 17.6	
CAHU				eS	x	05 20 34.6	
CRIN	San Cristobal	1.08	91	⇑iP	Pn	05 19 31.8	0.0
CRIN				eS	Sn	05 19 48.5	+1.9
SNVI	San Vicente	1.11	323	⇓eP	x	05 20 16.6	
SNVI				eS	x	05 20 31.0	
AIES		1.14	310	⇓eP	x	05 19 29.3	
TEL3	Telica 3	1.29	96	⇑iP	Pn	05 19 33.8	-0.5
TEL3				eS	Sn	05 19 50.3	-1.0
TELN	Telica	1.30	95	⇑iP	Pn	05 19 33.9	-0.6
TELN				eS	Sn	05 19 51.0	-0.6
SNET	Serv Nac Est T	1.42	313	⇓eP	x	05 19 32.8	
MIRN	Miramar	1.44	101	eP	Pn	05 19 34.6	-1.7
MIRN				eS	Sn	05 19 55.2	+0.5
BOQS	Boqueron	1.49	313	⇑eP	x	05 20 21.5	
TGUH	Tegucigalpa,Un	1.58	33	⇑iPn	Pn	05 19 39.0	+0.8
TGUH				eS	Sn	05 20 02.1	+4.0
MOMJ	Momotombo	1.61	101	⇑eP	Pn	05 19 37.9	-0.7
MOMJ				eS	Sn	05 20 00.1	+1.4
COPN	Copaltepe	1.62	109	⇓iP	Pn	05 19 37.7	-1.0
COPN				eS	Sn	05 19 58.1	-0.9
SBLS	San Blas	1.81	308	eP	x	05 20 25.9	
SBLS				eS	x	05 20 48.8	
SNJE	San Jose	1.81	309	⇑eP	x	05 20 25.9	
SNJE				eS	x	05 20 47.7	
APYN	Apoyeque	1.83	105	⇓eP	Pn	05 19 40.7	-0.7
APYN				eS	Sn	05 20 04.7	+0.8
XAVN	Gruta Xavier	1.88	107	⇑eP	Pn	05 19 41.3	-0.8
XAVN				eS	Sn	05 20 03.6	-1.5
TISN	Laguna Tiscapa	1.93	107	⇓eP	Pn	05 19 42.1	-0.7
MGAN	Managua	1.95	107	⇑eP	Pn	05 19 42.3	-0.8
MGAN				eS	Sn	05 20 06.8	-0.1
CRUN	El Crucero	1.96	112	eP	Pn	05 19 43.1	0.0
CRUN				eS	Sn	05 20 08.6	+1.6
HUEN		1.98	101	⇑eP	Pn	05 19 42.9	-0.5
HUEN				eS	Sn	05 20 08.8	+1.3
TICN	Ticuantepe	2.00	110	⇑eP	Pn	05 19 43.1	-0.6
TICN				eS	Sn	05 20 07.1	-0.9
RBDL	Robledal	2.03	313	⇓eP	x	05 20 29.0	
APON	Apoyo	2.19	111	⇑eP	Pn	05 19 45.2	-1.1
APON				eS	Sn	05 20 12.8	+0.1
SSNN	San Juan del S	2.67	122	eP	Pn	05 19 51.4	-1.4
CONN	Concepcion	2.73	115	eP	Pn	05 19 52.5	-1.0
CONN				eS	Sn	05 20 24.3	-1.3
MADN	Villa Maderas	2.88	117	eP	Pn	05 19 54.1	-1.5
MADN				eS	Sn	05 20 26.9	-2.4
LIM1	Limonal	3.48	125	eP	Pn	05 20 03.5	-0.2
LIM1				eS	Sn	05 20 44.4	+0.6
VCR	Vista de Mar	3.58	136	eP	Pn	05 20 04.5	-0.5
JTS	JuntasAbangare	3.96	127	ePn	Pn	05 20 08.9	-1.4
JTS	JuntasAbangare	3.96	127	P	Pn	05 20 08.9	-1.4
	7.6nm,0.3s,baz=300,slow=22,SNR=94						
JTS				Pg	Pn	05 20 16.5	+6.2
	160nm,0.3s,baz=306,slow=20,SNR=70						
JTS				S	Sn	05 20 52.3	-3.3
	22nm,0.3s,baz=146,slow=23,SNR=6.4						
JTS				Lg		05 21 10.6	
	41nm,0.3s,baz=145,slow=19,SNR=14						
JTS				LR	LR	05 21 24.4	
	comp=Z,152nm,20.6s,baz=329,slow=34						
JCR	Jicaral	4.13	133	eP	Pn	05 20 12.6	0.0
CGA2	Cerro Gallo 2	4.51	126	eP	Pn	05 20 18.5	+0.7
PRS1	Puriscal	4.65	125	eP	Pn	05 20 21.9	+2.2
LAJ	Bijagual	4.87	125	eP	Pn	05 20 19.8	-2.9
SJS	Escuela Geolog	4.88	124	eP	Pn	05 20 24.8	+1.9
LCR2	La Lucha 2	5.04	126	eP	Pn	05 20 26.3	+1.3
ICR	Volcan Irazu	5.04	122	eP	Pn	05 20 28.1	+3.1
QCR	Quepos	5.11	129	eP	Pn	05 20 26.7	+0.8
URSC	Urasca	5.17	123	eP	Pn	05 20 27.7	+1.0
CCIG	Comitan	5.23	313	i P	Pn	05 20 28.4	+0.8
CCIG				i S	Sn	05 21 23.5	-3.1
CCIG	Comitan	5.23	313	i P	Pn	05 20 26.9	-0.7
CCIG				i S	Sn	05 21 21.2	-5.4
BUS	Buena Vista	5.34	126	eP	Pn	05 20 31.3	+2.2
BAR1		5.88	126	⇑iP	Pn	05 20 37.6	+1.1
SCX	San Cristobal	5.89	313	eP	Pn	05 20 38.0	+1.4
CNI	Changuinola	6.44	120	eP	Pn	05 20 44.9	+0.8
CTCR	Cotoan	6.53	125	eP	Pn	05 20 46.4	+1.1
BRU2	Volcan	6.64	125	⇑eP	Pn	05 20 48.0	+1.2
BRU	Baru	6.74	125	eP	Pn	05 20 50.3	+2.2
DVD	David	7.04	127	eP	Pn	05 20 48.4	-3.9
TEIG	Tepich	7.46	359	ePn	Pn	05 21 00.1	+2.0
	105nm,0.9s						
TEIG	Tepich	7.46	359	P	Pn	05 20 59.3	+1.2
	9.8nm,0.3s,baz=176,slow=9.7,SNR=63						
TEIG				Lg		05 23 08.7	
	1.5nm,0.3s,baz=302,slow=23,SNR=2.6						
TEIG				LR	LR	05 24 12.4	
	comp=Z,456nm,20.7s,baz=164,slow=41						
TEIG	Tepich	7.46	359	i P	Pn	05 21 00.0	+1.9
TEIG				i S	Sn	05 22 20.9	-0.4
CMIG	Matias Romero	7.82	305	P	Pn	05 21 02.1	-0.8
	3.0nm,0.3s,baz=130,slow=9.4,SNR=27						
CMIG				S	Sn	05 22 23.5	-6.5
	1.7nm,0.3s,baz=98,slow=8.5,SNR=3.5						
CMIG	Matias Romero	7.82	305	eP	Pn	05 21 00.4	-2.5
CMIG				i S	Sn	05 22 20.4	-10
HUIG	Huatulco	8.28	292	i P	Pn	05 21 06.0	-3.3
HUIG				i S	Sn	05 22 31.4	-10
BCIP	Isla Barro Col	8.90	113	ePn	Pn	05 21 17.8	0.0
VHO	Vista Hermosa	9.35	299	i P	Pn	05 21 22.6	-1.2
VHO				i S	Sn	05 22 59.9	-7.5
VHO	Vista Hermosa	9.35	299	i P	Pn	05 21 18.6	-5.2
VHO				i S	Sn	05 22 55.0	-12
SOR	Soroa	11.15	25	eP	Pn	05 21 50.8	+2.4
MGV	Manicaragua	12.16	39	eP	Pn	05 22 08.0	+5.7
ROSC	El Rosal	15.73	119	eP	Pn	05 22 52.8	+3.7
ROSC	El Rosal	15.73	119	P	Pn	05 22 49.4	+0.3
	1.5nm,0.3s,baz=115,slow=22,SNR=5.9						
ROSC				LR	LR	05 29 41.2	
	comp=Z,30nm,18.9s,baz=203,slow=40						
HKT	Hockley	18.56	339	eP	Pn	05 23 27.7	+3.9
	11nm,1.2s						
NATX	Nacogdoches	19.87	344	eP	Pn	05 23 38.2	-0.9
	22nm,0.9s						
LRAL	Lakeview Retre	20.25	3	eP	P	05 23 42.7	+1.8
	19nm,0.8s						
JCT	Junction City	20.70	330	eP	P	05 23 45.4	-0.4
	16nm,0.6s						
GOGA	Godfrey	21.04	11	eP	P	05 23 50.8	+1.4
	80nm,1.0s,mb5.0						
ATAH	Atahualpa	21.86	153	P	P	05 24 00.8	+2.3
	10.0nm,0.8s,mb4.2,baz=317,slow=6.1,SNR=8.0						
ATAH				LR	LR	05 30 08.7	
	comp=Z,44nm,21.7s,baz=258,slow=30						
SJG	San Juan	21.88	73	eP	P	05 23 59.2	+0.6
	19nm,0.8s,mb4.5						
SJG	San Juan	21.88	73	P	P	05 23 59.1	+0.5
	9.7nm,0.5s,mb4.4,baz=263,slow=9.3,SNR=5.8						
TXAR	Lajitas Array	21.93	321	P	P	05 23 59.6	+0.5
	12nm,0.7s,mb4.3,baz=138,slow=9.9,SNR=60						
TXAR				pP		05 24 13.9	
	4.2nm,0.6s,baz=144,slow=11,SNR=6.9						
TXAR				LR	LR	05 33 14.6	
	comp=Z,66nm,18.8s,baz=5.0,slow=38						
LTX	Lajitas	21.93	321	eP	P	05 23 59.6	+0.5
	13nm,0.7s,mb4.4						
MIAR	Mount Ida	22.28	348	eP	P	05 24 02.7	0.0
	37nm,1.0s,mb4.7						
MIAR				e		05 24 20.6	
JSC	Jenkinsville	22.36	15	eP	P	05 24 05.2	+1.6
MTP	Monte Pirata	22.43	73	eP	P	05 24 04.2	-0.3
SWET	Sewanee	22.49	5	eP	P	05 24 04.8	-0.1
LHS	Liberty Hill	22.66	16	P	P	05 24 08.2	+1.5
CPCT	Cooper Cave	22.87	8	eP	P	05 24 09.4	+0.6
CPCT				e		05 24 23.2	
TKL	Tuckaleechee C	23.18	9	P	P	05 24 12.0	+0.1
	25nm,0.8s,mb4.6,baz=182,slow=11,SNR=22						
TKL				LR	LR	05 35 23.8	
	comp=Z,60nm,18.4s,baz=49,slow=42						
PCRV	Puerto La Cruz	23.19	94	P	P	05 24 12.1	-0.1
	15nm,0.6s,mb4.5,baz=218,slow=6.0,SNR=11						
WVT	Waverly	23.31	1	eP	P	05 24 12.9	-0.2
	3.6nm,0.6s,mb3.9						
WMOK	Wichita Mounta	23.95	338	eP	P	05 24 18.6	-0.3
	14nm,1.1s,mb4.2						
MNTX	Cornudas Mount	24.65	323	eP	P	05 24 24.8	-0.6
	8.0nm,1.1s,mb4.1						
SIUC	Southern Illin	24.91	358	eP	P	05 24 27.1	-0.5
	18nm,0.9s,mb4.5						
AMTX	Amarillo	25.24	333	eP	P	05 24 30.6	-0.1
	11nm,0.6s,mb4.5						
WCI	Wyandotte Cave	25.46	3	eP	P	05 24 32.0	-0.7
	14nm,0.7s,mb4.5						
BNM	Barren Site	27.15	325	eP	P	05 24 50.5	+2.5
ANMO	Albuquerque	27.65	326	eP	P	05 24 53.8	+1.3
	1.4nm,0.7s,mb3.6						
ANMO				PcP	PcP	05 28 08.2	+0.1
ANMO	Albuquerque	27.65	326	P	P	05 24 53.5	+1.1
	1.1nm,0.8s,mb3.4,baz=147,slow=13,SNR=5.2						
ANMO				PcP	PcP	05 28 08.2	+0.1
	1.6nm,0.8s,baz=136,slow=5.7,SNR=3.6						
CBKS	Cedar Bluff	27.95	340	eP	P	05 24 54.8	-0.2
	9.9nm,0.8s,mb4.4						
TUC	Tucson	28.47	317	eP	P	05 25 04.0	+4.2
	2.8nm,0.9s,mb3.8						
TUC				e	pP	05 25 19.7	+1.9
SDCO	Great Sand Dun	29.34	331	eP	P	05 25 08.6	+1.2
	5.9nm,1.3s,mb4.1						
WUAZ	Wupatki	30.89	321	⇓P	P	05 25 22.4	+1.2
	baz=31						
SMCO	Snowmass	31.18	331	eP	P	05 25 24.2	+0.6
	3.0nm,0.8s,mb4.1						
SMCO				e	pP	05 25 41.5	-0.1
SMCO				ePP	PP	05 26 35.4	0.0
PV10	Paradox Valley	31.59	328	eP	P	05 25 27.2	0.0
PV10				ePP	PP	05 26 39.0	-0.9
PV10				ePcP	PcP	05 28 18.8	+0.7
ECSD	EROS,Sioux Fal	31.75	348	eP	P	05 25 27.2	-1.4
	8.0nm,1.0s,mb4.4						
PDMCI	Parker Dam,Lak	31.91	317	⇓P	P	05 25 30.5	+0.3
	baz=32						
COWI	Conover	33.28	359	eP	P	05 25 40.4	-1.6
	8.1nm,0.5s,mb4.8						
LONY	Lake Ozonia	33.85	18	P	P	05 25 46.5	-0.3
JLU	Jordanelle	34.49	328	eP	PP	05 27 00.5	-11
LPAZ	La Paz	34.97	145	P	P	05 25 56.7	-0.2
LPAZ				LR	LR	05 39 48.5	
LPAZ	La Paz	34.97	145	P	P	05 25 56.7	-0.2
	1.5nm,0.8s,mb3.9,baz=304,slow=3.9,SNR=5.7						
LPAZ				LR	LR	05 39 48.5	
	comp=Z,96nm,20.7s,baz=290,slow=35						
BW06	Boulder Array	35.21	332	eP	P	05 25 58.7	0.0
	1.5nm,0.6s,mb4.0						
BW06				e		05 27 09.4	
PDAR	Pinedale Array	35.21	332	P	P	05 25 58.6	0.0
	1.5nm,0.6s,mb4.0,baz=125,slow=11,SNR=14						
PDAR				PcP	PcP	05 28 26.2	-2.0
	1.0nm,0.8s,baz=142,slow=5.8,SNR=4.2						
PDAR				pPcP		05 28 45.8	
	0.4nm,0.5s,baz=89,slow=4.6,SNR=3.7						
PDAR				ScP	ScP	05 32 09.4	+2.2
	0.2nm,0.5s,baz=138,slow=5.6,SNR=3.8						
EYMN	Ely	35.23	356	eP	P	05 25 56.5	-2.2
	3.0nm,0.5s,mb4.4						
HWUT	Hardware Ranch	35.29	329	eP	P	05 25 59.3	0.0
	3.8nm,0.7s,mb4.3						
HWUT				e		05 27 10.3	
HWUT				ePcP	PcP	05 28 28.9	+0.4
Q11A	Duckwater	35.65	322	⇑P	P	05 26 02.9	+0.3
	baz=36						
AGMN	Agassiz Refuge	36.05	351	eP	P	05 26 04.3	-1.4
	22nm,0.9s,mb5.1						
REDW	Red Top Meadow	36.27	332	eP	P	05 26 08.4	+0.7
	16nm,0.5s,mb5.2						
REDW				e		05 27 18.7	
LOHW	Long Hollow	36.35	332	eP	P	05 26 08.8	+0.4
	8.2nm,0.7s,mb4.8						
M13A	Montello	36.47	326	⇓P	P	05 26 10.1	+0.7
	baz=37						
MOOW	Moose Ponds	36.52	332	eP	P	05 26 09.9	0.0
	3.3nm,0.5s,mb4.5						
MOOW				e		05 27 21.0	
K14A	Jones Ranch, D	36.79	329	P	P	05 26 12.8	+0.7
	baz=37,SNR=12						
RLMT	Red Lodge	36.97	335	eP	P	05 26 13.5	-0.1
	2.6nm,0.5s,mb4.4						
NVAR	Mina Array Bea	37.05	319	P	P	05 26 14.6	+0.2
NVAR				PcP	PcP	05 28 34.4	+0.6
NVAR				pPcP		05 28 53.5	
NVAR				ScP	ScP	05 32 15.8	+1.7
NVAR	Mina Array Bea	37.05	319	P	P	05 26 14.6	+0.2
	2.4nm,0.9s,mb4.1,baz=174,slow=9.8,SNR=4.2						
NVAR				PcP	PcP	05 28 34.4	+0.6
	2.1nm,0.7s,baz=119,slow=4.6,SNR=9.2						
NVAR				pPcP		05 28 53.5	
	2.7nm,0.8s,baz=124,slow=4.8,SNR=8.7						
NVAR				ScP	ScP	05 32 15.8	+1.7
	1.1nm,0.8s,baz=127,slow=5.7,SNR=6.3						
YFT	Old Faithful	37.11	333	eP	P	05 26 16.3	+1.4
YMR	Madison River	37.33	333	eP	P	05 26 17.9	+1.1
	9.3nm,0.8s,mb4.8						
YMR				e		05 27 28.9	
O09A	Fish Creek Ran	37.41	322	⇑P	P	05 26 18.0	+0.5
	baz=38						
QLMT	Earthquake Lak	37.67	333	eP	P	05 26 21.1	+1.5
GCMT	Greycliff	37.67	335	eP	P	05 26 19.5	-0.1
GCMT				epP	pP	05 26 36.9	-1.2
J13A	Cove Ranch, Pi	37.91	329	⇓P	P	05 26 21.4	-0.3
	baz=38						
ULM	Lac du Bonnet	37.95	352	P	P	05 26 20.2	-1.7
	10nm,0.8s,mb4.7,baz=166,slow=9.0,SNR=26						
ULM				ScP	ScP	05 32 17.2	0.0
	2.0nm,0.7s,baz=178,slow=2.6,SNR=6.7						
ULM				LR	LR	05 42 49.5	
	comp=Z,90nm,20.5s,baz=115,slow=38						
DGMT	Dagmar	38.05	343	eP	P	05 26 23.0	+0.2
	28nm,0.9s,mb5.1						
HLID	Hailey	38.15	329	eP	P	05 26 23.7	0.0
	2.4nm,0.8s,mb4.1						
HLID				e		05 27 34.7	
HLID	Hailey	38.15	329	⇑P	P	05 26 24.1	+0.4
	baz=38						
I13A	Wildhorse Cree	38.25	329	⇑P	P	05 26 25.0	+0.5
	baz=38						
J12A	Stokes Ranch,	38.28	328	⇑P	P	05 26 24.2	-0.5
	baz=38						
MCMT	McKenzie Canyo	38.32	331	eP	P	05 26 26.4	+1.4
MCMT				e		05 27 36.5	
BOZ	Bozeman (W)	38.39	333	eP	P	05 26 25.8	+0.2
	2.8nm,0.6s,mb4.3						
BOZ				epP	pP	05 26 43.0	-1.2
BOZ				e		05 27 36.1	
BOZ	Bozeman (W)	38.39	333	P	P	05 26 26.1	+0.5
	baz=39,SNR=7.4						
G15A	Dillon	38.41	332	P	P	05 26 27.1	+1.3
	baz=39,SNR=10						
H13A	Challis	38.79	330	P	P	05 26 29.9	+0.9
	baz=39,SNR=9.4						
G14A	Jackson	38.91	331	⇑P	P	05 26 30.8	+0.7
	baz=39						
F15A	Butte	38.92	333	P	P	05 26 31.0	+0.9
	baz=39,SNR=6.0						
H12A	Diamond D Ranc	39.08	329	⇑P	P	05 26 31.9	+0.4
	baz=39						
SIV	San Ignacio	39.13	136	P	P	05 26 32.1	-0.1
	15nm,0.8s,mb4.9,baz=308,slow=8.6,SNR=74						
SIV				PcP	PcP	05 28 39.9	-0.6
	2.7nm,0.6s,baz=323,slow=2.7,SNR=6.9						
G13A	Cobalt	39.17	330	⇑P	P	05 26 32.4	+0.2
	baz=39						
I11A	Placerville	39.19	328	⇓P	P	05 26 32.1	-0.3
	baz=39						
F14A	Wisdom	39.30	332	⇑P	P	05 26 33.7	+0.5
	baz=40						
E15A	Deer Lodge	39.44	333	⇓P	P	05 26 35.2	+0.8
	baz=40						
EGMT	Eagleton	39.54	337	eP	P	05 26 35.1	-0.1
	9.3nm,0.6s,mb4.8						
EGMT				epP	pP	05 26 52.5	-1.2
EGMT	Eagleton	39.54	337	⇓P	P	05 26 35.5	+0.4
	baz=40						
WVOR	Wild Horse Val	39.68	324	eP	P	05 26 37.0	+0.5
	1.5nm,0.8s,mb3.9						
F13A	Darby	39.73	331	P	P	05 26 37.0	+0.2
	baz=40,SNR=10						
H11A	Donnelly	39.77	329	⇓P	P	05 26 37.1	-0.1
	baz=40						
J09A	Fry Pan Ranch,	39.77	326	⇑P	P	05 26 37.3	+0.1
	baz=40						
K08A	Mann Creek Ran	39.78	324	P	P	05 26 38.3	+1.0
	baz=40,SNR=9.5						
E14A	Clinton	39.81	332	⇓P	P	05 26 37.5	0.0
	baz=40						
L07A	Adell	39.83	323	⇑P	P	05 26 38.2	+0.5
	baz=40						
ELFS	Eagle Lake Fie	39.84	320	⇓P	P	05 26 38.7	+0.9
	baz=40						
D15A	Lincoln	39.87	334	⇑P	P	05 26 38.4	+0.5
	baz=40						
CHMT	Chamberlain Mo	40.09	333	eP	P	05 26 39.7	0.0
F12A	Elk City	40.15	330	P	P	05 26 40.5	+0.2
	baz=40,SNR=19						
E13A	Victor	40.15	332	P	P	05 26 40.2	-0.1
	baz=40,SNR=8.5						
I09A	Lost Marbles R	40.18	326	⇑P	P	05 26 39.9	-0.6
	baz=40						
K07A	Rock Creek Ran	40.19	324	⇓P	P	05 26 40.0	-0.7
	baz=40						
D14A	Greenough	40.33	333	⇑P	P	05 26 41.0	-0.7
	baz=40						
D13A	Huson	40.76	332	⇑P	P	05 26 44.6	-0.7
	baz=41						
H08A	Prairie City	41.04	326	⇑P	P	05 26 47.0	-0.6
	baz=41						
E11A	Bogner Ranch,	41.04	330	⇑P	P	05 26 46.8	-0.8
	baz=41						
D12A	Red Ives Fores	41.14	332	⇓P	P	05 26 47.7	-0.7
	baz=41						
F10A	Beach Ranch, E	41.27	329	⇑P	P	05 26 49.0	-0.6
	baz=41						
D11A	Klaveano Farm,	41.60	331	⇑P	P	05 26 51.6	-0.5
	baz=42						
B13A	Whitefish	41.73	334	⇑P	P	05 26 52.8	-0.5
	baz=42						
D10A	Wagner Farm, O	42.05	330	⇓P	P	05 26 55.6	-0.3
	baz=42						
B12A	Libby	42.30	333	⇑P	P	05 26 57.3	-0.5
	baz=42						
D09A	Jones Farm, Ri	42.56	329	⇓P	P	05 27 00.6	+0.6

	baz=43						
B11A	Sandpoint	42.62	332	⇓P	P	05 27 00.4	-0.1
	baz=43						
A12A	Yaak River Ran	42.67	333	⇓P	P	05 27 01.1	+0.2
	baz=43						
I04A	Tendick Farm,	42.70	323	⇓P	P	05 27 01.4	+0.2
	baz=43						
NEW	Newport	42.84	332	*e*P	P	05 27 00.8	-1.5
	1.5nm,0.6s,mb3.9						
D08A	Wollman Farm,	42.87	329	⇓P	P	05 27 02.4	-0.1
	baz=43						
A11A	Hall Mountain,	43.00	333	⇓P	P	05 27 03.7	+0.2
	baz=43						
E07A	Sunnyside	43.01	328	⇓P	P	05 27 03.2	-0.4
	baz=43						
C09A	Chrisman Ranch	43.06	330	⇓P	P	05 27 03.9	-0.1
	baz=43						
H04A	Detroit Lake	43.09	324	⇑P	P	05 27 03.6	-0.8
	baz=43						
FFC	Flin Flon	43.29	348	*e*P	P	05 27 05.1	-0.7
	4.8nm,0.7s,mb4.3						
FFC				*e*pP	pP	05 27 22.4	-2.2
C08A	Higginbotham F	43.42	330	⇓P	P	05 27 07.0	+0.1
	baz=44						
B09A	Rice	43.44	331	P	P	05 27 06.8	-0.2
	baz=44,SNR=6.0						
C07A	Waterville	43.87	329	⇑P	P	05 27 10.1	-0.4
	baz=44						
A09A	Danville	44.03	331	⇓P	P	05 27 11.4	-0.4
	baz=44						
G03A	Yamhill	44.10	324	⇓P	P	05 27 11.8	-0.6
	baz=44						
A08A	Turner Farm, O	44.34	331	⇓P	P	05 27 14.1	-0.2
	baz=44						
C06A	Tall Timber Ra	44.44	329	⇑P	P	05 27 14.9	-0.2
	baz=45						
C05A	Tolt Reservoir	44.70	328	⇓P	P	05 27 16.7	-0.5
	baz=45						
A07A	Ashnola River,	44.94	330	⇓P	P	05 27 19.4	+0.3
	baz=45						
EDM	Edmonton	45.11	339	*e*P	P	05 27 19.5	-0.8
EDM				*e*pP	pP	05 27 37.0	-2.2
SCHQ	Schefferville	45.22	17	P	P	05 27 19.7	-1.5
SCHQ				pP	pP	05 27 36.5	-3.6
SCHQ	Schefferville	45.22	17	P	P	05 27 19.7	-1.5
	6.5nm,0.5s,mb4.6,baz=224,slow=4.8,SNR=34						
SCHQ				pP	pP	05 27 36.5	-3.6
	5.2nm,0.8s,baz=194,slow=7.9,SNR=3.5						
B05A	Bryant	45.27	328	⇑P	P	05 27 21.5	-0.2
	baz=45						
C04A	Brinnon	45.38	327	⇓P	P	05 27 21.7	-1.0
	baz=46						
FCC	Fort Churchill	46.17	356	*e*P	P	05 27 27.1	-1.6
	12nm,0.8s,mb4.7						
FCC				*e*pP	pP	05 27 45.0	-2.6
CFAA	Coronel Fontan	48.04	157	P	P	05 27 43.8	+0.3
	0.7nm,0.9s,mb3.5,baz=333,slow=6.6,SNR=12						
YKA	Yellowknife Ar	53.17	345	P	P	05 28 20.7	-1.0
YKA				pP	pP	05 28 38.1	-2.9
YKA				PcP	PcP	05 29 27.7	-1.1
YKA				ScP	ScP	05 33 18.7	-1.1
YKA	Yellowknife Ar	53.17	345	P	P	05 28 20.7	-1.0
	1.4nm,0.4s,mb4.3,baz=147,slow=6.4,SNR=35						
YKA				pP	pP	05 28 38.1	-2.9
	3.7nm,0.7s,baz=141,slow=7.6,SNR=11						
YKA				PcP	PcP	05 29 27.7	-1.1
	0.3nm,0.4s,baz=148,slow=3.7,SNR=3.9						
YKA				ScP	ScP	05 33 18.7	-1.1
	0.5nm,0.7s,baz=142,slow=4.3,SNR=9.6						
DLBC	Dease Lake	55.37	335	*e*P	P	05 28 38.2	+0.5
RKT	Rikitea	58.04	232	*e*LR	LR	05 46 30.2	
	151nm,28.5s						
RKT	Rikitea	58.04	232	*e*T		06 30 52.6	
	5.0nm,0.3s						
RES	Resolute Bay	62.07	358	*e*P	P	05 29 22.2	-1.8
	46nm,0.5s						
RES				*e*pP	pP	05 29 40.1	-3.7
INK	Inuvik	62.74	343	*e*P	P	05 29 27.9	-0.7
INK				*e*pP	pP	05 29 45.4	-3.0
INK	Inuvik	62.74	343	LR	LR	05 58 02.8	
	comp=Z,58nm,18.8s,baz=47,slow=37						
MCK	McKinley	65.93	335	*e*P	P	05 29 49.5	0.0
	2.1nm,0.9s,mb4.0						
PPT	Papeete	67.69	245	*e*LR	LR	05 50 27.9	
	132nm,25.2s						
NOA	NORSAR Array B	83.47	29	LR	LR	06 08 51.7	
	comp=Z,33nm,20.5s,baz=250,slow=36						
ARCES	ARCESS Array B	86.16	19	P	P	05 31 43.0	-1.3
	0.9nm,0.6s,mb3.9,baz=294,slow=4.9,SNR=7.4						
AFI	Afiamalu	86.96	255	LR	LR	06 00 18.7	
	comp=Z,150nm,20.5s,baz=115,slow=28						
TORD	Torodi Ar. Bea	87.03	77	P	P	05 31 47.9	-1.6
TORD				LR	LR	06 05 35.2	
TORD	Torodi Ar. Bea	87.03	77	P	P	05 31 47.9	-1.6
	0.3nm,0.6s,mb3.4,baz=296,slow=4.3,SNR=4.3						
TORD				LR	LR	06 05 35.2	
	comp=Z,54nm,20.5s,baz=155,slow=32						
FINES	FINESS Array B	90.03	26	P	P	05 32 03.7	+0.8
FINES	FINESS Array B	90.03	26	P	P	05 32 03.7	+0.8
	1.5nm,0.9s,mb4.1,baz=241,slow=3.9,SNR=3.4						
MLR	Muntele Rosu	97.17	40	LR	LR	06 17 40.9	
	comp=Z,66nm,18.6s,baz=355,slow=36						
SONM	Songino Array	118.34	349	PKP	PKPdf	05 37 49.8	-0.8
SONM	Songino Array	118.34	349	PKP	PKPdf	05 37 49.8	-0.8
	0.2nm,0.4s,baz=22,slow=0.2,SNR=4.8						
TKM2	Tokmak 2	122.67	14	*e*PKPdf	PKPdf	05 37 59.1	+0.1
BJI	Beijing	122.85	338	PKP	PKPdf	05 37 57.5	-2.0
BJI				XPKP		05 38 28.8	
BJI	Beijing	122.85	338	PKP	PKPdf	05 37 57.5	-2.0
BJI				pPKP	pPKPdf	05 38 20.1	-1.2
BJI				sPKP		05 38 28.7	
BJI				PP	PP	05 39 36.0	-1.4
BJI				SS	SS	05 55 43.4	-31
WMQ	Urumqi	123.61	4	*e*PKP	PKPdf	05 37 59.5	-1.3
HHC	Hu-ho-hao-te	123.66	342	*e*PKP	PKPdf	05 37 58.4	-2.6
HHC				PP	PP	05 39 46.3	+3.5
HHC				PKS		05 41 33.4	
HHC				SKS	SKSdf	05 44 59.3	-7.0
HHC				PP	PP		
	comp=Z,145nm,10.4s						
HHC				LR	LR		
	comp=N,103nm,34.1s						
HHC				LR	LR		
	comp=E,183nm,34.2s						
HHC				LR	LR		
	comp=Z,147nm,33.2s						
NJ2	Nanjing	128.51	330	*e*PKP	PKPdf	05 38 15.5	+4.9
LZH	Lanzhou	130.15	347	*e*P	PKPdf	05 38 06.9	-6.7
LZH				pP		05 38 12.5	
LZH				sP		05 38 14.0	
STKA	Stephens Creek	130.64	239	*e*PKPdf	PKPdf	05 38 14.4	-0.1
CD2	Chengdu	135.13	345	*e*PKP	PKPdf	05 38 19.5	-3.6
GYA	Guiyang	138.47	340	*e*PDIF	Pdif	05 35 37.0	-2.5
GYA				PP	PP	05 41 21.3	+2.8
GYA				PP	PP		
	comp=Z,90nm,7.6s						
WB2	Warramunga Arr	138.67	254	*e*P	PKPdf	05 38 30.5	+0.7
WRA	Warramunga Arr	138.68	254	PKP		05 38 20.5	
WRA				PKP	PKPdf	05 38 30.4	+0.6
WRA				pPKP	pPKPdf	05 38 49.6	-2.1
WRA	Warramunga Arr	138.68	254	PKhKP		05 38 20.5	
	comp=Z,0.3nm,0.4s,baz=99,slow=2.6,SNR=4.3						
WRA				PKP	PKPdf	05 38 30.4	+0.6
	comp=Z,1.8nm,0.5s,baz=88,slow=2.0,SNR=13						
WRA				pPKP	pPKPdf	05 38 49.6	-2.1
	comp=Z,1.6nm,0.6s,baz=90,slow=1.6,SNR=3.4						
ASAR	Alice Springs	138.72	249	PKP		05 38 19.5	
ASAR				PKP	PKPdf	05 38 29.6	-0.2
ASAR	Alice Springs	138.72	249	PKhKP		05 38 19.5	
	comp=Z,0.9nm,0.6s,baz=103,slow=2.2,SNR=9.3						
ASAR				PKP	PKPdf	05 38 29.6	-0.2
	comp=Z,1.8nm,0.6s,baz=109,slow=1.9,SNR=9.7						
KMI	Kunming	140.91	344	PKP	PKPdf	05 38 31.9	-2.0
FITZ	Fitzroy Crossi	147.01	256	*e*P	PKPdf	05 38 46.8	+2.2
	comp=Z,7.7nm,0.8s						
FITZ	Fitzroy Crossi	147.01	256	PKPbc	PKPbc	05 38 47.0	+0.2
	comp=Z,4.4nm,0.8s,baz=152,slow=4.5,SNR=12						
NWAO	Narrogin (SRO)	149.29	225	PKPbc	PKPbc	05 38 52.2	-0.1
NWAO	Narrogin (SRO)	149.29	225	PKPbc	PKPbc	05 38 52.2	-0.1
	comp=Z,4.8nm,0.9s,baz=136,slow=4.3,SNR=3.7						
MBWA	Marble Bar	152.07	249	*e*PKPbc	PKPbc	05 38 58.7	-0.5

CSEM **14** *05:19:25.5±0.3,40.16N×31.73E,h10^{km},MD3.0,Error ellipse: s-maj=7.2km s-min=6.4km az=159.0*

DDA **14** *05:19:25.4,40.17N×31.72E,h7^{km}±3^{km},Md3.0*

ISK **14** *05:19:25.7,40.15N×31.69E,h5^{km},MD2.9*

ISCJB **14** *05:19:26.5±0.6,40.16N±0.04×31.71E±0.05,h10^{km},Error ellipse: s-maj=5.6km s-min=4.9km az=144.4*

ISC 14 05:19:26.8±0.9,**40.16N**±0.05×**31.73E**±0.06,**h10**^{km}±12^{km},**n14,**σ**1^{s}02**/22,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGKT	Sivrigoynuk	0.48	31	*i* P	Pg	05 19 35.2	-1.0
SGKT	Sivrigoynuk	0.48	31	*i* P	Pg	05 19 35.2	-1.0
MDU	Mudurnu	0.50	308	PG	Pg	05 19 36.0	-0.6
MDU				SG	Sg	05 19 44.5	+1.3
MDU	Mudurnu	0.50	308	*e*Pg	Pg	05 19 36.0	-0.6
MDU				*e*Sg	Sg	05 19 44.5	+1.3
ESKT	Eskisehir	0.93	227	PG	Pg	05 19 43.8	-0.9
ESKT				SG	Sg	05 19 57.9	+1.1
ESKT	Eskisehir	0.93	227	*i* P	Pg	05 19 43.0	-1.7
ESKT				*i* S	Sg	05 19 56.8	-0.1
ESKT	Eskisehir	0.93	227	*e*Pg	Pg	05 19 43.8	-0.9
ESKT				*e*Sg	Sg	05 19 57.9	+1.1
SEYT	Eskypehyr	0.93	227	*i* P	Pg	05 19 43.0	-1.7
SEYT				*i* S	Sg	05 19 56.8	0.0
GULT	Gulveren	0.97	287	*e*PG	Pg	05 19 44.7	-0.8
GULT	Gulveren	0.97	287	*e*Pg	Pg	05 19 44.7	-0.8
KIZT	Kizilcal	1.28	175	*e*PN	Pn	05 19 51.3	+0.6
KIZT	Kizilcal	1.28	175	*e*Pn	Pn	05 19 51.3	+0.6
ELDT	Eldivan	1.34	75	*i* P	Pn	05 19 50.5	-1.0
ELDT				*i* S	Sg	05 20 10.8	+1.0
KDHN	Kadinhani	1.66	170	*i* P	Pn	05 19 57.5	+1.6
KDHN				*i* S	Sn	05 20 16.4	-0.8

CSEM **14** *05:39:19.8±0.1,36.77N×30.71E,h103^{km}±2^{km},MD3.4, Error ellipse: s-maj=2.5km s-min=1.5km az=178.0*

ISCJB **14** *05:39:22.7±0.3,36.79N±0.03×30.69E±0.03,h100^{km}±6^{km}, Error ellipse: s-maj=4.8km s-min=3.7km az=144.1*

ISK **14** *05:39:22.4,36.79N×30.70E,h93^{km},ML3.6*

NEIC **14** *05:39:24.0,36.93N×30.64E,h79^{km},MD3.4(ATH), MD3.2(ISK),After ISK.*

HLW **14** *05:39:27.9,36.46N×30.78E,h33^{km},Mb3.9*

ATH **14** *05:39:30.7,36.86N×29.84E,h30^{km}±16^{km},MD3.4/4*

ISC 14 05:39:24.0±0.3,**36.80N**±0.03×**30.68E**±0.03,**h92**^{km}±6^{km},**n98,** σ**0^{s}77**/112,**1C-1D,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANTB	Antalya	0.11	348	PG	Pn	05 39 36.9	-0.1
ANTB				SG	Sn	05 39 45.6	-1.0
ANTB	Antalya	0.11	348	*e*Pg	Pn	05 39 36.9	-0.1
ANTB				*e*Sg	Sn	05 39 45.6	-1.0
ELL	Elmali	0.62	266	PG	Pn	05 39 40.0	+0.1
ELL	Elmali	0.62	266	*e*Pg	Pn	05 39 40.0	+0.1
GOLH	Golhisar	1.00	297	*i* P	Pn	05 39 45.2	+1.4
GOLH				*i* S	Sn	05 40 00.2	+1.6
AKAS	Kas	1.03	237	*i* P	Pn	05 39 45.4	+1.2
ISP	Isparta	1.05	353	PG	Pn	05 39 43.3	-1.1
ISP	Isparta	1.05	353	*e*Pn	Pn	05 39 44.3	-0.1
ISP				*e*Sn	Sn	05 40 00.2	+0.4
KSL	Kastellorizon	1.09	234	*e*Pn	Pn	05 39 45.5	+0.6
KSL	Kastellorizon	1.09	234	*e*PN	Pn	05 39 45.5	+0.6
FETY	Fethiye	1.29	263	PN	Pn	05 39 47.5	+0.3
FETY				SN	Sn	05 40 03.7	-1.1
FETY	Fethiye	1.29	263	*e*Pn	Pn	05 39 47.5	+0.3
DENT	Denizli	1.63	307	*e*PN	Pn	05 39 51.1	-0.3
DENT	Denizli	1.63	307	*e*Pn	Pn	05 39 51.1	-0.3
DALT	Dalyan (Mudla)	1.64	270	PN	Pn	05 39 51.2	-0.4
DALT	Dalyan (Mudla)	1.64	270	*e*Pn	Pn	05 39 51.2	-0.4
SHUT	Suhut-Afyon	1.76	357	PN	Pn	05 39 53.0	-0.1
SHUT	Suhut-Afyon	1.76	357	*e*Pn	Pn	05 39 53.0	-0.1
KHL	Karahalli	1.78	329	PN	Pn	05 39 53.3	-0.1
KHL	Karahalli	1.78	329	*e*Pn	Pn	05 39 53.3	-0.1
YER	Yerkesik	1.95	281	*e*PN	Pn	05 39 55.0	-0.6
YER	Yerkesik	1.95	281	*e*Pn	Pn	05 39 55.0	-0.6
KDHN	Kadinhani	2.07	33	*i* P	Pn	05 39 57.9	+0.8
KDHN	Kadinhani	2.07	33	*i* P	Pn	05 39 57.9	+0.8
KDHN				*i* S	Sn	05 40 22.8	+0.4
ARG	Arkhangelos	2.14	255	*e*Pn	Pn	05 39 58.4	+0.4
ARG	Arkhangelos	2.14	255	*e*PN	Pn	05 39 58.4	+0.4
ARG	Arkhangelos	2.14	255	*e*Pn	Pn	05 39 58.4	+0.4
KIZT	Kizilcal	2.29	24	*e*PN	Pn	05 39 59.8	-0.2
KIZT	Kizilcal	2.29	24	*e*Pn	Pn	05 39 59.8	-0.2
ALT	Altintas	2.30	349	*e*PN	Pn	05 40 00.0	-0.2
ALT	Altintas	2.30	349	*e*Pn	Pn	05 40 00.0	-0.2
MLSB	Milas	2.38	283	*e*PN	Pn	05 40 01.0	-0.2
MLSB	Milas	2.38	283	*e*Pn	Pn	05 40 01.0	-0.2
GDZ	Gediz	2.48	338	*i* P	Pn	05 40 02.9	+0.4
GDZ	Gediz	2.48	338	*i* P	Pn	05 40 02.9	+0.3
GDZ				*i* S	Sn	05 40 31.5	-0.6
IKL	Isikli	2.48	102	*e*PN	Pn	05 40 02.8	+0.2
IKL	Isikli	2.48	102	*e*Pn	Pn	05 40 02.8	+0.2
DAT	Datca	2.49	269	*e*PN	Pn	05 40 02.6	-0.1
DAT	Datca	2.49	269	*e*Pn	Pn	05 40 02.6	-0.1
BDRM	Kayabasi	2.61	277	*i* P	Pn	05 40 02.8	-1.5
BDRM	Kayabasi	2.61	277	*i* P	Pn	05 40 02.8	-1.5
BDRM				*i* S	Sn	05 40 35.0	-0.2
BODT	Bodrum	2.71	277	*e*PN	Pn	05 40 05.5	-0.2
BODT	Bodrum	2.71	277	*e*Pn	Pn	05 40 05.5	-0.2
ESKT	Eskisehir	2.72	3	*e*PN	Pn	05 40 05.7	-0.1
ESKT	Eskisehir	2.72	3	*i* P	Pn	05 40 06.2	+0.3
ESKT	Eskisehir	2.72	3	*e*Pn	Pn	05 40 05.7	-0.1
SEYT	Eskypehyr	2.72	3	*i* P	Pn	05 40 06.2	+0.4
SEYT				*i* S	Sn	05 40 37.4	-0.6
CSS	Prodhromos	2.82	130	*e*PN	Pn	05 40 06.7	-0.5
CSS	Prodhromos	2.82	130	*e*Pn	Pn	05 40 06.7	-0.5
AKS	Akhisar	3.08	313	*e*PN	Pn	05 40 10.3	-0.3
AKS	Akhisar	3.08	313	*e*Pn	Pn	05 40 10.3	-0.3
MERS	Mersin	3.08	88	*e*PN	Pn	05 40 09.9	-0.7
MERS	Mersin	3.08	88	*e*Pn	Pn	05 40 09.9	-0.7
BORA	Eskisehir	3.09	357	*i* P	Pn	05 40 11.7	+1.0
BORA	Eskisehir	3.09	357	*i* P	Pn	05 40 11.7	+1.0
BORA				*i* S	Sn	05 40 46.0	-0.6
KARP	Karpathos	3.11	247	*e*Pn	Pn	05 40 11.9	+0.9
KARP	Karpathos	3.11	247	*e*PN	Pn	05 40 11.9	+0.9
KARP	Karpathos	3.11	247	*e*Pn	Pn	05 40 11.9	+0.9
IZM	Izmir	3.15	302	*e*PN	Pn	05 40 11.1	-0.4
SMG	Samos	3.20	288	*e*Pn	Pn	05 40 12.1	-0.1
SMG	Samos	3.20	288	*e*PN	Pn	05 40 12.1	-0.1
SMG	Samos	3.20	288	*e*Pn	Pn	05 40 12.1	-0.1
NIG	Nigde	3.39	66	*e*PN	Pn	05 40 14.6	-0.2
NIG	Nigde	3.39	66	*e*Pn	Pn	05 40 14.6	-0.2
KAMT	Kaman	3.51	42	*e*PN	Pn	05 40 16.4	0.0
KAMT	Kaman	3.51	42	*e*Pn	Pn	05 40 16.4	0.0
KARA	Karaisali	3.53	81	*e*PN	Pn	05 40 16.5	-0.2
KARA	Karaisali	3.53	81	*e*Pn	Pn	05 40 16.5	-0.2
IZI	Iznik	3.66	345	*e*PN	Pn	05 40 18.2	-0.2
IZI	Iznik	3.66	345	*e*Pn	Pn	05 40 18.2	-0.2
MDU	Mudurnu	3.69	6	*e*PN	Pn	05 40 18.6	-0.2
MDU	Mudurnu	3.69	6	*e*Pn	Pn	05 40 18.6	-0.2
BR131	Keskin Array S	3.74	38	*e*Pn	Pn	05 40 20.4	+1.0
BR131				*e*Sn	Sn	05 41 02.4	0.0
BR131	Keskin Array S	3.74	38	*e*Pn	Pn	05 40 20.5	+1.0
BR131				*e*Sn	Sn	05 41 02.4	0.0
KRTS	Karatas	3.78	92	*e*PN	Pn	05 40 18.8	-1.2
KRTS	Karatas	3.78	92	*e*Pn	Pn	05 40 18.8	-1.2
CDAG	Cicekdag	4.05	45	*i* P	Pn	05 40 25.7	+2.0
CDAG	Cicekdag	4.05	45	*i* P	Pn	05 40 25.7	+2.0
CDAG				*i* S	Sn	05 41 11.4	+1.4
CEYT	Ceyhan	4.07	85	*e*PN	Pn	05 40 22.6	-1.3
CEYT	Ceyhan	4.07	85	*e*Pn	Pn	05 40 22.6	-1.3
APE	Apeiranthos	4.13	275	*e*Pn	Pn	05 40 25.2	+0.4
APE	Apeiranthos	4.13	275	*e*PN	Pn	05 40 25.2	+0.4
APE	Apeiranthos	4.13	275	*e*Pn	Pn	05 40 25.2	+0.4
KOZT	Kozan	4.17	79	*e*PN	Pn	05 40 24.1	-1.2
HTY	Hatay	4.45	97	*e*PN	Pn	05 40 28.1	-1.0
HTY	Hatay	4.45	97	*e*Pn	Pn	05 40 28.1	-1.0
COBT	Iskenderun	4.49	92	*i* P	Pn	05 40 31.7	+2.0
COBT	Iskenderun	4.49	92	*i* P	Pn	05 40 31.7	+2.0
COBT				*i* S	Sn	05 41 24.5	+3.8
TOS	Tosya	4.97	31	*e*PN	Pn	05 40 35.5	-0.7
TOS	Tosya	4.97	31	*e*Pn	Pn	05 40 35.5	-0.7
HMAT	Matruh	6.42	209	P	Pn	05 40 56.5	+0.6
HMAT	Matruh	6.42	209	P	Pn	05 40 56.5	+0.6
AMAG	Maghara	6.49	160	⇑P	Pn	05 40 56.4	-0.5
AMAG	Maghara	6.49	160	P	Pn	05 40 56.3	-0.6
SQR		6.91	176	P	Pn	05 41 02.9	+0.3
HNAT	Natroun	7.14	180	⇓P	Pn	05 41 06.2	+0.4
SUZ		7.17	165	P	Pn	05 41 06.4	+0.3
GLL	Jalalah	7.25	173	P	Pn	05 41 07.0	-0.3

IDC 14 05:45:42.7±3.9,**23.38S**×**176.35W,h0**^{km}**,mb4.1**/4, **mb1 4.2**/4,**mb1mx3.9**/16,**mbtmp4.1**/4,**MS3.6**/2,**Ms1 3.6**/2, **ms1mx2.8**/37,**Error ellipse: s-maj=121.1km s-min=55.6km az=152.0,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	26.58	298	LR	LR	06 00 29.2	
	comp=Z,65nm,18.2s,baz=181,slow=33						
CTA	Charters Tower	34.83	268	P	P	05 52 37.6	+2.0
	0.9nm,0.3s,baz=82,slow=11,SNR=3.4						
PMG	Port Moresby	37.54	286	P	P	05 52 59.0	+0.2
	6.6nm,0.8s,baz=335,slow=19,SNR=5.2						
ASAR	Alice Springs	45.42	259	P	P	05 54 02.5	-1.1
	1.9nm,1.1s,baz=94,slow=8.4,SNR=9.6						
WRA	Warramunga Arr	45.79	264	P	P	05 54 05.2	-1.2
	0.6nm,0.5s,baz=100,slow=8.2,SNR=7.8						
NNA	Nana	93.84	105	LR	LR	06 32 03.1	
	comp=Z,55nm,21.4s,baz=226,slow=30						
AKASG	Malin Array Be	146.27	330	PKPbc	PKPbc	06 05 24.4	-0.6
	0.2nm,0.3s,baz=41,slow=3.9,SNR=5.7						

NIED **14** *05:48:00,29.60N×138.60E,h540^{km},Mw4.7 Best double couple: $M_0$1.38000×10^{16} NP1:ϕ_s13.00000°,δ53.00000°, λ168.00000°. NP2:ϕ_s110.00000°,δ80.00000°,λ38.00000°.*

BJI **14** *05:48:08.4,29.48N×138.27E,h469^{km},mB5.1,mb4.7*

JMA **14** *05:48:09.7±0.1,29.62N×138.56E,h520^{km},M4.4*

MOS **14** *05:48:10.5±0.9,29.61N×138.08E,h490^{km},mb4.5/47,Error ellipse: s-maj=11.4km s-min=5.5km az=102.8*

ISCJB **14** *05:48:10.9±0.3,29.59N±0.03×138.12E±0.03,h487^{km}±2^{km}, mb4.3/89,Error ellipse: s-maj=4.6km s-min=3.9km az=164.3*

IDC **14** *05:48:11.6±0.5,29.69N×138.21E,h491^{km}±5^{km},mb3.8/25, mb1 4.0/31,mb1mx3.9/35,mbtmp3.9/31,Error ellipse: s-maj=10.7km s-min=6.2km az=86.0*

NEIC **14** *05:48:12.5±0.5,29.65N×138.12E,h500^{km}±5^{km},mb4.2/50, Error ellipse: s-maj=5.4km s-min=4.1km az=97.0*

ISC 14 05:48:12.2±0.3,**29.62N**±0.03×**138.16E**±0.03,**h489**^{km}±2^{km}, **h483**^{km}±3.5^{km}**:pP-P,n404,**σ**0^{s}89**/417,**mb4.3**/89,**76C-72D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	3.75	21	P	P	05 49 26.9	-0.9
	66nm,0.3s,baz=204,slow=13,SNR=9.0						
JHJ				S	S	05 50 27.9	-1.7
	37nm,0.3s,baz=51,slow=23,SNR=2.7						
JHJ2	Mitsune	3.76	22	P	P	05 49 27.8	0.0
JHJ2				*e*S	S	05 50 28.3	-1.3
CBIJ	Chichi jima	4.35	124	P	P	05 49 30.4	-2.5
CBIJ				S	S	05 50 33.4	-5.2
CBIJ	Chichi jima	4.35	124	P	P	05 49 30.2	-2.7
	13nm,0.3s,baz=123,slow=18,SNR=6.7						
CBIJ				S	S	05 50 33.3	-5.3
	106nm,0.3s,baz=274,slow=21,SNR=23						
JWZ	Kozaga	4.42	333	P	P	05 49 35.0	+1.7
JWZ				S	S	05 50 41.8	+2.2
JHHJ	Haha-jima-NKT	4.64	129	P	P	05 49 33.3	-2.1
JHHJ				*e*S	S	05 50 38.6	-4.6
JIE	Ise	4.91	346	P	P	05 49 39.5	+1.8
JWY	Kouya	5.07	335	P	P	05 49 41.2	+2.0
JWY				*e*S	S	05 50 49.6	-0.6
JAI	Aioi	5.22	324	P	P	05 49 42.6	+2.1
JAI				*e*S	S	05 50 54.9	+2.2
JMN	Monobe	5.48	319	P	P	05 49 45.4	+2.4
JMN				*e*S	S	05 50 59.2	+2.0
BSO1	Boso 1	5.56	25	P	P	05 49 42.1	-1.6
BSO1				*e*S	S	05 50 53.4	-5.1
JTO	Tosashimizu	5.61	307	P	P	05 49 46.4	+2.2
JOD2	Odawara 2	5.68	8	P	P	05 49 43.9	-0.9
JOD2				*e*S	S	05 50 59.1	-1.5
JRY	Ryogami san	6.41	5	P	P	05 49 51.3	-0.6
JRY				*e*S	S	05 51 09.1	-4.5
JHS	Saijyo	6.85	323	P	P	05 49 58.3	+1.9
MAJO	Matsushiro	6.90	0	*e*P	P	05 49 55.1	-1.7
MAT	Matsushiro	6.90	0	P	P	05 49 55.6	-1.3
MAT				S	S	05 51 20.2	-2.5
MAT	Matsushiro	6.90	0	P	P	05 49 55.8	-1.1
MAT				*e*S	S	05 51 17.0	-5.7
MJAR	Matsushiro Arr	6.90	0	P	P	05 49 55.6	-1.3
MJAR				S	S	05 51 19.4	-3.3
MJAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
MJAR				smax			
	comp=N,1.0nm,0.3s						
MJAR	Matsushiro Arr	6.90	0	P	P	05 49 55.6	-1.3
	comp=N,3.4nm,0.3s,baz=172,slow=11,SNR=33						
MJAR				S	S	05 51 19.4	-3.3
	comp=N,1.0nm,0.3s,baz=276,slow=32,SNR=3.8						
JNU	Nakatsue	7.13	301	P	P	05 50 01.4	+2.0
	comp=N,13nm,0.3s,baz=85,slow=11,SNR=52						
JSJ	Shimokoshiki	7.55	288	P	P	05 50 05.8	+2.1
JAM	Amami Oshima	7.58	263	P	P	05 50 05.8	+1.7
JTU	Tsushima	8.89	306	P	P	05 50 19.2	+1.6
JOW	Kunigami	9.15	255	P	P	05 50 22.5	+2.0
JOW	Kunigami	9.15	255	P	P	05 50 22.3	+1.8
	comp=N,9.1nm,0.3s,baz=96,slow=6.7,SNR=30						
JMK	Ichinoseki	9.64	14	P	P	05 50 25.3	-0.2
JMK				*e*S	S	05 52 10.3	-4.9
JKE	Kume jima 2	10.57	255	P	P	05 50 36.4	+0.8
KSRS	Korea Array	11.56	315	P	P	05 50 46.3	+0.3
	comp=N,5.1nm,0.3s,baz=126,slow=10,SNR=92						
JOT	Ohata	11.97	11	P	P	05 50 50.3	+0.1
JKB	Kayabe	12.46	10	P	P	05 50 55.5	0.0
JOSM	Okushiri--Mats	12.48	5	P	P	05 50 55.5	-0.2
ERM	Erimo	13.01	17	*i* P	P	05 51 01.7	+0.4
VLA	Vladivostok	14.38	341	⇑*i*P	P	05 51 15.2	-0.6
VLA				pmax	pmax		
	comp=Z,345nm,0.8s						
ASAJ	Asahikawa	14.89	13	P	P	05 51 21.2	0.0
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	14.89	13	P	P	05 51 21.2	0.0
	comp=Z,1.5nm,0.3s,baz=217,slow=16,SNR=6.9						
JTKR	Abashiri--Toko	15.04	16	P	P	05 51 23.1	+0.4
YHNB	Yeheng	15.73	256	*e*P	P	05 51 28.5	-1.8
MDJ	Mudanjiang	16.43	338	P	P	05 51 36.6	-0.7
MDJ				AMB	AMB		
	comp=Z,358nm,4.5s						
MDJ	Mudanjiang	16.43	338	*e*P	P	05 51 37.0	-0.4
	comp=Z,26nm,1.0s						
SNY	Shenyang	16.95	320	⇑P	P	05 51 42.3	-0.5
SNY				AMB	AMB		
	comp=Z,88nm,0.7s						
GUMO	Guam	17.12	157	P	P	05 51 45.9	+1.0
GUMO	Guam	17.12	157	P	P	05 51 45.9	+1.0
GUMO				pmax	pmax		
	comp=Z,12nm,0.3s						
GUMO	Guam	17.12	157	P	P	05 51 45.9	+1.0
	comp=Z,12nm,0.3s,baz=344,slow=19,SNR=3.6						
CN2	Changchun	17.41	328	*e*P	P	05 51 46.8	-0.6
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s						
YSS	Yuzh-Sakhalins	17.67	10	*e*P	P	05 51 47.9	-1.9
	comp=Z,37nm,0.7s						
YSS	Yuzh-Sakhalins	17.67	10	*e*P	P	05 51 49.5	-0.3
YSS				*e*S	S	05 54 48.0	+0.4
YSS				pmax	pmax		
	comp=Z,50nm,1.0s						
HABR	Khabarovsk	18.98	354	*e*P	P	05 52 02.5	+0.7
HABR				S	S	05 55 11.7	+2.9
HABR				pmax	pmax		
	comp=Z,108nm,1.6s						
KLR	Kul’dur	20.18	348	*e*P	P	05 52 09.6	-3.2
KLR				pmax	pmax		
	comp=E,56nm,1.4s						
KLR				pmax	pmax		
	comp=Z,64nm,1.4s						
WHN	Wuhan	20.62	279	P	P	05 52 17.8	+0.8
BJT	Baijiatuau	20.77	306	*e*P	P	05 52 17.6	-0.6
	comp=Z,33nm,1.0s						
BJT	Baijiatuau	20.77	306	*e*P	P	05 52 17.6	-0.6
BJT				pmax	pmax		
	comp=Z,33nm,1.0s						
TGY	Tagaytay City	22.18	230	P	P	05 52 32.3	+1.0
TGY				pmax	pmax		
	comp=Z,185nm,0.3s						
TGY	Tagaytay City	22.18	230	P	P	05 52 32.3	+1.0
	comp=Z,185nm,0.3s,baz=143,slow=8.8,SNR=4.1						
HIA	Hailar	24.11	330	*e*P	P	05 52 47.2	-1.0

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      comp=Z,21nm,1.0s,mb4.5
HIA   Hailar            24.11 330  eP     P      05 52 47.2 -0.9
HIA                                 pmax  pmax
      comp=Z,21nm,1.0s
HHC   Hu-ho-hao-te      24.35 305  eP     P      05 52 49.8 -0.6
HHC                                 S     S      05 56 35.4 +0.9
HHC                                 AMB   AMB
      comp=Z,7.0nm,1.0s,mb4.0
HHC                                 AMB   AMB
      comp=Z,150nm,5.0s
QIZ   Qiongzhong        27.80 254   P     P      05 53 19.9 -1.2
CD2   Chengdu           29.67 281  eP     P      05 53 37.0 -0.3
CD2                                 XP    sP     05 55 54.9 -3.2
CD2                                 S     S      05 57 58.3 +0.3
CD2                                 AMB   AMB
      comp=Z,10.0nm,0.8s,mb4.3
CD2                                 AMB   AMB
      comp=Z,30nm,4.8s
ULN   Ulaanbaatar       30.05 316  eP     P      05 53 40.5 +0.2
      comp=Z,22nm,0.8s,mb4.6
ULN   Ulaanbaatar       30.05 316  eP     P      05 53 40.5 +0.1
ULN                                 pmax  pmax
      comp=Z,22nm,0.8s,mb4.6
SONM  Songino Array     30.44 316   P     P      05 53 44.0 +0.3
SONM                                             05 56 28.0
SONM                                pmax  pmax
      comp=Z,6.0nm,0.5s
SONM                                pmax  pmax
      comp=Z,1.0nm,0.5s
SONM                                pmax  pmax
      comp=N,1.0nm,0.6s
SONM  Songino Array     30.44 316   P     P      05 53 44.0 +0.3
      comp=N,6.4nm,0.5s,mb4.3,baz=122,slow=7.7,SNR=57
SONM                                PcP   PcP    05 56 28.0 -0.3
      comp=N,0.7nm,0.5s,baz=135,slow=1.7,SNR=5.2
SONM                                ScP   ScP    05 59 22.1 -1.9
      comp=N,1.4nm,0.6s,baz=146,slow=3.4,SNR=8.8
MA2   Magadan           31.16  12  eP     P      05 53 49.7 -0.1
      comp=N,46nm,0.8s,mb5.0
MA2   Magadan           31.16  12c iP     P      05 53 49.8 +0.1
MA2                                 pmax  pmax
      comp=Z,58nm,0.8s,mb5.1
BOD   Bodaibo           32.80 336  eP     P      05 54 02.8 -1.0
BOD                                 pmax  pmax
      comp=Z,14nm,0.9s,mb4.4
GTA   Gaotai            32.86 298  eP     P      05 54 04.8 +0.2
GTA                                 AMB   AMB
      comp=Z,8.0nm,0.8s,mb4.2
YAK   Yakutsk           32.89 353  eP     P      05 54 03.8 -0.8
      comp=Z,44nm,0.6s,mb5.1
YAK   Yakutsk           32.89 353  eP     P      05 54 03.4 -1.1
YAK                                eS     S      05 58 44.4 -2.2
YAK                                 pmax  pmax
      comp=Z,36nm,0.8s,mb4.8
YAK                                 pmax  pmax
      comp=N,18nm,1.4s
YAK                                 pmax  pmax
      comp=E,5.0nm,0.8s
YAK                                 smax
      comp=N,13nm,1.0s
YAK                                 smax
      comp=E,10.0nm,1.0s
TLY   Talaya            33.74 321  eP     P      05 54 12.6 +0.7
      comp=E,16nm,0.7s,mb4.5
TLY   Talaya            33.74 321  eP     P      05 54 12.1 +0.2
TLY                                 pmax  pmax
      comp=Z,16nm,0.7s,mb4.6
TLY                                 MLR   MLR
      comp=Z,23nm,11.0s
SEY   Seymchan          34.57  11⇑iP     P      05 54 19.0 +0.3
NANT  Nan               35.68 261 ⇑P      P      05 54 27.0 -1.6
      comp=Z,212nm,1.0s,mb5.5
CHG   Chiang Mai        37.19 262 ⇑P      P      05 54 41.4 +0.3
      comp=Z,82nm,0.8s,mb5.2
CHTO  Chiang Mai        37.19 262  eP     P      05 54 41.3 +0.2
      comp=Z,29nm,0.6s,mb4.9
CHTO  Chiang Mai        37.19 262  eP     P      05 54 41.3 +0.2
CHTO                                pmax  pmax
      comp=Z,29nm,0.6s,mb4.9
KSM   Kuching           38.54 229  eP     P      05 54 53.0 +0.9
PMG   Port Moresby      39.76 166  eP     P      05 55 00.7 -1.4
BILL  Bilibino          41.88  15  eP     P      05 55 18.4 +0.1
      comp=Z,58nm,1.1s,mb4.9
BILL  Bilibino          41.88  15c iP     P      05 55 18.5 +0.2
BILL                                pmax  pmax
      comp=Z,67nm,1.3s,mb4.9
WMQ   Urumqi            42.22 304  eP     P      05 55 23.0 +1.6
WMQ                                 AP    pP     05 56 52.6 +1.3
WMQ                                 XP    sP     05 57 45.3 -1.4
WMQ                                 AMB   AMB
      comp=Z,11nm,0.8s,mb4.3
TIXI  Tiksi             42.39 356  eP     P      05 55 21.3 -0.9
      comp=Z,18nm,0.6s,mb4.7
TIXI  Tiksi             42.39 356  eP     P      05 55 21.3 -0.9
TIXI                               e      pP     05 56 49.8 -2.5
TIXI                               eS     S      06 01 08.6 +1.5
TIXI                                pmax  pmax
      comp=Z,19nm,0.7s,mb4.6
KAKA  Kakadu            42.44 188  eP     P      05 55 22.4 -1.0
      comp=Z,19nm,0.6s,mb4.7
KAKA  Kakadu            42.44 188  eP     P      05 55 22.3 -1.1
KULM  Kulim             42.87 243  eP     P      05 55 27.1 +0.2
TAPN  Taplejung         44.12 280  eP     P      05 55 37.0 +0.6
      comp=Z,18nm,0.4s,mb4.9
ODAN  Odare             44.52 279  eP     P      05 55 40.1 +0.5
      comp=Z,43nm,0.6s,mb5.0
ZALV  Zalesovo Beam     45.25 318   P     P      05 55 44.0 -0.8
      comp=Z,5.3nm,0.5s,mb4.2,baz=94,slow=7.3,SNR=38
ZALV                                PcP   PcP    05 57 13.4 -1.1
      comp=Z,3.1nm,0.5s,baz=109,slow=3.3,SNR=11
ZALV                                ScP   ScP    06 00 17.6 -2.6
      comp=Z,2.6nm,0.7s,baz=112,slow=3.9,SNR=9.3
ZAL   Zalesovo          45.26 318   P     P      05 55 44.0 -0.9
ZAL                                       pP     05 57 13.4 -3.1
JIRN  Jiri              45.34 281  eP     P      05 55 46.7 +0.8
      comp=Z,15nm,0.3s,mb5.0
PSI   Prapat            45.77 242   P     P      05 55 49.4 +0.1
PSI                                 PcP   PcP    05 57 16.8 -0.3
PSI   Prapat            45.77 242   P     P      05 55 49.4 +0.1
PSI                                              05 57 16.8
PSI                                 pmax  pmax
      comp=Z,17nm,0.8s,mb4.5
PSI                                 pmax  pmax
      comp=Z,5.0nm,0.7s,mb4.0
PSI   Prapat            45.77 242   P     P      05 55 49.4 +0.1
      comp=Z,17nm,0.8s,mb4.5,baz=22,slow=4.5,SNR=20
PSI                                 PcP   PcP    05 57 16.8 -0.3
      comp=Z,4.8nm,0.7s,baz=228,slow=3.1,SNR=3.9
KKN   Kakani            46.08 281  eP     P      05 55 52.0 +0.4
      comp=Z,43nm,0.9s,mb4.9
MK31  Makanchi Array    46.13 308  eP     P      05 55 51.2 -0.4
MK31                               ePcP   PcP    05 57 16.9 -0.9
MKAR  Makanchi Array    46.13 308   P     P      05 55 51.2 -0.5
MKAR                                PcP   PcP    05 57 17.2 -0.6
MKAR                                ScP   ScP    06 00 21.6 -2.4
MKAR  Makanchi Array    46.13 308   P     P      05 55 51.2 -0.4
MKAR                                             05 57 17.2
MKAR                                pmax  pmax
      comp=Z,7.0nm,0.6s
MKAR                                pmax  pmax
      comp=Z,2.0nm,0.7s
MKAR                                pmax  pmax
      comp=N,3.0nm,0.9s
MKAR  Makanchi Array    46.13 308   P     P      05 55 51.2 -0.5
      comp=N,6.7nm,0.6s,mb4.3,baz=91,slow=8.8,SNR=99
MKAR                                PcP   PcP    05 57 17.2 -0.6
      comp=N,1.9nm,0.7s,baz=79,slow=6.3,SNR=6.1
MKAR                                ScP   ScP    06 00 21.6 -2.4
      comp=N,3.3nm,0.9s,baz=79,slow=6.3,SNR=11
GKN   Gorkha            46.57 282  eP     P      05 55 55.7 +0.4
      comp=N,12nm,0.4s,mb4.6
KURK  Kurchatov         48.68 313  eP     P      05 56 10.2 -0.6
      comp=N,13nm,0.7s,mb4.4
KURK  Kurchatov         48.68 313c iP     P      05 56 10.1 -0.7
FITZ  Fitzroy Crossi    48.96 196  eP     P      05 56 12.7 -0.5
      comp=N,15nm,0.7s,mb4.4
FITZ  Fitzroy Crossi    48.96 196   P     P      05 56 13.2  0.0
      comp=N,9.6nm,0.7s,mb4.2,baz=16,slow=9.2,SNR=21
WB2   Warramunga Arr    49.41 185⇓iP     P      05 56 15.9 -0.6
WRA   Warramunga Arr    49.41 185   P     P      05 56 15.9 -0.6
WRA                                              05 57 29.4
WRA                                 *PP   pP     05 57 49.8 -0.7
WRA                                 pmax  pmax
      comp=Z,25nm,0.5s
WRA                                 pmax  pmax
      comp=Z,3.0nm,0.6s
WRA                                 pmax  pmax
      comp=Z,4.0nm,0.8s
WRA                                 pmax  pmax
      comp=N,1.0nm,0.8s
WRA   Warramunga Arr    49.41 185   P     P      05 56 15.9 -0.6
      comp=N,24nm,0.5s,mb4.8,baz=0.6,slow=7.7,SNR=107
WRA                                 PcP   PcP    05 57 29.4 -0.6
      comp=N,2.6nm,0.6s,baz=357,slow=4.1,SNR=6.2
WRA                                 pP    pP     05 57 49.8 -0.7
      comp=N,4.0nm,0.8s,baz=3.6,slow=8.2,SNR=6.5
WRA                                 ScP   ScP    06 00 37.0 -1.2
      comp=N,1.2nm,0.8s,baz=358,slow=4.5,SNR=5.3
CTA   Charters Tower    50.03 170  eP     P      05 56 21.0 -0.1
      comp=N,2.6nm,0.6s,mb3.7
CTA   Charters Tower    50.03 170   P     P      05 56 20.5 -0.6
CTA                                 pmax  pmax
      comp=Z,3.0nm,0.6s
CTA   Charters Tower    50.03 170   P     P      05 56 20.5 -0.6
      comp=Z,3.2nm,0.6s,mb3.8,baz=355,slow=11,SNR=7.0
CTAO  Charters Tower    50.03 170  eP     P      05 56 20.8 -0.3
      comp=Z,3.8nm,0.7s,mb3.8
CTAO  Charters Tower    50.03 170  eP     P      05 56 20.8 -0.3
CTAO                                pmax  pmax
      comp=Z,4.0nm,0.7s,mb3.9
TKM2  Tokmak 2          51.07 303   P     P      05 56 29.3 +0.8
      SNR=6.0
TKM2  Tokmak 2          51.07 303  eP     P      05 56 28.8 +0.3
      comp=Z,5.8nm,0.8s,mb4.0
TKM2  Tokmak 2          51.07 303  eP     P      05 56 28.8 +0.3
TKM2                                pmax  pmax
      comp=Z,6.0nm,0.8s,mb4.0
KZA   Kyzart            51.42 302   P     P      05 56 32.8 +1.7
      SNR=6.2
AAK   Ala-Archa         51.91 303   P     P      05 56 35.0 +0.4
      SNR=5.0
AAK   Ala-Archa         51.91 303  eP     P      05 56 33.4 -1.2
      comp=Z,3.7nm,0.6s,mb3.9
AAK   Ala-Archa         51.91 303c iP     P      05 56 33.9 -0.7
AAK                                 pmax  pmax
      comp=Z,4.0nm,0.8s,mb3.8
UCH   Uchtor            51.95 302   P     P      05 56 36.4 +1.5
      SNR=9.6
UCH   Uchtor            51.95 302  eP     P      05 56 35.7 +0.8
      comp=Z,6.2nm,0.7s,mb4.0
EKS2  Erkin-Say         52.43 303  eP     P      05 56 38.1 -0.3
      comp=Z,2.8nm,0.9s,mb3.6
EKS2                               ePcP   PcP    05 57 40.7 -0.5
AML   Almayashu         52.56 302   P     P      05 56 40.6 +1.3
      SNR=13
AML   Almayashu         52.56 302  eP     P      05 56 40.3 +0.9
      comp=Z,7.5nm,0.5s,mb4.3
ASAR  Alice Springs     53.14 185   P     P      05 56 43.1 -0.5
ASAR                                             05 57 43.8
ASAR                                *PP   pP     05 58 19.5 +0.1
ASAR                                pmax  pmax
      comp=Z,7.0nm,0.5s
ASAR                                pmax  pmax
      comp=Z,2.0nm,0.8s
ASAR                                pmax  pmax
      comp=Z,1.0nm,0.6s
ASAR                                pmax  pmax
      comp=N,1.0nm,0.6s
ASAR  Alice Springs     53.14 185   P     P      05 56 43.0 -0.5
      comp=N,6.5nm,0.5s,mb4.2,baz=359,slow=5.5,SNR=56
ASAR                                PcP   PcP    05 57 43.8 -0.2
      comp=N,2.3nm,0.8s,baz=7.4,slow=4.4,SNR=6.2
ASAR                                pP    pP     05 58 19.5  0.0
      comp=N,0.8nm,0.6s,baz=16,slow=11,SNR=2.7
ASAR                                ScP   ScP    06 00 52.7 -1.5
      comp=N,1.1nm,0.6s,baz=4.2,slow=4.7,SNR=6.9
MBWA  Marble Bar        53.51 202  eP     P      05 56 45.6 -0.7
      comp=N,20nm,0.6s,mb4.6
MBWA                               ePcP   PcP    05 57 44.5 -1.0
BRVK  Borovoye          53.84 316  eP     P      05 56 47.7 -0.6
      comp=N,17nm,0.8s,mb4.4
BRVK  Borovoye          53.84 316  eP     P      05 56 47.7 -0.5
BRVK                                pmax  pmax
      comp=Z,17nm,0.8s,mb4.4
IMA2  Indian Mountai    54.47  28  eP     P      05 56 52.2 -0.2
IMA2                               ePcP   PcP    05 57 48.8 +0.3
KDAK  Kodiak Island     54.52  38   P     P      05 56 51.8 -1.1
      comp=Z,9.0nm,0.9s,mb4.1,baz=275,slow=18,SNR=9.0
KKAR  Karatay Array     54.73 304  i P    P      05 56 54.6 -0.1
KKAR                                pmax  pmax
      comp=Z,3.0nm,0.4s,mb4.0
MCK   McKinley          56.34  31  eP     P      05 57 05.3 -0.2
      comp=Z,8.0nm,1.0s,mb4.0
MCK   McKinley          56.34  31  eP     P      05 57 05.3 -0.3
MCK                                 pmax  pmax
      comp=Z,8.0nm,1.0s,mb4.0
COLA  College           56.83  29  eP     P      05 57 08.8 -0.1
      comp=Z,7.7nm,0.9s,mb4.0
COLA  College           56.83  29  eP     P      05 57 08.8 -0.1
COLA                                pmax  pmax
      comp=Z,8.0nm,0.9s,mb4.0
KBL   Kabul             57.74 294  eP     P      05 57 15.7  0.0
DZM   Mont Dzumac       58.16 149   P     P      05 57 19.3 +0.7
      comp=Z,5.8nm,0.7s,mb4.0,baz=275,slow=13,SNR=6.6
ARU   Arti              60.25 321  eP     P      05 57 31.5 -0.7
ARU   Arti              60.25 321⇓iP     P      05 57 31.2 -1.0
ARU                                e             05 58 10.9
ARU                                e             05 59 47.2
ARU                                eS     S      06 05 07.6 -0.1
ARU                                eSS    SS     06 09 14.9 -0.3
ARU                                 pmax  pmax
      comp=Z,18nm,0.8s,mb4.5
AB31  Akbulak array     60.79 313  i P    P      05 57 35.2 -0.7
AB31                                pmax  pmax
      comp=Z,3.0nm,0.5s,mb4.0
FORT  Forrest           60.83 190  eP     P      05 57 36.1 -0.2
      comp=Z,60nm,0.5s,mb5.3
STKA  Stephens Creek    61.25 177  eP     P      05 57 38.8 -0.2
      comp=Z,11nm,0.6s,mb4.5
STKA  Stephens Creek    61.25 177   P     P      05 57 38.5 -0.5
      comp=Z,13nm,0.6s,mb4.6,baz=343,slow=7.1,SNR=29
AKTK  Aktyubinsk        61.74 314   P     P      05 57 41.2 -1.0
AKTO  Aktyubinsk        61.74 314   P     P      05 57 41.2 -1.0
AKTO                                pmax  pmax
      comp=Z,5.0nm,0.7s,mb4.0
AKTO  Aktyubinsk        61.74 314   P     P      05 57 41.2 -1.0
      comp=Z,5.2nm,0.7s,mb4.1,baz=82,slow=5.3,SNR=24
INK   Inuvik            62.23  25  eP     P      05 57 45.4 +0.4
INK   Inuvik            62.23  25   P     P      05 57 43.6 -1.3
      comp=Z,2.1nm,0.5s,mb3.8,baz=302,slow=6.1,SNR=25
KLBR  Kellerberrin      63.89 199  eP     P      05 57 55.3 -0.9
      comp=Z,12nm,0.8s,mb4.5
NWAO  Narrogin (SRO)    65.29 199  eP     P      05 58 04.3 -0.7
KEV   Kevo              69.41 340  ep     P      05 58 28.4 -1.5
      comp=Z,6.6nm,0.5s,mb4.4
KEV   Kevo              69.41 340  eP     P      05 58 28.4 -1.5
KEV                                 pmax  pmax
      comp=Z,7.0nm,0.5s,mb4.5
ARCES ARCESS Array B    69.98 340   P     P      05 58 32.7 -0.6
ARCES                               pmax  pmax
      comp=Z,11nm,0.6s
ARCES ARCESS Array B    69.98 340   P     P      05 58 32.6 -0.7
      comp=Z,10nm,0.6s,mb4.5,baz=63,slow=7.9,SNR=59
RES   Resolute Bay      70.43  13  eP     P      05 58 36.0  0.0
      comp=Z,271nm,0.7s
JOF   Joensuu           71.23 332  ep     P      05 58 38.7 -2.1
      comp=Z,16nm,0.5s,mb4.8
JOF   Joensuu           71.23 332  eP     P      05 58 38.7 -2.1
JOF                                 pmax  pmax
      comp=Z,16nm,0.5s,mb4.8
YKW3  Yellowknife Ar    71.56  28  eP     P      05 58 42.9 +0.2
YKA   Yellowknife Ar    71.60  28   P     P      05 58 41.9 -1.1
YKA                                 *PP   pP     06 00 24.6 -1.9
YKA                                 pmax  pmax
      comp=Z,3.0nm,0.5s
YKA   Yellowknife Ar    71.60  28   P     P      05 58 41.9 -1.1
      comp=Z,2.6nm,0.5s,mb4.0,baz=298,slow=6.0,SNR=10
YKA                                 pP    pP     06 00 24.6 -1.9
      comp=Z,0.2nm,0.5s,baz=298,slow=6.4,SNR=1.9
OBN   Obninsk           72.42 324⇑eP     P      05 58 47.1 -0.8
OBN                                e*PP   pP     06 00 31.6 -0.1
OBN                                e*SP   sP     06 01 25.1 +2.0
OBN                                e             06 01 35.8
OBN                                eS     S      06 07 30.5 -1.3
OBN                                eSS    SS     06 12 21.7 -0.4
OBN                                 pmax  pmax
      comp=Z,29nm,1.1s,mb4.7
VRSR  Storozhevoye      72.72 319  eP     P      05 58 49.6 -0.2
VRSR                                pmax  pmax
      comp=Z,3.0nm,0.9s,mb3.8
VRSR                                pmax  pmax
      comp=N,1.0nm,0.8s
VRSR                                pmax  pmax
      comp=E,5.0nm,0.9s
KAF   Kangasniemi       73.64 333  ep     P      05 58 52.8 -2.0
      comp=E,8.8nm,0.5s,mb4.5,baz=55,slow=5.3
KAF   Kangasniemi       73.64 333  eP     P      05 58 52.8 -2.0
KAF                                 pmax  pmax
      comp=Z,9.0nm,0.5s,mb4.6
KIV   Kislovodsk        73.73 312  eP     P      05 58 56.1 +0.4
KIV                                 pmax  pmax
      comp=Z,7.0nm,0.6s,mb4.4
B04A  Port Angeles      73.74  44 ⇓P      P      05 58 57.0 +1.4
      baz=74
FINES FINESS Array B    74.10 332  i P    P      05 58 56.5 -0.9
FINES                               pmax  pmax
      comp=Z,5.0nm,0.5s
FINES FINESS Array B    74.10 332   P     P      05 58 56.5 -0.9
      comp=Z,5.2nm,0.5s,mb4.3,baz=72,slow=6.0,SNR=50
A05A  Maple Falls       74.17  42 ⇑P      P      05 58 57.7 -0.4
      baz=74
A06A  Chilliwack        74.48  42 ⇓P      P      05 58 59.1 -0.7
      baz=74
B05A  Bryant            74.49  43 ⇓P      P      05 58 60.0  0.0
      baz=74
C05A  Tolt Reservoir    75.00  44 ⇓P      P      05 59 03.6 +0.8
      baz=75
G03A  Yamhill           75.11  46 ⇑P      P      05 59 03.5  0.0
      baz=75
A07A  Ashnola River,    75.14  42 ⇓P      P      05 59 03.9 +0.3
      baz=75
F04A  Amboy             75.36  45 ⇓P      P      05 59 05.2 +0.3
      baz=75
C06A  Tall Timber Ra    75.37  43 ⇑P      P      05 59 05.3 +0.4
      baz=75
H03A  Soap Creek Ran    75.39  47 ⇓P      P      05 59 05.8 +0.8
      baz=75
B07A  Winthrop          75.57  42 ⇓P      P      05 59 05.7 -0.3
      baz=75,SNR=5.9
I03A  Eugene            75.72  47 ⇓P      P      05 59 07.5 +0.5
      baz=76
D06A  Cle Elum          75.74  44 ⇑P      P      05 59 06.5 -0.5
      baz=76
J02A  Umpqua            75.81  48 ⇓P      P      05 59 08.4 +1.0
      baz=76
SOC   Sochi             75.82 312  i P    P      05 59 08.0 +0.5
A08A  Turner Farm, O    75.83  42 ⇑P      P      05 59 07.1 -0.3
      baz=76
E06A  Yakima            75.97  44 ⇑P      P      05 59 08.1 -0.1
      baz=76
C07A  Waterville        75.97  43   P     P      05 59 08.2  0.0
      baz=76,SNR=9.0
B08A  Colville Reser    76.08  42   P     P      05 59 09.1 +0.3
      baz=76,SNR=6.2
H04A  Detroit Lake      76.09  46 ⇓P      P      05 59 08.7 -0.2
      baz=76
K02A  Glendale          76.14  49 ⇑P      P      05 59 09.0 -0.3
      baz=76
J03A  Ideyld Park       76.20  48 ⇓P      P      05 59 10.6 +1.0
      baz=76
A09A  Danville          76.21  41   P     P      05 59 10.3 +0.8
      baz=76,SNR=5.1
D07A  Quincy            76.26  43 ⇑P      P      05 59 10.4 +0.6
      baz=76
I04A  Tendick Farm,     76.36  47 ⇓P      P      05 59 10.7 +0.3
      baz=76
G05A  Wamic             76.37  46 ⇑P      P      05 59 11.6 +1.1
      baz=76
C08A  Higginbotham F    76.53  43   P     P      05 59 11.4 +0.2
      baz=76,SNR=6.9
HUMO  Hull Mountain     76.56  49 ⇑P      P      05 59 11.3 -0.3
      baz=76
E07A  Sunnyside         76.64  44 ⇑P      P      05 59 11.5 -0.4
      baz=76
JCC   Jacoby Creek      76.68  51 ⇓P      P      05 59 13.2 +1.0
      baz=76
ANN   Anapa             76.70 314  eP     P      05 59 11.7 -0.6
ANN                                e             05 59 19.6
ANN                                e*PP   pP     06 00 59.1 +1.5
ANN                                e             06 02 15.5
ANN                                eS     S      06 08 19.6 +0.8
ANN                                eSS    SS     06 13 30.8 +3.9
ANN                                 pmax  pmax
      comp=Z,36nm,1.5s,mb4.7
URZ   Urewera           76.71 149   P     P      05 59 10.5 -1.8
      comp=Z,3.2nm,0.5s,mb4.1,baz=270,slow=3.0,SNR=4.3
B09A  Rice              76.74  42 ⇓P      P      05 59 11.9 -0.5
      baz=76
A10A  Northport         76.80  41 ⇑P      P      05 59 12.8 +0.1
      baz=77
G06A  Carlson Farm,     76.80  45 ⇑P      P      05 59 12.6 -0.2
      baz=77
J04A  Umpqua Nationa    76.82  48   P     P      05 59 14.0 +1.0
      baz=77,SNR=5.7
EDM   Edmonton          76.89  36  eP     P      05 59 13.3 +0.2
F07A  Phinny Hill Vi    76.92  45 ⇓P      P      05 59 13.2 -0.3
      baz=77
D08A  Wollman Farm,     76.96  43   P     P      05 59 14.0 +0.4
      baz=77,SNR=5.3
C09A  Chrisman Ranch    76.97  42 ⇑P      P      05 59 14.2 +0.5
      baz=77
YBH   Yreka Blue Hor    77.14  49 ⇓P      P      05 59 14.9 +0.2
      baz=77
M02C  Callahan          77.20  50 ⇑P      P      05 59 15.7 +0.6
      baz=77
H06A  Lindquist Farm    77.23  46 ⇑P      P      05 59 15.3 +0.2
      baz=77
D09A  Jones Farm, Ri    77.32  43 ⇑P      P      05 59 15.2 -0.4
      baz=77
J05A  Fort Rock         77.36  47   P     P      05 59 17.0 +1.1
      baz=77,SNR=5.8
G07A  Ruggs Ranch, H    77.38  45 ⇑P      P      05 59 16.1 +0.1
      baz=77
NEW   Newport           77.41  41  eP     P      05 59 16.3 +0.2
      comp=Z,6.9nm,1.0s,mb4.1
NEW   Newport           77.41  41  eP     P      05 59 16.3 +0.2
NEW                                 pmax  pmax
      comp=Z,7.0nm,1.0s
A11A  Hall Mountain,    77.49  41 ⇓P      P      05 59 18.0 +1.4
      baz=77
C10A  Spilker Farm,     77.53  42 ⇓P      P      05 59 17.3 +0.5
      baz=77
F08A  Pendleton         77.67  44 ⇓P      P      05 59 17.3 -0.2
      baz=77
M04C  Macdoel           77.69  49 ⇓P      P      05 59 18.6 +0.9
      baz=78
E09A  Wood Farm, Sta    77.69  43 ⇓P      P      05 59 16.6 -1.0
      baz=78
I06A  Prineville        77.69  46 ⇓P      P      05 59 18.3 +0.6
      baz=78
M03C  McCloud           77.74  49 ⇑P      P      05 59 17.6 -0.4
      baz=78
H07A  Lands Inn, Kim    77.78  46 ⇑P      P      05 59 18.0 -0.1
      baz=78
G08A  Pilot Rock        77.81  45 ⇓P      P      05 59 19.1 +0.8
      baz=78
O02C  Red Bluff         77.82  51 ⇑P      P      05 59 19.2 +0.7
      baz=78
K05A  Summer Lake       77.85  48 ⇑P      P      05 59 19.7 +1.1
      baz=78
A12A  Yaak River Ran    77.90  40 ⇑P      P      05 59 19.2 +0.5
      baz=78
D10A  Wagner Farm, O    77.93  43 ⇓P      P      05 59 18.6 -0.4
      baz=78
J06A  Christmas Vall    78.06  47 ⇓P      P      05 59 19.4 -0.3
      baz=78
I07A  Izee              78.06  46 ⇑P      P      05 59 20.0 +0.3
      baz=78
B12A  Libby             78.18  41 ⇑P      P      05 59 20.1 -0.2
      baz=78
F09A  S2 Ranch, Elgi    78.23  44 ⇓P      P      05 59 21.7 +1.1
      baz=78
M05C  Lookout           78.34  49 ⇓P      P      05 59 21.2 -0.1
      baz=78
H08A  Prairie City      78.37  45 ⇓P      P      05 59 21.6 +0.2
      baz=78
AKASG Malin Array Be    78.47 322   P     P      05 59 20.3 -1.5
AKASG                               pmax  pmax
      comp=Z,4.0nm,0.5s
AKASG Malin Array Be    78.47 322   P     P      05 59 20.3 -1.4
      comp=Z,3.6nm,0.5s,mb4.0,baz=50,slow=5.3,SNR=16
AKBB  Malin Array Si    78.47 322  eP     P      05 59 20.3 -1.5
KIEV  Kiev              78.48 322  eP     P      05 59 20.2 -1.7
      comp=Z,5.9nm,0.8s,mb4.1
KIEV  Kiev              78.48 322  eP     P      05 59 20.2 -1.6
KIEV                                pmax  pmax
      comp=Z,6.0nm,0.8s,mb4.1
D11A  Klaveano Farm,    78.49  42 ⇓P      P      05 59 21.9  0.0
      baz=78
J07A  Hines             78.54  47   P     P      05 59 23.4 +1.1
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	baz=78,SNR=6.0						
A13A	**Flathead Natio**	**78.60**	**40**	⇑P	**P**	**05 59 22.6**	**+0.1**
	baz=78						
MOD	**Modoc**	**78.63**	**48**	*e*P	**P**	**05 59 23.2**	**+0.4**
MOD	**Modoc**	**78.63**	**48**	⇑P	**P**	**05 59 22.7**	**-0.1**
	baz=78						
I08A	**Drewsey**	**78.74**	**46**	⇓P	**P**	**05 59 22.6**	**-0.7**
	baz=78						
B13A	**Whitefish**	**78.87**	**40**	⇓P	**P**	**05 59 24.5**	**+0.6**
	baz=79						
O04C	**Chester**	**78.89**	**50**	⇑P	**P**	**05 59 24.3**	**+0.1**
	baz=79						
H09A	**Durkee**	**78.91**	**45**	⇑P	**P**	**05 59 23.5**	**-0.8**
	baz=79						
K07A	**Rock Creek Ran**	**78.92**	**47**	⇓P	**P**	**05 59 24.1**	**-0.2**
	baz=79						
E11A	**Bogner Ranch,**	**78.92**	**43**	⇑P	**P**	**05 59 23.3**	**-0.9**
	baz=79						
BSMT	**Bassoo Peak**	**78.96**	**41**	*e*P	**P**	**05 59 24.6**	**+0.2**
ORV	**Oroville**	**78.99**	**51**	⇑P	**P**	**05 59 24.3**	**-0.5**
	baz=79						
D12A	**Red Ives Fores**	**79.06**	**42**	⇑P	**P**	**05 59 24.7**	**-0.3**
	baz=79						
J08A	**Circle Bar Ran**	**79.07**	**46**	P	**P**	**05 59 25.9**	**+0.7**
	baz=79,SNR=6.3						
Q03C	**Winters**	**79.09**	**52**	⇓P	**P**	**05 59 25.3**	**-0.1**
	baz=79						
MALT	**Malatya**	**79.17**	**308**	*e*P	**P**	**05 59 26.0**	**+0.2**
	comp=Z,2.5nm,0.8s,mb3.8						
MALT	**Malatya**	**79.17**	**308**	*e*P	**P**	**05 59 26.0**	**+0.2**
MALT				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
C13A	**Hot Springs**	**79.18**	**41**	P	**P**	**05 59 26.1**	**+0.5**
	baz=79,SNR=5.6						
L07A	**Adell**	**79.20**	**48**	⇑P	**P**	**05 59 26.0**	**+0.2**
	baz=79						
F11A	**Grangeville**	**79.20**	**43**	⇓P	**P**	**05 59 25.9**	**+0.1**
	baz=79						
I09A	**Lost Marbles R**	**79.22**	**45**	⇓P	**P**	**05 59 26.6**	**+0.7**
	baz=79						
K08A	**Mann Creek Ran**	**79.38**	**47**	⇓P	**P**	**05 59 26.9**	**+0.1**
	baz=79						
Q04C	**Lincoln**	**79.42**	**51**	⇑P	**P**	**05 59 27.7**	**+0.6**
	baz=79						
WVOR	**Wild Horse Val**	**79.44**	**47**	*e*P	**P**	**05 59 26.8**	**-0.3**
	comp=Z,2.0nm,0.7s,mb3.8						
WVOR	**Wild Horse Val**	**79.44**	**47**	*e*P	**P**	**05 59 26.8**	**-0.3**
WVOR				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
N06A	**Buffalo Meadow**	**79.51**	**49**	⇑P	**P**	**05 59 27.9**	**+0.4**
	baz=79						
H10A	**Noah's Angus R**	**79.52**	**45**	⇓P	**P**	**05 59 27.5**	**0.0**
	baz=79						
J09A	**Fry Pan Ranch,**	**79.53**	**46**	⇑P	**P**	**05 59 27.6**	**+0.1**
	baz=79						
BEKR	**Beckwourth**	**79.60**	**50**	⇑P	**P**	**05 59 28.5**	**+0.5**
	baz=79						
M07A	**Soldier Meadow**	**79.62**	**48**	⇓P	**P**	**05 59 29.1**	**+1.0**
	baz=79						
SUW	**Suwalki**	**79.63**	**327**	*e*P	**P**	**05 59 27.1**	**-0.8**
HFS	**Hagfors**	**79.68**	**335**	P	**P**	**05 59 26.2**	**-1.8**
HFS				pmax	pmax		
	comp=Z,8.0nm,0.6s						
HFS	**Hagfors**	**79.68**	**335**	P	**P**	**05 59 26.2**	**-1.8**
	comp=Z,7.9nm,0.6s,mb4.5,baz=94,slow=4.5,SNR=39						
P05C	**Yuba Gap, Truc**	**79.71**	**51**	⇓P	**P**	**05 59 29.2**	**+0.5**
	baz=80						
L08A	**Fields**	**79.75**	**47**	P	**P**	**05 59 29.7**	**+0.9**
	baz=80,SNR=7.8						
F12A	**Elk City**	**79.80**	**43**	P	**P**	**05 59 29.8**	**+0.8**
	baz=80,SNR=10						
O06A	**Flanigan**	**79.81**	**50**	⇓P	**P**	**05 59 29.5**	**+0.4**
	baz=80						
K09A	**Rome**	**79.88**	**47**	⇑P	**P**	**05 59 29.3**	**-0.2**
	baz=80						
LAVA	**Lava Cap Winer**	**79.90**	**51**	⇓P	**P**	**05 59 28.5**	**-1.1**
	baz=80						
H11A	**Donnelly**	**79.90**	**44**	⇓P	**P**	**05 59 29.1**	**-0.4**
	baz=80						
NOA	**NORSAR Array B**	**79.93**	**337**	P	**P**	**05 59 28.2**	**-1.1**
NOA	**NORSAR Array B**	**79.93**	**337**	P	**P**	**05 59 28.2**	**-1.1**
NOA				pmax	pmax		
	comp=Z,9.0nm,0.7s						
NOA	**NORSAR Array B**	**79.93**	**337**	P	**P**	**05 59 28.2**	**-1.1**
	comp=Z,8.7nm,0.7s,mb4.4,baz=46,slow=5.1,SNR=44						
E13A	**Victor**	**80.06**	**42**	⇑P	**P**	**05 59 30.4**	**+0.1**
	baz=80						
J10A	**Berg Farm, Mel**	**80.11**	**46**	⇑P	**P**	**05 59 30.7**	**+0.1**
	baz=80						
D14A	**Greenough**	**80.11**	**41**	⇓P	**P**	**05 59 29.9**	**-0.6**
	baz=80						
NAO01	**NORSAR Array S**	**80.18**	**337**	*e*P	**P**	**05 59 28.9**	**-1.7**
	comp=Z,5.3nm,0.7s,mb4.2						
L09A	**Wilkinson Ranc**	**80.27**	**47**	⇓P	**P**	**05 59 31.4**	**-0.1**
	baz=80						
F13A	**Darby**	**80.33**	**43**	⇑P	**P**	**05 59 30.9**	**-0.9**
	baz=80						
I11A	**Placerville**	**80.35**	**45**	⇑P	**P**	**05 59 32.2**	**+0.4**
	baz=80						
R05C	**Kirkwood Meado**	**80.37**	**51**	⇑P	**P**	**05 59 32.1**	**0.0**
	baz=80						
K10A	**MacKenzie Ranc**	**80.38**	**46**	⇓P	**P**	**05 59 32.2**	**+0.2**
	baz=80						
PACP	**Pacheco Peak**	**80.39**	**53**	⇓P	**P**	**05 59 33.4**	**+1.2**
	baz=80						
O07A	**Toulon**	**80.44**	**49**	⇑P	**P**	**05 59 32.9**	**+0.5**
	baz=80						
E14A	**Clinton**	**80.48**	**42**	⇑P	**P**	**05 59 32.3**	**-0.2**
	baz=80						
CMB	**Columbia Colle**	**80.50**	**52**	⇓P	**P**	**05 59 32.5**	**-0.3**
	baz=80						
N08A	**GE Springer Mi**	**80.61**	**48**	P	**P**	**05 59 33.8**	**+0.5**
	baz=80,SNR=5.1						
H12A	**Diamond D Ranc**	**80.68**	**44**	⇑P	**P**	**05 59 33.2**	**-0.4**
	baz=80						
MFID	**Camas Ranch**	**80.69**	**45**	⇓P	**P**	**05 59 33.8**	**+0.1**
	baz=80						
M09A	**Marrel Ranch,**	**80.72**	**48**	⇓P	**P**	**05 59 35.5**	**+1.7**
	baz=80						
G13A	**Cobalt**	**80.76**	**43**	⇓P	**P**	**05 59 33.6**	**-0.4**
	baz=80						
F14A	**Wisdom**	**80.88**	**42**	⇓P	**P**	**05 59 35.1**	**+0.5**
	baz=81						
R06C	**Coleville**	**80.89**	**51**	⇓P	**P**	**05 59 35.4**	**+0.7**
	baz=81						
N09A	**Rock Creek Ran**	**80.97**	**48**	⇑P	**P**	**05 59 35.5**	**+0.4**
	baz=81						
E15A	**Deer Lodge**	**80.97**	**41**	⇑P	**P**	**05 59 34.8**	**-0.2**
	baz=81						
L10A	**Juniper Basin**	**81.00**	**47**	⇑P	**P**	**05 59 35.5**	**+0.2**
	baz=81						
H13A	**Challis**	**81.04**	**44**	P	**P**	**05 59 35.9**	**+0.5**
	baz=81,SNR=8.9						
G14A	**Jackson**	**81.14**	**43**	⇓P	**P**	**05 59 36.2**	**+0.3**
	baz=81						
M10A	**I.L. Ranch, Tu**	**81.25**	**47**	⇑P	**P**	**05 59 37.2**	**+0.7**
	baz=81						
F15A	**Butte**	**81.38**	**42**	P	**P**	**05 59 37.7**	**+0.6**
	baz=81,SNR=9.7						
R07C	**Lee Vining**	**81.38**	**51**	⇑P	**P**	**05 59 37.7**	**+0.4**
	baz=81						
LRM	**Limekiln Ridge**	**81.41**	**42**	*e*P	**P**	**05 59 37.4**	**0.0**
FFC	**Flin Flon**	**81.43**	**31**	*e*P	**P**	**05 59 37.1**	**-0.1**
	comp=Z,4.8nm,0.8s,mb4.1						
FFC	**Flin Flon**	**81.43**	**31**	*e*P	**P**	**05 59 37.1**	**-0.1**
FFC				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.1						
I13A	**Wildhorse Cree**	**81.47**	**44**	P	**P**	**05 59 38.7**	**+1.0**
	baz=81,SNR=5.2						
HLID	**Hailey**	**81.48**	**45**	*e*P	**P**	**05 59 37.8**	**0.0**
	comp=Z,2.5nm,0.8s,mb3.8						
HLID	**Hailey**	**81.48**	**45**	⇓P	**P**	**05 59 38.2**	**+0.4**
	baz=81						
O09A	**Fish Creek Ran**	**81.54**	**49**	⇑P	**P**	**05 59 38.3**	**+0.1**
	baz=81						
BR131	**Keskin Array S**	**81.68**	**311**	*e*P	**P**	**05 59 38.7**	**-0.2**
	comp=Z,7.1nm,0.8s,mb4.2						
BRTR	**Keskin Array B**	**81.68**	**311**	*i*P	**P**	**05 59 38.7**	**-0.1**
BRTR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
BRTR	**Keskin Array B**	**81.68**	**311**	P	**P**	**05 59 38.6**	**-0.2**
	comp=Z,8.1nm,0.8s,mb4.3,baz=84,slow=4.6,SNR=43						
EGMT	**Eagleton**	**81.68**	**39**	*e*P	**P**	**05 59 38.2**	**-0.4**
	comp=Z,5.3nm,0.8s,mb4.1						
EGMT	**Eagleton**	**81.68**	**39**	⇓P	**P**	**05 59 38.1**	**-0.6**
	baz=81						
K12A	**Draper Farm, C**	**81.69**	**46**	⇑P	**P**	**05 59 38.7**	**-0.1**
	baz=82						
NVAR	**Mina Array Bea**	**81.71**	**51**	P	**P**	**05 59 39.4**	**+0.4**
	comp=Z,1.9nm,0.6s,mb3.8,baz=287,slow=6.0,SNR=12						
J13A	**Cove Ranch, Pi**	**81.72**	**45**	P	**P**	**05 59 40.0**	**+1.0**
	baz=82,SNR=5.5						
G15A	**Dillon**	**81.76**	**42**	P	**P**	**05 59 39.5**	**+0.4**
	baz=82,SNR=8.0						
M11A	**Holland Ranch,**	**81.77**	**47**	⇑P	**P**	**05 59 40.3**	**+1.0**
	baz=82						
FCC	**Fort Churchill**	**81.85**	**25**	*e*P	**P**	**05 59 38.4**	**-0.9**
	comp=Z,2.0nm,0.7s,mb3.8						
FCC	**Fort Churchill**	**81.85**	**25**	*e*P	**P**	**05 59 38.4**	**-0.9**
FCC				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
L12A	**House Creek Ra**	**81.88**	**46**	⇑P	**P**	**05 59 40.1**	**+0.3**
	baz=82						
O10A	**Cortez Mining,**	**81.92**	**48**	⇑P	**P**	**05 59 40.2**	**+0.1**
	baz=82						
BOZ	**Bozeman (W)**	**81.99**	**42**	*e*P	**P**	**05 59 40.4**	**+0.1**
	comp=Z,1.7nm,0.6s,mb3.8						
BOZ	**Bozeman (W)**	**81.99**	**42**	*e*P	**P**	**05 59 40.4**	**+0.1**
BOZ				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.8						
BOZ	**Bozeman (W)**	**81.99**	**42**	⇓P	**P**	**05 59 40.2**	**-0.1**
	baz=82						
HELL	**Mitchell Peak,**	**82.12**	**52**	⇑P	**P**	**05 59 40.4**	**-0.7**
	baz=82						
K13A	**Stover Farm, H**	**82.19**	**45**	⇓P	**P**	**05 59 42.3**	**+0.9**
	baz=82						
S08C	**White Mtn Res**	**82.28**	**51**	⇑P	**P**	**05 59 42.8**	**+0.8**
	baz=82						
P10A	**Eureka**	**82.30**	**49**	⇑P	**P**	**05 59 42.3**	**+0.2**
	baz=82						
M12A	**Wells**	**82.34**	**47**	P	**P**	**05 59 43.5**	**+1.3**
	baz=82,SNR=5.8						
KWP	**Kalwaria**	**82.51**	**324**	*e*P	**P**	**05 59 42.2**	**-0.7**
	comp=Z,21nm,1.0s,mb4.6						
KWP	**Kalwaria**	**82.51**	**324**	*e*P	**P**	**05 59 42.2**	**-0.7**
KWP				pmax	pmax		
	comp=Z,21nm,1.0s,mb4.6						
O11A	**Cowboy Ranch,**	**82.55**	**48**	⇑P	**P**	**05 59 43.5**	**+0.2**
	baz=82						
N12A	**Clover Valley,**	**82.56**	**47**	⇓P	**P**	**05 59 44.1**	**+0.8**
	baz=82						
L13A	**Double Diamond**	**82.58**	**46**	⇑P	**P**	**05 59 44.0**	**+0.6**
	baz=82						
R09A	**Tonopah**	**82.63**	**50**	P	**P**	**05 59 44.3**	**+0.6**
	baz=82,SNR=6.8						
Q10A	**Clear Creek Ra**	**82.77**	**49**	⇓P	**P**	**05 59 43.7**	**-0.7**
	baz=82						
K14A	**Jones Ranch, D**	**82.80**	**45**	P	**P**	**05 59 45.6**	**+1.2**
	baz=83,SNR=7.1						
P11A	**Circle Ranch,**	**82.80**	**48**	⇑P	**P**	**05 59 44.8**	**+0.2**
	baz=83						
M13A	**Montello**	**82.84**	**46**	P	**P**	**05 59 45.6**	**+0.9**
	baz=83,SNR=5.2						
GRAC	**Grapevine Rang**	**83.08**	**51**	⇓P	**P**	**05 59 46.3**	**+0.3**
	baz=83						
N13A	**Wendover, West**	**83.09**	**47**	⇓P	**P**	**05 59 45.8**	**-0.2**
	baz=83						
S10A	**Tonopah Range,**	**83.12**	**50**	⇓P	**P**	**05 59 46.6**	**+0.5**
	baz=83						
M14A	**Sheep Mountain**	**83.27**	**46**	⇑P	**P**	**05 59 47.8**	**+0.9**
	baz=83						
LKWY	**Lake**	**83.32**	**42**	*e*P	**P**	**05 59 49.0**	**+2.0**
	comp=Z,4.1nm,0.7s,mb4.1						
LKWY	**Lake**	**83.32**	**42**	*e*P	**P**	**05 59 49.0**	**+2.0**
LKWY				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.1						
P12A	**McGill**	**83.40**	**48**	⇓P	**P**	**05 59 48.2**	**+0.6**
	baz=83,SNR=7.5						
MPMC	**Manual Prospec**	**83.50**	**52**	⇑P	**P**	**05 59 48.5**	**+0.4**
	baz=83						
MOOW	**Moose Ponds**	**83.59**	**43**	*e*P	**P**	**05 59 48.7**	**+0.3**
	comp=Z,1.9nm,1.0s,mb3.6						
LRMC	**Laurel Mountai**	**83.67**	**53**	⇑P	**P**	**05 59 48.8**	**-0.2**
	baz=84						
FURC	**Furnace Creek,**	**83.71**	**52**	⇑P	**P**	**05 59 49.5**	**+0.3**
	baz=84						
LOHW	**Long Hollow**	**83.75**	**43**	*e*P	**P**	**05 59 49.1**	**-0.1**
	comp=Z,2.0nm,0.8s,mb3.7						
EDW2	**Edwards Air Fo**	**83.77**	**53**	⇓P	**P**	**05 59 48.9**	**-0.7**
	baz=84						
R12A	**Pony Springs,**	**84.22**	**49**	⇓P	**P**	**05 59 52.4**	**+0.8**
	baz=84						
HWUT	**Hardware Ranch**	**84.32**	**45**	*e*P	**P**	**05 59 52.0**	**-0.1**
	comp=Z,5.6nm,0.9s,mb4.1						
DUG	**Dugway**	**84.34**	**47**	*e*P	**P**	**05 59 52.3**	**+0.1**
	comp=Z,2.8nm,0.7s,mb3.9						
DUG	**Dugway**	**84.34**	**47**	*e*P	**P**	**05 59 52.3**	**+0.1**
DUG				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.9						
DUG	**Dugway**	**84.34**	**47**	⇓P	**P**	**05 59 52.1**	**-0.1**
	baz=84						
BW06	**Boulder Array**	**84.86**	**43**	*e*P	**P**	**05 59 54.5**	**-0.3**
	comp=Z,0.7nm,0.5s,mb3.5						
PDAR	**Pinedale Array**	**84.86**	**43**	P	**P**	**05 59 54.9**	**+0.1**
	comp=Z,1.1nm,0.7s,mb3.6,baz=298,slow=1.5,SNR=9.4						
MURC	**Murrieta**	**85.00**	**54**	⇓P	**P**	**05 59 55.3**	**-0.3**
	baz=85						
T13A	**Saint George**	**85.40**	**50**	⇓P	**P**	**05 59 57.7**	**+0.3**
	baz=85						
ULM	**Lac du Bonnet**	**87.21**	**31**	P	**P**	**06 00 05.2**	**-0.6**
	comp=Z,0.7nm,0.5s,mb3.6,baz=347,slow=7.8,SNR=4.1						
GERES	**GERESS Array B**	**87.49**	**327**	P	**P**	**06 00 05.7**	**-1.4**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GERES	**GERESS Array B**	**87.49**	**327**	P	**P**	**06 00 05.7**	**-1.4**
	comp=Z,1.1nm,0.5s,mb3.9,baz=39,slow=5.8,SNR=13						
X15A	**Humboldt**	**87.95**	**51**	⇓P	**P**	**06 00 09.8**	**+0.2**
	baz=88						
SDCO	**Great Sand Dun**	**90.38**	**45**	*e*P	**P**	**06 00 21.1**	**+0.3**
	comp=Z,1.6nm,0.8s,mb3.9						
CDF	**Champ du Feu**	**90.74**	**330**	*e*P	**P**	**06 00 20.7**	**-1.6**
ANMO	**Albuquerque**	**91.50**	**48**	*e*P	**P**	**06 00 26.5**	**+0.5**
	comp=Z,1.5nm,0.7s,mb4.0						
ANMO	**Albuquerque**	**91.50**	**48**	*e*P	**P**	**06 00 26.5**	**+0.5**
ANMO				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LOR	**Lormes**	**93.10**	**331**	*e*P	**P**	**06 00 31.4**	**-1.7**
LPL	**La Plagne**	**93.17**	**328**	*e*P	**P**	**06 00 32.1**	**-1.4**
	comp=Z,3.5nm,0.6s,mb4.3						
LPL	**La Plagne**	**93.17**	**328**	*e*P	**P**	**06 00 32.1**	**-1.4**
	comp=Z,1.8nm,0.6s,mb4.3						
LPL	**La Plagne**	**93.17**	**328**	*e*P	**P**	**06 00 32.1**	**-1.4**
LPL				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
LPG	**La Plagne**	**93.18**	**328**	*e*P	**P**	**06 00 32.1**	**-1.4**
	comp=Z,7.7nm,0.7s,mb4.5						
LPG	**La Plagne**	**93.18**	**328**	*e*P	**P**	**06 00 32.1**	**-1.4**
	comp=Z,3.8nm,0.7s,mb4.5						
LPG	**La Plagne**	**93.18**	**328**	*e*P	**P**	**06 00 32.1**	**-1.4**
LPG				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
SSF	**Saint Saulge**	**93.41**	**331**	*e*P	**P**	**06 00 32.1**	**-2.4**
AVF	**Avril sur Loir**	**93.69**	**331**	*e*P	**P**	**06 00 34.2**	**-1.6**
VIVF	**Saint-Julien-l**	**94.62**	**329**	*e*P	**P**	**06 00 38.2**	**-1.9**
	comp=Z,3.4nm,0.5s,mb4.3						
VIVF	**Saint-Julien-l**	**94.62**	**329**	*e*P	**P**	**06 00 38.2**	**-1.9**
	comp=Z,1.7nm,0.5s,mb4.3						
VIVF	**Saint-Julien-l**	**94.62**	**329**	*e*P	**P**	**06 00 38.2**	**-1.9**
VIVF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
QSPA	**South Pole Qui**	**119.38**	**180**	*e*PKPdf	PKPdf	06 06 03.6	-0.7
TOA0	**Torodi Ar. Sit**	**120.25**	**309**	*e*PKPdf	PKPdf	06 06 06.3	-1.6
TORD	**Torodi Ar. Bea**	**120.25**	**309**	PKP	PKPdf	06 06 06.0	-1.9
TORD				PKKPbc	PKKPbc	06 16 15.6	-0.7
TORD	**Torodi Ar. Bea**	**120.25**	**309**	PKP	PKPdf	06 06 06.0	-1.9
	comp=Z,0.6nm,0.4s,baz=50,slow=1.1,SNR=23						
TORD				PKKPbc	PKKPbc	06 16 15.6	-0.7
	comp=Z,0.4nm,0.6s,baz=222,slow=3.6,SNR=5.2						
LBTB	**Lobatse**	**120.65**	**257**	*e*PKPdf	PKPdf	06 06 08.0	-0.3
LBTB	**Lobatse**	**120.65**	**257**	*e*PKIKP	PKPdf	06 06 08.0	-0.3
VNA2	**Neumayer--Watz**	**134.47**	**195**	*e*PKPdf	PKPdf	06 06 34.4	+1.2
	baz=140,slow=0.6						
VNA3	**Neumayer Olymp**	**134.73**	**194**	*e*PKPdf	PKPdf	06 06 34.6	+0.9
LPAZ	**La Paz**	**152.48**	**67**	PKPbc	PKPbc	06 07 13.3	+0.1
LPAZ	**La Paz**	**152.48**	**67**	PKIKP	PKPdf	06 07 13.3	+7.6
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPAZ	**La Paz**	**152.48**	**67**	PKPbc	PKPbc	06 07 13.3	+0.1
	comp=Z,1.4nm,0.7s,baz=176,slow=1.9,SNR=7.5						

ATH ***14*** *06:03:37.9, 33.39N×25.75E, h36^{km}, MD3.7/5*

ISCJB ***14*** *06:03:48.3±0.9, 34.18N±0.03×26.31E±0.05, h29^{km}±8^{km}, mb3.9/9, Error ellipse: s-maj=7.9km s-min=5.2km az=153.7*

CSEM ***14*** *06:03:49.1±0.2, 34.17N×26.35E, h40^{km}, MD3.7, Error ellipse: s-maj=6.0km s-min=3.1km az=34.0*

NEIC ***14*** *06:03:51.3±1.2, 34.28N×26.06E, h35^{km}, mb4.1/1, MD3.7(ATH), Error ellipse: s-maj=19.4km s-min=12.6km az=175.0*

HLW ***14*** *06:03:51.5, 34.17N×26.42E, h33^{km}, Mb3.2*

IDC ***14*** *06:03:51.4±3.3, 34.18N×26.21E, h37^{km}±28^{km}, mb3.7/7, mb1 3.6/11, mb1mx3.5/20, mbtmp3.6/11, ML3.6/4, Error ellipse: s-maj=26.2km s-min=16.2km az=176.0*

ISC 14 06:03:49.0±1.3**, 34.20N**±0.03×**26.24E**±0.05**, h18**^{km}±9^{km}**, n49, σ1^{s}05**/54**, mb3.9**/9**, 3C, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XRY	**Khrisi**	**0.81**	**326**	*e*Pb	**Pg**	**06 04 03.2**	**-1.6**
XRY	**Khrisi**	**0.81**	**326**	*e*PB	**Pg**	**06 04 03.2**	**-1.6**
XRY	**Khrisi**	**0.81**	**326**	*e*Pb	**Pg**	**06 04 03.2**	**-1.6**
NPS	**Neapolis**	**1.18**	**334**	*e*Pb	**Pb**	**06 04 09.7**	**-1.1**
NPS	**Neapolis**	**1.18**	**334**	*e*PB	**Pb**	**06 04 09.7**	**-1.1**
NPS	**Neapolis**	**1.18**	**334**	*e*Pb	**Pb**	**06 04 09.7**	**-1.1**
KARP	**Karpathos**	**1.54**	**29**	⇑*i*Pn	**Pb**	**06 04 17.6**	**+0.6**
KARP	**Karpathos**	**1.54**	**29**	⇑*i*PN	**Pb**	**06 04 17.6**	**+0.6**
KARP	**Karpathos**	**1.54**	**29**	⇑*i*Pn	**Pb**	**06 04 17.6**	**+0.6**
IDI	**Anoyia**	**1.55**	**315**	Pn	**Pn**	**06 04 17.3**	**+1.6**
IDI				Sn	**Sn**	**06 04 35.4**	**+0.1**
IDI	**Anoyia**	**1.55**	**315**	Pn	**Pn**	**06 04 17.3**	**+1.6**
	4.2nm,0.3s,baz=151,slow=15,SNR=17						
IDI				Sn	**Sn**	**06 04 35.4**	**+0.1**
	15nm,0.3s,baz=284,slow=19,SNR=12						
IDI	**Anoyia**	**1.55**	**315**	Pn	**Pn**	**06 04 17.3**	**+1.6**
IDI				Sn	**Sn**	**06 04 35.4**	**+0.1**
ARG	**Arkhangelos**	**2.53**	**37**	*e*Pn	**Pn**	**06 04 31.3**	**+2.1**
ARG	**Arkhangelos**	**2.53**	**37**	*e*PN	**Pn**	**06 04 31.3**	**+2.1**
ARG	**Arkhangelos**	**2.53**	**37**	*e*Pn	**Pn**	**06 04 31.3**	**+2.1**
SLUM		**2.84**	**198**	P	**Pn**	**06 04 34.8**	**+1.4**
SLUM				S	**Sn**	**06 05 06.2**	**-0.9**
HMAT	**Matruh**	**3.18**	**167**	P	**Pn**	**06 04 38.3**	**+0.2**
VLI	**Veliai**	**3.68**	**314**	*e*Pn	**Pn**	**06 04 39.9**	**-5.1**
VLI	**Veliai**	**3.68**	**314**	*e*PN	**Pn**	**06 04 39.9**	**-5.1**
VLI	**Veliai**	**3.68**	**314**	*e*Pn	**Pn**	**06 04 39.9**	**-5.1**
HNAT	**Natroun**	**5.88**	**140**	P	**Pn**	**06 05 15.2**	**0.0**
AYT	**Al 'Ayyat**	**6.13**	**136**	P	**Pn**	**06 05 18.6**	**0.0**
GLL	**Jalalah**	**6.55**	**133**	P	**Pn**	**06 05 23.9**	**-0.5**
AMAG	**Maghara**	**6.88**	**119**	P	**Pn**	**06 05 28.3**	**-0.6**
SUZ		**7.09**	**126**	P	**Pn**	**06 05 31.5**	**-0.2**
HFRF	**Wahat Farafira**	**7.25**	**165**	P	**Pn**	**06 05 34.4**	**+0.3**
MMAI	**Mount Meron Ar**	**7.73**	**96**	Pn	**Pn**	**06 05 41.0**	**+0.3**
	1.4nm,0.3s,baz=303,slow=13,SNR=3.8						
MMAI				Sn	**Sn**	**06 07 04.8**	**-2.9**
	1.7nm,0.3s,baz=304,slow=16,SNR=3.5						
BRTR	**Keskin Array B**	**8.09**	**45**	Pn	**Pn**	**06 05 47.0**	**+1.5**
BRTR	**Keskin Array B**	**8.09**	**45**	Pn	**Pn**	**06 05 47.0**	**+1.5**
	0.1nm,0.3s,baz=236,slow=10,SNR=4.8						
BRTR	**Keskin Array B**	**8.09**	**45**	Pn	**Pn**	**06 05 47.0**	**+1.6**
ASUT		**8.18**	**145**	P	**Pn**	**06 05 47.4**	**+0.6**
EIL	**Elat**	**8.67**	**119**	Sn	**Sn**	**06 07 27.3**	**-3.5**
	1.0nm,0.3s,baz=304,slow=23,SNR=3.5						
HDK1	**Dakhla**	**9.05**	**162**	P	**Pn**	**06 05 59.6**	**+0.8**
AKASG	**Malin Array Be**	**16.63**	**7**	Pn	**Pn**	**06 07 39.7**	**-1.3**
AKASG	**Malin Array Be**	**16.63**	**7**	Pn	**Pn**	**06 07 39.7**	**-1.3**
	0.6nm,0.3s,baz=197,slow=11,SNR=12						
AKASG	**Malin Array Be**	**16.63**	**7**	Pn	**Pn**	**06 07 39.7**	**-1.3**
GERES	**GERESS Array B**	**17.35**	**331**	P	**Pn**	**06 07 49.9**	**-0.1**
	0.2nm,0.3s,baz=138,slow=10,SNR=5.2						
ESDC	**Sonseca Array**	**24.68**	**292**	P	**P**	**06 09 08.6**	**-0.2**
	0.5nm,0.5s,mb3.3,baz=85,slow=9.3,SNR=3.2						
FINES	**FINESS Array B**	**27.26**	**360**	P	**P**	**06 09 33.8**	**+2.0**
	1.7nm,0.9s,mb3.6,baz=171,slow=9.4,SNR=2.6						
FINES	**FINESS Array B**	**27.26**	**360**	P	**P**	**06 09 33.8**	**+2.0**
TORD	**Torodi Ar. Bea**	**30.59**	**233**	P	**P**	**06 10 01.8**	**-0.1**
	0.5nm,0.5s,mb3.6,baz=30,slow=8.5,SNR=6.7						
ARCES	**ARCESS Array B**	**35.39**	**360**	P	**P**	**06 10 41.1**	**-2.1**
	2.0nm,0.9s,mb4.1,baz=182,slow=9.5,SNR=4.2						
KURK	**Kurchatov**	**41.10**	**50**	*e*P	**P**	**06 11 31.4**	**-0.1**
	3.7nm,0.9s,mb4.0						
KURK	**Kurchatov**	**41.10**	**50**	*e*P	**P**	**06 11 31.4**	**-0.1**
MKAR	**Makanchi Array**	**43.57**	**56**	P	**P**	**06 11 51.9**	**+0.3**
MKAR	**Makanchi Array**	**43.57**	**56**	P	**P**	**06 11 51.9**	**+0.3**
	2.9nm,0.6s,mb4.2,baz=281,slow=6.4,SNR=40						
ZALV	**Zalesovo Beam**	**45.03**	**45**	P	**P**	**06 12 03.1**	**-0.1**
	1.7nm,0.6s,mb4.1,baz=265,slow=8.5,SNR=9.0						
SONM	**Songino Array**	**59.41**	**50**	P	**P**	**06 13 50.6**	**+0.4**
	0.5nm,0.6s,mb3.7,baz=294,slow=7.1,SNR=5.4						
SCHQ	**Schefferville**	**64.49**	**320**	P	**P**	**06 14 23.3**	**-0.9**
	2.8nm,0.9s,mb4.3,baz=101,slow=6.5,SNR=5.3						

IDC ***14*** *06:06:52.0±1.6, 1.83N×125.06E, h0^{km}, mb3.9/4, mb1 4.1/5, mb1mx3.7/19, mbtmp3.9/5, ML4.1/1, Error ellipse: s-maj=111.3km s-min=22.0km az=66.0*

NEIC 14 06:07:20.2±6.1**, 0.92N**×**123.77E, h257**^{km}±65^{km}**, mb4.2**/2**, Error ellipse: s-maj=63.6km s-min=21.3km az=59.0, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**16.04**	**148**	*e*P	P	06 10 51.3	+0.1
	5.0nm,0.4s						
FITZ	**Fitzroy Crossi**	**18.99**	**175**	*e*P	P	06 11 23.1	0.0
	2.8nm,0.4s						
FITZ	**Fitzroy Crossi**	**18.99**	**175**	P	P	06 11 23.5	+0.3
	0.5nm,0.3s,baz=14,slow=10,SNR=12						
WRA	**Warramunga Arr**	**23.18**	**154**	P	P	06 12 04.3	-0.2
	4.6nm,0.5s,baz=337,slow=10,SNR=19						
WB2	**Warramunga Arr**	**23.18**	**154**	*e*P	P	06 12 04.4	-0.1
ASAR	**Alice Springs**	**26.35**	**159**	P	P	06 12 33.4	+0.4
	0.5nm,0.4s,baz=336,slow=6.8,SNR=11						
STKA	**Stephens Creek**	**36.73**	**154**	P	P	06 14 03.4	+0.1
	1.1nm,0.4s,baz=316,slow=22,SNR=3.4						
MKAR	**Makanchi Array**	**58.25**	**328**	P	P	06 16 48.0	+0.1
	0.4nm,0.3s,baz=124,slow=8.0,SNR=9.0						

NIED ***14*** *06:21:00, 28.40N×128.20E, h119^{km}, Mw4.2 Best double couple: M$_0$2.22000×10^{15} NP1:φ$_s$171.00000°, δ28.00000°, λ-135.00000°. NP2:φ$_s$39.00000°, δ71.00000°, λ-70.00000°.*

BJI ***14*** *06:21:22.2, 27.43N×129.02E, h40^{km}, mB4.5, mb4.3*

ISCJB ***14*** *06:21:41.0±0.3, 28.34N±0.04×128.36E±0.06, h137^{km}±3^{km}, mb4.0/21, Error ellipse: s-maj=9.6km s-min=3.9km az=29.4*

IDC ***14*** *06:21:41.9±0.5, 28.37N×128.31E, h133^{km}±5^{km}, mb3.7/16, mb1 3.9/18, mb1mx3.8/26, mbtmp3.8/18, Error ellipse: s-maj=16.0km s-min=7.6km az=91.0*

NEIC ***14*** *06:21:42.0±0.5, 28.35N×128.22E, mb4.3/4, Error ellipse: s-maj=13.8km s-min=9.9km az=87.0*

NEIC Recorded [1 JMA] on Amami-oshima.

JMA ***14*** *06:21:42.4±0.1, 28.44N×128.24E, h114^{km}±5^{km}, M4.2*

JMA Felt I J1.

MOS ***14*** *06:21:46.3±1.0, 28.42N×128.28E, h192^{km}, mb4.0/8, Error ellipse: s-maj=22.4km s-min=13.2km az=108.8*

ISC 14 06:21:42.1±0.3**, 28.34N**±0.03×**128.35E**±0.06**, h132**^{km}±3^{km}**, h132**^{km}±4.0^{km}**:pP-P, n64, σ0^{s}94**/76**, mb4.0**/21**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTK	**Tokunoshima**	**0.77**	**136**	P	**Pn**	**06 22 03.2**	**+0.1**
JTK				*e*S	**Sn**	**06 22 18.5**	**-0.6**
JAM	**Amami Oshima**	**1.11**	**86**	P	**Pn**	**06 22 05.8**	**-0.3**
JAM				S	**Sn**	**06 22 23.9**	**-0.5**
JIH	**Iheya**	**1.34**	**195**	P	**Pn**	**06 22 09.1**	**+0.5**
JIH				*e*S	**Sn**	**06 22 28.8**	**0.0**
JZK	**Kikaishima**	**1.43**	**91**	P	**Pn**	**06 22 10.8**	**+1.3**
JOW	**Kunigami**	**1.50**	**183**	P	**Pn**	**06 22 10.7**	**+0.4**
JOW				*e*S	**Sn**	**06 22 31.3**	**-0.6**
JOW	**Kunigami**	**1.50**	**183**	P	**Pn**	**06 22 10.8**	**+0.4**
	112nm,0.3s,baz=54,slow=12,SNR=318						
JOW				S	**Sn**	**06 22 31.8**	**-0.1**
	421nm,0.3s,baz=130,slow=27,SNR=8.1						
JAGN	**Aguni-jima**	**2.00**	**210**	P	**Pn**	**06 22 16.6**	**+0.4**
JAGN				*e*S	**Sn**	**06 22 41.6**	**-0.7**
JNN	**Nakanoshima**	**2.00**	**41**	P	**Pn**	**06 22 15.9**	**-0.3**
JNN				*e*S	**Sn**	**06 22 41.7**	**-0.6**
NAH1	**Naha**	**2.21**	**196**	P	**Pn**	**06 22 19.4**	**+0.7**
NAH1				S	**Sn**	**06 22 46.0**	**-0.8**
JJT2	**Tamagusuku 2**	**2.26**	**194**	P	**Pn**	**06 22 20.2**	**+0.9**
JJT2				S	**Sn**	**06 22 48.1**	**+0.2**
JKE	**Kume jima 2**	**2.44**	**215**	P	**Pn**	**06 22 21.9**	**+0.3**

JKE				S	Sn	06 22 50.8	-1.2
JKC	Kuchinoerabu	2.66	37	P	Pn	06 22 24.4	+0.1
JTN	Tanegashima 3	3.25	44	P	Pn	06 22 31.4	-0.6
JTN				eS	Sn	06 23 08.9	-1.7
JSJ	Shimokoshiki	3.53	19	P	Pn	06 22 36.1	+0.5
JTSR	Tashiro 2	3.60	38	P	Pn	06 22 36.3	-0.2
JSU	Suzuyama	3.65	30	P	Pn	06 22 37.6	+0.5
JNAR	Kushima--Naru	4.06	38	P	Pn	06 22 42.7	0.0
JNU	Nakatsue	5.24	24	P	Pn	06 22 59.8	+1.4
	6.2nm,0.3s,baz=197,slow=16,SNR=27						
JNU				S	Sn	06 23 58.3	+0.5
	1.8nm,0.3s,baz=178,slow=33,SNR=2.6						
KSRS	Korea Array	9.10	358	P	Pn	06 23 50.8	+0.6
	0.7nm,0.3s,baz=178,slow=13,SNR=19						
MJAR	Matsushiro Arr	11.66	43	P	Pn	06 24 27.8	+3.5
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	11.66	43	P	Pn	06 24 27.8	+3.4
	comp=Z,0.8nm,0.3s,baz=240,slow=14,SNR=3.5						
BJT	Baijiatuau	15.39	322	eP	Pn	06 25 12.9	+0.9
	comp=Z,16nm,0.8s						
BJT	Baijiatuau	15.39	322	eP	Pn	06 25 12.9	+0.9
BJT				pmax	pmax		
	comp=Z,16nm,0.8s						
CN2	Changchun	15.61	352	eP	Pn	06 25 17.6	+2.9
CN2				AMB	AMB		
	comp=Z,20nm,1.0s						
HHC	Hu-ho-hao-te	18.58	317	eP	P	06 25 50.3	+1.5
HHC				AMB	AMB		
	comp=Z,9.0nm,1.1s						
HHC				AMB	AMB		
	comp=Z,140nm,5.2s						
LZH	Lanzhou	22.09	297	eP	P	06 26 26.6	+0.1
LZH				AP		06 26 36.1	
LZH				XP	sP	06 26 39.5	-28
LZH				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.3						
LZH	Lanzhou	22.09	297	eP	P	06 26 26.6	+0.1
	comp=Z,16nm,1.3s,mb4.3						
LZH				pP		06 26 36.1	
LZH				sP	sP	06 26 39.5	-28
SONM	Songino Array	25.87	325	P	P	06 27 02.5	+1.2
SONM						06 30 27.7	
SONM				pmax	pmax		
	comp=Z,4.0nm,0.9s						
SONM	Songino Array	25.87	325	P	P	06 27 02.5	+1.2
	comp=Z,4.2nm,0.9s,mb4.1,baz=132,slow=10,SNR=18						
SONM				PcP	PcP	06 30 27.7	+0.9
	comp=Z,0.3nm,0.4s,baz=151,slow=2.0,SNR=3.7						
GTA	Gaotai	26.04	303	eP	P	06 27 02.0	-0.9
GTA				AMB	AMB		
	comp=Z,4.0nm,0.6s,mb4.2						
MKAR	Makanchi Array	40.24	310	P	P	06 29 05.5	-0.2
MKAR						06 31 06.8	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	40.24	310	P	P	06 29 05.5	-0.1
	comp=Z,0.6nm,0.4s,mb3.5,baz=96,slow=11,SNR=5.7						
MKAR				pP	pP	06 29 36.5	+1.4
	comp=Z,1.4nm,0.7s,baz=100,slow=10,SNR=6.5						
MKAR				PcP	PcP	06 31 06.8	-0.2
	comp=Z,1.0nm,0.5s,baz=76,slow=5.1,SNR=9.0						
ZALV	Zalesovo Beam	40.66	321	P	P	06 29 06.4	-2.6
	comp=Z,1.6nm,0.5s,mb4.0,baz=104,slow=8.5,SNR=8.0						
ZALV				PcP	PcP	06 31 07.1	-1.1
	comp=Z,1.0nm,0.4s,baz=116,slow=3.4,SNR=6.5						
ZAL	Zalesovo	40.66	321	P	P	06 29 06.4	-2.7
ZAL						06 31 07.1	
BILL	Bilibino	45.65	19	eP	P	06 29 40.4	-8.5
BILL				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.5						
FITZ	Fitzroy Crossi	46.24	184	P	P	06 29 55.1	+1.0
	comp=Z,3.5nm,1.1s,mb3.9,baz=39,slow=16,SNR=6.1						
WRA	Warramunga Arr	48.34	172	P	P	06 30 11.2	+0.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
WRA	Warramunga Arr	48.34	172	P	P	06 30 11.2	+0.9
	comp=Z,1.0nm,0.4s,mb3.8,baz=353,slow=8.2,SNR=12						
WRA				pP	pP	06 30 39.6	-1.1
	comp=Z,2.5nm,0.8s,baz=354,slow=8.4,SNR=9.2						
ASAR	Alice Springs	51.98	174	P	P	06 30 38.4	+0.7
ASAR						06 31 49.0	
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	51.98	174	P	P	06 30 38.4	+0.7
	comp=Z,0.4nm,0.5s,mb3.3,baz=3.9,slow=14,SNR=10						
ASAR				pP	pP	06 31 09.1	+0.6
	comp=Z,1.1nm,0.8s,baz=359,slow=7.9,SNR=9.1						
ASAR				PcP	PcP	06 31 49.0	+0.7
	comp=Z,0.7nm,0.6s,baz=360,slow=4.1,SNR=8.0						
KDAK	Kodiak Island	60.77	37	P	P	06 31 38.7	-1.0
KDAK	Kodiak Island	60.77	37	P	P	06 31 38.7	-1.0
	comp=Z,8.4nm,0.4s,mb4.9,baz=354,slow=5.2,SNR=23						
STKA	Stephens Creek	61.19	167	P	P	06 31 42.7	-0.1
STKA	Stephens Creek	61.19	167	P	P	06 31 42.7	-0.1
	comp=Z,1.0nm,0.8s,mb3.7,baz=263,slow=6.1,SNR=3.9						
DAWY	Dawson	65.87	29	eP	P	06 32 12.9	-0.2
INK	Inuvik	66.92	24	eP	P	06 32 18.5	-1.2
INK	Inuvik	66.92	24	P	P	06 32 19.1	-0.6
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	Inuvik	66.92	24	P	P	06 32 19.1	-0.7
	comp=Z,1.4nm,0.5s,mb4.1,baz=273,slow=5.4,SNR=23						
ARCES	ARCESS Array B	68.09	338	P	P	06 32 26.1	-1.0
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ARCES	ARCESS Array B	68.09	338	P	P	06 32 26.1	-0.9
	comp=Z,1.9nm,0.9s,mb3.8,baz=67,slow=7.9,SNR=3.8						
FINES	FINESS Array B	71.09	330	P	P	06 32 43.3	-2.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	71.09	330	P	P	06 32 43.2	-2.3
	comp=Z,0.5nm,0.4s,mb3.6,baz=59,slow=6.4,SNR=7.5						
DLBC	Dease Lake	72.05	33	P	P	06 32 51.7	+0.3
	baz=288,slow=13						
BRTR	Keskin Array B	75.83	308	P	P	06 33 13.3	-0.4
	comp=Z,0.3nm,0.5s,mb3.2,baz=118,slow=3.1,SNR=3.5						
YKA	Yellowknife Ar	76.58	25	P	P	06 33 17.2	-0.3
YKA	Yellowknife Ar	76.58	25	P	P	06 33 17.2	-0.3
YKA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
YKA	Yellowknife Ar	76.58	25	P	P	06 33 17.2	-0.3
	comp=Z,3.2nm,0.5s,mb4.2,baz=298,slow=5.6,SNR=55						
SFJD	Kangerlussuaq	84.96	360	eP	P	06 34 01.0	-1.0
	comp=Z,14nm,0.6s,mb4.9						
SFJD	Kangerlussuaq	84.96	360	eP	P	06 34 01.0	-1.0
SFJD				pmax	pmax		
	comp=Z,14nm,0.6s,mb4.9						
HLID	Hailey	88.22	40	eP	P	06 34 19.2	+0.8
	comp=Z,2.7nm,0.9s,mb4.1						
NVAR	Mina Array Bea	88.97	46	P	P	06 34 23.0	+1.0
	comp=Z,0.3nm,0.6s,mb3.4,baz=302,slow=5.2,SNR=4.5						
GCMT	Greycliff	89.39	36	eP	P	06 34 25.0	+1.2
PDAR	Pinedale Array	91.45	39	P	P	06 34 33.0	-0.4
	comp=Z,1.1nm,0.7s,mb4.0,baz=76,slow=0.9,SNR=11						
ULM	Lac du Bonnet	92.49	27	P	P	06 34 37.1	-1.0
	comp=Z,2.4nm,0.6s,mb4.4,baz=311,slow=4.6,SNR=7.5						

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*IDC **14** 06:34:11.2±1.7, 8.70N×71.37W, h0^{km}, mb3.5/2, mb1 3.8/4, mb1mx3.5/20, mbtmp3.6/4, ML2.8/2, Error ellipse: s-maj=37.2km s-min=25.9km az=145.0*

*ISCJB **14** 06:34:12.0±0.5, 8.50N±0.03×71.34W±0.03, h10^{km}, mb3.6/2, Error ellipse: s-maj=5.6km s-min=3.9km az=136.9*

*FUNV **14** 06:34:12.8, 8.53N×71.48W, h5^{km}, MW3.2*

ISC 14 06:34:12.3±0.5, **8.48N**±0.04×**71.41W**±0.03, **h10**^{km}**, n22,** σ1^s.**11**/31, **mb3.6**/2, **2C-4D, Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VIGV	El Vigia	0.36	8	eS	Sg	06 34 22.5	-1.7
CAPV	Capacho	1.08	236⇑	iP	Pb	06 34 32.4	-0.8
CAPV				eS	Sg	06 34 47.5	+0.2
QARV	Quebrada Arrib	1.93	27⇓	eP	Pn	06 34 45.8	+0.7
QARV				eS	Sn	06 35 10.6	+1.1
CURV	Curarigua	2.09	43⇓	eP	Pn	06 34 48.0	+0.5
CURV				eS	Sn	06 35 15.2	+1.7
SANV	Sanarito	2.11	61	eP	Pn	06 34 48.8	+1.1
SANV				eS	Sn	06 35 16.2	+2.1
VIRV	Villa del Rosa	2.24	334⇓	eP	Pn	06 34 48.5	-0.9
ELOV	Elorza	2.41	127	eS	Sn	06 35 23.3	+1.9
DABV	Dabajuro	2.54	17	eP	Pn	06 34 54.0	+0.4
DABV				eS	Sn	06 35 25.1	+0.4
TEPV	Terepaima	2.64	56	eP	Pn	06 34 55.7	+0.7
SIQV	Siquisique	2.67	36	eP	Pn	06 34 56.0	+0.6
BAUV	El Baul	3.36	82⇑	iP	Pn	06 35 04.6	-0.4
JACV	Jacura	3.63	44	eP	Pn	06 35 08.4	-0.2
TURV	Turiamo	4.03	61	eP	Pn	06 35 14.7	+0.6
TURV				eS	Sn	06 35 59.4	-2.0
ROSC	El Rosal	4.62	219	Pn	Pn	06 35 26.2	+3.9
	2.7nm,0.3s,baz=278,slow=20,SNR=8.3						
ROSC				Sn	Sn	06 36 21.4	+5.4
	1.1nm,0.3s,baz=87,slow=21,SNR=2.8						
MERV	Las Mercedes	5.11	81	eP	Pn	06 35 29.1	+0.1
MERV				eS	Sn	06 36 26.2	-1.9
CAOV	Caicara del Or	5.17	102	eS	Sn	06 36 27.7	-1.9
BIRV	Birongo	5.45	68⇓	eP	Pn	06 35 33.5	-0.1
CUPV	Cœpira	5.77	74	eP	Pn	06 35 37.9	-0.2
PCRV	Puerto La Cruz	6.90	75	eP	Pn	06 35 53.4	-0.1
PCRV	Puerto La Cruz	6.90	75	Pn	Pn	06 35 54.0	+0.5
	1.2nm,0.3s,baz=350,slow=5.3,SNR=6.9						
PCRV				Sn	Sn	06 37 10.5	-1.6
	0.7nm,0.3s,baz=48,slow=15,SNR=3.5						
PDAR	Pinedale Array	47.78	322	P	P	06 42 49.8	0.0
	0.3nm,0.4s,mb3.6,baz=127,slow=10,SNR=6.0						
YKA	Yellowknife Ar	62.31	339	P	P	06 44 33.2	-1.3
	0.2nm,0.4s,mb3.6,baz=126,slow=7.1,SNR=5.2						

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*NAO **14** 06:56:27.0, 45.49N×26.52E, h33^{km}, mb3.6*

*CSEM **14** 06:56:36.2±0.1, 45.54N×26.28E, h152^{km}, mb3.8/6, Error ellipse: s-maj=1.6km s-min=1.3km az=39.0*

*MOS **14** 06:56:36.5±1.0, 45.55N×26.27E, h150^{km}, mb3.8/7, Error ellipse: s-maj=5.0km s-min=3.9km az=117.2*

*ISCJB **14** 06:56:36.3±0.1, 45.54N±0.02×26.32E±0.02, h153^{km}±1^{km}, mb3.7/18, Error ellipse: s-maj=2.7km s-min=2.2km az=31.5*

*IDC **14** 06:56:37.3±0.4, 45.60N×26.08E, h140^{km}±2^{km}, mb3.4/11, mb1 3.6/21, mb1mx3.5/29, mbtmp3.5/21, Error ellipse: s-maj=11.3km s-min=8.5km az=137.0*

*BUC **14** 06:56:37.3±0.7, 45.53N×26.25E, h151^{km}±6^{km}, MD4.9/2, Error ellipse: s-maj=4.6km s-min=4.1km az=124.0*

*NEIC **14** 06:56:37.6±0.3, 45.56N×26.24E, mb4.2/38, Error ellipse: s-maj=4.6km s-min=3.8km az=46.0*

*SOF **14** 06:56:40.5, 45.03N×26.15E, h1^{km}, MD3.3*

ISC 14 06:56:37.3±0.1, **45.54N**±0.02×**26.32E**±0.02, **h150**^{km}±1^{km}, **h142**^{km}±2.7^{km}**:pP-P, n346,** σ1^s.**03**/399, **mb3.7**/18, **34C-13D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLR	Muntele Rosu	0.27	261	P	Pn	06 56 58.0	+0.4
MLR				S	Sn	06 57 12.0	-1.1
MLR				pmax	pmax		
	comp=Z,181nm,0.3s						
MLR	Muntele Rosu	0.27	261	P	Pn	06 56 58.0	+0.4
	comp=Z,180nm,0.3s,baz=280,slow=1.8,SNR=2014						
MLR				S	Sn	06 57 12.0	-1.1
	comp=Z,1μm,0.3s,baz=4.0,slow=8.3,SNR=62						
MLR	Muntele Rosu	0.27	261⇑	iP	Pn	06 56 58.0	+0.4
MLR				iS	Sn	06 57 12.7	-0.4
PLOR	Plostina	0.39	36	P	Pn	06 56 58.3	+0.3
PLOR				S	Sn	06 57 14.3	+0.4
VRI	Vrincioaia	0.44	40	P	Pn	06 56 58.7	+0.5
VRI	Vrincioaia	0.44	40⇑	iP	Pn	06 56 58.7	+0.5
VRI				iS	Sn	06 57 14.7	+0.5
VRI	Vrincioaia	0.44	40⇑	iP	Pn	06 56 58.7	+0.5
VRI				S	Sn	06 57 14.9	+0.7
BRD	Bordesti	0.50	88⇑	iP	Pn	06 57 00.3	+1.8
SECR		0.53	200⇑	iP	Pn	06 56 59.3	+0.6
SECR				iS	Sn	06 57 15.2	+0.2
SECR		0.53	200	S	Sn	06 57 15.2	+0.2
SNX	Sinaia	0.60	253⇓	iP	Pn	06 56 59.6	+0.6
FULR		0.65	172⇑	iP	Pn	06 57 00.0	+0.6
FULR				iS	Sn	06 57 17.0	+0.8
FULR		0.65	172	S	Sn	06 57 17.0	+0.8
PETR		0.67	73⇑	iP	Pn	06 57 00.7	+1.3
PETR				iS	Sn	06 57 17.6	+1.2
PETR		0.67	73	S	Sn	06 57 17.6	+1.2
AAR	Sfinta Ana	0.67	334⇑	iP	Pn	06 57 03.7	+4.2
AAR				iS	Sn	06 57 22.4	+5.9
AAR	Sfinta Ana	0.67	334	S	Sn	06 57 22.4	+5.9
OZUR		0.67	326⇓	iP	Pn	06 56 59.5	0.0
OZUR				iS	Sn	06 57 15.5	-1.0
OZUR		0.67	326	S	Sn	06 57 15.5	-1.0
DOPR	Dopca	0.78	304⇓	iP	Pn	06 57 00.2	0.0
DOPR				iS	Sn	06 57 17.4	-0.4
DOPR	Dopca	0.78	304	S	Sn	06 57 17.4	-0.4
SULR		0.86	183⇑	iP	Pn	06 57 01.3	+0.4
SULR				iS	Sn	06 57 19.1	+0.3
SULR		0.86	183	S	Sn	06 57 19.1	+0.3
VOIR		0.90	264	P	Pn	06 57 00.9	-0.2
VOIR		0.90	264	⇑P	Pn	06 57 00.7	-0.4
VOIR				S	Sn	06 57 18.2	-1.1
VOIR		0.90	264	P	Pn	06 57 00.9	-0.2
VOIR				iS	Sn	06 57 18.2	-1.1
GHRR		0.92	55⇑	iP	Pn	06 57 02.4	+1.1
GHRR				iS	Sn	06 57 20.3	+0.6
GHRR		0.92	55	S	Sn	06 57 20.3	+0.6
TUDR		0.95	86⇑	iP	Pn	06 57 01.9	+0.4
TUDR				iS	Sn	06 57 19.8	-0.2
TUDR				iS	Sn	06 57 20.1	+0.1
TUDR		0.95	86	S	Sn	06 57 19.8	-0.2
TUDR		0.95	86	S	Sn	06 57 20.1	+0.1
TESR		1.00	13⇑	iP	Pn	06 57 02.4	+0.4
TESR				iS	Sn	06 57 20.1	-0.8
TESR		1.00	13	S	Sn	06 57 20.1	-0.8
PMGR	Mogosoaia	1.03	193⇑	iP	Pn	06 57 02.5	+0.2
PMGR				iS	Sn	06 57 21.1	-0.2
PMGR	Mogosoaia	1.03	193	S	Sn	06 57 21.1	-0.2
CNCR	Cernica	1.09	182⇑	iP	Pn	06 57 03.0	+0.2
CNCR				iS	Sn	06 57 21.8	-0.4
CNCR	Cernica	1.09	182	S	Sn	06 57 21.8	-0.4
BGMR	Bucharest-Geol	1.09	189	iP	Pn	06 57 02.8	0.0
BGMR				iS	Sn	06 57 21.7	-0.5
BGMR	Bucharest-Geol	1.09	189	S	Sn	06 57 21.7	-0.5
CIOR	Ciorogarla	1.13	196⇑	iP	Pn	06 57 03.1	0.0
CIOR				iS	Sn	06 57 22.1	-0.7
CIOR	Ciorogarla	1.13	196	S	Sn	06 57 22.1	-0.7
ONCR	Oncesti	1.14	35⇑	iP	Pn	06 57 03.7	+0.5
ONCR				iS	Sn	06 57 22.8	-0.2
ONCR	Oncesti	1.14	35	S	Sn	06 57 22.8	-0.2
AMRR		1.17	142⇑	iP	Pn	06 57 04.1	+0.6
AMRR				iS	Sn	06 57 23.3	-0.2
AMRR		1.17	142	S	Sn	06 57 23.3	-0.2
GOLR		1.19	235⇑	iP	Pn	06 57 04.0	+0.4
GOLR				iS	Sn	06 57 23.1	-0.6
GOLR		1.19	235	S	Sn	06 57 23.1	-0.6
BUC1	Bucharest	1.21	190	P	Pn	06 57 03.9	+0.1
BUC1	Bucharest	1.21	190	⇑P	Pn	06 57 04.0	+0.2
BUC1				S	Sn	06 57 23.3	-0.8
BUC1	Bucharest	1.21	190	P	Pn	06 57 03.9	+0.1
BUC1				iS	Sn	06 57 23.3	-0.8
CFR	Carcaliu	1.33	105	P	Pn	06 57 05.3	+0.3
CFR	Carcaliu	1.33	105⇑	iP	Pn	06 57 05.2	+0.2
CFR				iS	Sn	06 57 25.7	-0.5
CFR	Carcaliu	1.33	105	S	Sn	06 57 25.7	-0.5
CFR	Carcaliu	1.33	105	P	Pn	06 57 05.3	+0.3
HARR	Harsova	1.42	126	P	Pn	06 57 06.4	+0.5
TLCR		1.79	100⇑	iP	Pn	06 57 03.5	-6.4
TLCR				iS	Sn	06 57 28.4	-6.6
TLCR		1.79	100	S	Sn	06 57 28.4	-6.6
TIRR	Tirgusor	1.83	125	P	Pn	06 57 10.8	+0.3
TIRR	Tirgusor	1.83	125	⇑P	Pn	06 57 10.9	+0.5
TIRR				S	Sn	06 57 35.2	-0.6
TIRR	Tirgusor	1.83	125	P	Pn	06 57 10.8	+0.4
TIRR				iS	Sn	06 57 35.2	-0.6
IAS	Iasi	1.87	27	P	Pn	06 57 11.6	+0.8
IAS				S	Sn	06 57 36.4	-0.1
IAS	Iasi	1.87	27⇑	iP	Pn	06 57 11.5	+0.7
IAS				S	Sn	06 57 36.4	-0.2
ZIMR		2.00	200	P	Pn	06 57 12.1	-0.2
ZIMR				S	Sn	06 57 36.7	-2.5
ZIMR		2.00	200	⇑P	Pn	06 57 12.1	-0.2
ZIMR				S	Sn	06 57 37.2	-2.0
ZIMR		2.00	200	iS	Sn	06 57 37.2	-2.0
ZIMR		2.00	200	S	Sn	06 57 37.2	-2.0
BURAR	Bucovina Array	2.22	340	P	Pn	06 57 16.8	+1.9
BURAR	Bucovina Array	2.22	340⇓	iP	Pn	06 57 16.8	+2.0
BURAR				iS	Sn	06 57 45.8	+2.0
KIS	Kishinev	2.27	49⇑	iP	Pn	06 57 15.5	0.0
KIS				iS	Sn	06 57 43.0	-1.9
KIS				pmax	pmax		
	comp=Z,2μm,0.7s						
KIS	Kishinev	2.27	49⇑	iP	Pn	06 57 15.5	0.0
	comp=Z,2μm,0.7s						
KIS				iS	Sn	06 57 43.0	-1.9
	comp=Z,13μm,0.5s						
PSN	Preselentsi	2.28	144	iP	Pn	06 57 16.7	+1.0
SZH	Strazhica	2.29	187	iP	Pn	06 57 15.5	-0.2
PVL	Pavlikeni	2.42	197	iP	Pn	06 57 18.4	+1.0
PRD	Provadia	2.46	161	iP	Pn	06 57 18.8	+0.9
GZR	Gura Zlata	2.50	268	P	Pn	06 57 18.2	-0.1
GZR	Gura Zlata	2.50	268⇑	iP	Pn	06 57 18.1	-0.2
GZR				iS	Sn	06 57 49.1	-0.8
DRGR		2.81	298	P	Pn	06 57 22.0	-0.1
DRGR		2.81	298⇓	iP	Pn	06 57 21.8	-0.3
DRGR				iS	Sn	06 57 54.1	-2.6
JMB	Yambol	3.07	176	iP	Pn	06 57 25.1	-0.4
PGB	Panagyurishte	3.36	208	iP	Pn	06 57 29.2	-0.1
DIM	Dimitrovgrad	3.53	190	iP	Pn	06 57 31.0	-0.4
PLD	Plovdiv	3.62	199	iP	Pn	06 57 31.7	-0.9
TRPA	Tarpa	3.67	316⇓	iP	Pn	06 57 32.3	-0.8
EDRB	Edirne	3.70	175	PN	Pn	06 57 33.5	-0.1
EDRB	Edirne	3.70	175	SN	Sn	06 58 14.2	-3.0
VTS	Vitosha	3.70	218	iP	Pn	06 57 34.2	+0.6
VTS	Vitosha	3.70	218⇓	iP	Pn	06 57 33.0	-0.6
VTS				iS	Sn	06 58 11.1	-6.1
VTS	Vitosha	3.70	218	S	Sn	06 58 11.1	-6.1
KDZ	Kurdzhali	3.94	190	iP	Pn	06 57 36.7	0.0
RZN	Rozhen	4.02	197	iP	Pn	06 57 37.6	-0.1
UZH	Uzhgorod	4.14	320	eP	Pn	06 57 39.0	-0.3
UZH				eS	Sn	06 58 27.2	-0.3
BARS	Barje	4.22	232	Pn	Pn	06 57 40.8	+0.4
GRUS	Gruza	4.32	250	Pn	Pn	06 57 40.9	-0.8
KKB	Krupnik	4.35	214	iP	Pn	06 57 42.0	-0.1
MMB	Musomiste	4.37	206	iP	Pn	06 57 42.5	+0.1
KOLS	Kolonicke sedl	4.38	322	iPn	Pn	06 57 43.2	+0.9
KOLS	Kolonicke sedl	4.38	322	iPN	Pn	06 57 43.2	+0.9
KOLS	Kolonicke sedl	4.38	322	iPn	Pn	06 57 43.2	+0.9
LVV	L'vov	4.56	341	iP	Pn	06 57 45.6	+0.9
LVV				iS	Sn	06 58 38.8	+1.5
CTT	Catalca	4.65	160	PN	Pn	06 57 45.4	-0.6
KLYT	Kilyos	4.72	154	PN	Pn	06 57 46.0	-0.9
CRVS	Cervenica-Dubn	4.72	317	iPn	Pn	06 57 47.2	+0.3
CRVS	Cervenica-Dubn	4.72	317	iPN	Pn	06 57 47.2	+0.3
CRVS	Cervenica-Dubn	4.72	317	iPn	Pn	06 57 47.2	+0.3
DIVS	Divcibare	4.73	255	Pn	Pn	06 57 46.2	-0.8
ENEZ	Enez	4.80	182	PN	Pn	06 57 48.8	+0.8
SART	Tekirdag	4.88	172	iP	Pn	06 57 48.0	-1.1
RKY	Sarkoy-Tekirda	4.89	172	ePN	Pn	06 57 49.2	+0.1
ISK	Istanbul-Kandi	4.89	155	PN	Pn	06 57 49.1	-0.2
KECS	Kecovo	4.96	309	ePn	Pn	06 57 50.3	+0.2
KECS	Kecovo	4.96	309	ePN	Pn	06 57 50.2	+0.1
VAY	Valandovo	5.02	214	iPn	Pn	06 57 50.2	-0.7
VAY	Valandovo	5.02	214	iPn	Pn	06 57 50.2	-0.7
PSZ	Piszkesteto	5.02	301	ePn	Pn	06 57 49.7	-1.2
PSZ				eSn	Sn	06 58 49.1	+0.9
PSZ	Piszkesteto	5.02	301⇓	ePn	Pn	06 57 50.2	-0.6
PSZ	Piszkesteto	5.02	301⇓	iP	Pn	06 57 50.0	-0.8
PSZ	Piszkesteto	5.02	301	ePn	Pn	06 57 49.7	-1.1
PSZ				eSn	Sn	06 58 49.1	+0.8
STHS	Stebnicka Huta	5.19	320	iPn	Pn	06 57 53.7	+0.6
STHS	Stebnicka Huta	5.19	320	iPN	Pn	06 57 53.7	+0.6
STHS	Stebnicka Huta	5.19	320	iPn	Pn	06 57 53.7	+0.6
BBLS	Bajina Basta -	5.20	254	Pn	Pn	06 57 54.6	+1.3
SEV	Sevastopol'	5.30	98⇑	iP	Pn	06 57 54.6	0.0
SEV				eS	Sn	06 58 52.7	-2.2
SEV				pmax	pmax		
	comp=Z,15nm,0.3s						
SEV				smax			
	comp=N,30nm,0.3s						
SEV				smax			
	comp=E,10.0nm,0.3s						
SEV	Sevastopol'	5.30	98	iP	Pn	06 57 54.6	0.0
	comp=E,15nm,0.3s						
SEV				eS	Sn	06 58 52.7	-2.2
BNT	Bandirma	5.31	167	ePN	Pn	06 57 54.6	-0.2
PKSM	Moragy	5.41	280	P	Pn	06 57 56.4	+0.4
PKSM	Moragy	5.41	280⇓	iP	Pn	06 57 56.1	+0.1
YLV	Yalova	5.45	155	ePN	Pn	06 57 56.5	0.0
KIEV	Kiev	5.51	19	ePn	Pn	06 57 57.7	+0.4
	comp=E,22nm,0.4s						
KIEV	Kiev	5.51	19	eP	Pn	06 57 57.7	+0.4
KIEV				pmax	pmax		
	comp=Z,22nm,0.4s						
KIEV	Kiev	5.51	19	eP	Pn	06 57 57.7	+0.4
	comp=Z,22nm,0.4s						
GEMT	Gemlik	5.51	157	ePN	Pn	06 57 57.4	0.0
AKASG	Malin Array Be	5.52	20	P	Pn	06 57 57.0	-0.5
AKASG				S	Sn	06 58 57.5	-2.7
AKASG				pmax	pmax		
	comp=Z,20nm,0.3s						
AKASG				smax			
	comp=N,11nm,0.3s						
AKASG	Malin Array Be	5.52	20	P	Pn	06 57 57.0	-0.4
	comp=N,20nm,0.3s,baz=204,slow=12,SNR=81						
AKASG				S	Sn	06 58 57.5	-2.7
	comp=N,11nm,0.3s,baz=205,slow=21,SNR=7.5						
AKBB	Malin Array Si	5.52	20	ePn	Pn	06 57 57.6	+0.1
AKBB	Malin Array Si	5.52	20	eP	Pn	06 57 57.6	+0.1
SIM	Simferopol'	5.54	93	eP	Pn	06 57 59.2	+1.5
SIM				iS	Sn	06 58 58.6	-1.9
SIM				pmax	pmax		
	comp=Z,136nm,0.4s						
KRUS	Krusevo	5.56	223	ePn	Pn	06 57 59.1	+0.9
NIE	Niedzica	5.63	316⇓	eP	Pn	06 57 59.6	+0.7
KDZE	Karadeniz Ereo	5.63	137	ePN	Pn	06 57 57.8	-1.2
YAL	Yalta	5.65	98	eP	Pn	06 58 00.1	+0.8
YAL				eS	Sn	06 59 01.6	-1.7
YAL				pmax	pmax		
	comp=Z,30nm,0.4s						
YAL				smax			
	comp=E,30nm,0.3s						
YAL				smax			
	comp=N,40nm,0.2s						
IZI	Iznik	5.69	155	ePN	Pn	06 57 60.0	+0.2
HENT	Hendek	5.78	143	iP	Pn	06 58 01.2	+0.3
ALU	Alushta	5.78	96	eP	Pn	06 58 01.1	+0.1
ALU				eS	Sn	06 59 05.7	-0.7
ALU				pmax	pmax		
	comp=Z,8.0nm,0.3s						
ALU				smax			
	comp=E,20nm,0.2s						
ALU				smax			
	comp=N,140nm,0.6s						
VYHS	Vyhne	5.91	303	ePn	Pn	06 58 02.9	+0.2
VYHS	Vyhne	5.91	303	ePN	Pn	06 58 02.9	+0.2
VYHS	Vyhne	5.91	303	ePn	Pn	06 58 02.9	+0.2
GULT	Gulveren	5.95	147	ePN	Pn	06 58 03.8	+0.5
SUDU	Sudak	6.17	93	eP	Pn	06 58 05.7	-0.4
SUDU				eS	Sn	06 59 14.2	-1.4
MDU	Mudurnu	6.21	143	ePN	Pn	06 58 07.8	+1.1
SAFT	Safranbolu	6.32	131	ePN	Pn	06 58 07.6	-0.5
BORA	Eskisehir	6.42	150	iP	Pn	06 58 10.1	+0.6
OJC	Ojcow	6.42	319	eP	Pn	06 58 06.9	-2.5
FEO	Feodosiya	6.42	91	eS	Sn	06 59 24.0	+2.3
FEO				smax			
	comp=N,150nm,0.7s						
SGKT	Sivrigoynuk	6.50	138	iP	Pn	06 58 11.4	+0.8
BALT	Daday	6.51	125	iP	Pn	06 58 09.0	-1.7
BZK	Bozkurt	6.61	120	ePN	Pn	06 58 11.9	-0.1
GDZ	Gediz	6.85	159	iP	Pn	06 58 12.3	-3.0
ESKT	Eskisehir	6.88	149	ePN	Pn	06 58 16.5	+0.9
ESKT	Eskisehir	6.88	149	iP	Pn	06 58 15.4	-0.3
SEYT	Eskypehyr	6.88	149	iP	Pn	06 58 15.4	-0.2
OKC	Ostrava-Krasne	7.00	311	ePN	Pn	06 58 16.6	-0.5
OKC				ex	x	06 58 23.4	
SOP	Sopron	7.06	291⇑	ePn	Pn	06 58 18.9	+0.9
SOP	Sopron	7.06	291⇑	eP	Pn	06 58 18.6	+0.6
TOS	Tosya	7.20	126	ePN	Pn	06 58 19.7	-0.1
ELDT	Eldivan	7.25	132	iP	Pn	06 58 20.4	-0.2
MORC	Moravsky Berou	7.29	309	ePn	Pn	06 58 21.4	+0.3
	comp=N,2.3nm,0.6s						
MORC	Moravsky Berou	7.29	309	eP	Pn	06 58 21.4	+0.4
MORC				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MORC	Moravsky Berou	7.29	309⇓	iP	Pn	06 58 19.3	-1.7

MORC	**Moravsky Berou**	7.29	309	*e*Pn	Pn	06 58 21.4	+0.4
	comp=Z,2.3nm,0.6s						
BOYT	**Boyabat**	7.47	120	*i* P	Pn	06 58 23.6	0.0
CONA	**Conrad Observa**	7.58	292	⇑*i*Pn	Pn	06 58 25.0	+0.1
	comp=Z,3.7nm,0.6s						
VRAC	**Vranov**	7.60	303	P	Pn	06 58 23.8	-1.4
	comp=Z,0.3nm,0.3s,baz=111,slow=14,SNR=8.1						
VRAC	**Vranov**	7.60	303	⇓*i*P	Pn	06 58 25.5	+0.3
DOBS	**Dobrina**	7.61	279	*i* P	Pn	06 58 25.4	+0.1
LEGS	**Legarje**	7.71	277	*e*P	Pn	06 58 27.4	+0.7
BOJS	**Bojanci**	7.78	274	*i* P	Pn	06 58 27.7	+0.2
KIZT	**Kizilcal**	7.82	146	*e*P	Pn	06 58 29.3	+1.0
PERS	**Pernice**	7.87	282	*i* P	Pn	06 58 29.5	+0.7
CTKT	**Corum**	7.90	125	*i* P	Pn	06 58 28.6	-0.7
BRTR	**Keskin Array B**	7.92	135	P	Pn	06 58 30.2	+0.6
	comp=Z,0.2nm,0.3s,baz=321,slow=11,SNR=13						
PDKS	**Podkum**	7.93	278	*i* P	Pn	06 58 30.2	+0.5
KDHN	**Kadinhani**	8.23	146	*i* P	Pn	06 58 34.1	+0.5
DPC	**Dobruska-Polom**	8.26	309	*e*PN	Pn	06 58 33.8	-0.2
DPC				*e*x	x	06 58 41.8	
JAVS	**Javornik**	8.59	277	*i* P	Pn	06 58 38.1	-0.2
GERES	**GERESS Array B**	9.21	296	P	Pn	06 58 45.9	-0.7
	comp=Z,0.1nm,0.3s,baz=108,slow=13,SNR=16						
KHC	**Kasperske Hory**	9.37	297	*e*PN	Pn	06 58 49.0	+0.2
KHC				*e*x	x	06 58 57.6	
SOC	**Sochi**	9.76	97	*e*P	Pn	06 58 53.5	-0.5
SOC				*e*		07 00 44.3	
SOC				pmax	pmax		
	comp=Z,7.0nm,0.5s						
VRSR	**Storozhevoye**	10.27	52	*e*P	Pn	06 59 01.4	+0.7
VRSR				*e*S	Sn	07 00 48.7	-5.4
VRSR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
VRSR				pmax	pmax		
	comp=N,2.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,1.0nm,0.6s						
VRSR				smax			
	comp=N,10.0nm,0.8s						
VRSR				smax			
	comp=E,9.0nm,0.7s						
VRSR				smax			
	comp=Z,4.0nm,0.7s						
DAVOX	**Davos/Dischmat**	11.48	282	P	Pn	06 59 24.8	+8.2
	comp=Z,3.0nm,0.3s,baz=92,slow=9.4,SNR=27						
DAVA	**Damuels**	11.49	285	⇑*i*P	Pn	06 59 24.6	+7.9
	comp=Z,15nm,0.8s						
DAVA	**Damuels**	11.49	285	⇑*i*Pn	Pn	06 59 24.6	+7.9
	comp=Z,15nm,0.8s						
OBN	**Obninsk**	11.60	31	*e*P	Pn	06 59 16.5	-1.6
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KIV	**Kislovodsk**	11.75	92	*i* P	Pn	06 59 20.9	+0.8
MOS	**Moscow**	12.46	31	*e*P	Pn	06 59 27.6	-1.7
MOS				*e*S	Sn	07 01 41.0	-5.9
FELD	**Feldberg im Sc**	12.79	287	*e*P	Pn	06 59 40.3	+6.7
PGF	**Pioggiola**	12.82	263	*e*P	Pn	06 59 39.7	+5.7
	comp=Z,51nm,0.9s						
PGF	**Pioggiola**	12.82	263	*e*P	Pn	06 59 39.7	+5.7
	comp=Z,25nm,0.9s						
PGF	**Pioggiola**	12.82	263	*e*P	Pn	06 59 39.7	+5.7
PGF				pmax	pmax		
	comp=Z,25nm,0.9s						
ZEI	**Tsey**	12.92	96	*e*P	Pn	06 59 38.3	+3.0
VSU	**Vasula**	12.95	1	*i* P	Pn	06 59 34.8	-0.7
CDF	**Champ du Feu**	13.32	289	*e*P	Pn	06 59 39.5	-0.9
MOF	**Molkenrain**	13.37	287	*e*P	Pn	06 59 45.4	+4.3
HINF	**Hinteralfeld**	13.56	287	*e*P	Pn	06 59 42.1	-1.3
	comp=Z,7.1nm,0.5s						
HINF	**Hinteralfeld**	13.56	287	*e*P	Pn	06 59 42.1	-1.3
HINF				pmax	pmax		
	comp=Z,4.0nm,0.5s						
HINF	**Hinteralfeld**	13.56	287	*e*P	Pn	06 59 42.1	-1.3
	comp=Z,3.5nm,0.5s						
LPG	**La Plagne**	13.73	277	*e*P	Pn	06 59 47.1	+1.5
	comp=Z,24nm,0.6s						
LPG	**La Plagne**	13.73	277	*e*P	Pn	06 59 47.1	+1.5
LPG				pmax	pmax		
	comp=Z,12nm,0.6s						
LPG	**La Plagne**	13.73	277	*e*P	Pn	06 59 47.1	+1.5
	comp=Z,12nm,0.6s						
LPL	**La Plagne**	13.74	277	*e*P	Pn	06 59 46.9	+1.2
	comp=Z,12nm,0.6s						
LPL	**La Plagne**	13.74	277	*e*P	Pn	06 59 46.9	+1.2
LPL				pmax	pmax		
	comp=Z,6.0nm,0.6s						
LPL	**La Plagne**	13.74	277	*e*P	Pn	06 59 46.9	+1.2
	comp=Z,5.8nm,0.6s						
RSL	**Roselend**	13.79	278	*e*P	Pn	06 59 50.0	+3.6
MBDF	**Montbardon**	13.83	274	*e*P	Pn	06 59 48.1	+1.2
	comp=Z,44nm,0.8s						
MBDF	**Montbardon**	13.83	274	*e*P	Pn	06 59 48.1	+1.2
MBDF				pmax	pmax		
	comp=Z,22nm,0.8s						
MBDF	**Montbardon**	13.83	274	*e*P	Pn	06 59 48.1	+1.2
	comp=Z,22nm,0.8s						
HAU	**Haudompre**	13.91	287	*e*P	Pn	06 59 46.9	-0.9
CABF	**La Chapelle**	14.09	282	*e*P	Pn	06 59 49.9	-0.2
	comp=Z,19nm,0.5s						
CABF	**La Chapelle**	14.09	282	*e*P	Pn	06 59 49.9	-0.2
CABF				pmax	pmax		
	comp=Z,9.0nm,0.5s						
CABF	**La Chapelle**	14.09	282	*e*P	Pn	06 59 49.9	-0.2
	comp=Z,9.4nm,0.5s						
FRF	**La Foret Royal**	14.17	269	*e*P	Pn	06 59 54.1	+2.9
	comp=Z,54nm,1.2s						
FRF	**La Foret Royal**	14.17	269	*e*P	Pn	06 59 54.1	+2.9
	comp=Z,27nm,1.2s						
FRF	**La Foret Royal**	14.17	269	*e*P	Pn	06 59 54.1	+2.9
FRF				pmax	pmax		
	comp=Z,27nm,1.2s						
LMR	**La Mourre**	14.33	268	*e*P	Pn	06 59 55.3	+2.2
	comp=Z,84nm,1.3s						
LMR	**La Mourre**	14.33	268	*e*P	Pn	06 59 55.3	+2.2
	comp=Z,42nm,1.3s						
LMR	**La Mourre**	14.33	268	*e*P	Pn	06 59 55.3	+2.2
LMR				pmax	pmax		
	comp=Z,42nm,1.3s						
MMAI	**Mount Meron Ar**	14.33	148	P	Pn	06 59 56.9	+3.6
	comp=Z,0.9nm,0.3s,baz=319,slow=10,SNR=5.0						
ORIF	**Oris-en-Rattie**	14.42	275	*e*P	Pn	06 59 56.3	+2.0
	comp=Z,22nm,0.9s						
ORIF	**Oris-en-Rattie**	14.42	275	*e*P	Pn	06 59 56.3	+2.0
ORIF				pmax	pmax		
	comp=Z,11nm,0.9s						
ORIF	**Oris-en-Rattie**	14.42	275	*e*P	Pn	06 59 56.3	+2.0
	comp=Z,11nm,0.9s						
SMRF	**Simiane la Rot**	14.82	271	*e*P	Pn	07 00 00.8	+1.5
	comp=Z,28nm,0.8s						
SMRF	**Simiane la Rot**	14.82	271	*e*P	Pn	07 00 00.8	+1.5
	comp=Z,14nm,0.8s						
VIVF	**Saint-Julien-l**	15.28	275	*e*P	Pn	07 00 06.1	+1.1
	comp=Z,18nm,0.9s						
VIVF	**Saint-Julien-l**	15.28	275	*e*P	Pn	07 00 06.1	+1.1
VIVF				pmax	pmax		
	comp=Z,9.0nm,0.9s						
VIVF	**Saint-Julien-l**	15.28	275	*e*P	Pn	07 00 06.1	+1.1
	comp=Z,8.9nm,0.9s						
LOR	**Lormes**	15.59	284	*e*P	Pn	07 00 09.0	+0.2
	comp=Z,20nm,0.7s						
LOR	**Lormes**	15.59	284	*e*P	Pn	07 00 09.0	+0.2
LOR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
LOR	**Lormes**	15.59	284	*e*P	Pn	07 00 09.0	+0.2
	comp=Z,10nm,0.7s						
SMF	**Signal de Mont**	15.63	282	*e*P	Pn	07 00 09.2	-0.1
	comp=Z,18nm,0.6s						
SMF	**Signal de Mont**	15.63	282	*e*P	Pn	07 00 09.2	-0.1
SMF				pmax	pmax		
	comp=Z,9.0nm,0.6s						
SMF	**Signal de Mont**	15.63	282	*e*P	Pn	07 00 09.2	-0.1
	comp=Z,8.9nm,0.6s						
ASF	**Jabal al Asfar**	15.66	145	P	Pn	07 00 13.5	+3.7
	comp=Z,0.4nm,0.3s,baz=211,slow=5.1,SNR=4.8						
SSF	**Saint Saulge**	15.84	284	*e*P	Pn	07 00 11.4	-0.4
	comp=Z,17nm,0.8s						
SSF	**Saint Saulge**	15.84	284	*e*P	Pn	07 00 11.4	-0.4
SSF				pmax	pmax		
	comp=Z,8.0nm,0.8s						
SSF	**Saint Saulge**	15.84	284	*e*P	Pn	07 00 11.4	-0.4
	comp=Z,8.4nm,0.8s						
PLDF	**La Plantade**	15.85	280	*e*P	Pn	07 00 13.3	+1.3
FINES	**FINESS Array B**	15.94	360	*e*P	Pn	07 00 10.3	-2.6
FINES	**FINESS Array B**	15.94	360	P	Pn	07 00 09.3	-3.6
	comp=Z,0.2nm,0.3s,baz=170,slow=12,SNR=8.7						
AVF	**Avril sur Loir**	15.96	283	*e*P	Pn	07 00 12.5	-0.8
	comp=Z,11nm,0.6s						
AVF	**Avril sur Loir**	15.96	283	*e*P	Pn	07 00 12.5	-0.8
AVF				pmax	pmax		
	comp=Z,6.0nm,0.6s						
AVF	**Avril sur Loir**	15.96	283	*e*P	Pn	07 00 12.5	-0.8
	comp=Z,5.7nm,0.6s						
LASF	**Ste Croix**	16.01	273	*e*P	Pn	07 00 15.2	+1.3
	comp=Z,20nm,0.8s						
LASF	**Ste Croix**	16.01	273	*e*P	Pn	07 00 15.2	+1.3
	comp=Z,9.9nm,0.8s						
KEST	**Kesra**	16.16	239	P	Pn	07 00 16.2	+0.4
	comp=Z,0.4nm,0.3s,baz=128,slow=1.2,SNR=4.5						
BGF	**Bois d'Agland**	16.32	282	*e*P	Pn	07 00 16.3	-1.5
	comp=Z,32nm,0.9s						
BGF	**Bois d'Agland**	16.32	282	*e*P	Pn	07 00 16.3	-1.5
BGF				pmax	pmax		
	comp=Z,16nm,0.9s						
BGF	**Bois d'Agland**	16.32	282	*e*P	Pn	07 00 16.3	-1.5
	comp=Z,16nm,0.9s						
HFS	**Hagfors**	16.45	337	P	Pn	07 00 17.0	-2.1
HFS				pmax	pmax		
	comp=Z,1.0nm,0.3s						
HFS	**Hagfors**	16.45	337	P	Pn	07 00 17.0	-2.1
	comp=Z,1.0nm,0.3s,baz=130,slow=14,SNR=22						
KAF	**Kangasniemi**	16.61	360	*e*p	Pn	07 00 18.7	-2.4
	baz=178,slow=13						
TCF	**Toulx Ste Croi**	16.79	281	*e*P	Pn	07 00 23.7	+0.3
	comp=Z,7.5nm,0.6s						
TCF	**Toulx Ste Croi**	16.79	281	*e*P	Pn	07 00 23.7	+0.3
TCF				pmax	pmax		
	comp=Z,4.0nm,0.6s						
TCF	**Toulx Ste Croi**	16.79	281	*e*P	Pn	07 00 23.7	+0.3
	comp=Z,3.8nm,0.6s						
EJON	**La Jonquera**	17.13	268	P	Pn	07 00 24.5	-3.0
	comp=Z,7.1nm,0.5s						
EIL	**Elat**	17.23	154	P	Pn	07 00 30.2	+1.3
	comp=Z,0.8nm,0.3s,baz=48,slow=17,SNR=4.9						
MTLF	**Montolieu**	17.34	271	*e*P	Pn	07 00 30.4	+0.3
	comp=Z,11nm,0.6s						
MTLF	**Montolieu**	17.34	271	*e*P	Pn	07 00 30.4	+0.3
MTLF				pmax	pmax		
	comp=Z,6.0nm,0.6s						
MTLF	**Montolieu**	17.34	271	*e*P	Pn	07 00 30.4	+0.3
	comp=Z,5.7nm,0.6s						
JOF	**Joensuu**	17.65	8	*e*p	Pn	07 00 30.4	-3.2
	comp=Z,1.3nm,0.3s						
JOF	**Joensuu**	17.65	8	*e*P	Pn	07 00 30.4	-3.2
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
NB2	**NORSAR Subarra**	17.89	336	P	Pn	07 00 35.2	-1.2
	comp=Z,2.5nm,0.7s,baz=143,slow=11						
NOA	**NORSAR Array B**	17.89	336	P	Pn	07 00 35.1	-1.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.3s						
NOA	**NORSAR Array B**	17.89	336	P	Pn	07 00 35.0	-1.4
	comp=Z,0.9nm,0.3s,baz=145,slow=9.8,SNR=14						
LDF	**La Druitiere**	18.24	289	*e*P	P	07 00 38.4	-0.5
	comp=Z,15nm,0.4s						
LDF	**La Druitiere**	18.24	289	*e*P	P	07 00 38.4	-0.5
	comp=Z,7.3nm,0.4s						
EMIR	**Miracle**	18.26	267	P	P	07 00 37.7	-1.5
	comp=Z,0.1nm,0.7s						
EMIR	**Miracle**	18.26	267	P	P	07 00 37.7	-1.5
	comp=Z,0.1nm,0.7s						
MFF	**Saint Martin d**	18.37	283	*e*P	P	07 00 39.6	-0.8
	comp=Z,47nm,0.8s						
MFF	**Saint Martin d**	18.37	283	*e*P	P	07 00 39.6	-0.8
MFF				pmax	pmax		
	comp=Z,23nm,0.8s						
MFF	**Saint Martin d**	18.37	283	*e*P	P	07 00 39.6	-0.8
	comp=Z,23nm,0.8s						
FLN	**La Foliniere**	18.48	290	*e*P	P	07 00 40.0	-1.5
GRR	**Gorron**	18.73	289	*e*P	P	07 00 43.7	-0.6
	comp=Z,13nm,0.5s						
GRR	**Gorron**	18.73	289	*e*P	P	07 00 43.7	-0.6
GRR				pmax	pmax		
	comp=Z,7.0nm,0.5s						
GRR	**Gorron**	18.73	289	*e*P	P	07 00 43.7	-0.6
	comp=Z,6.6nm,0.5s						
EPF	**Esparros**	18.75	272	*e*P	P	07 00 41.7	-2.8
EPOB	**Poblet**	18.77	266	P	P	07 00 45.8	+1.0
	comp=Z,18nm,0.6s						
EPOB	**Poblet**	18.77	266	P	P	07 00 45.8	+1.0
	comp=Z,18nm,0.6s						
EBIE	**Bielsa**	18.99	271	P	P	07 00 47.9	+0.8
	comp=Z,39nm,0.6s						
EBIE	**Bielsa**	18.99	271	P	P	07 00 47.9	+0.8
	comp=Z,39nm,0.6s						
ETSF	**Etsaut**	19.42	272	*e*P	P	07 00 51.3	-0.5
	comp=Z,32nm,0.9s						
ETSF	**Etsaut**	19.42	272	*e*P	P	07 00 51.3	-0.5
ETSF				pmax	pmax		
	comp=Z,16nm,0.9s						
ETSF	**Etsaut**	19.42	272	*e*P	P	07 00 51.3	-0.5
	comp=Z,16nm,0.9s						
ERTA	**Horta de San J**	19.44	266	P	P	07 00 52.5	+0.4
	comp=Z,4.4nm,0.6s						
ERTA	**Horta de San J**	19.44	266	P	P	07 00 52.5	+0.5
	comp=Z,4.4nm,0.6s						
EIBI	**Ibiza**	19.55	259	P	P	07 00 54.5	+1.3
	comp=Z,2.0nm,0.7s						
PRGR	**Permogore**	19.65	28	*e*P	P	07 01 04.0	+10
SJPF	**Ste Jean**	19.82	273	*e*P	P	07 00 55.8	-0.3
	comp=Z,24nm,0.9s						
SJPF	**Ste Jean**	19.82	273	*e*P	P	07 00 55.8	-0.3
SJPF				pmax	pmax		
	comp=Z,12nm,0.9s						
SJPF	**Ste Jean**	19.82	273	*e*P	P	07 00 55.8	-0.3
	comp=Z,12nm,0.9s						
SGMF	**Saint Gilles**	19.87	288	*e*P	P	07 00 58.2	+1.6
ELIZ	**Elizondo**	20.02	273	P	P	07 00 53.8	-4.4
	comp=Z,10nm,0.8s						
ELIZ	**Elizondo**	20.02	273	P	P	07 00 53.8	-4.5
ELIZ				pmax	pmax		
	comp=Z,10.0nm,0.8s						
EBEN	**Beniarda**	20.78	260	P	P	07 01 08.2	+1.7
	comp=Z,2.3nm,0.5s						
EBEN	**Beniarda**	20.78	260	P	P	07 01 08.1	+1.6
	comp=Z,2.3nm,0.5s						
EKA	**Eskdalemuir Ar**	21.03	308	P	P	07 01 08.5	-0.4
EKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
EKA	**Eskdalemuir Ar**	21.03	308	P	P	07 01 08.4	-0.5
	comp=Z,2.3nm,0.6s,mb3.7,baz=110,slow=10,SNR=9.4						
ETOR	**Torete**	21.17	267	P	P	07 01 09.9	-0.7
	comp=Z,2.0nm,0.6s,mb3.6						
ETOR	**Torete**	21.17	267	P	P	07 01 09.9	-0.6
ETOR				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.6						
ETOR	**Torete**	21.17	267	P	P	07 01 09.9	-0.6
	comp=Z,2.0nm,0.6s,mb3.6						
ELAN	**Lanestosa**	21.34	274	P	P	07 01 06.8	-5.5
	comp=Z,1.0nm,0.5s,mb3.4						
AKTK	**Aktyubinsk**	21.67	65	P	P	07 01 19.0	+3.2
AKTK				pP		07 01 42.3	
AKTO	**Aktyubinsk**	21.67	65	P	P	07 01 19.0	+3.2
AKTO				*PP		07 01 42.3	
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.5						
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.8						
AKTO	**Aktyubinsk**	21.67	65	P	P	07 01 19.0	+3.2
	comp=Z,0.8nm,0.5s,mb3.4,baz=261,slow=9.4,SNR=4.0						
AKTO				pP		07 01 42.3	
	comp=Z,2.2nm,0.5s,baz=290,slow=8.8,SNR=5.6						
ESDC	**Sonseca Array**	22.96	266	P	P	07 01 27.6	-0.9
	comp=Z,5.2nm,0.8s,mb4.0						
ESDC	**Sonseca Array**	22.96	266	P	P	07 01 27.6	-0.9
	comp=Z,4.2nm,0.6s,mb4.0,baz=62,slow=9.8,SNR=12						
ENIJ	**Nijar**	23.00	258	P	P	07 01 27.1	-1.8
	comp=Z,4.0nm,1.0s,mb3.8						
ENIJ	**Nijar**	23.00	258	P	P	07 01 27.1	-1.8
ENIJ				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb3.8						
ENIJ	**Nijar**	23.00	258	P	P	07 01 27.1	-1.8
	comp=Z,4.0nm,1.0s,mb3.8						
EQES	**Quesada**	23.18	261	P	P	07 01 30.5	-0.1
	comp=Z,9.2nm,1.2s,mb4.1						
EQES	**Quesada**	23.18	261	P	P	07 01 30.5	-0.1
	comp=Z,9.2nm,1.2s,mb4.1						
EBER	**Berja**	23.51	259	P	P	07 01 33.6	+0.1
EPON	**Pontenova**	23.91	277	P	P	07 01 34.9	-2.2
	comp=Z,0.6nm,1.2s,mb3.0						
EPON	**Pontenova**	23.91	277	P	P	07 01 34.9	-2.2
	comp=Z,0.6nm,1.2s,mb3.0						
ARCES	**ARCESS Array B**	24.07	359	P	P	07 01 38.6	+0.3
ARCES				pP		07 02 07.0	
ARCES	**ARCESS Array B**	24.07	359	P	P	07 01 38.6	+0.3
ARCES				*PP		07 02 07.0	
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ARCES	**ARCESS Array B**	24.07	359	P	P	07 01 38.6	+0.3
	comp=Z,1.3nm,0.4s,mb3.8,baz=180,slow=9.1,SNR=23						
ARCES				pP		07 02 07.0	
	comp=Z,3.0nm,0.7s,baz=173,slow=11,SNR=4.0						
KEV	**Kevo**	24.29	1	*e*p	P	07 01 37.5	-2.8
	comp=Z,2.1nm,0.5s,mb3.9						
KEV	**Kevo**	24.29	1	*e*P	P	07 01 37.5	-2.8
KEV				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.9						
MDT	**Midelt**	26.96	253	P	P	07 02 03.4	-1.3
	comp=Z,1.2nm,0.6s,mb3.7,baz=68,slow=7.4,SNR=4.2						
ZAL	**Zalesovo**	37.73	55	P	P	07 03 41.3	+3.2
ZAL				*PP	pP	07 04 11.2	+0.7
ZALV	**Zalesovo Beam**	37.74	55	P	P	07 03 41.2	+3.1
	comp=Z,0.8nm,0.4s,mb3.7,baz=271,slow=8.7,SNR=3.3						
ZALV				pP	pP	07 04 11.2	+0.6
	comp=Z,7.7nm,0.7s,baz=280,slow=9.0,SNR=16						
MKAR	**Makanchi Array**	38.09	67	P	P	07 03 42.5	+1.3
MKAR				pP	pP	07 04 14.2	+0.6
MKAR	**Makanchi Array**	38.09	67	P	P	07 03 42.5	+1.3
MKAR				*PP	pP	07 04 14.2	+0.6
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	38.09	67	P	P	07 03 42.5	+1.3
	comp=Z,0.2nm,0.3s,mb3.2,baz=261,slow=9.3,SNR=6.0						
MKAR				pP	pP	07 04 14.2	+0.6
	comp=Z,1.0nm,0.6s,baz=284,slow=7.5,SNR=7.9						
TORD	**Torodi Ar. Bea**	38.45	221	P	P	07 03 45.1	+0.6
	comp=Z,7.5nm,0.3s,mb4.8,baz=27,slow=8.7,SNR=139						
TIC	**Toumodi**	47.30	225	*e*P	P	07 04 55.0	-0.8
	comp=Z,10nm,0.3s						
KIC	**Kosan Boka**	47.41	224	*e*P	P	07 04 56.3	-0.3
	comp=Z,59nm,0.6s						
LIC	**Lamto**	47.67	224	*e*P	P	07 04 58.5	-0.1
	comp=Z,14nm,0.3s						
SONM	**Songino Array**	52.61	57	P	P	07 05 37.6	+2.2
SONM				*PP	pP	07 06 10.1	+0.4
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SONM	**Songino Array**	52.61	57	P	P	07 05 37.6	+2.2
	comp=Z,0.5nm,0.5s,mb3.5,baz=302,slow=8.8,SNR=6.0						
SONM				pP	pP	07 06 10.1	+0.4
	comp=Z,2.0nm,0.8s,baz=307,slow=8.0,SNR=13						
SCHQ	**Schefferville**	56.10	316	P	P	07 05 59.7	-0.8
	comp=Z,1.2nm,0.7s,mb3.9,baz=49,slow=9.3,SNR=4.1						
YKA	**Yellowknife Ar**	67.88	342	P	P	07 07 19.2	+0.3
YKA				pP	pP	07 07 54.4	-0.4
YKA	**Yellowknife Ar**	67.88	342	P	P	07 07 19.2	+0.3
	comp=Z,1.3nm,0.6s,mb3.9,baz=31,slow=5.9,SNR=28						
YKA				pP	pP	07 07 54.4	-0.4
	comp=Z,0.2nm,0.6s,baz=25,slow=6.0,SNR=2.0						
PDAR	**Pinedale Array**	83.70	329	P	P	07 08 49.4	+0.3
	comp=Z,1.2nm,1.0s,mb3.6,baz=58,slow=4.5,SNR=6.9						
ASAR	**Alice Springs**	118.59	95	PKIKP	PKPdf	07 15 07.5	+0.2
ASAR	**Alice Springs**	118.59	95	PKP	PKPdf	07 15 07.5	+0.2
	comp=Z,0.3nm,0.3s,baz=323,slow=1.7,SNR=7.7						
STKA	**Stephens Creek**	128.99	98	PKP	PKPdf	07 15 27.6	+0.6
	comp=Z,0.6nm,0.4s,baz=129,slow=17,SNR=4.0						

IDC **14** *07:10:29.0±1.1, 47.99N×154.65E, h0^{km}, mb3.6/8, mb1 3.8/8, mb1mx3.6/22, mbtmp3.6/8, Error ellipse: s-maj=29.9km s-min=29.4km az=104.0*

NEIC **14** *07:10:30.7±0.8, 47.99N×154.63E, h10^{km}, Error ellipse: s-maj=23.0km s-min=21.0km az=162.0*

ISCJB **14** *07:10:35.4±1.9, 48.1N±0.1×154.7E±0.2, h56^{km}±15^{km}, mb3.6/8, Error ellipse: s-maj=31.4km s-min=12.5km az=36.0*

MOS **14** *07:10:36.2±1.6, 48.26N×154.48E, h64^{km}, mb4.2/3, Error ellipse: s-maj=31.0km s-min=16.9km az=78.8*

ISC 14 07:10:37.4±1.6, **48.2N**±0.1×**154.8E**±0.2, **h57**^{km}±13^{km}, **n16**, σ**0.86**/17, **mb3.6**/8, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	2.68	19	*e*PN	Pn	07 11 17.0	-1.0
SKR				*e*S	Sn	07 11 49.5	+0.2
SKR				pmax	pmax		
	comp=Z,220nm,1.0s						
SKR				smax			
	comp=E,80nm,0.5s						
SKR				smax			
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=N,270nm,1.0s						
ERM	**Erimo**	10.25	238	*i* PN	Pn	07 13 02.5	+0.9
NVS	**Novosibirsk**	43.24	307	*e*P	P	07 18 27.8	-4.9
MKAR	**Makanchi Array**	47.31	297	P	P	07 19 04.0	-0.9
	comp=N,0.2nm,0.5s,mb3.3,baz=66,slow=7.4,SNR=6.4						
YKA	**Yellowknife Ar**	49.13	38	P	P	07 19 19.8	+1.1
YKA	**Yellowknife Ar**	49.13	38	P	P	07 19 19.8	+1.1
	comp=N,0.2nm,0.5s,mb3.4,baz=294,slow=7.2,SNR=4.1						
FINES	**FINESS Array B**	63.25	335	P	P	07 20 58.5	-0.8
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	**FINESS Array B**	63.25	335	P	P	07 20 58.5	-0.8
	comp=Z,0.7nm,0.5s,mb4.1,baz=47,slow=8.4,SNR=6.9						
NB2	**NORSAR Subarra**	67.26	342	P	P	07 21 26.0	+0.7
	comp=Z,0.7nm,0.5s,mb4.0,baz=24,slow=6.5						
NOA	**NORSAR Array B**	67.26	342	P	P	07 21 26.1	+0.8
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	**NORSAR Array B**	67.26	342	P	P	07 21 26.1	+0.8
	comp=Z,0.7nm,0.5s,mb4.0,baz=25,slow=6.4,SNR=4.5						
AKASG	**Malin Array Be**	71.00	327	P	P	07 21 48.5	-0.1
	comp=Z,0.3nm,0.3s,mb3.6,baz=30,slow=6.1,SNR=3.2						
ASAR	**Alice Springs**	73.90	200	P	P	07 22 04.7	-1.4
	comp=Z,0.3nm,0.8s,mb3.3,baz=8.9,slow=6.6,SNR=2.7						
TXAR	**Lajitas Array**	75.83	62	P	P	07 22 17.6	+0.2
	comp=Z,0.3nm,0.6s,mb3.4,baz=334,slow=6.0,SNR=2.4						
BRTR	**Keskin Array B**	78.13	318	*e*P	P	07 22 31.1	+0.9
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BRTR	**Keskin Array B**	78.13	318	P	P	07 22 31.1	+1.0
	comp=Z,0.9nm,0.6s,mb3.9,baz=32,slow=7.3,SNR=5.5						

IDC **14** *07:12:28.0±1.1, 15.06N×147.21E, h0^{km}, mb4.0/8, mb1 4.1/9, mb1mx3.9/21, mbtmp4.0/9, ML3.9/1, MS3.3/1, Ms1 3.3/1, ms1mx2.5/31, Error ellipse: s-maj=35.6km s-min=18.5km az=103.0*

ISCJB **14** *07:12:29.2±6.7, 15.1N±0.1×147.3E±0.1, h19^{km}±47^{km}, mb4.1/9, Error ellipse: s-maj=25.1km s-min=15.5km az=32.1*

NEIC **14** *07:12:33.6±0.7, 15.06N×147.12E, h35^{km}, Error ellipse: s-maj=22.2km s-min=10.5km az=102.0*

ISC 14 07:12:28.8±6.7, **15.1N**±0.1×**147.3E**±0.1, **h5**^{km}±42^{km}, **n13**, σ**0.59**/15, **mb4.1**/9, **Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	2.74	237	Pn	Pn	07 13 13.9	+0.4
GUMO				Sn	Sn	07 13 47.3	+0.2
GUMO				LR	LR	07 13 48.4	
GUMO	**Guam**	2.74	237	Pn	Pn	07 13 13.9	+0.4
	21nm,0.3s,baz=141,slow=3.1,SNR=8.6						
GUMO				Sn	Sn	07 13 47.3	+0.2
	29nm,0.3s,baz=197,slow=24,SNR=8.2						
GUMO				LR	LR	07 13 48.4	
	comp=Z,559nm,21.1s,baz=215,slow=30						
WB2	**Warramunga Arr**	37.05	200	*e*P	P	07 19 40.4	+0.5
WRA	**Warramunga Arr**	37.05	200	P	P	07 19 39.0	-1.0
	1.9nm,0.8s,mb4.0,baz=22,slow=9.3,SNR=9.9						
ASAR	**Alice Springs**	40.66	199	P	P	07 20 10.0	-0.2
	0.4nm,0.6s,mb3.2,baz=16,slow=11,SNR=8.8						
SONM	**Songino Array**	46.89	323	P	P	07 20 59.7	-0.4
	0.5nm,0.5s,mb3.7,baz=126,slow=6.2,SNR=8.6						
ZALV	**Zalesovo Beam**	61.78	324	P	P	07 22 48.0	-0.5
	0.7nm,0.4s,mb4.2,baz=98,slow=6.3,SNR=5.2						
MK31	**Makanchi Array**	62.04	315	*e*P	P	07 22 49.8	-0.5
MKAR	**Makanchi Array**	62.04	315	P	P	07 22 50.5	+0.1
	1.5nm,0.4s,mb4.5,baz=91,slow=8.4,SNR=73						
YKA	**Yellowknife Ar**	80.47	28	P	P	07 24 42.1	+0.6
	0.2nm,0.3s,mb3.5,baz=224,slow=26,SNR=6.3						
ARCES	**ARCESS Array B**	86.37	343	P	P	07 25 13.1	+1.3
	4.5nm,1.1s,mb4.6,baz=52,slow=6.3,SNR=4.2						

MVU	Marysvale	88.76	50	*e*P	P	07 25 17.7	-6.3
	18nm,1.6s,mb5.1						
FINES	FINESS Array B	90.77	336	P	P	07 25 32.5	-0.4
	0.9nm,0.8s,mb4.2,baz=9.5,slow=3.4,SNR=3.3						

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*NEIC **14** 07:28:54.2, 38.18S×178.02E, h37^{km}, ML3.8(WEL), After WEL.*

WEL 14 07:28:54.3±0.2, 38.20S×178.03E, h36^{km}±3^{km}, ML3.6/5, 2D, Error ellipse: s-maj=2.4km s-min=2.0km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUZ	Puketiti	0.21	56	P	Pn	07 29 01.1	-0.2
PUZ				S	Sn	07 29 07.0	+0.8
PUZ	Puketiti	0.21	56	⇓PN	Pn	07 29 01.1	-0.2
PUZ				SN	Sn	07 29 07.0	+0.8
MWZ	Matawai	0.42	250	P	Pn	07 29 03.2	-0.6
MWZ	Matawai	0.42	250	⇓PN	Pn	07 29 03.2	-0.7
MWZ				SN	Sn	07 29 10.2	-0.2
MXZ	Matakaoa Point	0.67	19	P	Pn	07 29 06.6	-0.6
MXZ	Matakaoa Point	0.67	19	PN	Pn	07 29 06.6	-0.6
MXZ				SN	Sn	07 29 16.3	-0.1
URZ	Urewera	0.73	265	P	Pn	07 29 07.5	-0.6
URZ	Urewera	0.73	265	PN	Pn	07 29 07.5	-0.6
KNZ	Kokohu	0.87	199	*e*P	Pn	07 29 09.8	-0.2
KNZ	Kokohu	0.87	199	PN	Pn	07 29 09.8	-0.2
EDRZ	Edgecumbe	1.02	274	P	Pn	07 29 12.8	+0.7
EDRZ	Edgecumbe	1.02	274	PN	Pn	07 29 12.0	-0.1
MARZ	Manawahe	1.09	281	P	Pn	07 29 12.6	-0.4
TAZ	Tarawera	1.20	268	P	Pn	07 29 15.3	+0.8
TAZ	Tarawera	1.20	268	PN	Pn	07 29 15.1	+0.6
MKRZ	Makatiti	1.23	272	P	Pn	07 29 16.9	+1.9
PATZ	Paeroa	1.41	262	P	Pn	07 29 17.7	+0.3
KARZ	Kaharoa	1.42	276	P	Pn	07 29 16.6	-1.0
TGRZ	Tauranga	1.48	288	P	Pn	07 29 16.9	-1.4
TGRZ	Tauranga	1.48	288	PN	Pn	07 29 16.9	-1.4
BKZ	Black Stump Fm	1.55	231	P	Pn	07 29 19.3	0.0
BKZ	Black Stump Fm	1.55	231	PN	Pn	07 29 19.3	0.0
PXZ	Pawanui	2.05	206	PN	Pn	07 29 23.6	-2.6
WPVZ	Whakapapa	2.19	242	*e*P	Pn	07 29 31.2	+3.0
WNVZ	Wahianoa	2.21	238	P	Pn	07 29 28.8	+0.3
WNVZ	Wahianoa	2.21	238	PN	Pn	07 29 28.8	+0.3
KUZ	Kuaotunu	2.34	307	*e*P	Pn	07 29 28.2	-2.0
KUZ	Kuaotunu	2.34	307	PN	Pn	07 29 28.2	-2.0
KUZ				SN	Sn	07 29 55.1	-2.5
WAZ	Wanganui	2.84	236	P	Pn	07 29 37.4	+0.3
WAZ	Wanganui	2.84	236	PN	Pn	07 29 37.4	+0.4
BFZ	Birch Farm	2.84	209	*e*P	Pn	07 29 35.0	-2.1
BFZ	Birch Farm	2.84	209	PN	Pn	07 29 35.0	-2.1
MRZ	Mangatainoka R	3.11	217	*e*P	Pn	07 29 38.3	-2.5
MRZ	Mangatainoka R	3.11	217	PN	Pn	07 29 38.3	-2.5
MTW	Mount Morrison	3.55	213	P	Pn	07 29 43.6	-3.2
KIW	Kapiti Island	3.59	221	P	Pn	07 29 44.8	-2.7
KIW	Kapiti Island	3.59	221	PN	Pn	07 29 44.8	-2.7
CAW	Cannon Point	3.70	217	P	Pn	07 29 45.4	-3.5
THZ	Tophouse	5.31	226	*e*P	Pn	07 30 07.6	-3.4
THZ	Tophouse	5.31	226	PN	Pn	07 30 07.6	-3.5

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*BJI **14** 07:32:45.6, 13.34N×124.15E, h72^{km}, mB5.2, mb4.8*

*MOS **14** 07:32:49.9±0.9, 14.18N×123.55E, h33^{km}, mb4.9/17, Error ellipse: s-maj=22.3km s-min=7.6km az=122.0*

*MAN **14** 07:32:55, 14.30N×123.45E, h72^{km}, mb5.2, ML4.1, MS4.3*

MAN INTENSITY IV - DAET, CAMARINES NORTE; INTENSITY III - GUINAYANGAN, QUEZON.

*NEIC **14** 07:32:55.9±0.3, 14.12N×123.56E, mb4.9/15, Error ellipse: s-maj=10.9km s-min=4.5km az=61.0*

NEIC Felt [IV PIVS] at Daet and [III PIVS] at Guinayangan.

*IDC **14** 07:32:55.9±0.6, 14.15N×123.53E, h73^{km}±5^{km}, mb4.1/14, mb1 4.2/14, mb1mx4.1/21, mbtmp4.1/14, MS3.4/6, Ms1 3.4/6, ms1mx3.0/28, Error ellipse: s-maj=13.6km s-min=9.6km az=42.0*

*ISCJB **14** 07:32:55.6±0.4, 14.21N±0.04×123.51E±0.05, h84^{km}±4^{km}, mb4.6/47, Error ellipse: s-maj=8.7km s-min=4.0km az=143.9*

ISC 14 07:32:56.9±0.4, 14.19N±0.04×123.49E±0.04, h79^{km}±3^{km}, h75^{km}±3.1^{km}:pP-P, n108, $\sigma 1^{s}04$/115, mb4.6/47, 10C-7D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PVCP	Virac	0.88	133	⇓*i*P	Pn	07 33 14.9	+0.5
PVCP				*i* S	Sn	07 33 29.0	+1.5
GQP	Guinayangan	1.05	254	⇑*i*P	Pn	07 33 16.5	0.0
GQP				*i* S	Sn	07 33 31.1	-0.1
BOAC	Boac	1.76	246	*e*S	Sn	07 34 00.6	+13
LQP	Lukban	1.90	268	⇓*e*P	Pn	07 33 28.2	+0.8
BALP	Baler	2.41	310	*e*P	Pn	07 33 33.7	-0.6
BALP				*e*S	Sn	07 33 53.9	-8.9
TGY	Tagaytay City	2.48	268	P	Pn	07 33 36.2	+1.0
	1µm,0.3s,baz=88,slow=1.2,SNR=63						
TGY				S	Sn	07 34 05.0	+0.4
	730nm,0.3s,baz=29,slow=8.2,SNR=6.0						
TGY	Tagaytay City	2.48	268	⇑*i*P	Pn	07 33 38.1	+2.9
TGY				*i* S	Sn	07 34 06.8	+2.2
PCPH	Palayan	2.69	301	⇑*i*P	Pn	07 33 35.9	-2.1
PCPH				*i* S	Sn	07 34 06.3	-3.3
RCP	Roxas	2.72	196	⇑*e*P	Pn	07 33 39.8	+1.4
PLP	Palo	3.34	154	*e*P	Pn	07 33 47.1	+0.2
PLP				*e*S	Sn	07 34 24.9	-0.6
BCPH	Baguio City Da	3.55	308	⇓*e*P	Pn	07 33 49.0	-0.8
BCPH				*i* S	Sn	07 34 29.5	-1.2
CVP	Callao Caves	3.84	336	*e*P	Pn	07 33 52.6	-1.1
CVP				*i* S	Sn	07 34 35.1	-2.6
TBP	Tagbilaran	4.49	175	*e*P	Pn	07 34 03.2	+0.7
SCPH	Surigao	4.80	156	⇑*e*P	Pn	07 34 08.7	+1.9
PIP	Pasuquin	4.95	327	⇑*i*P	Pn	07 34 07.5	-1.3
PIP				*e*S	Sn	07 35 03.0	-1.8
YHNB	Yeheng	10.61	349	*e*Pn	Pn	07 35 26.7	+0.7
NJ2	Nanjing	18.28	347	*e*P	Pn	07 37 05.8	+0.6
NJ2				AMB	AMB		
	comp=Z,30nm,0.5s						
WHN	Wuhan	18.32	334	*e*P	Pn	07 37 09.5	+3.7
JNU	Nakatsue	20.01	18	LR	LR	07 43 51.2	
	comp=Z,30nm,20.9s,baz=31,slow=33						
CBIJ	Chichi jima	21.66	51	LR	LR	07 45 18.9	
	comp=Z,269nm,18.4s,baz=136,slow=34						
KMI	Kunming	22.33	302	P	P	07 37 50.8	+2.5
KMI				AMB	AMB		
	comp=Z,46nm,0.9s,mb4.8						
KMI	Kunming	22.33	302	P	P	07 37 50.7	+2.4
	comp=Z,46nm,0.9s,mb4.8						
KMI				LR	LR		
	comp=Z,160nm,34.9s						
KMI	Kunming	22.33	302	P	P	07 37 50.7	+2.4
KMI				pmax	pmax		
	comp=Z,46nm,0.9s,mb4.8						
KMI				MLR	MLR		
	comp=Z,160nm,34.9s						
KSRS	Korea Array	23.50	9	P	P	07 38 02.8	+3.0
	comp=Z,2.7nm,0.9s,mb3.6,baz=242,slow=30,SNR=2.8						
XAN	Xi’an	23.76	329	P	P	07 38 01.9	-0.3
XAN				AMB	AMB		
	comp=Z,56nm,0.7s,mb5.0						
CHTO	Chiang Mai	23.97	284	*e*P	P	07 38 03.5	-0.8
	comp=Z,4.3nm,0.9s,mb3.8						
CHTO	Chiang Mai	23.97	284	*e*P	P	07 38 03.5	-0.7
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb3.8						
CD2	Chengdu	24.61	316	*e*P	P	07 38 10.1	+0.2
CD2				AMB	AMB		
	comp=Z,60nm,0.7s,mb5.1						
BJT	Baijiatuau	26.52	347	*e*P	P	07 38 27.5	+0.4
	comp=Z,25nm,1.1s,mb4.7						
BJT	Baijiatuau	26.52	347	*e*P	P	07 38 27.5	+0.4
BJT				pmax	pmax		
	comp=Z,25nm,1.1s						
PSI	Prapat	26.77	247	LR	LR	07 47 43.5	
	comp=Z,74nm,20.8s,baz=234,slow=33						
LZH	Lanzhou	28.03	325	*e*P	P	07 38 42.3	+1.7
LZH				AP	pP	07 38 55.8	-3.1
LZH				AMB	AMB		
	comp=Z,35nm,1.4s,mb4.7						
LZH				AMB	AMB		
	comp=Z,159nm,4.3s						
LZH	Lanzhou	28.03	325	*e*P	P	07 38 42.2	+1.6
	comp=Z,35nm,1.4s,mb4.7						
LZH				pP	pP	07 38 55.7	-3.2
LZH				sP	sP	07 39 02.1	-6.0
LZH	Lanzhou	28.03	325	*e*P	P	07 38 42.2	+1.6
LZH				*PP	pP	07 38 55.7	-3.2
LZH				pmax	pmax		
	comp=Z,35nm,1.4s,mb4.7						
KAKA	Kakadu	28.16	161	*e*P	P	07 38 40.2	-1.8
	comp=Z,18nm,0.6s,mb4.8						
SHL	Shillong	31.72	296	*e*P	P	07 39 13.0	-0.5
FITZ	Fitzroy Crossi	32.16	176	*e*P	P	07 39 15.7	-1.6
	comp=Z,10nm,0.6s,mb4.7						
GTA	Gaotai	32.63	325	*e*P	P	07 39 21.8	+0.6
GTA				AMB	AMB		
	comp=Z,2.0nm,0.7s,mb4.1						
PMG	Port Moresby	33.18	134	P	P	07 39 25.8	-0.5
	comp=Z,2.3nm,0.3s,mb4.5,baz=228,slow=3.6,SNR=4.5						
LSA	Lhasa	33.59	303	P	P	07 39 31.3	+1.6
LSA				AMB	AMB		
	comp=Z,80nm,1.1s,mb5.5						
LSA	Lhasa	33.59	303	*e*P	P	07 39 30.8	+1.1
	comp=Z,22nm,0.9s,mb5.0						
LSA	Lhasa	33.59	303	*e*P	P	07 39 30.8	+1.1
LSA				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.0						
COEN	Coen	34.09	144	*e*P	P	07 39 33.1	-1.0
MBWA	Marble Bar	35.32	186	*e*P	P	07 39 43.6	-1.1
	comp=Z,36nm,0.7s,mb5.3						
WRA	Warramunga Arr	35.56	162	P	P	07 39 45.1	-1.7
	comp=Z,6.9nm,0.4s,mb5.0,baz=344,slow=9.0,SNR=107						
WRA				PcP	PcP	07 42 13.6	-0.8
	comp=Z,1.5nm,0.6s,baz=338,slow=3.2,SNR=6.2						
WB2	Warramunga Arr	35.56	162	*e*P	P	07 39 45.3	-1.5
TAPN	Taplejung	35.79	297	*e*P	P	07 39 49.2	+0.5
	comp=Z,19nm,0.5s,mb5.2						
ODAN	Odare	35.95	296	*e*P	P	07 39 50.0	-0.1
	comp=Z,32nm,0.6s,mb5.4						
SONM	Songino Array	36.43	341	P	P	07 39 54.6	+0.7
SONM				*PP	pP	07 40 10.8	-1.7
SONM	Songino Array	36.43	341	P	P	07 39 54.6	+0.8
	comp=Z,2.5nm,0.7s,mb4.2,baz=158,slow=9.2,SNR=16						
SONM				pP	pP	07 40 10.8	-1.7
	comp=Z,5.8nm,0.8s,baz=161,slow=9.1,SNR=12						
SONM				LR	LR	07 56 38.1	
	comp=Z,49nm,18.6s,baz=160,slow=39						
KKN	Kakani	37.99	297	*e*P	P	07 40 06.9	-0.5
	comp=Z,69nm,1.2s,mb5.4						
GKN	Gorkha	38.59	297	*e*P	P	07 40 11.7	-0.8
	comp=Z,29nm,0.6s,mb5.3						
ASAR	Alice Springs	38.98	165	P	P	07 40 14.9	-0.8
	comp=Z,5.3nm,0.5s,mb4.6,baz=339,slow=6.7,SNR=152						
ASAR				pP	pP	07 40 33.2	-1.2
	comp=Z,2.2nm,0.5s,baz=357,slow=11,SNR=4.9						
ASAR				PcP	PcP	07 42 24.4	-0.3
	comp=Z,3.5nm,0.5s,baz=343,slow=3.0,SNR=12						
ZAK	Zakamensk	39.66	340	*e*P	P	07 40 21.0	0.0
ZAK				*e*	pP	07 40 37.1	-2.8
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
TLY	Talaya	40.66	341	*i* P	P	07 40 29.7	+0.5
CTA	Charters Tower	40.76	146	*e*P	P	07 40 30.7	+0.2
	comp=Z,6.8nm,0.9s,mb4.5						
CTA	Charters Tower	40.76	146	*e*P	P	07 40 30.7	+0.2
CTA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
CTA	Charters Tower	40.76	146	P	P	07 40 30.1	-0.4
	comp=Z,7.1nm,0.8s,mb4.6,baz=332,slow=9.7,SNR=9.6						
HNR	Honiara	43.11	121	LR	LR	07 55 49.8	
	comp=Z,73nm,20.1s,baz=360,slow=32						
FORT	Forrest	44.93	174	*e*P	P	07 41 03.1	-0.9
	comp=Z,12nm,0.5s,mb4.9						
FORT				*e*	pP	07 41 23.4	+0.2
KLBR	Kellerberrin	45.85	187	*e*P	P	07 41 10.0	-1.3
	comp=Z,13nm,0.8s,mb4.7						
KLBR				*e*	pP	07 41 32.2	+1.6
MK31	Makanchi Array	47.28	322	*e*P	P	07 41 22.9	+0.5
MKAR	Makanchi Array	47.28	322	P	P	07 41 22.9	+0.6
MKAR				pP	pP	07 41 40.1	-1.6
MKAR				LR	LR	08 03 24.7	
MKAR	Makanchi Array	47.28	322	P	P	07 41 22.9	+0.5
MKAR				*PP	pP	07 41 40.1	-1.6
MKAR	Makanchi Array	47.28	322	P	P	07 41 22.9	+0.6
	comp=Z,4.1nm,0.8s,mb4.2,baz=116,slow=8.5,SNR=37						
MKAR				pP	pP	07 41 40.1	-1.6
	comp=Z,2.8nm,0.8s,baz=113,slow=9.3,SNR=6.9						
MKAR				LR	LR	08 03 24.7	
	comp=Z,25nm,18.6s,baz=172,slow=39						
PET	Petropavlovsk	47.69	28	⇑*e*P	P	07 41 21.2	-4.2
STKA	Stephens Creek	48.98	159	*e*P	P	07 41 35.1	-0.5
	comp=Z,5.0nm,0.4s,mb4.8						
STKA	Stephens Creek	48.98	159	P	P	07 41 34.0	-1.7
	comp=Z,6.9nm,0.5s,mb4.8,baz=338,slow=8.8,SNR=15						
ULHL	Ulahol	49.30	314	P	P	07 41 39.4	+1.4
	SNR=12						
ZALV	Zalesovo Beam	49.90	331	P	P	07 41 41.6	-0.8
	comp=Z,2.6nm,0.6s,mb4.4,baz=117,slow=7.2,SNR=15						
ZALV				pP	pP	07 42 01.4	-0.5
	comp=Z,1.0nm,0.6s,baz=112,slow=9.8,SNR=2.5						
ZAL	Zalesovo	49.90	331	P	P	07 41 41.6	-0.8
KZA	Kyzart	49.94	313	P	P	07 41 45.0	+2.1
	SNR=15						
TKM2	Tokmak 2	49.98	315	P	P	07 41 44.4	+1.2
	SNR=6.5						
TKM2	Tokmak 2	49.98	315	*e*P	P	07 41 43.5	+0.3
	comp=Z,2.4nm,0.6s,mb4.3						
TKM2	Tokmak 2	49.98	315	*e*P	P	07 41 43.5	+0.3
TKM2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
UCH	Uchtor	50.51	313	P	P	07 41 49.3	+2.1
	SNR=27						
UCH	Uchtor	50.51	313	*e*P	P	07 41 47.8	+0.6
	comp=Z,22nm,1.0s,mb5.1						
AAK	Ala-Archa	50.65	314	*e*P	P	07 41 48.4	+0.2
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
USP	Ospenovka	50.86	315	P	P	07 41 50.7	+0.9
	SNR=5.1						
AML	Almayashu	51.06	313	P	P	07 41 53.1	+1.9
	SNR=13						
AML	Almayashu	51.06	313	*e*P	P	07 41 52.3	+1.0
	comp=Z,29nm,1.2s,mb5.2						
EKS2	Erkin-Say	51.16	314	P	P	07 41 53.5	+1.4
	SNR=10						
EKS2	Erkin-Say	51.16	314	*e*P	P	07 41 52.7	+0.6
	comp=Z,7.2nm,0.8s,mb4.8						
NVS	Novosibirsk	51.18	331	*i* P	P	07 41 51.4	-0.6
KURK	Kurchatov	51.32	325	⇓P	P	07 41 53.0	-0.1
	comp=Z,15nm,1.4s,mb4.8						
KURK				⇓S	pP	07 42 20.3	+7.7
	comp=Z,10nm,0.6s						
KURK	Kurchatov	51.32	325	*d i*P	P	07 41 53.4	+0.3
KBL	Kabul	52.91	303	*e*P	P	07 42 05.6	+0.4
KK31	Karatay Array	53.59	313	*i* P	P	07 42 10.1	+0.1
KK31				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
KKAR	Karatay Array	53.59	313	*i* P	P	07 42 10.1	+0.1
KKAR				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
BRVK	Borovoye	56.99	325	*e*P	P	07 42 34.5	+0.2
	comp=Z,30nm,1.3s,mb5.2						
BRVK	Borovoye	56.99	325	*e*P	P	07 42 34.5	+0.3
BRVK				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.2						
TIXI	Tiksi	57.52	2	⇑*e*P	P	07 42 37.3	-0.4
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
BILL	Bilibino	60.43	17	⇓*e*P	P	07 42 58.4	+0.5
AB31	Akbulak array	62.15	318	P	P	07 43 09.8	0.0
AB31				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
ARU	Arti	64.48	326	⇑*i*P	P	07 43 24.6	-0.4
ARU				*e*	pP	07 43 43.0	-2.3
ARU				*e*		07 43 53.9	
ARU				*e*		07 45 45.6	
ARU				*e*S	S	07 51 58.2	+0.4
ARU				*e*SS	SS	07 56 08.5	-0.6
ARU				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
RPZ	Rata Peaks	72.14	146	P	P	07 44 12.5	-0.5
	comp=Z,18nm,0.7s,mb5.0,baz=221,slow=7.0,SNR=4.7						
ZEI	Tsey	72.91	311	*e*P	P	07 44 17.5	-0.3
ZEI				*i*	pP	07 44 38.3	-0.2
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.3						
GOF	Gofitskoye	73.39	313	*e*P	P	07 44 22.7	+2.1
KIV	Kislovodsk	73.71	312	⇑*e*P	P	07 44 23.3	+0.8
KIV				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
COLA	College	76.70	26	*i* P	P	07 44 38.6	-0.6
OBN	Obninsk	76.74	324	*e*P	P	07 44 39.4	-0.2
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
ARCES	ARCESS Array B	79.59	339	P	P	07 44 55.8	+0.7
	comp=Z,1.9nm,1.0s,mb3.9,baz=63,slow=6.0,SNR=4.5						
ARCES				pP	pP	07 45 14.9	-1.1
	comp=Z,4.6nm,0.8s,baz=94,slow=7.3,SNR=5.0						
BRTR	Keskin Array B	80.97	309	P	P	07 45 02.5	-0.7
	comp=Z,0.8nm,0.6s,mb3.7,baz=97,slow=4.2,SNR=5.4						
BRTR				pP	pP	07 45 22.4	-1.7
	comp=Z,0.3nm,0.3s,baz=173,slow=13,SNR=2.7						
FINES	FINESS Array B	81.17	331	P	P	07 45 03.1	-0.6
	comp=Z,1.2nm,0.8s,mb3.8,baz=57,slow=7.0,SNR=4.4						
FINES				pP	pP	07 45 23.6	-1.1
	comp=Z,0.7nm,0.5s,baz=72,slow=6.2,SNR=2.8						
NB2	NORSAR Subarra	88.06	333	P	P	07 45 38.0	-0.4
	comp=Z,0.7nm,0.7s,mb3.8,baz=66,slow=4.8						
NOA	NORSAR Array B	88.06	333	P	P	07 45 37.3	-1.1
	comp=Z,1.4nm,0.8s,mb4.0,baz=66,slow=4.9,SNR=4.1						
YKA	Yellowknife Ar	91.27	23	P	P	07 45 53.7	+0.3
YKA	Yellowknife Ar	91.27	23	P	P	07 45 53.7	+0.3
	comp=Z,0.2nm,0.5s,baz=302,slow=4.7,SNR=6.0						

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*IDC **14** 07:54:33.8±8.9, 4.66S×145.25E, h0^{km}, mb3.6/3, mb1 3.9/5, mb1mx3.6/15, mbtmp3.8/5, ML3.6/2, MS2.8/1, Ms1 2.8/1, ms1mx2.4/19, Error ellipse: s-maj=133.0km s-min=45.8km az=22.0*

*NEIC **14** 07:54:36.3±4.8, 4.44S×145.34E, h35^{km}, mb3.9/2, Error ellipse: s-maj=67.8km s-min=23.9km az=210.0*

ISC 14 07:54:44.2±5.0, 5.1S±0.3×145.3E±0.2, h66^{km}±31^{km}, n12, $\sigma 0^{s}89$/14, mb3.6/3, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	4.69	157	Pn	Pn	07 55 51.9	-0.6
PMG				Sn	Sn	07 56 45.2	-0.4
PMG				LR	LR	07 57 45.5	
PMG	Port Moresby	4.69	157	Pn	Pn	07 55 51.9	-0.6
	11nm,0.3s,baz=19,slow=6.0,SNR=42						
PMG				Sn	Sn	07 56 45.2	-0.4
	18nm,0.3s,baz=139,slow=22,SNR=12						
PMG				LR	LR	07 57 45.5	
	comp=Z,83nm,18.4s,baz=149,slow=38						
COEN	Coen	9.07	193	*e*Pn	Pn	07 56 53.4	+0.9
CTA	Charters Tower	14.95	176	Pn	Pn	07 58 15.2	+3.2
CTA	Charters Tower	14.95	176	Pn	Pn	07 58 15.2	+3.2
	0.3nm,0.3s,baz=357,slow=7.1,SNR=2.5						
WB2	Warramunga Arr	18.22	215	*e*P	Pn	07 58 52.8	+0.2
WRA	Warramunga Arr	18.22	215	P	Pn	07 58 51.5	-1.2
	0.2nm,0.3s,baz=40,slow=12,SNR=12						
ASAR	Alice Springs	21.50	210	P	P	07 59 27.3	-0.4
	1.5nm,0.7s,mb3.4,baz=36,slow=9.4,SNR=7.0						
FITZ	Fitzroy Crossi	23.16	234	*e*P	P	07 59 45.5	+0.2
	3.8nm,0.6s,mb3.9						
FITZ	Fitzroy Crossi	23.16	234	P	P	07 59 44.9	-0.4
	2.8nm,0.8s,mb3.6,baz=35,slow=8.5,SNR=7.8						
STKA	Stephens Creek	26.89	187	*e*P	P	08 00 18.8	-0.2
	0.7nm,0.4s,mb3.5						
STKA	Stephens Creek	26.89	187	P	P	08 00 20.2	+1.2
	0.8nm,0.4s,mb3.6,baz=9.1,slow=8.8,SNR=6.7						

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*NIED **14** 08:10:00, 33.80N×142.40E, h8^{km}, Mw4.9 Best double couple: M$_0$2.26000×10^{16} NP1:ϕ$_s$31.00000°, δ34.00000°, λ-93.00000°. NP2:ϕ$_s$214.00000°, δ56.00000°, λ-88.00000°.*

*IDC **14** 08:10:03.2±0.4, 33.81N×142.44E, h0^{km}, mb4.7/25, mb1 4.8/29, mb1mx4.8/31, mbtmp4.8/29, ML4.1/4, MS4.1/18, Ms1 4.1/18, ms1mx3.9/23, Error ellipse: s-maj=14.3km s-min=10.6km az=91.0*

*BJI **14** 08:10:06.1, 33.86N×142.50E, h37^{km}, mB5.2, mb5.0, Ms4.6, Msz4.4*

*JMA **14** 08:10:07.1±0.3, 33.81N×142.38E, h68^{km}, M4.9*

*MOS **14** 08:10:07.0±0.9, 33.79N×142.36E, h33^{km}, mb5.2/71, MS4.2/13, Error ellipse: s-maj=8.7km s-min=4.4km az=113.7*

*ISCJB **14** 08:10:07.6±0.1, 33.81N±0.03×142.33E±0.02, h37^{km}, mb5.0/150, MS4.3/31, Error ellipse: s-maj=3.7km s-min=1.9km az=9.0*

*SZGRF **14** 08:10:08.7, 33.78N×141.95E, h38^{km}, mb5.3, Off east coast of Honshu, Japan*

*GCMT **14** 08:10:09.3±0.4, 33.83N×142.48E, h16^{km}, MW5.0/73, Moment Tensor Solution. s31,c34; s73,c111; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-3.39±.19; M$_{\theta\theta}$0.75±.10; M$_{\phi\phi}$2.63±.12; M$_{r\theta}$-0.71±.43; M$_{\theta\phi}$0.97±.08; M$_{\phi r}$0.06±.35; Best double couple: M$_0$3.28300×10^{16} NP1:ϕ$_s$193.00000°, δ44.00000°, λ-104.00000°. NP2: ϕ$_s$33.00000°, δ48.00000°, λ-77.00000°. Principal axes: T 3.0500, Plg2.0000°, Azm113.0000°; N 0.4590, Plg10.0000°, Azm204.0000°; P -3.5160, Plg80.0000°, Azm12.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **14** 08:10:09.3±0.1, 33.84N×142.35E, mb5.1/77, MW4.8(NIED) Error ellipse: s-maj=4.1km s-min=3.4km az=173.0*

ISC 14 08:10:09.5±0.1, 33.81N±0.02×142.32E±0.02, h39^{km}, h39^{km}±1.1^{km}:pP-P, n658, $\sigma 0^{s}80$/693, mb5.0/150, MS4.3/31, 85C-92D, Off east coast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSO1	Boso 1	1.39	307	P	Pn	08 10 31.5	-0.9
BSO3	Boso 3	1.79	304	P	Pn	08 10 37.6	-0.3
BSO3				*e*S	Sn	08 11 01.4	+1.9
BSO4	Boso 4	2.02	306	P	Pn	08 10 41.2	+0.2
BSO4				*e*S	Sn	08 11 05.8	+0.9
JHJ2	Mitsune	2.21	252	P	Pn	08 10 42.8	-0.8
JHJ2				*e*S	Sn	08 11 07.9	-1.7
JHJ	Hachijo jima 2	2.23	253	Pn	Pn	08 10 42.9	-1.1
	379nm,0.3s,baz=143,slow=1.1,SNR=47						
JHJ				Sn	Sn	08 11 09.2	-1.1
	1µm,0.3s,baz=79,slow=23,SNR=18						
CHOJ	Chosi	2.24	328	P	Pn	08 10 42.7	-1.3
CHOJ				S	Sn	08 11 08.9	-1.5
JIM2	Oshima 3	2.56	291	P	Pn	08 10 47.7	-0.7
JIM2				S	Sn	08 11 17.8	-0.5
JOD2	Odawara 2	3.04	299	P	Pn	08 10 54.0	-1.0
JOD2				S	Sn	08 11 29.9	-0.2
JAG	Ashikaga	3.51	319	P	Pn	08 11 00.4	-1.1
JAG				*e*S	Sn	08 11 40.2	-1.5
JYN	Shimob	3.54	299	P	Pn	08 11 01.4	-0.5
JYN				*e*S	Sn	08 11 43.4	+1.0
JRY	Ryogami san	3.57	309	P	Pn	08 11 01.8	-0.5
JRY				S	Sn	08 11 44.0	+0.8
JMM	Marumori	4.23	343	P	Pn	08 11 08.4	-3.0
JMM				*e*S	Sn	08 11 53.4	-6.1
MJAR	Matsushiro Arr	4.33	310	Pn	Pn	08 11 12.4	-0.3
MJAR				Sn	Sn	08 12 03.0	+1.1
MJAR	Matsushiro Arr	4.33	310	P	Pn	08 11 12.4	-0.4
MJAR						08 12 03.0	
MJAR				pmax	pmax		
	comp=Z,11nm,0.3s						
MJAR				smax			
	comp=N,14nm,0.3s						
MJAR	Matsushiro Arr	4.33	310	Pn	Pn	08 11 12.4	-0.3
	comp=N,11nm,0.3s,baz=118,slow=10,SNR=60						
MJAR				Sn	Sn	08 12 03.0	+1.1
	comp=N,14nm,0.3s,baz=166,slow=20,SNR=6.1						
MAJO	Matsushiro	4.33	310	*e*Pn	Pn	08 11 11.3	-1.5
MAT	Matsushiro	4.33	310	P	Pn	08 11 12.6	-0.2
MAT				S	Sn	08 12 02.5	+0.5
MAT	Matsushiro	4.33	310	P	Pn	08 11 11.9	-0.9
MAT				S	Sn	08 12 02.7	+0.7
JNS	Sasagawa	4.68	329	P	Pn	08 11 16.5	-1.1
JNS				S	Sn	08 12 10.1	-0.6
JIE	Ise	4.69	279	P	Pn	08 11 18.6	+0.8
JIE				S	Sn	08 12 11.1	+0.1
JGM	Miyama	4.98	294	P	Pn	08 11 23.4	+1.7
JMK	Ichinoseki	5.21	350	P	Pn	08 11 21.4	-3.4
JMK				*e*S	Sn	08 12 17.4	-6.1
CBIJ	Chichi jima	6.70	181	Pn	Pn	08 11 40.2	-5.1
	comp=N,71nm,0.3s,baz=296,slow=18,SNR=81						
CBIJ				Sn	Sn	08 12 50.2	-10
	comp=N,43nm,0.3s,baz=270,slow=20,SNR=2.6						
ERM	Erimo	8.21	4	Pn	Pn	08 12 01.4	-4.6
	comp=N,728nm,0.9s,SNR=16						
ERM	Erimo	8.21	4	*e*Pn	Pn	08 12 01.4	-4.6
	comp=N,75nm,0.6s						
ERM	Erimo	8.21	4	*i* P	Pn	08 12 03.4	-2.6

JNU	**Nakatsue**	**9.59**	**269**	Pn	**Pn**	**08 12 22.4**	**-2.4**
JNU				LR	LR	08 16 06.2	
JNU	**Nakatsue**	**9.59**	**269**	Pn	**Pn**	**08 12 22.4**	**-2.4**
	comp=N,0.4nm,0.3s,baz=98,slow=7.1,SNR=2.4						
JNU				LR	LR	08 16 06.2	
	comp=N,595nm,18.7s,baz=88,slow=38						
ASAJ	**Asahikawa**	**10.29**	**1**	P	**Pn**	**08 12 30.1**	**-4.4**
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,664nm,19.5s						
ASAJ	**Asahikawa**	**10.29**	**1**	Pn	**Pn**	**08 12 30.1**	**-4.4**
	comp=Z,5.1nm,0.3s,baz=198,slow=11,SNR=23						
ASAJ				Sn	**Sn**	**08 14 17.3**	**-11**
	comp=Z,4.2nm,0.3s,baz=29,slow=19,SNR=3.8						
ASAJ				LR	LR	08 17 25.6	
	comp=Z,664nm,19.5s,baz=49,slow=43						
YUK	**Yuzh-Kuril'sk**	**10.57**	**14**	P	**Pn**	**08 12 32.6**	**-5.7**
YUK				MLR	MLR		
	comp=Z,1µm,9.0s						
KSRS	**Korea Array**	**12.26**	**291**	Pn	**Pn**	**08 13 04.4**	**+2.9**
	comp=Z,0.4nm,0.3s,baz=107,slow=14,SNR=13						
KS15	**Wonju Array Si**	**12.29**	**291**	*e*Pn	**Pn**	**08 13 01.4**	**-0.5**
VLA	**Vladivostok**	**12.36**	**322**	*i* P	**Pn**	**08 13 04.0**	**+1.2**
YSS	**Yuzh-Sakhalins**	**13.13**	**1**	*e*Pn	**Pn**	**08 13 09.0**	**-4.3**
YSS	**Yuzh-Sakhalins**	**13.13**	**1**	⇑*i*P	**Pn**	**08 13 09.0**	**-4.3**
YSS				pmax	pmax		
	comp=Z,140nm,1.0s						
MDJ	**Mudanjiang**	**14.60**	**321**	P	**Pn**	**08 13 32.8**	**-0.5**
MDJ				S	**Sn**	**08 16 14.1**	**+0.4**
MDJ				SCP	ScP	08 22 16.9	+1.3
MDJ				PCS	PcS	08 22 20.3	+0.5
MDJ				AMB	AMB		
	comp=Z,13nm,1.4s						
MDJ				AMB	AMB		
	comp=Z,115nm,3.9s						
MDJ				LR	LR		
	comp=N,541nm,16.2s						
MDJ				LR	LR		
	comp=E,829nm,15.1s						
MDJ				LR	LR		
	comp=Z,1µm,16.2s						
HABR	**Khabarovsk**	**15.62**	**342**	*e*P	**Pn**	**08 13 51.7**	**+5.0**
HABR				S	**S**	**08 16 48.9**	**-3.7**
HABR				pmax	pmax		
	comp=Z,145nm,1.2s						
CN2	**Changchun**	**16.48**	**312**	*e*P	**Pn**	**08 13 58.0**	**+0.4**
CN2				*e*XP	sP	08 14 10.3	-4.2
CN2				*e*S	**S**	**08 16 56.9**	**-13**
CN2				*e*SS		08 17 18.4	
CN2				AMB	AMB		
	comp=Z,20nm,1.0s						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,800nm,13.0s						
CN2				LR	LR		
	comp=E,2µm,13.0s						
CN2				LR	LR		
	comp=Z,1µm,16.0s						
SNY	**Shenyang**	**16.81**	**304**	⇑P	**Pn**	**08 14 01.9**	**+0.1**
SNY				AP	pP	08 14 10.6	-2.7
SNY				XP	sP	08 14 15.3	-2.9
SNY				PP		08 14 21.0	
SNY				AMB	AMB		
	comp=Z,40nm,1.1s						
SNY				AMB	AMB		
	comp=Z,237nm,5.2s						
SNY				LR	LR		
	comp=N,1µm,13.6s						
SNY				LR	LR		
	comp=E,881nm,13.6s						
SNY				LR	LR		
	comp=Z,874nm,16.1s						
KLR	**Kul'dur**	**17.29**	**336**	*e*P	**Pn**	**08 14 02.2**	**-5.5**
KLR				pmax	pmax		
	comp=E,45nm,1.6s						
KLR				pmax	pmax		
	comp=Z,68nm,1.6s						
KLR				MLR	MLR		
	comp=E,900nm,14.0s						
KLR				MLR	MLR		
	comp=Z,1µm,14.0s						
DL2	**Dalian**	**17.42**	**293**	P	**Pn**	**08 14 10.0**	**+0.6**
DL2				*e*S	**S**	**08 17 23.0**	**-6.3**
DL2				AMB	AMB		
	comp=Z,80nm,0.8s						
DL2				AMB	AMB		
	comp=Z,300nm,3.7s						
DL2				LR	LR		
	comp=N,990nm,13.9s						
DL2				LR	LR		
	comp=E,720nm,14.1s						
DL2				LR	LR		
	comp=Z,560nm,13.7s						
SSE	**Sheshan**	**18.04**	**267**	P	**Pn**	**08 14 18.6**	**+1.5**
SSE				S	**S**	**08 17 41.8**	**-0.3**
SSE				PCP	PcP	08 18 49.8	-0.6
SSE				AMB	AMB		
	comp=Z,35nm,1.7s						
SSE				AMB	AMB		
	comp=Z,681nm,4.0s						
SSE				LR	LR		
	comp=N,376nm,16.2s						
SSE				LR	LR		
	comp=E,98nm,16.2s						
SSE				LR	LR		
	comp=Z,408nm,14.5s						
SSE	**Sheshan**	**18.04**	**267**	P	**Pn**	**08 14 18.6**	**+1.5**
	comp=Z,35nm,1.7s						
SSE				S	**S**	**08 17 41.7**	**-0.4**
SSE				PcP	PcP	08 18 49.7	-0.7
NJ2	**Nanjing**	**19.77**	**271**	*e*P	**Pn**	**08 14 39.4**	**+1.4**
NJ2				S	**S**	**08 18 16.0**	**-1.0**
NJ2				XS	sS	08 18 29.0	-3.5
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s						
NJ2				AMB	AMB		
	comp=Z,610nm,4.0s						
NJ2				LR	LR		
	comp=N,890nm,22.0s						
NJ2				LR	LR		
	comp=E,1µm,19.4s						
NJ2				LR	LR		
	comp=Z,1µm,19.4s						
GUMO	**Guam**	**20.27**	**173**	P	**P**	**08 14 40.9**	**-0.8**
GUMO				LR	LR	08 20 44.8	
GUMO	**Guam**	**20.27**	**173**	P	**P**	**08 14 40.9**	**-0.8**
GUMO				pmax	pmax		
	comp=Z,145nm,1.0s						
GUMO				MLR	MLR		
	comp=Z,166nm,21.9s						
GUMO	**Guam**	**20.27**	**173**	P	**P**	**08 14 40.9**	**-0.8**
	comp=Z,145nm,1.0s,baz=280,slow=6.6,SNR=4.0						
GUMO				LR	LR	08 20 44.8	
	comp=Z,166nm,21.9s,baz=24,slow=32						
TIA	**Tai'an**	**20.76**	**284**	*e*P	**P**	**08 14 44.3**	**-2.7**
BJT	**Baijiatuau**	**21.77**	**294**	*e*P	**P**	**08 14 53.7**	**-4.0**
	comp=Z,28nm,0.9s,mb4.7						
BJT	**Baijiatuau**	**21.77**	**294**	*e*P	**P**	**08 14 53.7**	**-4.0**
BJT				pmax	pmax		
	comp=Z,28nm,0.9s						
PET	**Petropavlovsk**	**22.47**	**26**	*e*P	**P**	**08 15 05.8**	**+0.7**
PET				*e*S	**S**	**08 19 08.4**	**-1.2**
PET				pmax	pmax		
	comp=Z,38nm,1.8s,mb4.5						
PET				pmax	pmax		
	comp=Z,100nm,11.6s						
PET				smax			
	comp=N,200nm,14.1s						
PET				MLR	MLR		
	comp=Z,300nm,18.0s,MS3.8						
HIA	**Hailar**	**22.77**	**319**	*e*P	**P**	**08 15 04.4**	**-3.8**
	comp=Z,35nm,1.0s,mb4.7						
HIA	**Hailar**	**22.77**	**319**	*e*P	**P**	**08 15 04.4**	**-3.8**
HIA				pmax	pmax		
	comp=Z,35nm,1.0s						
WHN	**Wuhan**	**23.87**	**270**	⇑P	**P**	**08 15 17.8**	**-1.5**
WHN				S	**S**	**08 19 27.1**	**-5.7**
WHN				LR	LR		
	comp=Z,2µm,12.8s,MS4.8						
TIY	**Taiyuan**	**24.51**	**288**	PR	**P**	**08 15 21.1**	**-4.0**
TIY				S	**S**	**08 19 39.3**	**-3.7**
TIY				LR	LR		
	comp=N,510nm,13.0s,MS4.4						
TIY				LR	LR		
	comp=E,714nm,12.7s,MS4.4						
HHC	**Hu-ho-hao-te**	**25.36**	**295**	*e*P	**P**	**08 15 33.5**	**+0.7**
HHC				AP	pP	08 15 42.8	-0.7
HHC				XP	sP	08 15 46.8	-1.4
HHC				PP		08 16 12.6	
HHC				PCP	PcP	08 19 07.1	+2.5
HHC				S	**S**	**08 19 56.5**	**0.0**
HHC				XS	sS	08 20 10.8	-3.5
HHC				SS		08 20 59.1	
HHC				SCP	ScP	08 22 42.5	+1.8
HHC				PCS	PcS	08 22 46.3	+1.3
HHC				SCS	ScS	08 26 29.3	-0.2
HHC				AMB	AMB		
	comp=Z,101nm,1.2s,mb5.2						
HHC				AMB	AMB		
	comp=Z,939nm,3.7s						
HHC				LR	LR		
	comp=N,425nm,13.7s,MS4.3						
HHC				LR	LR		
	comp=E,509nm,13.9s,MS4.3						
HHC				LR	LR		
	comp=Z,449nm,16.5s,MS4.1						
NRGR	**Nerungri**	**25.84**	**337**	*i* P	**P**	**08 15 38.5**	**+1.6**
NRGR				S	**S**	**08 20 05.5**	**+1.8**
NRGR				smax			
	comp=N,32nm,0.6s						
CLNS	**Chul'man**	**25.93**	**338**	*e*P	**P**	**08 15 38.7**	**+0.9**
CLNS				pmax	pmax		
	comp=Z,62nm,1.0s,mb5.1						
CLNS				pmax	pmax		
	comp=N,54nm,1.1s						
CLNS				pmax	pmax		
	comp=E,40nm,1.1s						
MA2	**Magadan**	**26.37**	**10**	*e*P	**P**	**08 15 41.2**	**-0.5**
	comp=E,44nm,1.3s,mb4.8						
MA2	**Magadan**	**26.37**	**10**	*d* *i*P	**P**	**08 15 41.0**	**-0.7**
MA2				pmax	pmax		
	comp=Z,51nm,1.5s,mb4.8						
BTO	**Baotou**	**26.50**	**294**	*e*P	**P**	**08 15 44.5**	**+1.3**
BTO				AMB	AMB		
	comp=Z,46nm,0.9s,mb5.0						
CIT	**Chita**	**27.57**	**320**	*e*P	**P**	**08 15 53.2**	**+0.6**
CIT				*e*		08 16 00.0	
CIT				*e*		08 16 07.9	
CIT				pmax	pmax		
	comp=Z,337nm,1.7s,mb5.7						
XAN	**Xi'an**	**27.65**	**280**	P	**P**	**08 15 52.3**	**-1.2**
XAN				AMB	AMB		
	comp=Z,19nm,1.9s,mb4.4						
YAK	**Yakutsk**	**29.37**	**348**	*e*P	**P**	**08 16 08.8**	**+0.3**
YAK				*e**PP	pP	08 16 15.1	-4.1
YAK				*e*S	**S**	**08 21 04.4**	**+5.2**
YAK				pmax	pmax		
	comp=N,32nm,1.2s						
YAK				pmax	pmax		
	comp=Z,49nm,1.2s,mb5.1						
YAK				pmax	pmax		
	comp=E,14nm,1.5s						
YAK				smax			
	comp=N,204nm,22.1s						
YAK				smax			
	comp=Z,74nm,17.4s						
YAK				smax			
	comp=E,93nm,17.1s						
YAK				MLR	MLR		
	comp=Z,261nm,15.0s,MS4.0						
YAK				MLR	MLR		
	comp=N,197nm,16.0s,MS4.1						
YAK				MLR	MLR		
	comp=E,324nm,15.0s,MS4.1						
SEY	**Seymchan**	**29.82**	**9**	⇓*e*P	**P**	**08 16 12.5**	**0.0**
ULN	**Ulaanbaatar**	**29.86**	**309**	*e*P	**P**	**08 16 13.1**	**+0.1**
	comp=E,49nm,1.0s,mb5.2						
ULN	**Ulaanbaatar**	**29.86**	**309**	*d* *i*P	**P**	**08 16 14.8**	**+1.8**
SONM	**Songino Array**	**30.28**	**308**	P	**P**	**08 16 17.9**	**+1.2**
SONM						08 19 17.1	
SONM				pmax	pmax		
	comp=Z,25nm,1.0s						
SONM				pmax	pmax		
	comp=Z,3.0nm,1.0s						
SONM				MLR	MLR		
	comp=Z,482nm,20.5s						
SONM	**Songino Array**	**30.28**	**308**	P	**P**	**08 16 17.9**	**+1.1**
	comp=Z,25nm,1.0s,mb4.9,baz=116,slow=7.2,SNR=71						
SONM				PcP	PcP	08 19 17.1	+0.6
	comp=Z,2.8nm,1.0s,baz=126,slow=2.0,SNR=4.3						
SONM				LR	LR	08 28 51.5	
	comp=Z,482nm,20.5s,MS4.1,baz=171,slow=37						
BOD	**Bodaibo**	**30.67**	**330**	*e*P	**P**	**08 16 19.3**	**-0.7**
BOD				pmax	pmax		
	comp=Z,36nm,1.2s,mb5.1						
LZH	**Lanzhou**	**31.48**	**285**	⇑P	**P**	**08 16 30.8**	**+3.3**
LZH				AP	pP	08 16 41.1	+2.8
LZH				XP	sP	08 16 45.0	+2.0
LZH				PP	PP	08 17 34.3	-4.7
LZH				*e*S	**S**	**08 21 34.1**	**+1.1**
LZH				XS	sS	08 21 51.1	+0.2
LZH				SS	SS	08 23 21.0	-28
LZH				AMB	AMB		
	comp=Z,25nm,1.0s,mb5.0						
LZH				AMB	AMB		
	comp=Z,71nm,4.0s						
LZH				LR	LR		
	comp=E,2µm,13.8s						
LZH				LR	LR		
	comp=Z,2µm,14.9s,MS4.9						
LZH	**Lanzhou**	**31.48**	**285**	⇑P	**P**	**08 16 30.7**	**+3.2**
	comp=Z,25nm,1.0s,mb5.0						
LZH				pP	pP	08 16 41.1	+2.8
LZH				sP	sP	08 16 45.0	+2.0
LZH				PP	PP	08 17 34.2	-4.8
LZH				PcP	PcP	08 19 27.0	+7.1
LZH				*e*S	**S**	**08 21 34.1**	**+1.1**
LZH				sS	sS	08 21 51.1	+0.2
LZH				SS	SS	08 23 21.0	-28
LZH				LR	LR		
	comp=Z,2µm,14.9s,MS4.9						
LZH	**Lanzhou**	**31.48**	**285**	⇑P	**P**	**08 16 30.7**	**+3.2**
LZH				*PP	pP	08 16 41.1	+2.8
LZH				*SP	sP	08 16 45.0	+2.0
LZH						08 17 34.2	
LZH						08 19 27.0	
LZH				*e*S	**S**	**08 21 34.1**	**+1.1**
LZH				*SS	sS	08 21 51.1	+0.2
LZH				SS	SS	08 23 21.0	-28
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.0						
LZH				MLR	MLR		
	comp=Z,2µm,14.9s,MS4.9						
GYA	**Guiyang**	**31.58**	**266**	⇑*i*P	**P**	**08 16 30.3**	**+1.9**
GYA				AP	pP	08 16 40.5	+1.3
GYA				XP	sP	08 16 44.8	+0.9
GYA				PP	PP	08 17 35.6	-4.5
GYA				PCP	PcP	08 19 22.3	+2.0
GYA				S	**S**	**08 21 35.8**	**+1.1**
GYA				XS	sS	08 21 52.9	+0.3
GYA				SCP	ScP	08 23 01.8	+1.4
GYA				SS	SS	08 23 25.8	-25
GYA				SCS	ScS	08 26 58.0	-0.5
GYA				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.2						
GYA				AMB	AMB		
	comp=Z,180nm,5.2s						
GYA				LR	LR		
	comp=N,880nm,17.0s,MS4.6						
GYA				LR	LR		
	comp=E,740nm,18.4s,MS4.6						
GYA				LR	LR		
	comp=Z,990nm,18.2s,MS4.5						
QIZ	**Qiongzhong**	**32.44**	**251**	P	**P**	**08 16 36.8**	**+0.8**
QIZ				XP	sP	08 16 49.8	-1.7
QIZ				S	**S**	**08 21 52.5**	**+4.4**
QIZ				XS	sS	08 22 10.9	+4.8
QIZ				LR	LR		
	comp=E,230nm,15.1s						
QIZ				LR	LR		
	comp=Z,208nm,15.0s,MS4.0						
CD2	**Chengdu**	**32.58**	**276**	*e*P	**P**	**08 16 36.1**	**-1.1**
CD2				AP	pP	08 16 45.8	-2.2
CD2				XP	sP	08 16 50.0	-2.6
CD2				PP	PP	08 17 45.3	-5.8
CD2				PCP	PcP	08 19 22.5	-0.4
CD2				S	**S**	**08 21 48.3**	**-1.8**
CD2				XS	sS	08 22 04.8	-3.3
CD2				SS	SS	08 23 46.3	-25
CD2				SCS	ScS	08 27 01.0	-2.4
CD2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
CD2				AMB	AMB		
	comp=Z,30nm,5.2s						
CD2				LR	LR		
	comp=N,250nm,14.5s,MS4.2						
CD2				LR	LR		
	comp=E,310nm,16.2s,MS4.2						
CD2				LR	LR		
	comp=Z,350nm,18.0s,MS4.1						
IRK	**Irkutsk**	**32.87**	**316**	*e*P	**P**	**08 16 39.7**	**+0.3**
IRK				*e*		08 19 18.4	
IRK				pmax	pmax		
	comp=Z,47nm,2.3s,mb5.0						
ZAK	**Zakamensk**	**32.91**	**312**	⇓*i*P	**P**	**08 16 41.2**	**+1.4**
ZAK				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.6						
TLY	**Talaya**	**33.06**	**314**	*e*P	**P**	**08 16 42.9**	**+1.8**
TLY	**Talaya**	**33.06**	**314**	*e*P	**P**	**08 16 42.0**	**+0.9**
TLY				*e*		08 18 05.4	
TLY				*e*SS	SS	08 23 54.1	-26
TLY				pmax	pmax		
	comp=Z,27nm,2.3s,mb4.8						
TLY				MLR	MLR		
	comp=Z,339nm,15.0s,MS4.2						
GTA	**Gaotai**	**34.34**	**292**	*e*P	**P**	**08 16 52.6**	**+0.2**
GTA				AP	pP	08 17 01.9	-1.3
GTA				XP	sP	08 17 05.9	-2.0
GTA				PP	PP	08 18 08.0	-2.5
GTA				PCP	PcP	08 19 28.8	+1.1
GTA				S	**S**	**08 22 18.8**	**+1.6**
GTA				XS	sS	08 22 35.9	+0.7
GTA				SCP	ScP	08 23 12.3	+2.5
GTA				PCS	PcS	08 23 16.0	+2.0
GTA				SS	SS	08 24 29.3	-17
GTA				SCS	ScS	08 27 11.8	-0.5
GTA				AMB	AMB		
	comp=Z,6.0nm,2.5s,mb4.1						
GTA				AMB	AMB		
	comp=Z,183nm,7.6s						
GTA				LR	LR		
	comp=N,266nm,18.7s,MS4.2						
GTA				LR	LR		
	comp=E,312nm,16.4s,MS4.2						
GTA				LR	LR		
	comp=Z,353nm,15.7s,MS4.2						
MOY	**Mondy**	**34.64**	**314**	*e*P	**P**	**08 16 55.9**	**+1.1**
KMI	**Kunming**	**35.36**	**266**	P	**P**	**08 17 02.8**	**+1.5**
KMI				AP	pP	08 17 14.1	+1.9
KMI				PP	PP	08 18 24.6	+2.6
KMI				S	**S**	**08 22 32.1**	**-1.1**
KMI				SS	SS	08 24 50.6	-17
KMI				AMB	AMB		
	comp=Z,9.0nm,0.5s,mb5.0						
KMI				LR	LR		
	comp=N,321nm,11.9s,MS4.7						
KMI				LR	LR		
	comp=E,718nm,12.9s,MS4.7						
KMI				LR	LR		
	comp=Z,677nm,13.5s,MS4.6						
KMI	**Kunming**	**35.36**	**266**	P	**P**	**08 17 02.8**	**+1.5**
	comp=Z,9.0nm,0.5s,mb5.0						
KMI				pP	pP	08 17 14.1	+1.9
KMI				PP	PP	08 18 24.6	+2.6
KMI				S	**S**	**08 22 32.1**	**-1.1**
KMI				SS	SS	08 24 50.6	-17
KMI				LR	LR		
	comp=Z,680nm,13.5s,MS4.6						
KMI	**Kunming**	**35.36**	**266**	P	**P**	**08 17 02.8**	**+1.5**
KMI				*PP	pP	08 17 14.1	+1.9
KMI						08 18 24.6	
KMI				S	**S**	**08 22 32.1**	**-1.1**
KMI				SS	SS	08 24 50.6	-17
KMI				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.0						
KMI				MLR	MLR		
	comp=Z,680nm,13.5s,MS4.6						
BILL	**Bilibino**	**36.92**	**15**	*e*P	**P**	**08 17 08.6**	**-5.6**
	comp=Z,26nm,1.1s,mb5.0						
BILL	**Bilibino**	**36.92**	**15**	*d* *i*P	**P**	**08 17 13.1**	**-1.1**
BILL				pmax	pmax		
	comp=Z,31nm,1.7s,mb4.9						
TIXI	**Tiksi**	**38.57**	**353**	*e*P	**P**	**08 17 27.6**	**-0.5**
TIXI	**Tiksi**	**38.57**	**353**	*e*P	**P**	**08 17 27.4**	**-0.6**
TIXI				*e*		08 18 54.6	
TIXI				*e*SS	SS	08 26 05.2	-6.3
TIXI				pmax	pmax		
	comp=Z,25nm,1.3s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,590nm,18.0s,MS4.5						
NANT	**Nan**	**39.91**	**259**	⇓P	**P**	**08 17 37.0**	**-2.9**
	comp=Z,109nm,1.0s,mb5.5						
CHG	**Chiang Mai**	**41.34**	**260**	⇑P	**P**	**08 17 51.3**	**-0.4**
	comp=Z,28nm,0.9s,mb4.9						
CHTO	**Chiang Mai**	**41.34**	**260**	*e*P	**P**	**08 17 47.8**	**-3.9**
	comp=Z,17nm,1.1s,mb4.6						
CHTO	**Chiang Mai**	**41.34**	**260**	*e*P	**P**	**08 17 47.8**	**-3.9**
CHTO				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.6						
WMQ	**Urumqi**	**43.02**	**300**	P	**P**	**08 18 06.9**	**+1.8**
WMQ				AP	pP	08 18 16.8	+0.6
WMQ				XP	sP	08 18 20.8	0.0
WMQ				PP	PP	08 19 49.4	+4.1
WMQ				PCP	PcP	08 19 57.4	+2.6
WMQ				*e*S	**S**	**08 24 29.8**	**+1.8**
WMQ				AMB	AMB		
	comp=Z,66nm,1.1s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,33nm,5.9s						
WMQ				LR	LR		
	comp=N,197nm,16.0s						
WMQ				LR	LR		
	comp=E,189nm,23.6s						
WMQ				LR	LR		
	comp=Z,203nm,18.5s,MS4.0						
PMG	**Port Moresby**	**43.22**	**173**	*e*P	**P**	**08 18 08.0**	**+1.1**
PMG	**Port Moresby**	**43.22**	**173**	*i* P	**P**	**08 18 08.1**	**+1.2**
PMG	**Port Moresby**	**43.22**	**173**	P	**P**	**08 18 06.1**	**-0.8**
	comp=Z,6.6nm,0.7s,mb4.5,baz=354,slow=5.9,SNR=8.3						
TNA	**Tin City**	**43.33**	**28**	*e*P	**P**	**08 18 06.6**	**-0.7**
LSA	**Lhasa**	**43.34**	**279**	*e*P	**P**	**08 18 10.0**	**+2.1**
LSA	**Lhasa**	**43.34**	**279**	*e*P	**P**	**08 18 08.1**	**+0.1**
	comp=Z,11nm,0.9s,mb4.6						
LSA	**Lhasa**	**43.34**	**279**	*e*P	**P**	**08 18 08.1**	**+0.2**
LSA				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
KSM	**Kuching**	**43.95**	**230**	*e*P	**P**	**08 18 07.0**	**-5.9**
ZALV	**Zalesovo Beam**	**44.67**	**315**	P	**P**	**08 18 18.1**	**-0.1**
	comp=Z,8.5nm,0.8s,mb4.6,baz=93,slow=6.5,SNR=33						
ZALV				PcP	PcP	08 20 00.0	-0.2
	comp=Z,4.3nm,0.6s,baz=111,slow=3.8,SNR=5.2						
ZAL	**Zalesovo**	**44.68**	**315**	P	**P**	**08 18 18.1**	**-0.2**
ZAL						08 20 00.0	
NVS	**Novosibirsk**	**45.63**	**316**	*i* P	**P**	**08 18 25.9**	**+0.1**
NVS				*e*S	**S**	**08 25 11.9**	**+6.3**
NVS				pmax	pmax		
	comp=N,9.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,48nm,1.3s						
NVS				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.3						
NVS				smax			
	comp=N,23nm,1.9s						
NVS				smax			
	comp=E,7.0nm,1.1s						
MK31	**Makanchi Array**	**46.51**	**305**	*e*P	**P**	**08 18 33.2**	**+0.4**
MK31	**Makanchi Array**	**46.51**	**305**	*i* P	**P**	**08 18 33.3**	**+0.4**
MK31				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.1						
MKAR	**Makanchi Array**	**46.51**	**305**	*i* P	**P**	**08 18 33.3**	**+0.4**
MKAR				pmax	pmax		
	comp=Z,13nm,0.8s						
MKAR	**Makanchi Array**	**46.51**	**305**	P	**P**	**08 18 33.4**	**+0.5**
	comp=Z,5.4nm,0.7s,mb4.6,baz=90,slow=8.2,SNR=48						
MKAR				LR	LR	08 38 46.5	
	comp=Z,283nm,19.0s,MS4.2,baz=87,slow=37						
TAPN	**Taplejung**	**47.00**	**277**	*e*P	**P**	**08 18 36.5**	**-0.5**
KAKA	**Kakadu**	**47.21**	**193**	*e*P	**P**	**08 18 38.1**	**-0.5**
	comp=Z,23nm,0.8s,mb5.2						
ODAN	**Odare**	**47.45**	**277**	*e*P	**P**	**08 18 40.2**	**-0.2**
	comp=Z,44nm,1.0s,mb5.3						
COEN	**Coen**	**47.51**	**179**	*e*P	**P**	**08 18 40.2**	**-0.7**
JIRN	**Jiri**	**48.14**	**279**	*e*P	**P**	**08 18 45.9**	**+0.1**

	comp=Z,3.2nm,0.2s,mb5.0						
KURK	Kurchatov	48.54	310	eP	P	08 18 48.5	-0.1
KURK	Kurchatov	48.54	310	d iP	P	08 18 48.7	+0.1
KKN	Kakani	48.84	279	eP	P	08 18 51.1	-0.1
	comp=Z,32nm,0.8s,mb5.4						
KDAK	Kodiak Island	49.04	40	P	P	08 18 50.5	-1.8
	comp=Z,5.0nm,0.4s,mb4.9,baz=270,slow=9.5,SNR=13						
IMA2	Indian Mountai	49.11	29	eP	P	08 18 45.4	-7.3
GKN	Gorkha	49.29	280	eP	P	08 18 54.9	+0.3
	comp=Z,57nm,1.0s,mb5.6						
PSI	Prapat	50.87	242	P	P	08 19 06.8	+0.1
PSI				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
PSI	Prapat	50.87	242	P	P	08 19 06.8	0.0
	comp=Z,8.3nm,0.9s,mb4.7,baz=77,slow=1.7,SNR=7.0						
KSH	Kashi	52.45	297	eP	P	08 19 21.1	+2.8
KSH				eAP	pP	08 19 31.0	+1.4
KSH				eXP	sP	08 19 34.3	+0.2
KSH				ePCP	PcP	08 20 30.8	+2.2
KSH				eSCP	ScP	08 24 24.3	+1.6
KSH				ePCS	PcS	08 24 28.0	+1.0
KSH				eS	S	08 26 43.5	+1.7
KSH				eXS	sS	08 27 01.3	+0.8
KSH				eSCS	ScS	08 29 04.3	-0.7
KSH				eSS	SS	08 30 21.6	+1.8
KSH				LR	LR		
	comp=N,557nm,5.4s						
KSH				LR	LR		
	comp=E,661nm,5.6s						
KSH				LR	LR		
	comp=Z,952nm,6.0s						
FRU	Bishkek	52.59	301	eP	P	08 19 20.0	+0.8
FRU				e		08 21 23.5	
FRU				pmax	pmax		
	comp=Z,45nm,1.8s,mb5.1						
AAK	Ala-Archa	52.72	301	eP	P	08 19 20.5	+0.2
BRVK	Borovoye	53.37	314	P	P	08 19 25.6	+0.8
	comp=Z,85nm,1.1s,mb5.6,SNR=7.8						
BRVK	Borovoye	53.37	314	eP	P	08 19 25.2	+0.4
CTA	Charters Tower	53.73	175	eP	P	08 19 27.4	-0.3
	comp=Z,8.4nm,0.9s,mb4.7						
CTA				epP	pP	08 19 38.8	-0.2
CTA	Charters Tower	53.73	175	eP	P	08 19 27.4	-0.3
CTA				e*PP	pP	08 19 38.8	-0.2
CTA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
CTA	Charters Tower	53.73	175	P	P	08 19 26.6	-1.1
	comp=Z,8.3nm,0.8s,mb4.7,baz=345,slow=8.4,SNR=9.4						
CTAO	Charters Tower	53.73	175	eP	P	08 19 29.1	+1.4
	comp=Z,13nm,0.8s,mb4.9						
CTAO	Charters Tower	53.73	175	eP	P	08 19 29.1	+1.4
CTAO				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
WB2	Warramunga Arr	53.99	189	⇓iP	P	08 19 28.1	-1.5
WB2				epP	pP	08 19 40.1	-0.9
WRA	Warramunga Arr	53.99	189	P	P	08 19 28.6	-1.1
	comp=Z,12nm,0.7s,mb5.0,baz=8.0,slow=7.5,SNR=38						
WRA				LR	LR	08 41 34.1	
	comp=Z,79nm,18.8s,MS3.8,baz=15,slow=35						
FITZ	Fitzroy Crossi	54.02	200	eP	P	08 19 28.7	-1.2
	comp=Z,12nm,0.7s,mb4.9						
FITZ				epP	pP	08 19 41.1	-0.1
FITZ	Fitzroy Crossi	54.02	200	P	P	08 19 29.3	-0.6
	comp=Z,9.1nm,0.9s,mb4.7,baz=17,slow=8.6,SNR=16						
EGAK	Eagle	54.29	31	eP	P	08 19 26.8	-4.5
	comp=Z,5.8nm,1.1s,mb4.4						
THN	Thein Dam	54.89	288	eP	P	08 19 35.5	-0.7
NDI	New Delhi	55.08	284	i P	P	08 19 36.0	-1.6
	comp=Z,6.0nm,0.7s,mb4.7						
DAWY	Dawson	55.12	32	eP	P	08 19 37.5	+0.1
KK31	Karatay Array	55.42	302	i P	P	08 19 40.2	+0.3
KK31				pmax	pmax		
	comp=Z,70nm,1.6s,mb5.4						
KKAR	Karatay Array	55.42	302	P	P	08 19 40.2	+0.3
KKAR				pmax	pmax		
	comp=Z,111nm,1.6s,mb5.6						
INK	Inuvik	56.93	26	eP	P	08 19 49.7	-0.6
	comp=Z,681nm,1.3s,mb6.5						
ASAR	Alice Springs	57.72	189	P	P	08 19 55.4	-0.9
ASAR				⇑e		08 49 54.5	
ASAR				P'P'ab		08 50 05.8	
ASAR	Alice Springs	57.72	189	P	P	08 19 55.3	-0.9
	comp=Z,12nm,0.9s,mb4.9,baz=9.4,slow=5.2,SNR=36						
ASAR				PKP2bc		08 49 54.5	
	comp=Z,1.1nm,1.0s,baz=170,slow=1.8,SNR=6.1						
ASAR				PKP2ab		08 50 05.8	
	comp=Z,1.2nm,1.1s,baz=191,slow=2.6,SNR=4.9						
MBWA	Marble Bar	58.75	205	eP	P	08 20 04.7	+1.1
	comp=Z,15nm,0.9s,mb5.0						
MBWA	Marble Bar	58.75	205	⇑P	P	08 20 04.7	+1.1
ARU	Arti	59.28	320	eP	P	08 20 07.5	+0.6
ARU	Arti	59.28	320	⇓iP	P	08 20 06.9	0.0
ARU				e		08 20 51.8	
ARU				e		08 22 16.8	
ARU				eS	S	08 28 15.0	+2.9
ARU				eSS	SS	08 32 11.2	+4.7
ARU				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.2						
ARU				MLR	MLR		
	comp=N,100nm,17.0s,MS4.2						
ARU				MLR	MLR		
	comp=E,100nm,17.0s,MS4.2						
ARU				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.3						
KBL	Kabul	59.31	293	eP	P	08 20 07.9	+0.5
DZM	Mont Dzumac	60.14	154	P	P	08 20 14.9	+1.8
	comp=Z,18nm,1.0s,mb5.0,baz=70,slow=7.3,SNR=5.9						
AB31	Akbulak array	60.61	312	i P	P	08 20 15.7	-0.4
AB31				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						
AKTO	Aktyubinsk	61.40	314	LR	LR	08 48 14.2	
	comp=Z,227nm,19.3s,MS4.3,baz=227,slow=37						
PALK	Pallekele	62.47	260	eP	P	08 20 29.9	+0.8
	comp=Z,19nm,0.9s,mb5.2						
PALK	Pallekele	62.47	260	⇑P	P	08 20 30.5	+1.3
ALE	Alert	63.27	4	P	P	08 20 33.0	-0.6
	comp=Z,103nm,1.2s,mb5.8,SNR=9.1						
PRGR	Permogore	63.88	328	eP	P	08 20 37.4	-0.4
PRGR				eS	S	08 29 08.3	-1.9
PRGR				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.1						
KBS	Kingsbay	63.95	351	⇑eP	P	08 20 39.1	+1.1
STKA	Stephens Creek	65.34	181	eP	P	08 20 49.4	+1.8
	comp=Z,3.6nm,0.8s,mb4.5						
STKA				epP	pP	08 21 02.0	+2.8
STKA	Stephens Creek	65.34	181	P	P	08 20 49.0	+1.5
	comp=Z,4.5nm,0.7s,mb4.6,baz=338,slow=7.0,SNR=8.5						
STKA				LR	LR	08 49 44.1	
	comp=Z,137nm,20.1s,MS4.2,baz=24,slow=36						
RES	Resolute Bay	65.53	14	eP	P	08 20 48.0	-0.4
FORT	Forrest	65.64	193	eP	P	08 20 48.9	-0.6
	comp=Z,62nm,0.6s,mb5.8						
FORT				epP	pP	08 21 01.2	+0.1
YKW3	Yellowknife Ar	66.19	30	eP	P	08 20 52.0	-0.8
YKA	Yellowknife Ar	66.23	30	P	P	08 20 52.0	-1.0
YKA	Yellowknife Ar	66.23	30	P	P	08 20 52.0	-1.0
YKA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
YKA	Yellowknife Ar	66.23	30	P	P	08 20 52.0	-1.0
	comp=Z,4.2nm,0.9s,mb4.5,baz=296,slow=6.4,SNR=44						
ARCES	ARCESS Array B	67.27	340	P	P	08 20 59.7	+0.1
ARCES				LR	LR	08 58 13.4	
ARCES	ARCESS Array B	67.27	340	P	P	08 20 59.7	+0.1
	comp=Z,7.4nm,0.9s,mb4.7,baz=68,slow=7.0,SNR=10						
ARCES				LR	LR	08 58 13.4	
	comp=Z,275nm,19.1s,MS4.5,baz=8.2,slow=43						
C03A	Quillayute Air	67.69	47	⇓P	P	08 21 04.1	+1.5
	baz=67						
OBC	Olympics--Boni	67.94	46	P	P	08 21 05.3	+1.1
PGC	Sidney	68.05	45	eP	P	08 21 04.5	-0.3
B04A	Port Angeles	68.28	46	P	P	08 21 06.9	+0.7
	baz=68,SNR=6.9						
A04A	Legoe Bay, Lum	68.45	45	⇑P	P	08 21 07.9	+0.5
	baz=68						
D03A	Wishkah Elem.	68.54	47	⇓P	P	08 21 08.4	+0.5
	baz=68						
A05A	Maple Falls	68.69	45	⇓P	P	08 21 08.7	-0.2
	baz=68						
C04A	Brinnon	68.75	46	⇑P	P	08 21 09.1	-0.2
	baz=68						
GNW	Green Mountain	68.91	46	eP	P	08 21 10.0	-0.3
E03A	Lebam	68.93	48	⇑P	P	08 21 10.9	+0.5
	baz=69						
A06A	Chilliwack	69.00	44	⇑P	P	08 21 10.6	-0.2
	baz=69						
B05A	Bryant	69.03	45	⇑P	P	08 21 09.7	-1.2
	baz=69,SNR=6.4						
DAG	Danmarks Havn	69.04	355	⇑iP	P	08 21 10.3	-0.3
DAG				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
DAG	Danmarks Havn	69.04	355	⇑iP	P	08 21 10.3	-0.3
	comp=Z,19nm,1.2s,mb4.9						
KLBR	Kellerberrin	69.06	202	eP	P	08 21 13.0	+1.9
	comp=Z,25nm,0.9s,mb5.1						
KLBR				epP	pP	08 21 22.2	-0.6
D04A	Dobbs Creek Ra	69.13	47	⇑P	P	08 21 11.4	-0.1
	baz=69						
JOF	Joensuu	69.15	333	ep	P	08 21 10.2	-1.2
	comp=Z,5.3nm,0.4s,mb4.8						
JOF	Joensuu	69.15	333	eP	P	08 21 10.2	-1.2
JOF				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.8						
JCW	Jim Creek	69.16	45	P	P	08 21 12.1	+0.4
B06A	Marblemount	69.27	45	⇑P	P	08 21 12.6	+0.2
	baz=69						
E04A	Onalaska	69.42	47	⇑P	P	08 21 12.6	-0.8
	baz=69						
C05A	Tolt Reservoir	69.53	46	⇑P	P	08 21 14.2	+0.2
	baz=69,SNR=5.9						
D05A	Enumclaw	69.59	46	⇑P	P	08 21 13.6	-0.8
	baz=69						
A07A	Ashnola River,	69.66	44	P	P	08 21 14.9	0.0
	baz=69,SNR=8.7						
G03A	Yamhill	69.67	49	⇓P	P	08 21 15.5	+0.5
	baz=69						
C06A	Tall Timber Ra	69.90	45	⇓P	P	08 21 16.1	-0.2
	baz=70						
LON	Longmire	69.90	47	eP	P	08 21 16.6	+0.2
RCM	Mount Rainier-	69.91	47	P	P	08 21 17.6	+1.2
F04A	Amboy	69.92	48	P	P	08 21 16.8	+0.3
	baz=70,SNR=7.1						
H03A	Soap Creek Ran	69.96	49	⇓P	P	08 21 17.0	+0.2
	baz=70						
E05A	Randle	70.02	47	P	P	08 21 17.4	+0.3
	baz=70,SNR=6.5						
B07A	Winthrop	70.09	45	P	P	08 21 17.6	+0.1
	baz=70,SNR=12						
NLW	Nelson Butte	70.15	45	P	P	08 21 18.3	+0.5
G04A	Mulino	70.22	48	⇓P	P	08 21 18.2	-0.1
	baz=70						
D06A	Cle Elum	70.27	46	P	P	08 21 19.2	+0.6
	baz=70,SNR=6.4						
MOS	Moscow	70.28	324	eP	P	08 21 16.4	-2.1
MOS				e	pP	08 21 26.9	-3.3
MOS				eS	S	08 30 23.7	-3.8
MOS				pmax	pmax		
	comp=Z,63nm,1.1s,mb5.5						
I03A	Eugene	70.30	50	⇓P	P	08 21 18.4	-0.5
	baz=70						
A08A	Turner Farm, O	70.35	44	P	P	08 21 19.5	+0.4
	baz=70,SNR=12						
J02A	Umpqua	70.40	51	⇑P	P	08 21 19.3	-0.1
	baz=70						
NWAO	Narrogin (SRO)	70.46	202	P	P	08 21 18.8	-1.0
NWAO	Narrogin (SRO)	70.46	202	P	P	08 21 18.8	-0.9
NWAO				pmax	pmax		
	comp=Z,22nm,0.8s						
NWAO	Narrogin (SRO)	70.46	202	P	P	08 21 18.8	-0.9
	comp=Z,22nm,0.8s,mb5.1,baz=15,slow=6.9,SNR=9.8						
C07A	Waterville	70.50	45	P	P	08 21 19.9	-0.1
	baz=70,SNR=8.1						
E06A	Yakima	70.50	47	⇓P	P	08 21 19.9	-0.1
	baz=70,SNR=8.2						
F05A	White Salmon	70.53	47	⇑P	P	08 21 19.4	-0.8
	baz=70						
EBG	Ellensburg	70.58	46	P	P	08 21 20.8	+0.4
B08A	Colville Reser	70.60	44	P	P	08 21 20.6	0.0
	baz=70,SNR=14						
H04A	Detroit Lake	70.65	49	P	P	08 21 21.1	+0.1
	baz=70,SNR=11						
HOOD	Mount Hood Mea	70.68	48	eP	P	08 21 21.1	0.0
A09A	Danville	70.73	44	P	P	08 21 21.6	+0.2
	baz=70,SNR=10						
K02A	Glendale	70.73	51	⇑P	P	08 21 21.8	+0.2
	baz=70						
D07A	Quincy	70.79	46	⇓P	P	08 21 20.6	-1.2
	baz=70						
VFP	Flag Point	70.80	48	P	P	08 21 22.7	+0.8
G05A	Wamic	70.92	48	⇓P	P	08 21 22.8	+0.2
	baz=71						
IRO	Indian Ridge	70.93	49	P	P	08 21 22.9	+0.2
I04A	Tendick Farm,	70.94	50	P	P	08 21 23.2	+0.5
	baz=71,SNR=6.8						
L02A	Cave Junction	70.95	52	⇓P	P	08 21 22.8	-0.1
	baz=71						
F06A	Goldendale	71.00	47	⇓P	P	08 21 23.3	+0.2
	baz=71						
C08A	Higginbotham F	71.05	45	P	P	08 21 23.1	-0.2
	baz=71,SNR=12						
TOO	Toolangi	71.08	177	eP	P	08 21 25.1	+1.7
	comp=Z,5.8nm,0.9s,mb4.5						
TOO				epP	pP	08 21 35.5	+0.4
TOO	Toolangi	71.08	177	eP	P	08 21 25.1	+1.7
TOO				e*PP	pP	08 21 35.5	+0.4
TOO				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
OBN	Obninsk	71.13	324	d iP	P	08 21 23.6	-0.1
OBN				e		08 24 00.9	
OBN				eSS	SS	08 35 10.5	+0.1
OBN				pmax	pmax		
	comp=Z,94nm,2.6s,mb5.3						
OBN				MLR	MLR		
	comp=Z,200nm,14.0s,MS4.5						
E07A	Sunnyside	71.17	46	P	P	08 21 24.8	+0.7
	baz=71,SNR=11						
MDW	Midway	71.20	46	P	P	08 21 24.6	+0.3
B09A	Rice	71.26	44	P	P	08 21 24.8	+0.2
	baz=71,SNR=14						
H05A	Madras	71.27	48	⇓P	P	08 21 24.6	-0.1
	baz=71						
A10A	Northport	71.32	43	P	P	08 21 25.1	+0.2
	baz=71,SNR=11						
G06A	Carlson Farm,	71.35	48	P	P	08 21 25.4	+0.3
	baz=71,SNR=6.3						
J04A	Umpqua Nationa	71.39	50	P	P	08 21 26.5	+1.0
	baz=71,SNR=5.8						
EDM	Edmonton	71.42	38	eP	P	08 21 25.3	-0.2
VTHM	Trough	71.42	48	P	P	08 21 26.2	+0.5
F07A	Phinny Hill Vi	71.46	47	P	P	08 21 26.3	+0.5
	baz=71,SNR=8.8						
D08A	Wollman Farm,	71.49	45	P	P	08 21 25.9	-0.1
	baz=71,SNR=8.8						
C09A	Chrisman Ranch	71.50	45	⇑P	P	08 21 25.2	-0.8
	baz=71						
KAF	Kangasniemi	71.51	334	ep	P	08 21 24.6	-1.3
	comp=Z,5.6nm,0.5s,mb4.8,baz=50,slow=5.7						
KAF	Kangasniemi	71.51	334	eP	P	08 21 24.6	-1.3
KAF				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
E08A	Dider Farm, El	71.69	46	⇓P	P	08 21 26.1	-1.1
	baz=71						
YBH	Yreka Blue Hor	71.74	52	eP	P	08 21 27.2	-0.4
	comp=Z,28nm,1.7s,mb4.9						
YBH	Yreka Blue Hor	71.74	52	eP	P	08 21 27.2	-0.4
YBH				pmax	pmax		
	comp=Z,28nm,1.7s						
YBH	Yreka Blue Hor	71.74	52	P	P	08 21 28.7	+1.1
	baz=71,SNR=5.7						
H06A	Lindquist Farm	71.78	48	P	P	08 21 28.2	+0.4
	baz=71,SNR=6.9						
M02C	Callahan	71.81	52	⇑P	P	08 21 27.6	-0.4
	baz=72						
VRSR	Storozhevoye	71.84	320	eP	P	08 21 28.3	+0.3
VRSR				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
VRSR				pmax	pmax		
	comp=N,4.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,6.0nm,1.0s						
D09A	Jones Farm, Ri	71.85	45	⇑P	P	08 21 27.7	-0.5
	baz=72						
B10A	Chitwood Farm,	71.85	44	⇓P	P	08 21 28.0	-0.2
	baz=72						
VORD	Divnogorie	71.92	320	eP	P	08 21 27.8	-0.7
VORD				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.8						
VORD				pmax	pmax		
	comp=N,10.0nm,0.9s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.8s						
G07A	Ruggs Ranch, H	71.93	47	P	P	08 21 29.2	+0.6
	baz=72,SNR=6.4						
J05A	Fort Rock	71.93	50	P	P	08 21 29.8	+1.1
	baz=72,SNR=10						
NEW	Newport	71.93	44	eP	P	08 21 29.0	+0.3
	comp=E,24nm,1.2s,mb5.0						
NEW	Newport	71.93	44	eP	P	08 21 29.0	+0.4
NEW				pmax	pmax		
	comp=Z,24nm,1.2s						
K04A	Chilquin	71.94	51	⇓P	P	08 21 29.4	+0.6
	baz=72						
A11A	Hall Mountain,	72.01	43	P	P	08 21 30.0	+0.9
	baz=72,SNR=16						
FIA1	FINESS Array S	72.01	333	eP	P	08 21 28.3	-0.5
FINES	FINESS Array B	72.01	333	P	P	08 21 28.8	-0.1
FINES						08 24 07.7	
FINES				pmax	pmax		
	comp=Z,16nm,1.0s						
FINES				pmax	pmax		
	comp=Z,6.0nm,1.1s						
FINES				MLR	MLR		
	comp=Z,106nm,19.1s						
FINES	FINESS Array B	72.01	333	P	P	08 21 28.8	-0.1
	comp=Z,16nm,1.0s,mb4.9,baz=61,slow=9.0,SNR=29						
FINES				PP	PP	08 24 07.7	-0.9
	comp=Z,6.1nm,1.1s,baz=74,slow=10,SNR=4.3						
FINES				LR	LR	08 55 19.4	
	comp=Z,106nm,19.1s,MS4.1,baz=354,slow=38						
C10A	Spilker Farm,	72.05	44	⇑P	P	08 21 28.5	-0.8
	baz=72						
L04A	Klamath Falls	72.06	51	⇑P	P	08 21 29.7	+0.2
	baz=72						
E09A	Wood Farm, Sta	72.22	46	P	P	08 21 30.6	+0.1
	baz=72,SNR=8.7						
I06A	Prineville	72.25	49	P	P	08 21 31.2	+0.6
	baz=72,SNR=8.5						
B11A	Sandpoint	72.28	43	P	P	08 21 31.5	+0.8
	baz=72,SNR=5.7						
M04C	Macdoel	72.28	51	⇑P	P	08 21 30.8	-0.1
	baz=72						
G08A	Pilot Rock	72.35	47	P	P	08 21 31.5	+0.3
	baz=72,SNR=11						
M03C	McCloud	72.35	52	⇓P	P	08 21 30.9	-0.4
	baz=72						
WDC	Whiskeytown Da	72.42	53	⇑P	P	08 21 31.3	-0.4
	baz=72						
A12A	Yaak River Ran	72.42	43	⇑P	P	08 21 32.1	+0.5
	baz=72,SNR=14						
K05A	Summer Lake	72.42	50	P	P	08 21 32.7	+1.0
	baz=72,SNR=12						
O02C	Red Bluff	72.45	53	⇓P	P	08 21 32.2	+0.3
	baz=72						
D10A	Wagner Farm, O	72.46	45	P	P	08 21 31.8	-0.1
	baz=72,SNR=6.5						
I07A	Izee	72.62	48	P	P	08 21 33.0	+0.2
	baz=72,SNR=6.0						
J06A	Christmas Vall	72.63	49	P	P	08 21 33.6	+0.7
	baz=72,SNR=6.5						
B12A	Libby	72.70	43	⇓P	P	08 21 33.4	+0.2
	baz=72						
GASB	Alder Springs	72.75	54	⇓P	P	08 21 33.0	-0.7
	baz=72						
F09A	S2 Ranch, Elgi	72.77	46	⇑P	P	08 21 33.9	+0.2
	baz=72						
K06A	Valley Falls	72.80	50	P	P	08 21 34.5	+0.6
	baz=72,SNR=7.4						
L05A	Lakeview	72.80	51	⇓P	P	08 21 34.2	+0.2
	baz=72,SNR=6.5						
GOF	Gofitskoye	72.81	313	eP	P	08 21 32.3	-1.7
GOF				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.3						
E10A	Myers Farm, Un	72.85	45	⇑P	P	08 21 33.3	-0.8
	baz=72						
H08A	Prairie City	72.92	48	P	P	08 21 35.1	+0.6
	baz=73,SNR=5.6						
M05C	Lookout	72.94	51	⇓P	P	08 21 34.1	-0.8
	baz=73						
SMDO	Samad	73.01	287	⇓P	P	08 21 37.0	+1.5
	SNR=6.9						
HATC	Hat Creek Radi	73.01	52	⇑P	P	08 21 35.1	-0.1
	baz=73						
D11A	Klaveano Farm,	73.01	45	P	P	08 21 34.8	-0.4
	baz=73,SNR=14						
O03C	Acorn Hollow,	73.04	53	⇓P	P	08 21 34.7	-0.7
	baz=73						
F10A	Beach Ranch, E	73.04	46	⇓P	P	08 21 34.5	-0.8
	baz=73						
LBCM	Butte Creek Ri	73.07	52	P	P	08 21 35.9	+0.3
J07A	Hines	73.10	49	P	P	08 21 36.5	+0.8
	baz=73,SNR=9.0						
MOD	Modoc	73.22	51	eP	P	08 21 36.9	+0.5
MOD	Modoc	73.22	51	P	P	08 21 36.9	+0.5
	baz=73,SNR=5.9						
I08A	Drewsey	73.29	48	P	P	08 21 37.8	+1.0
	baz=73,SNR=8.9						
JMDO	Jabal Madar	73.31	286	⇓P	P	08 21 38.2	+1.0
	SNR=7.3						
MNRC	McLaughlin Nat	73.33	54	⇓P	P	08 21 36.7	-0.4
	baz=73						
WALA	Waterton Lakes	73.33	42	eP	P	08 21 37.2	+0.2
	comp=Z,30nm,1.3s,mb5.1						
HOQ	Hoqain	73.33	287	P	P	08 21 38.1	+0.7
	SNR=10.0						
B13A	Whitefish	73.39	43	P	P	08 21 37.9	+0.6
	baz=73,SNR=16						
ZEI	Tsey	73.44	311	eP	P	08 21 38.0	+0.3
ZEI				e		08 24 18.8	
ZEI				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
E11A	Bogner Ranch,	73.45	45	P	P	08 21 37.4	-0.3
	baz=73,SNR=7.9						
M06C	Likely Place G	73.46	51	P	P	08 21 38.6	+0.8
	baz=73,SNR=6.0						
H09A	Durkee	73.46	47	P	P	08 21 38.6	+0.8
	baz=73,SNR=6.4						
BSMT	Bassoo Peak	73.48	43	eP	P	08 21 38.6	+0.8
K07A	Rock Creek Ran	73.49	50	P	P	08 21 38.9	+0.9
	baz=73,SNR=16						
O04C	Chester	73.51	52	⇑P	P	08 21 38.4	+0.3
	baz=73						
BMO	Blue Mountains	73.58	47	eP	P	08 21 38.0	-0.5
D12A	Red Ives Fores	73.58	44	⇓P	P	08 21 38.7	+0.2
	baz=73						
ELFS	Eagle Lake Fie	73.59	52	⇓P	P	08 21 39.2	+0.6
	baz=73						
KIV	Kislovodsk	73.59	312	eP	P	08 21 38.8	+0.2
KIV	Kislovodsk	73.59	312	eP	P	08 21 39.6	+1.0
KIV				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.1						
KIV	Kislovodsk	73.59	312	⇓P	P	08 21 39.5	+0.9
	SNR=12						
VSU	Vasula	73.61	330	⇓eP	P	08 21 38.5	+0.1
ORV	Oroville	73.62	53	P	P	08 21 38.4	-0.5
	baz=73,SNR=8.4						
J08A	Circle Bar Ran	73.63	49	P	P	08 21 39.3	+0.5
	baz=73,SNR=11						
C13A	Hot Springs	73.70	43	⇓P	P	08 21 38.6	-0.5
	baz=73,SNR=13						
F11A	Grangeville	73.73	45	P	P	08 21 39.6	+0.3
	baz=73,SNR=19						
Q03C	Winters	73.74	54	⇑P	P	08 21 40.2	+0.6
	baz=73						
OHCM	Honcut	73.74	53	eP	P	08 21 39.0	-0.5
I09A	Lost Marbles R	73.77	48	⇑P	P	08 21 39.8	+0.2
	baz=73						
L07A	Adell	73.78	50	P	P	08 21 40.6	+0.9
	baz=73,SNR=17						
ASHO	Ashiyiah	73.78	289	⇑P	P	08 21 40.5	+0.5
	SNR=8.7						
BSY	Bisya	73.84	287	⇑P	P	08 21 40.9	+0.5
	SNR=11						
K08A	Mann Creek Ran	73.95	49	P	P	08 21 41.2	+0.5
	baz=74,SNR=9.1						
WVOR	Wild Horse Val	74.01	50	eP	P	08 21 41.4	+0.3
	comp=Z,29nm,1.6s,mb5.0						
WVOR	Wild Horse Val	74.01	50	eP	P	08 21 41.4	+0.3
WVOR				pmax	pmax		
	comp=Z,29nm,1.6s,mb5.0						
D13A	Huson	74.08	44	P	P	08 21 41.1	-0.2
	baz=74,SNR=9.2						
ARQ	Araqi	74.08	288	⇓P	P	08 21 42.7	+0.9
	SNR=6.5						
J09A	Fry Pan Ranch,	74.09	48	P	P	08 21 42.4	+0.8
	baz=74,SNR=11						
N06A	Buffalo Meadow	74.11	51	P	P	08 21 42.2	+0.6
	baz=74,SNR=8.4						
M07A	Soldier Meadow	74.21	51	P	P	08 21 42.8	+0.6
	baz=74,SNR=10						
BEKR	Beckwourth	74.22	52	P	P	08 21 42.4	+0.1
	baz=74,SNR=6.5						

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I10A  Payette           74.29  47   P      P      08 21 43.1 +0.5
      baz=74,SNR=6.6
L08A  Fields            74.32  50   P      P      08 21 43.5 +0.6
      baz=74,SNR=16
P05C  Yuba Gap, Truc    74.34  53 ⇓P      P      08 21 42.7 -0.4
      baz=74
O06A  Flanigan          74.41  52   P      P      08 21 43.8 +0.3
      baz=74,SNR=8.8
H11A  Donnelly          74.44  46   P      P      08 21 43.2 -0.3
      baz=74,SNR=12
K09A  Rome              74.44  49   P      P      08 21 44.0 +0.4
      baz=74,SNR=7.8
MSO   Missoula          74.52  44  eP      P      08 21 44.0 +0.1
LAVA  Lava Cap Winer    74.53  54 ⇓P      P      08 21 43.5 -0.7
      baz=74
E13A  Victor            74.59  44   P      P      08 21 44.3  0.0
      baz=74,SNR=7.0
D14A  Greenough         74.63  43   P      P      08 21 44.7 +0.1
      baz=74,SNR=8.7
N07B  Gerlach           74.65  51   P      P      08 21 45.4 +0.5
      baz=74,SNR=6.9
J10A  Berg Farm, Mel    74.66  48 ⇑P      P      08 21 44.4 -0.4
      baz=74
R04C  Big Horse Ranc    74.66  54 ⇓P      P      08 21 44.9  0.0
      baz=74
M08A  Happy Creek Ra    74.69  50 ⇓P      P      08 21 44.6 -0.4
      baz=74
L09A  Wilkinson Ranc    74.84  49 ⇑P      P      08 21 46.1 +0.2
      baz=74
F13A  Darby             74.86  45 ⇓P      P      08 21 45.4 -0.5
      baz=74
CHMT  Chamberlain Mo    74.87  43  eP      P      08 21 50.6 +4.6
I11A  Placerville       74.90  47 ⇑P      P      08 21 44.7 -1.5
      baz=74
WCN   Washoe City       74.91  53 ⇓P      P      08 21 46.0 -0.4
      baz=75
K10A  MacKenzie Ranc    74.94  48   P      P      08 21 47.0 +0.6
      baz=75,SNR=10
E14A  Clinton           75.00  44   P      P      08 21 46.9 +0.1
      baz=75,SNR=5.1
R05C  Kirkwood Meado    75.01  53 ⇓P      P      08 21 46.5 -0.4
      baz=75
O07A  Toulon            75.04  52   P      P      08 21 47.4 +0.3
      baz=75,SNR=8.8
CMB   Columbia Colle    75.14  54  eP      P      08 21 47.7  0.0
      comp=Z,25nm,1.3s,mb5.0
CMB   Columbia Colle    75.14  54  eP      P      08 21 47.7  0.0
CMB                                 pmax   pmax
      comp=Z,25nm,1.3s,mb5.0
CMB   Columbia Colle    75.14  54   P      P      08 21 47.8 +0.1
      baz=75,SNR=7.1
N08A  GE Springer Mi    75.19  51 ⇓P      P      08 21 48.6 +0.6
      baz=75,SNR=6.0
D15A  Lincoln           75.22  43 ⇑P      P      08 21 46.5 -1.5
      baz=75
H12A  Diamond D Ranc    75.22  46   P      P      08 21 48.3 +0.3
      baz=75,SNR=8.7
MFID  Camas Ranch       75.24  48   P      P      08 21 48.6 +0.5
      baz=75,SNR=9.4
M09A  Marrel Ranch,     75.29  50 ⇑P      P      08 21 48.4 -0.1
      baz=75
G13A  Cobalt            75.30  45   P      P      08 21 48.1 -0.3
      baz=75,SNR=22
F14A  Wisdom            75.41  44 ⇓P      P      08 21 48.6 -0.5
      baz=75
E15A  Deer Lodge        75.49  44   P      P      08 21 49.5  0.0
      baz=75,SNR=8.8
R06C  Coleville         75.52  53   P      P      08 21 50.5 +0.6
      baz=75,SNR=6.3
S05C  Merced            75.54  55 ⇑P      P      08 21 49.0 -1.0
      baz=75
N09A  Rock Creek Ran    75.55  50 ⇓P      P      08 21 49.9 -0.1
      baz=75
L10A  Juniper Basin     75.56  49   P      P      08 21 50.4 +0.4
      baz=75,SNR=7.9
H13A  Challis           75.57  46   P      P      08 21 50.4 +0.3
      baz=75,SNR=18
S06C  San Francisco     75.59  54 ⇓P      P      08 21 49.2 -1.0
      baz=75
V03C  Hunter Liggett    75.61  56 ⇑P      P      08 21 49.8 -0.7
      baz=75
SOC   Sochi             75.61 313  eP      P      08 21 48.4 -1.9
SOC                                e*PP    pP     08 21 59.4 -2.7
SOC                                eS      S      08 31 31.6 +3.1
SOC                                 pmax   pmax
      comp=Z,28nm,1.3s,mb5.0
G14A  Jackson           75.67  45 ⇑P      P      08 21 49.5 -1.1
      baz=75
U04C  Hernandez Rese    75.74  56 ⇑P      P      08 21 51.9 +0.7
      baz=75
J12A  Stokes Ranch,     75.78  47 ⇑P      P      08 21 51.5 +0.2
      baz=75,SNR=5.2
M10A  I.L. Ranch, Tu    75.82  49   P      P      08 21 52.4 +0.9
      baz=76,SNR=6.8
F15A  Butte             75.90  44   P      P      08 21 52.3 +0.4
      baz=76,SNR=46
LRM   Limekiln Ridge    75.94  44  eP      P      08 21 52.4 +0.3
L11A  Cat Creek Ranc    75.96  49   P      P      08 21 53.1 +0.8
      baz=76,SNR=10
BMN   Battle Mountai    75.97  51  eP      P      08 21 53.4 +1.0
      comp=Z,19nm,1.2s,mb4.9
BMN   Battle Mountai    75.97  51  eP      P      08 21 53.4 +1.0
BMN                                 pmax   pmax
      comp=Z,19nm,1.2s,mb4.9
I13A  Wildhorse Cree    76.01  46   P      P      08 21 53.2 +0.7
      baz=76,SNR=8.3
FFC   Flin Flon         76.01  33  eP      P      08 21 51.9 -0.5
R07C  Lee Vining        76.02  54 ⇑P      P      08 21 53.4 +0.6
      baz=76,SNR=5.5
HLID  Hailey            76.03  47  eP      P      08 21 52.4 -0.2
HLID  Hailey            76.03  47   P      P      08 21 53.2 +0.6
      baz=76,SNR=6.5
DLMT  Dillon            76.11  45  eP      P      08 21 53.5 +0.3
      comp=Z,37nm,1.4s,mb5.1
O09A  Fish Creek Ran    76.13  51 ⇑P      P      08 21 53.3 -0.1
      baz=76,SNR=6.9
T06C  Millerton Lake    76.14  55   P      P      08 21 53.2 -0.2
      baz=76,SNR=7.7
EGMT  Eagleton          76.20  41  eP      P      08 21 53.6  0.0
      comp=Z,45nm,1.4s,mb5.2
EGMT  Eagleton          76.20  41   P      P      08 21 53.7 +0.1
      baz=76,SNR=11
K12A  Draper Farm, C    76.23  48   P      P      08 21 54.7 +0.8
      baz=76,SNR=6.7
KCC   Kaiser Creek      76.24  54 ⇓P      P      08 21 54.0  0.0
      baz=76
MCMT  McKenzie Canyo    76.26  45  eP      P      08 21 53.6 -0.4
J13A  Cove Ranch, Pi    76.26  47   P      P      08 21 54.6 +0.6
      baz=76,SNR=7.8
G15A  Dillon            76.28  45   P      P      08 21 54.5 +0.4
      baz=76,SNR=15
ANN   Anapa             76.31 315  eP      P      08 21 53.3 -1.0
ANN                                e*PP    pP     08 22 03.6 -2.4
ANN                                eS      S      08 31 36.6 +0.4
ANN                                 pmax   pmax
      comp=Z,75nm,1.7s,mb5.3
NVAR  Mina Array Bea    76.33  53   P      P      08 21 54.7 +0.2
NVAR  Mina Array Bea    76.33  53   P      P      08 21 54.7 +0.2
      comp=Z,2.8nm,0.8s,mb4.2,baz=299,slow=3.9,SNR=25
M11A  Holland Ranch,    76.34  49   P      P      08 21 55.6 +1.1
      baz=76,SNR=8.3
MLAC  Mammoth Lakes     76.40  54 ⇓P      P      08 21 54.6 -0.4
      baz=76
L12A  House Creek Ra    76.43  48   P      P      08 21 55.9 +0.9
      baz=76,SNR=11
O10A  Cortez Mining,    76.51  51 ⇓P      P      08 21 55.7 +0.3
      baz=76
BOZ   Bozeman (W)       76.51  44  eP      P      08 21 55.5 +0.2
      comp=Z,17nm,1.3s,mb4.8
BOZ   Bozeman (W)       76.51  44  eP      P      08 21 55.5 +0.1
BOZ                                 pmax   pmax
      comp=Z,17nm,1.3s,mb4.8
BOZ   Bozeman (W)       76.51  44   P      P      08 21 55.9 +0.5
      baz=76,SNR=15
FCC   Fort Churchill    76.55  27  eP      P      08 21 54.4 -0.9
N11A  Elko Archery C    76.71  50 ⇑P      P      08 21 56.9 +0.3
      baz=76
K13A  Stover Farm, H    76.73  47   P      P      08 21 57.5 +0.8
      baz=76,SNR=5.9
HELL  Mitchell Peak,    76.78  55 ⇓P      P      08 21 56.4 -0.7
      baz=76
RCTC  Rector, Farmer    76.83  55 ⇓P      P      08 21 56.0 -1.3
      baz=76
Q09A  Carvers           76.85  52 ⇓P      P      08 21 57.1 -0.4
      baz=76
P10A  Eureka            76.89  51 ⇓P      P      08 21 56.9 -0.7
      baz=77
M12A  Wells             76.90  49   P      P      08 21 58.6 +1.0
      baz=76,SNR=11
S08C  White Mtn Res     76.92  54 ⇑P      P      08 21 58.5 +0.6
      baz=77,SNR=5.0
QLMT  Earthquake Lak    77.09  44  eP      P      08 21 58.4 -0.3
L13A  Double Diamond    77.13  48   P      P      08 21 59.2 +0.3
      baz=77,SNR=6.5
N12A  Clover Valley,    77.13  49   P      P      08 21 59.6 +0.6
      baz=77,SNR=6.7
O11A  Cowboy Ranch,     77.14  50 ⇑P      P      08 21 58.6 -0.4
      baz=77
VES   Vestal, Richgr    77.19  55 ⇑P      P      08 21 58.0 -1.4
      baz=77
R09A  Tonopah           77.25  53   P      P      08 21 60.0 +0.3
      baz=77,SNR=6.8
AKASG Malin Array Be    77.31 323   P      P      08 21 59.3 -0.4
      comp=Z,3.4nm,0.5s,mb4.6,baz=44,slow=5.7,SNR=40
AKASG                               LR     LR     09 01 32.6
      comp=Z,226nm,18.5s,MS4.5,baz=50,slow=40
AKBB  Malin Array Si    77.31 323  eP      P      08 21 59.5 -0.2
KIEV  Kiev              77.32 323  eP      P      08 21 59.5 -0.3
      comp=Z,32nm,1.3s,mb5.1
KIEV  Kiev              77.32 323  eP      P      08 21 59.5 -0.3
KIEV                                pmax   pmax
      comp=Z,32nm,1.3s,mb5.1
K14A  Jones Ranch, D    77.35  47   P      P      08 22 01.1 +1.0
      baz=77,SNR=12
Q10A  Clear Creek Ra    77.37  52 ⇓P      P      08 21 60.0 -0.4
      baz=77
MSL   Mosul             77.38 305  eP      x      08 22 02.0
P11A  Circle Ranch,     77.39  51 ⇑P      P      08 22 00.4 -0.1
      baz=77
M13A  Montello          77.40  49   P      P      08 22 01.1 +0.6
      baz=77,SNR=7.1
NB2   NORSAR Subarra    77.44 338   P      P      08 22 00.0 -0.3
      comp=Z,23nm,1.0s,mb5.0,baz=40,slow=5.6
NOA   NORSAR Array B    77.44 338   P      P      08 22 00.4 +0.1
NOA                                 pmax   pmax
      comp=Z,12nm,0.9s
NOA                                 MLR    MLR
      comp=Z,212nm,18.2s
NOA   NORSAR Array B    77.44 338   P      P      08 22 00.3  0.0
      comp=Z,12nm,0.9s,mb4.8,baz=39,slow=5.6,SNR=25
NOA                                 LR     LR     09 00 59.5
      comp=Z,212nm,18.2s,MS4.5,baz=40,slow=39
YMR   Madison River     77.45  44  eP      P      08 22 00.8 +0.1
      comp=Z,36nm,1.3s,mb5.1
GCMT  Greycliff         77.55  43  eP      P      08 21 59.5 -1.7
YNR   Norris Junctio    77.59  44  eP      P      08 22 04.2 +2.7
YFT   Old Faithful      77.66  45  eP      P      08 22 01.4 -0.4
NAO01 NORSAR Array S    77.69 338  eP      P      08 22 01.2 -0.6
      comp=Z,8.2nm,1.0s,mb4.6
R10A  Warm Springs      77.73  52 ⇓P      P      08 22 02.7 +0.3
      baz=77
S10A  Tonopah Range,    77.74  53   P      P      08 22 02.6 +0.2
      baz=77,SNR=6.8
MIB   Mutribah          77.82 298  eP      P      08 22 02.4 -0.6
MIB                                 AMb    AMB    08 22 15.6
      comp=Z,65nm,0.8s,mb5.6
LKWY  Lake              77.84  44  eP      P      08 22 02.5 -0.4
Q11A  Duckwater         77.85  51 ⇓P      P      08 22 02.3 -0.7
      baz=78
KBD   Kabd              77.89 297  eP      P      08 22 02.2 -1.2
KBD                                 AMb    AMB    08 22 12.2
      comp=Z,473nm,1.7s,mb6.2
QRN   Al-Qurain         77.94 296  eP      P      08 22 02.7 -1.1
DCID1 Drake Creek       77.95  45  eP      P      08 22 03.1 -0.4
DAC   Darwin (Calif)    77.97  54  eP      P      08 22 03.2 -0.6
P12A  McGill            77.98  51   P      P      08 22 04.5 +0.7
      baz=78,SNR=5.7
SUW   Suwalki           78.00 328  eP      P      08 22 03.6  0.0
BHD   Baghdad           78.11 302  eP      x      08 22 04.0
MOOW  Moose Ponds       78.12  45  eP      P      08 22 03.9 -0.5
      comp=Z,32nm,1.5s,mb5.0
MPMC  Manual Prospec    78.16  55 ⇑P      P      08 22 04.8  0.0
      baz=78
RLMT  Red Lodge         78.17  43  eP      P      08 22 04.8 +0.1
      comp=Z,40nm,1.5s,mb5.1
NAY   Al-Naaiem         78.18 297  eP      P      08 22 03.9 -1.2
NAY                                 AMb    AMB    08 22 17.6
      comp=Z,31nm,0.6s,mb5.4
Q12A  Willow Creek R    78.27  51 ⇓P      P      08 22 06.0 +0.6
      baz=78
REDW  Red Top Meadow    78.28  45  eP      P      08 22 04.8 -0.5
      comp=Z,32nm,1.4s,mb5.0
LOHW  Long Hollow       78.28  45  eP      P      08 22 05.2 -0.1
      comp=Z,17nm,1.4s,mb4.8
S11A  Rachel            78.45  52 ⇓P      P      08 22 05.7 -0.7
      baz=78
EDW2  Edwards Air Fo    78.46  56 ⇑P      P      08 22 04.8 -1.7
      baz=78
R12A  Pony Springs,     78.81  51 ⇑P      P      08 22 08.0 -0.4
      baz=78
HWUT  Hardware Ranch    78.86  47  eP      P      08 22 08.3 -0.3
      comp=Z,39nm,1.6s,mb5.1
DGMT  Dagmar            78.89  38  eP      P      08 22 08.3 -0.3
DUG   Dugway            78.90  49  eP      P      08 22 08.6 -0.3
DUG   Dugway            78.90  49   P      P      08 22 09.4 +0.6
      baz=78,SNR=5.5
LAO   LASA Array        78.92  41  eP      P      08 22 09.0 +0.2
BFSC  Mount Baldy St    79.04  56 ⇓P      P      08 22 09.0 -0.6
      baz=79
GSC   Goldstone         79.04  55 ⇓P      P      08 22 09.0 -0.7
      baz=79
MALT  Malatya           79.36 309  eP      P      08 22 11.4 +0.1
      comp=Z,18nm,1.3s,mb4.8
MALT  Malatya           79.36 309  eP      P      08 22 11.5 +0.2
MALT                                pmax   pmax
      comp=Z,18nm,1.3s,mb4.8
MALT  Malatya           79.36 309⇓iP      P      08 22 13.1 +1.8
PDAR  Pinedale Array    79.39  45   P      P      08 22 11.2 -0.2
      comp=Z,2.5nm,0.6s,mb4.3,baz=274,slow=2.1,SNR=29
SHPR  Sheep Range       79.47  53  eP      P      08 22 11.7 -0.3
JLU   Jordanelle        79.52  48  eP      P      08 22 13.1 +0.9
TUQ   Turquoise Mtn.    79.56  54 ⇓P      P      08 22 12.2 -0.3
      baz=79
HEC   Hector,Ludlow     79.62  55 ⇓P      P      08 22 12.8  0.0
      baz=79
V11A  Goodsprings       79.67  54 ⇑P      P      08 22 12.7 -0.3
      baz=79
MPU   Maple Canyon      79.75  49  eP      P      08 22 13.2 -0.2
DAU   Daniels Canyon    79.75  48  eP      P      08 22 13.2 -0.2
ABTO  Aybut             79.76 284 ⇓P      P      08 22 14.1 +0.2
      SNR=5.8
KIS   Kishinev          79.83 320  eP      P      08 22 10.0 -3.7
KIS                                 LRM           09 03 12.0
      comp=Z,400nm,17.0s
ARUT  Antelope Range    79.88  51  eP      P      08 22 14.8 +0.6
U12A  Valley of Fire    79.93  53 ⇓P      P      08 22 14.1 -0.4
      baz=80
T13A  Saint George      80.01  52 ⇑P      P      08 22 13.9 -1.0
      baz=80
S14A  Cedar City        80.07  51 ⇓P      P      08 22 15.2  0.0
      baz=80
V12A  Nelson            80.12  54 ⇓P      P      08 22 15.2 -0.3
      baz=80
109C  Camp Elliot, M    80.17  57 ⇑P      P      08 22 14.5 -1.3
      baz=80
PFO   Pinyon Flat Ob    80.22  56 ⇑P      P      08 22 14.4 -1.7
      baz=80
MSU   Marysvale         80.28  50  eP      P      08 22 16.1 -0.2
LVV   L'vov             80.42 325   P      P      08 22 16.6 -0.3
T14A  Hurricane         80.53  52   P      P      08 22 18.4 +0.7
      baz=80,SNR=6.6
IRM   Iron Mountain     80.80  55 ⇑P      P      08 22 18.3 -1.0
      baz=80
BC3   Big Chuckw Mtn    80.88  56 ⇓P      P      08 22 19.0 -0.6
      baz=81
SRU   San Rafael        80.97  49  eP      P      08 22 19.7 -0.3
W13A  Hualapai Mount    81.12  54 ⇑P      P      08 22 20.6 -0.3
      baz=81
KWP   Kalwaria          81.18 325  eP      P      08 22 21.8 +0.9
KWP   Kalwaria          81.18 325  eP      P      08 22 12.1 -8.8
      comp=Z,93nm,1.3s,mb5.5
BURAR Bucovina Array    81.30 322⇓iP      P      08 22 22.0 +0.4
PDMCI Parker Dam,Lak    81.41  54 ⇓P      P      08 22 22.1 -0.3
      baz=81
RWWY  Rawlins           81.44  45  eP      P      08 22 22.3 -0.1
      comp=Z,30nm,1.4s,mb5.0
X13A  Yucca             81.45  54   P      P      08 22 22.9 +0.3
      baz=81,SNR=6.7
Y12C  Blythe            81.47  55 ⇑P      P      08 22 22.4 -0.3
      baz=81
BR131 Keskin Array S    81.55 312  eP      P      08 22 23.0 -0.1
      comp=Z,5.1nm,0.7s,mb4.6
BR131                              epP     pP     08 22 35.1 +0.1
BRTR  Keskin Array B    81.55 312   P      P      08 22 23.6 +0.5
      comp=Z,8.5nm,0.9s,mb4.7,baz=92,slow=3.8,SNR=35
BRTR                                LR     LR     09 04 48.8
      comp=Z,53nm,18.0s,MS4.0,baz=328,slow=40
W14A  Seligman          81.60  53   P      P      08 22 23.7 +0.3
      baz=81,SNR=9.9
GLA   Glamis            81.66  56 ⇑P      P      08 22 24.1 +0.4
      baz=81
VRI   Vrincioaia        81.67 320   P      P      08 22 25.7 +2.1
VRI   Vrincioaia        81.67 320⇑iP      P      08 22 24.6 +1.0
ULM   Lac du Bonnet     81.78  33   P      P      08 22 23.2 -0.8
      comp=Z,11nm,1.1s,mb4.7,baz=311,slow=7.2,SNR=12
KOLS  Kolonicke sedl    81.87 325  eP      P      08 22 24.9 +0.3
Y13A  Salome            81.90  55 ⇓P      P      08 22 25.4 +0.3
      baz=82
STHS  Stebnicka Huta    82.02 326  eP      P      08 22 26.6 +1.2
      comp=Z,11nm,1.3s,mb4.6
STHS  Stebnicka Huta    82.02 326  eP      P      08 22 26.6 +1.2
STHS                                pmax   pmax
      comp=Z,11nm,1.3s,mb4.6
UZH   Uzhgorod          82.06 325  eP      P      08 22 26.0 +0.4
OJC   Ojcow             82.13 327  eP      P      08 22 26.4 +0.5
X14A  Yava              82.16  54   P      P      08 22 26.9 +0.5
      baz=82,SNR=5.3
W15A  Williams          82.16  53 ⇑P      P      08 22 26.4  0.0
      baz=82
CRVS  Cervenica-Dubn    82.28 325  eP      P      08 22 27.0 +0.3
MLR   Muntele Rosu      82.33 321   P      P      08 22 28.5 +1.4
MLR   Muntele Rosu      82.33 321⇓iP      P      08 22 28.4 +1.3
PV10  Paradox Valley    82.34  49  eP      P      08 22 27.8 +0.5
Y14A  Wickenburg        82.39  54 ⇓P      P      08 22 27.3 -0.3
      baz=82
NIE   Niedzica          82.46 326  eP      P      08 22 28.7 +1.1
PPT   Papeete           82.53 117   LR     LR     08 53 14.8
      comp=Z,168nm,21.0s,MS4.4,baz=1.4,slow=31
WUAZ  Wupatki           82.55  52  eP      P      08 22 28.2 -0.2
      comp=Z,28nm,1.6s,mb5.0
WUAZ  Wupatki           82.55  52 ⇓P      P      08 22 27.7 -0.7
      baz=82
X15A  Humboldt          82.58  53   P      P      08 22 29.1 +0.5
      baz=82,SNR=9.9
PHWY  Pilot Hill        82.71  45  eP      P      08 22 28.7 -0.4
Z14A  Wintersburg       82.76  55 ⇑P      P      08 22 28.2 -1.3
      baz=82
PV01  Paradox Valley    82.78  49  eP      P      08 22 29.9 +0.3
KECS  Kecovo            83.03 325  eP      P      08 22 31.4 +0.7
      comp=Z,8.2nm,1.4s,mb4.6
KECS  Kecovo            83.03 325  eP      P      08 22 31.4 +0.7
KECS                                pmax   pmax
      comp=Z,8.0nm,1.4s,mb4.6
DRGR                    83.12 323   P      P      08 22 32.1 +1.0
SMCO  Snowmass          83.13  47  eP      P      08 22 30.8 -0.5
      comp=Z,29nm,1.5s,mb5.1
OKC   Ostrava-Krasne    83.15 327  eP      P      08 22 31.9 +0.7
AGMN  Agassiz Refuge    83.15  35  eP      P      08 22 29.9 -1.4
      comp=Z,24nm,1.3s,mb5.1
KSP   Ksiaz             83.23 329  eP      P      08 22 31.9 +0.3
KSP   Ksiaz             83.23 329  eP      P      08 22 31.7 +0.1
BSEG  Bad Segeberg      83.27 334  eP      P      08 22 32.2 +0.4
BSEG                                pmax   pmax
      comp=Z,9.0nm,0.6s,mb5.0
BSEG  Bad Segeberg      83.27 334  eP      P      08 22 32.2 +0.4
      comp=Z,9.0nm,0.6s,mb5.0
MVCO  Mesa Verde        83.39  49  eP      P      08 22 32.7  0.0
      comp=Z,15nm,1.3s,mb4.9
MVCO  Mesa Verde        83.39  49   P      P      08 22 33.3 +0.6
      baz=83,SNR=7.7
MORC  Moravsky Berou    83.46 328  eP      P      08 22 33.3 +0.5
      comp=Z,28nm,1.3s,mb5.1
MORC  Moravsky Berou    83.46 328  eP      P      08 22 33.3 +0.4
MORC                                pmax   pmax
      comp=Z,28nm,1.3s,mb5.1
MORC  Moravsky Berou    83.46 328⇓iP      P      08 22 33.5 +0.6
ISCO  Idaho Springs     83.56  46  eP      P      08 22 33.7 +0.2
      comp=Z,20nm,1.4s,mb5.0
ISCO  Idaho Springs     83.56  46  eP      P      08 22 33.7 +0.1
ISCO                                pmax   pmax
      comp=Z,20nm,1.4s,mb5.0
DPC   Dobruska-Polom    83.58 329  eP      P      08 22 34.1 +0.7
DPC                                epP     pP     08 22 46.9 +1.6
UPC   Upice             83.60 329  eP      P      08 22 34.1 +0.6
UPC                                epP     pP     08 22 41.8 -3.6
115A  Sonoran Desert    83.64  55 ⇑P      P      08 22 34.1  0.0
      baz=83
PSZ   Piszkesteto       83.71 325  eP      P      08 22 34.3 +0.2
      comp=Z,72nm,1.4s,mb5.6
PSZ   Piszkesteto       83.71 325  eP      P      08 22 34.3 +0.1
PSZ                                 pmax   pmax
      comp=Z,72nm,1.4s,mb5.6
PSZ   Piszkesteto       83.71 325⇓eP      P      08 22 35.1 +0.9
PSZ   Piszkesteto       83.71 325⇓iP      P      08 22 35.0 +0.8
VYHS  Vyhne             83.80 326  eP      P      08 22 35.2 +0.6
      comp=Z,23nm,1.3s,mb5.2
VYHS                               ePP     PP     08 25 48.3 +0.9
VYHS  Vyhne             83.80 326  eP      P      08 22 35.2 +0.6
VYHS                                pmax   pmax
      comp=Z,23nm,1.3s,mb5.2
GZR   Gura Zlata        84.05 322   P      P      08 22 36.5 +0.6
116A  Eloy              84.08  55 ⇓P      P      08 22 36.0 -0.3
      baz=84
PVCC  Panska Ves        84.20 330  eP      P      08 22 37.1 +0.5
PVCC                               epP     pP     08 22 49.2 +0.7
BRG   Berggiesshubel    84.20 330  i P     P      08 22 36.5 -0.1
BRG                                e       pP     08 22 48.6 +0.1
BRG                                 pmax   pmax
      comp=Z,16nm,1.3s,mb5.0
BRG   Berggiesshubel    84.20 330  eP      P      08 22 36.6  0.0
      comp=Z,27nm,1.3s,mb5.2
BRG   Berggiesshubel    84.20 330  i P     P      08 22 36.5 -0.1
      comp=Z,27nm,1.3s,mb5.2
BRG                                e       pP     08 22 48.6 +0.1
VRAC  Vranov            84.23 328   P      P      08 22 37.8 +1.0
VRAC  Vranov            84.23 328⇓iP      P      08 22 37.3 +0.5
CLL   Collm             84.26 331⇓iP      P      08 22 36.6 -0.3
      comp=Z,45nm,1.3s,mb5.4
CLL                                i pP    pP     08 22 47.8 -1.0
CLL   Collm             84.26 331⇓iP      P      08 22 36.6 -0.3
CLL                                i *PP   pP     08 22 47.8 -1.0
CLL                                 pmax   pmax
      comp=Z,45nm,1.3s,mb5.4
CLL   Collm             84.26 331  eP      P      08 22 36.5 -0.4
      comp=Z,46nm,1.3s,mb5.5
CLL                                ePcP    PcP    08 22 40.0 -0.6
CLL                                epP     pP     08 22 47.7 -1.1
CLL                                ePP     PP     08 25 51.3 +0.3
CLL   Collm             84.26 331⇓iP      P      08 22 36.6 -0.3
      comp=Z,45nm,1.3s,mb5.4
CLL                                i PcP   PcP    08 22 39.9 -0.7
CLL                                i pP    pP     08 22 47.8 -1.0
CLL                                ex      x      08 23 02.0
CLL                                ePP     PP     08 25 51.0  0.0
BUD   Budapest          84.44 325⇑eP      P      08 22 39.1 +1.2
BZS   Buzias            84.48 323   P      P      08 22 38.9 +0.7
PRU   Pruhonice         84.62 329  eP      P      08 22 38.7  0.0
PRU                                e       pP     08 22 50.2 -0.4
PRU   Pruhonice         84.62 329  eP      P      08 22 38.7  0.0
PRU                                epP     pP     08 22 50.2 -0.4
PRU                                ex      x      08 46 41.1
ZST   Bratislava        84.81 327  eP      P      08 22 40.7 +0.9
      comp=Z,15nm,1.2s,mb5.0
ZST   Bratislava        84.81 327  eP      P      08 22 40.7 +0.9
ZST                                 pmax   pmax
      comp=Z,15nm,1.2s,mb5.0
CLZ   Clausthal         84.89 332  eP      P      08 22 39.7 -0.3
CLZ                                 pmax   pmax
      comp=Z,37nm,1.2s,mb5.4
CLZ   Clausthal         84.89 332  eP      P      08 22 39.7 -0.3
      comp=Z,37nm,1.2s,mb5.4
SDCO  Great Sand Dun    84.92  47  eP      P      08 22 40.4 -0.1
      comp=Z,15nm,1.2s,mb5.0
TANN  Tannenbergstha    85.16 330  eP      P      08 22 41.4 -0.1
      comp=Z,20nm,1.4s,mb5.0
NKC   Novy Kostel       85.31 330  eP      P      08 22 42.4 +0.2
NKC                                epP     pP     08 22 54.7 +0.6
MOX   Moxa              85.33 331  eP      P      08 22 42.6 +0.3
      comp=Z,44nm,1.6s,mb5.3
MOX   Moxa              85.33 331  eP      P      08 22 42.6 +0.3
MOX                                 pmax   pmax
      comp=Z,44nm,1.6s,mb5.3
MOX   Moxa              85.33 331  eP      P      08 22 42.1 -0.2
      comp=Z,34nm,1.4s,mb5.3
EYMN  Ely               85.44  33  eP      P      08 22 42.1 -0.8
SOP   Sopron            85.44 327⇑eP      P      08 22 44.2 +1.3
IBBN  Ibbenburen        85.50 334  eP      P      08 22 43.7 +0.6
      comp=Z,18nm,0.7s,mb5.3
```

PKSM	Moragy	85.53	325	⇑*i*P	P	08 22 42.8	-0.6
CONA	Conrad Observa	85.58	327	⇑*i*PcP	PcP	08 22 44.0	-2.5
	comp=Z,21nm,1.6s						
MANZ	Manzenberg	85.64	330	*e*P	P	08 22 44.4	+0.6
	comp=Z,26nm,1.2s,mb5.3						
KHC	Kasperske Hory	85.68	329	*e*P	P	08 22 44.1	+0.1
KHC				*e*pP	pP	08 22 54.3	-1.7
ROTZ	Rotzenmuhle	85.77	330	*e*P	P	08 22 44.2	-0.3
	comp=Z,38nm,1.3s,mb5.5						
UBBA	Unterbreizbach	85.84	332	*e*P	P	08 22 44.6	-0.2
	comp=Z,11nm,1.2s,mb5.0						
GEC2	GERESS Array S	85.84	329	*e*P	P	08 22 44.3	-0.6
GEC2				pmax	pmax		
	comp=Z,11nm,1.2s,mb5.0						
GEC2	GERESS Array S	85.84	329	*e*P	P	08 22 44.3	-0.6
	comp=Z,11nm,1.2s,mb5.0						
GERES	GERESS Array B	85.84	329	P	P	08 22 44.7	-0.1
	comp=Z,3.8nm,0.9s,mb4.6,baz=36,slow=5.0,SNR=21						
GERES				LR	LR	09 06 27.9	
	comp=Z,156nm,18.5s,MS4.4,baz=276,slow=39						
WET	Wettzell	85.96	329	*e*P	P	08 22 46.1	+0.6
WET				pmax	pmax		
	comp=Z,18nm,1.4s,mb5.1						
WET	Wettzell	85.96	329	*e*P	P	08 22 46.1	+0.6
	comp=Z,18nm,1.4s,mb5.1						
ECSD	EROS,Sioux Fal	85.98	38	*e*P	P	08 22 44.9	-0.8
	comp=Z,28nm,1.3s,mb5.3						
ANMO	Albuquerque	86.08	50	*e*P	P	08 22 46.1	-0.3
	comp=Z,14nm,1.3s,mb5.0						
ANMO	Albuquerque	86.08	50	⇓*e*P	P	08 22 45.6	-0.7
GRA1	Grafenberg Arr	86.23	331	*e*P	P	08 22 47.1	+0.3
	comp=Z,78nm,1.3s,mb5.8						
GRA1				*e*pP	pP	08 22 58.1	-0.6
GRF	Grafenberg Arr	86.23	331	*e*P	P	08 22 47.1	+0.3
GRF				*e**PP	pP	08 22 58.1	-0.6
GRF				pmax	pmax		
	comp=Z,78nm,1.3s,mb5.8						
GRF	Grafenberg Arr	86.23	331	*e*P	P	08 22 47.1	+0.3
GRF				*e**PP	pP	08 22 58.1	-0.6
GRF				pmax	pmax		
	comp=Z,78nm,1.3s,mb5.8						
GRF	Grafenberg Arr	86.23	331	*e*P	P	08 22 47.1	+0.3
	comp=Z,78nm,1.3s,mb5.8						
GRF				*e*pP	pP	08 22 58.1	-0.6
ARSA	Arzberg	86.23	327	⇑*i*P	P	08 22 47.5	+0.7
	comp=Z,12nm,1.3s,mb5.0						
ARSA	Arzberg	86.23	327	⇑*i*PcP	PcP	08 22 47.5	-1.9
	comp=Z,12nm,1.3s						
GRFO	Grafenberg	86.23	331	*e*P	P	08 22 47.1	+0.3
	comp=Z,18nm,1.0s,mb5.2						
GRFO				*e*pP	pP	08 22 58.5	-0.2
GRFO	Grafenberg	86.23	331	*e*P	P	08 22 47.1	+0.3
GRFO				*e**PP	pP	08 22 58.5	-0.2
GRFO				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.3						
MOA	Molln	86.35	328	⇑*i*P	P	08 22 48.0	+0.6
	comp=Z,16nm,1.6s,mb5.0						
MOA	Molln	86.35	328	⇑*i*PcP	PcP	08 22 48.0	-1.9
	comp=Z,16nm,1.6s						
BUG	Bochum--Univer	86.38	334	*e*P	P	08 22 47.1	-0.4
	comp=Z,52nm,1.3s,mb5.6						
BNM	Barren Site	86.47	51	*e*P	P	08 22 48.2	-0.1
PERS	Pernice	86.88	327	*e*P	P	08 22 50.0	0.0
TNS	Taunus Mts	86.91	332	*e*P	P	08 22 50.1	0.0
TNS				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.2						
TNS	Taunus Mts	86.91	332	*e*P	P	08 22 50.1	0.0
	comp=Z,17nm,1.1s,mb5.2						
KBA	Koelnbreinsper	87.34	328	⇑*i*P	P	08 22 51.6	-0.6
	comp=Z,9.8nm,1.5s,mb4.8						
KBA	Koelnbreinsper	87.34	328	⇑*i*P	P	08 22 51.6	-0.6
KBA				pmax	pmax		
	comp=Z,10.0nm,1.5s,mb4.8						
BOJS	Bojanci	87.66	326	*i* P	P	08 22 53.3	-0.5
BOJS				*i* pP	pP	08 23 06.4	+0.6
JAVS	Javornik	87.92	327	*i* P	P	08 22 54.0	-1.0
JAVS				*e*pP	pP	08 23 08.7	+1.7
SCHQ	Schefferville	88.22	16	P	P	08 22 55.6	-0.7
	comp=Z,11nm,1.1s,mb5.0,baz=298,slow=6.0,SNR=5.6						
SCHQ				LR	LR	09 07 00.6	
	comp=Z,80nm,18.9s,MS4.2,baz=285,slow=39						
BAIF	Baives	88.63	335	*e*P	P	08 22 56.8	-1.5
CDF	Champ du Feu	88.83	332	*e*P	P	08 22 57.9	-1.4
AMTX	Amarillo	89.12	48	*e*P	P	08 23 01.2	+0.3
HAU	Haudompre	89.52	332	*e*P	P	08 23 00.8	-1.7
LOR	Lormes	91.08	333	*e*P	P	08 23 08.4	-1.4
	comp=Z,40nm,1.4s,mb5.3						
LOR	Lormes	91.08	333	*e*P	P	08 23 08.4	-1.4
	comp=Z,20nm,1.4s,mb5.2						
LOR	Lormes	91.08	333	*e*P	P	08 23 08.4	-1.4
LOR				pmax	pmax		
	comp=Z,20nm,1.4s,mb5.2						
FLN	La Foliniere	91.35	336	*e*P	P	08 23 09.3	-1.7
	comp=Z,221nm,1.9s,mb5.9						
FLN	La Foliniere	91.35	336	*e*P	P	08 23 09.3	-1.7
	comp=Z,110nm,1.9s,mb5.9						
FLN	La Foliniere	91.35	336	*e*P	P	08 23 09.3	-1.7
FLN				pmax	pmax		
	comp=Z,110nm,1.9s,mb5.9						
SSF	Saint Saulge	91.38	333	*e*P	P	08 23 09.3	-1.9
LPL	La Plagne	91.39	331	*e*P	P	08 23 10.2	-1.1
	comp=Z,32nm,1.2s,mb5.2						
LPG	La Plagne	91.40	330	*e*P	P	08 23 10.5	-0.8
	comp=Z,29nm,1.0s,mb5.2						
LTX	Lajitas	91.48	53	*e*P	P	08 23 12.1	0.0
	comp=Z,15nm,1.4s,mb5.1						
LTX	Lajitas	91.48	53	*e*P	P	08 23 12.1	+0.1
LTX				pmax	pmax		
	comp=Z,15nm,1.4s,mb5.1						
TXAR	Lajitas Array	91.48	53	P	P	08 23 11.9	-0.1
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
TXAR				MLR	MLR		
	comp=Z,124nm,19.2s						
TXAR	Lajitas Array	91.48	53	P	P	08 23 11.9	-0.1
	comp=Z,1.9nm,0.6s,mb4.6,baz=307,slow=3.2,SNR=28						
TXAR				LR	LR	09 02 25.7	
	comp=Z,124nm,19.2s,MS4.4,baz=65,slow=34						
SMF	Signal de Mont	91.61	333	*e*P	P	08 23 10.6	-1.7
	comp=Z,109nm,1.8s,mb5.6						
SMF	Signal de Mont	91.61	333	*e*P	P	08 23 10.6	-1.7
	comp=Z,54nm,1.8s,mb5.6						
SMF	Signal de Mont	91.61	333	*e*P	P	08 23 10.6	-1.7
SMF				pmax	pmax		
	comp=Z,55nm,1.8s,mb5.6						
AVF	Avril sur Loir	91.67	333	*e*P	P	08 23 11.1	-1.5
	comp=Z,43nm,1.2s,mb5.4						
AVF	Avril sur Loir	91.67	333	*e*P	P	08 23 11.1	-1.5
	comp=Z,22nm,1.2s,mb5.4						
AVF	Avril sur Loir	91.67	333	*e*P	P	08 23 11.1	-1.5
AVF				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.4						
GRR	Gorron	91.80	336	*e*P	P	08 23 11.7	-1.4
	comp=Z,233nm,1.9s,mb5.9						
GRR	Gorron	91.80	336	*e*P	P	08 23 11.7	-1.4
	comp=Z,116nm,1.9s,mb5.9						
GRR	Gorron	91.80	336	*e*P	P	08 23 11.7	-1.4
GRR				pmax	pmax		
	comp=Z,116nm,1.9s,mb5.9						
MIAR	Mount Ida	94.17	43	*e*P	P	08 23 23.9	-0.5
	comp=Z,8.7nm,1.1s,mb5.1						
MIAR				*e*pP	pP	08 23 35.8	-0.5
MIAR	Mount Ida	94.17	43	*e*P	P	08 23 23.9	-0.4
MIAR				*e**PP	pP	08 23 35.8	-0.6
MIAR				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.1						
KEST	Kesra	98.03	323	LR	LR	09 14 50.2	
	comp=Z,45nm,20.0s,MS4.0,baz=281,slow=40						
TORD	Torodi Ar. Bea	120.12	314	PKP	PKPdf	08 28 55.9	-0.8
TORD	Torodi Ar. Bea	120.12	314	PKP	PKPdf	08 28 55.9	-0.8
	comp=Z,0.8nm,0.5s,baz=21,slow=1.4,SNR=18						
LPAZ	La Paz	147.53	65	*e*Pdif	PKPdf	08 29 48.7	+1.4
LPAZ	La Paz	147.53	65	PKPbc	PKPbc	08 29 50.6	+0.7
	comp=Z,7.6nm,0.7s,baz=331,slow=3.6,SNR=22						
LCO	Las Campanas	151.49	89	*e*PKPbc	PKPbc	08 29 59.3	-0.2

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*IDC **14** 08:12:28.3±1.5, 5.87N×126.65E, h0^{km}, mb3.6/5, mb1 3.8/5, mb1mx3.6/19, mbtmp3.6/5, Error ellipse: s-maj=108.2km s-min=21.1km az=72.0*

*ISCJB **14** 08:12:31.7±1.2, 5.8N±0.2×126.5E±0.2, h33^{km}, mb3.5/5, Error ellipse: s-maj=33.9km s-min=15.9km az=143.2*

ISC 14 08:12:33.9±1.2**, 5.8N**±0.2×**126.4E**±0.2**, h35^{km}, n6, σ0^{s}33**/6**,**
mb3.5/5**, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	General Santos	1.47	283	⇑*e*P	Pn	08 12 57.9	0.0
FITZ	Fitzroy Crossi	23.72	182	P	P	08 17 42.7	-0.2
	0.7nm,0.5s,mb3.3,baz=3.4,slow=17,SNR=2.7						
WRA	Warramunga Arr	26.71	163	P	P	08 18 10.0	-0.1
	0.5nm,0.5s,mb3.3,baz=344,slow=10,SNR=7.2						
ASAR	Alice Springs	30.15	166	P	P	08 18 41.0	+0.3
	0.1nm,0.3s,mb3.0,baz=347,slow=6.9,SNR=3.1						
MKAR	Makanchi Array	55.71	325	P	P	08 22 07.2	+0.3
	0.4nm,0.4s,mb3.8,baz=118,slow=7.6,SNR=5.2						
ARCES	ARCESS Array B	88.44	340	P	P	08 25 21.8	-0.3
	1.7nm,0.8s,mb4.3,baz=82,slow=6.8,SNR=2.9						

IDC 14 08:33:52.4±1.2**, 46.38N**×**156.12E, h0^{km}, mb3.6**/4**, mb1 3.9**/4**, mb1mx3.4**/22**, mbtmp3.6**/4**, Error ellipse: s-maj=44.3km s-min=34.1km az=132.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	48.95	299	P	P	08 42 40.4	+0.3
	0.4nm,0.6s,baz=70,slow=8.2,SNR=3.6						
WRA	Warramunga Arr	68.89	202	P	P	08 44 58.0	-0.8
	0.4nm,0.7s,baz=18,slow=6.1,SNR=3.7						
ASAR	Alice Springs	72.56	201	P	P	08 45 21.9	+0.7
	0.4nm,0.7s,baz=17,slow=5.4,SNR=6.5						
TXAR	Lajitas Array	75.85	62	P	P	08 45 40.6	+0.1
	0.5nm,0.6s,baz=294,slow=4.6,SNR=7.2						

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*ISCJB **14** 08:46:05.4±0.3, 32.64N±0.02×115.53W±0.02, h22^{km}±3^{km}, Error ellipse: s-maj=4.2km s-min=2.9km az=150.9*

*ECX **14** 08:46:06.1±0.7, 32.54N×115.58W, h4^{km}, MD2.8, ML2.9*

ISC 14 08:46:05.6±0.4**, 32.64N**±0.02×**115.55W**±0.02**, h18^{km}**±2^{km}**,**
n31, σ0^{s}66/48**, 19C-18D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGL	Mount Signal	0.15	274	⇑*i*P	Pg	08 46 09.5	-0.4
SNR	Schaffner Ranc	0.24	22	⇓*i*P	Pg	08 46 12.7	+1.4
COK	Cook Ranch	0.26	324	⇓*i*P	Pg	08 46 12.2	+0.7
COK				*e*S	Sg	08 46 17.2	+1.7
CPBX	Cerro Prieto	0.30	137	⇑*e*P	Pg	08 46 10.5	-1.7
CPBX				*e*S	Sg	08 46 15.2	-1.5
CPBX				⇑*e*		08 46 18.8	
	comp=E,6μm,0.2s						
CPBX				⇓*e*		08 46 21.4	
	comp=N,6μm,0.2s						
YUH	Yuha Desert	0.32	272	⇑*i*P	Pg	08 46 12.1	-0.4
YUH				*e*S	Sg	08 46 16.4	-0.7
SWSC	Sam W. Stewart	0.37	325	P	Pg	08 46 13.6	+0.2
	baz=0.4,SNR=84						
SWSC				⇑S	Sg	08 46 19.1	+0.5
	baz=0.4						
COA	Coachella	0.42	58	⇑*i*P	Pg	08 46 15.5	+1.2
RMX	La Rumorosa	0.45	266	*e*S	Sg	08 46 20.5	-0.5
DVTC	Desert V Tower	0.47	273	⇑P	Pg	08 46 14.8	-0.4
	baz=0.5						
DVTC				⇑S	Sg	08 46 21.1	-0.4
	baz=0.5						
GLA	Glamis	0.73	55	⇑P	Pb	08 46 20.0	+0.2
	baz=0.8,SNR=21						
GLA				⇓S	Sb	08 46 30.0	+0.6
	baz=0.8						
MONP	Monument Peak	0.78	289	P	Pb	08 46 20.6	0.0
	baz=0.8,SNR=219						
MONP				⇓S	Sb	08 46 30.6	-0.2
	baz=0.8						
CBX	Cerro Bola	1.00	251	*e*P	Pb	08 46 24.4	+0.1
CBX				*e*S	Sb	08 46 36.7	-0.4
BC3	Big Chuckw Mtn	1.02	4	P	Pb	08 46 24.3	-0.4
	baz=1.1,SNR=16						
BC3				⇑S	Sb	08 46 37.3	-0.4
	baz=1.1						
ENX	Ensenada	1.21	232	⇓*e*P	Pn	08 46 28.1	+0.5
ENX				*e*S	Sb	08 46 43.5	+0.3
PFO	Pinyon Flat Ob	1.23	322	P	Pn	08 46 27.1	-0.8
	baz=1.3,SNR=131						
PFO				⇓S	Sb	08 46 42.8	-1.1
	baz=1.3						
ECNX	Esteban Cantu	1.32	223	⇓*e*P	Pn	08 46 30.3	+1.1
ECNX				*e*S	Sn	08 46 47.0	+0.7
109C	Camp Elliot, M	1.34	281	⇓P	Pn	08 46 29.4	+0.1
	baz=1.3,SNR=26						
109C				⇓S	Sn	08 46 46.6	0.0
	baz=1.3						
PBX	Punta Banda	1.34	229	⇓*e*P	Pn	08 46 30.1	+0.7
PBX				*e*S	Sn	08 46 47.3	+0.6
Y12C	Blythe	1.40	37	⇑P	Pn	08 46 30.6	+0.4
	baz=1.5						
Y12C				⇑S	Sn	08 46 48.2	0.0
	baz=1.5						
BELC	Belle Mtn.	1.41	345	⇓S	Sn	08 46 48.0	-0.4
	baz=1.5						
IRM	Iron Mountain	1.55	12	⇑S	Sn	08 46 51.6	-0.4
	baz=1.6						
Y13A	Salome	1.86	50	⇓S	Sn	08 46 58.5	-1.0
	baz=1.9						
NEE2	Needles Airpor	2.26	20	⇓S	Sn	08 47 08.7	-0.7
	baz=2.4						
Z14A	Wintersburg	2.30	71	⇑P	Pn	08 46 43.0	+0.4
	baz=2.4						
Z14A				⇓S	Sn	08 47 10.4	0.0
	baz=2.4						
X13A	Yucca	2.42	36	⇑S	Sn	08 47 13.7	+0.4
	baz=2.5						
Y14A	Wickenburg	2.49	58	⇑S	Sn	08 47 15.0	-0.1
	baz=2.6						
115A	Sonoran Desert	2.80	88	⇓P	Pn	08 46 49.7	+0.3
	baz=2.8						
115A				⇑S	Sn	08 47 23.1	+0.4
	baz=2.8						
W13A	Hualapai Mount	2.82	29	⇓S	Sn	08 47 22.7	-0.4
	baz=2.9						
116A	Eloy	3.24	90	⇓P	Pn	08 46 55.4	-0.1
	baz=3.3						
W14A	Seligman	3.28	38	⇑S	Sn	08 47 35.0	+0.3
	baz=3.4						
X15A	Humboldt	3.32	55	⇑S	Sn	08 47 35.2	-0.4
	baz=3.4						

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*ISCJB **14** 08:51:13.5±0.3, 32.67N±0.02×115.55W±0.02, h25^{km}±2^{km}, Error ellipse: s-maj=3.5km s-min=2.5km az=146.5*

*NEIC **14** 08:51:14.8, 32.62N×115.58W, h5^{km}, ML3.7(PAS), ML3.6(ECX), After ECX.*

NEIC Felt [IV] at Mexicali.

*ECX **14** 08:51:14.8±0.7, 32.62N×115.58W, h5^{km}, MD3.3, ML3.6*

ISC 14 08:51:13.7±0.3**, 32.67N**±0.02×**115.57W**±0.02**, h19^{km}**±2^{km}**,**
n59, σ0^{s}82/91**, 38C-27D, California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ERPC	Ernies Place	0.10	313	⇑*i*P	Pg	08 51 17.8	+0.3
SGL	Mount Signal	0.13	260	⇑*i*P	Pg	08 51 17.0	-0.8
WESC	Westside Schoo	0.16	303	⇑*i*P	Pg	08 51 18.5	+0.3
COK	Cook Ranch	0.22	324	⇓*i*P	Pg	08 51 19.6	+0.6
SNR	Schaffner Ranc	0.22	31	⇓*i*P	Pg	08 51 20.1	+1.1
SWSC	Sam W. Stewart	0.33	325	⇓*i*P	Pg	08 51 21.1	+0.3
SWSC	Sam W. Stewart	0.33	325	⇑P	Pg	08 51 21.1	+0.3
	baz=0.4,SNR=949						
SWSC				⇑S	Sg	08 51 27.1	+1.5
	baz=0.4						
CPBX	Cerro Prieto	0.34	138	⇑*e*P	Pg	08 51 20.1	-0.9
CPBX				*e*S	Sg	08 51 24.9	-1.0
CPBX				⇓*e*		08 51 35.2	
	comp=N,56μm,0.2s						
CRR	Carrizo Plain	0.40	303	⇑*i*P	Pg	08 51 22.2	+0.2
COA	Coachella	0.42	63	⇑*i*P	Pg	08 51 23.0	+0.6
RMX	La Rumorosa	0.43	261	⇑*e*P	Pg	08 51 22.2	-0.4
RMX				*e*S	Sg	08 51 28.8	+0.2
RMX				⇑*e*		08 51 29.1	
	comp=E,2μm,0.2s						
RMX	La Rumorosa	0.43	261	⇑*e*P	Pg	08 51 22.2	-0.4
RMX				*e*S	Sg	08 51 28.8	+0.2
DVTC	Desert V Tower	0.45	269	⇓P	Pg	08 51 22.3	-0.5
	baz=0.5,SNR=112						
DVTC				⇓S	Sg	08 51 28.7	-0.3
	baz=0.5						
BTCC	Brunts Corner	0.45	41	⇓*i*P	Pg	08 51 23.3	+0.4
GLA	Glamis	0.73	59	⇑*i*P	Pb	08 51 28.0	+0.2
GLA	Glamis	0.73	59	P	Pb	08 51 27.6	-0.2
	baz=0.8,SNR=335						
GLA				⇑S	Sb	08 51 37.7	+0.2
	baz=0.8						
MONP	Monument Peak	0.75	287	P	Pb	08 51 28.0	0.0
	baz=0.8,SNR=972						
MONP				⇑S	Sb	08 51 38.2	+0.4
	baz=0.8						
BC3	Big Chuckw Mtn	0.99	6	P	Pb	08 51 31.8	-0.4
	baz=1.1,SNR=190						
BC3				⇓S	Sb	08 51 45.1	+0.4
	baz=1.1						
CBX	Cerro Bola	0.99	249	*e*P	Pb	08 51 31.8	-0.3
CBX				*e*S	Sb	08 51 44.8	0.0
PFO	Pinyon Flat Ob	1.19	322	*e*Pg	Pg	08 51 34.5	-2.2
PFO				*e*Sg	Sg	08 51 50.5	-1.9
PFO	Pinyon Flat Ob	1.19	322	P	Pn	08 51 34.6	-0.7
	baz=1.3,SNR=1000						
PFO				⇓S	Sb	08 51 50.3	-0.4
	baz=1.3						
ENX	Ensenada	1.22	230	⇓*e*P	Pn	08 51 35.5	-0.1
ENX				*e*S	Sb	08 51 51.4	+0.1
CCX	Cicese	1.22	229	⇑*e*P	Pn	08 51 35.6	-0.2
CCX				*e*S	Sb	08 51 51.7	+0.2
ECBX	El Chinero	1.28	160	⇑*e*P	Pn	08 51 36.8	+0.3
ECBX				*e*S	Sn	08 51 55.0	+1.9
109C	Camp Elliot, M	1.31	280	⇓P	Pn	08 51 36.9	0.0
	baz=1.3,SNR=214						
109C				⇓S	Sn	08 51 54.1	+0.2
	baz=1.3						
ECNX	Esteban Cantu	1.33	221	⇑*e*P	Pn	08 51 36.8	-0.5
ECNX				*e*P		08 51 35.6	
ECNX				*e*S	Sn	08 51 51.7	-2.7
ECNX				*e*S	Sn	08 51 55.0	+0.5
PBX	Punta Banda	1.35	227	⇑*e*P	Pn	08 51 37.7	+0.2
PBX				*e*S	Sn	08 51 55.2	+0.5
BELC	Belle Mtn.	1.37	345	⇓P	Pn	08 51 37.5	-0.3
	baz=1.5,SNR=5.5						
BELC				⇓S	Sn	08 51 54.6	-0.8
	baz=1.5						
Y12C	Blythe	1.39	39	⇓P	Pn	08 51 37.4	-0.6
	baz=1.5,SNR=33						
Y12C				⇓S	Sn	08 51 55.3	-0.5
	baz=1.5						
IRM	Iron Mountain	1.53	13	⇑P	Pn	08 51 39.4	-0.5
	baz=1.6,SNR=47						
IRM				⇑S	Sn	08 51 59.0	-0.2
	baz=1.6						
MURC	Murrieta	1.65	305	⇓P	Pn	08 51 41.2	-0.4
	baz=1.7,SNR=218						
Y13A	Salome	1.85	52	⇑P	Pn	08 51 44.4	0.0
	baz=1.9,SNR=18						
Y13A				⇑S	Sn	08 52 06.3	-1.0
	baz=1.9						
BBRC	Big Bear Sol-O	1.95	325	P	Pn	08 51 46.3	+0.6
	baz=2.0,SNR=43						
PDMCI	Parker Dam,Lak	2.02	36	⇓S	Sn	08 52 10.6	-0.8
	baz=2.1						
GMRC	Granite Mounta	2.10	358	⇑S	Sn	08 52 12.1	-1.3
	baz=2.2						
NEE2	Needles Airpor	2.24	21	⇑P	Pn	08 51 50.0	+0.3
	baz=2.3,SNR=8.2						
NEE2				⇑S	Sn	08 52 16.0	-0.8
	baz=2.3						
Z14A	Wintersburg	2.31	72	⇑P	Pn	08 51 50.3	-0.4
	baz=2.3,SNR=52						
Z14A				⇓S	Sn	08 52 17.7	-0.9
	baz=2.3						
BFSC	Mount Baldy St	2.34	312	⇓P	Pn	08 51 51.5	+0.4
	baz=2.4,SNR=9.7						
X13A	Yucca	2.41	37	⇑P	Pn	08 51 52.4	+0.4
	baz=2.5,SNR=29						
X13A				⇑S	Sn	08 52 20.8	-0.1
	baz=2.5						
Y14A	Wickenburg	2.49	59	⇓P	Pn	08 51 53.3	+0.1
	baz=2.5						
Y14A				⇓S	Sn	08 52 22.9	-0.1
	baz=2.5						
W13A	Hualapai Mount	2.80	30	P	Pn	08 51 58.1	+0.8
	baz=2.9,SNR=25						
W13A				⇑S	Sn	08 52 30.2	-0.4
	baz=2.9						
115A	Sonoran Desert	2.82	89	⇑P	Pn	08 51 57.3	-0.4
	baz=2.8,SNR=400						
115A				⇓S	Sn	08 52 30.7	-0.4
	baz=2.8						
X14A	Yava	2.87	51	⇓P	Pn	08 51 58.2	-0.1
	baz=2.9,SNR=15						
EDW2	Edwards Air Fo	2.98	318	⇓P	Pn	08 52 00.5	+0.6
	baz=3.1						
V12A	Nelson	3.10	11	⇑P	Pn	08 52 02.2	+0.6
	baz=3.2,SNR=15						
V12A				⇑S	Sn	08 52 37.5	-0.6
	baz=3.2						
116A	Eloy	3.27	91	⇑P	Pn	08 52 03.0	-0.9
	baz=3.3,SNR=53						
W14A	Seligman	3.27	39	⇑P	Pn	08 52 04.6	+0.8
	baz=3.4						
W14A				⇑S	Sn	08 52 42.4	+0.1
	baz=3.4						
X15A	Humboldt	3.32	56	⇓P	Pn	08 52 05.2	+0.7
	baz=3.4						
X15A				⇓S	Sn	08 52 42.9	-0.5
	baz=3.4						
DAC	Darwin (Calif)	3.96	336	*e*Pn	Pn	08 52 16.6	+3.2
TUC	Tucson	4.06	94	*e*Pn	Pn	08 52 13.8	-0.9
TUC				*e*Sn	Sn	08 53 07.0	+5.2
WUAZ	Wupatki	4.49	50	*e*Pn	Pn	08 52 23.6	+2.9
WUAZ	Wupatki	4.49	50	⇑S	Sn	08 53 13.7	+1.3
	baz=4.6						
T13A	Saint George	4.55	17	⇑S	Sn	08 53 14.4	+0.6
	baz=4.7						
T14A	Hurricane	4.83	24	⇑S	Sn	08 53 21.8	+1.0
	baz=4.9						
CCUT	Cedar City	5.19	20	*e*Pn	Pn	08 52 32.9	+2.6
MTUM	Tungsten Hills	5.28	333	*e*Pn	Pn	08 52 31.6	+0.2
ARUT	Antelope Range	5.39	18	*e*Pn	Pn	08 52 36.0	+3.0
MSU	Marysvale	6.45	24	*e*Pn	Pn	08 52 51.3	+3.8
SRU	San Rafael	7.62	31	*e*Pn	Pn	08 53 08.1	+4.5
	comp=E,2.6nm,0.6s						

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*INMG **14** 09:11:09.8±0.7, 37.00N×13.69W, h10^{km}, ML2.6, Error ellipse: s-maj=5.2km s-min=4.0km az=92.0*

*CSEM **14** 09:11:11.0±0.3, 37.52N×12.92W, h10^{km}, ML2.6, Error ellipse: s-maj=6.4km s-min=4.1km az=66.0*

*NEIC **14** 09:11:11.4±5.1, 37.37N×13.07W, h10^{km}, MG4.2(MDD), Error ellipse: s-maj=58.5km s-min=9.4km az=62.0*

*MDD **14** 09:11:13.6±2.3, 37.31N×13.03W, h96^{km}±49^{km}, mb3.4/12, Error ellipse: s-maj=18.1km s-min=12.0km az=79.0, PRXIMO*

ISC 14 09:11:11.6±1.0**, 37.33N**±0.05×**13.04W**±0.07**, h10^{km}, n61,**
σ0^{s}72/100**, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMAFR	Mafra	3.37	60	*e*Pn	Pn	09 12 05.1	+0.8
PMAFR				*e*Sn	Sn	09 12 46.5	+2.1
PMAFR				A		09 12 51.5	
	42nm,0.1s						
PMAFR	Mafra	3.37	60	P	Pn	09 12 05.1	+0.8
PMAFR				S	Sn	09 12 46.5	+2.1
	21nm,0.1s						
PMAFR	Mafra	3.37	60	*e*Pn	Pn	09 12 05.1	+0.8
PTEO	Sao Teotonio	3.44	85	*e*Pn	Pn	09 12 05.1	-0.1
PTEO				*e*Sn	Sn	09 12 45.4	-0.6
PTEO				A		09 12 49.4	
	5.8nm,0.2s						
PTEO	Sao Teotonio	3.44	85	*e*Pn	Pn	09 12 05.1	-0.1
PTEO				*e*Sn	Sn	09 12 45.4	-0.6
	5.8nm,0.2s						
MORF	Marmelete	3.50	89	*e*Pn	Pn	09 12 05.5	-0.5
MORF				*e*Sn	Sn	09 12 47.2	-0.2
MORF				A		09 12 53.9	
	7.6nm,0.1s						
MORF	Marmelete	3.50	89	*e*Pn	Pn	09 12 05.5	-0.5
MORF				*e*Sn	Sn	09 12 47.2	-0.2
	7.6nm,0.1s						
PBDV	Barranco-do-Ve	4.07	90	*e*Pn	Pn	09 12 13.7	-0.2
PBDV				*e*Sn	Sn	09 13 01.1	-0.5
PBDV				A		09 13 07.7	
	3.8nm,0.1s						
PBDV	Barranco-do-Ve	4.07	90	*e*Pn	Pn	09 12 13.7	-0.2
PBDV				*e*Sn	Sn	09 13 01.1	-0.5
	3.8nm,0.1s						

PBEJ	Beja	4.16	79	ePn	Pn	09 12 15.7	+0.6
PBEJ				A		09 13 07.7	
	2.1nm,0.1s						
PBEJ	Beja	4.16	79	ePn	Pn	09 12 15.7	+0.6
	2.1nm,0.1s						
PVAQ	Vaqueiros	4.24	87	ePn	Pn	09 12 15.8	-0.4
PVAQ				eSn	Sn	09 13 05.8	+0.1
PVAQ				A		09 13 09.0	
	5.5nm,0.1s						
PVAQ	Vaqueiros	4.24	87	P	Pn	09 12 15.8	-0.4
PVAQ				S	Sn	09 13 05.8	+0.1
	2.8nm,0.1s						
PVAQ	Vaqueiros	4.24	87	ePn	Pn	09 12 15.8	-0.4
EGRO	El Granado	4.42	86	P	Pn	09 12 18.5	-0.2
	SNR=14						
EGRO				S	Sn	09 13 10.3	0.0
	4.1nm,0.3s						
EGRO	El Granado	4.42	86	P	Pn	09 12 18.5	-0.3
	SNR=14						
EGRO				S	Sn	09 13 10.3	0.0
	4.1nm,0.3s						
PESTR	Estremoz	4.56	69	ePn	Pn	09 12 20.9	+0.3
PESTR				eSn	Sn	09 13 15.6	+1.9
PESTR				A		09 13 19.6	
	3.1nm,0.2s						
PESTR	Estremoz	4.56	69	ePn	Pn	09 12 20.9	+0.3
EBAD	Badajoz	4.96	72	P	Pn	09 12 26.1	0.0
EBAD				S	Sn	09 13 24.0	+0.5
EBAD	Badajoz	4.96	72	P	Pn	09 12 26.1	0.0
	3.9nm,0.6s,SNR=12						
EBAD				S	Sn	09 13 23.2	-0.4
	4.8nm,0.6s						
EBAD	Badajoz	4.96	72	S	Sn	09 13 24.0	+0.4
	4.8nm,0.6s						
PCBR	Castelo Branco	5.02	58	ePn	Pn	09 12 27.7	+0.7
PCBR				eSn	Sn	09 13 26.0	+0.9
PCBR				A		09 13 28.6	
	3.7nm,0.1s						
PCBR	Castelo Branco	5.02	58	P	Pn	09 12 27.7	+0.7
PCBR				S	Sn	09 13 26.0	+0.9
	1.9nm,0.1s						
EMIN	Mina Concepcio	5.08	83	P	Pn	09 12 27.6	-0.1
	4.7nm,0.8s,SNR=17						
EMIN				S	Sn	09 13 26.6	+0.2
	35nm,1.4s						
PVIS	Viseu	5.24	48	ePn	Pn	09 12 30.5	+0.6
PVIS				eSn	Sn	09 13 30.8	+0.5
MTE	Manteigas	5.27	53	ePn	Pn	09 12 30.0	-0.3
ESPR	Espera	5.76	92	P	Pn	09 12 37.5	+0.4
ESPR				S	Sn	09 13 42.5	-0.7
ESPR	Espera	5.76	92	P	Pn	09 12 37.5	+0.4
	3.9nm,0.2s,SNR=6.5						
ESPR				S	Sn	09 13 43.9	+0.8
	4.2nm,0.4s						
ESPR	Espera	5.76	92	P	Pn	09 12 37.5	+0.4
	3.9nm,0.2s,SNR=6.5						
ESPR				S	Sn	09 13 42.5	-0.7
	4.2nm,0.4s						
PCAB	Cabril	5.84	40	eSn	Sn	09 13 44.7	-0.5
PCAB				A		09 13 47.2	
	6.5nm,0.1s						
PCAB	Cabril	5.84	40	S	Sn	09 13 44.7	-0.5
	3.2nm,0.1s						
ELOB	Lobios	5.94	39	P	Pn	09 12 39.8	+0.2
	2.5nm,0.2s,SNR=7.9						
ELOB				S	Sn	09 13 47.2	-0.4
	42nm,1.3s,SNR=7.9						
ELOB	Lobios	5.94	39	S	Sn	09 13 45.4	-2.2
	42nm,1.3s,SNR=7.9						
MVO	Moncorvo	6.03	49	ePn	Pn	09 12 41.0	+0.2
MVO				eSn	Sn	09 13 49.8	-0.1
MVO				A		09 13 52.3	
	6.1nm,0.1s						
MVO	Moncorvo	6.03	49	P	Pn	09 12 41.0	+0.2
MVO				S	Sn	09 13 49.8	-0.1
	3.0nm,0.1s						
EJIF	Jimena Fronter	6.13	96	P	Pn	09 12 42.8	+0.6
EJIF				S	Sn	09 13 50.6	-1.7
EJIF	Jimena Fronter	6.13	96	P	Pn	09 12 42.8	+0.6
	1.8nm,0.5s,SNR=7.9						
EJIF	Jimena Fronter	6.13	96	P	Pn	09 12 42.8	+0.6
	1.8nm,0.5s,SNR=7.9						
EJIF				S	Sn	09 13 50.6	-1.7
	3.1nm,0.8s,SNR=7.9						
EMAZ	Mazaricos	6.41	28	P	Pn	09 12 45.6	-0.4
EMAZ				S	Sn	09 13 54.2	-5.1
EMAZ	Mazaricos	6.41	28	P	Pn	09 12 45.6	-0.4
	1.3nm,0.3s,SNR=7.9						
ECAL	Calabor	6.69	45	P	Pn	09 12 50.1	+0.2
ECAL				S	Sn	09 14 03.8	-2.4
ECAL	Calabor	6.69	45	P	Pn	09 12 50.1	+0.2
	20nm,0.9s,SNR=7.9						
ECAL				S	Sn	09 14 06.0	-0.2
	22nm,1.4s,SNR=7.9						
ECAL	Calabor	6.69	45	P	Pn	09 12 50.1	+0.2
	20nm,0.9s,SNR=7.9						
ECAL				S	Sn	09 14 03.8	-2.4
	22nm,1.4s,SNR=7.9						
EADA	Adamuz	6.75	80	P	Pn	09 12 51.1	+0.4
EADA				S	Sn	09 14 07.3	-0.4
EADA	Adamuz	6.75	80	P	Pn	09 12 51.1	+0.4
	6.4nm,0.4s,SNR=5.7						
EADA				S	Sn	09 14 08.1	+0.4
	6.4nm,0.8s						
EADA	Adamuz	6.75	80	P	Pn	09 12 51.1	+0.3
	6.4nm,0.4s,SNR=5.7						
EADA				S	Sn	09 14 07.3	-0.4
	6.4nm,0.8s						
ERUA	La Rua	6.79	40	P	Pn	09 12 50.7	-0.5
ERUA				S	Sn	09 14 00.3	-8.2
ERUA	La Rua	6.79	40	P	Pn	09 12 50.7	-0.5
EBAN	Banos Encina	7.38	81	P	Pn	09 12 59.0	-0.3
EBAN	Banos Encina	7.38	81	P	Pn	09 12 59.0	-0.3
EPON	Pontenova	7.49	35	P	Pn	09 13 00.2	-0.5
EPON	Pontenova	7.49	35	P	Pn	09 13 01.3	+0.5
	4.9nm,0.4s,SNR=7.9						
EPON				S	Sn	09 14 24.9	-0.8
	1.0nm,0.2s,SNR=7.9						
EPON	Pontenova	7.49	35	P	Pn	09 13 00.2	-0.6
EPON				S	Sn	09 14 21.8	-3.9
	1.0nm,0.2s,SNR=7.9						
ESDC	Sonseca Array	7.49	69	P	Pn	09 13 01.0	+0.1
	1.4nm,0.2s,baz=254,slow=13,SNR=11						
ESDC	Sonseca Array	7.49	69	P	Pn	09 13 01.0	+0.2
	1.4nm,0.2s,SNR=11						
ESLA	Sonseca Array	7.49	69	ePn	Pn	09 13 00.9	0.0
ESLA	Sonseca Array	7.49	69	ePn	Pn	09 13 00.9	+0.1
ETOR	Torete	9.22	64	P	Pn	09 13 25.4	+0.8
ETOR				S	Sn	09 15 03.5	-4.8
ETOR	Torete	9.22	64	P	Pn	09 13 24.5	-0.1
	0.6nm,0.0s,SNR=7.9						
ETOR	Torete	9.22	64	P	Pn	09 13 25.4	+0.8
	0.6nm,0.0s,SNR=7.9						
ETOR				S	Sn	09 15 03.5	-4.9
EBIE	Bielsa	11.43	58	P	Pn	09 13 54.1	-0.7
	0.4nm,0.8s,SNR=7.9						

*KNET **14** 09:38:54.8±0.4, 43.03N×74.90E, h12^{km}±3^{km}, ml2.0, Error ellipse: s-maj=2.5km s-min=1.9km az=35.0*

*ISCJB **14** 09:38:55.2±0.7, 43.06N±0.04×74.92E±0.04, h6^{km}±5^{km}, Error ellipse: s-maj=6.0km s-min=4.7km az=6.1*

*NNC **14** 09:38:55.5±1.1, 43.05N×74.95E, h0^{km}, mb3.1, mpv2.3, Error ellipse: s-maj=19.2km s-min=7.7km az=15.0*

ISC 14 09:38:55.8±0.6**, 43.05N**±0.03×**74.90E**±0.04**, h7**^{km}±6^{km}**, n13, σ0^{s}.68**/23**, 14C-7D, Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHMS	Chumysh	0.12	246	⇑P	Pg	09 38 57.8	-0.6
	252nm,0.2s,SNR=450						
CHMS				⇓S	Sg	09 38 59.9	-0.3
	306nm,0.2s						
USP	Ospenovka	0.37	307	⇑P	Pg	09 39 02.8	-0.1
	91nm,0.1s,SNR=185						
USP				⇑S	Sg	09 39 08.2	+0.4
	138nm,0.2s						
KBK	Karagaybulak	0.39	175	⇑P	Pg	09 39 03.5	+0.1
	187nm,0.2s,SNR=145						
KBK				⇑S	Sg	09 39 09.8	+1.3
	387nm,0.2s						
AAK	Ala-Archa	0.51	216	P	Pg	09 39 05.4	-0.3
	29nm,0.2s,SNR=66						
AAK				⇓S	Sg	09 39 12.7	+0.4
	75nm,0.3s						
TKM2	Tokmak 2	0.53	104	⇑P	Pg	09 39 05.4	-0.5
	21nm,0.1s,SNR=78						
TKM2				⇓S	Sg	09 39 12.5	-0.2
	88nm,0.1s						
TKM2	Tokmak 2	0.53	104	⇓P	Pg	09 39 05.2	-0.7
	0.3nm,0.2s						
TKM2				⇓S	Sg	09 39 12.4	-0.3
	0.3nm,0.1s						
UCH	Uchtor	0.87	199	P	Pg	09 39 11.9	-0.5
	7.4nm,0.2s,SNR=34						
UCH				⇓S	Sg	09 39 23.3	-0.5
	11nm,0.2s						
EKS2	Erkin-Say	0.91	245	⇑P	Pg	09 39 13.0	-0.3
	19nm,0.1s,SNR=88						
EKS2				⇑S	Sg	09 39 26.0	+0.8
	18nm,0.2s						
KZA	Kyzart	1.00	165	⇑P	Pg	09 39 14.7	-0.3
	15nm,0.2s,SNR=50						
KZA				⇑S	Sg	09 39 28.9	+0.9
	25nm,0.4s						
ULHL	Ulahol	1.27	129	⇑P	Pn	09 39 19.0	-1.0
	5.1nm,0.2s,SNR=10.0						
AML	Almayashu	1.28	225	⇑P	Pn	09 39 19.5	-0.5
	8.2nm,0.2s,SNR=26						
AML				⇓S	Sb	09 39 36.6	-0.2
	21nm,0.2s						
KK31	Karatay Array	3.22	272	⇑Pn	Pn	09 39 52.2	+5.4
	0.4nm,0.2s,baz=91,slow=13,SNR=47						
KK31				Lg		09 40 36.4	
	1.5nm,0.3s,baz=92,slow=29,SNR=6.3						
MK31	Makanchi Array	6.44	52	Pn	Pn	09 40 32.8	+1.8
	0.3nm,0.3s,baz=231,slow=13,SNR=14						
MK31				⇑Lg		09 42 19.3	
	0.6nm,0.5s						

IDC 14 09:42:46.4±2.1**, 2.89S×128.14E, h0**^{km}**, mb3.7**/2**, mb1 3.9**/3**, mb1mx3.6**/17**, mbtmp3.7**/3**, ML3.3**/1**, Error ellipse: s-maj=142.6km s-min=27.1km az=67.0, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	18.00	161	P	Pn	09 46 56.4	-1.8
	0.1nm,0.3s,baz=339,slow=11,SNR=12						
ASAR	Alice Springs	21.39	165	P	P	09 47 36.0	+0.2
	4.0nm,0.7s,baz=344,slow=11,SNR=56						
MKAR	Makanchi Array	63.80	327	P	P	09 53 21.0	+0.6
	0.5nm,0.7s,baz=128,slow=7.9,SNR=4.2						

IDC 14 10:43:27.3±9.3**, 46.25N×156.21E, h0**^{km}**, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.3**/22**, mbtmp3.5**/3**, Error ellipse: s-maj=647.5km s-min=37.6km az=131.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	68.80	202	P	P	10 54 32.7	-0.4
	0.3nm,0.9s,baz=22,slow=6.4,SNR=5.4						
ASAR	Alice Springs	72.47	201	P	P	10 54 56.0	+0.6
	0.4nm,0.8s,baz=16,slow=6.2,SNR=5.6						
TXAR	Lajitas Array	75.85	62	P	P	10 55 15.6	+0.2
	0.4nm,0.6s,baz=294,slow=4.0,SNR=3.6						

IGQ 14 10:47:30.6, 2.29S×80.26W, h12^{km}±11^{km}**, Mb4.1, Ms3.9, 6C-27D, Error ellipse: s-maj=11.0km s-min=3.5km az=131.2, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHIS	Cerro-Chispas-	1.32	339	⇑P	Pn	10 47 54.6	-0.2
CHIS	Cerro-Chispas-	1.32	339	⇑S	Sb	10 48 12.6	+0.5
IGUA	Igualata	1.81	64	⇓P	Pn	10 48 04.3	+2.7
IGUA	Igualata	1.81	64	⇓S	Sn	10 48 25.9	+1.5
BILB	Tungurahua vol	1.95	64	P	Pn	10 48 07.0	+3.4
BILB	Tungurahua vol	1.95	64	S	Sn	10 48 29.9	+1.9
ARRY	Arrayan	1.96	67	⇓P	Pn	10 48 06.2	+2.5
PATA	Patacocha	1.99	67	⇓P	Pn	10 48 06.8	+2.8
PATA	Patacocha	1.99	67	⇓S	Sn	10 48 31.0	+2.2
JUIV	Juive	1.99	64	P	Pn	10 48 06.8	+2.8
JUIV	Juive	1.99	64	S	Sn	10 48 30.6	+1.7
RETU	Refugio	2.00	65	⇓P	Pn	10 48 07.3	+3.1
RETU	Refugio	2.00	65	⇓S	Sn	10 48 31.1	+2.1
JAMA	Jama	2.02	2	P	Pn	10 48 04.3	-0.1
RUN5	Runtun	2.03	65	⇓P	Pn	10 48 07.6	+3.0
RUN5	Runtun	2.03	65	⇓S	Sn	10 48 32.1	+2.1
ULBA	Ulba	2.03	66	⇓P	Pn	10 48 07.7	+3.1
ULBA	Ulba	2.03	66	⇓S	Sn	10 48 31.8	+1.9
PISA	Pisayambo	2.24	57	⇓P	Pn	10 48 11.2	+3.8
PISA	Pisayambo	2.24	57	⇓S	Sn	10 48 39.3	+4.3
MAG1	Magdalena	2.26	12	P	Pn	10 48 08.5	+0.8
MAG1	Magdalena	2.26	12	S	Sn	10 48 39.1	+3.6
CAMI	Rancho Maria	2.38	48	⇓P	Pn	10 48 13.3	+3.9
CAMI	Rancho Maria	2.38	48	⇓S	Sn	10 48 43.9	+5.4
TAMB	Tambo	2.47	50	P	Pn	10 48 14.3	+3.6
TAMB	Tambo	2.47	50	S	Sn	10 48 46.7	+6.0
VC1	Cotopaxi 1	2.48	49	⇓P	Pn	10 48 15.0	+4.3
VC1	Cotopaxi 1	2.48	49	⇓S	Sn	10 48 46.7	+5.8
JUA2	San Juan 2	2.64	39	⇓P	Pn	10 48 15.6	+2.5
JUA2	San Juan 2	2.64	39	⇓S	Sn	10 48 46.4	+1.3
TERV	Terraza Guagua	2.67	38	⇓P	Pn	10 48 15.7	+2.2
TERV	Terraza Guagua	2.67	38	⇓S	Sn	10 48 47.1	+1.2
GGP	Refugio Guagua	2.68	38	⇓P	Pn	10 48 15.7	+2.1
GGP	Refugio Guagua	2.68	38	⇓S	Sn	10 48 48.4	+2.4
PINO	Pino	2.69	38	⇓P	Pn	10 48 15.7	+2.1
PINO	Pino	2.69	38	⇓S	Sn	10 48 48.3	+2.2
YANA	Yana	2.74	38	⇑P	Pn	10 48 16.3	+1.9
YANA	Yana	2.74	38	⇑S	Sn	10 48 48.9	+1.4
ANTI	Antisana	2.78	49	⇑P	Pn	10 48 19.5	+4.6
ANTI	Antisana	2.78	49	⇑S	Sn	10 48 55.5	+7.0
CAYR	Refugio Cayamb	3.21	45	P	Pn	10 48 26.2	+5.3
COTA	Cotacachi	3.24	36	P	Pn	10 48 24.2	+2.9
COTA	Cotacachi	3.24	36	S	Sn	10 49 02.2	+2.4
CAYA	Cayambe	3.26	44	⇓P	Pn	10 48 26.9	+5.3
CAYA	Cayambe	3.26	44	⇓S	Sn	10 49 06.7	+6.3

*ISCJB **14** 11:03:34.4±0.7, 59.32N±0.03×27.1E±0.1, h0^{km}, Error ellipse: s-maj=8.1km s-min=4.2km az=4.3*

*NAO **14** 11:03:35.5±1.1, 59.29N×27.04E, ML2.2*

*HEL **14** 11:03:36.1±0.1, 59.30N×27.22E, h0^{km}, ML1.9, ML2.2(NAO), Explosion*

*BER **14** 11:03:36.9±2.2, 59.30N×27.09E, h0^{km}, ML2.2(NAO), Suspected explosion*

*IDC **14** 11:03:38.4±1.9, 59.44N×27.22E, h0^{km}, mb1 3.2/4, mb1mx3.0/22, mbtmp3.1/4, ML2.8/3, Error ellipse: s-maj=16.5km s-min=9.7km az=123.0*

ISC 14 11:03:35.3±0.7**, 59.34N**±0.03×**27.1E**±0.1**, h0**^{km}**, n23, σ1^{s}.18**/36**, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSU	Vasula	0.90	193	i P	Pg	11 03 52.0	-0.5
VSU				i S	Sg	11 04 02.9	-1.3
VSU	Vasula	0.90	193	Pg	Pg	11 03 52.0	-0.5
VSU				Lg		11 04 02.9	
VJF	Virojoki	1.22	10	eP	Pg	11 03 58.5	-0.3
VJF				eSB	Sb	11 04 15.6	0.0
VJF				MSG		11 04 15.6	
	comp=Z,4.6nm,0.2s						
MEF	Metsahovi	1.63	304	eP	Pn	11 04 06.2	+1.0
MEF				eS	Sn	11 04 28.0	+1.2
MEF				MSG		11 04 28.0	
	comp=Z,7.3nm,0.1s						
FIA0	FINESS Array S	2.17	347	Pn	Pn	11 04 13.7	+1.1
	baz=165,slow=18						
FIA0				Lg		11 04 44.8	
	baz=166,slow=28						
FIA0				Rg		11 04 57.3	
FIA0	FINESS Array S	2.17	347	eP	Pn	11 04 13.6	+0.9
	baz=167						
FIA0				eSB	Sb	11 04 43.5	+0.6
FIA0				MSG		11 04 43.5	
	comp=Z,5.3nm,0.3s						
FIA0	FINESS Array S	2.17	347	Pn	Pn	11 04 13.7	+1.1
	baz=165,slow=18						
FIA0				Lg		11 04 44.8	
	baz=166,slow=28						
FIA0				Rg		11 04 57.3	
FINES	FINESS Array B	2.17	347	Pn	Pn	11 04 13.8	+1.1
	comp=Z,1.1nm,0.3s,baz=165,slow=17,SNR=39						
FINES				Sn	Sn	11 04 41.4	+1.2
	comp=Z,0.6nm,0.3s,baz=165,slow=22,SNR=3.5						
FINES				Lg		11 04 44.5	
	comp=Z,2.8nm,0.3s,baz=165,slow=33,SNR=23						
FIA1	FINESS Array S	2.17	347	eP	Pn	11 04 13.8	+1.1
FIA1				eSG	Sg	11 04 44.8	-0.3
KAF	Kangasniemi	2.81	352	eP	Pn	11 04 23.4	+1.9
KAF				MSG		11 05 04.3	
	comp=Z,3.7nm,0.4s						
KAF				eSG	Sg	11 05 04.3	-1.2
KEF	Keuruu	3.04	340	ePB	Pb	11 04 28.9	-1.4
KEF				eSG	Sg	11 05 11.1	-1.9
KEF				MSG		11 05 11.1	
	comp=Z,4.2nm,0.4s						
RAF	Rauma	3.16	305	eP	Pn	11 04 28.6	+2.4
	baz=118						
RAF				eSB	Sb	11 05 10.0	-1.2
RAF				MSG		11 05 10.0	
	comp=Z,3.4nm,0.4s						
SUF	Sumiainen	3.42	353	ePB	Pb	11 04 35.9	-0.9
JOF	Joensuu	4.13	28	eP	Pn	11 04 40.1	+0.6
JOF				eSG	Sg	11 05 41.7	-6.1
JOF				MSG		11 05 41.7	
	comp=Z,2.5nm,0.4s						
HFS	Hagfors	6.83	282	Sn	Sn	11 06 30.7	-4.2
	baz=103,slow=22						
HFS				Lg		11 07 07.5	
	baz=97,slow=37						
HFS	Hagfors	6.83	282	eS	Sn	11 06 30.7	-4.2
HFS				eSG		11 07 07.5	
HFS	Hagfors	6.83	282	Sn	Sn	11 06 30.7	-4.2
	baz=103,slow=22						
HFS				Lg		11 07 07.5	
	baz=97,slow=37						
HFS	Hagfors	6.83	282	Pn	Pn	11 05 17.8	+1.2
	comp=Z,0.1nm,0.3s,baz=83,slow=12,SNR=2.7						
HFS				Sn	Sn	11 06 33.5	-1.4
	comp=Z,0.3nm,0.3s,baz=107,slow=23,SNR=3.3						
HFS				Lg		11 07 10.0	
	comp=Z,0.6nm,0.3s,baz=92,slow=28,SNR=5.9						
NOA	NORSAR Array B	8.10	289	Pn	Pn	11 05 34.6	+0.6
	comp=Z,0.1nm,0.3s,baz=81,slow=12,SNR=2.7						
NOA				Sn	Sn	11 07 02.1	-4.1
	comp=Z,0.2nm,0.3s,baz=219,slow=21,SNR=2.3						
NOA				Lg		11 07 51.8	
	comp=Z,0.4nm,0.3s,baz=42,slow=26,SNR=3.4						
ARA0	ARCESS Array S	10.26	357	Pn	Pn	11 06 01.9	-1.6
	baz=172,slow=14						
ARA0	ARCESS Array S	10.26	357	eP	Pn	11 06 01.9	-1.6
ARA0	ARCESS Array S	10.26	357	P	Pn	11 06 01.9	-1.6
	baz=172,slow=14						
ARCES	ARCESS Array B	10.26	357	Pn	Pn	11 06 02.5	-1.0
	comp=Z,0.1nm,0.3s,baz=171,slow=14,SNR=8.4						
ARCES				Sn	Sn	11 07 52.5	-6.6
	comp=Z,0.2nm,0.3s,baz=187,slow=26,SNR=8.1						

MEX 14 11:05:17.7±0.5**, 16.73N×94.17W, h144**^{km}±11^{km}**, MD3.8, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMIG	Matias Romero	0.77	297	i P	Pn	11 05 38.8	-1.2
CMIG				i S	Sn	11 05 54.9	-2.1
HUIG	Huatulco	2.10	243	i P	Pn	11 05 51.0	-2.6
HUIG				i S	Sn	11 06 20.1	-1.1
VHO	Vista Hermosa	2.48	278	eP	Pn	11 05 57.0	-1.3
VHO				i S	Sn	11 06 28.4	-1.0

IDC 14 11:15:10.3±1.0**, 19.76N×120.85E, h0**^{km}**, mb3.6**/6**, mb1 3.8**/6**, mb1mx3.6**/20**, mbtmp3.6**/6**, MS4.0**/2**, Ms1 4.0**/2**, ms1mx2.8**/32**, Error ellipse: s-maj=75.3km s-min=18.4km az=68.0, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	30.36	341	P	P	11 21 23.2	-0.6
	0.6nm,0.9s,baz=147,slow=8.2,SNR=2.8						
MKAR	Makanchi Array	41.39	320	P	P	11 22 57.9	-0.4
	1.2nm,0.8s,baz=121,slow=8.9,SNR=5.0						
WRA	Warramunga Arr	41.61	161	P	P	11 22 59.5	-0.7
	0.6nm,0.4s,baz=342,slow=9.1,SNR=18						
WRA				LR	LR	11 42 55.1	
	comp=Z,105nm,18.1s,baz=95,slow=40						
ZALV	Zalesovo Beam	43.84	330	P	P	11 23 18.8	+0.8
	0.4nm,0.4s,baz=122,slow=7.5,SNR=3.6						
ASAR	Alice Springs	45.00	163	P	P	11 23 28.2	+0.6
	0.3nm,0.4s,baz=349,slow=6.5,SNR=12						
YKA	Yellowknife Ar	87.15	23	P	P	11 27 58.2	+0.2
	0.6nm,0.9s,baz=313,slow=4.6,SNR=7.8						
MAW	Mawson	96.84	199	LR	LR	12 07 57.9	
	comp=Z,122nm,18.4s,baz=251,slow=33						

*IDC **14** 11:18:43.7±0.8, 20.49S×175.72W, h0^{km}, mb4.3/9, mb1 4.5/10, mb1mx4.3/17, mbtmp4.3/10, ML2.3/1, MS3.8/6, Ms1 3.8/6, ms1mx3.5/28, Error ellipse: s-maj=43.4km s-min=16.5km az=156.0*

*NEIC **14** 11:18:46.8±0.6, 20.30S×175.83W, h15^{km}, mb4.7/6, Error ellipse: s-maj=35.5km s-min=9.1km az=154.0*

*ISCJB **14** 11:18:48.4±0.5, 20.0S±0.1×176.0W±0.1, h33^{km}, mb4.4/16, MS3.9/4, Error ellipse: s-maj=24.3km s-min=8.0km az=140.0*

ISC 14 11:18:50.0±0.5**, 20.1S**±0.1×**175.9W**±0.1**, h35**^{km}**, n52, σ1^{s}.08**/33**, mb4.4**/16**, MS3.9**/4**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	7.34	34	Pn	Pn	11 20 33.5	-1.3
AFI				Sn	Sn	11 21 56.0	-0.9
AFI				LR	LR	11 23 05.5	
AFI	Afiamalu	7.34	34	Pn	Pn	11 20 33.5	-1.2
	2.6nm,0.3s,baz=230,slow=19,SNR=4.4						
AFI				Sn	Sn	11 21 56.0	-0.9
	4.6nm,0.3s,baz=309,slow=22,SNR=3.0						
AFI				LR	LR	11 23 05.5	
	comp=Z,350nm,20.5s,baz=186,slow=35						
RAR	Rarotonga	15.18	97	Pn	Pn	11 22 10.9	-11
RAR				LR	LR	11 26 01.6	
RAR	Rarotonga	15.18	97	Pn	Pn	11 22 10.9	-11
	1.7nm,0.3s,baz=250,slow=12,SNR=5.4						
RAR				LR	LR	11 26 01.6	
	comp=Z,826nm,21.7s,baz=268,slow=29						
DZM	Mont Dzumac	16.55	260	Pn	Pn	11 22 49.0	+9.5
DZM	Mont Dzumac	16.55	260	Pn	Pn	11 22 49.0	+9.5
	0.2nm,0.3s,baz=85,slow=20,SNR=5.1						
PAE	Paea	25.05	89	eT		11 48 41.8	
	24nm,0.2s						
PPT	Papeete	25.07	89	eLR	LR	11 29 57.0	
	832nm,26.8s,baz=261						
PPT	Papeete	25.07	89	eT		11 48 43.7	
	8.6nm,0.4s						
PPT	Papeete	25.07	89	LR	LR	11 31 01.5	
	comp=Z,247nm,19.8s,MS3.7,baz=258,slow=30						
TVO	Taravao	25.34	89	eT		11 49 03.6	
	10nm,0.4s						
VAH	Vaihoa	27.39	84	eT		11 51 39.2	
	4.8nm,0.3s						
CTA	Charters Tower	35.45	263	P	P	11 25 43.8	+0.5
	9.2nm,1.1s,mb4.6,baz=108,slow=8.7,SNR=4.2						
CTAO	Charters Tower	35.45	263	eP	P	11 25 45.3	+2.1
TAOE	Nuku Hiva Isla	36.34	77	eLR	LR	11 35 08.3	
	1µm,27.5s,baz=249						
PMG	Port Moresby	37.15	281	P	P	11 25 59.9	+2.1
PMG				LR	LR	11 39 13.3	
PMG	Port Moresby	37.15	281	P	P	11 25 59.9	+2.1
	9.7nm,1.0s,mb4.6,baz=133,slow=5.2,SNR=5.6						
PMG				LR	LR	11 39 13.3	
	comp=Z,201nm,21.0s,MS3.9,baz=105,slow=33						
RKT	Rikitea	38.12	102	eLR	LR	11 35 56.9	
	452nm,28.2s,baz=265						
RKT	Rikitea	38.12	102	eT		12 04 54.7	
	11nm,0.4s						
STKA	Stephens Creek	39.70	244	P	P	11 26 17.4	-1.6
STKA	Stephens Creek	39.70	244	P	P	11 26 17.4	-1.6
	2.1nm,0.7s,mb4.0,baz=77,slow=11,SNR=5.7						
ASAR	Alice Springs	46.49	256	P	P	11 27 13.2	-0.8
	4.3nm,0.8s,mb4.4,baz=88,slow=8.2,SNR=15						
WB2	Warramunga Arr	46.55	261	eP	P	11 27 14.0	-0.6
WRA	Warramunga Arr	46.57	261	P	P	11 27 13.3	-1.5
	1.2nm,0.9s,mb3.8,baz=97,slow=7.3,SNR=11						
NWAO	Narrogin (SRO)	60.27	243	LR	LR	11 53 48.1	
	comp=Z,98nm,21.6s,MS3.9,baz=30,slow=35						
NVAR	Mina Array Bea	79.42	42	P	P	11 30 52.2	-0.5
	2.9nm,0.8s,mb4.2,baz=233,slow=11,SNR=15						

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WVOR   Wild Horse Val      81.60  39 eP        P       11 31 04.4 +0.1
       3.0nm,1.0s,mb4.2
WUAZ   Wupatki             82.44  48 eP        P       11 31 10.1 +1.2
       5.5nm,1.1s,mb4.4
MSU    Marysvale           83.46  45 eP        P       11 31 15.8 +1.8
TMUT   Trail Mountain      84.51  45 eP        P       11 31 18.8 -0.6
HLID   Hailey              84.78  40 eP        P       11 31 20.8 +0.1
       3.9nm,0.8s,mb4.6
SRU    San Rafael          84.87  45 eP        P       11 31 21.6 +0.3
       7.3nm,0.9s,mb4.8
TXAR   Lajitas Array       85.22  57 P         P       11 31 23.0 -0.2
TXAR                                 LR        LR      11 59 44.5
TXAR   Lajitas Array       85.22  57 P         P       11 31 23.0 -0.2
       2.1nm,1.0s,mb4.2,baz=216,slow=6.2,SNR=6.5
TXAR                                 LR        LR      11 59 44.5
       comp=Z,55nm,21.2s,MS3.9,baz=185,slow=29
ANMO   Albuquerque         85.66  50 eP        P       11 31 26.6 +1.3
       8.9nm,1.4s,mb4.8
SMCO   Snowmass            87.30  47 eP        P       11 31 34.3 +1.1
       5.8nm,0.9s,mb4.8
PDAR   Pinedale Array      87.36  42 P         P       11 31 34.0 +0.6
       0.9nm,0.9s,mb4.0,baz=193,slow=2.8,SNR=7.4
CMIG   Matias Romero       87.72  71 P         P       11 31 34.8 -0.9
       2.3nm,1.0s,mb4.4,baz=336,slow=3.3,SNR=3.6
VNA3   Neumayer Olymp      88.39 176 e         P       11 31 43.3 +5.3
VNA3                                 e         pP      11 31 51.1 +2.0
VNA2   Neumayer--Watz      88.86 176 e         P       11 31 39.2 -1.0
       baz=61,slow=2.4
VNA2                                 e                 11 31 46.7
YKA    Yellowknife Ar      95.36  24 P         P       11 32 14.2 +4.0
       0.3nm,0.7s,mb3.8,baz=242,slow=4.5,SNR=6.1
AKASG  Malin Array Be     143.58 333 PKP       PKPdf   11 38 22.4 +1.4
AKASG  Malin Array Be     143.58 333 PKP       PKPdf   11 38 22.4 +1.4
       0.3nm,0.4s,baz=37,slow=4.0,SNR=5.7
BRTR   Keskin Array B     147.98 314 PKPbc     PKPbc   11 38 33.5 +1.6
BRTR   Keskin Array B     147.98 314 PKPbc     PKPbc   11 38 33.5 +1.6
       1.2nm,0.6s,baz=133,slow=4.3,SNR=5.6
CLL    Collm              148.08 349 i P       pPKPbc  11 38 37.6 -5.6
CLL                                  e                 11 38 51.0
CLL    Collm              148.08 349 i pPKPbc  pPKPbc  11 38 37.6 -5.6
       comp=Z,9.0nm,1.1s
BRG    Berggiesshubel     148.32 348 eP        pPKPbc  11 38 40.8 -3.0
       comp=Z,21nm,1.6s
KHC    Kasperske Hory     150.05 347 eP        PKPdf   11 38 33.5 +1.7
KHC                                  ex        x       11 38 53.5
GERES  GERESS Array B     150.30 347 PKPbc     PKPbc   11 38 38.3 +0.9
GERES                                PKPab     PKPab   11 38 43.3 -0.4
GERES  GERESS Array B     150.30 347 PKPbc     PKPbc   11 38 38.3 +0.9
       comp=Z,0.9nm,0.7s,baz=349,slow=2.0,SNR=5.9
GERES                                PKPab     PKPab   11 38 43.3 -0.4
       comp=Z,0.7nm,0.6s,baz=349,slow=1.4,SNR=7.0
TORD   Torodi Ar. Bea     172.72 162 PKPab     PKPab   11 40 18.7 -3.1
       comp=Z,0.6nm,0.8s,baz=181,slow=3.0,SNR=3.8
```

MOS ***14*** *11:22:32.5±1.2,321N×12646E,h33^{km},mb5.0/19,MS4.0/8,Error ellipse: s-maj=16.0km s-min=6.6km az=115.4*

BJI ***14*** *11:22:34.5,304N×12653E,h65^{km},mB5.0,mb4.9,Ms4.5,Msz4.3*

IDC ***14*** *11:22:35.1±2.0,3.19N×12651E,h41^{km}±17^{km},mb4.4/24,mb1 4.5/24,mb1mx4.4/26,mbtmp4.4/24,MS4.0/14,Ms1 4.0/14,ms1mx3.8/28,Error ellipse: s-maj=20.6km s-min=8.6km az=70.0*

ISCJB ***14*** *11:22:36.7±0.7,328N±003×12679E±005,h75^{km}±6^{km},mb4.7/75,Error ellipse: s-maj=8.5km s-min=4.7km az=166.4*

NEIC ***14*** *11:22:37.5±0.3,3.19N×12662E,mb4.9/46,Error ellipse: s-maj=10.1km s-min=5.7km az=66.0*

GCMT ***14*** *11:22:40.6±0.3,328N×12687E,h38^{km}±1^{km},MW5.0/48, Moment Tensor Solution. s28,c35; s48,c73; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.43±.17; $M_{\theta\theta}$0.35±.11; $M_{\phi\phi}$-2.78±.14; $M_{r\theta}$0.71±.11; $M_{\theta\phi}$-0.64±.09; $M_{\phi r}$2.18±.17; Best double couple: $M_0$3.52000×10^{16} NP1:ϕ_s184.00000°,δ25.00000°,λ79.00000°. NP2: ϕ_s16.00000°,δ65.00000°,λ95.00000°. Principal axes: T 3.2940, Plg69.0000°, Azm296.0000°; N 0.4510, Plg5.0000°, Azm194.0000°; P -3.7470, Plg20.0000°, Azm103.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 14 11:22:38.6±0.7**,328N**±003×**12678E**±005**,h76**^{km}±5^{km}**,h67**^{km}±2.5^{km}**:pP-P,n181,σ1§31**/201**,mb4.7**/74**,16C-19D,**
Talaud Islands

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Code   Station Name          Δ°  AZ°  Phase ID          Time      Res
                                      Op        ISC     h  m  s   ISC
GSPH   General Santos       3.34 327 ⇑eP       Pn      11 23 29.9 +1.5
GSPH                                 eS        Sn      11 24 04.3 -2.6
KCP    Kidapawan            4.07 336 ⇓eP       Pn      11 23 44.4 +5.9
KCP                                  eS        Sn      11 24 25.1 +0.1
CTBH   Cotabato--PC H       4.66 327 ⇑eP       Pn      11 23 45.5 -1.1
CTBH                                 eS        Sn      11 24 39.6 +0.3
CGP    Cagayan de Oro       5.55 338 ⇓eP       Pn      11 23 59.5 +0.8
SNPH   Sibulan              6.98 330 eP        Pn      11 24 18.0 -0.2
PCI    Palu                 8.09 239 P         Pn      11 24 36.7 +3.3
       142nm,1.1s
MYLDM  Lahad Datu           8.47 283 ⇓P        Pn      11 24 39.7 +1.1
MYLDM  Lahad Datu           8.47 283 ⇑P        Pn      11 24 40.0 +1.4
TSM    Tawau                8.95 277 ⇑P        Pn      11 24 44.2 -0.9
SDKM   Sandakan             9.84 284 ⇓P        Pn      11 24 56.4 -0.9
KKM    Kota Kinabalu       10.88 285 eP        Pn      11 25 12.0 +0.4
CAUP   Cauayan             14.43 341 eP        Pn      11 25 58.4 -0.7
SBUM   Sibu                14.57 267 ⇓P        Pn      11 26 03.2 +2.3
KSM    Kuching             16.55 264 eP        Pn      11 26 27.2 +1.1
KSM    Kuching             16.55 264 ⇓P        Pn      11 26 28.3 +2.1
KAKA   Kakadu              16.85 161 eP        Pn      11 26 26.6 -3.1
       14nm,0.7s
KAKA                                 e                 11 26 29.9
BJII   Banjamegara         20.03 238 P         P       11 27 12.1 +6.5
       39nm,1.2s
GUMO   Guam                20.60  59 LR        LR      11 33 53.3
       comp=Z,276nm,21.2s,baz=266,slow=32
FITZ   Fitzroy Crossi      21.27 183 eP        P       11 27 16.6 -2.3
       18nm,0.6s,mb4.6
FITZ                                 e                 11 27 21.6
FITZ                                 eS        S       11 31 05.3 -5.8
FITZ   Fitzroy Crossi      21.27 183 P         P       11 27 16.9 -2.1
       32nm,0.8s,mb4.7,baz=14,slow=13,SNR=45
FITZ                                 S         S       11 31 06.4 -4.7
       5.7nm,0.9s,baz=171,slow=20,SNR=7.2
LEM    Lembang             21.60 242 P         P       11 27 25.0 +2.5
       86nm,0.9s,mb5.1
CBJI   Citeko              22.11 244 P         P       11 27 29.1 +1.2
       194nm,1.0s,mb5.4
QIZ    Qiongzhong          22.79 315 P         P       11 27 33.3 -1.8
QIZ                                  XP        sP      11 27 54.8 -5.5
QIZ                                  S         S       11 31 41.3 +2.7
QIZ                                  XS        sS      11 32 01.8 -5.0
QIZ                                  AMB       AMB
       comp=Z,10.0nm,1.0s,mb4.1
QIZ                                  AMB       AMB
       comp=Z,102nm,6.2s
QIZ                                  LR        LR
       comp=E,258nm,17.6s
QIZ                                  LR        LR
       comp=Z,273nm,19.5s
QIZ    Qiongzhong          22.79 315 P         P       11 27 33.3 -1.8
       comp=Z,10.0nm,1.0s,mb4.1
QIZ                                  sP        sP      11 27 54.8 -5.5
QIZ                                  S         S       11 31 41.3 +2.7
QIZ                                  sS        sS      11 32 01.8 -5.0
QIZ                                  LR        LR
       comp=Z,270nm,19.5s
MYKOM  Kota Tinggi         22.96 267 ⇓P        P       11 27 38.6 +1.7
JOW    Kunigami            23.47   3 P         P       11 27 41.8 +0.3
       comp=Z,34nm,0.8s,mb4.7,baz=180,slow=5.8,SNR=3.9
KGM    Kluang              23.47 268 ⇑P        P       11 27 43.5 +1.8
GZH    Guangzhou           23.60 328 P         P       11 27 43.4 +0.6
KTGM   Kuala Trenggan      23.67 276 ⇓P        P       11 27 44.2 +0.7
PMG    Port Moresby        23.90 122 P         P       11 27 48.0 +2.4
       comp=Z,5.4nm,0.8s,mb3.9,baz=322,slow=12,SNR=3.4
WRA    Warramunga Arr      24.24 162 P         P       11 27 47.1 -1.5
WRA                                  S         S       11 32 05.6 +3.6
WRA    Warramunga Arr      24.24 162 P         P       11 27 47.1 -1.5
       comp=Z,38nm,0.7s,mb4.8,baz=342,slow=10,SNR=160
WRA                                  S         S       11 32 05.6 +3.7
       comp=Z,5.6nm,0.9s,baz=334,slow=20,SNR=8.5
WRA                                  ScP       ScP     11 35 03.3 +3.9
       comp=Z,1.8nm,0.7s,baz=342,slow=3.1,SNR=8.6
WB2    Warramunga Arr      24.24 162 eP        P       11 27 47.0 -1.6
WB2                                  e                 11 27 55.0
WB2                                  eS        S       11 32 05.7 +3.7
WB2                                  eSCP      ScP     11 35 02.9 +3.5
WB2                                  eSCS      ScS     11 38 48.5 +1.4
FRIM   Kepong              25.12 271 ⇓P        P       11 27 58.9 +2.2
MBWA   Marble Bar          25.25 196 eP        P       11 27 59.7 +2.0
       comp=Z,31nm,1.0s,mb4.7
IPM    Ipoh                25.72 273 ⇓P        P       11 28 04.5 +2.3
KULM   Kulim               26.13 275 eP        P       11 28 04.3 -1.6
KULM   Kulim               26.13 275 ⇓P        P       11 28 09.5 +3.6
ASAR   Alice Springs       27.66 166 P         P       11 28 18.5 -1.0
ASAR                                 S         S       11 32 57.6 +1.4
ASAR   Alice Springs       27.66 166 P         P       11 28 18.4 -1.0
       comp=Z,6.4nm,0.6s,mb4.3,baz=347,slow=6.8,SNR=63
ASAR                                 S         S       11 32 57.6 +1.4
       comp=Z,1.3nm,0.9s,baz=348,slow=18,SNR=4.7
ASAR                                 ScP       ScP     11 35 13.2 +3.9
       comp=Z,2.2nm,0.8s,baz=335,slow=2.3,SNR=9.7
PSI    Prapat              27.82 270 P         P       11 28 19.9 -1.1
       comp=Z,2.8nm,0.4s,mb4.1,baz=122,slow=4.4,SNR=4.2
PSI                                  LR        LR      11 41 08.3
       comp=Z,270nm,18.4s,baz=88,slow=40
CBIJ   Chichi jima         27.90  30 LR        LR      11 38 05.1
       comp=Z,263nm,18.8s,baz=145,slow=33
WHN    Wuhan               29.56 338 P         P       11 28 36.0 -0.3
NJ2    Nanjing             29.58 346 eP        P       11 28 38.3 +1.9
NJ2                                  AP        pP      11 28 53.3 -0.9
NJ2                                  XP        sP      11 29 00.3 -2.7
NJ2                                  S         S       11 33 29.0 +2.9
NJ2                                  XS        sS      11 33 54.0 -2.7
NJ2                                  AMB       AMB
       comp=Z,40nm,1.1s,mb5.0
NJ2                                  AMB       AMB
       comp=Z,430nm,4.8s
NJ2                                  LR        LR
       comp=N,860nm,25.0s
NJ2                                  LR        LR
       comp=E,530nm,21.0s
NJ2                                  LR        LR
       comp=Z,530nm,21.0s
NJ2    Nanjing             29.58 346 eP        P       11 28 38.3 +1.9
       comp=Z,40nm,1.1s,mb5.0
NJ2                                  pP        pP      11 28 53.3 -0.9
NJ2                                  sP        sP      11 29 00.3 -2.7
NJ2                                  S         S       11 33 29.0 +2.9
NJ2                                  sS        sS      11 33 54.0 -2.7
NJ2                                  LR        LR
       comp=Z,530nm,21.0s
JNU    Nakatsue            29.94   7 P         P       11 28 39.9 +0.3
JNU                                  LR        LR      11 41 20.4
JNU    Nakatsue            29.94   7 P         P       11 28 39.9 +0.3
       comp=Z,17nm,1.1s,mb4.6,baz=198,slow=3.2,SNR=2.4
JNU                                  LR        LR      11 41 20.4
       comp=Z,128nm,18.5s,baz=348,slow=37
GYA    Guiyang             30.05 322 ⇑iP       P       11 28 43.3 +2.6
GYA                                  AP        pP      11 28 59.6 +1.1
GYA                                  XP        sP      11 29 07.4 +0.1
GYA                                  PP        PP      11 29 44.3 -5.6
GYA                                  PCP       PcP     11 31 43.3 +2.2
GYA                                  S         S       11 33 36.8 +3.0
GYA                                  XS        sS      11 34 05.0 +0.7
GYA                                  SCP       ScP     11 35 18.3 +1.4
GYA                                  SS        SS      11 35 19.4  -25
GYA                                  SCS       ScS     11 39 12.5 -0.1
GYA                                  AMB       AMB
       comp=Z,20nm,0.8s,mb4.8
GYA                                  AMB       AMB
       comp=Z,160nm,5.2s
GYA                                  LR        LR
       comp=N,580nm,17.6s
GYA                                  LR        LR
       comp=E,440nm,18.2s
GYA                                  LR        LR
       comp=Z,690nm,18.9s
GYA    Guiyang             30.05 322 ⇑iP       P       11 28 43.3 +2.6
       comp=Z,20nm,0.8s,mb4.8
GYA                                  pP        pP      11 28 59.6 +1.1
GYA                                  sP        sP      11 29 07.4 +0.1
GYA                                  PP        PP      11 29 44.3 -5.6
GYA                                  PcP       PcP     11 31 43.3 +2.2
GYA                                  S         S       11 33 36.8 +3.0
GYA                                  sS        sS      11 34 05.0 +0.7
GYA                                  ScP       ScP     11 35 18.3 +1.4
GYA                                  SS        SS      11 35 19.4  -25
GYA                                  ScS       ScS     11 39 12.5 -0.1
GYA                                  LR        LR
       comp=Z,690nm,18.9s
CTA    Charters Tower      30.08 141 P         P       11 28 41.5 +0.5
       comp=Z,3.6nm,0.7s,mb4.1,baz=322,slow=9.1,SNR=4.7
CHTO   Chiang Mai          31.30 302 eP        P       11 28 51.4 -0.4
       comp=Z,10nm,0.7s,mb4.7
CHTO   Chiang Mai          31.30 302 eP        P       11 28 51.4 -0.4
CHTO                                 pmax      pmax
       comp=Z,10.0nm,0.7s,mb4.7
KMI    Kunming             31.73 315 P         P       11 28 56.1 +0.6
KMI                                  AP        pP      11 29 12.5 -0.9
KMI                                  S         S       11 34 04.3 +4.2
KMI                                  SS        SS      11 35 57.6  -21
KMI                                  AMB       AMB
       comp=Z,9.0nm,0.7s,mb4.6
KMI                                  LR        LR
       comp=N,185nm,14.8s
KMI                                  LR        LR
       comp=E,229nm,22.7s
KMI                                  LR        LR
       comp=Z,418nm,21.0s
KMI    Kunming             31.73 315 P         P       11 28 56.1 +0.6
       comp=Z,9.0nm,0.7s,mb4.6
KMI                                  pP        pP      11 29 12.5 -0.9
KMI                                  S         S       11 34 04.3 +4.2
KMI                                  SS        SS      11 35 57.6  -21
KMI                                  LR        LR
       comp=Z,420nm,21.0s
FORT   Forrest             33.89 178 eP        P       11 29 13.5 -0.7
       comp=Z,42nm,0.7s,mb5.4
KSRS   Korea Array         34.03   2 P         P       11 29 15.6 +0.2
       comp=Z,9.1nm,0.8s,mb4.7,baz=186,slow=9.7,SNR=14
MJAR   Matsushiro Arr      34.74  16 P         P       11 29 23.1 +1.6
       comp=Z,1.3nm,0.6s,mb3.9,baz=194,slow=12,SNR=3.9
XAN    Xi'an               34.84 334 P         P       11 29 20.8 -1.7
XAN                                  AMB       AMB
       comp=Z,22nm,0.7s,mb5.1
XAN    Xi'an               34.84 334 P         P       11 29 20.8 -1.7
       comp=Z,22nm,0.7s,mb5.1
CD2    Chengdu             35.04 324 eP        P       11 29 22.6 -1.6
CD2                                  AP        pP      11 29 38.5 -3.7
CD2                                  XP        sP      11 29 45.6 -5.4
CD2                                  PP        PP      11 30 43.3 -1.8
CD2                                  S         S       11 34 51.0 -0.1
CD2                                  XS        sS      11 35 16.8 -5.2
CD2                                  SS        SS      11 37 10.3  -16
CD2                                  AMB       AMB
       comp=Z,20nm,0.8s,mb5.0
CD2                                  AMB       AMB
       comp=Z,40nm,4.8s
CD2                                  LR        LR
       comp=N,250nm,14.2s
CD2                                  LR        LR
       comp=E,210nm,12.5s
CD2                                  LR        LR
       comp=Z,310nm,14.2s
CD2    Chengdu             35.04 324 eP        P       11 29 22.6 -1.6
       comp=Z,20nm,0.8s,mb5.0
CD2                                  pP        pP      11 29 38.5 -3.7
CD2                                  sP        sP      11 29 45.6 -5.4
CD2                                  PP        PP      11 30 43.3 -1.8
CD2                                  S         S       11 34 51.0 -0.1
CD2                                  sS        sS      11 35 16.8 -5.2
CD2                                  SS        SS      11 37 10.3  -16
CD2                                  LR        LR
       comp=Z,310nm,14.2s
HNR    Honiara             35.38 111 LR        LR      11 42 40.3
       comp=Z,245nm,21.8s,baz=359,slow=34
KLBR   Kellerberrin        35.72 193 eP        P       11 29 29.4 -0.6
MUN    Mundaring           36.47 195 eP        P       11 29 36.2 -0.2
EIDS   Eidsvold            36.97 142 eP        P       11 29 40.5 -0.3
       comp=Z,11nm,0.8s,mb4.8
STKA   Stephens Creek      37.69 159 ⇓iP       P       11 29 46.4 -0.3
       comp=Z,28nm,0.8s,mb5.2
STKA                                 eS        S       11 35 31.0 -0.5
STKA   Stephens Creek      37.69 159 P         P       11 29 46.5 -0.3
       comp=Z,36nm,0.8s,mb5.2,baz=337,slow=8.1,SNR=58
BJT    Baijiatuau          37.82 347 eP        P       11 29 47.7 -0.1
       comp=Z,20nm,0.9s,mb4.9
BJT    Baijiatuau          37.82 347 eP        P       11 29 47.7  0.0
BJT                                  pmax      pmax
       comp=Z,19nm,0.9s
BJI    Beijing             37.84 347 P         P       11 29 47.6 -0.3
BJI                                  AP        pP      11 30 02.8 -3.3
BJI                                  XP        sP      11 30 10.0 -4.8
BJI                                  PP        PP      11 31 14.8 -0.9
BJI                                  S         S       11 35 38.3 +4.8
BJI                                  AMB       AMB
       comp=Z,17nm,1.0s,mb4.8
BJI                                  AMB       AMB
       comp=Z,197nm,4.8s
BJI                                  LR        LR
       comp=N,187nm,8.5s
BJI                                  LR        LR
       comp=E,255nm,7.5s
BJI                                  LR        LR
       comp=Z,234nm,25.5s
BJI    Beijing             37.84 347 pP        pP      11 30 02.8 -3.3
BJI                                  sP        sP      11 30 10.0 -4.8
SNY    Shenyang            38.49 356 ⇑P        P       11 29 55.6 +2.3
SNY                                  AMB       AMB
       comp=Z,49nm,0.7s,mb5.5
SNY    Shenyang            38.49 356 ⇑P        P       11 29 55.6 +2.3
       comp=Z,49nm,0.7s,mb5.5
LZH    Lanzhou             38.92 330 eP        P       11 29 57.8 +0.8
LZH                                  AP        pP      11 30 13.8 -1.5
LZH                                  XP        sP      11 30 19.3 -4.7
LZH                                  PP        PP      11 31 30.3 +2.7
LZH                                  PCP       PcP     11 32 03.4 -3.1
LZH                                  eS        S       11 35 46.0 -4.0
LZH                                  SS        SS      11 38 39.0 -5.5
LZH                                  AMB       AMB
       comp=Z,16nm,1.0s,mb4.8
LZH                                  AMB       AMB
       comp=Z,86nm,5.1s
LZH                                  LR        LR
       comp=E,1μm,14.9s
LZH                                  LR        LR
       comp=Z,2μm,15.4s
LZH    Lanzhou             38.92 330 eP        P       11 29 57.8 +0.8
       comp=Z,16nm,1.0s,mb4.8
LZH                                  pP        pP      11 30 13.8 -1.5
LZH                                  sP        sP      11 30 19.3 -4.7
LZH                                  PP        PP      11 31 30.3 +2.7
LZH                                  PcP       PcP     11 32 03.4 -3.1
LZH                                  eS        S       11 35 46.0 -4.0
LZH                                  SS        SS      11 38 39.0 -5.5
LZH                                  LR        LR
       comp=Z,2μm,15.4s
LZH    Lanzhou             38.92 330 eP        P       11 29 57.8 +0.8
LZH                                  *PP       pP      11 30 13.7 -1.6
LZH                                                    11 31 30.3
LZH                                                    11 32 03.4
LZH                                  eS        S       11 35 46.0 -4.0
LZH                                  SS        SS      11 38 39.0 -5.5
LZH                                  pmax      pmax
       comp=Z,16nm,1.0s,mb4.8
LZH                                  MLR       MLR
       comp=Z,2μm,15.4s
HHC    Hu-ho-hao-te        39.84 342 eP        P       11 30 03.9 -0.7
HHC                                  AP        pP      11 30 22.3 -0.6
HHC                                  XP        sP      11 30 31.3 -0.3
HHC                                  PP        PP      11 31 41.4 +3.8
HHC                                  PCP       PcP     11 32 08.4 -0.9
HHC                                  SCP       ScP     11 35 49.5 -2.2
HHC                                  PCS       PcS     11 35 57.0 -2.4
HHC                                  S         S       11 36 04.6 +0.9
HHC                                  XS        sS      11 36 36.9 +1.9
HHC                                  SS        SS      11 39 00.4 -2.4
HHC                                  SCS       ScS     11 40 01.8 -2.9
HHC                                  AMB       AMB
       comp=Z,19nm,0.8s,mb5.0
HHC                                  AMB       AMB
       comp=Z,89nm,5.6s
HHC                                  LR        LR
       comp=N,337nm,24.7s
HHC                                  LR        LR
       comp=E,154nm,24.7s
HHC                                  LR        LR
       comp=Z,398nm,25.5s
HHC    Hu-ho-hao-te        39.84 342 eP        P       11 30 03.9 -0.7
       comp=Z,19nm,0.8s,mb5.0
HHC                                  pP        pP      11 30 22.3 -0.6
HHC                                  sP        sP      11 30 31.3 -0.3
HHC                                  PP        PP      11 31 41.4 +3.8
HHC                                  PcP       PcP     11 32 08.4 -0.9
HHC                                  ScP       ScP     11 35 49.5 -2.2
HHC                                  PcS       PcS     11 35 57.0 -2.4
HHC                                  S         S       11 36 04.6 +0.9
HHC                                  sS        sS      11 36 36.9 +1.9
HHC                                  SS        SS      11 39 00.4 -2.4
HHC                                  ScS       ScS     11 40 01.8 -2.9
HHC                                  LR        LR
       comp=Z,400nm,25.5s
MDJ    Mudanjiang          41.24   3 P         P       11 30 17.4 +1.3
MDJ                                  AP        pP      11 30 32.8 -1.7
MDJ                                  XP        sP      11 30 40.0 -3.2
MDJ                                  SCP       ScP     11 35 58.9 +1.8
MDJ                                  PCS       PcS     11 36 05.8 +1.0
MDJ                                  S         S       11 36 28.8 +4.4
MDJ                                  AMB       AMB
       comp=Z,21nm,1.1s,mb4.9
MDJ                                  LR        LR
       comp=Z,102nm,29.0s
MDJ    Mudanjiang          41.24   3 P         P       11 30 17.4 +1.3
       comp=Z,21nm,1.1s,mb4.9
MDJ                                  pP        pP      11 30 32.8 -1.7
MDJ                                  sP        sP      11 30 40.0 -3.2
MDJ                                  ScP       ScP     11 35 58.9 +1.8
MDJ                                  PcS       PcS     11 36 05.8 +1.0
MDJ                                  S         S       11 36 28.8 +4.4
MDJ                                  LR        LR
       comp=Z,100nm,29.0s
LSA    Lhasa               42.78 312 eP        P       11 30 30.3 +1.4
LSA    Lhasa               42.78 312 eP        P       11 30 29.4 +0.5
ASAJ   Asahikawa           43.01  17 P         P       11 30 30.5  0.0
       comp=Z,12nm,0.8s,mb4.7,baz=223,slow=7.6,SNR=5.3
ASAJ                                 LR        LR      11 46 35.4
       comp=Z,182nm,21.5s,baz=6.6,slow=33
GTA    Gaotai              43.51 329 eP        P       11 30 33.4 -1.2
GTA                                  AP        pP      11 30 48.4 -4.7
GTA                                  XP        sP      11 30 56.3 -5.5
GTA                                  PP        PP      11 32 17.4 +0.2
GTA                                  PCP       PcP     11 32 20.8 -0.6
GTA                                  SCP       ScP     11 36 07.0 +0.6
GTA                                  PCS       PcS     11 36 10.1 -4.0
GTA                                  S         S       11 36 54.9 -3.1
GTA                                  AMB       AMB
       comp=Z,5.0nm,1.4s,mb4.0
GTA                                  AMB       AMB
       comp=Z,60nm,5.7s
GTA                                  LR        LR
       comp=N,300nm,16.8s
GTA                                  LR        LR
       comp=E,329nm,20.3s
GTA                                  LR        LR
       comp=Z,466nm,22.5s
GTA    Gaotai              43.51 329 eP        P       11 30 33.4 -1.2
       comp=Z,5.0nm,1.4s,mb4.0
GTA                                  pP        pP      11 30 48.4 -4.7
GTA                                  sP        sP      11 30 56.3 -5.5
GTA                                  PP        PP      11 32 17.4 +0.2
GTA                                  PcP       PcP     11 32 20.8 -0.6
GTA                                  ScP       ScP     11 36 07.0 +0.6
GTA                                  PcS       PcS     11 36 10.1 -4.0
GTA                                  S         S       11 36 54.9 -3.1
GTA                                  LR        LR
       comp=Z,470nm,22.5s
TAPN   Taplejung           44.33 307 eP        P       11 30 40.2 -1.2
       comp=Z,24nm,1.0s,mb4.9
ODAN   Odare               44.37 306 eP        P       11 30 40.8 -1.0
       comp=Z,22nm,0.7s,mb5.0
KLR    Kul'dur             45.98   5 eP        P       11 30 51.3 -2.8
GUN    Gumba               46.03 306 eP        P       11 30 52.7 -2.2
PALK   Pallekele           46.04 277 eP        P       11 30 53.4 -1.8
       comp=Z,17nm,1.3s,mb4.6
HIA    Hailar              46.21 354 eP        P       11 30 58.4 +2.5
DZM    Mont Dzumac         46.23 125 P         P       11 30 59.2 +2.7
       comp=Z,8.2nm,1.2s,mb4.3,baz=266,slow=23,SNR=3.8
PKI    Pulchoki            46.27 306 eP        P       11 30 54.9 -1.9
KKN    Kakani              46.47 306 eP        P       11 30 56.8 -1.5
       comp=Z,22nm,0.9s,mb4.9
GKN    Gorkha              47.07 306 eP        P       11 31 01.4 -1.6
       comp=Z,16nm,0.7s,mb4.8
ULN    Ulaanbaatar         47.56 342 eP        P       11 31 06.5  0.0
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ULN    Ulaanbaatar     47.56 342⇑eP     P       11 31 06.9 +0.4
SONM   Songino Array   47.74 342  P     P       11 31 08.1 +0.3
SONM                              LR    LR      11 54 04.2
SONM   Songino Array   47.74 342  P     P       11 31 08.1 +0.3
       comp=Z,5.8nm,0.9s,mb4.4,baz=155,slow=8.8,SNR=37
SONM                              LR    LR      11 54 04.2
       comp=Z,189nm,20.6s,baz=178,slow=40
CIT    Chita           49.82 349 eP     P       11 31 14.1  -10
ZAK    Zakamensk       50.97 341 eP     P       11 31 31.7 -0.7
       comp=Z,2.0nm,0.8s,mb4.2
ZAK                              e              11 32 49.0
ZAK    Zakamensk       50.97 341 eP     P       11 31 31.7 -0.7
ZAK                              e              11 32 49.0
ZAK                               pmax  pmax
       comp=Z,2.0nm,0.8s,mb4.2
ZAK                               pmax  pmax
       comp=Z,1.0nm,1.2s,mb3.7
TLY    Talaya          51.97 342 eP     P       11 31 36.4 -3.5
TLY                              e              11 44 17.7
TLY    Talaya          51.97 342 eP     P       11 31 36.4 -3.5
TLY                              e              11 44 17.7
TLY                               pmax  pmax
       comp=Z,13nm,1.4s,mb4.8
TLY                               MLR   MLR
       comp=Z,293nm,25.0s
MOY    Mondy           52.82 340 eP     P       11 31 46.6 +0.4
WMQ    Urumqi          53.12 325  P     P       11 31 50.8 +2.3
WMQ                               AP    pP      11 32 09.8 +2.2
WMQ                               XP    sP      11 32 18.4 +2.3
WMQ                               PCP   PcP     11 32 57.8 +1.9
WMQ                               PP    PP      11 33 53.3 +4.1
WMQ                              eS     S       11 39 14.3 +0.9
WMQ                               SCS   ScS     11 41 29.5 -1.6
WMQ                               SS    SS      11 42 53.9 +0.1
WMQ                               AMB   AMB
       comp=Z,11nm,0.9s,mb4.9
WMQ                               AMB   AMB
       comp=Z,26nm,6.6s
WMQ                               LR    LR
       comp=N,203nm,21.8s
WMQ                               LR    LR
       comp=E,227nm,23.4s
WMQ                               LR    LR
       comp=Z,289nm,23.4s
WMQ    Urumqi          53.12 325  P     P       11 31 50.8 +2.3
       comp=Z,11nm,0.9s,mb4.9
WMQ                               pP    pP      11 32 09.8 +2.2
WMQ                               sP    sP      11 32 18.4 +2.3
WMQ                               PcP   PcP     11 32 57.8 +1.9
WMQ                               PP    PP      11 33 53.3 +4.1
WMQ                              eS     S       11 39 14.3 +0.9
WMQ                               ScS   ScS     11 41 29.5 -1.6
WMQ                               SS    SS      11 42 53.9 +0.1
WMQ                               LR    LR
       comp=Z,290nm,23.4s
NDI    New Delhi       53.41 304 eP     P       11 31 48.0 -3.0
BOD    Bodaibo         55.32 352 eP     P       11 32 04.8 +0.6
       comp=Z,10.0nm,1.0s,mb4.8
BOD    Bodaibo         55.32 352 eP     P       11 32 04.8 +0.6
BOD                               pmax  pmax
       comp=Z,10.0nm,1.0s,mb4.8
MK31   Makanchi Array  57.95 325 i P    P       11 32 22.3 -0.8
       comp=Z,7.0nm,0.6s,mb4.9
MK31   Makanchi Array  57.95 325 i P    P       11 32 22.3 -0.8
MK31                              pmax  pmax
       comp=Z,7.0nm,0.6s,mb4.9
MKAR   Makanchi Array  57.95 325 i P    P       11 32 22.3 -0.8
MKAR                              pmax  pmax
       comp=Z,5.0nm,0.7s
MKAR   Makanchi Array  57.95 325  P     P       11 32 22.6 -0.5
       comp=Z,7.2nm,0.7s,mb4.8,baz=125,slow=8.4,SNR=86
MKAR                              LR    LR      11 58 35.4
       comp=Z,178nm,21.6s,baz=123,slow=37
YAK    Yakutsk         58.66   2⇑iP     P       11 32 28.7 +1.0
       comp=Z,76nm,0.9s,mb5.7
YAK                               LR    LR
       comp=Z,100nm,27.0s
YAK    Yakutsk         58.66   2c iP    P       11 32 28.7 +1.0
YAK                               pmax  pmax
       comp=Z,76nm,0.9s,mb5.7
YAK                               MLR   MLR
       comp=Z,100nm,27.0s
MA2    Magadan         59.13  14⇓eP     P       11 32 33.5 +2.4
       comp=Z,8.0nm,1.3s,mb4.6
MA2                               LR    LR
       comp=Z,100nm,18.0s
MA2    Magadan         59.13  14⇓eP     P       11 32 33.5 +2.4
MA2                               pmax  pmax
       comp=Z,8.0nm,1.3s,mb4.6
MA2                               MLR   MLR
       comp=Z,100nm,18.0s
KZA    Kyzart          59.98 318  P     P       11 32 38.0 +0.7
       SNR=9.1
TKM2   Tokmak 2        60.12 319  P     P       11 32 38.1 -0.1
       SNR=5.9
TKM2   Tokmak 2        60.12 319 eP     P       11 32 38.0 -0.2
       comp=Z,4.0nm,0.8s,mb4.5
TKM2   Tokmak 2        60.12 319 eP     P       11 32 38.0 -0.2
TKM2                              pmax  pmax
       comp=Z,4.0nm,0.8s,mb4.5
UCH    Uchtor          60.54 318  P     P       11 32 41.5 +0.5
       SNR=14
AAK    Ala-Archa       60.73 318⇓eP     P       11 32 41.4 -0.9
       comp=Z,3.0nm,0.8s,mb4.4
AAK                               LR    LR
       comp=Z,200nm,35.0s
AAK    Ala-Archa       60.73 318⇓eP     P       11 32 41.4 -0.9
AAK                               pmax  pmax
       comp=Z,3.0nm,0.8s,mb4.4
AAK                               MLR   MLR
       comp=Z,200nm,35.0s
USP    Ospenovka       60.99 319  P     P       11 32 43.7 -0.5
       SNR=9.9
ZALV   Zalesovo Beam   61.01 333  P     P       11 32 43.0 -1.0
       comp=Z,4.4nm,0.5s,mb4.8,baz=117,slow=7.5,SNR=19
ZALV                              LR    LR      12 01 36.1
       comp=Z,49nm,18.8s,baz=123,slow=38
ZAL    Zalesovo        61.01 333  P     P       11 32 43.1 -1.0
AML    Almayashu       61.05 317  P     P       11 32 44.7 +0.2
       SNR=11
AML    Almayashu       61.05 317 eP     P       11 32 44.9 +0.3
       comp=Z,10nm,0.8s,mb4.9
KBL    Kabul           61.84 308 eP     P       11 32 49.6 -0.4
       comp=Z,17nm,0.7s,mb5.2
KURK   Kurchatov       62.15 328⇓eP     P       11 32 51.4 -0.4
NVS    Novosibirsk     62.30 333 eP     P       11 32 50.7 -2.0
       comp=Z,15nm,0.8s,mb5.1
NVS                              eS     S       11 41 13.8 +0.8
NVS    Novosibirsk     62.30 333 eP     P       11 32 50.7 -2.0
NVS                              eS     S       11 41 13.8 +0.8
NVS                               pmax  pmax
       comp=N,11nm,0.8s
NVS                               pmax  pmax
       comp=E,13nm,0.8s
NVS                               pmax  pmax
       comp=Z,15nm,0.8s,mb5.1
NVS                               smax
       comp=N,11nm,1.8s
NVS                               smax
       comp=E,10.0nm,1.8s
SEY    Seymchan        62.46  13⇑eP     P       11 32 56.2 +2.6
BRVK   Borovoye        67.80 327 eP     P       11 33 28.1 -0.3
       comp=E,18nm,0.9s,mb4.9
BRVK   Borovoye        67.80 327 eP     P       11 33 28.1 -0.3
BRVK                              pmax  pmax
       comp=Z,18nm,0.9s,mb4.9
TIXI   Tiksi           68.29   1 eP     P       11 33 32.1 +1.0
       comp=Z,10.0nm,0.7s,mb4.8
TIXI                             eS     S       11 42 28.1 +2.3
TIXI   Tiksi           68.29   1 eP     P       11 33 32.1 +1.0
TIXI                             eS     S       11 42 28.1 +2.3
TIXI                              pmax  pmax
       comp=Z,10.0nm,0.7s,mb4.8
BILL   Bilibino        69.98  15 eP     P       11 33 45.9 +4.3
       comp=Z,2.0nm,0.8s,mb4.0
BILL   Bilibino        69.98  15 eP     P       11 33 45.9 +4.3
BILL                              pmax  pmax
       comp=Z,2.0nm,0.8s,mb4.0
AB31   Akbulak array   72.53 321 i P    P       11 33 56.0 -1.4
       comp=Z,9.0nm,0.8s,mb4.7
AB31   Akbulak array   72.53 321 i P    P       11 33 56.0 -1.4
AB31                              pmax  pmax
       comp=Z,9.0nm,0.8s,mb4.7
AKTK   Aktyubinsk      74.04 322  P     P       11 34 06.0 -0.3
AKTO   Aktyubinsk      74.04 322  P     P       11 34 06.0 -0.3
       comp=Z,12nm,0.7s,mb4.7,baz=102,slow=7.8,SNR=50
ARU    Arti            75.34 328⇑iP     P       11 34 12.8 -0.9
ARU                              e              11 34 25.7
ARU                              eS     S       11 43 47.3  0.0
ARU                               pmax  pmax
       comp=Z,14nm,0.8s,mb4.7
ZEI    Tsey            82.56 313 eP     P       11 34 53.9 +0.4
ZEI                               pmax  pmax
       comp=Z,6.0nm,0.7s,mb4.5
PRGR   Permogore       82.92 332⇑iP     P       11 34 55.6 +0.7
       comp=Z,24nm,0.6s,mb5.2
PRGR                             eS     S       11 45 05.7 -1.8
PRGR   Permogore       82.92 332⇑iP     P       11 34 55.6 +0.7
PRGR                             eS     S       11 45 05.7 -1.8
PRGR                              pmax  pmax
       comp=Z,24nm,0.6s,mb5.2
VNDA   Vanda           82.97 173  P     P       11 34 55.8 +0.9
       comp=Z,1.7nm,0.6s,mb4.1,baz=85,slow=5.7,SNR=3.1
ATD    Arta Tunnel     83.42 281  LR    LR      12 13 18.1
       comp=Z,27nm,18.5s,baz=68,slow=37
KIV    Kislovodsk      83.49 314 eP     P       11 35 06.8 +8.6
       comp=Z,6.0nm,0.7s,mb4.5
KIV                               LR    LR
       comp=Z,60nm,18.0s
KIV    Kislovodsk      83.49 314 eP     P       11 35 06.8 +8.6
KIV                               pmax  pmax
       comp=Z,6.0nm,0.7s,mb4.5
KIV                               MLR   MLR
       comp=Z,59nm,18.0s
PPT    Papeete         84.93 108 eLR    LR      12 02 08.0
       comp=Z,247nm,31.0s
SOC    Sochi           85.63 313 eP     P       11 35 07.8 -1.2
       comp=Z,13nm,0.8s,mb4.9
SOC                              e      pP      11 35 25.4 -4.1
SOC                              e              11 38 21.3
SOC                              eS     S       11 45 31.8 -3.5
SOC    Sochi           85.63 313 eP     P       11 35 07.8 -1.2
SOC                              e      pP      11 35 25.4 -4.1
SOC                              e              11 38 21.3
SOC                              eS     S       11 45 31.8 -3.5
SOC                               pmax  pmax
       comp=Z,13nm,0.8s,mb4.9
VORD   Divnogorie      85.89 321 eP     P       11 35 08.9 -1.2
VORD                              pmax  pmax
       comp=Z,20nm,0.8s,mb5.1
VORD                              pmax  pmax
       comp=N,10.0nm,0.6s
VORD                              pmax  pmax
       comp=E,20nm,0.9s
VRSR   Storozhevoye    85.96 321 eP     P       11 35 09.8 -0.7
       comp=E,6.0nm,0.9s,mb4.5
VRSR   Storozhevoye    85.96 321 eP     P       11 35 09.8 -0.7
VRSR                              pmax  pmax
       comp=Z,6.0nm,0.9s,mb4.5
VRSR                              pmax  pmax
       comp=N,3.0nm,2.8s
VRSR                              pmax  pmax
       comp=E,8.0nm,0.9s
ANN    Anapa           87.25 315 eP     P       11 35 16.4 -0.5
       comp=E,25nm,0.6s,mb5.3
ANN                              epP    pP      11 35 27.7  -10
ANN                              e              11 38 39.9
ANN                              eS     S       11 45 40.1  -11
ANN                              eSS    SS      11 51 40.2 +3.7
ANN    Anapa           87.25 315 eP     P       11 35 16.4 -0.5
ANN                              e*PP   pP      11 35 27.7  -10
ANN                              e              11 38 39.9
ANN                              eS     S       11 45 40.1  -11
ANN                              eSS    SS      11 51 40.2 +3.7
ANN                               pmax  pmax
       comp=Z,25nm,0.6s,mb5.3
OBN    Obninsk         87.46 325⇓eP     P       11 35 18.2 +0.5
       comp=Z,18nm,0.6s,mb5.2
OBN                               LR    LR
       comp=Z,100nm,17.0s
OBN    Obninsk         87.46 325⇓eP     P       11 35 18.2 +0.5
OBN                               pmax  pmax
       comp=Z,18nm,0.6s,mb5.2
OBN                               MLR   MLR
       comp=Z,100nm,17.0s
KMBO   Kilima Mbogo    89.59 269  P     P       11 35 29.6 +0.9
       comp=Z,4.4nm,1.0s,mb4.5,baz=44,slow=6.8,SNR=9.0
JOF    Joensuu         89.60 333 ep     P       11 35 25.6 -2.0
       comp=Z,4.2nm,0.5s,mb4.8
BRTR   Keskin Array B  90.35 310  P     P       11 35 31.1 -0.6
       comp=Z,6.0nm,0.9s,mb4.7,baz=103,slow=5.4,SNR=27
ARCES  ARCESS Array B  90.89 340  P     P       11 35 35.2 +1.7
ARCES                             LR    LR      12 22 27.2
ARCES  ARCESS Array B  90.89 340  P     P       11 35 35.2 +1.7
       comp=Z,3.4nm,1.0s,mb4.4,baz=49,slow=5.6,SNR=5.3
ARCES                             LR    LR      12 22 27.2
       comp=Z,202nm,21.2s,baz=14,slow=40
FINES  FINESS Array B  92.25 332  P     P       11 35 39.3 -0.7
       comp=Z,0.8nm,0.5s,mb4.2,baz=50,slow=6.0,SNR=5.8
FINES                             LR    LR      12 20 45.5
       comp=Z,83nm,19.9s,baz=151,slow=38
AKASG  Malin Array Be  92.27 321  P     P       11 35 39.2 -1.1
       comp=Z,1.4nm,0.6s,mb4.4,baz=70,slow=4.2,SNR=8.2
AKASG                             LR    LR      12 22 41.3
       comp=Z,64nm,21.5s,baz=275,slow=39
TAOE   Nuku Hiva Isla  93.53  99 eLR    LR      12 06 03.7
       comp=Z,742nm,33.3s
RKT    Rikitea         98.86 113 eLR    LR      12 08 22.4
       comp=Z,130nm,37.2s
NOA    NORSAR Array B  99.21 334  P     P       11 36 10.8 -0.9
NOA                               LR    LR      12 25 28.9
NOA    NORSAR Array B  99.21 334  P     P       11 36 10.8 -0.9
       comp=Z,0.5nm,0.6s,mb4.2,baz=60,slow=2.0,SNR=2.9
NOA                               LR    LR      12 25 28.9
       comp=Z,116nm,20.3s,baz=30,slow=38
YKA    Yellowknife Ar  99.89  24  P     Pdif    11 36 16.3 +1.5
       comp=Z,0.2nm,0.6s,baz=304,slow=4.8,SNR=3.5
CLL    Collm          102.03 324 esPdif         11 36 49.0
TXAR   Lajitas Array  121.83  52  PKP   PKPdf   11 41 27.4 +2.6
TXAR   Lajitas Array  121.83  52  PKIKP PKPdf   11 41 27.4 +2.6
TXAR   Lajitas Array  121.83  52  PKP   PKPdf   11 41 27.4 +2.6
       comp=Z,0.3nm,0.7s,baz=354,slow=2.7,SNR=3.2
TORD   Torodi Ar. Bea 123.11 288  PKP   PKPdf   11 41 28.1 +0.6
TORD   Torodi Ar. Bea 123.11 288  PKP   PKPdf   11 41 28.1 +0.6
       comp=Z,1.2nm,0.8s,baz=38,slow=1.7,SNR=5.4
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ISCJB ***14*** *11:41:37.5±0.7, 8.93N±0.03×126.27E±0.06, h83^{km}±6^{km}, mb4.2/23, Error ellipse: s-maj=10.0km s-min=5.2km az=171.1*

MAN ***14*** *11:41:37, 8.92N×126.26E, h33^{km}, mb4.4, ML3.3, MS3.1*

MAN INTENSITY II - LIANGA, SURIGAO DEL SUR.

NEIC ***14*** *11:41:40.0±1.7, 8.97N×126.40E, h92^{km}±15^{km}, mb4.4/6, Error ellipse: s-maj=17.1km s-min=7.6km az=72.0*

NEIC Felt [II PIVS] at Lianga.

IDC ***14*** *11:41:43.1±2.9, 8.94N×126.34E, h120^{km}±24^{km}, mb3.9/17, mb1 4.0/17, mb1mx4.0/23, mbtmp3.9/17, MS3.5/1, Ms1 3.5/1, ms1mx2.8/25, Error ellipse: s-maj=26.3km s-min=8.8km az=76.0*

ISC 14 11:41:38.7±0.8**, 8.94N**±0.03×**126.26E**±0.07**, h77**^{km}±7^{km}**, n60,** σ**1**^{s}**04**/67**, mb4.2**/23**, 5C-3D, Mindanao**

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Code   Station Name     Δ°   AZ°    Phase ID          Time     Res
                                   Op     ISC      h  m  s     ISC
BIPH   Bislig           0.76 172⇑iP     Pn      11 41 51.4 -3.4
BIPH                             i S    Sn      11 42 01.3 -5.4
SCPH   Surigao          1.13 318⇓eP     Pn      11 41 57.8 -1.4
SCPH                             eS     Sn      11 42 15.7 +1.2
CGP    Cagayan de Oro   1.62 253⇑iP     Pn      11 42 04.6 -0.9
CGP                              i S    Sn      11 42 24.4 -1.3
DAV    Davao City (W)   1.98 200 eP     Pn      11 42 13.4 +3.1
DAV                              eS     Sn      11 42 43.5 +9.3
KCP    Kidapawan        2.24 211⇓eP     Pn      11 42 18.0 +4.2
KCP                              i S    Sn      11 42 45.5 +4.9
TBP    Tagbilaran       2.48 288 eP     Pn      11 42 17.0  0.0
TBP                              eS     Sn      11 42 47.0 +0.7
PLP    Palo             2.54 330 eP     Pn      11 42 18.3 +0.4
PLP                              eS     Sn      11 42 42.1 -5.9
CTBH   Cotabato--PC H   2.62 230 eP     Pn      11 42 18.1 -0.9
CTBH                             eS     Sn      11 42 49.3 -0.6
LLP    Lapu-Lapu        2.64 301⇑iP     Pn      11 42 20.0 +0.8
LLP                              eS     Sn      11 42 50.5 +0.2
DCPH   Dipolog City     2.89 263⇓iS     Pn      11 42 22.3 -0.3
DCPH                             eS     Sn      11 42 55.5 -0.9
SNPH   Sibulan          3.01 278⇑eP     Pn      11 42 24.0 -0.2
GSPH   General Santos   3.12 205⇑eP     Pn      11 42 26.4 +0.7
GSPH                             i S    Sn      11 43 03.3 +1.5
RCP    Roxas            4.33 307 eP     Pn      11 42 43.5 +1.4
GUMO   Guam            18.82  74  LR    LR      11 51 19.6
       comp=Z,152nm,20.0s,baz=110,slow=31
KAKA   Kakadu          22.37 164 eP     P       11 46 29.6 -1.1
       20nm,0.9s,mb4.5
FITZ   Fitzroy Crossi  26.88 181 eP     P       11 47 12.9 +0.4
       3.1nm,0.3s,mb4.3
FITZ   Fitzroy Crossi  26.88 181  P     P       11 47 12.9 +0.5
       1.9nm,0.3s,mb4.1,baz=11,slow=8.1,SNR=16
PMG    Port Moresby    27.66 131  P     P       11 47 15.8 -3.8
       1.2nm,0.3s,mb3.9,baz=293,slow=13,SNR=2.7
PSI    Prapat          27.85 259  P     P       11 47 23.5 +2.1
       18nm,0.9s,mb4.6,baz=97,slow=4.7,SNR=16
COEN   Coen            28.27 143 eP     P       11 47 26.2 +1.2
KSRS   Korea Array     28.43   3  P     P       11 47 26.2 +0.1
       4.5nm,1.0s,mb4.0,baz=187,slow=11,SNR=7.5
WRA    Warramunga Arr  29.78 165  P     P       11 47 37.1 -1.3
WRA                               PcP   PcP     11 50 40.8 +0.3
WRA                               S     S       11 52 25.6 -3.8
WRA    Warramunga Arr  29.78 165  P     P       11 47 37.1 -1.3
       1.7nm,0.6s,mb3.8,baz=345,slow=7.9,SNR=28
WRA                               PcP   PcP     11 50 40.8 +0.3
       0.9nm,0.5s,baz=341,slow=2.7,SNR=5.5
WRA                               S     S       11 52 25.6 -3.8
       0.9nm,0.8s,baz=341,slow=14,SNR=4.4
WB2    Warramunga Arr  29.79 165 eP     P       11 47 36.9 -1.5
MBWA   Marble Bar      30.59 192 eP     P       11 47 45.9 +0.5
ASAR   Alice Springs   33.26 167  P     P       11 48 08.2 -0.6
       2.1nm,0.6s,mb4.1,baz=356,slow=8.4,SNR=28
ASAR                              PcP   PcP     11 50 50.1 +0.4
       1.4nm,0.6s,baz=352,slow=2.5,SNR=8.8
ASAR                              S     S       11 53 19.6 -4.0
       0.3nm,0.7s,baz=355,slow=20,SNR=4.1
ASAR                              ScP   ScP     11 54 28.6 +1.1
       0.9nm,1.0s,baz=353,slow=3.7,SNR=3.5
MDJ    Mudanjiang      35.66   4 eP     P       11 48 31.1 +1.8
FORT   Forrest         39.53 178 eP     P       11 49 02.8 +0.6
       20nm,0.5s,mb5.2
HIA    Hailar          40.56 353 eP     P       11 49 10.4 -0.1
KLBR   Kellerberrin    41.12 191 eP     P       11 49 16.2 +0.9
MUN    Mundaring       41.81 193 eP     P       11 49 22.5 +1.6
SONM   Songino Array   42.26 340  P     P       11 49 23.6 -0.8
       0.8nm,0.8s,mb3.5,baz=169,slow=11,SNR=4.5
SONM                              PcP   PcP     11 51 16.6 -0.4
       0.8nm,0.5s,baz=160,slow=4.6,SNR=4.3
NWAO   Narrogin (SRO)  42.51 191  P     P       11 49 27.1 +0.5
       5.3nm,0.7s,mb4.4,baz=352,slow=7.1,SNR=4.9
STKA   Stephens Creek  43.16 161 eP     P       11 49 31.8 -0.1
       3.1nm,0.6s,mb4.2
STKA   Stephens Creek  43.16 161 eP     P       11 49 31.9  0.0
STKA   Stephens Creek  43.16 161  P     P       11 49 32.0 +0.1
       1.9nm,0.4s,mb4.2,baz=348,slow=9.6,SNR=11
MK31   Makanchi Array  53.08 323 eP     P       11 50 48.1 -0.1
MKAR   Makanchi Array  53.08 323  P     P       11 50 48.1 -0.1
MKAR                              PcP   PcP     11 51 55.2 -0.5
MKAR   Makanchi Array  53.08 323  P     P       11 50 48.1 -0.1
       4.3nm,0.7s,mb4.6,baz=120,slow=8.4,SNR=18
MKAR                              PcP   PcP     11 51 55.2 -0.5
       1.8nm,0.6s,baz=118,slow=4.5,SNR=5.2
MA2    Magadan         53.81  15 eP     P       11 50 54.1 +0.8
ZALV   Zalesovo Beam   55.78 332  P     P       11 51 06.2 -1.5
       2.2nm,0.7s,mb4.3,baz=124,slow=6.7,SNR=11
ZALV                              PcP   PcP     11 52 04.4 -1.5
       0.8nm,0.5s,baz=151,slow=3.3,SNR=2.8
UCH    Uchtor          56.10 315 eP     P       11 51 11.2 +1.0
       2.1nm,0.6s,mb4.3
EKS2   Erkin-Say       56.76 316 eP     P       11 51 15.4 +0.5
KURK   Kurchatov       57.15 326 eP     P       11 51 17.1 -0.4
       6.7nm,0.9s,mb4.7
AKTK   Aktyubinsk      69.33 321  P     P       11 52 37.1 -0.9
AKTO   Aktyubinsk      69.33 321  P     P       11 52 37.1 -0.9
       1.4nm,0.7s,mb3.9,baz=90,slow=8.9,SNR=5.0
MCK    McKinley        79.74  27 eP     P       11 53 38.1  0.0
JOF    Joensuu         84.36 333 ep     P       11 53 59.6 -2.6
       2.0nm,0.5s,mb4.2
ARCES  ARCESS Array B  85.43 340  P     P       11 54 07.2 -0.2
       1.8nm,0.6s,mb4.2,baz=80,slow=7.5,SNR=6.6
BRTR   Keskin Array B  86.36 309  P     P       11 54 14.1 +1.3
       0.2nm,0.4s,mb3.4,baz=127,slow=4.1,SNR=2.5
FINES  FINESS Array B  87.05 332  P     P       11 54 14.7 -0.9
       1.1nm,0.5s,mb4.1,baz=79,slow=5.8,SNR=14
VNDA   Vanda           88.62 173  P     P       11 54 23.5 +0.8
       3.4nm,0.6s,mb4.5,baz=7.3,slow=4.6,SNR=11
NOA    NORSAR Array B  93.94 334  P     P       11 54 46.6 -1.2
       0.6nm,0.8s,mb4.0,baz=67,slow=5.8,SNR=2.2
YKA    Yellowknife Ar  94.97  24  P     P       11 54 52.2 -0.3
       0.6nm,0.7s,mb4.2,baz=300,slow=4.7,SNR=12
SCHQ   Schefferville  115.52   8  PKP   PKPdf   12 00 12.3 +0.5
SCHQ   Schefferville  115.52   8  PKP   PKPdf   12 00 12.3 +0.5
       0.9nm,0.5s,baz=328,slow=1.0,SNR=5.6
TXAR   Lajitas Array  118.70  50  PKP   PKPdf   12 00 19.4 +0.7
TXAR   Lajitas Array  118.70  50  PKP   PKPdf   12 00 19.4 +0.7
       0.1nm,0.6s,baz=8.7,slow=1.6,SNR=3.7
TORD   Torodi Ar. Bea 120.74 291  PKP   PKPdf   12 00 22.5 -0.4
TORD   Torodi Ar. Bea 120.74 291  PKP   PKPdf   12 00 22.5 -0.4
       0.3nm,0.4s,baz=83,slow=2.0,SNR=2.5
```

ISCJB ***14*** *11:44:24.7±0.6, 25.42N±0.06×91.09E±0.04, h10^{km}, mb3.7/7, MS3.9/3, Error ellipse: s-maj=8.4km s-min=5.2km az=174.6*

IDC ***14*** *11:44:30.5±2.1, 26.26N×91.18E, h0^{km}, mb3.7/5, mb1 3.9/5, mb1mx3.5/22, mbtmp3.8/5, MS3.9/3, Ms1 3.9/3, ms1mx3.2/36, Error ellipse: s-maj=87.8km s-min=21.5km az=69.0*

DMN ***14*** *11:44:31.0±0.8, 25.39N×90.39E, h10^{km}, Ml4.7/5, Error ellipse: s-maj=52.3km s-min=15.5km az=31.0*

NEIC ***14*** *11:44:36.3±0.8, 26.33N×91.34E, h35^{km}, mb3.7/2, Error ellipse: s-maj=31.9km s-min=11.3km az=57.0*

BJI ***14*** *11:44:37.7, 26.11N×91.26E, h66^{km}, mb3.8*

ISC 14 11:44:28.4±0.7**, 25.51N**±0.05×**90.96E**±0.05**, h10**^{km}**, n25,** σ**1**^{s}**72**/32**, mb3.7**/7**, MS3.9**/3**, India-Bangladesh border region**

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Code   Station Name     Δ°   AZ°    Phase ID          Time     Res
                                   Op     ISC      h  m  s     ISC
SHL    Shillong         0.83  86 eP     Pg      11 44 38.2 -6.2
SHL                              eS     Sg      11 44 46.9 -8.4
SHL                               AML   AML     11 44 47.5
       comp=N,3μm,0.2s
SHL                               AML   AML     11 44 47.5
       comp=E,5μm,0.2s
AGT    Agartala         1.64 171 i P    Pn      11 44 59.0 +1.7
AGT                              i x    x       11 45 38.0
GTK    Gangtok          2.78 311 eP     Pn      11 45 15.0 +2.0
GTK                              ex     x       11 45 56.0
IMP    Imphal           2.79 104 eP     Pn      11 45 10.0 -3.0
IMP                              ex     x       11 45 57.0
TAPN   Taplejung        3.44 303 ePn    Pn      11 45 24.4 +2.3
TAPN                             eSn    Sn      11 46 04.3 +1.3
       comp=E,1μm,0.8s
ODAN   Odare            3.48 293 ePn    Pn      11 45 24.3 +1.7
ODAN                             eSn    Sn      11 46 04.4 +0.5
       comp=E,674nm,0.3s
LSA    Lhasa            4.18   2  P     Pn      11 45 31.8 -0.4
LSA                               S     Sn      11 46 23.4 +2.4
LSA    Lhasa            4.18   2 ePn    Pn      11 45 31.7 -0.4
JIRN   Jiri             4.78 298 ePn    Pn      11 45 42.2 +1.7
JIRN                             eSn    Sn      11 46 34.0 -2.0
       comp=E,232nm,0.3s
BOK    Bokaro           4.93 251 eP     Pn      11 45 43.7 +1.3
BOK                              eS     Sn      11 46 39.6 +0.1
BOK                               AML   AML     11 47 15.1
       comp=N,51nm,0.3s
BOK                               AML   AML     11 47 17.4
       comp=E,56nm,0.9s
KKN    Kakani           5.57 295 ePn    Pn      11 45 52.6 +1.3
KKN                              eSn    Sn      11 46 54.2 -1.2
       comp=E,94nm,0.2s
GKN    Gorkha           6.18 295 ePn    Pn      11 46 01.0 +1.3
GKN                              eSn    Sn      11 47 07.6 -2.8
       comp=E,173nm,0.3s
BLSP   Bilaspur         8.76 249 eP     Pn      11 46 35.6 +0.4
BLSP                             eS     Sn      11 48 11.5 -2.5
BLSP                              AML   AML     11 49 08.3
       comp=N,21nm,0.2s
BLSP                              AML   AML     11 49 17.9
       comp=E,23nm,0.1s
BHPL   Bhopal          12.55 262 eP     Pn      11 47 24.9 -2.1
BHPL                             eS     Sn      11 49 38.6 -8.3
BHPL                              AML   AML     11 49 44.6
       comp=E,4.4nm,0.2s
TKM2   Tokmak 2        21.46 328 eP     P       11 49 16.6 -0.3
       comp=E,3.2nm,0.8s,mb3.7
UCH    Uchtor          21.49 325 eP     P       11 49 17.8 +0.6
       comp=E,2.4nm,0.9s,mb3.5
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MK31	Makanchi Array	22.34	344	eP	P	11 49 23.8	-2.4
MKAR	Makanchi Array	22.34	344	P	P	11 49 23.4	-2.8
	comp=E,1.4nm,0.4s,mb3.7,baz=152,slow=12,SNR=32						
SONM	Songino Array	25.39	25	P	P	11 49 52.9	-2.9
	comp=E,1.2nm,0.6s,mb3.6,baz=208,slow=10,SNR=7.8						
ZALV	Zalesovo Beam	28.77	352	P	P	11 50 22.8	-3.3
	comp=E,0.5nm,0.5s,mb3.5,baz=170,slow=9.0,SNR=3.9						
AKTO	Aktyubinsk	35.49	323	LR	LR	12 08 39.7	
	comp=E,234nm,20.2s,MS3.9,baz=276,slow=41						
BRTR	Keskin Array B	49.54	301	LR	LR	12 19 26.0	
	comp=E,62nm,19.2s,MS3.6,baz=147,slow=42						
WRA	Warramunga Arr	61.79	133	P	P	11 54 54.2	+6.6
	comp=E,0.7nm,0.6s,mb4.0,baz=321,slow=7.2,SNR=2.7						
HFS	Hagfors	61.94	326	LR	LR	12 25 07.0	
	comp=E,133nm,18.1s,MS4.1,baz=68,slow=40						
ASAR	Alice Springs	64.18	136	P	P	11 55 09.7	+6.2
	comp=E,0.3nm,0.5s,mb3.6,baz=317,slow=6.2,SNR=6.2						

KRSC 14 11:45:16.4±1.0, 53.69N×160.77E, h26^{km}±25^{km}, ML3.6, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SPN	Mys Shipunski	0.74	217	eP	Pb	11 45 30.8	+0.1
SPN				iS	Sb	11 45 41.2	+0.8
KII	Karymskiy	0.86	294	iP	Pb	11 45 32.1	-0.5
KII				iS	Sb	11 45 43.6	0.0
NLC	Nalytchevo	1.00	239	eP	Pn	11 45 34.4	-0.3
NLC				iS	Sb	11 45 47.5	-0.2
MKZ	Mys Kozlova	1.04	33	eP	Pn	11 45 34.2	-1.0
MKZ				iS	Sb	11 45 47.0	-1.8
AVH	Avacha	1.29	251	eP	Pn	11 45 39.1	+0.5
AVH				iS	Sn	11 45 55.4	+0.4
PET	Petropavlovsk	1.43	243	eP	Pn	11 45 40.8	+0.1
PET				iS	Sn	11 45 58.7	+0.1
TUMR	Tumrok	1.64	347	eP	Pn	11 45 43.5	0.0
TUMR				iS	Sn	11 46 03.2	-0.5
GNL	Ganaly	1.68	271	eP	Pn	11 45 44.3	+0.2
GNL				iS	Sn	11 46 04.7	0.0
RUS	Russkaya	1.85	228	eP	Pn	11 45 46.2	-0.2
RUS				iS	Sn	11 46 07.9	-1.1
BZMR	Bezymyannaya	2.26	356	eP	Pn	11 45 54.2	+2.2
BZMR				iS	Sn	11 46 21.6	+2.7
KIRR	Kirishev	2.28	354	eP	Pn	11 45 53.4	+1.1
KIRR				iS	Sn	11 46 20.4	+0.9
KPT	Kopyto	2.30	352	eP	Pn	11 45 54.4	+1.8
ZLN	Zelenaya	2.33	0	eP	Pn	11 45 54.4	+1.4
ZLN				iS	Sn	11 46 22.2	+1.4
KOZ	Kozyrevsk	2.43	348	eP	Pn	11 45 55.1	+0.8
KOZ				iS	Sn	11 46 23.3	+0.1
CIRR	Tsirk	2.43	360	eP	Pn	11 45 56.3	+1.9
KRSR	Krestovskiy	2.54	357	eP	Pn	11 45 57.3	+1.5
KRSR				iS	Sn	11 46 27.2	+1.4
KLY	Klyuchi	2.63	359	eP	Pn	11 45 57.9	+0.8
KLY				iS	Sn	11 46 28.3	+0.2
SRDR	Sredinnyy	2.70	347	eP	Pn	11 45 58.7	+0.6
KBTR	Krutoberegovo	2.79	24	eP	Pn	11 45 59.6	+0.4
KBTR				iS	Sn	11 46 30.9	-1.1
BDR	Baidarnaya	2.90	5	eP	Pn	11 46 02.8	+2.1
SMKR	Semkarok	2.93	8	eP	Pn	11 46 01.9	+0.7
SRKR	Sorokina	2.98	4	eP	Pn	11 46 04.0	+2.1

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*NEIC **14** 11:59:12.0, 39.82N×34.07E, h5^{km}, mb4.5/2, ML3.9(ISK), After ISK.*

*ISK **14** 11:59:13.0, 39.80N×34.08E, h5^{km}, MD3.9, ML4.0*

*CSEM **14** 11:59:13.0±0.1, 39.81N×34.08E, h2^{km}, MD3.8, Error ellipse: s-maj=1.4km s-min=1.2km az=19.0*

*IDC **14** 11:59:14.8±0.8, 39.70N×34.10E, h0^{km}, mb3.4/7, mb1 3.5/11, mb1mx3.5/22, mbtmp3.5/11, ML3.7/3, MS2.5/2, Ms1 2.5/2, ms1mx2.3/25, Error ellipse: s-maj=17.8km s-min=7.0km az=179.0*

*ISCJB **14** 11:59:14.6±0.2, 39.82N±0.02×34.08E±0.02, h10^{km}, mb3.5/8, Error ellipse: s-maj=2.7km s-min=2.3km az=40.6*

*DDA **14** 11:59:14.3, 39.81N×34.16E, h9^{km}±3^{km}, Md3.8*

*MOS **14** 11:59:14.8±1.1, 39.78N×34.02E, h17^{km}, mb3.8/3, Error ellipse: s-maj=13.2km s-min=9.1km az=106.1*

ISC 14 11:59:15.6±0.2, 39.80N±0.02×34.08E±0.02, h10^{km}, n129, σ1.^{s}10/152, mb3.5/8, 3C-6D, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CDAG	Cicekdag	0.29	129	iP	Pg	11 59 19.6	-1.7
CDAG				iS	Sg	11 59 23.3	-2.0
BR131	Keskin Array S	0.35	257	ePg	Pg	11 59 21.3	-1.2
BR131				eSg	Sg	11 59 26.3	-0.9
BR131	Keskin Array S	0.35	257	ePg	Pg	11 59 21.3	-1.2
BR131				eSg	Sg	11 59 26.3	-0.9
BRTR	Keskin Array B	0.35	257	Pg	Pg	11 59 21.4	-1.0
BRTR				Lg		11 59 26.3	
BRTR	Keskin Array B	0.35	257	P	Pg	11 59 21.5	-1.0
BRTR				pmax	pmax		
	comp=Z,257nm,0.3s						
BRTR				pmax	pmax		
	comp=N,1.0nm,0.3s						
BRTR	Keskin Array B	0.35	257	Pg	Pg	11 59 21.4	-1.0
	comp=N,257nm,0.3s,baz=94,slow=17,SNR=7513						
BRTR				Lg		11 59 26.3	
	comp=N,707nm,0.3s,baz=89,slow=30,SNR=76						
KAMT	Kaman	0.52	213	iPG	Pg	11 59 24.1	-1.6
KAMT	Kaman	0.52	213	iPg	Pg	11 59 24.1	-1.6
ELDT	Eldivan	0.85	324	iP	Pg	11 59 30.8	-1.2
ELDT				iS	Sg	11 59 43.9	+0.8
CANT	Cankiri	0.88	336	iPG	Pg	11 59 31.0	-1.5
YOZ	Yozgat	0.97	99	iPG	Pg	11 59 31.7	-2.6
YOZ	Yozgat	0.97	99	iPg	Pg	11 59 31.7	-2.6
CTKT	Corum	0.98	33	iP	Pg	11 59 33.3	-1.2
CTKT				iS	Sg	11 59 45.7	-1.6
ANTO	Ankara	0.99	274	ePg	Pg	11 59 33.4	-1.3
ANTO				eSn	Sn	11 59 48.4	-1.2
ANTO	Ankara	0.99	274	⇑iP	Pg	11 59 33.3	-1.4
ANTO	Ankara	0.99	274	ePg	Pg	11 59 33.4	-1.3
ANTO				eSn	Sn	11 59 48.4	-1.2
LOD	Lodumlu	1.02	275	iPG	Pg	11 59 33.3	-1.9
LOD				iSG	Sg	11 59 48.9	+0.5
LOD	Lodumlu	1.02	275	iPg	Pg	11 59 33.3	-1.9
LOD				iSg	Sg	11 59 48.9	+0.5
AVNT	Avonos	1.19	149	iP	Pb	11 59 36.9	-1.2
AVNT				iS	Sb	11 59 53.2	-0.4
TOS	Tosya	1.23	358	iPN	Pn	11 59 37.2	-1.7
TOS	Tosya	1.23	358	iPn	Pn	11 59 37.2	-1.7
BNN	Bunyan	1.67	124	PN	Pn	11 59 44.5	-0.3
BNN				SN	Sn	12 00 07.3	+1.0
BNN	Bunyan	1.67	124	ePn	Pn	11 59 44.5	-0.3
BNN				eSn	Sn	12 00 07.3	+1.0
NIG	Nigde	1.74	166	PN	Pn	11 59 46.1	+0.2
NIG	Nigde	1.74	166	ePn	Pn	11 59 46.1	+0.2
BYBT	Boyabat	1.74	17	PN	Pn	11 59 46.2	+0.3
BYBT	Boyabat	1.74	17	ePn	Pn	11 59 46.2	+0.3
SAFT	Safranbolu	1.78	324	PN	Pn	11 59 47.0	+0.5
SAFT	Safranbolu	1.78	324	ePn	Pn	11 59 47.0	+0.5
KIZT	Kizilcal	1.94	242	PN	Pn	11 59 48.3	-0.3
KIZT	Kizilcal	1.94	242	ePn	Pn	11 59 48.3	-0.3
TOKT	Tokat	1.96	74	PN	Pn	11 59 48.6	-0.3
TOKT	Tokat	1.96	74	ePn	Pn	11 59 48.6	-0.3
KVT	Kavak	1.97	49	PN	Pn	11 59 48.9	-0.1
KVT	Kavak	1.97	49	ePn	Pn	11 59 48.9	-0.1
KDHN	Kadinhani	1.99	231	iP	Pn	11 59 49.4	0.0
KDHN				iS	Sn	12 00 15.5	+1.2
DIKM	Dikmen	2.05	26	PN	Pn	11 59 50.5	+0.4
DIKM	Dikmen	2.05	26	ePn	Pn	11 59 50.5	+0.4
BZK	Bozkurt	2.15	358	PN	Pn	11 59 51.8	+0.2
BZK	Bozkurt	2.15	358	ePn	Pn	11 59 51.8	+0.2
KONT	Konya--Tatoy	2.29	216	PN	Pn	11 59 53.5	+0.1
KONT	Konya--Tatoy	2.29	216	ePn	Pn	11 59 53.5	+0.1
MDU	Mudurnu	2.29	288	PN	Pn	11 59 53.8	+0.3
MDU	Mudurnu	2.29	288	ePn	Pn	11 59 53.8	+0.3
ESKT	Eskisehir	2.51	265	PN	Pn	11 59 56.0	-0.4
ESKT	Eskisehir	2.51	265	ePn	Pn	11 59 56.0	-0.4
KDZE	Karadeniz Ereo	2.51	308	ePN	Pn	11 59 56.7	+0.2
KDZE	Karadeniz Ereo	2.51	308	ePn	Pn	11 59 56.7	+0.2
GULE	Gulek	2.58	168	iP	Pn	11 59 58.4	+1.0
GULE				iS	Sn	12 00 31.2	+2.5
KARA	Karaisali	2.65	163	ePN	Pn	11 59 58.5	+0.1
KARA	Karaisali	2.65	163	ePn	Pn	11 59 58.5	+0.1
KOZT	Kozan	2.69	149	ePN	Pn	11 59 59.9	+0.9
GULT	Gulveren	2.80	284	ePN	Pn	12 00 00.5	0.0
GULT	Gulveren	2.80	284	ePn	Pn	12 00 00.5	0.0
ANDN	Andirin	2.84	141	iP	Pn	12 00 02.0	+1.1
ANDN				iS	Sn	12 00 34.2	-1.1
ANDN	Andirin	2.84	141	iP	Pn	12 00 02.0	+1.0
ANDN				iS	Sn	12 00 34.2	-1.1
GPA	Golpazari	2.93	281	ePN	Pn	12 00 01.9	-0.4
GPA	Golpazari	2.93	281	ePn	Pn	12 00 01.9	-0.4
MERS	Mersin	2.95	173	ePN	Pn	12 00 03.6	+1.1
MERS	Mersin	2.95	173	ePn	Pn	12 00 03.6	+1.1
SHUT	Suhut-Afyon	3.01	247	ePN	Pn	12 00 03.1	-0.3
SHUT	Suhut-Afyon	3.01	247	ePn	Pn	12 00 03.1	-0.3
CEYT	Ceyhan	3.08	154	ePN	Pn	12 00 04.8	+0.5
CEYT	Ceyhan	3.08	154	ePn	Pn	12 00 04.8	+0.5
ALT	Altintas	3.16	258	ePN	Pn	12 00 05.2	-0.2
ALT	Altintas	3.16	258	ePn	Pn	12 00 05.2	-0.2
KMRS	Kahramanmaras	3.19	135	ePN	Pn	12 00 06.3	+0.6
KMRS	Kahramanmaras	3.19	135	ePn	Pn	12 00 06.3	+0.6
ADVT	Abdulvahap	3.39	282	ePN	Pn	12 00 08.6	+0.1
ADVT	Abdulvahap	3.39	282	ePn	Pn	12 00 08.6	+0.1
GRSN	GIRESUNGRSN	3.39	69	iP	Pb	12 00 13.3	-2.4
GRSN				iS	Sg	12 01 00.1	-4.4
IKL	Isikli	3.57	185	ePN	Pn	12 00 11.9	+0.8
IKL	Isikli	3.57	185	ePn	Pn	12 00 11.9	+0.8
IZI	Iznik	3.58	280	ePN	Pn	12 00 10.9	-0.2
IZI	Iznik	3.58	280	ePn	Pn	12 00 10.9	-0.2
GAZ	Gaziantep	3.60	136	ePN	Pn	12 00 11.9	+0.5
GAZ	Gaziantep	3.60	136	ePn	Pn	12 00 11.9	+0.5
YLV	Yalova	3.69	283	ePN	Pn	12 00 12.4	-0.2
YLV	Yalova	3.69	283	ePn	Pn	12 00 12.4	-0.2
MYA	Malataya	3.69	112	ePN	Pn	12 00 13.6	+0.9
MYA	Malataya	3.69	112	ePn	Pn	12 00 13.6	+0.9
MALT	Malatya	3.70	112	ePn	Pn	12 00 12.9	+0.2
MALT				⇓P		12 00 23.5	
MALT				ePg	Pg	12 00 23.7	-2.7
MALT				eSg	Sg	12 01 22.7	+8.3
MALT	Malatya	3.70	112	⇓iP	Pb	12 00 23.5	+2.5
MALT	Malatya	3.70	112	ePn	Pn	12 00 12.9	+0.1
GUMT	Gumushane	4.19	79	ePN	Pn	12 00 20.2	+0.7
GUMT	Gumushane	4.19	79	ePn	Pn	12 00 20.2	+0.7
PTK	Pertek	4.22	101	ePN	Pn	12 00 20.0	+0.1
PTK	Pertek	4.22	101	ePn	Pn	12 00 20.0	+0.1
YAL	Yalta	4.68	1	eP	Pn	12 00 26.7	+0.4
YAL				eS	Sn	12 01 22.6	+2.0
YAL				pmax	pmax		
	comp=Z,15nm,0.2s						
YAL				smax			
	comp=N,30nm,0.2s						
YAL				smax			
	comp=E,10.0nm,0.2s						
YAL	Yalta	4.68	1	eP	Pn	12 00 26.7	+0.4
	comp=E,15nm,0.2s						
YAL				eS	Sn	12 01 22.6	+2.0
SEV	Sevastopol’	4.75	356	eP	Pn	12 00 26.9	-0.3
SEV				eS	Sn	12 01 21.1	-1.1
SEV				pmax	pmax		
	comp=Z,10.0nm,0.3s						
SEV				smax			
	comp=N,4.0nm,0.3s						
SEV				smax			
	comp=E,3.0nm,0.3s						
SEV	Sevastopol’	4.75	356	eP	Pn	12 00 26.9	-0.3
	comp=E,10.0nm,0.3s						
SEV				eS	Sn	12 01 21.1	-1.1
SUDU	Sudak	5.13	7	eP	Pn	12 00 32.6	+0.2
SUDU				eS	Sn	12 01 33.1	+1.5
TIRR	Tirgusor	6.27	320	⇓P	Pn	12 00 49.7	+1.5
TIRR	Tirgusor	6.27	320	⇓iP	Pn	12 00 49.7	+1.6
MMAI	Mount Meron Ar	6.86	171	Pn	Pn	12 00 56.3	+0.1
	comp=E,3.4nm,0.3s,baz=343,slow=14,SNR=12						
ASF	Jabal al Asfar	7.95	162	Pn	Pn	12 01 11.7	+0.5
ASF	Jabal al Asfar	7.95	162	P	Pn	12 01 11.7	+0.5
ASF				MLR	MLR		
	comp=Z,35nm,18.7s						
ASF	Jabal al Asfar	7.95	162	Pn	Pn	12 01 11.7	+0.5
	baz=198,slow=5.4,SNR=2.5						
ASF				LR	LR	12 04 58.3	
	comp=Z,35nm,18.7s,baz=272,slow=44						
IDI	Anoyia	8.58	241	LR	LR	12 04 42.7	
	comp=Z,32nm,19.0s,baz=299,slow=38						
VTS	Vitosha	8.66	292	⇓P	Pn	12 01 22.5	+1.6
VTS	Vitosha	8.66	292	⇓iP	Pn	12 01 22.5	+1.7
BURAR	Bucovina Array	10.10	324	⇑P	Pn	12 01 40.4	-0.2
BURAR	Bucovina Array	10.10	324	⇑iP	Pn	12 01 40.3	-0.3
EIL	Elat	10.14	176	Pn	Pn	12 01 39.6	-1.6
EIL	Elat	10.14	176	Pn	Pn	12 01 39.6	-1.6
	comp=Z,0.3nm,0.3s,baz=23,slow=7.7,SNR=2.5						
EIL	Elat	10.14	176	Pn	Pn	12 01 39.6	-1.6
AKASG	Malin Array Be	11.42	344	P	Pn	12 01 55.7	-2.9
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	11.42	344	Pn	Pn	12 01 55.7	-2.9
	comp=Z,1.4nm,0.3s,baz=162,slow=13,SNR=4.3						
AKASG	Malin Array Be	11.42	344	Pn	Pn	12 01 55.7	-2.9
GERES	GERESS Array B	17.11	309	Pn	Pn	12 03 19.9	+5.1
GERES	GERESS Array B	17.11	309	Pn	Pn	12 03 19.9	+5.1
	comp=Z,0.1nm,0.3s,baz=91,slow=16,SNR=2.5						
FINES	FINESS Array B	22.22	350	P	P	12 04 13.5	+1.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	22.22	350	P	P	12 04 13.4	+1.5
	comp=Z,0.6nm,0.5s,mb3.3,baz=161,slow=9.8,SNR=4.4						
FINES	FINESS Array B	22.22	350	P	P	12 04 13.4	+1.4
HFS	Hagfors	24.02	335	P	P	12 04 33.0	+2.7
HFS				pmax	pmax		
	comp=Z,1.0nm,0.5s						
HFS	Hagfors	24.02	335	P	P	12 04 33.0	+2.7
	comp=Z,1.1nm,0.5s,mb3.5,baz=126,slow=14,SNR=2.8						
KURK	Kurchatov	32.73	56	eP	P	12 05 48.5	+0.3
	comp=Z,2.1nm,0.9s,mb4.1						
KURK	Kurchatov	32.73	56	eP	P	12 05 48.5	+0.3
KURK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
KURK	Kurchatov	32.73	56	eP	P	12 05 48.5	+0.3
MKAR	Makanchi Array	35.31	62	P	P	12 06 10.7	0.0
	comp=Z,0.4nm,0.7s,mb3.5,baz=282,slow=6.6,SNR=6.8						
ZAL	Zalesovo	36.62	50	P	P	12 06 22.2	+0.4
ZALV	Zalesovo Beam	36.63	50	P	P	12 06 22.2	+0.3
	comp=Z,0.3nm,0.3s,mb3.6,baz=265,slow=7.2,SNR=3.1						
ZALV	Zalesovo Beam	36.63	50	P	P	12 06 22.1	+0.2
TORD	Torodi Ar. Bea	38.94	236	P	P	12 06 41.9	+0.1
	comp=Z,0.4nm,0.4s,mb3.5,baz=121,slow=36,SNR=4.6						
SONM	Songino Array	51.03	56	P	P	12 08 19.0	+1.3
	comp=Z,0.2nm,0.7s,mb3.2,baz=278,slow=7.8,SNR=2.3						
YKA	Yellowknife Ar	74.98	346	P	P	12 10 58.6	+2.1
YKA	Yellowknife Ar	74.98	346	P	P	12 10 58.7	+2.1
	comp=Z,0.1nm,0.5s,mb3.0,baz=21,slow=5.6,SNR=3.0						
MVCO	Mesa Verde	96.00	331	eP	P	12 12 38.0	-5.0
	comp=Z,2.1nm,0.5s						

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*ISCJB **14** 12:15:20.2±1.0, 29.85N±0.04×36.32E±0.06, h0^{km}, Error ellipse: s-maj=8.0km s-min=5.6km az=16.0*

*HLW **14** 12:15:20.7, 29.76N×36.66E, h20^{km}, Mb3.2*

*SGS **14** 12:15:21.0, 30.04N×36.28E, h8^{km}*

*CSEM **14** 12:15:21.3±0.2, 29.75N×36.25E, h2^{km}, ML2.1, Error ellipse: s-maj=4.8km s-min=2.9km az=104.0, Mining explosion.*

*GII **14** 12:15:21.0±0.0, 29.86N×36.29E, h0^{km}, ML2.1/4*

ISC 14 12:15:20.2±1.0, 29.84N±0.04×36.36E±0.06, h0^{km}, n29, σ0.^{s}75/38, 3C, Western Arabian Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AQBJ	Aqaba	1.14	265	Pg	Pg	12 15 41.6	-0.5
HRFI	Mount Harif	1.16	280	Pg	Pg	12 15 41.5	-1.0
HRFI				Sg	Sg	12 15 58.2	+0.7
HRFI	Mount Harif	1.16	280	Pg	Pg	12 15 41.5	-1.0
HRFI				Sg	Sg	12 15 58.2	+0.7
EIL	Elat	1.23	262	Pg	Pg	12 15 43.4	-0.5
EIL				Sg	Sg	12 16 00.5	+0.7
EIL	Elat	1.23	262	Pg	Pg	12 15 43.4	-0.5
EIL				Sg	Sg	12 16 00.5	+0.6
ZFRI	Zfri	1.24	305	Pg	Pg	12 15 43.4	-0.7
ZFRI	Zfri	1.24	305	Pg	Pg	12 15 43.4	-0.6
HQLS		1.25	245	P	Pg	12 15 43.4	-0.8
HQLS				S	Sg	12 16 00.2	-0.2
HQLS		1.25	245	P	Pg	12 15 43.4	-0.8
PRNI	Paran	1.28	294	Pg	Pg	12 15 43.1	-1.6
JLOS		1.34	215	P	Pg	12 15 45.2	-0.6
JLOS				S	Sg	12 16 04.6	+1.4
JLOS		1.34	215	P	Pg	12 15 45.2	-0.7
KRMI	Paran Flat	1.44	281	Pn	Pn	12 15 46.8	-0.8
KRMI	Paran Flat	1.44	281	Pn	Pn	12 15 46.8	-0.8
HBST	Basata	1.55	247	⇑P	Pn	12 15 48.9	-0.1
HBST	Basata	1.55	247	P	Pn	12 15 48.8	-0.2
MZDA	Masada	1.69	330	Pn	Pn	12 15 51.2	+0.2
MZDA	Masada	1.69	330	Pn	Pn	12 15 51.2	+0.2
YTIR	Yattir	1.85	325	Pn	Pn	12 15 53.6	+0.3
YTIR	Yattir	1.85	325	Pn	Pn	12 15 53.6	+0.4
DSI	Dead Sea	1.92	334	Pn	Pn	12 15 55.2	+1.2
DSI	Dead Sea	1.92	334	Pn	Pn	12 15 55.2	+1.1
DRGI	Dragot	1.93	335	Pn	Pn	12 15 55.1	+0.8
DRGI	Dragot	1.93	335	Pn	Pn	12 15 55.1	+0.8
KZIT	Kziot	2.00	303	Pn	Pn	12 15 55.7	+0.5
KZIT				Sn	Sn	12 16 20.6	-0.3
KZIT	Kziot	2.00	303	Pn	Pn	12 15 55.7	+0.5
KZIT				Sn	Sn	12 16 20.6	-0.3
RSHS		2.06	222	P	Pn	12 15 55.4	-0.6
HNKL	Nakhl	2.07	273	⇑P	Pn	12 15 57.0	+0.9
HNKL				S	Sn	12 16 23.5	+0.9
HKAT	Jabal Katrina	2.45	238	⇑P	Pn	12 16 01.5	+0.1

IDC 14 12:19:52.1±5.1, 6.93S×125.61E, h528^{km}±80^{km}, mb2.8/3, mb1 2.9/6, mb1mx2.8/17, mbtmp2.8/6, Error ellipse: s-maj=91.5km s-min=34.4km az=58.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	11.11	180	P	P	12 22 21.0	-0.3
	0.3nm,0.3s,baz=7.2,slow=11,SNR=13						
WRA	Warramunga Arr	15.47	148	P	P	12 23 06.0	-0.8
	0.4nm,0.3s,baz=326,slow=10,SNR=15						
ASAR	Alice Springs	18.45	155	P	P	12 23 35.8	+0.5
	0.6nm,0.3s,baz=341,slow=14,SNR=33						
SONM	Songino Array	57.10	345	P	P	12 28 48.4	+0.4
	0.2nm,0.6s,baz=152,slow=6.5,SNR=2.6						
MKAR	Makanchi Array	65.84	329	P	P	12 29 45.3	+0.1
	0.3nm,0.4s,baz=129,slow=7.3,SNR=4.6						
ZALV	Zalesovo Beam	69.65	336	P	P	12 30 07.8	-0.4
	1.0nm,0.4s,baz=131,slow=4.2,SNR=5.0						

IDC 14 12:24:05.4±1.9, 1.11N×126.13E, h0^{km}, mb3.6/4, mb1 3.8/4, mb1mx3.5/16, mbtmp3.6/4, MS2.9/1, Ms1 2.9/1, ms1mx2.2/22, Error ellipse: s-maj=167.2km s-min=25.0km az=64.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	22.31	55	LR	LR	12 36 49.8	
	comp=Z,30nm,19.1s,baz=91,slow=34						
WRA	Warramunga Arr	22.41	159	P	P	12 29 05.1	-0.7
	1.2nm,0.5s,baz=337,slow=11,SNR=24						
ASAR	Alice Springs	25.76	163	P	P	12 29 39.2	+1.3
	0.4nm,0.4s,baz=345,slow=10,SNR=12						
STKA	Stephens Creek	35.93	157	P	P	12 31 07.0	-0.7
	1.8nm,0.8s,baz=349,slow=10,SNR=2.8						
MKAR	Makanchi Array	59.38	326	P	P	12 34 09.5	0.0
	0.1nm,0.2s,baz=123,slow=8.0,SNR=4.3						

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*IDC **14** 12:24:09.8±13.0, 21.80S×176.44W, h185^{km}±113^{km}, mb3.7/6, mb1 3.8/7, mb1mx3.5/17, mbtmp3.7/7, Error ellipse: s-maj=67.2km s-min=37.4km az=42.0*

*NEIC **14** 12:24:19.0±6.0, 22.08S×176.55W, h274^{km}±52^{km}, mb4.0/3, Error ellipse: s-maj=42.6km s-min=20.4km az=221.0*

ISC 14 12:24:11.6±4.4, 21.8S±0.3×175.9W±0.6, h250^{km}, n22, σ0.^{s}59/16, mb3.8/7, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	16.41	266	P	P	12 27 46.9	-0.2
	0.3nm,0.3s,baz=93,slow=18,SNR=4.2						
URZ	Urewera	17.51	199	P	P	12 27 59.2	+0.4
	0.6nm,0.3s,baz=21,slow=5.4,SNR=16						
QRZ	Quartz Range	21.39	205	PN	P	12 28 39.3	-0.6
NNZ	Nelson	21.41	203	PN	P	12 28 35.6	-4.5
THZ	Tophouse	22.06	203	PN	P	12 28 44.9	-1.1
LTZ	Lake Taylor	23.18	203	ePN	P	12 28 57.3	+1.1
CTA	Charters Tower	35.36	266	eP	P	12 30 44.1	+0.3
	4.3nm,0.9s,mb4.0						
CTA	Charters Tower	35.36	266	P	P	12 30 43.4	-0.4
	4.4nm,0.6s,mb4.2,baz=90,slow=12,SNR=9.7						
PMG	Port Moresby	37.56	283	P	P	12 31 02.5	+0.1
	6.6nm,0.8s,mb4.2,baz=72,slow=4.6,SNR=6.9						
STKA	Stephens Creek	39.05	246	P	P	12 31 15.2	+0.6
	0.6nm,0.4s,mb3.5,baz=82,slow=10,SNR=3.7						
ASAR	Alice Springs	46.17	258	P	P	12 32 11.9	+0.1
	3.7nm,0.7s,mb3.8,baz=90,slow=8.0,SNR=31						
ASAR				PcP	PcP	12 33 47.3	+4.0
	0.1nm,0.4s,baz=104,slow=4.0,SNR=4.6						
WB2	Warramunga Arr	46.39	263	eP	P	12 32 13.2	-0.3
WRA	Warramunga Arr	46.40	263	P	P	12 32 13.3	-0.3
	0.9nm,0.3s,mb3.6,baz=95,slow=7.9,SNR=55						
KAKA	Kakadu	49.99	271	eP	P	12 32 40.7	-0.3
	11nm,1.3s,mb4.0						
FITZ	Fitzroy Crossi	54.83	263	eP	P	12 33 17.3	+0.8
	1.5nm,0.6s,mb3.7						
FITZ	Fitzroy Crossi	54.83	263	P	P	12 33 17.3	+0.8
	0.9nm,0.5s,mb3.6,baz=90,slow=11,SNR=8.4						
ARCES	ARCESS Array B	130.51	350	PKP	PKPdf	12 42 57.2	+5.4
ARCES	ARCESS Array B	130.51	350	PKP	PKPdf	12 42 57.2	+5.4
	0.7nm,0.5s,baz=318,slow=1.6,SNR=6.5						
AKASG	Malin Array Be	145.07	332	PKP	PKPdf	12 43 23.0	+4.1
AKASG	Malin Array Be	145.07	332	PKP	PKPdf	12 43 23.0	+4.1
	1.0nm,0.3s,baz=43,slow=4.3,SNR=5.7						
BRTR	Keskin Array B	149.16	312	PKPbc	PKPbc	12 43 35.5	+5.0
BRTR	Keskin Array B	149.16	312	PKPbc	PKPbc	12 43 35.5	+5.0
	1.0nm,0.6s,baz=89,slow=4.7,SNR=4.9						

CASC 14 12:28:32.8±2.1, 9.04N×83.90W, h0^{km}±4^{km}, MD3.9, 4C-6D, Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QCR	Quepos	0.46	326	⇓eP	Pg	12 28 42.7	+1.0
BUS	Buena Vista	0.53	15	⇓eP	Pg	12 28 45.0	+2.0
BAR1		0.61	71	⇑iP	Pg	12 28 46.4	+1.8
LCR2	La Lucha 2	0.70	352	⇓eP	Pg	12 28 47.3	+1.0
URSC	Urasca	0.80	9	⇓iP	Pg	12 28 49.4	+1.3
LAJ	Bijagual	0.85	345	⇓iP	Pg	12 28 50.7	+1.6
SJS	Escuela Geolog	0.91	350	⇑eP	Pg	12 28 51.1	+0.9
ICR	Volcan Irazu	0.94	4	eP	Pg	12 28 51.8	+1.0
ICR				eS	Sg	12 29 06.1	+3.1
PRS1	Puriscal	1.02	337	⇓eP	Pg	12 28 51.1	-1.3
CGA2	Cerro Gallo 2	1.12	330	⇑eP	Pg	12 28 54.0	-0.3
CGA2				eS	Sg	12 29 10.6	+1.8
BRU	Baru	1.34	100	eP	Pg	12 28 58.3	-0.3
CNI	Changuinola	1.42	75	eP	Pn	12 29 00.1	+0.2
JCR	Jicaral	1.44	304	eP	Pn	12 29 00.3	+0.2
JCR				eS	Sg	12 29 20.9	+1.7
DVD	David	1.55	113	eP	Pn	12 28 58.8	-2.9
FORC	Fortuna	1.61	332	⇑iP	Pn	12 29 02.8	+0.3
FORC				eS	Sn	12 29 24.8	+0.7
VCR	Vista de Mar	2.02	302	eP	Pn	12 29 08.8	+0.6
VCR				eS	Sn	12 29 34.9	+0.7
CUI		2.05	322	eP	Pn	12 29 07.6	-0.9
CUI				eS	Sn	12 29 37.2	+2.5
LIM1	Limonal	2.12	321	eP	Pn	12 29 09.2	-0.4
PTP	Ponta Puerca	19.96	61	eP		12 28 57.2	
PTP				eS		12 29 16.9	

MAN 14 12:30:34, 10.92N×126.01E, h31^{km}, mb4.3, ML3.1, MS2.9, 1D, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLP	Palo	1.04	284	eP	Pn	12 30 52.2	-0.2
PLP				eS	Sn	12 31 06.1	+0.2
SCPH	Surigao	1.24	204	⇓eP	Pn	12 30 55.1	-0.1
SCPH				eS	Sn	12 31 11.2	+0.3

CASC 14 12:49:23.9±2.0, 11.95N×86.27W, h139^{km}±9^{km}, MD3.7, 1C-5D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TICN	Ticuantepe	0.10	25	eP	Pn	12 49 43.3	+0.6
TICN				eS	Sn	12 49 55.0	-2.0
APON	Apoyo	0.20	98	⇓eP	Pn	12 49 43.4	+0.5
XAVN	Gruta Xavier	0.21	346	eP	Pn	12 49 43.2	+0.3
APYN	Apoyeque	0.30	345	eP	Pn	12 49 43.8	+0.6
COPN	Copaltepe	0.39	307	⇓eP	Pn	12 49 43.3	-0.2
COPN				eS	Sn	12 49 59.3	+1.0

HUEN		0.40	14	⇓*i*P	Pn	12 49 44.2	+0.6
CNGN	Cerro Negro	0.69	323	*e*P	Pn	12 49 45.2	0.0
CONN	Concepcion	0.74	121	⇓*i*P	Pn	12 49 46.1	+0.6
SSNN	San Juan del S	0.77	147	⇑*e*P	Pn	12 49 46.3	+0.5
SSNN				*e*S	Sn	12 50 03.6	+1.1
BOAB	BOACO BROADBAN	0.78	50	*e*P	Pn	12 49 45.4	-0.4
BOAB				⇓*e*P		12 49 45.4	
TEL3	Telica 3	0.84	318	*e*P	Pn	12 49 45.8	-0.5
TEL3				*e*S	Sn	12 50 04.6	+1.3
MADN	Villa Maderas	0.90	126	*e*P	Pn	12 49 47.6	+0.8
LIM1	Limonal	1.59	141	*e*S	Sn	12 50 17.4	+0.9
LIM1				*e*S	Sn	12 50 17.4	+0.9
CUI		1.67	140	*i* S	Sn	12 50 19.5	+1.5
VCR	Vista de Mar	1.91	161	*e*P	Pn	12 49 56.6	-0.8
JCR	Jicaral	2.37	151	*e*P	Pn	12 50 02.6	-0.3
CGA2	Cerro Gallo 2	2.61	137	*e*S	Sn	12 50 38.9	+0.5
PRS1	Puriscal	2.74	135	*e*P	Pn	12 50 08.8	+1.2
LCR2	La Lucha 2	3.12	134	*e*P	Pn	12 50 15.8	+3.3
LCR2				*e*S	Sn	12 50 51.0	+1.0
URSC	Urasca	3.23	130	*e*P	Pn	12 50 16.1	+2.3
URSC				*e*S	Sn	12 50 55.5	+3.1
BAR1		3.96	132	*e*P	Pn	12 50 24.6	+1.1

MOS ***14*** *14:21:44.9±1.0,1928S×6985W,h33^{km},mb5.4/44, MS4.4/10,Error ellipse: s-maj=14.6km s-min=7.1km az=107.9*

LDG ***14*** *14:21:46.8±0.4,1897S×7023W,h54^{km},Mb5.4/5, Ms4.3/10,Error ellipse: s-maj=24.4km s-min=12.5km az=33.0*

BJI ***14*** *14:21:46.6,1960S×6980W,h33^{km},mB5.3,Ms5.4,Msz5.2*

NEIC ***14*** *14:21:47.6±0.2,1959S×6982W,mb5.3/113,MW5.6,Error ellipse: s-maj=6.4km s-min=4.4km az=60.0,Moment Tensor Solution. s17 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-1.08; M$_{\theta\theta}$0.17; M$_{\phi\phi}$0.92; M$_{r\theta}$0.28; M$_{\theta\phi}$0.02; M$_{\phi r}$-2.59; Best double couple: M$_0$2.80000×10^{17} NP1:φ$_s$185.00000°, δ11.00000°,λ-79.00000°. NP2:φ$_s$354.00000°,δ80.00000°, λ-92.00000°. Principal axes: T 2.7000, Plg35.0000°, Azm86.0000°; N 0.1800, Plg2.0000°, Azm355.0000°; P -2.8800, Plg55.0000°, Azm262.0000°;*

NEIC Felt [V] at Iquique and Pisagua; [IV] at Chiapa, Huara and Pozo Almonte; [III] at Arica and Tocopilla. Felt [II] at Tacna, Peru.

GCMT ***14*** *14:21:47.6±0.2,1974S×7027W,h102^{km}±1^{km},MW5.4/84, Moment Tensor Solution. s77,c119; s84,c148; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.71±.02; M$_{\theta\theta}$-0.41±.03; M$_{\phi\phi}$1.12±.03; M$_{r\theta}$-0.30±.02; M$_{\theta\phi}$-0.06±.03; M$_{\phi r}$-0.87±.02; Best double couple: M$_0$1.32600×10^{17} NP1:φ$_s$150.00000°,δ29.00000°, λ-133.00000°. NP2:φ$_s$17.00000°,δ70.00000°, λ-70.00000°. Principal axes: T 1.4710, Plg22.0000°, Azm92.0000°; N -0.2940, Plg19.0000°, Azm190.0000°; P -1.1800, Plg60.0000°, Azm317.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

ISCJB ***14*** *14:21:49.1±0.2,1951S±004×6987W±004,h74^{km}, mb5.2/128 Error ellipse: s-maj=6.0km s-min=4.2km az=32.8*

IDC ***14*** *14:21:50.8±0.4,1958S×6993W,h79^{km}±3^{km},mb4.7/13, mb1 4.9/16,mb1mx4.8/18,mbtmp4.7/16,MS4.2/15, Ms1 4.1/15,ms1mx4.0/21,Error ellipse: s-maj=16.1km s-min=11.7km az=66.0*

ISC 14 14:21:47.1±0.2,**1963S**±003×**6981W**±004,**h46^{km}, h46^{km}**±2.6^{km}**:pP-P,n676,**σ**0^{s}75**/559,**mb5.3**/128,**MS4.5**/27, **93C-88D,Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARE	Arequipa	3.54	333	⇑*i*P	Pn	14 22 41.8	+2.3
ARE				*e*S	Sn	14 23 20.0	0.0
LPAZ	La Paz	3.69	26	*e*Pn	Pn	14 22 51.0	+9.4
LPAZ	La Paz	3.69	26	P	Pn	14 22 51.1	+9.4
	28nm,0.3s,baz=218,slow=8.5,SNR=436						
LPAZ				S	Sn	14 23 32.4	+8.5
	32nm,0.3s,baz=47,slow=21,SNR=2.7						
LPAZ				LR	LR	14 23 48.5	
	comp=Z,211nm,21.3s,baz=215,slow=32						
CEN1	Los Morros	3.75	185	⇑*i*P	Pn	14 22 46.7	+4.3
ANCH	Antofagasta	4.07	188	*e*P	Pn	14 22 47.4	+0.6
ANCH				*i* S	Sn	14 23 30.6	-2.5
CPN1	Cerro Paranal	5.00	186	*e*P	Pn	14 23 00.2	+0.6
CPN1				*e*S	Sn	14 23 50.5	-5.6
CDCH	Caldera	7.46	187	⇓*i*P	Pn	14 23 30.8	-2.6
SIV	San Ignacio	9.08	68	P	Pn	14 24 00.2	+4.7
	51nm,0.3s,baz=262,slow=10,SNR=1033						
SIV				S	Sn	14 25 43.2	+6.8
SIV				LR	LR	14 28 14.0	
	comp=Z,6µm,18.9s,baz=247,slow=42						
LCO	Las Campanas	9.37	185	*e*Pn	Pn	14 23 58.5	-1.0
	122nm,0.8s						
NNA	Nana	10.17	317	Pn	Pn	14 24 12.5	+1.9
	712nm,0.5s,SNR=10						
NNA	Nana	10.17	317	*e*Pn	Pn	14 24 09.5	-1.0
	76nm,0.6s						
NNA	Nana	10.17	317	P	Pn	14 24 11.4	+0.8
	9.8nm,0.3s,baz=152,slow=9.4,SNR=21						
NNA				S	Sn	14 25 57.6	-5.7
	27nm,0.3s,baz=238,slow=20,SNR=7.0						
TLL	Tololo Astrono	10.53	185	*e*P	Pn	14 24 13.7	-1.7
CFAA	Coronel Fontan	12.01	174	P	Pn	14 24 34.0	-1.5
CFAA				S	Sn	14 26 40.8	-7.2
CFAA				LR	LR	14 29 33.0	
CFAA	Coronel Fontan	12.01	174	P	Pn	14 24 34.0	-1.5
	0.5nm,0.3s,baz=359,slow=13,SNR=21						
CFAA				S	Sn	14 26 40.8	-7.3
	0.7nm,0.3s,baz=199,slow=14,SNR=5.1						
CFAA				LR	LR	14 29 33.0	
	comp=Z,94nm,18.3s,baz=343,slow=38						
ATAH	Atahualpa	15.07	325	P	Pn	14 25 15.8	-1.3
	0.6nm,0.3s,baz=126,slow=6.4,SNR=10						
ATAH				S	S	14 28 00.6	-18
	0.6nm,0.3s,baz=89,slow=18,SNR=2.8						
ROSC	El Rosal	24.74	349	*e*P	P	14 27 04.6	+0.3
ROSC	El Rosal	24.74	349	P	P	14 27 06.2	+1.9
	40nm,0.5s,mb5.2,baz=101,slow=23,SNR=14						
ROSC				S	S	14 31 28.7	+5.2
	4.2nm,0.4s,baz=272,slow=22,SNR=3.5						
BCIP	Isla Barro Col	30.27	340	*e*P	P	14 27 55.3	+1.3
JTS	JuntasAbangare	33.27	332	*e*P	P	14 28 20.3	+0.1
	66nm,1.4s,mb5.4						
JTS	JuntasAbangare	33.27	332	*d i*P	P	14 28 20.7	+0.4
USHA	Ushuaia	35.15	179	P	P	14 28 37.6	+1.4
	5.3nm,0.5s,mb4.7,baz=346,slow=8.3,SNR=10						
USHA				pP	pP	14 28 54.8	+6.4
	6.6nm,0.5s,baz=357,slow=10,SNR=3.3						
RCBR	Riachuelo	35.72	72	*e*P	P	14 28 43.4	+1.8
	104nm,0.7s,mb5.9						
CPD	Cerro la Pandu	37.63	6	*e*P	P	14 28 56.3	-1.4
TGUH	Tegucigalpa,Un	37.63	332	*e*P	P	14 28 58.4	+0.6
	62nm,0.9s,mb5.3						
SJG	San Juan	37.68	6	*e*P	P	14 28 56.8	-1.4
	100nm,0.8s,mb5.6						
SJG				LR	LR		
	comp=Z,399nm,21.0s,MS4.2						
SJG	San Juan	37.68	6	*e*P	P	14 28 56.8	-1.3
SJG				pmax	pmax		
	comp=Z,100nm,0.8s						
SJG				MLR	MLR		
	comp=Z,399nm,21.0s						
MTP	Monte Pirata	37.73	7	*e*P	P	14 28 57.0	-1.5
SDDR	Presa de Saban	38.40	358	*e*P	P	14 29 03.1	-1.1
	comp=Z,33nm,0.9s,mb5.1						
MGV	Manicaragua	42.66	346	*e*P	P	14 29 42.5	+3.2
BRAL	Brewton	53.01	341	*e*P	P	14 30 59.8	+0.4
	comp=Z,98nm,0.6s,mb5.9						
NHSC	New Hope	53.37	349	*e*P	P	14 31 02.5	+0.5
	comp=Z,333nm,1.2s,mb6.1						
COW	Cow Castle Cre	53.73	349	*e*P	P	14 31 04.7	+0.1
GOGA	Godfrey	54.33	346	*e*P	P	14 31 08.1	-0.8
	comp=Z,28nm,1.2s,mb5.1						
GOGA	Godfrey	54.33	346	*e*P	P	14 31 08.1	-0.9
GOGA				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.1						
JSC	Jenkinsville	54.71	348	*e*P	P	14 31 11.3	-0.4
LRAL	Lakeview Retre	54.88	342	*e*P	P	14 31 11.7	-1.3
	comp=Z,49nm,1.1s,mb5.5						
HKT	Hockley	55.30	332	*e*P	P	14 31 15.2	-0.8
	comp=Z,189nm,1.8s,mb5.8						
HKT	Hockley	55.30	332	*e*P	P	14 31 15.2	-0.9
HKT				pmax	pmax		
	comp=Z,189nm,1.8s,mb5.8						
NATX	Nacogdoches	56.38	335	*e*P	P	14 31 24.1	+0.3
	comp=Z,197nm,1.5s,mb5.9						
CPCT	Cooper Cave	56.53	346	*e*P	P	14 31 23.3	-1.5
SWET	Sewanee	56.65	344	*e*P	P	14 31 24.3	-1.3
OXF	Oxford	56.98	341	*e*P	P	14 31 26.1	-1.8
	comp=Z,29nm,0.5s,mb5.6						
OXF	Oxford	56.98	341	*e*P	P	14 31 26.1	-1.9
OXF				pmax	pmax		
	comp=Z,29nm,0.5s,mb5.6						
PLAL	Pickwick Lake	57.02	342	*e*P	P	14 31 26.2	-2.0
	comp=Z,16nm,0.6s,mb5.2						
BLA	Blacksburg	57.41	350	*e*P	P	14 31 31.2	+0.2
	comp=Z,48nm,0.7s,mb5.6						
BLA	Blacksburg	57.41	350	*e*P	P	14 31 31.2	+0.2
BLA				pmax	pmax		
	comp=Z,48nm,0.7s,mb5.6						
ELN	Prospectdale	57.49	350	*e*P	P	14 31 31.6	+0.1
JCT	Junction City	57.57	329	*e*P	P	14 31 31.2	-1.0
	comp=Z,22nm,0.6s,mb5.4						
JCT	Junction City	57.57	329	*e*P	P	14 31 31.2	-1.0
JCT				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.4						
WVT	Waverly	58.02	343	*e*P	P	14 31 33.2	-2.1
	comp=Z,61nm,0.7s,mb5.7						
WVT	Waverly	58.02	343	*e*P	P	14 31 33.2	-2.1
WVT				pmax	pmax		
	comp=Z,61nm,0.7s,mb5.7						
MIAR	Mount Ida	58.43	337	*e*P	P	14 31 37.0	-1.1
	comp=Z,31nm,0.6s,mb5.5						
MIAR	Mount Ida	58.43	337	*e*P	P	14 31 37.0	-1.1
MIAR				pmax	pmax		
	comp=Z,31nm,0.6s,mb5.5						
LTX	Lajitas	58.62	325	*e*P	P	14 31 38.6	-0.9
	comp=Z,5.4nm,0.5s,mb4.8						
LTX	Lajitas	58.62	325	*e*P	P	14 31 38.7	-0.9
LTX				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
TXAR	Lajitas Array	58.62	325	P	P	14 31 38.5	-1.0
	comp=Z,6.9nm,0.6s,mb4.9,baz=151,slow=8.9,SNR=75						
TXAR				pP	pP	14 31 59.6	+7.1
	comp=Z,1.2nm,0.6s,baz=73,slow=30,SNR=4.2						
TXAR				LR	LR	14 54 55.6	
	comp=Z,120nm,21.0s,baz=320,slow=34						
PARMO	Parma	59.08	341	*e*P	P	14 31 41.3	-1.3
WCI	Wyandotte Cave	59.60	345	*e*P	P	14 31 44.2	-1.9
	comp=Z,58nm,1.1s,mb5.5						
WCI	Wyandotte Cave	59.60	345	*e*P	P	14 31 44.3	-1.9
WCI				pmax	pmax		
	comp=Z,58nm,1.1s,mb5.5						
USIN	University of	59.70	344	*e*P	P	14 31 45.3	-1.6
	comp=Z,62nm,1.0s,mb5.6						
MCWV	Mont Chateau	59.72	351	*e*P	P	14 31 46.9	-0.1
	comp=Z,95nm,0.8s,mb5.9						
SIUC	Southern Illin	59.89	342	*e*P	P	14 31 46.8	-1.4
	comp=Z,33nm,0.6s,mb5.5						
RKT	Rikitea	60.33	254	*e*LR	LR	14 49 41.9	
	comp=Z,1µm,33.8s						
RKT	Rikitea	60.33	254	*e*T		15 36 54.5	
	comp=Z,4.2nm,0.2s						
SSPA	Standing Stone	60.43	353	*e*P	P	14 31 51.7	-0.1
	comp=Z,49nm,1.4s,mb5.3						
FVM	French Village	60.50	341	*e*P	P	14 31 51.0	-1.4
	comp=Z,72nm,0.9s,mb5.7						
FVM	French Village	60.50	341	*e*P	P	14 31 51.0	-1.4
FVM				pmax	pmax		
	comp=Z,72nm,0.9s,mb5.7						
WMOK	Wichita Mounta	60.68	333	*e*P	P	14 31 52.0	-1.6
	comp=Z,15nm,0.7s,mb5.2						
WMOK				*e*PcP	PcP	14 32 37.0	-0.4
WMOK	Wichita Mounta	60.68	333	*e*P	P	14 31 52.1	-1.6
WMOK				*e*		14 32 37.1	
WMOK				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.2						
ACSO	Alum Creek Sta	60.81	348	*e*P	P	14 31 53.5	-0.9
	comp=Z,67nm,1.1s,mb5.7						
MNTX	Cornudas Mount	61.39	326	*e*P	P	14 31 56.7	-1.8
	comp=Z,25nm,0.6s,mb5.5						
ALLY	Alegheny Colle	61.72	351	*e*P	P	14 31 59.1	-1.4
BINY	Binghamton	61.78	355	*e*P	P	14 32 01.2	+0.2
	comp=Z,82nm,0.9s,mb5.9						
AMTX	Amarillo	62.10	331	*e*P	P	14 32 01.9	-1.3
	comp=Z,12nm,0.6s,mb5.2						
VNA3	Neumayer Olymp	62.11	161	*e*P	P	14 32 04.1	+1.3
VNA3				*e*	pP	14 32 12.5	-3.4
VNA3				*e*		14 32 25.2	
VNA3				*e*		14 32 35.1	
VNA3				*e*		14 32 40.7	
VNA3				*e*		14 39 20.2	
HDIL	Hopedale	62.56	343	*e*P	P	14 32 04.2	-2.1
	comp=Z,53nm,0.7s,mb5.8						
VNA2	Neumayer--Watz	62.68	161	*e*P	P	14 32 08.1	+1.4
	baz=299,slow=9.4						
VNA2				*e*	pP	14 32 16.3	-3.5
VNA2				*e*		14 32 29.0	
VNA2				*e*		14 32 39.2	
VNA2				*e*		14 32 45.2	
VNA2				*e*		14 39 24.3	
KSU1	Kansas State U	63.58	337	*e*P	P	14 32 11.7	-1.4
	comp=Z,17nm,0.5s,mb5.3						
BNM	Barren Site	63.95	326	*e*P	P	14 32 15.3	-0.3
Y22C	IRIS PASSCAL I	64.04	326	⇑P	P	14 32 16.2	+0.1
	baz=64						
LPM	Los Pinos Moun	64.08	327	*e*P	P	14 32 16.1	-0.3
LONY	Lake Ozonia	64.09	356	*e*P	P	14 32 16.5	+0.3
	comp=Z,100nm,1.4s,mb5.7						
FRNY	Flat Rock	64.25	357	*e*P	P	14 32 17.6	+0.4
MSNY	Massena	64.48	356	*e*P	P	14 32 18.9	+0.1
ANMO	Albuquerque	64.48	327	*e*P	P	14 32 18.6	-0.4
	comp=Z,32nm,1.0s,mb5.3						
CBKS	Cedar Bluff	64.55	334	*e*P	P	14 32 19.0	-0.4
	comp=Z,24nm,0.7s,mb5.3						
CBKS	Cedar Bluff	64.55	334	*e*P	P	14 32 19.0	-0.4
CBKS				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.3						
TUC	Tucson	64.85	322	*e*P	P	14 32 19.9	-1.6
	comp=Z,11nm,0.8s,mb4.9						
TUC	Tucson	64.85	322	*e*P	P	14 32 19.9	-1.6
TUC				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
SCIA	State Center	64.95	341	*e*P	P	14 32 20.2	-1.7
	comp=Z,32nm,0.5s,mb5.6						
JFWS	Jewell Farm	65.02	344	*e*P	P	14 32 20.9	-1.5
	comp=Z,39nm,0.7s,mb5.5						
JFWS	Jewell Farm	65.02	344	*e*P	P	14 32 20.9	-1.4
JFWS				pmax	pmax		
	comp=Z,39nm,0.7s,mb5.5						
116A	Eloy	65.57	322	⇑P	P	14 32 25.9	-0.2
	baz=66,SNR=6.9						
115A	Sonoran Desert	65.97	321	⇑P	P	14 32 29.0	+0.2
	baz=66,SNR=6.2						
SDCO	Great Sand Dun	66.22	330	*e*P	P	14 32 30.1	0.0
	comp=Z,44nm,0.9s,mb5.5						
Z14A	Wintersburg	66.87	322	⇑P	P	14 32 34.5	0.0
	baz=67,SNR=7.3						
X15A	Humboldt	67.26	323	P	P	14 32 37.4	+0.4
	baz=67,SNR=26						
MVCO	Mesa Verde	67.28	327	*e*P	P	14 32 36.7	-0.2
	comp=Z,52nm,1.0s,mb5.5						
MVCO	Mesa Verde	67.28	327	P	P	14 32 37.0	0.0
	baz=68,SNR=18						
Y14A	Wickenburg	67.31	322	⇑P	P	14 32 37.3	0.0
	baz=68,SNR=13						
WUAZ	Wupatki	67.53	324	*e*P	P	14 32 38.9	+0.3
	comp=Z,37nm,0.8s,mb5.5						
WUAZ	Wupatki	67.53	324	P	P	14 32 39.1	+0.5
	baz=68,SNR=36						
X14A	Yava	67.62	322	P	P	14 32 39.7	+0.4
	baz=68,SNR=20						
ECSD	EROS,Sioux Fal	67.68	339	*e*P	P	14 32 37.4	-1.9
	comp=Z,80nm,1.5s,mb5.5						
Y13A	Salome	67.70	321	⇑P	P	14 32 40.0	+0.2
	baz=68						
GLA	Glamis	67.77	320	P	P	14 32 40.4	+0.3
	baz=68,SNR=7.4						
W15A	Williams	67.78	323	P	P	14 32 41.1	+0.9
	baz=68,SNR=17						
ISCO	Idaho Springs	67.91	331	*e*P	P	14 32 40.7	-0.3
	comp=Z,46nm,1.3s,mb5.3						
ISCO				LR	LR		
	comp=Z,298nm,21.0s,MS4.5						
ISCO	Idaho Springs	67.91	331	*e*P	P	14 32 40.7	-0.2
ISCO				pmax	pmax		
	comp=Z,46nm,1.3s,mb5.3						
ISCO				MLR	MLR		
	comp=Z,298nm,21.0s,MS4.5						
PV01	Paradox Valley	68.02	328	*e*P	P	14 32 41.8	+0.2
SMCO	Snowmass	68.05	330	*e*P	P	14 32 42.0	+0.2
	comp=Z,22nm,0.6s,mb5.4						
Y12C	Blythe	68.07	321	⇓P	P	14 32 42.1	0.0
	baz=68,SNR=11						
PDMCI	Parker Dam,Lak	68.23	321	P	P	14 32 43.1	+0.1
	baz=68,SNR=5.5						
X13A	Yucca	68.26	322	P	P	14 32 43.5	+0.2
	baz=68,SNR=22						
W14A	Seligman	68.27	323	⇑P	P	14 32 43.8	+0.5
	baz=68,SNR=41						
DVTC	Desert V Tower	68.28	319	⇑P	P	14 32 43.9	+0.5
	baz=68						
SWSC	Sam W. Stewart	68.28	319	⇓P	P	14 32 43.6	+0.2
	baz=68						
PV10	Paradox Valley	68.44	328	*e*P	P	14 32 44.0	-0.3
BC3	Big Chuckw Mtn	68.56	320	⇑P	P	14 32 45.3	+0.2
	baz=69,SNR=15						
TAOE	Nuku Hiva Isla	68.62	268	*e*LR	LR	14 53 13.5	
	comp=Z,1µm,33.9s						
MONP	Monument Peak	68.63	319	⇑P	P	14 32 46.1	+0.5
	baz=69						
W13A	Hualapai Mount	68.65	322	⇑P	P	14 32 46.2	+0.6
	baz=69,SNR=34						
LIC	Lamto	68.70	75	⇑*i*P	P	14 32 46.2	-0.3
	comp=Z,20nm,0.6s,mb4.9,baz=253						
LIC				*e*MLR	MLR		
	comp=Z,467nm,19.8s,MS4.4						
LIC	Lamto	68.70	75	*e*P	P	14 32 46.3	-0.2
	comp=Z,192nm,1.6s,mb5.8						
LIC	Lamto	68.70	75	⇑*i*P	P	14 32 46.2	-0.3
	comp=Z,9.8nm,0.6s,mb4.9						
LIC				LR	LR		
	comp=Z,230nm,19.8s,MS4.4						
IRM	Iron Mountain	68.73	321	P	P	14 32 46.5	+0.3
	baz=69,SNR=16						
MAIT	Maitri	68.84	159	*e*P	P	14 32 45.8	-0.5
MAIT				*e*pP	pP	14 33 05.8	+6.3
NEE2	Needles Airpor	68.84	322	⇓P	P	14 32 46.8	-0.1
	baz=69						
TIC	Toumodi	68.88	74	*e*P	P	14 32 47.5	0.0
	comp=Z,360nm,1.3s,mb6.1						
KIC	Kosan Boka	69.02	75	*e*P	P	14 32 48.5	+0.1
	comp=Z,150nm,0.5s,mb6.2						
PHWY	Pilot Hill	69.05	332	*e*P	P	14 32 47.7	-0.3
109C	Camp Elliot, M	69.06	319	⇑P	P	14 32 48.4	+0.1
	baz=69						
BELC	Belle Mtn.	69.13	320	⇓P	P	14 32 49.0	+0.4
	baz=69,SNR=5.5						
PFO	Pinyon Flat Ob	69.14	320	*e*P	P	14 32 49.3	+0.6
	comp=Z,8.8nm,0.6s,mb4.9						
PFO	Pinyon Flat Ob	69.14	320	*e*P	P	14 32 49.3	+0.6
PFO				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
PFO	Pinyon Flat Ob	69.14	320	⇓P	P	14 32 49.2	+0.5
	baz=69,SNR=7.7						
W12A	Cal Nev Ari	69.36	322	⇓P	P	14 32 50.2	+0.2
	baz=70,SNR=5.7						
GMRC	Granite Mounta	69.46	321	P	P	14 32 51.3	+0.6
	baz=70,SNR=20						
MURC	Murrieta	69.59	319	⇓P	P	14 32 51.7	+0.1
	baz=70						
EGOM	La Gomera	69.59	48	P	P	14 32 44.0	-7.7
	comp=Z,34nm,0.6s,mb5.5						
T14A	Hurricane	69.60	324	P	P	14 32 52.2	+0.8
	baz=70,SNR=32						
V12A	Nelson	69.65	322	P	P	14 32 52.2	+0.4
	baz=70,SNR=13						
SRU	San Rafael	69.75	327	*e*P	P	14 32 52.4	0.0
	comp=Z,31nm,0.6s,mb5.4						
SRU	San Rafael	69.75	327	*e*P	P	14 32 52.4	0.0
SRU				pmax	pmax		
	comp=Z,31nm,0.6s,mb5.4						
BBRC	Big Bear Sol-O	69.87	320	⇑P	P	14 32 53.9	+0.7
	baz=70						
HEC	Hector,Ludlow	69.90	321	⇓P	P	14 32 54.0	+0.6
	baz=70,SNR=7.8						
U12A	Valley of Fire	69.96	323	P	P	14 32 54.3	+0.5
	baz=70,SNR=22						
EYMN	Ely	70.02	345	*e*P	P	14 32 52.3	-1.6
	comp=Z,27nm,1.3s,mb5.0						
SCI	San Clemente I	70.03	318	⇑P	P	14 32 54.2	0.0
	baz=70						
T13A	Saint George	70.03	324	P	P	14 32 55.0	+0.9
	baz=70,SNR=13						
CCAN	Las Canadas	70.06	49	P	P	14 32 49.2	-5.4
	comp=Z,19nm,0.8s,mb5.1						
V11A	Goodsprings	70.06	322	⇓P	P	14 32 54.7	+0.3
	baz=70,SNR=7.8						
TUQ	Turquoise Mtn.	70.07	321	⇓P	P	14 32 54.8	+0.4
	baz=70,SNR=10						
CCUT	Cedar City	70.11	324	*e*P	P	14 32 55.5	+0.9
RWWY	Rawlins	70.15	331	*e*P	P	14 32 54.6	-0.1
	comp=Z,144nm,1.8s,mb5.6						
S14A	Cedar City	70.15	325	P	P	14 32 55.7	+0.8
	baz=70,SNR=10						
CIS	Catalina Islan	70.22	318	⇓P	P	14 32 55.5	+0.1
	baz=70						
TMUT	Trail Mountain	70.24	327	*e*P	P	14 32 55.6	+0.2
T12A	Moapa	70.27	323	⇓P	P	14 32 55.9	+0.2
	baz=70						
BFSC	Mount Baldy St	70.30	319	⇑P	P	14 32 56.0	+0.1
	baz=70						
RRX	Edison Barstow	70.33	320	⇓P	P	14 32 56.5	+0.5
	baz=70						
FMP	Fort Macarthur	70.34	318	⇑P	P	14 32 55.9	-0.2
	baz=70						
U11A	Corn Creek	70.44	322	⇑P	P	14 32 57.1	+0.4
	baz=71						
GSC	Goldstone	70.50	321	P	P	14 32 57.6	+0.5
	baz=71,SNR=13						
SHOC	Shoshone	70.60	321	⇑P	P	14 32 57.9	+0.2
	baz=71						
DECC	Green Verdugo	70.73	319	⇑P	P	14 32 58.6	+0.2
	baz=71						
EDW2	Edwards Air Fo	70.94	320	P	P	14 32 59.7	0.0
	baz=71,SNR=10						
U10A	Ash Meadows, A	70.99	322	P	P	14 33 00.8	+0.9
	baz=71,SNR=8.0						
MPU	Maple Canyon	71.00	327	*e*P	P	14 32 60.0	0.0
	comp=Z,40nm,1.0s,mb5.3						
BLG	Laguna Peak	71.09	318	⇓P	P	14 33 00.9	+0.2
	baz=71						
DAU	Daniels Canyon	71.11	328	*e*P	P	14 33 01.2	+0.6
LRMC	Laurel Mountai	71.15	320	⇑P	P	14 33 01.2	+0.2
	baz=71						
OSI	Osito Adit	71.21	319	⇓P	P	14 33 01.3	0.0
	baz=71						
FURC	Furnace Creek,	71.33	321	⇑P	P	14 33 02.5	+0.4
	baz=72,SNR=11						
JLU	Jordanelle	71.34	328	*e*P	P	14 33 02.4	+0.3
R12A	Pony Springs,	71.35	324	P	P	14 33 03.2	+1.1
	baz=72,SNR=63						
MPMC	Manual Prospec	71.43	321	P	P	14 33 02.9	+0.3
	baz=72,SNR=13						
S11A	Rachel	71.50	323	⇓P	P	14 33 03.9	+0.8
	baz=72,SNR=11						
AGMN	Agassiz Refuge	71.53	342	*e*P	P	14 33 01.0	-2.0
	comp=Z,20nm,0.8s,mb5.1						
CTU	Camp Tracy	71.56	328	*e*P	P	14 33 02.6	-0.8
	comp=Z,8.4nm,0.6s,mb4.8						
ARVC	Arvin	71.61	319	⇓P	P	14 33 04.0	+0.2
	baz=72						
DAC	Darwin (Calif)	71.64	321	*e*P	P	14 33 04.0	+0.1
	comp=Z,20nm,0.8s,mb5.1						
DAC	Darwin (Calif)	71.64	321	*e*P	P	14 33 04.1	+0.2
DAC				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
DUG	Dugway	71.74	327	*e*P	P	14 33 04.4	0.0
	comp=Z,35nm,0.9s,mb5.3						
DUG				LR	LR		
	comp=Z,178nm,19.0s,MS4.3						
DUG	Dugway	71.74	327	*e*P	P	14 33 04.4	0.0
DUG				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.3						
DUG				MLR	MLR		
	comp=Z,178nm,19.0s,MS4.3						
DUG	Dugway	71.74	327	P	P	14 33 04.9	+0.5
	baz=72,SNR=29						
ISA	Isabella	71.75	320	⇑P	P	14 33 04.9	+0.3
	baz=72,SNR=20						
TRCR	Troy Canyon	71.91	324	*e*P	P	14 33 06.2	+0.8
CFTV	Fuerteventura	71.97	50	P	P	14 33 04.6	-1.5
	comp=Z,11nm,1.0s,mb4.7						
Q12A	Willow Creek R	71.98	325	P	P	14 33 06.5	+0.6
	baz=72,SNR=16						
GRAC	Grapevine Rang	71.99	322	⇓P	P	14 33 06.7	+0.6

	baz=72						
CWC	Cottonwood Cre	72.03	321	⇑P	P	14 33 06.8	+0.5
	baz=72,SNR=6.5						
PKM	Peak Mountain	72.08	319	⇑P	P	14 33 06.8	+0.2
	baz=72,SNR=8.1						
PDAR	Pinedale Array	72.08	330	P	P	14 33 05.7	-0.8
	comp=Z,5.5nm,0.7s,mb4.6,baz=133,slow=7.3,SNR=39						
PDAR				sP	sP	14 33 34.6	+10
	comp=Z,7.2nm,1.1s,baz=134,slow=8.6,SNR=2.5						
PDAR				LR	LR	15 09 32.6	
	comp=Z,84nm,20.4s,baz=147,slow=40						
HWUT	Hardware Ranch	72.16	328	*e*P	P	14 33 06.0	-0.9
	comp=Z,26nm,0.8s,mb5.2						
S10A	Tonopah Range,	72.18	323	P	P	14 33 07.8	+0.6
	baz=72,SNR=39						
VES	Vestal, Richgr	72.24	320	P	P	14 33 07.9	+0.4
	baz=72,SNR=9.8						
R10A	Warm Springs	72.27	323	⇑P	P	14 33 08.6	+1.0
	baz=72,SNR=34						
Q11A	Duckwater	72.29	324	P	P	14 33 08.4	+0.6
	baz=72,SNR=30						
P12A	McGill	72.33	325	P	P	14 33 08.7	+0.7
	baz=72,SNR=30						
SPUT	South Promonto	72.38	328	*e*P	P	14 33 08.2	0.0
BGU	Big Grassy Mou	72.39	327	*e*P	P	14 33 08.1	-0.3
SMMC	Simmler	72.46	319	⇓P	P	14 33 09.3	+0.4
	baz=73,SNR=10						
TIN	Tinemaha	72.54	321	⇓P	P	14 33 09.9	+0.6
	baz=73						
TPH	Tonopah	72.64	323	*e*P	P	14 33 10.3	+0.4
	comp=Z,26nm,1.1s,mb5.1						
TPH	Tonopah	72.64	323	*e*P	P	14 33 10.3	+0.4
TPH				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
RCTC	Rector, Farmer	72.64	320	⇑P	P	14 33 09.3	-0.6
	baz=73						
R09A	Tonopah	72.67	323	P	P	14 33 10.2	+0.2
	baz=73,SNR=16						
Q10A	Clear Creek Ra	72.69	324	⇓P	P	14 33 11.0	+0.8
	baz=73,SNR=6.5						
HELL	Mitchell Peak,	72.76	320	P	P	14 33 10.6	0.0
	baz=73,SNR=33						
V05C	Boulder Hill,	72.76	319	⇓P	P	14 33 11.1	+0.5
	baz=73						
S08C	White Mtn Res	72.80	322	P	P	14 33 11.6	+0.7
	baz=73,SNR=12						
AHID	Auburn Hatcher	72.81	329	*e*P	P	14 33 10.3	-0.5
	comp=Z,38nm,0.8s,mb5.4						
P11A	Circle Ranch,	72.85	324	⇓P	P	14 33 11.6	+0.5
	baz=73						
HVU	Hansel Valley	72.89	328	*e*P	P	14 33 10.9	-0.4
	comp=Z,18nm,0.7s,mb5.1						
HVU	Hansel Valley	72.89	328	*e*P	P	14 33 10.9	-0.4
HVU				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
MTUM	Tungsten Hills	72.94	321	*e*P	P	14 33 11.8	+0.2
N13A	Wendover, West	72.95	326	⇓P	P	14 33 11.6	0.0
	baz=73,SNR=6.1						
Q09A	Carvers	73.14	323	⇓P	P	14 33 13.7	+0.8
	baz=73						
REDW	Red Top Meadow	73.14	330	*e*P	P	14 33 12.3	-0.4
	comp=Z,73nm,1.4s,mb5.4						
O11A	Cowboy Ranch,	73.20	325	P	P	14 33 13.6	+0.4
	baz=73,SNR=25						
PKD	Parkfield	73.20	319	⇓P	P	14 33 13.2	0.0
	baz=73						
V04C	Ramage Ranch,	73.21	319	⇑P	P	14 33 14.0	+0.7
	baz=73						
LOHW	Long Hollow	73.22	330	*e*P	P	14 33 12.9	-0.3
	comp=Z,66nm,1.4s,mb5.4						
MLAC	Mammoth Lakes	73.28	321	⇑P	P	14 33 14.5	+0.8
	baz=73						
P10A	Eureka	73.28	324	P	P	14 33 14.6	+0.9
	baz=74,SNR=12						
ULM	Lac du Bonnet	73.29	343	*e*P	P	14 33 11.7	-1.8
	comp=Z,32nm,0.5s,mb5.5						
ULM	Lac du Bonnet	73.29	343	P	P	14 33 12.3	-1.2
	comp=Z,25nm,0.5s,mb5.4,baz=154,slow=6.2,SNR=121						
ULM				LR	LR	15 06 52.6	
	comp=Z,109nm,19.2s,MS4.2,baz=155,slow=37						
M13A	Montello	73.29	327	P	P	14 33 13.4	-0.3
	baz=74,SNR=15						
R08A	Mina	73.34	322	P	P	14 33 14.6	+0.5
	baz=74,SNR=8.5						
KCC	Kaiser Creek	73.36	321	P	P	14 33 13.8	-0.4
	baz=74,SNR=7.8						
N12A	Clover Valley,	73.38	326	P	P	14 33 14.2	0.0
	baz=74,SNR=7.7						
MOOW	Moose Ponds	73.39	330	*e*P	P	14 33 13.8	-0.3
	comp=Z,65nm,1.5s,mb5.3						
T06C	Millerton Lake	73.39	320	⇓P	P	14 33 13.2	-1.2
	baz=74						
ELK	Elko	73.41	326	*e*P	P	14 33 14.4	0.0
	comp=Z,8.5nm,0.5s,mb4.9						
ELK	Elko	73.41	326	*e*P	P	14 33 14.4	0.0
ELK				pmax	pmax		
	comp=Z,8.0nm,0.5s						
DCID1	Drake Creek	73.47	330	*e*P	P	14 33 15.2	+0.5
NVAR	Mina Array Bea	73.51	322	P	P	14 33 15.3	+0.3
	comp=Z,8.6nm,0.7s,mb4.8,baz=133,slow=6.2,SNR=74						
NVAR				pP	pP	14 33 36.2	+7.9
	comp=Z,2.2nm,0.7s,baz=108,slow=15,SNR=3.1						
NVAR				sP	sP	14 33 44.5	+11
	comp=Z,6.0nm,0.9s,baz=136,slow=7.4,SNR=3.9						
P09A	Austin	73.61	324	⇓P	P	14 33 15.9	+0.4
	baz=74						
U04C	Hernandez Rese	73.62	319	⇓P	P	14 33 16.1	+0.4
	baz=74,SNR=13						
K14A	Jones Ranch, D	73.66	328	P	P	14 33 15.5	-0.3
	baz=74,SNR=13						
L13A	Double Diamond	73.71	327	P	P	14 33 16.5	+0.4
	baz=74,SNR=43						
R07C	Lee Vining	73.71	321	⇓P	P	14 33 16.8	+0.6
	baz=74,SNR=19						
M12A	Wells	73.72	326	P	P	14 33 16.1	-0.1
	baz=74,SNR=16						
N11A	Elko Archery C	73.73	325	⇓P	P	14 33 16.3	0.0
	baz=74						
LAO	LASA Array	73.74	335	*e*P	P	14 33 15.8	-0.3
	comp=Z,61nm,1.2s,mb5.4						
O10A	Cortez Mining,	73.77	325	P	P	14 33 16.8	+0.2
	baz=74,SNR=16						
RLMT	Red Lodge	73.78	332	*e*P	P	14 33 16.1	-0.3
	comp=Z,24nm,0.6s,mb5.3						
VAH	Vaihoa	73.78	259	*e*P	P	14 33 17.7	+0.5
	comp=Z,67nm,1.3s,mb5.4						
LKWY	Lake	73.85	331	*e*P	P	14 33 18.1	+1.3
	comp=Z,28nm,0.8s,mb5.2						
LKWY	Lake	73.85	331	*e*P	P	14 33 18.1	+1.2
LKWY				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.2						
T05C	Eagle Field, D	73.90	320	⇓P	P	14 33 17.9	+0.6
	baz=74						
YFT	Old Faithful	73.97	331	*e*P	P	14 33 19.0	+1.4
S05C	Merced	73.98	320	⇓P	P	14 33 18.1	+0.3
	baz=74,SNR=16						
S06C	San Francisco	74.05	321	P	P	14 33 18.3	+0.1
	baz=74,SNR=24						
O09A	Fish Creek Ran	74.07	324	⇑P	P	14 33 18.3	+0.1
	baz=74,SNR=8.5						
N10A	Dunphy	74.08	325	⇓P	P	14 33 18.3	0.0
	baz=74						
PMOR	Pomariorio Ree	74.09	259	*e*P	P	14 33 19.7	+0.7
	comp=Z,41nm,1.2s,mb5.2						
YNR	Norris Junctio	74.10	331	*e*P	P	14 33 19.4	+1.1
HAST	UC Hastings Re	74.11	319	⇓P	P	14 33 18.9	+0.3
	baz=74						
K13A	Stover Farm, H	74.19	328	⇑P	P	14 33 19.1	+0.3
	baz=74,SNR=13						
YMR	Madison River	74.19	331	*e*P	P	14 33 19.5	+0.7
	comp=Z,172nm,1.6s,mb5.7						
M11A	Holland Ranch,	74.19	326	P	P	14 33 19.4	+0.5
	baz=74,SNR=30						
SCHQ	Schefferville	74.20	2	*e*P	P	14 33 18.1	-0.6
	comp=Z,43nm,1.2s,mb5.3						
SCHQ	Schefferville	74.20	2	P	P	14 33 18.8	+0.1
	comp=Z,11nm,0.8s,mb4.9,baz=182,slow=4.3,SNR=15						
SCHQ				pP	pP	14 33 37.9	+5.9
	comp=Z,3.7nm,0.6s,baz=110,slow=4.8,SNR=2.5						
SCHQ				LR	LR	15 02 30.5	
	comp=Z,119nm,21.0s,MS4.2,baz=296,slow=33						
R06C	Coleville	74.24	322	P	P	14 33 20.2	+0.9
	baz=74,SNR=7.9						
P08A	Dixie Valley	74.24	323	⇑P	P	14 33 19.8	+0.5
	baz=74,SNR=8.0						
BMN	Battle Mountai	74.27	324	*e*P	P	14 33 18.6	-0.8
	comp=Z,3.3nm,0.6s,mb4.4						
BMN	Battle Mountai	74.27	324	*e*P	P	14 33 18.6	-0.8
BMN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
L12A	House Creek Ra	74.30	327	P	P	14 33 20.1	+0.6
	baz=74,SNR=18						
PACP	Pacheco Peak	74.35	319	⇓P	P	14 33 20.2	+0.3
	baz=74						
DGMT	Dagmar	74.43	337	*e*P	P	14 33 19.7	-0.5
	comp=Z,31nm,0.6s,mb5.4						
CMB	Columbia Colle	74.47	321	*e*P	P	14 33 20.4	-0.2
	comp=Z,25nm,1.3s,mb5.0						
CMB	Columbia Colle	74.47	321	*e*P	P	14 33 20.4	-0.2
CMB				pmax	pmax		
	comp=Z,25nm,1.3s,mb5.0						
CMB	Columbia Colle	74.47	321	⇓P	P	14 33 20.4	-0.2
	baz=75,SNR=6.0						
GCMT	Greycliff	74.47	332	*e*P	P	14 33 20.0	-0.4
QLMT	Earthquake Lak	74.53	331	*e*P	P	14 33 21.6	+0.8
TVO	Taravao	74.57	256	*e*T		15 54 36.4	
	comp=Z,5.2nm,0.2s						
P07A	Fallon	74.59	323	⇑P	P	14 33 21.9	+0.6
	baz=75						
K12A	Draper Farm, C	74.59	327	P	P	14 33 21.9	+0.7
	baz=75,SNR=62						
M10A	I.L. Ranch, Tu	74.66	325	⇓P	P	14 33 22.0	+0.4
	baz=75,SNR=12						
O08A	Rochester Mine	74.69	324	⇓P	P	14 33 21.7	-0.1
	baz=75						
S04C	Ingram Canyon,	74.69	320	⇓P	P	14 33 22.1	+0.2
	baz=75						
L11A	Cat Creek Ranc	74.70	326	P	P	14 33 22.3	+0.5
	baz=75,SNR=24						
N09A	Rock Creek Ran	74.72	324	P	P	14 33 21.6	-0.4
	baz=75,SNR=12						
R05C	Kirkwood Meado	74.72	321	⇑P	P	14 33 22.5	+0.4
	baz=75,SNR=11						
J13A	Cove Ranch, Pi	74.78	328	P	P	14 33 22.7	+0.4
	baz=75,SNR=29						
PAE	Paea	74.91	256	*e*P	P	14 33 24.3	+0.6
	comp=Z,64nm,1.2s,mb5.4						
PAE	Paea	74.91	256	*e*P	P	14 33 24.3	+0.6
PAE				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.4						
PPT	Papeete	74.93	256	*e*S	S	14 42 57.2	-1.1
	comp=Z,408nm,24.0s						
PPT				*e*LR	LR	14 56 28.8	
	comp=Z,704nm,28.2s						
PPT	Papeete	74.93	256	*e*P	P	14 33 24.8	+1.0
	comp=Z,33nm,1.3s,mb5.1						
PPT				*e*S	S	14 42 57.2	-1.1
PPT	Papeete	74.93	256	*e*P	P	14 33 24.8	+1.0
PPT				*e*S	S	14 42 57.2	-1.1
PPT				pmax	pmax		
	comp=Z,33nm,1.3s						
PPT	Papeete	74.93	256	LR	LR	14 57 53.7	
	comp=Z,358nm,20.0s,MS4.7,baz=178,slow=29						
WCN	Washoe City	74.93	322	⇓P	P	14 33 23.8	+0.5
	baz=75						
R04C	Big Horse Ranc	74.94	321	⇑P	P	14 33 23.6	+0.3
	baz=75,SNR=12						
O07A	Toulon	75.00	323	P	P	14 33 23.6	0.0
	baz=75,SNR=18						
N08A	GE Springer Mi	75.01	324	P	P	14 33 23.1	-0.6
	baz=75,SNR=8.4						
L10A	Juniper Basin	75.01	326	⇑P	P	14 33 23.9	+0.2
	baz=75,SNR=73						
HLID	Hailey	75.02	328	*e*P	P	14 33 23.9	+0.3
	comp=Z,27nm,0.7s,mb5.3						
HLID	Hailey	75.02	328	P	P	14 33 24.2	+0.6
	baz=75,SNR=57						
WENL	Wente Brothers	75.03	320	⇓P	P	14 33 24.0	+0.1
	baz=75						
M09A	Marrel Ranch,	75.08	325	⇑P	P	14 33 24.0	0.0
	baz=75,SNR=20						
I13A	Wildhorse Cree	75.13	329	P	P	14 33 24.9	+0.6
	baz=75,SNR=68						
J12A	Stokes Ranch,	75.14	328	P	P	14 33 24.6	+0.3
	baz=75,SNR=14						
LAVA	Lava Cap Winer	75.15	321	⇑P	P	14 33 24.2	-0.4
	baz=75						
MCMT	McKenzie Canyo	75.19	330	*e*P	P	14 33 25.2	+0.6
BOZ	Bozeman (W)	75.24	331	*e*P	P	14 33 24.3	-0.6
	comp=Z,56nm,1.6s,mb5.2						
BOZ	Bozeman (W)	75.24	331	*e*P	P	14 33 24.3	-0.6
BOZ				pmax	pmax		
	comp=Z,56nm,1.6s,mb5.2						
BOZ	Bozeman (W)	75.24	331	⇑P	P	14 33 24.7	-0.2
	baz=75						
P06A	Stead Airport,	75.26	322	⇓P	P	14 33 25.7	+0.5
	baz=75						
G15A	Dillon	75.27	330	P	P	14 33 25.4	+0.2
	baz=76,SNR=15						
BDM	Black Diamond	75.31	320	⇓P	P	14 33 25.9	+0.4
	baz=76						
P05C	Yuba Gap, Truc	75.43	322	P	P	14 33 26.8	+0.6
	baz=76,SNR=13						
DLMT	Dillon	75.47	330	*e*P	P	14 33 26.1	-0.1
	comp=Z,103nm,1.7s,mb5.5						
N07B	Gerlach	75.47	324	P	P	14 33 26.3	-0.1
	baz=76,SNR=46						
O06A	Flanigan	75.55	323	⇑P	P	14 33 27.1	+0.3
	baz=76,SNR=5.2						
Q04C	Lincoln	75.58	321	⇓P	P	14 33 27.4	+0.4
	baz=76						
M08A	Happy Creek Ra	75.60	324	⇓P	P	14 33 27.1	0.0
	baz=76,SNR=11						
L09A	Wilkinson Ranc	75.61	325	⇓P	P	14 33 27.3	+0.2
	baz=76						
MFID	Camas Ranch	75.62	327	P	P	14 33 27.6	+0.5
	baz=76,SNR=25						
BEKR	Beckwourth	75.65	322	⇑P	P	14 33 27.6	+0.2
	baz=76,SNR=13						
H13A	Challis	75.67	329	P	P	14 33 27.9	+0.5
	baz=76,SNR=52						
K10A	MacKenzie Ranc	75.71	326	P	P	14 33 27.9	+0.2
	baz=76,SNR=38						
F15A	Butte	75.78	331	P	P	14 33 28.2	+0.2
	baz=76,SNR=22						
G14A	Jackson	75.79	330	⇑P	P	14 33 28.3	+0.2
	baz=76,SNR=15						
CVS	Carmenet Viney	75.92	320	⇑P	P	14 33 28.7	-0.2
	baz=76						
N06A	Buffalo Meadow	75.94	323	P	P	14 33 29.1	+0.1
	baz=76,SNR=48						
H12A	Diamond D Ranc	75.95	329	P	P	14 33 29.4	+0.4
	baz=76,SNR=33						
OHCM	Honcut	75.97	321	*e*P	P	14 33 29.1	-0.1
M07A	Soldier Meadow	76.00	324	P	P	14 33 29.4	+0.1
	baz=76,SNR=43						
O05C	Quincy	76.04	322	⇓P	P	14 33 29.8	+0.2
	baz=76,SNR=9.1						
I11A	Placerville	76.05	328	P	P	14 33 29.6	0.0
	baz=76,SNR=12						
G13A	Cobalt	76.05	329	P	P	14 33 30.2	+0.6
	baz=76,SNR=108						
SUTB	Sutter Butte	76.08	321	⇑P	P	14 33 29.7	-0.1
	baz=76						
L08A	Fields	76.09	325	P	P	14 33 29.8	0.0
	baz=76,SNR=24						
K09A	Rome	76.11	326	P	P	14 33 30.0	+0.1
	baz=76,SNR=33						
J10A	Berg Farm, Mel	76.11	327	⇑P	P	14 33 29.7	-0.3
	baz=76						
NSHM	Saint Helena R	76.12	320	*e*P	P	14 33 30.0	-0.1
ORV	Oroville	76.12	321	⇑P	P	14 33 30.2	+0.1
	baz=76,SNR=21						
F14A	Wisdom	76.17	330	P	P	14 33 30.8	+0.6
	baz=76,SNR=31						
MNRC	McLaughlin Nat	76.24	320	⇓P	P	14 33 31.0	+0.2
	baz=76						
EGMT	Eagleton	76.25	334	*e*P	P	14 33 30.0	-0.7
	comp=Z,16nm,0.6s,mb5.1						
EGMT	Eagleton	76.25	334	P	P	14 33 30.2	-0.4
	baz=76,SNR=21						
E15A	Deer Lodge	76.29	331	P	P	14 33 31.1	+0.2
	baz=76,SNR=22						
ELFS	Eagle Lake Fie	76.36	323	⇑P	P	14 33 31.7	+0.3
	baz=76,SNR=20						
O04C	Chester	76.37	322	P	P	14 33 31.6	+0.1
	baz=76,SNR=12						
WVOR	Wild Horse Val	76.42	325	*e*P	P	14 33 31.2	-0.4
	comp=Z,15nm,1.2s,mb4.8						
WVOR	Wild Horse Val	76.42	325	*e*P	P	14 33 31.3	-0.4
WVOR				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
L07A	Adell	76.52	324	⇑P	P	14 33 32.6	+0.3
	baz=77,SNR=20						
K08A	Mann Creek Ran	76.54	325	⇑P	P	14 33 32.2	-0.2
	baz=77,SNR=10						
J09A	Fry Pan Ranch,	76.57	326	⇓P	P	14 33 32.6	0.0
	baz=77,SNR=8.5						
I10A	Payette	76.60	327	⇓P	P	14 33 32.7	0.0
	baz=77						
F13A	Darby	76.61	330	P	P	14 33 33.0	+0.4
	baz=77,SNR=124						
M06C	Likely Place G	76.61	323	⇑P	P	14 33 33.0	+0.2
	baz=77,SNR=12						
H11A	Donnelly	76.64	328	P	P	14 33 32.8	-0.1
	baz=77,SNR=8.1						
E14A	Clinton	76.67	331	⇓P	P	14 33 33.5	+0.5
	baz=77,SNR=5.7						
D15A	Lincoln	76.70	332	P	P	14 33 33.7	+0.5
	baz=77,SNR=20						
GASB	Alder Springs	76.90	321	⇑P	P	14 33 35.0	+0.5
	baz=77,SNR=7.8						
HATC	Hat Creek Radi	76.91	322	⇓P	P	14 33 34.3	-0.2
	baz=77,SNR=5.4						
K07A	Rock Creek Ran	76.92	325	⇑P	P	14 33 34.8	+0.3
	baz=77,SNR=11						
CHMT	Chamberlain Mo	76.94	331	*e*P	P	14 33 34.5	0.0
J08A	Circle Bar Ran	76.96	326	⇑P	P	14 33 34.8	+0.1
	baz=77,SNR=15						
MOD	Modoc	76.97	324	*e*P	P	14 33 34.7	-0.1
	comp=Z,28nm,1.2s,mb5.1						
MOD	Modoc	76.97	324	⇑P	P	14 33 34.8	0.0
	baz=77,SNR=14						
I09A	Lost Marbles R	77.00	327	P	P	14 33 35.0	+0.1
	baz=77,SNR=6.3						
E13A	Victor	77.02	330	P	P	14 33 35.5	+0.5
	baz=77,SNR=26						
M05C	Lookout	77.09	323	P	P	14 33 35.6	+0.1
	baz=77,SNR=17						
P01C	Double 8 Ranch	77.16	320	⇑P	P	14 33 36.3	+0.3
	baz=77						
D14A	Greenough	77.18	331	P	P	14 33 35.9	0.0
	baz=77,SNR=11						
MSO	Missoula	77.19	331	*e*P	P	14 33 36.1	+0.2
	comp=Z,38nm,1.5s,mb5.1						
O02C	Red Bluff	77.28	321	⇓P	P	14 33 35.8	-0.8
	baz=77						
L05A	Lakeview	77.36	324	P	P	14 33 37.7	+0.7
	baz=78,SNR=14						
WDC	Whiskeytown Da	77.39	322	⇑P	P	14 33 35.6	-1.6
	baz=78						
I08A	Drewsey	77.39	326	⇓P	P	14 33 37.3	+0.1
	baz=78,SNR=19						
BMO	Blue Mountains	77.39	327	*e*P	P	14 33 36.7	-0.5
	comp=Z,17nm,0.6s,mb5.2						
BMO	Blue Mountains	77.39	327	*e*P	P	14 33 36.7	-0.4
BMO				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
J07A	Hines	77.42	325	⇓P	P	14 33 37.4	+0.1
	baz=78,SNR=13						
KCPM	Cahto Peak	77.44	320	P	P	14 33 38.0	+0.5
H09A	Durkee	77.44	327	⇑P	P	14 33 37.5	0.0
	baz=78,SNR=6.8						
K06A	Valley Falls	77.54	324	P	P	14 33 38.6	+0.6
	baz=78,SNR=20						
TOA0	Torodi Ar. Sit	77.54	71	*e*P	P	14 33 38.4	-0.2
TORD	Torodi Ar. Bea	77.54	71	P	P	14 33 38.5	-0.1
TORD				pP	pP	14 33 59.7	+7.7
TORD				sP	sP	14 34 09.3	+12
TORD				LR	LR	15 06 20.7	
TORD	Torodi Ar. Bea	77.54	71	P	P	14 33 38.5	-0.1
	comp=Z,26nm,0.6s,mb5.4,baz=248,slow=5.6,SNR=188						
TORD				pP	pP	14 33 59.7	+7.7
	comp=Z,17nm,0.5s,baz=246,slow=5.5,SNR=5.3						
TORD				sP	sP	14 34 09.3	+12
	comp=Z,13nm,0.5s,baz=249,slow=5.6,SNR=2.6						
TORD				LR	LR	15 06 20.7	
	comp=Z,638nm,21.0s,MS4.9,baz=240,slow=34						
F11A	Grangeville	77.56	329	⇑P	P	14 33 37.6	-0.4
	baz=78,SNR=17						
M03C	McCloud	77.59	322	⇓P	P	14 33 37.5	-0.8
	baz=78,SNR=7.0						
D13A	Huson	77.62	331	P	P	14 33 38.7	+0.3
	baz=78,SNR=30						
M04C	Macdoel	77.76	323	P	P	14 33 39.1	-0.1
	baz=78,SNR=13						
J06A	Christmas Vall	77.79	325	P	P	14 33 39.5	+0.2
	baz=78,SNR=22						
K05A	Summer Lake	77.84	324	P	P	14 33 40.3	+0.6
	baz=78,SNR=21						
H08A	Prairie City	77.86	327	⇑P	P	14 33 40.0	+0.2
	baz=78,SNR=14						
E11A	Bogner Ranch,	77.92	329	P	P	14 33 39.5	-0.5
	baz=78,SNR=18						
I07A	Izee	78.00	326	P	P	14 33 41.0	+0.5
	baz=78,SNR=16						
L04A	Klamath Falls	78.04	323	P	P	14 33 40.8	-0.1
	baz=78,SNR=8.6						
M02C	Callahan	78.09	322	⇑P	P	14 33 40.4	-0.7
	baz=78,SNR=6.6						
C13A	Hot Springs	78.11	331	P	P	14 33 41.2	+0.2
	baz=78,SNR=35						
YBH	Yreka Blue Hor	78.22	322	*e*P	P	14 33 40.6	-1.2
	comp=Z,5.3nm,0.8s,mb4.5						
YBH	Yreka Blue Hor	78.22	322	*e*P	P	14 33 40.7	-1.1
YBH				pmax	pmax		
	comp=Z,5.0nm,0.8s						
YBH	Yreka Blue Hor	78.22	322	⇑P	P	14 33 40.7	-1.1
	baz=78						
K04A	Chilquin	78.24	324	⇓P	P	14 33 41.8	0.0
	baz=78						
I06A	Prineville	78.28	325	P	P	14 33 42.8	+0.7
	baz=78,SNR=20						
F09A	S2 Ranch, Elgi	78.30	328	P	P	14 33 42.2	+0.1
	baz=78,SNR=17						
J05A	Fort Rock	78.40	324	⇑P	P	14 33 42.8	0.0
	baz=79,SNR=11						
JCC	Jacoby Creek	78.41	321	⇓P	P	14 33 42.8	-0.1
	baz=79						
E10A	Myers Farm, Un	78.45	329	P	P	14 33 43.0	+0.1
	baz=79,SNR=17						
D11A	Klaveano Farm,	78.47	330	⇓P	P	14 33 42.8	-0.3
	baz=79,SNR=8.3						
VNDA	Vanda	78.53	190	P	P	14 33 44.5	+1.5
	comp=Z,8.8nm,0.8s,mb4.7,baz=122,slow=4.8,SNR=12						
SYO	Syowa Base	78.54	160	⇓*e*P	P	14 33 43.2	0.0
SYO	Syowa Base	78.54	160	⇑*e*PcP	PcP	14 33 51.2	-1.0
G08A	Pilot Rock	78.54	327	P	P	14 33 43.6	+0.1
	baz=79,SNR=18						
B13A	Whitefish	78.57	331	⇓P	P	14 33 43.6	+0.1
	baz=79,SNR=14						
KTRM	Thompson Ridge	78.72	322	P	P	14 33 44.5	-0.1
KRMB	Red Mountain	78.78	322	*e*P	P	14 33 45.1	+0.2
WALA	Waterton Lakes	78.83	332	*e*P	P	14 33 44.6	-0.4
	comp=Z,18nm,0.6s,mb5.2						
J04A	Umpqua Nationa	78.86	324	P	P	14 33 45.4	+0.1
	baz=79,SNR=11						
VIPM	Ingram Point	78.88	326	P	P	14 33 45.9	+0.5
H06A	Lindquist Farm	78.88	326	P	P	14 33 46.1	+0.7
	baz=79,SNR=23						
G07A	Ruggs Ranch, H	78.89	327	P	P	14 33 46.1	+0.7
	baz=79,SNR=19						
HUMO	Hull Mountain	78.92	323	*e*P	P	14 33 44.7	-0.9
	comp=Z,5.3nm,0.6s,mb4.7						
HUMO	Hull Mountain	78.92	323	⇑P	P	14 33 45.3	-0.4
	baz=79						
D10A	Wagner Farm, O	78.93	329	P	P	14 33 45.1	-0.4
	baz=79,SNR=29						
BBOR	Butler Butte	78.95	323	P	P	14 33 45.2	-0.6
E09A	Wood Farm, Sta	78.98	328	⇑P	P	14 33 45.5	-0.4
	baz=79,SNR=6.3						
I05A	Bend	79.00	325	⇓P	P	14 33 46.3	+0.3
	baz=79,SNR=6.1						
L02A	Cave Junction	79.00	322	⇓P	P	14 33 46.0	-0.2
	baz=79,SNR=7.6						
B12A	Libby	79.15	331	P	P	14 33 46.9	+0.2
	baz=79,SNR=19						
H05A	Madras	79.30	325	⇓P	P	14 33 48.3	+0.6
	baz=80						
K02A	Glendale	79.33	323	P	P	14 33 47.7	-0.1
	baz=80,SNR=12						
G06A	Carlson Farm,	79.37	326	⇓P	P	14 33 48.4	+0.4
	baz=80,SNR=7.5						
I04A	Tendick Farm,	79.38	324	⇑P	P	14 33 47.4	-0.7
	baz=80,SNR=6.0						
E08A	Dider Farm, El	79.42	328	⇑P	P	14 33 47.7	-0.6
	baz=80,SNR=6.0						
J03A	Ideyld Park	79.42	324	⇓P	P	14 33 47.6	-0.8
	baz=80						
D09A	Jones Farm, Ri	79.44	329	⇑P	P	14 33 48.2	-0.1
	baz=80,SNR=10.0						
F07A	Phinny Hill Vi	79.45	327	⇑P	P	14 33 48.9	+0.5
	baz=80,SNR=6.6						
B11A	Sandpoint	79.48	331	P	P	14 33 48.3	-0.3

Sta	Name	Dist	Azi	Phase	ISC phase	Time	Res
	baz=80,SNR=11						
C10A	**Spilker Farm,**	79.49	330	⇑P	P	14 33 48.5	-0.1
	baz=80						
A12A	**Yaak River Ran**	79.52	331	⇑P	P	14 33 48.8	+0.1
	baz=80,SNR=7.5						
HAWA	**Hanford**	79.59	328	*e*P	P	14 33 49.2	0.0
	comp=Z,15nm,0.5s,mb5.2						
BROR	**Big Rock Looko**	79.71	325	P	P	14 33 49.3	-0.6
NEW	**Newport**	79.71	330	*e*P	P	14 33 49.2	-0.6
	comp=Z,5.7nm,0.6s,mb4.7						
NEW				LR	LR		
	comp=Z,420nm,21.0s,MS4.8						
NEW	**Newport**	79.71	330	*e*P	P	14 33 49.2	-0.6
NEW				pmax	pmax		
	comp=Z,6.0nm,0.6s						
NEW				MLR	MLR		
	comp=Z,420nm,21.0s						
D08A	**Wollman Farm,**	79.74	328	P	P	14 33 50.0	0.0
	baz=80,SNR=10						
G05A	**Wamic**	79.74	326	⇓P	P	14 33 50.5	+0.5
	baz=80,SNR=11						
J02A	**Umpqua**	79.75	323	⇓P	P	14 33 50.2	0.0
	baz=80,SNR=6.9						
F06A	**Goldendale**	79.81	326	⇓P	P	14 33 50.6	+0.2
	baz=80,SNR=8.8						
H04A	**Detroit Lake**	79.84	325	P	P	14 33 50.1	-0.5
	baz=80,SNR=18						
A11A	**Hall Mountain,**	79.86	331	P	P	14 33 50.5	-0.1
	baz=80,SNR=14						
E07A	**Sunnyside**	79.86	327	⇑P	P	14 33 50.8	+0.1
	baz=80,SNR=8.8						
OD2	**Odessa Site #2**	79.86	329	P	P	14 33 50.8	+0.1
K01A	**Sixes**	79.91	322	⇓P	P	14 33 51.4	+0.3
	baz=80						
C09A	**Chrisman Ranch**	79.94	329	P	P	14 33 51.2	+0.1
	baz=80,SNR=24						
I03A	**Eugene**	79.98	324	P	P	14 33 51.2	-0.1
	baz=80,SNR=9.3						
F05A	**White Salmon**	80.24	326	⇓P	P	14 33 53.0	+0.3
	baz=80						
SUR	**Sutherland**	80.25	121	P	P	14 33 55.0	+1.7
	comp=Z,88nm,1.4s,mb5.5						
SUR				*e*	pP	14 34 08.8	+2.1
SUR				*e*		14 34 15.6	
C08A	**Higginbotham F**	80.30	329	⇓P	P	14 33 52.6	-0.4
	baz=80,SNR=11						
B09A	**Rice**	80.31	330	P	P	14 33 52.5	-0.5
	baz=80,SNR=14						
G04A	**Mulino**	80.33	325	⇑P	P	14 33 53.1	-0.1
	baz=80,SNR=5.7						
D07A	**Quincy**	80.35	328	⇓P	P	14 33 53.5	+0.2
	baz=80,SNR=7.2						
A10A	**Northport**	80.43	330	⇓P	P	14 33 52.8	-0.8
	baz=81,SNR=7.2						
E06A	**Yakima**	80.43	327	P	P	14 33 54.0	+0.2
	baz=81,SNR=12						
H03A	**Soap Creek Ran**	80.43	324	⇓P	P	14 33 53.8	0.0
	baz=81,SNR=7.8						
FCC	**Fort Churchill**	80.63	347	*e*P	P	14 33 53.6	-0.9
	comp=Z,40nm,1.4s,mb5.2						
FCC	**Fort Churchill**	80.63	347	*e*P	P	14 33 53.6	-0.9
FCC				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.2						
TBM	**Table Mountain**	80.65	328	P	P	14 33 55.5	+0.5
WTV	**Waterville**	80.69	328	P	P	14 33 55.0	-0.1
C07A	**Waterville**	80.73	328	⇑P	P	14 33 54.9	-0.4
	baz=81,SNR=30						
MORF	**Marmelete**	80.74	45	*e*P	P	14 33 57.9	+2.3
MORF				*e*pP	pP	14 34 08.7	-0.4
F04A	**Amboy**	80.78	326	⇓P	P	14 33 55.3	-0.3
	baz=81,SNR=12						
D06A	**Cle Elum**	80.79	328	⇓P	P	14 33 55.5	-0.2
	baz=81,SNR=7.2						
ETW	**Entiat**	80.81	328	P	P	14 33 56.2	+0.5
PTEO	**Sao Teotonio**	80.82	45	*e*P	P	14 33 56.1	0.0
PTEO				*e*pP	pP	14 34 09.4	-0.1
WPW	**White Pass**	80.82	327	P	P	14 33 56.1	+0.3
B08A	**Colville Reser**	80.83	329	P	P	14 33 55.2	-0.7
	baz=81,SNR=10.0						
G03A	**Yamhill**	80.84	325	⇑P	P	14 33 56.2	+0.3
	baz=81,SNR=5.4						
E05A	**Randle**	80.84	327	⇓P	P	14 33 55.4	-0.5
	baz=81,SNR=7.4						
A09A	**Danville**	80.90	330	⇓P	P	14 33 55.8	-0.4
	baz=81,SNR=9.8						
PBDV	**Barranco-do-Ve**	81.19	45	*e*P	P	14 33 59.0	+1.0
PBDV				*e*pP	pP	14 34 11.3	-0.2
A08A	**Turner Farm, O**	81.22	330	P	P	14 33 57.8	-0.1
	baz=81,SNR=27						
B07A	**Winthrop**	81.29	329	P	P	14 33 57.6	-0.6
	baz=82,SNR=16						
C06A	**Tall Timber Ra**	81.31	328	⇑P	P	14 33 57.8	-0.5
	baz=82						
E04A	**Onalaska**	81.36	326	⇓P	P	14 33 58.2	-0.5
	baz=82						
D05A	**Enumclaw**	81.37	327	⇓P	P	14 33 58.2	-0.6
	baz=82,SNR=9.4						
F03A	**Seaside**	81.38	325	⇓P	P	14 33 58.9	+0.1
	baz=82						
TSUM	**Tsumeb**	81.39	107	*e*P	P	14 34 00.7	+1.0
	comp=Z,22nm,0.8s,mb5.1						
TSUM				*e*	pP	14 34 12.5	-0.6
TSUM				*e*pP	pP	14 34 21.4	+8.3
PVAQ	**Vaqueiros**	81.42	45	*e*P	P	14 34 00.8	+1.6
C05A	**Tolt Reservoir**	81.56	328	⇑P	P	14 33 58.4	-1.3
	baz=82						
MOE	**Montemor**	81.60	44	*e*P	P	14 34 01.7	+1.5
MOE				*e*pP	pP	14 34 12.4	-1.3
EGRO	**El Granado**	81.64	45	P	P	14 34 00.6	+0.2
	comp=Z,7.1nm,0.7s,mb4.7						
PBEJ	**Beja**	81.65	45	*e*P	P	14 34 01.7	+1.2
PBEJ				*e*pP	pP	14 34 13.3	-0.7
EDM	**Edmonton**	81.72	335	*e*P	P	14 33 58.9	-1.5
EDM				*e*pP	pP	14 34 19.8	+5.9
EDM				*e*sP	sP	14 34 28.6	+10
D04A	**Dobbs Creek Ra**	81.74	327	⇑P	P	14 34 00.5	-0.2
	baz=82						
E03A	**Lebam**	81.78	326	⇓P	P	14 34 00.9	0.0
	baz=82						
A07A	**Ashnola River,**	81.81	329	⇑P	P	14 34 01.0	-0.1
	baz=82,SNR=26						
EVO	**Evora**	81.83	44	*e*P	P	14 34 01.5	+0.1
	comp=Z,16nm,0.5s,mb4.9						
EVO				*e*MLR	MLR		
	comp=Z,160nm,20.0s,MS4.1						
B06A	**Marblemount**	82.00	328	P	P	14 34 01.2	-0.8
	baz=82,SNR=8.5						
B05A	**Bryant**	82.14	328	P	P	14 34 01.9	-0.9
	baz=82,SNR=11						
C04A	**Brinnon**	82.22	327	⇓P	P	14 34 02.9	-0.4
	baz=82,SNR=5.4						
PESTR	**Estremoz**	82.29	44	*e*pP	pP	14 34 17.0	-0.3
EMIN	**Mina Concepcio**	82.31	46	P	P	14 34 04.1	+0.2
	comp=Z,12nm,0.8s,mb4.9						
A06A	**Chilliwack**	82.38	329	⇑P	P	14 34 03.2	-0.9
	baz=83,SNR=7.3						
ESPR	**Espera**	82.39	47	P	P	14 34 05.3	+0.9
	comp=Z,11nm,0.6s,mb5.0						
EJIF	**Jimena Fronter**	82.45	47	P	P	14 34 07.2	+2.6
	comp=Z,16nm,0.6s,mb5.1						
EJIF	**Jimena Fronter**	82.45	47	P	P	14 34 07.2	+2.5
EJIF				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.1						
EBAD	**Badajoz**	82.61	45	P	P	14 34 04.8	-0.7
	comp=Z,3.8nm,0.6s,mb4.6						
A05A	**Maple Falls**	82.61	328	P	P	14 34 04.6	-0.6
	baz=83,SNR=16						
B04A	**Port Angeles**	82.72	327	⇑P	P	14 34 05.6	-0.2
	baz=83						
A04A	**Legoe Bay, Lum**	82.74	328	⇓P	P	14 34 05.4	-0.5
	baz=83						
PGC	**Sidney**	83.07	327	*e*P	P	14 34 07.4	-0.2
	comp=Z,56nm,0.7s,mb5.7						
MTE	**Manteigas**	83.15	43	*e*P	P	14 34 11.1	+2.9
MTE				*e*pP	pP	14 34 21.0	-0.7
PCAB	**Cabril**	83.56	42	*e*P	P	14 34 11.2	+0.9
PCAB				*e*pP	pP	14 34 22.8	-1.0
ELOB	**Lobios**	83.62	41	P	P	14 34 06.5	-4.1
	comp=Z,1.5nm,0.5s,mb4.4						
ELOJ	**Sierra Loja**	83.71	47	P	P	14 34 14.8	+3.6
	comp=Z,15nm,0.6s,mb5.3						
ELOJ	**Sierra Loja**	83.71	47	P	P	14 34 14.8	+3.6
ELOJ				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.3						
ELUQ	**Luque**	83.84	47	P	P	14 34 13.7	+1.9
	comp=Z,14nm,0.7s,mb5.2						
ELUQ	**Luque**	83.84	47	P	P	14 34 13.7	+1.9
ELUQ				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.2						
MVO	**Moncorvo**	83.89	42	*e*P	P	14 34 12.5	+0.5
MVO				*e*pP	pP	14 34 25.3	-0.2
EADA	**Adamuz**	83.93	46	P	P	14 34 11.9	-0.4
	comp=Z,8.8nm,0.8s,mb4.9						
ECOG	**Cogollos-Vega**	84.18	47	P	P	14 34 13.4	-0.2
	comp=Z,2.6nm,0.3s,mb4.8						
ECOG	**Cogollos-Vega**	84.18	47	P	P	14 34 13.4	-0.2
ECOG				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.9						
PBRG	**Braganca**	84.41	42	*e*P	P	14 34 15.4	+0.7
EBAN	**Banos Encina**	84.47	46	P	P	14 34 18.8	+3.7
	comp=Z,25nm,0.9s,mb5.3						
EBAN	**Banos Encina**	84.47	46	P	P	14 34 18.8	+3.8
EBAN				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.3						
PAB	**San Pablo**	84.79	45	*e*P	P	14 34 17.1	+0.5
	comp=Z,27nm,1.1s,mb5.3						
PAB	**San Pablo**	84.79	45	*e*P	P	14 34 17.1	+0.5
PAB				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.3						
BOSA	**Boshof**	85.07	118	P	P	14 34 18.1	-0.4
	comp=Z,7.5nm,1.1s,mb4.7,baz=210,slow=8.6,SNR=4.6						
BOSA				LR	LR	15 09 01.0	
	comp=Z,354nm,19.8s,MS4.8,baz=253,slow=33						
ESDC	**Sonseca Array**	85.11	45	P	P	14 34 19.2	+0.9
	comp=Z,10nm,0.5s,mb5.2						
ESDC	**Sonseca Array**	85.11	45	P	P	14 34 19.7	+1.5
	comp=Z,0.5nm,0.3s,mb4.1,baz=254,slow=5.4,SNR=9.4						
ESDC				LR	LR	15 07 42.5	
	comp=Z,173nm,19.3s,MS4.5,baz=260,slow=32						
ESLA	**Sonseca Array**	85.11	45	P	P	14 34 20.3	+2.1
	comp=Z,26nm,1.7s,mb5.1						
GUD	**Guadarrama**	85.47	44	P	P	14 34 23.2	+3.2
	comp=Z,5.2nm,0.5s,mb4.9						
GUD	**Guadarrama**	85.47	44	P	P	14 34 23.2	+3.2
GUD				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.9						
EVIA	**Vianos**	85.58	46	P	P	14 34 24.2	+3.6
	comp=Z,6.7nm,0.5s,mb5.1						
EVIA	**Vianos**	85.58	46	P	P	14 34 24.2	+3.6
EVIA				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.2						
ETOB	**Tobarra**	86.24	47	P	P	14 34 29.5	+5.6
	comp=Z,14nm,0.6s,mb5.4						
MAW	**Mawson**	86.35	164	P	P	14 34 23.3	-0.7
	comp=Z,7.8nm,0.8s,mb5.0,baz=333,slow=2.6,SNR=6.1						
MAW				LR	LR	15 11 20.5	
	comp=Z,148nm,19.8s,MS4.4,baz=246,slow=34						
ETOR	**Torete**	86.94	45	P	P	14 34 27.8	+0.6
	comp=Z,6.4nm,0.6s,mb5.0						
ETOR	**Torete**	86.94	45	P	P	14 34 27.8	+0.5
ETOR				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb5.0						
ECHE	**Chera**	87.09	46	P	P	14 34 32.6	+4.6
	comp=Z,18nm,0.8s,mb5.4						
ECHE	**Chera**	87.09	46	P	P	14 34 32.6	+4.6
ECHE				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.3						
SJPF	**Ste Jean**	88.59	43	*e*P	P	14 34 34.7	-0.4
ETSF	**Etsaut**	88.92	43	*e*P	P	14 34 35.9	-0.7
ETSF				*e*pP	pP	14 34 51.4	+1.1
YKA	**Yellowknife Ar**	89.15	341	P	P	14 34 36.2	-1.0
YKA				sP	sP	14 35 06.6	+11
YKA				LR	LR	15 17 41.5	
YKA	**Yellowknife Ar**	89.15	341	P	P	14 34 36.2	-1.0
	comp=Z,34nm,0.6s,mb5.8,baz=136,slow=4.8,SNR=524						
YKA				sP	sP	14 35 06.6	+11
	comp=Z,6.4nm,0.6s,baz=136,slow=4.8,SNR=2.6						
YKA				LR	LR	15 17 41.4	
	comp=Z,81nm,20.8s,MS4.1,baz=175,slow=38						
LFF	**La Frestale**	90.70	42	*e*P	P	14 34 43.3	-1.6
LFF				*e*pP	pP	14 34 58.7	+0.2
MFF	**Saint Martin d**	90.92	40	*e*P	P	14 34 44.1	-1.8
MFF				*e*pP	pP	14 34 59.6	+0.1
RJF	**Les Rejaudoux**	91.36	42	*e*P	P	14 34 46.1	-1.8
RJF				*e*MLR	MLR		
	comp=Z,187nm,17.5s,MS4.3						
RJF	**Les Rejaudoux**	91.36	42	*e*P	P	14 34 46.1	-1.8
RJF				MLR	MLR		
	comp=Z,190nm,17.5s,MS4.6						
LDF	**La Druitiere**	91.87	39	*e*P	P	14 34 49.4	-0.8
DLBC	**Dease Lake**	92.16	333	*e*P	P	14 34 51.0	-0.3
DLBC				*e*pP	pP	14 35 14.0	+9.0
BGF	**Bois d’Agland**	92.74	41	*e*P	P	14 34 52.6	-1.7
BGF				*e*pP	pP	14 35 08.0	0.0
KEST	**Kesra**	92.86	53	LR	LR	15 17 10.3	
	comp=Z,135nm,19.6s,MS4.4,baz=201,slow=36						
SMF	**Signal de Mont**	93.40	41	*e*P	P	14 34 55.7	-1.6
	comp=Z,94nm,1.3s,mb5.8						
SMF				*e*pP	pP	14 35 11.1	+0.1
SMF	**Signal de Mont**	93.40	41	*e*P	P	14 34 55.7	-1.6
	comp=Z,47nm,1.3s,mb5.8						
SMF				*e*pP	pP	14 35 11.1	+0.1
SMF	**Signal de Mont**	93.40	41	*e*P	P	14 34 55.7	-1.6
SMF				*e**PP	pP	14 35 11.1	+0.1
SMF				pmax	pmax		
	comp=Z,47nm,1.3s,mb5.8						
ORIF	**Oris-en-Rattie**	93.99	44	*e*P	P	14 34 59.4	-0.7
ORIF				*e*MLR	MLR		
	comp=Z,234nm,18.8s,MS4.4						
HAU	**Haudompre**	95.51	41	*e*P	P	14 35 05.2	-1.8
HAU				*e*pP	pP	14 35 20.6	-0.1
HAU				*e*MLR	MLR		
	comp=Z,163nm,19.0s,MS4.2						
HAU	**Haudompre**	95.51	41	*e*P	P	14 35 05.2	-1.8
HAU				*e**PP	pP	14 35 20.6	-0.1
HAU				MLR	MLR		
	comp=Z,160nm,19.0s,MS4.5						
VAE	**Valguarnera**	97.29	53	LR	LR	15 24 04.7	
	comp=Z,223nm,18.4s,MS4.7,baz=137,slow=38						
INK	**Inuvik**	98.91	340	*e*P	P	14 35 20.3	-1.6
	comp=Z,229nm,1.3s,mb6.5						
DAWY	**Dawson**	98.94	335	*e*P	P	14 35 20.4	-1.6
LVV	**L’vov**	107.18	43	*e*P	Pdif	14 36 03.9	+4.7
ARCES	**ARCESS Array B**	110.08	22	PP	PP	14 40 50.7	+3.6
	comp=Z,1.6nm,0.9s,baz=241,slow=13,SNR=8.2						
ARCES				PKKPbc	PKKPbc	14 51 13.6	-3.9
	comp=Z,2.2nm,0.9s,baz=116,slow=2.8,SNR=5.1						
BRTR	**Keskin Array B**	112.44	54	PKPdf	PKiKP	14 40 17.1	-1.2
BRTR				PP	PP	14 41 06.2	+1.2
BRTR	**Keskin Array B**	112.44	54	PKIKP	PKiKP	14 40 17.1	-1.2
BRTR						14 41 06.2	
BRTR	**Keskin Array B**	112.44	54	PKiKP	PKiKP	14 40 17.1	-1.2
	comp=Z,0.9nm,0.9s,baz=199,slow=3.4,SNR=4.1						
BRTR				PP	PP	14 41 06.2	+1.2
	comp=Z,0.8nm,0.7s,baz=300,slow=5.6,SNR=3.7						
PRGR	**Permogore**	119.13	30	*e*PKIKP	PKPdf	14 40 30.4	0.0
BILL	**Bilibino**	120.48	339	*i* PKP	PKPdf	14 40 33.7	+0.8
BILL	**Bilibino**	120.48	339	*i* PKIKP	PKPdf	14 40 32.6	-0.3
BILL				*e*		14 41 58.7	
BILL				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BILL				MLR	MLR		
	comp=Z,100nm,19.0s,MS4.5						
STKA	**Stephens Creek**	120.59	211	*e*PKP	PKPdf	14 40 33.8	-0.5
	comp=Z,2.6nm,1.0s						
STKA	**Stephens Creek**	120.59	211	*e*PKP	PKPdf	14 40 33.8	-0.5
STKA	**Stephens Creek**	120.59	211	PKP	PKPdf	14 40 33.3	-1.0
	comp=Z,1.3nm,0.7s,baz=166,slow=23,SNR=3.8						
TIXI	**Tiksi**	126.84	353	*e*PKPdf	PKPdf	14 40 44.4	-0.6
TIXI	**Tiksi**	126.84	353	*i* PKIKP	PKPdf	14 40 43.6	-1.4
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.9s						
TIXI				MLR	MLR		
	comp=Z,142nm,24.0s,MS4.6						
CTA	**Charters Tower**	127.02	224	*e*PKP	PKPdf	14 40 45.7	-1.2
	comp=Z,6.8nm,1.1s						
CTA				*e*		14 41 07.6	
CTA	**Charters Tower**	127.02	224	*e*PKP	PKPdf	14 40 45.7	-1.2
CTA				*e*		14 41 07.6	
CTA	**Charters Tower**	127.02	224	*e*PKIKP	PKPdf	14 40 45.7	-1.2
ARU	**Arti**	127.07	33	*e*PKPdf	PKPdf	14 40 45.8	0.0
ARU	**Arti**	127.07	33	*i* PKIKP	PKPdf	14 40 46.0	+0.2
ARU				*e*		14 47 48.4	
ARU				*e*SS	SS	14 59 43.8	-5.5
SEY	**Seymchan**	128.06	337	⇑*e*PKP	PKPdf	14 40 47.7	+0.2
SEY	**Seymchan**	128.06	337	⇑*i*PKIKP	PKPdf	14 40 47.7	+0.2
KLBR	**Kellerberrin**	128.55	188	*e*PKP	PKPdf	14 40 48.4	-1.2
	comp=Z,22nm,1.0s						
KLBR				*e*		14 41 11.9	
KLBR	**Kellerberrin**	128.55	188	*e*PKP	PKPdf	14 40 48.4	-1.2
KLBR				*e*		14 41 11.9	
AB31	**Akbulak array**	130.34	41	⇑*e*PKP	PKPdf	14 40 52.5	+0.2
AB31	**Akbulak array**	130.34	41	⇑*e*PKIKP	PKPdf	14 40 52.5	+0.2
MA2	**Magadan**	130.68	334	⇑*e*PKP	PKPdf	14 40 52.4	-0.2
MA2	**Magadan**	130.68	334	PKIKP	PKPdf	14 40 51.9	-0.7
MA2				pmax	pmax		
	comp=Z,20nm,1.4s						
ASAR	**Alice Springs**	131.14	209	PKP		14 40 41.2	
ASAR				PKP	PKPdf	14 40 53.6	-1.1
ASAR				pPKP	pPKPdf	14 41 16.4	+7.6
ASAR				PP	PP	14 43 09.2	-1.8
ASAR	**Alice Springs**	131.14	209	PKHKP		14 40 41.3	
ASAR						14 40 53.6	
ASAR	**Alice Springs**	131.14	209	PKhKP		14 40 41.2	
	comp=Z,0.2nm,0.4s,baz=124,slow=1.7,SNR=8.2						
ASAR				PKP	PKPdf	14 40 53.6	-1.1
	comp=Z,7.0nm,1.1s,baz=123,slow=1.8,SNR=24						
ASAR				pPKP	pPKPdf	14 41 16.4	+7.6
	comp=Z,1.1nm,0.4s,baz=122,slow=1.9,SNR=4.5						
ASAR				PP	PP	14 43 09.2	-1.8
	comp=Z,1.8nm,1.1s,baz=150,slow=5.6,SNR=4.9						
PMG	**Port Moresby**	133.54	235	⇑*i*PKIKP	PKPdf	14 40 58.5	-0.9
WB2	**Warramunga Arr**	134.09	212	*e*PKP	PKPdf	14 40 58.0	-2.3
WB2				*e*		14 41 22.2	
WB2	**Warramunga Arr**	134.09	212	*e*PKP	PKPdf	14 40 58.0	-2.3
WB2				*e*		14 41 22.2	
WRA	**Warramunga Arr**	134.10	212	PKP		14 40 44.1	
WRA				PKP	PKPdf	14 40 57.4	-3.0
WRA				pPKP	pPKPdf	14 41 22.0	+7.6
WRA				SKPbc	SKPbc	14 44 20.8	-5.3
WRA	**Warramunga Arr**	134.10	212	PKHKP		14 40 44.1	
WRA	**Warramunga Arr**	134.10	212	PKhKP		14 40 44.1	
	comp=Z,0.5nm,0.8s,baz=126,slow=3.1,SNR=13						
WRA				PKP	PKPdf	14 40 57.4	-3.0
	comp=Z,0.5nm,0.5s,baz=225,slow=1.3,SNR=14						
WRA				pPKP	pPKPdf	14 41 22.0	+7.6
	comp=Z,2.4nm,0.7s,baz=151,slow=1.7,SNR=4.8						
WRA				SKPbc	SKPbc	14 44 20.8	-5.3
	comp=Z,1.1nm,1.1s,baz=146,slow=3.1,SNR=5.1						
BRVK	**Borovoye**	134.65	33	*i* PKPr	PKPdf	14 41 01.4	+1.1
BRVK	**Borovoye**	134.65	33	*i* PKIKP	PKPdf	14 41 01.4	+1.1
YAK	**Yakutsk**	135.52	347	⇑*e*PKP	PKPdf	14 41 02.5	+0.9
YAK	**Yakutsk**	135.52	347	⇑*i*PKIKP	PKPdf	14 41 02.5	+0.9
NVS	**Novosibirsk**	139.33	24	*e*PKIKP	PKPdf	14 41 09.1	+0.2
NVS				pmax	pmax		
	comp=Z,16nm,1.2s						
NVS				pmax	pmax		
	comp=N,6.0nm,1.2s						
FITZ	**Fitzroy Crossi**	139.55	203	*e*PKP		14 41 00.5	
	comp=N,7.5nm,1.2s						
FITZ	**Fitzroy Crossi**	139.55	203	*e*PKP		14 41 00.5	
KURK	**Kurchatov**	140.21	31	*e*PKPdf	PKPdf	14 41 10.7	+0.1
KURK	**Kurchatov**	140.21	31	*e*PKIKP	PKPdf	14 41 10.7	+0.1
ZALV	**Zalesovo Beam**	140.61	24	PKP		14 41 01.9	
ZALV				PKP	PKPdf	14 41 10.6	-0.6
ZALV				pPKP	pPKPdf	14 41 33.2	+7.9
ZALV				SKP		14 44 40.9	
ZALV	**Zalesovo Beam**	140.61	24	PKhKP		14 41 01.9	
	comp=N,4.3nm,0.6s,baz=310,slow=4.6,SNR=14						
ZALV				PKP	PKPdf	14 41 10.6	-0.6
	comp=N,13nm,0.8s,baz=292,slow=2.1,SNR=24						
ZALV				pPKP	pPKPdf	14 41 33.2	+7.9
	comp=N,4.7nm,0.4s,baz=304,slow=3.4,SNR=3.4						
ZALV				SKP		14 44 40.9	
	comp=N,2.7nm,1.0s,baz=298,slow=3.2,SNR=4.0						
ZAL	**Zalesovo**	140.61	24	PKHKP		14 41 01.9	
ZAL						14 41 10.6	
KAKA	**Kakadu**	141.10	216	*e*PKP	PKPdf	14 41 06.6	-6.8
	comp=N,8.3nm,1.0s						
KAKA	**Kakadu**	141.10	216	*e*PKP	PKPdf	14 41 06.6	-6.8
EKS2	**Erkin-Say**	141.73	45	*e*PKPdf	PKPdf	14 41 12.9	-0.7
BOD	**Bodaibo**	141.76	357	*e*PKHKP		14 41 05.7	
BOD				pmax	pmax		
	comp=Z,7.0nm,1.3s						
AML	**Almayashu**	141.90	46	PKPpre		14 41 11.3	
AAK	**Ala-Archa**	142.22	45	*e*PKPpre		14 41 10.7	
AAK				*i* PKPr	PKPdf	14 41 14.2	-0.3
AAK	**Ala-Archa**	142.22	45	*e*PKIKP	PKPdf	14 41 10.7	-3.8
UCH	**Uchtor**	142.41	45	*e*PKPpre		14 41 11.4	
TKM2	**Tokmak 2**	142.81	44	*e*PKPpre		14 41 14.1	
TKM2	**Tokmak 2**	142.81	44	*e*PKIKP	PKPdf	14 41 14.1	-1.4
KSH	**Kashi**	144.55	49	*e*PKP	PKPdf	14 41 18.5	-0.2
KSH				*e*APKP		14 41 29.0	
KSH				*e*XPKP		14 41 32.5	
KSH				*e*SKS	SKSdf	14 48 22.0	-2.4
KSH				*e*SKKS	SKKSac	14 51 21.3	-2.8
KSH				PP	PP		
	comp=Z,413nm,5.3s						
KSH				LR	LR		
	comp=N,532nm,4.3s						
KSH				LR	LR		
	comp=E,832nm,5.2s						
KSH				LR	LR		
	comp=Z,514nm,5.3s						
MK31	**Makanchi Array**	144.59	34	*e*PKP	PKPdf	14 41 17.2	-1.3
MK31	**Makanchi Array**	144.59	34	*e*PKIKP	PKPdf	14 41 17.3	-1.2
MKAR	**Makanchi Array**	144.59	34	PKP	PKPdf	14 41 17.2	-1.3
MKAR				pPKP	pPKPdf	14 41 39.2	+6.5
MKAR	**Makanchi Array**	144.59	34	PKIKP	PKPdf	14 41 17.2	-1.3
MKAR	**Makanchi Array**	144.59	34	PKP	PKPdf	14 41 17.2	-1.3
	comp=Z,21nm,0.7s,baz=315,slow=3.7,SNR=128						
MKAR				pPKP	pPKPdf	14 41 39.2	+6.5
	comp=Z,6.7nm,0.6s,baz=323,slow=3.3,SNR=5.0						
HABR	**Khabarovsk**	144.93	331	*e*PKIKP	PKPdf	14 41 17.9	-1.2
HABR				*e*PPP		14 47 48.1	
HABR				*e*		14 48 24.6	
HABR				*e*SS	SS	15 03 24.1	+1.9
POO	**Poona**	145.68	86	*e*P	PKPdf	14 41 21.6	+0.4
POO				⇑*i*P		14 41 22.0	
	comp=Z,30nm,1.0s						
KLR	**Kul’dur**	145.78	335	*e*PKHKP		14 41 16.6	
KLR				pmax	pmax		
	comp=E,64nm,1.8s						
KLR				pmax	pmax		
	comp=Z,220nm,1.8s						
KAD	**Karad**	145.81	88	*e*P	PKPdf	14 41 21.0	-0.5
TRD	**Trivandrum**	146.00	104	*e*x	x	14 41 45.0	
THN	**Thein Dam**	146.66	61	*e*P	PKPdf	14 41 23.5	+1.0
AJM	**Ajmer**	146.67	71	*e*P	PKPdf	14 41 22.4	-0.3
IRK	**Irkutsk**	147.13	7	*e*PKP2	PKPab	14 41 23.1	-3.4
IRK				pmax	pmax		
	comp=Z,102nm,2.3s						
MOY	**Mondy**	147.23	11	*e*PKP2	PKPab	14 41 24.4	-2.5
MOY				pmax	pmax		
	comp=Z,71nm,1.5s						
CIT	**Chita**	147.57	356	*e*PKIKP	PKPdf	14 41 23.8	+0.4
CIT				*e*		14 44 49.8	
TLY	**Talaya**	147.61	8	*e*PKP2	PKPab	14 41 27.2	-1.2
TLY				pmax	pmax		
	comp=Z,35nm,0.9s						
TLY				MLR	MLR		
	comp=Z,75nm,17.0s,MS4.5						
NDI	**New Delhi**	148.68	67	*e*P	PKPdf	14 41 25.0	-1.0
ZAK	**Zakamensk**	148.83	9	*e*PKIKP	PKPdf	14 41 25.8	+0.3
ZAK				pmax	pmax		
	comp=Z,13nm,1.5s						
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.3s						
PALK	**Pallekele**	148.87	109	*e*PKPbc	PKPbc	14 41 30.5	-0.2
BHPL	**Bhopal**	149.33	77	*e*P	PKPdf	14 41 27.7	+0.5
WMQ	**Urumqi**	149.41	33	PKP	PKPdf	14 41 27.0	+0.3
WMQ				LR	LR		
	comp=N,111nm,26.0s,MS4.7						
WMQ				LR	LR		
	comp=E,132nm,25.0s,MS4.7						
WMQ				LR	LR		
	comp=Z,119nm,23.8s,MS4.6						
HIA	**Hailar**	149.46	348	*e*PKPdf	PKPdf	14 41 26.7	+0.1
HIA				*e*PKPbc	PKPbc	14 41 30.2	-0.9
HIA	**Hailar**	149.46	348	*e*PKIKP	PKPdf	14 41 26.7	+0.1
HYB	**Hyderabad**	149.95	89	*e*P	PKPdf	14 41 29.0	+0.7
HYB				*e*		14 41 33.0	
HYB				*e*		14 41 56.0	
HYB	**Hyderabad**	149.95	89	*e*PKHKP		14 41 29.0	
HYB	**Hyderabad**	149.95	89	*i* PKP	PKPdf	14 41 29.0	+0.7
	comp=Z,105nm,1.0s						
HYB				*e*sPKP		14 42 02.0	
MJAR	**Matsushiro Arr**	150.24	310	PKPbc	PKPbc	14 41 33.1	-0.3
MJAR				pPKPbc	pPKPbc	14 41 55.6	+8.2
MJAR	**Matsushiro Arr**	150.24	310	PKP2	PKPab	14 41 33.1	-6.5
MJAR	**Matsushiro Arr**	150.24	310	PKPbc	PKPbc	14 41 33.1	-0.3
	comp=Z,9.8nm,0.5s,baz=87,slow=1.5,SNR=34						
MJAR				pPKPbc	pPKPbc	14 41 55.6	+8.2
	comp=Z,5.5nm,0.8s,baz=217,slow=0.6,SNR=3.7						
MAT	**Matsushiro**	150.24	310	PKP	PKPdf	14 41 32.3	+4.0

SONM	**Songino Array**	**151.70**	**5**	PKP	PKPdf	14 41 29.3	-0.8
SONM				PKPbc	PKPbc	14 41 36.0	-0.4
SONM				PKPab	PKPab	14 41 45.2	0.0
SONM				pPKPbc	pPKPbc	14 41 58.7	+8.2
SONM	**Songino Array**	**151.70**	**5**	PKIKP	PKPdf	14 41 29.3	-0.8
SONM						14 41 36.0	
SONM						14 41 45.2	
SONM	**Songino Array**	**151.70**	**5**	PKP	PKPdf	14 41 29.3	-0.8
	comp=Z,2.3nm,0.8s,baz=332,slow=0.7,SNR=18						
SONM				PKPbc	PKPbc	14 41 36.0	-0.4
	comp=Z,11nm,0.5s,baz=307,slow=1.3,SNR=115						
SONM				PKPab	PKPab	14 41 45.2	0.0
	comp=Z,10nm,0.8s,baz=325,slow=3.6,SNR=15						
SONM				pPKPbc	pPKPbc	14 41 58.7	+8.2
	comp=Z,7.4nm,0.5s,baz=346,slow=1.3,SNR=5.7						
ULN	**Ulaanbaatar**	**151.72**	**4**	*e*PKPdf	PKPdf	14 41 30.2	+0.1
ULN				*e*PKPbc	PKPbc	14 41 36.2	-0.3
ULN				LR	LR		
	comp=Z,98nm,20.0s,MS4.6						
ULN	**Ulaanbaatar**	**151.72**	**4**	*e*PKIKP	PKPdf	14 41 30.3	+0.1
ULN				*e*		14 41 36.2	
ULN				MLR	MLR		
	comp=Z,98nm,20.0s,MS4.6						
BLSP	**Bilaspur**	**153.69**	**80**	*e*x	x	14 41 02.8	
VIS	**Vishakhapatnam**	**154.49**	**90**	*e*P	PKPdf	14 41 34.8	-0.2
KSRS	**Korea Array**	**156.45**	**323**	PKP	PKPdf	14 41 37.2	0.0
	comp=Z,3.6nm,0.9s,baz=42,slow=2.0,SNR=6.9						
KSRS				PKPab	PKPab	14 42 05.0	-0.7
	comp=Z,3.0nm,0.6s,baz=49,slow=4.0,SNR=8.4						
GTA	**Gaotai**	**158.35**	**22**	*e*PKP	PKPdf	14 41 39.6	+0.1
GTA				APKP		14 41 49.8	
GTA				XPKP		14 41 54.6	
GTA				PKS		14 45 11.3	
GTA				SKS	SKSdf	14 48 40.1	-1.5
GTA				SKKS	SKKSac	14 52 42.9	+3.6
GTA				PP	PP		
	comp=Z,177nm,8.8s						
GTA				LR	LR		
	comp=N,99nm,9.9s						
GTA				LR	LR		
	comp=E,95nm,9.2s						
GTA				LR	LR		
	comp=Z,131nm,12.6s,MS5.0						
HHC	**Hu-ho-hao-te**	**158.82**	**357**	*e*PKP	PKPdf	14 41 38.6	-1.4
HHC				APKP		14 41 49.4	
HHC				XPKP		14 41 53.0	
HHC				PKS		14 45 11.3	
HHC				PP	PP	14 45 58.8	+3.4
HHC				SKS	SKSdf	14 48 39.0	-2.9
HHC				SKKS	SKKSac	14 52 41.8	+0.2
HHC				SS	SS	15 05 57.1	+2.8
HHC				PP	PP		
	comp=Z,121nm,9.7s						
HHC				LR	LR		
	comp=Z,150nm,37.0s,MS4.6						
BJI	**Beijing**	**159.02**	**347**	PKP	PKPdf	14 41 38.8	-1.5
BJI				APKP		14 41 49.4	
BJI				XPKP		14 41 52.3	
BJI				LR	LR		
	comp=N,78nm,36.1s						
BJI	**Beijing**	**159.02**	**347**	PKP	PKPdf	14 41 38.8	-1.5
BJI				pPKP	pPKPdf	14 41 49.4	-5.0
BJI				sPKP		14 41 52.3	
BJI				PP	PP	14 45 34.2	-22
BJI				SS	SS	15 05 56.1	-0.5
BJI				LR	LR		
	comp=Z,120nm,37.3s,MS4.5						
BJI	**Beijing**	**159.02**	**347**	PKIKP	PKPdf	14 41 38.8	-1.5
BJI						14 41 49.4	
BJI						14 41 52.3	
BJI				SS	SS	15 05 56.1	-0.5
BJI				MLR	MLR		
	comp=Z,120nm,37.3s,MS4.5						
LSA	**Lhasa**	**160.03**	**56**	*e*PKPdf	PKPdf	14 41 42.2	+0.4
LSA	**Lhasa**	**160.03**	**56**	*e*PKIKP	PKPdf	14 41 42.2	+0.5
LZH	**Lanzhou**	**162.69**	**17**	*e*PKP	PKPdf	14 41 46.0	+1.7
LZH				APKP		14 41 56.3	
LZH				XPKP		14 42 00.1	
LZH				SKS	SKSdf	14 48 42.0	-3.5
LZH				SS	SS	15 06 39.0	+3.8
LZH				PP	PP		
	comp=Z,54nm,4.6s						
LZH				LR	LR		
	comp=E,228nm,13.7s						
LZH				LR	LR		
	comp=Z,196nm,15.8s						
LZH	**Lanzhou**	**162.69**	**17**	*e*PKP	PKPdf	14 41 46.0	+1.7
LZH				pPKP	pPKPdf	14 41 56.2	-2.3
LZH				sPKP		14 42 00.1	
LZH	**Lanzhou**	**162.69**	**17**	*e*PKIKP	PKPdf	14 41 46.0	+1.7
LZH						14 41 56.2	
LZH						14 42 00.1	
NJ2	**Nanjing**	**165.39**	**330**	*e*PKP	PKPdf	14 41 46.8	-0.1
NJ2				APKP		14 41 57.6	
NJ2				XPKP		14 42 01.5	
NJ2				PKS		14 45 18.0	
NJ2				SKS	SKSdf	14 48 46.0	-1.6
NJ2				SKKS	SKKSac	14 53 17.0	+1.2
NJ2				SS	SS	15 07 07.0	+3.3
NJ2				PP	PP		
	comp=Z,230nm,10.0s						
NJ2				LR	LR		
	comp=N,400nm,28.0s						
NJ2				LR	LR		
	comp=E,280nm,24.0s						
NJ2				LR	LR		
	comp=Z,370nm,22.6s						
XAN	**Xi’an**	**165.61**	**4**	PKP	PKPdf	14 41 47.3	+0.3
CD2	**Chengdu**	**167.36**	**26**	*e*PKP	PKPdf	14 41 48.8	+0.3
CD2				APKP		14 41 59.5	
CD2				XPKP		14 42 03.1	
CD2				PKP2	PKPab	14 42 56.1	+2.5
CD2				PP	PP	14 46 45.5	+4.5
CD2				SKS	SKSdf	14 48 47.3	-1.6
CD2				SKKS	SKKSac	14 53 27.4	+1.8
CD2				SS	SS	15 07 26.5	+3.0
CD2				PP	PP		
	comp=Z,180nm,10.2s						
CD2				LR	LR		
	comp=N,250nm,25.4s						
CD2				LR	LR		
	comp=Z,280nm,26.4s						
WHN	**Wuhan**	**168.50**	**342**	PKP	PKPdf	14 41 50.3	+1.0
CHTO	**Chiang Mai**	**169.35**	**93**	*e*PKPdf	PKPdf	14 41 49.3	-0.8
CHTO	**Chiang Mai**	**169.35**	**93**	*e*PKIKP	PKPdf	14 41 49.3	-0.8
KMI	**Kunming**	**171.21**	**50**	PKP	PKPdf	14 41 50.3	-0.7
KMI				XPKP		14 42 06.3	
KMI				PKP2	PKPab	14 43 11.9	+1.0
KMI				PP	PP	14 47 04.8	+3.4
KMI				SKKS	SKKSac	14 53 45.6	+0.6
KMI				SS	SS	15 08 04.4	+0.9
KMI				PP	PP		
	comp=Z,118nm,4.1s						
KMI				LR	LR		
	comp=N,136nm,19.8s						
KMI				LR	LR		
	comp=E,138nm,21.7s						
KMI				LR	LR		
	comp=Z,207nm,23.7s						
KMI	**Kunming**	**171.21**	**50**	PKP	PKPdf	14 41 50.2	-0.8
KMI				sPKP		14 42 06.3	
KMI	**Kunming**	**171.21**	**50**	PKIKP	PKPdf	14 41 50.2	-0.8
KMI						14 42 06.3	
GYA	**Guiyang**	**172.47**	**25**	*i* PKP	PKPdf	14 41 50.4	-1.2
GYA				APKP		14 42 02.8	
GYA				XPKP		14 42 07.6	
GYA				PKP2	PKPab	14 43 17.3	+1.0
GYA				PKS		14 45 21.5	
GYA				PP	PP	14 47 09.3	+2.6
GYA				SKKS	SKKSac	14 53 50.8	+0.1
GYA				SS	SS	15 08 14.3	+0.2
GYA				PP	PP		
	comp=Z,450nm,9.4s						
GYA				LR	LR		
	comp=N,1µm,20.8s						
GYA				LR	LR		
	comp=E,2µm,21.0s						
GYA				LR	LR		
	comp=Z,2µm,20.6s						
QIZ	**Qiongzhong**	**179.32**	**152**	PKP	PKPdf	14 41 49.6	-3.8
QIZ				SKKS	SKKSac	14 54 28.8	+5.7

ISCJB ***14*** *14:52:60.0±0.9, 49.00N±0.08×154.9E±0.1, h71^{km}±8^{km}, mb3.6/14, Error ellipse: s-maj=19.6km s-min=5.9km az=42.9*

MOS ***14*** *14:52:59.7±1.2, 48.97N×154.93E, h72^{km}, mb4.2/5, Error ellipse: s-maj=18.5km s-min=9.3km az=72.6*

NEIC ***14*** *14:53:00.3±2.2, 48.97N×154.69E, h61^{km}±18^{km}, mb3.9/3, Error ellipse: s-maj=16.0km s-min=13.9km az=161.0*

IDC ***14*** *14:53:06.8±4.5, 48.99N×154.57E, h120^{km}±41^{km}, mb3.4/13, mb1 3.6/14, mb1mx3.4/25, mbtmp3.5/14, MS3.3/3, Ms1 3.3/3, ms1mx2.8/28, Error ellipse: s-maj=21.6km s-min=16.3km az=119.0*

ISC 14 14:53:01.7±0.8, 49.03N±0.08×154.9E±0.1, h69^{km}±7^{km}, n41, σ1^{s}08/43, mb3.6/14, 1D, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril’s**	**1.84**	**26**	*e*PN	**Pn**	**14 53 29.4**	**-1.8**
SKR				*e*S	**Sn**	**14 53 53.5**	**0.0**
SKR				pmax	pmax		
	comp=N,80nm,0.5s						
SKR				pmax	pmax		
	comp=Z,90nm,0.5s						
SKR				smax			
	comp=N,1µm,0.3s						
SKR				smax			
	comp=E,920nm,0.3s						
PET	**Petropavlovsk**	**4.66**	**29**	*e*P	**Pn**	**14 54 09.6**	**+0.2**
PET				*e*S	**Sn**	**14 55 00.2**	**-1.9**
PET	**Petropavlovsk**	**4.66**	**29**	*e*PN	**Pn**	**14 54 09.7**	**+0.3**
PET				*e*S	**Sn**	**14 55 04.3**	**+2.2**
PET				pmax	pmax		
	comp=Z,48nm,0.5s						
PET				smax			
	comp=E,178nm,0.7s						
PET				smax			
	comp=N,162nm,0.9s						
KUR	**Kuril’sk**	**6.10**	**234**	⇓*i*PN	**Pn**	**14 54 29.4**	**+0.2**
KUR				*e*S	**Sn**	**14 55 37.5**	**-0.1**
KUR				pmax	pmax		
	comp=Z,90nm,0.5s						
KUR				smax			
	comp=N,150nm,0.6s						
KUR				smax			
	comp=E,110nm,0.6s						
YSS	**Yuzh-Sakhalins**	**8.39**	**260**	*e*PN	**Pn**	**14 55 02.0**	**+1.6**
ASAJ	**Asahikawa**	**9.77**	**244**	PN	**Pn**	**14 55 21.0**	**+1.7**
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,59nm,19.7s						
ASAJ	**Asahikawa**	**9.77**	**244**	P	**Pn**	**14 55 20.9**	**+1.6**
	comp=Z,2.5nm,0.3s,baz=58,slow=9.6,SNR=23						
ASAJ				LR	LR	14 58 58.0	
	comp=Z,59nm,19.7s,baz=320,slow=37						
ERM	**Erimo**	**10.79**	**234**	*i* PN	**Pn**	**14 55 31.8**	**-1.5**
YAK	**Yakutsk**	**19.14**	**322**	P	**Pn**	**14 57 19.5**	**-1.0**
	comp=Z,19nm,0.8s						
YAK	**Yakutsk**	**19.14**	**322**	*e*P	**Pn**	**14 57 22.2**	**+1.7**
YAK				pmax	pmax		
	comp=Z,15nm,0.9s						
YAK				pmax	pmax		
	comp=N,6.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.3s						
BILL	**Bilibino**	**19.91**	**13**	*e*P	**Pn**	**14 57 25.0**	**-4.5**
	comp=E,1.9nm,0.6s						
BILL	**Bilibino**	**19.91**	**13**	*i* P	**Pn**	**14 57 26.6**	**-2.9**
BILL				pmax	pmax		
	comp=Z,3.0nm,1.2s						
BILL				MLR	MLR		
	comp=Z,100nm,21.0s						
KSRS	**Korea Array**	**22.66**	**249**	P	**P**	**14 57 57.2**	**+0.3**
	comp=Z,3.0nm,0.8s,mb3.7,baz=45,slow=10,SNR=7.4						
TIXI	**Tiksi**	**25.65**	**341**	*e*P	**P**	**14 58 24.0**	**-0.4**
	comp=Z,2.4nm,0.8s,mb3.7						
TIXI				*e*	pP	14 58 40.7	0.0
TIXI	**Tiksi**	**25.65**	**341**	*e*P	**P**	**14 58 24.0**	**-0.4**
TIXI				*e*	pP	14 58 40.7	0.0
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.6						
IMA2	**Indian Mountai**	**31.27**	**38**	*e*P	**P**	**14 59 14.6**	**+0.1**
SONM	**Songino Array**	**31.75**	**287**	LR	LR	15 14 01.5	
	comp=Z,69nm,18.4s,baz=38,slow=40						
INK	**Inuvik**	**39.10**	**34**	*e*P	**P**	**15 00 22.4**	**+0.8**
MKAR	**Makanchi Array**	**46.97**	**296**	*e*P	**P**	**15 01 26.2**	**+0.8**
MKAR	**Makanchi Array**	**46.97**	**296**	P	**P**	**15 01 24.1**	**-1.2**
	comp=Z,0.4nm,0.5s,mb3.4,baz=69,slow=7.9,SNR=5.1						
RES	**Resolute Bay**	**48.30**	**20**	*e*P	**P**	**15 01 36.3**	**+1.0**
YKA	**Yellowknife Ar**	**48.40**	**38**	P	**P**	**15 01 36.9**	**+0.7**
YKA	**Yellowknife Ar**	**48.40**	**38**	*e*P	**P**	**15 01 37.0**	**+0.8**
YKA	**Yellowknife Ar**	**48.40**	**38**	P	**P**	**15 01 36.9**	**+0.7**
	comp=Z,0.4nm,0.6s,mb3.4,baz=299,slow=7.6,SNR=7.4						
ARCES	**ARCESS Array B**	**56.09**	**341**	P	**P**	**15 02 33.0**	**-0.1**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	**ARCESS Array B**	**56.09**	**341**	P	**P**	**15 02 33.0**	**-0.1**
	comp=Z,1.7nm,0.8s,mb4.1,baz=25,slow=11,SNR=3.4						
PDAR	**Pinedale Array**	**62.47**	**56**	P	**P**	**15 03 18.7**	**+1.2**
	comp=Z,0.4nm,0.7s,mb3.6,baz=332,slow=5.1,SNR=3.6						
FINES	**FINESS Array B**	**62.48**	**335**	*e*P	**P**	**15 03 17.4**	**+0.2**
FINES	**FINESS Array B**	**62.48**	**335**	P	**P**	**15 03 16.2**	**-1.0**
	comp=Z,0.4nm,0.4s,mb3.8,baz=39,slow=7.3,SNR=5.0						
ULM	**Lac du Bonnet**	**64.03**	**42**	LR	LR	15 31 48.6	
	comp=Z,50nm,18.8s,baz=216,slow=36						
HFS	**Hagfors**	**66.72**	**340**	P	**P**	**15 03 44.7**	**-0.2**
HFS				pmax	pmax		
	comp=Z,2.0nm,0.7s						
HFS	**Hagfors**	**66.72**	**340**	P	**P**	**15 03 44.7**	**-0.2**
	comp=Z,1.7nm,0.7s,mb4.0,baz=79,slow=7.7,SNR=4.7						
AKASG	**Malin Array Be**	**70.30**	**327**	P	**P**	**15 04 05.2**	**-2.2**
	comp=Z,0.4nm,0.4s,mb3.6,baz=32,slow=6.4,SNR=3.8						
SCHQ	**Schefferville**	**70.75**	**24**	P	**P**	**15 04 11.1**	**+1.1**
	comp=Z,0.9nm,0.5s,mb3.9,baz=223,slow=11,SNR=6.6						
WRA	**Warramunga Arr**	**71.06**	**200**	P	**P**	**15 04 10.7**	**-1.5**
	comp=Z,0.3nm,0.7s,mb3.2,baz=16,slow=6.8,SNR=6.0						
EKA	**Eskdalemuir Ar**	**74.39**	**347**	P	**P**	**15 04 31.5**	**-0.1**
EKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
EKA	**Eskdalemuir Ar**	**74.39**	**347**	P	**P**	**15 04 31.4**	**-0.2**
	comp=Z,0.9nm,0.7s,mb3.6,baz=2.2,slow=4.3,SNR=4.0						
ASAR	**Alice Springs**	**74.75**	**200**	*e*P	**P**	**15 04 33.1**	**-0.9**
ASAR	**Alice Springs**	**74.75**	**200**	P	**P**	**15 04 33.1**	**-0.9**
	comp=Z,0.3nm,0.6s,mb3.2,baz=12,slow=5.2,SNR=9.9						
TXAR	**Lajitas Array**	**75.36**	**62**	P	**P**	**15 04 38.3**	**+0.6**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	**Lajitas Array**	**75.36**	**62**	P	**P**	**15 04 38.3**	**+0.6**
	comp=Z,0.7nm,0.5s,mb3.6,baz=298,slow=4.1,SNR=8.3						

IDC 14 15:01:57.5±2.1, 0.62N×126.74E, h0^{km}, mb3.4/3, mb1 3.6/3, mb1mx3.4/16, mbtmp3.4/3, Error ellipse: s-maj=167.2km s-min=27.0km az=66.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**21.75**	**160**	P	P	15 06 50.7	-0.1
	0.7nm,0.6s,baz=339,slow=11,SNR=10						
ASAR	**Alice Springs**	**25.12**	**164**	P	P	15 07 24.5	+0.2
	0.7nm,0.7s,baz=346,slow=11,SNR=11						
MKAR	**Makanchi Array**	**60.12**	**326**	P	P	15 12 06.8	+0.1
	0.1nm,0.4s,baz=116,slow=8.1,SNR=4.0						

IDC 14 15:08:54.6±3.8, 20.69N×121.12E, h0^{km}, mb3.5/3, mb1 3.8/3, mb1mx3.4/19, mbtmp3.5/3, Error ellipse: s-maj=310.5km s-min=25.4km az=60.0, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**40.86**	**319**	P	P	15 16 38.1	-0.1
	0.5nm,0.7s,baz=108,slow=9.3,SNR=5.1						
WRA	**Warramunga Arr**	**42.40**	**161**	P	P	15 16 50.7	-0.3
	0.8nm,0.4s,baz=342,slow=9.0,SNR=13						
ASAR	**Alice Springs**	**45.81**	**164**	P	P	15 17 18.6	+0.3
	0.7nm,0.8s,baz=346,slow=7.0,SNR=12						

IDC ***14*** *15:24:13.7±1.3, 36.42N×4.84E, h0^{km}, mb3.5/4, mb1 3.7/6, mb1mx3.4/23, mbtmp3.6/6, ML4.1/2, Error ellipse: s-maj=26.4km s-min=24.2km az=179.0*

NEIC ***14*** *15:24:14.7±0.6, 36.36N×5.02E, h10^{km}, MG4.7(MDD), Error ellipse: s-maj=7.1km s-min=4.4km az=150.0*

CSEM ***14*** *15:24:15.7±0.1, 36.48N×4.86E, h20^{km}, ML3.5/6, Error ellipse: s-maj=1.9km s-min=1.5km az=7.0*

CRAAG ***14*** *15:24:16.5, 36.42N×4.93E, Ml3.9*

MDD ***14*** *15:24:17.4±0.5, 36.44N×4.89E, h42^{km}±14^{km}, mb4.8/28, Error ellipse: s-maj=9.7km s-min=6.3km az=12.0, PRXIMO*

ISCJB ***14*** *15:24:17.7±0.3, 36.62N±0.03×4.83E±0.03, h41^{km}±8^{km}, mb3.5/4, Error ellipse: s-maj=4.8km s-min=3.5km az=18.7*

LDG ***14*** *15:24:19.1±0.4, 36.43N×4.98E, h49^{km}±8^{km}, Ml3.5/11, Error ellipse: s-maj=9.9km s-min=4.2km az=142.0*

ISC 14 15:24:19.3±0.3, 36.56N±0.03×4.85E±0.03, h37^{km}±9^{km}, n166, σ1^{s}42/217, mb3.5/4, 2D, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKF	**Akfadou**	**0.24**	**287**	P	**Pn**	**15 24 26.6**	**-0.1**
SET	**Setif**	**0.57**	**129**	P	**Pn**	**15 24 26.0**	**-5.0**
CKHR	**Kef el Ahmar**	**0.76**	**136**	P	**Pn**	**15 24 30.0**	**-3.6**
DFRA	**Djebel Bou Aff**	**0.82**	**91**	P	**Pn**	**15 24 33.0**	**-1.4**
ATAF	**Djebel Tarf**	**0.83**	**214**	P	**Pn**	**15 24 31.1**	**-3.4**
AKET	**Djebel Ketaf**	**0.94**	**237**	P	**Pn**	**15 24 32.9**	**-3.1**
ABMS	**Boumerdes**	**1.12**	**280**	P	**Pn**	**15 24 36.8**	**-1.7**
ADJB	**Djebel Djouab**	**1.21**	**251**	P	**Pn**	**15 24 38.0**	**-1.8**
CMER	**Merouana**	**1.27**	**138**	P	**Pn**	**15 24 39.0**	**-1.5**
CTEI	**Djebel Teioual**	**1.35**	**111**	P	**Pn**	**15 24 43.0**	**+1.3**
CASM	**Ain Smara**	**1.35**	**102**	P	**Pn**	**15 24 40.5**	**-1.2**
ABA	**Alger-Bouzarea**	**1.48**	**280**	P	**Pn**	**15 24 43.2**	**-0.3**
EMHD	**Djebel Mahouad**	**1.58**	**257**	P	**Pn**	**15 24 43.5**	**-1.3**
CAEH	**’Ain El Ouahch**	**1.62**	**82**	P	**Pn**	**15 24 44.0**	**-1.4**
CGMA	**Guelma**	**2.06**	**92**	P	**Pn**	**15 24 55.0**	**+3.5**
CMAH	**Djebel Manchou**	**2.07**	**88**	P	**Pn**	**15 24 50.0**	**-1.5**
ABSA	**Djebel Ababsia**	**2.14**	**97**	P	**Pn**	**15 24 51.0**	**-1.5**
CABS	**Djebel Ababsia**	**2.14**	**97**	P	**Pn**	**15 24 51.0**	**-1.5**
EBNR	**Beni Rached**	**2.69**	**265**	P	**Pn**	**15 24 54.4**	**-5.7**
ECHA	**Ech Chlef**	**2.84**	**263**	P	**Pn**	**15 25 01.8**	**-0.4**
ECHF	**Ech Chlef**	**2.87**	**263**	P	**Pn**	**15 25 01.8**	**-0.7**
EANR	**’Ain N’Sour**	**3.10**	**260**	P	**Pn**	**15 25 04.5**	**-1.2**
ETRT	**Tiaret**	**3.11**	**249**	P	**Pn**	**15 25 06.0**	**+0.1**
ETOS	**Mallorca**	**3.58**	**334**	⇓P	**Pn**	**15 25 13.0**	**+0.7**
ETOS				S	**Sn**	**15 25 52.2**	**-1.1**
ETOS	**Mallorca**	**3.58**	**334**	⇓P	**Pn**	**15 25 13.0**	**+0.7**
	93nm,0.4s,SNR=18						
ETOS	**Mallorca**	**3.58**	**334**	P	**Pn**	**15 25 13.0**	**+0.7**
	93nm,0.4s,SNR=18						
ETOS				S	**Sn**	**15 25 52.2**	**-1.1**
	19nm,0.3s						
EIBI	**Ibiza**	**3.71**	**313**	P	**Pn**	**15 25 14.8**	**+0.6**
EIBI				S	**Sn**	**15 25 56.6**	**0.0**
EIBI	**Ibiza**	**3.71**	**313**	P	**Pn**	**15 25 14.8**	**+0.6**
	31nm,0.2s,SNR=49						
EIBI	**Ibiza**	**3.71**	**313**	P	**Pn**	**15 25 14.8**	**+0.7**
	31nm,0.2s,SNR=49						
EIBI				S	**Sn**	**15 25 56.6**	**0.0**
	17nm,0.2s						
KEST	**Kesra**	**3.73**	**102**	Pn	**Pn**	**15 25 14.1**	**-0.3**
	4.3nm,0.3s,baz=242,slow=3.0,SNR=48						
KEST				Sn	**Sn**	**15 25 58.9**	**+1.8**
	1.1nm,0.3s,baz=272,slow=15,SNR=2.1						
EBEN	**Beniarda**	**4.56**	**299**	P	**Pn**	**15 25 26.2**	**+0.4**
EBEN				S	**Sn**	**15 26 16.7**	**-0.9**
EBEN	**Beniarda**	**4.56**	**299**	P	**Pn**	**15 25 26.2**	**+0.4**
	7.8nm,0.4s,SNR=13						
EBEN	**Beniarda**	**4.56**	**299**	P	**Pn**	**15 25 26.2**	**+0.4**
	7.8nm,0.4s,SNR=13						
EBEN				S	**Sn**	**15 26 16.7**	**-0.9**
	4.2nm,0.2s,SNR=5.0						
EMUR	**La Murta**	**5.03**	**287**	P	**Pn**	**15 25 32.6**	**+0.3**
	3.1nm,0.2s,SNR=7.9						
EMUR	**La Murta**	**5.03**	**287**	P	**Pn**	**15 25 32.6**	**+0.4**
	3.1nm,0.2s,SNR=7.9						
ETOB	**Tobarra**	**5.49**	**294**	P	**Pn**	**15 25 39.7**	**+1.1**
ETOB				S	**Sn**	**15 26 39.0**	**-1.5**
ETOB	**Tobarra**	**5.49**	**294**	P	**Pn**	**15 25 39.2**	**+0.7**
	20nm,0.5s,SNR=22						
ETOB	**Tobarra**	**5.49**	**294**	P	**Pn**	**15 25 39.7**	**+1.1**
	20nm,0.5s,SNR=22						
ECHE	**Chera**	**5.50**	**305**	P	**Pn**	**15 25 39.8**	**+1.2**
ECHE	**Chera**	**5.50**	**305**	P	**Pn**	**15 25 39.3**	**+0.6**
	14nm,0.4s,SNR=7.9						
ECHE	**Chera**	**5.50**	**305**	P	**Pn**	**15 25 39.8**	**+1.1**
	14nm,0.4s,SNR=7.9						
EPOB	**Poblet**	**5.61**	**330**	P	**Pn**	**15 25 40.5**	**+0.3**
EPOB				S	**Sn**	**15 26 41.4**	**-2.0**
EPOB	**Poblet**	**5.61**	**330**	P	**Pn**	**15 25 40.5**	**+0.3**
	14nm,0.3s,SNR=24						
EPOB	**Poblet**	**5.61**	**330**	P	**Pn**	**15 25 40.5**	**+0.3**
	14nm,0.3s,SNR=24						
ERTA	**Horta de San J**	**5.63**	**323**	P	**Pn**	**15 25 40.8**	**+0.3**
	7.8nm,0.1s,SNR=10.0						
ERTA	**Horta de San J**	**5.63**	**323**	P	**Pn**	**15 25 40.8**	**+0.3**
	7.8nm,0.1s,SNR=10.0						
EMOS	**Mosqueruela**	**5.64**	**314**	P	**Pn**	**15 25 41.3**	**+0.6**
EMOS				S	**Sn**	**15 26 41.5**	**-2.7**
EMOS	**Mosqueruela**	**5.64**	**314**	P	**Pn**	**15 25 41.3**	**+0.6**
	4.6nm,0.2s,SNR=13						
EMOS	**Mosqueruela**	**5.64**	**314**	P	**Pn**	**15 25 41.3**	**+0.6**
	4.6nm,0.2s,SNR=13						
EMIR	**Miracle**	**5.93**	**335**	P	**Pn**	**15 25 46.4**	**+1.7**
EMIR				S	**Sn**	**15 26 49.1**	**-2.2**
EMIR	**Miracle**	**5.93**	**335**	P	**Pn**	**15 25 45.2**	**+0.6**
	80nm,0.2s,SNR=82						
EMIR	**Miracle**	**5.93**	**335**	P	**Pn**	**15 25 46.3**	**+1.7**
	80nm,0.2s,SNR=82						
EJON	**La Jonquera**	**6.07**	**346**	P	**Pn**	**15 25 46.6**	**+0.1**
EJON				S	**Sn**	**15 26 52.1**	**-2.5**
EJON	**La Jonquera**	**6.07**	**346**	P	**Pn**	**15 25 46.6**	**+0.1**
	6.4nm,0.3s,SNR=4.7						
EJON	**La Jonquera**	**6.07**	**346**	P	**Pn**	**15 25 46.7**	**+0.2**
EVIA	**Vianos**	**6.20**	**292**	P	**Pn**	**15 25 48.8**	**+0.6**
EVIA				S	**Sn**	**15 26 55.9**	**-1.9**
EVIA	**Vianos**	**6.20**	**292**	P	**Pn**	**15 25 48.8**	**+0.6**
	4.6nm,0.2s,SNR=6.9						
EBER	**Berja**	**6.23**	**275**	P	**Pn**	**15 25 48.5**	**-0.2**
EBER				S	**Sn**	**15 26 55.3**	**-3.3**
EBER	**Berja**	**6.23**	**275**	P	**Pn**	**15 25 48.5**	**-0.2**
	12nm,0.5s,SNR=7.9						
EBER	**Berja**	**6.23**	**275**	P	**Pn**	**15 25 48.5**	**-0.2**
	12nm,0.5s,SNR=7.9						
VALF	**Valcebollere**	**6.23**	**340**	P	**Pn**	**15 25 50.4**	**+1.7**
EQES	**Quesada**	**6.45**	**283**	P	**Pn**	**15 25 53.3**	**+1.6**
EQES				S	**Sn**	**15 27 04.4**	**+0.4**
EQES	**Quesada**	**6.45**	**283**	P	**Pn**	**15 25 52.2**	**+0.5**
	6.1nm,0.3s,SNR=7.2						
EQES	**Quesada**	**6.45**	**283**	P	**Pn**	**15 25 53.3**	**+1.6**
	6.1nm,0.3s,SNR=7.2						
EQES				S	**Sn**	**15 27 04.4**	**+0.4**
	1.9nm,0.2s						
ESAC	**San Caprasio**	**6.61**	**323**	P	**Pn**	**15 25 55.3**	**+1.5**
ESAC	**San Caprasio**	**6.61**	**323**	P	**Pn**	**15 25 54.4**	**+0.5**
	56nm,0.2s,SNR=12						
ESAC	**San Caprasio**	**6.61**	**323**	P	**Pn**	**15 25 55.3**	**+1.4**
	56nm,0.2s,SNR=12						
EQUE	**Quentar**	**6.68**	**278**	P	**Pn**	**15 25 55.2**	**+0.3**
	6.2nm,0.4s,SNR=6.9						
EQUE	**Quentar**	**6.68**	**278**	P	**Pn**	**15 25 55.7**	**+0.8**
	6.2nm,0.4s,SNR=6.9						
PGF	**Pioggiola**	**6.78**	**27**	*e*Pn	**Pn**	**15 25 55.3**	**-0.9**
PGF				*e*Sn	**Sn**	**15 27 08.4**	**-3.7**
	5.7nm,0.3s						
PGF	**Pioggiola**	**6.78**	**27**	*e*Pn	**Pn**	**15 25 55.3**	**-0.9**
PGF				*e*Sn	**Sn**	**15 27 08.4**	**-3.7**
PGF	**Pioggiola**	**6.78**	**27**	*e*Pn	**Pn**	**15 25 55.3**	**-0.9**
PGF				*e*Sn	**Sn**	**15 27 08.4**	**-3.7**
	2.8nm,0.3s						
ETOR	**Torete**	**6.87**	**310**	P	**Pn**	**15 25 59.4**	**+1.8**
ETOR	**Torete**	**6.87**	**310**	P	**Pn**	**15 25 58.4**	**+0.8**
	15nm,0.5s,SNR=8.9						
ETOR	**Torete**	**6.87**	**310**	P	**Pn**	**15 25 59.4**	**+1.9**
	15nm,0.5s,SNR=8.9						
LMR	**La Mourre**	**6.88**	**10**	*e*Pn	**Pn**	**15 25 56.6**	**-1.0**
LMR				*e*Sn	**Sn**	**15 27 11.8**	**-2.8**
	4.7nm,0.3s						
LMR	**La Mourre**	**6.88**	**10**	*e*Pn	**Pn**	**15 25 56.6**	**-1.0**
LMR				*e*Sn	**Sn**	**15 27 11.8**	**-2.8**
LMR	**La Mourre**	**6.88**	**10**	*e*Pn	**Pn**	**15 25 56.6**	**-1.0**
LMR				*e*Sn	**Sn**	**15 27 11.8**	**-2.8**
	2.3nm,0.3s						
MLS	**Moulis**	**7.01**	**337**	P	**Pn**	**15 26 01.5**	**+2.1**
MELF	**Melles**	**7.05**	**335**	P	**Pn**	**15 26 02.3**	**+2.4**
MTLF	**Montolieu**	**7.07**	**344**	*e*Pn	**Pn**	**15 26 00.8**	**+0.6**
MTLF				*e*Sn	**Sn**	**15 27 15.8**	**-3.4**
	3.9nm,0.4s						
MTLF	**Montolieu**	**7.07**	**344**	*e*Pn	**Pn**	**15 26 00.8**	**+0.6**
MTLF				*e*Sn	**Sn**	**15 27 15.8**	**-3.4**

EBIE	Bielsa	7.11	331	P	Pn	15 26 02.5	+1.7
EBIE				S	Sn	15 27 17.6	-2.8
EBIE	Bielsa	7.11	331	P	Pn	15 26 01.9	+1.1
	9.6nm,0.5s,SNR=10						
EBIE	Bielsa	7.11	331	P	Pn	15 26 02.5	+1.7
	9.6nm,0.5s,SNR=10						
FRF	La Foret Royal	7.12	11	ePn	Pn	15 26 00.5	-0.4
FRF				eSn	Sn	15 27 17.8	-2.8
	8.8nm,0.4s						
FRF	La Foret Royal	7.12	11	ePn	Pn	15 26 00.5	-0.4
FRF				eSn	Sn	15 27 17.8	-2.8
FRF	La Foret Royal	7.12	11	ePn	Pn	15 26 00.5	-0.4
FRF				eSn	Sn	15 27 17.8	-2.8
	4.4nm,0.4s						
EPF	Esparros	7.33	333	ePn	Pn	15 26 06.0	+2.2
EPF				eSn	Sn	15 27 24.6	-1.1
	6.2nm,0.3s						
EPF	Esparros	7.33	333	ePn	Pn	15 26 06.0	+2.2
EPF				eSn	Sn	15 27 24.6	-1.1
EPF	Esparros	7.33	333	ePn	Pn	15 26 06.0	+2.2
EPF				eSn	Sn	15 27 24.6	-1.1
	3.1nm,0.3s						
SMRF	Simiane la Rot	7.42	4	ePn	Pn	15 26 05.1	0.0
SMRF				eSn	Sn	15 27 24.8	-3.2
	2.7nm,0.4s						
SMRF	Simiane la Rot	7.42	4	ePn	Pn	15 26 05.1	0.0
SMRF				eSn	Sn	15 27 24.8	-3.2
SMRF	Simiane la Rot	7.42	4	ePn	Pn	15 26 05.1	0.0
SMRF				eSn	Sn	15 27 24.8	-3.2
	1.4nm,0.4s						
LASF	Ste Croix	7.54	355	ePn	Pn	15 26 06.5	-0.2
LASF				eSn	Sn	15 27 27.9	-3.0
	6.6nm,0.5s						
LASF	Ste Croix	7.54	355	ePn	Pn	15 26 06.5	-0.2
LASF				eSn	Sn	15 27 27.9	-3.0
LASF	Ste Croix	7.54	355	ePn	Pn	15 26 06.5	-0.2
LASF				eSn	Sn	15 27 27.9	-3.0
	3.3nm,0.5s						
SBF	Sospel	7.55	14	ePn	Pn	15 26 06.1	-0.8
SBF				eSn	Sn	15 27 26.8	-4.4
	3.2nm,0.2s						
SBF	Sospel	7.55	14	ePn	Pn	15 26 06.1	-0.8
SBF				eSn	Sn	15 27 26.8	-4.4
SBF	Sospel	7.55	14	ePn	Pn	15 26 06.1	-0.8
SBF				eSn	Sn	15 27 26.8	-4.4
	1.6nm,0.2s						
ETSF	Etsaut	7.58	328	ePn	Pn	15 26 08.9	+1.7
ETSF				eSn	Sn	15 27 30.3	-1.4
	3.0nm,0.3s						
ETSF	Etsaut	7.58	328	ePn	Pn	15 26 08.9	+1.7
ETSF				eSn	Sn	15 27 30.3	-1.4
ETSF	Etsaut	7.58	328	ePn	Pn	15 26 08.9	+1.7
ETSF				eSn	Sn	15 27 30.3	-1.4
	1.5nm,0.3s						
ESDC	Sonseca Array	7.61	297	Pn	Pn	15 26 08.2	+0.5
	1.5nm,0.3s,baz=102,slow=14,SNR=7.8						
ESDC	Sonseca Array	7.61	297	P	Pn	15 26 07.7	0.0
	1.6nm,0.1s,baz=112,slow=14,SNR=5.2						
ESDC	Sonseca Array	7.61	297	P	Pn	15 26 07.7	0.0
	1.6nm,0.1s,SNR=5.2						
EADA	Adamuz	7.68	285	P	Pn	15 26 10.0	+1.4
EADA	Adamuz	7.68	285	P	Pn	15 26 08.8	+0.2
	0.6nm,0.1s,SNR=4.0						
EADA	Adamuz	7.68	285	P	Pn	15 26 10.0	+1.4
	0.6nm,0.1s,SNR=4.0						
EMIJ	Mijas	7.75	273	P	Pn	15 26 08.5	-1.1
EMIJ	Mijas	7.75	273	P	Pn	15 26 08.5	-1.0
SJPF	Ste Jean	8.04	326	ePn	Pn	15 26 15.3	+1.8
SJPF				eSn	Sn	15 27 39.7	-3.4
	1.6nm,0.3s						
SJPF	Ste Jean	8.04	326	ePn	Pn	15 26 15.3	+1.8
SJPF				eSn	Sn	15 27 39.7	-3.4
SJPF	Ste Jean	8.04	326	ePn	Pn	15 26 15.3	+1.8
SJPF				eSn	Sn	15 27 39.7	-3.4
	0.8nm,0.3s						
IUSE	Utxeti	8.06	324	P	Pn	15 26 14.5	+0.8
	2.1nm,0.2s,SNR=4.0						
IUSE	Utxeti	8.06	324	P	Pn	15 26 14.5	+0.7
	2.1nm,0.2s,SNR=4.0						
GUD	Guadarrama	8.14	303	P	Pn	15 26 16.9	+1.9
GUD	Guadarrama	8.14	303	P	Pn	15 26 15.9	+0.9
	1.3nm,0.2s,SNR=7.9						
GUD	Guadarrama	8.14	303	P	Pn	15 26 16.9	+1.9
	1.3nm,0.2s,SNR=7.9						
ELIZ	Elizondo	8.21	325	P	Pn	15 26 17.7	+1.8
ELIZ				S	Sn	15 27 44.6	-2.8
ELIZ	Elizondo	8.21	325	P	Pn	15 26 16.9	+0.9
	7.2nm,0.2s,SNR=11						
ELIZ	Elizondo	8.21	325	P	Pn	15 26 17.7	+1.8
	7.2nm,0.2s,SNR=11						
MBDF	Montbardon	8.28	10	ePn	Pn	15 26 19.2	+2.3
MBDF	Montbardon	8.28	10	ePn	Pn	15 26 19.2	+2.3
MBDF	Montbardon	8.28	10	ePn	Pn	15 26 19.2	+2.3
VIVF	Saint-Julien-l	8.29	359	ePn	Pn	15 26 15.9	-1.0
VIVF				eSn	Sn	15 27 45.8	-3.3
	11nm,0.5s						
VIVF	Saint-Julien-l	8.29	359	ePn	Pn	15 26 15.9	-1.0
VIVF				eSn	Sn	15 27 45.8	-3.3
VIVF	Saint-Julien-l	8.29	359	ePn	Pn	15 26 15.9	-1.0
VIVF				eSn	Sn	15 27 45.8	-3.3
	5.6nm,0.5s						
ECRI	Cripan	8.29	319	P	Pn	15 26 18.6	+1.6
ECRI	Cripan	8.29	319	P	Pn	15 26 17.9	+1.0
	5.0nm,0.2s,SNR=7.9						
ECRI	Cripan	8.29	319	P	Pn	15 26 18.6	+1.6
	5.0nm,0.2s,SNR=7.9						
ORIF	Oris-en-Rattie	8.38	5	ePn	Pn	15 26 19.5	+1.3
ORIF	Oris-en-Rattie	8.38	5	ePn	Pn	15 26 19.5	+1.3
ORIF	Oris-en-Rattie	8.38	5	ePn	Pn	15 26 19.5	+1.3
LFF	La Frestale	8.93	341	ePn	Pn	15 26 27.3	+1.6
LFF	La Frestale	8.93	341	ePn	Pn	15 26 27.3	+1.6
LPG	La Plagne	9.04	9	ePn	Pn	15 26 28.5	+1.3
LPG	La Plagne	9.04	9	ePn	Pn	15 26 28.5	+1.3
LPG	La Plagne	9.04	9	ePn	Pn	15 26 28.5	+1.3
LPL	La Plagne	9.06	8	ePn	Pn	15 26 29.3	+1.9
LPL	La Plagne	9.06	8	ePn	Pn	15 26 29.3	+1.9
LPL	La Plagne	9.06	8	ePn	Pn	15 26 29.3	+1.9
ELAN	Lanestosa	9.21	319	P	Pn	15 26 30.3	+0.7
ELAN				S	Sn	15 28 02.4	-10
ELAN	Lanestosa	9.21	319	P	Pn	15 26 30.3	+0.7
	4.2nm,0.4s,SNR=5.7						
EMIN	Mina Concepcio	9.28	281	P	Pn	15 26 30.2	-0.3
	1.6nm,0.5s,SNR=7.9						
EMIN	Mina Concepcio	9.28	281	P	Pn	15 26 30.2	-0.4
	1.6nm,0.5s,SNR=7.9						
EARI	Arriondas	10.24	314	P	Pn	15 26 44.4	+0.7
	6.9nm,0.5s,SNR=4.5						
EARI	Arriondas	10.24	314	P	Pn	15 26 45.4	+1.7
	6.9nm,0.5s,SNR=4.5						
ECAL	Calabor	10.47	304	P	Pn	15 26 47.4	+0.6
	6.6nm,0.3s						
ECAL	Calabor	10.47	304	P	Pn	15 26 47.4	+0.6
	6.6nm,0.3s						
MFF	Saint Martin d	10.70	341	ePn	Pn	15 26 51.3	+1.3
MFF	Saint Martin d	10.70	341	ePn	Pn	15 26 51.3	+1.3
EPON	Pontenova	11.42	310	P	Pn	15 27 01.1	+1.4
	4.7nm,0.4s						
EPON	Pontenova	11.42	310	P	Pn	15 27 00.4	+0.6
	4.7nm,0.4s,SNR=7.9						
EPON	Pontenova	11.42	310	P	Pn	15 27 01.1	+1.3
	4.7nm,0.4s						
QUIF	Quistinic	12.80	335	ePn	Pn	15 27 19.7	+1.1
QUIF	Quistinic	12.80	335	ePn	Pn	15 27 19.7	+1.1
SGMF	Saint Gilles	12.89	337	ePn	Pn	15 27 21.8	+1.9
SGMF	Saint Gilles	12.89	337	ePn	Pn	15 27 21.8	+1.9
ROSF	Rostrenen	13.20	336	ePn	Pn	15 27 26.0	+2.0
ROSF	Rostrenen	13.20	336	ePn	Pn	15 27 26.0	+2.0
AKASG	Malin Array Be	22.46	43	P	P	15 29 14.5	-0.5
	0.8nm,0.6s,mb3.4,baz=240,slow=9.6,SNR=3.0						
TORD	Torodi Ar. Bea	23.49	188	P	P	15 29 23.2	-2.7
TORD	Torodi Ar. Bea	23.49	188	P	P	15 29 23.2	-2.7
	1.7nm,0.7s,mb3.6,baz=5.7,slow=9.7,SNR=13						
MKAR	Makanchi Array	56.55	53	P	P	15 33 58.4	+0.5
	0.4nm,0.5s,mb3.7,baz=281,slow=7.2,SNR=6.1						
YKA	Yellowknife Ar	70.03	335	P	P	15 35 27.8	+0.9
	0.2nm,0.6s,mb3.2,baz=51,slow=6.2,SNR=4.4						

NEIC **14** *15:29:47.7±1.0, 2.06N×96.42E, h30^{km}, Error ellipse: s-maj=19.0km s-min=13.7km az=224.0*
ISCJB **14** *15:29:52.1±4.9, 2.3N±0.2×96.8E±0.3, h76^{km}±38^{km}, mb3.4/5, Error ellipse: s-maj=51.0km s-min=21.3km az=144.9*
IDC **14** *15:29:54.6±6.9, 2.31N×96.86E, h78^{km}±55^{km}, mb3.1/5, mb1 3.2/6, mb1mx3.1/22, mbtmp3.1/6, ML2.8/1, Error ellipse: s-maj=61.3km s-min=19.7km az=58.0*
ISC 14 15:29:53.6±4.9**, 2.3N**±0.2×**96.8E**±0.3**, h71**^{km}±38^{km}**, n8, σ0^{s}.36**/10**, mb3.4**/5**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.19	76	P	Pn	15 30 28.2	+0.3
PSI				S	Sn	15 30 53.9	-0.2
PSI	Prapat	2.19	76	P	Pn	15 30 28.2	+0.3
	2.8nm,0.3s,baz=94,slow=2.9,SNR=4.1						
PSI				S	Sn	15 30 53.9	-0.2
	1.6nm,0.3s,baz=320,slow=8.0,SNR=4.3						
KULM	Kulim	4.88	52	eP	Pn	15 31 04.4	-0.1
WRA	Warramunga Arr	42.94	123	P	P	15 37 45.7	-0.1
	0.2nm,0.6s,mb3.1,baz=305,slow=8.9,SNR=3.9						
ASAR	Alice Springs	44.36	128	P	P	15 37 57.1	0.0
	0.2nm,0.7s,mb3.0,baz=302,slow=8.0,SNR=4.9						
MKAR	Makanchi Array	46.12	346	P	P	15 38 10.2	-0.5
	0.4nm,0.4s,mb3.5,baz=157,slow=9.0,SNR=10.0						
SONM	Songino Array	46.15	9	P	P	15 38 11.6	+0.8
	0.2nm,0.5s,mb3.1,baz=195,slow=9.0,SNR=3.1						
ZALV	Zalesovo Beam	52.45	351	P	P	15 38 58.6	-0.2
	1.3nm,0.4s,mb4.3,baz=167,slow=6.5,SNR=8.4						

GUC 14 15:43:59.5±0.8**, 25.24S×69.37W, h110**^{km}**, MD3.8, ML3.1, 3D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPN1	Cerro Paranal	1.12	303	⇓iP	Pn	15 44 23.0	+1.1
CPN1				i S	Sn	15 44 41.2	+2.3
CPN1				AML	AML	15 44 44.5	
	comp=E,610nm,0.5s						
ANCH	Antofagasta	1.81	328	eP	Pn	15 44 30.5	+0.3
ANCH				i S	Sn	15 44 54.7	+1.2
CEN1	Los Morros	1.99	337	⇓iP	Pn	15 44 31.7	-0.6
CEN1				i S	Sn	15 44 55.4	-2.0
CEN1				AML	AML	15 44 58.8	
	comp=N,148nm,0.2s						
CDCH	Caldera	2.25	215	eP	Pn	15 44 33.9	-1.8
CDCH				i S	Sn	15 45 01.7	-1.6
CPCH	Copiapo	2.29	202	⇓iP	Pn	15 44 35.4	-0.7
CPCH				i S	Sn	15 45 03.8	-0.5

ISCJB **14** *15:48:29.0±1.0, 35.84N±0.04×27.27E±0.04, h2^{km}±9^{km}, Error ellipse: s-maj=7.7km s-min=4.5km az=138.7*
NEIC **14** *15:48:28.9, 35.61N×27.51E, h24^{km}, MD3.3(ATH), After ATH.*
ATH **14** *15:48:29.0, 35.67N×27.46E, h27^{km}±3^{km}, MD3.3/8*
CSEM **14** *15:48:30.2±0.1, 35.84N×27.30E, h12^{km}, MD3.3, Error ellipse: s-maj=5.2km s-min=2.6km az=146.0*
DDA **14** *15:48:31.6, 35.86N×27.33E, h7^{km}±2^{km}, Md3.2*
ISC 14 15:48:29.9±0.6**, 35.87N**±0.03×**27.25E**±0.04**, h3**^{km}±6^{km}**, n30, σ0^{s}.69**/40**, 6C, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	0.33	192	⇑iPb	Pg	15 48 36.4	+0.2
KARP				eSb	Sg	15 48 41.0	+0.5
KARP	Karpathos	0.33	192	⇑iPB	Pg	15 48 36.4	+0.2
KARP				eSB	Sg	15 48 41.0	+0.5
KARP	Karpathos	0.33	192	⇑iPb	Pg	15 48 36.4	+0.2
KARP				eSb	Sg	15 48 41.0	+0.5
ARG	Arkhangelos	0.79	64	⇑iPn	Pg	15 48 44.3	-0.7
ARG				eSn	Sg	15 48 55.1	-0.1
ARG	Arkhangelos	0.79	64	⇑iPN	Pg	15 48 44.3	-0.7
ARG				eSN	Sg	15 48 55.1	-0.1
ARG	Arkhangelos	0.79	64	⇑iPn	Pg	15 48 44.3	-0.7
ARG				eSn	Sg	15 48 55.1	-0.1
ZKR	Zakros	1.13	228	P	Pg	15 48 51.2	-0.3
BDRM	Kayabasi	1.20	7	i P	Pg	15 48 53.2	+0.3
BDRM				i S	Sg	15 49 07.6	-0.9
NPS	Neapolis	1.47	246	ePb	Pb	15 48 56.4	-1.3
NPS	Neapolis	1.47	246	ePB	Pb	15 48 56.4	-1.3
NPS	Neapolis	1.47	246	ePb	Pb	15 48 56.4	-1.3
LAST	Lasithi	1.61	244	P	Pn	15 48 58.7	-0.4
XRY	Khrisi	1.61	232	ePn	Pn	15 48 59.5	+0.3
XRY	Khrisi	1.61	232	ePN	Pn	15 48 58.5	-0.7
XRY	Khrisi	1.61	232	ePn	Pn	15 48 59.5	+0.3
APE	Apeiranthos	1.83	311	ePn	Pn	15 49 01.5	-0.6
APE	Apeiranthos	1.83	311	ePN	Pn	15 49 01.5	-0.6
APE	Apeiranthos	1.83	311	ePn	Pn	15 49 01.5	-0.6
SMG	Samos	1.86	350	ePb	Pg	15 49 07.0	+1.4
SMG	Samos	1.86	350	ePB	Pb	15 49 05.2	+0.7
SMG	Samos	1.86	350	ePb	Pg	15 49 07.0	+1.4
AKAS	Kas	1.94	79	i P	Pn	15 49 03.6	-0.1
AKAS				i S	Sn	15 49 28.6	+0.1
AKAS	Kas	1.94	79	i P	Pn	15 49 03.6	-0.1
AKAS				i S	Sn	15 49 28.6	0.0
GOLH	Golhisar	2.31	53	i P	Pn	15 49 09.7	+1.0
GOLH				i S	Sb	15 49 40.7	-0.3
VAM	Vamos	2.53	260	ePn	Pn	15 49 12.4	+0.7
VAM	Vamos	2.53	260	ePN	Pn	15 49 12.9	+1.2
VAM	Vamos	2.53	260	ePn	Pn	15 49 12.4	+0.7
VLI	Veliai	3.58	285	ePn	Pn	15 49 26.8	+0.5
VLI	Veliai	3.58	285	ePN	Pn	15 49 25.1	-1.2
VLI	Veliai	3.58	285	ePn	Pn	15 49 26.8	+0.5

IDC **14** *15:59:16.6±0.8, 6.18S×121.98E, h0^{km}, mb4.3/9, mb1 4.4/11, mb1mx4.2/20, mbtmp4.3/11, ML3.6/2, MS3.6/10, Ms1 3.6/10, ms1mx3.4/27, Error ellipse: s-maj=31.4km s-min=10.3km az=56.0*
NEIC **14** *15:59:17.9±0.3, 6.25S×122.00E, h10^{km}, mb4.8/13, Error ellipse: s-maj=12.8km s-min=5.0km az=53.0*
MOS **14** *15:59:18.1±0.8, 6.27S×122.04E, h26^{km}, mb4.8/8, Error ellipse: s-maj=25.5km s-min=9.7km az=113.9*
BJI **14** *15:59:18.8, 6.30S×122.00E, h10^{km}, mB5.3, mb4.6*
ISCJB **14** *15:59:19.0±0.3, 6.31S±0.07×122.00E±0.09, h33^{km}, mb4.6/28, MS3.6/9, Error ellipse: s-maj=14.9km s-min=6.0km az=143.8*
ISC 14 15:59:21.4±0.3**, 6.32S**±0.07×**121.98E**±0.09**, h35**^{km}**, n66, σ0^{s}.96**/65**, mb4.6**/28**, MS3.6**/9**, 3C-4D, Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	12.11	122	eP	Pn	16 02 10.3	-1.3
	15nm,0.6s						
FITZ	Fitzroy Crossi	12.24	163	eP	Pn	16 02 13.4	0.0
	15nm,0.8s						
FITZ	Fitzroy Crossi	12.24	163	Pn	Pn	16 02 12.6	-0.8
	0.2nm,0.3s,baz=311,slow=5.8,SNR=6.8						
FITZ				LR	LR	16 07 33.5	
	comp=Z,194nm,19.5s,baz=346,slow=40						
WRA	Warramunga Arr	18.10	140	P	Pn	16 03 28.9	-1.2
WRA				S	S	16 06 56.3	+0.3
WRA	Warramunga Arr	18.10	140	P	Pn	16 03 28.9	-1.3
	0.3nm,0.3s,baz=316,slow=12,SNR=35						
WRA				S	S	16 06 56.3	+0.3
	baz=329,slow=17,SNR=5.8						
WRA				LR	LR	16 12 01.1	
	comp=Z,242nm,18.6s,baz=325,slow=42						
WB2	Warramunga Arr	18.11	140	eP	Pn	16 03 28.5	-1.7
WB2	Warramunga Arr	18.11	140	eP	Pn	16 03 28.5	-1.8
ASAR	Alice Springs	20.71	148	P	P	16 03 59.9	+1.0
	8.0nm,0.9s,baz=325,slow=9.2,SNR=48						
ASAR				PcP	PcP	16 08 08.8	+0.9
	0.8nm,0.7s,baz=350,slow=1.9,SNR=4.4						
COEN	Coen	22.19	112	eP	P	16 04 15.5	+0.7
KULM	Kulim	24.21	298	eP	P	16 04 34.6	-0.5
PSI	Prapat	24.74	291	P	P	16 04 40.1	+0.3
	12nm,0.5s,mb4.6,baz=127,slow=5.8,SNR=26						
PSI				LR	LR	16 14 36.2	
	comp=Z,296nm,19.8s,MS3.8,baz=24,slow=37						
FORT	Forrest	24.99	168	eP	P	16 04 42.7	+0.8
	32nm,0.8s,mb4.9						
PMG	Port Moresby	25.13	99	eP	P	16 04 43.5	+0.1
	6.3nm,0.8s,mb4.2						
PMG	Port Moresby	25.13	99	⇑eP	P	16 04 46.2	+2.8
PMG	Port Moresby	25.13	99	P	P	16 04 44.0	+0.6
	3.9nm,0.8s,mb4.0,baz=81,slow=11,SNR=3.7						
PMG				LR	LR	16 16 35.4	
	comp=Z,164nm,19.1s,MS3.6,baz=160,slow=41						
NWAO	Narrogin (SRO)	26.84	189	LR	LR	16 15 20.8	
	comp=Z,142nm,21.6s,MS3.5,baz=14,slow=36						
CTA	Charters Tower	27.25	122	LR	LR	16 16 29.9	
	comp=Z,195nm,20.5s,MS3.7,baz=242,slow=38						
STKA	Stephens Creek	31.34	147	eP	P	16 05 40.6	+1.9
	6.5nm,0.8s,mb4.5						
STKA	Stephens Creek	31.34	147	eP	P	16 05 40.5	+1.8
STKA	Stephens Creek	31.34	147	P	P	16 05 40.5	+1.8
	6.8nm,0.9s,mb4.5,baz=320,slow=8.0,SNR=9.3						
STKA				LR	LR	16 18 50.0	
	comp=Z,257nm,20.4s,MS3.9,baz=232,slow=37						
CHTO	Chiang Mai	33.76	318	eP	P	16 06 00.1	+0.2
	4.1nm,1.0s,mb4.3						
CHTO	Chiang Mai	33.76	318	eP	P	16 06 00.1	+0.2
CHTO				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
WHN	Wuhan	37.37	349	eP	P	16 06 38.0	+7.1
JNU	Nakatsue	40.12	12	LR	LR	16 22 55.8	
	comp=Z,64nm,21.9s,MS3.4,baz=59,slow=36						
KSRS	Korea Array	43.90	7	P	P	16 07 23.9	-0.7
	comp=Z,6.6nm,1.1s,mb4.3,baz=182,slow=8.8,SNR=5.5						
KSRS				LR	LR	16 27 13.6	
	comp=Z,31nm,20.2s,MS3.2,baz=275,slow=38						
MJAR	Matsushiro Arr	45.27	18	P	P	16 07 34.6	-0.9
	comp=Z,2.2nm,0.5s,mb4.2,baz=194,slow=8.5,SNR=6.6						
BJT	Baijiatuau	46.42	354	eP	P	16 07 44.7	+0.1
	comp=Z,8.9nm,0.7s,mb4.8						
BJT	Baijiatuau	46.42	354	eP	P	16 07 44.7	+0.1
BJT				pmax	pmax		
	comp=Z,9.0nm,0.7s						
LSA	Lhasa	46.47	322	eP	P	16 07 46.4	+1.2
	comp=Z,12nm,0.7s,mb5.0						
LSA	Lhasa	46.47	322	eP	P	16 07 46.4	+1.2
LSA				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
ODAN	Odare	47.01	316	eP	P	16 07 54.4	+4.9
	comp=Z,62nm,1.4s,mb5.3						
TAPN	Taplejung	47.10	317	eP	P	16 07 50.5	+0.3
	comp=Z,61nm,1.1s,mb5.4						
GUN	Gumba	48.71	316	eP	P	16 07 58.0	-4.7
	comp=Z,233nm,0.3s						
PKI	Pulchoki	48.83	315	eP	P	16 08 02.6	-1.0
KKN	Kakani	49.05	315	eP	P	16 08 02.8	-2.5
	comp=Z,13nm,0.8s,mb5.0						
GKN	Gorkha	49.63	315	eP	P	16 08 05.4	-4.3
	comp=Z,17nm,0.6s,mb5.3						
GTA	Gaotai	49.91	338	eP	P	16 08 12.6	+1.0
GTA				AP	pP	16 08 18.6	-3.5
GTA				XP	sP	16 08 22.5	-3.7
GTA				AMB	AMB		
	comp=Z,2.0nm,1.2s,mb4.0						
ULN	Ulaanbaatar	55.53	348	eP	P	16 08 53.4	+0.3
ULN	Ulaanbaatar	55.53	348	c iP	P	16 08 53.7	+0.7
SONM	Songino Array	55.65	347	P	P	16 08 54.4	+0.6
	comp=Z,1.9nm,0.6s,mb4.3,baz=167,slow=8.0,SNR=19						
ZAK	Zakamensk	58.75	346	eP	P	16 09 16.0	+0.3
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb4.0						
TLY	Talaya	59.87	347	i P	P	16 09 24.4	+1.0
MOY	Mondy	60.50	345	eP	P	16 09 27.7	0.0
MK31	Makanchi Array	63.51	331	eP	P	16 09 47.7	-0.3
MK31				e		16 09 54.4	
MKAR	Makanchi Array	63.51	331	P	P	16 09 48.1	+0.1
	comp=Z,3.0nm,0.5s,mb4.6,baz=134,slow=7.5,SNR=41						
MKAR				LR	LR	16 37 54.0	
	comp=Z,47nm,21.6s,MS3.6,baz=345,slow=37						
BOD	Bodaibo	64.25	355	eP	P	16 09 52.3	-0.4
BOD				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
KBL	Kabul	64.35	313	eP	P	16 09 53.2	-0.7
UCH	Uchtor	64.79	323	eP	P	16 09 57.8	+1.2
	comp=Z,2.5nm,0.9s,mb4.2						
AAK	Ala-Archa	65.04	323	eP	P	16 09 57.8	-0.4
	comp=Z,4.2nm,0.8s,mb4.5						
AAK	Ala-Archa	65.04	323	c iP	P	16 09 58.0	-0.2
AAK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
AAK				MLR	MLR		
	comp=Z,100nm,26.0s,MS3.9						
AML	Almayashu	65.23	322	eP	P	16 10 00.2	+0.8
	comp=Z,14nm,1.2s,mb4.9						
EKS2	Erkin-Say	65.49	323	eP	P	16 10 01.9	+0.8
	comp=Z,4.0nm,0.9s,mb4.5						
ZAL	Zalesovo	67.66	337	P	P	16 10 13.1	-1.6
ZALV	Zalesovo Beam	67.66	337	P	P	16 10 13.1	-1.6
	comp=Z,2.4nm,0.8s,mb4.3,baz=132,slow=4.4,SNR=13						
KURK	Kurchatov	67.97	332	eP	P	16 10 15.7	-1.0
	comp=Z,9.9nm,0.9s,mb4.8						
KURK	Kurchatov	67.97	332	⇓iP	P	16 10 17.1	+0.3
YAK	Yakutsk	68.41	4	eP	P	16 10 19.0	-0.2
	comp=Z,21nm,0.8s,mb5.2						
YAK	Yakutsk	68.41	4	d iP	P	16 10 19.1	-0.1
YAK				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.3						
MA2	Magadan	69.56	15	eP	P	16 10 27.4	+1.0
	comp=Z,13nm,1.0s,mb4.8						
MA2	Magadan	69.56	15	⇓eP	P	16 10 27.5	+1.1
MA2				pmax	pmax		
	comp=Z,25nm,2.0s,mb4.8						
SEY	Seymchan	72.84	14	⇓eP	P	16 10 47.2	+0.9
BRVK	Borovoye	73.46	330	eP	P	16 10 50.0	-0.1
	comp=Z,5.3nm,1.0s,mb4.4						
BRVK	Borovoye	73.46	330	eP	P	16 10 50.0	-0.1
BRVK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
TIXI	Tiksi	77.94	2	eP	P	16 11 14.5	-0.9
	comp=Z,7.4nm,1.2s,mb4.5						
TIXI	Tiksi	77.94	2	eP	P	16 11 11.9	-3.5
TIXI				e	pP	16 11 20.8	-5.6
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
ARU	Arti	81.01	330	eP	P	16 11 36.6	+4.2

ISCJB **14** *16:50:39.3±0.6, 51.49N±0.03×16.08E±0.03, h0^{km}, Error ellipse: s-maj=4.6km s-min=2.7km az=11.6*
IPEC **14** *16:50:40.1±0.3, 51.59N×16.12E, h1^{km}±1^{km}, ML2.2/3, Error ellipse: s-maj=2.1km s-min=0.9km az=15.0*
NEIC **14** *16:50:40.6±0.7, 51.57N×16.09E, h5^{km}, ML2.7(SZGRF), ML2.7(BRA), Error ellipse: s-maj=8.1km s-min=5.9km az=182.0*
PRU **14** *16:50:41.8, 51.50N×16.06E, h0^{km}, Felt In Harrachov*
CSEM **14** *16:50:42.0±0.2, 51.50N×16.11E, h2^{km}, ML3.4/6, Error ellipse: s-maj=2.7km s-min=1.6km az=22.0*
WAR **14** *16:50:42, 51.54N×16.06E, ML2.6, Mining Induced*
IDC **14** *16:50:42.7±1.1, 51.46N×16.01E, h0^{km}, mb1 3.0/4, mb1mx2.9/20, mbtmp2.8/4, ML2.6/4, Error ellipse: s-maj=16.4km s-min=9.0km az=130.0*
VIE **14** *16:50:43.4±0.6, 51.35N×16.04E, h0^{km}, mb2.1/4, ML2.8/4, Error ellipse: s-maj=3.6km s-min=3.4km az=169.0, Suspected Mining induced.*
ISC 14 16:50:40.4±0.5**, 51.54N**±0.03×**16.09E**±0.03**, h0**^{km}**, n66, σ1^{s}.03**/119**, 6C-1D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.71	169	ePg	Pg	16 50 54.9	+1.0
KSP				eSg	Sg	16 51 04.2	+1.1
KSP	Ksiaz	0.71	169	ePg	Pg	16 50 54.9	+1.0
KSP				eSg	Sg	16 51 04.2	+1.1
KSP	Ksiaz	0.71	169	ePg	Pg	16 50 54.8	+0.9
KSP				eSg	Sg	16 51 04.1	+1.0
UPC	Upice	1.03	183	ePg	Pg	16 51 00.7	+0.5
UPC	Upice	1.03	183	ePG	Pg	16 51 00.7	+0.5
UPC	Upice	1.03	183	ePg	Pg	16 51 00.7	+0.5
DPC	Dobruska-Polom	1.20	173	eSG	Sg	16 51 19.1	+0.3
	33nm,0.3s						
DPC	Dobruska-Polom	1.20	173	ePg	Pg	16 51 03.6	+0.3
DPC				eSg	Sg	16 51 18.7	-0.1
PVCC	Panska Ves	1.39	224	ePg	Pg	16 51 07.2	+0.1
PVCC				eSg	Sg	16 51 26.2	+1.1
PVCC	Panska Ves	1.39	224	ePG	Pg	16 51 07.2	+0.1
PVCC				eSG	Sg	16 51 26.2	+1.1
	158nm,0.2s						
PVCC	Panska Ves	1.39	224	ePg	Pg	16 51 07.2	+0.1
PVCC				eSg	Sg	16 51 26.2	+1.1
	158nm,0.2s						
BRG	Berggiesshubel	1.50	245	Pg	Pg	16 51 09.2	0.0
BRG				Sg	Sg	16 51 29.3	+0.6
BRG	Berggiesshubel	1.50	245	Pg	Pg	16 51 09.2	0.0
BRG				eSg	Sg	16 51 29.1	+0.4
PRU	Pruhonice	1.84	213	ePg	Pg	16 51 12.9	-2.6
PRU				eSg	Sg	16 51 38.8	-0.5
PRU	Pruhonice	1.84	213	ePG	Pg	16 51 12.9	-2.6
PRU				eSG	Sg	16 51 38.8	-0.5
	46nm,0.3s						
PRU	Pruhonice	1.84	213	ePg	Pg	16 51 12.9	-2.6
PRU				eSg	Sg	16 51 38.8	-0.5
CLL	Collm	1.95	264	i Pn	Pn	16 51 14.1	-0.5

CLL				*e*Pg	Pg	16 51 17.0	-0.6
CLL				*i* Sg	Sg	16 51 43.2	+0.4
CLL	**Collm**	1.95	264	*i* Pn	Pn	16 51 14.1	-0.5
CLL				*e*Pg	Pg	16 51 17.0	-0.6
CLL				*i* x	x	16 51 18.4	
CLL				*i* x	x	16 51 21.0	
CLL				*i* Sg	Sg	16 51 43.2	+0.4
	comp=Z,24nm,0.7s						
CLL	**Collm**	1.95	264	*i* Pn	Pn	16 51 14.1	-0.5
CLL	**Collm**	1.95	264	*e*Pg	Pg	16 51 17.0	-0.6
MORC	**Moravsky Berou**	1.99	152	*e*Pn	Pn	16 51 15.1	-0.2
MORC				*e*Sn	Sn	16 51 43.9	+3.0
MORC	**Moravsky Berou**	1.99	152	*e*Pn	Pn	16 51 15.4	+0.2
MORC				*e*Sn	Sn	16 51 43.8	+3.0
OKC	**Ostrava-Krasne**	2.15	142	*e*Pg	Pg	16 51 21.0	-0.5
OKC				*e*Sg	Sg	16 51 48.9	-0.4
OKC	**Ostrava-Krasne**	2.15	142	*e*PG	Pg	16 51 21.0	-0.5
OKC				*e*SG	Sg	16 51 48.9	-0.4
OKC	**Ostrava-Krasne**	2.15	142	*e*Pg	Pg	16 51 21.0	-0.5
OKC				*e*Sg	Sg	16 51 48.9	-0.4
VRAC	**Vranov**	2.26	172	Pn	Pn	16 51 19.7	+0.9
VRAC				Lg		16 51 51.4	
VRAC	**Vranov**	2.26	172	Pn	Pn	16 51 19.7	+0.9
	comp=Z,1.0nm,0.3s,baz=350,slow=14,SNR=5.8						
VRAC				Lg		16 51 51.4	
	comp=Z,4.6nm,0.3s,baz=96,slow=15,SNR=11						
VRAC	**Vranov**	2.26	172	*e*Pn	Pn	16 51 19.0	+0.1
VRAC				*e*Sg	Sg	16 51 51.1	-1.7
	comp=Z,12nm,0.3s						
KRUC	**Moravsky**	2.49	175	*e*Pn	Pn	16 51 23.1	+1.0
KRUC				*e*Sg	Sg	16 52 00.4	+0.2
	comp=Z,7.0nm,0.3s						
NKC	**Novy Kostel**	2.65	242	*e*Pn	Pn	16 51 24.8	+0.5
NKC				*e*Pg	Pg	16 51 31.0	-0.1
NKC				*e*Sg	Sg	16 52 06.6	+1.1
NKC	**Novy Kostel**	2.65	242	*e*PN	Pn	16 51 24.8	+0.5
NKC				*e*PG	Pg	16 51 31.0	-0.1
NKC				*e*SG	Sg	16 52 06.6	+1.1
	comp=Z,42nm,0.3s						
NKC	**Novy Kostel**	2.65	242	*e*Pn	Pn	16 51 24.7	+0.4
OJC	**Ojcow**	2.70	118	*e*Pn	Pn	16 51 21.3	-3.6
OJC				*e*Pg	Pg	16 51 31.2	-0.8
OJC				*e*Sg	Sg	16 52 07.0	+0.1
OJC	**Ojcow**	2.70	118	*e*Pn	Pn	16 51 21.3	-3.6
OJC	**Ojcow**	2.70	118	*e*Pg	Pg	16 51 31.2	-0.8
OJC				*e*Sg	Sg	16 52 07.0	+0.1
KHC	**Kasperske Hory**	2.90	215	*e*Pn	Pn	16 51 27.6	-0.1
KHC				*e*Pg	Pg	16 51 33.9	-2.0
KHC				*e*Sn	Sn	16 52 02.8	-0.4
KHC				*e*Sg	Sg	16 52 11.8	-1.6
KHC	**Kasperske Hory**	2.90	215	*e*PN	Pn	16 51 27.6	-0.1
KHC				*e*PG	Pg	16 51 33.9	-2.0
KHC				*e*SN	Sn	16 52 02.8	-0.4
KHC				*e*SG	Sg	16 52 11.8	-1.6
	comp=Z,11nm,0.4s						
KHC	**Kasperske Hory**	2.90	215	*e*Pn	Pn	16 51 27.6	-0.1
KHC	**Kasperske Hory**	2.90	215	*e*Pg	Pg	16 51 34.0	-1.9
KHC				*e*Sn	Sn	16 52 02.8	-0.4
KHC				*e*Sg	Sg	16 52 12.1	-1.3
MOX	**Moxa**	2.96	254	*e*Pg	Pg	16 51 37.0	0.0
MOX				*e*Sg	Sg	16 52 16.6	+1.2
MOX	**Moxa**	2.96	254	*e*PG	Pg	16 51 37.0	0.0
MOX				*e*SG	Sg	16 52 16.6	+1.2
MOX	**Moxa**	2.96	254	*e*Pg	Pg	16 51 37.0	0.0
MOX				*e*Sg	Sg	16 52 16.6	+1.2
GEC2	**GERESS Array S**	3.10	211	*e*Pn	Pn	16 51 31.6	+1.1
GEC2	**GERESS Array S**	3.10	211	*e*Pn	Pn	16 51 31.6	+1.1
GERES	**GERESS Array B**	3.10	211	Pn	Pn	16 51 31.7	+1.2
GERES				Pg	Pg	16 51 37.8	-2.0
GERES				Sn	Sn	16 52 07.4	-0.8
GERES				Lg		16 52 18.1	
GERES	**GERESS Array B**	3.10	211	Pn	Pn	16 51 31.7	+1.2
	comp=Z,0.9nm,0.3s,baz=28,slow=13,SNR=24						
GERES				Pg	Pg	16 51 37.8	-2.0
	comp=Z,1.8nm,0.3s,baz=26,slow=17,SNR=19						
GERES				Sn	Sn	16 52 07.4	-0.8
	comp=Z,1.2nm,0.3s,baz=33,slow=22,SNR=6.5						
GERES				Lg		16 52 18.1	
	comp=Z,3.1nm,0.3s,baz=31,slow=26,SNR=11						
GERES	**GERESS Array B**	3.10	211	Pn	Pn	16 51 31.7	+1.2
GERES	**GERESS Array B**	3.10	211	Pg	Pg	16 51 37.8	-2.0
WET	**Wettzell**	3.16	222	*e*Pn	Pn	16 51 31.8	+0.5
WET	**Wettzell**	3.16	222	*e*Pn	Pn	16 51 31.7	+0.4
WET				*e*Sg	Sg	16 52 19.2	-2.6
CLZ	**Clausthal**	3.57	277	*e*Pn	Pn	16 51 37.7	+0.8
CLZ	**Clausthal**	3.57	277	*e*Pn	Pn	16 51 37.7	+0.8
CONA	**Conrad Observa**	3.62	182	⇑*i*Pn	Pn	16 51 39.0	+1.4
CONA				⇓*i*Sg	Sg	16 52 36.5	0.0
	comp=Z,12nm,0.5s						
CONA	**Conrad Observa**	3.62	182	Pn	Pn	16 51 39.0	+1.4
CONA				Sg	Sg	16 52 36.5	0.0
	comp=Z,12nm,0.5s						
MOA	**Molln**	3.88	198	⇑*i*Pn	Pn	16 51 42.0	+0.9
MOA				⇑*i*Sg	Sg	16 52 45.2	+0.3
	comp=Z,12nm,0.7s						
MOA	**Molln**	3.88	198	⇑*i*Pn	Pn	16 51 42.0	+0.9
MOA				*i* Sg	Sg	16 52 45.2	+0.3
MOA	**Molln**	3.88	198	⇑*i*Pn	Pn	16 51 42.0	+0.9
MOA				⇑*i*Sg	Sg	16 52 45.2	+0.3
	comp=Z,12nm,0.7s						
MOA	**Molln**	3.88	198	Pn	Pn	16 51 42.0	+0.8
MOA				Sg	Sg	16 52 45.2	+0.3
	comp=Z,12nm,0.7s						
STHS	**Stebnicka Huta**	3.92	121	*e*Pg	Pg	16 51 56.6	+1.2
STHS				*e*Sg	Sg	16 52 51.6	+5.4
STHS	**Stebnicka Huta**	3.92	121	*e*Pg	Pg	16 51 56.6	+1.2
AKASG	**Malin Array Be**	8.31	91	Pn	Pn	16 52 41.8	-0.2
AKASG	**Malin Array Be**	8.31	91	Pn	Pn	16 52 41.8	-0.2
	comp=Z,0.6nm,0.3s,baz=278,slow=12,SNR=3.4						
AKASG	**Malin Array Be**	8.31	91	Pn	Pn	16 52 41.8	-0.2
FINES	**FINESS Array B**	11.34	25	Pn	Pn	16 53 21.3	-2.1
FINES	**FINESS Array B**	11.34	25	Pn	Pn	16 53 21.3	-2.1
	comp=Z,0.1nm,0.3s,baz=210,slow=11,SNR=4.0						
FINES	**FINESS Array B**	11.34	25	Pn	Pn	16 53 21.3	-2.1

IDC 14 16:51:20.4±2.1,153N×12637E,h0^{km},mb3.0/3,mb1 3.3/3, mb1mx3.1/16,mbtmp3.1/3,Error ellipse: s-maj=184.3km s-min=24.9km az=65.0,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	22.73	160	P	P	16 56 24.0	-0.1
	0.5nm,0.7s,baz=339,slow=11,SNR=18						
ASAR	**Alice Springs**	26.10	164	P	P	16 56 56.2	+0.2
	0.2nm,0.6s,baz=345,slow=13,SNR=4.6						
MKAR	**Makanchi Array**	59.16	326	P	P	17 01 23.1	+0.1
	0.1nm,0.3s,baz=115,slow=7.0,SNR=3.5						

IDC 14 16:55:47.2±3.0,3203S×17794W,h0^{km},mb3.6/2, mb1 3.9/3,mb1mx3.7/13,mbtmp3.7/3,ML3.3/1,MS2.8/1, Ms1 2.8/1,ms1mx2.5/21,Error ellipse: s-maj=69.6km s-min=36.0km az=116.0,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	7.42	212	Pn	Pn	16 57 36.5	-0.2
	0.5nm,0.3s,baz=198,slow=23,SNR=3.5						
URZ				Sn	Sn	16 59 00.8	-0.9
	2.1nm,0.3s,baz=213,slow=22,SNR=12						
DZM	**Mont Dzumac**	17.07	302	LR	LR	17 04 28.4	
	comp=Z,39nm,21.9s,baz=348,slow=30						
ASAR	**Alice Springs**	43.10	269	P	P	17 03 49.2	0.0
	0.4nm,0.6s,baz=106,slow=7.0,SNR=12						
WRA	**Warramunga Arr**	44.23	274	P	P	17 03 58.6	+0.2
	0.8nm,0.5s,baz=113,slow=7.8,SNR=27						
FINES	**FINESS Array B**	146.68	339	PKPbc	PKPbc	17 15 29.2	-0.9
	0.5nm,0.5s,baz=64,slow=4.4,SNR=7.6						

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*ISCJB **14** 16:57:02.8±0.3,5142N±002×659E±003,h0^{km},Error ellipse: s-maj=3.2km s-min=2.1km az=37.2*

*NEIC **14** 16:57:02.4±1.2,5155N×656E,h2^{km}±9^{km},ML2.5(SZGRF), Error ellipse: s-maj=13.2km s-min=6.9km az=164.0*

*CSEM **14** 16:57:04.3±0.1,5155N×654E,h1^{km},ML3.0/9,Error ellipse: s-maj=1.5km s-min=1.0km az=130.0*

*BUG **14** 16:57:04.7,5141N×662E,h1^{km},ML2.0*

*BNS **14** 16:57:04.4±0.9,5155N×655E,h1^{km},ML2.3*

*BGR **14** 16:57:04.6±0.6,5147N×654E,h1^{km},ML2.6/5,Error ellipse: s-maj=7.8km s-min=3.3km az=118.0*

*LDG **14** 16:57:04.5±0.1,5154N×654E,h1^{km},Md3.2/2,Ml3.1/12, Error ellipse: s-maj=2.1km s-min=1.5km az=23.0, Suspected Mining induced.*

ISC 14 16:57:04.1±0.3,5149N±002×655E±003,h0^{km},n84, σ1^{s}24/160,1C-3D,Germany

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRHE	**Rheinberg**	0.04	27	Pg	Pg	16 57 04.9	+0.1
BRHE				Sg	Sg	16 57 05.5	+0.3
RODG	**Roetgen-Dahlhe**	0.41	214	*e*Sg	Sg	16 57 19.9	+2.6
BUG	**Bochum--Univer**	0.46	95	⇓*i*Pg	Pg	16 57 13.3	+0.5
BUG				Sg	Sg	16 57 19.7	+1.0
BUG	**Bochum--Univer**	0.46	95	*e*Pg	Pg	16 57 13.2	+0.4
BUG				*e*Sg	Sg	16 57 19.7	+1.0
BUG	**Bochum--Univer**	0.46	95	*e*Pg	Pg	16 57 13.2	+0.4
BUG				*e*Sg	Sg	16 57 19.7	+1.0
WTSB	**Winterswijk**	0.51	18	*e*Pg	Pg	16 57 14.4	+0.6
WTSB				*e*Sg	Sg	16 57 21.2	+0.8
BNS	**Bensberg**	0.66	143	⇓*i*Pg	Pg	16 57 17.9	+1.2
HOBG	**Hohbusch**	0.70	135	⇓*e*Pg	Pg	16 57 18.5	+0.9
HGN	**Heimansgroeve**	0.82	208	*e*Pn	Pn	16 57 20.4	-2.5
	4.5nm,0.3s						
HGN	**Heimansgroeve**	0.82	208	⇑*i*Pg	Pg	16 57 22.1	+2.3
	73nm,0.1s						
HGN				*e*Sg	Sg	16 57 31.6	+1.2
KLL	**Kalltalsperre**	0.85	190	*e*Pg	Pg	16 57 21.2	+0.8
KLL				*e*Sg	Sg	16 57 35.0	+3.5
	137nm,0.5s						
STB	**Steinbach**	0.91	168	*e*Pg	Pg	16 57 22.8	+1.2
STB				*e*Sg	Sg	16 57 36.1	+2.8
	104nm,0.5s						
MEM	**Membach**	0.94	201	PG	Pg	16 57 22.8	+0.6
MEM				PN	Pn	16 57 25.8	+1.3
MEM				SG	Sg	16 57 37.1	+2.9
MEM				SN	Sn	16 57 41.0	+2.4
	comp=E,84nm,0.0s						
MEM	**Membach**	0.94	201	Pg	Pg	16 57 22.7	+0.6
MEM	**Membach**	0.94	201	Pn	Pn	16 57 25.8	+1.3
MEM				Sg	Sg	16 57 37.1	+2.8
MEM				Sn	Sn	16 57 41.0	+2.3
IBBN	**Ibbenburen**	1.11	42	*e*Pg	Pg	16 57 25.8	+0.4
	SNR=5.6						
IBBN				*e*Sg	Sg	16 57 40.6	+0.7
	SNR=4.4						
HILG	**Hillesheim**	1.20	176	*e*Pg	Pg	16 57 27.9	+0.9
BGG	**Burgeitz**	1.38	158	*e*Pg	Pg	16 57 30.1	-0.3
SNF	**Seneffe**	1.73	237	PG	Pg	16 57 37.7	+0.4
SNF				PN	Pn	16 57 37.8	+2.4
TNS	**Taunus Mts**	1.75	136	*e*Pg	Pg	16 57 37.7	+0.1
	SNR=17						
TNS				*e*Sg	Sg	16 58 00.1	-0.1
	SNR=2.6						
TNS	**Taunus Mts**	1.75	136	*e*Pg	Pg	16 57 35.2	-2.4
TNS				*e*Sg	Sg	16 58 00.1	-0.1
GIVF	**Givet**	1.76	219	*e*Pn	Pn	16 57 35.1	-0.8
GIVF	**Givet**	1.76	219	*e*P	Pn	16 57 36.9	+1.0
GIVF	**Givet**	1.76	219	*e*Pg	Pg	16 57 37.9	0.0
GIVF				*e*Sn	Sn	16 57 57.3	-1.7
GIVF				*e*Sg	Sg	16 58 01.5	+0.8
	comp=E,58nm,0.3s						
GIVF	**Givet**	1.76	219	*e*Pn	Pn	16 57 35.1	-0.8
GIVF				*e*P		16 57 36.9	
GIVF				*e*Pg	Pg	16 57 37.9	0.0
GIVF				*e*Sn	Sn	16 57 57.3	-1.7
GIVF				*e*Sg	Sg	16 58 01.5	+0.8
GIVF	**Givet**	1.76	219	*e*Pg	Pg	16 57 37.9	0.0
GIVF				*e*Sn	Sn	16 57 57.3	-1.7
GIVF				*e*Sg	Sg	16 58 01.5	+0.8
	comp=E,29nm,0.3s						
WLF	**Walferdange**	1.84	188	*e*Pg	Pg	16 57 38.9	-0.5
	SNR=4.3						
WLF				*e*Sg	Sg	16 58 02.3	-0.9
	SNR=6.0						
WLF	**Walferdange**	1.84	188	*e*Pn	Pn	16 57 39.2	+2.3
WLF				*e*Sn	Sn	16 58 02.2	+1.4
WLF	**Walferdange**	1.84	188	PN	Pn	16 57 39.0	+2.1
WLF				PG	Pg	16 57 40.5	+1.2
WLF				SN	Sn	16 58 02.4	+1.6
	comp=E,31nm,0.0s						
WLF				SG	Sg	16 58 07.3	+4.2
WLF	**Walferdange**	1.84	188	*e*Pn	Pn	16 57 39.2	+2.3
WLF				*e*Sn	Sn	16 58 02.2	+1.4
WLF				Sg	Sg	16 58 07.3	+4.1
DOU	**Dourbes**	1.86	222	PN	Pn	16 57 37.4	+0.2
DOU				PG	Pg	16 57 41.0	+1.2
DOU				SN	Sn	16 58 03.0	+1.6
	comp=E,19nm,0.0s						
DOU				SG	Sg	16 58 07.3	+3.4
DOU	**Dourbes**	1.86	222	Pg	Pg	16 57 40.9	+1.1
DOU				Sn	Sn	16 58 03.0	+1.6
DOU				Sg	Sg	16 58 07.3	+3.4
BAIF	**Baives**	2.06	227	*e*Pg	Pg	16 57 43.3	-0.3
BAIF				*e*Sn	Sn	16 58 04.3	-2.0
BAIF				*e*Sg	Sg	16 58 10.9	+0.7
	comp=E,26nm,0.3s						
BAIF	**Baives**	2.06	227	*e*Pg	Pg	16 57 43.3	-0.3
BAIF				*e*Sn	Sn	16 58 04.3	-2.0
BAIF				*e*Sg	Sg	16 58 10.9	+0.7
BAIF	**Baives**	2.06	227	*e*Pg	Pg	16 57 43.3	-0.3
BAIF				*e*Sn	Sn	16 58 04.3	-2.0
BAIF				*e*Sg	Sg	16 58 10.9	+0.7
	comp=E,13nm,0.3s						
UBBA	**Unterbreizbach**	2.28	106	*e*Sg	Sg	16 58 16.3	-0.9
CLZ	**Clausthal**	2.41	80	*e*Pn	Pn	16 57 44.4	-0.3
	SNR=5.6						
CLZ				*e*Pg	Pg	16 57 47.0	-3.2
CLZ				*e*Sg	Sg	16 58 20.1	-1.4
	SNR=3.1						
CLZ	**Clausthal**	2.41	80	*e*Pg	Pg	16 57 47.0	-3.3
CLZ				*e*Sg	Sg	16 58 20.8	-0.7
RFYF	**Reffroy**	2.94	194	*e*Sg	Sg	16 58 38.2	-0.3
	comp=E,22nm,0.3s						
RFYF	**Reffroy**	2.94	194	*e*Sg	Sg	16 58 38.2	-0.3
	comp=E,11nm,0.3s						
CDF	**Champ du Feu**	3.11	171	*e*Pn	Pn	16 57 53.7	-0.7
CDF	**Champ du Feu**	3.11	171	*e*Pg	Pg	16 58 03.2	-0.5
CDF				*e*Sn	Sn	16 58 29.3	-2.9
CDF				*e*Sg	Sg	16 58 43.4	-0.6
	comp=E,11nm,0.5s						
CDF	**Champ du Feu**	3.11	171	*e*Pn	Pn	16 57 53.7	-0.7
CDF				*e*Pg	Pg	16 58 03.2	-0.5
CDF				*e*Sn	Sn	16 58 29.3	-2.9
CDF				*e*Sg	Sg	16 58 43.4	-0.6
CDF	**Champ du Feu**	3.11	171	*e*Pn	Pn	16 57 53.7	-0.7
CDF	**Champ du Feu**	3.11	171	*e*Pg	Pg	16 58 03.2	-0.5
CDF				*e*Sn	Sn	16 58 29.3	-2.9
CDF				*e*Sg	Sg	16 58 43.4	-0.6
	comp=E,5.7nm,0.5s						
MEZF	**Maizieres J'vi**	3.14	198	*e*Sg	Sg	16 58 44.4	-0.5
	comp=E,12nm,0.3s,baz=13						
MEZF	**Maizieres J'vi**	3.14	198	*e*Sg	Sg	16 58 44.4	-0.5
	comp=E,5.8nm,0.3s						
MOX	**Moxa**	3.31	103	*e*Sg	Sg	16 58 50.1	-0.2
MOX	**Moxa**	3.31	103	*e*SG	Sg	16 58 50.1	-0.2
SFTF	**Sexfontaines**	3.42	197	*e*Pg	Pg	16 58 09.0	-0.7
SFTF				*e*Sg	Sg	16 58 53.9	-0.2
	comp=E,13nm,0.4s						
SFTF	**Sexfontaines**	3.42	197	*e*Pg	Pg	16 58 09.0	-0.7
SFTF				*e*Sg	Sg	16 58 53.9	-0.2
SFTF	**Sexfontaines**	3.42	197	*e*Pg	Pg	16 58 09.0	-0.7
SFTF				*e*Sg	Sg	16 58 53.9	-0.2
	comp=E,6.4nm,0.4s						
HAU	**Haudompre**	3.48	182	*e*Sg	Sg	16 58 55.4	-0.6
	comp=E,13nm,0.4s						
HINF	**Hinteralfeld**	3.68	177	*e*Sg	Sg	16 59 01.3	-0.9
	comp=E,4.5nm,0.3s						
HINF	**Hinteralfeld**	3.68	177	*e*Sg	Sg	16 59 01.3	-0.9
	comp=E,2.2nm,0.3s						
GUNZ	**Gunzen**	3.83	105	*e*Pg	Pg	16 58 16.9	-0.5
	SNR=2.0						
TANN	**Tannenbergstha**	3.89	104	*e*Pn	Pn	16 58 05.5	+0.4
	SNR=1.7						
LOR	**Lormes**	4.57	204	*e*Pn	Pn	16 58 13.5	-0.9
	baz=21						
LOR				*e*Sn	Sn	16 59 03.9	-4.3
	baz=20						
LOR				*e*Sg	Sg	16 59 29.6	-1.3
	comp=E,5.0nm,0.3s,baz=18						
LOR	**Lormes**	4.57	204	*e*Pn	Pn	16 58 13.5	-0.9
LOR				*e*Sn	Sn	16 59 03.9	-4.3
LOR				*e*Sg	Sg	16 59 29.6	-1.3
LOR	**Lormes**	4.57	204	*e*Pn	Pn	16 58 13.5	-0.9
LOR				*e*Sn	Sn	16 59 03.9	-4.3
LOR				*e*Sg	Sg	16 59 29.6	-1.3
	comp=E,2.5nm,0.3s						
SSF	**Saint Saulge**	4.85	205	*e*Pn	Pn	16 58 17.2	-1.1
SSF				*e*Sn	Sn	16 59 10.4	-4.8
SSF				*e*Sg	Sg	16 59 38.3	-1.6
	comp=E,11nm,0.5s						
SSF	**Saint Saulge**	4.85	205	*e*Pn	Pn	16 58 17.2	-1.1
SSF				*e*Sn	Sn	16 59 10.4	-4.8
SSF				*e*Sg	Sg	16 59 38.3	-1.6
SSF	**Saint Saulge**	4.85	205	*e*Pn	Pn	16 58 17.2	-1.1
SSF				*e*Sn	Sn	16 59 10.4	-4.8
SSF				*e*Sg	Sg	16 59 38.3	-1.6
	comp=E,5.4nm,0.5s						
CABF	**La Chapelle**	4.89	184	*e*Pn	Pn	16 58 18.0	-0.8
CABF	**La Chapelle**	4.89	184	*e*Pn	Pn	16 58 18.0	-0.8
CABF	**La Chapelle**	4.89	184	*e*Pn	Pn	16 58 18.0	-0.8
AVF	**Avril sur Loir**	5.14	205	*e*Pn	Pn	16 58 21.2	-1.1
AVF	**Avril sur Loir**	5.14	205	*e*Pn	Pn	16 58 21.2	-1.1
AVF	**Avril sur Loir**	5.14	205	*e*Pn	Pn	16 58 21.2	-1.1
LDF	**La Druitiere**	5.18	239	*e*Pn	Pn	16 58 21.1	-1.7
LDF				*e*Sn	Sn	16 59 17.8	-5.4
LDF	**La Druitiere**	5.18	239	*e*Pn	Pn	16 58 21.1	-1.7
LDF				*e*Sn	Sn	16 59 17.8	-5.4
LDF	**La Druitiere**	5.18	239	*e*Pn	Pn	16 58 21.1	-1.7
LDF				*e*Sn	Sn	16 59 17.8	-5.4
FLN	**La Foliniere**	5.28	242	*e*Pn	Pn	16 58 22.4	-1.7
	baz=50						
FLN	**La Foliniere**	5.28	242	*e*Pn	Pn	16 58 22.4	-1.7
FLN	**La Foliniere**	5.28	242	*e*Pn	Pn	16 58 22.4	-1.7
BGF	**Bois d'Agland**	5.50	208	*e*Pn	Pn	16 58 25.8	-1.4
BGF				*e*Sn	Sn	16 59 25.9	-5.1
BGF	**Bois d'Agland**	5.50	208	*e*Pn	Pn	16 58 25.8	-1.4
BGF				*e*Sn	Sn	16 59 25.9	-5.1
BGF	**Bois d'Agland**	5.50	208	*e*Pn	Pn	16 58 25.8	-1.4
BGF				*e*Sn	Sn	16 59 25.9	-5.1
GRR	**Gorron**	5.70	240	*e*Pn	Pn	16 58 28.8	-1.1
GRR				*e*Sn	Sn	16 59 30.1	-5.8
GRR	**Gorron**	5.70	240	*e*Pn	Pn	16 58 28.8	-1.1
GRR				*e*Sn	Sn	16 59 30.1	-5.8
GRR	**Gorron**	5.70	240	*e*Pn	Pn	16 58 28.8	-1.1
GRR				*e*Sn	Sn	16 59 30.1	-5.8
SGMF	**Saint Gilles**	6.71	245	*e*Pn	Pn	16 58 42.1	-1.7
SGMF	**Saint Gilles**	6.71	245	*e*Pn	Pn	16 58 42.1	-1.7
SGMF	**Saint Gilles**	6.71	245	*e*Pn	Pn	16 58 42.1	-1.7

IDC 14 17:21:12.7±2.9,713S×12599E,h514^{km}±38^{km},mb2.9/4, mb1 2.9/7,mb1mx2.8/16,mbtmp2.7/7,Error ellipse: s-maj=83.8km s-min=18.3km az=72.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	10.91	182	P	P	17 23 39.7	0.0
	0.3nm,0.3s,baz=5.2,slow=12,SNR=12						
WRA	**Warramunga Arr**	15.10	148	P	P	17 24 22.0	-1.7
	0.2nm,0.3s,baz=327,slow=10,SNR=21						
ASAR	**Alice Springs**	18.12	156	P	P	17 24 54.7	+1.3
	0.2nm,0.3s,baz=344,slow=14,SNR=16						
SONM	**Songino Array**	57.40	344	P	P	17 30 12.1	+0.5
	0.1nm,0.3s,baz=156,slow=8.6,SNR=3.1						
MKAR	**Makanchi Array**	66.21	329	P	P	17 31 09.6	+0.5
	0.2nm,0.5s,baz=115,slow=8.0,SNR=4.5						
ZALV	**Zalesovo Beam**	69.99	336	P	P	17 31 31.3	-0.7
	0.8nm,0.4s,baz=133,slow=6.1,SNR=5.1						
VNDA	**Vanda**	72.83	172	P	P	17 31 48.1	-0.1
	2.2nm,0.9s,baz=338,slow=7.7,SNR=2.4						

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*NEIC **14** 17:35:38.3,1606N×9866W,h20^{km},MD4.3(MEX),After MEX.*

MEX 14 17:35:38.8±0.7,1610N×9864W,h25^{km}±16^{km},MD4.3, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	0.57	59	*i* P	Pb	17 35 48.4	-1.8
PNIG				*i* S	Sb	17 35 55.5	-2.4
ACX	**Acapulco**	1.45	302	*e*P	Pn	17 36 01.5	-1.9
ACX	**Acapulco**	1.45	302	*e*P	Pn	17 36 01.0	-2.4
CAIG	**El Cayaco**	1.82	301	*e*P	Pn	17 36 05.9	-2.7
CAIG				*i* S	Sn	17 36 26.4	-4.5
CAIG	**El Cayaco**	1.82	301	*e*P	Pn	17 36 05.9	-2.7
CAIG				*i* S	Sn	17 36 28.4	-2.6
UTMO	**Huajuapan**	1.89	25	*i* P	Pn	17 36 08.0	-1.5
UTMO				*i* S	Sn	17 36 29.5	-3.1
MEIG	**Mezcala**	2.04	333	*i* P	Pn	17 36 10.1	-1.5
MEIG				*e*S	Sn	17 36 33.4	-2.9
VHO	**Vista Hermosa**	2.06	62	*i* P	Pn	17 36 10.1	-1.7
VHO				*i* S	Sn	17 36 39.1	+2.3
VHO	**Vista Hermosa**	2.06	62	*i* P	Pn	17 36 10.1	-1.7
VHO				*i* S	Sn	17 36 34.6	-2.2
OXX	**Oaxaca**	2.08	62	*i* P	Pn	17 36 11.0	-1.1
PLIG	**Platanillo**	2.42	340	*e*P	Pn	17 36 15.7	-1.2
PLIG				*i* S	Sn	17 36 45.7	0.0
PLIG	**Platanillo**	2.42	340	*e*P	Pn	17 36 15.7	-1.2
PLIG				*i* S	Sn	17 36 44.0	-1.7
HUIG	**Huatulco**	2.45	97	*e*P	Pn	17 36 18.2	+1.0
HUIG				*i* S	Sn	17 36 47.0	+0.6
HUIG	**Huatulco**	2.45	97	*e*P	Pn	17 36 15.1	-2.2
HUIG				*i* S	Sn	17 36 43.1	-3.4
TPIG	**Tehuac#an**	2.61	28	*e*P	Pn	17 36 16.9	-2.4
TPIG				*i* S	Sn	17 36 48.8	-1.4
YAIG	**Yautepec**	2.77	352	*i* P	Pn	17 36 24.8	+3.1
YAIG				*i* S	Sn	17 36 54.3	-0.1
YAIG	**Yautepec**	2.77	352	*e*P	Pn	17 36 19.5	-2.1
YAIG				*i* S	Sn	17 36 51.4	-3.0
ZIIG	**Zihuatanejo**	3.10	299	*i* S	Sn	17 36 53.1	-9.1
ZIIG	**Zihuatanejo**	3.10	299	*i* S	Sn	17 36 56.6	-5.6
UNM	**Universidad Na**	3.25	351	*i* P	Pn	17 36 31.0	+2.8
SZVM	**Salazar**	3.28	348	*e*P	Pn	17 36 28.9	+0.3
SZVM				*i* S	Sn	17 37 04.5	-2.4
IIO	**Organos**	3.47	359	*i* P	Pn	17 36 36.7	+5.4
IIO				*i* S	Sn	17 37 11.2	-0.3
PTVM	**Pico Tres Padr**	3.50	353	*i* P	Pn	17 36 33.2	+1.5
PTVM				*i* S	Sn	17 37 11.9	-0.4
CMIG	**Matias Romero**	3.73	74	*i* P	Pn	17 36 31.4	-3.4
CMIG				*i* S	Sn	17 37 11.8	-6.1
CMIG	**Matias Romero**	3.73	74	*i* P	Pn	17 36 33.5	-1.3
CMIG				*i* S	Sn	17 37 16.4	-1.5
LVIG	**Laguna Verde**	4.17	30	*e*P	Pn	17 36 36.8	-4.1
LVIG				*i* S	Sn	17 37 32.7	+3.7
LVIG	**Laguna Verde**	4.17	30	*e*P	Pn	17 36 38.5	-2.5
LVIG				*i* S	Sn	17 37 29.0	+0.1
MOIG	**Morelia**	4.31	326	*i* S	Sn	17 37 32.3	+0.1
MOIG	**Morelia**	4.31	326	*i* S	Sn	17 37 32.3	+0.1
MMIG	**Aquila**	5.00	296	*i* P	Pn	17 36 49.7	-2.5
MMIG				*i* S	Sn	17 37 47.2	-2.1
SCX	**San Cristobal**	5.79	83	*e*P	Pn	17 37 14.0	+11
SFJM	**Santa Fe**	6.04	317	*e*P	Pn	17 37 03.5	-3.1
CCIG	**Comitan**	6.25	87	*i* S	Sn	17 38 14.6	-5.5
CCIG				*e*S	Sn	17 38 22.9	+2.9
CCIG	**Comitan**	6.25	87	*e*S	Sn	17 38 20.4	+0.3

MAN 14 17:45:01,1067N×12247E,h28^{km},mb4.0,ML2.7,MS2.4, 1D,Panay

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RCP	**Roxas**	0.93	17	⇓*e*P	Pn	17 45 17.6	-0.6
RCP				*e*S	Sb	17 45 30.7	+0.3
KALP	**Kalibo**	1.01	353	*e*P	Pn	17 45 22.5	+3.2

MAN 14 17:55:28,1688N×11983E,h27^{km},mb4.2,ML3.1,MS2.8, 1D,Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BCPH	**Baguio City Da**	0.88	125	⇓*e*P	Pn	17 55 39.4	-5.2
BCPH				*i* S	Sb	17 55 47.0	-8.9

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*MOS **14** 18:04:37.5±1.1,1691N×9576W,h33^{km},mb5.0/20,Error ellipse: s-maj=10.9km s-min=5.3km az=93.7*

*ISCJB **14** 18:04:39.5±0.4,1689N±003×9599W±003,h58^{km}±3^{km}, mb4.7/63,MS3.9/12,Error ellipse: s-maj=5.6km s-min=3.6km az=24.0*

*MEX **14** 18:04:40.9±1.0,1675N×9614W,h74^{km}±9^{km},MD4.7*

BJI ***14*** *18:04:41.2, 1680N×9600W, h66^{km}, mB5.4, Ms5.1, Msz4.8*
NEIC ***14*** *18:04:41.2±0.3, 1681N×9603W, mb4.9/59, MD4.7(MEX),*
Error ellipse: s-maj=6.6km s-min=4.8km az=16.0
NEIC Felt at Mitla and Oaxaca.
IDC ***14*** *18:04:42.3±0.6, 1686N×9598W, h69^{km}±3^{km}, mb4.1/18,*
mb1 4.3/21, mb1mx4.3/23, mbtmp4.2/21, MS3.6/11,
Ms1 3.6/11, ms1mx3.4/25, Error ellipse: s-maj=12.4km
s-min=8.0km az=20.0
ISC 14 18:04:40.9±0.4**, 1689N**±003×**9600W**±002**, h55**^{km}±3^{km}**,**
h68^{km}±1.3^{km}**:pP-P, n233,** σ**1ˢ24**/239**, mb4.7**/63**, MS3.9**/12**,**
9C-1D, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OXX	**Oaxaca**	**0.72**	**286**	*i* P	**Pn**	**18 04 54.0**	**-1.1**
OXX				*i* S	**Sn**	**18 05 05.0**	**-0.5**
VHO	**Vista Hermosa**	**0.73**	**285**	*e*P	**Pn**	**18 04 54.6**	**-0.6**
VHO				*i* S	**Sn**	**18 05 04.9**	**-0.7**
VHO	**Vista Hermosa**	**0.73**	**285**	⇑*i*P	**Pn**	**18 04 54.7**	**-0.5**
VHO				*i* S	**Sn**	**18 05 04.9**	**-0.7**
CMIG	**Matias Romero**	**1.09**	**79**	*i* P	**Pn**	**18 05 01.6**	**+1.7**
CMIG				*i* S	**Sn**	**18 05 17.6**	**+3.6**
CMIG	**Matias Romero**	**1.09**	**79**	P	**Pn**	**18 05 01.9**	**+1.9**
	797nm,0.3s,baz=254,slow=11,SNR=8133						
CMIG				S	**Sn**	**18 05 16.6**	**+2.5**
	3µm,0.3s,baz=146,slow=20,SNR=69						
CMIG	**Matias Romero**	**1.09**	**79**	⇑*i*P	**Pn**	**18 05 01.6**	**+1.6**
CMIG				*i* S	**Sn**	**18 05 17.6**	**+3.6**
HUIG	**Huatulco**	**1.12**	**185**	*i* P	**Pn**	**18 04 58.0**	**-2.3**
HUIG				*i* S	**Sn**	**18 05 11.1**	**-3.6**
HUIG	**Huatulco**	**1.12**	**185**	⇑*i*P	**Pn**	**18 04 58.1**	**-2.2**
HUIG				*i* S	**Sn**	**18 05 11.1**	**-3.6**
UTMO	**Huajuapan**	**1.96**	**299**	*e*P	**Pn**	**18 05 12.6**	**+0.8**
UTMO				*i* S	**Sn**	**18 05 33.7**	**-1.6**
TPIG	**Tehuac#an**	**2.00**	**320**	*i* P	**Pn**	**18 05 13.2**	**+0.8**
TPIG				*i* S	**Sn**	**18 05 36.7**	**+0.4**
PNIG	**Pinotepa**	**2.10**	**257**	*i* P	**Pn**	**18 05 09.9**	**-3.8**
PNIG				*i* S	**Sn**	**18 05 32.5**	**-6.1**
PNIG	**Pinotepa**	**2.10**	**257**	⇑*i*P	**Pn**	**18 05 09.9**	**-3.7**
PNIG				*i* S	**Sn**	**18 05 32.8**	**-5.8**
LVIG	**Laguna Verde**	**2.85**	**352**	*i* P	**Pn**	**18 05 23.2**	**-0.7**
LVIG	**Laguna Verde**	**2.85**	**352**	⇑*i*P	**Pn**	**18 05 23.3**	**-0.6**
LVIG				*i* S	**Sn**	**18 05 58.2**	**+1.1**
SCX	**San Cristobal**	**3.23**	**92**	*i* P	**Pn**	**18 05 31.0**	**+1.9**
SCX				*i* S	**Sn**	**18 06 10.0**	**+3.7**
PPM	**Popocatepetl**	**3.31**	**311**	*e*P	**Pn**	**18 05 33.0**	**+2.8**
PPM				*i* S	**Sn**	**18 06 09.7**	**+1.3**
PPM	**Popocatepetl**	**3.31**	**311**	*e*P	**Pn**	**18 05 30.2**	**-0.1**
PPM				*e*P		18 05 31.3	
PPM				*i* S	**Sn**	**18 06 09.3**	**+1.0**
YAIG	**Yautepec**	**3.52**	**304**	*i* P	**Pn**	**18 05 31.3**	**-1.9**
YAIG				*i* S	**Sn**	**18 06 10.1**	**-3.4**
YAIG	**Yautepec**	**3.52**	**304**	*i* P	**Pn**	**18 05 32.8**	**-0.4**
YAIG				*i* S	**Sn**	**18 06 11.8**	**-1.7**
MEIG	**Mezcala**	**3.61**	**287**	*i* P	**Pn**	**18 05 34.1**	**-0.2**
MEIG				*i* S	**Sn**	**18 06 12.5**	**-3.2**
PLIG	**Platanillo**	**3.66**	**295**	*i* P	**Pn**	**18 05 35.9**	**+0.8**
PLIG				*i* S	**Sn**	**18 06 12.8**	**-4.2**
IIO	**Organos**	**3.73**	**317**	*e*P	**Pn**	**18 05 40.1**	**+4.1**
IIO				*i* S	**Sn**	**18 06 26.2**	**+7.4**
ACX	**Acapulco**	**3.75**	**270**	*i* P	**Pn**	**18 05 31.5**	**-4.8**
ACX				*i* S	**Sn**	**18 06 08.0**	**-11**
ACX	**Acapulco**	**3.75**	**270**	*i* P	**Pn**	**18 05 32.0**	**-4.3**
ACX				*i* S	**Sn**	**18 06 15.0**	**-4.2**
CCIG	**Comitan**	**3.75**	**99**	*e*P	**Pn**	**18 05 38.7**	**+2.4**
CCIG				*i* S	**Sn**	**18 06 23.4**	**+4.1**
UNM	**Universidad Na**	**3.88**	**309**	*i* P	**Pn**	**18 05 40.1**	**+2.0**
UNM				*e*P		18 05 42.0	
UNM				*i* S	**Sn**	**18 06 23.8**	**+1.4**
PTVM	**Pico Tres Padr**	**4.00**	**313**	*i* P	**Pn**	**18 05 45.7**	**+6.0**
PTVM				*i* S	**Sn**	**18 06 43.8**	**+18**
PTVM	**Pico Tres Padr**	**4.00**	**313**	*e*P	**Pn**	**18 05 39.7**	**0.0**
PTVM				*i* S	**Sn**	**18 06 28.3**	**+2.9**
SZVM	**Salazar**	**4.03**	**308**	*e*P	**Pn**	**18 05 37.9**	**-2.2**
SZVM				*i* S	**Sn**	**18 06 27.3**	**+1.3**
CAIG	**El Cayaco**	**4.09**	**273**	*i* P	**Pn**	**18 05 37.8**	**-3.1**
CAIG				*i* S	**Sn**	**18 06 18.9**	**-8.7**
CAIG	**El Cayaco**	**4.09**	**273**	⇑*i*P	**Pn**	**18 05 38.0**	**-2.9**
CAIG				*i* S	**Sn**	**18 06 27.0**	**-0.5**
SCIG	**Sabancuy**	**5.03**	**65**	*e*P	**Pn**	**18 05 54.0**	**+0.2**
SCIG				*i* S	**Sn**	**18 06 53.0**	**+2.4**
ZIIG	**Zihuatanejo**	**5.27**	**279**	*i* P	**Pn**	**18 05 55.0**	**-2.2**
ZIIG				*i* S	**Sn**	**18 06 52.2**	**-4.4**
MOIG	**Morelia**	**5.66**	**300**	*i* P	**Pn**	**18 06 03.6**	**+1.2**
SBLS	**San Blas**	**6.86**	**115**	*e*P	x	18 06 24.6	
SNJE	**San Jose**	**6.86**	**115**	*e*P	x	18 06 25.6	
LBRS	**Las Brisas**	**7.41**	**114**	*e*P	x	18 06 33.8	
SFJM	**Santa Fe**	**7.57**	**299**	*i* P	**Pn**	**18 06 30.0**	**+1.3**
TEIG	**Tepich**	**8.04**	**64**	*e*P	**Pn**	**18 06 36.6**	**+1.4**
TEIG				*e*S	**Sn**	**18 07 58.9**	**-5.8**
TEIG				*i* S	**Sn**	**18 08 03.1**	**-1.7**
TEIG	**Tepich**	**8.04**	**64**	P	**Pn**	**18 06 34.1**	**-1.0**
	124nm,0.3s,baz=254,slow=4.0,SNR=192						
TEIG				S	**Sn**	**18 08 01.4**	**-3.3**
	149nm,0.3s,baz=16,slow=22,SNR=16						
TEIG				LR	LR	18 10 26.5	
	comp=Z,614nm,19.1s,baz=235,slow=43						
TEIG	**Tepich**	**8.04**	**64**	*e*P	**Pn**	**18 06 36.6**	**+1.4**
TEIG				*i* S	**Sn**	**18 08 04.0**	**-0.7**
ZAIG	**Zacatecas**	**8.51**	**314**	*i* P	**Pn**	**18 06 44.6**	**+3.0**
LNIG	**Linares**	**8.61**	**338**	*i* P	**Pn**	**18 06 44.3**	**+1.4**
LNIG				*i* S	**Sn**	**18 08 17.9**	**-0.6**
CNCH	**Conchagua**	**8.66**	**113**	*e*P	x	18 06 48.1	
TGUH	**Tegucigalpa,Un**	**8.87**	**107**	*e*P	**Pn**	**18 06 47.5**	**+0.9**
	53nm,0.6s						
ANIG	**Ahuacatlan**	**9.06**	**299**	*i* P	**Pn**	**18 06 48.1**	**-1.0**
JTS	**JuntasAbangare**	**12.58**	**120**	P	**Pn**	**18 07 37.1**	**-0.1**
JTS	**JuntasAbangare**	**12.58**	**120**	⇑*e*P	**Pn**	**18 07 42.7**	**+5.5**
JTS	**JuntasAbangare**	**12.58**	**120**	P	**Pn**	**18 07 37.1**	**-0.1**
	3.9nm,0.3s,baz=335,slow=14,SNR=11						
HKT	**Hockley**	**13.01**	**1**	*e*P	**Pn**	**18 07 43.5**	**+0.6**
	88nm,1.4s						
HKT	**Hockley**	**13.01**	**1**	*e*P	**Pn**	**18 07 43.5**	**+0.5**
HKT				pmax	pmax		
	comp=Z,88nm,1.4s						
SOR	**Soroa**	**13.56**	**62**	*e*PN	**Pn**	**18 07 48.9**	**-1.6**
	baz=217						
SOR				*e*SN	**Sn**	**18 10 09.1**	**-11**
	comp=N,340nm,0.5s						
SOR				*e*			
	comp=E,377nm,0.5s						
TXAR	**Lajitas Array**	**14.25**	**332**	P	**Pn**	**18 08 02.0**	**+2.3**
	comp=E,0.2nm,0.3s,baz=149,slow=15,SNR=46						
TXAR				pP		18 08 26.2	
	comp=E,0.5nm,0.3s,baz=144,slow=11,SNR=5.2						
LTX	**Lajitas**	**14.25**	**332**	*e*P	**Pn**	**18 08 01.1**	**+1.4**
	comp=E,16nm,1.0s						
LTX	**Lajitas**	**14.25**	**332**	*e*P	**Pn**	**18 08 01.1**	**+1.3**
LTX				pmax	pmax		
	comp=Z,16nm,1.0s						
NATX	**Nacogdoches**	**14.86**	**4**	*e*P	**Pn**	**18 08 08.8**	**+1.0**
	comp=Z,131nm,0.7s						
LPIG	**La Paz**	**15.20**	**301**	P	**Pn**	**18 08 14.5**	**+2.3**
LPIG				LR	LR	18 14 13.0	
LPIG	**La Paz**	**15.20**	**301**	P	**Pn**	**18 08 14.5**	**+2.3**
	comp=Z,1.9nm,0.3s,baz=143,slow=5.7,SNR=1.9						
LPIG				LR	LR	18 14 13.0	
	comp=Z,142nm,20.8s,baz=162,slow=38						
MGV	**Manicaragua**	**15.97**	**68**	*e*P	**Pn**	**18 08 26.8**	**+4.7**
	baz=230						
MGV				*e*S	S	18 11 09.4	-20
	comp=N,42nm,1.7s						
MGV				*e*			
	comp=E,57nm,1.7s						
MNTX	**Cornudas Mount**	**17.03**	**332**	*e*P	**Pn**	**18 08 35.8**	**+0.5**
	comp=E,40nm,1.4s						
MIAR	**Mount Ida**	**17.72**	**7**	*e*P	**Pn**	**18 08 42.7**	**-1.1**
	comp=E,90nm,0.8s						
MIAR	**Mount Ida**	**17.72**	**7**	*e*P	**Pn**	**18 08 42.7**	**-1.1**
MIAR				pmax	pmax		
	comp=Z,90nm,0.8s						
WMOK	**Wichita Mounta**	**17.95**	**353**	*e*P	**Pn**	**18 08 45.9**	**-0.7**
	comp=Z,60nm,1.0s						
WMOK	**Wichita Mounta**	**17.95**	**353**	*e*P	**Pn**	**18 08 45.9**	**-0.7**
WMOK				pmax	pmax		
	comp=Z,60nm,1.0s						
LRAL	**Lakeview Retre**	**18.02**	**25**	*e*P	**Pn**	**18 08 47.9**	**+0.4**
	comp=Z,20nm,0.4s						
UALR	**University of**	**18.11**	**10**	*e*P	**Pn**	**18 08 49.3**	**+0.7**
	comp=Z,66nm,0.8s						
OXF	**Oxford**	**18.52**	**17**	*e*P	**Pn**	**18 08 52.1**	**-1.4**
	comp=Z,107nm,0.9s						
OXF	**Oxford**	**18.52**	**17**	*e*P	**Pn**	**18 08 52.1**	**-1.4**
OXF				pmax	pmax		
	comp=Z,107nm,0.9s						
AMTX	**Amarillo**	**18.63**	**345**	*e*P	**Pn**	**18 08 54.0**	**-0.8**
	comp=Z,52nm,0.7s						
HBAR	**Harrisburg**	**19.19**	**13**	*e*P	**Pn**	**18 09 01.1**	**-0.5**
PLAL	**Pickwick Lake**	**19.36**	**20**	*e*P	**Pn**	**18 09 01.1**	**-2.6**
	comp=Z,35nm,0.4s						
BNM	**Barren Site**	**19.66**	**333**	*e*P	**Pn**	**18 09 07.3**	**+0.1**
LPM	**Los Pinos Moun**	**19.80**	**333**	*e*P	**Pn**	**18 09 08.7**	**-0.1**
LENM	**Lemitar**	**19.83**	**332**	*e*P	**Pn**	**18 09 08.9**	**-0.2**
HALT	**Halls**	**19.85**	**16**	*e*P	**Pn**	**18 09 07.1**	**-2.3**
GOGA	**Godfrey**	**19.96**	**32**	*e*P	**Pn**	**18 09 07.7**	**-2.9**
	comp=Z,30nm,0.5s						
GOGA	**Godfrey**	**19.96**	**32**	*e*P	**Pn**	**18 09 07.7**	**-2.9**
GOGA				pmax	pmax		
	comp=Z,30nm,0.5s						
LAZ	**Ladron**	**20.10**	**332**	*e*P	**P**	**18 09 12.0**	**+1.9**
LAZ				*e*		18 09 36.2	
ANMO	**Albuquerque**	**20.28**	**335**	*e*P	**P**	**18 09 13.2**	**+1.2**
	comp=Z,36nm,0.9s						
ANMO	**Albuquerque**	**20.28**	**335**	*e*P	**P**	**18 09 13.2**	**+1.2**
ANMO				pmax	pmax		
	comp=Z,36nm,0.9s						
ANMO	**Albuquerque**	**20.28**	**335**	P	**P**	**18 09 13.6**	**+1.6**
	comp=Z,13nm,0.8s,baz=148,slow=12,SNR=24						
SWET	**Sewanee**	**20.35**	**24**	*e*P	**P**	**18 09 11.5**	**-1.3**
UTMT	**University of**	**20.39**	**17**	*e*P	**P**	**18 09 12.7**	**-0.5**
	comp=Z,285nm,0.9s						
PARMO	**Parma**	**20.46**	**14**	*e*P	**P**	**18 09 14.1**	**+0.1**
WVT	**Waverly**	**20.50**	**19**	*e*P	**P**	**18 09 13.0**	**-1.3**
	comp=Z,117nm,0.6s						
WVT	**Waverly**	**20.50**	**19**	*e*P	**P**	**18 09 13.0**	**-1.4**
WVT				pmax	pmax		
	comp=Z,117nm,0.6s						
CPCT	**Cooper Cave**	**21.13**	**27**	*e*P	**P**	**18 09 19.4**	**-1.8**
COW	**Cow Castle Cre**	**21.44**	**37**	*e*P	**P**	**18 09 23.4**	**-1.2**
NHSC	**New Hope**	**21.55**	**39**	*e*P	**P**	**18 09 25.5**	**-0.3**
	comp=Z,138nm,1.0s,mb5.3						
FVM	**French Village**	**21.58**	**12**	*e*P	**P**	**18 09 24.3**	**-1.7**
	comp=Z,21nm,0.7s,mb4.7						
FVM	**French Village**	**21.58**	**12**	*e*P	**P**	**18 09 24.3**	**-1.7**
FVM				pmax	pmax		
	comp=Z,21nm,0.7s,mb4.7						
SIUC	**Southern Illin**	**21.59**	**15**	*e*P	**P**	**18 09 25.4**	**-0.8**
	comp=Z,96nm,0.7s,mb5.3						
TKL	**Tuckaleechee C**	**21.64**	**28**	P	**P**	**18 09 25.4**	**-1.2**
	comp=Z,29nm,0.7s,mb4.8,baz=187,slow=11,SNR=23						
TKL				LR	LR	18 19 08.4	
	comp=Z,107nm,19.5s,MS3.3,baz=344,slow=40						
JSC	**Jenkinsville**	**21.79**	**35**	*e*P	**P**	**18 09 26.7**	**-1.6**
CBKS	**Cedar Bluff**	**22.09**	**352**	*e*P	**P**	**18 09 31.0**	**-0.5**
	comp=Z,92nm,1.0s,mb5.2						
CBKS	**Cedar Bluff**	**22.09**	**352**	*e*P	**P**	**18 09 31.0**	**-0.4**
CBKS				pmax	pmax		
	comp=Z,92nm,1.0s,mb5.2						
KSU1	**Kansas State U**	**22.14**	**359**	*e*P	**P**	**18 09 30.9**	**-1.1**
	comp=Z,148nm,0.9s,mb5.4						
USIN	**University of**	**22.24**	**18**	*e*P	**P**	**18 09 31.9**	**-1.2**
	comp=Z,172nm,0.7s,mb5.6						
SLM	**Saint Louis**	**22.25**	**12**	*e*P	**P**	**18 09 32.3**	**-0.8**
	comp=Z,40nm,0.6s,mb5.0						
SLM	**Saint Louis**	**22.25**	**12**	*e*P	**P**	**18 09 32.3**	**-0.8**
SLM				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.0						
SDCO	**Great Sand Dun**	**22.40**	**340**	*e*P	**P**	**18 09 35.5**	**+0.8**
	comp=Z,14nm,0.8s,mb4.5						
TZTN	**Tazewell**	**22.48**	**27**	*e*P	**P**	**18 09 34.0**	**-1.6**
	comp=Z,74nm,0.9s,mb5.1						
WCI	**Wyandotte Cave**	**22.91**	**20**	*e*P	**P**	**18 09 39.2**	**-0.9**
	comp=Z,201nm,0.8s,mb5.6						
WCI	**Wyandotte Cave**	**22.91**	**20**	*e*P	**P**	**18 09 39.2**	**-0.9**
WCI				pmax	pmax		
	comp=Z,201nm,0.8s,mb5.6						
MVCO	**Mesa Verde**	**23.06**	**334**	*e*P	**P**	**18 09 42.1**	**+0.4**
	comp=Z,41nm,0.9s,mb4.9						
WUAZ	**Wupatki**	**23.07**	**326**	*e*P	**P**	**18 09 43.1**	**+1.3**
	comp=Z,25nm,0.9s,mb4.7						
SDDR	**Presa de Saban**	**23.60**	**81**	*e*P	**P**	**18 09 47.1**	**0.0**
	comp=Z,19nm,0.9s,mb4.5						
BLO	**Bloomington**	**23.70**	**19**	*e*P	**P**	**18 09 46.7**	**-1.0**
PV01	**Paradox Valley**	**23.88**	**335**	*e*P	**P**	**18 09 51.4**	**+2.0**
PV10	**Paradox Valley**	**24.27**	**334**	*e*P	**P**	**18 09 53.7**	**+0.7**
HDIL	**Hopedale**	**24.29**	**12**	*e*P	**P**	**18 09 52.1**	**-1.0**
	comp=Z,69nm,0.9s,mb5.1						
ISCO	**Idaho Springs**	**24.32**	**342**	*e*P	**P**	**18 09 54.8**	**+1.4**
	comp=Z,14nm,1.0s,mb4.4						
ISCO	**Idaho Springs**	**24.32**	**342**	*e*P	**P**	**18 09 54.8**	**+1.4**
ISCO				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.3						
ROSC	**El Rosal**	**24.37**	**117**	P	**P**	**18 09 52.8**	**-1.3**
	comp=Z,3.4nm,0.4s,mb4.2,baz=257,slow=22,SNR=1.9						
CNNC	**Cliffs of the**	**24.39**	**38**	*e*P	**P**	**18 09 53.6**	**-0.5**
	comp=Z,79nm,0.8s,mb5.2						
BLA	**Blacksburg**	**24.48**	**31**	*e*P	**P**	**18 09 53.5**	**-1.4**
	comp=Z,83nm,0.8s,mb5.2						
BLA	**Blacksburg**	**24.48**	**31**	*e*P	**P**	**18 09 53.5**	**-1.4**
BLA				pmax	pmax		
	comp=Z,83nm,0.8s,mb5.2						
PFO	**Pinyon Flat Ob**	**24.81**	**316**	P	**P**	**18 09 58.0**	**0.0**
PFO				LR	LR	18 20 08.2	
PFO	**Pinyon Flat Ob**	**24.81**	**316**	P	**P**	**18 09 58.0**	**0.0**
	comp=Z,2.9nm,0.7s,mb3.9,baz=193,slow=13,SNR=2.5						
PFO				LR	LR	18 20 08.2	
	comp=Z,270nm,19.2s,MS3.8,baz=286,slow=37						
SCIA	**State Center**	**25.05**	**5**	*e*P	**P**	**18 09 59.9**	**-0.1**
	comp=Z,161nm,1.1s,mb5.5						
SRU	**San Rafael**	**25.52**	**333**	P	**P**	**18 10 06.3**	**+1.9**
	comp=Z,2.7nm,0.6s,mb4.0						
SRU	**San Rafael**	**25.52**	**333**	P	**P**	**18 10 06.3**	**+2.0**
SRU				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.0						
MSU	**Marysvale**	**25.79**	**330**	*e*P	**P**	**18 10 11.3**	**+4.5**
ACSO	**Alum Creek Sta**	**25.86**	**23**	*e*P	**P**	**18 10 06.3**	**-1.1**
	comp=Z,103nm,1.0s,mb5.3						
JFWS	**Jewell Farm**	**26.40**	**10**	*e*P	**P**	**18 10 11.3**	**-0.9**
	comp=Z,79nm,0.6s,mb5.4						
JFWS	**Jewell Farm**	**26.40**	**10**	*e*P	**P**	**18 10 11.3**	**-0.9**
JFWS				pmax	pmax		
	comp=Z,79nm,0.6s,mb5.4						
RWWY	**Rawlins**	**26.53**	**341**	*e*P	**P**	**18 10 15.0**	**+1.6**
	comp=Z,10nm,0.9s,mb4.4						
RWWY				*e*pP	pP	18 10 31.6	+4.5
AAM	**Ann Arbor**	**27.45**	**20**	*e*P	**P**	**18 10 20.1**	**-1.5**
	comp=Z,26nm,0.5s,mb5.0						
AAM	**Ann Arbor**	**27.45**	**20**	*e*P	**P**	**18 10 20.1**	**-1.5**
AAM				pmax	pmax		
	comp=Z,26nm,0.5s,mb5.0						
PDAR	**Pinedale Array**	**28.27**	**339**	P	**P**	**18 10 28.9**	**-0.1**
	comp=Z,1.1nm,0.6s,mb3.7,baz=142,slow=7.5,SNR=8.1						
PDAR				PcP	PcP	18 13 39.9	-1.3
	comp=Z,0.7nm,0.6s,baz=179,slow=1.2,SNR=4.0						
HVU	**Hansel Valley**	**28.69**	**333**	*e*P	**P**	**18 10 34.3**	**+1.6**
	comp=Z,3.3nm,0.8s,mb4.1						
HVU	**Hansel Valley**	**28.69**	**333**	*e*P	**P**	**18 10 34.3**	**+1.6**
HVU				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
NVAR	**Mina Array Bea**	**29.03**	**322**	P	**P**	**18 10 38.0**	**+2.2**
	comp=Z,2.8nm,0.9s,mb4.0,baz=133,slow=9.9,SNR=14						
NVAR				pP	pP	18 10 54.2	+4.6
	comp=Z,9.7nm,0.9s,baz=132,slow=10,SNR=14						
LOHW	**Long Hollow**	**29.38**	**338**	*e*P	**P**	**18 10 39.9**	**+1.1**
	comp=Z,12nm,1.2s,mb4.5						
ATAH	**Atahualpa**	**29.43**	**142**	P	**P**	**18 10 42.2**	**+2.6**
	comp=Z,11nm,0.8s,mb4.7,baz=315,slow=6.7,SNR=6.5						
ATAH				LR	LR	18 20 13.5	
	comp=Z,97nm,21.4s,MS3.4,baz=121,slow=32						
COWI	**Conover**	**29.69**	**10**	*e*P	**P**	**18 10 40.8**	**-0.7**
	comp=Z,10nm,0.6s,mb4.7						
GCMT	**Greycliff**	**31.00**	**341**	*e*P	**P**	**18 10 53.6**	**+0.5**
EYMN	**Ely**	**31.20**	**6**	*e*P	**P**	**18 10 53.8**	**-1.0**
	comp=Z,16nm,0.8s,mb4.9						
AGMN	**Agassiz Refuge**	**31.33**	**0**	*e*P	**P**	**18 10 55.4**	**-0.6**
	comp=Z,50nm,0.9s,mb5.3						
BOZ	**Bozeman (W)**	**31.51**	**339**	*e*P	**P**	**18 10 58.3**	**+0.7**
	comp=Z,2.9nm,1.2s,mb4.0						
BOZ	**Bozeman (W)**	**31.51**	**339**	*e*P	**P**	**18 10 58.3**	**+0.7**
BOZ				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.0						
DLMT	**Dillon**	**31.61**	**337**	*e*P	**P**	**18 11 00.2**	**+1.7**
	comp=Z,17nm,1.1s,mb4.8						
DLMT				*e*pP	pP	18 11 17.1	+4.7
MOD	**Modoc**	**32.49**	**325**	*e*P	**P**	**18 11 07.6**	**+1.3**
	comp=Z,2.6nm,0.8s,mb4.1						
LONY	**Lake Ozonia**	**33.01**	**29**	*e*P	**P**	**18 11 09.4**	**-1.4**
	comp=Z,36nm,0.8s,mb5.4						
EGMT	**Eagleton**	**33.04**	**343**	*e*P	**P**	**18 11 09.5**	**-1.5**
	comp=Z,30nm,1.5s,mb5.0						
MSNY	**Massena**	**33.17**	**28**	*e*P	**P**	**18 11 10.5**	**-1.7**
CHMT	**Chamberlain Mo**	**33.18**	**338**	*e*P	**P**	**18 11 12.9**	**+0.7**
ULM	**Lac du Bonnet**	**33.28**	**0**	*e*P	**P**	**18 11 11.9**	**-1.1**
	comp=Z,26nm,0.8s,mb5.2						
ULM	**Lac du Bonnet**	**33.28**	**0**	P	**P**	**18 11 12.0**	**-1.1**
	comp=Z,24nm,0.8s,mb5.2,baz=179,slow=8.9,SNR=58						
ULM				LR	LR	18 27 10.3	
	comp=Z,58nm,18.5s,MS3.3,baz=175,slow=40						
FFC	**Flin Flon**	**38.05**	**354**	*e*P	**P**	**18 11 52.8**	**-1.0**
	comp=Z,7.4nm,0.8s,mb4.5						
FFC	**Flin Flon**	**38.05**	**354**	*e*P	**P**	**18 11 52.8**	**-1.0**
FFC				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
EDM	**Edmonton**	**38.72**	**343**	*e*P	**P**	**18 11 59.3**	**-0.3**
FCC	**Fort Churchill**	**41.84**	**1**	*e*P	**P**	**18 12 24.9**	**-0.3**
	comp=Z,16nm,0.9s,mb4.7						
FCC				*e*pP	pP	18 12 41.0	+1.6
FCC	**Fort Churchill**	**41.84**	**1**	*e*P	**P**	**18 12 24.9**	**-0.3**
FCC				*e**PP	pP	18 12 41.0	+1.6
FCC				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.7						
LPAZ	**La Paz**	**42.91**	**139**	*e*P	**P**	**18 12 34.8**	**+0.3**
	comp=Z,5.0nm,1.0s,mb4.2						
LPAZ	**La Paz**	**42.91**	**139**	*e*P	**P**	**18 12 34.8**	**+0.3**
LPAZ				pmax	pmax		
	comp=Z,5.0nm,1.0s						
LPAZ	**La Paz**	**42.91**	**139**	P	**P**	**18 12 34.7**	**+0.2**
	comp=Z,1.4nm,0.6s,mb3.9,baz=330,slow=11,SNR=6.9						
LPAZ				LR	LR	18 28 13.1	
	comp=Z,37nm,19.3s,MS3.3,baz=68,slow=33						
SCHQ	**Schefferville**	**44.02**	**24**	*e*P	**P**	**18 12 41.9**	**-1.0**
	comp=Z,89nm,1.0s,mb5.5						
SCHQ	**Schefferville**	**44.02**	**24**	P	**P**	**18 12 42.0**	**-0.9**
	comp=Z,47nm,0.9s,mb5.2,baz=228,slow=7.0,SNR=48						
SCHQ				LR	LR	18 33 26.1	
	comp=Z,98nm,19.7s,MS3.7,baz=276,slow=39						
YKA	**Yellowknife Ar**	**47.39**	**348**	P	**P**	**18 13 08.8**	**-0.6**
YKA				pP	pP	18 13 25.7	+1.8
YKA	**Yellowknife Ar**	**47.39**	**348**	P	**P**	**18 13 08.8**	**-0.6**
	comp=Z,4.7nm,0.8s,mb4.5,baz=153,slow=7.3,SNR=46						
YKA				pP	pP	18 13 25.7	+1.8
	comp=Z,2.7nm,0.7s,baz=153,slow=7.5,SNR=6.6						
CFAA	**Coronel Fontan**	**55.09**	**151**	P	**P**	**18 14 07.3**	**-0.1**
CFAA				pP	pP	18 14 24.5	+2.3
CFAA	**Coronel Fontan**	**55.09**	**151**	P	**P**	**18 14 07.3**	**-0.1**
	comp=Z,0.9nm,0.7s,mb3.9,baz=339,slow=6.4,SNR=16						
CFAA				pP	pP	18 14 24.5	+2.3
	comp=Z,0.8nm,0.8s,baz=331,slow=7.9,SNR=4.2						
DAWY	**Dawson**	**55.58**	**339**	P	**P**	**18 14 12.3**	**+1.7**
INK	**Inuvik**	**56.61**	**344**	*e*P	**P**	**18 14 17.8**	**-0.1**
	comp=Z,642nm,1.2s						
INK				*e*pP	pP	18 14 34.8	+2.1
COLA	**College**	**59.10**	**337**	⇓*e*P	**P**	**18 14 36.0**	**+0.6**
SVW2	**Sparrevohn**	**60.80**	**331**	*e*P	**P**	**18 14 46.6**	**-0.5**
DAG	**Danmarks Havn**	**70.78**	**14**	⇑*i*P	**P**	**18 15 50.8**	**-0.3**
DAG				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
DAG	**Danmarks Havn**	**70.78**	**14**	⇑*i*P	**P**	**18 15 50.8**	**-0.3**
	comp=Z,6.0nm,0.8s,mb4.6						
BILL	**Bilibino**	**77.35**	**338**	*e*P	**P**	**18 16 29.3**	**-0.2**
	comp=Z,11nm,1.0s,mb4.7						
BILL				*e*pP	pP	18 16 48.1	+3.1
BILL	**Bilibino**	**77.35**	**338**	*i* P	**P**	**18 16 29.2**	**-0.3**
BILL				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.2						
GRR	**Gorron**	**80.91**	**42**	*e*P	**P**	**18 16 49.5**	**+0.2**
	comp=Z,14nm,0.7s,mb4.7						
GRR	**Gorron**	**80.91**	**42**	*e*P	**P**	**18 16 49.5**	**+0.2**
	comp=Z,6.8nm,0.7s,mb4.7						
GRR	**Gorron**	**80.91**	**42**	*e*P	**P**	**18 16 49.5**	**+0.2**
GRR				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
ESDC	**Sonseca Array**	**80.95**	**51**	P	**P**	**18 16 49.8**	**+0.1**
	comp=Z,2.0nm,0.7s,mb4.2,baz=288,slow=5.1,SNR=8.7						
FLN	**La Foliniere**	**81.05**	**42**	*e*P	**P**	**18 16 50.4**	**+0.3**
	comp=Z,48nm,1.0s,mb5.1						
FLN	**La Foliniere**	**81.05**	**42**	*e*P	**P**	**18 16 50.4**	**+0.3**
	comp=Z,24nm,1.0s,mb5.1						
FLN	**La Foliniere**	**81.05**	**42**	*e*P	**P**	**18 16 50.4**	**+0.3**
FLN				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
LDF	**La Druitiere**	**81.33**	**42**	*e*P	**P**	**18 16 51.8**	**+0.2**
	comp=Z,34nm,1.0s,mb4.9						
LDF	**La Druitiere**	**81.33**	**42**	*e*P	**P**	**18 16 51.8**	**+0.2**
	comp=Z,17nm,1.0s,mb4.9						
LDF	**La Druitiere**	**81.33**	**42**	*e*P	**P**	**18 16 51.8**	**+0.2**
LDF				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
NB2	**NORSAR Subarra**	**83.44**	**28**	P	**P**	**18 17 03.2**	**+0.9**
	comp=Z,1.2nm,0.8s,mb4.0,baz=296,slow=5.3						
NOA	**NORSAR Array B**	**83.44**	**28**	P	**P**	**18 17 03.4**	**+1.1**
NOA				pP	pP	18 17 20.9	+3.0
NOA				LR	LR	18 53 10.8	
NOA	**NORSAR Array B**	**83.44**	**28**	P	**P**	**18 17 03.4**	**+1.1**
NOA				*PP	pP	18 17 20.9	+3.0
NOA	**NORSAR Array B**	**83.44**	**28**	P	**P**	**18 17 03.4**	**+1.1**
	comp=Z,3.9nm,1.1s,mb4.4,baz=300,slow=5.4,SNR=6.4						
NOA				pP	pP	18 17 20.9	+3.0
	comp=Z,2.9nm,0.9s,baz=296,slow=5.4,SNR=5.1						
NOA				LR	LR	18 53 10.8	
	comp=Z,32nm,18.8s,MS3.7,baz=90,slow=35						
GIVF	**Givet**	**83.97**	**39**	*e*P	**P**	**18 17 07.0**	**+1.7**
SSF	**Saint Saulge**	**84.11**	**43**	*e*P	**P**	**18 17 06.8**	**+0.7**
LOR	**Lormes**	**84.28**	**42**	*e*P	**P**	**18 17 07.1**	**+0.2**
	comp=Z,23nm,1.0s,mb5.0						
LOR	**Lormes**	**84.28**	**42**	*e*P	**P**	**18 17 07.1**	**+0.2**
	comp=Z,11nm,1.0s,mb5.0						
LOR	**Lormes**	**84.28**	**42**	*e*P	**P**	**18 17 07.1**	**+0.2**
LOR				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.9						
ARCES	**ARCESS Array B**	**84.59**	**18**	P	**P**	**18 17 09.8**	**+1.7**
	comp=Z,1.8nm,0.6s,mb4.4,baz=291,slow=3.6,SNR=13						
HAU	**Haudompre**	**85.62**	**41**	*e*P	**P**	**18 17 14.0**	**+0.4**
TIXI	**Tiksi**	**86.63**	**347**	*e*P	**P**	**18 17 16.9**	**-1.2**
	comp=Z,6.2nm,1.3s,mb4.7						
TIXI	**Tiksi**	**86.63**	**347**	*e*P	**P**	**18 17 16.9**	**-1.2**
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.7						
MA2	**Magadan**	**86.77**	**332**	*e*P	**P**	**18 17 19.0**	**0.0**
	comp=Z,3.3nm,0.9s,mb4.6						
MA2	**Magadan**	**86.77**	**332**	*e*P	**P**	**18 17 19.0**	**0.0**
MA2				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.5						
MBDF	**Montbardon**	**87.04**	**44**	*e*P	**P**	**18 17 21.7**	**+1.0**
	comp=Z,9.3nm,0.8s,mb4.7						
MBDF	**Montbardon**	**87.04**	**44**	*e*P	**P**	**18 17 21.7**	**+1.0**
	comp=Z,4.7nm,0.8s,mb4.8						
MBDF	**Montbardon**	**87.04**	**44**	*e*P	**P**	**18 17 21.7**	**+1.0**
MBDF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
LIC	**Lamto**	**89.14**	**84**	*e*P	**P**	**18 17 33.5**	**+2.2**
	comp=Z,26nm,1.0s,mb5.2						
LIC	**Lamto**	**89.14**	**84**	*e*P	**P**	**18 17 33.5**	**+2.2**
	comp=Z,13nm,1.0s,mb5.2						
FINES	**FINESS Array B**	**89.49**	**24**	P	**P**	**18 17 32.7**	**+0.8**
	comp=Z,0.7nm,0.9s,mb4.0,baz=246,slow=19,SNR=2.7						
FINES				LR	LR	18 55 28.8	
	comp=Z,48nm,20.2s,MS3.9,baz=340,slow=34						
GERES	**GERESS Array B**	**89.80**	**38**	P	**P**	**18 17 34.2**	**+0.6**
	comp=Z,1.0nm,1.0s,mb4.1,baz=286,slow=5.4,SNR=4.1						
TORD	**Torodi Ar. Bea**	**93.42**	**75**	P	**P**	**18 17 51.3**	**+0.3**
	comp=Z,0.5nm,0.8s,mb4.0,baz=318,slow=1.9,SNR=2.7						
TORD				LR	LR	18 57 31.6	
	comp=Z,66nm,19.6s,MS4.1,baz=335,slow=34						
YAK	**Yakutsk**	**93.48**	**340**	*i* P	**P**	**18 17 49.8**	**-0.6**
YAK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.9						
AKASG	**Malin Array Be**	**97.38**	**32**	PP	PP	18 21 59.4	-5.7
	comp=Z,0.7nm,0.7s,baz=306,slow=7.3,SNR=4.8						
ZALV	**Zalesovo Beam**	**109.45**	**359**	PP	PP	18 23 29.4	-5.3
	comp=Z,0.9nm,0.9s,baz=343,slow=4.5,SNR=3.1						
BJI	**Beijing**	**115.92**	**333**	PKP	PKPdf	18 23 18.3	+0.4
BJI				XPKP		18 23 41.3	
BJI				SKS	SKSdf	18 30 22.1	-3.5
BJI				SS	SS	18 40 17.8	-0.4
BJI	**Beijing**	**115.92**	**333**	PKP	PKPdf	18 23 18.2	+0.3
BJI				pPKP	pPKPdf	18 23 33.9	-0.3
BJI				sPKP		18 23 41.2	
BJI				PP	PP	18 24 17.3	-4.0
BJI				SKS	SKSdf	18 30 22.1	-3.5
BJI				SS	SS	18 40 17.7	-0.5
BJI	**Beijing**	**115.92**	**333**	PKIKP	PKPdf	18 23 18.2	+0.3
BJI						18 23 33.9	
BJI						18 30 22.1	

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
BJI				SS	SS	18 40 17.7	-0.5
HHC	Hu-ho-hao-te	117.12	337	ePKP	PKPdf	18 23 20.1	-0.1
HHC				PP	PP	18 24 34.4	+4.9
HHC				PKS		18 26 55.8	
HHC				SKS	SKSdf	18 30 21.6	-6.2
HHC				SKKS	SKKSac	18 31 17.6	-9.2
HHC				SS	SS	18 40 35.3	+1.7
HHC				PP	PP		
	comp=Z,153nm,8.7s						
HHC				LR	LR		
	comp=N,224nm,38.9s,MS4.6						
HHC				LR	LR		
	comp=E,180nm,37.0s,MS4.6						
HHC				LR	LR		
	comp=Z,322nm,38.9s,MS4.7						
WMQ	Urumqi	119.50	357	ePKP	PKPdf	18 23 23.8	-0.9
NJ2	Nanjing	120.98	326	ePKP	PKPdf	18 23 31.8	+4.0
LZH	Lanzhou	124.07	341	ePKP	PKPdf	18 23 30.4	-3.3
LZH				XPKP		18 23 54.4	
BOSA	Boshof	125.05	113	PKP	PKPdf	18 23 34.5	-1.1
BOSA	Boshof	125.05	113	PKIKP	PKPdf	18 23 34.6	-1.1
BOSA	Boshof	125.05	113	PKP	PKPdf	18 23 34.5	-1.1
	comp=Z,3.3nm,0.8s,baz=318,slow=1.5,SNR=6.1						
STKA	Stephens Creek	126.03	243	PKP	PKPdf	18 23 36.1	-1.3
STKA	Stephens Creek	126.03	243	PKP	PKPdf	18 23 36.1	-1.3
	comp=Z,5.2nm,0.7s,baz=33,slow=1.8,SNR=15						
CD2	Chengdu	128.82	338	ePKP	PKPdf	18 23 41.0	-1.9
CD2				XPKP		18 24 06.0	
CD2				PP	PP	18 25 52.0	+3.4
CD2				PKS		18 27 16.1	
CD2				SKS	SKSdf	18 30 41.3	-9.0
CD2				SKKS	SKKSac	18 32 32.8	-10
CD2				PP	PP		
	comp=Z,120nm,10.8s						
CD2				LR	LR		
	comp=N,320nm,27.4s						
CD2				LR	LR		
	comp=Z,410nm,24.6s,MS5.0						
GYA	Guiyang	131.61	332	PDIF	Pdif	18 20 40.0	-0.6
GYA				PKP	PKPdf	18 23 47.9	-0.4
GYA				XPKP		18 24 14.8	
GYA				PP	PP	18 26 10.9	+4.0
GYA				PKS		18 27 22.8	
GYA				SKS	SKSdf	18 30 50.4	-5.1
GYA				SKKS	SKKSac	18 32 54.6	-5.4
GYA				SS	SS	18 43 35.6	-1.1
GYA				PP	PP		
	comp=Z,290nm,8.4s						
GYA				LR	LR		
	comp=N,280nm,19.6s,MS5.0						
GYA				LR	LR		
	comp=E,140nm,20.2s,MS5.0						
GYA				LR	LR		
	comp=Z,190nm,20.9s,MS4.8						
WRA	Warramunga Arr	132.28	258	PKP	PKPdf	18 23 48.3	-1.3
WRA	Warramunga Arr	132.28	258	PKIKP	PKPdf	18 23 48.3	-1.3
WRA	Warramunga Arr	132.28	258	PKP	PKPdf	18 23 48.3	-1.3
	comp=Z,2.0nm,0.6s,baz=84,slow=2.5,SNR=39						
ASAR	Alice Springs	132.89	253	PKP	PKPdf	18 23 49.4	-1.3
ASAR	Alice Springs	132.89	253	PKIKP	PKPdf	18 23 49.4	-1.3
ASAR	Alice Springs	132.89	253	PKP	PKPdf	18 23 49.4	-1.3
	comp=Z,0.9nm,0.5s,baz=85,slow=2.2,SNR=25						
KMI	Kunming	134.43	336	PKP	PKPdf	18 23 53.6	-0.1
KMI	Kunming	134.43	336	PKIKP	PKPdf	18 23 53.6	-0.1
HYB	Hyderabad	145.50	9	eP	PKPdf	18 24 12.5	-1.3
HYB				e		18 24 31.0	
HYB	Hyderabad	145.50	9	ePKP2	PKPdf	18 24 12.5	-1.3
HYB	Hyderabad	145.50	9	i PKP	PKPdf	18 24 12.5	-1.3
HYB				e		18 24 31.0	
MBWA	Marble Bar	146.00	257	eP	PKPdf	18 24 13.8	-0.8

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*ISCJB **14** 18:22:57.6±1.3, 13.4N±0.1×144.9E±0.4, h64^{km}±7^{km}, mb3.7/6, Error ellipse: s-maj=58.5km s-min=19.7km az=2.4*

*IDC **14** 18:22:57.6±1.7, 13.37N×145.03E, h49^{km}±11^{km}, mb3.4/6, mb1 3.6/6, mb1mx3.4/21, mbtmp3.4/6, MS2.9/1, Ms1 2.9/1, ms1mx2.4/15, Error ellipse: s-maj=44.4km s-min=17.4km az=89.0*

*NEIC **14** 18:22:58.4±1.3, 13.36N×145.05E, h58^{km}±8^{km}, Error ellipse: s-maj=37.2km s-min=12.2km az=92.0*

NEIC Felt at Barrigada and Santa Rita.

ISC 14 18:22:58.3±1.8, **13.4N**±0.1×**145.1E**±0.4, **h56**^{km}±10^{km}, **n9, σ0^{s}.16**/11, **mb3.7**/6, **Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	0.30	321	P	Pn	18 23 08.2	+0.2
GUMO				S	Sn	18 23 15.0	-0.1
GUMO	Guam	0.30	321	P	Pn	18 23 08.2	+0.2
GUMO				S	Sn	18 23 15.0	-0.1
	4μm,0.3s,baz=323,slow=23,SNR=359						
WB2	Warramunga Arr	34.73	198	eP	P	18 29 43.2	0.0
WRA	Warramunga Arr	34.73	198	P	P	18 29 42.8	-0.3
	1.4nm,0.6s,mb4.0,baz=22,slow=9.8,SNR=27						
FITZ	Fitzroy Crossi	36.66	212	P	P	18 29 59.8	0.0
	1.5nm,0.6s,mb4.0,baz=28,slow=12,SNR=5.7						
ASAR	Alice Springs	38.38	197	P	P	18 30 14.4	+0.2
	0.9nm,0.5s,mb3.7,baz=21,slow=12,SNR=34						
SONM	Songino Array	47.03	325	P	P	18 31 23.9	-0.1
	0.4nm,0.7s,mb3.5,baz=127,slow=6.7,SNR=3.2						
MKAR	Makanchi Array	61.79	316	P	P	18 33 11.4	+0.2
	0.4nm,0.4s,mb3.9,baz=92,slow=8.4,SNR=14						
YKA	Yellowknife Ar	82.98	27	P	P	18 35 17.1	0.0
	0.1nm,0.3s,mb3.3,baz=284,slow=5.2,SNR=2.7						

IDC 14 18:54:27.6±5.9, **47.42N**×**156.28E, h41**^{km}±53^{km}, **mb3.5**/7, **mb1 3.7**/8, **mb1mx3.4**/23, **mbtmp3.5**/8, **ML3.1**/1, **MS2.8**/1, **Ms1 2.8**/1, **ms1mx2.5**/22, **Error ellipse: s-maj=28.2km s-min=27.9km az=173.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAJ	Asahikawa	10.12	256	P	Pn	18 56 50.0	-0.1
	0.2nm,0.3s,baz=136,slow=27,SNR=2.4						
ASAJ				LR	LR	19 00 32.6	
	comp=Z,57nm,19.2s,baz=5.6,slow=36						
MKAR	Makanchi Array	48.54	298	P	P	19 03 06.3	-0.1
	0.5nm,0.7s,baz=73,slow=7.5,SNR=7.3						
ARCES	ARCESS Array B	57.91	342	P	P	19 04 15.4	+0.5
	1.6nm,0.9s,baz=22,slow=9.7,SNR=3.5						
PDAR	Pinedale Array	62.59	56	P	P	19 04 47.0	-0.2
	0.2nm,0.4s,baz=325,slow=4.5,SNR=2.7						
FINES	FINESS Array B	64.33	336	P	P	19 04 58.8	+0.4
	0.9nm,0.8s,baz=58,slow=8.4,SNR=2.8						
AKASG	Malin Array Be	72.16	328	P	P	19 05 46.9	-0.7
	0.3nm,0.4s,baz=34,slow=6.3,SNR=3.7						
ASAR	Alice Springs	73.58	201	P	P	19 05 56.4	+0.2
	0.4nm,0.8s,baz=4.8,slow=5.8,SNR=8.0						
TXAR	Lajitas Array	75.27	63	P	P	19 06 07.0	+0.7
	0.6nm,0.6s,baz=288,slow=4.4,SNR=6.0						

IDC 14 19:00:22.6±1.9, **0.77N**×**125.57E, h0**^{km}, **mb3.2**/3, **mb1 3.4**/3, **mb1mx3.2**/17, **mbtmp3.2**/3, **Error ellipse: s-maj=178.3km s-min=24.3km az=64.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.31	158	P	P	19 05 21.6	-0.3
	0.5nm,0.6s,baz=336,slow=10,SNR=18						
ASAR	Alice Springs	25.60	162	P	P	19 05 54.1	+0.3
	0.1nm,0.3s,baz=346,slow=12,SNR=7.7						
MKAR	Makanchi Array	59.35	327	P	P	19 10 26.6	+0.1
	0.1nm,0.4s,baz=117,slow=7.8,SNR=9.1						

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*CSEM **14** 19:08:26.9±0.1, 38.46N×39.11E, h10^{km}, MD2.7, Error ellipse: s-maj=1.6km s-min=1.3km az=142.0*

*DDA **14** 19:08:26.9, 38.35N×39.09E, h7^{km}±5^{km}, Md2.8*

*ISCJB **14** 19:08:27.7±0.7, 38.42N±0.04×39.13E±0.05, h1^{km}±9^{km}, Error ellipse: s-maj=7.7km s-min=5.3km az=145.9*

*ISK **14** 19:08:27.2, 38.45N×39.11E, h7^{km}, MD2.7*

ISC 14 19:08:28.4±0.6, **38.45N**±0.05×**39.11E**±0.05, **h7**^{km}±7^{km}, **n13, σ0^{s}.92**/21, **1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.11	297	⇑iP	Pg	19 08 30.9	+0.1
ELZG				i S	Sg	19 08 33.3	+0.9
PTK	Pertek	0.49	27	PG	Pg	19 08 37.1	-0.9
PTK				SG	Sg	19 08 44.9	+0.4
PTK	Pertek	0.49	27	ePg	Pg	19 08 37.1	-0.9
PTK				eSg	Sg	19 08 44.9	+0.4
MYA	Malataya	0.55	257	PG	Pg	19 08 38.2	-0.8
MYA				SG	Sg	19 08 46.6	+0.4
MYA	Malataya	0.55	257	ePg	Pg	19 08 38.2	-0.8
MYA				eSg	Sg	19 08 46.6	+0.4
URFA	Urfa	1.03	193	PG	Pg	19 08 47.5	-0.7
URFA	Urfa	1.03	193	ePg	Pg	19 08 47.5	-0.7
DIY	Diyarbakir	1.04	122	ePG	Pg	19 08 47.5	-0.9
DIY	Diyarbakir	1.04	122	ePg	Pg	19 08 47.5	-0.9
EZC	Erzincan	1.41	23	ePN	Pn	19 08 53.2	-1.3
GZT	Gaziantep	1.64	229	eP	Pg	19 09 00.6	+0.8
GZT				i S	Sn	19 09 18.4	-0.5
BNGL	BINGOL	1.68	72	eP	Pn	19 08 59.7	+1.6
BNGL				i S	Sg	19 09 27.7	+5.4
MARD	Mardin	1.74	130	i P	Pn	19 08 58.4	-0.7
MARD				i S	Sn	19 09 23.2	+1.7

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*ISCJB **14** 19:19:16.8±0.5, 40.43N±0.03×28.69E±0.03, h1^{km}±6^{km}, Error ellipse: s-maj=5.3km s-min=3.7km az=173.6*

*CSEM **14** 19:19:16.6±0.1, 40.40N×28.68E, h10^{km}, MD2.9, Error ellipse: s-maj=1.9km s-min=1.2km az=166.0*

*DDA **14** 19:19:16.8, 40.38N×28.68E, h11^{km}±4^{km}, Md2.5*

*ISK **14** 19:19:16.7, 40.41N×28.69E, h8^{km}, MD2.9*

ISC 14 19:19:17.3±0.4, **40.43N**±0.03×**28.69E**±0.03, **h5**^{km}±5^{km}, **n37, σ0^{s}.64**/46, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCT	Karacabey	0.30	237	i PG	Pg	19 19 23.3	+0.2
KCT				i SG	Sg	19 19 27.5	+0.4
KCT	Karacabey	0.30	237	i Pg	Pg	19 19 23.3	+0.2
KCT				i Sg	Sg	19 19 27.5	+0.4
GEMT	Gemlik	0.38	89	i PG	Pg	19 19 24.6	-0.1
GEMT				i SG	Sg	19 19 30.5	+0.8
GEMT	Gemlik	0.38	89	i Pg	Pg	19 19 24.6	-0.1
GEMT				i Sg	Sg	19 19 30.5	+0.8
ULDT	Uludag	0.45	130	i P	Pg	19 19 25.4	-0.5
ULDT				i S	Sg	19 19 31.6	-0.2
YLV	Yalova	0.54	75	i PG	Pg	19 19 27.3	-0.4
YLV	Yalova	0.54	75	i Pg	Pg	19 19 27.3	-0.4
BNT	Bandirma	0.59	263	i PG	Pg	19 19 28.5	-0.2
IZI	Iznik	0.61	99	i PG	Pg	19 19 28.7	-0.2
IZI	Iznik	0.61	99	i Pg	Pg	19 19 28.7	-0.2
EDC	Edincik	0.64	263	i PG	Pg	19 19 29.1	-0.4
EDC	Edincik	0.64	263	i Pg	Pg	19 19 29.1	-0.4
ISK	Istanbul-Kandi	0.69	24	PG	Pg	19 19 31.1	+0.5
ISK	Istanbul-Kandi	0.69	24	ePg	Pg	19 19 31.1	+0.5
CTT	Catalca	0.74	345	PG	Pg	19 19 32.1	+0.5
CTT	Catalca	0.74	345	ePg	Pg	19 19 32.1	+0.5
ADVT	Abdulvahap	0.80	89	PG	Pg	19 19 32.3	-0.4
ADVT	Abdulvahap	0.80	89	ePg	Pg	19 19 32.3	-0.4
DST	Dursunbey	0.82	183	PG	Pg	19 19 32.9	-0.2
DST	Dursunbey	0.82	183	ePg	Pg	19 19 32.9	-0.2
BTOK	Tokmak	0.84	217	i P	Pg	19 19 32.8	-0.5
BTOK				i S	Sg	19 19 44.4	+0.2
HRT	Hereke	0.84	62	PG	Pg	19 19 33.7	+0.2
HRT	Hereke	0.84	62	ePg	Pg	19 19 33.7	+0.2
KLYT	Kilyos	0.86	18	PG	Pg	19 19 34.1	+0.2
KLYT	Kilyos	0.86	18	ePg	Pg	19 19 34.1	+0.2
SART	Tekirdag	1.18	283	i P	Pg	19 19 38.7	-1.2
SART				i S	Sg	19 19 56.5	+1.4
RKY	Sarkoy-Tekirda	1.18	283	ePN	Pn	19 19 39.5	-0.9
RKY	Sarkoy-Tekirda	1.18	283	ePn	Pn	19 19 39.5	-0.9
GULT	Gulveren	1.39	89	ePN	Pn	19 19 43.0	-0.3
GULT	Gulveren	1.39	89	ePn	Pn	19 19 43.0	-0.3
BORA	Eskisehir	1.46	112	eP	Pn	19 19 43.4	-0.8
GDZ	Gediz	1.47	155	i P	Pn	19 19 46.0	+1.7
GDZ				i S	Sn	19 20 04.9	+0.9
GDZ	Gediz	1.47	155	i P	Pn	19 19 46.0	+1.6
GDZ				i S	Sn	19 20 04.9	+0.9
ESKT	Eskisehir	1.89	118	ePN	Pn	19 19 50.1	-0.1
ESKT	Eskisehir	1.89	118	ePn	Pn	19 19 50.1	-0.1
EZN	Ezine	1.91	252	ePN	Pn	19 19 49.9	-0.5
EZN	Ezine	1.91	252	ePn	Pn	19 19 49.9	-0.5

IDC 14 19:31:15.1±6.3, **15.93N**×**96.56E, h0**^{km}, **mb3.3**/4, **mb1 3.5**/4, **mb1mx3.2**/21, **mbtmp3.3**/4, **Error ellipse: s-maj=421.7km s-min=22.4km az=61.0, Near south coast of Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHG	Chiang Mai	3.66	38	PG	Pg	19 32 50.1	+25
CHG				SG	Sg	19 32 54.1	-19
MKAR	Makanchi Array	32.98	342	P	P	19 37 52.2	+0.5
	0.3nm,0.6s,baz=141,slow=9.3,SNR=3.1						
ZALV	Zalesovo Beam	39.03	349	P	P	19 38 42.9	-0.5
	0.2nm,0.3s,baz=173,slow=8.3,SNR=2.5						
WRA	Warramunga Arr	51.47	133	P	P	19 40 23.3	+0.7
	0.5nm,0.9s,baz=312,slow=8.0,SNR=7.1						
ASAR	Alice Springs	53.67	136	P	P	19 40 38.1	-0.7
	0.1nm,0.4s,baz=312,slow=7.1,SNR=5.5						

KRSC 14 19:32:17.0±0.7, **52.92N**×**160.17E, h39**^{km}±21^{km}, **ML3.7, Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SPN	Mys Shipunski	0.20	334	i P	Pn	19 32 24.0	-0.2
SPN				i S	Sn	19 32 29.2	+0.1
NLC	Nalytchevo	0.56	297	i P	Pn	19 32 28.3	-0.2
NLC				i S	Sn	19 32 37.1	+0.5
PET	Petropavlovsk	0.92	277	eP	Pn	19 32 33.5	+0.1
PET				i S	Sn	19 32 46.1	+0.6
AVH	Avacha	0.93	292	eP	Pn	19 32 34.0	+0.5
AVH				i S	Sn	19 32 47.3	+1.7
RUS	Russkaya	1.12	245	eP	Pn	19 32 36.0	-0.1
RUS				i S	Sn	19 32 50.2	-0.1
KII	Karymskiy	1.20	339	eP	Pn	19 32 37.7	+0.5
KII				i S	Sn	19 32 53.4	+1.2
GNL	Ganaly	1.55	301	eP	Pn	19 32 43.7	+1.7
GNL				i S	Sn	19 33 03.5	+2.7
MKZ	Mys Kozlova	1.88	29	eP	Pn	19 32 46.5	-0.1
MKZ				i S	Sn	19 33 07.7	-1.4
MIPR	Malaya Ipel’ka	2.18	254	eP	Pn	19 32 52.5	+1.8
TUMR	Tumrok	2.37	360	eP	Pn	19 32 54.9	+1.6
TUMR				i S	Sn	19 33 22.9	+1.9
KMNR	Kamenistaya	2.84	1	eP	Pn	19 33 02.1	+2.3
KMNR				i S	Sn	19 33 34.2	+1.5
ZLN	Zelenaya	3.13	7	eP	Pn	19 33 06.4	+2.7
ZLN				i S	Sn	19 33 42.6	+2.9
CIRR	Tsirk	3.22	6	P	Pn	19 33 07.7	+2.7
KBTR	Krutoberegovo	3.64	24	eP	Pn	19 33 12.6	+1.9

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*IDC **14** 19:37:51.7±0.7, 5.25S×77.25W, h0^{km}, mb4.2/11, mb1 4.3/14, mb1mx4.3/22, mbtmp4.1/14, ML4.0/3, Error ellipse: s-maj=21.8km s-min=14.5km az=67.0*

*BJI **14** 19:37:55.0, 5.30S×77.20W, h41^{km}, mB5.1, Ms5.5, Msz5.2*

*ISCJB **14** 19:37:56.5±1.2, 5.23S±0.05×77.10W±0.07, h48^{km}±11^{km}, mb4.7/27, MS4.8/2, Error ellipse: s-maj=12.5km s-min=8.1km az=168.9*

*NEIC **14** 19:37:57.4±1.2, 5.34S×77.23W, h41^{km}±10^{km}, mb5.0/20, Error ellipse: s-maj=16.7km s-min=6.4km az=58.0*

ISC 14 19:37:58.2±0.9, **5.27S**±0.05×**77.10W**±0.07, **h46**^{km}±10^{km}, **n74, σ0^{s}.91**/53, **mb4.7**/27, **MS4.8**/2, **Northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATAH	Atahualpa	2.15	217	Pn	Pn	19 38 30.4	-1.1
	130nm,0.3s,baz=25,slow=11,SNR=174						
ATAH				Sn	Sn	19 38 58.4	+1.3
	160nm,0.3s,baz=67,slow=15,SNR=8.7						
ROSC	El Rosal	10.43	15	eP	Pn	19 40 27.2	+2.0
ROSC	El Rosal	10.43	15	Pn	Pn	19 40 27.1	+1.9
	2.3nm,0.3s,baz=102,slow=15,SNR=13						
ROSC				Lg		19 43 21.4	
	6.8nm,0.3s,baz=248,slow=19,SNR=3.2						
LPAZ	La Paz	14.05	142	eP	Pn	19 41 14.2	-0.5
	6.8nm,0.8s						
LPAZ	La Paz	14.05	142	Pn	Pn	19 41 14.2	-0.5
	0.1nm,0.3s,baz=350,slow=13,SNR=3.7						
LPAZ				Lg		19 45 23.5	
	0.2nm,0.3s,baz=60,slow=20,SNR=2.4						
BCIP	Isla Barro Col	14.59	349	eP	Pn	19 41 21.9	0.0
JTS	JuntasAbangare	17.32	333	Pn	Pn	19 41 55.5	-1.2
	131nm,1.1s,SNR=5.5						
JTS	JuntasAbangare	17.32	333	eP	Pn	19 41 55.1	-1.7
	70nm,1.5s						
SIV	San Ignacio	19.00	125	P	Pn	19 42 15.9	-1.4
	0.4nm,0.3s,baz=310,slow=12,SNR=7.3						
TGUH	Tegucigalpa,Un	21.69	332	eP	P	19 42 46.0	+0.7
SJG	San Juan	25.62	25	eP	P	19 43 24.6	+1.1
	77nm,1.0s,mb5.2						
SJG	San Juan	25.62	25	P	P	19 43 24.8	+1.3
	55nm,0.8s,mb5.1,baz=326,slow=23,SNR=11						
CFAA	Coronel Fontan	27.49	163	P	P	19 43 41.2	+0.9
	0.2nm,0.4s,baz=340,slow=7.2,SNR=4.4						
TEIG	Tepich	27.61	337	P	P	19 43 40.8	-0.6
	11nm,0.9s,mb4.5,baz=176,slow=21,SNR=5.2						
CMIG	Matias Romero	28.32	322	P	P	19 43 46.7	-1.1
CMIG	Matias Romero	28.32	322	P	P	19 43 46.7	-1.1
	1.9nm,0.7s,mb3.8,baz=107,slow=12,SNR=6.7						
LRAL	Lakeview Retre	39.23	347	eP	P	19 45 21.9	-0.2
	58nm,1.5s,mb5.1						
TXAR	Lajitas Array	42.83	325	P	P	19 45 50.8	-1.1
	2.1nm,0.9s,mb3.9,baz=145,slow=8.9,SNR=9.0						
WMOK	Wichita Mounta	44.73	334	eP	P	19 46 07.0	-0.1
	22nm,1.3s,mb4.8						
MNTX	Cornudas Mount	45.58	326	eP	P	19 46 13.1	-0.8
	13nm,1.4s,mb4.7						
BNM	Barren Site	48.11	327	eP	P	19 46 34.6	+1.0
CBKS	Cedar Bluff	48.61	336	eP	P	19 46 38.5	+1.2
	62nm,1.4s,mb5.4						
ANMO	Albuquerque	48.62	328	eP	P	19 46 37.9	+0.4
	10nm,1.0s,mb4.8						
SCIA	State Center	49.19	344	eP	P	19 46 40.2	-1.6
	27nm,1.0s,mb5.2						
SDCO	Great Sand Dun	50.29	331	eP	P	19 46 50.7	+0.5
	77nm,1.6s,mb5.5						
WUAZ	Wupatki	51.78	324	eP	P	19 47 02.2	+0.8
	15nm,1.0s,mb4.9						
PV01	Paradox Valley	52.14	329	eP	P	19 47 02.6	-1.5
MSU	Marysvale	54.35	326	eP	P	19 47 21.4	+1.1
EYMN	Ely	54.48	348	eP	P	19 47 18.6	-2.4
	19nm,1.3s,mb4.9						
AGMN	Agassiz Refuge	55.82	345	eP	P	19 47 29.9	-0.8
	32nm,1.2s,mb5.2						
DUG	Dugway	55.89	327	eP	P	19 47 32.3	+0.9
	15nm,1.3s,mb4.9						
PDAR	Pinedale Array	56.14	332	P	P	19 47 32.5	-0.6
	1.9nm,0.9s,mb4.1,baz=128,slow=9.6,SNR=10.0						
ULM	Lac du Bonnet	57.63	346	eP	P	19 47 42.4	-1.1
	25nm,1.1s,mb5.2						
ULM	Lac du Bonnet	57.63	346	P	P	19 47 42.9	-0.6
	14nm,1.0s,mb4.9,baz=155,slow=7.2,SNR=18						
NVAR	Mina Array Bea	57.85	322	P	P	19 47 45.2	-0.2
	1.3nm,0.7s,mb4.1,baz=134,slow=7.6,SNR=6.5						
GCMT	Greycliff	58.52	334	P	P	19 47 49.6	-0.2
QLMT	Earthquake Lak	58.59	332	eP	P	19 47 51.9	+1.5
HLID	Hailey	59.12	329	eP	P	19 47 54.4	+0.3
	6.3nm,1.1s,mb4.6						
EGMT	Eagleton	60.31	335	eP	P	19 48 02.1	0.0
	34nm,1.5s,mb5.2						
MSO	Missoula	61.25	332	eP	P	19 48 08.9	+0.3
	21nm,1.5s,mb5.0						
BMO	Blue Mountains	61.51	329	eP	P	19 48 10.0	-0.4
	5.3nm,1.3s,mb4.5						
WALA	Waterton Lakes	62.88	334	eP	P	19 48 19.6	+0.1
	9.6nm,0.8s,mb5.0						
EDM	Edmonton	65.79	337	eP	P	19 48 38.4	0.0
YKA	Yellowknife Ar	73.38	343	P	P	19 49 25.0	0.0
	1.5nm,0.8s,mb4.0,baz=139,slow=5.7,SNR=16						
VNA3	Neumayer Olymp	77.89	162	eP	P	19 49 50.8	+0.1
VNA3				e	pP	19 49 59.4	-4.8
VNA3				e	pP	19 50 01.7	-2.5
VNA2	Neumayer--Watz	78.49	162	eP	P	19 49 53.4	-0.7
VNA2				e	pP	19 50 02.6	-4.9
VNA2				e	pP	19 50 05.7	-1.8
TORD	Torodi Ar. Bea	80.34	76	P	P	19 50 06.0	+0.7
	5.9nm,1.1s,mb4.5,baz=274,slow=5.5,SNR=19						
ESDC	Sonseca Array	80.51	48	P	P	19 50 06.4	+0.8
	0.6nm,0.6s,mb3.7,baz=270,slow=5.1,SNR=2.6						
DAWY	Dawson	83.00	337	eP	P	19 50 19.2	+1.0
INK	Inuvik	83.10	342	eP	P	19 50 18.4	-0.2
	765nm,1.4s						
EGAK	Eagle	84.01	337	eP	P	19 50 23.4	0.0
	28nm,1.4s,mb5.2						
IMA2	Indian Mountai	89.37	337	eP	P	19 50 50.0	+0.5
ZALV	Zalesovo Beam	129.28	14	PKP	PKPdf	19 57 01.4	-0.1
ZALV	Zalesovo Beam	129.28	14	PKP	PKPdf	19 57 01.4	-0.1
	1.6nm,0.8s,baz=299,slow=1.5,SNR=10.0						
KURK	Kurchatov	130.35	20	ePKPdf	PKPdf	19 57 03.6	0.0
MKAR	Makanchi Array	134.97	20	PKP	PKPdf	19 57 12.9	+0.4
MKAR	Makanchi Array	134.97	20	PKP	PKPdf	19 57 12.9	+0.4
	0.4nm,0.7s,baz=346,slow=2.5,SNR=5.1						
AAK	Ala-Archa	135.07	30	ePKPdf	PKPdf	19 57 14.4	+1.6
SONM	Songino Array	137.48	357	PKP	PKPdf	19 57 16.8	-0.3
SONM	Songino Array	137.48	357	PKP	PKPdf	19 57 16.8	-0.3
	0.6nm,0.8s,baz=339,slow=0.8,SNR=4.6						
ASAR	Alice Springs	138.26	225	PKP	PKPdf	19 57 17.8	-1.5
ASAR	Alice Springs	138.26	225	PKhKP		19 57 10.3	
	0.5nm,0.9s,baz=121,slow=3.3,SNR=5.4						
ASAR				PKP	PKPdf	19 57 17.8	-1.5
	1.0nm,0.9s,baz=140,slow=3.0,SNR=8.5						
WMQ	Urumqi	139.33	17	ePKP	PKPdf	19 57 21.0	+0.4
WB2	Warramunga Arr	140.20	230	ePKPdf	PKPdf	19 57 21.8	-1.1
WRA	Warramunga Arr	140.21	230	PKP	PKPdf	19 57 19.6	-3.3
WRA	Warramunga Arr	140.21	230	PKhKP		19 57 19.6	
	1.0nm,0.8s,baz=116,slow=2.4,SNR=7.0						
BJI	Beijing	143.37	343	PKP	PKPdf	19 57 24.9	-3.1
BJI	Beijing	143.37	343	PKP	PKPdf	19 57 24.9	-3.1
LZH	Lanzhou	149.31	358	ePKP	PKPdf	19 57 39.4	+1.3
LZH				APKP		19 57 48.5	
LZH				XPKP		19 57 52.3	
LZH	Lanzhou	149.31	358	ePKP	PKPdf	19 57 39.4	+1.3
LZH				pPKP	pPKPdf	19 57 48.5	-3.8
LZH				sPKP		19 57 52.2	
LZH				LR	LR		
	comp=Z,70nm,20.3s,MS4.5						
WHN	Wuhan	152.64	338	PKP	PKPdf	19 57 42.9	-0.5
CD2	Chengdu	154.48	358	ePKP	PKPdf	19 57 44.8	-1.2
CD2				APKP		19 57 54.0	
CD2				XPKP		19 57 59.8	
CD2				PKP2	PKPab	19 58 09.9	+1.2
CD2				PP	PP	20 01 46.5	+4.0
CD2				SKS	SKSdf	20 04 46.1	-3.3
CD2				PP	PP		
	comp=Z,100nm,8.6s						
GYA	Guiyang	158.62	351	PKP	PKPdf	19 57 49.6	-1.9
GYA				APKP		19 58 02.6	
GYA				XPKP		19 58 07.0	
GYA				PKP2	PKPab	19 58 27.5	+0.9
GYA				PKS		20 01 22.4	
GYA				PP	PP	20 02 08.8	+3.3
GYA				SKKS	SKKSac	20 08 51.4	-1.1
GYA				PP	PP		
	comp=Z,210nm,8.7s						
GYA				LR	LR		
	comp=N,380nm,20.6s,MS5.3						
GYA				LR	LR		
	comp=E,240nm,21.2s,MS5.3						
GYA				LR	LR		
	comp=Z,290nm,22.9s,MS5.1						
KMI	Kunming	160.25	0	PKP	PKPdf	19 57 51.5	-2.0

IDC 14 19:42:04.6±8.2, **21.97N**×**143.22E, h0**^{km}, **mb3.4**/5, **mb1 3.6**/5, **mb1mx3.4**/21, **mbtmp3.4**/5, **Error ellipse: s-maj=331.5km s-min=23.1km az=76.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	39.15	320	P	P	19 49 34.1	+0.2
	0.4nm,0.5s,baz=123,slow=7.2,SNR=3.9						
WRA	Warramunga Arr	42.55	192	P	P	19 50 02.0	-0.1
	0.4nm,0.7s,baz=13,slow=8.8,SNR=4.6						
ASAR	Alice Springs	46.26	192	P	P	19 50 31.9	+0.1
	0.3nm,0.6s,baz=20,slow=9.4,SNR=9.0						
ZALV	Zalesovo Beam	54.02	322	P	P	19 51 30.2	-0.2
	0.2nm,0.4s,baz=95,slow=4.8,SNR=3.6						
MKAR	Makanchi Array	54.54	313	P	P	19 51 34.5	+0.1
	0.3nm,0.8s,baz=98,slow=7.4,SNR=3.3						

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*BJI **14** 19:49:52.5, 0.04N×97.16E, h10^{km}, mB5.7, mb5.3, Ms6.2, Msz5.9*

*IDC **14** 19:49:56.0±0.4, 0.42N×97.28E, h0^{km}, mb5.0/24, mb1 5.0/25, mb1mx5.0/26, mbtmp5.0/25, ML3.5/1, MS5.3/27,* *Ms1 5.3/27, ms1mx5.2/34, Error ellipse: s-maj=14.9km s-min=12.1km az=54.0*

ISCJB ***14*** *19:49:57.1±0.2, 0.41N±0.03×97.33E±0.02, h16^{km}, mb5.3/208, MS5.7/237, Error ellipse: s-maj=4.1km s-min=3.0km az=13.0*

SZGRF ***14*** *19:49:57.4, 0.17S×96.52E, h33^{km}, mb5.4, Southwest of Sumatera, Indonesia*

NEIC ***14*** *19:49:58.7±0.1, 0.43N×97.31E, h16^{km}, mb5.4/113, ME5.3, MS5.7/182, MW5.6, Error ellipse: s-maj=4.2km s-min=3.3km az=207.0, Moment Tensor Solution. s31 Moment tensor: Scale 10^{17}Nm; M_{rr}2.19; $M_{\theta\theta}$-2.58; $M_{\phi\phi}$0.38; $M_{r\theta}$0.98; $M_{\theta\phi}$0.84; $M_{\phi r}$0.85; Best double couple: $M_0$2.90000×10^{17} NP1:ϕ_s309.00000°, δ42.00000°, λ129.00000°. NP2:ϕ_s81.00000°, δ58.00000°, λ60.00000°. Principal axes: T 2.8100, Plg63.0000°, Azm300.0000°; N 0.1000, Plg25.0000°, Azm98.0000°; P -2.9100, Plg9.0000°, Azm192.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from CMT mechanism.*

GCMT ***14*** *19:50:00.8±0.1, 0.33N×97.22E, h12^{km}, MW5.7/100, Moment Tensor Solution. s83,c148; s100,c285; Duration: 1.7s Moment tensor: Scale 10^{17}Nm; M_{rr}3.83±.04; $M_{\theta\theta}$-2.98±.03; $M_{\phi\phi}$-0.84±.05; $M_{r\theta}$1.90±.10; $M_{\theta\phi}$2.19±.03; $M_{\phi r}$0.36±.12; Best double couple: $M_0$4.54600×10^{17} NP1:ϕ_s320.00000°, δ38.00000°, λ119.00000°. NP2:ϕ_s105.00000°, δ57.00000°, λ69.00000°. Principal axes: T 4.4940, Plg70.0000°, Azm328.0000°; N 0.1070, Plg17.0000°, Azm116.0000°; P -4.5980, Plg10.0000°, Azm209.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

MOS ***14*** *19:50:00.6±0.9, 0.50N×97.36E, h40^{km}, mb5.6/93, MS5.6/50 Error ellipse: s-maj=8.1km s-min=4.0km az=117.1*

ISC 14 19:49:57.1±0.8**, 0.38N**±0.03×**97.26E**±0.02**, h6**^{km}±5^{km}**, h25**^{km}±2.7^{km}**:pP-P, n764, σ0.95**/598**, mb5.3**/208**, MS5.7**/237**, 117C-28D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PSI	Prapat	2.92	35	Pn	Pn	19 50 43.1	-1.0
PSI	Prapat	2.92	35	Pn	Pn	19 50 43.1	-1.0
	8.4nm,0.3s,baz=196,slow=8.9,SNR=91						
TSI	Tuntungan	3.36	23	P	Pn	19 50 49.7	-0.5
	1µm,0.8s						
FRIM	Kepong	5.20	57	⇑P	Pn	19 51 16.9	+1.4
BSI	Banda Aceh	5.45	339	P	Pn	19 51 16.4	-2.5
	225nm,1.1s						
IPM	Ipoh	5.54	43	⇑P	Pn	19 51 21.7	+1.5
KULM	Kulim	5.93	35	⇑ePn	Pn	19 51 25.3	-0.3
KULM	Kulim	5.93	35	⇑P	Pn	19 51 25.8	+0.2
KGM	Kluang	6.27	75	⇓P	Pn	19 51 31.8	+1.6
KSI	Kapahiang	6.67	127	P	Pn	19 51 35.7	0.0
	2µm,0.8s						
MYKOM	Kota Tinggi	6.73	78	⇓P	Pn	19 51 38.9	+2.3
KTGM	Kuala Trenggan	7.65	50	⇓P	Pn	19 51 50.3	+1.1
PKT	Phuket	7.70	7	P	Pn	19 51 49.5	-0.4
KLI	Kotabumi	9.20	125	P	Pn	19 52 12.4	+1.9
	703nm,0.9s						
TPI	Tanjungpandan	10.84	107	P	Pn	19 52 34.1	+1.0
	60nm,0.8s						
SBJI	Serang	10.96	126	P	Pn	19 52 39.4	+4.8
	223nm,1.2s						
CBJI	Citeko	11.71	125	P	Pn	19 52 44.7	-0.3
	479nm,1.0s						
PBA	Port Blair	12.06	338	eP	Pn	19 52 47.3	-2.5
PBA				AMb	AMB	19 53 21.9	
	comp=Z,63nm,1.7s						
PBA				ex	x	19 56 25.8	
NNT	Nongplab	12.37	11	P	Pn	19 52 54.0	0.0
LEM	Lembang	12.57	125	P	Pn	19 52 57.6	+0.9
	comp=Z,144nm,1.2s						
KSM	Kuching	13.09	85	⇑P	Pn	19 53 09.1	+5.3
BJII	Banjamegara	14.59	122	P	Pn	19 53 30.2	+5.9
	comp=Z,55nm,0.9s						
SBUM	Sibu	15.09	82	⇑P	Pn	19 53 32.0	+0.9
NST	Nakhon Sawan	15.45	10	P	Pn	19 53 38.0	+2.1
	comp=Z,58nm,0.7s						
BTM	Bintulu	16.05	80	⇓P	Pn	19 53 45.2	+1.4
KKTK	Khon Kaen	16.77	19	⇑P	Pn	19 53 53.0	+0.1
	comp=Z,617nm,0.5s						
BDT	Bhumibol Dam	16.84	6	P	Pn	19 53 56.0	+2.3
	comp=Z,24nm,1.0s						
PALK	Pallekele	17.88	293	P	Pn	19 54 08.4	+1.7
	comp=Z,254nm,1.0s,SNR=21						
PALK	Pallekele	17.88	293	eP	Pn	19 54 08.1	+1.4
	comp=Z,94nm,1.3s						
KMMI	Kalianget	18.23	114	P	Pn	19 54 08.6	-2.4
	comp=Z,62nm,0.9s						
CHG	Chiang Mai	18.39	5	⇑P	Pn	19 54 09.0	-3.9
	comp=Z,146nm,1.1s						
CHTO	Chiang Mai	18.39	5	eP	Pn	19 54 11.2	-1.8
	comp=Z,59nm,1.0s						
CHTO	Chiang Mai	18.39	5	eP	Pn	19 54 11.2	-1.7
CHTO				pmax	pmax		
	comp=Z,59nm,1.0s						
NANT	Nan	18.61	10	⇓P	Pn	19 54 13.0	-2.6
	comp=Z,450nm,1.0s						
CHRT	Chiangrai	19.52	7	⇑P	Pn	19 54 25.0	-1.6
	comp=Z,460nm,0.7s						
KKM	Kota Kinabalu	19.73	73	eP	Pn	19 54 28.7	-0.6
KKM	Kota Kinabalu	19.73	73	⇓P	Pn	19 54 28.7	-0.6
TARAI	Tarakan	20.50	82	P	P	19 54 36.0	-0.2
	comp=Z,200nm,0.9s						
KDM	Kudat	20.57	71	⇑P	P	19 54 37.1	+0.2
SDKM	Sandakan	20.57	75	⇑P	P	19 54 37.2	+0.3
TSM	Tawau	20.95	79	⇑P	P	19 54 40.7	-0.3
MDRS	Chennai	21.05	307	ex	x	19 54 02.0	
MYLDM	Lahad Datu	21.73	77	⇑P	P	19 54 50.6	+1.1
TRD	Trivandrum	21.78	292	eP	P	19 54 48.6	-1.4
TRD				AMb	AMB	19 55 15.2	
	comp=Z,220nm,0.4s,mb5.9						
KOD	Kodaikanal	21.99	297	eP	P	19 54 54.3	+2.1
VIS	Vishakhapatnam	22.02	322	eP	P	19 54 54.1	+1.7
VIS				AMb	AMB	19 55 13.2	
	comp=Z,234nm,1.8s,mb5.3						
VIS				ex	x	19 59 03.0	
QIZ	Qiongzhong	22.26	33	P	P	19 54 54.3	-0.8
QIZ				S	S	19 59 03.4	+2.7
QIZ				LR	LR		
	comp=N,31µm,15.4s,MS6.1						
QIZ				LR	LR		
	comp=E,39µm,14.1s,MS6.1						
QIZ				LR	LR		
	comp=Z,23µm,14.3s,MS5.8						
QIZ	Qiongzhong	22.26	33	eP	P	19 54 53.4	-1.7
	comp=Z,30nm,0.9s,mb4.7						
QIZ				LR	LR		
	comp=Z,10µm,19.0s,MS5.2						
PCI	Palu	22.61	93	P	P	19 54 57.3	-1.6
	comp=Z,85nm,1.6s,mb4.9						
AGT	Agartala	24.08	346	iP	P	19 55 13.0	-0.5
AGT				ix	x	19 56 20.0	
IMP	Imphal	24.47	353	eP	P	19 55 17.0	-0.1
HYB	Hyderabad	25.01	314	eP	P	19 55 23.5	+1.4
	comp=Z,75nm,1.0s,mb5.2						
HYB				eS	S	20 00 12.0	+25
HYB	Hyderabad	25.01	314	eP	P	19 55 23.5	+1.4
HYB				pmax	pmax		
	comp=Z,75nm,1.0s,mb5.2						
HYB	Hyderabad	25.01	314	iP	P	19 55 23.5	+1.4
	comp=Z,75nm,1.0s,mb5.2						
HYB				eS	S	19 59 56.0	+9.3
HYB				LR	LR	20 05 00.0	
	comp=Z,12nm,16.0s						
KMI	Kunming	25.16	12	⇑P	P	19 55 24.4	+1.1
KMI				XP	sP	19 55 26.8	+1.0
KMI				PP		19 56 02.9	
KMI				AMB	AMB		
	comp=Z,61nm,0.8s,mb5.2						
KMI				AMB	AMB		
	comp=Z,1µm,4.2s						
KMI				LR	LR		
	comp=N,39µm,11.1s,MS6.2						
KMI				LR	LR		
	comp=E,26µm,15.5s,MS6.2						
KMI				LR	LR		
	comp=Z,42µm,11.5s,MS6.2						
KMI	Kunming	25.16	12	⇑P	P	19 55 24.4	+1.1
	comp=Z,61nm,0.8s,mb5.2						
KMI				sP	sP	19 55 26.8	+1.0
KMI				PP		19 56 02.9	
KMI				PPP		19 56 13.9	
KMI				S	S	19 59 47.6	-1.3
KMI				sS	sS	19 59 50.4	-1.3
KMI				SS		20 00 47.8	
KMI				SSS		20 01 04.6	
KMI				ScP	ScP	20 02 38.3	+0.8
KMI				PcS	PcS	20 02 38.9	+0.9
KMI				LR	LR		
	comp=Z,42µm,11.5s,MS6.2						
KMI	Kunming	25.16	12	⇑P	P	19 55 24.4	+1.1
KMI						19 56 02.9	
KMI				PPP		19 56 13.9	
KMI				S	S	19 59 47.6	-1.3
KMI				SS		20 00 47.8	
KMI				SSS		20 01 04.6	
KMI				pmax	pmax		
	comp=Z,61nm,0.8s,mb5.2						
KMI				MLR	MLR		
	comp=Z,42µm,11.5s,MS6.2						
MNGI	Mangalore	25.50	300	iP	P	19 55 27.1	+0.4
MNGI				AMb	AMB	19 55 49.6	
	comp=Z,76nm,1.9s,mb4.9						
MNGI				ix	x	20 00 14.3	
SHL	Shillong	25.57	349	eP	P	19 55 25.2	-1.8
SHL				AMb	AMB	19 55 28.4	
	comp=Z,221nm,1.0s,mb5.7						
SHL				ex	x	20 00 14.0	
BOK	Bokaro	25.76	335	eP	P	19 55 30.1	+1.2
BOK				AMb	AMB	19 55 57.9	
	comp=Z,170nm,1.1s,mb5.5						
BOK				eS	S	20 00 00.8	+2.4
BLSP	Bilaspur	26.16	327	eP	P	19 55 33.8	+1.3
BLSP				AMb	AMB	19 55 35.9	
	comp=Z,128nm,0.7s,mb5.5						
BLSP				eS	S	20 00 02.1	-2.8
TGY	Tagaytay City	27.10	59	LR	LR	20 06 01.2	
	comp=Z,37nm,18.0s,baz=239,slow=36						
NGP	Nagpur	27.25	320	iP	P	19 55 42.9	+0.6
NGP				ex	x	19 55 46.4	
	comp=Z,48nm,1.8s						
NGP				ex	x	20 00 33.0	
HKC	Hong Kong Obse	27.31	36	P	P	19 55 50.0	+7.1
GZH	Guangzhou	27.45	34	P	P	19 55 47.3	+3.2
GZH				LR	LR		
	comp=N,16µm,16.4s,MS6.0						
GZH				LR	LR		
	comp=E,24µm,15.5s,MS6.0						
GZH				LR	LR		
	comp=Z,19µm,18.0s,MS5.7						
GYA	Guiyang	27.46	19	⇑iP	P	19 55 46.3	+2.2
GYA				AMB	AMB		
	comp=Z,190nm,0.8s,mb5.7						
GYA				LR	LR		
	comp=N,25µm,15.8s,MS6.0						
GYA				LR	LR		
	comp=E,25µm,15.0s,MS6.0						
GYA				LR	LR		
	comp=Z,30µm,16.6s,MS5.9						
JBP	Jabalpur	28.19	325	⇑iP	P	19 55 50.8	0.0
JBP				ex	x	19 56 13.2	
	comp=Z,67nm,1.7s						
JBP				iS	S	20 00 39.7	+2.8
KAD	Karad	28.27	308	eP	P	19 55 52.7	+1.2
AKL	Akola	28.28	317	⇓iP	P	19 55 53.7	+2.2
AKL				ex	x	19 56 12.3	
	comp=Z,51nm,1.7s						
AKL				ix	x	20 00 55.8	
ALBI	Allahabad	28.93	330	eP	P	19 55 56.0	-1.3
DAV	Davao City (W)	29.01	76	PFAKE		19 56 10.0	+12
DAV				LR	LR		
	comp=Z,10µm,20.0s,MS5.4						
POO	Poona	29.22	309	eP	P	19 56 01.4	+1.4
POO				AMb	AMB	19 56 06.0	
	comp=Z,49nm,1.5s,mb5.0						
LSA	Lhasa	29.73	349	P	P	19 56 06.0	+1.7
LSA				AP	pP	19 56 13.3	+7.2
LSA				XP	sP	19 56 16.0	+9.2
LSA				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.1						
LSA				AMB	AMB		
	comp=Z,730nm,8.0s						
LSA				LR	LR		
	comp=N,4µm,21.0s,MS5.4						
LSA				LR	LR		
	comp=E,9µm,17.0s,MS5.4						
LSA				LR	LR		
	comp=Z,8µm,19.0s,MS5.4						
LSA	Lhasa	29.73	349	eP	P	19 56 05.5	+1.1
	comp=Z,209nm,1.3s,mb5.7						
LSA				LR	LR		
	comp=Z,10µm,20.0s,MS5.5						
BHPL	Bhopal	29.80	321	eP	P	19 56 06.4	+1.4
BOM	Bombay	30.23	309	eP	P	19 56 07.9	-1.0
BOM				ex	x	19 56 12.5	
	comp=Z,86nm,0.9s						
BOM				ex	x	19 59 09.9	
MBWA	Marble Bar	30.67	136	PFAKE		19 56 20.0	+7.3
MBWA				LR	LR		
	comp=Z,5µm,22.0s,MS5.2						
CD2	Chengdu	30.98	11	P	P	19 56 14.6	-0.8
CD2				AP	pP	19 56 17.8	+0.7
CD2				XP	sP	19 56 20.8	+3.0
CD2				PP	PP	19 57 16.6	-8.8
CD2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.4						
CD2				AMB	AMB		
	comp=Z,550nm,4.6s						
CD2				LR	LR		
	comp=N,40µm,13.2s,MS6.4						
CD2				LR	LR		
	comp=E,38µm,14.4s,MS6.4						
CD2				LR	LR		
	comp=Z,56µm,13.8s,MS6.4						
AAI	Ambon	31.17	98	P	P	19 56 15.7	-1.7
	comp=Z,62nm,1.0s,mb5.4						
QZH	Quanzhou	31.96	39	⇑iP	P	19 56 25.8	+1.7
QZH				S	S	20 01 38.3	+2.3
QZH				AMB	AMB		
	comp=Z,160nm,1.0s,mb5.8						
QZH				AMB	AMB		
	comp=Z,2µm,3.8s						
QZH				LR	LR		
	comp=N,46µm,15.4s,MS6.4						
QZH				LR	LR		
	comp=E,36µm,14.8s,MS6.4						
QZH				LR	LR		
	comp=Z,36µm,11.0s,MS6.3						
LGTI	Lohaghat	33.15	332	iP	P	19 56 34.3	-0.2
NACB	Ninganchiao	33.39	43	eP	P	19 56 36.6	-0.1
	comp=Z,93nm,1.2s,mb5.6						
FITZ	Fitzroy Crossi	33.41	125	eP	P	19 56 36.2	-0.7
	comp=Z,26nm,0.8s,mb5.2						
YHNB	Yeheng	33.58	42	eP	P	19 56 35.2	-3.0
TATO	Taipei	33.86	42	PFAKE		19 56 50.0	+9.3
TATO				LR	LR		
	comp=Z,10µm,19.0s,MS5.6						
AJM	Ajmer	33.87	322	eP	P	19 56 41.7	+0.9
AJM				AMb	AMB	19 56 59.0	
	comp=Z,96nm,1.3s,mb5.6						
NDI	New Delhi	34.05	327	eP	P	19 56 42.0	-0.3
NDI				AMb	AMB	19 56 43.5	
	comp=Z,41nm,0.9s,mb5.4						
NDI				eS	S	20 02 07.0	-1.4
WHN	Wuhan	34.10	27	P	P	19 56 42.9	+0.1
WHN				AMB	AMB		
	comp=Z,90nm,1.2s,mb5.6						
WHN				AMB	AMB		
	comp=Z,2µm,5.5s						
WHN				LR	LR		
	comp=Z,41µm,11.6s,MS6.4						
BHJ	Bhuj	35.16	312	eP	P	19 56 51.8	-0.2
BHJ				AMb	AMB	19 57 15.0	
	comp=Z,70nm,2.0s,mb5.2						
XAN	Xi’an	35.22	17	P	P	19 56 51.4	-1.0
XAN				AP	pP	19 56 57.8	+3.7
XAN				S	S	20 02 24.5	-1.8
XAN				AMB	AMB		
	comp=Z,78nm,1.1s,mb5.5						
XAN				AMB	AMB		
	comp=Z,462nm,11.3s						
XAN				LR	LR		
	comp=N,8µm,16.8s,MS6.0						
XAN				LR	LR		
	comp=E,22µm,17.3s,MS6.0						
XAN				LR	LR		
	comp=Z,24µm,13.9s,MS6.1						
LZH	Lanzhou	36.04	9	eP	P	19 56 59.9	+0.5
LZH				AP	pP	19 57 03.5	+2.3
LZH				XP	sP	19 57 04.6	+2.7
LZH				AMB	AMB		
	comp=Z,60nm,1.2s,mb5.4						
LZH				AMB	AMB		
	comp=Z,324nm,4.1s						
LZH				LR	LR		
	comp=E,11µm,14.1s						
LZH				LR	LR		
	comp=Z,16µm,15.3s,MS5.9						
LZH	Lanzhou	36.04	9	eP	P	19 56 59.9	+0.5
	comp=Z,60nm,1.2s,mb5.4						
LZH				pP	pP	19 57 03.5	+2.3
LZH				sP	sP	19 57 04.6	+2.7
LZH				PP	PP	19 58 23.3	+1.9
LZH				PcP	PcP	19 59 27.1	+1.3
LZH				eS	S	20 02 40.1	+1.1
LZH				sS	sS	20 02 49.0	+7.2
LZH				SS	SS	20 05 02.0	-14
LZH				LR	LR		
	comp=Z,16µm,15.3s,MS5.9						
LZH	Lanzhou	36.04	9	eP	P	19 56 59.9	+0.5
LZH						19 58 23.3	
LZH						19 59 27.1	
LZH				eS	S	20 02 40.1	+1.1
LZH				SS	SS	20 05 02.0	-14
LZH				pmax	pmax		
	comp=Z,60nm,1.2s,mb5.4						
LZH				MLR	MLR		
	comp=Z,16µm,15.3s,MS5.9						
MUN	Mundaring	36.84	153	eP	P	19 57 12.3	+6.0
KAKA	Kakadu	37.24	112	eP	P	19 57 08.1	-1.8
	comp=Z,6.4nm,0.6s,mb4.6						
KLBR	Kellerberrin	37.26	150	eP	P	19 57 17.3	+7.4
	comp=Z,80nm,1.7s,mb5.3						
NJ2	Nanjing	37.52	31	eP	P	19 57 12.1	0.0
NJ2				AP	pP	19 57 16.8	+2.9
NJ2				XP	sP	19 57 19.0	+4.4
NJ2				PP	PP	19 58 39.9	+2.1
NJ2				S	S	20 02 58.0	-3.7
NJ2				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,390nm,7.4s						
NJ2				LR	LR		
	comp=N,40µm,23.7s,MS6.3						
NJ2				LR	LR		
	comp=E,45µm,22.7s,MS6.3						
NJ2				LR	LR		
	comp=Z,45µm,22.7s,MS6.2						
THN	Thein Dam	37.81	330	eP	P	19 57 14.2	-0.3
SSE	Sheshan	38.04	34	P	P	19 57 16.8	+0.3
SSE				XP	sP	19 57 20.5	+1.5
SSE				S	S	20 03 11.8	+2.2
SSE				XS	sS	20 03 17.3	+4.8
SSE				AMB	AMB		
	comp=Z,36nm,1.3s,mb4.9						
SSE				AMB	AMB		
	comp=Z,389nm,5.8s						
SSE				LR	LR		
	comp=N,16µm,19.9s,MS5.9						
SSE				LR	LR		
	comp=E,9µm,19.9s,MS5.9						
SSE				LR	LR		
	comp=Z,20µm,11.7s						
SSE	Sheshan	38.04	34	P	P	19 57 16.7	+0.2
	comp=Z,36nm,1.3s,mb4.9						
SSE				sP	sP	19 57 20.5	+1.5
SSE				PcP	PcP	19 59 23.2	-8.8
SSE				S	S	20 03 11.8	+2.2
SSE				sS	sS	20 03 17.3	+4.8
SSE				LR	LR		
	comp=Z,20µm,11.7s,MS6.2						
NWAO	Narrogin (SRO)	38.11	152	eP	P	19 57 17.7	+0.7
	comp=Z,65nm,1.3s,mb5.2						
NWAO				LR	LR		
	comp=Z,4µm,19.0s,MS5.2						
NWAO	Narrogin (SRO)	38.11	152	eP	P	19 57 17.7	+0.7
NWAO				pmax	pmax		
	comp=Z,65nm,1.3s						
NWAO				MLR	MLR		
	comp=Z,4µm,19.0s						
NWAO	Narrogin (SRO)	38.11	152	P	P	19 57 17.5	+0.5
	comp=Z,16nm,0.9s,mb4.8,baz=324,slow=9.9,SNR=5.8						
GTA	Gaotai	38.91	3	P	P	19 57 23.6	-0.1
GTA				AP	pP	19 57 28.1	+2.7
GTA				XP	sP	19 57 31.3	+5.2
GTA				PP	PP	19 58 57.1	+4.2
GTA				PCP	PcP	19 59 35.0	+0.5
GTA				S	S	20 03 24.0	+1.6
GTA				XS	sS	20 03 30.9	+5.6
GTA				SS	SS	20 06 07.9	-6.1
GTA				SCS	ScS	20 07 31.8	-2.7
GTA				AMB	AMB		
	comp=Z,27nm,1.2s,mb4.8						
GTA				AMB	AMB		
	comp=Z,716nm,7.2s						
GTA				LR	LR		
	comp=N,11µm,11.0s,MS6.0						
GTA				LR	LR		
	comp=E,8µm,13.3s,MS6.0						
GTA				LR	LR		
	comp=Z,13µm,14.1s,MS5.9						
TIY	Taiyuan	39.69	19	ePR	P	19 57 32.3	+2.0
TIY				PP	PP	19 59 08.8	+7.3
TIY				S	S	20 03 38.8	+4.5
TIY				XS	sS	20 03 51.0	+14
TIY				LR	LR		
	comp=N,16µm,13.4s,MS6.2						
TIY				LR	LR		
	comp=E,19µm,12.4s,MS6.2						
JOW	Kunigami	39.75	46	LR	LR	20 12 43.6	
	comp=E,6µm,21.6s,MS5.4,baz=48,slow=34						
TIA	Tai’an	40.13	25	⇑P	P	19 57 33.4	-0.6
TIA				S	S	20 03 45.3	+4.4
TIA				AMB	AMB		
	comp=Z,31nm,1.1s,mb5.0						
TIA				LR	LR		
	comp=E,13µm,15.0s						
WRA	Warramunga Arr	41.55	121	P	P	19 57 45.1	-0.9
	comp=E,17nm,0.9s,mb4.7,baz=300,slow=9.1,SNR=51						
WRA				LR	LR	20 14 57.5	
	comp=E,2µm,21.5s,MS5.0,baz=310,slow=36						
WB2	Warramunga Arr	41.56	121	eP	P	19 57 45.5	-0.5
BTO	Baotou	41.68	15	eP	P	19 57 45.1	-1.5
MSEY	Mahe Island	42.04	263	PFAKE		19 58 00.0	+10
MSEY				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
HHC	Hu-ho-hao-te	42.32	16	eP	P	19 57 52.9	+1.1
HHC				AP	pP	19 58 02.8	+9.2
HHC				PP	PP	19 59 34.1	+4.2
HHC				PCP	PcP	19 59 47.4	+1.9
HHC				SCP	ScP	20 03 34.8	-2.2
HHC				PCS	PcS	20 03 37.9	+0.7
HHC				S	S	20 04 12.5	-0.7
HHC				XS	sS	20 04 25.6	+9.5
HHC				SS	SS	20 07 16.3	-5.6
HHC				SCS	ScS	20 07 50.4	-4.4
HHC				AMB	AMB		
	comp=Z,29nm,1.1s,mb4.8						
HHC				AMB	AMB		
	comp=Z,905nm,7.9s						
HHC				LR	LR		
	comp=N,16µm,14.4s,MS6.2						
HHC				LR	LR		
	comp=E,19µm,14.8s,MS6.2						
HHC				LR	LR		
	comp=Z,15µm,15.9s,MS6.0						
FORT	Forrest	42.62	139	eP	P	19 57 56.3	+1.9
	comp=Z,41nm,0.8s,mb5.2						
ASAR	Alice Springs	42.86	126	P	P	19 57 56.5	0.0
	comp=Z,17nm,0.8s,mb4.8,baz=305,slow=7.8,SNR=142						
ASAR				PcP	PcP	19 59 47.5	-0.1
	comp=Z,5.1nm,0.8s,baz=303,slow=4.0,SNR=4.9						
KBL	Kabul	43.02	325	eP	P	19 57 56.7	-0.9
	comp=Z,13nm,0.9s,mb4.7						
BJT	Baijiatuau	43.05	21	eP	P	19 57 58.7	+0.9
	comp=Z,99nm,0.9s,mb5.5						
BJT				LR	LR		
	comp=Z,13µm,19.0s,MS5.9						
BJI	Beijing	43.07	21	P	P	19 57 58.9	+0.9
BJI				PP	PP	19 59 38.8	+0.8

BJI				S	**S**	**20 04 26.8**	**+2.5**
BJI				SS	SS	20 07 36.4	-0.3
BJI				AMB	AMB		
	comp=Z,97nm,0.9s,mb5.5						
BJI				AMB	AMB		
	comp=Z,1µm,4.6s						
BJI				LR	LR		
	comp=N,15µm,13.8s,MS6.1						
BJI				LR	LR		
	comp=E,9µm,15.1s,MS6.1						
BJI				LR	LR		
	comp=Z,7µm,16.4s,MS5.7						
BJI	**Beijing**	**43.07**	**21**	P	**P**	**19 57 58.9**	**+0.9**
	comp=Z,0.1nm,0.9s						
BJI				PP	PP	19 59 38.7	+0.7
BJI				S	**S**	**20 04 26.8**	**+2.5**
BJI				SS	SS	20 07 36.4	-0.3
BJI				LR	LR		
	comp=Z,7µm,16.4s,MS5.7						
KSH	**Kashi**	**43.54**	**336**	*e*P	**P**	**19 57 56.6**	**-5.1**
KSH				*e*AP	pP	19 58 08.4	+4.9
KSH				*e*XP	sP	19 58 14.3	+10
KSH				*e*PP	PP	19 59 39.4	-3.6
KSH				*e*PCP	PcP	19 59 44.5	-5.1
KSH				*e*PCS	PcS	20 03 36.0	-6.2
KSH				*e*XS	sS	20 04 41.8	+7.7
KSH				AMB	AMB		
	comp=Z,2µm,4.1s						
KSH				LR	LR		
	comp=N,10µm,13.9s,MS6.2						
KSH				LR	LR		
	comp=E,23µm,16.9s,MS6.2						
KSH				LR	LR		
	comp=Z,11µm,13.6s,MS5.9						
WMQ	**Urumqi**	**44.08**	**350**	P	**P**	**19 58 06.0**	**-0.1**
WMQ				AP	pP	19 58 15.9	+8.1
WMQ				XP	sP	19 58 19.8	+11
WMQ				PP	PP	19 59 50.3	+1.5
WMQ				S	**S**	**20 04 35.3**	**-3.7**
WMQ				SS	SS	20 07 44.4	-12
WMQ				SCS	ScS	20 07 59.8	-5.9
WMQ				AMB	AMB		
	comp=Z,52nm,1.0s,mb5.2						
WMQ				AMB	AMB		
	comp=Z,434nm,9.2s						
WMQ				LR	LR		
	comp=N,5µm,22.6s,MS5.6						
WMQ				LR	LR		
	comp=E,7µm,26.0s,MS5.6						
WMQ				LR	LR		
	comp=Z,4µm,22.6s,MS5.2						
SMDO	**Samad**	**44.26**	**303**	⇑P	**P**	**19 58 09.6**	**+1.8**
	SNR=7.5						
DL2	**Dalian**	**44.36**	**27**	⇑P	**P**	**19 58 08.9**	**+0.5**
DL2				PP	PP	19 59 57.9	+6.0
DL2				S	**S**	**20 04 45.9**	**+2.6**
DL2				SS	SS	20 07 53.5	-8.6
DL2				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.2						
DL2				AMB	AMB		
	comp=Z,360nm,5.2s						
DL2				LR	LR		
	comp=N,4µm,16.9s,MS5.7						
DL2				LR	LR		
	comp=E,6µm,14.9s,MS5.7						
DL2				LR	LR		
	comp=Z,6µm,13.1s,MS5.7						
BSY	**Bisya**	**44.84**	**303**	⇓P	**P**	**19 58 14.7**	**+2.2**
	SNR=10						
HOQ	**Hoqain**	**45.09**	**304**	⇓P	**P**	**19 58 16.7**	**+2.2**
	SNR=9.1						
JNU	**Nakatsue**	**45.37**	**41**	P	**P**	**19 58 15.2**	**-1.4**
	comp=Z,50nm,0.9s,mb5.3,baz=194,slow=5.1,SNR=12						
JNU				LR	LR	20 18 12.1	
	comp=Z,10µm,18.4s,MS5.8,baz=229,slow=37						
INCN	**Inchon**	**45.79**	**33**	PFAKE		19 58 30.0	+10
INCN				LR	LR		
	comp=Z,13µm,20.0s,MS5.9						
KZA	**Kyzart**	**46.00**	**337**	P	**P**	**19 58 22.5**	**+1.1**
	SNR=15						
WHFO	**Wadi Hawf**	**46.15**	**295**	⇓P	**P**	**19 58 24.5**	**+1.5**
	SNR=5.8						
AAA	**Alma-Ata**	**46.41**	**340**	*e*P	**P**	**19 58 26.0**	**+1.4**
AAA				*e*S	**S**	**20 05 15.0**	**+2.3**
AAA				pmax	pmax		
	comp=Z,1µm,3.5s						
AAA				smax			
	comp=N,5µm,8.0s						
AAA				MLR	MLR		
	comp=Z,7µm,16.0s,MS5.7						
UCH	**Uchtor**	**46.42**	**337**	P	**P**	**19 58 26.1**	**+1.5**
	SNR=44						
UCH	**Uchtor**	**46.42**	**337**	*e*P	**P**	**19 58 25.9**	**+1.3**
	comp=Z,35nm,0.9s,mb5.3						
UCH				LR	LR		
	comp=Z,5µm,21.0s,MS5.4						
ABTO	**Aybut**	**46.42**	**294**	⇑P	**P**	**19 58 26.9**	**+1.8**
KSRS	**Korea Array**	**46.48**	**34**	P	**P**	**19 58 24.4**	**-0.8**
	comp=Z,36nm,1.0s,mb5.3,baz=225,slow=8.6,SNR=34						
KSRS				PcP	PcP	20 00 00.0	+0.2
	comp=Z,4.3nm,0.9s,baz=254,slow=4.8,SNR=2.7						
KSRS				LR	LR	20 18 50.2	
	comp=Z,8µm,18.5s,MS5.7,baz=220,slow=37						
TKM2	**Tokmak 2**	**46.59**	**338**	P	**P**	**19 58 27.1**	**+1.1**
	SNR=36						
TKM2	**Tokmak 2**	**46.59**	**338**	*e*P	**P**	**19 58 26.9**	**+0.9**
	comp=Z,98nm,1.4s,mb5.5						
TKM2				LR	LR		
	comp=Z,4µm,19.0s,MS5.4						
TKM2	**Tokmak 2**	**46.59**	**338**	*e*P	**P**	**19 58 26.9**	**+0.9**
TKM2				pmax	pmax		
	comp=Z,98nm,1.4s,mb5.5						
TKM2				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.4						
HATD	**Hatta, Dubai**	**46.59**	**305**	⇑P	**P**	**19 58 27.9**	**+1.5**
	SNR=6.6						
KBK	**Karagaybulak**	**46.61**	**337**	P	**P**	**19 58 27.9**	**+1.7**
	SNR=34						
AML	**Almayashu**	**46.67**	**336**	P	**P**	**19 58 28.1**	**+1.5**
	SNR=32						
AML	**Almayashu**	**46.67**	**336**	*e*P	**P**	**19 58 27.7**	**+1.1**
	comp=Z,60nm,1.1s,mb5.4						
AML				LR	LR		
	comp=Z,5µm,20.0s,MS5.5						
AAK	**Ala-Archa**	**46.77**	**337**	P	**P**	**19 58 27.6**	**+0.2**
	comp=Z,108nm,1.0s,mb5.7,SNR=12						
AAK	**Ala-Archa**	**46.77**	**337**	P	**P**	**19 58 28.7**	**+1.3**
	SNR=13						
AAK	**Ala-Archa**	**46.77**	**337**	*e*P	**P**	**19 58 27.2**	**-0.2**
	comp=Z,119nm,1.6s,mb5.6						
AAK				LR	LR		
	comp=Z,5µm,21.0s,MS5.4						
AAK	**Ala-Archa**	**46.77**	**337**	*c i*P	**P**	**19 58 27.4**	**0.0**
AAK				pmax	pmax		
	comp=Z,23nm,1.4s,mb4.9						
AAK				MLR	MLR		
	comp=Z,4µm,17.0s,MS5.4						
FRU	**Bishkek**	**46.89**	**337**	⇑*i*P	**P**	**19 58 29.0**	**+0.7**
FRU				*e*		20 05 29.0	
FRU				pmax	pmax		
	comp=Z,57nm,1.5s,mb5.3						
CHMS	**Chumysh**	**46.98**	**337**	P	**P**	**19 58 30.1**	**+1.1**
	SNR=10						
EKS2	**Erkin-Say**	**47.08**	**336**	P	**P**	**19 58 30.9**	**+1.1**
	SNR=36						
EKS2	**Erkin-Say**	**47.08**	**336**	*e*P	**P**	**19 58 30.9**	**+1.1**
	comp=Z,32nm,0.9s,mb5.2						
EKS2				LR	LR		
	comp=Z,5µm,22.0s,MS5.4						
USP	**Ospenovka**	**47.30**	**337**	P	**P**	**19 58 31.9**	**+0.3**
	SNR=75						
SNY	**Shenyang**	**47.60**	**27**	⇑P	**P**	**19 58 33.1**	**-0.8**
SNY				S	**S**	**20 05 34.6**	**+4.9**
SNY				AMB	AMB		
	comp=Z,36nm,1.2s,mb5.3						
SNY				AMB	AMB		
	comp=Z,922nm,5.1s						
SNY				LR	LR		
	comp=N,15µm,17.7s,MS6.1						
SNY				LR	LR		
	comp=E,10µm,16.3s,MS6.1						
SNY				LR	LR		
	comp=Z,12µm,19.1s,MS5.9						
SONM	**Songino Array**	**47.92**	**8**	P	**P**	**19 58 36.8**	**+0.5**
SONM						20 00 04.5	
SONM	**Songino Array**	**47.92**	**8**	P	**P**	**19 58 36.8**	**+0.5**
	comp=Z,23nm,1.0s,mb5.2,baz=194,slow=7.0,SNR=84						
SONM				PcP	PcP	20 00 04.5	-0.2
	comp=Z,7.8nm,0.8s,baz=190,slow=3.7,SNR=4.3						
SONM				LR	LR	20 21 17.6	
	comp=Z,16µm,18.0s,MS6.0,baz=192,slow=39						
MK31	**Makanchi Array**	**48.04**	**346**	*e*P	**P**	**19 58 37.3**	**+0.1**
MKAR	**Makanchi Array**	**48.04**	**346**	P	**P**	**19 58 37.3**	**0.0**
	comp=Z,38nm,0.7s,mb5.5,baz=158,slow=7.8,SNR=322						
MKAR				LR	LR	20 21 51.5	
	comp=Z,3µm,19.9s,MS5.2,baz=161,slow=40						
ULN	**Ulaanbaatar**	**48.05**	**9**	*e*P	**P**	**19 58 37.3**	**0.0**
	comp=Z,61nm,1.4s,mb5.4						
ULN				LR	LR		
	comp=Z,10µm,21.0s,MS5.8						
ULN	**Ulaanbaatar**	**48.05**	**9**	⇑*i*P	**P**	**19 58 37.8**	**+0.5**
KKAR	**Karatay Array**	**48.81**	**334**	*i* P	**P**	**19 58 43.2**	**0.0**
KKAR				pmax	pmax		
	comp=Z,207nm,1.8s,mb5.9						
GUMO	**Guam**	**48.92**	**72**	PFAKE		19 58 50.0	+5.5
GUMO				LR	LR		
	comp=Z,3µm,20.0s,MS5.2						
GUMO	**Guam**	**48.92**	**72**	LR	LR	20 18 39.7	
	comp=Z,2µm,18.9s,MS5.2,baz=243,slow=35						
CN2	**Changchun**	**50.00**	**27**	*e*P	**P**	**19 58 50.9**	**-1.4**
CN2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.5						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,9µm,13.0s,MS6.1						
CN2				LR	LR		
	comp=E,10µm,13.0s,MS6.1						
CN2				LR	LR		
	comp=Z,8µm,14.0s,MS5.9						
ZAK	**Zakamensk**	**50.07**	**5**	*e*P	**P**	**19 58 53.0**	**+0.2**
ZAK				pmax	pmax		
	comp=Z,11nm,2.0s,mb4.5						
PMG	**Port Moresby**	**50.61**	**102**	*e*P	**P**	**19 58 57.0**	**-0.5**
	comp=Z,48nm,0.8s,mb5.5						
PMG				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
PMG	**Port Moresby**	**50.61**	**102**	*c i*P	**P**	**19 58 57.0**	**-0.5**
PMG	**Port Moresby**	**50.61**	**102**	P	**P**	**19 58 57.2**	**-0.3**
	comp=Z,40nm,0.8s,mb5.4,baz=297,slow=3.8,SNR=44						
PMG				LR	LR	20 23 52.0	
	comp=Z,2µm,18.8s,MS5.2,baz=267,slow=40						
CBIJ	**Chichi jima**	**50.63**	**55**	LR	LR	20 18 19.0	
	comp=Z,2µm,19.1s,MS5.2,baz=128,slow=34						
MOY	**Mondy**	**51.19**	**3**	*e*P	**P**	**19 59 07.0**	**+5.8**
MOY				pmax	pmax		
	comp=Z,87nm,2.6s,mb5.2						
TLY	**Talaya**	**51.39**	**5**	P	**P**	**19 59 03.1**	**+0.4**
	comp=Z,112nm,0.8s,mb5.8,SNR=6.3						
TLY	**Talaya**	**51.39**	**5**	*e*P	**P**	**19 59 03.6**	**+0.9**
	comp=Z,9.9nm,0.8s,mb4.8						
TLY				LR	LR		
	comp=Z,20µm,21.0s,MS6.1						
TLY	**Talaya**	**51.39**	**5**	⇑*i*P	**P**	**19 59 03.3**	**+0.6**
TLY				*e*S	**S**	**20 06 35.8**	**+13**
TLY				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.0						
TLY				MLR	MLR		
	comp=Z,16µm,16.0s,MS6.1						
JHJ	**Hachijo jima 2**	**51.53**	**46**	LR	LR	20 22 51.3	
	comp=Z,2µm,19.2s,MS5.2,baz=276,slow=38						
ABKT	**Ailbek**	**51.88**	**321**	P	**P**	**19 59 06.1**	**-0.5**
	comp=Z,105nm,0.9s,mb5.8,SNR=9.6						
IRK	**Irkutsk**	**52.01**	**5**	*e*P	**P**	**19 59 05.6**	**-1.7**
IRK				pmax	pmax		
	comp=Z,114nm,2.1s,mb5.4						
CTA	**Charters Tower**	**52.09**	**116**	*e*P	**P**	**19 59 08.6**	**+0.2**
	comp=Z,16nm,0.9s,mb4.9						
CTA	**Charters Tower**	**52.09**	**116**	*e*P	**P**	**19 59 08.6**	**+0.2**
CTA				pmax	pmax		
	comp=Z,16nm,0.9s						
CTAO	**Charters Tower**	**52.09**	**116**	*e*P	**P**	**19 59 08.1**	**-0.3**
	comp=Z,25nm,0.9s,mb5.2						
CTAO				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
CTAO	**Charters Tower**	**52.09**	**116**	*e*P	**P**	**19 59 08.1**	**-0.3**
CTAO				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
CTAO				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.4						
MAJO	**Matsushiro**	**52.25**	**42**	PFAKE		19 59 20.0	+11
MAJO				LR	LR		
	comp=Z,6µm,19.0s,MS5.7						
MAT	**Matsushiro**	**52.25**	**42**	P	**P**	**19 59 07.7**	**-1.7**
MAT				S	**S**	**20 06 31.6**	**-3.3**
MJAR	**Matsushiro Arr**	**52.25**	**42**	P	**P**	**19 59 08.5**	**-0.8**
MJAR				LR	LR	20 23 42.5	
MJAR	**Matsushiro Arr**	**52.25**	**42**	P	**P**	**19 59 08.5**	**-0.8**
	comp=Z,14nm,1.0s,mb4.9,baz=224,slow=6.4,SNR=19						
MJAR				LR	LR	20 23 42.5	
	comp=Z,5µm,18.2s,MS5.6,baz=240,slow=39						
HIA	**Hailar**	**52.39**	**18**	*e*P	**P**	**19 59 09.7**	**-0.4**
	comp=Z,61nm,1.4s,mb5.3						
HIA				LR	LR		
	comp=Z,12µm,21.0s,MS5.9						
HIA	**Hailar**	**52.39**	**18**	*e*P	**P**	**19 59 09.7**	**-0.4**
HIA				pmax	pmax		
	comp=Z,61nm,1.4s						
HIA				MLR	MLR		
	comp=Z,12µm,21.0s						
MDJ	**Mudanjiang**	**52.55**	**29**	P	**P**	**19 59 12.4**	**+1.0**
MDJ				SCP	ScP	20 04 21.1	+1.2
MDJ				S	**S**	**20 06 41.3**	**+2.6**
MDJ				SS	SS	20 10 19.9	+2.8
MDJ				AMB	AMB		
	comp=Z,297nm,5.2s						
MDJ				LR	LR		
	comp=N,9µm,19.8s,MS6.0						
MDJ				LR	LR		
	comp=E,11µm,18.5s,MS6.0						
MDJ				LR	LR		
	comp=Z,18µm,15.3s,MS6.2						
MDJ	**Mudanjiang**	**52.55**	**29**	PFAKE		19 59 20.0	+8.6
MDJ				LR	LR		
	comp=Z,11µm,20.0s,MS5.9						
KURK	**Kurchatov**	**52.59**	**345**	P	**P**	**19 59 11.5**	**-0.1**
	comp=Z,305nm,1.1s,mb6.1,SNR=34						
KURK	**Kurchatov**	**52.59**	**345**	*e*P	**P**	**19 59 11.3**	**-0.3**
	comp=Z,38nm,1.0s,mb5.3						
KURK				LR	LR		
	comp=Z,5µm,19.0s,MS5.6						
KURK	**Kurchatov**	**52.59**	**345**	*c i*P	**P**	**19 59 11.8**	**+0.2**
VLA	**Vladivostok**	**52.62**	**32**	*e*P	**P**	**19 59 10.0**	**-2.0**
VLA				*e*S	**S**	**20 06 39.0**	**-0.9**
VLA				MLR	MLR		
	comp=Z,9µm,11.5s,MS6.0						
STKA	**Stephens Creek**	**52.77**	**132**	⇑*i*P	**P**	**19 59 14.0**	**+0.7**
	comp=Z,29nm,0.8s,mb5.3						
STKA	**Stephens Creek**	**52.77**	**132**	P	**P**	**19 59 14.2**	**+0.8**
	comp=Z,34nm,0.8s,mb5.3,baz=306,slow=6.9,SNR=70						
STKA				LR	LR	20 24 20.4	
	comp=Z,4µm,19.3s,MS5.4,baz=295,slow=39						
CIT	**Chita**	**53.25**	**12**	*e*P	**P**	**19 59 17.2**	**+0.8**
CIT				*e*		19 59 32.9	
CIT				pmax	pmax		
	comp=Z,183nm,3.2s						
ZAL	**Zalesovo**	**54.36**	**351**	P	**P**	**19 59 24.7**	**+0.1**
ZAA0	**Zalesovo Array**	**54.37**	**351**	*e*P	**P**	**19 59 24.8**	**+0.1**
ZALV	**Zalesovo Beam**	**54.37**	**351**	P	**P**	**19 59 24.7**	**+0.1**
	comp=Z,52nm,0.8s,mb5.5,baz=178,slow=6.0,SNR=163						
ZALV				LR	LR	20 25 54.5	
	comp=Z,3µm,19.1s,MS5.4,baz=165,slow=40						
QRN	**Al-Qurain**	**54.88**	**305**	*e*P	**P**	**19 59 28.6**	**-0.2**
QRN				AMb	AMB	19 59 30.7	
	comp=Z,114nm,1.1s,mb5.8						
KBD	**Kabd**	**55.23**	**306**	*e*P	**P**	**19 59 31.2**	**-0.1**
KBD				AMb	AMB	19 59 38.7	
	comp=Z,231nm,1.1s,mb6.1						
RDF	**Al-Radifah**	**55.25**	**306**	*e*P	**P**	**19 59 31.4**	**-0.1**
RDF				AMb	AMB	19 59 33.5	
	comp=Z,163nm,1.0s,mb6.0						
NVS	**Novosibirsk**	**55.48**	**350**	⇑*i*P	**P**	**19 59 31.7**	**-1.0**
NVS				*e*S	**S**	**20 07 19.4**	**+1.3**
NVS				pmax	pmax		
	comp=N,75nm,1.5s						
NVS				pmax	pmax		
	comp=E,47nm,1.5s						
NVS				pmax	pmax		
	comp=Z,81nm,1.5s,mb5.5						
NVS				smax			
	comp=N,64nm,2.3s						
NVS				smax			
	comp=E,36nm,2.0s						
NAY	**Al-Naaiem**	**55.62**	**306**	*e*P	**P**	**19 59 34.1**	**-0.1**
NAY				AMb	AMB	19 59 35.4	
	comp=Z,59nm,0.8s,mb5.7						
MIB	**Mutribah**	**55.75**	**306**	*e*P	**P**	**19 59 35.4**	**+0.3**
MIB				AMb	AMB	19 59 37.1	
	comp=Z,195nm,0.9s,mb6.2						
KLR	**Kul’dur**	**56.95**	**26**	⇓*i*P	**P**	**19 59 40.2**	**-3.1**
KLR				*e*S	**S**	**20 07 40.0**	**+2.2**
KLR				pmax	pmax		
	comp=E,64nm,1.8s						
KLR				pmax	pmax		
	comp=Z,130nm,1.8s,mb5.7						
KLR				MLR	MLR		
	comp=E,11µm,15.0s						
KLR				MLR	MLR		
	comp=Z,19µm,15.0s,MS6.3						
BRVK	**Borovoye**	**57.10**	**341**	P	**P**	**19 59 43.3**	**-1.0**
	comp=Z,200nm,1.2s,mb6.0,SNR=20						
BRVK	**Borovoye**	**57.10**	**341**	*e*P	**P**	**19 59 43.4**	**-0.8**
	comp=Z,30nm,0.9s,mb5.3						
BRVK				LR	LR		
	comp=Z,4µm,20.0s,MS5.5						
BRVK	**Borovoye**	**57.10**	**341**	*e*P	**P**	**19 59 43.4**	**-0.9**
BRVK				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
BRVK				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.5						
DESE	**Dese**	**58.21**	**283**	*e*P	**P**	**19 59 53.3**	**+0.5**
ERM	**Erimo**	**58.46**	**39**	PFAKE		20 00 00.0	+5.9
ERM				LR	LR		
	comp=Z,4µm,21.0s,MS5.5						
BOD	**Bodaibo**	**58.80**	**10**	*e*P	**P**	**19 59 55.9**	**-0.2**
BOD				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.5						
FURI	**Furi**	**58.93**	**280**	*e*P	**P**	**19 59 59.9**	**+2.0**
FURI				*e*S	**S**	**20 08 18.2**	**+13**
ASAJ	**Asahikawa**	**59.27**	**37**	P	**P**	**19 59 59.4**	**-0.3**
	comp=Z,11nm,1.1s,mb4.8,baz=135,slow=2.9,SNR=4.1						
ASAJ				LR	LR	20 25 56.0	
	comp=Z,6µm,19.6s,MS5.8,baz=94,slow=36						
AKTO	**Aktyubinsk**	**59.98**	**332**	LR	LR	20 27 32.6	
	comp=Z,808nm,19.3s,MS4.9,baz=139,slow=38						
KMBO	**Kilima Mbogo**	**60.03**	**268**	*e*P	**P**	**20 00 06.6**	**+1.1**
	comp=Z,15nm,1.2s,mb4.9						
KMBO				LR	LR		
	comp=Z,4µm,19.0s,MS5.5						
KMBO	**Kilima Mbogo**	**60.03**	**268**	*e*P	**P**	**20 00 06.6**	**+1.1**
KMBO				pmax	pmax		
	comp=Z,15nm,1.2s						
KMBO				MLR	MLR		
	comp=Z,4µm,19.0s						
KMBO	**Kilima Mbogo**	**60.03**	**268**	P	**P**	**20 00 07.0**	**+1.6**
	comp=Z,6.8nm,0.8s,mb4.7,baz=57,slow=9.3,SNR=23						
KMBO				LR	LR	20 22 45.7	
	comp=Z,4µm,18.5s,MS5.6,baz=91,slow=33						
NRGR	**Nerungri**	**60.29**	**17**	*e*P	**P**	**20 00 12.1**	**+5.7**
NRGR				S	**S**	**20 08 29.9**	**+8.8**
NRGR				smax			
	comp=N,24nm,0.5s						
CLNS	**Chul’man**	**60.50**	**17**	*e*P	**P**	**20 00 07.8**	**0.0**
CLNS				*e*		20 00 48.9	
CLNS				*e*		20 02 23.7	
CLNS				*e*PPP		20 03 45.1	
CLNS				*e*S	**S**	**20 08 28.1**	**+4.4**
CLNS				pmax	pmax		
	comp=N,15nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.3						
CLNS				pmax	pmax		
	comp=E,11nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
CLNS				pmax	pmax		
	comp=N,11nm,1.0s						
CLNS				pmax	pmax		
	comp=E,6.0nm,1.1s						
CLNS				smax			
	comp=N,533nm,11.8s						
CLNS				smax			
	comp=Z,2µm,13.0s						
CLNS				smax			
	comp=E,1µm,12.5s						
CLNS				MLR	MLR		
	comp=N,4µm,13.0s,MS6.2						
CLNS				MLR	MLR		
	comp=E,12µm,13.0s,MS6.2						
CLNS				MLR	MLR		
	comp=Z,11µm,13.0s,MS6.2						
YSS	**Yuzh-Sakhalins**	**60.98**	**34**	*e*P	**P**	**20 00 11.4**	**+0.1**
	comp=Z,35nm,0.9s,mb5.5						
YSS				LR	LR		
	comp=Z,4µm,19.0s,MS5.6						
YSS	**Yuzh-Sakhalins**	**60.98**	**34**	⇑*i*P	**P**	**20 00 11.0**	**-0.3**
YSS				*e*		20 00 21.0	
YSS				*e*		20 02 31.0	
YSS				*e*S	**S**	**20 08 32.0**	**+1.7**
YSS				*e*PS		20 08 53.0	
YSS				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.8						
MAK	**Makhachkala**	**61.40**	**320**	*e*P	**P**	**20 00 12.8**	**-1.4**
MAK				*e*PPP		20 03 56.6	
MAK				*e*S	**S**	**20 08 35.0**	**-0.7**
MAK				pmax	pmax		
	comp=Z,186nm,1.5s,mb6.0						
MAK				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.1						
HAKT	**HAKKARI**	**61.57**	**313**	*i* P	**P**	**20 00 15.2**	**-0.3**
DGRG	**David-gareji**	**62.08**	**318**	P	**P**	**20 00 19.9**	**+1.0**
TAU	**Tasmania Unive**	**62.15**	**140**	PFAKE		20 00 30.0	+11
TAU				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
MTA	**Mtatsminda**	**62.57**	**318**	P	**P**	**20 00 21.8**	**-0.3**
HNR	**Honiara**	**63.15**	**101**	PFAKE		20 00 40.0	+13
HNR				LR	LR		
	comp=Z,17µm,19.0s,MS6.2						
SVE	**Sverdlovsk**	**63.47**	**338**	⇑*e*P	**P**	**20 00 27.0**	**-0.8**
SVE				*e*S	**S**	**20 09 11.0**	**+10**
SVE				pmax	pmax		
	comp=Z,110nm,1.5s,mb5.8						
MARD	**Mardin**	**63.63**	**312**	*i* P	**P**	**20 00 29.6**	**+0.4**
ZEI	**Tsey**	**63.65**	**319**	*e*P	**P**	**20 00 29.5**	**+0.2**
ZEI				*e*		20 01 03.1	
ZEI				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
ARU	**Arti**	**63.95**	**337**	P	**P**	**20 00 30.5**	**-0.5**
	comp=Z,170nm,1.1s,mb6.0,SNR=14						
ARU	**Arti**	**63.95**	**337**	*e*P	**P**	**20 00 29.3**	**-1.7**
	comp=Z,36nm,1.1s,mb5.3						
ARU				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
ARU	**Arti**	**63.95**	**337**	⇑*i*P	**P**	**20 00 30.0**	**-1.0**
ARU				*e*		20 01 06.9	
ARU				*e*S	**S**	**20 09 05.3**	**-2.0**
ARU				*e*		20 10 25.2	
ARU				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.3						
ARU				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.6						
ARU				MLR	MLR		
	comp=N,3µm,17.0s,MS5.6						
ARU				MLR	MLR		
	comp=E,2µm,17.0s,MS5.6						
KIV	**Kislovodsk**	**64.96**	**319**	P	**P**	**20 00 37.6**	**-0.3**
	comp=E,168nm,1.1s,mb6.0,SNR=8.0						
KIV	**Kislovodsk**	**64.96**	**319**	*e*P	**P**	**20 00 37.8**	**-0.1**
	comp=E,37nm,1.1s,mb5.3						
KIV				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
KIV	**Kislovodsk**	**64.96**	**319**	*c i*P	**P**	**20 00 37.6**	**-0.3**
KIV				*e*		20 03 00.3	
KIV				*e*PPP		20 04 37.0	
KIV				*e*S	**S**	**20 09 20.2**	**-0.1**
KIV				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.3						
KIV				pmax	pmax		
	comp=Z,318nm,6.1s						
MALT	**Malatya**	**65.72**	**312**	*e*P	**P**	**20 00 43.2**	**+0.3**
	comp=Z,14nm,0.9s,mb5.0						
MALT	**Malatya**	**65.72**	**312**	*e*P	**P**	**20 00 43.2**	**+0.3**
MALT				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
GZT	**Gaziantep**	**66.04**	**311**	*i* P	**P**	**20 00 46.2**	**+1.2**
YAK	**Yakutsk**	**66.18**	**16**	*e*P	**P**	**20 00 44.1**	**-1.3**
	comp=Z,136nm,0.9s,mb6.0						
YAK				LR	LR		

	comp=Z,11µm,20.0s,MS6.1						
YAK	**Yakutsk**	66.18	16c	iP	P	20 00 45.4	0.0
YAK				e*PP	pP	20 00 54.5	+7.3
YAK				e		20 01 11.1	
YAK				eS	S	20 09 30.3	-4.2
YAK				e		20 10 30.3	
YAK				eSS	SS	20 13 50.5	+0.1
YAK				pmax	pmax		
	comp=Z,143nm,1.1s,mb5.9						
YAK				pmax	pmax		
	comp=N,47nm,1.3s						
YAK				pmax	pmax		
	comp=E,37nm,1.3s						
YAK				smax			
	comp=E,815nm,19.7s						
YAK				smax			
	comp=Z,515nm,19.9s						
YAK				smax			
	comp=N,895nm,15.0s						
YAK				MLR	MLR		
	comp=Z,8µm,18.0s,MS6.0						
YAK				MLR	MLR		
	comp=N,11µm,22.0s						
YAK				MLR	MLR		
	comp=E,6µm,14.0s						
SOC	**Sochi**	66.77	318	iP	P	20 00 48.5	-1.0
SOC	**Sochi**	66.77	318c	iP	P	20 00 48.4	-1.1
SOC				e		20 01 15.0	
SOC				e		20 03 20.2	
SOC				ePPP		20 04 55.3	
SOC				eS	S	20 09 44.2	+1.9
SOC				eSS	SS	20 14 01.1	+0.9
SOC				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.3						
SOKR	**Solikamsk**	66.86	339d	iP	P	20 00 50.0	+0.2
SOKR				SS	SS	20 14 04.5	+3.4
SOKR				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.5						
SOKR				MLR	MLR		
	comp=Z,3µm,14.0s,MS5.6						
ANDN	**Andirin**	67.03	311	iP	P	20 00 52.3	+0.9
CASY	**Casey**	67.19	174	PFAKE		20 01 00.0	+8.2
CASY				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
ANN	**Anapa**	68.75	319	eP	P	20 00 56.8	-5.2
ANN				e		20 01 22.5	
ANN				eS	S	20 09 59.6	-6.4
ANN				eSS	SS	20 14 28.3	-2.6
ANN				pmax	pmax		
	comp=Z,43nm,1.8s,mb5.1						
VRHR	**Novokhopersk**	68.83	326	eP	P	20 01 01.4	-1.0
VRHR				pmax	pmax		
	comp=N,20nm,0.7s						
VRHR				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.2						
VRHR				pmax	pmax		
	comp=E,450nm,0.8s						
VRHR				MLR	MLR		
	comp=Z,660nm,11.0s,MS5.1						
VRHR				MLR	MLR		
	comp=N,3µm,18.0s						
VRHR				MLR	MLR		
	comp=E,830nm,19.0s						
CDAG	**Cicekdag**	69.14	313	iP	P	20 01 04.7	+0.2
CTKT	**Corum**	69.14	314	iP	P	20 01 05.0	+0.4
BOYT	**Boyabat**	69.31	315	iP	P	20 01 06.8	+1.2
BR131	**Keskin Array S**	69.71	313	eP	P	20 01 07.2	-0.9
	comp=E,7.9nm,0.8s,mb4.7						
BR131				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
BRTR	**Keskin Array B**	69.71	313	P	P	20 01 07.1	-1.0
	comp=Z,8.5nm,0.9s,mb4.7,baz=111,slow=6.8,SNR=41						
BRTR				LR	LR	20 34 08.3	
	comp=Z,1µm,18.3s,MS5.2,baz=137,slow=38						
LSZ	**Lusaka**	69.94	254	PFAKE		20 01 20.0	+10
LSZ				LR	LR		
	comp=Z,6µm,22.0s,MS5.8						
VORD	**Divnogorie**	70.09	325	eP	P	20 01 08.1	-2.1
VORD				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
VORD				pmax	pmax		
	comp=N,20nm,1.3s						
VORD				pmax	pmax		
	comp=E,20nm,0.6s						
VRSR	**Storozhevoye**	70.26	325	eP	P	20 01 09.5	-1.7
VRSR				pmax	pmax		
	comp=N,4.0nm,1.1s						
VRSR				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
VRSR				pmax	pmax		
	comp=E,6.0nm,1.0s						
ANTO	**Ankara**	70.37	312	eP	P	20 01 11.3	-0.9
	comp=E,19nm,1.4s,mb4.8						
ANTO				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
ANTO	**Ankara**	70.37	312	P	P	20 01 11.5	-0.7
ANTO				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.9						
BALT	**Daday**	70.43	314	iP	P	20 01 13.0	+0.6
VOR	**Voronezh**	70.48	326	eP	P	20 01 11.0	-1.5
VOR				pmax	pmax		
	comp=Z,150nm,1.0s,mb5.9						
SIM	**Simferopol’**	71.01	318	eP	P	20 01 15.4	-0.5
SIM				e		20 01 35.0	
SIM				eS	S	20 10 33.6	+1.0
SIM				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
SGKT	**Sivrigoynuk**	71.11	313	iP	P	20 01 16.8	+0.1
ESKT	**Eskisehir**	71.72	312	iP	P	20 01 20.6	+0.3
MAW	**Mawson**	71.94	193	P	P	20 01 21.0	-0.1
	comp=Z,7.4nm,0.9s,mb4.6,baz=12,slow=8.7,SNR=4.2						
MAW				LR	LR	20 26 07.8	
	comp=Z,4µm,21.8s,MS5.6,baz=16,slow=30						
MA2	**Magadan**	72.03	25	eP	P	20 01 21.4	-0.4
	comp=Z,10nm,0.7s,mb4.9						
MA2				LR	LR		
	comp=Z,6µm,19.0s,MS5.9						
MA2	**Magadan**	72.03	25c	iP	P	20 01 21.3	-0.5
MA2				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
BORA	**Eskisehir**	72.11	312	iP	P	20 01 22.1	-0.6
GOLH	**Golhisar**	72.13	309	iP	P	20 01 22.2	-0.6
PRGR	**Permogore**	72.41	337⇑	iP	P	20 01 23.1	-0.9
PRGR				pmax	pmax		
	comp=Z,42nm,0.9s,mb5.4						
GDZ	**Gediz**	72.64	311	iP	P	20 01 25.2	-0.7
PET	**Petropavlovsk**	72.87	34	PFAKE		20 01 40.0	+13
PET				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
PET	**Petropavlovsk**	72.87	34	eP	P	20 01 26.9	0.0
PET				eS	S	20 10 57.1	+3.5
PET				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.2						
PET				pmax	pmax		
	comp=Z,700nm,5.2s						
PET				pmax	pmax		
	comp=Z,500nm,10.6s						
PET				smax			
	comp=N,700nm,4.1s						
PET				smax			
	comp=N,400nm,13.1s						
PET				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.6						
MOS	**Moscow**	73.06	329	eP	P	20 01 26.2	-1.8
MOS				e		20 01 41.0	
MOS				e		20 04 11.0	
MOS				eS	S	20 10 57.9	+2.2
MOS				pmax	pmax		
	comp=Z,119nm,1.7s,mb5.5						
ULDT	**Uludag**	73.15	312	iP	P	20 01 29.2	+0.3
OBN	**Obninsk**	73.34	328	P	P	20 01 29.8	+0.1
	comp=Z,272nm,1.0s,mb6.1,SNR=5.7						
OBN	**Obninsk**	73.34	328	eP	P	20 01 28.9	-0.8
	comp=Z,20nm,0.7s,mb5.2						
OBN				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
OBN	**Obninsk**	73.34	328c	iP	P	20 01 28.8	-0.9
OBN				pmax	pmax		
	comp=Z,81nm,1.4s,mb5.5						
DRV	**Dumont d’Urvil**	73.36	164	P	P	20 01 30.0	+0.5
DRV				S	S	20 11 36.0	+37
DRV				SS	SS	20 15 43.0	+2.3
DRV				L		20 20 00.0	
DRV				R		20 23 00.0	
LBTB	**Lobatse**	73.59	244	eP	P	20 01 32.6	+0.9
	comp=Z,12nm,1.0s,mb4.8						
LBTB				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
LBTB	**Lobatse**	73.59	244	eP	P	20 01 32.6	+0.8
LBTB				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
LBTB				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.7						
TIXI	**Tiksi**	73.97	10	eP	P	20 01 31.8	-1.3
	comp=Z,46nm,0.9s,mb5.4						
TIXI				LR	LR		
	comp=Z,6µm,19.0s,MS5.9						
TIXI	**Tiksi**	73.97	10	eP	P	20 01 31.9	-1.2
TIXI				e		20 04 17.1	
TIXI				eS	S	20 11 01.7	-3.8
TIXI				e		20 11 34.9	
TIXI				e*SS	sS	20 11 51.5	+43
TIXI				pmax	pmax		
	comp=Z,55nm,0.9s,mb5.5						
BOSA	**Boshof**	74.43	240	eP	P	20 01 36.8	+0.1
	comp=Z,9.6nm,1.0s,mb4.7						
BOSA				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
BOSA	**Boshof**	74.43	240	eP	P	20 01 36.8	+0.2
BOSA				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
BOSA				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.6						
BOSA	**Boshof**	74.43	240	P	P	20 01 36.2	-0.4
	comp=Z,6.9nm,0.9s,mb4.6,baz=60,slow=5.9,SNR=9.8						
BOSA				LR	LR	20 29 56.6	
	comp=Z,3µm,18.7s,MS5.7,baz=75,slow=32						
SEY	**Seymchan**	74.48	23⇑	eP	P	20 01 35.0	-1.2
TIRR	**Tirgusor**	74.75	316	P	P	20 01 37.7	-0.4
TIRR	**Tirgusor**	74.75	316⇑	iP	P	20 01 37.7	-0.5
KIS	**Kishinev**	75.15	319	eP	P	20 01 38.0	-2.4
KIS	**Kishinev**	75.15	319	ePcP	PcP	20 02 04.0	+10
AKASG	**Malin Array Be**	75.94	323	P	P	20 01 43.8	-1.1
	comp=Z,24nm,0.8s,mb5.2,baz=89,slow=4.8,SNR=104						
AKBB	**Malin Array Si**	75.94	323	eP	P	20 01 43.8	-1.1
KIEV	**Kiev**	75.95	323	eP	P	20 01 43.4	-1.5
	comp=Z,30nm,1.0s,mb5.2						
KIEV				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
KIEV	**Kiev**	75.95	323	eP	P	20 01 43.4	-1.5
KIEV				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
KIEV				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
VRI	**Vrincioaia**	76.26	317	P	P	20 01 47.1	+0.3
VRI	**Vrincioaia**	76.26	317⇑	iP	P	20 01 47.0	+0.2
PLOR	**Plostina**	76.31	317	P	P	20 01 47.6	+0.5
MLR	**Muntele Rosu**	76.70	317	P	P	20 01 49.6	+0.3
MLR	**Muntele Rosu**	76.70	317⇓	iP	P	20 01 49.4	+0.1
VOIR		77.30	317	⇑P	P	20 01 52.4	-0.3
VOIR		77.30	317⇑	iP	P	20 01 52.4	-0.3
BURAR	**Bucovina Array**	77.68	319	⇑P	P	20 01 55.7	+1.0
BURAR	**Bucovina Array**	77.68	319⇑	iP	P	20 01 55.7	+1.0
MNK	**Minsk**	77.86	326	eP	P	20 01 54.0	-1.6
MNK				e		20 05 00.0	
MNK				eS	S	20 11 51.0	+2.0
MNK				ePS		20 12 42.0	
MNK				MLR	MLR		
	comp=Z,5µm,20.0s,MS5.8						
VTS	**Vitosha**	78.03	313	⇑P	P	20 01 56.1	-0.7
VTS	**Vitosha**	78.03	313⇑	iP	P	20 01 56.1	-0.7
VAY	**Valandovo**	78.28	312	eP	P	20 01 57.3	-0.9
STIP	**Stip**	78.62	312	eP	P	20 01 58.2	-1.9
SUR	**Sutherland**	78.78	237	PFAKE		20 02 10.0	+8.8
SUR				LR	LR		
	comp=Z,8µm,19.0s,MS6.1						
GZR	**Gura Zlata**	78.86	316	P	P	20 02 01.7	+0.3
JOF	**Joensuu**	78.91	335	ep	P	20 01 59.8	-1.4
	comp=Z,32nm,0.9s,mb5.2						
JOF	**Joensuu**	78.91	335	eP	P	20 01 59.8	-1.4
JOF				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
LVV	**L’vov**	78.94	321	eP	P	20 01 54.2	-7.5
LVV				e		20 05 04.6	
LVV				eS	S	20 11 54.6	-6.1
LVV				e		20 12 06.4	
LVV				ePS		20 12 17.9	
DRGR		79.17	318	P	P	20 02 03.7	+0.6
DRGR		79.17	318⇑	iP	P	20 02 03.2	+0.2
SKO	**Skopje**	79.22	313	eP	P	20 02 02.3	-1.1
KRUS	**Krusevo**	79.27	312	iP	P	20 02 02.7	-0.9
VSU	**Vasula**	79.58	330c	iP	P	20 02 04.1	-0.9
LVZ	**Lovozero**	79.62	340d	iP	P	20 02 04.8	-0.2
LVZ				pmax	pmax		
	comp=Z,17nm,0.5s,mb5.2						
BZS	**Buzias**	79.70	316	P	P	20 02 05.8	-0.1
BZS	**Buzias**	79.70	316⇓	iP	P	20 02 05.5	-0.5
KWP	**Kalwaria**	79.73	320	eP	P	20 02 06.4	+0.4
KWP				LMZ		20 44 28.1	
	comp=Z,2µm,20.1s						
UZH	**Uzhgorod**	79.81	319⇓	iP	P	20 02 06.2	-0.2
UZH				e		20 02 13.0	
UZH				e		20 02 26.4	
UZH				e		20 05 09.0	
UZH				e		20 07 00.2	
UZH				eS	S	20 12 12.4	+2.4
UZH				i		20 12 25.4	
UZH				e		20 13 01.0	
UZH				e		20 20 31.0	
KOLS	**Kolonicke sedl**	79.88	320	eP	P	20 02 07.2	+0.4
KOLS				epP	pP	20 02 12.0	+3.3
KOLS				eS	S	20 12 20.4	+10
APA	**Apatity**	79.91	340⇑	iP	P	20 02 06.4	-0.2
APA				eS	S	20 12 06.0	-4.4
APA				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.3						
APA				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.9						
SUW	**Suwalki**	80.37	325	eP	P	20 02 08.7	-0.6
	comp=Z,200nm,1.0s,mb6.0						
SUW				ePcP	PcP	20 02 14.5	-1.9
SUW				LMZ		20 44 34.5	
	comp=Z,3µm,20.3s						
SUW	**Suwalki**	80.37	325	eP	P	20 02 08.7	-0.7
SUW				ePcP	PcP	20 02 14.5	-1.9
TSUM	**Tsumeb**	80.38	251	eP	P	20 02 11.4	+1.2
	comp=Z,11nm,1.0s,mb4.7						
TSUM				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
CRVS	**Cervenica-Dubn**	80.40	320	eP	P	20 02 09.8	+0.2
STHS	**Stebnicka Huta**	80.63	320	eP	P	20 02 11.6	+0.7
	comp=Z,27nm,0.9s,mb5.2						
STHS	**Stebnicka Huta**	80.63	320	eP	P	20 02 11.6	+0.7
STHS				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.2						
FIA1	**FINESS Array S**	80.75	333	eP	P	20 02 10.3	-0.9
FINES	**FINESS Array B**	80.75	333	P	P	20 02 10.8	-0.5
FINES				LR	LR	20 44 45.1	
FINES	**FINESS Array B**	80.75	333	P	P	20 02 10.8	-0.5
	comp=Z,16nm,0.8s,mb5.0,baz=104,slow=8.0,SNR=51						
FINES				LR	LR	20 44 45.1	
	comp=Z,3µm,18.9s,MS5.6,baz=96,slow=41						
SNZO	**South Karori**	80.83	132	PFAKE		20 02 20.0	+7.9
SNZO				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
KAF	**Kangasniemi**	80.83	333	ep	P	20 02 10.0	-1.7
	comp=Z,26nm,0.7s,mb5.3,baz=104,slow=5.0						
KAF	**Kangasniemi**	80.83	333	eP	P	20 02 10.0	-1.7
KAF				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.3						
KECS	**Kecovo**	80.96	319	eP	P	20 02 12.6	0.0
	comp=Z,11nm,0.9s,mb4.8						
KECS	**Kecovo**	80.96	319	eP	P	20 02 12.6	0.0
KECS				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
NIE	**Niedzica**	81.23	320	eP	P	20 02 14.3	+0.2
PSZ	**Piszkesteto**	81.26	318	eP	P	20 02 14.1	-0.2
	comp=Z,23nm,0.9s,mb5.1						
PSZ	**Piszkesteto**	81.26	318⇑	eP	P	20 02 14.4	+0.2
PSZ	**Piszkesteto**	81.26	318⇑	iP	P	20 02 14.2	0.0
OJC	**Ojcow**	81.69	321	eP	P	20 02 16.0	-0.5
OJC				ePcP	PcP	20 02 20.7	-1.6
OJC				ePP	PP	20 05 23.7	+0.4
OJC				eS	S	20 12 24.4	-5.3
OJC				LR	LR		
	comp=Z,2µm,19.9s,MS5.4						
SMY	**Shemya**	81.73	37	PFAKE		20 02 30.0	+13
SMY				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
BUD	**Budapest**	81.77	318⇑	eP	P	20 02 16.9	-0.1
PKSM	**Moragy**	81.85	317	⇓P	P	20 02 14.2	-3.2
PKSM	**Moragy**	81.85	317⇓	iP	P	20 02 14.2	-3.2
BILL	**Bilibino**	81.90	21	iP	P	20 02 16.6	-0.6
BILL				LR	LR		
	comp=Z,7µm,19.0s,MS6.1						
BILL	**Bilibino**	81.90	21	iP	P	20 02 16.5	-0.7
BILL				pmax	pmax		
	comp=Z,9.0nm,1.5s,mb4.5						
VYHS	**Vyhne**	82.05	319	iP	P	20 02 18.3	-0.1
	comp=Z,11nm,1.1s,mb4.7						
VYHS				eS	S	20 12 40.1	+6.7
VYHS	**Vyhne**	82.05	319	iP	P	20 02 18.3	-0.1
VYHS				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
VYHS	**Vyhne**	82.05	319	iP	P	20 02 18.2	-0.2
VYHS				eS	S	20 12 40.1	+6.7
FUNA	**Funafuti**	82.08	99	PFAKE		20 02 30.0	+11
FUNA				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
TIP	**Timpagrande**	82.39	309	eP	P	20 02 20.2	-0.2
	comp=Z,16nm,1.0s,mb4.9						
OKC	**Ostrava-Krasne**	82.69	320⇓	iP	P	20 02 21.9	+0.2
OKC				eS	S	20 12 51.1	+11
OKC	**Ostrava-Krasne**	82.69	320⇓	iP	P	20 02 21.9	+0.2
OKC				eS	S	20 12 51.1	+11
OKC				AMS	AMS	20 48 20.0	
	comp=Z,1µm,17.0s						
RAC	**Raciborz**	82.69	320	eP	P	20 02 22.3	+0.6
RAC				LR	LR		
	comp=Z,2µm,21.6s,MS5.5						
KEV	**Kevo**	82.89	341	eP	P	20 02 20.5	-1.9
	comp=Z,18nm,0.9s,mb5.1						
KEV				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
MORC	**Moravsky Berou**	83.06	320	eP	P	20 02 23.6	-0.1
	comp=Z,24nm,1.0s,mb5.2						
MORC	**Moravsky Berou**	83.06	320	eP	P	20 02 23.6	-0.1
MORC				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.2						
MORC	**Moravsky Berou**	83.06	320⇓	iP	P	20 02 23.9	+0.2
ZST	**Bratislava**	83.15	318	eP	P	20 02 24.4	+0.2
	comp=Z,24nm,0.8s,mb5.3						
ZST				eS	S	20 13 05.3	+21
ZST				LR	LR		
	comp=Z,1µm,18.1s,MS5.4						
ZST	**Bratislava**	83.15	318	eP	P	20 02 24.4	+0.2
ZST				e		20 13 05.3	
ARCES	**ARCESS Array B**	83.32	340	P	P	20 02 24.6	0.0
	comp=Z,24nm,0.8s,mb5.2,baz=106,slow=4.4,SNR=47						
ARCES				LR	LR	20 47 25.7	
	comp=Z,3µm,18.1s,MS5.7,baz=104,slow=41						
ARE0	**ARCESS Array S**	83.32	340	eP	P	20 02 24.4	-0.2
SOP	**Sopron**	83.45	318⇑	eP	P	20 02 25.5	-0.2
GKP	**Gorka Klasztor**	83.72	323	eP	P	20 02 26.7	-0.3
GKP				LMZ		20 45 52.6	
	comp=Z,2µm,22.2s						
DPC	**Dobruska-Polom**	83.92	320	eP	P	20 02 28.8	+0.7
DPC				eS	S	20 13 03.9	+12
DPC				AMS	AMS	20 47 00.0	
	comp=Z,2µm,20.5s						
CONA	**Conrad Observa**	83.95	318⇑	iP	P	20 02 28.1	-0.2
	comp=Z,11nm,1.0s,mb4.9						
KSP	**Ksiaz**	83.99	321	eP	P	20 02 29.3	+0.8
KSP				LMZ		20 47 26.3	
	comp=Z,4µm,19.7s						
KSP	**Ksiaz**	83.99	321⇑	eP	P	20 02 28.3	-0.1
KSP				eS	S	20 12 54.0	+0.9
KSP				eSP		20 13 48.0	
KSP				MLR	MLR		
	comp=Z,5µm,20.2s,MS5.9						
ARSA	**Arzberg**	84.10	317⇑	iP	P	20 02 29.1	0.0
	comp=Z,34nm,1.2s,mb5.3						
ARSA	**Arzberg**	84.10	317⇑	iP	P	20 02 29.1	0.0
	comp=Z,34nm,1.2s,mb5.4,SNR=9.8						
ARSA			⇑	ipP	pP	20 02 38.2	+7.2
	comp=Z,21nm,1.1s						
BOJS	**Bojanci**	84.12	316	iP	P	20 02 29.0	-0.2
PERS	**Pernice**	84.32	317	iP	P	20 02 30.2	0.0
TREC	**Trest**	84.34	319⇓	eP	P	20 02 30.3	+0.1
TREC				eS	S	20 13 09.7	+13
TREC				AMS	AMS	20 49 10.0	
	comp=Z,1µm,15.4s						
PDKS	**Podkum**	84.35	316	eP	P	20 02 30.5	+0.1
VNDS	**Vrh nad Dolski**	84.56	316	eP	P	20 02 31.5	+0.1
LJU	**Ljubljana**	84.67	316	iP	P	20 02 31.8	-0.2
OBKA	**Obir**	84.70	317⇑	iP	P	20 02 32.4	+0.2
	comp=Z,19nm,1.4s,mb5.0						
OBKA	**Obir**	84.70	317⇑	iP	P	20 02 32.4	+0.2
	comp=Z,19nm,1.4s,mb5.0,SNR=5.7						
OBKA			⇑	ipP	pP	20 02 41.6	+7.6
INTR	**Introdacqua**	84.80	312	P	P	20 02 32.0	-0.8
SDI	**San Donato**	84.85	312	P	P	20 02 32.5	-0.5
	comp=Z,152nm,0.2s,mb6.8						
SDI	**San Donato**	84.85	312	P	P	20 02 32.5	-0.5
SDI				pmax	pmax		
	comp=Z,152nm,0.2s,mb6.8						
JAVS	**Javornik**	84.98	316	eP	P	20 02 32.8	-0.8
VVLD	**Villa Vallelon**	85.00	312	P	P	20 02 33.8	0.0
MOA	**Molln**	85.01	318⇑	iP	P	20 02 33.3	-0.4
	comp=Z,12nm,1.1s,mb5.0,SNR=6.4						
PRU	**Pruhonice**	85.02	320⇓	iP	P	20 02 34.1	+0.5
PRU				eS	S	20 13 16.7	+13
PRU				AMS	AMS	20 47 40.0	
	comp=Z,2µm,20.3s						
VNDA	**Vanda**	85.02	169	P	P	20 02 33.3	+0.1
	comp=Z,3.0nm,0.9s,mb4.4,baz=335,slow=3.1,SNR=4.0						
VNDA				LR	LR	20 34 50.8	
	comp=Z,1µm,21.3s,MS5.3,baz=305,slow=32						
PVCC	**Panska Ves**	85.05	321⇓	eP	P	20 02 34.0	+0.2
PVCC				eS	S	20 13 16.2	+13
PVCC				AMS	AMS	20 48 50.0	
	comp=Z,2µm,16.2s						
VOY	**Vojsko**	85.11	316	eP	P	20 02 33.7	-0.5
VOY				e		20 02 52.4	
AOI	**Ancona**	85.13	314	P	P	20 02 35.2	+0.8
PTQR	**Pietraquaria**	85.18	312	P	P	20 02 35.0	+0.4
	comp=Z,11nm,0.6s,mb5.2						
AQU	**L’Aquila**	85.20	312	eP	P	20 02 34.4	-0.3
	comp=Z,51nm,1.0s,mb5.6						
AQU	**L’Aquila**	85.20	312⇓	iP	P	20 02 35.0	+0.3
BSD	**Bornholm Skovb**	85.30	325	iP	P	20 02 34.4	-0.5
BSD				iS	S	20 13 01.0	-5.0
BSD				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.5						
BSD				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
BSD	**Bornholm Skovb**	85.30	325	iP	P	20 02 34.4	-0.5
	comp=Z,32nm,0.9s,mb5.5						
BSD				iS	S	20 13 01.0	-5.0
BSD							
	comp=Z,2µm,19.0s						
MYKA	**Terra Mystica**	85.33	317⇑	iP	P	20 02 35.2	-0.1
	comp=Z,26nm,1.1s,mb5.3						
NRCA	**Norcia**	85.44	313	P	P	20 02 35.4	-0.5
	comp=Z,18nm,1.0s,mb5.2						
GEC2	**GERESS Array S**	85.47	319	eP	P	20 02 35.9	0.0
GEC2				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.5						
GEC2	**GERESS Array S**	85.47	319	eP	P	20 02 35.9	0.0
	comp=Z,43nm,1.1s,mb5.5						
GERES	**GERESS Array B**	85.47	319	P	P	20 02 35.9	0.0
	comp=Z,17nm,0.9s,mb5.2,baz=101,slow=5.6,SNR=100						
BRG	**Berggiesshubel**	85.48	321	eP	P	20 02 36.0	+0.1
BRG				i		20 13 10.0	
BRG				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.1						
BRG	**Berggiesshubel**	85.48	321	eP	P	20 02 35.8	-0.1
	comp=Z,21nm,0.9s,mb5.3						
BRG	**Berggiesshubel**	85.48	321	eP	P	20 02 36.0	+0.1
	comp=Z,21nm,0.9s,mb5.2						
BRG				i		20 13 10.0	
KBA	**Koelnbreinsper**	85.57	317	iP	P	20 02 35.8	-0.7
	comp=Z,8.7nm,1.0s,mb4.9,SNR=6.7						
KBA	**Koelnbreinsper**	85.57	317	iP	P	20 02 35.8	-0.7
KBA				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.0						
KHC	**Kasperske Hory**	85.57	319	eP	P	20 02 36.4	0.0
KHC				e		20 02 55.0	
KHC				MLR	MLR		
	comp=Z,2µm,17.5s,MS5.5						
KHC	**Kasperske Hory**	85.57	319	eP	P	20 02 36.4	0.0
KHC				ex	x	20 02 55.0	
KHC				eS	S	20 13 21.1	+12
KHC				AMS	AMS	20 51 30.0	

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      comp=Z,2µm,17.5s
TRO   Tromso            85.58 340   eP      P       20 02 34.7 -1.3
TRO                                 eSKSa           20 12 58.0
TRO                                  AMS    AMS     20 48 36.4
      comp=Z,2µm,21.0s,MS5.5
GMNA  Gemona            85.59 316    P      P       20 02 36.9 +0.3
      comp=Z,130nm,0.9s,mb6.2
SNTG  Esanatoglia       85.59 313    P      P       20 02 36.9 +0.2
      comp=Z,264nm,2.9s,mb6.0
RUE   Ruedersdorf       85.72 322   eP      P       20 02 37.1  0.0
FSSB  Fossombrone       85.74 314    P      P       20 02 37.8 +0.4
RSM   Repubblica di     85.99 314    P      P       20 02 39.6 +0.9
      comp=Z,34nm,0.8s,mb5.6
RSM   Repubblica di     85.99 314    P      P       20 02 39.6 +0.9
RSM                                  pmax   pmax
      comp=Z,34nm,0.8s,mb5.6
WET   Wettzell          86.03 319   eP      P       20 02 38.5 -0.2
WET                                  pmax   pmax
      comp=Z,27nm,1.0s,mb5.4
WET   Wettzell          86.03 319   eP      P       20 02 38.5 -0.2
      comp=Z,27nm,1.0s,mb5.4
CLL   Collm             86.10 321⇑ iP      P       20 02 38.7 -0.3
      comp=Z,20nm,1.2s,mb5.2
CLL                                 i               20 02 43.9
CLL                                 eS      S       20 13 06.0 -8.0
CLL                                  LR     LR
      comp=Z,2µm,18.2s,MS5.6
CLL   Collm             86.10 321⇑ iP      P       20 02 38.7 -0.3
CLL                                 eS      S       20 13 06.0 -8.0
CLL                                  pmax   pmax
      comp=Z,20nm,1.2s,mb5.2
CLL                                  MLR    MLR
      comp=Z,2µm,18.2s,MS5.6
CLL   Collm             86.10 321   eP      P       20 02 38.4 -0.6
      comp=Z,20nm,1.2s,mb5.2
CLL   Collm             86.10 321⇑ iP      P       20 02 38.7 -0.3
      comp=Z,20nm,1.2s,mb5.2
CLL                                 i pP    pP      20 02 43.9 +3.0
CLL                                 ex      x       20 02 57.0
CLL                                 ePP     PP      20 06 03.0 +3.7
CLL                                 ePPP            20 07 54.0
CLL                                 ex      x       20 10 02.0
CLL                                 eSKSac  SKSac   20 13 05.0 -0.7
CLL                                 esS     sS      20 13 21.0 +3.9
CLL                                 esPS            20 14 19.0
CLL                                 esPPS           20 14 45.0
CLL                                 ex      x       20 20 19.0
CLL                                 e(SSS)          20 22 48.0
CLL                                 ex      x       20 25 54.0
CLL                                  LmV            20 49 00.0
      comp=Z,2µm,18.2s
ABTA  Abfaltersbach     86.12 317⇑ iP      P       20 02 38.6 -0.6
      comp=Z,14nm,1.1s,mb5.1
SBA   Scott Base        86.12 169    PFAKE          20 02 50.0  +11
SBA                                  LR     LR
      comp=Z,1µm,22.0s,MS5.3
NKC   Novy Kostel       86.38 320   eP      P       20 02 41.0 +0.6
NKC                                 eS      S       20 13 28.6  +12
NKC   Novy Kostel       86.38 320   eP      P       20 02 41.0 +0.6
NKC                                 eS      S       20 13 28.6  +12
NKC                                  AMS    AMS     20 48 30.0
      comp=Z,3µm,18.0s
TANN  Tannenbergstha    86.38 320   eP      P       20 02 40.1 -0.3
      comp=Z,11nm,1.1s,mb5.0
SFI   Santa Sofia       86.42 314    P      P       20 02 41.7 +0.9
      comp=Z,72nm,1.2s,mb5.8
SFI   Santa Sofia       86.42 314    P      P       20 02 41.7 +0.9
SFI                                  pmax   pmax
      comp=Z,73nm,1.2s,mb5.8
ROTZ  Rotzenmuhle       86.51 320   eP      P       20 02 41.1 +0.1
      comp=Z,21nm,1.0s,mb5.3
MANZ  Manzenberg        86.58 320   eP      P       20 02 41.6 +0.2
      comp=Z,39nm,1.0s,mb5.6
VMG   Vicchio           86.65 314    P      P       20 02 42.8 +0.9
      comp=Z,58nm,1.2s,mb5.7
CTI   Castel Tesino     86.67 316    P      P       20 02 42.3 +0.3
WTTA  Wattenberg        86.74 317⇑ iP      P       20 02 41.9 -0.4
      comp=Z,22nm,1.1s,mb5.3
WTTA  Wattenberg        86.74 317⇑ iP      P       20 02 41.9 -0.4
WTTA                                 pmax   pmax
      comp=Z,22nm,1.1s,mb5.3
WATA  Walderalm         86.79 317⇑ iP      P       20 02 42.5  0.0
      comp=Z,9.1nm,0.9s,mb5.0
WATA  Walderalm         86.79 317⇑ iP      P       20 02 42.5  0.0
WATA                                 pmax   pmax
      comp=Z,9.0nm,0.9s,mb5.0
MOX   Moxa              86.94 321   eP      P       20 02 43.0 -0.1
      comp=Z,19nm,1.4s,mb5.1
MOX                                 eS      S       20 13 24.0 +1.8
MOX                                 eLR     LR      20 31 22.0
MOX   Moxa              86.94 321   eP      P       20 02 43.0 -0.1
      comp=Z,19nm,1.4s,mb5.1
MOX
      comp=Z,2µm,21.0s
MOX   Moxa              86.94 321   eP      P       20 02 43.0 -0.1
MOX                                  pmax   pmax
      comp=Z,19nm,1.4s,mb5.1
MOX                                  MLR    MLR
      comp=Z,2µm,21.0s,MS5.4
MOX   Moxa              86.94 321   eP      P       20 02 42.9 -0.2
      comp=Z,18nm,1.3s,mb5.1
FNVD  Fontana Vidola    86.96 314    P      P       20 02 44.4 +1.0
FUR   Furstenfeldbru    87.03 318   eP      P       20 02 42.8 -0.9
FUR                                  pmax   pmax
      comp=Z,40nm,1.5s,mb5.4
FUR   Furstenfeldbru    87.03 318   eP      P       20 02 42.8 -0.9
      comp=Z,40nm,1.5s,mb5.4
SQTA  Sankt Quirin      87.03 317⇑ iP      P       20 02 43.1 -0.6
      comp=Z,4.8nm,0.5s,mb5.0
SQTA  Sankt Quirin      87.03 317⇑ iP      P       20 02 43.1 -0.6
SQTA                                 pmax   pmax
      comp=Z,5.0nm,0.5s,mb5.0
MOTA  Moosalm           87.11 317⇑ eP      P       20 02 43.3 -0.7
      comp=Z,12nm,0.8s,mb5.2,SNR=5.7
MOTA  Moosalm           87.11 317⇑ eP      P       20 02 43.4 -0.7
MOTA                                 pmax   pmax
      comp=Z,12nm,0.8s,mb5.2
GRA1  Grafenberg Arr    87.14 320   eP      P       20 02 44.2  0.0
      comp=Z,30nm,1.0s,mb5.5
GRA1                                 LR     LR
      comp=Z,3µm,20.4s,MS5.6
GRF   Grafenberg Arr    87.14 320   eP      P       20 02 44.2  0.0
GRF                                  pmax   pmax
      comp=Z,30nm,1.0s,mb5.5
GRF                                  MLR    MLR
      comp=Z,3µm,20.4s,MS5.6
GRF   Grafenberg Arr    87.14 320   eP      P       20 02 44.2  0.0
GRF                                  pmax   pmax
      comp=Z,30nm,1.0s,mb5.5
GRF                                  MLR    MLR
      comp=Z,3µm,20.4s,MS5.6
GRF   Grafenberg Arr    87.14 320   eP      P       20 02 44.2  0.0
      comp=Z,30nm,1.0s,mb5.5
GRF                                 eL              20 49 27.6
      comp=Z,3µm,20.4s
GRFO  Grafenberg        87.14 320   eP      P       20 02 44.2  0.0
      comp=Z,22nm,0.9s,mb5.4
GRFO                                 LR     LR
      comp=Z,2µm,20.0s,MS5.6
GRFO  Grafenberg        87.14 320   eP      P       20 02 44.2  0.0
GRFO                                 pmax   pmax
      comp=Z,22nm,0.9s,mb5.4
GRFO                                 MLR    MLR
      comp=Z,2µm,20.0s,MS5.5
RETA  Reutte            87.35 317⇑ iP      P       20 02 44.8 -0.4
      comp=Z,17nm,1.0s,mb5.2,SNR=6.5
FETA  Feichten          87.35 317⇑ iP      P       20 02 44.7 -0.5
      comp=Z,12nm,1.0s,mb5.0
BRMO  Bormio            87.58 316    P      P       20 02 45.4 -0.9
      comp=Z,34nm,1.2s,mb5.5
NSS   Namsos            87.62 334   eP      P       20 02 44.7 -1.4
NSS                                  AMS    AMS     20 51 01.7
      comp=Z,2µm,15.5s,MS5.5
NB2   NORSAR Subarra    87.75 331    P      P       20 02 46.4 -0.4
      comp=Z,30nm,1.1s,mb5.4,baz=98,slow=4.4
NOA   NORSAR Array B    87.75 331    P      P       20 02 46.7 -0.1
NOA                                  PP     PP      20 06 13.8 +1.6
NOA                                  LR     LR      20 49 48.5
NOA   NORSAR Array B    87.75 331    P      P       20 02 46.7 -0.1
NOA                                                 20 06 13.8
NOA   NORSAR Array B    87.75 331    P      P       20 02 46.7 -0.1
      comp=Z,13nm,0.9s,mb5.2,baz=94,slow=4.9,SNR=32
NOA                                  PP     PP      20 06 13.8 +1.6
      comp=Z,2.3nm,0.9s,baz=88,slow=7.5,SNR=3.3
NOA                                  LR     LR      20 49 48.5
      comp=Z,2µm,19.2s,MS5.5,baz=105,slow=41
CLZ   Clausthal         87.77 322   eP      P       20 02 47.1 -0.1
CLZ                                  pmax   pmax
      comp=Z,27nm,1.0s,mb5.4
CLZ   Clausthal         87.77 322   eP      P       20 02 47.1 -0.1
      comp=Z,27nm,1.0s,mb5.4
BSEG  Bad Segeberg      87.89 324   eP      P       20 02 47.8 +0.1
BSEG                                 pmax   pmax
      comp=Z,52nm,1.1s,mb5.7
BSEG  Bad Segeberg      87.89 324   eP      P       20 02 47.8 +0.1
      comp=Z,52nm,1.1s,mb5.7
NAO01 NORSAR Array S    87.89 331    PFAKE          20 03 00.0  +12
NAO01                                LR     LR
      comp=Z,3µm,21.0s,MS5.7
DAVA  Damuels           87.94 317⇓ iP      P       20 02 48.1  0.0
      comp=Z,29nm,1.0s,mb5.5
DAVA  Damuels           87.94 317⇓ iP      P       20 02 48.1  0.0
      comp=Z,29nm,1.1s,mb5.4
DAVA                             ⇑ ipP     pP      20 02 59.5  +10
      comp=Z,21nm,1.5s
UBBA  Unterbreizbach    87.97 321   eP      P       20 02 47.9 -0.2
      comp=Z,23nm,1.6s,mb5.2
KEST  Kesra             88.08 306    P      P       20 02 50.1 +1.1
      comp=Z,7.3nm,0.9s,mb4.9,baz=333,slow=2.3,SNR=24
KEST                                 PP     PP      20 06 18.4 +2.7
      comp=Z,2.7nm,1.2s,baz=65,slow=1.7,SNR=4.3
KEST                                 LR     LR      20 42 42.3
      comp=Z,437nm,18.5s,MS4.9,baz=184,slow=36
STU   Stuttgart         88.44 319   eP      P       20 02 49.9 -0.5
PGF   Pioggiola         88.46 312   eP      P       20 02 50.4 -0.2
KONO  Kongsberg         88.49 329    PFAKE          20 03 00.0  +10
KONO                                 LR     LR
      comp=Z,2µm,20.0s,MS5.5
KONO  Kongsberg         88.49 329   eP      P       20 02 52.3 +2.0
KONO                                eSKSa           20 13 14.9
MUD   Monsted U'grnd    88.62 326   i P     P       20 02 51.8 +0.7
MUD                                 i S     S       20 13 29.5 -8.5
MUD                                  pmax   pmax
      comp=Z,30nm,1.1s,mb5.5
MUD                                  MLR    MLR
      comp=Z,2µm,19.0s,MS5.6
MUD   Monsted U'grnd    88.62 326   i P     P       20 02 51.8 +0.7
      comp=Z,30nm,1.1s,mb5.5
MUD                                 i S     S       20 13 29.5 -8.5
MUD                                 i               20 13 52.4
MUD
      comp=Z,2µm,19.0s
SPAK  Spaichingen-Ko    88.70 318   eP      P       20 02 51.5 -0.1
TOD   Tromm             88.71 319   eP      P       20 02 51.9 +0.3
KBS   Kingsbay          88.72 349    PFAKE          20 03 00.0 +8.8
KBS                                  LR     LR
      comp=Z,4µm,20.0s,MS5.8
KBS   Kingsbay          88.72 349   eP      P       20 02 52.1 +1.0
KBS                                 eSKSa           20 13 17.3
KBS                                  AMS    AMS     20 49 13.6
      comp=Z,2µm,22.2s,MS5.5
NVL   N'lazarevskaya    88.85 199⇓ iP      P       20 02 55.7 +3.9
NVL                                 e               20 13 35.0
NVL                                  pmax   pmax
      comp=Z,26nm,1.0s,mb5.5
MAIT  Maitri            88.88 199   eP      P       20 02 52.5 +0.5
TNS   Taunus Mts        88.95 320   eP      P       20 02 52.9 +0.1
TNS                                  pmax   pmax
      comp=Z,41nm,1.2s,mb5.6
TNS   Taunus Mts        88.95 320   eP      P       20 02 52.9 +0.1
      comp=Z,41nm,1.2s,mb5.6
BFO   Black Forest      89.00 318   eP      P       20 02 52.5 -0.6
      comp=Z,22nm,1.3s,mb5.3
BFO                                  LR     LR
      comp=Z,2µm,22.0s,MS5.5
FIN   Finale Ligure     89.06 314    P      P       20 02 53.6 +0.2
      comp=Z,40nm,0.8s,mb5.8
FIN   Finale Ligure     89.06 314    P      P       20 02 53.6 +0.2
FIN                                  pmax   pmax
      comp=Z,40nm,0.8s,mb5.8
LANF  Langenberg        89.36 319   eP      P       20 02 54.9 +0.2
IBBN  Ibbenburen        89.40 322   eP      P       20 02 54.9 +0.1
      comp=Z,57nm,1.0s,mb5.9
ABH   Alteburg          89.53 320   eP      P       20 02 55.7 +0.2
BBS   Basel-Blauen      89.55 317   eP      P       20 02 55.2 -0.5
SBF   Sospel            89.61 314   eP      P       20 02 55.9 -0.1
      comp=Z,74nm,1.0s,mb5.7
SBF   Sospel            89.61 314   eP      P       20 02 55.9 -0.1
      comp=Z,37nm,1.0s,mb5.7
SBF   Sospel            89.61 314   eP      P       20 02 55.9 -0.1
SBF                                  pmax   pmax
      comp=Z,37nm,1.0s,mb5.7
BUG   Bochum--Univer    89.70 321   eP      P       20 02 56.2  0.0
      comp=Z,42nm,1.0s,mb5.7
CDF   Champ du Feu      89.71 318   eP      P       20 02 56.0 -0.4
ECH   Echery            89.79 318   eP      P       20 02 56.0 -0.7
RUP   Ruppelstein       89.84 320   eP      P       20 02 58.0 +1.0
LOMF  Lomont            90.02 317   eP      P       20 02 56.3 -1.5
MBDF  Montbardon        90.08 315   eP      P       20 02 57.6 -0.6
      comp=Z,39nm,1.2s,mb5.3
MBDF  Montbardon        90.08 315   eP      P       20 02 57.6 -0.6
      comp=Z,20nm,1.2s,mb5.3
MBDF  Montbardon        90.08 315   eP      P       20 02 57.6 -0.6
MBDF                                 pmax   pmax
      comp=Z,20nm,1.2s,mb5.3
LPG   La Plagne         90.09 315⇑ iP      P       20 02 58.5 +0.3
      comp=Z,42nm,0.9s,mb5.5
LPG   La Plagne         90.09 315⇑ iP      P       20 02 58.5 +0.3
      comp=Z,21nm,0.9s,mb5.5
LPG   La Plagne         90.09 315⇑ iP      P       20 02 58.5 +0.3
LPG                                  pmax   pmax
      comp=Z,21nm,0.9s,mb5.5
LPL   La Plagne         90.10 315⇑ iP      P       20 02 58.5 +0.2
      comp=Z,68nm,1.0s,mb5.7
LPL   La Plagne         90.10 315⇑ iP      P       20 02 58.5 +0.2
      comp=Z,34nm,1.0s,mb5.6
LPL   La Plagne         90.10 315⇑ iP      P       20 02 58.5 +0.2
LPL                                  pmax   pmax
      comp=Z,34nm,1.0s,mb5.6
GAMB  Gambell           90.12  26   eP      P       20 02 56.3 -1.6
      comp=Z,8.1nm,1.0s,mb5.0
BNI   Bardonecchia      90.15 315   eP      P       20 02 58.1 -0.3
      comp=Z,13nm,0.9s,mb5.3
BNI   Bardonecchia      90.15 315   eP      P       20 02 58.2 -0.3
BNI                                  pmax   pmax
      comp=Z,13nm,0.9s,mb5.3
FRF   La Foret Royal    90.19 313⇑ iP      P       20 02 58.7  0.0
      comp=Z,147nm,1.4s,mb5.8
FRF   La Foret Royal    90.19 313⇑ iP      P       20 02 58.7  0.0
      comp=Z,73nm,1.4s,mb5.8
FRF   La Foret Royal    90.19 313⇑ iP      P       20 02 58.7  0.0
FRF                                  pmax   pmax
      comp=Z,73nm,1.4s,mb5.8
HAU   Haudompre         90.33 318⇑ iP      P       20 02 58.9 -0.4
      comp=Z,72nm,1.0s,mb5.7
HAU                                 eMLR    MLR
      comp=Z,2µm,20.0s,MS5.3
HAU   Haudompre         90.33 318⇑ iP      P       20 02 58.9 -0.4
      comp=Z,36nm,1.0s,mb5.7
HAU                                  LR     LR
      comp=Z,2µm,20.0s,MS5.6
HAU   Haudompre         90.33 318⇑ iP      P       20 02 58.9 -0.4
HAU                                  pmax   pmax
      comp=Z,36nm,1.0s,mb5.7
HAU                                  MLR    MLR
      comp=Z,2µm,20.0s,MS5.6
QSPA  South Pole Qui    90.33 180    PFAKE          20 03 10.0  +11
QSPA                                 LR     LR
      comp=Z,3µm,21.0s,MS5.7
WLF   Walferdange       90.43 319    P      P       20 03 00.6 +0.8
      comp=Z,29nm,1.4s,mb5.4
WLF   Walferdange       90.43 319   eP      P       20 03 00.0 +0.3
      comp=Z,52nm,1.2s,mb5.7
MEM   Membach           90.51 320    P      P       20 03 00.1 +0.1
      comp=Z,18nm,1.1s,mb5.3
CABF  La Chapelle       90.53 316⇑ iP      P       20 03 00.4 +0.1
      comp=Z,88nm,1.1s,mb5.7
CABF  La Chapelle       90.53 316⇑ iP      P       20 03 00.4 +0.1
      comp=Z,44nm,1.1s,mb5.7
CABF  La Chapelle       90.53 316⇑ iP      P       20 03 00.4 +0.1
CABF                                 pmax   pmax
      comp=Z,44nm,1.1s,mb5.7
HGN                                 eSKS            20 13 50.9
HGN   Heimansgroeve     90.55 321   eP      P       20 03 00.1 -0.1
      comp=Z,28nm,1.4s,mb5.4
THEF  They Montfort     90.57 318   eP      P       20 03 00.1 -0.3
BER   Bergen            90.63 330   eSKSa           20 13 37.4
BER                                  AMS    AMS     20 52 23.5
      comp=Z,3µm,18.3s,MS5.7
ORIF  Oris-en-Rattie    90.72 315   eP      P       20 03 01.4 +0.3
      comp=Z,44nm,0.9s,mb5.5
ORIF                                eMLR    MLR
      comp=Z,2µm,20.8s,MS5.2
ORIF  Oris-en-Rattie    90.72 315   eP      P       20 03 01.4 +0.3
      comp=Z,22nm,0.9s,mb5.5
ORIF  Oris-en-Rattie    90.72 315   eP      P       20 03 01.4 +0.3
ORIF                                 pmax   pmax
      comp=Z,22nm,0.9s,mb5.5
SMRF  Simiane la Rot    90.96 314   eP      P       20 03 02.9 +0.6
BCLA  Clavier           90.96 320    P      P       20 03 02.9 +0.7
      comp=Z,17nm,1.5s,mb5.2
AFI   Afiamalu          91.02 104    LR     LR      20 44 20.6
      comp=Z,678nm,20.6s,MS5.1,baz=323,slow=36
MEZF  Maizieres J'vi    91.19 318⇑ iP      P       20 03 03.3 +0.1
      comp=Z,101nm,1.1s,mb5.8
MEZF  Maizieres J'vi    91.19 318⇑ iP      P       20 03 03.3 +0.1
      comp=Z,101nm,1.1s,mb6.1
GIVF  Givet             91.28 320⇑ iP      P       20 03 03.8 +0.2
      comp=Z,33nm,0.9s,mb5.4
GIVF  Givet             91.28 320⇑ iP      P       20 03 03.8 +0.2
      comp=Z,16nm,0.9s,mb5.4
GIVF  Givet             91.28 320⇑ iP      P       20 03 03.8 +0.2
GIVF                                 pmax   pmax
      comp=Z,16nm,0.9s,mb5.3
DOU   Dourbes           91.43 320    P      P       20 03 04.9 +0.5
VIVF  Saint-Julien-l    91.58 315   eP      P       20 03 05.2 +0.1
      comp=Z,56nm,1.2s,mb5.5
VIVF  Saint-Julien-l    91.58 315   eP      P       20 03 05.2 +0.1
      comp=Z,28nm,1.2s,mb5.5
VIVF  Saint-Julien-l    91.58 315   eP      P       20 03 05.2 +0.1
VIVF                                 pmax   pmax
      comp=Z,28nm,1.2s,mb5.5
SNF   Seneffe           91.61 320    P      P       20 03 05.8 +0.6
      comp=Z,13nm,1.0s,mb5.2
TNA   Tin City          91.65  25   eP      P       20 03 04.3 -0.8
      comp=Z,4.3nm,0.9s,mb4.8
TNA                                  LR     LR
      comp=Z,2µm,22.0s,MS5.5
BAIF  Baives            91.68 320⇑ iP      P       20 03 05.9 +0.4
      comp=Z,83nm,1.0s,mb5.7
BAIF  Baives            91.68 320⇑ iP      P       20 03 05.9 +0.4
      comp=Z,42nm,1.0s,mb5.7
BAIF  Baives            91.68 320⇑ iP      P       20 03 05.9 +0.4
BAIF                                 pmax   pmax
      comp=Z,42nm,1.0s,mb5.7
LOR   Lormes            92.04 317⇑ iP      P       20 03 07.2  0.0
      comp=Z,71nm,1.0s,mb5.7
LOR                                 eMLR    MLR
      comp=Z,2µm,19.5s,MS5.2
LOR   Lormes            92.04 317⇑ iP      P       20 03 07.2  0.0
      comp=Z,36nm,1.0s,mb5.7
LOR                                  LR     LR
      comp=Z,2µm,19.5s,MS5.5
LOR   Lormes            92.04 317⇑ iP      P       20 03 07.2  0.0
LOR                                  pmax   pmax
      comp=Z,36nm,1.0s,mb5.7
LOR                                  MLR    MLR
      comp=Z,2µm,19.5s,MS5.5
SMF   Signal de Mont    92.08 317   eP      P       20 03 07.3 -0.1
      comp=Z,74nm,1.0s,mb5.7
SMF   Signal de Mont    92.08 317   eP      P       20 03 07.3 -0.1
      comp=Z,37nm,1.0s,mb5.7
SMF   Signal de Mont    92.08 317   eP      P       20 03 07.3 -0.1
SMF                                  pmax   pmax
      comp=Z,37nm,1.0s,mb5.7
LASF  Ste Croix         92.19 314   eP      P       20 03 08.3 +0.3
      comp=Z,155nm,1.6s,mb5.8
PLDF  La Plantade       92.27 316   eP      P       20 03 06.9 -1.4
SSF   Saint Saulge      92.29 317⇑ iP      P       20 03 08.4  0.0
      comp=Z,59nm,1.4s,mb5.4
SSF   Saint Saulge      92.29 317⇑ iP      P       20 03 08.4  0.0
      comp=Z,30nm,1.4s,mb5.4
SSF   Saint Saulge      92.29 317⇑ iP      P       20 03 08.4  0.0
SSF                                  pmax   pmax
      comp=Z,30nm,1.4s,mb5.4
AVF   Avril sur Loir    92.41 317⇑ iP      P       20 03 08.8 -0.2
      comp=Z,56nm,1.1s,mb5.5
AVF   Avril sur Loir    92.41 317⇑ iP      P       20 03 08.8 -0.2
      comp=Z,28nm,1.1s,mb5.5
AVF   Avril sur Loir    92.41 317⇑ iP      P       20 03 08.8 -0.2
AVF                                  pmax   pmax
      comp=Z,28nm,1.1s,mb5.5
LBL   Lubilhac          92.57 315   eP      P       20 03 10.7 +1.0
AGO   Saint Agoulin     92.60 316   eP      P       20 03 10.2 +0.3
BGF   Bois d'Agland     92.77 316   eP      P       20 03 11.0 +0.4
      comp=Z,89nm,1.1s,mb5.8
BGF   Bois d'Agland     92.77 316   eP      P       20 03 11.0 +0.4
      comp=Z,44nm,1.1s,mb5.8
BGF   Bois d'Agland     92.77 316   eP      P       20 03 11.0 +0.4
BGF                                  pmax   pmax
      comp=Z,44nm,1.1s,mb5.8
HYF   Humbligny         92.87 317   eP      P       20 03 11.5 +0.4
TCF   Toulx Ste Croi    93.23 316   eP      P       20 03 12.8 +0.1
UNV   Unalaska Valle    93.38  36    PFAKE          20 03 20.0 +6.7
UNV                                  LR     LR
      comp=Z,5µm,20.0s,MS6.0
MTLF  Montolieu         93.42 313   eP      P       20 03 13.8 +0.1
      comp=Z,49nm,1.2s,mb5.5
MTLF  Montolieu         93.42 313   eP      P       20 03 13.8 +0.1
      comp=Z,24nm,1.2s,mb5.5
MTLF  Montolieu         93.42 313   eP      P       20 03 13.8 +0.1
MTLF                                 pmax   pmax
      comp=Z,24nm,1.2s,mb5.5
RJF   Les Rejaudoux     93.78 315   eP      P       20 03 15.7 +0.4
      comp=Z,44nm,1.2s,mb5.5
RJF                                 eMLR    MLR
      comp=Z,1µm,19.0s,MS5.1
RJF   Les Rejaudoux     93.78 315   eP      P       20 03 15.7 +0.4
      comp=Z,22nm,1.3s,mb5.4
RJF                                  LR     LR
      comp=Z,1µm,19.0s,MS5.4
RJF   Les Rejaudoux     93.78 315   eP      P       20 03 15.7 +0.4
RJF                                  pmax   pmax
      comp=Z,22nm,1.3s,mb5.4
RJF                                  MLR    MLR
      comp=Z,1µm,19.0s,MS5.4
LDF   La Druitiere      94.61 319   eP      P       20 03 18.7 -0.3
      comp=Z,65nm,1.3s,mb5.6
LDF   La Druitiere      94.61 319   eP      P       20 03 18.7 -0.3
      comp=Z,33nm,1.3s,mb5.6
LDF   La Druitiere      94.61 319   eP      P       20 03 18.7 -0.3
LDF                                  pmax   pmax
      comp=Z,33nm,1.3s,mb5.6
JMIC  Jan Mayen         94.75 342    AMS    AMS     20 51 38.9
      comp=Z,1µm,19.2s,MS5.5
FLN   La Foliniere      94.83 319   eP      P       20 03 19.7 -0.3
      comp=Z,21nm,0.9s,mb5.3
FLN                                 eMLR    MLR
      comp=Z,2µm,21.0s,MS5.2
FLN   La Foliniere      94.83 319   eP      P       20 03 19.7 -0.3
      comp=Z,10nm,0.9s,mb5.3
FLN                                  LR     LR
      comp=Z,2µm,21.0s,MS5.5
FLN   La Foliniere      94.83 319   eP      P       20 03 19.7 -0.3
FLN                                  pmax   pmax
      comp=Z,10.0nm,0.9s,mb5.2
FLN                                  MLR    MLR
      comp=Z,2µm,21.0s,MS5.5
TORD  Torodi Ar. Bea    95.34 283    P      P       20 03 22.8 -0.3
      comp=Z,1.7nm,0.9s,mb4.5,baz=78,slow=4.8,SNR=9.6
TORD                                 PP     PP      20 07 15.1 +1.6
      comp=Z,1.1nm,0.9s,baz=80,slow=8.1,SNR=3.7
TORD                                 LR     LR      20 45 17.3
      comp=Z,1µm,18.4s,MS5.3,baz=125,slow=35
DAG   Danmarks Havn     95.40 348⇑ iP      P       20 03 21.7 -0.4
DAG                                  pmax   pmax
      comp=Z,6.0nm,0.7s,mb5.1
DAG                                  MLR    MLR
      comp=Z,28µm,20.0s,MS6.7
DAG   Danmarks Havn     95.40 348⇑ iP      P       20 03 21.7 -0.4
      comp=Z,6.2nm,0.7s,mb5.2
DAG
      comp=Z,28µm,20.0s
ETSF  Etsaut            95.48 313   eP      P       20 03 23.4 +0.2
      comp=Z,29nm,1.0s,mb5.4
ETSF  Etsaut            95.48 313   eP      P       20 03 23.4 +0.2
      comp=Z,14nm,1.0s,mb5.4
ETSF  Etsaut            95.48 313   eP      P       20 03 23.4 +0.2
ETSF                                 pmax   pmax
      comp=Z,14nm,1.0s,mb5.3
ESK   Eskdalemuir       95.65 326    PFAKE          20 03 30.0 +6.4
ESK                                  LR     LR
      comp=Z,2µm,19.0s,MS5.7
SGMF  Saint Gilles      96.26 319   eP      P       20 03 26.1 -0.5
QUIF  Quistinic         96.71 318   eP      P       20 03 27.9 -0.7
      comp=Z,258nm,1.8s,mb6.1
QUIF  Quistinic         96.71 318   eP      P       20 03 27.9 -0.7
      comp=Z,129nm,1.8s,mb6.0
QUIF  Quistinic         96.71 318   eP      P       20 03 27.9 -0.7
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QUIF				pmax	pmax		
	comp=Z,129nm,1.8s,mb6.1						
ROSF	Rostrenen	96.72	319	*e*P	P	20 03 28.0	-0.7
	comp=Z,196nm,1.7s,mb6.0						
ROSF	Rostrenen	96.72	319	*e*P	P	20 03 28.0	-0.7
	comp=Z,98nm,1.7s,mb6.0						
ROSF	Rostrenen	96.72	319	*e*P	P	20 03 28.0	-0.7
ROSF				pmax	pmax		
	comp=Z,98nm,1.7s,mb6.0						
IMA2	Indian Mountai	97.30	23	*e*P	P	20 03 30.8	-0.1
ESLA	Sonseca Array	98.40	310	PFAKE		20 03 50.0	+14
ESLA				LR	LR		
	comp=Z,7µm,20.0s,MS6.1						
PAB	San Pablo	98.71	310	PFAKE		20 03 50.0	+12
PAB				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
MCK	McKinley	100.00	24	PFAKE		20 03 50.0	+6.8
MCK				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
COLA	College	100.00	23	PFAKE		20 03 50.0	+6.8
COLA				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
KDAK	Kodiak Island	100.31	31	PFAKE		20 03 50.0	+5.4
KDAK				LR	LR		
	comp=Z,509nm,20.0s,MS5.0						
PMR	Palmer	100.70	26	PFAKE		20 04 00.0	+14
PMR				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
LIC	Lamto	102.18	276	*e*P	Pdif	20 03 53.5	+0.6
	comp=Z,36nm,1.4s						
LIC				*e*MLR	MLR		
	comp=Z,2µm,19.2s,MS5.4						
LIC	Lamto	102.18	276	*e*P	Pdif	20 03 53.5	+0.6
	comp=Z,18nm,1.4s						
LIC				LR	LR		
	comp=Z,1µm,19.3s,MS5.4						
DIV	Divide	102.37	26	PFAKE		20 04 00.0	+6.2
DIV				LR	LR		
	comp=Z,9µm,22.0s,MS6.2						
EGAK	Eagle	102.61	22	PFAKE		20 04 00.0	+5.2
EGAK				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
INK	Inuvik	103.23	17	PKiKP	PKiKP	20 08 13.3	-3.4
	comp=Z,2.3nm,1.0s,baz=306,slow=7.8,SNR=3.9						
KIP	Kipapa	103.55	68	PFAKE		20 04 10.0	+11
KIP				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
SIT	Sitka	109.05	27	PFAKE		20 08 40.0	+12
SIT				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
SFJD	Kangerlussuaq	109.07	347	PFAKE		20 08 40.0	+12
SFJD				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
WRAK	Wrangell Islan	110.77	27	PFAKE		20 08 40.0	+9.0
WRAK				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
PPT	Papeete	112.16	109	*e*PS	PS	20 18 50.1	-2.9
	comp=Z,241nm,28.8s						
PPT	Papeete	112.16	109	*e*LR	LR	20 41 58.0	
	comp=Z,1µm,24.5s						
YKA	Yellowknife Ar	112.86	15	PKPdf	PKiKP	20 08 33.6	-1.2
YKA				PKKPbc	PKKPbc	20 19 21.8	-2.9
YKA	Yellowknife Ar	112.86	15	PKIKP	PKiKP	20 08 33.6	-1.2
YKA	Yellowknife Ar	112.86	15	PKiKP	PKiKP	20 08 33.6	-1.2
	comp=Z,0.7nm,0.8s,baz=317,slow=2.0,SNR=8.6						
YKA				PKKPbc	PKKPbc	20 19 21.8	-2.9
	comp=Z,0.7nm,0.9s,baz=145,slow=3.5,SNR=8.2						
PMSA	Palmer Station	114.33	189	PFAKE		20 08 50.0	+12
PMSA				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
NLWA	Neilton Lookou	120.45	31	PFAKE		20 09 00.0	+10
NLWA				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
TAOE	Nuku Hiva Isla	122.23	100	*e*LR	LR	20 46 42.6	
	comp=Z,3µm,27.4s						
COR	Corvallis	122.56	33	PFAKE		20 09 00.0	+6.0
COR				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
FFC	Flin Flon	122.84	13	PFAKE		20 09 00.0	+5.8
FFC				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
NEW	Newport	123.12	27	PFAKE		20 09 00.0	+5.1
NEW				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
HAWA	Hanford	123.33	30	*e*PKPdf	PKPdf	20 08 54.6	-0.8
HAWA				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
SCHQ	Schefferville	123.44	349	PFAKE		20 09 10.0	+15
SCHQ				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
CROR	Criterion Ridg	123.55	32	P	PKPdf	20 08 56.3	+0.4
HUMO	Hull Mountain	124.00	35	*e*PKPdf	PKPdf	20 08 57.2	+0.4
HUMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
VIPM	Ingram Point	124.06	32	P	PKPdf	20 08 57.6	+0.8
VIPM	Ingram Point	124.06	32	PKIKP	PKPdf	20 08 57.6	+0.7
BSMT	Bassoo Peak	124.47	26	P	PKPdf	20 08 57.6	+0.1
RKT	Rikitea	124.50	118	*e*PS	PS	20 20 36.6	-7.5
	comp=Z,176nm,32.0s						
RKT	Rikitea	124.50	118	*e*SS	SS	20 27 42.6	+4.2
	comp=Z,428nm,29.0s						
RKT				*e*LR	LR	20 47 49.2	
	comp=Z,859nm,26.5s						
RKT	Rikitea	124.50	118	*e*LR	LR	20 05 00.9	
	comp=Z,458nm,31.5s						
YBH	Yreka Blue Hor	124.69	36	PFAKE		20 09 10.0	+12
YBH				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
EFI	East Falkland	124.82	198	PFAKE		20 09 10.0	+12
EFI				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
LHEM	Herd Peak	125.04	36	P	PKPdf	20 08 59.3	+0.5
WDC	Whiskeytown Da	125.51	37	PFAKE		20 09 10.0	+10
WDC				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
BMO	Blue Mountains	125.52	30	PFAKE		20 09 10.0	+10
BMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
MSO	Missoula	125.62	26	*e*PKPdf	PKPdf	20 08 59.3	-0.4
MSO				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
LTIM	Timbered Crate	125.75	36	P	PKPdf	20 09 00.7	+0.5
CHMT	Chamberlain Mo	125.85	25	*e*PKPdf	PKPdf	20 08 59.4	-0.8
MOD	Modoc	125.96	34	*e*PKPdf	PKPdf	20 09 01.0	+0.4
MOD				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
LBCM	Butte Creek Ri	126.05	36	P	PKPdf	20 09 01.3	+0.5
HOPS	Hopland	126.14	39	PFAKE		20 09 10.0	+9.0
HOPS				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
EGMT	Eagleton	126.38	22	*e*PKPdf	PKPdf	20 08 59.0	-2.2
EGMT				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
WVOR	Wild Horse Val	126.53	33	*e*PKPdf	PKPdf	20 09 01.9	+0.2
WVOR				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
WVOR	Wild Horse Val	126.53	33	*e*PKIKP	PKPdf	20 09 01.9	+0.2
WVOR				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.6						
MCCM	Marconi Confer	126.77	39	PFAKE		20 09 10.0	+7.7
MCCM				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
OHCM	Honcut	126.92	37	*e*PKPdf	PKPdf	20 09 02.6	+0.1
BOZ	Bozeman (W)	127.55	25	PFAKE		20 09 10.0	+6.5
BOZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
MCMT	McKenzie Canyo	127.65	27	P	PKPdf	20 09 04.4	+0.7
HLID	Hailey	127.88	29	PFAKE		20 09 10.0	+5.8
HLID				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
DGMT	Dagmar	127.91	18	PFAKE		20 09 10.0	+5.9
DGMT				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
QLMT	Earthquake Lak	128.28	26	*e*PKPdf	PKPdf	20 09 06.3	+1.3
ULM	Lac du Bonnet	128.32	11	PKP	PKPdf	20 09 03.6	-1.2
ULM				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
ULM	Lac du Bonnet	128.32	11	PKP	PKPdf	20 09 03.6	-1.2
	comp=Z,4.9nm,0.9s,baz=356,slow=4.6,SNR=9.4						
CMB	Columbia Colle	128.40	38	PFAKE		20 09 20.0	+15
CMB				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
SAO	San Andreas Ge	128.51	40	PFAKE		20 09 20.0	+14
SAO				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
YMR	Madison River	128.61	26	PFAKE		20 09 20.0	+14
YMR				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
BMN	Battle Mountai	128.67	34	PFAKE		20 09 20.0	+14
BMN				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
LAO	LASA Array	128.79	21	*e*PKPdf	PKPdf	20 09 06.4	+0.5
LAO				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
LKWY	Lake	128.93	25	PFAKE		20 09 20.0	+14
LKWY				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
RLMT	Red Lodge	128.96	24	PFAKE		20 09 20.0	+14
RLMT				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
MOOW	Moose Ponds	129.44	26	*e*PKPdf	PKPdf	20 09 07.4	+0.3
ELK	Elko	129.53	32	PFAKE		20 09 20.0	+13
ELK				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
MTUM	Tungsten Hills	129.94	37	*e*PKPdf	PKPdf	20 09 09.3	+1.0
AHID	Auburn Hatcher	130.05	27	PFAKE		20 09 20.0	+12
AHID				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
AGMN	Agassiz Refuge	130.19	11	PFAKE		20 09 20.0	+12
AGMN				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
TPH	Tonopah	130.27	36	PFAKE		20 09 20.0	+11
TPH				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
HWUT	Hardware Ranch	130.74	29	PFAKE		20 09 20.0	+10
HWUT				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
BW06	Boulder Array	130.74	26	PFAKE		20 09 20.0	+10
BW06				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
PDAR	Pinedale Array	130.74	26	PKP	PKPdf	20 09 09.2	-0.5
PDAR	Pinedale Array	130.74	26	PKP	PKPdf	20 09 09.2	-0.5
	comp=Z,2.2nm,0.8s,baz=187,slow=2.0,SNR=12						
DUG	Dugway	131.19	31	*e*PKPdf	PKPdf	20 09 10.8	+0.2
DUG				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
DUG	Dugway	131.19	31	*e*PKIKP	PKPdf	20 09 10.8	+0.2
DUG				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.7						
DAC	Darwin (Calif)	131.23	38	PFAKE		20 09 20.0	+9.2
DAC				LR	LR		
	comp=Z,843nm,19.0s,MS5.5						
EYMN	Ely	131.26	8	PFAKE		20 09 20.0	+9.5
EYMN				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
RSSD	Black Hills	131.79	21	PFAKE		20 09 20.0	+8.4
RSSD				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
MPU	Maple Canyon	131.92	30	PFAKE		20 09 20.0	+8.0
MPU				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
TMUT	Trail Mountain	132.68	30	*e*PKPdf	PKPdf	20 09 13.2	-0.3
MVU	Marysvale	132.76	32	PFAKE		20 09 20.0	+6.4
MVU				LR	LR		
	comp=Z,937nm,19.0s,MS5.5						
MSU	Marysvale	132.77	32	*e*PKPdf	PKPdf	20 09 15.3	+1.7
MSU	Marysvale	132.77	32	*e*PKIKP	PKPdf	20 09 15.3	+1.7
RCBR	Riachuelo	132.94	262	PFAKE		20 09 20.0	+5.3
RCBR				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
PKME	Peaks-Kenny Pk	133.01	347	PFAKE		20 09 20.0	+6.1
PKME				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
COWI	Conover	133.37	6	PFAKE		20 09 20.0	+5.5
COWI				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
PFO	Pinyon Flat Ob	133.67	40	PFAKE		20 09 30.0	+15
PFO				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
ECSD	EROS,Sioux Fal	134.36	14	PFAKE		20 09 30.0	+14
ECSD				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
LBNH	Lisbon	134.54	349	PFAKE		20 09 30.0	+13
LBNH				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
LONY	Lake Ozonia	134.61	352	PFAKE		20 09 30.0	+13
LONY				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
ISCO	Idaho Springs	134.87	25	PFAKE		20 09 30.0	+12
ISCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
GLMI	Grayling	134.96	2	PFAKE		20 09 30.0	+12
GLMI				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
NCB	Newcomb	135.19	351	PFAKE		20 09 30.0	+12
NCB				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
WUAZ	Wupatki	135.41	34	*e*PKPdf	PKPdf	20 09 19.4	+0.7
WUAZ				*e*		20 09 32.6	
WUAZ				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
MVCO	Mesa Verde	135.64	30	PFAKE		20 09 30.0	+11
MVCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
HRV	Harvard--Oak R	136.13	348	PFAKE		20 09 30.0	+10
HRV				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
WES	Weston	136.20	348	PFAKE		20 09 30.0	+10
WES				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
JFWS	Jewell Farm	136.37	8	PFAKE		20 09 30.0	+10
JFWS				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
SDCO	Great Sand Dun	136.63	27	PFAKE		20 09 30.0	+9.1
SDCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
SCIA	State Center	136.85	11	PFAKE		20 09 30.0	+8.8
SCIA				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
BINY	Binghamton	137.18	353	PFAKE		20 09 30.0	+8.2
BINY				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
AAM	Ann Arbor	137.50	1	PFAKE		20 09 30.0	+7.6
AAM				LR	LR		
	comp=Z,3µm,19.0s,MS6.1						
CBKS	Cedar Bluff	137.98	20	PFAKE		20 09 30.0	+6.6
CBKS				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
TUC	Tucson	138.05	37	PFAKE		20 09 30.0	+6.3
TUC				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
ANMO	Albuquerque	138.44	30	*e*PKPpre		20 09 18.8	
ANMO				*e*PKPdf	PKPdf	20 09 24.9	+0.6
ANMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
ANMO	Albuquerque	138.44	30	*e*PKIKP	PKPdf	20 09 18.8	-5.5
ANMO				MLR	MLR		
	comp=Z,2µm,20.0s						
ANMO	Albuquerque	138.44	30	PKP	PKPdf	20 09 22.3	-2.0
	comp=Z,3.3nm,0.9s,baz=213,slow=2.6,SNR=7.2						
KSU1	Kansas State U	138.70	16	*e*PKPdf	PKPdf	20 09 23.5	-1.1
KSU1				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
LENM	Lemitar	138.79	31	*e*PKPdf	PKPdf	20 09 26.2	+1.2
HDIL	Hopedale	138.82	8	PFAKE		20 09 30.0	+5.2
HDIL				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
SSPA	Standing Stone	138.94	354	PFAKE		20 09 30.0	+4.9
SSPA				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
ACSO	Alum Creek Sta	139.58	0	PFAKE		20 09 40.0	+14
ACSO				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
MCWV	Mont Chateau	140.06	357	PFAKE		20 09 40.0	+13
MCWV				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
AMTX	Amarillo	140.69	25	PFAKE		20 09 40.0	+12
AMTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
WCI	Wyandotte Cave	141.44	4	PFAKE		20 09 40.0	+10
WCI				LR	LR		
	comp=Z,2µm,19.0s,MS6.0						
MNTX	Cornudas Mount	141.55	32	*e*PKPpre		20 09 27.5	
WMOK	Wichita Mounta	141.97	22	*e*PKPpre		20 09 24.6	
WMOK				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
WMOK	Wichita Mounta	141.97	22	*e*PKHKP		20 09 24.7	
WMOK				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.8						
BLA	Blacksburg	142.53	357	PFAKE		20 09 40.0	+8.3
BLA				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
BBSR	BB Station	143.23	334	PFAKE		20 09 40.0	+7.0
BBSR				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
TZTN	Tazewell	143.25	1	PFAKE		20 09 40.0	+7.0
TZTN				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
WVT	Waverly	143.36	7	*e*PKPpre		20 09 30.6	
WVT				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
WVT	Waverly	143.36	7	*e*PKIKP	PKPdf	20 09 30.6	-2.6
WVT				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.8						
MIAR	Mount Ida	143.80	15	*e*PKPpre		20 09 30.5	
MIAR				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
MIAR	Mount Ida	143.80	15	*e*PKIKP	PKPdf	20 09 30.5	-3.5
MIAR				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.9						
TKL	Tuckaleechee C	144.13	1	PKP	PKPdf	20 09 33.3	-1.2
TKL	Tuckaleechee C	144.13	1	PKIKP	PKPdf	20 09 33.3	-1.2
TKL	Tuckaleechee C	144.13	1	PKP	PKPdf	20 09 33.3	-1.2
	comp=Z,5.9nm,0.9s,baz=170,slow=7.3,SNR=3.9						
CNNC	Cliffs of the	144.27	353	PFAKE		20 09 40.0	+5.2
CNNC				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
LTX	Lajitas	144.32	32	*e*PKPpre		20 09 33.1	
LTX				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
LTX	Lajitas	144.32	32	*e*PKIKP	PKPdf	20 09 33.1	-1.9
LTX				MLR	MLR		
	comp=Z,3µm,20.0s,MS6.0						
TXAR	Lajitas Array	144.32	32	PKP	PKPdf	20 09 33.6	-1.5
TXAR	Lajitas Array	144.32	32	PKIKP	PKPdf	20 09 33.6	-1.4
TXAR	Lajitas Array	144.32	32	PKP	PKPdf	20 09 33.6	-1.5
	comp=Z,15nm,0.9s,baz=281,slow=2.0,SNR=64						
PLAL	Pickwick Lake	144.47	8	*e*PKPpre		20 09 31.8	
PLAL				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
OXF	Oxford	144.73	10	PFAKE		20 09 50.0	+14
OXF				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
FCH	Farellones	145.20	198⇑	*e*P	PKPbc	20 09 35.9	-0.1
JCT	Junction City	145.28	26	PFAKE		20 09 50.0	+14
JCT				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
JSC	Jenkinsville	145.49	358	*e*PKPdf	PKPdf	20 09 35.8	-1.2
JSC	Jenkinsville	145.49	358	*e*PKIKP	PKPdf	20 09 35.8	-1.1
NATX	Nacogdoches	146.09	18	*e*PKPdf	PKPdf	20 09 38.1	+0.1
NATX				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
GOGA	Godfrey	146.38	1	*e*PKPdf	PKPdf	20 09 38.8	+0.3
GOGA				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
GOGA	Godfrey	146.38	1	*e*PKP2	PKPab	20 09 38.8	-1.6
GOGA				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.9						
LRAL	Lakeview Retre	146.52	6	PFAKE		20 09 50.0	+11
LRAL				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
NHSC	New Hope	146.60	356	PFAKE		20 09 50.0	+11
NHSC				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
HKT	Hockley	147.35	21	*e*PKPbc	PKPbc	20 09 42.9	+0.3
HKT				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
HKT	Hockley	147.35	21	*e*PKP2	PKPab	20 09 42.9	-1.4
BRAL	Brewton	148.51	7	PFAKE		20 09 50.0	+7.9
BRAL				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
KVTX	Kingsville	148.64	26	PFAKE		20 09 50.0	+7.6
KVTX				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
LCO	Las Campanas	149.30	201	*e*PKPbc	PKPbc	20 09 48.2	+0.6
LCO				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
DWPF	Disney	151.64	358	PFAKE		20 10 00.0	+13
DWPF				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
BBGH	Gun Hill	153.38	301	PFAKE		20 10 00.0	+10
BBGH				LR	LR		
	comp=Z,2µm,19.0s,MS6.0						
SJG	San Juan	155.43	319	PFAKE		20 10 00.0	+7.3
SJG				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
SDDR	Presa de Saban	157.71	330	PFAKE		20 10 10.0	+14
SDDR				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
LPAZ	La Paz	158.62	222	PKP	PKPdf	20 09 53.7	-3.1
LPAZ				*e*PKPdf	PKPdf	20 09 57.3	+0.5
LPAZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
LPAZ	La Paz	158.62	222	PKIKP	PKPdf	20 09 53.7	-3.1
LPAZ				MLR	MLR		
	comp=Z,1µm,20.0s						
LPAZ	La Paz	158.62	222	PKP	PKPdf	20 09 53.7	-3.1
	comp=Z,2.6nm,0.9s,baz=48,slow=7.5,SNR=8.4						
TEIG	Tepich	158.81	15	PFAKE		20 10 10.0	+13
TEIG				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
CMIG	Matias Romero	158.91	34	PKP	PKPdf	20 09 53.9	-3.3
CMIG	Matias Romero	158.91	34	PKP	PKPdf	20 09 53.9	-3.3
	comp=Z,2.3nm,0.9s,baz=26,slow=6.4,SNR=3.9						
TGUH	Tegucigalpa,Un	164.97	17	PFAKE		20 10 10.0	+6.6
TGUH				LR	LR		
	comp=Z,2µm,20.0s						
NNA	Nana	167.07	207	PFAKE		20 10 20.0	+15
NNA				LR	LR		
	comp=Z,2µm,21.0s						
JTS	JuntasAbangare	169.17	12	PFAKE		20 10 20.0	+13
JTS				LR	LR		
	comp=Z,1µm,19.0s						
ROSC	El Rosal	170.12	302	PKP	PKPdf	20 10 06.1	-1.1
ROSC	El Rosal	170.12	302	PKP	PKPdf	20 10 06.1	-1.1
	comp=Z,7.3nm,0.5s,baz=84,slow=19,SNR=5.1						
PAYG	Puerto Ayora	172.44	92	PFAKE		20 10 20.0	+12
PAYG				LR	LR		
	comp=Z,2µm,20.0s						

IDC ***14*** *20:01:08.7±2.4, 4332N×10526W, h0^{km}, mb1 3.5/3, mb1mx3.3/21, mbtmp3.2/3, ML3.1/3, Error ellipse: s-maj=48.3km s-min=7.4km az=152.0*

ISCJB ***14*** *20:01:10.4±0.6, 4358N±0.05×10523W±0.08, h0^{km}, Error ellipse: s-maj=8.1km s-min=6.5km az=178.1*

NEIC ***14*** *20:01:12.0±0.5, 4355N×10530W, h0^{km}, ML3.1, Error ellipse: s-maj=6.9km s-min=5.6km az=91.0, Suspected Mining explosion.*

NEIC 80 km [50 miles] ENE of Midwest.

ISC 14 20:01:11.8±0.6**, 4357N**±005×**10526W**±007**, h0**^{km}**, n26,** σ**0**^{s}**97**/31**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PHWY	Pilot Hill	2.27	184	*e*P	Pn	20 01 50.0	-0.5
RWWY	Rawlins	2.37	218	*e*P	Pn	20 01 52.4	+0.5
LAO	LASA Array	3.19	348	*e*Pn	Pn	20 02 02.6	-0.5
BW06	Boulder Array	3.24	257	*e*Pn	Pn	20 02 03.4	-0.5
PDAR	Pinedale Array	3.24	257	Pn	Pn	20 02 03.5	-0.4
PDAR				Pg	Pg	20 02 10.8	-3.1
PDAR				Lg		20 02 47.6	
PDAR	Pinedale Array	3.24	257	Pn	Pn	20 02 03.5	-0.4
	1.9nm,0.3s,baz=78,slow=15,SNR=40						
PDAR				Pg	Pg	20 02 10.8	-3.1
	6.5nm,0.3s,baz=81,slow=17,SNR=36						
PDAR				Lg		20 02 47.6	
	12nm,0.3s,baz=71,slow=33,SNR=22						
RLMT	Red Lodge	3.26	300	*e*Pn	Pn	20 02 03.0	-1.2
ISCO	Idaho Springs	3.78	184	*e*Pn	Pn	20 02 11.7	+0.5
ISCO				*e*S	Sn	20 03 02.1	+5.7
GCMT	Greycliff	3.84	307	*e*Pn	Pn	20 02 12.4	+0.3
MOOW	Moose Ponds	3.98	274	*e*P	Pn	20 02 13.7	-0.3
REDW	Red Top Meadow	4.07	269	*e*P	Pn	20 02 17.8	+2.5
YMR	Madison River	4.25	287	*e*P	Pn	20 02 26.2	+8.5
SMCO	Snowmass	4.58	197	*e*Pg	Pg	20 02 32.3	-7.1
QLMT	Earthquake Lak	4.61	288	*e*Pb	Pb	20 02 33.9	+0.4
DGMT	Dagmar	4.95	8	*e*Pn	Pn	20 02 28.9	+1.6
BOZ	Bozeman (W)	5.00	297	P	Pn	20 02 29.1	+1.2
HWUT	Hardware Ranch	5.05	249	*e*P	Pn	20 02 28.4	-0.3
	5.7nm,0.4s						
EGMT	Eagleton	5.45	326	*e*Pn	Pn	20 02 34.7	+0.6
	6.1nm,0.5s						

JLU	Jordanelle	5.48	239	*e*Pb	Pb	20 02 47.8	-0.4
MCMT	McKenzie Canyo	5.60	286	P	Pn	20 02 36.1	-0.1
SDCO	Great Sand Dun	5.82	182	*e*Pn	Pn	20 02 40.4	+1.0
	1.5nm,0.4s						
SRU	San Rafael	5.96	223	*e*Pn	Pn	20 02 40.5	-0.7
	6.8nm,0.4s						
ECSD	EROS,Sioux Fal	6.28	86	*e*Pn	Pn	20 02 45.7	+0.1
ULM	Lac du Bonnet	9.26	41	Pn	Pn	20 03 23.0	-3.5
ULM				Sn	Sn	20 05 07.2	-4.0
ULM				Lg		20 05 58.9	
ULM	Lac du Bonnet	9.26	41	Pn	Pn	20 03 23.0	-3.5
	0.8nm,0.3s,baz=231,slow=12,SNR=11						
ULM				Sn	Sn	20 05 07.2	-4.0
	0.4nm,0.3s,baz=150,slow=8.1,SNR=2.3						
ULM				Lg		20 05 58.9	
	0.3nm,0.3s,baz=110,slow=4.2,SNR=3.4						
YKA	Yellowknife Ar	19.73	347	P	Pn	20 05 43.5	-0.5
	0.1nm,0.3s,baz=161,slow=11,SNR=3.3						

IDC ***14*** *20:04:07.7±1.1, 31.12N×134.65E, h0^{km}, mb3.7/4, mb1 3.9/6, mb1mx3.6/24, mbtmp3.8/6, ML3.5/2, MS4.3/1, Ms1 4.3/1, ms1mx3.8/31, Error ellipse: s-maj=32.8km s-min=22.2km az=83.0*

ISCJB ***14*** *20:04:11.4±2.4, 31.5N±0.2×142.5E±0.4, h108^{km}±33^{km}, mb4.0/2, Error ellipse: s-maj=53.7km s-min=20.6km az=157.1*

JMA ***14*** *20:04:13.4±0.4, 31.66N×142.66E, h79^{km}, M3.6*

ISC 14 20:04:12.0±2.3**, 31.4N**±0.2×**142.6E**±0.4**, h87**^{km}±32^{km}**, n10,** σ**$0^{s}.47$**/13**, mb4.0**/2**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	2.92	307	Pn	Sn	20 05 21.2	-9.2
	20nm,0.3s,baz=233,slow=20,SNR=2.8						
JOD2	Odawara 2	4.83	324	P	Pn	20 05 22.4	+0.1
JHU	Hanno	5.22	329	P	Pn	20 05 28.1	+0.6
JHU				*e*S	Sn	20 06 26.5	+0.1
JHO	Hitachi	5.46	343	P	Pn	20 05 30.5	-0.3
JHO				*e*S	Sn	20 06 32.7	+0.4
JRY	Ryogami san	5.53	327	P	Pn	20 05 32.1	+0.4
JRY				*e*S	Sn	20 06 34.3	+0.4
JAG	Ashikaga	5.65	334	P	Pn	20 05 33.3	0.0
JAG				*e*S	Sn	20 06 35.9	-0.9
MJAR	Matsushiro Arr	6.28	326	Pn	Pn	20 05 41.1	-0.8
	0.3nm,0.3s,baz=303,slow=31,SNR=4.4						
KSRS	Korea Array	13.51	301	LR	LR	20 09 39.7	
	comp=Z,2μm,19.4s,baz=132,slow=39						
WRA	Warramunga Arr	51.65	190	P	P	20 13 09.4	-0.4
	0.7nm,0.3s,mb4.1,baz=3.9,slow=7.4,SNR=38						
ASAR	Alice Springs	55.37	190	P	P	20 13 37.4	+0.4
	0.5nm,0.4s,mb3.9,baz=5.2,slow=5.9,SNR=16						

IDC ***14*** *20:05:43.3±0.7, 24.11N×122.38E, h0^{km}, mb4.2/14, mb1 4.2/16, mb1mx4.2/24, mbtmp4.1/16, ML3.3/2, MS4.8/2, Ms1 4.8/2, ms1mx3.7/32, Error ellipse: s-maj=27.5km s-min=15.2km az=65.0*

NEIC ***14*** *20:05:44.3±1.4, 24.11N×122.48E, h7^{km}±8^{km}, mb4.5/4, Error ellipse: s-maj=10.4km s-min=7.9km az=52.0*

BJI ***14*** *20:05:47.6, 24.34N×122.20E, h10^{km}, mb4.1, ML4.0*

ISCJB ***14*** *20:05:48.4±0.6, 24.02N±0.07×122.22E±0.04, h47^{km}±6^{km}, mb4.1/19, MS4.9/2, Error ellipse: s-maj=12.1km s-min=5.2km az=8.7*

JMA ***14*** *20:05:48.4±0.4, 24.01N×122.26E, h28^{km}, M3.8*

ISC 14 20:05:48.1±1.0**, 24.04N**±0.07×**122.23E**±0.03**, h27**^{km}±7^{km}**, n40,** σ**$0^{s}.86$**/43**, mb4.1**/19**, MS4.9**/2**, 2C, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NACB	Ninganchiao	0.59	283	*e*P	Pb	20 05 59.5	-0.4
YOJ	Yonaguni jima	0.83	60	P	Pb	20 06 03.6	-0.3
YOJ				*e*S	Sb	20 06 14.3	-0.3
YHNB	Yeheng	1.00	309	⇑*i*P	Pn	20 06 06.8	+0.5
TATO	Taipei	1.15	324	*e*P	Pn	20 06 09.6	+1.1
IRIF	Iriomote-Funau	1.40	78	P	Pn	20 06 12.6	+0.6
IRIF				*e*S	Sn	20 06 30.9	+1.3
HATJ	Hateruma jima	1.44	89	P	Pn	20 06 12.5	0.0
HATJ				*e*S	Sn	20 06 31.1	+0.5
JKRS	Kuro-shima	1.64	83	P	Pn	20 06 15.6	+0.4
JIJ	Ishigaki jima	1.78	79	P	Pn	20 06 17.0	-0.1
JIJ				*e*S	Sn	20 06 38.9	0.0
JTJ	Tarama	2.33	75	P	Pn	20 06 25.3	+0.5
QZH	Quanzhou	3.43	286	⇑*i*P	Pn	20 06 41.4	+1.6
QZH				S	Sn	20 07 19.3	-0.3
QZH				Smax			
	comp=N,420nm,1.0s						
QZH				Smax			
	comp=E,450nm,0.7s						
JOW	Kunigami	6.13	62	Pn	Pn	20 07 11.2	-5.8
JOW	Kunigami	6.13	62	Pn	Pn	20 07 11.2	-5.8
	comp=E,1.7nm,0.3s,baz=102,slow=14,SNR=2.1						
KSRS	Korea Array	14.23	19	Pn	Pn	20 09 05.1	-2.8
	comp=E,0.1nm,0.3s,baz=191,slow=12,SNR=2.5						
CHTO	Chiang Mai	22.28	261	P	P	20 10 43.0	-0.4
GTA	Gaotai	24.36	314	*e*P	P	20 11 05.8	+1.9
GTA				AP		20 11 10.3	
GTA				XP	sP	20 11 13.3	-1.8
GTA				AMB	AMB		
	comp=Z,5.0nm,1.6s,mb3.7						
ULN	Ulaanbaatar	26.66	337	*e*P	P	20 11 24.6	0.0
	comp=Z,12nm,0.9s,mb4.4						
SONM	Songino Array	26.88	336	P	P	20 11 26.6	+0.1
	comp=Z,11nm,0.9s,mb4.4,baz=149,slow=9.9,SNR=49						
LSA	Lhasa	28.24	288	*e*P	P	20 11 41.1	+2.2
	comp=Z,7.7nm,1.4s,mb4.1						
TLY	Talaya	31.07	337	*e*P	P	20 12 03.4	-0.4
	comp=Z,6.9nm,0.8s,mb4.5						
MK31	Makanchi Array	39.10	316	*e*P	P	20 13 13.4	+0.3
MKAR	Makanchi Array	39.10	316	P	P	20 13 13.3	+0.2
	comp=Z,2.5nm,0.7s,mb4.1,baz=103,slow=9.5,SNR=21						
ZALV	Zalesovo Beam	40.88	327	P	P	20 13 26.9	-0.9
	comp=Z,4.2nm,0.8s,mb4.1,baz=113,slow=7.9,SNR=18						
WRA	Warramunga Arr	45.28	164	P	P	20 14 02.7	-0.9
	comp=Z,2.0nm,0.9s,mb4.0,baz=346,slow=8.3,SNR=11						
WB2	Warramunga Arr	45.29	164	*e*P	P	20 14 03.1	-0.5
KBL	Kabul	47.08	296	*e*P	P	20 14 19.6	+1.8
BRVK	Borovoye	48.46	321	*e*P	P	20 14 27.9	-0.2
	comp=Z,1.9nm,0.6s,mb4.3						
ASAR	Alice Springs	48.76	166	P	P	20 14 30.8	+0.1
	comp=Z,1.2nm,0.9s,mb3.9,baz=345,slow=6.7,SNR=8.2						
HNR	Honiara	49.64	128	LR	LR	20 32 33.1	
	comp=Z,751nm,19.4s,MS4.7,baz=360,slow=32						
AKTK	Aktyubinsk	55.54	316	P	P	20 15 20.9	-0.1
AKTO	Aktyubinsk	55.54	316	P	P	20 15 20.9	-0.1
	comp=Z,1.9nm,0.8s,mb4.2,baz=88,slow=5.1,SNR=7.1						
STKA	Stephens Creek	58.61	161	*e*P	P	20 15 42.9	+0.1
STKA	Stephens Creek	58.61	161	P	P	20 15 42.4	-0.3
	comp=Z,1.5nm,0.7s,mb4.1,baz=175,slow=17,SNR=4.6						
ARCES	ARCESS Array B	70.03	338	P	P	20 16 56.8	-0.3
	comp=Z,2.0nm,0.9s,mb4.0,baz=56,slow=7.4,SNR=3.9						
FINES	FINESS Array B	72.05	330	P	P	20 17 07.9	-1.6
	comp=Z,1.1nm,0.7s,mb3.9,baz=98,slow=9.8,SNR=6.0						
INK	Inuvik	73.00	22	P	P	20 17 14.2	-0.8
	comp=Z,2.2nm,0.7s,mb4.2,baz=299,slow=5.1,SNR=8.5						
AKASG	Malin Array Be	73.61	319	P	P	20 17 17.7	-1.3
	comp=Z,1.9nm,0.6s,mb4.2,baz=59,slow=6.2,SNR=8.4						
BRTR	Keskin Array B	74.02	307	P	P	20 17 21.2	-0.4
	comp=Z,2.0nm,0.9s,mb4.0,baz=90,slow=7.4,SNR=8.4						
YKA	Yellowknife Ar	82.73	23	P	P	20 18 08.5	-0.7
	comp=Z,1.7nm,0.8s,mb4.1,baz=314,slow=4.9,SNR=25						
GERES	GERESS Array B	83.56	321	P	P	20 18 13.4	-0.4
	comp=Z,1.6nm,0.8s,mb4.2,baz=58,slow=5.0,SNR=11						
PPT	Papeete	95.40	107	LR	LR	20 53 07.1	
	comp=Z,592nm,21.2s,MS5.0,baz=183,slow=30						

SZGRF ***14*** *20:11:55.0, 4.60N×94.48E, h44^{km}, mb5.4, Off west coast of northern Sumatera, Indonesia*

MOS ***14*** *20:11:56.3±0.8, 5.29N×94.35E, h33^{km}, mb5.5/100, MS5.1/10, Error ellipse: s-maj=8.0km s-min=3.8km az=121.8*

BJI ***14*** *20:11:56.5, 5.12N×94.19E, h37^{km}, mB5.8, mb5.4, Ms5.3, Msz5.1*

ISCJB ***14*** *20:11:57.6±0.2, 5.21N±0.03×94.29E±0.02, h44^{km}, mb5.3/202, MS5.1/22, Error ellipse: s-maj=4.4km s-min=2.9km az=17.8*

NEIC ***14*** *20:11:57.5±0.1, 5.21N×94.26E, h30^{km}, mb5.3/110, MS4.9/1, Error ellipse: s-maj=4.4km s-min=2.8km az=211.0*

NEIC Felt [III] at Banda Aceh.

GCMT ***14*** *20:11:57.5±0.4, 5.04N×94.23E, h34^{km}, MW5.2/64, Moment Tensor Solution. s31,c46; s64,c92; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$6.60±.36; M$_{\theta\theta}$-2.60±.21; M$_{\phi\phi}$-4.00±.24; M$_{r\theta}$2.66±.21; M$_{\theta\phi}$3.09±.14; M$_{\phi r}$-2.16±.24; Best double couple: M$_0$7.37700×10^{16} NP1:φ$_s$327.00000°, δ32.00000°, λ99.00000°. NP2: φ$_s$136.00000°, δ59.00000°, λ84.00000°. Principal axes: T 7.4740, Plg76.0000°, Azm30.0000°; N -0.1940, Plg5.0000°, Azm139.0000°; P -7.2800, Plg14.0000°, Azm230.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***14*** *20:11:58.2±4.5, 5.21N×94.28E, h36^{km}±36^{km}, mb4.9/31, mb1 4.9/32, mb1mx4.9/32, mbtmp4.9/32, ML5.0/1, MS4.7/5, Ms1 4.7/5, ms1mx4.1/32 Error ellipse: s-maj=13.3km s-min=10.4km az=57.0*

ISC 14 20:11:59.6±0.2**, 5.22N**±0.03×**94.27E**±0.02**, h46**^{km}**, h46**^{km}±1.8^{km}**:pP-P, n582,** σ**$0^{s}.82$**/571**, mb5.3**/202**, MS5.1**/22**, 135C-21D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PKT	Phuket	4.82	54	P	Pn	20 13 12.5	+2.9
PSI	Prapat	5.22	117	P	Pn	20 13 15.8	+0.6
PSI						20 14 11.7	
PSI				pmax	pmax		
	comp=Z,52nm,0.3s						
PSI				smax			
	comp=N,22nm,0.3s						
PSI				MLR	MLR		
	comp=Z,8μm,18.4s						
PSI	Prapat	5.22	117	Pn	Pn	20 13 15.8	+0.6
	comp=Z,52nm,0.3s,baz=302,slow=10,SNR=99						
PSI				Sn	Sn	20 14 11.7	-2.4
	comp=Z,22nm,0.3s,baz=94,slow=23,SNR=2.3						
PSI				LR	LR	20 15 43.9	
	comp=Z,8μm,18.4s,baz=298,slow=43						
KULM	Kulim	6.35	89	*e*Pn	Pn	20 13 31.0	+0.4
KULM	Kulim	6.35	89	⇓P	Pn	20 13 31.7	+1.0
PBA	Port Blair	6.58	347	*e*P	Pn	20 13 33.0	-0.7
PBA				AMb	AMB	20 13 59.6	
	comp=Z,122nm,2.3s						
PBA				*e*S	Sn	20 14 42.2	-5.3
SNG	Songkhla	6.60	73	P	Pn	20 13 35.0	+0.9
	comp=Z,1μm,1.0s						
IPM	Ipoh	6.77	96	⇓P	Pn	20 13 36.7	+0.3
FRIM	Kepong	7.59	105	⇑P	Pn	20 13 47.4	-0.3
KTGM	Kuala Trenggan	8.82	89	⇑P	Pn	20 14 05.4	+0.8
NNT	Nongplab	9.10	36	P	Pn	20 14 10.5	+2.2
KGM	Kluang	9.57	109	⇑P	Pn	20 14 14.8	0.0
MYKOM	Kota Tinggi	10.14	109	⇑P	Pn	20 14 21.9	-0.8
NST	Nakhon Sawan	11.88	29	P	Pn	20 14 49.0	+2.6
	comp=Z,83nm,0.6s						
BDT	Bhumibol Dam	12.82	21	P	Pn	20 15 03.0	+3.7
	comp=Z,29nm,1.0s						
KKTK	Khon Kaen	13.87	37	P	Pn	20 15 22.5	+8.9
CHG	Chiang Mai	14.26	18	⇓P	Pn	20 15 19.5	+0.6
	comp=Z,150nm,1.0s						
CHTO	Chiang Mai	14.26	18	*e*Pn	Pn	20 15 19.2	+0.3
	comp=Z,62nm,1.8s						
CHTO				*e*		20 15 25.5	
CHTO	Chiang Mai	14.26	18	*e*P	Pn	20 15 19.2	+0.3
CHTO				pmax	pmax		
	comp=Z,62nm,1.8s						
NANT	Nan	14.89	24	⇑P	Pn	20 15 29.0	+1.8
	comp=Z,1μm,1.0s						
CHRT	Chiangrai	15.52	20	⇑P	Pn	20 15 37.0	+1.6
	comp=Z,710nm,0.8s						
MDRS	Chennai	15.89	300	*e*x	x	20 15 59.3	
MDRS				AMb	AMB	20 16 04.7	
	comp=Z,71nm,0.4s						
VIS	Vishakhapatnam	16.40	320	*i* P	Pn	20 15 46.7	0.0
VIS				*i* x	x	20 18 34.1	
VIS				AMb	AMB	20 18 43.8	
	comp=Z,81nm,0.4s						
KSM	Kuching	16.43	103	*e*P	Pn	20 15 48.1	+1.0
KSM	Kuching	16.43	103	⇓P	Pn	20 15 49.3	+2.2
SBUM	Sibu	18.11	98	⇓P	Pn	20 16 08.2	+0.3
BTM	Bintulu	18.86	95	⇑P	Pn	20 16 17.8	+0.7
HYB	Hyderabad	19.59	310	*e*P	Pn	20 16 25.0	-0.7
	comp=Z,50nm,1.0s						
HYB				*e*S	S	20 20 02.0	-0.9
HYB	Hyderabad	19.59	310	*e*P	Pn	20 16 25.0	-0.7
HYB				*e*S	S	20 20 02.0	-0.9
HYB				pmax	pmax		
	comp=Z,50nm,1.0s						
HYB	Hyderabad	19.59	310	*i* P	Pn	20 16 25.0	-0.7
	comp=Z,50nm,1.0s						
HYB				*e*S	S	20 20 02.0	-0.9
BOK	Bokaro	20.16	337	*e*P	P	20 16 31.0	+0.8
BOK				AMb	AMB	20 16 34.2	
	comp=Z,205nm,0.8s						
SHL	Shillong	20.37	354	*e*P	P	20 16 32.8	+0.4
SHL				AMb	AMB	20 16 39.4	
	comp=Z,95nm,0.5s						
QIZ	Qiongzhong	20.47	47	P	P	20 16 34.9	+1.3
QIZ				XP	sP	20 16 49.3	-1.0
QIZ				S	S	20 20 22.1	+1.7
QIZ				AMB	AMB		
	comp=Z,126nm,1.1s						
QIZ				AMB	AMB		
	comp=Z,4μm,10.2s						
BLSP	Bilaspur	20.51	326	*e*P	P	20 16 33.5	-0.6
BLSP				AMb	AMB	20 16 39.7	
	comp=Z,192nm,0.9s						
MNGI	Mangalore	20.67	293	*e*P	P	20 16 33.7	-2.1
KMI	Kunming	21.40	21	⇑P	P	20 16 45.3	+1.8
KMI				AP		20 16 57.3	
KMI				XP	sP	20 17 03.5	+3.3
KMI				PP		20 17 12.1	
KMI				S	S	20 20 36.6	-1.9
KMI				XS	sS	20 20 56.3	0.0
KMI				SS		20 21 12.4	
KMI				AMB	AMB		
	comp=Z,82nm,1.5s,mb4.8						
KMI				AMB	AMB		
	comp=Z,2μm,6.7s						
KMI				LR	LR		
	comp=N,3μm,12.1s,MS5.1						
KMI				LR	LR		
	comp=E,4μm,12.7s,MS5.1						
KMI				LR	LR		
	comp=Z,4μm,11.0s,MS5.0						
KMI	Kunming	21.40	21	⇑P	P	20 16 45.2	+1.7
	comp=Z,82nm,1.5s,mb4.8						
KMI				pP		20 16 57.3	
KMI				sP	sP	20 17 03.5	+3.3
KMI				PP		20 17 12.1	
KMI				PPP		20 17 20.8	
KMI				S	S	20 20 36.6	-1.9
KMI				sS	sS	20 20 56.2	-0.1
KMI				SS		20 21 12.4	
KMI				SSS		20 21 28.7	
KMI				LR	LR		
	comp=Z,4μm,11.0s,MS5.0						
KMI	Kunming	21.40	21	⇑P	P	20 16 45.2	+1.7
KMI				*PP		20 16 57.3	
KMI				*SP	sP	20 17 03.5	+3.3
KMI						20 17 12.1	
KMI				S	S	20 20 36.6	-1.9
KMI				SS		20 21 12.4	
KMI				SSS		20 21 28.7	
KMI				pmax	pmax		
	comp=Z,82nm,1.5s,mb4.8						
KMI				MLR	MLR		
	comp=Z,4μm,11.0s,MS5.0						
KKM	Kota Kinabalu	21.85	87	⇑P	P	20 16 50.5	+2.0
KDM	Kudat	22.50	85	⇑P	P	20 16 57.0	+1.6
ODAN	Odare	22.50	344	*e*P	P	20 16 53.1	-2.2
	comp=Z,127nm,0.6s,mb5.5						
AKL	Akola	22.76	314	*e*P	P	20 16 59.3	+1.2
AKL				AMb	AMB	20 17 20.9	
	comp=Z,138nm,1.9s,mb5.1						
SDKM	Sandakan	22.82	88	⇑P	P	20 16 58.8	0.0
TAPN	Taplejung	22.88	345	*e*P	P	20 16 57.4	-1.9
	comp=Z,136nm,0.7s,mb5.5						
KAD	Karad	23.05	303	*e*P	P	20 17 00.7	-0.4
KAD				AMb	AMB	20 17 15.0	
	comp=Z,57nm,1.0s,mb4.9						
TSM	Tawau	23.54	91	⇓P	P	20 17 05.6	-0.4
JIRN	Jiri	23.61	342	*e*P	P	20 17 05.4	-1.1
	comp=Z,7.3nm,0.2s,mb4.7						
POO	Poona	23.93	305	*e*P	P	20 17 07.3	-2.2
KKN	Kakani	24.03	340	*e*P	P	20 17 09.5	-0.8
	comp=Z,84nm,0.6s,mb5.3						
MYLDM	Lahad Datu	24.13	89	⇓P	P	20 17 11.8	+0.4
BHPL	Bhopal	24.20	319	*e*P	P	20 17 13.3	+1.4
BHPL				AMb	AMB	20 17 21.5	
	comp=Z,36nm,1.0s,mb4.7						
GYA	Guiyang	24.22	28	⇑*i*P	P	20 17 13.5	+1.4
GYA				AP		20 17 25.8	
GYA				XP	sP	20 17 31.6	+2.0
GYA				PP		20 17 49.8	
GYA				PCP	PcP	20 20 54.5	+2.7
GYA				S	S	20 21 26.3	-1.2
GYA				XS	sS	20 21 47.0	-0.6
GYA				SS		20 22 21.6	
GYA				SCP	ScP	20 24 27.6	+0.7
GYA				PCS	PcS	20 24 32.8	+1.1
GYA				AMB	AMB		
	comp=Z,40nm,0.8s,mb4.9						
GYA				AMB	AMB		
	comp=Z,1μm,5.8s						
GYA				LR	LR		
	comp=N,2μm,15.8s,MS5.1						
GYA				LR	LR		
	comp=E,5μm,15.0s,MS5.1						
GYA				LR	LR		
	comp=Z,4μm,16.6s,MS5.0						
GKN	Gorkha	24.45	339	*e*P	P	20 17 14.1	0.0
	comp=Z,418nm,0.8s,mb5.9						
LSA	Lhasa	24.53	353	P	P	20 17 14.8	-0.1
LSA				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.7						
PPR	Puerto Princes	24.66	78	⇑*e*P	P	20 17 24.0	+7.7
BOM	Bombay	24.96	305	*e*x	P	20 17 29.9	+11
BOM				*e*x	x	20 17 35.2	
	comp=Z,41nm,2.0s						
BOM				*e*x	x	20 22 03.1	
GZH	Guangzhou	25.58	44	P	P	20 17 30.3	+5.8
GZH				LR	LR		
	comp=N,3μm,13.7s,MS5.1						
GZH				LR	LR		
	comp=E,3μm,15.2s,MS5.1						
GZH				LR	LR		
	comp=Z,5μm,16.5s,MS5.1						
CD2	Chengdu	27.07	18	P	P	20 17 37.0	-0.9
CD2				AP	pP	20 17 48.8	-1.2
CD2				XP	sP	20 17 54.3	-1.1
CD2				PP		20 18 24.8	
CD2				S	S	20 22 10.9	-1.9
CD2				XS	sS	20 22 30.8	-2.3
CD2				SS		20 23 28.5	
CD2				AMB	AMB		
	comp=Z,70nm,0.6s,mb5.4						
CD2				AMB	AMB		
	comp=Z,150nm,4.8s						
CD2				LR	LR		
	comp=N,350nm,14.5s,MS4.2						
CD2				LR	LR		
	comp=E,310nm,16.8s,MS4.2						
TGY	Tagaytay City	27.70	69	P	P	20 17 44.0	+0.3
TGY				pmax	pmax		
	comp=Z,290nm,0.5s						
TGY	Tagaytay City	27.70	69	P	P	20 17 44.0	+0.3
	comp=Z,290nm,0.5s,mb6.2,baz=198,slow=2.8,SNR=16						
AJM	Ajmer	28.26	321	*e*P	P	20 17 50.0	+1.4
OTRP	Odiongan	28.31	74	*e*P	P	20 17 48.3	-0.9
NDI	New Delhi	28.40	327	*e*P	P	20 17 49.4	-0.4
NDI				AMb	AMB	20 17 50.3	
	comp=Z,46nm,0.7s,mb5.2						
RCP	Roxas	28.85	76	⇑*e*P	P	20 17 54.4	+0.4
PAGZ	Pagadian	29.03	83	*e*P	P	20 17 58.7	+3.1
PAGZ	Pagadian	29.03	83	*e*P	P	20 18 09.0	+13
WHN	Wuhan	31.50	35	⇑P	P	20 18 17.5	+0.3
WHN				AMB	AMB		
	comp=Z,162nm,0.8s,mb5.9						
XAN	Xi’an	31.74	24	P	P	20 18 18.3	-1.0
XAN				AP	pP	20 18 30.3	-1.1
XAN				AMB	AMB		
	comp=Z,239nm,0.7s,mb6.1						
XAN				AMB	AMB		
	comp=Z,8μm,10.9s						
XAN				LR	LR		
	comp=N,258nm,11.0s,MS4.5						
XAN				LR	LR		
	comp=E,635nm,14.1s,MS4.5						
XAN				LR	LR		
	comp=Z,683nm,11.8s,MS4.6						
LZH	Lanzhou	31.96	15	⇑P	P	20 18 20.6	-0.6
LZH				AP	pP	20 18 30.3	-3.0
LZH				XP	sP	20 18 34.8	-4.0
LZH				PP	PP	20 19 26.4	-7.7
LZH				PCP	PcP	20 21 12.0	+1.4
LZH				*e*S	S	20 23 28.3	-1.1
LZH				SCP	ScP	20 24 49.1	-1.4
LZH				PCS	PcS	20 24 53.6	-1.7
LZH				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.5						
LZH				AMB	AMB		
	comp=Z,592nm,7.0s						
LZH				LR	LR		
	comp=N,2μm,13.2s						
LZH				LR	LR		
	comp=Z,3μm,14.5s,MS5.2						
LZH	Lanzhou	31.96	15	⇑P	P	20 18 20.6	-0.6
	comp=Z,70nm,1.0s,mb5.5						
LZH				pP	pP	20 18 30.3	-3.0
LZH				sP	sP	20 18 34.8	-4.0
LZH				PP	PP	20 19 26.4	-7.7
LZH				PcP	PcP	20 21 12.0	+1.4
LZH				*e*S	S	20 23 28.2	-1.2
LZH				sS	sS	20 23 43.0	-6.8
LZH				ScP	ScP	20 24 49.1	-1.4
LZH				PcS	PcS	20 24 53.6	-1.7
LZH				SS	SS	20 25 19.0	-29
LZH				LR	LR		
	comp=Z,3μm,14.5s,MS5.2						
LZH	Lanzhou	31.96	15	⇑P	P	20 18 20.6	-0.6
LZH				*PP	pP	20 18 30.3	-3.0
LZH				*SP	sP	20 18 34.8	-4.0
LZH						20 19 26.4	
LZH						20 21 12.0	
LZH				*e*S	S	20 23 28.2	-1.2
LZH				*SS	sS	20 23 43.0	-6.8
LZH				SS	SS	20 25 19.0	-29
LZH				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
LZH				MLR	MLR		
	comp=Z,3μm,14.5s,MS5.2						
YHNB	Yeheng	32.43	51	*e*P	P	20 18 26.7	+1.2
GTA	Gaotai	34.41	8	⇑*i*P	P	20 18 42.3	-0.2
GTA				AP	pP	20 18 54.6	-0.1
GTA				XP	sP	20 18 59.5	-0.7
GTA				PP	PP	20 19 58.8	-2.3
GTA				PCP	PcP	20 21 18.8	+1.4
GTA				S	S	20 24 05.3	-2.0
GTA				XS	sS	20 24 26.5	-1.3
GTA				SS	SS	20 26 17.9	-20
GTA				SCS	ScS	20 29 01.4	-0.2
GTA				AMB	AMB		
	comp=Z,96nm,1.0s,mb5.7						
GTA				AMB	AMB		
	comp=Z,1μm,9.5s						
GTA				LR	LR		
	comp=N,2μm,14.1s,MS5.1						
GTA				LR	LR		
	comp=E,2μm,15.6s,MS5.1						
GTA				LR	LR		
	comp=Z,2μm,15.6s,MS4.9						
NJ2	Nanjing	35.24	38	*e*P	P	20 18 50.4	+0.6
NJ2				AP	pP	20 19 02.6	+0.6
NJ2				XP	sP	20 19 07.9	+0.4
NJ2				PP	PP	20 20 10.3	-0.1
NJ2				S	S	20 24 23.0	+2.6
NJ2				XS	sS	20 24 44.0	+3.1
NJ2				AMB	AMB		
	comp=Z,140nm,0.8s,mb5.9						
NJ2				AMB	AMB		
	comp=Z,2μm,7.6s						
NJ2				LR	LR		
	comp=N,5μm,22.1s,MS5.4						
NJ2				LR	LR		
	comp=E,5μm,23.2s,MS5.4						
NJ2				LR	LR		
	comp=Z,5μm,23.2s,MS5.2						

SSE	**Sheshan**	**36.08**	**41**	P	**P**	**20 18 57.0**	**0.0**
SSE				AMB	AMB		
	comp=Z,54nm,0.8s,mb5.5						
SSE				AMB	AMB		
	comp=Z,7µm,11.7s						
SSE	**Sheshan**	**36.08**	**41**	P	**P**	**20 18 57.0**	**0.0**
	comp=Z,54nm,0.8s,mb5.5						
TIA	**Tai'an**	**37.31**	**31**	P	**P**	**20 19 07.3**	**-0.1**
TIA				AMB	AMB		
	comp=Z,78nm,0.9s,mb5.5						
KBL	**Kabul**	**37.38**	**325**	*e*P	**P**	**20 19 07.3**	**-0.7**
KSH	**Kashi**	**37.94**	**337**	*e*P	**P**	**20 19 12.6**	**-0.1**
KSH				*e*AP	pP	20 19 24.5	-0.5
KSH				*e*XP	sP	20 19 29.5	-0.9
KSH				*e*PP	PP	20 20 41.5	+1.4
KSH				*e*PCP	PcP	20 21 30.3	+2.4
KSH				*e*S	**S**	**20 24 58.1**	**-3.3**
KSH				*e*SCP	ScP	20 25 12.0	0.0
KSH				*e*PCS	PcS	20 25 17.3	+0.6
KSH				*e*XS	sS	20 25 18.5	-3.5
KSH				*e*SCS	ScS	20 29 19.8	-1.3
KSH				AMB	AMB		
	comp=Z,3µm,8.1s						
KSH				LR	LR		
	comp=N,4µm,9.9s						
KSH				LR	LR		
	comp=E,8µm,11.6s						
KSH				LR	LR		
	comp=Z,5µm,12.6s,MS5.5						
FITZ	**Fitzroy Crossi**	**38.65**	**128**	⇑*i*P	**P**	**20 19 17.7**	**-1.3**
	comp=Z,55nm,0.8s,mb5.3						
FITZ	**Fitzroy Crossi**	**38.65**	**128**	P	**P**	**20 19 17.7**	**-1.3**
	comp=Z,31nm,0.8s,mb5.1,baz=306,slow=6.2,SNR=74						
FITZ				LR	LR	20 35 25.3	
	comp=Z,967nm,18.6s,MS4.7,baz=306,slow=36						
HHC	**Hu-ho-hao-te**	**38.72**	**21**	*e*P	**P**	**20 19 19.8**	**+0.6**
HHC				AP	pP	20 19 31.9	+0.3
HHC				XP	sP	20 19 37.3	+0.3
HHC				PP	PP	20 20 53.4	+4.8
HHC				PCP	PcP	20 21 30.0	-0.3
HHC				S	**S**	**20 25 13.9**	**+0.8**
HHC				PCS	PcS	20 25 19.3	-0.3
HHC				XS	sS	20 25 33.8	0.0
HHC				SS	SS	20 27 58.0	-7.2
HHC				SCS	ScS	20 29 24.1	-1.4
HHC				AMB	AMB		
	comp=Z,108nm,1.2s,mb5.5						
HHC				LR	LR		
	comp=N,2µm,25.6s,MS5.0						
HHC				LR	LR		
	comp=E,2µm,20.9s,MS5.0						
WMQ	**Urumqi**	**38.88**	**352**	P	**P**	**20 19 21.0**	**+0.5**
WMQ				AP	pP	20 19 33.3	+0.4
WMQ				XP	sP	20 19 38.6	+0.3
WMQ				PP	PP	20 20 54.8	+4.5
WMQ				PCP	PcP	20 21 30.8	0.0
WMQ				AMB	AMB		
	comp=Z,122nm,0.6s,mb5.8						
JOW	**Kunigami**	**38.90**	**53**	P	**P**	**20 19 21.1**	**+0.2**
	comp=Z,95nm,0.6s,mb5.7,baz=251,slow=10,SNR=12						
BJI	**Beijing**	**39.89**	**27**	P	**P**	**20 19 29.9**	**+0.9**
BJI				AP	pP	20 19 41.3	-0.1
BJI				XP	sP	20 19 46.3	-0.5
BJI				PP	PP	20 21 02.3	+0.9
BJI				PCP	PcP	20 21 34.8	+0.7
BJI				S	**S**	**20 25 28.8**	**-1.9**
BJI				XS	sS	20 25 52.8	+1.3
BJI				AMB	AMB		
	comp=Z,97nm,1.0s,mb5.5						
BJI				LR	LR		
	comp=N,3µm,12.4s,MS5.3						
BJI				LR	LR		
	comp=E,1µm,15.1s,MS5.3						
BJI				LR	LR		
	comp=Z,2µm,18.6s,MS4.9						
BJI	**Beijing**	**39.89**	**27**	P	**P**	**20 19 29.9**	**+0.9**
	comp=Z,0.1nm,1.0s						
BJI				pP	pP	20 19 41.3	-0.1
BJI				sP	sP	20 19 46.3	-0.5
BJI				PP	PP	20 21 02.3	+0.9
BJI				PcP	PcP	20 21 34.8	+0.7
BJI				S	**S**	**20 25 28.7**	**-2.0**
BJI				sS	sS	20 25 52.7	+1.2
BJI				SS	SS	20 28 29.3	+0.7
BJI				LR	LR		
	comp=Z,2µm,18.6s						
BJI	**Beijing**	**39.89**	**27**	P	**P**	**20 19 29.9**	**+0.9**
BJI				*PP	pP	20 19 41.3	-0.1
BJI				*SP	sP	20 19 46.3	-0.5
BJI						20 21 02.3	
BJI						20 21 34.8	
BJI				S	**S**	**20 25 28.7**	**-2.0**
BJI				MLR	MLR		
	comp=Z,2µm,18.6s,MS4.9						
KZA	**Kyzart**	**40.43**	**338**	P	**P**	**20 19 34.3**	**+0.9**
	SNR=24						
UCH	**Uchtor**	**40.84**	**337**	P	**P**	**20 19 37.7**	**+0.9**
	SNR=40						
UCH	**Uchtor**	**40.84**	**337**	*e*P	**P**	**20 19 37.5**	**+0.7**
	comp=Z,43nm,0.8s,mb5.1						
TKM2	**Tokmak 2**	**41.03**	**339**	P	**P**	**20 19 39.0**	**+0.6**
	SNR=21						
TKM2	**Tokmak 2**	**41.03**	**339**	*e*P	**P**	**20 19 38.7**	**+0.3**
	comp=Z,27nm,0.8s,mb4.9						
TKM2	**Tokmak 2**	**41.03**	**339**	*e*P	**P**	**20 19 38.7**	**+0.3**
TKM2				pmax	pmax		
	comp=Z,27nm,0.8s,mb4.9						
KBK	**Karagaybulak**	**41.04**	**338**	P	**P**	**20 19 39.7**	**+1.2**
	SNR=49						
AML	**Almayashu**	**41.07**	**337**	P	**P**	**20 19 39.9**	**+1.2**
	SNR=58						
AML	**Almayashu**	**41.07**	**337**	*e*P	**P**	**20 19 39.6**	**+0.9**
	comp=Z,112nm,0.8s,mb5.5						
AAK	**Ala-Archa**	**41.19**	**338**	P	**P**	**20 19 39.5**	**-0.2**
	comp=Z,108nm,0.9s,mb5.5,SNR=20						
AAK	**Ala-Archa**	**41.19**	**338**	P	**P**	**20 19 40.6**	**+0.9**
	SNR=23						
AAK	**Ala-Archa**	**41.19**	**338**	*e*P	**P**	**20 19 39.4**	**-0.3**
	comp=Z,32nm,0.8s,mb5.0						
AAK	**Ala-Archa**	**41.19**	**338**	*c* *i*P	**P**	**20 19 39.5**	**-0.2**
AAK				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.6						
FRU	**Bishkek**	**41.32**	**338**	*e*P	**P**	**20 19 41.0**	**+0.3**
FRU				*i*	pP	20 19 56.8	+3.6
FRU				pmax	pmax		
	comp=Z,63nm,2.0s,mb4.9						
CHMS	**Chumysh**	**41.41**	**338**	P	**P**	**20 19 41.8**	**+0.3**
	SNR=6.8						
EKS2	**Erkin-Say**	**41.49**	**337**	P	**P**	**20 19 43.1**	**+0.9**
	SNR=45						
EKS2	**Erkin-Say**	**41.49**	**337**	*e*P	**P**	**20 19 42.9**	**+0.7**
	comp=Z,31nm,0.7s,mb5.0						
DL2	**Dalian**	**41.70**	**33**	P	**P**	**20 19 44.5**	**+0.6**
DL2				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.2						
USP	**Ospenovka**	**41.73**	**338**	P	**P**	**20 19 44.5**	**+0.4**
	SNR=38						
KAKA	**Kakadu**	**41.90**	**115**	⇑*i*P	**P**	**20 19 44.0**	**-1.9**
	comp=Z,39nm,0.7s,mb5.1						
MK31	**Makanchi Array**	**42.70**	**348**	*e*P	**P**	**20 19 52.0**	**+0.1**
MKAR	**Makanchi Array**	**42.70**	**348**	P	**P**	**20 19 52.2**	**+0.3**
MKAR				PcP	PcP	20 21 43.5	+0.4
MKAR	**Makanchi Array**	**42.70**	**348**	P	**P**	**20 19 52.2**	**+0.3**
MKAR						20 21 43.5	
MKAR				pmax	pmax		
	comp=Z,63nm,0.7s						
MKAR				pmax	pmax		
	comp=Z,12nm,0.8s						
MKAR	**Makanchi Array**	**42.70**	**348**	P	**P**	**20 19 52.2**	**+0.3**
	comp=Z,62nm,0.7s,mb5.4,baz=167,slow=8.3,SNR=407						
MKAR				PcP	PcP	20 21 43.5	+0.4
	comp=Z,12nm,0.8s,baz=159,slow=4.5,SNR=4.1						
KKAR	**Karatay Array**	**43.19**	**334**	*i* P	**P**	**20 19 55.6**	**-0.4**
KKAR				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.7						
SONM	**Songino Array**	**43.72**	**12**	P	**P**	**20 19 59.8**	**-0.3**
SONM						20 21 47.0	
SONM				pmax	pmax		
	comp=Z,54nm,0.8s						
SONM				pmax	pmax		
	comp=Z,14nm,0.7s						
SONM	**Songino Array**	**43.72**	**12**	P	**P**	**20 19 59.8**	**-0.3**
	comp=Z,54nm,0.8s,mb5.3,baz=191,slow=8.1,SNR=462						
SONM				PcP	PcP	20 21 47.0	+0.5
	comp=Z,14nm,0.7s,baz=196,slow=3.5,SNR=7.3						
NWAO	**Narrogin (SRO)**	**43.75**	**152**	P	**P**	**20 19 59.7**	**-0.9**
NWAO				pmax	pmax		
	comp=Z,7.0nm,0.9s						
NWAO				MLR	MLR		
	comp=Z,1µm,19.8s						
NWAO	**Narrogin (SRO)**	**43.75**	**152**	P	**P**	**20 19 59.6**	**-0.9**
	comp=Z,7.0nm,0.9s,mb4.4,baz=307,slow=10,SNR=2.2						
NWAO				LR	LR	20 36 35.5	
	comp=Z,1µm,19.8s,MS4.8,baz=358,slow=34						
ULN	**Ulaanbaatar**	**43.88**	**12**	⇑*i*P	**P**	**20 20 00.9**	**-0.6**
JNU	**Nakatsue**	**43.94**	**46**	P	**P**	**20 20 02.0**	**-0.2**
	comp=Z,36nm,0.8s,mb5.2,baz=173,slow=5.2,SNR=14						
KSRS	**Korea Array**	**44.40**	**39**	P	**P**	**20 20 05.3**	**-0.5**
	comp=Z,11nm,0.9s,mb4.6,baz=219,slow=8.9,SNR=17						
KSRS				PcP	PcP	20 21 49.1	0.0
	comp=Z,3.1nm,0.7s,baz=248,slow=2.9,SNR=4.5						
KSRS				LR	LR	20 40 53.3	
	comp=Z,1µm,18.3s,MS4.9,baz=240,slow=39						
SNY	**Shenyang**	**44.84**	**31**	⇑P	**P**	**20 20 09.4**	**+0.2**
SNY				AMB	AMB		
	comp=Z,40nm,1.5s,mb5.0						
ZAK	**Zakamensk**	**45.65**	**8**	⇓*i*P	**P**	**20 20 15.0**	**-0.5**
ZAK				*e*		20 21 53.2	
ZAK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
ZAK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
ABKT	**Ailbek**	**46.28**	**320**	P	**P**	**20 20 21.2**	**+0.5**
	comp=Z,395nm,0.8s,mb6.4,SNR=28						
MOY	**Mondy**	**46.63**	**6**	*e*P	**P**	**20 20 19.6**	**-3.6**
WRA	**Warramunga Arr**	**46.65**	**124**	P	**P**	**20 20 23.4**	**-0.5**
WRA				pmax	pmax		
	comp=Z,50nm,0.6s						
WRA	**Warramunga Arr**	**46.65**	**124**	P	**P**	**20 20 23.4**	**-0.4**
	comp=Z,50nm,0.6s,mb5.6,baz=302,slow=9.2,SNR=558						
WB2	**Warramunga Arr**	**46.66**	**124**	*e*P	**P**	**20 20 23.6**	**-0.3**
WB2				*e*	pP	20 20 38.1	+1.5
WB2				*e*S	**S**	**20 27 08.9**	**-1.5**
TLY	**Talaya**	**46.97**	**8**	P	**P**	**20 20 26.8**	**+1.0**
	comp=Z,163nm,0.8s,mb6.0,SNR=9.8						
TLY	**Talaya**	**46.97**	**8**	*e*P	**P**	**20 20 26.1**	**+0.3**
	comp=Z,22nm,0.8s,mb5.2						
TLY	**Talaya**	**46.97**	**8**	*e*P	**P**	**20 20 26.3**	**+0.5**
TLY				*e*		20 20 43.5	
TLY				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.1						
KURK	**Kurchatov**	**47.21**	**346**	P	**P**	**20 20 28.8**	**+1.1**
	comp=Z,409nm,0.6s,mb6.5,SNR=65						
KURK	**Kurchatov**	**47.21**	**346**	*e*P	**P**	**20 20 28.0**	**+0.3**
	comp=Z,118nm,0.9s,mb5.8						
KURK				*e*	pP	20 20 41.2	+0.9
KURK	**Kurchatov**	**47.21**	**346**	*e*P	**P**	**20 20 28.0**	**+0.3**
KURK				*e*	pP	20 20 41.2	+0.9
KURK				pmax	pmax		
	comp=Z,118nm,0.9s,mb5.8						
CN2	**Changchun**	**47.22**	**31**	*e*P	**P**	**20 20 26.4**	**-1.5**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
IRK	**Irkutsk**	**47.60**	**8**	*e*P	**P**	**20 20 30.2**	**-0.5**
IRK				*e*		20 23 06.8	
IRK				pmax	pmax		
	comp=Z,61nm,1.4s,mb5.4						
ASAR	**Alice Springs**	**48.15**	**128**	P	**P**	**20 20 35.0**	**-0.4**
ASAR				pmax	pmax		
	comp=Z,16nm,0.7s						
ASAR	**Alice Springs**	**48.15**	**128**	P	**P**	**20 20 35.0**	**-0.4**
	comp=Z,16nm,0.7s,mb5.2,baz=297,slow=7.6,SNR=235						
FORT	**Forrest**	**48.21**	**140**	*e*P	**P**	**20 20 36.3**	**+0.5**
	comp=Z,16nm,0.6s,mb5.2						
FORT				*e*	pP	20 20 48.9	+0.4
ZAL	**Zalesovo**	**49.18**	**353**	P	**P**	**20 20 43.2**	**+0.3**
ZAL						20 22 04.8	
ZALV	**Zalesovo Beam**	**49.19**	**353**	P	**P**	**20 20 43.2**	**+0.3**
ZALV				PcP	PcP	20 22 04.8	-0.8
ZALV	**Zalesovo Beam**	**49.19**	**353**	P	**P**	**20 20 43.2**	**+0.3**
	comp=Z,55nm,0.7s,mb5.7,baz=186,slow=6.6,SNR=366						
ZALV				PcP	PcP	20 22 04.8	-0.8
	comp=Z,10.0nm,0.8s,baz=171,slow=5.2,SNR=1.4						
CIT	**Chita**	**49.31**	**16**	*e*P	**P**	**20 20 43.9**	**0.0**
CIT				*e*	pP	20 20 53.8	-2.8
CIT				pmax	pmax		
	comp=Z,143nm,1.6s,mb5.8						
QRN	**Al-Qurain**	**49.70**	**304**	*e*P	**P**	**20 20 47.8**	**+0.5**
QRN				AMb	AMB	20 20 50.8	
	comp=Z,103nm,0.7s,mb6.0						
MDJ	**Mudanjiang**	**49.94**	**33**	P	**P**	**20 20 49.4**	**+0.5**
MDJ				AP	pP	20 21 00.9	-0.7
MDJ				XP	sP	20 21 05.9	-1.0
MDJ				PP	PP	20 22 44.5	+0.4
MDJ				SCP	ScP	20 26 01.4	+0.7
MDJ				PCS	PcS	20 26 06.1	+0.7
MDJ				S	**S**	**20 27 57.1**	**+1.0**
MDJ				AMB	AMB		
	comp=Z,47nm,1.5s,mb5.3						
MDJ				AMB	AMB		
	comp=Z,6µm,11.0s						
MDJ				LR	LR		
	comp=N,3µm,12.8s,MS5.6						
MDJ				LR	LR		
	comp=E,2µm,12.5s,MS5.6						
MDJ				LR	LR		
	comp=Z,3µm,12.1s,MS5.6						
KBD	**Kabd**	**50.03**	**304**	*e*P	**P**	**20 20 50.4**	**+0.6**
KBD				AMb	AMB	20 20 53.8	
	comp=Z,67nm,0.6s,mb5.9						
RDF	**Al-Radifah**	**50.06**	**304**	*e*P	**P**	**20 20 50.3**	**+0.2**
RDF				AMb	AMB	20 20 52.6	
	comp=Z,72nm,0.8s,mb5.8						
NVS	**Novosibirsk**	**50.28**	**352**	⇑*i*P	**P**	**20 20 50.7**	**-0.5**
NVS				*e*S	**S**	**20 27 54.5**	**-5.9**
NVS				*e*		20 30 31.5	
NVS				pmax	pmax		
	comp=N,35nm,0.8s						
NVS				pmax	pmax		
	comp=E,24nm,0.8s						
NVS				pmax	pmax		
	comp=Z,52nm,0.8s,mb5.6						
NVS				smax			
	comp=N,42nm,1.9s						
NVS				smax			
	comp=E,31nm,1.8s						
NAY	**Al-Naaiem**	**50.42**	**304**	*e*P	**P**	**20 20 53.4**	**+0.6**
NAY				AMb	AMB	20 20 55.0	
	comp=Z,48nm,0.7s,mb5.6						
CBIJ	**Chichi jima**	**50.51**	**59**	P	**P**	**20 20 52.0**	**-1.4**
	comp=Z,96nm,0.5s,mb6.0,baz=87,slow=23,SNR=7.0						
MIB	**Mutribah**	**50.53**	**305**	*e*P	**P**	**20 20 54.2**	**+0.7**
MIB				AMb	AMB	20 20 55.4	
	comp=Z,78nm,0.8s,mb5.7						
MAT	**Matsushiro**	**50.87**	**46**	P	**P**	**20 20 55.3**	**-0.7**
MJAR	**Matsushiro Arr**	**50.87**	**46**	P	**P**	**20 20 56.1**	**+0.1**
MJAR						20 22 11.3	
MJAR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
MJAR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
MJAR	**Matsushiro Arr**	**50.87**	**46**	P	**P**	**20 20 56.1**	**+0.1**
	comp=Z,9.5nm,0.7s,mb4.9,baz=246,slow=6.2,SNR=29						
MJAR				PcP	PcP	20 22 11.3	-0.9
	comp=Z,9.7nm,0.7s,baz=243,slow=4.0,SNR=9.6						
BRVK	**Borovoye**	**51.60**	**342**	P	**P**	**20 21 00.7**	**-0.5**
	comp=Z,291nm,0.5s,mb6.5,SNR=32						
BRVK	**Borovoye**	**51.60**	**342**	*e*P	**P**	**20 21 00.6**	**-0.6**
	comp=Z,46nm,0.8s,mb5.5						
BRVK	**Borovoye**	**51.60**	**342**	*e*P	**P**	**20 21 00.6**	**-0.6**
BRVK				pmax	pmax		
	comp=Z,46nm,0.8s,mb5.5						
COEN	**Coen**	**52.12**	**112**	*e*P	**P**	**20 21 03.9**	**-1.8**
KLR	**Kul'dur**	**54.10**	**29**	*e*P	**P**	**20 21 17.0**	**-2.7**
KLR				pmax	pmax		
	comp=E,70nm,1.8s						
KLR				pmax	pmax		
	comp=Z,130nm,1.8s,mb5.6						
AKTK	**Aktyubinsk**	**54.34**	**332**	P	**P**	**20 21 20.8**	**-0.6**
AKTK				PcP	PcP	20 22 24.4	-0.6
AKTO	**Aktyubinsk**	**54.34**	**332**	P	**P**	**20 21 20.8**	**-0.6**
AKTO						20 22 24.4	
AKTO				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
AKTO				pmax	pmax		
	comp=Z,19nm,0.7s,mb5.1						
AKTO	**Aktyubinsk**	**54.34**	**332**	P	**P**	**20 21 20.8**	**-0.6**
	comp=Z,15nm,0.8s,mb5.0,baz=129,slow=8.1,SNR=50						
AKTO				PcP	PcP	20 22 24.4	-0.6
	comp=Z,19nm,0.7s,baz=72,slow=3.7,SNR=3.6						
PMG	**Port Moresby**	**54.67**	**105**	*e*P	**P**	**20 21 23.5**	**-1.0**
	comp=Z,24nm,0.6s,mb5.4						
PMG	**Port Moresby**	**54.67**	**105**	*e*P	**P**	**20 21 23.5**	**-0.9**
PMG				pmax	pmax		
	comp=Z,24nm,0.6s						
PMG	**Port Moresby**	**54.67**	**105**	P	**P**	**20 21 23.6**	**-0.8**
	comp=Z,27nm,0.7s,mb5.4,baz=310,slow=3.0,SNR=28						
BOD	**Bodaibo**	**54.69**	**13**	⇓*i*P	**P**	**20 21 23.3**	**-0.5**
BOD				pmax	pmax		
	comp=Z,81nm,0.9s,mb5.8						
HABR	**Khabarovsk**	**55.30**	**32**	*e*P	**P**	**20 21 27.7**	**-0.7**
HABR				*e*S	**S**	**20 29 08.4**	**-0.7**
HABR				*e*		20 31 11.3	
HAKT	**HAKKARI**	**56.12**	**312**	*i* P	**P**	**20 21 34.5**	**0.0**
CLNS	**Chul'man**	**56.88**	**20**	*e*P	**P**	**20 21 38.4**	**-1.1**
CLNS				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
CLNS				pmax	pmax		
	comp=N,14nm,0.9s						
CLNS				pmax	pmax		
	comp=E,16nm,1.1s						
DYDN	**Diyadin**	**56.89**	**315**	*i* P	**P**	**20 21 40.6**	**+0.6**
CTA	**Charters Tower**	**56.92**	**118**	⇑*i*P	**P**	**20 21 39.9**	**-0.6**
	comp=E,15nm,0.9s,mb5.0						
CTA	**Charters Tower**	**56.92**	**118**	⇑*i*P	**P**	**20 21 39.9**	**-0.6**
CTA				pmax	pmax		
	comp=Z,15nm,0.9s						
CTA	**Charters Tower**	**56.92**	**118**	LR	LR	20 47 30.1	
	comp=Z,424nm,20.0s,MS4.5,baz=149,slow=38						
CTAO	**Charters Tower**	**56.92**	**118**	*e*P	**P**	**20 21 39.7**	**-0.8**
	comp=Z,21nm,0.9s,mb5.2						
CTAO	**Charters Tower**	**56.92**	**118**	*e*P	**P**	**20 21 39.7**	**-0.8**
CTAO				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.2						
KMBO	**Kilima Mbogo**	**57.30**	**265**	P	**P**	**20 21 44.9**	**+1.6**
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.6s						
KMBO	**Kilima Mbogo**	**57.30**	**265**	P	**P**	**20 21 44.9**	**+1.6**
	comp=Z,3.3nm,0.6s,mb4.5,baz=54,slow=9.2,SNR=14						
ASAJ	**Asahikawa**	**57.34**	**40**	P	**P**	**20 21 43.2**	**+0.1**
ASAJ				pmax	pmax		
	comp=Z,13nm,0.6s						
ASAJ	**Asahikawa**	**57.34**	**40**	P	**P**	**20 21 43.2**	**+0.1**
	comp=Z,13nm,0.6s,mb5.1,baz=268,slow=7.4,SNR=14						
DIGO	**Kars**	**57.46**	**315**	*i* P	**P**	**20 21 45.2**	**+1.3**
TUTA	**Tutak**	**57.46**	**314**	*i* P	**P**	**20 21 44.5**	**+0.5**
SVE	**Sverdlovsk**	**57.91**	**339**	*e*P	**P**	**20 21 47.0**	**+0.2**
SVE				*e*	pP	20 22 03.0	+3.3
SVE				pmax	pmax		
	comp=Z,130nm,1.5s,mb5.7						
ZEI	**Tsey**	**58.08**	**318**	*e*P	**P**	**20 21 48.0**	**-0.3**
ZEI				*e*		20 22 38.1	
ZEI				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.4						
STKA	**Stephens Creek**	**58.20**	**133**	⇑*i*P	**P**	**20 21 49.0**	**-0.3**
	comp=Z,20nm,1.4s,mb5.0						
STKA				*e*pP	pP	20 22 03.9	+1.6
STKA	**Stephens Creek**	**58.20**	**133**	P	**P**	**20 21 48.8**	**-0.5**
	comp=Z,14nm,0.8s,mb5.0,baz=305,slow=7.8,SNR=24						
MARD	**Mardin**	**58.21**	**311**	*i* P	**P**	**20 21 48.8**	**-0.5**
ARU	**Arti**	**58.38**	**338**	P	**P**	**20 21 49.8**	**-0.3**
	comp=Z,249nm,0.9s,mb6.2,SNR=22						
ARU	**Arti**	**58.38**	**338**	*e*P	**P**	**20 21 49.6**	**-0.5**
	comp=Z,51nm,1.0s,mb5.5						
ARU	**Arti**	**58.38**	**338**	⇑*i*P	**P**	**20 21 49.7**	**-0.4**
ARU				*e*		20 22 39.4	
ARU				*e*S	**S**	**20 29 50.6**	**+1.2**
ARU				*e*SS	SS	20 33 39.7	-2.5
ARU				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
ERZM	**Erzurum**	**58.69**	**314**	*i* P	**P**	**20 21 53.8**	**+1.3**
ARTV	**Artvin**	**58.77**	**316**	*i* P	**P**	**20 21 53.2**	**+0.1**
YSS	**Yuzh-Sakhalins**	**58.80**	**37**	*e*P	**P**	**20 21 53.2**	**0.0**
	comp=Z,56nm,0.9s,mb5.6						
YSS	**Yuzh-Sakhalins**	**58.80**	**37**	⇑*i*P	**P**	**20 21 53.0**	**-0.2**
YSS				*e*	pP	20 22 04.0	-2.2
YSS				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.7						
KIV	**Kislovodsk**	**59.38**	**319**	P	**P**	**20 21 57.1**	**-0.2**
	comp=Z,269nm,0.8s,mb6.3,SNR=10.0						
KIV	**Kislovodsk**	**59.38**	**319**	*e*P	**P**	**20 21 56.6**	**-0.7**
	comp=Z,23nm,0.8s,mb5.2						
KIV	**Kislovodsk**	**59.38**	**319**	*c* *i*P	**P**	**20 21 57.1**	**-0.2**
KIV				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.4						
ELZG	**Elazig**	**59.94**	**312**	*i* P	**P**	**20 22 02.4**	**+1.1**
MALT	**Malatya**	**60.29**	**311**	*e*P	**P**	**20 22 03.9**	**+0.2**
	comp=Z,6.4nm,0.7s,mb4.8						
MALT	**Malatya**	**60.29**	**311**	*e*P	**P**	**20 22 03.9**	**+0.2**
MALT				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
MALT	**Malatya**	**60.29**	**311**	⇑*i*P	**P**	**20 22 04.1**	**+0.4**
GZT	**Gaziantep**	**60.65**	**310**	*i* P	**P**	**20 22 07.3**	**+1.1**
SOC	**Sochi**	**61.20**	**318**	*i* P	**P**	**20 22 09.0**	**-0.8**
SOC	**Sochi**	**61.20**	**318**	*e*P	**P**	**20 22 08.1**	**-1.7**
SOC				*e**PP	pP	20 22 21.0	-1.8
SOC				*e*		20 22 52.1	
SOC				*e*S	**S**	**20 30 26.5**	**+0.2**
SOC				*e*		20 31 58.5	
SOC				*e*SS	SS	20 34 20.2	-6.8
SOC				*e*SSS		20 37 09.4	
SOC				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.4						
GRSN	**GIRESUNGRSN**	**61.26**	**314**	*i* P	**P**	**20 22 10.3**	**+0.1**
SOKR	**Solikamsk**	**61.31**	**339**	*c* *i*P	**P**	**20 22 10.1**	**-0.1**
SOKR				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.5						
YAYL	**Yayladag**	**61.40**	**308**	*i* P	**P**	**20 22 12.2**	**+0.9**
ANDN	**Andirin**	**61.64**	**310**	*i* P	**P**	**20 22 13.8**	**+0.9**
YAK	**Yakutsk**	**62.46**	**18**	*e*P	**P**	**20 22 16.2**	**-1.7**
	comp=Z,92nm,0.8s,mb6.0						
YAK	**Yakutsk**	**62.46**	**18**	*c* *i*P	**P**	**20 22 17.1**	**-0.8**
YAK				*e*S	**S**	**20 30 39.3**	**-2.2**
YAK				*e*		20 31 57.3	
YAK				pmax	pmax		
	comp=Z,88nm,0.9s,mb5.9						
YAK				pmax	pmax		
	comp=N,35nm,1.4s						
YAK				pmax	pmax		
	comp=E,47nm,1.5s						
YAK				smax			
	comp=E,7µm,17.6s						
YAK				smax			
	comp=N,4µm,18.6s						
GULE	**Gulek**	**62.76**	**309**	*i* P	**P**	**20 22 21.8**	**+1.4**
VRHR	**Novokhopersk**	**63.19**	**326**	*e*P	**P**	**20 22 21.5**	**-1.4**
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.1						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.5s						
VRHR				pmax	pmax		
	comp=E,30nm,0.6s						
CTKT	**Corum**	**63.67**	**313**	*i* P	**P**	**20 22 26.7**	**+0.4**
CDAG	**Cicekdag**	**63.70**	**312**	*i* P	**P**	**20 22 25.5**	**-1.0**
BOYT	**Boyabat**	**63.83**	**314**	*i* P	**P**	**20 22 27.6**	**+0.3**
TOO	**Toolangi**	**63.84**	**136**	*e*P	**P**	**20 22 28.2**	**+0.7**
	comp=E,25nm,1.0s,mb5.2						
TOO				*e*pP	pP	20 22 42.1	+1.5
TOO	**Toolangi**	**63.84**	**136**	*e*P	**P**	**20 22 28.2**	**+0.7**
TOO				*e**PP	pP	20 22 42.1	+1.5
TOO				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.2						
BR131	**Keskin Array S**	**64.27**	**312**	*e*P	**P**	**20 22 29.7**	**-0.6**
	comp=Z,20nm,0.6s,mb5.3						
BRTR	**Keskin Array B**	**64.27**	**312**	P	**P**	**20 22 29.7**	**-0.6**
BRTR				pmax	pmax		
	comp=Z,23nm,0.7s						
BRTR	**Keskin Array B**	**64.27**	**312**	P	**P**	**20 22 29.7**	**-0.6**
	comp=Z,23nm,0.7s,mb5.3,baz=118,slow=7.3,SNR=162						
VORD	**Divnogorie**	**64.45**	**325**	*e*P	**P**	**20 22 29.5**	**-1.7**
VORD				pmax	pmax		
	comp=N,30nm,0.8s						
VORD				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.5						
VORD				pmax	pmax		
	comp=E,50nm,0.9s						
VRSR	**Storozhevoye**	**64.61**	**325**	*c* *i*P	**P**	**20 22 30.6**	**-1.7**
VRSR				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
VRSR				pmax	pmax		
	comp=N,4.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
ELDT	**Eldivan**	**64.63**	**313**	*i* P	**P**	**20 22 32.8**	**+0.1**
ANTO	**Ankara**	**64.94**	**312**	*e*P	**P**	**20 22 34.3**	**-0.3**

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              comp=E,9.7nm,0.6s,mb5.0
ANTO   Ankara            64.94 312⇓iP     P       20 22 34.1  -0.5
BALT   Daday             64.95 314 i P    P       20 22 35.3  +0.6
KDHN   Kadinhani         65.11 310 i P    P       20 22 34.8  -1.0
SIM    Simferopol'       65.45 317c iP    P       20 22 37.0  -0.8
SIM                                pmax   pmax
              comp=Z,30nm,0.8s,mb5.4
CNB    Canberra Magne    65.53 133 eP     P       20 22 39.0  +0.5
              comp=Z,65nm,1.5s,mb5.4
CNB                                epP    pP      20 22 53.5  +1.8
SGKT   Sivrigoynuk       65.66 312 i P    P       20 22 39.4   0.0
ESKT   Eskisehir         66.31 311 i P    P       20 22 43.7  +0.3
GOLH   Golhisar          66.80 308 i P    P       20 22 46.8  +0.1
PRGR   Permogore         66.82 337⇑iP     P       20 22 44.2  -2.1
PRGR                               eS     S       20 31 33.2  -2.1
PRGR                               pmax   pmax
              comp=Z,119nm,0.6s,mb6.1
GDZ    Gediz             67.25 310 i P    P       20 22 49.5   0.0
MOS    Moscow            67.41 329α iP    P       20 22 49.8  -0.4
MOS                                e      pP      20 23 05.8  +2.5
MOS                                e              20 25 18.6
MOS                                eS     S       20 31 39.0  -3.6
MOS                                pmax   pmax
              comp=Z,161nm,0.7s,mb6.2
MOS                                MLR    MLR
              comp=Z,1µm,19.0s,MS5.2
OBN    Obninsk           67.69 328  P     P       20 22 51.7  -0.2
              comp=Z,533nm,0.9s,mb6.6,SNR=6.3
OBN    Obninsk           67.69 328 eP     P       20 22 51.2  -0.7
              comp=Z,21nm,0.6s,mb5.3
OBN    Obninsk           67.69 328c iP    P       20 22 51.2  -0.7
OBN                                pmax   pmax
              comp=Z,120nm,1.3s,mb5.8
ULDT   Uludag            67.73 311 i P    P       20 22 52.8  +0.3
SKR    Severo-Kuril's    68.37  37 eP     P       20 22 54.5  -1.8
SKR                                pmax   pmax
              comp=Z,110nm,0.6s,mb6.1
KDAG   Bornova           68.81 309 i P    P       20 22 59.6  +0.3
MA2    Magadan           69.05  27 eP     P       20 22 59.8  -0.5
              comp=Z,58nm,0.7s,mb5.6
MA2    Magadan           69.05  27⇑eP     P       20 22 59.8  -0.6
MA2                                pmax   pmax
              comp=Z,50nm,0.6s,mb5.6
TIRR   Tirgusor          69.23 316 ⇑P     P       20 23 01.1  -0.6
TIRR   Tirgusor          69.23 316⇑iP     P       20 23 01.1  -0.7
KIS    Kishinev          69.58 318 eP     P       20 23 02.0  -1.9
TIXI   Tiksi             69.80  11 eP     P       20 23 03.3  -1.4
              comp=Z,91nm,0.8s,mb5.8
TIXI   Tiksi             69.80  11c iP    P       20 23 03.6  -1.2
TIXI                               pmax   pmax
              comp=Z,86nm,0.7s,mb5.8
AKASG  Malin Array Be    70.32 322  P     P       20 23 07.0  -1.3
AKASG                              pmax   pmax
              comp=Z,13nm,0.6s
AKASG                              pmax   pmax
              comp=Z,1.0nm,0.7s
AKASG  Malin Array Be    70.32 322  P     P       20 23 07.0  -1.3
              comp=Z,13nm,0.6s,mb5.0,baz=91,slow=4.7,SNR=81
AKASG                              PP     PP      20 25 34.0  -10
              comp=Z,0.8nm,0.7s,baz=88,slow=7.1,SNR=4.2
AKBB   Malin Array Si    70.32 322 eP     P       20 23 06.9  -1.4
KIEV   Kiev              70.32 322 eP     P       20 23 06.9  -1.5
              comp=Z,18nm,0.8s,mb5.0
KIEV   Kiev              70.32 322 eP     P       20 23 06.9  -1.5
KIEV                               pmax   pmax
              comp=Z,17nm,0.8s,mb5.0
PET    Petropavlovsk     70.60  35 eP     P       20 23 08.8  -1.2
              comp=Z,41nm,1.1s,mb5.3
PET    Petropavlovsk     70.60  35 eP     P       20 23 08.9  -1.1
PET                                pmax   pmax
              comp=Z,55nm,1.1s,mb5.4
VRI    Vrincioaia        70.71 317⇑iP     P       20 23 11.3  +0.5
PLOR   Plostina          70.76 317  P     P       20 23 11.7  +0.6
MLR    Muntele Rosu      71.16 316 ⇓P     P       20 23 14.0  +0.4
MLR    Muntele Rosu      71.16 316⇓iP     P       20 23 14.0  +0.4
ZIMR                     71.20 314  P     P       20 23 14.6  +0.7
SEY    Seymchan          71.28  24⇑eP     P       20 23 13.0  -0.9
VOIR                     71.77 316 ⇓P     P       20 23 16.4  -0.8
VOIR                     71.77 316⇓iP     P       20 23 16.4  -0.9
BURAR  Bucovina Array    72.10 318 ⇓P     P       20 23 19.9  +0.7
BURAR  Bucovina Array    72.10 318⇓iP     P       20 23 19.9  +0.7
MNK    Minsk             72.21 326 eP     P       20 23 17.0  -2.7
VTS    Vitosha           72.57 313 ⇑P     P       20 23 21.9  -0.2
VTS    Vitosha           72.57 313⇑iP     P       20 23 21.9  -0.2
PUL    Pulkovo           72.59 332⇑eP     P       20 23 22.2  +0.3
VAY    Valandovo         72.85 312 i P    P       20 23 22.5  -1.3
LBTB   Lobatse           73.11 242 eP     P       20 23 26.3  +0.7
              comp=Z,27nm,1.0s,mb5.1
LBTB   Lobatse           73.11 242 eP     P       20 23 26.3  +0.7
LBTB                               pmax   pmax
              comp=Z,27nm,1.0s,mb5.1
JOF    Joensuu           73.29 335 ep     P       20 23 24.4  -1.5
              comp=Z,41nm,0.8s,mb5.4
JOF    Joensuu           73.29 335 eP     P       20 23 24.4  -1.5
JOF                                pmax   pmax
              comp=Z,41nm,0.8s,mb5.4
LVV    L'vov             73.33 320 eP     P       20 23 24.8  -1.6
LVV                                MLR    MLR
              comp=N,300nm,18.0s,MS5.0
LVV                                MLR    MLR
              comp=Z,600nm,18.0s,MS4.9
LVV                                MLR    MLR
              comp=E,700nm,17.0s,MS5.0
GZR    Gura Zlata        73.33 316 ⇑P     P       20 23 26.9  +0.3
GZR    Gura Zlata        73.33 316  P     P       20 23 28.0  +1.4
GZR    Gura Zlata        73.33 316⇑iP     P       20 23 26.9  +0.3
DRGR                     73.62 317 ⇑P     P       20 23 28.3  +0.1
DRGR                     73.62 317⇑iP     P       20 23 28.3  +0.1
KRUS   Krusevo           73.84 311⇑iP     P       20 23 28.7  -1.0
VSU    Vasula            73.93 330⇑iP     P       20 23 29.4  -0.4
VSU    Vasula            73.93 330c iP    P       20 23 29.3  -0.5
KWP    Kalwaria          74.14 320 eP     P       20 23 31.4  +0.2
KWP                                MLR    MLR
              comp=Z,2µm,20.1s,MS5.4
BZS    Buzias            74.18 316 ⇑P     P       20 23 31.3  -0.2
BZS    Buzias            74.18 316⇑iP     P       20 23 31.3  -0.2
UZH    Uzhgorod          74.22 319 eP     P       20 23 23.0  -8.7
UZH                                e      pP      20 23 33.0  -12
KOLS   Kolonicke sedl    74.29 319 eP     P       20 23 32.6  +0.5
KOLS                               epP    pP      20 23 42.6  -2.8
BOSA   Boshof            74.30 239 eP     P       20 23 33.4  +0.8
              comp=Z,67nm,1.4s,mb5.4
BOSA   Boshof            74.30 239 eP     P       20 23 33.4  +0.8
BOSA                               pmax   pmax
              comp=Z,67nm,1.4s,mb5.4
BOSA   Boshof            74.30 239  P     P       20 23 32.5   0.0
              comp=Z,6.5nm,0.6s,mb4.8,baz=83,slow=4.3,SNR=17
APA    Apatity           74.37 340⇑iP     P       20 23 31.0  -1.2
APA                                i      pP      20 23 44.5  -1.0
APA                                pmax   pmax
              comp=Z,20nm,0.8s,mb5.1
SUW    Suwalki           74.73 325 eP     P       20 23 33.9  -0.6
SUW                                MLR    MLR
              comp=Z,3µm,20.3s,MS5.6
CRVS   Cervenica-Dubn    74.81 319 eP     P       20 23 35.6  +0.5
STHS   Stebnicka Huta    75.04 320 eP     P       20 23 36.8  +0.4
              comp=Z,19nm,0.8s,mb5.1
STHS   Stebnicka Huta    75.04 320 eP     P       20 23 36.8  +0.4
STHS                               pmax   pmax
              comp=Z,19nm,0.8s,mb5.1
FIA1   FINESS Array S    75.11 333 eP     P       20 23 36.1  -0.5
FINES  FINESS Array B    75.11 333  P     P       20 23 36.2  -0.4
FINES                              pmax   pmax
              comp=Z,39nm,0.8s
FINES  FINESS Array B    75.11 333  P     P       20 23 36.1  -0.4
              comp=Z,39nm,0.8s,mb5.4,baz=102,slow=5.8,SNR=196
KAF    Kangasniemi       75.21 333 ep     P       20 23 35.7  -1.4
              comp=Z,25nm,0.5s,mb5.4,baz=104,slow=5.4
KAF    Kangasniemi       75.21 333 eP     P       20 23 35.7  -1.4
KAF                                pmax   pmax
              comp=Z,25nm,0.5s,mb5.4
KECS   Kecovo            75.38 319 eP     P       20 23 38.5  +0.1
              comp=Z,10nm,0.8s,mb4.8
KECS   Kecovo            75.38 319 eP     P       20 23 38.5  +0.1
KECS                               pmax   pmax
              comp=Z,10.0nm,0.8s,mb4.8
NIE    Niedzica          75.64 320 eP     P       20 23 40.4  +0.6
PSZ    Piszkesteto       75.69 318 eP     P       20 23 39.8  -0.3
              comp=Z,20nm,0.9s,mb5.1
PSZ    Piszkesteto       75.69 318 eP     P       20 23 40.4  +0.2
PSZ    Piszkesteto       75.69 318⇓iP     P       20 23 40.2   0.0
MAW    Mawson            75.97 192  P     P       20 23 41.3   0.0
MAW                                pmax   pmax
              comp=Z,2.0nm,0.6s
MAW    Mawson            75.97 192  P     P       20 23 41.3   0.0
              comp=Z,1.9nm,0.6s,mb4.2,baz=74,slow=7.4,SNR=5.3
OJC    Ojcow             76.09 320 eP     P       20 23 42.6  +0.2
BUD    Budapest          76.21 318 eP     P       20 23 43.1  -0.1
PKSM   Moragy            76.31 316 ⇓P     P       20 23 43.4  -0.4
PKSM   Moragy            76.31 316⇓iP     P       20 23 43.4  -0.4
VYHS   Vyhne             76.47 319 i P    P       20 23 44.7  +0.1
              comp=Z,57nm,2.2s,mb5.1
VYHS   Vyhne             76.47 319 i P    P       20 23 44.7  +0.1
VYHS                               pmax   pmax
              comp=Z,57nm,2.2s,mb5.1
OKC    Ostrava-Krasne    77.09 320 eP     P       20 23 48.5  +0.4
KEV    Kevo              77.37 341 ep     P       20 23 46.9  -2.4
              comp=Z,8.7nm,0.7s,mb4.8
KEV    Kevo              77.37 341 eP     P       20 23 46.9  -2.4
KEV                                pmax   pmax
              comp=Z,9.0nm,0.7s,mb4.8
MORC   Moravsky Berou    77.47 320 eP     P       20 23 50.3  +0.1
              comp=Z,34nm,1.2s,mb5.2
MORC   Moravsky Berou    77.47 320⇓iP     P       20 23 50.6  +0.4
ZST    Bratislava        77.58 318 i P    P       20 23 51.6  +0.7
              comp=Z,34nm,0.9s,mb5.3
ZST    Bratislava        77.58 318 i P    P       20 23 51.6  +0.7
ZST                                pmax   pmax
              comp=Z,34nm,0.9s,mb5.3
ARCES  ARCESS Array B    77.80 340  P     P       20 23 50.9  -0.7
ARCES                              pmax   pmax
              comp=Z,21nm,1.1s
ARCES  ARCESS Array B    77.80 340  P     P       20 23 50.9  -0.7
              comp=Z,21nm,1.1s,mb5.0,baz=103,slow=6.6,SNR=38
SOP    Sopron            77.89 318 eP     P       20 23 52.9  +0.3
VRAC   Vranov            78.03 319 ⇑P     P       20 23 53.8  +0.4
VRAC   Vranov            78.03 319⇑iP     P       20 23 53.8  +0.4
GKP    Gorka Klasztor    78.09 323 eP     P       20 23 53.6   0.0
GKP                                MLR    MLR
              comp=Z,2µm,22.2s,MS5.5
DPC    Dobruska-Polom    78.32 320 eP     P       20 23 55.8  +0.9
CONA   Conrad Observa    78.38 318⇑iP     P       20 23 55.6  +0.3
              comp=Z,12nm,1.1s,mb4.7
KSP    Ksiaz             78.39 321⇑eP     P       20 23 55.8  +0.5
KSP                                ePcP   PcP     20 24 05.3  +0.9
BILL   Bilibino          78.50  21 eP     P       20 23 54.4  -1.1
              comp=Z,22nm,0.8s,mb5.1
BILL   Bilibino          78.50  21d iP    P       20 23 55.2  -0.3
UPC    Upice             78.53 320 eP     P       20 23 56.9  +0.8
ARSA   Arzberg           78.55 317⇑iP     P       20 23 56.9  +0.6
              comp=Z,20nm,0.9s,mb5.0,SNR=12
BOJS   Bojanci           78.61 315 eP     P       20 23 56.6   0.0
TREC   Trest             78.75 319 eP     P       20 23 57.7  +0.4
PERS   Pernice           78.78 316 i P    P       20 23 58.0  +0.4
PDKS   Podkum            78.82 316 i P    P       20 23 57.9  +0.1
SUR    Sutherland        78.94 236  P     P       20 24 00.0  +1.3
              comp=Z,99nm,1.9s,mb5.4,SNR=6.8
SUR    Sutherland        78.94 236 eP     P       20 24 00.2  +1.5
              comp=Z,78nm,1.4s,mb5.4
VNDS   Vrh nad Dolski    79.03 316 i P    P       20 23 59.3  +0.4
LJU    Ljubljana         79.15 316 i P    P       20 23 60.0  +0.4
OBKA   Obir              79.17 316⇑iP     P       20 24 00.4  +0.7
              comp=Z,10.0nm,0.8s,mb4.8,SNR=6.1
TSUM   Tsumeb            79.21 249 eP     P       20 24 00.5   0.0
              comp=Z,12nm,1.0s,mb4.8
PRU    Pruhonice         79.42 320 eP     P       20 24 01.5  +0.5
MOA    Molln             79.45 318⇑iP     P       20 24 01.1  -0.1
              comp=Z,11nm,1.0s,mb4.7,SNR=7.1
PVCC   Panska Ves        79.45 320 eP     P       20 24 01.9  +0.8
JAVS   Javornik          79.46 316 eP     P       20 24 01.0  -0.3
VOY    Vojsko            79.59 316⇑eP     P       20 24 01.8  -0.2
VOY                                e      pP      20 24 10.7  -4.7
VOY                                e      pP      20 24 11.7  -3.7
VOY    Vojsko            79.59 316⇑eP     P       20 24 01.8  -0.2
VOY                                e      pP      20 24 10.7  -4.7
VOY                                e      pP      20 24 11.7  -3.7
VOY                                e      pP      20 24 16.3  +0.9
BSD    Bornholm Skovb    79.66 325 i P    P       20 24 01.2  -0.9
BSD                                pmax   pmax
              comp=Z,44nm,0.6s,mb5.6
BSD    Bornholm Skovb    79.66 325 i P    P       20 24 01.2  -0.9
              comp=Z,44nm,0.6s,mb5.6
PTQR   Pietraquaria      79.75 312  P     P       20 24 03.0  +0.1
              comp=Z,8.5nm,0.5s,mb4.9
AQU    L'Aquila          79.76 312 eP     P       20 24 02.9  -0.1
              comp=Z,16nm,0.8s,mb5.0
AQU    L'Aquila          79.76 312⇑iP     P       20 24 03.6  +0.6
BRG    Berggiesshubel    79.87 321 i P    P       20 24 03.8  +0.4
BRG                                pmax   pmax
              comp=Z,16nm,1.1s,mb4.9
BRG    Berggiesshubel    79.87 321 eP     P       20 24 03.8  +0.4
              comp=Z,27nm,1.1s,mb5.1
BRG    Berggiesshubel    79.87 321 i P    P       20 24 03.8  +0.4
              comp=Z,27nm,1.1s,mb5.1
GEC2   GERESS Array S    79.89 319 eP     P       20 24 04.1  +0.6
GEC2                               pmax   pmax
              comp=Z,282nm,2.3s,mb5.8
GEC2   GERESS Array S    79.89 319 eP     P       20 24 04.1  +0.6
              comp=Z,282nm,2.3s,mb5.8
GERES  GERESS Array B    79.89 319  P     P       20 24 04.0  +0.5
GERES                              pmax   pmax
              comp=Z,16nm,0.7s
GERES  GERESS Array B    79.89 319  P     P       20 24 04.0  +0.5
              comp=Z,16nm,0.7s,mb5.0,baz=98,slow=5.5,SNR=144
PTCC   Patocco-Chiusa    79.98 316  P     P       20 24 04.3  +0.2
              comp=Z,23nm,0.7s,mb5.2
KHC    Kasperske Hory    79.99 319 eP     P       20 24 04.3  +0.2
KHC                                epP    pP      20 24 10.0  -7.5
NRCA   Norcia            79.99 312  P     P       20 24 03.9  -0.3
              comp=Z,11nm,0.8s,mb4.8
KBA    Koelnbreinsper    80.03 317⇑iP     P       20 24 04.2  -0.1
              comp=Z,14nm,1.1s,mb4.8,SNR=8.1
KBA    Koelnbreinsper    80.03 317⇑iP     P       20 24 04.2  -0.1
KBA                                pmax   pmax
              comp=Z,14nm,1.1s,mb4.8
TRO    Tromso            80.05 340 eP     P       20 24 02.5  -1.5
GMNA   Gemona            80.06 316  P     P       20 24 05.1  +0.6
              comp=Z,182nm,1.1s,mb5.9
RUE    Ruedersdorf       80.09 322 eP     P       20 24 04.9  +0.3
              comp=Z,78nm,0.8s,mb5.7
SNTG   Esanatoglia       80.14 313  P     P       20 24 05.1  +0.1
              comp=Z,13nm,0.7s,mb5.0
FBE    Freiberg          80.25 321 eP     P       20 24 06.1  +0.7
              comp=Z,35nm,0.9s,mb5.3
FSSB   Fossombrone       80.27 313  P     P       20 24 06.4  +0.7
              comp=Z,27nm,0.7s,mb5.3
FVI    Forni Avoltri     80.39 316  P     P       20 24 06.4  +0.1
              comp=Z,25nm,0.9s,mb5.2
FVI    Forni Avoltri     80.39 316  P     P       20 24 06.4  +0.1
FVI                                pmax   pmax
              comp=Z,25nm,0.9s,mb5.1
WET    Wettzell          80.45 319 eP     P       20 24 07.0  +0.5
WET                                pmax   pmax
              comp=Z,25nm,1.1s,mb5.1
WET    Wettzell          80.45 319 eP     P       20 24 07.0  +0.5
              comp=Z,25nm,1.1s,mb5.1
CLL    Collm             80.49 321⇑iP     P       20 24 06.8  +0.1
CLL                                e*PP   pP      20 24 20.0  -0.2
CLL                                pmax   pmax
              comp=Z,24nm,1.1s,mb5.0
CLL    Collm             80.49 321 eP     P       20 24 06.7   0.0
              comp=Z,25nm,1.1s,mb5.1
CLL    Collm             80.49 321⇑iP     P       20 24 06.8  +0.1
              comp=Z,24nm,1.1s,mb5.0
CLL                                esP    sP      20 24 20.0  -5.4
CLL                                esPcP          20 24 25.0
RSM    Repubblica di     80.52 314  P     P       20 24 07.6  +0.6
              comp=Z,46nm,0.8s,mb5.5
RSM    Repubblica di     80.52 314  P     P       20 24 07.6  +0.6
RSM                                pmax   pmax
              comp=Z,46nm,0.8s,mb5.5
NKC    Novy Kostel       80.78 320 eP     P       20 24 08.7  +0.4
TANN   Tannenbergstha    80.78 320 eP     P       20 24 08.5  +0.2
              comp=Z,53nm,1.9s,mb5.2
GUNZ   Gunzen            80.87 320 eP     P       20 24 09.2  +0.5
              comp=Z,27nm,1.1s,mb5.1
CRE    Caprese Michel    80.87 313  P     P       20 24 09.2  +0.3
              comp=Z,14nm,0.6s,mb5.1
CRE    Caprese Michel    80.87 313  P     P       20 24 09.2  +0.3
CRE                                pmax   pmax
              comp=Z,14nm,0.6s,mb5.1
WERD   Werda             80.89 320 eP     P       20 24 09.0  +0.1
              comp=Z,20nm,1.0s,mb5.0
ROTZ   Rotzenmuhle       80.92 319 eP     P       20 24 09.8  +0.8
              comp=Z,27nm,1.0s,mb5.1
SFI    Santa Sofia       80.95 313  P     P       20 24 09.8  +0.4
              comp=Z,73nm,0.9s,mb5.6
SFI    Santa Sofia       80.95 313  P     P       20 24 09.8  +0.4
SFI                                pmax   pmax
              comp=Z,73nm,0.9s,mb5.6
MANZ   Manzenberg        80.99 320 eP     P       20 24 10.3  +0.9
              comp=Z,230nm,2.4s,mb5.7
CTI    Castel Tesino     81.15 316  P     P       20 24 10.9  +0.5
WTTA   Wattenberg        81.20 317⇑iP     P       20 24 10.4  -0.2
              comp=Z,30nm,0.9s,mb5.2,SNR=7.2
WTTA   Wattenberg        81.20 317⇑iP     P       20 24 10.4  -0.2
WTTA                               pmax   pmax
              comp=Z,30nm,0.9s,mb5.2
WATA   Walderalm         81.24 317⇑iP     P       20 24 10.4  -0.4
              comp=Z,8.6nm,0.6s,mb4.9
WATA   Walderalm         81.24 317⇑iP     P       20 24 10.4  -0.4
WATA                               pmax   pmax
              comp=Z,9.0nm,0.6s,mb4.9
SEI    Scarperia         81.31 314  P     P       20 24 12.9  +1.6
              comp=Z,193nm,0.8s,mb6.1
MOX    Moxa              81.33 320 eP     P       20 24 11.4  +0.2
              comp=Z,79nm,2.0s,mb5.3
MOX                                epP    pP      20 24 21.1  -3.6
MOX    Moxa              81.33 320 eP     P       20 24 11.4  +0.2
              comp=Z,79nm,2.0s,mb5.3
MOX                                e      pP      20 24 21.1  -3.6
MOX
              comp=Z,9µm,17.0s
MOX    Moxa              81.33 320 eP     P       20 24 11.4  +0.2
MOX                                e      pP      20 24 21.1  -3.6
MOX                                pmax   pmax
              comp=Z,79nm,2.0s,mb5.3
MOX                                MLR    MLR
              comp=Z,9µm,17.0s,MS6.2
MOX    Moxa              81.33 320 eP     P       20 24 11.5  +0.3
              comp=Z,58nm,1.8s,mb5.2
FUR    Furstenfeldbru    81.47 318 eP     P       20 24 11.9  -0.1
FUR                                pmax   pmax
              comp=Z,49nm,1.4s,mb5.2
FUR    Furstenfeldbru    81.47 318 eP     P       20 24 11.9  -0.1
              comp=Z,49nm,1.4s,mb5.2
FNVD   Fontana Vidola    81.48 314  P     P       20 24 13.5  +1.3
SQTA   Sankt Quirin      81.49 317⇑iP     P       20 24 12.0  -0.1
              comp=Z,16nm,0.6s,mb5.2,SNR=15
SQTA   Sankt Quirin      81.49 317⇑iP     P       20 24 12.0  -0.1
SQTA                               pmax   pmax
              comp=Z,16nm,0.6s,mb5.1
GRA1   Grafenberg Arr    81.55 319 eP     P       20 24 12.8  +0.4
              comp=Z,38nm,1.0s,mb5.3
GRA1                               epP    pP      20 24 25.5  -0.4
GRF    Grafenberg Arr    81.55 319 eP     P       20 24 12.8  +0.4
GRF                                e*PP   pP      20 24 25.5  -0.4
GRF                                pmax   pmax
              comp=Z,38nm,1.0s,mb5.3
GRF    Grafenberg Arr    81.55 319 eP     P       20 24 12.8  +0.4
GRF                                e*PP   pP      20 24 25.5  -0.4
GRF                                pmax   pmax
              comp=Z,38nm,1.0s,mb5.3
GRF    Grafenberg Arr    81.55 319 eP     P       20 24 12.8  +0.4
              comp=Z,38nm,1.0s,mb5.3
GRF                                epP    pP      20 24 25.5  -0.4
GRFO   Grafenberg        81.55 319 eP     P       20 24 12.5   0.0
              comp=Z,17nm,0.8s,mb5.0
GRFO   Grafenberg        81.55 319 eP     P       20 24 12.5  +0.1
GRFO                               pmax   pmax
              comp=Z,17nm,0.8s,mb5.0
MOTA   Moosalm           81.56 317⇑iP     P       20 24 12.2  -0.3
              comp=Z,16nm,0.8s,mb5.0,SNR=11
MOTA   Moosalm           81.56 317⇑iP     P       20 24 12.2  -0.3
MOTA                               pmax   pmax
              comp=Z,16nm,0.8s,mb5.0
GRFL   Gerfalco          81.57 313  P     P       20 24 12.3  -0.4
              comp=Z,14nm,0.8s,mb5.0
RETA   Reutte            81.80 317 i P    P       20 24 13.6  -0.1
              SNR=20
FETA   Feichten          81.81 317 i P    P       20 24 13.9  +0.1
              SNR=11
GSCL   Gusciola          81.87 314  P     P       20 24 15.6  +1.4
              comp=Z,21nm,0.8s,mb5.1
BRMO   Bormio            82.05 316  P     P       20 24 15.7  +0.6
              comp=Z,12nm,0.6s,mb5.0
NB2    NORSAR Subarra    82.10 331  P     P       20 24 14.0  -1.0
              comp=Z,13nm,0.8s,mb4.9,baz=94,slow=5.9
NOA    NORSAR Array B    82.10 331  P     P       20 24 14.3  -0.8
NOA    NORSAR Array B    82.10 331  P     P       20 24 14.3  -0.7
NOA                                pmax   pmax
              comp=Z,11nm,0.8s
NOA    NORSAR Array B    82.10 331  P     P       20 24 14.3  -0.8
              comp=Z,11nm,0.8s,mb4.9,baz=94,slow=5.5,SNR=42
CLZ    Clausthal         82.16 321 eP     P       20 24 15.9  +0.4
CLZ                                pmax   pmax
              comp=Z,35nm,1.1s,mb5.2
CLZ    Clausthal         82.16 321 eP     P       20 24 15.9  +0.4
              comp=Z,35nm,1.1s,mb5.2
NAO01  NORSAR Array S    82.25 331 eP     P       20 24 14.7  -1.1
              comp=Z,6.8nm,0.7s,mb4.7
BSEG   Bad Segeberg      82.25 324 eP     P       20 24 16.5  +0.5
BSEG                               pmax   pmax
              comp=Z,58nm,0.9s,mb5.5
BSEG   Bad Segeberg      82.25 324 eP     P       20 24 16.5  +0.5
              comp=Z,58nm,0.9s,mb5.5
DAVA   Damuels           82.39 317⇑iP     P       20 24 17.2  +0.4
              comp=Z,40nm,1.3s,mb5.2
KONO   Kongsberg         82.84 329⇑eP     P       20 24 19.2  +0.3
KEST   Kesra             82.87 305  P     P       20 24 20.5  +0.9
              comp=Z,4.3nm,0.9s,mb4.5,baz=321,slow=4.7,SNR=12
MUD    Monsted U'grnd    82.97 326 i P    P       20 24 20.4  +0.7
MUD                                pmax   pmax
              comp=Z,37nm,1.1s,mb5.3
MUD    Monsted U'grnd    82.97 326 i P    P       20 24 20.4  +0.7
              comp=Z,37nm,1.1s,mb5.3
PGF    Pioggiola         83.02 312 eP     P       20 24 20.5  +0.2
              comp=Z,77nm,1.2s,mb5.3
PGF    Pioggiola         83.02 312 eP     P       20 24 20.5  +0.2
              comp=Z,39nm,1.2s,mb5.3
PGF    Pioggiola         83.02 312 eP     P       20 24 20.5  +0.2
PGF                                pmax   pmax
              comp=Z,39nm,1.2s,mb5.3
SPAK   Spaichingen-Ko    83.14 318 eP     P       20 24 20.3  -0.4
VAI    Varese            83.16 315  P     P       20 24 20.4  -0.5
              comp=Z,22nm,0.9s,mb5.2
VAI    Varese            83.16 315  P     P       20 24 20.4  -0.5
VAI                                pmax   pmax
              comp=Z,22nm,0.9s,mb5.2
TNS    Taunus Mts        83.35 320 eP     P       20 24 22.2  +0.4
TNS                                pmax   pmax
              comp=Z,24nm,1.0s,mb5.2
TNS    Taunus Mts        83.35 320 eP     P       20 24 22.2  +0.4
              comp=Z,24nm,1.0s,mb5.2
BFO    Black Forest      83.44 318 eP     P       20 24 22.0  -0.3
BFO                                pmax   pmax
              comp=Z,12nm,0.8s,mb5.0
BFO    Black Forest      83.44 318 eP     P       20 24 22.0  -0.3
              comp=Z,12nm,0.8s,mb5.0
FIN    Finale Ligure     83.58 314  P     P       20 24 23.3  +0.2
              comp=Z,52nm,0.7s,mb5.8
FIN    Finale Ligure     83.58 314  P     P       20 24 23.3  +0.2
FIN                                pmax   pmax
              comp=Z,52nm,0.7s,mb5.8
FELD   Feldberg im Sc    83.66 317 eP     P       20 24 24.6  +1.2
IBBN   Ibbenburen        83.78 322 eP     P       20 24 24.1  +0.2
              comp=Z,55nm,1.1s,mb5.6
LANF   Langenberg        83.78 319 eP     P       20 24 23.8  -0.2
ABH    Alteburg          83.94 319 eP     P       20 24 24.9  +0.1
BUG    Bochum--Univer    84.09 321 eP     P       20 24 25.8  +0.3
              comp=Z,44nm,1.1s,mb5.5
CDF    Champ du Feu      84.14 318⇑iP     P       20 24 25.5  -0.4
              comp=Z,15nm,0.8s,mb4.9
CDF    Champ du Feu      84.14 318⇑iP     P       20 24 25.5  -0.4
              comp=Z,7.6nm,0.8s,mb4.9
CDF    Champ du Feu      84.14 318⇑iP     P       20 24 25.5  -0.4
CDF                                pmax   pmax
              comp=Z,8.0nm,0.8s,mb4.9
SBF    Sospel            84.14 313⇑iP     P       20 24 26.0   0.0
              comp=Z,110nm,1.0s,mb5.7
SBF    Sospel            84.14 313⇑iP     P       20 24 26.0   0.0
              comp=Z,55nm,1.0s,mb5.6
SBF    Sospel            84.14 313⇑iP     P       20 24 26.0   0.0
SBF                                pmax   pmax
              comp=Z,55nm,1.0s,mb5.6
RUP    Ruppelstein       84.26 319 eP     P       20 24 26.3  -0.1
ODD1   Odda              84.34 330 eP     P       20 24 26.0  -0.7
ODD1                               AMb    AMB     20 24 27.3
              comp=Z,42nm,1.5s,mb5.3
BLS5   Blasjo            84.44 329 eP     P       20 24 28.2  +1.1
BLS5                               AML    AML     20 24 29.3
              comp=Z,22nm,0.7s
HINF   Hinteralfeld      84.44 317 eP     P       20 24 27.0  -0.4
LPG    La Plagne         84.58 315⇑iP     P       20 24 28.6  +0.4
              comp=Z,40nm,0.7s,mb5.3
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LPG	La Plagne	84.58	315	⇑*i*P	P	20 24 28.6	+0.4
	comp=Z,20nm,0.7s,mb5.4						
LPG	La Plagne	84.58	315	⇑*i*P	P	20 24 28.6	+0.4
LPG				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.4						
MBDF	Montbardon	84.59	314	⇑*i*P	P	20 24 27.7	-0.5
	comp=Z,22nm,0.8s,mb5.1						
MBDF	Montbardon	84.59	314	⇑*i*P	P	20 24 27.7	-0.5
	comp=Z,11nm,0.8s,mb5.0						
MBDF	Montbardon	84.59	314	⇑*i*P	P	20 24 27.7	-0.5
MBDF				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.0						
LPL	La Plagne	84.59	315	⇑*i*P	P	20 24 28.6	+0.4
	comp=Z,36nm,0.7s,mb5.3						
LPL	La Plagne	84.59	315	⇑*i*P	P	20 24 28.6	+0.4
	comp=Z,18nm,0.7s,mb5.3						
LPL	La Plagne	84.59	315	⇑*i*P	P	20 24 28.6	+0.4
LPL				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.3						
BNI	Bardonecchia	84.65	315	*e*P	P	20 24 28.3	-0.2
	comp=Z,15nm,0.8s,mb5.2						
BNI	Bardonecchia	84.65	315	*e*P	P	20 24 28.3	-0.2
BNI				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.2						
FRF	La Foret Royal	84.72	313	⇑*i*P	P	20 24 29.1	+0.2
	comp=Z,46nm,0.9s,mb5.3						
FRF	La Foret Royal	84.72	313	⇑*i*P	P	20 24 29.1	+0.2
	comp=Z,23nm,0.9s,mb5.3						
FRF	La Foret Royal	84.72	313	⇑*i*P	P	20 24 29.1	+0.2
FRF				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.3						
HAU	Haudompre	84.77	318	⇑*i*P	P	20 24 28.7	-0.4
	comp=Z,34nm,0.8s,mb5.2						
HAU	Haudompre	84.77	318	⇑*i*P	P	20 24 28.7	-0.4
	comp=Z,17nm,0.8s,mb5.2						
HAU	Haudompre	84.77	318	⇑*i*P	P	20 24 28.7	-0.4
HAU				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.2						
LMR	La Mourre	84.83	313	*e*P	P	20 24 28.8	-0.7
	comp=Z,205nm,1.6s,mb5.7						
LMR	La Mourre	84.83	313	*e*P	P	20 24 28.8	-0.7
	comp=Z,103nm,1.6s,mb5.7						
LMR	La Mourre	84.83	313	*e*P	P	20 24 28.8	-0.7
LMR				pmax	pmax		
	comp=Z,103nm,1.6s,mb5.7						
WLF	Walferdange	84.84	319	*e*P	P	20 24 29.8	+0.4
	comp=Z,56nm,1.8s,mb5.4						
CABF	La Chapelle	85.00	316	⇑*i*P	P	20 24 30.5	+0.2
	comp=Z,36nm,0.8s,mb5.2						
CABF	La Chapelle	85.00	316	⇑*i*P	P	20 24 30.5	+0.2
	comp=Z,18nm,0.8s,mb5.2						
CABF	La Chapelle	85.00	316	⇑*i*P	P	20 24 30.5	+0.2
CABF				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
THEF	They Montfort	85.01	318	*e*P	P	20 24 30.0	-0.2
EGD	Espegrend	85.04	330	*e*P	P	20 24 30.6	+0.5
EGD				AMb	AMB	20 24 33.0	
	comp=Z,99nm,1.9s,mb5.6						
ASK	Askoy	85.05	330	*e*P	P	20 24 29.6	-0.5
ORIF	Oris-en-Rattie	85.22	315	⇑*i*P	P	20 24 31.2	-0.2
	comp=Z,31nm,0.9s,mb5.1						
ORIF	Oris-en-Rattie	85.22	315	⇑*i*P	P	20 24 31.2	-0.2
	comp=Z,16nm,0.9s,mb5.1						
ORIF	Oris-en-Rattie	85.22	315	⇑*i*P	P	20 24 31.2	-0.2
ORIF				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
SMRF	Simiane la Rot	85.48	314	*e*P	P	20 24 33.3	+0.6
	comp=Z,52nm,1.1s,mb5.3						
SMRF	Simiane la Rot	85.48	314	*e*P	P	20 24 33.3	+0.6
	comp=Z,52nm,1.1s,mb5.6						
GIVF	Givet	85.69	320	⇑*i*P	P	20 24 32.7	-0.9
VIVF	Saint-Julien-l	86.08	315	⇑*i*P	P	20 24 35.8	+0.1
	comp=Z,34nm,1.0s,mb5.2						
VIVF	Saint-Julien-l	86.08	315	⇑*i*P	P	20 24 35.8	+0.1
	comp=Z,17nm,1.0s,mb5.2						
VIVF	Saint-Julien-l	86.08	315	⇑*i*P	P	20 24 35.8	+0.1
VIVF				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.2						
BAIF	Baives	86.08	320	⇑*i*P	P	20 24 35.8	+0.2
	comp=Z,59nm,1.2s,mb5.4						
BAIF	Baives	86.08	320	⇑*i*P	P	20 24 35.8	+0.2
	comp=Z,29nm,1.2s,mb5.4						
BAIF	Baives	86.08	320	⇑*i*P	P	20 24 35.8	+0.2
BAIF				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.4						
LOR	Lormes	86.49	317	⇑*i*P	P	20 24 37.5	-0.1
	comp=Z,28nm,0.9s,mb5.2						
LOR	Lormes	86.49	317	⇑*i*P	P	20 24 37.5	-0.1
	comp=Z,14nm,0.9s,mb5.2						
LOR	Lormes	86.49	317	⇑*i*P	P	20 24 37.5	-0.1
LOR				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.2						
SMF	Signal de Mont	86.55	316	⇑*i*P	P	20 24 37.6	-0.3
	comp=Z,31nm,0.8s,mb5.3						
SMF	Signal de Mont	86.55	316	⇑*i*P	P	20 24 37.6	-0.3
	comp=Z,16nm,0.8s,mb5.3						
SMF	Signal de Mont	86.55	316	⇑*i*P	P	20 24 37.6	-0.3
SMF				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.3						
LASF	Ste Croix	86.71	314	*e*P	P	20 24 39.1	+0.3
	comp=Z,21nm,0.9s,mb5.1						
PLDF	La Plantade	86.75	316	*e*P	P	20 24 39.4	+0.5
SSF	Saint Saulge	86.75	317	⇑*i*P	P	20 24 38.7	-0.2
	comp=Z,32nm,1.1s,mb5.2						
SSF	Saint Saulge	86.75	317	⇑*i*P	P	20 24 38.7	-0.2
	comp=Z,16nm,1.1s,mb5.2						
SSF	Saint Saulge	86.75	317	⇑*i*P	P	20 24 38.7	-0.2
SSF				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.2						
AVF	Avril sur Loir	86.87	317	⇑*i*P	P	20 24 39.2	-0.3
	comp=Z,23nm,1.0s,mb5.1						
AVF	Avril sur Loir	86.87	317	⇑*i*P	P	20 24 39.2	-0.3
	comp=Z,12nm,1.0s,mb5.1						
AVF	Avril sur Loir	86.87	317	⇑*i*P	P	20 24 39.2	-0.3
AVF				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.1						
GAMB	Gambell	87.14	26	*e*P	P	20 24 40.1	-0.4
BGF	Bois d'Agland	87.24	316	*e*P	P	20 24 41.6	+0.3
TCF	Toulx Ste Croi	87.70	316	⇑*i*P	P	20 24 43.7	+0.2
CAF	Calviac	87.92	315	*e*P	P	20 24 44.5	-0.1
MTLF	Montolieu	87.96	313	*e*P	P	20 24 45.1	+0.3
RJF	Les Rejaudoux	88.27	315	*e*P	P	20 24 46.8	+0.5
TNA	Tin City	88.52	24	*e*P	P	20 24 46.4	-0.5
	comp=Z,4.7nm,0.6s,mb5.0						
TNA				*e*pP	pP	20 24 59.3	-1.3
LDF	La Druitiere	89.03	319	*e*P	P	20 24 49.9	+0.1
FLN	La Foliniere	89.25	319	*e*P	P	20 24 50.8	0.0
	comp=Z,65nm,1.2s,mb5.5						
FLN	La Foliniere	89.25	319	*e*P	P	20 24 50.8	0.0
	comp=Z,32nm,1.2s,mb5.5						
FLN	La Foliniere	89.25	319	*e*P	P	20 24 50.8	0.0
FLN				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.5						
GRR	Gorron	89.55	318	*e*P	P	20 24 51.8	-0.4
	comp=Z,40nm,1.1s,mb5.3						
GRR	Gorron	89.55	318	*e*P	P	20 24 51.8	-0.4
	comp=Z,20nm,1.1s,mb5.4						
GRR	Gorron	89.55	318	*e*P	P	20 24 51.8	-0.4
GRR				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.4						
ETSF	Etsaut	90.02	313	*e*P	P	20 24 54.5	0.0
	comp=Z,22nm,0.8s,mb5.2						
ETSF	Etsaut	90.02	313	*e*P	P	20 24 54.5	0.0
	comp=Z,11nm,0.8s,mb5.2						
ETSF	Etsaut	90.02	313	*e*P	P	20 24 54.5	0.0
ETSF				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.2						
VNDA	Vanda	90.31	168	P	P	20 24 55.5	+0.4
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
VNDA	Vanda	90.31	168	P	P	20 24 55.5	+0.4
	comp=Z,3.2nm,0.9s,mb4.7,baz=302,slow=6.0,SNR=10						
SGMF	Saint Gilles	90.69	318	⇑*i*P	P	20 24 57.1	-0.4
QUIF	Quistinic	91.14	318	⇑*i*P	P	20 24 59.5	-0.1
ROSF	Rostrenen	91.15	319	*e*P	P	20 24 59.8	+0.2
	comp=Z,172nm,1.6s,mb5.8						
ROSF	Rostrenen	91.15	319	*e*P	P	20 24 59.8	+0.2
	comp=Z,86nm,1.6s,mb5.8						
ROSF	Rostrenen	91.15	319	*e*P	P	20 24 59.8	+0.2
ROSF				pmax	pmax		
	comp=Z,86nm,1.6s,mb5.8						
TOA0	Torodi Ar. Sit	91.33	283	*e*P	P	20 25 01.4	+0.2
TOA0				pP	pP	20 25 16.1	+1.3
TORD	Torodi Ar. Bea	91.33	283	P	P	20 25 01.0	-0.2
	comp=Z,2.6nm,0.9s,mb4.6,baz=108,slow=2.9,SNR=15						
TORD				PP	PP	20 28 39.1	0.0
	comp=Z,1.1nm,1.0s,baz=95,slow=7.2,SNR=4.4						
TORD				PKKPbc	PKKPbc	20 42 23.1	+0.5
	comp=Z,0.3nm,0.4s,baz=306,slow=2.8,SNR=5.2						
ESDC	Sonseca Array	93.02	310	P	P	20 25 07.9	-0.7
	comp=Z,2.2nm,0.7s,mb4.7,baz=49,slow=5.8,SNR=6.6						
IMA2	Indian Mountai	94.02	22	*e*P	P	20 25 12.6	+0.1
IMA2				*e*pP	pP	20 25 23.8	-2.3
KDAK	Kodiak Island	97.67	30	P	P	20 25 29.7	+0.4
	comp=Z,4.7nm,0.5s,mb5.3,baz=270,slow=4.0,SNR=3.7						
LIC	Lamto	98.64	277	*e*P	P	20 25 33.9	-0.8
	comp=Z,32nm,1.3s,mb5.4						
LIC	Lamto	98.64	277	*e*P	P	20 25 33.9	-0.8
	comp=Z,16nm,1.3s,mb5.4						
INK	Inuvik	99.49	16	*e*P	P	20 25 36.6	-0.7
	comp=Z,268nm,1.1s,mb6.7						
INK				*e*pP	pP	20 25 49.0	-2.0
INK	Inuvik	99.49	16	P	P	20 25 36.5	-0.8
	comp=Z,2.9nm,0.5s,mb5.0,baz=320,slow=5.5,SNR=11						
RES	Resolute Bay	100.03	2	*e*Pdif	Pdif	20 25 39.5	-0.4
	comp=Z,313nm,0.9s						
RES				*e*		20 25 53.7	
YKA	Yellowknife Ar	108.96	14	P	Pdif	20 26 19.8	+0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA	Yellowknife Ar	108.96	14	Pdiff	Pdif	20 26 19.8	+0.2
	comp=Z,0.5nm,0.9s,baz=332,slow=4.5,SNR=7.7						
YKA				PKiKP	PKiKP	20 30 22.8	-1.0
	comp=Z,0.2nm,0.6s,baz=334,slow=2.6,SNR=4.1						
YKA				PP	PP	20 30 45.5	-5.4
	comp=Z,2.2nm,0.7s,baz=334,slow=7.8,SNR=5.8						
SCHQ	Schefferville	118.13	348	PKP	PKPdf	20 30 41.1	-0.4
SCHQ	Schefferville	118.13	348	PKP	PKPdf	20 30 41.1	-0.4
	comp=Z,5.1nm,0.8s,baz=73,slow=3.9,SNR=13						
HAWA	Hanford	120.50	27	*e*PKPdf	PKPdf	20 30 46.4	+0.1
EGMT	Eagleton	122.94	19	*e*PKPdf	PKPdf	20 30 51.1	+0.2
MOD	Modoc	123.51	31	*e*PKPdf	PKPdf	20 30 53.1	+0.9
ULM	Lac du Bonnet	124.07	8	PKP	PKPdf	20 30 51.9	-1.2
ULM	Lac du Bonnet	124.07	8	PKP	PKPdf	20 30 51.9	-1.2
	comp=Z,7.0nm,0.8s,baz=319,slow=3.5,SNR=7.8						
BOZ	Bozeman (W)	124.34	22	*e*PKPdf	PKPdf	20 30 54.0	+0.3
BOZ	Bozeman (W)	124.34	22	*e*PKIKP	PKPdf	20 30 54.0	+0.3
GCMT	Greycliff	124.92	20	*e*PKPdf	PKPdf	20 30 55.2	+0.4
HLID	Hailey	124.97	25	*e*PKPdf	PKPdf	20 30 55.6	+0.6
LOHW	Long Hollow	126.45	22	*e*PKPdf	PKPdf	20 30 58.2	+0.4
EYMN	Ely	126.82	5	*e*PKPdf	PKPdf	20 30 58.4	0.0
NVAR	Mina Array Bea	127.10	32	PKP	PKPdf	20 30 59.9	+0.7
NVAR	Mina Array Bea	127.10	32	PKP	PKPdf	20 30 59.9	+0.7
	comp=Z,2.3nm,0.7s,baz=326,slow=0.9,SNR=15						
PDAR	Pinedale Array	127.57	22	PKP	PKPdf	20 30 59.9	-0.1
PDAR	Pinedale Array	127.57	22	PKP	PKPdf	20 30 59.9	-0.1
	comp=Z,3.5nm,0.8s,baz=54,slow=0.9,SNR=18						
HWUT	Hardware Ranch	127.77	24	*e*PKPdf	PKPdf	20 31 01.1	+0.7
DUG	Dugway	128.40	26	*e*PKPdf	PKPdf	20 31 03.2	+1.6
DUG	Dugway	128.40	26	*e*PKIKP	PKPdf	20 31 03.2	+1.5
MSU	Marysvale	130.06	27	*e*PKPdf	PKPdf	20 31 06.4	+1.5
MSU	Marysvale	130.06	27	*e*PKIKP	PKPdf	20 31 06.4	+1.5
ISCO	Idaho Springs	131.60	21	*e*PKPdf	PKPdf	20 31 09.2	+1.5
ISCO	Idaho Springs	131.60	21	*e*PKIKP	PKPdf	20 31 09.2	+1.4
ANMO	Albuquerque	135.53	25	*e*PKPdf	PKPdf	20 31 15.5	+0.3
ANMO	Albuquerque	135.53	25	⇑*i*PKIKP	PKPdf	20 31 17.2	+1.9
BNM	Barren Site	136.15	25	*e*PKPdf	PKPdf	20 31 18.4	+1.9
TXAR	Lajitas Array	141.57	26	PKHKP		20 31 20.1	
TXAR						20 34 28.0	
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	141.57	26	PKhKP		20 31 20.1	
	comp=Z,2.1nm,0.7s,baz=232,slow=1.4,SNR=16						
TXAR				PP	PP	20 34 28.0	-0.9
	comp=Z,1.3nm,0.7s,baz=352,slow=5.1,SNR=6.2						
LPAZ	La Paz	159.53	236	*e*PKPdf	PKPdf	20 31 54.6	+0.4
LPAZ	La Paz	159.53	236	*e*PKIKP	PKPdf	20 31 54.6	+0.4
LPAZ	La Paz	159.53	236	PKP	PKPdf	20 31 54.8	+0.6
	comp=Z,2.2nm,0.8s,baz=70,slow=1.9,SNR=9.1						
ROSC	El Rosal	164.85	311	PKP	PKPdf	20 31 59.7	0.0
ROSC	El Rosal	164.85	311	PKP	PKPdf	20 31 59.7	0.0
	comp=Z,5.1nm,0.4s,baz=88,slow=22,SNR=4.0						

IDC ***14*** *20:29:44.0±7.4, 21.86N×142.78E, h170^{km}±67^{km}, mb3.5/14, mb1 3.6/14, mb1mx3.6/22, mbtmp3.5/14, MS3.9/1, Ms1 3.9/1, ms1mx2.8/25, Error ellipse: s-maj=33.0km s-min=11.9km az=79.0*

ISCJB ***14*** *20:29:45.5±7.5, 21.8N±0.1×142.7E±0.3, h199^{km}±69^{km}, mb3.5/14, Error ellipse: s-maj=43.2km s-min=15.2km az=169.8*

ISC 14 20:29:47.9±6.3**, 21.82N**±0.10×**142.7E**±0.3**, h208**^{km}±58^{km}**, n17, σ0^{s}77**/15**, mb3.5**/14**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CBIJ	Chichi jima	5.28	355	LR	LR	20 32 31.8	
	comp=Z,1µm,18.2s,baz=102,slow=32						
KSRS	Korea Array	20.17	324	P	P	20 34 06.9	+0.4
	3.4nm,0.9s,baz=144,slow=8.3,SNR=5.7						
SONM	Songino Array	38.98	321	P	P	20 36 53.2	-0.7
	1.5nm,0.6s,mb3.7,baz=134,slow=7.6,SNR=11						
WRA	Warramunga Arr	42.31	192	P	P	20 37 20.6	-0.7
	0.2nm,0.5s,mb2.8,baz=212,slow=14,SNR=5.1						
FITZ	Fitzroy Crossi	43.06	204	P	P	20 37 28.3	+0.8
	1.5nm,0.7s,mb3.5,baz=27,slow=12,SNR=4.6						
ASAR	Alice Springs	46.02	191	P	P	20 37 50.8	0.0
	1.1nm,0.6s,mb3.3,baz=19,slow=9.2,SNR=21						
STKA	Stephens Creek	53.40	181	P	P	20 38 45.8	-0.4
	1.7nm,0.7s,mb3.6,baz=324,slow=8.1,SNR=5.4						
ZALV	Zalesovo Beam	53.86	322	P	P	20 38 48.2	-1.2
	3.9nm,0.9s,mb3.9,baz=100,slow=6.2,SNR=14						
MKAR	Makanchi Array	54.31	313	P	P	20 38 54.1	+1.3
	0.7nm,0.7s,mb3.3,baz=90,slow=9.3,SNR=8.5						
YKA	Yellowknife Ar	76.54	28	P	P	20 41 14.1	-0.7
	0.6nm,0.4s,mb3.5,baz=292,slow=5.9,SNR=8.8						
ARCES	ARCESS Array B	78.67	341	P	P	20 41 26.4	-0.1
	2.1nm,0.8s,mb3.8,baz=56,slow=7.4,SNR=5.0						
JOF	Joensuu	80.03	334	*e*p	P	20 41 33.9	0.0
	0.7nm,0.3s,mb3.8						
FINES	FINESS Array B	82.89	334	P	P	20 41 48.2	-0.7
	0.5nm,0.5s,mb3.5,baz=68,slow=5.5,SNR=7.3						
AKASG	Malin Array Be	87.17	324	P	P	20 42 10.1	-0.3
	0.3nm,0.5s,mb3.3,baz=46,slow=5.6,SNR=4.3						
PDAR	Pinedale Array	87.60	45	P	P	20 42 14.1	+1.4
	0.4nm,0.8s,mb3.3,baz=227,slow=3.4,SNR=2.9						
BRTR	Keskin Array B	89.96	313	P	P	20 42 24.6	+0.9
	1.0nm,0.9s,mb3.7,baz=108,slow=4.0,SNR=5.0						
LPAZ	La Paz	150.34	85	PKPbc	PKPbc	20 49 17.8	+2.5
	1.9nm,0.8s,baz=290,slow=4.2,SNR=6.4						

ISK ***14*** *20:31:46.9, 39.80N×34.11E, h3^{km}, MD3.4*

ISCJB ***14*** *20:31:47.8±0.4, 39.80N±0.03×34.08E±0.04, h3^{km}, Error ellipse: s-maj=4.3km s-min=3.3km az=144.4*

CSEM ***14*** *20:31:47.1±0.1, 39.80N×34.12E, h5^{km}, MD3.0, Error ellipse: s-maj=2.0km s-min=1.8km az=15.0*

DDA ***14*** *20:31:48.5, 39.72N×34.06E, h6^{km}±5^{km}, Md3.0*

ISC 14 20:31:48.2±0.6**, 39.79N**±0.03×**34.10E**±0.04**, h1**^{km}±5^{km}**, n42, σ0^{s}76**/50**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CDAG	Cicekdag	0.27	129	*i* P	Pg	20 31 53.3	0.0
CDAG				*i* S	Sg	20 31 57.2	+0.6
KAMT	Kaman	0.52	216	*i* PG	Pg	20 31 58.0	0.0
KAMT	Kaman	0.52	216	*i* Pg	Pg	20 31 58.0	0.0
ELDT	Eldivan	0.87	324	*i* P	Pg	20 32 04.2	-0.6
ELDT				*i* S	Sg	20 32 15.1	-1.1
ELDT	Eldivan	0.87	324	*i* P	Pg	20 32 04.2	-0.7
CANT	Cankiri	0.90	336	*i* PG	Pg	20 32 04.8	-0.5
CANT				*i* SG	Sg	20 32 17.6	+0.6
YOZ	Yozgat	0.95	99	*i* PG	Pg	20 32 05.5	-0.9
YOZ	Yozgat	0.95	99	*i* Pg	Pg	20 32 05.5	-0.9
CTKT	Corum	0.98	32	*i* P	Pg	20 32 07.2	+0.1
CTKT				*i* S	Sg	20 32 22.9	+3.1
LOD	Lodumlu	1.04	276	PG	Pg	20 32 07.5	-0.5
LOD				SG	Sg	20 32 22.5	+1.1
LOD	Lodumlu	1.04	276	*e*Pg	Pg	20 32 07.5	-0.5
LOD				*e*Sg	Sg	20 32 22.5	+1.1
TOS	Tosya	1.25	357	PN	Pn	20 32 11.2	-1.4
TOS	Tosya	1.25	357	*e*Pn	Pn	20 32 11.2	-1.4
BNN	Bunyan	1.64	124	PN	Pn	20 32 17.8	-0.3
BNN	Bunyan	1.64	124	*e*Pn	Pn	20 32 17.8	-0.3
NIG	Nigde	1.72	167	PN	Pn	20 32 19.6	+0.4
NIG	Nigde	1.72	167	*e*Pn	Pn	20 32 19.6	+0.4
BOYT	Boyabat	1.74	20	*i* P	Pn	20 32 20.3	+0.8
BOYT				*i* S	Sn	20 32 42.8	+0.6
BYBT	Boyabat	1.75	17	PN	Pn	20 32 19.4	-0.2
BYBT	Boyabat	1.75	17	*e*Pn	Pn	20 32 19.4	-0.2
SGKT	Sivrigoynuk	1.75	297	*i* P	Pn	20 32 20.1	+0.4
SGKT	Sivrigoynuk	1.75	297	*i* P	Pn	20 32 20.0	+0.4
SAFT	Safranbolu	1.81	324	PN	Pn	20 32 20.2	-0.1
SAFT	Safranbolu	1.81	324	*e*Pn	Pn	20 32 20.2	-0.1
BALT	Daday	1.83	343	*i* P	Pn	20 32 21.9	+1.3
BALT				*i* S	Sg	20 32 47.2	+0.3
KIZT	Kizilcal	1.95	243	PN	Pn	20 32 21.7	-0.6
KIZT	Kizilcal	1.95	243	*e*Pn	Pn	20 32 21.7	-0.6
KVT	Kavak	1.96	48	*e*PN	Pn	20 32 21.3	-1.2
KVT	Kavak	1.96	48	*e*Pn	Pn	20 32 21.3	-1.2
DIKM	Dikmen	2.06	25	*e*PN	Pn	20 32 22.8	-1.0
DIKM	Dikmen	2.06	25	*e*Pn	Pn	20 32 22.8	-1.0
BZK	Bozkurt	2.17	358	*e*PN	Pn	20 32 25.1	-0.2
BZK	Bozkurt	2.17	358	*e*Pn	Pn	20 32 25.1	-0.2
KONT	Konya--Tatoy	2.29	217	*e*PN	Pn	20 32 26.8	-0.2
KONT	Konya--Tatoy	2.29	217	*e*Pn	Pn	20 32 26.8	-0.2
ESKT	Eskisehir	2.53	265	*e*PN	Pn	20 32 30.3	+0.1
ESKT	Eskisehir	2.53	265	*e*P	Pn	20 32 30.2	0.0
ESKT	Eskisehir	2.53	265	*e*Pn	Pn	20 32 30.3	+0.1
SEYT	Eskypehyr	2.53	265	*e*P	Pn	20 32 30.2	0.0
KOZT	Kozan	2.67	149	*e*PN	Pn	20 32 32.9	+0.7
GULT	Gulveren	2.83	284	*e*PN	Pn	20 32 35.0	+0.7
GULT	Gulveren	2.83	284	*e*Pn	Pn	20 32 35.0	+0.7

NEIC ***14*** *20:40:03.8, 18.47N×101.05W, h91^{km}, MD4.0(MEX), After MEX.*

MEX 14 20:40:03.6±0.8**, 18.47N**×**101.07W, h94**^{km}±14^{km}**, MD3.9, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZIIG	Zihuatanejo	0.94	203	*i* P	Pn	20 40 21.7	-1.2
ZIIG				*i* S	Sn	20 40 36.0	-1.4
MOIG	Morelia	1.20	355	*i* P	Pn	20 40 24.9	-1.1
MOIG				*i* S	Sn	20 40 41.5	-1.3
MEIG	Mezcala	1.48	111	*e*P	Pn	20 40 28.1	-1.3
MEIG				*i* S	Sn	20 40 48.6	-0.3
PLIG	Platanillo	1.49	93	*e*P	Pn	20 40 28.8	-0.6
PLIG				*i* S	Sn	20 40 49.2	+0.1
CAIG	El Cayaco	1.61	151	*i* P	Pn	20 40 29.9	-1.0
CAIG				*i* S	Sn	20 40 48.8	-2.9
ACX	Acapulco	1.94	145	*i* P	Pn	20 40 50.0	+15
ACX	Acapulco	1.94	145	*e*P	Pn	20 40 34.5	-0.7
ACX				*i* S	Sn	20 41 02.0	+2.7
IIO	Organos	2.49	63	*i* P	Pn	20 40 36.7	-5.7
IIO				*i* S	Sn	20 41 08.5	-3.6
UTMO	Huajuapan	3.17	101	*e*P	Pn	20 40 52.0	+0.5
UTMO				*i* S	Sn	20 41 26.9	-1.7

GCMT ***14*** *20:46:31.9±0.1, 0.39N×97.17E, h12^{km}, MW5.4/88, Moment Tensor Solution. s75,c122; s88,c203; Duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}1.25±.02; $M_{\theta\theta}$-1.58±.02; $M_{\phi\phi}$0.33±.03; $M_{r\theta}$0.89±.05; $M_{\theta\phi}$0.48±.02; $M_{\phi r}$0.09±.07; Best double couple: $M_0$1.73600×10^{17} NP1:ϕ_s300.00000°, δ32.00000°, λ116.00000°. NP2:ϕ_s90.00000°, δ61.00000°, λ74.00000°. Principal axes: T 1.5500, Plg69.0000°, Azm327.0000°; N 0.3730, Plg14.0000°, Azm98.0000°; P -1.9230, Plg15.0000°, Azm191.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

NEIC ***14*** *20:46:31.9±2.9, 0.64N×97.23E, h5^{km}±17^{km}, mb5.6/125, MS5.2/6 Error ellipse: s-maj=6.7km s-min=4.3km az=218.0*

BJI ***14*** *20:46:32.6, 0.34N×97.06E, h39^{km}, mB5.7, mb5.4, Ms5.8, Msz5.6*

ISCJB ***14*** *20:46:34.2±0.1, 0.65N±0.03×97.29E±0.02, h30^{km}, mb5.5/217, MS5.4/55, Error ellipse: s-maj=3.9km s-min=2.9km az=21.0*

IDC ***14*** *20:46:35.8±4.0, 0.61N×97.24E, h38^{km}±33^{km}, mb4.9/27, mb1 4.9/28, mb1mx4.9/29, mbtmp4.9/28, ML4.0/1, MS5.0/17, Ms1 5.0/17, ms1mx4.9/26, Error ellipse: s-maj=15.8km s-min=10.2km az=48.0*

MOS ***14*** *20:46:36.4±1.2, 0.78N×97.27E, h43^{km}, mb5.8/99, MS5.2/21, Error ellipse: s-maj=7.8km s-min=3.9km az=117.8*

SZGRF ***14*** *20:46:37.2, 0.50N×97.00E, h33^{km}, mb5.6, Northern Sumatera, Indonesia*

ISC 14 20:46:36.1±0.1**, 0.64N**±0.03×**97.25E**±0.02**, h31**^{km}**, h31**^{km}±1.1^{km}**:pP-P, n669, σ1^{s}06**/602**, mb5.5**/217**, MS5.4**/55**, 39C-47D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PSI	Prapat	2.72	38	Pn	Pn	20 47 16.1	-1.6
PSI	Prapat	2.72	38	Pn	Pn	20 47 16.1	-1.6
	25nm,0.3s,baz=189,slow=8.5,SNR=67						
TSI	Tuntungan	3.13	25	P	Pn	20 47 22.8	-0.6
	2µm,0.9s						
PPI	Padang Panjang	3.33	109	P	Pn	20 47 24.2	-1.9
	678nm,1.1s						
FRIM	Kepong	5.08	59	⇓P	Pn	20 47 49.7	-0.5
BSI	Banda Aceh	5.21	338	P	Pn	20 47 47.8	-4.1
	740nm,1.0s						
IPM	Ipoh	5.37	45	⇑P	Pn	20 47 54.5	+0.4
KULM	Kulim	5.73	36	*e*P	Pn	20 47 57.7	-1.4
KULM	Kulim	5.73	36	⇑P	Pn	20 47 58.2	-0.9
KGM	Kluang	6.22	77	⇑P	Pn	20 48 06.3	+0.5
MYKOM	Kota Tinggi	6.70	80	⇓P	Pn	20 48 13.4	+1.1
KSI	Kapahiang	6.83	129	P	Pn	20 48 11.3	-2.9
	2µm,0.8s						
SNG	Songkhla	7.31	27	P	Pn	20 48 19.0	-1.8
	640nm,1.0s						
PKT	Phuket	7.45	7	P	Pn	20 48 22.0	-0.8
KTGM	Kuala Trenggan	7.50	51	⇑P	Pn	20 48 24.2	+0.8
KLI	Kotabumi	9.36	126	P	Pn	20 48 49.6	+0.7
	755nm,0.9s						
TPI	Tanjungpandan	10.93	108	P	Pn	20 49 09.2	-1.3
	229nm,1.5s						
SBJI	Serang	11.12	127	P	Pn	20 49 12.3	-0.8
	197nm,1.5s						
PBA	Port Blair	11.83	338	*e*P	Pn	20 49 20.9	-1.8
PBA				AMb	AMB	20 49 41.9	
	comp=Z,107nm,1.3s						
CBJI	Citeko	11.87	126	P	Pn	20 49 22.9	-0.5
	comp=Z,519nm,1.2s						
LEM	Lembang	12.73	126	P	Pn	20 49 32.2	-2.9
	comp=Z,78nm,1.1s						
KSM	Kuching	13.08	86	*e*P	Pn	20 49 33.8	-6.2
KSM	Kuching	13.08	86	⇑P	Pn	20 49 40.8	+0.8
BJII	Banjamegara	14.73	123	P	Pn	20 50 02.9	+0.4
	comp=Z,72nm,1.6s						
SBUM	Sibu	15.07	83	⇓P	Pn	20 50 08.9	+1.9
NST	Nakhon Sawan	15.21	11	P	Pn	20 50 08.0	-0.7
	comp=Z,58nm,0.8s						
BTM	Bintulu	16.03	81	⇑P	Pn	20 50 20.7	+1.3
KKTK	Khon Kaen	16.54	19	⇓P	Pn	20 50 28.0	+2.1
	comp=Z,679nm,0.7s						
BDT	Bhumibol Dam	16.59	6	P	Pn	20 50 27.0	+0.4
	comp=Z,44nm,1.0s						
PALK	Pallekele	17.77	292	Pn	Pn	20 50 42.5	+1.2
	comp=Z,620nm,0.8s,SNR=18						
PALK	Pallekele	17.77	292	*e*P	Pn	20 50 40.9	-0.4
	comp=Z,88nm,0.9s						
CHG	Chiang Mai	18.14	5	⇓P	Pn	20 50 44.1	-1.7
	comp=Z,150nm,0.8s						
CHTO	Chiang Mai	18.14	5	*e*P	Pn	20 50 43.9	-1.9
	comp=Z,204nm,1.0s						
CHTO	Chiang Mai	18.14	5	*e*P	Pn	20 50 43.9	-1.9
CHTO				pmax	pmax		
	comp=Z,204nm,1.0s						
KMMI	Kalianget	18.34	115	P	Pn	20 50 47.4	-0.9
	comp=Z,186nm,1.0s						
NANT	Nan	18.36	10	⇑P	Pn	20 50 47.0	-1.5
	comp=Z,1µm,1.0s						
CHRT	Chiangrai	19.27	7	⇓P	Pn	20 50 58.5	-1.0
	comp=Z,1µm,0.9s						
KKM	Kota Kinabalu	19.67	74	*e*P	Pn	20 51 03.0	-1.4
KKM	Kota Kinabalu	19.67	74	⇑P	Pn	20 51 04.5	+0.2
TARAI	Tarakan	20.48	82	P	P	20 51 12.0	+0.4
	comp=Z,263nm,1.6s						
KDM	Kudat	20.50	72	⇓P	P	20 51 13.6	+1.8

SDKM	**Sandakan**	**20.52**	**76**	⇓P	**P**	**20 51 11.6**	**-0.4**
MDRS	**Chennai**	**20.89**	**307**	*e*P	**P**	**20 51 16.5**	**+0.5**
MDRS				AMb	AMB	20 51 21.1	
	comp=Z,269nm,1.1s						
TSM	**Tawau**	**20.92**	**80**	⇓P	**P**	**20 51 16.6**	**+0.3**
TRD	**Trivandrum**	**21.67**	**292**	*e*P	**P**	**20 51 24.8**	**+0.4**
TRD				AMb	AMB	20 51 29.0	
	comp=Z,295nm,1.2s,mb5.6						
MYLDM	**Lahad Datu**	**21.69**	**78**	⇑P	**P**	**20 51 26.0**	**+1.4**
VIS	**Vishakhapatnam**	**21.81**	**322**	*e*P	**P**	**20 51 26.6**	**+0.7**
VIS				AMb	AMB	20 51 31.2	
	comp=Z,369nm,1.7s,mb5.5						
VIS				*i* x	x	20 55 39.0	
KOD	**Kodaikanal**	**21.86**	**297**	*e*P	**P**	**20 51 27.1**	**+0.6**
KOD				AMb	AMB	20 51 34.6	
	comp=Z,229nm,0.3s,mb6.1						
QIZ	**Qiongzhong**	**22.06**	**33**	P	**P**	**20 51 29.3**	**+0.8**
QIZ				XP	sP	20 51 40.8	-0.2
QIZ				S	**S**	**20 55 31.0**	**+0.7**
QIZ				XS	sS	20 55 43.8	-0.1
QIZ				AMB	AMB		
	comp=Z,68nm,1.4s,mb4.9						
QIZ				LR	LR		
	comp=N,18µm,15.5s,MS5.8						
QIZ				LR	LR		
	comp=E,20µm,14.7s,MS5.8						
QIZ				LR	LR		
	comp=Z,11µm,15.8s,MS5.4						
QIZ	**Qiongzhong**	**22.06**	**33**	*e*P	**P**	**20 51 28.7**	**+0.2**
	comp=Z,155nm,1.4s,mb5.2						
PCI	**Palu**	**22.64**	**94**	P	**P**	**20 51 30.6**	**-4.2**
	comp=Z,225nm,1.6s,mb5.3						
PPR	**Puerto Princes**	**23.22**	**66**	⇑*e*P	**P**	**20 51 47.0**	**+6.2**
AGT	**Agartala**	**23.83**	**346**	*i* P	**P**	**20 51 44.0**	**-2.6**
AGT				*i* x	x	20 52 22.0	
IMP	**Imphal**	**24.22**	**353**	*e*x	**P**	**20 51 50.0**	**-0.1**
HYB	**Hyderabad**	**24.83**	**313**	*e*P	**P**	**20 51 56.0**	**+0.2**
	comp=Z,150nm,1.0s,mb5.5						
HYB				*e*		20 52 12.0	
HYB				*e*S	S	20 56 40.0	+23
HYB	**Hyderabad**	**24.83**	**313**	*e*P	**P**	**20 51 56.0**	**+0.2**
HYB				*e*		20 52 12.0	
HYB				pmax	pmax		
	comp=Z,150nm,1.0s,mb5.5						
HYB	**Hyderabad**	**24.83**	**313**	*i* P	**P**	**20 51 56.0**	**+0.2**
	comp=Z,150nm,1.0s,mb5.5						
HYB				*e*S	**S**	**20 56 32.0**	**+15**
KMI	**Kunming**	**24.91**	**12**	P	**P**	**20 51 57.1**	**+0.6**
KMI				AP		20 52 06.3	
KMI				XP	sP	20 52 10.6	+1.2
KMI				PP		20 52 36.3	
KMI				S	**S**	**20 56 18.1**	**+0.2**
KMI				XS	sS	20 56 32.5	-0.4
KMI				SS		20 57 15.1	
KMI				AMB	AMB		
	comp=Z,154nm,1.2s,mb5.4						
KMI				LR	LR		
	comp=N,18µm,11.5s,MS5.8						
KMI				LR	LR		
	comp=E,10µm,13.3s,MS5.8						
KMI				LR	LR		
	comp=Z,20µm,12.0s,MS5.8						
KMI	**Kunming**	**24.91**	**12**	P	**P**	**20 51 57.1**	**+0.6**
	comp=Z,154nm,1.2s,mb5.4						
KMI				pP		20 52 06.2	
KMI				sP	sP	20 52 10.6	+1.2
KMI				PP		20 52 36.3	
KMI				PPP		20 52 47.8	
KMI				S	**S**	**20 56 18.1**	**+0.2**
KMI				sS	sS	20 56 32.5	-0.4
KMI				SS		20 57 15.1	
KMI				SSS		20 57 32.9	
KMI				LR	LR		
	comp=Z,20µm,12.0s,MS5.8						
KMI	**Kunming**	**24.91**	**12**	P	**P**	**20 51 57.1**	**+0.6**
KMI				*PP		20 52 06.2	
KMI				*SP	sP	20 52 10.6	+1.2
KMI						20 52 36.3	
KMI				PPP		20 52 47.8	
KMI				S	**S**	**20 56 18.1**	**+0.2**
KMI				*SS	sS	20 56 32.5	-0.4
KMI				SS		20 57 15.1	
KMI				SSS		20 57 32.9	
KMI				pmax	pmax		
	comp=Z,154nm,1.2s,mb5.4						
KMI				MLR	MLR		
	comp=Z,20µm,12.0s,MS5.8						
SHL	**Shillong**	**25.32**	**349**	*e*P	**P**	**20 51 58.0**	**-2.1**
SHL				AMb	AMB	20 52 01.8	
	comp=Z,416nm,4.0s						
SHL				*e*x	x	20 56 24.0	
MNGI	**Mangalore**	**25.37**	**300**	*e*P	**P**	**20 52 02.6**	**+1.9**
MNGI				AMb	AMB	20 52 05.5	
	comp=Z,155nm,0.0s						
BOK	**Bokaro**	**25.52**	**335**	*e*P	**P**	**20 52 02.4**	**+0.4**
BOK				AMb	AMB	20 52 10.0	
	comp=Z,392nm,0.8s,mb6.0						
BOK				*e*S	**S**	**20 56 31.5**	**+3.8**
BLSP	**Bilaspur**	**25.95**	**326**	*e*P	**P**	**20 52 05.5**	**-0.4**
BLSP				AMb	AMB	20 52 10.3	
	comp=Z,222nm,0.8s,mb5.7						
BLSP				*e*x	x	20 56 42.5	
LATR	**Latur**	**26.93**	**312**	*e*P	**P**	**20 52 12.6**	**-2.2**
TGY	**Tagaytay City**	**26.98**	**59**	LR	LR	21 03 33.1	
	comp=Z,17nm,19.0s,baz=280,slow=38						
GYA	**Guiyang**	**27.23**	**19**	⇑*i*P	**P**	**20 52 19.8**	**+2.4**
GYA				AP	pP	20 52 28.8	+2.3
GYA				XP	sP	20 52 32.4	+2.1
GYA				PP		20 53 07.3	
GYA				PCP	PcP	20 55 39.6	+2.5
GYA				S	**S**	**20 56 55.8**	**+1.3**
GYA				XS	sS	20 57 10.4	+0.8
GYA				SS		20 58 10.8	
GYA				SCP	ScP	20 59 16.3	+0.9
GYA				PCS	PcS	20 59 19.8	+1.0
GYA				SCS	ScS	21 03 06.5	-0.4
GYA				AMB	AMB		
	comp=Z,140nm,1.0s,mb5.5						
GYA				AMB	AMB		
	comp=Z,2µm,6.2s						
GYA				LR	LR		
	comp=N,8µm,15.8s,MS5.6						
GYA				LR	LR		
	comp=E,10µm,15.0s,MS5.6						
GYA				LR	LR		
	comp=Z,11µm,16.6s,MS5.5						
GZH	**Guangzhou**	**27.25**	**34**	P	**P**	**20 52 21.8**	**+4.2**
GZH				S	**S**	**20 57 02.1**	**+7.1**
GZH				LR	LR		
	comp=N,7µm,14.9s,MS5.6						
GZH				LR	LR		
	comp=E,12µm,16.3s,MS5.6						
GZH				LR	LR		
	comp=Z,8µm,16.2s,MS5.3						
ODAN	**Odare**	**27.74**	**341**	*e*P	**P**	**20 52 22.2**	**+0.2**
	comp=Z,456nm,1.1s,mb6.0						
BCPH	**Baguio City Da**	**27.81**	**55**	⇑*e*P	**P**	**20 52 22.9**	**+0.1**
AKL	**Akola**	**28.09**	**317**	*e*P	**P**	**20 52 23.3**	**-1.9**
TAPN	**Taplejung**	**28.09**	**342**	*e*P	**P**	**20 52 25.7**	**+0.5**
	comp=Z,626nm,0.9s,mb6.2						
KAD	**Karad**	**28.10**	**307**	*e*P	**P**	**20 52 26.4**	**+1.0**
KAD				AMb	AMB	20 52 31.7	
	comp=Z,58nm,1.3s,mb5.0						
CGP	**Cagayan de Oro**	**28.42**	**73**	⇓*e*P	**P**	**20 52 29.7**	**+1.5**
ALBI	**Allahabad**	**28.71**	**330**	*e*P	**P**	**20 52 28.5**	**-2.1**
JIRN	**Jiri**	**28.89**	**339**	*e*P	**P**	**20 52 32.6**	**+0.4**
	comp=Z,19nm,0.8s,mb4.9						
POO	**Poona**	**29.05**	**309**	*e*P	**P**	**20 52 35.2**	**+1.5**
POO				AMb	AMB	20 52 38.5	
	comp=Z,77nm,1.6s,mb5.2						
KKN	**Kakani**	**29.34**	**338**	*e*P	**P**	**20 52 36.3**	**+0.1**
	comp=Z,428nm,1.0s,mb6.2						
LSA	**Lhasa**	**29.48**	**349**	P	**P**	**20 52 38.8**	**+1.4**
LSA				AP	pP	20 52 44.8	-1.8
LSA				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.0						
LSA				LR	LR		
	comp=N,2µm,20.0s,MS5.1						
LSA				LR	LR		
	comp=E,4µm,20.0s,MS5.1						
LSA				LR	LR		
	comp=Z,3µm,22.0s,MS4.9						
LSA	**Lhasa**	**29.48**	**349**	*e*P	**P**	**20 52 38.1**	**+0.7**
	comp=Z,84nm,0.9s,mb5.5						
LSA	**Lhasa**	**29.48**	**349**	*e*P	**P**	**20 52 38.1**	**+0.7**
LSA				pmax	pmax		
	comp=Z,84nm,0.9s,mb5.5						
BHPL	**Bhopal**	**29.59**	**321**	*e*P	**P**	**20 52 37.4**	**-1.2**
BHPL				AMb	AMB	20 52 42.9	
	comp=Z,48nm,1.1s,mb5.1						
GKN	**Gorkha**	**29.77**	**337**	*e*P	**P**	**20 52 40.2**	**+0.1**
	comp=Z,590nm,1.0s,mb6.3						
SGCP	**Mt. Cagua**	**29.99**	**53**	*e*P	**P**	**20 52 36.8**	**-5.3**
CD2	**Chengdu**	**30.73**	**11**	P	**P**	**20 52 47.4**	**-1.1**
CD2				AP	pP	20 52 57.9	+0.2
CD2				XP	sP	20 53 01.5	0.0
CD2				PP	PP	20 53 50.8	-7.5
CD2				PCP	PcP	20 55 44.3	-1.6
CD2				S	**S**	**20 57 44.8**	**-4.8**
CD2				SCS	ScS	21 03 17.9	-5.1
CD2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.0						
CD2				AMB	AMB		
	comp=Z,1µm,4.5s						
CD2				LR	LR		
	comp=N,20µm,13.8s,MS6.0						
CD2				LR	LR		
	comp=E,17µm,15.4s,MS6.0						
CD2				LR	LR		
	comp=Z,26µm,14.4s,MS6.0						
MBWA	**Marble Bar**	**30.86**	**136**	P	**P**	**20 52 48.8**	**-1.0**
	comp=Z,102nm,1.5s,mb5.4						
AAI	**Ambon**	**31.22**	**98**	P	**P**	**20 52 52.5**	**-0.6**
	comp=Z,140nm,1.3s,mb5.6						
QZH	**Quanzhou**	**31.77**	**39**	⇓*i*P	**P**	**20 52 59.3**	**+1.5**
QZH				S	**S**	**20 58 06.5**	**+0.5**
QZH				AMB	AMB		
	comp=Z,380nm,1.3s,mb6.1						
QZH				LR	LR		
	comp=N,38µm,18.0s,MS6.2						
QZH				LR	LR		
	comp=E,25µm,18.6s,MS6.2						
QZH				LR	LR		
	comp=Z,15µm,12.2s						
LGTI	**Lohaghat**	**32.92**	**332**	*e*P	**P**	**20 53 07.0**	**-0.8**
NACB	**Ninganchiao**	**33.22**	**43**	*e*P	**P**	**20 53 10.9**	**+0.5**
YHNB	**Yeheng**	**33.40**	**42**	*e*P	**P**	**20 53 12.2**	**+0.2**
FITZ	**Fitzroy Crossi**	**33.56**	**125**	*e*P	**P**	**20 53 12.6**	**-0.9**
	comp=Z,18nm,0.6s,mb5.2						
FITZ				*e*	pP	20 53 20.8	-1.9
AJM	**Ajmer**	**33.67**	**322**	*e*P	**P**	**20 53 14.4**	**+0.1**
AJM				AMb	AMB	20 53 18.7	
	comp=Z,103nm,1.2s,mb5.6						
TATO	**Taipei**	**33.68**	**42**	*e*P	**P**	**20 53 15.7**	**+1.2**
	comp=Z,319nm,1.2s,mb6.1						
NDI	**New Delhi**	**33.83**	**327**	*e*P	**P**	**20 53 15.0**	**-0.7**
NDI				AMb	AMB	20 53 18.9	
	comp=Z,84nm,0.9s,mb5.7						
WHN	**Wuhan**	**33.89**	**27**	⇓P	**P**	**20 53 16.3**	**+0.1**
WHN				LR	LR		
	comp=Z,19µm,10.9s,MS6.1						
XAN	**Xi’an**	**34.98**	**17**	P	**P**	**20 53 24.3**	**-1.3**
XAN				AP	pP	20 53 34.3	-0.5
XAN				S	**S**	**20 59 03.8**	**+8.2**
XAN				AMB	AMB		
	comp=Z,189nm,1.0s,mb6.0						
XAN				AMB	AMB		
	comp=Z,315nm,9.6s						
XAN				LR	LR		
	comp=E,10µm,16.0s						
XAN				LR	LR		
	comp=Z,9µm,16.4s,MS5.6						
LZH	**Lanzhou**	**35.80**	**9**	*e*P	**P**	**20 53 32.5**	**-0.1**
LZH				AP	pP	20 53 40.1	-1.7
LZH				XP	sP	20 53 44.8	-0.8
LZH				PP	PP	20 54 54.5	+0.1
LZH				*e*S	**S**	**20 59 05.5**	**-2.5**
LZH				SS	SS	21 01 29.0	-16
LZH				AMB	AMB		
	comp=Z,200nm,1.5s,mb5.8						
LZH				AMB	AMB		
	comp=Z,720nm,5.3s						
LZH				LR	LR		
	comp=E,10µm,15.8s						
LZH				LR	LR		
	comp=Z,10µm,19.8s,MS5.6						
LZH	**Lanzhou**	**35.80**	**9**	*e*P	**P**	**20 53 32.5**	**-0.1**
	comp=Z,200nm,1.5s,mb5.8						
LZH				pP	pP	20 53 40.1	-1.7
LZH				sP	sP	20 53 44.7	-0.9
LZH				PP	PP	20 54 54.5	+0.1
LZH				*e*S	**S**	**20 59 05.5**	**-2.5**
LZH				sS	sS	20 59 22.0	-1.2
LZH				SS	SS	21 01 29.0	-16
LZH				LR	LR		
	comp=Z,10µm,19.8s,MS5.6						
LZH	**Lanzhou**	**35.80**	**9**	*e*P	**P**	**20 53 32.5**	**-0.1**
LZH				*SP	sP	20 53 44.7	-0.9
LZH						20 54 54.5	
LZH				*e*S	**S**	**20 59 05.5**	**-2.5**
LZH				*SS	sS	20 59 22.0	-1.2
LZH				SS	SS	21 01 29.0	-16
LZH				pmax	pmax		
	comp=Z,200nm,1.5s,mb5.8						
LZH				MLR	MLR		
	comp=Z,10µm,19.8s,MS5.6						
SDNR	**Sundarnagar**	**36.20**	**330**	*e*P	**P**	**20 53 36.0**	**-0.1**
MUN	**Mundaring**	**37.07**	**153**	*e*P	**P**	**20 53 44.5**	**+1.0**
NJ2	**Nanjing**	**37.31**	**31**	*e*P	**P**	**20 53 47.3**	**+1.7**
NJ2				AP	pP	20 53 57.0	+2.1
NJ2				XP	sP	20 54 01.0	+2.3
NJ2				PP	PP	20 55 15.0	+3.9
NJ2				S	**S**	**20 59 31.0**	**-0.3**
NJ2				XS	sS	20 59 47.0	+0.4
NJ2				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,330nm,7.4s						
NJ2				LR	LR		
	comp=N,15µm,22.4s,MS5.9						
NJ2				LR	LR		
	comp=E,16µm,23.1s,MS5.9						
NJ2				LR	LR		
	comp=Z,16µm,23.1s,MS5.7						
KAKA	**Kakadu**	**37.34**	**112**	*e*P	**P**	**20 53 44.3**	**-1.8**
	comp=Z,30nm,0.9s,mb5.1						
KLBR	**Kellerberrin**	**37.48**	**151**	*e*P	**P**	**20 53 46.6**	**-0.5**
	comp=Z,55nm,1.1s,mb5.3						
DLH	**Dalhousie**	**37.54**	**330**	*e*P	**P**	**20 53 49.0**	**+1.5**
THN	**Thein Dam**	**37.58**	**329**	*e*P	**P**	**20 53 47.0**	**-0.9**
SSE	**Sheshan**	**37.84**	**35**	P	**P**	**20 53 50.8**	**+0.7**
SSE				S	**S**	**20 59 39.8**	**+0.4**
SSE				AMB	AMB		
	comp=Z,50nm,1.3s,mb5.1						
SSE				AMB	AMB		
	comp=Z,340nm,4.0s						
SSE				LR	LR		
	comp=N,6µm,16.6s,MS5.5						
SSE				LR	LR		
	comp=E,2µm,16.7s,MS5.5						
SSE				LR	LR		
	comp=Z,6µm,10.8s						
SSE	**Sheshan**	**37.84**	**35**	P	**P**	**20 53 50.8**	**+0.7**
	comp=Z,50nm,1.3s,mb5.1						
SSE				sP	sP	20 54 00.8	-2.4
SSE				S	**S**	**20 59 39.7**	**+0.3**
SSE				sS	sS	20 59 48.4	-6.2
SSE				LR	LR		
	comp=Z,6µm,10.8s,MS5.7						
NWAO	**Narrogin (SRO)**	**38.34**	**152**	*e*P	**P**	**20 53 55.7**	**+1.5**
	comp=Z,113nm,1.4s,mb5.4						
NWAO	**Narrogin (SRO)**	**38.34**	**152**	*e*P	**P**	**20 53 55.7**	**+1.5**
NWAO				pmax	pmax		
	comp=Z,113nm,1.4s						
NWAO	**Narrogin (SRO)**	**38.34**	**152**	P	**P**	**20 53 53.8**	**-0.5**
	comp=Z,24nm,0.9s,mb4.9,baz=322,slow=8.5,SNR=6.7						
GTA	**Gaotai**	**38.66**	**3**	P	**P**	**20 53 56.0**	**-0.8**
GTA				AP	pP	20 54 05.4	-0.7
GTA				XP	sP	20 54 09.3	-0.6
GTA				PP	PP	20 55 28.6	+2.8
GTA				PCP	PcP	20 56 10.4	+1.8
GTA				S	**S**	**20 59 49.8**	**-1.7**
GTA				SCS	ScS	21 04 03.0	-2.0
GTA				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.5						
GTA				AMB	AMB		
	comp=Z,716nm,8.8s						
GTA				LR	LR		
	comp=N,6µm,11.8s,MS5.7						
GTA				LR	LR		
	comp=E,4µm,13.7s,MS5.7						
GTA				LR	LR		
	comp=Z,4µm,15.2s,MS5.4						
TIA	**Tai’an**	**39.91**	**25**	*e*P	**P**	**20 54 06.0**	**-1.4**
BTO	**Baotou**	**41.44**	**15**	*e*P	**P**	**20 54 20.5**	**+0.6**
BTO				AMB	AMB		
	comp=Z,14nm,1.2s,mb4.5						
WRA	**Warramunga Arr**	**41.70**	**121**	P	**P**	**20 54 19.6**	**-2.7**
	comp=Z,11nm,0.9s,mb4.5,baz=301,slow=8.9,SNR=49						
WRA				LR	LR	21 14 22.3	
	comp=Z,2µm,19.2s,MS5.1,baz=285,slow=40						
WB2	**Warramunga Arr**	**41.71**	**121**	*e*P	**P**	**20 54 21.0**	**-1.4**
WB2				*e*	pP	20 54 29.5	-2.3
MSEY	**Mahe Island**	**42.06**	**262**	*e*P	**P**	**20 54 25.6**	**+0.2**
	comp=Z,61nm,1.4s,mb5.0						
MSEY				*e*	pP	20 54 34.6	-0.1
HHC	**Hu-ho-hao-te**	**42.08**	**16**	*e*P	**P**	**20 54 27.1**	**+2.0**
HHC				AP	pP	20 54 36.9	+2.4
HHC				XP	sP	20 54 40.9	+2.6
HHC				PP	PP	20 56 08.3	+5.3
HHC				PCP	PcP	20 56 21.8	+2.2
HHC				SCP	ScP	21 00 08.6	+0.6
HHC				PCS	PcS	21 00 12.4	+1.2
HHC				S	**S**	**21 00 46.4**	**+3.9**
HHC				XS	sS	21 01 01.8	+3.9
HHC				SS	SS	21 03 48.6	-2.2
HHC				SCS	ScS	21 04 23.8	-1.6
HHC				AMB	AMB		
	comp=Z,42nm,1.4s,mb4.9						
HHC				AMB	AMB		
	comp=Z,1µm,6.9s						
HHC				LR	LR		
	comp=N,9µm,15.5s,MS5.9						
HHC				LR	LR		
	comp=E,8µm,14.9s,MS5.9						
HHC				LR	LR		
	comp=Z,9µm,15.1s,MS5.8						
KBL	**Kabul**	**42.81**	**325**	*e*P	**P**	**20 54 30.5**	**-0.6**
FORT	**Forrest**	**42.82**	**140**	*e*P	**P**	**20 54 32.9**	**+1.6**
	comp=Z,83nm,0.8s,mb5.5						
BJT	**Baijiatuau**	**42.82**	**21**	*e*P	**P**	**20 54 31.6**	**+0.5**
	comp=Z,189nm,1.0s,mb5.8						
BJT	**Baijiatuau**	**42.82**	**21**	*e*P	**P**	**20 54 31.6**	**+0.5**
BJT				pmax	pmax		
	comp=Z,189nm,1.0s						
BJI	**Beijing**	**42.84**	**21**	P	**P**	**20 54 31.9**	**+0.6**
BJI				AP	pP	20 54 40.8	+0.1
BJI				PP	PP	20 56 12.0	+0.8
BJI				PCP	PcP	20 56 22.0	-0.1
BJI				SCP	ScP	21 00 10.5	-0.5
BJI				S	**S**	**21 00 55.1**	**+1.4**
BJI				XS	sS	21 01 10.5	+1.4
BJI				SCS	ScS	21 04 30.4	+0.3
BJI				AMB	AMB		
	comp=Z,37nm,0.8s,mb5.2						
BJI				AMB	AMB		
	comp=Z,2µm,5.9s						
BJI				LR	LR		
	comp=N,6µm,14.0s,MS5.7						
BJI				LR	LR		
	comp=E,5µm,18.4s,MS5.7						
BJI				LR	LR		
	comp=Z,4µm,18.0s,MS5.4						
BJI	**Beijing**	**42.84**	**21**	P	**P**	**20 54 31.9**	**+0.6**
BJI				pP	pP	20 54 40.8	+0.1
BJI				PP	PP	20 56 12.0	+0.8
BJI				PcP	PcP	20 56 22.0	-0.1
BJI				ScP	ScP	21 00 10.5	-0.5
BJI				S	**S**	**21 00 55.1**	**+1.4**
BJI				sS	sS	21 01 10.5	+1.4
BJI				SS	SS	21 04 09.4	+3.6
BJI				ScS	ScS	21 04 30.4	+0.3
BJI				LR	LR		
	comp=Z,4µm,18.0s,MS5.4						
BJI	**Beijing**	**42.84**	**21**	P	**P**	**20 54 31.9**	**+0.6**
BJI				*PP	pP	20 54 40.8	+0.1
BJI						20 56 12.0	
BJI						20 56 22.0	
BJI				S	**S**	**21 00 55.1**	**+1.4**
BJI				*SS	sS	21 01 10.5	+1.4
BJI						21 04 30.4	
BJI				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.4						
ASAR	**Alice Springs**	**43.02**	**127**	P	**P**	**20 54 31.8**	**-1.3**
	comp=Z,16nm,0.9s,mb4.8,baz=301,slow=7.0,SNR=107						
ASAR				PcP	PcP	20 56 20.4	-2.7
	comp=Z,7.7nm,1.1s,baz=306,slow=5.4,SNR=2.3						
KSH	**Kashi**	**43.30**	**336**	*e*P	**P**	**20 54 35.6**	**+0.5**
KSH				*e*AP	pP	20 54 47.5	+3.1
KSH				*e*XP	sP	20 54 53.3	+5.1
KSH				*e*PP	PP	20 56 18.3	+2.2
KSH				*e*PCP	PcP	20 56 23.5	-0.2
KSH				*e*SCP	ScP	21 00 10.0	-2.9
KSH				*e*PCS	PcS	21 00 15.3	-0.9
KSH				*e*S	**S**	**21 00 59.3**	**-1.2**
KSH				*e*XS	sS	21 01 20.4	+4.5
KSH				*e*SCS	ScS	21 04 28.3	-4.7
KSH				LR	LR		
	comp=N,7µm,14.7s,MS5.9						
KSH				LR	LR		
	comp=E,6µm,11.0s,MS5.9						
KSH				LR	LR		
	comp=Z,5µm,13.3s,MS5.5						
WMQ	**Urumqi**	**43.83**	**350**	P	**P**	**20 54 40.4**	**+1.1**
WMQ				AP	pP	20 54 50.3	+1.6
WMQ				XP	sP	20 54 54.3	+1.9
WMQ				PP	PP	20 56 24.3	+2.5
WMQ				SCP	ScP	21 00 14.9	-0.1
WMQ				S	**S**	**21 01 08.4**	**+0.2**
WMQ				SS	SS	21 04 16.9	-8.2
WMQ				SCS	ScS	21 04 34.5	-1.6
WMQ				AMB	AMB		
	comp=Z,99nm,1.2s,mb5.4						
WMQ				AMB	AMB		
	comp=Z,507nm,6.4s						
WMQ				LR	LR		
	comp=N,2µm,26.9s,MS5.1						
WMQ				LR	LR		
	comp=E,3µm,29.2s,MS5.1						
WMQ				LR	LR		
	comp=Z,2µm,30.0s,MS4.8						
DL2	**Dalian**	**44.15**	**28**	P	**P**	**20 54 42.3**	**+0.4**
DL2				S	**S**	**21 01 17.4**	**+4.5**
DL2				AMB	AMB		
	comp=Z,110nm,1.1s,mb5.5						
DL2				AMB	AMB		
	comp=Z,510nm,6.2s						
DL2				LR	LR		
	comp=N,2µm,15.0s,MS5.4						
DL2				LR	LR		
	comp=E,3µm,16.6s,MS5.4						
DL2				LR	LR		
	comp=Z,2µm,16.1s,MS5.2						
ULHL	**Ulahol**	**45.53**	**338**	P	**P**	**20 54 53.9**	**+1.1**
	SNR=16						
KZA	**Kyzart**	**45.77**	**337**	P	**P**	**20 54 57.2**	**+2.5**
	SNR=20						
UCH	**Uchtor**	**46.18**	**337**	P	**P**	**20 54 58.8**	**+0.8**
	SNR=52						
KSRS	**Korea Array**	**46.28**	**34**	P	**P**	**20 54 58.2**	**-0.6**
	comp=Z,73nm,1.0s,mb5.6,baz=225,slow=8.4,SNR=44						
KSRS				LR	LR	21 14 16.2	
	comp=Z,3µm,19.8s,MS5.2,baz=217,slow=36						
TKM2	**Tokmak 2**	**46.35**	**338**	P	**P**	**20 54 59.7**	**+0.4**
	SNR=59						
KBK	**Karagaybulak**	**46.38**	**337**	P	**P**	**20 55 00.3**	**+0.8**
	SNR=69						
AML	**Almayashu**	**46.43**	**336**	P	**P**	**20 55 01.1**	**+1.1**
	SNR=56						
AAK	**Ala-Archa**	**46.53**	**337**	P	**P**	**20 55 01.6**	**+0.9**
	comp=Z,316nm,1.0s,mb6.2,SNR=12						
AAK	**Ala-Archa**	**46.53**	**337**	P	**P**	**20 55 02.9**	**+2.1**
	SNR=23						
AAK	**Ala-Archa**	**46.53**	**337**	*i* P	**P**	**20 55 01.2**	**+0.5**
AAK				pmax	pmax		
	comp=Z,96nm,2.1s,mb5.4						
FRU	**Bishkek**	**46.65**	**337**	*e*P	**P**	**20 55 04.0**	**+2.3**
FRU				pmax	pmax		
	comp=Z,233nm,2.2s,mb5.7						
CHMS	**Chumysh**	**46.74**	**337**	P	**P**	**20 55 02.7**	**+0.3**
	SNR=20						
EKS2	**Erkin-Say**	**46.84**	**336**	P	**P**	**20 55 03.7**	**+0.6**
	SNR=57						
USP	**Ospenovka**	**47.07**	**337**	P	**P**	**20 55 05.0**	**+0.1**

SNR=72
SONM Songino Array 47.68 8 P P 20 55 09.6 0.0
SONM 20 56 37.1
SONM Songino Array 47.68 8 P P 20 55 09.6 0.0
comp=Z,38nm,0.8s,mb5.5,baz=190,slow=6.9,SNR=109
SONM PcP PcP 20 56 37.1 -1.6
comp=Z,8.1nm,0.9s,baz=190,slow=5.5,SNR=2.7
SONM LR LR 21 17 47.3
comp=Z,7µm,18.6s,MS5.7,baz=295,slow=39
COEN Coen 47.73 110 eP P 20 55 08.8 -1.7
MK31 Makanchi Array 47.80 346 eP P 20 55 10.0 -0.5
MKAR Makanchi Array 47.80 346 P P 20 55 10.2 -0.3
comp=Z,105nm,0.8s,mb5.9,baz=158,slow=7.7,SNR=133
MKAR LR LR 21 20 33.5
comp=Z,1µm,19.3s,MS4.8,baz=162,slow=43
ULN Ulaanbaatar 47.80 9 eP P 20 55 10.3 -0.3
comp=Z,50nm,1.0s,mb5.5
ULN Ulaanbaatar 47.80 9⇓eP P 20 55 10.9 +0.3
GUMO Guam 48.85 73 LR LR 21 18 03.6
comp=Z,839nm,18.9s,MS4.8,baz=340,slow=39
CN2 Changchun 49.78 27 eP P 20 55 24.8 -1.0
CN2 eS S 21 02 42.1 +8.9
CN2 AMB AMB
comp=Z,50nm,1.3s,mb5.4
CN2 AMB AMB
comp=Z,200nm,4.0s
CN2 LR LR
comp=N,3µm,14.0s,MS5.7
CN2 LR LR
comp=E,4µm,14.0s,MS5.7
CN2 LR LR
comp=Z,5µm,14.0s,MS5.7
ZAK Zakamensk 49.83 5 eP P 20 55 25.8 -0.2
ZAK pmax pmax
comp=Z,19nm,1.1s,mb5.0
PMG Port Moresby 50.68 103 eP P 20 55 32.5 -0.7
comp=Z,161nm,1.0s,mb5.9
PMG Port Moresby 50.68 103 i P P 20 55 33.3 +0.1
PMG Port Moresby 50.68 103 P P 20 55 32.6 -0.5
comp=Z,58nm,0.8s,mb5.5,baz=287,slow=4.5,SNR=37
MOY Mondy 50.94 3 eP P 20 55 34.6 +0.1
MOY pmax pmax
comp=Z,72nm,4.2s
TLY Talaya 51.15 5 P P 20 55 36.9 +0.9
comp=Z,207nm,0.7s,mb6.2,SNR=12
TLY Talaya 51.15 5 eP P 20 55 36.1 +0.2
comp=Z,31nm,0.8s,mb5.3
TLY Talaya 51.15 5⇑iP P 20 55 36.4 +0.4
TLY eS S 21 03 05.5 +14
TLY pmax pmax
comp=Z,29nm,0.8s,mb5.3
TLY MLR MLR
comp=Z,7µm,18.0s,MS5.7
ABKT Ailbek 51.68 320 P P 20 55 39.2 -1.0
comp=Z,153nm,0.9s,mb5.9,SNR=12
IRK Irkutsk 51.76 5 eP P 20 55 41.9 +1.3
IRK e 20 57 43.5
IRK pmax pmax
comp=Z,138nm,1.6s,mb5.6
MAT Matsushiro 52.07 42 P P 20 55 42.7 -0.5
MJAR Matsushiro Arr 52.07 42 P P 20 55 41.8 -1.4
comp=Z,18nm,1.1s,mb4.9,baz=223,slow=7.6,SNR=16
MJAR LR LR 21 18 50.0
comp=Z,2µm,18.6s,MS5.1,baz=240,slow=37
HIA Hailar 52.15 19 eP P 20 55 43.2 -0.4
comp=Z,67nm,1.1s,mb5.5
HIA Hailar 52.15 19 eP P 20 55 43.2 -0.4
HIA pmax pmax
comp=Z,67nm,1.1s
CTA Charters Tower 52.21 116 eP P 20 55 44.6 +0.1
comp=Z,8.3nm,1.0s,mb4.6
CTA e pP 20 55 52.9 -1.1
CTA Charters Tower 52.21 116 eP P 20 55 44.6 +0.1
CTA e pP 20 55 52.9 -1.1
CTA pmax pmax
comp=Z,8.0nm,1.0s
CTA Charters Tower 52.21 116 P P 20 55 44.6 +0.1
comp=Z,15nm,0.9s,mb4.9,baz=258,slow=14,SNR=5.9
CTA LR LR 21 21 11.5
comp=Z,5µm,19.0s,MS5.5,baz=285,slow=40
CTAO Charters Tower 52.21 116 eP P 20 55 44.5 0.0
comp=Z,41nm,1.2s,mb5.2
CTAO Charters Tower 52.21 116 eP P 20 55 44.5 0.0
CTAO pmax pmax
comp=Z,41nm,1.2s,mb5.2
MDJ Mudanjiang 52.33 29 P P 20 55 45.5 +0.5
MDJ AP pP 20 55 54.6 +0.1
MDJ XP sP 20 55 58.6 +0.3
MDJ PP PP 20 57 44.5 +0.6
MDJ SCP ScP 21 00 50.5 -0.4
MDJ PCS PcS 21 00 54.4 +0.4
MDJ S S 21 03 10.5 +2.1
MDJ AMB AMB
comp=Z,31nm,2.4s,mb4.8
MDJ AMB AMB
comp=Z,665nm,5.5s
MDJ LR LR
comp=N,3µm,18.5s,MS5.7
MDJ LR LR
comp=E,5µm,20.0s,MS5.7
MDJ LR LR
comp=Z,3µm,20.0s,MS5.4
MDJ Mudanjiang 52.33 29 eP P 20 55 44.8 -0.2
comp=Z,133nm,1.8s,mb5.6
KURK Kurchatov 52.34 345 P P 20 55 44.4 -0.6
comp=Z,652nm,0.9s,mb6.6,SNR=14
KURK Kurchatov 52.34 345 eP P 20 55 44.5 -0.4
comp=Z,104nm,0.9s,mb5.8
KURK Kurchatov 52.34 345d iP P 20 55 45.0 0.0
VLA Vladivostok 52.42 32 eP P 20 55 52.1 +6.4
VLA S S 21 03 19.0 +9.3
VLA pmax pmax
comp=Z,142nm,1.4s,mb5.7
VLA MLR MLR
comp=Z,3µm,11.2s,MS5.6
ADE Adelaide 52.47 137 eP P 20 55 48.2 +2.0
STKA Stephens Creek 52.94 132 eP P 20 55 49.5 -0.3
comp=Z,25nm,0.8s,mb5.2
STKA e pP 20 55 58.1 -1.2
STKA Stephens Creek 52.94 132 P P 20 55 49.0 -0.8
comp=Z,27nm,0.8s,mb5.2,baz=309,slow=7.4,SNR=50
STKA LR LR 21 20 44.9
comp=Z,5µm,19.1s,MS5.5,baz=291,slow=39
CIT Chita 53.00 13 eP P 20 55 50.8 +1.0
CIT e 20 56 05.3
CIT e 21 03 24.8
CIT pmax pmax
comp=Z,210nm,1.4s,mb5.9
ZAL Zalesovo 54.11 351 P P 20 55 57.5 -0.4
ZALV Zalesovo Beam 54.12 351 P P 20 55 57.5 -0.5
comp=Z,201nm,1.0s,mb6.0,baz=172,slow=6.4,SNR=111
ZALV LR LR 21 22 24.3
comp=Z,2µm,18.9s,MS5.1,baz=160,slow=40
QRN Al-Qurain 54.73 305 eP P 20 56 02.0 -0.8
QRN AMb AMB 20 56 04.6
comp=Z,174nm,0.8s,mb6.1
ATD Arta Tunnel 55.07 284 P P 20 56 05.8 +0.2
comp=Z,22nm,1.0s,mb5.2,baz=82,slow=12,SNR=8.4
KBD Kabd 55.07 306 eP P 20 56 04.7 -0.6
KBD AMb AMB 20 56 10.2
comp=Z,432nm,1.0s,mb6.5
RDF Al-Radifah 55.09 305 eP P 20 56 04.4 -1.1
RDF AMb AMB 20 56 07.0
comp=Z,231nm,0.8s,mb6.2
NVS Novosibirsk 55.24 350⇑iP P 20 56 04.5 -1.5
NVS i S S 21 03 46.4 -1.0
NVS pmax pmax
comp=N,83nm,1.2s
NVS pmax pmax
comp=E,47nm,1.2s
NVS pmax pmax
comp=Z,131nm,1.2s,mb5.8
NVS smax
comp=N,21nm,1.7s
NVS smax
comp=E,36nm,1.7s
NAY Al-Naaiem 55.46 306 eP P 20 56 07.5 -0.7
NAY AMb AMB 20 56 09.8
comp=Z,100nm,0.8s,mb5.9
MIB Mutribah 55.59 306 eP P 20 56 08.4 -0.6
MIB AMb AMB 20 56 11.1
comp=Z,271nm,0.8s,mb6.3
KLR Kul'dur 56.73 26 eP P 20 56 13.6 -3.2
KLR pmax pmax
comp=E,90nm,1.8s
KLR pmax pmax
comp=Z,180nm,1.8s,mb5.8
KLR MLR MLR
comp=Z,10µm,14.0s,MS6.1
BRVK Borovoye 56.86 341 P P 20 56 16.3 -1.4
comp=Z,472nm,0.7s,mb6.6,SNR=26
BRVK Borovoye 56.86 341 eP P 20 56 16.2 -1.5
comp=Z,58nm,0.8s,mb5.7
BRVK Borovoye 56.86 341 P P 20 56 16.7 -1.0
BRVK pmax pmax
comp=Z,58nm,0.8s,mb5.7
HABR Khabarovsk 57.72 29 eP P 20 56 24.4 +0.5
HABR eS S 21 04 22.7 +2.1
HABR e 21 06 11.2
HABR eSS SS 21 08 14.7 +3.3
HABR pmax pmax
comp=Z,87nm,1.2s,mb5.7
TOO Toolangi 58.50 136 eP P 20 56 32.0 +2.4
comp=Z,25nm,1.1s,mb5.2
TOO Toolangi 58.50 136 eP P 20 56 32.0 +2.4
TOO pmax pmax
comp=Z,25nm,1.1s,mb5.2
BOD Bodaibo 58.55 10 eP P 20 56 29.1 -0.4
BOD pmax pmax
comp=Z,71nm,1.0s,mb5.7
AKTK Aktyubinsk 59.75 332 P P 20 56 36.1 -1.8
AKTO Aktyubinsk 59.75 332 P P 20 56 36.1 -1.8
comp=Z,20nm,0.9s,mb5.2,baz=132,slow=6.2,SNR=36
KMBO Kilima Mbogo 60.02 268 eP P 20 56 39.5 -1.0
comp=Z,36nm,1.3s,mb5.2
KMBO Kilima Mbogo 60.02 268 P P 20 56 39.7 -0.8
KMBO pmax pmax
comp=Z,36nm,1.3s
KMBO Kilima Mbogo 60.02 268 P P 20 56 39.7 -0.8
comp=Z,12nm,0.9s,mb5.0,baz=66,slow=9.2,SNR=38
NRGR Nerungri 60.06 17 eP P 20 56 40.7 +0.8
CLNS Chul'man 60.26 17 eP P 20 56 42.2 +0.9
CLNS pmax pmax
comp=Z,44nm,0.8s,mb5.5
CLNS pmax pmax
comp=N,27nm,0.9s
CLNS pmax pmax
comp=E,26nm,0.9s
CLNS MLR MLR
comp=Z,1µm,12.0s,MS5.3
CLNS MLR MLR
comp=N,1µm,13.0s,MS5.3
CLNS MLR MLR
comp=E,800nm,12.0s,MS5.3
CNB Canberra Magne 60.27 132 eP pP 20 56 51.3 -0.2
comp=E,49nm,1.1s
YSS Yuzh-Sakhalins 60.78 34 eP P 20 56 45.3 +0.2
comp=E,156nm,1.1s,mb6.0
YSS Yuzh-Sakhalins 60.78 34⇑eP P 20 56 45.0 -0.1
YSS e pP 20 56 53.0 -1.8
YSS pmax pmax
comp=Z,100nm,1.1s,mb5.9
YSS MLR MLR
comp=Z,2µm,16.0s,MS5.4
YSS MLR MLR
comp=N,2µm,19.0s,MS5.4
YSS MLR MLR
comp=E,2µm,20.0s,MS5.4
DGRG David-gareji 61.88 318 P P 20 56 52.6 0.0
MTA Mtatsminda 62.38 318 P P 20 56 55.5 -0.5
TBLG Delisi 62.43 318 eP P 20 56 56.1 -0.2
TBLG Delisi 62.43 318 P P 20 56 56.1 -0.2
HNR Honiara 63.21 101 eP P 20 57 02.6 +0.6
comp=E,533nm,1.3s,mb6.5
HNR Honiara 63.21 101 eP P 20 57 02.6 +0.6
HNR pmax pmax
comp=Z,533nm,1.3s,mb6.5
SVE Sverdlovsk 63.23 338⇑eP P 20 57 02.0 +0.7
SVE pmax pmax
comp=Z,170nm,1.5s,mb6.0
ZEI Tsey 63.45 319 eP P 20 57 02.8 -0.3
ZEI pmax pmax
comp=Z,37nm,0.9s,mb5.5
ARU Arti 63.72 337 P P 20 57 03.8 -0.7
comp=Z,348nm,1.2s,mb6.3,SNR=13
ARU Arti 63.72 337 eP P 20 57 03.1 -1.4
comp=Z,84nm,1.1s,mb5.7
ARU Arti 63.72 337⇑iP P 20 57 03.1 -1.4
ARU eS S 21 05 35.6 -1.3
ARU e 21 06 51.9
ARU eSS SS 21 09 48.8 +3.7
ARU pmax pmax
comp=Z,80nm,1.2s,mb5.6
ARU MLR MLR
comp=Z,2µm,19.0s,MS5.3
ARU MLR MLR
comp=N,700nm,20.0s,MS5.2
ARU MLR MLR
comp=E,1µm,19.0s,MS5.2
KIV Kislovodsk 64.76 319 P P 20 57 11.0 -0.7
comp=E,276nm,0.9s,mb6.3,SNR=12
KIV Kislovodsk 64.76 319 eP P 20 57 10.6 -1.1
comp=E,61nm,1.0s,mb5.6
KIV Kislovodsk 64.76 319⇓eP P 20 57 10.9 -0.8
KIV pmax pmax
comp=Z,38nm,0.8s,mb5.5
MALT Malatya 65.54 312 eP P 20 57 16.1 -0.7
comp=Z,40nm,1.0s,mb5.4
MALT Malatya 65.54 312⇑iP P 20 57 16.6 -0.2
EIL Elat 65.80 302 P P 20 57 18.0 -0.6
EIL Elat 65.80 302 P P 20 57 18.0 -0.6
comp=Z,30nm,0.8s,mb5.4,baz=102,slow=1.6,SNR=27
YAK Yakutsk 65.94 16 eP P 20 57 17.7 -1.2
comp=Z,157nm,0.8s,mb6.1
YAK Yakutsk 65.94 16d iP P 20 57 17.9 -1.0
YAK pmax pmax
comp=Z,205nm,1.0s,mb6.1
MMAI Mount Meron Ar 66.27 306 P P 20 57 21.7 0.0
comp=Z,19nm,0.8s,mb5.2,baz=95,slow=7.0,SNR=25
SOC Sochi 66.57 318 i P P 20 57 22.9 -0.4
SOC Sochi 66.57 318 i P P 20 57 22.8 -0.5
SOKR Solikamsk 66.62 339c iP P 20 57 23.9 +0.6
SOKR 20 59 58.0
SOKR pmax pmax
comp=Z,80nm,0.9s,mb5.8
CSS Prodhromos 68.45 308 eP P 20 57 35.0 -0.4
comp=Z,31nm,0.9s,mb5.3
VRHR Novokhopersk 68.62 326 eP P 20 57 34.9 -1.2
VRHR pmax pmax
comp=Z,50nm,0.9s,mb5.4
VRHR pmax pmax
comp=N,10.0nm,1.7s
VRHR pmax pmax
comp=E,20nm,0.7s
VRHR MLR MLR
comp=Z,620nm,15.0s,MS5.0
VRHR MLR MLR
comp=N,1µm,18.0s
VRHR MLR MLR
comp=E,260nm,12.0s
BR131 Keskin Array S 69.53 312 P P 20 57 40.4 -1.6
comp=E,11nm,0.8s,mb4.8
BRTR Keskin Array B 69.53 312 P P 20 57 40.0 -2.0
comp=E,12nm,0.8s,mb4.9,baz=120,slow=5.6,SNR=59
VORD Divnogorie 69.88 325 eP P 20 57 41.9 -2.0
VORD pmax pmax
comp=Z,30nm,1.1s,mb5.1
VORD pmax pmax
comp=N,20nm,0.7s
VORD pmax pmax
comp=E,30nm,1.1s
VRSR Storozhevoye 70.04 325c iP P 20 57 43.9 -1.0
VRSR pmax pmax
comp=Z,6.0nm,1.0s,mb4.5
VRSR pmax pmax
comp=N,2.0nm,1.9s
VRSR pmax pmax
comp=E,3.0nm,0.6s
ANTO Ankara 70.19 312 eP P 20 57 44.5 -1.5
comp=E,62nm,1.4s,mb5.3
ANTO Ankara 70.19 312 eP P 20 57 44.5 -1.6
ANTO pmax pmax
comp=Z,62nm,1.4s,mb5.3
ANTO Ankara 70.19 312⇓iP P 20 57 44.8 -1.3
VOR Voronezh 70.26 326 eP P 20 57 45.5 -0.8
VOR pmax pmax
comp=Z,250nm,1.2s,mb6.0
SIM Simferopol' 70.81 318c iP P 20 57 49.5 -0.3
SIM S S 21 07 05.4 +2.7
SIM pmax pmax
comp=Z,45nm,0.8s,mb5.5
NOUC Port Laguerre 70.89 114 eP P 20 57 52.2 +1.5
NOUC Port Laguerre 70.89 114 eP P 20 57 52.2 +1.5
DZM Mont Dzumac 71.01 114 eP P 20 57 52.9 +1.4
MA2 Magadan 71.81 26 eP P 20 57 54.7 -0.8
comp=Z,45nm,1.1s,mb5.3
MA2 Magadan 71.81 26⇓eP P 20 57 55.2 -0.3
MA2 pmax pmax
comp=Z,56nm,1.7s,mb5.2
PRGR Permogore 72.17 337⇑iP P 20 57 56.0 -1.6
PRGR eS S 21 07 19.8 +2.0
MAW Mawson 72.18 193 P P 20 57 57.1 -0.4
comp=Z,7.5nm,0.7s,mb4.7,baz=349,slow=3.5,SNR=6.6
MAW LR LR 21 23 13.1
comp=Z,2µm,19.8s,MS5.4,baz=32,slow=30
PET Petropavlovsk 72.67 34 eP P 20 58 00.8 +0.1
comp=Z,139nm,1.4s,mb5.7
PET Petropavlovsk 72.67 34 eP P 20 58 01.0 +0.3
PET eS S 21 07 26.4 +2.7
PET pmax pmax
comp=Z,17nm,0.7s,mb5.1
PET smax
comp=N,600nm,13.7s
PET MLR MLR
comp=Z,2µm,18.0s,MS5.3
MOS Moscow 72.84 329 eP P 20 58 01.1 -0.6
MOS e 20 58 13.7
MOS eS S 21 07 26.7 +1.1
MOS e 21 07 51.5
MOS e 21 08 08.0
MOS pmax pmax
comp=Z,300nm,1.9s,mb5.9
MOS pmax pmax
comp=Z,172nm,1.7s,mb5.7
MOS MLR MLR
comp=Z,2µm,20.0s,MS5.3
MOS MLR MLR
comp=N,600nm,21.0s,MS5.1
MOS MLR MLR
comp=E,800nm,20.0s,MS5.1
OBN Obninsk 73.12 328 P P 20 58 02.5 -0.9
comp=E,291nm,1.1s,mb6.1,SNR=5.2
OBN Obninsk 73.12 328 eP P 20 58 01.8 -1.6
comp=E,80nm,1.2s,mb5.5
OBN Obninsk 73.12 328d iP P 20 58 02.8 -0.6
OBN e pP 20 58 12.1 -1.2
OBN eSS SS 21 12 10.3 -0.1
OBN pmax pmax
comp=Z,43nm,0.9s,mb5.4
LBTB Lobatse 73.69 244 eP P 20 58 07.0 -0.4
comp=Z,26nm,1.0s,mb5.1
LBTB Lobatse 73.69 244 eP P 20 58 07.0 -0.4
LBTB pmax pmax
comp=Z,26nm,1.0s,mb5.1
TIXI Tiksi 73.73 10 eP P 20 58 04.8 -1.8
comp=Z,51nm,0.8s,mb5.5
TIXI Tiksi 73.73 10⇑iP P 20 58 05.0 -1.7
TIXI eS S 21 07 36.9 +1.7
TIXI pmax pmax
comp=Z,81nm,1.1s,mb5.6
TIXI MLR MLR
comp=Z,3µm,16.0s,MS5.7
SEY Seymchan 74.26 23⇓eP P 20 58 09.5 -0.4
SEY Seymchan 74.26 23⇓eP P 20 58 09.4 -0.5
BOSA Boshof 74.55 240 eP P 20 58 10.3 -2.0
comp=Z,15nm,1.1s,mb4.8
BOSA Boshof 74.55 240 eP P 20 58 10.3 -2.0
BOSA pmax pmax
comp=Z,15nm,1.1s,mb4.8
BOSA Boshof 74.55 240 P P 20 58 10.2 -2.1
comp=Z,5.8nm,0.8s,mb4.6,baz=104,slow=6.9,SNR=8.8
BOSA LR LR 21 24 43.4
comp=Z,1µm,19.3s,MS5.2,baz=77,slow=31
TIRR Tirgusor 74.56 316 P P 20 58 12.5 +0.4
TIRR Tirgusor 74.56 316 ⇑P P 20 58 10.5 -1.6
TIRR Tirgusor 74.56 316⇑iP P 20 58 10.4 -1.7
KIS Kishinev 74.95 319 eP P 20 58 14.0 -0.3
AKASG Malin Array Be 75.73 323 P P 20 58 16.6 -2.0
comp=Z,28nm,1.0s,mb5.2,baz=88,slow=4.9,SNR=65
AKASG PP PP 21 01 08.7 -0.1
comp=Z,3.6nm,0.9s,baz=95,slow=6.9,SNR=4.8
AKBB Malin Array Si 75.73 323 eP P 20 58 16.1 -2.6
KIEV Kiev 75.74 323 eP P 20 58 16.5 -2.2
comp=Z,28nm,0.9s,mb5.2
KIEV Kiev 75.74 323 P P 20 58 17.0 -1.7
KIEV pmax pmax
comp=Z,28nm,0.9s,mb5.2
VRI Vrincioaia 76.06 317 P P 20 58 22.0 +1.4
VRI Vrincioaia 76.06 317⇓iP P 20 58 19.5 -1.2
PLOR Plostina 76.11 317 P P 20 58 22.2 +1.3
BUC1 Bucharest 76.19 316 P P 20 58 23.0 +1.5
MLR Muntele Rosu 76.51 317 P P 20 58 24.5 +1.3
MLR Muntele Rosu 76.51 317⇓iP P 20 58 22.1 -1.1
ZIMR 76.51 315 P P 20 58 24.3 +1.0
VOIR 77.11 317 P P 20 58 29.1 +2.5
VOIR 77.11 317⇓iP P 20 58 26.7 +0.1
BURAR Bucovina Array 77.48 319 ⇓P P 20 58 28.4 -0.2
BURAR Bucovina Array 77.48 319⇓iP P 20 58 28.4 -0.2
MNK Minsk 77.64 326 eP P 20 58 27.0 -2.4
VTS Vitosha 77.85 313 P P 20 58 31.5 +0.7
VAY Valandovo 78.10 312 i P P 20 58 31.1 -1.1
GZR Gura Zlata 78.67 316 P P 20 58 36.2 +0.9
JOF Joensuu 78.67 335 ep P 20 58 33.1 -1.8
comp=Z,30nm,0.9s,mb5.2
LVV L'vov 78.73 321 i P P 20 58 36.0 +0.5
LVV eS S 21 08 33.0 +2.1
DRGR 78.98 318 P P 20 58 38.3 +1.4
DRGR 78.98 318⇑iP P 20 58 36.9 0.0
SKO Skopje 79.04 313 i P P 20 58 37.9 +0.5
KRUS Krusevo 79.09 312⇑iP P 20 58 37.1 -0.6
VSU Vasula 79.36 330 i P P 20 58 38.0 -0.7
VSU Vasula 79.36 330 i P P 20 58 38.9 +0.2
LVZ Lovozero 79.38 340 i P P 20 58 38.1 -0.6
BZS Buzias 79.51 316 P P 20 58 41.0 +1.1
BZS Buzias 79.51 316⇑iP P 20 58 39.2 -0.7
KWP Kalwaria 79.53 320 eP P 20 58 41.3 +1.4
UZH Uzhgorod 79.61 319⇑iP P 20 58 41.4 +1.1
APA Apatity 79.67 340⇑iP P 20 58 40.0 -0.3
APA i S S 21 08 46.0 +5.8
APA pmax pmax
comp=Z,96nm,1.5s,mb5.5
APA MLR MLR
comp=Z,1µm,14.0s,MS5.5
KOLS Kolonicke sedl 79.68 320 eP P 20 58 40.4 -0.3
SUW Suwalki 80.16 325 eP P 20 58 41.8 -1.4
CRVS Cervenica-Dubn 80.20 320 eP P 20 58 44.1 +0.6
CRVS ePP PP 21 01 49.6 +3.4
STHS Stebnicka Huta 80.43 320 eP P 20 58 44.8 0.0
comp=Z,28nm,0.9s,mb5.2
STHS Stebnicka Huta 80.43 320 eP P 20 58 44.8 0.0
STHS pmax pmax
comp=Z,28nm,0.9s,mb5.2
TSUM Tsumeb 80.45 251 eP P 20 58 44.9 -0.6
comp=Z,25nm,1.1s,mb5.1
FIA1 FINESS Array S 80.52 333 eP P 20 58 43.3 -1.7
FINES FINESS Array B 80.52 333 P P 20 58 43.9 -1.1
comp=Z,9.6nm,0.7s,mb4.8,baz=112,slow=6.3,SNR=26
FINES LR LR 21 41 14.5
comp=Z,1µm,18.8s,MS5.2,baz=277,slow=41
KAF Kangasniemi 80.61 333 ep P 20 58 43.5 -1.9
comp=Z,15nm,0.7s,mb5.0,baz=104,slow=5.0
KAF Kangasniemi 80.61 333 eP P 20 58 43.5 -1.9
KAF pmax pmax
comp=Z,15nm,0.7s,mb5.0
KECS Kecovo 80.76 319 i P P 20 58 47.1 +0.5
comp=Z,8.5nm,0.9s,mb4.7
KECS Kecovo 80.76 319 i P P 20 58 47.1 +0.5
KECS pmax pmax
comp=Z,9.0nm,0.9s,mb4.7
NIE Niedzica 81.03 320 eP P 20 58 48.2 +0.2
PSZ Piszkesteto 81.06 318 eP P 20 58 47.1 -1.0
comp=Z,222nm,1.9s,mb5.8
PSZ Piszkesteto 81.06 318⇑ePcP PcP 20 58 48.9 -5.6
PSZ Piszkesteto 81.06 318⇓iP P 20 58 46.9 -1.3
OJC Ojcow 81.49 321 eP P 20 58 51.1 +0.7
BUD Budapest 81.58 318⇓ePcP PcP 20 58 52.3 -4.5
PKSM Moragy 81.66 317 P P 20 58 52.1 +0.7
PKSM Moragy 81.66 317⇓iP P 20 58 50.3 -1.1
BILL Bilibino 81.67 21 eP P 20 58 51.0 +0.1
comp=Z,19nm,1.1s,mb5.0
BILL Bilibino 81.67 21⇓eP P 20 58 51.4 +0.4
VYHS Vyhne 81.85 319 eP P 20 58 52.2 -0.1
comp=Z,23nm,1.4s,mb4.9
VYHS Vyhne 81.85 319 eP P 20 58 52.2 -0.1
VYHS pmax pmax
comp=Z,23nm,1.4s,mb4.9

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TIP    Timpagrande      82.22 309  eP    P     20 58 54.6  0.0
GRI    Girifalco        82.45 309   P    P     20 58 57.8 +2.1
       comp=Z,116nm,1.2s,mb5.7
GRI    Girifalco        82.45 309   P    P     20 58 57.8 +2.1
GRI                                 pmax  pmax
       comp=Z,116nm,1.2s,mb5.7
OKC    Ostrava-Krasne   82.48 320  eP    P     20 58 55.7 +0.1
OKC                                 AMS   AMS   21 44 50.0
       comp=Z,500nm,15.2s
KEV    Kevo             82.65 341  ep    P     20 58 55.6 -0.5
SOI    Samo             82.67 308   P    P     20 58 58.6 +1.7
       comp=Z,86nm,1.6s,mb5.5
SOI    Samo             82.67 308   P    P     20 58 58.6 +1.7
SOI                                 pmax  pmax
       comp=Z,86nm,1.6s,mb5.5
MORC   Moravsky Berou   82.86 320  eP    P     20 58 57.3 -0.3
       comp=Z,51nm,1.4s,mb5.4
MORC   Moravsky Berou   82.86 320   P    P     20 58 57.7 +0.1
MORC                                pmax  pmax
       comp=Z,51nm,1.3s,mb5.4
MORC   Moravsky Berou   82.86 320⇓iP    P     20 58 56.6 -1.0
ZST    Bratislava       82.95 318  eP    P     20 58 57.8 -0.3
       comp=Z,33nm,0.9s,mb5.4
ZST    Bratislava       82.95 318  eP    P     20 58 57.8 -0.3
ZST                                 pmax  pmax
       comp=Z,33nm,0.9s,mb5.4
FGMS   Monte Sant'Ang   83.07 312   P    P     20 58 59.0 +0.1
       comp=Z,33nm,1.0s,mb5.3
ARCES  ARCESS Array B   83.08 340   P    P     20 58 57.5 -0.9
       comp=Z,32nm,0.9s,mb5.4,baz=110,slow=3.3,SNR=52
ARCES                               LR    LR    21 40 10.6
       comp=Z,1μm,20.5s,MS5.3,baz=92,slow=39
ARE0   ARCESS Array S   83.08 340  eP    P     20 58 58.3 -0.1
SOP    Sopron           83.26 318⇑ePcP  PcP   20 59 00.2 -3.9
FG4    Candela          83.35 311   P    P     20 59 01.5 +1.2
       comp=Z,155nm,1.0s,mb6.0
FG4    Candela          83.35 311   P    P     20 59 01.5 +1.2
FG4                                 pmax  pmax
       comp=Z,155nm,1.0s,mb6.0
VRAC   Vranov           83.42 319   P    P     20 59 01.9 +1.5
SGO    Sicignano        83.46 311   P    P     20 59 02.0 +1.1
       comp=Z,93nm,1.4s,mb5.6
SGO    Sicignano        83.46 311   P    P     20 59 02.0 +1.1
SGO                                 pmax  pmax
       comp=Z,93nm,1.4s,mb5.6
GKP    Gorka Klasztor   83.51 323  eP    P     20 59 01.4 +0.5
FG5    Orsara di Pugl   83.55 311   P    P     20 59 02.4 +1.1
       comp=Z,213nm,1.8s,mb6.0
FG5    Orsara di Pugl   83.55 311   P    P     20 59 02.4 +1.1
FG5                                 pmax  pmax
       comp=Z,213nm,1.8s,mb6.0
CSSN   Cassano Irpino   83.70 311   P    P     20 59 03.2 +1.1
       comp=Z,41nm,1.0s,mb5.5
KTK1   Kautokeino       83.71 340  eP    P     20 59 01.9 +0.3
       comp=Z,109nm,1.2s,mb5.9
KTK1   Kautokeino       83.71 340  eP    P     20 59 01.9 +0.3
KTK1                                AMb   AMB   20 59 12.6
       comp=Z,109nm,1.2s,mb5.9
DPC    Dobruska-Polom   83.72 320  eP    P     20 59 02.0  0.0
DPC                                 AMS   AMS   21 44 50.0
       comp=Z,700nm,18.4s
CONA   Conrad Observa   83.75 318⇓iP    P     20 59 01.5 -0.7
       comp=Z,14nm,1.3s,mb4.9
KSP    Ksiaz            83.79 321  eP    P     20 59 03.9 +1.5
KSP    Ksiaz            83.79 321⇑eP    P     20 59 03.5 +1.1
ARSA   Arzberg          83.91 317⇓iP    P     20 59 02.7 -0.3
       comp=Z,36nm,1.2s,mb5.4,SNR=18
UPC    Upice            83.93 321  eP    P     20 59 04.2 +1.1
BOJS   Bojanci          83.93 316  i P   P     20 59 03.8 +0.5
PERS   Pernice          84.13 317  i P   P     20 59 05.0 +0.8
TREC   Trest            84.14 319  eP    P     20 59 04.5 +0.3
TREC                                AMS   AMS   21 45 20.0
       comp=Z,800nm,20.7s
PDKS   Podkum           84.16 316  eP    P     20 59 05.1 +0.8
ZAVS   Zavodnje         84.17 316  eP    P     20 59 03.5 -0.9
LJU    Ljubljana        84.48 316  i P   P     20 59 06.8 +0.8
OBKA   Obir             84.51 317⇓eP    P     20 59 05.5 -0.6
       comp=Z,28nm,1.3s,mb5.2,SNR=11
SDI    San Donato       84.67 312   P    P     20 59 07.6 +0.5
       comp=Z,22nm,1.0s,mb5.2
SDI    San Donato       84.67 312   P    P     20 59 07.6 +0.5
SDI                                 pmax  pmax
       comp=Z,22nm,1.0s,mb5.2
JAVS   Javornik         84.79 316  eP    P     20 59 07.6 +0.1
MOA    Molln            84.81 318⇓iP    P     20 59 08.3 +0.7
       comp=Z,24nm,1.5s,mb5.1,SNR=6.8
MOA    Molln            84.81 318⇓ipP   pP    20 59 08.3 -9.3
       comp=Z,24nm,1.5s,SNR=6.8
PRU    Pruhonice        84.82 320  eP    P     20 59 07.9 +0.3
PRU                                 LR    LR
       comp=Z,700nm,24.6s,MS5.0
VVLD   Villa Vallelon   84.82 312   P    P     20 59 08.6 +0.8
PVCC   Panska Ves       84.85 321  eP    P     20 59 08.7 +1.0
PVCC                                AMS   AMS   21 45 10.0
       comp=Z,900nm,14.7s
VOY    Vojsko           84.92 316  eP    P     20 59 07.3 -0.9
VOY                                e            20 59 08.3
VOY    Vojsko           84.92 316  eP    P     20 59 07.3 -0.9
VOY                                e            20 59 08.3
VOY                                e            20 59 26.1
AOI    Ancona           84.95 313   P    P     20 59 09.7 +1.3
PTQR   Pietraquaria     85.00 312   P    P     20 59 09.7 +1.0
       comp=Z,59nm,1.1s,mb5.6
AQU    L'Aquila         85.02 312  eP    P     20 59 09.7 +0.9
       comp=Z,78nm,1.1s,mb5.8
AQU    L'Aquila         85.02 312  eP    P     20 59 09.7 +0.9
AQU                                 pmax  pmax
       comp=Z,78nm,1.1s,mb5.8
AQU    L'Aquila         85.02 312⇑iP    P     20 59 09.1 +0.3
BSD    Bornholm Skovb   85.09 325  i P   P     20 59 08.8  0.0
BSD                                 pmax  pmax
       comp=Z,39nm,0.9s,mb5.5
BSD                                 MLR   MLR
       comp=Z,750nm,18.0s,MS5.1
BSD    Bornholm Skovb   85.09 325  i P   P     20 59 08.8  0.0
       comp=Z,39nm,0.9s,mb5.5
BSD
       comp=Z,740nm,18.0s
FIAM   Fiamignano       85.22 312   P    P     20 59 10.9 +1.1
CING   Cingoli          85.23 313   P    P     20 59 10.7 +0.9
NRCA   Norcia           85.26 313   P    P     20 59 09.7 -0.3
       comp=Z,38nm,1.3s,mb5.4
VNDA   Vanda            85.27 169   P    P     20 59 07.9 -1.4
       comp=Z,7.0nm,1.1s,mb4.7,baz=303,slow=2.3,SNR=4.6
VNDA                                LR    LR    21 32 42.9
       comp=Z,1μm,19.8s,MS5.3,baz=317,slow=32
GEC2   GERESS Array S   85.27 319  eP    P     20 59 10.7 +0.8
GEC2                                pmax  pmax
       comp=Z,90nm,1.5s,mb5.7
GEC2   GERESS Array S   85.27 319  eP    P     20 59 10.7 +0.8
       comp=Z,90nm,1.5s,mb5.7
GERES  GERESS Array B   85.27 319   P    P     20 59 08.1 -1.8
       comp=Z,15nm,0.9s,mb5.1,baz=99,slow=4.2,SNR=64
BRG    Berggiesshubel   85.28 321  eP    P     20 59 10.7 +0.8
BRG                                 pmax  pmax
       comp=Z,27nm,1.4s,mb5.2
BRG    Berggiesshubel   85.28 321  eP    P     20 59 10.7 +0.8
       comp=Z,52nm,1.5s,mb5.4
TRO    Tromso           85.34 340  eP    P     20 59 08.8 -1.1
       comp=Z,72nm,1.4s,mb5.6
TRO    Tromso           85.34 340  eP    P     20 59 08.8 -1.1
TRO                                 AMb   AMB   20 59 11.1
       comp=Z,72nm,1.4s,mb5.6
KHC    Kasperske Hory   85.37 319  eP    P     20 59 11.3 +0.9
KHC                                e            20 59 31.0
KHC    Kasperske Hory   85.37 319  eP    P     20 59 11.3 +0.9
KHC                                ex    x     20 59 31.0
KHC                                 AMS   AMS   21 48 00.0
       comp=Z,700nm,8.4s
KBA    Koelnbreinsper   85.38 317⇓iP    P     20 59 10.2 -0.3
       comp=Z,22nm,1.3s,mb5.1,SNR=6.8
KBA    Koelnbreinsper   85.38 317⇓iP    P     20 59 10.2 -0.3
KBA                                 pmax  pmax
       comp=Z,22nm,1.3s,mb5.1
SNTG   Esanatoglia      85.41 313   P    P     20 59 11.9 +1.2
       comp=Z,56nm,1.5s,mb5.5
RUE    Ruedersdorf      85.51 322  eP    P     20 59 11.5 +0.5
       comp=Z,100nm,1.3s,mb5.9
RUE    Ruedersdorf      85.51 322  eP    P     20 59 11.6 +0.6
       comp=Z,141nm,1.5s,mb6.0
PESA   Pesaro           85.53 314   P    P     20 59 12.7 +1.4
FBE    Freiberg         85.65 321  eP    P     20 59 12.6 +0.9
       comp=Z,76nm,1.6s,mb5.7
FVI    Forni Avoltri    85.73 317   P    P     20 59 13.1 +0.9
       comp=Z,34nm,1.2s,mb5.5

FVI    Forni Avoltri    85.73 317   P    P     20 59 13.1 +0.9
FVI                                 pmax  pmax
       comp=Z,34nm,1.2s,mb5.5
RSM    Repubblica di    85.81 314   P    P     20 59 14.2 +1.5
       comp=Z,72nm,1.1s,mb5.8
RSM    Repubblica di    85.81 314   P    P     20 59 14.2 +1.5
RSM                                 pmax  pmax
       comp=Z,72nm,1.1s,mb5.8
WET    Wettzell         85.83 319  eP    P     20 59 13.2 +0.5
WET                                 pmax  pmax
       comp=Z,48nm,1.3s,mb5.6
WET    Wettzell         85.83 319  eP    P     20 59 13.2 +0.5
       comp=Z,48nm,1.3s,mb5.6
CLL    Collm            85.90 321⇑iP    P     20 59 13.4 +0.4
       comp=Z,26nm,1.2s,mb5.3
CLL                                i pP  pP    20 59 20.9 -2.1
CLL                                 LR    LR
       comp=Z,800nm,18.0s,MS5.2
CLL    Collm            85.90 321⇑iP    P     20 59 13.4 +0.4
CLL                                i *PP  pP    20 59 20.9 -2.1
CLL                                 pmax  pmax
       comp=Z,26nm,1.2s,mb5.3
CLL                                 MLR   MLR
       comp=Z,800nm,18.0s,MS5.2
CLL    Collm            85.90 321  eP    P     20 59 13.2 +0.2
       comp=Z,26nm,1.2s,mb5.3
CLL    Collm            85.90 321⇑iP    P     20 59 13.4 +0.4
       comp=Z,26nm,1.2s,mb5.3
CLL                                 LmV         20 46 00.0
       comp=Z,800nm,18.0s
CLL                                i x   x     20 59 20.9
ABTA   Abfaltersbach    85.92 317  i P   P     20 59 13.1  0.0
       SNR=7.7
CRE    Caprese Michel   86.15 313   P    P     20 59 15.2 +0.8
       comp=Z,70nm,1.7s,mb5.6
CRE    Caprese Michel   86.15 313   P    P     20 59 15.2 +0.8
CRE                                 pmax  pmax
       comp=Z,70nm,1.7s,mb5.6
NKC    Novy Kostel      86.18 320  eP    P     20 59 15.6 +1.2
NKC                                 AMS   AMS   21 43 20.0
       comp=Z,1μm,18.6s
TANN   Tannenbergstha   86.18 320  eP    P     20 59 15.0 +0.6
       comp=Z,27nm,1.3s,mb5.3
SFI    Santa Sofia      86.24 314   P    P     20 59 16.8 +2.0
       comp=Z,137nm,1.4s,mb6.0
SFI    Santa Sofia      86.24 314   P    P     20 59 16.8 +2.0
SFI                                 pmax  pmax
       comp=Z,137nm,1.4s,mb6.0
GUNZ   Gunzen           86.26 320  eP    P     20 59 15.4 +0.6
       comp=Z,34nm,1.3s,mb5.4
WERD   Werda            86.28 320  eP    P     20 59 15.3 +0.4
       comp=Z,28nm,1.3s,mb5.3
ROTZ   Rotzenmuhle      86.31 320  eP    P     20 59 15.7 +0.7
       comp=Z,33nm,1.2s,mb5.4
MANZ   Manzenberg       86.38 320  eP    P     20 59 16.5 +1.1
       comp=Z,46nm,1.1s,mb5.6
CTI    Castel Tesino    86.48 316   P    P     20 59 15.8 -0.2
       comp=Z,165nm,1.8s,mb6.0
CTI    Castel Tesino    86.48 316   P    P     20 59 15.8 -0.2
CTI                                 pmax  pmax
       comp=Z,165nm,1.8s,mb6.0
MOR8   Moi Rana         86.51 336⇑iP    P     20 59 15.4 -0.2
       comp=Z,84nm,1.7s,mb5.7
MOR8   Moi Rana         86.51 336⇑iP    P     20 59 15.4 -0.2
MOR8                                AMb   AMB   20 59 25.1
       comp=Z,84nm,1.7s,mb5.7
WTTA   Wattenberg       86.55 317⇓iP    P     20 59 16.2 -0.1
       comp=Z,28nm,1.3s,mb5.3,SNR=7.3
WTTA   Wattenberg       86.55 317⇓iP    P     20 59 16.2 -0.1
WTTA                                pmax  pmax
       comp=Z,29nm,1.3s,mb5.3
WATA   Walderalm        86.59 317⇓iP    P     20 59 16.6 +0.1
       comp=Z,20nm,1.2s,mb5.2
WATA   Walderalm        86.59 317⇓iP    P     20 59 16.6 +0.1
WATA                                pmax  pmax
       comp=Z,20nm,1.2s,mb5.2
MOX    Moxa             86.73 321  eP    P     20 59 17.7 +0.6
       comp=Z,71nm,1.9s,mb5.6
MOX
       comp=Z,700nm,21.0s
MOX    Moxa             86.73 321  eP    P     20 59 17.7 +0.6
MOX                                 pmax  pmax
       comp=Z,71nm,1.9s,mb5.6
MOX                                 MLR   MLR
       comp=Z,700nm,21.0s,MS5.0
MOX    Moxa             86.73 321  eP    P     20 59 18.0 +0.9
       comp=Z,41nm,1.5s,mb5.4
FNVD   Fontana Vidola   86.78 314   P    P     20 59 19.8 +2.4
FUR    Furstenfeldbru   86.84 318  eP    P     20 59 18.0 +0.4
FUR                                 pmax  pmax
       comp=Z,80nm,2.0s,mb5.6
FUR    Furstenfeldbru   86.84 318  eP    P     20 59 18.0 +0.4
       comp=Z,80nm,2.0s,mb5.6
SQTA   Sankt Quirin     86.84 317⇓iP    P     20 59 16.2 -1.5
       comp=Z,4.3nm,0.5s,mb4.9
SQTA   Sankt Quirin     86.84 317⇓iP    P     20 59 16.2 -1.5
SQTA                                pmax  pmax
       comp=Z,4.0nm,0.5s,mb4.9
MOTA   Moosalm          86.92 317⇓iP    P     20 59 18.4 +0.3
       comp=Z,20nm,1.2s,mb5.2
MOTA   Moosalm          86.92 317⇓iP    P     20 59 18.4 +0.3
MOTA                                pmax  pmax
       comp=Z,20nm,1.2s,mb5.2
GRA1   Grafenberg Arr   86.94 320  eP    P     20 59 19.0 +0.9
       comp=Z,55nm,1.3s,mb5.6
GRF    Grafenberg Arr   86.94 320  eP    P     20 59 19.0 +0.9
GRF                                 pmax  pmax
       comp=Z,55nm,1.3s,mb5.6
GRF    Grafenberg Arr   86.94 320  eP    P     20 59 19.0 +0.9
GRF                                 pmax  pmax
       comp=Z,55nm,1.3s,mb5.6
GRF    Grafenberg Arr   86.94 320  eP    P     20 59 19.0 +0.9
       comp=Z,55nm,1.3s,mb5.6
GRFO   Grafenberg       86.94 320  eP    P     20 59 19.1 +1.0
       comp=Z,16nm,0.8s,mb5.3
GRFO   Grafenberg       86.94 320  eP    P     20 59 19.1 +1.0
GRFO                                pmax  pmax
       comp=Z,16nm,0.8s,mb5.3
RETA   Reutte           87.15 317  i P   P     20 59 19.7 +0.5
       SNR=6.4
FETA   Feichten         87.16 317  i P   P     20 59 19.7 +0.5
       SNR=7.2
GSCL   Gusciola         87.17 314   P    P     20 59 20.9 +1.6
       comp=Z,283nm,2.4s,mb6.1
BRMO   Bormio           87.39 316   P    P     20 59 21.4 +1.0
       comp=Z,44nm,1.3s,mb5.5
NSS    Namsos           87.39 334  eP    P     20 59 19.0 -0.9
       comp=Z,74nm,1.5s,mb5.7
NSS    Namsos           87.39 334  eP    P     20 59 19.0 -0.9
NSS                                 AMb   AMB   20 59 21.7
       comp=Z,74nm,1.5s,mb5.7
SPB4   Spitsbergen Ar   87.51 348  eP    P     20 59 18.8 -1.5
NB2    NORSAR Subarra   87.52 331   P    P     20 59 19.7 -1.0
       comp=Z,59nm,1.4s,mb5.6,baz=96,slow=4.6
NOA    NORSAR Array B   87.52 331   P    P     20 59 19.7 -1.0
NOA                                             21 02 42.2
NOA    NORSAR Array B   87.52 331   P    P     20 59 19.6 -1.0
       comp=Z,18nm,0.8s,mb5.3,baz=94,slow=4.8,SNR=26
NOA                                 PP    PP    21 02 42.1 -3.5
       comp=Z,4.2nm,0.9s,baz=96,slow=7.7,SNR=5.4
NOA                                 LR    LR    21 43 06.8
       comp=Z,818nm,21.7s,MS5.1,baz=95,slow=39
CLZ    Clausthal        87.57 322  eP    P     20 59 21.9 +0.8
CLZ                                 pmax  pmax
       comp=Z,85nm,1.6s,mb5.7
CLZ    Clausthal        87.57 322  eP    P     20 59 21.9 +0.8
       comp=Z,85nm,1.6s,mb5.7
NAO01  NORSAR Array S   87.67 331  eP    P     20 59 22.3 +0.9
       comp=Z,14nm,0.9s,mb5.2
BSEG   Bad Segeberg     87.68 324  eP    P     20 59 22.5 +0.9
BSEG                                pmax  pmax
       comp=Z,90nm,1.3s,mb5.8
BSEG   Bad Segeberg     87.68 324  eP    P     20 59 22.5 +0.9
       comp=Z,90nm,1.3s,mb5.8
DAVA   Damuels          87.75 317  i P   P     20 59 23.4 +1.3
       comp=Z,38nm,1.6s,mb5.4,SNR=6.3
DAVA   Damuels          87.75 317  i pP  pP    20 59 23.4 -8.8
       comp=Z,38nm,1.6s,SNR=6.3
UBBA   Unterbreizbach   87.77 321  eP    P     20 59 22.5 +0.4
       comp=Z,71nm,2.0s,mb5.5
KEST   Kesra            87.93 306   P    P     20 59 22.9 -0.3
       comp=Z,7.9nm,0.8s,mb5.0,baz=340,slow=1.6,SNR=15
PGF    Pioggiola        88.28 312  eP    P     20 59 23.1 -1.6
MUD    Monsted U'grnd   88.41 326  i P   P     20 59 26.0 +1.0
MUD                                 pmax  pmax
       comp=Z,56nm,1.0s,mb5.8
MUD    Monsted U'grnd   88.41 326  i P   P     20 59 26.0 +1.0

       comp=Z,56nm,1.0s,mb5.7
KBS    Kingsbay         88.47 349  eP    P     20 59 23.9 -1.0
       comp=Z,63nm,1.2s,mb5.7
KBS    Kingsbay         88.47 349  eP    P     20 59 23.9 -1.0
KBS                                 pmax  pmax
       comp=Z,63nm,1.2s,mb5.7
SPAK   Spaichingen-Ko   88.50 318  eP    P     20 59 26.8 +1.2
TNS    Taunus Mts       88.75 320  eP    P     20 59 27.7 +1.0
TNS                                 pmax  pmax
       comp=Z,44nm,1.2s,mb5.7
TNS    Taunus Mts       88.75 320  eP    P     20 59 27.7 +1.0
       comp=Z,44nm,1.2s,mb5.7
BFO    Black Forest     88.81 318  eP    P     20 59 27.4 +0.3
BFO                                 pmax  pmax
       comp=Z,34nm,1.5s,mb5.5
BFO    Black Forest     88.81 318  eP    P     20 59 27.4 +0.3
       comp=Z,34nm,1.5s,mb5.5
FIN    Finale Ligure    88.87 314   P    P     20 59 27.9 +0.4
       comp=Z,44nm,0.8s,mb5.8
FIN    Finale Ligure    88.87 314   P    P     20 59 27.9 +0.4
FIN                                 pmax  pmax
       comp=Z,44nm,0.8s,mb5.8
FELD   Feldberg im Sc   89.03 318  eP    P     20 59 29.7 +1.6
NVL    N'lazarevskaya   89.08 199  eP    P     20 59 31.2 +3.3
NVL                                e            21 10 17.6
NVL                                 pmax  pmax
       comp=Z,129nm,1.7s,mb6.0
NVL                                 MLR   MLR
       comp=Z,2μm,17.0s,MS5.5
MAIT   Maitri           89.11 199  eP    P     20 59 27.8 -0.2
LANF   Langenberg       89.16 319  eP    P     20 59 29.7 +1.0
IBBN   Ibbenburen       89.19 322  eP    P     20 59 29.6 +0.8
       comp=Z,126nm,1.5s,mb6.0
SBF    Sospel           89.43 314  eP    P     20 59 29.0 -1.1
       comp=Z,248nm,1.5s,mb6.0
SBF    Sospel           89.43 314  eP    P     20 59 29.0 -1.1
       comp=Z,124nm,1.5s,mb6.0
SBF    Sospel           89.43 314  eP    P     20 59 29.0 -1.1
SBF                                 pmax  pmax
       comp=Z,124nm,1.5s,mb6.0
BUG    Bochum--Univer   89.50 321  eP    P     20 59 31.0 +0.8
       comp=Z,68nm,1.3s,mb5.8
CDF    Champ du Feu     89.51 318  eP    P     20 59 28.9 -1.5
ECH    Echery           89.59 318  eP    P     20 59 31.6 +0.9
RUP    Ruppelstein      89.64 320  eP    P     20 59 30.1 -0.9
LOMF   Lomont           89.82 317  eP    P     20 59 32.1 +0.2
BLS5   Blasjo           89.86 329  eP    P     20 59 33.9 +2.1
       comp=Z,39nm,1.5s,mb5.5
BLS5   Blasjo           89.86 329  eP    P     20 59 33.9 +2.1
BLS5                                AMb   AMB   20 59 44.5
       comp=Z,39nm,1.5s,mb5.5
SURF   Saint Ours       89.87 314  eP    P     20 59 33.3 +1.2
MBDF   Montbardon       89.90 315  eP    P     20 59 30.5 -1.8
       comp=Z,42nm,1.1s,mb5.4
MBDF   Montbardon       89.90 315  eP    P     20 59 30.5 -1.8
       comp=Z,21nm,1.1s,mb5.4
MBDF   Montbardon       89.90 315  eP    P     20 59 30.5 -1.8
MBDF                                pmax  pmax
       comp=Z,21nm,1.1s,mb5.4
LPG    La Plagne        89.90 315  eP    P     20 59 31.4 -0.9
       comp=Z,70nm,0.9s,mb5.7
LPG    La Plagne        89.90 315  eP    P     20 59 31.4 -0.9
       comp=Z,35nm,0.9s,mb5.7
LPG    La Plagne        89.90 315  eP    P     20 59 31.4 -0.9
LPG                                 pmax  pmax
       comp=Z,35nm,0.9s,mb5.7
LPL    La Plagne        89.92 315  eP    P     20 59 31.4 -0.9
       comp=Z,81nm,0.9s,mb5.8
LPL    La Plagne        89.92 315  eP    P     20 59 31.4 -0.9
       comp=Z,41nm,0.9s,mb5.8
LPL    La Plagne        89.92 315  eP    P     20 59 31.4 -0.9
LPL                                 pmax  pmax
       comp=Z,41nm,0.9s,mb5.8
BNI    Bardonecchia     89.96 315  eP    P     20 59 32.8 +0.2
       comp=Z,16nm,0.8s,mb5.4
BNI    Bardonecchia     89.96 315  eP    P     20 59 32.8 +0.3
BNI                                 pmax  pmax
       comp=Z,16nm,0.8s,mb5.4
RSL    Roselend         89.99 315  eP    P     20 59 33.3 +0.6
FRF    La Foret Royal   90.00 313  eP    P     20 59 31.7 -1.1
       comp=Z,251nm,1.6s,mb6.0
FRF    La Foret Royal   90.00 313  eP    P     20 59 31.7 -1.1
       comp=Z,126nm,1.6s,mb6.0
FRF    La Foret Royal   90.00 313  eP    P     20 59 31.7 -1.1
FRF                                 pmax  pmax
       comp=Z,126nm,1.6s,mb6.0
LMR    La Mourre        90.11 313  eP    P     20 59 31.8 -1.5
       comp=Z,267nm,1.7s,mb6.0
LMR    La Mourre        90.11 313  eP    P     20 59 31.8 -1.5
       comp=Z,134nm,1.7s,mb6.0
LMR    La Mourre        90.11 313  eP    P     20 59 31.8 -1.5
LMR                                 pmax  pmax
       comp=Z,134nm,1.7s,mb6.0
HAU    Haudompre        90.14 318  eP    P     20 59 31.9 -1.4
       comp=Z,61nm,1.0s,mb5.6
HAU                                eMLR  MLR
       comp=Z,745nm,19.8s,MS4.8
HAU    Haudompre        90.14 318  eP    P     20 59 31.9 -1.4
       comp=Z,30nm,1.0s,mb5.6
HAU                                 LR    LR
       comp=Z,740nm,19.8s,MS5.1
HAU    Haudompre        90.14 318  eP    P     20 59 31.9 -1.4
HAU                                 pmax  pmax
       comp=Z,30nm,1.0s,mb5.6
HAU                                 MLR   MLR
       comp=Z,740nm,19.8s,MS5.1
WLF    Walferdange      90.23 319  eP    P     20 59 35.0 +1.3
       comp=Z,76nm,1.5s,mb5.8
WLF    Walferdange      90.23 319  eP    P     20 59 35.1 +1.4
WLF                                 pmax  pmax
       comp=Z,76nm,1.5s,mb5.8
WLF    Walferdange      90.23 319   P    P     20 59 35.4 +1.7
       comp=Z,36nm,1.8s,mb5.4
WLF    Walferdange      90.23 319  eP    P     20 59 34.8 +1.1
       comp=Z,85nm,1.5s,mb5.8
MEM    Membach          90.31 320   P    P     20 59 35.1 +1.1
       comp=Z,18nm,0.9s,mb5.4
CABF   La Chapelle      90.34 316  eP    P     20 59 33.5 -0.8
       comp=Z,81nm,1.1s,mb5.7
CABF   La Chapelle      90.34 316  eP    P     20 59 33.5 -0.8
       comp=Z,40nm,1.1s,mb5.7
CABF   La Chapelle      90.34 316  eP    P     20 59 33.5 -0.8
CABF                                pmax  pmax
       comp=Z,41nm,1.1s,mb5.7
GDM    Grand'Maison     90.36 315  eP    P     20 59 35.0 +0.6
THEF   They Montfort    90.38 318  eP    P     20 59 34.7 +0.3
ORIF   Oris-en-Rattie   90.53 315  eP    P     20 59 34.3 -0.9
       comp=Z,62nm,1.1s,mb5.5
ORIF                               eMLR  MLR
       comp=Z,640nm,20.2s,MS4.8
ORIF   Oris-en-Rattie   90.53 315  eP    P     20 59 34.3 -0.9
       comp=Z,31nm,1.1s,mb5.5
ORIF   Oris-en-Rattie   90.53 315  eP    P     20 59 34.3 -0.9
ORIF                                pmax  pmax
       comp=Z,31nm,1.1s,mb5.5
BCLA   Clavier          90.76 320   P    P     20 59 37.3 +1.2
       comp=Z,30nm,1.6s,mb5.4
SMRF   Simiane la Rot   90.77 314  eP    P     20 59 35.8 -0.6
       comp=Z,48nm,1.0s,mb5.5
SMRF   Simiane la Rot   90.77 314  eP    P     20 59 35.8 -0.6
       comp=Z,48nm,1.0s,mb5.8
OG05   Jujurieux        90.80 316  eP    P     20 59 37.2 +0.8
OG05   Jujurieux        90.80 316  eP    P     20 59 35.7 -0.7
OG05                               eP           20 59 37.2
MEZF   Maizieres J'vi   90.99 318  eP    P     20 59 36.3 -1.0
       comp=Z,61nm,0.9s,mb5.6
MEZF   Maizieres J'vi   90.99 318  eP    P     20 59 36.3 -1.0
       comp=Z,61nm,0.9s,mb5.9
GIVF   Givet            91.08 320  eP    P     20 59 36.7 -0.9
       comp=Z,52nm,0.9s,mb5.5
GIVF   Givet            91.08 320  eP    P     20 59 36.7 -0.9
       comp=Z,26nm,0.9s,mb5.6
GIVF   Givet            91.08 320  eP    P     20 59 36.7 -0.9
GIVF                                pmax  pmax
       comp=Z,26nm,0.9s,mb5.6
AFI    Afiamalu         91.09 104   P    P     20 59 39.9 +1.5
       comp=Z,95nm,1.3s,mb6.0
AFI    Afiamalu         91.09 104   P    P     20 59 39.9 +1.4
AFI                                 pmax  pmax
       comp=Z,95nm,1.3s,mb6.0
DOU    Dourbes          91.23 320   P    P     20 59 39.6 +1.2
VIVF   Saint-Julien-l   91.39 315  eP    P     20 59 38.1 -1.1
       comp=Z,112nm,1.5s,mb5.7
VIVF   Saint-Julien-l   91.39 315  eP    P     20 59 38.1 -1.1
       comp=Z,56nm,1.5s,mb5.7
VIVF   Saint-Julien-l   91.39 315  eP    P     20 59 38.1 -1.1
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VIVF				pmax	pmax		
	comp=Z,56nm,1.5s,mb5.7						
SNF	Seneffe	91.41	320	P	P	20 59 39.5	+0.4
	comp=Z,22nm,1.3s,mb5.3						
BAIF	Baives	91.48	320	*e*P	P	20 59 38.8	-0.7
	comp=Z,98nm,0.9s,mb5.8						
BAIF	Baives	91.48	320	*e*P	P	20 59 38.8	-0.7
	comp=Z,49nm,0.9s,mb5.8						
BAIF	Baives	91.48	320	*e*P	P	20 59 38.8	-0.7
BAIF				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.8						
LOR	Lormes	91.85	317	*e*P	P	20 59 40.1	-1.2
	comp=Z,57nm,0.8s,mb5.6						
LOR				*e*MLR	MLR		
	comp=Z,729nm,19.8s,MS4.8						
LOR	Lormes	91.85	317	*e*P	P	20 59 40.1	-1.2
	comp=Z,29nm,0.8s,mb5.7						
LOR				LR	LR		
	comp=Z,730nm,19.8s,MS5.1						
LOR	Lormes	91.85	317	*e*P	P	20 59 40.1	-1.2
LOR				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.7						
LOR				MLR	MLR		
	comp=Z,730nm,19.8s,MS5.1						
SMF	Signal de Mont	91.89	317	*e*P	P	20 59 40.3	-1.2
	comp=Z,79nm,1.0s,mb5.7						
SMF	Signal de Mont	91.89	317	*e*P	P	20 59 40.3	-1.2
	comp=Z,39nm,1.0s,mb5.7						
SMF	Signal de Mont	91.89	317	*e*P	P	20 59 40.3	-1.2
SMF				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.7						
LASF	Ste Croix	92.01	314	*e*P	P	20 59 41.5	-0.6
	comp=Z,62nm,1.1s,mb5.5						
PLDF	La Plantade	92.08	316	*e*P	P	20 59 41.9	-0.5
SSF	Saint Saulge	92.10	317	*e*P	P	20 59 41.4	-1.0
	comp=Z,62nm,1.2s,mb5.5						
SSF	Saint Saulge	92.10	317	*e*P	P	20 59 41.4	-1.0
	comp=Z,31nm,1.2s,mb5.5						
SSF	Saint Saulge	92.10	317	*e*P	P	20 59 41.4	-1.0
SSF				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.5						
AVF	Avril sur Loir	92.22	317	*e*P	P	20 59 41.8	-1.2
	comp=Z,62nm,1.0s,mb5.6						
AVF	Avril sur Loir	92.22	317	*e*P	P	20 59 41.8	-1.2
	comp=Z,31nm,1.0s,mb5.6						
AVF	Avril sur Loir	92.22	317	*e*P	P	20 59 41.8	-1.2
AVF				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.6						
LBL	Lubilhac	92.38	315	*e*P	P	20 59 45.0	+1.2
AGO	Saint Agoulin	92.41	316	*e*P	P	20 59 45.5	+1.6
BGF	Bois d'Agland	92.58	316	*e*P	P	20 59 43.9	-0.8
	comp=Z,112nm,1.1s,mb5.9						
BGF	Bois d'Agland	92.58	316	*e*P	P	20 59 43.9	-0.8
	comp=Z,56nm,1.1s,mb5.9						
BGF	Bois d'Agland	92.58	316	*e*P	P	20 59 43.9	-0.8
BGF				pmax	pmax		
	comp=Z,56nm,1.1s,mb5.9						
HYF	Humbligny	92.67	317	*e*P	P	20 59 44.4	-0.7
MTLF	Montolieu	93.24	313	*e*P	P	20 59 46.9	-0.9
	comp=Z,81nm,1.4s,mb5.7						
MTLF	Montolieu	93.24	313	*e*P	P	20 59 46.9	-0.9
	comp=Z,41nm,1.4s,mb5.7						
MTLF	Montolieu	93.24	313	*e*P	P	20 59 46.9	-0.9
MTLF				pmax	pmax		
	comp=Z,41nm,1.4s,mb5.7						
DAG	Danmarks Havn	95.16	348	*e*P	P	20 59 55.0	-0.9
DAG				pmax	pmax		
	comp=Z,15nm,1.1s,mb5.3						
DAG	Danmarks Havn	95.16	348	*i* P	P	20 59 55.0	-0.9
	comp=Z,15nm,1.1s,mb5.3						
TORD	Torodi Ar. Bea	95.27	283	P	P	20 59 55.5	-2.2
TORD				PP	PP	21 03 49.1	+0.9
TORD				LR	LR	21 38 28.0	
TORD	Torodi Ar. Bea	95.27	283	P	P	20 59 55.5	-2.2
	comp=Z,5.0nm,1.2s,mb4.8,baz=80,slow=4.9,SNR=16						
TORD				PP	PP	21 03 49.1	+0.9
	comp=Z,1.0nm,0.9s,baz=104,slow=7.4,SNR=3.5						
TORD				LR	LR	21 38 28.0	
	comp=Z,617nm,20.3s,MS5.1,baz=80,slow=33						
IMA2	Indian Mountai	97.07	23	P	P	21 00 04.4	-0.4
PPT	Papeete	112.25	109	*e*LR	LR	21 38 42.7	
	comp=Z,1μm,24.8s						
YKA	Yellowknife Ar	112.62	15	PKPdf	PKiKP	21 05 07.9	-1.2
YKA				PP	PP	21 05 49.6	-5.9
YKA				PKKPbc	PKKPbc	21 15 56.6	-3.8
YKA	Yellowknife Ar	112.62	15	PKIKP	PKiKP	21 05 07.9	-1.2
YKA	Yellowknife Ar	112.62	15	PKiKP	PKiKP	21 05 07.9	-1.2
	comp=Z,0.8nm,0.8s,baz=324,slow=2.8,SNR=8.6						
YKA				PP	PP	21 05 49.6	-5.9
	comp=Z,1.9nm,0.9s,baz=331,slow=6.8,SNR=6.9						
YKA				PKKPbc	PKKPbc	21 15 56.6	-3.8
	comp=Z,0.4nm,0.7s,baz=143,slow=3.2,SNR=8.4						
TAOE	Nuku Hiva Isla	122.28	100	*e*LR	LR	21 43 23.2	
	comp=Z,2μm,24.5s						
HAWA	Hanford	123.12	30	*e*PKPdf	PKPdf	21 05 29.6	-0.2
SCHQ	Schefferville	123.19	349	PKP	PKPdf	21 05 27.8	-1.9
SCHQ				PP	PP	21 07 09.1	+0.3
SCHQ	Schefferville	123.19	349	PKP	PKPdf	21 05 27.8	-1.9
	comp=Z,3.1nm,0.8s,baz=78,slow=6.3,SNR=4.3						
SCHQ				PP	PP	21 07 09.1	+0.3
	comp=Z,7.1nm,1.0s,baz=30,slow=7.4,SNR=4.5						
HUMO	Hull Mountain	123.80	35	*e*PKPdf	PKPdf	21 05 30.7	-0.6
VIPM	Ingram Point	123.85	32	P	PKPdf	21 05 32.1	+0.8
VIPM	Ingram Point	123.85	32	PKIKP	PKPdf	21 05 32.1	+0.8
BSMT	Bassoo Peak	124.25	26	P	PKPdf	21 05 31.3	-0.6
RKT	Rikitea	124.63	118	*e*LR	LR	21 44 26.3	
	comp=Z,860nm,25.8s						
LHEM	Herd Peak	124.85	35	P	PKPdf	21 05 33.8	+0.5
KIPM	Iron Peak	125.21	38	*e*PKPdf	PKPdf	21 05 34.4	+0.4
WDC	Whiskeytown Da	125.31	37	*e*PKPdf	PKPdf	21 05 34.4	+0.2
WDC	Whiskeytown Da	125.31	37	PKIKP	PKPdf	21 05 35.1	+0.9
MSO	Missoula	125.40	26	*e*PKPdf	PKPdf	21 05 34.0	-0.2
LTIM	Timbered Crate	125.56	35	P	PKPdf	21 05 34.7	+0.1
CHMT	Chamberlain Mo	125.63	25	*e*PKPdf	PKPdf	21 05 35.0	+0.3
MOD	Modoc	125.76	34	*e*PKPdf	PKPdf	21 05 35.0	0.0
LBCM	Butte Creek Ri	125.86	36	P	PKPdf	21 05 34.8	-0.4
EGMT	Eagleton	126.15	22	*e*PKPdf	PKPdf	21 05 35.2	-0.4
WVOR	Wild Horse Val	126.32	33	*e*PKPdf	PKPdf	21 05 36.5	+0.4
WVOR	Wild Horse Val	126.32	33	PKIKP	PKPdf	21 05 37.0	+0.9
NSHM	Saint Helena R	126.53	39	*e*PKPdf	PKPdf	21 05 37.5	+0.9
OHCM	Honcut	126.72	37	*e*PKPdf	PKPdf	21 05 37.4	+0.4
DLMT	Dillon	127.13	26	*e*PKPdf	PKPdf	21 05 39.4	+1.9
BOZ	Bozeman (W)	127.33	25	*e*PKPdf	PKPdf	21 05 37.9	0.0
BOZ	Bozeman (W)	127.33	25	PKIKP	PKPdf	21 05 38.3	+0.4
MCMT	McKenzie Canyo	127.43	27	*e*PKPdf	PKPdf	21 05 38.2	+0.1
QLMT	Earthquake Lak	128.06	26	*e*PKPdf	PKPdf	21 05 40.7	+1.4
ULM	Lac du Bonnet	128.08	11	*e*PKPdf	PKPdf	21 05 38.1	-1.1
ULM	Lac du Bonnet	128.08	11	PKP	PKPdf	21 05 36.9	-2.3
	comp=Z,5.1nm,0.8s,baz=350,slow=3.2,SNR=11						
CMB	Columbia Colle	128.21	38	*e*PKPdf	PKPdf	21 05 40.4	+0.6
CMB	Columbia Colle	128.21	38	PKIKP	PKPdf	21 05 41.0	+1.2
LAO	LASA Array	128.56	21	*e*PKPdf	PKPdf	21 05 40.7	+0.4
NVAR	Mina Array Bea	129.21	36	PKP	PKPdf	21 05 42.2	+0.5
NVAR	Mina Array Bea	129.21	36	PKP	PKPdf	21 05 42.2	+0.5
	comp=Z,5.0nm,0.8s,baz=262,slow=0.9,SNR=21						
REDW	Red Top Meadow	129.48	26	*e*PKPdf	PKPdf	21 05 44.0	+2.0
MTUM	Tungsten Hills	129.75	37	*e*PKPdf	PKPdf	21 05 45.2	+2.5
BGU	Big Grassy Mou	130.32	30	*e*PKPdf	PKPdf	21 05 45.8	+2.0
PDAR	Pinedale Array	130.52	26	PKP	PKPdf	21 05 41.5	-2.5
PDAR				PP	PP	21 07 59.2	+1.5
PDAR	Pinedale Array	130.52	26	PKP	PKPdf	21 05 41.6	-2.5
	comp=Z,1.5nm,0.6s,baz=326,slow=0.5,SNR=12						
PDAR				PP	PP	21 07 59.2	+1.5
	comp=Z,5.6nm,1.2s,baz=297,slow=1.0,SNR=3.7						
DUG	Dugway	130.98	31	*e*PKPdf	PKPdf	21 05 47.5	+2.5
DUG	Dugway	130.98	31	*e*PKIKP	PKPdf	21 05 47.5	+2.5
DAC	Darwin (Calif)	131.04	38	*e*PKPdf	PKPdf	21 05 46.0	+0.7
DAC	Darwin (Calif)	131.04	38	*e*PKIKP	PKPdf	21 05 46.0	+0.7
NLU	North Lily Min	131.53	30	*e*PKPdf	PKPdf	21 05 48.0	+1.9
MSU	Marysvale	132.56	32	*e*PKPdf	PKPdf	21 05 49.6	+1.6
MSU	Marysvale	132.56	32	PKIKP	PKPdf	21 05 50.3	+2.2
SRU	San Rafael	132.95	30	*e*PKPdf	PKPdf	21 05 51.0	+2.2
SRU	San Rafael	132.95	30	*e*PKIKP	PKPdf	21 05 51.0	+2.2
WUAZ	Wupatki	135.21	34	*e*PKPdf	PKPdf	21 05 54.8	+1.7
TUC	Tucson	137.86	36	*e*PKPdf	PKPdf	21 05 59.7	+1.6
TUC	Tucson	137.86	36	*e*PKIKP	PKPdf	21 05 59.7	+1.6
ANMO	Albuquerque	138.22	30	*e*PKPdf	PKPdf	21 05 59.7	+1.0
ANMO	Albuquerque	138.22	30	*e*PKIKP	PKPdf	21 05 59.7	+1.0
KSU1	Kansas State U	138.46	16	*e*PKPdf	PKPdf	21 05 59.7	+0.7
LPM	Los Pinos Moun	138.65	30	*e*PKPdf	PKPdf	21 06 00.9	+1.3
MNTX	Cornudas Mount	141.35	32	*e*PKPdf	PKPdf	21 06 04.4	-0.1
WMOK	Wichita Mounta	141.74	22	*e*PKPpre		21 06 00.2	
WMOK	Wichita Mounta	141.74	22	*e*PKIKP	PKPdf	21 06 00.2	-4.9
WVT	Waverly	143.12	7	*e*PKPpre		21 06 04.0	
WVT	Waverly	143.12	7	PKIKP	PKPdf	21 06 05.7	-1.8
MIAR	Mount Ida	143.56	15	*e*PKPpre		21 06 04.6	
MIAR	Mount Ida	143.56	15	*e*PKIKP	PKPdf	21 06 04.6	-3.8
LTX	Lajitas	144.12	32	*e*PKPpre		21 06 06.8	
LTX	Lajitas	144.12	32	*e*PKIKP	PKPdf	21 06 06.8	-2.7
TXAR	Lajitas Array	144.12	32	PKP	PKPdf	21 06 06.4	-3.1
TXAR	Lajitas Array	144.12	32	PKIKP	PKPdf	21 06 06.4	-3.1
TXAR	Lajitas Array	144.12	32	PKP	PKPdf	21 06 06.4	-3.1
	comp=Z,6.6nm,0.7s,baz=285,slow=2.4,SNR=44						
PLAL	Pickwick Lake	144.22	7	*e*PKPpre		21 06 05.4	
OXF	Oxford	144.48	9	*e*PKPpre		21 06 06.2	
OXF	Oxford	144.48	9	PKIKP	PKPdf	21 06 08.2	-1.8
JSC	Jenkinsville	145.24	358	*e*PKPdf	PKPdf	21 06 09.8	-1.5
JSC	Jenkinsville	145.24	358	PKIKP	PKPdf	21 06 11.0	-0.3
FCH	Farellones	145.44	199	⇓*e*P	PKPbc	21 06 13.0	+1.4
NATX	Nacogdoches	145.86	18	*e*PKPdf	PKPdf	21 06 12.6	+0.2
COW	Cow Castle Cre	146.11	357	*e*PKPdf	PKPdf	21 06 14.0	+1.2
GOGA	Godfrey	146.13	1	*e*PKPdf	PKPdf	21 06 12.7	-0.1
GOGA	Godfrey	146.13	1	PKP2	PKPab	21 06 13.6	-0.7
HKT	Hockley	147.12	21	*e*PKPdf	PKPdf	21 06 15.5	+0.9
HKT	Hockley	147.12	21	*e*PKP2	PKPdf	21 06 15.5	+0.9
LCO	Las Campanas	149.53	201	*e*PKPdf	PKPdf	21 06 19.6	+1.0
CPD	Cerro la Pandu	155.13	319	PKIKP	PKPdf	21 06 27.3	+0.2
LPAZ	La Paz	158.80	222	*e*PKPdf	PKPdf	21 06 32.1	+0.2
LPAZ	La Paz	158.80	222	PKIKP	PKPdf	21 06 32.7	+0.9
LPAZ	La Paz	158.80	222	PKP	PKPdf	21 06 32.4	+0.5
	comp=Z,4.0nm,0.9s,baz=67,slow=4.0,SNR=8.7						
LPAZ				PP	PP	21 10 45.8	-1.5
	comp=Z,1.1nm,0.9s,baz=107,slow=5.1,SNR=3.9						
ROSC	El Rosal	169.97	303	*e*PKPdf	PKPdf	21 06 39.6	-2.3
ROSC	El Rosal	169.97	303	PKP	PKPdf	21 06 39.8	-2.1
	comp=Z,8.7nm,0.8s,baz=102,slow=22,SNR=7.0						

IDC 14 20:51:04.5±5.7,**33.16N**×**82.43E**,**h0**^{km},**mb3.5**/2,**mb1 3.8**/3,**mb1mx3.5**/22,**mbtmp3.6**/3,**ML3.3**/1,**Error ellipse: s-maj=504.8km s-min=75.6km az=87.0,Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	13.61	360	Pn	Pn	20 54 17.6	-1.1
	0.2nm,0.3s,baz=180,slow=13,SNR=13						
ZALV	Zalesovo Beam	20.85	4	P	P	20 55 48.3	+0.6
	0.7nm,0.5s,baz=196,slow=11,SNR=6.4						
YKA	Yellowknife Ar	83.69	8	P	P	21 03 34.7	-0.1
	0.5nm,0.5s,baz=340,slow=5.3,SNR=5.6						

IDC 14 21:14:05.3±9.0,**21.61S**×**66.89W**,**h229**^{km}±61^{km},**mb3.8**/2,**mb1 3.8**/3,**mb1mx3.4**/15,**mbtmp3.7**/3,**Error ellipse: s-maj=107.3km s-min=48.3km az=29.0,Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	5.42	347	P	Pn	21 15 26.3	+0.5
	2.3nm,0.3s,baz=152,slow=8.7,SNR=38						
LPAZ				S	S	21 16 31.4	+1.6
	0.2nm,0.3s,baz=72,slow=20,SNR=2.8						
TORD	Torodi Ar. Bea	75.63	69	P	P	21 25 25.8	+0.1
	4.7nm,0.4s,baz=260,slow=5.9,SNR=108						
YKA	Yellowknife Ar	91.93	340	P	P	21 26 47.0	-0.1
	0.2nm,0.4s,baz=135,slow=4.9,SNR=4.8						

ISK ***14*** *21:52:32.1,38.42N×39.07E,h5^{km},MD3.0*
ISCJB ***14*** *21:52:33.3±0.5,38.40N±0.03×39.13E±0.04,h5^{km},Error ellipse: s-maj=4.8km s-min=3.8km az=152.7*
CSEM ***14*** *21:52:33.2±0.1,38.43N×39.09E,h5^{km},MD3.1,Error ellipse: s-maj=3.5km s-min=3.0km az=162.0*
DDA ***14*** *21:52:34.6,38.38N×39.16E,h5^{km}±5^{km},Md3.1*
ISC 14 21:52:33.8±0.6,**38.41N**±0.04×**39.13E**±0.04,**h4**^{km}±7^{km},**n20,** σ**0^{s}90**/29,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.14	306	*i* P	Pg	21 52 36.2	-0.5
ELZG				*i* S	Sg	21 52 39.6	+1.0
PTK	Pertek	0.52	23	PG	Pg	21 52 42.9	-0.9
PTK				SG	Sg	21 52 52.3	+1.7
PTK	Pertek	0.52	23	*e*Pg	Pg	21 52 42.9	-0.9
PTK				*e*Sg	Sg	21 52 52.3	+1.7
MYA	Malataya	0.56	261	PG	Pg	21 52 43.1	-1.5
MYA				SG	Sg	21 52 51.8	-0.1
MYA	Malataya	0.56	261	*e*Pg	Pg	21 52 43.1	-1.5
MYA				*e*Sg	Sg	21 52 51.8	-0.1
URFA	Urfa	1.00	194	PG	Pg	21 52 52.3	-0.7
URFA	Urfa	1.00	194	*e*Pg	Pg	21 52 52.3	-0.7
DIY	Diyarbakir	1.00	121	PG	Pg	21 52 53.4	+0.3
DIY	Diyarbakir	1.00	121	*e*Pg	Pg	21 52 53.4	+0.3
ATAB	Bozova	1.15	215	*i* P	Pg	21 52 56.2	+0.3
ATAB				*i* S	Sg	21 53 07.0	-3.8
BINT	Bingol	1.16	66	PN	Pn	21 52 55.9	-0.8
BINT	Bingol	1.16	66	*e*Pn	Pn	21 52 55.9	-0.8
EZC	Erzincan	1.44	22	PN	Pn	21 52 59.2	-1.3
GZT	Gaziantep	1.63	230	*i* P	Pn	21 53 04.5	+1.3
GZT				*i* S	Sg	21 53 26.7	+0.6
BNGL	BINGOL	1.67	71	*i* P	Pg	21 53 06.0	+0.3
BNGL				*i* S	Sg	21 53 33.3	+5.9
MARD	Mardin	1.70	130	*i* P	Pn	21 53 04.3	+0.1
MARD				*i* S	Sn	21 53 27.4	+1.0
BTMT	Batman	1.87	96	PN	Pn	21 53 05.6	-0.9
GAZ	Gaziantep	1.96	231	*e*PN	Pn	21 53 08.2	+0.4
GAZ	Gaziantep	1.96	231	*e*Pn	Pn	21 53 08.2	+0.4
ANDN	Andirin	2.35	250	*i* P	Pb	21 53 16.9	+0.2

IDC ***14*** *21:59:57.9±1.2,0.30N×122.05E,h192^{km}±12^{km},mb3.9/7,mb1 4.0/8,mb1mx3.7/20,mbtmp3.9/8,Error ellipse: s-maj=34.1km s-min=10.6km az=60.0*
ISCJB ***14*** *22:00:03.2±2.0,0.21N±0.07×122.11E±0.10,h267^{km}±22^{km},mb3.9/15,Error ellipse: s-maj=17.7km s-min=8.5km az=147.6*
NEIC ***14*** *22:00:04.4±1.5,0.21N×122.08E,h263^{km}±15^{km},mb4.0/10,Error ellipse: s-maj=11.7km s-min=5.6km az=58.0*
ISC 14 22:00:04.5±2.1,**0.21N**±0.07×**122.09E**±0.10,**h263**^{km}±23^{km},**n36,** σ**0^{s}77**/33,**mb3.9**/15,**2C,Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSM	Kuching	11.84	276	*e*Pn	Pn	22 02 47.0	+1.1
KAKA	Kakadu	16.44	142	*e*P	P	22 03 38.9	-0.6
	10nm,0.8s						
FITZ	Fitzroy Crossi	18.52	169	⇑*i*P	P	22 04 01.1	-1.0
	15nm,0.7s						
FITZ	Fitzroy Crossi	18.52	169	P	P	22 04 00.8	-1.2
	0.5nm,0.3s,baz=0.9,slow=8.1,SNR=24						
MBWA	Marble Bar	21.36	186	*e*P	P	22 04 29.9	-1.7
QIZ	Qiongzhong	22.23	328	*e*P	P	22 04 39.0	-0.6
PSI	Prapat	23.30	277	P	P	22 04 48.4	-1.1
	2.2nm,0.5s,mb3.8,baz=55,slow=18,SNR=4.2						
PSI				pP		22 05 25.0	
	1.3nm,0.4s,baz=126,slow=8.7,SNR=2.0						
WRA	Warramunga Arr	23.35	150	P	P	22 04 50.1	+0.2
	12nm,0.7s,mb4.4,baz=327,slow=11,SNR=126						
WRA				pP		22 05 25.1	
	3.3nm,0.8s,baz=326,slow=11,SNR=4.4						
WB2	Warramunga Arr	23.35	150	*e*P	P	22 04 50.0	+0.1
YHNB	Yeheng	24.33	358	*e*P	P	22 04 58.6	-0.1
ASAR	Alice Springs	26.36	155	P	P	22 05 17.8	+0.8
	3.0nm,0.6s,mb3.9,baz=344,slow=13,SNR=51						
ASAR				pP	pP	22 05 55.6	-12
	1.5nm,0.8s,baz=335,slow=7.3,SNR=4.2						
ASAR				PcP	PcP	22 08 37.0	+1.5
	0.4nm,0.3s,baz=343,slow=2.2,SNR=4.8						
PMG	Port Moresby	26.73	112	*e*P	P	22 05 20.9	+0.6
COCO	West Island	27.93	243	P	P	22 05 30.6	-0.3
FORT	Forrest	31.33	170	*e*P	P	22 06 00.9	+0.2
	20nm,0.8s,mb4.7						
STKA	Stephens Creek	36.87	152	⇑*i*P	P	22 06 49.4	+1.3
	8.7nm,0.8s,mb4.2						
STKA	Stephens Creek	36.87	152	*e*P	P	22 06 49.3	+1.2
STKA	Stephens Creek	36.87	152	P	P	22 06 49.5	+1.4
	13nm,0.8s,mb4.4,baz=326,slow=7.8,SNR=24						
BJT	Baijiatuau	39.99	353	*e*P	P	22 07 13.0	-0.9
	2.6nm,0.3s,mb4.0						
LSA	Lhasa	41.58	318	*e*P	P	22 07 28.6	+1.6
	2.7nm,0.6s,mb3.6						
SONM	Songino Array	49.36	346	P	P	22 08 27.5	0.0
	3.3nm,0.6s,mb3.8,baz=166,slow=8.5,SNR=36						
MK31	Makanchi Array	57.96	329	*e*P	P	22 09 29.8	+0.1
MKAR	Makanchi Array	57.96	329	P	P	22 09 30.0	+0.4
MKAR	Makanchi Array	57.96	329	P	P	22 09 30.0	+0.4
	1.6nm,0.3s,mb3.9,baz=129,slow=8.7,SNR=79						
AAK	Ala-Archa	59.99	321	*e*P	P	22 09 43.6	0.0
	1.0nm,0.6s,mb3.5						
KBL	Kabul	60.11	310	*e*P	P	22 09 44.3	-0.4
EKS2	Erkin-Say	60.46	321	*e*P	P	22 09 47.8	+1.0
	0.9nm,0.6s,mb3.5						
ZALV	Zalesovo Beam	61.75	336	P	P	22 09 54.6	-0.6
	1.5nm,0.7s,mb3.7,baz=120,slow=5.8,SNR=9.5						
KURK	Kurchatov	62.34	330	*e*P	P	22 09 59.0	-0.3
	4.3nm,0.8s,mb4.1						
CASY	Casey	66.85	185	*e*P	P	22 10 28.1	+0.1
BRVK	Borovoye	67.91	329	P	P	22 10 35.2	+0.4
ARU	Arti	75.48	329	*e*P	P	22 11 18.8	-1.0
	3.0nm,0.7s,mb4.0						
MCK	McKinley	89.36	26	P	P	22 12 30.5	-0.5
	0.7nm,0.6s,mb3.7						
BOSA	Boshof	96.10	241	P	P	22 13 04.0	+1.1
TORD	Torodi Ar. Bea	119.47	285	PKP	PKPdf	22 18 23.6	-0.2
TORD	Torodi Ar. Bea	119.47	285	PKP	PKPdf	22 18 23.6	-0.2
	0.7nm,0.8s,baz=86,slow=2.4,SNR=5.4						
BLA	Blacksburg	137.34	27	*e*PKPdf	PKPdf	22 18 58.6	+1.4

IDC 14 22:11:46.1±2.1,**20.60N**×**119.45E**,**h0**^{km},**mb3.5**/4,**mb1 3.7**/4,**mb1mx3.4**/18,**mbtmp3.5**/4,**Error ellipse: s-maj=237.1km s-min=22.0km az=63.0,Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	39.90	320	P	P	22 19 20.3	-1.4
	0.1nm,0.6s,baz=116,slow=8.0,SNR=2.3						
ZALV	Zalesovo Beam	42.46	330	P	P	22 19 43.5	+0.9
	0.3nm,0.5s,baz=111,slow=7.9,SNR=2.5						
WRA	Warramunga Arr	42.85	159	P	P	22 19 45.9	-0.2
	1.2nm,0.7s,baz=342,slow=9.0,SNR=12						
ASAR	Alice Springs	46.20	162	P	P	22 20 13.1	+0.2
	0.3nm,0.3s,baz=343,slow=7.2,SNR=4.7						

IDC ***14*** *22:12:56.3±0.6,43.53N×127.45W,h0^{km},mb4.8/24,mb1 4.9/28,mb1mx4.9/31,mbtmp4.8/28,ML4.5/4,MS4.6/28,Ms1 4.6/28,ms1mx4.3/46,Error ellipse: s-maj=16.7km s-min=9.6km az=49.0*
ISCJB ***14*** *22:12:56.7±0.6,43.60N±0.01×127.31W±0.02,h5^{km}±4^{km},mb5.0/123,MS4.7/68,Error ellipse: s-maj=2.8km s-min=2.0km az=158.6*
BJI ***14*** *22:12:56.5,43.50N×127.50W,h10^{km},mB5.6,mb5.1,Ms5.1,Msz4.9*
NEIC ***14*** *22:12:58.5±0.2,43.52N×127.45W,h10^{km},mb5.2/84,MS4.7/28,Error ellipse: s-maj=4.4km s-min=2.2km az=219.0*
MOS ***14*** *22:12:58.8±1.1,43.53N×127.38W,h21^{km},mb5.3/55,MS4.6/27,Error ellipse: s-maj=5.6km s-min=4.3km az=109.8*
GCMT ***14*** *22:12:58.5±0.2,43.39N×127.63W,h12^{km},MW5.2/95,Moment Tensor Solution. s58,c92; s95,c174; Duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.06±.01; $M_{\theta\theta}$-0.57±.01; $M_{\phi\phi}$0.62±.01; $M_{r\theta}$-0.19±.03; $M_{\theta\phi}$-0.63±.01; $M_{\phi r}$-0.12±.04; Best double couple: $M_0$0.89600×10^{17} NP1:ϕ_s113.00000°,δ78.00000°,λ-171.00000°. NP2: ϕ_s21.00000°,δ81.00000°,λ-12.00000°. Principal axes: T 0.8930, Plg2.0000°, Azm67.0000°; N 0.0030, Plg75.0000°, Azm165.0000°; P -0.8980, Plg15.0000°, Azm336.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
SZGRF ***14*** *22:13:04.7,43.73N×127.45W,h33^{km},mb4.7,MS4.6,Off coast of Oregon, United States*
ISC 14 22:13:01.4±0.6,**43.61N**±0.01×**127.34W**±0.03,**h25**^{km}±4^{km},**h15**^{km}±1.7^{km}**:pP-P,n738,** σ**1^{s}03**/725,**mb5.0**/123,**MS4.7**/68,**188C-157D,Off coast of Oregon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
K01A	Sixes	2.25	110	P	Pn	22 13 32.4	-4.6
	baz=2.4,SNR=185						
K01A				⇑S	Sn	22 13 59.4	-4.5
	baz=2.4						
KEBM	Edson Butte	2.32	108	*e*Pn	Pn	22 13 33.7	-4.2
I02A	Mapleton	2.57	80	⇓P	Pn	22 13 38.8	-2.5
	baz=2.9						
H02A	Toledo	2.63	65	⇑P	Pn	22 13 40.6	-1.6
	baz=3.0						
H02A				⇑S	Sn	22 14 13.0	-0.3
	baz=3.0						
KBO	Bosley Butte	2.68	120	*e*Pn	Pn	22 13 38.5	-4.4
KBO				*e*Sn	Sn	22 14 16.0	+1.4
J02A	Umpqua	2.75	94	⇑P	Pn	22 13 40.8	-3.1
	baz=3.0						
J02A				⇓S	Sn	22 14 14.7	-1.7
	baz=3.0						
K02A	Glendale	2.94	105	⇑P	Pn	22 13 43.0	-3.4
	baz=3.1,SNR=813						
K02A				⇓S	Sn	22 14 17.5	-3.5
	baz=3.1						
M01C	Crescent City	2.96	126	⇓P	Pn	22 13 42.0	-4.7
	baz=3.0,SNR=8.6						
M01C				⇑S	Sn	22 14 15.8	-5.6
	baz=3.0						
I03A	Eugene	2.96	82	P	Pn	22 13 44.7	-2.1
	baz=3.2,SNR=1000						
COR	Corvallis	3.07	70	⇑*i*Pn	Pn	22 13 46.6	-1.6
H03A	Soap Creek Ran	3.10	69	P	Pn	22 13 47.0	-1.6
	baz=3.4,SNR=1000						
H03A				⇑S	Sn	22 14 25.0	0.0
	baz=3.4						
L02A	Cave Junction	3.11	117	⇑P	Pn	22 13 45.0	-3.8
	baz=3.2						
L02A				⇑S	Sn	22 14 22.2	-2.9
	baz=3.2						
J03A	Ideyld Park	3.19	93	⇓P	Pn	22 13 47.3	-2.7
	baz=3.4						
J03A				⇓S	Sn	22 14 26.1	-1.1
	baz=3.4						
KRMB	Red Mountain	3.29	128	⇑*i*Pn	Pn	22 13 46.6	-4.6
HUMO	Hull Mountain	3.37	106	⇑*i*Pn	Pn	22 13 48.9	-3.4
HUMO	Hull Mountain	3.37	106	P	Pn	22 13 49.0	-3.3
	baz=3.5,SNR=821						
HUMO				⇓S	Sn	22 14 29.2	-2.2
	baz=3.5						
G03A	Yamhill	3.37	58	⇑P	Pn	22 13 51.4	-0.9
	baz=3.7,SNR=1000						
F03A	Seaside	3.55	48	⇑P	Pn	22 13 54.1	-0.8
	baz=3.9,SNR=334						
F03A				⇑S	Sn	22 14 36.3	+0.3
	baz=3.9						
I04A	Tendick Farm,	3.58	85	⇓P	Pn	22 13 53.6	-1.6
	baz=3.8						
I04A				⇓S	Sn	22 14 37.1	+0.4
	baz=3.8						
JCC	Jacoby Creek	3.72	138	⇑P	Pn	22 13 54.9	-2.4
	baz=3.7						
J04A	Umpqua Nationa	3.83	94	⇓P	Pn	22 13 57.6	-1.1
	baz=4.0						
G04A	Mulino	3.83	64	⇑P	Pn	22 13 58.3	-0.3
	baz=4.2,SNR=535						
KHMM	Horse Mountain	3.83	134	*e*Pn	Pn	22 13 54.7	-4.0
H04A	Detroit Lake	3.86	72	P	Pn	22 13 58.2	-0.9
	baz=4.2,SNR=1000						
YBH	Yreka Blue Hor	3.90	117	*e*Pn	Pn	22 13 57.0	-2.6
YBH	Yreka Blue Hor	3.90	117	⇑P	Pn	22 13 56.9	-2.8
	baz=4.0,SNR=158						
E03A	Lebam	3.97	41	⇑P	Pn	22 14 00.0	-0.6
	baz=4.3,SNR=595						
E03A				⇑S	Sn	22 14 47.2	+0.9
	baz=4.3						
M02C	Callahan	3.99	122	⇓P	Pn	22 13 57.6	-3.3
	baz=4.0,SNR=15						
F04A	Amboy	4.20	55	⇑P	Pn	22 14 03.7	-0.1
	baz=4.6,SNR=335						
K04A	Chilquin	4.23	102	⇓P	Pn	22 14 02.1	-2.0
	baz=4.4,SNR=172						
L04A	Klamath Falls	4.25	108	⇑P	Pn	22 14 02.0	-2.5
	baz=4.4,SNR=31						
L04A				⇓S	Sn	22 14 52.0	-1.4
	baz=4.4						
D03A	Wishkah Elem.	4.31	34	⇓P	Pn	22 14 05.2	-0.1
	baz=4.7,SNR=21						
D03A				⇑S	Sn	22 14 56.9	+2.1
	baz=4.7						

O01C	**Eel River Cons**	**4.36**	**142**	⇓P	**Pn**	**22 14 03.0**	**-2.9**
	baz=4.3						
HOOD	**Mount Hood Mea**	**4.42**	**65**	*e*Pn	**Pn**	**22 14 07.0**	**+0.2**
E04A	**Onalaska**	**4.42**	**46**	⇓P	**Pn**	**22 14 07.0**	**+0.1**
	baz=4.8						
I05A	**Bend**	**4.42**	**81**	⇑P	**Pn**	**22 14 05.7**	**-1.2**
	baz=4.7,SNR=12						
M04C	**Macdoel**	**4.45**	**112**	⇑P	**Pn**	**22 14 05.1**	**-2.1**
	baz=4.5						
J05A	**Fort Rock**	**4.46**	**92**	⇑P	**Pn**	**22 14 05.5**	**-1.9**
	baz=4.7						
NLWA	**Neilton Lookou**	**4.50**	**32**	*e*Pn	**Pn**	**22 14 07.6**	**-0.3**
M03C	**McCloud**	**4.51**	**119**	⇑P	**Pn**	**22 14 06.1**	**-2.0**
	baz=4.6						
H05A	**Madras**	**4.52**	**75**	P	**Pn**	**22 14 07.4**	**-0.8**
	baz=4.8,SNR=135						
G05A	**Wamic**	**4.61**	**67**	⇓P	**Pn**	**22 14 09.3**	**-0.1**
	baz=4.9,SNR=66						
WDC	**Whiskeytown Da**	**4.69**	**129**	*e*Pn	**Pn**	**22 14 07.3**	**-3.2**
WDC	**Whiskeytown Da**	**4.69**	**129**	⇑P	**Pn**	**22 14 09.6**	**-0.8**
	baz=4.7						
D04A	**Dobbs Creek Ra**	**4.74**	**41**	⇓P	**Pn**	**22 14 11.4**	**+0.3**
	baz=5.1,SNR=37						
C03A	**Quillayute Air**	**4.75**	**23**	⇓P	**Pn**	**22 14 11.4**	**+0.1**
	baz=5.1						
C03A				⇑S	**Sn**	**22 15 07.1**	**+1.6**
	baz=5.1						
F05A	**White Salmon**	**4.76**	**60**	⇓P	**Pn**	**22 14 11.9**	**+0.4**
	baz=5.1,SNR=85						
KIPM	**Iron Peak**	**4.78**	**141**	*e*Pn	**Pn**	**22 14 09.3**	**-2.4**
K05A	**Summer Lake**	**4.80**	**98**	P	**Pn**	**22 14 10.4**	**-1.6**
	baz=5.0,SNR=424						
KCPM	**Cahto Peak**	**4.83**	**143**	*e*Pn	**Pn**	**22 14 09.4**	**-3.1**
O02C	**Red Bluff**	**4.83**	**134**	⇓P	**Pn**	**22 14 10.5**	**-2.0**
	baz=4.8,SNR=6.4						
E05A	**Randle**	**4.93**	**51**	P	**Pn**	**22 14 14.6**	**+0.9**
	baz=5.3,SNR=468						
LON	**Longmire**	**5.01**	**49**	*e*Pn	**Pn**	**22 14 15.5**	**+0.6**
L05A	**Lakeview**	**5.04**	**106**	P	**Pn**	**22 14 13.2**	**-2.0**
	baz=5.2,SNR=56						
GNW	**Green Mountain**	**5.06**	**37**	*e*Pn	**Pn**	**22 14 15.3**	**-0.3**
G06A	**Carlson Farm,**	**5.07**	**69**	P	**Pn**	**22 14 15.0**	**-0.7**
	baz=5.4,SNR=176						
M05C	**Lookout**	**5.11**	**114**	⇓P	**Pn**	**22 14 14.2**	**-2.0**
	baz=5.2,SNR=10						
P01C	**Double 8 Ranch**	**5.12**	**143**	⇓P	**Pn**	**22 14 13.1**	**-3.3**
	baz=5.0						
C04A	**Brinnon**	**5.12**	**35**	⇓P	**Pn**	**22 14 16.2**	**-0.1**
	baz=5.5,SNR=55						
F06A	**Goldendale**	**5.15**	**63**	P	**Pn**	**22 14 16.9**	**+0.1**
	baz=5.5,SNR=209						
H06A	**Lindquist Farm**	**5.16**	**75**	⇑P	**Pn**	**22 14 16.5**	**-0.5**
	baz=5.4						
I06A	**Prineville**	**5.17**	**84**	⇓P	**Pn**	**22 14 16.0**	**-1.2**
	baz=5.4,SNR=63						
HATC	**Hat Creek Radi**	**5.18**	**121**	⇓P	**Pn**	**22 14 15.5**	**-1.8**
	baz=5.2						
B04A	**Port Angeles**	**5.19**	**30**	⇑P	**Pn**	**22 14 17.6**	**+0.2**
	baz=5.6						
D05A	**Enumclaw**	**5.19**	**45**	P	**Pn**	**22 14 18.5**	**+1.1**
	baz=5.6,SNR=353						
K06A	**Valley Falls**	**5.25**	**96**	⇓P	**Pn**	**22 14 16.1**	**-2.0**
	baz=5.4,SNR=73						
J06A	**Christmas Vall**	**5.25**	**91**	⇑P	**Pn**	**22 14 16.0**	**-2.2**
	baz=5.5						
GASB	**Alder Springs**	**5.26**	**137**	⇓P	**Pn**	**22 14 15.9**	**-2.5**
	baz=5.2						
O03C	**Acorn Hollow,**	**5.37**	**131**	⇓P	**Pn**	**22 14 19.2**	**-0.6**
	baz=5.3						
E06A	**Yakima**	**5.37**	**55**	⇓P	**Pn**	**22 14 20.8**	**+0.9**
	baz=5.7						
MOD	**Modoc**	**5.46**	**106**	*e*Pn	**Pn**	**22 14 19.2**	**-1.8**
MOD	**Modoc**	**5.46**	**106**	P	**Pn**	**22 14 19.1**	**-1.9**
	baz=5.6,SNR=24						
M06C	**Likely Place G**	**5.62**	**113**	⇓P	**Pn**	**22 14 22.0**	**-1.3**
	baz=5.7						
HOPS	**Hopland**	**5.62**	**144**	*e*Pn	**Pn**	**22 14 20.9**	**-2.5**
HOPS	**Hopland**	**5.62**	**144**	⇑P	**Pn**	**22 14 21.4**	**-2.0**
	baz=5.5						
H07A	**Lands Inn, Kim**	**5.69**	**77**	P	**Pn**	**22 14 23.9**	**-0.3**
	baz=6.0,SNR=561						
C05A	**Tolt Reservoir**	**5.69**	**42**	P	**Pn**	**22 14 24.8**	**+0.6**
	baz=6.1,SNR=176						
I07A	**Izee**	**5.69**	**83**	⇑P	**Pn**	**22 14 23.4**	**-0.8**
	baz=5.9,SNR=52						
O04C	**Chester**	**5.71**	**123**	⇑P	**Pn**	**22 14 24.3**	**-0.2**
	baz=5.7						
PGC	**Sidney**	**5.72**	**27**	*e*Pn	**Pn**	**22 14 24.8**	**+0.2**
G07A	**Ruggs Ranch, H**	**5.74**	**71**	P	**Pn**	**22 14 24.3**	**-0.5**
	baz=6.0,SNR=422						
F07A	**Phinny Hill Vi**	**5.75**	**64**	P	**Pn**	**22 14 25.1**	**0.0**
	baz=6.1,SNR=45						
ELFS	**Eagle Lake Fie**	**5.76**	**119**	⇓P	**Pn**	**22 14 25.8**	**+0.7**
	baz=5.8						
D06A	**Cle Elum**	**5.81**	**50**	⇑P	**Pn**	**22 14 26.9**	**+1.0**
	baz=6.2,SNR=83						
J07A	**Hines**	**5.85**	**90**	⇑P	**Pn**	**22 14 26.0**	**-0.4**
	baz=6.1						
B05A	**Bryant**	**5.92**	**36**	⇓P	**Pn**	**22 14 27.6**	**+0.3**
	baz=6.3,SNR=116						
ORV	**Oroville**	**5.97**	**131**	⇑P	**Pn**	**22 14 27.4**	**-0.7**
	baz=5.9						
K07A	**Rock Creek Ran**	**5.99**	**96**	⇓P	**Pn**	**22 14 26.7**	**-1.7**
	baz=6.2,SNR=280						
MNRC	**McLaughlin Nat**	**6.00**	**140**	⇑P	**Pn**	**22 14 27.2**	**-1.4**
	baz=5.9						
O05C	**Quincy**	**6.03**	**125**	⇑P	**Pn**	**22 14 28.6**	**-0.4**
	baz=6.0						
A04A	**Legoe Bay, Lum**	**6.04**	**31**	⇓P	**Pn**	**22 14 29.4**	**+0.4**
	baz=6.4						
SUTB	**Sutter Butte**	**6.05**	**134**	⇓P	**Pn**	**22 14 28.0**	**-1.2**
	baz=6.0						
E07A	**Sunnyside**	**6.06**	**58**	P	**Pn**	**22 14 29.8**	**+0.4**
	baz=6.4,SNR=44						
L07A	**Adell**	**6.10**	**102**	P	**Pn**	**22 14 28.0**	**-1.9**
	baz=6.2,SNR=92						
OHCM	**Honcut**	**6.13**	**132**	*e*Pn	**Pn**	**22 14 30.1**	**-0.2**
OHCM				*e*Sn	**Sn**	**22 15 42.8**	**+3.2**
HAWA	**Hanford**	**6.19**	**61**	*e*Pn	**Pn**	**22 14 31.2**	**+0.1**
NSHM	**Saint Helena R**	**6.22**	**143**	⇑*i*Pn	**Pn**	**22 14 30.0**	**-1.5**
G08A	**Pilot Rock**	**6.23**	**72**	P	**Pn**	**22 14 31.0**	**-0.7**
	baz=6.5,SNR=250						
C06A	**Tall Timber Ra**	**6.24**	**44**	⇑P	**Pn**	**22 14 32.2**	**+0.5**
	baz=6.6,SNR=158						
N06A	**Buffalo Meadow**	**6.27**	**115**	⇓P	**Pn**	**22 14 31.4**	**-0.8**
	baz=6.3						
H08A	**Prairie City**	**6.31**	**79**	⇑P	**Pn**	**22 14 31.9**	**-0.9**
	baz=6.6,SNR=106						
I08A	**Drewsey**	**6.36**	**84**	⇓P	**Pn**	**22 14 32.9**	**-0.5**
	baz=6.6						
B06A	**Marblemount**	**6.38**	**38**	P	**Pn**	**22 14 34.1**	**+0.5**
	baz=6.7,SNR=54						
Q03C	**Winters**	**6.40**	**139**	⇑P	**Pn**	**22 14 33.4**	**-0.6**
	baz=6.3						
MCCM	**Marconi Confer**	**6.42**	**147**	*e*Pn	**Pn**	**22 14 32.2**	**-2.1**
MCCM	**Marconi Confer**	**6.42**	**147**	⇑P	**Pn**	**22 14 32.2**	**-2.1**
	baz=6.3						
BEKR	**Beckwourth**	**6.43**	**123**	⇑P	**Pn**	**22 14 33.6**	**-0.7**
	baz=6.4						
CVS	**Carmenet Viney**	**6.43**	**143**	⇓P	**Pn**	**22 14 32.6**	**-1.8**
	baz=6.3						
M07A	**Soldier Meadow**	**6.44**	**107**	⇓P	**Pn**	**22 14 32.9**	**-1.6**
	baz=6.6,SNR=12						
J08A	**Circle Bar Ran**	**6.46**	**89**	⇑P	**Pn**	**22 14 33.4**	**-1.4**
	baz=6.7,SNR=16						
WVOR	**Wild Horse Val**	**6.49**	**97**	*e*Pn	**Pn**	**22 14 32.8**	**-2.4**
A05A	**Maple Falls**	**6.50**	**32**	⇑P	**Pn**	**22 14 36.4**	**+1.1**
	baz=6.9,SNR=44						
C07A	**Waterville**	**6.53**	**49**	⇓P	**Pn**	**22 14 36.2**	**+0.4**
	baz=6.9,SNR=189						
E08A	**Dider Farm, El**	**6.53**	**61**	⇓P	**Pn**	**22 14 35.8**	**0.0**
	baz=6.9,SNR=11						
K08A	**Mann Creek Ran**	**6.54**	**95**	⇑P	**Pn**	**22 14 33.9**	**-1.9**
	baz=6.7,SNR=14						
Q04C	**Lincoln**	**6.55**	**135**	⇑P	**Pn**	**22 14 35.0**	**-1.1**
	baz=6.5						
O06A	**Flanigan**	**6.58**	**119**	⇓P	**Pn**	**22 14 37.5**	**+1.0**
	baz=6.6						
P05C	**Yuba Gap, Truc**	**6.64**	**128**	⇑P	**Pn**	**22 14 38.0**	**+0.7**
	baz=6.6						
L08A	**Fields**	**6.76**	**99**	P	**Pn**	**22 14 36.6**	**-2.3**
	baz=6.9,SNR=24						
A06A	**Chilliwack**	**6.82**	**34**	⇓P	**Pn**	**22 14 40.5**	**+0.8**
	baz=7.2,SNR=27						
P06A	**Stead Airport,**	**6.82**	**123**	⇑P	**Pn**	**22 14 41.8**	**+2.0**
	baz=6.8						
N07B	**Gerlach**	**6.83**	**112**	⇑P	**Pn**	**22 14 41.2**	**+1.3**
	baz=6.9						
D08A	**Wollman Farm,**	**6.86**	**57**	⇑P	**Pn**	**22 14 40.6**	**+0.3**
	baz=7.2,SNR=27						
LAVA	**Lava Cap Winer**	**6.95**	**132**	⇓P	**Pn**	**22 14 41.8**	**+0.2**
	baz=6.9						
I09A	**Lost Marbles R**	**6.96**	**84**	⇑P	**Pn**	**22 14 40.3**	**-1.4**
	baz=7.2						
M08A	**Happy Creek Ra**	**6.96**	**105**	⇑P	**Pn**	**22 14 41.5**	**-0.2**
	baz=7.1,SNR=24						
J09A	**Fry Pan Ranch,**	**6.98**	**89**	⇓P	**Pn**	**22 14 40.4**	**-1.6**
	baz=7.2,SNR=7.0						
B07A	**Winthrop**	**6.98**	**44**	⇓P	**Pn**	**22 14 41.9**	**-0.1**
	baz=7.3,SNR=71						
BDM	**Black Diamond**	**7.01**	**142**	⇓P	**Pn**	**22 14 41.3**	**-1.1**
	baz=6.9						
H09A	**Durkee**	**7.04**	**78**	⇓P	**Pn**	**22 14 41.9**	**-0.9**
	baz=7.3,SNR=49						
F09A	**S2 Ranch, Elgi**	**7.04**	**69**	⇑P	**Pn**	**22 14 41.9**	**-0.9**
	baz=7.3,SNR=11						
K09A	**Rome**	**7.09**	**94**	⇓P	**Pn**	**22 14 41.5**	**-2.0**
	baz=7.3,SNR=24						
E09A	**Wood Farm, Sta**	**7.13**	**63**	⇓P	**Pn**	**22 14 42.9**	**-1.1**
	baz=7.5						
WCN	**Washoe City**	**7.14**	**125**	⇓P	**Pn**	**22 14 44.1**	**-0.1**
	baz=7.2						
C08A	**Higginbotham F**	**7.15**	**51**	⇓P	**Pn**	**22 14 44.4**	**+0.2**
	baz=7.5,SNR=40						
O07A	**Toulon**	**7.20**	**116**	⇓P	**Pn**	**22 14 45.4**	**+0.5**
	baz=7.3						
R04C	**Big Horse Ranc**	**7.22**	**136**	⇑P	**Pn**	**22 14 44.5**	**-0.8**
	baz=7.2,SNR=12						
D09A	**Jones Farm, Ri**	**7.24**	**58**	⇓P	**Pn**	**22 14 45.2**	**-0.3**
	baz=7.6,SNR=28						
A07A	**Ashnola River,**	**7.26**	**39**	⇑P	**Pn**	**22 14 45.6**	**-0.2**
	baz=7.6,SNR=25						
L09A	**Wilkinson Ranc**	**7.29**	**99**	⇑P	**Pn**	**22 14 43.7**	**-2.6**
	baz=7.5						
BMO	**Blue Mountains**	**7.32**	**77**	*e*Pn	**Pn**	**22 14 45.5**	**-1.1**
JRSC	**Jasper Ridge**	**7.32**	**146**	⇑P	**Pn**	**22 14 43.5**	**-3.1**
	baz=7.2						
B08A	**Colville Reser**	**7.32**	**47**	⇑P	**Pn**	**22 14 45.8**	**-0.8**
	baz=7.7,SNR=12						
WENL	**Wente Brothers**	**7.34**	**143**	⇓P	**Pn**	**22 14 45.8**	**-1.1**
	baz=7.2						
R05C	**Kirkwood Meado**	**7.36**	**129**	⇑P	**Pn**	**22 14 47.8**	**+0.7**
	baz=7.3,SNR=6.2						
N08A	**GE Springer Mi**	**7.40**	**109**	⇑P	**Pn**	**22 14 46.5**	**-1.2**
	baz=7.5,SNR=6.3						
P07A	**Fallon**	**7.53**	**120**	⇓P	**Pn**	**22 14 50.3**	**+0.8**
	baz=7.6						
BNLO	**Ben Lomond (Sa**	**7.58**	**147**	⇑P	**Pn**	**22 14 48.1**	**-2.2**
	baz=7.5						
C09A	**Chrisman Ranch**	**7.60**	**53**	⇑P	**Pn**	**22 14 50.7**	**+0.3**
	baz=7.9,SNR=52						
S04C	**Ingram Canyon,**	**7.63**	**141**	⇑P	**Pn**	**22 14 49.9**	**-0.9**
	baz=7.5						
I10A	**Payette**	**7.63**	**83**	⇑P	**Pn**	**22 14 49.8**	**-1.1**
	baz=7.9,SNR=16						
CMB	**Columbia Colle**	**7.67**	**134**	*e*Pn	**Pn**	**22 14 52.4**	**+0.9**
	817nm,1.4s						
CMB	**Columbia Colle**	**7.67**	**134**	*e*P	**Pn**	**22 14 52.4**	**+0.9**
CMB				pmax	pmax		
	comp=Z,817nm,1.4s						
CMB	**Columbia Colle**	**7.67**	**134**	P	**Pn**	**22 14 52.7**	**+1.3**
	baz=7.6,SNR=15						
J10A	**Berg Farm, Mel**	**7.69**	**88**	⇓P	**Pn**	**22 14 52.1**	**+0.4**
	baz=7.9						
K10A	**MacKenzie Ranc**	**7.70**	**93**	⇓P	**Pn**	**22 14 51.1**	**-0.7**
	baz=7.9,SNR=50						
A08A	**Turner Farm, O**	**7.73**	**43**	⇑P	**Pn**	**22 14 51.3**	**-0.8**
	baz=8.1,SNR=29						
N09A	**Rock Creek Ran**	**7.79**	**107**	⇑P	**Pn**	**22 14 53.6**	**+0.5**
	baz=7.9						
E10A	**Myers Farm, Un**	**7.79**	**65**	⇓P	**Pn**	**22 14 51.9**	**-1.2**
	baz=8.1						
R06C	**Coleville**	**7.83**	**128**	⇑P	**Pn**	**22 14 55.0**	**+1.3**
	baz=7.8						
WAKR	**Walker**	**7.85**	**128**	*e*Pn	**Pn**	**22 14 54.4**	**+0.5**
D10A	**Wagner Farm, O**	**7.88**	**61**	⇓P	**Pn**	**22 14 53.2**	**-1.1**
	baz=8.2						
P08A	**Dixie Valley**	**7.96**	**116**	⇓P	**Pn**	**22 14 56.1**	**+0.6**
	baz=8.0						
B09A	**Rice**	**8.00**	**50**	P	**Pn**	**22 14 56.2**	**+0.3**
	baz=8.4,SNR=85						
PACP	**Pacheco Peak**	**8.06**	**143**	⇓P	**Pn**	**22 14 55.4**	**-1.3**
	baz=8.0						
S06C	**San Francisco**	**8.07**	**133**	⇓P	**Pn**	**22 14 57.7**	**+0.8**
	baz=8.0,SNR=24						
A09A	**Danville**	**8.09**	**45**	⇑P	**Pn**	**22 14 57.3**	**+0.1**
	baz=8.4						
L10A	**Juniper Basin**	**8.13**	**97**	⇓P	**Pn**	**22 14 57.0**	**-0.7**
	baz=8.3,SNR=60						
BMN	**Battle Mountai**	**8.18**	**109**	*e*Pn	**Pn**	**22 14 58.7**	**+0.3**
C10A	**Spilker Farm,**	**8.18**	**56**	⇑P	**Pn**	**22 14 58.1**	**-0.3**
	baz=8.5						
SAO	**San Andreas Ge**	**8.19**	**145**	*e*Pn	**Pn**	**22 14 57.1**	**-1.5**
	comp=Z,100nm,1.0s						
SAO	**San Andreas Ge**	**8.19**	**145**	*e*P	**Pn**	**22 14 57.2**	**-1.4**
SAO				pmax	pmax		
	comp=Z,100nm,1.0s						
H11A	**Donnelly**	**8.22**	**78**	⇑P	**Pn**	**22 14 58.5**	**-0.5**
	baz=8.5,SNR=50						
S05C	**Merced**	**8.23**	**137**	⇓P	**Pn**	**22 14 59.4**	**+0.3**
	baz=8.2						
M10A	**I.L. Ranch, Tu**	**8.24**	**101**	⇑P	**Pn**	**22 14 59.5**	**+0.2**
	baz=8.4						
I11A	**Placerville**	**8.25**	**84**	⇑P	**Pn**	**22 14 58.2**	**-1.1**
	baz=8.5,SNR=7.8						
F11A	**Grangeville**	**8.28**	**70**	⇓P	**Pn**	**22 14 59.5**	**-0.3**
	baz=8.6,SNR=20						
K11A	**Parker Ranch,**	**8.31**	**92**	⇓P	**Pn**	**22 14 59.9**	**-0.3**
	baz=8.5,SNR=24						
O09A	**Fish Creek Ran**	**8.32**	**111**	⇓P	**Pn**	**22 15 01.6**	**+1.3**
	baz=8.4						
E11A	**Bogner Ranch,**	**8.35**	**67**	⇑P	**Pn**	**22 14 59.8**	**-1.0**
	baz=8.7,SNR=12						
R07C	**Lee Vining**	**8.36**	**128**	⇑P	**Pn**	**22 15 01.4**	**+0.5**
	baz=8.3						
MFID	**Camas Ranch**	**8.37**	**87**	⇑P	**Pn**	**22 14 59.6**	**-1.4**
	baz=8.6,SNR=6.9						
T05C	**Eagle Field, D**	**8.43**	**141**	⇑P	**Pn**	**22 15 01.9**	**+0.1**
	baz=8.3						
B10A	**Chitwood Farm,**	**8.46**	**53**	⇓P	**Pn**	**22 15 02.7**	**+0.5**
	baz=8.8						
HAST	**UC Hastings Re**	**8.47**	**146**	⇓P	**Pn**	**22 14 59.5**	**-3.0**
	baz=8.3						
D11A	**Klaveano Farm,**	**8.48**	**62**	⇓P	**Pn**	**22 15 02.5**	**0.0**
	baz=8.8						
NEW	**Newport**	**8.50**	**53**	*e*Pn	**Pn**	**22 15 02.7**	**-0.1**
NEW	**Newport**	**8.50**	**53**	Pn	**Pn**	**22 15 02.7**	**-0.1**
	comp=Z,15nm,0.3s,baz=225,slow=11,SNR=87						
NEW				LR	LR	22 18 23.3	
	comp=Z,8µm,20.5s,baz=241,slow=38						
Q08A	**Gabbs**	**8.53**	**121**	⇑P	**Pn**	**22 15 04.4**	**+1.2**
	baz=8.6						
NVAR	**Mina Array Bea**	**8.57**	**124**	Pn	**Pn**	**22 15 04.0**	**+0.2**
NVAR	**Mina Array Bea**	**8.57**	**124**	Pn	**Pn**	**22 15 04.0**	**+0.2**
	comp=Z,2.4nm,0.3s,baz=301,slow=12,SNR=15						
BBB	**Bella Bella**	**8.59**	**357**	Pn	**Pn**	**22 15 05.7**	**+1.7**
BBB				LR	LR	22 17 50.5	
BBB	**Bella Bella**	**8.59**	**357**	Pn	**Pn**	**22 15 05.7**	**+1.7**
	comp=Z,6.2nm,0.3s,baz=186,slow=11,SNR=25						
BBB				LR	LR	22 17 50.5	
	comp=Z,4µm,18.6s,baz=281,slow=34						
L11A	**Cat Creek Ranc**	**8.63**	**96**	⇑P	**Pn**	**22 15 04.8**	**+0.3**
	baz=8.8						
A10A	**Northport**	**8.64**	**48**	⇑P	**Pn**	**22 15 04.0**	**-0.6**
	baz=9.0,SNR=14						
P09A	**Austin**	**8.65**	**114**	⇓P	**Pn**	**22 15 04.8**	**-0.2**
	baz=8.7						
KCC	**Kaiser Creek**	**8.76**	**133**	⇓P	**Pn**	**22 15 07.7**	**+1.3**
	baz=8.7,SNR=5.3						
MLAC	**Mammoth Lakes**	**8.80**	**130**	⇑P	**Pn**	**22 15 08.6**	**+1.7**
	baz=8.8						
T06C	**Millerton Lake**	**8.80**	**136**	⇓P	**Pn**	**22 15 07.8**	**+0.8**
	baz=8.7						
M11A	**Holland Ranch,**	**8.80**	**100**	⇓P	**Pn**	**22 15 07.4**	**+0.4**
	baz=9.0						
U04C	**Hernandez Rese**	**8.82**	**143**	⇓P	**Pn**	**22 15 06.7**	**-0.5**
	baz=8.7						
V03C	**Hunter Liggett**	**8.92**	**146**	⇓P	**Pn**	**22 15 07.6**	**-0.9**
	baz=8.8						
J12A	**Stokes Ranch,**	**8.92**	**88**	⇑P	**Pn**	**22 15 09.7**	**+1.1**
	baz=9.1						
Q09A	**Carvers**	**9.02**	**119**	⇓P	**Pn**	**22 15 10.9**	**+1.0**
	baz=9.1						
B11A	**Sandpoint**	**9.03**	**54**	⇑P	**Pn**	**22 15 09.8**	**-0.2**
	baz=9.4,SNR=22						
H12A	**Diamond D Ranc**	**9.04**	**80**	⇑P	**Pn**	**22 15 09.8**	**-0.3**
	baz=9.3,SNR=27						
N11A	**Elko Archery C**	**9.05**	**104**	⇑P	**Pn**	**22 15 11.2**	**+0.8**
	baz=9.2						
P10A	**Eureka**	**9.07**	**112**	⇑P	**Pn**	**22 15 11.5**	**+0.9**
	baz=9.1						
U05C	**Westside ANR,**	**9.14**	**140**	⇓P	**Pn**	**22 15 11.3**	**-0.3**
	baz=9.1						
K12A	**Draper Farm, C**	**9.15**	**92**	⇑P	**Pn**	**22 15 12.4**	**+0.7**
	baz=9.3						
MTUM	**Tungsten Hills**	**9.15**	**130**	*e*Pn	**Pn**	**22 15 13.0**	**+1.2**
L12A	**House Creek Ra**	**9.17**	**95**	⇓P	**Pn**	**22 15 13.0**	**+1.1**
	baz=9.3						
S08C	**White Mtn Res**	**9.27**	**128**	⇑P	**Pn**	**22 15 14.7**	**+1.3**
	baz=9.3						
PKD	**Parkfield**	**9.27**	**143**	⇓P	**Pn**	**22 15 12.4**	**-1.0**
	baz=9.2						
A11A	**Hall Mountain,**	**9.29**	**51**	⇑P	**Pn**	**22 15 14.0**	**+0.5**
	baz=9.6						
HLID	**Hailey**	**9.38**	**86**	*e*Pn	**Pn**	**22 15 13.8**	**-1.2**
HLID	**Hailey**	**9.38**	**86**	⇓P	**Pn**	**22 15 14.6**	**-0.4**
	baz=9.6						
O11A	**Cowboy Ranch,**	**9.38**	**108**	⇑P	**Pn**	**22 15 15.4**	**+0.5**
	baz=9.5						
V04C	**Ramage Ranch,**	**9.40**	**146**	⇓P	**Pn**	**22 15 13.9**	**-1.3**
	baz=9.3						
HELL	**Mitchell Peak,**	**9.40**	**135**	⇓P	**Pn**	**22 15 16.2**	**+1.0**
	baz=9.4						
ELK	**Elko**	**9.43**	**104**	*e*Pn	**Pn**	**22 15 16.2**	**+0.6**
M12A	**Wells**	**9.44**	**99**	⇑P	**Pn**	**22 15 16.0**	**+0.4**
	baz=9.6						
R09A	**Tonopah**	**9.44**	**121**	⇓P	**Pn**	**22 15 16.1**	**+0.3**
	baz=9.5						
TPH	**Tonopah**	**9.45**	**122**	*e*Pn	**Pn**	**22 15 17.6**	**+1.7**
H13A	**Challis**	**9.47**	**80**	⇓P	**Pn**	**22 15 15.9**	**-0.1**
	baz=9.7						
B12A	**Libby**	**9.50**	**55**	⇑P	**Pn**	**22 15 16.6**	**+0.1**
	baz=9.8,SNR=12						
G13A	**Cobalt**	**9.51**	**77**	⇓P	**Pn**	**22 15 16.3**	**-0.3**
	baz=9.8						
F13A	**Darby**	**9.52**	**72**	⇓P	**Pn**	**22 15 16.3**	**-0.5**
	baz=9.8,SNR=38						
Q10A	**Clear Creek Ra**	**9.53**	**116**	⇓P	**Pn**	**22 15 17.5**	**+0.6**
	baz=9.6						
N12A	**Clover Valley,**	**9.53**	**103**	⇑P	**Pn**	**22 15 17.4**	**+0.5**
	baz=9.7						
TIN	**Tinemaha**	**9.55**	**130**	⇑P	**Pn**	**22 15 18.3**	**+1.1**
	baz=9.5						
J13A	**Cove Ranch, Pi**	**9.57**	**87**	⇓P	**Pn**	**22 15 17.6**	**+0.1**
	baz=9.8						
I13A	**Wildhorse Cree**	**9.58**	**84**	⇓P	**Pn**	**22 15 17.3**	**-0.3**
	baz=9.8,SNR=13						
P11A	**Circle Ranch,**	**9.58**	**111**	⇓P	**Pn**	**22 15 18.1**	**+0.5**
	baz=9.7						
V05C	**Boulder Hill,**	**9.62**	**141**	⇑P	**Pn**	**22 15 18.0**	**-0.3**
	baz=9.5						
S09A	**Goldfield**	**9.68**	**124**	⇑P	**Pn**	**22 15 18.7**	**-0.2**
	baz=9.7						
A12A	**Yaak River Ran**	**9.68**	**53**	⇑P	**Pn**	**22 15 19.7**	**+0.8**
	baz=10.0						
D13A	**Huson**	**9.71**	**65**	⇓P	**Pn**	**22 15 18.6**	**-0.8**
	baz=10.0						
E13A	**Victor**	**9.73**	**69**	⇑P	**Pn**	**22 15 19.3**	**-0.4**
	baz=10.0,SNR=25						
K13A	**Stover Farm, H**	**9.74**	**91**	⇑P	**Pn**	**22 15 20.9**	**+1.1**
	baz=9.9						
BSMT	**Bassoo Peak**	**9.75**	**60**	*e*Pn	**Pn**	**22 15 19.9**	**+0.1**
C13A	**Hot Springs**	**9.82**	**61**	⇑P	**Pn**	**22 15 21.2**	**+0.3**
	baz=10						
R10A	**Warm Springs**	**9.90**	**119**	⇑P	**Pn**	**22 15 22.1**	**+0.2**
	baz=9.9						
S10A	**Tonopah Range,**	**9.93**	**121**	⇓P	**Pn**	**22 15 23.4**	**+1.0**
	baz=10.0						
L13A	**Double Diamond**	**9.96**	**94**	⇓P	**Pn**	**22 15 23.1**	**+0.4**
	baz=10						
MSO	**Missoula**	**9.99**	**67**	*e*Pn	**Pn**	**22 15 22.5**	**-0.6**
M13A	**Montello**	**9.99**	**99**	⇓P	**Pn**	**22 15 23.2**	**0.0**
	baz=10						
Q11A	**Duckwater**	**10.01**	**114**	⇑P	**Pn**	**22 15 23.5**	**0.0**
	baz=10						
VES	**Vestal, Richgr**	**10.03**	**138**	⇓P	**Pn**	**22 15 24.4**	**+0.5**
	baz=10.0						
SMMC	**Simmler**	**10.04**	**143**	⇑P	**Pn**	**22 15 24.7**	**+0.7**
	baz=9.9						
G14A	**Jackson**	**10.06**	**76**	⇑P	**Pn**	**22 15 24.2**	**0.0**
	baz=10						
GRAC	**Grapevine Rang**	**10.08**	**128**	⇓P	**Pn**	**22 15 26.0**	**+1.6**
	baz=10						
CWC	**Cottonwood Cre**	**10.08**	**132**	⇓P	**Pn**	**22 15 26.8**	**+2.2**
	baz=10.0						
N13A	**Wendover, West**	**10.13**	**101**	⇑P	**Pn**	**22 15 25.7**	**+0.6**
	baz=10						
B13A	**Whitefish**	**10.14**	**58**	⇑P	**Pn**	**22 15 25.5**	**+0.3**
	baz=10						
DIB	**Dawson Inlet,**	**10.18**	**342**	Pn	**Pn**	**22 15 29.3**	**+3.5**
	SNR=5.7						
F14A	**Wisdom**	**10.19**	**73**	⇑P	**Pn**	**22 15 25.5**	**-0.4**
	baz=10						
P12A	**McGill**	**10.20**	**110**	⇓P	**Pn**	**22 15 26.9**	**+0.8**
	baz=10						
E14A	**Clinton**	**10.20**	**69**	⇑P	**Pn**	**22 15 25.7**	**-0.3**
	baz=10						
VIB	**Van Inlet**	**10.24**	**342**	Pn	**Pn**	**22 15 30.5**	**+3.9**
	SNR=2.8						
D14A	**Greenough**	**10.34**	**66**	⇓P	**Pn**	**22 15 27.3**	**-0.6**
	baz=11						
K14A	**Jones Ranch, D**	**10.42**	**91**	⇑P	**Pn**	**22 15 29.9**	**+0.8**
	baz=11						
Q12A	**Willow Creek R**	**10.46**	**112**	⇑P	**Pn**	**22 15 30.2**	**+0.6**
	baz=10						
CHMT	**Chamberlain Mo**	**10.47**	**67**	*e*Pn	**Pn**	**22 15 29.0**	**-0.7**
DAC	**Darwin (Calif)**	**10.47**	**131**	*e*Pn	**Pn**	**22 15 31.2**	**+1.5**
ISA	**Isabella**	**10.47**	**136**	⇓P	**Pn**	**22 15 30.9**	**+1.0**
	baz=10						
PKM	**Peak Mountain**	**10.47**	**144**	⇓P	**Pn**	**22 15 30.7**	**+0.8**
	baz=10						
MCMT	**McKenzie Canyo**	**10.48**	**78**	*e*Pn	**Pn**	**22 15 30.2**	**+0.4**
M14A	**Sheep Mountain**	**10.54**	**97**	⇓P	**Pn**	**22 15 31.1**	**+0.4**
	baz=11						
S11A	**Rachel**	**10.63**	**120**	⇓P	**Pn**	**22 15 33.2**	**+1.2**
	baz=11						
DLMT	**Dillon**	**10.68**	**75**	*e*Pn	**Pn**	**22 15 32.4**	**-0.2**
MPMC	**Manual Prospec**	**10.68**	**132**	⇑P	**Pn**	**22 15 33.6**	**+0.9**
	baz=11						
ARVC	**Arvin**	**10.73**	**139**	⇑P	**Pn**	**22 15 33.1**	**-0.2**
	baz=11						
FURC	**Furnace Creek,**	**10.74**	**128**	⇓P	**Pn**	**22 15 34.2**	**+0.7**
	baz=11						
G15A	**Dillon**	**10.75**	**77**	⇑P	**Pn**	**22 15 32.9**	**-0.6**
	baz=11						
WALA	**Waterton Lakes**	**10.76**	**55**	*e*Pn	**Pn**	**22 15 34.1**	**+0.4**
E15A	**Deer Lodge**	**10.78**	**70**	⇑P	**Pn**	**22 15 33.1**	**-0.9**
	baz=11						
F15A	**Butte**	**10.80**	**73**	⇓P	**Pn**	**22 15 33.8**	**-0.5**
	baz=11						
LRM	**Limekiln Ridge**	**10.83**	**73**	*e*Pn	**Pn**	**22 15 34.3**	**-0.4**
HVU	**Hansel Valley**	**10.88**	**95**	*e*Pn	**Pn**	**22 15 36.3**	**+0.9**
BGU	**Big Grassy Mou**	**10.94**	**99**	*e*Pn	**Pn**	**22 15 36.3**	**0.0**
R12A	**Pony Springs,**	**10.98**	**114**	⇑P	**Pn**	**22 15 36.9**	**+0.2**
	baz=11						
D15A	**Lincoln**	**10.98**	**67**	⇑P	**Pn**	**22 15 36.4**	**-0.4**
	baz=11						
LRMC	**Laurel Mountai**	**11.02**	**134**	⇓P	**Pn**	**22 15 37.2**	**-0.2**
	baz=11						
U10A	**Ash Meadows, A**	**11.08**	**127**	⇑P	**Pn**	**22 15 39.5**	**+1.3**
	baz=11						
OSI	**Osito Adit**	**11.20**	**140**	⇑P	**Pn**	**22 15 39.6**	**-0.2**
	baz=11						
M15A	**Larsen Ranch,**	**11.20**	**96**	⇓P	**Pn**	**22 15 39.3**	**-0.4**
	baz=11						
SPUT	**South Promonto**	**11.24**	**97**	*e*Pn	**Pn**	**22 15 40.2**	**-0.1**
EDW2	**Edwards Air Fo**	**11.33**	**137**	⇑P	**Pn**	**22 15 41.0**	**-0.6**
	baz=11						
DUG	**Dugway**	**11.35**	**103**	*e*Pn	**Pn**	**22 15 41.8**	**0.0**
DUG	**Dugway**	**11.35**	**103**	⇑P	**Pn**	**22 15 41.8**	**-0.1**
	baz=12						
BOZ	**Bozeman (W)**	**11.38**	**74**	*e*Pn	**Pn**	**22 15 42.2**	**0.0**
BOZ	**Bozeman (W)**	**11.38**	**74**	⇑P	**Pn**	**22 15 41.9**	**-0.3**
	baz=12						
BLG	**Laguna Peak**	**11.47**	**143**	⇓P	**Pn**	**22 15 45.2**	**+1.8**
	baz=11						
SHOC	**Shoshone**	**11.47**	**128**	⇓P	**Pn**	**22 15 45.3**	**+1.7**
	baz=12						
QLMT	**Earthquake Lak**	**11.49**	**78**	*e*Pn	**Pn**	**22 15 44.4**	**+0.7**
GSC	**Goldstone**	**11.62**	**132**	⇑P	**Pn**	**22 15 46.8**	**+1.3**
	baz=12						
U11A	**Corn Creek**	**11.64**	**124**	⇑P	**Pn**	**22 15 47.9**	**+2.1**
	baz=12						

DECC	Green Verdugo	11.68	140	⇑P	Pn	22 15 46.3	-0.1
	baz=12						
NOQ	North Oquirrh	11.68	99	*e*Pn	Pn	22 15 47.3	+0.9
DCID1	Drake Creek	11.72	85	*e*Pn	Pn	22 15 48.0	+1.2
SHPR	Sheep Range	11.72	123	*e*Pn	Pn	22 15 48.7	+1.8
HWUT	Hardware Ranch	11.80	94	*e*Pn	Pn	22 15 48.4	+0.4
YMR	Madison River	11.82	79	*e*Pn	Pn	22 15 49.4	+1.2
	comp=Z,690nm,1.5s						
RRX	Edison Barstow	11.84	134	⇓P	Pn	22 15 50.8	+2.3
	baz=12						
T12A	Moapa	11.85	121	⇑P	Pn	22 15 50.4	+1.7
	baz=12						
AHID	Auburn Hatcher	11.89	88	*e*Pn	Pn	22 15 50.6	+1.4
YFT	Old Faithful	11.91	80	*e*Pn	Pn	22 15 51.4	+1.9
CTU	Camp Tracy	11.94	99	*e*Pn	Pn	22 15 49.6	-0.3
NLU	North Lily Min	11.97	103	*e*Pn	Pn	22 15 50.3	0.0
REDW	Red Top Meadow	11.98	86	*e*Pn	Pn	22 15 52.1	+1.6
V11A	Goodsprings	12.01	126	⇓P	Pn	22 15 52.5	+1.7
	baz=12						
TUQ	Turquoise Mtn.	12.01	129	⇑P	Pn	22 15 52.7	+1.9
	baz=12						
BFSC	Mount Baldy St	12.01	138	⇓P	Pn	22 15 51.1	+0.2
	baz=12						
YNR	Norris Junctio	12.02	79	*e*Pn	Pn	22 15 52.1	+1.1
MOOW	Moose Ponds	12.02	84	*e*Pn	Pn	22 15 51.7	+0.7
ARUT	Antelope Range	12.04	114	*e*Pn	Pn	22 15 51.9	+0.6
LOHW	Long Hollow	12.14	84	*e*Pn	Pn	22 15 54.4	+1.8
U12A	Valley of Fire	12.15	122	⇑P	Pn	22 15 54.3	+1.5
	baz=12						
T13A	Saint George	12.18	118	⇓P	Pn	22 15 54.2	+1.0
	baz=12						
JLU	Jordanelle	12.18	99	*e*Pn	Pn	22 15 53.0	-0.2
LKWY	Lake	12.22	80	*e*Pn	Pn	22 15 56.1	+2.3
	comp=Z,248nm,1.4s						
LKWY	Lake	12.22	80	*e*P	Pn	22 15 56.1	+2.4
LKWY				pmax	pmax		
	comp=Z,249nm,1.4s						
CCUT	Cedar City	12.23	115	*e*Pn	Pn	22 15 55.0	+1.2
HEC	Hector,Ludlow	12.23	132	⇑P	Pn	22 15 54.7	+0.8
	baz=12						
S14A	Cedar City	12.24	114	⇑P	Pn	22 15 55.0	+1.0
	baz=12						
MPU	Maple Canyon	12.26	102	*e*Pn	Pn	22 15 54.0	-0.3
CIS	Catalina Islan	12.36	143	⇑P	Pn	22 15 56.2	+0.6
	baz=12						
BBRC	Big Bear Sol-O	12.36	136	⇓P	Pn	22 15 56.1	+0.4
	baz=12						
DAU	Daniels Canyon	12.38	99	*e*Pn	Pn	22 15 56.1	+0.2
V12A	Nelson	12.43	125	⇓P	Pn	22 15 58.1	+1.5
	baz=12						
CRAG	Craig	12.44	345	*e*P	Pn	22 15 59.7	+3.1
	comp=Z,527nm,1.4s						
MSU	Marysvale	12.52	109	*e*Pn	Pn	22 15 58.2	+0.3
GMRC	Granite Mounta	12.63	130	⇓P	Pn	22 16 00.3	+0.9
	baz=13						
SCI	San Clemente I	12.66	144	⇓P	Pn	22 16 01.9	+2.2
	baz=13						
T14A	Hurricane	12.69	116	⇑P	Pn	22 16 01.1	+1.0
	baz=13						
W12A	Cal Nev Ari	12.71	127	⇓P	Pn	22 16 02.3	+1.9
	baz=13						
MURC	Murrieta	12.75	138	⇑P	Pn	22 16 00.7	-0.4
	baz=13						
GCMT	Greycliff	12.76	74	*e*Pn	Pn	22 16 01.9	+0.8
GCMT				*e*		22 16 15.2	
TMUT	Trail Mountain	12.85	104	*e*Pn	Pn	22 16 02.8	+0.6
BW06	Boulder Array	13.01	88	*e*Pn	Pn	22 16 05.2	+0.8
PDAR	Pinedale Array	13.01	88	Pn	Pn	22 16 05.0	+0.6
PDAR				LR	LR	22 21 26.7	
PDAR	Pinedale Array	13.01	88	Pn	Pn	22 16 05.0	+0.6
	comp=Z,0.5nm,0.3s,baz=274,slow=9.6,SNR=140						
PDAR				LR	LR	22 21 26.7	
	comp=Z,4µm,19.5s,baz=283,slow=39						
RLMT	Red Lodge	13.02	77	*e*Pn	Pn	22 16 05.3	+0.6
	comp=Z,127nm,1.0s						
EGMT	Eagleton	13.03	64	*e*Pn	Pn	22 16 03.8	-0.9
EGMT	Eagleton	13.03	64	⇓P	Pn	22 16 04.4	-0.4
	baz=13						
BELC	Belle Mtn.	13.04	134	⇓P	Pn	22 16 06.0	+1.0
	baz=13						
PFO	Pinyon Flat Ob	13.11	136	*e*Pn	Pn	22 16 06.9	+0.9
PFO	Pinyon Flat Ob	13.11	136	Pn	Pn	22 16 07.0	+1.1
	comp=Z,0.4nm,0.3s,baz=330,slow=6.7,SNR=9.5						
PFO				LR	LR	22 21 04.1	
	comp=Z,4µm,18.4s,baz=141,slow=37						
PFO	Pinyon Flat Ob	13.11	136	⇑P	Pn	22 16 06.5	+0.6
	baz=13						
WRAK	Wrangell Islan	13.21	348	*e*Pn	Pn	22 16 05.6	-1.5
	comp=Z,219nm,1.3s						
NEE2	Needles Airpor	13.23	128	⇓P	Pn	22 16 08.5	+0.9
	baz=13						
EDM	Edmonton	13.35	39	*e*Pn	Pn	22 16 08.8	-0.2
IRM	Iron Mountain	13.38	131	⇓P	Pn	22 16 10.7	+1.1
	baz=13						
109C	Camp Elliot, M	13.38	140	⇑P	Pn	22 16 11.4	+1.8
	baz=13						
SRU	San Rafael	13.41	104	*e*Pn	Pn	22 16 10.8	+0.9
W13A	Hualapai Mount	13.43	125	⇑P	Pn	22 16 11.4	+1.2
	baz=13						
BC3	Big Chuckw Mtn	13.60	133	⇓P	Pn	22 16 13.4	+0.9
	baz=14						
MONP	Monument Peak	13.71	138	⇓P	Pn	22 16 14.5	+0.5
	baz=14						
X13A	Yucca	13.81	126	⇑P	Pn	22 16 16.5	+1.0
	baz=14						
W14A	Seligman	13.84	123	⇑P	Pn	22 16 16.8	+0.9
	baz=14						
PDMCI	Parker Dam,Lak	13.84	128	⇑P	Pn	22 16 16.3	+0.4
	baz=14						
SWSC	Sam W. Stewart	13.98	136	⇑P	Pn	22 16 18.4	+0.6
	baz=14						
Y12C	Blythe	14.03	130	⇑P	Pn	22 16 19.3	+0.9
	baz=14						
DVTC	Desert V Tower	14.05	137	⇓P	Pn	22 16 19.8	+1.0
	baz=14						
W15A	Williams	14.37	121	⇓P	Pn	22 16 24.1	+1.1
	baz=14						
Y13A	Salome	14.37	128	⇓P	Pn	22 16 24.0	+0.8
	baz=14						
SIT	Sitka	14.38	342	*e*Pn	Pn	22 16 23.2	+0.2
GLA	Glamis	14.39	133	⇓P	Pn	22 16 23.2	-0.2
	baz=14						
X14A	Yava	14.46	124	⇓P	Pn	22 16 24.6	+0.4
	baz=14						
WUAZ	Wupatki	14.72	118	*e*Pn	Pn	22 16 28.5	+0.6
WUAZ	Wupatki	14.72	118	⇓P	Pn	22 16 27.7	-0.1
	baz=15						
Y14A	Wickenburg	14.76	126	⇑P	Pn	22 16 28.7	+0.3
	baz=15						
PV10	Paradox Valley	14.77	105	*e*Pn	Pn	22 16 28.5	-0.1
X15A	Humboldt	14.84	123	⇓P	Pn	22 16 29.9	+0.4
	baz=15						
DLBC	Dease Lake	14.94	355	P	Pn	22 16 30.8	+0.1
DLBC	Dease Lake	14.94	355	Pn	Pn	22 16 31.9	+1.2
	baz=185,slow=12						
RWWY	Rawlins	14.94	90	*e*Pn	Pn	22 16 28.8	-2.0
	comp=Z,211nm,1.3s						
Z14A	Wintersburg	15.20	127	⇑P	Pn	22 16 34.8	+0.5
	baz=15						
LAO	LASA Array	15.21	71	*e*Pn	Pn	22 16 33.2	-1.1
PV01	Paradox Valley	15.21	105	*e*Pn	Pn	22 16 33.4	-1.0
MVCO	Mesa Verde	15.70	108	*e*P	Pn	22 16 41.7	+0.9
	comp=Z,154nm,1.5s						
MVCO	Mesa Verde	15.70	108	⇑P	Pn	22 16 39.6	-1.1
	baz=16						
SMCO	Snowmass	15.91	99	*e*Pn	Pn	22 16 44.3	+0.9
	comp=Z,93nm,1.2s						
115A	Sonoran Desert	16.10	128	⇑P	Pn	22 16 46.4	+0.5
	baz=16						
PHWY	Pilot Hill	16.31	91	*e*Pn	Pn	22 16 45.8	-2.8
116A	Eloy	16.50	127	⇓P	Pn	22 16 51.5	+0.4
	baz=16						
SKAG	Skagway	16.61	346	*e*P	Pn	22 16 54.6	+2.4
	comp=Z,1µm,2.4s						
ISCO	Idaho Springs	16.66	96	*e*Pn	Pn	22 16 51.6	-1.4
	comp=Z,181nm,1.0s						
ISCO	Idaho Springs	16.66	96	*e*P	Pn	22 16 51.6	-1.4
ISCO				pmax	pmax		
	comp=Z,181nm,1.0s						
DGMT	Dagmar	16.76	65	*e*Pn	Pn	22 16 53.6	-0.7
	comp=Z,255nm,1.0s						
TUC	Tucson	17.22	125	*e*Pn	Pn	22 16 56.0	-4.1
	comp=Z,333nm,1.7s						
TUC	Tucson	17.22	125	*e*P	Pn	22 16 56.0	-4.1
TUC				pmax	pmax		
	comp=Z,333nm,1.7s						
SDCO	Great Sand Dun	17.55	102	*e*Pn	Pn	22 17 03.9	-0.3
	comp=Z,320nm,1.3s						
LAZ	Ladron	18.16	114	*e*Pn	Pn	22 17 12.5	+0.8
ANMO	Albuquerque	18.30	111	*e*Pn	Pn	22 17 13.5	+0.1
	comp=Z,63nm,1.0s						
ANMO	Albuquerque	18.30	111	*c i*P	Pn	22 17 13.4	0.0
ANMO	Albuquerque	18.30	111	P	Pn	22 17 13.4	+0.1
	comp=Z,0.8nm,0.3s,baz=310,slow=11,SNR=59						
LENM	Lemitar	18.41	114	*e*Pn	Pn	22 17 15.8	+1.1
Y22C	IRIS PASSCAL I	18.50	114	⇑P	Pn	22 17 16.9	+1.1
	baz=19						
LPM	Los Pinos Moun	18.55	113	*e*Pn	Pn	22 17 16.9	+0.5
BNM	Barren Site	18.65	113	*e*Pn	Pn	22 17 18.7	+1.0
EYAK	Cordova Ski Ar	20.26	333	*e*Pn	P	22 17 35.5	+0.9
YKA	Yellowknife Ar	20.33	17	P	P	22 17 35.9	+0.6
YKA	Yellowknife Ar	20.33	17	P	P	22 17 35.9	+0.6
	comp=Z,19nm,0.7s,baz=207,slow=12,SNR=107						
YKW3	Yellowknife Ar	20.39	17	*e*P	P	22 17 36.1	+0.1
MNTX	Cornudas Mount	21.00	117	*e*P	P	22 17 43.5	+0.7
	comp=Z,60nm,1.1s						
KDAK	Kodiak Island	21.20	321	P	P	22 17 45.9	+1.1
	comp=Z,722nm,1.0s,SNR=10						
KDAK	Kodiak Island	21.20	321	*e*Pn	P	22 17 45.0	+0.3
	comp=Z,117nm,1.0s,mb5.2						
KDAK	Kodiak Island	21.20	321	P	P	22 17 45.0	+0.2
	comp=Z,100nm,1.0s,mb5.1,baz=123,slow=6.0						
KDAK				LR	LR	22 23 51.6	
	comp=Z,3µm,21.3s,MS4.7,baz=127,slow=31						
CBKS	Cedar Bluff	21.27	94	*e*P	P	22 17 46.3	+0.6
	comp=Z,123nm,1.0s,mb5.2						
CBKS	Cedar Bluff	21.27	94	*e*P	P	22 17 46.3	+0.6
CBKS				pmax	pmax		
	comp=Z,123nm,1.0s,mb5.2						
MENT	Mentasta	21.57	339	*e*P	P	22 17 50.4	+1.7
DAWY	Dawson	21.61	346	*e*P	P	22 17 50.0	+0.9
AMTX	Amarillo	21.64	105	*e*P	P	22 17 50.3	+0.6
	comp=Z,115nm,0.9s,mb5.3						
SLKM	Skilak Lake	21.81	329	*e*P	P	22 17 52.1	+0.8
SML	Sawmill	22.04	333	*e*P	P	22 17 54.8	+1.1
PMR	Palmer	22.15	332	*e*P	P	22 17 55.6	+0.7
	comp=Z,176nm,1.4s,mb5.3						
PMR				LR	LR		
	comp=Z,2µm,20.0s,MS4.6						
PMR	Palmer	22.15	332	*e*P	P	22 17 55.6	+0.7
PMR				pmax	pmax		
	comp=Z,176nm,1.4s,mb5.3						
PMR				MLR	MLR		
	comp=Z,2µm,20.0s,MS4.6						
AGMN	Agassiz Refuge	22.29	67	*e*P	P	22 17 56.1	-0.5
	comp=Z,612nm,1.5s,mb5.8						
ULM	Lac du Bonnet	22.37	62	P	P	22 17 57.2	-0.2
ULM				LR	LR	22 26 58.0	
ULM	Lac du Bonnet	22.37	62	P	P	22 17 57.2	-0.2
	comp=Z,44nm,0.8s,mb4.9,baz=272,slow=10,SNR=46						
ULM				LR	LR	22 26 58.0	
	comp=Z,2µm,20.4s,MS4.6,baz=266,slow=37						
EGAK	Eagle	22.59	345	*e*P	P	22 17 59.9	+0.3
	comp=Z,46nm,1.1s,mb4.8						
KSU1	Kansas State U	23.43	91	*e*P	P	22 18 08.8	+0.1
KSU1				LR	LR		
	comp=Z,2µm,21.0s,MS4.6						
MCK	McKinley	23.64	336	*e*P	P	22 18 11.1	+0.6
MCK				LR	LR		
	comp=Z,920nm,20.0s,MS4.2						
LTX	Lajitas	23.67	119	*e*P	P	22 18 11.2	+0.2
	comp=Z,78nm,1.3s,mb5.0						
LTX				LR	LR		
	comp=Z,2µm,19.0s,MS4.5						
LTX	Lajitas	23.67	119	*e*P	P	22 18 11.3	+0.3
LTX				pmax	pmax		
	comp=Z,78nm,1.3s,mb5.0						
LTX				MLR	MLR		
	comp=Z,2µm,19.0s,MS4.5						
TXAR	Lajitas Array	23.67	119	P	P	22 18 11.3	+0.3
TXAR				PcP	PcP	22 21 54.0	-0.9
TXAR				LR	LR	22 27 41.0	
TXAR	Lajitas Array	23.67	119	P	P	22 18 11.3	+0.3
TXAR						22 21 54.0	
TXAR	Lajitas Array	23.67	119	P	P	22 18 11.3	+0.3
	comp=Z,32nm,0.9s,mb4.8,baz=298,slow=8.1,SNR=154						
TXAR				PcP	PcP	22 21 54.0	-0.8
	comp=Z,2.7nm,0.8s,baz=200,slow=1.6,SNR=6.3						
TXAR				LR	LR	22 27 41.0	
	comp=Z,1µm,19.3s,MS4.3,baz=250,slow=37						
WMOK	Wichita Mounta	23.76	102	*e*P	P	22 18 11.8	0.0
WMOK				LR	LR		
	comp=Z,1µm,19.0s,MS4.5						
LPIG	La Paz	23.97	139	P	P	22 18 13.6	-0.1
	comp=Z,16nm,0.3s,mb4.9,baz=45,slow=1.4,SNR=2.5						
LPIG				LR	LR	22 26 36.5	
	comp=Z,2µm,19.2s,MS4.5,baz=328,slow=34						
COLA	College	24.21	339	*e*P	P	22 18 16.4	+0.7
	comp=Z,34nm,1.0s,mb4.7						
COLA	College	24.21	339	*d i*P	P	22 18 16.8	+1.2
SVW2	Sparrevohn	24.27	326	*e*P	P	22 18 15.1	-1.0
INK	Inuvik	24.97	355	*e*P	P	22 18 22.5	0.0
INK	Inuvik	24.97	355	P	P	22 18 22.5	+0.1
	comp=Z,25nm,0.9s,mb4.7,baz=166,slow=11,SNR=47						
INK				LR	LR	22 27 46.1	
	comp=Z,2µm,19.4s,MS4.7,baz=175,slow=36						
SCIA	State Center	25.02	82	*e*P	P	22 18 24.2	+1.1
	comp=Z,208nm,1.3s,mb5.5						
EYMN	Ely	25.22	68	*e*P	P	22 18 25.5	+0.5
FCC	Fort Churchill	25.42	42	*e*P	P	22 18 27.5	+0.8
JCT	Junction City	25.46	112	*e*P	P	22 18 26.9	-0.4
	comp=Z,108nm,1.1s,mb5.3						
JCT	Junction City	25.46	112	*e*P	P	22 18 26.9	-0.4
JCT				pmax	pmax		
	comp=Z,108nm,1.1s,mb5.3						
IMA2	Indian Mountai	26.74	336	*e*P	P	22 18 39.1	+0.6
JFWS	Jewell Farm	26.88	79	*e*P	P	22 18 42.4	+2.3
COWI	Conover	27.02	71	*e*P	P	22 18 41.6	+0.3
	comp=Z,50nm,0.9s,mb5.0						
UNV	Unalaska Valle	27.45	306	*e*P	P	22 18 37.4	-7.6
MIAR	Mount Ida	27.58	98	*e*P	P	22 18 46.2	-0.1
	comp=Z,29nm,0.8s,mb5.0						
MIAR				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
MIAR	Mount Ida	27.58	98	*e*P	P	22 18 46.3	-0.1
MIAR				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.0						
MIAR				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.5						
SLM	Saint Louis	28.23	87	*e*P	P	22 18 57.7	+5.6
HDIL	Hopedale	28.24	83	*e*P	P	22 18 52.7	+0.5
	comp=Z,100nm,1.1s,mb5.4						
NATX	Nacogdoches	28.26	104	*e*P	P	22 18 53.8	+1.3
	comp=Z,71nm,0.8s,mb5.3						
FVM	French Village	28.34	89	*e*P	P	22 18 53.2	+0.1
	comp=Z,45nm,0.8s,mb5.2						
FVM	French Village	28.34	89	*e*P	P	22 18 53.2	0.0
FVM				pmax	pmax		
	comp=Z,45nm,0.8s,mb5.2						
UALR	University of	28.35	96	*e*P	P	22 18 53.9	+0.6
	comp=Z,74nm,1.6s,mb5.1						
HKT	Hockley	28.50	108	*e*P	P	22 18 55.4	+0.8
	comp=Z,152nm,1.5s,mb5.4						
HKT	Hockley	28.50	108	*e*P	P	22 18 55.4	+0.8
HKT				pmax	pmax		
	comp=Z,152nm,1.5s,mb5.4						
SIUC	Southern Illin	29.33	88	*e*P	P	22 19 02.0	+0.1
	comp=Z,63nm,0.9s,mb5.3						
PARMO	Parma	29.38	91	*e*P	P	22 19 03.2	+0.9
USIN	University of	30.35	87	*e*P	P	22 19 11.5	+0.5
OXF	Oxford	30.60	94	*e*P	P	22 19 13.9	+0.7
OXF				LR	LR		
	comp=Z,2µm,20.0s,MS4.7						
BLO	Bloomington	30.72	84	*e*P	P	22 19 14.3	+0.1
	comp=Z,34nm,0.8s,mb5.2						
BLO	Bloomington	30.72	84	*e*P	P	22 19 14.3	+0.1
BLO				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.2						
WVT	Waverly	31.00	90	*e*P	P	22 19 15.6	-1.2
	comp=Z,25nm,0.9s,mb5.0						
WVT				LR	LR		
	comp=Z,500nm,19.0s,MS4.2						
WVT	Waverly	31.00	90	*e*P	P	22 19 15.6	-1.1
WVT				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.0						
WVT				MLR	MLR		
	comp=Z,500nm,19.0s,MS4.2						
TNA	Tin City	31.29	329	*e*P	P	22 19 19.2	+0.3
	comp=Z,15nm,1.3s,mb4.7						
PLAL	Pickwick Lake	31.35	92	*e*P	P	22 19 19.8	0.0
	comp=Z,18nm,0.8s,mb5.0						
GAMB	Gambell	32.17	324	*e*P	P	22 19 27.2	+0.5
ACSO	Alum Creek Sta	32.88	80	*e*P	P	22 19 27.2	-6.0
	comp=Z,25nm,0.5s,mb5.4						
ACSO				LR	LR		
	comp=Z,1µm,21.0s,MS4.5						
LRAL	Lakeview Retre	33.08	95	*e*P	P	22 19 34.1	-0.9
	comp=Z,25nm,1.0s,mb5.1						
CPCT	Cooper Cave	33.71	89	*e*P	P	22 19 41.3	+0.8
RES	Resolute Bay	34.36	15	*e*P	P	22 19 46.5	+0.9
	comp=Z,458nm,0.8s						
ALLY	Alegheny Colle	34.42	77	*e*P	P	22 19 48.2	+1.7
GOGA	Godfrey	35.45	92	*e*P	P	22 19 55.0	-0.5
	comp=Z,82nm,1.1s,mb5.6						
GOGA	Godfrey	35.45	92	*e*P	P	22 19 55.0	-0.5
GOGA				pmax	pmax		
	comp=Z,82nm,1.1s,mb5.6						
JSC	Jenkinsville	36.63	89	*e*P	P	22 19 59.7	-5.9
COW	Cow Castle Cre	37.47	90	*e*P	P	22 20 13.1	+0.3
CMIG	Matias Romero	38.10	124	LR	LR	22 36 25.9	
	comp=Z,857nm,21.0s,MS4.5,baz=176,slow=37						
DWPF	Disney	39.77	97	*e*P	P	22 20 32.3	+0.1
DWPF				LR	LR		
	comp=Z,1µm,21.0s,MS4.7						
SCHQ	Schefferville	39.87	52	*e*P	P	22 20 32.5	-0.1
SCHQ				*e*PP	PP	22 22 04.8	+0.5
SCHQ				LR	LR	22 37 22.2	
SCHQ	Schefferville	39.87	52	P	P	22 20 32.1	-0.5
	comp=Z,20nm,1.1s,mb4.8,baz=289,slow=7.9,SNR=16						
SCHQ				LR	LR	22 37 22.2	
	comp=Z,2µm,19.1s,MS5.0,baz=136,slow=37						
TEIG	Tepich	40.02	113	*e*P	P	22 20 33.5	-0.7
	comp=Z,71nm,0.9s,mb5.4						
TEIG				LR	LR		
	comp=Z,740nm,22.0s,MS4.5						
BILL	Bilibino	41.73	329	*e*P	P	22 20 48.0	+0.2
	comp=Z,23nm,1.0s,mb4.8						
BILL	Bilibino	41.73	329	*d i*P	P	22 20 47.5	-0.3
BILL				pmax	pmax		
	comp=Z,26nm,0.9s,mb4.9						
BILL				MLR	MLR		
	comp=Z,1µm,18.0s,MS4.8						
SOR	Soroa	41.91	105	*e*P	P	22 20 49.7	-0.1
ALE	Alert	43.80	10	P	P	22 21 05.0	+0.5
	comp=Z,144nm,0.8s,mb5.8,SNR=19						
MGV	Manicaragua	44.48	103	*e*P	P	22 21 12.7	+2.1
TGUH	Tegucigalpa,Un	45.15	118	*e*P	P	22 21 15.8	-0.2
	comp=Z,46nm,0.9s,mb5.3						
SFJD	Kangerlussuaq	45.76	32	*i* P	P	22 21 21.6	+1.4
SFJD				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
SFJD				MLR	MLR		
	comp=Z,570nm,18.0s,MS4.6						
SFJD	Kangerlussuaq	45.76	32	*i* P	P	22 21 21.6	+1.4
	comp=Z,19nm,0.9s,mb5.0						
SFJD				*i*		22 31 33.0	
SFJD							
	comp=Z,570nm,18.0s						
PET	Petropavlovsk	48.03	309	⇓*e*P	P	22 21 37.1	-1.1
PET				pmax	pmax		
	comp=Z,63nm,1.4s,mb5.5						
SEY	Seymchan	48.14	323	⇓*e*P	P	22 21 37.7	-1.1
JTS	JuntasAbangare	49.46	119	*e*P	P	22 21 46.0	-3.6
	comp=Z,8.3nm,0.6s,mb4.9						
JTS				LR	LR		
	comp=Z,542nm,19.0s,MS4.6						
JTS	JuntasAbangare	49.46	119	*e*P	P	22 21 46.0	-3.6
JTS				pmax	pmax		
	comp=Z,8.0nm,0.6s						
JTS				MLR	MLR		
	comp=Z,542nm,19.0s						
MA2	Magadan	49.92	319	*e*P	P	22 21 52.2	-0.3
	comp=Z,31nm,1.1s,mb5.2						
MA2	Magadan	49.92	319	*d i*P	P	22 21 51.6	-0.9
MA2				*e*S	S	22 29 00.2	-0.8
MA2				*e*PS		22 29 19.6	
MA2				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
MA2				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.3						
DAG	Danmarks Havn	52.03	16	⇓*i*P	P	22 22 09.2	+1.1
DAG				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
DAG	Danmarks Havn	52.03	16	⇓*i*P	P	22 22 09.2	+1.1
	comp=Z,6.7nm,0.8s,mb4.6						
SDDR	Presa de Saban	52.70	99	*e*P	P	22 22 14.0	+0.1
	comp=Z,60nm,1.0s,mb5.5						
TIXI	Tiksi	53.34	337	*e*P	P	22 22 16.9	-1.0
	comp=Z,18nm,0.9s,mb5.0						
TIXI	Tiksi	53.34	337	⇓*i*P	P	22 22 16.7	-1.2
TIXI				*e*		22 23 25.6	
TIXI				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
TIXI				MLR	MLR		
	comp=Z,361nm,15.0s,MS4.5						
PAYG	Puerto Ayora	55.14	133	*e*P	P	22 22 31.8	+0.1
	comp=Z,106nm,1.4s,mb5.7						
PAYG				LR	LR		
	comp=Z,706nm,20.0s,MS4.7						
SPB4	Spitsbergen Ar	56.50	8	*e*P	P	22 22 41.4	+0.7
SJG	San Juan	56.96	96	P	P	22 22 43.2	-1.6
SJG				LR	LR		
	comp=Z,393nm,21.0s,MS4.5						
SJG	San Juan	56.96	96	P	P	22 22 43.2	-1.6
	comp=Z,64nm,1.0s,mb5.6,baz=338,slow=3.5,SNR=11						
CPD	Cerro la Pandu	57.18	96	*e*P	P	22 22 46.2	0.0
MTP	Monte Pirata	57.40	96	*e*P	P	22 22 47.5	-0.4
YAK	Yakutsk	58.04	327	*e*P	P	22 22 50.6	-1.1
	comp=Z,26nm,1.0s,mb5.2						
YAK	Yakutsk	58.04	327	*e*P	P	22 22 50.4	-1.4
YAK				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.3						
YAK				pmax	pmax		
	comp=N,10.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,22nm,1.3s						
YAK				MLR	MLR		
	comp=Z,700nm,16.0s,MS4.9						
YAK				MLR	MLR		
	comp=N,500nm,19.0s,MS4.9						
YAK				MLR	MLR		
	comp=E,600nm,16.0s,MS4.9						
YSS	Yuzh-Sakhalins	59.90	308	*e*P	P	22 23 03.5	-1.3
	comp=E,21nm,0.8s,mb5.2						
YSS	Yuzh-Sakhalins	59.90	308	*i* P	P	22 23 03.3	-1.5
PMOR	Pomariorio Ree	61.29	203	*e*T		23 29 09.3	
	comp=E,34nm,0.2s						
OTAV	Otavalo	61.29	121	*e*P	P	22 23 15.2	+0.5
	comp=E,36nm,1.2s,mb5.4						
VAH	Vaihoa	61.44	202	*e*T		23 29 20.4	
	comp=E,25nm,0.4s						
ASAJ	Asahikawa	61.56	305	LR	LR	22 46 00.4	
	comp=E,188nm,18.8s,MS4.3,baz=6.4,slow=32						
CLNS	Chul'man	63.10	324	*e*P	P	22 23 25.0	-1.3
CLNS				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.4						
CLNS				pmax	pmax		
	comp=N,15nm,0.9s						
CLNS				pmax	pmax		
	comp=E,17nm,1.0s						
HABR	Khabarovsk	63.32	312	*e*P	P	22 23 24.9	-3.0
HABR				*e*S	S	22 31 58.0	-0.3
HABR				*e*SS	SS	22 36 06.0	+1.7
MEH	Mehetia	64.07	202	*e*T		23 32 37.9	
PPT	Papeete	64.21	204	*e*LR	LR	22 42 22.6	
	comp=E,415nm,27.8s,baz=19						
PPT	Papeete	64.21	204	LR	LR	22 45 54.0	
	comp=E,174nm,19.7s,MS4.2,baz=359,slow=31						
TVO	Taravao	64.31	203	*e*T		23 32 55.8	
	comp=E,17nm,0.3s						
KEV	Kevo	65.39	10	*e*p	P	22 23 39.8	-1.3
	comp=E,9.8nm,0.7s,mb5.0						
KEV	Kevo	65.39	10	*e*P	P	22 23 39.8	-1.3
KEV				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
ARCES	ARCESS Array B	65.41	10	P	P	22 23 40.4	-0.8
ARCES				LR	LR	22 55 53.1	
ARCES	ARCESS Array B	65.41	10	P	P	22 23 40.4	-0.8
	comp=Z,6.1nm,0.8s,mb4.7,baz=353,slow=6.0,SNR=7.9						
ARCES				LR	LR	22 55 53.1	
	comp=Z,287nm,18.9s,MS4.5,baz=344,slow=39						
RKT	Rikitea	66.77	188	*e*LQ		22 40 49.2	
	comp=Z,956nm,29.8s						
RKT				*e*LR	LR	22 43 38.7	
	comp=Z,394nm,32.0s						
RKT	Rikitea	66.77	188	*e*T		23 36 02.6	
	comp=Z,11nm,0.3s						
BOD	Bodaibo	66.78	329	*e*P	P	22 23 48.0	-2.2

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BOD                                pmax    pmax
      comp=Z,22nm,0.9s,mb5.2
ATAH  Atahualpa         67.03 126   P       P        22 23 52.6 +0.2
      comp=Z,17nm,0.9s,mb5.1,baz=312,slow=6.7,SNR=10
LVZ   Lovozero          67.99   7d iP       P        22 23 57.8 +0.1
LVZ                                pmax    pmax
      comp=Z,48nm,1.4s,mb5.3
LVZ                                MLR     MLR
      comp=Z,200nm,17.0s,MS4.4
APA   Apatity           68.19   8⇓iP       P        22 23 58.0 -1.0
APA                                i                 22 24 09.0
MDJ   Mudanjiang        68.66 312   P       P        22 24 00.8 -1.5
MDJ                                AMB     AMB
      comp=Z,7.0nm,1.3s,mb4.4
MDJ                                AMB     AMB
      comp=Z,781nm,3.9s
MAJO  Matsushiro        68.77 301  eP       P        22 24 01.4 -1.7
      comp=Z,22nm,0.8s,mb5.1
MAJO                               ePcP    PcP       22 24 25.9 -1.8
MAJO  Matsushiro        68.77 301  eP       P        22 24 01.4 -1.8
MAJO                               e                 22 24 25.9
MAJO                               pmax    pmax
      comp=Z,22nm,0.8s,mb5.1
MAT   Matsushiro        68.77 301   P       P        22 24 01.1 -2.1
MJAR  Matsushiro Arr    68.77 301   P       P        22 24 01.2 -1.9
      comp=Z,6.7nm,0.8s,mb4.6,baz=42,slow=5.4,SNR=14
NB2   NORSAR Subarra    70.40  20   P       P        22 24 12.9 +0.1
      comp=Z,1.8nm,0.7s,mb4.1,baz=327,slow=6.2
NOA   NORSAR Array B    70.40  20   P       P        22 24 13.0 +0.2
      comp=Z,5.2nm,0.9s,mb4.5,baz=331,slow=5.8,SNR=9.1
NOA                                LR      LR        22 53 43.3
      comp=Z,142nm,20.0s,MS4.2,baz=340,slow=35
HIA   Hailar            70.48 320  eP       P        22 24 12.2 -1.3
      comp=Z,14nm,0.9s,mb4.9
HIA   Hailar            70.48 320  eP       P        22 24 12.2 -1.3
HIA                                pmax    pmax
      comp=Z,14nm,0.9s
NAO01 NORSAR Array S    70.49  20  eP       P        22 24 13.9 +0.6
      comp=Z,20nm,0.9s,mb5.0
CN2   Changchun         71.43 313  eP       P        22 24 16.9 -2.4
CN2                                AMB     AMB
      comp=Z,20nm,1.7s,mb4.8
NNA   Nana              71.93 127  eP       P        22 24 21.2 -1.4
NNA                                LR      LR
      comp=Z,444nm,19.0s,MS4.8
NNA   Nana              71.93 127   P       P        22 24 21.4 -1.1
      comp=Z,7.9nm,0.5s,mb4.9,baz=352,slow=6.4,SNR=6.5
JOF   Joensuu           72.45  10  ep       P        22 24 24.5 -0.6
      comp=Z,10nm,0.8s,mb4.8
KAF   Kangasniemi       72.51  13  ep       P        22 24 25.3 -0.1
      comp=Z,7.2nm,0.6s,mb4.8,baz=337,slow=6.0
KAF   Kangasniemi       72.51  13  eP       P        22 24 25.3 -0.1
KAF                                pmax    pmax
      comp=Z,7.0nm,0.6s,mb4.8
FIA1  FINESS Array S    73.10  13  eP       P        22 24 29.4 +0.4
FINES FINESS Array B    73.10  13   P       P        22 24 28.7 -0.3
      comp=Z,12nm,0.8s,mb4.8,baz=2.4,slow=4.6,SNR=40
FINES                              LR      LR        22 57 13.4
      comp=Z,216nm,19.0s,MS4.5,baz=162,slow=36
SNY   Shenyang          73.79 313 ⇑P        P        22 24 32.9 -0.5
SNY                                AMB     AMB
      comp=Z,24nm,1.1s,mb5.0
KSRS  Korea Array       74.38 307   P       P        22 24 36.0 -0.9
      comp=Z,5.7nm,0.9s,mb4.5,baz=58,slow=4.9,SNR=7.8
KSRS                               LR      LR        22 53 36.2
      comp=Z,157nm,18.6s,MS4.3,baz=75,slow=33
IRK   Irkutsk           74.65 330  eP       P        22 24 37.0 -1.2
IRK                                pmax    pmax
      comp=Z,66nm,2.1s,mb5.2
PRGR  Permogore         74.95   3  eP       P        22 24 39.1 -0.7
PRGR                               eS      S         22 34 16.1 +0.8
PRGR                               pmax    pmax
      comp=Z,28nm,0.9s,mb5.2
TLY   Talaya            75.33 330   P       P        22 24 42.4 +0.2
      comp=Z,109nm,1.1s,mb5.7,SNR=8.0
TLY   Talaya            75.33 330  eP       P        22 24 42.1 -0.1
      comp=Z,19nm,1.0s,mb5.0
TLY   Talaya            75.33 330d iP       P        22 24 41.9 -0.3
VSU   Vasula            76.03  14  i P      P        22 24 46.0  0.0
ZAK   Zakamensk         76.53 329  eP       P        22 24 48.5 -0.5
ZAK                                pmax    pmax
      comp=Z,5.0nm,1.5s,mb4.2
FLN   La Foliniere      76.88  33⇑iP        P        22 24 51.3 +0.3
      comp=Z,41nm,1.0s,mb5.0
FLN                                eMLR    MLR
      comp=Z,599nm,20.8s,MS4.6
FLN   La Foliniere      76.88  33⇑iP        P        22 24 51.3 +0.3
      comp=Z,21nm,1.0s,mb5.0
FLN                                LR      LR
      comp=Z,600nm,20.8s,MS4.9
FLN   La Foliniere      76.88  33⇑iP        P        22 24 51.3 +0.3
FLN                                pmax    pmax
      comp=Z,21nm,1.0s,mb5.0
FLN                                MLR     MLR
      comp=Z,600nm,20.8s,MS4.9
GRR   Gorron            77.03  33⇑iP        P        22 24 52.7 +0.8
      comp=Z,79nm,1.1s,mb5.3
GRR   Gorron            77.03  33⇑iP        P        22 24 52.7 +0.8
      comp=Z,40nm,1.1s,mb5.3
GRR   Gorron            77.03  33⇑iP        P        22 24 52.7 +0.8
GRR                                pmax    pmax
      comp=Z,40nm,1.1s,mb5.3
ULN   Ulaanbaatar       77.09 326  eP       P        22 24 51.9 -0.3
      comp=Z,8.6nm,0.8s,mb4.7
ULN   Ulaanbaatar       77.09 326d iP       P        22 24 52.2  0.0
LDF   La Druitiere      77.15  33⇑iP        P        22 24 53.0 +0.4
      comp=Z,130nm,1.6s,mb5.3
LDF   La Druitiere      77.15  33⇑iP        P        22 24 53.0 +0.4
      comp=Z,65nm,1.6s,mb5.3
LDF   La Druitiere      77.15  33⇑iP        P        22 24 53.0 +0.4
LDF                                pmax    pmax
      comp=Z,65nm,1.6s,mb5.3
SONM  Songino Array     77.38 326   P       P        22 24 53.5 -0.3
      comp=Z,18nm,0.9s,mb5.0,baz=42,slow=2.0,SNR=118
SONM                               LR      LR        23 00 48.5
      comp=Z,448nm,19.1s,MS4.8,baz=279,slow=37
BAIF  Baives            77.58  30⇑iP        P        22 24 55.7 +0.8
      comp=Z,46nm,1.1s,mb5.0
BAIF  Baives            77.58  30⇑iP        P        22 24 55.7 +0.8
      comp=Z,23nm,1.1s,mb5.0
BAIF  Baives            77.58  30⇑iP        P        22 24 55.7 +0.8
BAIF                               pmax    pmax
      comp=Z,23nm,1.1s,mb5.0
GIVF  Givet             77.77  29  eP       P        22 24 56.7 +0.7
      comp=Z,31nm,0.9s,mb4.9
GIVF  Givet             77.77  29  eP       P        22 24 56.7 +0.7
      comp=Z,16nm,0.9s,mb4.9
GIVF  Givet             77.77  29  eP       P        22 24 56.7 +0.7
GIVF                               pmax    pmax
      comp=Z,16nm,0.9s,mb5.0
NVS   Novosibirsk       78.52 343⇓iP        P        22 24 58.8 -1.3
NVS                                pmax    pmax
      comp=Z,82nm,1.5s,mb5.4
NVS                                pmax    pmax
      comp=N,36nm,2.0s
NVS                                pmax    pmax
      comp=E,44nm,1.5s
NVS                                pmax    pmax
      comp=N,15nm,2.0s
NVS                                pmax    pmax
      comp=E,29nm,2.3s
ARE   Arequipa          78.60 126  eP       P        22 25 02.0 +1.1
BJI   Beijing           78.94 316   P       P        22 25 01.1 -1.6
BJI                                AP      pP        22 25 04.4 -6.3
BJI                                XP      sP        22 25 09.8 -3.8
BJI                                S       S         22 34 58.0 -1.6
BJI                                SS      SS        22 40 03.1 -0.8
BJI                                AMB     AMB
      comp=Z,6.0nm,0.8s,mb4.6
BJI                                AMB     AMB
      comp=Z,233nm,4.7s
BJI                                LR      LR
      comp=N,164nm,24.5s,MS4.4
BJI                                LR      LR
      comp=E,163nm,27.8s,MS4.4
BJI                                LR      LR
      comp=Z,244nm,24.5s,MS4.5
BJI   Beijing           78.94 316   P       P        22 25 01.1 -1.6
BJI                                pP      pP        22 25 04.4 -6.3
BJI                                sP      sP        22 25 09.7 -3.9
BJI                                PP      PP        22 27 53.9 -7.1
BJI                                S       S         22 34 58.0 -1.6
BJI                                sS      sS        22 35 03.8 -9.0
BJI                                SS      SS        22 40 03.1 -0.8
BJI                                LR      LR
      comp=Z,240nm,24.5s,MS4.4
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ZALV  Zalesovo Beam     78.99 341   P       P        22 25 02.0 -0.6
      comp=Z,4.9nm,0.7s,mb4.5,baz=23,slow=5.8,SNR=29
ZALV                               LR      LR        23 02 25.1
      comp=Z,230nm,18.1s,MS4.6,baz=31,slow=38
ZAL   Zalesovo          79.01 341   P       P        22 25 02.0 -0.7
GUMO  Guam              79.18 278   LR      LR       22 51 49.7
      comp=Z,292nm,20.0s,MS4.6,baz=73,slow=30
MEZF  Maizieres J'vi    79.19  30⇑iP        P        22 25 04.4 +0.6
HYF   Humbligny         79.31  32  eP       P        22 25 05.4 +0.9
CLL   Collm             79.39  24  i P      P        22 25 05.7 +0.8
CLL                                i                 22 25 27.4
CLL                                LR      LR
      comp=Z,300nm,23.8s,MS4.5
CLL   Collm             79.39  24  i P      P        22 25 05.7 +0.8
CLL                                i PcP   PcP       22 25 13.0  0.0
CLL                                i x     x         22 25 27.4
SVE   Sverdlovsk        79.70 356  eP       P        22 25 05.0 -1.5
LOR   Lormes            79.78  31  eP       P        22 25 07.7 +0.6
      comp=Z,46nm,1.2s,mb5.0
LOR                                eMLR    MLR
      comp=Z,630nm,19.8s,MS4.7
LOR   Lormes            79.78  31  eP       P        22 25 07.7 +0.6
      comp=Z,23nm,1.2s,mb5.0
LOR                                LR      LR
      comp=Z,630nm,19.8s,MS5.0
LOR   Lormes            79.78  31  eP       P        22 25 07.7 +0.6
LOR                                pmax    pmax
      comp=Z,23nm,1.2s,mb5.0
LOR                                MLR     MLR
      comp=Z,630nm,19.8s,MS5.0
SSF   Saint Saulge      79.81  32⇑iP        P        22 25 07.7 +0.4
      comp=Z,107nm,1.6s,mb5.2
SSF   Saint Saulge      79.81  32⇑iP        P        22 25 07.7 +0.4
      comp=Z,54nm,1.6s,mb5.2
SSF   Saint Saulge      79.81  32⇑iP        P        22 25 07.7 +0.4
SSF                                pmax    pmax
      comp=Z,54nm,1.6s,mb5.2
TCF   Toulx Ste Croi    79.95  33⇑iP        P        22 25 08.3 +0.3
      comp=Z,43nm,1.1s,mb5.0
TCF   Toulx Ste Croi    79.95  33⇑iP        P        22 25 08.3 +0.3
      comp=Z,22nm,1.1s,mb5.0
TCF   Toulx Ste Croi    79.95  33⇑iP        P        22 25 08.3 +0.3
TCF                                pmax    pmax
      comp=Z,22nm,1.1s,mb5.0
BGF   Bois d'Agland     79.98  32  eP       P        22 25 08.5 +0.3
      comp=Z,118nm,1.7s,mb5.2
BGF   Bois d'Agland     79.98  32  eP       P        22 25 08.5 +0.3
      comp=Z,59nm,1.7s,mb5.2
BGF   Bois d'Agland     79.98  32  eP       P        22 25 08.5 +0.3
BGF                                pmax    pmax
      comp=Z,59nm,1.7s,mb5.2
AVF   Avril sur Loir    79.98  32⇑iP        P        22 25 08.3 +0.1
      comp=Z,87nm,1.5s,mb5.2
AVF   Avril sur Loir    79.98  32⇑iP        P        22 25 08.3 +0.1
      comp=Z,44nm,1.5s,mb5.2
AVF   Avril sur Loir    79.98  32⇑iP        P        22 25 08.3 +0.1
AVF                                pmax    pmax
      comp=Z,44nm,1.5s,mb5.2
BRG   Berggiesshubel    80.06  24  eP       P        22 25 08.8 +0.3
BRG                                pmax    pmax
      comp=Z,9.0nm,1.5s,mb4.5
BRG   Berggiesshubel    80.06  24  eP       P        22 25 08.6 +0.1
      comp=Z,13nm,0.9s,mb4.9
BRG   Berggiesshubel    80.06  24  eP       P        22 25 08.8 +0.3
      comp=Z,15nm,1.5s,mb4.7
CDF   Champ du Feu      80.06  29⇑iP        P        22 25 09.3 +0.7
      comp=Z,47nm,1.3s,mb5.0
CDF   Champ du Feu      80.06  29⇑iP        P        22 25 09.3 +0.7
      comp=Z,24nm,1.3s,mb5.0
CDF   Champ du Feu      80.06  29⇑iP        P        22 25 09.3 +0.7
CDF                                pmax    pmax
      comp=Z,24nm,1.3s,mb5.0
HAU   Haudompre         80.07  30  eP       P        22 25 09.1 +0.4
      comp=Z,21nm,1.1s,mb4.7
HAU                                eMLR    MLR
      comp=Z,652nm,17.8s,MS4.7
HAU   Haudompre         80.07  30  eP       P        22 25 09.1 +0.4
      comp=Z,10nm,1.1s,mb4.7
HAU                                LR      LR
      comp=Z,650nm,17.8s,MS5.0
HAU   Haudompre         80.07  30  eP       P        22 25 09.1 +0.4
HAU                                pmax    pmax
      comp=Z,10.0nm,1.1s,mb4.7
HAU                                MLR     MLR
      comp=Z,650nm,17.8s,MS5.0
NKC   Novy Kostel       80.17  25  eP       P        22 25 12.3 +3.1
NKC                                AMS     AMS       23 04 20.0
ARU   Arti              80.20 357   P       P        22 25 08.3 -0.9
      comp=Z,83nm,0.9s,mb5.7,SNR=6.0
ARU   Arti              80.20 357  eP       P        22 25 08.6 -0.6
      comp=Z,26nm,1.2s,mb5.0
ARU                                ePcP    PcP       22 25 16.0 -0.4
ARU   Arti              80.20 357⇑iP        P        22 25 08.4 -0.8
ARU                                e                 22 28 11.6
ARU                                ePPP              22 30 02.5
ARU                                eS      S         22 35 15.9 +3.6
ARU                                eSS     SS        22 40 20.2 -1.5
ARU                                pmax    pmax
      comp=Z,17nm,1.1s,mb4.9
MOS   Moscow            80.20   9  eP       P        22 25 10.6 +1.4
MOS                                pmax    pmax
      comp=Z,59nm,1.6s,mb5.3
GRA1  Grafenberg Arr    80.27  26  eP       P        22 25 10.4 +0.7
      comp=Z,8.0nm,1.0s,mb4.6
GRA1                               LR      LR
      comp=Z,300nm,18.5s,MS4.7
GRF   Grafenberg Arr    80.27  26  eP       P        22 25 10.4 +0.7
GRF                                pmax    pmax
      comp=Z,8.0nm,1.0s,mb4.6
GRF                                MLR     MLR
      comp=Z,300nm,18.5s,MS4.7
GRF   Grafenberg Arr    80.27  26  eP       P        22 25 10.4 +0.7
GRF                                pmax    pmax
      comp=Z,8.0nm,1.0s,mb4.6
GRF                                MLR     MLR
      comp=Z,300nm,18.5s,MS4.7
GRF   Grafenberg Arr    80.27  26  eP       P        22 25 10.4 +0.7
      comp=Z,8.0nm,1.0s,mb4.6
GRF                                eL                23 03 58.4
      comp=Z,261nm,18.5s
SMF   Signal de Mont    80.29  32  eP       P        22 25 09.8  0.0
      comp=Z,51nm,1.3s,mb5.0
SMF   Signal de Mont    80.29  32  eP       P        22 25 09.8  0.0
      comp=Z,26nm,1.3s,mb5.0
SMF   Signal de Mont    80.29  32  eP       P        22 25 09.8  0.0
SMF                                pmax    pmax
      comp=Z,26nm,1.3s,mb5.0
HINF  Hinteralfeld      80.41  29⇑iP        P        22 25 11.0 +0.5
LPAZ  La Paz            80.48 123   P       P        22 25 10.6 -0.5
LPAZ                               LR      LR
      comp=Z,268nm,20.0s,MS4.6
LPAZ  La Paz            80.48 123   P       P        22 25 10.6 -0.5
      comp=Z,12nm,0.9s,mb4.8,baz=344,slow=8.5,SNR=15
RJF   Les Rejaudoux     80.48  34⇑iP        P        22 25 11.0 +0.1
      comp=Z,33nm,1.1s,mb4.9
RJF                                eMLR    MLR
      comp=Z,605nm,19.5s,MS4.7
RJF   Les Rejaudoux     80.48  34⇑iP        P        22 25 11.0 +0.1
      comp=Z,16nm,1.1s,mb4.9
RJF                                LR      LR
      comp=Z,610nm,19.5s,MS5.0
RJF   Les Rejaudoux     80.48  34⇑iP        P        22 25 11.0 +0.1
RJF                                pmax    pmax
      comp=Z,16nm,1.1s,mb4.9
RJF                                MLR     MLR
      comp=Z,610nm,19.5s,MS5.0
BFO   Black Forest      80.49  28  eP       P        22 25 11.7 +0.8
PVCC  Panska Ves        80.54  24  eP       P        22 25 12.7 +1.6
PVCC                               AMS     AMS       23 00 30.0
HHC   Hu-ho-hao-te      80.60 319  eP       P        22 25 10.4 -1.2
HHC                                AP      pP        22 25 15.1 -4.6
HHC                                XP      sP        22 25 17.4 -5.2
HHC                                PP      PP        22 28 14.8 +0.1
HHC                                S       S         22 35 15.0 -2.1
HHC                                SKS               22 35 22.6
HHC                                SS      SS        22 40 30.0 +1.3
HHC                                AMB     AMB
      comp=Z,20nm,1.1s,mb5.0
HHC                                AMB     AMB
      comp=Z,212nm,6.2s
HHC                                LR      LR
      comp=N,254nm,21.8s,MS4.8
HHC                                LR      LR
      comp=E,426nm,21.8s,MS4.8
HHC                                LR      LR
      comp=Z,344nm,25.6s,MS4.6
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OBN   Obninsk           80.70   9  eP       P        22 25 11.4 -0.5
      comp=Z,19nm,0.6s,mb5.2
OBN                                ePcP    PcP       22 25 18.7 +0.1
OBN   Obninsk           80.70   9d iP       P        22 25 11.4 -0.5
OBN                                e       pP        22 25 18.7 -1.2
OBN                                eS      S         22 35 20.4 +2.8
OBN                                pmax    pmax
      comp=Z,30nm,0.9s,mb5.2
OBN                                MLR     MLR
      comp=Z,300nm,26.0s,MS4.5
KSP   Ksiaz             80.75  22  eP       P        22 25 12.9 +0.7
UPC   Upice             80.97  23  eP       P        22 25 14.8 +1.4
PRU   Pruhonice         81.02  24  eP       P        22 25 14.7 +1.0
PRU                                AMS     AMS       23 00 40.0
CABF  La Chapelle       81.16  30  eP       P        22 25 15.4 +0.9
DPC   Dobruska-Polom    81.20  23  eP       P        22 25 15.7 +1.0
DPC                                AMS     AMS       23 05 00.0
TIA   Tai'an            81.31 312 ⇑P        P        22 25 14.3 -1.2
KHC   Kasperske Hory    81.49  25  eP       P        22 25 17.1 +0.9
KHC                                e                 22 25 50.5
KHC   Kasperske Hory    81.49  25  eP       P        22 25 17.1 +0.9
KHC                                ex      x         22 25 50.5
KHC                                AMS     AMS       23 03 30.0
BTO   Baotou            81.53 320  eP       P        22 25 15.0 -1.6
GERES GERESS Array B    81.78  25   P       P        22 25 18.3 +0.5
      comp=Z,2.9nm,1.0s,mb4.2,baz=352,slow=4.0,SNR=11
GERES                              LR      LR        23 04 22.9
      comp=Z,378nm,18.2s,MS4.8,baz=92,slow=38
MORC  Moravsky Berou    82.06  22 ⇑P        P        22 25 20.0 +0.8
MORC  Moravsky Berou    82.06  22⇑iP        P        22 25 20.0 +0.8
VIVF  Saint-Julien-I    82.10  32  eP       P        22 25 20.0 +0.5
OKC   Ostrava-Krasne    82.17  22  eP       P        22 25 18.8 -1.0
OKC                                AMS     AMS       23 01 40.0
VRAC  Vranov            82.22  23 ⇑P        P        22 25 20.5 +0.5
VRAC  Vranov            82.22  23⇑iP        P        22 25 20.5 +0.5
OJC   Ojcow             82.25  21  eP       P        22 25 21.0 +0.8
BRVK  Borovoye          82.52 349   P       P        22 25 21.0 -0.5
      comp=Z,153nm,0.8s,SNR=6.1
BRVK  Borovoye          82.52 349  eP       P        22 25 21.1 -0.4
      comp=Z,22nm,0.9s,mb5.2
BRVK  Borovoye          82.52 349  eP       P        22 25 21.2 -0.3
BRVK                               pmax    pmax
      comp=Z,22nm,0.9s,mb5.2
ESDC  Sonseca Array     82.61  41   P       P        22 25 22.1 -0.2
      comp=Z,2.6nm,0.9s,mb4.2,baz=326,slow=4.3,SNR=7.8
ESDC                               LR      LR        23 01 01.9
      comp=Z,242nm,19.0s,MS4.6,baz=300,slow=35
NIE   Niedzica          83.12  21  eP       P        22 25 25.5 +0.8
SMOL  Smolenice         83.17  23  eP       P        22 25 26.7 +1.7
STHS  Stebnicka Huta    83.36  20  eP       P        22 25 27.6 +1.7
      comp=Z,12nm,1.4s,mb4.7
STHS  Stebnicka Huta    83.36  20  eP       P        22 25 27.6 +1.7
STHS                               pmax    pmax
      comp=Z,12nm,1.4s,mb4.7
KURK  Kurchatov         83.37 344   P       P        22 25 25.5 -0.5
      comp=Z,101nm,0.9s,mb5.8,SNR=15
KURK  Kurchatov         83.37 344  eP       P        22 25 25.6 -0.4
      comp=Z,22nm,1.1s,mb5.1
KURK  Kurchatov         83.37 344c iP       P        22 25 25.0 -1.0
NJ2   Nanjing           83.45 309  eP       P        22 25 27.5 +0.7
NJ2                                AMB     AMB
      comp=Z,90nm,0.8s,mb5.8
VYHS  Vyhne             83.58  22  eP       P        22 25 27.4 +0.3
      comp=Z,6.1nm,1.4s,mb4.5
VYHS  Vyhne             83.58  22  eP       P        22 25 27.4 +0.3
VYHS                               pmax    pmax
      comp=Z,6.0nm,1.4s,mb4.5
VYHS  Vyhne             83.58  22  eP       P        22 25 27.3 +0.2
LVV   L'vov             83.64  18  eP       P        22 25 27.3 -0.1
AKASG Malin Array Be    83.88  15   P       P        22 25 28.1 -0.5
      comp=Z,3.6nm,0.6s,mb4.7,baz=342,slow=4.4,SNR=20
AKASG                              LR      LR        23 04 56.6
      comp=Z,326nm,18.9s,MS4.7,baz=335,slow=37
KIEV  Kiev              83.88  15  eP       P        22 25 27.9 -0.7
      comp=Z,5.3nm,0.7s,mb4.8
KIEV                               ePcP    PcP       22 25 33.1 +0.4
KIEV  Kiev              83.88  15  eP       P        22 25 28.0 -0.6
KIEV                               e                 22 25 33.1
KIEV                               pmax    pmax
      comp=Z,5.0nm,0.7s,mb4.8
KECS  Kecovo            84.03  21  eP       P        22 25 29.6 +0.2
      comp=Z,5.3nm,0.9s,mb4.7
KECS  Kecovo            84.03  21  eP       P        22 25 29.6 +0.2
KECS                               pmax    pmax
      comp=Z,5.0nm,0.9s,mb4.6
KOLS  Kolonicke sedl    84.06  20  eP       P        22 25 33.1 +3.6
PERS  Pernice           84.19  25  i P      P        22 25 29.9 -0.4
UZH   Uzhgorod          84.34  20  eP       P        22 25 32.6 +1.6
UZH                                i                 22 25 45.0
PSZ   Piszkesteto       84.39  21 ⇓P        P        22 25 32.1 +0.9
PSZ   Piszkesteto       84.39  21⇓ePcP      PcP      22 25 32.7 -2.2
PSZ   Piszkesteto       84.39  21⇓iP        P        22 25 32.1 +0.8
JAVS  Javornik          84.52  26  i P      P        22 25 31.9 -0.1
SIV   San Ignacio       84.67 118   P       P        22 25 31.4 -1.6
      comp=Z,3.6nm,0.7s,mb4.6,baz=322,slow=5.1,SNR=20
VRSR  Storozhevoye      84.83   8  eP       P        22 25 33.2 -0.2
VRSR                               pmax    pmax
      comp=N,3.0nm,0.9s
VRSR                               pmax    pmax
      comp=E,1.0nm,0.9s
VRSR                               pmax    pmax
      comp=Z,2.0nm,0.9s,mb4.2
VISS  Visnje            84.85  26  i P      P        22 25 33.3 -0.3
BOJS  Bojanci           85.24  25  i P      P        22 25 35.8 +0.2
PKSM  Moragy            85.61  23 ⇑P        P        22 25 38.0 +0.5
PKSM  Moragy            85.61  23⇑iP        P        22 25 38.0 +0.6
BURAR Bucovina Array    85.98  18 ⇓P        P        22 25 39.5 +0.2
BURAR Bucovina Array    85.98  18⇓iP        P        22 25 39.5 +0.3
AKTO  Aktyubinsk        86.22 357   LR      LR       23 03 05.0
      comp=Z,255nm,21.8s,MS4.6,baz=23,slow=35
MK31  Makanchi Array    86.24 340  eP       P        22 25 39.1 -1.4
MKAR  Makanchi Array    86.24 340  i P      P        22 25 38.8 -1.7
MKAR                               pmax    pmax
      comp=Z,16nm,1.1s
MKAR  Makanchi Array    86.24 340   P       P        22 25 39.5 -1.1
      comp=Z,4.3nm,1.0s,mb4.7,baz=34,slow=5.0,SNR=22
MKAR                               LR      LR        23 07 21.3
      comp=Z,160nm,18.1s,MS4.5,baz=20,slow=38
GTA   Gaotai            87.02 325  eP       P        22 25 43.1 -1.4
GTA                                AP      pP        22 25 47.5 -5.1
GTA                                XP      sP        22 25 50.8 -4.7
GTA                                PP      PP        22 29 05.3 -1.7
GTA                                SKS               22 36 07.8
GTA                                S       S         22 36 22.5 +0.8
GTA                                SS      SS        22 42 07.8 +4.4
GTA                                AMB     AMB
      comp=Z,11nm,1.4s,mb4.9
GTA                                AMB     AMB
      comp=Z,190nm,6.5s
GTA                                LR      LR
      comp=N,416nm,19.4s,MS4.9
GTA                                LR      LR
      comp=E,251nm,21.3s,MS4.9
GTA                                LR      LR
      comp=Z,388nm,21.3s,MS4.8
WHN   Wuhan             87.11 310  eP       P        22 25 41.8 -3.3
XAN   Xi'an             87.25 316   P       P        22 25 44.3 -1.4
XAN                                AMB     AMB
      comp=Z,15nm,1.3s,mb5.1
AB31  Akbulak array     87.29 355  i P      P        22 25 45.6  0.0
AB31                               pmax    pmax
      comp=Z,21nm,1.2s,mb5.2
WMQ   Urumqi            87.49 335   P       P        22 25 46.4 -0.3
WMQ                                AP      pP        22 25 51.3 -3.5
WMQ                                XP      sP        22 25 53.4 -4.3
WMQ                                PP      PP        22 29 13.4 +2.8
WMQ                                AMB     AMB
      comp=Z,19nm,1.2s,mb5.2
WMQ                                AMB     AMB
      comp=Z,111nm,12.0s
WMQ                                LR      LR
      comp=N,267nm,19.2s,MS4.8
WMQ                                LR      LR
      comp=E,248nm,20.0s,MS4.8
WMQ                                LR      LR
      comp=Z,425nm,18.3s,MS4.9
VRI   Vrincioaia        87.98  18 ⇓P        P        22 25 49.2 +0.2
VRI   Vrincioaia        87.98  18⇓iP        P        22 25 49.2 +0.2
LZH   Lanzhou           88.03 321  eP       P        22 25 49.3 -0.1
LZH                                AP      pP        22 25 52.4 -5.1
LZH                                XP      sP        22 25 53.8 -6.6
LZH                                PP      PP        22 29 17.5 +2.2
LZH                                eSKS              22 36 14.9
LZH                                eS      S         22 36 28.3 -3.2
```

LZH				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.6						
LZH				AMB	AMB		
	comp=Z,200nm,4.4s						
LZH				LR	LR		
	comp=Z,2µm,17.5s,MS5.5						
LZH	**Lanzhou**	88.03	321	*e*P	P	22 25 49.3	-0.1
	comp=Z,40nm,1.1s,mb5.6						
LZH				pP	pP	22 25 52.4	-5.1
LZH				sP	sP	22 25 53.8	-6.6
LZH				PP	PP	22 29 17.5	+2.2
LZH				*e*SKS		22 36 14.9	
LZH				*e*S	S	22 36 28.2	-3.3
LZH				sS	sS	22 36 35.0	-10
LZH				SS	SS	22 42 16.0	-2.4
LZH				LR	LR		
	comp=Z,2µm,17.5s,MS5.5						
LZH	**Lanzhou**	88.03	321	*e*P	P	22 25 49.3	-0.1
LZH				*SP	sP	22 25 53.8	-6.6
LZH						22 29 17.5	
LZH				*e*		22 36 14.9	
LZH				*e*S	S	22 36 28.2	-3.3
LZH				SS	SS	22 42 16.0	-2.4
LZH				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.6						
LZH				MLR	MLR		
	comp=Z,2µm,17.5s,MS5.5						
DZM	**Mont Dzumac**	89.14	238	LR	LR	22 56 15.9	
	comp=Z,420nm,19.7s,MS4.9,baz=330,slow=29						
TKM2	**Tokmak 2**	91.43	343	*e*P	P	22 26 05.3	+0.1
	comp=Z,11nm,0.9s,mb5.2						
TKM2	**Tokmak 2**	91.43	343	*e*P	P	22 26 05.3	+0.1
TKM2				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.2						
KEST	**Kesra**	91.74	34	LR	LR	23 05 58.7	
	comp=Z,106nm,18.9s,MS4.3,baz=263,slow=35						
AAK	**Ala-Archa**	91.93	344	P	P	22 26 06.9	-0.6
	comp=Z,33nm,1.2s,mb5.5,SNR=6.1						
AAK	**Ala-Archa**	91.93	344	*e*P	P	22 26 06.3	-1.2
	comp=Z,8.3nm,1.2s,mb4.9						
AAK				*e*PP	PP	22 29 46.1	+0.2
AAK	**Ala-Archa**	91.93	344	*e*P	P	22 26 06.3	-1.2
AAK				*e*		22 29 46.1	
AAK				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.9						
EKS2	**Erkin-Say**	92.05	345	*e*P	P	22 26 08.1	+0.1
	comp=Z,19nm,1.5s,mb5.2						
KKAR	**Karatay Array**	92.20	347	*i* P	P	22 26 08.3	-0.4
KKAR				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.8						
CD2	**Chengdu**	92.33	318	*e*P	P	22 26 08.3	-1.3
CD2				AP	pP	22 26 13.1	-4.6
CD2				XP	sP	22 26 16.1	-4.5
CD2				PP	PP	22 29 50.5	+0.9
CD2				SKS		22 36 39.0	
CD2				S	S	22 37 07.0	-4.4
CD2				SS	SS	22 43 19.1	-1.6
CD2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb5.0						
CD2				AMB	AMB		
	comp=Z,30nm,6.8s						
CD2				LR	LR		
	comp=N,400nm,16.8s,MS5.0						
CD2				LR	LR		
	comp=E,260nm,15.6s,MS5.0						
CD2				LR	LR		
	comp=Z,250nm,19.2s,MS4.7						
KIV	**Kislovodsk**	92.36	7	*i* P	P	22 26 10.7	+1.2
KIV				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.8						
AML	**Almayashu**	92.57	344	*e*P	P	22 26 10.9	+0.5
	comp=Z,13nm,1.3s,mb5.2						
GYA	**Guiyang**	94.48	313	⇓*i*P	P	22 26 19.4	-0.1
GYA				PP	PP	22 30 08.6	+2.1
GYA				SKS		22 36 53.3	
GYA				S	S	22 37 27.8	-2.6
GYA				SS	SS	22 43 52.5	+0.8
GYA				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.8						
GYA				AMB	AMB		
	comp=Z,670nm,8.4s						
GYA				LR	LR		
	comp=N,680nm,20.6s,MS5.2						
GYA				LR	LR		
	comp=E,540nm,21.2s,MS5.2						
GYA				LR	LR		
	comp=Z,790nm,21.9s,MS5.1						
KSH	**Kashi**	94.61	342	*e*P	P	22 26 20.6	+0.7
KSH				*e*AP	pP	22 26 25.3	-2.7
KSH				*e*XP	sP	22 26 27.4	-3.5
KSH				*e*PP	PP	22 30 11.4	+4.5
KSH				*e*SKS		22 36 53.3	
KSH				*e*S	S	22 37 28.4	-2.7
KSH				*e*XS	sS	22 37 37.4	-7.2
KSH				AMB	AMB		
	comp=Z,466nm,6.0s						
KSH				LR	LR		
	comp=Z,748nm,4.8s						
RCBR	**Riachuelo**	95.02	93	PFAKE		22 26 30.0	+7.9
RCBR				LR	LR		
	comp=Z,535nm,21.0s,MS5.0						
BRTR	**Keskin Array B**	95.28	15	P	P	22 26 22.8	-0.2
BRTR						22 30 11.4	
BRTR	**Keskin Array B**	95.28	15	P	P	22 26 22.8	-0.2
	comp=Z,0.6nm,0.7s,mb4.1,baz=38,slow=2.2,SNR=4.1						
BRTR				PP	PP	22 30 11.4	-0.7
	comp=Z,1.1nm,1.1s,baz=12,slow=7.4,SNR=3.1						
BRTR				LR	LR	23 10 55.9	
	comp=Z,161nm,19.5s,MS4.5,baz=320,slow=36						
KMI	**Kunming**	97.60	315	P	P	22 26 34.4	+0.6
KMI				S	S	22 37 54.8	-2.7
KMI				LR	LR		
	comp=Z,137nm,22.9s,MS4.4						
KMI	**Kunming**	97.60	315	P	P	22 26 34.4	+0.6
KMI				S	S	22 37 54.7	-2.8
KMI				MLR	MLR		
	comp=Z,140nm,22.9s,MS4.4						
LSA	**Lhasa**	98.96	327	*e*P	P	22 26 40.5	+0.7
	comp=Z,1.3nm,0.5s,mb4.7						
LSA				*e*PP	PP	22 30 41.6	+0.8
LSA	**Lhasa**	98.96	327	*e*P	P	22 26 40.5	+0.7
LSA				*e*		22 30 41.6	
LSA				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.6						
TORD	**Torodi Ar. Bea**	106.87	52	PP	PP	22 31 30.6	-10
	comp=Z,0.9nm,0.9s,baz=316,slow=6.4,SNR=3.7						
WRA	**Warramunga Arr**	109.39	261	PKPdf	PKiKP	22 31 26.9	-2.7
WRA	**Warramunga Arr**	109.39	261	PKiKP	PKiKP	22 31 26.9	-2.7
	comp=Z,0.8nm,0.9s,baz=41,slow=1.7,SNR=5.4						
ASAR	**Alice Springs**	112.07	258	PKKPbc	PKKPbc	22 42 30.9	+6.1
	comp=Z,0.9nm,0.9s,baz=217,slow=3.7,SNR=6.7						
VNDA	**Vanda**	128.24	195	PFAKE		22 32 20.0	+16
VNDA				LR	LR		
	comp=Z,325nm,19.0s,MS5.0						
QSPA	**South Pole Qui**	133.42	180	PFAKE		22 32 30.0	+16
QSPA				LR	LR		
	comp=Z,340nm,19.0s,MS5.1						
KMBO	**Kilima Mbogo**	135.52	22	PFAKE		22 32 30.0	+10
KMBO				LR	LR		
	comp=Z,240nm,20.0s,MS4.9						
TSUM	**Tsumeb**	141.86	62	PFAKE		22 32 40.0	+9.0
TSUM				LR	LR		
	comp=Z,591nm,19.0s,MS5.4						
LSZ	**Lusaka**	144.88	44	*e*PKPab	PKPdf	22 32 35.8	-0.7
LSZ				LR	LR		
	comp=Z,366nm,20.0s,MS5.2						
LSZ	**Lusaka**	144.88	44	*e*PKIKP	PKPdf	22 32 35.8	-0.6
LSZ				MLR	MLR		
	comp=Z,366nm,20.0s,MS5.2						
MAIT	**Maitri**	146.13	157	*e*PKPdf	PKPdf	22 32 34.4	-2.5
NVL	**N'lazarevskaya**	146.17	157	*e*PKP2	PKPab	22 32 36.7	-2.1
NVL				pmax	pmax		
	comp=Z,23nm,1.1s						
BOSA	**Boshof**	153.43	65	PKPbc	PKPbc	22 32 55.8	-1.6
BOSA	**Boshof**	153.43	65	PKIKP	PKPbc	22 32 55.8	-1.6
BOSA	**Boshof**	153.43	65	PKPbc	PKPbc	22 32 55.8	-1.6
	comp=Z,5.9nm,1.0s,baz=56,slow=1.5,SNR=6.6						
MAW	**Mawson**	155.34	189	PFAKE		22 33 00.0	+8.8
MAW				LR	LR		
	comp=Z,429nm,20.0s,MS5.3						

IDC ***14*** *22:21:43.8±6.9, 6.27N×72.40W, h168^{km}±46^{km}, mb1 3.4/1, mb1mx2.8/19, mbtmp3.7/1, Error ellipse: s-maj=325.7km s-min=81.5km az=144.0*

ISCJB ***14*** *22:21:44.5±1.0, 6.91N±0.09×73.0W±0.1, h155^{km}±12^{km}, Error ellipse: s-maj=22.6km s-min=7.7km az=38.1*

FUNV ***14*** *22:21:46.7, 6.99N×73.10W, h160^{km}, MW3.5*

ISC 14 22:21:45.3±1.0, **6.92N**±0.09×**73.0W**±0.1, **h154**^{km}±12^{km}**, n14, σ0^{s}.65**/16**, 1D, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAPV	**Capacho**	1.18	37	*e*S	Sn	22 22 33.2	+0.7
ROSC	**El Rosal**	2.42	212	P	Pn	22 22 24.9	-0.7
	22nm,0.3s,baz=61,slow=5.6,SNR=37						
ROSC				S	Sn	22 22 56.9	+0.1
	21nm,0.3s,baz=85,slow=22,SNR=16						
VIGV	**El Vigia**	2.53	41	⇓*i*P	Pn	22 22 27.7	+0.8
VIGV				*e*S	Sn	22 22 58.0	-1.1
SOCV	**Socops**	2.55	58	*e*P	Pn	22 22 28.1	+0.9
SOCV				*e*S	Sn	22 22 58.7	-0.8
VIRV	**Villa del Rosa**	3.62	10	*e*P	Pn	22 22 40.1	-0.5
VIRV				*e*S	Sn	22 23 19.5	-4.2
QARV	**Quebrada Arrib**	4.10	37	*e*P	Pn	22 22 47.7	+0.7
SANV	**Sanarito**	4.31	53	*e*P	Pn	22 22 50.4	+0.8
CURV	**Curarigua**	4.32	44	*e*P	Pn	22 22 50.0	+0.1
DABV	**Dabajuro**	4.63	31	*e*P	Pn	22 22 53.6	-0.3
SIQV	**Siquisique**	4.89	40	*e*P	Pn	22 22 57.3	0.0
BAUV	**El Baul**	5.34	68	*e*P	Pn	22 23 03.3	0.0
CAOV	**Caicara del Or**	6.67	86	*e*P	Pn	22 23 20.5	-0.5
ASAR	**Alice Springs**	149.24	234	PKPbc	PKPbc	22 41 13.5	-3.0
	0.4nm,0.7s,baz=110,slow=2.5,SNR=4.1						
WRA	**Warramunga Arr**	150.46	241	PKPbc	PKPbc	22 41 16.7	-2.9
	0.2nm,0.4s,baz=110,slow=2.5,SNR=11						

CASC 14 22:39:14.1±3.2**, 13.92N**×**91.27W, h72**^{km}±63^{km}**, MD3.5, 2D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAT	**Jato**	0.53	318	*e*P	Pn	22 39 27.0	-0.5
FUG	**Fuego 3**	0.67	38	*e*P	Pn	22 39 28.7	-0.2
FUG				*e*S	Sn	22 39 41.6	+1.9
FG6		0.74	31	*e*P	Pn	22 39 30.1	+0.5
FG6				*e*S	Sn	22 39 41.5	+0.5
PCG	**Pacaya**	0.80	54	*e*P	Pn	22 39 31.1	+0.9
RTR	**El Retiro**	1.58	91	*e*P	x	22 39 44.4	
RTR				*e*S	x	22 40 05.0	
SBLS	**San Blas**	1.60	93	*e*P	x	22 39 44.1	
SBLS				*e*S	x	22 40 05.2	
SNJE	**San Jose**	1.62	92	⇓*e*P	x	22 39 44.6	
SNJE				*e*S	x	22 40 08.3	
BOQS	**Boqueron**	1.94	95	*e*P	x	22 39 51.1	
BOQS				*e*S	x	22 40 16.4	
LFRS	**El Faro**	2.17	98	⇓*e*P	x	22 39 52.3	
LFRS				*e*S	x	22 40 18.0	
LCBS	**La Ceiba**	2.24	97	*e*P	x	22 39 53.4	
LCBS				*e*S	x	22 40 19.2	
SNVI	**San Vicente**	2.38	97	*e*P	x	22 39 55.9	
SNVI				*e*S	x	22 40 24.4	

NIED ***14*** *22:42:00, 24.40N×122.20E, h47^{km}, Mw4.8 Best double couple: $M_0$1.60000×10^{16} NP1:ϕ_s160.00000°, δ22.00000°, λ166.00000°. NP2:ϕ_s263.00000°, δ85.00000°, λ69.00000°.*

IDC ***14*** *22:42:46.7±0.9, 24.14N×122.25E, h0^{km}, mb3.7/7, mb1 3.9/7, mb1mx3.7/20, mbtmp3.7/7, MS4.3/1, Ms1 4.3/1, ms1mx3.1/38, Error ellipse: s-maj=68.6km s-min=17.6km az=67.0*

JMA ***14*** *22:42:50.9±0.2, 24.42N×122.15E, h40^{km}±3^{km}, M3.9*

NEIC ***14*** *22:42:51.7±0.7, 24.15N×122.30E, h35^{km}, mb3.9/2, Error ellipse: s-maj=20.0km s-min=10.5km az=58.0*

ISCJB ***14*** *22:42:52.8±0.5, 24.16N±0.08×122.29E±0.03, h65^{km}±5^{km}, mb3.7/9, Error ellipse: s-maj=13.0km s-min=4.7km az=12.0*

ISC 14 22:42:54.0±0.6**, 24.20N**±0.08×**122.30E**±0.03**, h57**^{km}±5^{km}**, n23, σ1^{s}.10**/32**, mb3.7**/9**, MS4.3**/1**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	**Ninganchiao**	0.65	268	*e*P	Pn	22 43 03.3	-4.1
NACB				*e*S	Sn	22 43 17.8	+0.7
YOJ	**Yonaguni jima**	0.70	67	P	Pn	22 43 05.5	-2.5
YOJ				*e*S	Sn	22 43 16.1	-2.2
YHNB	**Yeheng**	0.97	299	*e*P	Pn	22 43 09.8	-1.7
YHNB				*e*S	Sn	22 43 25.6	+1.2
TATO	**Taipei**	1.07	316	*e*P	Pn	22 43 13.1	+0.2
TATO				*e*S	Sn	22 43 28.3	+1.4
IRIF	**Iriomote-Funau**	1.31	84	P	Pn	22 43 15.2	-0.8
IRIF				*e*S	Sn	22 43 33.0	+0.5
HATJ	**Hateruma jima**	1.38	95	P	Pn	22 43 16.6	-0.3
HATJ				*e*S	Sn	22 43 35.4	+1.2
JKRS	**Kuro-shima**	1.56	88	P	Pn	22 43 19.4	+0.1
JKRS				*e*S	Sn	22 43 40.9	+2.4
JIJ	**Ishigaki jima**	1.69	84	P	Pn	22 43 20.3	-0.8
JIJ				*e*S	Sn	22 43 41.8	+0.2
JTJ	**Tarama**	2.23	78	P	Pn	22 43 28.1	-0.4
JTJ				*e*S	Sn	22 43 56.1	+1.2
BJT	**Baijiatuau**	16.60	343	*e*Pn	Pn	22 46 40.3	-2.6
ULN	**Ulaanbaatar**	26.55	337	*e*P	P	22 48 27.1	+0.9
	0.6nm,0.4s,mb3.5						
SONM	**Songino Array**	26.77	336	P	P	22 48 28.7	+0.4
	0.8nm,0.7s,mb3.4,baz=150,slow=9.9,SNR=9.2						
MKAR	**Makanchi Array**	39.04	315	P	P	22 50 15.3	+0.2
MKAR	**Makanchi Array**	39.04	315	P	P	22 50 15.3	+0.2
	0.2nm,0.4s,mb3.2,baz=100,slow=9.9,SNR=7.0						
ZALV	**Zalesovo Beam**	40.80	327	P	P	22 50 29.3	-0.2
	0.5nm,0.4s,mb3.5,baz=122,slow=8.6,SNR=3.5						
PMG	**Port Moresby**	41.28	141	*e*P	P	22 50 29.0	-5.0
	3.4nm,0.7s,mb4.1						
KURK	**Kurchatov**	42.74	320	P	P	22 50 45.0	-0.4
WRA	**Warramunga Arr**	45.41	164	P	P	22 51 06.7	-0.4
	1.4nm,0.8s,mb3.8,baz=345,slow=8.8,SNR=14						
WRA				LR	LR	23 10 09.1	
	comp=Z,388nm,20.6s,MS4.3,baz=55,slow=36						
BRVK	**Borovoye**	48.38	320	P	P	22 51 29.0	-1.0
ASAR	**Alice Springs**	48.89	166	P	P	22 51 34.5	+0.4
	1.5nm,1.0s,mb4.0,baz=330,slow=5.6,SNR=7.5						
STKA	**Stephens Creek**	58.73	161	P	P	22 52 45.6	-0.3
	1.6nm,0.7s,mb4.2,baz=324,slow=8.6,SNR=4.7						
YKA	**Yellowknife Ar**	82.56	23	P	P	22 55 11.7	+1.3
YKA	**Yellowknife Ar**	82.56	23	P	P	22 55 11.7	+1.3
	0.1nm,0.3s,mb3.3,baz=308,slow=5.5,SNR=4.2						

IDC ***14*** *22:48:57.7±8.0, 42.20N×147.41E, h0^{km}, mb3.4/3, mb1 3.5/4, mb1mx3.3/22, mbtmp3.4/4, ML2.6/1, Error ellipse: s-maj=247.1km s-min=30.6km az=58.0*

ISCJB ***14*** *22:49:10.8±0.8, 41.12N±0.04×144.39E±0.06, h33^{km}, mb3.3/3, Error ellipse: s-maj=7.4km s-min=3.8km az=34.9*

JMA ***14*** *22:49:11.2±0.2, 41.11N×144.41E, h55^{km}±2^{km}, M3.3*

ISC 14 22:49:12.3±0.8**, 41.14N**±0.04×**144.38E**±0.06**, h35**^{km}**, n19, σ0^{s}.96**/30**, mb3.3**/3**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JEM	**Erimo**	1.27	314	*e*S	Sn	22 49 49.6	+0.4
JCH	**Churui**	1.66	333	P	Pn	22 49 39.2	+0.4
JCH				*e*S	Sn	22 49 58.8	-0.1
JNBK	**Urakawa-nobuka**	1.67	314	P	Pn	22 49 40.2	+1.2
JNBK				*e*S	Sn	22 49 59.4	+0.3
JOB	**Onbets**	1.81	347	*e*S	Sn	22 50 04.1	+1.5
JAK	**Akkeshi**	1.87	7	P	Pn	22 49 42.0	+0.2
JAK				*e*S	Sn	22 50 03.8	-0.4
JAR	**Ashorobuto**	2.20	348	P	Pn	22 49 46.0	-0.3
JAR				*e*S	Sn	22 50 11.4	-0.9
JANG	**Nango**	2.30	252	P	Pn	22 49 47.4	-0.3
JANG				*e*S	Sn	22 50 13.1	-1.7
NEM2	**Nemuro 2**	2.44	24	P	Pn	22 49 49.9	+0.2
NEM2				*e*S	Sn	22 50 16.9	-1.4
JNK	**Nakash**	2.46	6	*e*S	Sn	22 50 16.8	-1.8
JOT	**Ohata**	2.52	277	P	Pn	22 49 51.4	+0.7
JOT				*e*S	Sn	22 50 19.3	-0.9
JTM	**Tenmabayashi**	2.53	263	P	Pn	22 49 51.5	+0.7
JTM				*e*S	Sn	22 50 19.4	-1.0
JKB	**Kayabe**	2.62	288	*e*S	Sn	22 50 22.5	-0.1
JRA	**Rausu**	2.85	11	*e*S	Sn	22 50 26.9	-1.4
JTKR	**Abashiri--Toko**	2.85	353	P	Pn	22 49 55.9	+0.7
JTKR				*e*S	Sn	22 50 28.7	+0.4
JOM	**Ohasama**	2.89	236	P	Pn	22 49 55.9	+0.2
JOM				*e*S	Sn	22 50 28.6	-0.6
ASAJ	**Asahikawa**	3.25	337	Pn	Pn	22 50 00.2	-0.6
	0.3nm,0.3s,baz=107,slow=19,SNR=3.0						
ASAJ				Sn	Sn	22 50 40.5	+2.3
	0.7nm,0.3s,baz=241,slow=13,SNR=3.3						
SONM	**Songino Array**	27.70	297	P	P	22 55 02.3	+5.4
	0.4nm,0.6s,mb3.2,baz=95,slow=9.8,SNR=3.2						
MKAR	**Makanchi Array**	44.02	299	P	P	22 57 17.9	+1.7
	0.4nm,0.9s,mb3.1,baz=76,slow=6.5,SNR=3.5						
WRA	**Warramunga Arr**	61.48	191	P	P	22 59 26.3	+0.9
	0.2nm,0.6s,mb3.4,baz=8.5,slow=6.8,SNR=5.8						

IDC ***14*** *22:58:32.5±5.5, 40.95N×77.97E, h0^{km}, mb3.5/1, mb1 3.4/3, mb1mx3.2/24, mbtmp3.4/3, ML3.1/2, Error ellipse: s-maj=83.4km s-min=38.1km az=92.0*

NNC ***14*** *22:58:32.1±4.1, 40.82N×78.37E, h0^{km}, mb4.0, mpv3.6, Error ellipse: s-maj=33.8km s-min=25.5km az=16.0*

ISCJB ***14*** *22:58:32.4±0.7, 40.85N±0.05×78.40E±0.04, h10^{km}, mb3.5/1, Error ellipse: s-maj=7.4km s-min=4.2km az=165.0*

BJI ***14*** *22:58:34.1, 40.90N×78.17E, h18^{km}, ML3.4*

MOS ***14*** *22:58:35.6±1.4, 40.88N×78.26E, h33^{km}, mb3.6/1, Error ellipse: s-maj=24.1km s-min=13.7km az=88.1*

NEIC ***14*** *22:58:38.5±2.1, 41.03N×78.10E, h35^{km}, Error ellipse: s-maj=32.7km s-min=9.2km az=168.0*

ISC 14 22:58:33.6±0.7**, 40.80N**±0.05×**78.38E**±0.05**, h10**^{km}**, n35, σ1^{s}.51**/49**, mb3.5**/1**, 8C-3D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ULHL	**Ulahol**	2.16	313	P	Pn	22 59 06.5	-3.1
	SNR=88						
KSH	**Kashi**	2.25	236	⇑*i*P	Pn	22 59 10.8	0.0
KSH				S	Sn	22 59 40.8	+2.3
KSH				Smax			
	comp=N,899nm,0.6s						
KSH				Smax			
	comp=E,1µm,0.6s						
KNDC	**Almaty**	2.64	337	⇑Pn	Pn	22 59 16.8	+0.6
	comp=E,56nm,0.5s						
KNDC				⇓Sn	Sn	22 59 49.9	+1.7
	comp=E,760nm,0.5s						
KZA	**Kyzart**	2.68	300	P	Pn	22 59 15.2	-1.6
	SNR=169						
AAA	**Alma-Ata**	2.69	337	*e*PN	Pn	22 59 16.7	-0.2
AAA				*e*S	Sn	22 59 50.8	+1.2
AAA				smax			
	comp=E,1.0nm,0.5s						
TKM2	**Tokmak 2**	2.97	316	P	Pn	22 59 21.8	+1.0
	SNR=35						
TKM2	**Tokmak 2**	2.97	316	⇑Pn	Pn	22 59 21.0	+0.2
	comp=E,5.8nm,0.7s						
TKM2				⇓Sn	Sn	22 59 57.0	+0.6
	comp=E,10nm,0.5s						
TKM2	**Tokmak 2**	2.97	316	*e*Pn	Pn	22 59 19.6	-1.1
TKM2				*e*S	Sn	22 59 56.8	+0.4
TKM2	**Tokmak 2**	2.97	316	*e*PN	Pn	22 59 19.6	-1.1
TKM2				*e*S	Sn	22 59 56.8	+0.4
KBK	**Karagaybulak**	3.17	307	P	Pn	22 59 24.9	+1.4
	SNR=24						
UCH	**Uchtor**	3.24	297	P	Pn	22 59 26.3	+1.9
	SNR=23						
UCH	**Uchtor**	3.24	297	*e*Pn	Pn	22 59 22.6	-1.8
UCH				*e*Sn	Sn	23 00 02.7	-0.2
AAK	**Ala-Archa**	3.44	304	P	Pn	22 59 29.4	+2.3
	SNR=70						
AAK	**Ala-Archa**	3.44	304	*e*Pn	Pn	22 59 25.7	-1.5
AAK				*e*Sn	Sn	23 00 05.2	-2.8
AAK	**Ala-Archa**	3.44	304	*e*PN	Pn	22 59 25.7	-1.5
AAK				*e*		23 00 05.2	
CHMS	**Chumysh**	3.49	310	P	Pn	22 59 30.3	+2.4
	SNR=69						
AML	**Almayashu**	3.77	292	P	Pn	22 59 36.8	+5.1
	SNR=26						
AML	**Almayashu**	3.77	292	*e*Pn	Pn	22 59 30.0	-1.7
AML				*e*Sn	Sn	23 00 16.1	+0.1
USP	**Ospenovka**	3.80	312	P	Pn	22 59 35.5	+3.3
	SNR=24						
EKS2	**Erkin-Say**	3.92	300	P	Pn	22 59 37.9	+4.2
	SNR=66						
EKS2	**Erkin-Say**	3.92	300	*e*Pn	Pn	22 59 32.8	-1.0
EKS2				*e*Sn	Sn	23 00 13.8	-5.9
KK31	**Karatay Array**	6.30	294	⇑Pg	Pb	23 00 20.6	-2.8
	comp=E,4.6nm,0.6s,baz=109,slow=16,SNR=47						
KK31				⇑Lg		23 01 47.9	
	comp=E,11nm,0.7s,baz=104,slow=29,SNR=5.1						
MK31	**Makanchi Array**	6.63	24	⇑Pn	Pn	23 00 12.4	+1.4
	comp=E,1.9nm,0.5s,baz=200,slow=10,SNR=32						
MK31				⇑Lg		23 01 59.1	
	comp=E,7.9nm,0.8s,baz=215,slow=27,SNR=4.4						
MK31	**Makanchi Array**	6.63	24	*e*Pn	Pn	23 00 12.6	+1.6
MK31				*e*Sn	Sn	23 01 26.8	+0.2
MK31	**Makanchi Array**	6.63	24	*e*PN	Pn	23 00 12.6	+1.6
MKAR	**Makanchi Array**	6.63	24	Pn	Pn	23 00 12.3	+1.4
MKAR				Pg	Pg	23 00 31.6	-8.9
MKAR				Lg		23 02 01.8	
MKAR	**Makanchi Array**	6.63	24	PN	Pn	23 00 12.3	+1.3
MKAR						23 00 31.6	
MKAR	**Makanchi Array**	6.63	24	Pn	Pn	23 00 12.3	+1.4
	comp=E,0.4nm,0.3s,baz=207,slow=14,SNR=24						
MKAR				Pg	Pg	23 00 31.6	-8.9
	comp=E,0.7nm,0.3s,baz=209,slow=15,SNR=6.7						
MKAR				Lg		23 02 01.8	
	comp=E,1.1nm,0.3s,baz=210,slow=28,SNR=5.7						
WMQ	**Urumqi**	7.54	63	*e*P	Pn	23 00 21.8	-1.6
WMQ				SG	Sg	23 02 43.0	+7.7
WMQ				Smax			
	comp=N,8.0nm,0.8s						
WMQ				Smax			
	comp=E,15nm,1.0s						
KURK	**Kurchatov**	9.92	1	⇑Pn	Pn	23 00 54.9	-1.2
	comp=E,5.5nm,2.3s						
KURK				⇓Lg		23 03 45.7	
	comp=E,5.2nm,0.9s						
ZAL	**Zalesovo**	13.84	16	P	Pn	23 01 48.2	-1.4
ZALV	**Zalesovo Beam**	13.85	16	Pn	Pn	23 01 48.1	-1.7
ZALV				Lg		23 05 52.4	
ZALV	**Zalesovo Beam**	13.85	16	Pn	Pn	23 01 48.1	-1.7
	comp=E,0.1nm,0.3s,baz=209,slow=11,SNR=3.5						
ZALV				Lg		23 05 52.4	
	comp=E,0.0nm,0.3s,baz=192,slow=26,SNR=2.4						
ZAK	**Zakamensk**	19.80	53	*e*P	Pn	23 03 05.2	-0.3
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.6s						
SONM	**Songino Array**	21.17	61	P	P	23 03 21.6	+2.8
	comp=Z,1.6nm,0.6s,mb3.5,baz=263,slow=11,SNR=21						

IDC 14 22:58:41.3±5.3**, 16.14S**×**177.42W, h0**^{km}**, mb4.5**/3**, mb1 4.7**/3**, mb1mx4.0**/14**, mbtmp4.5**/3**, Error ellipse: s-maj=188.6km s-min=63.8km az=134.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	40.32	240	*e*P	P	23 06 21.1	+0.5
	2.6nm,1.1s						
STKA	**Stephens Creek**	40.32	240	P	P	23 06 21.4	+0.8
	1.6nm,0.5s,baz=100,slow=12,SNR=4.5						
WB2	**Warramunga Arr**	45.90	258	*e*P	P	23 07 05.4	-0.5
WRA	**Warramunga Arr**	45.91	258	P	P	23 07 05.6	-0.5
	1.6nm,0.4s,baz=96,slow=7.3,SNR=62						
ASAR	**Alice Springs**	46.20	253	P	P	23 07 08.1	-0.3
	16nm,0.5s,baz=88,slow=8.0,SNR=164						
KAKA	**Kakadu**	48.59	267	*e*P	P	23 07 28.2	+1.2
	3.7nm,0.4s						
MMAI	**Mount Meron Ar**	145.94	306	PKPbc	PKPbc	23 18 22.6	-0.7
	2.3nm,0.9s,baz=69,slow=4.6,SNR=4.3						

CSEM ***14*** *23:07:36.7±0.1, 36.11N×22.77E, h2^{km}, mb4.4/2, Error ellipse: s-maj=2.5km s-min=1.6km az=9.0*

HLW ***14*** *23:07:37.2, 36.45N×22.74E, h33^{km}, Mb3.9*

THE ***14*** *23:07:38.5, 36.22N×22.70E, h3^{km}, ML4.2*

MOS ***14*** *23:07:38.9±1.1, 36.12N×22.68E, h33^{km}, mb4.1/2, Error ellipse: s-maj=8.4km s-min=5.1km az=102.9*

ISCJB ***14*** *23:07:38.2±0.5, 36.13N±0.02×22.68E±0.02, h28^{km}±4^{km}, mb4.1/16, Error ellipse: s-maj=4.4km s-min=2.4km az=39.4*

NEIC ***14*** *23:07:39.1, 36.28N×22.82E, h23^{km}, mb3.7/1, ML4.2(THE), ML3.6(ATH), After ATH.*

ATH ***14*** *23:07:39.8, 36.33N×22.89E, h24^{km}±1^{km}, ML3.5*

IDC ***14*** *23:07:42.7±1.3, 36.28N×22.85E, h46^{km}±14^{km}, mb3.8/12, mb1 3.8/21, mb1mx3.7/29, mbtmp3.7/21, ML3.6/9, MS3.3/1,* *Ms1 3.3/1, ms1mx2.4/41, Error ellipse: s-maj=18.1km s-min=11.3km az=14.0*

ISC 14 23:07:39.9±0.5**, 3620N**±002×**2276E**±002**, h19**^{km}±4^{km}**,**
n242, σ1§**24**/281**, mb4.1**/16**, 10C-3D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KYTH	Kithira	0.23	71	ePb	Pg	23 07 44.8	-0.6
KYTH	Kithira	0.23	71	ePB	Pg	23 07 44.8	-0.6
KYTH	Kithira	0.23	71	ePb	Pg	23 07 44.8	-0.6
VLI	Veliai	0.53	15	⇑iPb	Pb	23 07 48.7	-2.0
VLI	Veliai	0.53	15	⇑iPB	Pb	23 07 48.7	-2.0
VLI	Veliai	0.53	15	⇑iPb	Pb	23 07 48.7	-2.0
PYL	PYLOS	1.07	310	ePg	Pg	23 07 57.1	-3.6
PYL				eSg	Sg	23 08 12.3	-2.5
PYL	PYLOS	1.07	310	ePg	Pg	23 07 57.1	-3.6
PYL				eSg	Sg	23 08 12.3	-2.5
ITM	Ithomi	1.18	326	ePb	Pb	23 07 59.5	-2.3
ITM				eSn	Sn	23 08 16.1	-1.0
ITM	Ithomi	1.18	326	ePB	Pb	23 08 00.2	-1.6
ITM				eSN	Sn	23 08 17.5	+0.4
ITM	Ithomi	1.18	326	ePb	Pb	23 07 59.5	-2.3
ITM				eSn	Sn	23 08 16.1	-1.0
KARN	Karanos	1.23	130	ePg	Pg	23 08 02.8	-1.0
KARN				eSg	Sg	23 08 20.0	+0.1
KARN	Karanos	1.23	130	ePg	Pg	23 08 02.8	-1.0
KARN				eSg	Sg	23 08 20.0	+0.1
VAM	Vamos	1.41	124	ePn	Pn	23 08 05.8	+1.2
VAM				eSn	Sn	23 08 25.0	+2.3
VAM	Vamos	1.41	124	ePN	Pn	23 08 05.8	+1.2
VAM				eSN	Sn	23 08 25.0	+2.3
VAM	Vamos	1.41	124	ePn	Pn	23 08 05.8	+1.2
VAM				eSn	Sn	23 08 25.0	+2.3
NAIG	Nisos Aigina	1.66	20	ePn	Pn	23 08 07.5	-0.5
NAIG	Nisos Aigina	1.66	20	ePN	Pn	23 08 07.5	-0.5
NAIG	Nisos Aigina	1.66	20	ePn	Pn	23 08 07.5	-0.5
GVD	Gavdhos	1.74	141	ePn	Pn	23 08 06.6	-2.5
GVD				eSn	Sg	23 08 37.9	+1.9
KVR	Kavouri	1.81	26	ePB	Pn	23 08 08.0	-2.1
LTK	Loutraki	1.82	5	ePb	Pb	23 08 10.8	-1.9
LTK				eSb	Sb	23 08 35.2	+0.1
LTK	Loutraki	1.82	5	ePb	Pb	23 08 10.8	-1.9
LTK				eSb	Sb	23 08 35.2	+0.1
ATH	Athens Observa	1.92	23	ePb	Pn	23 08 10.7	-1.0
ATH				eSn	Sn	23 08 35.5	+0.2
ATH	Athens Observa	1.92	23	ePN	Pn	23 08 10.7	-1.0
ATH				eSN	Sn	23 08 34.2	-1.1
ATH	Athens Observa	1.92	23	ePb	Pn	23 08 10.7	-1.0
ATH				eSn	Sn	23 08 35.5	+0.2
IDI	Anoyia	1.96	117	P	Pn	23 08 13.6	+1.5
	28nm,0.3s,baz=300,slow=18,SNR=55						
IDI				S	Sg	23 08 43.4	+0.5
	76nm,0.3s,baz=285,slow=17,SNR=6.5						
PTL	Penteli	2.04	25	ePn	Pn	23 08 13.0	-0.3
PTL	Penteli	2.04	25	ePB	Pn	23 08 13.0	-0.3
PTL	Penteli	2.04	25	ePn	Pn	23 08 13.0	-0.3
SIVA	Sivas	2.05	125	P	Pb	23 08 16.9	+0.4
SIVA				S	Sg	23 08 46.3	+0.5
SIVA	Sivas	2.05	125	ePn	Pb	23 08 16.9	+0.4
SIVA				eSn	Sb	23 08 42.5	+0.9
SIVA	Sivas	2.05	125	ePn	Pb	23 08 16.9	+0.4
SIVA				eSn	Sb	23 08 42.5	+1.0
RLS	Riolos of Patr	2.12	331	ePn	Pn	23 08 16.6	+2.2
RLS	Riolos of Patr	2.12	331	ePN	Pn	23 08 16.2	+1.8
RLS	Riolos of Patr	2.12	331	ePn	Pn	23 08 16.6	+2.2
APE	Apeiranthos	2.39	68	ePn	Pn	23 08 17.6	-0.4
APE	Apeiranthos	2.39	68	ePn	Pn	23 08 17.1	-1.0
APE	Apeiranthos	2.39	68	ePN	Pn	23 08 17.6	-0.4
APE	Apeiranthos	2.39	68	i P	Pn	23 08 17.0	-1.0
APE	Apeiranthos	2.39	68	ePn	Pn	23 08 17.6	-0.4
LAST	Lasithi	2.44	114	P	Pn	23 08 19.3	+0.5
LAST	Lasithi	2.44	114	ePn	Pn	23 08 19.3	+0.5
LAST	Lasithi	2.44	114	ePn	Pn	23 08 19.3	+0.5
LKR	Lokris	2.45	4	ePb	Pn	23 08 19.1	+0.2
LKR				eSn	Sn	23 08 48.8	+0.5
LKR	Lokris	2.45	4	ePB	Pn	23 08 19.1	+0.2
LKR				eSN	Sn	23 08 47.3	-1.0
LKR	Lokris	2.45	4	ePb	Pn	23 08 19.1	+0.2
LKR				eSn	Sn	23 08 48.8	+0.5
NPS	Neapolis	2.50	111	ePn	Pn	23 08 20.3	+0.7
NPS	Neapolis	2.50	111	ePN	Pn	23 08 20.3	+0.7
NPS	Neapolis	2.50	111	ePn	Pn	23 08 20.3	+0.7
VLS	Valsamata	2.62	319	ePn	Pn	23 08 22.3	+1.0
VLS	Valsamata	2.62	319	ePN	Pn	23 08 22.3	+1.0
VLS	Valsamata	2.62	319	ePn	Pn	23 08 22.3	+1.0
XRY	Khrisi	2.73	118	ePb	Pb	23 08 25.5	-2.7
XRY	Khrisi	2.73	118	ePB	Pb	23 08 25.5	-2.7
XRY	Khrisi	2.73	118	ePb	Pb	23 08 25.5	-2.7
EVR	Evrytania	2.81	345	ePb	Pn	23 08 25.1	+1.2
EVR	Evrytania	2.81	345	ePN	Pn	23 08 25.1	+1.2
EVR	Evrytania	2.81	345	ePb	Pn	23 08 25.1	+1.2
AGG	Agios Georgios	2.83	353	ePn	Pn	23 08 25.6	+1.5
AGG				eSn	Sn	23 08 59.9	+2.1
AGG	Agios Georgios	2.83	353	ePn	Pn	23 08 25.6	+1.4
AGG				eSn	Sn	23 08 59.9	+2.1
ZKR	Zakros	3.02	110	P	Pn	23 08 27.7	+1.1
ZKR				S	Sb	23 09 09.2	-0.3
ZKR	Zakros	3.02	110	ePn	Pn	23 08 26.9	+0.3
ZKR				eSn	Sn	23 09 05.1	+2.8
ZKR	Zakros	3.02	110	ePn	Pn	23 08 26.9	+0.2
ZKR				eSn	Sn	23 09 05.1	+2.8
XOR	Xorichti	3.17	6	P	Pn	23 08 30.5	+1.7
XOR	Xorichti	3.17	6	ePn	Pn	23 08 28.6	-0.3
XOR	Xorichti	3.17	6	ePn	Pn	23 08 28.6	-0.3
XOR	Xorichti	3.17	6	P	Pn	23 08 30.5	+1.6
THL	Klokotos Trika	3.41	350	ePN	Pn	23 08 33.3	+1.2
THL	Klokotos Trika	3.41	350	ePb	Pn	23 08 34.0	+1.9
SMG	Samos	3.59	64	ePn	Pn	23 08 34.3	-0.3
SMG	Samos	3.59	64	ePN	Pn	23 08 34.3	-0.3
SMG	Samos	3.59	64	ePn	Pn	23 08 34.3	-0.3
KARP	Karpathos	3.63	99	ePn	Pn	23 08 36.3	+1.1
KARP	Karpathos	3.63	99	ePN	Pn	23 08 36.3	+1.1
KARP	Karpathos	3.63	99	ePn	Pn	23 08 36.3	+1.1
JAN	Janina	3.76	337	ePn	Pn	23 08 39.3	+2.3
JAN	Janina	3.76	337	ePN	Pn	23 08 38.0	+1.0
JAN	Janina	3.76	337	ePn	Pn	23 08 39.3	+2.3
IGT	Igoumenitsa	3.84	331	ePn	Pn	23 08 38.7	+0.7
IGT				eSn	Sn	23 09 22.9	+0.4
IGT	Igoumenitsa	3.84	331	ePn	Pn	23 08 38.7	+0.7
IGT				eSn	Sn	23 09 22.9	+0.3
BDRM	Kayabasi	3.86	76	i P	Pn	23 08 38.1	-0.2
PRK	Paraskevi	4.12	41	ePn	Pn	23 08 41.2	-0.6
PRK	Paraskevi	4.12	41	ePN	Pn	23 08 41.2	-0.6
PRK	Paraskevi	4.12	41	ePn	Pn	23 08 41.2	-0.6
PLG	Polygyros	4.20	7	ePn	Pn	23 08 43.2	+0.3
PLG	Polygyros	4.20	7	ePN	Pn	23 08 43.2	+0.3
PLG	Polygyros	4.20	7	ePn	Pn	23 08 43.2	+0.3
KDAG	Bornova	4.21	57	i P	Pn	23 08 44.3	+1.3
KEK	Kerkira	4.21	327	ePn	Pn	23 08 43.2	+0.1
KEK				eSn	Sn	23 09 31.4	-0.4
KEK	Kerkira	4.21	327	ePN	Pn	23 08 43.2	+0.1
KEK	Kerkira	4.21	327	ePn	Pn	23 08 43.2	+0.1
KEK				eSn	Sn	23 09 31.4	-0.4
ARG	Arkhangelos	4.34	88	ePn	Pn	23 08 44.5	-0.3
ARG				P		23 08 47.7	
ARG	Arkhangelos	4.34	88	ePn	Pn	23 08 44.5	-0.3
ARG	Arkhangelos	4.34	88	P	Pn	23 08 47.7	+2.9
AYVA	Ayvalik	4.39	44	i P	Pn	23 08 42.9	-2.7
FNA	Florina	4.70	347	ePn	Pn	23 08 50.5	+0.6
FNA				eSn	Sn	23 09 45.7	+1.8
FNA	Florina	4.70	347	ePn	Pn	23 08 50.5	+0.7
FNA				eSn	Sn	23 09 45.7	+1.9
SRS	Serrai	4.95	7	ePn	Pn	23 08 54.3	+1.1
SRS	Serrai	4.95	7	ePn	Pn	23 08 54.3	+1.1
VAY	Valandovo	5.11	358	ePn	Pn	23 08 57.5	+2.0
VAY	Valandovo	5.11	358	ePn	Pn	23 08 57.4	+1.9
NVR	Nevrokopi	5.21	9	ePn	Pn	23 08 58.3	+1.5
NVR	Nevrokopi	5.21	9	ePN	Pn	23 08 58.3	+1.5
NVR	Nevrokopi	5.21	9	ePn	Pn	23 08 58.3	+1.5
KRUS	Krusevo	5.29	348	i Pn	Pn	23 09 00.8	+2.8
KRUS	Krusevo	5.29	348	i Pn	Pn	23 09 00.7	+2.8
RDO	Rodhopi	5.39	23	ePn	Pn	23 09 00.7	+1.4
RDO	Rodhopi	5.39	23	ePN	Pn	23 08 59.1	-0.2
RDO	Rodhopi	5.39	23	ePn	Pn	23 09 00.7	+1.4
BTOK	Tokmak	5.47	48	i P	Sn	23 10 00.1	-2.7
STIP	Stip	5.50	355	ePn	Pn	23 09 03.5	+2.7
STIP	Stip	5.50	355	ePn	Pn	23 09 03.4	+2.6
LCI	Lecce	5.51	320	Pn	Pn	23 09 00.7	-0.3
	24nm,0.3s						
LCI	Lecce	5.51	320	P	Pn	23 09 00.7	-0.3
LCI				pmax	pmax		
	comp=Z,24nm,0.3s						
LCI	Lecce	5.51	320	Pn	Pn	23 09 00.7	-0.3
	comp=Z,24nm,0.3s						
AKAS	Kas	5.53	88	i P	Pn	23 09 03.8	+2.5
GOLH	Golhisar	5.56	77	i P	Pn	23 09 04.3	+2.7
SERS	Sersale	5.59	302	Pn	Pn	23 09 01.7	-0.3
	comp=Z,31nm,0.8s						
TIP	Timpagrande	5.61	304	Pn	Pn	23 09 01.6	-0.7
	comp=Z,32nm,1.0s						
TIP				P		23 09 02.3	
TIP	Timpagrande	5.61	304	Pn	Pn	23 09 01.6	-0.7
	comp=Z,32nm,1.0s						
TIP	Timpagrande	5.61	304	P	Pn	23 09 02.3	0.0
SART	Tekirdag	5.66	36	i P	Pn	23 09 01.2	-1.8
SOI	Samo	5.67	291	Pn	Pn	23 09 02.5	-0.7
SOI	Samo	5.67	291	Pn	Pn	23 09 02.5	-0.7
CARO	Carolei	6.01	302	Pn	Pn	23 09 08.6	+0.7
	comp=Z,110nm,0.8s						
GDZ	Gediz	6.06	60	i P	Pn	23 09 10.7	+2.2
PE1	Pezze di Greco	6.21	319	ePn	Pn	23 09 09.5	-1.1
HMAT	Matruh	6.25	143	P	Pn	23 09 11.1	0.0
ORI	Oriolo Calabro	6.29	310	Pn	Pn	23 09 11.9	+0.2
	comp=Z,242nm,0.7s						
ORI	Oriolo Calabro	6.29	310	P	Pn	23 09 11.9	+0.2
ORI				pmax	pmax		
	comp=Z,243nm,0.7s						
ORI	Oriolo Calabro	6.29	310	Pn	Pn	23 09 11.9	+0.2
	comp=Z,242nm,0.7s						
VTS	Vitosha	6.39	3	P	Pn	23 09 17.8	+4.8
VTS	Vitosha	6.39	3	⇑iP	Pn	23 09 17.3	+4.3
NOCI	Noci	6.40	317	Pn	Pn	23 09 12.6	-0.5
	comp=Z,60nm,0.5s						
CRAC	Craco	6.48	312	Pn	Pn	23 09 14.5	+0.2
	comp=Z,75nm,0.4s						
SCHR	S. Chirico Rap	6.60	309	Pn	Pn	23 09 16.7	+0.7
	comp=Z,41nm,0.8s						
SG1	Sgolgore (BA)	6.64	316	ePn	Pn	23 09 15.6	-0.9
BAI	Bari	6.72	319	ePn	Pn	23 09 17.0	-0.5
SIRI	Monte Sirino -	6.73	308	Pn	Pn	23 09 18.4	+0.8
	comp=Z,50nm,0.4s						
AMUR	Altamura	6.73	316	Pn	Pn	23 09 16.8	-0.9
	comp=Z,44nm,0.5s						
VAE	Valguarnera	6.82	283	P	Pn	23 09 20.8	+1.9
	comp=Z,1.0nm,0.3s,baz=268,slow=3.4,SNR=3.7						
VAE				S	Sn	23 10 40.5	+4.5
	comp=Z,2.7nm,0.3s,baz=196,slow=15,SNR=3.6						
MTSN	Montesano sull	6.85	308	Pn	Pn	23 09 20.0	+0.7
	comp=Z,62nm,0.5s						
MCEL	Monticello	6.85	309	Pn	Pn	23 09 20.0	+0.7
	comp=Z,60nm,0.6s						
MGR	Morigerati	6.90	307	Pn	Pn	23 09 20.0	-0.1
	comp=Z,100nm,0.9s						
MGR	Morigerati	6.90	307	Pn	Pn	23 09 20.0	-0.1
	comp=Z,100nm,0.9s						
CDT	Castel del Mon	7.03	316	ePn	Pn	23 09 21.2	-0.7
PALZ	Palazzo San Ge	7.12	314	Pn	Pn	23 09 22.4	-0.7
	comp=Z,230nm,1.4s						
CMPR	Campora	7.16	307	Pn	Pn	23 09 23.0	-0.6
	comp=Z,28nm,0.5s						
CDRU	Civita di Ruta	7.25	308	Pn	Pn	23 09 24.6	-0.3
	comp=Z,12nm,0.6s						
SGO	Sicignano	7.29	309	Pn	Pn	23 09 25.6	+0.2
	comp=Z,38nm,0.4s						
SGO	Sicignano	7.29	309	P	Pn	23 09 25.6	+0.2
SGO				pmax	pmax		
	comp=Z,38nm,0.4s						
SGO	Sicignano	7.29	309	Pn	Pn	23 09 25.6	+0.2
	comp=Z,38nm,0.4s						
MRLC	Muro Lucano	7.29	311	Pn	Pn	23 09 25.9	+0.5
	comp=Z,23nm,0.5s						
MRLC	Muro Lucano	7.29	311	Pn	Pn	23 09 25.9	+0.5
	comp=Z,23nm,0.5s						
MCRV	Calabrutti - M	7.51	310	Pn	Pn	23 09 28.4	+0.1
	comp=Z,32nm,0.8s						
CAFE	Carife	7.61	312	Pn	Pn	23 09 30.0	+0.3
	comp=Z,402nm,3.3s						
FGMS	Monte Sant'Ang	7.64	318	Pn	Pn	23 09 29.1	-1.0
	comp=Z,7.4nm,0.3s						
FGMS	Monte Sant'Ang	7.64	318	Pn	Pn	23 09 29.1	-1.0
	comp=Z,7.4nm,0.3s						
CSSN	Cassano Irpino	7.64	310	Pn	Pn	23 09 31.4	+1.2
	comp=Z,15nm,0.8s						
CSSN	Cassano Irpino	7.64	310	Pn	Pn	23 09 31.4	+1.2
	comp=Z,15nm,0.8s						
MS1	Monte Sant'Ang	7.64	318	ePn	Pn	23 09 28.4	-1.8
MSAG	Monte S. Angel	7.66	318	Pn	Pn	23 09 29.9	-0.6
	comp=Z,41nm,0.4s						
FG5	Orsara di Pugl	7.75	313	Pn	Pn	23 09 32.2	+0.6
	comp=Z,33nm,1.0s						
FG5	Orsara di Pugl	7.75	313	P	Pn	23 09 32.2	+0.6
FG5				pmax	pmax		
	comp=Z,33nm,1.0s						
FG5	Orsara di Pugl	7.75	313	Pn	Pn	23 09 32.2	+0.6
	comp=Z,33nm,1.0s						
SGRT	San Giovanni R	7.78	318	Pn	Pn	23 09 30.9	-1.2
	comp=Z,20nm,0.4s						
KDHN	Kadinhani	7.80	70	i P	Pn	23 09 35.1	+2.7
RGNG	Rignano Grg	7.81	317	Pn	Pn	23 09 31.8	-0.8
RGNG	Rignano Grg	7.81	317	Pn	Pn	23 09 31.8	-0.8
FG2	Serracapriola	8.14	316	Pn	Pn	23 09 36.8	-0.2
	comp=Z,281nm,1.8s						
FG2	Serracapriola	8.14	316	Pn	Pn	23 09 36.8	-0.2
	comp=Z,281nm,1.8s						
PTRJ	Pietraroja	8.24	311	Pn	Pn	23 09 39.9	+1.5
	comp=Z,39nm,1.6s						
SGG	Gregorio Mates	8.34	311	Pn	Pn	23 09 39.3	-0.5
	comp=Z,44nm,0.9s						
SGG	Gregorio Mates	8.34	311	Pn	Pn	23 09 39.3	-0.5
	comp=Z,44nm,0.9s						
VAGA	Valle Agricola	8.45	311	Pn	Pn	23 09 41.5	+0.2
	comp=Z,45nm,0.6s						
SGKT	Sivrigoynuk	8.50	56	i P	Pn	23 09 44.4	+2.4
CERA	Filignano	8.69	311	Pn	Pn	23 09 45.6	+1.1
	comp=Z,61nm,1.0s						
SDI	San Donato	8.88	311	Pn	Pn	23 09 46.8	-0.3
SDI	San Donato	8.88	311	Pn	Pn	23 09 46.8	-0.3
INTR	Introdacqua	9.00	313	Pn	Pn	23 09 48.8	0.0
INTR	Introdacqua	9.00	313	Pn	Pn	23 09 48.8	0.0
BRTR	Keskin Array B	9.28	64	P	Pn	23 09 53.6	+0.9
	comp=Z,0.0nm,0.3s,baz=113,slow=2.8,SNR=3.4						
BRTR				S	Sn	23 11 43.9	+7.4
	comp=Z,0.1nm,0.3s,baz=236,slow=36,SNR=2.6						
AQU	L'Aquila	9.50	313	ePn	Pn	23 09 54.0	-1.8
	comp=Z,9.5nm,0.8s						
AQU	L'Aquila	9.50	313	eP	Pn	23 09 54.0	-1.7
AQU				pmax	pmax		
	comp=Z,9.0nm,0.8s						
AQU	L'Aquila	9.50	313	ePn	Pn	23 09 54.0	-1.7
	comp=Z,9.5nm,0.8s						
MLR	Muntele Rosu	9.59	14	P	Pn	23 09 58.5	+1.7
	comp=Z,0.1nm,0.3s,baz=208,slow=9.5,SNR=6.5						
MLR	Muntele Rosu	9.59	14	⇑iP	Pn	23 09 58.5	+1.7
GLL	Jalalah	10.01	129	⇓P	Pn	23 10 02.0	-0.7
GLL				S	Sn	23 11 47.8	-6.7
PLOR	Plostina	10.07	16	⇑iP	Pn	23 10 08.7	+5.2
HFRF	Wahat Farafira	10.19	151	⇓P	Pn	23 10 05.0	-0.1
AMAG	Maghara	10.34	119	P	Pn	23 10 06.4	-0.9
SUZ		10.56	124	P	Pn	23 10 09.2	-1.1
ZAF		10.74	127	P	Pn	23 10 11.8	-1.0
KEST	Kesra	10.88	271	P	Pn	23 10 15.8	+1.2
	comp=Z,0.1nm,0.3s,baz=284,slow=21,SNR=3.6						
MMAI	Mount Meron Ar	10.89	103	P	Pn	23 10 13.9	-0.9
	comp=Z,1.4nm,0.3s,baz=307,slow=11,SNR=10.0						
MMAI				S	Sn	23 12 13.0	-3.1
	comp=Z,1.5nm,0.3s,baz=291,slow=26,SNR=6.1						
HNKL	Nakhl	11.30	120	P	Pn	23 10 20.4	+0.1
HDK1	Dakhla	12.05	150	P	Pn	23 10 31.2	+0.4
EIL	Elat	12.13	119	P	Pn	23 10 31.2	-0.6
	comp=Z,0.6nm,0.3s,baz=293,slow=6.4,SNR=6.1						
EIL				S	Sn	23 12 44.5	-2.0
	comp=Z,1.3nm,0.3s,baz=356,slow=18,SNR=4.9						
HBST	Basata	12.25	121	⇑P	Pn	23 10 32.4	-1.0
AKRG	Al Kharijah	12.56	146	P	Pn	23 10 37.7	+0.1
GTR	Jabal at Tayr	12.58	146	P	Pn	23 10 37.6	-0.3
APRS		13.64	148	P	Pn	23 10 53.2	+0.8
VRAC	Vranov	13.85	343	P	Pn	23 10 57.4	+2.3
	comp=Z,0.2nm,0.3s,baz=162,slow=15,SNR=3.0						
VRAC	Vranov	13.85	343	P	Pn	23 10 57.4	+2.3
MORC	Moravsky Berou	14.09	346	⇓iP	Pn	23 11 06.6	+8.2
GERES	GERESS Array B	14.28	335	P	Pn	23 11 02.0	+1.1
	comp=Z,0.2nm,0.3s,baz=151,slow=11,SNR=14						
DAVOX	Davos/Dischmat	14.29	322	P	Pn	23 11 05.0	+3.8
	comp=Z,0.2nm,0.3s,baz=154,slow=16,SNR=3.1						
DAVOX				LR	LR	23 16 03.5	
	comp=Z,115nm,20.2s,baz=309,slow=35						
KHC	Kasperske Hory	14.56	335	eP	Pn	23 11 11.5	+6.7
AKASG	Malin Array Be	15.22	16	P	Pn	23 11 12.3	-1.4
AKASG	Malin Array Be	15.22	16	P	Pn	23 11 12.3	-1.4
	comp=Z,1.3nm,0.3s,baz=211,slow=10,SNR=9.4						
CLL	Collm	16.64	338	⇑iP	Pn	23 11 34.9	+3.0
	comp=Z,4.0nm,0.6s						
CLL				e		23 11 42.0	
CLL	Collm	16.64	338	⇑iP	Pn	23 11 34.9	+3.0
CLL				pmax	pmax		
	comp=Z,4.0nm,0.6s						
CLL	Collm	16.64	338	⇑ipP	Pn	23 11 34.9	+3.0
	comp=Z,4.0nm,0.6s						
CLL				ePP		23 11 42.0	
KIV	Kislovodsk	17.07	57	i P	Pn	23 11 41.4	+3.9
OBN	Obninsk	21.16	22	eP	P	23 12 29.3	+5.6
OBN				pmax	pmax		
	comp=Z,6.0nm,1.0s						
OBN				MLR	MLR		
	comp=Z,100nm,15.0s						
ESDC	Sonseca Array	21.33	287	P	P	23 12 26.5	+0.8
	comp=Z,0.3nm,0.5s,baz=73,slow=11,SNR=3.3						
MIB	Mutribah	21.55	100	eP	P	23 12 26.9	-1.2
MIB				AMb	AMB	23 12 30.0	
	comp=Z,24nm,0.8s,mb4.7						
MIB	Mutribah	21.55	100	eP	P	23 12 27.0	-1.2
	comp=Z,24nm,0.8s,mb4.7						
NAY	Al-Naaiem	21.70	102	eP	P	23 12 29.1	-0.7
NAY				AMb	AMB	23 12 31.8	
	comp=Z,12nm,0.8s,mb4.4						
NAY	Al-Naaiem	21.70	102	eP	P	23 12 29.1	-0.7
	comp=Z,12nm,0.8s,mb4.4						
RDF	Al-Radifah	22.08	102	eP	P	23 12 28.8	-5.1
RDF				AMb	AMB	23 12 33.1	
	comp=Z,16nm,1.3s,mb4.3						
KBD	Kabd	22.09	101	eP	P	23 12 28.5	-5.5
KBD				AMb	AMB	23 12 35.3	
	comp=Z,43nm,1.0s,mb4.8						
HFS	Hagfors	24.65	349	P	P	23 12 57.3	-1.8
	comp=Z,7.0nm,0.4s,mb4.5,baz=155,slow=12,SNR=72						
FINES	FINESS Array B	25.35	4	P	P	23 13 03.6	-1.8
	comp=Z,1.7nm,0.6s,mb3.8,baz=156,slow=12,SNR=13						
NOA	NORSAR Array B	25.92	347	P	P	23 13 08.3	-2.3
NOA	NORSAR Array B	25.92	347	P	P	23 13 08.3	-2.3
	comp=Z,1.2nm,0.5s,mb3.7,baz=152,slow=7.5,SNR=8.7						
TORD	Torodi Ar. Bea	29.76	225	P	P	23 13 45.6	+0.2
	comp=Z,0.3nm,0.5s,mb3.3,baz=25,slow=9.3,SNR=4.1						
ARCES	ARCESS Array B	33.42	2	P	P	23 14 15.4	-1.6
	comp=Z,3.0nm,0.6s,mb4.4,baz=183,slow=9.4,SNR=20						
MK31	Makanchi Array	44.84	57	eP	P	23 15 51.2	-1.5
MK31	Makanchi Array	44.84	57	eP	P	23 15 51.2	-1.5
MKAR	Makanchi Array	44.84	57	P	P	23 15 51.5	-1.2
	comp=Z,2.3nm,0.5s,mb4.3,baz=270,slow=7.5,SNR=92						
ZAL	Zalesovo	45.69	47	P	P	23 15 57.7	-1.7
ZALV	Zalesovo Beam	45.70	47	P	P	23 15 57.6	-1.8
	comp=Z,1.3nm,0.5s,mb4.1,baz=268,slow=8.9,SNR=7.0						
ZAK	Zakamensk	57.52	48	eP	P	23 17 26.7	-1.1
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.8						
ZAK	Zakamensk	57.52	48	eP	P	23 17 26.7	-1.1
	comp=Z,1.0nm,1.0s,mb3.8						
SONM	Songino Array	60.33	50	P	P	23 17 47.1	-0.3
	comp=Z,0.6nm,0.6s,mb3.8,baz=282,slow=6.7,SNR=7.1						
SCHQ	Schefferville	61.12	319	P	P	23 17 53.0	+0.4
	comp=Z,2.0nm,0.9s,mb4.3,baz=57,slow=8.8,SNR=4.5						
SCHQ	Schefferville	61.12	319	P	P	23 17 53.0	+0.3
YKA	Yellowknife Ar	75.84	341	P	P	23 19 23.6	-0.9
YKA	Yellowknife Ar	75.84	341	P	P	23 19 23.6	-0.9
	comp=Z,0.7nm,0.5s,mb3.9,baz=34,slow=5.4,SNR=17						
KSRS	Korea Array	79.18	51	P	P	23 19 42.5	-1.1
	comp=Z,3.4nm,0.8s,mb4.3,baz=312,slow=4.0,SNR=5.1						

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*NAO **14** 23:09:16.7, 4421N×1239E, h33^{km}, mb3.2*
*GEN **14** 23:10:49.1, 4429N×1243E, h0^{km}, ML3.0*
*STR **14** 23:10:52.5±1.9, 4430N×1245E, h10^{km}, Ml3.7, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
*CSEM **14** 23:10:52.7±0.0, 4426N×1215E, h10^{km}, ML3.7/30, Error ellipse: s-maj=1.0km s-min=0.9km az=21.0*
*ISCJB **14** 23:10:52.6±0.2, 4433N±001×1202E±001, h13^{km}±1^{km}, mb3.6/5, Error ellipse: s-maj=2.0km s-min=1.6km az=140.0*
*LDG **14** 23:10:53.4±0.1, 4435N×1214E, h10^{km}, Ml3.7/21, Error ellipse: s-maj=2.1km s-min=1.7km az=43.0*
*ROM **14** 23:10:54.2±0.1, 4431N×1203E, h18^{km}±2^{km}, Ml3.3/45, Error ellipse: s-maj=2.4km s-min=1.8km az=143.0*
*NEIC **14** 23:10:54.2, 4431N×1203E, h18^{km}, ML3.7(LDG), ML3.3(ROM), ML3.6(STR), ML3.2(LJU), After ROM.*
NEIC Felt [IV] at Castrocaro Terme and [III] at Cesena, Faenza, Forli, Forlimpopoli, Meldola and Ravenna.
*PRU **14** 23:10:55.8, 4456N×1219E, h0^{km}*
*IDC **14** 23:10:55.2±2.7, 4430N×1224E, h28^{km}±17^{km}, mb3.5/5, mb1 3.7/9, mb1mx3.5/21, mbtmp3.4/9, ML3.3/4, Error ellipse: s-maj=20.6km s-min=13.0km az=120.0*
*SZGRF **14** 23:10:56.5, 4452N×1186E, h10^{km}, mb3.8, Northern Italy*

ISC 14 23:10:53.9±0.2**, 4430N**±001×**1203E**±001**, h16**^{km}±1^{km}**,**
n493, σ1§**12**/716**, mb3.6**/5**, 71C-25D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BRSN	Barisano	0.04	114	⇑iPg	Sg	23 10 57.7	-0.9
BRSN	Barisano	0.04	114	⇑iPg	Sg	23 10 57.7	-0.9
BRSN	Barisano	0.04	114	⇑iPg	Sg	23 10 57.7	-0.9
SFI	Santa Sofia	0.41	199	⇓iPg	Pg	23 11 01.8	-0.5
SFI	Santa Sofia	0.41	199	⇓iPg	Pg	23 11 01.8	-0.5
RSM	Repubblica di	0.47	141	Pg	Pg	23 11 03.8	+0.5
RSM	Repubblica di	0.47	141	Pg	Pg	23 11 03.8	+0.5
	439nm,0.8s						
RSM	Repubblica di	0.47	141	Pg	Pg	23 11 03.8	+0.5
	439nm,0.8s						
VMG	Vicchio	0.49	226	⇑iPg	Pg	23 11 02.9	-0.7
VMG	Vicchio	0.49	226	⇑iPg	Pg	23 11 02.9	-0.7
VMG	Vicchio	0.49	226	⇑iPg	Pg	23 11 02.9	-0.7
FIU	Minerbio Fiu	0.52	312	Pg	Pg	23 11 06.6	+2.5
FIU	Minerbio Fiu	0.52	312	Pg	Pg	23 11 06.6	+2.5
	3µm,0.5s						
FIU	Minerbio Fiu	0.52	312	Pg	Pg	23 11 06.6	+2.5
	3µm,0.5s						
SEI	Scarperia	0.54	244	⇑iPg	Pg	23 11 03.8	-0.8
SEI	Scarperia	0.54	244	⇑iPg	Pg	23 11 03.8	-0.8
FNVD	Fontana Vidola	0.67	259	Pg	Pg	23 11 06.2	-0.7
FNVD				Sg	Sg	23 11 16.9	+1.1
FNVD	Fontana Vidola	0.67	259	Pg	Pg	23 11 06.2	-0.7
FNVD				Sg	Sg	23 11 16.9	+1.1
	2µm,0.5s						
CRE	Caprese Michel	0.68	185	⇓iPg	Pg	23 11 06.4	-0.8
CRE				Sg	Sg	23 11 17.2	+1.0
CRE	Caprese Michel	0.68	185	⇓iPg	Pg	23 11 06.4	-0.8
CRE				Sg	Sg	23 11 17.2	+1.0
	950nm,0.5s						
PESA	Pesaro	0.68	121	Pg	Pg	23 11 07.7	+0.5
PESA	Pesaro	0.68	121	Pg	Pg	23 11 07.7	+0.5
	2µm,0.3s						
PESA	Pesaro	0.68	121	Pg	Pg	23 11 07.7	+0.5
	2µm,0.3s						
ZCCA	Zocca	0.76	274	⇑iPg	Pg	23 11 10.1	+1.4
ZCCA	Zocca	0.76	274	⇑iPg	Pg	23 11 10.1	+1.4
	25nm,0.5s						
ZCCA	Zocca	0.76	274	⇑iPg	Pg	23 11 10.1	+1.4
	25nm,0.5s						
RAVA	Ravarino	0.80	305	Pg	Pg	23 11 11.5	+2.1
RAVA	Ravarino	0.80	305	Pg	Pg	23 11 11.5	+2.1
	3µm,0.7s						
RAVA	Ravarino	0.80	305	Pg	Pg	23 11 11.5	+2.1
	3µm,0.7s						
BADI	Badiali	0.80	169	Pg	Pg	23 11 08.8	-0.7
BADI	Badiali	0.80	169	Pg	Pg	23 11 08.8	-0.7
	2µm,0.4s						
BADI	Badiali	0.80	169	Pg	Pg	23 11 08.8	-0.7
	2µm,0.4s						
FSSB	Fossombrone	0.81	138	Pg	Pg	23 11 09.5	-0.1
FSSB				Sg	Sg	23 11 23.0	+2.7
FSSB	Fossombrone	0.81	138	Pg	Pg	23 11 09.5	-0.1
FSSB				Sg	Sg	23 11 23.0	+2.7
FSSB	Fossombrone	0.81	138	Pg	Pg	23 11 09.5	-0.1
FSSB				Sg	Sg	23 11 23.0	+2.7
CDCA	Citt' di Caste	0.85	170	Pg	Pg	23 11 10.3	-0.1
CDCA	Citt' di Caste	0.85	170	Pg	Pg	23 11 10.3	-0.1
	296nm,0.6s						
CDCA	Citt' di Caste	0.85	170	Pg	Pg	23 11 10.3	-0.1
	296nm,0.6s						
PZZT	Monte Pizzetto	0.86	259	⇓iPg	Pg	23 11 09.6	-0.9
	3µm,0.7s						

CRMI	Carmignano	0.92	237	Pg	Pg	23 11 10.8	-0.9
CRMI				Sg	Sg	23 11 24.4	+0.7
	485nm,0.9s						
CSNT	Castellina Chi	0.98	213	Pg	Pg	23 11 12.4	-0.5
CSNT	Castellina Chi	0.98	213	Pg	Pg	23 11 12.4	-0.5
	1µm,0.5s						
CSNT	Castellina Chi	0.98	213	Pg	Pg	23 11 12.4	-0.5
	1µm,0.5s						
ARVD	Arcevia	1.03	140	Pg	Pg	23 11 13.7	-0.2
	3µm,0.6s						
ARVD	Arcevia	1.03	140	Pg	Pg	23 11 13.7	-0.2
	3µm,0.6s						
GSCL	Gusciola	1.04	273	Pg	Pg	23 11 14.3	+0.4
GSCL	Gusciola	1.04	273	Pg	Pg	23 11 14.3	+0.4
	217nm,0.6s						
GSCL	Gusciola	1.04	273	Pg	Pg	23 11 14.3	+0.4
	217nm,0.6s						
SENI	Senigallia	1.05	124	Pg	Pg	23 11 15.2	+1.1
	1µm,0.8s						
BDI	Bagni Di Lucca	1.06	258	Pg	Pg	23 11 14.3	0.0
BDI	Bagni Di Lucca	1.06	258	Pg	Pg	23 11 14.3	0.0
	1µm,0.6s						
BDI	Bagni Di Lucca	1.06	258	Pg	Pg	23 11 14.3	0.0
	1µm,0.6s						
NOVE	Novellara	1.07	298	Pg	Pg	23 11 15.2	+0.7
	1µm,0.6s						
NOVE	Novellara	1.07	298	Pg	Pg	23 11 15.2	+0.7
	1µm,0.6s						
TEOL	Teolo	1.09	346	*e*Pg	Pg	23 11 13.8	-1.2
TEOL	Teolo	1.09	346	*e*Pg	Pg	23 11 13.8	-1.2
MURB	Monte Urbino	1.09	161	Pg	Pg	23 11 14.6	-0.4
MURB	Monte Urbino	1.09	161	Pg	Pg	23 11 14.6	-0.4
	2µm,0.4s						
MURB	Monte Urbino	1.09	161	Pg	Pg	23 11 14.6	-0.4
	2µm,0.4s						
SBPO	S.Benedetto Po	1.09	314	Pg	Pg	23 11 15.7	+0.7
	1µm,0.6s						
SBPO	S.Benedetto Po	1.09	314	Pg	Pg	23 11 15.7	+0.7
	1µm,0.6s						
ERBM	Eremo	1.17	277	Pg	Pg	23 11 17.0	+0.6
ERBM	Eremo	1.17	277	Pg	Pg	23 11 17.0	+0.6
	466nm,0.7s						
ERBM	Eremo	1.17	277	Pg	Pg	23 11 17.0	+0.6
	466nm,0.7s						
MAIM		1.18	251	Pg	Pg	23 11 15.5	-1.0
MAIM		1.18	251	Pg	Pg	23 11 15.5	-1.0
	569nm,0.9s						
MAIM		1.18	251	Pg	Pg	23 11 15.5	-1.0
	569nm,0.9s						
MAIM				S	Sb	23 11 33.0	+2.3
SARO	Sassorosso	1.18	265	P	Pn	23 11 15.8	+0.2
SARO				S	Sb	23 11 33.9	+3.1
VLC	Villacollemand	1.19	264	Pg	Pg	23 11 17.3	+0.5
VLC	Villacollemand	1.19	264	Pg	Pg	23 11 17.3	+0.5
	2µm,1.6s						
VLC	Villacollemand	1.19	264	Pg	Pg	23 11 17.3	+0.5
	2µm,1.6s						
SNTG	Esanatoglia	1.23	147	Pg	Pg	23 11 16.6	-1.0
SNTG	Esanatoglia	1.23	147	Pg	Pg	23 11 16.6	-1.0
SNTG	Esanatoglia	1.23	147	Pg	Pg	23 11 16.6	-1.0
CING	Cingoli	1.25	137	Pg	Pg	23 11 17.5	-0.4
CING	Cingoli	1.25	137	Pg	Pg	23 11 17.5	-0.4
	554nm,0.4s						
CING	Cingoli	1.25	137	Pg	Pg	23 11 17.5	-0.4
	554nm,0.4s						
IESO	Jesolo	1.28	17	⇑*i*Pg	Pn	23 11 16.0	-1.0
IESO	Jesolo	1.28	17	*i* Pg	Pn	23 11 16.0	-1.0
VALM		1.28	273	P	Pn	23 11 18.7	+1.6
VALM				S	Sb	23 11 37.1	+3.3
ASS	Assisi	1.31	160	Pg	Pg	23 11 18.6	-0.6
ASS	Assisi	1.31	160	Pg	Pg	23 11 18.6	-0.6
	44nm,0.7s						
ASS	Assisi	1.31	160	Pg	Pg	23 11 18.6	-0.6
	44nm,0.7s						
AOI	Ancona	1.36	123	Pg	Pg	23 11 19.0	-1.0
AOI	Ancona	1.36	123	Pg	Pg	23 11 19.0	-1.0
	557nm,0.7s						
AOI	Ancona	1.36	123	Pg	Pg	23 11 19.0	-1.0
	557nm,0.7s						
GRFL	Gerfalco	1.38	214	Pg	Pn	23 11 18.5	+0.1
GRFL	Gerfalco	1.38	214	Pg	Pn	23 11 18.5	+0.1
	583nm,1.4s						
GRFL	Gerfalco	1.38	214	Pg	Pn	23 11 18.5	+0.1
	583nm,1.4s						
BACM		1.41	270	P	Pn	23 11 19.1	+0.3
BACM				S	Sn	23 11 39.3	+2.3
GRAM		1.42	278	P	Pn	23 11 19.6	+0.6
GRAM				S	Sg	23 11 40.2	+0.4
SACS	San Casciano d	1.45	184	Pg	Pg	23 11 20.1	-1.7
	370nm,0.6s						
ARCI	Arcidosso	1.50	196	Pg	Pg	23 11 21.2	-1.5
	273nm,0.8s						
ARCI	Arcidosso	1.50	196	Pg	Pg	23 11 21.2	-1.5
	273nm,0.8s						
MTLO	Montello	1.52	2	⇑*i*Pg	Pn	23 11 20.2	-0.1
MTLO	Montello	1.52	2	*i* Pg	Pn	23 11 20.2	-0.1
CGRP	Cima Grappa	1.59	354	⇑*i*Pg	Pn	23 11 21.1	-0.3
CGRP				Sg	Sn	23 11 40.6	-0.9
CGRP	Cima Grappa	1.59	354	*i* Pg	Pn	23 11 21.1	-0.2
CGRP				Sg	Sn	23 11 40.6	-0.9
LATE	Laterza	1.69	186	Pg	Pb	23 11 23.9	-0.7
	25nm,0.4s						
LATE	Laterza	1.69	186	Pg	Pb	23 11 23.9	-0.7
	25nm,0.4s						
SALO	Salr	1.70	321	Pg	Pn	23 11 23.0	+0.2
	934nm,0.9s						
SALO	Salr	1.70	321	Pg	Pn	23 11 23.0	+0.2
	934nm,0.9s						
CAE	Caneva	1.73	9	⇓*i*Pg	Pn	23 11 22.6	-0.7
CAE	Caneva	1.73	9	*i* Pg	Pn	23 11 22.6	-0.7
CTI	Castel Tesino	1.77	351	Pg	Pn	23 11 23.5	-0.3
CTI	Castel Tesino	1.77	351	Pg	Pn	23 11 23.5	-0.3
CTI	Castel Tesino	1.77	351	Pg	Pn	23 11 23.5	-0.3
GROG	Isola di Gorgo	1.78	241	Pg	Pn	23 11 24.1	+0.2
GROG				Sg	Sn	23 11 47.6	+1.5
	343nm,0.7s						
GROG	Isola di Gorgo	1.78	241	Pg	Pn	23 11 24.1	+0.2
GROG				Sg	Sn	23 11 47.6	+1.5
	343nm,0.7s						
MAGA	Magasa	1.78	327	Pg	Pn	23 11 23.6	-0.3
MAGA	Magasa	1.78	327	Pg	Pn	23 11 23.6	-0.3
TLI	Talmassons	1.79	25	⇑*i*Pg	Pn	23 11 23.7	-0.4
TLI	Talmassons	1.79	25	*i* Pg	Pn	23 11 23.7	-0.4
OFFI	Offida	1.82	138	Pg	Pb	23 11 26.1	-0.6
	3µm,1.3s						
OFFI	Offida	1.82	138	Pg	Pb	23 11 26.1	-0.6
	3µm,1.3s						
LNSS	Leonessa	1.85	156	Pg	Pb	23 11 26.5	-0.7
	747nm,0.6s						
LNSS	Leonessa	1.85	156	Pg	Pb	23 11 26.5	-0.7
	747nm,0.6s						
SKDS	Skadanscina	1.88	48	*i* Pn	Pn	23 11 24.5	-0.8
SKDS				*i* Sn	Sn	23 11 48.2	-0.5
SKDS	Skadanscina	1.88	48	*i* Pn	Pn	23 11 24.5	-0.8
SKDS				*i* Sn	Sn	23 11 48.2	-0.5
MLNI	Malnisio	1.90	12	⇓*i*Pn	Pn	23 11 24.9	-0.6
MLNI				Sn	Sn	23 11 47.9	-1.2
MLNI	Malnisio	1.90	12	*i* Pn	Pn	23 11 25.0	-0.5
MLNI				Sn	Sn	23 11 47.9	-1.2
BOB	Bobbio (Coli)	1.91	285	Pg	Pb	23 11 28.0	-0.2
BOB	Bobbio (Coli)	1.91	285	Pg	Pb	23 11 28.0	-0.2
BOB	Bobbio (Coli)	1.91	285	Pg	Pb	23 11 28.0	-0.2
MNS	Montasola	1.97	166	Pg	Pb	23 11 28.3	-1.0
MNS	Montasola	1.97	166	Pg	Pb	23 11 28.3	-1.0
	192nm,0.6s						
MNS	Montasola	1.97	166	Pg	Pb	23 11 28.3	-1.0
	192nm,0.6s						
CAMP	Campotosto	2.03	150	Pg	Pb	23 11 28.7	-1.6
	106nm,1.1s						
CAMP	Campotosto	2.03	150	Pg	Pb	23 11 28.7	-1.6
	106nm,1.1s						
TERO	Teramo	2.03	145	Pg	Pb	23 11 28.6	-1.7
TERO	Teramo	2.03	145	Pg	Pb	23 11 28.6	-1.7
	415nm,0.8s						
TERO	Teramo	2.03	145	Pg	Pb	23 11 28.6	-1.7
	415nm,0.8s						
NVLJ	Novalja	2.05	82	*e*Pn	Pn	23 11 27.5	-0.2
NVLJ				Sn	Sn	23 11 52.6	-0.3
NVLJ	Novalja	2.05	82	*e*Pn	Pn	23 11 27.4	-0.2
NVLJ				Sn	Sn	23 11 52.5	-0.4
MPRI	Monte Prat	2.06	19	⇓*e*Pn	Pn	23 11 27.6	-0.1
MPRI				Sn	Sn	23 11 53.2	+0.2
MPRI	Monte Prat	2.06	19	*e*Pn	Pn	23 11 27.6	-0.1
MPRI				Sn	Sn	23 11 53.2	+0.2
MABI	Malga Bissina	2.06	329	Pg	Pn	23 11 27.7	-0.1
MABI	Malga Bissina	2.06	329	Pg	Pn	23 11 27.7	-0.1
	40nm,0.4s						
MABI	Malga Bissina	2.06	329	Pg	Pn	23 11 27.7	-0.1
	40nm,0.4s						
COLI	Coloredo	2.07	27	⇓*i*Pn	Pn	23 11 27.6	-0.3
COLI				Sn	Sn	23 11 52.9	-0.4
COLI	Coloredo	2.07	27	*i* Pn	Pn	23 11 27.6	-0.3
COLI				Sn	Sn	23 11 52.9	-0.4
BUA	Buia	2.07	21	⇑*i*Pn	Pn	23 11 27.8	-0.1
BUA				Sn	Sn	23 11 53.4	+0.1
BUA	Buia	2.07	21	*i* Pn	Pn	23 11 27.8	-0.1
BUA				Sn	Sn	23 11 53.4	+0.1
BAD	Bernadia	2.12	23	⇓*e*Pn	Pn	23 11 28.1	-0.5
BAD				Sn	Sn	23 11 54.3	-0.3
BAD	Bernadia	2.12	23	*e*Pn	Pn	23 11 28.1	-0.5
BAD				Sn	Sn	23 11 54.3	-0.3
JAVS	Javornik	2.15	41	*i* Pn	Pn	23 11 28.4	-0.6
JAVS				*i* Pg	Pg	23 11 34.0	-1.1
JAVS				*e*Sn	Sn	23 11 55.2	-0.1
JAVS	Javornik	2.15	41	*i* Pn	Pn	23 11 28.4	-0.6
JAVS				*i* Pg	Pg	23 11 34.0	-1.1
JAVS				*e*Sn	Sn	23 11 55.2	-0.1
JAVS							
	comp=Z,327nm,0.5s						
JAVS	Javornik	2.15	41	*i* Pn	Pn	23 11 28.4	-0.6
JAVS	Javornik	2.15	41	*i* Pg	Pg	23 11 34.0	-1.1
JAVS				*e*Sn	Sn	23 11 55.2	-0.1
	comp=Z,327nm,0.5s						
GMNA	Gemona	2.15	23	Pg	Pn	23 11 28.4	-0.6
GMNA	Gemona	2.15	23	Pg	Pn	23 11 28.4	-0.6
VOJS	Vojsko	2.17	36	*i* Pn	Pn	23 11 28.9	-0.4
VOJS				*e*Sn	Sn	23 11 55.7	-0.2
VOJS	Vojsko	2.17	36	*i* Pn	Pn	23 11 28.9	-0.4
VOJS				*e*Sn	Sn	23 11 55.7	-0.2
VOJS	Vojsko	2.17	36	*i* Pn	Pn	23 11 28.9	-0.4
VOJS				*e*Sn	Sn	23 11 55.7	-0.2
FIAM	Fiamignano	2.18	158	Pg	Pb	23 11 31.3	-1.6
FIAM	Fiamignano	2.18	158	Pg	Pb	23 11 31.3	-1.6
	comp=Z,8µm,0.5s						
FIAM	Fiamignano	2.18	158	Pg	Pb	23 11 31.3	-1.6
	comp=Z,8µm,0.5s						
AQU	L'Aquila	2.19	152	*e*Pn	Pn	23 11 32.0	+2.5
AQU				Pg	Pb	23 11 32.3	-0.7
AQU	L'Aquila	2.19	152	Pg	Pb	23 11 32.3	-0.7
	comp=Z,65nm,0.5s						
AQU	L'Aquila	2.19	152	⇓*i*P	Pb	23 11 32.3	-0.7
AQU	L'Aquila	2.19	152	*e*Pn	Pn	23 11 32.0	+2.5
AQU	L'Aquila	2.19	152	Pg	Pb	23 11 32.3	-0.7
	comp=Z,65nm,0.5s						
DRE	Drenchia	2.19	31	⇓*i*Pn	Pn	23 11 29.3	-0.3
DRE				Sn	Sn	23 11 56.0	-0.4
DRE	Drenchia	2.19	31	*i* Pn	Pn	23 11 29.3	-0.3
DRE				Sn	Sn	23 11 56.0	-0.4
GENL	Genova Univers	2.20	274	P	Pn	23 11 29.5	-0.2
GENL				S	Sn	23 11 56.9	+0.3
MDI	Monti di Nese	2.21	313	Pg	Pn	23 11 29.6	-0.3
	comp=Z,179nm,0.5s						
TOLF	Tolfa	2.23	181	Pg	Pn	23 11 31.8	+1.6
TOLF	Tolfa	2.23	181	Pg	Pn	23 11 31.8	+1.6
	comp=Z,195nm,1.5s						
TOLF	Tolfa	2.23	181	Pg	Pn	23 11 31.8	+1.6
	comp=Z,195nm,1.5s						
APPI	Appiano	2.25	346	Pg	Pn	23 11 30.8	+0.4
APPI	Appiano	2.25	346	Pg	Pn	23 11 30.8	+0.4
	comp=Z,380nm,0.6s						
APPI	Appiano	2.25	346	Pg	Pn	23 11 30.8	+0.4
	comp=Z,380nm,0.6s						
CSMI	Casera Mimoias	2.26	11	⇑*i*Pn	Pn	23 11 30.5	0.0
CSMI				Sn	Sn	23 11 58.1	+0.2
CSMI	Casera Mimoias	2.26	11	*i* Pn	Pn	23 11 30.5	0.0
CSMI				Sn	Sn	23 11 58.1	+0.1
PTCC	Patocco-Chiusa	2.30	23	Pg	Pn	23 11 30.6	-0.5
PTCC	Patocco-Chiusa	2.30	23	Pg	Pn	23 11 30.6	-0.5
VCEL	Villa Celiera	2.31	145	Pg	Pn	23 11 32.4	+1.1
	comp=Z,360nm,0.8s						
VCEL	Villa Celiera	2.31	145	Pg	Pn	23 11 32.4	+1.1
	comp=Z,360nm,0.8s						
FAGN	Fagnano	2.33	150	Pg	Pn	23 11 33.5	+2.1
	comp=Z,373nm,0.6s						
FAGN	Fagnano	2.33	150	Pg	Pn	23 11 33.5	+2.1
	comp=Z,373nm,0.6s						
MTCE	Montecelio	2.33	167	Pg	Pn	23 11 32.9	+1.4
MTCE	Montecelio	2.33	167	Pg	Pn	23 11 32.9	+1.4
	comp=Z,90nm,0.7s						
MTCE	Montecelio	2.33	167	Pg	Pn	23 11 32.9	+1.4
	comp=Z,90nm,0.7s						
ZOU	Zoufplan	2.35	16	⇑*i*Pn	Pn	23 11 31.9	+0.1
ZOU				Sn	Sn	23 11 59.7	-0.7
ZOU	Zoufplan	2.35	16	*i* Pn	Pn	23 11 31.9	+0.1
ZOU				Sn	Sn	23 11 59.7	-0.7
FVI	Forni Avoltri	2.36	13	Pg	Pn	23 11 31.9	0.0
FVI	Forni Avoltri	2.36	13	Pg	Pn	23 11 31.9	0.0
FVI	Forni Avoltri	2.36	13	Pg	Pn	23 11 31.9	0.0
PLRO	Paularo	2.38	19	⇑*i*Pn	Pn	23 11 32.2	-0.1
PLRO				Sn	Sn	23 12 01.2	+0.1
PLRO	Paularo	2.38	19	*i* Pn	Pn	23 11 32.2	0.0
PLRO				Sn	Sn	23 12 01.2	+0.1
LSR	Lussari	2.42	25	⇓*i*Pn	Pn	23 11 32.5	-0.2
LSR	Lussari	2.42	25	*i* Pn	Pn	23 11 32.5	-0.2
CERT	Cerreto	2.45	163	Pg	Pn	23 11 34.4	+1.3
CERT	Cerreto	2.45	163	Pg	Pn	23 11 34.4	+1.3
	comp=Z,110nm,0.7s						
CERT	Cerreto	2.45	163	Pg	Pn	23 11 34.4	+1.3
	comp=Z,110nm,0.7s						
SEST	Monte Rota	2.46	3	Pg	Pn	23 11 34.1	+0.9
SEST	Monte Rota	2.46	3	Pg	Pn	23 11 34.1	+0.9
	comp=Z,380nm,0.8s						
SEST	Monte Rota	2.46	3	Pg	Pn	23 11 34.1	+0.9
	comp=Z,380nm,0.8s						
BRMO	Bormio	2.47	332	Pg	Pn	23 11 34.4	+1.0
BRMO	Bormio	2.47	332	Pg	Pn	23 11 34.4	+1.0
	comp=Z,84nm,0.4s						
ABTA	Abfaltersbach	2.47	8	⇑*e*Pn	Pn	23 11 34.1	+0.6
	comp=Z,8.6nm,0.2s,SNR=19						
ABTA				⇓*i*Sn	Sn	23 12 03.9	+0.6
	comp=Z,143nm,0.8s						
ABTA	Abfaltersbach	2.47	8	Pn	Pn	23 11 34.1	+0.7
	comp=Z,8.6nm,0.2s,SNR=19						
ABTA				Sn	Sn	23 12 03.9	+0.6
	comp=Z,143nm,0.8s						
LJU	Ljubljana	2.48	44	*e*Pn	Pn	23 11 33.8	+0.3
LJU				*i* Pg	Pg	23 11 40.4	-1.1
LJU				*e*Sn	Sn	23 12 03.8	+0.3
LJU	Ljubljana	2.48	44	*e*Pn	Pn	23 11 33.8	+0.3
LJU				*i* Pg	Pg	23 11 40.4	-1.1
LJU				*e*Sn	Sn	23 12 03.8	+0.3
LJU							
	comp=Z,198nm,0.3s						
LJU	Ljubljana	2.48	44	*e*Pn	Pn	23 11 33.8	+0.2
LJU	Ljubljana	2.48	44	*i* Pg	Pg	23 11 40.4	-1.0
LJU				*e*Sn	Sn	23 12 03.8	+0.3
	comp=Z,198nm,0.3s						
PTQR	Pietraquaria	2.49	156	Pg	Pn	23 11 35.5	+1.9
PTQR	Pietraquaria	2.49	156	Pg	Pn	23 11 35.5	+1.9
	comp=Z,74nm,0.7s						
PTQR	Pietraquaria	2.49	156	Pg	Pn	23 11 35.5	+1.9
	comp=Z,74nm,0.7s						
PCP	Pian Castagno	2.51	277	P	Pn	23 11 35.4	+1.4
BOJS	Bojanci	2.59	61	*i* Pn	Pn	23 11 35.1	+0.1
BOJS				*i* Pg	Pg	23 11 41.0	-2.4
BOJS				*i* Sn	Sn	23 12 06.8	+0.8
BOJS				*i* Sg	Sg	23 12 19.4	+2.4
BOJS	Bojanci	2.59	61	*i* Pn	Pn	23 11 35.1	+0.1
BOJS				*i* Pg	Pg	23 11 41.0	-2.4
BOJS				*i* Sn	Sn	23 12 06.8	+0.8
BOJS				*i* Sg	Sg	23 12 19.4	+2.4
BOJS							
	comp=Z,90nm,0.3s						
BOJS	Bojanci	2.59	61	*i* Pn	Pn	23 11 35.1	+0.1
BOJS	Bojanci	2.59	61	*i* Pg	Pg	23 11 41.0	-2.4
BOJS				*i* Sn	Sn	23 12 06.8	+0.7
BOJS				*i* Sg	Sg	23 12 19.4	+2.5
	comp=Z,90nm,0.3s						
MYKA	Terra Mystica	2.59	25	⇑*i*Pn	Pn	23 11 36.7	+1.6
	comp=Z,5.1nm,0.2s						
MYKA				⇑*i*Sn	Sn	23 12 08.0	+1.7
	comp=Z,77nm,0.5s						
MYKA	Terra Mystica	2.59	25	Pn	Pn	23 11 36.7	+1.6
	comp=Z,5.1nm,0.2s						
MYKA				Sn	Sn	23 12 08.0	+1.8
	comp=Z,77nm,0.5s						
FUORN	Ofenpass-Fuorn	2.63	332	Pg	Pn	23 11 37.2	+1.5
INTR	Introdacqua	2.66	148	Pg	Pn	23 11 36.2	+0.1
INTR	Introdacqua	2.66	148	Pg	Pn	23 11 36.2	+0.1
	comp=Z,295nm,0.8s						
INTR	Introdacqua	2.66	148	Pg	Pn	23 11 36.2	+0.1
	comp=Z,295nm,0.8s						
MUGIO	Muggio	2.67	309	Pg	Pn	23 11 35.8	-0.3
VVLD	Villa Vallelon	2.69	154	Pg	Pn	23 11 38.3	+1.9
VVLD	Villa Vallelon	2.69	154	Pg	Pn	23 11 38.3	+1.9
	comp=Z,164nm,0.8s						
VVLD	Villa Vallelon	2.69	154	Pg	Pn	23 11 38.3	+1.9
	comp=Z,164nm,0.8s						
FIN	Finale Ligure	2.75	269	Pg	Pn	23 11 37.6	+0.4
FIN	Finale Ligure	2.75	269	Pg	Pn	23 11 37.6	+0.4
	comp=Z,51nm,0.5s						
FIN	Finale Ligure	2.75	269	P	Pn	23 11 37.0	-0.2
VAI	Varese	2.79	305	Pg	Pn	23 11 38.1	+0.2
VAI	Varese	2.79	305	Pg	Pn	23 11 38.1	+0.2
	comp=Z,49nm,0.7s						
PGF	Pioggiola	2.82	233	*e*Pn	Pn	23 11 38.2	0.0
	SNR=1.0						
PGF				*e*Sn	Sn	23 12 11.1	-0.7
	comp=Z,95nm,0.4s,SNR=1.0						
PGF	Pioggiola	2.82	233	*e*Pn	Pn	23 11 38.2	0.0
PGF				*e*Sn	Sn	23 12 11.1	-0.7
PGF	Pioggiola	2.82	233	*e*Pn	Pn	23 11 38.2	0.0
	SNR=1.0						
PGF				*e*Sn	Sn	23 12 11.1	-0.7
	comp=Z,47nm,0.4s,SNR=1.0						
OBKA	Obir	2.83	38	⇑*i*Pn	Pn	23 11 38.8	+0.4
	comp=Z,3.1nm,0.2s						
OBKA	Obir	2.83	38	*e*Pg	Pg	23 11 47.4	-0.8
	SNR=9.7						
OBKA	Obir	2.83	38	⇑*i*Sn	Sg	23 12 27.0	+2.2
	comp=Z,297nm,0.8s						
OBKA	Obir	2.83	38	⇑*i*Pn	Pn	23 11 38.8	+0.4
OBKA				*e*Pg	Pg	23 11 47.4	-0.8
OBKA				*i* Sn	Sg	23 12 27.0	+2.2
OBKA	Obir	2.83	38	⇑*i*Pn	Pn	23 11 38.8	+0.4
	comp=Z,3.1nm,0.2s						
OBKA				*e*Pg	Pg	23 11 47.4	-0.8
	SNR=9.7						
OBKA				⇑*i*Sg	Sg	23 12 27.0	+2.2
	comp=Z,297nm,0.8s						
OBKA	Obir	2.83	38	Pn	Pn	23 11 38.8	+0.4
	comp=Z,3.1nm,0.2s						
OBKA	Obir	2.83	38	Pg	Pg	23 11 47.4	-0.8
	comp=Z,9.0nm,7.0s						
OBKA				Sg	Sg	23 12 27.0	+2.1
	comp=Z,297nm,0.8s						
RORO		2.86	268	P	Pn	23 11 38.2	-0.5
CRES	Cresnjev	2.87	57	*i* Pn	Pn	23 11 39.0	+0.1
CRES	Cresnjev	2.87	57	*i* Pn	Pn	23 11 39.0	+0.1
CRES	Cresnjev	2.87	57	*i* Pn	Pn	23 11 39.0	+0.1
FETA	Feichten	2.87	342	⇓*e*Pn	Pn	23 11 40.4	+1.5
	SNR=13						
FETA				⇑*i*Sn	Sn	23 12 17.1	+3.9
	comp=Z,23nm,0.4s						
FETA	Feichten	2.87	342	Pn	Pn	23 11 40.4	+1.5
	SNR=13						
FETA				Sn	Sn	23 12 17.1	+4.0
	comp=Z,23nm,0.4s						
GIUL	Giuliano Di Ro	2.88	161	Pg	Pn	23 11 40.4	+1.3
	comp=Z,57nm,0.9s						
GIUL	Giuliano Di Ro	2.88	161	Pg	Pn	23 11 40.4	+1.3
	comp=Z,57nm,0.9s						
TUE	Stuetta	2.88	320	Pg	Pn	23 11 39.8	+0.7
TUE	Stuetta	2.88	320	Pg	Pn	23 11 39.8	+0.7
	comp=Z,92nm,0.5s						
SDI	San Donato	2.90	153	Pg	Pn	23 11 41.1	+1.8
SDI	San Donato	2.90	153	Pg	Pn	23 11 41.1	+1.8
	comp=Z,39nm,0.5s						
SDI	San Donato	2.90	153	Pg	Pn	23 11 41.1	+1.8
	comp=Z,39nm,0.5s						
CORF	Corte	2.90	227	Pn	Pn	23 11 40.1	+0.8
CORF	Corte	2.90	227	Pn	Pn	23 11 40.1	+0.8
DAVOX	Davos/Dischmat	2.91	329	Pn	Pn	23 11 41.6	+2.2
DAVOX				Sn	Sn	23 12 16.1	+2.1
DAVOX				Lg		23 12 28.5	
DAVOX	Davos/Dischmat	2.91	329	Pn	Pn	23 11 41.6	+2.2
	comp=Z,3.2nm,0.3s,baz=139,slow=18,SNR=28						
DAVOX				Sn	Sn	23 12 16.1	+2.1
	comp=Z,7.3nm,0.3s,baz=15,slow=20,SNR=10						
DAVOX				Lg		23 12 28.5	
	comp=Z,12nm,0.3s,baz=336,slow=15,SNR=5.7						
DAVOX	Davos/Dischmat	2.91	329	Pg	Pn	23 11 41.6	+2.2
DAVOX	Davos/Dischmat	2.91	329	Sn	Sn	23 12 16.1	+2.1
KBA	Koelnbreinsper	2.93	18	⇓*i*Pn	Pn	23 11 40.5	+0.7
	comp=Z,2.8nm,0.2s,SNR=28						
KBA	Koelnbreinsper	2.93	18	⇓*i*Sn	Sg	23 12 31.2	+3.3
	comp=Z,105nm,0.7s						
KBA	Koelnbreinsper	2.93	18	⇓*i*Pn	Pn	23 11 40.5	+0.7
KBA				*i* Sn	Sg	23 12 31.2	+3.3
KBA	Koelnbreinsper	2.93	18	⇓*i*Pn	Pn	23 11 40.5	+0.7
	comp=Z,2.8nm,0.2s,SNR=28						
KBA				⇓*i*Sg	Sg	23 12 31.2	+3.3
	comp=Z,105nm,0.7s						
KBA	Koelnbreinsper	2.93	18	Pn	Pn	23 11 40.5	+0.8
	comp=Z,2.8nm,0.2s,SNR=28						
KBA				Sg	Sg	23 12 31.2	+3.3
	comp=Z,105nm,0.7s						
SQTA	Sankt Quirin	2.98	349	⇑*e*Pn	Pn	23 11 42.2	+1.8
	comp=Z,11nm,0.1s,SNR=34						
SQTA	Sankt Quirin	2.98	349	⇑*i*Sn	Sn	23 12 20.8	+5.0
	comp=Z,71nm,0.4s						
SQTA	Sankt Quirin	2.98	349	⇑*e*Pn	Pn	23 11 42.2	+1.8
SQTA				*i* Sn	Sn	23 12 20.8	+5.0
SQTA	Sankt Quirin	2.98	349	⇑*e*Pn	Pn	23 11 42.2	+1.8
	comp=Z,11nm,0.1s,SNR=34						
SQTA				⇑*i*Sn	Sn	23 12 20.8	+5.0
	comp=Z,71nm,0.4s						
SQTA	Sankt Quirin	2.98	349	Pn	Pn	23 11 42.2	+1.8
	comp=Z,11nm,0.1s,SNR=34						
SQTA				Sn	Sn	23 12 20.8	+5.0
	comp=Z,71nm,0.4s						
WTTA	Wattenberg	2.98	355	⇑*i*Pn	Pn	23 11 42.1	+1.7
	comp=Z,5.6nm,0.3s						
WTTA	Wattenberg	2.98	355	⇑*e*Pg	Pg	23 11 50.2	-0.8
	comp=Z,20nm,0.3s,SNR=8.9						
WTTA	Wattenberg	2.98	355	⇓*i*Sn	Sn	23 12 19.2	+3.4
	comp=Z,81nm,0.4s						
WTTA	Wattenberg	2.98	355	⇑*i*Sg	Sg	23 12 31.4	+1.9
	comp=Z,264nm,0.7s						
WTTA	Wattenberg	2.98	355	⇑*i*Pn	Pn	23 11 42.1	+1.7
WTTA				⇑*e*Pg	Pg	23 11 50.1	-0.8
WTTA				*i* Sn	Sn	23 12 19.2	+3.4
WTTA				*i* Sg	Sg	23 12 31.4	+1.9
WTTA	Wattenberg	2.98	355	⇑*i*Pn	Pn	23 11 42.1	+1.7
	comp=Z,5.6nm,0.3s						
WTTA				⇑*e*Pg	Pg	23 11 50.2	-0.8
	comp=Z,20nm,0.3s,SNR=8.9						
WTTA				⇓*i*Sn	Sn	23 12 19.2	+3.4
	comp=Z,81nm,0.4s						
WTTA				⇑*i*Sg	Sg	23 12 31.4	+1.9
	comp=Z,264nm,0.7s						
WTTA	Wattenberg	2.98	355	Pn	Pn	23 11 42.1	+1.7
	comp=Z,5.6nm,0.3s						
ROB	Roburent	2.99	271	P	Pn	23 11 41.0	+0.5
IMI	Imperia	3.01	264	Pg	Pn	23 11 41.4	+0.6
IMI	Imperia	3.01	264	Pg	Pn	23 11 41.4	+0.6
IMI	Imperia	3.01	264	P	Pn	23 11 40.6	-0.2
WATA	Walderalm	3.06	354	⇑*i*Pn	Pn	23 11 43.6	+2.1
	comp=Z,7.9nm,0.3s						
WATA	Walderalm	3.06	354	⇑*i*Sn	Sn	23 12 22.1	+4.4
	comp=Z,26nm,0.2s						
WATA	Walderalm	3.06	354	⇑*i*Pn	Pn	23 11 43.6	+2.1
WATA				*i* Sn	Sn	23 12 22.1	+4.4
WATA	Walderalm	3.06	354	⇑*i*Pn	Pn	23 11 43.6	+2.1
	comp=Z,7.9nm,0.3s						
WATA				⇑*i*Sn	Sn	23 12 22.1	+4.4
	comp=Z,26nm,0.2s						
WATA	Walderalm	3.06	354	Pn	Pn	23 11 43.6	+2.2
	comp=Z,7.9nm,0.3s						
WATA				Sn	Sn	23 12 22.1	+4.5
	comp=Z,26nm,0.2s						
MONE	Monesi	3.08	267	P	Pn	23 11 41.7	-0.2
MOTA	Moosalm	3.12	348	⇑*i*Pn	Pn	23 11 44.5	+2.2
	comp=Z,5.6nm,0.3s,SNR=15						
MOTA	Moosalm	3.12	348	⇑*i*Sn	Sn	23 12 22.6	+3.4
	comp=Z,35nm,0.3s						
MOTA	Moosalm	3.12	348	⇑*i*Pn	Pn	23 11 44.5	+2.2
MOTA				*i* Sn	Sn	23 12 22.6	+3.5
MOTA	Moosalm	3.12	348	⇑*i*Pn	Pn	23 11 44.5	+2.2
	comp=Z,5.6nm,0.3s,SNR=15						
MOTA				⇑*i*Sn	Sn	23 12 22.6	+3.4
	comp=Z,35nm,0.3s						
MOTA	Moosalm	3.12	348	Pn	Pn	23 11 44.5	+2.2
	comp=Z,5.6nm,0.3s,SNR=15						

MOTA				Sn	Sn	23 12 22.6	+3.5
	comp=Z,35nm,0.3s						
NEGI	Negi	3.15	263	P	Pn	23 11 41.5	-1.3
ORO	Oropa	3.17	296	Pg	Pn	23 11 41.5	-1.5
ORO	Oropa	3.17	296	Pg	Pn	23 11 41.5	-1.5
ORX	Oropa	3.17	296	P	Pn	23 11 42.1	-0.9
PERS	Pernice	3.19	42	i Pn	Pn	23 11 43.6	+0.3
PERS				i Pg	Pg	23 11 53.2	-1.8
PERS				i Sn	Sn	23 12 23.6	+2.6
PERS				i Sg	Sg	23 12 38.2	+1.9
PERS	Pernice	3.19	42	i Pn	Pn	23 11 43.6	+0.3
PERS				i Pg	Pg	23 11 53.2	-1.8
PERS				i Sn	Sn	23 12 23.6	+2.6
PERS				i Sg	Sg	23 12 38.2	+1.9
PERS	Pernice	3.19	42	i Pn	Pn	23 11 43.6	+0.3
PERS	Pernice	3.19	42	i Pg	Pg	23 11 53.2	-1.8
PERS				i Sn	Sn	23 12 23.6	+2.6
PERS				i Sg	Sg	23 12 38.2	+1.9
SAOF	Saorge	3.24	266	Pn	Pn	23 11 45.3	+1.3
SAOF	Saorge	3.24	266	Pn	Pn	23 11 45.3	+1.3
SAOF	Saorge	3.24	266	Pn	Pn	23 11 45.3	+1.3
TRAV		3.28	293	P	Pn	23 11 43.1	-1.4
SISC	Sisak	3.30	68	Sn	Sn	23 12 24.3	+0.6
SISC	Sisak	3.30	68	Sn	Sn	23 12 24.2	+0.5
RETA	Reutte	3.31	345	⇑iPn	Pn	23 11 47.5	+2.5
	comp=Z,2.6nm,0.4s,SNR=9.2						
RETA				⇓iSn	Sn	23 12 26.7	+2.8
	comp=Z,48nm,0.4s						
RETA	Reutte	3.31	345	Pn	Pn	23 11 47.5	+2.5
	comp=Z,2.6nm,0.4s,SNR=9.2						
RETA				Sn	Sn	23 12 26.7	+2.8
	comp=Z,48nm,0.4s						
ENR	Entracque	3.31	270	P	Pn	23 11 45.4	+0.4
AUTN	L'Aution	3.33	266	Pn	Pn	23 11 48.0	+2.8
AUTN	L'Aution	3.33	266	Pn	Pn	23 11 48.0	+2.8
AUTN	L'Aution	3.33	266	Pn	Pn	23 11 48.0	+2.8
SBF	Sospel	3.34	264	ePn	Pn	23 11 45.3	-0.1
	SNR=1.0						
SBF				eSn	Sn	23 12 23.3	-1.4
	comp=Z,92nm,0.5s,SNR=1.0						
SBF	Sospel	3.34	264	ePn	Pn	23 11 45.3	-0.1
SBF				eSn	Sn	23 12 23.3	-1.4
SBF	Sospel	3.34	264	ePn	Pn	23 11 45.3	-0.1
	SNR=1.0						
SBF				eSn	Sn	23 12 23.3	-1.4
	comp=Z,46nm,0.5s,SNR=1.0						
DAVA	Damuels	3.35	334	⇑iPn	Pn	23 11 47.5	+2.0
	comp=Z,8.9nm,0.3s,SNR=10						
DAVA	Damuels	3.35	334	⇑iSn	Sn	23 12 28.1	+3.3
	comp=Z,95nm,0.3s						
DAVA	Damuels	3.35	334	⇑iPn	Pn	23 11 47.5	+2.0
DAVA				i Sn	Sn	23 12 28.1	+3.3
DAVA	Damuels	3.35	334	⇑iPn	Pn	23 11 47.5	+2.0
	comp=Z,8.9nm,0.3s,SNR=10						
DAVA				⇑iSn	Sn	23 12 28.1	+3.3
	comp=Z,95nm,0.3s						
DAVA	Damuels	3.35	334	Pn	Pn	23 11 47.5	+2.0
	comp=Z,8.9nm,0.3s,SNR=10						
DAVA				Sn	Sn	23 12 28.1	+3.3
	comp=Z,95nm,0.3s						
STV	Sta Anna Valdi	3.38	271	P	Pn	23 11 46.9	+1.0
BGLD	Berchtesgaden	3.42	11	⇑iPn	Pn	23 11 47.8	+1.3
BGLD	Berchtesgaden	3.42	11	⇑iPn	Pn	23 11 47.8	+1.3
DOI	San Damiano	3.44	275	Pg	Pn	23 11 47.5	+0.8
DOI	San Damiano	3.44	275	Pg	Pn	23 11 47.5	+0.8
	comp=Z,18nm,0.3s						
TOUF	Mont Tournerai	3.46	267	Pn	Pn	23 11 48.8	+1.9
TOUF	Mont Tournerai	3.46	267	Pn	Pn	23 11 48.8	+1.9
TOUF	Mont Tournerai	3.46	267	Pn	Pn	23 11 48.8	+1.9
RSP	Reno Superiore	3.51	286	P	Pn	23 11 47.0	-0.7
PZZ	Prazzo	3.54	275	P	Pn	23 11 48.4	+0.3
LSD	Ceresole Reale	3.66	290	P	Pn	23 11 50.9	+1.2
MBDF	Montbardon	3.79	278	ePn	Pn	23 11 51.0	-0.5
	SNR=1.0						
MBDF				eSn	Sn	23 12 33.9	-1.8
	comp=Z,50nm,0.6s						
MBDF	Montbardon	3.79	278	ePn	Pn	23 11 51.0	-0.5
MBDF				eSn	Sn	23 12 33.9	-1.8
MBDF	Montbardon	3.79	278	ePn	Pn	23 11 51.0	-0.5
	SNR=1.0						
MBDF				eSn	Sn	23 12 33.9	-1.8
	comp=Z,25nm,0.6s						
RRL	Cesana Torines	3.80	281	P	Pn	23 11 53.5	+1.8
ARSA	Arzberg	3.83	38	⇑iPn	Pn	23 11 52.5	+0.4
	comp=Z,3.0nm,0.3s						
ARSA	Arzberg	3.83	38	⇑iPn	Pn	23 11 52.5	+0.4
ARSA				⇑iPg	Pg	23 12 07.3	+0.1
ARSA	Arzberg	3.83	38	⇑iPn	Pn	23 11 52.5	+0.4
	comp=Z,3.0nm,0.3s						
ARSA				⇑iPg	Pg	23 12 07.3	+0.1
ARSA				⇓iSg	Sg	23 12 57.5	+0.7
	comp=Z,19nm,0.7s						
ARSA	Arzberg	3.83	38	Pn	Pn	23 11 52.5	+0.4
	comp=Z,3.0nm,0.3s						
MOA	Molln	3.88	23	⇑iPn	Pn	23 11 53.8	+1.0
	comp=Z,2.8nm,0.1s,SNR=16						
MOA	Molln	3.88	23	⇑iSn	Sn	23 12 37.6	-0.3
	comp=Z,69nm,0.6s						
MOA	Molln	3.88	23	⇑iPn	Pn	23 11 53.8	+1.0
MOA				i Sn	Sn	23 12 37.6	-0.3
MOA	Molln	3.88	23	⇑iPn	Pn	23 11 53.8	+1.0
	comp=Z,2.8nm,0.1s,SNR=16						
MOA				⇑iSn	Sn	23 12 37.6	-0.3
	comp=Z,69nm,0.6s						
MOA	Molln	3.88	23	Pn	Pn	23 11 53.8	+1.1
	comp=Z,2.8nm,0.1s,SNR=16						
MOA				Sn	Sn	23 12 37.6	-0.3
	comp=Z,69nm,0.6s						
LPG	La Plagne	3.94	290	ePn	Pn	23 11 53.0	-0.6
	SNR=1.0						
LPG				eSn	Sn	23 12 37.0	-2.5
	comp=Z,23nm,0.4s,SNR=1.0						
LPG	La Plagne	3.94	290	ePn	Pn	23 11 53.0	-0.6
LPG				eSn	Sn	23 12 37.0	-2.5
LPG	La Plagne	3.94	290	ePn	Pn	23 11 53.0	-0.6
	SNR=1.0						
LPG				eSn	Sn	23 12 37.0	-2.5
	comp=Z,11nm,0.4s,SNR=1.0						
LPL	La Plagne	3.96	290	ePn	Pn	23 11 52.9	-1.0
	SNR=1.0						
LPL				eSn	Sn	23 12 37.5	-2.4
LPL	La Plagne	3.96	290	ePn	Pn	23 11 52.9	-1.0
LPL				eSn	Sn	23 12 37.5	-2.4
LPL	La Plagne	3.96	290	ePn	Pn	23 11 52.9	-1.0
	SNR=1.0						
LPL				eSn	Sn	23 12 37.5	-2.4
FRF	La Foret Royal	3.96	261	ePn	Pn	23 11 54.2	+0.3
	SNR=1.0						
FRF				eSn	Sn	23 12 38.7	-1.3
	comp=Z,37nm,0.4s,SNR=1.0						
FRF	La Foret Royal	3.96	261	ePn	Pn	23 11 54.2	+0.3
FRF				eSn	Sn	23 12 38.7	-1.3
FRF	La Foret Royal	3.96	261	ePn	Pn	23 11 54.2	+0.3
	SNR=1.0						
FRF				eSn	Sn	23 12 38.7	-1.3
	comp=Z,18nm,0.4s,SNR=1.0						
RSL	Roselend	4.08	292	Pn	Pn	23 11 57.8	+2.3
RSL	Roselend	4.08	292	Pn	Pn	23 11 57.8	+2.3
RSL	Roselend	4.08	292	Pn	Pn	23 11 57.8	+2.3
LMR	La Mourre	4.11	258	ePn	Pn	23 11 56.1	+0.1
	SNR=1.0						
LMR				eSn	Sn	23 12 41.6	-2.1
	comp=Z,28nm,0.5s,SNR=1.0						
LMR	La Mourre	4.11	258	ePn	Pn	23 11 56.1	+0.1
LMR				eSn	Sn	23 12 41.6	-2.1
LMR	La Mourre	4.11	258	ePn	Pn	23 11 56.1	+0.1
	SNR=1.0						
LMR				eSn	Sn	23 12 41.6	-2.1
	comp=Z,14nm,0.5s,SNR=1.0						
STON	Ston	4.36	107	ePn	Pn	23 11 59.9	+0.6
STON				Sn	Sn	23 12 49.0	-0.7
STON	Ston	4.36	107	ePn	Pn	23 11 59.9	+0.6
STON				Sn	Sn	23 12 49.0	-0.8
ORIF	Oris-en-Rattie	4.44	280	ePn	Pn	23 12 01.7	+1.3
	SNR=1.0						
ORIF				eSn	Sn	23 12 49.4	-2.3
	comp=Z,26nm,0.4s,SNR=1.0						
ORIF	Oris-en-Rattie	4.44	280	ePn	Pn	23 12 01.7	+1.3
ORIF				eSn	Sn	23 12 49.4	-2.3
ORIF	Oris-en-Rattie	4.44	280	ePn	Pn	23 12 01.7	+1.3
	SNR=1.0						
ORIF				eSn	Sn	23 12 49.4	-2.3
	comp=Z,13nm,0.4s,SNR=1.0						
CONA	Conrad Observa	4.50	35	⇑iPn	Pn	23 12 02.0	+0.7
	comp=Z,2.3nm,0.2s						
CONA				⇑iSn	Sn	23 12 52.0	-1.3
	comp=Z,30nm,0.5s						
CONA	Conrad Observa	4.50	35	Pn	Pn	23 12 02.0	+0.7
	comp=Z,2.3nm,0.2s						
CONA				Sn	Sn	23 12 52.0	-1.3
	comp=Z,30nm,0.5s						
FELD	Feldberg im Sc	4.54	323	Pn	Pn	23 12 02.3	+0.4
FELD	Feldberg im Sc	4.54	323	Pn	Pn	23 12 02.3	+0.4
SMRF	Simiane la Rot	4.66	268	ePn	Pn	23 12 02.0	-1.5
SMRF	Simiane la Rot	4.66	268	ePn	Pn	23 12 02.0	-1.5
SMRF	Simiane la Rot	4.66	268	ePn	Pn	23 12 02.0	-1.5
GEC2	GERESS Array S	4.69	14	ePn	Pn	23 12 04.1	+0.2
GEC2				eSn	Sn	23 12 57.2	-0.7
GEC2	GERESS Array S	4.69	14	ePn	Pn	23 12 04.1	+0.2
GEC2				eSn	Sn	23 12 57.2	-0.8
GERES	GERESS Array B	4.69	14	Pn	Pn	23 12 03.5	-0.4
GERES				Pg	Pg	23 12 21.3	-2.3
GERES				Sn	Sn	23 12 55.5	-2.5
GERES	GERESS Array B	4.69	14	Pn	Pn	23 12 03.5	-0.4
	comp=Z,1.9nm,0.3s,baz=193,slow=14,SNR=24						
GERES				Pg	Pg	23 12 21.3	-2.3
	comp=Z,2.6nm,0.3s,baz=189,slow=16,SNR=14						
GERES				Sn	Sn	23 12 55.4	-2.5
	comp=Z,2.8nm,0.3s,baz=183,slow=20,SNR=4.6						
GERES	GERESS Array B	4.69	14	Pn	Pn	23 12 03.5	-0.4
GERES	GERESS Array B	4.69	14	Pg	Pg	23 12 21.3	-2.4
LOMF	Lomont	4.75	312	Pn	Pn	23 12 05.0	+0.3
LOMF	Lomont	4.75	312	Pn	Pn	23 12 05.0	+0.3
LOMF	Lomont	4.75	312	Pn	Pn	23 12 05.0	+0.3
BFO	Black Forest	4.78	329	ePn	Pn	23 12 04.7	-0.4
BFO	Black Forest	4.78	329	ePn	Pn	23 12 04.7	-0.4
CABF	La Chapelle	4.78	301	ePn	Pn	23 12 05.0	-0.1
	SNR=1.0						
CABF				eSn	Sn	23 12 56.5	-3.7
	comp=Z,14nm,0.4s,SNR=1.0						
CABF	La Chapelle	4.78	301	ePn	Pn	23 12 05.0	-0.1
CABF				eSn	Sn	23 12 56.5	-3.7
CABF	La Chapelle	4.78	301	ePn	Pn	23 12 05.0	-0.1
	SNR=1.0						
CABF				eSn	Sn	23 12 56.5	-3.7
	comp=Z,6.8nm,0.4s,SNR=1.0						
WET	Wettzell	4.88	7	ePn	Pn	23 12 06.1	-0.4
WET				eSn	Sn	23 13 00.9	-1.8
WET	Wettzell	4.88	7	ePn	Pn	23 12 06.1	-0.4
WET				eSn	Sn	23 13 00.9	-1.8
WET	Wettzell	4.88	7	ePn	Pn	23 12 06.1	-0.4
WET				eSn	Sn	23 13 00.9	-1.8
MOF	Molkenrain	4.92	318	Pn	Pn	23 12 07.2	+0.1
MOF	Molkenrain	4.92	318	Pn	Pn	23 12 07.2	+0.1
MOF	Molkenrain	4.92	318	Pn	Pn	23 12 07.2	+0.1
KHC	Kasperske Hory	4.95	12	ePn	Pn	23 12 07.2	-0.3
KHC				e		23 12 29.0	
KHC				eSn	Sn	23 13 00.8	-3.5
KHC				eSg	Sg	23 13 24.9	-7.8
KHC	Kasperske Hory	4.95	12	ePN	Pn	23 12 07.2	-0.3
KHC				ePG	Pg	23 12 29.0	+0.4
KHC				eSN	Sn	23 13 00.8	-3.5
KHC				eSG	Sg	23 13 24.9	-7.8
	comp=Z,29nm,0.7s						
KHC	Kasperske Hory	4.95	12	ePn	Pn	23 12 07.2	-0.3
KHC				eSn	Sn	23 13 00.8	-3.5
HINF	Hinteralfeld	5.04	316	ePn	Pn	23 12 07.8	-0.9
	SNR=1.0						
HINF				eSn	Sn	23 13 02.5	-4.0
	comp=Z,32nm,0.3s,SNR=1.0						
HINF	Hinteralfeld	5.04	316	ePn	Pn	23 12 07.8	-0.9
HINF				eSn	Sn	23 13 02.5	-4.0
HINF	Hinteralfeld	5.04	316	ePn	Pn	23 12 07.8	-0.9
	SNR=1.0						
HINF				eSn	Sn	23 13 02.5	-4.0
	comp=Z,16nm,0.3s,SNR=1.0						
ECH	Echery	5.17	321	Pn	Pn	23 12 10.6	0.0
ECH	Echery	5.17	321	Pn	Pn	23 12 10.6	0.0
ECH	Echery	5.17	321	Pn	Pn	23 12 10.6	0.0
ZST	Bratislava	5.25	40	ePn	Pn	23 12 11.9	+0.3
ZST				eSn	Sn	23 13 07.7	-4.0
ZST	Bratislava	5.25	40	ePN	Pn	23 12 11.9	+0.3
ZST				eSN	Sn	23 13 07.7	-4.0
ZST	Bratislava	5.25	40	ePn	Pn	23 12 11.9	+0.3
ZST				eSn	Sn	23 13 07.7	-4.0
CDF	Champ du Feu	5.27	323	ePn	Pn	23 12 11.5	-0.4
	SNR=1.0						
CDF				eSn	Sn	23 13 07.7	-4.5
	comp=Z,16nm,0.3s						
CDF	Champ du Feu	5.27	323	ePn	Pn	23 12 11.5	-0.4
CDF				eSn	Sn	23 13 07.7	-4.5
CDF	Champ du Feu	5.27	323	ePn	Pn	23 12 11.5	-0.4
	SNR=1.0						
CDF				eSn	Sn	23 13 07.7	-4.5
	comp=Z,7.9nm,0.3s						
VIVF	Saint-Julien-l	5.29	279	ePn	Pn	23 12 11.3	-0.8
	SNR=1.0						
VIVF				eSn	Sn	23 13 09.1	-3.6
	comp=Z,8.4nm,0.5s,SNR=1.0						
VIVF	Saint-Julien-l	5.29	279	ePn	Pn	23 12 11.3	-0.8
VIVF				eSn	Sn	23 13 09.1	-3.6
VIVF	Saint-Julien-l	5.29	279	ePn	Pn	23 12 11.3	-0.8
	SNR=1.0						
VIVF				eSn	Sn	23 13 09.1	-3.6
	comp=Z,4.2nm,0.5s,SNR=1.0						
HAU	Haudompre	5.42	315	ePn	Pn	23 12 12.9	-1.0
	SNR=1.0						
HAU				eSn	Sn	23 13 10.8	-5.0
	comp=Z,47nm,0.4s,SNR=1.0						
HAU	Haudompre	5.42	315	ePn	Pn	23 12 12.9	-1.0
HAU				eSn	Sn	23 13 10.8	-5.0
HAU	Haudompre	5.42	315	ePn	Pn	23 12 12.9	-1.0
	SNR=1.0						
HAU				eSn	Sn	23 13 10.8	-5.0
	comp=Z,24nm,0.4s,SNR=1.0						
GRFO	Grafenberg	5.42	354	Pn	Pn	23 12 13.0	-1.0
	comp=Z,30nm,0.9s						
GRFO				ePg	Pg	23 12 35.8	-1.8
GRFO				eSn	Sn	23 13 12.2	-3.8
GRFO	Grafenberg	5.42	354	Pn	Pn	23 12 13.0	-1.0
	comp=Z,30nm,0.9s						
GRF	Grafenberg Arr	5.42	354	eSn	Sn	23 13 12.4	-3.6
ROTZ	Rotzenmuhle	5.47	1	ePn	Pn	23 12 15.4	+0.8
ROTZ				eSn	Sn	23 13 12.1	-5.1
SMOL	Smolenice	5.63	40	eSN	Sn	23 13 17.6	-3.5
SMOL	Smolenice	5.63	40	eSn	Sn	23 13 17.6	-3.5
MANZ	Manzenberg	5.69	0	eSn	Sn	23 13 18.5	-4.1
LASF	Ste Croix	5.88	271	ePn	Pn	23 12 20.2	-0.1
LASF	Ste Croix	5.88	271	ePn	Pn	23 12 20.2	-0.1
LASF	Ste Croix	5.88	271	ePn	Pn	23 12 20.2	-0.1
VRAC	Vranov	5.91	30	Pn	Pn	23 12 19.4	-1.2
VRAC				Sn	Sn	23 13 25.2	-2.7
VRAC	Vranov	5.91	30	Pn	Pn	23 12 19.5	-1.2
	comp=Z,0.4nm,0.3s,baz=232,slow=10,SNR=2.8						
VRAC				Sn	Sn	23 13 25.2	-2.7
	comp=Z,2.4nm,0.3s,baz=331,slow=8.8,SNR=7.8						
VRAC	Vranov	5.91	30	⇓iP	Sn	23 13 24.5	-3.4
VRAC	Vranov	5.91	30	Pn	Pn	23 12 19.5	-1.1
VRAC				Sn	Sn	23 13 25.2	-2.7
PRU	Pruhonice	5.94	16	ePn	Pn	23 12 21.0	-0.1
	comp=Z,27nm,1.0s						
PRU				eSn	Sn	23 13 24.4	-4.4
PRU				eSg	Sg	23 13 56.7	-7.8
PRU	Pruhonice	5.94	16	ePN	Pn	23 12 21.0	-0.1
PRU				eSN	Sn	23 13 24.4	-4.4
PRU				eSG	Sg	23 13 56.7	-7.8
	comp=Z,27nm,1.0s						
PRU	Pruhonice	5.94	16	ePn	Pn	23 12 21.0	-0.1
	comp=Z,27nm,1.0s						
NKC	Novy Kostel	5.95	3	ePn	Pn	23 12 20.6	-0.5
NKC				eSn	Sn	23 13 23.9	-4.9
NKC				eSg	Sg	23 13 55.9	-8.6
NKC	Novy Kostel	5.95	3	ePN	Pn	23 12 20.6	-0.5
NKC				eSN	Sn	23 13 23.9	-4.9
NKC				eSG	Sg	23 13 55.9	-8.6
	comp=Z,27nm,0.8s						
NKC	Novy Kostel	5.95	3	ePn	Pn	23 12 20.6	-0.5
NKC				eSn	Sn	23 13 23.9	-4.9
GUNZ	Gunzen	6.07	2	ePn	Pn	23 12 23.1	+0.2
TANN	Tannenbergstha	6.13	3	ePn	Pn	23 12 23.2	-0.4
WERD	Werda	6.16	2	ePn	Pn	23 12 24.1	+0.1
PLDF	La Plantade	6.18	289	Pn	Pn	23 12 23.9	-0.5
PLDF	La Plantade	6.18	289	Pn	Pn	23 12 23.9	-0.5
PLDF	La Plantade	6.18	289	Pn	Pn	23 12 23.9	-0.5
SMF	Signal de Mont	6.22	295	ePn	Pn	23 12 24.1	-0.8
	SNR=1.0						
SMF				eSn	Sn	23 13 31.6	-4.0
	comp=Z,44nm,0.6s,SNR=1.0						
SMF	Signal de Mont	6.22	295	ePn	Pn	23 12 24.1	-0.8
SMF				eSn	Sn	23 13 31.6	-4.0
SMF	Signal de Mont	6.22	295	ePn	Pn	23 12 24.1	-0.8
	SNR=1.0						
SMF				eSn	Sn	23 13 31.6	-4.0
	comp=Z,22nm,0.6s,SNR=1.0						
SFTF	Sexfontaines	6.23	311	ePn	Pn	23 12 23.9	-1.1
	baz=130						
SFTF				eSn	Sn	23 13 30.7	-5.1
	comp=Z,7.4nm,0.3s						
SFTF	Sexfontaines	6.23	311	ePn	Pn	23 12 23.9	-1.1
SFTF				eSn	Sn	23 13 30.7	-5.1
SFTF	Sexfontaines	6.23	311	ePn	Pn	23 12 23.9	-1.1
SFTF				eSn	Sn	23 13 30.7	-5.1
	comp=Z,3.7nm,0.3s						
VYHS	Vyhne	6.30	46	ePn	Pn	23 12 25.9	-0.2
VYHS				eSn	Sn	23 13 31.6	-6.1
VYHS	Vyhne	6.30	46	ePN	Pn	23 12 25.9	-0.2
VYHS				eSN	Sn	23 13 31.6	-6.1
VYHS	Vyhne	6.30	46	ePn	Pn	23 12 25.9	-0.2
MOX	Moxa	6.36	358	ePn	Pn	23 12 27.3	+0.5
MOX				eSn	Sn	23 13 34.0	-5.0
MOX	Moxa	6.36	358	ePN	Pn	23 12 27.3	+0.5
MOX				eSN	Sn	23 13 34.0	-5.0
MOX	Moxa	6.36	358	ePn	Pn	23 12 25.7	-1.1
MOX				eSn	Sn	23 13 34.0	-5.0
MOX	Moxa	6.36	358	ePn	Pn	23 12 27.3	+0.5
MEZF	Maizieres J'vi	6.40	314	ePn	Pn	23 12 26.7	-0.7
	baz=131,SNR=1.0						
MEZF				eSn	Sn	23 13 34.1	-6.0
	comp=Z,14nm,0.4s,SNR=1.0						
MEZF	Maizieres J'vi	6.40	314	ePn	Pn	23 12 26.7	-0.7
MEZF				eSn	Sn	23 13 34.1	-6.0
MEZF	Maizieres J'vi	6.40	314	ePn	Pn	23 12 26.7	-0.7
	SNR=1.0						
MEZF				eSn	Sn	23 13 34.1	-6.0
	comp=Z,6.8nm,0.4s,SNR=1.0						
LOR	Lormes	6.44	300	ePn	Pn	23 12 26.9	-1.0
	baz=120,SNR=1.0						
LOR				eSn	Sn	23 13 36.6	-4.5
	comp=Z,29nm,0.4s,SNR=1.0						
LOR	Lormes	6.44	300	ePn	Pn	23 12 26.9	-1.0
LOR				eSn	Sn	23 13 36.6	-4.5
LOR	Lormes	6.44	300	ePn	Pn	23 12 26.9	-1.0
	SNR=1.0						
LOR				eSn	Sn	23 13 36.6	-4.5
	comp=Z,15nm,0.4s,SNR=1.0						
SSF	Saint Saulge	6.58	298	ePn	Pn	23 12 29.1	-0.8
	SNR=1.0						
SSF				eSn	Sn	23 13 40.6	-3.9
	comp=Z,22nm,0.6s						
SSF	Saint Saulge	6.58	298	ePn	Pn	23 12 29.1	-0.8
SSF				eSn	Sn	23 13 40.6	-3.9
SSF	Saint Saulge	6.58	298	ePn	Pn	23 12 29.1	-0.8
	SNR=1.0						
SSF				eSn	Sn	23 13 40.6	-3.9
	comp=Z,11nm,0.6s						
AVF	Avril sur Loir	6.58	295	ePn	Pn	23 12 29.5	-0.4
	SNR=1.0						
AVF				eSn	Sn	23 13 39.6	-5.0
	comp=Z,2.7nm,0.4s						
AVF	Avril sur Loir	6.58	295	ePn	Pn	23 12 29.5	-0.4
AVF				eSn	Sn	23 13 39.6	-5.0
AVF	Avril sur Loir	6.58	295	ePn	Pn	23 12 29.5	-0.4
	SNR=1.0						
AVF				eSn	Sn	23 13 39.6	-5.0
	comp=Z,1.4nm,0.4s						
BRG	Berggiesshubel	6.70	10	Pn	Pn	23 12 30.3	-1.3
	comp=Z,12nm,0.8s						
BRG				i		23 13 42.0	
BRG				Sg	Sn	23 14 21.8	+34
BRG	Berggiesshubel	6.70	10	eSn	Sn	23 13 42.8	-4.7
BRG	Berggiesshubel	6.70	10	Pn	Pn	23 12 30.3	-1.2
BRG	Berggiesshubel	6.70	10	PN	Pn	23 12 30.3	-1.3
BRG				i		23 13 42.0	
DPC	Dobruska-Polom	6.72	24	ePn	Pn	23 12 31.3	-0.5
	comp=Z,130nm,2.8s						
DPC				eSn	Sn	23 13 42.4	-5.5
DPC				eSg	Sn	23 14 21.7	+34
DPC	Dobruska-Polom	6.72	24	ePN	Pn	23 12 31.3	-0.5
DPC				eSN	Sn	23 13 42.4	-5.5
DPC				eSG	Sn	23 14 21.7	+34
	comp=Z,130nm,2.8s						
DPC	Dobruska-Polom	6.72	24	ePn	Pn	23 12 31.3	-0.5
	comp=Z,130nm,2.8s						
BGF	Bois d'Agland	6.85	292	ePn	Pn	23 12 32.9	-0.6
	SNR=1.0						
BGF				eSn	Sn	23 13 46.9	-4.2
	comp=Z,15nm,0.4s,SNR=1.0						
BGF	Bois d'Agland	6.85	292	ePn	Pn	23 12 32.9	-0.6
BGF				eSn	Sn	23 13 46.9	-4.2
BGF	Bois d'Agland	6.85	292	ePn	Pn	23 12 32.9	-0.6
	SNR=1.0						
BGF				eSn	Sn	23 13 46.9	-4.2
	comp=Z,7.3nm,0.4s,SNR=1.0						
CLL	Collm	7.04	5	ePn	Pn	23 12 35.0	-1.2
CLL				i Sg	Sn	23 14 43.6	+48
CLL	Collm	7.04	5	ePn	Pn	23 12 35.0	-1.2
CLL				ePb	Pb	23 13 01.0	+5.3
CLL				ex	x	23 14 07.0	
CLL				i Sg	Sn	23 14 43.6	+48
CLL				i x	x	23 14 50.5	
CLL	Collm	7.04	5	ePn	Pn	23 12 35.0	-1.2
MTLF	Montolieu	7.16	266	ePn	Pn	23 12 37.9	0.0
	SNR=1.0						
MTLF	Montolieu	7.16	266	ePn	Pn	23 12 37.9	0.0
MTLF	Montolieu	7.16	266	ePn	Pn	23 12 37.9	0.0
	SNR=1.0						
TCF	Toulx Ste Croi	7.21	289	ePn	Pn	23 12 37.1	-1.4
TCF				eSn	Sn	23 13 54.6	-5.3
	comp=Z,3.3nm,0.3s						
TCF	Toulx Ste Croi	7.21	289	ePn	Pn	23 12 37.1	-1.4
TCF				eSn	Sn	23 13 54.6	-5.3
TCF	Toulx Ste Croi	7.21	289	ePn	Pn	23 12 37.1	-1.4
TCF				eSn	Sn	23 13 54.6	-5.3
	comp=Z,1.6nm,0.3s						
KEST	Kesra	8.80	194	Pn	Pn	23 13 05.7	+5.3
	comp=Z,0.3nm,0.3s,baz=289,slow=4.0,SNR=15						
SGMF	Saint Gilles	10.84	297	ePn	Pn	23 13 26.4	-1.9
SGMF	Saint Gilles	10.84	297	ePn	Pn	23 13 26.4	-1.9
SGMF	Saint Gilles	10.84	297	ePn	Pn	23 13 26.4	-1.9
FINES	FINESS Array B	19.08	21	P	Pn	23 15 15.6	-0.5
	comp=Z,0.1nm,0.3s,baz=195,slow=10,SNR=3.3						
TORD	Torodi Ar. Bea	32.28	199	P	P	23 17 20.3	-1.6
TORD	Torodi Ar. Bea	32.28	199	P	P	23 17 20.3	-1.6
	comp=Z,0.7nm,0.7s,mb3.6,baz=14,slow=7.4,SNR=5.2						
MKAR	Makanchi Array	47.75	61	P	P	23 19 29.8	-0.1
	comp=Z,0.3nm,0.6s,mb3.5,baz=298,slow=6.0,SNR=3.8						
YKA	Yellowknife Ar	65.33	336	P	P	23 21 34.9	+0.3
YKA	Yellowknife Ar	65.33	336	P	P	23 21 34.9	+0.3
	comp=Z,0.8nm,0.6s,mb3.9,baz=39,slow=6.1,SNR=15						
YKA	Yellowknife Ar	65.33	336	P	P	23 21 34.9	+0.3
PDAR	Pinedale Array	78.82	320	P	P	23 22 56.5	+0.7
	comp=Z,0.3nm,0.6s,mb3.4,baz=57,slow=6.6,SNR=3.4						
TXAR	Lajitas Array	86.14	308	P	P	23 23 34.8	+0.6
	comp=Z,0.4nm,0.7s,mb3.7,baz=72,slow=4.1,SNR=3.8						

IDC 14 23:14:51.9±8.6, 1104S×16353E, h89^{km}±60^{km}, mb3.5/4, mb1 3.7/6, mb1mx3.6/16, mbtmp3.7/6, ML4.2/2, Error ellipse: s-maj=64.8km s-min=27.2km az=101.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	3.87	294	P	Pn	23 15 48.6	-0.6
	11nm,0.3s,baz=210,slow=0.7,SNR=3.8						
HNR				S	Sn	23 16 34.3	+0.7
	14nm,0.3s,baz=90,slow=23,SNR=6.2						
CTA	Charters Tower	18.91	239	P	Pn	23 19 07.3	+0.1
	0.7nm,0.3s,baz=76,slow=12,SNR=12						
WRA	Warramunga Arr	29.45	249	P	P	23 20 47.0	-0.5
	1.2nm,0.5s,baz=80,slow=9.1,SNR=21						
ASAR	Alice Springs	30.86	242	P	P	23 20 59.5	-0.3
	0.7nm,0.5s,baz=62,slow=10,SNR=12						
SONM	Songino Array	77.38	325	P	P	23 26 37.4	+0.4
	0.4nm,0.8s,baz=147,slow=6.6,SNR=3.3						
MKAR	Makanchi Array	92.03	317	P	P	23 27 50.2	-0.6
	0.4nm,0.8s,baz=94,slow=6.2,SNR=3.7						
BRTR	Keskin Array B	127.35	312	PKP	PKPdf	23 33 47.2	+0.7
	0.6nm,0.8s,baz=156,slow=6.4,SNR=4.0						

IDC 14 23:26:56.6±1.8, 2400S×17990E, h521^{km}±13^{km}, mb3.7/8,

mb1 3.9/8, mb1mx3.6/14, mbtmp3.7/8, Error ellipse: s-maj=34.8km s-min=13.7km az=159.0
*ISCJB **14** 23:27:00.6±2.1, 240S±02×1798E±02, h583^{km}±23^{km}, mb4.3/13, Error ellipse: s-maj=39.3km s-min=19.5km az=155.8*
*NEIC **14** 23:27:03.5±2.9, 2426S×17919E, h543^{km}±31^{km}, mb4.5/7, Error ellipse: s-maj=50.8km s-min=18.7km az=172.0*
ISC 14 23:27:00.9±2.0**, 240S**±02×**1798E**±02**, h568**^{km}±21^{km}**, n60, σ0^{s}52**/20**, mb4.3**/13**, 10C-6D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	12.46	276	P	P	23 29 44.4	+0.2
	0.7nm,0.3s,baz=81,slow=11,SNR=7.9						
AFI	Afiamalu	12.77	40	P	P	23 29 38.7	-8.7
	1.5nm,0.3s,baz=106,slow=21,SNR=4.5						
CTA	Charters Tower	31.31	270	eP	P	23 32 36.4	+0.8
	15nm,0.6s,mb4.7						
CTA	Charters Tower	31.31	270	P	P	23 32 36.0	+0.3
	26nm,0.6s,mb4.9,baz=98,slow=10.0,SNR=44						
PMG	Port Moresby	34.36	289	P	P	23 33 01.6	+0.1
	22nm,0.8s,mb4.8,baz=100,slow=4.5,SNR=12						
STKA	Stephens Creek	34.55	248	eP	P	23 33 03.3	+0.5
	2.8nm,1.6s,mb3.5						
STKA	Stephens Creek	34.55	248	P	P	23 33 03.1	+0.4
	1.3nm,0.5s,mb3.7,baz=357,slow=6.3,SNR=3.8						
STKA				PcP	PcP	23 35 21.8	+0.7
	0.9nm,0.5s,baz=45,slow=4.6,SNR=2.8						
ASAR	Alice Springs	41.86	261	P	P	23 34 02.5	+0.3
	7.0nm,0.7s,mb4.3,baz=95,slow=7.8,SNR=71						
ASAR				PcP	PcP	23 35 43.6	-0.8
	0.8nm,0.6s,baz=100,slow=6.3,SNR=5.0						
ASAR				ScP	ScP	23 38 47.3	+6.2
	2.4nm,0.8s,baz=112,slow=4.0,SNR=13						
ASAR				S	S	23 39 41.2	+1.5
	0.8nm,0.8s,baz=96,slow=14,SNR=4.8						
WB2	Warramunga Arr	42.23	266	eP	P	23 34 04.0	-1.1
WRA	Warramunga Arr	42.24	266	P	P	23 34 04.8	-0.3
	10.0nm,0.3s,mb4.8,baz=96,slow=8.4,SNR=482						
WRA				ScP	ScP	23 38 49.0	+6.3
	0.9nm,0.7s,baz=98,slow=3.8,SNR=7.0						
WRA				S	S	23 39 44.5	-0.8
	0.6nm,0.7s,baz=100,slow=14,SNR=5.3						
FORT	Forrest	46.13	250	eP	P	23 34 34.7	-0.3
	30nm,0.6s,mb5.0						
KAKA	Kakadu	46.15	275	eP	P	23 34 34.7	-0.7
	7.8nm,0.3s,mb4.7						
FITZ	Fitzroy Crossi	50.66	266	eP	P	23 35 09.3	+0.5
	9.8nm,0.6s,mb4.3						
KLBR	Kellerberrin	54.81	247	eP	P	23 35 37.9	-0.2
	10.0nm,0.7s,mb4.2						
MBWA	Marble Bar	55.20	260	eP	P	23 35 40.7	-0.3
	7.7nm,0.8s,mb4.0						
MJAR	Matsushiro Arr	71.86	326	P	P	23 37 26.7	-0.1
	3.5nm,0.8s,mb3.9,baz=157,slow=5.7,SNR=6.1						
KSRS	Korea Array	78.19	320	P	P	23 38 02.2	+0.1
	2.0nm,0.7s,mb3.6,baz=125,slow=5.9,SNR=5.7						
TXAR	Lajitas Array	90.61	58	P	P	23 39 03.6	+0.3
	0.6nm,0.7s,mb3.7,baz=226,slow=6.2,SNR=5.3						
MKAR	Makanchi Array	112.08	313	PKPdf	PKiKP	23 44 31.1	-0.9
MKAR	Makanchi Array	112.08	313	PKiKP	PKiKP	23 44 31.1	-0.9
	0.3nm,0.5s,baz=207,slow=1.1,SNR=7.2						
ARCES	ARCESS Array B	131.92	348	PKP	PKPdf	23 45 08.6	-0.7
ARCES	ARCESS Array B	131.92	348	PKP	PKPdf	23 45 08.6	-0.7
	1.1nm,0.7s,baz=48,slow=1.8,SNR=8.3						
KMBO	Kilima Mbogo	135.92	241	ePKPdf	PKPdf	23 45 20.1	+1.6
FINES	FINESS Array B	138.46	341	PKP	PKPdf	23 45 19.7	-1.9
FINES				SKPbc	SKPbc	23 48 06.2	+3.1
FINES	FINESS Array B	138.46	341	PKhKP		23 45 13.0	
	0.4nm,0.5s,baz=90,slow=3.8,SNR=5.4						
FINES				PKP	PKPdf	23 45 19.7	-1.9
	1.0nm,0.8s,baz=56,slow=3.4,SNR=5.5						
FINES				SKPbc	SKPbc	23 48 06.2	+3.1
	1.6nm,0.7s,baz=38,slow=4.5,SNR=7.7						
NB2	NORSAR Subarra	142.12	351	PKPa	PKPdf	23 45 23.2	-5.0
	comp=Z,2.6nm,1.0s,baz=10,slow=3.2						
NOA	NORSAR Array B	142.12	351	PKhKP		23 45 23.7	
	comp=Z,1.0nm,0.7s,baz=14,slow=4.5,SNR=4.0						
MALT	Malatya	144.26	303	⇑P	PKPdf	23 45 34.0	+1.3
MALT	Malatya	144.26	303	⇑iP	PKPdf	23 45 34.0	+1.3
AKASG	Malin Array Be	144.94	327	PKPbc	PKPdf	23 45 33.4	-0.1
AKASG				SKPbc	SKPbc	23 48 23.1	+3.5
AKASG	Malin Array Be	144.94	327	PKPbc	PKPdf	23 45 33.4	-0.1
	comp=Z,2.1nm,0.4s,baz=42,slow=4.2,SNR=23						
AKASG				SKPbc	SKPbc	23 48 23.1	+3.5
	comp=Z,1.4nm,0.5s,baz=45,slow=2.8,SNR=9.6						
ANDN	Andirin	146.03	302	i P	PKPbc	23 45 40.2	+2.4
ASF	Jabal al Asfar	146.41	292	PKPbc	PKPbc	23 45 39.8	+0.8
ASF	Jabal al Asfar	146.41	292	PKPbc	PKPbc	23 45 39.8	+0.8
	comp=Z,2.2nm,0.7s,baz=354,slow=11,SNR=3.3						
BRTR	Keskin Array B	147.49	307	PKPbc	PKPbc	23 45 41.6	0.0
BRTR	Keskin Array B	147.49	307	PKPbc	PKPbc	23 45 41.6	0.0
	comp=Z,1.8nm,0.7s,baz=129,slow=4.2,SNR=12						
KWP	Kalwaria	148.75	331	ePKPdf	PKPbc	23 45 44.6	+0.2
BURAR	Bucovina Array	148.93	326	⇑P	PKPbc	23 45 46.6	+1.6
BURAR	Bucovina Array	148.93	326	⇑iP	PKPbc	23 45 46.6	+1.7
KOLS	Kolonicke sedl	149.45	330	eP	PKPbc	23 45 47.0	+0.9
KOLS				e		23 47 27.4	
KOLS	Kolonicke sedl	149.45	330	ePKP	PKPbc	23 45 47.0	+0.9
KOLS				e		23 47 27.4	
STHS	Stebnicka Huta	149.55	332	eP	PKPbc	23 45 47.1	+0.8
STHS	Stebnicka Huta	149.55	332	ePKP	PKPbc	23 45 47.1	+0.8
MLR	Muntele Rosu	149.87	322	⇑P	PKPbc	23 45 45.9	-1.4
MLR	Muntele Rosu	149.87	322	PKPbc	PKPbc	23 45 45.9	-1.4
	comp=Z,1.1nm,0.4s,baz=49,slow=4.8,SNR=8.2						
MLR				PKPab	PKPab	23 45 56.9	+1.6
	comp=Z,1.8nm,0.9s,baz=21,slow=19,SNR=4.1						
MLR	Muntele Rosu	149.87	322	⇑iP	PKPbc	23 45 45.9	-1.3
NIE	Niedzica	149.94	333	eP	PKPbc	23 45 48.3	+1.0
MORC	Moravsky Berou	150.75	336	⇑P	PKPbc	23 45 49.3	+0.2
MORC	Moravsky Berou	150.75	336	⇑iP	PKPbc	23 45 49.3	+0.2
DRGR		150.75	327	⇓P	PKPbc	23 45 48.7	-0.6
DRGR		150.75	327	⇓iP	PKPbc	23 45 48.7	-0.5
CLL	Collm	150.87	343	⇓iP	PKPbc	23 45 49.3	-0.1
CLL				i		23 45 51.4	
CLL				i		23 45 59.1	
CLL	Collm	150.87	343	⇓iPKPbc	PKPbc	23 45 49.3	-0.1
	comp=Z,6.0nm,0.6s						
CLL				i PKPab	PKPab	23 45 59.1	-0.2
BRG	Berggiesshubel	151.00	341	i P	PKPbc	23 45 49.7	+0.1
	comp=Z,4.7nm,0.5s						
BZS	Buzias	152.11	326	⇑P	PKPbc	23 45 52.4	0.0
BZS	Buzias	152.11	326	⇑iP	PKPbc	23 45 52.4	+0.1
GERES	GERESS Array B	152.86	340	PKPbc	PKPbc	23 45 54.0	+0.2
GERES				PKPab	PKPab	23 46 08.8	+1.0
GERES	GERESS Array B	152.86	340	PKPbc	PKPbc	23 45 54.0	+0.2
	comp=Z,0.3nm,0.5s,baz=9.5,slow=2.4,SNR=4.8						
GERES				PKPab	PKPab	23 46 08.8	+1.0
	comp=Z,0.3nm,0.5s,baz=72,slow=4.3,SNR=3.8						
PKSM	Moragy	153.12	330	⇓P	PKPbc	23 45 54.2	-0.3
PKSM	Moragy	153.12	330	⇓iP	PKPbc	23 45 54.2	-0.3

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*ISCJB **14** 23:35:45.8±0.8, 3456N±006×276E±02, h33^{km}, Error ellipse: s-maj=19.2km s-min=8.0km az=167.1*
*HLW **14** 23:35:45.3, 3474N×2756E, h33^{km}, Mb3.6*
*CSEM **14** 23:35:45.6±0.0, 3450N×2754E, h30^{km}, MD3.3, Error ellipse: s-maj=2.3km s-min=0.8km az=68.0*
*ATH **14** 23:35:58.2, 3586N×2699E, h10^{km}, MD3.3/3*
ISC 14 23:35:47.3±0.8**, 3459N**±007×**275E**±02**, h35**^{km}**, n13, σ0^{s}98**/13**, 2C, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	Karpathos	0.99	344	ePB	Pn	23 36 05.0	+0.2
KARP	Karpathos	0.99	344	ePb	Pn	23 36 05.0	+0.2
ARG	Arkhangelos	1.70	17	ePB	Pn	23 36 17.0	+2.5
ARG	Arkhangelos	1.70	17	ePb	Pn	23 36 17.0	+2.5
APE	Apeiranthos	2.94	328	ePB	Pn	23 36 30.0	-1.6
APE	Apeiranthos	2.94	328	ePb	Pn	23 36 30.0	-1.6
HMAT	Matruh	3.50	186	P	Pn	23 36 40.1	+0.9
HHAG	Hagoal	6.05	139	P	Pn	23 37 14.0	-0.2
GLL	Jalalah	6.14	143	P	Pn	23 37 15.3	-0.3
AMAG	Maghara	6.22	128	⇑P	Pn	23 37 15.4	-1.2
SUZ		6.54	135	P	Pn	23 37 21.1	0.0
HFRF	Wahat Farafira	7.45	174	⇑P	Pn	23 37 33.6	+0.1
HDK1	Dakhla	9.16	169	P	Pn	23 37 57.6	+0.5

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*NEIC **14** 23:40:56.4, 4520S×16685E, h12^{km}, ML4.2(WEL), After WEL.*
WEL 14 23:40:57.9±0.4**, 4523S**×**16696E, h12**^{km}**, ML4.3**/17**, 2C, Error ellipse: s-maj=4.5km s-min=1.4km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DCZ	Deep Cove	0.28	150	P	Pg	23 41 03.7	+0.1
DCZ				S	Sg	23 41 07.9	+0.4
DCZ	Deep Cove	0.28	150	⇑P*	Pg	23 41 03.7	+0.1
DCZ				S*	Sg	23 41 07.9	+0.4
MLZ	Mavora Lakes	0.86	98	P	Pg	23 41 13.1	-1.4
MLZ	Mavora Lakes	0.86	98	⇑P*	Pb	23 41 13.1	-1.6
MLZ				S*	Sb	23 41 24.8	-1.5
MSZ	Milford Sound	0.89	51	P	Pg	23 41 12.9	-2.1
MSZ				S	Sg	23 41 26.3	-0.3
MSZ	Milford Sound	0.89	51	P*	Pb	23 41 12.6	-2.6
WHZ	Wether Hill Ro	0.96	134	P	Pg	23 41 14.9	-1.4
WHZ	Wether Hill Ro	0.96	134	P*	Pb	23 41 14.9	-1.5
WHZ				S*	Sb	23 41 27.8	-1.2
WKZ	Wanaka	1.52	75	P	Pn	23 41 24.3	-0.5
WKZ	Wanaka	1.52	75	PN	Pn	23 41 24.3	-0.5
EAZ	Earnscleugh	1.66	91	P	Pn	23 41 26.6	-0.2
EAZ	Earnscleugh	1.66	91	PN	Pn	23 41 26.6	-0.2
JCZ	Jackson Bay	1.73	49	P	Pn	23 41 26.4	-1.3
JCZ	Jackson Bay	1.73	49	PN	Pn	23 41 26.4	-1.3
SYZ	Scrubby Hill	2.01	131	PN	Pn	23 41 30.4	-1.1
TUZ	Tuapeka	2.01	112	P	Pn	23 41 30.6	-1.0
TUZ	Tuapeka	2.01	112	PN	Pn	23 41 30.6	-1.0
LBZ	Lake Benmore	2.45	71	eP	Pn	23 41 36.5	-1.1
LBZ	Lake Benmore	2.45	71	PN	Pn	23 41 36.5	-1.0
FOZ	Fox Glacier	2.57	51	eP	Pn	23 41 38.4	-0.9
FOZ	Fox Glacier	2.57	51	PN	Pn	23 41 38.4	-0.8
ODZ	Otahua Downs	2.62	87	P	Pn	23 41 38.5	-1.4
ODZ	Otahua Downs	2.62	87	PN	Pn	23 41 38.5	-1.4
HHSZ	Highcliff Hill	2.64	106	PN	Pn	23 41 39.4	-0.8
RPZ	Rata Peaks	3.30	64	eP	Pn	23 41 48.2	-1.1
WVZ	Waitaha Valley	3.47	53	eP	Pn	23 41 49.4	-2.2
WVZ	Waitaha Valley	3.47	53	PN	Pn	23 41 49.4	-2.2
MQZ	McQueen’s Vall	4.35	71	eP	Pn	23 42 02.4	-1.3
MQZ	McQueen’s Vall	4.35	71	PN	Pn	23 42 02.4	-1.3
DSZ	Denniston Nort	4.96	47	eP	Pn	23 42 09.5	-2.6
THZ	Tophouse	5.54	53	eP	Pn	23 42 18.6	-1.5
QRZ	Quartz Range	6.00	45	eP	Pn	23 42 24.1	-2.3
TCW	Tory Channel	6.69	56	P	Pn	23 42 36.5	+0.7

IDC 14 23:42:52.3±0.9**, 263N**×**9928E, h127**^{km}±63^{km}**, mb3.1**/4**, mb1 3.2**/4**, mb1mx3.0**/21**, mbtmp3.1**/4**, Error ellipse: s-maj=320.1km s-min=19.2km az=56.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	0.40	295	P	Pn	23 43 12.2	+1.7
	1.4nm,0.3s,baz=224,slow=4.3,SNR=6.0						
PSI				S	Sn	23 43 25.6	+1.3
	1.9nm,0.3s,baz=201,slow=9.9,SNR=25						
WRA	Warramunga Arr	41.08	125	P	P	23 50 22.6	-1.2
	0.5nm,0.9s,baz=301,slow=9.1,SNR=5.1						
ASAR	Alice Springs	42.65	130	P	P	23 50 37.1	+0.6
	0.1nm,0.3s,baz=350,slow=9.4,SNR=5.7						
MKAR	Makanchi Array	46.41	344	P	P	23 51 05.2	-0.8
	0.1nm,0.4s,baz=156,slow=9.4,SNR=4.4						
ZALV	Zalesovo Beam	52.51	349	P	P	23 51 52.9	+0.7
	0.6nm,0.3s,baz=178,slow=6.7,SNR=5.5						

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*JMA **14** 23:50:39.8±0.7, 2373N×12190E, h0^{km}, M3.5*
*ISCJB **14** 23:50:40.2±1.3, 2395N±008×12169E±004, h19^{km}±9^{km}, mb3.3/6, Error ellipse: s-maj=13.3km s-min=6.3km az=11.2*
*NEIC **14** 23:50:41.2±1.3, 2402N×12168E, h13^{km}±7^{km}, MG3.5(JMA), Error ellipse: s-maj=35.4km s-min=10.8km az=73.0*
*IDC **14** 23:50:50.3±7.7, 2394N×12146E, h91^{km}±75^{km}, mb3.1/6, mb1 3.3/7, mb1mx3.2/21, mbtmp3.2/7, ML3.5/1, Error ellipse: s-maj=47.5km s-min=17.1km az=67.0*
ISC 14 23:50:41.0±1.2**, 2401N**±007×**12174E**±005**, h12**^{km}±8^{km}**, n17, σ0^{s}56**/24**, mb3.3**/6**, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	Ninganchiao	0.21	322	eP	Pg	23 50 45.4	-0.2
NACB				eS	Sg	23 50 49.5	+0.8
YHNB	Yeheng	0.73	334	eP	Pg	23 50 55.1	-0.2
YHNB				eS	Sg	23 51 04.8	-0.1
TATO	Taipei	0.99	347	eP	Pb	23 50 59.7	-0.3
TATO				eS	Sg	23 51 12.9	-0.1
YOJ	Yonaguni jima	1.25	69	P	Pn	23 51 03.7	-0.5
YOJ				eS	Sb	23 51 20.8	+0.3
IRIF	Iriomote-Funau	1.85	80	P	Pn	23 51 12.5	0.0
IRIF				eS	Sn	23 51 36.5	+0.7
HATJ	Hateruma jima	1.89	88	P	Pn	23 51 11.4	-1.7
JKRS	Kuro-shima	2.09	83	P	Pn	23 51 16.1	+0.3
JIJ	Ishigaki jima	2.23	80	P	Pn	23 51 17.4	-0.3
JIJ				eS	Sn	23 51 44.5	-0.6
JTJ	Tarama	2.78	76	P	Pn	23 51 25.5	+0.2
JTJ				eS	Sn	23 51 59.4	+0.7
KSRS	Korea Array	14.41	20	P	Pn	23 54 12.1	+7.3
	0.2nm,0.3s,baz=202,slow=12,SNR=5.7						
SONM	Songino Array	26.73	337	P	P	23 56 20.6	+0.4
	0.4nm,0.9s,mb3.0,baz=152,slow=8.6,SNR=2.5						
MKAR	Makanchi Array	38.81	316	P	P	23 58 05.8	+0.2
	0.3nm,0.5s,mb3.3,baz=104,slow=9.8,SNR=14						
ZALV	Zalesovo Beam	40.66	327	P	P	23 58 20.1	-0.8
	0.3nm,0.3s,mb3.4,baz=124,slow=9.4,SNR=3.4						
WRA	Warramunga Arr	45.38	163	P	P	23 58 59.3	-0.1
	0.4nm,0.6s,mb3.5,baz=344,slow=8.6,SNR=2.7						
ASAR	Alice Springs	48.84	165	P	P	23 59 27.1	+0.8
	0.1nm,0.3s,mb3.3,baz=346,slow=7.3,SNR=3.0						
YKA	Yellowknife Ar	82.93	23	P	P	00 03 05.9	+0.4
YKA	Yellowknife Ar	82.93	23	P	P	00 03 05.9	+0.5
	0.2nm,0.6s,mb3.4,baz=311,slow=5.1,SNR=5.6						

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*IDC **15** 00:07:11.4±9.4, 679S×12956E, h67^{km}±90^{km}, mb3.7/2, mb1 4.0/5, mb1mx3.6/15, mbtmp3.8/5, ML4.0/3, Error ellipse: s-maj=109.4km s-min=30.2km az=54.0*
*ISCJB **15** 00:07:13.7±5.0, 70S±02×1294E±02, h106^{km}±47^{km}, mb4.0/3, Error ellipse: s-maj=48.0km s-min=26.8km az=39.5*
ISC 15 00:07:15.3±4.3**, 70S**±02×**1293E**±02**, h104**^{km}±38^{km}**, n10, σ0^{s}74**/11**, mb4.0**/3**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	6.44	152	eP	Pn	00 08 52.9	+5.2
	10nm,0.2s						
KAKA				eS	Sn	00 09 59.8	-0.1
FITZ	Fitzroy Crossi	11.59	198	eP	Pn	00 09 57.6	0.0
	2.8nm,0.4s						
FITZ				eS	Sx	00 11 57.5	
FITZ	Fitzroy Crossi	11.59	198	P	Pn	00 09 57.3	-0.2
	0.4nm,0.3s,baz=31,slow=12,SNR=20						
FITZ				S	Sx	00 11 58.4	
	2.5nm,0.3s,baz=142,slow=21,SNR=8.8						
WRA	Warramunga Arr	13.75	160	P	Pn	00 10 25.6	-0.3
	0.6nm,0.3s,baz=343,slow=14,SNR=51						
WRA				S	Sx	00 12 50.6	
	2.4nm,0.3s,baz=328,slow=22,SNR=10						
WB2	Warramunga Arr	13.75	160	eP	Pn	00 10 25.3	-0.6
WB2				eS	Sx	00 12 50.4	
ASAR	Alice Springs	17.14	166	P	Pn	00 11 10.4	+2.0
	2.9nm,0.3s,baz=345,slow=11,SNR=153						
ASAR				S	Sx	00 14 11.8	
	0.5nm,0.3s,baz=349,slow=28,SNR=5.0						
FORT	Forrest	23.68	183	eP	P	00 12 17.0	-0.5
	16nm,0.5s,mb4.6						
STKA	Stephens Creek	27.26	157	eP	P	00 12 49.5	-0.4
	1.0nm,0.4s,mb3.7						
STKA	Stephens Creek	27.26	157	P	P	00 12 49.8	-0.1
	1.5nm,0.4s,mb3.9,baz=336,slow=9.9,SNR=7.1						
MKAR	Makanchi Array	67.87	327	P	P	00 18 02.5	+0.1
	0.4nm,0.5s,mb3.5,baz=117,slow=8.1,SNR=18						

IDC 15 00:26:39.6±6.4**, 2015S**×**16945E, h113**^{km}±71^{km}**, mb3.5**/2**, mb1 3.7**/3**, mb1mx3.4**/13**, mbtmp3.4**/3**, Error ellipse: s-maj=218.0km s-min=49.6km az=152.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	3.40	235	eP	Pn	00 27 31.5	+0.6
DZM				eS	Sn	00 28 11.0	+0.5
DZM	Mont Dzumac	3.40	235	P	Pn	00 27 31.6	+0.8
	4.0nm,0.3s,baz=48,slow=20,SNR=56						
DZM				S	Sn	00 28 10.8	+0.3
	10nm,0.3s,baz=311,slow=23,SNR=15						
NOUC	Port Laguerre	3.52	236	eP	Pn	00 27 33.2	+0.7
NOUC				eS	Sn	00 28 14.8	+1.2
WRA	Warramunga Arr	32.95	264	P	P	00 33 03.8	+0.2
	0.6nm,0.6s,baz=93,slow=8.4,SNR=18						
ASAR	Alice Springs	33.11	257	P	P	00 33 05.2	+0.2
	1.2nm,0.6s,baz=92,slow=8.7,SNR=20						
GERES	GERESS Array B	145.38	331	PKPbc	PKPbc	00 46 03.0	-1.2
	0.5nm,0.6s,baz=28,slow=2.3,SNR=3.9						

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*MDD **15** 00:36:58.1±4.9, 3227N×105E, h0^{km}, mb3.9/5, Error ellipse: s-maj=48.8km s-min=38.8km az=15.0, PRXIMO*
*CRAAG **15** 00:37:42.2, 3491N×136W, Ml2.5*
*ISCJB **15** 00:37:43.3±1.0, 3584N±006×067E±007, h10^{km}, Error ellipse: s-maj=10.5km s-min=6.5km az=135.2*
*CSEM **15** 00:37:46.0±4.4, 3578N×056E, h0^{km}, mb3.3/2, Error ellipse: s-maj=41.9km s-min=30.5km az=14.0*
*NEIC **15** 00:37:46.0, 3578N×056E, h0^{km}, MG3.3(MDD), After MDD.*
ISC 15 00:37:43.7±1.0**, 3580N**±006×**075E**±007**, h10**^{km}**, n16, σ1^{s}20**/26**, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJGS	Djebel Guires	0.29	180	P	Pg	00 37 50.0	+0.4
USTO	Oran	1.06	267	P	Pg	00 38 03.0	-1.1
EMUR	La Murta	2.59	322	Pn	Pn	00 38 26.3	+0.7
EMUR				Sn	Sn	00 38 55.1	-2.0
EMUR	La Murta	2.59	322	P	Pn	00 38 25.1	-0.5
	1.0nm,0.2s,SNR=4.0						
EMUR	La Murta	2.59	322	Pn	Pn	00 38 26.3	+0.7
	1.0nm,0.2s,SNR=4.0						
EMUR				Sn	Sn	00 38 55.1	-2.0
	3.5nm,0.3s,SNR=7.9						
EBER	Berja	3.14	292	S	Sg	00 39 24.5	0.0
	0.4nm,0.1s,SNR=7.9						
ETOB	Tobarra	3.38	328	Pn	Pn	00 38 39.2	+2.7
ETOB				Sn	Sn	00 39 17.8	+1.1
ETOB	Tobarra	3.38	328	P	Pn	00 38 37.1	+0.7
	1.3nm,0.2s,SNR=8.0						
ETOB	Tobarra	3.38	328	Pn	Pn	00 38 39.2	+2.7
	1.3nm,0.2s,SNR=8.0						
ETOB				Sn	Sn	00 39 17.8	+1.2
	1.4nm,0.2s,SNR=7.9						
EQES	Quesada	3.66	304	P	Pn	00 38 33.4	-6.9
	0.5nm,0.1s,SNR=13						
EQES				S	Sg	00 39 43.0	+1.8
	2.4nm,0.2s,SNR=7.9						
EQES	Quesada	3.66	304	Pn	Pn	00 38 35.0	-5.3
	0.5nm,0.1s,SNR=13						
EQES				Sn	Sn	00 39 22.5	-1.1
	2.4nm,0.2s,SNR=7.9						
EVIA	Vianos	3.84	318	Pn	Pn	00 38 43.1	+0.2
EVIA				Sn	Sn	00 39 27.7	-0.3
EVIA	Vianos	3.84	318	P	Pn	00 38 40.9	-1.9
	0.8nm,0.2s,SNR=7.9						
EVIA				S	Sg	00 39 55.2	+8.1
	0.8nm,0.2s,SNR=4.0						
EVIA	Vianos	3.84	318	Pn	Pn	00 38 43.1	+0.3
	0.8nm,0.2s,SNR=7.9						
ETOS	Mallorca	4.28	22	Pn	Pn	00 38 48.7	-0.2
ETOS				Sn	Sn	00 39 35.4	-3.5
ETOS	Mallorca	4.28	22	P	Pn	00 38 48.7	-0.2
	2.3nm,0.2s,SNR=4.0						
ETOS				S	Sg	00 40 10.6	+9.4
	23nm,1.5s,SNR=4.0						

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*ISCJB **15** 00:38:27.7±1.9, 3533N±008×07W±0.1, h10^{km}, Error ellipse: s-maj=14.9km s-min=7.9km az=38.9*
*CRAAG **15** 00:38:27.6, 3564N×1.19W, Ml2.5*
*CSEM **15** 00:38:35.7±4.8, 3556N×224W, h0^{km}, mb3.4/2, Error ellipse: s-maj=56.1km s-min=32.2km az=138.0*
*MDD **15** 00:38:36.1±3.1, 3547N×120W, h0^{km}, mb3.2/5, Error ellipse: s-maj=26.9km s-min=23.1km az=156.0, PRXIMO*
ISC 15 00:38:28.9±2.0**, 3530N**±009×**07W**±01**, h10**^{km}**, n13, σ1^{s}28**/20**, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OTSS	Djebel Tessala	0.05	247	P	Pg	00 38 40.0	+9.1
ODZI	Dziouia	0.40	269	P	Pg	00 38 37.0	+0.2
OLHC	Oulhaca	0.56	265	P	Pg	00 38 39.0	-0.8
OJGS	Djebel Guires	1.23	80	P	Pn	00 38 41.0	-11
EBER	Berja	2.36	313	P	Pn	00 39 08.6	+0.9
	0.7nm,0.1s,SNR=7.9						
EBER				S	Sn	00 39 34.8	-1.9
	8.4nm,1.1s,SNR=7.9						
EMUR	La Murta	2.57	351	P	Pn	00 39 14.8	+4.2
	2.0nm,0.2s,SNR=7.9						
EMUR				S	Sn	00 39 42.3	+0.4
	3.7nm,0.3s,SNR=7.9						
EMUR	La Murta	2.57	351	Pn	Pn	00 39 14.8	+4.2
	2.0nm,0.2s,SNR=7.9						
EMUR				Sn	Sn	00 39 41.9	0.0
	3.7nm,0.3s,SNR=7.9						
EQES	Quesada	3.12	324	P	Pn	00 39 21.1	+2.8
	0.3nm,0.2s,SNR=7.9						
EQES				S	Sn	00 39 54.1	-1.5
	29nm,1.1s,SNR=4.0						
EQES	Quesada	3.12	324	Pn	Pn	00 39 13.4	-4.8
	0.3nm,0.2s,SNR=7.9						
EQES				Sn	Sn	00 39 57.1	+1.5
	SNR=4.0						
ETOB	Tobarra	3.40	349	P	Pn	00 39 26.6	+4.6
	1.1nm,0.2s,SNR=7.9						
ETOB				S	Sn	00 40 03.9	+1.5
	0.9nm,0.2s,SNR=7.9						
ETOB	Tobarra	3.40	349	Pn	Pn	00 39 26.6	+4.6
	1.1nm,0.2s,SNR=7.9						
EVIA	Vianos	3.62	338	P	Pn	00 39 28.8	+3.8
	0.8nm,0.2s,SNR=7.9						
EVIA				S	Sn	00 40 07.1	-0.6
	2.0nm,0.4s,SNR=7.9						
ETOS	Mallorca	5.28	31	S	Sn	00 40 47.4	-1.3
	0.9nm,1.2s,SNR=7.9						

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*IDC **15** 00:49:36.1±1.5, 214N×12730E, h0^{km}, mb3.7/5, mb1 3.9/5, mb1mx3.6/17, mbtmp3.7/5, MS2.5/1, Ms1 2.5/1, ms1mx1.9/27, Error ellipse: s-maj=100.5km s-min=22.3km az=68.0*
*ISCJB **15** 00:49:39.6±1.4, 20N±02×1270E±04, h33^{km}, mb4.2/7, Error ellipse: s-maj=57.3km s-min=19.2km az=159.0*
*NEIC **15** 00:49:42.7±1.2, 194N×12723E, h35^{km}, mb4.7/2, Error ellipse: s-maj=58.0km s-min=15.9km az=69.0*
ISC 15 00:49:41.9±1.4**, 20N**±02×**1272E**±04**, h35**^{km}**, n13, σ0^{s}59**/13**, mb4.2**/7**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	20.06	184	eP	P	00 54 13.5	+1.2
	4.0nm,1.3s						
FITZ	Fitzroy Crossi	20.06	184	P	P	00 54 12.6	+0.3
	0.3nm,0.3s,baz=9.5,slow=16,SNR=6.0						
WRA	Warramunga Arr	22.94	162	P	P	00 54 43.2	0.0
	1.8nm,0.4s,mb3.8,baz=341,slow=11,SNR=30						
WB2	Warramunga Arr	22.94	162	eP	P	00 54 43.2	0.0
WB2	Warramunga Arr	22.94	162	eP	P	00 54 43.1	-0.1
ASAR	Alice Springs	26.37	166	P	P	00 55 14.7	-0.3
	0.5nm,0.6s,mb3.2,baz=345,slow=7.2,SNR=5.5						
ASAR				PcP	PcP	00 58 39.1	-1.3
	0.1nm,0.3s,baz=354,slow=1.5,SNR=4.1						
FORT	Forrest	32.64	179	eP	P	00 56 10.1	-0.5
	6.0nm,0.6s,mb4.7						
KLBR	Kellerberrin	34.61	194	eP	P	00 56 27.3	-0.5
	53nm,1.9s,mb5.2						
STKA	Stephens Creek	36.39	159	eP	P	00 56 43.8	+0.8
	1.6nm,1.0s,mb3.9						
STKA	Stephens Creek	36.39	159	P	P	00 56 43.0	0.0
	0.9nm,0.3s,mb4.1,baz=341,slow=9.6,SNR=6.6						
MKAR	Makanchi Array	59.20	326	P	P	00 59 39.2	-0.3
MKAR	Makanchi Array	59.20	326	P	P	00 59 39.2	-0.3
	0.5nm,0.4s,mb3.9,baz=122,slow=7.5,SNR=12						
BR131	Keskin Array S	91.44	310	P	P	01 02 48.6	+3.8
	1.0nm,0.3s,mb4.6						

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*NEIC **15** 01:05:27.9, 1565N×5928W, h59^{km}, MD3.9(TRN), After*

TRN.

TRN 15 01:05:27.2, 1566N×5926W, h35^{km}, MD3.9, M4.0(FDF), M4.1(FDF), 5C, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DEG	La Desirade	1.85	291	eP	Pn	01 05 57.5	+1.1
DEG				eS	Sn	01 06 22.7	+4.1
MVM	Montagne Vaucl	1.93	235	⇑iP	Pn	01 05 58.4	+0.9
MGG	Marie-Galante	2.00	278	⇑iP	Pn	01 05 60.0	+1.5
FDF	Fort de France	2.05	243	⇑eP	Pn	01 06 00.3	+1.2
FDF				eS	Sn	01 06 25.8	+2.3
MDN	Morne-Daniel	2.08	261	eP	Pn	01 06 01.4	+1.8
MDN				eS	Sn	01 06 27.4	+2.9
BIM	Bigot	2.09	237	⇑eP	Pn	01 06 00.9	+1.2
DSHT	Scott's Head	2.09	258	eP	Pn	01 06 01.8	+2.0
DSHT				eS	Sn	01 06 27.6	+3.1
BBL	Barber's Block	2.13	267	eP	Pn	01 06 02.0	+1.6
DOG	Dongo Capester	2.30	280	eP	Pn	01 06 04.6	+2.0
SLW	Petit Monier	2.30	225	eP	Pn	01 06 03.5	+0.8
SLW				eS	Sn	01 06 31.1	+1.3
TBG	Guadaloupe-3	2.31	275	eP	Pn	01 06 04.4	+1.7
SCG	Saint Claude	2.36	279	⇑eP	Pn	01 06 05.4	+2.0
HMG	Houelmont	2.37	278	eP	Pn	01 06 05.5	+1.9
HMG				eS	Sn	01 06 36.0	+4.5
SLB	Belfond	2.51	224	eP	Pn	01 06 07.6	+2.0
SLB				eS	Sn	01 06 36.9	+2.0
BHS	Barnard House	2.97	218	eP	Pn	01 06 13.3	+1.4
BHS				eS	Sn	01 06 48.2	+2.0
SSV	Crater Summit	2.98	219	eP	Pn	01 06 14.2	+2.1
SSV				eS	Sn	01 06 48.4	+1.8
SVV	Soufriere Volc	3.00	219	eP	Pn	01 06 14.6	+2.3
SVV				eS	Sn	01 06 47.9	+0.8
SVB	Belmont	3.06	219	eP	Pn	01 06 15.2	+2.1
SVB				eS	Sn	01 06 49.1	+0.5
FCV	Fort Charlotte	3.15	218	eP	Pn	01 06 16.1	+1.8
FCV				eS	Sn	01 06 51.5	+0.9
GRIC	Isle de Caille	4.04	214	eP	Pn	01 06 29.2	+2.5
GRSS	Sisters	4.05	215	eP	Pn	01 06 29.5	+2.8
GRSS				eS	Sn	01 07 15.2	+2.2
GRHS	Sauteurs	4.13	214	eP	Pn	01 06 30.6	+2.8
GRHS				eS	Sn	01 07 08.7	-6.1
GRW	Mount Saint Ca	4.19	214	eP	Pn	01 06 31.7	+3.0
GRW				eS	Sn	01 07 14.6	-1.8
GRGR	Grenville	4.21	214	ePn	Pn	01 06 31.0	+2.1
GRGR				eSn	Sn	01 07 19.0	+2.1
TPR	Prospect	4.69	199	eP	Pn	01 06 37.9	+2.4
TPR				eS	Sn	01 07 15.7	-13
TRN	Trinidad (W)	5.40	203	eP	Pn	01 06 47.9	+2.6
MCMT	McKenzie Canyo	53.46	315	eP	P	01 14 42.4	-1.5

ISCJB 15 01:06:58.4±0.3, 4433N±002×1209E±004, h10^{km}±4^{km}, Error ellipse: s-maj=5.2km s-min=4.0km az=11.5

CSEM 15 01:06:58.5±0.1, 4433N×1201E, h20^{km}, MD2.5/15, Error ellipse: s-maj=2.0km s-min=1.5km az=102.0

VIE 15 01:06:59.6±0.4, 4436N×1225E, h8^{km}, mb2.1/2, ML2.6/6, Error ellipse: s-maj=3.1km s-min=2.6km az=148.0

ROM 15 01:07:00.2±0.3, 4422N×1196E, h7^{km}±3^{km}, Md2.5/15, Ml1.8/5, Error ellipse: s-maj=3.6km s-min=2.7km az=11.0

ISC 15 01:06:59.4±0.3, 4431N±002×1208E±004, h12^{km}±4^{km}, n47, σ0^{s}89/63, 9C-5D, Northern Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRSN	Barisano	0.02	190	Pg	Sg	01 07 03.1	+0.2
	673nm,0.2s						
BRSN	Barisano	0.02	190	Pg	Sg	01 07 03.1	+0.2
	673nm,0.2s						
SFI	Santa Sofia	0.43	203	⇓iPg	Pg	01 07 07.3	-0.6
SFI				Sg	Sg	01 07 14.5	+0.8
	72nm,0.2s						
RSM	Repubblica di	0.46	145	Pg	Pg	01 07 09.7	+1.3
	31nm,1.6s						
RSM	Repubblica di	0.46	145	Pg	Pg	01 07 09.7	+1.3
	31nm,1.6s						
VMG	Vicchio	0.52	229	Pg	Pg	01 07 08.3	-1.2
VMG				Sg	Sg	01 07 16.1	-0.2
	47nm,0.2s						
VMG	Vicchio	0.52	229	Pg	Pg	01 07 08.3	-1.2
VMG				Sg	Sg	01 07 16.1	-0.2
	47nm,0.2s						
FIU	Minerbio Fiu	0.54	309	Pg	Pg	01 07 12.7	+2.8
SEI	Scarperia	0.58	245	Pg	Pg	01 07 09.6	-1.0
	149nm,0.3s						
SEI	Scarperia	0.58	245	Pg	Pg	01 07 09.6	-1.0
	149nm,0.3s						
PESA	Pesaro	0.66	123	Pg	Pg	01 07 13.5	+1.4
PESA				Sg	Sg	01 07 26.0	+5.3
	59nm,0.4s						
PESA	Pesaro	0.66	123	Pg	Pg	01 07 13.5	+1.4
CRE	Caprese Michel	0.69	188	Pg	Pg	01 07 12.2	-0.6
	16nm,0.3s						
CRE	Caprese Michel	0.69	188	Pg	Pg	01 07 12.2	-0.6
	16nm,0.3s						
FNVD	Fontana Vidola	0.70	259	Pg	Pg	01 07 12.1	-0.9
FNVD				Sg	Sg	01 07 23.3	+1.1
	82nm,0.3s						
FNVD	Fontana Vidola	0.70	259	Pg	Pg	01 07 12.1	-0.9
FNVD				Sg	Sg	01 07 23.3	+1.1
	82nm,0.3s						
FSSB	Fossombrone	0.79	140	Pg	Pg	01 07 15.5	+0.8
	14nm,0.2s						
FSSB	Fossombrone	0.79	140	Pg	Pg	01 07 15.5	+0.8
	14nm,0.2s						
BADI	Badiali	0.80	172	Pg	Pg	01 07 15.0	+0.1
	60nm,0.7s						
BADI	Badiali	0.80	172	Pg	Pg	01 07 15.0	+0.1
	60nm,0.7s						
PZZT	Monte Pizzetto	0.90	259	Pg	Pg	01 07 15.8	-0.8
PZZT	Monte Pizzetto	0.90	259	Pg	Pg	01 07 15.8	-0.8
CSNT	Castellina Chi	1.01	215	Pg	Pg	01 07 18.7	-0.1
	131nm,1.7s						
CSNT	Castellina Chi	1.01	215	Pg	Pg	01 07 18.7	-0.1
	131nm,1.7s						
MURB	Monte Urbino	1.09	163	Pg	Pg	01 07 20.5	+0.2
MURB	Monte Urbino	1.09	163	Pg	Pg	01 07 20.5	+0.2
TEOL	Teolo	1.09	345	⇑iPg	Pg	01 07 20.4	0.0
TEOL				i Sg	Sg	01 07 34.6	-0.1
TEOL	Teolo	1.09	345	i Pg	Pg	01 07 20.4	0.0
TEOL				i Sg	Sg	01 07 34.6	-0.1
SNTG	Esanatoglia	1.22	149	Pg	Pg	01 07 23.3	+0.5
	9.0nm,0.3s						
SNTG	Esanatoglia	1.22	149	Pg	Pg	01 07 23.3	+0.5
	9.0nm,0.3s						
NRCA	Norcia	1.65	153	⇑iPg	Pg	01 07 29.9	-1.1
	4.0nm,0.6s						
NRCA	Norcia	1.65	153	⇑iPg	Pg	01 07 29.9	-1.1
	4.0nm,0.6s						
SKDS	Skadanscina	1.85	47	i Pn	Pn	01 07 30.2	-0.7
SKDS	Skadanscina	1.85	47	i Pn	Pn	01 07 30.2	-0.7
JAVS	Javornik	2.12	41	i Pn	Pn	01 07 33.8	-0.8
JAVS	Javornik	2.12	41	i Pn	Pn	01 07 33.8	-0.8
VOY	Vojsko	2.15	36	e	Pg	01 07 40.2	-0.4
VOY				eSn	Sn	01 08 01.5	-0.1
ABTA	Abfaltersbach	2.46	7	⇑iPn	Pn	01 07 39.7	+0.4
ABTA				⇑iPg	Pg	01 07 45.5	-1.1
ABTA				⇓iSg	Sg	01 08 19.4	+0.9
ABTA	Abfaltersbach	2.46	7	Pn	Pn	01 07 39.7	+0.4
BOJS	Bojanci	2.55	61	i Pn	Pn	01 07 40.6	+0.1
BOJS	Bojanci	2.55	61	i Pn	Pn	01 07 40.6	+0.1
OBKA	Obir	2.81	37	⇓iPn	Pn	01 07 43.1	-0.9
OBKA	Obir	2.81	37	⇓iPn	Pn	01 07 43.1	-0.9
OBKA				⇓iSg	Sg	01 08 28.3	-1.2
	9.1nm,0.3s						
OBKA	Obir	2.81	37	Pn	Pn	01 07 43.1	-0.9
OBKA				Sg	Sg	01 08 28.3	-1.2
SQTA	Sankt Quirin	2.98	348	⇑iPn	Pn	01 07 47.1	+0.7
SQTA				⇑iSn	Sn	01 08 23.8	+1.8
SQTA	Sankt Quirin	2.98	348	⇑iPn	Pn	01 07 47.1	+0.7
SQTA				⇑iSn	Sn	01 08 23.8	+1.8
SQTA	Sankt Quirin	2.98	348	Pn	Pn	01 07 47.1	+0.7
SQTA				Sn	Sn	01 08 23.8	+1.8

IDC 15 01:13:11.1±3.1, 381S×12774E, h0^{km}, mb3.7/2, mb1 3.9/3, mb1mx3.6/17, mbtmp3.7/3, ML3.7/1, Error ellipse: s-maj=355.0km s-min=26.9km az=66.0, Seram

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	17.28	159	P	Pn	01 17 13.7	-0.2
	0.3nm,0.3s,baz=335,slow=13,SNR=8.6						
ASAR	Alice Springs	20.62	164	P	P	01 17 52.4	+0.2
	2.7nm,0.4s,baz=349,slow=12,SNR=44						
MKAR	Makanchi Array	64.34	327	P	P	01 23 48.7	+0.1
	0.2nm,0.4s,baz=120,slow=6.2,SNR=8.5						

ISCJB 15 01:22:21.3±2.9, 85S±05×1152E±05, h79^{km}±35^{km}, mb3.6/5, Error ellipse: s-maj=113.4km s-min=15.0km az=138.9

NEIC 15 01:22:24.7±4.2, 854S×11532E, h94^{km}±35^{km}, Error ellipse: s-maj=83.3km s-min=17.2km az=55.0

IDC 15 01:22:29.5±2.9, 848S×11554E, h138^{km}±24^{km}, mb3.2/5, mb1 3.3/6, mb1mx3.2/18, mbtmp3.2/6, Error ellipse: s-maj=78.0km s-min=12.5km az=49.0

ISC 15 01:22:27.4±2.9, 84S±04×1156E±05, h112^{km}±34^{km}, n10, σ0^{s}54/11, mb3.6/5, Bali region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	13.70	136	P	Pn	01 25 36.3	-0.8
	0.1nm,0.3s,baz=315,slow=12,SNR=6.5						
FITZ				S	Sn	01 27 59.3	-8.8
	0.7nm,0.3s,baz=191,slow=19,SNR=7.9						
WRA	Warramunga Arr	21.43	124	P	P	01 27 06.8	+0.1
	0.3nm,0.3s,mb3.1,baz=295,slow=12,SNR=8.2						
WRA				S	S	01 30 58.0	-0.3
	0.2nm,0.7s,baz=293,slow=20,SNR=2.8						
WRA				ScP	ScP	01 34 27.9	-5.0
	0.6nm,0.8s,baz=306,slow=2.1,SNR=5.1						
WB2	Warramunga Arr	21.44	124	eP	P	01 27 07.5	+0.7
WB2	Warramunga Arr	21.44	124	eP	P	01 27 08.0	+1.1
WB2				S	S	01 30 57.9	-0.6
ASAR	Alice Springs	23.17	133	P	P	01 27 24.6	+0.3
	1.2nm,0.7s,mb3.4,baz=311,slow=9.7,SNR=15						
STKA	Stephens Creek	33.59	138	P	P	01 28 57.3	+0.3
	1.2nm,0.6s,mb3.9,baz=309,slow=10,SNR=3.1						
SONM	Songino Array	56.58	353	P	P	01 31 58.5	+0.2
	1.0nm,0.7s,mb4.0,baz=172,slow=9.2,SNR=9.0						
MKAR	Makanchi Array	62.45	335	P	P	01 32 38.0	-0.6
	0.2nm,0.3s,mb3.6,baz=151,slow=6.9,SNR=11						
YKA	Yellowknife Ar	114.98	23	PKP	PKiKP	01 40 54.1	-0.7
YKA	Yellowknife Ar	114.98	23	PKP	PKiKP	01 40 54.1	-0.7
	0.2nm,0.5s,baz=314,slow=2.0,SNR=5.4						

IDC 15 01:23:59.8±2.4, 096N×12688E, h0^{km}, mb3.4/3, mb1 3.6/3, mb1mx3.4/16, mbtmp3.4/3, Error ellipse: s-maj=209.4km s-min=27.1km az=66.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.02	161	P	P	01 28 54.9	-1.1
	1.2nm,0.6s,baz=340,slow=11,SNR=6.0						
ASAR	Alice Springs	25.41	165	P	P	01 29 30.2	+1.0
	0.3nm,0.4s,baz=343,slow=12,SNR=4.6						
MKAR	Makanchi Array	59.91	326	P	P	01 34 07.6	0.0
	0.1nm,0.4s,baz=123,slow=6.9,SNR=4.9						

IDC 15 01:33:57.7±1.5, 048N×9720E, h0^{km}, mb4.0/7, mb1 4.1/7, mb1mx3.8/21, mbtmp4.0/7, ML2.9/1, Error ellipse: s-maj=52.3km s-min=18.7km az=61.0

ISCJB 15 01:34:01.1±1.0, 06N±01×973E±02, h33^{km}, mb4.0/7, Error ellipse: s-maj=29.0km s-min=14.8km az=155.2

NEIC 15 01:34:02.5±0.7, 053N×9730E, h30^{km}, Error ellipse: s-maj=20.8km s-min=10.5km az=64.0

ISC 15 01:34:03.6±1.1, 06N±01×974E±02, h35^{km}, n10, σ0^{s}29/10, mb4.0/7, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.66	35	Pn	Pn	01 34 43.9	-0.1
PSI	Prapat	2.66	35	Pn	Pn	01 34 43.9	-0.1
	1.8nm,0.3s,baz=299,slow=19,SNR=8.6						
WRA	Warramunga Arr	41.55	122	P	P	01 41 48.0	-0.1
	1.0nm,0.9s,mb3.4,baz=304,slow=8.7,SNR=4.7						
ASAR	Alice Springs	42.88	127	P	P	01 41 58.5	-0.3
	0.7nm,0.6s,mb3.5,baz=302,slow=8.4,SNR=9.2						
SONM	Songino Array	47.69	8	P	P	01 42 37.2	+0.5
	0.5nm,0.4s,mb3.9,baz=186,slow=6.8,SNR=6.5						
MK31	Makanchi Array	47.87	346	eP	P	01 42 38.1	+0.1
MKAR	Makanchi Array	47.87	346	P	P	01 42 38.0	0.0
	2.5nm,0.7s,mb4.3,baz=158,slow=7.9,SNR=34						
STKA	Stephens Creek	52.81	132	P	P	01 43 16.1	+0.4
	1.8nm,0.6s,mb4.2,baz=340,slow=6.3,SNR=5.4						
ZALV	Zalesovo Beam	54.18	351	P	P	01 43 25.1	-0.3
	2.0nm,0.4s,mb4.4,baz=172,slow=7.0,SNR=14						
ARCES	ARCESS Array B	83.16	340	P	P	01 46 25.4	-0.3
	3.3nm,0.8s,mb4.4,baz=99,slow=5.7,SNR=3.8						

IDC 15 01:35:08.3±3.3, 533S×13378E, h0^{km}, mb3.6/1, mb1 3.5/4, mb1mx3.4/13, mbtmp3.4/4, ML3.2/2, MS2.9/1, Ms1 2.9/1, ms1mx2.2/21, Error ellipse: s-maj=130.3km s-min=31.1km az=82.0, Aru Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	14.53	178	Pn	Pn	01 38 34.5	-0.8
	0.1nm,0.3s,baz=359,slow=13,SNR=6.6						
FITZ	Fitzroy Crossi	14.98	211	Pn	Pn	01 38 40.8	-0.6
	0.2nm,0.3s,baz=31,slow=13,SNR=7.9						
ASAR	Alice Springs	18.23	180	P	Pn	01 39 23.5	+0.6
	0.1nm,0.3s,baz=3.9,slow=11,SNR=9.4						
CTA	Charters Tower	19.04	142	LR	LR	01 46 46.0	
	comp=Z,40nm,19.6s,baz=227,slow=37						
MKAR	Makanchi Array	68.96	325	P	P	01 46 15.5	+0.2
	0.8nm,1.1s,baz=107,slow=5.0,SNR=3.9						

ISCJB 15 02:15:07.1±0.7, 991N±004×6198W±004, h71^{km}±10^{km}, Error ellipse: s-maj=7.0km s-min=5.8km az=135.9

TRN 15 02:15:07.8, 994N×6203W, h24^{km}, MD3.1

NEIC 15 02:15:07.8, 994N×6203W, h23^{km}, MD3.1(TRN), After TRN.

FUNV 15 02:15:07.9, 994N×6186W, h29^{km}, MW3.5

ISC 15 02:15:08.1±0.7, 991N±004×6198W±004, h62^{km}±12^{km}, n21, σ0^{s}96/33, 3C-1D, Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUAY	Buenos Aires	0.35	55	eP	Pn	02 15 17.1	-1.8
BUAY				eS	Sn	02 15 28.4	+1.8
TPP	Pointe-a-Pierr	0.66	52	eP	Pn	02 15 20.8	-1.2
TPP				eS	Sn	02 15 30.8	-1.4
GUIV	Guiria	0.77	342	⇑eP	Pn	02 15 22.5	-0.9
GUIV				eS	Sn	02 15 33.9	-0.8
TCE	Chacachacare	0.81	16	⇑iP	Pn	02 15 23.7	-0.2
TCE				eS	Sn	02 15 35.0	-0.6
TRN	Trinidad (W)	0.93	37	eP	Pn	02 15 25.2	-0.1
TRN				eS	Sn	02 15 39.0	+1.0
GUNV	Guanoco	0.98	285	⇓iP	Pn	02 15 26.8	+0.7
GUNV				eS	Sn	02 15 40.8	+1.4
TBH	Brigand Hill	1.06	57	eP	Pn	02 15 27.5	+0.4
TBH				eS	Sn	02 15 43.3	+2.2
CRUV	Carupano	1.46	302	eP	Pn	02 15 31.4	-0.8
CRUV				eS	Sn	02 15 50.1	-0.3
ITEV	Isla Los Testi	1.83	322	eP	Pn	02 15 37.1	-0.3
ITEV				eS	Sn	02 15 59.4	-0.2
RIOV	Rio Grande	1.83	175	eP	Pn	02 15 37.9	+0.5
RIOV				eS	Sn	02 15 58.9	-0.7
GRW	Mount Saint Ca	2.26	8	eP		02 15 58.7	
GURV	El Guri	2.40	207	eP	Pn	02 15 46.2	+1.1
GURV				eS	Sn	02 16 13.5	+0.1
PCRV	Puerto La Cruz	2.63	276	eP	Pn	02 15 49.2	+0.9
PRGV	PARIAGUAN	2.87	247	eP	Pn	02 15 52.1	+0.6
CUPV	Cœpira	3.76	273	eP	Pn	02 16 04.5	+0.9
CUPV				eS	Sn	02 16 46.6	-0.1
LUEV	Luepa	4.07	173	eP	Pn	02 16 07.3	-0.6
BIRV	Birongo	4.26	278	eP	Pn	02 16 11.6	+1.0
MERV	Las Mercedes	4.31	262	eP	Pn	02 16 11.3	+0.1
CAOV	Caicara del Or	5.00	240	⇑iP	Pn	02 16 20.4	-0.3
CAOV				eS	Sn	02 17 14.8	-2.5
TURV	Turiamo	5.80	276	eP	Pn	02 16 32.1	+0.5
BAUV	El Baul	6.06	261	eP	Pn	02 16 34.5	-0.6

IDC 15 02:16:03.5±10.0, 3437N×2239E, h0^{km}, mb3.8/3, mb1 3.7/4, mb1mx3.3/21, mbtmp3.7/4, ML4.2/1, Error ellipse: s-maj=201.3km s-min=62.4km az=45.0

ISCJB 15 02:16:17.6±1.3, 35.1N±0.1×23.11E±0.09, h72^{km}±7^{km}, mb3.5/3, Error ellipse: s-maj=20.2km s-min=7.2km az=33.3

CSEM 15 02:16:17.4±0.5, 3505N×2313E, h69^{km}±2^{km}, ML3.9, Error ellipse: s-maj=11.9km s-min=3.1km az=26.0

NEIC 15 02:16:18.2, 35.16N×23.18E, h80^{km}, MG3.9(ATH), After ATH.

ATH 15 02:16:18.2, 35.16N×23.18E, h80^{km}±4^{km}, ML3.9

ISC 15 02:16:18.6±1.4, 350N±01×2312E±010, h65^{km}±8^{km}, n28, σ0^{s}57/32, mb3.6/3, Crete

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GVD	Gavdhos	0.82	103	ePg	Pn	02 16 33.6	-0.9
GVD				eSg	Sn	02 16 45.9	-0.4
GVD	Gavdhos	0.82	103	ePg	Pn	02 16 33.7	-0.9
GVD				eSg	Sn	02 16 45.9	-0.4
VAM	Vamos	0.96	67	eP	Pn	02 16 36.3	-0.1
VAM				eS	Sn	02 16 49.6	+0.1
KYTH	Kithira	1.25	357	eP	Pn	02 16 39.8	-0.3
IDI	Anoyia	1.48	79	P	Pn	02 16 44.0	+0.9
VLI	Veliai	1.69	355	eP	Pn	02 16 46.6	+0.6
NPS	Neapolis	2.06	83	eP	Pn	02 16 52.2	+1.3
NPS				eS	Sn	02 17 15.1	-0.4
ITM	Ithomi	2.35	336	eP	Pn	02 16 54.5	-0.4
NAIG	Nisos Aigina	2.74	6	eP	Pn	02 16 59.5	-0.7
APE	Apeiranthos	2.82	43	eP	Pn	02 17 00.3	-1.0
KVR	Kavouri	2.84	10	eP	Pn	02 17 01.5	-0.1
ATH	Athens Observa	2.98	9	eP	Pn	02 17 03.7	+0.3
PTL	Penteli	3.07	11	eP	Pn	02 17 04.8	+0.1
KARP	Karpathos	3.35	80	eP	Pn	02 17 09.3	+0.8
LKR	Lokris	3.62	359	eP	Pn	02 17 11.7	-0.4
VLS	Valsamata	3.74	328	eP	Pn	02 17 14.0	+0.2
EVR	Evrytania	4.02	345	eP	Pn	02 17 18.1	+0.5
SMG	Samos	4.02	47	eP	Pn	02 17 17.1	-0.5
ARG	Arkhangelos	4.25	72	eP	Pn	02 17 21.0	+0.2
NEO	Neokhori	4.27	1	P	Pn	02 17 21.6	+0.5
THL	Klokotos Trika	4.61	349	eP	Pn	02 17 25.4	-0.3
NVR	Nevrokopi	6.34	5	P	Pn	02 17 49.6	+0.3
AKASG	Malin Array Be	16.28	14	P	Pn	02 20 03.5	+0.6
AKASG	Malin Array Be	16.28	14	P	Pn	02 20 03.5	+0.6
	0.9nm,0.3s,baz=206,slow=9.0,SNR=4.2						
FINES	FINESS Array B	26.50	3	P	P	02 21 48.7	-0.9
FINES	FINESS Array B	26.50	3	P	P	02 21 48.7	-0.9
	0.3nm,0.5s,mb3.1,baz=183,slow=11,SNR=3.4						
MKAR	Makanchi Array	45.24	56	P	P	02 24 29.6	+0.3
	0.5nm,0.3s,mb3.6,baz=285,slow=6.5,SNR=9.2						
ZALV	Zalesovo Beam	46.30	46	P	P	02 24 37.1	-0.4
	1.2nm,0.4s,mb4.0,baz=274,slow=8.7,SNR=5.9						

MEX 15 02:25:59.7±1.4, 1612N×9756W, h16^{km}±999^{km}, MD3.5, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.61	296	i P	Pg	02 26 09.3	-2.4
PNIG				i S	Sg	02 26 17.3	-2.5
VHO	Vista Hermosa	1.23	40	i P	Pn	02 26 18.4	-3.9
VHO				i S	Sb	02 26 33.6	-4.8
HUIG	Huatulco	1.44	104	eP	Pn	02 26 22.8	-2.4
HUIG				i S	Sn	02 26 37.9	-5.8
UTMO	Huajuapan	1.71	352	i P	Pn	02 26 26.9	-2.0
UTMO				i S	Sn	02 26 46.8	-3.7

NAO 15 02:32:23.5, 4347N×2715E, h33^{km}, mb3.4

CSEM 15 02:32:52.6±0.0, 4580N×2675E, h88^{km}, mb4.1/7, Error ellipse: s-maj=1.4km s-min=1.1km az=131.0

MOS 15 02:32:53.1±0.7, 4586N×2674E, h96^{km}, mb4.1/6, Error ellipse: s-maj=11.1km s-min=0.0km az=123.5

ISCJB 15 02:32:53.2±0.2, 4587N±002×2674E±002, h102^{km}±2^{km}, mb3.9/16, Error ellipse: s-maj=2.9km s-min=2.5km az=36.8

BUC 15 02:32:53.4±0.6, 4586N×2674E, h105^{km}±6^{km}, MD4.6/2, Error ellipse: s-maj=4.6km s-min=4.0km az=112.0

NEIC 15 02:32:54.7, 4579N×2679E, h90^{km}, mb4.0/10, MD3.9(SOF), After BUC.

IDC 15 02:32:54.4±0.5, 4595N×2648E, h88^{km}±5^{km}, mb3.6/8, mb1 3.7/11, mb1mx3.6/21, mbtmp3.6/11, Error ellipse: s-maj=20.3km s-min=10.1km az=136.0

SOF 15 02:32:56.8, 4572N×2660E, h52^{km}, MD3.9

THE 15 02:32:58.3, 4553N×2636E, h80^{km}, ML4.4

ISC 15 02:32:54.3±0.2, 4587N±002×2676E±002, h96^{km}±2^{km}, h94^{km}±.4^{km}:pP-P, n231, σ1^{s}11/329, mb3.9/16, 30C-29D, Romania

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRI	Vrincioaia	0.02	272	P	Pn	02 33 07.8	+0.2
VRI	Vrincioaia	0.02	272	⇑iP	Pn	02 33 07.7	+0.1
VRI	Vrincioaia	0.02	272	⇑iP	Pn	02 33 07.6	0.0
VRI	Vrincioaia	0.02	272	⇑iP	Pn	02 33 07.6	0.0
VRI				S	Sn	02 33 17.6	+0.1
PLOR	Plostina	0.08	259	P	Pn	02 33 07.7	+0.1
PLOR				i S	Sn	02 33 17.8	+0.2
ODB	Odobesti	0.23	114	⇑iP	Pn	02 33 09.0	+1.0
ODB				i S	Sn	02 33 20.1	+1.9
PETR		0.36	113	⇑iP	Pn	02 33 09.2	+0.6
PETR				i S	Sn	02 33 20.4	+1.1
BRD	Bordesti	0.36	149	⇑iP	Pn	02 33 09.9	+1.2
GHRR		0.49	66	⇑iP	Pn	02 33 10.1	+0.6
GHRR				i S	Sn	02 33 21.6	+0.7
TESR		0.65	353	⇓P	Pn	02 33 10.6	-0.2
TESR				i S	Sn	02 33 21.9	-1.3
AAR	Sfinta Ana	0.66	294	⇑iP	Pn	02 33 21.4	+11
AAR				i S	Sn	02 33 40.7	+17
MLR	Muntele Rosu	0.68	237	P	Pn	02 33 11.4	+0.3
MLR	Muntele Rosu	0.68	237	P	Pn	02 33 11.5	+0.4
MLR				S	Sn	02 33 23.1	-0.6
MLR				pmax	pmax		
	comp=Z,434nm,0.3s						
MLR				smax			
	comp=N,542nm,0.3s						
MLR	Muntele Rosu	0.68	237	P	Pn	02 33 11.5	+0.4
	comp=N,434nm,0.3s,baz=169,slow=20,SNR=9167						
MLR				S	Sn	02 33 23.1	-0.6
	comp=N,542nm,0.3s,baz=299,slow=19,SNR=44						
MLR	Muntele Rosu	0.68	237	S	Sn	02 33 23.4	-0.3
MLR	Muntele Rosu	0.68	237	⇓iP	Pn	02 33 11.4	+0.3
MLR				i S	Sn	02 33 23.4	-0.3
TUDR		0.69	113	⇑iP	Pn	02 33 11.2	0.0
TUDR				i S	Sn	02 33 24.3	+0.5
ONCR	Oncesti	0.69	30	⇓iP	Pn	02 33 11.5	+0.3
ONCR				i S	Sn	02 33 23.7	-0.2
OZUR		0.72	289	⇑iP	Pn	02 33 11.0	-0.4
OZUR				i S	Sn	02 33 23.0	-1.3
SECR		0.96	211	⇑iP	Pn	02 33 14.9	+1.0
SECR				i S	Sn	02 33 30.1	+1.4
DOPR	Dopca	0.96	277	⇑iP	Pn	02 33 13.9	0.0
DOPR				i S	Sn	02 33 28.4	-0.3
PGOR	Pogoanele	0.97	171	⇑iP	Pn	02 33 14.6	+0.6
PGOR				i S	Sn	02 33 30.4	+1.6
FULR		1.00	193	⇓iP	Pn	02 33 15.1	+0.7
FULR				i S	Sn	02 33 30.9	+1.4
SNX	Sinaia	1.01	240	⇓iP	Pn	02 33 15.3	+0.8
BERR	Berezeni	1.08	62	⇓iP	Pn	02 33 16.0	+0.7
BERR				i S	Sn	02 33 31.8	+0.7
CFR	Carcaliu	1.19	125	⇑iP	Pn	02 33 16.4	-0.1
CFR				i S	Sn	02 33 33.7	+0.5
SULR		1.24	197	⇓iP	Pn	02 33 17.7	+0.6
SULR				i S	Sn	02 33 35.1	+0.8
VOIR		1.27	251	P	Pn	02 33 17.5	0.0
VOIR		1.27	251	⇑P	Pn	02 33 17.6	+0.1
VOIR				S	Sn	02 33 34.4	-0.7
VOIR		1.27	251	⇑iP	Pn	02 33 17.3	-0.2
VOIR				i S	Sn	02 33 34.5	-0.6
AMRR		1.32	162	⇑iP	Pn	02 33 18.4	+0.3
AMRR				i S	Sn	02 33 36.2	+0.2
IAS	Iasi	1.44	22	P	Pn	02 33 19.8	+0.3
IAS	Iasi	1.44	22	⇓iP	Pn	02 33 19.8	+0.3
IAS				i S	Sn	02 33 38.2	-0.4
CNCR	Cernica	1.47	194	⇓iP	Pn	02 33 20.0	+0.2
CNCR				i S	Sn	02 33 38.8	-0.4
BTMR	Bucharest-Geot	1.50	198	⇓iP	Pn	02 33 20.3	0.0
BTMR				i S	Sn	02 33 39.5	-0.5
TLCR		1.59	114	⇓iP	Pn	02 33 14.4	-7.0
TLCR				i S	Sn	02 33 34.6	-7.5
BUC1	Bucharest	1.60	199	P	Pn	02 33 21.7	+0.1
BUC1	Bucharest	1.60	199	⇑iP	Pn	02 33 21.7	+0.1

BUC1				*i*S	Sn	02 33 41.4	-0.9
BUC1	Bucharest	1.60	199	⇓*i*P	Pn	02 33 21.7	+0.1
BUC1				*i*S	Sn	02 33 41.4	-0.9
GOLR		1.63	232	⇓*i*P	Pn	02 33 22.3	+0.4
GOLR				*i*S	Sn	02 33 43.1	+0.2
KIS	Kishinev	1.82	51	⇓*i*P	Pn	02 33 24.0	-0.3
KIS				*i*S	Sn	02 33 46.0	-1.1
KIS				pmax	pmax		
	comp=Z,3µm,0.5s						
KIS				smax			
	comp=N,9µm,0.5s						
KIS				smax			
	comp=E,8.0nm,0.5s						
KIS	Kishinev	1.82	51	*i*P	Pn	02 33 24.0	-0.3
	comp=E,3µm,0.5s						
KIS				*i*S	Sn	02 33 46.0	-1.1
	comp=E,9µm,0.5s						
TIRR	Tirgusor	1.83	140	P	Pn	02 33 24.4	0.0
TIRR				S	Sn	02 33 46.2	-1.2
TIRR	Tirgusor	1.83	140	⇓*i*P	Pn	02 33 24.5	+0.1
TIRR				*i*S	Sn	02 33 46.0	-1.4
TIRR	Tirgusor	1.83	140	⇓*i*P	Pn	02 33 24.5	+0.1
TIRR				*i*S	Sn	02 33 46.0	-1.4
TIRR	Tirgusor	1.83	140	P	Pn	02 33 24.4	0.0
TIRR				*i*S	Sn	02 33 46.0	-1.4
BURAR	Bucovina Array	2.05	329	P	Pn	02 33 28.5	+1.3
BURAR	Bucovina Array	2.05	329	⇓*i*P	Pn	02 33 28.5	+1.3
BURAR				*i*S	Sn	02 33 54.0	+1.6
BURAR	Bucovina Array	2.05	329	⇓*i*P	Pn	02 33 28.5	+1.3
BURAR				*i*S	Sn	02 33 56.2	+3.8
PSN	Preselentsi	2.41	155	*i*P	Pn	02 33 32.7	+0.7
ZIMR		2.42	205	P	Pn	02 33 31.8	-0.3
ZIMR		2.42	205	⇓*i*P	Pn	02 33 31.6	-0.6
ZIMR				*i*S	Sn	02 33 58.9	-2.3
ZIMR		2.42	205	⇓*i*P	Pn	02 33 31.6	-0.6
ZIMR				*i*S	Sn	02 33 58.9	-2.3
CRAR	CRAIOVA	2.60	235	⇑*i*P	Pn	02 33 34.0	-0.6
CRAR				*i*S	Sn	02 34 03.1	-2.4
SZH	Strazhica	2.67	193	*i*P	Pn	02 33 34.8	-0.6
PRD	Provadia	2.70	170	*i*P	Pn	02 33 36.9	+1.0
GZR	Gura Zlata	2.84	262	P	Pn	02 33 38.0	+0.3
GZR	Gura Zlata	2.84	262	⇓*i*P	Pn	02 33 38.1	+0.5
GZR				*i*S	Sn	02 34 12.1	+1.0
GZR	Gura Zlata	2.84	262	⇓*i*P	Pn	02 33 38.1	+0.5
GZR				*i*S	Sn	02 34 12.1	+1.0
GZR	Gura Zlata	2.84	262	P	Pn	02 33 38.0	+0.4
GZR				*i*S	Sn	02 34 12.1	+1.0
DRGR		2.96	290	P	Pn	02 33 39.3	+0.1
DRGR		2.96	290	⇑P	Pn	02 33 39.5	+0.3
DRGR				S	Sn	02 34 16.9	+3.0
DRGR		2.96	290	⇑*i*P	Pn	02 33 39.4	+0.2
DRGR				*i*S	Sn	02 34 14.1	+0.2
DRGR		2.96	290	⇓*i*P	Pn	02 33 39.4	+0.2
DRGR				*i*S	Sn	02 34 16.6	+2.7
DRGR		2.96	290	P	Pn	02 33 39.3	+0.1
DRGR				*i*S	Sn	02 34 14.1	+0.2
JMB	Yambol	3.40	182	*e*Pn	Pn	02 33 44.5	-0.7
JMB	Yambol	3.40	182	*i*P	Pn	02 33 44.7	-0.6
JMB	Yambol	3.40	182	*e*Pn	Pn	02 33 44.5	-0.8
BZS	Buzias	3.61	268	P	Pn	02 33 48.6	+0.6
BZS	Buzias	3.61	268	⇑*i*P	Pn	02 33 47.9	-0.2
BZS				*i*S	Sn	02 34 28.7	-1.0
BZS	Buzias	3.61	268	⇑*i*P	Pn	02 33 47.9	-0.2
BZS				*i*S	Sn	02 34 31.5	+1.8
BZS	Buzias	3.61	268	P	Pn	02 33 48.6	+0.5
BZS				*i*S	Sn	02 34 28.7	-1.0
TRPA	Tarpa	3.67	310	⇓*i*P	Pn	02 33 48.4	-0.5
PGB	Panagyurishte	3.80	210	*i*P	Pn	02 33 50.9	+0.2
PLD	Plovdiv	4.04	202	*e*Pn	Pn	02 33 52.8	-1.2
PLD	Plovdiv	4.04	202	*e*Pn	Pn	02 33 52.8	-1.1
UZH	Uzhgorod	4.11	314	*e*P	Pn	02 33 47.6	-7.2
UZH				*e*	Sn	02 34 43.0	+1.2
UZH				smax			
	comp=N,41nm,0.9s						
UZH				smax			
	comp=E,50nm,0.9s						
UZH	Uzhgorod	4.11	314	*e*P	Pn	02 33 47.6	-7.2
UZH				*e*S	Sn	02 34 43.0	+1.2
VTS	Vitosha	4.15	219	*e*Pn	Pn	02 33 54.5	-0.9
VTS				*e*Sn	Sn	02 34 36.5	-6.3
VTS	Vitosha	4.15	219	*i*P	Pn	02 33 54.4	-1.0
VTS	Vitosha	4.15	219	⇓*i*P	Pn	02 33 55.0	-0.4
VTS	Vitosha	4.15	219	⇓*i*P	Pn	02 33 55.0	-0.4
VTS	Vitosha	4.15	219	⇑*i*P	Pn	02 33 54.5	-0.9
VTS	Vitosha	4.15	219	P	Pn	02 33 54.9	-0.5
KOLS	Kolonicke sedl	4.33	317	*e*Pn	Pn	02 33 58.4	+0.7
KOLS	Kolonicke sedl	4.33	317	*e*PN	Pn	02 33 58.4	+0.7
KDZ	Kurdzhali	4.33	193	*i*P	Pn	02 33 57.6	-0.1
LVV	L’vov	4.36	336	*i*P	Pn	02 33 58.7	+0.5
LVV				*e*S	Sn	02 34 49.1	+1.3
RZN	Rozhen	4.43	200	*i*P	Pn	02 33 59.6	+0.4
KWP	Kalwaria	4.66	325	*e*Pn	Pn	02 33 57.8	-4.4
KWP				*e*PX		02 34 03.7	
KWP				*e*Sn	Sn	02 34 43.8	-11
KWP	Kalwaria	4.66	325	*e*Pn	Pn	02 33 57.8	-4.3
KWP				*e*P		02 34 03.7	
KWP				*e*Sn	Sn	02 34 43.8	-11
KWP	Kalwaria	4.66	325	⇓*i*P	Pn	02 34 03.3	+1.2
KWP	Kalwaria	4.66	325	*e*Pn	Pn	02 33 57.8	-4.3
KWP	Kalwaria	4.66	325	*e*P	Pn	02 34 03.7	+1.6
BARS	Barje	4.67	231	Pn	Pn	02 34 00.2	-2.2
CRVS	Cervenica-Dubn	4.71	312	*e*Pn	Pn	02 34 03.4	+0.5
CRVS	Cervenica-Dubn	4.71	312	*e*PN	Pn	02 34 03.4	+0.5
KKB	Krupnik	4.80	215	*i*P	Pn	02 34 05.0	+0.8
MMB	Musomiste	4.81	208	*i*P	Pn	02 34 04.6	+0.3
ALN	Alexandroupoli	4.99	186	*e*Pn	Pn	02 34 06.2	-0.6
ALN				*e*Sn	Sn	02 34 59.5	-3.8
ALN	Alexandroupoli	4.99	186	*e*Pn	Pn	02 34 06.2	-0.6
ALN				*e*Sn	Sn	02 34 59.5	-3.8
KECS	Kecovo	5.02	304	*e*Pn	Pn	02 34 07.9	+0.8
KECS	Kecovo	5.02	304	*e*PN	Pn	02 34 07.9	+0.8
SEV	Sevastopol’	5.06	103	*e*P	Pn	02 34 07.5	-0.1
SEV				*e*S	Sn	02 35 01.5	-3.2
SEV				pmax	pmax		
	comp=Z,8.0nm,0.3s						
SEV				smax			
	comp=N,60nm,0.3s						
SEV				smax			
	comp=E,10.0nm,0.3s						
SEV	Sevastopol’	5.06	103	*e*P	Pn	02 34 07.5	-0.1
	comp=E,8.0nm,0.3s						
SEV				*e*S	Sn	02 35 01.5	-3.2
KIEV	Kiev	5.10	18	*e*Pn	Pn	02 34 07.3	-0.9
	comp=E,46nm,0.3s						
KIEV				*e*Sn	Sn	02 35 01.4	-4.3
KIEV	Kiev	5.10	18	*e*P	Pn	02 34 07.3	-0.9
KIEV				*e*		02 35 01.4	
KIEV				pmax	pmax		
	comp=Z,46nm,0.3s						
KIEV	Kiev	5.10	18	*e*Pn	Pn	02 34 07.3	-0.9
	comp=Z,46nm,0.3s						
KIEV				*e*Sn	Sn	02 35 01.4	-4.3
AKASG	Malin Array Be	5.11	18	P	Pn	02 34 07.4	-0.9
	comp=Z,22nm,0.3s,baz=265,slow=25,SNR=89						
AKASG				S	Sn	02 35 01.9	-4.1
	comp=Z,38nm,0.3s,baz=201,slow=21,SNR=6.0						
AKBB	Malin Array Si	5.11	18	*e*Pn	Pn	02 34 07.3	-1.0
AKBB				*e*Sn	Sn	02 35 02.2	-3.7
AKBB	Malin Array Si	5.11	18	*e*Pn	Pn	02 34 07.3	-1.0
AKBB				*e*Sn	Sn	02 35 02.2	-3.8
DIVS	Divcibare	5.12	252	*e*Pn	Pn	02 34 07.4	-1.0
DIVS	Divcibare	5.12	252	*e*Pn	Pn	02 34 07.4	-1.1
PSZ	Piszkesteto	5.14	296	⇑*i*P	Pn	02 34 15.4	+6.7
STHS	Stebnicka Huta	5.15	316	*e*PG	Pn	02 34 09.9	+1.0
SIM	Simferopol’	5.26	97	*e*P	Pn	02 34 10.5	+0.1
SIM				*i*S	Sn	02 35 06.9	-2.8
SIM				pmax	pmax		
	comp=Z,192nm,0.3s						
SIM				smax			
	comp=N,280nm,0.8s						
SIM				smax			
	comp=E,380nm,0.8s						
SIM	Simferopol’	5.26	97	*e*P	Pn	02 34 10.5	+0.1
	comp=E,192nm,0.3s						
SIM				*i*S	Sn	02 35 06.9	-2.8
SRS	Serrai	5.28	207	*e*Pn	Pn	02 34 10.0	-0.7
SRS				*e*Sn	Sn	02 35 06.8	-3.4
SRS	Serrai	5.28	207	*e*Pn	Pn	02 34 10.0	-0.6
SRS				*e*Sn	Sn	02 35 06.8	-3.3
STIP	Stip	5.33	220	*e*Pn	Pn	02 34 09.6	-1.7
STIP	Stip	5.33	220	*i*Pn	Pn	02 34 09.7	-1.6
STIP	Stip	5.33	220	*e*Pn	Pn	02 34 09.6	-1.7
YAL	Yalta	5.41	102	*e*P	Pn	02 34 12.6	+0.2
YAL				*i*S	Sn	02 35 10.2	-3.0
YAL				pmax	pmax		
	comp=Z,16nm,0.2s						
YAL				smax			
	comp=N,30nm,0.3s						
YAL				smax			
	comp=E,25nm,0.3s						
YAL	Yalta	5.41	102	*e*P	Pn	02 34 12.6	+0.2
	comp=E,16nm,0.2s						
YAL				*i*S	Sn	02 35 10.2	-3.0
VAY	Valandovo	5.47	215	*e*Pn	Pn	02 34 13.1	-0.1
VAY				*e*Sn	Sn	02 35 09.0	-5.8
VAY	Valandovo	5.47	215	⇑*i*Pn	Pn	02 34 13.1	-0.1
VAY	Valandovo	5.47	215	*e*Pn	Pn	02 34 13.1	-0.1
VAY				*e*Sn	Sn	02 35 09.0	-5.8
KNT	Kendrikon	5.48	212	*e*Pn	Pn	02 34 12.8	-0.5
KNT	Kendrikon	5.48	212	*e*Pn	Pn	02 34 12.8	-0.6
ALU	Alushta	5.52	100	*e*P	Pn	02 34 13.7	-0.2
ALU				*e*S	Sn	02 35 13.3	-2.7
ALU				pmax	pmax		
	comp=Z,30nm,0.1s						
ALU				smax			
	comp=N,90nm,0.7s						
ALU	Alushta	5.52	100	*e*P	Pn	02 34 13.7	-0.2
	comp=N,30nm,0.1s						
ALU				*e*S	Sn	02 35 13.3	-2.7
	comp=N,90nm,0.7s						
SOH	Sokhos	5.62	207	*e*Pn	Pn	02 34 15.0	-0.3
SOH				*e*Sn	Sn	02 35 14.8	-3.7
SOH	Sokhos	5.62	207	*e*Pn	Pn	02 34 15.0	-0.3
SOH				*e*Sn	Sn	02 35 14.8	-3.7
NIE	Niedzica	5.62	312	*e*P	Pn	02 34 16.2	+0.9
PKSM	Moragy	5.67	276	⇑*i*P	Pn	02 34 17.1	+1.2
GRG	Griva	5.84	214	*e*Pn	Pn	02 34 17.6	-0.7
GRG	Griva	5.84	214	*e*Pn	Pn	02 34 17.6	-0.7
SUDU	Sudak	5.88	97	*e*P	Pn	02 34 13.7	-5.2
SUDU				*e*S	Sn	02 35 22.3	-2.6
SUDU				smax			
	comp=N,20nm,0.7s						
SUDU	Sudak	5.88	97	*e*P	Pn	02 34 13.7	-5.2
	comp=N,20nm,0.7s						
SUDU				*e*S	Sn	02 35 22.3	-2.6
OUR	Ouranopolis	5.89	201	*e*Pn	Pn	02 34 18.3	-0.7
OUR	Ouranopolis	5.89	201	*e*Pn	Pn	02 34 18.3	-0.7
PLG	Polygyros	6.00	205	*e*Pn	Pn	02 34 20.8	+0.3
PLG	Polygyros	6.00	205	*e*Pn	Pn	02 34 20.8	+0.3
KRUS	Krusevo	6.02	224	⇓*i*Pn	Pn	02 34 20.8	+0.1
BIA	Bitola	6.25	221	*e*Pn	Pn	02 34 23.4	-0.5
PAIG	Paliouri	6.35	202	*e*Pn	Pn	02 34 24.6	-0.6
PAIG	Paliouri	6.35	202	*e*Pn	Pn	02 34 24.6	-0.7
FNA	Florina	6.42	220	*e*Pn	Pn	02 34 25.9	-0.2
FNA				*e*Sn	Sn	02 35 33.5	-4.5
FNA	Florina	6.42	220	*e*Pn	Pn	02 34 26.0	-0.2
FNA				*e*Sn	Sn	02 35 33.5	-4.5
LIT	Litokhoron	6.56	210	*e*Pn	Pn	02 34 28.0	-0.1
LIT	Litokhoron	6.56	210	*e*Pn	Pn	02 34 28.0	-0.1
XOR	Xorichti	7.01	203	P	Pn	02 34 33.8	-0.4
XOR	Xorichti	7.01	203	*e*Pn	Pn	02 34 33.8	-0.4
XOR	Xorichti	7.01	203	*e*Pn	Pn	02 34 33.8	-0.4
ANN	Anapa	7.60	94	*e*P	Pn	02 34 42.2	+0.1
ANN				*e*S	Sn	02 36 07.8	+1.2
ANN				pmax	pmax		
	comp=Z,12nm,0.4s						
ANN	Anapa	7.60	94	*e*P	Pn	02 34 42.2	+0.1
	comp=Z,12nm,0.4s						
ANN				*e*S	Sn	02 36 07.8	+1.2
BRTR	Keskin Array B	7.95	138	P	Pn	02 34 46.0	-0.9
	comp=Z,0.4nm,0.3s,baz=5.2,slow=27,SNR=23						
SUW	Suwalki	8.47	346	*e*Pn	Pn	02 34 51.7	-2.3
SUW				*e*Sn	Sn	02 36 14.7	-13
SUW	Suwalki	8.47	346	*e*Pn	Pn	02 34 51.7	-2.3
SUW				*e*Sn	Sn	02 36 14.7	-13
SUW	Suwalki	8.47	346	*e*Pn	Pn	02 34 51.7	-2.3
SUW				*e*Sn	Sn	02 36 14.7	-13
NE53	Naroch’	9.05	0	*e*P	Pn	02 34 58.0	-3.8
IDID	Didziasalis	9.46	360	*i*P	Pn	02 35 04.8	-2.6
	comp=Z,11nm,0.4s,SNR=40						
IIGN	Ignalina	9.50	358	*i*P	Pn	02 35 05.4	-2.6
	SNR=40						
VRSR	Storozhevoye	9.82	53	*e*P	Pn	02 35 11.6	-0.8
VRSR				*e*S	Sn	02 36 53.6	-7.1
VRSR				*i*S	Sn	02 36 53.8	-6.9
VRSR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
VRSR				pmax	pmax		
	comp=N,3.0nm,1.1s						
VRSR				pmax	pmax		
	comp=E,5.0nm,1.0s						
VRSR				smax			
	comp=N,20nm,0.9s						
VRSR				smax			
	comp=E,30nm,0.9s						
VRSR				smax			
	comp=Z,10.0nm,0.7s						
VRSR	Storozhevoye	9.82	53	*e*P	Pn	02 35 11.6	-0.8
	comp=Z,3.0nm,1.1s						
VRSR				*i*S	Sn	02 36 53.8	-6.9
IZAR	Zarasai	9.90	358	*i*P	Pn	02 35 10.3	-3.1
	comp=Z,4.5nm,0.6s,SNR=35						
TIP	Timpagrande	9.95	231	*e*Pn	Pn	02 35 16.0	+1.8
TIP	Timpagrande	9.95	231	*e*Pn	Pn	02 35 16.0	+1.8
AQU	L’Aquila	10.23	255	*e*Pn	Pn	02 35 18.1	+0.1
AQU	L’Aquila	10.23	255	*e*Pn	Pn	02 35 18.0	0.0
CLL	Collm	10.61	306	*e*(P)	Pn	02 35 29.0	+5.9
OBN	Obninsk	11.16	30	*e*Pn	Pn	02 35 26.8	-3.6
	comp=Z,34nm,0.4s						
OBN	Obninsk	11.16	30	*i*P	Pn	02 35 27.0	-3.5
OBN				pmax	pmax		
	comp=Z,29nm,0.6s						
OBN	Obninsk	11.16	30	*e*Pn	Pn	02 35 26.8	-3.7
	comp=Z,34nm,0.4s						
KIV	Kislovodsk	11.46	94	*e*P	Pn	02 35 43.1	+8.5
KIV				pmax	pmax		
	comp=Z,4.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,25nm,7.0s						
KIV	Kislovodsk	11.46	94	*e*P	Pn	02 35 43.1	+8.5
	comp=Z,25nm,7.0s						
BSD	Bornholm Skovb	11.93	325	*i*P	Pn	02 35 38.3	-2.5
BSD				pmax	pmax		
	comp=Z,3.0nm,0.4s						
BSD	Bornholm Skovb	11.93	325	*i*P	Pn	02 35 38.3	-2.5
	comp=Z,2.5nm,0.4s						
MOS	Moscow	12.02	31	*e*P	Pn	02 35 38.1	-4.0
MOS				*e*SS		02 37 59.2	
MOS				pmax	pmax		
	comp=Z,26nm,0.6s						
MOS	Moscow	12.02	31	*e*P	Pn	02 35 38.1	-4.0
	comp=Z,26nm,0.6s						
MOS				*e*S	Sn	02 37 59.2	+5.2
VSU	Vasula	12.62	360	*d* *i*P	Pn	02 35 46.1	-3.8
VSU	Vasula	12.62	360	*i*P	Pn	02 35 46.1	-3.8
FINES	FINESS Array B	15.61	359	P	Pn	02 36 22.4	-6.2
	comp=Z,0.6nm,0.3s,baz=169,slow=13,SNR=15						
FINES				S	S	02 39 10.8	-19
	comp=Z,0.4nm,0.3s,baz=182,slow=23,SNR=3.2						
HFS	Hagfors	16.26	336	P	Pn	02 36 33.9	-2.7
	comp=Z,0.9nm,0.3s,baz=143,slow=15,SNR=20						
KAF	Kangasniemi	16.28	359	*e*p	Pn	02 36 31.3	-5.6
	comp=Z,1.5nm,0.4s,baz=172,slow=13						
KAF	Kangasniemi	16.28	359	*e*P	Pn	02 36 31.3	-5.6
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s						
JOF	Joensuu	17.28	7	*e*p	Pn	02 36 42.7	-6.5
	comp=Z,1.0nm,0.3s						
JOF	Joensuu	17.28	7	*e*P	Pn	02 36 42.7	-6.5
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
NAO01	NORSAR Array S	17.67	334	*e*P	Pn	02 36 52.2	-1.6
	comp=Z,5.1nm,0.8s						
NAO01	NORSAR Array S	17.67	334	*e*P	Pn	02 36 52.2	-1.6
	comp=Z,5.1nm,0.8s						
NB2	NORSAR Subarra	17.72	335	P	Pn	02 36 53.0	-1.5
	comp=Z,1.1nm,0.5s,baz=144,slow=11						
NOA	NORSAR Array B	17.72	335	P	Pn	02 36 52.4	-2.1
	comp=Z,0.6nm,0.3s,baz=146,slow=13,SNR=6.9						
PRGR	Permogore	19.22	28	⇑*i*P	Pn	02 37 10.7	-1.6
PRGR				*e*S	S	02 40 35.7	-7.0
AKTK	Aktyubinsk	21.26	66	P	P	02 37 33.8	+1.3
AKTK				S	S	02 41 22.6	-0.5
AKTK	Aktyubinsk	21.26	66	P	P	02 37 33.8	+1.3
AKTK				S	S	02 41 22.6	-0.4
AKTO	Aktyubinsk	21.26	66	P	P	02 37 33.8	+1.3
	comp=Z,3.5nm,0.6s,mb3.9,baz=263,slow=8.5,SNR=16						
AKTO				S	S	02 41 22.6	-0.5
	comp=Z,0.5nm,0.6s,baz=34,slow=18,SNR=3.1						
ARU	Arti	22.37	50	*e*P	P	02 37 43.6	-0.6
	comp=Z,4.6nm,0.4s,mb4.2						
ARU				*e*pP		02 38 01.8	
ARU	Arti	22.37	50	⇑*i*P	P	02 37 44.3	+0.1
ARU				*e*		02 38 01.6	
ARU				*e*PPP		02 38 13.1	
ARU				*e*S	S	02 41 44.0	+0.9
ARU				*e*SS		02 42 18.9	
ARU				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.0						
ARU	Arti	22.37	50	*i*P	P	02 37 44.3	+0.1
	comp=Z,8.0nm,1.0s,mb4.0						
ARU				*e*pP		02 38 01.8	
ARU				*e*S	S	02 41 44.0	+0.9
ARCES	ARCESS Array B	23.74	359	P	P	02 37 57.6	+0.4
	comp=Z,1.9nm,0.7s,mb3.5,baz=179,slow=8.7,SNR=9.7						
ARCES				pP		02 38 14.5	
	comp=Z,1.5nm,0.5s,baz=177,slow=13,SNR=2.7						
KEV	Kevo	23.96	0	*e*p	P	02 37 52.3	-6.9
	comp=Z,3.2nm,0.8s,mb3.7						
KEV	Kevo	23.96	0	*e*P	P	02 37 52.3	-6.9
KEV				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.7						
BRVK	Borovoye	28.82	60	*e*P	P	02 38 44.4	+1.4
	comp=Z,2.8nm,0.7s,mb4.0						
BRVK	Borovoye	28.82	60	*e*P	P	02 38 44.4	+1.4
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.0						
BRVK	Borovoye	28.82	60	*e*P	P	02 38 44.4	+1.4
	comp=Z,2.8nm,0.7s,mb4.0						
EKS2	Erkin-Say	33.44	78	*e*P	P	02 39 26.3	+2.5
	comp=Z,2.6nm,0.8s,mb4.1						
EKS2	Erkin-Say	33.44	78	*e*P	P	02 39 26.3	+2.5
	comp=Z,2.6nm,0.8s,mb4.1						
AAK	Ala-Archa	33.95	78	*e*P	P	02 39 29.8	+1.7
	comp=Z,1.4nm,0.5s,mb4.0						
AAK	Ala-Archa	33.95	78	*c* *i*P	P	02 39 29.9	+1.8
AAK				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.2						
AAK	Ala-Archa	33.95	78	*i*P	P	02 39 29.9	+1.8
	comp=Z,5.0nm,1.3s,mb4.2						
UCH	Uchtor	34.11	79	*e*P	P	02 39 31.9	+2.4
	comp=Z,1.7nm,0.8s,mb3.9						
UCH	Uchtor	34.11	79	*e*P	P	02 39 32.0	+2.4
	comp=Z,1.7nm,0.8s,mb3.9						
TKM2	Tokmak 2	34.59	77	*e*P	P	02 39 36.3	+2.6
	comp=Z,2.7nm,0.9s,mb4.1						
TKM2	Tokmak 2	34.59	77	*e*P	P	02 39 36.3	+2.6
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.1						
TKM2	Tokmak 2	34.59	77	*e*P	P	02 39 36.3	+2.6
	comp=Z,2.7nm,0.9s,mb4.1						
ZAL	Zalesovo	37.28	56	P	P	02 39 58.0	+1.5
ZAL				*PP	pP	02 40 19.6	+1.0
ZALV	Zalesovo Beam	37.29	56	P	P	02 39 58.0	+1.3
ZALV				pP	pP	02 40 19.6	+0.9
ZALV	Zalesovo Beam	37.29	56	P	P	02 39 58.0	+1.3
	comp=Z,2.5nm,0.3s,mb4.6,baz=279,slow=9.3,SNR=15						
ZALV				pP	pP	02 40 19.6	+0.9
	comp=Z,2.1nm,0.7s,baz=284,slow=9.3,SNR=4.5						
MK31	Makanchi Array	37.67	68	*e*P	P	02 40 01.6	+1.7
MKAR	Makanchi Array	37.67	68	P	P	02 40 01.7	+1.7
MKAR				pP	pP	02 40 23.4	+1.5
MKAR	Makanchi Array	37.67	68	P	P	02 40 01.7	+1.8
	comp=Z,1.2nm,0.5s,mb4.0,baz=278,slow=7.9,SNR=19						
MKAR				pP	pP	02 40 23.4	+1.5
	comp=Z,0.3nm,0.6s,baz=292,slow=6.4,SNR=1.8						
TOA0	Torodi Ar. Sit	38.90	221	*e*P	P	02 40 10.7	+0.2
TOA0	Torodi Ar. Sit	38.90	221	*e*P	P	02 40 10.7	+0.2
TORD	Torodi Ar. Bea	38.90	221	P	P	02 40 10.6	+0.1
	comp=Z,0.6nm,0.3s,mb3.8,baz=30,slow=8.8,SNR=24						
TORD				pP	pP	02 40 32.7	+0.1
	comp=Z,0.9nm,0.5s,baz=25,slow=8.3,SNR=4.2						
SONM	Songino Array	52.17	57	P	P	02 41 56.3	+1.6
	comp=Z,0.4nm,0.4s,mb3.8,baz=293,slow=8.8,SNR=6.9						
SONM				pP	pP	02 42 19.0	+1.2
	comp=Z,0.2nm,0.5s,baz=295,slow=8.0,SNR=2.1						
CHTO	Chiang Mai	64.42	89	*e*P	P	02 43 20.6	+0.2
	comp=Z,3.9nm,0.7s,mb4.3						
CHTO	Chiang Mai	64.42	89	*e*P	P	02 43 20.6	+0.3
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.4						
CHTO	Chiang Mai	64.42	89	*e*P	P	02 43 20.6	+0.3
	comp=Z,4.0nm,0.7s,mb4.4						
YKA	Yellowknife Ar	67.66	342	P	P	02 43 41.2	+0.8
YKA	Yellowknife Ar	67.66	342	P	P	02 43 41.2	+0.8
	comp=Z,1.1nm,0.6s,mb3.9,baz=28,slow=6.0,SNR=22						
PDAR	Pinedale Array	83.58	329	P	P	02 45 12.0	+0.4
	comp=Z,0.2nm,0.6s,mb3.2,baz=86,slow=4.6,SNR=3.5						

IDC **15** *02:44:53.2±2.2, 46.87N×152.75E, h0^{km}, mb3.8/11, mb1 4.0/11, mb1mx3.8/22, mbtmp3.8/11, MS2.6/1, Ms1 2.6/1, ms1mx2.2/36, Error ellipse: s-maj=67.3km s-min=22.1km az=4.0*

NEIC **15** *02:44:55.3±1.3, 46.98N×152.79E, h10^{km}, mb3.7/1, Error ellipse: s-maj=38.5km s-min=10.3km az=180.0*

ISCJB **15** *02:45:00.9±1.4, 47.1N±0.1×152.8E±0.1, h64^{km}±11^{km}, mb3.8/13, Error ellipse: s-maj=24.5km s-min=8.0km az=143.0*

MOS **15** *02:45:00.7±1.0, 46.85N×152.81E, h74^{km}, mb4.5/3, Error ellipse: s-maj=23.8km s-min=15.7km az=91.9*

ISC 15 02:45:02.7±1.3**, 47.1N**±0.1×**152.8E**±0.1**, h65**^{km}±10^{km}**, n24, σ0.75**/25**, mb3.7**/13**, 1C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril’sk	3.89	244	PN	Pn	02 45 58.5	-1.4
KUR				*e*S	Sn	02 46 45.0	+0.8
KUR				pmax	pmax		
	comp=Z,130nm,0.8s						
KUR				smax			
	comp=N,230nm,0.6s						
KUR				smax			
	comp=E,80nm,0.6s						
SKR	Severo-Kuril’s	4.24	30	*e*PN	Pn	02 46 05.9	+1.3
SKR				*e*S	Sn	02 46 51.6	-1.1
SKR				pmax	pmax		
	comp=Z,70nm,0.4s						
SKR				smax			
	comp=N,110nm,0.4s						
SKR				smax			
	comp=E,180nm,0.4s						
YAK	Yakutsk	19.95	327	*e*P	Pn	02 49 32.9	+1.7
YAK				pmax	pmax		
	comp=Z,20nm,0.5s						
YAK				MLR	MLR		
	comp=Z,100nm,16.0s						
JNU	Nakatsue	21.70	238	LR	LR	02 57 20.6	
	comp=Z,17nm,21.5s,baz=138,slow=35						
BILL	Bilibino	22.14	13	⇑*i*P	P	02 49 57.6	+5.1
BILL				pmax	pmax		
	comp=Z,9.0nm,2.0s,mb3.8						
EGAK	Eagle	38.89	39	*e*P	P	02 52 20.7	-0.7
	comp=Z,1.4nm,0.7s,mb3.9						
ZALV	Zalesovo Beam	42.26	305	P	P	02 52 48.4	-0.8
	comp=Z,0.3nm,0.3s,mb3.4,baz=81,slow=7.7,SNR=2.2						
ZAL	Zalesovo	42.27	305	P	P	02 52 48.4	-0.9
MK31	Makanchi Array	46.61	297	*e*P	P	02 53 23.9	-0.1
MKAR	Makanchi Array	46.61	297	P	P	02 53 23.8	-0.2
	comp=Z,0.2nm,0.2s,mb3.4,baz=69,slow=7.9,SNR=3.4						
MKAR				PcP	PcP	02 54 56.8	-0.1
	comp=Z,0.2nm,0.2s,baz=69,slow=4.8,SNR=3.2						
YKA	Yellowknife Ar	50.80	37	P	P	02 53 56.4	+0.5
YKA	Yellowknife Ar	50.80	37	P	P	02 53 56.4	+0.5
	comp=Z,0.7nm,0.7s,mb3.8,baz=296,slow=7.0,SNR=10						
ARCES	ARCESS Array B	57.49	341	P	P	02 54 44.5	+0.1
	comp=Z,1.2nm,0.8s,mb4.0,baz=36,slow=7.8,SNR=2.4						
NVAR	Mina Array Bea	62.48	62	P	P	02 55 19.6	+0.5
	comp=Z,0.2nm,0.4s,mb3.5,baz=294,slow=7.7,SNR=2.8						
FINES	FINESS Array B	63.67	335	P	P	02 55 26.6	0.0
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	63.67	335	P	P	02 55 26.6	+0.1
	comp=Z,1.2nm,0.4s,mb4.0,baz=39,slow=7.0,SNR=15						
PDAR	Pinedale Array	64.74	54	P	P	02 55 34.2	+0.3
	comp=Z,0.5nm,0.8s,mb3.4,baz=243,slow=1.7,SNR=6.0						
NB2	NORSAR Subarra	67.87	341	P	P	02 55 53.6	0.0
	comp=Z,1.1nm,0.6s,mb3.9,baz=28,slow=6.5						
NOA	NORSAR Array B	67.87	341	P	P	02 55 54.0	+0.4
NOA	NORSAR Array B	67.87	341	P	P	02 55 54.0	+0.4

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
	comp=Z,1.7nm,0.7s,mb4.0,baz=27,slow=6.3,SNR=7.5						
AKASG	Malin Array Be	71.17	326	P	P	02 56 13.9	-0.2
	comp=Z,1.7nm,0.4s,mb4.2,baz=32,slow=6.0,SNR=11						
TXAR	Lajitas Array	77.53	60	P	P	02 56 51.2	-0.2
TXAR	Lajitas Array	77.53	60	P	P	02 56 51.2	-0.2
	comp=Z,0.4nm,0.5s,mb3.5,baz=292,slow=5.2,SNR=4.6						
BRTR	Keskin Array B	78.02	316	P	P	02 56 54.0	+0.1
	comp=Z,0.5nm,0.7s,mb3.4,baz=71,slow=4.2,SNR=4.1						

IDC 15 02:51:13.2±4.8, 5.56S×149.57E, h167^{km}±31^{km}, mb3.3/4, mb1 3.5/5, mb1mx3.2/15, mbtmp3.3/5, Error ellipse: s-maj=89.6km s-min=30.4km az=107.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.51	212	P	Pn	02 52 20.6	+0.1
	6.0nm,0.3s,baz=38,slow=6.5,SNR=17						
PMG				S	Sn	02 53 13.6	+0.4
	22nm,0.3s,baz=347,slow=23,SNR=24						
WRA	Warramunga Arr	20.59	225	P	P	02 55 39.3	0.0
	3.2nm,0.6s,baz=49,slow=10,SNR=47						
WRA				pP	pP	02 56 05.2	-3.2
	0.9nm,0.6s,baz=52,slow=11,SNR=3.0						
ASAR	Alice Springs	23.49	218	P	P	02 56 08.3	+0.3
	0.9nm,0.4s,baz=53,slow=8.6,SNR=20						
FITZ	Fitzroy Crossi	26.49	240	P	P	02 56 35.5	+0.3
	1.4nm,0.8s,baz=44,slow=13,SNR=5.0						
SONM	Songino Array	65.30	330	P	P	03 01 37.8	+0.6
	0.2nm,0.4s,baz=149,slow=5.2,SNR=4.4						
TORD	Torodi Ar. Bea	147.45	286	PKPbc	PKPbc	03 10 36.7	-1.8
	0.2nm,0.6s,baz=94,slow=3.7,SNR=3.2						

MAN 15 03:11:57, 18.12N×122.11E, h1^{km}, mb3.6, ML2.3, MS1.8, 1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGCP	Mt. Cagua	0.14	333	eP	Pg	03 11 59.5	-0.3
CVP	Callao Caves	0.49	214	⇓iP	Pg	03 12 08.4	+1.9
CVP				i S	Sg	03 12 21.2	+8.2
CAUP	Cauayan	1.20	193	eP	Pg	03 12 20.9	+0.9
ABRA	Dolores	1.41	251	eP	Pn	03 12 23.7	-0.1

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*MOS **15** 03:15:46.8±1.6, 35.68N×27.98E, h33^{km}, mb4.4/29, Error ellipse: s-maj=5.1km s-min=2.8km az=113.6*
*CSEM **15** 03:15:50.5±0.0, 35.89N×28.15E, h82^{km}, mb4.2/41, Ms2.3, Mw3.8, Error ellipse: s-maj=1.0km s-min=0.7km az=42.0*
*HLW **15** 03:15:50.7, 35.97N×28.22E, h33^{km}, Mb5.2*
*ISCJB **15** 03:15:51.1±0.1, 35.83N±0.01×28.04E±0.01, h85^{km}±2^{km}, mb4.1/58, Error ellipse: s-maj=2.3km s-min=1.7km az=33.3*
*NEIC **15** 03:15:52.5, 35.95N×28.02E, h83^{km}, mb4.1/60, After ATH.*
*ATH **15** 03:15:52.5, 35.95N×28.02E, h83^{km}±1^{km}, ML4.4*
*IDC **15** 03:15:53.5±1.2, 36.10N×27.85E, h75^{km}±10^{km}, mb4.0/16, mb1 4.1/22, mb1mx4.0/27, mbtmp4.0/22, MS3.2/7, Ms1 3.2/7, ms1mx2.8/44, Error ellipse: s-maj=14.3km s-min=8.1km az=146.0*
*ISK **15** 03:15:53.9, 36.08N×28.00E, h86^{km}, ML4.5*
*THE **15** 03:15:54.0, 35.92N×28.10E, h42^{km}, ML4.8*
*NIC **15** 03:15:58.1±0.2, 36.18N×28.65E, h61^{km}, mb4.5, ML4.1, MW3.8*
*GII **15** 03:15:59.2±0.0, 35.47N×28.65E, h15^{km}, mb4.5/10, ML4.5/10, Mw3.9/7*
*NAO **15** 03:16:12.0, 38.79N×27.92E, h33^{km}, mb4.0*

ISC 15 03:15:52.7±0.1, 35.85N±0.01×28.02E±0.01, h79^{km}±2^{km}, n679, σ1§18/729, mb4.1/58, 35C-25D, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARG	Arkhangelos	0.38	13	eP	Pn	03 16 05.8	+0.4
ARG				eS	Sn	03 16 14.9	+0.1
KARP	Karpathos	0.76	247	⇓iP	Pn	03 16 10.7	+1.8
DAT	Datca	0.95	338	i PG	Pn	03 16 11.2	+0.1
DAT				i SG	Sn	03 16 23.4	+0.7
DAT	Datca	0.95	338	i Pg	Pn	03 16 11.2	+0.1
DAT				i Sg	Sn	03 16 23.4	+0.7
DALT	Dalyan (Mudla)	1.05	28	Pg	Pn	03 16 12.0	-0.2
DALT	Dalyan (Mudla)	1.05	28	Pg	Pn	03 16 12.0	-0.2
KSL	Kastellorizon	1.30	76	eP	Pn	03 16 16.0	+0.6
YER	Yerkesik	1.30	9	i PN	Pn	03 16 15.8	+0.4
YER	Yerkesik	1.30	9	Pg	Pn	03 16 14.8	-0.6
YER	Yerkesik	1.30	9	Pg	Pn	03 16 14.8	-0.6
YER	Yerkesik	1.30	9	i Pn	Pn	03 16 15.8	+0.4
BODT	Bodrum	1.34	335	i PN	Pn	03 16 15.7	-0.2
BODT				i SN	Sn	03 16 31.8	-0.4
BODT	Bodrum	1.34	335	Pn	Pn	03 16 15.8	-0.2
BODT	Bodrum	1.34	335	Pn	Pn	03 16 15.8	-0.1
BODT				i Sn	Sn	03 16 31.8	-0.4
MLSB	Milas	1.46	352	PN	Pn	03 16 17.3	-0.1
MLSB	Milas	1.46	352	ePn	Pn	03 16 17.3	-0.1
ZKR	Zakros	1.65	244	ePb	Pn	03 16 21.9	+2.1
ZKR				eSb	Sn	03 16 43.1	+3.5
ZKR	Zakros	1.65	244	ePb	Pn	03 16 21.9	+2.1
ZKR				eSb	Sn	03 16 43.1	+3.5
NPS	Neapolis	2.05	254	eP	Pn	03 16 26.4	+1.2
DENT	Denizli	2.07	23	PN	Pn	03 16 25.1	-0.4
DENT	Denizli	2.07	23	ePn	Pn	03 16 25.1	-0.4
SMG	Samos	2.09	333	⇓iP	Pn	03 16 25.5	-0.2
XRY	Khrisi	2.14	244	eP	Pn	03 16 27.8	+1.5
LAST	Lasithi	2.19	253	ePn	Pn	03 16 29.0	+2.0
LAST				eSn	Sn	03 16 52.7	-0.2
LAST	Lasithi	2.19	253	ePn	Pn	03 16 29.0	+2.0
LAST				eSn	Sn	03 16 52.7	-0.1
APE	Apeiranthos	2.35	302	ePn	Pn	03 16 29.9	+0.7
APE				eSn	Sn	03 16 55.4	-1.5
APE	Apeiranthos	2.35	302	d iP	Pn	03 16 29.7	+0.5
APE	Apeiranthos	2.35	302	eP	Pn	03 16 30.0	+0.8
APE	Apeiranthos	2.35	302	ePn	Pn	03 16 29.9	+0.7
APE				eSn	Sn	03 16 55.4	-1.5
ANTB	Antalya	2.37	63	PN	Pn	03 16 31.2	+1.8
ANTB	Antalya	2.37	63	ePn	Pn	03 16 31.2	+1.8
IDI	Anoyia	2.62	259	P	Pn	03 16 33.6	+0.9
	45nm,0.3s,baz=65,slow=14,SNR=282						
IDI				S	Sn	03 17 02.4	-0.9
	45nm,0.3s,baz=326,slow=23,SNR=6.0						
IZM	Izmir	2.62	347	PN	Pn	03 16 32.4	-0.4
IZM	Izmir	2.62	347	ePn	Pn	03 16 32.4	-0.4
KHL	Karahalli	2.75	25	PN	Pn	03 16 35.1	+0.5
KHL	Karahalli	2.75	25	ePn	Pn	03 16 35.1	+0.5
SIVA	Sivas	2.75	253	ePn	Pn	03 16 37.2	+2.6
SIVA				eSn	Sn	03 17 07.5	+0.8
SIVA	Sivas	2.75	253	ePn	Pn	03 16 37.2	+2.6
SIVA				eSn	Sn	03 17 07.5	+0.8
ISP	Isparta	2.82	44	P	Pn	03 16 36.1	+0.6
ISP	Isparta	2.82	44	ePn	Pn	03 16 36.0	+0.5
ISP				eSn	Sn	03 17 02.1	-6.2
ISP	Isparta	2.82	44	d iP	Pn	03 16 35.9	+0.4
ISP	Isparta	2.82	44	ePn	Pn	03 16 36.0	+0.5
ISP				eSn	Sn	03 17 02.1	-6.2
CHOS	Chios island	2.99	329	ePn	Pn	03 16 37.7	-0.1
CHOS				eSn	Sn	03 17 10.6	-1.7
CHOS	Chios island	2.99	329	ePn	Pn	03 16 37.7	-0.1
CHOS				eSn	Sn	03 17 10.6	-1.8
AKS	Akhisar	3.03	357	PN	Pn	03 16 38.0	-0.4
AKS	Akhisar	3.03	357	ePn	Pn	03 16 38.0	-0.4
VAM	Vamos	3.15	263	eP	Pn	03 16 41.0	+1.1
GVD	Gavdhos	3.37	254	ePn	Pn	03 16 43.6	+0.6
GVD				eSn	Sn	03 17 21.6	-0.2
GVD	Gavdhos	3.37	254	ePn	Pn	03 16 43.7	+0.7
GVD				eSn	Sn	03 17 21.6	-0.2
SHUT	Suhut-Afyon	3.37	36	PN	Pn	03 16 43.2	+0.2
SHUT	Suhut-Afyon	3.37	36	ePn	Pn	03 16 43.2	+0.2
KARN	Karanos	3.38	264	ePn	Pn	03 16 44.4	+1.4
KARN	Karanos	3.38	264	ePn	Pn	03 16 44.4	+1.4
ALT	Altintas	3.61	27	PN	Pn	03 16 46.2	0.0
ALT	Altintas	3.61	27	ePn	Pn	03 16 46.2	0.0
PPCY	Paphos	3.66	104	P	Pn	03 16 47.4	+0.5
PRK	Paraskevi	3.67	338	⇓iP	Pn	03 16 47.1	+0.1
DST	Dursunbey	3.78	7	PN	Pn	03 16 48.2	-0.4
DST	Dursunbey	3.78	7	ePn	Pn	03 16 48.2	-0.4
ALFC	Alevga	3.79	99	P	Pn	03 16 49.1	+0.3
	57nm,0.2s						
ALFC				S	Sn	03 17 29.4	-2.8
KVR	Kavouri	3.94	301	eP	Pn	03 16 52.0	+1.2
PTL	Penteli	3.99	305	eP	Pn	03 16 53.0	+1.6
ATH	Athens Observa	4.05	303	eP	Pn	03 16 54.3	+2.0
KONT	Konya--Tatoy	4.06	58	PN	Pn	03 16 54.0	+1.7
KONT	Konya--Tatoy	4.06	58	ePn	Pn	03 16 54.0	+1.7
KYTH	Kithira	4.06	278	eP	Pn	03 16 53.0	+0.6
NAIG	Nisos Aigina	4.11	299	eP	Pn	03 16 54.3	+1.3
SZAC	Souni-Zanaja	4.12	104	P	Pn	03 16 54.3	+1.1
	33nm,0.2s						
SZAC				S	Sn	03 17 38.1	-2.0
EZN	Ezine	4.20	342	PN	Pn	03 16 54.2	0.0
EZN	Ezine	4.20	342	ePn	Pn	03 16 54.2	0.0
VLI	Veliai	4.20	283	eP	Pn	03 16 55.3	+1.0
MAMC	Mammari	4.29	98	P	Pn	03 16 56.0	+0.5
ESKT	Eskisehir	4.30	31	PN	Pn	03 16 56.0	+0.4
ESKT	Eskisehir	4.30	31	ePn	Pn	03 16 56.0	+0.4
KIZT	Kizilcal	4.31	44	PN	Pn	03 16 56.7	+0.9
KIZT	Kizilcal	4.31	44	ePn	Pn	03 16 56.7	+0.9
KCT	Karacabey	4.42	3	PN	Pn	03 16 56.6	-0.7
KCT	Karacabey	4.42	3	ePn	Pn	03 16 56.6	-0.7
CSS	Prodhromos	4.42	100	P	Pn	03 16 57.9	+0.6
	15nm,0.4s						
CSS				S	Sn	03 17 44.1	-3.4
CSS	Prodhromos	4.42	100	ePn	Pn	03 16 57.4	0.0
CSS				eSn	Sn	03 17 47.5	-0.1
CSS	Prodhromos	4.42	100	ePn	Pn	03 16 57.5	+0.2
CSS				eSn	Sn	03 17 44.1	-3.4
CSS	Prodhromos	4.42	100	ePn	Pn	03 16 57.3	0.0
CSS				S	Sn	03 17 44.1	-3.4
CSS				eSn	Sn	03 17 47.5	0.0
EDC	Edincik	4.50	358	PN	Pn	03 16 57.9	-0.4
EDC	Edincik	4.50	358	ePn	Pn	03 16 57.9	-0.4
BNT	Bandirma	4.50	359	PN	Pn	03 16 57.5	-0.9
BNT	Bandirma	4.50	359	ePn	Pn	03 16 57.5	-0.9
LTK	Loutraki	4.60	300	ePn	Pn	03 17 01.9	+2.2
LTK	Loutraki	4.60	300	ePn	Pn	03 17 01.9	+2.2
IKL	Isikli	4.60	83	ePN	Pn	03 17 01.4	+1.6
IKL	Isikli	4.60	83	ePn	Pn	03 17 01.4	+1.6
IZI	Iznik	4.63	14	ePN	Pn	03 17 00.1	0.0
IZI	Iznik	4.63	14	ePn	Pn	03 17 00.1	0.0
LIA	Limnos Island	4.63	332	P	Pn	03 17 03.3	+3.2
LPK	Lapseki	4.63	348	ePN	Pn	03 17 00.2	+0.1
LPK	Lapseki	4.63	348	ePn	Pn	03 17 00.2	+0.1
GADA	Gvkgeada	4.65	339	PN	Pn	03 16 59.9	-0.5
GADA	Gvkgeada	4.65	339	ePn	Pn	03 16 59.9	-0.5
GEMT	Gemlik	4.67	11	ePN	Pn	03 16 59.7	-1.0
GEMT	Gemlik	4.67	11	ePn	Pn	03 16 59.7	-1.0
LOS	Limnos	4.70	331	ePn	Pn	03 17 02.1	+1.0
LOS	Limnos	4.70	331	ePn	Pn	03 17 02.1	+1.1
MRMT	Marmara Adasi	4.76	356	ePN	Pn	03 17 01.3	-0.6
MRMT	Marmara Adasi	4.76	356	ePn	Pn	03 17 01.3	-0.6
ADVT	Abdulvahap	4.78	16	ePN	Pn	03 17 01.9	-0.2
ADVT	Abdulvahap	4.78	16	ePn	Pn	03 17 01.9	-0.2
GPA	Golpazari	4.79	21	ePN	Pn	03 17 02.4	+0.1
GPA	Golpazari	4.79	21	ePn	Pn	03 17 02.4	+0.1
HMAT	Matruh	4.80	190	⇓P	Pn	03 17 04.0	+1.5
HMAT				S	Sn	03 17 55.4	-1.4
YLV	Yalova	4.83	12	ePN	Pn	03 17 02.4	-0.5
YLV	Yalova	4.83	12	ePn	Pn	03 17 02.4	-0.5
RKY	Sarkoy-Tekirda	4.88	352	ePN	Pn	03 17 03.5	0.0
RKY	Sarkoy-Tekirda	4.88	352	ePn	Pn	03 17 03.5	0.0
LKR	Lokris	4.89	306	eP	Pn	03 17 05.6	+1.9
SLUM		4.93	209	⇑iP	Pn	03 17 05.1	+0.8
PHNC	Paralimni	4.98	98	P	Pn	03 17 06.3	+1.4
	15nm,0.5s						
PHNC				S	Sn	03 17 56.6	-4.5
GULT	Gulveren	4.98	22	ePN	Pn	03 17 05.5	+0.6
GULT	Gulveren	4.98	22	ePn	Pn	03 17 05.5	+0.6
ITM	Ithomi	5.09	287	eP	Pn	03 17 08.6	+2.2
LTBQ	Tobruq	5.09	223	i P	Pn	03 17 07.7	+1.3
	SNR=23						
ENEZ	Enez	5.10	344	ePN	Pn	03 17 06.1	-0.4
ENEZ	Enez	5.10	344	ePn	Pn	03 17 06.1	-0.4
HRT	Hereke	5.13	14	ePN	Pn	03 17 05.8	-1.2
HRT	Hereke	5.13	14	ePn	Pn	03 17 05.8	-1.2
NEO	Neokhori	5.14	314	P	Pn	03 17 09.5	+2.4
PYL	PYLOS	5.18	284	ePn	Pn	03 17 08.2	+0.6
PYL				eSn	Sn	03 18 04.7	-1.3
PYL	PYLOS	5.18	284	ePn	Pn	03 17 08.2	+0.6
PYL				eSn	Sn	03 18 04.7	-1.2
XOR	Xorichti	5.20	314	ePn	Pn	03 17 09.5	+1.5
XOR	Xorichti	5.20	314	ePn	Pn	03 17 09.5	+1.6
MDU	Mudurnu	5.25	28	ePN	Pn	03 17 09.2	+0.6
MDU	Mudurnu	5.25	28	ePn	Pn	03 17 09.2	+0.6
ISK	Istanbul-Kandi	5.28	9	ePN	Pn	03 17 07.5	-1.4
ISK	Istanbul-Kandi	5.28	9	ePn	Pn	03 17 07.5	-1.4
ALN	Alexandroupoli	5.28	343	ePn	Pn	03 17 09.1	+0.1
ALN				eSn	Sn	03 18 05.6	-2.8
ALN	Alexandroupoli	5.28	343	ePn	Pn	03 17 09.1	+0.2
ALN				eSn	Sn	03 18 05.6	-2.8
CTT	Catalca	5.30	3	ePN	Pn	03 17 08.3	-1.0
CTT	Catalca	5.30	3	ePn	Pn	03 17 08.3	-1.0
PAIG	Paliouri	5.33	321	ePn	Pn	03 17 11.0	+1.4
PAIG	Paliouri	5.33	321	ePn	Pn	03 17 11.0	+1.3
MERS	Mersin	5.34	77	ePN	Pn	03 17 12.1	+2.3
MERS	Mersin	5.34	77	ePn	Pn	03 17 12.1	+2.3
KLYT	Kilyos	5.46	8	ePN	Pn	03 17 10.6	-0.8
KLYT	Kilyos	5.46	8	ePn	Pn	03 17 10.6	-0.8
OUR	Ouranopolis	5.50	326	ePn	Pn	03 17 12.9	+0.9
OUR	Ouranopolis	5.50	326	ePn	Pn	03 17 12.9	+0.9
LOD	Lodumlu	5.51	41	ePN	Pn	03 17 13.1	+1.0
LOD	Lodumlu	5.51	41	ePn	Pn	03 17 13.1	+1.0
ANTO	Ankara	5.51	42	P	Pn	03 17 12.9	+0.7
ANTO	Ankara	5.51	42	⇑iP	Pn	03 17 12.4	+0.3
AGG	Agios Georgios	5.53	307	ePn	Pn	03 17 15.0	+2.6
AGG	Agios Georgios	5.53	307	ePn	Pn	03 17 15.0	+2.6
RDO	Rodhopi	5.64	341	⇓iP	Pn	03 17 14.3	+0.4
RLS	Riolos of Patr	5.70	295	eP	Pn	03 17 17.5	+2.8
KAMT	Kaman	5.72	50	ePN	Pn	03 17 15.7	+0.7
KAMT	Kaman	5.72	50	ePn	Pn	03 17 15.7	+0.7
NIG	Nigde	5.74	65	ePN	Pn	03 17 16.2	+1.0
NIG	Nigde	5.74	65	ePn	Pn	03 17 16.2	+1.0
PLG	Polygyros	5.79	323	ePn	Pn	03 17 17.1	+1.2
PLG	Polygyros	5.79	323	eP	Pn	03 17 17.2	+1.3
PLG	Polygyros	5.79	323	ePn	Pn	03 17 17.1	+1.2
EVR	Evrytania	5.82	304	P	Pn	03 17 23.0	+6.6
BR131	Keskin Array S	5.90	47	ePn	Pn	03 17 17.8	+0.4
	22nm,0.3s						
BR131				e		03 17 36.0	
BR131				eSn	Sn	03 18 22.4	-1.1
BR131	Keskin Array S	5.90	47	ePn	Pn	03 17 17.8	+0.4
BRTR	Keskin Array B	5.90	47	P	Pn	03 17 17.4	0.0
	5.8nm,0.3s,baz=224,slow=14,SNR=239						
BRTR				S	Sn	03 18 22.1	-1.4
	7.7nm,0.3s,baz=218,slow=26,SNR=11						
BRTR	Keskin Array B	5.90	47	P	Pn	03 17 17.4	0.0
BRTR				S	Sn	03 18 22.1	-1.4
THL	Klokotos Trika	6.04	310	eP	Pn	03 17 21.5	+2.2
EDRB	Edirne	6.08	351	ePN	Pn	03 17 18.7	-1.1
LIT	Litokhoron	6.09	316	ePn	Pn	03 17 22.1	+2.0
LIT	Litokhoron	6.09	316	ePn	Pn	03 17 22.1	+2.0
HORT	Hortiatis	6.13	322	ePn	Pn	03 17 22.4	+1.9
HORT	Hortiatis	6.13	322	ePn	Pn	03 17 22.4	+1.9
SOH	Sokhos	6.18	325	ePn	Pn	03 17 23.2	+2.0
SOH	Sokhos	6.18	325	ePn	Pn	03 17 23.2	+2.0
SRS	Serrai	6.31	328	ePn	Pn	03 17 24.1	+1.1
SRS	Serrai	6.31	328	ePn	Pn	03 17 24.1	+1.1
VLS	Valsamata	6.39	294	eP	Pn	03 17 24.2	+0.1
NVR	Nevrokopi	6.39	331	⇓iP	Pn	03 17 25.3	+1.2
HMYD	Mayadein	6.47	158	P	Pn	03 17 25.3	+0.1
CANT	Cankiri	6.48	41	ePN	Pn	03 17 25.0	-0.3
SAFT	Safranbolu	6.51	33	ePN	Pn	03 17 26.2	+0.5
SAFT	Safranbolu	6.51	33	ePn	Pn	03 17 26.2	+0.5
HNTI	Hanita	6.52	113	Pn	Pn	03 17 25.6	-0.3
HNTI	Hanita	6.52	113	Pn	Pn	03 17 25.6	-0.3
SQR		6.52	155	P	Pn	03 17 25.8	-0.1
LKD	Levkas	6.54	298	ePn	Pn	03 17 27.6	+1.5
LKD	Levkas	6.54	298	ePn	Pn	03 17 27.6	+1.5
BHL	Bhannes	6.56	105	ePn	Pn	03 17 27.4	+0.9
HNAT	Natroun	6.57	160	P	Pn	03 17 27.0	+0.4
OFRI	‘Ofer	6.60	117	Pn	Pn	03 17 26.3	-0.8
OFRI	‘Ofer	6.60	117	Pn	Pn	03 17 26.3	-0.7
FYM	Al Fayyum	6.64	157	P	Pn	03 17 28.3	+0.7
FYM				S	Sn	03 18 37.5	-4.3
KZN	Kozani	6.64	314	eP	Pn	03 17 30.4	+2.8
AYT	Al ‘Ayyat	6.67	156	P	Pn	03 17 27.9	0.0
HWQ	Hawqa	6.68	101	ePn	Pn	03 17 28.8	+0.7
MMA0	Mount Meron ar	6.72	113	Pn	Pn	03 17 27.4	-1.2
MMA0	Mount Meron ar	6.72	113	Pn	Pn	03 17 27.4	-1.2
MMAI	Mount Meron Ar	6.72	113	P	Pn	03 17 27.6	-1.1
	21nm,0.3s,baz=311,slow=12,SNR=74						
MMAI				S	Sn	03 18 40.0	-3.7
	94nm,0.3s,baz=302,slow=26,SNR=21						
AMAG	Maghara	6.76	139	P	Pn	03 17 28.0	-1.2
RCY	Rachaya	6.84	108	ePn	Pn	03 17 30.1	-0.2
RCY	Rachaya	6.84	108	ePn	Pn	03 17 30.1	-0.2
SLTI	Sal’it	6.84	120	Pn	Pn	03 17 29.4	-1.0
SLTI				Sn	Sn	03 18 41.5	-5.2
SLTI	Sal’it	6.84	120	Pn	Pn	03 17 29.4	-0.9
SLTI				Sn	Sn	03 18 41.5	-5.2
HSAF	As Saff	6.88	153	⇑P	Pn	03 17 31.4	+0.4
VAY	Valandovo	6.94	324	i Pn	Pn	03 17 33.6	+2.0
VAY	Valandovo	6.94	324	i Pn	Pn	03 17 33.5	+1.9
GLL	Jalalah	6.98	153	P	Pn	03 17 31.9	-0.3
TOS	Tosya	7.00	40	ePN	Pn	03 17 32.9	+0.5
TOS	Tosya	7.00	40	ePn	Pn	03 17 32.9	+0.5
MMLI	Mount Malkishu	7.01	117	Pn	Pn	03 17 32.2	-0.4
MMLI	Mount Malkishu	7.01	117	Pn	Pn	03 17 32.2	-0.4
HMDT	Nahal Hemdat	7.18	118	Pn	Pn	03 17 34.6	-0.4
HMDT	Nahal Hemdat	7.18	118	Pn	Pn	03 17 34.6	-0.4
SUZ		7.22	145	P	Pn	03 17 35.4	-0.1
KZIT	Kziot	7.26	131	Pn	Pn	03 17 35.5	-0.5
KZIT				Sn	Sn	03 18 51.3	-5.5
KZIT	Kziot	7.26	131	Pn	Pn	03 17 35.5	-0.5
KZIT				Sn	Sn	03 18 51.3	-5.6
BIA	Bitola	7.37	317	ePn	Pn	03 17 42.2	+4.7
HBNS	Bani Suwayf	7.38	158	P	Pn	03 17 37.9	+0.1
STIP	Stip	7.41	324	i Pn	Pn	03 17 39.8	+1.8
STIP	Stip	7.41	324	i Pn	Pn	03 17 39.7	+1.7
YTIR	Yattir	7.41	125	Pn	Pn	03 17 37.9	-0.2
YTIR	Yattir	7.41	125	Pn	Pn	03 17 37.9	-0.2
MASH	Mash‘abbe Sade	7.44	129	Pn	Pn	03 17 37.8	-0.6
MASH	Mash‘abbe Sade	7.44	129	Pn	Pn	03 17 37.8	-0.7
DRGI	Dragot	7.46	123	Pn	Pn	03 17 38.6	-0.2
DRGI	Dragot	7.46	123	Pn	Pn	03 17 38.6	-0.2
DSI	Dead Sea	7.46	123	Pn	Pn	03 17 38.6	-0.2
DSI	Dead Sea	7.46	123	Pn	Pn	03 17 38.6	-0.2
SRN	Sarande	7.52	305	i PN	Pn	03 17 41.1	+1.6
SRN	Sarande	7.52	305	i Pn	Pn	03 17 41.1	+1.6
KEK	Kerkira	7.57	303	Pn	Pn	03 17 41.2	+1.0
	89nm,0.5s						
KEK	Kerkira	7.57	303	eP	Pn	03 17 41.4	+1.2
ZAF		7.58	148	P	Pn	03 17 39.7	-0.6
MZDA	Masada	7.61	124	Pn	Pn	03 17 40.4	-0.5
MZDA				Sn	Sn	03 19 00.5	-5.0
MZDA	Masada	7.61	124	Pn	Pn	03 17 40.4	-0.4
MZDA				Sn	Sn	03 19 00.5	-5.0
ZNM		7.64	146	P	Pn	03 17 41.5	+0.3
KRUS	Krusevo	7.65	318	i Pn	Pn	03 17 45.4	+4.1
BZK	Bozkurt	7.68	36	ePN	Pn	03 17 41.3	-0.4
BZK	Bozkurt	7.68	36	ePn	Pn	03 17 41.3	-0.4
RMNI	Mount Ramon	7.70	131	Pn	Pn	03 17 41.6	-0.4
RMNI	Mount Ramon	7.70	131	Pn	Pn	03 17 41.6	-0.4
VTS	Vitosha	7.70	332	P	Pn	03 17 44.5	+2.5
VTS	Vitosha	7.70	332	⇓iP	Pn	03 17 44.1	+2.1
TPE	Tepelena	7.72	308	i PN	Pn	03 17 43.4	+1.1
TPE	Tepelena	7.72	308	i Pn	Pn	03 17 43.4	+1.1
OHR	Ohrid	7.73	315	i Pn	Pn	03 17 46.5	+4.2
HNKL	Nakhl	7.74	138	⇑P	Pn	03 17 41.8	-0.8
HNKL				S	Sn	03 19 01.6	-7.0
SKO	Skopje	7.98	322	ePn	Pn	03 17 49.5	+3.6
SKO	Skopje	7.98	322	ePn	Pn	03 17 49.5	+3.6
ZFRI	Zfri	7.98	129	Pn	Pn	03 17 45.8	-0.1
ZFRI	Zfri	7.98	129	Pn	Pn	03 17 45.8	-0.1
KRMI	Paran Flat	8.02	134	Pn	Pn	03 17 46.0	-0.4
KRMI	Paran Flat	8.02	134	Pn	Pn	03 17 46.0	-0.4
PRNI	Paran	8.02	131	Pn	Pn	03 17 45.7	-0.7
PRNI	Paran	8.02	131	Pn	Pn	03 17 45.7	-0.7
LJBD	Adjabya	8.19	235	i P	Pn	03 17 48.1	-0.6
	281nm,0.4s,SNR=22						
ASF	Jabal al Asfar	8.23	114	P	Pn	03 17 49.0	-0.2
	1.6nm,0.3s,baz=160,slow=6.0,SNR=18						
ASF				S	Sn	03 19 18.9	-1.7
	4.4nm,0.3s,baz=254,slow=23,SNR=4.2						
HRFI	Mount Harif	8.26	133	Pn	Pn	03 17 49.2	-0.5
HRFI				Sn	Sn	03 19 15.8	-5.7
HRFI	Mount Harif	8.26	133	Pn	Pn	03 17 49.2	-0.5
HRFI				Sn	Sn	03 19 15.8	-5.6
PHP	Peshkopia	8.31	317	i PN	Pn	03 17 54.6	+4.3
TIR	Tirane	8.42	313	i PN	Pn	03 17 55.3	+3.4
TIR	Tirane	8.42	313	Pn	Pn	03 17 55.3	+3.4
	94nm,0.5s						
BARS	Barje	8.46	327	Pn	Pn	03 17 55.4	+3.1
EIL	Elat	8.48	135	P	Pn	03 17 51.8	-0.9
	22nm,0.3s,baz=315,slow=6.0,SNR=193						
EIL				S	Sn	03 19 20.9	-5.9
	50nm,0.3s,baz=5.6,slow=10,SNR=11						
EIL				LR	LR	03 23 26.3	
	comp=Z,42nm,18.4s,baz=72,slow=52						
EIL	Elat	8.48	135	Pn	Pn	03 17 52.2	-0.5
EIL	Elat	8.48	135	Pn	Pn	03 17 52.2	-0.5
AQBJ	Aqaba	8.49	134	Pn	Pn	03 17 52.6	-0.3
GRB	Gharib	8.56	151	P	Pn	03 17 53.5	-0.4
TIRR	Tirgusor	8.61	2	P	Pn	03 17 54.5	+0.1
TIRR	Tirgusor	8.61	2	⇑iP	Pn	03 17 54.6	+0.2
TIRR	Tirgusor	8.61	2	P	Pn	03 17 54.5	+0.1
SCTE	Santa Cesarea	8.65	302	Pn	Pn	03 17 54.6	-0.3
	80nm,0.3s						
MALT	Malatya	8.67	70	ePn	Pn	03 17 55.7	+0.5
	7.5nm,0.9s						
MALT	Malatya	8.67	70	eP	Pn	03 17 55.7	+0.4
MALT				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MALT	Malatya	8.67	70	ePn	Pn	03 17 55.7	+0.4
	comp=Z,7.5nm,0.9s						
HFRF	Wahat Farafira	8.67	178	P	Pn	03 17 55.5	+0.1
HQLS		8.82	136	P	Pn	03 17 55.8	-1.6
HQLS		8.82	136	S	Sn	03 19 23.3	-12
HKAT	Jabal Katrina	8.88	144	P	Pn	03 17 57.7	-0.5
ASUT		8.95	159	P	Pn	03 17 59.1	0.0
LCI	Lecce	9.01	303	Pn	Pn	03 17 59.8	0.0
	comp=Z,24nm,0.2s						
LCI	Lecce	9.01	303	P	Pn	03 17 59.8	0.0
LCI				pmax	pmax		
	comp=Z,24nm,0.2s						
LCI	Lecce	9.01	303	Pn	Pn	03 17 59.8	0.0
	comp=Z,24nm,0.2s						
HDHB	Dhahab	9.03	140	P	Pn	03 18 00.1	-0.1
TR1		9.29	146	P	Pn	03 18 03.6	-0.2
RSHS		9.46	141	P	Pn	03 18 04.4	-1.7
JLOS		9.49	136	P	Pn	03 18 04.5	-2.0
TIP	Timpagrande	9.55	294	ePn	Pn	03 18 05.3	-1.9
TIP				eSn	Sn	03 19 42.7	-10
TIP	Timpagrande	9.55	294	ePn	Pn	03 18 05.3	-1.9
SERS	Sersale	9.56	293	Pn	Pn	03 18 05.7	-1.7
	comp=Z,46nm,0.6s						
PLAC	Placanica	9.61	289	Pn	Pn	03 18 06.4	-1.6
	comp=Z,14nm,0.5s						
PE1	Pezze di Greco	9.69	304	ePn	Pn	03 18 08.2	-0.9
GRI	Girifalco	9.71	291	Pn	Pn	03 18 08.3	-1.1
	comp=Z,42nm,0.4s						
GRI	Girifalco	9.71	291	P	Pn	03 18 08.3	-1.1
GRI				pmax	pmax		
	comp=Z,42nm,0.4s						
GRI	Girifalco	9.71	291	Pn	Pn	03 18 08.3	-1.1
	comp=Z,42nm,0.4s						
MLR	Muntele Rosu	9.76	351	P	Pn	03 18 11.5	+1.4
MLR	Muntele Rosu	9.76	351	P	Pn	03 18 09.9	-0.2
	comp=Z,1.0nm,0.3s,baz=177,slow=4.7,SNR=100						
MLR				LR	LR	03 22 05.8	
	comp=Z,105nm,19.8s,baz=7.1,slow=39						
MLR	Muntele Rosu	9.76	351	⇓iP	Pn	03 18 11.3	+1.2
GRUS	Gruza	9.80	327	Pn	Pn	03 18 12.1	+1.5
HHRG	Al Ghardaqah	9.81	150	P	Pn	03 18 10.6	-0.3
SOI	Samo	9.83	287	Pn	Pn	03 18 09.8	-1.3
	comp=Z,29nm,0.5s						
SOI	Samo	9.83	287	P	Pn	03 18 09.8	-1.3
SOI				pmax	pmax		
	comp=Z,29nm,0.5s						
SOI	Samo	9.83	287	Pn	Pn	03 18 09.8	-1.3
	comp=Z,29nm,0.5s						
VOIR		9.84	348	P	Pn	03 18 11.8	+0.6
VOIR		9.84	348	⇓P	Pn	03 18 12.0	+0.8
VOIR		9.84	348	⇓iP	Pn	03 18 11.9	+0.7
VOIR		9.84	348	P	Pn	03 18 11.8	+0.6
MPAZ	Palizzi	9.85	286	Pn	Pn	03 18 09.8	-1.6
	comp=Z,89nm,0.3s						
NOCI	Noci	9.92	303	Pn	Pn	03 18 11.4	-0.9
	comp=Z,138nm,0.3s						
CARO	Carolei	9.97	293	Pn	Pn	03 18 12.5	-0.5
	comp=Z,68nm,0.5s						
PLOR	Plostina	10.05	354	P	Pn	03 18 15.9	+1.9
VRI	Vrincioaia	10.06	355	P	Pn	03 18 14.8	+0.7
VRI	Vrincioaia	10.06	355	⇑iP	Pn	03 18 15.1	+1.0

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VRI   Vrincioaia        10.06 355  P      Pn     03 18 14.8 +0.7
ORI   Oriolo Calabro    10.06 298  Pn     Pn     03 18 13.3  -0.9
      comp=Z,136nm,0.5s
ORI   Oriolo Calabro    10.06 298  P      Pn     03 18 13.3  -0.9
ORI                                pmax   pmax
      comp=Z,136nm,0.5s
ORI   Oriolo Calabro    10.06 298  Pn     Pn     03 18 13.3  -0.9
      comp=Z,136nm,0.5s
JOPP  Joppolo           10.06 289  Pn     Pn     03 18 12.4  -1.9
      comp=Z,56nm,1.0s
MTTG  Motta San Giov    10.11 286  Pn     Pn     03 18 13.6  -1.2
      comp=Z,9.6nm,0.4s
MTTG  Motta San Giov    10.11 286  Pn     Pn     03 18 13.6  -1.2
      comp=Z,9.6nm,0.4s
CRAC  Craco             10.18 300  Pn     Pn     03 18 14.9  -1.0
      comp=Z,366nm,2.4s
BAI   Bari              10.19 304  ePn    Pn     03 18 15.5  -0.5
SIM   Simferopol'       10.21  25deP    Pn     03 18 16.7 +0.5
SIM                                pmax   pmax
      comp=Z,60nm,0.8s
SIM                                MLR    MLR
      comp=Z,66nm,16.0s
SIM   Simferopol'       10.21  25  eP     Pn     03 18 16.7 +0.5
      comp=Z,66nm,16.0s
SG1   Sgolgore (BA)     10.21 303  ePn    Pn     03 18 14.8  -1.4
MIGL  Miglionico        10.28 301  Pn     Pn     03 18 15.6  -1.5
      comp=Z,364nm,1.9s
DIVS  Divcibare         10.29 326  Pn     Pn     03 18 19.4 +2.1
AMUR  Altamura          10.29 303  Pn     Pn     03 18 16.2  -1.1
      comp=Z,16nm,0.9s
GZR   Gura Zlata        10.34 339  P      Pn     03 18 18.2 +0.3
GZR   Gura Zlata        10.34 339 ⇑P      Pn     03 18 18.1 +0.2
GZR   Gura Zlata        10.34 339⇑iP      Pn     03 18 18.0 +0.1
GZR   Gura Zlata        10.34 339  P      Pn     03 18 18.2 +0.3
SCHR  S. Chirico Rap    10.38 298  Pn     Pn     03 18 18.1  -0.4
      comp=Z,27nm,0.7s
AGST  Augusta-Monte     10.39 282  Pn     Pn     03 18 16.7  -2.0
      comp=Z,29nm,0.8s
AGST  Augusta-Monte     10.39 282  Pn     Pn     03 18 16.7  -2.0
      comp=Z,29nm,0.8s
HAVL  Avola             10.46 280  Pn     Pn     03 18 17.3  -2.3
      comp=Z,132nm,0.2s
SIRI  Monte Sirino -    10.52 298  Pn     Pn     03 18 19.5  -1.0
      comp=Z,126nm,2.7s
HSFG                    10.54 150  P      Pn     03 18 20.7  -0.1
CDT   Castel del Mon    10.59 303  ePn    Pn     03 18 20.1  -1.3
PZI   Palazzolo         10.60 280  Pn     Pn     03 18 19.5  -2.1
      comp=Z,1.8nm,0.1s
PZI   Palazzolo         10.60 280  P      Pn     03 18 19.5  -2.1
PZI                                pmax   pmax
      comp=Z,2.0nm,0.1s
MCEL  Monticello        10.62 299  Pn     Pn     03 18 21.0  -0.8
      comp=Z,56nm,0.5s
STON  Ston              10.63 314  ePn    Pn     03 18 21.2  -0.7
STON                               Sn     Sn     03 20 13.8  -5.3
MTSN  Montesano sull    10.63 298  Pn     Pn     03 18 21.1  -0.9
      comp=Z,79nm,0.4s
MGR   Morigerati        10.73 297  Pn     Pn     03 18 21.7  -1.6
      comp=Z,96nm,0.4s
MGR   Morigerati        10.73 297  Pn     Pn     03 18 21.7  -1.6
      comp=Z,96nm,0.4s
HMDC  Modica            10.73 280  Pn     Pn     03 18 21.2  -2.2
      comp=Z,99nm,0.1s
HMDC  Modica            10.73 280  Pn     Pn     03 18 21.2  -2.2
      comp=Z,99nm,0.1s
PALZ  Palazzo San Ge    10.75 302  Pn     Pn     03 18 22.4  -1.1
      comp=Z,320nm,1.8s
HVZN  Vizzini           10.80 281  Pn     Pn     03 18 22.8  -1.4
      comp=Z,159nm,0.4s
HVZN  Vizzini           10.80 281  Pn     Pn     03 18 22.8  -1.4
      comp=Z,159nm,0.4s
BULG  Bulgheria - Ca    10.84 297  Pn     Pn     03 18 23.2  -1.6
      comp=Z,490nm,3.8s
BZS   Buzias            10.90 336 ⇓P      Pn     03 18 25.4  -0.2
BZS   Buzias            10.90 336⇓iP      Pn     03 18 25.4  -0.2
GALF  Gagliano Caste    10.96 284  Pn     Pn     03 18 25.5  -0.9
CMPR  Campora           10.97 298  Pn     Pn     03 18 25.0  -1.6
      comp=Z,28nm,0.5s
MRLC  Muro Lucano       11.00 300  Pn     Pn     03 18 26.0  -1.0
      comp=Z,42nm,1.1s
MRLC  Muro Lucano       11.00 300  Pn     Pn     03 18 26.0  -1.0
      comp=Z,42nm,1.1s
CDRU  Civita di Ruta    11.03 299  Pn     Pn     03 18 26.3  -1.1
SGO   Sicignano         11.06 299  Pn     Pn     03 18 26.8  -0.9
      comp=Z,3.7nm,0.3s
SGO   Sicignano         11.06 299  P      Pn     03 18 26.8  -0.9
SGO                                pmax   pmax
      comp=Z,4.0nm,0.3s
SGO   Sicignano         11.06 299  Pn     Pn     03 18 26.8  -0.9
      comp=Z,3.7nm,0.3s
VAE   Valguarnera       11.06 282  P      Pn     03 18 27.8   0.0
      comp=Z,2.2nm,0.3s,baz=286,slow=22,SNR=17
VAE                                S      Sn     03 20 20.4  -9.1
      comp=Z,2.7nm,0.3s,baz=245,slow=19,SNR=4.9
RAFF  Raffo Rosso       11.08 281  Pn     Pn     03 18 26.7  -1.4
      comp=Z,78nm,1.8s
RAFF  Raffo Rosso       11.08 281  Pn     Pn     03 18 26.7  -1.4
      comp=Z,78nm,1.8s
FGMS  Monte Sant'Ang    11.09 305  Pn     Pn     03 18 26.5  -1.7
      comp=Z,23nm,0.9s
FGMS  Monte Sant'Ang    11.09 305  Pn     Pn     03 18 26.5  -1.7
      comp=Z,23nm,0.9s
MSAG  Monte S. Angel    11.12 305  Pn     Pn     03 18 26.8  -1.8
      comp=Z,79nm,0.2s
FG4   Candela           11.13 302  Pn     Pn     03 18 28.1  -0.6
      comp=Z,7.5nm,0.3s
FG4   Candela           11.13 302  P      Pn     03 18 28.1  -0.6
FG4                                pmax   pmax
      comp=Z,8.0nm,0.3s
FG4   Candela           11.13 302  Pn     Pn     03 18 28.1  -0.6
      comp=Z,7.5nm,0.3s
KIS   Kishinev          11.16   3  eP     Pn     03 18 29.0  -0.1
MCRV  Calabrutti - M    11.23 300  Pn     Pn     03 18 28.9  -1.3
      comp=Z,25nm,1.4s
SGRT  San Giovanni R    11.25 305  Pn     Pn     03 18 28.8  -1.6
      comp=Z,29nm,0.2s
CAFE  Carife            11.28 301  Pn     Pn     03 18 29.9  -0.9
      comp=Z,123nm,2.3s
RGNG  Rignano Grg       11.32 305  Pn     Pn     03 18 29.8  -1.5
RGNG  Rignano Grg       11.32 305  Pn     Pn     03 18 29.8  -1.5
FG5   Orsara di Pugl    11.36 302  Pn     Pn     03 18 31.6  -0.3
FG5   Orsara di Pugl    11.36 302  Pn     Pn     03 18 31.6  -0.3
WJHS                    11.56 139  P      Pn     03 18 34.0  -0.7
DRGR                    11.64 342 ⇑P      Pn     03 18 36.3 +0.6
DRGR                    11.64 342⇑iP      Pn     03 18 36.3 +0.7
HADB                    11.90 150  P      Pn     03 18 38.7  -0.7
PTRJ  Pietraroja        11.90 302  Pn     Pn     03 18 39.0  -0.3
      comp=Z,29nm,0.7s
BURAR Bucovina Array    11.95 351⇑iP      Pn     03 18 41.0 +1.2
SGG   Gregorio Mates    12.02 302  Pn     Pn     03 18 42.0 +1.2
      comp=Z,26nm,0.5s
SGG   Gregorio Mates    12.02 302  Pn     Pn     03 18 42.0 +1.2
      comp=Z,26nm,0.5s
LKFR  Kufra             12.37 201  i P    Pn     03 18 45.6  -0.1
      SNR=22
PKSM  Moragy            12.54 329 ⇓P      Pn     03 18 48.1 +0.2
PKSM  Moragy            12.54 329⇓iP      Pn     03 18 48.1 +0.2
AQU   L'Aquila          13.08 304  ePn    Pn     03 18 52.5  -2.6
      comp=Z,14nm,0.7s
AQU   L'Aquila          13.08 304  eP     Pn     03 18 52.5  -2.6
AQU                                pmax   pmax
      comp=Z,14nm,0.7s
NVLJ  Novalja           13.29 315  ePn    Pn     03 18 57.4  -0.5
NVLJ                               Sn     Sn     03 21 17.7  -6.0
PSZ   Piszkesteto       13.49 336  ePn    Pn     03 19 07.0 +6.5
      comp=Z,12nm,0.8s
PSZ   Piszkesteto       13.49 336  eP     Pn     03 19 07.0 +6.5
PSZ                                pmax   pmax
      comp=Z,12nm,0.8s
PSZ   Piszkesteto       13.49 336⇓iP      Pn     03 19 07.6 +7.1
BOJS  Bojanci           13.66 319  i Pn   Pn     03 19 03.1 +0.4
BOJS  Bojanci           13.66 319  i Pn   Pn     03 19 03.1 +0.4
KOLS  Kolonicke sedl    13.75 344  ePn    Pn     03 19 04.5 +0.7
KOLS  Kolonicke sedl    13.75 344  ePN    Pn     03 19 04.5 +0.7
CRES  Cresnjev          13.76 320  ePn    Pn     03 19 04.9 +0.8
CRES  Cresnjev          13.76 320  ePn    Pn     03 19 04.9 +0.8
CRES  Cresnjev          13.76 320  ePn    Pn     03 19 04.9 +0.8
KECS  Kecovo            13.80 339  eP     Pn     03 19 09.1 +4.5
KIV   Kislovodsk        13.85  50  ePn    Pn     03 19 13.2 +7.9
      comp=Z,36nm,1.1s
KIV   Kislovodsk        13.85  50diP    Pn     03 19 12.9 +7.6
CRVS  Cervenica-Dubn    13.91 342  ePn    Pn     03 19 07.1 +1.1
CRVS  Cervenica-Dubn    13.91 342  ePN    Pn     03 19 07.1 +1.1
VISS  Visnje            14.07 319  i Pn   Pn     03 19 08.6 +0.4
VISS  Visnje            14.07 319  i Pn   Pn     03 19 08.6 +0.4
ZEI   Tsey              14.09  56  eP     Pn     03 19 09.9 +1.5
VYHS  Vyhne             14.34 335  eP     Pn     03 19 16.6 +5.0
STHS  Stebnicka Huta    14.44 342  eP     Pn     03 19 15.3 +2.4
NIE   Niedzica          14.69 340  eP     Pn     03 19 17.0 +0.8
ARSA  Arzberg           14.72 325⇑eP      Pn     03 19 20.8 +4.2
      comp=Z,2.3nm,0.5s
VOY   Vojsko            14.73 318  ePn    Pn     03 19 16.7   0.0
VOY   Vojsko            14.73 318  ePn    Pn     03 19 16.7   0.0
VOY                                e             03 19 29.2
KIEV  Kiev              14.87   3  ePn    Pn     03 19 16.6  -1.9
      comp=Z,20nm,0.5s
KIEV                               eP            03 19 22.1
KIEV  Kiev              14.87   3  eP     Pn     03 19 16.6  -1.8
KIEV                               pmax   pmax
      comp=Z,20nm,0.5s
KIEV  Kiev              14.87   3  eP     Pn     03 19 16.6  -1.8
      comp=Z,20nm,0.5s
AKASG Malin Array Be    14.88   3  P      Pn     03 19 18.2  -0.3
      comp=Z,10nm,0.3s,baz=186,slow=10,SNR=25
AKASG                              ScP    ScP    03 27 49.8  -0.3
      comp=Z,0.2nm,0.3s,baz=205,slow=1.5,SNR=6.4
AKBB  Malin Array Si    14.88   3  ePn    Pn     03 19 17.4  -1.1
AKBB                               eP            03 19 22.2
AKBB  Malin Array Si    14.88   3  eP     Pn     03 19 17.4  -1.1
LUMB  Murzuk            14.92 233  i P    Pn     03 19 19.0  -0.3
      SNR=45
CONA  Conrad Observa    15.07 327⇑iPn     Pn     03 19 20.4  -0.6
      comp=Z,4.5nm,1.1s
CONA  Conrad Observa    15.07 327  Pn     Pn     03 19 20.4  -0.6
      comp=Z,4.5nm,1.1s
KEST  Kesra             15.16 275  P      Pn     03 19 22.6 +0.3
      comp=Z,0.1nm,0.3s,baz=29,slow=8.7,SNR=6.5
KEST                               S      S      03 22 02.6   -19
      comp=Z,0.1nm,0.3s,baz=300,slow=15,SNR=4.9
OJC   Ojcow             15.56 340  eP     Pn     03 19 28.3 +1.1
KBA   Koelnbreinsper    15.69 320⇑iP      Pn     03 19 32.6 +3.8
      comp=Z,4.9nm,0.5s
KBA   Koelnbreinsper    15.69 320⇑iP      Pn     03 19 32.6 +3.7
KBA                                pmax   pmax
      comp=Z,5.0nm,0.5s
MOA   Molln             15.75 324⇑iP      Pn     03 19 32.8 +3.2
      comp=Z,6.4nm,1.3s
VRAC  Vranov            15.85 332  P      Pn     03 19 30.8  -0.1
      comp=Z,0.4nm,0.3s,baz=132,slow=9.4,SNR=7.9
VRAC                               LR     LR     03 25 28.0
      comp=Z,128nm,18.8s,baz=347,slow=37
MORC  Moravsky Berou    15.88 334  ePn    Pn     03 19 29.7  -1.6
MORC  Moravsky Berou    15.88 334⇑iP      Pn     03 19 32.3 +1.0
ABTA  Abfaltersbach     15.92 318⇑iPn     Pn     03 19 31.2  -0.6
      comp=Z,4.9nm,0.7s
ABTA  Abfaltersbach     15.92 318  Pn     Pn     03 19 31.2  -0.6
      comp=Z,4.9nm,0.7s
PGF   Pioggiola         16.18 300  eP     Pn     03 19 32.3  -2.8
      comp=Z,39nm,0.9s
PGF   Pioggiola         16.18 300  eP     Pn     03 19 32.3  -2.8
      comp=Z,19nm,0.9s
PGF   Pioggiola         16.18 300  eP     Pn     03 19 32.3  -2.8
PGF                                pmax   pmax
      comp=Z,19nm,0.9s
TREC  Trest             16.28 330  epP    pP     03 19 57.1 +3.7
LGHD  Ghdames           16.64 255  i P    Pn     03 19 39.6  -1.3
      SNR=43
WTTA  Wattenberg        16.71 318⇑iP      Pn     03 19 43.8 +2.2
      comp=Z,14nm,1.1s
WTTA  Wattenberg        16.71 318⇑iP      Pn     03 19 43.8 +2.2
WTTA                               pmax   pmax
      comp=Z,15nm,1.1s
GERES GERESS Array B    16.72 325  P      Pn     03 19 41.0  -0.8
      comp=Z,0.6nm,0.3s,baz=139,slow=12,SNR=18
GERES                              PcP    PcP    03 24 27.2 +1.2
      comp=Z,0.1nm,0.3s,baz=160,slow=3.1,SNR=4.1
GERES                              LR     LR     03 25 20.7
      comp=Z,75nm,20.7s,baz=60,slow=34
GERES                              ScP    ScP    03 27 53.9 +0.3
      comp=Z,0.2nm,0.3s,baz=151,slow=3.0,SNR=6.9
DPC   Dobruska-Polom    16.80 333  eP     Pn     03 19 43.7 +1.0
SQTA  Sankt Quirin      16.92 317⇑iP      Pn     03 19 47.3 +3.1
      comp=Z,7.9nm,0.5s
SQTA  Sankt Quirin      16.92 317⇑iP      Pn     03 19 47.3 +3.1
SQTA                               pmax   pmax
      comp=Z,8.0nm,0.5s
KHC   Kasperske Hory    16.98 326  eP     Pn     03 19 45.7 +0.7
KHC                                epP    pP     03 19 56.0  -5.3
UPC   Upice             17.04 333  eP     Pn     03 19 46.5 +0.9
MOTA  Moosalm           17.05 318⇑iP      Pn     03 19 47.2 +1.4
      comp=Z,5.8nm,0.8s
MOTA  Moosalm           17.05 318⇑iP      Pn     03 19 47.2 +1.4
MOTA                               pmax   pmax
      comp=Z,6.0nm,0.8s
FETA  Feichten          17.07 316⇑iP      Pn     03 19 48.4 +2.3
      comp=Z,16nm,1.0s
VORD  Divnogorie        17.16  25  eP     Pn     03 19 48.1 +1.0
VORD                               pmax   pmax
      comp=N,30nm,0.9s
VORD                               pmax   pmax
      comp=Z,20nm,0.9s
VORD                               pmax   pmax
      comp=E,10.0nm,0.6s
PRU   Pruhonice         17.20 329  eP     Pn     03 19 47.7 +0.1
KSP   Ksiaz             17.21 334  eP     Pn     03 19 49.1 +1.3
KSP   Ksiaz             17.21 334  eP     Pn     03 19 48.9 +1.1
VRSR  Storozhevoye      17.33  24  eP     Pn     03 19 48.4  -0.8
VRSR                               pmax   pmax
      comp=Z,1.0nm,1.2s
VRSR                               pmax   pmax
      comp=N,1.0nm,1.0s
VRSR                               pmax   pmax
      comp=E,1.0nm,1.0s
VRSR  Storozhevoye      17.33  24  eP     Pn     03 19 48.4  -0.8
      comp=E,1.0nm,1.2s
DAVOX Davos/Dischmat    17.43 314  P      Pn     03 19 52.4 +2.0
      comp=E,0.4nm,0.3s,baz=146,slow=18,SNR=5.3
PVCC  Panska Ves        17.61 331  eP     Pn     03 19 52.6   0.0
SBF   Sospel            17.69 303  eP     Pn     03 19 48.6  -5.1
      comp=E,48nm,0.7s
SBF   Sospel            17.69 303  eP     Pn     03 19 48.6  -5.1
      comp=E,24nm,0.7s
SBF   Sospel            17.69 303  eP     Pn     03 19 48.6  -5.1
SBF                                pmax   pmax
      comp=Z,24nm,0.7s
DAVA  Damuels           17.70 316⇑iP      Pn     03 19 55.1 +1.3
      comp=Z,4.5nm,0.5s
DAVA  Damuels           17.70 316⇑iPn     Pn     03 19 55.1 +1.3
      comp=Z,4.5nm,0.5s
VRHR  Novokhopersk      18.11  28  eP     Pn     03 19 58.9 +0.2
VRHR                               pmax   pmax
      comp=Z,20nm,0.6s
VRHR                               pmax   pmax
      comp=N,10.0nm,0.7s
VRHR                               pmax   pmax
      comp=E,6.0nm,0.8s
VRHR  Novokhopersk      18.11  28  eP     Pn     03 19 58.9 +0.2
      comp=E,10.0nm,0.7s
BRG   Berggiesshubel    18.13 330  eP     Pn     03 19 59.1 +0.2
      comp=E,3.0nm,0.7s
BRG                                i             03 20 17.7
      comp=E,12nm,1.0s
FRF   La Foret Royal    18.13 302  eP     Pn     03 19 58.0  -1.0
LMR   La Mourre         18.16 301  eP     Pn     03 19 59.1  -0.3
MBDF  Montbardon        18.44 305  eP     Pn     03 20 01.4  -1.3
      comp=E,21nm,0.7s
MBDF  Montbardon        18.44 305  eP     Pn     03 20 01.4  -1.3
MBDF                               pmax   pmax
      comp=Z,11nm,0.7s
MBDF  Montbardon        18.44 305  eP     Pn     03 20 01.4  -1.3
      comp=Z,11nm,0.7s
SUW   Suwalki           18.48 351  eP     Pn     03 20 01.3  -1.8
SUW                                e             03 20 03.1
SUW   Suwalki           18.48 351  eP     Pn     03 20 01.3  -1.8
SUW                                e             03 20 03.1
BNI   Bardonecchia      18.62 306  eP     Pn     03 20 06.7 +1.8
      comp=Z,5.4nm,0.6s
BNI   Bardonecchia      18.62 306  eP     Pn     03 20 06.7 +1.8
BNI                                pmax   pmax
      comp=Z,5.0nm,0.6s
BNI   Bardonecchia      18.62 306  eP     Pn     03 20 06.7 +1.8
      comp=Z,5.4nm,0.6s
MNK   Minsk             18.66 360  eP     Pn     03 20 02.0  -3.2
LPG   La Plagne         18.75 307  eP     Pn     03 20 05.9  -0.5
      comp=Z,14nm,0.6s
LPG   La Plagne         18.75 307  eP     Pn     03 20 05.9  -0.5
LPG                                pmax   pmax
      comp=Z,7.0nm,0.6s
LPG   La Plagne         18.75 307  eP     Pn     03 20 05.9  -0.5
      comp=Z,7.2nm,0.6s
LPL   La Plagne         18.77 307  eP     Pn     03 20 05.7  -0.9
      comp=Z,18nm,0.7s
LPL   La Plagne         18.77 307  eP     Pn     03 20 05.7  -0.9
LPL                                pmax   pmax
      comp=Z,9.0nm,0.7s
LPL   La Plagne         18.77 307  eP     Pn     03 20 05.7  -0.9
      comp=Z,9.2nm,0.7s
CLL   Collm             18.84 330⇑iP      Pn     03 20 06.6  -0.9
CLL                                i             03 20 08.5
CLL                                i             03 20 24.6
CLL   Collm             18.84 330⇑iP      Pn     03 20 06.6  -0.9
CLL                               ⇑ix     x      03 20 08.5
      comp=Z,20nm,1.4s
CLL                                i (PP)        03 20 24.6
MOX   Moxa              18.95 326  eP     Pn     03 20 10.0 +1.2
      comp=Z,27nm,1.5s
MOX                                e             03 20 29.2
MOX   Moxa              18.95 326  eP     Pn     03 20 10.0 +1.2
MOX                                pmax   pmax
      comp=Z,27nm,1.5s
GKP   Gorka Klasztor    19.00 340  eP     Pn     03 20 07.1  -2.2
GKP                                e             03 20 08.5
GKP   Gorka Klasztor    19.00 340  eP     Pn     03 20 07.1  -2.2
GKP                                e             03 20 08.5
ORIF  Oris-en-Rattie    19.10 305  eP     Pn     03 20 09.1  -1.5
      comp=Z,17nm,0.9s
ORIF  Oris-en-Rattie    19.10 305  eP     Pn     03 20 09.1  -1.5
ORIF                               pmax   pmax
      comp=Z,9.0nm,0.9s
ORIF  Oris-en-Rattie    19.10 305  eP     Pn     03 20 09.1  -1.5
      comp=Z,8.6nm,0.9s
CABF  La Chapelle       19.63 310  eP     Pn     03 20 13.4  -3.4
      comp=Z,20nm,0.6s
CABF  La Chapelle       19.63 310  eP     Pn     03 20 13.4  -3.4
CABF                               pmax   pmax
      comp=Z,10.0nm,0.6s
CABF  La Chapelle       19.63 310  eP     Pn     03 20 13.4  -3.4
      comp=Z,10nm,0.6s
HINF  Hinteralfeld      19.73 314  eP     Pn     03 20 14.9  -3.0
      comp=Z,3.5nm,0.5s
HINF  Hinteralfeld      19.73 314  eP     Pn     03 20 14.9  -3.0
HINF                               pmax   pmax
      comp=Z,2.0nm,0.5s
HINF  Hinteralfeld      19.73 314  eP     Pn     03 20 14.9  -3.0
      comp=Z,1.8nm,0.5s
CDF   Champ du Feu      19.79 316  eP     Pn     03 20 16.3  -2.3
      comp=Z,16nm,0.9s
CDF   Champ du Feu      19.79 316  eP     Pn     03 20 16.3  -2.3
CDF                                pmax   pmax
      comp=Z,8.0nm,0.9s
CDF   Champ du Feu      19.79 316  eP     Pn     03 20 16.3  -2.3
      comp=Z,8.1nm,0.9s
VIVF  Saint-Julien-l    19.89 304  eP     Pn     03 20 17.2  -2.6
      comp=Z,6.5nm,0.5s
VIVF  Saint-Julien-l    19.89 304  eP     Pn     03 20 17.2  -2.6
VIVF                               pmax   pmax
      comp=Z,3.0nm,0.5s
VIVF  Saint-Julien-l    19.89 304  eP     Pn     03 20 17.2  -2.6
      comp=Z,3.2nm,0.5s
HAU   Haudompre         20.11 314  eP     P      03 20 20.3 +0.4
      comp=Z,11nm,0.6s
HAU   Haudompre         20.11 314  eP     P      03 20 20.3 +0.4
HAU                                pmax   pmax
      comp=Z,6.0nm,0.6s
HAU   Haudompre         20.11 314  eP     P      03 20 20.3 +0.4
      comp=Z,5.7nm,0.6s
OBN   Obninsk           20.15  14deP    P      03 20 19.8  -0.4
OBN                                pmax   pmax
      comp=Z,57nm,1.1s
OBN   Obninsk           20.15  14  eP     P      03 20 19.8  -0.4
      comp=Z,47nm,0.9s
LASF  Ste Croix         20.22 301  eP     P      03 20 21.2 +0.1
MOS   Moscow            20.95  15  eP     P      03 20 26.1  -2.8
MOS                                pmax   pmax
      comp=Z,70nm,1.2s
MOS   Moscow            20.95  15  eP     P      03 20 26.1  -2.8
      comp=Z,70nm,1.2s
SMF   Signal de Mont    21.06 308  eP     P      03 20 29.6  -0.6
      comp=Z,14nm,0.6s,mb4.1
SMF   Signal de Mont    21.06 308  eP     P      03 20 29.6  -0.6
SMF                                pmax   pmax
      comp=Z,7.0nm,0.6s,mb4.2
SMF   Signal de Mont    21.06 308  eP     P      03 20 29.6  -0.6
      comp=Z,6.8nm,0.6s,mb4.2
BSD   Bornholm Skovb    21.28 339  i P    P      03 20 27.7  -4.7
BSD                                pmax   pmax
      comp=Z,6.0nm,0.4s,mb4.3
BSD   Bornholm Skovb    21.28 339  i P    P      03 20 27.7  -4.7
      comp=Z,6.3nm,0.4s,mb4.3
LOR   Lormes            21.29 310  eP     P      03 20 32.2  -0.4
AVF   Avril sur Loir    21.43 308  eP     P      03 20 33.7  -0.4
      comp=Z,15nm,0.9s,mb4.0
AVF   Avril sur Loir    21.43 308  eP     P      03 20 33.7  -0.4
AVF                                pmax   pmax
      comp=Z,7.0nm,0.9s,mb4.0
AVF   Avril sur Loir    21.43 308  eP     P      03 20 33.7  -0.4
      comp=Z,7.4nm,0.9s,mb4.0
SSF   Saint Saulge      21.43 309  eP     P      03 20 33.9  -0.2
      comp=Z,38nm,1.0s,mb4.4
SSF   Saint Saulge      21.43 309  eP     P      03 20 33.9  -0.2
SSF                                pmax   pmax
      comp=Z,19nm,1.0s,mb4.4
SSF   Saint Saulge      21.43 309  eP     P      03 20 33.9  -0.2
      comp=Z,19nm,1.0s,mb4.4
BGF   Bois d'Agland     21.67 307  eP     P      03 20 37.3 +0.7
      comp=Z,20nm,0.8s,mb4.2
BGF   Bois d'Agland     21.67 307  eP     P      03 20 37.3 +0.7
BGF                                pmax   pmax
      comp=Z,10.0nm,0.8s,mb4.2
BGF   Bois d'Agland     21.67 307  eP     P      03 20 37.3 +0.7
      comp=Z,9.9nm,0.8s,mb4.2
CAF   Calviac           21.68 303  eP     P      03 20 36.9 +0.1
EPOB  Poblet            21.72 293  P      P      03 20 37.0  -0.2
      comp=Z,2.3nm,0.5s,mb3.8
EPOB  Poblet            21.72 293  P      P      03 20 37.0  -0.3
      comp=Z,2.3nm,0.5s,mb3.8
EBIE  Bielsa            22.58 296  P      P      03 20 47.6 +1.3
      comp=Z,1.1nm,0.5s,mb3.4
EBIE  Bielsa            22.58 296  P      P      03 20 47.6 +1.3
      comp=Z,1.1nm,0.5s,mb3.4
LFF   La Frestale       22.59 302  eP     P      03 20 44.9  -1.5
VSU   Vasula            22.64 358  i P    P      03 20 45.8  -1.0
ECHE  Chera             23.19 288  P      P      03 20 54.5 +2.0
      comp=Z,4.8nm,0.8s,mb3.9
ECHE  Chera             23.19 288  P      P      03 20 54.5 +2.0
ECHE                               pmax   pmax
      comp=Z,5.0nm,0.8s,mb3.9
MFF   Saint Martin d    23.64 306  eP     P      03 20 55.1  -1.4
ETOR  Torete            24.05 291  P      P      03 21 00.8 +0.5
      comp=Z,4.1nm,0.4s,mb4.1
ETOR  Torete            24.05 291  P      P      03 21 00.8 +0.5
ETOR                               pmax   pmax
      comp=Z,4.0nm,0.4s,mb4.1
ETOR  Torete            24.05 291  P      P      03 21 00.8 +0.5
      comp=Z,4.1nm,0.4s,mb4.1
LDF   La Druitiere      24.27 310  eP     P      03 20 59.9  -2.4
ENIJ  Nijar             24.31 282  P      P      03 21 03.8 +1.1
      comp=Z,3.3nm,0.5s,mb3.9
ENIJ  Nijar             24.31 282  P      P      03 21 03.8 +1.0
ENIJ                               pmax   pmax
      comp=Z,3.0nm,0.5s,mb3.9
ENIJ  Nijar             24.31 282  P      P      03 21 03.8 +1.0
      comp=Z,3.3nm,0.5s,mb3.9
EVIA  Vianos            24.41 286  P      P      03 21 05.2 +1.5
      comp=Z,6.1nm,0.6s,mb4.1
EVIA  Vianos            24.41 286  P      P      03 21 05.2 +1.6
EVIA                               pmax   pmax
      comp=Z,6.0nm,0.6s,mb4.1
EVIA  Vianos            24.41 286  P      P      03 21 05.2 +1.6
      comp=Z,6.1nm,0.6s,mb4.1
FLN   La Foliniere      24.56 311  eP     P      03 21 03.5  -1.3
      comp=Z,14nm,0.5s,mb4.3
FLN   La Foliniere      24.56 311  eP     P      03 21 03.5  -1.3
FLN                                pmax   pmax
      comp=Z,7.0nm,0.5s,mb4.3
FLN   La Foliniere      24.56 311  eP     P      03 21 03.5  -1.3
      comp=Z,6.9nm,0.5s,mb4.3
GRR   Gorron            24.66 309  eP     P      03 21 04.2  -1.6
      comp=Z,47nm,0.9s,mb4.6
GRR   Gorron            24.66 309  eP     P      03 21 04.2  -1.6
GRR                                pmax   pmax
      comp=Z,24nm,0.9s,mb4.6
GRR   Gorron            24.66 309  eP     P      03 21 04.2  -1.6
      comp=Z,24nm,0.9s,mb4.6
EBER  Berja             24.86 282  P      P      03 21 09.9 +2.1
      comp=Z,4.4nm,0.5s,mb4.1
EQES  Quesada           24.91 284  P      P      03 21 09.2 +1.0
```

	comp=Z,2.9nm,0.5s,mb4.0						
EQES	Quesada	24.91	284	P	P	03 21 09.2	+1.0
	comp=Z,2.9nm,0.5s,mb4.0						
ECOG	Cogollos-Vega	25.36	283	P	P	03 21 12.4	+0.2
	comp=Z,0.8nm,0.3s,mb3.6						
ECOG	Cogollos-Vega	25.36	283	P	P	03 21 12.4	+0.1
ECOG				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.7						
ECOG	Cogollos-Vega	25.36	283	P	P	03 21 12.4	+0.1
	comp=Z,0.8nm,0.3s,mb3.6						
EBAN	Banos Encina	25.45	285	P	P	03 21 13.8	+0.8
	comp=Z,5.1nm,0.6s,mb4.1						
EBAN	Banos Encina	25.45	285	P	P	03 21 13.8	+0.8
EBAN				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.1						
EBAN	Banos Encina	25.45	285	P	P	03 21 13.8	+0.8
	comp=Z,5.1nm,0.6s,mb4.1						
ESDC	Sonseca Array	25.50	288	P	P	03 21 13.8	+0.3
	comp=Z,4.2nm,0.4s,mb4.2						
ESDC	Sonseca Array	25.50	288	P	P	03 21 13.8	+0.3
	comp=Z,5.7nm,0.5s,mb4.2,baz=82,slow=9.5,SNR=20						
ESDC	Sonseca Array	25.50	288	P	P	03 21 13.9	+0.4
	comp=Z,4.2nm,0.4s,mb4.2						
ESLA	Sonseca Array	25.50	288	*e*P	P	03 21 13.7	+0.2
	comp=Z,3.4nm,1.0s,mb3.7						
ESLA	Sonseca Array	25.50	288	*e*P	P	03 21 13.7	+0.2
	comp=Z,3.4nm,1.0s,mb3.7						
GUD	Guadarrama	25.64	291	P	P	03 21 14.6	-0.1
	comp=Z,3.3nm,0.6s,mb3.9						
GUD	Guadarrama	25.64	291	P	P	03 21 14.6	-0.2
GUD				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
GUD	Guadarrama	25.64	291	P	P	03 21 14.6	-0.2
	comp=Z,3.3nm,0.6s,mb3.9						
FINES	FINESS Array B	25.65	358	P	P	03 21 13.7	-0.9
FINES				PcP	PcP	03 24 43.9	+0.9
FINES				LR	LR	03 32 25.4	
FINES	FINESS Array B	25.65	358	P	P	03 21 13.7	-0.9
FINES						03 24 43.9	
FINES	FINESS Array B	25.65	358	P	P	03 21 13.7	-0.9
	comp=Z,5.5nm,0.4s,mb4.3,baz=158,slow=12,SNR=95						
FINES				PcP	PcP	03 24 43.9	+0.9
	comp=Z,1.6nm,0.4s,baz=143,slow=2.9,SNR=9.9						
FINES				LR	LR	03 32 25.5	
	comp=Z,78nm,18.3s,baz=340,slow=39						
FIA1	FINESS Array S	25.65	358	*e*P	P	03 21 13.5	-1.1
FIA1	FINESS Array S	25.65	358	*e*P	P	03 21 13.5	-1.1
SGMF	Saint Gilles	25.69	308	*e*P	P	03 21 14.4	-0.7
ELOJ	Sierra Loja	25.84	282	P	P	03 21 18.1	+1.5
	comp=Z,1.3nm,0.6s,mb3.5						
ELOJ	Sierra Loja	25.84	282	P	P	03 21 18.1	+1.5
ELOJ				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.4						
ELOJ	Sierra Loja	25.84	282	P	P	03 21 18.1	+1.5
	comp=Z,1.3nm,0.6s,mb3.5						
QUIF	Quistinic	25.98	307	*e*P	P	03 21 16.7	-1.1
	comp=Z,11nm,0.6s,mb4.2						
QUIF	Quistinic	25.98	307	*e*P	P	03 21 16.7	-1.1
QUIF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.2						
QUIF	Quistinic	25.98	307	*e*P	P	03 21 16.7	-1.1
	comp=Z,5.5nm,0.6s,mb4.2						
HFS	Hagfors	26.01	344	P	P	03 21 16.2	-1.7
	comp=Z,5.8nm,0.5s,mb4.3,baz=144,slow=10,SNR=36						
AKTK	Aktyubinsk	26.08	47	P	P	03 21 19.2	+0.6
AKTK				LR	LR	03 33 20.6	
AKTO	Aktyubinsk	26.08	47	P	P	03 21 19.2	+0.6
	comp=Z,6.1nm,0.7s,mb4.1,baz=250,slow=8.9,SNR=27						
AKTO				LR	LR	03 33 20.6	
	comp=Z,52nm,19.7s,baz=260,slow=40						
ROSF	Rostrenen	26.17	308	*e*P	P	03 21 18.9	-0.6
KAF	Kangasniemi	26.31	358	*e*p	P	03 21 18.6	-2.0
	comp=Z,3.1nm,0.4s,mb4.1,baz=175,slow=10						
KAF	Kangasniemi	26.31	358	*e*P	P	03 21 18.6	-2.0
KAF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.1						
EMIJ	Mijas	26.41	281	P	P	03 21 21.7	-0.1
	comp=Z,3.6nm,0.4s,mb4.2						
EMIJ	Mijas	26.41	281	P	P	03 21 21.7	0.0
	comp=Z,3.6nm,0.4s,mb4.2						
EJIF	Jimena Fronter	26.98	281	P	P	03 21 28.6	+1.8
	comp=Z,2.4nm,0.5s,mb4.0						
EJIF	Jimena Fronter	26.98	281	P	P	03 21 28.6	+1.7
EJIF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.9						
EJIF	Jimena Fronter	26.98	281	P	P	03 21 28.6	+1.7
	comp=Z,2.4nm,0.5s,mb4.0						
MDT	Midelt	27.05	273	P	P	03 21 28.3	+0.7
	comp=Z,3.1nm,0.9s,mb3.9,baz=92,slow=12,SNR=7.6						
JOF	Joensuu	27.18	3	*e*p	P	03 21 26.5	-1.8
	comp=Z,3.3nm,0.4s,mb4.2						
JOF	Joensuu	27.18	3	*e*P	P	03 21 26.5	-1.8
JOF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.2						
ESPR	Espera	27.23	282	P	P	03 21 27.4	-1.7
	comp=Z,1.6nm,0.2s,mb4.2						
ESPR	Espera	27.23	282	P	P	03 21 27.4	-1.7
	comp=Z,1.6nm,0.2s,mb4.2						
NAO01	NORSAR Array S	27.31	342	*e*P	P	03 21 28.2	-1.3
	comp=Z,6.4nm,0.6s,mb4.3						
NAO01	NORSAR Array S	27.31	342	*e*P	P	03 21 28.2	-1.4
	comp=Z,6.4nm,0.6s,mb4.3						
NB2	NORSAR Subarra	27.40	342	P	P	03 21 28.2	-2.1
	comp=Z,3.1nm,0.7s,mb4.0,baz=147,slow=10						
NOA	NORSAR Array B	27.40	342	P	P	03 21 29.0	-1.4
NOA				pP	pP	03 21 48.3	-0.4
NOA				PcP	PcP	03 24 47.7	+0.5
NOA	NORSAR Array B	27.40	342	P	P	03 21 29.0	-1.4
	comp=Z,2.6nm,0.6s,mb4.0,baz=148,slow=9.5,SNR=13						
NOA				pP	pP	03 21 48.3	-0.4
	comp=Z,2.3nm,0.9s,baz=147,slow=9.5,SNR=3.6						
NOA				PcP	PcP	03 24 47.7	+0.5
	comp=Z,0.9nm,0.6s,baz=122,slow=4.1,SNR=3.9						
NOA	NORSAR Array B	27.40	342	P	P	03 21 29.0	-1.3
NOA				pP	pP	03 21 48.3	-0.4
EMIN	Mina Concepcio	27.76	284	P	P	03 21 33.2	-0.6
	comp=Z,1.6nm,0.3s,mb4.0						
EMIN	Mina Concepcio	27.76	284	P	P	03 21 33.2	-0.6
	comp=Z,1.6nm,0.3s,mb4.0						
EBAD	Badajoz	27.92	287	P	P	03 21 34.8	-0.4
	comp=Z,1.1nm,0.4s,mb3.7						
EBAD	Badajoz	27.92	287	P	P	03 21 34.8	-0.5
	comp=Z,1.1nm,0.4s,mb3.7						
PRGR	Permogore	28.11	18	⇓*i*P	P	03 21 36.0	-0.7
PRGR				*e*S	S	03 26 15.7	0.0
EGRO	El Granado	28.42	284	P	P	03 21 40.3	+0.6
	comp=Z,1.4nm,0.4s,mb3.8						
EGRO	El Granado	28.42	284	P	P	03 21 40.3	+0.5
	comp=Z,1.4nm,0.4s,mb3.8						
EKA	Eskdalemuir Ar	28.88	322	PcP	PcP	03 24 52.1	+1.2
	comp=Z,0.9nm,0.6s,baz=105,slow=2.2,SNR=5.9						
ARU	Arti	29.13	35	*e*P	P	03 21 44.6	-1.2
	comp=Z,2.6nm,0.4s,mb4.2						
ARU	Arti	29.13	35	⇓*i*P	P	03 21 45.6	-0.2
ARU				*e*		03 22 38.8	
ARU				*e*S	S	03 26 31.0	-0.9
ARU				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.9						
ARU	Arti	29.13	35	*i* P	P	03 21 45.6	-0.2
	comp=Z,3.0nm,1.0s,mb3.9						
ARU				*e*S	S	03 26 31.0	-0.9
FOO	Floro	29.58	338	*i* P	P	03 21 46.1	-3.6
TOA0	Torodi Ar. Sit	32.74	233	*e*P	P	03 22 18.8	+0.8
TOA0	Torodi Ar. Sit	32.74	233	*e*P	P	03 22 18.8	+0.8
TORD	Torodi Ar. Bea	32.74	233	P	P	03 22 19.1	+1.1
TORD				PcP	PcP	03 25 02.7	+0.9
TORD	Torodi Ar. Bea	32.74	233	P	P	03 22 19.1	+1.1
	comp=Z,15nm,0.6s,mb5.0,baz=38,slow=8.7,SNR=275						
TORD				PcP	PcP	03 25 02.7	+0.9
	comp=Z,2.4nm,0.9s,baz=29,slow=2.4,SNR=6.1						
ARCES	ARCESS Array B	33.77	358	P	P	03 22 25.4	-1.1
	comp=Z,3.3nm,0.4s,mb4.5,baz=177,slow=9.0,SNR=75						
ARCES				PcP	PcP	03 25 04.4	+0.6
	comp=Z,1.2nm,0.3s,baz=193,slow=3.6,SNR=12						
ARE0	ARCESS Array S	33.77	358	*e*P	P	03 22 25.3	-1.1
ARE0	ARCESS Array S	33.77	358	*e*P	P	03 22 25.3	-1.1
KEV	Kevo	33.97	359	*e*p	P	03 22 25.9	-2.2
	comp=Z,2.7nm,0.5s,mb4.3						
KEV	Kevo	33.97	359	*e*P	P	03 22 25.9	-2.2
KEV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.4						
BRVK	Borovoye	34.13	46	*e*P	P	03 22 30.4	+0.7
	comp=Z,1.6nm,0.5s,mb4.1						
BRVK	Borovoye	34.13	46	*e*P	P	03 22 30.4	+0.7
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.2						
BRVK	Borovoye	34.13	46	*e*P	P	03 22 30.4	+0.7
	comp=Z,1.5nm,0.5s,mb4.1						
AAK	Ala-Archa	36.26	65	*e*P	P	03 22 48.4	+0.3
	comp=Z,1.1nm,0.6s,mb4.0						
AAK	Ala-Archa	36.26	65	*e*P	P	03 22 48.4	+0.3
AAK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
AAK	Ala-Archa	36.26	65	*e*P	P	03 22 48.4	+0.3
	comp=Z,1.1nm,0.6s,mb4.0						
KMBO	Kilima Mbogo	37.77	165	P	P	03 23 05.0	+3.8
KMBO				PcP	PcP	03 25 20.2	+3.6
KMBO	Kilima Mbogo	37.77	165	P	P	03 23 05.0	+3.8
	comp=Z,0.6nm,0.3s,mb3.9,baz=76,slow=13,SNR=3.0						
KMBO				PcP	PcP	03 25 20.2	+3.6
	comp=Z,0.4nm,0.4s,baz=343,slow=6.2,SNR=3.8						
KURK	Kurchatov	38.93	51	⇑*e*P	P	03 23 12.0	+1.5
MK31	Makanchi Array	41.44	57	*e*P	P	03 23 32.2	+0.9
MK31				*e*PcP	PcP	03 25 28.8	+1.0
MK31				*e*ScP	ScP	03 29 25.6	+15
MK31	Makanchi Array	41.44	57	*e*P	P	03 23 32.3	+0.9
MK31				*e*		03 25 28.8	
MK31	Makanchi Array	41.44	57	*e*P	P	03 23 32.2	+0.8
MKAR	Makanchi Array	41.44	57	P	P	03 23 32.6	+1.3
MKAR				PcP	PcP	03 25 29.3	+1.5
MKAR				ScP	ScP	03 29 11.5	+0.8
MKAR	Makanchi Array	41.44	57	P	P	03 23 32.6	+1.2
MKAR						03 25 29.3	
MKAR	Makanchi Array	41.44	57	P	P	03 23 32.6	+1.3
	comp=Z,1.4nm,0.6s,mb4.0,baz=279,slow=6.7,SNR=25						
MKAR				PcP	PcP	03 25 29.3	+1.5
	comp=Z,1.3nm,0.6s,baz=273,slow=4.4,SNR=4.4						
MKAR				ScP	ScP	03 29 11.5	+0.8
	comp=Z,0.4nm,0.5s,baz=264,slow=4.7,SNR=4.0						
NVS	Novosibirsk	41.95	45	*e*P	P	03 23 36.3	+0.9
TIC	Toumodi	41.97	234	⇓*i*P	P	03 23 36.7	+0.7
	comp=Z,52nm,0.6s						
KIC	Kosan Boka	41.99	234	⇓*i*P	P	03 23 37.2	+1.0
	comp=Z,92nm,0.5s						
LIC	Lamto	42.28	234	⇑*i*P	P	03 23 39.1	+0.5
	comp=Z,40nm,0.8s,mb4.9						
LIC	Lamto	42.28	234	⇓*i*P	P	03 23 39.2	+0.6
	comp=Z,53nm,0.9s,mb5.3						
LIC	Lamto	42.28	234	⇑*i*P	P	03 23 39.1	+0.5
	comp=Z,20nm,0.8s,mb4.9						
ZAL	Zalesovo	42.83	47	P	P	03 23 43.3	+0.8
ZALV	Zalesovo Beam	42.84	47	P	P	03 23 43.3	+0.7
	comp=Z,2.6nm,0.4s,mb4.3,baz=268,slow=8.4,SNR=19						
ZALV				LR	LR	03 44 44.7	
	comp=Z,42nm,18.5s,baz=83,slow=40						
LSZ	Lusaka	50.84	180	*e*P	P	03 24 46.4	+1.1
	comp=Z,2.4nm,0.7s,mb4.3						
LSZ	Lusaka	50.84	180	*e*P	P	03 24 46.4	+1.1
LSZ				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
LSZ	Lusaka	50.84	180	*e*P	P	03 24 46.4	+1.1
	comp=Z,2.4nm,0.7s,mb4.3						
ZAK	Zakamensk	54.53	49	*e*P	P	03 25 14.2	+2.0
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb4.0						
ZAK	Zakamensk	54.53	49	*e*P	P	03 25 14.2	+2.0
	comp=Z,2.0nm,1.4s,mb4.0						
TSUM	Tsumeb	55.63	192	*e*P	P	03 25 22.4	+2.1
	comp=Z,2.8nm,0.6s,mb4.5						
TSUM	Tsumeb	55.63	192	*e*P	P	03 25 22.5	+2.1
	comp=Z,2.8nm,0.6s,mb4.5						
SONM	Songino Array	57.24	52	P	P	03 25 33.3	+1.7
	comp=Z,0.9nm,0.7s,mb3.9,baz=285,slow=8.8,SNR=10						
ULN	Ulaanbaatar	57.65	51	⇑*e*P	P	03 25 37.0	+2.5
BOD	Bodaibo	58.47	39	*e*P	P	03 25 40.8	+0.8
BOD				pmax	pmax		
	comp=Z,3.0nm,2.6s,mb3.9						
BOD	Bodaibo	58.47	39	*e*P	P	03 25 40.8	+0.8
	comp=Z,3.0nm,2.6s,mb3.9						
TIXI	Tiksi	59.70	21	⇑*e*P	P	03 25 49.0	+0.7
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
TIXI	Tiksi	59.70	21	*e*P	P	03 25 49.0	+0.7
	comp=Z,1.0nm,0.6s,mb4.0						
LBTB	Lobatse	60.57	183	*e*P	P	03 25 57.9	+3.1
	comp=Z,6.6nm,0.8s,mb4.7						
LBTB	Lobatse	60.57	183	*e*P	P	03 25 57.9	+3.1
LBTB				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
BOSA	Boshof	64.17	183	*e*P	P	03 26 21.2	+2.5
	comp=Z,4.5nm,0.8s,mb4.3						
BOSA	Boshof	64.17	183	*e*P	P	03 26 21.2	+2.5
BOSA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
BOSA	Boshof	64.17	183	P	P	03 26 21.8	+3.0
	comp=Z,3.4nm,0.7s,mb4.3,baz=358,slow=8.9,SNR=6.6						
BOSA	Boshof	64.17	183	*e*P	P	03 26 21.2	+2.5
	comp=Z,4.4nm,0.8s,mb4.3						
SCHQ	Schefferville	64.17	320	P	P	03 26 18.1	-0.5
	comp=Z,1.3nm,0.4s,mb4.2,baz=60,slow=5.5,SNR=15						
SCHQ	Schefferville	64.17	320	P	P	03 26 18.0	-0.6
SUR	Sutherland	68.20	187	*e*P	P	03 26 47.4	+2.9
	comp=Z,13nm,0.8s,mb4.8						
SUR	Sutherland	68.20	187	*e*P	P	03 26 47.4	+2.9
	comp=Z,13nm,0.8s,mb4.8						
YKA	Yellowknife Ar	77.49	343	P	P	03 27 38.0	-1.2
YKA	Yellowknife Ar	77.49	343	P	P	03 27 38.0	-1.2
	comp=Z,0.3nm,0.6s,mb3.2,baz=33,slow=5.4,SNR=5.4						
ULM	Lac du Bonnet	81.02	327	P	P	03 27 57.8	-0.8
	comp=Z,2.2nm,0.5s,mb4.3,baz=49,slow=5.5,SNR=12						
ULM				pP	pP	03 28 18.1	-1.6
	comp=Z,2.4nm,0.6s,baz=55,slow=5.8,SNR=4.8						
ASAR	Alice Springs	115.88	101	PKP	PKPdf	03 34 27.2	+0.9
ASAR	Alice Springs	115.88	101	PKIKP	PKPdf	03 34 27.3	+0.9
ASAR	Alice Springs	115.88	101	PKP	PKPdf	03 34 27.2	+0.9
	comp=Z,0.8nm,0.3s,baz=307,slow=1.4,SNR=14						
STKA	Stephens Creek	125.65	106	PKP	PKPdf	03 34 46.0	+1.1
STKA	Stephens Creek	125.65	106	PKP	PKPdf	03 34 46.0	+1.1
	comp=Z,2.3nm,0.8s,baz=343,slow=11,SNR=5.0						

*ISCJB **15** 03:44:21.8±0.2, 44.64N±0.01×112.01W±0.02, h10^{km}, Error ellipse: s-maj=2.1km s-min=2.1km az=157.2*

*NEIC **15** 03:44:22.0, 44.62N×112.09W, h12^{km}, ML3.1(BUT), After BUT.*

ISC 15 03:44:22.6±0.2, **44.65N**±0.01×**112.01W**±0.02, **h10^{km}, n81, σ1^{s}.09**/127**, 35C-28D, Eastern Idaho**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QLMT	Earthquake Lak	0.46	66	*e*Pg	Pg	03 44 32.2	+0.8
G15A	Dillon	0.62	327	P	Pg	03 44 33.8	-0.8
	baz=0.6,SNR=1000						
G15A				⇑S	Sg	03 44 41.8	-0.9
	baz=0.6						
MCMT	McKenzie Canyo	0.62	287	*e*Pg	Pg	03 44 33.7	-1.0
YMR	Madison River	0.75	88	*e*Pg	Pg	03 44 37.8	+0.8
YMR				*e*Sg	Sg	03 44 48.4	+1.6
DLMT	Dillon	0.83	330	*e*Pg	Pg	03 44 38.0	-0.5
YFT	Old Faithful	0.86	103	*e*Pg	Pg	03 44 40.0	+0.8
YNR	Norris Junctio	0.95	85	*e*Pg	Pg	03 44 41.5	+0.5
YNR				*e*Sg	Sg	03 44 55.0	+1.7
BOZ	Bozeman (W)	1.04	15	*e*Pn	Pn	03 44 41.0	-2.2
BOZ				*e*Sn	Sn	03 44 54.3	-3.4
BOZ	Bozeman (W)	1.04	15	P	Pg	03 44 41.4	-1.2
	baz=1.1,SNR=324						
BOZ				⇑S	Sg	03 44 55.4	-0.6
	baz=1.1						
G14A	Jackson	1.19	301	⇑P	Pb	03 44 44.2	-1.0
	baz=1.2,SNR=76						
G14A				⇑S	Sb	03 44 59.3	-1.3
	baz=1.2						
DCID1	Drake Creek	1.21	150	*e*Pn	Pn	03 44 44.6	-0.9
DCID1				*e*Sg	Sg	03 45 01.6	+0.1
LRM	Limekiln Ridge	1.22	345	*e*Pg	Pg	03 44 44.3	-1.6
F15A	Butte	1.24	344	P	Pn	03 44 45.6	-0.4
	baz=1.3,SNR=498						
F15A				⇑S	Sb	03 45 02.2	+0.1
	baz=1.3						
MOOW	Moose Ponds	1.28	134	*e*Pn	Pn	03 44 45.8	-0.7
MOOW				*e*Sn	Sn	03 45 02.7	-1.0
LOHW	Long Hollow	1.45	135	*e*Pn	Pn	03 44 48.9	+0.1
F14A	Wisdom	1.51	321	⇓P	Pn	03 44 50.0	+0.4
	baz=1.5,SNR=392						
F14A				⇓S	Sn	03 45 09.9	+0.5
	baz=1.5						
REDW	Red Top Meadow	1.53	146	*e*Pn	Pn	03 44 50.0	+0.1
H13A	Challis	1.60	268	P	Pn	03 44 50.9	0.0
	baz=1.5,SNR=414						
H13A				⇑S	Sn	03 45 10.7	-0.9
	baz=1.5						
G13A	Cobalt	1.64	287	P	Pn	03 44 51.2	-0.2
	baz=1.6,SNR=447						
G13A				⇓S	Sn	03 45 12.3	-0.2
	baz=1.6						
I13A	Wildhorse Cree	1.68	245	P	Pn	03 44 51.9	0.0
	baz=1.6,SNR=210						
I13A				⇓S	Sn	03 45 13.4	-0.1
	baz=1.6						
E15A	Deer Lodge	1.83	346	⇓P	Pn	03 44 54.5	+0.4
	baz=1.8,SNR=344						
E15A				⇓S	Sn	03 45 19.0	+1.7
	baz=1.8						
AHID	Auburn Hatcher	1.99	160	*e*Pn	Pn	03 44 56.9	+0.6
AHID				*e*Sg	Sg	03 45 24.6	-2.0
J13A	Cove Ranch, Pi	2.00	232	⇓P	Pn	03 44 56.3	0.0
	baz=1.9,SNR=79						
J13A				⇓S	Sn	03 45 22.3	+1.0
	baz=1.9						
F13A	Darby	2.00	306	⇑P	Pn	03 44 56.4	0.0
	baz=2.0,SNR=234						
RLMT	Red Lodge	2.01	75	*e*Pn	Pn	03 44 58.4	+1.9
RLMT				*e*Sg	Sg	03 45 26.6	-0.6
GCMT	Greycliff	2.02	55	*e*Pg	Pg	03 44 59.4	-1.8
GCMT				*e*Sg	Sg	03 45 27.5	+0.2
H12A	Diamond D Ranc	2.03	268	⇑P	Pn	03 44 56.9	0.0
	baz=2.0,SNR=80						
H12A				⇑S	Sn	03 45 22.4	+0.2
	baz=2.0						
HLID	Hailey	2.04	239	*e*Pn	Pn	03 44 56.7	-0.2
HLID				*e*Sg	Sg	03 45 23.7	-4.4
HLID	Hailey	2.04	239	⇑P	Pn	03 44 56.9	-0.1
	baz=2.0,SNR=259						
HLID				⇑S	Sn	03 45 23.4	+1.0
	baz=2.0						
E14A	Clinton	2.05	330	⇑P	Pn	03 44 57.4	+0.3
	baz=2.0,SNR=59						
E14A				⇓S	Sn	03 45 23.8	+1.1
	baz=2.0						
K14A	Jones Ranch, D	2.26	202	⇓P	Pn	03 45 00.5	+0.5
	baz=2.2,SNR=32						
K14A				⇓S	Sn	03 45 29.5	+1.6
	baz=2.2						
E13A	Victor	2.36	320	⇓P	Pn	03 45 01.5	+0.2
	baz=2.3,SNR=32						
E13A				⇓S	Sn	03 45 30.7	+0.4
	baz=2.3						
D15A	Lincoln	2.42	352	⇑P	Pn	03 45 02.8	+0.6
	baz=2.4,SNR=48						
D15A				⇑S	Sn	03 45 33.8	+1.9
	baz=2.4						
CHMT	Chamberlain Mo	2.43	340	*e*Pn	Pn	03 45 02.7	+0.4
CHMT				*e*Pg	Pg	03 45 08.0	-1.1
CHMT				*e*Sg	Sg	03 45 38.5	-2.1
K13A	Stover Farm, H	2.50	218	⇑P	Pn	03 45 03.3	+0.1
	baz=2.4						
K13A				⇑S	Sn	03 45 35.1	+1.4
	baz=2.4						
F12A	Elk City	2.55	297	⇓P	Pn	03 45 04.0	+0.1
	baz=2.5,SNR=45						
MSO	Missoula	2.57	329	*e*Pn	Pn	03 45 04.2	0.0
MSO				*e*Pg	Pg	03 45 10.1	-1.7
MSO				*e*Sg	Sg	03 45 41.5	-3.5
BW06	Boulder Array	2.59	136	*e*Pn	Pn	03 45 01.2	-3.3
J12A	Stokes Ranch,	2.63	239	⇑P	Pn	03 45 05.0	0.0
	baz=2.6,SNR=43						
D14A	Greenough	2.65	337	⇓P	Pn	03 45 05.6	+0.2
	baz=2.7,SNR=30						
H11A	Donnelly	2.85	273	⇓P	Pn	03 45 08.6	+0.4
	baz=2.8,SNR=16						
K12A	Draper Farm, C	2.90	227	⇑P	Pn	03 45 08.8	0.0
	baz=2.8						
HVU	Hansel Valley	2.92	191	*e*Pn	Pn	03 45 07.6	-1.4
HVU				*e*Pg	Pg	03 45 11.8	-6.7
HVU				*e*Sg	Sg	03 45 51.5	-4.8
L13A	Double Diamond	2.92	210	⇑P	Pn	03 45 09.5	+0.5
	baz=2.9						
I11A	Placerville	2.93	257	⇑P	Pn	03 45 09.2	+0.1
	baz=2.9,SNR=18						
D13A	Huson	2.99	326	⇑P	Pn	03 45 10.5	+0.6
	baz=3.0,SNR=12						
MFID	Camas Ranch	3.01	247	⇓P	Pn	03 45 10.6	+0.3
	baz=2.9,SNR=16						
HWUT	Hardware Ranch	3.06	174	*e*Pn	Pn	03 45 07.6	-3.3
F11A	Grangeville	3.18	294	⇓P	Pn	03 45 12.7	+0.2
	baz=3.1						
M15A	Larsen Ranch,	3.20	186	⇓P	Pn	03 45 14.6	+1.8
	baz=3.2						
M14A	Sheep Mountain	3.29	198	⇑P	Pn	03 45 15.7	+1.6
	baz=3.2						
L12A	House Creek Ra	3.32	222	⇓P	Pn	03 45 15.2	+0.7
	baz=3.3						
SPUT	South Promonto	3.35	186	*e*Pn	Pn	03 45 12.4	-2.6
SPUT				*e*Pg	Pg	03 45 18.8	-7.9
SPUT				*e*Sg	Sg	03 46 02.7	-7.4
D12A	Red Ives Fores	3.35	317	⇑P	Pn	03 45 15.8	+0.8
	baz=3.3						
H10A	Noah's Angus R	3.38	271	⇓P	Pn	03 45 15.1	-0.2
	baz=3.3						
E11A	Bogner Ranch,	3.41	302	⇑P	Pn	03 45 16.2	+0.5
	baz=3.4,SNR=27						
K11A	Parker Ranch,	3.46	239	⇓P	Pn	03 45 16.3	-0.2
	baz=3.4						
I10A	Payette	3.48	262	⇓P	Pn	03 45 17.2	+0.4
	baz=3.4,SNR=5.6						
C13A	Hot Springs	3.52	331	⇑P	Pn	03 45 18.0	+0.8
	baz=3.5,SNR=20						
L11A	Cat Creek Ranc	3.68	229	⇑P	Pn	03 45 19.7	+0.2
	baz=3.6						
EGMT	Eagleton	3.72	24	*e*Pn	Pn	03 45 16.7	-3.3
EGMT	Eagleton	3.72	24	⇑P	Pn	03 45 21.8	+1.7
	baz=3.8						
EGMT				⇑S	Sn	03 46 06.3	+2.4
	baz=3.8						
BSMT	Bassoo Peak	3.74	330	*e*Pn	Pn	03 45 17.8	-2.5
BMO	Blue Mountains	3.78	275	*e*Pn	Pn	03 45 20.2	-0.6
BMO				*e*Pg	Pg	03 45 31.8	-3.1
BMO				*e*Sg	Sg	03 46 19.5	-4.3
BGU	Big Grassy Mou	3.79	192	*e*Pn	Pn	03 45 22.8	+1.8
BGU				*e*Sg	Sg	03 46 17.7	-6.6
D11A	Klaveano Farm,	3.86	310	⇓P	Pn	03 45 22.4	+0.5
	baz=3.8,SNR=16						
K10A	MacKenzie Ranc	3.98	244	⇑P	Pn	03 45 23.9	+0.2
	baz=3.9						
H09A	Durkee	4.03	272	⇓P	Pn	03 45 24.8	+0.5
	baz=4.0						
JLU	Jordanelle	4.06	174	*e*Pn	Pn	03 45 23.5	-1.2
JLU				*e*Pg	Pg	03 45 36.5	-3.9
JLU				*e*Sg	Sg	03 46 31.1	-1.9
B13A	Whitefish	4.10	336	⇑P	Pn	03 45 25.9	+0.7
	baz=4.1						
L10A	Juniper Basin	4.14	233	⇑P	Pn	03 45 26.3	+0.5
	baz=4.1						
J09A	Fry Pan Ranch,	4.34	255	⇓P	Pn	03 45 29.1	+0.5
	baz=4.3						
DUG	Dugway	4.49	188	*e*Pn	Pn	03 45 27.9	-2.7
DUG				*e*Sg	Sg	03 46 42.4	-4.2
LAO	LASA Array	4.54	61	*e*Pn	Pn	03 45 31.4	+0.1
LAO				*e*Pg	Pg	03 45 46.0	-3.6
LAO				*e*Sg	Sg	03 46 44.0	-4.4
RWWY	Rawlins	4.59	128	*e*Pn	Pn	03 45 28.6	-3.4
WALA	Waterton Lakes	4.60	344	*e*Pn	Pn	03 45 31.4	-0.7
WALA				*e*Pg	Pg	03 45 46.0	-4.7
WALA				*e*Sg	Sg	03 46 46.5	-3.8
H08A	Prairie City	4.76	271	⇑P	Pn	03 45 34.8	+0.6
	baz=4.7,SNR=6.4						
H08A				⇓S	Sn	03 46 29.7	+0.2
	baz=4.7						
J08A	Circle Bar Ran	4.83	257	⇓P	Pn	03 45 35.6	+0.3
	baz=4.8,SNR=8.9						
A12A	Yaak River Ran	4.96	331	⇑S	Sn	03 46 36.7	+2.2
	baz=5.0						
G08A	Pilot Rock	4.97	280	⇑P	Pn	03 45 37.5	+0.3
	baz=4.9						
K08A	Mann Creek Ran	5.07	250	⇑P	Pn	03 45 39.7	+1.2
	baz=5.0						

*NEIC **15** 03:47:07.2, 18.97N×64.12W, h51^{km}, MD3.5(RSPR), After RSPR.*

RSPR 15 03:47:07.2, 18.97N×64.12W, h51^{km}±11^{km}**, MD3.5**/6**, MD3.5**/6**, 4C-2D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBVI	Tortola	0.72	221	⇓*e*P	Pn	03 47 20.8	-0.5
TBVI				*e*S	Sn	03 47 30.9	-0.7

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
STVI	**Saint Thomas**	**1.00**	**232**	⇑*e*P	Pn	03 47 23.7	-1.3
STVI				*e*S	Sn	03 47 37.0	-1.1
MTP	**Monte Pirata**	**1.61**	**238**	⇓*e*P	Pn	03 47 32.5	-0.8
MTP				*e*S	Sn	03 47 52.2	-0.7
CBYP	**Canovanas**	**1.79**	**248**	⇑*e*P	Pn	03 47 34.4	-1.3
CBYP				*e*S	Sn	03 47 56.7	-0.6
HUMP	**Col San Antoni**	**1.84**	**244**	⇑*e*P	Pn	03 47 35.5	-0.8
HUMP				*e*S	Sn	03 47 57.9	-0.5
CPD	**Cerro la Pandu**	**1.94**	**242**	⇑*e*P	Pn	03 47 37.4	-0.3
CPD				*e*S	Sn	03 47 59.6	-1.4

IDC ***15*** *04:41:12.8±6.0, 36.33N×70.61E, h186^{km}±56^{km}, mb3.1/5, mb1 3.3/7, mb1mx3.1/23, mbtmp3.2/7, Error ellipse: s-maj=32.1km s-min=22.9km az=179.0*

ISCJB ***15*** *04:41:13.3±0.6, 36.43N±0.05×70.91E±0.07, h189^{km}±7^{km}, mb3.2/4, Error ellipse: s-maj=10.0km s-min=6.7km az=30.2*

NEIC ***15*** *04:41:14.0±0.8, 36.40N×70.81E, h192^{km}±8^{km}, mb3.8/2, Error ellipse: s-maj=18.2km s-min=9.1km az=123.0*

NNC ***15*** *04:41:16.9±8.8, 37.07N×70.71E, h0^{km}, mb3.9, mpv3.6, Error ellipse: s-maj=70.1km s-min=57.0km az=3.0*

ISC 15 04:41:14.8±0.6, 3657N±005×7064E±007, h184^{km}±6^{km}, n29, σ1^{s}06/39, mb3.2/4, 1C-5D, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	**2.41**	**213**	*e*Pn	**Pn**	**04 41 56.8**	**+0.1**
KBL				*e*Sn	**Sn**	**04 42 28.1**	**-1.1**
AML	**Almayashu**	**6.04**	**22**	P	**Pn**	**04 42 43.3**	**+1.0**
	SNR=171						
AML	**Almayashu**	**6.04**	**22**	*e*Pn	**Pn**	**04 42 43.0**	**+0.7**
	106nm,0.5s						
AML				*e*Sn	**Sn**	**04 43 50.2**	**-1.0**
UCH	**Uchtor**	**6.40**	**27**	P	**Pn**	**04 42 47.9**	**+1.0**
	SNR=39						
UCH	**Uchtor**	**6.40**	**27**	*e*Pn	**Pn**	**04 42 47.7**	**+0.7**
	23nm,0.6s						
UCH				*e*Sn	**Sn**	**04 43 58.7**	**-1.0**
KK31	**Karatay Array**	**6.53**	**359**	⇓P	**Pn**	**04 42 49.4**	**+0.8**
	8.1nm,0.5s,baz=183,slow=14,SNR=110						
KK31				⇓S	**Sn**	**04 43 59.7**	**-3.1**
	15nm,0.4s,baz=178,slow=14,SNR=17						
EKS2	**Erkin-Say**	**6.55**	**21**	P	**Pn**	**04 42 49.9**	**+1.0**
	SNR=18						
EKS2	**Erkin-Say**	**6.55**	**21**	*e*Pn	**Pn**	**04 42 49.6**	**+0.7**
	9.5nm,0.4s						
EKS2				*e*Sn	**Sn**	**04 44 01.8**	**-1.5**
KZA	**Kyzart**	**6.56**	**32**	P	**Pn**	**04 42 49.4**	**+0.3**
	SNR=14						
AAK	**Ala-Archa**	**6.75**	**25**	P	**Pn**	**04 42 52.5**	**+0.9**
	SNR=25						
AAK	**Ala-Archa**	**6.75**	**25**	*e*Pn	**Pn**	**04 42 50.8**	**-0.7**
	11nm,0.4s						
AAK				*e*Sn	**Sn**	**04 44 07.2**	**-0.7**
KBK	**Karagaybulak**	**6.93**	**27**	P	**Pn**	**04 42 55.1**	**+1.2**
	SNR=5.5						
CHMS	**Chumysh**	**7.16**	**25**	P	**Pn**	**04 42 57.7**	**+0.8**
	SNR=8.4						
USP	**Ospenovka**	**7.32**	**23**	P	**Pn**	**04 42 59.8**	**+0.8**
	SNR=11						
TKM2	**Tokmak 2**	**7.40**	**30**	P	**Pn**	**04 43 01.1**	**+0.9**
	SNR=11						
TKM2	**Tokmak 2**	**7.40**	**30**	⇑P	**Pn**	**04 43 00.6**	**+0.5**
	0.8nm,0.5s						
TKM2				⇓S	**Sn**	**04 44 18.8**	**-4.8**
	1.1nm,0.7s						
TKM2	**Tokmak 2**	**7.40**	**30**	*e*Pn	**Pn**	**04 43 00.5**	**+0.4**
	16nm,0.4s						
MK31	**Makanchi Array**	**13.41**	**37**	*e*Pn	**Pn**	**04 44 17.4**	**-0.3**
MKAR	**Makanchi Array**	**13.41**	**37**	P	**Pn**	**04 44 16.9**	**-0.8**
	0.3nm,0.3s,baz=217,slow=9.2,SNR=27						
AB31	**Akbulak array**	**14.88**	**332**	⇓P	**Pn**	**04 44 38.4**	**+2.3**
	0.5nm,0.4s,baz=144,slow=12,SNR=10.0						
AB31				⇓S	**Sn**	**04 47 21.3**	**-0.8**
	0.5nm,0.4s,baz=143,slow=23,SNR=3.2						
KURK	**Kurchatov**	**15.26**	**20**	*e*P	**Pn**	**04 44 41.6**	**+0.9**
	1.3nm,0.5s						
BRVK	**Borovoye**	**16.49**	**359**	*e*P	**Pn**	**04 44 56.3**	**+0.8**
	2.5nm,0.4s						
AKTK	**Aktyubinsk**	**16.58**	**331**	P	**Pn**	**04 44 57.6**	**+1.0**
AKTK				S	**S**	**04 47 59.2**	**-0.4**
AKTO	**Aktyubinsk**	**16.58**	**331**	P	**Pn**	**04 44 57.6**	**+1.0**
	0.6nm,0.3s,baz=142,slow=9.1,SNR=18						
AKTO				S	**S**	**04 47 59.2**	**-0.3**
	0.1nm,0.3s,baz=114,slow=20,SNR=2.8						
ZALV	**Zalesovo Beam**	**19.97**	**25**	P	**P**	**04 45 32.9**	**+0.1**
	3.9nm,0.3s,baz=222,slow=11,SNR=31						
SONM	**Songino Array**	**28.54**	**56**	P	**P**	**04 46 52.9**	**-0.2**
	0.6nm,0.8s,mb3.4,baz=278,slow=10,SNR=4.1						
TORD	**Torodi Ar. Bea**	**65.43**	**268**	P	**P**	**04 51 35.6**	**-2.5**
	0.5nm,1.0s,mb3.3,baz=52,slow=5.9,SNR=12						
YKA	**Yellowknife Ar**	**81.19**	**2**	P	**P**	**04 53 08.8**	**-0.6**
	0.1nm,0.3s,mb2.9,baz=352,slow=5.3,SNR=5.8						
WRA	**Warramunga Arr**	**82.27**	**122**	P	**P**	**04 53 12.6**	**-3.2**
	0.3nm,0.7s,mb3.0,baz=317,slow=5.6,SNR=3.2						

IDC 15 05:05:13.0±10.0, 693S×15482E, h60^{km}±75^{km}, mb3.3/2, mb1 3.6/3, mb1mx3.4/15, mbtmp3.5/3, ML2.9/1, MS3.1/2, Ms1 3.1/2, ms1mx2.6/14, Error ellipse: s-maj=89.5km s-min=61.0km az=129.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**7.97**	**252**	P	Pn	05 07 06.8	+0.6
	0.9nm,0.3s,baz=55,slow=8.6,SNR=6.9						
PMG				S	Sn	05 08 36.2	+1.2
	0.8nm,0.3s,baz=82,slow=23,SNR=5.3						
PMG				LR	LR	05 10 10.6	
	comp=Z,108nm,20.5s,baz=3.7,slow=37						
CTA	**Charters Tower**	**15.49**	**212**	LR	LR	05 13 19.9	
	comp=Z,86nm,18.9s,baz=47,slow=31						
WRA	**Warramunga Arr**	**23.71**	**235**	P	P	05 10 19.4	-0.2
	1.3nm,0.6s,baz=58,slow=9.4,SNR=9.0						
ASAR	**Alice Springs**	**26.08**	**228**	P	P	05 10 41.1	-0.1
	0.6nm,0.8s,baz=62,slow=7.8,SNR=5.4						
TORD	**Torodi Ar. Bea**	**152.84**	**285**	PKPbc	PKPbc	05 25 04.4	+0.1
	1.8nm,0.8s,baz=71,slow=2.6,SNR=10						

IDC ***15*** *05:07:06.2±0.5, 10.09N×140.35E, h0^{km}, mb4.3/16, mb1 4.4/17, mb1mx4.3/26, mbtmp4.4/17, ML4.4/1, MS3.7/8, Ms1 3.7/8, ms1mx3.3/31, Error ellipse: s-maj=22.2km s-min=12.7km az=81.0*

BJI ***15*** *05:07:08.3, 10.06N×140.24E, h23^{km}, mb4.8*

ISCJB ***15*** *05:07:09.3±0.3, 10.05N±0.05×140.52E±0.06, h33^{km}, mb4.4/37, MS3.6/9, Error ellipse: s-maj=9.2km s-min=6.7km az=12.9*

MOS ***15*** *05:07:09.1±0.9, 10.00N×140.48E, h33^{km}, mb4.7/14, Error ellipse: s-maj=15.7km s-min=8.0km az=105.8*

NEIC ***15*** *05:07:11.2±3.2, 10.03N×140.45E, h33^{km}±23^{km}, mb4.5/16, Error ellipse: s-maj=10.0km s-min=5.8km az=85.0*

ISC 15 05:07:11.6±0.3, 1004N±005×14051E±006, h35^{km}, n73, σ0^{s}85/65, mb4.4/37, MS3.6/9, 5C-2D, Western Caroline Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**5.54**	**50**	Pn	**Pn**	**05 08 31.9**	**+0.4**
GUMO				Sn	**Sn**	**05 09 32.7**	**-1.3**
GUMO	**Guam**	**5.54**	**50**	Pn	**Pn**	**05 08 31.9**	**+0.4**
	12nm,0.3s,baz=209,slow=7.3,SNR=6.3						
GUMO				Sn	**Sn**	**05 09 32.7**	**-1.3**
	48nm,0.3s,baz=327,slow=22,SNR=3.2						
PMG	**Port Moresby**	**20.42**	**161**	*e*P	**P**	**05 11 45.5**	**-0.3**
	40nm,1.3s						
PMG	**Port Moresby**	**20.42**	**161**	*c i*P	**P**	**05 11 46.0**	**+0.1**
PMG	**Port Moresby**	**20.42**	**161**	P	**P**	**05 11 45.9**	**0.0**
	15nm,0.7s,baz=2.1,slow=4.2,SNR=8.5						
PMG				LR	LR	05 19 13.6	
	comp=Z,251nm,18.3s,MS3.6,baz=9.3,slow=35						
KAKA	**Kakadu**	**23.98**	**200**	*e*P	**P**	**05 12 22.9**	**-0.1**
	14nm,1.2s,mb4.2						
JNU	**Nakatsue**	**24.63**	**340**	LR	LR	05 20 46.6	
	comp=Z,118nm,18.4s,MS3.4,baz=126,slow=34						
MJAR	**Matsushiro Arr**	**26.47**	**356**	P	**P**	**05 12 43.4**	**-2.0**
	0.6nm,0.3s,mb3.6,baz=270,slow=16,SNR=2.8						
MJAR				LR	LR	05 21 34.7	
	comp=Z,133nm,18.9s,MS3.5,baz=205,slow=33						
HNR	**Honiara**	**27.36**	**134**	LR	LR	05 22 25.2	
	comp=Z,125nm,19.5s,MS3.5,baz=180,slow=33						
KSRS	**Korea Array**	**29.56**	**339**	LR	LR	05 23 58.8	
	comp=Z,109nm,18.6s,MS3.5,baz=320,slow=34						
NJ2	**Nanjing**	**29.68**	**321**	*e*P	**P**	**05 13 13.3**	**-0.9**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
WB2	**Warramunga Arr**	**30.40**	**192**	*e*P	**P**	**05 13 20.5**	**-0.1**
WB2	**Warramunga Arr**	**30.40**	**192**	*e*P	**P**	**05 13 20.2**	**-0.5**
WRA	**Warramunga Arr**	**30.40**	**192**	P	**P**	**05 13 20.5**	**-0.1**
WRA						05 16 20.9	
WRA	**Warramunga Arr**	**30.40**	**192**	P	**P**	**05 13 20.5**	**-0.1**
	comp=Z,3.2nm,0.5s,mb4.3,baz=9.5,slow=9.9,SNR=21						
WRA				PcP	PcP	05 16 20.9	+0.8
	comp=Z,3.0nm,0.8s,baz=0.3,slow=2.9,SNR=14						
WRA				LR	LR	05 25 26.5	
	comp=Z,186nm,18.5s,MS3.8,baz=40,slow=36						
CTA	**Charters Tower**	**30.46**	**169**	LR	LR	05 25 35.5	
	comp=Z,108nm,19.2s,MS3.5,baz=49,slow=36						
FITZ	**Fitzroy Crossi**	**31.58**	**208**	*e*P	**P**	**05 13 30.8**	**-0.3**
	comp=Z,4.9nm,0.8s,mb4.4						
FITZ	**Fitzroy Crossi**	**31.58**	**208**	P	**P**	**05 13 30.4**	**-0.7**
	comp=Z,2.6nm,0.8s,mb4.1,baz=36,slow=11,SNR=7.5						
VLA	**Vladivostok**	**33.80**	**349**	*i* P	**P**	**05 13 52.7**	**+2.5**
ASAR	**Alice Springs**	**34.11**	**191**	P	**P**	**05 13 53.4**	**+0.3**
	comp=Z,2.1nm,0.5s,mb4.3,baz=18,slow=12,SNR=46						
ASAR				PcP	PcP	05 16 31.0	+0.9
	comp=Z,3.1nm,0.8s,baz=6.4,slow=2.6,SNR=22						
BJT	**Baijiatuau**	**36.87**	**328**	*e*P	**P**	**05 14 16.8**	**+0.2**
	comp=Z,24nm,1.4s,mb4.8						
BJT	**Baijiatuau**	**36.87**	**328**	*e*P	**P**	**05 14 16.8**	**+0.1**
BJT				pmax	pmax		
	comp=Z,24nm,1.4s						
BJI	**Beijing**	**36.88**	**328**	P	**P**	**05 14 18.1**	**+1.3**
BJI				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.8						
DZM	**Mont Dzumac**	**40.81**	**142**	P	**P**	**05 14 51.1**	**+1.2**
	comp=Z,5.8nm,0.8s,mb4.2,baz=115,slow=19,SNR=6.6						
STKA	**Stephens Creek**	**41.69**	**179**	*e*P	**P**	**05 14 56.8**	**-0.2**
	comp=Z,2.6nm,0.6s,mb4.0						
STKA	**Stephens Creek**	**41.69**	**179**	P	**P**	**05 14 56.8**	**-0.2**
	comp=Z,2.8nm,0.6s,mb4.1,baz=358,slow=8.3,SNR=12						
PSI	**Prapat**	**41.91**	**263**	P	**P**	**05 14 57.9**	**-1.3**
	comp=Z,4.6nm,0.6s,mb4.3,baz=69,slow=4.2,SNR=6.5						
HIA	**Hailar**	**42.77**	**340**	*e*P	**P**	**05 15 06.2**	**+0.6**
	comp=Z,6.9nm,0.9s,mb4.4						
HIA	**Hailar**	**42.77**	**340**	*e*P	**P**	**05 15 06.2**	**+0.6**
HIA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ULN	**Ulaanbaatar**	**47.05**	**330**	*e*P	**P**	**05 15 40.3**	**+0.6**
	comp=Z,12nm,1.4s,mb4.6						
ULN	**Ulaanbaatar**	**47.05**	**330**	⇓*e*P	**P**	**05 15 41.0**	**+1.3**
SONM	**Songino Array**	**47.36**	**329**	P	**P**	**05 15 41.9**	**-0.2**
	comp=Z,3.5nm,0.8s,mb4.4,baz=139,slow=6.4,SNR=23						
MA2	**Magadan**	**50.04**	**7**	⇑*e*P	**P**	**05 16 02.6**	**+0.2**
MA2				pmax	pmax		
	comp=Z,12nm,1.8s,mb4.6						
ZAK	**Zakamensk**	**50.57**	**330**	*e*P	**P**	**05 16 07.3**	**+0.6**
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
TLY	**Talaya**	**51.24**	**331**	*e*P	**P**	**05 16 12.6**	**+1.0**
TLY				*e*	pP	05 16 21.1	-1.0
TLY				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
BOD	**Bodaibo**	**51.83**	**342**	*e*P	**P**	**05 16 15.6**	**-0.4**
BOD				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
YAK	**Yakutsk**	**52.50**	**354**	*e*P	**P**	**05 16 21.1**	**+0.2**
	comp=Z,19nm,0.4s,mb5.4						
YAK	**Yakutsk**	**52.50**	**354**	*e*P	**P**	**05 16 20.2**	**-0.7**
YAK				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
YAK				pmax	pmax		
	comp=N,11nm,1.5s						
YAK				pmax	pmax		
	comp=E,3.0nm,0.9s						
SEY	**Seymchan**	**53.49**	**7**	⇑*e*P	**P**	**05 16 29.1**	**+0.9**
BILL	**Bilibino**	**60.39**	**11**	*e*P	**P**	**05 17 16.8**	**-0.2**
BILL				pmax	pmax		
	comp=Z,10.0nm,1.6s,mb4.6						
MK31	**Makanchi Array**	**61.17**	**318**	*e*P	**P**	**05 17 23.1**	**+0.4**
MKAR	**Makanchi Array**	**61.17**	**318**	P	**P**	**05 17 22.5**	**-0.2**
	comp=Z,3.2nm,0.7s,mb4.5,baz=101,slow=8.8,SNR=37						
MKAR				LR	LR	05 44 17.4	
	comp=Z,67nm,18.9s,MS3.8,baz=175,slow=37						
TIXI	**Tiksi**	**61.98**	**356**	⇑*e*P	**P**	**05 17 27.9**	**+0.2**
TIXI				pmax	pmax		
	comp=Z,8.0nm,2.2s,mb4.5						
ZALV	**Zalesovo Beam**	**62.11**	**326**	P	**P**	**05 17 28.1**	**-0.8**
	comp=Z,2.9nm,0.6s,mb4.6,baz=107,slow=6.7,SNR=18						
ZALV				PcP	PcP	05 18 07.6	-1.3
	comp=Z,1.5nm,0.5s,baz=114,slow=3.5,SNR=5.3						
ZAL	**Zalesovo**	**62.11**	**326**	P	**P**	**05 17 28.1**	**-0.8**
ZAL						05 18 07.6	
KURK	**Kurchatov**	**64.62**	**322**	*e*P	**P**	**05 17 45.3**	**-0.2**
	comp=Z,10nm,0.8s,mb4.9						
KURK				*e*pP	pP	05 17 54.1	-2.1
KURK	**Kurchatov**	**64.62**	**322**	*e*P	**P**	**05 17 45.3**	**-0.2**
KURK				*e**PP	pP	05 17 54.1	-2.2
KURK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
TKM2	**Tokmak 2**	**64.90**	**313**	*e*P	**P**	**05 17 47.9**	**+0.4**
	comp=Z,2.8nm,0.9s,mb4.3						
TKM2	**Tokmak 2**	**64.90**	**313**	*e*P	**P**	**05 17 47.9**	**+0.4**
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
UCH	**Uchtor**	**65.57**	**312**	*e*P	**P**	**05 17 53.5**	**+1.6**
	comp=Z,10nm,1.2s,mb4.7						
AAK	**Ala-Archa**	**65.65**	**312**	*e*P	**P**	**05 17 51.4**	**-1.0**
	comp=Z,2.0nm,0.9s,mb4.2						
AAK	**Ala-Archa**	**65.65**	**312**	⇑*e*P	**P**	**05 17 51.8**	**-0.6**
AAK				pmax	pmax		
	comp=Z,11nm,2.8s,mb4.4						
AAK				MLR	MLR		
	comp=Z,100nm,21.0s,MS4.0						
AML	**Almayashu**	**66.16**	**312**	*e*P	**P**	**05 17 57.0**	**+1.3**
	comp=Z,1.9nm,0.8s,mb4.2						
EKS2	**Erkin-Say**	**66.18**	**312**	*e*P	**P**	**05 17 56.1**	**+0.3**
	comp=Z,5.5nm,1.4s,mb4.4						
KBL	**Kabul**	**69.14**	**303**	*e*P	**P**	**05 18 14.7**	**+0.1**
KDAK	**Kodiak Island**	**69.32**	**32**	P	**P**	**05 18 16.1**	**+0.8**
	comp=Z,2.5nm,0.8s,mb4.2,baz=0.0,slow=4.0,SNR=2.8						
BRVK	**Borovoye**	**70.17**	**323**	*e*P	**P**	**05 18 20.2**	**-0.4**
	comp=Z,6.5nm,0.6s,mb4.7						
BRVK	**Borovoye**	**70.17**	**323**	*e*P	**P**	**05 18 20.2**	**-0.4**
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
MCK	**McKinley**	**72.48**	**26**	*e*P	**P**	**05 18 34.8**	**+0.4**
	comp=Z,1.8nm,0.8s,mb4.0						
MCK	**McKinley**	**72.48**	**26**	*e*P	**P**	**05 18 34.8**	**+0.4**
MCK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
ARU	**Arti**	**77.25**	**326**	⇓*i*P	**P**	**05 19 01.4**	**-0.7**
ARU				*e*		05 21 55.4	
ARU				*e*S	S	05 28 49.4	+0.1
ARU				*e*SS	SS	05 33 45.9	-1.5
ARU				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
AKTK	**Aktyubinsk**	**77.56**	**320**	P	**P**	**05 19 03.4**	**-0.5**
AKTO	**Aktyubinsk**	**77.56**	**320**	P	**P**	**05 19 03.4**	**-0.5**
	comp=Z,0.9nm,0.6s,mb3.9,baz=92,slow=8.7,SNR=6.3						
PRGR	**Permogore**	**83.56**	**331**	*e*P	**P**	**05 19 35.2**	**-0.7**
ARCES	**ARCESS Array B**	**89.10**	**341**	P	**P**	**05 20 02.0**	**-0.9**
	comp=Z,2.6nm,0.7s,mb4.7,baz=95,slow=7.3,SNR=6.7						
NVAR	**Mina Array Bea**	**92.46**	**50**	P	**P**	**05 20 20.2**	**+1.0**
	comp=Z,2.1nm,0.6s,mb4.6,baz=266,slow=7.3,SNR=16						
FINES	**FINESS Array B**	**92.52**	**334**	P	**P**	**05 20 16.9**	**-2.0**
	comp=Z,0.4nm,0.4s,mb4.2,baz=29,slow=4.4,SNR=4.7						
TORD	**Torodi Ar. Bea**	**133.07**	**299**	PKP	PKPdf	05 26 24.5	0.0
TORD	**Torodi Ar. Bea**	**133.07**	**299**	PKP	PKPdf	05 26 24.5	0.0
	comp=Z,0.7nm,0.9s,baz=41,slow=1.6,SNR=2.9						
LCO	**Las Campanas**	**145.22**	**127**	*e*PKPbc	PKPbc	05 26 46.5	+0.6
LPAZ	**La Paz**	**151.45**	**106**	PKPbc	PKPbc	05 27 03.6	+0.9
LPAZ	**La Paz**	**151.45**	**106**	PKIKP	PKPbc	05 27 03.7	+0.9
LPAZ	**La Paz**	**151.45**	**106**	PKPbc	PKPbc	05 27 03.6	+0.9
	comp=Z,2.0nm,0.7s,baz=316,slow=1.7,SNR=6.4						

IDC 15 05:41:13.3±1.4, 186N×9965E, h163^{km}±23^{km}, mb3.0/4, mb1 3.1/4, mb1mx3.0/21, mbtmp3.0/4, Error ellipse: s-maj=137.4km s-min=21.2km az=60.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**1.18**	**322**	P	Pn	05 41 40.6	-0.1
	5.8nm,0.3s,baz=146,slow=7.3,SNR=23						
PSI				S	Sn	05 42 00.9	-0.9
	1.3nm,0.3s,baz=360,slow=21,SNR=9.2						
WRA	**Warramunga Arr**	**40.34**	**124**	P	P	05 48 34.8	-0.5
	0.7nm,0.5s,baz=302,slow=9.1,SNR=5.9						
ASAR	**Alice Springs**	**41.88**	**129**	P	P	05 48 48.0	+0.3
	0.2nm,0.4s,baz=295,slow=7.2,SNR=5.0						
SONM	**Songino Array**	**46.16**	**6**	P	P	05 49 21.7	+0.2
	0.2nm,0.6s,baz=187,slow=10,SNR=2.3						
MKAR	**Makanchi Array**	**47.24**	**344**	P	P	05 49 29.7	-0.1
	0.2nm,0.3s,baz=163,slow=7.7,SNR=3.0						

IDC ***15*** *06:05:13.3±1.7, 1.06N×125.83E, h0^{km}, mb3.6/4, mb1 3.8/5, mb1mx3.6/18, mbtmp3.7/5, ML3.5/1, Error ellipse: s-maj=107.6km s-min=24.3km az=66.0*

NEIC 15 06:05:14.6±1.2, 112N×12601E, h10^{km}, Error ellipse: s-maj=67.0km s-min=16.1km az=67.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**19.10**	**181**	P	Pn	06 09 37.5	-1.0
	0.1nm,0.3s,baz=12,slow=4.4,SNR=6.3						
WRA	**Warramunga Arr**	**22.46**	**159**	P	P	06 10 14.0	0.0
	1.9nm,0.6s,baz=336,slow=11,SNR=15						
WB2	**Warramunga Arr**	**22.47**	**159**	*e*P	P	06 10 13.7	-0.4
ASAR	**Alice Springs**	**25.80**	**163**	P	P	06 10 47.1	+1.1
	1.1nm,0.6s,baz=350,slow=16,SNR=13						
STKA	**Stephens Creek**	**35.98**	**157**	P	P	06 12 15.4	-0.3
	0.7nm,0.8s,baz=326,slow=11,SNR=1.9						
MKAR	**Makanchi Array**	**59.30**	**326**	P	P	06 15 16.6	+0.1
	0.3nm,0.4s,baz=129,slow=7.0,SNR=4.4						

IDC 15 06:32:13.6±69.0, 1291S×16901E, h0^{km}, mb3.7/3, mb1 3.9/3, mb1mx3.6/15, mbtmp3.7/3, Error ellipse: s-maj=1176.0km s-min=123.2km az=64.0, Santa Cruz Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**31.45**	**229**	P	P	06 38 37.0	0.0
	1.1nm,0.4s,baz=63,slow=8.9,SNR=6.5						
WRA	**Warramunga Arr**	**33.93**	**253**	P	P	06 38 59.3	+0.5
	0.2nm,0.6s,baz=85,slow=8.9,SNR=4.7						
ASAR	**Alice Springs**	**34.91**	**247**	P	P	06 39 07.0	-0.3
	0.4nm,0.4s,baz=75,slow=9.1,SNR=14						

IDC 15 06:41:13.6±1.3, 2842N×4364W, h0^{km}, mb3.7/4, mb1 4.0/4, mb1mx3.6/22, mbtmp3.7/4, Error ellipse: s-maj=43.3km s-min=30.0km az=38.0, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	**Torodi Ar. Bea**	**44.75**	**100**	P	P	06 49 29.1	+0.1
	0.7nm,0.9s,baz=299,slow=7.9,SNR=3.7						
LPAZ	**La Paz**	**50.37**	**211**	P	P	06 50 13.1	+0.5
	0.7nm,0.5s,baz=342,slow=6.4,SNR=3.5						
PDAR	**Pinedale Array**	**54.20**	**304**	P	P	06 50 41.4	+0.5
	1.3nm,0.6s,baz=83,slow=7.3,SNR=14						
YKA	**Yellowknife Ar**	**56.44**	**328**	P	P	06 50 56.4	-0.3
	0.6nm,0.9s,baz=91,slow=7.4,SNR=6.6						

ISK ***15*** *06:49:14.9, 38.82N×40.06E, h5^{km}, ML3.7*

CSEM ***15*** *06:49:15.8±0.1, 38.80N×40.06E, h5^{km}, ML4.2, Error ellipse: s-maj=2.0km s-min=1.5km az=177.0*

ISCJB ***15*** *06:49:16.9±0.3, 38.77N±0.03×40.08E±0.02, h10^{km}, Error ellipse: s-maj=3.7km s-min=2.6km az=172.5*

DDA ***15*** *06:49:17.4, 38.75N×40.05E, h13^{km}±5^{km}, Md3.9, Ml4.2*

ISC 15 06:49:17.6±0.3, 3877N±003×4010E±002, h10^{km}, n58, σ1^{s}17/74, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BINT	**Bingol**	**0.32**	**70**	*i* PG	**Pg**	**06 49 22.3**	**-1.7**
BINT				*i* SG	**Sg**	**06 49 28.4**	**0.0**
BINT	**Bingol**	**0.32**	**70**	*i* Pg	**Pg**	**06 49 22.3**	**-1.7**
BINT				*i* Sg	**Sg**	**06 49 28.4**	**0.0**
PTK	**Pertek**	**0.57**	**283**	PG	**Pg**	**06 49 26.2**	**-2.4**
PTK				SG	**Sg**	**06 49 34.5**	**-1.5**
PTK	**Pertek**	**0.57**	**283**	*e*Pg	**Pg**	**06 49 26.2**	**-2.4**
PTK				*e*Sg	**Sg**	**06 49 34.5**	**-1.5**
BNGL	**BINGOL**	**0.84**	**77**	*i* P	**Pg**	**06 49 32.2**	**-1.6**
BNGL				*i* S	**Sg**	**06 49 46.3**	**+1.6**
DIY	**Diyarbakir**	**0.87**	**173**	PG	**Pg**	**06 49 33.9**	**-0.5**
DIY				SG	**Sg**	**06 49 47.8**	**+2.0**
DIY	**Diyarbakir**	**0.87**	**173**	*e*Pg	**Pg**	**06 49 33.9**	**-0.5**
DIY				*e*Sg	**Sg**	**06 49 47.8**	**+2.0**
ELZG	**Elazig**	**0.91**	**253**	*i* P	**Pg**	**06 49 31.4**	**-3.7**
ELZG				*i* S	**Sg**	**06 49 45.5**	**-1.5**
EZC	**Erzincan**	**1.01**	**347**	PG	**Pg**	**06 49 36.4**	**-0.5**
BTMT	**Batman**	**1.23**	**117**	PN	**Pn**	**06 49 39.5**	**-1.3**
EZM	**Erzurum**	**1.50**	**40**	PN	**Pn**	**06 49 44.1**	**-0.5**
ERZM	**Erzurum**	**1.50**	**40**	*i* P	**Pn**	**06 49 44.0**	**-0.6**
ERZM				*i* S	**Sg**	**06 50 10.7**	**+4.8**
MARD	**Mardin**	**1.54**	**159**	*i* P	**Pn**	**06 49 43.8**	**-1.3**
MARD				*i* S	**Sn**	**06 50 05.0**	**-0.2**
URFA	**Urfa**	**1.66**	**218**	PN	**Pn**	**06 49 45.8**	**-1.0**
URFA	**Urfa**	**1.66**	**218**	*e*Pn	**Pn**	**06 49 45.8**	**-1.0**
GUMT	**Gumushane**	**1.76**	**344**	PN	**Pn**	**06 49 46.8**	**-1.3**
GUMT	**Gumushane**	**1.76**	**344**	*e*Pn	**Pn**	**06 49 46.8**	**-1.3**
MACK	**Trabzon**	**2.19**	**353**	*e*P	**Pn**	**06 49 55.8**	**+1.7**
TUTA	**Tutak**	**2.21**	**72**	*i* P	**Pn**	**06 49 55.0**	**+0.7**
TUTA				*i* S	**Sg**	**06 50 28.0**	**-0.5**
AGRB	**Hanur-Agry**	**2.39**	**69**	*e*PN	**Pn**	**06 49 57.1**	**+0.4**
AGRB	**Hanur-Agry**	**2.39**	**69**	*e*Pn	**Pn**	**06 49 57.1**	**+0.4**
GZT	**Gaziantep**	**2.45**	**236**	*i* P	**Pn**	**06 49 56.4**	**-1.1**
GZT				*i* S	**Sn**	**06 50 29.7**	**+2.2**
GRSN	**GIRESUNGRSN**	**2.58**	**327**	*i* P	**Pn**	**06 49 59.6**	**+0.2**
GRSN				*i* S	**Sn**	**06 50 33.2**	**+2.5**
VANB	**Van**	**2.58**	**93**	*e*PN	**Pn**	**06 49 59.9**	**+0.5**
VANB	**Van**	**2.58**	**93**	*e*Pn	**Pn**	**06 49 59.9**	**+0.5**
TVAN	**Van**	**2.60**	**94**	*i* P	**Pb**	**06 50 03.5**	**-0.8**
TVAN				*i* S	**Sg**	**06 50 46.1**	**+5.0**
GAZ	**Gaziantep**	**2.78**	**236**	*e*PN	**Pn**	**06 50 02.7**	**+0.6**
GAZ	**Gaziantep**	**2.78**	**236**	*e*Pn	**Pn**	**06 50 02.7**	**+0.6**
ARTV	**Artvin**	**2.80**	**30**	*i* P	**Pn**	**06 50 02.7**	**+0.4**
KMRS	**Kahramanmaras**	**2.82**	**245**	*e*PN	**Pn**	**06 50 02.7**	**0.0**
KMRS	**Kahramanmaras**	**2.82**	**245**	*e*Pn	**Pn**	**06 50 02.7**	**0.0**
BCA	**Borcka**	**2.92**	**23**	*e*PN	**Pn**	**06 50 03.6**	**-0.5**
BCA	**Borcka**	**2.92**	**23**	*e*Pn	**Pn**	**06 50 03.6**	**-0.5**
DIGO	**Kars**	**3.02**	**56**	*i* P	**Pn**	**06 50 06.0**	**+0.5**
DIGO	**Kars**	**3.02**	**56**	*i* P	**Pn**	**06 50 05.9**	**+0.5**
HAKT	**HAKKARI**	**3.09**	**112**	*e*P	**Pn**	**06 50 05.5**	**-0.9**
HAKT				*i* S	**Sg**	**06 50 52.0**	**-4.8**
HAKT	**HAKKARI**	**3.09**	**112**	*e*P	**Pn**	**06 50 05.4**	**-1.0**
HKR	**Hakkari**	**3.10**	**111**	*e*PN	**Pn**	**06 50 07.8**	**+1.2**
HKR	**Hakkari**	**3.10**	**111**	*e*Pn	**Pn**	**06 50 07.8**	**+1.2**
CUKT	**Cukurca**	**3.16**	**118**	*e*PN	**Pn**	**06 50 08.8**	**+1.5**
CUKT	**Cukurca**	**3.16**	**118**	*e*Pn	**Pn**	**06 50 08.8**	**+1.5**
ANDN	**Andirin**	**3.19**	**249**	*i* P	**Pn**	**06 50 07.3**	**-0.4**
ANDN				*i* S	**Sn**	**06 50 48.8**	**+3.0**
ANDN	**Andirin**	**3.19**	**249**	*i* P	**Pn**	**06 50 07.3**	**-0.4**
ANDN				*i* S	**Sn**	**06 50 48.8**	**+3.0**
BNN	**Bunyan**	**3.33**	**273**	*e*PN	**Pn**	**06 50 10.2**	**+0.6**
BNN	**Bunyan**	**3.33**	**273**	*e*Pn	**Pn**	**06 50 10.2**	**+0.6**
MSL	**Mosul**	**3.43**	**135**	*e*Pn	x	06 50 21.0	
MSL				*e*Pb	x	06 50 27.0	
MSL				*e*Pg	x	06 50 35.0	
MSL				*e*Sn	x	06 51 08.0	
MSL				*e*Sb	x	06 51 19.0	
MSL				*e*Sg	x	06 51 28.0	
KOZT	**Kozan**	**3.61**	**250**	*e*PN	**Pn**	**06 50 13.9**	**+0.4**
YOZ	**Yozgat**	**3.81**	**285**	*e*PN	**Pn**	**06 50 17.2**	**+0.9**
YOZ	**Yozgat**	**3.81**	**285**	*e*Pn	**Pn**	**06 50 17.2**	**+0.9**
KVT	**Kavak**	**3.88**	**308**	*e*PN	**Pn**	**06 50 17.6**	**+0.3**
KVT	**Kavak**	**3.88**	**308**	*e*Pn	**Pn**	**06 50 17.6**	**+0.3**
AVNT	**Avonos**	**4.10**	**272**	*e*P	**Pn**	**06 50 22.7**	**+2.4**
YAYL	**Yayladag**	**4.19**	**231**	*i* P	**Pn**	**06 50 20.2**	**-1.2**
YAYL	**Yayladag**	**4.19**	**231**	*i* P	**Pn**	**06 50 20.2**	**-1.3**
CORM	**Corum**	**4.46**	**290**	*e*PN	**Pn**	**06 50 26.0**	**+0.8**
CORM	**Corum**	**4.46**	**290**	*e*Pn	**Pn**	**06 50 26.0**	**+0.8**
DIKM	**Dikmen**	**4.70**	**309**	*e*PN	**Pn**	**06 50 28.8**	**+0.4**
DIKM	**Dikmen**	**4.70**	**309**	*e*Pn	**Pn**	**06 50 28.8**	**+0.4**

MAN 15 06:54:58, 765N×12487E, h1^{km}, mb4.1, ML2.9, MS2.6, 3C, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BUKP	**Musuan**	**0.30**	**40**	*e*P	Pg	06 55 04.5	+0.7
KCP	**Kidapawan**	**0.67**	**161**	⇑*e*P	Pg	06 55 11.5	+0.5
KCP				*e*S	Sg	06 55 22.4	+2.7
CTBH	**Cotabato--PC H**	**0.75**	**235**	⇑*e*P	Pg	06 55 13.5	+1.2
CTBH				*i* S	Sg	06 55 25.2	+3.1
CGP	**Cagayan de Oro**	**0.82**	**348**	⇑*i*P	Pg	06 55 14.2	+0.5
CGP				*i* S	Sg	06 55 25.5	+1.1
PAGZ	**Pagadian**	**1.48**	**278**	*e*P	Pn	06 55 26.0	+0.2
PAGZ				*e*S	Sg	06 55 47.6	+1.8

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*ISCJB **15** 06:55:12.0±0.6, 3879N±003×4007E±003, h2^{km}±6^{km}, Error ellipse: s-maj=4.9km s-min=3.5km az=165.9*

*CSEM **15** 06:55:11.5±0.1, 3880N×4007E, h2^{km}, MD3.3, Error ellipse: s-maj=2.4km s-min=2.0km az=141.0*

*ISK **15** 06:55:11.4, 3881N×4006E, h2^{km}, MD3.3*

*DDA **15** 06:55:12.8, 3873N×4006E, h5^{km}±1^{km}, Md3.5*

ISC 15 06:55:12.8±0.5, **3880N**±003×**4006E**±003, **h5**^{km}±5^{km}, **n29**, σ**0$\overset{s}{.}$76**/43, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BINT	**Bingol**	**0.35**	**77**	*i* PG	**Pg**	**06 55 18.7**	**-0.8**
BINT				*i* SG	**Sg**	**06 55 24.8**	**+0.8**
BINT	**Bingol**	**0.35**	**77**	*i* Pg	**Pg**	**06 55 18.7**	**-0.8**
BINT				*i* Sg	**Sg**	**06 55 24.8**	**+0.8**
PTK	**Pertek**	**0.53**	**281**	PG	**Pg**	**06 55 22.5**	**-0.5**
PTK				SG	**Sg**	**06 55 30.6**	**+0.7**
PTK	**Pertek**	**0.53**	**281**	*e*Pg	**Pg**	**06 55 22.5**	**-0.5**
PTK				*e*Sg	**Sg**	**06 55 30.6**	**+0.7**
BNGL	**BINGOL**	**0.87**	**79**	*i* P	**Pg**	**06 55 28.7**	**-0.7**
BNGL				*i* S	**Sg**	**06 55 41.5**	**+0.8**
ELZG	**Elazig**	**0.89**	**251**	*i* P	**Pg**	**06 55 29.0**	**-0.9**
ELZG				*i* S	**Sg**	**06 55 41.1**	**-0.3**
DIY	**Diyarbakir**	**0.91**	**172**	PG	**Pg**	**06 55 29.9**	**-0.3**
DIY				SG	**Sg**	**06 55 43.6**	**+1.6**
DIY	**Diyarbakir**	**0.91**	**172**	*e*Pg	**Pg**	**06 55 29.9**	**-0.3**
DIY				*e*Sg	**Sg**	**06 55 43.6**	**+1.6**
EZC	**Erzincan**	**0.97**	**349**	PN	**Pn**	**06 55 32.9**	**-0.1**
BTMT	**Batman**	**1.27**	**118**	PN	**Pn**	**06 55 35.8**	**-1.4**
EZM	**Erzurum**	**1.50**	**42**	PN	**Pn**	**06 55 40.7**	**+0.4**
ERZM	**Erzurum**	**1.50**	**42**	*i* P	**Pn**	**06 55 40.5**	**+0.1**
ERZM				*i* S	**Sg**	**06 56 07.2**	**+6.1**
MARD	**Mardin**	**1.58**	**159**	*i* P	**Pn**	**06 55 40.1**	**-1.4**
MARD				*i* S	**Sn**	**06 56 01.5**	**-0.8**
URFA	**Urfa**	**1.67**	**216**	PN	**Pn**	**06 55 43.1**	**+0.5**
URFA	**Urfa**	**1.67**	**216**	*e*Pn	**Pn**	**06 55 43.1**	**+0.5**
GUMT	**Gumushane**	**1.72**	**345**	PN	**Pn**	**06 55 43.5**	**+0.1**
GUMT	**Gumushane**	**1.72**	**345**	*e*Pn	**Pn**	**06 55 43.5**	**+0.1**
ATAB	**Bozova**	**1.92**	**227**	*e*P	**Pn**	**06 55 46.1**	**+0.1**
ATAB				*i* S	**Sb**	**06 56 13.1**	**+0.6**
TUTA	**Tutak**	**2.23**	**73**	*e*P	**Pn**	**06 55 51.7**	**+1.3**
TUTA				*i* S	**Sg**	**06 56 24.4**	**0.0**
AGRB	**Hanur-Agry**	**2.41**	**70**	*e*PN	**Pn**	**06 55 53.3**	**+0.5**
AGRB	**Hanur-Agry**	**2.41**	**70**	*e*Pn	**Pn**	**06 55 53.3**	**+0.5**
GZT	**Gaziantep**	**2.44**	**235**	*e*P	**Pn**	**06 55 52.4**	**-0.8**
GRSN	**GIRESUNGRSN**	**2.53**	**328**	*i* P	**Pb**	**06 55 58.1**	**-0.6**
GRSN				*i* S	**Sg**	**06 56 33.8**	**-0.4**
GAZ	**Gaziantep**	**2.77**	**235**	*e*PN	**Pn**	**06 55 58.9**	**+1.1**
GAZ	**Gaziantep**	**2.77**	**235**	*e*Pn	**Pn**	**06 55 58.9**	**+1.1**
ARTV	**Artvin**	**2.79**	**30**	*e*P	**Pn**	**06 55 58.5**	**+0.5**
KMRS	**Kahramanmaras**	**2.80**	**244**	*e*PN	**Pn**	**06 55 59.2**	**+1.0**
KMRS	**Kahramanmaras**	**2.80**	**244**	*e*Pn	**Pn**	**06 55 59.2**	**+1.0**
HAKT	**HAKKARI**	**3.13**	**112**	*e*P	**Pn**	**06 56 02.1**	**-0.6**
HAKT				*i* S	**Sg**	**06 56 53.0**	**-0.4**

IDC 15 07:06:27.7±3.0, **948S**×**11654E**, **h0**^{km}, **mb3.2**/3, **mb1 3.5**/3, **mb1mx3.3**/17, **mbtmp3.3**/3, **Error ellipse: s-maj=190.4km s-min=27.3km az=48.0, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**20.09**	**123**	P	P	07 11 03.7	+0.7
	0.5nm,0.5s,baz=299,slow=11,SNR=10.0						
ASAR	**Alice Springs**	**21.78**	**132**	P	P	07 11 20.9	-0.4
	0.6nm,0.8s,baz=306,slow=9.1,SNR=8.2						
ASAR				S	S	07 15 16.0	-7.1
	0.2nm,0.8s,baz=308,slow=20,SNR=2.5						
MKAR	**Makanchi Array**	**63.81**	**334**	P	P	07 17 01.8	+0.1
	0.2nm,0.5s,baz=154,slow=7.8,SNR=4.9						

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*ISCJB **15** 07:54:04.5±0.6, 4090N±003×14202E±008, h70^{km}±5^{km}, mb3.5/6, Error ellipse: s-maj=10.0km s-min=5.3km az=16.5*

*IDC **15** 07:54:05.1±4.4, 4088N×14208E, h61^{km}±50^{km}, mb3.3/6, mb1 3.4/7, mb1mx3.2/22, mbtmp3.3/7, ML3.4/1, Error ellipse: s-maj=52.1km s-min=21.4km az=70.0*

*JMA **15** 07:54:05.0±0.1, 4090N×142.12E, h50^{km}±3^{km}, M3.6*

JMA Felt I J1.

ISC 15 07:54:05.6±0.6, **4090N**±003×**14200E**±007, **h62**^{km}±6^{km}, **n17**, σ**0$\overset{s}{.}$54**/26, **mb3.6**/6, **2C-4D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JANG	**Nango**	**0.65**	**215**	⇓P	**Pn**	**07 54 18.8**	**-0.5**
JANG				*e*S	**Sn**	**07 54 28.5**	**-0.8**
JTM	**Tenmabayashi**	**0.72**	**261**	⇓P	**Pn**	**07 54 20.1**	**0.0**
JTM				*e*S	**Sn**	**07 54 31.0**	**+0.2**
JOT	**Ohata**	**0.87**	**304**	⇓P	**Pn**	**07 54 21.6**	**-0.4**
JOT				*e*S	**Sn**	**07 54 33.9**	**-0.1**
JKB	**Kayabe**	**1.23**	**324**	⇓P	**Pn**	**07 54 26.4**	**-0.2**
JKB				*e*S	**Sn**	**07 54 41.9**	**-0.4**
JAH	**Hinai**	**1.26**	**236**	P	**Pn**	**07 54 27.6**	**+0.5**
JAH				*e*S	**Sn**	**07 54 44.4**	**+1.2**
JSR	**Shiriuchi**	**1.35**	**298**	P	**Pn**	**07 54 28.9**	**+0.6**
JEM	**Erimo**	**1.41**	**38**	P	**Pn**	**07 54 29.2**	**+0.1**
JEM				*e*S	**Sn**	**07 54 47.3**	**+0.6**
JOM	**Ohasama**	**1.53**	**201**	⇑P	**Pn**	**07 54 30.8**	**+0.1**
JOM				*e*S	**Sn**	**07 54 49.2**	**-0.4**
JIW	**Iwasaki**	**1.55**	**259**	P	**Pn**	**07 54 32.0**	**+1.1**
JNB	**Noboribetsu**	**1.72**	**336**	⇑P	**Pn**	**07 54 32.6**	**-0.7**
JNB				*e*S	**Sn**	**07 54 53.5**	**-0.8**
ASAJ	**Asahikawa**	**3.24**	**8**	P	**Pn**	**07 54 54.2**	**+0.3**
	2.7nm,0.3s,baz=184,slow=18,SNR=8.7						
ASAJ				S	**Sn**	**07 55 31.6**	**+0.4**
	2.2nm,0.3s,baz=324,slow=30,SNR=3.6						
SONM	**Songino Array**	**26.21**	**297**	P	**P**	**07 59 33.6**	**-0.7**
	0.2nm,0.6s,mb2.9,baz=59,slow=12,SNR=2.3						
ZALV	**Zalesovo Beam**	**39.74**	**309**	P	**P**	**08 01 32.0**	**+0.2**
	0.6nm,0.3s,mb3.8,baz=45,slow=10,SNR=2.6						
MKAR	**Makanchi Array**	**42.56**	**299**	P	**P**	**08 01 55.8**	**+0.8**
	0.4nm,0.4s,mb3.5,baz=84,slow=11,SNR=7.2						
WRA	**Warramunga Arr**	**60.95**	**188**	P	**P**	**08 04 11.6**	**-0.5**
	0.2nm,0.4s,mb3.6,baz=5.8,slow=7.1,SNR=10						
ASAR	**Alice Springs**	**64.68**	**188**	P	**P**	**08 04 36.5**	**-0.4**
	0.3nm,0.6s,mb3.5,baz=1.4,slow=7.3,SNR=4.6						
FINES	**FINESS Array B**	**65.62**	**332**	P	**P**	**08 04 42.6**	**0.0**
	1.2nm,0.5s,mb4.2,baz=49,slow=8.8,SNR=9.2						

IDC 15 08:13:23.0±1.3, **2489N**×**12685E**, **h0**^{km}, **mb3.8**/5, **mb1 3.9**/5, **mb1mx3.6**/20, **mbtmp3.8**/5, **Error ellipse: s-maj=42.1km s-min=25.8km az=76.0, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOW	**Kunigami**	**2.33**	**33**	Pn	Pn	08 14 02.5	-0.1
	5.4nm,0.3s,baz=136,slow=21,SNR=6.7						
JOW				Sn	Sn	08 14 28.2	-3.6
	18nm,0.3s,baz=108,slow=26,SNR=7.1						
SONM	**Songino Array**	**28.04**	**330**	P	P	08 19 16.3	+0.5
	0.5nm,0.4s,baz=138,slow=11,SNR=9.7						
MKAR	**Makanchi Array**	**41.52**	**313**	P	P	08 21 11.9	0.0
	0.8nm,0.4s,baz=98,slow=10,SNR=16						
WRA	**Warramunga Arr**	**45.15**	**170**	P	P	08 21 41.5	0.0
	0.4nm,0.8s,baz=350,slow=9.0,SNR=5.5						
FINES	**FINESS Array B**	**73.41**	**330**	P	P	08 24 56.6	-0.1
	1.5nm,1.0s,baz=44,slow=5.8,SNR=3.7						
NOA	**NORSAR Array B**	**79.96**	**334**	P	P	08 25 33.7	0.0
	0.7nm,0.9s,baz=55,slow=5.5,SNR=3.5						

CASC 15 08:23:28.7±1.1, **888N**×**8284W**, **h24**^{km}±4^{km}, **MD3.5, 2C-1D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTCR	**Cotoan**	**0.08**	**78**	*e*P	Pb	08 23 33.3	+0.2
BRU2	**Volcan**	**0.17**	**120**	⇑*i*P	Pb	08 23 33.9	0.0
BRU2				*e*S	Sb	08 23 38.6	+1.1
TBS2		**0.20**	**115**	*e*P	Pb	08 23 40.9	+6.6
TBS2				*e*S	Sb	08 23 45.1	+7.0
BAR1		**0.59**	**308**	⇓*e*P	Pb	08 23 39.9	-0.5
BAR1				*e*S	Sb	08 23 48.1	-0.3
CNI	**Changuinola**	**0.62**	**31**	*e*P	Pb	08 23 41.2	+0.2
URSC	**Urasca**	**1.33**	**316**	⇑*e*P	Pn	08 23 52.1	+0.4
URSC				*e*S	Sn	08 24 09.7	+1.1
LCR2	**La Lucha 2**	**1.43**	**307**	*e*P	Pn	08 23 53.3	+0.1
LCR2				*e*S	Sn	08 24 12.8	+1.5
PRS1	**Puriscal**	**1.82**	**307**	*e*P	Pn	08 23 58.8	+0.2
PRS1				*e*S	Sn	08 24 21.2	+0.4

IDC 15 08:23:56.5±69.0, **1599S**×**17791W**, **h0**^{km}, **mb3.6**/3, **mb1 3.8**/3, **mb1mx3.6**/14, **mbtmp3.6**/3, **Error ellipse: s-maj=1273.0km s-min=175.7km az=77.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**39.99**	**239**	P	P	08 31 32.9	-0.2
	0.4nm,0.3s,baz=102,slow=8.9,SNR=4.9						
WRA	**Warramunga Arr**	**45.48**	**258**	P	P	08 32 17.7	-0.2
	0.1nm,0.3s,baz=92,slow=7.6,SNR=3.6						
ASAR	**Alice Springs**	**45.80**	**252**	P	P	08 32 20.4	+0.1
	1.1nm,0.6s,baz=89,slow=8.1,SNR=24						

IGQ 15 08:29:21.4, 141S×**8039W, h16**^{km}±7^{km}, **Mb4.1, Ms3.9, 11C-8D, Error ellipse: s-maj=4.8km s-min=4.0km az=151.3, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHIS	**Cerro-Chispas-**	**0.49**	**317**	⇓P	Pg	08 29 30.7	-0.5
CHIS				⇓S	Sg	08 29 39.1	+1.3
JAMA	**Jama**	**1.16**	**9**	P	Pn	08 29 42.2	-0.7
JAMA	**Jama**	**1.16**	**9**	S	Sb	08 30 00.7	+2.9
MAG1	**Magdalena**	**1.46**	**25**	P	Pn	08 29 47.3	+0.1
IGUA	**Igualata**	**1.75**	**93**	P	Pn	08 29 53.7	+2.6
BILB	**Tungurahua vol**	**1.89**	**91**	P	Pn	08 29 54.6	+1.6
JUIV	**Juive**	**1.92**	**90**	P	Pn	08 29 56.0	+2.5
ARRY	**Arrayan**	**1.94**	**93**	⇑P	Pn	08 29 56.4	+2.7
ARRY	**Arrayan**	**1.94**	**93**	⇑S	Sn	08 30 20.6	+2.9
RETU	**Refugio**	**1.94**	**91**	P	Pn	08 29 57.2	+3.4
PATA	**Patacocha**	**1.96**	**93**	⇑P	Pn	08 29 57.1	+3.1
PATA	**Patacocha**	**1.96**	**93**	⇑S	Sn	08 30 23.4	+5.2
RUN5	**Runtun**	**1.96**	**90**	P	Pn	08 29 57.2	+3.2
ULBA	**Ulba**	**1.98**	**91**	⇑P	Pn	08 29 57.4	+3.1
ULBA	**Ulba**	**1.98**	**91**	⇑S	Sn	08 30 22.5	+3.7
CAMI	**Rancho Maria**	**2.02**	**69**	P	Pn	08 29 58.2	+3.4
PISA	**Pisayambo**	**2.03**	**80**	⇓P	Pn	08 29 58.5	+3.5
VC1	**Cotopaxi 1**	**2.13**	**69**	⇑P	Pn	08 30 00.5	+4.2
TAMB	**Tambo**	**2.14**	**71**	P	Pn	08 30 00.4	+3.9
JUA2	**San Juan 2**	**2.14**	**56**	⇑P	Pn	08 29 58.5	+1.9
TERV	**Terraza Guagua**	**2.17**	**56**	P	Pn	08 29 58.5	+1.7
PINO	**Pino**	**2.17**	**55**	⇓P	Pn	08 29 58.5	+1.5
GGP	**Refugio Guagua**	**2.17**	**56**	⇑P	Pn	08 29 58.6	+1.7
YANA	**Yana**	**2.23**	**55**	⇓P	Pn	08 29 59.2	+1.5
ANTI	**Antisana**	**2.42**	**67**	⇓P	Pn	08 30 04.0	+3.6
COTA	**Cotacachi**	**2.69**	**50**	P	Pn	08 30 06.6	+2.6
CAYR	**Refugio Cayamb**	**2.77**	**59**	⇑P	Pn	08 30 10.3	+5.1
CAYR	**Refugio Cayamb**	**2.77**	**59**	⇑S	Sn	08 30 50.2	+12
CAYA	**Cayambe**	**2.81**	**59**	⇓P	Pn	08 30 10.3	+4.6
CAYA	**Cayambe**	**2.81**	**59**	⇓S	Sn	08 30 50.3	+11

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*MOS **15** 08:31:38.9±1.3, 2220S×17185E, h33^{km}, mb4.9/6, Error ellipse: s-maj=16.4km s-min=11.9km az=36.5*

*BJI **15** 08:31:38.9, 2179S×17126E, h8^{km}, mB5.5, mb5.0*

*GCMT **15** 08:31:40.0±0.3, 2242S×17150E, h120^{km}±4^{km}, MW5.0/63, Moment Tensor Solution. s17,c20; s63,c87; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.41±.13; $M_{\theta\theta}$-2.48±.17; $M_{\phi\phi}$1.06±.16; $M_{r\theta}$1.71±.11; $M_{\theta\phi}$2.10±.17; $M_{\phi r}$1.13±.09; Best double couple: $M_0$3.63700×10^{16} NP1:ϕ_s333.00000°, δ51.00000°, λ157.00000°. NP2: ϕ_s78.00000°, δ72.00000°, λ41.00000°. Principal axes: T 3.5660, Plg41.0000°, Azm303.0000°; N 0.1320, Plg46.0000°, Azm97.0000°; P -3.7080, Plg13.0000°, Azm201.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **15** 08:31:40.0±0.4, 22.12S×17191E, mb4.9/17 Error ellipse: s-maj=12.3km s-min=11.2km az=106.0*

*IDC **15** 08:31:49.5±0.8, 2229S×17159E, h109^{km}±6^{km}, mb4.3/10, mb1 4.4/13, mb1mx4.3/18, mbtmp4.3/13, MS3.7/13, Ms1 3.7/13, ms1mx3.5/22, Error ellipse: s-maj=18.3km s-min=12.8km az=173.0*

*ISCJB **15** 08:31:49.6±1.8, 2227S±007×17155E±009, h125^{km}±15^{km}, mb4.7/27, Error ellipse: s-maj=15.3km s-min=10.5km az=149.7*

ISC 15 08:31:50.6±1.7, **2224S**±007×**17158E**±009, **h119**^{km}±14^{km}, **h34**^{km}±3.0^{km}**:pP-P, n114,** σ**1$\overset{s}{.}$04**/62, **mb4.7**/27, **11C-6D, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**4.76**	**271**	⇑*i*P	**Pn**	**08 33 00.9**	**+0.5**
DZM				*e*S	**Sn**	**08 33 54.5**	**-0.1**
DZM	**Mont Dzumac**	**4.76**	**271**	P	**Pn**	**08 33 00.8**	**+0.4**
	31nm,0.3s,baz=71,slow=20,SNR=563						
DZM				S	**Sn**	**08 33 54.6**	**0.0**
	91nm,0.3s,baz=83,slow=22,SNR=25						
RAO	**Raoul Island**	**11.76**	**129**	LR	LR	08 37 22.8	
	comp=Z,371nm,21.8s,baz=169,slow=28						
URZ	**Urewera**	**16.66**	**165**	P	**Pn**	**08 35 37.0**	**+0.1**
	0.8nm,0.3s,baz=348,slow=9.7,SNR=6.0						
URZ				LR	LR	08 41 04.7	
	comp=Z,291nm,20.6s,baz=16,slow=33						
HNR	**Honiara**	**16.94**	**317**	*e*P	**Pn**	**08 35 37.9**	**-2.5**
	195nm,1.1s						
HNR	**Honiara**	**16.94**	**317**	*e*P	**Pn**	**08 35 37.9**	**-2.6**
HNR				pmax	pmax		
	comp=Z,195nm,1.1s						
HNR	**Honiara**	**16.94**	**317**	P	**Pn**	**08 35 40.5**	**0.0**
	comp=Z,7.0nm,0.3s,baz=232,slow=1.9,SNR=8.2						
HNR				LR	LR	08 39 47.0	
	comp=Z,103nm,21.1s,baz=180,slow=28						
AFI	**Afiamalu**	**17.85**	**65**	LR	LR	08 41 07.9	
	comp=Z,206nm,20.4s,baz=229,slow=31						
EIDS	**Eidsvold**	**19.01**	**257**	*e*P	**P**	**08 36 03.6**	**+0.5**
RPZ	**Rata Peaks**	**21.42**	**181**	P	**P**	**08 36 28.3**	**-0.5**
	comp=Z,27nm,1.1s,mb4.5,baz=99,slow=22,SNR=5.5						
RPZ				LR	LR	08 43 27.5	
	comp=Z,236nm,20.7s,baz=358,slow=33						
CTA	**Charters Tower**	**23.71**	**270**	*e*P	**P**	**08 36 52.8**	**+1.1**
	comp=Z,11nm,1.1s,mb4.1						
CTA	**Charters Tower**	**23.71**	**270**	*e*P	**P**	**08 36 52.8**	**+1.1**
CTA				pmax	pmax		
	comp=Z,11nm,1.1s						
CTA	**Charters Tower**	**23.71**	**270**	P	**P**	**08 36 52.3**	**+0.6**
	comp=Z,5.1nm,0.5s,mb4.1,baz=88,slow=12,SNR=9.2						
CTAO	**Charters Tower**	**23.71**	**270**	*e*P	**P**	**08 36 51.9**	**+0.2**
	comp=Z,25nm,1.1s,mb4.5						
CTAO	**Charters Tower**	**23.71**	**270**	*e*P	**P**	**08 36 51.9**	**+0.2**
CTAO				pmax	pmax		
	comp=Z,25nm,1.1s,mb4.5						
PMG	**Port Moresby**	**26.68**	**295**	*e*P	**P**	**08 37 19.3**	**+0.6**
	comp=Z,9.1nm,0.8s,mb4.4						
PMG				*e*pP	pP	08 37 29.3	-15
PMG	**Port Moresby**	**26.68**	**295**	⇑*e*P	**P**	**08 37 19.2**	**+0.5**
PMG	**Port Moresby**	**26.68**	**295**	P	**P**	**08 37 19.2**	**+0.6**
	comp=Z,14nm,0.9s,mb4.5,baz=89,slow=7.7,SNR=8.2						
PMG				LR	LR	08 45 32.9	
	comp=Z,109nm,19.8s,baz=106,slow=31						
COEN	**Coen**	**28.19**	**282**	*e*P	**P**	**08 37 32.7**	**+0.6**
STKA	**Stephens Creek**	**28.30**	**244**	*e*P	**P**	**08 37 33.3**	**+0.4**
	comp=Z,4.6nm,1.0s,mb4.0						
STKA	**Stephens Creek**	**28.30**	**244**	P	**P**	**08 37 33.5**	**+0.6**
	comp=Z,7.0nm,1.0s,mb4.1,baz=79,slow=9.7,SNR=9.8						
ASAR	**Alice Springs**	**34.66**	**260**	P	**P**	**08 38 28.4**	**-0.3**
	comp=Z,16nm,0.8s,mb4.9,baz=85,slow=8.7,SNR=138						
ASAR				pP	pP	08 38 52.4	-2.8
	comp=Z,4.8nm,1.0s,baz=86,slow=8.5,SNR=3.2						
WB2	**Warramunga Arr**	**34.75**	**267**	*e*P	**P**	**08 38 28.6**	**-1.0**
WRA	**Warramunga Arr**	**34.77**	**267**	P	**P**	**08 38 28.8**	**-0.9**
	comp=Z,3.0nm,0.3s,mb4.5,baz=97,slow=8.5,SNR=158						
PPT	**Papeete**	**36.75**	**90**	*e*LR	LR	08 48 44.8	
	comp=Z,193nm,28.2s						
PPT	**Papeete**	**36.75**	**90**	LR	LR	08 49 24.9	
	comp=Z,148nm,19.3s,baz=271,slow=29						
KAKA	**Kakadu**	**38.42**	**278**	*e*P	**P**	**08 39 00.4**	**-0.4**
	comp=Z,23nm,1.2s,mb4.9						
FORT	**Forrest**	**39.66**	**248**	*e*P	**P**	**08 39 10.4**	**-0.5**
	comp=Z,25nm,1.1s,mb5.0						
FITZ	**Fitzroy Crossi**	**43.20**	**267**	⇑*i*P	**P**	**08 39 40.4**	**+0.4**
	comp=Z,56nm,0.9s,mb5.3						
FITZ	**Fitzroy Crossi**	**43.20**	**267**	LR	LR	08 58 27.2	
	comp=Z,52nm,19.6s,baz=100,slow=37						
GUMO	**Guam**	**44.20**	**321**	LR	LR	08 55 18.8	
	comp=Z,60nm,18.0s,baz=135,slow=32						
MBWA	**Marble Bar**	**47.99**	**261**	*e*P	**P**	**08 40 17.7**	**0.0**
	comp=Z,36nm,1.1s,mb5.1						
TAOE	**Nuku Hiva Isla**	**48.17**	**82**	*e*LR	LR	08 53 59.4	
	comp=Z,270nm,26.9s						
KLBR	**Kellerberrin**	**48.48**	**247**	*e*P	**P**	**08 40 20.5**	**-0.8**
	comp=Z,40nm,1.1s,mb5.2						
NWAO	**Narrogin (SRO)**	**48.87**	**245**	*e*P	**P**	**08 40 23.9**	**-0.3**
	comp=Z,20nm,1.0s,mb5.0						
NWAO	**Narrogin (SRO)**	**48.87**	**245**	*e*P	**P**	**08 40 23.9**	**-0.4**
NWAO				pmax	pmax		
	comp=Z,20nm,1.0s						
RKT	**Rikitea**	**49.09**	**102**	*e*LR	LR	08 54 21.4	
	comp=Z,113nm,32.2s						
VNDA	**Vanda**	**55.53**	**183**	*e*P	**P**	**08 41 12.7**	**-0.1**
VNDA				*e*pP	pP	08 41 22.2	-19
VNDA	**Vanda**	**55.53**	**183**	LR	LR	09 03 24.8	
	comp=Z,52nm,18.4s,baz=311,slow=34						
SBA	**Scott Base**	**55.71**	**181**	*e*P	**P**	**08 41 15.3**	**+1.2**
	comp=Z,138nm,1.8s,mb5.7						
SBA	**Scott Base**	**55.71**	**181**	*e*P	**P**	**08 41 15.3**	**+1.2**
SBA				pmax	pmax		
	comp=Z,139nm,1.8s,mb5.7						
KSM	**Kuching**	**64.18**	**283**	*e*P	**P**	**08 42 13.1**	**+0.1**
MJAR	**Matsushiro Arr**	**66.42**	**331**	P	**P**	**08 42 27.1**	**+0.2**
	comp=Z,2.8nm,0.5s,mb4.3,baz=162,slow=7.0,SNR=7.2						
QSPA	**South Pole Qui**	**67.83**	**180**	*e*P	**P**	**08 42 34.3**	**-0.9**
	comp=Z,7.3nm,0.8s,mb4.6						
QSPA				*e*pP	pP	08 42 45.8	-19
KSRS	**Korea Array**	**72.21**	**325**	P	**P**	**08 43 02.9**	**+0.3**
	comp=Z,6.5nm,1.0s,mb4.4,baz=143,slow=6.6,SNR=10						
KSRS				LR	LR	09 10 06.5	
	comp=Z,31nm,18.8s,baz=135,slow=32						
MAW	**Mawson**	**76.48**	**202**	*e*P	**P**	**08 43 26.5**	**-0.4**
	comp=Z,14nm,1.4s,mb4.5						
MAW	**Mawson**	**76.48**	**202**	*e*P	**P**	**08 43 26.5**	**-0.4**
MAW				pmax	pmax		
	comp=Z,14nm,1.4s						
HABR	**Khabarovsk**	**77.61**	**336**	*e*P	**P**	**08 43 29.2**	**-4.2**
CN2	**Changchun**	**78.15**	**328**	*e*P	**P**	**08 43 37.3**	**+0.8**
CN2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.7						
BJI	**Beijing**	**80.64**	**320**	P	**P**	**08 43 51.1**	**+1.1**
BJI				AMB	AMB		
	comp=Z,14nm,1.0s,mb4.8						
XAN	**Xi'an**	**81.74**	**312**	P	**P**	**08 43 56.9**	**+0.9**
XAN				AP	pP	08 44 05.5	-21
XAN				AMB	AMB		
	comp=Z,14nm,1.3s,mb4.6						
CHTO	**Chiang Mai**	**81.88**	**294**	*e*P	**P**	**08 43 58.9**	**+1.8**
	comp=Z,4.4nm,0.9s,mb4.3						
CHTO	**Chiang Mai**	**81.88**	**294**	*e*P	**P**	**08 43 58.9**	**+1.8**
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
SEY	**Seymchan**	**86.24**	**351**	P	**P**	**08 44 17.0**	**-1.1**
LZH	**Lanzhou**	**86.35**	**311**	*e*P	**P**	**08 44 20.9**	**+1.5**
LZH				AMB	AMB		
	comp=Z,39nm,1.2s,mb5.2						
LZH				AMB	AMB		
	comp=Z,178nm,4.5s						
LZH	**Lanzhou**	**86.35**	**311**	*e*P	**P**	**08 44 20.9**	**+1.5**
	comp=Z,39nm,1.2s,mb5.2						
LZH				pP	pP	08 44 54.5	+4.4
LZH				sP	sP	08 45 13.5	+11
NVAR	**Mina Array Bea**	**89.17**	**48**	P	**P**	**08 44 34.1**	**+1.3**
	comp=Z,2.0nm,0.9s,mb4.2,baz=212,slow=6.0,SNR=13						
NVAR				pP	pP	08 45 03.3	-0.4
	comp=Z,0.8nm,0.8s,baz=207,slow=7.0,SNR=3.6						
BILL	**Bilibino**	**90.10**	**358**	P	**P**	**08 44 34.6**	**-1.8**
YAK	**Yakutsk**	**90.39**	**342**	P	**P**	**08 44 35.0**	**-2.8**
ULN	**Ulaanbaatar**	**90.57**	**323**	P	**P**	**08 44 39.7**	**+0.7**
GTA	**Gaotai**	**90.77**	**313**	*e*P	**P**	**08 44 41.1**	**+0.9**
GTA				AP	pP	08 44 46.1	-25
GTA				XP	sP	08 44 49.3	-34
GTA				AMB	AMB		
	comp=Z,8.0nm,1.6s,mb4.6						
SONM	**Songino Array**	**90.92**	**322**	P	**P**	**08 44 41.3**	**+0.6**
	comp=Z,6.1nm,1.1s,mb4.6,baz=138,slow=3.5,SNR=22						
SONM				LR	LR	09 23 19.9	
	comp=Z,61nm,18.2s,baz=183,slow=34						
COLA	**College**	**92.28**	**16**	P	**P**	**08 44 44.1**	**-2.5**
LSA	**Lhasa**	**92.95**	**301**	*e*P	**P**	**08 44 49.3**	**-1.3**
	comp=Z,1.8nm,0.4s,mb4.8						
LSA	**Lhasa**	**92.95**	**301**	*e*P	**P**	**08 44 49.3**	**-1.2**
LSA				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.8						
ZAK	**Zakamensk**	**94.00**	**323**	*e*P	**P**	**08 44 54.3**	**-0.5**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.5s,mb4.4						
TLY	**Talaya**	**94.46**	**325**	P	**P**	**08 44 56.2**	**-0.7**
ANMO	**Albuquerque**	**96.21**	**55**	P	**P**	**08 45 07.9**	**+2.6**
TXAR	**Lajitas Array**	**96.28**	**61**	LR	LR	09 21 09.9	
	comp=Z,119nm,19.2s,baz=0.0,slow=31						
TIXI	**Tiksi**	**98.13**	**347**	P	**P**	**08 45 10.0**	**-3.1**
YKA	**Yellowknife Ar**	**102.32**	**27**	P	Pdif	08 45 30.9	-1.5
YKA	**Yellowknife Ar**	**102.32**	**27**	P	Pdif	08 45 30.9	-1.5
	comp=Z,0.2nm,0.7s,baz=252,slow=4.9,SNR=3.4						
MKAR	**Makanchi Array**	**105.40**	**315**	Pdif	Pdif	08 45 48.5	+2.4
MKAR	**Makanchi Array**	**105.40**	**315**	Pdiff	Pdif	08 45 48.5	+2.4
	comp=Z,0.2nm,0.3s,baz=79,slow=6.3,SNR=3.3						
BOSA	**Boshof**	**119.91**	**214**	PKP	PKPdf	08 50 27.0	-0.5
BOSA	**Boshof**	**119.91**	**214**	PKIKP	PKPdf	08 50 27.0	-0.5
BOSA	**Boshof**	**119.91**	**214**	PKP	PKPdf	08 50 27.0	-0.5
	comp=Z,2.0nm,0.9s,baz=194,slow=6.7,SNR=5.5						
MLR	**Muntele Rosu**	**143.65**	**318**	⇓P	PKPdf	08 51 09.3	-2.0
MLR	**Muntele Rosu**	**143.65**	**318**	⇓PKIKP	PKPdf	08 51 09.3	-2.0
MLR	**Muntele Rosu**	**143.65**	**318**	⇓*i*P	PKPdf	08 51 09.3	-2.0
VOIR		**144.23**	**318**	⇑P	PKPdf	08 51 11.8	-0.5
VOIR		**144.23**	**318**	⇑PKIKP	PKPdf	08 51 11.8	-0.5
VOIR		**144.23**	**318**	⇑*i*P	PKPdf	08 51 11.8	-0.5
CRVS	**Cervenica-Dubn**	**144.38**	**326**	*e*PKP	PKPdf	08 51 11.6	-0.8
CRVS	**Cervenica-Dubn**	**144.38**	**326**	*e*PKIKP	PKPdf	08 51 11.6	-0.8
CRVS	**Cervenica-Dubn**	**144.38**	**326**	*e*PKP	PKPdf	08 51 11.6	-0.8
DRGR		**144.92**	**322**	⇑P	PKPdf	08 51 13.5	0.0
DRGR		**144.92**	**322**	⇑PKIKP	PKPdf	08 51 13.5	0.0
DRGR		**144.92**	**322**	⇑*i*P	PKPdf	08 51 13.5	0.0
KECS	**Kecovo**	**145.14**	**326**	*i* PKP	PKPdf	08 51 13.9	+0.1
KECS	**Kecovo**	**145.14**	**326**	*i* PKIKP	PKPdf	08 51 13.9	+0.1
KECS	**Kecovo**	**145.14**	**326**	*i* PKP	PKPdf	08 51 13.9	+0.1
GZR	**Gura Zlata**	**145.64**	**320**	⇑P	PKPdf	08 51 15.2	+0.5
GZR	**Gura Zlata**	**145.64**	**320**	⇑PKIKP	PKPdf	08 51 15.2	+0.5
GZR	**Gura Zlata**	**145.64**	**320**	⇑*i*P	PKPdf	08 51 15.2	+0.5
VYHS	**Vyhne**	**145.98**	**327**	*i* PKP	PKPdf	08 51 16.3	+1.1
VYHS	**Vyhne**	**145.98**	**327**	*i* PKP2	PKPab	08 51 16.3	-0.6
VYHS	**Vyhne**	**145.98**	**327**	*i* PKP	PKPdf	08 51 16.3	+1.1
BRG	**Berggiesshubel**	**146.51**	**334**	*e*PKP2	PKPab	08 51 18.1	-0.8
BRG	**Berggiesshubel**	**146.51**	**334**	*e*P	PKPdf	08 51 18.1	+2.0
	comp=Z,3.5nm,0.6s						
CLL	**Collm**	**146.55**	**335**	*i* P	PKPdf	08 51 16.5	+0.4
CLL				*i*		08 51 18.4	
CLL	**Collm**	**146.55**	**335**	*i* PKP2	PKPab	08 51 16.5	-2.5
CLL	**Collm**	**146.55**	**335**	*i* PKPbc	PKPbc	08 51 16.5	-1.2
	comp=Z,4.0nm,0.9s						
CLL				*i* PKPab	PKPab	08 51 18.4	-0.6
EKA	**Eskdalemuir Ar**	**146.72**	**355**	PKPbc	PKPbc	08 51 16.6	-1.5
EKA	**Eskdalemuir Ar**	**146.72**	**355**	PKP2	PKPab	08 51 16.7	-2.8
EKA	**Eskdalemuir Ar**	**146.72**	**355**	PKPbc	PKPbc	08 51 16.6	-1.5
	comp=Z,2.1nm,0.5s,baz=6.1,slow=2.4,SNR=9.0						
PKSM	**Moragy**	**147.54**	**324**	⇓P	PKPdf	08 51 20.0	+2.1
PKSM	**Moragy**	**147.54**	**324**	⇓PKP2	PKPab	08 51 20.0	-3.1
PKSM	**Moragy**	**147.54**	**324**	⇓*i*P	PKPdf	08 51 20.0	+2.1
GERES	**GERESS Array B**	**148.16**	**332**	PKPbc	PKPbc	08 51 21.8	-0.5
GERES				pPKPbc	pPKPbc	08 51 51.4	-2.9
GERES	**GERESS Array B**	**148.16**	**332**	PKP2	PKPab	08 51 21.8	-3.6
GERES	**GERESS Array B**	**148.16**	**332**	PKPbc	PKPbc	08 51 21.8	-0.5
	comp=Z,1.3nm,0.7s,baz=269,slow=3.9,SNR=3.8						
GERES				pPKPbc	pPKPbc	08 51 51.4	-2.9
	comp=Z,1.3nm,0.7s,baz=3.3,slow=7.0,SNR=3.3						
TORD	**Torodi Ar. Bea**	**166.79**	**228**	PKP	PKPdf	08 51 44.1	+1.3
TORD				pPKP	pPKPdf	08 52 10.5	-4.8
TORD				PKPab	PKPab	08 52 45.1	-1.2

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	ISC
TORD	**Torodi Ar. Bea**	**166.79**	**228**	PKP	PKPdf	08 51 44.1	+1.3
	comp=Z,0.2nm,0.7s,baz=336,slow=3.2,SNR=2.3						
TORD				pPKP	pPKPdf	08 52 10.5	-4.8
	comp=Z,0.4nm,0.9s,baz=39,slow=1.5,SNR=5.2						
TORD				PKPab	PKPab	08 52 45.1	-1.2
	comp=Z,2.7nm,1.1s,baz=128,slow=2.8,SNR=7.2						

IDC ***15*** *08:50:55.7±1.5,6.67S×130.28E,h0^{km},mb3.8/3,mb1 4.5/7, mb1mx4.1/17,mbtmp4.4/7,ML4.4/4,MS4.7/1,Ms1 4.7/1, ms1mx2.8/22,Error ellipse: s-maj=42.9km s-min=24.1km az=62.0*

ISCJB ***15*** *08:50:58.3±0.9,6.76S±0.08×130.36E±0.10,h33^{km},mb4.1/4, Error ellipse: s-maj=13.9km s-min=10.5km az=162.0*

NEIC ***15*** *08:51:00.2±1.0,6.66S×130.35E,h35^{km},mb4.0/4,Error ellipse: s-maj=16.1km s-min=13.7km az=71.0*

ISC 15 08:51:00.5±0.8,**6.74S**±0.07×**130.37E**±0.09,**h35**^{km}**,n17,** σ**1**^{s}**08**/19,**mb4.1**/4,**1C,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**6.28**	**161**	*e*P	**Pn**	**08 52 34.1**	**+3.4**
	73nm,0.6s						
KAKA				*e*S	**Sn**	**08 53 40.1**	**-1.1**
FITZ	**Fitzroy Crossi**	**12.20**	**202**	⇑*i*P	**Pn**	**08 53 53.2**	**+1.3**
	22nm,0.3s						
FITZ				*e*		08 56 02.7	
FITZ	**Fitzroy Crossi**	**12.20**	**202**	Pn	**Pn**	**08 53 53.0**	**+1.1**
	3.9nm,0.3s,baz=35,slow=11,SNR=74						
FITZ				Sn	**Sn**	**08 56 02.2**	**-4.6**
	2.2nm,0.3s,baz=45,slow=12,SNR=5.7						
WRA	**Warramunga Arr**	**13.68**	**164**	Pn	**Pn**	**08 54 11.3**	**-0.8**
WRA				Sn	Sx	08 56 35.3	
WRA	**Warramunga Arr**	**13.68**	**164**	Pn	**Pn**	**08 54 11.3**	**-0.8**
	2.7nm,0.3s,baz=345,slow=13,SNR=95						
WRA				Sn	Sx	08 56 35.3	
	4.8nm,0.3s,baz=345,slow=22,SNR=21						
WB2	**Warramunga Arr**	**13.69**	**164**	*e*P	**Pn**	**08 54 10.9**	**-1.3**
WB2				*e*S	Sx	08 56 34.3	
COEN	**Coen**	**14.49**	**121**	*e*Pn	**Pn**	**08 54 22.6**	**-0.6**
PMG	**Port Moresby**	**16.83**	**100**	*e*Pn	**Pn**	**08 54 54.5**	**+0.8**
	9.6nm,0.6s						
PMG				*e*pP	pP	08 55 07.5	+2.9
PMG	**Port Moresby**	**16.83**	**100**	Pn	**Pn**	**08 54 54.4**	**+0.7**
	1.0nm,0.3s,baz=300,slow=8.0,SNR=7.2						
ASAR	**Alice Springs**	**17.17**	**169**	P	**Pn**	**08 54 58.3**	**+0.5**
	2.3nm,0.3s,baz=344,slow=8.9,SNR=86						
ASAR				S	Sx	08 57 58.6	
	0.8nm,0.3s,baz=349,slow=17,SNR=5.3						
MBWA	**Marble Bar**	**17.65**	**215**	Pn	**Pn**	**08 55 04.0**	**+0.2**
	3.8nm,0.5s						
CTA	**Charters Tower**	**20.34**	**132**	P	**P**	**08 55 35.5**	**+1.6**
	2.0nm,0.6s,baz=307,slow=12,SNR=4.2						
FORT	**Forrest**	**24.02**	**185**	*e*P	**P**	**08 56 20.9**	**+8.7**
	12nm,0.7s,mb4.4						
STKA	**Stephens Creek**	**27.12**	**159**	*e*P	**P**	**08 56 40.9**	**+0.6**
	0.7nm,0.5s,mb3.5						
STKA	**Stephens Creek**	**27.12**	**159**	P	**P**	**08 56 40.8**	**+0.5**
	0.5nm,0.4s,mb3.4,baz=329,slow=11,SNR=4.6						
ULN	**Ulaanbaatar**	**58.13**	**342**	P	**P**	**09 00 48.9**	**-1.7**
	9.5nm,1.3s,mb4.7						
MKAR	**Makanchi Array**	**68.21**	**327**	P	**P**	**09 01 57.5**	**+0.1**
	0.6nm,0.5s,mb3.9,baz=129,slow=8.2,SNR=5.5						

KRSC 15 08:56:09.8±0.8,**55.80N×164.71E,h30**^{km}±30^{km}**,ML3.7, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBTR	**Krutoberegovo**	**1.14**	**292**	*e*P	Pn	08 56 28.6	-1.0
KBTR				*i* S	Sn	08 56 41.8	-2.4
SMKR	**Semkarok**	**1.97**	**295**	*e*P	Pn	08 56 42.5	+1.4
SMKR				*i* S	Sn	08 57 06.7	+1.9
BDR	**Baidarnaya**	**2.10**	**293**	*e*P	Pn	08 56 45.1	+2.2
BDR				*i* S	Sn	08 57 11.1	+3.1
MKZ	**Mys Kozlova**	**2.12**	**235**	*e*P	Pn	08 56 44.7	+1.6
MKZ				*i* S	Sn	08 57 09.7	+1.4
SRKR	**Sorokina**	**2.15**	**295**	*e*P	Pn	08 56 45.2	+1.6
SRKR				*i* S	Sn	08 57 11.1	+1.8
ZLN	**Zelenaya**	**2.21**	**277**	*e*P	Pn	08 56 47.1	+2.7
CIRR	**Tsirk**	**2.25**	**280**	*e*P	Pn	08 56 47.3	+2.4
KLY	**Klyuchi**	**2.33**	**284**	*e*P	Pn	08 56 46.4	+0.4
KLY				*i* S	Sn	08 57 12.6	-1.1
KRSR	**Krestovskiy**	**2.37**	**282**	*e*P	Pn	08 56 48.6	+2.1
BZMR	**Bezymyannaya**	**2.38**	**275**	*e*P	Pn	08 56 49.4	+2.7
KIRR	**Kirishev**	**2.47**	**275**	*e*P	Pn	08 56 50.6	+2.7
KMNR	**Kamenistaya**	**2.53**	**271**	*e*P	Pn	08 56 51.6	+2.9
KMNR				*i* S	Sn	08 57 21.5	+3.1
KPT	**Kopyto**	**2.53**	**276**	*e*P	Pn	08 56 51.7	+2.9
KPT				*i* S	Sn	08 57 21.8	+3.2
TUMR	**Tumrok**	**2.65**	**261**	*e*P	Pn	08 56 53.9	+3.6
TUMR				*i* S	Sn	08 57 25.8	+4.5
KOZ	**Kozyrevsk**	**2.73**	**277**	*e*P	Pn	08 56 55.1	+3.5
KOZ				*i* S	Sn	08 57 27.9	+4.4
SRDR	**Sredinnyy**	**2.85**	**283**	*e*P	Pn	08 56 55.9	+2.8
SRDR				*i* S	Sn	08 57 30.1	+3.8
SPN	**Mys Shipunski**	**3.85**	**227**	*e*P	Pn	08 57 08.3	+1.4
SPN				*i* S	Sn	08 57 50.9	-0.1
NLC	**Nalytchevo**	**4.09**	**232**	*e*P	Pn	08 57 12.5	+2.3
NLC				*i* S	Sn	08 57 57.9	+0.9
AVH	**Avacha**	**4.31**	**236**	*e*P	Pn	08 57 17.1	+3.9
AVH				*i* S	Sn	08 58 05.1	+2.8
GNL	**Ganaly**	**4.45**	**245**	*e*P	Pn	08 57 19.2	+4.0
PET	**Petropavlovsk**	**4.50**	**234**	*e*P	Pn	08 57 19.1	+3.3
PET				*i* S	Sn	08 58 08.7	+1.6
RUS	**Russkaya**	**4.97**	**230**	*e*P	Pn	08 57 24.7	+2.5
RUS				*i* S	Sn	08 58 19.1	+0.6

ISCJB ***15*** *10:02:52.4±1.1,26.2N±0.1×93.1E±0.1,h10^{km},mb3.5/3, Error ellipse: s-maj=22.5km s-min=8.4km az=149.5*

IDC ***15*** *10:02:53.5±4.5,26.53N×93.53E,h0^{km},mb3.4/3,mb1 3.7/3, mb1mx3.3/22,mbtmp3.4/3,Error ellipse: s-maj=381.5km s-min=28.7km az=61.0*

ISC 15 10:02:54.3±1.1,**26.3N**±0.1×**93.0E**±0.1**,h10**^{km}**,n6,**σ**0**^{s}**77**/8, **mb3.5**/3**,Northeastern India**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHL	**Shillong**	**1.20**	**235**	*e*P	**Pg**	**10 03 19.0**	**+1.7**
SHL				*e*S	**Sb**	**10 03 32.5**	**-0.1**
SHL	**Shillong**	**1.20**	**235**	*i* PG	**Pg**	**10 03 19.0**	**+1.7**
SHL				*i* SG	**Sg**	**10 03 32.0**	**-0.9**
IMP	**Imphal**	**1.70**	**149**	*i* P	**Sn**	**10 03 36.0**	**-10**
MKAR	**Makanchi Array**	**22.18**	**340**	P	**P**	**10 07 50.3**	**-0.2**
	0.2nm,0.3s,mb3.1,baz=148,slow=12,SNR=5.7						
WRA	**Warramunga Arr**	**61.00**	**135**	P	**P**	**10 13 07.9**	**-0.3**
	0.5nm,0.5s,mb3.9,baz=324,slow=7.1,SNR=20						
ASAR	**Alice Springs**	**63.48**	**138**	P	**P**	**10 13 24.7**	**-0.1**
	0.3nm,0.6s,mb3.6,baz=317,slow=5.9,SNR=7.3						

IDC 15 10:06:13.5±2.0,**19.39N×145.23E,h0**^{km}**,mb3.5**/3, **mb1 3.8**/3,**mb1mx3.4**/20,**mbtmp3.5**/3,**Error ellipse: s-maj=252.2km s-min=30.2km az=111.0,Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**40.52**	**196**	P	P	10 13 54.9	+0.4
	1.4nm,0.5s,baz=18,slow=8.7,SNR=24						
ASAR	**Alice Springs**	**44.20**	**195**	P	P	10 14 23.9	-0.6
	0.2nm,0.4s,baz=10,slow=7.5,SNR=6.7						
YKA	**Yellowknife Ar**	**77.58**	**28**	P	P	10 18 11.3	+0.1
	0.2nm,0.5s,baz=291,slow=5.4,SNR=4.0						

IDC ***15*** *10:20:44.0±0.7,0.50N×96.99E,h0^{km},mb4.3/16, mb1 4.4/16,mb1mx4.3/24,mbtmp4.3/16,ML3.2/1,MS4.4/9, Ms1 4.4/9,ms1mx4.0/35,Error ellipse: s-maj=25.3km s-min=13.6km az=51.0*

BJI ***15*** *10:20:45.1,0.36N×96.77E,h20^{km},mB5.0,mb4.7,Ms5.0, Msz4.8*

ISCJB ***15*** *10:20:46.6±3.5,0.54N±0.07×97.19E±0.07,h23^{km}±24^{km}, mb4.6/37,MS4.5/11,Error ellipse: s-maj=13.4km s-min=8.2km az=136.5*

NEIC ***15*** *10:20:50.0±1.7,0.57N×97.20E,h35^{km}±14^{km},mb4.7/18, Error ellipse: s-maj=14.6km s-min=7.1km az=46.0*

ISC 15 10:20:45.9±3.9,**0.52N**±0.06×**97.18E**±0.06**,h7**^{km}±24^{km}**,** **h23**^{km}±5.9^{km}**:pP-P,n59,**σ**1**^{s}**05**/58,**mb4.6**/37,**MS4.5**/11**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	**2.86**	**38**	Pn	**Pn**	**10 21 31.1**	**-1.0**
PSI				Sn	**Sn**	**10 22 08.1**	**+1.3**
PSI	**Prapat**	**2.86**	**38**	Pn	**Pn**	**10 21 31.1**	**-1.0**
	3.8nm,0.3s,baz=263,slow=9.2,SNR=8.6						
PSI				LR	LR	10 22 07.5	
	comp=Z,2µm,20.5s,baz=205,slow=29						
PSI				Sn	**Sn**	**10 22 08.1**	**+1.3**
	6.3nm,0.3s,baz=149,slow=16,SNR=4.2						
KULM	**Kulim**	**5.87**	**36**	*e*Pn	**Pn**	**10 22 12.6**	**-0.8**
PALK	**Pallekele**	**17.74**	**293**	*e*P	**Pn**	**10 24 54.7**	**+1.0**
	16nm,0.9s						
CM31	**Chiang Mai Arr**	**17.91**	**5**	*e*P	**Pn**	**10 24 55.7**	**0.0**
	11nm,0.7s						
CHTO	**Chiang Mai**	**18.26**	**5**	*e*P	**Pn**	**10 24 58.3**	**-1.7**
	13nm,0.9s						
KKM	**Kota Kinabalu**	**19.78**	**73**	*e*P	**Pn**	**10 25 18.7**	**+0.3**
KKM				*e*		10 25 28.4	
AGT	**Agartala**	**23.93**	**347**	*e*P	**P**	**10 26 01.0**	**+0.3**
HYB	**Hyderabad**	**24.86**	**313**	*e*P	**P**	**10 26 11.5**	**+2.2**
HYB	**Hyderabad**	**24.86**	**313**	*i* P	**P**	**10 26 11.5**	**+2.2**
SHL	**Shillong**	**25.42**	**349**	*e*PG	**P**	**10 26 15.0**	**+0.7**
ODAN	**Odare**	**27.83**	**341**	*e*P	**P**	**10 26 39.8**	**+3.7**
	155nm,1.6s,mb5.4						
TAPN	**Taplejung**	**28.18**	**342**	*e*P	**P**	**10 26 40.1**	**+0.9**
	97nm,1.2s,mb5.3						
KKN	**Kakani**	**29.42**	**338**	*e*P	**P**	**10 26 51.0**	**+0.8**
	186nm,1.6s,mb5.6						
LSA	**Lhasa**	**29.58**	**349**	P	**P**	**10 26 53.4**	**+1.8**
LSA				AP	pP	10 27 03.4	+10
LSA				AMB	AMB		
	comp=Z,90nm,1.0s,mb5.5						
LSA				LR	LR		
	comp=N,170nm,16.0s,MS4.2						
LSA				LR	LR		
	comp=E,400nm,17.0s,MS4.2						
LSA				LR	LR		
	comp=Z,380nm,16.0s,MS4.1						
LSA	**Lhasa**	**29.58**	**349**	*e*P	**P**	**10 26 53.2**	**+1.6**
	comp=Z,12nm,0.8s,mb4.7						
GKN	**Gorkha**	**29.85**	**337**	*e*P	**P**	**10 26 54.6**	**+0.5**
	comp=Z,38nm,0.8s,mb5.2						
FITZ	**Fitzroy Crossi**	**33.56**	**125**	*e*P	**P**	**10 27 26.7**	**-0.1**
	comp=Z,11nm,0.9s,mb4.8						
XAN	**Xi'an**	**35.12**	**17**	P	**P**	**10 27 38.5**	**-1.6**
XAN				AP	pP	10 27 44.8	+2.6
XAN				S	**S**	**10 33 05.3**	**-7.9**
XAN				AMB	AMB		
	comp=Z,9.0nm,1.3s,mb4.5						
XAN				AMB	AMB		
	comp=Z,176nm,6.7s						
XAN				LR	LR		
	comp=N,804nm,15.1s,MS5.0						
XAN				LR	LR		
	comp=E,2µm,15.5s,MS5.0						
XAN				LR	LR		
	comp=Z,1µm,15.5s,MS4.8						
LZH	**Lanzhou**	**35.92**	**9**	*e*P	**P**	**10 27 52.0**	**+5.0**
LZH				AP	pP	10 27 55.6	+6.4
LZH				XP	sP	10 27 57.3	+7.3
LZH				AMB	AMB		
	comp=Z,28nm,1.5s,mb5.0						
LZH				AMB	AMB		
	comp=Z,120nm,4.4s						
LZH				LR	LR		
	comp=E,2µm,15.9s						
LZH				LR	LR		
	comp=Z,2µm,16.2s,MS5.0						
KAKA	**Kakadu**	**37.37**	**112**	*e*P	**P**	**10 28 00.7**	**+1.0**
	comp=Z,7.4nm,0.9s,mb4.5						
NWAO	**Narrogin (SRO)**	**38.27**	**152**	P	**P**	**10 28 07.8**	**+0.8**
	comp=Z,13nm,0.9s,mb4.6,baz=297,slow=7.6,SNR=2.9						
WRA	**Warramunga Arr**	**41.70**	**121**	P	**P**	**10 28 35.7**	**-0.1**
	comp=Z,3.5nm,0.9s,mb4.0,baz=303,slow=8.9,SNR=29						
WB2	**Warramunga Arr**	**41.71**	**121**	*e*P	**P**	**10 28 35.2**	**-0.6**
FORT	**Forrest**	**42.78**	**139**	*e*P	**P**	**10 28 52.0**	**+7.6**
	comp=Z,25nm,0.9s,mb5.0						
BJT	**Baijiatuau**	**42.95**	**22**	*e*P	**P**	**10 28 46.4**	**+0.8**
	comp=Z,13nm,0.7s,mb4.8						
ASAR	**Alice Springs**	**43.01**	**127**	P	**P**	**10 28 45.9**	**-0.5**
	comp=Z,2.2nm,0.7s,mb4.0,baz=296,slow=7.5,SNR=30						
WMQ	**Urumqi**	**43.93**	**350**	*e*P	**P**	**10 28 53.5**	**0.0**
UCH	**Uchtor**	**46.26**	**337**	*e*P	**P**	**10 29 13.2**	**+1.2**
	comp=Z,6.0nm,0.9s,mb4.5						
KSRS	**Korea Array**	**46.42**	**34**	P	**P**	**10 29 13.3**	**0.0**
	comp=Z,5.0nm,1.0s,mb4.4,baz=214,slow=8.6,SNR=4.3						
KSRS				LR	LR	10 48 37.0	
	comp=Z,472nm,18.9s,MS4.5,baz=44,slow=36						
TKM2	**Tokmak 2**	**46.44**	**338**	*e*P	**P**	**10 29 14.6**	**+1.2**
	comp=Z,42nm,1.7s,mb5.1						
AML	**Almayashu**	**46.51**	**336**	*e*P	**P**	**10 29 14.7**	**+0.7**
	comp=Z,39nm,1.5s,mb5.1						
AAK	**Ala-Archa**	**46.61**	**337**	*e*P	**P**	**10 29 15.1**	**+0.3**
	comp=Z,43nm,1.9s,mb5.0						
EKS2	**Erkin-Say**	**46.92**	**336**	*e*P	**P**	**10 29 18.5**	**+1.3**
	comp=Z,26nm,1.6s,mb4.9						
COEN	**Coen**	**47.76**	**109**	P	**P**	**10 29 27.1**	**+2.9**
SONM	**Songino Array**	**47.80**	**8**	P	**P**	**10 29 24.0**	**0.0**
	comp=Z,1.5nm,0.6s,mb4.2,baz=193,slow=8.3,SNR=11						
SONM				LR	LR	10 51 49.4	
	comp=Z,1µm,20.0s,MS4.8,baz=190,slow=39						
MK31	**Makanchi Array**	**47.89**	**346**	*e*P	**P**	**10 29 24.4**	**-0.3**
MKAR	**Makanchi Array**	**47.89**	**346**	P	**P**	**10 29 24.6**	**-0.1**
	comp=Z,3.9nm,0.5s,mb4.7,baz=159,slow=8.7,SNR=52						
MKAR				LR	LR	10 53 33.8	
	comp=Z,156nm,18.4s,MS4.0,baz=337,slow=41						
ULN	**Ulaanbaatar**	**47.93**	**9**	*e*P	**P**	**10 29 24.8**	**-0.2**
	comp=Z,4.8nm,0.9s,mb4.5						
PMG	**Port Moresby**	**50.73**	**103**	*e*P	**P**	**10 29 46.9**	**0.0**
	comp=Z,16nm,0.9s,mb5.0						
PMG	**Port Moresby**	**50.73**	**103**	P	**P**	**10 29 47.0**	**+0.1**
	comp=Z,5.9nm,0.6s,mb4.7,baz=312,slow=2.5,SNR=4.0						
KURK	**Kurchatov**	**52.44**	**345**	*e*P	**P**	**10 29 59.4**	**+0.3**
	comp=Z,28nm,1.4s,mb5.0						
STKA	**Stephens Creek**	**52.92**	**132**	*e*P	**P**	**10 30 03.5**	**+0.4**
	comp=Z,4.9nm,0.9s,mb4.4						
STKA				*e*		10 30 09.6	
STKA				*e*		10 30 23.7	
STKA	**Stephens Creek**	**52.92**	**132**	P	**P**	**10 30 03.9**	**+0.8**
	comp=Z,6.1nm,0.8s,mb4.6,baz=304,slow=7.8,SNR=16						
ZALV	**Zalesovo Beam**	**54.22**	**351**	P	**P**	**10 30 11.7**	**-0.4**
	comp=Z,5.8nm,0.3s,mb4.9,baz=166,slow=6.5,SNR=37						
ZALV				LR	LR	10 56 35.1	
	comp=Z,290nm,18.2s,MS4.4,baz=57,slow=40						
BRVK	**Borovoye**	**56.94**	**341**	*e*P	**P**	**10 30 30.2**	**-1.6**
	comp=Z,4.8nm,0.9s,mb4.5						
KMBO	**Kilima Mbogo**	**59.94**	**268**	LR	LR	10 50 38.2	
	comp=Z,332nm,19.3s,MS4.5,baz=88,slow=30						
EIL	**Elat**	**65.80**	**302**	LR	LR	11 00 10.1	
	comp=Z,441nm,18.3s,MS4.7,baz=285,slow=36						
BRTR	**Keskin Array B**	**69.55**	**313**	P	**P**	**10 31 53.9**	**-1.9**
	comp=Z,0.8nm,0.7s,mb3.8,baz=126,slow=5.6,SNR=5.4						
TIXI	**Tiksi**	**73.86**	**10**	*e*P	**P**	**10 32 19.3**	**-1.7**
	comp=Z,33nm,1.6s,mb5.0						
AKASG	**Malin Array Be**	**75.78**	**323**	P	**P**	**10 32 30.6**	**-2.0**
	comp=Z,0.5nm,0.4s,mb3.8,baz=87,slow=4.4,SNR=12						
MLR	**Muntele Rosu**	**76.54**	**317**	P	**P**	**10 32 35.2**	**-1.9**
	comp=Z,5.4nm,1.1s,mb4.4,baz=76,slow=6.5,SNR=5.2						
JOF	**Joensuu**	**78.75**	**335**	*e*p	**P**	**10 32 44.8**	**-4.1**
	comp=Z,1.9nm,0.4s,mb4.4						
FINES	**FINESS Array B**	**80.59**	**333**	P	**P**	**10 32 57.6**	**-1.4**
	comp=Z,0.9nm,0.4s,mb4.0,baz=106,slow=6.1,SNR=7.5						
FINES				LR	LR	11 15 17.1	
	comp=Z,184nm,20.5s,MS4.4,baz=336,slow=41						
ARCES	**ARCESS Array B**	**83.16**	**340**	P	**P**	**10 33 11.8**	**-0.6**
	comp=Z,0.9nm,0.4s,mb4.2,baz=99,slow=3.7,SNR=19						
GERES	**GERESS Array B**	**85.31**	**319**	P	**P**	**10 33 23.2**	**-0.5**
	comp=Z,0.3nm,0.3s,mb3.9,baz=88,slow=7.4,SNR=5.7						
NOA	**NORSAR Array B**	**87.58**	**331**	P	**P**	**10 33 34.0**	**-0.7**
	comp=Z,1.1nm,0.7s,mb4.2,baz=95,slow=4.8,SNR=3.5						
NOA				LR	LR	11 17 17.9	
	comp=Z,161nm,20.8s,MS4.4,baz=0.0,slow=39						
TXAR	**Lajitas Array**	**144.25**	**32**	PKP	PKPdf	10 40 21.4	-2.2
TXAR	**Lajitas Array**	**144.25**	**32**	PKP	PKPdf	10 40 21.4	-2.2
	comp=Z,0.3nm,0.5s,baz=182,slow=0.6,SNR=9.1						

ISCJB ***15*** *10:23:03.0±0.5,39.66N±0.03×29.49E±0.04,h5^{km}±6^{km}, Error ellipse: s-maj=5.0km s-min=4.3km az=166.6*

CSEM ***15*** *10:23:02.6±0.1,39.65N×29.46E,h10^{km},MD2.8,Error ellipse: s-maj=2.0km s-min=1.7km az=40.0*

ISK ***15*** *10:23:02.9,39.65N×29.48E,h10^{km},MD2.8*

ISC 15 10:23:03.6±0.5,**39.66N**±0.03×**29.49E**±0.04**,h9**^{km}±5^{km}**,n44,** σ**0**^{s}**61**/53**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ULDT	**Uludag**	**0.55**	**331**	*i* P	**Pg**	**10 23 13.7**	**-0.7**
ULDT	**Uludag**	**0.55**	**331**	*i* P	**Pg**	**10 23 13.7**	**-0.6**
ULDT				*i* S	**Sg**	**10 23 21.8**	**+0.2**
GDZ	**Gediz**	**0.57**	**180**	*i* P	**Pg**	**10 23 14.7**	**+0.1**
GDZ	**Gediz**	**0.57**	**180**	*i* P	**Pg**	**10 23 14.6**	**0.0**
GDZ				*i* S	**Sg**	**10 23 22.5**	**+0.5**
DST	**Dursunbey**	**0.66**	**266**	PG	**Pg**	**10 23 15.4**	**-1.0**
DST				SG	**Sg**	**10 23 26.1**	**+1.0**
DST	**Dursunbey**	**0.66**	**266**	*e*Pg	**Pg**	**10 23 15.4**	**-1.0**
DST				*e*Sg	**Sg**	**10 23 26.1**	**+1.0**
IZI	**Iznik**	**0.68**	**359**	*i* PG	**Pg**	**10 23 16.5**	**-0.2**
IZI				*i* SG	**Sg**	**10 23 26.5**	**+0.9**
IZI	**Iznik**	**0.68**	**359**	*i* Pg	**Pg**	**10 23 16.5**	**-0.2**
IZI				*i* Sg	**Sg**	**10 23 26.5**	**+0.9**
ALT	**Altintas**	**0.77**	**141**	PG	**Pg**	**10 23 18.5**	**0.0**
ALT	**Altintas**	**0.77**	**141**	*e*Pg	**Pg**	**10 23 18.5**	**0.0**
ADVT	**Abdulvahap**	**0.80**	**14**	PG	**Pg**	**10 23 18.4**	**-0.6**
ADVT	**Abdulvahap**	**0.80**	**14**	*e*Pg	**Pg**	**10 23 18.4**	**-0.6**
GEMT	**Gemlik**	**0.81**	**344**	PG	**Pg**	**10 23 19.0**	**-0.2**
GEMT	**Gemlik**	**0.81**	**344**	*e*Pg	**Pg**	**10 23 19.0**	**-0.2**
GPA	**Golpazari**	**0.89**	**45**	PG	**Pg**	**10 23 21.0**	**+0.2**
GPA				SG	**Sg**	**10 23 33.3**	**+0.9**
GPA	**Golpazari**	**0.89**	**45**	*e*Pg	**Pg**	**10 23 21.0**	**+0.2**
GPA				*e*Sg	**Sg**	**10 23 33.3**	**+0.9**
YLV	**Yalova**	**0.91**	**355**	PG	**Pg**	**10 23 21.1**	**-0.1**
YLV	**Yalova**	**0.91**	**355**	*e*Pg	**Pg**	**10 23 21.1**	**-0.1**
EYL	**Eskiyayla**	**1.04**	**29**	*e*PG	**Pg**	**10 23 22.7**	**-1.0**
EYL	**Eskiyayla**	**1.04**	**29**	*e*Pg	**Pg**	**10 23 22.7**	**-1.0**
KCT	**Karacabey**	**1.06**	**305**	PG	**Pg**	**10 23 23.3**	**-0.6**
KCT	**Karacabey**	**1.06**	**305**	*e*Pg	**Pg**	**10 23 23.3**	**-0.6**
ESKT	**Eskisehir**	**1.06**	**97**	PG	**Pg**	**10 23 24.0**	**0.0**
ESKT	**Eskisehir**	**1.06**	**97**	*e*Pg	**Pg**	**10 23 24.0**	**0.0**
SEYT	**Eskypehyr**	**1.06**	**97**	*i* P	**Pg**	**10 23 24.2**	**+0.2**
SEYT				*i* S	**Sg**	**10 23 43.7**	**+5.9**
GULT	**Gulveren**	**1.11**	**45**	PN	**Pn**	**10 23 24.7**	**-0.5**
GULT	**Gulveren**	**1.11**	**45**	*e*Pn	**Pn**	**10 23 24.7**	**-0.5**
HRT	**Hereke**	**1.17**	**7**	PN	**Pn**	**10 23 25.3**	**-0.8**
HRT	**Hereke**	**1.17**	**7**	*e*Pn	**Pn**	**10 23 25.3**	**-0.8**
SHUT	**Suhut-Afyon**	**1.38**	**143**	PN	**Pn**	**10 23 28.1**	**-0.8**
SHUT	**Suhut-Afyon**	**1.38**	**143**	*e*Pn	**Pn**	**10 23 28.1**	**-0.8**
EDC	**Edincik**	**1.42**	**299**	*e*PN	**Pn**	**10 23 29.8**	**+0.2**
EDC	**Edincik**	**1.42**	**299**	*e*Pn	**Pn**	**10 23 29.8**	**+0.2**
ISK	**Istanbul-Kandi**	**1.44**	**347**	*e*PN	**Pn**	**10 23 30.1**	**+0.3**
ISK	**Istanbul-Kandi**	**1.44**	**347**	*e*Pn	**Pn**	**10 23 30.1**	**+0.3**
HENT	**Hendek**	**1.59**	**42**	*e*P	**Pn**	**10 23 32.5**	**+0.6**
KLYT	**Kilyos**	**1.63**	**348**	*e*PN	**Pn**	**10 23 33.2**	**+0.8**
KLYT	**Kilyos**	**1.63**	**348**	*e*Pn	**Pn**	**10 23 33.2**	**+0.8**
MRMT	**Marmara Adasi**	**1.73**	**304**	*e*PN	**Pn**	**10 23 34.6**	**+0.8**
MRMT	**Marmara Adasi**	**1.73**	**304**	*e*Pn	**Pn**	**10 23 34.6**	**+0.8**
KIZT	**Kizilcal**	**2.01**	**112**	*e*PN	**Pn**	**10 23 38.0**	**+0.3**
KIZT	**Kizilcal**	**2.01**	**112**	*e*Pn	**Pn**	**10 23 38.0**	**+0.3**
RKY	**Sarkoy-Tekirda**	**2.05**	**301**	*e*PN	**Pn**	**10 23 37.6**	**-0.5**
RKY	**Sarkoy-Tekirda**	**2.05**	**301**	*e*Pn	**Pn**	**10 23 37.6**	**-0.5**

IDC ***15*** *10:23:31.2±0.5,31.95S×177.38W,h0^{km},mb4.9/12, mb1 5.1/14,mb1mx5.0/16,mbtmp4.9/14,ML5.6/1,Error ellipse: s-maj=19.6km s-min=17.0km az=134.0*

GCMT ***15*** *10:23:33.4±0.2,32.06S×177.18W,h12^{km},MW5.3/78, Moment Tensor Solution. s52,c82; s78,c135; Duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-1.01±.03; M$_{\theta\theta}$-0.13±.03; M$_{\phi\phi}$1.13±.02; M$_{r\theta}$0.07±.08; M$_{\theta\phi}$0.12±.02; M$_{\phi r}$-0.22±.07; Best double couple: M$_0$1.10200×10^{17} NP1:φ$_s$191.00000°,δ40.00000°,λ-81.00000°. NP2: φ$_s$360.00000°,δ51.00000°,λ-97.00000°. Principal axes: T 1.1630, Plg6.0000°, Azm95.0000°; N -0.1300, Plg6.0000°, Azm4.0000°; P -1.0410, Plg82.0000°, Azm229.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***15*** *10:23:33.4±3.5,32.02S×177.50W,h10^{km}±21^{km},mb5.2/30 Error ellipse: s-maj=10.3km s-min=5.9km az=145.0*

BJI ***15*** *10:23:33.4,31.79S×177.28W,h18^{km},mB6.0,mb5.5,Ms5.7, Msz5.2*

ISCJB ***15*** *10:23:33.8±1.4,32.57S±0.04×177.52W±0.05,h29^{km}±9^{km}, mb5.2/45,MS5.2/9,Error ellipse: s-maj=8.5km s-min=3.7km az=40.1*

MOS ***15*** *10:23:36.4±1.2,31.85S×177.56W,h33^{km},mb5.4/18,Error ellipse: s-maj=12.5km s-min=10.2km az=74.2*

ISC 15 10:23:34.7±1.4,**32.47S**±0.04×**177.51W**±0.05**,h23**^{km}±9^{km}**,** **h23**^{km}±3.2^{km}**:pP-P,n562,**σ**0**^{s}**74**/430,**mb5.2**/45,**MS5.2**/9**, 88C-100D,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**3.23**	**354**	*e*Pn	**Pn**	**10 24 16.0**	**-8.0**
RAO				*e*Sn	**Sn**	**10 24 47.3**	**-14**
RAO	**Raoul Island**	**3.23**	**354**	Pn	**Pn**	**10 24 16.3**	**-7.7**
	960nm,0.3s,baz=90,slow=10,SNR=29						
RAO				Sn	**Sn**	**10 24 49.4**	**-12**
	2µm,0.3s,baz=102,slow=22,SNR=19						
MXZ	**Matakaoa Point**	**6.13**	**213**	PN	**Pn**	**10 25 05.7**	**+1.9**
MXZ				SN	**Sn**	**10 26 20.8**	**+7.6**
PUZ	**Puketiti**	**6.57**	**211**	PN	**Pn**	**10 25 11.2**	**+1.3**
PUZ				SN	**Sn**	**10 26 31.7**	**+7.5**
KUZ	**Kuaotunu**	**7.02**	**231**	PN	**Pn**	**10 25 21.8**	**+5.7**
MWZ	**Matawai**	**7.11**	**213**	PN	**Pn**	**10 25 18.7**	**+1.3**
MWZ				SN	**Sn**	**10 26 44.3**	**+6.8**
URZ	**Urewera**	**7.25**	**216**	Pn	**Pn**	**10 25 20.8**	**+1.5**
URZ				Sn	**Sn**	**10 26 44.5**	**+3.6**
URZ	**Urewera**	**7.25**	**216**	Pn	**Pn**	**10 25 20.8**	**+1.5**
	3.8nm,0.3s,baz=126,slow=0.1,SNR=43						
URZ				Sn	**Sn**	**10 26 44.5**	**+3.6**
	47nm,0.3s,baz=145,slow=18,SNR=12						
URZ	**Urewera**	**7.25**	**216**	PN	**Pn**	**10 25 20.6**	**+1.3**
URZ				SN	**Sn**	**10 26 44.5**	**+3.6**
KNZ	**Kokohu**	**7.62**	**210**	PN	**Pn**	**10 25 25.0**	**+0.7**
KNZ				SN	**Sn**	**10 26 55.0**	**+5.2**
OUZ	**Omahuta**	**7.89**	**247**	PN	**Pn**	**10 25 35.3**	**+7.3**
BKZ	**Black Stump Fm**	**8.26**	**214**	PN	**Pn**	**10 25 34.3**	**+1.2**
HIZ	**Hauiti**	**8.66**	**224**	PN	**Pn**	**10 25 43.3**	**+4.7**
NGZ	**Ngauruhoe**	**8.72**	**218**	PN	**Pn**	**10 25 43.1**	**+3.7**
NGZ				SN	**Sn**	**10 27 21.2**	**+4.3**
PXZ	**Pawanui**	**8.80**	**209**	PN	**Pn**	**10 25 39.9**	**-0.7**
MOVZ	**Moawhango**	**8.81**	**216**	PN	**Pn**	**10 25 43.3**	**+2.6**
MOVZ				SN	**Sn**	**10 27 21.7**	**+2.4**
WNVZ	**Wahianoa**	**8.83**	**217**	*e*PN	**Pn**	**10 25 45.1**	**+4.2**
WAZ	**Wanganui**	**9.46**	**218**	*e*PN	**Pn**	**10 25 53.2**	**+3.6**
BFZ	**Birch Farm**	**9.61**	**210**	PN	**Pn**	**10 25 52.2**	**+0.7**
BFZ				SN	**Sn**	**10 27 39.8**	**+1.2**
TIWZ	**Tintock**	**9.84**	**211**	PN	**Pn**	**10 25 55.7**	**+1.0**
TIWZ				SN	**Sn**	**10 27 46.0**	**+1.6**
MRZ	**Mangatainoka R**	**9.88**	**212**	PN	**Pn**	**10 25 53.8**	**-1.5**
MTW	**Mount Morrison**	**10.32**	**211**	PN	**Pn**	**10 26 00.3**	**-0.9**
MTW				SN	**Sn**	**10 27 55.5**	**-0.6**
KIW	**Kapiti Island**	**10.35**	**214**	PN	**Pn**	**10 26 01.6**	**0.0**
KIW				SN	**Sn**	**10 27 55.9**	**-0.9**
TRWZ	**Traveller**	**10.44**	**209**	SN	**Sn**	**10 27 58.5**	**-0.5**
CAW	**Cannon Point**	**10.47**	**212**	PN	**Pn**	**10 26 02.4**	**-0.9**
PAWZ	**Paruwai Farm**	**10.53**	**210**	PN	**Pn**	**10 26 02.6**	**-1.6**
MSWZ	**Moikau Station**	**10.64**	**211**	SN	**Sn**	**10 28 02.0**	**-1.9**
SNZO	**South Karori**	**10.79**	**213**	Pn	**Pn**	**10 26 13.1**	**+5.3**
SNZO				*e*Sn	**Sn**	**10 28 05.4**	**-2.5**
TCW	**Tory Channel**	**10.92**	**215**	SN	**Sn**	**10 28 09.1**	**-1.8**
TUWZ	**Tuamarina**	**11.25**	**215**	*e*PN	**Pn**	**10 26 15.5**	**+1.5**
NNZ	**Nelson**	**11.37**	**217**	*e*PN	**Pn**	**10 26 14.7**	**-1.0**
NNZ				SN	**Sn**	**10 28 20.6**	**-1.4**
QRZ	**Quartz Range**	**11.55**	**221**	*e*PN	**Pn**	**10 26 16.2**	**-1.9**
THZ	**Tophouse**	**12.01**	**217**	*e*PN	**Pn**	**10 26 22.2**	**-2.2**
THZ				SN	**Sn**	**10 28 36.1**	**-1.6**
KHZ	**Kahutara**	**12.20**	**213**	*e*PN	**Pn**	**10 26 26.1**	**-1.0**
KHZ				SN	**Sn**	**10 28 36.7**	**-5.6**
LTZ	**Lake Taylor**	**13.09**	**215**	SN	**Sn**	**10 28 58.3**	**-5.6**
CRLZ	**Canterbury Las**	**13.53**	**212**	SN	**Sn**	**10 29 08.2**	**-6.5**
WVZ	**Waitaha Valley**	**14.07**	**218**	*e*PN	**Pn**	**10 26 53.0**	**+0.4**
WVZ				SN	**Sn**	**10 29 20.1**	**-7.8**
RPZ	**Rata Peaks**	**14.37**	**215**	Pn	**Pn**	**10 26 55.5**	**-1.2**
RPZ				Sn	**Sn**	**10 29 29.6**	**-5.7**
RPZ	**Rata Peaks**	**14.37**	**215**	Pn	**Pn**	**10 26 55.5**	**-1.2**
	2.9nm,0.3s,baz=214,slow=1.1,SNR=14						
RPZ				Sn	**Sn**	**10 29 29.6**	**-5.7**
	4.6nm,0.3s,baz=319,slow=20,SNR=8.2						
RPZ	**Rata Peaks**	**14.37**	**215**	*e*PN	**Pn**	**10 26 54.1**	**-2.6**
FOZ	**Fox Glacier**	**14.96**	**219**	*e*PN	**Pn**	**10 27 02.4**	**-2.2**
LBZ	**Lake Benmore**	**15.29**	**215**	*e*PN	**Pn**	**10 27 08.2**	**-0.8**
JCZ	**Jackson Bay**	**15.80**	**219**	*e*PN	**Pn**	**10 27 13.0**	**-2.6**

WKZ	Wanaka	16.19	216	*e*PN	Pn	10 27 19.3	-1.3
EAZ	Earnscleugh	16.33	215	*e*PN	Pn	10 27 22.1	-0.4
MLZ	Mavora Lakes	16.98	217	PN	Pn	10 27 31.0	+0.4
DZM	Mont Dzumac	17.61	302	P	Pn	10 27 40.2	+1.7
	1.1nm,0.3s,baz=110,slow=16,SNR=12						
AFI	Afiamalu	19.21	17	*e*P	Pn	10 27 51.4	-6.7
	98nm,0.8s						
AFI	Afiamalu	19.21	17	*e*P	Pn	10 27 51.4	-6.7
AFI				pmax	pmax		
	comp=Z,98nm,0.8s						
AFI	Afiamalu	19.21	17	P	Pn	10 27 49.4	-8.7
	comp=Z,2.8nm,0.3s,baz=50,slow=13,SNR=6.2						
RAR	Rarotonga	19.37	59	P	Pn	10 27 51.7	-8.4
	comp=Z,4.3nm,0.3s,baz=231,slow=8.9,SNR=12						
EIDS	Eidsvold	28.32	276	*e*P	P	10 29 28.3	+1.5
PPT	Papeete	29.23	66	*e*LR	LR	10 36 31.4	
	comp=Z,3µm,30.2s,baz=233						
TAU	Tasmania Unive	29.52	239	P	P	10 29 41.6	+4.3
	comp=Z,30nm,1.0s,mb5.0						
TAU	Tasmania Unive	29.52	239	P	P	10 29 41.6	+4.3
TAU				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.0						
TOO	Toolangi	30.59	250	*e*P	P	10 29 50.4	+3.6
	comp=Z,3.4nm,0.6s,mb4.3						
TOO	Toolangi	30.59	250	*e*P	P	10 29 50.4	+3.6
TOO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
STKA	Stephens Creek	34.47	260	P	P	10 30 24.6	+3.8
STKA	Stephens Creek	34.47	260	P	P	10 30 23.1	+2.3
	comp=Z,20nm,0.7s,mb5.2,baz=98,slow=9.7,SNR=16						
CTA	Charters Tower	34.59	282	*e*P	P	10 30 23.6	+1.7
	comp=Z,21nm,0.6s,mb5.2						
CTA				*e*S	S	10 35 50.9	+0.9
CTA	Charters Tower	34.59	282	*e*P	P	10 30 23.6	+1.7
CTA				*e*S	S	10 35 50.9	+0.9
CTA				pmax	pmax		
	comp=Z,21nm,0.6s						
CTAO	Charters Tower	34.59	282	*e*P	P	10 30 23.5	+1.6
	comp=Z,38nm,0.8s,mb5.4						
CTAO	Charters Tower	34.59	282	*e*P	P	10 30 23.5	+1.6
CTAO				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.4						
RKT	Rikitea	38.56	87	*e*S	S	10 36 46.1	-4.5
	comp=Z,550nm,26.8s						
RKT				*e*LR	LR	10 40 53.1	
	comp=Z,3µm,33.2s,baz=254						
PMG	Port Moresby	39.89	297	*e*P	P	10 31 06.7	-0.3
	comp=Z,10nm,0.7s,mb4.7						
PMG	Port Moresby	39.89	297	*e*P	P	10 31 06.7	-0.3
PMG				pmax	pmax		
	comp=Z,10.0nm,0.7s						
PMG	Port Moresby	39.89	297	P	P	10 31 07.4	+0.4
	comp=Z,9.5nm,0.8s,mb4.6,baz=99,slow=3.4,SNR=3.0						
COEN	Coen	40.27	288	*e*P	P	10 31 10.7	+0.6
TAOE	Nuku Hiva Isla	41.79	64	*e*S	S	10 37 39.0	0.0
	comp=Z,1µm,25.3s						
TAOE				*e*LQ		10 41 09.1	
	comp=Z,4µm,29.0s						
TAOE				*e*LR	LR	10 42 14.3	
	comp=Z,4µm,30.8s						
ASAR	Alice Springs	43.45	269	P	P	10 31 36.5	+0.4
	comp=Z,20nm,0.7s,mb4.9,baz=111,slow=8.0,SNR=68						
WB2	Warramunga Arr	44.61	274	*e*P	P	10 31 44.0	-1.5
WRA	Warramunga Arr	44.62	274	P	P	10 31 45.3	-0.2
	comp=Z,25nm,0.8s,mb5.1,baz=112,slow=8.0,SNR=152						
FORT	Forrest	45.95	257	*e*P	P	10 31 56.3	+0.3
	comp=Z,53nm,0.9s,mb5.5						
KAKA	Kakadu	49.72	281	*e*P	P	10 32 24.5	-0.9
	comp=Z,13nm,0.5s,mb5.2						
FITZ	Fitzroy Crossi	52.80	271	*e*P	P	10 32 48.9	+0.5
	comp=Z,18nm,0.7s,mb5.1						
FITZ				*e*		10 33 05.7	
NWAO	Narrogin (SRO)	54.08	251	P	P	10 32 58.7	+1.0
NWAO	Narrogin (SRO)	54.08	251	P	P	10 32 58.7	+1.0
	comp=Z,6.8nm,0.6s,mb4.8,baz=102,slow=6.5,SNR=7.1						
KLBR	Kellerberrin	54.09	252	*e*P	P	10 32 58.5	+0.7
	comp=Z,26nm,0.6s,mb5.3						
MUN	Mundaring	55.21	251	*e*P	P	10 33 04.2	-1.7
QSPA	South Pole Qui	57.65	180	*e*P	P	10 33 26.6	+4.1
	comp=Z,30nm,0.8s,mb5.4						
QSPA				*e*		10 33 41.8	
MAW	Mawson	70.52	201	*e*P	P	10 34 51.2	+4.0
	comp=Z,12nm,1.3s,mb4.7						
MAW				*e*		10 35 02.1	
MAW	Mawson	70.52	201	*e*P	P	10 34 51.2	+4.0
MAW				*e*		10 35 02.1	
MAW				pmax	pmax		
	comp=Z,12nm,1.3s						
MAW	Mawson	70.52	201	P	P	10 34 51.4	+4.2
	comp=Z,20nm,1.2s,mb4.9,baz=127,slow=6.7,SNR=7.9						
VNA3	Neumayer Olymp	76.22	176	*e*P	P	10 35 23.2	+2.5
VNA3				*e*	pP	10 35 28.7	+0.6
VNA3				*e*		10 35 37.2	
VNA3				*e*		10 35 41.1	
VNA3				*e*		10 35 46.0	
VNA3				*e*		10 35 51.1	
VNA3				*e*		10 35 55.0	
VNA3				*e*		10 36 05.2	
VNA2	Neumayer--Watz	76.66	177	*e*P	P	10 35 26.2	+3.0
	baz=172,slow=4.4						
VNA2				*e*	pP	10 35 31.8	+1.2
VNA2				*e*		10 35 39.3	
VNA2				*e*		10 35 43.0	
VNA2				*e*		10 35 48.4	
VNA2				*e*		10 35 53.9	
VNA2				*e*		10 35 57.3	
VNA2				*e*		10 36 07.6	
MAIT	Maitri	76.83	183	*e*P	P	10 35 25.0	+0.8
VNA1	Neumayer--Stat	76.88	176	*e*P	P	10 35 27.6	+3.1
VNA1				*e*	pP	10 35 33.6	+1.7
VNA1				*e*		10 35 41.3	
VNA1				*e*		10 35 45.6	
VNA1				*e*		10 35 50.0	
VNA1				*e*		10 35 55.9	
VNA1				*e*		10 35 59.6	
VNA1				*e*		10 36 11.0	
MJAR	Matsushiro Arr	80.17	325	P	P	10 35 40.9	-2.1
MJAR	Matsushiro Arr	80.17	325	P	P	10 35 40.9	-2.1
	comp=Z,6.7nm,0.9s,mb4.5,baz=155,slow=5.4,SNR=7.0						
MAT	Matsushiro	80.18	325	P	P	10 35 41.8	-1.2
KSRS	Korea Array	86.19	319	P	P	10 36 14.1	+0.1
	comp=Z,15nm,0.8s,mb5.2,baz=143,slow=5.5,SNR=40						
KS15	Wonju Array Si	86.20	319	*e*P	P	10 36 12.3	-1.8
HAST	UC Hastings Re	86.20	42	⇓P	P	10 36 14.8	+0.7
	baz=86						
BNLO	Ben Lomond (Sa	86.39	41	⇓P	P	10 36 15.6	+0.6
	baz=86						
PTRM	Twissleman Ran	86.46	43	*e*P	P	10 36 16.9	+1.5
PKD	Parkfield	86.47	43	⇓P	P	10 36 16.0	+0.6
	baz=86						
OSI	Osito Adit	86.61	45	⇑P	P	10 36 16.7	+0.5
	baz=86						
MCCM	Marconi Confer	86.72	40	⇑P	P	10 36 17.1	+0.5
	baz=87						
V05C	Boulder Hill,	86.78	43	⇓P	P	10 36 17.9	+0.9
	baz=87						
YSS	Yuzh-Sakhalins	86.78	334	*e*P	P	10 36 16.4	-0.2
	comp=Z,181nm,1.6s,mb6.0						
YSS	Yuzh-Sakhalins	86.78	334	*e*P	P	10 36 16.2	-0.5
YSS				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.3						
PACP	Pacheco Peak	86.79	42	⇑P	P	10 36 17.3	+0.3
	baz=87						
MURC	Murrieta	86.84	47	⇓P	P	10 36 17.6	+0.2
	baz=87						
MONP	Monument Peak	86.85	48	⇓P	P	10 36 17.8	+0.5
	baz=87						
DVTC	Desert V Tower	86.89	48	⇑P	P	10 36 18.0	+0.4
	baz=87						
ARVC	Arvin	86.90	45	⇑P	P	10 36 17.9	+0.3
	baz=87						
U05C	Westside ANR,	86.98	43	⇓P	P	10 36 18.6	+0.7
	baz=87						
BFSC	Mount Baldy St	86.99	46	⇑P	P	10 36 18.5	+0.4
	baz=87						
T05C	Eagle Field, D	87.06	42	⇑P	P	10 36 18.8	+0.5
	baz=87						
CVS	Carmenet Viney	87.10	40	⇓P	P	10 36 19.0	+0.6
	baz=87						
S04C	Ingram Canyon,	87.12	41	⇑P	P	10 36 19.1	+0.5
	baz=87,SNR=5.3						
NSHM	Saint Helena R	87.14	40	*e*P	P	10 36 18.4	-0.2
EDW2	Edwards Air Fo	87.23	45	P	P	10 36 19.2	+0.1
	baz=87,SNR=8.0						
HOPS	Hopland	87.23	39	*e*P	P	10 36 19.0	-0.1
HOPS	Hopland	87.23	39	⇓P	P	10 36 19.4	+0.3
	baz=87						
VES	Vestal, Richgr	87.24	44	P	P	10 36 19.1	-0.1
	baz=87,SNR=7.1						
SWSC	Sam W. Stewart	87.27	48	⇑P	P	10 36 19.7	+0.3
	baz=87						
PFO	Pinyon Flat Ob	87.31	47	*e*P	P	10 36 19.3	-0.3
	comp=Z,30nm,1.5s,mb5.3						
PFO	Pinyon Flat Ob	87.31	47	*e*P	P	10 36 19.3	-0.3
PFO				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.3						
PFO	Pinyon Flat Ob	87.31	47	⇑P	P	10 36 19.7	+0.1
	baz=87						
RCTC	Rector, Farmer	87.48	43	⇑P	P	10 36 20.2	-0.2
	baz=87						
ISA	Isabella	87.48	44	P	P	10 36 20.5	+0.2
	baz=87,SNR=16						
MNRC	McLaughlin Nat	87.49	40	⇑P	P	10 36 20.8	+0.5
	baz=87,SNR=6.3						
Q03C	Winters	87.55	40	⇓P	P	10 36 20.9	+0.3
	baz=87						
S05C	Merced	87.57	42	⇑P	P	10 36 20.5	-0.3
	baz=88,SNR=7.8						
PET	Petropavlovsk	87.64	346	*e*P	P	10 36 19.9	-0.7
PET				*e*S	S	10 46 54.6	-6.1
PET				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.9						
PET				pmax	pmax		
	comp=Z,100nm,13.0s						
O01C	Eel River Cons	87.67	38	⇑P	P	10 36 21.6	+0.4
	baz=88						
T06C	Millerton Lake	87.69	43	P	P	10 36 20.9	-0.4
	baz=88,SNR=22						
LRMC	Laurel Mountai	87.82	45	⇓P	P	10 36 22.0	0.0
	baz=88,SNR=11						
RRX	Edison Barstow	87.83	46	⇓P	P	10 36 22.0	0.0
	baz=88						
BELC	Belle Mtn.	87.85	47	P	P	10 36 22.8	+0.6
	baz=88,SNR=6.1						
HELL	Mitchell Peak,	87.86	43	P	P	10 36 21.6	-0.6
	baz=88,SNR=7.2						
R04C	Big Horse Ranc	87.88	41	⇑P	P	10 36 21.6	-0.5
	baz=88						
GASB	Alder Springs	87.90	39	⇑P	P	10 36 22.8	+0.5
	baz=88,SNR=13						
NJ2	Nanjing	87.90	310	*e*P	P	10 36 20.3	-2.2
NJ2				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.7						
GLA	Glamis	87.95	48	⇑P	P	10 36 23.2	+0.5
	baz=88						
BC3	Big Chuckw Mtn	87.96	48	⇓P	P	10 36 23.4	+0.6
	baz=88,SNR=8.0						
CMB	Columbia Colle	88.03	42	*e*P	P	10 36 22.4	-0.5
	comp=Z,12nm,0.9s,mb5.1						
CMB	Columbia Colle	88.03	42	*e*P	P	10 36 22.5	-0.4
CMB				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.1						
CMB	Columbia Colle	88.03	42	P	P	10 36 22.7	-0.2
	baz=88,SNR=11						
Q04C	Lincoln	88.04	40	⇑P	P	10 36 22.7	-0.3
	baz=88						
SUTB	Sutter Butte	88.10	40	⇓P	P	10 36 22.6	-0.6
	baz=88						
KCC	Kaiser Creek	88.13	43	⇑P	P	10 36 23.6	+0.1
	baz=88,SNR=6.1						
HEC	Hector,Ludlow	88.20	46	⇓P	P	10 36 23.7	-0.1
	baz=88						
S06C	San Francisco	88.22	42	P	P	10 36 23.4	-0.4
	baz=88,SNR=12						
GSC	Goldstone	88.23	46	⇑P	P	10 36 24.3	+0.3
	baz=88,SNR=11						
O02C	Red Bluff	88.24	39	P	P	10 36 24.6	+0.7
	baz=88,SNR=15						
CWC	Cottonwood Cre	88.24	44	⇓P	P	10 36 24.2	+0.2
	baz=88						
MPMC	Manual Prospec	88.33	45	P	P	10 36 24.7	+0.2
	baz=88,SNR=12						
LAVA	Lava Cap Winer	88.34	41	P	P	10 36 24.0	-0.4
	baz=88,SNR=5.5						
OHCM	Honcut	88.34	40	*e*P	P	10 36 24.2	-0.2
DAC	Darwin (Calif)	88.42	44	*e*P	P	10 36 24.7	-0.1
IRM	Iron Mountain	88.48	47	P	P	10 36 25.8	+0.7
	baz=88,SNR=19						
ORV	Oroville	88.49	40	⇑P	P	10 36 24.9	-0.2
	baz=88,SNR=9.7						
GMRC	Granite Mounta	88.58	47	⇑P	P	10 36 26.0	+0.4
	baz=88,SNR=9.9						
TIN	Tinemaha	88.58	43	⇑P	P	10 36 25.7	+0.1
	baz=88						
MTUM	Tungsten Hills	88.59	43	*e*P	P	10 36 25.7	+0.1
Y12C	Blythe	88.60	48	⇑P	P	10 36 26.3	+0.6
	baz=88						
MLAC	Mammoth Lakes	88.62	43	⇓P	P	10 36 26.0	+0.2
	baz=88						
WDC	Whiskeytown Da	88.66	39	P	P	10 36 25.7	-0.1
	baz=88,SNR=5.8						
R05C	Kirkwood Meado	88.67	41	⇑P	P	10 36 26.2	+0.2
	baz=88,SNR=14						
P05C	Yuba Gap, Truc	88.80	41	P	P	10 36 26.4	-0.1
	baz=89,SNR=10						
R07C	Lee Vining	88.82	42	P	P	10 36 26.9	+0.3
	baz=89,SNR=17						
TUQ	Turquoise Mtn.	88.85	46	⇓P	P	10 36 27.2	+0.3
	baz=89						
WAKR	Walker	88.89	42	*e*P	P	10 36 27.1	+0.1
R06C	Coleville	88.89	42	⇓P	P	10 36 27.1	+0.1
	baz=89,SNR=10						
S08C	White Mtn Res	88.92	43	P	P	10 36 27.5	+0.4
	baz=89,SNR=19						
SHOC	Shoshone	88.95	45	⇓P	P	10 36 27.3	-0.1
	baz=89						
FURC	Furnace Creek,	88.98	45	P	P	10 36 27.5	0.0
	baz=89,SNR=5.7						
GRAC	Grapevine Rang	89.04	44	P	P	10 36 28.2	+0.5
	baz=89,SNR=15						
Y13A	Salome	89.08	48	⇑P	P	10 36 28.7	+0.7
	baz=89						
M02C	Callahan	89.09	38	⇓P	P	10 36 28.2	+0.3
	baz=89,SNR=5.5						
O05C	Quincy	89.09	40	⇑P	P	10 36 28.0	+0.2
	baz=89						
PDMCI	Parker Dam,Lak	89.20	48	P	P	10 36 29.1	+0.5
	baz=89,SNR=12						
NEE2	Needles Airpor	89.21	47	⇓P	P	10 36 29.0	+0.4
	baz=89						
O04C	Chester	89.25	40	P	P	10 36 28.4	-0.3
	baz=89,SNR=8.4						
L02A	Cave Junction	89.26	37	⇑P	P	10 36 29.1	+0.4
	baz=89						
WCN	Washoe City	89.26	41	P	P	10 36 29.1	+0.4
	baz=89,SNR=8.4						
U10A	Ash Meadows, A	89.27	45	⇑P	P	10 36 29.6	+0.8
	baz=89,SNR=8.2						
BEKR	Beckwourth	89.33	40	P	P	10 36 29.0	0.0
	baz=89,SNR=7.9						
Z14A	Wintersburg	89.35	49	⇓P	P	10 36 29.7	+0.4
	baz=89,SNR=6.5						
M03C	McCloud	89.38	38	⇑P	P	10 36 29.1	-0.2
	baz=89,SNR=6.6						
115A	Sonoran Desert	89.39	50	⇑P	P	10 36 29.9	+0.5
	baz=89						
HATC	Hat Creek Radi	89.41	39	⇑P	P	10 36 29.3	-0.1
	baz=89						
W12A	Cal Nev Ari	89.41	47	⇓P	P	10 36 30.2	+0.7
	baz=89						
YBH	Yreka Blue Hor	89.41	38	*e*P	P	10 36 29.0	-0.3
	comp=Z,35nm,1.6s,mb5.4						
YBH	Yreka Blue Hor	89.41	38	*e*P	P	10 36 29.0	-0.3
YBH				pmax	pmax		
	comp=Z,35nm,1.6s						
YBH	Yreka Blue Hor	89.41	38	⇑P	P	10 36 29.6	+0.3
	baz=89						
V11A	Goodsprings	89.42	46	⇓P	P	10 36 29.9	+0.3
	baz=89,SNR=8.2						
P06A	Stead Airport,	89.45	41	⇑P	P	10 36 29.5	-0.1
	baz=89						
NVAR	Mina Array Bea	89.48	42	P	P	10 36 28.0	-1.7
	comp=Z,8.3nm,0.9s,mb5.1,baz=208,slow=6.3,SNR=28						
R08A	Mina	89.53	43	⇓P	P	10 36 30.4	+0.4
	baz=89						
Q07A	Schurz	89.54	42	⇓P	P	10 36 29.7	-0.3
	baz=89						
X13A	Yucca	89.59	48	⇓P	P	10 36 30.6	+0.2
	baz=90,SNR=18						
S09A	Goldfield	89.62	44	⇓P	P	10 36 30.9	+0.5
	baz=90						
116A	Eloy	89.64	50	⇑P	P	10 36 31.0	+0.4
	baz=90,SNR=5.9						
LTIM	Timbered Crate	89.65	39	P	P	10 36 30.4	0.0
ELFS	Eagle Lake Fie	89.66	40	⇑P	P	10 36 31.1	+0.6
	baz=90,SNR=9.0						
Y14A	Wickenburg	89.68	49	P	P	10 36 31.1	+0.3
	baz=90,SNR=14						
V12A	Nelson	89.70	46	P	P	10 36 31.4	+0.5
	baz=90,SNR=12						
O06A	Flanigan	89.83	40	⇑P	P	10 36 30.9	-0.4
	baz=90,SNR=9.4						
TPH	Tonopah	89.86	43	*e*P	P	10 36 31.7	+0.2
	comp=Z,28nm,1.3s,mb5.4						
TPH	Tonopah	89.86	43	*e*P	P	10 36 31.7	+0.2
TPH				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.4						
W13A	Hualapai Mount	89.88	47	P	P	10 36 32.5	+0.8
	baz=90,SNR=17						
M04C	Macdoel	89.90	38	⇑P	P	10 36 32.0	+0.3
	baz=90						
P07A	Fallon	89.91	41	⇓P	P	10 36 31.9	+0.1
	baz=90						
HUMO	Hull Mountain	89.91	37	*e*P	P	10 36 31.6	-0.1
	comp=Z,66nm,1.7s,mb5.7						
HUMO	Hull Mountain	89.91	37	⇓P	P	10 36 32.1	+0.4
	baz=90						
WHN	Wuhan	89.92	307	P	P	10 36 32.8	+0.8
WHN				LR	LR		
	comp=Z,4µm,10.0s,MS6.1						
M05C	Lookout	89.96	39	⇓P	P	10 36 31.8	-0.2
	baz=90						
Q08A	Gabbs	89.98	42	P	P	10 36 31.9	-0.2
	baz=90,SNR=11						
SHPR	Sheep Range	90.03	46	*e*P	P	10 36 32.5	+0.1
R09A	Tonopah	90.06	43	⇓P	P	10 36 32.5	0.0
	baz=90,SNR=18						
TUC	Tucson	90.08	51	*e*P	P	10 36 32.5	-0.2
	comp=Z,25nm,1.4s,mb5.4						
TUC	Tucson	90.08	51	*e*P	P	10 36 32.5	-0.2
TUC				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.3						
X14A	Yava	90.10	48	⇑P	P	10 36 33.2	+0.4
	baz=90,SNR=16						
S10A	Tonopah Range,	90.12	44	P	P	10 36 32.9	+0.1
	baz=90,SNR=20						
L04A	Klamath Falls	90.15	38	⇓P	P	10 36 32.6	-0.2
	baz=90						
M06C	Likely Place G	90.20	39	P	P	10 36 33.1	+0.1
	baz=90,SNR=5.5						
N06A	Buffalo Meadow	90.23	40	⇓P	P	10 36 33.1	-0.1
	baz=90,SNR=9.6						
O07A	Toulon	90.35	41	P	P	10 36 33.5	-0.3
	baz=90,SNR=15						
U12A	Valley of Fire	90.35	46	⇓P	P	10 36 34.5	+0.6
	baz=90,SNR=12						
Q09A	Carvers	90.39	43	⇓P	P	10 36 34.2	+0.1
	baz=90						
S11A	Rachel	90.43	44	⇓P	P	10 36 34.5	+0.3
	baz=90						
T12A	Moapa	90.44	46	⇓P	P	10 36 34.5	+0.2
	baz=90						
W14A	Seligman	90.46	48	P	P	10 36 35.4	+1.0
	baz=90,SNR=26						
X15A	Humboldt	90.52	49	P	P	10 36 35.6	+0.8
	baz=90,SNR=12						
R10A	Warm Springs	90.54	44	⇓P	P	10 36 35.0	+0.3
	baz=90						
K04A	Chilquin	90.55	38	⇑P	P	10 36 34.6	0.0
	baz=90						
MDJ	Mudanjiang	90.56	325	P	P	10 36 34.5	-0.1
MDJ				AMB	AMB		
	comp=Z,29nm,0.9s,mb5.6						
MDJ				AMB	AMB		
	comp=Z,928nm,5.7s						
MDJ				LR	LR		
	comp=N,436nm,18.4s,MS5.2						
MDJ				LR	LR		
	comp=E,662nm,16.8s,MS5.2						
MDJ				LR	LR		
	comp=Z,408nm,19.9s,MS4.9						
MDJ	Mudanjiang	90.56	325	*e*P	P	10 36 34.9	+0.2
	comp=Z,21nm,0.9s,mb5.5						
L05A	Lakeview	90.61	38	⇓P	P	10 36 35.5	+0.5
	baz=90						
N07B	Gerlach	90.72	40	⇑P	P	10 36 36.1	+0.6
	baz=91,SNR=7.3						
DL2	Dalian	90.75	317	P	P	10 36 35.9	+0.2
DL2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.7						
MOD	Modoc	90.79	39	*e*P	P	10 36 35.3	-0.5
	comp=Z,13nm,1.3s,mb5.1						
MOD	Modoc	90.79	39	P	P	10 36 35.8	0.0
	baz=91,SNR=9.3						
J04A	Umpqua Nationa	90.80	37	⇓P	P	10 36 35.9	+0.1
	baz=91						
Q10A	Clear Creek Ra	90.84	43	⇑P	P	10 36 36.6	+0.5
	baz=91,SNR=7.7						
P09A	Austin	90.91	42	⇑P	P	10 36 36.2	-0.2
	baz=91						
W15A	Williams	90.95	48	⇓P	P	10 36 37.3	+0.6
	baz=91						
M07A	Soldier Meadow	91.04	40	⇓P	P	10 36 37.3	+0.3
	baz=91						
I04A	Tendick Farm,	91.05	36	⇓P	P	10 36 36.7	-0.2
	baz=91						
HABR	Khabarovsk	91.05	331	*e*P	P	10 36 36.7	-0.1
HABR				*e*S	S	10 47 05.6	-27
HABR				*e*		10 47 35.2	
HABR				*e*SS	SS	10 53 35.9	-1.8
K05A	Summer Lake	91.06	38	⇓P	P	10 36 37.3	+0.3
	baz=91,SNR=7.0						
T13A	Saint George	91.12	46	P	P	10 36 38.1	+0.6
	baz=91,SNR=6.7						
N08A	GE Springer Mi	91.19	41	P	P	10 36 37.4	-0.2
	baz=91,SNR=9.8						
H03A	Soap Creek Ran	91.25	35	⇑P	P	10 36 38.3	+0.5
	baz=91,SNR=5.7						
J05A	Fort Rock	91.28	37	⇑P	P	10 36 37.9	-0.1
	baz=91,SNR=5.2						
Q11A	Duckwater	91.29	44	P	P	10 36 38.5	+0.3
	baz=91,SNR=6.4						
O09A	Fish Creek Ran	91.30	42	P	P	10 36 37.9	-0.3
	baz=91,SNR=5.8						
P10A	Eureka	91.34	43	⇓P	P	10 36 38.1	-0.3
	baz=91						
L07A	Adell	91.38	39	P	P	10 36 38.9	+0.3
	baz=91,SNR=5.3						
K06A	Valley Falls	91.45	38	⇓P	P	10 36 39.1	+0.3
	baz=91,SNR=7.5						
BMN	Battle Mountai	91.45	42	*e*P	P	10 36 38.6	-0.3
	comp=Z,11nm,1.0s,mb5.1						
BMN	Battle Mountai	91.45	42	*e*P	P	10 36 38.6	-0.3
BMN				pmax	pmax		
	comp=Z,11nm,1.0s,mb5.1						
M08A	Happy Creek Ra	91.51	40	⇓P	P	10 36 39.2	+0.1
	baz=91						
R12A	Pony Springs,	91.56	44	P	P	10 36 39.9	+0.5
	baz=91,SNR=11						
N09A	Rock Creek Ran	91.57	41	⇑P	P	10 36 39.2	-0.3
	baz=91						
SNY	Shenyang	91.65	320	⇑P	P	10 36 40.0	+0.2
SNY				AP	pP	10 36 49.8	+2.5
SNY				AMB	AMB		
	comp=Z,32nm,3.6s						
SNY				LR	LR		
	comp=N,1µm,13.3s,MS5.6						
SNY				LR	LR		
	comp=E,1µm,15.3s,MS5.6						
SNY				LR	LR		
	comp=Z,748nm,12.9s,MS5.3						
T14A	Hurricane	91.65	46	P	P	10 36 40.5	+0.6
	baz=92,SNR=11						
TIA	Tai'an	91.68	313	*e*P	P	10 36 42.0	+1.9
P11A	Circle Ranch,	91.70	43	⇑P	P	10 36 39.9	-0.1
	baz=92						
WUAZ	Wupatki	91.72	48	*e*P	P	10 36 40.8	+0.5
	comp=Z,25nm,1.2s,mb5.4						
WUAZ	Wupatki	91.72	48	P	P	10 36 40.9	+0.6
	baz=92,SNR=10						
O10A	Cortez Mining,	91.77	42	⇑P	P	10 36 40.3	0.0
	baz=92						
H04A	Detroit Lake	91.80	36	⇑P	P	10 36 39.9	-0.5
	baz=92						
J06A	Christmas Vall	91.82	38	P	P	10 36 39.9	-0.6
	baz=92,SNR=9.1						
I05A	Bend	91.89	37	⇓P	P	10 36 40.6	-0.2
	baz=92						
Q12A	Willow Creek R	91.89	44	P	P	10 36 40.9	-0.1
	baz=92,SNR=7.5						
K07A	Rock Creek Ran	91.90	39	P	P	10 36 40.7	-0.2

	baz=92,SNR=8.7						
ARUT	Antelope Range	91.90	45	eP	P	10 36 41.4	+0.3
M09A	Marrel Ranch,	92.00	41	P	P	10 36 41.5	+0.1
	baz=92,SNR=7.1						
G04A	Mulino	92.03	35	⇓P	P	10 36 41.2	-0.2
	baz=92						
CN2	Changchun	92.04	323	eP	P	10 36 41.8	+0.3
CN2				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.7						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,800nm,11.0s,MS5.6						
CN2				LR	LR		
	comp=E,900nm,11.0s,MS5.6						
CN2				LR	LR		
	comp=Z,600nm,14.0s,MS5.2						
L08A	Fields	92.04	40	P	P	10 36 41.7	+0.1
	baz=92,SNR=10						
WVOR	Wild Horse Val	92.05	39	eP	P	10 36 41.0	-0.6
	comp=Z,21nm,1.3s,mb5.3						
WVOR	Wild Horse Val	92.05	39	eP	P	10 36 41.0	-0.6
WVOR				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.3						
S14A	Cedar City	92.05	46	⇓P	P	10 36 41.8	+0.1
	baz=92						
P12A	McGill	92.14	43	⇓P	P	10 36 42.2	+0.1
	baz=92,SNR=5.4						
O11A	Cowboy Ranch,	92.14	43	P	P	10 36 42.2	+0.1
	baz=92,SNR=13						
H05A	Madras	92.25	36	⇓P	P	10 36 42.9	+0.4
	baz=92						
I06A	Prineville	92.27	37	⇑P	P	10 36 42.5	-0.1
	baz=92,SNR=8.4						
L09A	Wilkinson Ranc	92.29	40	P	P	10 36 42.5	-0.2
	baz=92,SNR=6.2						
K08A	Mann Creek Ran	92.33	39	P	P	10 36 42.8	-0.1
	baz=92,SNR=14						
J07A	Hines	92.34	38	⇑P	P	10 36 42.8	-0.2
	baz=92						
VIPM	Ingram Point	92.46	37	P	P	10 36 43.2	-0.2
E03A	Lebam	92.48	34	⇓P	P	10 36 43.6	+0.1
	baz=92						
N11A	Elko Archery C	92.55	42	⇓P	P	10 36 44.2	+0.2
	baz=92						
M10A	I.L. Ranch, Tu	92.57	41	⇓P	P	10 36 44.0	0.0
	baz=92,SNR=8.0						
F04A	Amboy	92.58	35	⇑P	P	10 36 43.8	-0.2
	baz=92						
CROR	Criterion Ridg	92.61	36	P	P	10 36 43.7	-0.5
G05A	Wamic	92.63	36	⇑P	P	10 36 44.2	0.0
	baz=92						
K09A	Rome	92.72	40	P	P	10 36 44.5	-0.2
	baz=93,SNR=13						
I07A	Izee	92.73	38	⇑P	P	10 36 44.5	-0.2
	baz=93,SNR=10						
H06A	Lindquist Farm	92.76	37	P	P	10 36 44.5	-0.4
	baz=93,SNR=12						
J08A	Circle Bar Ran	92.77	39	P	P	10 36 44.5	-0.4
	baz=93,SNR=12						
M11A	Holland Ranch,	92.93	42	P	P	10 36 45.9	+0.2
	baz=93,SNR=8.6						
GYA	Guiyang	92.93	300	P	P	10 36 47.8	+1.7
GYA				PP	PP	10 40 32.5	+3.2
GYA				AMB	AMB		
	comp=Z,30nm,1.1s,mb5.6						
GYA				AMB	AMB		
	comp=Z,670nm,8.4s						
GYA				LR	LR		
	comp=N,680nm,20.0s,MS5.2						
GYA				LR	LR		
	comp=E,640nm,21.4s,MS5.2						
GYA				LR	LR		
	comp=Z,590nm,20.4s,MS5.0						
VTHM	Trough	92.96	36	P	P	10 36 45.5	-0.2
G06A	Carlson Farm,	92.97	36	P	P	10 36 45.5	-0.3
	baz=93,SNR=5.9						
N12A	Clover Valley,	92.97	42	P	P	10 36 45.9	0.0
	baz=93,SNR=8.0						
L10A	Juniper Basin	92.98	41	P	P	10 36 45.6	-0.3
	baz=93,SNR=15						
H07A	Lands Inn, Kim	93.06	37	⇑P	P	10 36 45.9	-0.3
	baz=93						
I08A	Drewsey	93.10	38	⇓P	P	10 36 46.1	-0.3
	baz=93						
MSU	Marysvale	93.13	46	eP	P	10 36 47.4	+0.7
J09A	Fry Pan Ranch,	93.15	39	⇓P	P	10 36 46.4	-0.3
	baz=93,SNR=12						
TXAR	Lajitas Array	93.16	57	P	P	10 36 45.3	-1.8
	comp=Z,2.9nm,1.0s,mb4.7,baz=212,slow=4.4,SNR=13						
K10A	MacKenzie Ranc	93.24	40	P	P	10 36 47.0	-0.1
	baz=93,SNR=13						
F06A	Goldendale	93.27	36	P	P	10 36 47.3	+0.1
	baz=93,SNR=5.0						
E05A	Randle	93.35	35	⇑P	P	10 36 47.0	-0.5
	baz=93						
M12A	Wells	93.41	42	⇓P	P	10 36 47.6	-0.3
	baz=93						
L11A	Cat Creek Ranc	93.44	41	⇓P	P	10 36 47.8	-0.3
	baz=93,SNR=9.8						
N13A	Wendover, West	93.45	43	⇓P	P	10 36 47.9	-0.2
	baz=93						
G07A	Ruggs Ranch, H	93.47	37	P	P	10 36 47.6	-0.5
	baz=93,SNR=7.6						
GNW	Green Mountain	93.57	34	eP	P	10 36 48.2	-0.3
I09A	Lost Marbles R	93.58	39	⇓P	P	10 36 48.3	-0.3
	baz=93						
C04A	Brinnon	93.61	33	⇓P	P	10 36 48.6	-0.1
	baz=94						
K11A	Parker Ranch,	93.69	40	⇓P	P	10 36 49.1	-0.1
	baz=94,SNR=9.8						
D05A	Enumclaw	93.69	34	⇓P	P	10 36 49.3	+0.2
	baz=94						
E06A	Yakima	93.72	35	⇑P	P	10 36 49.1	-0.1
	baz=94						
J10A	Berg Farm, Mel	93.73	40	⇓P	P	10 36 49.0	-0.3
	baz=94						
F07A	Phinny Hill Vi	93.78	36	⇓P	P	10 36 49.4	-0.1
	baz=94						
M13A	Montello	93.80	42	⇓P	P	10 36 49.3	-0.4
	baz=94,SNR=7.2						
DUG	Dugway	93.83	44	⇓P	P	10 36 49.5	-0.4
	baz=94						
L12A	House Creek Ra	93.84	41	⇓P	P	10 36 49.6	-0.3
	baz=94,SNR=8.6						
G08A	Pilot Rock	93.85	37	⇓P	P	10 36 49.6	-0.2
	baz=94,SNR=12						
I10A	Payette	94.15	39	⇓P	P	10 36 51.3	+0.1
	baz=94						
C05A	Tolt Reservoir	94.20	34	⇓P	P	10 36 51.0	-0.4
	baz=94						
TMUT	Trail Mountain	94.21	45	eP	P	10 36 51.6	0.0
K12A	Draper Farm, C	94.22	41	⇑P	P	10 36 51.3	-0.3
	baz=94						
MFID	Camas Ranch	94.23	40	P	P	10 36 51.1	-0.5
	baz=94,SNR=12						
D06A	Cle Elum	94.24	35	⇓P	P	10 36 51.2	-0.4
	baz=94						
E07A	Sunnyside	94.28	36	⇓P	P	10 36 51.4	-0.4
	baz=94						
F08A	Pendleton	94.29	37	⇑P	P	10 36 51.5	-0.4
	baz=94						
HAWA	Hanford	94.33	36	eP	P	10 36 51.4	-0.6
M14A	Sheep Mountain	94.36	43	P	P	10 36 51.9	-0.4
	baz=94,SNR=9.7						
L13A	Double Diamond	94.40	42	⇓P	P	10 36 51.8	-0.6
	baz=94						
B05A	Bryant	94.41	33	⇑P	P	10 36 52.3	0.0
	baz=94						
I11A	Placerville	94.49	40	P	P	10 36 52.4	-0.4
	baz=94,SNR=11						
SRU	San Rafael	94.51	46	eP	P	10 36 53.1	0.0
J12A	Stokes Ranch,	94.52	41	⇓P	P	10 36 52.6	-0.4
	baz=94,SNR=12						
H10A	Noah’s Angus R	94.52	39	⇑P	P	10 36 52.3	-0.7
	baz=94						
ANMO	Albuquerque	94.55	51	eP	P	10 36 52.9	-0.5
	comp=Z,6.4nm,1.3s,mb4.9						
ANMO	Albuquerque	94.55	51	eP	P	10 36 50.9	-2.4
MVCO	Mesa Verde	94.59	48	⇑P	P	10 36 53.0	-0.5
	baz=94						
E08A	Dider Farm, El	94.63	36	⇑P	P	10 36 53.1	-0.3
	baz=94						
D07A	Quincy	94.67	35	⇓P	P	10 36 53.3	-0.2
	baz=94						
BJT	Baijiatuau	94.67	315	eP	P	10 36 53.7	-0.1
	comp=Z,11nm,0.6s,mb5.5						
BJT	Baijiatuau	94.67	315	eP	P	10 36 53.7	-0.1
BJT				pmax	pmax		
	comp=Z,11nm,0.6s						
F09A	S2 Ranch, Elgi	94.67	37	⇓P	P	10 36 53.0	-0.6
	baz=94						
BJI	Beijing	94.68	315	P	P	10 36 53.8	0.0
BJI				AMB	AMB		
	comp=Z,16nm,0.7s,mb5.6						
K13A	Stover Farm, H	94.69	41	P	P	10 36 54.2	+0.4
	baz=95,SNR=6.1						
SPUT	South Promonto	94.75	43	eP	P	10 36 54.2	+0.1
M15A	Larsen Ranch,	94.85	43	P	P	10 36 54.0	-0.6
	baz=95,SNR=5.5						
HVU	Hansel Valley	94.87	43	eP	P	10 36 54.5	-0.1
PV10	Paradox Valley	94.97	47	eP	P	10 36 55.0	-0.2
C07A	Waterville	94.97	35	⇓P	P	10 36 54.5	-0.4
	baz=95						
H11A	Donnelly	94.99	39	P	P	10 36 54.5	-0.5
	baz=95,SNR=12						
D08A	Wollman Farm,	95.09	36	⇓P	P	10 36 54.8	-0.7
	baz=95						
HLID	Hailey	95.10	41	eP	P	10 36 54.9	-0.7
	comp=Z,5.8nm,0.9s,mb5.0						
HLID	Hailey	95.10	41	P	P	10 36 55.5	-0.2
	baz=95,SNR=8.3						
PV01	Paradox Valley	95.11	48	eP	P	10 36 55.4	-0.4
KMI	Kunming	95.12	296	P	P	10 36 58.3	+2.1
	comp=Z,7.0nm,1.2s,mb5.0						
KMI				S	S	10 48 03.8	-6.2
KMI				LR	LR		
	comp=Z,470nm,39.7s,MS4.7						
KMI	Kunming	95.12	296	P	P	10 36 58.3	+2.1
KMI				S	S	10 48 03.8	-6.2
KMI				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb5.0						
KMI				MLR	MLR		
	comp=Z,470nm,39.7s,MS4.7						
J13A	Cove Ranch, Pi	95.12	41	P	P	10 36 55.9	+0.1
	baz=95,SNR=16						
K14A	Jones Ranch, D	95.13	42	⇑P	P	10 36 55.2	-0.6
	baz=95						
F10A	Beach Ranch, E	95.20	37	⇑P	P	10 36 55.4	-0.6
	baz=95						
A06A	Chilliwack	95.29	33	⇑P	P	10 36 55.7	-0.6
	baz=95						
MA2	Magadan	95.39	344	eP	P	10 36 54.2	-2.3
D09A	Jones Farm, Ri	95.40	36	⇓P	P	10 36 56.2	-0.7
	baz=95						
B07A	Winthrop	95.48	34	⇑P	P	10 36 56.7	-0.6
	baz=95						
I13A	Wildhorse Cree	95.49	40	⇓P	P	10 36 57.2	-0.2
	baz=95						
H12A	Diamond D Ranc	95.51	40	P	P	10 36 57.0	-0.5
	baz=95,SNR=14						
C08A	Higginbotham F	95.53	35	⇑P	P	10 36 57.1	-0.4
	baz=95						
E10A	Myers Farm, Un	95.61	37	⇑P	P	10 36 57.2	-0.7
	baz=96						
F11A	Grangeville	95.70	38	⇑P	P	10 36 57.8	-0.5
	baz=96						
A07A	Ashnola River,	95.77	34	⇑P	P	10 36 57.8	-0.7
	baz=96						
B08A	Colville Reser	95.79	35	⇑P	P	10 36 57.7	-0.9
	baz=96						
H13A	Challis	95.84	40	P	P	10 36 59.0	0.0
	baz=96,SNR=11						
D10A	Wagner Farm, O	95.91	37	⇑P	P	10 36 58.7	-0.5
	baz=96						
E11A	Bogner Ranch,	95.99	38	⇑P	P	10 36 58.8	-0.8
	baz=96						
G13A	Cobalt	96.20	40	P	P	10 37 00.4	-0.2
	baz=96,SNR=8.6						
A08A	Turner Farm, O	96.23	34	⇓P	P	10 37 00.5	-0.1
	baz=96						
D11A	Klaveano Farm,	96.38	37	⇑P	P	10 37 01.3	0.0
	baz=96						
A09A	Danville	96.57	35	⇑P	P	10 37 02.2	0.0
	baz=96						
F13A	Darby	96.60	39	⇑P	P	10 37 02.2	-0.1
	baz=96						
G14A	Jackson	96.71	40	⇑P	P	10 37 02.9	0.0
	baz=97						
MCMT	McKenzie Canyo	96.78	40	eP	P	10 37 02.8	-0.5
D12A	Red Ives Fores	96.89	38	⇑P	P	10 37 03.1	-0.6
	baz=97						
LPAZ	La Paz	96.92	114	P	P	10 37 06.0	+1.3
	comp=Z,2.2nm,0.8s,mb4.7,baz=200,slow=4.9,SNR=8.2						
A10A	Northport	97.07	35	⇑P	P	10 37 04.3	-0.2
	baz=97						
E13A	Victor	97.10	39	⇑P	P	10 37 04.4	-0.2
	baz=97						
F14A	Wisdom	97.12	39	⇑P	P	10 37 04.9	+0.1
	baz=97						
G15A	Dillon	97.19	40	P	P	10 37 05.2	+0.1
	baz=97,SNR=7.2						
B11A	Sandpoint	97.29	36	⇑P	P	10 37 05.5	0.0
	baz=97						
PDAR	Pinedale Array	97.34	43	P	P	10 37 04.5	-1.3
	comp=Z,2.1nm,0.8s,mb4.6,baz=195,slow=2.5,SNR=16						
PDAR				PKKP	PKKPbc	10 53 46.5	+1.6
	comp=Z,0.5nm,0.8s,baz=85,slow=3.7,SNR=4.3						
D13A	Huson	97.38	38	⇑P	P	10 37 05.7	-0.2
	baz=97						
E14A	Clinton	97.45	39	⇑P	P	10 37 06.3	+0.1
	baz=97						
CD2	Chengdu	97.53	302	eP	P	10 37 07.8	+0.8
CD2				AP	pP	10 37 12.5	-2.1
CD2				XP	sP	10 37 14.5	-2.8
CD2				AMB	AMB		
	comp=Z,20nm,1.2s,mb5.5						
CD2				AMB	AMB		
	comp=Z,40nm,5.8s						
CD2				LR	LR		
	comp=N,410nm,14.4s						
CD2				LR	LR		
	comp=Z,330nm,20.4s						
QLMT	Earthquake Lak	97.56	41	eP	P	10 37 06.5	-0.3
F15A	Butte	97.61	40	⇓P	P	10 37 07.2	+0.2
	baz=98						
A11A	Hall Mountain,	97.64	36	⇓P	P	10 37 07.0	-0.1
	baz=98						
B12A	Libby	97.70	36	⇑P	P	10 37 07.7	+0.4
	baz=98						
D14A	Greenough	97.87	38	⇑P	P	10 37 08.0	-0.1
	baz=98						
E15A	Deer Lodge	97.91	39	⇓P	P	10 37 08.1	-0.2
	baz=98						
HHC	Hu-ho-hao-te	97.96	314	eP	P	10 37 09.3	+0.6
HHC				AP	pP	10 37 19.8	+3.5
HHC				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb5.1						
HHC				AMB	AMB		
	comp=Z,226nm,6.1s						
HHC				LR	LR		
	comp=N,459nm,35.1s,MS4.9						
HHC				LR	LR		
	comp=E,430nm,33.2s,MS4.9						
HHC				LR	LR		
	comp=Z,534nm,34.1s,MS4.8						
SEY	Seymchan	98.08	347	eP	P	10 37 06.3	-2.4
COLA	College	99.76	12	eP	Pdif	10 37 14.9	-2.0
	comp=Z,2.7nm,0.8s						
COLA	College	99.76	12	eP	Pdif	10 37 14.9	-2.0
COLA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.8						
LZH	Lanzhou	100.28	306	eP	Pdif	10 37 21.3	+2.1
LZH				AP		10 37 25.3	
LZH				XP		10 37 27.8	
LZH				AMB	AMB		
	comp=Z,15nm,1.0s						
LZH				AMB	AMB		
	comp=Z,110nm,4.0s						
LZH				LR	LR		
	comp=E,1µm,15.8s						
LZH				LR	LR		
	comp=Z,2µm,16.4s,MS5.7						
LZH	Lanzhou	100.28	306	eP	Pdif	10 37 21.2	+2.0
	comp=Z,15nm,1.0s						
LZH				pP		10 37 25.3	
LZH				sP		10 37 27.8	
LZH				PP	PP	10 41 29.7	+3.8
LZH				eS	Sdif	10 48 52.0	-1.6
LZH				sS		10 48 57.0	
LZH				SS	SS	10 55 48.5	-0.8
LZH				LR	LR		
	comp=Z,2µm,16.4s,MS5.7						
LZH	Lanzhou	100.28	306	eP	Pdif	10 37 21.2	+2.0
LZH				*SP		10 37 27.8	
LZH						10 41 29.7	
LZH				eS	Sdif	10 48 52.0	-1.6
LZH				*SS		10 48 57.0	
LZH				SS	SS	10 55 48.5	-0.8
LZH				pmax	pmax		
	comp=Z,15nm,1.0s						
LZH				MLR	MLR		
	comp=Z,2µm,16.4s,MS5.7						
BILL	Bilibino	100.94	354	eP	Pdif	10 37 18.9	-3.2
BILL				e		10 41 29.7	
BILL				pmax	pmax		
	comp=Z,6.0nm,1.4s						
BILL				MLR	MLR		
	comp=Z,300nm,17.0s,MS4.9						
SONM	Songino Array	104.95	317	Pdif	Pdif	10 37 38.9	-1.1
SONM				PKKPbc	PKKPbc	10 53 23.7	+0.9
SONM	Songino Array	104.95	317	Pdiff	Pdif	10 37 38.9	-1.1
	comp=Z,0.7nm,0.6s,baz=137,slow=3.5,SNR=3.7						
SONM				PKKPbc	PKKPbc	10 53 23.7	+0.9
	comp=Z,0.4nm,1.0s,baz=278,slow=4.2,SNR=3.9						
YKA	Yellowknife Ar	107.13	26	PKPdf	PKiKP	10 41 56.9	-1.1
YKA				PP	PP	10 42 10.5	-5.8
YKA				PKKPbc	PKKPbc	10 53 14.7	-1.8
YKA	Yellowknife Ar	107.13	26	PKiKP	PKiKP	10 41 56.9	-1.1
	comp=Z,0.5nm,0.6s,baz=258,slow=1.5,SNR=16						
YKA				PP	PP	10 42 10.5	-5.8
	comp=Z,0.3nm,0.7s,baz=225,slow=6.3,SNR=5.4						
YKA				PKKPbc	PKKPbc	10 53 14.7	-1.8
	comp=Z,0.6nm,0.8s,baz=43,slow=3.0,SNR=9.0						
WMQ	Urumqi	114.82	307	ePKP	PKiKP	10 42 13.8	+0.6
BOSA	Boshof	115.51	202	PKP	PKPdf	10 42 16.3	+1.2
BOSA	Boshof	115.51	202	PKIKP	PKPdf	10 42 16.3	+1.1
BOSA	Boshof	115.51	202	PKP	PKPdf	10 42 16.3	+1.2
	comp=Z,4.9nm,1.0s,baz=72,slow=4.1,SNR=6.9						
RES	Resolute Bay	119.09	18	ePKPdf	PKPdf	10 42 19.4	-1.1
RES	Resolute Bay	119.09	18	ePKIKP	PKPdf	10 42 19.4	-1.1
MK31	Makanchi Array	119.41	309	ePKPdf	PKPdf	10 42 21.2	-0.7
MK31	Makanchi Array	119.41	309	ePKIKP	PKPdf	10 42 21.2	-0.7
MKAR	Makanchi Array	119.41	309	PKP	PKPdf	10 42 20.8	-1.1
MKAR	Makanchi Array	119.41	309	PKIKP	PKPdf	10 42 20.8	-1.1
MKAR	Makanchi Array	119.41	309	PKP	PKPdf	10 42 20.8	-1.1
	comp=Z,2.4nm,0.6s,baz=86,slow=1.6,SNR=18						
ZALV	Zalesovo Beam	119.84	318	PKP	PKPdf	10 42 20.9	-1.6
ZALV	Zalesovo Beam	119.84	318	PKP	PKPdf	10 42 20.9	-1.6
	comp=Z,1.5nm,0.7s,baz=148,slow=1.9,SNR=6.8						
ZAL	Zalesovo	119.85	317	PKIKP	PKPdf	10 42 20.9	-1.6
KSH	Kashi	121.63	299	ePKP	PKPdf	10 42 24.3	-2.1
KSH				ePKS		10 45 58.0	
KSH				PP	PP		
	comp=Z,385nm,4.8s						
KSH				LR	LR		
	comp=N,915nm,5.6s						
KSH				LR	LR		
	comp=E,926nm,5.8s						
KSH				LR	LR		
	comp=Z,653nm,5.7s						
KURK	Kurchatov	122.77	313	ePKPdf	PKPdf	10 42 27.5	-0.7
KURK	Kurchatov	122.77	313	i PKIKP	PKPdf	10 42 27.3	-0.9
UCH	Uchtor	123.47	302	ePKPdf	PKPdf	10 42 31.2	+1.3
AAK	Ala-Archa	123.59	303	ePKPdf	PKPdf	10 42 29.3	-0.8
AAK	Ala-Archa	123.59	303	i PKIKP	PKPdf	10 42 28.6	-1.5
AML	Almayashu	124.03	302	ePKPdf	PKPdf	10 42 31.7	+0.8
KBL	Kabul	125.39	292	ePKPdf	PKPdf	10 42 34.9	+1.1
BRVK	Borovoye	128.23	315	ePKPdf	PKPdf	10 42 38.3	-0.3
BRVK	Borovoye	128.23	315	ePKIKP	PKPdf	10 42 38.3	-0.3
KMBO	Kilima Mbogo	133.14	231	SKP		10 46 26.8	
	comp=Z,0.8nm,0.2s,baz=78,slow=4.7,SNR=6.1						
ARU	Arti	134.94	319	ePKPdf	PKPdf	10 42 51.0	-0.1
ARU	Arti	134.94	319	i PKIKP	PKPdf	10 42 50.2	-1.0
ARU				e		10 45 23.3	
ARU				eSS	SS	11 03 14.6	-3.7
ARCES	ARCESS Array B	140.70	347	PKP	PKPdf	10 43 01.8	+0.3
ARCES	ARCESS Array B	140.70	347	PKHKP		10 42 54.2	
ARCES						10 43 01.8	
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ARCES	ARCESS Array B	140.70	347	PKhKP		10 42 54.2	
	comp=Z,3.0nm,0.9s,baz=45,slow=3.5,SNR=7.9						
ARCES				PKP	PKPdf	10 43 01.8	+0.3
	comp=Z,7.2nm,0.9s,baz=37,slow=1.6,SNR=10						
JOF	Joensuu	144.49	338	epkp	PKPdf	10 43 03.8	-4.5
JOF	Joensuu	144.49	338	ePKP	PKPdf	10 43 03.8	-4.5
JOF	Joensuu	144.49	338	ePKHKP		10 43 03.8	
DGRG	David-gareji	144.88	297	P	PKPdf	10 43 10.4	+0.7
MTA	Mtatsminda	145.31	298	P	PKPbc	10 43 11.2	+0.9
TBLG	Delisi	145.35	298	P	PKPbc	10 43 11.3	+0.9
VRHR	Novokhopersk	145.91	315	ePKIKP	PKPdf	10 43 11.4	+0.3
VRHR				pmax	pmax		
	comp=Z,50nm,0.7s						
VRHR				pmax	pmax		
	comp=N,50nm,0.6s						
VRHR				pmax	pmax		
	comp=E,70nm,1.4s						
ZEI	Tsey	145.93	300	ePKP2	PKPab	10 43 13.3	+0.6
HKR	Hakkari	146.03	290	eP	PKPdf	10 43 13.9	+2.1
HAKT	HAKKARI	146.06	290	i P	PKPdf	10 43 14.1	+2.3
CUKT	Cukurca	146.11	290	eP	PKPdf	10 43 13.5	+1.5
DYDN	Diyadin	146.16	294	i P	PKPdf	10 43 14.7	+2.8
MOS	Moscow	146.26	324	ePKP2	PKPab	10 43 11.8	-1.7
MOS				pmax	pmax		
	comp=Z,191nm,1.2s						
ONI	Oni	146.27	299	P	PKPdf	10 43 14.2	+2.2
TVAN	Van	146.35	292	i P	PKPdf	10 43 14.6	+2.3
KAF	Kangasniemi	146.63	340	epkp	PKPdf	10 43 11.7	-0.3
KAF	Kangasniemi	146.63	340	ePKP	PKPdf	10 43 11.7	-0.3
KAF	Kangasniemi	146.63	340	ePKIKP	PKPdf	10 43 11.7	-0.3
AGRB	Hanur-Agry	146.70	294	eP	PKPdf	10 43 15.8	+2.9
KIV	Kislovodsk	146.70	302	ePKPbc	PKPbc	10 43 14.9	+0.5
KIV	Kislovodsk	146.70	302	ePKP2	PKPab	10 43 14.1	-1.5
KIV				pmax	pmax		
	comp=Z,41nm,1.0s						
OBN	Obninsk	147.09	324	ePKPbc	PKPbc	10 43 14.5	-0.7
OBN	Obninsk	147.09	324	⇓iPKP2	PKPab	10 43 14.3	-2.5
OBN				pmax	pmax		
	comp=Z,77nm,1.5s						
FIA1	FINESS Array S	147.22	339	ePKPdf	PKPdf	10 43 14.2	+1.1
FINES	FINESS Array B	147.23	339	PKP2	PKPab	10 43 14.2	-2.9
FINES				pmax	pmax		
	comp=Z,24nm,0.7s						
FINES	FINESS Array B	147.23	339	PKPbc	PKPbc	10 43 14.2	-1.1
	comp=Z,24nm,0.7s,baz=64,slow=4.4,SNR=87						
VRSR	Storozhevoye	147.31	316	ePKP2	PKPab	10 43 15.5	-2.3
VRSR				pmax	pmax		
	comp=N,3.0nm,0.8s						
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,8.0nm,0.9s						
BCA	Borcka	147.70	297	eP	PKPdf	10 43 14.3	-0.2
BNGL	BINGOL	148.12	293	i P	PKPbc	10 43 20.6	+2.1
MARD	Mardin	148.37	290	i P	PKPbc	10 43 20.1	+0.9
SOC	Sochi	148.88	302	d iPKP2	PKPbc	10 43 19.9	-0.4
SOC				e		10 46 49.2	
SOC				eSSS		11 11 26.9	
SOC				pmax	pmax		
	comp=Z,50nm,0.9s						
EZC	Erzincan	149.15	294	eP	PKPdf	10 43 19.2	+2.3
GUMT	Gumushane	149.37	296	eP	PKPbc	10 43 23.3	+1.6
PTK	Pertek	149.49	293	eP	PKPbc	10 43 24.3	+2.3
ELZG	Elazig	149.82	292	i P	PKPbc	10 43 24.6	+1.8
URFA	Urfa	149.93	290	eP	PKPdf	10 43 20.0	+1.8
MALT	Malatya	150.25	291	ePKPbc	PKPbc	10 43 24.7	+0.8
MALT	Malatya	150.25	291	⇓PKP2	PKPbc	10 43 25.3	+1.4
MALT	Malatya	150.25	291	⇓iP	PKPbc	10 43 25.3	+1.4
ANN	Anapa	150.28	305	i PKP2	PKPbc	10 43 23.6	-0.1
NB2	NORSAR Subarra	150.86	351	PKPa	PKPbc	10 43 23.6	-0.9
	comp=Z,58nm,1.7s,baz=17,slow=2.6						
NB2	NORSAR Subarra	150.86	351	PKPab	PKPbc	10 43 23.6	-0.9
NB2	NORSAR Subarra	150.86	351	PKPa	PKPbc	10 43 23.6	-0.9
	baz=17,slow=2.6						
NB2	NORSAR Subarra	150.86	351	PKIKP	PKPbc	10 43 23.6	-0.9
NOA	NORSAR Array B	150.86	351	PKIKP	PKPbc	10 43 23.7	-0.8
NOA				pmax	pmax		
	comp=Z,11nm,0.8s						
NOA	NORSAR Array B	150.86	351	PKPbc	PKPbc	10 43 23.7	-0.8
	comp=Z,11nm,0.8s,baz=13,slow=4.1,SNR=28						
GZT	Gaziantep	150.93	290	i P	PKPbc	10 43 26.5	+1.0
ASF	Jabal al Asfar	150.99	279	PKIKP	PKPbc	10 43 27.4	+1.6
ASF				pmax	pmax		
	comp=Z,13nm,0.9s						
ASF	Jabal al Asfar	150.99	279	PKPbc	PKPbc	10 43 27.4	+1.6

	comp=Z,13nm,0.8s,baz=293,slow=1.6,SNR=14						
NAO01	NORSAR Array S	151.09	351	ePKPbc	PKPbc	10 43 24.3	-0.8
MNK	Minsk	151.59	328	ePKIKP	PKPbc	10 43 25.0	-1.4
MNK				e		10 47 12.0	
KVT	Kavak	151.92	297	eP	PKPbc	10 43 26.5	-1.1
KONO	Kongsberg	152.41	352	ePKPbc	PKPbc	10 43 27.1	-1.1
KONO	Kongsberg	152.41	352	ePKIKP	PKPbc	10 43 27.1	-1.0
SIM	Simferopol'	152.53	306	i PKIKP	PKPbc	10 43 30.2	+1.3
SIM				e		10 43 39.9	
SIM				pmax	pmax		
	comp=Z,17nm,0.6s						
BOYT	Boyabat	152.72	298	i P	PKPbc	10 43 30.1	+0.7
CTKT	Corum	152.92	297	i P	PKPbc	10 43 30.6	+0.7
LIC	Lamto	152.96	163	⇓iPKIKP	PKPbc	10 43 31.8	+1.0
	comp=Z,51nm,0.6s						
LIC	Lamto	152.96	163	ePKP1	PKPbc	10 43 31.9	+1.1
	comp=Z,86nm,0.6s						
CORM	Corum	153.09	296	eP	PKPdf	10 43 27.5	+4.6
KIC	Kosan Boka	153.16	164	ePKP1	PKPbc	10 43 32.4	+1.1
	comp=Z,103nm,0.7s						
AKASG	Malin Array Be	153.18	321	PKIKP	PKPbc	10 43 29.1	-1.0
AKASG						10 43 39.6	
AKASG				pmax	pmax		
	comp=Z,9.0nm,0.8s						
AKASG				pmax	pmax		
	comp=Z,8.0nm,0.6s						
AKASG	Malin Array Be	153.18	321	PKPbc	PKPbc	10 43 29.1	-1.0
	comp=Z,9.4nm,0.8s,baz=50,slow=2.5,SNR=5.0						
AKASG				PKPab	PKPab	10 43 39.6	-2.3
	comp=Z,8.0nm,0.6s,baz=48,slow=4.9,SNR=28						
AKBB	Malin Array Si	153.18	321	ePKPbc	PKPbc	10 43 30.0	-0.1
AKBB	Malin Array Si	153.18	321	ePKIKP	PKPbc	10 43 30.0	-0.1
KIEV	Kiev	153.19	321	ePKPbc	PKPbc	10 43 30.1	-0.1
KIEV				ePKPab	PKPab	10 43 41.0	-1.0
KIEV	Kiev	153.19	321	ePKIKP	PKPbc	10 43 30.1	0.0
KIEV				e		10 43 41.0	
CDAG	Cicekdag	153.35	295	i P	PKPbc	10 43 30.4	-0.5
TIC	Toumodi	153.37	163	ePKP1	PKPbc	10 43 32.8	+1.1
	comp=Z,111nm,0.9s						
KAMT	Kaman	153.88	294	eP	PKPdf	10 43 25.7	+1.6
BRTR	Keskin Array B	153.90	295	PKIKP	PKPbc	10 43 31.0	-1.1
BRTR						10 43 45.3	
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BRTR				pmax	pmax		
	comp=Z,9.0nm,0.9s						
BRTR	Keskin Array B	153.90	295	PKPbc	PKPbc	10 43 30.9	-1.1
	comp=Z,2.4nm,0.6s,baz=99,slow=3.9,SNR=8.2						
BRTR				PKPab	PKPab	10 43 45.3	0.0
	comp=Z,8.5nm,0.9s,baz=101,slow=5.2,SNR=11						
SUW	Suwalki	153.90	332	ePKP	PKPbc	10 43 31.6	+0.1
SUW	Suwalki	153.90	332	ePKIKP	PKPbc	10 43 31.6	0.0
ELDT	Eldivan	153.97	297	i P	PKPbc	10 43 35.0	+2.8
KIZT	Kizilcal	155.35	293	eP	PKPdf	10 43 33.9	+7.8
TIRR	Tirgusor	156.54	308	⇓iP	PKPab	10 43 56.8	+0.3
VRI	Vrincioaia	157.04	313	⇓iP	PKPab	10 43 59.8	+1.2
BURAR	Bucovina Array	157.06	318	⇓iP	PKPab	10 43 59.0	+0.4
PLOR	Plostina	157.10	313	⇓iP	PKPab	10 43 59.6	+0.8
KWP	Kalwaria	157.18	325	ePKP	PKPab	10 43 58.6	-0.3
MLR	Muntele Rosu	157.70	312	PKPab	PKPab	10 44 01.5	+0.1
	comp=Z,8.2nm,0.8s,baz=62,slow=7.9,SNR=3.7						
MLR	Muntele Rosu	157.70	312	⇓iP	PKPab	10 44 01.9	+0.5
KOLS	Kolonicke sedl	157.85	324	ePKP	PKPdf	10 43 30.8	+1.8
KOLS				e		10 44 01.1	
KOLS	Kolonicke sedl	157.85	324	ePKIKP	PKPdf	10 43 30.8	+1.8
KOLS	Kolonicke sedl	157.85	324	ePKP	PKPdf	10 43 30.8	+1.8
KOLS				e		10 44 01.1	
STHS	Stebnicka Huta	158.03	326	ePKP	PKPab	10 44 02.4	-0.2
OJC	Ojcow	158.11	329	ePKP	PKPdf	10 43 28.0	-1.3
OJC	Ojcow	158.11	329	ePKIKP	PKPdf	10 43 28.0	-1.3
CRVS	Cervenica-Dubn	158.27	325	i PKP	PKPab	10 44 03.5	-0.2
VOIR		158.28	313	⇓iP	PKPab	10 44 05.2	+1.3
DRGR		158.94	319	⇓iP	PKPab	10 44 06.9	+0.2
KSP	Ksiaz	159.01	335	ePKP	PKPab	10 44 06.2	-0.7
KECS	Kecovo	159.03	325	i PKP	PKPab	10 44 06.4	-0.6
OKC	Ostrava-Krasne	159.10	331	ePKPab	PKPab	10 44 06.5	-0.8
UPC	Upice	159.39	335	ePKPab	PKPab	10 44 07.1	-1.4
DPC	Dobruska-Polom	159.40	334	ePKPab	PKPab	10 44 08.1	-0.5
VYHS	Vyhne	159.80	327	i PKP	PKPab	10 44 10.1	-0.3
PVCC	Panska Ves	159.86	337	ePKPab	PKPab	10 44 09.9	-0.7
VRAC	Vranov	160.14	332	PKPab	PKPab	10 44 09.1	-2.7
	comp=Z,1.8nm,0.3s,baz=0.0,slow=6.1,SNR=3.9						
PRU	Pruhonice	160.34	336	ePKPab	PKPab	10 44 13.2	+0.6
TOA0	Torodi Ar. Sit	160.75	178	ePKPdf	PKPdf	10 43 34.5	+1.1
TORD	Torodi Ar. Bea	160.75	178	PKP	PKPdf	10 43 33.9	+0.5
TORD				PKPab	PKPab	10 44 17.2	+1.9
TORD	Torodi Ar. Bea	160.75	178	PKP	PKPdf	10 43 33.9	+0.5
	comp=Z,3.4nm,1.0s,baz=322,slow=0.6,SNR=13						
TORD				PKPab	PKPab	10 44 17.2	+1.9
	comp=Z,7.8nm,1.0s,baz=171,slow=3.4,SNR=29						
NKC	Novy Kostel	160.78	340	ePKPab	PKPab	10 44 13.5	-1.0
KHC	Kasperske Hory	161.39	337	ePKPab	PKPab	10 44 16.7	-0.6
KHC				ex	x	10 44 30.0	
GERES	GERESS Array B	161.60	336	PKP	PKPdf	10 43 34.1	+0.9
GERES				PKPab	PKPab	10 44 17.5	-0.7
GERES	GERESS Array B	161.60	336	PKIKP	PKPdf	10 43 34.1	+0.8
GERES						10 44 17.5	
GERES	GERESS Array B	161.60	336	PKP	PKPdf	10 43 34.1	+0.9
	comp=Z,0.7nm,0.6s,baz=132,slow=6.0,SNR=3.8						
GERES				PKPab	PKPab	10 44 17.5	-0.7
	comp=Z,2.3nm,0.8s,baz=106,slow=4.3,SNR=6.3						
FLN	La Foliniere	163.57	7	ePKP2	PKPab	10 44 24.8	-2.0
	comp=Z,25nm,0.7s						
LDF	La Druitiere	163.78	6	ePKP2	PKPab	10 44 25.5	-2.2
	comp=Z,14nm,0.8s						
GRR	Gorron	163.90	8	ePKP2	PKPab	10 44 25.4	-2.8
DAVOX	Davos/Dischmat	164.63	341	PKPab	PKPab	10 44 30.6	-0.9
	comp=Z,4.2nm,0.7s,baz=0.6,slow=21,SNR=3.9						
ESDC	Sonseca Array	171.12	34	PKP	PKPdf	10 43 42.2	+1.2
ESDC	Sonseca Array	171.12	34	PKP	PKPdf	10 43 42.2	+1.2
	comp=Z,0.3nm,0.4s,baz=180,slow=1.3,SNR=4.5						

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*BJI **15** 10:27:27.2, 31.69S×177.07W, h19^{km}, mB6.1, mb5.7, Ms5.3, Msz5.2*

*ISCJB **15** 10:27:28.6±0.1, 32.38S±0.03×177.50W±0.04, h33^{km}, mb5.3/57, MS5.1/25, Error ellipse: s-maj=6.6km s-min=2.6km az=43.8*

*GCMT **15** 10:27:29.7±0.2, 32.09S×177.15W, h12^{km}, MW5.4/91, Moment Tensor Solution. s74,c110; s91,c179; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.43±.03; $M_{\theta\theta}$-0.24±.03; $M_{\phi\phi}$1.67±.02; $M_{r\theta}$-0.09±.07; $M_{\theta\phi}$0.24±.02; $M_{\phi r}$-0.55±.06; Best double couple: $M_0$1.66100×10^{17} NP1:ϕ_s186.00000°,δ35.00000°, λ-91.00000°. NP2:ϕ_s8.00000°,δ55.00000°,λ-89.00000°. Principal axes: T 1.7960, Plg10.0000°, Azm97.0000°; N -0.2710, Plg1.0000°, Azm187.0000°; P -1.5270, Plg80.0000°, Azm282.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **15** 10:27:29.7±2.1, 32.06S×177.53W, h27^{km}±14^{km}, mb5.3/35, MS4.8/2 Error ellipse: s-maj=8.5km s-min=5.3km az=147.0*

*MOS **15** 10:27:29.8±0.9, 31.99S×177.53W, h33^{km}, mb5.5/23, MS5.2/6, Error ellipse: s-maj=11.7km s-min=10.5km az=83.6*

*IDC **15** 10:27:31.6±2.5, 31.93S×177.49W, h38^{km}±19^{km}, mb4.9/11, mb1 5.0/12, mb1mx5.0/13, mbtmp4.9/12, ML5.4/1, MS5.0/16, Ms1 5.0/16, ms1mx4.7/25, Error ellipse: s-maj=16.4km s-min=13.2km az=3.0*

ISC 15 10:27:30.1±0.1, **32.45S**±0.03×**177.47W**±0.04, **h35**^{km}, **(h30**^{km}±6.0^{km}**:pP-P), n647, σ0^{s}69**/459, **mb5.3**/57, **MS5.1**/25, **132C-124D, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	3.21	353	ePn	Pn	10 28 11.5	-6.6
RAO				eSn	Sn	10 28 43.3	-12
RAO	Raoul Island	3.21	353	Pn	Pn	10 28 10.3	-7.8
	618nm,0.3s,baz=350,slow=20,SNR=14						
RAO				Sn	Sn	10 28 42.5	-13
	2μm,0.3s,baz=131,slow=21,SNR=8.6						
MXZ	Matakaoa Point	6.16	213	PN	Pn	10 28 59.0	+0.4
MXZ				SN	Sn	10 30 12.5	+4.6
PUZ	Puketiti	6.61	211	PN	Pn	10 29 04.8	+0.1
PUZ				SN	Sn	10 30 22.5	+3.8
MWZ	Matawai	7.15	213	PN	Pn	10 29 12.5	+0.4
MWZ				SN	Sn	10 30 37.9	+5.8
URZ	Urewera	7.29	216	Pn	Pn	10 29 16.1	+2.0
URZ				Sn	Sn	10 30 36.0	+0.4
URZ	Urewera	7.29	216	Pn	Pn	10 29 16.1	+2.0
	18nm,0.3s,baz=314,slow=6.7,SNR=7.1						
URZ				Sn	Sn	10 30 36.0	+0.4
	55nm,0.3s,baz=125,slow=19,SNR=3.3						
URZ	Urewera	7.29	216	PN	Pn	10 29 14.6	+0.5
WCZ	Waipu Caves	7.62	241	PN	Pn	10 29 23.4	+4.8
KNZ	Kokohu	7.65	210	PN	Pn	10 29 17.7	-1.3
OUZ	Omahuta	7.93	247	PN	Pn	10 29 28.5	+5.6
BKZ	Black Stump Fm	8.30	214	PN	Pn	10 29 28.0	+0.1
BKZ				SN	Sn	10 31 03.2	+2.8
KRVZ	Karewarewa	8.67	218	SN	Sn	10 31 12.5	+2.9
HIZ	Hauiti	8.70	224	PN	Pn	10 29 37.3	+3.9
TUVZ	Tukino	8.79	217	PN	Pn	10 29 39.7	+5.0
PXZ	Pawanui	8.84	210	PN	Pn	10 29 33.0	-2.3
PXZ				SN	Sn	10 31 13.6	0.0
MOVZ	Moawhango	8.85	216	ePN	Pn	10 29 35.0	-0.4
WNVZ	Wahianoa	8.87	217	ePN	Pn	10 29 35.2	-0.5
BFZ	Birch Farm	9.64	210	PN	Pn	10 29 43.0	-3.3
MRZ	Mangatainoka R	9.91	212	PN	Pn	10 29 47.3	-2.7
MTW	Mount Morrison	10.35	211	ePN	Pn	10 29 52.0	-4.0
MTW				SN	Sn	10 31 46.9	-3.9
KIW	Kapiti Island	10.38	214	ePN	Pn	10 29 53.1	-3.4
CAW	Cannon Point	10.50	213	PN	Pn	10 29 54.3	-3.8
PAWZ	Paruwai Farm	10.57	210	ePN	Pn	10 29 55.6	-3.3
PAWZ				SN	Sn	10 31 53.5	-2.5
MRW	Makara Radio	10.77	213	PN	Pn	10 30 00.6	-1.2
MRW				SN	Sn	10 31 57.6	-3.4
SNZO	South Karori	10.83	213	Pn	Pn	10 30 07.0	+4.4
SNZO				eSn	Sn	10 31 55.9	-6.6
TCW	Tory Channel	10.96	215	SN	Sn	10 32 01.6	-3.9
NNZ	Nelson	11.41	217	PN	Pn	10 30 08.7	-1.7
THZ	Tophouse	12.05	217	PN	Pn	10 30 17.4	-1.8
DSZ	Denniston Nort	12.61	220	PN	Pn	10 30 24.5	-2.4
WVZ	Waitaha Valley	14.11	218	SN	Sn	10 33 14.8	-7.7
RPZ	Rata Peaks	14.41	215	Pn	Pn	10 30 51.1	-0.3
RPZ				Sn	Sn	10 33 21.8	-8.1
RPZ	Rata Peaks	14.41	215	Pn	Pn	10 30 51.1	-0.3
	12nm,0.3s,baz=24,slow=3.5,SNR=6.3						
RPZ				Sn	Sn	10 33 21.8	-8.1
	14nm,0.3s,baz=319,slow=18,SNR=23						
FOZ	Fox Glacier	15.00	219	SN	Sn	10 33 31.9	-12
JCZ	Jackson Bay	15.84	219	ePN	Pn	10 31 06.9	-3.4
MLZ	Mavora Lakes	17.01	217	ePN	Pn	10 31 25.4	+0.1
WHZ	Wether Hill Ro	17.51	216	ePN	Pn	10 31 30.5	-0.9
DZM	Mont Dzumac	17.62	302	P	Pn	10 31 33.8	+0.9
	0.8nm,0.3s,baz=97,slow=18,SNR=8.8						
DCZ	Deep Cove	17.63	218	ePN	Pn	10 31 30.5	-2.3
AFI	Afiamalu	19.18	17	P	Pn	10 31 44.5	-7.4
	2.5nm,0.3s,baz=45,slow=19,SNR=3.7						
AFI				S	S	10 35 01.9	-24
	4.1nm,0.3s,baz=74,slow=22,SNR=5.1						
RAR	Rarotonga	19.33	59	P	Pn	10 31 47.3	-6.4
	6.0nm,0.3s,baz=216,slow=6.7,SNR=10						
RAR				S	S	10 35 00.8	-29
	1.2nm,0.3s,baz=85,slow=19,SNR=3.6						
RAR				LR	LR	10 36 51.2	
	comp=Z,1μm,19.5s,baz=166,slow=29						
CNB	Canberra Magne	27.61	255	eP	P	10 33 18.0	+3.8
	38nm,1.3s,mb4.9						
EIDS	Eidsvold	28.35	276	eP	P	10 33 22.7	+1.8
PAE	Paea	29.13	66	eP	P	10 33 28.1	+0.2
	36nm,0.9s,mb5.1						
PAE	Paea	29.13	66	eP	P	10 33 28.1	+0.2
PAE				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.1						
PPT	Papeete	29.19	66	eLQ		10 39 07.5	
	comp=Z,4μm,25.2s						
PPT				eLR	LR	10 40 20.8	
	comp=Z,5μm,30.8s,baz=234						
PPT	Papeete	29.19	66	eP	P	10 33 28.8	+0.4
	comp=Z,32nm,1.1s,mb5.0						
PPT				eLQ		10 39 07.5	
PPT	Papeete	29.19	66	eP	P	10 33 28.8	+0.4
PPT				pmax	pmax		
	comp=Z,32nm,1.1s						
PPT	Papeete	29.19	66	LR	LR	10 43 39.6	
	comp=Z,3μm,18.8s,MS4.9,baz=204,slow=33						
TAU	Tasmania Unive	29.56	239	eP	P	10 33 35.3	+3.8
	comp=Z,20nm,0.8s,mb4.9						
TAU	Tasmania Unive	29.56	239	eP	P	10 33 35.3	+3.8
TAU				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.9						
TOO	Toolangi	30.63	250	eP	P	10 33 44.2	+3.2
	comp=Z,6.8nm,0.7s,mb4.6						
TOO	Toolangi	30.63	250	eP	P	10 33 44.2	+3.2
TOO				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.6						
PMOR	Pomariorio Ree	32.01	64	eP	P	10 33 53.1	-0.3
	comp=Z,57nm,1.3s,mb5.2						
STKA	Stephens Creek	34.51	260	eP	P	10 34 17.1	+2.1
	comp=Z,24nm,0.8s,mb5.2						
STKA	Stephens Creek	34.51	260	P	P	10 34 17.4	+2.5
	comp=Z,22nm,0.6s,mb5.2,baz=96,slow=9.5,SNR=17						
STKA				LR	LR	10 48 26.5	
	comp=Z,4μm,18.4s,MS5.2,baz=93,slow=36						
CTA	Charters Tower	34.62	282	eP	P	10 34 17.7	+1.7
	comp=Z,47nm,0.9s,mb5.4						
CTA				e		10 34 33.2	
CTA				eS	S	10 39 55.8	+13
CTA	Charters Tower	34.62	282	eP	P	10 34 17.7	+1.7
CTA				e		10 34 33.2	
CTA				pmax	pmax		
	comp=Z,47nm,0.9s						
CTA	Charters Tower	34.62	282	S	S	10 39 45.6	+2.4
	comp=Z,6.3nm,1.0s,baz=273,slow=19,SNR=8.6						
CTA				LR	LR	10 47 25.5	
	comp=Z,3μm,18.9s,MS5.0,baz=119,slow=35						
CTAO	Charters Tower	34.62	282	eP	P	10 34 16.5	+0.5
RKT	Rikitea	38.52	87	eLR	LR	10 44 48.7	
	comp=Z,4μm,30.8s,baz=246						
PMG	Port Moresby	39.92	297	eP	P	10 35 00.9	-0.2
	comp=Z,22nm,0.9s,mb4.9						
PMG				e		10 37 07.6	
PMG	Port Moresby	39.92	297	eP	P	10 35 00.9	-0.1
PMG				e		10 37 07.6	
PMG				pmax	pmax		
	comp=Z,22nm,0.9s						
PMG	Port Moresby	39.92	297	P	P	10 35 00.3	-0.7
	comp=Z,24nm,0.9s,mb4.9,baz=112,slow=4.6,SNR=9.9						
PMG				PcP	PcP	10 37 08.0	+1.8
	comp=Z,27nm,0.8s,baz=34,slow=3.1,SNR=6.0						
COEN	Coen	40.30	288	eP	P	10 35 04.8	+0.6
TAOE	Nuku Hiva Isla	41.75	64	eLQ		10 44 48.9	
	comp=Z,4μm,27.6s						
TAOE				eLR	LR	10 46 07.4	
	comp=Z,5μm,31.6s,baz=237						
ASAR	Alice Springs	43.48	269	P	P	10 35 30.9	+0.7
	comp=Z,30nm,0.7s,mb5.1,baz=106,slow=7.9,SNR=39						
ASAR				PcP	PcP	10 37 18.2	+0.4
	comp=Z,3.8nm,0.6s,baz=111,slow=5.6,SNR=3.6						
ASAR				S	S	10 41 57.5	+1.0
	comp=Z,5.1nm,1.0s,baz=110,slow=15,SNR=11						
WB2	Warramunga Arr	44.65	274	eP	P	10 35 39.6	+0.1
WRA	Warramunga Arr	44.66	274	P	P	10 35 39.1	-0.5
WRA						10 37 23.1	
WRA				S	S	10 42 13.4	-0.3
WRA	Warramunga Arr	44.66	274	P	P	10 35 39.1	-0.5
	comp=Z,17nm,0.3s,mb5.3,baz=112,slow=8.0,SNR=56						
WRA				PcP	PcP	10 37 23.1	+1.2
	comp=Z,21nm,1.2s,baz=119,slow=3.9,SNR=4.7						
WRA				ScP	ScP	10 41 17.5	+6.1
	comp=Z,2.6nm,1.1s,baz=123,slow=3.9,SNR=6.0						
WRA				S	S	10 42 13.4	-0.3
	comp=Z,3.1nm,1.1s,baz=118,slow=14,SNR=5.9						
WRA				LR	LR	10 54 29.1	
	comp=Z,3μm,18.5s,MS5.2,baz=95,slow=36						
FORT	Forrest	45.99	257	eP	P	10 35 50.4	+0.3
	comp=Z,76nm,0.7s,mb5.7						
VNDA	Vanda	46.11	186	P	P	10 35 55.1	+4.8
VNDA						10 37 29.3	
VNDA	Vanda	46.11	186	P	P	10 35 55.1	+4.8
	comp=Z,9.4nm,1.1s,mb4.6,baz=357,slow=8.6,SNR=2.9						
VNDA				PcP	PcP	10 37 29.3	+3.4
	comp=Z,11nm,0.9s,baz=27,slow=4.9,SNR=5.0						
VNDA				LR	LR	10 52 45.4	
	comp=Z,886nm,19.5s,MS4.7,baz=339,slow=32						
KAKA	Kakadu	49.75	281	e	P	10 36 18.6	-0.8
KAKA	Kakadu	49.75	281	eP	P	10 36 18.7	-0.7
FITZ	Fitzroy Crossi	52.83	271	eP	P	10 36 41.7	-0.7
	comp=Z,41nm,0.8s,mb5.4						
FITZ				e		10 36 58.4	
FITZ	Fitzroy Crossi	52.83	271	LR	LR	10 59 13.2	
	comp=Z,4μm,18.1s,MS5.5,baz=118,slow=36						
CASY	Casey	53.55	209	eP	P	10 36 50.5	+3.5
NWAO	Narrogin (SRO)	54.12	251	P	P	10 36 50.9	-0.8
NWAO				LR	LR	10 57 47.4	
NWAO	Narrogin (SRO)	54.12	251	P	P	10 36 50.9	-0.8
	comp=Z,6.3nm,0.6s,mb4.7,baz=109,slow=11,SNR=6.1						
NWAO				LR	LR	10 57 47.4	
	comp=Z,1μm,18.6s,MS5.0,baz=108,slow=34						
KLBR	Kellerberrin	54.13	252	eP	P	10 36 51.3	-0.5
	comp=Z,53nm,0.8s,mb5.5						
MUN	Mundaring	55.25	251	eP	P	10 36 59.9	0.0
MBWA	Marble Bar	56.47	265	eP	P	10 37 07.7	-1.1
	comp=Z,39nm,1.5s,mb5.2						
QSPA	South Pole Qui	57.66	180	eP	P	10 37 20.7	+4.4
	comp=Z,68nm,0.9s,mb5.7						
QSPA				e		10 37 36.6	
MAW	Mawson	70.55	201	eP	P	10 38 44.4	+3.3
	comp=Z,26nm,1.2s,mb5.0						
MAW				e	pP	10 38 55.1	+3.2
MAW	Mawson	70.55	201	eP	P	10 38 44.4	+3.3
MAW				e	pP	10 38 55.1	+3.2
MAW				pmax	pmax		
	comp=Z,26nm,1.2s						
MAW	Mawson	70.55	201	P	P	10 38 45.1	+4.0
	comp=Z,31nm,1.1s,mb5.1,baz=124,slow=7.5,SNR=15						
MAW				LR	LR	11 09 14.6	
	comp=Z,1μm,20.1s,MS5.2,baz=107,slow=35						
TGY	Tagaytay City	74.87	298	P	P	10 39 07.5	0.0
	comp=Z,84nm,0.3s,mb6.2,baz=171,slow=3.6,SNR=5.6						
KSM	Kuching	75.85	281	eP	P	10 39 12.7	-0.5
VNA3	Neumayer Olymp	76.23	176	eP	P	10 39 16.5	+2.0
VNA3				e		10 39 19.6	
VNA3				e		10 39 33.1	
VNA3				e		10 39 35.3	
VNA3				e		10 39 39.5	
VNA3				e		10 39 44.9	
VNA3				e		10 39 48.1	
VNA3				e		10 39 54.9	
VNA3				e		10 39 58.9	
VNA2	Neumayer--Watz	76.67	177	eP	P	10 39 19.5	+2.5
VNA2				e		10 39 22.5	
VNA2				e		10 39 35.4	
VNA2				e		10 39 37.5	
VNA2				e		10 39 41.2	
VNA2				e		10 39 46.8	
VNA2				e		10 39 50.6	
VNA2				e		10 39 57.2	
VNA2				e		10 40 02.6	
MAIT	Maitri	76.85	183	eP	P	10 39 18.5	+0.5
NVL	N'lazarevskaya	76.86	183	d iP	P	10 39 20.5	+2.5
NVL				i		10 39 35.5	
NVL				pmax	pmax		
	comp=Z,71nm,1.5s,mb5.4						
NVL				MLR	MLR		
	comp=Z,2μm,21.0s,MS5.4						
VNA1	Neumayer--Stat	76.90	176	eP	P	10 39 21.1	+2.9
VNA1				e		10 39 24.2	
VNA1				e		10 39 37.6	
VNA1				e		10 39 39.7	
VNA1				e		10 39 44.2	
VNA1				e		10 39 49.4	
VNA1				e		10 39 52.8	
VNA1				e		10 39 59.7	
VNA1				e		10 40 04.4	
MJAR	Matsushiro Arr	80.18	325	P	P	10 39 35.4	-1.3
	comp=Z,16nm,1.0s,mb4.9,baz=160,slow=5.6,SNR=13						
MJAR				LR	LR	11 10 24.3	
	comp=Z,412nm,19.3s,MS4.8,baz=120,slow=32						
MAJO	Matsushiro	80.18	325	P	P	10 39 34.2	-2.4
	comp=Z,14nm,0.8s,mb5.0						
MAJO	Matsushiro	80.18	325	P	P	10 39 34.2	-2.5
MAJO				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
MAT	Matsushiro	80.18	325	P	P	10 39 35.5	-1.2
MAT				eS	S	10 49 28.8	-10
BSC	Santa Cruz Isl	85.60	45	⇑P	P	10 40 05.0	+0.1
	baz=86						
SBC	Santa Barbara	85.86	44	⇑P	P	10 40 06.6	+0.5
	baz=86						
KULM	Kulim	85.98	279	eP	P	10 40 07.2	-0.1
BLG	Laguna Peak	86.02	45	⇑P	P	10 40 06.7	-0.2
	baz=86						
V04C	Ramage Ranch,	86.02	43	⇓P	P	10 40 07.1	+0.2
	baz=86						
V03C	Hunter Liggett	86.09	42	⇓P	P	10 40 07.3	+0.1
	baz=86						
PSI	Prapat	86.09	276	LR	LR	11 24 13.4	
	comp=Z,1μm,18.2s,MS5.4,baz=153,slow=40						
PKM	Peak Mountain	86.12	44	⇓P	P	10 40 07.5	+0.2
	baz=86						
HAST	UC Hastings Re	86.17	42	⇑P	P	10 40 07.9	+0.3
	baz=86						
KSRS	Korea Array	86.20	319	P	P	10 40 08.4	+0.8
	comp=Z,23nm,0.8s,mb5.5,baz=142,slow=5.5,SNR=46						
KSRS				LR	LR	11 14 19.5	
	comp=Z,330nm,18.1s,MS4.8,baz=311,slow=33						
KS15	Wonju Array Si	86.21	319	eP	P	10 40 07.0	-0.8
FMP	Fort Macarthur	86.21	46	⇑P	P	10 40 07.8	-0.1
	baz=86						
QIZ	Qiongzhong	86.27	295	P	P	10 40 09.8	+1.3
FARB	Farallon Islan	86.30	40	⇑P	P	10 40 08.0	-0.2
	baz=86						
SMMC	Simmler	86.30	44	⇓P	P	10 40 08.4	+0.1
	baz=86						
BNLO	Ben Lomond (Sa	86.35	41	⇓P	P	10 40 08.6	+0.1
	baz=86						
109C	Camp Elliot, M	86.38	47	⇑P	P	10 40 08.8	+0.1
	baz=86						
PKD	Parkfield	86.43	43	⇑P	P	10 40 09.1	+0.2
	baz=86						
JRSC	Jasper Ridge	86.51	41	⇑P	P	10 40 09.6	+0.3
	baz=86						
OSI	Osito Adit	86.57	45	⇑P	P	10 40 09.7	+0.1
	baz=86,SNR=5.4						
V05C	Boulder Hill,	86.75	43	⇑P	P	10 40 10.8	+0.4
	baz=87						
PACP	Pacheco Peak	86.76	42	⇑P	P	10 40 10.5	0.0
	baz=87						
YSS	Yuzh-Sakhalins	86.78	334	eP	P	10 40 09.6	-0.7
YSS	Yuzh-Sakhalins	86.78	334	⇑eP	P	10 40 10.7	+0.4
YSS				pmax	pmax		
	comp=Z,33nm,0.7s,mb5.7						
MURC	Murrieta	86.80	47	⇓P	P	10 40 10.9	+0.1
	baz=87						
MONP	Monument Peak	86.81	48	⇑P	P	10 40 11.0	+0.2
	baz=87,SNR=5.3						
DVTC	Desert V Tower	86.85	48	⇓P	P	10 40 11.5	+0.5
	baz=87						
ARVC	Arvin	86.86	45	⇓P	P	10 40 10.8	-0.3
	baz=87						
WENL	Wente Brothers	86.93	41	⇓P	P	10 40 11.5	+0.2
	baz=87						
U05C	Westside ANR,	86.95	43	⇑P	P	10 40 12.0	+0.6
	baz=87						
BFSC	Mount Baldy St	86.96	46	⇓P	P	10 40 11.3	-0.2
	baz=87,SNR=7.5						
T05C	Eagle Field, D	87.02	42	⇓P	P	10 40 12.6	+0.8
	baz=87						
CVS	Carmenet Viney	87.06	40	⇓P	P	10 40 11.6	-0.4
	baz=87						
S04C	Ingram Canyon,	87.09	41	⇑P	P	10 40 12.2	+0.1
	baz=87,SNR=7.7						
BDM	Black Diamond	87.11	41	⇑P	P	10 40 12.6	+0.4
	baz=87						
NSHM	Saint Helena R	87.11	40	eP	P	10 40 12.3	+0.2
EDW2	Edwards Air Fo	87.19	45	⇑P	P	10 40 12.5	-0.2
	baz=87,SNR=8.9						
HOPS	Hopland	87.20	39	eP	P	10 40 12.4	-0.1
	comp=Z,48nm,1.2s,mb5.6						
HOPS	Hopland	87.20	39	⇓P	P	10 40 12.6	+0.1
	baz=87						
VES	Vestal, Richgr	87.21	44	P	P	10 40 12.4	-0.3
	baz=87,SNR=10						
SWSC	Sam W. Stewart	87.23	48	⇑P	P	10 40 13.0	+0.1
	baz=87						
PFO	Pinyon Flat Ob	87.27	47	eP	P	10 40 12.9	-0.2
	comp=Z,74nm,1.8s,mb5.6						
PFO	Pinyon Flat Ob	87.27	47	eP	P	10 40 12.9	-0.1
PFO				pmax	pmax		
	comp=Z,74nm,1.8s,mb5.6						
PFO	Pinyon Flat Ob	87.27	47	⇓P	P	10 40 13.0	0.0
	baz=87,SNR=6.4						
P01C	Double 8 Ranch	87.40	39	⇑P	P	10 40 13.3	-0.2
	baz=87						
BBRC	Big Bear Sol-O	87.42	46	⇓P	P	10 40 14.1	+0.3
	baz=87						
RCTC	Rector, Farmer	87.44	43	⇑P	P	10 40 13.0	-0.8
	baz=87						
ISA	Isabella	87.44	44	P	P	10 40 13.9	+0.1
	baz=87,SNR=18						

MNRC	McLaughlin Nat	87.45	40	⇓P	P	10 40 14.1	+0.3
	baz=87,SNR=5.7						
Q03C	Winters	87.51	40	⇓P	P	10 40 14.3	+0.2
	baz=88						
S05C	Merced	87.54	42	⇑P	P	10 40 13.8	-0.4
	baz=88						
PET	Petropavlovsk	87.62	346	*e*P	P	10 40 13.3	-0.9
PET				*e*S	S	10 50 52.0	-1.0
PET				pmax	pmax		
	comp=Z,19nm,1.2s,mb5.2						
PET				pmax	pmax		
	comp=Z,100nm,11.9s						
PET				MLR	MLR		
	comp=Z,500nm,17.0s,MS5.0						
O01C	Eel River Cons	87.64	38	⇑P	P	10 40 14.3	-0.3
	baz=88						
T06C	Millerton Lake	87.65	43	P	P	10 40 14.4	-0.4
	baz=88,SNR=15						
LRMC	Laurel Mountai	87.78	45	P	P	10 40 15.7	+0.3
	baz=88,SNR=13						
RRX	Edison Barstow	87.79	46	⇓P	P	10 40 15.3	-0.2
	baz=88						
BELC	Belle Mtn.	87.81	47	P	P	10 40 16.1	+0.5
	baz=88,SNR=8.4						
HELL	Mitchell Peak,	87.82	43	P	P	10 40 15.1	-0.5
	baz=88,SNR=8.6						
R04C	Big Horse Ranc	87.84	41	⇓P	P	10 40 15.2	-0.5
	baz=88						
GASB	Alder Springs	87.86	39	⇓P	P	10 40 16.3	+0.6
	baz=88,SNR=13						
GLA	Glamis	87.91	48	⇓P	P	10 40 16.4	+0.3
	baz=88,SNR=7.7						
NJ2	Nanjing	87.92	310	*e*P	P	10 40 16.6	+0.4
NJ2				AMB	AMB		
	comp=Z,110nm,1.0s,mb6.0						
BC3	Big Chuckw Mtn	87.92	47	⇓P	P	10 40 16.2	+0.1
	baz=88,SNR=13						
CMB	Columbia Colle	87.99	42	*e*P	P	10 40 16.0	-0.4
	comp=Z,71nm,1.5s,mb5.7						
CMB	Columbia Colle	87.99	42	*e*P	P	10 40 16.0	-0.4
CMB				pmax	pmax		
	comp=Z,71nm,1.5s,mb5.7						
CMB	Columbia Colle	87.99	42	P	P	10 40 16.0	-0.4
	baz=88,SNR=14						
Q04C	Lincoln	88.01	40	⇑P	P	10 40 16.2	-0.3
	baz=88						
JCC	Jacoby Creek	88.02	38	⇑P	P	10 40 16.9	+0.4
	baz=88						
SUTB	Sutter Butte	88.06	40	⇓P	P	10 40 16.0	-0.7
	baz=88						
KCC	Kaiser Creek	88.10	43	⇓P	P	10 40 16.5	-0.4
	baz=88,SNR=6.2						
HEC	Hector,Ludlow	88.16	46	⇓P	P	10 40 17.2	-0.1
	baz=88,SNR=5.3						
S06C	San Francisco	88.18	42	⇑P	P	10 40 16.9	-0.4
	baz=88,SNR=12						
GSC	Goldstone	88.19	46	P	P	10 40 17.5	+0.1
	baz=88,SNR=10						
CWC	Cottonwood Cre	88.20	44	P	P	10 40 17.5	0.0
	baz=88,SNR=8.8						
O02C	Red Bluff	88.20	39	P	P	10 40 18.0	+0.7
	baz=88,SNR=20						
MPMC	Manual Prospec	88.30	45	P	P	10 40 18.1	+0.3
	baz=88,SNR=12						
LAVA	Lava Cap Winer	88.30	41	P	P	10 40 17.4	-0.5
	baz=88,SNR=7.5						
OHCM	Honcut	88.30	40	*e*P	P	10 40 17.7	-0.1
IRM	Iron Mountain	88.44	47	P	P	10 40 19.2	+0.5
	baz=88,SNR=28						
ORV	Oroville	88.45	40	⇓P	P	10 40 18.2	-0.3
	baz=88,SNR=8.8						
O03C	Acorn Hollow,	88.48	39	⇑P	P	10 40 18.5	-0.1
	baz=88						
GMRC	Granite Mounta	88.54	47	⇑P	P	10 40 19.3	+0.2
	baz=88,SNR=11						
TIN	Tinemaha	88.54	43	⇑P	P	10 40 18.9	-0.1
	baz=88						
MTUM	Tungsten Hills	88.55	43	*e*P	P	10 40 19.2	+0.2
Y12C	Blythe	88.56	48	⇓P	P	10 40 19.4	+0.2
	baz=88,SNR=6.4						
MLAC	Mammoth Lakes	88.58	43	⇑P	P	10 40 19.4	+0.2
	baz=89,SNR=6.9						
WDC	Whiskeytown Da	88.63	39	⇑P	P	10 40 19.3	0.0
	baz=89,SNR=7.2						
R05C	Kirkwood Meado	88.63	41	⇑P	P	10 40 19.0	-0.4
	baz=89,SNR=11						
M01C	Crescent City	88.73	37	⇓P	P	10 40 20.3	+0.5
	baz=89						
P05C	Yuba Gap, Truc	88.76	41	P	P	10 40 19.9	-0.1
	baz=89,SNR=12						
R07C	Lee Vining	88.78	42	⇑P	P	10 40 20.4	+0.3
	baz=89,SNR=14						
TUQ	Turquoise Mtn.	88.81	46	⇑P	P	10 40 20.8	+0.4
	baz=89						
WAKR	Walker	88.85	42	*e*P	P	10 40 20.6	+0.1
R06C	Coleville	88.85	42	P	P	10 40 20.6	+0.2
	baz=89,SNR=12						
S08C	White Mtn Res	88.88	43	P	P	10 40 21.1	+0.5
	baz=89,SNR=13						
SHOC	Shoshone	88.91	45	⇓P	P	10 40 20.8	0.0
	baz=89,SNR=8.4						
FURC	Furnace Creek,	88.95	45	P	P	10 40 20.9	0.0
	baz=89,SNR=7.3						
GRAC	Grapevine Rang	89.00	44	⇓P	P	10 40 21.5	+0.3
	baz=89,SNR=15						
Y13A	Salome	89.04	48	P	P	10 40 22.2	+0.8
	baz=89,SNR=21						
M02C	Callahan	89.05	38	⇓P	P	10 40 21.9	+0.6
	baz=89,SNR=5.2						
O05C	Quincy	89.05	40	⇓P	P	10 40 21.1	-0.3
	baz=89						
PDMCI	Parker Dam,Lak	89.16	48	⇑P	P	10 40 22.5	+0.5
	baz=89,SNR=12						
NEE2	Needles Airpor	89.17	47	⇑P	P	10 40 22.7	+0.6
	baz=89						
O04C	Chester	89.22	40	⇑P	P	10 40 21.8	-0.4
	baz=89,SNR=9.0						
L02A	Cave Junction	89.22	37	⇑P	P	10 40 22.7	+0.6
	baz=89						
WCN	Washoe City	89.23	41	⇓P	P	10 40 22.3	+0.1
	baz=89,SNR=11						
U10A	Ash Meadows, A	89.23	45	⇑P	P	10 40 22.7	+0.4
	baz=89,SNR=7.9						
K01A	Sixes	89.27	36	⇑P	P	10 40 22.2	-0.1
	baz=89						
BEKR	Beckwourth	89.29	40	P	P	10 40 22.2	-0.2
	baz=89,SNR=9.9						
Z14A	Wintersburg	89.31	49	⇑P	P	10 40 23.2	+0.5
	baz=89,SNR=8.3						
M03C	McCloud	89.35	38	⇑P	P	10 40 22.3	-0.4
	baz=89						
115A	Sonoran Desert	89.35	50	⇑P	P	10 40 23.3	+0.3
	baz=89						
HATC	Hat Creek Radi	89.37	39	⇓P	P	10 40 22.7	-0.1
	baz=89						
W12A	Cal Nev Ari	89.37	47	⇑P	P	10 40 23.5	+0.5
	baz=89,SNR=5.5						
YBH	Yreka Blue Hor	89.37	38	*e*P	P	10 40 22.8	0.0
YBH	Yreka Blue Hor	89.37	38	⇑P	P	10 40 23.1	+0.3
	baz=89						
V11A	Goodsprings	89.38	46	P	P	10 40 23.6	+0.5
	baz=89,SNR=8.9						
P06A	Stead Airport,	89.41	41	⇓P	P	10 40 23.0	-0.1
	baz=89						
NVAR	Mina Array Bea	89.44	42	P	P	10 40 23.2	0.0
	comp=Z,7.5nm,0.9s,mb5.0,baz=207,slow=6.1,SNR=24						
R08A	Mina	89.50	43	⇑P	P	10 40 23.4	-0.1
	baz=90						
Q07A	Schurz	89.50	42	⇓P	P	10 40 23.3	-0.2
	baz=90						
X13A	Yucca	89.55	48	P	P	10 40 24.4	+0.6
	baz=90,SNR=14						
S09A	Goldfield	89.58	44	⇑P	P	10 40 23.4	-0.4
	baz=90						
116A	Eloy	89.60	50	⇓P	P	10 40 24.5	+0.4
	baz=90,SNR=8.6						
ELFS	Eagle Lake Fie	89.62	40	⇓P	P	10 40 23.8	-0.1
	baz=90						
Y14A	Wickenburg	89.64	49	P	P	10 40 24.7	+0.4
	baz=90,SNR=13						
V12A	Nelson	89.66	46	⇓P	P	10 40 24.7	+0.4
	baz=90,SNR=9.8						
K02A	Glendale	89.72	37	⇑P	P	10 40 24.2	-0.2
	baz=90						
O06A	Flanigan	89.79	40	⇓P	P	10 40 24.4	-0.4
	baz=90,SNR=9.3						
TPH	Tonopah	89.82	43	*e*P	P	10 40 25.1	+0.1
	comp=Z,32nm,1.2s,mb5.5						
TPH	Tonopah	89.82	43	*e*P	P	10 40 25.1	+0.1
TPH				pmax	pmax		
	comp=Z,33nm,1.2s,mb5.5						
W13A	Hualapai Mount	89.84	47	P	P	10 40 25.9	+0.8
	baz=90,SNR=12						
M04C	Macdoel	89.86	38	⇓P	P	10 40 25.4	+0.3
	baz=90,SNR=5.4						
P07A	Fallon	89.87	41	⇑P	P	10 40 25.5	+0.3
	baz=90						
HUMO	Hull Mountain	89.88	37	P	P	10 40 25.2	+0.1
	baz=90,SNR=7.5						
M05C	Lookout	89.92	39	⇑P	P	10 40 24.8	-0.5
	baz=90,SNR=6.8						
Q08A	Gabbs	89.95	42	⇑P	P	10 40 25.4	-0.2
	baz=90,SNR=8.0						
SHPR	Sheep Range	89.99	46	*e*P	P	10 40 26.1	+0.3
R09A	Tonopah	90.02	43	P	P	10 40 25.9	0.0
	baz=90,SNR=16						
TUC	Tucson	90.04	51	*e*P	P	10 40 26.8	+0.6
X14A	Yava	90.06	48	⇓P	P	10 40 26.6	+0.4
	baz=90,SNR=19						
S10A	Tonopah Range,	90.08	44	⇑P	P	10 40 26.2	0.0
	baz=90,SNR=13						
L04A	Klamath Falls	90.11	38	⇑P	P	10 40 26.1	-0.1
	baz=90						
J02A	Umpqua	90.12	36	⇓P	P	10 40 26.1	-0.2
	baz=90						
M06C	Likely Place G	90.17	39	P	P	10 40 26.4	-0.2
	baz=90,SNR=8.1						
N06A	Buffalo Meadow	90.19	40	⇓P	P	10 40 26.4	-0.3
	baz=90,SNR=7.8						
O07A	Toulon	90.31	41	⇓P	P	10 40 27.1	-0.2
	baz=90,SNR=14						
U12A	Valley of Fire	90.31	46	⇑P	P	10 40 27.7	+0.3
	baz=90,SNR=11						
Q09A	Carvers	90.36	43	⇑P	P	10 40 27.6	+0.1
	baz=90						
S11A	Rachel	90.39	44	⇓P	P	10 40 27.7	+0.1
	baz=90						
T12A	Moapa	90.40	46	⇑P	P	10 40 28.1	+0.3
	baz=90						
W14A	Seligman	90.42	48	⇓P	P	10 40 28.2	+0.4
	baz=90,SNR=20						
J03A	Ideyld Park	90.43	36	⇑P	P	10 40 28.0	+0.3
	baz=90						
P08A	Dixie Valley	90.43	42	⇑P	P	10 40 28.2	+0.4
	baz=90						
I02A	Mapleton	90.46	36	⇑P	P	10 40 27.9	+0.1
	baz=90						
X15A	Humboldt	90.48	49	⇓P	P	10 40 28.7	+0.5
	baz=90,SNR=13						
R10A	Warm Springs	90.50	44	⇓P	P	10 40 28.2	+0.1
	baz=90,SNR=6.0						
K04A	Chilquin	90.51	38	⇓P	P	10 40 28.0	-0.1
	baz=90						
MDJ	Mudanjiang	90.56	325	P	P	10 40 29.0	+0.7
MDJ				AMB	AMB		
	comp=Z,75nm,1.2s,mb5.9						
MDJ				AMB	AMB		
	comp=Z,642nm,4.6s						
MDJ				LR	LR		
	comp=Z,408nm,14.7s,MS5.0						
MDJ	Mudanjiang	90.56	325	*e*P	P	10 40 28.9	+0.6
	comp=Z,99nm,1.2s,mb6.0						
MDJ				*e*		10 40 43.0	
L05A	Lakeview	90.57	38	⇑P	P	10 40 28.4	0.0
	baz=90,SNR=6.0						
N07B	Gerlach	90.69	40	⇓P	P	10 40 28.6	-0.4
	baz=91,SNR=5.6						
I03A	Eugene	90.71	36	⇑P	P	10 40 29.0	0.0
	baz=91						
MOD	Modoc	90.75	39	*e*P	P	10 40 29.2	0.0
	comp=Z,23nm,1.4s,mb5.3						
MOD	Modoc	90.75	39	⇓P	P	10 40 28.9	-0.3
	baz=91,SNR=9.3						
DL2	Dalian	90.76	317	P	P	10 40 30.1	+0.8
DL2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.8						
J04A	Umpqua Nationa	90.77	37	⇑P	P	10 40 29.3	0.0
	baz=91						
O08A	Rochester Mine	90.80	41	⇑P	P	10 40 29.3	-0.2
	baz=91						
Q10A	Clear Creek Ra	90.80	43	⇑P	P	10 40 29.4	-0.1
	baz=91						
P09A	Austin	90.87	42	⇑P	P	10 40 29.2	-0.6
	baz=91						
W15A	Williams	90.91	48	⇓P	P	10 40 29.9	-0.2
	baz=91						
M07A	Soldier Meadow	91.00	40	⇑P	P	10 40 30.2	-0.2
	baz=91,SNR=5.9						
I04A	Tendick Farm,	91.01	36	P	P	10 40 30.9	+0.5
	baz=91,SNR=7.1						
K05A	Summer Lake	91.02	38	⇑P	P	10 40 30.7	+0.2
	baz=91,SNR=9.4						
HABR	Khabarovsk	91.05	331	*e*P	P	10 40 29.7	-0.7
HABR				*e*S	S	10 50 58.3	-27
HABR				*e*		10 51 26.5	
T13A	Saint George	91.08	46	⇓P	P	10 40 31.0	+0.1
	baz=91,SNR=6.2						
N08A	GE Springer Mi	91.15	41	P	P	10 40 31.2	+0.1
	baz=91,SNR=9.7						
H03A	Soap Creek Ran	91.21	35	⇓P	P	10 40 31.4	+0.1
	baz=91,SNR=5.2						
J05A	Fort Rock	91.24	37	⇑P	P	10 40 31.5	0.0
	baz=91,SNR=8.0						
Q11A	Duckwater	91.25	44	⇓P	P	10 40 31.6	0.0
	baz=91						
O09A	Fish Creek Ran	91.26	42	⇓P	P	10 40 31.2	-0.4
	baz=91,SNR=5.2						
P10A	Eureka	91.30	43	⇓P	P	10 40 31.2	-0.6
	baz=91						
L07A	Adell	91.35	39	P	P	10 40 32.5	+0.5
	baz=91,SNR=10						
K06A	Valley Falls	91.41	38	⇑P	P	10 40 32.3	0.0
	baz=91,SNR=7.0						
BMN	Battle Mountai	91.42	42	*e*P	P	10 40 32.7	+0.3
M08A	Happy Creek Ra	91.47	40	⇓P	P	10 40 32.6	0.0
	baz=91,SNR=7.3						
R12A	Pony Springs,	91.52	44	⇓P	P	10 40 33.0	+0.1
	baz=92,SNR=12						
N09A	Rock Creek Ran	91.53	41	⇓P	P	10 40 33.0	+0.1
	baz=92						
T14A	Hurricane	91.61	46	P	P	10 40 33.9	+0.6
	baz=92,SNR=6.2						
SNY	Shenyang	91.66	320	⇑P	P	10 40 33.8	+0.4
P11A	Circle Ranch,	91.66	43	⇑P	P	10 40 33.4	-0.1
	baz=92						
G03A	Yamhill	91.68	35	⇑P	P	10 40 33.7	+0.2
	baz=92						
WUAZ	Wupatki	91.68	48	*e*P	P	10 40 34.1	+0.4
	comp=Z,31nm,1.3s,mb5.5						
WUAZ	Wupatki	91.68	48	P	P	10 40 33.9	+0.2
	baz=92,SNR=11						
TIA	Tai’an	91.69	313	*e*P	P	10 40 34.0	+0.2
TIA				AMB	AMB		
	comp=Z,64nm,0.8s,mb6.0						
O10A	Cortez Mining,	91.73	42	⇓P	P	10 40 33.4	-0.4
	baz=92						
H04A	Detroit Lake	91.76	36	P	P	10 40 33.2	-0.6
	baz=92,SNR=7.5						
J06A	Christmas Vall	91.78	38	⇑P	P	10 40 33.4	-0.5
	baz=92,SNR=10						
I05A	Bend	91.85	37	⇑P	P	10 40 34.1	-0.2
	baz=92,SNR=5.9						
Q12A	Willow Creek R	91.86	44	P	P	10 40 34.5	+0.1
	baz=92,SNR=7.2						
K07A	Rock Creek Ran	91.86	39	⇓P	P	10 40 34.1	-0.2
	baz=92,SNR=7.8						
M09A	Marrel Ranch,	91.96	41	⇓P	P	10 40 34.6	-0.3
	baz=92,SNR=7.9						
G04A	Mulino	92.00	35	⇓P	P	10 40 34.5	-0.4
	baz=92						
F03A	Seaside	92.00	34	⇑P	P	10 40 34.7	-0.3
	baz=92						
L08A	Fields	92.00	40	⇑P	P	10 40 35.1	+0.1
	baz=92,SNR=7.5						
S14A	Cedar City	92.01	46	⇓P	P	10 40 35.3	+0.1
	baz=92						
WVOR	Wild Horse Val	92.01	39	*e*P	P	10 40 34.9	-0.1
	comp=Z,16nm,1.3s,mb5.2						
WVOR	Wild Horse Val	92.01	39	*e*P	P	10 40 34.9	-0.2
WVOR				pmax	pmax		
	comp=Z,16nm,1.3s,mb5.2						
N10A	Dunphy	92.01	42	⇑P	P	10 40 34.8	-0.3
	baz=92						
CN2	Changchun	92.04	323	*e*P	P	10 40 34.4	-0.8
CN2				*e*AP	pP	10 40 39.3	-7.0
CN2				*e*S	S	10 51 34.0	-0.5
CN2				AMB	AMB		
	comp=Z,10.0nm,1.4s,mb5.0						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=Z,600nm,14.0s,MS5.2						
P12A	McGill	92.10	43	⇑P	P	10 40 35.7	+0.2
	baz=92						
O11A	Cowboy Ranch,	92.10	43	⇑P	P	10 40 35.6	+0.1
	baz=92,SNR=9.9						
H05A	Madras	92.22	36	⇓P	P	10 40 36.1	+0.1
	baz=92						
I06A	Prineville	92.23	37	P	P	10 40 36.0	0.0
	baz=92,SNR=13						
L09A	Wilkinson Ranc	92.25	40	⇑P	P	10 40 35.9	-0.3
	baz=92						
K08A	Mann Creek Ran	92.30	39	⇑P	P	10 40 36.4	+0.1
	baz=92,SNR=9.2						
KDAK	Kodiak Island	92.30	13	LR	LR	11 21 22.8	
	comp=Z,619nm,18.7s,MS5.1,baz=148,slow=35						
J07A	Hines	92.30	38	⇑P	P	10 40 36.2	-0.2
	baz=92						
E03A	Lebam	92.44	34	⇑P	P	10 40 37.1	+0.2
	baz=92						
N11A	Elko Archery C	92.51	42	⇑P	P	10 40 37.4	0.0
	baz=92						
M10A	I.L. Ranch, Tu	92.53	41	⇑P	P	10 40 37.9	+0.4
	baz=92,SNR=6.0						
F04A	Amboy	92.55	35	⇑P	P	10 40 37.5	0.0
	baz=92						
G05A	Wamic	92.59	36	⇑P	P	10 40 37.9	+0.2
	baz=92						
K09A	Rome	92.68	40	P	P	10 40 38.4	+0.2
	baz=93,SNR=13						
I07A	Izee	92.70	38	⇑P	P	10 40 38.4	+0.2
	baz=93,SNR=7.9						
H06A	Lindquist Farm	92.73	37	P	P	10 40 37.9	-0.5
	baz=93,SNR=9.2						
J08A	Circle Bar Ran	92.73	39	⇑P	P	10 40 38.2	-0.1
	baz=93,SNR=8.5						
D03A	Wishkah Elem.	92.76	33	⇑P	P	10 40 38.7	+0.3
	baz=93						
E04A	Onalaska	92.88	34	⇓P	P	10 40 39.1	+0.1
	baz=93						
M11A	Holland Ranch,	92.89	42	⇓P	P	10 40 39.3	+0.1
	baz=93,SNR=5.6						
G06A	Carlson Farm,	92.93	36	P	P	10 40 38.9	-0.4
	baz=93,SNR=7.8						
N12A	Clover Valley,	92.93	42	⇑P	P	10 40 39.4	0.0
	baz=93,SNR=5.3						
L10A	Juniper Basin	92.95	41	⇓P	P	10 40 39.2	-0.2
	baz=93,SNR=12						
GYA	Guiyang	92.95	299	P	P	10 40 41.8	+2.0
GYA				AP	pP	10 40 53.3	+2.3
GYA				XP	sP	10 40 57.8	+2.8
GYA				PP	PP	10 44 27.3	+4.1
GYA				SKS		10 51 11.6	
GYA				S	S	10 51 42.8	-0.6
GYA				XS	sS	10 52 00.8	-1.2
GYA				SS	SS	10 58 01.3	+2.7
GYA				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.8						
GYA				AMB	AMB		
	comp=Z,970nm,8.9s						
GYA				LR	LR		
	comp=Z,690nm,20.3s,MS5.1						
F05A	White Salmon	92.98	35	⇓P	P	10 40 39.6	+0.1
	baz=93						
C03A	Quillayute Air	93.01	32	⇑P	P	10 40 40.2	+0.7
	baz=93						
H07A	Lands Inn, Kim	93.02	37	⇓P	P	10 40 39.2	-0.4
	baz=93						
KLR	Kul’dur	93.03	329	*e*P	P	10 40 36.2	-3.4
I08A	Drewsey	93.06	38	⇑P	P	10 40 39.7	-0.2
	baz=93						
MSU	Marysvale	93.09	46	*e*P	P	10 40 41.3	+1.2
J09A	Fry Pan Ranch,	93.11	39	⇑P	P	10 40 39.9	-0.3
	baz=93,SNR=10						
TXAR	Lajitas Array	93.12	57	PKKPbc	PKKPbc	10 57 56.1	+6.9
	comp=Z,0.5nm,1.1s,baz=256,slow=3.5,SNR=3.4						
TXAR				LR	LR	11 15 31.0	
	comp=Z,924nm,18.7s,MS5.3,baz=45,slow=31						
K10A	MacKenzie Ranc	93.20	40	⇓P	P	10 40 40.3	-0.3
	baz=93,SNR=12						
F06A	Goldendale	93.23	36	P	P	10 40 40.5	-0.2
	baz=93,SNR=9.1						
E05A	Randle	93.32	35	⇑P	P	10 40 40.3	-0.7
	baz=93						
M12A	Wells	93.37	42	⇑P	P	10 40 41.6	+0.2
	baz=93						
L11A	Cat Creek Ranc	93.40	41	⇓P	P	10 40 41.3	-0.2
	baz=93,SNR=6.6						
N13A	Wendover, West	93.41	43	⇓P	P	10 40 41.1	-0.4
	baz=93						
LON	Longmire	93.43	35	*e*P	P	10 40 41.9	+0.4
G07A	Ruggs Ranch, H	93.44	37	P	P	10 40 41.4	-0.2
	baz=93,SNR=6.6						
I09A	Lost Marbles R	93.54	39	⇓P	P	10 40 41.3	-0.8
	baz=94						
C04A	Brinnon	93.58	33	⇑P	P	10 40 42.1	0.0
	baz=94						
B04A	Port Angeles	93.58	33	⇑P	P	10 40 42.3	+0.2
	baz=94						
K11A	Parker Ranch,	93.65	40	⇑P	P	10 40 42.3	-0.3
	baz=94,SNR=14						
D05A	Enumclaw	93.66	34	⇓P	P	10 40 43.2	+0.7
	baz=94						
E06A	Yakima	93.68	35	P	P	10 40 42.6	-0.1
	baz=94,SNR=5.5						
J10A	Berg Farm, Mel	93.69	40	⇓P	P	10 40 42.3	-0.5
	baz=94						
F07A	Phinny Hill Vi	93.75	36	⇓P	P	10 40 42.7	-0.3
	baz=94						
M13A	Montello	93.76	42	⇓P	P	10 40 43.0	-0.2
	baz=94						
DUG	Dugway	93.79	44	⇑P	P	10 40 42.8	-0.6
	baz=94						
L12A	House Creek Ra	93.80	41	⇑P	P	10 40 43.2	-0.1
	baz=94,SNR=7.7						
G08A	Pilot Rock	93.81	37	P	P	10 40 43.4	+0.1
	baz=94,SNR=12						
I10A	Payette	94.12	39	⇑P	P	10 40 45.0	+0.2
	baz=94						
C05A	Tolt Reservoir	94.16	34	⇓P	P	10 40 44.8	-0.1
	baz=94						
TMUT	Trail Mountain	94.17	45	*e*P	P	10 40 45.5	+0.4
K12A	Draper Farm, C	94.19	41	⇓P	P	10 40 45.0	-0.1
	baz=94,SNR=5.8						
MFID	Camas Ranch	94.19	40	P	P	10 40 45.0	-0.1
	baz=94,SNR=11						
D06A	Cle Elum	94.21	35	⇓P	P	10 40 45.0	-0.1
	baz=94						
E07A	Sunnyside	94.25	36	P	P	10 40 45.0	-0.2
	baz=94,SNR=8.4						
F08A	Pendleton	94.26	37	⇓P	P	10 40 45.1	-0.2
	baz=94						
HAWA	Hanford	94.29	36	*e*P	P	10 40 45.5	0.0
M14A	Sheep Mountain	94.32	43	P	P	10 40 45.2	-0.6
	baz=94,SNR=6.4						
L13A	Double Diamond	94.36	42	⇓P	P	10 40 46.2	+0.3
	baz=94						
B05A	Bryant	94.38	33	⇓P	P	10 40 46.1	+0.2
	baz=94						
I11A	Placerville	94.45	40	P	P	10 40 45.8	-0.5
	baz=94,SNR=16						
SRU	San Rafael	94.47	46	*e*P	P	10 40 46.6	+0.1
	comp=Z,8.0nm,0.9s,mb5.2						
SRU	San Rafael	94.47	46	*e*P	P	10 40 46.6	+0.1
SRU				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.2						
J12A	Stokes Ranch,	94.48	40	⇓P	P	10 40 45.9	-0.5
	baz=94,SNR=10						
H10A	Noah’s Angus R	94.48	39	⇓P	P	10 40 45.8	-0.6
	baz=94						
ANMO	Albuquerque	94.51	51	*e*P	P	10 40 46.7	-0.1
	comp=Z,5.7nm,1.4s,mb4.8						
ANMO	Albuquerque	94.51	51	*e*P	P	10 40 46.7	-0.1
ANMO				pmax	pmax		
	comp=Z,6.0nm,1.4s						
E08A	Dider Farm, El	94.59	36	⇑P	P	10 40 46.3	-0.5
	baz=94						
D07A	Quincy	94.63	35	⇓P	P	10 40 46.7	-0.3
	baz=95						
F09A	S2 Ranch, Elgi	94.64	37	⇓P	P	10 40 46.4	-0.7
	baz=95						
K13A	Stover Farm, H	94.65	41	⇑P	P	10 40 47.1	-0.1
	baz=95,SNR=7.7						
BJT	Baijiatuau	94.69	315	*e*P	P	10 40 47.4	0.0

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      comp=Z,18nm,0.7s,mb5.6
BJT   Baijiatuau          94.69 315  eP       P         10 40 47.4 -0.1
BJT                                   pmax     pmax
      comp=Z,18nm,0.7s
BJI   Beijing             94.69 315   P       P         10 40 48.3 +0.8
BJI                                   XP      sP        10 41 01.0  -1.6
BJI                                   S       S         10 52 01.6 +3.5
BJI                                   SS      SS        10 58 25.1 +2.1
BJI                                   AMB     AMB
      comp=Z,30nm,0.8s,mb5.8
BJI                                   LR      LR
      comp=Z,473nm,20.2s,MS5.0
BJI   Beijing             94.69 315   P       P         10 40 48.3 +0.8
BJI                                   *SP     sP        10 41 01.0  -1.6
BJI                                   S       S         10 52 01.6 +3.5
BJI                                   SS      SS        10 58 25.1 +2.1
BJI                                   MLR     MLR
      comp=Z,470nm,20.2s,MS5.0
C06A  Tall Timber Ra      94.70  34 ⇑P       P         10 40 47.1  -0.2
      baz=95
M15A  Larsen Ranch,       94.82  43   P       P         10 40 47.7  -0.3
      baz=95,SNR=8.3
B06A  Marblemount         94.84  34 ⇓P       P         10 40 47.3  -0.7
      baz=95
C07A  Waterville          94.94  35 ⇓P       P         10 40 47.7  -0.7
      baz=95
H11A  Donnelly            94.95  39   P       P         10 40 48.0  -0.5
      baz=95,SNR=14
D08A  Wollman Farm,       95.05  36 ⇑P       P         10 40 48.7  -0.2
      baz=95,SNR=5.4
HLID  Hailey              95.06  41  eP       P         10 40 49.3 +0.2
      comp=Z,5.1nm,0.8s,mb5.0
HLID  Hailey              95.06  41   P       P         10 40 49.1   0.0
      baz=95,SNR=7.5
E09A  Wood Farm, Sta      95.07  37 ⇑P       P         10 40 48.2  -0.9
      baz=95
PV01  Paradox Valley      95.07  48  eP       P         10 40 49.2  -0.1
J13A  Cove Ranch, Pi      95.09  41   P       P         10 40 49.2   0.0
      baz=95,SNR=12
K14A  Jones Ranch, D      95.09  42 ⇓P       P         10 40 48.8  -0.5
      baz=95,SNR=5.3
KMI   Kunming             95.14 296   P       P         10 40 51.6 +1.7
KMI                                   S       S         10 52 03.3 +0.7
KMI                                   AMB     AMB
      comp=Z,14nm,1.3s,mb5.2
KMI                                   LR      LR
      comp=Z,226nm,20.5s,MS4.6
KMI   Kunming             95.14 296   P       P         10 40 51.6 +1.7
      comp=Z,14nm,1.3s,mb5.2
KMI                                   S       S         10 52 03.3 +0.7
KMI                                   LR      LR
      comp=Z,230nm,20.5s,MS4.6
F10A  Beach Ranch, E      95.17  37 ⇑P       P         10 40 48.6  -0.9
      baz=95
D09A  Jones Farm, Ri      95.36  36 ⇑P       P         10 40 49.6  -0.7
      baz=95
MA2   Magadan             95.38 344⇑eP       P         10 40 48.1  -2.0
MA2                                   pmax    pmax
      comp=Z,3.0nm,1.4s,mb4.5
B07A  Winthrop            95.45  34 ⇓P       P         10 40 50.2  -0.5
      baz=95
I13A  Wildhorse Cree      95.46  40 ⇑P       P         10 40 50.4  -0.4
      baz=95
H12A  Diamond D Ranc      95.47  40   P       P         10 40 50.8  -0.1
      baz=95,SNR=10
C08A  Higginbotham F      95.50  35 ⇑P       P         10 40 50.7  -0.2
      baz=95
E10A  Myers Farm, Un      95.57  37 ⇓P       P         10 40 50.9  -0.5
      baz=96
F11A  Grangeville         95.67  38 ⇑P       P         10 40 51.1  -0.7
      baz=96
XAN   Xi'an               95.70 307   P       P         10 40 52.8 +0.5
XAN                                   AMB     AMB
      comp=Z,9.0nm,1.1s,mb5.1
A07A  Ashnola River,      95.73  34 ⇓P       P         10 40 51.4  -0.6
      baz=96
B08A  Colville Reser      95.75  35 ⇑P       P         10 40 51.2  -0.9
      baz=96
H13A  Challis             95.80  40 ⇓P       P         10 40 51.9  -0.5
      baz=96
D10A  Wagner Farm, O      95.88  37 ⇓P       P         10 40 51.9  -0.8
      baz=96
E11A  Bogner Ranch,       95.95  38 ⇑P       P         10 40 52.3  -0.8
      baz=96
G13A  Cobalt              96.16  40 ⇓P       P         10 40 54.1 +0.1
      baz=96,SNR=8.3
A08A  Turner Farm, O      96.19  34 ⇓P       P         10 40 54.0  -0.1
      baz=96
D11A  Klaveano Farm,      96.35  37 ⇑P       P         10 40 54.8  -0.1
      baz=96
A09A  Danville            96.54  35 ⇑P       P         10 40 55.7 +0.1
      baz=96
F13A  Darby               96.56  39 ⇓P       P         10 40 55.6  -0.2
      baz=96
MCMT  McKenzie Canyo      96.74  40  eP       P         10 40 57.3 +0.6
D12A  Red Ives Fores      96.85  38 ⇓P       P         10 40 56.3  -0.8
      baz=97
LPAZ  La Paz              96.90 114   P       P         10 41 00.7 +2.5
      comp=Z,2.3nm,0.8s,mb4.7,baz=283,slow=3.7,SNR=7.2
LPAZ                                  LR      LR        11 16 46.9
      comp=Z,315nm,19.2s,MS4.8,baz=47,slow=30
REDW  Red Top Meadow      96.93  42  eP       P         10 40 57.7 +0.1
      comp=Z,11nm,1.1s,mb5.2
E13A  Victor              97.06  38 ⇓P       P         10 40 58.0  -0.1
      baz=97
F14A  Wisdom              97.09  39 ⇑P       P         10 40 58.3 +0.1
      baz=97
G15A  Dillon              97.15  40 ⇓P       P         10 40 58.6   0.0
      baz=97,SNR=5.8
MOOW  Moose Ponds         97.23  42  eP       P         10 40 59.3 +0.4
      comp=Z,24nm,1.9s,mb5.3
B11A  Sandpoint           97.26  36 ⇑P       P         10 40 58.8  -0.1
      baz=97
PDAR  Pinedale Array      97.31  43   P       P         10 40 59.2  -0.1
      comp=Z,1.8nm,0.8s,mb4.6,baz=201,slow=3.6,SNR=11
PDAR                                  LR      LR        11 18 35.4
      comp=Z,890nm,19.0s,MS5.3,baz=287,slow=32
D13A  Huson               97.34  38 ⇑P       P         10 40 59.3   0.0
      baz=97
E14A  Clinton             97.41  39 ⇓P       P         10 41 00.0 +0.4
      baz=97
QLMT  Earthquake Lak      97.52  41  eP       P         10 41 01.0 +0.8
CD2   Chengdu             97.55 302  eP       P         10 41 01.8 +1.1
CD2                                   AMB     AMB
      comp=Z,50nm,1.0s,mb6.0
CD2                                   AMB     AMB
      comp=Z,180nm,6.4s
CD2                                   LR      LR
      comp=Z,400nm,19.2s,MS4.9
F15A  Butte               97.58  40 ⇑P       P         10 41 00.7 +0.2
      baz=98
A11A  Hall Mountain,      97.61  36 ⇓P       P         10 41 00.7 +0.2
      baz=98
OTAV  Otavalo             97.75  95  eP       P         10 41 05.3 +3.2
      comp=Z,7.3nm,1.4s,mb5.0
D14A  Greenough           97.83  38 ⇓P       P         10 41 01.4  -0.2
      baz=98
CHMT  Chamberlain Mo      97.86  39  eP       P         10 41 02.1 +0.4
E15A  Deer Lodge          97.87  39 ⇑P       P         10 41 01.5  -0.3
      baz=98
BOZ   Bozeman (W)         97.92  40  eP       P         10 41 01.8  -0.3
      comp=Z,6.9nm,0.7s,mb5.3
BOZ   Bozeman (W)         97.92  40  eP       P         10 41 01.8  -0.2
BOZ                                   pmax    pmax
      comp=Z,7.0nm,0.7s,mb5.3
BOZ   Bozeman (W)         97.92  40 ⇑P       P         10 41 02.2 +0.2
      baz=98
TNA   Tin City            97.97   4  eP       P         10 41 01.9 +0.1
HHC   Hu-ho-hao-te        97.97 314  eP       P         10 41 02.9 +0.5
HHC                                   AP      pP        10 41 10.9  -2.6
HHC                                   XP      sP        10 41 14.1  -3.4
HHC                                   PP      PP        10 45 04.9 +3.0
HHC                                   SKS               10 51 37.9
HHC                                   S       S         10 52 25.0  -1.3
HHC                                   XS      sS        10 52 38.3  -6.6
HHC                                   SS      SS        10 59 11.8 +2.3
HHC                                   AMB     AMB
      comp=Z,12nm,1.3s,mb5.3
HHC                                   AMB     AMB
      comp=Z,242nm,5.1s
SEY   Seymchan            98.07 347⇑eP       P         10 41 01.4  -0.8
D15A  Lincoln             98.33  39 ⇑P       P         10 41 03.8   0.0
      baz=98
COLA  College             99.73  12  eP       Pdif      10 41 07.9  -2.6
      comp=Z,5.1nm,0.8s
COLA  College             99.73  12  eP       Pdif      10 41 07.9  -2.5
COLA                                  pmax    pmax
      comp=Z,5.0nm,0.8s,mb5.0
LZH   Lanzhou            100.30 306  eP       Pdif      10 41 14.9 +2.0
LZH                                   AP                10 41 18.6
LZH                                   XP                10 41 20.5
LZH                                  eS       Sdif      10 52 44.5  -1.7
LZH                                   XS                10 52 54.0
LZH                                   SS      SS        10 59 45.0 +2.8
LZH                                   AMB     AMB
      comp=Z,15nm,1.0s
LZH                                   AMB     AMB
      comp=Z,110nm,4.0s
LZH                                   LR      LR
      comp=Z,2µm,16.4s,MS5.7
LZH   Lanzhou            100.30 306  eP       Pdif      10 41 14.9 +2.0
      comp=Z,15nm,1.0s
LZH                                   pP                10 41 18.6
LZH                                   sP                10 41 20.5
LZH                                  eS       Sdif      10 52 44.5  -1.7
LZH                                   sS                10 52 54.0
LZH                                   SS      SS        10 59 45.0 +2.8
LZH                                   LR      LR
      comp=Z,2µm,16.4s,MS5.7
LZH   Lanzhou            100.30 306  eP       Pdif      10 41 14.9 +2.0
LZH                                  eS       Sdif      10 52 44.5  -1.7
LZH                                   SS      SS        10 59 45.0 +2.8
LZH                                   pmax    pmax
      comp=Z,15nm,1.0s
LZH                                   MLR     MLR
      comp=Z,2µm,16.4s,MS5.7
SONM  Songino Array      104.96 317   Pdif    Pdif      10 41 33.4  -0.2
SONM                                  PKKPbc  PKKPbc    10 57 18.9 +2.5
SONM  Songino Array      104.96 317   Pdiff   Pdif      10 41 33.4  -0.2
      comp=Z,1.4nm,0.8s,baz=147,slow=3.1,SNR=8.9
SONM                                  PKKPbc  PKKPbc    10 57 18.9 +2.5
      comp=Z,0.3nm,0.5s,baz=273,slow=1.8,SNR=6.1
YKA   Yellowknife Ar     107.09  26   Pdif    Pdif      10 41 42.9  -0.2
YKA                                   PKPdf   PKiKP     10 45 51.2  -0.3
YKA                                   PKKPbc  PKKPbc    10 57 08.8  -1.4
YKA                                   PKKPab  PKKPab    10 57 22.6 +1.6
YKA   Yellowknife Ar     107.09  26   Pdiff   Pdif      10 41 42.9  -0.2
      comp=Z,0.2nm,0.6s,baz=251,slow=5.0,SNR=3.9
YKA                                   PKiKP   PKiKP     10 45 51.2  -0.3
      comp=Z,0.6nm,0.6s,baz=259,slow=1.5,SNR=20
YKA                                   PKKPbc  PKKPbc    10 57 08.8  -1.4
      comp=Z,0.8nm,0.8s,baz=39,slow=3.1,SNR=11
YKA                                   PKKPab  PKKPab    10 57 22.5 +1.6
      comp=Z,0.8nm,0.7s,baz=46,slow=4.7,SNR=7.7
ZAK   Zakamensk          108.01 319  eP       Pdif      10 41 45.9  -1.3
ZAK                                   pmax    pmax
      comp=Z,2.0nm,1.4s
ZAK                                   pmax    pmax
      comp=Z,2.0nm,2.3s
ULM   Lac du Bonnet      109.28  42   PKKPab  PKKPab    10 57 15.0 +3.0
      comp=Z,2.8nm,0.9s,baz=46,slow=5.5,SNR=5.0
WMQ   Urumqi             114.84 307  ePKP     PKiKP     10 46 07.8 +1.0
BOSA  Boshof             115.55 202   PKP     PKPdf     10 46 10.2 +1.4
BOSA  Boshof             115.55 202   PKIKP   PKPdf     10 46 10.2 +1.4
BOSA  Boshof             115.55 202   PKP     PKPdf     10 46 10.2 +1.4
      comp=Z,4.0nm,0.9s,baz=148,slow=3.5,SNR=6.7
RES   Resolute Bay       119.06  18  ePKPdf   PKPdf     10 46 12.9  -1.1
RES   Resolute Bay       119.06  18  ePKIKP   PKPdf     10 46 12.9  -1.1
MK31  Makanchi Array     119.42 309  ePKPdf   PKPdf     10 46 14.8  -0.6
MK31  Makanchi Array     119.42 309  ePKIKP   PKPdf     10 46 14.9  -0.6
MKAR  Makanchi Array     119.42 309   PKP     PKPdf     10 46 14.7  -0.8
MKAR  Makanchi Array     119.42 309   PKIKP   PKPdf     10 46 14.7  -0.8
MKAR  Makanchi Array     119.42 309⇑iPKIKP   PKPdf     10 46 15.5   0.0
MKAR  Makanchi Array     119.42 309   PKP     PKPdf     10 46 14.7  -0.8
      comp=Z,4.4nm,0.8s,baz=70,slow=1.8,SNR=18
ZALV  Zalesovo Beam      119.85 318   PKP     PKPdf     10 46 14.5  -1.6
ZALV  Zalesovo Beam      119.85 318   PKP     PKPdf     10 46 14.5  -1.6
      comp=Z,1.1nm,0.4s,baz=148,slow=1.8,SNR=8.6
ZAL   Zalesovo           119.86 317   PKIKP   PKPdf     10 46 14.5  -1.6
NVS   Novosibirsk        120.97 318  ePKIKP   PKPdf     10 46 17.7  -0.5
NVS                                   pmax    pmax
      comp=E,10.0nm,1.3s
NVS                                   pmax    pmax
      comp=Z,19nm,1.3s
NVS                                   pmax    pmax
      comp=N,8.0nm,1.4s
KSH   Kashi              121.65 299  ePKP     PKPdf     10 46 16.1  -3.9
KSH                                  eXPKP              10 46 30.1
KSH                                  ePKS               10 49 51.3
KSH                                  eSKS     SKSdf     10 53 23.3  -5.9
KSH                                   LR      LR
      comp=Z,653nm,5.7s
ULHL  Ulahol             122.26 303   P       PKPdf     10 46 22.5 +1.4
      SNR=8.5
KURK  Kurchatov          122.78 313  ePKPdf   PKPdf     10 46 21.0  -0.8
KURK  Kurchatov          122.78 313  ePKIKP   PKPdf     10 46 21.0  -0.8
TKM2  Tokmak 2           122.90 303   P       PKPdf     10 46 23.1 +0.8
      SNR=9.1
KZA   Kyzart             122.92 302   P       PKPdf     10 46 24.2 +1.8
      SNR=10.0
KBK   Karagaybulak       123.29 303   P       PKPdf     10 46 24.2 +1.1
      SNR=5.9
UCH   Uchtor             123.49 302   P       PKPdf     10 46 25.7 +2.2
      SNR=13
UCH   Uchtor             123.49 302  ePKPdf   PKPdf     10 46 24.7 +1.2
FRU   Bishkek            123.57 303  ePKIKP   PKPdf     10 46 22.0  -1.6
AAK   Ala-Archa          123.61 303   P       PKPdf     10 46 24.8 +1.1
      SNR=5.8
AAK   Ala-Archa          123.61 303  ePKPdf   PKPdf     10 46 23.6  -0.1
AAK   Ala-Archa          123.61 303⇑iPKIKP   PKPdf     10 46 22.6  -1.1
USP   Ospenovka          123.77 303   P       PKPdf     10 46 24.2 +0.2
      SNR=5.5
AML   Almayashu          124.05 302   P       PKPdf     10 46 25.5 +1.0
      SNR=9.8
AML   Almayashu          124.05 302  ePKPdf   PKPdf     10 46 25.7 +1.2
EKS2  Erkin-Say          124.13 302   P       PKPdf     10 46 25.9 +1.2
      SNR=6.0
KBL   Kabul              125.42 292  ePKPdf   PKPdf     10 46 28.5 +1.1
KMBO  Kilima Mbogo       133.18 231   SKP               10 50 19.1
      comp=Z,8.3nm,0.9s,baz=129,slow=2.0,SNR=17
ARU   Arti               134.95 319  ePKPdf   PKPdf     10 46 46.1 +1.4
ARU   Arti               134.95 319  i PKIKP  PKPdf     10 46 44.4  -0.4
ARU                                  e                  10 49 16.3
ARU                                  eSS      SS        11 07 00.9   -10
ARCES ARCESS Array B     140.69 347   PKP     PKPdf     10 46 55.1 +0.2
ARCES ARCESS Array B     140.69 347   PKHKP             10 46 48.4
ARCES                                                   10 46 55.1
ARCES                                 pmax    pmax
      comp=Z,4.0nm,0.8s
ARCES                                 pmax    pmax
      comp=Z,3.0nm,0.6s
ARCES ARCESS Array B     140.69 347   PKhKP             10 46 48.4
      comp=Z,4.2nm,0.8s,baz=29,slow=3.0,SNR=7.0
ARCES                                 PKP     PKPdf     10 46 55.1 +0.2
      comp=Z,3.4nm,0.6s,baz=26,slow=0.7,SNR=7.2
MAK   Makhachkala        143.29 300  ePKIKP   PKPdf     10 46 58.4  -2.0
JOF   Joensuu            144.49 338  epkp     PKPdf     10 46 59.7  -2.2
JOF   Joensuu            144.49 338  ePKP     PKPdf     10 46 59.7  -2.2
JOF   Joensuu            144.49 338  ePKIKP   PKPdf     10 46 59.7  -2.2
DGRG  David-gareji       144.90 297   P       PKPdf     10 47 03.8 +0.5
MTA   Mtatsminda         145.33 298   P       PKPbc     10 47 04.4 +0.5
TBLG  Delisi             145.37 298   P       PKPbc     10 47 05.5 +1.4
VRHR  Novokhopersk       145.92 315  ePKP2    PKPab     10 47 04.9  -1.1
VRHR                                  pmax    pmax
      comp=Z,140nm,0.8s
VRHR                                  pmax    pmax
      comp=N,120nm,0.7s
VRHR                                  pmax    pmax
      comp=E,100nm,0.7s
ZEI   Tsey               145.95 300  ePKP2    PKPab     10 47 06.3  -0.1
HAKT  HAKKARI            146.08 290  i P      PKPdf     10 47 07.3 +1.8
DYDN  Diyadin            146.18 294  i P      PKPdf     10 47 07.5 +1.9
MOS   Moscow             146.27 324  ePKIKP   PKPdf     10 47 04.0  -1.2
MOS                                  e                  10 47 20.1
MOS                                   pmax    pmax
      comp=Z,490nm,1.6s
MOS                                   pmax    pmax
      comp=Z,1µm,2.5s
ONI   Oni                146.29 299   P       PKPdf     10 47 08.0 +2.3
TVAN  Van                146.37 292  i P      PKPdf     10 47 06.7 +0.8
DIGO  Kars               146.43 295  i P      PKPdf     10 47 08.1 +2.2
KAF   Kangasniemi        146.63 340  epkp     PKPdf     10 47 04.5  -1.1
KAF   Kangasniemi        146.63 340  ePKP     PKPdf     10 47 04.5  -1.1
KAF   Kangasniemi        146.63 340  ePKIKP   PKPdf     10 47 04.5  -1.1
KIV   Kislovodsk         146.72 302  ePKPdf   PKPdf     10 47 06.6 +0.3
KIV                                  ePKPab   PKPab     10 47 10.1 +0.8
KIV   Kislovodsk         146.72 302  ePKHKP             10 47 02.5
KIV                                  i                  10 47 07.2
KIV                                  e                  10 54 08.8
KIV                                   pmax    pmax
      comp=Z,75nm,1.2s
TUTA  Tutak              146.86 294  i P      PKPdf     10 47 09.5 +2.8
OBN   Obninsk            147.10 324  ePKPbc   PKPbc     10 47 09.0 +0.3
OBN   Obninsk            147.10 324⇓iPKP2    PKPab     10 47 07.8  -2.6
OBN                                   pmax    pmax
      comp=Z,38nm,1.0s
FIA1  FINESS Array S     147.22 339  ePKPdf   PKPdf     10 47 06.5  -0.1
FINES FINESS Array B     147.22 339   PKIKP   PKPdf     10 47 07.2 +0.6
FINES                                 pmax    pmax
      comp=Z,40nm,0.8s
FINES FINESS Array B     147.22 339   PKPbc   PKPbc     10 47 07.2  -1.7
      comp=Z,40nm,0.8s,baz=77,slow=4.1,SNR=32
VRSR  Storozhevoye       147.32 316c iPKIKP   PKPdf     10 47 07.5 +0.4
ARTV  Artvin             147.50 297  i P      PKPdf     10 47 08.9 +1.2
ERZM  Erzurum            147.97 295  i P      PKPbc     10 47 13.1 +1.4
BNGL  BINGOL             148.15 293  i P      PKPbc     10 47 14.0 +1.9
MARD  Mardin             148.40 290  i P      PKPdf     10 47 11.6 +2.3
SOC   Sochi              148.91 302d iPKP2    PKPbc     10 47 13.6  -0.3
SOC                                   pmax    pmax
      comp=Z,91nm,1.0s
SOC                                   MLR     MLR
      comp=Z,364nm,17.0s,MS5.2
MACK  Trabzon            149.15 297  i P      PKPbc     10 47 15.6 +0.9
ELZG  Elazig             149.84 292  i P      PKPbc     10 47 17.8 +1.3
MALT  Malatya            150.28 291  ePKPdf   PKPdf     10 47 13.2 +0.9
MALT                                 ePKPbc   PKPbc     10 47 18.7 +1.2
MALT  Malatya            150.28 291  ePKIKP   PKPdf     10 47 13.2 +0.9
MALT                                 e                  10 47 18.7
MALT  Malatya            150.28 291⇓iP       PKPbc     10 47 19.8 +2.3
GRSN  GIRESUNGRSN        150.28 297  i P      PKPbc     10 47 16.7  -0.7
ANN   Anapa              150.30 305  i PKIKP  PKPbc     10 47 16.7  -0.6
ANN                                   pmax    pmax
      comp=Z,95nm,0.9s
NOA   NORSAR Array B     150.84 351   PKP     PKPdf     10 47 11.8  -0.6
NOA                                   PKPbc   PKPbc     10 47 17.7  -0.4
NOA   NORSAR Array B     150.84 351   PKIKP   PKPdf     10 47 11.8  -0.6
NOA                                                     10 47 17.7
NOA   NORSAR Array B     150.84 351   PKP     PKPdf     10 47 11.8  -0.6
      comp=Z,1.3nm,0.7s,baz=215,slow=13,SNR=4.6
NOA                                   PKPbc   PKPbc     10 47 17.7  -0.4
      comp=Z,17nm,0.9s,baz=13,slow=4.1,SNR=21
GZT   Gaziantep          150.96 290  i P      PKPbc     10 47 19.9 +0.7
ASF   Jabal al Asfar     151.02 279   PKIKP   PKPbc     10 47 21.4 +1.9
ASF                                                     10 47 29.3
ASF                                   pmax    pmax
      comp=Z,19nm,0.9s
ASF                                   pmax    pmax
      comp=Z,23nm,0.9s
ASF   Jabal al Asfar     151.02 279   PKPbc   PKPbc     10 47 21.4 +2.0
      comp=Z,19nm,0.9s,baz=8.2,slow=0.6,SNR=14
ASF                                   PKPab   PKPab     10 47 29.3 +2.2
      comp=Z,23nm,0.9s,baz=346,slow=2.6,SNR=3.2
HFS   Hagfors            151.34 348   PKIKP   PKPbc     10 47 18.4  -0.9
HFS                                   pmax    pmax
      comp=Z,19nm,0.8s
HFS   Hagfors            151.34 348   PKPbc   PKPbc     10 47 18.4  -0.9
      comp=Z,19nm,0.8s,baz=95,slow=1.6,SNR=16
EIL   Elat               152.14 273   PKPbc   PKPbc     10 47 23.9 +1.8
      comp=Z,24nm,0.9s,baz=22,slow=0.4,SNR=8.2
MMAI  Mount Meron Ar     152.40 280   PKPbc   PKPbc     10 47 24.1 +1.5
      comp=Z,13nm,0.5s,baz=74,slow=7.0,SNR=19
SIM   Simferopol'        152.55 306d iPKIKP   PKPbc     10 47 23.4 +0.9
SIM                                  e                  10 47 33.4
SIM                                   pmax    pmax
      comp=Z,21nm,0.8s
BOYT  Boyabat            152.75 298  i P      PKPbc     10 47 23.0  -0.1
CTKT  Corum              152.94 297  i P      PKPbc     10 47 24.6 +1.1
LIC   Lamto              152.97 163⇓iPKIKP   PKPbc     10 47 25.2 +0.8
      comp=Z,88nm,0.7s
LIC   Lamto              152.97 163  ePKIKP   PKPdf     10 47 19.0 +1.9
      comp=Z,144nm,0.7s
AVNT  Avonos             153.06 293  i P      PKPbc     10 47 24.4 +0.6
KIC   Kosan Boka         153.17 164  ePKIKP   PKPdf     10 47 19.3 +1.9
      comp=Z,199nm,0.8s
AKASG Malin Array Be     153.19 321   PKP     PKPdf     10 47 15.3  -0.9
AKASG                                 PKPbc   PKPbc     10 47 23.2  -0.5
AKASG                                 PKPab   PKPab     10 47 34.1  -1.4
AKASG Malin Array Be     153.19 321   PKIKP   PKPdf     10 47 15.4  -0.9
AKASG                                                   10 47 23.2
AKASG                                                   10 47 34.2
AKASG Malin Array Be     153.19 321   PKP     PKPdf     10 47 15.3  -0.9
      comp=Z,0.3nm,0.2s,baz=38,slow=1.6,SNR=5.1
AKASG                                 PKPbc   PKPbc     10 47 23.2  -0.5
      comp=Z,11nm,0.8s,baz=49,slow=2.5,SNR=26
AKASG                                 PKPab   PKPab     10 47 34.1  -1.4
      comp=Z,12nm,0.6s,baz=48,slow=4.9,SNR=27
AKBB  Malin Array Si     153.19 321  ePKPbc   PKPbc     10 47 23.3  -0.4
AKBB                                 ePKPab   PKPab     10 47 35.0  -0.5
AKBB  Malin Array Si     153.19 321  ePKIKP   PKPbc     10 47 23.3  -0.4
AKBB                                 e                  10 47 35.0
KIEV  Kiev               153.20 321  ePKPbc   PKPbc     10 47 23.1  -0.6
KIEV                                 ePKPab   PKPab     10 47 35.0  -0.6
KIEV  Kiev               153.20 321  ePKIKP   PKPbc     10 47 23.2  -0.5
KIEV                                 e                  10 47 35.0
TIC   Toumodi            153.38 163  ePKIKP   PKPdf     10 47 19.6 +1.9
      comp=Z,354nm,1.3s
SUW   Suwalki            153.90 332  ePKP     PKPbc     10 47 25.5 +0.4
SUW   Suwalki            153.90 332  ePKIKP   PKPbc     10 47 25.5 +0.3
BRTR  Keskin Array B     153.92 295   PKP     PKPdf     10 47 18.8 +1.1
BRTR                                  PKPbc   PKPbc     10 47 26.2 +0.6
BRTR                                  PKPab   PKPab     10 47 39.4 +0.3
BRTR  Keskin Array B     153.92 295   PKIKP   PKPdf     10 47 18.8 +1.1
BRTR                                                    10 47 26.3
BRTR                                                    10 47 39.4
BRTR  Keskin Array B     153.92 295   PKP     PKPdf     10 47 18.8 +1.1
      comp=Z,1.1nm,1.0s,baz=180,slow=1.2,SNR=3.6
BRTR                                  PKPbc   PKPbc     10 47 26.2 +0.6
      comp=Z,2.2nm,0.5s,baz=90,slow=2.8,SNR=11
BRTR                                  PKPab   PKPab     10 47 39.4 +0.3
      comp=Z,15nm,0.9s,baz=108,slow=4.0,SNR=17
ELDT  Eldivan            153.99 297  i P      PKPbc     10 47 24.8  -1.0
ESKT  Eskisehir          156.09 295  i P      PKPab     10 47 46.5  -1.8
TIRR  Tirgusor           156.56 308⇑iP       PKPab     10 47 50.3 +0.1
EKA   Eskdalemuir Ar     156.78   8   PKPab   PKPab     10 47 46.9  -3.8
      comp=Z,3.2nm,0.9s,baz=103,slow=11,SNR=4.0
VRI   Vrincioaia         157.06 313⇓iP       PKPab     10 47 52.9 +0.7
PLOR  Plostina           157.11 313⇓iP       PKPab     10 47 53.4 +0.9
KWP   Kalwaria           157.18 325  ePKP     PKPab     10 47 51.8  -0.8
MLR   Muntele Rosu       157.72 313   PKPab   PKPab     10 47 55.2 +0.1
      comp=Z,16nm,0.9s,baz=349,slow=4.9,SNR=13
MLR   Muntele Rosu       157.72 313⇓iP       PKPab     10 47 55.9 +0.8
KOLS  Kolonicke sedl     157.85 324  i PKP    PKPdf     10 47 22.4  -0.2
KOLS                                 i                  10 47 55.5
KOLS  Kolonicke sedl     157.85 324  i PKIKP  PKPdf     10 47 22.4  -0.2
KOLS  Kolonicke sedl     157.85 324  i PKP    PKPdf     10 47 22.4  -0.2
KOLS                                 i                  10 47 55.5
STHS  Stebnicka Huta     158.03 326  i PKP    PKPab     10 47 56.5 +0.2
OJC   Ojcow              158.11 329  ePKP     PKPdf     10 47 22.6  -0.3
OJC   Ojcow              158.11 329  ePKIKP   PKPdf     10 47 22.6  -0.3
CRVS  Cervenica-Dubn     158.27 325  ePKP     PKPdf     10 47 22.7  -0.4
CRVS                                 i                  10 47 57.1
CRVS  Cervenica-Dubn     158.27 325  ePKIKP   PKPdf     10 47 22.7  -0.4
CRVS                                 i                  10 47 57.1
CRVS  Cervenica-Dubn     158.27 325  ePKP     PKPdf     10 47 22.7  -0.4
CRVS                                 i                  10 47 57.1
VOIR                     158.29 313⇓iP       PKPab     10 47 58.0 +0.4
NIE   Niedzica           158.46 327  ePKP     PKPdf     10 47 23.9 +0.6
NIE   Niedzica           158.46 327  ePKIKP   PKPdf     10 47 23.9 +0.6
SZH   Strazhica          158.67 307   P       PKPab     10 47 59.8 +0.5
DRGR                     158.95 319⇑iP       PKPab     10 48 00.7 +0.3
KSP   Ksiaz              159.00 335  ePKP     PKPab     10 48 00.9 +0.4
KECS  Kecovo             159.03 325  i PKP    PKPab     10 48 00.3  -0.4
PVL   Pavlikeni          159.09 307   P       PKPab     10 48 02.0 +0.8
OKC   Ostrava-Krasne     159.10 331  ePKPab   PKPab     10 48 00.7  -0.2
UPC   Upice              159.38 335  ePKPab   PKPab     10 48 02.2 +0.1
DPC   Dobruska-Polom     159.40 334  ePKPab   PKPab     10 48 01.8  -0.4
CLL   Collm              159.65 341  i PKPab  PKPab     10 48 01.9  -1.3
      comp=Z,16nm,0.9s
CLL                                  i (pPKPab)         10 48 07.8
PSZ   Piszkesteto        159.71 325⇑ePKP/p   PKPab     10 48 03.5  -0.1
PSZ   Piszkesteto        159.71 325⇓iP       PKPab     10 48 03.2  -0.4
BRG   Berggiesshubel     159.76 339  eP       PKPab     10 48 03.3  -0.4
      comp=Z,30nm,1.6s
VYHS  Vyhne              159.80 327  i PKP    PKPdf     10 47 25.0 +0.1
VYHS                                 i                  10 48 03.8
VYHS  Vyhne              159.80 327  i PKIKP  PKPdf     10 47 25.0 +0.1
VYHS                                 i                  10 48 03.8
VYHS  Vyhne              159.80 327  i PKP    PKPdf     10 47 25.0 +0.1
VYHS                                 i                  10 48 03.8
PVCC  Panska Ves         159.86 337  ePKPab   PKPab     10 48 04.3 +0.1
VRAC  Vranov             160.14 332   PKP     PKPdf     10 47 24.6  -0.6
VRAC                                  PKPab   PKPab     10 48 05.2  -0.3
VRAC  Vranov             160.14 332   PKIKP   PKPdf     10 47 24.6  -0.7
VRAC                                                    10 48 05.2
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VRAC	**Vranov**	160.14	332	PKP	PKPdf	10 47 24.6	-0.6
	comp=Z,1.8nm,0.4s,baz=77,slow=7.0,SNR=3.4						
VRAC				PKPab	PKPab	10 48 05.2	-0.3
	comp=Z,4.6nm,0.6s,baz=92,slow=4.3,SNR=8.7						
PRU	**Pruhonice**	160.33	336	*e*PKPab	PKPab	10 48 05.3	-0.9
MOX	**Moxa**	160.62	342	*e*PKPdf	PKPdf	10 47 26.1	+0.3
MOX				*e*PKPab	PKPab	10 48 06.6	-0.9
MOX	**Moxa**	160.62	342	*e*(PKP)		10 47 26.1	
MOX				*e*		10 48 06.6	
MOX							
	comp=Z,500nm,17.0s						
MOX	**Moxa**	160.62	342	*e*PKIKP	PKPdf	10 47 26.1	+0.3
MOX				*e*		10 48 06.6	
MOX				MLR	MLR		
	comp=Z,500nm,17.0s						
TOA0	**Torodi Ar. Sit**	160.77	178	*e*PKPdf	PKPdf	10 47 27.6	+0.6
TOA0				*e*PKPab	PKPab	10 48 11.2	+2.2
TORD	**Torodi Ar. Bea**	160.77	178	PKP	PKPdf	10 47 27.5	+0.5
TORD				PKPab	PKPab	10 48 10.5	+1.6
TORD				PP	PP	10 51 54.5	+4.2
TORD	**Torodi Ar. Bea**	160.77	178	PKP	PKPdf	10 47 27.5	+0.5
	comp=Z,7.3nm,1.1s,baz=279,slow=0.6,SNR=13						
TORD				PKPab	PKPab	10 48 10.5	+1.6
	comp=Z,10.0nm,0.8s,baz=175,slow=3.2,SNR=22						
TORD				PP	PP	10 51 54.5	+4.2
	comp=Z,3.5nm,1.2s,baz=165,slow=5.7,SNR=3.8						
VTS	**Vitosha**	160.77	308	⇑*i*P	PKPab	10 48 09.4	+0.9
ZST	**Bratislava**	160.80	329	*e*PKP	PKPdf	10 47 26.6	+0.6
ZST				*i*		10 48 08.5	
ZST	**Bratislava**	160.80	329	*e*PKIKP	PKPdf	10 47 26.6	+0.6
ZST	**Bratislava**	160.80	329	*e*PKP	PKPdf	10 47 26.6	+0.6
ZST				*i*		10 48 08.5	
KKB	**Krupnik**	161.15	306	*i* P	PKPab	10 48 09.8	-0.4
KHC	**Kasperske Hory**	161.39	337	*e*P	PKPdf	10 47 26.0	-0.6
KHC	**Kasperske Hory**	161.39	337	*e*PKIKP	PKPdf	10 47 26.0	-0.6
KHC	**Kasperske Hory**	161.39	337	*e*PKPdf	PKPdf	10 47 26.0	-0.6
KHC				*e*PKPab	PKPab	10 48 09.7	-1.2
KHC				*e*pPKP	pPKPdf	10 48 21.5	+43
PKSM	**Moragy**	161.50	323	⇓*i*P	PKPab	10 48 10.6	-0.9
GERES	**GERESS Array B**	161.59	336	PKP	PKPdf	10 47 26.7	-0.1
GERES				PKPab	PKPab	10 48 11.1	-0.7
GERES	**GERESS Array B**	161.59	336	PKIKP	PKPdf	10 47 26.7	-0.1
GERES						10 48 11.1	
GERES	**GERESS Array B**	161.59	336	PKP	PKPdf	10 47 26.7	-0.1
	comp=Z,0.6nm,0.6s,baz=248,slow=7.1,SNR=4.8						
GERES				PKPab	PKPab	10 48 11.1	-0.7
	comp=Z,2.8nm,0.8s,baz=40,slow=2.3,SNR=7.1						
VAY	**Valandovo**	161.72	305	*i* P	PKPab	10 48 11.7	-1.0
BCLA	**Clavier**	161.93	354	PKPab	PKPab	10 48 11.8	-1.3
SKO	**Skopje**	162.22	308	*i* P	PKPab	10 48 15.8	+0.9
KRUS	**Krusevo**	162.61	306	*i* P	PKPab	10 48 16.4	-0.2
PERS	**Pernice**	162.86	329	⇓*e*PKPdf	PKPdf	10 47 27.8	-0.4
PERS				⇓*e*PKPab	PKPab	10 48 16.7	-0.7
PERS	**Pernice**	162.86	329	*e*PKPdf	PKPdf	10 47 27.8	-0.4
PERS				*e*PKPab	PKPab	10 48 16.7	-0.7
LEGS	**Legarje**	163.30	327	*e*PKPab	PKPab	10 48 18.4	-0.9
CRES	**Cresnjev**	163.33	327	*e*PKPab	PKPab	10 48 18.7	-0.8
FLN	**La Foliniere**	163.55	7	*e*PKP2	PKPab	10 48 18.4	-1.9
	comp=Z,71nm,1.0s						
LJU	**Ljubljana**	163.58	329	⇓*e*PKPdf	PKPdf	10 47 28.8	-0.1
LJU				⇓*e*PKPab	PKPab	10 48 19.4	-1.2
LJU	**Ljubljana**	163.58	329	⇓*e*PKIKP	PKPdf	10 47 28.8	-0.1
LJU				*e*		10 48 19.4	
LJU	**Ljubljana**	163.58	329	*e*PKPdf	PKPdf	10 47 28.8	-0.1
LJU				*e*PKPab	PKPab	10 48 19.4	-1.2
LDF	**La Druitiere**	163.75	6	*e*PKP2	PKPab	10 48 19.2	-2.0
	comp=Z,32nm,0.9s						
GRR	**Gorron**	163.88	8	*e*PKP2	PKPab	10 48 20.0	-1.8
	comp=Z,59nm,1.1s						
DAVOX	**Davos/Dischmat**	164.62	341	PKP	PKPdf	10 47 29.5	-0.4
DAVOX				PKPab	PKPab	10 48 24.8	-0.4
DAVOX	**Davos/Dischmat**	164.62	341	PKP	PKPdf	10 47 29.5	-0.4
	comp=Z,2.7nm,0.8s,baz=19,slow=9.9,SNR=3.5						
DAVOX				PKPab	PKPab	10 48 24.7	-0.4
	comp=Z,4.7nm,0.7s,baz=185,slow=3.7,SNR=4.0						
VAE	**Valguarnera**	169.04	301	PP	PP	10 52 36.6	+1.8
	comp=Z,39nm,0.3s,baz=118,slow=1.4,SNR=12						
ESDC	**Sonseca Array**	171.08	34	PKP	PKPdf	10 47 36.1	+1.5
ESDC				PKPab	PKPab	10 48 52.2	-1.7
ESDC	**Sonseca Array**	171.08	34	PKP	PKPdf	10 47 36.1	+1.5
	comp=Z,0.3nm,0.3s,baz=329,slow=1.7,SNR=4.2						
ESDC				PKPab	PKPab	10 48 52.2	-1.7
	comp=Z,0.2nm,0.3s,baz=343,slow=4.0,SNR=3.4						
MDT	**Midelt**	173.96	85	PKP	PKPdf	10 47 38.2	+2.2
	comp=Z,6.4nm,1.0s,baz=292,slow=0.2,SNR=11						
MDT				PKPab	PKPab	10 49 07.3	+0.1
	comp=Z,2.4nm,0.9s,baz=191,slow=2.6,SNR=3.7						

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*NEIC **15** 10:31:37.4, 44.00N×8.50E, h10^{km}, ML2.9(LDG), ML2.6(ROM), ML2.8(STR), After ROM.*
*CSEM **15** 10:31:37.2±0.1, 44.02N×8.54E, h15^{km}, ML3.2/7, Error ellipse: s-maj=1.7km s-min=0.9km az=170.0*
*GEN **15** 10:31:37.6, 43.97N×8.50E, h6^{km}, ML2.0*
*ROM **15** 10:31:37.4±0.4, 44.00N×8.50E, h10^{km}, Md2.3/5, Ml2.6/4, Error ellipse: s-maj=4.7km s-min=1.9km az=47.0*
*ISCJB **15** 10:31:37.5±0.4, 43.97N±0.03×8.53E±0.02, h22^{km}±3^{km}, Error ellipse: s-maj=4.4km s-min=2.9km az=171.6*
*LDG **15** 10:31:38.7±0.1, 43.82N×8.41E, h10^{km}, Md2.7/1, Ml2.9/11, Error ellipse: s-maj=2.4km s-min=2.1km az=97.0*
*STR **15** 10:31:39.2±0.3, 44.09N×8.40E, h5^{km}, Ml2.8, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
ISC 15 10:31:37.2±0.4, **43.94N**±0.02×**8.51E**±0.02, **h18**^{km}±2^{km}, **n106**, σ**1^{s}12**/179, **6D, Corsica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RORO		0.36	299	P	Pg	10 31 44.3	-0.4
QLNO	**Quiliano**	0.40	343	⇓*i*Pg	Pg	10 31 44.8	-0.7
QLNO				Sg	Sg	10 31 49.6	-1.4
QLNO	**Quiliano**	0.40	343	⇓*i*Pg	Pg	10 31 44.8	-0.7
QLNO				Sg	Sg	10 31 49.6	-1.4
	364nm,0.2s						
QLNO	**Quiliano**	0.40	343	⇓*i*Pg	Pg	10 31 44.8	-0.7
QLNO				Sg	Sg	10 31 49.6	-1.4
	364nm,0.2s						
IMI	**Imperia**	0.45	266	⇓*i*Pg	Pg	10 31 46.4	+0.1
IMI				Sg	Sg	10 31 53.0	+0.6
IMI	**Imperia**	0.45	266	⇓*i*Pg	Pg	10 31 46.4	+0.1
IMI				Sg	Sg	10 31 53.0	+0.6
IMI	**Imperia**	0.45	266	⇓*i*Pg	Pg	10 31 46.4	+0.1
IMI				Sg	Sg	10 31 53.0	+0.6
MONE	**Monesi**	0.56	285	P	Pg	10 31 48.1	-0.2
GENL	**Genova Univers**	0.57	35	P	Pg	10 31 48.2	-0.3
GENL				S	Sg	10 31 55.5	-0.7
NEGI	**Negi**	0.59	261	P	Pg	10 31 48.9	+0.1
PCP	**Pian Castagno**	0.60	3	Pg	Pg	10 31 48.4	-0.7
PCP				Sg	Sg	10 31 56.0	-1.2
PCP	**Pian Castagno**	0.60	3	Pg	Pg	10 31 48.4	-0.7
PCP				Sg	Sg	10 31 56.0	-1.2
	193nm,0.4s						
PCP	**Pian Castagno**	0.60	3	Pg	Pg	10 31 48.4	-0.7
PCP				Sg	Sg	10 31 56.0	-1.2
	193nm,0.4s						
SAOF	**Saorge**	0.69	274	Pg	Pg	10 31 50.8	+0.1
SAOF				Sg	Sg	10 32 00.9	+1.0
SAOF	**Saorge**	0.69	274	Pg	Pg	10 31 50.8	+0.1
SAOF				Sg	Sg	10 32 00.9	+1.0
SAOF	**Saorge**	0.69	274	Pg	Pg	10 31 50.8	+0.1
SAOF				Sg	Sg	10 32 00.9	+1.0
SBF	**Sospel**	0.78	265	*e*Pn	Pn	10 31 52.6	-0.7
	SNR=1.0						
SBF				*e*Sn	Sn	10 32 03.4	-1.1
	405nm,0.2s,SNR=1.0						
SBF	**Sospel**	0.78	265	*e*Pn	Pn	10 31 52.6	-0.7
SBF				*e*Sn	Sn	10 32 03.4	-1.1
SBF	**Sospel**	0.78	265	*e*Pn	Pn	10 31 52.6	-0.7
	SNR=1.0						
SBF				*e*Sn	Sn	10 32 03.4	-1.1
	202nm,0.2s,SNR=1.0						
AUTN	**L'Aution**	0.78	274	Pg	Pg	10 31 52.7	+0.3
AUTN	**L'Aution**	0.78	274	Pg	Pg	10 31 52.7	+0.3
AUTN	**L'Aution**	0.78	274	Pg	Pg	10 31 52.7	+0.3
ENR	**Entracque**	0.83	290	P	Pb	10 31 52.8	-0.3
LUCF	**Luceram**	0.84	267	Pg	Pg	10 31 53.7	+0.1
LUCF				Sg	Sg	10 32 05.5	+0.8
LUCF	**Luceram**	0.84	267	Pg	Pg	10 31 53.7	+0.1
LUCF				Sg	Sg	10 32 05.5	+0.8
REVF	**Revere**	0.85	257	Pg	Pg	10 31 54.3	+0.6
REVF				Sg	Sg	10 32 05.8	+0.9
REVF	**Revere**	0.85	257	Pg	Pg	10 31 54.3	+0.6
REVF				Sg	Sg	10 32 05.8	+0.9
REVF	**Revere**	0.85	257	Pg	Pg	10 31 54.3	+0.6
REVF				Sg	Sg	10 32 05.8	+0.9
STV	**Sta Anna Valdi**	0.91	290	Pg	Pg	10 31 54.4	-0.4
STV				Sg	Sg	10 32 06.5	-0.2
STV	**Sta Anna Valdi**	0.91	290	Pg	Pg	10 31 54.4	-0.4
STV				Sg	Sg	10 32 06.5	-0.2
	119nm,0.2s						
STV	**Sta Anna Valdi**	0.91	290	Pg	Pg	10 31 54.4	-0.4
STV				Sg	Sg	10 32 06.5	-0.2
	119nm,0.2s						
TOUF	**Mont Tournerai**	0.91	275	Pg	Pg	10 31 55.0	+0.1
TOUF	**Mont Tournerai**	0.91	275	Pg	Pg	10 31 55.0	+0.1
TOUF	**Mont Tournerai**	0.91	275	Pg	Pg	10 31 55.0	+0.1
MVIF	**Mont Vial**	0.98	268	Pg	Pg	10 31 56.4	+0.2
MVIF	**Mont Vial**	0.98	268	Pg	Pg	10 31 56.4	+0.2
MVIF	**Mont Vial**	0.98	268	Pg	Pg	10 31 56.4	+0.2
CODM		1.07	64	P	Pb	10 31 56.8	-0.3
DOI	**San Damiano**	1.07	302	Pg	Pg	10 31 56.9	-1.0
DOI				Sg	Sg	10 32 11.0	-0.9
DOI	**San Damiano**	1.07	302	Pg	Pg	10 31 56.9	-1.0
DOI				Sg	Sg	10 32 11.0	-0.9
	401nm,0.3s						
DOI	**San Damiano**	1.07	302	Pg	Pg	10 31 56.9	-1.0
DOI				Sg	Sg	10 32 11.0	-0.9
	401nm,0.3s						
BACM		1.18	73	P	Pn	10 31 59.2	+0.4
CALN	**Calern**	1.19	261	Pg	Pg	10 32 00.1	0.0
CALN				Sg	Sg	10 32 17.4	+1.8
CALN	**Calern**	1.19	261	Pg	Pg	10 32 00.1	0.0
CALN				Sg	Sg	10 32 17.4	+1.8
CALN	**Calern**	1.19	261	Pg	Pg	10 32 00.1	0.0
CALN				Sg	Sg	10 32 17.4	+1.8
GRAM		1.25	63	P	Pn	10 32 00.0	+0.3
VALM		1.32	71	P	Pn	10 32 01.4	+0.7
VALM				S	Sn	10 32 17.1	-0.7
SURF	**Saint Ours**	1.33	295	Pn	Pn	10 32 01.5	+0.6
SURF	**Saint Ours**	1.33	295	Pn	Pn	10 32 01.5	+0.6
SURF	**Saint Ours**	1.33	295	Pn	Pn	10 32 01.5	+0.6
SARO	**Sassorosso**	1.39	79	P	Pn	10 32 02.0	+0.4
SARO				S	Sn	10 32 19.0	-0.5
FRF	**La Foret Royal**	1.40	255	*e*Pn	Pn	10 32 01.3	-0.5
	SNR=1.0						
FRF	**La Foret Royal**	1.40	255	*e*Pg	Pg	10 32 03.0	-1.2
FRF				*e*Sn	Sn	10 32 17.5	-2.3
	43nm,0.2s,SNR=1.0						
FRF	**La Foret Royal**	1.40	255	*e*Pn	Pn	10 32 01.3	-0.5
FRF				*e*Pg	Pg	10 32 03.0	-1.2
FRF				*e*Sn	Sn	10 32 17.5	-2.3
FRF	**La Foret Royal**	1.40	255	*e*Pn	Pn	10 32 01.3	-0.5
	SNR=1.0						
FRF	**La Foret Royal**	1.40	255	*e*Pg	Pg	10 32 03.0	-1.2
OG22	**Abries**	1.43	309	Pn	Pn	10 32 03.1	+0.9
OG22				Sg	Sn	10 32 20.6	+0.1
OG22	**Abries**	1.43	309	Pn	Pn	10 32 03.1	+0.9
OG22				Sg	Sn	10 32 20.6	+0.1
OG22	**Abries**	1.43	309	Pn	Pn	10 32 03.1	+0.9
OG22				Sg	Sn	10 32 20.6	+0.1
MAIM		1.43	90	P	Pn	10 32 02.6	+0.3
MAIM				S	Sn	10 32 20.1	-0.6
PGF	**Pioggiola**	1.44	165	*e*Pn	Pn	10 32 02.1	-0.2
	SNR=1.0						
PGF				*e*Sn	Sn	10 32 18.3	-2.4
	27nm,0.3s,SNR=1.0						
PGF	**Pioggiola**	1.44	165	*e*Pn	Pn	10 32 02.1	-0.2
PGF				*e*Sn	Sn	10 32 18.3	-2.4
PGF	**Pioggiola**	1.44	165	*e*Pn	Pn	10 32 02.1	-0.2
	SNR=1.0						
PGF				*e*Sn	Sn	10 32 18.3	-2.4
	13nm,0.3s,SNR=1.0						
MBDF	**Montbardon**	1.47	303	*e*Pn	Pn	10 32 03.6	+0.8
	SNR=1.0						
MBDF				*e*Sn	Sn	10 32 22.5	+0.8
	47nm,0.2s,SNR=1.0						
MBDF	**Montbardon**	1.47	303	*e*Pn	Pn	10 32 03.6	+0.8
MBDF				*e*Sn	Sn	10 32 22.5	+0.8
MBDF	**Montbardon**	1.47	303	*e*Pn	Pn	10 32 03.6	+0.8
	SNR=1.0						
MBDF				*e*Sn	Sn	10 32 22.5	+0.8
	23nm,0.2s,SNR=1.0						
RSP	**Reno Superiore**	1.51	324	P	Pn	10 32 03.2	-0.1
RSP				S	Sn	10 32 20.5	-2.0
LMR	**La Mourre**	1.57	248	*e*Pn	Pn	10 32 03.2	-1.0
	SNR=1.0						
LMR				*e*Sn	Sn	10 32 21.1	-3.0
	26nm,0.2s,SNR=1.0						
LMR	**La Mourre**	1.57	248	*e*Pn	Pn	10 32 03.2	-1.0
LMR				*e*Sn	Sn	10 32 21.1	-3.0
LMR	**La Mourre**	1.57	248	*e*Pn	Pn	10 32 03.2	-1.0
	SNR=1.0						
TRAV		1.66	341	P	Pn	10 32 05.7	+0.2
TRAV				S	Sn	10 32 24.2	-2.1
CORF	**Corte**	1.71	164	Pn	Pg	10 32 11.2	+1.2
CORF	**Corte**	1.71	164	Pn	Pg	10 32 11.2	+1.2
LPG	**La Plagne**	2.00	322	*e*Pn	Pn	10 32 12.1	+2.1
	SNR=1.0						
LPG	**La Plagne**	2.00	322	*e*Pg	Pg	10 32 17.6	+2.1
LPG				*e*Sn	Sn	10 32 36.2	+1.6
	22nm,0.4s,SNR=1.0						
LPG	**La Plagne**	2.00	322	*e*Pn	Pn	10 32 12.1	+2.1
LPG				*e*Pg	Pg	10 32 17.6	+2.1
LPG				*e*Sn	Sn	10 32 36.2	+1.6
LPG	**La Plagne**	2.00	322	*e*Pn	Pn	10 32 12.1	+2.1
	SNR=1.0						
LPG	**La Plagne**	2.00	322	*e*Pg	Pg	10 32 17.6	+2.1
LPG				*e*Sn	Sn	10 32 36.2	+1.6
	11nm,0.4s,SNR=1.0						
LPL	**La Plagne**	2.02	322	*e*Pn	Pn	10 32 12.5	+2.1
LPL	**La Plagne**	2.02	322	*e*P	Pg	10 32 14.4	-1.6
	SNR=1.0						
LPL	**La Plagne**	2.02	322	*e*Pg	Pg	10 32 17.8	+1.8
	SNR=1.0						
LPL				*e*Sn	Sn	10 32 36.2	+1.0
	16nm,0.4s,SNR=1.0						
LPL	**La Plagne**	2.02	322	*e*Pn	Pn	10 32 12.5	+2.1
LPL				*e*P		10 32 14.4	
LPL				*e*Pg	Pg	10 32 17.8	+1.8
LPL				*e*Sn	Sn	10 32 36.2	+1.0
LPL	**La Plagne**	2.02	322	*e*Pn	Pn	10 32 12.5	+2.1
LPL	**La Plagne**	2.02	322	*e*P	Pg	10 32 14.4	-1.6
	SNR=1.0						
LPL	**La Plagne**	2.02	322	*e*Pg	Pg	10 32 17.8	+1.8
	SNR=1.0						
LPL				*e*Sn	Sn	10 32 36.2	+1.0
	8.1nm,0.4s,SNR=1.0						
SMRF	**Simiane la Rot**	2.12	272	*e*Pn	Pn	10 32 11.6	-0.1
	SNR=1.0						
SMRF	**Simiane la Rot**	2.12	272	*e*P	Pn	10 32 13.8	+2.1
SMRF				*e*Sg	Sg	10 32 43.8	-1.5
SMRF	**Simiane la Rot**	2.12	272	*e*Pn	Pn	10 32 11.6	-0.1
SMRF				*e*P		10 32 13.8	
SMRF				*e*Sg	Sg	10 32 43.8	-1.5
SMRF	**Simiane la Rot**	2.12	272	*e*Pn	Pn	10 32 11.6	-0.1
	SNR=1.0						
SMRF	**Simiane la Rot**	2.12	272	*e*P	Pn	10 32 13.8	+2.1
SMRF				*e*Sg	Sg	10 32 43.8	-1.5
ORIF	**Oris-en-Rattie**	2.12	298	*e*P	Pb	10 32 15.2	+0.1
	SNR=1.0						
ORIF				*e*Sn	Sn	10 32 37.3	-0.3
	SNR=1.0						
ORIF				*e*Sg	Sg	10 32 45.5	+0.1
	27nm,0.5s						
ORIF	**Oris-en-Rattie**	2.12	298	*e*P	Pb	10 32 15.2	+0.1
	SNR=1.0						
ORIF				*e*Sn	Sn	10 32 37.3	-0.3
	SNR=1.0						
ORIF				*e*Sg	Sg	10 32 45.5	+0.1
	14nm,0.5s						
VIVF	**Saint-Julien-l**	2.90	290	*e*Sn	Sn	10 32 55.1	-1.7
	7.1nm,0.3s,SNR=1.0						
VIVF				*e*Sg	Sg	10 33 08.4	-1.8
	9.3nm,0.4s						
VIVF	**Saint-Julien-l**	2.90	290	*e*Sn	Sn	10 32 55.1	-1.7
	3.5nm,0.3s,SNR=1.0						
VIVF				*e*Sg	Sg	10 33 08.4	-1.8
	4.7nm,0.4s						
CABF	**La Chapelle**	3.17	328	*e*Pn	Pn	10 32 28.4	+2.2
CABF				*e*Sn	Sn	10 33 04.2	+0.7
	2.2nm,0.2s						
CABF	**La Chapelle**	3.17	328	*e*Pn	Pn	10 32 28.4	+2.2
CABF				*e*Sn	Sn	10 33 04.2	+0.7
CABF	**La Chapelle**	3.17	328	*e*Pn	Pn	10 32 28.4	+2.2
CABF				*e*Sn	Sn	10 33 04.2	+0.7
	1.1nm,0.2s						
LASF	**Ste Croix**	3.36	274	*e*Pg	Pg	10 32 40.4	-1.1
LASF				*e*Sn	Sn	10 33 04.8	-3.3
	3.8nm,0.2s						
LASF	**Ste Croix**	3.36	274	*e*P	Pn	10 32 31.4	+2.7
LASF				*e*Pg	Pg	10 32 40.4	-1.1
LASF				*e*Sn	Sn	10 33 04.8	-3.3
LASF	**Ste Croix**	3.36	274	*e*Pg	Pg	10 32 40.4	-1.1
LASF				*e*Sn	Sn	10 33 04.8	-3.3
	1.9nm,0.2s						
HINF	**Hinteralfeld**	4.05	344	*e*Pn	Pn	10 32 40.3	+2.1
HINF	**Hinteralfeld**	4.05	344	*e*Pn	Pn	10 32 40.3	+2.1
HINF	**Hinteralfeld**	4.05	344	*e*Pn	Pn	10 32 40.3	+2.1
HAU	**Haudompre**	4.34	340	*e*Pn	Pn	10 32 44.0	+1.8
HAU	**Haudompre**	4.34	340	*e*Pn	Pn	10 32 44.0	+1.8
HAU	**Haudompre**	4.34	340	*e*Pn	Pn	10 32 44.0	+1.8

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*CSEM **15** 10:41:30.7, 38.13N×32.70E, h2^{km}, MD2.8, After ISK*
ISK 15 10:41:30.7, 38.13N×32.70E, h2^{km}, MD2.8, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KONT	**Konya--Tatoy**	0.32	236	*i* PG	Pg	10 41 38.1	+1.2
KONT				*i* SG	Sg	10 41 43.5	+2.5
KONT	**Konya--Tatoy**	0.32	236	*i* Pg	Pg	10 41 38.1	+1.2
KONT				*i* Sg	Sg	10 41 43.5	+2.5
KIZT	**Kizilcal**	0.99	320	PG	Pg	10 41 50.6	+1.0
KIZT				SG	Sg	10 42 05.2	+2.7
KIZT	**Kizilcal**	0.99	320	*e*Pg	Pg	10 41 50.6	+1.0
KIZT				*e*Sg	Sg	10 42 05.2	+2.7
KAMT	**Kaman**	1.47	32	PN	Pn	10 41 59.2	+1.0
KAMT	**Kaman**	1.47	32	*e*Pn	Pn	10 41 59.2	+1.0
EZM	**Erzurum**	6.98	73	*e*P	Pn	10 43 19.9	+6.1
ERZM	**Erzurum**	6.98	73	*i* P	Pn	10 43 19.7	+5.8
ARTV	**Artvin**	7.75	64	*i* P	Pn	10 43 17.9	-6.6

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*IDC **15** 11:12:01.4±1.4, 52.43N×169.72W, h0^{km}, mb3.8/7, mb1 4.0/8, mb1mx3.7/26, mbtmp3.8/8, ML3.8/1, Error ellipse: s-maj=35.9km s-min=26.8km az=159.0*
*ISCJB **15** 11:12:06.7±1.4, 52.3N±0.1×169.6W±0.1, h52^{km}±11^{km}, mb3.8/8, Error ellipse: s-maj=21.5km s-min=10.7km az=159.8*
*NEIC **15** 11:12:07.7±1.4, 52.19N×169.52W, h47^{km}±11^{km}, mb3.8/2, ML3.5(AEIC), Error ellipse: s-maj=20.1km s-min=10.8km az=166.0*
ISC 15 11:12:08.0±1.4, **52.3N**±0.1×**169.5W**±0.1, **h49**^{km}±11^{km}, **n24**, σ**1^{s}09**/25, **mb3.8**/8, **Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UNV	**Unalaska Valle**	2.43	47	P	Pn	11 12 44.2	-1.0
UNV				S	Sn	11 13 13.4	-0.2
ATKA	**Atka Island**	2.87	271	P	Pn	11 12 50.4	-0.8
AKLV	**Akutan Long Va**	2.88	47	P	Pn	11 12 51.1	-0.2
AKGG	**Akutan Green G**	2.89	46	P	Pn	11 12 51.7	+0.3
AKUT	**Akutan**	2.95	49	*e*P	Pn	11 12 52.9	+0.7
KDAK	**Kodiak Island**	11.18	54	Pn	Pn	11 14 43.6	-1.3
KDAK	**Kodiak Island**	11.18	54	Pn	Pn	11 14 43.6	-1.3
	0.6nm,0.3s,baz=316,slow=9.8,SNR=7.5						
GAMB	**Gambell**	11.62	355	*e*Pn	Pn	11 14 52.8	+1.9
TNA	**Tin City**	13.38	3	*e*Pn	Pn	11 15 17.0	+2.1
	1.6nm,0.6s						
EGAK	**Eagle**	19.20	38	*e*P	Pn	11 16 29.1	+0.4
	5.6nm,1.0s						
DAWY	**Dawson**	19.59	41	*e*P	Pn	11 16 31.5	-1.8
INK	**Inuvik**	23.50	33	*e*P	P	11 17 11.2	-1.9
	52nm,0.5s,mb5.2						
INK	**Inuvik**	23.50	33	P	P	11 17 11.6	-1.5
	2.0nm,0.6s,mb3.7,baz=245,slow=8.6,SNR=27						
YKA	**Yellowknife Ar**	30.39	49	P	P	11 18 15.7	+0.7
YKA	**Yellowknife Ar**	30.39	49	P	P	11 18 15.7	+0.7
	0.9nm,0.5s,mb3.7,baz=270,slow=7.7,SNR=26						
BW06	**Boulder Array**	40.52	79	*e*P	P	11 19 43.1	+1.1
	1.1nm,0.5s,mb3.7						
PDAR	**Pinedale Array**	40.52	79	P	P	11 19 43.1	+1.1
	0.9nm,0.5s,mb3.6,baz=295,slow=1.9,SNR=12						
TXAR	**Lajitas Array**	52.84	89	P	P	11 21 19.2	+0.7
TXAR	**Lajitas Array**	52.84	89	P	P	11 21 19.2	+0.7
	0.2nm,0.5s,mb3.3,baz=302,slow=6.1,SNR=5.0						
FINES	**FINESS Array B**	65.98	352	P	P	11 22 47.5	-1.1
FINES	**FINESS Array B**	65.98	352	P	P	11 22 47.5	-1.1
	1.2nm,1.0s,mb3.9,baz=10,slow=12,SNR=4.2						
NOA	**NORSAR Array B**	67.06	360	P	P	11 22 54.7	-0.8
NOA	**NORSAR Array B**	67.06	360	P	P	11 22 54.7	-0.8
	0.9nm,0.7s,mb3.9,baz=0.8,slow=6.3,SNR=3.8						
ASAR	**Alice Springs**	90.24	230	P	P	11 25 03.5	+0.4
	0.2nm,0.7s,mb3.5,baz=32,slow=7.4,SNR=4.2						

IDC 15 11:20:19.6±3.4, **32.16S**×**177.47W**, **h0**^{km}, **mb3.5**/2, **mb1 3.7**/3, **mb1mx3.6**/13, **mbtmp3.5**/3, **ML3.4**/1, **Error ellipse: s-maj=78.1km s-min=37.4km az=117.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	7.53	215	Pn	Pn	11 22 10.2	-0.5
	0.5nm,0.3s,baz=95,slow=17,SNR=4.8						
URZ				Sn	Sn	11 23 36.1	-0.7
	3.0nm,0.3s,baz=151,slow=22,SNR=10						
ASAR	**Alice Springs**	43.49	269	P	P	11 28 25.1	+0.3
	0.6nm,0.9s,baz=106,slow=7.2,SNR=4.9						
WRA	**Warramunga Arr**	44.64	274	P	P	11 28 34.2	+0.1
	0.3nm,0.3s,baz=112,slow=7.9,SNR=13						
FINES	**FINESS Array B**	146.94	339	PKPbc	PKPbc	11 40 02.3	-1.0
	1.3nm,0.8s,baz=46,slow=5.5,SNR=3.8						

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*ISCJB **15** 11:32:55.7±2.5, 7.90S±0.05×73.64W±0.06, h20^{km}±18^{km}, mb4.5/21, MS4.6/4, Error ellipse: s-maj=10.0km s-min=7.1km az=145.5*
*NEIC **15** 11:32:56.7±0.3, 7.83S×73.47W, mb4.8/15, Error ellipse: s-maj=13.3km s-min=6.5km az=58.0*
*IDC **15** 11:32:56.4±0.7, 7.77S×73.49W, h16^{km}±3^{km}, mb3.9/7, mb1 4.2/11, mb1mx4.1/20, mbtmp4.0/11, ML4.3/4, MS3.7/3, Ms1 3.7/3, ms1mx3.0/28, Error ellipse: s-maj=18.0km s-min=13.9km az=46.0*
*BJI **15** 11:32:57.6, 7.80S×73.50W, h17^{km}, mB5.1, Ms4.9, Msz4.7*
ISC 15 11:32:58.8±2.5, **7.94S**±0.06×**73.60W**±0.06, **h28**^{km}±18^{km}, **h20**^{km}±1.0^{km}**:pP-P, n220,** σ**0^{s}56**/208, **mb4.5**/21, **MS4.6**/4, **79C-61D, Peru-Brazil border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATAH	**Atahualpa**	4.85	281	Pn	Pn	11 34 08.9	-1.0
	6.7nm,0.3s,baz=53,slow=7.8,SNR=116						
ATAH				Sn	Sn	11 35 02.4	-2.8
	4.6nm,0.3s,baz=252,slow=20,SNR=3.9						
ATAH				Lg		11 35 33.2	
	17nm,0.3s,baz=132,slow=23,SNR=5.2						
ATAH				LR	LR	11 36 32.3	
	comp=Z,382nm,21.5s,baz=236,slow=44						
NNA	**Nana**	5.14	218	*e*Pn	Pn	11 34 14.3	+0.4
	91nm,0.3s						
NNA				*e*Sn	Sn	11 35 12.7	+0.3
NNA	**Nana**	5.14	218	Pn	Pn	11 34 14.5	+0.5
	21nm,0.3s,baz=23,slow=9.2,SNR=35						
NNA				Sn	Sn	11 35 12.2	-0.2
	41nm,0.3s,baz=161,slow=12,SNR=11						
NNA				Lg		11 35 45.5	
	26nm,0.3s,baz=291,slow=9.8,SNR=4.6						
OTAV	**Otavalo**	9.45	329	*e*Pn	Pn	11 35 13.5	+0.2
LPAZ	**La Paz**	9.87	148	*e*Pn	Pn	11 35 20.3	+1.4
LPAZ	**La Paz**	9.87	148	Pn	Pn	11 35 21.1	+2.2
	0.9nm,0.3s,baz=321,slow=12,SNR=28						
LPAZ				Sn	Sn	11 37 13.8	+5.0
	1.2nm,0.3s,baz=152,slow=22,SNR=3.4						
LPAZ				Lg		11 38 10.7	
	3.7nm,0.3s,baz=69,slow=21,SNR=6.0						
ROSC	**El Rosal**	12.73	357	Lg		11 39 29.2	
	0.8nm,0.3s,baz=233,slow=24,SNR=3.6						
ROSC				LR	LR	11 40 49.7	
	comp=Z,155nm,19.3s,baz=185,slow=38						
SIV	**San Ignacio**	14.63	124	Pn	Pn	11 36 22.7	-1.3
SIV				Sn	Sn	11 39 02.5	-2.8
SIV				Lg		11 40 33.2	
SIV	**San Ignacio**	14.63	124	Pn	Pn	11 36 22.7	-1.3
	0.6nm,0.3s,baz=298,slow=12,SNR=22						
SIV				Sn	Sn	11 39 02.5	-2.8
	1.0nm,0.3s,baz=250,slow=18,SNR=4.7						
SIV				Lg		11 40 33.2	
	2.6nm,0.3s,baz=248,slow=20,SNR=3.8						

PCRV	Puerto La Cruz	20.08	27	Lg		11 43 38.0	
	0.2nm,0.3s,baz=187,slow=24,SNR=2.2						
JTS	JuntasAbangare	21.35	328	eP	P	11 37 43.3	-0.7
	8.5nm,0.9s,mb4.1						
JTS	JuntasAbangare	21.35	328	P	P	11 37 43.3	-0.6
	3.5nm,0.8s,mb3.7,baz=172,slow=12,SNR=3.0						
TEIG	Tepich	31.49	333	eP	P	11 39 20.9	+2.4
	7.4nm,0.5s,mb4.8						
TXAR	Lajitas Array	47.03	323	P	P	11 41 27.7	-0.2
	1.4nm,0.7s,mb4.0,baz=147,slow=9.0,SNR=15						
TXAR				pP	pP	11 41 32.6	-3.7
	1.2nm,0.5s,baz=149,slow=8.8,SNR=12						
WMOK	Wichita Mounta	48.67	332	eP	P	11 41 39.8	-0.7
	3.8nm,0.9s,mb4.4						
WMOK				e		11 41 45.5	
ANMO	Albuquerque	52.75	326	eP	P	11 42 10.9	-0.5
	90nm,2.5s,mb5.3						
ANMO				epP	pP	11 42 17.2	-2.7
116A	Eloy	54.22	320	⇑P	P	11 42 22.0	-0.1
	baz=54						
SDCO	Great Sand Dun	54.34	329	eP	P	11 42 22.2	-0.8
SDCO				e	pP	11 42 28.5	-3.1
MVCO	Mesa Verde	55.53	326	⇑P	P	11 42 32.3	+0.8
	baz=56						
X15A	Humboldt	55.82	321	⇑P	P	11 42 33.8	+0.1
	baz=56						
Y14A	Wickenburg	55.94	320	⇓P	P	11 42 34.7	+0.1
	baz=56						
WUAZ	Wupatki	55.99	323	eP	P	11 42 35.3	+0.4
	10nm,1.0s,mb4.8						
WUAZ	Wupatki	55.99	323	P	P	11 42 35.4	+0.5
	baz=56,SNR=9.3						
X14A	Yava	56.22	321	⇓P	P	11 42 36.9	+0.3
	baz=56						
PV01	Paradox Valley	56.24	327	eP	P	11 42 36.3	-0.4
W15A	Williams	56.30	322	⇑P	P	11 42 37.6	+0.5
	baz=56						
Y13A	Salome	56.38	320	⇓P	P	11 42 37.9	+0.1
	baz=56						
GLA	Glamis	56.55	318	⇑P	P	11 42 38.9	-0.1
	baz=57						
PV10	Paradox Valley	56.67	327	eP	P	11 42 39.2	-0.5
Y12C	Blythe	56.79	319	⇓P	P	11 42 40.8	+0.1
	baz=57						
W14A	Seligman	56.82	322	⇓P	P	11 42 41.0	+0.1
	baz=57						
X13A	Yucca	56.88	320	⇓P	P	11 42 41.7	+0.4
	baz=57						
W13A	Hualapai Mount	57.25	321	⇑P	P	11 42 44.5	+0.6
	baz=57						
BC3	Big Chuckw Mtn	57.34	319	⇑P	P	11 42 44.8	+0.2
	baz=57						
IRM	Iron Mountain	57.45	319	P	P	11 42 45.6	+0.3
	baz=58,SNR=6.6						
BELC	Belle Mtn.	57.91	319	⇑P	P	11 42 48.7	+0.1
	baz=58						
T14A	Hurricane	58.05	323	P	P	11 42 50.1	+0.6
	baz=58,SNR=7.0						
GMRC	Granite Mounta	58.17	320	⇑P	P	11 42 50.4	0.0
	baz=58						
V12A	Nelson	58.25	321	⇑P	P	11 42 50.9	0.0
	baz=58						
MURC	Murrieta	58.46	318	⇑P	P	11 42 52.3	-0.1
	baz=59						
MSU	Marysvale	58.51	325	eP	P	11 42 51.5	-1.1
MSU				e	pP	11 42 59.1	-2.1
T13A	Saint George	58.51	323	⇓P	P	11 42 52.6	-0.1
	baz=59						
U12A	Valley of Fire	58.51	322	⇑P	P	11 42 52.8	0.0
	baz=59						
S14A	Cedar City	58.57	324	⇓P	P	11 42 53.3	+0.2
	baz=59						
V11A	Goodsprings	58.69	321	⇓P	P	11 42 53.6	-0.4
	baz=59						
TUQ	Turquoise Mtn.	58.75	320	⇑P	P	11 42 54.1	-0.3
	baz=59						
GSC	Goldstone	59.23	319	⇓P	P	11 42 58.2	+0.4
	baz=59						
MPU	Maple Canyon	59.25	327	eP	P	11 42 57.9	+0.1
	5.9nm,0.9s,mb4.6						
JLU	Jordanelle	59.56	327	eP	P	11 42 59.4	-0.5
R12A	Pony Springs,	59.79	323	P	P	11 43 02.3	+0.8
	baz=60,SNR=6.7						
LRMC	Laurel Mountai	59.91	319	⇓P	P	11 43 02.3	-0.1
	baz=60						
FURC	Furnace Creek,	59.98	320	P	P	11 43 03.3	+0.3
	baz=60,SNR=5.8						
DUG	Dugway	60.02	326	eP	P	11 43 03.0	-0.1
	11nm,1.0s,mb4.8						
DUG	Dugway	60.02	326	P	P	11 43 03.5	+0.4
	baz=60,SNR=11						
S11A	Rachel	60.03	322	⇓P	P	11 43 03.5	+0.3
	baz=60						
MPMC	Manual Prospec	60.13	320	⇑P	P	11 43 03.9	-0.1
	baz=60						
BW06	Boulder Array	60.16	330	eP	P	11 43 02.9	-1.1
	3.0nm,1.2s,mb4.2						
PDAR	Pinedale Array	60.16	330	P	P	11 43 02.4	-1.6
	1.2nm,0.9s,mb3.9,baz=134,slow=8.5,SNR=8.1						
PDAR				pP	pP	11 43 07.9	-4.8
	1.8nm,0.8s,baz=148,slow=8.7,SNR=8.2						
HWUT	Hardware Ranch	60.34	328	eP	P	11 43 04.8	-0.5
	7.0nm,0.7s,mb4.8						
HWUT				e		11 43 09.3	
Q12A	Willow Creek R	60.39	324	⇓P	P	11 43 05.9	+0.2
	baz=60						
ISA	Isabella	60.53	319	⇓P	P	11 43 06.5	-0.2
	baz=61						
SPUT	South Promonto	60.60	327	eP	P	11 43 06.3	-0.7
SPUT				e		11 43 11.5	
GRAC	Grapevine Rang	60.63	321	⇓P	P	11 43 07.2	-0.2
	baz=61						
M15A	Larsen Ranch,	60.70	327	⇓P	P	11 43 07.9	+0.2
	baz=61						
P12A	McGill	60.72	324	P	P	11 43 08.5	+0.6
	baz=61,SNR=8.8						
S10A	Tonopah Range,	60.73	322	P	P	11 43 08.6	+0.6
	baz=61,SNR=5.1						
CWC	Cottonwood Cre	60.74	320	⇓P	P	11 43 08.0	-0.1
	baz=61						
Q11A	Duckwater	60.75	323	P	P	11 43 08.4	+0.3
	baz=61,SNR=7.2						
R10A	Warm Springs	60.78	322	⇓P	P	11 43 08.5	+0.2
	baz=61						
S09A	Goldfield	60.99	321	⇑P	P	11 43 09.9	+0.1
	baz=61						
VES	Vestal, Richgr	61.03	319	⇓P	P	11 43 10.2	+0.1
	baz=61						
ULM	Lac du Bonnet	61.10	344	P	P	11 43 07.8	-2.5
	4.5nm,0.8s,mb4.7,baz=156,slow=5.2,SNR=10						
ULM				pP	pP	11 43 13.3	-5.6
	4.8nm,0.7s,baz=145,slow=7.0,SNR=9.1						
Q10A	Clear Creek Ra	61.18	323	⇑P	P	11 43 11.0	0.0
	baz=61						
M14A	Sheep Mountain	61.22	327	⇑P	P	11 43 10.9	-0.3
	baz=61,SNR=7.8						
R09A	Tonopah	61.22	322	⇑P	P	11 43 11.4	+0.1
	baz=61						
N13A	Wendover, West	61.25	326	⇑P	P	11 43 11.5	0.0
	baz=61						
LOHW	Long Hollow	61.30	330	eP	P	11 43 10.7	-1.1
	3.5nm,0.8s,mb4.5						
SMMC	Simmler	61.33	318	⇑P	P	11 43 12.1	0.0
	baz=61						
RCTC	Rector, Farmer	61.41	319	⇓P	P	11 43 12.5	-0.2
	baz=62						
S08C	White Mtn Res	61.44	321	⇓P	P	11 43 13.1	+0.2
	baz=62						
HELL	Mitchell Peak,	61.49	319	⇓P	P	11 43 13.2	0.0
	baz=62						
M13A	Montello	61.57	326	⇓P	P	11 43 13.5	-0.1
	baz=62						
O11A	Cowboy Ranch,	61.59	324	⇓P	P	11 43 13.8	0.0
	baz=62						
K14A	Jones Ranch, D	61.85	328	⇓P	P	11 43 15.4	-0.1
	baz=62						
L13A	Double Diamond	61.95	327	P	P	11 43 17.1	+1.0
	baz=62,SNR=8.7						
NVAR	Mina Array Bea	62.09	321	P	P	11 43 16.4	-0.8
NVAR	Mina Array Bea	62.09	321	P	P	11 43 16.4	-0.8
	1.2nm,0.8s,mb4.0,baz=129,slow=7.2,SNR=4.7						
Q08A	Gabbs	62.13	322	⇓P	P	11 43 17.3	-0.2
	baz=62						
O10A	Cortez Mining,	62.18	324	⇓P	P	11 43 18.1	+0.3
	baz=62						
YMR	Madison River	62.25	331	eP	P	11 43 19.3	+1.1
	4.7nm,0.8s,mb4.7						
YMR				e		11 43 23.4	
DGMT	Dagmar	62.29	338	eP	P	11 43 17.9	-0.4
	17nm,0.8s,mb5.2						
R07C	Lee Vining	62.35	321	P	P	11 43 19.6	+0.7
	baz=62,SNR=5.4						
O09A	Fish Creek Ran	62.51	323	⇑P	P	11 43 20.0	+0.1
	baz=63						
L12A	House Creek Ra	62.57	326	⇑P	P	11 43 20.6	+0.3
	baz=63						
QLMT	Earthquake Lak	62.59	331	eP	P	11 43 21.1	+0.6
S05C	Merced	62.73	319	⇓P	P	11 43 21.6	+0.1
	baz=63						
S06C	San Francisco	62.73	320	P	P	11 43 21.7	+0.2
	baz=63,SNR=5.7						
K12A	Draper Farm, C	62.84	327	P	P	11 43 22.4	+0.3
	baz=63,SNR=5.3						
R06C	Coleville	62.87	321	⇑P	P	11 43 22.9	+0.5
	baz=63						
J13A	Cove Ranch, Pi	62.97	328	⇑P	P	11 43 22.5	-0.4
	baz=63						
L11A	Cat Creek Ranc	62.99	326	⇓P	P	11 43 23.0	-0.1
	baz=63						
N09A	Rock Creek Ran	63.14	324	⇓P	P	11 43 24.2	0.0
	baz=63						
PACP	Pacheco Peak	63.16	318	⇑P	P	11 43 24.0	-0.3
	baz=63						
CMB	Columbia Colle	63.17	320	⇑P	P	11 43 24.2	-0.2
	baz=63						
HLID	Hailey	63.21	328	eP	P	11 43 24.5	0.0
HLID				e		11 43 29.0	
HLID	Hailey	63.21	328	⇑P	P	11 43 24.8	+0.3
	baz=63						
BOZ	Bozeman (W)	63.29	331	⇑P	P	11 43 25.3	+0.3
	baz=63						
MCMT	McKenzie Canyo	63.29	330	eP	P	11 43 25.6	+0.5
MCMT				e		11 43 31.4	
I13A	Wildhorse Cree	63.30	328	⇑P	P	11 43 25.1	0.0
	baz=63						
L10A	Juniper Basin	63.33	325	⇑P	P	11 43 25.5	+0.1
	baz=64						
G15A	Dillon	63.35	330	⇓P	P	11 43 25.6	+0.1
	baz=64						
R05C	Kirkwood Meado	63.37	321	⇑P	P	11 43 25.8	+0.1
	baz=64						
O07A	Toulon	63.51	323	⇓P	P	11 43 26.6	0.0
	baz=64						
WCN	Washoe City	63.52	321	P	P	11 43 27.4	+0.6
	baz=64,SNR=6.2						
K11A	Parker Ranch,	63.55	326	⇑P	P	11 43 27.0	+0.2
	baz=64						
R04C	Big Horse Ranc	63.65	320	⇓P	P	11 43 27.9	+0.4
	baz=64						
LAVA	Lava Cap Winer	63.81	320	⇑P	P	11 43 28.7	0.0
	baz=64						
H13A	Challis	63.82	329	⇑P	P	11 43 28.7	+0.1
	baz=64						
F15A	Butte	63.84	331	⇑P	P	11 43 28.5	-0.1
	baz=64						
MFID	Camas Ranch	63.86	327	P	P	11 43 29.2	+0.3
	baz=64,SNR=9.7						
G14A	Jackson	63.89	330	⇑P	P	11 43 29.0	0.0
	baz=64						
K10A	MacKenzie Ranc	64.01	326	⇓P	P	11 43 29.9	0.0
	baz=64						
M08A	Happy Creek Ra	64.02	324	⇑P	P	11 43 29.9	-0.1
	baz=64						
O06A	Flanigan	64.09	322	⇑P	P	11 43 30.3	-0.2
	baz=64						
H12A	Diamond D Ranc	64.12	328	P	P	11 43 30.4	-0.1
	baz=64,SNR=8.2						
G13A	Cobalt	64.17	329	⇑P	P	11 43 31.1	+0.2
	baz=64						
EGMT	Eagleton	64.20	334	⇑P	P	11 43 30.7	-0.3
	baz=64						
BEKR	Beckwourth	64.24	321	⇑P	P	11 43 31.2	-0.2
	baz=64						
F14A	Wisdom	64.25	330	⇓P	P	11 43 31.6	+0.3
	baz=64						
I11A	Placerville	64.27	327	P	P	11 43 31.4	-0.2
	baz=64,SNR=5.2						
Q04C	Lincoln	64.27	320	⇓P	P	11 43 31.2	-0.4
	baz=64						
E15A	Deer Lodge	64.33	331	⇓P	P	11 43 32.0	+0.1
	baz=64						
J10A	Berg Farm, Mel	64.38	326	⇑P	P	11 43 32.1	-0.1
	baz=64						
K09A	Rome	64.44	325	P	P	11 43 32.9	+0.2
	baz=65,SNR=21						
M07A	Soldier Meadow	64.44	323	⇑P	P	11 43 32.5	-0.3
	baz=65						
N06A	Buffalo Meadow	64.45	323	P	P	11 43 32.6	-0.2
	baz=65,SNR=11						
L08A	Fields	64.47	325	⇑P	P	11 43 32.8	-0.1
	baz=65						
Q03C	Winters	64.56	320	⇑P	P	11 43 33.5	0.0
	baz=65						
O05C	Quincy	64.64	321	⇑P	P	11 43 34.0	0.0
	baz=65						
F13A	Darby	64.71	330	⇑P	P	11 43 34.4	+0.1
	baz=65						
E14A	Clinton	64.74	331	⇑P	P	11 43 34.7	+0.1
	baz=65						
ORV	Oroville	64.76	321	P	P	11 43 35.2	+0.4
	baz=65,SNR=10						
J09A	Fry Pan Ranch,	64.88	326	⇑P	P	11 43 35.6	+0.1
	baz=65						
K08A	Mann Creek Ran	64.89	325	⇓P	P	11 43 35.4	-0.2
	baz=65						
ELFS	Eagle Lake Fie	64.91	322	⇓P	P	11 43 35.8	0.0
	baz=65						
L07A	Adell	64.94	324	⇓P	P	11 43 36.0	+0.1
	baz=65						
O04C	Chester	64.95	322	⇓P	P	11 43 36.1	0.0
	baz=65,SNR=7.7						
E13A	Victor	65.10	330	⇑P	P	11 43 37.1	+0.3
	baz=65						
M06C	Likely Place G	65.11	323	⇓P	P	11 43 37.0	-0.1
	baz=65						
H10A	Noah’s Angus R	65.14	327	⇓P	P	11 43 37.2	0.0
	baz=65						
D14A	Greenough	65.22	331	⇑P	P	11 43 37.8	+0.1
	baz=65						
I09A	Lost Marbles R	65.27	326	⇓P	P	11 43 37.7	-0.3
	baz=65						
J08A	Circle Bar Ran	65.28	325	⇑P	P	11 43 38.0	-0.1
	baz=65						
MOD	Modoc	65.43	323	⇓P	P	11 43 39.1	0.0
	baz=66						
HATC	Hat Creek Radi	65.48	322	⇑P	P	11 43 39.7	+0.3
	baz=66						
GASB	Alder Springs	65.59	320	⇑P	P	11 43 40.1	-0.1
	baz=66						
M05C	Lookout	65.61	322	⇑P	P	11 43 40.3	0.0
	baz=66						
D13A	Huson	65.69	331	⇑P	P	11 43 41.0	+0.3
	baz=66						
F11A	Grangeville	65.70	329	⇑P	P	11 43 41.2	+0.4
	baz=66,SNR=5.1						
L05A	Lakeview	65.83	323	⇓P	P	11 43 42.0	+0.2
	baz=66						
E11A	Bogner Ranch,	66.05	329	⇑P	P	11 43 42.9	-0.1
	baz=66						
D12A	Red Ives Fores	66.10	330	⇓P	P	11 43 43.5	+0.2
	baz=66						
M03C	McCloud	66.15	322	⇓P	P	11 43 43.3	-0.4
	baz=66						
C13A	Hot Springs	66.16	331	⇓P	P	11 43 44.0	+0.3
	baz=66						
J06A	Christmas Vall	66.17	325	⇑P	P	11 43 43.9	0.0
	baz=66						
M04C	Macdoel	66.28	322	⇑P	P	11 43 44.5	-0.1
	baz=66						
K05A	Summer Lake	66.28	324	⇓P	P	11 43 45.1	+0.5
	baz=66						
F10A	Beach Ranch, E	66.31	328	⇓P	P	11 43 45.0	+0.3
	baz=66						
I07A	Izee	66.32	326	⇑P	P	11 43 45.5	+0.7
	baz=66,SNR=5.4						
F09A	S2 Ranch, Elgi	66.50	328	⇓P	P	11 43 46.5	+0.6
	baz=67,SNR=7.1						
D11A	Klaveano Farm,	66.58	330	⇑P	P	11 43 46.7	+0.2
	baz=67						
E10A	Myers Farm, Un	66.60	329	⇓P	P	11 43 46.6	+0.1
	baz=67						
I06A	Prineville	66.63	325	⇓P	P	11 43 46.9	+0.1
	baz=67						
H07A	Lands Inn, Kim	66.67	326	⇑P	P	11 43 47.7	+0.6
	baz=67						
J05A	Fort Rock	66.82	324	⇓P	P	11 43 48.5	+0.5
	baz=67						
WALA	Waterton Lakes	66.83	332	P	P	11 43 48.0	+0.1
	5.6nm,0.8s,mb4.7						
WALA				e		11 43 52.3	
D10A	Wagner Farm, O	67.06	329	⇓P	P	11 43 49.4	-0.1
	baz=67,SNR=5.9						
E09A	Wood Farm, Sta	67.15	328	⇑P	P	11 43 49.6	-0.5
	baz=67						
H06A	Lindquist Farm	67.19	326	⇑P	P	11 43 50.3	0.0
	baz=67						
B12A	Libby	67.20	331	⇓P	P	11 43 51.0	+0.7
	baz=67						
B11A	Sandpoint	67.55	331	⇓P	P	11 43 52.8	+0.3
	baz=68						
C10A	Spilker Farm,	67.59	330	⇑P	P	11 43 53.1	+0.3
	baz=68						
D09A	Jones Farm, Ri	67.59	329	⇑P	P	11 43 53.0	+0.2
	baz=68						
H05A	Madras	67.64	325	⇑P	P	11 43 53.5	+0.3
	baz=68						
F07A	Phinny Hill Vi	67.70	327	⇓P	P	11 43 54.1	+0.6
	baz=68						
NEW	Newport	67.80	330	eP	P	11 43 53.7	-0.4
	3.8nm,0.8s,mb4.5						
NEW				e		11 43 58.7	
K02A	Glendale	67.84	323	⇑P	P	11 43 54.5	-0.1
	baz=68						
A11A	Hall Mountain,	67.91	331	⇑P	P	11 43 55.2	+0.5
	baz=68						
G05A	Wamic	68.05	326	⇓P	P	11 43 56.0	+0.2
	baz=68						
E07A	Sunnyside	68.08	327	⇓P	P	11 43 56.0	0.0
	baz=68						
J02A	Umpqua	68.24	323	⇑P	P	11 43 56.8	-0.2
	baz=68						
C08A	Higginbotham F	68.45	329	⇑P	P	11 43 58.6	+0.4
	baz=69						
A10A	Northport	68.50	331	⇑P	P	11 43 58.6	+0.2
	baz=69						
FCC	Fort Churchill	68.50	349	eP	P	11 43 56.6	-1.7
	8.0nm,1.2s,mb4.5						
FCC				e		11 44 01.4	
D07A	Quincy	68.55	328	⇑P	P	11 43 59.3	+0.5
	baz=69						
E06A	Yakima	68.67	327	⇑P	P	11 43 59.9	+0.3
	baz=69						
C07A	Waterville	68.91	328	⇑P	P	11 44 01.2	+0.1
	baz=69						
B08A	Colville Reser	68.97	329	⇑P	P	11 44 01.8	+0.4
	baz=69						
A09A	Danville	69.00	330	⇑P	P	11 44 01.6	0.0
	baz=69						
A08A	Turner Farm, O	69.32	330	⇑P	P	11 44 03.8	+0.2
	baz=70						
EDM	Edmonton	69.62	336	eP	P	11 44 03.6	-1.7
EDM				e		11 44 08.9	
YKA	Yellowknife Ar	76.96	342	P	P	11 44 47.1	-1.3
	0.8nm,0.8s,mb3.7,baz=137,slow=6.5,SNR=16						
YKA				pP	pP	11 44 52.4	-5.0
	2.0nm,0.7s,baz=138,slow=6.2,SNR=28						
TORD	Torodi Ar. Bea	77.64	75	P	P	11 44 51.4	-2.0
	0.9nm,0.8s,mb3.7,baz=285,slow=5.7,SNR=4.6						
TORD				pP	pP	11 44 57.4	-4.9
	0.9nm,0.6s,baz=264,slow=2.7,SNR=5.7						
INK	Inuvik	86.72	341	eP	P	11 45 38.5	-1.2
INK				e		11 45 43.1	
AFI	Afiamalu	95.98	255	LR	LR	12 19 19.3	
	comp=Z,132nm,18.5s,MS4.4,baz=232,slow=29						
AKTO	Aktyubinsk	121.74	34	PKP	PKPdf	11 51 50.0	-0.2
	2.0nm,1.1s,baz=273,slow=5.0,SNR=5.2						
AKTO				pPKP	pPKPdf	11 51 55.4	-4.0
	1.0nm,0.5s,baz=10,slow=2.3,SNR=4.6						
ZALV	Zalesovo Beam	130.93	17	PKP	PKPdf	11 52 07.0	-0.6
	1.2nm,0.6s,baz=305,slow=3.1,SNR=7.1						
ZALV				pPKP	pPKPdf	11 52 12.2	-4.6
	2.6nm,0.7s,baz=304,slow=2.9,SNR=9.7						
MK31	Makanchi Array	136.13	24	ePKPdf	PKPdf	11 52 15.9	-1.7
MKAR	Makanchi Array	136.13	24	PKP	PKPdf	11 52 17.1	-0.6
	0.6nm,0.8s,baz=323,slow=1.8,SNR=6.4						
ASAR	Alice Springs	138.66	220	PKhKP		11 52 17.9	
	0.4nm,0.8s,baz=118,slow=1.7,SNR=5.5						
ASAR				PKP	PKPdf	11 52 22.1	-1.0
	0.4nm,0.8s,baz=134,slow=2.0,SNR=5.7						
SONM	Songino Array	140.24	0	PKP	PKPdf	11 52 23.8	-1.3
	0.5nm,0.9s,baz=311,slow=2.8,SNR=4.1						
WMQ	Urumqi	140.69	22	ePKP	PKPdf	11 52 26.3	+0.2
WRA	Warramunga Arr	140.97	224	PKhKP		11 52 21.0	
	0.2nm,0.8s,baz=134,slow=2.8,SNR=6.6						
WRA				PKP	PKPdf	11 52 26.4	-0.9
	0.6nm,0.6s,baz=139,slow=1.5,SNR=9.9						
HHC	Hu-ho-hao-te	146.91	353	ePKP	PKPdf	11 52 33.8	-3.2
HHC				APKP		11 52 44.1	
HHC				XPKP		11 52 48.1	
HHC				PP	PP	11 56 03.4	+1.5
HHC				PKS		11 56 08.0	
HHC				SKKS	SKKSac	12 02 49.3	-3.9
HHC				SS	SS	12 14 58.3	-1.0
HHC				PP	PP		
	comp=Z,158nm,7.1s						
HHC				LR	LR		
	comp=N,426nm,54.1s,MS5.0						
HHC				LR	LR		
	comp=E,437nm,53.1s,MS5.0						
HHC				LR	LR		
	comp=Z,268nm,53.1s,MS4.6						
FITZ	Fitzroy Crossi	147.91	216	PKPbc	PKPbc	11 52 41.6	-0.8
	comp=Z,2.1nm,0.7s,baz=192,slow=7.7,SNR=8.3						
LZH	Lanzhou	151.88	4	ePKP	PKPdf	11 52 48.5	+3.3
LZH				LR	LR		
	comp=E,29nm,19.5s						
LZH				LR	LR		
	comp=Z,56nm,20.4s,MS4.4						
NJ2	Nanjing	153.36	336	ePKP	PKPdf	11 52 48.3	+0.9
CD2	Chengdu	157.01	6	ePKP	PKPdf	11 52 51.3	-1.1
CD2				PP	PP	11 57 03.0	+3.5
CD2				SKS	SKSdf	11 59 52.0	-4.9
CD2				SKKS	SKKSac	12 03 46.4	-2.2
CD2				PP	PP		
	comp=Z,90nm,8.2s						
CD2				LR	LR		
	comp=N,150nm,18.8s						
CD2				LR	LR		
	comp=Z,160nm,22.4s,MS4.8						
GYA	Guiyang	161.58	359	ePKP	PKPdf	11 52 56.3	-1.6
GYA				PKP2	PKPab	11 53 43.4	+1.0
GYA				PKS		11 56 28.4	
GYA				PP	PP	11 57 27.8	+3.5
GYA				PP	PP		
	comp=Z,100nm,8.4s						
KMI	Kunming	162.56	11	PKP	PKPdf	11 52 58.1	-0.8

IDC 15 11:49:34.1±1.9, 2131S×6747W, h164^{km}±14^{km}, mb3.5/5, mb1 3.8/8, mb1mx3.6/17, mbtmp3.6/8, Error ellipse: s-maj=25.8km s-min=17.4km az=69.0, Chile-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LPAZ	La Paz	5.04	353	P	Pn	11 50 50.6	+2.3
	22nm,0.3s,baz=159,slow=7.6,SNR=270						
LPAZ				S	Sn	11 51 47.3	+1.0
	baz=131,slow=24,SNR=0.8						
SIV	San Ignacio	8.05	50	P	Pn	11 51 27.6	-0.5
	3.2nm,0.3s,baz=255,slow=9.8,SNR=42						
SIV				S	Sn	11 52 47.0	-11
	1.1nm,0.3s,baz=246,slow=15,SNR=3.3						
CFAA	Coronel Fontan	10.28	184	P	Pn	11 51 56.7	-0.7
	0.2nm,0.3s,baz=0.9,slow=12,SNR=9.6						
TXAR	Lajitas Array	61.25	324	P	P	11 59 32.2	+0.2
	0.3nm,0.8s,baz=164,slow=11,SNR=3.3						
PDAR	Pinedale Array	74.62	329	P	P	12 00 55.3	+0.2
	0.4nm,0.6s,baz=122,slow=8.2,SNR=7.7						
ULM	Lac du Bonnet	75.55	342	P	P	12 00 59.5	-0.8
	0.9nm,0.4s,baz=162,slow=8.0,SNR=4.9						
TORD	Torodi Ar. Bea	76.03	70	P	P	12 01 04.0	+0.2
	1.6nm,0.5s,baz=254,slow=5.4,SNR=22						
YKA	Yellowknife Ar	91.46	340	P	P	12 02 21.2	+0.1
	1.4nm,0.6s,baz=133,slow=4.4,SNR=41						
ASAR	Alice Springs	130.69	206	PKP	PKPdf	12 08 26.5	+0.2
	0.2nm,0.5s,baz=133,slow=1.9,SNR=3.4						
ASAR				SKPbc	SKPbc	12 11 34.0	-1.0
	0.5nm,0.8s,baz=144,slow=3.4,SNR=4.5						
WRA	Warramunga Arr	133.78	209	PKP	PKPdf	12 08 32.6	+0.4
	0.2nm,0.5s,baz=163,slow=1.8,SNR=8.4						
WRA				SKPbc	SKPbc	12 11 44.9	-1.0
	0.2nm,0.5s,baz=147,slow=3.1,SNR=4.7						

ZALV	Zalesovo Beam	141.21	26	PKP	PKPdf	12 08 46.0	+1.2
	0.7nm,0.4s,baz=289,slow=4.5,SNR=3.8						
MKAR	Makanchi Array	144.69	37	PKP	PKPdf	12 08 50.5	-0.7
	0.7nm,0.4s,baz=315,slow=3.6,SNR=13						
SONM	Songino Array	153.08	9	PKPbc	PKPbc	12 09 12.6	+0.5
	0.3nm,0.5s,baz=235,slow=1.7,SNR=3.1						

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*MOS **15** 11:58:57.3±1.6, 37.00N×72.15E, h174^{km}, mb4.0/3, Error ellipse: s-maj=21.5km s-min=9.9km az=85.3*
*ISCJB **15** 11:59:03.8±0.5, 37.57N±0.03×72.20E±0.06, h190^{km}±6^{km}, mb3.7/7, Error ellipse: s-maj=8.2km s-min=5.5km az=10.4*
*IDC **15** 11:59:03.5±5.5, 37.35N×72.17E, h188^{km}±48^{km}, mb3.4/6, mb1 3.5/9, mb1mx3.2/23, mbtmp3.4/9, Error ellipse: s-maj=38.2km s-min=21.8km az=167.0*
*NEIC **15** 11:59:04.3±0.8, 37.52N×72.18E, h187^{km}±8^{km}, mb4.5/5, Error ellipse: s-maj=17.5km s-min=8.4km az=128.0*
*NNC **15** 11:59:10.1±6.2, 38.02N×72.19E, h215^{km}±83^{km}, mb2.5, mpv3.3, Error ellipse: s-maj=65.1km s-min=34.2km az=13.0*
ISC 15 11:59:04.8±0.5, **37.59N**±0.04×**72.15E**±0.07, **h180**^{km}±5^{km}, **n44**, σ**0^{s}.97**/57, **mb3.7**/7, **4C, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	3.95	221	*e*Pn	Pn	12 00 05.3	+0.1
KBL				*e*S	Sn	12 00 51.8	-0.6
AML	Almayashu	4.69	14	P	Pn	12 00 15.3	+0.7
	SNR=73						
AML	Almayashu	4.69	14	*e*Pn	Pn	12 00 15.2	+0.6
AML				*e*S	Sn	12 01 08.3	-1.2
UCH	Uchtor	4.98	21	P	Pn	12 00 19.2	+0.9
	SNR=55						
UCH	Uchtor	4.98	21	*e*Pn	Pn	12 00 19.0	+0.7
	80nm,0.6s						
UCH				*e*S	Sn	12 01 15.6	-0.5
KZA	Kyzart	5.08	27	P	Pn	12 00 19.8	+0.2
	SNR=16						
EKS2	Erkin-Say	5.22	13	P	Pn	12 00 23.0	+1.5
	SNR=16						
EKS2	Erkin-Say	5.22	13	*e*Pn	Pn	12 00 21.9	+0.5
	28nm,0.6s						
EKS2				*e*S	Sn	12 01 21.6	-0.1
AAK	Ala-Archa	5.35	19	P	Pn	12 00 24.3	+1.1
	SNR=45						
AAK	Ala-Archa	5.35	19	*e*Pn	Pn	12 00 23.0	-0.1
	25nm,0.4s						
AAK				*e*S	Sn	12 01 23.3	-1.5
AAK	Ala-Archa	5.35	19	*e*PN	Pn	12 00 23.0	-0.1
AAK				pmax	pmax		
	comp=Z,25nm,0.4s						
KBK	Karagaybulak	5.50	22	P	Pn	12 00 27.1	+2.1
	SNR=5.8						
ULHL	Ulahol	5.61	33	P	Pn	12 00 26.7	+0.1
	SNR=7.7						
KK31	Karatay Array	5.65	348	⇑P	Pn	12 00 27.8	+0.7
	comp=Z,3.2nm,0.3s,baz=153,slow=12,SNR=84						
KK31				S	Sn	12 01 30.0	-1.9
	comp=Z,18nm,0.3s,baz=165,slow=22,SNR=34						
CHMS	Chumysh	5.76	19	P	Pn	12 00 29.7	+1.2
	SNR=6.3						
THN	Thein Dam	5.92	149	*e*P	Sn	12 01 28.0	-10
THN				*e*x	Sn	12 01 32.6	-5.6
DLH	Dalhousie	5.93	147	*e*S	Sn	12 01 38.0	-0.5
TKM2	Tokmak 2	5.94	25	P	Pn	12 00 31.4	+0.6
	SNR=11						
TKM2	Tokmak 2	5.94	25	P	Pn	12 00 31.1	+0.2
	comp=Z,1.3nm,0.9s						
TKM2				⇑S	Sn	12 01 37.5	-1.2
	comp=Z,1.8nm,0.9s						
TKM2	Tokmak 2	5.94	25	*e*Pn	Pn	12 00 31.2	+0.4
	comp=Z,15nm,1.0s						
TKM2	Tokmak 2	5.94	25	*e*PN	Pn	12 00 31.3	+0.4
TKM2				pmax	pmax		
	comp=Z,15nm,1.0s						
KUDL	Kundal	10.10	158	*e*S	Sn	12 03 04.9	-13
KUDL				AML	AML	12 03 06.6	
	comp=E,15nm,0.5s						
KUDL				AML	AML	12 03 08.7	
	comp=N,11nm,0.4s						
SONA	Sohna	10.19	155	*e*S	Sn	12 03 05.5	-15
SONA				AML	AML	12 03 11.1	
	comp=N,10nm,0.2s						
SONA				AML	AML	12 03 12.1	
	comp=E,25nm,0.2s						
MKAR	Makanchi Array	11.87	36	P	Pn	12 01 49.2	+0.8
MKAR	Makanchi Array	11.87	36	P	Pn	12 01 49.2	+0.8
	comp=E,0.5nm,0.3s,baz=215,slow=10,SNR=13						
AB31	Akbulak array	14.63	327	P	Pn	12 02 25.5	+2.5
	comp=E,1.8nm,0.4s,baz=134,slow=11,SNR=41						
AB31				⇑S	Sn	12 04 59.4	-6.6
	comp=E,1.0nm,0.4s,baz=139,slow=23,SNR=9.0						
BRVK	Borovoye	15.53	356	*e*P	Pn	12 02 34.0	0.0
	comp=E,2.2nm,0.6s						
BRVK	Borovoye	15.53	356	*e*P	Pn	12 02 34.0	0.0
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKTK	Aktyubinsk	16.34	326	P	Pn	12 02 44.8	+0.9
AKTK				S	S	12 05 40.3	-4.7
AKTO	Aktyubinsk	16.34	326	P	Pn	12 02 44.8	+0.9
	comp=Z,1.3nm,0.3s,baz=118,slow=8.5,SNR=17						
AKTO				S	S	12 05 40.3	-4.7
	comp=Z,0.1nm,0.3s,baz=18,slow=20,SNR=5.5						
ZAL	Zalesovo	18.53	24	P	P	12 03 07.5	+0.1
ZALV	Zalesovo Beam	18.55	24	P	P	12 03 07.5	-0.1
	comp=Z,3.5nm,0.3s,baz=221,slow=10.0,SNR=85						
NVS	Novosibirsk	18.84	20	*e*P	P	12 03 10.1	-0.7
ARU	Arti	20.93	339	⇑*i*P	P	12 03 33.7	+0.5
ARU				*e*		12 04 03.5	
ARU				*e*S	S	12 07 22.5	+6.5
ARU				*e*SS		12 08 00.7	
ARU				pmax	pmax		
	comp=Z,10.0nm,1.9s						
KIV	Kislovodsk	23.13	295	*e*P	P	12 03 50.1	-4.7
KIV				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb3.9						
SONM	Songino Array	26.96	57	P	P	12 04 28.9	-0.5
	comp=Z,0.5nm,0.6s,mb3.4,baz=263,slow=8.9,SNR=4.9						
FINES	FINESS Array B	37.11	325	P	P	12 05 57.1	-0.4
	comp=Z,0.4nm,0.3s,mb3.5,baz=112,slow=8.4,SNR=4.9						
ARCES	ARCESS Array B	40.50	337	P	P	12 06 25.4	-0.2
	comp=Z,0.9nm,0.4s,mb3.8,baz=119,slow=7.9,SNR=19						
NB2	NORSAR Subarra	44.08	322	P	P	12 06 54.1	-0.4
	comp=Z,0.5nm,0.4s,mb3.5,baz=93,slow=7.9						
NOA	NORSAR Array B	44.08	322	P	P	12 06 53.4	-1.2
	comp=Z,0.5nm,0.4s,mb3.5,baz=92,slow=7.7,SNR=3.7						
HABR	Khabarovsk	46.04	55	*e*P	P	12 07 05.1	-5.0
HABR				*e*		12 08 38.4	
HABR				*e*		12 08 58.5	
HABR				*e*S	S	12 13 42.7	+1.2
HABR				*e*		12 16 46.4	
TORD	Torodi Ar. Bea	66.66	269	P	P	12 09 34.3	-2.1
	comp=Z,1.1nm,0.4s,mb4.1,baz=48,slow=6.0,SNR=21						
YKA	Yellowknife Ar	80.11	3	P	P	12 10 53.2	-1.0
YKA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
YKA	Yellowknife Ar	80.11	3	P	P	12 10 53.2	-1.0
	comp=Z,0.6nm,0.4s,mb3.6,baz=351,slow=5.5,SNR=17						

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*CSEM **15** 12:09:18.8±0.4, 29.89N×36.27E, h1^{km}, ML2.5, Error ellipse: s-maj=9.3km s-min=3.7km az=66.0, Mining explosion.*
*GII **15** 12:09:19.8±0.0, 29.87N×36.29E, h0^{km}, ML1.8/1*
*SGS **15** 12:09:20.1, 30.04N×36.28E, h7^{km}*
ISC 15 12:09:19.0±1.6, **29.89N**±0.05×**36.4E**±0.1, **h0**^{km}, **n15**, σ**0^{s}.87**/19, **Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AQBJ	Aqaba	1.15	262	Pg	Pg	12 09 40.9	-0.2
ZFRI	Zfri	1.22	303	Pg	Pg	12 09 42.1	-0.3
ZFRI	Zfri	1.22	303	Pg	Pg	12 09 42.1	-0.3
EIL	Elat	1.25	260	Pg	Pg	12 09 42.6	-0.3
EIL	Elat	1.25	260	Pg	Pg	12 09 42.6	-0.3
PRNI	Paran	1.26	292	Pg	Pg	12 09 42.4	-0.8
PRNI				Sg	Sg	12 10 00.4	+0.9
PRNI	Paran	1.26	292	Pg	Pg	12 09 42.4	-0.8
PRNI				Sg	Sg	12 10 00.4	+0.8
HQLS		1.28	243	P	Pg	12 09 42.5	-0.9
HQLS				S	Sg	12 09 59.5	-0.5
HQLS		1.28	243	P	Pg	12 09 42.5	-0.9
JLOS		1.38	214	P	Pg	12 09 45.2	-0.2
JLOS				S	Sg	12 10 03.7	+0.4
JLOS		1.38	214	P	Pg	12 09 45.2	-0.2
MZDA	Masada	1.66	329	Pn	Pn	12 09 50.4	+1.1
MZDA	Masada	1.66	329	Pn	Pn	12 09 50.4	+1.1
RSHS		2.10	221	P	Pn	12 09 54.5	-0.8
RSHS		2.10	221	S	Sn	12 10 24.4	+2.3

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*ISCJB **15** 12:18:46.6±2.6, 17.2S±0.4×179.0W±0.2, h560^{km}±33^{km}, mb4.0/11, Error ellipse: s-maj=66.5km s-min=18.4km az=154.0*
*IDC **15** 12:18:47.1±3.0, 16.88S×179.12W, h548^{km}±39^{km}, mb3.3/6, mb1 3.6/7, mb1mx3.3/15, mbtmp3.3/7, Error ellipse: s-maj=94.4km s-min=15.9km az=154.0*
ISC 15 12:18:46.2±2.4, **17.2S**±0.4×**179.0W**±0.2, **h542**^{km}±29^{km}, **n14**, σ**0^{s}.52**/15, **mb4.0**/11, **4D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	14.59	248	P	P	12 21 51.0	-0.5
	0.3nm,0.3s,baz=90,slow=19,SNR=3.9						
CTA	Charters Tower	33.05	259	*e*P	P	12 24 37.8	+0.4
	3.5nm,0.8s,mb3.9						
CNB	Canberra Magne	33.47	231	*e*P	P	12 24 40.7	0.0
	29nm,1.7s,mb4.5						
STKA	Stephens Creek	38.53	240	⇓*i*P	P	12 25 22.8	+0.2
	3.7nm,0.5s,mb4.2						
STKA	Stephens Creek	38.53	240	P	P	12 25 22.9	+0.3
	4.4nm,0.4s,mb4.3,baz=91,slow=10.0,SNR=22						
WB2	Warramunga Arr	44.24	259	⇓*i*P	P	12 26 07.5	-0.4
WRA	Warramunga Arr	44.25	259	P	P	12 26 07.7	-0.2
	2.2nm,0.5s,mb3.9,baz=97,slow=7.4,SNR=113						
ASAR	Alice Springs	44.49	254	P	P	12 26 10.1	+0.3
	23nm,0.5s,mb4.9,baz=88,slow=8.1,SNR=578						
ASAR				S	S	12 32 05.2	-0.6
	0.3nm,0.8s,baz=89,slow=14,SNR=5.1						
KAKA	Kakadu	47.07	268	⇓*i*P	P	12 26 30.3	+0.8
	8.5nm,0.2s,mb4.9						
FORT	Forrest	49.85	244	*e*P	P	12 26 49.4	-0.6
	10nm,0.6s,mb4.4						
FITZ	Fitzroy Crossi	52.63	260	⇓*i*P	P	12 27 11.0	+0.7
	2.8nm,0.4s,mb4.0						
TXAR	Lajitas Array	86.05	58	P	P	12 30 30.5	+0.6
	0.2nm,0.6s,mb2.9,baz=225,slow=10,SNR=2.8						
PDAR	Pinedale Array	87.18	44	P	P	12 30 34.8	-0.1
	0.3nm,0.5s,mb3.2,baz=218,slow=4.7,SNR=3.7						
YKA	Yellowknife Ar	93.88	25	P	P	12 31 04.5	-0.9
	0.1nm,0.3s,mb3.5,baz=246,slow=4.1,SNR=3.7						

BJI 15 12:46:18.3, 39.54N×76.90E, h13^{km}, ML3.1, 1C-2D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	0.72	268	PG	Pg	12 46 31.6	-0.6
KSH				SG	Sg	12 46 43.4	+1.7
KSH				Smax			
	comp=N,1μm,0.2s						
KSH				Smax			
	comp=E,3μm,0.6s						
TKM2	Tokmak 2	3.52	344	⇓Pn	Pn	12 47 15.5	+2.9
	comp=E,0.2nm,0.3s						
TKM2				⇓Lg		12 48 08.5	
	comp=E,1.4nm,0.5s						
KK31	Karatay Array	5.98	309	⇑Pn	Pn	12 48 09.0	+22
	comp=E,0.5nm,0.3s,baz=133,slow=18,SNR=5.3						
KK31				Sn	Sn	12 49 24.0	+29
	comp=E,5.3nm,0.7s,baz=127,slow=29,SNR=9.5						

IDC 15 12:51:30.6±4.6, **6.73S×128.10E, h286**^{km}±47^{km}, **mb2.8**/1, **mb1 3.3**/4, **mb1mx3.0**/15, **mbtmp3.1**/4, **Error ellipse: s-maj=66.7km s-min=16.8km az=67.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.56	192	*e*P	Pn	12 54 08.7	+0.7
	3.0nm,0.4s						
FITZ	Fitzroy Crossi	11.56	192	P	Pn	12 54 08.9	+0.9
	0.4nm,0.3s,baz=13,slow=8.6,SNR=18						
FITZ				S	S	12 56 15.0	-2.0
	0.1nm,0.3s,baz=288,slow=20,SNR=2.1						
WRA	Warramunga Arr	14.46	156	P	Pn	12 54 42.9	-0.2
	0.5nm,0.3s,baz=332,slow=12,SNR=40						
WRA				S	S	12 57 17.5	-4.4
	0.1nm,0.3s,baz=337,slow=22,SNR=7.6						
ASAR	Alice Springs	17.74	162	P	P	12 55 19.4	+1.1
	1.0nm,0.3s,baz=343,slow=12,SNR=128						
ASAR				S	S	12 58 27.6	+0.2
	0.1nm,0.3s,baz=336,slow=22,SNR=7.7						
MKAR	Makanchi Array	66.98	328	P	P	13 01 52.7	-0.2
	0.2nm,0.5s,baz=124,slow=7.8,SNR=3.2						

IDC 15 13:24:11.5±41.0, **7.94N×126.78E, h0**^{km}, **mb3.5**/3, **mb1 3.7**/3, **mb1mx3.3**/19, **mbtmp3.5**/3, **Error ellipse: s-maj=703.4km s-min=237.2km az=157.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	28.68	165	P	P	13 30 10.2	-0.3
	0.6nm,0.5s,baz=345,slow=10,SNR=21						
ASAR	Alice Springs	32.17	168	P	P	13 30 41.8	+0.6
	0.2nm,0.4s,baz=355,slow=7.5,SNR=10						
STKA	Stephens Creek	42.04	161	P	P	13 32 04.7	-0.4
	0.5nm,0.4s,baz=346,slow=12,SNR=2.4						

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*ISCJB **15** 13:38:44.2±0.6, 53.97S±0.07×159.2E±0.1, h10^{km}, mb4.5/8, MS4.1/7, Error ellipse: s-maj=13.1km s-min=8.0km az=41.7*
*IDC **15** 13:38:44.2±0.9, 54.15S×158.83E, h0^{km}, mb4.5/7, mb1 4.6/8, mb1mx4.6/11, mbtmp4.5/8, ML4.7/1, MS4.1/9, Ms1 4.1/9, ms1mx3.9/14, Error ellipse: s-maj=42.0km s-min=21.2km az=76.0*
ISC 15 13:38:46.1±0.6, **54.02S**±0.07×**159.1E**±0.1, **h10**^{km}, **n38**, σ**1^{s}.05**/26, **mb4.5**/8, **MS4.1**/8, **Macquarie Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APZ	The Paps	9.17	42	PN	Pn	13 40 56.5	-1.8
APZ				SN	Sn	13 42 32.3	-9.1
SYZ	Scrubby Hill	9.87	45	PN	Pn	13 41 07.2	-0.7
SYZ				SN	Sn	13 42 50.9	-7.8
WHZ	Wether Hill Ro	9.93	39	PN	Pn	13 41 07.2	-1.6
DCZ	Deep Cove	10.01	35	PN	Pn	13 41 14.3	+4.5
MLZ	Mavora Lakes	10.48	38	PN	Pn	13 41 15.9	-0.4
TUZ	Tuapeka	10.54	44	PN	Pn	13 41 17.2	+0.1
EAZ	Earnscleugh	11.01	41	PN	Pn	13 41 24.6	+1.1
ODZ	Otahua Downs	11.70	45	PN	Pn	13 41 33.5	+0.6
JCZ	Jackson Bay	11.79	36	PN	Pn	13 41 37.3	+3.0
RPZ	Rata Peaks	12.96	42	Pn	Pn	13 41 52.6	+2.4
	3.8nm,0.3s,baz=215,slow=3.6,SNR=17						
RPZ				LR	LR	13 45 41.4	
	comp=Z,337nm,19.8s,baz=46,slow=32						
CNB	Canberra Magne	19.89	336	*e*P	Pn	13 43 26.4	+7.3
	9.5nm,0.8s						
URZ	Urewera	20.02	45	LR	LR	13 51 51.4	
	comp=Z,485nm,18.2s,MS3.9,baz=340,slow=39						
VNDA	Vanda	23.63	178	P	P	13 43 56.5	-0.5
	4.5nm,1.1s,mb3.8,baz=14,slow=12,SNR=2.0						
VNDA				LR	LR	13 51 27.7	
	comp=Z,588nm,19.4s,MS4.1,baz=360,slow=32						
STKA	Stephens Creek	25.42	323	*e*P	P	13 44 14.4	+0.7
	4.6nm,0.9s,mb4.0						
STKA	Stephens Creek	25.42	323	P	P	13 44 14.7	+1.0
	5.0nm,0.8s,mb4.1,baz=140,slow=11,SNR=14						
STKA				LR	LR	13 52 40.1	
	comp=Z,415nm,19.2s,MS4.0,baz=309,slow=33						
CTA	Charters Tower	35.26	339	*e*P	P	13 45 41.3	+0.5
	14nm,1.1s,mb4.8						
CTA	Charters Tower	35.26	339	P	P	13 45 41.5	+0.8
	15nm,1.0s,mb4.9,baz=174,slow=11,SNR=11						
ASAR	Alice Springs	35.71	318	P	P	13 45 44.5	0.0
	7.4nm,0.9s,mb4.6,baz=155,slow=8.3,SNR=64						
ASAR				PcP	PcP	13 48 11.6	-1.1
	2.2nm,0.8s,baz=146,slow=3.9,SNR=14						
WB2	Warramunga Arr	38.92	321	*e*P	P	13 46 10.8	-1.0
WRA	Warramunga Arr	38.92	321	P	P	13 46 10.9	-1.0
	9.4nm,1.1s,mb4.5,baz=156,slow=7.3,SNR=32						
WRA				PcP	PcP	13 48 21.7	-0.8
	3.3nm,1.0s,baz=163,slow=2.7,SNR=16						
WRA				LR	LR	14 01 52.2	
	comp=Z,663nm,18.3s,MS4.5,baz=155,slow=36						
MAW	Mawson	43.84	213	LR	LR	14 03 35.0	
	comp=Z,142nm,21.1s,MS3.9,baz=281,slow=34						
FITZ	Fitzroy Crossi	44.13	311	*e*P	P	13 46 55.0	+0.4
	9.3nm,0.9s,mb4.5						
FITZ	Fitzroy Crossi	44.13	311	LR	LR	14 04 27.8	
	comp=Z,149nm,18.9s,MS3.9,baz=153,slow=35						
PPT	Papeete	53.58	68	LR	LR	14 07 23.3	
	comp=Z,152nm,20.6s,MS4.0,baz=314,slow=32						
VNA3	Neumayer Olymp	54.79	184	*e*	P	13 48 16.1	+0.8
VNA3				*e*		13 48 21.2	
VNA2	Neumayer--Watz	54.99	185	*e*	P	13 48 17.0	+0.2
	baz=206,slow=3.4						
VNA2				*e*		13 48 22.1	
BOSA	Boshof	88.54	219	P	P	13 51 38.1	-0.8
	1.5nm,0.8s,mb4.4,baz=162,slow=7.0,SNR=4.0						
BOSA				LR	LR	14 25 50.6	
	comp=Z,121nm,18.9s,MS4.3,baz=30,slow=32						
MJAR	Matsushiro Arr	91.97	343	P	P	13 51 54.9	+0.6
	7.2nm,1.1s,mb4.9,baz=186,slow=5.1,SNR=5.3						
MKAR	Makanchi Array	119.59	310	PKP	PKPdf	13 57 33.0	-2.1
	1.0nm,0.7s,baz=108,slow=2.7,SNR=6.0						
YKA	Yellowknife Ar	134.22	40	PKhKP		13 57 48.3	
	0.2nm,0.9s,baz=219,slow=3.5,SNR=3.9						
YKA				PKP	PKPdf	13 58 03.0	+0.6
	0.5nm,0.8s,baz=249,slow=1.3,SNR=8.5						
TORD	Torodi Ar. Bea	135.49	212	PKP	PKPdf	13 58 05.1	-1.2
	1.6nm,0.9s,baz=175,slow=1.5,SNR=7.0						
AKASG	Malin Array Be	149.71	285	PKPbc	PKPbc	13 58 34.1	-0.8
	3.3nm,0.6s,baz=83,slow=2.2,SNR=22						
JOF	Joensuu	152.02	310	*e*p	PKPbc	13 58 38.4	-1.6
	4.8nm,0.7s						
ARCES	ARCESS Array B	153.99	324	PKPbc	PKPbc	13 58 43.8	-0.3
	4.2nm,0.9s,baz=122,slow=1.6,SNR=6.0						
ARCES				PKPab	PKPab	13 58 57.2	-0.5
	5.7nm,0.8s,baz=69,slow=6.6,SNR=9.6						
KAF	Kangasniemi	154.27	307	*e*p	PKPbc	13 58 42.3	-2.6
FINES	FINESS Array B	154.33	306	PKPbc	PKPbc	13 58 44.6	-0.4
	2.6nm,0.7s,baz=111,slow=2.7,SNR=9.9						
FINES				PKPab	PKPab	13 58 59.5	+0.2
	3.0nm,0.9s,baz=72,slow=6.2,SNR=6.1						
GERES	GERESS Array B	157.94	271	PKPab	PKPab	13 59 14.2	-1.1
	0.4nm,0.5s,baz=115,slow=6.3,SNR=4.3						
NOA	NORSAR Array B	161.51	305	PKPab	PKPab	13 59 28.9	-1.5
	1.6nm,0.9s,baz=72,slow=4.6,SNR=3.8						

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*NEIC **15** 13:47:35.3±0.6, 46.15N×152.89E, h10^{km}, mb4.2/4, Error ellipse: s-maj=14.6km s-min=11.0km az=139.0*
*ISCJB **15** 13:47:38.5±1.3, 46.35N±0.09×152.9E±0.1, h41^{km}±10^{km}, mb3.8/17, MS3.6/2, Error ellipse: s-maj=19.8km s-min=7.6km az=137.4*
*MOS **15** 13:47:39.1±1.2, 46.29N×152.87E, h50^{km}, mb4.2/6, Error ellipse: s-maj=14.8km s-min=9.6km az=74.7*
*IDC **15** 13:47:42.3±4.6, 46.20N×152.84E, h64^{km}±42^{km}, mb3.4/13, mb1 3.6/14, mb1mx3.5/23, mbtmp3.4/14, ML3.9/1, MS3.7/2, Ms1 3.7/2, ms1mx2.8/25, Error ellipse: s-maj=21.8km s-min=19.2km az=108.0*
ISC 15 13:47:41.0±1.1, **46.33N**±0.09×**152.9E**±0.1, **h48**^{km}±9^{km}, **n44**, σ**1^{s}.03**/44, **mb3.8**/17, **MS3.6**/2, **2C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	3.69	255	⇑*i*PN	Pn	13 48 35.5	0.0
KUR				*i* S	Sn	13 49 23.0	+5.3
KUR				pmax	pmax		
	comp=N,90nm,0.7s						
KUR				pmax	pmax		
	comp=Z,170nm,0.7s						
KUR				smax			
	comp=N,450nm,0.9s						
KUR				smax			
	comp=E,430nm,0.9s						
SKR	Severo-Kuril's	4.85	25	*e*PN	Pn	13 48 50.0	-1.4
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
YSS	Yuzh-Sakhalins	7.02	279	*e*PN	Pn	13 49 15.3	-5.8
ASAJ	Asahikawa	7.61	257	PN	Pn	13 49 29.8	+0.6
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	7.61	257	P	Pn	13 49 29.8	+0.6
	comp=Z,2.0nm,0.3s,baz=72,slow=28,SNR=17						
PET	Petropavlovsk	7.67	27	*e*Pn	Pn	13 49 28.6	-1.4
PET				*e*Sn	Sn	13 50 54.4	-1.0
PET	Petropavlovsk	7.67	27	*e*PN	Pn	13 49 30.7	+0.7
PET				MLR	MLR		
	comp=Z,100nm,10.0s						
ERM	Erimo	8.23	242	*e*PN	Pn	13 49 38.4	+0.7
MA2	Magadan	13.33	355	*e*Pn	Pn	13 50 48.6	+1.2
	comp=Z,2.7nm,0.6s						
MA2	Magadan	13.33	355	*e*PN	Pn	13 50 48.6	+1.2
MA2				pmax	pmax		
	comp=Z,3.0nm,0.6s						
KSRS	Korea Array	20.54	253	P	P	13 52 15.1	-0.3
	comp=Z,1.6nm,0.9s,baz=59,slow=10,SNR=4.6						
JNU	Nakatsue	21.38	240	LR	LR	14 01 54.5	
	comp=Z,83nm,18.9s,MS3.1,baz=278,slow=40						
BILL	Bilibino	22.84	13	*e*P	P	13 52 40.5	+0.9
BILL				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.4						
SONM	Songino Array	31.34	290	P	P	13 53 55.7	-1.0
	comp=Z,0.4nm,1.0s,mb3.2,baz=74,slow=6.6,SNR=2.7						
COLA	College	36.56	38	*e*P	P	13 54 44.3	+2.6
INK	Inuvik	42.09	32	*e*P	P	13 55 28.7	+1.0
	comp=Z,78nm,1.1s						
MK31	Makanchi Array	47.01	298	*e*P	P	13 56 06.6	-0.6
MKAR	Makanchi Array	47.01	298	P	P	13 56 06.9	-0.4
	comp=Z,0.9nm,0.6s,mb3.9,baz=64,slow=8.4,SNR=10.0						
KURK	Kurchatov	47.48	304	*e*P	P	13 56 09.9	-1.0
	comp=Z,1.5nm,0.5s,mb4.2						
KURK	Kurchatov	47.48	304	*e*P	P	13 56 09.9	-1.0
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
LSA	Lhasa	50.16	273	*e*P	P	13 56 34.0	+2.4
	comp=Z,1.9nm,0.5s,mb4.4						
LSA	Lhasa	50.16	273	*e*P	P	13 56 34.0	+2.3
LSA				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
BRVK	Borovoye	51.06	310	*e*P	P	13 56 37.4	-0.8
	comp=Z,1.2nm,0.6s,mb4.0						
BRVK	Borovoye	51.06	310	*e*P	P	13 56 37.4	-0.7
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
YKA	Yellowknife Ar	51.35	36	P	P	13 56 40.2	0.0
YKA	Yellowknife Ar	51.35	36	P	P	13 56 40.2	0.0
	comp=Z,0.3nm,0.8s,mb3.3,baz=296,slow=7.2,SNR=3.7						
AAK	Ala-Archa	53.90	297	*e*P	P	13 56 58.8	-0.5
	comp=Z,1.5nm,0.7s,mb4.0						
AAK	Ala-Archa	53.90	297	*e*P	P	13 56 58.8	-0.5
AAK				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
ARCES	ARCESS Array B	58.21	341	P	P	13 57 29.6	0.0
	comp=Z,4.5nm,1.1s,mb4.4,baz=34,slow=6.4,SNR=6.6						
AKTO	Aktyubinsk	58.90	312	LR	LR	14 23 21.9	
	comp=Z,136nm,18.8s,MS4.1,baz=330,slow=36						
NVAR	Mina Array Bea	62.76	62	P	P	13 58 02.2	+1.0
	comp=Z,0.3nm,0.4s,mb3.8,baz=300,slow=7.2,SNR=2.8						
FINES	FINESS Array B	64.36	335	*i* P	P	13 58 11.3	-0.1
FINES	FINESS Array B	64.36	335	P	P	13 58 10.8	-0.5
	comp=Z,0.4nm,0.3s,mb3.9,baz=63,slow=6.5,SNR=6.1						
OBN	Obninsk	65.58	326	⇑*i*P	P	13 58 28.6	+9.2
OBN				pmax	pmax		
	comp=Z,34nm,1.1s						
WRA	Warramunga Arr	68.06	199	P	P	13 58 33.2	-2.3
WRA	Warramunga Arr	68.06	199	P	P	13 58 33.2	-2.3
	comp=Z,0.7nm,1.1s,mb3.6,baz=7.5,slow=6.8,SNR=3.1						
NB2	NORSAR Subarra	68.58	341	P	P	13 58 38.6	+0.3
	comp=Z,0.6nm,0.5s,mb3.8,baz=26,slow=6.5						
NOA	NORSAR Array B	68.58	341	P	P	13 58 38.9	+0.6
NOA	NORSAR Array B	68.58	341	P	P	13 58 38.9	+0.6
	comp=Z,1.2nm,0.6s,mb4.0,baz=26,slow=6.3,SNR=4.4						
ASAR	Alice Springs	71.76	198	P	P	13 58 57.6	-0.5
	comp=Z,0.1nm,0.5s,mb3.0,baz=12,slow=6.3,SNR=6.9						
AKASG	Malin Array Be	71.82	326	P	P	13 58 58.2	-0.1
	comp=Z,1.5nm,0.4s,mb4.2,baz=33,slow=6.2,SNR=6.1						
TXAR	Lajitas Array	77.83	60	P	P	13 59 32.9	-0.5
	comp=Z,0.4nm,0.6s,mb3.5,baz=292,slow=3.9,SNR=4.4						
BRTR	Keskin Array B	78.60	317	*i* P	P	13 59 41.0	+3.5
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	78.60	317	P	P	13 59 38.9	+1.3
	comp=Z,0.6nm,0.7s,mb3.6,baz=55,slow=11,SNR=3.8						

IDC 15 14:04:25.1±3.4, **6.60S×154.55E, h0**^{km}, **mb3.4**/3, **mb1 3.6**/3,

mb1mx3.4/14,mbtmp3.5/3,MS3.4/1,Ms1 3.3/1, ms1mx2.5/11,Error ellipse: s-maj=122.4km s-min=36.0km az=117.0,Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**23.68**	**234**	P	P	14 09 38.6	-0.2
	0.8nm,0.7s,baz=56,slow=9.5,SNR=14						
ASAR	**Alice Springs**	**26.11**	**227**	P	P	14 10 01.0	+0.1
	0.3nm,0.7s,baz=60,slow=9.0,SNR=7.3						
STKA	**Stephens Creek**	**27.91**	**204**	LR	LR	14 20 08.4	
	comp=Z,64nm,18.4s,baz=195,slow=34						
MKAR	**Makanchi Array**	**82.82**	**319**	P	P	14 16 52.6	+1.2
	0.4nm,0.6s,baz=101,slow=5.6,SNR=5.5						
TORD	**Torodi Ar. Bea**	**152.49**	**286**	PKPbc	PKPbc	14 24 23.5	-1.0
	0.8nm,0.6s,baz=63,slow=2.8,SNR=6.9						

*NEIC **15** 14:09:14.3,1602N×9751W,h16^{km},MD4.0(MEX),After MEX.*

MEX 15 14:09:14.2±0.8,**1603N×9752W,h24^{km}**±23^{km}**,MD4.0, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	**Pinotepa**	**0.69**	**302**	*i* P	Pb	14 09 25.3	-2.3
PNIG				*i* S	Sb	14 09 33.9	-2.8
VHO	**Vista Hermosa**	**1.28**	**36**	*i* P	Pn	14 09 33.8	-2.8
VHO				*i* S	Sn	14 09 49.2	-3.9
OXX	**Oaxaca**	**1.30**	**36**	*i* P	Pn	14 09 34.0	-2.8
OXX				*i* S	Sn	14 09 49.0	-4.4
HUIG	**Huatulco**	**1.38**	**100**	*i* P	Pn	14 09 36.6	-1.3
HUIG				*i* S	Sn	14 09 51.6	-3.8
HUIG	**Huatulco**	**1.38**	**100**	*i* P	Pn	14 09 36.0	-1.9
HUIG				*i* S	Sn	14 09 51.6	-3.8
UTMO	**Huajuapan**	**1.81**	**351**	*i* P	Pn	14 09 42.6	-1.3
UTMO				*i* S	Sn	14 10 03.9	-2.2
TPIG	**Tehuac#an**	**2.38**	**4**	*e*P	Pn	14 09 51.5	-0.3
TPIG				*i* S	Sn	14 10 17.4	-2.8
CMIG	**Matias Romero**	**2.74**	**67**	*e*P	Pn	14 09 52.5	-4.1
CMIG				*i* S	Sn	14 10 24.0	-5.0
CMIG	**Matias Romero**	**2.74**	**67**	*e*P	Pn	14 09 53.3	-3.3
CMIG				*i* S	Sn	14 10 25.2	-3.8
MEIG	**Mezcala**	**2.76**	**314**	*i* P	Pn	14 09 54.2	-2.7
MEIG				*i* S	Sn	14 10 27.2	-2.3
PLIG	**Platanillo**	**3.02**	**321**	*i* P	Pn	14 10 05.0	+4.5
PLIG				*i* S	Sn	14 10 35.1	-0.8
PLIG	**Platanillo**	**3.02**	**321**	*e*P	Pn	14 09 58.0	-2.6
PLIG				*i* S	Sn	14 10 32.3	-3.6
IIO	**Organos**	**3.73**	**342**	*i* P	Pn	14 10 16.9	+6.7
IIO				*i* S	Sn	14 10 51.6	-1.8

*NNC **15** 14:13:57.2±4.4,3834N×6862E,h0^{km},mb4.7,mpv4.4, Error ellipse: s-maj=37.9km s-min=23.1km az=169.0*
*IDC **15** 14:13:59.3±0.8,3821N×69.17E,h0^{km},mb4.2/17, mb1 4.4/20,mb1mx4.3/28,mbtmp4.3/20,ML4.1/3,MS3.4/3, Ms1 3.4/3,ms1mx3.0/37,Error ellipse: s-maj=18.4km s-min=13.3km az=14.0*
*ISCJB **15** 14:14:03.7±0.7,3840N±003×6921E±004,h40^{km}±7^{km}, mb4.4/41,MS3.6/3,Error ellipse: s-maj=5.9km s-min=4.3km az=162.3*
*MOS **15** 14:14:04.6±1.0,3870N×69.19E,h33^{km},mb4.7/22,Error ellipse: s-maj=8.0km s-min=5.7km az=112.9*
*NEIC **15** 14:14:05.9±0.6,3850N×6920E,h38^{km}±6^{km},mb4.6/22, Error ellipse: s-maj=6.3km s-min=4.6km az=188.0*
*BJI **15** 14:14:07.5,3872N×6970E,h32^{km},mb4.4,ML4.2,Ms4.1, Msz3.9*

ISC 15 14:14:05.6±0.4,**3845N**±003×**6916E**±004,**h37^{km}**±5^{km}, **n174,σ1§18**/193,**mb4.4**/41,**MS3.6**/3,**3C-4D,Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**3.91**	**181**	*e*Pn	**Pn**	**14 15 05.1**	**+2.1**
KBL				*e*Sn	**Sn**	**14 15 42.2**	**-5.4**
KK31	**Karatay Array**	**4.76**	**12**	Pn	**Pn**	**14 15 15.4**	**+0.6**
	28nm,0.3s,baz=201,slow=14,SNR=436						
KK31				Pg	**Pn**	**14 15 28.9**	**+14**
	95nm,0.6s,baz=196,slow=17,SNR=16						
KK31				⇑Lg		14 16 31.0	
	354nm,0.6s,baz=202,slow=30,SNR=9.9						
KK31	**Karatay Array**	**4.76**	**12**	*e*PN	**Pn**	**14 15 15.3**	**+0.6**
KK31				pmax	pmax		
	comp=Z,61nm,0.3s						
KKAR	**Karatay Array**	**4.76**	**12**	*e*PN	**Pn**	**14 15 15.3**	**+0.6**
KKAR				pmax	pmax		
	comp=Z,18nm,0.3s						
AML	**Almayashu**	**5.05**	**42**	P	**Pn**	**14 15 20.6**	**+1.8**
	SNR=35						
AML	**Almayashu**	**5.05**	**42**	*e*Pn	**Pn**	**14 15 19.4**	**+0.7**
EKS2	**Erkin-Say**	**5.48**	**38**	P	**Pn**	**14 15 25.8**	**+1.2**
	SNR=140						
EKS2	**Erkin-Say**	**5.48**	**38**	*e*Pn	**Pn**	**14 15 25.7**	**+1.0**
EKS2				*e*Sn	**Sn**	**14 16 32.0**	**+5.7**
UCH	**Uchtor**	**5.56**	**46**	P	**Pn**	**14 15 27.9**	**+2.1**
	SNR=168						
UCH	**Uchtor**	**5.56**	**46**	*e*Pn	**Pn**	**14 15 25.5**	**-0.3**
	comp=Z,134nm,0.6s						
CHCP	**Chirah Chowk**	**5.82**	**144**	P	**Pn**	**14 15 30.9**	**+1.5**
AAK	**Ala-Archa**	**5.83**	**43**	P	**Pn**	**14 15 31.7**	**+2.3**
	SNR=184						
AAK	**Ala-Archa**	**5.83**	**43**	*e*Pn	**Pn**	**14 15 29.5**	**+0.1**
	comp=Z,114nm,0.6s						
AAK	**Ala-Archa**	**5.83**	**43**	*e*PN	**Pn**	**14 15 29.5**	**+0.1**
AAK				pmax	pmax		
	comp=Z,114nm,0.6s						
KZA	**Kyzart**	**5.90**	**50**	P	**Pn**	**14 15 31.9**	**+1.5**
	SNR=100						
THW	**Thamme Wali**	**6.02**	**159**	P	**Pn**	**14 15 33.4**	**+1.2**
THW				S	**Sn**	**14 16 43.0**	**+3.1**
FRU	**Bishkek**	**6.03**	**42**	*e*PN	**Pn**	**14 15 33.8**	**+1.6**
FRU				*e*		14 15 51.6	
FRU				*e*S	**Sn**	**14 16 48.2**	**+8.3**
FRU				pmax	pmax		
	comp=Z,310nm,1.6s						
FRU				smax			
	comp=E,880nm,1.6s						
KBK	**Karagaybulak**	**6.09**	**45**	P	**Pn**	**14 15 36.1**	**+3.1**
	SNR=74						
CHMS	**Chumysh**	**6.22**	**41**	P	**Pn**	**14 15 35.7**	**+0.9**
	SNR=70						
SBDP	**Sheikh Budin**	**6.28**	**167**	P	**Pn**	**14 15 37.2**	**+1.5**
USP	**Ospenovka**	**6.28**	**38**	P	**Pn**	**14 15 37.7**	**+2.0**
	SNR=38						
ULHL	**Ulahol**	**6.60**	**53**	P	**Pn**	**14 15 41.8**	**+1.7**
	SNR=41						
TKM2	**Tokmak 2**	**6.62**	**46**	P	**Pn**	**14 15 41.2**	**+0.9**
	SNR=36						
TKM2	**Tokmak 2**	**6.62**	**46**	⇑Pn	**Pn**	**14 15 41.0**	**+0.6**
	comp=E,6.0nm,0.6s						
TKM2				⇓Pg	**Pn**	**14 15 55.8**	**+16**
	comp=E,7.3nm,0.5s						
TKM2				⇑Sn	**Sn**	**14 17 01.4**	**+6.9**
	comp=E,20nm,0.8s						
TKM2	**Tokmak 2**	**6.62**	**46**	*e*Pn	**Pn**	**14 15 40.8**	**+0.5**
	comp=E,131nm,0.6s						
TKM2	**Tokmak 2**	**6.62**	**46**	*e*PN	**Pn**	**14 15 40.8**	**+0.5**
TKM2				pmax	pmax		
	comp=Z,131nm,0.6s						
THN	**Thein Dam**	**8.04**	**136**	*e*P	**Pn**	**14 16 00.0**	**+0.2**
THN				*e*x	x	14 17 33.2	
SDNR	**Sundarnagar**	**9.44**	**135**	*e*P	**Pn**	**14 16 20.6**	**+1.6**
JOSI	**Joshimath**	**11.64**	**129**	*e*P	**Pn**	**14 16 48.5**	**-0.6**
JOSI				AMb	AMB	14 16 52.8	
	comp=Z,55nm,1.3s						
JOSI				*e*S	**Sn**	**14 18 52.8**	**-4.9**
KHET	**Khetri**	**11.74**	**150**	*e*P	**Pn**	**14 16 49.4**	**-1.1**
KHET				AMb	AMB	14 16 52.1	
	comp=Z,9.6nm,0.6s						
KHET				*e*S	**Sn**	**14 18 50.9**	**-10**
NDI	**New Delhi**	**11.83**	**143**	*e*P	**Pn**	**14 16 51.2**	**-0.5**
NDI				*e*x	x	14 18 33.0	
KUDL	**Kundal**	**11.96**	**147**	*e*P	**Pn**	**14 16 51.5**	**-2.0**
KUDL				AMb	AMB	14 16 54.9	
	comp=Z,14nm,0.8s						
KUDL				*e*S	**Sn**	**14 18 55.5**	**-10**
SONA	**Sohna**	**12.13**	**145**	*e*P	**Pn**	**14 16 53.8**	**-2.1**
SONA				*e*S	**Sn**	**14 18 57.9**	**-12**
AB31	**Akbulak array**	**12.67**	**331**	Pn	**Pn**	**14 16 59.8**	**-3.4**
	comp=Z,6.2nm,0.4s,baz=151,slow=12,SNR=245						
AB31				⇓Sn	**Sn**	**14 19 15.8**	**-7.1**
	comp=Z,20nm,0.7s,baz=147,slow=22,SNR=5.5						
AB31	**Akbulak array**	**12.67**	**331**	*e*P	**Pn**	**14 16 59.7**	**-3.4**
AB31						14 19 15.7	
AB31				pmax	pmax		
	comp=Z,3.0nm,0.4s						
AB31				smax			
	comp=N,14nm,0.7s						
MK31	**Makanchi Array**	**12.75**	**45**	⇓Pn	**Pn**	**14 17 03.1**	**-1.1**
	comp=N,9.1nm,0.8s						
MK31				⇓Lg		14 20 50.5	
	comp=N,10nm,0.7s						
MK31	**Makanchi Array**	**12.75**	**45**	*e*Pn	**Pn**	**14 17 03.6**	**-0.6**
MK31	**Makanchi Array**	**12.75**	**45**	*e*P	**Pn**	**14 17 03.1**	**-1.1**
MK31				pmax	pmax		
	comp=Z,16nm,1.0s						
MKAR	**Makanchi Array**	**12.75**	**45**	Pn	**Pn**	**14 17 03.9**	**-0.4**
MKAR				LR	LR	14 21 44.3	
MKAR	**Makanchi Array**	**12.75**	**45**	P	**Pn**	**14 17 03.1**	**-1.1**
MKAR				pmax	pmax		
	comp=Z,16nm,1.0s						
MKAR				pmax	pmax		
	comp=N,57nm,1.3s						
MKAR	**Makanchi Array**	**12.75**	**45**	Pn	**Pn**	**14 17 03.9**	**-0.4**
	comp=N,0.4nm,0.3s,baz=237,slow=16,SNR=73						
MKAR				LR	LR	14 21 44.3	
	comp=N,70nm,19.3s,baz=216,slow=36						
AJM	**Ajmer**	**12.80**	**157**	*e*P	**Pn**	**14 17 03.7**	**-1.3**
AJM				AMb	AMB	14 17 06.2	
	comp=Z,7.4nm,0.3s						
AGRA	**Agra**	**13.40**	**144**	*e*P	**Pn**	**14 17 12.0**	**-1.2**
AGRA				*e*S	**Sn**	**14 19 29.5**	**-11**
KURK	**Kurchatov**	**13.97**	**26**	Pn	**Pn**	**14 17 14.2**	**-6.7**
	comp=Z,10nm,0.9s						
KURK	**Kurchatov**	**13.97**	**26**	P	**Pn**	**14 17 14.2**	**-6.7**
KURK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
AKTK	**Aktyubinsk**	**14.36**	**330**	Pn	**Pn**	**14 17 23.6**	**-2.6**
AKTK				Sn	**Sn**	**14 20 01.9**	**-2.2**
AKTO	**Aktyubinsk**	**14.36**	**330**	P	**Pn**	**14 17 23.6**	**-2.6**
AKTO						14 20 01.9	
AKTO	**Aktyubinsk**	**14.36**	**330**	Pn	**Pn**	**14 17 23.6**	**-2.6**
	comp=Z,0.5nm,0.3s,baz=138,slow=17,SNR=5.8						
AKTO				Sn	**Sn**	**14 20 01.9**	**-2.2**
	comp=Z,0.5nm,0.3s,baz=328,slow=19,SNR=4.2						
BRVK	**Borovoye**	**14.63**	**3**	*e*Pn	**Pn**	**14 17 28.4**	**-1.4**
	comp=Z,25nm,0.6s						
BRVK				*e*Sn	**Sn**	**14 20 06.5**	**-4.0**
BRVK	**Borovoye**	**14.63**	**3**	*e*P	**Pn**	**14 17 28.4**	**-1.4**
BRVK				*e*		14 20 06.5	
BRVK				pmax	pmax		
	comp=Z,25nm,0.6s						
WMQ	**Urumqi**	**14.95**	**63**	P	**Pn**	**14 17 32.6**	**-1.5**
GKN	**Gorkha**	**16.60**	**124**	*e*P	**Pn**	**14 17 52.8**	**-2.6**
	comp=Z,82nm,0.6s						
BHPL	**Bhopal**	**16.73**	**153**	*e*P	**Pn**	**14 17 57.7**	**+0.6**
BHPL				AMb	AMB	14 18 01.5	
	comp=Z,24nm,0.5s						
KKN	**Kakani**	**17.16**	**124**	*e*P	**Pn**	**14 18 00.1**	**-2.4**
	comp=Z,30nm,0.5s						
JIRN	**Jiri**	**17.85**	**122**	*e*P	**Pn**	**14 18 07.0**	**-4.0**
	comp=Z,11nm,0.3s						
ZAL	**Zalesovo**	**18.83**	**30**	P	**Pn**	**14 18 21.0**	**-1.7**
ZALV	**Zalesovo Beam**	**18.84**	**30**	P	**Pn**	**14 18 21.0**	**-1.9**
ZALV				LR	LR	14 26 28.8	
ZALV	**Zalesovo Beam**	**18.84**	**30**	P	**Pn**	**14 18 21.0**	**-1.8**
	comp=Z,2.9nm,0.3s,baz=228,slow=12,SNR=89						
ZALV				LR	LR	14 26 28.8	
	comp=Z,94nm,20.2s,baz=36,slow=39						
AKL	**Akola**	**18.95**	**157**	*e*P	**Pn**	**14 18 25.4**	**+1.1**
AKL				AMb	AMB	14 18 27.4	
	comp=Z,12nm,0.4s						
NVS	**Novosibirsk**	**18.97**	**26**	*e*P	**Pn**	**14 18 21.8**	**-2.5**
NVS				pmax	pmax		
	comp=Z,14nm,0.9s						
NVS				pmax	pmax		
	comp=N,6.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,7.0nm,0.9s						
TAPN	**Taplejung**	**19.07**	**120**	*e*P	**Pn**	**14 18 22.8**	**-3.0**
	comp=E,25nm,0.5s						
ODAN	**Odare**	**19.18**	**122**	*e*P	**Pn**	**14 18 25.9**	**-1.2**
	comp=E,43nm,0.5s						
SVE	**Sverdlovsk**	**19.23**	**346**	*e*P	**Pn**	**14 18 32.0**	**+4.5**
SVE				*e*		14 22 00.0	
ARU	**Arti**	**19.32**	**342**	*e*Pn	**Pn**	**14 18 26.3**	**-2.3**
	comp=E,13nm,0.8s						
ARU				*e*S	**S**	**14 22 02.1**	**-1.7**
ARU	**Arti**	**19.32**	**342**	*e*P	**Pn**	**14 18 25.2**	**-3.4**
ARU				*e*S	**S**	**14 22 00.2**	**-3.6**
ZEI	**Tsey**	**19.63**	**291**	*e*P	**Pn**	**14 18 32.0**	**-0.4**
BLSP	**Bilaspur**	**19.71**	**142**	*e*P	**Pn**	**14 18 32.6**	**-0.9**
BLSP				AMb	AMB	14 18 38.6	
	comp=Z,16nm,0.7s						
ONI	**Oni**	**19.95**	**290**	P	**Pn**	**14 18 36.6**	**+0.4**
LSA	**Lhasa**	**20.16**	**109**	*e*P	**P**	**14 18 37.9**	**+1.2**
	comp=Z,6.7nm,0.6s						
LSA	**Lhasa**	**20.16**	**109**	*e*P	**P**	**14 18 37.9**	**+1.2**
LSA				pmax	pmax		
	comp=Z,7.0nm,0.6s						
RDF	**Al-Radifah**	**20.30**	**249**	*e*P	**P**	**14 18 36.7**	**-1.5**
RDF				AMb	AMB	14 18 41.9	
	comp=Z,21nm,1.1s						
NAY	**Al-Naaiem**	**20.35**	**250**	*e*P	**P**	**14 18 37.4**	**-1.3**
NAY				AMb	AMB	14 18 44.6	
	comp=Z,9.4nm,0.6s						
RST	**Umm Al-Ruwaisa**	**20.40**	**251**	*e*P	**P**	**14 18 37.0**	**-2.3**
RST				AMb	AMB	14 18 44.5	
	comp=Z,17nm,0.7s						
BOK	**Bokaro**	**20.41**	**131**	*e*P	**P**	**14 18 40.6**	**+1.2**
BOK				AMb	AMB	14 18 42.3	
	comp=Z,13nm,0.4s						
KIV	**Kislovodsk**	**20.62**	**294**	P	**P**	**14 18 40.9**	**-0.6**
	comp=Z,14nm,0.6s						
KIV	**Kislovodsk**	**20.62**	**294**	*e*P	**P**	**14 18 41.3**	**-0.3**
KIV				*e*S	**S**	**14 22 28.2**	**-1.7**
KIV				pmax	pmax		
	comp=Z,13nm,0.7s						
KIV				MLR	MLR		
	comp=Z,93nm,14.0s,MS3.3						
HYB	**Hyderabad**	**22.51**	**156**	*e*P	**P**	**14 19 07.5**	**+5.5**
HYB	**Hyderabad**	**22.51**	**156**	*i* P	**P**	**14 19 07.5**	**+5.5**
GTA	**Gaotai**	**23.81**	**78**	*e*P	**P**	**14 19 15.1**	**+0.1**
GTA				AP		14 19 19.8	
GTA				XP	sP	14 19 22.8	-7.1
GTA				AMB	AMB		
	comp=Z,3.0nm,0.7s,mb3.8						
ZAK	**Zakamensk**	**26.89**	**53**	*e*P	**P**	**14 19 43.5**	**+0.7**
ZAK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
BRTR	**Keskin Array B**	**27.50**	**284**	P	**P**	**14 19 49.0**	**+0.7**
	comp=Z,2.6nm,0.6s,mb3.9,baz=93,slow=9.7,SNR=17						
OBN	**Obninsk**	**27.51**	**318**	*e*P	**P**	**14 19 56.0**	**+7.7**
OBN				*e*		14 20 34.1	
OBN				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.1						
LZH	**Lanzhou**	**27.61**	**84**	*e*P	**P**	**14 19 49.5**	**+0.1**
LZH				AP	pP	14 19 57.0	-2.8
LZH				XP	sP	14 19 59.9	-4.4
LZH				AMB	AMB		
	comp=Z,16nm,1.0s,mb4.6						
LZH	**Lanzhou**	**27.61**	**84**	*e*P	**P**	**14 19 49.5**	**+0.1**
	comp=Z,16nm,1.0s,mb4.6						
LZH				pP	pP	14 19 57.0	-2.8
LZH				sP	sP	14 19 59.9	-4.4
SONM	**Songino Array**	**28.50**	**59**	P	**P**	**14 19 57.7**	**+0.5**
	comp=Z,1.7nm,0.5s,mb4.0,baz=271,slow=8.9,SNR=23						
ULN	**Ulaanbaatar**	**28.95**	**59**	*e*P	**P**	**14 20 00.7**	**-0.4**
	comp=Z,2.8nm,0.8s,mb4.0						
ULN	**Ulaanbaatar**	**28.95**	**59**	*e*P	**P**	**14 19 59.4**	**-1.7**
ISP	**Isparta**	**30.26**	**281**	*e*P	**P**	**14 20 11.7**	**-1.1**
	comp=Z,44nm,1.0s,mb5.1						
ISP	**Isparta**	**30.26**	**281**	*e*P	**P**	**14 20 11.7**	**-1.2**
ISP				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.1						
AKASG	**Malin Array Be**	**30.60**	**307**	P	**P**	**14 20 15.9**	**+0.2**
	comp=Z,0.9nm,0.5s,mb3.9,baz=82,slow=7.2,SNR=9.4						
MLR	**Muntele Rosu**	**32.58**	**297**	P	**P**	**14 20 34.8**	**+1.6**
	comp=Z,3.0nm,0.7s,mb4.4,baz=109,slow=3.3,SNR=8.1						
JOF	**Joensuu**	**33.45**	**329**	*e*p	**P**	**14 20 40.9**	**+0.3**
	comp=Z,2.4nm,0.4s,mb4.5						
JOF	**Joensuu**	**33.45**	**329**	*e*P	**P**	**14 20 40.9**	**+0.3**
JOF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
BOD	**Bodaibo**	**34.81**	**41**	*e*P	**P**	**14 20 52.2**	**-0.2**
BOD				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
FINES	**FINESS Array B**	**35.05**	**325**	P	**P**	**14 20 54.7**	**+0.2**
FINES	**FINESS Array B**	**35.05**	**325**	P	**P**	**14 20 54.7**	**+0.2**
	comp=Z,1.4nm,0.3s,mb4.3,baz=120,slow=9.9,SNR=17						
KAF	**Kangasniemi**	**35.20**	**326**	*e*p	**P**	**14 20 56.1**	**+0.4**
	comp=Z,0.7nm,0.4s,mb3.9,baz=112,slow=8.5						
KAF	**Kangasniemi**	**35.20**	**326**	*e*P	**P**	**14 20 56.1**	**+0.4**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
PSZ	**Piszkesteto**	**36.59**	**301**	P	**P**	**14 21 09.0**	**+1.1**
	comp=Z,5.1nm,0.8s,mb4.4						
PSZ	**Piszkesteto**	**36.59**	**301**	P	**P**	**14 21 09.0**	**+1.1**
PSZ				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
KEV	**Kevo**	**38.45**	**338**	*e*p	**P**	**14 21 23.7**	**+0.4**
	comp=Z,3.5nm,0.5s,mb4.3						
KEV	**Kevo**	**38.45**	**338**	P	**P**	**14 21 23.3**	**0.0**
	comp=Z,4.4nm,0.6s,mb4.4						
KEV	**Kevo**	**38.45**	**338**	*e*P	**P**	**14 21 23.7**	**+0.4**
KEV				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.4						
ARCES	**ARCESS Array B**	**38.78**	**337**	P	**P**	**14 21 26.3**	**+0.2**
	comp=Z,5.2nm,0.6s,mb4.4,baz=113,slow=7.1,SNR=19						
ARE0	**ARCESS Array S**	**38.78**	**337**	*e*P	**P**	**14 21 26.6**	**+0.5**
GERES	**GERESS Array B**	**40.62**	**303**	P	**P**	**14 21 42.1**	**+0.4**
	comp=Z,0.5nm,0.6s,baz=98,slow=7.0,SNR=6.7						
HFS	**Hagfors**	**40.63**	**321**	P	**P**	**14 21 41.9**	**+0.3**
	comp=Z,7.3nm,0.7s,mb4.4,baz=98,slow=11,SNR=16						
NB2	**NORSAR Subarra**	**41.95**	**322**	P	**P**	**14 21 52.2**	**-0.1**
	comp=Z,2.5nm,0.6s,mb4.0,baz=96,slow=8.6						
NOA	**NORSAR Array B**	**41.95**	**322**	P	**P**	**14 21 52.5**	**+0.1**
NOA				LR	LR	14 42 28.2	
NOA	**NORSAR Array B**	**41.95**	**322**	P	**P**	**14 21 52.5**	**+0.1**
	comp=Z,2.5nm,0.7s,mb4.0,baz=96,slow=8.2,SNR=9.2						
NOA				LR	LR	14 42 28.2	
	comp=Z,111nm,18.8s,MS3.8,baz=275,slow=41						
DAVOX	**Davos/Dischmat**	**43.49**	**301**	P	**P**	**14 22 04.8**	**-0.2**
	comp=Z,2.9nm,0.5s,mb4.2,baz=30,slow=8.7,SNR=5.0						
TIXI	**Tiksi**	**44.53**	**23**	*e*P	**P**	**14 22 12.7**	**-0.4**
	comp=Z,8.2nm,0.6s,mb4.7						
TIXI	**Tiksi**	**44.53**	**23**	*e*P	**P**	**14 22 11.8**	**-1.3**
TIXI				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,77nm,14.0s,MS3.8						
CDF	**Champ du Feu**	**44.90**	**304**	*e*P	**P**	**14 22 16.9**	**+0.6**
LPG	**La Plagne**	**45.89**	**300**	*e*P	**P**	**14 22 25.5**	**+1.2**
	comp=Z,4.8nm,0.6s,mb4.3						
LPG	**La Plagne**	**45.89**	**300**	*e*P	**P**	**14 22 25.5**	**+1.2**
	comp=Z,2.4nm,0.6s,mb4.3						
LPG	**La Plagne**	**45.89**	**300**	*e*P	**P**	**14 22 25.5**	**+1.2**
LPG				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
MBDF	**Montbardon**	**46.08**	**299**	*e*P	**P**	**14 22 26.3**	**+0.6**
LOR	**Lormes**	**47.40**	**303**	*e*P	**P**	**14 22 36.1**	**+0.1**
VIVF	**Saint-Julien-l**	**47.48**	**299**	*e*P	**P**	**14 22 37.3**	**+0.6**
	comp=Z,16nm,0.7s,mb4.7						
VIVF	**Saint-Julien-l**	**47.48**	**299**	*e*P	**P**	**14 22 37.3**	**+0.6**
	comp=Z,8.2nm,0.7s,mb4.8						
VIVF	**Saint-Julien-l**	**47.48**	**299**	*e*P	**P**	**14 22 37.3**	**+0.6**
VIVF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
SMF	**Signal de Mont**	**47.57**	**302**	*e*P	**P**	**14 22 37.7**	**+0.4**
	comp=Z,18nm,0.8s,mb4.8						
SMF	**Signal de Mont**	**47.57**	**302**	*e*P	**P**	**14 22 37.7**	**+0.4**
	comp=Z,8.8nm,0.8s,mb4.8						
SMF	**Signal de Mont**	**47.57**	**302**	*e*P	**P**	**14 22 37.7**	**+0.4**
SMF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
SSF	**Saint Saulge**	**47.68**	**303**	*e*P	**P**	**14 22 39.0**	**+0.8**
	comp=Z,8.9nm,0.8s,mb4.5						
SSF	**Saint Saulge**	**47.68**	**303**	*e*P	**P**	**14 22 39.0**	**+0.8**
	comp=Z,4.4nm,0.8s,mb4.5						
SSF	**Saint Saulge**	**47.68**	**303**	*e*P	**P**	**14 22 39.0**	**+0.8**
SSF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
AVF	**Avril sur Loir**	**47.85**	**302**	*e*P	**P**	**14 22 39.8**	**+0.2**
	comp=Z,15nm,0.9s,mb4.7						
AVF	**Avril sur Loir**	**47.85**	**302**	*e*P	**P**	**14 22 39.8**	**+0.2**
	comp=Z,7.7nm,0.9s,mb4.7						
AVF	**Avril sur Loir**	**47.85**	**302**	*e*P	**P**	**14 22 39.8**	**+0.2**
AVF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
BGF	**Bois d’Agland**	**48.25**	**302**	*e*P	**P**	**14 22 43.0**	**+0.4**
	comp=Z,50nm,1.2s,mb5.1						
BGF	**Bois d’Agland**	**48.25**	**302**	*e*P	**P**	**14 22 43.0**	**+0.4**
	comp=Z,25nm,1.2s,mb5.1						
BGF	**Bois d’Agland**	**48.25**	**302**	*e*P	**P**	**14 22 43.0**	**+0.4**
BGF				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.1						
LASF	**Ste Croix**	**48.26**	**299**	*e*P	**P**	**14 22 43.7**	**+1.0**
TCF	**Toulx Ste Croi**	**48.75**	**302**	*e*P	**P**	**14 22 46.6**	**+0.1**
	comp=Z,12nm,0.8s,mb4.7						
TCF	**Toulx Ste Croi**	**48.75**	**302**	*e*P	**P**	**14 22 46.6**	**+0.1**
	comp=Z,6.2nm,0.8s,mb4.7						
TCF	**Toulx Ste Croi**	**48.75**	**302**	*e*P	**P**	**14 22 46.6**	**+0.1**
TCF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
RJF	**Les Rejaudoux**	**49.50**	**301**	*e*P	**P**	**14 22 53.0**	**+0.8**
LDF	**La Druitiere**	**49.65**	**305**	*e*P	**P**	**14 22 54.0**	**+0.7**
FLN	**La Foliniere**	**49.83**	**306**	*e*P	**P**	**14 22 55.5**	**+0.8**
	comp=Z,28nm,0.8s,mb5.0						
FLN	**La Foliniere**	**49.83**	**306**	*e*P	**P**	**14 22 55.5**	**+0.8**
	comp=Z,14nm,0.8s,mb5.0						
FLN	**La Foliniere**	**49.83**	**306**	*e*P	**P**	**14 22 55.5**	**+0.8**
FLN				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
EKA	**Eskdalemuir Ar**	**49.87**	**315**	P	**P**	**14 22 55.2**	**+0.3**
	comp=Z,3.0nm,0.8s,mb4.4,baz=79,slow=8.6,SNR=4.7						
LFF	**La Frestale**	**50.13**	**301**	*e*P	**P**	**14 22 57.8**	**+0.8**
GRR	**Gorron**	**50.17**	**305**	*e*P	**P**	**14 22 58.3**	**+1.0**
MFF	**Saint Martin d**	**50.22**	**303**	*e*P	**P**	**14 22 58.6**	**+0.9**
EPF	**Esparros**	**51.02**	**298**	*e*P	**P**	**14 23 05.1**	**+1.4**
SGMF	**Saint Gilles**	**51.30**	**306**	*e*P	**P**	**14 23 06.4**	**+0.6**
ETSF	**Etsaut**	**51.68**	**299**	*e*P	**P**	**14 23 09.1**	**+0.4**
	comp=Z,12nm,0.8s,mb4.6						
ETSF	**Etsaut**	**51.68**	**299**	*e*P	**P**	**14 23 09.1**	**+0.4**
	comp=Z,5.8nm,0.8s,mb4.6						
ETSF	**Etsaut**	**51.68**	**299**	*e*P	**P**	**14 23 09.1**	**+0.4**
ETSF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
ROSF	**Rostrenen**	**51.73**	**306**	*e*P	**P**	**14 23 09.7**	**+0.7**
SJPF	**Ste Jean**	**52.07**	**299**	*e*P	**P**	**14 23 11.9**	**+0.3**
ESDC	**Sonseca Array**	**55.27**	**296**	P	**P**	**14 23 35.1**	**0.0**
	comp=Z,1.9nm,0.6s,mb4.3,baz=57,slow=7.4,SNR=6.0						
BILL	**Bilibino**	**57.50**	**26**	*e*P	**P**	**14 23 49.0**	**-1.5**
BILL				pmax	pmax		
	comp=Z,3.0nm,1.8s,mb4.0						
TOA0	**Torodi Ar. Sit**	**64.34**	**267**	*e*P	**P**	**14 24 37.5**	**-0.2**
TORD	**Torodi Ar. Bea**	**64.34**	**267**	P	**P**	**14 24 36.9**	**-0.9**
	comp=Z,1.5nm,0.6s,mb4.2,baz=50,slow=6.0,SNR=11						
RES	**Resolute Bay**	**66.65**	**355**	P	**P**	**14 24 51.9**	**+0.2**
	comp=Z,80nm,1.0s						
IMA2	**Indian Mountai**	**70.69**	**17**	*e*P	**P**	**14 25 16.4**	**-0.7**
INK	**Inuvik**	**72.21**	**9**	*e*P	**P**	**14 25 26.4**	**+0.3**
	comp=Z,164nm,0.8s						
COLA	**College**	**73.00**	**16**	*e*P	**P**	**14 25 30.1**	**-0.9**
	comp=Z,4.6nm,0.8s,mb4.5						
COLA	**College**	**73.00**	**16**	*e*P	**P**	**14 25 30.1**	**-0.9**
COLA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
YKA	**Yellowknife Ar**	**79.36**	**2**	P	**P**	**14 26 07.3**	**+0.3**
YKA	**Yellowknife Ar**	**79.36**	**2**	P	**P**	**14 26 07.3**	**+0.3**
	comp=Z,2.6nm,0.6s,mb4.4,baz=352,slow=5.7,SNR=29						
SCHQ	**Schefferville**	**79.73**	**336**	P	**P**	**14 26 10.3**	**+1.1**
	comp=Z,2.6nm,0.8s,mb4.2,baz=71,slow=14,SNR=3.5						
FCC	**Fort Churchill**	**82.14**	**351**	*e*P	**P**	**14 26 22.6**	**+0.6**
	comp=Z,3.3nm,0.7s,mb4.4						
FCC	**Fort Churchill**	**82.14**	**351**	*e*P	**P**	**14 26 22.6**	**+0.6**
FCC				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
WRA	**Warramunga Arr**	**84.25**	**121**	*i* P	**P**	**14 26 32.0**	**-1.4**
WRA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
WRA	**Warramunga Arr**	**84.25**	**121**	P	**P**	**14 26 32.1**	**-1.3**
	comp=Z,1.3nm,1.0s,mb4.0,baz=323,slow=5.0,SNR=13						
WB2	**Warramunga Arr**	**84.26**	**121**	*e*P	**P**	**14 26 32.5**	**-1.0**
ASAR	**Alice Springs**	**86.56**	**124**	P	**P**	**14 26 44.6**	**-0.3**
	comp=Z,0.7nm,0.6s,mb4.0,baz=309,slow=5.0,SNR=12						
CTAO	**Charters Tower**	**92.67**	**113**	P	**P**	**14 27 13.1**	**-0.6**
	comp=Z,4.5nm,0.9s,mb4.9						
CTAO	**Charters Tower**	**92.67**	**113**	P	**P**	**14 27 13.1**	**-0.6**
CTAO				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.8						

IDC 15 14:29:10.5±1.7,**191N×12721E,h0^{km},mb3.5**/4,**mb1 3.7**/5,

mb1mx3.5/17,**mbtmp3.5**/5,**ML3.1**/1,**Error ellipse: s-maj=107.3km s-min=22.2km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.94	184	P	Pn	14 33 45.7	0.0
	0.1nm,0.3s,baz=46,slow=19,SNR=3.1						
WRA	Warramunga Arr	22.81	162	P	P	14 34 15.2	+0.1
	0.8nm,0.3s,baz=339,slow=11,SNR=20						
ASAR	Alice Springs	26.24	166	P	P	14 34 47.1	-0.2
	0.2nm,0.4s,baz=347,slow=12,SNR=12						
STKA	Stephens Creek	36.27	159	P	P	14 36 15.2	-0.4
	0.3nm,0.3s,baz=345,slow=12,SNR=2.9						
MKAR	Makanchi Array	59.32	326	P	P	14 39 14.2	+0.1
	0.5nm,0.6s,baz=115,slow=7.8,SNR=8.7						

IDC 15 14:29:46.8±1.5,**3363S**×**5710E,h0**^{km},**mb3.5**/4,**mb1 3.7**/4, **mb1mx3.5**/18,**mbtmp3.5**/4,**Error ellipse: s-maj=87.7km s-min=26.5km az=27.0,Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	66.76	104	P	P	14 40 40.2	+0.1
	0.4nm,0.4s,baz=237,slow=5.9,SNR=25						
WRA	Warramunga Arr	68.89	100	P	P	14 40 53.7	+0.1
	0.6nm,0.5s,baz=239,slow=5.5,SNR=16						
TORD	Torodi Ar. Bea	70.31	302	P	P	14 41 02.3	-0.1
	0.3nm,0.6s,baz=129,slow=5.7,SNR=3.3						
MKAR	Makanchi Array	83.21	17	P	P	14 42 14.7	+0.2
	0.1nm,0.5s,baz=212,slow=6.4,SNR=2.5						
YKA	Yellowknife Ar	150.64	352	PKPbc	PKPbc	14 49 39.8	0.0
	0.6nm,0.6s,baz=10,slow=2.1,SNR=9.9						

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*NEIC **15** 14:33:41.8,1902N×6463W,h85^{km},MD3.5(RSPR),After RSPR.*

RSPR 15 14:33:42.5,1905N×**6467W,h75**^{km}±2^{km}**,MD3.4**/13, **MD3.4**/13,**48C,Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABV	Anegada	0.45	135	⇑eP	Pn	14 33 54.7	-0.6
ABV	Anegada	0.45	135	eS	Sn	14 34 04.4	-0.4
ABV	Anegada	0.45	135	⇑eP	Pn	14 33 54.8	-0.6
ABV	Anegada	0.45	135	eS	Sn	14 34 04.2	-0.6
TBVI	Tortola	0.63	176	⇑eP	Pn	14 33 56.7	-0.4
TBVI	Tortola	0.63	176	eS	Sn	14 34 07.3	-0.5
TBVI	Tortola	0.63	176	⇑eP	Pn	14 33 56.8	-0.4
TBVI	Tortola	0.63	176	eS	Sn	14 34 07.5	-0.4
TBVI	Tortola	0.63	176	⇑eP	Pn	14 33 56.8	-0.4
TBVI				eS	Sn	14 34 07.5	-0.4
STVI	Saint Thomas	0.75	201	⇑eP	Pn	14 33 57.5	-0.8
STVI	Saint Thomas	0.75	201	eS	Sn	14 34 09.2	-0.8
STVI	Saint Thomas	0.75	201	⇑eP	Pn	14 33 57.5	-0.8
STVI	Saint Thomas	0.75	201	eS	Sn	14 34 09.4	-0.6
STVI	Saint Thomas	0.75	201	⇑eP	Pn	14 33 57.5	-0.8
STVI				eS	Sn	14 34 09.4	-0.6
MTP	Monte Pirata	1.27	222	eS	Sn	14 34 21.1	-0.2
MTP	Monte Pirata	1.27	222	⇑eP	Pn	14 34 04.4	-0.2
MTP	Monte Pirata	1.27	222	eS	Sn	14 34 21.3	+0.1
MTP	Monte Pirata	1.27	222	⇑eP	Pn	14 34 04.3	-0.3
MTP	Monte Pirata	1.27	222	⇑eP	Pn	14 34 04.3	-0.3
MTP				eS	Sn	14 34 21.3	+0.1
CBYP	Canovanas	1.37	236	eS	Sn	14 34 23.2	-0.4
CBYP	Canovanas	1.37	236	⇑eP	Pn	14 34 04.8	-1.1
CBYP	Canovanas	1.37	236	⇑eP	Pn	14 34 05.3	-0.7
CBYP	Canovanas	1.37	236	⇑eP	Pn	14 34 05.3	-0.7
HUMP	Col San Antoni	1.44	231	eS	Sn	14 34 24.4	-0.9
HUMP	Col San Antoni	1.44	231	⇑eP	Pn	14 34 06.1	-0.8
HUMP	Col San Antoni	1.44	231	eS	Sn	14 34 24.9	-0.4
HUMP	Col San Antoni	1.44	231	⇑eP	Pn	14 34 06.1	-0.8
HUMP	Col San Antoni	1.44	231	⇑eP	Pn	14 34 06.1	-0.8
HUMP				eS	Sn	14 34 24.9	-0.4
CPD	Cerro la Pandu	1.56	230	eS	Sn	14 34 27.8	-0.2
CPD	Cerro la Pandu	1.56	230	⇑eP	Pn	14 34 07.8	-0.6
CPD	Cerro la Pandu	1.56	230	eS	Sn	14 34 27.6	-0.4
CPD	Cerro la Pandu	1.56	230	⇑eP	Pn	14 34 07.7	-0.7
CPD	Cerro la Pandu	1.56	230	⇑eP	Pn	14 34 07.7	-0.7
CPD				eS	Sn	14 34 27.6	-0.4
SJG	San Juan	1.69	237	eS	Sn	14 34 31.0	-0.1
SJG	San Juan	1.69	237	⇑eP	Pn	14 34 09.3	-0.8
SJG	San Juan	1.69	237	⇑eP	Pn	14 34 09.9	-0.3
SJG				eS	Sn	14 34 30.6	-0.5
SJG	San Juan	1.69	237	eS	Sn	14 34 30.4	-0.6
SJG	San Juan	1.69	237	⇑eP	Pn	14 34 09.1	-1.0
SJG				eS	Sn	14 34 30.6	-0.5
SJG	San Juan	1.69	237	⇑eP	Pn	14 34 09.3	-0.8
SJG				eS	Sn	14 34 30.4	-0.6
CELP	Cerrillos	2.06	242	⇑eP	Pn	14 34 14.3	-0.7
CELP				eS	Sn	14 34 39.2	-0.7
CELP	Cerrillos	2.06	242	⇑eP	Pn	14 34 14.4	-0.7
CELP				eS	Sn	14 34 39.2	-0.7
CELP	Cerrillos	2.06	242	⇑eP	Pn	14 34 14.4	-0.7
CELP				eS	Sn	14 34 39.2	-0.7
OBIP	Obispado Ponce	2.10	242	⇑eP	Pn	14 34 14.9	-0.7
OBIP	Obispado Ponce	2.10	242	eS	Sn	14 34 40.7	-0.1
OBIP	Obispado Ponce	2.10	242	⇑eP	Pn	14 34 14.7	-0.9
OBIP	Obispado Ponce	2.10	242	eS	Sn	14 34 40.7	-0.1
OBIP	Obispado Ponce	2.10	242	⇑eP	Pn	14 34 14.7	-0.9
OBIP				eS	Sn	14 34 40.7	-0.1
AOPR	Arecibo Observ	2.10	251	⇑eP	Pn	14 34 15.3	-0.3
AOPR	Arecibo Observ	2.10	251	eS	Sn	14 34 40.7	-0.2
AOPR	Arecibo Observ	2.10	251	⇑eP	Pn	14 34 15.2	-0.5
AOPR	Arecibo Observ	2.10	251	eS	Sn	14 34 40.9	0.0
AOPR	Arecibo Observ	2.10	251	⇑eP	Pn	14 34 15.2	-0.5
AOPR				eS	Sn	14 34 40.9	0.0
ICM	Isla Caja Muer	2.10	237	⇑eP	Pn	14 34 15.4	-0.3
ICM	Isla Caja Muer	2.10	237	eS	Sn	14 34 40.2	-0.8
ICM	Isla Caja Muer	2.10	237	⇑eP	Pn	14 34 14.7	-1.0
ICM	Isla Caja Muer	2.10	237	eS	Sn	14 34 40.6	-0.4
ICM	Isla Caja Muer	2.10	237	⇑eP	Pn	14 34 14.7	-1.0
ICM				eS	Sn	14 34 40.6	-0.4
LRS	Lares	2.20	250	⇑eP	Pn	14 34 16.0	-1.0
LRS				eS	Sn	14 34 42.7	-0.6
LRS	Lares	2.20	250	⇑eP	Pn	14 34 15.8	-1.1
LRS				eS	Sn	14 34 42.6	-0.7
LRS	Lares	2.20	250	⇑eP	Pn	14 34 15.8	-1.1
LRS				eS	Sn	14 34 42.6	-0.7
GBPR	Guanica, Bosqu	2.36	243	⇑eP	Pn	14 34 18.7	-0.4
GBPR	Guanica, Bosqu	2.36	243	eS	Sn	14 34 46.5	-0.6
GBPR	Guanica, Bosqu	2.36	243	⇑eP	Pn	14 34 18.9	-0.2
GBPR	Guanica, Bosqu	2.36	243	eS	Sn	14 34 46.4	-0.7
AGPR	Aguadilla, PR	2.39	256	⇑eP	Pn	14 34 19.4	-0.1
AGPR	Aguadilla, PR	2.39	256	eS	Sn	14 34 47.4	-0.5
LSP	Las Mesas	2.45	250	⇑eP	Pn	14 34 20.3	-0.1
LSP	Las Mesas	2.45	250	eS	Sn	14 34 48.7	-0.7
LSP	Las Mesas	2.45	250	⇑eP	Pn	14 34 20.1	-0.3
LSP	Las Mesas	2.45	250	eS	Sn	14 34 49.0	-0.4
LSP	Las Mesas	2.45	250	⇑eP	Pn	14 34 20.1	-0.3
LSP				eS	Sn	14 34 49.0	-0.4
CRPR	Cabo Rojo, PR	2.54	246	⇑eP	Pn	14 34 21.0	-0.6
CRPR	Cabo Rojo, PR	2.54	246	eS	Sn	14 34 51.4	-0.2
CRPR	Cabo Rojo, PR	2.54	246	⇑eP	Pn	14 34 20.9	-0.6
CRPR	Cabo Rojo, PR	2.54	246	eS	Sn	14 34 51.0	-0.6
CRPR	Cabo Rojo, PR	2.54	246	⇑eP	Pn	14 34 20.9	-0.6
CRPR				eS	Sn	14 34 51.0	-0.6

IDC 15 14:35:59.4±0.9,**1215N**×**14373E,h0**^{km},**mb3.8**/8, **mb1 4.0**/8,**mb1mx3.8**/20,**mbtmp3.8**/8,**Error ellipse: s-maj=34.6km s-min=18.1km az=112.0,South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.81	38	Pn	Pn	14 36 32.4	+0.5
	92nm,0.3s,baz=235,slow=3.1,SNR=37						
GUMO				Sn	Sn	14 36 55.2	-0.3
	63nm,0.3s,baz=181,slow=21,SNR=6.9						
WRA	Warramunga Arr	33.20	196	P	P	14 42 37.7	-0.4
	0.5nm,0.6s,baz=19,slow=9.7,SNR=11						
ASAR	Alice Springs	36.87	195	P	P	14 43 10.2	+0.4
	0.2nm,0.6s,baz=14,slow=12,SNR=5.0						
SONM	Songino Array	47.28	326	P	P	14 44 35.1	+0.6
	0.3nm,0.5s,baz=157,slow=8.1,SNR=5.6						
MKAR	Makanchi Array	61.76	317	P	P	14 46 20.7	+0.9
	0.2nm,0.5s,baz=95,slow=7.6,SNR=3.4						
YKA	Yellowknife Ar	84.64	27	P	P	14 48 34.5	-0.2
	0.6nm,0.4s,baz=285,slow=5.0,SNR=8.2						
ARCES	ARCESS Array B	88.10	342	P	P	14 48 51.3	-0.3
	1.0nm,0.5s,baz=71,slow=7.7,SNR=14						
NVAR	Mina Array Bea	88.68	51	P	P	14 48 56.3	+1.3
	0.4nm,0.4s,baz=262,slow=6.3,SNR=3.2						
FINES	FINESS Array B	91.99	335	P	P	14 49 08.4	-1.5
	0.9nm,0.4s,baz=72,slow=4.3,SNR=12						

IDC 15 14:42:05.0±3.2,**2231N**×**12047E,h0**^{km},**mb3.6**/3, **mb1 3.8**/3,**mb1mx3.4**/20,**mbtmp3.6**/3,**Error ellipse: s-maj=272.8km s-min=27.4km az=60.0,Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	39.26	318	P	P	14 49 35.0	-0.2
	0.2nm,0.5s,baz=123,slow=9.1,SNR=4.5						
WRA	Warramunga Arr	44.12	161	P	P	14 50 14.7	-0.6
	1.2nm,0.7s,baz=343,slow=8.9,SNR=12						
ASAR	Alice Springs	47.52	163	P	P	14 50 42.5	+0.3
	0.8nm,1.0s,baz=344,slow=6.8,SNR=10						
ASAR				PcP	PcP	14 52 12.8	+0.4
	0.3nm,0.8s,baz=352,slow=3.3,SNR=4.2						

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*ISCJB **15** 15:38:31.7±0.2,2592S±004×11341E±004,h10^{km}, mb4.8/59,MS4.2/12,Error ellipse: s-maj=6.1km s-min=4.4km az=137.3*

*BJI **15** 15:38:33.0,2600S×11330E,h19^{km},mB5.3,mb4.7,Ms5.0, Msz4.8*

*MOS **15** 15:38:35.5±1.0,2583S×11322E,h32^{km},mb5.1/20,Error ellipse: s-maj=14.6km s-min=10.3km az=89.3*

*AUST **15** 15:38:36.8,2597S×11328E,h18^{km},ML5.3*

*NEIC **15** 15:38:36.0,2597S×11328E,h19^{km},mb4.9/35, ML5.3(AUST),After AUST.*

NEIC Felt at Denham.

*IDC **15** 15:38:37.2±0.5,2586S×113.16E,h31^{km}±3^{km},mb4.4/18, mb1 4.4/18,mb1mx4.4/20,mbtmp4.4/18,MS4.0/9, Ms1 3.9/9,ms1mx3.6/33,Error ellipse: s-maj=14.5km s-min=14.3km az=71.0*

ISC 15 15:38:33.6±0.2,**2592S**±003×**11338E**±004,**h10**^{km}, **(h26**^{km}±2.8^{km}**:pP-P),n158,**σ**1**^{s}**33**/167,**mb4.8**/59,**MS4.2**/12, **17C-6D,Western Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GIRL	Giralia	3.35	14	⇓iP	Pn	15 39 27.4	+1.4
GIRL				e		15 39 43.5	
MORW	Morawa	3.93	144	⇓iP	Pn	15 39 35.6	+1.7
MORW				eS	Sn	15 40 19.1	-1.0
	988nm,0.2s						
MEEK	Meekatharra	4.75	100	⇓iP	Pn	15 39 47.0	+1.7
MEEK				esP		15 39 54.3	
MEEK				eS	Sn	15 40 38.5	-1.9
	2µm,0.6s						
MUN	Mundaring	6.53	158	eP	Pn	15 40 10.7	+1.1
MUN				eS	Sn	15 41 20.8	-3.3
KLBR	Kellerberrin	6.83	147	⇑iP	Pn	15 40 13.5	-0.3
KLBR				eS	Sn	15 41 26.5	-5.2
	772nm,0.3s						
KLBR	Kellerberrin	6.83	147	⇑iP	Pn	15 40 13.5	-0.3
	772nm,0.3s						
KLBR				eS	Sn	15 41 26.5	-5.2
MBWA	Marble Bar	7.51	52	ePn	Pn	15 40 22.9	-0.2
	94nm,1.5s						
MBWA				eSn	Sn	15 41 39.5	-8.9
NWAO	Narrogin (SRO)	7.75	155	⇓iP	Pn	15 40 25.8	-0.6
NWAO				e		15 40 34.8	
NWAO				eS	Sn	15 41 46.7	-7.5
	4µm,0.3s						
NWAO	Narrogin (SRO)	7.75	155	⇓iP	Pn	15 40 25.8	-0.6
	4µm,0.3s						
NWAO				e		15 40 34.8	
NWAO				eS	Sn	15 41 46.7	-7.5
NWAO	Narrogin (SRO)	7.75	155	Pn	Pn	15 40 25.6	-0.8
	15nm,0.3s,baz=337,slow=12,SNR=104						
NWAO				Sn	Sn	15 41 47.9	-6.3
	319nm,0.3s,baz=58,slow=16,SNR=20						
NWAO				LR	LR	15 43 43.4	
	comp=Z,599nm,19.2s,baz=134,slow=39						
KMBL	Kambalda	9.23	128	eP	Pn	15 40 46.5	-0.3
KMBL				eS	Sn	15 42 22.5	-8.2
	1µm,0.3s						
KMBL	Kambalda	9.23	128	eP	Pn	15 40 46.5	-0.3
	1µm,0.3s						
KMBL				eS	Sn	15 42 22.5	-8.2
FITZ	Fitzroy Crossi	13.77	58	⇑iP	Pn	15 41 46.1	-2.8
FITZ				eS	Sn	15 44 06.9	-15
	92nm,0.4s						
FITZ	Fitzroy Crossi	13.77	58	⇑iP	Pn	15 41 46.1	-2.8
	92nm,0.4s						
FITZ				eS	Sn	15 44 06.9	-15
FITZ	Fitzroy Crossi	13.77	58	Pn	Pn	15 41 46.5	-2.4
	19nm,0.3s,baz=234,slow=11,SNR=272						
FITZ				Sn	Sn	15 44 07.6	-14
	15nm,0.3s,baz=147,slow=23,SNR=5.8						
FITZ				LR	LR	15 47 21.8	
	comp=Z,302nm,21.4s,baz=245,slow=38						
FORT	Forrest	13.80	114	eP	Pn	15 41 46.8	-2.5
FORT				e		15 41 55.6	
FORT				eS	Sn	15 44 10.3	-12
	458nm,0.5s						
FORT	Forrest	13.80	114	eP	Pn	15 41 46.8	-2.5
	458nm,0.5s						
FORT				e		15 41 55.6	
FORT				eS	Sn	15 44 10.3	-12
KNA	Kununurra	17.56	58	⇑iP	Pn	15 42 36.1	-2.5
KNA				eS	Sn	15 45 36.2	-18
	52nm,0.7s						
KNA	Kununurra	17.56	58	⇑iP	Pn	15 42 36.1	-2.5
	52nm,0.7s						
KNA				eS	Sn	15 45 36.2	-18
ASAR	Alice Springs	18.77	88	P	Pn	15 42 50.5	-2.8
	9.3nm,0.3s,baz=260,slow=11,SNR=221						
ASAR				S	Sn	15 46 10.8	-13
	3.9nm,0.3s,baz=257,slow=22,SNR=5.7						
WRA	Warramunga Arr	20.19	77	P	P	15 43 10.2	+1.8
	59nm,0.7s,baz=250,slow=12,SNR=392						
WRA				S	S	15 46 41.1	-14
	9.1nm,0.5s,baz=262,slow=22,SNR=3.7						
WRA				LR	LR	15 51 38.3	
	comp=Z,844nm,18.4s,MS4.1,baz=250,slow=38						
WB2	Warramunga Arr	20.20	77	⇑iP	P	15 43 10.0	+1.4
WB2				e		15 43 20.5	
WB2				i S	S	15 46 35.0	-20
BBOO	Buckleboo	20.90	114	⇑iP	P	15 43 17.4	+1.3
BBOO				eS	S	15 46 59.1	-10
	24nm,0.5s						
BBOO	Buckleboo	20.90	114	⇑iP	P	15 43 17.4	+1.3
	24nm,0.5s						
BBOO				eS	S	15 46 59.1	-10
KAKA	Kakadu	22.23	57	⇑iP	P	15 43 32.0	+1.5
KAKA				e		15 43 40.2	
KAKA				eS	S	15 47 31.9	-3.6
	49nm,0.5s						
KAKA	Kakadu	22.23	57	⇑iP	P	15 43 32.0	+1.5
	49nm,0.5s,mb5.2						
KAKA				e		15 43 40.2	
KAKA				eS	S	15 47 31.9	-3.6
ADE	Adelaide	23.57	119	eP	P	15 43 48.9	+4.3
QIS	Mount Isa	24.66	83	⇑iP	P	15 43 55.1	+0.5
QIS				e		15 44 03.3	
QIS				eS	S	15 48 36.3	+20
	6.9nm,0.6s						
QIS	Mount Isa	24.66	83	⇑iP	P	15 43 55.1	+0.5
	6.9nm,0.6s,mb4.4						
QIS				e		15 44 03.3	
QIS				eS	S	15 48 36.3	+20
STKA	Stephens Creek	25.36	110	eP	P	15 44 03.3	+2.4
STKA				e		15 44 13.0	
STKA				eS	S	15 48 41.8	+14
	17nm,0.6s						
STKA	Stephens Creek	25.36	110	eP	P	15 44 03.3	+2.4
	17nm,0.6s,mb4.7						
STKA				e		15 44 13.0	
STKA				eS	S	15 48 41.8	+14
STKA	Stephens Creek	25.36	110	P	P	15 44 03.0	+2.1
	9.0nm,0.4s,mb4.7,baz=284,slow=10,SNR=44						
STKA				S	S	15 48 38.5	+11
	11nm,0.5s,baz=350,slow=11,SNR=3.2						
ARPS	Mount Arapiles	26.51	121	⇓iP	P	15 44 14.1	+2.8
	0.4nm,0.6s						
KSM	Kuching	27.39	353	eP	P	15 44 19.1	-0.3
KSM				e		15 44 28.6	
QLP	Quilpie	27.65	98	eP	P	15 44 24.8	+3.2
CMSA	Cobar Meteorol	28.82	109	eP	P	15 44 34.6	+2.6
CMSA				e		15 44 46.4	
MTSU	Mount Surprise	29.65	81	eP	P	15 44 46.3	+6.8
MTSU	Mount Surprise	29.65	81	eP	P	15 44 46.3	+6.8
	86nm,1.6s,mb5.2						
CTA	Charters Tower	30.76	86	⇑iP	P	15 44 52.3	+3.0
CTA	Charters Tower	30.76	86	P	P	15 44 52.2	+2.9
	2.7nm,0.6s,mb4.3,baz=241,slow=12,SNR=4.1						
CTA				LR	LR	15 58 25.2	
	comp=Z,130nm,19.4s,MS3.6,baz=250,slow=38						
CTAO	Charters Tower	30.76	86	eP	P	15 44 51.6	+2.4
	8.4nm,0.9s,mb4.6						
CTAO	Charters Tower	30.76	86	eP	P	15 44 51.6	+2.3
CTAO				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
PSI	Prapat	31.80	332	P	P	15 44 56.5	-1.9
	comp=Z,2.0nm,0.6s,mb4.2,baz=162,slow=20,SNR=2.7						
PSI				LR	LR	15 58 27.4	
	comp=Z,194nm,18.1s,MS3.8,baz=75,slow=38						
KULM	Kulim	33.39	336	P	P	15 45 12.7	+0.3
KULM				e		15 45 18.6	
PMG	Port Moresby	35.98	69	P	P	15 45 31.6	-3.3
	comp=Z,5.6nm,0.7s,mb4.6						
PMG	Port Moresby	35.98	69	P	P	15 45 31.6	-3.3
PMG				pmax	pmax		
	comp=Z,6.0nm,0.7s						
QIZ	Qiongzhong	44.81	355	P	P	15 46 54.5	+6.7
	comp=Z,24nm,1.1s,mb4.9						
HNR	Honiara	47.02	78	eP	P	15 47 07.9	+2.4
	comp=Z,32nm,0.8s,mb5.3						
HNR	Honiara	47.02	78	eP	P	15 47 07.9	+2.4
HNR				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.3						
HNR	Honiara	47.02	78	P	P	15 47 07.3	+1.8
	comp=Z,25nm,0.7s,mb5.3,baz=257,slow=2.8,SNR=5.4						
RPZ	Rata Peaks	49.57	126	P	P	15 47 26.8	+2.0
	comp=Z,14nm,0.7s,mb5.1,baz=252,slow=6.3,SNR=6.9						
RPZ				LR	LR	16 08 21.9	
	comp=Z,172nm,19.3s,MS4.1,baz=196,slow=36						
MAW	Mawson	51.61	202	eP	P	15 47 40.1	+0.3
	comp=Z,16nm,1.0s,mb4.9						
MAW	Mawson	51.61	202	eP	P	15 47 40.1	+0.3
MAW				pmax	pmax		
	comp=Z,16nm,1.0s						
MAW	Mawson	51.61	202	P	P	15 47 40.1	+0.3
	comp=Z,10nm,1.0s,mb4.7,baz=75,slow=12,SNR=7.6						
MAW				LR	LR	16 04 50.7	
	comp=Z,89nm,20.4s,MS3.8,baz=244,slow=30						
KMI	Kunming	51.77	348	P	P	15 47 46.1	+4.6
KMI				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.5						
KMI	Kunming	51.77	348	P	P	15 47 46.1	+4.6
	comp=Z,4.0nm,0.7s,mb4.5						
JOW	Kunigami	54.37	16	LR	LR	16 11 45.5	
	comp=Z,281nm,18.7s,MS4.4,baz=41,slow=37						
VNDA	Vanda	56.34	169	P	P	15 48 14.9	+0.6
	comp=Z,6.4nm,0.9s,mb4.6,baz=325,slow=7.1,SNR=5.1						
VNDA				LR	LR	16 10 56.3	
	comp=Z,149nm,19.0s,MS4.1,baz=310,slow=34						
CD2	Chengdu	57.25	350	eP	P	15 48 24.9	+3.7
CD2				AP	pP	15 48 29.5	+5.1
CD2				XP	sP	15 48 32.5	+6.9
CD2				PP	PP	15 50 34.3	+5.7
CD2				S	S	15 56 20.8	+3.6
CD2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.2						
CD2				AMB	AMB		
	comp=Z,40nm,4.8s						
CD2				LR	LR		
	comp=N,230nm,12.5s,MS4.6						
CD2				LR	LR		
	comp=E,210nm,14.6s,MS4.6						
CD2				LR	LR		
	comp=Z,260nm,15.6s,MS4.4						
ODAN	Odare	58.14	333	eP	P	15 48 36.5	+8.9
	comp=Z,26nm,0.9s,mb5.3						
TAPN	Taplejung	58.45	333	eP	P	15 48 29.9	+0.2
	comp=Z,65nm,0.8s,mb5.7						
LSA	Lhasa	59.27	337	P	P	15 48 36.8	+1.4
LSA				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.2						
LSA	Lhasa	59.27	337	eP	P	15 48 36.0	+0.6
	comp=Z,18nm,0.6s,mb5.3						
LSA				e		15 48 45.3	
LSA	Lhasa	59.27	337	eP	P	15 48 36.0	+0.6
LSA				e		15 48 45.3	
LSA				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.3						
KKN	Kakani	59.85	331	eP	P	15 48 48.5	+9.1
	comp=Z,20nm,0.8s,mb5.2						
GKN	Gorkha	60.32	331	eP	P	15 48 51.9	+9.3
	comp=Z,26nm,1.1s,mb5.2						
LZH	Lanzhou	62.32	351	eP	P	15 48 57.5	+1.5
LZH				AP	pP	15 49 03.1	+3.8
LZH				XP	sP	15 49 06.5	+6.0
LZH				eS	S	15 57 22.0	-0.3
LZH				AMB	AMB		
	comp=Z,16nm,1.0s,mb5.1						
LZH				AMB	AMB		
	comp=Z,70nm,4.1s						
LZH				LR	LR		
	comp=E,389nm,14.7s						
LZH				LR	LR		
	comp=Z,690nm,16.3s,MS4.9						
LZH	Lanzhou	62.32	351	eP	P	15 48 57.5	+1.5
	comp=Z,16nm,1.0s,mb5.1						
LZH				pP	pP	15 49 03.1	+3.8
LZH				sP	sP	15 49 06.5	+6.0
LZH				eS	S	15 57 22.0	-0.3
LZH				sS	sS	15 57 27.0	-0.7
LZH				SS	SS	16 01 30.0	+3.6
LZH				LR	LR		
	comp=Z,690nm,16.3s,MS4.9						
LZH	Lanzhou	62.32	351	eP	P	15 48 57.5	+1.5
LZH				*SP	sP	15 49 06.5	+6.0
LZH				eS	S	15 57 22.0	-0.3
LZH				SS	SS	16 01 30.0	+3.6
LZH				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.1						
LZH				MLR	MLR		
	comp=Z,690nm,16.3s,MS4.9						
QSPA	South Pole Qui	64.17	180	eP	P	15 49 08.5	+0.7
	comp=Z,27nm,0.8s,mb5.3						
QSPA				e		15 49 18.1	
KSRS	Korea Array	64.50	13	P	P	15 49 11.3	+0.9
	comp=Z,2.5nm,0.9s,mb4.2,baz=186,slow=8.3,SNR=5.7						
KSRS				pP	pP	15 49 20.9	+7.2
	comp=Z,3.8nm,0.7s,baz=189,slow=6.9,SNR=9.1						
BJT	Baijiatuau	65.65	2	eP	P	15 49 18.0	+0.2
	comp=Z,5.3nm,0.5s,mb4.8						
BJT				e		15 49 28.5	
BJT	Baijiatuau	65.65	2	eP	P	15 49 18.0	+0.2
BJT				e		15 49 28.5	
BJT				pmax	pmax		
	comp=Z,5.0nm,0.5s						
BJI	Beijing	65.67	2	P	P	15 49 18.8	+0.9
BJI				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.7						
MJAR	Matsushiro Arr	66.39	22	P	P	15 49 22.6	-0.1
	comp=Z,0.9nm,0.5s,mb4.1,baz=186,slow=9.5,SNR=3.3						
MJAR				pP	pP	15 49 31.6	+5.7
	comp=Z,1.4nm,0.6s,baz=186,slow=10,SNR=2.5						
HHC	Hu-ho-hao-te	66.45	358	eP	P	15 49 26.8	+3.9
HHC				AP	pP	15 49 31.6	+5.4
HHC				XP	sP	15 49 33.9	+6.5
HHC				PCP	PcP	15 49 55.8	+3.3
HHC				PP	PP	15 51 56.4	+6.8
HHC				SCP		15 53 56.9	
HHC				PCS		15 53 59.8	
HHC				S	S	15 58 17.8	+4.7
HHC				SCS	ScS	15 59 20.4	+0.8
HHC				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.8						
HHC				AMB	AMB		
	comp=Z,276nm,6.6s						
HHC				LR	LR		
	comp=N,284nm,27.5s,MS4.5						
HHC				LR	LR		
	comp=E,278nm,26.6s,MS4.5						
HHC				LR	LR		
	comp=Z,219nm,22.8s,MS4.3						
MDJ	Mudanjiang	71.74	12	P	P	15 49 56.6	+0.9
MDJ				AMB	AMB		
	comp=Z,19nm,1.0s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,427nm,4.3s						
MDJ	Mudanjiang	71.74	12	eP	P	15 49 56.3	+0.6
	comp=Z,12nm,0.7s,mb4.9						

MDJ				*e*		15 50 05.0	
WMQ	Urumqi	73.29	341	*e*P	P	15 50 05.8	+0.8
WMQ				AP	pP	15 50 10.6	+2.3
WMQ				XP	sP	15 50 12.8	+3.3
WMQ				AMB	AMB		
	comp=Z,17nm,0.9s,mb5.0						
WMQ				LR	LR		
	comp=N,89nm,20.4s,MS4.2						
WMQ				LR	LR		
	comp=E,71nm,16.0s,MS4.2						
WMQ				LR	LR		
	comp=Z,89nm,18.0s,MS4.1						
SNAA	Sanae	73.35	197	P	P	15 50 05.7	+0.6
	comp=Z,8.4nm,0.8s,mb4.7,baz=130,slow=6.4,SNR=22						
KBL	Kabul	73.36	323	P	P	15 50 06.5	+0.9
KBL				*e*		15 50 15.0	
ULN	Ulaanbaatar	73.66	356	*e*P	P	15 50 07.7	+0.7
	comp=Z,8.7nm,1.0s,mb4.6						
ULN				*e*		15 50 18.2	
ULN	Ulaanbaatar	73.66	356	*e*P	P	15 50 07.7	+0.6
ULN				*e*		15 50 18.2	
ULN				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
SONM	Songino Array	73.68	355	P	P	15 50 08.1	+0.9
	comp=Z,4.2nm,0.8s,mb4.4,baz=169,slow=7.2,SNR=38						
SONM				pP	pP	15 50 18.2	+7.8
	comp=Z,9.2nm,0.9s,baz=170,slow=5.0,SNR=23						
VNA2	Neumayer--Watz	74.99	197	*e*P	P	15 50 15.6	+0.9
	baz=117,slow=3.9						
VNA2				*e*		15 50 26.0	
HIA	Hailar	75.06	4	*e*P	P	15 50 15.9	+0.8
	comp=Z,6.6nm,0.9s,mb4.6						
HIA				*e*		15 50 25.7	
HIA	Hailar	75.06	4	*e*P	P	15 50 16.0	+0.8
HIA				*e*		15 50 25.7	
HIA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
VNA3	Neumayer Olymp	75.38	196	*e*P	P	15 50 17.8	+0.9
VNA3				*e*		15 50 28.8	
VNA1	Neumayer--Stat	75.38	197	*e*P	P	15 50 18.4	+1.4
VNA1				*e*		15 50 29.2	
ZAK	Zakamensk	76.49	353	*e*P	P	15 50 23.7	+0.4
ZAK				*e*		15 50 33.6	
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
ZAK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
BOSA	Boshof	76.53	245	*e*P	P	15 50 23.4	-0.8
	comp=Z,5.1nm,0.8s,mb4.5						
BOSA	Boshof	76.53	245	*e*P	P	15 50 23.5	-0.8
BOSA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
BOSA	Boshof	76.53	245	P	P	15 50 23.7	-0.6
	comp=Z,4.0nm,0.7s,mb4.4,baz=100,slow=5.2,SNR=7.9						
UCH	Uchtor	76.72	331	*e*P	P	15 50 26.2	+1.4
	comp=Z,10nm,1.1s,mb4.7						
UCH				*e*		15 50 34.6	
TKM2	Tokmak 2	76.83	332	*e*P	P	15 50 25.0	-0.4
	comp=Z,7.5nm,0.8s,mb4.7						
TKM2				*e*		15 50 34.6	
TKM2	Tokmak 2	76.83	332	*e*P	P	15 50 25.0	-0.4
TKM2				*e*		15 50 34.6	
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
MATP	Matopo	76.93	254	P	P	15 50 26.5	-0.2
MATP	Matopo	76.93	254	P	P	15 50 26.5	-0.2
	comp=Z,2.8nm,0.5s,mb4.5,baz=118,slow=9.3,SNR=7.1						
AML	Almayashu	77.00	331	*e*P	P	15 50 27.2	+0.7
	comp=Z,9.4nm,0.8s,mb4.8						
AML				*e*		15 50 36.8	
KMBO	Kilima Mbogo	77.04	275	*e*P	P	15 50 26.9	-0.4
	comp=Z,2.5nm,0.8s,mb4.2						
KMBO	Kilima Mbogo	77.04	275⇑	*e*P	P	15 50 28.5	+1.1
KMBO	Kilima Mbogo	77.04	275	P	P	15 50 27.5	+0.1
	comp=Z,0.8nm,0.6s,mb3.8,baz=54,slow=23,SNR=5.6						
AAK	Ala-Archa	77.06	332	*e*P	P	15 50 26.0	-0.8
	comp=Z,18nm,0.9s,mb5.0						
AAK				*e*		15 50 36.5	
AAK	Ala-Archa	77.06	332	*e*P	P	15 50 26.0	-0.7
AAK				*e*		15 50 36.5	
AAK				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
YSS	Yuzh-Sakhalins	77.24	20	P	P	15 50 29.6	+2.0
	comp=Z,36nm,1.1s,mb5.2						
YSS	Yuzh-Sakhalins	77.24	20⇑	*e*P	P	15 50 26.3	-1.3
YSS				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
EKS2	Erkin-Say	77.39	331	*e*P	P	15 50 29.1	+0.4
	comp=Z,17nm,0.8s,mb5.0						
EKS2				*e*		15 50 39.3	
LBTB	Lobatse	77.62	248	*e*P	P	15 50 29.8	-0.7
	comp=Z,3.3nm,0.8s,mb4.3						
LBTB	Lobatse	77.62	248	*e*P	P	15 50 29.8	-0.7
LBTB				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
MK31	Makanchi Array	77.64	339	*e*P	P	15 50 29.2	-0.7
MK31				*e*		15 50 39.4	
MKAR	Makanchi Array	77.64	339	P	P	15 50 29.9	0.0
MKAR				pP	pP	15 50 39.7	+6.5
MKAR	Makanchi Array	77.64	339	P	P	15 50 29.9	0.0
	comp=Z,1.4nm,0.7s,mb4.0,baz=142,slow=6.9,SNR=14						
MKAR				pP	pP	15 50 39.7	+6.5
	comp=Z,6.2nm,0.8s,baz=145,slow=6.8,SNR=25						
SUR	Sutherland	78.61	240	*e*P	P	15 50 34.8	-1.1
	comp=Z,40nm,1.5s,mb5.1						
SUR	Sutherland	78.61	240	P	P	15 50 34.8	-1.0
	comp=Z,4.7nm,0.7s,mb4.5,baz=124,slow=7.6,SNR=5.8						
LSZ	Lusaka	79.24	258	*e*P	P	15 50 39.3	-0.3
	comp=Z,7.6nm,0.7s,mb4.7						
LSZ				*e*		15 50 49.2	
LSZ	Lusaka	79.24	258	*e*P	P	15 50 39.3	-0.3
LSZ				*e*		15 50 49.3	
LSZ				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
KURK	Kurchatov	82.25	339	*e*P	P	15 50 53.7	-1.1
	comp=Z,26nm,1.1s,mb5.1						
KURK				*e*		15 51 03.7	
KURK	Kurchatov	82.25	339	*e*P	P	15 50 53.7	-1.1
KURK				*e*		15 51 03.7	
KURK				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
QRN	Al-Qurain	83.08	306	*e*P	P	15 50 58.4	-1.3
QRN				AMb	AMB	15 51 10.1	
	comp=Z,37nm,0.9s,mb5.4						
ZAL	Zalesovo	83.28	343	P	P	15 50 58.5	-1.5
ZAL				*PP	pP	15 51 07.9	+4.5
ZALV	Zalesovo Beam	83.29	343	P	P	15 50 58.5	-1.6
	comp=Z,0.7nm,0.4s,mb4.0,baz=155,slow=3.5,SNR=6.5						
ZALV				pP	pP	15 51 07.9	+4.5
	comp=Z,6.3nm,0.5s,baz=143,slow=3.7,SNR=29						
BOD	Bodaibo	83.41	0	*e*P	P	15 51 00.3	-0.3
BOD				*e*		15 51 11.4	
BOD				pmax	pmax		
	comp=Z,3.0nm,1.7s,mb4.0						
BOD				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
RDF	Al-Radifah	83.45	306	*e*P	P	15 50 59.3	-2.2
RDF				AMb	AMB	15 51 12.1	
	comp=Z,24nm,0.9s,mb5.2						
NAY	Al-Naaiem	83.86	307	*e*P	P	15 51 01.7	-1.9
NAY				AMb	AMB	15 51 13.6	
	comp=Z,9.1nm,1.0s,mb4.9						
MIB	Mutribah	84.10	307	*e*P	P	15 51 03.1	-1.7
MIB				AMb	AMB	15 51 15.3	
	comp=Z,17nm,0.8s,mb5.2						
RST	Umm Al-Ruwaisa	84.17	307	*e*P	P	15 51 03.7	-1.5
RST				AMb	AMB	15 51 15.4	
	comp=Z,21nm,0.8s,mb5.3						
NVS	Novosibirsk	84.50	343	*e*P	P	15 51 13.5	+7.3
TSUM	Tsumeb	86.78	250	P	P	15 51 18.1	-0.5
	comp=Z,3.8nm,0.9s,mb4.6						
TSUM				*e*		15 51 29.1	
BRVK	Borovoye	87.12	336	*e*P	P	15 51 19.1	-0.2
	comp=Z,2.8nm,0.7s,mb4.6						
BRVK				*e*		15 51 28.0	
BRVK				*e*		15 51 33.2	
BRVK	Borovoye	87.12	336	*e*P	P	15 51 19.1	-0.2
BRVK				*e*		15 51 28.0	
BRVK				*e*		15 51 33.3	
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.6						
YAK	Yakutsk	88.61	8	*e*P	P	15 51 26.0	-0.3
	comp=Z,14nm,0.9s,mb5.3						
YAK				*e*		15 51 36.0	
YAK	Yakutsk	88.61	8	*e*P	P	15 51 26.0	-0.2
YAK				*e*		15 51 36.0	
YAK				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.3						
MA2	Magadan	90.57	18	*e*P	P	15 51 36.7	+1.3
	comp=Z,13nm,1.3s,mb5.1						
MA2				*e*		15 51 46.8	
MA2	Magadan	90.57	18	*e*P	P	15 51 36.5	+1.1
MA2				*e*		15 51 47.0	
MA2				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb5.0						
MA2				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.3						
SEY	Seymchan	93.81	17⇑	*e*P	P	15 51 47.8	-2.5
TIXI	Tiksi	97.90	5	*e*P	P	15 52 06.0	-2.8
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb5.1						
TIXI				MLR	MLR		
	comp=Z,101nm,16.0s,MS4.4						
INK	Inuvik	122.34	24	PKP	PKPdf	15 57 28.0	-0.1
INK				pPKP	pPKPdf	15 57 38.2	+6.7
INK	Inuvik	122.34	24	PKIKP	PKPdf	15 57 28.0	-0.1
INK						15 57 38.3	
INK	Inuvik	122.34	24	PKP	PKPdf	15 57 28.0	-0.1
	comp=Z,3.5nm,0.6s,baz=307,slow=2.6,SNR=17						
INK				pPKP	pPKPdf	15 57 38.2	+6.7
	comp=Z,3.2nm,0.8s,baz=357,slow=4.8,SNR=5.7						
YKA	Yellowknife Ar	131.67	28	PKP	PKPdf	15 57 45.9	-0.2
YKA	Yellowknife Ar	131.67	28	PKIKP	PKPdf	15 57 45.9	-0.2
YKA	Yellowknife Ar	131.67	28	PKP	PKPdf	15 57 45.9	-0.2
	comp=Z,1.7nm,0.7s,baz=306,slow=1.9,SNR=26						
PDAR	Pinedale Array	141.22	53	PKhKP		15 57 57.6	
	comp=Z,0.6nm,0.6s,baz=129,slow=2.1,SNR=6.1						
LPM	Los Pinos Moun	144.57	67	*e*PKPdf	PKPdf	15 58 10.9	+0.3
LPM				*e*		15 58 21.8	
BNM	Barren Site	144.58	67	*e*PKPdf	PKPdf	15 58 10.7	+0.1
BNM				*e*		15 58 21.3	
ANMO	Albuquerque	144.68	66	*e*PKPdf	PKPdf	15 58 11.1	+0.3
ANMO				*e*		15 58 21.6	
ANMO	Albuquerque	144.68	66	*e*PKIKP	PKPdf	15 58 11.1	+0.3
ANMO				*e*		15 58 21.6	
ANMO	Albuquerque	144.68	66	PKP	PKPdf	15 58 10.1	-0.6
	comp=Z,14nm,0.9s,baz=258,slow=4.8,SNR=23						
ANMO				pPKP	pPKPdf	15 58 22.1	+7.9
	comp=Z,12nm,0.8s,baz=244,slow=4.0,SNR=10						
ISCO	Idaho Springs	144.72	57	*e*PKPdf	PKPdf	15 58 11.0	+0.3
ISCO				*e*		15 58 21.5	
ISCO	Idaho Springs	144.72	57	*e*PKIKP	PKPdf	15 58 11.0	+0.3
ISCO				*e*		15 58 21.5	
SDCO	Great Sand Dun	145.16	61	*e*PKPdf	PKPdf	15 58 12.8	+1.2
SDCO				*e*		15 58 23.1	
MNTX	Cornudas Mount	145.68	71	*e*PKPdf	PKPdf	15 58 14.0	+1.4
MNTX				*e*		15 58 25.1	
ULM	Lac du Bonnet	146.90	35	*e*PKPdf	PKPdf	15 58 15.3	+1.3
ULM				*e*		15 58 25.4	
ULM	Lac du Bonnet	146.90	35	PKPbc	PKPbc	15 58 15.8	-0.1
	comp=Z,9.7nm,0.7s,baz=309,slow=4.0,SNR=26						
ULM				pPKPbc	pPKPbc	15 58 25.7	+6.3
	comp=Z,12nm,0.9s,baz=318,slow=3.8,SNR=10						
TXAR	Lajitas Array	147.09	76	PKPbc	PKPbc	15 58 17.1	-0.1
	comp=Z,3.5nm,0.7s,baz=191,slow=1.3,SNR=18						
TXAR				pPKPbc	pPKPbc	15 58 28.6	+8.0
	comp=Z,4.6nm,0.8s,baz=219,slow=2.7,SNR=11						
ECSD	EROS,Sioux Fal	149.86	46	*e*PKPdf	PKPdf	15 58 18.9	-0.2
ECSD				*e*PKPbc	PKPbc	15 58 23.6	-0.4
ECSD				*e*		15 58 34.4	
SCHQ	Schefferville	151.12	0	PKPbc	PKPbc	15 58 26.6	+0.1
	comp=Z,11nm,0.9s,baz=106,slow=1.3,SNR=10						
SCHQ				pPKPbc	pPKPbc	15 58 36.6	+6.6
	comp=Z,6.6nm,0.8s,baz=39,slow=4.5,SNR=4.3						
KSU1	Kansas State U	151.64	55	*e*PKPbc	PKPbc	15 58 28.8	+0.5
KSU1				*e*		15 58 38.5	

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*NEIC **15** 15:45:35.6, 31.98S×70.08W, h118km, MD3.5(GUC), After GUC.*

GUC 15 15:45:35.6±0.7**, 31.98S×70.08W, h118km**±7km**, MD3.5, ML3.3, 2C-5D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PTCH	Petorca	0.78	248	*e*P	Pn	15 45 55.7	+0.3
PTCH				*i* S	Sn	15 46 10.7	+0.3
PTCH	Petorca	0.78	248	*e*P	Pn	15 45 55.7	+0.3
PTCH				*i* S	Sn	15 46 10.7	+0.3
PTCH				AML	AML	15 46 11.7	
	comp=N,958nm,0.5s						
CMCH	Combarbala	1.12	315	*e*P	Pn	15 45 59.1	+0.4
CMCH				*i* S	Sn	15 46 17.3	+1.0
CMCH	Combarbala	1.12	315	*e*P	Pn	15 45 59.1	+0.4
CMCH				*i* S	Sn	15 46 17.3	+1.0
CMCH				AML	AML	15 46 17.7	
	comp=N,1μm,0.3s						
CHNG	Los Chungos	1.21	274	*e*P	Pn	15 45 48.6	-11
CHNG				*i* S	Sn	15 46 06.5	-11
FCH	Farellones	1.36	188⇑	*e*P	Pn	15 46 02.4	+1.1
FCH				*i* S	Sn	15 46 22.7	+1.9
FCH				AML	AML	15 46 26.7	
	comp=N,268nm,0.1s						
MDZ	Mendoza	1.38	131	*e*P	Pn	15 46 00.7	-0.8
MDZ				*e*		15 46 21.3	
CLCH	Cerro Calan	1.47	195	*i* P	Pn	15 46 03.9	+1.4
CLCH				*i* S	Sn	15 46 24.7	+1.7
CLCH	Cerro Calan	1.47	195	*i* P	Pn	15 46 03.9	+1.4
CLCH				*i* S	Sn	15 46 24.7	+1.7
CLCH				AML	AML	15 46 32.3	
	comp=N,317nm,0.2s						
RCDM	Rinconada Maip	1.63	202	*e*P	Pn	15 46 04.8	+0.4
RCDM				*i* S	Sn	15 46 27.4	+1.0
RCDM	Rinconada Maip	1.63	202	*e*P	Pn	15 46 04.8	+0.4
RCDM				*i* S	Sn	15 46 27.4	+1.0
RCDM				AML	AML	15 46 28.0	
	comp=E,507nm,0.1s						
ANTU	Antumapu	1.65	196⇓	*i*P	Pn	15 46 05.5	+0.8
ANTU				*i* S	Sn	15 46 27.7	+0.8
ANTU	Antumapu	1.65	196⇓	*i*P	Pn	15 46 05.5	+0.8
ANTU				*i* S	Sn	15 46 27.7	+0.8
ANTU				AML	AML	15 46 28.3	
	comp=E,476nm,0.6s						
PCH	Pirque	1.68	193⇓	*e*P	Pn	15 46 05.6	+0.6
PCH				*i* S	Sn	15 46 28.3	+0.8
TACH	Talagante	1.82	203⇑	*i*P	Pn	15 46 07.1	+0.3
TACH				*i* S	Sn	15 46 31.2	+0.6
CACH	El Canelo	2.18	191⇓	*e*P	Pn	15 46 12.3	+1.2
LNV	Longovilo	2.27	209	*i* P	Pn	15 46 11.7	-0.6
LNV				*i* S	Sn	15 46 39.3	-1.2
CICH	Cipreses	2.35	187	*i* P	Pn	15 46 14.0	+0.6
SFDO	San Fernando	2.74	196⇓	*i*P	Pn	15 46 18.7	+0.2
LCO	Las Campanas	3.01	350	*e*Pn	Pn	15 46 22.5	+0.5
LCO				*e*Sn	Sn	15 46 57.7	+0.1

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*BJI **15** 15:58:33.2, 12.50N×144.80E, h22km, mB5.3, mb4.6, Ms4.7, Msz4.3*

*MOS **15** 15:58:34.9±1.0, 12.47N×144.71E, h33km, mb4.7/12, Error ellipse: s-maj=16.8km s-min=8.2km az=105.0*

*NEIC **15** 15:58:35.2±3.6, 12.51N×144.83E, h23km±25km, mb4.5/20, Error ellipse: s-maj=9.7km s-min=6.9km az=93.0*

*ISCJB **15** 15:58:36.3±1.3, 12.49N±0.05×144.82E±0.07, h48km±10km, mb4.5/52, MS4.2/15, Error ellipse: s-maj=11.9km s-min=8.9km az=5.8*

*IDC **15** 15:58:38.2±1.4, 12.48N×144.82E, h46km±12km, mb3.9/19, mb1 4.0/19, mb1mx3.9/27, mbtmp3.9/19, MS4.1/13, Ms1 4.1/13, ms1mx3.8/32, Error ellipse: s-maj=19.5km s-min=10.6km az=91.0*

ISC 15 15:58:37.1±1.4**, 12.50N**±0.05×**144.87E**±0.07**, h38**km±12km**, n103, σ1.06**/94**, mb4.4**/52**, MS4.2**/15**, 5C, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
GUMO	Guam	1.08	0⇑	*e*Pg	Pn	15 58 55.8	0.0
GUMO				*e*Sg	Sn	15 59 07.7	-1.8
GUMO	Guam	1.08	0	P	Pn	15 58 56.3	+0.5
	baz=155,slow=9.3						
GUMO				S	Sn	15 59 12.0	+2.4
PMG	Port Moresby	21.88	174	*e*P	P	16 03 26.5	-0.4
	26nm,1.0s,mb4.6						
PMG	Port Moresby	21.88	174	*e*P	P	16 03 26.5	-0.4
PMG				pmax	pmax		
	comp=Z,26nm,1.0s						
PMG	Port Moresby	21.88	174	P	P	16 03 26.2	-0.7
	comp=Z,11nm,1.1s,mb4.2,baz=350,slow=7.5,SNR=7.0						
PMG				LR	LR	16 11 44.1	
	comp=Z,544nm,18.2s,MS4.0,baz=312,slow=36						
JNU	Nakatsue	24.19	330	P	P	16 03 50.7	+0.7
	comp=Z,6.3nm,0.9s,mb4.1,baz=349,slow=5.2,SNR=3.1						
MJAR	Matsushiro Arr	24.68	347	P	P	16 03 53.7	-0.7
	comp=Z,2.2nm,0.5s,mb4.0,baz=195,slow=2.2,SNR=5.9						
MJAR				LR	LR	16 12 22.2	
	comp=Z,342nm,19.9s,MS3.9,baz=175,slow=33						
MAJO	Matsushiro	24.68	347	*e*P	P	16 03 53.6	-0.8
	comp=Z,7.9nm,0.6s,mb4.4						
MAJO	Matsushiro	24.68	347	*e*P	P	16 03 53.7	-0.7
MAJO				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.4						
NACB	Ninganchiao	24.91	301	*e*P	P	16 03 52.7	-4.0
YHNB	Yeheng	25.30	302	P	P	16 03 58.2	-2.0
HNR	Honiara	26.44	145	LR	LR	16 14 27.8	
	comp=Z,327nm,18.4s,MS3.9,baz=360,slow=36						
KSRS	Korea Array	29.11	332	P	P	16 04 34.5	+0.2
	comp=Z,1.1nm,0.5s,mb3.8,baz=139,slow=9.5,SNR=8.4						
KSRS				LR	LR	16 16 01.0	
	comp=Z,243nm,18.4s,MS3.9,baz=125,slow=36						
WHN	Wuhan	33.43	307	*e*P	P	16 05 11.5	-0.9
WB2	Warramunga Arr	33.86	198	*e*P	P	16 05 15.2	-1.0
WB2	Warramunga Arr	33.86	198	*e*P	P	16 05 15.6	-0.6
WB2				*e*		16 05 29.7	
WRA	Warramunga Arr	33.86	198	P	P	16 05 15.7	-0.5
	comp=Z,3.1nm,0.8s,mb4.3,baz=22,slow=9.9,SNR=41						
WRA				LR	LR	16 19 26.5	
	comp=Z,327nm,18.4s,MS4.1,baz=50,slow=37						
FITZ	Fitzroy Crossi	35.84	212	P	P	16 05 35.0	+1.7
	comp=Z,1.4nm,0.9s,mb3.9,baz=24,slow=3.5,SNR=3.1						
KSM	Kuching	35.95	255	P	P	16 05 32.8	-1.6
KSM				*e*	pP	16 05 42.8	-2.3
ASAR	Alice Springs	37.51	197	P	P	16 05 47.4	0.0
	comp=Z,1.0nm,0.6s,mb3.8,baz=21,slow=11,SNR=31						
DZM	Mont Dzumac	40.35	148	P	P	16 06 11.5	+0.2
	comp=Z,5.4nm,0.8s,mb4.3,baz=349,slow=16,SNR=4.1						
DZM				LR	LR	16 21 57.9	
	comp=Z,305nm,18.4s,MS4.2,baz=219,slow=35						
CD2	Chengdu	42.07	302	*e*P	P	16 06 25.3	-0.1
CD2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.5						
HIA	Hailar	42.12	336	P	P	16 06 26.1	+0.6
	comp=Z,3.7nm,0.9s,mb4.0						
HIA	Hailar	42.12	336	*e*P	P	16 06 25.3	-0.3
LZH	Lanzhou	43.70	310	*e*P	P	16 06 39.6	+1.0
LZH				AP	pP	16 06 47.1	-2.4
LZH				XP	sP	16 06 51.5	-2.5
LZH				AMB	AMB		
	comp=Z,21nm,1.2s,mb4.7						
LZH				AMB	AMB		
	comp=Z,88nm,4.0s						
LZH				LR	LR		
	comp=E,389nm,12.7s						
LZH				LR	LR		
	comp=Z,490nm,13.3s,MS4.6						
LZH	Lanzhou	43.70	310	*e*P	P	16 06 39.6	+1.0
	comp=Z,21nm,1.2s,mb4.7						
LZH				pP	pP	16 06 47.1	-2.4
LZH				sP	sP	16 06 51.5	-2.5
LZH				LR	LR		
	comp=Z,490nm,13.3s,MS4.6						
KULM	Kulim	44.22	265	*e*P	P	16 06 43.3	+0.3
STKA	Stephens Creek	44.23	184	LR	LR	16 25 32.3	
	comp=Z,405nm,18.5s,MS4.4,baz=22,slow=36						
CM31	Chiang Mai Arr	44.56	284	P	P	16 06 45.3	-0.4
	comp=Z,1.3nm,0.6s,mb3.9						
PSI	Prapat	46.47	262	P	P	16 07 00.8	-0.1
PSI	Prapat	46.47	262	P	P	16 07 00.8	-0.1
	comp=Z,2.4nm,0.5s,mb4.3,baz=56,slow=11,SNR=3.0						
MA2	Magadan	47.20	4	*e*P	P	16 07 05.7	-0.1
	comp=Z,3.8nm,0.8s,mb4.4						
MA2	Magadan	47.20	4⇑	*e*P	P	16 07 05.0	-0.8
MA2				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
ULN	Ulaanbaatar	47.27	326	P	P	16 07 07.7	+1.0
	comp=Z,2.1nm,0.9s,mb4.1						
ULN	Ulaanbaatar	47.27	326⇑	*e*P	P	16 07 04.5	-2.1
SONM	Songino Array	47.62	325	P	P	16 07 09.6	+0.3
SONM						16 08 38.8	
SONM	Songino Array	47.62	325	P	P	16 07 09.6	+0.3
	comp=Z,0.5nm,0.6s,mb3.8,baz=138,slow=6.2,SNR=6.8						
SONM				PcP	PcP	16 08 38.8	+0.2
	comp=Z,1.2nm,0.7s,baz=150,slow=4.7,SNR=5.7						
SONM				LR	LR	16 28 34.3	
	comp=Z,328nm,18.6s,MS4.3,baz=0.0,slow=38						
YAK	Yakutsk	50.66	351	*e*P	P	16 07 30.0	-2.3
	comp=Z,19nm,0.8s,mb5.1						
YAK	Yakutsk	50.66	351	*e*P	P	16 07 32.3	0.0
YAK				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
YAK				pmax	pmax		
	comp=N,17nm,1.3s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.2s						
ZAK	Zakamensk	50.74	327	*e*P	P	16 07 33.6	+0.5
ZAK				*e*		16 08 51.3	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb3.8						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.9						
LSA	Lhasa	52.49	298	*e*P	P	16 07 48.5	+1.9
	comp=Z,9.7nm,1.1s,mb4.7						
LSA	Lhasa	52.49	298	*e*P	P	16 07 48.5	+1.9
LSA				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
TAPN	Taplejung	55.29	295	*e*P	P	16 08 08.1	+1.0
	comp=Z,60nm,1.3s,mb5.5						
ODAN	Odare	55.55	294	*e*P	P	16 08 09.8	+0.8
	comp=Z,49nm,1.3s,mb5.4						
UNV	Unalaska Valle	56.24	32	P	P	16 08 12.9	-0.5
	comp=Z,61nm,1.1s,mb5.5						
JIRN	Jiri	56.66	295	*e*P	P	16 08 18.4	+1.5
	comp=Z,2.8nm,0.2s,mb4.9						
BILL	Bilibino	57.23	9	*e*P	P	16 08 19.8	-0.5
	comp=Z,5.1nm,1.1s,mb4.5						
BILL	Bilibino	57.23	9	*e*P	P	16 08 21.2	+1.0
BILL				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.2						
KKN	Kakani	57.47	295	*e*P	P	16 08 23.2	+0.6
	comp=Z,24nm,1.2s,mb5.1						
WMQ	Urumqi	57.89	314	P	P	16 08 26.0	+0.7
GKN	Gorkha	58.05	295	*e*P	P	16 08 27.2	+0.5
	comp=Z,33nm,0.8s,mb5.4						
TIXI	Tiksi	59.91	354	*e*P	P	16 08 37.2	-1.6
	comp=Z,7.1nm,1.1s,mb4.6						
TIXI	Tiksi	59.91	354	*e*P	P	16 08 34.9	-3.9
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.5						
MK31	Makanchi Array	62.27	316	*e*P	P	16 08 56.0	+0.8
MKAR	Makanchi Array	62.27	316	P	P	16 08 56.2	+0.9
MKAR	Makanchi Array	62.27	316	P	P	16 08 56.2	+0.9
	comp=Z,0.7nm,0.3s,mb4.2,baz=93,slow=8.9,SNR=22						
ZALV	Zalesovo Beam	62.51	325	P	P	16 08 56.1	-0.5
	comp=Z,0.6nm,0.4s,mb4.0,baz=117,slow=7.5,SNR=5.4						
ZALV				PcP	PcP	16 09 35.6	-0.1
	comp=Z,1.6nm,0.4s,baz=122,slow=3.6,SNR=8.8						
ZALV				LR	LR	16 37 17.1	
	comp=Z,148nm,18.1s,MS4.2,baz=241,slow=37						
ZAL	Zalesovo	62.51	325	P	P	16 08 56.2	-0.5
ZAL						16 09 35.6	
KDAK	Kodiak Island	64.99	32	P	P	16 09 13.3	+0.3
	comp=Z,4.8nm,0.6s,mb4.7,baz=285,slow=5.2,SNR=5.2						
KURK	Kurchatov	65.41	320	*e*P	P	16 09 15.6	-0.3
	comp=Z,4.6nm,1.0s,mb4.5						
KURK	Kurchatov	65.41	320⇑	*e*P	P	16 09 14.8	-1.1
TKM2	Tokmak 2	66.43	311	*e*P	P	16 09 23.7	+1.1
	comp=Z,2.3nm,0.9s,mb4.2						
TKM2	Tokmak 2	66.43	311	*e*P	P	16 09 23.7	+1.1
TKM2				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
UCH	Uchtor	67.18	311	*e*P	P	16 09 28.7	+1.3
	comp=Z,10nm,1.5s,mb4.6						
AAK	Ala-Archa	67.22	311	P	P	16 09 27.8	+0.1
	comp=Z,2.3nm,1.1s,mb4.1						
AAK	Ala-Archa	67.22	311	*e*P	P	16 09 26.6	-1.0
EKS2	Erkin-Say	67.75	311	P	P	16 09 32.5	+1.6
	comp=Z,2.8nm,1.0s,mb4.2						
COLA	College	69.18	25	*e*P	P	16 09 37.3	-2.1
BRVK	Borovoye	70.84	322	*e*P	P	16 09 49.7	-0.2
	comp=Z,2.2nm,0.6s,mb4.3						
BRVK	Borovoye	70.84	322	*e*P	P	16 09 49.7	-0.2
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
KBL	Kabul	71.41	302	*e*P	P	16 09 53.9	+0.2
INK	Inuvik	75.37	22	*e*P	P	16 10 16.7	+0.3

	comp=Z,293nm,1.1s						
INK	Inuvik	75.37	22	P	P	16 10 16.5	+0.2
	comp=Z,2.9nm,0.9s,mb4.2,baz=226,slow=4.5,SNR=5.9						
ARU	Arti	77.66	325	P	P	16 10 29.7	+0.1
	comp=Z,2.0nm,0.7s,mb4.2						
ARU	Arti	77.66	325	⇑*i*P	P	16 10 28.8	-0.7
ARU				*e*		16 13 24.7	
ARU				*e*S	S	16 20 11.5	-7.1
ARU				*e*SSS		16 28 36.1	
ARU				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
AKTO	Aktyubinsk	78.48	319	LR	LR	16 46 10.6	
	comp=Z,92nm,18.3s,MS4.2,baz=340,slow=36						
YKA	Yellowknife Ar	83.82	27	P	P	16 11 02.5	+0.1
YKA	Yellowknife Ar	83.82	27	P	P	16 11 02.5	+0.1
	comp=Z,0.8nm,0.5s,mb4.2,baz=288,slow=5.2,SNR=17						
RES	Resolute Bay	85.61	13	*e*P	P	16 11 10.3	-0.8
	comp=Z,2µm,2.4s						
NEW	Newport	86.04	42	*e*P	P	16 11 15.9	+2.1
	comp=Z,3.9nm,0.8s,mb4.7						
NEW	Newport	86.04	42	*e*P	P	16 11 15.9	+2.1
NEW				pmax	pmax		
	comp=Z,4.0nm,0.8s						
WVOR	Wild Horse Val	86.40	47	P	P	16 11 17.5	+1.8
	comp=Z,1.5nm,0.7s,mb4.3						
WVOR	Wild Horse Val	86.40	47	P	P	16 11 17.5	+1.8
WVOR				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.2						
NVAR	Mina Array Bea	87.60	51	P	P	16 11 23.4	+1.7
	comp=Z,0.8nm,0.8s,mb4.0,baz=288,slow=3.7,SNR=3.5						
ARCES	ARCESS Array B	88.12	342	P	P	16 11 23.8	+0.3
ARCES	ARCESS Array B	88.12	342	P	P	16 11 23.8	+0.3
	comp=Z,1.2nm,0.6s,mb4.3,baz=84,slow=8.1,SNR=7.6						
JOF	Joensuu	89.28	335	*e*p	P	16 11 28.1	-0.9
	comp=Z,0.8nm,0.4s,mb4.4						
OBN	Obninsk	90.01	327	*e*P	P	16 11 31.7	-0.9
OBN				pmax	pmax		
	comp=Z,10.0nm,1.6s,mb4.9						
OBN				MLR	MLR		
	comp=Z,100nm,15.0s,MS4.4						
MIB	Mutribah	90.28	300	*e*P	P	16 11 32.2	-2.2
MIB				AMb	AMB	16 11 37.8	
	comp=Z,10nm,0.5s,mb5.4						
RDF	Al-Radifah	90.32	300	*e*P	P	16 11 27.8	-6.8
RDF				AMb	AMB	16 11 41.8	
	comp=Z,16nm,1.2s,mb5.2						
NAY	Al-Naaiem	90.50	300	*e*P	P	16 11 31.6	-3.9
NAY				AMb	AMB	16 11 38.9	
	comp=Z,6.9nm,0.8s,mb5.0						
RST	Umm Al-Ruwaisa	90.64	300	*e*P	P	16 11 34.1	-2.0
RST				AMb	AMB	16 11 38.3	
	comp=Z,3.1nm,0.8s,mb4.7						
FINES	FINESS Array B	92.14	335	P	P	16 11 40.9	-1.5
	comp=Z,0.6nm,0.4s,mb4.3,baz=70,slow=5.1,SNR=9.7						
FINES				LR	LR	16 54 31.9	
	comp=Z,127nm,19.5s,MS4.4,baz=354,slow=36						
PDAR	Pinedale Array	92.73	45	P	P	16 11 45.4	-0.1
PDAR	Pinedale Array	92.73	45	P	P	16 11 45.4	-0.1
	comp=Z,0.4nm,0.6s,mb4.0,baz=253,slow=2.5,SNR=2.6						
HFS	Hagfors	97.80	338	LR	LR	16 58 46.4	
	comp=Z,94nm,20.4s,MS4.3,baz=248,slow=37						
NOA	NORSAR Array B	98.06	339	LR	LR	17 02 25.7	
	comp=Z,53nm,18.8s,MS4.1,baz=285,slow=39						
KIC	Kosan Boka	144.45	300	*e*PKP1	PKPdf	16 18 09.8	-0.6
	comp=Z,120nm,1.2s						
TIC	Toumodi	144.54	301	*e*PKP1	PKPdf	16 18 10.0	-0.6
	comp=Z,68nm,1.0s						
LIC	Lamto	144.76	300	*e*PKP1	PKPdf	16 18 10.7	-0.3
	comp=Z,43nm,0.8s						
LPAZ	La Paz	147.84	101	*e*PKPbc	PKPbc	16 18 21.6	+2.6
LPAZ	La Paz	147.84	101	*e*PKP2	PKPab	16 18 21.6	+0.1
LPAZ	La Paz	147.84	101	PKPbc	PKPbc	16 18 20.7	+1.7
	comp=Z,3.8nm,0.8s,baz=237,slow=5.0,SNR=8.2						

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*GCMT **15** 16:27:52.0±0.2, 41.43S×88.87W, h19^{km}±1^{km}, MW5.0/68, Moment Tensor Solution. s34,c40; s68,c103; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.00±.16; $M_{\theta\theta}$1.14±.15; $M_{\phi\phi}$-0.14±.15; $M_{r\theta}$-0.69±.28; $M_{\theta\phi}$-4.08±.12; $M_{\phi r}$-0.47±.29; Best double couple: $M_0$4.24900×10^{16} NP1:ϕ_s355.00000°,δ77.00000°,λ-10.00000°. NP2: ϕ_s87.00000°,δ80.00000°,λ-167.00000°. Principal axes: T 4.6380, Plg2.0000°, Azm220.0000°; N -0.7770, Plg74.0000°, Azm122.0000°; P -3.8600, Plg16.0000°, Azm311.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC 15 16:27:45.5±2.2**, 4151S**×**8920W, h10**^{km}**, mb4.6**/4 **Error ellipse: s-maj=55.0km s-min=26.9km az=170.0, Southeast of Easter Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDZ	Mendoza	18.33	69	*e*P	Pn	16 32 00.5	+0.8
LCO	Las Campanas	19.54	56	*e*P	Pn	16 32 13.1	-1.3
	19nm,0.3s						
ARE	Arequipa	29.25	37	*e*P	P	16 33 47.0	-0.7
LPAZ	La Paz	31.01	42	P	P	16 34 03.7	+0.5
	7.1nm,1.0s						
OTAV	Otavalo	42.68	16	P	P	16 35 44.0	+1.6
	11nm,1.3s						
LHS	Liberty Hill	76.01	7	P	P	16 39 37.3	+4.8
LHS				*e*		16 39 52.5	
SRU	San Rafael	82.56	343	P	P	16 40 12.4	+4.3
	7.8nm,1.1s						
TIXI	Tiksi	144.44	340	P	PKPdf	16 47 20.5	-0.1

IDC 15 16:28:45.5±8.8**, 229N**×**12790E, h195**^{km}±87^{km}**, mb3.1**/5**, mb1 3.2**/5**, mb1mx3.1**/16**, mbtmp3.1**/5**, MS3.2**/1**, Ms1 3.2**/1**, ms1mx2.2**/15**, Error ellipse: s-maj=111.4km s-min=18.1km az=67.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	20.39	186	LR	LR	16 40 52.5	
	comp=Z,68nm,21.7s,baz=108,slow=36						
WRA	Warramunga Arr	22.98	164	P	P	16 33 33.1	-0.1
	1.2nm,0.3s,baz=344,slow=10,SNR=27						
ASAR	Alice Springs	26.46	168	P	P	16 34 05.0	+0.4
	0.1nm,0.3s,baz=351,slow=8.1,SNR=7.7						
ASAR				PcP	PcP	16 37 24.1	-0.6
	0.3nm,0.4s,baz=355,slow=1.7,SNR=7.3						
STKA	Stephens Creek	36.38	160	P	P	16 35 31.2	-0.1
	0.8nm,0.4s,baz=335,slow=8.1,SNR=6.9						
SONM	Songino Array	49.03	341	P	P	16 37 12.1	-0.4
	0.2nm,0.6s,baz=153,slow=6.2,SNR=2.3						
MKAR	Makanchi Array	59.40	325	P	P	16 38 27.9	+0.4
	0.5nm,0.4s,baz=118,slow=8.1,SNR=8.0						

KRSC 15 16:32:12.5±0.2**, 5405N**×**16156E, h35**^{km}±34^{km}**, ML3.7, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKZ	Mys Kozlova	0.52	11	*i* P	Pn	16 32 23.7	+0.3
MKZ				*i* S	Sn	16 32 31.3	+0.4
KII	Karymskiy	1.25	270	*e*P	Pn	16 32 34.9	+1.6
KII				*i* S	Sn	16 32 50.7	+1.8
SPN	Mys Shipunski	1.32	224	*i* P	Pn	16 32 35.4	+1.0
SPN				*i* S	Sn	16 32 52.1	+1.3
TUMR	Tumrok	1.48	327	*e*P	Pn	16 32 37.9	+1.3
TUMR				*i* S	Sn	16 32 56.0	+1.2
NLC	Nalytchevo	1.59	237	*e*P	Pn	16 32 39.4	+1.4
NLC				*i* S	Sn	16 32 59.1	+1.8
AVH	Avacha	1.85	246	*e*P	Pn	16 32 44.4	+2.7
AVH				*i* S	Sn	16 33 07.5	+3.6
KMNR	Kamenistaya	1.87	336	*e*P	Pn	16 32 44.4	+2.4
KMNR				*i* S	Sn	16 33 07.7	+3.4
BZMR	Bezymyannaya	1.99	342	*e*P	Pn	16 32 45.5	+2.0
BZMR				*i* S	Sn	16 33 08.8	+1.6
PET	Petropavlovsk	2.02	241	*e*P	Pn	16 32 46.0	+2.1
PET				*i* S	Sn	16 33 10.3	+2.4
ZLN	Zelenaya	2.02	348	*e*P	Pn	16 32 46.3	+2.3
ZLN				*i* S	Sn	16 33 10.8	+2.9
KIRR	Kirishev	2.03	340	*e*P	Pn	16 32 46.5	+2.3
KIRR				*i* S	Sn	16 33 11.1	+2.8
KPT	Kopyto	2.07	339	*e*P	Pn	16 32 46.9	+2.2
KPT				*i* S	Sn	16 33 11.5	+2.3
CIRR	Tsirk	2.12	348	*e*P	Pn	16 32 47.8	+2.4
CIRR				*i* S	Sn	16 33 13.4	+2.9
GNL	Ganaly	2.17	262	*e*P	Pn	16 32 48.9	+2.8
GNL				*i* S	Sn	16 33 15.0	+3.3
KOZ	Kozyrevsk	2.23	335	*e*P	Pn	16 32 49.8	+2.9
KOZ				*i* S	Sn	16 33 16.7	+3.4
KRSR	Krestovskiy	2.25	346	*e*P	Pn	16 32 48.7	+1.6
KRSR				*i* S	Sn	16 33 14.7	+1.2
KBTR	Krutoberegovo	2.28	18	*e*P	Pn	16 32 48.4	+0.8
KBTR				*i* S	Sn	16 33 15.5	+1.1
KLY	Klyuchi	2.33	347	*e*P	Pn	16 32 49.5	+1.3
KLY				*i* S	Sn	16 33 16.4	+0.9
RUS	Russkaya	2.44	230	*e*P	Pn	16 32 51.5	+1.7
RUS				*i* S	Sn	16 33 20.1	+1.7
SRDR	Sredinnyy	2.51	336	*e*P	Pn	16 32 52.3	+1.6
BDR	Baidarnaya	2.53	356	*e*P	Pn	16 32 53.8	+2.8
SMKR	Semkarok	2.54	359	*e*P	Pn	16 32 52.9	+1.8
GRL	Gorelyy	2.58	236	*e*P	Pn	16 32 54.6	+3.0
GRL				*i* S	Sn	16 33 25.2	+3.5
SRKR	Sorokina	2.62	355	*e*P	Pn	16 32 54.8	+2.6

CASC 15 16:34:50.9±2.0**, 837N**×**8284W, h22**^{km}±5^{km}**, MD4.0, 5C-5D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVD	David	0.39	80	⇑*i*P	Pb	16 34 59.0	-0.2
BRU	Baru	0.52	33	⇓*i*P	Pb	16 35 01.7	+0.4
CTCR	Cotoan	0.53	9	⇓*e*P	Pb	16 35 01.6	0.0
BAR1		0.98	332	⇓*e*P	Pb	16 35 07.8	-1.6
BAR1				*e*S	Sb	16 35 21.1	-0.8
CNI	Changuinola	1.09	17	⇑*i*P	Pn	16 35 10.5	-0.4
BUS	Buena Vista	1.49	323	*e*P	Pn	16 35 15.8	-0.6
BUS				*e*S	Sn	16 35 36.2	+1.0
QCR	Quepos	1.68	309	⇓*e*P	Pn	16 35 17.9	-1.1
QCR				*e*S	Sn	16 35 41.0	+1.2
URSC	Urasca	1.73	328	⇓*e*P	Pn	16 35 19.8	+0.1
URSC				*e*S	Sn	16 35 42.1	+1.1
LCR2	La Lucha 2	1.78	320	*e*P	Pn	16 35 20.8	+0.4
LCR2				*e*S	Sn	16 35 44.0	+1.5
ICR	Volcan Irazu	1.88	329	*e*P	Pn	16 35 22.8	+1.1
LAJ	Bijagual	1.95	320	⇑*e*P	Pn	16 35 24.5	+1.7
PRS1	Puriscal	2.16	318	⇑*e*P	Pn	16 35 25.1	-0.6
PRS1				*e*S	Sn	16 35 51.5	-0.3
CGA2	Cerro Gallo 2	2.29	316	*e*P	Pn	16 35 27.3	-0.1
CGA2				*e*S	Sn	16 35 58.0	+3.0
AZU	Azuero	2.61	103	*e*P	Pn	16 35 31.6	-0.2
AZU				*e*S	Sn	16 36 03.7	+0.9
JCR	Jicaral	2.68	303	*e*P	Pn	16 35 32.5	-0.3
BCIP	Isla Barro Col	3.07	75	⇑*i*P	Pn	16 35 38.1	-0.1
2RIO	Dos Rios de Up	3.19	312	*e*P	Pn	16 35 43.5	+3.7

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*JMA **15** 16:37:02.4±0.3, 33.10N×138.51E, h338^{km}, M3.3*

*ISCJB **15** 16:37:06.3±0.7, 33.24N±0.09×138.4E±0.1, h305^{km}±5^{km}, mb3.2/9, Error ellipse: s-maj=17.7km s-min=10.7km az=42.2*

*IDC **15** 16:37:07.2±1.7, 33.23N×138.30E, h301^{km}±16^{km}, mb3.0/9, mb1 3.2/12, mb1mx3.1/26, mbtmp3.1/12, Error ellipse: s-maj=25.2km s-min=13.5km az=85.0*

ISC 15 16:37:07.3±0.7**, 3326N**±009×**1383E**±01**, h299**^{km}±5^{km}**, n26,** σ**0**^{s}**.77**/30**, mb3.2**/9**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK02	Tokai 2	0.84	325	P	Pn	16 37 47.5	+0.6
JIE	Ise	1.77	310	P	Pn	16 37 52.4	+0.2
JOD2	Odawara 2	2.09	17	P	Pn	16 37 55.1	+0.4
JOD2				S	S	16 38 33.8	+1.3
JWZ	Kozaga	2.22	278	P	Pn	16 37 55.3	-0.5
JYN	Shimob	2.24	4	P	Pn	16 37 56.4	+0.5
JWY	Kouya	2.48	293	P	Pn	16 37 58.4	+0.3
JGM	Miyama	2.78	332	P	Pn	16 38 01.0	+0.2
JRY	Ryogami san	2.79	9	P	Pn	16 38 01.0	+0.1
JRY				*e*S	S	16 38 41.6	-2.1
JWT	Wachi	3.17	310	P	Pn	16 38 04.4	-0.2
MJAR	Matsushiro Arr	3.28	358	P	Pn	16 38 05.2	-0.6
	5.1nm,0.3s,baz=171,slow=11,SNR=49						
MAT	Matsushiro	3.28	358	P	Pn	16 38 05.2	-0.5
MAT				*e*S	S	16 38 52.6	+0.2
MAT	Matsushiro	3.28	358	P	Pn	16 38 05.4	-0.3
JAG	Ashikaga	3.29	16	P	Pn	16 38 04.6	-1.2
JAG				S	S	16 38 47.7	-4.9
JAI	Aioi	3.29	280	P	Pn	16 38 05.7	-0.3
JMN	Monobe	3.76	278	P	Pn	16 38 11.0	+0.1
KSRS	Korea Array	9.48	299	P	Pn	16 39 19.4	+0.4
	0.4nm,0.3s,baz=111,slow=13,SNR=12						
ASAJ	Asahikawa	11.34	16	P	Pn	16 39 42.2	+0.6
	0.8nm,0.3s,baz=227,slow=18,SNR=4.4						
SONM	Songino Array	28.07	311	P	P	16 42 33.1	+1.5
	0.3nm,0.7s,mb2.8,baz=106,slow=9.6,SNR=3.0						
WRA	Warramunga Arr	53.04	185	P	P	16 45 53.5	-0.7
	0.4nm,0.3s,mb3.2,baz=0.2,slow=7.6,SNR=26						
ASAR	Alice Springs	56.76	185	P	P	16 46 20.4	-0.2
	0.1nm,0.5s,mb2.5,baz=14,slow=11,SNR=5.0						
ARCES	ARCESS Array B	66.64	339	P	P	16 47 25.6	0.0
	1.5nm,0.9s,mb3.7,baz=67,slow=6.9,SNR=3.6						
YKA	Yellowknife Ar	68.33	29	P	P	16 47 36.9	+0.6
	0.1nm,0.4s,mb2.9,baz=304,slow=6.2,SNR=3.4						
FINES	FINESS Array B	70.97	332	P	P	16 47 51.8	-0.5
	0.4nm,0.4s,mb3.4,baz=46,slow=5.5,SNR=6.8						
HFS	Hagfors	76.46	335	P	P	16 48 23.3	-0.7
	0.9nm,0.7s,mb3.5,baz=54,slow=7.3,SNR=3.2						
NOA	NORSAR Array B	76.67	336	P	P	16 48 23.8	-1.3
	0.6nm,0.7s,mb3.5,baz=44,slow=5.4,SNR=3.1						
TXAR	Lajitas Array	94.44	51	P	P	16 49 55.1	+1.3
	0.4nm,0.8s,mb3.5,baz=336,slow=5.5,SNR=3.7						

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*IDC **15** 16:41:50.6±0.7, 36.55N×72.84E, h0^{km}, mb4.3/14, mb1 4.4/17, mb1mx4.2/25, mbtmp4.3/17, ML4.1/3, MS3.6/5, Ms1 3.6/5, ms1mx3.1/44, Error ellipse: s-maj=19.4km s-min=15.0km az=36.0*

*MOS **15** 16:41:54.6±1.0, 36.71N×72.93E, h33^{km}, mb4.7/9, Error ellipse: s-maj=13.5km s-min=6.7km az=87.0*

*NNC **15** 16:41:57.6±9.6, 36.59N×72.91E, h180^{km}±100^{km}, mb3.2, mpv3.7, Error ellipse: s-maj=99.2km s-min=43.1km az=21.0*

*ISCJB **15** 16:41:57.3±0.4, 36.69N±0.02×73.07E±0.04, h66^{km}±5^{km}, mb4.2/30, Error ellipse: s-maj=5.6km s-min=3.6km az=170.6*

*BJI **15** 16:41:57.2, 36.90N×72.94E, h63^{km}, mB5.1, mb4.5, ML4.2, Ms4.0, Msz3.7*

*NEIC **15** 16:41:59.6±0.8, 36.80N×72.98E, h62^{km}±7^{km}, mb4.0/5, Error ellipse: s-maj=9.6km s-min=6.9km az=126.0*

ISC 15 16:41:59.1±0.4**, 3669N**±002×**7302E**±004**, h67**^{km}±4^{km}**, n108,** σ**1**^{s}**.27**/124**, mb4.2**/30**, 6C-4D, Northwestern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	3.00	198	⇓P	Pn	16 42 45.7	+1.5
CHCP	Chirah Chowk	3.03	176	⇑P	Pn	16 42 48.0	+3.3
CHCP				S	Sn	16 43 31.0	+11
KSH	Kashi	3.66	39	P	Pn	16 42 54.9	+1.7
KSH				Smax			
	comp=N,2µm,0.8s						
KSH				Smax			
	comp=E,1µm,0.6s						
KBL	Kabul	3.88	238	*e*Pn	Pn	16 42 56.7	+0.5
KBL				*e*Sn	Sn	16 43 54.5	+14
THW	Thamme Wali	4.03	195	⇓P	Pn	16 42 58.6	+0.4
SBDP	Sheikh Budin	4.75	203	P	Pn	16 43 07.3	-0.8
THN	Thein Dam	4.79	152	*e*P	Pn	16 43 09.4	+0.7
THN				*e*S	Sn	16 44 04.2	+1.2
DLH	Dalhousie	4.80	149	*e*P	Pn	16 43 10.0	+1.2
DLH				*e*S	Sn	16 44 07.0	+3.9
AML	Almayashu	5.46	5	P	Pn	16 43 21.5	+3.8
	SNR=25						
AML	Almayashu	5.46	5	*e*Pn	Pn	16 43 18.0	+0.3
	comp=E,52nm,0.6s						
AML				*e*Sn	Sn	16 44 18.0	-1.1
UCH	Uchtor	5.65	11	P	Pn	16 43 21.5	+1.1
	SNR=40						
UCH	Uchtor	5.65	11	⇑*e*Pn	Pn	16 43 20.9	+0.6
	comp=E,86nm,1.0s						
KZA	Kyzart	5.65	17	P	Pn	16 43 21.1	+0.7
	SNR=40						
EKS2	Erkin-Say	5.99	5	P	Pn	16 43 26.9	+1.8
	SNR=11						
EKS2	Erkin-Say	5.99	5	*e*Pn	Pn	16 43 26.0	+0.9
	comp=E,19nm,0.6s						
AAK	Ala-Archa	6.04	10	P	Pn	16 43 26.9	+1.1
	SNR=14						
AAK	Ala-Archa	6.04	10	⇑*e*Pn	Pn	16 43 25.3	-0.4
	comp=E,34nm,0.7s						
AAK				*e*		16 43 41.5	
AAK	Ala-Archa	6.04	10	⇑*e*PN	Pn	16 43 25.3	-0.4
AAK				*e*		16 43 41.5	
AAK				pmax	pmax		
	comp=Z,34nm,0.7s						
ULHL	Ulahol	6.08	23	P	Pn	16 43 28.2	+1.9
	SNR=5.8						
SDNR	Sundarnagar	6.13	147	*e*P	Pn	16 43 25.6	-1.4
SDNR				*e*S	Sn	16 44 36.6	+1.0
KBK	Karagaybulak	6.14	13	P	Pn	16 43 28.4	+1.3
	SNR=14						
FRU	Bishkek	6.26	11	*e*PN	Pn	16 43 32.6	+3.9
FRU				*e*		16 43 46.8	
FRU				*e*S	Sn	16 44 46.4	+7.7
FRU				*e*S	Sn	16 45 05.6	+27
FRU				pmax	pmax		
	comp=Z,100nm,2.0s						
FRU				smax			
	comp=E,620nm,2.2s						
CHMS	Chumysh	6.44	11	P	Pn	16 43 31.7	+0.5
	SNR=6.9						
TKM2	Tokmak 2	6.53	17	P	Pn	16 43 32.9	+0.5
	SNR=16						
TKM2	Tokmak 2	6.53	17	⇑Pn	Pn	16 43 33.1	+0.7
	comp=E,0.9nm,0.6s						
TKM2	Tokmak 2	6.53	17	*e*Pn	Pn	16 43 32.6	+0.2
	comp=E,20nm,0.7s						
TKM2	Tokmak 2	6.53	17	*e*PN	Pn	16 43 32.6	+0.2
TKM2				pmax	pmax		
	comp=Z,19nm,0.7s						
USP	Ospenovka	6.67	9	P	Pn	16 43 34.6	+0.4
	SNR=10						
KK08	Karatay Array	6.70	344	⇓Pn	Pn	16 43 34.2	-0.5
	comp=Z,8.9nm,0.5s						
KK08				⇓Sn	Sn	16 44 52.6	+3.2
	comp=Z,21nm,0.8s						
JOSI	Joshimath	8.19	136	*e*P	Pn	16 43 54.5	-0.8
JOSI				*e*S	Sn	16 45 25.8	-0.5
JOSI				AML	AML	16 45 33.6	
	comp=N,407nm,0.8s						
JOSI				AML	AML	16 45 36.0	
	comp=E,206nm,0.8s						
NDI	New Delhi	8.73	155	*e*P	Pn	16 44 01.0	-1.6
NDI				*e*x	x	16 45 43.0	
KHET	Khetri	8.91	164	*e*P	Pn	16 44 01.4	-3.6
KHET				*e*S	Sn	16 45 36.3	-7.5
KUDL	Kundal	9.01	160	*e*P	Pn	16 44 03.7	-2.7
KUDL				*e*S	Sn	16 45 41.7	-4.6
SONA	Sohna	9.09	157	*e*P	Pn	16 44 05.9	-1.5
SONA				*e*S	Sn	16 45 44.0	-4.1
SONA				AML	AML	16 45 55.6	
	comp=E,37nm,0.6s						
SONA				AML	AML	16 45 57.0	
	comp=N,21nm,0.4s						
MK31	Makanchi Array	12.23	32	Pn	Pn	16 44 48.4	-1.8
	comp=N,6.2nm,0.8s,baz=26,slow=5.1,SNR=22						
MK31	Makanchi Array	12.23	32	*e*Pn	Pn	16 44 49.0	-1.2
MK31	Makanchi Array	12.23	32	*e*P	Pn	16 44 49.0	-1.2
MKAR	Makanchi Array	12.23	32	Pn	Pn	16 44 48.7	-1.5
MKAR	Makanchi Array	12.23	32	Pn	Pn	16 44 48.7	-1.5
	comp=N,0.3nm,0.3s,baz=201,slow=12,SNR=23						
GKN	Gorkha	13.09	128	*e*P	Pn	16 44 57.0	-5.0
	comp=N,58nm,0.7s						
WMQ	Urumqi	13.27	53	*e*P	Pn	16 45 03.4	-1.0
WMQ				AP		16 45 13.0	
WMQ				PP		16 45 15.4	
WMQ				XP		16 45 22.1	
WMQ				S	Sn	16 47 29.3	-0.7
WMQ				SS		16 47 46.0	
WMQ				AMB	AMB		
	comp=Z,11nm,0.8s						
WMQ				LR	LR		
	comp=N,339nm,19.8s						
WMQ				LR	LR		
	comp=E,187nm,20.0s						
WMQ				LR	LR		
	comp=Z,145nm,16.5s						
KKN	Kakani	13.64	127	*e*P	Pn	16 45 03.8	-5.6
	comp=Z,30nm,0.7s						
JIRN	Jiri	14.32	125	*e*P	Pn	16 45 13.9	-4.5
	comp=Z,4.8nm,0.2s						
KURK	Kurchatov	14.59	14	*e*Pn	Pn	16 45 19.7	-1.9
	comp=Z,9.6nm,0.8s						
KURK	Kurchatov	14.59	14	*e*P	Pn	16 45 19.7	-1.9
KURK				pmax	pmax		
	comp=Z,10.0nm,0.8s						
TAPN	Taplejung	15.54	123	*e*P	Pn	16 45 29.5	-4.6
	comp=Z,18nm,0.5s						
TAPN				*e*S	S	16 48 16.1	-21
ODAN	Odare	15.65	125	*e*P	Pn	16 45 30.7	-4.8
	comp=Z,27nm,0.6s						
AB31	Akbulak array	15.76	327	Pn	Pn	16 45 32.8	-3.8
	comp=Z,7.3nm,0.8s,baz=134,slow=14,SNR=35						
AB31				⇑Sn	Sn	16 48 22.5	-7.8
	comp=Z,4.2nm,0.8s,baz=137,slow=25,SNR=3.8						
BRVK	Borovoye	16.48	354	*e*Pn	Pn	16 45 44.3	-1.4
	comp=Z,18nm,1.1s						
BRVK	Borovoye	16.48	354	*e*P	Pn	16 45 44.3	-1.4
BRVK				pmax	pmax		
	comp=Z,17nm,1.1s						
LSA	Lhasa	16.69	109	*e*Pn	Pn	16 45 44.9	-3.6
	comp=Z,3.1nm,0.7s						
LSA	Lhasa	16.69	109	*e*P	Pn	16 45 44.9	-3.6
LSA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
AKTK	Aktyubinsk	17.47	327	P	Pn	16 45 57.0	-1.0
AKTK				S	S	16 49 00.0	-16
AKTO	Aktyubinsk	17.47	327	P	Pn	16 45 57.0	-1.0
	comp=Z,1.0nm,0.3s,baz=128,slow=9.6,SNR=16						
AKTO				S	S	16 49 00.0	-16
	comp=Z,0.1nm,0.3s,baz=205,slow=19,SNR=1.7						
ZAL	Zalesovo	19.09	22	P	Pn	16 46 16.4	-1.0
ZALV	Zalesovo Beam	19.10	22	P	Pn	16 46 16.4	-1.2
ZALV				LR	LR	16 53 29.4	
ZALV	Zalesovo Beam	19.10	22	P	Pn	16 46 16.4	-1.2
	comp=Z,1.0nm,0.3s,baz=211,slow=11,SNR=32						
ZALV				LR	LR	16 53 29.4	
	comp=Z,34nm,21.1s,baz=210,slow=36						
NVS	Novosibirsk	19.46	18	*e*P	Pn	16 46 21.1	-0.8
NVS				*e*		16 49 57.1	
NVS				pmax	pmax		
	comp=Z,57nm,2.9s						
NVS				pmax	pmax		
	comp=N,21nm,2.0s						
HYB	Hyderabad	19.81	164	*e*P	Pn	16 46 26.5	+0.2
HYB	Hyderabad	19.81	164	*i* P	Pn	16 46 26.5	+0.2
ARU	Arti	22.02	338	*e*P	P	16 46 47.4	-0.1
	comp=N,12nm,1.0s,mb4.2						
ARU	Arti	22.02	338	*e*P	P	16 46 47.6	0.0
MIB	Mutribah	22.51	260	*e*P	P	16 46 52.3	-0.7
MIB				AMb	AMB	16 46 55.8	
	comp=Z,27nm,0.7s,mb4.7						
QRN	Al-Qurain	22.51	257	*e*P	P	16 46 52.9	-0.2
QRN				AMb	AMB	16 46 55.4	
	comp=Z,21nm,0.7s,mb4.6						
RDF	Al-Radifah	22.72	257	*e*P	P	16 46 53.4	-1.8
RDF				AMb	AMB	16 47 02.8	
	comp=Z,14nm,0.8s,mb4.3						
NAY	Al-Naaiem	22.82	258	*e*P	P	16 46 54.9	-1.4
NAY				AMb	AMB	16 46 58.1	
	comp=Z,15nm,1.0s,mb4.3						
ZEI	Tsey	23.14	294	*e*P	P	16 47 04.0	+4.6
ZAK	Zakamensk	25.65	48	*e*P	P	16 47 23.6	+1.4
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.5s,mb3.5						
CD2	Chengdu	26.12	94	*e*P	P	16 47 25.5	-1.2
CD2				AP	pP	16 47 39.9	-2.8
CD2				XP	sP	16 47 47.4	-3.3
CD2				PP		16 48 09.0	
CD2				S	S	16 51 49.8	-3.6
CD2				XS	sS	16 52 14.6	-6.4
CD2				SS		16 52 59.8	
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
CD2				AMB	AMB		
	comp=Z,30nm,5.6s						
CD2				LR	LR		
	comp=N,190nm,12.8s						
CD2				LR	LR		
	comp=Z,120nm,9.8s						
SONM	Songino Array	26.89	55	P	P	16 47 35.3	+1.8
	comp=Z,1.2nm,0.8s,mb3.5,baz=256,slow=9.8,SNR=12						
SONM				LR	LR	16 59 57.8	
	comp=Z,79nm,20.2s,baz=9.5,slow=40						

ULN	**Ulaanbaatar**	**27.33**	**55**	P	**P**	**16 47 37.5**	**+0.1**
	comp=Z,1.7nm,0.7s,mb3.7						
ULN	**Ulaanbaatar**	**27.33**	**55**	P	**P**	**16 47 37.5**	**+0.1**
ULN				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
HHC	**Hu-ho-hao-te**	**30.17**	**70**	*e*P	**P**	**16 48 01.0**	**-1.7**
HHC				AP	pP	16 48 15.9	-3.0
HHC				XP	sP	16 48 23.3	-3.5
HHC				PP	PP	16 49 01.3	-10
HHC				PCP	PcP	16 51 02.6	+0.2
HHC				S	**S**	**16 52 53.6**	**-3.4**
HHC				XS	sS	16 53 19.4	-5.3
HHC				SS	SS	16 54 34.3	-33
HHC				SCP	ScP	16 54 38.9	+0.2
HHC				PCS	PcS	16 54 44.3	-1.5
HHC				SCS	ScS	16 58 32.3	-2.1
HHC				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.4						
HHC				AMB	AMB		
	comp=Z,329nm,6.1s						
HHC				LR	LR		
	comp=N,258nm,19.9s						
HHC				LR	LR		
	comp=E,176nm,19.0s						
HHC				LR	LR		
	comp=Z,152nm,17.1s						
OBN	**Obninsk**	**30.86**	**318**	*e*P	**P**	**16 48 16.3**	**+7.7**
OBN				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
BRTR	**Keskin Array B**	**30.92**	**288**	P	**P**	**16 48 10.2**	**+0.9**
	comp=Z,1.2nm,0.6s,mb3.8,baz=101,slow=8.7,SNR=8.1						
AKASG	**Malin Array Be**	**34.10**	**308**	P	**P**	**16 48 37.0**	**+0.1**
	comp=Z,0.4nm,0.4s,mb3.6,baz=84,slow=7.2,SNR=7.2						
MLR	**Muntele Rosu**	**36.11**	**299**	P	**P**	**16 48 56.5**	**+2.2**
	comp=Z,2.5nm,0.8s,mb4.2,baz=264,slow=4.7,SNR=5.5						
JOF	**Joensuu**	**36.52**	**329**	*e*p	**P**	**16 48 56.7**	**-0.9**
	comp=Z,5.9nm,0.6s,mb4.7						
JOF	**Joensuu**	**36.52**	**329**	*e*P	**P**	**16 48 56.7**	**-0.9**
JOF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
FINES	**FINESS Array B**	**38.24**	**325**	P	**P**	**16 49 12.6**	**+0.4**
	comp=Z,2.3nm,0.7s,mb4.2,baz=111,slow=11,SNR=13						
KAF	**Kangasniemi**	**38.35**	**327**	*e*p	**P**	**16 49 12.9**	**-0.2**
ARCES	**ARCESS Array B**	**41.60**	**337**	P	**P**	**16 49 40.8**	**+0.9**
	comp=Z,4.3nm,0.6s,mb4.3,baz=108,slow=8.4,SNR=20						
KSRS	**Korea Array**	**43.28**	**72**	LR	LR	17 10 21.9	
	comp=Z,70nm,18.8s,baz=310,slow=39						
HFS	**Hagfors**	**43.92**	**322**	P	**P**	**16 49 58.8**	**0.0**
	comp=Z,6.3nm,0.8s,mb4.4,baz=96,slow=11,SNR=10						
TIXI	**Tiksi**	**44.99**	**22**	*e*P	**P**	**16 50 07.6**	**+0.4**
	comp=Z,2.9nm,0.6s,mb4.2						
TIXI	**Tiksi**	**44.99**	**22**	*e*P	**P**	**16 50 06.9**	**-0.3**
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
TIXI				MLR	MLR		
	comp=Z,56nm,12.0s						
NB2	**NORSAR Subarra**	**45.21**	**323**	P	**P**	**16 50 09.1**	**+0.1**
	comp=Z,2.0nm,0.7s,mb4.0,baz=93,slow=7.9						
NOA	**NORSAR Array B**	**45.21**	**323**	P	**P**	**16 50 08.8**	**-0.2**
NOA	**NORSAR Array B**	**45.21**	**323**	P	**P**	**16 50 08.8**	**-0.2**
	comp=Z,2.7nm,0.8s,mb4.0,baz=93,slow=7.7,SNR=11						
VAE	**Valguarnera**	**46.09**	**289**	LR	LR	17 15 16.8	
	comp=Z,200nm,18.2s,baz=142,slow=44						
KMBO	**Kilima Mbogo**	**50.17**	**230**	P	**P**	**16 50 50.5**	**+2.5**
	comp=Z,1.1nm,0.4s,mb4.2,baz=40,slow=17,SNR=6.1						
TOA0	**Torodi Ar. Sit**	**67.34**	**270**	*e*P	**P**	**16 52 45.1**	**-2.2**
TORD	**Torodi Ar. Bea**	**67.34**	**270**	P	**P**	**16 52 45.8**	**-1.5**
	comp=Z,1.3nm,0.6s,mb4.0,baz=38,slow=5.6,SNR=11						
TORD				LR	LR	17 26 18.4	
	comp=Z,81nm,18.4s,baz=175,slow=40						
INK	**Inuvik**	**73.45**	**10**	*e*P	**P**	**16 53 24.9**	**+1.3**
	comp=Z,44nm,0.4s,mb5.7						
KAKA	**Kakadu**	**74.40**	**119**	*e*P	**P**	**16 53 31.5**	**+1.6**
	comp=Z,6.4nm,0.6s,mb4.5						
BOSA	**Boshof**	**78.95**	**222**	P	**P**	**16 53 54.3**	**-1.0**
BOSA				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.0						
BOSA	**Boshof**	**78.95**	**222**	P	**P**	**16 53 54.3**	**-1.0**
	comp=Z,3.4nm,1.1s,mb4.1,baz=34,slow=3.6,SNR=3.2						
WRA	**Warramunga Arr**	**80.72**	**123**	P	**P**	**16 54 06.6**	**+1.5**
WRA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
WRA	**Warramunga Arr**	**80.72**	**123**	P	**P**	**16 54 06.6**	**+1.5**
	comp=Z,4.1nm,0.8s,mb4.3,baz=322,slow=5.1,SNR=33						
WB2	**Warramunga Arr**	**80.73**	**123**	*e*P	**P**	**16 54 06.5**	**+1.4**
YKA	**Yellowknife Ar**	**80.97**	**4**	P	**P**	**16 54 06.6**	**+0.8**
YKA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
YKA	**Yellowknife Ar**	**80.97**	**4**	P	**P**	**16 54 06.6**	**+0.8**
	comp=Z,2.7nm,0.7s,mb4.2,baz=350,slow=5.4,SNR=56						
ASAR	**Alice Springs**	**83.04**	**126**	P	**P**	**16 54 18.6**	**+1.4**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	**Alice Springs**	**83.04**	**126**	P	**P**	**16 54 18.6**	**+1.4**
	comp=Z,1.3nm,0.7s,mb3.9,baz=307,slow=5.1,SNR=24						
PMG	**Port Moresby**	**83.10**	**107**	P	**P**	**16 54 19.3**	**+1.6**
PMG				pmax	pmax		
	comp=Z,7.0nm,0.7s						
PMG	**Port Moresby**	**83.10**	**107**	P	**P**	**16 54 19.3**	**+1.6**
	comp=Z,6.9nm,0.7s,mb4.6,baz=104,slow=17,SNR=4.3						
CTA	**Charters Tower**	**89.15**	**116**	P	**P**	**16 54 49.0**	**+1.7**
CTA				pmax	pmax		
	comp=Z,5.0nm,1.1s						
CTA	**Charters Tower**	**89.15**	**116**	P	**P**	**16 54 49.0**	**+1.6**
	comp=Z,5.0nm,1.1s,mb4.5,baz=296,slow=13,SNR=3.7						

*ISCJB **15** 17:00:50.9±0.5, 51.56N±0.02×16.06E±0.05, h0^{km}, Error ellipse: s-maj=4.5km s-min=3.6km az=8.3*
*IDC **15** 17:00:54.6±0.8, 51.45N×16.06E, h0^{km}, mb1 3.4/6, mb1mx3.2/22, mbtmp3.3/6, ML2.7/6, Error ellipse: s-maj=20.6km s-min=7.7km az=102.0*
*PRU **15** 17:00:55.5, 51.43N×16.09E, h0^{km}*
*WAR **15** 17:00:55, 51.47N×16.03E, ML2.3, Mining Induced*
ISC 15 17:00:52.5±0.5**, 51.53N**±0.03×**16.10E**±0.05**, h0**^{km}**, n17, σ0^{s}91**/32**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.70**	**170**	*e*Pg	**Pg**	**17 01 07.2**	**+1.2**
KSP				*e*Sg	**Sg**	**17 01 14.8**	**-0.2**
UPC	**Upice**	**1.03**	**183**	*e*PG	**Pg**	**17 01 13.0**	**+0.8**
DPC	**Dobruska-Polom**	**1.19**	**173**	*e*PG	**Pg**	**17 01 15.9**	**+0.5**
DPC				*e*SG	**Sg**	**17 01 30.7**	**-0.1**
	11nm,0.4s						
PVCC	**Panska Ves**	**1.40**	**225**	*e*PG	**Pg**	**17 01 19.6**	**+0.3**
PVCC				*e*SG	**Sg**	**17 01 38.0**	**+0.6**
	40nm,0.2s						
PRU	**Pruhonice**	**1.84**	**213**	*e*PN	**Pn**	**17 01 25.1**	**-0.2**
PRU				*e*PG	**Pg**	**17 01 27.0**	**-0.7**
PRU				*e*SG	**Sg**	**17 01 50.2**	**-1.3**
	8.6nm,0.5s						
CLL	**Collm**	**1.96**	**265**	*e*Pn	**Pn**	**17 01 27.0**	**+0.1**
CLL				*i* Pg	**Pg**	**17 01 29.4**	**-0.6**
CLL				*e*Sg	**Sg**	**17 01 55.0**	**-0.3**
	comp=Z,8.0nm,0.5s						
OKC	**Ostrava-Krasne**	**2.14**	**142**	*e*PG	**Pg**	**17 01 33.7**	**+0.2**
VRAC	**Vranov**	**2.25**	**172**	Pn	**Pn**	**17 01 31.5**	**+0.6**
	comp=Z,1.1nm,0.3s,baz=343,slow=16,SNR=8.5						
VRAC				Lg		17 02 04.3	
	comp=Z,2.0nm,0.3s,baz=9.9,slow=17,SNR=3.7						
NKC	**Novy Kostel**	**2.66**	**242**	*e*PN	**Pn**	**17 01 37.8**	**+1.2**
NKC				*e*PG	**Pg**	**17 01 43.4**	**0.0**
NKC				*e*SG	**Sg**	**17 02 19.0**	**+1.2**
	comp=Z,11nm,0.3s						
KHC	**Kasperske Hory**	**2.90**	**215**	*e*PN	**Pn**	**17 01 40.3**	**+0.4**
KHC				*e*PG	**Pg**	**17 01 46.2**	**-1.9**
KHC				*e*SN	**Sn**	**17 02 14.3**	**-1.1**
KHC				*e*SG	**Sg**	**17 02 25.5**	**-0.1**
MOX	**Moxa**	**2.97**	**254**	*e*PG	**Pg**	**17 01 59.4**	**+10**
MOX				*e*SG	**Sg**	**17 02 28.8**	**+1.0**
GERES	**GERESS Array B**	**3.10**	**211**	Pn	**Pn**	**17 01 43.7**	**+1.0**
	comp=Z,0.3nm,0.3s,baz=31,slow=12,SNR=8.9						
GERES				Pg	**Pg**	**17 01 49.6**	**-2.4**
	comp=Z,1.5nm,0.3s,baz=33,slow=17,SNR=20						
GERES				Lg		17 02 30.9	
	comp=Z,1.2nm,0.3s,baz=29,slow=30,SNR=7.0						
BSD	**Bornholm Skovb**	**3.66**	**349**	*i* P	**Pn**	**17 01 51.3**	**+1.0**
BSD				*i* S	**Sn**	**17 02 33.3**	**-0.8**
HFS	**Hagfors**	**8.73**	**352**	Pn	**Pn**	**17 02 59.9**	**+0.1**
	comp=Z,0.1nm,0.3s,baz=167,slow=14,SNR=3.4						
NOA	**NORSAR Array B**	**9.91**	**346**	Pn	**Pn**	**17 03 16.4**	**+0.4**
	comp=Z,0.1nm,0.3s,baz=162,slow=14,SNR=2.8						
FINES	**FINESS Array B**	**11.34**	**25**	Pn	**Pn**	**17 03 35.2**	**-0.4**
	comp=Z,0.1nm,0.3s,baz=215,slow=11,SNR=8.1						
ARCES	**ARCESS Array B**	**18.60**	**10**	Pn	**Pn**	**17 05 08.0**	**-3.1**
	comp=Z,0.1nm,0.3s,baz=193,slow=12,SNR=3.7						

*CASC **15** 17:16:50.7±2.4, 10.66N×86.41W, h5^{km}±7^{km}, MD4.2, ML4.3, mb4.7(NEIC)*
*ISCJB **15** 17:16:50.5±0.4, 10.54N±0.03×86.45W±0.03, h33^{km}, mb4.4/34, MS4.0/10, Error ellipse: s-maj=5.3km s-min=3.5km az=139.5*
*BJI **15** 17:16:51.5, 10.90N×85.43W, h37^{km}, mB5.4, Ms5.1, Msz4.7*
*MOS **15** 17:16:52.8±1.0, 11.03N×86.05W, h33^{km}, mb4.5/7, Error ellipse: s-maj=21.3km s-min=10.5km az=117.9*
*NEIC **15** 17:16:53.7±0.3, 10.91N×86.13W, mb4.7/21, MD4.5(CASC), Error ellipse: s-maj=10.9km s-min=4.5km az=47.0*
*IDC **15** 17:16:55.2±2.2, 11.31N×85.56W, h42^{km}±21^{km}, mb3.9/9, mb1 4.2/9, mb1mx3.9/16, mbtmp3.9/9, MS3.9/12, Ms1 3.9/12, ms1mx3.6/30, Error ellipse: s-maj=33.0km s-min=16.9km az=55.0*
ISC 15 17:16:52.3±0.4**, 10.58N**±0.03×**86.33W**±0.04**, h34**^{km}**, h34**^{km}±1.5^{km}**:pP-P, n130, σ1^{s}37**/103**, mb4.4**/33**, MS4.0**/10**, 6C-6D, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VCR	**Vista de Mar**	**0.82**	**123**	*e*P	**Pn**	**17 17 08.3**	**+0.9**
SSNN	**San Juan del S**	**0.85**	**34**	⇓*e*P	**Pn**	**17 17 06.4**	**-1.3**
SSNN				*e*S	**Sn**	**17 17 18.0**	**-1.0**
2RIO	**Dos Rios de Up**	**1.08**	**93**	⇑*e*P	**Pn**	**17 17 10.0**	**-1.0**
2RIO				*e*S	**Sn**	**17 17 23.4**	**-1.4**
MADN	**Villa Maderas**	**1.14**	**43**	⇓*i*P	**Pn**	**17 17 11.7**	**0.0**
MADN				*e*S	**Sn**	**17 17 29.5**	**+3.4**
CONN	**Concepcion**	**1.20**	**35**	⇓*i*P	**Pn**	**17 17 12.3**	**-0.3**
CONN				*e*S	**Sn**	**17 17 27.9**	**+0.2**
APON	**Apoyo**	**1.35**	**11**	⇑*e*P	**Pn**	**17 17 14.4**	**-0.3**
JTS	**JuntasAbangare**	**1.39**	**102**	*e*Pn	**Pn**	**17 17 15.3**	**+0.1**
JTS				*e*Sn	**Sn**	**17 17 23.4**	**-8.9**
JTS	**JuntasAbangare**	**1.39**	**102**	P	**Pn**	**17 17 15.1**	**-0.1**
	168nm,0.3s,baz=309,slow=14,SNR=647						
JTS				S	**Sn**	**17 17 35.6**	**+3.3**
	249nm,0.3s,baz=354,slow=19,SNR=9.4						
CRUN	**El Crucero**	**1.39**	**1**	*e*P	**Pn**	**17 17 15.6**	**+0.3**
JCR	**Jicaral**	**1.40**	**121**	*e*P	**Pn**	**17 17 16.6**	**+1.2**
TICN	**Ticuantepe**	**1.45**	**4**	⇑*e*P	**Pn**	**17 17 15.8**	**-0.2**
TISN	**Laguna Tiscapa**	**1.55**	**2**	⇓*e*P	**Pn**	**17 17 17.3**	**-0.2**
XAVN	**Gruta Xavier**	**1.56**	**0**	⇑*e*P	**Pn**	**17 17 17.2**	**-0.3**
MGAN	**Managua**	**1.56**	**3**	⇑*e*P	**Pn**	**17 17 17.3**	**-0.3**
MGAN				*e*S	**Sn**	**17 17 37.5**	**+0.9**
MGAN				⇓*i*		17 17 39.2	
	comp=E,5μm,0.5s						
COPN	**Copaltepe**	**1.61**	**351**	⇓*e*P	**Pn**	**17 17 17.8**	**-0.5**
COPN				*e*S	**Sn**	**17 17 38.7**	**+0.9**
APYN	**Apoyeque**	**1.64**	**359**	*e*P	**Pn**	**17 17 18.7**	**0.0**
APYN				*e*S	**Sn**	**17 17 39.9**	**+1.3**
HUEN		**1.75**	**5**	⇑*e*P	**Pn**	**17 17 20.1**	**-0.1**
HUEN				*e*S	**Sn**	**17 17 42.9**	**+1.5**
MOMJ	**Momotombo**	**1.83**	**354**	*e*P	**Pn**	**17 17 20.8**	**-0.4**
MOMJ				*e*S	**Sn**	**17 17 44.5**	**+1.3**
CGA2	**Cerro Gallo 2**	**1.92**	**107**	*e*P	**Pn**	**17 17 25.1**	**+2.6**
TEL3	**Telica 3**	**2.04**	**346**	*e*P	**Pn**	**17 17 24.3**	**+0.1**
TEL3				*e*S	**Sn**	**17 17 50.7**	**+2.2**
TELN	**Telica**	**2.07**	**346**	*e*P	**Pn**	**17 17 24.4**	**-0.2**
TELN				*e*S	**Sn**	**17 17 52.1**	**+2.9**
PRS1	**Puriscal**	**2.07**	**106**	*e*P	**Pn**	**17 17 27.0**	**+2.4**
LAJ	**Bijagual**	**2.29**	**108**	*e*P	**Pn**	**17 17 27.2**	**-0.4**
LAJ	**Bijagual**	**2.29**	**108**	*e*P	**Pn**	**17 17 24.7**	**-2.8**
SJS	**Escuela Geolog**	**2.33**	**106**	*e*P	**Pn**	**17 17 28.6**	**+0.5**
QCR	**Quepos**	**2.42**	**118**	*e*P	**Pn**	**17 17 32.2**	**+2.8**
LCR2	**La Lucha 2**	**2.44**	**110**	*e*P	**Pn**	**17 17 32.5**	**+2.9**
ICR	**Volcan Irazu**	**2.53**	**103**	*e*P	**Pn**	**17 17 36.2**	**+5.2**
ICR	**Volcan Irazu**	**2.53**	**103**	*e*P	**Pn**	**17 17 33.3**	**+2.4**
URSC	**Urasca**	**2.62**	**106**	*e*P	**Pn**	**17 17 35.4**	**+3.2**
BUS	**Buena Vista**	**2.73**	**112**	*e*P	**Pn**	**17 17 37.7**	**+4.0**
BAR1		**3.26**	**114**	*e*P	**Pn**	**17 17 44.0**	**+3.0**
BLLM	**Bellamira**	**3.40**	**327**	*e*P	x	17 17 54.7	
BLLM				*e*S	x	17 18 33.1	
TGUH	**Tegucigalpa,Un**	**3.58**	**345**	*e*Pn	**Pn**	**17 17 45.9**	**+0.6**
CAHU	**Cacacuatique**	**3.67**	**330**	*e*P	x	17 17 58.0	
CAHU				*e*S	x	17 18 42.1	
BCIP	**Isla Barro Col**	**6.55**	**102**	Pn	**Pn**	**17 18 22.5**	**-3.7**
TEIG	**Tepich**	**9.77**	**349**	*e*Pn	**Pn**	**17 19 10.4**	**-0.1**
TEIG	**Tepich**	**9.77**	**349**	P	**Pn**	**17 19 10.7**	**+0.2**
	comp=E,0.4nm,0.3s,baz=144,slow=17,SNR=4.7						
TEIG				LR	LR	17 23 15.0	
	comp=E,981nm,19.9s,baz=187,slow=41						
CMIG	**Matias Romero**	**10.53**	**309**	P	**Pn**	**17 19 22.9**	**+2.1**
	comp=E,1.8nm,0.3s,baz=118,slow=10,SNR=22						
PAYG	**Puerto Ayora**	**11.85**	**200**	Pn	**Pn**	**17 19 45.2**	**+6.2**
	comp=E,25nm,1.0s						
ROSC	**El Rosal**	**13.18**	**115**	LR	LR	17 24 36.6	
	comp=E,254nm,19.8s,baz=188,slow=36						
ATAH	**Atahualpa**	**19.17**	**155**	LR	LR	17 27 51.0	
	comp=E,452nm,21.0s,baz=341,slow=33						
SJG	**San Juan**	**20.92**	**67**	P	**P**	**17 21 31.3**	**-0.8**
	comp=E,1.7nm,0.3s,baz=294,slow=23,SNR=3.6						
HKT	**Hockley**	**21.21**	**337**	*e*P	**P**	**17 21 35.4**	**+0.3**
	comp=E,26nm,1.1s,mb4.5						
HKT				*e*pP		17 21 45.9	
HKT	**Hockley**	**21.21**	**337**	*e*P	**P**	**17 21 35.4**	**+0.3**
HKT				*e**PP		17 21 45.9	
HKT				pmax	pmax		
	comp=Z,26nm,1.1s,mb4.5						
PCRV	**Puerto La Cruz**	**21.34**	**89**	P	**P**	**17 21 36.3**	**-0.3**
	comp=Z,9.2nm,0.6s,mb4.3,baz=261,slow=3.4,SNR=4.6						
PLAL	**Pickwick Lake**	**24.34**	**357**	*e*P	**P**	**17 22 05.8**	**-1.1**
	comp=Z,18nm,0.8s,mb4.5						
PLAL				*e*pP		17 22 15.7	
UALR	**University of**	**24.70**	**348**	*e*P	**P**	**17 22 08.4**	**-1.7**
	comp=Z,30nm,0.8s,mb4.9						
TXAR	**Lajitas Array**	**24.71**	**322**	P	**P**	**17 22 10.9**	**+0.6**
TXAR				LR	LR	17 32 54.7	
TXAR	**Lajitas Array**	**24.71**	**322**	P	**P**	**17 22 10.9**	**+0.6**
	comp=Z,12nm,0.8s,mb4.4,baz=138,slow=10.0,SNR=59						
TXAR				LR	LR	17 32 54.7	
	comp=Z,69nm,20.2s,MS3.1,baz=5.0,slow=39						
MIAR	**Mount Ida**	**24.76**	**346**	*e*P	**P**	**17 22 08.9**	**-1.8**
	comp=Z,20nm,0.8s,mb4.7						
MIAR	**Mount Ida**	**24.76**	**346**	*e*P	**P**	**17 22 08.9**	**-1.8**
MIAR				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.7						
CPCT	**Cooper Cave**	**24.81**	**4**	*e*P	**P**	**17 22 10.4**	**-0.8**
CPCT				*e*pP		17 22 20.9	
TKL	**Tuckaleechee C**	**25.07**	**5**	P	**P**	**17 22 13.3**	**-0.3**
TKL				LR	LR	17 32 04.8	
TKL	**Tuckaleechee C**	**25.07**	**5**	P	**P**	**17 22 13.3**	**-0.3**
	comp=Z,4.7nm,0.8s,mb4.1,baz=169,slow=12,SNR=3.6						
TKL				LR	LR	17 32 04.8	
	comp=Z,216nm,19.2s,MS3.7,baz=200,slow=37						
WVT	**Waverly**	**25.47**	**357**	*e*P	**P**	**17 22 15.1**	**-2.1**
	comp=Z,4.2nm,0.7s,mb4.1						
WVT	**Waverly**	**25.47**	**357**	*e*P	**P**	**17 22 15.1**	**-2.1**
WVT				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.1						
WMOK	**Wichita Mounta**	**26.60**	**337**	*e*P	**P**	**17 22 27.0**	**-0.4**
	comp=Z,31nm,0.9s,mb4.8						
WMOK				*e*pP	pP	17 22 37.4	+0.1
WMOK	**Wichita Mounta**	**26.60**	**337**	*e*P	**P**	**17 22 27.0**	**-0.4**
WMOK				*e**PP	pP	17 22 37.4	+0.1
WMOK				pmax	pmax		
	comp=Z,31nm,0.9s,mb4.8						
SIUC	**Southern Illin**	**27.14**	**355**	*e*P	**P**	**17 22 30.9**	**-1.4**
	comp=Z,17nm,0.5s,mb4.8						
ACSO	**Alum Creek Sta**	**29.68**	**5**	*e*P	**P**	**17 22 53.1**	**-1.7**
	comp=Z,17nm,0.7s,mb4.9						
ACSO				*e*pP	pP	17 23 03.1	-1.6
KSU1	**Kansas State U**	**29.85**	**344**	*e*P	**P**	**17 22 53.8**	**-2.6**
	comp=Z,9.5nm,0.4s,mb4.9						
HDIL	**Hopedale**	**29.97**	**355**	*e*P	**P**	**17 22 55.7**	**-1.7**
	comp=Z,20nm,0.6s,mb5.0						
HDIL				*e*pP	pP	17 23 03.9	-3.4
ANMO	**Albuquerque**	**30.42**	**326**	*e*P	**P**	**17 23 02.8**	**+1.4**
	comp=Z,5.6nm,0.9s,mb4.3						
ANMO	**Albuquerque**	**30.42**	**326**	*e*P	**P**	**17 23 02.8**	**+1.4**
ANMO				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ANMO	**Albuquerque**	**30.42**	**326**	P	**P**	**17 23 02.9**	**+1.5**
	comp=Z,2.9nm,0.7s,mb4.1,baz=104,slow=7.3,SNR=8.0						
SDCO	**Great Sand Dun**	**32.07**	**331**	*e*P	**P**	**17 23 17.0**	**+1.1**
	comp=Z,5.8nm,0.8s,mb4.5						
LPAZ	**La Paz**	**32.20**	**146**	LR	LR	17 37 07.8	
	comp=Z,158nm,18.1s,MS3.7,baz=29,slow=37						
WUAZ	**Wupatki**	**33.67**	**321**	*e*P	**P**	**17 23 32.0**	**+2.0**
	comp=Z,10nm,1.1s,mb4.7						
PV01	**Paradox Valley**	**33.92**	**328**	*e*P	**P**	**17 23 33.7**	**+1.6**
PV01				*e*pP	pP	17 23 42.9	+0.9
PV10	**Paradox Valley**	**34.34**	**327**	*e*P	**P**	**17 23 36.3**	**+0.5**
COWI	**Conover**	**35.48**	**357**	P	**P**	**17 23 42.4**	**-3.1**
	comp=Z,13nm,1.0s,mb4.8						
DAU	**Daniels Canyon**	**37.00**	**328**	*e*P	**P**	**17 24 00.3**	**+1.7**
DAU				*e*pP	pP	17 24 11.3	+2.7
DAU				*e*PcP	PcP	17 26 20.7	+1.5
PDAR	**Pinedale Array**	**37.93**	**332**	P	**P**	**17 24 06.0**	**-0.3**
	comp=Z,1.8nm,0.7s,mb3.9,baz=130,slow=9.1,SNR=18						
PDAR				PcP	PcP	17 26 23.6	+1.7
	comp=Z,1.3nm,0.7s,baz=126,slow=4.5,SNR=7.2						
HWUT	**Hardware Ranch**	**38.03**	**329**	*e*P	**P**	**17 24 07.0**	**-0.2**
	comp=Z,13nm,1.0s,mb4.6						
HWUT				*e*PcP	PcP	17 26 23.9	+1.6
REDW	**Red Top Meadow**	**38.99**	**331**	*e*P	**P**	**17 24 15.5**	**+0.1**
	comp=Z,9.5nm,1.0s,mb4.5						
REDW				*e*pP	pP	17 24 23.9	-1.5
NVAR	**Mina Array Bea**	**39.83**	**320**	P	**P**	**17 24 24.9**	**+2.5**
	comp=Z,1.5nm,0.7s,mb3.8,baz=125,slow=9.0,SNR=6.4						
NVAR				PcP	PcP	17 26 30.8	+2.8
	comp=Z,2.1nm,0.7s,baz=125,slow=5.0,SNR=7.2						
ULM	**Lac du Bonnet**	**40.33**	**351**	P	**P**	**17 24 23.2**	**-3.1**
	comp=Z,5.6nm,0.7s,mb4.4,baz=166,slow=8.3,SNR=16						
ULM				PcP	PcP	17 26 29.8	+0.5
	comp=Z,1.5nm,0.7s,baz=191,slow=4.7,SNR=3.8						
DGMT	**Dagmar**	**40.63**	**342**	*e*P	**P**	**17 24 27.5**	**-1.3**
	comp=Z,9.7nm,0.8s,mb4.5						
HLID	**Hailey**	**40.90**	**328**	*e*P	**P**	**17 24 31.7**	**+0.5**
	comp=Z,2.3nm,0.7s,mb3.9						
WVOR	**Wild Horse Val**	**42.45**	**324**	*e*P	**P**	**17 24 44.8**	**+0.9**
	comp=Z,7.3nm,0.8s,mb4.4						
WVOR	**Wild Horse Val**	**42.45**	**324**	*e*P	**P**	**17 24 44.8**	**+0.9**
WVOR				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.3						
WALA	**Waterton Lakes**	**44.71**	**334**	*e*P	**P**	**17 25 00.7**	**-1.3**
	comp=Z,5.5nm,1.0s,mb4.3						
NEW	**Newport**	**45.57**	**331**	LR	LR	17 48 44.2	
	comp=Z,84nm,20.5s,MS3.7,baz=237,slow=42						
SCHQ	**Schefferville**	**46.76**	**15**	*e*P	**P**	**17 25 15.1**	**-3.0**
	comp=Z,2.7nm,0.6s,mb4.3						
SCHQ	**Schefferville**	**46.76**	**15**	P	**P**	**17 25 14.6**	**-3.5**
	comp=Z,1.8nm,0.6s,mb4.2,baz=192,slow=4.7,SNR=10						
SCHQ				LR	LR	17 46 11.6	
	comp=Z,195nm,18.2s,MS4.1,baz=273,slow=38						
YKA	**Yellowknife Ar**	**55.69**	**345**	P	**P**	**17 26 22.9**	**-2.0**
YKA				PcP	PcP	17 27 23.8	-0.2
YKA				LR	LR	17 52 04.9	
YKA	**Yellowknife Ar**	**55.69**	**345**	P	**P**	**17 26 22.9**	**-2.0**
YKA						17 27 23.8	
YKA	**Yellowknife Ar**	**55.69**	**345**	P	**P**	**17 26 22.9**	**-2.0**
	comp=Z,1.9nm,0.8s,mb4.2,baz=140,slow=7.2,SNR=35						
YKA				PcP	PcP	17 27 23.7	-0.2
	comp=Z,0.5nm,0.6s,baz=142,slow=4.1,SNR=5.9						
YKA				LR	LR	17 52 04.9	
	comp=Z,70nm,18.3s,MS3.8,baz=155,slow=38						
DLBC	**Dease Lake**	**58.06**	**335**	*e*P	**P**	**17 26 41.4**	**-0.3**
DLBC				*e*pP	pP	17 26 51.9	-0.4
SFJD	**Kangerlussuaq**	**61.22**	**15**	LR	LR	17 53 21.6	
	comp=Z,257nm,18.1s,MS4.4,baz=189,slow=36						
MDT	**Midelt**	**77.43**	**59**	LR	LR	17 59 33.0	
	comp=Z,150nm,18.6s,MS4.3,baz=330,slow=34						
ESDC	**Sonseca Array**	**77.48**	**52**	P	**P**	**17 28 40.4**	**-4.1**
	comp=Z,0.4nm,0.3s,mb3.8,baz=275,slow=5.8,SNR=4.2						
ESDC				LR	LR	17 58 37.1	
	comp=Z,92nm,20.1s,MS4.1,baz=265,slow=33						
TORD	**Torodi Ar. Bea**	**85.74**	**77**	P	**P**	**17 29 25.7**	**-2.9**
TORD	**Torodi Ar. Bea**	**85.74**	**77**	P	**P**	**17 29 25.7**	**-2.9**
	comp=Z,0.5nm,0.7s,mb3.9,baz=292,slow=4.7,SNR=3.5						
BILL	**Bilibino**	**86.65**	**339**	*e*P	**P**	**17 29 30.6**	**-1.4**
BILL				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb4.1						
TIXI	**Tiksi**	**94.67**	**349**	*e*P	**P**	**17 30 08.3**	**-1.2**
TIXI				pmax	pmax		
	comp=Z,1.0nm,1.3s,mb4.1						
OBN	**Obninsk**	**99.06**	**29**	*e*P	**P**	**17 30 26.8**	**-2.8**
OBN				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.8						
SUR	**Sutherland**	**110.03**	**121**	*e*PKPdf	PKiKP	17 35 22.1	+1.4
BOSA	**Boshof**	**113.89**	**117**	PKPdf	PKiKP	17 35 29.1	+1.0
BOSA	**Boshof**	**113.89**	**117**	PKIKP	PKiKP	17 35 29.1	+0.9
BOSA	**Boshof**	**113.89**	**117**	PKiKP	PKiKP	17 35 29.1	+1.0
	comp=Z,1.3nm,0.6s,baz=288,slow=4.9,SNR=4.4						
ZALV	**Zalesovo Beam**	**115.29**	**6**	PKP	PKPdf	17 35 29.6	-0.6
ZALV	**Zalesovo Beam**	**115.29**	**6**	PKP	PKPdf	17 35 29.6	-0.6
	comp=Z,0.6nm,0.5s,baz=330,slow=5.0,SNR=5.5						
ZAL	**Zalesovo**	**115.30**	**6**	PKIKP	PKPdf	17 35 29.6	-0.6
SONM	**Songino Array**	**120.76**	**350**	PKP	PKPdf	17 35 41.7	+0.8
SONM	**Songino Array**	**120.76**	**350**	PKIKP	PKPdf	17 35 41.7	+0.8
SONM	**Songino Array**	**120.76**	**350**	PKP	PKPdf	17 35 41.7	+0.8
	comp=Z,0.3nm,0.5s,baz=28,slow=1.1,SNR=5.9						
MKAR	**Makanchi Array**	**121.99**	**9**	PKP	PKPdf	17 35 43.2	-0.1
MKAR	**Makanchi Array**	**121.99**	**9**	PKIKP	PKPdf	17 35 43.2	-0.1
MKAR	**Makanchi Array**	**121.99**	**9**	PKP	PKPdf	17 35 43.2	-0.1
	comp=Z,0.5nm,0.6s,baz=21,slow=3.5,SNR=3.5						
KSRS	**Korea Array**	**122.43**	**328**	PKP	PKPdf	17 35 44.6	+0.2
	comp=Z,2.4nm,0.8s,baz=339,slow=3.2,SNR=7.1						
AML	**Almayashu**	**124.43**	**18**	*e*PKPdf	PKPdf	17 35 48.7	+0.6
WMQ	**Urumqi**	**125.59**	**5**	*e*PKP	PKPdf	17 35 50.6	+0.3
HHC	**Hu-ho-hao-te**	**126.22**	**343**	*e*PKP	PKPdf	17 35 49.4	-2.2
HHC				PP	PP	17 37 46.8	+1.9
HHC				PKS		17 39 25.1	
HHC				SKS	SKSdf	17 42 56.3	-4.7
HHC				SKKS	SKKSac	17 44 35.1	-6.5
HHC				SS	SS	17 54 42.3	-2.6
HHC				PP	PP		
	comp=Z,128nm,6.2s						
NJ2	**Nanjing**	**131.24**	**331**	*e*PKP	PKPdf	17 36 01.8	+0.4
LZH	**Lanzhou**	**132.60**	**349**	*e*PKP	PKPdf	17 36 03.3	-0.6
LZH				XPKP		17 36 18.4	
CD2	**Chengdu**	**137.63**	**347**	*e*PKP	PKPdf	17 36 12.6	-0.8
ASAR	**Alice Springs**	**139.56**	**246**	PKP	PKPdf	17 36 19.6	+2.6
ASAR	**Alice Springs**	**139.56**	**246**	PKIKP	PKPdf	17 36 19.7	+2.6
ASAR	**Alice Springs**	**139.56**	**246**	PKP	PKPdf	17 36 19.7	+2.6
	comp=Z,0.9nm,0.8s,baz=126,slow=3.8,SNR=4.1						
WRA	**Warramunga Arr**	**139.77**	**252**	PKP	PKPdf	17 36 20.0	+2.4
WRA	**Warramunga Arr**	**139.77**	**252**	PKIKP	PKPdf	17 36 20.0	+2.5
WRA	**Warramunga Arr**	**139.77**	**252**	PKP	PKPdf	17 36 20.0	+2.4
	comp=Z,1.4nm,0.7s,baz=96,slow=1.9,SNR=17						
GYA	**Guiyang**	**141.08**	**341**	*e*PKP	PKPdf	17 36 19.3	-0.5
GYA				XPKP		17 36 34.8	
GYA				PP	PP	17 39 22.6	+3.0
GYA				PKS		17 39 53.5	
GYA				SKKS	SKKSac	17 46 08.6	-3.7
GYA				PP	PP		
	comp=Z,120nm,8.0s						
GYA				LR	LR		
	comp=N,180nm,19.6s,MS4.9						
GYA				LR	LR		
	comp=E,140nm,21.2s,MS4.9						
GYA				LR	LR		
	comp=Z,190nm,21.9s,MS4.8						
KMI	**Kunming**	**143.43**	**346**	PKP	PKPdf	17 36 23.1	-0.9
FITZ	**Fitzroy Crossi**	**148.18**	**253**	PKPbc	PKPab	17 36 40.7	+2.2
FITZ	**Fitzroy Crossi**	**148.18**	**253**	PKPbc	PKPab	17 36 40.7	+2.2
	comp=Z,1.3nm,0.6s,baz=117,slow=9.0,SNR=5.3						
CHTO	**Chiang Mai**	**150.33**	**350**	*e*PKPdf	PKPdf	17 36 35.7	0.0
CHTO				*e*PKPbc	PKPbc	17 36 41.2	+0.3
CHTO	**Chiang Mai**	**150.33**	**350**	*e*PKIKP	PKPdf	17 36 35.7	0.0
CHTO				*e*		17 36 41.3	

*BJI **15** 17:33:11.8, 8.40S×104.50E, h30^{km}, mB5.1, mb4.5*
*IDC **15** 17:33:11.2±3.1, 8.16S×104.79E, h0^{km}, mb3.9/7, mb1 4.0/7, mb1mx3.8/20, mbtmp3.9/7, MS3.5/2, Ms1 3.5/2, ms1mx2.9/25, Error ellipse: s-maj=139.1km s-min=17.9km az=52.0*
*ISCJB **15** 17:33:12.7±0.7, 8.3S±0.1×104.7E±0.2, h31^{km}, mb4.3/24, MS3.4/2, Error ellipse: s-maj=28.9km s-min=8.3km az=147.0*
*NEIC **15** 17:33:13.9±0.8, 8.39S×104.54E, h30^{km}, mb4.5/11, Error ellipse: s-maj=35.2km s-min=8.4km az=56.0*
ISC 15 17:33:14.5±0.7**, 8.4S**±0.1×**104.7E**±0.2**, h31**^{km}**, h31**^{km}±2.8^{km}**:pP-P, n34, σ0^{s}96**/31**, mb4.3**/24**, MS3.4**/2**, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XMIS	**Christmas Isla**	**2.34**	**155**	*e*Pn	**Pn**	**17 33 49.3**	**-1.6**
FITZ	**Fitzroy Crossi**	**22.59**	**118**	P	**P**	**17 38 12.8**	**+0.2**
	1.1nm,0.8s,mb3.4,baz=281,slow=7.7,SNR=2.5						
FITZ				LR	LR	17 45 21.4	
	comp=Z,99nm,20.7s,MS3.2,baz=296,slow=32						

NWAO	**Narrogin (SRO)**	**27.09**	**156**	LR	LR	17 48 32.1	
	comp=Z,140nm,19.3s,MS3.5,baz=278,slow=34						
CM31	**Chiang Mai Arr**	**27.22**	**348**	*e*P	**P**	**17 38 55.2**	**-0.6**
	8.4nm,0.9s,mb4.3						
CM31				*e*	pP	17 39 04.3	-0.5
CHTO	**Chiang Mai**	**27.57**	**348**	*e*P	**P**	**17 38 57.5**	**-1.4**
	11nm,1.0s,mb4.4						
CHTO				*e*	pP	17 39 07.1	-0.8
WRA	**Warramunga Arr**	**30.95**	**115**	P	**P**	**17 39 29.3**	**+0.2**
	2.1nm,0.9s,mb4.0,baz=286,slow=10,SNR=12						
ASAR	**Alice Springs**	**31.88**	**122**	P	**P**	**17 39 38.2**	**+1.1**
	1.0nm,1.0s,mb3.6,baz=302,slow=9.1,SNR=7.1						
ODAN	**Odare**	**38.79**	**335**	*e*P	**P**	**17 40 35.9**	**-0.6**
	15nm,1.0s,mb4.7						
TAPN	**Taplejung**	**39.09**	**336**	*e*P	**P**	**17 40 40.0**	**+1.0**
	18nm,0.9s,mb4.8						
LSA	**Lhasa**	**39.99**	**342**	*e*P	**P**	**17 40 47.8**	**+1.3**
	9.5nm,1.1s,mb4.4						
KKN	**Kakani**	**40.52**	**333**	*e*P	**P**	**17 40 51.7**	**+0.8**
	19nm,0.9s,mb4.7						
GKN	**Gorkha**	**40.99**	**333**	*e*P	**P**	**17 40 55.0**	**+0.2**
	24nm,0.9s,mb4.8						
STKA	**Stephens Creek**	**41.53**	**130**	*e*P	**P**	**17 40 59.6**	**+0.4**
STKA	**Stephens Creek**	**41.53**	**130**	P	**P**	**17 41 01.1**	**+1.9**
	1.8nm,0.7s,mb3.8,baz=276,slow=11,SNR=4.9						
XAN	**Xi'an**	**42.35**	**5**	P	**P**	**17 41 04.4**	**-1.4**
XAN				AP	pP	17 41 13.3	-1.7
XAN				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.4						
LZH	**Lanzhou**	**44.20**	**359**	*e*P	**P**	**17 41 21.0**	**+0.3**
LZH				AP	pP	17 41 30.0	+0.1
LZH				XP	sP	17 41 35.3	+1.7
LZH				AMB	AMB		
	comp=Z,35nm,1.3s,mb4.9						
LZH				AMB	AMB		
	comp=Z,120nm,4.0s						
LZH	**Lanzhou**	**44.20**	**359**	*e*P	**P**	**17 41 21.0**	**+0.3**
	comp=Z,35nm,1.3s,mb4.9						
LZH				pP	pP	17 41 30.0	+0.1
LZH				sP	sP	17 41 35.2	+1.6
GTA	**Gaotai**	**47.72**	**355**	*e*P	**P**	**17 41 49.6**	**+1.2**
GTA				AP	pP	17 41 53.8	-3.9
GTA				XP	sP	17 41 57.4	-4.0
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.4						
CN2	**Changchun**	**55.23**	**18**	*e*P	**P**	**17 42 44.3**	**-0.2**
SONM	**Songino Array**	**55.95**	**1**	P	**P**	**17 42 50.5**	**+0.8**
	comp=Z,0.9nm,0.6s,mb4.0,baz=191,slow=7.7,SNR=6.2						
ULN	**Ulaanbaatar**	**56.00**	**2**	P	**P**	**17 42 50.5**	**+0.4**
UCH	**Uchtor**	**57.38**	**334**	P	**P**	**17 42 60.0**	**+0.1**
TKM2	**Tokmak 2**	**57.48**	**335**	*e*P	**P**	**17 42 58.2**	**-2.4**
	comp=Z,3.4nm,0.9s,mb4.4						
AAK	**Ala-Archa**	**57.71**	**334**	*e*P	**P**	**17 43 07.0**	**+4.7**
	comp=Z,3.6nm,1.2s,mb4.3						
EKS2	**Erkin-Say**	**58.05**	**334**	*e*P	**P**	**17 43 05.1**	**+0.4**
	comp=Z,4.8nm,0.9s,mb4.5						
MK31	**Makanchi Array**	**58.40**	**342**	*e*P	**P**	**17 43 06.9**	**-0.1**
MKAR	**Makanchi Array**	**58.40**	**342**	P	**P**	**17 43 07.1**	**+0.1**
	comp=Z,0.6nm,0.5s,mb3.9,baz=141,slow=8.4,SNR=6.3						
KURK	**Kurchatov**	**63.00**	**342**	P	**P**	**17 43 38.2**	**0.0**
	comp=Z,6.0nm,1.0s,mb4.7						
ZALV	**Zalesovo Beam**	**64.28**	**347**	P	**P**	**17 43 46.7**	**+0.1**
	comp=Z,2.0nm,0.3s,mb4.6,baz=155,slow=6.1,SNR=16						
YAK	**Yakutsk**	**72.81**	**12**	P	**P**	**17 44 37.5**	**-2.2**
	comp=Z,9.2nm,0.8s,mb4.8						
YAK				*e*		17 44 48.8	
ARU	**Arti**	**74.85**	**336**	P	**P**	**17 44 52.6**	**+0.8**
	comp=Z,5.3nm,1.1s,mb4.4						
MA2	**Magadan**	**77.00**	**22**	P	**P**	**17 45 03.2**	**-0.8**
	comp=Z,3.8nm,1.0s,mb4.3						
TXAR	**Lajitas Array**	**146.20**	**48**	PKPbc	PKPbc	17 52 54.3	+1.9
TXAR	**Lajitas Array**	**146.20**	**48**	PKPbc	PKPbc	17 52 54.3	+1.9
	comp=Z,1.8nm,0.9s,baz=316,slow=2.5,SNR=13						

*CSEM **15** 18:06:45.9±0.1, 38.45N×39.02E, h10^{km}, MD3.2, Error ellipse: s-maj=3.5km s-min=1.9km az=128.0*

*ISK **15** 18:06:45.1, 38.46N×39.01E, h5^{km}, MD3.1*

*ISCJB **15** 18:06:46.4±0.4, 38.43N±0.03×39.10E±0.03, h2^{km}, Error ellipse: s-maj=4.3km s-min=3.6km az=148.5*

*DDA **15** 18:06:46.5, 38.44N×39.13E, h2^{km}, Md3.2*

ISC 15 18:06:46.7±0.7, **38.44N**±0.03×**39.11E**±0.04, **h1**^{km}±7^{km}**, n23, σ1^{s}27**/35**, 1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.11**	**300**	⇓*i*P	**Pg**	**18 06 49.5**	**+0.7**
ELZG				*i* S	**Sg**	**18 06 51.1**	**+0.9**
ELZG	**Elazig**	**0.11**	**300**	*i* P	**Pg**	**18 06 49.5**	**+0.7**
PTK	**Pertek**	**0.50**	**26**	*i* PG	**Pg**	**18 06 55.9**	**-0.4**
PTK				*i* SG	**Sg**	**18 07 04.6**	**+1.7**
PTK	**Pertek**	**0.50**	**26**	*i* Pg	**Pg**	**18 06 55.9**	**-0.4**
PTK				*i* Sg	**Sg**	**18 07 04.6**	**+1.7**
MALT	**Malatya**	**0.55**	**257**	*i* PG	**Pg**	**18 06 55.6**	**-1.6**
MALT				*i* SG	**Sg**	**18 07 03.0**	**-1.3**
MALT	**Malatya**	**0.55**	**257**	*i* Pg	**Pg**	**18 06 55.6**	**-1.6**
MALT				*i* Sg	**Sg**	**18 07 03.0**	**-1.3**
URFA	**Urfa**	**1.02**	**193**	PG	**Pg**	**18 07 06.0**	**-0.3**
URFA				SG	**Sg**	**18 07 21.0**	**+1.4**
URFA	**Urfa**	**1.02**	**193**	*e*Pg	**Pg**	**18 07 06.0**	**-0.3**
URFA				*e*Sg	**Sg**	**18 07 21.0**	**+1.4**
DIY	**Diyarbakir**	**1.04**	**121**	*e*PN	**Pn**	**18 07 06.4**	**-2.0**
DIY	**Diyarbakir**	**1.04**	**121**	*e*Pn	**Pn**	**18 07 06.4**	**-2.0**
ATAB	**Bozova**	**1.16**	**214**	*i* P	**Pg**	**18 07 09.1**	**+0.1**
ATAB				*i* S	**Sg**	**18 07 24.4**	**+0.3**
BINT	**Bingol**	**1.17**	**68**	*e*PN	**Pn**	**18 07 09.7**	**-0.5**
BINT	**Bingol**	**1.17**	**68**	*e*Pn	**Pn**	**18 07 09.7**	**-0.5**
EZC	**Erzincan**	**1.42**	**23**	*e*PN	**Pn**	**18 07 11.7**	**-1.9**
GZT	**Gaziantep**	**1.63**	**229**	*i* P	**Pn**	**18 07 18.9**	**+2.3**
GZT				*i* S	**Sn**	**18 07 40.0**	**+1.7**
BNGL	**BINGOL**	**1.68**	**72**	*e*P	**Pn**	**18 07 20.0**	**+2.7**
BNGL				*e*S	**Sn**	**18 07 47.3**	**+7.8**
MARD	**Mardin**	**1.74**	**130**	*i* P	**Pn**	**18 07 17.1**	**-0.9**
MARD				*i* S	**Sn**	**18 07 40.7**	**-0.2**
BEST	**Besiri**	**1.79**	**107**	*i* P	**Pn**	**18 07 19.4**	**+0.5**
BEST				*i* S	**Sn**	**18 07 43.5**	**+1.3**
BTMT	**Batman**	**1.89**	**97**	*e*PN	**Pn**	**18 07 18.9**	**-1.3**
GAZ	**Gaziantep**	**1.96**	**230**	*e*PN	**Pn**	**18 07 19.7**	**-1.5**
GAZ	**Gaziantep**	**1.96**	**230**	*e*Pn	**Pn**	**18 07 19.7**	**-1.5**
KMRS	**Kahramanmaras**	**1.98**	**242**	*e*PN	**Pn**	**18 07 20.9**	**-0.4**
KMRS	**Kahramanmaras**	**1.98**	**242**	*e*Pn	**Pn**	**18 07 20.9**	**-0.4**

*ISCJB **15** 18:13:25.1±0.9, 24.38N±0.07×92.39E±0.07, h10^{km}, mb3.5/6, Error ellipse: s-maj=12.1km s-min=7.2km az=39.3*

*IDC **15** 18:13:25.4±1.1, 24.50N×92.49E, h0^{km}, mb3.6/6, mb1 3.8/6, mb1mx3.5/22, mbtmp3.6/6, Error ellipse: s-maj=51.2km s-min=18.8km az=62.0*

*NEIC **15** 18:13:27.1±1.1, 24.48N×92.62E, h10^{km}, Error ellipse: s-maj=26.8km s-min=13.8km az=50.0*

ISC 15 18:13:28.5±2.3, **24.5N**±0.1×**92.52E**±0.08, **h16**^{km}±14^{km}**, n12, σ1^{s}12**/14**, mb3.5**/6**, India-Bangladesh border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHL	**Shillong**	**1.19**	**331**	*e*PG	**Pg**	**18 13 52.0**	**+0.5**
SHL				*e*SG	**Sg**	**18 14 06.5**	**-0.6**
IMP	**Imphal**	**1.31**	**78**	*i* P	**Pn**	**18 13 53.0**	**+0.9**
IMP				*i* S	**Sn**	**18 14 10.0**	**+0.8**
AGT	**Agartala**	**1.32**	**242**	*e*P	**Pn**	**18 13 56.0**	**+3.7**
LSA	**Lhasa**	**5.30**	**347**	*e*P	**Pn**	**18 14 49.5**	**+2.5**
	6.3nm,0.7s						
KMI	**Kunming**	**9.30**	**84**	P	**Pn**	**18 15 39.8**	**-2.1**
	6.0nm,0.5s						
MKAR	**Makanchi Array**	**23.69**	**342**	P	**P**	**18 18 38.5**	**-1.0**
	0.3nm,0.4s,mb3.0,baz=172,slow=8.0,SNR=14						
SONM	**Songino Array**	**25.74**	**22**	P	**P**	**18 18 58.6**	**+0.5**
	0.4nm,0.5s,mb3.2,baz=202,slow=11,SNR=3.3						
ZALV	**Zalesovo Beam**	**29.95**	**351**	P	**P**	**18 19 34.6**	**-1.2**
	0.3nm,0.4s,mb3.4,baz=148,slow=8.5,SNR=2.3						
WRA	**Warramunga Arr**	**60.08**	**134**	P	**P**	**18 23 34.3**	**-0.8**
	1.0nm,0.7s,mb4.0,baz=321,slow=7.4,SNR=15						
ASAR	**Alice Springs**	**62.49**	**137**	P	**P**	**18 23 51.4**	**0.0**
	0.6nm,0.6s,mb3.9,baz=317,slow=6.6,SNR=11						
GERES	**GERESS Array B**	**64.76**	**314**	P	**P**	**18 24 06.1**	**0.0**
GERES	**GERESS Array B**	**64.76**	**314**	P	**P**	**18 24 06.1**	**0.0**
	0.5nm,0.6s,mb3.7,baz=53,slow=5.2,SNR=3.8						

IDC 15 18:18:41.4±3.4**, 17.66S**×**178.63W, h488**^{km}±37^{km}**, mb3.3**/4**, mb1 3.5**/4**, mb1mx3.2**/14**, mbtmp3.3**/4**, Error ellipse: s-maj=63.2km s-min=20.7km az=144.0, Fiji Islands**

region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**38.57**	**241**	*e*P	P	18 25 22.2	+0.7
	0.6nm,0.3s						
STKA	**Stephens Creek**	**38.57**	**241**	P	P	18 25 21.8	+0.2
	0.5nm,0.3s,baz=103,slow=9.6,SNR=6.1						
WB2	**Warramunga Arr**	**44.46**	**259**	*e*P	P	18 26 07.9	-0.6
WRA	**Warramunga Arr**	**44.47**	**259**	P	P	18 26 08.0	-0.6
	1.0nm,0.5s,baz=97,slow=7.4,SNR=40						
ASAR	**Alice Springs**	**44.66**	**254**	P	P	18 26 10.2	+0.1
	7.9nm,0.5s,baz=88,slow=8.2,SNR=145						
ASAR				S	S	18 32 10.9	+0.6
	0.5nm,0.9s,baz=86,slow=15,SNR=5.8						
KAKA	**Kakadu**	**47.38**	**269**	*e*P	P	18 26 31.2	+0.3
	2.8nm,0.3s						
FITZ	**Fitzroy Crossi**	**52.86**	**260**	*e*P	P	18 27 11.9	+0.7
	3.0nm,0.8s						
MJAR	**Matsushiro Arr**	**67.58**	**323**	P	P	18 28 48.9	+0.3
	1.9nm,0.8s,baz=145,slow=6.8,SNR=4.1						
MKAR	**Makanchi Array**	**108.81**	**314**	PKiKP	PKiKP	18 36 13.2	-1.3
	0.1nm,0.5s,baz=85,slow=2.0,SNR=5.3						
BRTR	**Keskin Array B**	**144.46**	**315**	PKP	PKPdf	18 37 22.4	+0.6
	1.4nm,0.8s,baz=116,slow=4.3,SNR=7.4						
GERES	**GERESS Array B**	**147.32**	**345**	PKPbc	PKPbc	18 37 28.9	-0.6
	0.7nm,0.4s,baz=37,slow=1.8,SNR=8.8						

*BJI **15** 18:28:58.4, 11.76N×142.12E, h31^{km}, mB5.3, mb5.0, Ms4.8, Msz4.6*

*MOS **15** 18:28:59.2±1.3, 11.87N×141.90E, h33^{km}, mb5.3/33, MS4.6/6, Error ellipse: s-maj=10.4km s-min=5.5km az=108.6*

*ISCJB **15** 18:29:03.3±0.1, 11.82N±0.03×141.83E±0.02, h59^{km}, mb5.2/106, MS4.5/33, Error ellipse: s-maj=4.1km s-min=2.7km az=171.5*

*NEIC **15** 18:29:04.4±0.2, 11.81N×141.87E, mb5.3/48, MW5.4, Error ellipse: s-maj=5.7km s-min=4.4km az=87.0, Moment Tensor Solution. s6 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.57; M$_{\theta\theta}$0.33; M$_{\phi\phi}$0.24; M$_{r\theta}$1.01; M$_{\theta\phi}$1.33; M$_{\phi r}$-0.38; Best double couple: M$_0$1.80000×10^{17} NP1:φ$_s$8.00000°, δ53.00000°, λ-159.00000°. NP2:φ$_s$265.00000°, δ74.00000°, λ-39.00000°. Principal axes: T 1.7200, Plg13.0000°, Azm321.0000°; N 0.1100, Plg48.0000°, Azm66.0000°; P -1.8400, Plg39.0000°, Azm220.0000°;*

*GCMT **15** 18:29:04.4±0.1, 11.67N×141.87E, h72^{km}±1^{km}, MW5.4/99, Moment Tensor Solution. s87,c152; s99,c198; Duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.54±.02; M$_{\theta\theta}$0.02±.02; M$_{\phi\phi}$0.52±.02; M$_{r\theta}$0.98±.01; M$_{\theta\phi}$1.26±.02; M$_{\phi r}$-0.21±.02; Best double couple: M$_0$1.69200×10^{17} NP1:φ$_s$1.00000°, δ53.00000°, λ-160.00000°. NP2:φ$_s$258.00000°, δ74.00000°, λ-39.00000°. Principal axes: T 1.6640, Plg13.0000°, Azm314.0000°; N 0.0570, Plg49.0000°, Azm60.0000°; P -1.7200, Plg38.0000°, Azm213.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **15** 18:29:04.8±0.6, 11.79N×141.89E, h68^{km}±5^{km}, mb4.9/24, mb1 5.0/26, mb1mx5.0/27, mbtmp4.9/26, MS4.4/20, Ms1 4.4/20, ms1mx4.3/24 Error ellipse: s-maj=10.3km s-min=8.7km az=84.0*

ISC 15 18:29:05.0±0.1, **11.83N**±0.03×**141.88E**±0.02, **h61**^{km}, **h61**^{km}±2.9^{km}**:pP-P, n532, σ0^{s}94**/516, **mb5.2**/106, **103C-92D, Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**3.40**	**59**	*e*Pn	**Pn**	**18 29 56.7**	**+1.1**
GUMO				*e*Sn	**Sn**	**18 30 35.0**	**+0.3**
GUMO	**Guam**	**3.40**	**59**	P	**Pn**	**18 29 56.9**	**+1.3**
	609nm,0.3s,baz=210,slow=3.4,SNR=185						
GUMO				S	**Sn**	**18 30 35.8**	**+1.1**
	2μm,0.3s,baz=31,slow=23,SNR=15						
GUMO				LR	LR	18 31 17.1	
	comp=Z,7μm,20.2s,baz=242,slow=39						
CBIJ	**Chichi jima**	**15.19**	**1**	P	**Pn**	**18 32 37.2**	**+1.4**
	7.2nm,0.3s,baz=276,slow=19,SNR=2.9						
SCPH	**Surigao**	**16.23**	**264**	⇑*e*P	**Pn**	**18 32 54.1**	**+4.8**
DAV	**Davao City (W)**	**16.76**	**255**	*e*P	**Pn**	**18 32 58.6**	**+2.7**
	550nm,1.0s						
DAV	**Davao City (W)**	**16.76**	**255**	⇓P	**Pn**	**18 32 59.8**	**+3.9**
	SNR=20						
MSLP	**Maasin**	**16.80**	**266**	*e*P	**Pn**	**18 32 58.8**	**+2.5**
BUKP	**Musuan**	**17.03**	**258**	*e*P	**Pn**	**18 33 01.3**	**+2.1**
CGP	**Cagayan de Oro**	**17.25**	**260**	⇓*e*P	**Pn**	**18 33 03.6**	**+1.7**
PVCP	**Virac**	**17.38**	**278**	*e*P	**Pn**	**18 33 04.8**	**+1.2**
LLP	**Lapu-Lapu**	**17.65**	**267**	*e*P	**Pn**	**18 33 10.1**	**+3.2**
TBP	**Tagbilaran**	**17.83**	**265**	*e*P	**Pn**	**18 33 10.0**	**+0.9**
PAGZ	**Pagadian**	**18.65**	**259**	*e*P	**Pn**	**18 33 20.0**	**+1.0**
RCP	**Roxas**	**18.74**	**271**	*e*P	**Pn**	**18 33 21.1**	**+1.0**
GUIM	**Jordan**	**18.96**	**268**	*e*P	**Pn**	**18 33 23.1**	**+0.3**
OTRP	**Odiongan**	**19.43**	**274**	*e*P	**Pn**	**18 33 30.5**	**+2.2**
BOAC	**Boac**	**19.62**	**277**	*e*P	**Pn**	**18 33 29.1**	**-1.5**
POLP	**Polilio Island**	**19.62**	**281**	*e*P	**Pn**	**18 33 29.8**	**-0.7**
JOW	**Kunigami**	**19.66**	**321**	P	**Pn**	**18 33 31.3**	**+0.4**
	20nm,0.3s,baz=146,slow=10,SNR=62						
JOW				LR	LR	18 39 38.1	
	comp=Z,1μm,18.9s,baz=150,slow=32						
CAUP	**Cauayan**	**20.08**	**287**	*e*P	**P**	**18 33 35.3**	**+1.7**
BALP	**Baler**	**20.10**	**283**	*e*P	**P**	**18 33 31.9**	**-2.0**
CUYO	**Cuyo Island**	**20.48**	**269**	*e*P	**P**	**18 33 38.1**	**+0.1**
TGY	**Tagaytay City**	**20.54**	**279**	P	**P**	**18 33 39.9**	**+1.3**
	312nm,0.4s,baz=214,slow=14,SNR=9.1						
APYP	**Conner**	**20.82**	**289**	*e*P	**P**	**18 33 43.8**	**+2.2**
BCPH	**Baguio City Da**	**21.14**	**285**	⇓*e*P	**P**	**18 33 46.8**	**+1.6**
LUBP	**Lubang**	**21.18**	**277**	*e*P	**P**	**18 33 46.7**	**+1.1**
BUSP	**Coron**	**21.22**	**273**	*e*P	**P**	**18 33 46.3**	**+0.3**
ABRA	**Dolores**	**21.27**	**288**	*e*P	**P**	**18 33 46.7**	**+0.2**
JHJ	**Hachijo jima 2**	**21.28**	**355**	LR	LR	18 41 18.7	
	comp=Z,487nm,19.8s,baz=73,slow=34						
SCZP	**Santa Cruz**	**21.69**	**283**	*e*P	**P**	**18 33 51.4**	**+0.4**
PMG	**Port Moresby**	**21.74**	**166**	*e*P	**P**	**18 33 49.6**	**-1.8**
	268nm,0.7s,mb5.8						
PMG	**Port Moresby**	**21.74**	**166**	*d i*P	**P**	**18 33 49.5**	**-2.0**
PMG	**Port Moresby**	**21.74**	**166**	P	**P**	**18 33 49.6**	**-1.9**
	249nm,0.6s,mb5.8,baz=357,slow=6.8,SNR=188						
ENPP	**El Nido**	**22.01**	**271**	*e*P	**P**	**18 33 55.1**	**+0.6**
NACB	**Ninganchiao**	**22.83**	**305**	*e*P	**P**	**18 34 02.4**	**-0.6**
YHNB	**Yeheng**	**23.25**	**306**	*e*P	**P**	**18 34 06.6**	**-0.6**
JNU	**Nakatsue**	**23.47**	**336**	P	**P**	**18 34 09.6**	**+0.4**
	91nm,0.7s,mb5.3,baz=130,slow=6.9,SNR=64						
JNU				LR	LR	18 43 06.7	
	comp=Z,346nm,19.4s,baz=321,slow=36						
BATP	**Bataraza**	**23.88**	**265**	*e*P	**P**	**18 34 13.7**	**+0.6**
MYLDM	**Lahad Datu**	**24.04**	**256**	⇓P	**P**	**18 34 16.2**	**+1.6**
MJAR	**Matsushiro Arr**	**24.83**	**353**	P	**P**	**18 34 20.2**	**-1.4**
MJAR				LR	LR	18 43 22.2	
MJAR	**Matsushiro Arr**	**24.83**	**353**	P	**P**	**18 34 20.2**	**-1.4**
	19nm,0.9s,mb4.7,baz=174,slow=10,SNR=25						
MJAR				LR	LR	18 43 22.2	
	comp=Z,552nm,20.1s,baz=155,slow=34						
MAJO	**Matsushiro**	**24.83**	**353**	*e*P	**P**	**18 34 20.5**	**-1.1**
	52nm,0.8s,mb5.1						
MAJO	**Matsushiro**	**24.83**	**353**	*e*P	**P**	**18 34 20.5**	**-1.0**
MAJO				pmax	pmax		
	comp=Z,52nm,0.8s,mb5.1						
MAT	**Matsushiro**	**24.83**	**353**	P	**P**	**18 34 20.5**	**-1.0**
MAT				S	**S**	**18 38 33.8**	**-6.2**
TSM	**Tawau**	**24.91**	**254**	⇓P	**P**	**18 34 22.9**	**+0.4**
SDKM	**Sandakan**	**25.15**	**258**	⇓P	**P**	**18 34 24.9**	**+0.1**
KDM	**Kudat**	**25.18**	**261**	⇑P	**P**	**18 34 26.9**	**+1.9**
QZH	**Quanzhou**	**25.61**	**304**	P	**P**	**18 34 29.8**	**+1.0**
QZH				S	**S**	**18 38 44.3**	**-8.3**
QZH				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.1						
QZH				LR	LR		
	comp=N,2μm,13.5s						
QZH				LR	LR		
	comp=E,800nm,11.4s						
QZH				LR	LR		
	comp=Z,3μm,29.1s						
KKM	**Kota Kinabalu**	**25.99**	**259**	*e*P	**P**	**18 34 33.3**	**+0.9**
KKM	**Kota Kinabalu**	**25.99**	**259**	⇑P	**P**	**18 34 33.7**	**+1.3**
KAKA	**Kakadu**	**26.12**	**201**	*e*P	**P**	**18 34 31.3**	**-2.1**
	comp=Z,216nm,0.6s,mb5.9						
SSE	**Sheshan**	**27.08**	**318**	P	**P**	**18 34 42.4**	**+0.4**
SSE				S	**S**	**18 39 10.1**	**-5.7**
SSE				AMB	AMB		
	comp=Z,26nm,1.1s,mb4.7						
SSE				AMB	AMB		
	comp=Z,230nm,5.1s						
SSE				LR	LR		
	comp=N,577nm,17.1s						
SSE				LR	LR		
	comp=E,694nm,17.0s						
SSE				LR	LR		
	comp=Z,1μm,16.1s						
SSE	**Sheshan**	**27.08**	**318**	P	**P**	**18 34 42.4**	**+0.4**
	comp=Z,26nm,1.1s,mb4.7						
SSE				pP	pP	18 35 12.0	+15
SSE				sP	sP	18 35 29.2	+25
SSE				S	**S**	**18 39 10.1**	**-5.7**
SSE				sS	sS	18 40 02.4	+21
SSE				LR	LR		
	comp=Z,1μm,16.1s						
HNR	**Honiara**	**27.72**	**139**	*e*P	**P**	**18 34 46.1**	**-1.8**
	comp=Z,127nm,0.8s,mb5.6						
HNR	**Honiara**	**27.72**	**139**	*e*P	**P**	**18 34 46.1**	**-1.8**
HNR				pmax	pmax		
	comp=Z,127nm,0.8s,mb5.6						
HNR	**Honiara**	**27.72**	**139**	P	**P**	**18 34 45.5**	**-2.4**
	comp=Z,18nm,0.6s,mb4.9,baz=258,slow=1.8,SNR=4.5						
HNR				LR	LR	18 44 25.2	
	comp=Z,566nm,19.5s,baz=360,slow=33						
KSRS	**Korea Array**	**28.42**	**336**	P	**P**	**18 34 53.0**	**-0.8**
	comp=Z,6.4nm,0.7s,mb4.4,baz=157,slow=8.3,SNR=18						
KSRS				PcP	PcP	18 38 04.3	-0.6
	comp=Z,2.7nm,0.9s,baz=139,slow=4.0,SNR=4.5						
KSRS				ScP	ScP	18 41 40.0	-1.0
	comp=Z,5.4nm,0.9s,baz=155,slow=2.6,SNR=12						
KSRS				LR	LR	18 44 33.4	
	comp=Z,729nm,21.2s,baz=146,slow=33						
NJ2	**Nanjing**	**29.23**	**317**	*e*P	**P**	**18 35 00.0**	**-1.1**
NJ2				AP	pP	18 35 09.4	-6.8
NJ2				XP	sP	18 35 13.6	-10
NJ2				PP	PP	18 35 55.6	-12
NJ2				S	**S**	**18 39 51.0**	**+1.4**
NJ2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.8						
NJ2				AMB	AMB		
	comp=Z,860nm,6.8s						
NJ2				LR	LR		
	comp=N,3μm,18.6s						
NJ2				LR	LR		
	comp=E,2μm,16.5s						
NJ2				LR	LR		
	comp=Z,2μm,16.5s						
GZH	**Guangzhou**	**29.37**	**296**	P	**P**	**18 35 02.3**	**-0.2**
GZH				S	**S**	**18 39 49.8**	**-2.3**
GZH				LR	LR		
	comp=N,706nm,15.2s						
GZH				LR	LR		
	comp=E,798nm,12.4s						
GZH				LR	LR		
	comp=Z,917nm,17.7s						
BTM	**Bintulu**	**29.78**	**256**	⇓P	**P**	**18 35 06.8**	**+0.5**
SBUM	**Sibu**	**30.84**	**255**	⇓P	**P**	**18 35 15.6**	**0.0**
WHN	**Wuhan**	**31.57**	**310**	P	**P**	**18 35 23.4**	**+1.6**
CTA	**Charters Tower**	**32.01**	**172**	*e*P	**P**	**18 35 25.0**	**-0.7**
	comp=Z,67nm,0.6s,mb5.7						
CTA				*e*	pP	18 35 36.9	-3.9
CTA	**Charters Tower**	**32.01**	**172**	*e*P	**P**	**18 35 25.0**	**-0.7**
CTA				*e*	pP	18 35 36.9	-3.9
CTA				pmax	pmax		
	comp=Z,67nm,0.6s						
CTAO	**Charters Tower**	**32.01**	**172**	*e*P	**P**	**18 35 24.9**	**-0.8**
	comp=Z,102nm,0.8s,mb5.7						
CTAO	**Charters Tower**	**32.01**	**172**	*e*P	**P**	**18 35 24.9**	**-0.8**
CTAO				pmax	pmax		
	comp=Z,102nm,0.8s,mb5.7						
VLA	**Vladivostok**	**32.36**	**346**	*e*P	**P**	**18 35 35.9**	**+7.3**
VLA				pmax	pmax		
	comp=Z,211nm,1.8s,mb5.7						
VLA				MLR	MLR		
	comp=Z,800nm,18.5s						
DL2	**Dalian**	**32.43**	**330**	P	**P**	**18 35 30.9**	**+1.6**
DL2				S	**S**	**18 40 39.4**	**-0.1**
DL2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.4						
DL2				LR	LR		
	comp=N,450nm,13.8s						
DL2				LR	LR		
	comp=E,490nm,16.4s						
DL2				LR	LR		
	comp=Z,770nm,17.6s						
WB2	**Warramunga Arr**	**32.43**	**193**	*e*P	**P**	**18 35 27.9**	**-1.5**
WRA	**Warramunga Arr**	**32.43**	**193**	P	**P**	**18 35 28.0**	**-1.5**
	comp=Z,64nm,0.6s,mb5.7,baz=12,slow=9.6,SNR=1077						
WRA				PKiKP	PKiKP	18 45 41.1	-2.2
	comp=Z,0.3nm,0.6s,baz=321,slow=1.3,SNR=5.4						
WRA				LR	LR	18 48 00.6	
	comp=Z,1μm,21.7s,baz=10.0,slow=35						
KSM	**Kuching**	**32.96**	**254**	*e*P	**P**	**18 35 33.1**	**-1.1**
KSM				*e*PcP	PcP	18 38 16.7	-0.7
KSM	**Kuching**	**32.96**	**254**	⇑P	**P**	**18 35 33.9**	**-0.3**
FITZ	**Fitzroy Crossi**	**33.79**	**209**	*e*P	**P**	**18 35 40.4**	**-0.9**
	comp=Z,45nm,0.9s,mb5.4						
FITZ				*e*pP	pP	18 35 54.6	-1.9
MDJ	**Mudanjiang**	**34.33**	**344**	P	**P**	**18 35 44.6**	**-1.1**
MDJ				AMB	AMB		
	comp=Z,23nm,1.7s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,422nm,4.0s						
MDJ				LR	LR		
	comp=N,1μm,26.7s						
MDJ				LR	LR		
	comp=E,384nm,26.7s						
MDJ				LR	LR		
	comp=Z,1μm,25.8s						
CN2	**Changchun**	**34.87**	**339**	⇑P	**P**	**18 35 52.9**	**+2.5**
CN2				AMB	AMB		
	comp=Z,30nm,1.5s,mb5.0						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,700nm,15.0s						
CN2				LR	LR		
	comp=E,800nm,15.0s						
CN2				LR	LR		
	comp=Z,1μm,21.0s						
YSS	**Yuzh-Sakhalins**	**35.02**	**1**	*e*P	**P**	**18 35 50.3**	**-1.3**
YSS				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.8						
BJT	**Baijiatuau**	**36.11**	**326**	*e*P	**P**	**18 36 01.1**	**0.0**
	comp=Z,124nm,1.1s,mb5.8						
BJT	**Baijiatuau**	**36.11**	**326**	*e*P	**P**	**18 36 01.1**	**0.0**
BJT				pmax	pmax		
	comp=Z,124nm,1.1s						
BJI	**Beijing**	**36.12**	**326**	P	**P**	**18 36 01.4**	**+0.2**
BJI				PP	PP	18 37 19.9	-4.4
BJI				SS	SS	18 44 01.3	-15
BJI				AMB	AMB		
	comp=Z,64nm,1.1s,mb5.5						
BJI				AMB	AMB		
	comp=Z,697nm,4.0s						
BJI				LR	LR		
	comp=N,1μm,23.6s						
BJI				LR	LR		
	comp=E,685nm,22.4s						
BJI				LR	LR		
	comp=Z,2μm,28.0s						
BJI	**Beijing**	**36.12**	**326**	P	**P**	**18 36 01.4**	**+0.2**
	comp=Z,0.1nm,1.1s						
BJI				PP	PP	18 37 19.9	-4.4
BJI				S	**S**	**18 41 25.8**	**-11**
BJI				SS	SS	18 44 01.2	-15
BJI				LR	LR		
	comp=Z,2μm,28.0s						
ASAR	**Alice Springs**	**36.13**	**192**	P	**P**	**18 36 00.3**	**-1.1**
ASAR				PP	PP	18 37 27.0	+2.3
ASAR				PcP	PcP	18 38 26.6	+0.4
ASAR	**Alice Springs**	**36.13**	**192**	P	**P**	**18 36 00.3**	**-1.1**
	comp=Z,43nm,0.6s,mb5.6,baz=17,slow=12,SNR=421						
ASAR				PP	PP	18 37 27.0	+2.3
	comp=Z,21nm,1.0s,baz=11,slow=11,SNR=6.0						
ASAR				PcP	PcP	18 38 26.6	+0.4
	comp=Z,11nm,0.8s,baz=29,slow=3.1,SNR=6.5						
ASAR				PKiKP	PKiKP	18 45 44.4	-1.6
	comp=Z,0.2nm,0.4s,baz=79,slow=0.5,SNR=3.9						
TIY	**Taiyuan**	**36.85**	**319**	⇑*e*P	**P**	**18 36 05.4**	**-2.0**
TIY				S	**S**	**18 41 44.5**	**-3.1**
TIY				PCS	PcS	18 42 14.5	-1.8
TIY				SS	SS	18 44 17.4	-14
TIY				LR	LR		
	comp=N,826nm,15.4s						
TIY				LR	LR		

	comp=E,464nm,14.4s						
HABR	Khabarovsk	36.97	352	eP	P	18 36 06.5	-1.8
HABR				eS	S	18 41 42.8	-6.3
HABR				pmax	pmax		
	comp=Z,142nm,1.8s,mb5.5						
EIDS	Eidsvold	38.05	166	eP	P	18 36 16.3	-1.3
KKTK	Khon Kaen	38.11	281	P	P	18 36 20.5	+2.1
	comp=Z,247nm,0.6s,mb6.1						
KLR	Kul'dur	38.22	349	eP	P	18 36 15.8	-3.1
KLR				pmax	pmax		
	comp=E,57nm,1.6s						
KLR				pmax	pmax		
	comp=Z,140nm,1.6s,mb5.4						
KTGM	Kuala Trenggan	38.82	264	⇑P	P	18 36 25.3	+0.9
MYKOM	Kota Tinggi	39.00	258	⇓P	P	18 36 25.8	-0.1
KMI	Kunming	39.26	295	P	P	18 36 30.1	+2.2
KMI				AP	pP	18 36 39.4	-3.9
KMI				XP	sP	18 36 43.5	-7.0
KMI				AMB	AMB		
	comp=Z,11nm,1.6s,mb4.3						
KMI				AMB	AMB		
	comp=Z,201nm,5.3s						
KMI				LR	LR		
	comp=N,888nm,14.5s						
KMI				LR	LR		
	comp=E,555nm,15.4s						
KMI				LR	LR		
	comp=Z,960nm,20.3s						
KMI	Kunming	39.26	295	P	P	18 36 30.1	+2.2
	comp=Z,11nm,1.6s,mb4.3						
KMI				pP	pP	18 36 39.4	-3.9
KMI				sP	sP	18 36 43.5	-7.0
KMI				PP	PP	18 37 50.0	-8.9
KMI				PPP		18 38 11.4	
KMI				S	S	18 42 04.3	-20
KMI				sS	sS	18 42 19.6	-31
KMI				SS	SS	18 44 27.7	-52
KMI				LR	LR		
	comp=Z,960nm,20.3s						
HHC	Hu-ho-hao-te	39.30	323	eP	P	18 36 28.3	+0.3
HHC				AMB	AMB		
	comp=Z,10.0nm,1.3s,mb4.4						
HHC				AMB	AMB		
	comp=Z,271nm,3.8s						
MBWA	Marble Bar	39.35	214	eP	P	18 36 26.9	-1.7
	comp=Z,168nm,1.3s,mb5.6						
MBWA	Marble Bar	39.35	214	⇓P	P	18 36 27.7	-0.9
	SNR=8.1						
KGM	Kluang	39.45	259	⇓P	P	18 36 29.9	+0.2
CD2	Chengdu	40.00	304	P	P	18 36 33.9	-0.1
CD2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.0						
BTO	Baotou	40.08	321	eP	P	18 36 33.5	-1.0
NANT	Nan	40.25	285	⇑P	P	18 36 35.5	-0.7
	comp=Z,94nm,1.0s,mb5.5						
NST	Nakhon Sawan	40.69	280	P	P	18 36 33.6	-6.3
FRIM	Kepong	40.76	261	⇑P	P	18 36 41.2	+0.6
SNG	Songkhla	40.93	267	P	P	18 36 43.0	+1.1
	comp=Z,168nm,0.9s,mb5.7						
IPM	Ipoh	41.06	263	⇑P	P	18 36 43.3	+0.3
CHRT	Chiangrai	41.19	287	⇑P	P	18 36 46.0	+2.0
	comp=Z,145nm,0.9s,mb5.6						
KULM	Kulim	41.25	265	eP	P	18 36 44.7	+0.1
KULM	Kulim	41.25	265	⇑P	P	18 36 45.4	+0.8
NOUC	Port Laguerre	41.36	145	eP	P	18 36 45.6	+0.3
DZM	Mont Dzumac	41.42	144	eP	P	18 36 45.6	-0.1
HIA	Hailar	41.59	338	eP	P	18 36 46.9	+0.1
	comp=Z,23nm,0.8s,mb4.9						
HIA	Hailar	41.59	338	eP	P	18 36 46.9	+0.1
HIA				pmax	pmax		
	comp=Z,23nm,0.8s						
CHG	Chiang Mai	41.91	285	⇓P	P	18 36 50.4	+0.5
	comp=Z,28nm,0.8s,mb4.9						
CHTO	Chiang Mai	41.91	285	eP	P	18 36 49.6	-0.2
	comp=Z,11nm,0.9s,mb4.5						
CHTO	Chiang Mai	41.91	285	eP	P	18 36 49.6	-0.3
CHTO				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.5						
LZH	Lanzhou	41.92	312	eP	P	18 36 50.4	+0.7
LZH				PP	PP	18 38 31.0	+3.3
LZH				S	S	18 43 00.0	-3.8
LZH				SS	SS	18 46 11.0	-1.5
LZH				AMB	AMB		
	comp=Z,80nm,1.7s,mb5.1						
LZH				AMB	AMB		
	comp=Z,170nm,4.0s						
LZH	Lanzhou	41.92	312	eP	P	18 36 50.4	+0.7
	comp=Z,80nm,1.7s,mb5.1						
LZH				pP	pP	18 37 26.0	+21
LZH				sP	sP	18 37 45.8	+33
LZH				PP	PP	18 38 31.0	+3.3
LZH				ScP	ScP	18 42 16.0	-14
LZH				S	S	18 43 00.0	-3.8
LZH				sS	sS	18 44 10.3	+40
LZH				SS	SS	18 46 11.0	-1.5
LZH	Lanzhou	41.92	312	eP	P	18 36 50.4	+0.7
LZH						18 38 31.0	
LZH				S	S	18 43 00.0	-3.8
LZH				SS	SS	18 46 11.0	-1.5
LZH				pmax	pmax		
	comp=Z,80nm,1.7s,mb5.1						
PET	Petropavlovsk	43.23	15	eP	P	18 37 01.8	+1.7
PET				eS	S	18 43 26.2	+3.7
PET				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
PET				pmax	pmax		
	comp=Z,200nm,14.9s						
STKA	Stephens Creek	43.46	180	eP	P	18 37 00.2	-1.9
	comp=Z,32nm,0.7s,mb5.2						
STKA	Stephens Creek	43.46	180	P	P	18 37 00.2	-1.9
	comp=Z,56nm,0.8s,mb5.3,baz=351,slow=8.1,SNR=99						
STKA				LR	LR	18 53 47.4	
	comp=Z,755nm,20.4s,baz=99,slow=34						
PSI	Prapat	43.48	262	P	P	18 37 02.6	-0.1
	comp=Z,111nm,0.9s,mb5.6,baz=84,slow=4.2,SNR=89						
PSI				PcP	PcP	18 38 49.2	-0.8
	comp=Z,21nm,0.7s,baz=95,slow=5.3,SNR=5.7						
FORT	Forrest	44.40	197	⇓iP	P	18 37 09.0	-0.7
	comp=Z,338nm,0.9s,mb6.1						
FORT				epP	pP	18 37 24.7	-0.7
FORT				ePCP	PcP	18 38 52.5	-0.2
CIT	Chita	46.16	336	eP	P	18 37 24.0	+0.6
CIT				e	pP	18 37 34.9	-4.2
CIT				e	pP	18 37 42.9	+3.8
CIT				e		18 39 13.2	
CIT				pmax	pmax		
	comp=Z,113nm,1.8s,mb5.5						
GTA	Gaotai	46.22	314	eP	P	18 37 23.8	-0.3
GTA				AP	pP	18 37 30.6	-9.3
GTA				XP	sP	18 37 34.6	-12
GTA				PP	PP	18 39 10.3	-3.2
GTA				SCP	ScP	18 42 46.3	-0.9
GTA				SCS	ScS	18 47 11.9	-2.1
GTA				AMB	AMB		
	comp=Z,11nm,1.4s,mb4.6						
GTA				AMB	AMB		
	comp=Z,177nm,8.8s						
GTA				LR	LR		
	comp=N,654nm,20.1s						
GTA				LR	LR		
	comp=E,496nm,21.7s						
GTA				LR	LR		
	comp=Z,645nm,17.9s						
ULN	Ulaanbaatar	46.23	328	eP	P	18 37 24.4	+0.3
	comp=Z,15nm,0.5s,mb5.2						
ULN	Ulaanbaatar	46.23	328	eP	P	18 37 24.4	+0.4
ULN				pmax	pmax		
	comp=Z,15nm,0.5s,mb5.2						
ULN	Ulaanbaatar	46.23	328	⇑P	P	18 37 25.0	+0.9
	SNR=10						
SONM	Songino Array	46.56	327	P	P	18 37 27.0	+0.4
SONM				*PP	pP	18 37 44.2	+1.8
SONM	Songino Array	46.56	327	P	P	18 37 27.0	+0.4
	comp=Z,4.6nm,0.5s,mb4.7,baz=134,slow=6.6,SNR=36						
SONM				pP	pP	18 37 44.2	+1.8
	comp=Z,9.4nm,0.7s,baz=143,slow=5.7,SNR=10						
SONM				ScP	ScP	18 42 46.3	-2.0
	comp=Z,2.6nm,0.8s,baz=141,slow=3.5,SNR=4.9						
SONM				LR	LR	18 55 43.2	
	comp=Z,538nm,21.5s,baz=132,slow=34						
ADE	Adelaide	46.64	184	eP	P	18 37 27.5	+0.2
CLNS	Chul'man	46.78	347	eP	P	18 37 28.3	+0.1
CLNS				pmax	pmax		
	comp=Z,36nm,1.2s,mb5.2						
CLNS				pmax	pmax		
	comp=N,30nm,1.3s						
CLNS				pmax	pmax		
	comp=E,10.0nm,1.4s						
CNB	Canberra Magne	47.42	172	eP	P	18 37 33.3	-0.1
	comp=E,70nm,1.4s,mb5.4						
MA2	Magadan	48.12	6	eP	P	18 37 37.1	-1.4
	comp=E,38nm,1.1s,mb5.3						
MA2	Magadan	48.12	6	eP	P	18 37 35.5	-3.0
MA2				e		18 44 35.2	
MA2				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.5						
KLBR	Kellerberrin	48.98	208	eP	P	18 37 44.6	-0.9
	comp=Z,140nm,1.0s,mb5.9						
KLBR				epP	pP	18 37 59.3	-2.1
KLBR				ePCP	PcP	18 39 07.9	-0.9
TOO	Toolangi	49.26	176	eP	P	18 37 47.4	-0.1
	comp=Z,56nm,0.8s,mb5.7						
TOO	Toolangi	49.26	176	eP	P	18 37 47.4	-0.1
TOO				pmax	pmax		
	comp=Z,56nm,0.8s,mb5.7						
ZAK	Zakamensk	49.73	328	eP	P	18 37 51.0	-0.1
ZAK				e		18 44 54.4	
ZAK				pmax	pmax		
	comp=Z,44nm,1.1s,mb5.4						
ZAK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.3						
MUN	Mundaring	50.02	209	eP	P	18 37 52.8	-0.6
MUN				epP	pP	18 38 08.0	-1.3
LSA	Lhasa	50.24	299	P	P	18 37 56.6	+1.3
LSA				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.1						
LSA	Lhasa	50.24	299	eP	P	18 37 56.0	+0.8
	comp=Z,45nm,1.3s,mb5.3						
LSA	Lhasa	50.24	299	eP	P	18 37 56.0	+0.7
LSA				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.3						
NWAO	Narrogin (SRO)	50.34	207	eP	P	18 37 54.7	-1.2
	comp=Z,243nm,1.4s,mb6.0						
NWAO				epP	pP	18 38 09.6	-2.2
NWAO	Narrogin (SRO)	50.34	207	eP	P	18 37 54.7	-1.2
NWAO				e*PP	pP	18 38 09.6	-2.2
NWAO				pmax	pmax		
	comp=Z,243nm,1.4s						
TLY	Talaya	50.34	330	eP	P	18 37 56.0	+0.4
	comp=Z,5.5nm,0.8s,mb4.6						
TLY	Talaya	50.34	330	eP	P	18 37 56.1	+0.5
TLY				e		18 39 20.2	
TLY				e		18 39 48.5	
TLY				eS	S	18 45 00.2	-3.8
TLY				ePS		18 45 14.7	
TLY				eSS	SS	18 47 41.3	-57
TLY				pmax	pmax		
	comp=Z,22nm,1.6s,mb4.9						
TLY	Talaya	50.34	330	⇑P	P	18 37 56.4	+0.7
	SNR=6.9						
BOD	Bodaibo	50.56	341	eP	P	18 37 56.4	-0.8
BOD				e	pP	18 38 07.6	-5.5
BOD				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.7						
BOD				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.1						
YAK	Yakutsk	50.89	353	eP	P	18 37 58.6	-1.0
	comp=Z,104nm,0.9s,mb5.8						
YAK	Yakutsk	50.89	353	eP	P	18 37 59.5	-0.1
YAK				e		18 39 13.1	
YAK				e		18 39 51.5	
YAK				eS	S	18 45 07.7	-3.6
YAK				e		18 47 40.4	
YAK				pmax	pmax		
	comp=Z,63nm,1.0s,mb5.5						
YAK				pmax	pmax		
	comp=N,35nm,1.5s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,96nm,2.3s,mb5.3						
YAK				pmax	pmax		
	comp=N,69nm,2.4s						
YAK				pmax	pmax		
	comp=E,39nm,1.6s						
YAK				smax			
	comp=E,168nm,1.5s						
YAK				smax			
	comp=Z,42nm,1.6s						
YAK				smax			
	comp=N,143nm,2.7s						
SEY	Seymchan	51.57	6	⇑eP	P	18 38 02.3	-2.4
MOY	Mondy	51.66	329	eP	P	18 38 02.6	-2.9
MOY				pmax	pmax		
	comp=Z,44nm,2.8s,mb4.9						
TAPN	Taplejung	52.93	295	eP	P	18 38 15.2	-0.2
	comp=Z,229nm,1.6s,mb5.9						
ODAN	Odare	53.16	295	eP	P	18 38 16.9	-0.2
	comp=Z,83nm,1.0s,mb5.6						
JIRN	Jiri	54.30	296	eP	P	18 38 25.5	+0.1
	comp=Z,6.4nm,0.4s,mb5.0						
TAU	Tasmania Unive	54.70	175	eP	P	18 38 27.3	-0.6
	comp=Z,75nm,1.3s,mb5.6						
TAU	Tasmania Unive	54.70	175	eP	P	18 38 27.3	-0.6
TAU				pmax	pmax		
	comp=Z,75nm,1.3s,mb5.6						
KKN	Kakani	55.12	296	eP	P	18 38 30.7	-0.6
	comp=Z,58nm,0.8s,mb5.6						
GKN	Gorkha	55.70	296	eP	P	18 38 34.9	-0.6
	comp=Z,124nm,1.1s,mb5.8						
WMQ	Urumqi	56.27	315	eP	P	18 38 39.4	+0.1
BILL	Bilibino	58.39	11	eP	P	18 38 52.5	-1.3
	comp=Z,24nm,0.9s,mb5.2						
BILL	Bilibino	58.39	11	eP	P	18 38 50.0	-3.8
BILL				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
URZ	Urewera	59.74	148	P	P	18 39 01.9	-1.7
	comp=Z,29nm,0.7s,mb5.4,baz=344,slow=4.9,SNR=19						
TIXI	Tiksi	60.31	355	eP	P	18 39 05.1	-1.9
	comp=Z,18nm,0.9s,mb5.1						
TIXI	Tiksi	60.31	355	eP	P	18 39 03.6	-3.4
TIXI				eS	S	18 47 08.6	-7.9
TIXI				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
MK31	Makanchi Array	60.76	317	eP	P	18 39 10.2	-0.3
MKAR	Makanchi Array	60.76	317	P	P	18 39 10.2	-0.2
	comp=Z,5.9nm,0.7s,mb4.8,baz=93,slow=8.7,SNR=40						
MKAR				PKPPKP		19 08 27.1	
	comp=Z,5.4nm,0.4s,baz=346,slow=1.5,SNR=10						
GAMB	Gambell	61.16	22	eP	P	18 39 12.3	-0.5
HYB	Hyderabad	61.30	283	eP	P	18 39 14.5	-0.2
HYB	Hyderabad	61.30	283	i P	P	18 39 14.5	-0.2
RPZ	Rata Peaks	61.34	156	P	P	18 39 13.2	-1.2
	comp=Z,69nm,0.8s,mb5.8,baz=63,slow=1.2,SNR=23						
ZALV	Zalesovo Beam	61.38	326	P	P	18 39 13.6	-1.0
ZALV				S	S	18 47 28.4	-2.3
ZALV				LR	LR	19 06 17.1	
ZALV				P'P'		19 08 27.3	
ZALV	Zalesovo Beam	61.38	326	P	P	18 39 13.6	-1.0
	comp=Z,4.1nm,0.4s,mb4.9,baz=110,slow=7.3,SNR=25						
ZALV				S	S	18 47 28.4	-2.3
	comp=Z,1.0nm,0.6s,baz=119,slow=17,SNR=5.2						
ZALV				LR	LR	19 06 17.1	
	comp=Z,191nm,20.2s,baz=103,slow=36						
ZALV				PKPPKP		19 08 27.3	
	comp=Z,1.3nm,0.8s,baz=298,slow=3.2,SNR=6.3						
ZAL	Zalesovo	61.39	326	P	P	18 39 13.6	-1.0
ZAL				S	S	18 47 28.4	-2.4
NVS	Novosibirsk	62.56	326	eP	P	18 39 21.3	-1.1
NVS				i S	S	18 47 45.8	+0.3
NVS				i *SS	sS	18 49 05.0	+52
NVS				pmax	pmax		
	comp=Z,129nm,2.2s,mb5.7						
NVS				pmax	pmax		
	comp=N,43nm,2.1s						
NVS				pmax	pmax		
	comp=E,80nm,1.9s						
NVS				pmax	pmax		
	comp=Z,20nm,1.9s,mb4.9						
NVS				pmax	pmax		
	comp=E,16nm,1.4s						
NVS				smax			
	comp=E,57nm,2.5s						
TNA	Tin City	63.51	21	eP	P	18 39 27.7	-0.9
	comp=E,14nm,1.1s,mb4.9						
KSH	Kashi	64.01	308	eP	P	18 39 36.1	+3.8
KSH				ePCP	PcP	18 40 07.3	0.0
KSH				eSCP		18 44 03.3	
KSH				ePCS		18 44 10.3	
KSH				eS	S	18 48 00.3	-3.9
KSH				eSS	SS	18 52 18.1	+4.4
KSH				AMB	AMB		
	comp=Z,597nm,4.2s						
KSH				LR	LR		
	comp=N,599nm,7.2s						
KSH				LR	LR		
	comp=E,637nm,5.2s						
KSH				LR	LR		
	comp=Z,882nm,6.2s						
KURK	Kurchatov	64.07	321	P	P	18 39 31.0	-1.5
	comp=Z,295nm,0.7s,SNR=34						
KURK	Kurchatov	64.07	321	⇑eP	P	18 39 31.8	-0.7
KURK	Kurchatov	64.07	321	P	P	18 39 32.0	-0.5
	SNR=18						
TKM2	Tokmak 2	64.69	312	P	P	18 39 37.3	+0.5
TKM2				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
FRU	Bishkek	65.40	312	eP	P	18 39 43.0	+1.7
AAK	Ala-Archa	65.46	312	eP	P	18 39 38.9	-2.9
AAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
KAD	Karad	65.47	284	eP	P	18 39 42.4	+0.2
POO	Poona	65.68	285	eP	P	18 39 42.0	-1.6
SVW2	Sparrevohn	66.58	28	eP	P	18 39 48.2	-0.3
KKAR	Karatay Array	68.42	312	i P	P	18 39 59.9	-0.6
KKAR				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
SLKM	Skilak Lake	68.94	29	eP	P	18 40 02.8	-0.6
IMA2	Indian Mountai	69.00	23	eP	P	18 40 03.3	-0.4
KBL	Kabul	69.30	303	eP	P	18 40 04.8	-1.4
BRVK	Borovoye	69.58	322	P	P	18 40 06.7	-0.8
	SNR=11						
PMR	Palmer	69.71	28	eP	P	18 40 06.3	-1.8
	comp=Z,8.0nm,0.6s,mb4.8						
PMR	Palmer	69.71	28	eP	P	18 40 06.3	-1.8
PMR				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
COLA	College	71.01	25	eP	P	18 40 13.0	-3.0
PPT	Papeete	73.71	112	eLQ		18 59 22.4	
	comp=Z,714nm,33.0s						
PPT				eLR	LR	19 03 02.8	
	comp=Z,1µm,33.2s,baz=291						
PPT	Papeete	73.71	112	eP	P	18 40 34.5	+1.6
	comp=Z,68nm,1.3s,mb5.4						
PPT				eLQ		18 59 22.4	
PPT	Papeete	73.71	112	eP	P	18 40 34.5	+1.6
PPT				pmax	pmax		
	comp=Z,68nm,1.3s						
PPT	Papeete	73.71	112	LR	LR	19 04 57.7	
	comp=Z,262nm,21.6s,baz=357,slow=29						
PAE	Paea	73.73	112	eP	P	18 40 34.8	+1.7
	comp=Z,71nm,1.0s,mb5.5						
PAE	Paea	73.73	112	eP	P	18 40 34.8	+1.7
PAE				pmax	pmax		
	comp=Z,71nm,1.0s,mb5.5						
EGAK	Eagle	73.82	26	eP	P	18 40 30.9	-1.8
	comp=Z,20nm,0.9s,mb5.0						
PMOR	Pomariorio Ree	74.47	109	eP	P	18 40 38.9	+1.5
	comp=Z,90nm,1.5s,mb5.5						
DAWY	Dawson	74.51	27	eP	P	18 40 36.4	-0.4
DAWY				epP	pP	18 40 53.3	-0.3
AB31	Akbulak array	75.89	318	i P	P	18 40 43.8	-1.2
AB31				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
SKAG	Skagway	76.24	31	eP	P	18 40 46.8	0.0
	comp=Z,57nm,1.6s,mb5.2						
ARU	Arti	76.55	325	P	P	18 40 47.4	-1.2
	comp=Z,96nm,0.7s,mb5.8,SNR=9.8						
ARU	Arti	76.55	325	eP	P	18 40 47.0	-1.6
	comp=Z,19nm,0.8s,mb5.1						
ARU	Arti	76.55	325	⇑iP	P	18 40 47.3	-1.3
ARU				e		18 40 56.8	
ARU				e		18 43 41.8	
ARU				eS	S	18 50 23.9	-5.9
ARU				eSS	SS	18 55 22.2	-3.3
ARU				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
AKTO	Aktyubinsk	77.08	319	LR	LR	19 14 44.5	
	comp=Z,348nm,21.5s,baz=121,slow=36						
INK	Inuvik	77.09	22	eP	P	18 40 49.9	-1.5
	comp=Z,971nm,1.1s						
SOKR	Solikamsk	77.41	329	eP	pP	18 41 08.3	-2.0
SOKR				S	S	18 50 40.4	+1.3
SOKR				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
SOKR				MLR	MLR		
	comp=Z,290nm,18.0s						
ABKT	Ailbek	77.95	307	P	P	18 40 56.1	-0.7
	comp=Z,83nm,0.8s,mb5.7,SNR=6.4						
BIDO	Bidbid	79.71	292	⇑P	P	18 41 06.2	-0.6
	SNR=7.1						
HOQ	Hoqain	80.44	292	⇑P	P	18 41 11.6	+0.9
	SNR=8.2						
PRGR	Permogore	82.64	331	⇑iP	P	18 41 24.7	+3.1
PRGR				eS	S	18 51 32.7	-1.3
PRGR				pmax	pmax		
	comp=Z,24nm,0.5s,mb5.5						
E03A	Lebam	84.62	44	⇑P	P	18 41 31.5	-0.5
	baz=85						
H02A	Toledo	84.69	46	⇓P	P	18 41 34.1	+1.7
	baz=85						
C04A	Brinnon	84.78	42	⇑P	P	18 41 33.3	+0.5
	baz=85						
G03A	Yamhill	85.06	45	⇑P	P	18 41 34.1	-0.1
	baz=85						
H03A	Soap Creek Ran	85.18	46	⇑P	P	18 41 34.8	-0.1
	baz=85						
B05A	Bryant	85.24	42	⇓P	P	18 41 35.1	0.0
	baz=85						
J02A	Umpqua	85.25	47	⇓P	P	18 41 35.8	+0.6
	baz=85						
MBW	Mount Baker	85.26	41	P	P	18 41 35.2	0.0
JCW	Jim Creek	85.37	42	P	P	18 41 36.2	+0.5
K02A	Glendale	85.43	47	⇑P	P	18 41 36.5	+0.3
	baz=85						
A06A	Chilliwack	85.46	41	⇓P	P	18 41 36.0	-0.2
	baz=85						
F04A	Amboy	85.53	44	⇑P	P	18 41 36.6	0.0
	baz=86						
D05A	Enumclaw	85.55	43	⇑P	P	18 41 36.7	+0.1
	baz=86						
B06A	Marblemount	85.59	41	⇑P	P	18 41 36.3	-0.5
	baz=86						
C05A	Tolt Reservoir	85.63	42	⇑P	P	18 41 37.1	+0.1
	baz=86						
G04A	Mulino	85.64	45	⇓P	P	18 41 37.5	+0.4
	baz=86						
O01C	Eel River Cons	85.72	50	⇓P	P	18 41 38.8	+1.1
	baz=86						
YKA	Yellowknife Ar	85.75	27	P	P	18 41 36.4	-0.8
YKA				PKKPbc	PKKPbc	18 59 37.4	-3.7
YKA				P'P'		19 07 44.1	
YKA				LR	LR	19 18 41.6	
YKA	Yellowknife Ar	85.75	27	P	P	18 41 36.4	-0.8
	comp=Z,7.1nm,0.6s,mb5.1,baz=291,slow=5.2,SNR=79						
YKA				PKKPbc	PKKPbc	18 59 37.4	-3.7
	comp=Z,0.5nm,0.6s,baz=111,slow=2.2,SNR=8.5						
YKA				PKPPKP		19 07 44.1	
	comp=Z,0.3nm,0.7s,baz=94,slow=3.7,SNR=4.4						
YKA				LR	LR	19 18 41.6	
	comp=Z,163nm,19.6s,baz=245,slow=35						
E05A	Randle	85.83	43	⇓P	P	18 41 37.2	-0.9
	baz=86						
HUMO	Hull Mountain	85.85	47	eP	P	18 41 37.9	-0.3
	comp=Z,30nm,1.2s,mb5.4						
HUMO	Hull Mountain	85.85	47	⇑P	P	18 41 38.0	-0.3
	baz=86						
H04A	Detroit Lake	85.95	45	⇓P	P	18 41 38.1	-0.6
	baz=86						
I04A	Tendick Farm,	85.99	46	⇓P	P	18 41 38.0	-0.9
	baz=86						
C06A	Tall Timber Ra	86.11	42	⇓P	P	18 41 39.6	+0.2
	baz=86						
A07A	Ashnola River,	86.17	41	P	P	18 41 39.9	+0.2
	baz=86,SNR=7.0						
M02C	Callahan	86.18	49	⇑P	P	18 41 39.8	-0.1
	baz=86						
F05A	White Salmon	86.19	44	⇓P	P	18 41 39.0	-0.8
	baz=86						
YBH	Yreka Blue Hor	86.22	48	⇓P	P	18 41 39.9	-0.1
	baz=86						
P01C	Double 8 Ranch	86.23	51	⇓P	P	18 41 39.8	-0.4
	baz=86						
D06A	Cle Elum	86.31	43	P	P	18 41 41.2	+0.8
	baz=86,SNR=6.3						

J04A	Umpqua Nationa	86.32	47	⇑P	P	18 41 40.1	-0.5
	baz=86						
E06A	Yakima	86.36	43	P	P	18 41 41.0	+0.3
	baz=86,SNR=6.3						
G05A	Wamic	86.43	45	⇑P	P	18 41 40.3	-0.8
	baz=86						
NLW	Nelson Butte	86.43	42	P	P	18 41 41.0	0.0
B07A	Winthrop	86.48	41	P	P	18 41 41.3	+0.1
	baz=86,SNR=8.1						
O02C	Red Bluff	86.49	50	P	P	18 41 42.5	+1.0
	baz=86,SNR=5.3						
ETW	Entiat	86.55	42	P	P	18 41 41.5	0.0
EBG	Ellensburg	86.56	43	P	P	18 41 41.9	+0.3
WDC	Whiskeytown Da	86.59	49	⇓P	P	18 41 41.9	0.0
	baz=86						
H05A	Madras	86.63	45	⇑P	P	18 41 42.3	+0.3
	baz=87						
GASB	Alder Springs	86.66	50	⇑P	P	18 41 42.3	0.0
	baz=87						
F06A	Goldendale	86.68	44	⇓P	P	18 41 41.7	-0.5
	baz=87						
C07A	Waterville	86.70	42	P	P	18 41 42.0	-0.3
	baz=87,SNR=6.7						
L04A	Klamath Falls	86.71	48	⇑P	P	18 41 42.2	-0.4
	baz=87						
CROR	Criterion Ridg	86.72	45	P	P	18 41 42.4	-0.1
M03C	McCloud	86.75	49	⇑P	P	18 41 43.0	+0.3
	baz=87						
WTV	Waterville	86.77	42	P	P	18 41 42.2	-0.5
M04C	Macdoel	86.84	48	P	P	18 41 43.6	+0.5
	baz=87,SNR=5.1						
MCCM	Marconi Confer	86.86	52	⇑P	P	18 41 40.8	-2.5
	baz=87						
D07A	Quincy	86.88	43	⇑P	P	18 41 43.0	-0.2
	baz=87						
G06A	Carlson Farm,	86.90	45	⇑P	P	18 41 42.7	-0.6
	baz=87						
A08A	Turner Farm, O	86.91	41	P	P	18 41 43.3	0.0
	baz=87,SNR=10						
RES	Resolute Bay	86.91	13	*e*P	P	18 41 42.0	-0.8
	comp=Z,457nm,0.8s						
J05A	Fort Rock	86.93	47	⇑P	P	18 41 43.2	-0.3
	baz=87						
B08A	Colville Reser	87.02	41	P	P	18 41 43.7	-0.1
	baz=87,SNR=17						
MNRC	McLaughlin Nat	87.03	51	⇓P	P	18 41 44.0	-0.2
	baz=87						
VIPM	Ingram Point	87.08	45	P	P	18 41 44.4	+0.1
EPH	Ephrata	87.09	42	P	P	18 41 43.9	-0.3
E07A	Sunnyside	87.11	43	P	P	18 41 44.7	+0.4
	baz=87,SNR=5.5						
F07A	Phinny Hill Vi	87.23	44	⇓P	P	18 41 44.7	-0.2
	baz=87						
H06A	Lindquist Farm	87.23	45	P	P	18 41 45.0	+0.1
	baz=87,SNR=7.9						
KEV	Kevo	87.27	342	*e*p	P	18 41 42.0	-2.6
	comp=Z,2.1nm,0.4s,mb4.7						
KEV	Kevo	87.27	342	*e*P	P	18 41 42.0	-2.6
KEV				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.7						
K05A	Summer Lake	87.31	47	⇓P	P	18 41 45.8	+0.5
	baz=87						
HATC	Hat Creek Radi	87.33	49	⇑P	P	18 41 46.0	+0.5
	baz=87						
A09A	Danville	87.34	41	⇑P	P	18 41 45.0	-0.4
	baz=87						
C08A	Higginbotham F	87.35	42	P	P	18 41 45.3	-0.1
	baz=87,SNR=9.5						
GBL	Gable Mountain	87.37	43	P	P	18 41 46.2	+0.6
HAWA	Hanford	87.37	43	*e*P	P	18 41 45.4	-0.2
	comp=Z,16nm,1.4s,mb5.1						
HAWA				*e*pP	pP	18 42 03.6	+0.7
LBCM	Butte Creek Ri	87.41	49	P	P	18 41 45.9	0.0
M05C	Lookout	87.44	48	⇑P	P	18 41 45.3	-0.8
	baz=87						
I06A	Prineville	87.50	46	P	P	18 41 46.7	+0.4
	baz=87,SNR=5.6						
L05A	Lakeview	87.51	48	⇓P	P	18 41 46.6	+0.2
	baz=87						
G07A	Ruggs Ranch, H	87.56	44	P	P	18 41 46.6	+0.1
	baz=88,SNR=7.1						
ORV	Oroville	87.59	50	P	P	18 41 46.6	-0.3
	baz=88,SNR=5.3						
D08A	Wollman Farm,	87.61	42	P	P	18 41 46.9	+0.1
	baz=88,SNR=6.3						
OHCM	Honcut	87.66	50	*e*P	P	18 41 45.5	-1.7
E08A	Dider Farm, El	87.66	43	⇑P	P	18 41 46.6	-0.4
	baz=88						
J06A	Christmas Vall	87.71	46	P	P	18 41 47.4	+0.1
	baz=88,SNR=8.2						
O04C	Chester	87.73	49	P	P	18 41 47.9	+0.4
	baz=88,SNR=10.0						
K06A	Valley Falls	87.75	47	P	P	18 41 47.8	+0.3
	baz=88,SNR=6.0						
H07A	Lands Inn, Kim	87.80	45	⇓P	P	18 41 47.3	-0.4
	baz=88						
ARCES	ARCESS Array B	87.84	342	P	P	18 41 45.5	-1.9
ARCES				PKKPbc	PKKPbc	18 59 30.7	-5.6
ARCES				LR	LR	19 27 15.1	
ARCES	ARCESS Array B	87.84	342	P	P	18 41 45.5	-1.9
	comp=Z,4.9nm,0.5s,mb5.0,baz=68,slow=7.0,SNR=78						
ARCES				PKKPbc	PKKPbc	18 59 30.7	-5.6
	comp=Z,2.9nm,1.1s,baz=222,slow=1.6,SNR=4.5						
ARCES				LR	LR	19 27 15.1	
	comp=Z,264nm,21.0s,baz=49,slow=40						
ARE0	ARCESS Array S	87.84	342	*e*P	P	18 41 45.5	-1.8
ZEI	Tsey	87.84	313	*e*P	P	18 41 44.3	-3.6
C09A	Chrisman Ranch	87.85	42	⇑P	P	18 41 46.4	-1.4
	baz=88						
Q04C	Lincoln	87.85	51	⇑P	P	18 41 47.8	-0.3
	baz=88						
ELFS	Eagle Lake Fie	87.92	49	P	P	18 41 49.1	+0.7
	baz=88,SNR=6.0						
MOD	Modoc	87.93	48	*e*P	P	18 41 48.3	-0.1
	comp=Z,16nm,1.2s,mb5.1						
MOD	Modoc	87.93	48	P	P	18 41 48.5	+0.2
	baz=88,SNR=6.5						
I07A	Izee	87.96	45	⇑P	P	18 41 48.5	0.0
	baz=88						
M06C	Likely Place G	87.97	48	⇓P	P	18 41 48.9	+0.3
	baz=88						
A10A	Northport	87.99	40	P	P	18 41 48.8	+0.3
	baz=88,SNR=6.5						
D09A	Jones Farm, Ri	88.02	42	⇑P	P	18 41 48.1	-0.6
	baz=88						
F08A	Pendleton	88.03	44	P	P	18 41 49.2	+0.5
	baz=88,SNR=12						
G08A	Pilot Rock	88.04	44	⇓P	P	18 41 48.2	-0.6
	baz=88						
MOS	Moscow	88.19	327	*e*P	P	18 41 46.0	-3.3
S04C	Ingram Canyon,	88.20	52	⇑P	P	18 41 49.0	-0.7
	baz=88						
E09A	Wood Farm, Sta	88.27	43	⇓P	P	18 41 49.7	-0.2
	baz=88						
J07A	Hines	88.28	46	⇓P	P	18 41 50.1	+0.1
	baz=88						
P05C	Yuba Gap, Truc	88.33	50	⇓P	P	18 41 50.2	-0.1
	baz=88						
PACP	Pacheco Peak	88.35	53	⇓P	P	18 41 50.4	0.0
	baz=88						
LAVA	Lava Cap Winer	88.36	51	P	P	18 41 50.5	+0.1
	baz=88,SNR=5.3						
BEKR	Beckwourth	88.38	50	P	P	18 41 50.7	+0.2
	baz=88,SNR=14						
RKT	Rikitea	88.39	114	*e*LR	LR	19 09 40.5	
	comp=Z,398nm,34.0s,baz=302						
KIV	Kislovodsk	88.40	315	*e*P	P	18 41 47.0	-3.5
KIV				*e*		18 45 17.9	
KIV				*e*PPP		18 47 13.4	
KIV				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.5						
KIV				MLR	MLR		
	comp=Z,156nm,19.0s						
H08A	Prairie City	88.43	45	⇓P	P	18 41 50.8	+0.1
	baz=88						
NEW	Newport	88.47	41	*e*P	P	18 41 49.6	-1.2
	comp=Z,5.5nm,0.7s,mb4.9						
NEW	Newport	88.47	41	*e*P	P	18 41 49.6	-1.2
NEW				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NEW	Newport	88.47	41	LR	LR	19 14 25.9	
	comp=Z,228nm,20.1s,baz=229,slow=31						
K07A	Rock Creek Ran	88.49	47	P	P	18 41 51.1	+0.1
	baz=88,SNR=7.6						
N06A	Buffalo Meadow	88.55	49	P	P	18 41 51.6	+0.2
	baz=88,SNR=9.5						
L07A	Adell	88.60	47	⇑P	P	18 41 51.0	-0.5
	baz=88,SNR=5.4						
V03C	Hunter Liggett	88.62	54	⇓P	P	18 41 53.8	+2.1
	baz=89						
F09A	S2 Ranch, Elgi	88.64	44	⇑P	P	18 41 52.5	+0.9
	baz=89						
JOF	Joensuu	88.64	335	*e*p	P	18 41 47.8	-3.5
	comp=Z,2.5nm,0.4s,mb4.9						
JOF	Joensuu	88.64	335	*e*P	P	18 41 47.8	-3.5
JOF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb5.0						
I08A	Drewsey	88.66	45	⇓P	P	18 41 52.0	+0.2
	baz=89						
VRSR	Storozhevoye	88.68	322	*e*P	P	18 41 49.4	-2.3
VRSR				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb4.2						
VRSR				pmax	pmax		
	comp=N,1.0nm,0.6s						
VRSR				pmax	pmax		
	comp=E,2.0nm,2.1s						
D10A	Wagner Farm, O	88.70	42	⇓P	P	18 41 51.8	0.0
	baz=89						
O06A	Flanigan	88.70	49	P	P	18 41 52.0	-0.1
	baz=89,SNR=11						
A11A	Hall Mountain,	88.76	40	⇑P	P	18 41 53.5	+1.4
	baz=89						
CMB	Columbia Colle	88.80	52	*e*P	P	18 41 52.3	-0.3
	comp=E,24nm,1.0s,mb5.5						
CMB	Columbia Colle	88.80	52	*e*P	P	18 41 52.3	-0.3
CMB				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.5						
CMB	Columbia Colle	88.80	52	⇑P	P	18 41 52.6	+0.1
	baz=89						
G09A	Cove	88.84	44	⇑P	P	18 41 52.9	+0.3
	baz=89						
J08A	Circle Bar Ran	88.87	46	P	P	18 41 53.2	+0.4
	baz=89,SNR=11						
R05C	Kirkwood Meado	88.87	51	⇓P	P	18 41 52.9	0.0
	baz=89						
M07A	Soldier Meadow	88.88	48	P	P	18 41 53.5	+0.6
	baz=89,SNR=9.4						
B11A	Sandpoint	88.90	41	⇓P	P	18 41 53.2	+0.4
	baz=89						
OBN	Obninsk	88.96	326	*e*P	P	18 41 49.8	-3.1
OBN				*e*		18 45 23.0	
OBN				*e*PS	PS	18 53 39.9	-8.0
OBN				pmax	pmax		
	comp=Z,13nm,1.2s,mb5.1						
OBN				MLR	MLR		
	comp=Z,400nm,18.0s						
E10A	Myers Farm, Un	88.96	43	⇑P	P	18 41 52.8	-0.3
	baz=89						
WCN	Washoe City	88.97	50	⇓P	P	18 41 53.4	0.0
	baz=89						
V04C	Ramage Ranch,	89.00	54	⇑P	P	18 41 52.8	-0.7
	baz=89						
WVOR	Wild Horse Val	89.00	47	*e*P	P	18 41 53.1	-0.2
	comp=Z,36nm,0.9s,mb5.7						
WVOR	Wild Horse Val	89.00	47	*e*P	P	18 41 53.1	-0.3
WVOR				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.7						
S05C	Merced	89.01	52	⇓P	P	18 41 53.4	-0.2
	baz=89						
K08A	Mann Creek Ran	89.03	47	P	P	18 41 53.9	+0.4
	baz=89,SNR=8.9						
F10A	Beach Ranch, E	89.03	43	⇑P	P	18 41 52.8	-0.6
	baz=89						
H09A	Durkee	89.09	45	⇑P	P	18 41 52.5	-1.2
	baz=89						
N07B	Gerlach	89.18	49	⇓P	P	18 41 54.7	+0.4
	baz=89						
PKD	Parkfield	89.18	54	⇑P	P	18 41 54.4	0.0
	baz=89						
I09A	Lost Marbles R	89.22	45	⇓P	P	18 41 54.0	-0.4
	baz=89						
S06C	San Francisco	89.25	52	⇑P	P	18 41 54.8	+0.2
	baz=89						
L08A	Fields	89.27	47	P	P	18 41 54.9	+0.2
	baz=89,SNR=12						
EDM	Edmonton	89.27	36	*e*P	P	18 41 53.6	-0.9
EDM				*e*		18 42 17.7	
D11A	Klaveano Farm,	89.32	42	⇑P	P	18 41 54.3	-0.5
	baz=89						
J09A	Fry Pan Ranch,	89.38	46	P	P	18 41 55.5	+0.4
	baz=89,SNR=12						
B12A	Libby	89.39	41	⇓P	P	18 41 56.0	+0.9
	baz=89						
R06C	Coleville	89.39	51	⇑P	P	18 41 55.8	+0.5
	baz=89						
O07A	Toulon	89.41	49	⇓P	P	18 41 55.2	-0.2
	baz=89						
M08A	Happy Creek Ra	89.44	48	P	P	18 41 56.1	+0.7
	baz=89,SNR=5.7						
T06C	Millerton Lake	89.57	52	⇓P	P	18 41 55.9	-0.3
	baz=90						
K09A	Rome	89.57	46	P	P	18 41 56.3	+0.2
	baz=90,SNR=5.5						
E11A	Bogner Ranch,	89.60	43	⇓P	P	18 41 55.7	-0.5
	baz=90						
H10A	Noah's Angus R	89.74	44	P	P	18 41 56.3	-0.5
	baz=90,SNR=8.3						
SMMC	Simmler	89.76	54	⇑P	P	18 41 57.9	+0.8
	baz=90						
F11A	Grangeville	89.77	43	⇑P	P	18 41 56.8	-0.1
	baz=90						
N08A	GE Springer Mi	89.79	48	P	P	18 41 57.8	+0.6
	baz=90,SNR=8.8						
KCC	Kaiser Creek	89.80	52	⇑P	P	18 41 57.9	+0.6
	baz=90						
L09A	Wilkinson Ranc	89.80	47	⇓P	P	18 41 58.0	+0.8
	baz=90						
R07C	Lee Vining	89.81	51	P	P	18 41 58.0	+0.8
	baz=90,SNR=6.7						
G11A	Walters Elk Ra	89.83	44	⇓P	P	18 41 55.7	-1.5
	baz=90						
I10A	Payette	89.84	45	⇓P	P	18 41 57.4	+0.1
	baz=90						
VNDA	Vanda	89.92	176	P	P	18 41 56.4	-0.4
VNDA				LR	LR	19 20 33.6	
VNDA	Vanda	89.92	176	P	P	18 41 56.4	-0.4
	comp=Z,5.7nm,0.9s,mb4.9,baz=332,slow=6.3,SNR=5.4						
VNDA				LR	LR	19 20 33.6	
	comp=Z,392nm,20.1s,baz=342,slow=34						
D12A	Red Ives Fores	89.96	42	⇓P	P	18 41 57.2	-0.6
	baz=90						
A13A	Flathead Natio	89.99	40	⇑P	P	18 41 57.6	-0.2
	baz=90						
PKM	Peak Mountain	90.01	54	⇓P	P	18 41 59.7	+1.4
	baz=90						
J10A	Berg Farm, Mel	90.05	46	⇑P	P	18 41 59.2	+0.9
	baz=90						
MLAC	Mammoth Lakes	90.09	52	⇑P	P	18 41 59.1	+0.5
	baz=90						
M09A	Marrel Ranch,	90.12	48	⇓P	P	18 41 59.2	+0.6
	baz=90						
P08A	Dixie Valley	90.12	49	⇑P	P	18 41 59.9	+1.2
	baz=90						
K10A	MacKenzie Ranc	90.16	46	P	P	18 41 59.2	+0.4
	baz=90,SNR=9.8						
HELL	Mitchell Peak,	90.19	53	⇑P	P	18 41 58.8	-0.3
	baz=90						
H11A	Donnelly	90.21	44	⇓P	P	18 41 58.7	-0.3
	baz=90						
N09A	Rock Creek Ran	90.22	48	⇓P	P	18 41 59.6	+0.4
	baz=90						
C13A	Hot Springs	90.28	41	⇑P	P	18 41 59.6	+0.3
	baz=90						
NVAR	Mina Array Bea	90.29	51	P	P	18 41 59.6	+0.1
NVAR				pP	pP	18 42 16.8	0.0
NVAR	Mina Array Bea	90.29	51	P	P	18 41 59.6	+0.1
	comp=Z,12nm,0.9s,mb5.2,baz=265,slow=4.1,SNR=38						
NVAR				pP	pP	18 42 16.8	0.0
	comp=Z,9.6nm,0.7s,baz=260,slow=7.5,SNR=10						
VES	Vestal, Richgr	90.36	53	⇓P	P	18 42 00.2	+0.3
	baz=90						
MTUM	Tungsten Hills	90.37	52	*e*P	P	18 42 00.1	+0.1
F12A	Elk City	90.41	43	⇓P	P	18 41 59.0	-0.9
	baz=90						
Q08A	Gabbs	90.45	50	⇑P	P	18 42 00.6	+0.3
	baz=90						
R08A	Mina	90.46	51	⇓P	P	18 42 01.0	+0.7
	baz=90						
I11A	Placerville	90.47	45	⇓P	P	18 42 00.3	+0.1
	baz=90						
D13A	Huson	90.53	42	⇑P	P	18 42 00.5	0.0
	baz=90						
S08C	White Mtn Res	90.63	52	P	P	18 42 02.1	+1.0
	baz=91,SNR=6.3						
L10A	Juniper Basin	90.64	47	P	P	18 42 01.1	0.0
	baz=91,SNR=7.8						
O09A	Fish Creek Ran	90.65	49	⇑P	P	18 42 01.7	+0.5
	baz=91						
MFID	Camas Ranch	90.71	45	P	P	18 42 01.5	+0.1
	baz=91,SNR=6.0						
M10A	I.L. Ranch, Tu	90.75	47	⇓P	P	18 42 01.7	+0.1
	baz=91						
K11A	Parker Ranch,	90.75	46	P	P	18 42 01.9	+0.3
	baz=91,SNR=6.5						
C14A	Swan Lake	90.78	41	⇓P	P	18 42 01.0	-0.6
	baz=91						
DAG	Danmarks Havn	90.82	356	*e*P	P	18 42 00.0	-1.2
DAG	Danmarks Havn	90.82	356	*i* P	P	18 42 00.0	-1.2
ISA	Isabella	90.88	53	⇑P	P	18 42 02.6	+0.2
	baz=91						
F13A	Darby	91.02	43	⇑P	P	18 42 02.6	-0.1
	baz=91						
H12A	Diamond D Ranc	91.04	44	⇑P	P	18 42 03.1	+0.2
	baz=91						
KAF	Kangasniemi	91.09	335	*e*p	P	18 41 58.3	-4.4
	comp=Z,3.8nm,0.5s,mb5.0,baz=59,slow=4.3						
KAF	Kangasniemi	91.09	335	*e*P	P	18 41 58.3	-4.4
KAF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb5.0						
O10A	Cortez Mining,	91.12	49	⇑P	P	18 42 04.0	+0.6
	baz=91						
L11A	Cat Creek Ranc	91.12	47	P	P	18 42 03.9	+0.6
	baz=91,SNR=5.3						
R09A	Tonopah	91.27	51	⇓P	P	18 42 04.0	0.0
	baz=91						
S09A	Goldfield	91.30	51	P	P	18 42 04.8	+0.5
	baz=91,SNR=6.3						
G13A	Cobalt	91.30	43	P	P	18 42 03.8	-0.3
	baz=91,SNR=14						
M11A	Holland Ranch,	91.31	47	⇓P	P	18 42 04.3	+0.1
	baz=91						
E14A	Clinton	91.37	42	⇓P	P	18 42 04.5	+0.1
	baz=91						
GRAC	Grapevine Rang	91.38	52	⇓P	P	18 42 04.9	+0.2
	baz=91						
H13A	Challis	91.45	44	P	P	18 42 05.0	+0.3
	baz=91,SNR=6.7						
EDW2	Edwards Air Fo	91.47	54	⇑P	P	18 42 05.4	+0.4
	baz=91						
FIA1	FINESS Array S	91.50	334	*e*P	P	18 42 01.9	-2.7
FINES	FINESS Array B	91.50	334	P	P	18 42 01.9	-2.7
	comp=Z,5.0nm,0.4s,mb5.2,baz=72,slow=5.1,SNR=87						
FINES				pP	pP	18 42 21.9	0.0
	comp=Z,12nm,0.7s,baz=72,slow=6.2,SNR=6.8						
FINES				PKKPbc	PKKPbc	18 59 23.1	-3.9
	comp=Z,1.2nm,0.7s,baz=311,slow=9.9,SNR=6.6						
LRMC	Laurel Mountai	91.54	53	⇑P	P	18 42 06.0	+0.5
	baz=92						
MPMC	Manual Prospec	91.54	53	P	P	18 42 06.1	+0.7
	baz=92,SNR=6.9						
K12A	Draper Farm, C	91.59	46	⇑P	P	18 42 05.7	+0.3
	baz=92						
HLID	Hailey	91.65	45	*e*P	P	18 42 05.5	-0.2
	comp=Z,12nm,0.9s,mb5.2						
HLID	Hailey	91.65	45	P	P	18 42 05.8	+0.1
	baz=92,SNR=9.4						
L12A	House Creek Ra	91.65	46	P	P	18 42 06.2	+0.5
	baz=92,SNR=5.5						
S10A	Tonopah Range,	91.72	51	⇑P	P	18 42 06.8	+0.6
	baz=92						
I13A	Wildhorse Cree	91.74	45	P	P	18 42 06.4	+0.2
	baz=92,SNR=9.4						
G14A	Jackson	91.77	43	⇓P	P	18 42 06.6	+0.3
	baz=92						
O11A	Cowboy Ranch,	91.79	49	⇑P	P	18 42 07.0	+0.5
	baz=92						
J13A	Cove Ranch, Pi	91.86	45	⇓P	P	18 42 07.2	+0.5
	baz=92						
FURC	Furnace Creek,	91.92	52	P	P	18 42 07.7	+0.6
	baz=92,SNR=5.7						
E15A	Deer Lodge	91.93	42	P	P	18 42 07.0	0.0
	baz=92,SNR=8.4						
M12A	Wells	91.95	47	⇑P	P	18 42 07.8	+0.7
	baz=92						
K13A	Stover Farm, H	92.16	46	⇑P	P	18 42 08.8	+0.7
	baz=92						
Q11A	Duckwater	92.16	50	⇓P	P	18 42 08.6	+0.4
	baz=92						
F15A	Butte	92.22	42	P	P	18 42 08.3	+0.1
	baz=92,SNR=6.1						
GSC	Goldstone	92.29	53	⇑P	P	18 42 09.6	+0.8
	baz=92						
U10A	Ash Meadows, A	92.35	52	⇑P	P	18 42 10.0	+0.9
	baz=92						
L13A	Double Diamond	92.43	46	⇓P	P	18 42 10.5	+1.1
	baz=92						
S11A	Rachel	92.44	51	⇑P	P	18 42 10.5	+1.0
	baz=92						
G15A	Dillon	92.44	43	⇑P	P	18 42 09.9	+0.6
	baz=92						
M13A	Montello	92.50	47	⇑P	P	18 42 10.1	+0.4
	baz=92						
SHOC	Shoshone	92.53	53	⇓P	P	18 42 10.6	+0.6
	baz=92						
N13A	Wendover, West	92.63	47	⇓P	P	18 42 11.2	+0.9
	baz=92						
109C	Camp Elliot, M	92.71	56	⇓P	P	18 42 11.5	+0.6
	baz=93						
Q12A	Willow Creek R	92.72	49	⇓P	P	18 42 11.8	+1.0
	baz=93						
HEC	Hector,Ludlow	92.79	54	⇑P	P	18 42 12.0	+0.8
	baz=93						
K14A	Jones Ranch, D	92.83	46	⇓P	P	18 42 12.5	+1.3
	baz=93						
BOZ	Bozeman (W)	92.85	42	⇑P	P	18 42 12.1	+0.8
	baz=93						
TUQ	Turquoise Mtn.	92.94	53	⇓P	P	18 42 12.5	+0.6
	baz=93						
PFO	Pinyon Flat Ob	93.03	55	⇓P	P	18 42 13.3	+0.9
	baz=93						
M14A	Sheep Mountain	93.04	47	⇓P	P	18 42 12.8	+0.6
	baz=93						
MALT	Malatya	93.06	310	*e*P	P	18 42 11.1	-1.3
	comp=Z,2.7nm,0.9s,mb4.7						
MALT				*e*pP	pP	18 42 29.0	-0.7
MALT	Malatya	93.06	310	*e*P	P	18 42 11.1	-1.3
MALT				*e**PP	pP	18 42 29.0	-0.7
MALT				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.7						
R12A	Pony Springs,	93.10	50	⇑P	P	18 42 13.2	+0.7
	baz=93						
V11A	Goodsprings	93.21	53	⇑P	P	18 42 14.1	+1.0
	baz=93						
MONP	Monument Peak	93.26	56	P	P	18 42 14.1	+0.7
	baz=93,SNR=5.0						
QLMT	Earthquake Lak	93.26	43	*e*P	P	18 42 13.6	+0.5
GMRC	Granite Mounta	93.34	54	P	P	18 42 14.1	+0.4
	baz=93,SNR=5.7						
DVTC	Desert V Tower	93.59	56	⇓P	P	18 42 16.5	+1.6
	baz=94						
V12A	Nelson	93.69	53	⇓P	P	18 42 16.3	+1.0
	baz=94						
SWSC	Sam W. Stewart	93.75	55	⇑P	P	18 42 17.1	+1.4
	baz=94						
YNR	Norris Junctio	93.81	43	*e*P	P	18 42 17.3	+1.7
YNR				*e*pP	pP	18 42 33.7	+0.7
BC3	Big Chuckw Mtn	93.82	55	P	P	18 42 16.2	+0.2
	baz=94,SNR=5.2						
DUG	Dugway	93.84	48	⇑P	P	18 42 16.9	+1.0
	baz=94						
IRM	Iron Mountain	93.92	54	P	P	18 42 16.6	+0.2
	baz=94,SNR=6.2						
T13A	Saint George	94.03	51	⇓P	P	18 42 17.4	+0.6
	baz=94						
GLA	Glamis	94.50	55	⇑P	P	18 42 19.9	+0.8
	baz=94						
Y12C	Blythe	94.54	54	⇑P	P	18 42 19.9	+0.6
	baz=94						
W13A	Hualapai Mount	94.63	53	⇑P	P	18 42 19.4	-0.2
	baz=95						
PDMCI	Parker Dam,Lak	94.68	54	⇓P	P	18 42 20.6	+0.7
	baz=95						
AKASG	Malin Array Be	94.74	324	P	P	18 42 17.3	-2.5
AKASG				PKKPbc	PKKPbc	18 59 13.9	-4.3
AKASG	Malin Array Be	94.74	324	P	P	18 42 17.3	-2.5
	comp=Z,0.4nm,0.4s,mb4.2,baz=52,slow=4.4,SNR=6.6						
AKASG				PKKPbc	PKKPbc	18 59 13.9	-4.3
	comp=Z,0.6nm,0.5s,baz=262,slow=2.7,SNR=8.0						
W14A	Seligman	95.22	53	⇑P	P	18 42 22.7	+0.3
	baz=95						
PDAR	Pinedale Array	95.26	45	P	P	18 42 21.1	-1.3
	comp=Z,0.8nm,0.6s,mb4.3,baz=224,slow=0.7,SNR=7.8						
PDAR				pP	pP	18 42 40.2	+0.5

	comp=Z,1.6nm,0.7s,baz=85,slow=1.7,SNR=3.2						
PDAR				LR	LR	19 23 10.5	
	comp=Z,108nm,19.1s,baz=301,slow=34						
X14A	**Yava**	95.61	53	⇓P	P	18 42 24.5	+0.4
	baz=96						
Y14A	**Wickenburg**	95.68	54	⇑P	P	18 42 24.9	+0.4
	baz=96						
Z14A	**Wintersburg**	95.91	54	⇑P	P	18 42 25.8	+0.3
	baz=96						
X15A	**Humboldt**	96.11	53	⇓P	P	18 42 27.0	+0.6
	baz=96						
BRTR	**Keskin Array B**	96.13	313	P	P	18 42 24.1	-2.3
	comp=Z,0.3nm,0.5s,baz=29,slow=8.6,SNR=4.2						
FCC	**Fort Churchill**	96.41	26	*e*P	P	18 42 26.2	-1.1
	comp=Z,5.1nm,1.0s,mb4.9						
FCC	**Fort Churchill**	96.41	26	*e*P	P	18 42 26.2	-1.0
FCC				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.9						
WUAZ	**Wupatki**	96.45	52	⇓P	P	18 42 28.5	+0.5
	baz=96						
MAW	**Mawson**	96.70	202	*e*P	P	18 42 27.9	-0.3
	comp=Z,11nm,1.0s,mb5.3						
MAW	**Mawson**	96.70	202	*e*P	P	18 42 27.9	-0.3
MAW				pmax	pmax		
	comp=Z,11nm,1.0s						
MAW	**Mawson**	96.70	202	P	P	18 42 27.5	-0.7
	comp=Z,14nm,0.9s,mb5.4,baz=14,slow=4.2,SNR=8.5						
MAW				LR	LR	19 24 13.5	
	comp=Z,149nm,18.4s,baz=274,slow=34						
NB2	**NORSAR Subarra**	97.62	338	P	P	18 42 29.0	-3.6
	comp=Z,5.1nm,1.2s,mb4.9,baz=51,slow=5.6						
NOA	**NORSAR Array B**	97.62	338	P	P	18 42 29.9	-2.7
NOA				PKKPbc	PKKPbc	18 59 08.1	-2.8
NOA				LR	LR	19 32 13.2	
NOA	**NORSAR Array B**	97.62	338	P	P	18 42 29.9	-2.7
	comp=Z,1.6nm,0.9s,mb4.5,baz=50,slow=4.9,SNR=3.5						
NOA				PKKPbc	PKKPbc	18 59 08.1	-2.8
	comp=Z,1.3nm,0.7s,baz=58,slow=3.6,SNR=4.2						
NOA				LR	LR	19 32 13.2	
	comp=Z,192nm,18.5s,baz=35,slow=39						
MLR	**Muntele Rosu**	99.00	320	PKKPbc	PKKPbc	18 59 04.7	-1.8
	comp=Z,2.5nm,0.6s,baz=272,slow=2.9,SNR=6.1						
ULM	**Lac du Bonnet**	100.32	33	P	Pdif	18 42 42.8	-2.0
	comp=Z,0.7nm,0.5s,baz=294,slow=8.0,SNR=4.5						
CLL	**Collm**	103.13	330	*e*SP	SP	18 56 15.0	+0.9
CLL				*e*PPS		18 57 13.0	
CLL				*e*SS	SS	19 01 54.0	+4.4
CLL				*e*SSS		19 06 54.0	
CLL				Lm		19 31 00.0	
	comp=N,200nm,21.9s						
CLL				Lm		19 31 00.0	
	comp=E,400nm,20.2s						
CLL				Lm		19 31 00.0	
	comp=Z,500nm,19.5s						
GERES	**GERESS Array B**	104.29	328	PKiKP	PKiKP	18 47 18.5	-0.5
	comp=Z,0.5nm,0.6s,baz=96,slow=2.7,SNR=4.5						
GERES				PKKPbc	PKKPbc	18 58 49.1	-2.1
	comp=Z,1.3nm,0.7s,baz=197,slow=2.2,SNR=10						
TXAR	**Lajitas Array**	104.75	55	PKiKP	PKiKP	18 47 20.4	0.0
	comp=Z,0.4nm,0.6s,baz=336,slow=2.7,SNR=4.2						
TXAR				PKKPbc	PKKPbc	18 58 48.9	-0.4
	comp=Z,1.3nm,0.8s,baz=140,slow=6.3,SNR=9.2						
LSZ	**Lusaka**	115.66	259	*e*PKPdf	PKPdf	18 47 40.7	-0.6
LSZ	**Lusaka**	115.66	259	*e*PKIKP	PKPdf	18 47 40.7	-0.6
SNAA	**Sanae**	116.49	192	PKP	PKPdf	18 47 38.9	-2.4
SNAA	**Sanae**	116.49	192	PKIKP	PKPdf	18 47 38.9	-2.4
SNAA	**Sanae**	116.49	192	PKP	PKPdf	18 47 38.9	-2.4
	comp=Z,2.0nm,0.7s,baz=174,slow=3.2,SNR=11						
VNA2	**Neumayer--Watz**	117.97	191	*e*PKPdf	PKPdf	18 47 44.0	-0.2
	baz=281,slow=0.5						
VNA2				*e*		18 47 50.5	
VNA2				*e*		18 47 58.4	
VNA3	**Neumayer Olymp**	118.11	190	*e*PKPdf	PKPdf	18 47 43.3	-1.2
VNA3				*e*		18 47 49.1	
VNA3				*e*		18 47 58.5	
BOSA	**Boshof**	118.87	244	PKP	PKPdf	18 47 45.5	-1.7
BOSA	**Boshof**	118.87	244	PKIKP	PKPdf	18 47 45.5	-1.7
BOSA	**Boshof**	118.87	244	PKP	PKPdf	18 47 45.5	-1.7
	comp=Z,5.7nm,0.7s,baz=142,slow=1.8,SNR=15						
ESDC	**Sonseca Array**	119.72	330	PKKPbc	PKKPbc	18 57 57.6	-2.4
	comp=Z,0.6nm,0.4s,baz=253,slow=5.1,SNR=4.3						
TOA0	**Torodi Ar. Sit**	133.36	301	*e*PKPdf	PKPdf	18 48 14.6	-0.6
TORD	**Torodi Ar. Bea**	133.36	301	PKP	PKPdf	18 48 14.7	-0.6
TORD				SKPbc	SKPbc	18 51 36.0	-2.4
TORD	**Torodi Ar. Bea**	133.36	301	PKP	PKPdf	18 48 14.7	-0.6
	comp=Z,2.2nm,0.5s,baz=33,slow=2.6,SNR=26						
TORD				SKPbc	SKPbc	18 51 36.0	-2.4
	comp=Z,6.6nm,1.0s,baz=47,slow=1.3,SNR=11						
KIC	**Kosan Boka**	142.20	297	*e*PKIKP	PKPdf	18 48 26.0	-5.5
	comp=Z,114nm,1.0s						
TIC	**Toumodi**	142.31	297	*e*PKIKP	PKPdf	18 48 26.7	-5.0
	comp=Z,38nm,0.7s						
LIC	**Lamto**	142.52	297	*e*PKIKP	PKPdf	18 48 26.2	-5.9
	comp=Z,56nm,0.8s						
FCH	**Farellones**	143.63	131	⇑*e*P	PKPdf	18 48 31.6	-1.9
MDZ	**Mendoza**	144.90	132	*e*P	PKPdf	18 48 35.3	-0.4
MDZ	**Mendoza**	144.90	132	*e*PKIKP	PKPdf	18 48 35.3	-0.4
FDF	**Fort de France**	145.11	41	⇓*e*P	PKPbc	18 48 36.2	+0.1
LCO	**Las Campanas**	145.17	124	*e*PKPdf	PKPdf	18 48 36.2	-0.1
BIM	**Bigot**	145.32	42	*e*P	PKPbc	18 48 37.4	+0.6
MVM	**Montagne Vaucl**	145.41	41	*e*P	PKPbc	18 48 36.6	-0.5
ARE	**Arequipa**	147.34	102	*e*P	PKPdf	18 48 44.0	+3.7
ARE	**Arequipa**	147.34	102	*e*PKP2	PKPab	18 48 44.0	-0.7
LPAZ	**La Paz**	150.57	102	*e*PKP	PKPdf	18 48 46.9	+1.4
LPAZ				*e*PKP	PKPbc	18 48 51.9	+0.9
LPAZ				*e*PKP	pPKPdf	18 49 05.9	+2.5
LPAZ	**La Paz**	150.57	102	*e*PKIKP	PKPdf	18 48 46.9	+1.4
LPAZ				*e*		18 48 51.9	
LPAZ	**La Paz**	150.57	102	PKP	PKPdf	18 48 46.7	+1.2
	comp=Z,6.9nm,1.0s,baz=349,slow=3.3,SNR=18						
LPAZ				PKPbc	PKPbc	18 48 51.7	+0.7
	comp=Z,19nm,0.5s,baz=335,slow=3.2,SNR=60						

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*IDC **15** 18:45:16.1±1.1, 22.03N×92.48E, h0^{km}, mb3.6/8, mb1 3.7/8, mb1mx3.5/22, mbtmp3.6/8, MS4.3/2, Ms1 4.2/2, ms1mx3.1/32, Error ellipse: s-maj=56.4km s-min=18.0km az=57.0*

*ISCJB **15** 18:45:36.5±1.9, 23.9N±0.3×94.29E±0.09, h134^{km}±7^{km}, mb3.5/8, Error ellipse: s-maj=44.5km s-min=10.4km az=12.8*

ISC 15 18:45:34.6±1.6, **23.6N**±0.2×**94.27E**±0.08, **h119**^{km}±9^{km}, **n18**, σ1^{s}**12**/23, **mb3.5**/8, **Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMP	**Imphal**	1.24	346	*e*P	Pn	18 45 58.0	-1.0
IMP				*e*S	Sn	18 46 17.0	-0.6
SHL	**Shillong**	2.94	313	*e*PN	Pn	18 46 22.0	+1.9
SHL				*e*SN	Sn	18 46 52.0	-3.1
TAPN	**Taplejung**	7.02	304	*e*Pn	Pn	18 47 16.1	+1.3
TAPN				*e*Sn	Sn	18 48 33.3	+0.2
	38nm,0.3s						
ODAN	**Odare**	7.04	299	*e*Pn	Pn	18 47 16.4	+1.4
ODAN				*e*Sn	Sn	18 48 32.8	-0.7
	101nm,0.3s						
JIRN	**Jiri**	8.35	301	*e*Pn	Pn	18 47 34.2	+1.4
JIRN				*e*Sn	Sn	18 49 04.3	-1.0
	34nm,0.2s						
KKN	**Kakani**	9.13	299	*e*Pn	Pn	18 47 44.3	+0.9
KKN				*e*Sn	Sn	18 49 23.1	-1.2
	16nm,0.2s						
GKN	**Gorkha**	9.74	299	*e*Pn	Pn	18 47 51.4	-0.1
GKN				*e*Sn	Sn	18 49 38.5	-0.5
	39nm,0.3s						
MKAR	**Makanchi Array**	25.09	340	P	P	18 50 49.5	+1.5
	0.4nm,0.4s,mb3.2,baz=146,slow=11,SNR=23						
SONM	**Songino Array**	26.07	19	P	P	18 51 10.6	+14
	0.2nm,0.6s,mb2.8,baz=260,slow=5.7,SNR=2.4						
SONM				pP	pP	18 51 20.8	-1.6
	0.6nm,0.8s,baz=202,slow=11,SNR=4.3						
JOF	**Joensuu**	57.01	331	*e*p	P	18 55 07.9	+0.4
WRA	**Warramunga Arr**	58.28	135	P	P	18 55 12.9	-4.1
	0.3nm,0.5s,mb3.5,baz=322,slow=7.5,SNR=10						
WRA				pP	pP	18 55 25.8	-20
	0.4nm,0.3s,baz=321,slow=7.4,SNR=41						
FINES	**FINESS Array B**	59.17	329	P	P	18 55 21.9	-0.6
	0.9nm,1.0s,mb3.8,baz=92,slow=4.8,SNR=4.0						
ARCES	**ARCESS Array B**	60.71	338	P	P	18 55 33.5	+0.5
	3.0nm,1.0s,mb4.3,baz=86,slow=7.7,SNR=5.5						
ASAR	**Alice Springs**	60.72	138	P	P	18 55 30.4	-3.3
	0.4nm,0.6s,mb3.6,baz=320,slow=6.7,SNR=13						
VRAC	**Vranov**	64.61	315	LR	LR	19 28 07.3	
	comp=Z,282nm,20.3s,baz=50,slow=40						
HFS	**Hagfors**	65.20	327	P	P	18 56 02.9	+0.1
	0.9nm,0.6s,mb3.8,baz=110,slow=7.8,SNR=6.8						
NOA	**NORSAR Array B**	66.33	328	P	P	18 56 09.7	-0.4
	0.4nm,0.5s,mb3.5,baz=86,slow=6.2,SNR=2.7						
BOSA	**Boshof**	84.30	236	LR	LR	19 32 16.8	
	comp=Z,109nm,20.4s,baz=99,slow=34						

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*LDG **15** 19:09:34.8±0.1, 29.47N×81.37E, h10^{km}, Mb4.5/9, Error ellipse: s-maj=5.1km s-min=2.1km az=25.0*

*IDC **15** 19:09:35.2±0.7, 29.37N×81.49E, h0^{km}, mb4.2/17, mb1 4.3/18, mb1mx4.2/25, mbtmp4.2/18, ML3.9/1, MS3.4/2, Ms1 3.4/2, ms1mx2.9/26, Error ellipse: s-maj=23.9km s-min=15.7km az=34.0*

*MOS **15** 19:09:37.5±1.2, 29.58N×81.47E, h22^{km}, mb4.6/18, Error ellipse: s-maj=10.1km s-min=5.2km az=119.2*

*ISCJB **15** 19:09:39.7±0.4, 29.34N±0.02×81.42E±0.02, h49^{km}±4^{km}, mb4.3/43, MS3.5/3, Error ellipse: s-maj=4.1km s-min=2.7km az=21.8*

*NEIC **15** 19:09:39.0±3.5, 29.57N×81.45E, h19^{km}±21^{km}, mb4.5/16, Error ellipse: s-maj=12.2km s-min=6.4km az=201.0*

*BJI **15** 19:09:39.4, 29.72N×81.50E, h15^{km}, mB4.7, mb4.4, ML3.8, Ms4.0, Msz3.6*

*DMN **15** 19:09:40.1±0.8, 29.68N×81.65E, h74^{km}±35^{km}, Ml5.2/4, Error ellipse: s-maj=118.9km s-min=19.3km az=15.0*

*NDI **15** 19:09:41.3±4.7, 29.30N×81.42E, h19^{km}, ML4.4, mb4.5(NEIC)*

ISC 15 19:09:41.6±0.3, **29.38N**±0.02×**81.44E**±0.02, **h44**^{km}±3^{km}, **n191**, σ1^{s}**22**/214, **mb4.3**/43, **MS3.5**/3, **14C-8D**, **Nepal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LGTI	**Lohaghat**	1.05	274	*e*P	Pn	19 10 01.0	+1.2
LGTI				*e*S	Sn	19 10 16.0	+2.7
JOSI	**Joshimath**	2.01	306	*e*P	Pn	19 10 14.8	+1.8
JOSI				*e*S	Sn	19 10 40.5	+3.5
JOSI				AML	AML	19 10 47.3	
	comp=E,37µm,0.8s						
JOSI				AML	AML	19 10 47.5	
	comp=N,14µm,0.6s						
DDI	**Dehra Dun**	3.09	288	*e*P	Pn	19 10 28.8	+0.9
DDI				*e*S	Sn	19 11 03.0	-0.5
GKN	**Gorkha**	3.12	115	*e*Pn	Pn	19 10 29.9	+1.6
GKN				*e*Sn	Sn	19 11 06.9	+2.5
GKN	**Gorkha**	3.12	115	*e*Pn	Pn	19 10 30.1	+1.8
KKN	**Kakani**	3.73	114	*e*Pn	Pn	19 10 37.9	+1.3
KKN	**Kakani**	3.73	114	*e*Pn	Pn	19 10 37.0	+0.4
KKN				*e*Sn	Sn	19 11 20.8	+1.5
	comp=N,2µm,0.4s						
AGRA	**Agra**	3.76	236	*e*P	Pn	19 10 39.0	+1.9
NDI	**New Delhi**	3.77	260	*e*P	Pn	19 10 36.0	-1.2
NDI				*e*S	Sn	19 11 17.0	-3.2
SONA	**Sohna**	3.99	255	*e*P	Pn	19 10 42.1	+1.9
SONA				*e*S	Sn	19 11 26.7	+1.0
SONA				AML	AML	19 11 46.2	
	comp=N,1µm,0.3s						
SONA				AML	AML	19 11 47.5	
	comp=E,1µm,0.4s						
ALBI	**Allahabad**	4.07	175	*i* P	Pn	19 10 40.0	-1.3
SMLA	**Simla**	4.09	296	*e*P	Pn	19 10 42.5	+0.9
SMLA				*e*x	Sn	19 11 29.7	+1.6
SDNR	**Sundarnagar**	4.40	300	*e*P	Pn	19 10 47.6	+1.7
SDNR				*e*x	Sn	19 11 37.6	+1.7
RTK	**Rohtak**	4.41	267	*e*P	Pn	19 10 47.1	+1.1
JIRN	**Jiri**	4.51	111	*e*Pn	Pn	19 10 48.7	+1.3
JIRN				*e*Sn	Sn	19 11 39.6	+0.9
	comp=E,911nm,0.4s						
KUDL	**Kundal**	4.52	255	*e*P	Pn	19 10 48.7	+1.2
KUDL				*e*x	Sn	19 11 38.2	-0.6
KUDL				AML	AML	19 12 09.1	
	comp=E,432nm,0.2s						
KUDL				AML	AML	19 12 09.1	
	comp=N,825nm,0.4s						
BHK	**Bhakra**	4.79	296	*e*x	Pn	19 10 47.0	-4.2
KHET	**Khetri**	5.12	257	*e*P	Pn	19 10 56.8	+1.0
KHET				*e*x	Sn	19 11 51.6	-2.0
KHET				AML	AML	19 11 56.6	
	comp=N,668nm,0.2s						
KHET				AML	AML	19 11 56.8	
	comp=E,702nm,0.2s						
THN	**Thein Dam**	5.79	303	*e*P	Pn	19 11 06.5	+1.6
THN				*e*S	Sn	19 12 09.9	0.0
ODAN	**Odare**	5.82	114	*e*Pn	Pn	19 11 06.3	+0.9
ODAN				*e*Sn	Sn	19 12 11.2	+0.3
	comp=E,469nm,0.3s						
TAPN	**Taplejung**	5.88	109	*e*Pn	Pn	19 11 06.8	+0.6
TAPN				*e*Sn	Sn	19 12 11.8	-0.5
	comp=E,319nm,0.3s						
JBP	**Jabalpur**	6.33	192	⇑*e*P	Pn	19 11 11.9	-0.4
JBP				*i* x	Sn	19 12 25.1	+1.8
JMU	**Jammu**	6.52	302	*e*S	Sn	19 12 27.5	-0.6
GTK	**Gangtok**	6.64	106	*e*x	Pn	19 11 17.0	+0.4
AJM	**Ajmer**	6.67	246	*e*P	Pn	19 11 18.6	+1.5
AJM				*e*S	Sn	19 12 28.7	-3.2
BOK	**Bokaro**	6.84	143	*e*P	Pn	19 11 19.9	+0.6
BOK				*e*S	Sn	19 12 34.0	-1.9
BOK				AML	AML	19 13 23.4	
	comp=E,291nm,0.7s						
BOK				AML	AML	19 13 23.5	
	comp=N,131nm,1.0s						
BHPL	**Bhopal**	7.10	211	*e*P	Pn	19 11 23.1	+0.2
BHPL				*e*x	Sn	19 12 41.0	-1.4
BHPL				AML	AML	19 13 28.6	
	comp=N,399nm,0.4s						
BHPL				AML	AML	19 13 29.6	
	comp=E,385nm,0.3s						
BLSP	**Bilaspur**	7.25	175	*e*P	Pn	19 11 25.7	+0.7
BLSP				*e*x	Sn	19 12 44.7	-1.3
BLSP				AML	AML	19 13 31.6	
	comp=E,304nm,0.5s						
BLSP				AML	AML	19 13 32.2	
	comp=N,231nm,0.2s						
CHCP	**Chirah Chowk**	8.18	303	⇑P	Pn	19 11 37.2	-0.5
LSA	**Lhasa**	8.46	85	P	Pn	19 11 43.0	+1.4
LSA				S	Sn	19 13 13.0	-2.8
LSA				Smax			
	comp=N,30nm,0.7s						
LSA				Smax			
	comp=E,30nm,0.8s						
LSA	**Lhasa**	8.46	85	*e*P	Pn	19 11 42.4	+0.8
	comp=E,26nm,0.5s						
LSA	**Lhasa**	8.46	85	*e*P	Pn	19 11 42.4	+0.8
LSA				pmax	pmax		
	comp=Z,26nm,0.5s						
NGP	**Nagpur**	8.48	195	*i* P	Pn	19 11 41.2	-0.7
NGP				*e*x	Sn	19 13 11.0	-5.2
THW	**Thamme Wali**	8.99	295	P	Pn	19 11 47.5	-1.3
CEP	**Cherat**	9.26	301	P	Pn	19 11 51.0	-1.5
CEP				S	Sn	19 13 29.0	-6.2
AKL	**Akola**	9.53	206	⇑*i*P	Pn	19 11 57.4	+1.1
AKL				*i* x	Sn	19 13 37.7	-4.3
SBDP	**Sheikh Budin**	9.60	290	P	Pn	19 11 55.3	-1.8
SHL	**Shillong**	10.02	110	*e*P	Pn	19 12 01.0	-1.9
SHL				*e*S	Sn	19 13 47.0	-7.0
KSH	**Kashi**	11.07	337	P	Pn	19 12 16.0	-1.2
BHV	**Bhavnagar**	11.32	230	*e*P	Pn	19 12 19.5	-1.2
KBL	**Kabul**	11.72	299	*e*P	Pn	19 12 23.8	-2.4
KBL				*e*S	Sn	19 14 28.8	-6.6
VIS	**Vishakhapatnam**	11.73	171	*e*P	Pn	19 12 24.8	-1.6
VIS				*i* x	Sn	19 14 29.3	-6.8
LATR	**Latur**	11.79	203	*e*P	Pn	19 12 25.7	-1.5
IMP	**Imphal**	12.03	109	*e*x	Pn	19 12 29.0	-1.5
HYB	**Hyderabad**	12.20	193	*e*P	Pn	19 12 30.5	-2.3
	comp=Z,33nm,0.6s						
HYB				*e*S	Sn	19 14 34.5	-13
HYB	**Hyderabad**	12.20	193	*e*P	Pn	19 12 30.5	-2.3
HYB				pmax	pmax		
	comp=Z,33nm,0.6s						
HYB	**Hyderabad**	12.20	193	*i* P	Pn	19 12 30.5	-2.3
	comp=Z,33nm,0.6s						
HYB				*e*S	Sn	19 14 50.0	+2.5
BHJ	**Bhuj**	12.21	243	*e*P	Pn	19 12 32.8	0.0
POO	**Poona**	12.84	214	*e*P	Pn	19 12 39.5	-2.0
POO				*e*x	x	19 14 54.8	
KZA	**Kyzart**	13.62	340	P	Pn	19 12 54.1	+2.0
	SNR=12						
KAD	**Karad**	13.74	211	*e*P	Pn	19 12 52.1	-1.7
KAD				*e*x	x	19 15 15.9	
UCH	**Uchtor**	13.99	338	P	Pn	19 12 53.4	-3.6
	SNR=26						
UCH	**Uchtor**	13.99	338	*e*P	Pn	19 12 53.1	-4.0
	comp=Z,58nm,0.6s						
AML	**Almayashu**	14.18	336	P	Pn	19 12 57.5	-2.2
	SNR=36						
AML	**Almayashu**	14.18	336	*e*P	Pn	19 12 55.6	-4.1
	comp=Z,26nm,0.5s						
KBK	**Karagaybulak**	14.24	340	P	Pn	19 13 00.8	+0.3
	SNR=6.5						
TKM2	**Tokmak 2**	14.31	342	*e*P	Pn	19 12 59.0	-2.4
	comp=Z,9.5nm,0.8s						
TKM2	**Tokmak 2**	14.31	342	*e*P	Pn	19 12 59.0	-2.4
TKM2				pmax	pmax		
	comp=Z,10.0nm,0.8s						
AAK	**Ala-Archa**	14.36	339	P	Pn	19 13 00.6	-1.6
	SNR=12						
AAK	**Ala-Archa**	14.36	339	*e*P	Pn	19 12 57.8	-4.3
	comp=Z,30nm,1.9s						
AAK	**Ala-Archa**	14.36	339	*d* *i*P	Pn	19 12 59.2	-2.9
FRU	**Bishkek**	14.51	340	*e*P	Pn	19 13 10.0	+6.0
EKS2	**Erkin-Say**	14.62	337	P	Pn	19 13 03.7	-1.9
	SNR=9.6						
EKS2	**Erkin-Say**	14.62	337	*e*P	Pn	19 13 03.3	-2.3
	comp=Z,19nm,0.7s						
WMQ	**Urumqi**	15.25	17	P	Pn	19 13 11.3	-2.5
WMQ				AP	pP	19 13 14.8	-14
WMQ				XP	sP	19 13 18.3	-16
WMQ				PP		19 13 23.4	
WMQ				AMB	AMB		
	comp=Z,14nm,0.8s						
KKAR	**Karatay Array**	16.27	330	*e*P	Pn	19 13 22.2	-4.6
KKAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MK31	**Makanchi Array**	17.40	2	*e*P	Pn	19 13 37.1	-3.9
MKAR	**Makanchi Array**	17.40	2	Pn	Pn	19 13 36.9	-4.0
MKAR	**Makanchi Array**	17.40	2	*e*P	Pn	19 13 36.7	-4.2
MKAR	**Makanchi Array**	17.40	2	Pn	Pn	19 13 36.9	-4.0
	comp=Z,0.4nm,0.3s,baz=182,slow=13,SNR=28						
MNGI	**Mangalore**	17.48	202	*e*x	x	19 16 45.3	
MNGI				*e*x	x	19 18 48.8	
GTA	**Gaotai**	18.13	52	*e*P	Pn	19 13 50.8	+0.8
GTA				AP	pP	19 13 54.8	-5.7
GTA				XP	sP	19 13 58.0	-8.2
GTA				AMB	AMB		
	comp=Z,4.0nm,0.7s						
CD2	**Chengdu**	19.36	80	*e*P	Pn	19 14 04.3	-0.6
CD2				AP	pP	19 14 08.1	-6.0
CD2				PP		19 14 21.5	
CD2				S	S	19 17 35.8	-4.3
CD2				SS		19 18 00.8	
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s						
CD2				AMB	AMB		
	comp=Z,30nm,4.2s						
CD2				LR	LR		
	comp=N,120nm,11.4s						
CD2				LR	LR		
	comp=E,110nm,9.8s						
CD2				LR	LR		
	comp=Z,100nm,12.0s						
KMI	**Kunming**	19.40	98	P	Pn	19 14 06.0	+0.6
KMI				AMB	AMB		
	comp=Z,7.0nm,1.0s						
KMI	**Kunming**	19.40	98	P	Pn	19 14 06.0	+0.6
	comp=Z,7.0nm,1.0s						
LZH	**Lanzhou**	19.97	65	*e*P	Pn	19 14 14.1	+2.0
LZH				AP	pP	19 14 18.5	-2.3
LZH				XP	sP	19 14 21.5	-4.9
LZH				AMB	AMB		
	comp=Z,15nm,1.0s						
LZH	**Lanzhou**	19.97	65	*e*P	Pn	19 14 14.1	+2.0
	comp=Z,15nm,1.0s						
LZH				pP	pP	19 14 18.5	-2.3
LZH				sP	sP	19 14 21.5	-4.9
KURK	**Kurchatov**	21.41	355	*e*P	P	19 14 23.9	-1.7
	comp=Z,14nm,0.6s,mb4.5						
KURK	**Kurchatov**	21.41	355	⇑*e*P	P	19 14 23.1	-2.4
XAN	**Xi'an**	23.80	72	P	P	19 14 54.8	+4.5
XAN				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.1						
ZAL	**Zalesovo**	24.66	5	P	P	19 14 57.2	-0.7
ZAA0	**Zalesovo Array**	24.67	5	*e*P	P	19 14 57.0	-1.0
ZALV	**Zalesovo Beam**	24.67	5	P	P	19 14 57.2	-0.8
	comp=Z,11nm,0.6s,mb4.6,baz=194,slow=10,SNR=84						
BRVK	**Borovoye**	25.04	344	*e*P	P	19 15 00.9	-0.5
	comp=Z,4.8nm,0.6s,mb4.2						
BRVK	**Borovoye**	25.04	344	*e*P	P	19 15 00.9	-0.5
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.2						
NVS	**Novosibirsk**	25.47	2	*e*P	P	19 15 02.7	-2.6
NVS				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.2						
NVS				pmax	pmax		
	comp=E,5.0nm,0.9s						
AB31	**Akbulak array**	25.74	326	*e*P	P	19 15 08.8	+1.1
AB31				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.3						
SONM	**Songino Array**	26.64	39	P	P	19 15 17.1	+1.1
	comp=Z,0.9nm,0.4s,mb3.6,baz=230,slow=9.3,SNR=34						
SONM				PcP	PcP	19 18 39.8	+0.9
	comp=Z,0.4nm,0.5s,baz=222,slow=4.2,SNR=5.6						
ZAK	**Zakamensk**	26.66	32	⇑*i*P	P	19 15 16.6	+0.5
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.6						
ULN	**Ulaanbaatar**	27.02	40	*e*P	P	19 15 19.8	+0.4
	comp=Z,5.9nm,0.9s,mb4.1						
ULN	**Ulaanbaatar**	27.02	40	*e*P	P	19 15 19.3	-0.1
HHC	**Hu-ho-hao-te**	27.04	57	*e*P	P	19 15 20.4	+0.8
HHC				AP	pP	19 15 24.8	-6.6
HHC				XP	sP	19 15 27.5	-9.2
HHC				PP		19 16 05.8	
HHC				PCP	PcP	19 18 43.3	+3.3
HHC				S	S	19 19 56.3	+2.1
HHC				XS	sS	19 20 02.9	-11
HHC				SS		19 21 10.8	
HHC				SCP	ScP	19 22 20.6	+3.9
HHC				PCS	PcS	19 22 23.3	+1.9
HHC				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.1						
HHC				AMB	AMB		
	comp=Z,105nm,4.7s						
HHC				LR	LR		
	comp=N,242nm,18.3s,MS3.9						
HHC				LR	LR		
	comp=E,219nm,18.3s,MS3.9						
HHC				LR	LR		
	comp=Z,134nm,16.5s,MS3.6						
AKTK	**Aktyubinsk**	27.45	327	P	P	19 15 23.6	+0.4
AKTO	**Aktyubinsk**	27.45	327	P	P	19 15 23.6	+0.4
	comp=Z,5.5nm,0.5s,mb4.3,baz=120,slow=8.6,SNR=35						
ARU	**Arti**	31.51	336	*e*P	P	19 15 57.9	-1.2
	comp=Z,7.7nm,0.9s,mb4.5						
ARU	**Arti**	31.51	336	⇓*i*P	P	19 15 59.1	0.0
ARU				*e*		19 17 03.6	
ARU				*e*		19 18 46.3	
ARU				*e*S	S	19 21 04.1	0.0
ARU				*e*SS	SS	19 22 50.9	-29
ARU				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
KIV	**Kislovodsk**	33.99	306	⇑*e*P	P	19 16 22.3	+1.4
KIV				pmax	pmax		
	comp=Z,11nm,1.8s,mb4.5						
BOD	**Bodaibo**	36.29	29	*e*P	P	19 16 39.9	-0.7
BOD				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
MALT	**Malatya**	36.55	296	*e*P	P	19 16 45.1	+2.1
	comp=Z,4.2nm,1.0s,mb4.2						
MALT	**Malatya**	36.55	296	⇑*i*P	P	19 16 44.7	+1.7
ANN	**Anapa**	37.85	306	*e*P	P	19 16 53.3	-0.6
ANN				pmax	pmax		
	comp=Z,48nm,1.1s,mb5.1						
KSRS	**Korea Array**	39.30	66	LR	LR	19 34 49.5	
	comp=Z,30nm,19.0s,MS3.1,baz=220,slow=39						
BRTR	**Keskin Array B**	40.29	298	P	P	19 17 15.4	+1.0
	comp=Z,1.6nm,0.5s,mb4.0,baz=116,slow=10,SNR=15						
OBN	**Obninsk**	40.99	322	*e*P	P	19 17 19.1	-0.8
OBN				*e*		19 18 53.7	
OBN				*e*		19 19 21.2	
OBN				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.1						
AKASG	**Malin Array Be**	44.22	314	P	P	19 17 46.0	-0.2
AKASG	**Malin Array Be**	44.22	314	*i* P	P	19 17 46.4	+0.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	**Malin Array Be**	44.22	314	P	P	19 17 46.0	-0.2
	comp=Z,2.4nm,0.4s,mb4.2,baz=80,slow=7.3,SNR=27						
YAK	**Yakutsk**	45.21	30	*e*P	P	19 17 52.5	-1.4
YAK				pmax	pmax		

	comp=Z,2.0nm,0.8s,mb4.0						
VRI	Vrincioaia	45.46	307	⇓P	P	19 17 58.1	+1.9
VRI	Vrincioaia	45.46	307	⇓*i*P	P	19 17 58.1	+1.9
PLOR	Plostina	45.51	307	⇑*i*P	P	19 17 58.7	+2.1
MLR	Muntele Rosu	46.00	306	⇑P	P	19 18 02.7	+2.3
MLR	Muntele Rosu	46.00	306	⇑*i*P	P	19 18 02.7	+2.3
JOF	Joensuu	46.37	331	*e*p	P	19 18 02.4	-0.7
	comp=Z,9.5nm,0.4s,mb5.1						
JOF	Joensuu	46.37	331	*e*P	P	19 18 02.4	-0.7
JOF				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.1						
BURAR	Bucovina Array	46.55	309	⇑P	P	19 18 06.0	+1.2
BURAR	Bucovina Array	46.55	309	⇑*i*P	P	19 18 05.9	+1.1
IDI	Anoyia	47.60	292	P	P	19 18 13.0	-0.2
	baz=48,slow=14						
VTS	Vitosha	48.05	302	⇓P	P	19 18 18.2	+1.7
VTS	Vitosha	48.05	302	⇓*i*P	P	19 18 18.2	+1.7
FIA1	FINESS Array S	48.21	328	*e*P	P	19 18 17.4	0.0
FINES	FINESS Array B	48.21	328	P	P	19 18 17.6	+0.2
	comp=Z,7.0nm,0.6s,mb4.9,baz=111,slow=8.6,SNR=40						
DRGR		48.25	308	⇓P	P	19 18 19.0	+1.1
DRGR		48.25	308	⇓*i*P	P	19 18 19.0	+1.0
KAF	Kangasniemi	48.29	329	*e*p	P	19 18 17.6	-0.4
	baz=105,slow=7.6						
KOLS	Kolonicke sedl	48.55	311	*e*P	P	19 18 13.6	-6.7
BZS	Buzias	49.04	307	⇑*i*P	P	19 18 25.3	+1.3
STHS	Stebnicka Huta	49.24	312	*e*P	P	19 18 26.5	+1.0
	comp=Z,1.6nm,0.7s,mb4.2						
STHS	Stebnicka Huta	49.24	312	*e*P	P	19 18 26.5	+1.0
STHS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
TIXI	Tiksi	49.46	18	*e*P	P	19 18 25.6	-1.3
	comp=Z,2.5nm,0.6s,mb4.4						
TIXI	Tiksi	49.46	18	*e*P	P	19 18 24.3	-2.6
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
KEV	Kevo	50.63	339	*e*p	P	19 18 34.5	-1.3
	comp=Z,6.4nm,0.8s,mb4.6						
KEV	Kevo	50.63	339	*e*P	P	19 18 34.5	-1.3
KEV				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
VYHS	Vyhne	50.83	310	*e*P	P	19 18 39.2	+1.6
ARCES	ARCESS Array B	51.03	338	P	P	19 18 38.7	-0.1
ARCES	ARCESS Array B	51.03	338	P	P	19 18 38.7	-0.1
	comp=Z,1.1nm,0.5s,mb4.0,baz=105,slow=8.1,SNR=20						
PKSM	Moragy	51.08	307	⇑*i*P	P	19 18 40.3	+0.8
CBIJ	Chichi jima	53.03	77	LR	LR	19 42 19.3	
	comp=Z,53nm,20.9s,MS3.6,baz=251,slow=37						
GERES	GERESS Array B	54.21	311	P	P	19 19 03.4	+0.8
	comp=Z,0.5nm,0.4s,mb3.8,baz=85,slow=7.2,SNR=8.7						
NB2	NORSAR Subarra	55.24	326	P	P	19 19 09.1	-0.8
	comp=Z,2.1nm,0.6s,mb4.3,baz=90,slow=6.9						
NOA	NORSAR Array B	55.24	326	P	P	19 19 09.6	-0.3
NOA	NORSAR Array B	55.24	326	P	P	19 19 09.6	-0.3
	comp=Z,3.2nm,0.7s,mb4.5,baz=92,slow=7.1,SNR=12						
DAVOX	Davos/Dischmat	57.02	309	P	P	19 19 23.1	+0.3
	comp=Z,1.6nm,0.5s,mb4.3,baz=119,slow=10,SNR=5.6						
PGF	Pioggiola	58.44	304	*e*P	P	19 19 32.8	-0.1
CDF	Champ du Feu	58.49	311	*e*P	P	19 19 33.0	-0.1
HAU	Haudompre	59.17	311	*e*P	P	19 19 37.4	-0.5
SBF	Sospel	59.27	306	*e*P	P	19 19 38.3	-0.3
	comp=Z,22nm,0.9s,mb4.9						
SBF	Sospel	59.27	306	*e*P	P	19 19 38.3	-0.3
	comp=Z,11nm,0.9s,mb4.9						
SBF	Sospel	59.27	306	*e*P	P	19 19 38.3	-0.3
SBF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
LPG	La Plagne	59.40	308	*e*P	P	19 19 39.5	0.0
	comp=Z,7.7nm,0.6s,mb4.6						
LPG	La Plagne	59.40	308	*e*P	P	19 19 39.5	0.0
	comp=Z,3.8nm,0.6s,mb4.6						
LPG	La Plagne	59.40	308	*e*P	P	19 19 39.5	0.0
LPG				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
LPL	La Plagne	59.41	308	*e*P	P	19 19 39.4	-0.1
	comp=Z,7.4nm,0.5s,mb4.7						
LPL	La Plagne	59.41	308	*e*P	P	19 19 39.4	-0.1
	comp=Z,3.7nm,0.5s,mb4.7						
LPL	La Plagne	59.41	308	*e*P	P	19 19 39.4	-0.1
LPL				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
MBDF	Montbardon	59.55	307	*e*P	P	19 19 39.6	-0.9
KEST	Kesra	59.86	296	P	P	19 19 43.7	+0.8
	comp=Z,0.9nm,0.5s,mb4.1,baz=93,slow=6.2,SNR=4.5						
FRF	La Foret Royal	59.90	306	*e*P	P	19 19 42.4	-0.5
	comp=Z,12nm,0.8s,mb4.7						
FRF	La Foret Royal	59.90	306	*e*P	P	19 19 42.4	-0.5
	comp=Z,6.3nm,0.8s,mb4.7						
FRF	La Foret Royal	59.90	306	*e*P	P	19 19 42.4	-0.5
FRF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
ORIF	Oris-en-Rattie	60.13	307	*e*P	P	19 19 44.4	-0.1
SMRF	Simiane la Rot	60.55	306	*e*P	P	19 19 47.1	-0.3
LOR	Lormes	60.97	310	*e*P	P	19 19 49.8	-0.4
VIVF	Saint-Julien-l	60.98	308	*e*P	P	19 19 50.3	0.0
SMF	Signal de Mont	61.13	310	*e*P	P	19 19 51.0	-0.3
BILL	Bilibino	61.19	25	*e*P	P	19 19 50.9	-0.4
BILL				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb4.1						
SSF	Saint Saulge	61.26	310	*e*P	P	19 19 51.7	-0.4
	comp=Z,21nm,1.1s,mb4.9						
SSF	Saint Saulge	61.26	310	*e*P	P	19 19 51.7	-0.4
	comp=Z,10nm,1.0s,mb4.9						
SSF	Saint Saulge	61.26	310	*e*P	P	19 19 51.7	-0.4
SSF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
AVF	Avril sur Loir	61.42	310	*e*P	P	19 19 52.6	-0.6
BGF	Bois d'Agland	61.81	310	*e*P	P	19 19 55.6	-0.3
TCF	Toulx Ste Croi	62.31	310	*e*P	P	19 19 59.1	-0.1
CAF	Calviac	62.75	308	*e*P	P	19 20 01.8	-0.4
EKA	Eskdalemuir Ar	63.42	320	P	P	19 20 05.7	-0.8
	comp=Z,1.5nm,0.3s,mb4.6,baz=72,slow=6.9,SNR=16						
EPF	Esparros	64.48	307	*e*P	P	19 20 13.4	-0.2
ETSF	Etsaut	65.15	307	*e*P	P	19 20 17.7	-0.3
	comp=Z,4.3nm,0.5s,mb4.4						
ETSF	Etsaut	65.15	307	*e*P	P	19 20 17.7	-0.3
	comp=Z,2.2nm,0.5s,mb4.4						
ETSF	Etsaut	65.15	307	*e*P	P	19 20 17.7	-0.3
ETSF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
ESDC	Sonseca Array	68.63	304	P	P	19 20 40.5	+0.3
	comp=Z,1.8nm,0.7s,mb4.1,baz=52,slow=7.1,SNR=6.1						
WRA	Warramunga Arr	70.74	127	*i* P	P	19 20 54.0	+0.7
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRA	Warramunga Arr	70.74	127	P	P	19 20 53.3	-0.1
	comp=Z,1.1nm,0.5s,mb4.0,baz=322,slow=6.1,SNR=10						
WB2	Warramunga Arr	70.75	127	*e*P	P	19 20 53.7	+0.3
ASAR	Alice Springs	72.98	131	P	P	19 21 06.2	-0.4
	comp=Z,1.1nm,0.7s,mb3.9,baz=315,slow=6.4,SNR=6.6						
TORD	Torodi Ar. Bea	74.83	277	P	P	19 21 18.6	+0.7
	comp=Z,1.0nm,0.5s,mb4.0,baz=61,slow=4.9,SNR=8.4						
YKA	Yellowknife Ar	87.54	7	P	P	19 22 23.5	-1.0
	comp=Z,0.4nm,0.6s,mb3.9,baz=337,slow=5.0,SNR=9.1						
TXAR	Lajitas Array	121.41	5	PKP	PKPdf	19 28 31.1	+0.6
TXAR	Lajitas Array	121.41	5	PKIKP	PKPdf	19 28 31.1	+0.6
TXAR	Lajitas Array	121.41	5	PKP	PKPdf	19 28 31.1	+0.6
	comp=Z,0.2nm,0.5s,baz=148,slow=1.1,SNR=5.4						
LPAZ	La Paz	149.18	288	PKPbc	PKPbc	19 29 27.8	+1.9
LPAZ	La Paz	149.18	288	PKP2	PKPab	19 29 27.8	-2.5
LPAZ	La Paz	149.18	288	PKPbc	PKPbc	19 29 27.8	+1.9
	comp=Z,0.8nm,0.7s,baz=135,slow=1.4,SNR=2.6						

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*ISCJB **15** 19:12:24.6±0.6, 1.3N±0.1×125.4E±0.3, h10^{km}, mb4.0/8, Error ellipse: s-maj=45.7km s-min=9.4km az=159.5*

*IDC **15** 19:12:25.2±0.9, 1.36N×125.42E, h0^{km}, mb3.9/7, mb1 4.0/8, mb1mx3.8/19, mbtmp3.9/8, ML3.6/1, Error ellipse: s-maj=74.5km s-min=12.9km az=71.0*

*NEIC **15** 19:12:26.1±0.5, 1.46N×125.72E, h10^{km}, mb3.9/4, Error ellipse: s-maj=48.9km s-min=7.5km az=67.0*

ISC 15 19:12:26.5±0.6**, 1.3N**±0.1×**125.4E**±0.3**, h10**^{km}**, n15, σ0**^{s}.**53**/16**, mb4.0**/8**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	15.57	154	*e*P	Pn	19 16 06.6	+0.4
	3.8nm,0.6s						
FITZ	Fitzroy Crossi	19.28	179	*e*P	Pn	19 16 53.2	+0.6
	3.5nm,1.2s						
FITZ	Fitzroy Crossi	19.28	179	P	Pn	19 16 52.7	+0.1
	0.2nm,0.3s,baz=5.5,slow=13,SNR=5.9						
WRA	Warramunga Arr	22.85	158	P	P	19 17 29.7	-0.4
	4.9nm,0.8s,mb4.0,baz=339,slow=10,SNR=38						
WB2	Warramunga Arr	22.86	158	*e*P	P	19 17 29.7	-0.5
ASAR	Alice Springs	26.15	162	P	P	19 18 01.1	0.0
	2.0nm,0.4s,mb4.0,baz=346,slow=12,SNR=58						
ASAR				S	S	19 22 37.9	+4.8
	2.1nm,1.0s,baz=343,slow=17,SNR=8.6						
KSRS	Korea Array	36.05	3	P	P	19 19 28.7	+0.5
	0.9nm,0.6s,mb3.9,baz=182,slow=9.8,SNR=3.6						
STKA	Stephens Creek	36.38	156	*e*P	P	19 19 31.3	+0.1
	2.0nm,0.8s,mb4.1						
STKA	Stephens Creek	36.38	156	P	P	19 19 31.1	-0.1
	2.2nm,0.7s,mb4.2,baz=329,slow=8.9,SNR=7.7						
SONM	Songino Array	49.20	343	P	P	19 21 14.6	-0.3
	0.2nm,0.4s,mb3.5,baz=169,slow=8.3,SNR=4.3						
MKAR	Makanchi Array	58.82	327	P	P	19 22 24.9	-0.3
	0.5nm,0.3s,mb4.0,baz=122,slow=8.1,SNR=13						
KURK	Kurchatov	63.10	329	*e*P	P	19 22 53.1	-1.1
	1.4nm,0.6s,mb4.3						
BRVK	Borovoye	68.72	328	P	P	19 23 30.1	-0.3
AKTK	Aktyubinsk	74.75	322	P	P	19 24 07.5	+0.8
AKTO	Aktyubinsk	74.75	322	P	P	19 24 07.5	+0.8
	0.5nm,0.4s,mb3.8,baz=80,slow=11,SNR=4.2						

IDC 15 20:42:28.0±2.1**, 1.25N×126.38E, h0**^{km}**, mb3.2**/3**, mb1 3.4**/3**, mb1mx3.3**/16**, mbtmp3.2**/3**, Error ellipse: s-maj=172.6km s-min=26.7km az=65.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.45	160	P	P	20 47 27.3	-1.6
	0.5nm,0.6s,baz=338,slow=11,SNR=10						
ASAR	Alice Springs	25.82	164	P	P	20 48 02.6	+1.5
	0.3nm,0.4s,baz=344,slow=12,SNR=6.2						
MKAR	Makanchi Array	59.40	326	P	P	20 52 32.2	-0.1
	0.1nm,0.3s,baz=121,slow=7.0,SNR=4.3						

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*ISCJB **15** 20:54:13.5±0.4, 35.75N±0.05×138.75E±0.06, h170^{km}±3^{km}, mb3.8/8, Error ellipse: s-maj=8.6km s-min=6.8km az=146.1*

*IDC **15** 20:54:13.9±1.0, 35.76N×138.86E, h163^{km}±5^{km}, mb3.4/6, mb1 3.5/8, mb1mx3.3/22, mbtmp3.4/8, Error ellipse: s-maj=32.6km s-min=15.7km az=69.0*

*JMA **15** 20:54:14.6±0.1, 35.72N×138.76E, h166^{km}±1^{km}, M3.4*

*NEIC **15** 20:54:14.1±0.9, 35.72N×138.81E, h163^{km}±6^{km}, mb4.2/2, Error ellipse: s-maj=17.6km s-min=14.2km az=93.0*

*MOS **15** 20:54:18.9±0.8, 36.59N×138.12E, h154^{km}, mb4.1/1, Error ellipse: s-maj=24.0km s-min=15.9km az=94.8*

ISC 15 20:54:14.6±0.4**, 35.76N**±0.04×**138.74E**±0.06**, h164**^{km}±3^{km}**, n31, σ0**^{s}.**74**/40**, mb3.8**/8**, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JRY	Ryogami san	0.29	27	P	Pn	20 54 37.7	+0.9
JRY				S	Sn	20 54 54.9	+1.0
JYN	Shimob	0.30	212	P	Pn	20 54 37.0	+0.1
JOD2	Odawara 2	0.57	150	P	Pn	20 54 38.0	+0.1
JOD2				S	Sn	20 54 56.2	+0.5
JAG	Ashikaga	0.88	41	P	Pn	20 54 40.1	+0.3
JAG				S	Sn	20 54 58.7	-0.6
MJAR	Matsushiro Arr	0.89	331	P	Pn	20 54 40.0	0.0
	32nm,0.3s,baz=170,slow=8.1,SNR=329						
MJAR				S	Sn	20 54 59.2	-0.2
	11nm,0.3s,baz=186,slow=15,SNR=13						
MAJO	Matsushiro	0.90	331	*e*P	Pn	20 54 40.1	+0.2
MAJO				*e*S	Sn	20 54 58.6	-0.8
MAT	Matsushiro	0.90	331	P	Pn	20 54 40.2	+0.3
MAT				S	Sn	20 54 59.1	-0.3
MAT	Matsushiro	0.90	331	P	Pn	20 54 40.1	+0.2
MAT				S	Sn	20 54 59.3	-0.1
JGM	Miyama	1.65	269	P	Pn	20 54 46.8	+0.1
JGM				S	Sn	20 55 10.6	-0.8
JKG	Kaga	2.02	286	P	Pn	20 54 51.4	+0.6
JNS	Sasagawa	2.11	13	P	Pn	20 54 52.8	+1.0
BSO1	Boso 1	2.14	120	P	Pn	20 54 51.8	-0.4
BSO1				S	Sn	20 55 21.9	+0.8
JIE	Ise	2.15	231	P	Pn	20 54 52.2	-0.2
TK01	Tokai 1	2.20	206	P	Pn	20 54 52.6	-0.3
JHJ	Hachijo jima 2	2.77	162	S	Sn	20 55 34.0	-0.7
	35nm,0.3s,baz=81,slow=22,SNR=5.4						
ERM	Erimo	7.13	28	*e*P	Pn	20 55 54.6	-1.7
ASAJ	Asahikawa	8.86	18	P	Pn	20 56 17.1	-2.0
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ	Asahikawa	8.86	18	P	Pn	20 56 17.1	-2.1
	comp=Z,3.1nm,0.3s,baz=218,slow=9.8,SNR=9.5						
KSRS	Korea Array	8.86	284	P	Pn	20 56 19.9	+0.7
	comp=Z,0.3nm,0.3s,baz=100,slow=14,SNR=7.5						
MA2	Magadan	25.09	14	*e*P	P	20 59 25.2	+1.5
	comp=Z,5.2nm,1.0s,mb4.0						
MA2	Magadan	25.09	14	*e*P	P	20 59 25.2	+1.5
MA2				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.0						
SONM	Songino Array	26.76	307	P	P	20 59 38.0	-0.9
	comp=Z,0.3nm,0.4s,mb3.2,baz=116,slow=8.4,SNR=4.7						
ZALV	Zalesovo Beam	41.20	314	P	P	21 01 43.0	+0.1
	comp=Z,0.6nm,0.3s,mb3.8,baz=95,slow=6.5,SNR=7.0						
ZAL	Zalesovo	41.22	313	P	P	21 01 43.0	+0.1
MK31	Makanchi Array	42.98	303	*e*P	P	21 01 57.5	+0.2
MKAR	Makanchi Array	42.98	303	P	P	21 01 57.6	+0.3
	comp=Z,1.3nm,0.5s,mb3.8,baz=84,slow=10,SNR=43						
KURK	Kurchatov	45.04	309	*e*P	P	21 02 13.3	-0.3
AML	Almayashu	49.90	298	*e*P	P	21 02 52.8	+1.5
	comp=Z,4.7nm,0.6s,mb4.3						
WRA	Warramunga Arr	55.55	185	P	P	21 03 32.2	-0.7
	comp=Z,1.4nm,0.5s,mb4.0,baz=0.9,slow=7.7,SNR=44						
ASAR	Alice Springs	59.27	185	P	P	21 03 58.2	-0.6
	comp=Z,0.3nm,0.5s,mb3.4,baz=16,slow=12,SNR=6.6						
FINES	FINESS Array B	68.92	332	P	P	21 05 01.6	+0.3
	comp=Z,2.1nm,1.1s,mb3.8,baz=76,slow=5.9,SNR=4.5						

IDC 15 21:14:00.9±3.3**, 4.35S×101.95E, h0**^{km}**, mb3.7**/6**, mb1 3.8**/6**, mb1mx3.6**/19**, mbtmp3.7**/6**, Error ellipse: s-maj=150.2km s-min=18.9km az=56.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	26.90	122	pP		21 19 50.6	
	0.8nm,0.5s,baz=278,slow=7.1,SNR=4.5						
WRA	Warramunga Arr	35.15	119	P	P	21 20 56.5	-0.1
	0.4nm,0.5s,baz=304,slow=8.7,SNR=13						
ASAR	Alice Springs	36.31	125	P	P	21 21 05.6	-0.9
	0.2nm,0.3s,baz=300,slow=7.3,SNR=4.0						
ASAR				pP		21 21 13.8	
	0.4nm,0.3s,baz=303,slow=7.8,SNR=9.7						
STKA	Stephens Creek	46.15	131	P	P	21 22 28.1	+0.8
	1.4nm,0.7s,baz=321,slow=7.4,SNR=5.8						
SONM	Songino Array	52.11	4	P	P	21 23 13.3	+0.5
	0.5nm,0.5s,baz=180,slow=9.6,SNR=5.4						
MKAR	Makanchi Array	53.81	343	P	P	21 23 25.3	0.0
	0.6nm,0.5s,baz=153,slow=8.7,SNR=16						
ZALV	Zalesovo Beam	59.83	348	P	P	21 24 07.3	-0.6
	0.9nm,0.4s,baz=159,slow=5.4,SNR=7.0						
TXAR	Lajitas Array	145.27	42	PKPbc	PKPbc	21 33 40.9	-0.1
	1.1nm,0.4s,baz=241,slow=0.7,SNR=14						

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*ISCJB **15** 21:26:01.4±0.7, 10.70N±0.04×62.55W±0.03, h100^{km}±6^{km}, Error ellipse: s-maj=7.4km s-min=4.5km az=171.3*

*FUNV **15** 21:26:02.5, 10.74N×62.47W, h97^{km}, MW2.9*

*TRN **15** 21:26:04.1, 10.84N×62.48W, h86^{km}, MD3.3*

*NEIC **15** 21:26:04.1, 10.84N×62.48W, h85^{km}, MD3.3(TRN), After TRN.*

ISC 15 21:26:02.1±0.7**, 10.71N**±0.04×**62.55W**±0.03**, h97**^{km}±7^{km}**, n18, σ0**^{s}.**98**/35**, 3C-3D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	Guiria	0.33	101	⇑*i*P	Pn	21 26 16.7	+0.2
GUIV				*e*S	Sn	21 26 26.6	-0.6
GUNV	Guanoco	0.67	216	*e*P	Pn	21 26 19.7	+0.7
GUNV				*e*S	Sn	21 26 32.5	+0.8
CRUV	Carupano	0.68	267	*e*P	Pn	21 26 19.6	+0.6
CRUV				*e*S	Sn	21 26 32.2	+0.5
TCE	Chacachacare	0.78	91	⇑*i*P	Pn	21 26 20.7	+0.7
TCE				*e*S	Sn	21 26 33.4	-0.1
ITEV	Isla Los Testi	0.86	318	⇓*i*P	Pn	21 26 21.1	+0.2
ITEV				*e*S	Sn	21 26 34.3	-0.6
TRN	Trinidad (W)	1.13	93	⇑*e*P	Pn	21 26 24.4	+0.7
TRN				*e*S	Sn	21 26 38.9	-1.1
TPP	Pointe-a-Pierr	1.15	110	*e*P	Pn	21 26 26.2	+2.3
TPP				*e*S	Sn	21 26 40.1	-0.4
TBH	Brigand Hill	1.47	99	*e*P	Pn	21 26 28.8	+1.0
TBH				*e*S	Sn	21 26 48.0	+0.6
GRW	Mount Saint Ca	1.68	31	*e*P	Pn	21 26 30.2	-0.3
GRW				*e*S	Sn	21 26 49.6	-2.4
TPR	Prospect	1.80	75	*e*P	Pn	21 26 32.4	+0.4
TPR				*e*S	Sn	21 26 53.8	-1.0
PCRV	Puerto La Cruz	2.12	256	*e*P	Pn	21 26 37.4	+1.2
PCRV				*e*S	Sn	21 27 00.7	-1.5
IBAV	Isla La Blanqu	2.28	299	*e*P	Pn	21 26 38.6	+0.4
PRGV	PARIAGUAN	2.83	227	*e*P	Pn	21 26 46.3	+0.7
PRGV				*e*S	Sn	21 27 19.2	+0.1
GURV	El Guri	2.98	190	⇓*i*P	Pn	21 26 48.1	+0.6
GURV				*e*S	Sn	21 27 20.5	-2.0
CUPV	Cœpira	3.25	259	⇓*i*P	Pn	21 26 52.3	+1.1
CUPV				*e*S	Sn	21 27 28.8	-0.3
LUEV	Luepa	4.95	167	*e*P	Pn	21 27 13.2	-0.9
LUEV				*e*S	Sn	21 28 05.7	-4.6
CAOV	Caicara del Or	5.02	228	*e*P	Pn	21 27 14.8	-0.3
CAOV				*e*S	Sn	21 28 08.8	-3.1
BAUV	El Baul	5.69	253	*e*P	Pn	21 27 23.6	-0.6
BAUV				*e*S	Sn	21 28 23.9	-4.3

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*IDC **15** 21:39:25.5±1.6, 28.44S×70.92W, h0^{km}, mb3.6/1, mb1 3.6/1, mb1mx3.5/13, mbtmp3.6/1, Error ellipse: s-maj=177.1km s-min=71.7km az=149.0*

*ISCJB **15** 21:39:30.9±2.1, 28.17S±0.05×71.2W±0.2, h27^{km}±14^{km}, mb3.5/1, Error ellipse: s-maj=25.0km s-min=6.0km az=13.2*

*GUC **15** 21:39:31.2±0.7, 28.18S×71.19W, h21^{km}±7^{km}, MD4.0, ML4.4*

ISC 15 21:39:31.8±2.0**, 28.16S**±0.04×**71.1W**±0.2**, h29**^{km}±16^{km}**, n10, σ0**^{s}.**92**/12**, mb3.5**/1**, 1C-3D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VACH	Vallenar	0.53	142	⇑*i*P	Pb	21 39 42.2	-0.5
VACH				*i* S	Sb	21 39 49.5	-0.6
VACH				AML	AML	21 39 51.0	
	comp=N,27µm,0.3s						
CPCH	Copiapo	1.05	41	*e*P	Pn	21 39 51.4	+0.8
CPCH				*i* S	Sb	21 40 05.5	+0.7
CPCH				AML	AML	21 40 08.5	
	comp=E,14µm,0.1s						
CDCH	Caldera	1.11	14	⇓*i*P	Pn	21 39 51.1	-0.3
CDCH				*i* S	Sb	21 40 06.2	-0.3
LSCH	La Serena	1.75	183	⇓*e*P	Pn	21 40 00.5	+0.3
LSCH				*i* S	Sn	21 40 22.2	+0.7
CMCH	Combarbala	3.01	178	*e*P	Pn	21 40 16.5	-1.0
CMCH				*i* S	Sn	21 40 52.5	-0.1
CMCH				AML	AML	21 41 09.7	
	comp=E,2µm,0.8s						
FCH	Farellones	5.21	172	⇓*e*P	Pn	21 40 49.5	+1.8
TORD	Torodi Ar. Bea	81.50	70	P	P	21 51 44.8	-2.0
	comp=E,0.5nm,0.9s,mb3.5,baz=224,slow=8.1,SNR=5.1						
WRA	Warramunga Arr	126.21	210	PKP	PKPdf	21 58 30.2	-2.0
	comp=E,0.2nm,0.5s,baz=153,slow=1.9,SNR=5.2						
ZALV	Zalesovo Beam	148.79	28	PKPbc	PKPbc	21 59 14.5	-1.5
	comp=E,0.7nm,0.5s,baz=333,slow=2.1,SNR=3.5						
MKAR	Makanchi Array	152.08	41	PKPbc	PKPbc	21 59 22.7	-1.4
	comp=E,0.3nm,0.7s,baz=328,slow=1.8,SNR=2.8						

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*IDC **15** 21:47:15.0±0.8, 0.35S×124.93E, h0^{km}, mb4.2/8, mb1 4.2/9, mb1mx4.1/19, mbtmp4.1/9, MS4.1/3, Ms1 4.1/3, ms1mx3.4/27, Error ellipse: s-maj=64.3km s-min=14.9km az=70.0*

*NEIC **15** 21:47:16.9±0.5, 0.21S×125.32E, h10^{km}, mb4.6/8, Error ellipse: s-maj=20.9km s-min=9.0km az=63.0*

*BJI **15** 21:47:16.8, 0.20S×125.30E, h10^{km}, mB5.1, mb4.6*

*MOS **15** 21:47:17.7±1.4, 0.13S×125.38E, h33^{km}, mb4.7/8, Error ellipse: s-maj=30.3km s-min=11.2km az=112.7*

*ISCJB **15** 21:47:21.6±3.6, 0.3S±0.1×125.3E±0.1, h68^{km}±36^{km}, mb4.2/21, Error ellipse: s-maj=24.2km s-min=10.3km az=141.6*

ISC 15 21:47:21.7±2.9**, 0.3S**±0.1×**125.3E**±0.1**, h48**^{km}±30^{km}**, n44, σ1**^{s}.**28**/42**, mb4.3**/21**, MS4.1**/5**, 4C, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	14.23	151	*e*P	Pn	21 50 47.3	+6.8
	11nm,0.9s						
KSM	Kuching	15.12	277	P	Pn	21 50 52.0	-0.3
FITZ	Fitzroy Crossi	17.72	179	*e*P	Pn	21 51 25.3	+0.3
	6.7nm,0.8s						
FITZ	Fitzroy Crossi	17.72	179	P	Pn	21 51 23.5	-1.5
	baz=8.2,slow=10,SNR=2.3						
WRA	Warramunga Arr	21.45	156	P	P	21 52 05.0	-1.0
	10.0nm,0.9s,mb4.2,baz=336,slow=10,SNR=16						
WB2	Warramunga Arr	21.45	156	*e*P	P	21 52 07.0	+1.0
COEN	Coen	22.29	128	*e*P	P	21 52 15.4	+0.4
PMG	Port Moresby	23.55	113	*e*P	P	21 52 26.9	-1.1
ASAR	Alice Springs	24.70	161	P	P	21 52 39.1	+0.8
	8.4nm,1.1s,mb4.2,baz=328,slow=6.4,SNR=32						
SSE	Sheshan	31.44	353	P	P	21 53 40.8	+2.3
SSE				AMB	AMB		
	comp=Z,13nm,1.1s,mb4.7						
SSE				AMB	AMB		
	comp=Z,149nm,4.9s						
SSE	Sheshan	31.44	353	P	P	21 53 40.8	+2.3
	comp=Z,13nm,1.1s,mb4.7						
SSE				pP	pP	21 54 25.2	+34
SSE				S	S	21 58 32.4	-11
SSE				sS	sS	21 59 53.3	+49
SSE				LR	LR		
	comp=Z,270nm,16.6s,MS4.0						
STKA	Stephens Creek	34.99	155	*e*P	P	21 54 10.5	+1.0
	comp=Z,4.3nm,0.7s,mb4.5						
STKA	Stephens Creek	34.99	155	P	P	21 54 09.8	+0.2
	comp=Z,7.5nm,0.9s,mb4.6,baz=338,slow=9.2,SNR=9.0						
KSRS	Korea Array	37.62	3	P	P	21 54 32.8	+1.0
	comp=Z,4.0nm,0.8s,mb4.2,baz=180,slow=10,SNR=12						
GTA	Gaotai	45.88	332	*e*P	P	21 55 42.0	+2.7
GTA				AP	pP	21 55 46.6	-5.9
GTA				XP	sP	21 55 50.1	-8.0
GTA				AMB	AMB		
	comp=Z,3.0nm,1.0s,mb4.2						
ULN	Ulaanbaatar	50.51	344	*e*P	P	21 56 16.3	+1.4
	comp=Z,2.5nm,0.8s,mb4.2						
ULN	Ulaanbaatar	50.51	344	*e*P	P	21 56 14.6	-0.3
SONM	Songino Array	50.67	344	P	P	21 56 16.2	+0.1
	comp=Z,1.8nm,0.9s,mb4.0,baz=140,slow=9.4,SNR=7.5						
BOD	Bodaibo	58.62	353	*e*P	P	21 57 11.4	-2.1
BOD				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
MK31	Makanchi Array	60.08	327	*e*P	P	21 57 22.4	-1.4
MKAR	Makanchi Array	60.08	327	*i* P	P	21 57 23.2	-0.7
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MKAR	Makanchi Array	60.08	327	P	P	21 57 22.6	-1.3
	comp=Z,1.7nm,0.6s,mb4.3,baz=122,slow=8.3,SNR=16						
MKAR				LR	LR	22 24 53.8	
	comp=Z,151nm,20.6s,MS4.1,baz=114,slow=38						
YAK	Yakutsk	62.23	2	*e*P	P	21 57 39.3	+1.2
YAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.9						
YAK				pmax	pmax		
	comp=N,4.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,2.0nm,1.3s						
KBL	Kabul	62.90	310	*e*P	P	21 57 44.6	+1.5
MA2	Magadan	62.90	14	*e*P	P	21 57 43.7	+1.1
	comp=E,8.9nm,1.0s,mb4.8						
MA2	Magadan	62.90	14	⇑*e*P	P	21 57 40.1	-2.5
MA2				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.3						
ZALV	Zalesovo Beam	63.54	335	P	P	21 57 45.8	-1.2
	comp=Z,1.4nm,0.8s,mb4.1,baz=119,slow=8.6,SNR=5.9						
ZALV				LR	LR	22 26 29.9	
	comp=Z,136nm,21.0s,MS4.1,baz=328,slow=37						
ZAL	Zalesovo	63.54	335	P	P	21 57 45.8	-1.2
KURK	Kurchatov	64.39	329	*e*P	P	21 57 51.7	-0.9
	comp=Z,5.1nm,0.8s,mb4.6						
KURK	Kurchatov	64.39	329	⇑*e*P	P	21 57 50.8	-1.8
SEY	Seymchan	66.22	13	⇑*e*P	P	21 58 04.9	+0.7
BRVK	Borovoye	70.00	328	*e*P	P	21 58 28.2	+0.1
	comp=Z,6.3nm,1.3s,mb4.4						
BRVK	Borovoye	70.00	328	*e*P	P	21 58 28.2	+0.1
BRVK				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
TIXI	Tiksi	71.84	1	*e*P	P	21 58 33.5	-5.5

TIXI				pmax	pmax		
	comp=Z,7.0nm,1.8s,mb4.3						
BILL	Bilibino	73.75	15	ePn	P	21 58 48.0	-2.4
BILL				pmax	pmax		
	comp=Z,1.0nm,1.8s,mb3.4						
AKTK	Aktyubinsk	75.94	323	P	P	21 59 03.0	-0.3
AKTO	Aktyubinsk	75.94	323	P	P	21 59 03.0	-0.3
	comp=Z,1.5nm,0.8s,mb4.0,baz=97,slow=9.3,SNR=2.2						
ARU	Arti	77.57	328	eP	P	21 59 16.3	+3.9
	comp=Z,21nm,1.7s,mb4.8						
ARU	Arti	77.57	328	⇑iP	P	21 59 11.6	-0.8
ARU				e		22 02 09.6	
ARU				ePPP		22 03 56.0	
ARU				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
KIV	Kislovodsk	84.88	314	eP	P	21 59 53.1	+1.6
KIV				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.4						
KIV				MLR	MLR		
	comp=Z,77nm,18.0s,MS4.1						
OBN	Obninsk	89.51	325	eP	P	22 00 16.4	+2.8
OBN				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.8						
AKASG	Malin Array Be	94.09	321	LR	LR	22 47 00.5	
	comp=Z,86nm,20.9s,MS4.2,baz=285,slow=38						
TORD	Torodi Ar. Bea	122.73	285	PKP	PKPdf	22 06 13.8	+0.6
TORD	Torodi Ar. Bea	122.73	285	PKP	PKPdf	22 06 13.8	+0.6
	comp=Z,0.5nm,1.0s,baz=66,slow=1.9,SNR=2.4						

ISCJB ***15*** *21:57:18.4±0.5, 3664N±006×2601E±005, h171^{km}±6^{km}, mb3.0/3, Error ellipse: s-maj=9.3km s-min=6.9km az=19.3*
IDC ***15*** *21:57:18.9±1.0, 3671N×2600E, h160^{km}±15^{km}, mb2.8/3, mb1 2.8/6, mb1mx2.7/22, mbtmp2.8/6, Error ellipse: s-maj=30.0km s-min=16.1km az=142.0*
NEIC ***15*** *21:57:19.3, 3700N×2593E, h27^{km}, MD3.4(ATH), After ATH.*
HLW ***15*** *21:57:19.6, 3670N×2625E, h33^{km}, Mb3.6*
CSEM ***15*** *21:57:19.2±0.2, 3694N×2588E, h2^{km}, MD3.4, Error ellipse: s-maj=4.6km s-min=2.3km az=29.0*
ATH ***15*** *21:57:19.3, 3700N×2593E, h27^{km}±6^{km}, MD3.4/8*
ISC 15 21:57:19.3±0.5**, 3670N**±006×**2599E**±006**, h162**^{km}±7^{km}**, n36, σ0^{s}87**/51**, mb3.0**/3**, 3C-6D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NPS	Neapolis	1.47	192	⇓iPn	Pn	21 57 49.7	+0.2
NPS				eSn	Sn	21 58 12.4	-0.2
NPS	Neapolis	1.47	192	⇓iPN	Pn	21 57 49.7	+0.2
NPS				eSN	Sn	21 58 12.4	-0.2
NPS	Neapolis	1.47	192	⇓iPn	Pn	21 57 49.7	+0.2
NPS				eSn	Sn	21 58 12.4	-0.2
KARP	Karpathos	1.49	140	ePn	Pn	21 57 50.4	+0.7
KARP				eSn	Sn	21 58 12.9	-0.1
KARP	Karpathos	1.49	140	ePN	Pn	21 57 50.4	+0.7
KARP				eSN	Sn	21 58 12.9	-0.1
KARP	Karpathos	1.49	140	ePn	Pn	21 57 50.4	+0.7
KARP				eSn	Sn	21 58 12.9	-0.1
IDI	Anoyia	1.67	213	P	Pn	21 57 51.7	+0.1
	6.0nm,0.3s,baz=32,slow=11,SNR=108						
IDI				S	Sn	21 58 15.9	-0.4
	17nm,0.3s,baz=345,slow=21,SNR=15						
ARG	Arkhangelos	1.79	105	ePb	Pn	21 57 52.0	-0.8
ARG	Arkhangelos	1.79	105	ePB	Pn	21 57 52.0	-0.8
ARG	Arkhangelos	1.79	105	ePb	Pn	21 57 52.0	-0.8
XRY	Khrisi	1.84	188	ePn	Pn	21 57 55.0	+1.6
XRY	Khrisi	1.84	188	ePN	Pn	21 57 55.0	+1.6
XRY	Khrisi	1.84	188	ePn	Pn	21 57 55.0	+1.6
VAM	Vamos	1.94	229	⇓iPn	Pn	21 57 54.7	+0.2
VAM				eSn	Sn	21 58 21.0	-0.6
VAM	Vamos	1.94	229	⇓iPN	Pn	21 57 54.7	+0.2
VAM				eSN	Sn	21 58 21.0	-0.6
VAM	Vamos	1.94	229	⇓iPn	Pn	21 57 54.7	+0.2
VAM				eSn	Sn	21 58 21.0	-0.6
KYTH	Kithira	2.42	261	ePb	Pn	21 58 00.5	+0.5
KYTH	Kithira	2.42	261	ePB	Pn	21 58 00.5	+0.5
KYTH	Kithira	2.42	261	ePb	Pn	21 58 00.5	+0.5
VLI	Veliai	2.46	271	ePb	Pn	21 57 59.7	-0.7
VLI				eSn	Sn	21 58 28.0	-4.2
VLI	Veliai	2.46	271	ePB	Pn	21 57 59.7	-0.7
VLI				eSN	Sn	21 58 28.0	-4.2
VLI	Veliai	2.46	271	ePb	Pn	21 57 59.7	-0.7
VLI				eSn	Sn	21 58 28.0	-4.2
ITM	Ithomi	3.29	280	⇑iPn	Pn	21 58 10.4	-0.4
ITM	Ithomi	3.29	280	⇑iPN	Pn	21 58 10.4	-0.4
ITM	Ithomi	3.29	280	⇑iPn	Pn	21 58 10.4	-0.4
SLUM		5.24	187	P	Pn	21 58 36.6	+0.6
SLUM				S	Sn	21 59 32.4	-3.7
HMAT	Matruh	5.67	170	P	Pn	21 58 41.0	-0.7
BRTR	Keskin Array B	6.73	61	P	Pn	21 58 57.3	+1.5
	0.1nm,0.3s,baz=231,slow=11,SNR=2.6						
AMAG	Maghara	8.52	133	P	Pn	21 59 19.8	+0.2
MMAI	Mount Meron Ar	8.56	113	P	Pn	21 59 19.9	-0.2
	5.3nm,0.3s,baz=301,slow=12,SNR=39						
MMAI				S	Sn	22 00 52.1	-3.4
	1.5nm,0.3s,baz=314,slow=22,SNR=6.0						
HFRF	Wahat Farafira	9.73	168	P	Pn	21 59 36.8	+1.3
EIL	Elat	10.27	131	S	Sn	22 01 32.4	-4.1
	0.7nm,0.3s,baz=282,slow=17,SNR=6.1						
AKASG	Malin Array Be	14.19	8	P	Pn	22 00 33.4	+0.5
	0.6nm,0.3s,baz=202,slow=12,SNR=4.1						
FINES	FINESS Array B	24.76	0	P	P	22 02 24.7	-1.0
	0.4nm,0.6s,mb3.1,baz=182,slow=16,SNR=4.1						
TORD	Torodi Ar. Bea	32.00	229	P	P	22 03 31.1	+0.7
	0.2nm,0.4s,mb3.2,baz=36,slow=9.1,SNR=5.2						
MKAR	Makanchi Array	42.37	58	P	P	22 04 56.3	-1.1
	0.1nm,0.4s,mb2.8,baz=264,slow=8.3,SNR=6.7						

IDC 15 22:07:25.2±3.4**, 374N**×**3196W, h0**^{km}**, mb3.8**/5**, mb1 4.1**/5**, mb1mx3.7**/20**, mbtmp3.8**/5**, MS4.0**/4**, Ms1 4.0**/4**, ms1mx3.5**/20**, Error ellipse: s-maj=119.7km s-min=32.5km az=6.0, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	Torodi Ar. Bea	34.53	72	P	P	22 14 15.6	0.0
	1.2nm,0.9s,baz=258,slow=8.2,SNR=6.3						
TORD				LR	LR	22 26 46.6	
	comp=Z,75nm,18.6s,baz=275,slow=34						
SCHQ	Schefferville	58.23	337	P	P	22 17 21.2	+0.1
	4.6nm,1.1s,baz=156,slow=10.0,SNR=4.7						
FINES	FINESS Array B	71.90	25	LR	LR	22 48 04.0	
	comp=Z,112nm,18.6s,baz=66,slow=34						
TXAR	Lajitas Array	72.24	299	P	P	22 18 53.2	+0.6
	0.3nm,0.6s,baz=116,slow=5.8,SNR=4.4						
LPIG	La Paz	77.85	294	LR	LR	22 55 22.4	
	comp=Z,96nm,19.4s,baz=250,slow=37						
PDAR	Pinedale Array	78.37	313	P	P	22 19 27.6	0.0
	0.3nm,0.6s,baz=102,slow=3.9,SNR=2.8						
PDAR				LR	LR	22 49 24.5	
	comp=Z,117nm,19.0s,baz=124,slow=32						
YKA	Yellowknife Ar	83.30	332	P	P	22 19 53.8	+0.2
	0.6nm,0.7s,baz=98,slow=5.5,SNR=12						

IDC ***15*** *22:08:02.7±3.5, 17.14S×16821E, h259^{km}±31^{km}, mb3.5/7, mb1 3.5/8, mb1mx3.5/17, mbtmp3.5/8, Error ellipse: s-maj=32.0km s-min=24.4km az=28.0*
ISCJB ***15*** *22:08:03.5±2.7, 17.1S±02×168.1E±02, h279^{km}±24^{km}, mb3.7/7, Error ellipse: s-maj=33.5km s-min=29.8km az=144.5*
ISC 15 22:08:03.6±2.7**, 171S**±02×**1682E**±02**, h266**^{km}±24^{km}**, n12, σ0^{s}98**/12**, mb3.7**/6**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	5.19	198	eP	Pn	22 09 20.8	-1.4
DZM				eS	S	22 10 25.6	+0.6
DZM	Mont Dzumac	5.19	198	P	Pn	22 09 19.3	-2.9
	4.3nm,0.3s,baz=332,slow=23,SNR=48						
DZM				S	S	22 10 25.0	-0.1
	4.8nm,0.3s,baz=327,slow=21,SNR=11						
NOUC	Port Laguerre	5.26	200	eP	Pn	22 09 23.2	+0.1
NOUC				eS	S	22 10 27.5	+0.9
URZ	Urewera	22.46	161	P	P	22 12 40.2	-0.2
	7.1nm,0.7s,mb4.1,baz=102,slow=23,SNR=4.3						
STKA	Stephens Creek	28.21	234	P	P	22 13 32.7	+0.5
	1.4nm,0.7s,mb3.5,baz=355,slow=14,SNR=2.4						
WRA	Warramunga Arr	32.20	260	P	P	22 14 05.9	-1.4
	0.5nm,0.8s,mb3.1,baz=83,slow=8.0,SNR=13						
WRA				PcP	PcP	22 16 49.1	-0.1
	0.3nm,0.6s,baz=87,slow=3.6,SNR=4.5						
ASAR	Alice Springs	32.74	253	P	P	22 14 11.8	-0.1
	2.9nm,0.6s,mb4.0,baz=78,slow=9.1,SNR=44						
KSRS	Korea Array	66.22	326	P	P	22 18 25.0	+1.8
	1.4nm,0.9s,mb3.7,baz=151,slow=12,SNR=3.9						
SONM	Songino Array	84.95	323	P	P	22 20 08.5	-0.3
	0.6nm,0.6s,mb3.6,baz=145,slow=5.4,SNR=4.1						
MKAR	Makanchi Array	99.55	316	P	Pdif	22 21 15.9	-0.6
	0.8nm,1.1s,baz=88,slow=6.1,SNR=4.7						
ARCES	ARCESS Array B	122.79	345	PKP	PKPdf	22 26 26.0	-1.3
	1.5nm,0.9s,baz=62,slow=2.5,SNR=10						
FINES	FINESS Array B	128.27	338	PKP	PKPdf	22 26 37.0	-0.9
	0.5nm,0.8s,baz=46,slow=4.0,SNR=2.8						

IDC 15 22:26:10.5±23.0**, 2469S**×**17908E, h629**^{km}±210^{km}**, mb3.2**/5**, mb1 3.3**/5**, mb1mx3.1**/14**, mbtmp3.2**/5**, Error ellipse: s-maj=197.3km s-min=92.6km az=92.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	30.65	272	eP	P	22 31 36.2	-0.2
	5.2nm,0.4s						
CTA	Charters Tower	30.65	272	P	P	22 31 36.7	+0.3
	5.9nm,0.3s,baz=94,slow=11,SNR=12						
STKA	Stephens Creek	33.66	249	P	P	22 32 01.6	0.0
	0.9nm,0.3s,baz=114,slow=20,SNR=3.0						
ASAR	Alice Springs	41.09	262	P	P	22 33 02.0	+0.1
	0.8nm,0.5s,baz=92,slow=8.1,SNR=15						
WB2	Warramunga Arr	41.52	267	eP	P	22 33 04.7	-0.6
WRA	Warramunga Arr	41.53	267	P	P	22 33 05.0	-0.4
	2.8nm,0.4s,baz=104,slow=8.1,SNR=86						
FITZ	Fitzroy Crossi	49.94	267	P	P	22 34 09.3	+0.4
	1.2nm,0.7s,baz=127,slow=10,SNR=5.3						
BRTR	Keskin Array B	147.37	306	PKPbc	PKPbc	22 44 44.5	-0.6
	0.2nm,0.3s,baz=7.6,slow=4.4,SNR=2.7						
BRTR				PKPab	PKPab	22 44 49.5	+0.1
	0.6nm,0.6s,baz=92,slow=4.9,SNR=5.1						

ISCJB ***15*** *22:30:22.9±5.1, 65S±03×1296E±03, h145^{km}±56^{km}, mb3.8/2, Error ellipse: s-maj=49.5km s-min=44.3km az=147.9*
NEIC ***15*** *22:30:23.6±3.5, 650S×12949E, h134^{km}±38^{km}, mb4.4/1, Error ellipse: s-maj=38.3km s-min=28.9km az=66.0*
IDC ***15*** *22:30:30.1±12.0, 686S×12906E, h192^{km}±134^{km}, mb3.1/1, mb1 3.1/4, mb1mx2.9/15, mbtmp2.9/4, Error ellipse: s-maj=81.4km s-min=49.4km az=29.0*
ISC 15 22:30:23.8±4.7**, 65S**±03×**1295E**±03**, h138**^{km}±51^{km}**, n7, σ1^{s}14**/8**, mb3.8**/2**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.78	155	ePn	Pn	22 32 00.5	-0.4
KAKA				eSn	Sn	22 33 10.6	-6.3
FITZ	Fitzroy Crossi	12.12	198	P	Pn	22 33 12.1	0.0
	0.0nm,0.3s,baz=14,slow=17,SNR=3.2						
FITZ				S	Sx	22 35 21.5	
	0.3nm,0.3s,baz=270,slow=19,SNR=4.8						
WRA	Warramunga Arr	14.13	161	P	Pn	22 33 39.4	+1.4
	0.4nm,0.3s,baz=336,slow=13,SNR=14						
WRA				S	Sx	22 36 02.1	
	0.3nm,0.3s,baz=333,slow=23,SNR=7.1						
ASAR	Alice Springs	17.55	167	P	Pn	22 34 19.1	-0.9
	0.3nm,0.3s,baz=348,slow=10,SNR=16						
MKAR	Makanchi Array	67.58	327	P	P	22 41 06.1	+0.6
MKAR	Makanchi Array	67.58	327	P	P	22 41 06.1	+0.6
	0.3nm,0.5s,mb3.3,baz=118,slow=8.4,SNR=9.7						
ARU	Arti	85.06	328	eP	P	22 42 43.2	-0.6
	7.9nm,1.5s,mb4.2						

IDC 15 22:36:08.3±1.8**, 4759N**×**15312E, h0**^{km}**, mb3.6**/5**, mb1 3.8**/5**, mb1mx3.5**/21**, mbtmp3.6**/5**, Error ellipse: s-maj=79.5km s-min=23.6km az=83.0, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	46.57	297	P	P	22 44 37.9	+0.4
	0.1nm,0.7s,baz=77,slow=6.7,SNR=2.9						
KAF	Kangasniemi	62.69	335	ep	P	22 46 40.4	+6.1
	0.9nm,0.4s						
FINES	FINESS Array B	63.29	335	P	P	22 46 37.7	-0.6
	0.5nm,0.4s,baz=41,slow=7.0,SNR=15						
NOA	NORSAR Array B	67.44	341	P	P	22 47 05.7	+0.5
	0.8nm,0.9s,baz=36,slow=6.7,SNR=3.2						
WRA	Warramunga Arr	69.30	199	P	P	22 47 17.0	-0.2
	0.3nm,0.6s,baz=9.6,slow=6.9,SNR=3.3						
ASAR	Alice Springs	73.00	198	P	P	22 47 40.0	+0.4
	0.9nm,0.8s,baz=11,slow=5.3,SNR=9.4						

CSEM ***15*** *22:57:43.5±0.1, 3455N×2861E, h15^{km}, ML3.2, Error ellipse: s-maj=2.9km s-min=1.7km az=108.0*
ISCJB ***15*** *22:57:45.4±0.6, 3453N±003×2858E±008, h33^{km}, Error ellipse: s-maj=10.0km s-min=4.5km az=11.7*
HLW ***15*** *22:57:49.2, 3435N×2856E, h33^{km}, Mb3.2*
ISC 15 22:57:46.8±0.6**, 3456N**±004×**2847E**±008**, h35**^{km}**, n20, σ0^{s}86**/24**, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKAS	Kas	1.91	29	iP	Pn	22 58 16.7	-0.2
AKAS	Kas	1.91	29	iP	Pn	22 58 16.7	-0.1
AKAS				iS	Sn	22 58 39.4	-0.3
BDRM	Kayabasi	2.63	342	iP	Pn	22 58 25.9	-0.9
GOLH	Golhisar	2.81	18	iP	Pn	22 58 30.2	+1.0
GOLH	Golhisar	2.81	18	iP	Pn	22 58 30.2	+0.9
GOLH				iS	Sn	22 59 03.0	+1.1
HMAT	Matruh	3.65	199	P	Pn	22 58 41.3	+0.6
SLUM		4.10	223	P	Pn	22 58 48.5	+1.5
SLUM				S	Sn	22 59 31.0	-2.8
ERMK	Ermenek	4.17	59	eP	Pn	22 58 51.6	+3.6
ERMK	Ermenek	4.17	59	iS	Sn	22 59 35.4	-0.1
KDHN	Kadinhani	4.92	36	iP	Pn	22 58 58.3	0.0
KDHN	Kadinhani	4.92	36	iP	Pn	22 58 58.3	0.0
KDHN				iS	Sn	22 59 52.6	-1.4
HNAT	Natroun	5.24	159	P	Pn	22 59 02.7	+0.1
KOT	Kottamia	5.43	147	P	Pn	22 59 04.7	-0.5
HHAG	Hagoal	5.53	145	P	Pn	22 59 06.3	-0.3
HHAG	Hagoal	5.53	145	P	Pn	22 59 06.3	-0.3
AMAG	Maghara	5.59	133	P	Pn	22 59 07.2	-0.2
GLL	Jalalah	5.68	150	P	Pn	22 59 08.7	0.0
SUZ		5.99	141	P	Pn	22 59 13.2	+0.3
HNKL	Nakhl	6.57	133	P	Pn	22 59 21.0	+0.1
HFRF	Wahat Farafira	7.39	181	P	Pn	22 59 32.4	+0.2

IDC ***15*** *22:59:44.4±1.2, 3083S×17731W, h0^{km}, mb4.2/3, mb1 4.4/3, mb1mx4.0/12, mbtmp4.2/3, MS3.5/1, Ms1 3.5/1, ms1mx2.5/29, Error ellipse: s-maj=34.5km s-min=30.2km az=118.0*
ISCJB ***15*** *22:59:51.6±3.3, 306S±02×1774W±02, h67^{km}±30^{km}, mb4.4/4, Error ellipse: s-maj=39.7km s-min=24.8km az=177.4*
NEIC ***15*** *22:59:52.4±2.8, 3052S×17738W, h56^{km}±22^{km}, mb4.4/1, Error ellipse: s-maj=30.9km s-min=18.9km az=156.0*
ISC 15 22:59:52.8±3.3**, 305S**±02×**1773W**±02**, h65**^{km}±31^{km}**, n25, σ1^{s}09**/14**, mb4.4**/4**, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.38	337	ePn	Pn	23 00 15.0	-1.1
RAO				eSn	Sn	23 00 34.5	+0.9
RAO	Raoul Island	1.38	337	Pn	Pn	23 00 14.9	-1.2
	230nm,0.3s,baz=65,slow=23,SNR=8.8						
RAO				Sn	Sn	23 00 33.6	+0.1
	332nm,0.3s,baz=118,slow=23,SNR=8.8						
DZM	Mont Dzumac	16.82	296	Pn	Pn	23 03 46.7	+2.6
DZM				LR	LR	23 08 57.4	
DZM	Mont Dzumac	16.82	296	Pn	Pn	23 03 46.7	+2.6
	0.2nm,0.3s,baz=110,slow=16,SNR=3.3						
DZM				LR	LR	23 08 57.4	
	comp=Z,166nm,18.4s,baz=87,slow=33						
STKA	Stephens Creek	35.03	257	eP	P	23 06 40.6	+1.3
	2.9nm,0.6s,mb4.3						
STKA	Stephens Creek	35.03	257	P	P	23 06 39.8	+0.4
	1.8nm,0.3s,mb4.4,baz=85,slow=11,SNR=8.2						
ASAR	Alice Springs	43.70	267	P	P	23 07 50.7	-0.9
	2.1nm,0.9s,mb3.9,baz=104,slow=7.5,SNR=19						
WB2	Warramunga Arr	44.69	272	eP	P	23 07 58.1	-1.4
WB2	Warramunga Arr	44.69	272	eP	P	23 07 59.1	-0.5
WRA	Warramunga Arr	44.70	272	P	P	23 07 58.7	-0.9
	1.9nm,0.5s,mb4.1,baz=110,slow=8.2,SNR=30						
PMSA	Palmer Station	71.90	156	P	P	23 11 09.4	+0.8
	55nm,0.8s,mb5.4						
MVCO	Mesa Verde	93.18	48	eP	P	23 12 59.9	+0.1
JOF	Joensuu	142.76	339	epkp	PKPdf	23 19 14.6	-3.3
JOF	Joensuu	142.76	339	ePKP	PKPdf	23 19 14.6	-3.3
KAF	Kangasniemi	144.87	341	epkp	PKPdf	23 19 21.0	-0.6
KAF	Kangasniemi	144.87	341	ePKP	PKPdf	23 19 21.0	-0.6
FINES	FINESS Array B	145.47	340	PKPbc	PKPbc	23 19 24.2	+1.3
FINES	FINESS Array B	145.47	340	PKPbc	PKPbc	23 19 24.2	+1.3
	5.0nm,0.6s,baz=64,slow=4.4,SNR=26						
NOA	NORSAR Array B	148.97	352	PKPbc	PKPbc	23 19 34.6	+2.0
NOA	NORSAR Array B	148.97	352	PKPbc	PKPbc	23 19 34.6	+2.0
	0.7nm,0.7s,baz=14,slow=4.3,SNR=3.9						
AKASG	Malin Array Be	151.77	323	PKPbc	PKPbc	23 19 40.9	+1.2
AKASG	Malin Array Be	151.77	323	PKPbc	PKPbc	23 19 40.9	+1.2
	0.8nm,0.6s,baz=48,slow=2.6,SNR=5.5						
BRTR	Keskin Array B	153.19	298	PKPbc	PKPbc	23 19 43.7	+0.5
BRTR	Keskin Array B	153.19	298	PKPbc	PKPbc	23 19 43.7	+0.5
	0.5nm,0.8s,baz=43,slow=2.8,SNR=3.3						
TORD	Torodi Ar. Bea	162.67	177	PKPab	PKPab	23 20 35.4	-1.1
	0.6nm,0.8s,baz=158,slow=2.0,SNR=3.8						

IDC 15 23:00:42.6±1.3**, 3071S**×**17713W, h0**^{km}**, mb4.1**/3**, mb1 4.3**/3**, mb1mx4.0**/12**, mbtmp4.1**/3**, MS3.6**/1**, Ms1 3.6**/1**, ms1mx2.8**/26**, Error ellipse: s-maj=35.3km s-min=25.5km az=75.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.61	335	Pn	Pn	23 01 13.6	+1.3
	361nm,0.3s,baz=241,slow=21,SNR=2.6						
RAO				Sn	Sn	23 01 34.7	+0.9
	1µm,0.3s,baz=147,slow=21,SNR=4.4						
DZM	Mont Dzumac	17.04	296	Pn	Pn	23 04 48.8	+6.4
	0.2nm,0.3s,baz=108,slow=19,SNR=2.1						
STKA	Stephens Creek	35.14	257	eP	P	23 07 39.7	+1.7
	3.6nm,0.7s						
STKA	Stephens Creek	35.14	257	P	P	23 07 38.8	+0.8
	1.6nm,0.4s,baz=105,slow=10,SNR=3.3						
ASAR	Alice Springs	43.85	267	P	P	23 08 50.9	+0.1
	1.2nm,0.7s,baz=103,slow=7.1,SNR=4.8						
WB2	Warramunga Arr	44.85	272	eP	P	23 08 58.3	-0.5
WRA	Warramunga Arr	44.86	272	P	P	23 08 57.7	-1.2
	2.0nm,0.6s,baz=110,slow=8.1,SNR=8.3						
GUMO	Guam	57.23	315	LR	LR	23 31 41.8	
	comp=Z,50nm,18.6s,baz=184,slow=32						
KAF	Kangasniemi	145.09	341	epkp	PKPdf	23 20 19.4	-1.8
FINES	FINESS Array B	145.69	340	PKPbc	PKPbc	23 20 22.1	-0.5
	2.4nm,0.4s,baz=46,slow=4.2,SNR=10						
NB2	NORSAR Subarra	149.17	352	PKPa	PKPdf	23 20 34.0	+6.0
	comp=Z,8.2nm,1.4s,baz=17,slow=2.6						
NOA	NORSAR Array B	149.17	352	PKPbc	PKPbc	23 20 30.4	-1.8
	comp=Z,0.9nm,0.8s,baz=15,slow=4.3,SNR=2.5						
AKASG	Malin Array Be	152.00	323	PKPbc	PKPbc	23 20 39.2	-0.1
	comp=Z,0.6nm,0.5s,baz=46,slow=2.9,SNR=3.0						
TORD	Torodi Ar. Bea	162.49	176	PKPab	PKPab	23 21 35.3	+0.7
	comp=Z,0.3nm,0.6s,baz=173,slow=4.9,SNR=2.6						

WEL 15 23:15:59.8±0.3**, 3794S**×**17615E, h186**^{km}±2^{km}**, ML3.8**/10**, 1C, Error ellipse: s-maj=3.8km s-min=3.4km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	0.82	113	PN	Pn	23 16 26.8	-0.1
URZ				SN	Sn	23 16 47.8	+0.1
MWZ	Matawai	1.16	110	PN	Pn	23 16 29.5	+0.3
MWZ				SN	Sn	23 16 52.0	0.0
WTVZ	West Tongariro	1.25	200	PN	Pn	23 16 30.5	+0.6
BKZ	Black Stump Fm	1.25	168	⇑PN	Pn	23 16 30.1	+0.1
BKZ				SN	Sn	23 16 53.4	-0.1
OTVZ	Oturere	1.28	197	PN	Pn	23 16 31.0	+0.8
TUVZ	Tukino	1.38	196	PN	Pn	23 16 31.5	+0.5
FWVZ	Far West T-bar	1.39	199	PN	Pn	23 16 31.8	+0.6
WNVZ	Wahianoa	1.45	197	PN	Pn	23 16 32.0	+0.3
MOVZ	Moawhango	1.50	192	PN	Pn	23 16 31.9	-0.3
MTVZ	Mangateitei	1.54	200	PN	Pn	23 16 32.6	+0.1
KNZ	Kokohu	1.61	132	PN	Pn	23 16 33.5	+0.3
MXZ	Matakaoa Point	1.75	78	PN	Pn	23 16 34.2	-0.5
WAZ	Wanganui	2.03	206	PN	Pn	23 16 37.6	+0.2
TSZ	Takapari Road	2.12	184	PN	Pn	23 16 37.7	-0.7
PXZ	Pawanui	2.16	165	PN	Pn	23 16 38.7	-0.2
PXZ				SN	Sn	23 17 08.3	-1.1
BFZ	Birch Farm	2.74	178	PN	Pn	23 16 44.2	-1.3
MRZ	Mangatainoka R	2.75	189	PN	Pn	23 16 43.7	-1.9
KIW	Kapiti Island	3.07	198	PN	Pn	23 16 46.9	-2.5
MTW	Mount Morrison	3.25	189	PN	Pn	23 16 48.9	-2.7
CAW	Cannon Point	3.27	194	PN	Pn	23 16 49.4	-2.5
DUWZ	D'Urville Isla	3.34	210	PN	Pn	23 16 49.9	-2.8
MRW	Makara Radio	3.47	198	PN	Pn	23 16 51.7	-2.6
TRWZ	Traveller	3.47	186	PN	Pn	23 16 52.0	-2.3
MSWZ	Moikau Station	3.54	191	PN	Pn	23 16 52.1	-3.1
TCW	Tory Channel	3.57	203	PN	Pn	23 16 52.8	-2.8
TUWZ	Tuamarina	3.88	205	PN	Pn	23 16 56.2	-3.2
NNZ	Nelson	3.91	212	PN	Pn	23 16 56.8	-3.0
THZ	Tophouse	4.56	212	PN	Pn	23 17 05.5	-2.6
KHZ	Kahutara	4.90	203	PN	Pn	23 17 08.8	-3.6
LTZ	Lake Taylor	5.67	210	PN	Pn	23 17 18.2	-4.2

IDC 15 23:16:08.5±3.5**, 140S**×**13702E, h0**^{km}**, mb3.4**/2**, mb1 3.7**/3**, mb1mx3.4**/14**, mbtmp3.4**/3**, ML3.5**/1**, Error ellipse: s-maj=140.3km s-min=30.0km az=81.0, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	18.62	188	P	Pn	23 20 27.2	-0.7
	0.2nm,0.3s,baz=9.7,slow=12,SNR=16						
ASAR	Alice Springs	22.34	188	P	P	23 21 08.4	+0.4
	1.8nm,0.4s,baz=18,slow=11,SNR=32						
MKAR	Makanchi Array	67.73	323	P	P	23 27 08.0	+0.1
	0.1nm,0.5s,baz=113,slow=6.8,SNR=2.4						

IDC ***15*** *23:29:26.5±2.2, 1807N×10631W, h0^{km}, mb3.9/5, mb1 4.2/8, mb1mx3.9/20, mbtmp3.9/8, ML3.5/2, MS4.1/20, Ms1 4.1/20, ms1mx3.9/33, Error ellipse: s-maj=57.8km s-min=24.9km az=56.0*
ISCJB ***15*** *23:29:33.2±0.6, 1870N±006×106.10W±004, h10^{km}, mb4.3/18, MS4.2/17, Error ellipse: s-maj=9.1km s-min=3.4km az=27.4*
GCMT ***15*** *23:29:33.7±0.5, 1859N×10657W, h22^{km}±1^{km}, MW4.9/66, Moment Tensor Solution. s21,c22; s66,c88; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.08±.16; M$_{\theta\theta}$-1.12±.12; M$_{\phi\phi}$1.04±.14; M$_{r\theta}$-0.34±.21; M$_{\theta\phi}$-2.42±.11; M$_{\phi r}$1.01±.23; Best double couple: M$_0$2.84800×10^{16} NP1:ϕ_s280.00000°,δ72.00000°,λ170.00000°. NP2: ϕ_s13.00000°,δ81.00000°,λ18.00000°. Principal axes: T 2.9770, Plg20.0000°, Azm238.0000°; N -0.2620, Plg69.0000°, Azm40.0000°; P -2.7180, Plg6.0000°, Azm146.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
NEIC ***15*** *23:29:33.7±1.1, 1858N×10625W, h10^{km}, mb4.5/22, MD5.2(MEX) Error ellipse: s-maj=18.6km s-min=6.0km az=215.0*
MEX ***15*** *23:29:34.7±2.8, 1875N×10631W, h14^{km}±19^{km}, MD5.1*
ISC 15 23:29:35.7±0.6**, 1878N**±005×**10611W**±004**, h10**^{km}**, n98, σ1^{s}23**/96**, mb4.3**/17**, MS4.2**/17**, Off coast of Jalisco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANIG	Ahuacatlan	2.71	33	iP	Pn	23 30 17.4	-2.0
ANIG				iS	Sn	23 30 51.4	-0.9
SFJM	Santa Fe	3.36	59	iP	Pn	23 30 27.0	-1.3
SFJM				iS	Sn	23 31 12.0	+3.8
SFJM	Santa Fe	3.36	59	iP	Pn	23 30 27.0	-1.3
SFJM				iS	Sn	23 31 07.5	-0.7
MAIG	Mazatlaan	4.40	356	iP	Pn	23 30 42.9	+0.4
MAIG				iS	Sn	23 31 31.8	-2.1
MAIG	Mazatlaan	4.40	356	iP	Pn	23 30 38.9	-3.7
MAIG				iS	Sn	23 31 29.1	-4.7
MOIG	Morelia	4.74	78	iP	Pn	23 30 44.8	-2.4
MOIG				iS	Sn	23 31 37.6	-4.6
MOIG	Morelia	4.74	78	iP	Pn	23 30 46.3	-0.9
MOIG				iS	Sn	23 31 41.6	-0.6
MEIG	Mezcala	6.22	97	iP	Pn	23 31 07.6	0.0
MEIG				iS	Sn	23 32 18.7	-0.2

PLIG	Platanillo	6.28	92	*i* P	Pn	23 31 06.3	-2.1
PLIG	Platanillo	6.28	92	*e*P	Pn	23 31 08.8	+0.3
PLIG				*i* S	Sn	23 32 21.1	+0.7
LPIG	La Paz	6.58	324	*i* P	Pn	23 31 06.3	-6.3
LPIG				*i* S	Sn	23 32 21.5	-6.2
PPM	Popocatepetl	7.09	86	*i* P	Pn	23 31 21.9	+2.3
PPM	Popocatepetl	7.09	86	*i* P	Pn	23 31 19.2	-0.4
PPM				*i* S	Sn	23 32 41.0	+0.7
UTMO	Huajuapan	7.95	96	*i* P	Pn	23 31 32.4	+1.1
UTMO				*i* S	Sn	23 33 00.0	-1.4
TPIG	Tehuac#an	8.30	91	*i* P	Pn	23 31 36.1	-0.2
TPIG				*i* S	Sn	23 33 11.0	+0.8
LNIG	Linares	8.67	44	*i* P	Pn	23 31 43.8	+2.5
LNIG				*e*S	Sn	23 33 16.9	-2.2
VHO	Vista Hermosa	9.09	99	*i* P	Pn	23 31 45.0	-2.0
VHO	Vista Hermosa	9.09	99	*i* P	Pn	23 31 46.5	-0.5
VHO				*i* S	Sn	23 33 28.0	-1.4
HUIG	Huatulco	10.01	106	*i* P	Pn	23 32 01.1	+1.4
TXAR	Lajitas Array	10.74	12	Pn	Pn	23 32 13.4	+3.8
TXAR	Lajitas Array	10.74	12	Pn	Pn	23 32 13.4	+3.7
	0.1nm,0.3s,baz=187,slow=14,SNR=9.3						
CMIG	Matias Romero	10.82	97	Pn	Pn	23 32 10.1	-0.6
CMIG				LR	LR	23 36 28.5	
CMIG	Matias Romero	10.82	97	Pn	Pn	23 32 10.1	-0.6
	1.6nm,0.3s,baz=283,slow=9.4,SNR=12						
CMIG				LR	LR	23 36 28.5	
	comp=Z,634nm,19.6s,baz=276,slow=39						
MNTX	Cornudas Mount	12.88	3	*e*Pn	Pn	23 32 41.0	+2.1
GDL2	Guadalupe Moun	13.46	6	*e*Pn	Pn	23 32 52.5	+5.7
CCIG	Comitan	13.56	98	*i* P	Pn	23 32 45.3	-3.0
TUC	Tucson	14.12	344	*e*Pn	Pn	23 32 56.0	+0.2
	18nm,1.3s						
BNM	Barren Site	15.32	358	*e*Pn	Pn	23 33 10.9	-1.1
ANMO	Albuquerque	16.11	359	Pn	Pn	23 33 23.0	+0.7
ANMO				LR	LR	23 39 29.5	
ANMO	Albuquerque	16.11	359	Pn	Pn	23 33 23.0	+0.7
	0.1nm,0.3s,baz=171,slow=13,SNR=3.1						
ANMO				LR	LR	23 39 29.5	
	comp=Z,595nm,21.0s,baz=190,slow=36						
AMTX	Amarillo	16.52	13	*e*P	Pn	23 33 32.9	+5.4
	31nm,1.0s						
NATX	Nacogdoches	16.55	36	*e*Pn	Pn	23 33 28.6	+0.7
	108nm,1.2s						
TEIG	Tepich	16.88	82	Pn	Pn	23 33 34.4	+2.2
TEIG				LR	LR	23 40 42.6	
TEIG	Tepich	16.88	82	Pn	Pn	23 33 34.4	+2.2
	0.2nm,0.3s,baz=251,slow=11,SNR=2.3						
TEIG				LR	LR	23 40 42.6	
	comp=Z,278nm,21.1s,baz=255,slow=39						
WMOK	Wichita Mounta	17.18	21	*e*P	Pn	23 33 40.3	+4.4
WUAZ	Wupatki	17.31	345	*e*Pn	Pn	23 33 38.2	+0.7
	23nm,1.3s						
PFO	Pinyon Flat Ob	17.43	330	P	Pn	23 33 37.7	-1.3
	0.2nm,0.3s,baz=143,slow=10,SNR=3.5						
MVCO	Mesa Verde	18.48	354	*e*P	Pn	23 33 51.8	-0.1
	38nm,1.5s						
TGUH	Tegucigalpa,Un	18.67	102	P	Pn	23 33 53.8	-0.5
	58nm,1.6s						
SDCO	Great Sand Dun	18.91	1	*e*Pn	Pn	23 33 57.2	+0.1
	41nm,1.7s						
MIAR	Mount Ida	19.26	33	*e*P	Pn	23 34 02.2	+0.7
	21nm,1.3s						
SHPR	Sheep Range	19.37	338	*e*P	Pn	23 34 01.6	-1.1
PV01	Paradox Valley	19.40	354	*e*P	Pn	23 34 02.2	-0.9
PV10	Paradox Valley	19.69	353	*e*P	Pn	23 34 05.3	-1.2
PV10				S	Sn	23 37 47.4	-0.3
ARUT	Antelope Range	19.99	343	*e*P	P	23 34 08.2	-0.2
UALR	University of	20.09	35	*e*P	P	23 34 09.8	+0.4
	19nm,1.1s						
DAC	Darwin (Calif)	20.16	332	*e*Pn	P	23 34 09.2	-1.0
MSU	Marysvale	20.36	346	*e*P	P	23 34 13.1	+0.7
SRU	San Rafael	20.62	350	*e*P	P	23 34 16.4	+1.3
CBKS	Cedar Bluff	20.72	14	*e*P	P	23 34 16.1	-0.2
	40nm,1.1s						
TMUT	Trail Mountain	20.92	349	*e*P	P	23 34 20.0	+1.6
ISCO	Idaho Springs	20.95	1	*e*P	P	23 34 19.6	+0.8
	20nm,1.4s						
HBAR	Harrisburg	21.59	36	P	P	23 34 25.7	-0.1
NLU	North Lily Min	21.72	348	*e*P	P	23 34 23.7	-3.3
KSU1	Kansas State U	21.86	20	*e*P	P	23 34 30.4	+1.8
	21nm,0.8s,mb4.6						
DAU	Daniels Canyon	22.01	349	*e*P	P	23 34 30.5	+0.3
DUG	Dugway	22.11	346	*e*P	P	23 34 31.7	+0.4
	15nm,1.3s,mb4.3						
JLU	Jordanelle	22.23	349	*e*P	P	23 34 33.6	+1.1
NVAR	Mina Array Bea	22.27	334	P	P	23 34 31.6	-1.4
	3.9nm,1.0s,mb3.8,baz=146,slow=9.3,SNR=8.9						
CTU	Camp Tracy	22.37	349	*e*P	P	23 34 35.5	+1.5
PLAL	Pickwick Lake	22.73	41	*e*P	P	23 34 38.7	+0.8
	10.0nm,0.9s,mb4.2						
WAKR	Walker	22.82	332	*e*P	P	23 34 39.5	+0.7
CMB	Columbia Colle	22.87	330	*e*P	P	23 34 36.4	-2.9
	12nm,1.4s,mb4.1						
FVM	French Village	23.53	32	*e*P	P	23 34 47.5	+1.2
	41nm,1.4s,mb4.7						
FVM				*e*pP		23 34 54.4	
PDAR	Pinedale Array	24.09	354	P	P	23 34 49.7	-1.7
	0.6nm,0.6s,mb3.2,baz=160,slow=9.3,SNR=3.8						
PDAR				LR	LR	23 46 16.6	
	comp=Z,46nm,18.2s,MS3.0,baz=182,slow=41						
SWET	Sewanee	24.24	43	*e*pP	pP	23 35 03.8	+7.9
REDW	Red Top Meadow	24.83	352	*e*P	P	23 34 57.4	-0.8
	25nm,1.2s,mb4.6						
GOGA	Godfrey	24.94	50	*e*P	P	23 35 00.6	+1.4
USIN	University of	24.99	36	*e*P	P	23 35 00.5	+0.8
	36nm,0.8s,mb5.0						
LOHW	Long Hollow	25.05	352	*e*P	P	23 35 00.7	+0.6
	15nm,0.9s,mb4.5						
MOOW	Moose Ponds	25.20	352	*e*P	P	23 35 03.3	+1.8
	14nm,1.3s,mb4.3						
HLID	Hailey	25.68	346	*e*P	P	23 35 05.4	-0.4
	3.7nm,1.0s,mb3.9						
TKL	Tuckaleechee C	25.93	45	P	P	23 35 06.8	-1.4
TKL	Tuckaleechee C	25.93	45	P	P	23 35 06.8	-1.3
	5.6nm,1.1s,mb4.0,baz=143,slow=9.1,SNR=3.0						
HDIL	Hopedale	26.07	30	*e*P	P	23 35 11.4	+1.9
	22nm,0.9s,mb4.7						
JSC	Jenkinsville	26.97	50	*e*P	P	23 35 18.0	+0.4
CHMT	Chamberlain Mo	28.67	350	*e*P	P	23 35 30.7	-1.9
ULM	Lac du Bonnet	32.45	12	LR	LR	23 49 43.5	
	comp=Z,514nm,18.1s,MS4.3,baz=274,slow=37						
OTAV	Otavalo	32.81	121	*e*P	P	23 36 09.9	+0.3
	26nm,1.7s,mb4.9						
ATAH	Atahualpa	37.46	131	P	P	23 36 40.4	-9.3
	1.8nm,0.5s,mb4.2,baz=324,slow=14,SNR=1.9						
BBB	Bella Bella	37.53	338	LR	LR	23 52 07.3	
	comp=Z,272nm,18.7s,MS4.1,baz=152,slow=36						
YKA	Yellowknife Ar	44.07	354	P	P	23 37 41.3	-2.3
	1.2nm,0.8s,mb3.7,baz=167,slow=7.7,SNR=14						
YKA				LR	LR	23 56 42.3	
	comp=Z,227nm,18.2s,MS4.1,baz=45,slow=37						
SCHQ	Schefferville	46.74	30	LR	LR	23 59 49.0	
	comp=Z,106nm,20.4s,MS3.8,baz=98,slow=38						
RKT	Rikitea	50.28	215	*e*LR	LR	23 52 26.8	
	523nm,26.5s						
RKT	Rikitea	50.28	215	*e*T		00 31 38.0	
	11nm,0.3s						
LPAZ	La Paz	51.10	131	LR	LR	23 57 56.5	
	comp=Z,139nm,19.1s,MS4.0,baz=163,slow=34						
INK	Inuvik	52.43	348	LR	LR	00 02 32.0	
	comp=Z,187nm,18.1s,MS4.2,baz=360,slow=37						
PPT	Papeete	55.95	232	*e*S	S	23 46 43.9	-19
	93nm,28.0s						
PPT				*e*LR	LR	23 55 05.9	
	547nm,26.2s,baz=50						
PPT	Papeete	55.95	232	LR	LR	23 55 20.4	
	comp=Z,263nm,18.3s,MS4.4,baz=356,slow=28						
NOA	NORSAR Array B	86.11	26	LR	LR	00 19 56.4	
	comp=Z,70nm,19.6s,MS4.1,baz=275,slow=35						
FINES	FINESS Array B	91.44	21	LR	LR	00 24 05.2	
	comp=Z,116nm,19.9s,MS4.3,baz=330,slow=36						
URZ	Urewera	91.53	230	LR	LR	00 14 23.5	
	comp=Z,183nm,20.6s,MS4.5,baz=153,slow=30						
GERES	GERESS Array B	94.07	35	LR	LR	00 27 45.8	
	comp=Z,113nm,18.4s,MS4.4,baz=69,slow=37						
DZM	Mont Dzumac	94.61	248	LR	LR	00 15 36.7	
	comp=Z,197nm,18.2s,MS4.6,baz=74,slow=29						
HNR	Honiara	96.68	262	LR	LR	00 19 09.8	
	comp=Z,91nm,18.0s,MS4.3,baz=359,slow=31						
RPZ	Rata Peaks	97.74	227	LR	LR	00 17 38.3	
	comp=Z,149nm,19.1s,MS4.5,baz=201,slow=30						
MJAR	Matsushiro Arr	98.10	313	LR	LR	00 23 08.6	
	comp=Z,158nm,18.5s,MS4.5,baz=180,slow=33						
KEST	Kesra	98.36	48	LR	LR	00 23 09.2	
	comp=Z,38nm,21.3s,MS3.9,baz=313,slow=33						

IDC 15 23:30:55.2±2.0**,0.85N**×**126.52E,h0^{km},mb3.6**/3**,mb1 3.8**/3**,mb1mx3.4**/16**,mbtmp3.6**/3**,Error ellipse: s-maj=182.1km s-min=23.8km az=66.0,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.04	160	P	P	23 35 50.6	-0.9
	0.6nm,0.3s,baz=339,slow=9.7,SNR=19						
ASAR	Alice Springs	25.40	164	P	P	23 36 25.3	+0.8
	1.4nm,0.6s,baz=345,slow=12,SNR=16						
MKAR	Makanchi Array	59.80	326	P	P	23 41 02.2	0.0
	0.3nm,0.5s,baz=119,slow=7.9,SNR=11						

IDC ***15*** *23:45:58.8±5.6,52.83N×172.22W,h88^{km}±48^{km},mb3.6/10, mb1 3.8/11,mb1mx3.6/26,mbtmp3.6/11,ML3.9/1,Error ellipse: s-maj=30.3km s-min=21.1km az=162.0*

ISCJB ***15*** *23:46:01.8±0.6,52.8N±0.1×172.1W±0.1,h127^{km}±6^{km}, mb3.8/10,Error ellipse: s-maj=26.4km s-min=7.6km az=158.2*

NEIC ***15*** *23:46:02.9±0.8,52.67N×171.96W,h127^{km}±7^{km},mb4.2/1, Error ellipse: s-maj=19.5km s-min=9.2km az=160.0*

ISC 15 23:46:02.9±0.6**,52.9N**±0.2×**172.1W**±0.1**,h124**^{km}±6^{km}**,n26,** σ0^{s}.**66**/25**,mb3.8**/10**,Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATKA	Atka Island	1.42	244	P	Pn	23 46 29.7	+0.1
ATKA				S	Sn	23 46 49.9	0.0
UNV	Unalaska Valle	3.52	71	P	Pn	23 46 55.6	-0.4
UNV				S	Sn	23 47 37.8	+0.8
AKGG	Akutan Green G	3.90	67	P	Pn	23 47 01.5	+0.4
SDPT	Sand Point	7.29	65	*e*P	Pn	23 47 45.2	-1.5
KDAK	Kodiak Island	12.16	58	P	Pn	23 48 47.7	-4.0
KDAK				S	Sn	23 50 56.0	-10
KDAK	Kodiak Island	12.16	58	P	Pn	23 48 47.7	-4.0
	0.7nm,0.3s,baz=291,slow=14,SNR=17						
KDAK				S	Sn	23 50 56.0	-10
	0.1nm,0.3s,baz=37,slow=20,SNR=2.5						
BILL	Bilibino	18.41	334	*e*P	P	23 50 12.3	+4.2
	10nm,0.8s						
INK	Inuvik	23.89	35	P	P	23 51 04.8	+0.2
INK				PcP	PcP	23 54 43.4	-0.1
INK	Inuvik	23.89	35	P	P	23 51 04.8	+0.2
	5.5nm,0.6s,mb4.1,baz=250,slow=8.4,SNR=30						
INK				PcP	PcP	23 54 43.4	-0.1
	1.0nm,0.4s,baz=284,slow=6.3,SNR=8.0						
DLBC	Dease Lake	24.09	60	P	P	23 51 07.6	+1.1
	baz=212,slow=9.5						
YKA	Yellowknife Ar	31.20	49	P	P	23 52 09.3	-0.5
YKA				PcP	PcP	23 55 01.4	+0.1
YKA	Yellowknife Ar	31.20	49	P	P	23 52 09.3	-0.5
	0.2nm,0.3s,mb3.3,baz=274,slow=8.9,SNR=6.4						
YKA				PcP	PcP	23 55 01.4	+0.1
	0.2nm,0.6s,baz=293,slow=2.7,SNR=4.4						
PDAR	Pinedale Array	41.96	78	P	P	23 53 41.8	+0.6
	2.7nm,0.5s,mb4.2,baz=308,slow=3.2,SNR=37						
ULM	Lac du Bonnet	45.40	61	P	P	23 54 07.7	-1.0
	1.1nm,0.5s,mb3.8,baz=314,slow=9.3,SNR=3.8						
SONM	Songino Array	49.60	299	PcP	PcP	23 56 01.1	+0.3
	0.3nm,0.4s,baz=46,slow=3.3,SNR=3.1						
TXAR	Lajitas Array	54.41	87	P	P	23 55 17.0	0.0
TXAR	Lajitas Array	54.41	87	P	P	23 55 17.0	0.0
	0.8nm,0.6s,mb4.0,baz=297,slow=4.7,SNR=13						
MKAR	Makanchi Array	62.24	312	P	P	23 56 11.3	+0.3
	0.2nm,0.6s,mb3.3,baz=38,slow=4.6,SNR=4.1						
NOA	NORSAR Array B	66.43	358	P	P	23 56 38.0	-0.1
	0.5nm,0.8s,mb3.4,baz=9.9,slow=5.2,SNR=2.5						
WRA	Warramunga Arr	86.01	229	P	P	23 58 28.7	-0.5
	0.4nm,0.6s,mb3.5,baz=32,slow=5.8,SNR=8.2						
FITZ	Fitzroy Crossi	88.67	237	P	P	23 58 41.8	-0.2
	1.4nm,0.8s,mb4.1,baz=95,slow=12,SNR=3.7						
ASAR	Alice Springs	89.44	228	P	P	23 58 46.0	+0.5
	1.5nm,0.8s,mb4.1,baz=25,slow=4.7,SNR=16						
ASAR				pP	pP	23 59 16.8	-0.5
	0.4nm,0.6s,baz=24,slow=4.7,SNR=3.7						
TORD	Torodi Ar. Bea	114.06	7	PKP	PKiKP	00 04 25.9	-1.5
TORD	Torodi Ar. Bea	114.06	7	PKP	PKiKP	00 04 25.9	-1.5
	0.2nm,0.3s,baz=355,slow=2.3,SNR=4.9						
BOSA	Boshof	152.58	325	PKPbc	PKPbc	00 05 44.4	+0.1
BOSA	Boshof	152.58	325	PKPbc	PKPbc	00 05 44.4	+0.1
	0.9nm,0.3s,baz=68,slow=14,SNR=8.9						

IDC ***15*** *23:52:16.7±1.8,24.15N×122.03E,h0^{km},mb3.2/2, mb1 3.6/3,mb1mx3.3/21,mbtmp3.5/3,ML3.5/1,MS3.2/1, Ms1 3.2/1,ms1mx2.7/12,Error ellipse: s-maj=72.3km s-min=30.8km az=69.0*

ISCJB ***15*** *23:52:27.6±0.9,24.7N±0.2×122.9E±0.1,h123^{km}±7^{km}, mb3.2/2,Error ellipse: s-maj=26.4km s-min=14.8km az=10.1*

JMA ***15*** *23:52:29.0±0.2,24.78N×122.92E,h109^{km}±2^{km},M3.3*

ISC 15 23:52:28.5±1.0**,24.7N**±0.2×**122.90E**±0.10**,h118**^{km}±7^{km}**,n10,** σ0^{s}.**41**/15**,mb3.2**/2**,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.24	156	P	Pn	23 52 44.9	-0.1
YOJ				S	Sn	23 52 57.1	-0.3
IRIF	Iriomote-Funau	0.83	115	P	Pn	23 52 48.8	+0.1
IRIF				S	Sn	23 53 03.9	-0.1
HATJ	Hateruma jima	1.03	127	P	Pn	23 52 51.2	+0.5
HATJ				S	Sn	23 53 07.5	0.0
JKRS	Kuro-shima	1.10	114	P	Pn	23 52 52.0	+0.6
JKRS				S	Sn	23 53 09.1	+0.4
JIJ	Ishigaki jima	1.17	106	P	Pn	23 52 52.3	+0.2
JIJ				S	Sn	23 53 09.2	-0.9
JTJ	Tarama	1.64	91	P	Pn	23 52 57.9	+0.5
JTJ				*e*S	Sn	23 53 19.1	-0.3
KSRS	Korea Array	13.43	17	Pn	Pn	23 55 39.2	+5.0
	0.2nm,0.3s,baz=195,slow=12,SNR=8.6						
GUMO	Guam	23.47	114	LR	LR	00 05 18.2	
	comp=Z,57nm,19.2s,baz=260,slow=33						
MKAR	Makanchi Array	39.08	315	P	P	23 59 43.8	-0.1
	0.1nm,0.4s,mb3.0,baz=99,slow=9.4,SNR=4.9						
WRA	Warramunga Arr	45.73	165	P	P	00 00 37.5	-0.4
	1.2nm,1.3s,mb3.5,baz=348,slow=9.3,SNR=4.7						

IDC 15 23:55:01.2±8.4**,10.65N**×**91.79E,h0^{km},mb3.2**/3**,mb1 3.4**/3**,mb1mx3.2**/21**,mbtmp3.2**/3**,MS3.4**/1**,Ms1 3.4**/1**,ms1mx3.1**/8**,Error ellipse: s-maj=429.0km s-min=30.4km az=60.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PBA	Port Blair	1.37	43	*e*P	x	23 55 30.8	
PBA				*e*S	x	23 55 46.0	
MKAR	Makanchi Array	36.92	349	P	P	00 02 11.7	0.0
	0.3nm,0.8s,baz=166,slow=7.5,SNR=3.6						
KSRS	Korea Array	42.02	45	LR	LR	00 19 51.7	
	comp=Z,49nm,19.4s,baz=36,slow=36						
WRA	Warramunga Arr	51.75	126	P	P	00 04 10.9	0.0
	0.1nm,0.3s,baz=306,slow=8.6,SNR=6.8						
ASAR	Alice Springs	53.46	130	P	P	00 04 23.5	0.0
	0.3nm,0.8s,baz=316,slow=6.4,SNR=3.7						

IDC 15 23:56:01.8±2.8**,17.63S**×**176.51W,h0^{km},mb3.7**/4**,mb1 4.0**/4**,mb1mx3.7**/15**,mbtmp3.7**/4**,Error ellipse: s-maj=315.6km s-min=31.4km az=159.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	46.47	259	P	P	00 04 30.0	-0.9
	0.1nm,0.3s,baz=96,slow=7.9,SNR=11						
ASAR	Alice Springs	46.61	254	P	P	00 04 32.3	+0.3
	1.2nm,0.5s,baz=87,slow=8.2,SNR=19						
FITZ	Fitzroy Crossi	54.86	260	P	P	00 05 34.9	+0.6
	0.4nm,0.4s,baz=90,slow=6.1,SNR=3.7						
TXAR	Lajitas Array	84.32	57	P	P	00 08 36.1	+0.1
	0.6nm,0.9s,baz=216,slow=6.2,SNR=5.1						

CSEM ***16*** *01:02:27.2±0.1,37.20N×36.91E,h30^{km},MD3.0,Error ellipse: s-maj=4.2km s-min=3.5km az=22.0*

DDA ***16*** *01:02:28.2,37.09N×36.84E,h5^{km}±2^{km},Md3.0*

ISK ***16*** *01:02:28.2,37.14N×36.86E,h8^{km},MD2.5*

ISC 16 01:02:28.5±0.7**,37.10N**±0.06×**36.84E**±0.04**,h12**^{km}±12^{km}**, n11,** σ0^{s}.**82**/20**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GAZ	Gaziantep	0.30	76	*i* PG	Pg	01 02 34.4	
GAZ				*i* SG	Sg	01 02 38.8	
GAZ	Gaziantep	0.30	76	*i* Pg	Pg	01 02 34.4	
GAZ				*i* Sg	Sg	01 02 38.8	
KMRS	Kahramanmaras	0.41	7	PG	Pg	01 02 35.8	
KMRS				SG	Sg	01 02 41.7	
KMRS	Kahramanmaras	0.41	7	*e*Pg	Pg	01 02 35.8	
KMRS				*e*Sg	Sg	01 02 41.7	
ANDN	Andirin	0.62	321	*i* P	Pg	01 02 39.6	
ANDN				*i* S	Sg	01 02 49.3	
GZT	Gaziantep	0.63	66	*i* P	Pg	01 02 40.2	
GZT				*i* S	Sg	01 02 50.7	
KOZT	Kozan	0.89	295	PG	Pg	01 02 45.5	
KOZT				SG	Sg	01 02 58.7	
KOZT	Kozan	0.89	295	*e*Pg	Pg	01 02 45.5	
KOZT				*e*Sg	Sg	01 02 58.7	
YAYL	Yayladag	1.22	209	*i* P	Pn	01 02 50.1	
YAYL				*i* S	Sb	01 03 07.8	
URFA	Urfa	1.62	77	*e*PN	Pn	01 02 57.4	
URFA	Urfa	1.62	77	*e*Pn	Pn	01 02 57.4	

ISCJB ***16*** *01:03:22.4±0.4,40.38N±0.03×37.81E±0.03,h10^{km},Error ellipse: s-maj=5.0km s-min=3.1km az=3.8*

CSEM ***16*** *01:03:22.2±0.1,40.46N×37.87E,h20^{km},MD3.7,Error ellipse: s-maj=3.1km s-min=1.9km az=25.0*

DDA ***16*** *01:03:22.9,40.38N×37.84E,h6^{km}±2^{km},Md3.7*

ISK ***16*** *01:03:22.0,40.39N×37.81E,h17^{km},MD3.2*

ISC 16 01:03:22.7±0.4**,40.38N**±0.03×**37.84E**±0.03**,h10**^{km}**,n31,** σ1^{s}.**12**/44**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRSN	GIRESUNGRSN	0.63	31	*i* P	Pg	01 03 34.4	-0.6
GRSN				*i* S	Sg	01 03 43.7	+0.5
GRSN	GIRESUNGRSN	0.63	31	*i* P	Pg	01 03 34.3	-0.6
KELT	Kelkit	1.11	102	*i* P	Pb	01 03 42.7	-1.3
KELT				*i* S	Sg	01 03 58.0	-0.4
GUMT	Gumushane	1.25	86	*i* PN	Pn	01 03 45.4	-0.9
GUMT				*i* SN	Sn	01 04 03.3	+0.1
GUMT	Gumushane	1.25	86	*i* Sn	Sn	01 04 03.3	+0.1
GUMT	Gumushane	1.25	86	*i* Pn	Pn	01 03 45.4	-0.9
KVT	Kavak	1.53	298	PN	Pn	01 03 49.0	-1.1
KVT				SN	Sn	01 04 08.6	-1.4
KVT	Kavak	1.53	298	*e*Sn	Sn	01 04 08.6	-1.4
KVT	Kavak	1.53	298	*e*Pn	Pn	01 03 49.0	-1.1
MACK	Trabzon	1.57	69	*i* P	Pn	01 03 51.3	+0.7
MACK				*i* S	Sn	01 04 13.8	+2.9
EZC	Erzincan	1.64	112	PN	Pn	01 03 46.7	-4.9
EZC				SN	Sn	01 04 04.2	-8.6
PTK	Pertek	1.91	141	PN	Pn	01 03 55.8	+0.5
PTK	Pertek	1.91	141	*e*Pn	Pn	01 03 55.8	+0.5
YOZ	Yozgat	2.07	250	*e*PN	Pn	01 03 56.8	-0.7
YOZ	Yozgat	2.07	250	*e*Pn	Pn	01 03 56.8	-0.7
ELZG	Elazig	2.08	154	*i* P	Pn	01 03 58.4	+0.8
ELZG				*i* S	Sb	01 04 26.6	+0.2
MALT	Malatya	2.12	167	*e*PN	Pn	01 03 58.6	+0.5
MALT	Malatya	2.12	167	*e*Pn	Pn	01 03 58.6	+0.5
BNN	Bunyan	2.17	226	*e*PN	Pn	01 03 57.9	-1.0
BNN	Bunyan	2.17	226	*e*Pn	Pn	01 03 57.9	-1.0
DIKM	Dikmen	2.33	304	*e*PN	Pn	01 04 00.5	-0.5
DIKM	Dikmen	2.33	304	*e*Pn	Pn	01 04 00.5	-0.5
CTKT	Corum	2.34	277	*i* P	Pn	01 04 00.7	-0.5
CTKT				*i* S	Sn	01 04 32.1	+2.2
BOYT	Boyabat	2.46	296	*i* P	Pn	01 04 04.7	+1.9
BOYT				*i* S	Sb	01 04 37.4	+0.2
BINT	Bingol	2.54	126	*e*PN	Pn	01 04 03.9	-0.1
BINT	Bingol	2.54	126	*e*Pn	Pn	01 04 03.9	-0.1
EZM	Erzurum	2.74	99	*e*PN	Pn	01 04 06.8	+0.1
ERZM	Erzurum	2.75	99	*i* P	Pb	01 04 11.2	-0.7
ERZM				*i* S	Sg	01 04 47.0	-3.8
CDAG	Cicekdag	2.77	255	*i* P	Pn	01 04 06.1	-1.1
CDAG				*i* S	Sn	01 04 45.0	+4.4
AVNT	Avonos	2.81	236	*i* P	Pn	01 04 06.7	-1.0
AVNT				*i* S	Sn	01 04 43.9	+2.4
ARTV	Artvin	3.21	74	*i* P	Pn	01 04 16.1	+3.0
ARTV				*i* S	Sn	01 04 55.9	+4.5

SOF ***16*** *01:12:14.4,40.65N×27.72E,h10^{km},MD2.6*

ATH ***16*** *01:12:14.1,40.45N×27.86E,h35^{km}±15^{km},MD3.4/5*

ISK ***16*** *01:12:15.4,40.42N×27.62E,h15^{km},MD3.0*

NEIC ***16*** *01:12:15.0,40.42N×27.63E,h14^{km},MD3.4(ATH), MD3.0(ISK),After ISK.*

ISCJB ***16*** *01:12:15.7±0.3,40.43N±0.03×27.62E±0.02,h12^{km}±3^{km}, Error ellipse: s-maj=4.5km s-min=2.6km az=14.9*

CSEM ***16*** *01:12:15.5±0.1,40.44N×27.63E,h15^{km},MD3.0,Error ellipse: s-maj=1.5km s-min=1.1km az=8.0*

DDA ***16*** *01:12:16.0,40.42N×27.64E,h7^{km}±2^{km},Md3.0*

ISC 16 01:12:16.1±0.3**,40.42N**±0.03×**27.62E**±0.02**,h12**^{km}±3^{km}**,n75,** σ0^{s}.**73**/106**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRMT	Marmara Adasi	0.18	354	*i* PG	Pg	01 12 20.2	+0.1
MRMT				*i* SG	Sg	01 12 23.6	+0.7
MRMT	Marmara Adasi	0.18	354	*i* Pg	Pg	01 12 20.2	+0.1
MRMT				*i* Sg	Sg	01 12 23.6	+0.7
EDC	Edincik	0.20	112	*i* PG	Pg	01 12 20.4	0.0
EDC				*i* SG	Sg	01 12 24.0	+0.6
EDC	Edincik	0.20	112	*i* Pg	Pg	01 12 20.4	0.0
EDC				*i* Sg	Sg	01 12 24.0	+0.6
BNT	Bandirma	0.24	106	*i* PG	Pg	01 12 20.8	-0.3
BNT				*i* SG	Sg	01 12 24.9	+0.5
SART	Tekirdag	0.43	308	*i* P	Pg	01 12 24.6	0.0
SART				*i* S	Sg	01 12 30.3	0.0
RKY	Sarkoy-Tekirda	0.43	308	*i* PG	Pg	01 12 24.6	0.0
RKY				*i* SG	Sg	01 12 31.1	+0.8
RKY	Sarkoy-Tekirda	0.43	308	*i* Pg	Pg	01 12 24.6	0.0
RKY				*i* Sg	Sg	01 12 31.1	+0.8
KCT	Karacabey	0.58	105	*i* PG	Pg	01 12 26.7	-0.7
KCT				*i* SG	Sg	01 12 35.8	+0.7
KCT	Karacabey	0.58	105	*i* Pg	Pg	01 12 26.7	-0.7
KCT				*i* Sg	Sg	01 12 35.8	+0.7
LPK	Lapseki	0.66	266	*i* PG	Pg	01 12 29.0	+0.1
LPK	Lapseki	0.66	266	*i* Pg	Pg	01 12 29.0	+0.1
BALB	Balikesir	0.81	166	*i* PG	Pg	01 12 30.9	-0.8
BALB	Balikesir	0.81	166	*i* Pg	Pg	01 12 30.9	-0.8
CTT	Catalca	0.95	40	*i* PG	Pg	01 12 33.8	-0.6
CTT	Catalca	0.95	40	*i* Pg	Pg	01 12 33.8	-0.6
DST	Dursunbey	1.12	136	*i* PN	Pn	01 12 36.7	-0.9
DST	Dursunbey	1.12	136	*i* Pn	Pn	01 12 36.7	-0.9
EZN	Ezine	1.16	239	PN	Pn	01 12 37.4	-0.7
EZN	Ezine	1.16	239	*e*Pn	Pn	01 12 37.4	-0.7
ENEZ	Enez	1.16	286	PN	Pn	01 12 37.6	-0.5
ENEZ	Enez	1.16	286	*e*Pn	Pn	01 12 37.6	-0.5
ULDT	Uludag	1.19	103	*i* P	Pn	01 12 37.4	-1.1
ULDT				*i* S	Sb	01 12 52.5	-1.4
GEMT	Gemlik	1.20	89	PN	Pn	01 12 38.3	-0.3
GEMT	Gemlik	1.20	89	*e*Pn	Pn	01 12 38.3	-0.3
ISK	Istanbul-Kandi	1.27	59	PN	Pn	01 12 38.6	-1.0
ISK	Istanbul-Kandi	1.27	59	*e*Pn	Pn	01 12 38.6	-1.0
AYVA	Ayvalik	1.32	213	*i* P	Pn	01 12 39.9	-0.5
AYVA				*i* S	Sb	01 12 58.0	+0.3
BOZC	Bozcaada	1.34	245	*i* P	Pn	01 12 40.1	-0.4
BOZC				*i* S	Sb	01 12 57.7	-0.3
GADA	Gvkgeada	1.34	261	PN	Pn	01 12 40.4	-0.1
GADA	Gvkgeada	1.34	261	*e*Pn	Pn	01 12 40.4	-0.1
YLV	Yalova	1.34	83	PN	Pn	01 12 40.7	+0.1
YLV	Yalova	1.34	83	*e*Pn	Pn	01 12 40.7	+0.1
KLYT	Kilyos	1.36	52	PN	Pn	01 12 40.7	-0.1
KLYT	Kilyos	1.36	52	*e*Pn	Pn	01 12 40.7	-0.1
IZI	Iznik	1.42	93	PN	Pn	01 12 41.0	-0.6
IZI	Iznik	1.42	93	*e*Pn	Pn	01 12 41.0	-0.6
AKS	Akhisar	1.55	174	*e*PN	Pn	01 12 43.9	+0.5
AKS	Akhisar	1.55	174	*e*Pn	Pn	01 12 43.9	+0.5
PRK	Paraskevi	1.57	222	*e*Pn	Pn	01 12 43.4	-0.3
PRK				*e*Sn	Sn	01 13 04.5	+0.6
PRK	Paraskevi	1.57	222	*e*PN	Pn	01 12 43.4	-0.3
PRK				*e*SN	Sn	01 13 04.5	+0.6
PRK	Paraskevi	1.57	222	*e*Pn	Pn	01 12 43.4	-0.3
PRK				*e*Sn	Sn	01 13 04.5	+0.6
EDRB	Edirne	1.57	335	PN	Pn	01 12 43.7	0.0
EDRB	Edirne	1.57	335	*e*Pn	Pn	01 12 43.7	0.0
HRT	Hereke	1.61	75	*e*PN	Pn	01 12 44.1	-0.1
HRT	Hereke	1.61	75	*e*Pn	Pn	01 12 44.1	-0.1

ADVT	Abdulvahap	1.61	89	*e*PN	Pn	01 12 44.7	+0.3
ADVT	Abdulvahap	1.61	89	*e*Pn	Pn	01 12 44.7	+0.3
RDO	Rodhopi	1.74	295	*e*Pn	Pn	01 12 45.9	-0.2
RDO				*e*Sn	Sn	01 13 09.3	+1.1
RDO	Rodhopi	1.74	295	*e*PN	Pn	01 12 45.9	-0.2
RDO				*e*SN	Sn	01 13 09.3	+1.1
RDO	Rodhopi	1.74	295	*e*Pn	Pn	01 12 45.9	-0.2
RDO				*e*Sn	Sn	01 13 09.3	+1.1
LIA	Limnos Island	1.94	255	*e*Pb	Pb	01 12 51.5	+0.2
LIA				*e*Sn	Sn	01 13 15.0	+1.9
LIA	Limnos Island	1.94	255	*e*PB	Pb	01 12 51.5	+0.2
LIA				*e*SN	Sn	01 13 15.0	+1.9
LIA	Limnos Island	1.94	255	*e*Pb	Pb	01 12 51.5	+0.2
LIA				*e*Sn	Sn	01 13 15.0	+1.9
GDZ	Gediz	1.96	132	*i* P	Pn	01 12 49.9	+0.8
GDZ				*i* S	Sn	01 13 16.0	+2.5
KDZ	Kurdzhali	2.07	307	*i* P	Pn	01 12 50.3	-0.3
BLCB	Balcova	2.08	193	*e*PN	Pn	01 12 51.0	+0.2
BLCB	Balcova	2.08	193	*e*Pn	Pn	01 12 51.0	+0.2
GULT	Gulveren	2.21	89	*e*PN	Pn	01 12 52.4	-0.1
GULT	Gulveren	2.21	89	*e*Pn	Pn	01 12 52.4	-0.1
BORA	Eskisehir	2.24	103	*i* P	Pn	01 12 52.6	-0.3
BORA				*i* S	Sn	01 13 21.4	+1.0
HENT	Hendek	2.53	80	*i* P	Pn	01 12 57.2	+0.4
HENT				*i* S	Sn	01 13 32.5	+4.9
HENT	Hendek	2.53	80	*i* P	Pn	01 12 57.2	+0.3
HENT				*i* S	Sn	01 13 32.5	+4.9
RZN	Rozhen	2.54	301	*i* P	Pn	01 12 56.9	-0.1
ESKT	Eskisehir	2.64	109	*e*PN	Pn	01 12 57.9	-0.5
ESKT	Eskisehir	2.64	109	*i* P	Pn	01 12 59.4	+1.0
ESKT				*i* S	Sn	01 13 32.3	+2.0
ESKT	Eskisehir	2.64	109	*e*Pn	Pn	01 12 57.9	-0.5
SEYT	Eskypehyr	2.64	109	*i* P	Pn	01 12 59.4	+1.0
SEYT				*i* S	Sn	01 13 32.3	+2.0
SMG	Samos	2.78	193	*e*Pn	Pn	01 12 59.4	-0.9
SMG				*e*Sn	Sn	01 13 33.0	-0.8
SMG	Samos	2.78	193	*e*PN	Pn	01 12 59.4	-0.9
SMG				*e*SN	Sn	01 13 33.0	-0.8
SMG	Samos	2.78	193	*e*Pn	Pn	01 12 59.4	-0.9
SMG				*e*Sn	Sn	01 13 33.0	-0.8
NVR	Nevrokopi	3.00	289	*e*Pn	Pn	01 13 03.5	+0.2
NVR	Nevrokopi	3.00	289	*e*PN	Pn	01 13 03.5	+0.2
NVR	Nevrokopi	3.00	289	*e*Pn	Pn	01 13 03.5	+0.2
MMB	Musomiste	3.17	293	P	Pn	01 13 04.6	-1.1

IDC ***16*** *01:15:22.9±0.5, 54.96S×26.46W, h0^{km}, mb4.8/12, mb1 4.8/13, mb1mx4.7/17, mbtmp4.8/13, ML4.3/1, MS4.2/12, Ms1 4.2/12, ms1mx4.2/15, Error ellipse: s-maj=18.5km s-min=17.6km az=41.0*

MOS ***16*** *01:15:26.9±1.1, 55.04S×26.44W, h33^{km}, mb5.3/8, Error ellipse: s-maj=26.4km s-min=14.5km az=106.2*

ISCJB ***16*** *01:15:26.9±0.4, 55.02S±0.07×26.6W±0.1, h35^{km}, mb4.9/20, MS4.5/18, Error ellipse: s-maj=10.7km s-min=8.4km az=17.7*

BJI ***16*** *01:15:27.1, 55.00S×26.50W, h35^{km}, mB5.3, Ms5.1, Msz4.9*

NEIC ***16*** *01:15:28.2±0.2, 55.03S×26.46W, h35^{km}, mb5.1/14, MS5.0/1, Error ellipse: s-maj=9.2km s-min=7.6km az=209.0*

GCMT ***16*** *01:15:28.2±0.3, 55.08S×26.34W, h20^{km}±1^{km}, MW5.1/55, Moment Tensor Solution. s27,c37; s55,c82; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.32±.28; $M_{\theta\theta}$5.64±.22; $M_{\phi\phi}$-3.32±.23; $M_{r\theta}$0.52±.39; $M_{\theta\phi}$-2.32±.17; $M_{\phi r}$-0.55±.45; Best double couple: $M_0$5.12000×10^{16} NP1:ϕ_s59.00000°,δ77.00000°,λ-173.00000°. NP2: ϕ_s328.00000°,δ83.00000°,λ-13.00000°. Principal axes: T 6.2520, Plg4.0000°, Azm14.0000°; N -2.2640, Plg75.0000°, Azm120.0000°; P -3.9880, Plg14.0000°, Azm283.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 16 01:15:24.0±6.1**, 55.01S**±0.08×**26.5W**±0.1**, h3**^{km}±38^{km}**, n147, σ0^{s}77**/45**, mb5.0**/19**, MS4.5**/18**, 4C, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOPE	Hope Point	5.85	273	Pn	Pn	01 16 51.7	+0.2
	1µm,0.5s,SNR=26						
EFI	East Falkland	19.06	267	*e*P	Pn	01 19 47.5	-0.3
	95nm,0.9s						
EFI	East Falkland	19.06	267	*e*P	Pn	01 19 47.5	-0.3
EFI				pmax	pmax		
	comp=Z,95nm,0.9s						
SNAA	Sanae	19.54	158	P	Pn	01 19 52.7	-0.7
SNAA				S	Sn	01 23 19.3	-14
SNAA	Sanae	19.54	158	P	Pn	01 19 52.7	-0.8
	comp=Z,0.9nm,0.3s,baz=320,slow=9.2,SNR=40						
SNAA				S	Sn	01 23 19.3	-14
	comp=Z,0.1nm,0.3s,baz=182,slow=22,SNR=2.1						
SNAA				LR	LR	01 25 53.1	
	comp=Z,347nm,18.3s,baz=228,slow=32						
PMSA	Palmer Station	20.89	227	P	P	01 20 07.0	+0.1
	comp=Z,43nm,0.7s,baz=67,slow=7.3,SNR=9.7						
PMSA				LR	LR	01 26 33.1	
	comp=Z,540nm,18.6s,MS4.0,baz=104,slow=32						
MAIT	Maitri	22.90	148	*e*P	P	01 20 32.2	+3.9
MAIT				*e*pP		01 20 44.2	
NVL	N’lazarevskaya	22.93	148	⇑*i*P	P	01 20 36.2	+7.6
NVL				pmax	pmax		
	comp=N,29nm,1.2s						
NVL				pmax	pmax		
	comp=E,28nm,1.2s						
NVL				pmax	pmax		
	comp=Z,39nm,1.2s,mb4.7						
USHA	Ushuaia	23.85	253	P	P	01 20 37.3	-0.8
	comp=Z,14nm,0.9s,mb4.4,baz=68,slow=12,SNR=4.7						
QSPA	South Pole Qui	35.24	180	*e*P	P	01 22 19.3	+0.3
	comp=Z,44nm,0.6s,mb5.6						
SUR	Sutherland	39.99	75	P	P	01 23 01.0	+1.4
SUR	Sutherland	39.99	75	P	P	01 22 59.6	0.0
	comp=Z,14nm,0.9s,mb4.7,baz=218,slow=4.9,SNR=3.8						
MAW	Mawson	40.75	144	*e*P	P	01 23 06.0	+0.5
	comp=Z,27nm,0.6s,mb5.0						
MAW	Mawson	40.75	144	*e*P	P	01 23 06.1	+0.6
MAW				pmax	pmax		
	comp=Z,27nm,0.6s						
MAW	Mawson	40.75	144	P	P	01 23 05.6	+0.1
	comp=Z,9.6nm,0.7s,mb4.5,baz=240,slow=7.6,SNR=11						
MAW				LR	LR	01 37 29.1	
	comp=Z,486nm,20.3s,MS4.3,baz=254,slow=32						
LCO	Las Campanas	40.89	291	*e*P	P	01 23 05.4	-1.7
	comp=Z,33nm,1.2s,mb4.8						
BOSA	Boshof	45.33	76	P	P	01 23 42.5	-0.6
	comp=Z,8.9nm,0.8s,mb4.6,baz=208,slow=4.7,SNR=11						
BOSA				LR	LR	01 40 24.2	
	comp=Z,396nm,18.9s,MS4.4,baz=218,slow=33						
VNDA	Vanda	47.63	182	*e*P	P	01 24 01.1	+0.6
	comp=Z,16nm,0.8s,mb5.1						
VNDA	Vanda	47.63	182	*e*P	P	01 24 01.1	+0.6
VNDA				pmax	pmax		
	comp=Z,16nm,0.8s						
VNDA	Vanda	47.63	182	P	P	01 24 00.2	-0.3
	comp=Z,15nm,0.7s,mb5.1,baz=188,slow=7.6,SNR=29						
VNDA				LR	LR	01 42 57.8	
	comp=Z,332nm,19.1s,MS4.3,baz=159,slow=35						
LBTB	Lobatse	48.33	73	*e*P	P	01 24 06.9	+0.4
	comp=Z,14nm,0.8s,mb5.0						
LBTB	Lobatse	48.33	73	*e*P	P	01 24 06.9	+0.4
LBTB				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
TSUM	Tsumeb	48.83	61	*e*P	P	01 24 10.8	+0.4
	comp=Z,16nm,1.4s,mb4.9						
LPAZ	La Paz	50.12	304	*e*P	P	01 24 21.8	+1.5
LPAZ	La Paz	50.12	304	P	P	01 24 21.6	+1.4
	comp=Z,35nm,0.8s,mb5.5,baz=148,slow=5.9,SNR=104						
LPAZ				LR	LR	01 46 05.6	
	comp=Z,149nm,18.7s,MS4.0,baz=294,slow=37						
ARE	Arequipa	51.61	300	*e*P	P	01 24 33.0	+1.5
NNA	Nana	58.11	297	*e*P	P	01 25 19.4	+0.7
OTAV	Otavalo	69.42	303	*e*P	P	01 26 34.3	+1.1
	comp=Z,40nm,1.4s,mb5.2						
ROSC	El Rosal	71.55	309	P	P	01 26 46.5	+0.3
	comp=Z,7.3nm,0.8s,mb4.6,baz=71,slow=21,SNR=7.2						
ROSC				LR	LR	01 58 47.5	
	comp=Z,140nm,19.2s,MS4.2,baz=12,slow=36						
TOA0	Torodi Ar. Sit	71.95	29	*e*P	P	01 26 48.0	-0.5
TOA0				*e*		01 27 01.9	
TORD	Torodi Ar. Bea	71.95	29	P	P	01 26 47.7	-0.8
TORD				LR	LR	01 51 02.9	
TORD	Torodi Ar. Bea	71.95	29	P	P	01 26 47.7	-0.8
	comp=Z,13nm,0.8s,mb4.9,baz=198,slow=6.1,SNR=75						
TORD				LR	LR	01 51 02.8	
	comp=Z,221nm,21.0s,MS4.4,baz=190,slow=30						
KMBO	Kilima Mbogo	74.29	69	LR	LR	01 57 48.7	
	comp=Z,254nm,18.1s,MS4.5,baz=125,slow=34						
HUMP	Col San Antoni	80.18	322	*e*P	P	01 27 34.9	-0.4
SJG	San Juan	80.26	322	*e*P	P	01 27 34.9	-0.9
	comp=Z,29nm,1.0s,mb5.2						
SJG	San Juan	80.26	322	*e*P	P	01 27 34.9	-0.9
SJG				pmax	pmax		
	comp=Z,29nm,1.0s						
CBYP	Canovanas	80.31	322	*e*P	P	01 27 35.7	-0.3
JTS	JuntasAbangare	81.29	302	*e*P	P	01 27 41.5	+0.1
JTS	JuntasAbangare	81.29	302	*i* P	P	01 27 40.3	-1.1
TAU	Tasmania Unive	82.31	175	*e*P	P	01 27 46.6	+0.1
	comp=Z,76nm,1.1s,mb5.5						
TAU	Tasmania Unive	82.31	175	*e*P	P	01 27 46.6	+0.1
TAU				pmax	pmax		
	comp=Z,76nm,1.1s,mb5.5						
SDDR	Presa de Saban	82.97	318	*e*P	P	01 27 49.6	-0.4
	comp=Z,21nm,1.3s,mb5.0						
NWAO	Narrogin (SRO)	87.04	150	P	P	01 28 09.9	-0.6
	comp=Z,9.9nm,1.0s,mb5.0,baz=259,slow=16,SNR=3.3						
STKA	Stephens Creek	92.86	170	P	P	01 28 38.4	+0.5
	comp=Z,2.0nm,0.7s,mb4.7,baz=133,slow=11,SNR=6.8						
STKA				LR	LR	02 11 50.2	
	comp=Z,270nm,18.0s,MS4.7,baz=205,slow=36						
KEST	Kesra	95.47	29	LR	LR	02 06 53.9	
	comp=Z,54nm,19.0s,MS4.0,baz=214,slow=32						
ESDC	Sonseca Array	96.27	17	LR	LR	02 03 55.6	
	comp=Z,128nm,21.7s,MS4.4,baz=260,slow=30						
ASAR	Alice Springs	99.86	162	P	Pdif	01 29 08.8	-1.1
	comp=Z,1.4nm,0.6s,baz=190,slow=4.1,SNR=17						
WRA	Warramunga Arr	103.57	161	Pdif	Pdif	01 29 25.7	-0.7
WRA	Warramunga Arr	103.57	161	Pdiff	Pdif	01 29 25.7	-0.7
	comp=Z,0.6nm,0.7s,baz=194,slow=4.2,SNR=5.7						
ANN	Anapa	113.19	44	*i* PKIKP	PKiKP	01 33 57.5	-4.3
ANN				pmax	pmax		
	comp=Z,32nm,1.3s						
KONO	Kongsberg	117.89	20	⇑*i*PKIKP	PKPdf	01 34 05.3	-5.1
MSU	Marysvale	118.23	297	*e*PKPdf	PKPdf	01 34 12.4	+0.7
MSU	Marysvale	118.23	297	*e*PKIKP	PKPdf	01 34 12.4	+0.7
ULM	Lac du Bonnet	119.77	316	PKP	PKPdf	01 34 11.5	-2.8
ULM	Lac du Bonnet	119.77	316	PKP	PKPdf	01 34 11.5	-2.8
	comp=Z,1.5nm,0.7s,baz=153,slow=11,SNR=4.2						
DUG	Dugway	119.82	298	*e*PKPdf	PKPdf	01 34 14.6	-0.1
DUG	Dugway	119.82	298	*e*PKIKP	PKPdf	01 34 14.6	-0.1
PDAR	Pinedale Array	120.12	302	PKP	PKPdf	01 34 13.2	-2.1
PDAR	Pinedale Array	120.12	302	PKP	PKPdf	01 34 13.2	-2.1
	comp=Z,0.6nm,0.6s,baz=144,slow=6.7,SNR=4.6						
HWUT	Hardware Ranch	120.24	300	*e*PKPdf	PKPdf	01 34 15.1	-0.4
LOHW	Long Hollow	121.26	302	*e*PKPdf	PKPdf	01 34 16.9	-0.5
OBN	Obninsk	121.27	37	*i* PKIKP	PKPdf	01 34 14.7	-2.3
OBN				pmax	pmax		
	comp=Z,6.0nm,1.0s						
OBN				MLR	MLR		
	comp=Z,100nm,16.0s,MS4.5						
MOOW	Moose Ponds	121.43	302	*e*PKPdf	PKPdf	01 34 17.6	-0.1
CMB	Columbia Colle	122.17	291	*e*PKPdf	PKPdf	01 34 18.7	-0.6
CMB	Columbia Colle	122.17	291	*e*PKIKP	PKPdf	01 34 18.7	-0.6
BMN	Battle Mountai	122.26	296	*e*PKPdf	PKPdf	01 34 18.9	-0.5
BMN	Battle Mountai	122.26	296	*e*PKIKP	PKPdf	01 34 18.9	-0.5
HLID	Hailey	123.11	300	*e*PKPdf	PKPdf	01 34 19.9	-1.1
FINES	FINESS Array B	123.27	27	PKP	PKPdf	01 34 19.1	-1.6
FINES	FINESS Array B	123.27	27	PKIKP	PKPdf	01 34 19.1	-1.6
FINES	FINESS Array B	123.27	27	PKP	PKPdf	01 34 19.1	-1.6
	comp=Z,1.3nm,0.6s,baz=150,slow=2.1,SNR=10						
KAF	Kangasniemi	123.89	27	*e*PKIKP	PKPdf	01 34 19.6	-2.2
KAF				pmax	pmax		
	comp=Z,8.0nm,0.9s						
WVOR	Wild Horse Val	124.44	296	*e*PKPdf	PKPdf	01 34 21.5	-2.0
WVOR	Wild Horse Val	124.44	296	*e*PKIKP	PKPdf	01 34 21.5	-2.0
JOF	Joensuu	125.89	29	*e*PKIKP	PKPdf	01 34 24.1	-1.5
JOF				pmax	pmax		
	comp=Z,3.0nm,0.8s						
AML	Almayashu	128.47	69	*e*PKPdf	PKPdf	01 34 30.7	-0.5
UCH	Uchtor	128.97	70	*e*PKPdf	PKPdf	01 34 31.4	-0.8
AAK	Ala-Archa	129.24	69	*e*PKPdf	PKPdf	01 34 31.4	-1.3
AAK	Ala-Archa	129.24	69	⇑*i*PKIKP	PKPdf	01 34 32.0	-0.7
PRGR	Permogore	129.33	36	*e*PKIKP	PKPdf	01 34 31.5	-0.7
EDM	Edmonton	129.36	309	*e*PKPdf	PKPdf	01 34 32.0	-0.6
EDM	Edmonton	129.36	309	*e*PKIKP	PKPdf	01 34 32.0	-0.6
LSA	Lhasa	129.45	93	*e*PKPdf	PKPdf	01 34 34.0	+0.5
LSA	Lhasa	129.45	93	*e*PKIKP	PKPdf	01 34 34.0	+0.5
ARCES	ARCESS Array B	129.83	21	PKP	PKPdf	01 34 31.9	-1.0
ARCES	ARCESS Array B	129.83	21	PKIKP	PKPdf	01 34 32.0	-1.0
ARCES	ARCESS Array B	129.83	21	PKP	PKPdf	01 34 31.9	-1.0
	comp=Z,9.2nm,0.8s,baz=209,slow=2.2,SNR=22						
ARU	Arti	130.70	47	*e*PKPdf	PKPdf	01 34 34.7	-0.3
ARU				*e*		01 34 48.4	
ARU	Arti	130.70	47	*i* PKIKP	PKPdf	01 34 33.2	-1.8
KMI	Kunming	132.48	108	PKP	PKPdf	01 34 43.5	+4.1
KMI	Kunming	132.48	108	PKIKP	PKPdf	01 34 43.5	+4.1
BRVK	Borovoye	133.85	56	*e*PKPdf	PKPdf	01 34 39.5	-1.6
BRVK	Borovoye	133.85	56	*e*PKIKP	PKPdf	01 34 39.5	-1.5
YKA	Yellowknife Ar	135.66	318	PKP	PKPdf	01 34 42.1	-2.0
YKA	Yellowknife Ar	135.66	318	PKIKP	PKPdf	01 34 42.1	-2.0
YKA	Yellowknife Ar	135.66	318	PKP	PKPdf	01 34 42.1	-2.0
	comp=Z,4.6nm,0.7s,baz=120,slow=1.9,SNR=7.1						
MK31	Makanchi Array	136.16	70	PKPdf	PKPdf	01 34 44.0	-1.6
MK31	Makanchi Array	136.16	70	PKIKP	PKPdf	01 34 44.0	-1.6
MKAR	Makanchi Array	136.16	70	PKP		01 34 35.3	
MKAR				PKP	PKPdf	01 34 44.8	-0.8
MKAR	Makanchi Array	136.16	70	PKHKP		01 34 35.3	
MKAR						01 34 44.8	
MKAR	Makanchi Array	136.16	70	PKhKP		01 34 35.3	
	comp=Z,0.3nm,0.7s,baz=248,slow=3.6,SNR=4.0						
MKAR				PKP	PKPdf	01 34 44.8	-0.8
	comp=Z,1.1nm,0.6s,baz=269,slow=1.9,SNR=11						
KURK	Kurchatov	136.59	63	⇑*i*PKIKP	PKPdf	01 34 46.7	+0.5
WMQ	Urumqi	137.29	77	*e*PKP	PKPdf	01 34 49.0	+1.2
WMQ				LR	LR		
	comp=N,71nm,18.6s,MS4.6						
WMQ				LR	LR		
	comp=E,61nm,18.0s,MS4.6						
WMQ				LR	LR		
	comp=Z,59nm,18.0s,MS4.4						
CD2	Chengdu	137.53	104	*e*PKP	PKPdf	01 34 49.0	+0.3
CD2				XPKP		01 34 58.0	
CD2				PP	PP	01 37 39.0	+4.0
CD2				PKS		01 38 23.8	
CD2				SKS	SKSdf	01 41 54.3	-5.7
CD2				SKKS	SKKSac	01 44 25.8	-4.1
CD2				SS	SS	01 55 42.8	-1.0
CD2				PP	PP		
	comp=Z,80nm,10.2s						
CD2				LR	LR		
	comp=E,160nm,16.8s						
CD2				LR	LR		
	comp=Z,160nm,15.6s,MS4.9						
NVS	Novosibirsk	141.19	60	*e*PKIKP	PKPdf	01 34 51.9	-2.6
NVS				pmax	pmax		
	comp=Z,22nm,1.8s						
GTA	Gaotai	141.36	91	*e*PKP	PKPdf	01 34 55.3	-0.1
GTA				PP	PP	01 38 02.6	+4.0
GTA				PKS		01 38 29.6	
GTA				PPP		01 41 10.9	
GTA				SKS	SKSdf	01 42 03.3	-2.6
GTA				PP	PP		
	comp=Z,162nm,8.7s						
GTA				LR	LR		
	comp=N,107nm,16.7s,MS4.8						
GTA				LR	LR		
	comp=E,74nm,16.0s,MS4.8						
GTA				LR	LR		
	comp=Z,101nm,16.0s,MS4.7						
LZH	Lanzhou	141.38	98	*e*PKP	PKPdf	01 34 51.5	-4.0
LZH				PP	PP	01 37 58.8	0.0
LZH				SKKS	SKKSac	01 44 41.3	-11
LZH				SS	SS	01 56 22.3	-6.8
LZH				PP	PP		
	comp=Z,70nm,5.0s						
LZH				LR	LR		
	comp=E,189nm,18.9s						
LZH				LR	LR		
	comp=Z,256nm,20.1s,MS5.0						
LZH	Lanzhou	141.38	98	*e*PKP	PKPdf	01 34 51.5	-4.0
LZH				pPKP	pPKPdf	01 34 54.7	-1.9
LZH				sPKP		01 34 56.0	
LZH				PP	PP	01 37 58.7	-0.1
LZH				SKKS	SKKSac	01 44 41.2	-11
LZH				SS	SS	01 56 22.3	-6.8
LZH				LR	LR		
	comp=Z,260nm,20.1s,MS5.0						
LZH	Lanzhou	141.38	98	*e*PKIKP	PKPdf	01 34 51.5	-4.0
LZH						01 34 56.0	
LZH						01 37 58.7	
LZH				SS	SS	01 56 22.3	-6.8
LZH				MLR	MLR		
	comp=Z,260nm,20.1s,MS5.0						
ZAL	Zalesovo	141.53	62	PKHKP		01 34 46.5	
ZAL						01 34 52.3	
ZALV	Zalesovo Beam	141.54	62	PKP		01 34 46.5	
ZALV				PKP	PKPdf	01 34 52.3	-2.9
ZALV	Zalesovo Beam	141.54	62	PKhKP		01 34 46.5	
	comp=Z,0.8nm,0.5s,baz=244,slow=3.9,SNR=5.4						
ZALV				PKP	PKPdf	01 34 52.3	-2.8
	comp=Z,1.0nm,0.5s,baz=204,slow=3.2,SNR=6.2						
XAN	Xi’an	142.76	106	PKP	PKPdf	01 34 54.3	-3.7
INK	Inuvik	145.24	321	*e*PKPdf	PKPdf	01 35 01.1	-0.2
INK	Inuvik	145.24	321	*e*PKIKP	PKPdf	01 35 01.1	-0.2
DAWY	Dawson	146.38	313	*e*PKP	PKPdf	01 35 04.2	+0.8
NJ2	Nanjing	146.52	119	*e*PKP	PKPdf	01 35 00.8	-3.8
EGAK	Eagle	147.31	314	*e*PKP	PKPdf	01 35 06.6	+1.7
BTO	Baotou	148.01	98	*e*PKP	PKPdf	01 35 03.3	-3.5
EYAK	Cordova Ski Ar	148.19	305	*e*PKP	PKPbc	01 35 10.3	+0.6
TIA	Tai’an	148.85	112	*e*PKP	PKPdf	01 35 11.8	+3.5
HHC	Hu-ho-hao-te	149.05	100	*e*PKP	PKPdf	01 35 08.1	-0.4
HHC				PKS		01 38 41.8	
HHC				PP	PP	01 38 47.4	+3.0
HHC				SKS	SKSdf	01 42 15.1	-2.0
HHC				SKKS	SKKSac	01 45 36.3	+0.6
HHC				PP	PP		
	comp=Z,59nm,5.0s						
HHC				LR	LR		
	comp=N,157nm,51.2s,MS4.7						
HHC				LR	LR		
	comp=E,245nm,50.3s,MS4.7						
HHC				LR	LR		
	comp=Z,141nm,49.3s,MS4.4						
MOY	Mondy	149.07	74	*e*PKP2	PKPbc	01 35 12.5	+0.2
MOY				pmax	pmax		
	comp=Z,52nm,2.2s						
SML	Sawmill	149.74	307	*e*PKPbc	PKPbc	01 35 13.3	-0.4
SML	Sawmill	149.74	307	*e*PKP2	PKPbc	01 35 13.3	-0.3
ZAK	Zakamensk	149.75	78	*e*PKP2	PKPbc	01 35 12.9	-1.1
ZAK				pmax	pmax		
	comp=Z,9.0nm,1.1s						
COLA	College	150.13	313	*e*PKPbc	PKPbc	01 35 11.1	-3.4
COLA	College	150.13	313	*e*PKIKP	PKPdf	01 35 11.1	+1.7
SONM	Songino Array	150.24	84	PKP	PKPdf	01 35 09.1	-1.1
SONM				PKPbc	PKPbc	01 35 14.7	-0.7
SONM	Songino Array	150.24	84	PKIKP	PKPdf	01 35 09.1	-1.1
SONM						01 35 14.7	
SONM	Songino Array	150.24	84	PKP	PKPdf	01 35 09.1	-1.1
	comp=Z,1.4nm,0.8s,baz=212,slow=2.0,SNR=11						
SONM				PKPbc	PKPbc	01 35 14.7	-0.7
	comp=Z,4.4nm,0.6s,baz=222,slow=3.6,SNR=41						
MCK	McKinley	150.41	310	*e*PKPdf	PKPdf	01 35 07.6	-2.4
MCK				*e*PKPbc	PKPbc	01 35 15.3	+0.1
MCK	McKinley	150.41	310	*e*PKIKP	PKPdf	01 35 07.6	-2.3
MCK				*e*		01 35 15.4	
TLY	Talaya	150.55	76	*e*PKPdf	PKPdf	01 35 09.3	-1.2
TLY				*e*PKPbc	PKPbc	01 35 15.1	-0.8
TLY	Talaya	150.55	76	*e*PKIKP	PKPdf	01 35 09.3	-1.2
TLY				*e*		01 35 15.1	
ULN	Ulaanbaatar	150.64	85	*e*PKPdf	PKPdf	01 35 06.7	-4.1
ULN				*e*PKPbc	PKPbc	01 35 15.5	-0.7
ULN	Ulaanbaatar	150.64	85	*e*PKIKP	PKPdf	01 35 06.7	-4.1
ULN				*e*		01 35 15.5	
BJT	Baijiatuau	151.07	106	*e*PKPdf	PKPdf	01 35 10.2	-1.5
BJT				*e*PKPbc	PKPbc	01 35 17.2	-0.3
BJT	Baijiatuau	151.07	106	*e*PKIKP	PKPdf	01 35 10.2	-1.5
BJT				*e*		01 35 17.3	
BJI	Beijing	151.09	106	P	PKPbc	01 35 16.9	-0.7
BJI	Beijing	151.09	106	PKIKP	PKPbc	01 35 16.9	-0.7
IMA2	Indian Mountai	152.67	315	*e*PKPbc	PKPbc	01 35 20.2	-0.1
KSRS	Korea Array	155.29	125	PKPab	PKPab	01 35 42.0	-1.0
	comp=Z,2.7nm,1.0s,baz=214,slow=1.3,SNR=3.2						
CIT	Chita	156.28	81	*e*PKP2	PKPab	01 35 40.8	-6.2
CN2	Changchun	158.72	110	*e*PKP	PKPdf	01 35 20.8	-1.3
CN2				PP	PP	01 39 40.5	+1.7
CN2				LR	LR		
	comp=N,400nm,15.0s,MS5.6						
CN2				LR	LR		
	comp=E,500nm,15.0s,MS5.6						
CN2				LR	LR		
	comp=Z,400nm,18.0s,MS5.3						
MDJ	Mudanjiang	161.48	114	PKP	PKPdf	01 35 24.9	-0.2
MDJ				LR	LR		
	comp=N,30nm,30.9s						
MDJ				LR	LR		
	comp=E,32nm,32.1s						
MDJ				LR	LR		
	comp=Z,43nm,28.3s						
BILL	Bilibino	165.63	340	*e*PKP2	PKPab	01 36 27.7	+0.4
BILL				pmax	pmax		
	comp=Z,16nm,1.6s						

ISK ***16*** *01:34:55.5, 40.77N×34.83E, h10^{km}, MD2.8*

CSEM ***16*** *01:34:55.4±0.1, 40.77N×34.83E, h10^{km}, MD2.7, Error ellipse: s-maj=2.0km s-min=1.6km az=148.0*

ISCJB ***16*** *01:34:56.3±0.6, 40.78N±0.04×34.84E±0.05, h8^{km}±6^{km}, Error ellipse: s-maj=7.1km s-min=5.1km az=38.9*

DDA ***16*** *01:34:58.9, 40.77N×34.72E, h7^{km}±3^{km}, Md2.7*

ISC 16 01:34:56.9±0.5**, 40.77N**±0.03×**34.83E**±0.05**, h16**^{km}±5^{km}**, n19, σ1^{s}02**/29**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTKT	Corum	0.14	191	*i* P	Pg	01 35 01.2	+0.4
CTKT				*i* S	Sg	01 35 05.1	+1.7
CORM	Corum	0.61	194	PG	Pg	01 35 06.9	-1.9
CORM				SG	Sg	01 35 16.8	0.0
CORM	Corum	0.61	194	*e*Pg	Pg	01 35 06.9	-1.9
CORM				*e*Sg	Sg	01 35 16.8	0.0
BOYT	Boyabat	0.66	5	*i* P	Pg	01 35 10.5	+0.8
BOYT				*i* S	Sg	01 35 21.2	+2.7
BOYT	Boyabat	0.66	5	*i* P	Pg	01 35 10.5	+0.7
BOYT				*i* S	Sg	01 35 21.2	+2.7
TOS	Tosya	0.67	294	PG	Pg	01 35 09.1	-0.8
TOS	Tosya	0.67	294	*e*Pg	Pg	01 35 09.1	-0.8
CANT	Cankiri	0.93	261	PG	Pg	01 35 13.8	-1.1
DIKM	Dikmen	0.94	20	PG	Pg	01 35 13.7	-1.4
DIKM	Dikmen	0.94	20	*e*Pg	Pg	01 35 13.7	-1.4
KVT	Kavak	0.98	71	PG	Pg	01 35 14.7	-1.1
KVT				SG	Sg	01 35 28.6	0.0
KVT	Kavak	0.98	71	*e*Pg	Pg	01 35 14.7	-1.1
KVT				*e*Sg	Sg	01 35 28.6	0.0
ELDT	Eldivan	1.10	256	*i* P	Pb	01 35 17.9	+0.4
ELDT				*i* S	Sb	01 35 31.3	-0.3
YOZ	Yozgat	1.19	161	PN	Pn	01 35 19.1	+0.3
YOZ	Yozgat	1.19	161	*e*Pn	Pn	01 35 19.1	+0.3
CDAG	Cicekdag	1.19	197	*i* P	Pn	01 35 20.1	+1.2
CDAG				*i* S	Sb	01 35 39.9	+5.6
BALT	Daday	1.33	306	*i* P	Pn	01 35 20.8	0.0
BALT				*i* S	Sn	01 35 38.8	+0.6
KAMT	Kaman	1.64	212	PN	Pn	01 35 24.9	-0.1
KAMT	Kaman	1.64	212	*e*Pn	Pn	01 35 24.9	-0.1

IDC 16 01:42:02.8±1.3**, 28.00N**×**87.64E, h0**^{km}**, mb3.6**/6**, mb1 3.7**/7**, mb1mx3.5**/22**, mbtmp3.5**/7**, ML3.1**/1**, MS3.7**/1**, Ms1 3.8**/1**, ms1mx2.4**/25**, Error ellipse: s-maj=57.2km s-min=18.7km az=63.0, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHL	Shillong	4.50	122	*e*PN	Pn	01 43 18.0	+5.8
SHL				*e*SN	Sn	01 44 08.5	+3.2
MKAR	Makanchi Array	19.22	349	P	Pn	01 46 30.1	+0.9
	0.1nm,0.3s,baz=174,slow=10,SNR=6.3						
SONM	Songino Array	24.60	31	P	P	01 47 24.6	+0.1
	0.3nm,0.3s,baz=220,slow=10,SNR=6.5						
ZALV	Zalesovo Beam	26.00	356	P	P	01 47 36.6	-0.6
	0.3nm,0.3s,baz=165,slow=12,SNR=2.5						
FINES	FINESS Array B	52.27	328	P	P	01 51 15.1	-0.5
	1.9nm,1.1s,baz=107,slow=6.4,SNR=3.4						
ARCES	ARCESS Array B	54.37	338	P	P	01 51 30.9	+0.1
	0.8nm,0.8s,baz=103,slow=6.9,SNR=8.1						
NOA	NORSAR Array B	59.40	327	LR	LR	02 20 13.2	
	comp=Z,62nm,18.4s,baz=265,slow=39						
WRA	Warramunga Arr	65.66	131	P	P	01 52 49.2	+0.1
	0.5nm,0.4s,baz=326,slow=6.5,SNR=20						
ASAR	Alice Springs	68.03	134	P	P	01 53 04.3	+0.2
	0.6nm,0.5s,baz=317,slow=6.0,SNR=12						

*TEH **16** 02:44:54.2, 29.05N×51.44E, h14^{km}, ML3.8*
*IDC **16** 02:45:14.2±0.9, 29.00N×51.34E, h0^{km}, mb3.7/13, mb1 3.8/15, mb1mx3.7/26, mbtmp3.7/15, ML3.3/2, Error ellipse: s-maj=24.6km s-min=18.5km az=24.0*
*KISR **16** 02:45:16.8±0.8, 29.17N×51.07E, h34^{km}±110^{km}, ML3.3*
*MOS **16** 02:45:17.9±1.4, 28.99N×51.25E, h37^{km}, mb3.9/5, Error ellipse: s-maj=15.4km s-min=11.5km az=107.8*
*NEIC **16** 02:45:17.7±3.3, 28.97N×51.30E, h23^{km}±23^{km}, mb3.8/1, MN3.7(TEH), Error ellipse: s-maj=17.1km s-min=7.7km az=180.0*
CSEM 16 02:45:18.3±0.1**, 29.07N×51.43E, h30^{km}, mb3.8**/3**, Ms3.9, 5D, Error ellipse: s-maj=1.8km s-min=1.2km az=174.0, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NAZ	Nazwa, Dubai	0.64	129	P		02 46 41.8	
	SNR=6.7						
FAQ	Al Faqa, Dubai	0.78	146	P		02 46 43.4	
ASUD	Al Ashush, Dub	0.79	165	P		02 46 43.3	
	SNR=84						
HATD	Hatta, Dubai	1.08	121	P		02 46 47.1	
ASHO	Ashiyiah	1.11	129	⇓P		02 46 48.4	
	SNR=28						
ASHO	Ashiyiah	1.11	129	P		02 46 47.5	
	SNR=28						
BANOM	Banah	1.20	63	P		02 46 37.9	
	SNR=27						
HOQ	Hoqain	2.69	131	⇓P		02 47 09.3	
BSY	Bisya	3.25	144	⇓P		02 47 17.0	
	SNR=11						
BSYO	Bisya	3.29	143	P		02 47 17.0	
	SNR=11						
BTHS		4.10	252	P		02 46 34.1	
BTHS				S		02 47 29.4	
BTHS		4.10	252	P		02 46 34.1	
IMOK	Mook	4.22	330	*e*Pg		02 45 39.2	
IMOK				*e*Sg		02 45 54.3	
IMOK				*e*		02 46 06.1	
	comp=Z,21μm,0.2s						
IMOK	Mook	4.22	330	*e*Pg		02 45 39.2	
IMOK				*e*Sg		02 45 54.3	
ISRV	Sarvestan	4.36	336	*e*Sn		02 46 05.5	
ISRV	Sarvestan	4.36	336	*e*Sn		02 46 05.5	
SHI	Shiraz	4.82	332	Pn		02 45 40.0	
SHI				Sn		02 45 55.9	
SHI	Shiraz	4.82	332	*e*Pg		02 45 39.1	
SHI				*e*Sg		02 45 53.8	
SHI				*e*		02 46 05.2	
	comp=Z,14μm,0.3s						
BOQSS		5.20	276	P		02 46 15.8	
HRDDS		5.71	246	S		02 48 01.0	
HRDDS		5.71	246	P		02 46 52.2	
IMEH	Mehriz	5.99	356	Pn		02 46 15.3	
IMEH	Mehriz	5.99	356	*e*Pn		02 46 14.4	
IMEH				*e*Sn		02 46 55.2	
IMEH				*e*		02 47 15.1	
	comp=Z,3μm,0.6s						
IMEH	Mehriz	5.99	356	*e*Pn		02 46 14.4	
IMEH				*e*Sn		02 46 55.2	
IBAF	Bafgh	6.19	4	Pn		02 46 25.0	
IBAF	Bafgh	6.19	4	*e*Pn		02 46 25.0	
IBAF				*e*		02 46 44.0	
	comp=Z,554nm,0.2s						
IBAF	Bafgh	6.19	4	*e*Pn		02 46 25.0	
ISAD	Sadrabad	6.62	349	*e*Sn		02 46 51.8	
ISAD	Sadrabad	6.62	349	*e*Sn		02 46 51.8	
ICHK	Chekchek	6.86	355	Pn		02 46 20.5	
ICHK	Chekchek	6.86	355	*e*Pn		02 46 20.6	
ICHK				*e*		02 46 35.4	
	comp=Z,770nm,0.2s						
ICHK				*e*Sn		02 47 06.8	
ICHK	Chekchek	6.86	355	*e*Pn		02 46 20.6	
ICHK				*e*Sn		02 47 06.8	
QRN	Al-Qurain	7.23	299	*e*P		02 46 06.3	
QRN				AML		02 46 44.1	
	comp=Z,103nm,0.3s						
QRN				*e*S		02 46 44.2	
RDF	Al-Radifah	7.60	299	*e*P		02 46 10.5	
RDF				*e*S		02 46 51.0	
RDF				AML		02 46 54.7	
	comp=Z,67nm,0.4s						
RDF	Al-Radifah	7.60	299	*e*P		02 46 10.5	
RDF				*e*S		02 46 51.0	
KBD	Kabd	7.60	301	*e*P		02 46 09.1	
KBD				*e*S		02 46 48.0	
KBD				AML		02 46 49.3	
	comp=Z,288nm,0.3s						
KBD	Kabd	7.60	301	*e*P		02 46 09.1	
KBD				*e*S		02 46 48.0	
	comp=Z,288nm,0.3s						
NAY	Al-Naaiem	7.98	301	*e*P		02 46 14.7	
NAY				*e*S		02 46 57.4	
NAY				AML		02 46 59.4	
	comp=Z,27nm,0.6s						
NAY	Al-Naaiem	7.98	301	*e*P		02 46 14.7	
NAY				*e*S		02 46 57.4	
	comp=Z,27nm,0.6s						
IPIR	Pirpir	8.15	334	⇓*e*Pn		02 46 14.2	
IPIR				*e*Sn		02 46 56.6	
IPIR	Pirpir	8.15	334	⇓*e*Pn		02 46 14.2	
IPIR				*e*Sn		02 46 56.6	
MIB	Mutribah	8.18	304	*e*P		02 46 13.9	
MIB				*e*S		02 46 56.8	
MIB				AML		02 46 57.6	
	comp=Z,50nm,0.3s						
MIB	Mutribah	8.18	304	*e*P		02 46 13.9	
MIB				*e*S		02 46 56.8	
	comp=Z,50nm,0.3s						
IKLH	Kalahroud	8.48	340	*e*Pn		02 46 21.7	
IKLH				*e*		02 46 24.2	
	comp=Z,724nm,0.1s						
IKLH	Kalahroud	8.48	340	*e*Pn		02 46 21.7	
ASYS		9.88	285	S		02 47 59.5	
ASYS		9.88	285	P		02 46 49.8	
ASF	Jabal al Asfar	17.33	297	Pn		02 48 18.2	
ASF				Sn		02 50 38.3	
ASF	Jabal al Asfar	17.33	297	Pn		02 48 18.2	
	comp=Z,0.3nm,0.3s,baz=146,slow=3.6,SNR=3.4						
ASF				Sn		02 50 38.3	
	comp=Z,0.2nm,0.3s,baz=61,slow=19,SNR=2.6						
KIV	Kislovodsk	21.11	334	*e*P		02 49 08.0	
	comp=Z,8.1nm,0.9s						
KIV	Kislovodsk	21.11	334	*e*P		02 49 08.0	
KIV				pmax			
	comp=Z,8.0nm,0.9s						
KIV	Kislovodsk	21.11	334	*e*P		02 49 08.0	
	comp=Z,8.0nm,0.9s						
BRTR	Keskin Array B	22.98	314	P		02 49 26.7	
	comp=Z,0.1nm,0.3s,baz=141,slow=14,SNR=5.7						
AKTK	Aktyubinsk	25.11	4	P		02 50 09.9	
AKTK	Aktyubinsk	25.11	4	P		02 50 10.0	
	comp=Z,2.0nm,0.6s						
AKTO	Aktyubinsk	25.11	4	P		02 50 10.0	
AKTO				pmax			
	comp=Z,2.0nm,0.6s						
AKTO	Aktyubinsk	25.11	4	P		02 50 09.9	
	comp=Z,2.2nm,0.6s,baz=214,slow=11,SNR=6.5						
IDI	Anoyia	27.79	298	P		02 50 23.8	
	comp=Z,5.6nm,0.8s,baz=108,slow=9.6,SNR=6.3						
MK31	Makanchi Array	30.38	38	*e*P		02 51 24.3	
MK31	Makanchi Array	30.38	38	*e*P		02 51 24.3	
MKAR	Makanchi Array	30.38	38	P		02 51 23.6	
	comp=Z,0.2nm,0.7s,baz=221,slow=7.0,SNR=3.5						
MLR	Muntele Rosu	30.83	318	P		02 50 50.7	
MLR				pmax			
	comp=Z,3.0nm,0.7s						
MLR	Muntele Rosu	30.83	318	P		02 50 50.7	
	comp=Z,2.5nm,0.7s,baz=26,slow=5.5,SNR=8.6						
AKASG	Malin Array Be	32.16	329	P		02 51 00.9	
	comp=Z,0.3nm,0.4s,baz=135,slow=8.2,SNR=6.4						
ZAL	Zalesovo	36.05	30	P		02 52 07.3	
ZALV	Zalesovo Beam	36.06	30	P		02 52 07.3	
	comp=Z,0.4nm,0.3s,baz=255,slow=8.5,SNR=4.3						
FINES	FINESS Array B	41.06	339	P		02 52 20.4	
FINES				pmax			
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	41.06	339	P		02 52 20.4	
	comp=Z,0.7nm,0.6s,baz=130,slow=13,SNR=5.7						
NB2	NORSAR Subarra	46.39	332	P		02 53 02.0	
	comp=Z,1.1nm,0.7s,baz=122,slow=8.6						
NOA	NORSAR Array B	46.39	332	P		02 53 02.5	
NOA				pmax			
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	46.39	332	P		02 53 02.5	
	comp=Z,0.5nm,0.6s,baz=122,slow=8.3,SNR=2.7						
ARCES	ARCESS Array B	47.49	346	P		02 53 16.1	
ARCES				pmax			
	comp=Z,1.0nm,0.6s						
ARCES	ARCESS Array B	47.49	346	P		02 53 16.1	
	comp=Z,0.7nm,0.6s,baz=141,slow=7.8,SNR=7.8						
TORD	Torodi Ar. Bea	51.57	267	P		02 53 59.4	
TORD	Torodi Ar. Bea	51.57	267	P		02 53 59.4	
	comp=Z,0.6nm,0.6s,baz=63,slow=7.7,SNR=8.5						
FITZ	Fitzroy Crossi	81.08	115	P		02 57 55.4	
	comp=Z,1.2nm,0.8s,baz=252,slow=6.4,SNR=4.1						
WRA	Warramunga Arr	89.17	112	P		02 58 32.5	
	comp=Z,0.1nm,0.6s,baz=315,slow=4.6,SNR=3.4						
ASAR	Alice Springs	90.52	116	P		02 58 38.5	
	comp=Z,0.2nm,0.4s,baz=298,slow=4.1,SNR=3.8						
YKA	Yellowknife Ar	92.04	355	P		02 58 08.4	
	comp=Z,0.2nm,0.7s,baz=8.7,slow=4.7,SNR=5.6						

IDC 16 03:02:43.6±1.8**, 1.09N×96.83E, h0^{km}, mb3.6**/6**, mb1 3.6**/7**, mb1mx3.5**/22**, mbtmp3.5**/7**, ML2.8**/1**, Error ellipse: s-maj=48.9km s-min=21.6km az=60.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	2.70	51	Pn	Pn	03 03 27.1	-1.2
	1.9nm,0.3s,baz=279,slow=4.8,SNR=11						
WRA	Warramunga Arr	42.30	122	P	P	03 10 39.1	-0.3
	0.2nm,0.5s,baz=301,slow=9.1,SNR=8.7						
ASAR	Alice Springs	43.63	127	P	P	03 10 50.2	+0.1
	0.3nm,0.6s,baz=300,slow=7.4,SNR=3.7						
KSRS	Korea Array	46.15	35	P	P	03 11 10.1	+0.1
	1.6nm,1.0s,baz=236,slow=8.8,SNR=4.1						
MKAR	Makanchi Array	47.26	346	P	P	03 11 18.4	0.0
	0.2nm,0.5s,baz=167,slow=9.2,SNR=10						
SONM	Songino Array	47.30	9	P	P	03 11 19.0	+0.2
	0.4nm,0.5s,baz=193,slow=10,SNR=3.2						
ZALV	Zalesovo Beam	53.61	351	P	P	03 12 06.0	-0.4
	0.8nm,0.4s,baz=181,slow=6.0,SNR=4.5						

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*ISCJB **16** 03:09:44.7±1.8, 17.2S±0.4×69.68W±0.07, h167^{km}±8^{km}, mb4.0/3, Error ellipse: s-maj=58.0km s-min=10.9km az=0.8*
*NEIC **16** 03:09:45.0±2.1, 17.36S×69.67W, h159^{km}±9^{km}, mb4.2/1, Error ellipse: s-maj=64.7km s-min=13.2km az=187.0*
*IDC **16** 03:09:50.9±2.5, 16.66S×69.24W, h184^{km}±9^{km}, mb3.8/3, mb1 3.9/4, mb1mx3.4/17, mbtmp3.8/4, MS3.7/2, Ms1 3.7/2, ms1mx2.8/36, Error ellipse: s-maj=64.7km s-min=21.4km az=18.0*
ISC 16 03:09:45.3±1.9**, 17.3S**±0.3×**69.68W**±0.07**, h160**^{km}±9^{km}**, n14,** σ**0^{s}46**/14**, mb4.0**/3**, 1C, Peru-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	1.79	56	P	Pn	03 10 19.7	+1.0
LPAZ				S	Sn	03 10 44.0	-0.4
LPAZ	La Paz	1.79	56	P	Pn	03 10 19.7	+1.0
	97nm,0.3s,baz=256,slow=8.5,SNR=1539						
LPAZ				S	Sn	03 10 44.0	-0.4
	baz=348,slow=24,SNR=3.1						
ARE	Arequipa	1.92	295	⇑*i*P	Pn	03 10 20.4	+0.3
ARE				*i* S	Sn	03 10 46.5	-0.4
SIV	San Ignacio	8.35	82	P	Pn	03 11 43.1	-0.3
	2.3nm,0.3s,baz=265,slow=11,SNR=42						
SIV				S	Sn	03 13 09.4	-7.1
	0.1nm,0.3s,baz=171,slow=23,SNR=4.4						
ATAH	Atahualpa	13.30	319	LR	LR	03 18 11.1	
	comp=Z,46nm,20.3s,baz=184,slow=38						
ULM	Lac du Bonnet	71.10	343	*e*P	P	03 20 45.6	-0.3
	1.4nm,0.3s,mb4.2						
ULM	Lac du Bonnet	71.10	343	P	P	03 20 46.0	+0.2
	2.1nm,0.3s,mb4.3,baz=151,slow=6.1,SNR=14						
TOA0	Torodi Ar. Sit	76.68	72	*e*P	P	03 21 18.7	-0.4
TORD	Torodi Ar. Bea	76.68	72	P	P	03 21 18.9	-0.2
	2.1nm,0.4s,mb4.1,baz=260,slow=5.1,SNR=74						
YKA	Yellowknife Ar	86.99	341	P	P	03 22 12.4	+0.5
YKA	Yellowknife Ar	86.99	341	P	P	03 22 12.4	+0.5
	0.4nm,0.5s,mb3.5,baz=135,slow=4.8,SNR=13						
DAVOX	Davos/Dischmat	95.49	43	LR	LR	04 02 20.2	
	comp=Z,258nm,21.7s,baz=171,slow=33						
SONM	Songino Array	149.37	5	PKPbc	PKPbc	03 29 16.8	+1.7
SONM	Songino Array	149.37	5	PKPbc	PKPbc	03 29 16.8	+1.7
	0.4nm,0.4s,baz=321,slow=1.3,SNR=7.5						

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*ISK **16** 03:30:06.1, 39.31N×40.78E, h5^{km}, MD3.3*
*NEIC **16** 03:30:06.0, 39.32N×40.77E, h5^{km}, mb3.9/1, ML3.7(ISK), After ISK.*
*CSEM **16** 03:30:06.9±0.1, 39.33N×40.77E, h5^{km}, MD3.3, Error ellipse: s-maj=1.4km s-min=1.2km az=148.0*
*ISCJB **16** 03:30:07.2±0.4, 39.31N±0.02×40.80E±0.02, h2^{km}±4^{km}, mb3.3/5, MS3.2/1, Error ellipse: s-maj=3.1km s-min=2.5km az=144.7*
*DDA **16** 03:30:07.6, 39.28N×40.79E, h22^{km}±3^{km}, Md3.7*
*IDC **16** 03:30:09.3±1.3, 39.45N×40.80E, h0^{km}, mb3.3/4, mb1 3.4/9, mb1mx3.3/24, mbtmp3.3/9, ML3.0/5, MS3.0/3, Ms1 3.1/3, ms1mx2.6/31, Error ellipse: s-maj=20.6km s-min=15.3km az=134.0*
*MOS **16** 03:30:09.1±3.2, 39.61N×40.60E, h10^{km}, mb3.8/2, Error ellipse: s-maj=15.2km s-min=8.9km az=79.2*
ISC 16 03:30:08.8±0.4**, 39.28N**±0.02×**40.81E**±0.02**, h10**^{km}±3^{km}**, n102,** σ**1^{s}15**/133**, mb3.3**/5**, MS3.2**/1**, 12C-7D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNGL	BINGOL	0.42	141	⇓*i*P	Pg	03 30 16.2	-0.8
BNGL				*i* S	Sg	03 30 24.7	+2.2
BINT	Bingol	0.47	212	*i* PG	Pg	03 30 16.8	-1.2
BINT				*i* SG	Sg	03 30 24.1	-0.2
BINT	Bingol	0.47	212	*i* Pg	Pg	03 30 16.8	-1.2
BINT				*i* Sg	Sg	03 30 24.1	-0.2
EZM	Erzurum	0.76	34	*i* PG	Pg	03 30 21.5	-2.0
ERZM	Erzurum	0.76	34	⇑*i*P	Pg	03 30 21.5	-2.0
ERZM				*e*S	Sg	03 30 34.8	+1.3
EZC	Erzincan	0.90	302	*i* PN	Pn	03 30 29.7	+2.1
PTK	Pertek	1.17	251	*i* PN	Pn	03 30 28.5	-2.8
PTK				*i* SN	Sn	03 30 47.0	-0.3
PTK	Pertek	1.17	251	*i* Pn	Pn	03 30 28.5	-2.8
PTK				*i* Sn	Sn	03 30 47.0	-0.3
BTMT	Batman	1.20	154	*i* PN	Pn	03 30 30.8	-0.9
DIY	Diyarbakir	1.45	199	*i* PN	Pn	03 30 35.1	0.0
DIY	Diyarbakir	1.45	199	*i* Pn	Pn	03 30 35.1	0.0
DIYA	Diyarbakir	1.46	202	⇑*i*P	Pn	03 30 35.5	+0.4
DIYA				*i* S	Sg	03 30 55.5	-0.1
KELT	Kelkit	1.48	306	⇓*i*P	Pn	03 30 33.9	-1.7
KELT				*i* S	Sg	03 30 57.2	+0.6
TUTA	Tutak	1.56	85	⇑*i*P	Pn	03 30 35.0	-1.6
TUTA				*i* S	Sg	03 30 59.7	+0.8
GUMT	Gumushane	1.57	319	*i* PN	Pn	03 30 35.5	-1.2
GUMT	Gumushane	1.57	319	*i* Pn	Pn	03 30 35.5	-1.2
ELZG	Elazig	1.62	242	⇑*i*P	Pn	03 30 36.0	-1.6
ELZG				*i* S	Sg	03 31 00.4	-0.7
AGRB	Hanur-Agry	1.71	79	*i* PN	Pn	03 30 38.6	-0.1
AGRB	Hanur-Agry	1.71	79	*i* Pn	Pn	03 30 38.6	-0.1
MACK	Trabzon	1.85	335	⇓*i*P	Pn	03 30 40.3	-0.3
MACK				*i* S	Sg	03 31 09.2	+1.0
MACK	Trabzon	1.85	335	⇓*i*P	Pn	03 30 40.3	-0.3
MACK				*i* S	Sg	03 31 09.2	+1.0
MARD	Mardin	1.96	181	⇓*i*P	Pn	03 30 42.0	-0.2
MARD				*i* S	Sg	03 31 09.6	-2.2
MARD	Mardin	1.96	181	⇓*i*P	Pn	03 30 42.0	-0.2
MARD				*i* S	Sg	03 31 09.6	-2.2
ARTV	Artvin	2.09	24	⇑*i*P	Pn	03 30 43.6	-0.3
ARTV				*i* S	Sb	03 31 11.3	-1.5
MALT	Malatya	2.10	243	*i* PN	Pn	03 30 43.9	-0.1
MALT	Malatya	2.10	243	*e*Pn	Pn	03 30 43.6	-0.4
MALT	Malatya	2.10	243	*e*Pn	Pn	03 30 43.6	-0.4
VANB	Van	2.12	108	PN	Pn	03 30 45.2	+0.9
VANB	Van	2.12	108	*e*Pn	Pn	03 30 45.2	+0.9
TVAN	Van	2.16	109	*e*P	Pn	03 30 45.7	+0.9
TVAN				*e*S	Sg	03 31 19.0	+0.9
TVAN	Van	2.16	109	*e*P	Pn	03 30 45.7	+0.9
TVAN				*e*S	Sg	03 31 19.0	+0.9
VANT	Van	2.17	112	PN	Pn	03 30 44.5	-0.6
KARS	Kars	2.20	52	PN	Pn	03 30 45.1	-0.4
KARS	Kars	2.20	52	*e*Pn	Pn	03 30 45.1	-0.4
DYDN	Diyadin	2.24	82	⇑*i*P	Pn	03 30 47.0	+1.0
DYDN				*i* S	Sg	03 31 21.8	+0.8
DYDN	Diyadin	2.24	82	⇑*i*P	Pn	03 30 47.0	+1.0
DYDN				*i* S	Sg	03 31 21.8	+0.8
BCA	Borcka	2.25	16	PN	Pn	03 30 45.2	-1.0
BCA	Borcka	2.25	16	*e*Pn	Pn	03 30 45.2	-1.0
DIGO	Kars	2.28	59	⇑*i*P	Pn	03 30 46.3	-0.2
DIGO				*e*S	Sg	03 31 22.8	+0.9
DIGO	Kars	2.28	59	⇑*i*P	Pn	03 30 46.3	-0.2
DIGO				*e*S	Sg	03 31 22.8	+0.9
URFA	Urfa	2.41	221	PN	Pn	03 30 48.4	+0.1
URFA	Urfa	2.41	221	*e*Pn	Pn	03 30 48.4	+0.1
GRSN	GIRESUNGRSN	2.55	311	*e*P	Pn	03 30 52.2	+1.9
GRSN				*i* S	Sn	03 31 25.1	+3.7
GRSN	GIRESUNGRSN	2.55	311	*e*P	Pn	03 30 52.2	+1.9
GRSN				*i* S	Sn	03 31 25.1	+3.7
ATAB	Bozova	2.68	228	⇑*i*P	Pn	03 30 51.6	-0.4
ATAB				*e*S	Sg	03 31 30.4	-4.5
HAKT	HAKKARI	2.85	126	⇑*i*P	Pn	03 30 56.7	+2.3
HAKT				*i* S	Sg	03 31 39.1	-1.2
HAKT	HAKKARI	2.85	126	⇑*i*P	Pn	03 30 56.7	+2.3
HAKT				*i* S	Sg	03 31 39.1	-1.2
HKR	Hakkari	2.86	125	PN	Pn	03 30 54.4	-0.1
HKR	Hakkari	2.86	125	*e*Pn	Pn	03 30 54.4	-0.1
CUKT	Cukurca	2.99	132	PN	Pn	03 30 57.8	+1.5
CUKT	Cukurca	2.99	132	*e*Pn	Pn	03 30 57.8	+1.5
GZT	Gaziantep	3.19	234	*e*P	Pn	03 31 00.3	+1.3
GZT				*e*S	Sg	03 31 51.6	+0.2
GZT	Gaziantep	3.19	234	*e*P	Pn	03 31 00.3	+1.3
GZT				*e*S	Sg	03 31 51.6	+0.2
GAZ	Gaziantep	3.53	235	*e*PN	Pn	03 31 04.1	+0.4
GAZ	Gaziantep	3.53	235	*e*Pn	Pn	03 31 04.1	+0.4
KMRS	Kahramanmaras	3.55	241	*e*PN	Pn	03 31 04.5	+0.6
KMRS	Kahramanmaras	3.55	241	*e*Pn	Pn	03 31 04.5	+0.6
ONI	Oni	3.86	30	P	Pn	03 31 08.5	+0.3
ONI				S	Sg	03 32 13.4	+0.7
TBLG	Delisi	3.87	49	P	Pn	03 31 13.8	+5.4
TBLG				S	Sg	03 32 19.5	+6.5
MTA	Mtatsminda	3.88	50	P	Pn	03 31 12.4	+3.9
MTA				S	Sg	03 32 20.5	+7.1
BNN	Bunyan	3.89	265	*e*PN	Pn	03 31 09.0	+0.4
BNN	Bunyan	3.89	265	*e*Pn	Pn	03 31 09.0	+0.4
ANDN	Andirin	3.90	246	*e*P	Pb	03 31 16.5	-1.1
KVT	Kavak	4.07	298	*e*PN	Pn	03 31 11.4	+0.2
KVT	Kavak	4.07	298	*e*Pn	Pn	03 31 11.4	+0.2
DGRG	David-gareji	4.11	57	P	Pn	03 31 12.5	+0.9
DGRG				S	Sg	03 32 20.0	-0.7
KOZT	Kozan	4.31	247	*e*PN	Pn	03 31 15.3	+0.9
SOC	Sochi	4.38	350	*d* *i*P	Pn	03 31 14.8	-0.6
SOC				*e*		03 32 06.3	
SOC				pmax	pmax		
	comp=Z,16nm,0.5s						
SOC				MLR	MLR		
	comp=Z,81nm,8.0s						
SOC	Sochi	4.38	350	*i* P	Pn	03 31 14.8	-0.6
	comp=Z,16nm,0.5s						
SOC				*e*S	Sn	03 32 06.3	-0.2
	comp=Z,81nm,8.0s						
AVNT	Avonos	4.67	266	*e*P	Pn	03 31 22.0	+2.7
CTKT	Corum	4.82	288	*e*P	Pn	03 31 26.8	+5.3
CTKT				*e*S	Sg	03 32 44.1	+0.5
KIV	Kislovodsk	4.88	16	*e*P	Pn	03 31 14.8	-7.5
YAYL	Yayladag	4.94	231	*e*P	Pn	03 31 25.3	+2.2
BOYT	Boyabat	5.00	297	*i* P	Pb	03 31 37.4	+1.0
CDAG	Cicekdag	5.00	276	*e*P	Pb	03 31 37.0	+0.7
BRTR	Keskin Array B	5.57	277	Pn	Pn	03 31 32.6	+0.9
BRTR				Lg		03 33 07.6	
BRTR	Keskin Array B	5.57	277	Pn	Pn	03 31 32.6	+0.9
	comp=Z,0.2nm,0.3s,baz=104,slow=14,SNR=8.4						
BRTR				Lg		03 33 07.6	
	comp=Z,0.1nm,0.3s,baz=96,slow=26,SNR=2.0						
BRTR	Keskin Array B	5.57	277	Pn	Pn	03 31 32.7	+1.0
ANN	Anapa	6.07	337	*e*P	Pn	03 31 37.0	-1.5
ANTO	Ankara	6.22	278	*e*Pg	Pb	03 32 02.3	+5.0
	comp=Z,14nm,1.0s						
ANTO	Ankara	6.22	278	*e*Pg	Pb	03 32 02.3	+5.0
	comp=Z,14nm,1.0s						
MMAI	Mount Meron Ar	7.63	217	Pn	Pn	03 32 04.4	+4.4
	comp=Z,0.4nm,0.3s,baz=61,slow=12,SNR=2.8						
MMAI				Lg		03 34 14.2	
	comp=Z,0.9nm,0.3s,baz=43,slow=24,SNR=3.8						
ASF	Jabal al Asfar	7.77	205	Pn	Pn	03 32 06.9	+4.9
ASF				Lg		03 34 20.4	
ASF	Jabal al Asfar	7.77	205	Pn	Pn	03 32 06.9	+4.9
	comp=Z,0.1nm,0.3s,baz=102,slow=23,SNR=3.0						
ASF				Lg		03 34 20.4	
	comp=Z,0.3nm,0.3s,baz=280,slow=23,SNR=5.8						
MLR	Muntele Rosu	12.62	304	LR	LR	03 38 08.7	
	comp=Z,81nm,19.1s,baz=146,slow=38						
IDI	Anoyia	13.29	258	LR	LR	03 38 14.2	
	comp=Z,23nm,19.4s,baz=344,slow=36						
AKASG	Malin Array Be	14.04	328	Pn	Pn	03 33 25.4	-2.2
AKASG	Malin Array Be	14.04	328	Pn	Pn	03 33 25.4	-2.2
	comp=Z,0.2nm,0.3s,baz=139,slow=12,SNR=5.6						
AKASG	Malin Array Be	14.04	328	Pn	Pn	03 33 25.5	-2.2
AKTK	Aktyubinsk	16.49	42	Pn	Pn	03 33 58.9	-1.1
AKTK	Aktyubinsk	16.49	42	Pn	Pn	03 33 58.9	-1.2
AKTO	Aktyubinsk	16.49	42	P	Pn	03 33 58.9	-1.2
AKTO	Aktyubinsk	16.49	42	Pn	Pn	03 33 58.9	-1.1
	comp=Z,0.1nm,0.3s,baz=206,slow=18,SNR=2.7						
GERES	GERESS Array B	21.60	305	P	P	03 34 58.8	+0.1
	comp=Z,0.1nm,0.3s,mb2.8,baz=126,slow=10,SNR=2.8						
FINES	FINESS Array B	23.99	343	P	P	03 35 22.5	-0.8
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	FINESS Array B	23.99	343	P	P	03 35 22.5	-0.8
	comp=Z,1.4nm,0.7s,mb3.5,baz=137,slow=12,SNR=4.6						
UCH	Uchtor	25.61	72	*e*P	P	03 35 35.8	-2.4
	comp=Z,2.3nm,0.9s,mb3.7						
HFS	Hagfors	26.92	330	P	P	03 35 51.8	+1.9
HFS				pmax	pmax		
	comp=Z,1.0nm,0.5s						
HFS	Hagfors	26.92	330	P	P	03 35 51.8	+1.9
	comp=Z,0.8nm,0.5s,mb3.5,baz=168,slow=15,SNR=3.0						
NOA	NORSAR Array B	28.45	330	LR	LR	03 47 23.5	
	comp=Z,61nm,19.3s,MS3.2,baz=215,slow=37						
KURK	Kurchatov	28.77	54	*e*P	P	03 36 12.4	+5.9
MKAR	Makanchi Array	30.94	62	P	P	03 36 26.5	+0.7
	comp=Z,0.2nm,0.7s,mb3.1,baz=242,slow=3.1,SNR=3.3						

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*ISCJB **16** 03:31:41.6±0.7, 39.33N±0.03×40.68E±0.05, h3^{km}±7^{km}, Error ellipse: s-maj=7.3km s-min=4.7km az=34.6*
*ISK **16** 03:31:41.4, 39.29N×40.80E, h19^{km}, MD2.9*
*CSEM **16** 03:31:41.6±0.1, 39.33N×40.66E, h10^{km}, MD2.9, Error ellipse: s-maj=3.8km s-min=2.4km az=128.0*
*DDA **16** 03:31:42.9, 39.34N×40.88E, h7^{km}±6^{km}, Md2.9*
ISC 16 03:31:42.1±0.7**, 39.33N**±0.04×**40.67E**±0.05**, h5**^{km}±7^{km}**, n15,** σ**1^{s}02**/25**, 1C-1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BINT	Bingol	0.47	197	*i* PG	Pg	03 31 51.5	+0.3
BINT				*i* SG	Sg	03 31 59.1	+1.7
BINT	Bingol	0.47	197	*i* Pg	Pg	03 31 51.5	+0.3
BINT				*i* Sg	Sg	03 31 59.1	+1.7
BNGL	BINGOL	0.53	135	⇓*i*P	Pg	03 31 51.1	-1.2
BNGL				*i* S	Sg	03 31 59.2	0.0
EZC	Erzincan	0.78	303	*e*PN	Pn	03 32 04.0	+4.2
EZM	Erzurum	0.78	43	PG	Pg	03 31 56.3	-0.8
EZM				SG	Sg	03 32 07.7	+0.4
ERZM	Erzurum	0.79	43	⇑*i*P	Pg	03 31 56.2	-0.9
ERZM				*i* S	Sg	03 32 08.2	+0.9
ERZM	Erzurum	0.79	43	*i* P	Pg	03 31 56.2	-1.0
ERZM				*i* S	Sg	03 32 08.2	+0.8
PTK	Pertek	1.09	247	PN	Pn	03 32 03.6	-0.3
PTK				SN	Sn	03 32 19.2	-0.2
PTK	Pertek	1.09	247	*e*Pn	Pn	03 32 03.6	-0.3
PTK				*e*Sn	Sn	03 32 19.2	-0.2
KELT	Kelkit	1.36	307	*e*P	Pn	03 32 09.4	+1.6
KELT				*i* S	Sb	03 32 33.1	+7.2
GUMT	Gumushane	1.45	321	*e*PN	Pn	03 32 08.4	-0.6
GUMT	Gumushane	1.45	321	*e*Pn	Pn	03 32 08.4	-0.6
DIY	Diyarbakir	1.47	194	*e*PN	Pn	03 32 07.4	-1.9
DIY	Diyarbakir	1.47	194	*e*Pn	Pn	03 32 07.4	-1.9
TUTA	Tutak	1.66	87	*i* P	Pn	03 32 11.4	-0.5
TUTA				*i* S	Sn	03 32 35.0	+1.5

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*ISK **16** 03:40:15.2, 40.32N×36.36E, h15^{km}, MD2.9*
*CSEM **16** 03:40:15.2±1.1, 40.34N×36.41E, h2^{km}, MD2.9, Error*

ellipse: s-maj=27.0km s-min=8.4km az=102.0

*DDA **16** 03:40:19.7, 4030N×3624E, h18^{km}, Md2.9*

ISC 16 03:40:15.1±1.5**, 4032N**±005×**366E**±01**, h10^{km}, n14, σ1^{s}26**/22**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KVT	Kavak	0.85	333	PG	Pg	03 40 31.3	-0.3
KVT				SG	Sg	03 40 42.6	-0.2
KVT	Kavak	0.85	333	*e*Pg	Pg	03 40 31.3	-0.3
KVT				*e*Sg	Sg	03 40 42.6	-0.2
YOZ	Yozgat	1.16	235	PG	Pg	03 40 35.8	-1.6
YOZ				SG	Sg	03 40 51.0	-1.5
YOZ	Yozgat	1.16	235	*e*Pg	Pg	03 40 35.8	-1.6
YOZ				*e*Sg	Sg	03 40 51.0	-1.5
CTKT	Corum	1.38	283	*i* P	Pn	03 40 40.2	-0.2
CTKT				*i* S	Sb	03 40 59.5	+0.8
CORM	Corum	1.48	265	PN	Pn	03 40 38.9	-2.8
DIKM	Dikmen	1.65	324	*e*PN	Pn	03 40 43.7	-0.5
DIKM	Dikmen	1.65	324	*e*Pn	Pn	03 40 43.7	-0.5
BOYT	Boyabat	1.67	312	*e*P	Pn	03 40 45.5	+1.2
CDAG	Cicekdag	1.81	248	*i* P	Pn	03 40 46.6	+0.3
CDAG				*i* S	Sn	03 41 10.9	+1.5
AVNT	Avonos	2.02	221	*i* P	Pn	03 40 51.0	+1.9
AVNT				*i* S	Sn	03 41 17.8	+3.4
AVNT	Avonos	2.02	221	*i* P	Pn	03 40 51.0	+1.8
AVNT				*i* S	Sn	03 41 17.8	+3.4
KAMT	Kaman	2.38	248	*e*PN	Pn	03 40 53.3	-0.9
KAMT	Kaman	2.38	248	*e*Pn	Pn	03 40 53.3	-0.9

IDC 16 03:43:34.9±7.5**, 2071S**×**6903W, h105^{km}**±51^{km}**, mb3.6**/2**, mb1 3.7**/4**, mb1mx3.4**/16**, mbtmp3.5**/4**, Error ellipse: s-maj=68.5km s-min=34.5km az=47.0, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	4.48	11	P	Pn	03 44 41.9	+1.2
	4.3nm,0.3s,baz=210,slow=6.6,SNR=64						
LPAZ				S	Sn	03 45 33.3	+1.5
	0.6nm,0.3s,baz=242,slow=25,SNR=2.3						
SIV	San Ignacio	8.89	59	P	Pn	03 45 39.7	-0.8
	0.6nm,0.3s,baz=249,slow=12,SNR=12						
TORD	Torodi Ar. Bea	77.19	71	P	P	03 55 18.1	+0.2
	0.6nm,0.3s,baz=252,slow=5.4,SNR=37						
YKA	Yellowknife Ar	90.41	341	P	P	03 56 23.8	-0.2
	0.3nm,0.6s,baz=134,slow=4.5,SNR=8.3						
YKA				pP	pP	03 56 54.4	+2.9
	0.3nm,0.8s,baz=132,slow=4.4,SNR=3.9						

WEL 16 03:45:18.8±0.2**, 3816S**×**17623E, h153^{km}**±2^{km}**, ML3.5**/6**, Error ellipse: s-maj=3.5km s-min=3.0km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.70	99	PN	Pn	03 45 41.5	-0.1
URZ				SN	Sn	03 45 59.0	+0.1
BKZ	Black Stump Fm	1.03	169	PN	Pn	03 45 44.2	+0.2
BKZ				SN	Sn	03 46 03.3	-0.2
MWZ	Matawai	1.04	100	PN	Pn	03 45 44.3	+0.2
MWZ				SN	Sn	03 46 03.8	+0.4
WNVZ	Wahianoa	1.27	203	PN	Pn	03 45 46.4	+0.2
MXZ	Matakaoa Point	1.75	71	PN	Pn	03 45 51.1	-0.1
TSZ	Takapari Road	1.91	186	PN	Pn	03 45 52.4	-0.6
TSZ				SN	Sn	03 46 18.1	-1.3
MRZ	Mangatainoka R	2.55	191	PN	Pn	03 45 58.7	-1.9
TIWZ	Tintock	2.63	186	PN	Pn	03 45 59.8	-1.7
MTW	Mount Morrison	3.05	190	PN	Pn	03 46 04.1	-2.7

MEX 16 04:12:11.4±0.7**, 1585N**×**9684W, h17^{km}**±668^{km}**, MD3.6, 1C, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	Huatulco	0.71	97	⇑*i*P	Pb	04 12 22.6	-2.7
HUIG				*i* S	Sg	04 12 31.9	-2.9
VHO	Vista Hermosa	1.22	5	*i* P	Pn	04 12 30.6	-3.1
VHO				*i* S	Sb	04 12 44.4	-5.1
UTMO	Huajuapan	2.17	335	*e*P	Pn	04 12 44.6	-2.2
UTMO				*i* S	Sn	04 13 09.2	-4.1
CMIG	Matias Romero	2.25	56	*i* P	Pn	04 12 45.3	-2.5
CMIG				*i* S	Sn	04 13 12.3	-2.8

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*IDC **16** 04:14:16.9±0.9, 3991N×7170E, h0^{km}, mb4.1/12, mb1 4.2/15, mb1mx4.1/24, mbtmp4.0/15, ML3.9/3, MS3.5/2, Ms1 3.5/2, ms1mx2.9/23, Error ellipse: s-maj=20.2km s-min=13.6km az=178.0*

*MOS **16** 04:14:21.5±1.2, 40.11N×7161E, h33^{km}, mb4.4/13, Error ellipse: s-maj=8.8km s-min=6.3km az=90.7*

MOS Felt (IV) at Shahimardan, (III) at Fergana, (II) at Tashkent.

*ISCJB **16** 04:14:22.9±0.5, 4003N±003×7164E±004, h53^{km}±6^{km}, mb4.1/23, MS3.6/1, Error ellipse: s-maj=5.9km s-min=4.7km az=160.7*

*NNC **16** 04:14:23.4±3.5, 40.16N×7165E, h16^{km}±14^{km}, mb4.3, mpv3.9, Error ellipse: s-maj=25.8km s-min=10.1km az=5.0*

*BJI **16** 04:14:25.0, 4020N×7170E, h54^{km}, mB4.8, mb4.1, ML4.0, Ms3.8*

*NEIC **16** 04:14:25.0±0.7, 40.15N×7170E, h55^{km}±7^{km}, mb4.3/8, Error ellipse: s-maj=8.1km s-min=6.6km az=159.0*

NEIC Felt [IV] at Shohimardon, [III] at Fargona and [II] at Tashkent, Uzbekistan.

ISC 16 04:14:24.7±0.4**, 4008N**±003×**7165E**±004**, h52^{km}**±6^{km}**, n114, σ1^{s}15**/124**, mb4.1**/23**, MS3.6**/1**, 12C-5D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TAS	Tashkent	2.18	306	*e*PN	Pn	04 14 56.0	-2.5
AML	Almayashu	2.57	36	P	Pn	04 15 04.3	+0.5
	SNR=139						
AML	Almayashu	2.57	36	*e*Pn	Pn	04 15 03.6	-0.2
AML				*e*Sn	Sn	04 15 40.7	+6.9
EKS2	Erkin-Say	3.04	31	P	Pn	04 15 11.1	+0.9
	SNR=21						
EKS2	Erkin-Say	3.04	31	*e*Pn	Pn	04 15 10.6	+0.4
EKS2				*e*Sn	Sn	04 15 54.6	+9.3
UCH	Uchtor	3.05	44	P	Pn	04 15 10.7	+0.3
	SNR=41						
UCH	Uchtor	3.05	44	*e*Pn	Pn	04 15 10.6	+0.2
KK31	Karatay Array	3.14	345	⇓Pn	Pn	04 15 11.7	+0.1
	31nm,0.5s,baz=170,slow=12,SNR=3648						
KK31				⇑Pg	Pn	04 15 19.4	+7.8
	296nm,0.6s,baz=173,slow=18,SNR=69						
KK31				⇑Lg		04 16 00.6	
	507nm,0.5s,baz=162,slow=30						
KK31	Karatay Array	3.14	345	*e*PN	Pn	04 15 11.6	0.0
KK31				pmax	pmax		
	comp=Z,35nm,0.3s						
KKAR	Karatay Array	3.14	345	PN	Pn	04 15 11.6	0.0
KKAR						04 15 18.7	
KKAR						04 16 01.6	
KKAR				pmax	pmax		
	comp=Z,11nm,0.3s						
KKAR				pmax	pmax		
	comp=Z,48nm,0.3s						
KKAR				smax			
	comp=N,124nm,0.3s						
AAK	Ala-Archa	3.33	39	P	Pn	04 15 14.8	+0.5
	SNR=60						
AAK	Ala-Archa	3.33	39	*e*Pn	Pn	04 15 13.8	-0.5
AAK				*e*Sn	Sn	04 16 00.0	+7.5
AAK	Ala-Archa	3.33	39	*e*PN	Pn	04 15 13.8	-0.5
AAK				*e*		04 16 00.0	
KZA	Kyzart	3.38	53	P	Pn	04 15 15.2	+0.4
	SNR=53						
KSH	Kashi	3.38	98	*e*P	Pn	04 15 15.6	+0.6
KSH				*e*AP		04 15 21.5	
KSH				*e*XP		04 15 26.3	
KSH				*e*S	Sn	04 15 55.8	+2.0
KSH				AMB	AMB		
	comp=Z,440nm,1.9s						
KSH				Smax			
	comp=N,9µm,2.6s						
KSH				Smax			
	comp=E,8µm,1.8s						
FRU	Bishkek	3.54	38	*e*PN	Pn	04 15 18.5	+1.3
FRU				*i*		04 15 27.0	
FRU				*i*		04 16 02.5	
FRU				*i*		04 16 12.0	
FRU				pmax	pmax		
	comp=Z,360nm,1.5s						
FRU				smax			
	comp=N,2µm,2.0s						
KBK	Karagaybulak	3.58	43	P	Pn	04 15 19.1	+1.4
	SNR=104						
CHMS	Chumysh	3.73	38	P	Pn	04 15 20.6	+0.8
	SNR=28						
USP	Ospenovka	3.83	33	P	Pn	04 15 21.6	+0.4
	SNR=49						
ULHL	Ulahol	4.09	57	P	Pn	04 15 24.6	0.0
	SNR=16						
TKM2	Tokmak 2	4.10	45	P	Pn	04 15 25.3	+0.5
	SNR=44						
TKM2	Tokmak 2	4.10	45	⇑Pn	Pn	04 15 25.2	+0.3
	comp=N,2.2nm,0.5s						
TKM2				⇑Pg	Pn	04 15 37.7	+13
	comp=N,4.8nm,0.5s						
TKM2				⇓Lg		04 16 30.7	
	comp=N,19nm,0.6s						
TKM2	Tokmak 2	4.10	45	*e*Pn	Pn	04 15 24.9	+0.1
TKM2	Tokmak 2	4.10	45	PN	Pn	04 15 25.0	+0.1
TKM2						04 16 29.2	
TKM2				pmax	pmax		
	comp=Z,59nm,0.5s						
TKM2				smax			
	comp=N,122nm,0.6s						
KNDC	Almaty	5.07	50	⇑Lg		04 17 02.7	
	comp=N,406nm,0.8s						
KBL	Kabul	5.91	201	*e*Pn	Pn	04 15 51.3	+1.7
KBL				*e*Sn	Sn	04 17 01.8	+5.8
CEP	Cherat	6.25	178	P	Pn	04 15 55.3	+1.0
CHCP	Chirah Chowk	6.54	168	P	Pn	04 15 59.3	+1.0
THW	Thamme Wali	7.27	179	P	Pn	04 16 08.2	-0.2
SBDP	Sheikh Budin	7.80	185	P	Pn	04 16 14.6	-0.9
THN	Thein Dam	8.31	155	*e*P	Pn	04 16 22.1	-0.4
THN				*e*S	Sn	04 17 53.8	-1.2
SDNR	Sundarnagar	9.59	152	*e*P	Pn	04 16 38.0	-2.1
SDNR				*e*S	Sn	04 18 21.0	-5.4
MK31	Makanchi Array	10.24	46	⇑Pn	Pn	04 16 47.5	-1.3
	comp=N,5.7nm,0.7s,baz=238,slow=15,SNR=9.2						
MK31				⇑Lg		04 19 46.6	
	comp=N,16nm,0.8s,baz=238,slow=28						
MK31	Makanchi Array	10.24	46	*e*Pn	Pn	04 16 47.2	-1.6
MK31	Makanchi Array	10.24	46	*e*P	Pn	04 16 47.2	-1.6
MKAR	Makanchi Array	10.24	46	Pn	Pn	04 16 47.2	-1.6
MKAR	Makanchi Array	10.24	46	*e*P	Pn	04 16 47.4	-1.4
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
MKAR	Makanchi Array	10.24	46	Pn	Pn	04 16 47.2	-1.6
	comp=Z,0.5nm,0.3s,baz=226,slow=14,SNR=13						
KURK	Kurchatov	11.70	22	⇓Lg		04 20 34.2	
	comp=Z,23nm,0.9s						
KURK	Kurchatov	11.70	22	*e*Pn	Pn	04 17 05.0	-3.8
	comp=Z,4.0nm,0.8s						
KURK	Kurchatov	11.70	22	*c i*P	Pn	04 17 05.4	-3.4
AB31	Akbulak array	12.38	322	Pn	Pn	04 17 14.4	-3.6
	comp=Z,12nm,0.5s,baz=126,slow=14,SNR=200						
AB31				⇑Sn	Sn	04 19 36.5	+2.2
	comp=Z,12nm,0.7s,baz=126,slow=24						
AB31				⇓Lg		04 20 53.0	
	comp=Z,13nm,0.8s,baz=131,slow=26						
AB31	Akbulak array	12.38	322	P	Pn	04 17 14.3	-3.7
AB31						04 19 26.5	
AB31				pmax	pmax		
	comp=Z,5.0nm,0.4s						
AB31				smax			
	comp=Z,1.0nm,0.2s						
BRVK	Borovoye	13.01	356	⇑Pn	Pn	04 17 26.1	-0.6
	comp=Z,1.6nm,0.7s						
BRVK				⇑Lg		04 21 14.1	
	comp=Z,19nm,1.2s						
BRVK	Borovoye	13.01	356	*e*Pn	Pn	04 17 23.3	-3.3
	comp=Z,5.1nm,0.6s						
BRVK	Borovoye	13.01	356	*e*P	Pn	04 17 23.3	-3.4
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.6s						
AKTK	Aktyubinsk	14.09	322	Pn	Pn	04 17 37.9	-3.5
AKTK				LR	LR	04 23 48.4	
AKTO	Aktyubinsk	14.09	322	P	Pn	04 17 37.9	-3.5
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO				MLR	MLR		
	comp=Z,121nm,21.5s						
AKTO	Aktyubinsk	14.09	322	Pn	Pn	04 17 37.9	-3.5
	comp=Z,0.7nm,0.3s,baz=134,slow=13,SNR=23						
AKTO				LR	LR	04 23 48.4	
	comp=Z,121nm,21.5s,baz=117,slow=40						
GKN	Gorkha	16.14	134	*e*P	Pn	04 18 03.6	-4.4
	comp=Z,43nm,0.5s						
ZAL	Zalesovo	16.47	28	P	Pn	04 18 09.6	-2.4
ZALV	Zalesovo Beam	16.48	28	Pn	Pn	04 18 09.6	-2.6
ZALV	Zalesovo Beam	16.48	28	Pn	Pn	04 18 09.6	-2.6
	comp=Z,0.9nm,0.3s,baz=220,slow=13,SNR=9.3						
KKN	Kakani	16.66	133	*e*P	Pn	04 18 08.6	-5.9
	comp=Z,24nm,0.5s						
NVS	Novosibirsk	16.68	24	*e*P	Pn	04 18 15.1	+0.5
NVS				pmax	pmax		
	comp=Z,10.0nm,1.1s						
NVS				pmax	pmax		
	comp=N,5.0nm,0.7s						
JIRN	Jiri	17.27	131	*e*P	Pn	04 18 17.4	-4.8
TAPN	Taplejung	18.40	129	*e*P	Pn	04 18 30.5	-5.4
	comp=N,7.2nm,0.4s						
ARU	Arti	18.48	337	*e*P	Pn	04 18 34.8	-1.9
	comp=N,9.9nm,0.3s						
ARU	Arti	18.48	337	⇓*i*P	Pn	04 18 35.1	-1.6
ARU				*e*S	S	04 22 00.1	-3.2
ARU				pmax	pmax		
	comp=Z,16nm,0.9s						
ODAN	Odare	18.57	130	*e*P	Pn	04 18 23.5	-15
LSA	Lhasa	19.02	117	P	Pn	04 18 42.9	-0.5
LSA	Lhasa	19.02	117	*e*P	Pn	04 18 43.6	+0.2
	comp=Z,6.2nm,0.7s						
LSA	Lhasa	19.02	117	*e*P	Pn	04 18 43.6	+0.2
LSA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
DGRG	David-gareji	19.93	282	P	Pn	04 18 53.1	-1.0
ZEI	Tsey	20.94	286	*e*P	P	04 19 04.6	+1.6
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.5s						
ONI	Oni	21.28	286	P	P	04 19 07.9	+1.2
GTA	Gaotai	21.64	83	*e*P	P	04 19 11.9	+1.4
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb3.7						
KIV	Kislovodsk	21.81	290	*e*P	P	04 19 11.9	-0.4
	comp=Z,9.1nm,0.6s,mb4.4						
KIV	Kislovodsk	21.81	290	*e*P	P	04 19 11.9	-0.4
KIV				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.4						
SHL	Shillong	22.26	124	*e*P	P	04 19 15.0	-2.2
ZAK	Zakamensk	24.37	54	*e*P	P	04 19 37.8	+0.1
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.5						
TLY	Talaya	24.91	52	⇑*i*P	P	04 19 43.3	+0.8
TLY				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.2						
ANN	Anapa	25.57	292	*e*P	P	04 19 43.5	-5.1
ANN				*e*S	S	04 24 04.5	-8.1
ANN				pmax	pmax		
	comp=Z,40nm,1.3s,mb4.8						
MALT	Malatya	25.73	277	*e*P	P	04 19 51.4	+1.3
	comp=Z,6.9nm,1.1s,mb4.1						
MALT	Malatya	25.73	277	*e*P	P	04 19 51.4	+1.3
MALT				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.1						
SONM	Songino Array	26.02	61	P	P	04 19 53.1	+0.5
SONM				pmax	pmax		
	comp=Z,1.0nm,0.9s						
SONM	Songino Array	26.02	61	P	P	04 19 53.1	+0.5
	comp=Z,0.8nm,0.9s,mb3.3,baz=267,slow=10.0,SNR=5.0						
ULN	Ulaanbaatar	26.46	61	*e*P	P	04 19 57.4	+0.8
	comp=Z,1.1nm,0.6s,mb3.6						
ULN	Ulaanbaatar	26.46	61	*e*P	P	04 19 56.8	+0.2
OBN	Obninsk	27.66	315	*e*P	P	04 20 07.3	-0.1
OBN				pmax	pmax		
	comp=Z,26nm,1.6s,mb4.6						
BRTR	Keskin Array B	29.02	282	*e*P	P	04 20 20.7	+1.1
BRTR	Keskin Array B	29.02	282	P	P	04 20 20.4	+0.9
	comp=Z,1.9nm,0.7s,mb3.9,baz=80,slow=7.5,SNR=14						
AKASG	Malin Array Be	31.23	304	P	P	04 20 38.7	-0.3
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	Malin Array Be	31.23	304	P	P	04 20 38.7	-0.3
	comp=Z,1.8nm,0.4s,mb4.2,baz=76,slow=7.4,SNR=11						
AKBB	Malin Array Si	31.23	304	*e*P	P	04 20 38.6	-0.3
BOD	Bodaibo	32.31	42	*e*P	P	04 20 47.8	-0.6
JOF	Joensuu	33.08	327	*e*p	P	04 20 54.5	-0.6
FINES	FINESS Array B	34.86	323	P	P	04 21 11.0	+0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	34.86	323	P	P	04 21 11.0	+0.5
	comp=Z,1.1nm,0.4s,mb4.2,baz=119,slow=9.5,SNR=19						
ARCES	ARCESS Array B	38.06	336	P	P	04 21 38.3	+0.6
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.6s						
ARCES	ARCESS Array B	38.06	336	P	P	04 21 38.2	+0.6
	comp=Z,7.0nm,0.6s,mb4.6,baz=110,slow=8.2,SNR=73						
GERES	GERESS Array B	41.37	302	P	P	04 22 06.6	+1.2
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
GERES	GERESS Array B	41.37	302	P	P	04 22 06.6	+1.2
	comp=Z,0.6nm,0.4s,mb3.5,baz=62,slow=8.6,SNR=12						
NB2	NORSAR Subarra	41.88	321	P	P	04 22 09.1	-0.3
	comp=Z,1.6nm,0.5s,mb3.9,baz=92,slow=8.6						
NOA	NORSAR Array B	41.88	321	P	P	04 22 09.3	-0.1
NOA				LR	LR	04 40 37.9	
NOA	NORSAR Array B	41.88	321	P	P	04 22 09.3	-0.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NOA				MLR	MLR		
	comp=Z,89nm,20.3s						
NOA	NORSAR Array B	41.88	321	P	P	04 22 09.3	-0.1
	comp=Z,1.9nm,0.5s,mb4.0,baz=92,slow=8.0,SNR=8.9						
NOA				LR	LR	04 40 37.9	
	comp=Z,89nm,20.3s,MS3.6,baz=285,slow=38						
TIXI	Tiksi	42.28	23	*e*P	P	04 22 12.2	-0.3
	comp=Z,3.0nm,0.5s,mb4.2						
TIXI	Tiksi	42.28	23	*e*P	P	04 22 11.2	-1.3
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.0						
LPG	La Plagne	46.78	299	*e*P	P	04 22 49.1	+0.4
	comp=Z,8.1nm,0.9s,mb4.3						
LPG	La Plagne	46.78	299	*e*P	P	04 22 49.1	+0.4
	comp=Z,4.1nm,0.9s,mb4.4						
LPG	La Plagne	46.78	299	*e*P	P	04 22 49.1	+0.4
LPG				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
LPL	La Plagne	46.78	299	*e*P	P	04 22 49.5	+0.7
MBDF	Montbardon	47.00	298	*e*P	P	04 22 51.8	+1.3
	comp=Z,8.5nm,0.8s,mb4.4						
MBDF	Montbardon	47.00	298	*e*P	P	04 22 51.8	+1.3
	comp=Z,4.3nm,0.8s,mb4.4						
MBDF	Montbardon	47.00	298	*e*P	P	04 22 51.8	+1.3
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
ESDC	Sonseca Array	56.29	296	P	P	04 23 59.0	-0.9
	comp=Z,0.4nm,0.4s,mb3.8,baz=58,slow=7.0,SNR=6.7						
TORD	Torodi Ar. Bea	66.35	267	P	P	04 25 07.6	-0.6
	comp=Z,3.2nm,0.4s,mb4.7,baz=52,slow=5.6,SNR=128						
YKA	Yellowknife Ar	77.65	3	P	P	04 26 15.3	+0.2
YKA				pmax	pmax		
	comp=Z,2.0nm,0.4s						
YKA	Yellowknife Ar	77.65	3	P	P	04 26 15.3	+0.3
	comp=Z,2.2nm,0.4s,mb4.4,baz=350,slow=5.8,SNR=50						
WRA	Warramunga Arr	83.47	123	*e*P	P	04 26 47.1	+0.3
WRA	Warramunga Arr	83.47	123	P	P	04 26 45.7	-1.1
	comp=Z,0.7nm,0.8s,mb3.7,baz=327,slow=5.5,SNR=7.8						
ASAR	Alice Springs	85.90	126	P	P	04 26 58.2	-0.8
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ASAR	Alice Springs	85.90	126	P	P	04 26 58.1	-0.8
	comp=Z,0.7nm,0.9s,mb3.9,baz=330,slow=5.1,SNR=7.3						

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*ISCJB **16** 04:39:21.6±0.4, 2608S±009×7083E±008, h10^{km}, mb4.4/34, MS4.1/5, Error ellipse: s-maj=12.8km s-min=10.1km az=174.9*

*MOS **16** 04:39:21.5±0.8, 2607S×7083E, h10^{km}, mb4.9/12, Error ellipse: s-maj=17.9km s-min=12.0km az=87.5*

*IDC **16** 04:39:21.7±0.5, 2605S×7079E, h0^{km}, mb4.1/18, mb1 4.2/18, mb1mx4.2/25, mbtmp4.1/18, MS4.1/5, Ms1 4.0/5, ms1mx3.7/25, Error ellipse: s-maj=18.6km s-min=14.2km az=6.0*

*NEIC **16** 04:39:23.3±0.3, 2608S×7077E, h10^{km}, mb4.8/6, Error ellipse: s-maj=10.6km s-min=8.0km az=181.0*

*BJI **16** 04:39:23.2, 26.10S×7080E, h10^{km}, mb4.6*

ISC 16 04:39:23.5±0.4**, 2607S**±009×**7078E**±008**, h10^{km}, n66, σ0^{s}81**/51**, mb4.4**/34**, MS4.1**/5**, 3C-1D, Indian Ocean Triple Junction**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OPO	Ambohidratompo	23.04	284	P	P	04 44 29.8	+0.8
	1.9nm,0.7s,mb3.6,baz=113,slow=15,SNR=3.0						
MATP	Matopo	39.13	269	P	P	04 46 50.9	-0.5
MATP	Matopo	39.13	269	P	P	04 46 50.9	-0.5
	8.1nm,1.2s,mb4.3,baz=89,slow=13,SNR=4.9						
PSI	Prapat	39.56	48	P	P	04 46 55.7	+0.7
PSI	Prapat	39.56	48	P	P	04 46 55.7	+0.7
	2.6nm,0.4s,mb4.3,baz=170,slow=12,SNR=5.1						
BOSA	Boshof	40.34	256	P	P	04 47 00.9	-0.5
	3.1nm,0.9s,mb4.0,baz=90,slow=4.0,SNR=5.0						
BOSA				LR	LR	05 00 20.3	
	comp=Z,341nm,19.2s,MS4.2,baz=118,slow=31						
KMBO	Kilima Mbogo	40.70	302	P	P	04 47 04.8	+0.4
	2.2nm,0.9s,mb3.8,baz=133,slow=11,SNR=4.7						
LSZ	Lusaka	41.11	277	*e*P	P	04 47 08.2	+0.3
	2.9nm,0.6s,mb4.1						
LSZ	Lusaka	41.11	277	*e*P	P	04 47 08.2	+0.3
LSZ				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
LSZ	Lusaka	41.11	277	P	P	04 47 07.9	+0.1
	comp=Z,0.9nm,0.4s,mb3.8,baz=133,slow=11,SNR=3.5						
MAW	Mawson	41.83	185	LR	LR	05 00 17.6	
	comp=Z,413nm,20.7s,MS4.3,baz=171,slow=30						
FITZ	Fitzroy Crossi	51.14	93	*e*P	P	04 48 27.7	+0.8
CHTO	Chiang Mai	52.34	34	*e*P	P	04 48 35.4	-0.3
	comp=Z,8.9nm,1.1s,mb4.6						
CHTO	Chiang Mai	52.34	34	*e*P	P	04 48 35.4	-0.3
CHTO				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
ASAR	Alice Springs	56.82	102	P	P	04 49 07.4	-1.0
	comp=Z,2.4nm,0.8s,mb4.3,baz=252,slow=6.4,SNR=23						
WRA	Warramunga Arr	58.33	98	P	P	04 49 18.4	-0.7
	comp=Z,3.1nm,0.8s,mb4.4,baz=254,slow=7.1,SNR=19						
WRA				LR	LR	05 13 16.3	
	comp=Z,92nm,19.9s,MS3.9,baz=200,slow=35						
KBL	Kabul	60.30	358	*e*P	P	04 49 33.6	+1.4
SNAA	Sanae	60.34	200	P	P	04 49 33.6	+1.4
	comp=Z,1.2nm,0.9s,mb3.9,baz=159,slow=8.6,SNR=3.4						
STKA	Stephens Creek	61.24	114	P	P	04 49 39.3	+0.4
	comp=Z,2.6nm,0.9s,mb4.3,baz=200,slow=9.1,SNR=3.1						
STKA				LR	LR	05 13 54.5	
	comp=Z,132nm,18.0s,MS4.1,baz=206,slow=34						
GYA	Guiyang	62.64	36	P	P	04 49 54.8	+6.6
GYA				AMB	AMB		
	comp=Z,10.0nm,1.3s,mb4.8						
VNDA	Vanda	64.98	166	P	P	04 50 02.8	-0.2
	comp=Z,5.7nm,0.8s,mb4.7,baz=286,slow=9.1,SNR=8.5						
AAK	Ala-Archa	68.44	3	*e*P	P	04 50 26.4	+0.9
	comp=Z,14nm,1.3s,mb4.8						
AAK	Ala-Archa	68.44	3	⇑*e*P	P	04 50 25.9	+0.5
AAK				pmax	pmax		
	comp=Z,11nm,1.9s,mb4.6						
KK31	Karatay Array	68.83	360	*i* P	P	04 50 28.2	+0.4
KK31				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
KKAR	Karatay Array	68.83	360	*i* P	P	04 50 28.2	+0.4
KKAR				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
LZH	Lanzhou	69.25	28	*e*P	P	04 50 35.5	+4.9
LZH				AP	pP	04 50 40.1	+6.2
LZH				XP	sP	04 50 43.3	+8.2
LZH				AMB	AMB		
	comp=Z,18nm,1.4s,mb4.8						
LZH	Lanzhou	69.25	28	*e*P	P	04 50 35.5	+4.9
	comp=Z,18nm,1.4s,mb4.8						
LZH				pP	pP	04 50 40.1	+6.2
LZH				sP	sP	04 50 43.3	+8.2
GTA	Gaotai	70.56	23	*e*P	P	04 50 40.3	+1.7
GTA				AP	pP	04 50 45.3	+3.5
GTA				XP	sP	04 50 48.3	+5.3
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.2						
WMQ	Urumqi	71.26	13	P	P	04 50 43.1	+0.4
WMQ				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.8						
MK31	Makanchi Array	73.26	8	*e*P	P	04 50 54.4	-0.3
MKAR	Makanchi Array	73.26	8	⇑*e*P	P	04 50 54.7	+0.1

MKAR	Makanchi Array	73.26	8	P	P	04 50 54.1	-0.5
	comp=Z,4.4nm,0.8s,mb4.5,baz=196,slow=6.4,SNR=44						
NJ2	Nanjing	73.77	41	eP	P	04 50 56.0	-2.0
NJ2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.9						
BRTR	Keskin Array B	74.05	331	⇑eP	P	04 50 59.0	-0.5
BRTR	Keskin Array B	74.05	331	P	P	04 50 59.5	+0.1
	comp=Z,1.1nm,0.8s,mb3.8,baz=163,slow=8.9,SNR=6.6						
KIV	Kislovodsk	74.29	339	eP	P	04 50 59.7	-1.1
KIV				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.2						
AB31	Akbulak array	75.60	353	i P	P	04 51 07.8	-0.4
AB31				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
KURK	Kurchatov	76.76	5	eP	P	04 51 14.9	+0.2
	comp=Z,19nm,1.2s,mb4.9						
KURK	Kurchatov	76.76	5	eP	P	04 51 14.9	+0.2
KURK				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
TOA0	Torodi Ar. Sit	77.65	291	eP	P	04 51 20.7	+0.2
TORD	Torodi Ar. Bea	77.65	291	P	P	04 51 20.1	-0.5
	comp=Z,0.9nm,0.7s,mb3.8,baz=107,slow=4.9,SNR=13						
TORD				LR	LR	05 21 47.8	
	comp=Z,70nm,20.1s,MS4.0,baz=145,slow=33						
BRVK	Borovoye	78.79	360	eP	P	04 51 26.1	+0.1
	comp=Z,6.9nm,1.1s,mb4.5						
BRVK	Borovoye	78.79	360	eP	P	04 51 26.1	+0.1
BRVK				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
SONM	Songino Array	80.23	23	P	P	04 51 34.7	+0.8
	comp=Z,1.2nm,0.9s,mb3.8,baz=222,slow=2.0,SNR=9.0						
ZAL	Zalesovo	80.59	8	P	P	04 51 35.2	-0.6
ZALV	Zalesovo Beam	80.60	8	P	P	04 51 35.2	-0.6
	comp=Z,4.5nm,0.8s,mb4.4,baz=202,slow=4.8,SNR=18						
NVS	Novosibirsk	81.28	7	eP	P	04 51 40.2	+0.7
NVS				pmax	pmax		
	comp=N,14nm,1.7s						
NVS				pmax	pmax		
	comp=Z,20nm,1.7s,mb4.8						
ARU	Arti	82.82	353	⇓iP	P	04 51 47.1	-0.4
ARU				e		04 54 59.5	
ARU				eS	S	05 02 05.9	+0.4
ARU				eSS	SS	05 07 29.6	+0.6
ARU				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
KSRS	Korea Array	82.89	42	P	P	04 51 49.4	+1.1
	comp=Z,0.5nm,0.4s,mb3.9,baz=236,slow=5.7,SNR=3.9						
AKASG	Malin Array Be	84.80	335	P	P	04 51 57.3	-0.4
	comp=Z,0.5nm,0.6s,mb3.9,baz=146,slow=4.7,SNR=5.0						
OBN	Obninsk	86.01	341	eP	P	04 52 01.9	-1.8
OBN				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.7						
HIA	Hailar	86.75	30	eP	P	04 52 06.2	-1.3
YKA	Yellowknife Ar	143.40	4	PKP	PKPdf	04 58 55.2	-2.4
YKA				PP	PP	05 02 06.6	-2.0
YKA	Yellowknife Ar	143.40	4	PKIKP	PKPdf	04 58 55.2	-2.4
YKA						05 02 06.6	
YKA	Yellowknife Ar	143.40	4	PKP	PKPdf	04 58 55.2	-2.4
	comp=Z,0.3nm,0.7s,baz=359,slow=3.3,SNR=5.9						
YKA				PP	PP	05 02 06.6	-2.0
	comp=Z,0.2nm,0.8s,baz=349,slow=7.1,SNR=4.1						
FCC	Fort Churchill	145.64	346	ePKPbc	PKPbc	04 59 01.0	-0.8
FFC	Flin Flon	150.88	351	ePKPbc	PKPbc	04 59 15.3	-0.6
FFC				ePKPab	PKPab	04 59 22.0	-1.1
ULM	Lac du Bonnet	153.76	340	PKP	PKPdf	04 59 13.6	-1.0
ULM				PKPbc	PKPbc	04 59 20.4	-2.1
ULM	Lac du Bonnet	153.76	340	PKP	PKPdf	04 59 13.6	-1.0
	comp=Z,0.8nm,0.6s,baz=90,slow=3.0,SNR=2.6						
ULM				PKPbc	PKPbc	04 59 20.4	-2.1
	comp=Z,1.5nm,0.8s,baz=33,slow=2.4,SNR=4.2						
NEW	Newport	156.99	14	ePKPdf	PKPdf	04 59 19.8	+0.7
NEW	Newport	156.99	14	ePKIKP	PKPdf	04 59 19.8	+0.7
PDAR	Pinedale Array	163.34	1	PKP	PKPdf	04 59 26.4	0.0
PDAR	Pinedale Array	163.34	1	PKP	PKPdf	04 59 26.4	0.0
	comp=Z,0.7nm,1.0s,baz=98,slow=2.1,SNR=4.3						
TXAR	Lajitas Array	174.10	305	PKP	PKPdf	04 59 33.7	-0.1
TXAR	Lajitas Array	174.10	305	PKIKP	PKPdf	04 59 33.7	-0.1
TXAR	Lajitas Array	174.10	305	PKP	PKPdf	04 59 33.7	-0.1
	comp=Z,0.3nm,0.6s,baz=19,slow=5.9,SNR=3.6						

ISCJB ***16*** *04:47:05.1±0.2, 51.47N±0.01×6.89E±0.02, h0^{km}, Error ellipse: s-maj=2.1km s-min=1.6km az=150.8*
BUG ***16*** *04:47:05.9, 51.56N×6.77E, h1^{km}, ML2.7*
NEIC ***16*** *04:47:06.7±0.5, 51.62N×6.74E, h10^{km}, ML3.5(LDG), ML3.1(STR), ML3.0(SZGRF), ML2.8(FUR), Error ellipse: s-maj=6.3km s-min=3.0km az=165.0*
PRU ***16*** *04:47:06.2, 51.59N×6.74E, h0^{km}*
BGR ***16*** *04:47:07.7±0.4, 51.53N×6.87E, h1^{km}, ML3.1/9, Error ellipse: s-maj=4.4km s-min=3.3km az=117.0*
CSEM ***16*** *04:47:07.8±0.1, 51.54N×6.84E, h1^{km}, ML3.5/20, Error ellipse: s-maj=1.4km s-min=1.1km az=159.0*
UCC ***16*** *04:47:07.1±0.4, 51.51N×7.00E, h4^{km}±3^{km}, ML2.7*
LDG ***16*** *04:47:08.3±0.1, 51.54N×6.78E, h1^{km}, Md3.5/2, Ml3.5/22, Error ellipse: s-maj=2.4km s-min=1.8km az=28.0, Suspected Mining induced.*
BNS ***16*** *04:47:08.2±1.4, 51.55N×6.82E, h1^{km}, ML2.8*
STR ***16*** *04:47:11.0±0.2, 51.37N×6.77E, h5^{km}, Ml3.0, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 16 04:47:06.4±0.2**, 51.53N**±0.01×**6.79E**±0.02**, h0^{km}, n241, σ1^{s}23**/429**, 17C-8D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BZER	Hlnxe	0.10	29	Pg	Pg	04 47 07.9	-0.4
BZER				Sg	Sg	04 47 09.1	-0.5
BZER	Hlnxe	0.10	29	Pg	Pg	04 47 07.9	-0.4
BZER				Sg	Sg	04 47 09.1	-0.5
BUG	Bochum--Univer	0.31	107	⇑ePg	Pg	04 47 13.1	+0.7
BUG				Sg	Sg	04 47 18.5	+2.1
BUG	Bochum--Univer	0.31	107	ePg	Pg	04 47 13.1	+0.7
BUG				eSg	Sg	04 47 16.4	0.0
BUG	Bochum--Univer	0.31	107	ePg	Pg	04 47 13.1	+0.7
BUG				eSg	Sg	04 47 16.4	0.0
WTSB	Winterswijk	0.43	1	ePg	Pg	04 47 15.0	+0.3
	344nm,0.3s						
WTSB				eSg	Sg	04 47 20.8	+0.4
WTSB	Winterswijk	0.43	1	eSg	Sg	04 47 20.8	+0.4
RODG	Roetgen-Dahlhe	0.55	225	ePg	Pg	04 47 19.1	+2.2
BNS	Bensberg	0.62	157	ePg	Pg	04 47 19.9	+1.7
BNS				i Sg	Sg	04 47 29.4	+3.2
	431nm,0.5s						
HOBG	Hohbusch	0.65	148	ePg	Pg	04 47 20.2	+1.4
HOBG				eSg	Sg	04 47 29.6	+2.5
	438nm,0.5s						
KLL	Kalltalsperre	0.94	199	ePg	Pg	04 47 26.5	+2.2
DREG	Dreilaegerbach	0.94	202	ePg	Pg	04 47 26.7	+2.3
DREG				i Sg	Sg	04 47 39.8	+3.3
	367nm,0.6s						
STB	Steinbach	0.94	178	ePg	Pg	04 47 26.3	+1.9
STB				eSg	Sg	04 47 39.8	+3.2
	244nm,0.6s						
HGN	Heimansgroeve	0.94	215	ePg	Pg	04 47 26.2	+1.8
	35nm,0.2s,baz=40						
HGN				eSg	Sg	04 47 39.6	+3.0
HGN	Heimansgroeve	0.94	215	ePg	Pg	04 47 26.2	+1.8
	35nm,0.2s						
HGN				eSg	Sg	04 47 39.6	+3.0
IBBN	Ibbenburen	0.98	37	ePg	Pg	04 47 24.4	-0.7
	SNR=30						
IBBN				eSg	Sg	04 47 37.9	0.0
IBBN	Ibbenburen	0.98	37	ePg	Pg	04 47 24.2	-1.0
IBBN				eSg	Sg	04 47 39.3	+1.5
IBBN	Ibbenburen	0.98	37	ePg	Pg	04 47 24.2	-1.0
IBBN				eSg	Sg	04 47 39.3	+1.5
BEBN	Eben Emael	1.02	224	⇓P	Pg	04 47 27.6	+1.8
BEBN				S	Sg	04 47 41.7	+2.6
	comp=N,173nm,0.4s						
BEBN	Eben Emael	1.02	224	P	Pg	04 47 27.6	+1.7
BEBN				S	Sg	04 47 41.6	+2.5
	comp=N,173nm,0.4s						
HILG	Hillesheim	1.25	183	ePg	Pg	04 47 32.0	+1.8
WIT	Witteveen	1.28	357	ePn	Pn	04 47 31.8	+0.2
	comp=N,554nm,0.3s						
WIT				eS	Sg	04 47 49.9	+2.2
WIT	Witteveen	1.28	357	ePn	Pn	04 47 31.8	+0.2
	comp=N,554nm,0.3s						
WIT				eS	Sg	04 47 49.9	+2.2
BGG	Burgeitz	1.37	165	ePg	Pg	04 47 33.1	+0.4
BGG				eSg	Sg	04 47 52.9	+2.4
	comp=N,142nm,0.3s						
BCLA	Clavier	1.46	221	⇑P	Pn	04 47 34.2	+0.2
BCLA				S	Sg	04 47 53.9	+0.7
	comp=N,96nm,0.4s						
BCLA	Clavier	1.46	221	P	Pn	04 47 34.1	+0.1
BCLA				S	Sg	04 47 53.9	+0.7
	comp=N,96nm,0.4s						
TNS	Taunus Mts	1.68	141	ePg	Pg	04 47 36.9	-1.6
	SNR=26						
TNS				eSg	Sg	04 47 58.9	-1.4
TNS	Taunus Mts	1.68	141	ePg	Pg	04 47 37.0	-1.6
TNS				eSg	Sg	04 48 00.2	-0.1
TNS	Taunus Mts	1.68	141	ePg	Pg	04 47 37.0	-1.6
TNS				eSg	Sg	04 48 00.2	-0.1
ABH	Alteburg	1.72	164	Pn	Pn	04 47 38.4	+0.8
ABH				Sg	Sg	04 48 02.0	+0.3
ABH	Alteburg	1.72	164	Pn	Pn	04 47 38.4	+0.8
ABH				Sg	Sg	04 48 02.0	+0.3
GIVF	Givet	1.90	222	ePn	Pn	04 47 40.1	+0.1
	SNR=1.0						
GIVF	Givet	1.90	222	ePg	Pg	04 47 43.9	+1.1
GIVF				eSn	Sn	04 48 02.8	-1.8
	SNR=1.0						
GIVF				eSg	Sg	04 48 08.0	+0.6
	comp=N,190nm,0.4s,SNR=1.0						
GIVF	Givet	1.90	222	ePn	Pn	04 47 40.1	+0.1
GIVF				ePg	Pg	04 47 43.9	+1.1
GIVF				eSn	Sn	04 48 02.8	-1.8
GIVF				eSg	Sg	04 48 08.0	+0.6
GIVF	Givet	1.90	222	ePn	Pn	04 47 40.1	+0.1
	SNR=1.0						
GIVF	Givet	1.90	222	ePg	Pg	04 47 43.9	+1.1
GIVF				eSn	Sn	04 48 02.8	-1.8
	SNR=1.0						
GIVF				eSg	Sg	04 48 08.0	+0.6
	comp=N,95nm,0.4s,SNR=1.0						
WLF	Walferdange	1.91	193	ePg	Pg	04 47 44.0	+0.9
	SNR=9.2						
WLF				eSg	Sg	04 48 07.0	-0.9
WLF	Walferdange	1.91	193	ePn	Pn	04 47 41.4	+1.1
WLF				ePg	Pg	04 47 44.3	+1.2
WLF				eSg	Sg	04 48 08.8	+0.9
WLF	Walferdange	1.91	193	ePn	Pn	04 47 41.3	+1.1
WLF	Walferdange	1.91	193	ePg	Pg	04 47 44.3	+1.2
DOU	Dourbes	2.00	225	⇑P	Pn	04 47 42.0	+0.5
DOU	Dourbes	2.00	225	P	Pn	04 47 41.9	+0.5
UBBA	Unterbreizbach	2.14	108	ePg	Pg	04 47 46.2	-1.3
	SNR=4.4						
UBBA				eSg	Sg	04 48 13.2	-2.0
BAIF	Baives	2.21	229	ePn	Pn	04 47 44.3	+0.1
BAIF	Baives	2.21	229	ePg	Pg	04 47 49.2	+0.5
BAIF				eSn	Sn	04 48 10.6	-1.6
BAIF				eSg	Sg	04 48 17.5	+0.3
	comp=N,82nm,0.5s						
BAIF	Baives	2.21	229	ePn	Pn	04 47 44.3	+0.1
BAIF				ePg	Pg	04 47 49.2	+0.5
BAIF				eSn	Sn	04 48 10.6	-1.6
BAIF				eSg	Sg	04 48 17.5	+0.3
BAIF	Baives	2.21	229	ePn	Pn	04 47 44.3	+0.1
BAIF	Baives	2.21	229	ePg	Pg	04 47 49.2	+0.5
BAIF				eSn	Sn	04 48 10.6	-1.6
BAIF				eSg	Sg	04 48 17.5	+0.3
	comp=N,41nm,0.5s						
CLZ	Clausthal	2.25	81	ePn	Pn	04 47 43.8	-1.0
	SNR=15						
CLZ				ePg	Pg	04 47 48.1	-1.4
	SNR=16						
CLZ				eSg	Sg	04 48 16.5	-2.2
TOD	Tromm	2.32	146	Pn	Pn	04 47 46.4	+0.7
TOD	Tromm	2.32	146	Pn	Pn	04 47 46.4	+0.7
HROE	Hohe Rhon--Fla	2.35	114	ePn	Pn	04 47 45.8	-0.4
HROE	Hohe Rhon--Fla	2.35	114	ePn	Pn	04 47 45.8	-0.4
HROE	Hohe Rhon--Fla	2.35	114	ePn	Pn	04 47 45.8	-0.4
RFYF	Reffroy	3.03	197	ePg	Pg	04 48 04.2	-0.2
RFYF				eSg	Sg	04 48 44.4	+0.8
	comp=N,39nm,0.3s,baz=8.2						
RFYF	Reffroy	3.03	197	ePg	Pg	04 48 04.2	-0.2
RFYF				eSg	Sg	04 48 44.4	+0.8
RFYF	Reffroy	3.03	197	ePg	Pg	04 48 04.2	-0.2
RFYF				eSg	Sg	04 48 44.4	+0.8
	comp=N,20nm,0.3s						
MENF	Mencas	3.08	253	Pn	Pn	04 47 57.7	+1.4
MENF	Mencas	3.08	253	Pn	Pn	04 47 57.7	+1.4
MENF	Mencas	3.08	253	Pn	Pn	04 47 57.7	+1.4
CDF	Champ du Feu	3.14	174	ePn	Pn	04 47 57.4	+0.3
	SNR=1.0						
CDF				eSn	Sn	04 48 33.3	-1.9
	SNR=1.0						
CDF				eSg	Sg	04 48 47.1	-0.1
	comp=N,64nm,0.8s						
CDF	Champ du Feu	3.14	174	ePn	Pn	04 47 57.4	+0.3
CDF				eSn	Sn	04 48 33.3	-1.9
CDF				eSg	Sg	04 48 47.1	-0.1
CDF	Champ du Feu	3.14	174	ePn	Pn	04 47 57.4	+0.3
	SNR=1.0						
CDF				eSn	Sn	04 48 33.3	-1.9
	SNR=1.0						
CDF				eSg	Sg	04 48 47.1	-0.1
	comp=N,32nm,0.8s						
NEUB	Neuenburg	3.14	94	ePg	Pg	04 48 07.0	+0.4
	SNR=3.4						
NEUB				eSg	Sg	04 48 46.2	-1.0
MOX	Moxa	3.17	104	ePn	Pn	04 47 57.4	0.0
	SNR=5.8						
MOX				ePg	Pg	04 48 06.5	-0.6
	SNR=6.7						
MOX				eSg	Sg	04 48 45.8	-2.4
MOX	Moxa	3.17	104	ePn	Pn	04 47 57.4	-0.1
MOX				eSg	Sg	04 48 48.4	+0.3
MOX	Moxa	3.17	104	ePN	Pn	04 47 57.4	-0.1
MOX				eSG	Sg	04 48 48.4	+0.3
MOX	Moxa	3.17	104	ePn	Pn	04 47 57.4	-0.1
MOX				eSg	Sg	04 48 48.4	+0.3
BSEG	Bad Segeberg	3.22	40	eSn	Sn	04 48 33.6	-3.7
MEZF	Maizieres J'vi	3.23	201	ePn	Pn	04 47 57.9	-0.5
	baz=28						
MEZF	Maizieres J'vi	3.23	201	ePg	Pg	04 48 08.5	+0.1
	baz=27						
MEZF				eSg	Sg	04 48 50.1	-0.2
	comp=N,55nm,0.6s						
MEZF	Maizieres J'vi	3.23	201	ePn	Pn	04 47 57.9	-0.5
MEZF				ePg	Pg	04 48 08.5	+0.1
MEZF				eSg	Sg	04 48 50.1	-0.2
MEZF	Maizieres J'vi	3.23	201	ePn	Pn	04 47 57.9	-0.5
MEZF	Maizieres J'vi	3.23	201	ePg	Pg	04 48 08.5	+0.1
MEZF				eSg	Sg	04 48 50.1	-0.2
	comp=N,27nm,0.6s						
ECH	Echery	3.33	176	Pn	Pn	04 47 59.9	+0.2
ECH				Sg	Sg	04 48 54.7	+1.4
ECH	Echery	3.33	176	Pn	Pn	04 47 59.9	+0.2
ECH				Sg	Sg	04 48 54.7	+1.4
ECH	Echery	3.33	176	Pn	Pn	04 47 59.9	+0.2
ECH				Sg	Sg	04 48 54.7	+1.4
THEF	They Montfort	3.35	189	Pn	Pn	04 48 00.3	+0.3
THEF	They Montfort	3.35	189	Pn	Pn	04 48 00.3	+0.3
THEF	They Montfort	3.35	189	Pn	Pn	04 48 00.3	+0.3
BFO	Black Forest	3.36	162	ePn	Pn	04 48 00.0	0.0
	SNR=3.8						
BFO				eSn	Sn	04 48 37.6	-2.9
BFO				eSg	Sg	04 48 54.5	+0.3
BFO	Black Forest	3.36	162	ePn	Pn	04 48 00.3	+0.2
BFO				eSn	Sn	04 48 37.7	-2.9
BFO	Black Forest	3.36	162	ePn	Pn	04 48 00.3	+0.3
BFO				eSn	Sn	04 48 37.7	-2.8
GRA1	Grafenberg Arr	3.37	121	ePn	Pn	04 47 59.8	-0.4
GRA1				eSg	Sg	04 48 53.3	-1.3
GRA1	Grafenberg Arr	3.37	121	ePn	Pn	04 47 59.8	-0.4
GRA1				eSg	Sg	04 48 53.3	-1.3
GRF	Grafenberg Arr	3.37	121	ePn	Pn	04 48 01.3	+1.0
	SNR=1.5						
GRF				eSg	Sg	04 48 53.3	-1.3
GRF	Grafenberg Arr	3.37	121	ePn	Pn	04 47 59.8	-0.4
GRF				eSg	Sg	04 48 53.3	-1.3
GRF	Grafenberg Arr	3.37	121	ePn	Pn	04 47 59.8	-0.4
GRF				eSg	Sg	04 48 53.3	-1.3
GRFO	Grafenberg	3.37	121	ePn	Pn	04 48 01.1	+0.9
GRFO				ePg	Pg	04 48 12.8	+1.9
GRFO	Grafenberg	3.37	121	ePn	Pn	04 48 01.1	+0.9
GRFO	Grafenberg	3.37	121	ePg	Pg	04 48 12.8	+1.9
SFTF	Sexfontaines	3.52	199	ePn	Pn	04 48 02.9	+0.6
SFTF	Sexfontaines	3.52	199	ePg	Pg	04 48 13.0	-0.8
	baz=22						
SFTF				eSn	Sn	04 48 42.1	-2.5
SFTF				eSg	Sg	04 48 58.4	-1.0
	comp=N,32nm,0.5s						
SFTF	Sexfontaines	3.52	199	ePn	Pn	04 48 02.9	+0.6
SFTF				ePg	Pg	04 48 13.0	-0.8
SFTF				eSn	Sn	04 48 42.1	-2.5
SFTF				eSg	Sg	04 48 58.4	-1.0
SFTF	Sexfontaines	3.52	199	ePn	Pn	04 48 02.9	+0.6
SFTF	Sexfontaines	3.52	199	ePg	Pg	04 48 13.0	-0.8
SFTF				eSn	Sn	04 48 42.1	-2.5
SFTF				eSg	Sg	04 48 58.4	-1.0
	comp=N,16nm,0.5s						
HAU	Haudompre	3.54	185	ePn	Pn	04 48 03.4	+0.8
	SNR=1.0						
HAU	Haudompre	3.54	185	ePg	Pg	04 48 13.9	-0.4
	SNR=1.0						
HAU				eSg	Sg	04 48 59.1	-1.0
	comp=N,45nm,0.7s						
HAU	Haudompre	3.54	185	ePn	Pn	04 48 03.4	+0.8
HAU				ePg	Pg	04 48 13.9	-0.4
HAU				eSg	Sg	04 48 59.1	-1.0
HAU	Haudompre	3.54	185	ePn	Pn	04 48 03.4	+0.8
	SNR=1.0						
HAU	Haudompre	3.54	185	ePg	Pg	04 48 13.9	-0.4
	SNR=1.0						
HAU				eSg	Sg	04 48 59.1	-1.0
	comp=N,23nm,0.7s						
WERD	Werda	3.65	105	ePn	Pn	04 48 04.0	-0.1
	SNR=5.6						
MOF	Molkenrain	3.69	176	Pn	Pn	04 48 04.8	+0.2
MOF	Molkenrain	3.69	176	Pn	Pn	04 48 04.8	+0.2
MOF	Molkenrain	3.69	176	Pn	Pn	04 48 04.8	+0.2
GUNZ	Gunzen	3.69	106	ePn	Pn	04 48 04.6	-0.1
	SNR=4.0						
GUNZ				eSg	Sg	04 49 04.0	-1.0
HINF	Hinteralfeld	3.72	179	ePn	Pn	04 48 05.8	+0.8
	SNR=1.0						
HINF	Hinteralfeld	3.72	179	ePg	Pg	04 48 17.0	-0.7
HINF				eSn	Sn	04 48 46.0	-3.5
	SNR=1.0						
HINF				eSg	Sg	04 49 05.6	-0.2
	comp=N,31nm,0.6s,SNR=1.0						
HINF	Hinteralfeld	3.72	179	ePn	Pn	04 48 05.8	+0.8
HINF				ePg	Pg	04 48 17.0	-0.7
HINF				eSn	Sn	04 48 46.0	-3.5
HINF				eSg	Sg	04 49 05.6	-0.2
HINF	Hinteralfeld	3.72	179	ePn	Pn	04 48 05.8	+0.8
	SNR=1.0						
HINF	Hinteralfeld	3.72	179	ePg	Pg	04 48 17.0	-0.7
HINF				eSn	Sn	04 48 46.0	-3.5
	SNR=1.0						
HINF				eSg	Sg	04 49 05.6	-0.2
	comp=N,16nm,0.6s,SNR=1.0						
FELD	Feldberg im Sc	3.74	167	Pn	Pn	04 48 05.9	+0.5
FELD	Feldberg im Sc	3.74	167	Pn	Pn	04 48 05.9	+0.5
TANN	Tannenbergstha	3.75	105	ePn	Pn	04 48 06.2	+0.7
	SNR=6.5						
TANN				eSn	Sn	04 48 48.3	-2.0
TANN				eSg	Sg	04 49 06.5	-0.4
MGBB	Grossbuechelbe	3.78	112	ePn	Pn	04 48 05.7	-0.2
NKC	Novy Kostel	3.81	108	ePn	Pn	04 48 06.7	+0.4
NKC				eSg	Sg	04 49 08.4	-0.3
NKC	Novy Kostel	3.81	108	ePN	Pn	04 48 06.7	+0.4
NKC				eSG	Sg	04 49 08.4	-0.3
	comp=N,29nm,0.7s						
NKC	Novy Kostel	3.81	108	ePn	Pn	04 48 06.7	+0.4
NKC				eSg	Sg	04 49 08.4	-0.3
CLL	Collm	3.89	91	ePg	Pg	04 48 20.6	-0.4
	SNR=3.0						
CLL				eSg	Sg	04 49 08.9	-2.6
CLL	Collm	3.89	91	ePg	Pg	04 48 19.0	-2.0
CLL				eSg	Sg	04 49 09.0	-2.4
CLL	Collm	3.89	91	ePg	Pg	04 48 19.0	-2.0
CLL				eSg	Sg	04 49 09.0	-2.4
	comp=Z,21nm,0.6s						
CLL	Collm	3.89	91	ePg	Pg	04 48 19.0	-2.0
CLL				eSg	Sg	04 49 09.0	-2.4
BRG	Berggiesshubel	4.54	96	Pn	Pn	04 48 17.4	+1.1
BRG				Pg	Pg	04 48 34.0	+0.5
BRG				Sg	Sg	04 49 32.0	-0.3
BRG	Berggiesshubel	4.54	96	Pn	Pn	04 48 17.4	+1.0
BRG	Berggiesshubel	4.54	96	Pg	Pg	04 48 34.0	+0.5
BRG	Berggiesshubel	4.54	96	PN	Pn	04 48 17.4	+1.1
BRG				PG	Pg	04 48 34.0	+0.5
BRG				SG	Sg	04 49 32.0	-0.3
	comp=Z,33nm,1.2s						
WET	Wettzell	4.57	119	eSg	Sg	04 49 29.5	-3.7
LOR	Lormes	4.68	205	ePn	Pn	04 48 17.9	-0.3
	baz=29,SNR=1.0						
LOR	Lormes	4.68	205	ePg	Pg	04 48 34.5	-1.5
	baz=27						
LOR				eSn	Sn	04 49 09.8	-3.3
	baz=20						
LOR				eSg	Sg	04 49 33.7	-2.9
	comp=Z,26nm,0.5s,baz=21,SNR=1.0						
LOR	Lormes	4.68	205	ePn	Pn	04 48 17.9	-0.3
LOR				ePg	Pg	04 48 34.5	-1.5
LOR				eSn	Sn	04 49 09.8	-3.3
LOR				eSg	Sg	04 49 33.7	-2.9
LOR	Lormes	4.68	205	ePn	Pn	04 48 17.9	-0.3
	SNR=1.0						
LOR	Lormes	4.68	205	ePg	Pg	04 48 34.5	-1.5
LOR				eSn	Sn	04 49 09.8	-3.3
LOR				eSg	Sg	04 49 33.7	-2.9
	comp=Z,13nm,0.5s,SNR=1.0						
DAVA	Damuels	4.70	153	⇑iPn	Pn	04 48 20.9	+2.3
DAVA	Damuels	4.70	153	⇓iSn	Sn	04 49 14.9	+1.2
DAVA	Damuels	4.70	153	⇑iPn	Pn	04 48 20.9	+2.3
DAVA				i Sn	Sn	04 49 14.9	+1.2
DAVA	Damuels	4.70	153	⇑iPn	Pn	04 48 20.9	+2.3
DAVA				⇓iSn	Sn	04 49 14.9	+1.2
DAVA	Damuels	4.70	153	⇑iPn	Pn	04 48 20.9	+2.4
DAVA				Sn	Sn	04 49 14.9	+1.1
CABF	La Chapelle	4.95	186	ePn	Pn	04 48 22.1	+0.2
CABF	La Chapelle	4.95	186	ePg	Pg	04 48 39.7	-1.5
CABF				eSn	Sn	04 49 15.6	-4.2
CABF				eSg	Sg	04 49 43.8	-1.5
	comp=Z,49nm,0.9s						
CABF	La Chapelle	4.95	186	ePn	Pn	04 48 22.1	+0.2
CABF				ePg	Pg	04 48 39.7	-1.5
CABF				eSn	Sn	04 49 15.6	-4.2
CABF				eSg	Sg	04 49 43.8	-1.5
CABF	La Chapelle	4.95	186	ePn	Pn	04 48 22.1	+0.2
CABF	La Chapelle	4.95	186	ePg	Pg	04 48 39.7	-1.5
CABF				eSn	Sn	04 49 15.6	-4.2
CABF				eSg	Sg	04 49 43.8	-1.5
	comp=Z,25nm,0.9s						
SSF	Saint Saulge	4.96	207	ePn	Pn	04 48 21.6	-0.5
	SNR=1.0						
SSF	Saint Saulge	4.96	207	ePg	Pg	04 48 40.3	-1.2
SSF				eSn	Sn	04 49 16.8	-3.4
SSF				eSg	Sg	04 49 44.7	-1.1
	comp=Z,15nm,0.4s,SNR=1.0						
SSF	Saint Saulge	4.96	207	ePn	Pn	04 48 21.6	-0.5
SSF				ePg	Pg	04 48 40.3	-1.2
SSF				eSn	Sn	04 49 16.8	-3.4
SSF				eSg	Sg	04 49 44.7	-1.1
SSF	Saint Saulge	4.96	207	ePn	Pn	04 48 21.6	-0.5
	SNR=1.0						
SSF	Saint Saulge	4.96	207	ePg	Pg	04 48 40.3	-1.2
SSF				eSn	Sn	04 49 16.8	-3.4
SSF				eSg	Sg	04 49 44.7	-1.1
	comp=Z,7.6nm,0.4s,SNR=1.0						
KHC	Kasperske Hory	4.97	116	ePn	Pn	04 48 23.3	+1.1
	comp=Z,12nm,0.7s						
KHC				ePg	Pg	04 48 40.4	-1.1
KHC				eSg	Sg	04 49 47.3	+1.4
KHC	Kasperske Hory	4.97	116	ePN	Pn	04 48 23.3	+1.1
KHC				ePG	Pg	04 48 40.4	-1.1
KHC				eSG	Sg	04 49 47.3	+1.4
	comp=Z,12nm,0.7s						
KHC	Kasperske Hory	4.97	116	ePn	Pn	04 48 23.3	+1.1
	comp=Z,12nm,0.7s						
PVCC	Panska Ves	5.01	99	eSG	Sg	04 49 46.6	-0.6
	comp=Z,14nm,0.5s						
PVCC	Panska Ves	5.01	99	eSg	Sg	04 49 46.6	-0.6
	comp=Z,14nm,0.5s						
PRU	Pruhonice	5.16	104	ePn	Pn	04 48 25.6	+0.8
PRU				eSg	Sg	04 49 52.8	+0.9
PRU	Pruhonice	5.16	104	ePN	Pn	04 48 25.6	+0.8
PRU				eSG	Sg	04 49 52.8	+0.9
PRU	Pruhonice	5.16	104	ePn	Pn	04 48 25.6	+0.8
PRU				eSg	Sg	04 49 52.8	+0.9
GEC2	GERESS Array S	5.19	119	eSg	Sg	04 49 51.8	-1.2
GEC2	GERESS Array S	5.19	119	ePn	Pn	04 48 24.7	-0.5
GEC2				eSg	Sg	04 49 54.7	+1.7

GEC2	GERESS Array S	5.19	119	*e*Pn	Pn	04 48 24.7	-0.5
SQTA	Sankt Quirin	5.19	145	⇓*i*Pn	Pn	04 48 27.2	+2.0
SQTA	Sankt Quirin	5.19	145	⇓*i*Pn	Pn	04 48 27.2	+2.0
SQTA	Sankt Quirin	5.19	145	⇓*i*Pn	Pn	04 48 27.2	+2.0
SQTA	Sankt Quirin	5.19	145	⇓*i*Pn	Pn	04 48 27.2	+2.0
FETA	Feichten	5.20	149	⇓*i*Pn	Pn	04 48 26.9	+1.5
FETA	Feichten	5.20	149	Pn	Pn	04 48 26.9	+1.6
AVF	Avril sur Loir	5.25	207	*e*Pn	Pn	04 48 25.9	-0.2
	SNR=1.0						
AVF	Avril sur Loir	5.25	207	*e*Pg	Pg	04 48 45.3	-1.7
AVF				*e*Sn	Sn	04 49 23.1	-4.2
AVF				*e*Sg	Sg	04 49 53.1	-2.0
	comp=Z,27nm,0.8s						
AVF	Avril sur Loir	5.25	207	*e*Pn	Pn	04 48 25.9	-0.2
AVF				*e*Pg	Pg	04 48 45.3	-1.7
AVF				*e*Sn	Sn	04 49 23.1	-4.2
AVF				*e*Sg	Sg	04 49 53.1	-2.0
AVF	Avril sur Loir	5.25	207	*e*Pn	Pn	04 48 25.9	-0.2
	SNR=1.0						
AVF	Avril sur Loir	5.25	207	*e*Pg	Pg	04 48 45.3	-1.7
AVF				*e*Sn	Sn	04 49 23.1	-4.2
AVF				*e*Sg	Sg	04 49 53.1	-2.0
	comp=Z,13nm,0.8s						
SMF	Signal de Mont	5.26	203	*e*Pn	Pn	04 48 26.0	-0.2
	SNR=1.0						
SMF				*e*Sn	Sn	04 49 23.4	-4.1
SMF				*e*Sg	Sg	04 49 52.9	-2.4
	comp=Z,25nm,0.6s						
SMF	Signal de Mont	5.26	203	*e*Pn	Pn	04 48 26.0	-0.2
SMF				*e*Sn	Sn	04 49 23.4	-4.1
SMF				*e*Sg	Sg	04 49 52.9	-2.4
SMF	Signal de Mont	5.26	203	*e*Pn	Pn	04 48 26.0	-0.2
	SNR=1.0						
SMF				*e*Sn	Sn	04 49 23.4	-4.1
SMF				*e*Sg	Sg	04 49 52.9	-2.4
	comp=Z,13nm,0.6s						
LDF	La Druitiere	5.34	239	*e*Pn	Pn	04 48 26.7	-0.5
	SNR=1.0						
LDF				*e*Sn	Sn	04 49 25.0	-4.3
	comp=Z,3.7nm,0.3s						
LDF	La Druitiere	5.34	239	*e*Pn	Pn	04 48 26.7	-0.5
LDF				*e*Sn	Sn	04 49 25.0	-4.3
LDF	La Druitiere	5.34	239	*e*Pn	Pn	04 48 26.7	-0.5
	SNR=1.0						
LDF				*e*Sn	Sn	04 49 25.0	-4.3
	comp=Z,1.9nm,0.3s						
FLN	La Foliniere	5.44	242	*e*Pn	Pn	04 48 28.4	-0.2
	baz=56,SNR=1.0						
FLN				*e*Sn	Sn	04 49 28.3	-3.5
	comp=Z,14nm,0.4s,baz=56,SNR=1.0						
FLN	La Foliniere	5.44	242	*e*Pn	Pn	04 48 28.4	-0.2
FLN				*e*Sn	Sn	04 49 28.3	-3.5
FLN	La Foliniere	5.44	242	*e*Pn	Pn	04 48 28.4	-0.2
	SNR=1.0						
FLN				*e*Sn	Sn	04 49 28.3	-3.5
	comp=Z,7.2nm,0.4s,SNR=1.0						
BGF	Bois d'Agland	5.61	209	*e*Pn	Pn	04 48 31.0	0.0
	SNR=1.0						
BGF				*e*Sn	Sn	04 49 32.0	-4.2
	SNR=1.0						
BGF				*e*Sg	Sg	04 50 03.8	-2.8
	comp=Z,37nm,0.5s						
BGF	Bois d'Agland	5.61	209	*e*Pn	Pn	04 48 31.0	0.0
BGF				*e*Sn	Sn	04 49 32.0	-4.2
BGF				*e*Sg	Sg	04 50 03.8	-2.8
BGF	Bois d'Agland	5.61	209	*e*Pn	Pn	04 48 31.0	0.0
	SNR=1.0						
BGF				*e*Sn	Sn	04 49 32.0	-4.2
	SNR=1.0						
BGF				*e*Sg	Sg	04 50 03.8	-2.8
	comp=Z,18nm,0.5s						
GRR	Gorron	5.85	240	*e*Pn	Pn	04 48 34.1	-0.2
GRR				*e*Sn	Sn	04 49 37.7	-4.4
	comp=Z,14nm,0.2s,SNR=1.0						
GRR	Gorron	5.85	240	*e*Pn	Pn	04 48 34.1	-0.2
GRR				*e*Sn	Sn	04 49 37.7	-4.4
GRR	Gorron	5.85	240	*e*Pn	Pn	04 48 34.1	-0.2
GRR				*e*Sn	Sn	04 49 37.7	-4.4
	comp=Z,7.2nm,0.2s,SNR=1.0						
UPC	Upice	5.91	96	*e*SG	Sg	04 50 17.2	+1.1
UPC	Upice	5.91	96	*e*Sg	Sg	04 50 17.2	+1.1
LPL	La Plagne	6.02	180	*e*Pn	Pn	04 48 38.1	+1.5
LPL	La Plagne	6.02	180	*e*Pn	Pn	04 48 38.1	+1.5
LPL	La Plagne	6.02	180	*e*Pn	Pn	04 48 38.1	+1.5
LPG	La Plagne	6.04	180	*e*Pn	Pn	04 48 38.4	+1.5
LPG	La Plagne	6.04	180	*e*Pn	Pn	04 48 38.4	+1.5
LPG	La Plagne	6.04	180	*e*Pn	Pn	04 48 38.4	+1.5
BSD	Bornholm Skovb	6.04	50	*i* P	Pn	04 48 34.0	-2.9
BSD				*i* S	Sn	04 49 39.2	-7.6
TCF	Toulx Ste Croi	6.05	212	*e*Pn	Pn	04 48 36.6	-0.5
TCF	Toulx Ste Croi	6.05	212	*e*P	Pn	04 48 41.1	+4.0
TCF				*e*Sn	Sn	04 49 42.6	-4.4
TCF	Toulx Ste Croi	6.05	212	*e*Pn	Pn	04 48 36.6	-0.5
TCF	Toulx Ste Croi	6.05	212	*e*Pn	Pn	04 48 36.6	-0.5
TCF	Toulx Ste Croi	6.05	212	*e*P	Pn	04 48 41.1	+4.0
TCF				*e*Sn	Sn	04 49 42.6	-4.4
MOA	Molln	6.09	124	⇑*i*Pn	Pn	04 48 38.6	+1.1
MOA	Molln	6.09	124	⇑*i*Sg	Sg	04 50 25.8	+3.9
	comp=Z,6.7nm,0.6s						
MOA	Molln	6.09	124	⇑*i*Pn	Pn	04 48 38.6	+1.1
MOA				*i* Sg	Sg	04 50 25.8	+3.9
MOA	Molln	6.09	124	⇑*i*Pn	Pn	04 48 38.6	+1.1
MOA				⇑*i*Sg	Sg	04 50 25.8	+3.9
	comp=Z,6.7nm,0.6s						
MOA	Molln	6.09	124	⇑*i*Pn	Pn	04 48 38.6	+1.0
DPC	Dobruska-Polom	6.14	97	*e*SG	Sg	04 50 23.3	-0.2
DPC	Dobruska-Polom	6.14	97	*e*Sg	Sg	04 50 23.3	-0.2
KBA	Koelnbreinsper	6.18	134	⇑*i*Pn	Pn	04 48 40.0	+1.2
KBA	Koelnbreinsper	6.18	134	⇑*i*Pn	Pn	04 48 40.0	+1.2
KBA	Koelnbreinsper	6.18	134	⇑*i*Pn	Pn	04 48 40.0	+1.2
KBA	Koelnbreinsper	6.18	134	⇑*i*Pn	Pn	04 48 40.0	+1.2
ORIF	Oris-en-Rattie	6.65	186	*e*Pn	Pn	04 48 45.5	+0.3
ORIF	Oris-en-Rattie	6.65	186	*e*Pn	Pn	04 48 45.5	+0.3
ORIF	Oris-en-Rattie	6.65	186	*e*Pn	Pn	04 48 45.5	+0.3
MFF	Saint Martin d	6.71	225	*e*Pn	Pn	04 48 45.6	-0.6
	SNR=1.0						
MFF				*e*Sn	Sn	04 49 58.5	-4.8
MFF	Saint Martin d	6.71	225	*e*Pn	Pn	04 48 45.6	-0.6
MFF				*e*Sn	Sn	04 49 58.5	-4.8
MFF	Saint Martin d	6.71	225	*e*Pn	Pn	04 48 45.6	-0.6
	SNR=1.0						
MFF				*e*Sn	Sn	04 49 58.5	-4.8
SGMF	Saint Gilles	6.87	245	*e*Pn	Pn	04 48 47.2	-1.1
SGMF				*e*Sn	Sn	04 50 01.8	-5.4
	comp=Z,6.5nm,0.4s						
SGMF	Saint Gilles	6.87	245	*e*Pn	Pn	04 48 47.2	-1.1
SGMF				*e*Sn	Sn	04 50 01.8	-5.4
SGMF	Saint Gilles	6.87	245	*e*Pn	Pn	04 48 47.2	-1.1
SGMF				*e*Sn	Sn	04 50 01.8	-5.4
	comp=Z,3.2nm,0.4s						
MORC	Moravsky Berou	7.06	100	*e*Pn	Pn	04 48 50.3	-0.5
MORC	Moravsky Berou	7.06	100	*e*Pn	Pn	04 48 50.3	-0.6
RJF	Les Rejaudoux	7.15	211	*e*Pn	Pn	04 48 51.5	-0.7
RJF	Les Rejaudoux	7.15	211	*e*Pn	Pn	04 48 51.5	-0.7
RJF	Les Rejaudoux	7.15	211	*e*Pn	Pn	04 48 51.5	-0.7
ROSF	Rostrenen	7.24	248	*e*Pn	Pn	04 48 52.3	-1.1
ROSF				*e*Sn	Sn	04 50 09.9	-6.3
	comp=Z,10.0nm,0.7s,SNR=1.0						
ROSF	Rostrenen	7.24	248	*e*Pn	Pn	04 48 52.3	-1.1
ROSF				*e*Sn	Sn	04 50 09.9	-6.3
ROSF	Rostrenen	7.24	248	*e*Pn	Pn	04 48 52.3	-1.1
ROSF				*e*Sn	Sn	04 50 09.9	-6.3
	comp=Z,5.0nm,0.7s,SNR=1.0						
CAF	Calviac	7.33	207	*e*Pn	Pn	04 48 54.4	-0.1
CAF	Calviac	7.33	207	*e*Pn	Pn	04 48 54.4	-0.1
CAF	Calviac	7.33	207	*e*Pn	Pn	04 48 54.4	-0.1
QUIF	Quistinic	7.40	245	*e*Pn	Pn	04 48 54.1	-1.4
QUIF				*e*Sn	Sn	04 50 14.0	-6.1
QUIF	Quistinic	7.40	245	*e*Pn	Pn	04 48 54.1	-1.4
QUIF				*e*Sn	Sn	04 50 14.0	-6.1
QUIF	Quistinic	7.40	245	*e*Pn	Pn	04 48 54.1	-1.4
QUIF				*e*Sn	Sn	04 50 14.0	-6.1
OKC	Ostrava-Krasne	7.41	99	*e*SG	Sg	04 51 05.1	+0.8
OKC	Ostrava-Krasne	7.41	99	*e*Sg	Sg	04 51 05.1	+0.8
LFF	La Frestale	7.73	214	*e*Pn	Pn	04 49 00.2	+0.1
LFF	La Frestale	7.73	214	*e*Pn	Pn	04 49 00.2	+0.1
LFF	La Frestale	7.73	214	*e*Pn	Pn	04 49 00.2	+0.1
EPF	Esparros	9.56	210	*e*Pn	Pn	04 49 24.1	-1.1
EPF	Esparros	9.56	210	*e*Pn	Pn	04 49 24.1	-1.1
ETSF	Etsaut	9.97	213	*e*Pn	Pn	04 49 30.3	-0.6
ETSF	Etsaut	9.97	213	*e*Pn	Pn	04 49 30.3	-0.6

WEL 16 04:56:29.3±0.2**,3857S**×**17612E,h105**^{km}±1^{km}**,ML3.6**/14**, Error ellipse: s-maj=1.4km s-min=1.3km az=0.0,North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HATZ	Hinemaiaia	0.32	184	PN	Pn	04 56 44.5	-0.1
HATZ				SN	Sn	04 56 55.8	-0.3
RATZ	Rangitukua	0.40	223	PN	Pn	04 56 45.0	0.0
BKZ	Black Stump Fm	0.66	154	PN	Pn	04 56 46.9	0.0
BKZ				SN	Sn	04 56 59.9	-0.1
OTVZ	Oturere	0.69	211	PN	Pn	04 56 47.6	+0.4
OTVZ				SN	Sn	04 57 01.3	+0.8
NGZ	Ngauruhoe	0.73	214	PN	Pn	04 56 47.7	+0.2
TWVZ	Taurewa	0.73	227	PN	Pn	04 56 47.4	-0.1
WPVZ	Whakapapa	0.78	215	PN	Pn	04 56 48.1	+0.1
TUVZ	Tukino	0.79	208	PN	Pn	04 56 48.2	+0.2
TUVZ				SN	Sn	04 57 03.0	+0.9
FWVZ	Far West T-bar	0.81	213	PN	Pn	04 56 48.1	-0.2
URZ	Urewera	0.83	68	PN	Pn	04 56 48.3	-0.2
TGRZ	Tauranga	0.85	7	PN	Pn	04 56 49.0	+0.4
TRVZ	Turoa	0.85	212	PN	Pn	04 56 48.7	0.0
WNVZ	Wahianoa	0.86	208	PN	Pn	04 56 48.8	+0.1
MOVZ	Moawhango	0.88	199	PN	Pn	04 56 48.7	-0.3
PKVZ	Pokaka	0.94	220	PN	Pn	04 56 49.5	0.0
MTVZ	Mangateitei	0.96	212	PN	Pn	04 56 49.8	+0.1
HIZ	Hauiti	1.00	273	PN	Pn	04 56 50.0	-0.1
MWZ	Matawai	1.13	78	PN	Pn	04 56 51.7	+0.2
VRZ	Vera Road	1.20	242	PN	Pn	04 56 52.2	-0.2
KNZ	Kokohu	1.29	111	PN	Pn	04 56 53.6	+0.3
WAZ	Wanganui	1.48	216	PN	Pn	04 56 55.5	-0.1
TSZ	Takapari Road	1.49	185	PN	Pn	04 56 55.0	-0.8
PUZ	Puketiti	1.75	74	PN	Pn	04 56 59.0	+0.1
MXZ	Matakaoa Point	2.00	60	PN	Pn	04 57 02.6	+0.6
MRZ	Mangatainoka R	2.13	191	PN	Pn	04 57 01.8	-1.9
TIWZ	Tintock	2.21	185	PN	Pn	04 57 03.0	-1.7
KIW	Kapiti Island	2.47	202	PN	Pn	04 57 05.9	-2.3
MTW	Mount Morrison	2.63	190	PN	Pn	04 57 07.5	-2.7
CAW	Cannon Point	2.66	197	PN	Pn	04 57 08.0	-2.7
DUWZ	D'Urville Isla	2.80	217	PN	Pn	04 57 10.0	-2.5
TRWZ	Traveller	2.84	187	PN	Pn	04 57 10.4	-2.7
PAWZ	Paruwai Farm	2.86	191	PN	Pn	04 57 10.3	-3.0
MRW	Makara Radio	2.87	202	PN	Pn	04 57 10.4	-3.0
MSWZ	Moikau Station	2.92	193	PN	Pn	04 57 11.0	-3.1
SNZO	South Karori	2.94	201	PN	Pn	04 57 11.2	-3.2
TCW	Tory Channel	3.00	208	PN	Pn	04 57 12.1	-3.0
TUWZ	Tuamarina	3.31	210	PN	Pn	04 57 15.9	-3.3
NNZ	Nelson	3.38	218	PN	Pn	04 57 17.0	-3.2
QRZ	Quartz Range	3.57	230	PN	Pn	04 57 19.9	-2.9
BSWZ	Blackbirch Sta	3.58	208	PN	Pn	04 57 19.4	-3.5
THZ	Tophouse	4.03	217	PN	Pn	04 57 25.4	-3.5
KHZ	Kahutara	4.32	206	PN	Pn	04 57 28.7	-4.1
MQZ	McQueen's Vall	5.76	206	PN	Pn	04 57 45.9	-6.4

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*NEIC **16** 05:05:57.8,3260S×7184W,h28^{km},ML2.5(GUC),After GUC.*

GUC 16 05:05:57.8±0.7**,3260S**×**7184W,h28**^{km}±11^{km}**,MD3.5, ML2.5,2C-7D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHNG	Los Chungos	0.77	22	⇑*i*P	Pb	05 05 59.8	-13
CHNG				*i* S	Sb	05 06 10.5	-12
CHNG				AML	AML	05 06 12.6	
	comp=N,124nm,0.5s						
ROCH	El Roble	0.79	118	⇑*i*P	Pb	05 06 12.5	-0.5
LCCH	Las Cruces	0.91	166	*i* P	Pn	05 06 13.6	-1.1
JACH	Jahuel	1.05	95	⇓*i*P	Pn	05 06 16.6	-0.2
JACH				*i* S	Sn	05 06 31.5	+1.0
RCDM	Rinconada Maip	1.24	136	*e*P	Pn	05 06 19.4	0.0
RCDM				*i* S	Sn	05 06 35.7	+0.5
RCDM	Rinconada Maip	1.24	136	*e*P	Pn	05 06 19.4	0.0
RCDM				*i* S	Sn	05 06 35.7	+0.5
RCDM				AML	AML	05 06 40.8	
	comp=E,194nm,0.2s						
TACH	Talagante	1.30	145	⇓*i*P	Pn	05 06 20.5	+0.4
TACH				*i* S	Sn	05 06 37.1	+0.6
ANTU	Antumapu	1.40	134	⇓*i*P	Pn	05 06 22.3	+0.8
ANTU				S	Sn	05 06 41.0	+1.9
ANTU	Antumapu	1.40	134	⇓*i*P	Pn	05 06 22.3	+0.8
ANTU				*i* S	Sn	05 06 41.0	+1.9
ANTU				AML	AML	05 06 44.5	
	comp=N,107nm,0.1s						
LNV	Longovilo	1.40	165	⇓*i*P	Pn	05 06 22.2	+0.7
LNV				*i* S	Sn	05 06 40.1	+0.9
FCH	Farellones	1.49	120	⇓*i*P	Pn	05 06 23.9	+1.2
FCH				*i* S	Sn	05 06 43.6	+2.3
FCH				AML	AML	05 06 46.0	
	comp=E,136nm,0.2s						
PCH	Pirque	1.51	133	⇓*i*P	Pn	05 06 24.1	+1.1
PCH				*i* S	Sn	05 06 45.1	+3.3
CMCH	Combarbala	1.59	27	*e*P	Pn	05 06 24.5	+0.4
CMCH				*i* S	Sn	05 06 45.9	+2.3
CMCH	Combarbala	1.59	27	*e*P	Pn	05 06 24.5	+0.4
CMCH				*i* S	Sn	05 06 45.9	+2.3
CMCH				AML	AML	05 06 51.4	
	comp=E,224nm,0.5s						
CHCH	Chadas Angostu	1.66	144	*e*P	Pn	05 06 26.4	+1.3
CHCH				*i* S	Sn	05 06 47.7	+2.2
CICH	Cipreses	2.09	146	*e*P	Pn	05 06 32.4	+1.5

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*IDC **16** 05:09:38.6±0.9,4612N×15281E,h0^{km},mb3.6/7, mb1 3.8/8,mb1mx3.6/22,mbtmp3.6/8,ML3.5/1,Error ellipse: s-maj=29.7km s-min=22.0km az=113.0*

*ISCJB **16** 05:09:45.4±1.9,461N±01×1527E±02,h65^{km}±16^{km}, mb3.4/7,Error ellipse: s-maj=31.3km s-min=15.3km az=44.8*

*MOS **16** 05:09:45.8±1.2,4620N×15247E,h72^{km},mb4.4/1,Error ellipse: s-maj=28.7km s-min=17.8km az=58.4*

ISC 16 05:09:46.7±1.7**,461N**±01×**1526E**±02**,h59**^{km}±15^{km}**,n15,** σ**0**^{s}**82**/15**,mb3.5**/7**,1D,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	3.45	257	⇓*i*PN	Pn	05 10 39.0	+1.1
KUR				pmax	pmax		
	comp=N,110nm,0.5s						
KUR				pmax	pmax		
	comp=E,80nm,0.5s						
KUR				pmax	pmax		
	comp=Z,300nm,0.5s						
SKR	Severo-Kuril's	5.13	26	*e*PN	Pn	05 11 01.2	+0.4
ASAJ	Asahikawa	7.37	258	PN	Pn	05 11 29.7	-1.9
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	7.37	258	Pn	Pn	05 11 29.6	-2.0
	comp=Z,0.7nm,0.3s,baz=96,slow=18,SNR=4.3						
KSRS	Korea Array	20.29	254	P	P	05 14 22.7	+5.3
	comp=Z,1.7nm,0.8s,baz=59,slow=9.6,SNR=3.3						
MKAR	Makanchi Array	46.94	298	P	P	05 18 11.8	+0.6
MKAR	Makanchi Array	46.94	298	P	P	05 18 11.8	+0.7
	comp=Z,0.2nm,0.2s,mb3.6,baz=64,slow=6.3,SNR=2.9						
YKA	Yellowknife Ar	51.63	36	P	P	05 18 46.2	-0.5
	comp=Z,0.1nm,0.6s,mb2.9,baz=292,slow=6.8,SNR=2.3						
FINES	FINESS Array B	64.47	335	P	P	05 20 16.4	-0.1
FINES				pmax	pmax		
	comp=Z,2.0nm,1.0s						
FINES	FINESS Array B	64.47	335	P	P	05 20 16.4	-0.1
	comp=Z,2.3nm,1.0s,mb4.2,baz=26,slow=9.1,SNR=4.1						
WRA	Warramunga Arr	67.80	199	P	P	05 20 37.8	-0.4
	comp=Z,0.4nm,0.7s,mb3.5,baz=10,slow=6.5,SNR=3.5						
NOA	NORSAR Array B	68.72	341	P	P	05 20 43.4	-0.1
	comp=Z,0.4nm,0.4s,mb3.7,baz=28,slow=6.4,SNR=2.4						
ASAR	Alice Springs	71.50	198	P	P	05 21 01.9	+1.0
ASAR	Alice Springs	71.50	198	P	P	05 21 01.9	+1.0
	comp=Z,0.3nm,0.5s,mb3.5,baz=14,slow=6.8,SNR=4.1						
TXAR	Lajitas Array	78.10	60	P	P	05 21 38.9	-0.3
	comp=Z,0.3nm,0.5s,mb3.5,baz=316,slow=5.6,SNR=3.9						

IDC 16 05:10:01.7±2.6**,2922N**×**14070E,h62**^{km}±26^{km}**,mb3.5**/4**, mb1 3.7**/6**,mb1mx3.4**/21**,mbtmp3.6**/6**,ML3.9**/2**,Error ellipse: s-maj=46.9km s-min=16.2km az=73.0, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	Chichi jima	2.49	148	P	Pn	05 10 39.8	-0.1
	51nm,0.3s,baz=298,slow=14,SNR=9.6						
CBIJ				S	Sn	05 11 09.3	+0.3
	66nm,0.3s,baz=272,slow=21,SNR=7.1						
MJAR	Matsushiro Arr	7.60	345	P	Pn	05 11 50.4	+0.7
	0.4nm,0.3s,baz=162,slow=13,SNR=4.0						
WRA	Warramunga Arr	49.26	188	P	P	05 18 45.2	+1.0
	0.5nm,0.6s,baz=4.3,slow=7.8,SNR=11						
YKA	Yellowknife Ar	70.90	28	P	P	05 21 12.8	+0.9
	0.5nm,0.7s,baz=300,slow=6.4,SNR=6.3						
ARCES	ARCESS Array B	71.11	340	P	P	05 21 12.7	-0.4
	1.6nm,0.8s,baz=54,slow=9.2,SNR=3.8						
FINES	FINESS Array B	75.47	333	P	P	05 21 38.1	-0.7
	1.0nm,0.8s,baz=66,slow=5.2,SNR=5.1						
TORD	Torodi Ar. Bea	122.20	311	PKP	PKPdf	05 28 49.0	-1.3
	0.2nm,0.6s,baz=56,slow=1.2,SNR=6.2						

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*NIED **16** 05:12:00,3120N×141.10E,h11^{km},Mw4.4 Best double couple: M$_0$5.12000×10^{15} NP1:φ$_s$217.00000°,δ10.00000°, λ-37.00000°. NP2:φ$_s$344.00000°,δ84.00000°, λ-98.00000°.*

*ISCJB **16** 05:12:28.6±3.5,3036N±008×1403E±02,h33^{km}±24^{km}, mb3.8/10,MS3.5/1,Error ellipse: s-maj=22.8km s-min=12.6km az=2.1*

*NEIC **16** 05:12:30.5±6.2,3025N×14032E,h33^{km}±42^{km},mb4.0/2, Error ellipse: s-maj=22.5km s-min=16.3km az=113.0*

*IDC **16** 05:12:30.9±4.3,3032N×14004E,h38^{km}±37^{km},mb3.6/7, mb1 3.9/9,mb1mx3.7/21,mbtmp3.6/9,ML3.6/2,MS3.6/5, Ms1 3.6/5,ms1mx3.3/30,Error ellipse: s-maj=37.0km s-min=19.2km az=96.0*

*JMA **16** 05:12:33.5±0.5,3124N×141.11E,h0^{km},M3.8*

ISC 16 05:12:30.6±3.0**,3039N**±007×**1403E**±01**,h32**^{km}±21^{km}**,n27,** σ**1**^{s}**33**/28**,mb3.8**/10**,MS3.5**/1**,Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	Mitsune	2.75	351	*e*S	Sn	05 13 40.6	-4.0
JHJ	Hachijo jima 2	2.76	351	Pn	Pn	05 13 12.5	-0.2
	17nm,0.3s,baz=239,slow=19,SNR=3.5						
JHJ				Sn	Sn	05 13 43.5	-1.4
	31nm,0.3s,baz=40,slow=18,SNR=3.5						
JHJ				LR	LR	05 13 45.7	
	comp=Z,300nm,18.3s,baz=2.3,slow=27						
BSO3	Boso 3	4.41	2	P	Pn	05 13 31.9	-3.3
BSO3				*e*S	Sn	05 14 15.5	-10
BSO4	Boso 4	4.59	0	*e*S	Sn	05 14 21.7	-8.3
JHU	Hanno	5.52	351	P	Pn	05 13 48.9	-1.6
JRY	Ryogami san	5.74	348	P	Pn	05 13 53.7	+0.1
MJAR	Matsushiro Arr	6.39	345	Pn	Pn	05 14 03.2	+0.7
MJAR				LR	LR	05 16 30.5	
MJAR	Matsushiro Arr	6.39	345	Pn	Pn	05 14 03.2	+0.7
	2.0nm,0.3s,baz=163,slow=14,SNR=8.6						
MJAR				LR	LR	05 16 30.5	
	comp=Z,893nm,18.1s,baz=215,slow=38						
MAJO	Matsushiro	6.39	345	*e*Pn	Pn	05 14 04.9	+2.4
MAT	Matsushiro	6.39	345	P	Pn	05 14 05.6	+3.1
JNU	Nakatsue	8.49	291	LR	LR	05 17 31.0	
	comp=Z,585nm,18.4s,baz=115,slow=36						
KSRS	Korea Array	12.47	308	Pn	Pn	05 15 33.8	+7.9
	baz=114,slow=14,SNR=8.8						
KSRS				LR	LR	05 19 56.9	
	comp=Z,250nm,18.6s,baz=145,slow=36						
GUMO	Guam	17.23	165	LR	LR	05 21 57.6	
	comp=Z,196nm,19.4s,baz=168,slow=33						
BJI	Beijing	21.90	303	P	P	05 17 23.3	+2.4
BJI				S	S	05 21 21.2	+0.2
BJI				LR	LR		
	comp=Z,190nm,19.6s,MS3.5						
ULN	Ulaanbaatar	30.84	314	*e*P	P	05 18 43.7	+0.1
	comp=Z,0.9nm,0.6s,mb3.8						
SONM	Songino Array	31.24	314	P	P	05 18 46.3	-0.8
	comp=Z,0.3nm,0.7s,mb3.2,baz=111,slow=8.0,SNR=3.5						
CHTO	Chiang Mai	39.15	263	*e*P	P	05 19 55.1	-0.4
	comp=Z,2.6nm,0.6s,mb4.1						
WRA	Warramunga Arr	50.37	187	P	P	05 21 23.1	-1.6
	comp=Z,1.6nm,0.7s,mb4.2,baz=6.7,slow=7.9,SNR=12						
WRA				PcP	PcP	05 22 42.5	-0.4
	comp=Z,0.4nm,0.7s,baz=1.3,slow=4.0,SNR=5.0						
ASAR	Alice Springs	54.09	187	P	P	05 21 51.2	-1.1
	comp=Z,0.6nm,0.6s,mb3.7,baz=16,slow=12,SNR=8.5						
INK	Inuvik	60.74	25	*e*P	P	05 22 38.3	-0.4
RES	Resolute Bay	69.26	13	*e*P	P	05 23 34.6	+0.7
ARCES	ARCESS Array B	69.91	340	P	P	05 23 37.0	-1.0
	comp=Z,1.7nm,0.9s,mb4.0,baz=46,slow=6.4,SNR=2.5						
YKA	Yellowknife Ar	70.04	28	P	P	05 23 39.0	+0.1
YKA	Yellowknife Ar	70.04	28	P	P	05 23 39.0	+0.1
	comp=Z,0.5nm,0.9s,mb3.5,baz=290,slow=6.4,SNR=5.1						
FINES	FINESS Array B	74.28	333	P	P	05 24 07.2	+2.8
	comp=Z,0.4nm,0.6s,mb3.5,baz=77,slow=8.4,SNR=3.5						
NVAR	Mina Array Bea	79.77	51	P	P	05 24 37.4	+1.8
	comp=Z,0.7nm,0.9s,mb3.6,baz=282,slow=4.3,SNR=2.9						
TXAR	Lajitas Array	94.91	52	P	P	05 25 50.6	+0.7
	comp=Z,0.7nm,0.8s,mb4.1,baz=292,slow=3.9,SNR=4.6						

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*NIED **16** 05:21:00,3070N×141.40E,h20^{km},Mw4.6 Best double couple: M$_0$7.71000×10^{15} NP1:φ$_s$20.00000°,δ25.00000°, λ-49.00000°. NP2:φ$_s$155.00000°,δ71.00000°, λ-107.00000°.*

*ISCJB **16** 05:21:39.8±1.1,3049N±007×1400E±0.1,h59^{km}±10^{km}, mb3.8/14,MS3.8/6,Error ellipse: s-maj=20.2km s-min=10.0km az=163.4*

*IDC **16** 05:21:41.0±2.0,3050N×13988E,h58^{km}±18^{km},mb3.5/12, mb1 3.7/16,mb1mx3.6/23,mbtmp3.5/16,ML3.7/4,MS3.8/10, Ms1 3.8/10,ms1mx3.5/22,Error ellipse: s-maj=25.5km s-min=14.2km az=79.0*

*NEIC **16** 05:21:43.2±1.8,3045N×13983E,h78^{km}±14^{km},mb4.4/1, Error ellipse: s-maj=21.6km s-min=14.8km az=88.0*

ISC 16 05:21:41.5±1.0**,3053N**±007×**1401E**±01**,h59**^{km}±9^{km}**,n29,** σ**1**^{s}**33**/26**,mb3.8**/14**,MS3.8**/6**,Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ	Hachijo jima 2	2.59	355	P	Pn	05 22 19.2	-1.8
	14nm,0.3s,baz=59,slow=18,SNR=3.5						
JHJ				S	Sn	05 22 49.8	-1.5
	49nm,0.3s,baz=68,slow=23,SNR=4.5						
JHJ				LR	LR	05 23 15.5	
	comp=Z,1µm,20.2s,baz=70,slow=36						
CBIJ	Chichi jima	3.90	151	P	Pn	05 22 39.1	+0.1
	22nm,0.3s,baz=323,slow=20,SNR=4.3						
CBIJ				S	Sn	05 23 16.6	-6.9
	27nm,0.3s,baz=253,slow=19,SNR=3.6						
MJAR	Matsushiro Arr	6.19	346	P	Pn	05 23 11.2	+1.0
	1.6nm,0.3s,baz=145,slow=13,SNR=9.4						
MJAR				LR	LR	05 25 31.7	
	comp=Z,837nm,19.1s,baz=180,slow=37						
MAJO	Matsushiro	6.19	346	*e*Pn	Pn	05 23 13.5	+3.2
	14nm,0.7s						
MAT	Matsushiro	6.19	346	P	Pn	05 23 13.9	+3.6
JNU	Nakatsue	8.22	291	LR	LR	05 26 40.8	
	comp=Z,868nm,19.4s,baz=81,slow=37						
JOW	Kunigami	10.98	253	LR	LR	05 28 28.7	
	comp=Z,335nm,18.4s,baz=322,slow=38						
KSRS	Korea Array	12.20	308	P	Pn	05 24 31.8	-0.6
	0.3nm,0.3s,baz=116,slow=14,SNR=5.9						
GUMO	Guam	17.44	164	LR	LR	05 31 07.7	
	comp=Z,239nm,20.2s,baz=55,slow=32						
BJI	Beijing	21.62	303	P	P	05 26 34.0	+7.3
BJI				S	S	05 30 37.0	+14
BJI				LR	LR		
	comp=Z,360nm,19.3s,MS3.8						
SONM	Songino Array	30.97	313	P	P	05 27 55.7	+2.7
	comp=Z,0.4nm,0.7s,mb3.3,baz=117,slow=10,SNR=3.6						
SONM				LR	LR	05 39 17.9	
	comp=Z,108nm,20.9s,MS3.5,baz=125,slow=34						
CHTO	Chiang Mai	38.94	262	*e*P	P	05 29 04.3	+2.4
	comp=Z,5.4nm,0.9s,mb4.3						
ZALV	Zalesovo Beam	45.69	317	LR	LR	05 49 10.5	
	comp=Z,92nm,18.8s,MS3.8,baz=138,slow=36						
MKAR	Makanchi Array	46.88	307	P	P	05 30 05.5	-0.4
	comp=Z,0.3nm,0.2s,mb3.8,baz=90,slow=9.7,SNR=3.5						
MKAR				LR	LR	05 49 39.6	
	comp=Z,120nm,19.1s,MS3.9,baz=94,slow=36						
WRA	Warramunga Arr	50.48	187	P	P	05 30 32.4	-1.2
	comp=Z,1.1nm,0.6s,mb4.1,baz=5.8,slow=7.6,SNR=18						
WRA				PcP	PcP	05 31 51.1	+0.1
	comp=Z,0.5nm,0.6s,baz=359,slow=4.0,SNR=5.9						
ASAR	Alice Springs	54.21	187	P	P	05 31 00.1	-1.1
	comp=Z,0.8nm,0.6s,mb3.9,baz=17,slow=13,SNR=14						
DZM	Mont Dzumac	58.12	151	LR	LR	05 53 15.2	
	comp=Z,89nm,19.2s,MS3.9,baz=13,slow=33						
AKTO	Aktyubinsk	62.29	314	LR	LR	05 59 56.9	
	comp=Z,97nm,20.5s,MS4.0,baz=70,slow=37						

ARCES	**ARCESS Array B**	**69.69**	**340**	P	**P**	**05 32 44.8**	**+0.2**
	comp=Z,2.0nm,0.9s,mb4.0,baz=69,slow=7.4,SNR=5.1						
YKA	**Yellowknife Ar**	**70.02**	**28**	P	**P**	**05 32 45.9**	**-0.8**
YKA	**Yellowknife Ar**	**70.02**	**28**	P	**P**	**05 32 45.9**	**-0.7**
	comp=Z,0.2nm,0.6s,mb3.2,baz=297,slow=6.2,SNR=3.4						
FINES	**FINESS Array B**	**74.05**	**333**	P	**P**	**05 33 10.4**	**-0.4**
	comp=Z,0.5nm,0.5s,mb3.7,baz=94,slow=4.2,SNR=2.7						
AKASG	**Malin Array Be**	**78.75**	**323**	P	**P**	**05 33 35.8**	**-1.9**
	comp=Z,0.3nm,0.3s,mb3.7,baz=48,slow=5.7,SNR=3.0						
NOA	**NORSAR Array B**	**79.73**	**337**	P	**P**	**05 33 41.8**	**-1.0**
	comp=Z,1.0nm,0.9s,mb3.8,baz=7.0,slow=4.0,SNR=2.8						
NVAR	**Mina Array Bea**	**79.86**	**51**	P	**P**	**05 33 45.9**	**+2.0**
NVAR	**Mina Array Bea**	**79.86**	**51**	P	**P**	**05 33 45.9**	**+2.0**
	comp=Z,0.6nm,0.7s,mb3.7,baz=288,slow=4.4,SNR=4.0						
BRTR	**Keskin Array B**	**82.31**	**312**	P	**P**	**05 33 56.1**	**-0.8**
	comp=Z,0.4nm,0.5s,mb3.6,baz=62,slow=3.6,SNR=3.4						
PDAR	**Pinedale Array**	**83.07**	**44**	P	**P**	**05 34 01.2**	**+0.4**
	comp=Z,0.4nm,0.7s,mb3.5,baz=177,slow=2.8,SNR=3.6						
TXAR	**Lajitas Array**	**95.00**	**52**	P	**P**	**05 34 59.1**	**+1.1**
	comp=Z,0.4nm,0.6s,mb4.0,baz=276,slow=2.4,SNR=3.6						

IDC 16 05:36:20.9±3.0**, 321S**×**12683E, h0**^{km}**, mb3.4**/2**, mb1 3.3**/3**, mb1mx3.2**/17**, mbtmp3.2**/3**, ML2.9**/1**, Error ellipse: s-maj=379.0km s-min=28.6km az=65.0, Buru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**18.17**	**157**	P	Pn	05 40 33.8	-1.0
	0.0nm,0.3s,baz=331,slow=12,SNR=3.7						
ASAR	**Alice Springs**	**21.45**	**162**	P	P	05 41 11.8	+0.8
	0.5nm,0.4s,baz=345,slow=11,SNR=7.7						
MKAR	**Makanchi Array**	**63.35**	**327**	P	P	05 46 52.0	0.0
	0.3nm,0.5s,baz=126,slow=7.3,SNR=3.6						

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*ISCJB **16** 05:49:01.9±3.7, 307S±01×1775W±06, h10^{km}, mb4.4/4, Error ellipse: s-maj=72.2km s-min=9.9km az=10.8*

*NEIC **16** 05:49:06.1±1.2, 3053S×17789W, h10^{km}, mb4.4/1, Error ellipse: s-maj=33.0km s-min=15.4km az=113.0*

*IDC **16** 05:49:06.2±1.9, 3029S×17815W, h0^{km}, mb4.4/3, mb1 4.6/3, mb1mx4.1/12, mbtmp4.4/3, Error ellipse: s-maj=55.3km s-min=18.3km az=125.0*

ISC 16 05:49:06.4±3.5**, 3052S**±007×**1775W**±05**, h35**^{km}**, n22,** σ**1**^{s}**09**/12**, mb4.4**/4**, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	**1.32**	**343**	Pn	**Pn**	**05 49 28.9**	**+0.7**
RAO				Sn	**Sn**	**05 49 43.0**	**-1.6**
RAO	**Raoul Island**	**1.32**	**343**	Pn	**Pn**	**05 49 28.9**	**+0.7**
	567nm,0.3s,baz=132,slow=18,SNR=28						
RAO				Sn	**Sn**	**05 49 43.0**	**-1.6**
	1µm,0.3s,baz=145,slow=16,SNR=6.5						
URZ	**Urewera**	**8.92**	**209**	Pn	**Pn**	**05 51 11.4**	**-1.3**
URZ				Sn	**Sn**	**05 52 51.4**	**-0.6**
URZ	**Urewera**	**8.92**	**209**	Pn	**Pn**	**05 51 11.4**	**-1.3**
	0.2nm,0.3s,baz=335,slow=14,SNR=3.9						
URZ				Sn	**Sn**	**05 52 51.4**	**-0.6**
	2.9nm,0.3s,baz=230,slow=20,SNR=12						
PAE	**Paea**	**28.41**	**70**	*e*T		06 24 35.7	
	13nm,0.3s						
PPT	**Papeete**	**28.46**	**69**	*e*T		06 24 40.1	
	4.2nm,0.4s						
TVO	**Taravao**	**28.61**	**70**	*e*T		06 24 51.2	
	3.3nm,0.3s						
VAH	**Vaihoa**	**31.30**	**68**	*e*T		06 28 11.8	
	9.5nm,0.2s						
CTAO	**Charters Tower**	**34.27**	**279**	*e*P	**P**	**05 55 50.7**	**+1.5**
	3.2nm,0.6s,mb4.4						
STKA	**Stephens Creek**	**34.89**	**257**	P	**P**	**05 55 56.0**	**+1.5**
	5.6nm,0.6s,mb4.7,baz=95,slow=9.7,SNR=16						
RKT	**Rikitea**	**38.46**	**89**	*e*LR	LR	06 06 54.4	
	88nm,24.8s						
ASAR	**Alice Springs**	**43.56**	**267**	P	**P**	**05 57 07.2**	**+0.2**
	1.4nm,0.5s,mb3.9,baz=102,slow=7.0,SNR=20						
WRA	**Warramunga Arr**	**44.55**	**272**	P	**P**	**05 57 14.7**	**-0.3**
	3.1nm,0.4s,mb4.5,baz=111,slow=8.0,SNR=53						
FINES	**FINESS Array B**	**145.41**	**340**	PKPbc	PKPbc	06 08 41.5	+1.7
FINES	**FINESS Array B**	**145.41**	**340**	PKPbc	PKPbc	06 08 41.5	+1.7
	2.7nm,0.4s,baz=58,slow=3.9,SNR=24						
NB2	**NORSAR Subarra**	**148.93**	**352**	PKPa	PKPbc	06 08 55.7	+6.0
	comp=Z,0.9nm,0.5s,baz=12,slow=2.7						
NOA	**NORSAR Array B**	**148.93**	**352**	PKPbc	PKPbc	06 08 54.7	+5.0
NOA	**NORSAR Array B**	**148.93**	**352**	PKPbc	PKPbc	06 08 54.7	+5.0
	comp=Z,1.2nm,0.7s,baz=16,slow=4.5,SNR=3.9						
AKASG	**Malin Array Be**	**151.67**	**323**	PKPbc	PKPbc	06 09 01.8	+5.2
AKASG	**Malin Array Be**	**151.67**	**323**	PKPbc	PKPbc	06 09 01.8	+5.2
	comp=Z,1.3nm,0.5s,baz=46,slow=2.8,SNR=6.2						
BRTR	**Keskin Array B**	**153.05**	**298**	PKPbc	PKPbc	06 09 03.5	+3.5
BRTR	**Keskin Array B**	**153.05**	**298**	PKPbc	PKPbc	06 09 03.5	+3.5
	comp=Z,0.7nm,0.5s,baz=145,slow=5.9,SNR=4.7						

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*IDC **16** 06:11:46.3±0.8, 4847N×15485E, h0^{km}, mb3.7/14, mb1 3.9/15, mb1mx3.8/24, mbtmp3.8/15, ML3.7/1, Error ellipse: s-maj=23.6km s-min=18.0km az=131.0*

*NEIC **16** 06:11:47.9±0.5, 4848N×15483E, h10^{km}, mb4.4/1, Error ellipse: s-maj=14.0km s-min=9.9km az=144.0*

*BJI **16** 06:11:47.9, 4850N×15480E, h10^{km}, mB4.7, mb4.4*

*ISCJB **16** 06:11:51.3±1.2, 4834N±009×1548E±01, h53^{km}±9^{km}, mb3.8/16, Error ellipse: s-maj=19.6km s-min=6.6km az=43.5*

*MOS **16** 06:11:51.2±1.6, 4837N×15481E, h55^{km}, mb4.2/7, Error ellipse: s-maj=15.6km s-min=10.4km az=77.5*

ISC 16 06:11:53.4±1.1**, 4839N**±008×**1547E**±01**, h54**^{km}±8^{km}**, n41,** σ**1**^{s}**10**/45**, mb3.8**/16**, 1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**2.46**	**21**	*e*PN	**Pn**	**06 12 31.0**	**0.0**
SKR				*e*S	**Sn**	**06 13 01.2**	**+1.3**
SKR				pmax	pmax		
	comp=N,80nm,0.6s						
SKR				pmax	pmax		
	comp=Z,100nm,0.6s						
SKR				pmax	pmax		
	comp=E,70nm,0.2s						
SKR				smax			
	comp=E,360nm,1.0s						
SKR				smax			
	comp=E,220nm,0.6s						
SKR				smax			
	comp=Z,160nm,0.6s						
PET	**Petropavlovsk**	**5.26**	**27**	*e*Pn	**Pn**	**06 13 05.2**	**-4.1**
PET				*e*Sn	**Sn**	**06 14 04.6**	**-3.9**
PET	**Petropavlovsk**	**5.26**	**27**	*e*PN	**Pn**	**06 13 10.2**	**+0.9**
PET				*e*S	**Sn**	**06 14 08.7**	**+0.1**
PET				pmax	pmax		
	comp=Z,20nm,1.0s						
PET				smax			
	comp=N,70nm,0.7s						
PET				smax			
	comp=E,56nm,0.8s						
PET				MLR	MLR		
	comp=Z,100nm,13.0s						
KUR	**Kuril'sk**	**5.68**	**239**	⇓*i*PN	**Pn**	**06 13 13.5**	**-1.6**
KUR				*e*S	**Sn**	**06 14 20.0**	**+1.1**
KUR				pmax	pmax		
	comp=Z,140nm,0.5s						
KUR				smax			
	comp=N,210nm,1.0s						
KUR				smax			
	comp=E,170nm,1.0s						
YSS	**Yuzh-Sakhalins**	**8.22**	**264**	*e*PN	**Pn**	**06 13 53.1**	**+3.2**
ASAJ	**Asahikawa**	**9.44**	**248**	PN	**Pn**	**06 14 05.6**	**-0.9**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**9.44**	**248**	Pn	**Pn**	**06 14 05.5**	**-1.0**
	comp=Z,0.9nm,0.3s,baz=99,slow=12,SNR=8.4						
CLNS	**Chul'man**	**19.86**	**306**	*e*P	**Pn**	**06 16 21.8**	**+0.2**
CLNS				pmax	pmax		
	comp=Z,11nm,0.8s						
CLNS				pmax	pmax		
	comp=N,8.0nm,1.1s						
CLNS				pmax	pmax		
	comp=E,8.0nm,1.0s						
BILL	**Bilibino**	**20.55**	**12**	*e*P	**P**	**06 16 24.4**	**-2.6**
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s						
CN2	**Changchun**	**20.76**	**268**	*e*P	**P**	**06 16 27.5**	**-2.0**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s						
KSRS	**Korea Array**	**22.36**	**251**	P	**P**	**06 16 46.4**	**-0.3**
	comp=Z,2.5nm,0.6s,mb3.9,baz=48,slow=11,SNR=8.5						
NJ2	**Nanjing**	**31.54**	**252**	*e*P	**P**	**06 18 16.4**	**+6.1**
NJ2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.9						
SONM	**Songino Array**	**31.86**	**287**	P	**P**	**06 18 12.9**	**-0.1**
	comp=Z,0.2nm,0.5s,mb3.2,baz=66,slow=8.0,SNR=3.5						
INK	**Inuvik**	**39.67**	**34**	P	**P**	**06 19 19.1**	**-0.5**
	comp=Z,0.2nm,0.4s,mb3.2,baz=291,slow=8.6,SNR=4.6						
ZALV	**Zalesovo Beam**	**42.56**	**305**	P	**P**	**06 19 43.1**	**-0.4**
	comp=Z,0.6nm,0.5s,mb3.6,baz=52,slow=7.2,SNR=4.0						
ZAL	**Zalesovo**	**42.58**	**305**	P	**P**	**06 19 43.1**	**-0.5**
MK31	**Makanchi Array**	**47.18**	**297**	*e*P	**P**	**06 20 20.3**	**+0.1**
MKAR	**Makanchi Array**	**47.18**	**297**	P	**P**	**06 20 20.2**	**0.0**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	**Makanchi Array**	**47.18**	**297**	P	**P**	**06 20 20.2**	**0.0**
	comp=Z,2.0nm,0.7s,mb4.1,baz=66,slow=8.9,SNR=17						
KURK	**Kurchatov**	**47.38**	**303**	*e*P	**P**	**06 20 21.6**	**-0.2**
	comp=Z,1.8nm,0.5s,mb4.3						
KURK	**Kurchatov**	**47.38**	**303**	*e*P	**P**	**06 20 21.6**	**-0.2**
KURK				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
YKA	**Yellowknife Ar**	**48.95**	**38**	P	**P**	**06 20 32.9**	**-0.7**
YKA	**Yellowknife Ar**	**48.95**	**38**	P	**P**	**06 20 32.9**	**-0.7**
	comp=Z,0.4nm,0.6s,mb3.6,baz=295,slow=7.0,SNR=5.3						
FINES	**FINESS Array B**	**63.02**	**335**	P	**P**	**06 22 14.3**	**+0.1**
FINES	**FINESS Array B**	**63.02**	**335**	P	**P**	**06 22 14.3**	**+0.2**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	**63.02**	**335**	P	**P**	**06 22 14.3**	**+0.1**
	comp=Z,0.5nm,0.6s,mb3.8,baz=43,slow=8.6,SNR=5.0						
NB2	**NORSAR Subarra**	**67.02**	**342**	P	**P**	**06 22 40.3**	**+0.2**
	comp=Z,0.9nm,0.6s,mb4.0,baz=26,slow=6.5						
NOA	**NORSAR Array B**	**67.02**	**342**	P	**P**	**06 22 40.4**	**+0.3**
NOA	**NORSAR Array B**	**67.02**	**342**	P	**P**	**06 22 40.4**	**+0.3**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	**NORSAR Array B**	**67.02**	**342**	P	**P**	**06 22 40.4**	**+0.3**
	comp=Z,1.3nm,0.7s,mb4.1,baz=26,slow=6.5,SNR=3.7						
WRA	**Warramunga Arr**	**70.43**	**200**	P	**P**	**06 23 03.3**	**+1.6**
	comp=Z,0.4nm,0.9s,mb3.4,baz=13,slow=5.8,SNR=3.6						
AKASG	**Malin Array Be**	**70.79**	**327**	P	**P**	**06 23 03.9**	**+0.3**
AKASG	**Malin Array Be**	**70.79**	**327**	P	**P**	**06 23 03.9**	**+0.3**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	**Malin Array Be**	**70.79**	**327**	P	**P**	**06 23 03.9**	**+0.3**
	comp=Z,0.9nm,0.5s,mb4.0,baz=32,slow=5.9,SNR=6.7						
ASAR	**Alice Springs**	**74.12**	**200**	P	**P**	**06 23 25.1**	**+1.4**
	comp=Z,0.2nm,0.5s,mb3.3,baz=12,slow=5.7,SNR=4.0						
TXAR	**Lajitas Array**	**75.74**	**62**	P	**P**	**06 23 30.3**	**-2.9**
TXAR	**Lajitas Array**	**75.74**	**62**	P	**P**	**06 23 31.8**	**-1.4**
	comp=Z,0.3nm,0.6s,mb3.4,baz=314,slow=4.1,SNR=3.5						
GERES	**GERESS Array B**	**77.45**	**335**	P	**P**	**06 23 44.3**	**+1.8**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
GERES	**GERESS Array B**	**77.45**	**335**	P	**P**	**06 23 44.3**	**+1.7**
	comp=Z,1.1nm,0.8s,mb3.9,baz=15,slow=5.5,SNR=6.4						
BRTR	**Keskin Array B**	**77.94**	**318**	P	**P**	**06 23 46.3**	**+0.9**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
BRTR	**Keskin Array B**	**77.94**	**318**	P	**P**	**06 23 46.3**	**+0.9**
	comp=Z,1.2nm,0.9s,mb3.8,baz=59,slow=7.4,SNR=5.9						

IDC 16 06:21:55.5±1.6**, 2453N**×**14137E, h171**^{km}±17^{km}**, mb3.1**/4**, mb1 3.3**/5**, mb1mx3.0**/21**, mbtmp3.2**/5**, Error ellipse: s-maj=46.0km s-min=17.9km az=97.0, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	**Chichi jima**	**2.66**	**16**	P	Pn	06 22 39.1	-0.4
	19nm,0.3s,baz=255,slow=22,SNR=7.9						
CBIJ				S	Sn	06 23 14.5	+0.7
	51nm,0.3s,baz=228,slow=23,SNR=12						
WRA	**Warramunga Arr**	**44.73**	**189**	P	P	06 29 51.6	-0.2
	4.0nm,0.6s,baz=9.1,slow=8.8,SNR=39						
ASAR	**Alice Springs**	**48.45**	**189**	P	P	06 30 21.0	+0.3
	0.3nm,0.6s,baz=16,slow=14,SNR=6.2						
MKAR	**Makanchi Array**	**51.57**	**311**	P	P	06 30 44.1	+0.1
	0.4nm,0.2s,baz=101,slow=7.6,SNR=4.0						
INK	**Inuvik**	**65.66**	**24**	P	P	06 32 20.9	-0.1
	0.2nm,0.4s,baz=260,slow=6.1,SNR=2.6						

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*ISCJB **16** 06:22:52.2±0.7, 467N±01×1557E±01, h10^{km}, mb3.7/10, Error ellipse: s-maj=19.4km s-min=9.0km az=145.0*

*IDC **16** 06:22:52.8±0.7, 4671N×15583E, h0^{km}, mb3.7/9, mb1 4.0/11, mb1mx3.8/25, mbtmp3.8/11, ML3.8/2, Error ellipse: s-maj=26.6km s-min=15.9km az=141.0*

*MOS **16** 06:22:56.6±1.1, 4670N×15554E, h45^{km}, mb4.2/6, Error ellipse: s-maj=24.0km s-min=14.6km az=47.0*

ISC 16 06:22:54.3±0.7**, 467N**±01×**1558E**±01**, h10**^{km}**, n24,** σ**0**^{s}**91**/24**, mb3.7**/10**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**3.98**	**3**	*e*PN	**Pn**	**06 23 51.0**	**-4.4**
SKR				pmax	pmax		
	comp=Z,50nm,0.4s						
KUR	**Kuril'sk**	**5.70**	**258**	*e*PN	**Pn**	**06 24 18.9**	**0.0**
KUR				pmax	pmax		
	comp=Z,160nm,0.4s						
PET	**Petropavlovsk**	**6.59**	**15**	*e*PN	**Pn**	**06 24 26.2**	**-4.9**
PET				pmax	pmax		
	comp=Z,15nm,0.4s						
PET				MLR	MLR		
	comp=Z,100nm,12.0s						
ASAJ	**Asahikawa**	**9.61**	**259**	PN	**Pn**	**06 25 13.4**	**+0.8**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**9.61**	**259**	Pn	**Pn**	**06 25 13.3**	**+0.7**
	comp=Z,1.4nm,0.3s,baz=90,slow=12,SNR=4.0						
ERM	**Erimo**	**10.17**	**247**	*e*PN	**Pn**	**06 25 19.0**	**-1.2**
MJAR	**Matsushiro Arr**	**16.56**	**238**	P	**Pn**	**06 26 44.8**	**-1.7**
MJAR	**Matsushiro Arr**	**16.56**	**238**	Pn	**Pn**	**06 26 44.8**	**-1.6**
	comp=Z,0.2nm,0.3s,baz=27,slow=13,SNR=4.6						
BILL	**Bilibino**	**22.06**	**11**	P	**P**	**06 27 48.6**	**-0.2**
BILL				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
KSRS	**Korea Array**	**22.54**	**256**	P	**P**	**06 27 56.2**	**+2.0**
	comp=Z,1.2nm,0.8s,mb3.4,baz=70,slow=7.1,SNR=4.1						
INK	**Inuvik**	**40.71**	**33**	P	**P**	**06 30 34.5**	**0.0**
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	**Inuvik**	**40.71**	**33**	P	**P**	**06 30 34.5**	**0.0**
	comp=Z,1.1nm,0.5s,mb3.7,baz=306,slow=5.1,SNR=15						
MKAR	**Makanchi Array**	**48.57**	**299**	P	**P**	**06 31 37.9**	**+0.4**
	comp=Z,0.3nm,0.2s,mb3.9,baz=72,slow=11,SNR=2.6						
KURK	**Kurchatov**	**48.89**	**305**	*e*P	**P**	**06 31 39.9**	**0.0**
YKA	**Yellowknife Ar**	**49.86**	**37**	P	**P**	**06 31 46.3**	**-0.9**
	comp=Z,0.2nm,0.6s,mb3.3,baz=292,slow=7.0,SNR=3.5						
NVAR	**Mina Array Bea**	**60.83**	**64**	P	**P**	**06 33 08.0**	**+1.4**
	comp=Z,0.1nm,0.5s,mb3.2,baz=308,slow=8.7,SNR=2.8						
FINES	**FINESS Array B**	**64.84**	**336**	P	**P**	**06 33 32.8**	**0.0**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	**64.84**	**336**	P	**P**	**06 33 32.8**	**-0.1**
	comp=Z,1.1nm,0.6s,mb4.0,baz=43,slow=8.6,SNR=9.5						
WRA	**Warramunga Arr**	**69.10**	**202**	P	**P**	**06 34 00.0**	**-0.4**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	**Warramunga Arr**	**69.10**	**202**	P	**P**	**06 34 00.0**	**-0.4**
	comp=Z,1.0nm,0.6s,mb3.9,baz=22,slow=7.0,SNR=12						
ASAR	**Alice Springs**	**72.78**	**201**	P	**P**	**06 34 23.4**	**+0.7**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	**Alice Springs**	**72.78**	**201**	P	**P**	**06 34 23.4**	**+0.7**
	comp=Z,0.8nm,0.6s,mb3.8,baz=18,slow=5.8,SNR=14						
TXAR	**Lajitas Array**	**75.92**	**62**	P	**P**	**06 34 40.6**	**-0.5**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	**Lajitas Array**	**75.92**	**62**	P	**P**	**06 34 40.5**	**-0.6**
	comp=Z,1.4nm,0.5s,mb4.1,baz=306,slow=4.6,SNR=12						

IDC 16 07:01:29.9±1.9**, 418N**×**12711E, h0**^{km}**, mb3.6**/4**, mb1 3.7**/4**, mb1mx3.5**/18**, mbtmp3.6**/4**, Error ellipse: s-maj=156.2km s-min=23.8km az=65.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**25.00**	**164**	P	P	07 06 55.9	+0.3
	0.7nm,0.6s,baz=344,slow=10,SNR=7.7						
ASAR	**Alice Springs**	**28.46**	**167**	P	P	07 07 26.1	-0.7
	0.3nm,0.5s,baz=357,slow=8.7,SNR=5.6						
STKA	**Stephens Creek**	**38.41**	**160**	P	P	07 08 53.8	+0.5
	0.9nm,0.5s,baz=326,slow=6.5,SNR=3.1						
MKAR	**Makanchi Array**	**57.41**	**325**	P	P	07 11 20.4	0.0
	0.4nm,0.4s,baz=128,slow=7.7,SNR=9.9						

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*BJI **16** 07:15:45.2, 567N×12659E, h78^{km}, mB5.1, mb4.8, Ms4.1, Msz3.9*

*MOS **16** 07:15:47.7±1.3, 654N×12596E, h33^{km}, mb5.2/21, Error ellipse: s-maj=21.7km s-min=7.1km az=112.0*

*MAN **16** 07:15:50, 650N×12633E, h38^{km}, mb5.2, ML4.2, MS4.3*

*ISCJB **16** 07:15:52.2±0.6, 663N±003×12638E±005, h78^{km}±4^{km}, mb4.7/59, Error ellipse: s-maj=7.9km s-min=5.7km az=2.7*

*IDC **16** 07:15:53.6±3.0, 659N×12615E, h73^{km}±26^{km}, mb4.2/17, mb1 4.3/17, mb1mx4.3/21, mbtmp4.2/17, MS3.6/11, Ms1 3.6/11, ms1mx3.4/28, Error ellipse: s-maj=27.7km s-min=11.1km az=73.0*

*NEIC **16** 07:15:54.0±1.0, 661N×12624E, h79^{km}±9^{km}, mb4.9/21, Error ellipse: s-maj=11.8km s-min=5.4km az=68.0*

NEIC Minor damage to an apartment at Davao.

ISC 16 07:15:53.6±0.6**, 665N**±003×**12636E**±005**, h74**^{km}±4^{km}**, n144,** σ**1**^{s}**23**/139**, mb4.7**/59**, 17C-16D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DAV	**Davao City (W)**	**0.89**	**298**	⇓*i*Pn	**Pn**	**07 16 09.1**	**-1.8**
DAV				*e*Sn	**Sn**	**07 16 23.9**	**+0.1**
DAV	**Davao City (W)**	**0.89**	**298**	⇓*i*P	**Pn**	**07 16 09.0**	**-1.9**
DMPH	**Davao City--Mi**	**0.95**	**297**	⇓*i*P	**Pn**	**07 16 09.9**	**-1.8**
DMPH				*i* S	**Sn**	**07 16 25.1**	**-0.1**
KCP	**Kidapawan**	**1.31**	**286**	⇓*i*P	**Pn**	**07 16 16.7**	**+0.4**
KCP				*i* S	**Sn**	**07 16 33.1**	**-0.2**
GSPH	**General Santos**	**1.51**	**249**	⇓*e*P	**Pn**	**07 16 21.7**	**+2.8**
GSPH				*i* S	**Sn**	**07 16 30.8**	**-7.1**
BIPH	**Bislig**	**1.53**	**360**	⇑*e*P	**Pn**	**07 16 18.4**	**-0.7**
BIPH				*i* S	**Sn**	**07 16 37.6**	**-0.7**
CTBH	**Cotabato--PC H**	**2.18**	**285**	⇑*i*P	**Pn**	**07 16 25.1**	**-2.7**
CTBH				*i* S	**Sn**	**07 16 51.8**	**-2.0**
CGP	**Cagayan de Oro**	**2.44**	**317**	⇑*i*P	**Pn**	**07 16 30.4**	**-0.9**
CGP				*i* S	**Sn**	**07 17 00.2**	**0.0**
SCPH	**Surigao**	**3.23**	**345**	⇑*e*P	**Pn**	**07 16 41.8**	**-0.3**
DCPH	**Dipolog City**	**3.55**	**303**	⇑*e*P	**Pn**	**07 16 49.5**	**+3.2**
TBP	**Tagbilaran**	**3.91**	**321**	*e*P	**Pn**	**07 16 50.4**	**-0.8**
TBP				*e*S	**Sn**	**07 17 33.4**	**-2.6**
SNPH	**Sibulan**	**4.09**	**311**	*e*P	**Pn**	**07 16 56.0**	**+2.2**
LLP	**Lapu-Lapu**	**4.35**	**327**	*e*P	**Pn**	**07 16 57.7**	**+0.4**
LLP				*e*S	**Sn**	**07 17 49.5**	**+2.8**
PLP	**Palo**	**4.69**	**343**	*e*P	**Pn**	**07 17 03.7**	**+1.7**
PLP				*e*S	**Sn**	**07 17 48.4**	**-6.7**
MYLDM	**Lahad Datu**	**7.96**	**260**	⇓P	**Pn**	**07 17 48.7**	**+2.1**
BUSP	**Coron**	**8.08**	**312**	*e*P	**Pn**	**07 17 40.9**	**-7.4**
TSM	**Tawau**	**8.77**	**255**	⇓P	**Pn**	**07 18 00.5**	**+2.8**
SDKM	**Sandakan**	**9.17**	**264**	⇑P	**Pn**	**07 18 04.5**	**+1.3**
KKM	**Kota Kinabalu**	**10.11**	**267**	*e*Pn	**Pn**	**07 18 15.9**	**-0.1**
SBUM	**Sibu**	**14.70**	**254**	⇓P	**Pn**	**07 19 19.6**	**+1.8**
SBUM	**Sibu**	**14.70**	**254**	⇑P	**Pn**	**07 19 21.1**	**+3.4**
KSM	**Kuching**	**16.81**	**253**	*e*Pn	**Pn**	**07 19 44.1**	**-0.4**
KSM	**Kuching**	**16.81**	**253**	⇑P	**Pn**	**07 19 47.2**	**+2.7**
KSM	**Kuching**	**16.81**	**253**	⇓P	**Pn**	**07 19 47.7**	**+3.2**
GUMO	**Guam**	**19.47**	**68**	LR	LR	07 26 17.9	
	comp=Z,137nm,19.9s,baz=252,slow=32						
QZH	**Quanzhou**	**19.66**	**339**	⇓*i*P	**Pn**	**07 20 19.3**	**+0.6**
QZH				AMB	AMB		
	comp=Z,100nm,1.3s						
KAKA	**Kakadu**	**20.16**	**163**	*e*P	**P**	**07 20 21.0**	**-1.1**
	comp=Z,69nm,0.6s						
QIZ	**Qiongzhong**	**20.25**	**309**	*e*P	**P**	**07 20 22.4**	**-0.7**
	comp=Z,5.1nm,0.5s						
GZH	**Guangzhou**	**20.60**	**324**	P	**P**	**07 20 31.9**	**+5.1**
MYKOM	**Kota Tinggi**	**22.96**	**259**	⇓P	**P**	**07 20 52.3**	**+0.2**
MYKOM	**Kota Tinggi**	**22.96**	**259**	⇑P	**P**	**07 20 52.6**	**+0.6**
KTGM	**Kuala Trenggan**	**23.14**	**268**	⇑P	**P**	**07 20 54.4**	**+0.6**
KGM	**Kluang**	**23.43**	**260**	⇓P	**P**	**07 20 56.6**	**+0.2**
FITZ	**Fitzroy Crossi**	**24.60**	**182**	P	**P**	**07 21 06.3**	**-0.7**
	comp=Z,7.6nm,0.5s,mb4.4,baz=12,slow=9.1,SNR=23						
FITZ				PcP	PcP	07 24 43.7	+0.3
	comp=Z,4.0nm,0.7s,baz=34,slow=7.3,SNR=5.1						
FRIM	**Kepong**	**24.87**	**263**	⇓P	**P**	**07 21 11.6**	**+1.9**
CBIJ	**Chichi jima**	**25.30**	**35**	LR	LR	07 30 43.0	
	comp=Z,76nm,19.4s,baz=44,slow=35						
IPM	**Ipoh**	**25.31**	**266**	⇓P	**P**	**07 21 14.2**	**+0.5**
SNG	**Songkhla**	**25.56**	**273**	P	**P**	**07 21 17.0**	**+1.1**
	comp=Z,76nm,0.7s,mb5.2						
KULM	**Kulim**	**25.61**	**268**	*e*P	**P**	**07 21 16.1**	**-0.3**
KULM	**Kulim**	**25.61**	**268**	⇓P	**P**	**07 21 15.8**	**-0.5**
PMG	**Port Moresby**	**26.15**	**127**	LR	LR	07 30 44.5	
	comp=Z,68nm,21.2s,baz=237,slow=34						
NJ2	**Nanjing**	**26.23**	**345**	*e*P	**P**	**07 21 20.3**	**-1.4**
NJ2				AMB	AMB		
	comp=Z,20nm,0.5s,mb4.8						
WHN	**Wuhan**	**26.31**	**336**	⇑P	**P**	**07 21 25.5**	**+3.0**
COEN	**Coen**	**26.41**	**141**	*e*P	**P**	**07 21 23.6**	**+0.1**
JNU	**Nakatsue**	**26.68**	**8**	LR	LR	07 30 02.7	
	comp=Z,94nm,21.2s,baz=179,slow=32						
GYA	**Guiyang**	**27.21**	**319**	⇑*i*P	**P**	**07 21 37.1**	**+6.5**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.3						
NST	**Nakhon Sawan**	**27.22**	**291**	P	**P**	**07 21 28.2**	**-2.6**
WRA	**Warramunga Arr**	**27.56**	**164**	P	**P**	**07 21 33.1**	**-0.7**
WRA						07 24 50.8	
WRA	**Warramunga Arr**	**27.56**	**164**	P	**P**	**07 21 33.1**	**-0.7**
	comp=Z,3.9nm,0.4s,mb4.3,baz=343,slow=10.0,SNR=34						
WRA				PcP	PcP	07 24 50.8	+0.6
	comp=Z,3.2nm,0.7s,baz=331,slow=2.8,SNR=4.8						
WRA				ScP	ScP	07 28 24.5	0.0
	comp=Z,1.3nm,0.6s,baz=345,slow=3.2,SNR=8.0						
PSI	**Prapat**	**27.61**	**263**	P	**P**	**07 21 34.1**	**-0.2**
PSI						07 24 49.8	
PSI	**Prapat**	**27.61**	**263**	P	**P**	**07 21 34.1**	**-0.3**
	comp=Z,7.4nm,0.8s,mb4.3,baz=108,slow=3.2,SNR=11						
PSI				PcP	PcP	07 24 49.8	-0.7
	comp=Z,1.7nm,0.3s,baz=31,slow=3.6,SNR=6.1						
PSI				LR	LR	07 32 35.6	
	comp=Z,172nm,19.7s,baz=42,slow=37						
MBWA	**Marble Bar**	**28.39**	**193**	*e*P	**P**	**07 21 40.1**	**-1.1**
	comp=Z,39nm,1.4s,mb4.7						
KSRS	**Korea Array**	**30.70**	**2**	P	**P**	**07 22 02.0**	**+0.6**
	comp=Z,0.7nm,0.4s,mb3.7,baz=185,slow=10.0,SNR=3.5						
KSRS				PcP	PcP	07 24 59.4	+1.5
	comp=Z,1.3nm,0.7s,baz=176,slow=2.0,SNR=4.2						
KSRS				LR	LR	07 32 57.5	
	comp=Z,82nm,20.2s,baz=316,slow=33						
ASAR	**Alice Springs**	**31.01**	**166**	P	**P**	**07 22 04.2**	**-0.2**
	comp=Z,3.5nm,0.5s,mb4.3,baz=342,slow=6.8,SNR=79						
ASAR				PcP	PcP	07 24 59.3	+0.4
	comp=Z,4.0nm,0.6s,baz=348,slow=2.5,SNR=10						
XAN	**Xi'an**	**31.68**	**332**	P	**P**	**07 22 10.3**	**+0.2**
XAN				AMB	AMB		
	comp=Z,55nm,0.7s,mb5.4						
CD2	**Chengdu**	**32.12**	**322**	P	**P**	**07 22 17.6**	**+3.6**
CD2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.8						
CTA	**Charters Tower**	**32.99**	**144**	*e*P	**P**	**07 22 23.7**	**+1.9**
CTA				pmax	pmax		
	comp=Z,5.0nm,1.2s						
BJT	**Baijiatuau**	**34.47**	**346**	*e*P	**P**	**07 22 35.5**	**+1.2**
	comp=Z,33nm,0.6s,mb5.3						
BJT	**Baijiatuau**	**34.47**	**346**	*e*P	**P**	**07 22 35.5**	**+1.2**
BJT				pmax	pmax		
	comp=Z,33nm,0.6s						
BJI	**Beijing**	**34.48**	**346**	P	**P**	**07 22 36.8**	**+2.3**
BJI				S	**S**	**07 28 05.8**	**+8.1**
BJI				AMB	AMB		
	comp=Z,71nm,0.9s,mb5.5						
BJI	**Beijing**	**34.48**	**346**	P	**P**	**07 22 36.8**	**+2.3**
	comp=Z,0.1nm,0.9s						
BJI				PcP	PcP	07 25 09.8	+1.6
BJI				S	**S**	**07 28 05.7**	**+8.0**
LZH	**Lanzhou**	**35.84**	**328**	*e*P	**P**	**07 22 49.9**	**+3.7**
LZH				AP	pP	07 23 05.5	+1.6
LZH				XP	sP	07 23 10.8	-1.6
LZH				AMB	AMB		
	comp=Z,68nm,1.4s,mb5.4						
LZH				AMB	AMB		
	comp=Z,160nm,4.7s						
LZH				LR	LR		
	comp=E,302nm,12.0s						
LZH				LR	LR		
	comp=Z,429nm,12.8s						
LZH	**Lanzhou**	**35.84**	**328**	*e*P	**P**	**07 22 49.9**	**+3.7**
	comp=Z,68nm,1.4s,mb5.4						
LZH				pP	pP	07 23 05.5	+1.6

LZH				sP	sP	07 23 10.7	-1.7
LZH				LR	LR		
	comp=Z,430nm,12.8s						
HHC	**Hu-ho-hao-te**	**36.53**	**341**	*e*P	**P**	**07 22 54.9**	**+2.8**
HHC				AMB	AMB		
	comp=Z,34nm,1.0s,mb5.2						
HHC				AMB	AMB		
	comp=Z,90nm,5.1s						
VLA	**Vladivostok**	**36.65**	**7**	*e*P	**P**	**07 22 43.3**	**-10**
VLA				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.3						
SHL	**Shillong**	**37.91**	**304**	*i* P	**P**	**07 23 04.5**	**+0.5**
LSA	**Lhasa**	**40.29**	**309**	P	**P**	**07 23 24.8**	**+1.1**
LSA	**Lhasa**	**40.29**	**309**	*e*P	**P**	**07 23 24.4**	**+0.7**
	comp=Z,4.4nm,0.8s,mb4.3						
LSA	**Lhasa**	**40.29**	**309**	*e*P	**P**	**07 23 24.4**	**+0.7**
LSA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
NWAO	**Narrogin (SRO)**	**40.30**	**192**	*e*P	**P**	**07 23 23.2**	**-0.5**
	comp=Z,16nm,0.7s,mb5.0						
NWAO	**Narrogin (SRO)**	**40.30**	**192**	*e*P	**P**	**07 23 23.3**	**-0.4**
NWAO				pmax	pmax		
	comp=Z,16nm,0.7s						
GTA	**Gaotai**	**40.44**	**328**	P	**P**	**07 23 25.8**	**+1.0**
GTA				PP	PP	07 25 02.8	+3.6
GTA				PCP	PcP	07 25 27.4	+0.9
GTA				PPP		07 25 32.1	
GTA				S	**S**	**07 29 35.8**	**+7.8**
GTA				SS	SS	07 32 31.9	+2.0
GTA				AMB	AMB		
	comp=Z,4.0nm,1.1s,mb4.2						
GTA				AMB	AMB		
	comp=Z,168nm,6.5s						
GTA				LR	LR		
	comp=N,188nm,17.5s						
GTA				LR	LR		
	comp=E,177nm,17.5s						
GTA				LR	LR		
	comp=Z,226nm,19.4s						
STKA	**Stephens Creek**	**40.97**	**160**	P	**P**	**07 23 29.9**	**+0.6**
	comp=Z,29nm,0.9s,mb5.1,baz=335,slow=8.0,SNR=68						
STKA				PP	PP	07 25 02.4	-2.8
	comp=Z,7.5nm,1.1s,baz=300,slow=8.1,SNR=2.4						
TAPN	**Taplejung**	**42.05**	**304**	*e*P	**P**	**07 23 38.6**	**+0.4**
	comp=Z,44nm,0.8s,mb5.2						
ODAN	**Odare**	**42.13**	**303**	*e*P	**P**	**07 23 39.2**	**+0.3**
	comp=Z,55nm,0.8s,mb5.3						
HABR	**Khabarovsk**	**42.33**	**9**	P	**P**	**07 23 47.1**	**+7.0**
YSS	**Yuzh-Sakhalins**	**42.56**	**17**	*e*P	**P**	**07 23 52.1**	**+10**
YSS				pmax	pmax		
	comp=Z,36nm,2.5s,mb4.7						
KKN	**Kakani**	**44.22**	**303**	*e*P	**P**	**07 23 55.4**	**-0.3**
	comp=Z,33nm,0.9s,mb5.1						
ULN	**Ulaanbaatar**	**44.25**	**341**	*e*P	**P**	**07 23 56.9**	**+1.3**
	comp=Z,22nm,0.9s,mb4.9						
ULN	**Ulaanbaatar**	**44.25**	**341**	*e*P	**P**	**07 23 56.9**	**+1.3**
ULN				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.9						
SONM	**Songino Array**	**44.44**	**341**	P	**P**	**07 23 58.8**	**+1.7**
SONM						07 25 40.4	
SONM	**Songino Array**	**44.44**	**341**	P	**P**	**07 23 58.8**	**+1.7**
	comp=Z,6.6nm,0.9s,mb4.4,baz=158,slow=8.6,SNR=35						
SONM				PcP	PcP	07 25 40.4	+0.8
	comp=Z,6.7nm,0.8s,baz=158,slow=4.2,SNR=15						
SONM				LR	LR	07 46 20.9	
	comp=Z,59nm,19.4s,baz=0.6,slow=41						
GKN	**Gorkha**	**44.83**	**303**	*e*P	**P**	**07 24 00.1**	**-0.5**
	comp=Z,13nm,0.5s,mb4.9						
CIT	**Chita**	**46.45**	**349**	*e*P	**P**	**07 24 14.8**	**+1.8**
CIT				*e*		07 24 23.5	
CIT				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.1						
ZAK	**Zakamensk**	**47.67**	**340**	*e*P	**P**	**07 24 23.6**	**+1.1**
ZAK				*e*		07 25 51.6	
ZAK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.2						
TLY	**Talaya**	**48.66**	**341**	*e*P	**P**	**07 24 30.1**	**0.0**
	comp=Z,9.0nm,0.7s,mb4.8						
TLY	**Talaya**	**48.66**	**341**	*c i*P	**P**	**07 24 31.8**	**+1.7**
TLY				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
MOY	**Mondy**	**49.54**	**339**	*e*P	**P**	**07 24 38.3**	**+1.5**
BOD	**Bodaibo**	**51.94**	**352**	*e*P	**P**	**07 24 55.7**	**+0.9**
BOD				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
MK31	**Makanchi Array**	**54.98**	**324**	*e*P	**P**	**07 25 16.3**	**-0.9**
MK31	**Makanchi Array**	**54.98**	**324**	*i* P	**P**	**07 25 16.9**	**-0.3**
MK31				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb5.0						
MKAR	**Makanchi Array**	**54.98**	**324**	P	**P**	**07 25 17.0**	**-0.2**
	comp=Z,10nm,0.5s,mb5.1,baz=122,slow=8.1,SNR=85						
MKAR				LR	LR	07 49 59.2	
	comp=Z,88nm,21.1s,baz=250,slow=37						
YAK	**Yakutsk**	**55.32**	**2**	*e*P	**P**	**07 25 23.2**	**+3.8**
YAK				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.3						
ZALV	**Zalesovo Beam**	**57.84**	**332**	P	**P**	**07 25 36.9**	**-0.6**
	comp=Z,2.8nm,0.4s,mb4.6,baz=127,slow=6.6,SNR=21						
ZALV				PcP	PcP	07 26 27.8	-1.4
	comp=Z,2.6nm,0.8s,baz=135,slow=4.5,SNR=2.5						
ZALV				LR	LR	07 51 01.8	
	comp=Z,67nm,19.4s,baz=235,slow=36						
ZAL	**Zalesovo**	**57.85**	**332**	P	**P**	**07 25 36.9**	**-0.6**
ZAL						07 26 27.8	
AAK	**Ala-Archa**	**57.98**	**317**	⇑*i*P	**P**	**07 25 37.2**	**-1.4**
AML	**Almayashu**	**58.34**	**316**	*e*P	**P**	**07 25 41.5**	**+0.3**
	comp=Z,5.5nm,0.8s,mb4.6						
KURK	**Kurchatov**	**59.11**	**327**	*e*P	**P**	**07 25 45.8**	**-0.5**
	comp=Z,15nm,0.4s,mb5.4						
KURK	**Kurchatov**	**59.11**	**327**	*c i*P	**P**	**07 25 45.7**	**-0.6**
KURK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
NVS	**Novosibirsk**	**59.13**	**333**	*e*P	**P**	**07 25 44.9**	**-1.4**
NVS				pmax	pmax		
	comp=Z,29nm,1.9s,mb5.0						
NVS				pmax	pmax		
	comp=E,15nm,1.6s						
SEY	**Seymchan**	**59.30**	**13**	⇑*i*P	**P**	**07 25 54.0**	**+6.6**
KBL	**Kabul**	**59.49**	**306**	*e*P	**P**	**07 25 48.5**	**-0.8**
KK31	**Karatay Array**	**60.88**	**316**	*i* P	**P**	**07 25 57.6**	**-1.0**
KK31				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
KKAR	**Karatay Array**	**60.88**	**316**	*i* P	**P**	**07 25 57.6**	**-1.0**
KKAR				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
BRVK	**Borovoye**	**64.77**	**326**	*e*P	**P**	**07 26 23.6**	**-0.6**
	comp=Z,11nm,0.6s,mb4.8						
BRVK	**Borovoye**	**64.77**	**326**	*e*P	**P**	**07 26 23.7**	**-0.5**
BRVK				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.9						
TIXI	**Tiksi**	**64.95**	**1**	*e*P	**P**	**07 26 24.9**	**-0.2**
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.2						
BILL	**Bilibino**	**66.85**	**15**	⇑*i*P	**P**	**07 26 45.7**	**+8.4**
BILL				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.8						
AB31	**Akbulak array**	**69.68**	**320**	P	**P**	**07 26 54.2**	**-1.2**
AB31				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
ARU	**Arti**	**72.30**	**327**	*e*P	**P**	**07 27 09.9**	**-1.2**
	comp=Z,7.9nm,0.4s,mb4.9						
ARU	**Arti**	**72.30**	**327**	⇓*i*P	**P**	**07 27 09.6**	**-1.5**
ARU				*e*	pP	07 27 26.8	-3.9
ARU				*e*		07 29 53.9	
ARU				*e*PPP		07 31 30.4	
ARU				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.7						
PRGR	**Permogore**	**79.78**	**331**	*e*P	**P**	**07 27 52.1**	**-1.4**
PRGR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.8						
KIV	**Kislovodsk**	**80.88**	**313**	*e*P	**P**	**07 27 59.9**	**+0.1**
KIV				pmax	pmax		
	comp=Z,16nm,1.7s,mb4.6						
MCK	**McKinley**	**81.73**	**27**	*e*P	**P**	**07 28 04.5**	**+0.6**
	comp=Z,2.8nm,0.8s,mb4.1						
MCK	**McKinley**	**81.73**	**27**	*e*P	**P**	**07 28 04.5**	**+0.6**
MCK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
OBN	**Obninsk**	**84.48**	**325**	*i* P	**P**	**07 28 18.0**	**-0.2**
OBN				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.8						
VNDA	**Vanda**	**86.35**	**173**	P	**P**	**07 28 27.4**	**+0.3**
	comp=Z,1.5nm,0.7s,mb4.0,baz=3.1,slow=8.5,SNR=4.6						
JOF	**Joensuu**	**86.43**	**333**	*e*p	**P**	**07 28 26.0**	**-1.8**
	comp=Z,5.2nm,0.5s,mb4.7						
ARCES	**ARCESS Array B**	**87.60**	**340**	P	**P**	**07 28 33.4**	**+0.1**
ARCES	**ARCESS Array B**	**87.60**	**340**	P	**P**	**07 28 33.4**	**+0.1**
	comp=Z,4.6nm,0.6s,mb4.7,baz=82,slow=6.1,SNR=31						
BRTR	**Keskin Array B**	**87.89**	**310**	P	**P**	**07 28 33.9**	**-1.5**
	comp=Z,1.5nm,0.9s,mb4.0,baz=116,slow=5.6,SNR=5.8						
KAF	**Kangasniemi**	**88.86**	**332**	*e*p	**P**	**07 28 36.8**	**-2.6**
	comp=Z,5.2nm,0.8s,mb4.6,baz=75,slow=4.3						
KAF	**Kangasniemi**	**88.86**	**332**	*e*P	**P**	**07 28 36.8**	**-2.6**
KAF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
FINES	**FINESS Array B**	**89.11**	**332**	P	**P**	**07 28 39.8**	**-0.8**
	comp=Z,1.4nm,0.5s,mb4.2,baz=66,slow=4.4,SNR=16						
KMBO	**Kilima Mbogo**	**89.25**	**269**	P	**P**	**07 28 41.5**	**-0.7**
	comp=Z,0.6nm,0.3s,mb4.2,baz=30,slow=20,SNR=3.6						
KMBO				LR	LR	08 07 01.3	
	comp=Z,37nm,18.2s,baz=102,slow=34						
AKASG	**Malin Array Be**	**89.41**	**321**	P	**P**	**07 28 40.6**	**-1.6**
	comp=Z,2.3nm,0.6s,mb4.4,baz=65,slow=4.7,SNR=11						
NB2	**NORSAR Subarra**	**96.03**	**334**	P	**P**	**07 29 11.0**	**-1.5**
	comp=Z,4.5nm,1.1s,mb4.8,baz=64,slow=4.4						
NOA	**NORSAR Array B**	**96.03**	**334**	P	**P**	**07 29 11.5**	**-1.1**
	comp=Z,1.6nm,0.9s,mb4.5,baz=103,slow=2.4,SNR=4.1						
NOA				LR	LR	08 21 21.9	
	comp=Z,53nm,18.7s,baz=295,slow=41						
YKA	**Yellowknife Ar**	**97.01**	**24**	P	**P**	**07 29 17.2**	**+0.3**
YKA				PKKPbc	PKKPbc	07 45 56.0	-3.8
YKA	**Yellowknife Ar**	**97.01**	**24**	P	**P**	**07 29 17.2**	**+0.3**
	comp=Z,0.7nm,0.7s,mb4.2,baz=299,slow=4.5,SNR=14						
YKA				PKKPbc	PKKPbc	07 45 56.0	-3.8
	comp=Z,0.2nm,0.5s,baz=122,slow=3.3,SNR=8.8						
NVAR	**Mina Array Bea**	**105.23**	**47**	PKKPbc	PKKPbc	07 45 35.2	-0.2
	comp=Z,0.6nm,0.7s,baz=157,slow=4.9,SNR=5.3						
SCHQ	**Schefferville**	**117.76**	**9**	PKP	PKPdf	07 34 31.9	+0.5
SCHQ	**Schefferville**	**117.76**	**9**	PKP	PKPdf	07 34 31.9	+0.5
	comp=Z,1.6nm,0.7s,baz=225,slow=8.6,SNR=3.9						
TXAR	**Lajitas Array**	**120.08**	**51**	PKP	PKPdf	07 34 38.1	+1.5
TXAR	**Lajitas Array**	**120.08**	**51**	PKIKP	PKPdf	07 34 38.1	+1.5
TXAR	**Lajitas Array**	**120.08**	**51**	PKP	PKPdf	07 34 38.1	+1.5
	comp=Z,0.5nm,0.7s,baz=333,slow=1.4,SNR=5.0						
TOA0	**Torodi Ar. Sit**	**121.63**	**290**	*e*PKPdf	PKPdf	07 34 39.2	-0.7
TORD	**Torodi Ar. Bea**	**121.63**	**290**	PKP	PKPdf	07 34 39.2	-0.7
TORD	**Torodi Ar. Bea**	**121.63**	**290**	PKP	PKPdf	07 34 39.2	-0.7
	comp=Z,2.6nm,0.6s,baz=39,slow=2.1,SNR=21						
JCT	**Junction City**	**122.41**	**48**	*e*PKPdf	PKPdf	07 34 41.2	+0.2
JCT	**Junction City**	**122.41**	**48**	*e*PKIKP	PKPdf	07 34 41.2	+0.1
LPAZ	**La Paz**	**162.88**	**125**	PKP	PKPdf	07 35 49.3	+1.0
LPAZ	**La Paz**	**162.88**	**125**	PKIKP	PKPdf	07 35 49.3	+1.0
LPAZ	**La Paz**	**162.88**	**125**	PKP	PKPdf	07 35 49.3	+1.0
	comp=Z,2.1nm,1.1s,baz=208,slow=2.0,SNR=5.4						

IDC 16 08:10:51.9±2.6, 53.96N×90.75E, h0^{km}, mb3.4/1, mb1 3.2/3, mb1mx3.0/24, mbtmp3.2/3, ML3.4/1, 3C-3D, Error ellipse: s-maj=26.5km s-min=22.5km az=94.0, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZALV	**Zalesovo Beam**	**3.51**	**272**	Pn	Pn	08 11 47.1	-0.5
	baz=107,slow=17,SNR=1.3						
ZALV				Pg	Pg	08 11 57.5	-1.6
	4.8nm,0.3s,baz=91,slow=17,SNR=20						
ZALV				Sn	Sn	08 12 29.3	-0.4
	2.4nm,0.3s,baz=95,slow=18,SNR=5.1						
ZALV				Lg		08 12 43.3	
	2.5nm,0.3s,baz=100,slow=24,SNR=3.4						
KURK	**Kurchatov**	**8.11**	**251**	⇓Pn	Pn	08 12 52.6	+1.8
	2.1nm,0.8s						
KURK				⇑Sn	Sn	08 14 24.1	+1.0
	4.7nm,0.7s						
KURK				⇓Lg		08 15 09.1	
	34nm,1.0s						
MK31	**Makanchi Array**	**8.98**	**220**	⇑Pn	Pn	08 13 03.2	+0.5
	1.7nm,0.6s,baz=42,slow=14,SNR=27						
MK31				⇑Sn	Sn	08 14 42.7	-1.8
	7.7nm,0.9s,baz=44,slow=22,SNR=4.2						
MK31				⇓Lg		08 15 30.7	
	25nm,1.0s,baz=37,slow=24,SNR=4.2						
MKAR	**Makanchi Array**	**8.98**	**220**	Pn	Pn	08 13 04.2	+1.5
	0.4nm,0.3s,baz=40,slow=14,SNR=26						
MKAR				Sn	Sn	08 14 42.8	-1.7
	0.3nm,0.3s,baz=42,slow=16,SNR=6.7						
MKAR				Lg		08 15 33.2	
	0.5nm,0.3s,baz=39,slow=29,SNR=5.1						
SONM	**Songino Array**	**11.61**	**116**	Lg		08 16 49.9	
	0.2nm,0.3s,baz=307,slow=30,SNR=9.4						
TORD	**Torodi Ar. Bea**	**78.94**	**277**	P	P	08 22 56.3	-1.1
	0.2nm,0.4s,baz=33,slow=6.0,SNR=2.4						

ISCJB ***16*** *08:29:35.5±0.5, 35.1S±0.1×54.0E±0.1, h10^{km}, mb3.9/16, MS4.1/22, Error ellipse: s-maj=19.0km s-min=10.5km az=27.4*

IDC ***16*** *08:29:35.8±0.6, 35.18S×53.97E, h0^{km}, mb3.9/13, mb1 4.0/14, mb1mx3.9/23, mbtmp3.9/14, ML4.6/1, MS4.1/22, Ms1 4.1/22, ms1mx4.0/32, Error ellipse: s-maj=26.6km s-min=13.8km az=22.0*

GCMT ***16*** *08:29:37.1±0.3, 34.90S×54.14E, h26^{km}±1^{km}, MW5.0/60, Moment Tensor Solution. s24,c31; s60,c78; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.04±.19; M$_{\theta\theta}$0.86±.19; M$_{\phi\phi}$0.17±.17; M$_{r\theta}$0.27±.28; M$_{\theta\phi}$3.72±.12; M$_{\phi r}$-0.69±.27; Best double couple: M$_0$3.84200×10^{16} NP1:φ$_s$272.00000°,δ77.00000°,λ-10.00000°. NP2: φ$_s$4.00000°,δ81.00000°,λ-166.00000°. Principal axes: T 4.2680, Plg3.0000°, Azm137.0000°; N -0.8540, Plg74.0000°, Azm38.0000°; P -3.4160, Plg16.0000°, Azm228.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***16*** *08:29:37.1±0.5, 35.08S×53.98E, h10^{km}, mb4.3/1 Error ellipse: s-maj=18.4km s-min=10.2km az=209.0*

ISC 16 08:29:37.3±0.5, 35.1S±0.1×54.0E±0.1, h10^{km}, n37, σ0^{s}92/21, mb3.9/16, MS4.1/22, Southwest Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OPO	**Ambohidratompo**	**17.54**	**338**	P	**Pn**	**08 33 41.1**	**-0.8**
	2.1nm,0.3s,baz=141,slow=11,SNR=15						
BOSA	**Boshof**	**25.20**	**277**	P	**P**	**08 35 03.2**	**+0.2**
	1.8nm,0.8s,mb3.7,baz=100,slow=11,SNR=1.8						
LBTB	**Lobatse**	**26.47**	**285**	P	**P**	**08 35 15.2**	**+0.5**
	5.0nm,0.9s,mb4.0,baz=130,slow=2.9,SNR=4.1						
LBTB				LR	LR	08 43 45.2	
	comp=Z,362nm,18.0s,MS4.0,baz=132,slow=32						
MATP	**Matopo**	**26.78**	**296**	P	**P**	**08 35 17.3**	**-0.1**
	2.6nm,0.9s,mb3.8,baz=192,slow=9.3,SNR=2.8						
MATP				LR	LR	08 44 12.3	
	comp=Z,390nm,20.4s,MS4.0,baz=126,slow=33						
SUR	**Sutherland**	**27.66**	**266**	LR	LR	08 43 10.3	
	comp=Z,215nm,20.5s,MS3.7,baz=101,slow=30						
MAW	**Mawson**	**32.95**	**174**	LR	LR	08 45 59.5	
	comp=Z,289nm,21.3s,MS4.0,baz=155,slow=30						
TSUM	**Tsumeb**	**35.83**	**287**	P	**P**	**08 36 37.1**	**0.0**
	0.9nm,0.7s,mb3.8,baz=90,slow=21,SNR=3.0						
KMBO	**Kilima Mbogo**	**37.23**	**332**	P	**P**	**08 36 46.5**	**-2.5**
KMBO				LR	LR	08 50 00.9	
KMBO	**Kilima Mbogo**	**37.23**	**332**	P	**P**	**08 36 46.5**	**-2.5**
	0.3nm,0.4s,mb3.5,baz=231,slow=22,SNR=2.0						
KMBO				LR	LR	08 50 00.9	
	comp=Z,172nm,20.8s,MS3.8,baz=115,slow=33						
SNAA	**Sanae**	**46.77**	**201**	P	**P**	**08 38 05.1**	**-1.2**
	0.4nm,0.6s,mb3.5,baz=280,slow=17,SNR=1.8						
NWAO	**Narrogin (SRO)**	**51.67**	**107**	P	**P**	**08 38 43.0**	**-1.4**
NWAO				LR	LR	08 56 35.5	
NWAO	**Narrogin (SRO)**	**51.67**	**107**	P	**P**	**08 38 43.0**	**-1.4**
	25nm,1.3s,mb5.0,baz=111,slow=7.3,SNR=3.2						
NWAO				LR	LR	08 56 35.5	
	comp=Z,218nm,18.1s,MS4.2,baz=261,slow=31						
VNDA	**Vanda**	**59.74**	**166**	LR	LR	09 02 18.9	
	comp=Z,252nm,19.8s,MS4.3,baz=48,slow=33						
FITZ	**Fitzroy Crossi**	**65.02**	**95**	P	**P**	**08 40 17.6**	**-0.3**
	1.3nm,0.8s,mb4.0,baz=69,slow=8.2,SNR=3.5						
EIL	**Elat**	**66.88**	**342**	LR	LR	09 07 00.6	
	comp=Z,75nm,18.3s,MS3.9,baz=96,slow=34						
ASAR	**Alice Springs**	**68.89**	**105**	P	**P**	**08 40 43.6**	**+1.2**
	0.6nm,0.5s,mb3.8,baz=236,slow=5.9,SNR=7.7						
TORD	**Torodi Ar. Bea**	**68.95**	**304**	P	**P**	**08 40 44.1**	**+1.3**
	1.6nm,1.0s,mb3.9,baz=131,slow=5.7,SNR=7.5						
TORD				LR	LR	09 10 46.6	
	comp=Z,96nm,21.1s,MS4.0,baz=130,slow=36						
MMAI	**Mount Meron Ar**	**69.96**	**343**	LR	LR	09 09 23.2	
	comp=Z,54nm,19.4s,MS3.8,baz=170,slow=34						
STKA	**Stephens Creek**	**70.73**	**116**	P	**P**	**08 40 54.0**	**+0.4**
	1.3nm,1.0s,mb3.8,baz=164,slow=16,SNR=2.2						
STKA				LR	LR	09 04 03.1	
	comp=Z,241nm,19.8s,MS4.5,baz=209,slow=29						
WRA	**Warramunga Arr**	**71.13**	**101**	P	**P**	**08 40 56.6**	**+0.3**
WRA				LR	LR	09 07 50.8	
WRA	**Warramunga Arr**	**71.13**	**101**	P	**P**	**08 40 56.6**	**+0.3**
	1.2nm,0.5s,mb4.0,baz=234,slow=5.3,SNR=25						
WRA				LR	LR	09 07 50.8	
	comp=Z,69nm,18.4s,MS4.0,baz=190,slow=32						
IDI	**Anoyia**	**75.11**	**336**	LR	LR	09 15 03.7	
	comp=Z,80nm,18.6s,MS4.0,baz=72,slow=36						
BRTR	**Keskin Array B**	**76.79**	**344**	P	**P**	**08 41 28.7**	**-0.1**
	0.4nm,0.5s,mb3.6,baz=255,slow=10,SNR=3.1						
CTA	**Charters Tower**	**80.50**	**108**	LR	LR	09 13 44.6	
	comp=Z,138nm,18.7s,MS4.3,baz=229,slow=33						
CTAO	**Charters Tower**	**80.50**	**108**	P	**P**	**08 41 49.6**	**-0.2**
	2.9nm,0.9s,mb4.2						
VAE	**Valguarnera**	**81.03**	**329**	LR	LR	09 18 29.4	
	comp=Z,256nm,18.1s,MS4.6,baz=307,slow=36						
MKAR	**Makanchi Array**	**85.40**	**19**	P	**P**	**08 42 15.0**	**+0.6**
MKAR				LR	LR	09 14 49.8	
MKAR	**Makanchi Array**	**85.40**	**19**	P	**P**	**08 42 15.0**	**+0.6**
	0.2nm,0.2s,mb3.8,baz=85,slow=3.6,SNR=2.8						
MKAR				LR	LR	09 14 49.8	
	comp=Z,62nm,19.0s,MS4.0,baz=298,slow=32						
AKASG	**Malin Array Be**	**88.18**	**345**	P	**P**	**08 42 29.1**	**+1.3**
	0.1nm,0.3s,mb3.5,baz=316,slow=30,SNR=2.9						
DAVOX	**Davos/Dischmat**	**90.64**	**331**	LR	LR	09 20 02.5	
	comp=Z,104nm,21.8s,MS4.2,baz=74,slow=33						
GERES	**GERESS Array B**	**90.95**	**335**	LR	LR	09 30 31.8	
	comp=Z,121nm,18.3s,MS4.4,baz=119,slow=40						
ESDC	**Sonseca Array**	**91.62**	**319**	LR	LR	09 24 18.3	
	comp=Z,131nm,18.8s,MS4.4,baz=315,slow=36						
ZALV	**Zalesovo Beam**	**92.60**	**18**	LR	LR	09 21 38.6	
	comp=Z,33nm,18.1s,MS3.8,baz=247,slow=34						
SONM	**Songino Array**	**94.93**	**32**	LR	LR	09 24 00.0	
	comp=Z,80nm,18.0s,MS4.2,baz=220,slow=34						
KSRS	**Korea Array**	**99.55**	**51**	LR	LR	09 23 34.5	
	comp=Z,38nm,18.7s,MS3.9,baz=190,slow=32						
INK	**Inuvik**	**146.47**	**5**	PKPbc	PKPbc	08 49 18.4	+0.8
	1.2nm,0.7s,baz=339,slow=4.7,SNR=3.7						
YKA	**Yellowknife Ar**	**151.66**	**349**	PKPbc	PKPbc	08 49 30.5	-0.4
	0.4nm,0.7s,baz=13,slow=2.3,SNR=10.0						

WEL 16 08:35:21.1±0.2, 37.76S×176.60E, h148^{km}±1^{km}, ML3.6/10, Error ellipse: s-maj=2.2km s-min=1.5km az=90.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGRZ	**Tauranga**	**0.27**	**275**	PN	Pn	08 35 41.2	0.0
URZ	**Urewera**	**0.64**	**142**	PN	Pn	08 35 42.9	0.0
URZ				SN	Sn	08 35 59.9	+0.3
MWZ	**Matawai**	**0.93**	**129**	PN	Pn	08 35 44.9	-0.1
MWZ				SN	Sn	08 36 03.0	-0.3
PUZ	**Puketiti**	**1.35**	**104**	*e*PN	Pn	08 35 49.3	+0.5
MXZ	**Matakaoa Point**	**1.37**	**82**	PN	Pn	08 35 49.3	+0.3
BKZ	**Black Stump Fm**	**1.41**	**183**	PN	Pn	08 35 49.7	+0.2
BKZ				SN	Sn	08 36 11.4	+0.1
KNZ	**Kokohu**	**1.52**	**147**	PN	Pn	08 35 50.7	+0.2
OTVZ	**Oturere**	**1.59**	**207**	PN	Pn	08 35 52.2	+0.8
WNVZ	**Wahianoa**	**1.76**	**206**	PN	Pn	08 35 53.5	+0.3
MOVZ	**Moawhango**	**1.78**	**202**	PN	Pn	08 35 53.1	-0.3
PXZ	**Pawanui**	**2.28**	**175**	PN	Pn	08 35 58.8	-0.6
BFZ	**Birch Farm**	**2.94**	**185**	PN	Pn	08 36 05.8	-1.6
MRZ	**Mangatainoka R**	**3.01**	**195**	PN	Pn	08 36 06.3	-2.1
TIWZ	**Tintock**	**3.07**	**190**	PN	Pn	08 36 07.3	-1.8
KIW	**Kapiti Island**	**3.37**	**202**	PN	Pn	08 36 10.4	-2.6
MTW	**Mount Morrison**	**3.50**	**194**	PN	Pn	08 36 11.9	-2.8
CAW	**Cannon Point**	**3.55**	**199**	PN	Pn	08 36 12.6	-2.8
TRWZ	**Traveller**	**3.71**	**191**	PN	Pn	08 36 14.7	-2.6
MRW	**Makara Radio**	**3.77**	**202**	PN	Pn	08 36 15.2	-2.9
MSWZ	**Moikau Station**	**3.80**	**196**	PN	Pn	08 36 15.4	-3.2
SNZO	**South Karori**	**3.84**	**202**	PN	Pn	08 36 16.1	-3.0
TCW	**Tory Channel**	**3.89**	**207**	PN	Pn	08 36 17.1	-2.7
TUWZ	**Tuamarina**	**4.21**	**208**	PN	Pn	08 36 20.7	-3.2
NNZ	**Nelson**	**4.26**	**215**	PN	Pn	08 36 21.7	-2.9
THZ	**Tophouse**	**4.91**	**214**	PN	Pn	08 36 30.5	-2.7
KHZ	**Kahutara**	**5.21**	**206**	PN	Pn	08 36 33.7	-3.5

NEIC ***16*** *08:48:13.7±0.6, 2.32N×127.39E, h10^{km}, mb4.5/1, Error ellipse: s-maj=38.6km s-min=10.9km az=74.0*

IDC ***16*** *08:48:13.2±1.0, 2.13N×126.88E, h0^{km}, mb3.7/7, mb1 3.8/7, mb1mx3.7/18, mbtmp3.7/7, Error ellipse: s-maj=89.4km s-min=16.6km az=70.0*

ISCJB ***16*** *08:48:15.5±0.7, 2.5N±0.1×127.7E±0.3, h33^{km}, mb3.8/7, Error ellipse: s-maj=45.5km s-min=13.5km az=159.9*

ISC 16 08:48:17.5±0.7, 2.4N±0.1×127.5E±0.3, h35^{km}, n11, σ0^{s}77/11, mb3.8/7, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**20.41**	**185**	P	**P**	**08 52 48.4**	**-3.2**
	1.0nm,1.1s,baz=359,slow=16,SNR=2.1						
WRA	**Warramunga Arr**	**23.14**	**164**	P	**P**	**08 53 21.1**	**+0.3**
	2.3nm,0.6s,mb3.8,baz=342,slow=11,SNR=24						
WRA				PcP	PcP	08 57 10.0	+1.1
	0.4nm,0.6s,baz=330,slow=2.3,SNR=6.6						
ASAR	**Alice Springs**	**26.60**	**167**	P	**P**	**08 53 53.0**	**+0.4**
	0.3nm,0.5s,mb3.0,baz=354,slow=7.6,SNR=11						
ASAR				PcP	PcP	08 57 18.0	+1.5
	0.6nm,0.5s,baz=348,slow=2.2,SNR=11						
STKA	**Stephens Creek**	**36.57**	**160**	P	**P**	**08 55 20.8**	**+0.7**
	2.1nm,0.6s,mb4.2,baz=333,slow=9.9,SNR=9.9						
SONM	**Songino Array**	**48.85**	**341**	P	**P**	**08 57 00.5**	**+1.0**
	0.3nm,0.7s,mb3.5,baz=147,slow=8.6,SNR=2.5						
MKAR	**Makanchi Array**	**59.13**	**325**	P	**P**	**08 58 14.2**	**-0.4**
	0.3nm,0.4s,mb3.7,baz=116,slow=7.1,SNR=4.8						
AMKA	**Amchitka**	**65.21**	**33**	P	**P**	**08 58 54.3**	**-1.0**
AKTK	**Aktyubinsk**	**75.23**	**322**	P	**P**	**08 59 56.9**	**+0.2**
AKTO	**Aktyubinsk**	**75.23**	**322**	P	**P**	**08 59 56.9**	**+0.2**
	2.0nm,0.8s,mb4.1,baz=104,slow=7.1,SNR=5.8						
AKBB	**Malin Array Si**	**93.46**	**321**	*e*P	**P**	**09 01 29.1**	**-0.4**
KIEV	**Kiev**	**93.47**	**321**	*e*P	**P**	**09 01 29.4**	**-0.1**
	0.8nm,0.4s,mb4.5						

IDC 16 09:00:16.2±2.1, 52.35N×35.39E, h0^{km}, mb3.2/1, mb1 3.6/3, mb1mx3.2/19, mbtmp3.4/3, ML2.9/3, MS3.7/1, Ms1 3.7/1, ms1mx2.6/25, Error ellipse: s-maj=26.1km s-min=11.2km az=120.0, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKASG	**Malin Array Be**	**4.19**	**249**	Pn	Pn	09 01 19.4	-1.9
	0.7nm,0.3s,baz=60,slow=15,SNR=3.8						
AKASG				Pg	Pg	09 01 30.3	-6.2
	1.4nm,0.3s,baz=58,slow=16,SNR=12						
AKASG				Sn	Sn	09 02 09.5	-1.4
	1.5nm,0.3s,baz=63,slow=25,SNR=6.6						
AKASG				Lg		09 02 25.2	
	0.9nm,0.3s,baz=68,slow=29,SNR=5.1						
FINES	**FINESS Array B**	**10.43**	**335**	Pn	Pn	09 02 43.1	-3.6
	0.1nm,0.3s,baz=147,slow=13,SNR=3.7						
FINES				Sn	Sn	09 04 33.7	-10
	0.1nm,0.3s,baz=153,slow=25,SNR=2.7						
FINES				Lg		09 05 41.8	
	0.1nm,0.3s,baz=150,slow=31,SNR=2.8						
ARCES	**ARCESS Array B**	**17.85**	**349**	Pn	Pn	09 04 21.4	-4.2
	0.3nm,0.3s,baz=153,slow=11,SNR=11						
JMIC	**Jan Mayen**	**27.00**	**330**	LR	LR	09 16 45.6	
	comp=Z,152nm,18.3s,baz=92,slow=37						
YKA	**Yellowknife Ar**	**63.07**	**345**	P	P	09 10 43.2	-1.4
	0.2nm,0.6s,baz=15,slow=6.7,SNR=6.0						

MAN 16 09:06:32, 10.48N×125.17E, h41^{km}, mb4.0, ML2.8, MS2.5, 1C, Leyte

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	**Palo**	**0.71**	**345**	*e*P	Pn	09 06 47.6	+2.1
PLP				*e*S	Sn	09 06 58.4	+3.1
SCPH	**Surigao**	**0.76**	**155**	⇑*e*P	Pn	09 06 47.9	+1.5
SCPH				*e*S	Sn	09 06 59.8	+3.1

IDC ***16*** *09:30:19.3±1.1, 1.14N×126.67E, h0^{km}, mb4.0/6, mb1 4.1/7, mb1mx3.9/18, mbtmp3.9/7, ML3.1/1, MS3.0/1, Ms1 3.0/1, ms1mx2.5/25, Error ellipse: s-maj=72.6km s-min=17.5km az=68.0*

NEIC ***16*** *09:30:20.7±0.7, 1.10N×126.64E, h10^{km}, mb4.0/1, Error*

ellipse: s-maj=36.7km s-min=11.5km az=68.0
*ISCJB **16** 09:30:22.1±0.9, 1.0N±0.2×126.5E±0.4, h33^{km}, mb3.9/6, Error ellipse: s-maj=53.8km s-min=15.2km az=160.1*
ISC 16 09:30:24.5±0.9, 1.0N±0.2×126.4E±0.3, h35^{km}, n8, σ0^{s}.83/8, mb3.9/6, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**18.99**	**182**	P	**Pn**	**09 34 43.3**	**-0.7**
	0.0nm,0.3s,baz=1.6,slow=14,SNR=2.8						
WRA	**Warramunga Arr**	**22.20**	**160**	P	**P**	**09 35 18.0**	**+0.1**
	3.9nm,0.5s,mb4.1,baz=340,slow=11,SNR=70						
ASAR	**Alice Springs**	**25.56**	**164**	P	**P**	**09 35 51.6**	**+1.4**
	3.2nm,0.8s,mb3.9,baz=345,slow=12,SNR=28						
CTA	**Charters Tower**	**28.57**	**138**	P	**P**	**09 36 15.9**	**-1.4**
	4.2nm,1.0s,mb4.1,baz=4.8,slow=12,SNR=3.0						
CTAO	**Charters Tower**	**28.57**	**138**	P	**P**	**09 36 16.3**	**-1.0**
	2.2nm,0.8s,mb3.9						
STKA	**Stephens Creek**	**35.70**	**158**	P	**P**	**09 37 20.2**	**+0.5**
	2.4nm,0.7s,mb4.3,baz=336,slow=7.8,SNR=6.2						
SONM	**Songino Array**	**49.79**	**342**	P	**P**	**09 39 14.3**	**+0.6**
	0.2nm,0.4s,mb3.5,baz=134,slow=8.3,SNR=3.2						
MKAR	**Makanchi Array**	**59.64**	**326**	P	**P**	**09 40 24.4**	**-0.7**
	0.5nm,0.5s,mb3.8,baz=129,slow=8.3,SNR=3.9						

IDC 16 10:06:07.0±3.0, 34.02S×178.72W, h0^{km}, mb3.5/2, mb1 3.8/3, mb1mx3.6/13, mbtmp3.6/3, ML3.7/1, Error ellipse: s-maj=72.2km s-min=35.8km az=122.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**5.41**	**217**	Pn	Pn	10 07 29.5	+0.5
	2.6nm,0.3s,baz=305,slow=3.6,SNR=12						
URZ				Sn	Sn	10 08 31.2	-0.8
	1.2nm,0.3s,baz=150,slow=21,SNR=6.4						
ASAR	**Alice Springs**	**42.44**	**271**	P	P	10 14 04.0	+0.3
	0.4nm,0.7s,baz=110,slow=7.9,SNR=7.9						
WRA	**Warramunga Arr**	**43.75**	**276**	P	P	10 14 14.1	-0.3
	0.4nm,0.5s,baz=118,slow=7.6,SNR=10						
FINES	**FINESS Array B**	**148.28**	**337**	PKPbc	PKPbc	10 25 53.6	-0.7
	0.7nm,0.7s,baz=318,slow=5.8,SNR=2.4						

*CSEM **16** 10:46:49.8, 40.89N×40.33E, h7^{km}, MD2.9, After ISK*
ISK 16 10:46:49.8, 40.89N×40.33E, h7^{km}, MD2.9, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTUT	**Trabzon**	**0.44**	**283**	*i* PG	Pg	10 46 58.7	+0.5
KTUT				*i* SG	Sg	10 47 06.0	+2.1
KTUT	**Trabzon**	**0.44**	**283**	*i* Pg	Pg	10 46 58.7	+0.5
KTUT				*i* Sg	Sg	10 47 06.0	+2.1
GUMT	**Gumushane**	**0.77**	**237**	*i* PG	Pg	10 47 04.9	+0.2
GUMT				*i* SG	Sg	10 47 15.4	+0.7
GUMT	**Gumushane**	**0.77**	**237**	*i* Pg	Pg	10 47 04.9	+0.2
GUMT				*i* Sg	Sg	10 47 15.4	+0.7
BCA	**Borcka**	**1.12**	**60**	PN	Pn	10 47 11.8	-0.1
BCA				SN	Sn	10 47 27.0	-0.6
BCA	**Borcka**	**1.12**	**60**	*e*Pn	Pn	10 47 11.8	-0.1
BCA				*e*Sn	Sn	10 47 27.0	-0.6
EZC	**Erzincan**	**1.21**	**199**	*e*PN	Pn	10 47 15.7	+2.7
EZM	**Erzurum**	**1.26**	**141**	PN	Pn	10 47 14.9	+1.1
EZM				SN	Sn	10 47 33.0	+2.0

*IDC **16** 10:57:06.5±2.3, 15.08S×74.79W, h0^{km}, mb3.8/4, mb1 3.8/6, mb1mx3.7/15, mbtmp3.7/6, ML3.4/2, Error ellipse: s-maj=88.7km s-min=19.7km az=42.0*
*ISCJB **16** 10:57:14.2±4.0, 14.6S±0.6×74.5W±0.4, h54^{km}±17^{km}, mb3.7/4, Error ellipse: s-maj=126.7km s-min=10.6km az=33.9*
*NEIC **16** 10:57:15.6±3.4, 14.51S×74.48W, h51^{km}±14^{km}, Error ellipse: s-maj=111.6km s-min=12.1km az=210.0*
ISC 16 10:57:13.5±4.5, 14.9S±0.6×74.6W±0.4, h41^{km}±21^{km}, n15, σ0^{s}.79/13, mb3.7/4, Central Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**3.58**	**323**	Pn	**Pn**	**10 58 06.0**	**-0.5**
NNA				Sn	**Sn**	**10 58 47.9**	**+0.4**
NNA				Lg		10 59 03.0	
NNA	**Nana**	**3.58**	**323**	Pn	**Pn**	**10 58 06.0**	**-0.5**
	2.1nm,0.3s,baz=157,slow=10,SNR=3.5						
NNA				Sn	**Sn**	**10 58 47.9**	**+0.4**
	9.2nm,0.3s,baz=179,slow=15,SNR=4.1						
NNA				Lg		10 59 03.0	
	9.8nm,0.3s,baz=157,slow=18,SNR=4.2						
LPAZ	**La Paz**	**6.42**	**104**	Pn	**Pn**	**10 58 48.9**	**+3.4**
LPAZ	**La Paz**	**6.42**	**104**	Pn	**Pn**	**10 58 48.9**	**+3.4**
	2.1nm,0.3s,baz=280,slow=9.3,SNR=45						
SIV	**San Ignacio**	**13.12**	**97**	Pn	**Pn**	**11 00 16.5**	**-0.9**
SIV	**San Ignacio**	**13.12**	**97**	Pn	**Pn**	**11 00 16.5**	**-0.9**
	0.1nm,0.3s,baz=284,slow=15,SNR=3.1						
TXAR	**Lajitas Array**	**52.12**	**328**	P	**P**	**11 06 20.1**	**+0.3**
	0.2nm,0.6s,mb3.2,baz=146,slow=9.8,SNR=4.6						
ULM	**Lac du Bonnet**	**67.47**	**345**	P	**P**	**11 08 04.3**	**-0.6**
	1.2nm,0.7s,mb4.0,baz=142,slow=10,SNR=3.5						
TORD	**Torodi Ar. Bea**	**80.49**	**74**	P	**P**	**11 09 22.5**	**+0.6**
	3.5nm,0.9s,mb4.3,baz=255,slow=5.2,SNR=14						
YKA	**Yellowknife Ar**	**83.20**	**343**	P	**P**	**11 09 34.8**	**-0.3**
YKA	**Yellowknife Ar**	**83.20**	**343**	P	**P**	**11 09 34.8**	**-0.3**
	0.2nm,0.7s,mb3.2,baz=136,slow=5.5,SNR=5.6						
ZALV	**Zalesovo Beam**	**137.79**	**18**	PKP	PKPdf	11 16 32.2	-1.0
ZALV	**Zalesovo Beam**	**137.79**	**18**	PKP	PKPdf	11 16 32.2	-1.0
	0.4nm,0.3s,baz=261,slow=2.9,SNR=4.2						
SONM	**Songino Array**	**147.11**	**359**	PKPbc	PKPbc	11 16 51.6	-0.5
SONM	**Songino Array**	**147.11**	**359**	PKPbc	PKPbc	11 16 51.6	-0.5
	0.9nm,0.9s,baz=355,slow=1.6,SNR=5.7						

*ISCJB **16** 10:58:41.3±5.2, 15.6S±0.2×75.0W±0.2, h10^{km}±33^{km}, mb3.8/5, MS3.7/2, Error ellipse: s-maj=42.5km s-min=13.4km az=42.6*
*IDC **16** 10:58:41.3±1.2, 15.62S×75.09W, h0^{km}, mb3.9/5, mb1 4.0/8, mb1mx3.9/17, mbtmp3.8/8, ML3.7/1, MS3.5/3, Ms1 3.5/3, ms1mx2.9/27, Error ellipse: s-maj=43.6km s-min=18.4km az=45.0*
ISC 16 10:58:42.7±6.2, 15.6S±0.2×75.0W±0.2, h7^{km}±38^{km}, n14, σ0^{s}.35/9, mb3.8/5, MS3.7/2, Near coast of Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**3.99**	**334**	Pn	**Pn**	**10 59 44.5**	**+0.1**
	baz=131,slow=19,SNR=1.4						
NNA				Sn	**Sn**	**11 00 31.6**	**+0.1**
	2.4nm,0.3s,baz=88,slow=14,SNR=1.4						
NNA				Lg		11 00 46.9	
	18nm,0.3s,baz=224,slow=20,SNR=3.6						
LPAZ	**La Paz**	**6.67**	**97**	Pn	**Pn**	**11 00 21.5**	**+0.3**
	baz=261,slow=11,SNR=2.3						
LPAZ				LR	LR	11 03 11.5	
	comp=Z,143nm,21.4s,baz=242,slow=40						
SIV	**San Ignacio**	**13.44**	**94**	Pn	**Pn**	**11 01 53.7**	**-0.3**
	0.2nm,0.3s,baz=260,slow=14,SNR=2.0						
JTS	**JuntasAbangare**	**27.53**	**338**	LR	LR	11 14 30.5	
	comp=Z,76nm,20.3s,MS3.3,baz=132,slow=34						
TXAR	**Lajitas Array**	**52.53**	**328**	P	**P**	**11 07 57.3**	**+0.4**
	0.3nm,0.6s,mb3.4,baz=146,slow=9.2,SNR=5.3						
NVAR	**Mina Array Bea**	**67.31**	**324**	P	**P**	**11 09 38.5**	**+0.1**
	0.2nm,0.6s,mb3.3,baz=111,slow=6.3,SNR=2.7						
ULM	**Lac du Bonnet**	**68.08**	**346**	P	**P**	**11 09 42.2**	**-0.7**
	1.2nm,0.5s,mb4.2,baz=175,slow=9.2,SNR=4.8						
TORD	**Torodi Ar. Bea**	**81.07**	**74**	P	**P**	**11 10 59.7**	**+0.4**
	6.0nm,0.9s,mb4.5,baz=257,slow=5.0,SNR=17						
TORD				LR	LR	11 46 19.4	
	comp=Z,77nm,19.0s,MS4.1,baz=280,slow=35						
YKA	**Yellowknife Ar**	**83.78**	**343**	P	**P**	**11 11 12.1**	**-0.2**
	0.7nm,0.9s,mb3.8,baz=139,slow=5.2,SNR=8.7						
ASAR	**Alice Springs**	**131.81**	**217**	PKP	PKPdf	11 17 56.5	-1.1
	0.4nm,0.9s,baz=116,slow=2.2,SNR=3.7						
WRA	**Warramunga Arr**	**134.39**	**220**	PKP	PKPdf	11 18 00.9	-1.6
	0.3nm,0.7s,baz=128,slow=1.9,SNR=5.4						
ZALV	**Zalesovo Beam**	**138.60**	**18**	PKP	PKPdf	11 18 09.4	+0.1
	0.9nm,0.5s,baz=306,slow=3.5,SNR=5.5						
MKAR	**Makanchi Array**	**143.61**	**27**	PKP	PKPdf	11 18 16.1	-2.4
	0.2nm,0.2s,baz=351,slow=1.9,SNR=2.4						
SONM	**Songino Array**	**147.83**	**358**	PKPbc	PKPbc	11 18 28.3	-0.3
	0.9nm,0.6s,baz=322,slow=1.9,SNR=7.4						

*ISCJB **16** 11:00:31.5±2.2, 18.0S±0.2×178.7W±0.1, h634^{km}±29^{km}, mb4.0/11, Error ellipse: s-maj=25.2km s-min=18.0km az=168.7*
*IDC **16** 11:00:31.7±2.4, 17.94S×178.62W, h621^{km}±29^{km}, mb3.5/10, mb1 3.7/11, mb1mx3.4/18, mbtmp3.5/11, Error ellipse: s-maj=20.2km s-min=14.6km az=171.0*
*NEIC **16** 11:00:33.6±2.2, 17.96S×178.70W, h648^{km}±26^{km}, mb4.3/9, Error ellipse: s-maj=15.9km s-min=13.2km az=203.0*
ISC 16 11:00:31.6±2.7, 17.9S±0.2×178.6W±0.1, h617^{km}±34^{km}, n19, σ0^{s}.50/14, mb4.0/11, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**14.62**	**251**	P	**P**	**11 03 36.2**	**+0.7**
	0.3nm,0.3s,baz=91,slow=18,SNR=3.4						
URZ	**Urewera**	**20.58**	**190**	P	**P**	**11 04 29.2**	**-0.3**
	12nm,1.1s,baz=337,slow=18,SNR=2.1						
CTAO	**Charters Tower**	**33.24**	**261**	*e*P	**P**	**11 06 19.6**	**-0.4**
	4.4nm,0.5s,mb4.3						
PMG	**Port Moresby**	**34.26**	**280**	P	**P**	**11 06 29.1**	**+0.6**
	21nm,0.8s,mb4.8,baz=50,slow=3.7,SNR=6.5						
STKA	**Stephens Creek**	**38.43**	**241**	P	**P**	**11 07 02.9**	**+0.4**
	6.2nm,0.6s,mb4.3,baz=82,slow=7.7,SNR=19						
WRA	**Warramunga Arr**	**44.42**	**260**	P	**P**	**11 07 48.8**	**-0.8**
	5.2nm,0.5s,mb4.3,baz=96,slow=7.2,SNR=251						
WRA				PcP	PcP	11 09 19.3	-0.2
	0.6nm,0.3s,baz=93,slow=3.4,SNR=4.8						
ASAR	**Alice Springs**	**44.58**	**254**	P	**P**	**11 07 50.7**	**-0.1**
	30nm,0.6s,mb5.0,baz=87,slow=8.6,SNR=578						
ASAR				PcP	PcP	11 09 19.6	-0.3
	1.2nm,0.5s,baz=102,slow=3.9,SNR=5.9						
ASAR				S	**S**	**11 13 43.7**	**+0.3**
	0.5nm,0.9s,baz=89,slow=16,SNR=4.5						
NWAO	**Narrogin (SRO)**	**59.01**	**242**	P	**P**	**11 09 33.2**	**-0.6**
	4.2nm,0.6s,mb3.8						
VNDA	**Vanda**	**60.39**	**185**	P	**P**	**11 09 42.0**	**-0.1**
	2.4nm,1.0s,mb3.4,baz=115,slow=3.0,SNR=3.7						
NVAR	**Mina Array Bea**	**79.59**	**44**	P	**P**	**11 11 35.8**	**-0.3**
	0.3nm,0.6s,mb2.8,baz=231,slow=9.8,SNR=5.2						
PMSA	**Palmer Station**	**83.86**	**157**	P	**P**	**11 11 58.0**	**+0.7**
	28nm,1.1s,mb4.7,baz=262,slow=13,SNR=6.5						
TXAR	**Lajitas Array**	**86.19**	**58**	P	**P**	**11 12 09.7**	**+0.6**
	1.1nm,1.0s,mb3.4,baz=226,slow=6.5,SNR=6.4						
PDAR	**Pinedale Array**	**87.52**	**44**	P	**P**	**11 12 14.7**	**-0.4**
	0.5nm,0.6s,mb3.5,baz=242,slow=3.2,SNR=4.7						
BRTR	**Keskin Array B**	**144.66**	**315**	PKP	PKPdf	11 18 59.3	0.0
BRTR	**Keskin Array B**	**144.66**	**315**	PKP	PKPdf	11 18 59.3	0.0
	0.6nm,0.4s,baz=118,slow=3.2,SNR=4.6						
GERES	**GERESS Array B**	**147.59**	**345**	PKPbc	PKPbc	11 19 07.0	-0.6
GERES	**GERESS Array B**	**147.59**	**345**	PKPbc	PKPbc	11 19 07.0	-0.6
	0.7nm,0.5s,baz=45,slow=2.6,SNR=4.7						
TORD	**Torodi Ar. Bea**	**175.22**	**184**	PKP	PKPdf	11 19 30.6	-2.0
TORD	**Torodi Ar. Bea**	**175.22**	**184**	PKP	PKPdf	11 19 30.6	-2.0
	0.4nm,0.8s,baz=202,slow=3.1,SNR=3.0						

*CASC **16** 11:24:44.0±3.8, 10.29N×86.62W, h6^{km}±25^{km}, MD4.0*
*ISCJB **16** 11:24:47.7±1.9, 10.44N±0.10×86.39W±0.08, h27^{km}±14^{km}, mb3.7/6, Error ellipse: s-maj=19.3km s-min=9.5km az=36.5*
*IDC **16** 11:24:49.2±1.0, 11.07N×85.80W, h0^{km}, mb3.8/6, mb1 4.1/7, mb1mx3.9/18, mbtmp3.8/7, ML3.3/1, MS2.9/1, Ms1 2.9/1, ms1mx2.5/26, Error ellipse: s-maj=44.9km s-min=14.5km az=48.0*
*NEIC **16** 11:24:50.3±0.8, 10.93N×85.88W, h10^{km}, Error ellipse: s-maj=25.8km s-min=10.3km az=224.0*
ISC 16 11:24:48.3±1.8, 10.45N±0.10×86.31W±0.06, h15^{km}±13^{km}, n32, σ1^{s}.13/26, mb3.7/6, 4C-1D, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VCR	**Vista de Mar**	**0.74**	**116**⇑	*e*P	**Pg**	**11 25 02.5**	**-0.3**
2RIO	**Dos Rios de Up**	**1.07**	**86**⇑	*i*P	**Pb**	**11 25 08.3**	**-0.1**
LIM1	**Limonal**	**1.07**	**77**⇑	*i*P	**Pb**	**11 25 08.9**	**+0.4**
LIM1				*e*S	**Sb**	**11 25 23.4**	**+1.1**
CUI		**1.14**	**79**⇑	*e*P	**Pn**	**11 25 09.8**	**+0.1**
CUI				*e*S	**Sb**	**11 25 32.3**	**+8.0**
JCR	**Jicaral**	**1.33**	**117**	*e*P	**Pn**	**11 25 10.6**	**-1.6**
JTS	**JuntasAbangare**	**1.35**	**97**	Pg	**Pn**	**11 25 11.1**	**-1.4**
JTS				Lg		11 25 32.6	
JTS	**JuntasAbangare**	**1.35**	**97**	Pg	**Pn**	**11 25 11.1**	**-1.4**
	16nm,0.3s,baz=305,slow=16,SNR=40						
JTS				Lg		11 25 32.6	
	45nm,0.3s,baz=56,slow=23,SNR=7.8						
CGA2	**Cerro Gallo 2**	**1.87**	**103**	*e*P	**Pn**	**11 25 19.9**	**+0.1**
PRS1	**Puriscal**	**2.02**	**103**	*e*P	**Pn**	**11 25 22.1**	**+0.2**
LAJ	**Bijagual**	**2.24**	**105**	*e*P	**Pn**	**11 25 19.0**	**-5.7**
LCR2	**La Lucha 2**	**2.38**	**107**	*e*P	**Pn**	**11 25 27.1**	**+0.3**
URSC	**Urasca**	**2.57**	**104**	*e*P	**Pn**	**11 25 30.8**	**+1.4**
CNCH	**Conchagua**	**3.18**	**332**⇓	*i*P	x	11 25 45.5	
CNCH				*e*S	x	11 26 23.7	
BAR1		**3.19**	**112**	*e*P	**Pn**	**11 25 38.5**	**+0.5**
TGUH	**Tegucigalpa,Un**	**3.71**	**345**	*e*P	**Pn**	**11 25 43.8**	**-1.3**
LFRS	**El Faro**	**4.14**	**320**	*e*P	x	11 25 58.0	
LFRS				*e*S	x	11 26 49.4	
SBLS	**San Blas**	**4.67**	**316**	*e*P	x	11 26 06.5	
SBLS				*e*S	x	11 26 59.5	
CMIG	**Matias Romero**	**10.62**	**309**	Pn	**Pn**	**11 27 21.5**	**+1.5**
CMIG	**Matias Romero**	**10.62**	**309**	Pn	**Pn**	**11 27 21.5**	**+1.5**
	0.2nm,0.3s,baz=348,slow=5.4,SNR=4.0						
ATAH	**Atahualpa**	**19.05**	**155**	LR	LR	11 35 00.5	
	comp=Z,42nm,21.9s,baz=200,slow=31						
SWET	**Sewanee**	**24.66**	**1**	*e*P	**P**	**11 30 08.2**	**-0.2**
TXAR	**Lajitas Array**	**24.82**	**322**	P	**P**	**11 30 12.5**	**+2.5**
	1.1nm,0.7s,mb3.5,baz=137,slow=10,SNR=16						
TXAR				PcP	PcP	11 33 49.6	+3.4
	0.3nm,0.7s,baz=150,slow=7.3,SNR=3.4						
TKL	**Tuckaleechee C**	**25.20**	**5**	P	**P**	**11 30 12.3**	**-1.0**
	4.3nm,0.8s,mb4.0,baz=177,slow=12,SNR=4.9						
PDAR	**Pinedale Array**	**38.05**	**332**	P	**P**	**11 32 06.3**	**+0.2**
	0.5nm,0.7s,mb3.4,baz=130,slow=4.6,SNR=5.3						
NVAR	**Mina Array Bea**	**39.94**	**320**	P	**P**	**11 32 25.3**	**+3.3**
NVAR				PcP	PcP	11 34 30.2	+2.9
NVAR	**Mina Array Bea**	**39.94**	**320**	P	**P**	**11 32 25.3**	**+3.3**
	0.4nm,0.2s,mb3.7,baz=133,slow=6.6,SNR=12						
NVAR				PcP	PcP	11 34 30.2	+2.9
	0.4nm,0.6s,baz=147,slow=5.2,SNR=3.7						
SCHQ	**Schefferville**	**46.88**	**15**	P	**P**	**11 33 14.7**	**-3.1**
	3.0nm,0.9s,mb4.2,baz=217,slow=6.8,SNR=4.2						
YKA	**Yellowknife Ar**	**55.82**	**345**	P	**P**	**11 34 23.8**	**-0.9**
	0.5nm,0.8s,mb3.6,baz=139,slow=7.2,SNR=11						
YKA				PcP	PcP	11 35 24.6	+1.1
	0.1nm,0.6s,baz=144,slow=4.1,SNR=4.0						
ASAR	**Alice Springs**	**139.52**	**246**	PKP	PKPdf	11 44 21.2	+5.1
ASAR	**Alice Springs**	**139.52**	**246**	PKP	PKPdf	11 44 21.2	+5.1
	0.5nm,0.7s,baz=94,slow=7.7,SNR=9.3						
WRA	**Warramunga Arr**	**139.74**	**252**	PKP	PKPdf	11 44 21.2	+4.7
WRA	**Warramunga Arr**	**139.74**	**252**	PKP	PKPdf	11 44 21.2	+4.7
	0.1nm,0.6s,baz=96,slow=7.5,SNR=4.8						

*ISCJB **16** 11:26:58.3±1.5, 5.0N±0.3×126.3E±0.7, h10^{km}, mb4.1/5, Error ellipse: s-maj=107.5km s-min=17.1km az=158.4*
*IDC **16** 11:26:59.4±1.7, 4.84N×125.94E, h0^{km}, mb4.1/5, mb1 4.3/5, mb1mx3.8/19, mbtmp4.1/5, Error ellipse: s-maj=107.2km s-min=22.1km az=67.0*
*NEIC **16** 11:27:01.4±1.1, 4.73N×125.60E, h10^{km}, mb4.6/4, Error ellipse: s-maj=61.3km s-min=14.8km az=68.0*
ISC 16 11:27:00.7±1.4, 4.9N±0.3×126.2E±0.6, h10^{km}, n6, σ0^{s}.09/6, mb4.1/5, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**22.89**	**181**	P	**P**	**11 32 04.7**	**0.0**
	3.6nm,0.4s,mb4.2,baz=6.1,slow=9.2,SNR=52						
WRA	**Warramunga Arr**	**25.99**	**162**	P	**P**	**11 32 33.7**	**-0.1**
	2.5nm,0.5s,mb4.0,baz=339,slow=10,SNR=40						
ASAR	**Alice Springs**	**29.41**	**165**	P	**P**	**11 33 04.4**	**0.0**
	1.5nm,0.5s,mb4.0,baz=344,slow=7.2,SNR=74						
STKA	**Stephens Creek**	**39.44**	**159**	P	**P**	**11 34 31.2**	**+0.1**
	2.9nm,0.5s,mb4.3,baz=324,slow=4.9,SNR=4.8						
MKAR	**Makanchi Array**	**56.26**	**325**	P	**P**	**11 36 41.2**	**0.0**
	0.5nm,0.4s,mb3.9,baz=123,slow=8.1,SNR=10						
KURK	**Kurchatov**	**60.44**	**327**	*e*P	**P**	**11 37 10.5**	**0.0**

CASC 16 11:34:41.0±2.4, 10.37N×86.25W, h30^{km}±10^{km}, MD3.8, ML2.7, 1C, Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VCR	**Vista de Mar**	**0.65**	**112**	*e*P	Pb	11 34 53.0	-0.9
VCR				*e*S	Sb	11 35 03.4	+0.7
SSNN	**San Juan del S**	**0.99**	**23**	*e*P	Pn	11 34 59.0	+0.1
2RIO	**Dos Rios de Up**	**1.01**	**81**⇑	*i*P	Pn	11 34 59.1	0.0
2RIO				*e*S	Sn	11 35 13.1	+0.8
JCR	**Jicaral**	**1.23**	**115**	*e*P	Pn	11 35 01.7	-0.4
JCR				*e*S	Sn	11 35 17.1	-0.6
MADN	**Villa Maderas**	**1.25**	**34**	*e*P	Pn	11 35 03.1	+0.7
MADN				*i*		11 35 10.7	
	comp=Z,126nm,0.3s						
CONN	**Concepcion**	**1.33**	**27**	*e*P	Pn	11 35 02.1	-1.5
CGA2	**Cerro Gallo 2**	**1.79**	**101**	*e*P	Pn	11 35 10.7	+0.9
CGA2				*e*S	Sn	11 35 32.7	+1.2
COPN	**Copaltepe**	**1.83**	**349**	*e*P	Pn	11 35 10.5	+0.1
PRS1	**Puriscal**	**1.94**	**101**	*e*P	Pn	11 35 12.6	+0.7
PRS1				*e*S	Sn	11 35 35.7	+0.3
HUEN		**1.96**	**2**	*e*P	Pn	11 35 10.1	-2.1
LAJ	**Bijagual**	**2.15**	**103**	*e*P	Pn	11 35 10.1	-4.7
LCR2	**La Lucha 2**	**2.29**	**106**	*e*P	Pn	11 35 18.0	+1.2
URSC	**Urasca**	**2.49**	**102**	*e*P	Pn	11 35 21.6	+2.2
BAR1		**3.10**	**111**	*e*P	Pn	11 35 28.8	+0.9
BAR1				*e*S	Sn	11 36 04.0	+0.1

*ISCJB **16** 11:44:20.8±1.2, 67.74N±0.04×33.9E±0.2, h0^{km}, Error ellipse: s-maj=9.7km s-min=5.3km az=0.5*
*NAO **16** 11:44:20.9±1.3, 67.56N×33.98E, ML2.4*
*HEL **16** 11:44:22.1±0.4, 67.68N×33.99E, h0^{km}, ML2.4, ML2.4(BER), ML2.4(NAO), Explosion*
*IDC **16** 11:44:24.5±2.8, 67.69N×33.70E, h0^{km}, mb1 3.4/4, mb1mx3.1/23, mbtmp3.4/4, ML2.9/4, Error ellipse: s-maj=30.4km s-min=9.8km az=75.0*
ISC 16 11:44:21.7±1.0, 67.69N±0.03×33.9E±0.2, h0^{km}, n24, σ1^{s}.26/40, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA0	**Apatity Array**	**0.35**	**256**	Pg	**Pg**	**11 44 28.9**	**+0.5**
	baz=97,slow=16						
APA0				Lg		11 44 33.6	
	baz=87,slow=37						
APA0				Rg		11 44 35.7	
	baz=87,slow=37						
APA0	**Apatity Array**	**0.35**	**256**	*i* P	**Pg**	**11 44 28.9**	**+0.5**
APA0				*i* S	**Sg**	**11 44 33.6**	**+0.8**
APA0				*e*RG		11 44 35.7	
APA0	**Apatity Array**	**0.35**	**256**	Pg	**Pg**	**11 44 28.9**	**+0.5**
	baz=97,slow=16						
APA0				Lg		11 44 33.6	
	baz=87,slow=37						
APA0				Rg		11 44 35.7	
	baz=87,slow=37						
KU6	**Riekki**	**2.30**	**225**	*e*P	**Pn**	**11 45 01.6**	**+0.8**
KU6				*e*S	**Sn**	**11 45 31.6**	**+1.9**
KU6				MSG		11 45 33.7	
	comp=Z,14nm,0.1s						
MSF	**Maaselka**	**2.62**	**229**	*e*P	**Pn**	**11 45 06.3**	**+1.2**
MSF				*e*SB	**Sb**	**11 45 41.5**	**-0.6**
MSF				MSG		11 45 45.2	
	comp=Z,17nm,0.2s						
SGF	**Sodankyl**	**2.83**	**268**	*e*P	**Pn**	**11 45 08.5**	**+0.5**
SGF				*e*S	**Sn**	**11 45 44.0**	**+1.2**
KEV	**Kevo**	**3.25**	**313**	*e*P	**Pn**	**11 45 15.5**	**+1.7**
KEV				*e*S	**Sn**	**11 45 52.4**	**-0.7**
KEV				*e*SG	**Sg**	**11 46 04.6**	**-1.3**
KEV				MSG		11 46 05.7	
	comp=Z,16nm,0.3s						
ARA0	**ARCESS Array S**	**3.58**	**305**	Pn	**Pn**	**11 45 19.6**	**+1.2**
	baz=122,slow=16						
ARA0				Sn	**Sn**	**11 46 01.3**	**0.0**
	baz=121,slow=28						
ARA0				Lg		11 46 13.5	
	baz=119,slow=37						
ARA0	**ARCESS Array S**	**3.58**	**305**	*e*P	**Pn**	**11 45 19.6**	**+1.2**
ARA0				*e*S	**Sn**	**11 46 01.3**	**0.0**
ARA0				*e*SG		11 46 13.5	
ARA0	**ARCESS Array S**	**3.58**	**305**	Pn	**Pn**	**11 45 19.6**	**+1.2**
	baz=122,slow=16						
ARA0				Sn	**Sn**	**11 46 01.3**	**0.0**
	baz=121,slow=28						
ARA0				Lg		11 46 13.5	
	baz=119,slow=37						
ARCES	**ARCESS Array B**	**3.58**	**305**	Pn	**Pn**	**11 45 19.4**	**+1.1**
	comp=Z,4.2nm,0.3s,baz=122,slow=14,SNR=651						
ARCES				Pg	**Pg**	**11 45 27.7**	**-2.5**
	comp=Z,2.3nm,0.3s,baz=120,slow=16,SNR=10						
ARCES				Sn	**Sn**	**11 46 01.1**	**-0.1**
	comp=Z,3.0nm,0.3s,baz=120,slow=24,SNR=10						
ARCES				Lg		11 46 15.0	
	comp=Z,7.2nm,0.3s,baz=121,slow=28,SNR=12						
HEF	**Hetta**	**3.90**	**285**	*e*P	**Pn**	**11 45 23.2**	**+0.4**
HEF				*e*S	**Sn**	**11 46 09.5**	**+0.3**
OUL	**Oulu**	**4.14**	**235**	*e*P	**Pn**	**11 45 27.1**	**+1.1**
OUL				*e*S	**Sn**	**11 46 16.1**	**+1.0**
OUL				*e*SG	**Sg**	**11 46 31.8**	**-2.7**
KTK1	**Kautokeino**	**4.16**	**293**	*e*P	**Pn**	**11 45 27.0**	**+0.8**
KTK1				AML	AML	11 46 33.3	
	comp=Z,17nm,0.4s						
KJN	**Kajaani**	**4.42**	**218**	*e*P	**Pn**	**11 45 29.8**	**0.0**
KJN				*e*S	**Sn**	**11 46 20.5**	**-1.3**
FIA0	**FINESS Array S**	**7.11**	**212**	Pn	**Pn**	**11 46 02.3**	**-4.5**
FIA0				Lg		11 47 58.7	
	baz=21,slow=28						
FIA0	**FINESS Array S**	**7.11**	**212**	*e*	**Pn**	**11 46 02.3**	**-4.5**
FIA0				*e*SG		11 47 58.7	
FIA0	**FINESS Array S**	**7.11**	**212**	Pn	**Pn**	**11 46 02.3**	**-4.5**
FIA0				Lg		11 47 58.7	
	baz=21,slow=28						
FINES	**FINESS Array B**	**7.11**	**212**	Pn	**Pn**	**11 46 06.1**	**-0.7**
	comp=Z,0.1nm,0.3s,baz=36,slow=10,SNR=3.6						
FINES				Sn	**Sn**	**11 47 25.4**	**-2.8**
	comp=Z,0.2nm,0.3s,baz=31,slow=22,SNR=3.8						
FINES				Lg		11 47 57.7	
	comp=Z,0.4nm,0.3s,baz=24,slow=24,SNR=5.1						
HFS	**Hagfors**	**11.62**	**239**	Pn	**Pn**	**11 47 06.7**	**-1.8**
	comp=Z,0.1nm,0.3s,baz=33,slow=14,SNR=3.5						
SPA0	**Spitsbergen Ar**	**11.63**	**342**	Pn	**Pn**	**11 47 06.5**	**-2.1**
	baz=146,slow=14						
SPA0	**Spitsbergen Ar**	**11.63**	**342**	*e*P	**Pn**	**11 47 06.5**	**-2.1**
SPA0	**Spitsbergen Ar**	**11.63**	**342**	P	**Pn**	**11 47 06.5**	**-2.1**
	baz=146,slow=14						
NOA	**NORSAR Array B**	**11.80**	**246**	Pn	**Pn**	**11 47 09.4**	**-1.6**
	comp=Z,0.1nm,0.3s,baz=40,slow=11,SNR=2.7						

CASC 16 11:48:16.1±3.0, 8.00N×82.66W, h13^{km}±13^{km}, MD4.1, 3C, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVD	**David**	**0.48**	**25**	*e*P	Pg	11 48 25.8	+0.2
TBS2		**0.79**	**0**	*e*P	Pg	11 48 37.8	+6.4
TBS2				*e*S	Sg	11 48 48.0	+6.2
BRU2	**Volcan**	**0.79**	**358**	*e*P	Pg	11 48 30.8	-0.7
BRU2				*e*S	Sg	11 48 42.5	+0.6
BRU	**Baru**	**0.81**	**7**⇑	*i*P	Pg	11 48 31.2	-0.6
BRU				*e*S	Sg	11 48 44.6	+2.2
CTCR	**Cotoan**	**0.90**	**354**⇑	*i*P	Pg	11 48 32.5	-0.9
CTCR				*e*S	Sg	11 48 43.5	-1.7
BAR1		**1.39**	**332**	*i* P	Pn	11 48 39.4	-1.8
BAR1				*e*P		11 48 39.8	
BAR1				*e*S	Sn	11 48 58.8	-0.7
CNI	**Changuinola**	**1.41**	**6**	*e*P	Pn	11 48 41.0	-0.5
QCR	**Quepos**	**2.06**	**314**	*e*P	Pn	11 48 48.6	-1.7
URSC	**Urasca**	**2.13**	**329**	*e*P	Pn	11 48 51.7	+0.3
URSC			⇑	*e*P		11 48 51.8	
URSC				*e*S	Sn	11 49 19.2	+1.4
LCR2	**La Lucha 2**	**2.18**	**323**	*e*P	Pn	11 48 51.6	-0.5
LCR2				*e*P		11 48 52.5	
LCR2				*e*S	Sn	11 49 19.4	+0.5
LCR2				*e*S	Sn	11 49 20.8	+1.8
ICR	**Volcan Irazu**	**2.28**	**330**	*e*P	Pn	11 48 52.4	-1.1
ICR				*e*S	Sn	11 49 23.5	+2.0
LAJ	**Bijagual**	**2.35**	**322**	*e*P	Pn	11 48 55.4	+1.0
AZU	**Azuero**	**2.37**	**95**	*e*P	Pn	11 48 53.9	-0.7
PRS1	**Puriscal**	**2.56**	**320**	*e*P	Pn	11 48 55.8	-1.5
CGA2	**Cerro Gallo 2**	**2.68**	**318**	*e*P	Pn	11 49 01.6	+2.6
CGA2				*e*S	Sn	11 49 35.7	+4.4
BCIP	**Isla Barro Col**	**3.02**	**67**	*e*P	Pn	11 49 11.0	+7.4
BCIP				*e*S	Sn	11 49 46.0	+6.4

IDC 16 11:50:24.6±4.9, 6.79N×94.38E, h0^{km}, mb3.3/3, mb1 3.5/4, mb1mx3.3/22, mbtmp3.3/4, ML3.5/1, Error ellipse: s-maj=247.3km s-min=23.3km az=56.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	6.02	131	Pn	Pn	11 51 56.5	+1.5
	1.2nm,0.3s,baz=331,slow=16,SNR=6.5						
PSI				Sn	Sn	11 53 09.3	+4.6
	0.5nm,0.3s,baz=130,slow=17,SNR=2.5						
MKAR	Makanchi Array	41.19	347	P	P	11 58 11.0	+0.2
	0.1nm,0.2s,baz=156,slow=7.6,SNR=2.2						
WRA	Warramunga Arr	47.45	125	P	P	11 59 01.1	-0.3
	0.5nm,0.6s,baz=305,slow=8.5,SNR=13						
ASAR	Alice Springs	49.05	129	P	P	11 59 13.6	-0.1
	0.2nm,0.5s,baz=296,slow=7.4,SNR=6.4						

*CSEM **16** 12:08:43.0,3488N×328E,h0^{km},ML3.5,After ALG*

CRAAG 16 12:08:43.0,3488N×328E,Ml3.5,Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMHD	Djebel Mahouad	1.35	349	P	Pg	12 09 12.0	+3.1
ETRT	Tiaret	1.70	288	P	Pn	12 09 18.0	+4.1
ABMS	Boumerdes	1.88	5	P	Pn	12 09 21.2	+4.8
EBNR	Beni Rached	2.00	315	P	Pn	12 09 27.0	+8.9
ECHA	Ech Chlef	2.01	310	P	Pn	12 09 26.0	+7.8
EANR	'Ain N'Sour	2.08	302	P	Pn	12 09 25.0	+5.9
SET	Setif	2.18	52	P	Pn	12 09 25.0	+4.5

*GII **16** 12:12:14.9±2.7,2984N×3621E,h0^{km},ML1.9/2*
*ISCJB **16** 12:13:01.7±0.9,2981N±003×3619E±007,h0^{km},Error ellipse: s-maj=8.3km s-min=4.9km az=174.9*
*CSEM **16** 12:13:02.4±0.2,2981N×3615E,h1^{km},ML2.5,Error ellipse: s-maj=5.4km s-min=2.8km az=77.0,Mining explosion.*
*HLW **16** 12:13:05.9,2969N×3626E,h20^{km},Mb2.8*
*SGS **16** 12:13:07.2,2975N×3594E,h11^{km}*

ISC 16 12:13:02.3±0.9,**2982N**±003×**3617E**±007,**h0^{km},n36, σ1^{s}12**/43,**2C-2D,Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AQBJ	Aqaba	0.98	265	Pg	Pg	12 13 21.6	+0.5
HRFI	Mount Harif	1.01	283	Pg	Pg	12 13 21.7	+0.1
HRFI				Sg	Sg	12 13 38.7	+3.9
HRFI	Mount Harif	1.01	283	Pg	Pg	12 13 21.7	+0.1
HRFI				Sg	Sg	12 13 38.7	+4.0
EIL	Elat	1.07	263	Pg	Pg	12 13 24.1	+1.2
EIL	Elat	1.07	263	Pg	Pg	12 13 24.1	+1.3
MBH	Mount Berech	1.09	269	Pg	Pg	12 13 23.1	-0.2
MBH	Mount Berech	1.09	269	Pg	Pg	12 13 23.0	-0.2
HQLS		1.09	242	P	Pg	12 13 23.7	+0.4
HQLS		1.09	242	S	Sg	12 13 36.0	-1.4
ZFRI	Zfri	1.13	311	Pg	Pg	12 13 23.0	-1.0
ZFRI	Zfri	1.13	311	Pg	Pg	12 13 23.0	-1.0
PRNI	Paran	1.15	298	Pg	Pg	12 13 23.9	-0.3
PRNI				Sg	Sg	12 13 41.9	+2.8
PRNI	Paran	1.15	298	Pg	Pg	12 13 23.9	-0.3
PRNI				Sg	Sg	12 13 41.9	+2.8
JLOS		1.23	209	P	Pg	12 13 26.4	+0.6
JLOS				S	Sg	12 13 40.8	-1.0
KRMI	Paran Flat	1.29	284	Pn	Pn	12 13 27.1	-0.5
KRMI	Paran Flat	1.29	284	Pn	Pn	12 13 27.1	-0.5
HBST	Basata	1.39	245	⇑P	Pn	12 13 29.1	+0.2
RMNI	Mount Ramon	1.45	303	Pn	Pn	12 13 27.8	-1.9
RMNI	Mount Ramon	1.45	303	Pn	Pn	12 13 27.8	-1.9
MZDA	Masada	1.65	335	Pn	Pn	12 13 31.4	-1.0
MZDA	Masada	1.65	335	Pn	Pn	12 13 31.4	-1.0
MASH	Mash'abbe Sade	1.68	315	Pn	Pn	12 13 32.4	-0.5
MASH	Mash'abbe Sade	1.68	315	Pn	Pn	12 13 32.4	-0.5
HDHB	Dhahab	1.74	232	P	Pn	12 13 33.5	-0.2
SVTA	Shivta	1.74	310	Pn	Pn	12 13 33.3	-0.4
SVTA	Shivta	1.74	310	Pn	Pn	12 13 33.3	-0.5
YTIR	Yattir	1.79	330	Pn	Pn	12 13 33.9	-0.5
YTIR	Yattir	1.79	330	Pn	Pn	12 13 33.9	-0.6
KZIT	Kziot	1.88	306	Pn	Pn	12 13 37.1	+1.4
KZIT	Kziot	1.88	306	Pn	Pn	12 13 37.1	+1.4
HNKL	Nakhl	1.91	274	⇓P	Pn	12 13 36.6	+0.6
HNKL				S	Sn	12 14 00.3	-0.5
RSHS		1.93	219	P	Pn	12 13 35.6	-0.8
RSHS		1.93	219	S	Sn	12 14 03.9	+2.6
HKAT	Jabal Katrina	2.30	236	⇑P	Pn	12 13 41.7	+0.3
HKAT				S	Sn	12 14 08.2	-2.2
AMAG	Maghara	2.69	289	⇓P	Pn	12 13 49.0	+2.1
WJHS		3.08	176	P	Pn	12 13 53.3	+1.2

*NAO **16** 12:21:43.8±3.8,6123N×2933E,ML2.5*
*BER **16** 12:21:43.1±3.5,6100N×2924E,h0^{km},ML2.5(NAO), Suspected explosion*
*CSEM **16** 12:21:45.2±0.2,6075N×2881E,h2^{km},ML2.0,Error ellipse: s-maj=4.7km s-min=3.0km az=138.0,Mining explosion.*
*ISCJB **16** 12:21:45.1±1.1,6079N±005×289E±01,h0^{km},Error ellipse: s-maj=9.2km s-min=4.9km az=138.4*
*HEL **16** 12:21:46.2±0.2,6079N×2890E,h0^{km},ML2.0, ML2.5(NAO),Explosion*
*IDC **16** 12:21:46.1±2.4,6078N×2887E,h0^{km},mb1 3.6/2, mb1mx3.2/20,mbtmp3.4/2,ML3.2/2,Error ellipse: s-maj=17.8km s-min=12.8km az=159.0*

ISC 16 12:21:45.7±1.0,**6079N**±005×**2882E**±009,**h0^{km},n26, σ0^{s}95**/37,**Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VJF	Virojoki	0.68	248	eP	Pg	12 21 59.2	+0.7
VJF				eS	Sg	12 22 08.2	+0.9
VJF	Virojoki	0.68	248	P	Pg	12 21 59.2	+0.6
PVF	Pernaja	1.48	262	eP	Pn	12 22 12.7	-0.8
PVF				eS	Sg	12 22 32.0	-1.1
FIA0	FINESS Array S	1.48	297	Pg	Pg	12 22 12.3	-1.7
	baz=118,slow=18						
FIA0				Lg		12 22 33.8	
	baz=110,slow=37						
FIA0				Rg		12 22 40.6	
	baz=114,slow=37						
FIA0	FINESS Array S	1.48	297	eP	Pn	12 22 12.4	-1.1
FIA0				eS	Sg	12 22 33.5	+0.2
FIA0	FINESS Array S	1.48	297	Pg	Pg	12 22 12.3	-1.7
	baz=118,slow=18						
FIA0				Lg		12 22 33.8	
	baz=110,slow=37						
FIA0				Rg		12 22 40.6	
	baz=114,slow=37						
FIA0	FINESS Array S	1.48	297	P	Pn	12 22 12.4	-1.1
FIA0				S	Sg	12 22 33.4	+0.1
FINES	FINESS Array B	1.48	297	Pg	Pg	12 22 12.3	-1.7
	3.3nm,0.3s,baz=118,slow=16,SNR=34						
FINES				Lg		12 22 33.4	
	4.6nm,0.3s,baz=115,slow=33,SNR=19						
FINES				Rg		12 22 41.2	
	60nm,0.7s,baz=117,slow=36,SNR=48						
KAF	Kangasniemi	1.79	319	eP	Pn	12 22 18.0	+0.2
KAF				eS	Sn	12 22 41.9	+0.7
KAF	Kangasniemi	1.79	319	P	Pn	12 22 17.9	+0.1
KAF				S	Sn	12 22 41.9	+0.7
MEF	Metsahovi	2.27	257	eP	Pn	12 22 25.5	+1.2
MEF				eSB	Sb	12 22 55.9	0.0
MEF				MSG		12 22 59.8	
	comp=Z,5.8nm,0.2s						
MEF	Metsahovi	2.27	257	P	Pn	12 22 25.4	+1.1
SUF	Sumiainen	2.31	328	eP	Pn	12 22 26.3	+1.4
SUF				eS	Sn	12 22 55.3	+1.3
SUF				MSG		12 22 57.8	
	comp=Z,11nm,0.3s						
SUF	Sumiainen	2.31	328	P	Pn	12 22 26.3	+1.4
SUF				S	Sn	12 22 55.2	+1.2
	comp=Z,11nm,0.3s						
KEF	Keuruu	2.34	308	eP	Pn	12 22 26.4	+1.1
KEF				eSB	Sb	12 22 57.6	-0.5
KEF				MSG		12 23 00.1	
	comp=Z,5.6nm,0.2s						
JOF	Joensuu	2.44	28	eP	Pn	12 22 27.1	+0.4
JOF				eS	Sn	12 22 56.7	-0.4
JOF	Joensuu	2.44	28	P	Pn	12 22 27.0	+0.4
JOF				S	Sn	12 22 56.7	-0.4
NB2	NORSAR Subarra	8.58	279	Pn	Pn	12 23 49.8	-1.1
	baz=86,slow=14						
NB2	NORSAR Subarra	8.58	279	eP	Pn	12 23 49.8	-1.1
NB2	NORSAR Subarra	8.58	279	Pn	Pn	12 23 49.8	-1.1
	baz=86,slow=14						
NB2	NORSAR Subarra	8.58	279	Pn	Pn	12 23 49.8	-1.1
	SNR=7.1						
NOA	NORSAR Array B	8.58	279	Pn	Pn	12 23 50.1	-0.8
	comp=Z,0.5nm,0.3s,baz=83,slow=13,SNR=2.7						
NOA				Sn	Sn	12 25 22.5	-5.8
	baz=316,slow=23,SNR=2.8						
ARA0	ARCESS Array S	8.89	352	Lg		12 26 10.4	
	baz=156,slow=37						
ARA0	ARCESS Array S	8.89	352	eSB		12 26 10.4	
ARA0	ARCESS Array S	8.89	352	Lg		12 26 10.4	
	baz=156,slow=37						
ARCES	ARCESS Array B	8.89	352	Pn	Pn	12 23 53.6	-1.5
	comp=Z,0.1nm,0.3s,baz=163,slow=13,SNR=3.1						
ARCES				Sn	Sn	12 25 29.1	-6.6
	comp=Z,0.2nm,0.3s,baz=168,slow=23,SNR=2.7						
ARCES				Lg		12 26 19.8	
	comp=Z,0.6nm,0.3s,baz=175,slow=33,SNR=3.6						

MAN 16 12:26:47,1348N×12156E,h6^{km},mb3.9,ML2.7,MS2.3, 1C,Mindoro

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGY	Tagaytay City	0.86	316	⇑eP	Pg	12 27 02.9	-0.7
TGY				eS	Sg	12 27 16.4	+1.5
LUBP	Lubang	1.30	281	eP	Sb	12 27 26.3	-2.5

*IDC **16** 12:32:14.6±3.9,4686N×15625E,h0^{km},mb3.5/4, mb1 3.7/4,mb1mx3.4/22,mbtmp3.5/4,Error ellipse: s-maj=119.8km s-min=36.1km az=3.0*
*MOS **16** 12:32:15.7±1.4,4653N×15605E,h31^{km},mb4.1/1,Error ellipse: s-maj=83.0km s-min=34.1km az=82.1*
*ISCJB **16** 12:32:16.6±1.8,466N±02×1562E±03,h33^{km},mb3.6/4, Error ellipse: s-maj=37.1km s-min=27.1km az=152.3*

ISC 16 12:32:18.4±1.8,**465N**±03×**1562E**±03,**h35^{km},n7,σ0^{s}77**/7, **mb3.6**/4,**East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PET	Petropavlovsk	6.73	13	eP	Pn	12 33 55.0	+0.4
PET				pmax	pmax		
	comp=Z,3.0nm,0.2s						
MKAR	Makanchi Array	48.95	299	P	P	12 41 00.9	+0.1
	comp=Z,0.2nm,0.2s,mb3.7,baz=70,slow=7.0,SNR=4.2						
YKA	Yellowknife Ar	49.85	37	P	P	12 41 06.1	-1.4
YKA	Yellowknife Ar	49.85	37	P	P	12 41 06.1	-1.3
	comp=Z,0.2nm,0.6s,mb3.3,baz=296,slow=7.0,SNR=3.7						
FINES	FINESS Array B	65.17	336	P	P	12 42 55.2	-0.1
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	65.17	336	eP	P	12 42 55.2	-0.1
	comp=Z,0.7nm,0.6s,mb3.9,baz=46,slow=8.2,SNR=3.4						
TXAR	Lajitas Array	75.74	62	P	P	12 44 01.4	+0.9
	comp=Z,0.2nm,0.5s,mb3.3,baz=318,slow=4.3,SNR=4.8						

*ISCJB **16** 12:41:11.0±2.1,931S±008×1269E±01,h98^{km}±23^{km}, mb3.4/3,Error ellipse: s-maj=20.3km s-min=12.9km az=161.6*
*NEIC **16** 12:41:14.0±2.6,937S×12693E,h113^{km}±32^{km},Error ellipse: s-maj=24.6km s-min=24.2km az=192.0*
*IDC **16** 12:41:15.6±8.8,950S×12683E,h131^{km}±104^{km},mb3.2/3, mb1 3.3/6,mb1mx3.2/15,mbtmp3.2/6,ML3.4/3,Error ellipse: s-maj=65.3km s-min=42.6km az=18.0*

ISC 16 12:41:14.3±2.6,**94S**±01×**1270E**±01,**h115^{km}**±30^{km},**n9, σ0^{s}62**/12,**mb3.4**/3,**Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.30	122	eP	Pn	12 42 45.0	+0.2
FITZ	Fitzroy Crossi	8.75	188	P	Pn	12 43 18.0	0.0
	0.7nm,0.3s,baz=15,slow=11,SNR=26						
FITZ				S	Sn	12 44 54.8	-0.1
	1.4nm,0.3s,baz=63,slow=18,SNR=7.7						
WRA	Warramunga Arr	12.68	147	P	Pn	12 44 10.1	-0.3
	0.2nm,0.3s,baz=320,slow=14,SNR=18						
WRA				S	Sn	12 46 29.6	-0.4
	0.4nm,0.3s,baz=320,slow=26,SNR=7.7						
WB2	Warramunga Arr	12.68	147	eP	Pn	12 44 09.9	-0.6
ASAR	Alice Springs	15.66	156	P	Pn	12 44 50.4	+1.8
	0.2nm,0.3s,baz=323,slow=11,SNR=24						
ASAR				S	S	12 47 42.6	-6.7
	0.2nm,0.3s,baz=333,slow=22,SNR=6.1						
SONM	Songino Array	59.83	344	P	P	12 51 07.7	+0.3
	0.1nm,0.4s,mb3.2,baz=160,slow=5.8,SNR=2.1						
MKAR	Makanchi Array	68.64	329	P	P	12 52 04.7	-0.3
	0.5nm,0.5s,mb3.6,baz=127,slow=7.8,SNR=4.2						
ZALV	Zalesovo Beam	72.44	335	P	P	12 52 27.5	-0.4
ZALV	Zalesovo Beam	72.44	335	P	P	12 52 27.5	-0.4
	0.3nm,0.4s,mb3.5,baz=139,slow=6.8,SNR=2.9						

IDC 16 12:52:12.0±3.2,**2389S×17992W,h517^{km}**±33^{km},**mb3.2**/4, **mb1 3.5**/5,**mb1mx3.2**/14,**mbtmp3.2**/5,**Error ellipse: s-maj=42.4km s-min=24.8km az=168.0,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	14.55	189	P	P	12 55 18.7	+1.6
	0.9nm,0.3s,baz=26,slow=21,SNR=8.5						
URZ				S	S	12 57 49.1	-0.6
	0.7nm,0.3s,baz=29,slow=16,SNR=8.7						
ASAR	Alice Springs	42.11	261	P	P	12 59 18.8	0.0
	1.6nm,0.6s,baz=97,slow=7.4,SNR=49						
ASAR				ScP	ScP	13 04 03.9	+1.2
	0.5nm,0.8s,baz=115,slow=4.1,SNR=4.4						
WRA	Warramunga Arr	42.48	266	P	P	12 59 21.1	-0.6
	1.4nm,0.3s,baz=95,slow=8.4,SNR=85						
FITZ	Fitzroy Crossi	50.91	266	P	P	13 00 25.2	-0.2
	0.7nm,0.7s,baz=102,slow=9.6,SNR=6.7						
TXAR	Lajitas Array	90.36	58	P	P	13 04 19.4	+1.4
	0.5nm,0.7s,baz=218,slow=6.1,SNR=6.7						
AKASG	Malin Array Be	145.00	327	PKPbc	PKPbc	13 10 49.1	-1.5
	0.8nm,0.4s,baz=45,slow=4.7,SNR=7.3						
BRTR	Keskin Array B	147.63	307	PKPbc	PKPbc	13 10 57.6	-0.6
	0.6nm,0.5s,baz=90,slow=2.9,SNR=2.7						

*CSEM **16** 12:53:03.9,3686N×3451E,h18^{km},MD2.8,After ISK*

ISK 16 12:53:03.9,3686N×3451E,h18^{km},MD2.8,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MERS	Mersin	0.01	68	i PG	Pg	12 53 07.6	+0.6
MERS				i SG	Sg	12 53 10.5	+1.4
MERS	Mersin	0.01	68	i Pg	Pg	12 53 07.6	+0.6
MERS				i Sg	Sg	12 53 10.5	+1.4
KARA	Karaisali	0.59	48	PG	Pg	12 53 15.8	+0.1
KARA				SG	Sg	12 53 24.5	+0.9
KARA	Karaisali	0.59	48	ePg	Pg	12 53 15.8	+0.1
KARA				eSg	Sg	12 53 24.5	+0.9
KRTS	Karatas	0.76	112	PG	Pg	12 53 18.7	0.0
KRTS				SG	Sg	12 53 30.2	+1.5
KRTS	Karatas	0.76	112	ePg	Pg	12 53 18.7	0.0
KRTS				eSg	Sg	12 53 30.2	+1.5
IKL	Isikli	0.91	227	PG	Pg	12 53 20.9	-0.7
IKL	Isikli	0.91	227	ePg	Pg	12 53 20.9	-0.7
CEYT	Ceyhan	1.01	81	ePG	Pg	12 53 24.4	+1.0
CEYT	Ceyhan	1.01	81	ePg	Pg	12 53 24.4	+1.0
KOZT	Kozan	1.22	59	ePN	Pn	12 53 26.1	0.0
NIG	Nigde	1.25	4	ePN	Pn	12 53 27.5	+1.1
NIG	Nigde	1.25	4	ePn	Pn	12 53 27.5	+1.1

IDC 16 12:57:05.9±2.1,**195N×12723E,h0^{km},mb3.6**/3,**mb1 3.8**/4, **mb1mx3.5**/17,**mbtmp3.6**/4,**ML3.5**/1,**Error ellipse: s-maj=113.7km s-min=25.7km az=69.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.99	184	P	Pn	13 01 40.7	-1.1
	0.1nm,0.3s,baz=10.0,slow=11,SNR=4.9						
WRA	Warramunga Arr	22.85	163	P	P	13 02 11.3	+0.3
	1.5nm,0.4s,baz=341,slow=11,SNR=28						
ASAR	Alice Springs	26.28	166	P	P	13 02 42.8	-0.4
	0.4nm,0.4s,baz=345,slow=11,SNR=17						
MKAR	Makanchi Array	59.29	326	P	P	13 07 09.5	+0.1
	0.1nm,0.3s,baz=119,slow=8.6,SNR=3.7						

*ISCJB **16** 13:03:47.2±0.2,3609N±001×414W±002,h10^{km},Error ellipse: s-maj=2.2km s-min=2.0km az=167.2*
*SFS **16** 13:03:48.0,3590N×410W,h0^{km},ML3.1*
*NEIC **16** 13:03:48.9,3600N×416W,h0^{km},MN3.2(MDD),After MDD.*
*INMG **16** 13:03:49.0±1.2,3599N×415W,h4^{km}±2^{km},MD3.3,ML3.2, Error ellipse: s-maj=2.1km s-min=1.8km az=159.0*
*CSEM **16** 13:03:49.1±0.1,3591N×403W,h12^{km},ML3.7/24,Error ellipse: s-maj=2.4km s-min=1.8km az=109.0*
*MDD **16** 13:03:50.0±0.3,3604N×415W,h22^{km},mbLg2.9/27,Error ellipse: s-maj=2.9km s-min=2.6km az=65.0,PRXIMO*
*CNRM **16** 13:03:50.6,3602N×385W,h16^{km},MD3.7*
*LDG **16** 13:03:51.6,3593N×420W,h31^{km}*

ISC 16 13:03:48.8±0.3,**3606N**±001×**411W**±002,**h14^{km}**±2^{km},**n227, σ1^{s}38**/349,**2C-2D,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMIJ	Mijas	0.74	313	⇓Pg	Pg	13 04 02.3	-0.9
EMIJ				Lg		13 04 12.8	
EMIJ	Mijas	0.74	313	⇓Pg	Pg	13 04 02.3	-0.9
	103nm,0.1s,SNR=18						
EMIJ				Lg		13 04 12.8	
	1µm,0.1s,SNR=7.9						
EMAL	Malaga-Limoner	0.75	340	Pg	Pg	13 04 04.4	+1.1
EMAL				Lg		13 04 14.6	
EMAL	Malaga-Limoner	0.75	340	⇑Pg	Pg	13 04 03.3	-0.1
	21nm,0.1s						
EMAL				Lg		13 04 13.6	
	300nm,0.1s						
EMAL	Malaga-Limoner	0.75	340	i P	Pg	13 04 04.0	+0.6
EMAL	Malaga-Limoner	0.75	340	Pg	Pg	13 04 04.4	+1.0
	78nm,0.1s,SNR=7.9						
MPAL	Palemas	0.84	171	i P	Pg	13 04 05.0	-0.1
MPAL				i S	Sg	13 04 16.0	-0.2
EALB	Alboran	0.88	97	Pg	Pg	13 04 05.5	-0.3
EALB				Lg		13 04 17.6	
EALB	Alboran	0.88	97	Pg	Pg	13 04 05.6	-0.3
	23nm,0.1s,SNR=7.9						
EALB				Lg		13 04 18.0	
	120nm,0.1s,SNR=7.9						
EALB	Alboran	0.88	97	Pg	Pg	13 04 05.6	-0.2
	23nm,0.1s,SNR=7.9						
EGUA	Guajares	0.89	29	Pg	Pg	13 04 06.0	0.0
EGUA	Guajares	0.89	29	Pg	Pg	13 04 06.0	0.0
	48nm,0.1s,SNR=7.9						
EGUA				Lg		13 04 18.7	
	74nm,0.2s,SNR=7.9						
EGUA	Guajares	0.89	29	Pg	Pg	13 04 06.0	0.0
	48nm,0.1s,SNR=7.9						
REAL	Reales	0.98	296	Pg	Pg	13 04 06.5	-1.3
REAL	Reales	0.98	296	i P	Pb	13 04 06.5	-1.2
ERON	Agron	0.99	14	Pg	Pg	13 04 07.6	-0.3
ERON				Lg		13 04 22.1	
ERON	Agron	0.99	14	Pg	Pg	13 04 07.6	-0.3
	23nm,0.2s,SNR=7.9						
ERON				Lg		13 04 22.1	
	138nm,0.1s,SNR=7.9						
ERON	Agron	0.99	14	Pg	Pg	13 04 07.6	-0.3
	23nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	1.09	358	Pg	Pg	13 04 08.9	-0.9
ELOJ				Lg		13 04 25.5	
ELOJ	Sierra Loja	1.09	358	Pg	Pg	13 04 08.9	-0.9
	5.8nm,0.2s,SNR=7.9						
ELOJ				Lg		13 04 24.4	
	49nm,0.1s,SNR=7.9						
ELOJ	Sierra Loja	1.09	358	Pg	Pg	13 04 08.9	-0.9
	5.8nm,0.2s,SNR=7.9						
MDAL	Dalia	1.12	262	i P	Pb	13 04 12.0	+2.0
MDAL				i S	Sb	13 04 29.0	+4.5
TOU	Touzarine	1.13	165	i P	Pb	13 04 09.0	-1.1
TOU				i S	Sb	13 04 23.0	-1.7
EJIF	Jimena Fronter	1.17	290	Pg	Pg	13 04 09.4	-1.9
EJIF				Lg		13 04 24.4	
EJIF	Jimena Fronter	1.17	290	Pg	Pg	13 04 09.4	-1.9
	9.5nm,0.2s,SNR=7.9						
EJIF				Lg		13 04 25.1	
	96nm,0.2s,SNR=7.9						
EJIF	Jimena Fronter	1.17	290	Lg		13 04 24.4	
	96nm,0.2s,SNR=7.9						
MELI	Melilla	1.22	128	Sn	Sn	13 04 26.1	-1.7
MELI	Melilla	1.22	128	eS	Sb	13 04 26.1	-1.2
EQUE	Quentar	1.27	25	Pg	Pg	13 04 13.2	+0.1
	6.3nm,0.1s,SNR=7.9						
EQUE				Lg		13 04 30.9	
	51nm,0.3s,SNR=7.9						
EQUE	Quentar	1.27	25	Pg	Pg	13 04 13.2	0.0
	6.3nm,0.1s,SNR=7.9						
EBER	Berja	1.29	49	Pg	Pg	13 04 12.0	-1.7
EBER				Lg		13 04 31.1	
EBER	Berja	1.29	49	Pn	Pn	13 04 12.0	-0.4
	22nm,0.1s,SNR=7.9						
EBER				Lg		13 04 31.1	
	107nm,0.2s,SNR=7.9						
EBER	Berja	1.29	49	Pg	Pg	13 04 12.0	-1.7
	22nm,0.1s,SNR=7.9						
ECOG	Cogollos-Vega	1.29	20	Pg	Pg	13 04 13.4	-0.3
ECOG				Lg		13 04 31.8	
ECOG	Cogollos-Vega	1.29	20	Pg	Pg	13 04 13.4	-0.3
	5.9nm,0.1s,SNR=7.9						
ECOG				Lg		13 04 31.8	
	59nm,0.2s,SNR=7.9						
ECOG	Cogollos-Vega	1.29	20	Pg	Pg	13 04 13.4	-0.3
	5.9nm,0.1s,SNR=7.9						
MOMI	Momias	1.33	282	eP	Pn	13 04 16.4	+3.4
MOMI				eS	Sb	13 04 36.5	+6.0
LIJA	Lijar	1.34	309	⇑Pg	Pg	13 04 15.3	+0.7
LIJA	Lijar	1.34	309	i P	Pn	13 04 15.4	+2.2
LIJA				eS	Sn	13 04 33.8	+3.0
ELUQ	Luque	1.50	355	Pg	Pg	13 04 17.8	+0.1
ELUQ				Lg		13 04 39.3	
ELUQ	Luque	1.50	355	Pg	Pg	13 04 16.7	-1.1
	25nm,0.1s,SNR=7.9						
ELUQ				Lg		13 04 37.7	
	160nm,0.2s,SNR=7.9						
ELUQ	Luque	1.50	355	Pg	Pg	13 04 17.8	0.0
	25nm,0.1s,SNR=7.9						
CNIL	Conil	1.60	282	i P	Pn	13 04 19.7	+3.0
CNIL				eS	Sn	13 04 43.4	+6.1
ESPR	Espera	1.62	300	Pg	Pg	13 04 19.0	-1.1
ESPR				Lg		13 04 39.1	
ESPR	Espera	1.62	300	Pg	Pg	13 04 17.8	-2.2
	11nm,0.2s,SNR=7.9						
ESPR				Lg		13 04 39.1	
	25nm,0.2s,SNR=4.0						
ESPR	Espera	1.62	300	Pg	Pg	13 04 19.0	-1.0
	11nm,0.2s,SNR=7.9						
TSY	Tnine Yamani	1.66	246	i P	Pn	13 04 21.0	+3.5
TSY				i S	Sn	13 04 43.0	+4.3
GIBL	Gibalbin	1.69	298	Pg	Pg	13 04 20.0	-1.2
GIBL	Gibalbin	1.69	298	eP	Pn	13 04 20.0	+2.1
GIBL				eS	Sn	13 04 44.9	+5.6
ENIJ	Nijar	1.78	59	Pn	Pn	13 04 19.9	+0.7
ENIJ				Lg		13 04 48.4	
ENIJ	Nijar	1.78	59	Pn	Pn	13 04 19.1	-0.1
	6.5nm,0.4s,SNR=7.9						
ENIJ				Pg	Pg	13 04 21.1	-1.9
	34nm,0.3s,SNR=7.9						
ENIJ				Sn	Sn	13 04 41.3	-0.3
	52nm,0.2s,SNR=7.9						
ENIJ				Lg		13 04 46.1	
	19nm,0.2s,SNR=7.9						
ENIJ	Nijar	1.78	59	Pn	Pn	13 04 19.9	+0.7
	SNR=7.9						
EQES	Quesada	1.93	25	Pn	Pn	13 04 23.6	+2.4
EQES				Sn	Sn	13 04 48.6	+3.3
EQES	Quesada	1.93	25	Pn	Pn	13 04 21.3	+0.1
	45nm,0.2s,SNR=7.9						
EQES				Pg	Pg	13 04 23.8	-2.1
	12nm,0.2s,SNR=7.9						
EQES				Sn	Sn	13 04 43.8	-1.5
	93nm,0.4s,SNR=7.9						
EQES				Lg		13 04 50.5	
	33nm,0.9s,SNR=7.9						
EQES	Quesada	1.93	25	Pn	Pn	13 04 23.6	+2.4
EQES				Sn	Sn	13 04 48.6	+3.3
	44nm,0.1s,SNR=7.9						
TZK	Tazeka	1.96	182	i P	Pn	13 04 22.0	+0.3
TZK				i S	Sn	13 04 45.5	-0.7
EBAN	Banos Encina	2.12	7	Pn	Pn	13 04 25.1	+1.3
EBAN				Sn	Sn	13 04 53.0	+3.1
EBAN				Lg		13 04 59.2	
EBAN	Banos Encina	2.12	7	Pn	Pn	13 04 24.2	+0.3
	5.5nm,0.1s,SNR=7.9						
EBAN				Pg	Pg	13 04 27.1	-2.4
	11nm,0.5s,SNR=7.9						

EBAN				Sn	Sn	13 04 48.2	-1.7
	25nm,0.1s,SNR=7.9						
EBAN				Lg		13 04 55.7	
	154nm,0.7s,SNR=7.9						
EBAN	Banos Encina	2.12	7	Pn	Pn	13 04 25.1	+1.3
EBAN				Sn	Sn	13 04 53.0	+3.1
	25nm,0.1s,SNR=7.9						
TGT	Taghat	2.13	202	*i* P	Pn	13 04 26.0	+2.0
TGT				*i* S	Sn	13 04 50.0	-0.2
EADA	Adamuz	2.14	350	Pn	Pn	13 04 26.1	+2.0
EADA				Sn	Sn	13 04 52.7	+2.3
EADA				Lg		13 04 57.9	
EADA	Adamuz	2.14	350	Pn	Pn	13 04 24.1	0.0
	20nm,0.1s,SNR=7.9						
EADA				Pg	Pg	13 04 27.6	-2.2
	12nm,0.2s,SNR=7.9						
EADA				Sn	Sn	13 04 48.8	-1.6
	24nm,0.1s,SNR=7.9						
EADA				Lg		13 04 55.7	
	186nm,0.2s,SNR=7.9						
EADA	Adamuz	2.14	350	Pn	Pn	13 04 26.1	+2.0
	20nm,0.1s,SNR=7.9						
EADA				Sn	Sn	13 04 52.7	+2.3
	24nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	2.67	310	Pn	Pn	13 04 31.4	0.0
EMIN				Sn	Sn	13 05 02.1	-1.4
EMIN	Mina Concepcio	2.67	310	Pn	Pn	13 04 31.2	-0.2
	18nm,0.1s,SNR=7.9						
EMIN				Pg	Pg	13 04 35.6	-4.4
	1.6nm,0.2s,SNR=7.9						
EMIN				Sn	Sn	13 05 01.2	-2.3
	19nm,0.1s,SNR=7.9						
EMIN				Lg		13 05 11.3	
	16nm,1.0s,SNR=7.9						
EMIN	Mina Concepcio	2.67	310	Pn	Pn	13 04 31.4	0.0
	18nm,0.1s,SNR=7.9						
MIF	Mishlifen	2.80	200	*i* P	Pn	13 04 36.0	+2.8
MIF				*i* S	Sn	13 05 05.5	-1.2
EVIA	Vianos	2.88	26	Pn	Pn	13 04 36.9	+2.7
EVIA				Sn	Sn	13 05 10.3	+1.7
EVIA	Vianos	2.88	26	Pn	Pn	13 04 34.6	+0.3
	1.9nm,0.1s,SNR=7.9						
EVIA				Pg	Pg	13 04 40.0	-3.9
	6.2nm,0.4s,SNR=7.9						
EVIA				Sn	Sn	13 05 07.4	-1.2
	13nm,0.1s,SNR=7.9						
EVIA				Lg		13 05 19.7	
	117nm,1.2s,SNR=7.9						
EVIA	Vianos	2.88	26	Pn	Pn	13 04 36.9	+2.7
	1.9nm,0.1s,SNR=7.9						
EVIA				Sn	Sn	13 05 10.4	+1.8
	13nm,0.1s,SNR=7.9						
EMUR	La Murta	2.91	51	Pn	Pn	13 04 36.9	+2.2
EMUR				Sn	Sn	13 05 10.3	+0.9
EMUR	La Murta	2.91	51	Pn	Pn	13 04 34.2	-0.5
	0.7nm,0.4s,SNR=7.9						
EMUR				Pg	Pg	13 04 40.7	-3.8
	10nm,0.3s,SNR=7.9						
EMUR				Sn	Sn	13 05 08.2	-1.2
	4.5nm,0.2s,SNR=7.9						
EMUR				Lg		13 05 20.3	
	27nm,1.4s,SNR=7.9						
EMUR	La Murta	2.91	51	Pn	Pn	13 04 36.9	+2.3
	SNR=7.9						
EMUR				Sn	Sn	13 05 10.3	+0.9
	4.5nm,0.2s,SNR=7.9						
EGRO	El Granado	3.08	300	Pn	Pn	13 04 37.2	+0.2
EGRO				Sn	Sn	13 05 12.6	-1.1
EGRO	El Granado	3.08	300	Pn	Pn	13 04 36.5	-0.6
	34nm,0.1s,SNR=7.9						
EGRO				Sn	Sn	13 05 10.4	-3.3
	33nm,0.2s,SNR=7.9						
EGRO	El Granado	3.08	300	Pn	Pn	13 04 37.2	+0.1
	34nm,0.1s,SNR=7.9						
CZD	Col de Zad	3.12	195	*i* P	Pn	13 04 38.0	+0.5
CZD				*i* S	Sn	13 05 13.0	-1.5
PVAQ	Vaqueiros	3.19	296	*e*Pn	Pn	13 04 38.6	0.0
PVAQ				*e*Sn	Sn	13 05 15.6	-0.9
PVAQ				A		13 05 22.1	
	61nm,0.4s						
PVAQ	Vaqueiros	3.19	296	Pn	Pn	13 04 38.6	0.0
PVAQ	Vaqueiros	3.19	296	*e*Pn	Pn	13 04 38.6	0.0
PVAQ				*e*Sn	Sn	13 05 15.6	-0.9
	61nm,0.4s						
ETOB	Tobarra	3.29	38	Pn	Pn	13 04 42.8	+2.9
ETOB				Sn	Sn	13 05 20.0	+1.2
ETOB	Tobarra	3.29	38	Pn	Pn	13 04 40.7	+0.8
	4.5nm,0.2s,SNR=7.9						
ETOB				Pg	Pg	13 04 47.6	-4.3
	8.7nm,0.6s,SNR=7.9						
ETOB				Sn	Sn	13 05 17.4	-1.5
	3.1nm,0.1s,SNR=7.9						
ETOB				Lg		13 05 31.4	
	24nm,2.5s,SNR=7.9						
ETOB	Tobarra	3.29	38	Pn	Pn	13 04 42.8	+2.9
	4.5nm,0.2s,SNR=7.9						
ETOB				Sn	Sn	13 05 20.0	+1.1
	3.1nm,0.1s,SNR=7.9						
PBDV	Barranco-do-Ve	3.29	292	*e*Pn	Pn	13 04 40.3	+0.3
PBDV				*e*Sn	Sn	13 05 17.9	-1.0
PBDV				A		13 05 23.8	
	44nm,0.3s						
PBDV	Barranco-do-Ve	3.29	292	Pn	Pn	13 04 40.3	+0.3
PBDV	Barranco-do-Ve	3.29	292	*e*Pn	Pn	13 04 40.3	+0.3
PBDV				*e*Sn	Sn	13 05 17.9	-1.0
	44nm,0.3s						
PAB	San Pablo	3.49	357	*e*P	Pn	13 04 44.4	+1.8
EBAD	Badajoz	3.55	320	Pn	Pn	13 04 43.8	+0.3
EBAD				Sn	Sn	13 05 23.7	-1.5
EBAD	Badajoz	3.55	320	Pn	Pn	13 04 43.3	-0.2
	16nm,0.1s,SNR=7.9						
EBAD				Sn	Sn	13 05 22.0	-3.2
	29nm,0.1s,SNR=7.9						
EBAD	Badajoz	3.55	320	Pn	Pn	13 04 43.8	+0.3
	16nm,0.1s,SNR=7.9						
PBEJ	Beja	3.59	304	*e*Pn	Pn	13 04 44.7	+0.6
PBEJ				*e*Sn	Sn	13 05 25.9	-0.4
PBEJ				A		13 05 27.1	
	37nm,0.2s						
PBEJ	Beja	3.59	304	Pn	Pn	13 04 44.6	+0.5
PBEJ				Sn	Sn	13 05 25.8	-0.5
PBEJ	Beja	3.59	304	Pn	Pn	13 04 44.6	+0.5
PBEJ	Beja	3.59	304	Pn	Pn	13 04 44.6	+0.5
PBEJ				*e*Sn	Sn	13 05 25.9	-0.4
	37nm,0.2s						
ESDC	Sonseca Array	3.61	2	Pn	Pn	13 04 46.6	+2.3
ESDC				Sn	Sn	13 05 27.3	+0.5
ESDC				Lg		13 05 45.3	
ESDC	Sonseca Array	3.61	2	Pn	Pn	13 04 44.7	+0.4
	15nm,0.2s,baz=187,slow=12,SNR=29						
ESDC				Sn	Sn	13 05 24.6	-2.2
	3.6nm,0.1s,baz=185,slow=23,SNR=7.9						
ESDC				Lg		13 05 40.5	
	26nm,1.5s,baz=183,slow=23,SNR=7.9						
ESDC	Sonseca Array	3.61	2	Pn	Pn	13 04 46.6	+2.3
	15nm,0.2s,SNR=29						
ESDC				Sn	Sn	13 05 27.3	+0.5
	3.6nm,0.1s,SNR=7.9						
ESLA	Sonseca Array	3.61	2	*e*P	Pn	13 04 46.4	+2.1
ESLA	Sonseca Array	3.61	2	*e*P	Pn	13 04 46.4	+2.1
KIB	El Ksiba	3.82	205	*i* P	Pn	13 04 47.0	-0.3
KIB				*i* S	Sn	13 05 31.0	-1.0
MORF	Marmelete	3.86	290	*e*Pn	Pn	13 04 47.7	0.0
MORF				*e*Sn	Sn	13 05 32.1	-0.8
MORF				A		13 05 36.4	
	42nm,0.1s						
MORF	Marmelete	3.86	290	Pn	Pn	13 04 47.6	-0.1
MORF				Sn	Sn	13 05 32.0	-0.9
MORF	Marmelete	3.86	290	Pn	Pn	13 04 47.6	-0.1
MORF	Marmelete	3.86	290	*e*Pn	Pn	13 04 47.7	0.0
MORF				Sn	Sn	13 05 32.0	-0.9
PESTR	Estremoz	3.94	316	*e*Pn	Pn	13 04 49.6	+0.7
PESTR				*e*Sn	Sn	13 05 34.6	-0.3
PESTR				A		13 06 07.0	
	35nm,0.5s						
PESTR	Estremoz	3.94	316	*e*Pn	Pn	13 04 49.6	+0.7
PESTR				*e*Sn	Sn	13 05 34.6	-0.3
	35nm,0.5s						
EVO	Evora	3.97	310	*e*Pn	Pn	13 04 51.0	+1.7
EVO				*e*Sn	Sn	13 05 35.1	-0.6
	47nm,0.2s						
PTEO	Sao Teotonio	3.99	293	*e*Pn	Pn	13 04 50.5	+0.9
PTEO				*e*Sn	Sn	13 05 35.6	-0.5
PTEO				A		13 05 44.0	
	40nm,0.5s						
PTEO	Sao Teotonio	3.99	293	*e*Pn	Pn	13 04 50.5	+0.9
PTEO				*e*Sn	Sn	13 05 35.6	-0.5
	40nm,0.5s						
ZFT	Errachidia	4.02	183	*i* P	Pn	13 04 50.0	0.0
ZFT				*i* S	Sn	13 05 35.0	-1.8
EVOP	Sao Brissos	4.04	309	*e*Sn	Sn	13 05 35.1	-2.3
	24nm,0.2s						
EBEN	Beniarda	4.07	48	Pn	Pn	13 04 52.4	+1.8
EBEN	Beniarda	4.07	48	Pn	Pn	13 04 51.2	+0.6
	0.3nm,0.1s,SNR=7.9						
EBEN				Pg	Pg	13 05 01.1	-5.6
	8.5nm,0.7s,SNR=7.9						
EBEN				Sn	Sn	13 05 36.1	-1.9
	0.9nm,0.2s,SNR=7.9						
EBEN				Lg		13 05 55.0	
	9.4nm,1.8s,SNR=7.9						
EBEN	Beniarda	4.07	48	Pn	Pn	13 04 52.4	+1.8
	0.3nm,0.1s,SNR=7.9						
MOE	Montemor	4.18	307	*e*Pn	Pn	13 04 53.6	+1.4
MOE				*e*Sn	Sn	13 05 40.9	0.0
MOE	Montemor	4.18	307	Pn	Pn	13 04 53.6	+1.4
MOE	Montemor	4.18	307	Pn	Pn	13 04 53.6	+1.4
MOE				*e*Sn	Sn	13 05 40.9	0.0
ECHE	Chera	4.32	34	Pn	Pn	13 04 56.0	+2.0
ECHE	Chera	4.32	34	Pn	Pn	13 04 54.2	+0.2
	5.4nm,0.4s,SNR=7.9						
ECHE				Pg	Pg	13 05 04.6	-6.8
	3.2nm,0.4s,SNR=7.9						
ECHE				Sn	Sn	13 05 41.6	-2.5
	11nm,1.4s,SNR=7.9						
ECHE				Lg		13 06 02.2	
	29nm,1.6s,SNR=7.9						
ECHE	Chera	4.32	34	Pn	Pn	13 04 56.0	+2.0
	5.4nm,0.4s,SNR=7.9						
TZC	Tazercounte	4.37	208	*e*P	Pn	13 04 55.0	+0.2
TZC				*e*S	Sn	13 05 45.0	-0.6
GUD	Guadarrama	4.58	360	Pn	Pn	13 04 59.8	+2.2
GUD	Guadarrama	4.58	360	Pn	Pn	13 04 58.0	+0.4
	2.6nm,0.2s,SNR=7.9						
GUD				Sn	Sn	13 05 47.8	-2.8
	33nm,1.3s,SNR=7.9						
GUD				Lg		13 06 09.7	
	66nm,0.7s,SNR=7.9						
GUD	Guadarrama	4.58	360	Pn	Pn	13 04 59.8	+2.2
	2.6nm,0.2s,SNR=7.9						
PCBR	Castelo Branco	4.62	326	*e*Pn	Pn	13 04 59.4	+1.2
PCBR				*e*Sn	Sn	13 05 50.8	-0.8
PCBR				A		13 05 53.7	
	27nm,0.5s						
PCBR	Castelo Branco	4.62	326	Pn	Pn	13 04 59.3	+1.1
PCBR	Castelo Branco	4.62	326	Pn	Pn	13 04 59.3	+1.1
PCBR	Castelo Branco	4.62	326	Pn	Pn	13 04 59.3	+1.1
PCBR				*e*Sn	Sn	13 05 50.8	-0.8
	27nm,0.5s						
ETOR	Torete	5.02	18	Pn	Pn	13 05 05.7	+2.0
ETOR				Sn	Sn	13 06 02.2	+0.7
ETOR				Lg		13 06 29.2	
ETOR	Torete	5.02	18	Pn	Pn	13 05 03.8	+0.1
	13nm,0.1s,SNR=7.9						
ETOR				Sn	Sn	13 05 59.3	-2.2
	20nm,0.2s,SNR=7.9						
ETOR	Torete	5.02	18	Pn	Pn	13 05 05.7	+2.0
	13nm,0.1s,SNR=7.9						
ETOR				Sn	Sn	13 06 02.2	+0.7
	20nm,0.2s,SNR=7.9						
PMAFR	Mafra	5.03	307	*e*Pn	Pn	13 05 04.8	+1.0
PMAFR				*e*Sn	Sn	13 06 00.8	-0.9
PMAFR				A		13 06 02.2	
	36nm,0.3s						
PMAFR	Mafra	5.03	307	Pn	Pn	13 05 04.8	+1.0
PMAFR	Mafra	5.03	307	*e*Pn	Pn	13 05 04.8	+1.0
PMAFR				*e*Sn	Sn	13 06 00.8	-0.9
	36nm,0.3s						
MTE	Manteigas	5.11	329	*e*Sn	Sn	13 06 04.3	+0.6
MTE				A		13 06 38.0	
	57nm,0.4s						
MTE	Manteigas	5.11	329	*e*Sn	Sn	13 06 04.3	+0.6
	57nm,0.4s						
EMOS	Mosqueruela	5.17	33	Pn	Pn	13 05 06.8	+1.1
EMOS				Sn	Sn	13 06 06.0	+1.0
EMOS				Lg		13 06 37.4	
EMOS	Mosqueruela	5.17	33	Pn	Pn	13 05 06.8	+1.1
	0.4nm,0.1s,SNR=7.9						
EMOS				Sn	Sn	13 06 02.3	-2.8
	1.0nm,0.2s,SNR=7.9						
EMOS	Mosqueruela	5.17	33	Pn	Pn	13 05 06.8	+1.1
	0.4nm,0.1s,SNR=7.9						
EMOS				Sn	Sn	13 06 06.0	+0.9
	1.0nm,0.2s,SNR=7.9						
EIBI	Ibiza	5.25	54	Pn	Pn	13 05 07.9	+1.1
EIBI				Sn	Sn	13 06 05.8	-1.3
EIBI	Ibiza	5.25	54	Pn	Pn	13 05 07.9	+1.1
	3.9nm,0.2s,SNR=7.9						
EIBI				Sn	Sn	13 06 03.8	-3.3
	1.3nm,0.2s,SNR=7.9						
EIBI	Ibiza	5.25	54	Pn	Pn	13 05 07.9	+1.1
	3.9nm,0.2s,SNR=7.9						
EIBI				Sn	Sn	13 06 05.8	-1.3
	1.3nm,0.2s,SNR=7.9						
PVIS	Viseu	5.52	329	*e*Pn	Pn	13 05 11.9	+1.3
PVIS				*e*Sn	Sn	13 06 13.7	-0.1
PVIS				A		13 06 18.5	
	17nm,0.2s						
PVIS	Viseu	5.52	329	Pn	Pn	13 05 11.9	+1.3
PVIS	Viseu	5.52	329	*e*Pn	Pn	13 05 11.9	+1.3
PVIS				*e*Sn	Sn	13 06 13.7	-0.1
	17nm,0.2s						
MVO	Moncorvo	5.59	337	*e*Pn	Pn	13 05 13.3	+1.8
MVO				*e*Sn	Sn	13 06 13.7	-1.8
MVO				A		13 06 49.3	
	53nm,0.4s						
MVO	Moncorvo	5.59	337	Pn	Pn	13 05 13.3	+1.8
MVO	Moncorvo	5.59	337	Pn	Pn	13 05 13.3	+1.8
PVRL	Vila Real	5.92	333	*e*Pn	Pn	13 05 17.4	+1.3
PVRL				*e*Sn	Sn	13 06 22.6	-1.2
PVRL				A		13 06 25.3	
	41nm,0.1s						
PVRL	Vila Real	5.92	333	Pn	Pn	13 05 17.4	+1.3
ERTA	Horta de San J	6.00	34	Pn	Pn	13 05 19.1	+1.9
ERTA				Sn	Sn	13 06 25.4	-0.4
ERTA	Horta de San J	6.00	34	Pn	Pn	13 05 17.3	+0.1
	0.2nm,0.2s,SNR=4.0						
ERTA				Sn	Sn	13 06 21.4	-4.3
	0.5nm,0.2s,SNR=7.9						
ERTA	Horta de San J	6.00	34	Pn	Pn	13 05 19.1	+1.9
	0.2nm,0.2s,SNR=4.0						
ERTA				Sn	Sn	13 06 25.4	-0.3
	0.5nm,0.2s,SNR=7.9						
PBRG	Braganca	6.09	341	*e*Pn	Pn	13 05 20.5	+2.1
PBRG				*e*Sn	Sn	13 06 26.3	-1.6
PBRG				A		13 07 12.0	
	19nm,0.6s						
PTO	Porto	6.17	327	*e*Pn	Pn	13 05 20.6	+1.1
PTO	Porto	6.17	327	Pn	Pn	13 05 20.6	+1.1
ECAL	Calabor	6.22	342	Pn	Pn	13 05 22.0	+1.8
ECAL				Sn	Sn	13 06 29.7	-1.4
ECAL				Lg		13 07 06.1	
ECAL	Calabor	6.22	342	Pn	Pn	13 05 20.0	-0.2
	3.1nm,0.1s,SNR=7.9						
ECAL				Sn	Sn	13 06 26.0	-5.1
	4.1nm,0.2s,SNR=7.9						
ECAL				Lg		13 06 59.4	
	49nm,0.6s,SNR=7.9						
ECAL	Calabor	6.22	342	Pn	Pn	13 05 22.0	+1.8
	3.1nm,0.1s,SNR=7.9						
ECAL				Sn	Sn	13 06 29.7	-1.4
	4.1nm,0.2s,SNR=7.9						
PCAB	Cabril	6.42	333	*e*Pn	Pn	13 05 24.4	+1.5
PCAB				*e*Sn	Sn	13 06 33.7	-2.2
PCAB				A		13 07 13.6	
	21nm,0.4s						
ELOB	Lobios	6.57	333	Pn	Pn	13 05 26.1	+1.2
ELOB				Sn	Sn	13 06 37.9	-1.7
ELOB				Lg		13 07 17.7	
ELOB	Lobios	6.57	333	Pn	Pn	13 05 24.3	-0.6
	1.5nm,0.1s,SNR=7.9						
ELOB				Sn	Sn	13 06 34.4	-5.2
	2.9nm,0.2s,SNR=7.9						
ELOB				Lg		13 07 09.3	
	39nm,0.8s,SNR=7.9						
ELOB	Lobios	6.57	333	Pn	Pn	13 05 26.1	+1.2
	1.5nm,0.1s,SNR=7.9						
EPOB	Poblet	6.66	36	Pn	Pn	13 05 29.6	+3.4
EPOB				Sn	Sn	13 06 40.6	-1.3
EPOB	Poblet	6.66	36	Pn	Pn	13 05 26.1	-0.1
	0.3nm,0.2s,SNR=7.9						
EPOB				Sn	Sn	13 06 37.3	-4.7
	0.4nm,0.2s,SNR=7.9						
EPOB	Poblet	6.66	36	Pn	Pn	13 05 29.6	+3.4
EPOB				Sn	Sn	13 06 40.6	-1.3
	0.4nm,0.2s,SNR=7.9						
ERUA	La Rua	6.75	341	Pn	Pn	13 05 29.8	+2.3
ERUA	La Rua	6.75	341	Pn	Pn	13 05 27.0	-0.5
	24nm,0.1s,SNR=4.0						
ERUA				Sn	Sn	13 06 38.3	-5.8
	12nm,1.2s,SNR=7.9						
ERUA	La Rua	6.75	341	Pn	Pn	13 05 29.7	+2.3
	24nm,0.1s,SNR=4.0						
EZAM	Zamans	7.05	331	Pn	Pn	13 05 31.5	-0.1
EZAM	Zamans	7.05	331	Pn	Pn	13 05 31.5	-0.1
	2.2nm,0.1s,SNR=7.9						
EZAM				Sn	Sn	13 06 45.8	-5.7
	40nm,2.4s,SNR=7.9						
EZAM	Zamans	7.05	331	Pn	Pn	13 05 31.5	-0.1
ELAN	Lanestosa	7.18	4	Pn	Pn	13 05 35.4	+2.0
ELAN				Sn	Sn	13 06 53.9	-0.9
ELAN	Lanestosa	7.18	4	Pn	Pn	13 05 33.0	-0.4
	1.6nm,0.2s,SNR=7.9						
ELAN				Sn	Sn	13 06 48.9	-5.9
	0.6nm,1.0s,SNR=7.9						
ELAN	Lanestosa	7.18	4	Pn	Pn	13 05 35.4	+2.0
	1.6nm,0.2s,SNR=7.9						
ELAN				Sn	Sn	13 06 53.9	-0.9
	SNR=7.9						
EARI	Arriondas	7.28	354	Pn	Pn	13 05 36.9	+2.1
EARI				Sn	Sn	13 06 55.3	-1.9
EARI				Lg		13 07 43.1	
EARI	Arriondas	7.28	354	Pn	Pn	13 05 34.0	-0.8
	0.7nm,0.1s,SNR=7.9						
EARI				Sn	Sn	13 06 51.7	-5.5
	0.4nm,0.1s,SNR=7.9						
EARI				Lg		13 07 31.4	
	7.7nm,2.6s,SNR=7.9						
EARI	Arriondas	7.28	354	Pn	Pn	13 05 36.9	+2.1
	0.7nm,0.1s,SNR=7.9						
ETSF	Etsaut	7.36	21	*e*Pn	Pn	13 05 38.4	+2.6
ETSF	Etsaut	7.36	21	*e*P	Pn	13 05 42.5	+6.7
ETSF				*e*Sn	Sn	13 06 55.7	-3.4
	3.0nm,0.3s						
ETSF	Etsaut	7.36	21	*e*Pn	Pn	13 05 38.4	+2.6
ETSF				*e*P		13 05 42.5	
ETSF				*e*Sn	Sn	13 06 55.7	-3.4
ETSF	Etsaut	7.36	21	*e*Pn	Pn	13 05 38.4	+2.6
ETSF	Etsaut	7.36	21	*e*P	Pn	13 05 42.5	+6.7
SJPF	Ste Jean	7.39	17	*e*Pn	Pn	13 05 38.9	+2.7
SJPF	Ste Jean	7.39	17	*e*P	Pn	13 05 43.0	+6.8
SJPF				*e*Sn	Sn	13 06 56.0	-3.8
	4.8nm,0.4s						
SJPF	Ste Jean	7.39	17	*e*Pn	Pn	13 05 38.9	+2.7
SJPF				*e*P		13 05 43.0	
SJPF				*e*Sn	Sn	13 06 56.0	-3.8
SJPF	Ste Jean	7.39	17	*e*Pn	Pn	13 05 38.9	+2.7
SJPF	Ste Jean	7.39	17	*e*P	Pn	13 05 43.0	+6.8
EBIE	Bielsa	7.39	25	Pn	Pn	13 05 37.0	+0.8
EBIE				Pn	Pn	13 05 41.5	+5.2
EBIE				Sn	Sn	13 06 59.8	-0.1
EBIE	Bielsa	7.39	25	Pn	Pn	13 05 36.0	-0.3
	0.2nm,0.5s,SNR=7.9						
EBIE				Sn	Sn	13 06 54.9	-5.0
	3.4nm,7.5s,SNR=7.9						
EBIE	Bielsa	7.39	25	Pn	Pn	13 05 37.0	+0.8
EPON	Pontenova	7.63	343	Pn	Pn	13 05 41.3	+1.8
EPON				Sn	Sn	13 07 02.6	-3.1
EPON	Pontenova	7.63	343	Pn	Pn	13 05 39.1	-0.4
	1.8nm,0.1s,SNR=7.9						
EPON				Sn	Sn	13 06 59.6	-6.1
	11nm,4.1s,SNR=7.9						
EPON	Pontenova	7.63	343	Pn	Pn	13 05 41.3	+1.8
EPF	Esparros	7.76	25	*e*Pn	Pn	13 05 41.5	+0.1
EPF	Esparros	7.76	25	*e*P	Pn	13 05 46.6	+5.2
EPF				*e*Sn	Sn	13 07 05.2	-3.8
	3.4nm,0.4s						
EPF	Esparros	7.76	25	*e*Pn	Pn	13 05 41.5	+0.1
EPF				*e*P		13 05 46.6	
EPF				*e*Sn	Sn	13 07 05.2	-3.8
EPF	Esparros	7.76	25	Pn	Pn	13 05 41.5	+0.1
EPF	Esparros	7.76	25	*e*P	Pn	13 05 46.6	+5.2
MTLF	Montolieu	8.75	32	*e*Pn	Pn	13 05 55.4	+0.5
MTLF	Montolieu	8.75	32	*e*Pn	Pn	13 05 55.4	+0.5
MTLF	Montolieu	8.75	32	Pn	Pn	13 05 55.4	+0.5
MTLF	Montolieu	8.75	32	*e*Pn	Pn	13 05 55.4	+0.5
CAF	Calviac	10.02	26	*e*Pn	Pn	13 06 12.5	+0.2
CAF	Calviac	10.02	26	*e*Pn	Pn	13 06 12.5	+0.2
CAF	Calviac	10.02	26	Pn	Pn	13 06 12.5	+0.2
CAF	Calviac	10.02	26	*e*Pn	Pn	13 06 12.5	+0.2
QUIF	Quistinic	11.87	3	*e*Pn	Pn	13 06 36.2	-1.4
QUIF	Quistinic	11.87	3	*e*P	Pn	13 06 42.9	+5.3
QUIF	Quistinic	11.87	3	*e*Pn	Pn	13 06 36.2	-1.4
QUIF	Quistinic	11.87	3	Pn	Pn	13 06 36.2	-1.4
QUIF	Quistinic	11.87	3	*e*Pn	Pn	13 06 36.2	-1.4
QUIF	Quistinic	11.87	3	*e*P	Pn	13 06 42.9	+5.3
SGMF	Saint Gilles	12.24	5	*e*Pn	Pn	13 06 42.1	-0.5
SGMF	Saint Gilles	12.24	5	*e*P	Pn	13 06 48.0	+5.4
SGMF	Saint Gilles	12.24	5	*e*Pn	Pn	13 06 42.1	-0.5
SGMF	Saint Gilles	12.24	5	Pn	Pn	13 06 42.1	-0.5
SGMF	Saint Gilles	12.24	5	*e*Pn	Pn	13 06 42.1	-0.5
SGMF	Saint Gilles	12.24	5	*e*P	Pn	13 06 48.0	+5.4
ROSF	Rostrenen	12.29	3	*e*Pn	Pn	13 06 42.7	-0.5
ROSF	Rostrenen	12.29	3	*e*P	Pn	13 06 48.2	+5.0
ROSF				*e*Sn	Sn	13 08 52.2	-7.7
	9.7nm,0.7s						
ROSF	Rostrenen	12.29	3	*e*Pn	Pn	13 06 42.7	-0.5
ROSF	Rostrenen	12.29	3	Pn	Pn	13 06 42.7	-0.5
ROSF	Rostrenen	12.29	3	*e*Pn	Pn	13 06 42.7	-0.5
ROSF	Rostrenen	12.29	3	*e*P	Pn	13 06 48.2	+5.0
ROSF				*e*Sn	Sn	13 08 52.2	-7.7
	4.8nm,0.7s						
FLN	La Foliniere	12.97	11	*e*P	Pn	13 06 57.4	+4.8
LIC	Lamto	29.70	182	*e*P	P	13 09 56.2	+1.7
	23nm,1.2s,baz=12						

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*ISCJB **16** 13:07:16.9±2.2, 11.02S±0.09×164.3E±0.1, h57*^{km}*±18*^{km}*, mb4.0/9, MS3.5/3, Error ellipse: s-maj=21.5km s-min=9.5km az=145.8*

*NEIC **16** 13:07:18.2±2.2, 10.80S×164.30E, h54*^{km}*±19*^{km}*, mb4.3/5, Error ellipse: s-maj=19.6km s-min=18.6km az=54.0*

*IDC **16** 13:07:18.3±3.6, 10.90S×164.32E, h60*^{km}*±28*^{km}*, mb3.7/7, mb1 4.0/9, mb1mx3.8/18, mbtmp3.9/9, ML4.7/2, MS3.5/4, Ms1 3.5/4, ms1mx3.2/18, Error ellipse: s-maj=27.1km s-min=20.6km az=62.0*

ISC 16 13:07:19.1±1.8**, 10.99S**±0.09×**164.3E**±0.1**, h61**^{km}±14^{km}**, n21, σ1.05**/23**, mb4.0**/9**, Santa Cruz Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	4.52	290	P	Pn	13 08 23.6	-1.5
HNR				S	Sn	13 09 17.1	+0.7
HNR	Honiara	4.52	290	P	Pn	13 08 23.6	-1.5
	103nm,0.3s,baz=104,slow=2.6,SNR=42						
HNR				S	Sn	13 09 17.1	+0.7
	68nm,0.3s,baz=136,slow=3.5,SNR=5.2						
DZM	Mont Dzumac	11.22	170	*e*P	Pn	13 09 57.6	+0.8
DZM	Mont Dzumac	11.22	170	P	Pn	13 09 58.3	+1.6
	2.2nm,0.3s,baz=332,slow=21,SNR=44						
DZM				S	Sn	13 11 59.7	-0.8
	0.3nm,0.3s,baz=29,slow=19,SNR=2.4						
CTA	Charters Tower	19.55	240	*e*P	Pn	13 11 44.8	+1.0
	11nm,0.9s						
CTA	Charters Tower	19.55	240	P	Pn	13 11 44.9	+1.1
	0.8nm,0.3s,baz=67,slow=13,SNR=13						
CTA				LR	LR	13 17 35.7	
	comp=Z,82nm,20.0s,baz=51,slow=31						
CTAO	Charters Tower	19.55	240	*e*P	Pn	13 11 43.8	0.0
	17nm,0.9s						
COEN	Coen	20.80	260	*e*P	P	13 11 56.4	+0.9
STKA	Stephens Creek	29.50	222	*e*P	P	13 13 20.2	+2.6
	3.4nm,0.8s,mb4.1						
STKA	Stephens Creek	29.50	222	P	P	13 13 18.8	+1.2
	4.4nm,0.8s,mb4.2,baz=39,slow=10,SNR=12						
STKA				LR	LR	13 24 54.8	
	comp=Z,95nm,18.4s,baz=26,slow=36						
WB2	Warramunga Arr	30.12	249	*e*P	P	13 13 23.0	-0.3
WRA	Warramunga Arr	30.14	249	P	P	13 13 23.1	-0.4
	1.5nm,0.6s,mb3.9,baz=78,slow=8.8,SNR=29						
WRA				LR	LR	13 25 22.9	
	comp=Z,76nm,18.2s,baz=80,slow=36						
KAKA	Kakadu	31.18	264	*e*P	P	13 13 31.2	-1.5

	3.5nm,0.4s,mb4.5						
ASAR	Alice Springs	31.52	242	P	P	13 13 34.9	-0.7
	0.5nm,0.5s,mb3.6,baz=64,slow=10,SNR=23						
RPZ	Rata Peaks	33.13	171	LR	LR	13 24 40.9	
	comp=Z,149nm,19.3s,baz=336,slow=31						
FITZ	Fitzroy Crossi	37.99	255	eP	P	13 14 30.8	-0.6
	6.4nm,0.5s,mb4.6						
FITZ	Fitzroy Crossi	37.99	255	P	P	13 14 30.9	-0.5
	5.1nm,0.7s,mb4.3,baz=82,slow=7.4,SNR=13						
SONM	Songino Array	77.76	324	P	P	13 19 10.4	+0.8
	0.5nm,1.0s,mb3.4,baz=145,slow=5.3,SNR=2.6						
EGAK	Eagle	85.83	20	eP	P	13 19 52.2	+0.6
	3.0nm,0.8s,mb4.6						
MKAR	Makanchi Array	92.48	317	P	P	13 20 23.8	+0.3
	0.1nm,0.3s,mb3.7,baz=82,slow=5.2,SNR=3.5						
YKA	Yellowknife Ar	95.59	27	P	P	13 20 34.2	-3.2
	0.1nm,0.4s,mb3.6,baz=243,slow=4.1,SNR=3.4						

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*ISCJB **16** 13:13:51.6±1.0, 34.39N±0.07×23.8E±0.1, h10km, Error ellipse: s-maj=16.9km s-min=9.0km az=158.6*
*ATH **16** 13:13:59.0, 35.11N×24.20E, h28km±5km, MD3.4/6*
*CSEM **16** 13:13:59.0, 35.11N×24.20E, h28km, MD3.4/6, After ATH*
*NEIC **16** 13:13:59.0, 35.11N×24.20E, h28km, MD3.4(ATH), After ATH.*
*HLW **16** 13:14:08.0, 34.34N×25.79E, h33km, Mb2.9*
ISC 16 13:13:53.4±1.0, **34.50N**±0.07×**23.9E**±0.1, **h10km, n25, σ0.95**/25, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VAM	Vamos	0.94	16	ePb	Pg	13 14 06.5	-5.1
VAM	Vamos	0.94	16	ePB	Pg	13 14 06.5	-5.1
VAM	Vamos	0.94	16	ePb	Pg	13 14 06.5	-5.1
XRY	Khrisi	1.54	75	ePn	Pn	13 14 22.6	+1.7
XRY	Khrisi	1.54	75	ePN	Pn	13 14 22.6	+1.7
XRY	Khrisi	1.54	75	ePn	Pn	13 14 22.6	+1.7
NPS	Neapolis	1.62	61	ePn	Pn	13 14 20.5	-1.4
NPS	Neapolis	1.62	61	ePN	Pn	13 14 20.5	-1.4
NPS	Neapolis	1.62	61	ePn	Pn	13 14 20.5	-1.4
KYTH	Kithira	1.91	339	ePb	Pn	13 14 25.5	-0.4
KYTH	Kithira	1.91	339	ePB	Pn	13 14 25.5	-0.4
KYTH	Kithira	1.91	339	ePb	Pn	13 14 25.5	-0.4
VLI	Veliai	2.35	341	ePb	Pn	13 14 32.5	+0.5
VLI	Veliai	2.35	341	ePB	Pn	13 14 32.5	+0.5
VLI	Veliai	2.35	341	ePb	Pn	13 14 32.5	+0.5
KARP	Karpathos	2.89	68	ePn	Pn	13 14 39.5	+0.1
KARP	Karpathos	2.89	68	ePN	Pn	13 14 39.5	+0.1
KARP	Karpathos	2.89	68	ePn	Pn	13 14 39.5	+0.1
HMAT	Matruh	4.34	141	P	Pn	13 14 58.8	-0.7
HMAT	Matruh	4.34	141	P	Pn	13 14 58.0	-1.4
HMAT	Matruh	4.34	141	P	Pn	13 14 58.0	-1.4
HMAT	Matruh	4.34	141	P	Pn	13 14 58.8	-0.6
HFRF	Wahat Farafira	8.26	151	P	Pn	13 15 54.0	+0.9
HDK1	Dakhla	10.12	150	P	Pn	13 16 18.6	-0.1
HDK1				S	Sx	13 17 55.5	
HDK1	Dakhla	10.12	150	P	Pn	13 16 18.6	-0.2
HDK1				S	Sx	13 17 55.5	

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*WEL **16** 13:20:14.3±0.4, 39.63S×178.55E, h33km, ML4.0/15, Error ellipse: s-maj=4.3km s-min=1.9km az=90.0*
*IDC **16** 13:20:14.0±2.7, 39.52S×178.17E, h0km, mb3.7/2, mb1 4.0/2, mb1mx3.7/11, mbtmp3.7/2, MS3.6/1, Ms1 3.6/1, ms1mx2.7/14, Error ellipse: s-maj=58.4km s-min=34.3km az=70.0*
ISC 16 13:20:14.2±1.3, **39.63S**±0.05×**178.5E**±0.1, **h35km, n16, σ0.83**/20, **mb3.5**/2, **MS3.6**/1, **Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PXZ	Pawanui	1.35	252	PN	Pn	13 20 36.8	+0.4
PXZ				SN	Sn	13 20 53.4	+0.3
MWZ	Matawai	1.50	328	PN	Pn	13 20 38.5	-0.2
MWZ				SN	Sn	13 20 55.8	-1.2
PUZ	Puketiti	1.56	352	PN	Pn	13 20 39.1	-0.4
PUZ				SN	Sn	13 20 57.8	-0.6
BKZ	Black Stump Fm	1.64	285	PN	Pn	13 20 40.7	+0.1
URZ	Urewera	1.75	320	Pn	Pn	13 20 41.9	-0.2
	32nm,0.3s,baz=182,slow=4.7,SNR=93						
URZ				Sn	Sn	13 21 04.5	+1.3
	94nm,0.3s,baz=343,slow=19,SNR=16						
URZ	Urewera	1.75	320	ePN	Pn	13 20 41.9	-0.2
TSZ	Takapari Road	2.02	257	ePN	Pn	13 20 45.8	0.0
BFZ	Birch Farm	2.04	238	PN	Pn	13 20 45.9	-0.2
MXZ	Matakaoa Point	2.06	355	PN	Pn	13 20 46.5	+0.2
MRZ	Mangatainoka R	2.49	244	PN	Pn	13 20 52.0	-0.2
MRZ				eSN	Sn	13 21 20.6	-0.7
WAZ	Wanganui	2.74	266	ePN	Pn	13 20 55.9	+0.3
MTW	Mount Morrison	2.77	235	PN	Pn	13 20 54.9	-1.2
CAW	Cannon Point	3.03	240	ePN	Pn	13 20 59.0	-0.6
ASAR	Alice Springs	40.75	279	P	P	13 27 54.8	+3.0
	0.7nm,0.7s,mb3.4,baz=130,slow=9.1,SNR=16						
WRA	Warramunga Arr	42.58	284	P	P	13 28 08.5	+1.7
	0.9nm,0.7s,mb3.6,baz=126,slow=7.2,SNR=15						
WRA				LR	LR	13 45 44.4	
	comp=Z,78nm,18.8s,MS3.6,baz=115,slow=36						
ARCES	ARCESS Array B	146.79	343	PKPbc	PKPbc	13 39 56.2	+4.9
	2.3nm,0.8s,baz=20,slow=3.0,SNR=5.2						

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*CSEM **16** 13:27:39.8, 37.06N×34.38E, h11km, MD2.8, After ISK*
ISK 16 13:27:39.8, 37.06N×34.38E, h11km, MD2.8, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MERS	Mersin	0.22	150	i PG	Pg	13 27 45.0	+0.5
MERS				i SG	Sg	13 27 48.7	+1.1
MERS	Mersin	0.22	150	i Pg	Pg	13 27 45.0	+0.5
MERS				i Sg	Sg	13 27 48.7	+1.1
KARA	Karaisali	0.57	69	ePG	Pg	13 27 50.9	0.0
KARA	Karaisali	0.57	69	ePg	Pg	13 27 50.9	0.0
KRTS	Karatas	0.93	121	ePG	Pg	13 27 57.3	-0.5
KRTS	Karatas	0.93	121	ePg	Pg	13 27 57.3	-0.5
IKL	Isikli	1.00	215	PG	Pg	13 27 59.3	+0.3
IKL				SG	Sg	13 28 13.5	+1.6
IKL	Isikli	1.00	215	ePg	Pg	13 27 59.3	+0.3
IKL				eSg	Sg	13 28 13.5	+1.6
NIG	Nigde	1.06	10	ePG	Pg	13 28 00.7	+0.5
NIG	Nigde	1.06	10	ePg	Pg	13 28 00.7	+0.5
KOZT	Kozan	1.22	70	ePN	Pn	13 28 03.5	+0.7

MAN 16 14:09:35, 13.12N×119.98E, h18km, mb3.8, ML2.5, MS2.1, 1D, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	Lubang	0.67	23	eP	Pb	14 09 43.8	-4.3
TGY	Tagaytay City	1.35	43⇓	eP	Pn	14 10 02.5	+3.6
TGY				eS	Sn	14 10 14.5	-1.9

IDC 16 14:15:25.8±6.0, **7.00S×154.60E, h0km, mb3.1**/4, **mb1 3.2**/4, **mb1mx3.2**/14, **mbtmp3.1**/4, **Error ellipse: s-maj=174.7km s-min=31.6km az=111.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.49	235	P	P	14 20 37.6	0.0
	0.2nm,0.4s,baz=57,slow=9.1,SNR=5.7						
ASAR	Alice Springs	25.88	228	P	P	14 20 58.8	-0.7
	0.2nm,0.9s,baz=56,slow=7.3,SNR=4.1						
SONM	Songino Array	69.13	327	P	P	14 26 34.3	+0.4
	0.1nm,0.5s,baz=129,slow=6.0,SNR=2.6						
MKAR	Makanchi Array	83.15	319	P	P	14 27 54.2	+0.5
	0.2nm,0.6s,baz=89,slow=6.2,SNR=3.5						

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*ISCJB **16** 14:50:27.8±4.6, 46.0N±0.1×154.5E±0.2, h0km±29km, mb3.9/12, Error ellipse: s-maj=25.2km s-min=11.2km az=135.8*
*IDC **16** 14:50:29.0±0.8, 45.78N×154.53E, h0km, mb3.7/10, mb1 4.0/11, mb1mx3.8/23, mbtmp3.8/11, ML3.6/1, Error ellipse: s-maj=23.7km s-min=19.9km az=132.0*
*NEIC **16** 14:50:30.6±0.8, 46.01N×154.57E, h10km, mb4.1/3, Error ellipse: s-maj=24.3km s-min=14.7km az=133.0*
*MOS **16** 14:50:33.4±2.0, 46.04N×154.31E, h39km, mb4.2/6, Error ellipse: s-maj=17.7km s-min=11.1km az=67.5*
ISC 16 14:50:31.5±5.1, **46.0N**±0.1×**154.5E**±0.2, **h12km**±31km, **n29, σ1.48**/30, **mb3.8**/12, **1D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	4.70	263⇓	iPN	Pn	14 51 40.0	-2.1
KUR				pmax	pmax		
	comp=Z,110nm,0.5s						
SKR	Severo-Kuril's	4.85	12	ePN	Pn	14 51 42.5	-1.6
PET	Petropavlovsk	7.57	19	ePn	Pn	14 52 18.2	-3.2
PET				eSn	Sn	14 53 39.7	-7.4
PET	Petropavlovsk	7.57	19	ePN	Pn	14 52 22.8	+1.3
PET				pmax	pmax		
	comp=Z,7.0nm,1.0s						
ASAJ	Asahikawa	8.62	262	PN	Pn	14 52 35.7	-0.2
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	8.62	262	Pn	Pn	14 52 35.7	-0.2
	comp=Z,0.8nm,0.3s,baz=112,slow=6.8,SNR=5.6						
MJAR	Matsushiro Arr	15.41	238	Pn	Pn	14 54 10.3	+1.7
MJAR	Matsushiro Arr	15.41	238	Pn	Pn	14 54 10.3	+1.7
	comp=Z,0.1nm,0.3s,baz=36,slow=8.1,SNR=4.9						
MAJO	Matsushiro	15.42	238	Pn	Pn	14 54 11.8	+3.2
	comp=Z,8.6nm,0.8s						
MAJO	Matsushiro	15.42	238	P	Pn	14 54 11.8	+3.2
MAJO				pmax	pmax		
	comp=Z,9.0nm,0.8s						
BILL	Bilibino	22.96	11	eP	P	14 55 37.2	+2.0
	comp=Z,10.0nm,1.4s,mb4.0						
BILL	Bilibino	22.96	11	eP	P	14 55 37.3	+2.0
BILL				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.0						
SONM	Songino Array	32.50	291	P	P	14 57 02.4	+0.7
	comp=Z,0.1nm,0.4s,mb3.0,baz=83,slow=7.2,SNR=2.2						
MKAR	Makanchi Array	48.15	299	P	P	14 59 10.4	-0.7
	comp=Z,0.4nm,0.6s,mb3.6,baz=66,slow=7.8,SNR=7.3						
KURK	Kurchatov	48.60	305	P	P	14 59 12.4	-2.0
	comp=Z,1.7nm,0.9s,mb4.1						
KURK	Kurchatov	48.60	305	P	P	14 59 12.4	-2.0
KURK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
YKA	Yellowknife Ar	50.99	37	P	P	14 59 32.5	0.0
YKA	Yellowknife Ar	50.99	37	P	P	14 59 32.5	0.0
	comp=Z,0.3nm,0.4s,mb3.6,baz=294,slow=7.2,SNR=5.0						
ARCES	ARCESS Array B	58.91	341	P	P	15 00 31.7	+2.0
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	ARCESS Array B	58.91	341	P	P	15 00 31.7	+2.0
	comp=Z,1.8nm,0.8s,mb4.2,baz=32,slow=8.8,SNR=2.9						
PDAR	Pinedale Array	64.44	54	P	P	15 01 06.5	-0.9
	comp=Z,1.0nm,1.1s,mb3.8,baz=333,slow=2.3,SNR=4.9						
FINES	FINESS Array B	65.16	335	P	P	15 01 13.5	+1.8
	comp=Z,0.4nm,0.4s,mb3.8,baz=34,slow=8.3,SNR=6.6						
WRA	Warramunga Arr	68.09	200	P	P	15 01 29.0	-1.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	68.09	200	P	P	15 01 29.0	-1.8
	comp=Z,0.9nm,0.6s,mb4.0,baz=19,slow=6.8,SNR=9.2						
ASAR	Alice Springs	71.77	200	P	P	15 01 52.7	-0.7
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	71.77	200	P	P	15 01 52.7	-0.7
	comp=Z,0.9nm,0.6s,mb3.9,baz=19,slow=5.6,SNR=14						
AKASG	Malin Array Be	72.73	327	P	P	15 01 58.2	-0.8
	comp=Z,0.3nm,0.3s,mb3.7,baz=31,slow=5.3,SNR=3.3						
TXAR	Lajitas Array	77.05	61	P	P	15 02 25.3	+1.0
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	77.05	61	P	P	15 02 25.3	+1.0
	comp=Z,0.7nm,0.5s,mb3.8,baz=305,slow=4.7,SNR=12						

IDC 16 15:28:16.2±1.3, **0.70S×121.87E, h0km, mb3.2**/4, **mb1 3.4**/4, **mb1mx3.3**/17, **mbtmp3.3**/4, **Error ellipse: s-maj=164.5km s-min=21.8km az=63.0, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.69	148	P	P	15 33 18.7	-0.8
	1.3nm,1.0s,baz=326,slow=10,SNR=7.1						
ASAR	Alice Springs	25.65	154	P	P	15 33 48.5	+0.8
	0.4nm,0.7s,baz=328,slow=8.8,SNR=5.4						
SONM	Songino Array	50.18	346	P	P	15 37 14.3	+0.8
	0.3nm,0.7s,baz=159,slow=6.8,SNR=3.8						
MKAR	Makanchi Array	58.62	329	P	P	15 38 14.7	-0.3
	0.4nm,0.6s,baz=128,slow=7.8,SNR=8.7						

IDC 16 15:34:37.6±57.0, **1.33S×98.48E, h0km, mb3.8**/3, **mb1 3.8**/3, **mb1mx3.4**/20, **mbtmp3.8**/3, **Error ellipse: s-maj=1132.0km s-min=158.4km az=174.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	49.45	7	P	P	15 43 29.6	+0.1
	0.6nm,0.8s,baz=182,slow=7.6,SNR=6.5						
MKAR	Makanchi Array	49.99	346	P	P	15 43 33.6	0.0
	1.0nm,0.6s,baz=156,slow=9.0,SNR=18						
ZALV	Zalesovo Beam	56.24	350	P	P	15 44 19.5	-0.1
	0.4nm,0.3s,baz=179,slow=7.4,SNR=5.0						

IDC 16 15:36:18.4±8.0, **4.86S×152.44E, h122km**±55km, **mb3.0**/3, **mb1 3.1**/4, **mb1mx2.9**/16, **mbtmp3.0**/4, **Error ellipse: s-maj=108.7km s-min=52.1km az=125.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	6.92	229	P	Pn	15 37 57.2	0.0
	0.8nm,0.3s,baz=42,slow=15,SNR=3.6						
PMG				S	Sn	15 39 16.4	+1.9
	1.7nm,0.3s,baz=138,slow=18,SNR=4.4						
WRA	Warramunga Arr	23.14	228	P	P	15 41 14.1	+0.1
	0.4nm,0.5s,baz=56,slow=10,SNR=6.3						
ASAR	Alice Springs	25.86	222	P	P	15 41 39.5	+0.7
	0.2nm,0.7s,baz=56,slow=9.3,SNR=6.9						
FITZ	Fitzroy Crossi	29.32	241	P	P	15 42 08.5	-1.2
	0.7nm,0.7s,baz=40,slow=7.9,SNR=3.7						
TORD	Torodi Ar. Bea	149.98	288	PKPbc	PKPbc	15 55 55.2	-0.3
	0.2nm,0.4s,baz=58,slow=2.6,SNR=2.7						

IDC 16 15:37:11.9±1.2, **11.57N×143.05E, h0km, mb3.4**/4, **mb1 3.7**/5, **mb1mx3.4**/21, **mbtmp3.4**/5, **ML3.4**/1, **Error ellipse: s-maj=45.8km s-min=20.6km az=113.0, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.68	41	Pn	Pn	15 37 57.5	+1.3
	7.3nm,0.3s,baz=60,slow=19,SNR=5.7						
GUMO				Sn	Sn	15 38 29.1	-0.4
	13nm,0.3s,baz=214,slow=23,SNR=5.6						
WRA	Warramunga Arr	32.47	195	P	P	15 43 43.9	-0.2
	0.3nm,0.5s,baz=19,slow=9.8,SNR=5.2						
ASAR	Alice Springs	36.14	194	P	P	15 44 16.4	+0.4
	0.3nm,0.6s,baz=17,slow=12,SNR=5.8						
MKAR	Makanchi Array	61.73	317	P	P	15 47 32.1	0.0
	0.3nm,0.6s,baz=98,slow=7.3,SNR=4.7						
YKA	Yellowknife Ar	85.46	27	P	P	15 49 50.9	-0.4
	0.3nm,0.5s,baz=290,slow=5.1,SNR=4.4						

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*IDC **16** 15:42:05.5±8.8, 7.45S×128.45E, h110km±90km, mb3.5/4, mb1 3.5/7, mb1mx3.4/15, mbtmp3.4/7, ML3.7/3, Error ellipse: s-maj=107.7km s-min=29.6km az=58.0*
*NEIC **16** 15:42:07.2±2.9, 7.53S×128.36E, h129km±31km, Error ellipse: s-maj=37.3km s-min=22.5km az=67.0*
*ISCJB **16** 15:42:10.9±2.2, 7.8S±0.1×128.7E±0.1, h204km±26km, mb3.4/4, Error ellipse: s-maj=21.0km s-min=17.1km az=11.5*
ISC 16 15:42:10.3±1.6, **7.80S**±0.08×**128.6E**±0.1, **h173km**±16km, **n9, σ1.02**/14, **mb3.5**/4, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.19	142	ePn	Pn	15 43 41.3	+1.5
KAKA				eSn	Sn	15 44 48.4	-1.7
FITZ	Fitzroy Crossi	10.63	195	P	Pn	15 44 39.0	+0.8
	1.0nm,0.3s,baz=31,slow=12,SNR=30						
FITZ				S	Sn	15 46 35.5	-0.7
	0.9nm,0.3s,baz=99,slow=22,SNR=7.4						
WRA	Warramunga Arr	13.30	156	P	Pn	15 45 13.2	+0.7
WRA				S	Sn	15 47 35.4	-4.9
WRA	Warramunga Arr	13.30	156	P	Pn	15 45 13.2	+0.7
	0.3nm,0.3s,baz=342,slow=12,SNR=18						
WRA				S	Sn	15 47 35.4	-4.9
	0.8nm,0.3s,baz=329,slow=22,SNR=11						
ASAR	Alice Springs	16.58	163	P	Pn	15 45 57.5	+4.5
	0.2nm,0.3s,baz=343,slow=11,SNR=31						
ASAR				S	S	15 48 57.3	+0.3
	0.3nm,0.3s,baz=333,slow=21,SNR=7.1						
STKA	Stephens Creek	26.85	155	P	P	15 47 39.0	+4.2
	1.5nm,0.9s,mb3.6,baz=342,slow=9.6,SNR=3.6						
SONM	Songino Array	58.76	343	P	P	15 51 50.3	+0.3
	0.3nm,0.7s,mb3.2,baz=156,slow=7.7,SNR=2.7						
MKAR	Makanchi Array	68.13	328	P	P	15 52 51.4	-0.1
	0.5nm,0.6s,mb3.4,baz=123,slow=7.9,SNR=4.2						
ZALV	Zalesovo Beam	71.68	334	P	P	15 53 11.5	-1.4
	0.5nm,0.4s,mb3.6,baz=145,slow=5.3,SNR=3.3						

CSEM 16 15:49:38.2±0.3, **38.30N×1.78W, h0km, mb3.5**/1, **Error ellipse: s-maj=3.4km s-min=2.8km az=124.0, After MDD, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ETOB	Tobarra	0.39	27	Pg	Pg	15 49 45.3	-0.4
	4.2nm,0.3s,SNR=14						
ETOB				Lg		15 49 50.6	
	15nm,0.2s						
EMUR	La Murta	0.62	137	Pg	Pg	15 49 50.4	+0.3
	4.6nm,0.3s,SNR=6.0						
EMUR				Lg		15 49 57.9	
	8.4nm,0.2s						
EVIA	Vianos	0.66	301	Pg	Pg	15 49 50.2	-0.7
	4.8nm,0.2s,SNR=12						
EVIA				Lg		15 50 00.4	
	2.3nm,0.2s						
EQES	Quesada	1.14	245	Pg	Pg	15 49 58.5	-1.5
	5.0nm,0.3s,SNR=4.7						
EQES				Lg		15 50 14.1	
	11nm,0.2s						
EBEN	Beniarda	1.28	71	Pg	Pg	15 50 02.3	-0.5
	1.4nm,0.3s,SNR=7.9						
EBEN				Lg		15 50 19.4	
	2.6nm,0.3s,SNR=7.9						
ECHE	Chera	1.44	26	Pg	Pg	15 50 03.9	-1.8
	2.1nm,0.7s,SNR=7.9						
ECHE				Lg		15 50 23.3	
	0.2nm,0.2s,SNR=7.9						
EBAN	Banos Encina	1.59	266	Pg	Pg	15 50 04.2	-4.4
	SNR=7.9						
EBAN				Lg		15 50 25.6	
	4.5nm,0.2s,SNR=7.9						
EBER	Berja	1.66	213	Pg	Pg	15 50 08.4	-1.5
	SNR=7.9						
EBER				Lg		15 50 31.1	
	3.6nm,0.4s,SNR=7.9						
EQUE	Quentar	1.71	231	Pn	Pn	15 50 06.9	-2.4
	2.3nm,0.1s,SNR=7.9						
EQUE	Quentar	1.71	231	Pg	Pg	15 50 09.7	-1.3
	0.3nm,0.1s,SNR=7.9						

IDC 16 15:54:43.6±1.9, **2.24N×99.38E, h124km**±28km, **mb3.0**/3, **mb1 3.2**/3, **mb1mx2.9**/21, **mbtmp3.0**/3, **Error ellipse: s-maj=255.4km s-min=22.1km az=55.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	0.72	321	P	Pn	15 55 04.2	+0.7
	52nm,0.3s,baz=155,slow=18,SNR=139						
PSI				S	Sn	15 55 18.9	+0.4
	6.9nm,0.3s,baz=22,slow=5.5,SNR=18						
WRA	Warramunga Arr	40.78	124	P	P	16 02 13.1	+0.1
	0.5nm,0.3s,baz=302,slow=9.0,SNR=14						
ASAR	Alice Springs	42.33	129	P	P	16 02 24.9	-0.6
	0.1nm,0.4s,baz=302,slow=7.5,SNR=6.2						
MKAR	Makanchi Array	46.81	344	P	P	16 03 00.7	-0.1
	0.2nm,0.5s,baz=159,slow=8.9,SNR=2.7						

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*CSEM **16** 16:13:37.3±0.1, 40.45N×27.93E, h12km, MD2.8, Error ellipse: s-maj=2.4km s-min=1.8km az=176.0*
*DDA **16** 16:13:38.5, 40.40N×27.88E, h9km, Md3.0*
ISK 16 16:13:37.5, 40.47N×27.93E, h7km, MD2.8, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNT	Bandirma	0.11	185	i PG	Pg	16 13 40.8	+0.9
BNT				i SG	Sg	16 13 42.7	+1.1
BNT	Bandirma	0.11	185	i Pg	Pg	16 13 40.8	+0.9
BNT				i Sg	Sg	16 13 42.7	+1.1
EDC	Edincik	0.13	204	i PG	Pg	16 13 40.8	+0.5
EDC	Edincik	0.13	204	i Pg	Pg	16 13 40.8	+0.5
MRMT	Marmara Adasi	0.29	298	i PG	Pg	16 13 44.2	+1.0
MRMT	Marmara Adasi	0.29	298	i Pg	Pg	16 13 44.2	+1.0
KCT	Karacabey	0.38	122	i PG	Pg	16 13 45.0	+0.1
KCT	Karacabey	0.38	122	i Pg	Pg	16 13 45.0	+0.1
SART	Tekirdag	0.61	291	i P	Pg	16 13 50.2	+0.9
SART				i S	Sg	16 13 58.2	+0.9
RKY	Sarkoy-Tekirda	0.61	291	PG	Pg	16 13 49.8	+0.5
RKY				SG	Sg	16 13 58.3	+0.9
RKY	Sarkoy-Tekirda	0.61	291	ePg	Pg	16 13 49.8	+0.5
RKY				eSg	Sg	16 13 58.3	+0.9
BALB	Balikesir	0.83	183	PG	Pg	16 13 53.6	+0.2
BALB	Balikesir	0.83	183	ePg	Pg	16 13 53.6	+0.2
GEMT	Gemlik	0.96	92	PG	Pg	16 13 56.7	+0.8
GEMT	Gemlik	0.96	92	ePg	Pg	16 13 56.7	+0.8
ULDT	Uludag	0.98	109	i P	Pg	16 13 56.4	+0.1
ULDT				i S	Sg	16 14 09.2	+0.3
DST	Dursunbey	1.01	148	PG	Pg	16 13 57.7	+0.8
DST	Dursunbey	1.01	148	ePg	Pg	16 13 57.7	+0.8
ISK	Istanbul-Kandi	1.04	55	PG	Pg	16 13 58.0	+0.5
ISK	Istanbul-Kandi	1.04	55	ePg	Pg	16 13 58.0	+0.5
YLV	Yalova	1.10	84	PN	Pn	16 13 58.5	-0.8
YLV	Yalova	1.10	84	ePn	Pn	16 13 58.5	-0.8
KLYT	Kilyos	1.15	47	ePN	Pn	16 14 00.4	+0.4
KLYT	Kilyos	1.15	47	ePn	Pn	16 14 00.4	+0.4
IZI	Iznik	1.18	96	PN	Pn	16 14 00.3	-0.1
IZI	Iznik	1.18	96	ePn	Pn	16 14 00.3	-0.1
HRT	Hereke	1.37	74	ePN	Pn	16 14 02.7	-0.3
HRT	Hereke	1.37	74	ePn	Pn	16 14 02.7	-0.3
ADVT	Abdulvahap	1.38	91	ePN	Pn	16 14 03.9	+0.8
ADVT	Abdulvahap	1.38	91	ePn	Pn	16 14 03.9	+0.8
EZN	Ezine	1.39	243	ePN	Pn	16 14 03.3	0.0
EZN	Ezine	1.39	243	ePn	Pn	16 14 03.3	0.0
AYVA	Ayvalik	1.50	220	i P	Pn	16 14 03.7	-1.1
AYVA				i S	Sn	16 14 22.3	-2.3
BOZC	Bozcaada	1.57	247	i P	Pn	16 14 06.7	+0.9
BOZC				i S	Sn	16 14 27.6	+1.2
GADA	Gvkgeada	1.58	261	ePN	Pn	16 14 06.7	+0.8
GADA	Gvkgeada	1.58	261	ePn	Pn	16 14 06.7	+0.8
EDRB	Edirne	1.65	327	ePN	Pn	16 14 08.2	+1.4
EDRB	Edirne	1.65	327	ePn	Pn	16 14 08.2	+1.4

IDC 16 16:14:50.0±2.2, **6.66S×130.35E, h0km, mb3.2**/1, **mb1 3.4**/4, **mb1mx3.3**/15, **mbtmp3.2**/4, **ML3.3**/3, **Error ellipse: s-maj=89.6km s-min=27.9km az=78.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.27	202	Pn	Pn	16 17 47.2	+1.1
	0.2nm,0.3s,baz=235,slow=20,SNR=19						
FITZ				Sn	Sn	16 19 54.3	-9.3
	0.3nm,0.3s,baz=226,slow=22,SNR=6.6						
WRA	Warramunga Arr	13.76	164	Pn	Pn	16 18 05.3	-1.2
	0.1nm,0.3s,baz=345,slow=13,SNR=15						
WRA				Sn	Sn	16 20 27.1	-13
	0.3nm,0.3s,baz=342,slow=22,SNR=11						
ASAR	Alice Springs	17.25	169	P	Pn	16 18 52.6	+0.1
	0.1nm,0.3s,baz=354,slow=8.9,SNR=11						
ASAR				S	Sn	16 21 54.4	-11
	0.1nm,0.3s,baz=43,slow=24,SNR=5.6						
MKAR	Makanchi Array	68.14	327	P	P	16 25 52.0	+0.1
	0.2nm,0.6s,baz=121,slow=7.1,SNR=2.7						

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*IDC **16** 16:24:15.6±1.1, 0.90N×126.01E, h0km, mb4.0/6, mb1 4.1/7, mb1mx3.9/18, mbtmp4.0/7, ML3.5/1, Error ellipse: s-maj=131.7km s-min=16.5km az=69.0*
NEIC 16 16:24:28.2±2.9, **0.96N×126.41E, h113km**±28km, **mb4.2**/7, **Error ellipse: s-maj=21.1km s-min=8.9km az=58.0,**

Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	14.84	156	P	Pn	16 27 53.0	+0.6
KAKA				*e*Sn	Sn	16 30 48.3	+12
KSM	Kuching	16.10	272	P	Pn	16 28 08.3	+0.1
FITZ	Fitzroy Crossi	18.96	182	Pn	Pn	16 28 39.5	-3.1
	0.1nm,0.3s,baz=7.4,slow=13,SNR=4.4						
WRA	Warramunga Arr	22.18	160	P	P	16 29 14.3	-1.0
	3.2nm,0.4s,baz=340,slow=11,SNR=58						
ASAR	Alice Springs	25.54	164	P	P	16 29 47.3	+0.8
	1.1nm,0.3s,baz=349,slow=14,SNR=39						
STKA	Stephens Creek	35.69	158	P	P	16 31 15.7	-0.1
	2.6nm,0.8s,baz=332,slow=7.9,SNR=5.8						
SONM	Songino Array	49.81	342	P	P	16 33 11.5	+2.0
	0.5nm,0.7s,baz=156,slow=8.0,SNR=5.9						
MK31	Makanchi Array	59.65	326	*e*P	P	16 34 19.9	-0.5
MKAR	Makanchi Array	59.65	326	P	P	16 34 20.2	-0.2
	1.3nm,0.4s,baz=123,slow=9.0,SNR=15						
MA2	Magadan	61.45	14	*e*P	P	16 34 33.4	+1.0
	2.2nm,0.8s						
UCH	Uchtor	62.00	319	*e*P	P	16 34 36.8	+0.3
	1.2nm,0.7s						
EKS2	Erkin-Say	62.68	319	*e*P	P	16 34 40.8	-0.2
	0.9nm,0.7s						
ZALV	Zalesovo Beam	62.90	334	P	P	16 34 41.5	-0.7
	0.7nm,0.3s,baz=131,slow=6.9,SNR=5.4						
KURK	Kurchatov	63.90	328	*e*P	P	16 34 48.4	-0.5
	4.7nm,0.3s						
ARU	Arti	77.09	328	*e*P	P	16 36 08.6	-0.3
	2.8nm,0.7s						

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*CSEM **16** 16:44:27.6±0.6, 29.43N×51.51E, h35km, ML3.2, Error ellipse: s-maj=13.6km s-min=5.2km az=38.0*

*KISR **16** 16:44:27.2±0.7, 29.87N×51.09E, h7km±253km, ML3.2*

ISC 16 16:44:27.7±1.8, 29.5N±0.1×51.40E±0.10, h10km, n13, σ0.79/22, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBD	Kabd	3.25	266	*e*P	Pn	16 45 19.3	+0.6
KBD				*e*S	Sn	16 45 58.1	+0.8
KBD				AML	AML	16 45 58.9	
	comp=Z,208nm,0.3s						
KFJS		3.28	248	P	Pn	16 45 18.8	-0.4
KFJS				S	Sn	16 45 57.8	-0.5
KFJS		3.28	248	P	Pn	16 45 18.8	-0.4
RDF	Al-Radifah	3.40	262	*e*P	Pn	16 45 21.4	+0.6
RDF				*e*S	Sn	16 46 02.5	+1.2
RDF				AML	AML	16 46 03.7	
	comp=Z,53nm,0.5s						
RDF	Al-Radifah	3.40	262	*e*P	Pn	16 45 21.5	+0.7
RDF				*e*S	Sn	16 46 02.5	+1.2
	comp=Z,53nm,0.5s						
MIB	Mutribah	3.55	277	*e*P	Pn	16 45 22.1	-0.8
MIB				*e*S	Sn	16 46 03.3	-1.5
MIB				AML	AML	16 46 04.7	
	comp=Z,54nm,0.5s						
MIB	Mutribah	3.55	277	*e*P	Pn	16 45 22.0	-0.8
MIB				*e*S	Sn	16 46 03.3	-1.5
NAY	Al-Naaiem	3.63	268	*e*P	Pn	16 45 24.2	+0.3
NAY				*e*S	Sn	16 46 06.7	-0.2
NAY				AML	AML	16 46 08.0	
	comp=Z,17nm,0.4s						
NAY	Al-Naaiem	3.63	268	*e*P	Pn	16 45 24.2	+0.2
NAY				*e*S	Sn	16 46 06.7	-0.2
SLWS		4.69	188	P	Pn	16 45 37.7	-0.8
BTHS		5.41	185	P	Pn	16 45 49.7	+1.3
BTHS				S	Sn	16 46 50.4	-0.4
BTHS		5.41	185	P	Pn	16 45 49.7	+1.2
HRDDS		6.73	195	P	Pn	16 46 06.3	-0.2

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*CSEM **16** 16:54:58.1±0.1, 40.28N×42.07E, h2km, MD3.5, Error ellipse: s-maj=2.5km s-min=2.3km az=23.0*

*ISK **16** 16:54:58.1, 40.27N×42.07E, h5km, MD3.2*

*ISCJB **16** 16:54:59.4±0.4, 40.26N±0.03×42.07E±0.03, h2km, Error ellipse: s-maj=4.0km s-min=3.2km az=166.1*

*DDA **16** 16:54:59.8, 40.24N×42.09E, h5km±3km, Md3.5*

ISC 16 16:55:00.2±0.5, 40.26N±0.03×42.06E±0.03, h6km±5km, n29, σ1.08/43, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ERZM	Erzurum	0.64	237	*i* P	Pg	16 55 11.9	-0.6
ERZM				*i* S	Sg	16 55 21.2	+0.3
EZM	Erzurum	0.64	237	*i* PG	Pg	16 55 11.8	-0.8
EZM				*i* SG	Sg	16 55 21.8	+0.9
KARS	Kars	0.86	66	PG	Pg	16 55 15.8	-0.9
KARS				SG	Sg	16 55 28.4	+0.5
KARS	Kars	0.86	66	*e*Pg	Pg	16 55 15.8	-0.9
KARS				*e*Sg	Sg	16 55 28.4	+0.5
ARTV	Artvin	0.93	354	*i* P	Pg	16 55 17.4	-0.7
ARTV				*i* S	Sg	16 55 31.6	+1.4
ARTV	Artvin	0.93	354	*i* P	Pg	16 55 17.4	-0.6
ARTV				*i* S	Sg	16 55 31.5	+1.4
AGRB	Hanur-Agry	0.99	133	PG	Pg	16 55 17.8	-1.3
AGRB				SG	Sg	16 55 33.8	+1.8
AGRB	Hanur-Agry	0.99	133	*e*Pg	Pg	16 55 17.8	-1.3
AGRB				*e*Sg	Sg	16 55 33.8	+1.8
DIGO	Kars	1.01	81	*i* P	Pg	16 55 17.9	-1.8
DIGO				*i* S	Sg	16 55 33.8	+1.1
TUTA	Tutak	1.03	146	*i* P	Pg	16 55 18.0	-2.0
TUTA				*i* S	Sg	16 55 34.6	+1.2
BCA	Borcka	1.23	344	PN	Pn	16 55 22.6	-1.3
BCA	Borcka	1.23	344	*e*Pn	Pn	16 55 22.6	-1.3
DYDN	Diyadin	1.44	119	*i* P	Pn	16 55 26.6	-0.1
DYDN				*i* S	Sb	16 55 45.8	-0.2
BNGL	BINGOL	1.48	209	*i* P	Pn	16 55 26.4	-0.9
BNGL				*i* S	Sn	16 55 46.3	-0.7
EZC	Erzincan	1.80	254	*e*PN	Pn	16 55 37.1	+5.4
CLDR	Caldiran	1.81	127	*e*PN	Pn	16 55 31.6	-0.3
CLDR	Caldiran	1.81	127	*e*Pn	Pn	16 55 31.6	-0.3
BINT	Bingol	1.84	222	*e*PN	Pn	16 55 32.6	+0.4
BINT	Bingol	1.84	222	*e*Pn	Pn	16 55 32.6	+0.4
KTUT	Trabzon	1.89	293	*e*PN	Pn	16 55 33.7	+0.7
KTUT	Trabzon	1.89	293	*e*Pn	Pn	16 55 33.7	+0.7
VANB	Van	1.95	148	*e*PN	Pn	16 55 33.6	-0.2
VANB	Van	1.95	148	*e*Pn	Pn	16 55 33.6	-0.2
GUMT	Gumushane	1.98	277	*e*PN	Pn	16 55 34.3	+0.1
GUMT	Gumushane	1.98	277	*e*Pn	Pn	16 55 34.3	+0.1
TVAN	Van	2.02	149	*i* P	Pn	16 55 36.8	+2.2
TVAN				*i* S	Sn	16 56 08.1	+7.9
KELT	Kelkit	2.15	268	*i* P	Pn	16 55 38.7	+2.2
KELT				*i* S	Sn	16 56 08.4	+4.9
PTK	Pertek	2.48	237	*e*PN	Pn	16 55 40.4	-0.6
PTK	Pertek	2.48	237	*e*Pn	Pn	16 55 40.4	-0.6

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*ISCJB **16** 16:59:08.2±0.4, 15.95S±0.07×73.7W±0.1, h57km, mb4.8/24, MS4.2/13, Error ellipse: s-maj=16.1km s-min=6.0km az=146.6*

*IDC **16** 16:59:10.5±0.6, 16.02S×73.93W, h58km±3km, mb3.9/5, mb1 4.1/7, mb1mx4.0/13, mbtmp3.9/7, MS4.1/11, Ms1 4.0/11, ms1mx3.8/27, Error ellipse: s-maj=23.6km s-min=11.4km az=34.0*

*NEIC **16** 16:59:10.0±0.3, 15.95S×73.81W, mb4.9/24, Error ellipse: s-maj=14.8km s-min=7.1km az=54.0*

NEIC Felt [III] at Atico, Caraveli and Chala; [II] at Arequipa.

*BJI **16** 16:59:14.0, 16.00S×73.80W, h57km, mB5.1, Ms5.1, Msz4.8*

ISC 16 16:59:10.5±0.4, 15.99S±0.07×73.78W±0.09, h59km, h59km±1.2km:pP-P, n249, σ1.27/59, mb4.8/24, MS4.2/13, 74C-81D, Southern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARE	Arequipa	2.25	102	⇑*i*P	Pn	16 59 47.5	+2.2
ARE				*i* S	Sn	17 00 03.7	-8.2
NNA	Nana	4.96	323	Pn	Pn	17 00 21.2	-1.3
	2μm,0.3s,SNR=25						
NNA	Nana	4.96	323	*e*Pn	Pn	17 00 21.7	-0.8
NNA	Nana	4.96	323	P	Pn	17 00 22.2	-0.3
	16nm,0.3s,baz=127,slow=10,SNR=30						
NNA				S	Sn	17 01 18.3	-0.3
	117nm,0.3s,baz=204,slow=12,SNR=4.4						
LPAZ	La Paz	5.44	94	*e*Pn	Pn	17 00 34.0	+5.1
	256nm,0.8s						
LPAZ				*e*		17 00 50.3	
LPAZ	La Paz	5.44	94	P	Pn	17 00 33.2	+4.3
	14nm,0.3s,baz=271,slow=12,SNR=180						
LPAZ				S	Sn	17 01 36.0	+5.8
	baz=289,slow=22,SNR=1.0						
LPAZ				LR	LR	17 02 13.7	
	comp=Z,121nm,20.7s,baz=251,slow=33						
ATAH	Atahualpa	10.01	333	P	Pn	17 01 35.9	+4.3
	4.1nm,0.3s,baz=128,slow=3.0,SNR=27						
ATAH				S	Sn	17 03 25.2	+2.8
	0.6nm,0.3s,baz=60,slow=17,SNR=1.7						
SIV	San Ignacio	12.22	92	P	Pn	17 02 01.1	-0.7
	1.7nm,0.3s,baz=277,slow=12,SNR=42						
LCO	Las Campanas	13.27	168	*e*Pn	Pn	17 02 15.9	-0.1
	39nm,1.0s						
LCO				*e*Sn	Sn	17 04 30.9	-11
CFAA	Coronel Fontan	16.35	163	P	Pn	17 02 56.7	+0.5
CFAA				LR	LR	17 08 52.2	
CFAA	Coronel Fontan	16.35	163	P	Pn	17 02 56.7	+0.6
	0.2nm,0.3s,baz=334,slow=10,SNR=16						
CFAA				LR	LR	17 08 52.2	
	comp=Z,19nm,18.5s,baz=327,slow=36						
OTAV	Otavalo	16.77	344	*e*Pn	Pn	17 03 02.0	+0.5
	14nm,0.8s						
ROSC	El Rosal	20.71	358	*e*P	P	17 03 49.4	+3.3
ROSC	El Rosal	20.71	358	P	P	17 03 51.2	+5.1
	7.3nm,0.4s,baz=90,slow=20,SNR=7.5						
PCRV	Puerto La Cruz	27.52	20	LR	LR	17 16 55.5	
	comp=Z,530nm,20.9s,MS4.1,baz=202,slow=39						
RCBR	Riachuelo	38.47	79	P	P	17 06 22.7	-4.3
	16nm,1.2s,mb4.6						
CPCT	Cooper Cave	52.16	349	*e*P	P	17 08 14.3	-0.6
CPCT				*e*pP	pP	17 08 29.8	-0.8
SWET	Sewanee	52.21	347	*e*P	P	17 08 13.9	-1.5
SWET				*e*pP	pP	17 08 29.4	-1.6
JCT	Junction City	52.55	332	P	P	17 08 15.5	-2.5
	5.7nm,0.8s,mb4.5						
JCT				*e*pP	pP	17 08 31.8	-1.8
LTX	Lajitas	53.50	327	*e*P	P	17 08 24.8	-0.3
	4.9nm,0.8s,mb4.5						
LTX				*e*pP	pP	17 08 40.4	-0.3
LTX				*e*sP	sP	17 08 48.1	+0.7
TXAR	Lajitas Array	53.50	327	P	P	17 08 25.1	+0.1
	0.8nm,0.5s,mb3.9,baz=152,slow=8.8,SNR=12						
TXAR				pP	pP	17 08 40.8	+0.1
	7.2nm,0.9s,baz=148,slow=8.7,SNR=23						
MIAR	Mount Ida	53.66	340	*e*P	P	17 08 25.7	-0.4
	8.0nm,0.9s,mb4.7						
MIAR				*e*pP	pP	17 08 39.3	-2.4
WMOK	Wichita Mounta	55.76	335	*e*P	P	17 08 41.2	-0.1
WMOK				*e*pP	pP	17 08 56.3	-0.7
MNTX	Cornudas Mount	56.28	328	*e*P	P	17 08 43.7	-1.3
	9.3nm,1.0s,mb4.8						
MNTX				*e*pP	pP	17 08 59.6	-1.2
MNTX				*e*sP	sP	17 09 06.5	-1.0
ACSO	Alum Creek Sta	56.58	352	P	P	17 08 45.3	-1.7
	19nm,1.0s,mb5.1						
ACSO				pP	pP	17 09 01.7	-1.1
RKT	Rikitea	57.76	253	*e*T		18 11 00.1	
	22nm,0.3s						
BNM	Barren Site	58.86	328	*e*P	P	17 09 01.0	-2.2
BNM				*e*pP	pP	17 09 19.4	+0.4
LPM	Los Pinos Moun	58.99	328	P	P	17 09 06.4	+2.4
LPM				*e*pP	pP	17 09 20.6	+0.8
LAZ	Ladron	59.31	328	P	P	17 09 13.1	+6.8
LAZ				*e*pP	pP	17 09 23.1	+0.9
LAZ				*e*sP	sP	17 09 28.2	-0.6
ANMO	Albuquerque	59.41	329	*e*pP	pP	17 09 21.2	-1.6
	12nm,1.1s						
TUC	Tucson	59.68	324	P	P	17 09 11.7	+2.8
	6.8nm,1.0s,mb4.6						
TUC				*e*pP	pP	17 09 24.1	-0.6
TUC				*e*sP	sP	17 09 30.9	-0.5
CBKS	Cedar Bluff	59.68	337	P	P	17 09 07.8	-1.0
	22nm,0.8s,mb5.2						
CBKS				*e*pP	pP	17 09 21.7	-3.0
116A	Eloy	60.39	323	⇑P	pP	17 09 30.6	+0.9
	baz=61						
115A	Sonoran Desert	60.79	323	⇑P	pP	17 09 33.6	+1.2
	baz=62						
SDCO	Great Sand Dun	61.20	332	*e*P	P	17 09 19.6	+0.5
	29nm,0.9s,mb5.4						
SDCO				*e*pP	pP	17 09 35.5	+0.4
SDCO				*e*sP	sP	17 09 42.9	+1.1
Z14A	Wintersburg	61.69	323	⇑P	pP	17 09 39.3	+0.9
	baz=62						
X15A	Humboldt	62.10	324	⇑P	pP	17 09 42.3	+1.0
	baz=63,SNR=6.7						
Y14A	Wickenburg	62.14	324	⇑P	pP	17 09 42.3	+0.8
	baz=63,SNR=6.0						
MVCO	Mesa Verde	62.20	329	*e*pP	pP	17 09 40.0	-1.9
	8.9nm,1.0s						
MVCO	Mesa Verde	62.20	329	⇓P	pP	17 09 42.4	+0.5
	baz=63						
WUAZ	Wupatki	62.39	326	P	P	17 09 31.2	+4.1
	16nm,1.0s,mb5.1						
WUAZ				*e*pP	pP	17 09 43.9	+0.8
WUAZ				*e*PcP	PcP	17 10 03.4	-2.9
WUAZ	Wupatki	62.39	326	⇓P	pP	17 09 44.2	+1.0
	baz=63						
X14A	Yava	62.46	324	⇓P	pP	17 09 44.6	+0.9
	baz=63,SNR=8.0						
Y13A	Salome	62.52	323	⇓P	pP	17 09 45.1	+1.0
	baz=63						
GLA	Glamis	62.57	322	⇓P	pP	17 09 46.0	+1.6
	baz=63						
W15A	Williams	62.63	325	⇑P	pP	17 09 45.9	+1.1
	baz=63						
Y12C	Blythe	62.88	322	⇑P	pP	17 09 47.2	+0.7
	baz=64						
PV01	Paradox Valley	62.96	330	P	P	17 09 33.4	+2.5
PV01				*e*pP	pP	17 09 47.5	+0.6
PDMCI	Parker Dam,Lak	63.05	323	⇓P	pP	17 09 47.9	+0.3
	baz=64						
DVTC	Desert V Tower	63.07	320	⇓P	pP	17 09 49.2	+1.4
	baz=64						
SWSC	Sam W. Stewart	63.08	321	⇓P	pP	17 09 48.8	+1.0
	baz=64						
X13A	Yucca	63.08	323	⇑P	pP	17 09 48.4	+0.6
	baz=64						
W14A	Seligman	63.11	324	⇓P	pP	17 09 48.7	+0.8
	baz=64						
BC3	Big Chuckw Mtn	63.37	322	⇑P	pP	17 09 50.5	+0.8
	baz=64						
PV10	Paradox Valley	63.38	330	*e*P	P	17 09 28.7	-4.9
PV10				*e*pP	pP	17 09 48.7	-1.0
PV10				*e*sP	sP	17 09 54.8	-1.6
MONP	Monument Peak	63.42	320	⇓P	pP	17 09 51.4	+1.3
	baz=64						
W13A	Hualapai Mount	63.48	324	⇑P	pP	17 09 50.6	+0.1
	baz=64						
IRM	Iron Mountain	63.54	322	P	pP	17 09 51.4	+0.5
	baz=64,SNR=8.8						
PFO	Pinyon Flat Ob	63.94	321	P	P	17 09 42.6	+5.2
	15nm,1.0s,mb5.0						
PFO				*e*	pP	17 10 01.5	+8.0
PFO	Pinyon Flat Ob	63.94	321	P	pP	17 09 54.6	+1.1
	baz=65,SNR=5.8						
T15A	Red Dirt Ranch	64.05	326	⇓P	pP	17 09 55.2	+1.0
	baz=65						
GMRC	Granite Mounta	64.28	322	⇓P	pP	17 09 56.6	+0.9
	baz=65						
T14A	Hurricane	64.46	326	⇑P	pP	17 09 58.1	+1.2
	baz=65						
V12A	Nelson	64.47	324	⇓P	pP	17 09 57.5	+0.5
	baz=65						
U12A	Valley of Fire	64.80	324	⇑P	pP	17 10 00.2	+1.0
	baz=66						
CCUT	Cedar City	64.97	326	P	P	17 09 45.3	+1.2
CCUT				*e*pP	pP	17 10 01.5	+1.3
MSU	Marysvale	65.06	327	P	P	17 09 45.3	+0.6
MSU				*e*pP	pP	17 10 01.5	+0.7
MSU				*e*sP	sP	17 10 08.2	+0.7
S13A	Holt Ranch, En	65.26	326	⇑P	pP	17 10 03.3	+1.2
	baz=66						
GSC	Goldstone	65.31	322	⇑P	pP	17 10 03.7	+1.2
	baz=66						
EYMN	Ely	65.58	347	*e*P	P	17 09 46.8	-1.0
	12nm,1.1s,mb4.9						
EYMN				*e*pP	pP	17 10 02.4	-1.5
EDW2	Edwards Air Fo	65.73	321	⇑P	pP	17 10 06.2	+1.0
	baz=66						
T11A	Corn Creek, Al	65.76	325	⇑P	pP	17 10 06.3	+1.0
	baz=67						
LRMC	Laurel Mountai	65.96	322	⇓P	pP	17 10 07.6	+0.9
	baz=67						
FURC	Furnace Creek,	66.15	323	⇓P	pP	17 10 09.1	+1.2
	baz=67						
BSC	Santa Cruz Isl	66.16	319	⇓P	pP	17 10 09.5	+1.5
	baz=67						
R12A	Pony Springs,	66.21	326	⇓P	pP	17 10 09.9	+1.6
	baz=67,SNR=12						
MPMC	Manual Prospec	66.24	322	⇓P	pP	17 10 09.1	+0.6
	baz=67						
ISA	Isabella	66.55	321	⇓P	pP	17 10 11.6	+1.2
	baz=67						
DUG	Dugway	66.65	328	*e*P	P	17 09 55.6	+0.7
	21nm,1.0s,mb5.1						
DUG				*e*pP	pP	17 10 11.7	+0.7
DUG				*e*		17 10 29.1	
DUG	Dugway	66.65	328	⇓P	pP	17 10 12.0	+1.0
	baz=68						
GRAC	Grapevine Rang	66.81	323	⇓P	pP	17 10 13.4	+1.2
	baz=68						
PKM	Peak Mountain	66.86	320	⇓P	pP	17 10 13.7	+1.2
	baz=68						
AGMN	Agassiz Refuge	66.96	344	*e*P	P	17 09 56.5	-0.1
	5.3nm,0.3s,mb5.0						
AGMN				*e*pP	pP	17 10 11.9	-0.9
AGMN				*e*sP	sP	17 10 18.9	-0.4
S10A	Tonopah Range,	67.02	324	⇑P	pP	17 10 14.6	+1.2
	baz=68,SNR=8.3						
VES	Vestal, Richgr	67.04	321	⇓P	pP	17 10 14.8	+1.3
	baz=68						
PDAR	Pinedale Array	67.08	332	P	P	17 09 59.1	+1.6
	0.3nm,0.7s,baz=238,slow=2.8,SNR=3.5						
PDAR				pP	pP	17 10 13.6	-0.1
	0.8nm,0.8s,baz=128,slow=9.7,SNR=5.0						
PDAR				LR	LR	17 38 55.9	
	comp=Z,63nm,18.6s,MS3.9,baz=335,slow=36						
HWUT	Hardware Ranch	67.11	330	P	P	17 09 57.5	-0.2
	15nm,1.1s,mb4.9						
HWUT				*e*pP	pP	17 10 13.8	-0.1
R10A	Warm Springs	67.11	325	⇓P	pP	17 10 15.8	+1.8
	baz=68,SNR=5.2						
Q11A	Duckwater	67.15	326	P	pP	17 10 15.7	+1.5
	baz=68,SNR=12						
P12A	McGill	67.20	326	⇑P	pP	17 10 15.9	+1.4
	baz=68,SNR=7.5						
S09A	Goldfield	67.23	324	⇑P	pP	17 10 15.8	+1.0
	baz=68,SNR=7.4						
SMMC	Simmler	67.25	320	⇓P	pP	17 10 16.7	+1.8
	baz=68						
M15A	Larsen Ranch,	67.42	329	⇑P	pP	17 10 16.2	+0.3
	baz=68						
R09A	Tonopah	67.51	324	⇑P	pP	17 10 17.6	+1.1
	baz=68,SNR=6.6						
HELL	Mitchell Peak,	67.56	322	⇑P	pP	17 10 17.6	+0.7
	baz=68,SNR=6.3						
S08C	White Mtn Res	67.62	323	⇑P	pP	17 10 18.7	+1.5
	baz=68						
MTUM	Tungsten Hills	67.75	323	*e*P	P	17 09 57.5	-4.4
MTUM				*e*pP	pP	17 10 19.2	+1.1
HVU	Hansel Valley	67.83	329	*e*P	P	17 09 59.8	-2.5
	2.7nm,0.6s,mb4.5						
HVU				*e*pP	pP	17 10 13.9	-4.5
N13A	Wendover, West	67.85	328	⇓P	pP	17 10 18.4	-0.2
	baz=69						
M14A	Sheep Mountain	67.90	329	⇓P	pP	17 10 19.2	+0.3
	baz=69,SNR=9.5						
O11A	Cowboy Ranch,	68.08	327	⇑P	pP	17 10 21.0	+0.9
	baz=69						
M13A	Montello	68.20	328	⇑P	pP	17 10 21.2	+0.3
	baz=69						
NVAR	Mina Array Bea	68.33	324	pP	pP	17 10 22.9	+1.1
	3.3nm,1.0s,baz=131,slow=6.1,SNR=8.4						
U04C	Hernandez Rese	68.41	321	⇑P	pP	17 10 23.4	+1.1
	baz=69						
Q08A	Gabbs	68.42	324	⇓P	pP	17 10 22.9	+0.6
	baz=69						
R07C	Lee Vining	68.53	323	⇑P	pP	17 10 23.6	+0.6
	baz=69						
M12A	Wells	68.62	328	⇑P	pP	17 10 23.6	+0.1
	baz=69						
L13A	Double Diamond	68.63	329	⇑P	pP	17 10 24.4	+0.9
	baz=69						
O10A	Cortez Mining,	68.64	326	⇑P	pP	17 10 24.8	+1.2
	baz=69						
T05C	Eagle Field, D	68.70	321	⇓P	pP	17 10 25.4	+1.3
	baz=70						
ULM	Lac du Bonnet	68.76	345	*e*P	P	17 10 06.7	-1.3
	23nm,1.2s,mb5.0						
ULM				*e*pP	pP	17 10 23.0	-1.1
ULM				pP	pP	17 10 23.4	-0.7
ULM				*e*sP	sP	17 10 29.7	-1.0
ULM	Lac du Bonnet	68.76	345	P	P	17 10 07.3	-0.6
	2.1nm,0.7s,mb4.2,baz=203,slow=0.9,SNR=4.0						
ULM				pP	pP	17 10 23.4	-0.7
	8.9nm,0.8s,baz=152,slow=6.3,SNR=9.9						
S05C	Merced	68.79	322	⇓P	pP	17 10 26.7	+2.0
	baz=70						
S06C	San Francisco	68.86	322	⇑P	pP	17 10 26.1	+1.0
	baz=70,SNR=7.1						
O09A	Fish Creek Ran	68.93	326	⇑P	pP	17 10 26.4	+1.0
	baz=70						
R06C	Coleville	69.06	323	⇑P	pP	17 10 27.8	+1.6
	baz=70						
P08A	Dixie Valley	69.08	325	⇓P	pP	17 10 28.6	+2.2
	baz=70						
M11A	Holland Ranch,	69.09	327	⇓P	pP	17 10 27.3	+1.0
	baz=70,SNR=6.4						
PACP	Pacheco Peak	69.14	321	⇓P	pP	17 10 28.8	+2.0
	baz=70						
L12A	House Creek Ra	69.21	328	⇓P	pP	17 10 28.1	+1.0
	baz=70						
CMB	Columbia Colle	69.28	322	⇑P	pP	17 10 28.9	+1.2
	baz=70						
K12A	Draper Farm, C	69.52	329	⇑P	pP	17 10 30.1	+1.1
	baz=70,SNR=6.2						
R05C	Kirkwood Meado	69.54	323	⇑P	pP	17 10 30.6	+1.3
	baz=70						
N09A	Rock Creek Ran	69.59	326	⇓P	pP	17 10 31.9	+2.4
	baz=70						
L11A	Cat Creek Ranc	69.60	328	⇓P	pP	17 10 30.6	+1.1
	baz=70,SNR=6.1						
J13A	Cove Ranch, Pi	69.72	330	⇑P	pP	17 10 31.0	+0.7
	baz=70						
WCN	Washoe City	69.76	324	⇑P	pP	17 10 32.0	+1.4
	baz=70						
O07A	Toulon	69.85	325	⇑P	pP	17 10 32.6	+1.5
	baz=71,SNR=5.1						
N08A	GE Springer Mi	69.87	326	⇓P	pP	17 10 32.5	+1.3
	baz=71						
L10A	Juniper Basin	69.90	327	⇑P	pP	17 10 32.4	+1.0
	baz=71,SNR=5.4						
M09A	Marrel Ranch,	69.95	326	⇑P	pP	17 10 33.3	+1.6
	baz=71						
HLID	Hailey	69.96	330	P	P	17 10 16.7	+1.2
	3.4nm,0.9s,mb4.3						
HLID				*e*pP	pP	17 10 32.1	+0.3
HLID	Hailey	69.96	330	⇑P	pP	17 10 32.7	+0.9
	baz=71						
LAVA	Lava Cap Winer	69.96	323	⇓P	pP	17 10 32.6	+0.7
	baz=71						
J12A	Stokes Ranch,	70.06	329	⇓P	pP	17 10 33.1	+0.7
	baz=71						
I13A	Wildhorse Cree	70.08	330	⇑P	pP	17 10 33.0	+0.5
	baz=71						
K11A	Parker Ranch,	70.18	328	⇑P	pP	17 10 34.3	+1.2
	baz=71						
P05C	Yuba Gap, Truc	70.25	323	⇑P	pP	17 10 35.1	+1.5
	baz=71						
G15A	Dillon	70.27	332	⇓P	pP	17 10 34.0	+0.4
	baz=71						
N07B	Gerlach	70.33	325	⇓P	pP	17 10 34.6	+0.5
	baz=71						
O06A	Flanigan	70.38	324	⇑P	pP	17 10 34.9	+0.5
	baz=71						
Q04C	Lincoln	70.39	322	⇓P	pP	17 10 36.2	+1.6
	baz=71						
BEKR	Beckwourth	70.48	324	⇓P	pP	17 10 36.3	+1.2
	baz=71,SNR=6.2						
MFID	Camas Ranch	70.55	329	⇑P	pP	17 10 36.4	+1.1
	baz=71,SNR=6.4						
K10A	MacKenzie Ranc	70.61	328	⇑P	pP	17 10 36.6	+0.8
	baz=71						
H13A	Challis	70.63	331	⇓P	pP	17 10 36.3	+0.5
	baz=71						
Q03C	Winters	70.64	322	⇓P	pP	17 10 37.9	+1.9
	baz=71						
SCHQ	Schefferville	70.78	4	LR	LR	17 39 52.3	
	comp=Z,87nm,18.0s,MS4.1,baz=160,slow=34						
N06A	Buffalo Meadow	70.78	325	⇑P	pP	17 10 37.8	+0.9
	baz=72,SNR=10						
F15A	Butte	70.80	332	⇑P	pP	17 10 37.4	+0.5
	baz=72						
M07A	Soldier Meadow	70.85	325	⇓P	pP	17 10 38.3	+1.0

	baz=72						
O05C	Quincy	70.87	323	⇓P	pP	17 10 39.1	+1.7
	baz=72						
H12A	Diamond D Ranc	70.91	330	⇓P	pP	17 10 38.5	+0.9
	baz=72						
ORV	Oroville	70.93	323	⇓P	pP	17 10 39.0	+1.2
	baz=72,SNR=8.7						
L08A	Fields	70.97	327	⇑P	pP	17 10 39.0	+1.0
	baz=72						
I11A	Placerville	70.97	329	⇓P	pP	17 10 38.5	+0.5
	baz=72						
K09A	Rome	71.00	327	⇓P	pP	17 10 39.1	+1.0
	baz=72,SNR=8.6						
G13A	Cobalt	71.02	331	⇑P	pP	17 10 38.9	+0.7
	baz=72						
ELFS	Eagle Lake Fie	71.20	324	⇓P	pP	17 10 40.7	+1.3
	baz=72,SNR=6.1						
O04C	Chester	71.20	324	⇓P	pP	17 10 40.4	+1.0
	baz=72						
L07A	Adell	71.38	326	⇓P	pP	17 10 41.4	+0.9
	baz=72						
M06C	Likely Place G	71.45	325	⇓P	pP	17 10 41.9	+1.0
	baz=72						
J09A	Fry Pan Ranch,	71.47	328	⇓P	pP	17 10 42.4	+1.4
	baz=72						
I10A	Payette	71.52	329	⇑P	pP	17 10 42.1	+0.8
	baz=72						
F13A	Darby	71.59	331	⇑P	pP	17 10 42.3	+0.7
	baz=72						
GASB	Alder Springs	71.71	322	⇑P	pP	17 10 44.6	+2.1
	baz=72						
K07A	Rock Creek Ran	71.79	326	⇓P	pP	17 10 42.9	-0.1
	baz=73						
MOD	Modoc	71.82	325	P	P	17 10 27.3	+0.5
	8.1nm,1.4s,mb4.5						
MOD				*e*pP	pP	17 10 43.6	+0.5
MOD	Modoc	71.82	325	⇑P	pP	17 10 44.2	+1.0
	baz=73,SNR=5.1						
M05C	Lookout	71.93	324	⇓P	pP	17 10 44.8	+1.0
	baz=73						
F12A	Elk City	71.99	331	⇑P	pP	17 10 44.8	+0.7
	baz=73						
O02C	Red Bluff	72.09	323	⇓P	pP	17 10 45.5	+0.7
	baz=73						
PPT	Papeete	72.11	256	*e*LR	LR	17 32 33.0	
	78nm,25.5s						
PPT	Papeete	72.11	256	LR	LR	17 32 44.6	
	comp=Z,59nm,21.5s,MS3.8,baz=181,slow=28						
G11A	Walters Elk Ra	72.21	330	⇓P	pP	17 10 45.9	+0.5
	baz=73						
L05A	Lakeview	72.21	325	⇓P	pP	17 10 47.3	+1.8
	baz=73						
K06A	Valley Falls	72.41	326	⇑P	pP	17 10 47.9	+1.3
	baz=73,SNR=7.6						
M03C	McCloud	72.42	324	⇓P	pP	17 10 47.0	+0.2
	baz=73						
F11A	Grangeville	72.52	330	⇑P	pP	17 10 47.6	+0.4
	baz=73						
M04C	Macdoel	72.60	324	⇓P	pP	17 10 48.7	+0.9
	baz=73						
J06A	Christmas Vall	72.66	326	⇓P	pP	17 10 48.9	+0.7
	baz=74,SNR=8.1						
K05A	Summer Lake	72.70	326	⇑P	pP	17 10 49.8	+1.4
	baz=74						
H08A	Prairie City	72.77	328	⇓P	pP	17 10 50.0	+1.2
	baz=74						
G09A	Cove	72.86	329	⇑P	pP	17 10 50.3	+1.1
	baz=74						
L04A	Klamath Falls	72.88	325	⇑P	pP	17 10 50.7	+1.2
	baz=74						
E11A	Bogner Ranch,	72.89	331	⇓P	pP	17 10 49.5	0.0
	baz=74						
I07A	Izee	72.89	327	⇓P	pP	17 10 50.8	+1.3
	baz=74						
YBH	Yreka Blue Hor	73.05	324	⇓P	pP	17 10 50.5	-0.1
	baz=74						
C13A	Hot Springs	73.12	333	⇓P	pP	17 10 51.7	+0.9
	baz=74						
I06A	Prineville	73.17	327	⇑P	pP	17 10 52.5	+1.4
	baz=74,SNR=5.6						
J05A	Fort Rock	73.27	326	⇑P	pP	17 10 51.9	+0.1
	baz=74						
H07A	Lands Inn, Kim	73.28	328	⇓P	pP	17 10 52.4	+0.6
	baz=74						
G08A	Pilot Rock	73.46	329	⇓P	pP	17 10 53.7	+0.9
	baz=74						
J04A	Umpqua Nationa	73.71	325	⇓P	pP	17 10 55.6	+1.2
	baz=74						
H06A	Lindquist Farm	73.77	327	⇓P	pP	17 10 56.1	+1.4
	baz=75						
G07A	Ruggs Ranch, H	73.80	328	⇓P	pP	17 10 56.1	+1.2
	baz=75						
D10A	Wagner Farm, O	73.90	331	⇑P	pP	17 10 55.9	+0.5
	baz=75						
E09A	Wood Farm, Sta	73.92	330	⇓P	pP	17 10 56.6	+1.0
	baz=75						
A13A	Flathead Natio	74.00	333	⇑P	pP	17 10 56.7	+0.7
	baz=75						
K02A	Glendale	74.17	324	⇓P	pP	17 10 57.7	+0.6
	baz=75						
QSPA	South Pole Qui	74.17	180	*e*P	P	17 10 41.3	+1.1
	17nm,0.9s,mb5.0						
QSPA				*e*pP	pP	17 10 57.1	+0.5
E08A	Dider Farm, El	74.35	329	⇓P	pP	17 10 59.0	+1.0
	baz=75						
D09A	Jones Farm, Ri	74.39	330	⇑P	pP	17 10 58.9	+0.6
	baz=75						
NEW	Newport	74.71	332	LR	LR	17 43 28.6	
	comp=Z,144nm,20.4s,MS4.3,baz=342,slow=36						
G04A	Mulino	75.21	327	⇓P	pP	17 11 04.5	+1.4
	baz=76						
C08A	Higginbotham F	75.26	330	⇑P	pP	17 11 05.2	+1.9
	baz=76						
D07A	Quincy	75.29	329	⇑P	pP	17 11 04.8	+1.3
	baz=76						
A10A	Northport	75.43	332	⇑P	pP	17 11 04.8	+0.6
	baz=76						
F04A	Amboy	75.67	327	⇓P	pP	17 11 07.0	+1.3
	baz=76						
C07A	Waterville	75.68	330	⇓P	pP	17 11 07.1	+1.3
	baz=76						
A08A	Turner Farm, O	76.19	331	⇑P	pP	17 11 09.5	+0.8
	baz=77						
B07A	Winthrop	76.25	330	⇑P	pP	17 11 08.9	0.0
	baz=77						
D05A	Enumclaw	76.29	328	⇓P	pP	17 11 10.5	+1.3
	baz=77						
FCC	Fort Churchill	76.32	349	*e*pP	pP	17 11 08.4	-0.7
A07A	Ashnola River,	76.78	331	⇑P	pP	17 11 13.1	+1.2
	baz=78						
EDM	Edmonton	76.87	337	P	P	17 10 55.6	-0.3
EDM				*e*pP	pP	17 11 11.8	-0.5
EDM				*e*sP	sP	17 11 18.8	-0.2
TOA0	Torodi Ar. Sit	80.03	73	*e*P	P	17 11 13.9	-0.3
TOA0				*e*pP	pP	17 11 30.8	0.0
TORD	Torodi Ar. Bea	80.03	73	P	P	17 11 14.4	+0.2
	11nm,0.8s,mb4.8,baz=259,slow=4.4,SNR=30						
TORD				pP	pP	17 11 31.2	+0.4
	8.1nm,0.7s,baz=250,slow=5.4,SNR=12						
TORD				LR	LR	17 45 50.0	
	comp=Z,73nm,18.4s,MS4.1,baz=330,slow=35						
VNDA	Vanda	81.43	190	LR	LR	17 46 12.5	
	comp=Z,181nm,18.1s,MS4.5,baz=281,slow=35						
YKA	Yellowknife Ar	84.52	342	P	P	17 11 36.6	0.0
YKA				pP	pP	17 11 52.7	-0.6
YKA	Yellowknife Ar	84.52	342	P	P	17 11 36.6	0.0
	1.4nm,0.7s,mb4.2,baz=138,slow=5.0,SNR=26						
YKA				pP	pP	17 11 52.7	-0.6
	4.3nm,0.8s,baz=138,slow=5.1,SNR=14						
ESDC	Sonseca Array	85.29	47	pP	pP	17 12 00.3	+2.6
	2.1nm,0.8s,baz=257,slow=5.6,SNR=3.5						
BOSA	Boshof	90.14	120	LR	LR	17 49 52.7	
	comp=Z,121nm,20.3s,MS4.3,baz=252,slow=34						
MAW	Mawson	90.87	165	*e*P	P	17 12 04.2	-3.1
	15nm,1.1s,mb5.2						
MAW	Mawson	90.87	165	LR	LR	17 50 21.9	
	comp=Z,188nm,18.0s,MS4.6,baz=67,slow=34						
KEST	Kesra	93.75	54	LR	LR	17 56 40.7	
	comp=Z,27nm,20.3s,MS3.7,baz=252,slow=37						
INK	Inuvik	94.24	341	LR	LR	17 54 40.9	
	comp=Z,88nm,19.8s,MS4.2,baz=84,slow=35						
STKA	Stephens Creek	121.56	215	PKP	PKPdf	17 17 56.7	-1.2
STKA				pPKP	pPKPdf	17 18 14.5	-0.9
STKA	Stephens Creek	121.56	215	PKP	PKPdf	17 17 56.7	-1.2
	1.0nm,0.7s,baz=194,slow=12,SNR=3.2						
STKA				pPKP	pPKPdf	17 18 14.5	-0.9
	1.0nm,0.6s,baz=278,slow=6.9,SNR=2.1						
ASAR	Alice Springs	132.20	215	PKP	PKPdf	17 18 18.3	-0.2
ASAR				pPKP	pPKPdf	17 18 35.8	-0.1
ASAR	Alice Springs	132.20	215	PKP	PKPdf	17 18 18.3	-0.2
	1.6nm,0.9s,baz=126,slow=2.1,SNR=15						
ASAR				pPKP	pPKPdf	17 18 35.8	-0.1
	0.9nm,0.6s,baz=124,slow=1.8,SNR=4.9						
WRA	Warramunga Arr	134.85	219	PKP	PKPdf	17 18 23.7	+0.2
WRA				pPKP	pPKPdf	17 18 41.0	0.0
WRA	Warramunga Arr	134.85	219	PKP	PKPdf	17 18 23.7	+0.2
	2.8nm,0.8s,baz=141,slow=1.9,SNR=36						
WRA				pPKP	pPKPdf	17 18 41.0	0.0
	1.5nm,0.5s,baz=142,slow=1.8,SNR=7.4						
ZALV	Zalesovo Beam	138.60	19	PKP	PKPdf	17 18 29.0	-0.4
ZALV				pPKP	pPKPdf	17 18 47.4	+0.6
ZALV	Zalesovo Beam	138.60	19	PKP	PKPdf	17 18 29.0	-0.4
	1.8nm,0.9s,baz=300,slow=2.9,SNR=8.1						
ZALV				pPKP	pPKPdf	17 18 47.4	+0.6
	5.5nm,0.9s,baz=318,slow=2.0,SNR=10						
UCH	Uchtor	142.28	40	PKPdf	PKPdf	17 18 38.3	+1.9
MK31	Makanchi Array	143.41	28	*e*PKPdf	PKPdf	17 18 36.0	-2.3
MK31				*e*pPKPdf	pPKPdf	17 18 50.9	-4.8
MKAR	Makanchi Array	143.41	28	PKP	PKPdf	17 18 37.0	-1.3
MKAR				pPKP	pPKPdf	17 18 53.8	-1.9
MKAR	Makanchi Array	143.41	28	PKP	PKPdf	17 18 37.0	-1.3
	0.5nm,0.8s,baz=324,slow=2.8,SNR=7.7						
MKAR				pPKP	pPKPdf	17 18 53.8	-1.9
	1.6nm,0.8s,baz=336,slow=2.7,SNR=13						
MJAR	Matsushiro Arr	145.01	312	PKP	PKPdf	17 18 40.7	-0.7
MJAR				pPKP	pPKPdf	17 18 58.1	-0.8
MJAR	Matsushiro Arr	145.01	312	PKP	PKPdf	17 18 40.7	-0.7
	2.1nm,0.7s,baz=114,slow=3.7,SNR=5.4						
MJAR				pPKP	pPKPdf	17 18 58.1	-0.8
	1.9nm,0.8s,baz=106,slow=2.2,SNR=3.0						
HIA	Hailar	145.02	345	*e*PKPdf	PKPdf	17 18 40.2	-0.8
HIA				*e*pPKPdf	pPKPdf	17 18 56.9	-1.6
ULN	Ulaanbaatar	148.20	359	*e*PKPbc	PKPbc	17 18 50.7	+0.9
ULN				*e*pPKPdf	pPKPdf	17 19 05.8	+1.9
SONM	Songino Array	148.24	360	PKPbc	PKPbc	17 18 51.0	+1.2
SONM				pPKPbc	pPKPbc	17 19 07.3	+0.1
SONM	Songino Array	148.24	360	PKPbc	PKPbc	17 18 51.0	+1.2
	1.8nm,0.9s,baz=337,slow=2.4,SNR=12						
SONM				pPKPbc	pPKPbc	17 19 07.3	+0.1
	2.0nm,0.6s,baz=337,slow=1.6,SNR=20						
KSRS	Korea Array	151.27	322	PKPbc	PKPbc	17 18 58.5	+0.8
	2.3nm,0.9s,baz=78,slow=2.1,SNR=7.3						
KSRS				PKPab	PKPab	17 19 03.6	-2.1
	2.2nm,0.9s,baz=335,slow=0.4,SNR=6.2						
KSRS				pPKPbc	pPKPbc	17 19 14.7	-0.3
	6.4nm,0.9s,baz=273,slow=0.8,SNR=10						
HHC	Hu-ho-hao-te	154.79	350	*e*PKP	PKPdf	17 18 58.8	+2.2
HHC				PKS		17 22 32.3	
HHC				PP	PP	17 23 03.9	+8.8
HHC				PP	PP		
	comp=Z,118nm,5.6s						
HHC				LR	LR		
	comp=N,140nm,54.1s,MS4.8						
HHC				LR	LR		
	comp=E,371nm,50.3s,MS4.8						
HHC				LR	LR		
	comp=Z,124nm,50.3s,MS4.3						
LZH	Lanzhou	159.87	6	*e*PKP	PKPdf	17 19 09.9	+6.7
LZH				PP	PP		
	comp=Z,110nm,5.0s						
LZH				LR	LR		
	comp=E,169nm,18.9s						
LZH				LR	LR		
	comp=Z,275nm,19.8s,MS5.1						
LZH	Lanzhou	159.87	6	*e*PKP	PKPdf	17 19 09.9	+6.7
LZH				pPKP	pPKPdf	17 19 13.1	-7.6
LZH				sPKP		17 19 16.0	

*NEIC **16** 17:32:06.7, 14.86N×94.52W, h38^{km}, MD4.0(MEX), After MEX.*

MEX 16 17:32:04.9±0.4, **14.72N×94.55W, h20**^{km}±15^{km}**, MD4.0, Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	2.38	352	*i* P	Pn	17 32 40.2	-2.6
CMIG				*i* S	Sn	17 33 05.4	-5.9
CMIG	Matias Romero	2.38	352	*i* P	Pn	17 32 40.2	-2.6
CMIG				*i* S	Sn	17 33 07.8	-3.5
SCX	San Cristobal	2.73	42	*i* P	Pn	17 32 45.0	-2.5
SCX				*i* S	Sn	17 33 16.0	-3.9
CCIG	Comitan	2.80	56	*i* P	Pn	17 32 46.4	-2.1
CCIG				*i* S	Sn	17 33 16.8	-4.9
CCIG	Comitan	2.80	56	*i* P	Pn	17 32 46.4	-2.1
CCIG				*i* S	Sn	17 33 19.4	-2.4
OXX	Oaxaca	3.14	319	*i* P	Pn	17 32 49.0	-4.3
OXX				*i* S	Sn	17 33 28.0	-2.2
VHO	Vista Hermosa	3.14	318	*e*P	Pn	17 32 50.9	-2.3
VHO				*i* S	Sn	17 33 26.5	-3.7
VHO	Vista Hermosa	3.14	318	*e*P	Pn	17 32 50.9	-2.3
VHO				*i* S	Sn	17 33 27.3	-2.8

*ISCJB **16** 17:40:31.3±1.1, 23.69S±0.07×179.80W±0.09, h465^{km}±15^{km}, mb4.1/11, Error ellipse: s-maj=14.8km s-min=9.2km az=34.2*

*NEIC **16** 17:40:32.8±0.8, 23.72S×179.79W, h472^{km}±11^{km}, mb4.4/9, Error ellipse: s-maj=13.1km s-min=9.0km az=151.0*

*IDC **16** 17:40:33.4±1.9, 23.71S×179.78W, h474^{km}±20^{km}, mb3.6/6, mb1 3.9/8, mb1mx3.6/14, mbtmp3.6/8, Error ellipse: s-maj=37.1km s-min=14.7km az=150.0*

ISC 16 17:40:32.7±1.1, **23.77S**±0.09×**179.8W**±0.1**, h468**^{km}±15^{km}**, n25, σ0.89**/22**, mb4.1**/11**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	5.71	163	*e*P	P	17 42 05.3	+0.7
AFI	Afiamalu	12.40	39	P	P	17 43 14.9	-0.8
	0.8nm,0.3s,baz=77,slow=22,SNR=3.0						
AFI				S	S	17 45 25.7	-4.6
	2.9nm,0.3s,baz=204,slow=23,SNR=3.7						
DZM	Mont Dzumac	12.80	275	P	P	17 43 24.8	+4.8
	0.3nm,0.3s,baz=194,slow=19,SNR=4.2						
URZ	Urewera	14.68	190	P	P	17 43 40.6	+0.7
	5.0nm,0.3s,baz=40,slow=3.1,SNR=16						
URZ				S	S	17 46 12.7	-1.9
	1.1nm,0.3s,baz=58,slow=22,SNR=8.4						
HNR	Honiara	24.04	303	P	P	17 45 08.6	-1.2
	22nm,0.8s,mb4.6						
CTAO	Charters Tower	31.67	270	*e*P	P	17 46 18.0	+1.5
	22nm,0.5s,mb4.8						
PMG	Port Moresby	34.63	289	*e*P	P	17 46 43.3	+1.5
	18nm,0.8s,mb4.6						
STKA	Stephens Creek	34.95	248	*e*P	P	17 46 44.6	+0.4
STKA	Stephens Creek	34.95	248	P	P	17 46 45.0	+0.7
	2.7nm,0.5s,mb3.9,baz=88,slow=8.6,SNR=16						
ASAR	Alice Springs	42.24	260	P	P	17 47 44.2	+0.3
	8.6nm,0.7s,mb4.3,baz=98,slow=7.3,SNR=218						
ASAR				ScP	ScP	17 52 30.6	-2.5
	0.8nm,0.9s,baz=103,slow=5.3,SNR=4.7						
WB2	Warramunga Arr	42.60	266	*e*P	P	17 47 46.1	-0.5
WRA	Warramunga Arr	42.61	266	P	P	17 47 46.8	0.0
	12nm,0.4s,mb4.7,baz=94,slow=8.5,SNR=366						
WRA				ScP	ScP	17 52 32.9	-1.7
	0.8nm,0.9s,baz=104,slow=3.9,SNR=5.3						
KAKA	Kakadu	46.49	275	*e*P	P	17 48 16.4	-0.5
FITZ	Fitzroy Crossi	51.03	265	*e*P	P	17 48 50.7	-0.1
MBWA	Marble Bar	55.58	260	P	P	17 49 22.1	-1.2
	11nm,1.0s,mb4.2						
QSPA	South Pole Qui	66.31	180	*e*P	P	17 50 33.4	+0.2
	1.0nm,0.6s,mb3.6						
KSM	Kuching	72.27	280	*e*P	P	17 51 09.3	-0.9
NVAR	Mina Array Bea	84.53	44	P	P	17 52 15.9	+0.4
	0.6nm,0.7s,mb3.4,baz=210,slow=6.8,SNR=3.8						
TXAR	Lajitas Array	90.20	58	P	P	17 52 43.6	+1.1
	1.1nm,0.7s,mb3.8,baz=221,slow=6.6,SNR=10						
PDAR	Pinedale Array	92.47	44	P	P	17 52 52.7	0.0
	0.3nm,0.6s,mb3.4,baz=256,slow=3.1,SNR=4.6						
ARCES	ARCESS Array B	131.80	348	PKP	PKPdf	17 58 50.5	-0.5
ARCES	ARCESS Array B	131.80	348	PKP	PKPdf	17 58 50.5	-0.5
	1.7nm,0.8s,baz=73,slow=1.6,SNR=3.7						
FINES	FINESS Array B	138.39	342	SKPbc	SKPbc	18 01 49.5	-4.0
	2.1nm,1.0s,baz=58,slow=5.2,SNR=4.9						
AKASG	Malin Array Be	144.97	327	PKP	PKPdf	17 59 14.9	-0.7
AKASG	Malin Array Be	144.97	327	PKP	PKPdf	17 59 14.9	-0.7
	0.3nm,0.3s,baz=41,slow=4.4,SNR=4.9						

IDC 16 17:47:35.3±1.5**, 21.83S×179.80W, h0**^{km}**, mb4.5**/4**, mb1 4.8**/5**, mb1mx4.2**/14**, mbtmp4.6**/5**, ML5.0**/1**, Error ellipse: s-maj=58.5km s-min=29.4km az=157.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	16.59	189	Pn	Pn	17 51 30.1	+0.8
	5.2nm,0.3s,baz=45,slow=4.5,SNR=15						
STKA	Stephens Creek	35.70	245	P	P	17 54 33.9	-1.8
	1.8nm,0.4s,baz=87,slow=8.3,SNR=16						
ASAR	Alice Springs	42.59	258	P	P	17 55 33.7	+0.3
	5.1nm,0.5s,baz=98,slow=7.3,SNR=195						
WRA	Warramunga Arr	42.77	264	P	P	17 55 36.0	+1.1
	11nm,0.3s,baz=95,slow=8.4,SNR=398						
TXAR	Lajitas Array	89.19	58	P	P	18 00 33.3	+0.1
	0.4nm,0.7s,baz=220,slow=6.6,SNR=8.5						

IDC 16 17:59:10.0±2.0**, 1.60N×127.29E, h0**^{km}**, mb3.5**/4**, mb1 3.7**/4**, mb1mx3.4**/16**, mbtmp3.5**/4**, Error ellipse: s-maj=178.9km s-min=22.7km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.50	162	P	P	18 04 10.2	-1.0
	0.6nm,0.4s,baz=342,slow=11,SNR=32						
ASAR	Alice Springs	25.92	166	P	P	18 04 44.5	+0.4
	0.4nm,0.4s,baz=345,slow=11,SNR=24						
STKA	Stephens Creek	35.95	159	P	P	18 06 13.1	+0.7
	1.1nm,0.9s,baz=324,slow=8.7,SNR=3.3						
MKAR	Makanchi Array	59.62	326	P	P	18 09 15.8	0.0
	0.3nm,0.4s,baz=122,slow=6.6,SNR=9.9						

*NEIC **16** 17:59:10.7±1.3, 15.21N×93.75E, h10^{km}, mb4.3/1, Error ellipse: s-maj=30.8km s-min=16.4km az=63.0*

*ISCJB **16** 17:59:11.6±3.6, 15.2N±0.1×93.83E±0.07, h29^{km}±27^{km}, mb3.9/6, Error ellipse: s-maj=18.4km s-min=10.4km az=10.0*

*IDC **16** 17:59:12.1±2.1, 15.42N×94.41E, h0^{km}, mb3.8/5, mb1 4.0/5, mb1mx3.6/21, mbtmp3.8/5, Error ellipse: s-maj=103.3km s-min=19.6km az=67.0*

ISC 16 17:59:13.3±3.6**, 15.2N**±0.1×**93.81E**±0.07**, h25**^{km}±27^{km}**, n16, σ0.62**/17**, mb3.9**/6**, Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDT	Bhumibol Dam	5.40	67	P	Pn	18 00 33.5	+1.1
	20nm,0.8s						
CM31	Chiang Mai Arr	5.91	56	*e*Pn	Pn	18 00 39.1	-0.3
CM31				*e*Sn	Sn	18 01 46.3	0.0
CHG	Chiang Mai	6.11	53	PG	Pn	18 00 41.4	-0.7
CHG				SG		18 00 44.3	
ODAN	Odare	13.08	334	*e*P	Pn	18 02 17.5	-0.1
	24nm,0.6s						
TAPN	Taplejung	13.38	336	*e*P	Pn	18 02 21.7	-0.1
	14nm,0.5s						
JIRN	Jiri	14.31	332	*e*P	Pn	18 02 34.7	+0.4
	4.6nm,0.2s						
LSA	Lhasa	14.67	351	*e*Pn	Pn	18 02 35.8	-3.5
	1.8nm,0.6s						
KKN	Kakani	14.85	329	*e*P	Pn	18 02 42.0	+0.2
	5.1nm,0.5s						
GKN	Gorkha	15.35	328	*e*P	Pn	18 02 48.1	-0.2
	13nm,0.5s						
MKAR	Makanchi Array	32.97	345	P	P	18 05 46.7	+0.7
MKAR	Makanchi Array	32.97	345	P	P	18 05 46.7	+0.7
	0.2nm,0.6s,mb3.2,baz=178,slow=9.7,SNR=3.6						
SONM	Songino Array	34.20	15	P	P	18 05 57.0	+0.2
	0.5nm,0.8s,mb3.5,baz=201,slow=9.5,SNR=7.1						
ZALV	Zalesovo Beam	39.33	352	P	P	18 06 40.9	+0.5
	1.3nm,0.5s,mb4.0,baz=178,slow=7.5,SNR=10						
WRA	Warramunga Arr	52.97	130	P	P	18 08 27.7	-0.3
	1.3nm,0.4s,mb4.2,baz=313,slow=7.9,SNR=25						
WRA				PcP	PcP	18 09 40.4	+3.6
	0.2nm,0.5s,baz=318,slow=3.2,SNR=9.9						
ASAR	Alice Springs	55.01	134	P	P	18 08 43.0	+0.1
	1.0nm,0.7s,mb4.0,baz=310,slow=6.2,SNR=21						
ASAR				PcP	PcP	18 09 47.6	+3.1
	0.3nm,0.7s,baz=325,slow=4.3,SNR=4.5						
TIXI	Tiksi	60.20	12	*e*P	P	18 09 17.9	-1.0
	1.8nm,0.6s,mb4.3						

*ISCJB **16** 18:00:56.5±0.4, 41.13N±0.03×20.19E±0.03, h10^{km}, Error ellipse: s-maj=4.4km s-min=2.1km az=36.4*

*CSEM **16** 18:00:56.6±0.3, 41.03N×20.22E, h10^{km}, ML3.1, Error ellipse: s-maj=6.5km s-min=2.0km az=27.0*

*SKO **16** 18:00:56.2, 40.98N×20.11E, h2^{km}, M2.3, ML2.8*

*TIR **16** 18:00:56.4±1.3, 41.06N×20.22E, h19^{km}±999^{km}, ML3.0*

*NEIC **16** 18:00:57.2, 41.24N×20.26E, h0^{km}, ML3.1(THE), ML2.9(PDG), After THE.*

*THE **16** 18:00:57.2, 41.24N×20.26E, h3^{km}, ML3.1*

*PDG **16** 18:01:00.9±0.1, 41.24N×20.11E, h0^{km}, ML2.9/9, Error ellipse: s-maj=1.1km s-min=1.4km az=0.0*

ISC 16 18:00:56.7±0.6**, 41.06N**±0.04×**20.16E**±0.03**, h10**^{km}**, n72, σ1.32**/133**, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.36	322	P	Pg	18 01 02.6	-1.2
TIR				S	Sg	18 01 08.7	+0.1
TIR	Tirane	0.36	322	*e*Pg	Pg	18 01 02.6	-1.2
TIR				*e*Sg	Sg	18 01 08.7	+0.1
TIR	Tirane	0.36	322	*e*Pg	Pg	18 01 02.6	-1.2
TIR				*e*Sg	Sg	18 01 08.7	+0.1
OHR	Ohrid	0.49	84	P	Pg	18 01 05.4	-0.8
OHR				S	Sg	18 01 12.8	+0.2
OHR	Ohrid	0.49	84	*e*Pg	Pg	18 01 05.4	-0.8
OHR				*e*Sg	Sg	18 01 12.8	+0.2
OHR	Ohrid	0.49	84	*i* Pg	Pg	18 01 05.5	-0.8
OHR				*i* Sg	Sg	18 01 13.3	+0.6
OHR				*e*Lg		18 01 13.4	
	comp=N,454nm,0.5s						
OHR				*e*Lg		18 01 13.9	
	comp=E,400nm,0.4s						
OHR	Ohrid	0.49	84	*e*Pg	Pg	18 01 05.4	-0.8
OHR				*e*Sg	Sg	18 01 12.8	+0.1
KRUS	Krusevo	0.88	69	*i* Pg	Pg	18 01 13.0	-0.6
KRUS				*i* Sg	Sg	18 01 26.3	+1.2
KRUS	Krusevo	0.88	69	*i* Pg	Pg	18 01 13.0	-0.6
KRUS				*i* Sg	Sg	18 01 26.3	+1.2
BIA	Bitola	0.88	92	P	Pg	18 01 12.3	-1.5
BIA				S	Sg	18 01 25.1	-0.1
BIA	Bitola	0.88	92	*e*Pg	Pg	18 01 12.3	-1.5
BIA				*e*Sg	Sg	18 01 25.1	-0.1
BIA	Bitola	0.88	92	*i* Pg	Pg	18 01 12.6	-1.1
BIA				*i* Sg	Sg	18 01 25.5	+0.3
BIA				*e*Lg		18 01 26.5	
	comp=N,64nm,0.4s						
BIA				*e*Lg		18 01 27.7	
	comp=E,40nm,0.2s						
BIA	Bitola	0.88	92	*e*Pg	Pg	18 01 12.3	-1.4
BIA				*e*Sg	Sg	18 01 25.1	-0.1
FNA	Florina	0.97	106	P	Pg	18 01 14.3	-1.0
FNA				S	Sg	18 01 29.8	+1.9
FNA	Florina	0.97	106	*e*Pg	Pg	18 01 14.3	-1.0
FNA				*e*Sg	Sg	18 01 29.8	+1.9
FNA	Florina	0.97	106	*e*Pg	Pg	18 01 14.3	-1.0
FNA				*e*Sg	Sg	18 01 29.8	+2.0
ULC	Ulcinj	1.13	323	*e*Pg	Pg	18 01 18.6	+0.2
ULC				*e*Sg	Sg	18 01 34.3	+1.3
ULC	Ulcinj	1.13	323	*e*Pg	Pg	18 01 18.6	+0.2
ULC				*e*Sg	Sg	18 01 34.3	+1.3
ULC	Ulcinj	1.13	323	*i* PG	Pg	18 01 18.6	+0.2
ULC				*i* SG	Sg	18 01 34.3	+1.3
ULC	Ulcinj	1.13	323	*e*Pg	Pg	18 01 18.6	+0.2
ULC				*e*Sg	Sg	18 01 34.3	+1.3
SKO	Skopje	1.32	46	*i* Pg	Pg	18 01 21.8	-0.3
SKO				*i* Sg	Sg	18 01 39.6	+0.2
SKO				*e*Lg		18 01 41.5	
	comp=N,149nm,0.4s						
SKO				*e*Lg		18 01 41.8	
	comp=E,91nm,0.8s						
SKO	Skopje	1.32	46	*i* Pg	Pg	18 01 21.8	-0.3
SKO				*i* Sg	Sg	18 01 39.5	+0.2
PDG	Podgorica	1.52	334	*i* PG	Pg	18 01 25.6	-0.3
PDG				*i* SG	Sg	18 01 47.3	+1.7
PDG	Podgorica	1.52	334	*e*Pg	Pg	18 01 25.6	-0.3
PDG				*e*Sg	Sg	18 01 47.3	+1.7
TTG	Podgorica	1.52	334	*e*Pg	Pg	18 01 25.6	-0.3
TTG				*e*Sg	Sg	18 01 47.3	+1.7
TTG	Podgorica	1.52	334	*e*Pg	Pg	18 01 25.6	-0.3
TTG				*e*Sg	Sg	18 01 47.3	+1.7

TTG	Podgorica	1.52	334	ePg	Pg	18 01 25.6	-0.3
TTG				eSg	Sg	18 01 47.3	+1.7
IGT	Igoumenitsa	1.54	175	P	Pb	18 01 27.4	+2.2
IGT				S	Sg	18 01 51.2	+5.2
IGT	Igoumenitsa	1.54	175	ePb	Pb	18 01 27.4	+2.2
IGT				eSb	Sg	18 01 51.2	+5.2
IGT	Igoumenitsa	1.54	175	ePb	Pb	18 01 27.4	+2.2
IGT				eSb	Sg	18 01 51.2	+5.2
PVY	Plav	1.54	355	ePg	Pg	18 01 25.7	-0.5
PVY				eSg	Sg	18 01 47.4	+1.3
PVY	Plav	1.54	355	ePg	Pg	18 01 25.7	-0.5
PVY				eSg	Sg	18 01 47.4	+1.3
PVY	Plav	1.54	355	i PG	Pg	18 01 25.7	-0.5
PVY				i SG	Sg	18 01 47.4	+1.3
PVY	Plav	1.54	355	ePg	Pg	18 01 25.7	-0.5
PVY				eSg	Sg	18 01 47.4	+1.3
BUM	Brajici-Budva	1.56	323	ePg	Pg	18 01 26.6	+0.1
BUM				eSg	Sg	18 01 49.1	+2.4
BUM	Brajici-Budva	1.56	323	ePg	Pg	18 01 26.6	+0.1
BUM				eSg	Sg	18 01 49.1	+2.4
BUM	Brajici-Budva	1.56	323	i PG	Pg	18 01 26.6	+0.1
BUM				i SG	Sg	18 01 49.2	+2.5
BUM	Brajici-Budva	1.56	323	ePg	Pg	18 01 26.6	+0.1
BUM				eSg	Sg	18 01 49.1	+2.4
STIP	Stip	1.65	67	ePn	Pn	18 01 26.6	+0.9
STIP				i Sn	Sn	18 01 49.5	+2.5
STIP				eLg		18 01 51.1	
	comp=N,29nm,0.5s						
STIP				eLg		18 01 52.2	
	comp=E,26nm,0.7s						
STIP	Stip	1.65	67	ePn	Pn	18 01 26.6	+0.9
STIP				i Sn	Sn	18 01 49.5	+2.5
GRG	Griva	1.70	93	P	Pb	18 01 27.4	-0.7
GRG	Griva	1.70	93	ePb	Pb	18 01 27.4	-0.7
GRG	Griva	1.70	93	ePb	Pb	18 01 27.4	-0.7
BEY	Berane	1.82	354	i PG	Pg	18 01 31.1	-0.5
BEY				i SG	Sg	18 01 56.1	+1.0
BEY	Berane	1.82	354	ePn	Pg	18 01 31.1	-0.5
BEY				eSn	Sg	18 01 56.1	+1.0
IVA	Berane	1.82	354	ePn	Pg	18 01 31.1	-0.5
IVA				eSn	Sg	18 01 56.1	+1.0
IVA	Berane	1.82	354	ePn	Pg	18 01 31.1	-0.5
IVA				eSn	Sg	18 01 56.1	+1.0
IVA	Berane	1.82	354	ePn	Pg	18 01 31.1	-0.5
IVA				eSn	Sg	18 01 56.1	+1.0
VAY	Valandovo	1.84	81	ePn	Pg	18 01 29.8	-2.1
VAY				i Sn	Sg	18 01 55.6	-0.2
VAY				eLg		18 01 56.8	
	comp=E,25nm,0.5s						
VAY				eLg		18 01 58.6	
	comp=N,52nm,0.9s						
VAY	Valandovo	1.84	81	ePn	Pg	18 01 29.8	-2.2
VAY				i Sn	Sg	18 01 55.6	-0.2
HCY	Herceg Novi	1.86	319	ePn	Pg	18 01 32.5	+0.2
HCY				eSn	Sg	18 01 57.8	+1.4
HCY	Herceg Novi	1.86	319	ePn	Pg	18 01 32.5	+0.2
HCY				eSn	Sg	18 01 57.8	+1.4
HCY	Herceg Novi	1.86	319	i PG	Pg	18 01 32.5	+0.2
HCY				i SG	Sg	18 01 57.8	+1.4
HCY	Herceg Novi	1.86	319	ePn	Pg	18 01 32.5	+0.2
HCY				eSn	Sg	18 01 57.8	+1.4
NKY	Niksic	1.95	334	ePn	Pg	18 01 33.5	-0.6
NKY				eSn	Sg	18 02 00.0	+0.6
NKY	Niksic	1.95	334	ePn	Pg	18 01 33.5	-0.6
NKY				eSn	Sg	18 02 00.0	+0.6
NKY	Niksic	1.95	334	i PG	Pg	18 01 33.0	-1.1
NKY				i SG	Sg	18 01 59.8	+0.4
NKY	Niksic	1.95	334	ePn	Pg	18 01 33.5	-0.6
NKY				eSn	Sg	18 02 00.0	+0.6
BARS	Barje	2.15	35	Pn	Pn	18 01 30.6	-2.0
BRY	Bratogost	2.19	327	ePn	Pg	18 01 37.2	-1.6
BRY				eSn	Sg	18 02 06.1	-1.1
BRY	Bratogost	2.19	327	ePn	Pg	18 01 37.2	-1.6
BRY				eSn	Sg	18 02 06.1	-1.1
BRY	Bratogost	2.19	327	i PG	Pg	18 01 37.5	-1.3
BRY	Bratogost	2.19	327	ePn	Pg	18 01 37.2	-1.6
UPM	Unac-Piva	2.33	337	ePn	Pg	18 01 39.2	-2.2
UPM				eSn	Sg	18 02 09.6	-2.0
UPM	Unac-Piva	2.33	337	ePn	Pg	18 01 39.2	-2.2
UPM				eSn	Sg	18 02 09.6	-2.0
UPM	Unac-Piva	2.33	337	ePn	Pg	18 01 39.2	-2.2
PLE	Pljevlja	2.33	346	ePn	Pg	18 01 38.5	-3.0
PLE				eSn	Sg	18 02 09.1	-2.6
PLE	Pljevlja	2.33	346	ePn	Pg	18 01 38.5	-3.0
PLE				eSn	Sg	18 02 09.1	-2.6
PLE	Pljevlja	2.33	346	ePn	Pg	18 01 38.5	-3.0
GRUS	Gruza	2.85	8	Pn	Pn	18 01 43.8	+1.5
DIVS	Divcibare	3.04	358	Pn	Pn	18 01 48.3	+3.5
BGY	Belgrade	3.75	4	eSn	Pn	18 01 56.1	+1.6

IDC 16 18:19:05.0±1.5**,097N×9720E,h0^{km},mb4.0**/7**,mb1 4.0**/8**,mb1mx3.8**/22**,mbtmp3.9**/8**,ML3.1**/1**,Error ellipse: s-maj=44.9km s-min=18.4km az=63.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	2.50	43	Pn	Pn	18 19 46.6	-0.3
	4.6nm,0.3s,baz=168,slow=11,SNR=12						
PSI				Sn	Sn	18 20 25.9	+7.8
	8.2nm,0.3s,baz=56,slow=21,SNR=7.5						
WRA	Warramunga Arr	41.91	122	P	P	18 26 57.5	-0.1
	0.5nm,0.6s,baz=300,slow=9.1,SNR=8.6						
ASAR	Alice Springs	43.26	127	P	P	18 27 08.6	+0.1
	0.2nm,0.3s,baz=296,slow=7.1,SNR=19						
KSRS	Korea Array	46.03	34	P	P	18 27 29.7	-0.7
	2.9nm,0.9s,baz=217,slow=10,SNR=9.3						
SONM	Songino Array	47.35	8	P	P	18 27 40.6	0.0
	2.7nm,0.6s,baz=192,slow=9.3,SNR=27						
SONM				PcP	PcP	18 29 11.8	+0.3
	0.7nm,0.6s,baz=185,slow=3.7,SNR=6.0						
MKAR	Makanchi Array	47.46	346	P	P	18 27 41.8	+0.3
	1.6nm,0.6s,baz=160,slow=8.8,SNR=33						
STKA	Stephens Creek	53.20	132	P	P	18 28 25.0	-0.2
	1.0nm,0.7s,baz=339,slow=5.3,SNR=3.0						
ZALV	Zalesovo Beam	53.78	351	P	P	18 28 28.8	-0.3
	2.2nm,0.3s,baz=176,slow=6.4,SNR=19						

GUC 16 18:19:54.4±0.7**,3314S×7026W,h9^{km}**±10^{km}**,MD3.5,ML2.2,1C-4D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FCH	Farellones	0.19	189	⇑iP	Pg	18 19 58.7	+0.4
FCH				AML	AML	18 20 02.3	
	comp=E,873nm,0.2s						
CLCH	Cerro Calan	0.35	223	⇓iP	Pg	18 20 02.2	+1.0
CLCH				i S	Sg	18 20 06.8	+1.0
CLCH				AML	AML	18 20 09.7	
	comp=E,412nm,0.8s						
PCH	Pirque	0.52	204	⇓iP	Pg	18 20 04.6	+0.1
PCH				i S	Sg	18 20 11.6	+0.2
JACH	Jahuel	0.54	328	⇓iP	Pg	18 20 04.7	-0.2
JACH				i S	Sg	18 20 12.6	+0.6
TACH	Talagante	0.77	228	⇓iP	Pg	18 20 08.8	-0.4
SFDO	San Fernando	1.60	203	eP	Pn	18 20 23.2	+0.3
SFDO				i S	Sn	18 20 46.0	+2.3

IDC 16 18:24:13.5±4.8**,3042S×17895W,h0^{km},mb3.7**/2**,mb1 4.0**/2**,mb1mx3.7**/12**,mbtmp3.7**/2**,Error ellipse: s-maj=286.4km s-min=66.9km az=167.0,Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	Alice Springs	42.29	267	P	P	18 32 08.9	-0.1
	0.3nm,0.3s,baz=105,slow=7.2,SNR=25						
WRA	Warramunga Arr	43.28	273	P	P	18 32 17.1	0.0
	0.7nm,0.3s,baz=111,slow=8.1,SNR=38						
FINES	FINESS Array B	144.88	339	PKP	PKPdf	18 43 51.3	-0.5
	1.2nm,0.9s,baz=46,slow=4.0,SNR=3.1						

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*IDC **16** 18:30:48.5±0.9,3708S×7491W,h0^{km},mb4.1/7,mb1 4.3/8,mb1mx4.2/15,mbtmp4.1/8,ML3.5/1,MS3.9/5,Ms1 3.9/5,ms1mx3.3/18,Error ellipse: s-maj=31.6km s-min=23.2km az=103.0*

*ISCJB **16** 18:30:51.9±1.7,3693S±005×7485W±007,h30^{km}±13^{km},mb4.1/7,MS3.9/4,Error ellipse: s-maj=9.9km s-min=6.4km az=32.9*

*NEIC **16** 18:30:51.3,3699S×7481W,h23^{km},ML4.2(GUC),After GUC.*

*GUC **16** 18:30:51.3±0.9,3699S×7481W,h23^{km}±4^{km},ML4.2*

ISC 16 18:30:52.7±1.8**,3697S**±005**×7488W**±007**,h25^{km}**±14^{km}**,n37,σ1^{s}01**/47**,mb4.1**/7**,MS3.9**/4**,8C-10D,Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COCH	Cobquecura	1.88	64	⇓iP	Pn	18 31 22.2	-1.0
COCH				i S	Sn	18 31 45.6	-0.6
COCH	Cobquecura	1.88	64	⇓iP	Pn	18 31 22.2	-1.0
COCH				i S	Sn	18 31 45.6	-0.6
COCH				AML	AML	18 31 47.3	
	comp=N,2μm,0.5s						
CCHI	Chillan	2.28	82	⇓iP	Pn	18 31 29.6	+0.9
CCHI				i S	Sn	18 31 57.9	+1.9
CCHI	Chillan	2.28	82	⇓iP	Pn	18 31 29.6	+0.9
CCHI				i S	Sn	18 31 57.9	+1.9
CCHI				AML	AML	18 31 59.0	
	comp=E,3μm,0.7s						
CCHI				AML	AML	18 31 59.2	
	comp=E,6μm,0.7s						
TMU	Temuco	2.52	135	⇑iP	Pn	18 31 31.3	-0.7
TMU				i S	Sn	18 32 01.5	-0.4
TMU	Temuco	2.52	135	⇑iP	Pn	18 31 31.3	-0.7
TMU				i S	Sn	18 32 01.5	-0.4
TMU				AML	AML	18 32 04.0	
	comp=N,321nm,0.1s						
TALC	Talca	3.06	60	⇑iP	Pn	18 31 35.6	-3.9
TALC				i S	Sn	18 32 11.6	-3.6
SFDO	San Fernando	3.92	54	⇑iP	Pn	18 31 51.4	+0.1
LNV	Longovilo	4.13	44	⇓iP	Pn	18 31 53.0	-1.2
LNV				i S	Sn	18 32 40.5	-1.2
CICH	Cipreses	4.49	55	i P	Pn	18 31 59.6	+0.4
CACH	El Canelo	4.50	52	⇑iP	Pn	18 32 00.3	+0.9
CACH				i S	Sn	18 32 52.3	+1.4
CHCH	Chadas Angostu	4.59	50	⇓iP	Pn	18 32 01.0	+0.4
CHCH				i S	Sn	18 32 53.7	+0.6
TACH	Talagante	4.62	45	⇓iP	Pn	18 32 00.3	-0.6
RCDM	Rinconada Maip	4.81	45	⇓iP	Pn	18 32 03.2	-0.4
RCDM				i S	Sn	18 32 57.0	-1.5
ANTU	Antumapu	4.86	47	⇓iP	Pn	18 32 04.2	+0.1
ANTU				i S	Sn	18 32 58.8	-0.8
PCH	Pirque	4.89	48	⇓iP	Pn	18 32 04.7	0.0
PCH				eS	Sn	18 32 60.0	-0.5
FCH	Farellones	5.23	47	⇑iP	Pn	18 32 09.4	+0.1
FCH				i S	Sn	18 33 09.1	+0.3
JACH	Jahuel	5.54	41	⇑iP	Pn	18 32 13.0	-0.6
JACH				i S	Sn	18 33 15.6	-1.0
CHNG	Los Chungos	5.79	30	⇑iP	Pn	18 32 03.1	-14
CHNG				i S	Sn	18 33 07.5	-15
MDZ	Mendoza	6.41	52	eP	Pn	18 32 28.0	+2.4
CFAA	Coronel Fontan	7.67	48	Pn	Pn	18 32 42.3	-0.5
CFAA				Sn	Sn	18 34 11.3	+2.4
CFAA	Coronel Fontan	7.67	48	Pn	Pn	18 32 42.3	-0.5
	comp=N,0.7nm,0.3s,baz=216,slow=13,SNR=27						
CFAA				Sn	Sn	18 34 11.3	+2.4
	comp=N,1.0nm,0.3s,baz=355,slow=21,SNR=8.0						
USHA	Ushuaia	18.40	168	LR	LR	18 42 31.4	
	comp=N,224nm,18.1s,baz=356,slow=38						
LPAZ	La Paz	21.45	18	P	P	18 35 41.6	+2.4
	comp=N,4.4nm,0.9s,mb3.8,baz=170,slow=10.0,SNR=12						
SIV	San Ignacio	24.22	34	P	P	18 36 07.3	-0.1
	comp=N,5.4nm,0.8s,mb4.0,baz=222,slow=12,SNR=22						
ATAH	Atahualpa	30.00	353	LR	LR	18 46 15.0	
	comp=N,84nm,21.5s,MS3.3,baz=141,slow=31						
SNAA	Sanae	49.74	157	P	P	18 39 42.2	-0.3
	comp=N,5.9nm,1.2s,mb4.5,baz=265,slow=9.1,SNR=6.2						
VNDA	Vanda	60.73	192	LR	LR	19 05 01.1	
	comp=N,231nm,21.2s,MS4.3,baz=77,slow=34						
TXAR	Lajitas Array	71.28	334	P	P	18 42 10.7	+0.9
	comp=N,1.3nm,0.8s,mb3.9,baz=151,slow=8.6,SNR=9.1						
BOSA	Boshof	80.71	119	LR	LR	19 14 38.9	
	comp=N,60nm,19.8s,MS4.0,baz=72,slow=33						
PDAR	Pinedale Array	85.42	335	P	P	18 43 27.9	+0.3
	comp=N,0.5nm,0.8s,mb3.7,baz=133,slow=6.3,SNR=5.4						
PDAR				LR	LR	19 17 05.4	
	comp=N,82nm,18.5s,MS4.2,baz=256,slow=32						
TORD	Torodi Ar. Bea	87.37	72	P	P	18 43 37.8	-0.1
	comp=N,2.1nm,1.0s,mb4.3,baz=250,slow=4.8,SNR=7.4						
ULM	Lac du Bonnet	88.80	347	P	P	18 43 42.9	-1.0
	comp=N,2.9nm,0.9s,mb4.6,baz=350,slow=19,SNR=3.0						
WRA	Warramunga Arr	117.04	211	PKP	PKPdf	18 49 34.3	-1.5
	comp=N,0.4nm,0.8s,baz=165,slow=1.5,SNR=5.7						
ZALV	Zalesovo Beam	157.97	33	PKP	PKPdf	18 50 45.6	-0.9
	comp=N,1.4nm,0.7s,baz=270,slow=2.5,SNR=7.6						
ZALV				PKPab	PKPab	18 51 20.8	+1.0
	comp=N,3.3nm,0.8s,baz=305,slow=5.2,SNR=8.9						
MKAR	Makanchi Array	160.43	53	PKP	PKPdf	18 50 49.3	-0.3
	comp=N,0.7nm,1.0s,baz=333,slow=1.4,SNR=5.1						
MKAR				PKPab	PKPab	18 51 31.0	+0.2
	comp=N,0.8nm,0.8s,baz=290,slow=3.5,SNR=7.3						
SONM	Songino Array	169.10	355	PKPab	PKPab	18 52 10.2	+1.4
	comp=N,0.9nm,1.0s,baz=348,slow=6.4,SNR=4.9						

SKHL 16 18:35:10.9±0.9**,5287N×14264E,h10^{km},mb4.0**/4**,1C-1D, Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKH	Okha	0.70	14	⇓iPg	Pg	18 35 26.0	+1.5
OKH				AMB	AMB	18 35 26.2	
	600nm,0.5s						
OKH				⇑iSg	Sg	18 35 36.0	+2.3
OKH				A		18 35 37.9	
	2μm,0.4s						
OKH				A		18 35 37.9	
	3μm,0.4s						
NKL	Nikolayevsk	1.22	284	ePg	Pg	18 35 35.0	+0.8
NKL				AMB	AMB	18 35 35.3	
	17nm,0.4s						
NKL				AMB	AMB	18 35 35.3	
	77nm,0.4s						
NKL				AMB	AMB	18 35 35.3	
	97nm,0.4s						
NKL				eSg	Sg	18 35 52.5	+2.5
NKL				A		18 35 55.0	
	120nm,0.5s						
NKL				A		18 35 55.0	
	250nm,0.5s						
GRNR	Gornyy	4.39	244	eP	Pn	18 36 21.1	+3.5
GRNR				ePg	Pg	18 36 37.7	+2.7
GRNR				AMB	AMB	18 36 40.0	
	11nm,0.5s						
EKMR	Ekimchan	5.86	276	ePg	Pg	18 37 07.5	+4.5
EKMR				AMB	AMB	18 37 07.9	
	2.0nm,0.3s						
EKMR				eSg	Sg	18 38 26.0	+7.2
EKMR				A		18 38 29.5	
	5.0nm,0.5s						
EKMR				A		18 38 29.5	
	4.0nm,0.5s						

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*IDC **16** 18:38:36.3±3.5,1914S×16831E,h0^{km},mb4.0/5,mb1 4.2/6,mb1mx4.0/14,mbtmp4.1/6,ML3.9/1,MS3.3/5,Ms1 3.3/5,ms1mx3.1/22,Error ellipse: s-maj=75.4km s-min=36.1km az=114.0*

ISC 16 18:38:41.9±3.4**,194S**±03**×1684E**±04**,h39^{km}**±36^{km}**,n12,σ0^{s}84**/11**,mb3.9**/4**,MS3.1**/3**,Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	3.19	214	eP	Pn	18 39 29.4	-0.1
DZM				eS	Sn	18 40 06.1	-0.2
DZM	Mont Dzumac	3.19	214	Pn	Pn	18 39 29.3	-0.2
	12nm,0.3s,baz=82,slow=17,SNR=297						
DZM				Sn	Sn	18 40 07.1	+0.8
	46nm,0.3s,baz=147,slow=23,SNR=11						
NOUC	Port Laguerre	3.29	216	eP	Pn	18 39 31.1	+0.2
NOUC				eS	Sn	18 40 08.1	-0.7
HNR	Honiara	12.87	319	LR	LR	18 45 21.7	
	comp=Z,119nm,20.2s,baz=179,slow=32						
AFI	Afiamalu	19.77	77	LR	LR	18 48 54.8	
	comp=Z,187nm,19.6s,baz=94,slow=31						
CTA	Charters Tower	20.84	264	P	P	18 43 21.4	+1.0
	3.9nm,0.8s,baz=91,slow=12,SNR=9.7						
CTA				LR	LR	18 50 05.3	
	comp=Z,104nm,20.5s,MS3.2,baz=47,slow=33						
PMG	Port Moresby	22.82	293	LR	LR	18 49 57.4	
	comp=Z,45nm,20.5s,MS2.9,baz=92,slow=30						
STKA	Stephens Creek	27.06	237	P	P	18 44 22.1	+1.5
	0.8nm,0.4s,mb3.6,baz=82,slow=15,SNR=3.4						
RAR	Rarotonga	29.89	99	LR	LR	18 55 34.5	
	comp=Z,59nm,18.1s,MS3.3,baz=82,slow=34						
WRA	Warramunga Arr	32.03	263	P	P	18 45 03.4	-1.5
	0.6nm,0.4s,mb3.7,baz=90,slow=8.5,SNR=22						
ASAR	Alice Springs	32.30	256	P	P	18 45 06.9	-0.3
	10.0nm,0.4s,mb5.0,baz=82,slow=8.3,SNR=387						
SONM	Songino Array	86.90	323	P	P	18 51 22.0	-0.3
	0.1nm,0.3s,mb3.5,baz=126,slow=7.3,SNR=3.7						

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*NEIC **16** 19:19:28.0,3653N×1164W,h0^{km},MG4.0(MDD),After MDD.*

*CSEM **16** 19:19:28.8±0.3,3664N×1150W,h10^{km},ML2.3,Error ellipse: s-maj=6.5km s-min=5.3km az=159.0*

*MDD **16** 19:19:28.3±2.9,3612N×1171W,h55^{km}±159^{km},mb3.9/10,Error ellipse: s-maj=28.2km s-min=15.8km az=54.0,PRXIMO*

*INMG **16** 19:19:30.4±1.2,3628N×1151W,h10^{km},ML2.3,Error ellipse: s-maj=15.6km s-min=7.7km az=131.0*

ISC 16 19:19:30.1±1.0**,3653N**±006**×1143W**±006**,h10^{km},n56,σ1^{s}06**/101**,Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	Vila Bisbo	2.17	73	eP	Pn	19 20 06.2	-0.1
PFVI				eS	Sn	19 20 33.3	+0.1
PFVI				A		19 20 36.7	
	18nm,0.4s						
PFVI	Vila Bisbo	2.17	73	eP	Pn	19 20 06.2	-0.1
PFVI				eS	Sn	19 20 33.3	+0.1
	18nm,0.4s						
MORF	Marmelete	2.36	70	eP	Pn	19 20 09.0	+0.2
MORF				eS	Sn	19 20 39.2	+1.4
MORF				A		19 20 41.3	
	7.6nm,0.1s						
MORF	Marmelete	2.36	70	P	Pn	19 20 08.7	-0.1
MORF				S	Sn	19 20 38.4	+0.6
MORF	Marmelete	2.36	70	eP	Pn	19 20 09.0	+0.2
MORF				S	Sn	19 20 38.4	+0.6
PTEO	Sao Teotonio	2.39	64	eP	Pn	19 20 10.6	+1.4
PTEO				eS	Sn	19 20 40.1	+1.5
PTEO				A		19 20 43.5	
	9.1nm,0.4s						
PTEO	Sao Teotonio	2.39	64	eP	Pn	19 20 10.6	+1.4
PTEO				eS	Sn	19 20 40.1	+1.5
	9.1nm,0.4s						
PBDV	Barranco-do-Ve	2.89	75	eP	Pn	19 20 16.1	-0.1
PBDV				eS	Sn	19 20 52.6	+1.6
PBDV				A		19 20 57.0	
	5.0nm,0.1s						
PBDV	Barranco-do-Ve	2.89	75	eP	Pn	19 20 16.1	-0.1
PBDV				eS	Sn	19 20 52.6	+1.6
	5.0nm,0.1s						
PMAFR	Mafra	2.96	34	eP	Pn	19 20 17.3	+0.3
PMAFR				eS	Sn	19 20 52.3	-0.3
PMAFR				A		19 20 55.1	
	19nm,0.3s						
PMAFR	Mafra	2.96	34	eP	Pn	19 20 17.3	+0.3
PMAFR				eS	Sn	19 20 52.3	-0.3
	19nm,0.3s						
PVAQ	Vaqueiros	3.10	73	eP	Pn	19 20 19.3	+0.3
PVAQ				eS	Sn	19 20 57.4	+1.4
PVAQ				A		19 21 02.0	
	6.6nm,0.1s						
PVAQ	Vaqueiros	3.10	73	eP	Pn	19 20 19.3	+0.3
PVAQ				eS	Sn	19 20 57.4	+1.4
	6.6nm,0.1s						
MOE	Montemor	3.15	50	eS	Sn	19 20 59.3	+1.9
MOE	Montemor	3.15	50	S	Sn	19 20 57.8	+0.4
MOE	Montemor	3.15	50	S	Sn	19 20 57.8	+0.4
PBEJ	Beja	3.21	61	eS	Sn	19 20 59.8	+1.0
PBEJ				A		19 21 02.5	
	2.9nm,0.2s						
PBEJ	Beja	3.21	61	S	Sn	19 20 59.1	+0.3
PBEJ	Beja	3.21	61	S	Sn	19 20 59.1	+0.3
EGRO	El Granado	3.31	71	P	Pn	19 20 22.4	+0.5
	1.5nm,0.1s,SNR=8.1						
EGRO				S	Sn	19 21 02.1	+0.8
	3.7nm,0.4s,SNR=7.2						
EGRO	El Granado	3.31	71	P	Pn	19 20 22.4	+0.5
	1.5nm,0.1s,SNR=8.1						
EGRO				S	Sn	19 21 02.1	+0.8
	3.7nm,0.4s,SNR=7.2						
EVO	Evora	3.37	53	eP	Pn	19 20 23.6	+0.9
EVO				eS	Sn	19 21 04.1	+1.4
EVO				A		19 21 05.1	
	4.1nm,0.1s						
EVO	Evora	3.37	53	P	Pn	19 20 23.6	+0.9
EVO				S	Sn	19 21 04.1	+1.4
	2.0nm,0.1s						
PESTR	Estremoz	3.83	51	eP	Pn	19 20 30.8	+1.7
EMIN	Mina Concepcio	3.99	71	P	Pn	19 20 31.6	+0.3
	3.2nm,0.2s,SNR=20						
EMIN				S	Sn	19 21 17.6	-0.5
	2.1nm,0.3s,SNR=6.8						
EMIN	Mina Concepcio	3.99	71	P	Pn	19 20 31.6	+0.3
	3.2nm,0.2s,SNR=20						
EMIN				S	Sn	19 21 17.6	-0.6
	2.1nm,0.3s,SNR=6.8						
EBAD	Badajoz	4.15	56	P	Pn	19 20 34.2	+0.8
	1.0nm,0.1s,SNR=7.9						
EBAD				S	Sn	19 21 21.9	-0.1
	3.5nm,0.2s,SNR=7.9						
EBAD	Badajoz	4.15	56	P	Pn	19 20 34.2	+0.8
	1.0nm,0.1s,SNR=7.9						
EBAD				S	Sn	19 21 21.9	0.0
	3.5nm,0.2s,SNR=7.9						
ESPR	Espera	4.49	84	P	Pn	19 20 38.2	+0.1
ESPR				S	Sn	19 21 29.5	-1.0
ESPR	Espera	4.49	84	P	Pn	19 20 37.0	-1.1
	6.9nm,0.2s,SNR=10						
ESPR				S	Sn	19 21 27.4	-3.0
	15nm,1.0s						
ESPR	Espera	4.49	84	P	Pn	19 20 38.2	+0.1
	6.9nm,0.2s,SNR=10						
ESPR				S	Sn	19 21 29.5	-0.9
	15nm,1.0s						
EJIF	Jimena Fronter	4.80	89	P	Pn	19 20 42.6	+0.1
EJIF				S	Sn	19 21 37.5	-0.6
EJIF	Jimena Fronter	4.80	89	P	Pn	19 20 41.1	-1.3
	1.4nm,0.2s,SNR=7.9						
EJIF				S	Sn	19 21 33.9	-4.2
	2.6nm,0.6s,SNR=7.9						
EJIF	Jimena Fronter	4.80	89	P	Pn	19 20 42.6	+0.2
	1.4nm,0.2s,SNR=7.9						
EJIF				S	Sn	19 21 37.5	-0.6
	2.6nm,0.6s,SNR=7.9						
PVIS	Viseu	5.01	32	eP	Pn	19 20 44.7	-0.6
PVIS				eS	Sn	19 21 42.7	-0.5
PVIS				A		19 21 43.7	
	4.8nm,0.1s						
PVIS	Viseu	5.01	32	P	Pn	19 20 44.7	-0.6
PVIS				S	Sn	19 21 42.7	-0.5
	2.4nm,0.1s						
EMIJ	Mijas	5.36	88	P	Pn	19 20 50.1	0.0
EMIJ	Mijas	5.36	88	P	Pn	19 20 49.0	-1.1
	0.2nm,0.1s,SNR=7.9						
EMIJ				S	Sn	19 21 49.0	-2.9
	34nm,3.4s,SNR=7.9						
EMIJ	Mijas	5.36	88	P	Pn	19 20 50.1	0.0
	0.2nm,0.1s,SNR=7.9						
EADA	Adamuz	5.70	71	P	Pn	19 20 54.5	-0.2
	0.9nm,0.2s,SNR=9.1						
EADA				S	Sn	19 21 58.2	-1.9
	24nm,1.4s						
EADA	Adamuz	5.70	71	P	Pn	19 20 54.5	-0.2
	0.9nm,0.2s,SNR=9.1						
EADA				S	Sn	19 21 58.2	-1.9
	24nm,1.4s						
ELOB	Lobios	5.93	25	P	Pn	19 20 56.5	-1.5
ELOB				S	Sn	19 22 02.6	-3.4
ELOB	Lobios	5.93	25	P	Pn	19 20 59.8	+1.8
	0.3nm,0.1s,SNR=7.9						
ELOB	Lobios	5.93	25	P	Pn	19 20 56.5	-1.4
	0.3nm,0.1s,SNR=7.9						
ELOB				S	Sn	19 22 02.6	-3.3
	20nm,0.5s,SNR=7.9						
ECAL	Calabor	6.51	33	P	Pn	19 21 06.3	+0.4
ECAL				S	Sn	19 22 20.1	-0.1
ECAL	Calabor	6.51	33	P	Pn	19 21 05.8	-0.1
	0.4nm,0.1s,SNR=7.9						
ECAL	Calabor	6.51	33	P	Pn	19 21 06.3	+0.4
ECAL				S	Sn	19 22 17.0	-3.2
	3.0nm,0.3s,SNR=7.9						

ESDC	Sonseca Array	6.67	60	P	Pn	19 21 08.7	+0.6
	1.6nm,0.1s,baz=246,slow=13,SNR=4.1						
ESDC				S	Sn	19 22 22.4	-1.7
	0.4nm,0.3s,baz=229,slow=38,SNR=4.7						
ESDC	Sonseca Array	6.67	60	P	Pn	19 21 08.7	+0.6
	1.6nm,0.1s,SNR=4.1						
ESDC				S	Sn	19 22 22.4	-1.7
	0.4nm,0.3s,SNR=4.7						
EQES	Quesada	6.79	77	P	Pn	19 21 09.9	+0.1
EQES				S	Sn	19 22 25.7	-1.4
EQES	Quesada	6.79	77	P	Pn	19 21 09.9	+0.1
	1.0nm,0.2s,SNR=7.9						
EQES				S	Sn	19 22 23.7	-3.4
	7.3nm,0.6s,SNR=7.9						
EQES	Quesada	6.79	77	P	Pn	19 21 09.9	+0.1
	1.0nm,0.2s,SNR=7.9						
EQES				S	Sn	19 22 25.7	-1.4
	7.3nm,0.6s,SNR=7.9						
EPON	Pontenova	7.54	25	P	Pn	19 21 18.6	-1.4
EPON				S	Sn	19 22 40.8	-4.7
EPON	Pontenova	7.54	25	P	Pn	19 21 18.6	-1.4
	0.5nm,0.1s,SNR=7.9						
EPON				S	Sn	19 22 40.8	-4.6
	5.7nm,1.0s,SNR=7.9						
ETOB	Tobarra	8.12	72	P	Pn	19 21 26.4	-1.6
ETOB				S	Sn	19 22 59.4	-0.5
ETOB	Tobarra	8.12	72	P	Pn	19 21 26.4	-1.6
ETOB				S	Sn	19 22 59.4	-0.5

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*NEIC **16** 19:19:49.7, 17.06N×95.46W, h71km, MD3.9(MEX), After MEX.*

MEX 16 19:19:50.3±0.6**, 17.06N×95.45W, h56km**±10km**, MD3.9, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.54	86	i P	Pn	19 20 00.8	-1.6
CMIG				i S	Sn	19 20 12.2	+1.0
CMIG	Matias Romero	0.54	86	i P	Pn	19 20 00.8	-1.6
CMIG				i S	Sn	19 20 09.7	-1.5
OXX	Oaxaca	1.22	271	i P	Pn	19 20 09.5	-1.6
OXX				i S	Sn	19 20 25.0	-1.7
VHO	Vista Hermosa	1.23	271	i P	Pn	19 20 09.9	-1.3
VHO				i S	Sn	19 20 24.9	-2.0
HUIG	Huatulco	1.43	206	i P	Pn	19 20 12.6	-1.3
HUIG				i S	Sn	19 20 29.6	-2.2
TPIG	Tehuac#an	2.27	307	i P	Pn	19 20 25.1	-0.3
TPIG				i S	Sn	19 20 50.5	-1.8
UTMO	Huajuapan	2.38	289	eP	Pn	19 20 26.1	-0.8
UTMO				i S	Sn	19 20 55.0	+0.2
CCIG	Comitan	3.27	103	eP	Pn	19 20 40.7	+1.7
CCIG				i S	Sn	19 21 13.7	-2.9
CCIG	Comitan	3.27	103	eP	Pn	19 20 37.6	-1.5
CCIG				i S	Sn	19 21 13.7	-2.9
PPM	Popocatepetl	3.62	304	i P	Pn	19 20 44.6	+0.7
PPM				i S	Sn	19 21 29.5	+4.0

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*NIED **16** 19:26:00, 25.30N×125.60E, h65km, Mw3.9 Best double couple: M0 8.15000×10^14 NP1: φs87.00000°, δ39.00000°, λ29.00000°. NP2: φs334.00000°, δ72.00000°, λ125.00000°.*
*MOS **16** 19:26:26.6±1.2, 25.15N×125.32E, h33km, mb4.3/8, Error ellipse: s-maj=18.5km s-min=12.7km az=106.4*
*IDC **16** 19:26:29.9±3.6, 25.18N×125.36E, h50km±34km, mb3.7/13, mb1 3.9/17, mb1mx3.8/24, mbtmp3.7/17, ML4.0/4, MS2.5/2, Ms1 2.5/2, ms1mx2.4/31, Error ellipse: s-maj=26.2km s-min=14.0km az=67.0*
*ISCJB **16** 19:26:30.7±0.3, 25.26N±0.06×125.60E±0.05, h76km±4km, mb3.8/15, Error ellipse: s-maj=11.3km s-min=3.6km az=145.4*
*JMA **16** 19:26:31.0±0.1, 25.31N×125.57E, h77km±2km, M4.2*
*NEIC **16** 19:26:32.7±1.0, 25.26N×125.62E, h78km±11km, mb4.1/3, Error ellipse: s-maj=17.4km s-min=9.7km az=151.0*

ISC 16 19:26:31.7±0.3**, 25.27N**±0.06×**125.59E**±0.05**, h68km**±4km**, n54, σ0.83**/66**, mb3.8**/15**, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMJ	Miyako jima 2	0.53	210	P	Pn	19 26 45.0	+0.4
JMJ				S	Sn	19 26 55.1	+1.0
JOGS	Gusukube	0.54	198	P	Pn	19 26 45.1	+0.4
JOGS				eS	Sn	19 26 55.3	+1.1
JTJ	Tarama	1.02	232	P	Pn	19 26 50.5	+0.2
JTJ				eS	Sn	19 27 04.5	+0.3
JKE	Kume jima 2	1.51	46	P	Pn	19 26 56.2	-0.5
JKE				eS	Sn	19 27 14.9	-0.6
JIJ	Ishigaki jima	1.59	236	P	Pn	19 26 57.5	-0.3
JIJ				S	Sn	19 27 16.4	-1.2
JKRS	Kuro-shima	1.77	235	P	Pn	19 27 00.1	-0.1
JKRS				S	Sn	19 27 21.3	-0.4
IRIF	Iriomote-Funau	1.93	241	P	Pn	19 27 02.1	-0.2
IRIF				eS	Sn	19 27 24.7	-0.9
JAGN	Aguni-jima	1.98	48	P	Pn	19 27 02.6	-0.5
JAGN				eS	Sn	19 27 27.2	+0.2
HATJ	Hateruma jima	2.02	234	P	Pn	19 27 03.2	-0.4
HATJ				eS	Sn	19 27 27.3	-0.6
NAH1	Naha	2.11	64	P	Pn	19 27 04.8	0.0
NAH1				eS	Sn	19 27 31.2	+1.2
JJT2	Tamagusuku 2	2.13	66	P	Pn	19 27 05.0	-0.1
YOJ	Yonaguni jima	2.48	251	P	Pn	19 27 10.1	+0.4
YOJ				eS	Sn	19 27 38.4	-0.5
JIH	Iheya	2.77	50	P	Pn	19 27 12.8	-0.9
JOW	Kunigami	2.87	57	P	Pn	19 27 14.4	-0.7
JOW	Kunigami	2.87	57	P	Pn	19 27 14.7	-0.4
	26nm,0.3s,baz=209,slow=9.6,SNR=62						
JOW				S	Sn	19 27 53.4	+4.8
	32nm,0.3s,baz=115,slow=28,SNR=3.5						
TATO	Taipei	3.73	266	ePn	Pn	19 27 30.2	+3.4
NACB	Ninganchiao	3.79	254	ePn	Pn	19 27 27.1	-0.5
YHNB	Yeheng	3.87	262	ePn	Pn	19 27 31.3	+2.5
JTK	Tokunoshima	3.92	50	P	Pn	19 27 28.0	-1.4
JAM	Amami Oshima	4.76	48	P	Pn	19 27 39.2	-1.7
JMZ	Minamidaito 2	5.12	83	P	Pn	19 27 41.8	-4.0
JNU	Nakatsue	9.08	29	P	Pn	19 28 40.2	+0.2
	1.4nm,0.3s,baz=229,slow=8.6,SNR=9.0						
JNU				LR	LR	19 32 54.5	
	comp=Z,25nm,18.9s,baz=267,slow=42						
KSRS	Korea Array	12.31	9	P	Pn	19 29 25.1	+1.1
	0.3nm,0.3s,baz=186,slow=13,SNR=7.2						
KSRS				LR	LR	19 33 53.9	
	comp=Z,27nm,20.2s,baz=190,slow=36						
MAJO	Matsushiro	15.59	41	eP	Pn	19 30 08.0	+0.8
	5.9nm,0.4s						
MAJO	Matsushiro	15.59	41	eP	Pn	19 30 08.0	+0.7
MAJO				pmax	pmax		
	comp=Z,6.0nm,0.4s						
MJAR	Matsushiro Arr	15.59	41	P	Pn	19 30 10.8	+3.5
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MJAR	Matsushiro Arr	15.59	41	P	Pn	19 30 10.8	+3.5
	comp=Z,1.8nm,0.3s,baz=217,slow=6.6,SNR=18						
SONM	Songino Array	27.14	331	P	P	19 32 08.8	+0.4
	comp=Z,0.3nm,0.3s,mb3.2,baz=157,slow=12,SNR=2.9						
LSA	Lhasa	30.80	286	eP	P	19 32 42.4	+1.4
	comp=Z,1.3nm,0.6s,mb3.8						
LSA	Lhasa	30.80	286	eP	P	19 32 42.4	+1.4
LSA				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.7						
MK31	Makanchi Array	40.43	313	eP	P	19 34 03.2	-0.1
MKAR	Makanchi Array	40.43	313	P	P	19 34 02.5	-0.7
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	Makanchi Array	40.43	313	P	P	19 34 02.5	-0.7
	comp=Z,0.5nm,0.4s,mb3.7,baz=102,slow=9.2,SNR=14						
ZALV	Zalesovo Beam	41.60	324	P	P	19 34 11.8	-1.0
ZALV	Zalesovo Beam	41.60	324	P	P	19 34 11.8	-1.0
	comp=Z,0.7nm,0.4s,mb3.7,baz=107,slow=8.8,SNR=6.2						
ZAL	Zalesovo	41.61	324	P	P	19 34 11.8	-1.0
WRA	Warramunga Arr	45.74	168	P	P	19 34 46.0	-0.3
WRA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
WRA	Warramunga Arr	45.74	168	P	P	19 34 46.0	-0.4
	comp=Z,2.9nm,0.5s,mb4.2,baz=351,slow=8.8,SNR=32						
ASAR	Alice Springs	49.31	170	P	P	19 35 14.1	+0.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ASAR	Alice Springs	49.31	170	P	P	19 35 14.1	+0.1
	comp=Z,1.1nm,0.5s,mb4.1,baz=357,slow=8.8,SNR=20						
STKA	Stephens Creek	58.85	164	P	P	19 36 22.7	-0.6
	comp=Z,1.0nm,1.0s,mb3.8,baz=323,slow=10,SNR=3.9						
KIV	Kislovodsk	68.01	309	eP	P	19 37 24.7	+1.0
	comp=Z,3.6nm,0.6s,mb4.4						
KIV	Kislovodsk	68.01	309	eP	P	19 37 24.7	+0.9
KIV				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.4						
ARCES	ARCESS Array B	70.02	338	P	P	19 37 35.7	-0.1
ARCES				pmax	pmax		
	comp=Z,3.0nm,1.0s						
ARCES	ARCESS Array B	70.02	338	P	P	19 37 35.7	-0.1
	comp=Z,2.9nm,1.0s,mb4.1,baz=46,slow=7.7,SNR=3.7						
FINES	FINESS Array B	72.51	330	P	P	19 37 51.0	+0.1
	comp=Z,0.4nm,0.4s,mb3.6,baz=60,slow=5.0,SNR=4.5						
AKASG	Malin Array Be	74.70	319	P	P	19 38 03.8	-0.2
	comp=Z,0.4nm,0.4s,mb3.5,baz=56,slow=6.4,SNR=4.9						
BRTR	Keskin Array B	75.73	307	P	P	19 38 10.9	+0.8
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BRTR	Keskin Array B	75.73	307	P	P	19 38 10.8	+0.7
	comp=Z,1.1nm,0.7s,mb3.7,baz=110,slow=6.7,SNR=7.2						
NOA	NORSAR Array B	79.10	333	P	P	19 38 28.5	0.0
	comp=Z,0.4nm,0.4s,mb3.6,baz=51,slow=6.2,SNR=2.6						
YKA	Yellowknife Ar	80.38	24	P	P	19 38 36.5	+1.1
YKA	Yellowknife Ar	80.38	24	P	P	19 38 36.5	+1.1
	comp=Z,0.2nm,0.4s,mb3.3,baz=304,slow=5.3,SNR=6.8						
GERES	GERESS Array B	84.50	322	P	P	19 38 57.6	+0.4
GERES				pmax	pmax		
	comp=Z,1.0nm,1.0s						
GERES	GERESS Array B	84.50	322	P	P	19 38 57.6	+0.5
	comp=Z,1.3nm,1.0s,mb3.8,baz=39,slow=8.6,SNR=4.3						

IDC 16 19:28:48.9±13.0**, 4.73S×126.74E, h232km**±109km**, mb3.2**/2**, mb1 3.4**/4**, mb1mx2.9**/18**, mbtmp3.2**/4**, Error ellipse: s-maj=150.2km s-min=80.4km az=122.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	13.33	185	P	Pn	19 31 51.1	+1.6
	0.3nm,0.3s,baz=9.4,slow=9.9,SNR=30						
FITZ				S	S	19 34 19.8	+2.1
	0.2nm,0.3s,baz=306,slow=7.7,SNR=5.9						
WRA	Warramunga Arr	16.83	155	P	P	19 32 29.5	-0.5
	1.0nm,0.3s,baz=328,slow=11,SNR=127						
ASAR	Alice Springs	20.05	161	P	P	19 33 04.1	-0.6
	2.0nm,0.4s,baz=337,slow=12,SNR=98						
STKA	Stephens Creek	30.38	154	P	P	19 34 40.2	+0.8
	0.7nm,0.7s,baz=326,slow=5.1,SNR=3.8						

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*ISK **16** 19:43:26.4, 39.81N×34.16E, h5km, MD2.9*
*CSEM **16** 19:43:26.6±0.1, 39.81N×34.14E, h5km, MD2.7, Error ellipse: s-maj=3.8km s-min=2.9km az=107.0*
*ISCJB **16** 19:43:27.8±0.5, 39.81N±0.03×34.13E±0.05, h5km, Error ellipse: s-maj=5.4km s-min=4.1km az=3.9*
*DDA **16** 19:43:27.8, 39.81N×34.12E, h7km±5km, Md2.7*

ISC 16 19:43:28.2±0.5**, 39.81N**±0.03×**34.13E**±0.05**, h5km, n18, σ1.24**/25**, 1C-3D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDAG	Cicekdag	0.26	135	⇓iP	Pg	19 43 33.1	-0.1
CDAG				i S	Sg	19 43 37.1	+0.5
CORM	Corum	0.53	46	PG	Pg	19 43 35.9	-2.4
CORM				SG	Sg	19 43 44.5	-0.7
CORM	Corum	0.53	46	ePg	Pg	19 43 35.9	-2.4
CORM				eSg	Sg	19 43 44.5	-0.7
KAMT	Kaman	0.55	216	PG	Pg	19 43 37.8	-0.9
KAMT				SG	Sg	19 43 45.5	-0.3
KAMT	Kaman	0.55	216	ePg	Pg	19 43 37.8	-0.9
KAMT				eSg	Sg	19 43 45.5	-0.3
ELDT	Eldivan	0.87	322	eP	Pg	19 43 43.4	-1.4
CANT	Cankiri	0.89	334	PG	Pg	19 43 44.4	-0.8
YOZ	Yozgat	0.93	100	PG	Pg	19 43 44.5	-1.5
YOZ	Yozgat	0.93	100	ePg	Pg	19 43 44.5	-1.5
CTKT	Corum	0.95	32	⇓iP	Pg	19 43 46.8	+0.3
CTKT				i S	Sg	19 44 01.7	+2.9
AVNT	Avonos	1.17	151	⇑iP	Pg	19 43 51.3	+0.7
AVNT				i S	Sg	19 44 07.2	+1.3
BNN	Bunyan	1.64	125	ePN	Pn	19 43 56.8	-0.8
BNN	Bunyan	1.64	125	ePn	Pn	19 43 56.8	-0.8
BOYT	Boyabat	1.71	20	i P	Pn	19 44 00.1	+1.5
NIG	Nigde	1.74	168	ePN	Pn	19 43 58.4	-0.6
NIG	Nigde	1.74	168	ePn	Pn	19 43 58.4	-0.6
SGKT	Sivrigoynuk	1.76	296	eP	Pn	19 44 01.2	+1.9
BALT	Daday	1.81	342	⇓iP	Pn	19 44 01.7	+1.7

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*NEIC **16** 19:51:01.2, 31.75S×69.95W, h137km, MD3.5(GUC), After GUC.*

GUC 16 19:51:01.2±0.8**, 31.75S×69.95W, h137km**±8km**, MD3.5, ML3.8, 7C-12D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTCH	Petorca	0.97	238	⇓iP	Pn	19 51 25.0	+0.5
PTCH				i S	Sn	19 51 42.7	+0.5
PTCH	Petorca	0.97	238	⇓iP	Pn	19 51 25.0	+0.5
PTCH				i S	Sn	19 51 42.7	+0.5
PTCH				AML	AML	19 51 43.8	
	comp=N,5μm,0.3s						
CMCH	Combarbala	1.06	303	⇓iP	Pn	19 51 25.5	+0.2
CMCH				i S	Sn	19 51 44.2	+0.6
CMCH	Combarbala	1.06	303	⇓iP	Pn	19 51 25.5	+0.2
CMCH				i S	Sn	19 51 44.2	+0.6
CMCH				AML	AML	19 51 46.6	
	comp=E,10μm,1.0s						
JACH	Jahuel	1.07	210	⇓iP	Pn	19 51 26.1	+0.7
JACH				i S	Sn	19 51 44.9	+1.0
CHNG	Los Chungos	1.32	264	⇓iP	Pn	19 51 16.8	-11
CHNG				i S	Sn	19 51 36.9	-11
CHNG				AML	AML	19 51 42.5	
	comp=N,710nm,0.7s						
MDZ	Mendoza	1.46	141	⇓iP	Pn	19 51 27.9	-1.5
MDZ				i S	Sn	19 51 49.2	-1.7
ROCH	El Roble	1.51	216	⇓iP	Pn	19 51 30.7	+0.9
OVCH	Ovalle	1.56	317	⇑iP	Pn	19 51 31.3	+0.8
OVCH				i S	Sn	19 51 53.6	+0.8
OVCH	Ovalle	1.56	317	⇑iP	Pn	19 51 31.3	+0.8
OVCH				i S	Sn	19 51 53.6	+0.8
OVCH				AML	AML	19 51 56.5	
	comp=N,908nm,0.2s						
FCH	Farellones	1.60	190	⇑iP	Pn	19 51 32.3	+1.4
FCH				i S	Sn	19 51 55.0	+1.5
FCH				AML	AML	19 51 56.0	
	comp=E,654nm,0.3s						
CLCH	Cerro Calan	1.71	197	AML	AML	19 51 59.6	
	comp=E,701nm,0.4s						
STL	Santa Lucia	1.78	199	AML	AML	19 51 57.9	
	comp=N,136nm,0.4s						
RCDM	Rinconada Maip	1.88	202	⇓iP	Pn	19 51 34.7	+0.7
RCDM				i S	Sn	19 52 00.1	+0.9
RCDM	Rinconada Maip	1.88	202	⇓iP	Pn	19 51 34.7	+0.7
RCDM				i S	Sn	19 52 00.1	+0.9
RCDM				AML	AML	19 52 01.2	
	comp=E,1μm,0.2s						
ANTU	Antumapu	1.90	197	i S	Sn	19 52 00.2	+0.5
ANTU				AML	AML	19 52 01.1	
	comp=N,687nm,0.4s						
PCH	Pirque	1.92	194	eP	Pn	19 51 35.7	+1.1
PCH				i S	Sn	19 52 02.0	+1.7
TACH	Talagante	2.07	203	⇓iP	Pn	19 51 36.7	+0.3
TACH				i S	Sn	19 52 03.7	+0.3
LSCH	La Serena	2.15	329	eP	Pn	19 51 37.9	+0.5
LSCH				i S	Sn	19 52 05.0	-0.1
LSCH	La Serena	2.15	329	eP	Pn	19 51 37.9	+0.5
LSCH				i S	Sn	19 52 05.0	-0.1
LSCH				AML	AML	19 52 09.9	
	comp=N,172nm,0.4s						
LCCH	Las Cruces	2.19	218	⇓iP	Pn	19 51 38.8	+0.9
CHCH	Chadas Angostu	2.25	195	eP	Pn	19 51 38.8	+0.2
CHCH				i S	Sn	19 52 07.5	+0.1
CACH	El Canelo	2.42	193	eP	Pn	19 51 41.5	+0.8
CACH				i S	Sn	19 52 12.8	+1.8
LNV	Longovilo	2.52	209	⇑iP	Pn	19 51 41.7	-0.2
CICH	Cipreses	2.59	189	⇑iP	Pn	19 51 44.0	+1.2
CICH				eS	Sn	19 52 15.7	+0.8
LCO	Las Campanas	2.81	347	ePn	Pn	19 51 46.2	+0.6
LCO				eSn	Sn	19 52 16.7	-3.2
VACH	Vallenar	3.24	347	⇑iP	Pn	19 51 51.9	+0.6
VACH				i S	Sn	19 52 29.9	0.0
VACH	Vallenar	3.24	347	⇑iP	Pn	19 51 51.9	+0.6
VACH				i S	Sn	19 52 29.9	0.0
VACH				AML	AML	19 52 30.8	
	comp=N,729nm,0.3s						

IDC 16 19:55:18.5±3.1**, 32.63S×178.77W, h0km, mb3.5**/2**, mb1 3.7**/3**, mb1mx3.6**/13**, mbtmp3.5**/3**, ML3.4**/1**, Error ellipse: s-maj=69.4km s-min=36.4km az=111.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	6.55	210	Pn	Pn	19 56 56.1	+0.1
	0.7nm,0.3s,baz=146,slow=22,SNR=4.3						
URZ				Sn	Sn	19 58 09.7	-1.7
	0.1nm,0.3s,baz=343,slow=21,SNR=3.3						
ASAR	Alice Springs	42.39	270	P	P	20 03 14.4	-0.3
	0.4nm,0.7s,baz=99,slow=7.4,SNR=6.5						
WRA	Warramunga Arr	43.58	275	P	P	20 03 24.8	+0.3
	0.4nm,0.5s,baz=114,slow=8.0,SNR=21						
FINES	FINESS Array B	146.99	338	PKPbc	PKPbc	20 15 01.5	-0.8
	0.7nm,0.7s,baz=18,slow=5.8,SNR=4.6						

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*IDC **16** 20:02:21.4±1.8, 33.65N×142.34E, h0km, mb3.3/4, mb1 3.4/6, mb1mx3.3/22, mbtmp3.3/6, ML3.3/2, Error ellipse: s-maj=40.1km s-min=22.8km az=57.0*
*ISCJB **16** 20:02:23.8±2.7, 33.73N±0.08×142.4E±0.2, h33km±23km, mb3.3/4, Error ellipse: s-maj=23.3km s-min=13.7km az=173.4*

ISC 16 20:02:24.9±4.3**, 33.69N**±0.08×**142.3E**±0.1**, h23km**±32km**, n7, σ0.58**/10**, mb3.3**/4**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	2.17	256	Pn	Pn	20 03 00.1	+0.5
	28nm,0.3s,baz=252,slow=20,SNR=12						
JHJ				Sn	Sn	20 03 25.6	-0.1
	35nm,0.3s,baz=233,slow=23,SNR=8.5						
MJAR	Matsushiro Arr	4.39	312	Pn	Pn	20 03 29.7	-0.4
	1.4nm,0.3s,baz=153,slow=13,SNR=12						
MJAR				Sn	Sn	20 04 19.4	-1.1
	1.2nm,0.3s,baz=24,slow=14,SNR=5.6						
MAT	Matsushiro	4.39	312	P	Pn	20 03 30.0	-0.2
MAT				S	Sn	20 04 21.5	+0.9
SONM	Songino Array	30.34	309	P	P	20 08 35.4	+0.8
	0.5nm,0.7s,mb3.3,baz=109,slow=7.2,SNR=5.5						
MKAR	Makanchi Array	46.56	305	P	P	20 10 50.8	+0.1
	0.3nm,0.7s,mb3.3,baz=89,slow=10,SNR=4.6						
WRA	Warramunga Arr	53.86	189	P	P	20 11 45.7	-0.5
	0.3nm,0.8s,mb3.3,baz=5.7,slow=7.6,SNR=6.8						
ASAR	Alice Springs	57.59	189	P	P	20 12 12.8	0.0
	0.1nm,0.5s,mb3.1,baz=5.8,slow=6.9,SNR=3.2						

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*NEIC **16** 20:11:25.6, 39.71N×32.53E, h15km, MD3.4(ISK), After ISK.*
*CSEM **16** 20:11:26.9±0.1, 39.84N×32.56E, h25km, MD3.3*
*ISCJB **16** 20:11:28.8±0.7, 40.10N±0.03×32.77E±0.03, h2km±5km, Error ellipse: s-maj=4.6km s-min=3.8km az=157.9*
*ISK **16** 20:11:28.8, 40.08N×32.78E, h8km, MD3.3*
*DDA **16** 20:11:29.4, 40.11N×32.79E, h24km±2km, Md3.3*

ISC 16 20:11:29.0±0.7**, 40.08N**±0.03×**32.74E**±0.03**, h3km**±5km**, n67, σ1.37**/81**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LOD	Lodumlu	0.19	175	i PG	Pg	20 11 32.7	0.0
LOD				i SG	Sg	20 11 36.6	+1.4
LOD	Lodumlu	0.19	175	Pg	Pg	20 11 31.5	-1.1
LOD				Sg	Sg	20 11 35.5	+0.3
LOD	Lodumlu	0.19	175	i Pg	Pg	20 11 32.7	0.0
LOD				Sg	Sg	20 11 35.5	+0.3
ELDT	Eldivan	0.67	52	i P	Pg	20 11 41.6	-0.1
ELDT				i S	Sg	20 11 51.7	+1.3
SGKT	Sivrigoynuk	0.72	313	i P	Pg	20 11 43.2	+0.4
CANT	Cankiri	0.85	52	ePG	Pg	20 11 45.2	-0.1
CANT	Cankiri	0.85	52	Pn	Pn	20 11 45.3	-2.6
KAMT	Kaman	1.03	133	Pn	Pn	20 11 47.5	-2.9
KAMT	Kaman	1.03	133	Pn	Pn	20 11 47.5	-2.8
SAFT	Safranbolu	1.16	358	PN	Pn	20 11 51.7	-0.4
SAFT	Safranbolu	1.16	358	Pn	Pn	20 11 51.5	-0.6
SAFT	Safranbolu	1.16	358	ePn	Pn	20 11 51.7	-0.4
MDU	Mudurnu	1.23	289	PN	Pn	20 11 52.9	-0.1
MDU	Mudurnu	1.23	289	Pn	Pn	20 11 49.9	-3.2
MDU	Mudurnu	1.23	289	Pn	Pn	20 11 49.8	-3.2
CDAG	Cicekdag	1.33	109	i P	Pn	20 11 53.5	-1.0
CDAG				i S	Sg	20 12 11.9	0.0
TOS	Tosya	1.36	45	PN	Pn	20 11 55.1	+0.2
TOS	Tosya	1.36	45	Pn	Pn	20 11 55.5	+0.6
TOS	Tosya	1.36	45	ePn	Pn	20 11 55.1	+0.2
KIZT	Kizilcal	1.37	209	Pg	Pg	20 11 44.4	-11
KIZT	Kizilcal	1.37	209	Pg	Pg	20 11 44.4	-11
CORM	Corum	1.45	86	PN	Pn	20 11 54.6	-1.5
CORM	Corum	1.45	86	ePn	Pn	20 11 54.6	-1.5
BALT	Daday	1.53	18	i P	Pn	20 11 57.3	+0.1
BALT				i S	Sn	20 12 20.0	+2.4
ESKT	Eskisehir	1.56	250	Pn	Pn	20 11 49.9	-7.7
ESKT	Eskisehir	1.56	250	eP	Pn	20 11 50.6	-7.0
ESKT				i S	Sn	20 12 19.8	+1.4
ESKT	Eskisehir	1.56	250	Pn	Pn	20 11 49.9	-7.7
SEYT	Eskypehyr	1.56	250	eP	Pn	20 11 50.6	-7.0
HENT	Hendek	1.59	298	i P	Pn	20 11 58.9	+0.9
HENT				i S	Sn	20 12 18.5	-0.6
KDHN	Kadinhani	1.63	197	eP	Pn	20 11 59.9	+1.4
KDHN				i S	Sn	20 12 21.9	+1.9
CTKT	Corum	1.66	70	i P	Pn	20 11 59.3	+0.4
CTKT				i S	Sn	20 12 21.5	+0.8
BORA	Eskisehir	1.77	264	i P	Pn	20 12 02.5	+2.0
BORA				i S	Sn	20 12 28.0	+4.5
GPA	Golpazari	1.88	277	ePN	Pn	20 12 03.1	+1.2
GPA	Golpazari	1.88	277	Pn	Pn	20 11 57.3	-4.6
GPA	Golpazari	1.88	277	Pn	Pn	20 11 57.3	-4.6
YOZ	Yozgat	2.03	102	ePN	Pn	20 12 04.7	+0.6
YOZ	Yozgat	2.03	102	Pn	Pn	20 12 02.5	-1.5
YOZ	Yozgat	2.03	102	Pn	Pn	20 12 02.5	-1.6
AVNT	Avonos	2.09	128	i P	Pn	20 12 06.5	+1.6
AVNT				i S	Sn	20 12 33.0	+1.6
BZK	Bozkurt	2.11	27	Pn	Pn	20 12 07.7	+2.6
BZK	Bozkurt	2.11	27	Pn	Pn	20 12 07.7	+2.6
BOYT	Boyabat	2.12	50	i P	Pn	20 12 05.1	-0.2
BOYT				i S	Sn	20 12 30.7	-1.4
KONT	Konya--Tatoy	2.15	188	Pn	Pn	20 11 56.2	-9.5
KONT	Konya--Tatoy	2.15	188	Pn	Pn	20 11 56.2	-10
ALT	Altintas	2.28	244	Pn	Pn	20 11 59.3	-8.1
ALT	Altintas	2.28	244	Pn	Pn	20 11 59.3	-8.1
ADVT	Abdulvahap	2.33	280	Pn	Pn	20 12 03.8	-4.4
ADVT	Abdulvahap	2.33	280	Pn	Pn	20 12 03.8	-4.3
NIG	Nigde	2.45	143	Pn	Pn	20 12 03.8	-6.0
NIG	Nigde	2.45	143	Pn	Pn	20 12 03.8	-6.0
IZI	Iznik	2.52	277	Pn	Pn	20 12 06.0	-4.8
IZI	Iznik	2.52	277	Pn	Pn	20 12 06.0	-4.7
YLV	Yalova	2.62	282	ePN	Pn	20 12 12.9	+0.7
BNN	Bunyan	2.70	116	Pn	Pn	20 12 10.5	-2.7
BNN	Bunyan	2.70	116	Pn	Pn	20 12 10.5	-2.7
GDZ	Gediz	2.71	250	eP	Pn	20 12 19.4	+6.0
GDZ				i S	Sn	20 12 56.9	+10
KVT	Kavak	2.71	67	Pn	Pn	20 12 15.2	+1.8
KVT	Kavak	2.71	67	Pn	Pn	20 12 15.2	+1.8
GEMT	Gemlik	2.74	279	Pn	Pn	20 12 09.5	-4.3
GEMT	Gemlik	2.74	279	Pn	Pn	20 12 09.5	-4.3
ULDT	Uludag	2.77	272	eP	Pn	20 12 12.2	-1.9
KHL	Karahalli	3.06	236	Pn	Pn	20 12 09.4	-8.8
KHL	Karahalli	3.06	236	Pn	Pn	20 12 09.4	-8.7
GULE	Gulek	3.21	150	eP	Pn	20 12 31.6	+11
ANDN	Andirin	3.76	130	i P	Pn	20 12 38.4	+11
ANDN				eS	Sn	20 13 33.6	+21
MYA	Malataya	4.75	110	Pn	Pn	20 12 40.4	-1.1
MYA	Malataya	4.75	110	Pn	Pn	20 12 40.4	-1.0

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*IDC **16** 20:15:27.8±1.1, 37.36N×74.55E, h0km, mb3.8/8, mb1 3.9/11, mb1mx3.7/23, mbtmp3.8/11, ML3.8/3, MS3.0/1, Ms1 3.0/1, ms1mx2.6/28, Error ellipse: s-maj=27.3km s-min=20.2km az=170.0*
*BJI **16** 20:15:30.5, 37.61N×74.55E, h6km, mb4.2, ML3.8*
*MOS **16** 20:15:31.7±1.1, 37.32N×74.64E, h33km, mb3.9/6, Error ellipse: s-maj=20.6km s-min=10.3km az=86.9*
*NNC **16** 20:15:34.4±2.1, 37.35N×74.49E, h69km±40km, mb3.5, mpv3.4, Error ellipse: s-maj=15.9km s-min=13.0km az=5.0*
*ISCJB **16** 20:15:34.1±0.5, 37.41N±0.03×74.71E±0.06, h70km±8km, mb3.7/12, Error ellipse: s-maj=8.3km s-min=4.2km az=178.5*

*NEIC **16** 20:15:35.5±1.2, 37.44N×74.82E, h55^{km}±14^{km}, mb3.7/4, Error ellipse: s-maj=13.9km s-min=12.3km az=127.0*

ISC 16 20:15:36.0±0.4, **37.42N**±0.02×**74.70E**±0.06, **h65**^{km}±7^{km}, **n75, σ1^{s}41**/84, **mb3.7**/12, **4C-3D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	2.32	25	⇑iP	Pn	20 16 12.4	+0.6
KSH				S	Sn	20 16 45.0	+5.8
KSH				Smax			
	comp=N,3µm,0.7s						
KSH				Smax			
	comp=E,4µm,0.6s						
CHCP	Chirah Chowk	3.93	198	P	Pn	20 16 36.1	+2.3
CEP	Cherat	4.25	213	P	Pn	20 16 39.2	+1.1
CEP				S	Sn	20 17 42.0	+16
KZA	Kyzart	4.67	5	P	Pn	20 16 44.3	+0.4
	SNR=35						
AML	Almayashu	4.77	351	P	Pn	20 16 45.5	+0.3
	SNR=7.5						
AML	Almayashu	4.77	351	ePn	Pn	20 16 44.7	-0.5
UCH	Uchtor	4.80	358	P	Pn	20 16 46.3	+0.7
	SNR=15						
UCH	Uchtor	4.80	358	ePn	Pn	20 16 45.9	+0.3
DLH	Dalhousie	4.98	168	eP	Pn	20 16 50.0	+1.8
DLH				ex	x	20 17 48.0	
THN	Thein Dam	5.05	170	eP	Pn	20 16 50.7	+1.6
THN				ex	x	20 17 59.3	
AAK	Ala-Archa	5.21	358	P	Pn	20 16 52.4	+1.2
	SNR=15						
AAK	Ala-Archa	5.21	358	ePn	Pn	20 16 50.9	-0.3
	comp=E,41nm,0.9s						
AAK	Ala-Archa	5.21	358	ePN	Pn	20 16 50.9	-0.3
AAK				pmax	pmax		
	comp=Z,41nm,0.9s						
THW	Thamme Wali	5.21	209	P	Pn	20 16 52.0	+0.7
KBK	Karagaybulak	5.23	2	P	Pn	20 16 52.3	+0.7
	SNR=9.2						
EKS2	Erkin-Say	5.28	353	P	Pn	20 16 54.0	+1.8
	SNR=10						
EKS2	Erkin-Say	5.28	353	ePn	Pn	20 16 53.0	+0.8
	comp=Z,15nm,0.7s						
KBL	Kabul	5.41	240	ePn	Pn	20 16 55.1	+1.1
TKM2	Tokmak 2	5.54	7	P	Pn	20 16 56.2	+0.5
	SNR=58						
TKM2	Tokmak 2	5.54	7	⇑P	Pn	20 16 56.2	+0.4
	comp=Z,1.1nm,0.4s						
TKM2				⇓S	Sn	20 17 60.0	+2.0
	comp=Z,2.8nm,0.6s						
TKM2	Tokmak 2	5.54	7	ePn	Pn	20 16 55.9	+0.2
	comp=Z,34nm,0.4s						
TKM2	Tokmak 2	5.54	7	ePN	Pn	20 16 55.9	+0.2
TKM2				pmax	pmax		
	comp=Z,34nm,0.4s						
SBDP	Sheikh Budin	6.03	213	P	Pn	20 17 01.1	-1.4
SDNR	Sundarnagar	6.20	162	eP	Pn	20 17 06.0	+1.2
SDNR				ex	x	20 18 51.0	
KK31	Karatay Array	6.51	332	P	Pn	20 17 07.5	-1.6
	comp=Z,2.2nm,0.4s,baz=140,slow=12,SNR=155						
KK31				⇓S	Sn	20 18 20.5	-1.4
	comp=Z,9.1nm,0.5s,baz=150,slow=22						
DRP	Derazinda	6.77	214	P	Pn	20 17 13.0	+0.4
JOSI	Joshimath	7.95	148	eP	Pn	20 17 29.1	+0.4
JOSI				eS	Sn	20 18 51.1	-6.1
JOSI				AML	AML	20 19 06.8	
	comp=E,87nm,0.7s						
JOSI				AML	AML	20 19 07.4	
	comp=N,101nm,0.6s						
SONA	Sohna	9.36	167	eP	Pn	20 17 47.5	-0.6
SONA				eS	Sn	20 19 25.5	-6.4
SONA				AML	AML	20 19 36.8	
	comp=N,10nm,0.5s						
SONA				AML	AML	20 19 41.5	
	comp=E,14nm,0.4s						
KHET	Khetri	9.37	174	eP	Pn	20 17 47.8	-0.4
KHET				eS	Sn	20 19 30.1	-1.9
KUDL	Kundal	9.37	170	eP	Pn	20 17 47.1	-1.2
KUDL				eS	Sn	20 19 28.0	-4.1
KUDL				AML	AML	20 19 46.6	
	comp=E,9.5nm,0.5s						
KUDL				AML	AML	20 19 49.3	
	comp=N,7.4nm,0.6s						
MK31	Makanchi Array	10.93	29	P	Pn	20 18 08.6	-0.7
	comp=N,1.3nm,0.7s,baz=213,slow=11,SNR=11						
MK31	Makanchi Array	10.93	29	ePn	Pn	20 18 08.6	-0.7
MK31	Makanchi Array	10.93	29	eP	Pn	20 18 08.6	-0.8
MKAR	Makanchi Array	10.93	29	Pn	Pn	20 18 08.4	-1.0
MKAR				LR	LR	20 23 02.5	
MKAR	Makanchi Array	10.93	29	P	Pn	20 18 08.4	-1.0
MKAR				MLR	MLR		
	comp=Z,81nm,20.0s						
MKAR	Makanchi Array	10.93	29	Pn	Pn	20 18 08.4	-1.0
	comp=Z,0.1nm,0.3s,baz=216,slow=12,SNR=10						
MKAR				LR	LR	20 23 02.5	
	comp=Z,81nm,19.9s,baz=37,slow=41						
GKN	Gorkha	12.57	135	eP	Pn	20 18 29.3	-2.6
	comp=Z,12nm,0.3s						
KKN	Kakani	13.10	134	eP	Pn	20 18 35.6	-3.5
	comp=Z,11nm,0.5s						
KURK	Kurchatov	13.58	11	⇑P	Pn	20 18 45.4	-0.1
	comp=Z,4.3nm,1.9s						
KURK	Kurchatov	13.58	11	ePn	Pn	20 18 41.8	-3.6
KURK	Kurchatov	13.58	11	eP	Pn	20 18 41.8	-3.7
JIRN	Jiri	13.73	132	eP	Pn	20 18 45.6	-1.9
	comp=Z,3.9nm,0.2s						
ODAN	Odare	15.03	131	eP	Pn	20 18 59.9	-4.7
	comp=Z,11nm,0.6s						
LSA	Lhasa	15.72	115	eP	Pn	20 19 12.8	-0.6
	comp=Z,5.0nm,1.4s						
LSA	Lhasa	15.72	115	eP	Pn	20 19 12.8	-0.5
LSA				pmax	pmax		
	comp=Z,5.0nm,1.4s						
AB31	Akbulak array	15.94	323	⇓P	Pn	20 19 13.1	-2.8
	comp=Z,0.5nm,0.3s,baz=134,slow=12,SNR=22						
BRVK	Borovoye	15.94	350	⇑P	Pn	20 19 15.8	-0.1
	comp=Z,2.0nm,1.0s						
BRVK	Borovoye	15.94	350	eP	Pn	20 19 17.6	+1.6
	comp=Z,9.6nm,1.1s						
BRVK	Borovoye	15.94	350	eP	Pn	20 19 17.6	+1.7
BRVK				pmax	pmax		
	comp=Z,10.0nm,1.1s						
AKTK	Aktyubinsk	17.65	323	P	Pn	20 19 34.2	-3.0
AKTO	Aktyubinsk	17.65	323	P	Pn	20 19 34.3	-2.9
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO	Aktyubinsk	17.65	323	P	Pn	20 19 34.2	-3.0
	comp=Z,0.6nm,0.3s,baz=122,slow=14,SNR=9.9						
ZAL	Zalesovo	17.93	20	P	Pn	20 19 38.5	-2.1
ZALV	Zalesovo Beam	17.95	20	P	Pn	20 19 38.5	-2.3
	comp=Z,0.6nm,0.3s,baz=218,slow=11,SNR=16						
NVS	Novosibirsk	18.38	16	eP	Pn	20 19 44.0	-1.9
GTA	Gaotai	19.77	76	eP	Pn	20 20 05.8	+3.1
GTA				AP	pP	20 20 09.6	-4.7
GTA				XP	sP	20 20 11.3	-11
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s						
ARU	Arti	21.87	336	eP	P	20 20 25.9	+2.8
	comp=Z,5.8nm,1.1s,mb3.8						
ARU	Arti	21.87	336	eP	P	20 20 25.9	+2.8
ARU				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb3.8						
ZAK	Zakamensk	24.16	48	eP	P	20 20 47.5	+1.7
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.5s,mb3.2						
SONM	Songino Array	25.38	56	P	P	20 20 58.3	+1.4
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	25.38	56	P	P	20 20 58.3	+1.4
	comp=Z,1.3nm,0.7s,mb3.5,baz=245,slow=9.4,SNR=8.7						
ULN	Ulaanbaatar	25.82	56	eP	P	20 21 05.2	+4.3
	comp=Z,1.2nm,0.8s,mb3.4						
ULN	Ulaanbaatar	25.82	56	eP	P	20 21 05.2	+4.3
ULN				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.3						
HHC	Hu-ho-hao-te	28.67	72	eP	P	20 21 30.8	+4.3
HHC				AP	pP	20 21 35.0	-7.2
HHC				XP	sP	20 21 37.8	-12
HHC				PP	PP	20 22 22.8	-9.3
HHC				PCP	PcP	20 24 42.8	+7.1
HHC				S	S	20 26 17.1	+6.5
HHC				XS	sS	20 26 25.3	-12
HHC				SS	SS	20 27 43.1	-31
HHC				SCP	ScP	20 28 22.0	+11
HHC				PCS	PcS	20 28 23.3	+5.1
HHC				SCS	ScS	20 32 14.1	+9.4
HHC				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.5						
HHC				AMB	AMB		
	comp=Z,158nm,5.1s						
BRTR	Keskin Array B	31.98	287	P	P	20 21 56.5	+0.6
	comp=Z,0.4nm,0.5s,mb3.5,baz=98,slow=7.8,SNR=4.8						
FINES	FINESS Array B	38.41	325	P	P	20 22 51.0	+0.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	38.41	325	P	P	20 22 51.0	+0.3
	comp=Z,0.7nm,0.5s,mb3.7,baz=113,slow=9.4,SNR=5.0						
ARCES	ARCESS Array B	41.46	336	P	P	20 23 16.0	+0.1
ARCES	ARCESS Array B	41.46	336	P	P	20 23 16.0	+0.1
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ARCES	ARCESS Array B	41.46	336	P	P	20 23 16.0	+0.1
	comp=Z,2.0nm,0.5s,mb4.2,baz=111,slow=8.0,SNR=20						
ESDC	Sonseca Array	59.63	299	P	P	20 25 32.1	-1.1
	comp=Z,1.1nm,0.7s,mb4.0,baz=81,slow=11,SNR=3.7						
TORD	Torodi Ar. Bea	68.68	270	P	P	20 26 32.1	-0.7
	comp=Z,0.7nm,0.5s,mb3.7,baz=44,slow=5.8,SNR=8.6						
WRA	Warramunga Arr	80.02	124	P	P	20 27 39.7	+1.3
	comp=Z,0.8nm,1.0s,mb3.5,baz=323,slow=5.2,SNR=5.4						
YKA	Yellowknife Ar	80.15	4	P	P	20 27 39.4	+0.8
YKA	Yellowknife Ar	80.15	4	P	P	20 27 39.4	+0.8
	comp=Z,0.2nm,0.5s,mb3.2,baz=347,slow=5.3,SNR=6.8						

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*NEIC **16** 20:36:30.8, 40.56N×22.29E, h26^{km}, MD3.2(ATH), After ATH.*

*ISCJB **16** 20:36:30.8±0.4, 40.54N±0.03×22.34E±0.03, h12^{km}±4^{km}, Error ellipse: s-maj=4.8km s-min=3.5km az=0.2*

*SKO **16** 20:36:30.9, 40.46N×22.39E, h0^{km}, M1.6, ML2.1*

*ATH **16** 20:36:30.8, 40.56N×22.29E, h26^{km}±1^{km}, MD3.2/5*

*CSEM **16** 20:36:31.2±0.1, 40.53N×22.31E, h8^{km}, ML2.8, Error ellipse: s-maj=2.0km s-min=1.4km az=11.0*

*THE **16** 20:36:31.4, 40.54N×22.32E, h12^{km}, ML2.8*

ISC 16 20:36:31.2±0.4, **40.53N**±0.03×**22.33E**±0.03, **h15**^{km}±4^{km}, **n41, σ0^{s}94**/67, **3C, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRG	Griva	0.43	7	ePg	Pg	20 36 39.4	-0.5
GRG	Griva	0.43	7	ePg	Pg	20 36 39.4	-0.5
LIT	Litokhoron	0.45	164	ePg	Pg	20 36 40.0	-0.2
LIT				eSg	Sg	20 36 47.2	+1.0
LIT	Litokhoron	0.45	164	ePg	Pg	20 36 40.0	-0.2
LIT				eSg	Sg	20 36 47.2	+1.0
KZN	Kozani	0.48	242	⇑iPb	Pb	20 36 40.7	-0.7
KZN				eSb	Sb	20 36 48.1	-0.1
KZN	Kozani	0.48	242	⇑iPB	Pb	20 36 40.7	-0.7
KZN				eSB	Sb	20 36 48.1	-0.1
KZN	Kozani	0.48	242	⇑iPb	Pb	20 36 40.7	-0.7
KZN				eSb	Sb	20 36 48.1	-0.1
THE	Thessaloniki	0.49	78	ePg	Pg	20 36 40.8	-0.3
THE				eSg	Sg	20 36 48.6	+0.9
THE	Thessaloniki	0.49	78	ePg	Pg	20 36 40.8	-0.3
THE				eSg	Sg	20 36 48.6	+0.9
HORT	Hortiatis	0.59	83	ePg	Pg	20 36 42.9	0.0
HORT				eSg	Sg	20 36 51.7	+1.0
HORT	Hortiatis	0.59	83	ePg	Pg	20 36 42.9	+0.1
HORT				eSg	Sg	20 36 51.7	+1.0
KNT	Kendrikon	0.76	34	ePg	Pg	20 36 45.4	-0.7
KNT	Kendrikon	0.76	34	ePg	Pg	20 36 45.4	-0.7
FNA	Florina	0.77	290	ePg	Pg	20 36 45.5	-0.7
FNA	Florina	0.77	290	ePg	Pg	20 36 45.5	-0.7
VAY	Valandovo	0.81	13	i Pg	Pg	20 36 45.4	-1.6
VAY				eLg		20 37 02.0	
	comp=N,26nm,0.5s						
VAY				eLg		20 37 02.9	
	comp=E,58nm,0.7s						
VAY	Valandovo	0.81	13	i Pg	Pg	20 36 45.4	-1.6
SOH	Sokhos	0.83	69	ePg	Pg	20 36 47.0	-0.4
SOH				eSg	Sg	20 36 59.5	+1.1
SOH	Sokhos	0.83	69	ePg	Pg	20 36 47.0	-0.4
SOH				eSg	Sg	20 36 59.5	+1.2
PLG	Polygyros	0.87	100	Pn	Pn	20 36 48.2	-0.6
PLG				eSn	Sn	20 36 59.8	-1.4
PLG	Polygyros	0.87	100	ePg	Pg	20 36 47.8	-0.2
PLG	Polygyros	0.87	100	PN	Pn	20 36 48.2	-0.6
PLG				eSN	Sn	20 36 59.8	-1.4
PLG	Polygyros	0.87	100	ePg	Pg	20 36 47.8	-0.2
PLG	Polygyros	0.87	100	Pn	Pn	20 36 48.2	-0.6
PLG				eSn	Sn	20 36 59.8	-1.4
BIA	Bitola	0.91	303	ePg	Pg	20 36 48.5	-0.3
BIA				eSg	Sg	20 37 01.7	+1.0
BIA	Bitola	0.91	303	i Pg	Pg	20 36 48.6	-0.2
BIA				i Sg	Sg	20 37 02.9	+2.2
BIA				eLg		20 37 04.2	
	comp=E,27nm,0.4s						
BIA				eLg		20 37 04.3	
	comp=N,16nm,0.2s						
BIA	Bitola	0.91	303	ePg	Pg	20 36 48.5	-0.3
BIA				i Sg	Sg	20 37 02.8	+2.1
THL	Klokotos Trika	0.99	194	ePN	Pn	20 36 50.3	-0.3
THL				eSN	Sn	20 37 05.4	+1.1
THL	Klokotos Trika	0.99	194	ePn	Pn	20 36 50.3	-0.3
THL				eSn	Sn	20 37 05.4	+1.1
SRS	Serrai	1.12	58	ePg	Pg	20 36 51.5	-1.4
SRS				eSg	Sg	20 37 08.0	+0.4
SRS	Serrai	1.12	58	ePg	Pg	20 36 51.5	-1.4
SRS				eSg	Sg	20 37 08.0	+0.4
KRUS	Krusevo	1.17	316	i Pg	Pg	20 36 53.0	-0.9
KRUS				i Sg	Sg	20 37 11.4	+2.3
KRUS	Krusevo	1.17	316	i Pg	Pg	20 36 52.9	-0.9
KRUS				i Sg	Sg	20 37 11.3	+2.2
PAIG	Paliouri	1.20	120	ePg	Pg	20 36 53.2	-1.1
PAIG	Paliouri	1.20	120	ePg	Pg	20 36 53.2	-1.1
NEO	Neokhori	1.40	150	ePn	Pn	20 36 56.9	+0.7
NEO	Neokhori	1.40	150	ePN	Pn	20 36 56.9	+0.7
NEO	Neokhori	1.40	150	ePn	Pn	20 36 56.9	+0.7
NVR	Nevrokopi	1.42	54	ePn	Pn	20 36 56.9	+0.4
NVR				eSn	Sn	20 37 16.3	+1.4
NVR	Nevrokopi	1.42	54	ePN	Pn	20 36 56.9	+0.4
NVR				eSN	Sn	20 37 16.3	+1.4
NVR	Nevrokopi	1.42	54	ePn	Pn	20 36 56.9	+0.4
NVR				eSn	Sn	20 37 16.3	+1.4

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*IDC **16** 20:44:05.4±3.6, 32.93N×140.21E, h0^{km}, mb3.6/2, mb1 3.8/3, mb1mx3.4/21, mbtmp3.6/3, ML3.5/1, Error ellipse: s-maj=178.5km s-min=25.9km az=75.0*

*ISCJB **16** 20:44:07.7±1.0, 33.29N±0.05×140.91E±0.08, h55^{km}±12^{km}, mb3.8/2, Error ellipse: s-maj=11.0km s-min=8.4km az=11.1*

*JMA **16** 20:44:08.2±0.2, 33.37N×140.86E, h32^{km}, M3.3*

ISC 16 20:44:08.4±1.2, **33.28N**±0.06×**140.93E**±0.08, **h39**^{km}±18^{km}, **n15, σ1^{s}00**/25, **mb3.8**/2, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	0.94	260	P	Pn	20 44 24.9	-0.3
JHJ2				eS	Sn	20 44 37.1	-0.4
BSO1	Boso 1	1.38	2	P	Pn	20 44 30.5	-0.6
BSO1				eS	Sn	20 44 47.1	-1.0
BSO3	Boso 3	1.56	347	P	Pn	20 44 33.2	-0.5
BSO3				eS	Sn	20 44 52.7	0.0
JKO	Kozu shima	1.75	302	P	Pn	20 44 36.1	-0.1
JKO				eS	Sn	20 44 56.4	-0.8
NJJJ	Nii jima 2	1.77	310	P	Pn	20 44 36.4	-0.1
BSO4	Boso 4	1.78	344	P	Pn	20 44 36.4	-0.3
JIM2	Oshima 3	1.90	320	P	Pn	20 44 37.9	-0.4
JIM2				eS	Sn	20 44 58.6	-2.4
JIZS	Izushimoda	2.23	311	P	Pn	20 44 43.2	+0.4
JIZS				eS	Sn	20 45 08.6	-0.5
JOD2	Odawara 2	2.50	323	P	Pn	20 44 46.4	-0.2
JOD2				eS	Sn	20 45 12.9	-2.9
SHZ3	Shizuoka 3	2.87	309	P	Pn	20 44 53.2	+1.5
SHZ3				eS	Sn	20 45 25.6	+0.6
JYN	Shimob	2.96	319	P	Pn	20 44 53.8	+0.8
MJAR	Matsushiro Arr	3.95	326	Pn	Pn	20 45 07.8	+1.3
	3.4nm,0.3s,baz=155,slow=11,SNR=31						
MJAR				Sn	Sn	20 45 53.5	+1.9
	1.0nm,0.3s,baz=253,slow=10,SNR=4.2						
MAT	Matsushiro	3.95	326	P	Pn	20 45 08.2	+1.7
MAT				S	Sn	20 45 52.6	+1.0
WRA	Warramunga Arr	53.29	188	P	P	20 53 22.6	-0.8
	0.7nm,0.5s,mb3.9,baz=5.5,slow=7.7,SNR=25						
ASAR	Alice Springs	57.02	188	P	P	20 53 50.4	+0.2
	0.4nm,0.5s,mb3.7,baz=18,slow=13,SNR=9.5						

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*STR **16** 20:52:52.5±1.4, 42.18N×11.45E, h5^{km}, Ml3.5, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

*LDG **16** 20:53:18.9±0.4, 43.95N×10.85E, h10^{km}, Ml3.2/18, Error ellipse: s-maj=8.8km s-min=4.4km az=122.0*

*ROM **16** 20:53:20.9±0.1, 44.13N×10.59E, h9^{km}±1^{km}, Md2.8/18, Ml2.8/19, Error ellipse: s-maj=2.1km s-min=1.7km az=105.0*

*PRU **16** 20:53:20.7, 43.99N×10.77E, h7^{km}*

*ISCJB **16** 20:53:20.6±0.2, 44.10N±0.02×10.54E±0.02, h22^{km}±2^{km}, Error ellipse: s-maj=3.1km s-min=2.2km az=175.3*

*CSEM **16** 20:53:20.1±0.1, 44.14N×10.58E, h12^{km}, ML3.2/8, Error ellipse: s-maj=1.2km s-min=0.9km az=22.0*

*NEIC **16** 20:53:20.9, 44.13N×10.59E, h9^{km}, ML3.4(STR), ML2.8(ROM), ML3.2(LDG), After ROM.*

NEIC Felt [III] at Bagni di Lucca and Barga.

*GEN **16** 20:53:21.0, 44.15N×10.60E, h11^{km}, ML2.0*

ISC 16 20:53:21.0±0.2, **44.08N**±0.02×**10.56E**±0.02, **h16**^{km}±1^{km}, **n182, σ1^{s}02**/280, **12C-10D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDI	Bagni Di Lucca	0.04	121	Pg	Pg	20 53 23.8	-0.1
BDI				Sg	Sg	20 53 26.0	+0.2
	29µm,0.1s						
BDI	Bagni Di Lucca	0.04	121	Pg	Pg	20 53 23.8	-0.1
BDI				Sg	Sg	20 53 26.0	+0.2
	29µm,0.1s						
VLC	Villacollemand	0.14	303	ePg	Pg	20 53 24.2	-0.7
VLC				eSg	Sg	20 53 27.7	+0.1
VLC	Villacollemand	0.14	303	⇑iPg	Pg	20 53 24.6	-0.4
VLC				Sg	Sg	20 53 27.5	-0.1
	3µm,0.2s						
VLC	Villacollemand	0.14	303	ePg	Pg	20 53 24.2	-0.8
VLC				Sg	Sg	20 53 27.5	-0.1
	3µm,0.2s						
SARO	Sassorosso	0.15	313	P	Pg	20 53 24.4	-0.7
MAIM		0.17	196	⇓iPg	Pg	20 53 25.9	+0.6
MAIM				Sg	Sg	20 53 29.8	+1.5
	1µm,0.2s						
MAIM		0.17	196	⇓iPg	Pg	20 53 25.9	+0.6
MAIM				Sg	Sg	20 53 29.8	+1.5
	1µm,0.2s						
PZZT	Monte Pizzetto	0.23	77	⇓iPg	Pg	20 53 25.3	-0.9
PZZT				Sg	Sg	20 53 28.7	-1.0
	4µm,0.3s						
PZZT	Monte Pizzetto	0.23	77	⇓iPg	Pg	20 53 25.3	-0.9
PZZT				Sg	Sg	20 53 28.7	-1.0
	4µm,0.3s						
GSCL	Gusciola	0.27	5	⇑iPg	Pg	20 53 25.7	-1.2
GSCL	Gusciola	0.27	5	⇑iPg	Pg	20 53 25.7	-1.2
VALM		0.35	321	P	Pg	20 53 27.2	-1.1
ERBM	Eremo	0.35	343	⇑iPg	Pg	20 53 27.2	-1.2
ERBM				Sg	Sg	20 53 32.9	-0.4
	466nm,0.7s						
ERBM	Eremo	0.35	343	⇑iPg	Pg	20 53 27.2	-1.2
ERBM				Sg	Sg	20 53 32.9	-0.4
	466nm,0.7s						
BACM		0.40	300	P	Pg	20 53 28.7	-0.5
ZCCA	Zocca	0.41	48	⇑iPg	Pg	20 53 29.0	-0.3
ZCCA				Sg	Sg	20 53 36.5	+1.7
	57nm,0.6s						
ZCCA	Zocca	0.41	48	⇑iPg	Pg	20 53 29.0	-0.3
CRMI	Carmignano	0.42	134	Pg	Pg	20 53 29.7	+0.2
CRMI				Sg	Sg	20 53 36.3	+1.2
	144nm,0.3s						
CRMI	Carmignano	0.42	134	Pg	Pg	20 53 29.7	+0.2
CRMI				Sg	Sg	20 53 36.3	+1.2
	144nm,0.3s						
FNVD	Fontana Vidola	0.42	78	⇓iPg	Pg	20 53 28.6	-0.9
FNVD				Sg	Sg	20 53 34.8	-0.4
	1µm,0.4s						
FNVD	Fontana Vidola	0.42	78	⇓iPg	Pg	20 53 28.6	-0.9
FNVD				Sg	Sg	20 53 34.8	-0.4
	1µm,0.4s						
GRAM		0.54	320	P	Pg	20 53 30.6	-1.1
GRAM				S	Sg	20 53 37.9	-1.1
SEI	Scarperia	0.58	92	Pg	Pg	20 53 31.6	-0.8
SEI				Sg	Sg	20 53 40.7	+0.6
SEI	Scarperia	0.58	92	Pg	Pg	20 53 31.6	-0.8
SEI				Sg	Sg	20 53 40.7	+0.6
CODM		0.59	302	P	Pg	20 53 32.6	-0.1
CODM				S	Sg	20 53 39.6	-1.1
VMG	Vicchio	0.72	99	Pg	Pg	20 53 34.7	-0.4
	131nm,0.4s						
VMG	Vicchio	0.72	99	Pg	Pg	20 53 34.7	-0.4
	131nm,0.4s						
NOVE	Novellara	0.73	9	Pg	Pg	20 53 35.9	+0.7
	1µm,0.6s						
NOVE	Novellara	0.73	9	Pg	Pg	20 53 35.9	+0.7
	1µm,0.6s						
CSNT	Castellina Chi	0.81	139	Pg	Pg	20 53 36.8	+0.1
CSNT				Sg	Sg	20 53 48.1	+0.7
	243nm,0.7s						
CSNT	Castellina Chi	0.81	139	Pg	Pg	20 53 36.8	+0.1
CSNT				Sg	Sg	20 53 48.1	+0.7
	243nm,0.7s						
GROG	Isola di Gorgo	0.81	217	Pg	Pg	20 53 37.5	+0.7
GROG				Sg	Sg	20 53 49.7	+2.2
	467nm,0.5s						
GROG	Isola di Gorgo	0.81	217	Pg	Pg	20 53 37.5	+0.7
GROG				Sg	Sg	20 53 49.7	+2.2
	467nm,0.5s						
FIU	Minerbio Fiu	0.87	50	⇑iPg	Pg	20 53 40.5	+2.5
SFI	Santa Sofia	0.95	100	Pg	Pg	20 53 39.2	-0.2
	77nm,0.2s						
SFI	Santa Sofia	0.95	100	Pg	Pg	20 53 39.2	-0.2
	77nm,0.2s						
GRFL	Gerfalco	0.98	162	Pg	Pg	20 53 40.7	+0.7
	39nm,0.3s						
GRFL	Gerfalco	0.98	162	Pg	Pg	20 53 40.7	+0.7
	39nm,0.3s						
SBPO	S.Benedetto Po	1.00	15	Pg	Pg	20 53 41.6	+1.1
	284nm,0.6s						
BOB	Bobbio (Coli)	1.05	311	Pg	Pg	20 53 41.1	-0.2
	211nm,0.6s						
BOB	Bobbio (Coli)	1.05	311	Pg	Pg	20 53 41.1	-0.2
	211nm,0.6s						
CRE	Caprese Michel	1.11	114	Pg	Pg	20 53 41.1	-1.3
	35nm,0.3s						
CRE	Caprese Michel	1.11	114	Pg	Pg	20 53 41.1	-1.3
	35nm,0.3s						
PCP	Pian Castagno	1.52	288	P	Pn	20 53 46.5	-0.9
SALO	Salr	1.54	359	Pg	Pn	20 53 49.1	+1.4
	162nm,0.6s						
SALO	Salr	1.54	359	Pg	Pn	20 53 49.1	+1.4
	162nm,0.6s						
FSSB	Fossombrone	1.65	103	Pg	Pg	20 53 51.8	-1.0
FSSB	Fossombrone	1.65	103	Pg	Pg	20 53 51.8	-1.0
FIN	Finale Ligure	1.69	275	Pg	Pn	20 53 48.7	-1.2
MAGA	Magasa	1.69	2	Pg	Pn	20 53 50.9	+1.0
	372nm,0.6s						
MAGA	Magasa	1.69	2	Pg	Pn	20 53 50.9	+1.0
	372nm,0.6s						
RORO		1.79	272	P	Pn	20 53 50.5	-0.7
MDI	Monti di Nese	1.80	341	Pg	Pn	20 53 52.0	+0.7
	61nm,0.6s						
PGF	Pioggiola	1.91	217	ePn	Pn	20 53 52.4	-0.4
	SNR=1.0						
PGF				eSn	Sn	20 54 14.9	-1.5
	27nm,0.3s,SNR=1.0						
PGF	Pioggiola	1.91	217	ePn	Pn	20 53 52.4	-0.4
PGF				eSn	Sn	20 54 14.9	-1.5
PGF	Pioggiola	1.91	217	ePn	Pn	20 53 52.4	-0.4
	SNR=1.0						
PGF				eSn	Sn	20 54 14.9	-1.5
	14nm,0.3s,SNR=1.0						
IMI	Imperia	1.93	266	Pg	Pn	20 53 52.1	-1.0
MONE	Monesi	2.02	271	P	Pn	20 53 53.8	-0.5
NEGI	Negi	2.07	265	P	Pn	20 53 54.1	-1.0
CTI	Castel Tesino	2.12	21	Pg	Pn	20 53 55.5	-0.2
	14nm,0.3s						
MUGIO	Muggio	2.13	330	Pg	Pn	20 53 56.8	+0.9
SAOF	Saorge	2.17	269	Pg	Pn	20 53 55.7	-0.7
SAOF	Saorge	2.17	269	Pg	Pn	20 53 55.7	-0.7
SAOF	Saorge	2.17	269	Pg	Pn	20 53 55.7	-0.7
VAI	Varese	2.19	325	Pg	Pn	20 53 57.9	+1.2
	25nm,0.4s						
AUTN	L’Aution	2.26	269	Pg	Pn	20 53 57.7	+0.1
AUTN	L’Aution	2.26	269	Pg	Pn	20 53 57.7	+0.1
AUTN	L’Aution	2.26	269	Pg	Pn	20 53 57.7	+0.1
ENR	Entracque	2.26	275	P	Pn	20 53 57.5	-0.2
SBF	Sospel	2.26	266	ePn	Pn	20 53 56.9	-0.8

	SNR=1.0						
SBF				*e*Sn	Sn	20 54 24.4	-0.8
	42nm,0.3s,SNR=1.0						
SBF	**Sospel**	**2.26**	**266**	*e*Pn	**Pn**	**20 53 56.9**	**-0.8**
SBF				*e*Sn	**Sn**	**20 54 24.4**	**-0.8**
SBF	**Sospel**	**2.26**	**266**	*e*Pn	**Pn**	**20 53 56.9**	**-0.8**
	SNR=1.0						
SBF				*e*Sn	**Sn**	**20 54 24.4**	**-0.8**
	21nm,0.3s,SNR=1.0						
LUCF	**Luceram**	**2.32**	**266**	Pg	**Pn**	**20 53 58.1**	**-0.4**
LUCF	**Luceram**	**2.32**	**266**	Pg	**Pn**	**20 53 58.1**	**-0.4**
STV	**Sta Anna Valdi**	**2.33**	**275**	Pg	**Pn**	**20 53 58.7**	**+0.1**
	15nm,0.6s						
STV	**Sta Anna Valdi**	**2.33**	**275**	P	**Pn**	**20 53 58.6**	**0.0**
TOUF	**Mont Tournerai**	**2.39**	**270**	Pg	**Pn**	**20 53 59.0**	**-0.4**
TOUF	**Mont Tournerai**	**2.39**	**270**	Pg	**Pn**	**20 53 59.0**	**-0.4**
TOUF	**Mont Tournerai**	**2.39**	**270**	Pg	**Pn**	**20 53 59.0**	**-0.4**
ORO	**Oropa**	**2.40**	**311**	Pg	**Pn**	**20 54 00.4**	**+0.9**
	22nm,0.3s						
DOI	**San Damiano**	**2.41**	**281**	Pg	**Pn**	**20 53 59.5**	**-0.3**
APPI	**Appiano**	**2.44**	**11**	Pg	**Pn**	**20 54 01.1**	**+0.9**
	37nm,0.5s						
TRAV		**2.46**	**307**	P	**Pn**	**20 54 00.8**	**+0.4**
MVIF	**Mont Vial**	**2.46**	**267**	Pg	**Pn**	**20 54 00.1**	**-0.3**
MVIF				Sg	**Sg**	**20 54 50.7**	**+11**
MVIF	**Mont Vial**	**2.46**	**267**	Pg	**Pn**	**20 54 00.1**	**-0.3**
MVIF				Sg	**Sg**	**20 54 50.7**	**+11**
MVIF	**Mont Vial**	**2.46**	**267**	Pg	**Pn**	**20 54 00.1**	**-0.3**
MVIF				Sg	**Sg**	**20 54 50.7**	**+11**
TUE	**Stuetta**	**2.54**	**341**	Pg	**Pn**	**20 54 02.9**	**+1.4**
	39nm,1.0s						
RSP	**Reno Superiore**	**2.59**	**296**	P	**Pn**	**20 54 01.5**	**-0.7**
CALN	**Calern**	**2.67**	**264**	Pg	**Pn**	**20 54 02.9**	**-0.4**
CALN				Sg	**Sg**	**20 54 52.4**	**+5.6**
CALN	**Calern**	**2.67**	**264**	Pg	**Pn**	**20 54 02.9**	**-0.4**
CALN				Sg	**Sg**	**20 54 52.4**	**+5.6**
CALN	**Calern**	**2.67**	**264**	Pg	**Pn**	**20 54 02.9**	**-0.4**
CALN				Sg	**Sg**	**20 54 52.4**	**+5.6**
MBDF	**Montbardon**	**2.79**	**285**	*e*Pn	**Pn**	**20 54 04.7**	**-0.2**
	SNR=1.0						
MBDF				*e*Sn	**Sn**	**20 54 39.2**	**+1.0**
	20nm,0.6s						
MBDF	**Montbardon**	**2.79**	**285**	*e*Pn	**Pn**	**20 54 04.7**	**-0.2**
MBDF				*e*Sn	**Sn**	**20 54 39.2**	**+1.0**
MBDF	**Montbardon**	**2.79**	**285**	*e*Pn	**Pn**	**20 54 04.7**	**-0.2**
	SNR=1.0						
MBDF				*e*Sn	**Sn**	**20 54 39.2**	**+1.0**
	10nm,0.6s						
SKDS	**Skadanscina**	**2.87**	**58**	*i* Pn	**Pn**	**20 54 04.8**	**-1.2**
SKDS				*i* Sn	**Sn**	**20 54 39.1**	**-1.0**
FRF	**La Foret Royal**	**2.88**	**261**	*e*Pn	**Pn**	**20 54 05.4**	**-0.7**
	SNR=1.0						
FRF				*e*Sn	**Sn**	**20 54 38.3**	**-2.1**
	13nm,0.2s,SNR=1.0						
FRF	**La Foret Royal**	**2.88**	**261**	*e*Pn	**Pn**	**20 54 05.4**	**-0.7**
FRF				*e*Sn	**Sn**	**20 54 38.3**	**-2.1**
FRF	**La Foret Royal**	**2.88**	**261**	*e*Pn	**Pn**	**20 54 05.4**	**-0.7**
	SNR=1.0						
FRF				*e*Sn	**Sn**	**20 54 38.3**	**-2.1**
	6.3nm,0.2s,SNR=1.0						
FVI	**Forni Avoltri**	**2.96**	**31**	Pn	**Pn**	**20 54 08.0**	**+0.7**
	5.0nm,0.3s						
FVI	**Forni Avoltri**	**2.96**	**31**	Pn	**Pn**	**20 54 08.0**	**+0.7**
	5.0nm,0.3s						
ROBS	**Robic**	**3.01**	**43**	*i* Pn	**Pn**	**20 54 06.9**	**-1.0**
ROBS				*i* Sn	**Sn**	**20 54 43.2**	**-0.4**
ROBS	**Robic**	**3.01**	**43**	*i* Pn	**Pn**	**20 54 06.9**	**-1.0**
ROBS				*i* Sn	**Sn**	**20 54 43.2**	**-0.4**
ROBS	**Robic**	**3.01**	**43**	*i* Pn	**Pn**	**20 54 06.9**	**-1.0**
ROBS				*i* Sn	**Sn**	**20 54 43.2**	**-0.4**
LMR	**La Mourre**	**3.03**	**257**	*e*Pn	**Pn**	**20 54 07.3**	**-0.9**
	SNR=1.0						
LMR				*e*Sn	**Sn**	**20 54 41.7**	**-2.4**
	12nm,0.2s,SNR=1.0						
LMR	**La Mourre**	**3.03**	**257**	*e*Pn	**Pn**	**20 54 07.3**	**-0.9**
LMR				*e*Sn	**Sn**	**20 54 41.7**	**-2.4**
LMR	**La Mourre**	**3.03**	**257**	*e*Pn	**Pn**	**20 54 07.3**	**-0.9**
	SNR=1.0						
LMR				*e*Sn	**Sn**	**20 54 41.7**	**-2.4**
	6.2nm,0.2s,SNR=1.0						
LPG	**La Plagne**	**3.06**	**299**	*e*Pn	**Pn**	**20 54 09.9**	**+1.3**
	SNR=1.0						
LPG				*e*Sn	**Sn**	**20 54 45.5**	**+0.7**
	10nm,0.4s						
LPG	**La Plagne**	**3.06**	**299**	*e*Pn	**Pn**	**20 54 09.9**	**+1.3**
LPG				*e*Sn	**Sn**	**20 54 45.5**	**+0.7**
LPG	**La Plagne**	**3.06**	**299**	*e*Pn	**Pn**	**20 54 09.9**	**+1.3**
	SNR=1.0						
LPG				*e*Sn	**Sn**	**20 54 45.5**	**+0.7**
	5.1nm,0.4s						
VOJS	**Vojsko**	**3.06**	**49**	*i* Pn	**Pn**	**20 54 07.8**	**-0.9**
VOJS	**Vojsko**	**3.06**	**49**	*i* Pn	**Pn**	**20 54 07.8**	**-0.9**
VOJS	**Vojsko**	**3.06**	**49**	*i* Pn	**Pn**	**20 54 07.8**	**-0.9**
VOY	**Vojsko**	**3.07**	**49**	*e*Sn	**Sn**	**20 54 44.7**	**-0.3**
VOY	**Vojsko**	**3.07**	**49**	*e*Sn	**Sn**	**20 54 44.7**	**-0.3**
LPL	**La Plagne**	**3.08**	**299**	*e*Pn	**Pn**	**20 54 10.3**	**+1.4**
	SNR=1.0						
LPL				*e*Sn	**Sn**	**20 54 46.6**	**+1.3**
	9.4nm,0.4s						
LPL	**La Plagne**	**3.08**	**299**	*e*Pn	**Pn**	**20 54 10.3**	**+1.4**
LPL				*e*Sn	**Sn**	**20 54 46.6**	**+1.3**
LPL	**La Plagne**	**3.08**	**299**	*e*Pn	**Pn**	**20 54 10.3**	**+1.4**
	SNR=1.0						
LPL				*e*Sn	**Sn**	**20 54 46.6**	**+1.3**
	4.7nm,0.4s						
JAVS	**Javornik**	**3.08**	**53**	*i* Pn	**Pn**	**20 54 07.7**	**-1.2**
JAVS				*i* Sn	**Sn**	**20 54 45.2**	**-0.2**
JAVS	**Javornik**	**3.08**	**53**	*i* Pn	**Pn**	**20 54 07.7**	**-1.2**
JAVS				*i* Sn	**Sn**	**20 54 45.2**	**-0.2**
JAVS	**Javornik**	**3.08**	**53**	*i* Pn	**Pn**	**20 54 07.7**	**-1.2**
JAVS				*i* Sn	**Sn**	**20 54 45.2**	**-0.2**
SQTA	**Sankt Quirin**	**3.17**	**8**	*i* P	**Pn**	**20 54 12.3**	**+2.0**
	comp=Z,2.8nm,0.6s,SNR=13						
SQTA	**Sankt Quirin**	**3.17**	**8**	⇓*i*Pn	**Pn**	**20 54 12.1**	**+1.9**
	2.8nm,0.6s,SNR=13						
SQTA	**Sankt Quirin**	**3.17**	**8**	Pn	**Pn**	**20 54 12.1**	**+1.9**
	2.8nm,0.6s,SNR=13						
CEY	**Cerknica**	**3.21**	**58**	*i* Pn	**Pn**	**20 54 09.8**	**-0.9**
CEY				*i* Sn	**Sn**	**20 54 47.3**	**-1.3**
CEY	**Cerknica**	**3.21**	**58**	*i* Pn	**Pn**	**20 54 09.8**	**-0.9**
CEY				*i* Sn	**Sn**	**20 54 47.3**	**-1.3**
CEY	**Cerknica**	**3.21**	**58**	*i* Pn	**Pn**	**20 54 09.8**	**-0.9**
CEY				*i* Sn	**Sn**	**20 54 47.3**	**-1.3**
WTTA	**Wattenberg**	**3.27**	**13**	*i* P	**Pn**	**20 54 14.4**	**+2.8**
	comp=Z,12nm,0.7s,SNR=18						
WTTA	**Wattenberg**	**3.27**	**13**	*i* Pn	**Pn**	**20 54 14.4**	**+2.8**
	12nm,0.7s,SNR=18						
WTTA				⇓*i*Sn	**Sn**	**20 54 54.7**	**+4.6**
WTTA	**Wattenberg**	**3.27**	**13**	Pn	**Pn**	**20 54 14.4**	**+2.8**
	12nm,0.7s,SNR=18						
WTTA				Sn	**Sn**	**20 54 54.7**	**+4.6**
MOTA	**Moosalm**	**3.29**	**7**	⇑*i*P	**Pn**	**20 54 13.7**	**+1.9**
	comp=Z,4.5nm,0.7s,SNR=12						
MOTA	**Moosalm**	**3.29**	**7**	⇑*i*Pn	**Pn**	**20 54 13.7**	**+1.9**
	4.5nm,0.7s,SNR=12						
MOTA	**Moosalm**	**3.29**	**7**	Pn	**Pn**	**20 54 13.7**	**+1.9**
	4.5nm,0.7s,SNR=12						
WATA	**Walderalm**	**3.33**	**12**	⇓*i*P	**Pn**	**20 54 14.9**	**+2.5**
	comp=Z,3.9nm,0.7s,SNR=11						
WATA	**Walderalm**	**3.33**	**12**	⇓*i*Pn	**Pn**	**20 54 14.9**	**+2.5**
	3.9nm,0.7s,SNR=11						
WATA	**Walderalm**	**3.33**	**12**	Pn	**Pn**	**20 54 14.9**	**+2.5**
	3.9nm,0.7s,SNR=11						
RETA	**Reutte**	**3.41**	**2**	⇑*i*Pn	**Pn**	**20 54 15.0**	**+1.6**
	4.3nm,0.4s,SNR=8.7						
RETA				⇑*i*Sn	**Sn**	**20 54 56.0**	**+2.5**
RETA	**Reutte**	**3.41**	**2**	Pn	**Pn**	**20 54 15.0**	**+1.5**
	4.3nm,0.4s,SNR=8.7						
RETA				Sn	**Sn**	**20 54 56.0**	**+2.5**
ORIF	**Oris-en-Rattie**	**3.45**	**286**	*e*Pn	**Pn**	**20 54 15.7**	**+1.7**
	SNR=1.0						
ORIF				*e*Sn	**Sn**	**20 54 56.2**	**+1.7**
	15nm,0.5s						
ORIF	**Oris-en-Rattie**	**3.45**	**286**	*e*Pn	**Pn**	**20 54 15.7**	**+1.7**
ORIF				*e*Sn	**Sn**	**20 54 56.2**	**+1.7**
ORIF	**Oris-en-Rattie**	**3.45**	**286**	*e*Pn	**Pn**	**20 54 15.7**	**+1.7**
	SNR=1.0						
ORIF				*e*Sn	**Sn**	**20 54 56.2**	**+1.7**
	7.3nm,0.5s						
VISS	**Visnje**	**3.50**	**59**	*i* Pn	**Pn**	**20 54 14.2**	**-0.5**
VISS	**Visnje**	**3.50**	**59**	*i* Pn	**Pn**	**20 54 14.2**	**-0.5**
VISS	**Visnje**	**3.50**	**59**	*i* Pn	**Pn**	**20 54 14.2**	**-0.4**
SMRF	**Simiane la Rot**	**3.59**	**270**	*e*Pn	**Pn**	**20 54 16.9**	**+0.9**
	SNR=1.0						
SMRF				*e*Sn	**Sn**	**20 54 58.2**	**+0.2**
	60nm,1.1s						
SMRF	**Simiane la Rot**	**3.59**	**270**	*e*Pn	**Pn**	**20 54 16.9**	**+0.9**
SMRF				*e*Sn	**Sn**	**20 54 58.2**	**+0.2**
SMRF	**Simiane la Rot**	**3.59**	**270**	*e*Pn	**Pn**	**20 54 16.9**	**+0.9**
	SNR=1.0						
SMRF				*e*Sn	**Sn**	**20 54 58.2**	**+0.2**
	30nm,1.1s						
CABF	**La Chapelle**	**4.04**	**310**	*e*Pn	**Pn**	**20 54 23.7**	**+1.6**
	SNR=1.0						
CABF				*e*Sn	**Sn**	**20 55 10.6**	**+1.6**
	6.1nm,0.4s						
CABF	**La Chapelle**	**4.04**	**310**	*e*Pn	**Pn**	**20 54 23.7**	**+1.6**
CABF				*e*Sn	**Sn**	**20 55 10.6**	**+1.6**
CABF	**La Chapelle**	**4.04**	**310**	*e*Pn	**Pn**	**20 54 23.7**	**+1.6**
	SNR=1.0						
CABF				*e*Sn	**Sn**	**20 55 10.6**	**+1.6**
	3.0nm,0.4s						
VIVF	**Saint-Julien-l**	**4.28**	**282**	*e*Pn	**Pn**	**20 54 25.4**	**0.0**
	SNR=1.0						
VIVF				*e*Sn	**Sn**	**20 55 15.0**	**0.0**
	2.7nm,0.4s						
VIVF	**Saint-Julien-l**	**4.28**	**282**	*e*Pn	**Pn**	**20 54 25.4**	**0.0**
VIVF				*e*Sn	**Sn**	**20 55 15.0**	**0.0**
VIVF	**Saint-Julien-l**	**4.28**	**282**	*e*Pn	**Pn**	**20 54 25.4**	**0.0**
	SNR=1.0						
VIVF				*e*Sn	**Sn**	**20 55 15.0**	**0.0**
	1.4nm,0.4s						
BFO	**Black Forest**	**4.52**	**341**	*e*Pn	**Pn**	**20 54 29.6**	**+0.9**
BFO				*e*Sn	**Sn**	**20 55 18.7**	**-2.2**
BFO	**Black Forest**	**4.52**	**341**	*e*Pn	**Pn**	**20 54 29.6**	**+0.9**
BFO				*e*Sn	**Sn**	**20 55 18.7**	**-2.2**
HINF	**Hinteralfeld**	**4.54**	**327**	*e*Pn	**Pn**	**20 54 29.5**	**+0.5**
	SNR=1.0						
HINF				*e*Sn	**Sn**	**20 55 20.9**	**-0.5**
	17nm,0.5s						
HINF	**Hinteralfeld**	**4.54**	**327**	*e*Pn	**Pn**	**20 54 29.5**	**+0.5**
HINF				*e*Sn	**Sn**	**20 55 20.9**	**-0.5**
HINF	**Hinteralfeld**	**4.54**	**327**	*e*Pn	**Pn**	**20 54 29.5**	**+0.5**
	SNR=1.0						
HINF				*e*Sn	**Sn**	**20 55 20.9**	**-0.5**
	8.4nm,0.5s						
CDF	**Champ du Feu**	**4.89**	**333**	*e*Pn	**Pn**	**20 54 34.5**	**+0.7**
	SNR=1.0						
CDF				*e*Sn	**Sn**	**20 55 29.0**	**-1.1**
	7.6nm,0.3s						
CDF	**Champ du Feu**	**4.89**	**333**	*e*Pn	**Pn**	**20 54 34.5**	**+0.7**
CDF				*e*Sn	**Sn**	**20 55 29.0**	**-1.1**
CDF	**Champ du Feu**	**4.89**	**333**	*e*Pn	**Pn**	**20 54 34.5**	**+0.7**
	SNR=1.0						
CDF				*e*Sn	**Sn**	**20 55 29.0**	**-1.1**
	3.8nm,0.3s						
HAU	**Haudompre**	**4.90**	**325**	*e*Pn	**Pn**	**20 54 34.6**	**+0.7**
	SNR=1.0						
HAU				*e*Sn	**Sn**	**20 55 29.2**	**-1.0**
	30nm,0.4s						
HAU	**Haudompre**	**4.90**	**325**	*e*Pn	**Pn**	**20 54 34.6**	**+0.7**
HAU				*e*Sn	**Sn**	**20 55 29.2**	**-1.0**
HAU	**Haudompre**	**4.90**	**325**	*e*Pn	**Pn**	**20 54 34.6**	**+0.7**
	SNR=1.0						
HAU				*e*Sn	**Sn**	**20 55 29.2**	**-1.0**
	15nm,0.4s						
SMF	**Signal de Mont**	**5.38**	**301**	*e*Pn	**Pn**	**20 54 41.2**	**+0.7**
	SNR=1.0						
SMF				*e*Sn	**Sn**	**20 55 41.7**	**-0.4**
	7.8nm,0.4s						
SMF	**Signal de Mont**	**5.38**	**301**	*e*Pn	**Pn**	**20 54 41.2**	**+0.7**
SMF				*e*Sn	**Sn**	**20 55 41.7**	**-0.4**
SMF	**Signal de Mont**	**5.38**	**301**	*e*Pn	**Pn**	**20 54 41.2**	**+0.7**
	SNR=1.0						
SMF				*e*Sn	**Sn**	**20 55 41.7**	**-0.4**
	3.9nm,0.4s						
KHC	**Kasperske Hory**	**5.46**	**21**	*e*Pn	**Pn**	**20 54 41.7**	**0.0**
KHC				*e*Sn	**Sn**	**20 55 42.0**	**-2.1**
KHC	**Kasperske Hory**	**5.46**	**21**	*e*PN	**Pn**	**20 54 41.7**	**0.0**
KHC				*e*SN	**Sn**	**20 55 42.0**	**-2.1**
KHC	**Kasperske Hory**	**5.46**	**21**	*e*Pn	**Pn**	**20 54 41.7**	**0.0**
KHC				*e*Sn	**Sn**	**20 55 42.0**	**-2.1**
LOR	**Lormes**	**5.67**	**307**	*e*Pn	**Pn**	**20 54 45.4**	**+0.9**
	baz=132						
LOR				*e*Sn	**Sn**	**20 55 48.4**	**-0.9**
	4.1nm,0.3s						
LOR	**Lormes**	**5.67**	**307**	*e*Pn	**Pn**	**20 54 45.4**	**+0.9**
LOR				*e*Sn	**Sn**	**20 55 48.4**	**-0.9**
AVF	**Avril sur Loir**	**5.75**	**301**	*e*Pn	**Pn**	**20 54 46.3**	**+0.7**
AVF	**Avril sur Loir**	**5.75**	**301**	*e*Pn	**Pn**	**20 54 46.3**	**+0.7**
BGF	**Bois d'Agland**	**5.97**	**297**	*e*Pn	**Pn**	**20 54 49.7**	**+1.0**
BGF				*e*Sn	**Sn**	**20 55 55.9**	**-0.8**
	7.2nm,0.4s						
BGF	**Bois d'Agland**	**5.97**	**297**	*e*Pn	**Pn**	**20 54 49.7**	**+1.0**
BGF				*e*Sn	**Sn**	**20 55 55.9**	**-0.8**
MTLF	**Montolieu**	**6.09**	**266**	*e*Pn	**Pn**	**20 54 50.1**	**-0.2**
MTLF	**Montolieu**	**6.09**	**266**	*e*Pn	**Pn**	**20 54 50.1**	**-0.2**
MTLF	**Montolieu**	**6.09**	**266**	*e*Pn	**Pn**	**20 54 50.1**	**-0.2**
CAF	**Calviac**	**6.13**	**281**	*e*Pn	**Pn**	**20 54 50.7**	**-0.1**
CAF	**Calviac**	**6.13**	**281**	*e*Pn	**Pn**	**20 54 50.7**	**-0.1**
CAF	**Calviac**	**6.13**	**281**	*e*Pn	**Pn**	**20 54 50.7**	**-0.1**

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*ISCJB **16** 20:53:22.1±1.0, 41.49N±0.05×46.97E±0.05, h10^{km}, Error ellipse: s-maj=7.9km s-min=5.4km az=155.4*
*TIF **16** 20:53:23.0, 41.05N×46.64E, h16^{km}±1^{km}*
*CSEM **16** 20:53:23.1, 41.63N×46.93E, h19^{km}, mb3.9, After OBN*
*MOS **16** 20:53:23.7±0.8, 41.63N×46.93E, h19^{km}, mb3.9/1, Error ellipse: s-maj=21.7km s-min=11.8km az=130.3*

ISC 16 20:53:22.6±1.0, 41.48N±0.06×46.98E±0.06, h10^{km}, n21, σ1^{s}30/41, 4C-2D, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSMR	**Kasumkent**	**0.87**	**81**	*e*PG	**Pg**	**20 53 41.0**	**+1.6**
KSMR				*e*S	**Sg**	**20 53 57.0**	**+6.2**
KSMR	**Kasumkent**	**0.87**	**81**	*e*Pg	**Pg**	**20 53 41.0**	**+1.6**
KSMR				*e*Sg	**Sg**	**20 53 57.0**	**+6.2**
DGRG	**David-gareji**	**1.20**	**269**	P	**Pb**	**20 53 43.8**	**-1.7**
DGRG				S	**Sb**	**20 54 00.8**	**-0.3**
UNCR	**Uncukul**	**1.24**	**354**	⇑*i*PG	**Pn**	**20 53 42.5**	**-3.5**
UNCR				*i* S	**Sb**	**20 54 00.5**	**-1.7**
UNCR				pmax	pmax		
	comp=Z,36nm,0.2s						
UNCR	**Uncukul**	**1.24**	**354**	*i* Pg	**Pn**	**20 53 42.5**	**-3.5**
	comp=Z,36nm,0.2s						
UNCR				*i* Sg	**Sb**	**20 54 00.5**	**-1.7**
DBC	**Dubki**	**1.54**	**356**	*e*PG	**Pn**	**20 53 48.5**	**-1.6**
DBC				*e*S	**Sn**	**20 54 09.0**	**-1.2**
DBC	**Dubki**	**1.54**	**356**	*e*Pg	**Pn**	**20 53 48.5**	**-1.6**
DBC				*e*Sg	**Sn**	**20 54 09.0**	**-1.2**
MTA	**Mtatsminda**	**1.65**	**278**	P	**Pn**	**20 53 51.5**	**-0.1**
MTA				S	**Sn**	**20 54 11.0**	**-1.9**
TBLG	**Delisi**	**1.70**	**279**	PN	**Pn**	**20 53 51.0**	**-1.2**
TBLG	**Delisi**	**1.70**	**279**	P	**Pn**	**20 53 51.0**	**-1.2**
TBLG				S	**Sn**	**20 54 12.6**	**-1.3**
GOR	**Gori**	**2.20**	**284**	P	**Pn**	**20 54 01.9**	**+2.7**
GOR				S	**Sn**	**20 54 25.8**	**-0.7**
LACR	**Lac**	**2.40**	**305**	⇑*i*PN	**Pn**	**20 54 02.3**	**+0.4**
LACR				*i* S	**Sn**	**20 54 33.2**	**+1.8**
LACR	**Lac**	**2.40**	**305**	*i* Pn	**Pn**	**20 54 02.3**	**+0.4**
LACR				*i* Sn	**Sn**	**20 54 33.2**	**+1.8**
ZEI	**Tsey**	**2.63**	**300**	⇓*i*PN	**Pn**	**20 54 05.4**	**+0.4**
ZEI				*i* S	**Sn**	**20 54 38.7**	**+1.8**
ZEI	**Tsey**	**2.63**	**300**	*i* Pn	**Pn**	**20 54 05.4**	**+0.4**
ZEI				*i* Sn	**Sn**	**20 54 38.7**	**+1.8**
KMSR	**Komsomolskaya**	**2.74**	**314**	⇑*i*PN	**Pn**	**20 54 06.8**	**+0.2**
KMSR				*i* S	**Sn**	**20 54 41.2**	**+1.4**
KMSR	**Komsomolskaya**	**2.74**	**314**	*i* Pn	**Pn**	**20 54 06.8**	**+0.2**
KMSR				*i* Sn	**Sn**	**20 54 41.2**	**+1.4**
DIGR	**Digorskoe uzhe**	**2.89**	**301**	⇓*i*PN	**Pn**	**20 54 09.0**	**+0.3**
DIGR				*i* S	**Sn**	**20 54 44.8**	**+1.3**
DIGR	**Digorskoe uzhe**	**2.89**	**301**	*i* Pn	**Pn**	**20 54 09.0**	**+0.3**
DIGR				*i* Sn	**Sn**	**20 54 44.8**	**+1.3**
LSNR	**Lesken**	**2.95**	**309**	⇑*i*PN	**Pn**	**20 54 09.7**	**+0.3**
LSNR				*i* S	**Sn**	**20 54 46.0**	**+1.1**
LSNR	**Lesken**	**2.95**	**309**	*i* Pn	**Pn**	**20 54 09.7**	**+0.3**
LSNR				*i* Sn	**Sn**	**20 54 46.0**	**+1.1**

MAN 16 20:58:16, 11.13N×125.33E, h63^{km}, mb4.6, ML3.4, MS3.3, 1C-2D, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	**Palo**	**0.35**	**276**	*i* P	Pn	20 58 29.2	+2.4
PLP				*i* S	Sn	20 58 38.9	+4.2
OCLP	**Ormoc**	**0.72**	**264**	*e*P	Pn	20 58 30.5	-0.1
SCPH	**Surigao**	**1.35**	**173**	⇑*e*P	Pn	20 58 40.0	+1.2
SCPH				*e*S	Sn	20 58 58.1	+2.4
LLP	**Lapu-Lapu**	**1.57**	**239**	⇓*e*P	Pn	20 58 42.5	+0.9
LLP				*e*S	Sn	20 59 02.6	+1.5
TBP	**Tagbilaran**	**2.03**	**226**	⇓*e*P	Pn	20 58 50.6	+2.6
PVCP	**Virac**	**2.71**	**335**	*e*P	Pn	20 58 58.7	+1.5
PVCP				*e*S	Sn	20 59 15.0	-14

IDC 16 21:07:56.5±1.7, 2.04N×124.76E, h0^{km}, mb3.5/3, mb1 3.7/3, mb1mx3.3/18, mbtmp3.5/3, Error ellipse: s-maj=210.1km s-min=24.8km az=63.0, Celebes Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**23.78**	**157**	P	P	21 13 11.5	+0.4
	0.4nm,0.4s,baz=336,slow=11,SNR=7.3						
STKA	**Stephens Creek**	**37.32**	**156**	P	P	21 15 10.4	-0.2
	1.1nm,0.7s,baz=337,slow=7.7,SNR=3.2						
MKAR	**Makanchi Array**	**57.85**	**327**	P	P	21 17 49.9	-0.1
	0.3nm,0.4s,baz=123,slow=7.8,SNR=11						

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*ISCJB **16** 21:17:41.6±1.1, 19.47N±0.03×77.88W±0.06, h6^{km}±7^{km}, mb3.2/2, Error ellipse: s-maj=9.2km s-min=4.4km az=12.9*
*JSN **16** 21:17:43.6±0.9, 19.44N×77.96W, h8^{km}±6^{km}, MD4.1*
*IDC **16** 21:17:47.5±1.2, 19.36N×78.89W, h0^{km}, mb3.2/3, mb1 3.5/3, mb1mx3.4/17, mbtmp3.2/3, ML4.9/1, MS3.1/2, Ms1 3.1/2, ms1mx2.7/13, Error ellipse: s-maj=52.6km s-min=25.7km az=9.0*
*SSNC **16** 21:17:48.3, 19.45N×77.65W, h7^{km}, MD3.3, ML3.0*

ISC 16 21:17:41.4±1.0, 19.46N±0.03×77.94W±0.05, h7^{km}±5^{km}, n21, σ0^{s}85/31, mb3.2/2, 1C-8D, Cuba region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBJ	**Montego Bay**	**1.05**	**176**	⇓*e*P	**Pg**	**21 18 01.7**	**+0.1**
MBJ				*e*S	**Sg**	**21 18 15.0**	**-0.3**
LMGC	**Las Mercedes**	**1.06**	**56**	⇑*i*PG	**Pg**	**21 18 01.4**	**-0.4**
LMGC				*i* SG	**Sg**	**21 18 15.1**	**-0.6**
	comp=N,4µm,0.2s						
LMGC				*e*			
	comp=E,4µm,0.2s						
BBJ	**Bamboo Saint A**	**1.25**	**149**	⇓*i*P	**Pb**	**21 18 05.8**	**+0.5**
BBJ				*i* S	**Sg**	**21 18 22.2**	**+0.7**
CVJ	**Coleyville**	**1.29**	**163**	⇓*i*P	**Pn**	**21 18 05.8**	**0.0**
CVJ				*i* S	**Sb**	**21 18 22.2**	**-0.5**
BNJ	**Bonny Gate**	**1.47**	**140**	⇓*i*P	**Pn**	**21 18 08.8**	**+0.4**
MCJ	**Malvern**	**1.55**	**171**	⇓*e*P	**Pn**	**21 18 09.5**	**+0.1**
MCJ				*e*S	**Sn**	**21 18 29.6**	**-0.1**
CCCC	**Cccc**	**1.74**	**5**	*i* P	**Pn**	**21 18 12.3**	**+0.3**
CCCC				*i* S	**Sn**	**21 18 35.6**	**+1.1**
	comp=N,6.0nm,0.4s						
CCCC				*e*			
	comp=E,7.4nm,0.3s						
STH	**Stony Hill**	**1.74**	**142**	⇓*i*P	**Pn**	**21 18 12.4**	**+0.3**
STH				*e*S	**Sn**	**21 18 33.7**	**-0.9**
PCJ	**Portland Cotta**	**1.86**	**156**	⇓*i*P	**Pn**	**21 18 14.7**	**+0.9**
PCJ				*e*S	**Sn**	**21 18 37.4**	**-0.2**
CMJ	**Castle Mountai**	**1.98**	**131**	⇓*e*P	**Pn**	**21 18 15.7**	**+0.3**
CMJ				*e*S	**Sn**	**21 18 40.9**	**+0.3**
RCC	**Rio Carpintero**	**2.18**	**76**	*e*PG	**Pn**	**21 18 18.0**	**-0.1**
RCC				*e*SG	**Sn**	**21 18 44.1**	**-1.3**
	comp=N,758nm,0.2s						
RCC				*e*			
	comp=E,774nm,0.1s						
GTMO	**Guantanamo**	**2.71**	**76**	*e*P	**Pn**	**21 18 22.7**	**-2.7**
GTMO				*e*S	**Sn**	**21 18 53.4**	**-5.0**
	comp=N,18nm,0.1s						
GTMO				*e*			
	comp=E,22nm,0.1s						
MGV	**Manicaragua**	**3.25**	**324**	*e*P	**Pn**	**21 18 42.0**	**+9.1**
MGV				*e*S	**Sn**	**21 19 20.6**	**+8.7**
	comp=N,47nm,0.5s						
MGV				*e*			
	comp=E,57nm,0.7s						
MASC	**Masc**	**3.56**	**78**	*e*P	**Pn**	**21 18 39.0**	**+1.9**
MASC				*e*S	**Sn**	**21 19 20.4**	**+0.9**
	comp=N,6.4nm,0.2s						
MASC				*e*			
	comp=E,11nm,0.3s						
TEIG	**Tepich**	**9.76**	**276**	Pn	**Pn**	**21 19 58.5**	**-3.7**
	comp=E,12nm,0.3s,baz=75,slow=3.0,SNR=52						
TEIG				Sn	**Sn**	**21 21 37.2**	**-15**
	comp=E,0.3nm,0.3s,baz=139,slow=20,SNR=2.8						
TEIG				LR	LR	21 23 15.0	
	comp=E,87nm,19.2s,baz=57,slow=37						
TKL	**Tuckaleechee C**	**16.94**	**343**	LR	LR	21 28 32.9	
	comp=E,66nm,18.4s,baz=328,slow=38						
TXAR	**Lajitas Array**	**25.36**	**298**	P	**P**	**21 23 08.0**	**-1.3**
	comp=E,0.3nm,0.7s,mb3.0,baz=122,slow=8.6,SNR=3.4						
YKA	**Yellowknife Ar**	**49.85**	**339**	P	**P**	**21 26 41.1**	**+6.1**
	comp=E,0.3nm,0.8s,mb3.4,baz=131,slow=8.2,SNR=3.4						
TORD	**Torodi Ar. Bea**	**76.10**	**81**	P	PcP	21 29 42.4	-0.3
	comp=E,0.2nm,0.4s,baz=280,slow=8.5,SNR=2.8						
WRA	**Warramunga Arr**	**149.63**	**264**	PKPbc	PKPbc	21 37 36.9	+4.3
	comp=E,0.5nm,1.0s,baz=78,slow=3.6,SNR=3.0						
ASAR	**Alice Springs**	**150.13**	**256**	PKPbc	PKPbc	21 37 39.1	+5.4
	comp=E,0.4nm,0.8s,baz=117,slow=2.0,SNR=3.8						

IDC 16 21:18:56.1±1.6, 21.67S×66.51W, h195^{km}±15^{km}, mb3.5/2, mb1 3.5/5, mb1mx3.3/18, mbtmp3.4/5, Error ellipse: s-maj=23.6km s-min=15.1km az=96.0, Southern Bolivia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	**La Paz**	**5.57**	**344**	P	Pn	21 20 20.0	+2.3
	1.5nm,0.3s,baz=146,slow=9.2,SNR=30						
LPAZ				S	Sn	21 21 22.4	+0.3
	0.2nm,0.3s,baz=287,slow=19,SNR=9.1						
SIV	**San Ignacio**	**7.64**	**43**	P	Pn	21 20 45.8	+1.1
	8.1nm,0.3s,baz=250,slow=11,SNR=56						
SIV				S	Sn	21 22 09.4	-1.6
	0.8nm,0.3s,baz=323,slow=20,SNR=3.6						
CFAA	**Coronel Fontan**	**10.02**	**189**	P	Pn	21 21 17.2	+1.7
	0.1nm,0.3s,baz=0.7,slow=10,SNR=13						
CFAA				S	Sn	21 23 02.9	-4.5
	0.1nm,0.3s,baz=149,slow=18,SNR=3.7						
TORD	**Torodi Ar. Bea**	**75.31**	**69**	P	P	21 30 18.5	+0.2
	0.7nm,0.4s,baz=254,slow=5.6,SNR=27						
YKA	**Yellowknife Ar**	**92.10**	**340**	P	P	21 31 42.3	-0.3
	0.3nm,0.5s,baz=129,slow=4.7,SNR=8.6						
MKAR	**Makanchi Array**	**144.43**	**38**	PKP	PKPdf	21 38 08.8	-0.2
	0.9nm,0.6s,baz=310,slow=3.8,SNR=13						
SONM	**Songino Array**	**153.27**	**11**	PKPbc	PKPbc	21 38 30.6	-0.2
	0.2nm,0.4s,baz=320,slow=4.1,SNR=5.0						

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*IDC **16** 21:19:39.1±0.7, 3.09N×126.86E, h0^{km}, mb4.1/10, mb1 4.3/10, mb1mx4.2/18, mbtmp4.1/10, MS3.3/2, Ms1 3.3/2, ms1mx2.9/25, Error ellipse: s-maj=59.1km s-min=14.2km az=73.0*
*ISCJB **16** 21:19:45.7±5.7, 3.1N±0.1×127.2E±0.2, h69^{km}±53^{km}, mb4.2/16, Error ellipse: s-maj=33.8km s-min=12.8km az=156.6*
*NEIC **16** 21:19:49.1±3.0, 3.05N×126.98E, h78^{km}±28^{km}, mb4.5/10, Error ellipse: s-maj=22.0km s-min=8.7km az=63.0*

ISC 16 21:19:47.8±5.1, 3.1N±0.1×127.1E±0.2, h71^{km}±49^{km}, n25, σ0^{s}78/19, mb4.2/16, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSM	**Kuching**	**16.86**	**265**	*e*P	**Pn**	**21 23 40.0**	**+0.6**
GUMO	**Guam**	**20.42**	**58**	LR	LR	21 31 12.4	
	comp=Z,50nm,21.1s,baz=153,slow=34						
FITZ	**Fitzroy Crossi**	**21.10**	**184**	P	**P**	**21 24 26.1**	**-0.6**
	6.5nm,0.6s,mb4.2,baz=16,slow=10.0,SNR=52						
WRA	**Warramunga Arr**	**23.96**	**163**	P	**P**	**21 24 55.3**	**-0.4**
	7.4nm,0.5s,mb4.3,baz=337,slow=11,SNR=116						
WRA				PcP	PcP	21 28 37.3	+0.7
	0.3nm,0.5s,baz=337,slow=2.4,SNR=4.2						
MBWA	**Marble Bar**	**25.15**	**196**	*e*P	**P**	**21 25 06.8**	**+0.2**
	13nm,0.7s,mb4.5						
ASAR	**Alice Springs**	**27.40**	**166**	P	**P**	**21 25 26.6**	**-0.2**
	1.6nm,0.6s,mb3.7,baz=347,slow=6.6,SNR=30						
ASAR				PcP	PcP	21 28 46.5	+2.2
	1.0nm,0.7s,baz=343,slow=2.1,SNR=7.9						
KSRS	**Korea Array**	**34.21**	**1**	P	**P**	**21 26 25.5**	**-1.2**
	0.6nm,0.5s,mb3.6,baz=179,slow=9.8,SNR=2.6						
STKA	**Stephens Creek**	**37.40**	**159**	*e*P	**P**	**21 26 54.6**	**+0.6**
STKA				*e*PcP	PcP	21 29 13.9	+2.2
STKA	**Stephens Creek**	**37.40**	**159**	P	**P**	**21 26 54.9**	**+0.9**
	9.4nm,0.7s,mb4.8,baz=337,slow=7.6,SNR=26						

STKA				LR	LR	21 44 37.1	
	comp=Z,76nm,18.5s,baz=198,slow=40						
LSA	**Lhasa**	**43.14**	**312**	*e*P	**P**	**21 27 41.7**	**+0.1**
	1.5nm,0.6s,mb3.9						
SONM	**Songino Array**	**48.02**	**341**	P	**P**	**21 28 20.6**	**+0.8**
	0.4nm,0.5s,mb3.5,baz=156,slow=8.2,SNR=4.0						
MKAR	**Makanchi Array**	**58.29**	**325**	P	**P**	**21 29 34.7**	**-0.6**
MKAR	**Makanchi Array**	**58.29**	**325**	P	**P**	**21 29 34.7**	**-0.6**
	1.2nm,0.5s,mb4.2,baz=118,slow=8.3,SNR=40						
YAK	**Yakutsk**	**58.84**	**1**	*e*P	**P**	**21 29 39.7**	**+0.9**
	10nm,0.6s,mb5.0						
ZALV	**Zalesovo Beam**	**61.33**	**333**	P	**P**	**21 29 55.1**	**-0.8**
	0.7nm,0.4s,mb4.0,baz=130,slow=5.2,SNR=5.2						
KURK	**Kurchatov**	**62.48**	**328**	*e*P	**P**	**21 30 02.9**	**-0.8**
	4.1nm,0.8s,mb4.5						
TIXI	**Tiksi**	**68.48**	**1**	*e*P	**P**	**21 30 42.8**	**+0.7**
	2.0nm,0.4s,mb4.3						
ARU	**Arti**	**75.68**	**328**	*e*P	**P**	**21 31 25.2**	**-0.1**
	2.5nm,0.6s,mb4.1						
BRTR	**Keskin Array B**	**90.72**	**310**	P	**P**	**21 32 42.2**	**-0.9**
	0.3nm,0.7s,mb3.5,baz=103,slow=4.6,SNR=2.8						
ARCES	**ARCESS Array B**	**91.18**	**340**	P	**P**	**21 32 46.5**	**+1.8**
	2.7nm,0.9s,mb4.4,baz=104,slow=6.6,SNR=2.5						
RSSD	**Black Hills**	**114.47**	**38**	*e*PKPdf	PKiKP	21 38 22.9	+2.9
TXAR	**Lajitas Array**	**121.70**	**53**	PKP	PKPdf	21 38 36.5	+2.2
TXAR	**Lajitas Array**	**121.70**	**53**	PKP	PKPdf	21 38 36.5	+2.2
	0.3nm,0.7s,baz=253,slow=4.5,SNR=3.0						
TORD	**Torodi Ar. Bea**	**123.47**	**288**	PKP	PKPdf	21 38 39.4	+1.3
TORD	**Torodi Ar. Bea**	**123.47**	**288**	PKP	PKPdf	21 38 39.4	+1.3
	1.1nm,0.7s,baz=68,slow=1.9,SNR=8.8						

NIED ***16*** *21:23:00, 37.30N×135.40E, h340^{km}, Mw4.2 Best double couple: M₀2.58000×10^{15} NP1:φ$_s$281.00000°, δ35.00000°, λ-4.00000°. NP2:φ$_s$15.00000°, δ88.00000°, λ-125.00000°.*
BJI ***16*** *21:23:27.7, 37.31N×135.37E, h379^{km}, mB4.6, mb4.3*
ISCJB ***16*** *21:23:28.4±0.2, 37.32N±0.05×135.33E±0.05, h375^{km}±4^{km}, mb3.7/20, Error ellipse: s-maj=7.5km s-min=6.7km az=146.1*
NEIC ***16*** *21:23:29.2±0.4, 37.35N×135.38E, h373^{km}±6^{km}, mb4.3/10, Error ellipse: s-maj=9.4km s-min=8.1km az=103.0*
JMA ***16*** *21:23:29.0±0.2, 37.29N×135.37E, h373^{km}±2^{km}, M4.1*
IDC ***16*** *21:23:29.3±0.7, 37.31N×135.30E, h367^{km}±8^{km}, mb3.2/12, mb1 3.4/15, mb1mx3.3/25, mbtmp3.2/15, Error ellipse: s-maj=15.5km s-min=11.1km az=59.0*
ISC 16 21:23:29.3±0.2**, 37.31N**±0.05×**135.36E**±0.05**, h369**^{km}±4^{km}**, n58, σ0^{s}79**/70**, mb3.7**/20**, 2C, Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JJH	**Hakui**	**1.20**	**108**	P	**Pn**	**21 24 17.8**	**-0.1**
JJH				S	**S**	**21 24 56.5**	**-0.5**
JKG	**Kaga**	**1.29**	**142**	P	**Pn**	**21 24 18.4**	**0.0**
JHG	**Hegura jima**	**1.36**	**66**	P	**Pn**	**21 24 19.3**	**+0.7**
JHG				*e*S	**S**	**21 24 58.5**	**+0.3**
JSZ	**Suzu**	**1.61**	**84**	P	**Pn**	**21 24 20.6**	**+0.7**
JGM	**Miyama**	**1.94**	**145**	P	**Pn**	**21 24 22.1**	**0.0**
JGM				S	**S**	**21 25 03.8**	**-0.7**
JWT	**Wachi**	**2.02**	**179**	P	**Pn**	**21 24 22.6**	**0.0**
JWT				S	**S**	**21 25 04.3**	**-1.1**
MAJO	**Matsushiro**	**2.41**	**108**	*e*Pn	**Pn**	**21 24 25.5**	**+0.2**
MAT	**Matsushiro**	**2.41**	**108**	P	**Pn**	**21 24 25.6**	**+0.3**
MAT				S	**S**	**21 25 11.4**	**+1.0**
MAT	**Matsushiro**	**2.41**	**108**	P	**Pn**	**21 24 25.7**	**+0.4**
MJAR	**Matsushiro Arr**	**2.41**	**108**	P	**Pn**	**21 24 26.1**	**+0.8**
	49nm,0.3s,baz=283,slow=9.3,SNR=976						
MJAR				S	**S**	**21 25 11.9**	**+1.5**
	2.0nm,0.3s,baz=289,slow=18,SNR=4.2						
JSD	**Sado**	**2.42**	**72**	P	**Pn**	**21 24 25.4**	**+0.1**
JHS	**Saijyo**	**2.93**	**219**	P	**Pn**	**21 24 29.5**	**-0.1**
JIE	**Ise**	**3.11**	**159**	P	**Pn**	**21 24 31.9**	**+0.7**
JIE				S	**S**	**21 25 20.1**	**-0.9**
JRY	**Ryogami san**	**3.13**	**113**	P	**Pn**	**21 24 31.8**	**+0.5**
JYN	**Shimob**	**3.14**	**124**	P	**Pn**	**21 24 31.2**	**-0.2**
JOD2	**Odawara 2**	**3.64**	**123**	P	**Pn**	**21 24 36.1**	**+0.1**
JOD2				S	**S**	**21 25 29.1**	**-0.7**
JMK	**Ichinoseki**	**4.91**	**69**	P	**Pn**	**21 24 48.4**	**-0.3**
JMK				S	**S**	**21 25 53.0**	**-0.1**
BSO1	**Boso 1**	**5.27**	**118**	P	**Pn**	**21 24 51.6**	**-1.2**
JHJ	**Hachijo jima 2**	**5.53**	**138**	P	**Pn**	**21 24 56.3**	**+0.7**
	4.1nm,0.3s,baz=72,slow=20,SNR=3.4						
JHJ				S	**S**	**21 26 04.9**	**-0.7**
	46nm,0.3s,baz=60,slow=22,SNR=14						
JNU	**Nakatsue**	**5.55**	**223**	P	**Pn**	**21 24 56.4**	**+0.5**
	0.3nm,0.3s,baz=35,slow=16,SNR=5.9						
JOSM	**Okushiri--Mats**	**5.73**	**32**	P	**Pn**	**21 24 58.3**	**+0.6**
KSRS	**Korea Array**	**5.92**	**274**	P	**Pn**	**21 25 00.8**	**+0.9**
	0.9nm,0.3s,baz=93,slow=12,SNR=67						
ERM	**Erimo**	**7.64**	**50**	*e*Pn	**Pn**	**21 25 17.8**	**-1.6**
	126nm,0.9s						
MDJ	**Mudanjiang**	**8.50**	**331**	P	**Pn**	**21 25 30.1**	**+0.6**
MDJ				AMB	AMB		
	comp=Z,34nm,1.1s						
MDJ				AMB	AMB		
	comp=Z,97nm,4.4s						
MDJ	**Mudanjiang**	**8.50**	**331**	*e*Pn	**Pn**	**21 25 30.0**	**+0.5**
	comp=Z,34nm,1.0s						
ASAJ	**Asahikawa**	**8.74**	**37**	P	**Pn**	**21 25 30.8**	**-1.5**
	comp=Z,31nm,0.3s,baz=232,slow=13,SNR=255						
ASAJ				S	**S**	**21 27 04.7**	**-8.3**
	comp=Z,4.3nm,0.3s,baz=322,slow=32,SNR=13						
CN2	**Changchun**	**9.94**	**314**	⇑P	**Pn**	**21 25 46.8**	**+0.4**
CN2				AMB	AMB		
	comp=Z,30nm,1.1s						
YSS	**Yuzh-Sakhalins**	**11.09**	**27**	Pn	**Pn**	**21 25 59.1**	**-0.8**
	comp=Z,14nm,0.3s						
CBIJ	**Chichi jima**	**11.70**	**148**	S	**S**	**21 28 08.2**	**-9.1**
	comp=Z,8.9nm,0.3s,baz=252,slow=20,SNR=6.1						
SSE	**Sheshan**	**13.26**	**246**	*e*P	**P**	**21 26 24.8**	**+0.8**
SSE				AMB	AMB		
	comp=Z,39nm,1.0s						
SSE				AMB	AMB		
	comp=Z,101nm,3.5s						
NJ2	**Nanjing**	**14.55**	**254**	*e*P	**P**	**21 26 38.6**	**+0.4**
NJ2				AMB	AMB		
	comp=Z,50nm,1.2s						
BJI	**Beijing**	**15.23**	**286**	P	**P**	**21 26 44.8**	**-0.7**
BJI				AMB	AMB		
	comp=Z,13nm,1.6s						
BJI	**Beijing**	**15.23**	**286**	P	**P**	**21 26 44.7**	**-0.8**
BJT	**Baijiatuau**	**15.23**	**286**	*e*P	**P**	**21 26 44.8**	**-0.7**
	comp=Z,9.8nm,0.8s						
BJT				*e*		21 26 56.8	
BJT				*e*S	**S**	**21 29 27.9**	**-0.2**
YHNB	**Yeheng**	**17.36**	**227**	*e*P	**P**	**21 27 08.2**	**-0.4**
HHC	**Hu-ho-hao-te**	**18.79**	**288**	*e*P	**P**	**21 27 21.8**	**-1.8**
HHC				AMB	AMB		
	comp=Z,5.0nm,1.1s						
HHC				AMB	AMB		
	comp=Z,80nm,4.5s						
SONM	**Songino Array**	**23.65**	**306**	P	**P**	**21 28 08.5**	**-0.4**
	comp=Z,1.5nm,0.8s,mb3.3,baz=102,slow=9.0,SNR=13						
LZH	**Lanzhou**	**25.24**	**277**	*e*P	**P**	**21 28 26.5**	**+3.2**
LZH				AMB	AMB		
	comp=Z,15nm,1.3s,mb4.1						
GYA	**Guiyang**	**26.56**	**254**	⇑*i*P	**P**	**21 28 34.3**	**-0.8**
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.0						
GTA	**Gaotai**	**27.84**	**285**	*e*P	**P**	**21 28 47.3**	**+1.0**
GTA				AMB	AMB		
	comp=Z,9.0nm,0.6s,mb4.2						
LSA	**Lhasa**	**37.36**	**272**	P	**P**	**21 30 09.3**	**+1.1**
LSA	**Lhasa**	**37.36**	**272**	*e*P	**P**	**21 30 08.7**	**+0.6**
	comp=Z,2.5nm,0.7s,mb3.5						
ZALV	**Zalesovo Beam**	**38.16**	**312**	P	**P**	**21 30 13.5**	**-0.9**
	comp=Z,1.5nm,0.8s,mb3.2,baz=111,slow=8.1,SNR=5.5						
ZALV				PcP	PcP	21 32 20.3	+0.1
	comp=Z,1.0nm,0.6s,baz=72,slow=2.1,SNR=5.4						
ZALV				ScP	ScP	21 35 31.4	-0.6
	comp=Z,0.6nm,0.5s,baz=108,slow=4.5,SNR=4.3						
MKAR	**Makanchi Array**	**39.85**	**301**	P	**P**	**21 30 27.6**	**-0.7**
	comp=Z,0.9nm,0.6s,mb3.2,baz=93,slow=8.4,SNR=3.6						
MKAR				ScP	ScP	21 35 38.4	-0.4
	comp=Z,0.4nm,0.7s,baz=72,slow=4.0,SNR=5.5						
AAK	**Ala-Archa**	**46.07**	**296**	*e*P	**P**	**21 31 17.0**	**-0.6**
	comp=Z,4.1nm,0.9s,mb3.6						
AML	**Almayashu**	**46.77**	**296**	*e*P	**P**	**21 31 24.4**	**+1.3**
	comp=Z,16nm,0.7s,mb4.3						
KBL	**Kabul**	**52.77**	**288**	*e*P	**P**	**21 32 06.5**	**-1.3**
ARU	**Arti**	**52.91**	**317**	*e*P	**P**	**21 32 08.1**	**-0.4**
	comp=Z,9.8nm,1.0s,mb4.1						
WRA	**Warramunga Arr**	**56.95**	**181**	P	**P**	**21 32 37.5**	**0.0**
	comp=Z,2.8nm,0.7s,mb3.7,baz=357,slow=7.5,SNR=38						
ASAR	**Alice Springs**	**60.66**	**182**	P	**P**	**21 33 02.9**	**+0.2**
	comp=Z,0.6nm,0.8s,mb3.1,baz=6.2,slow=6.4,SNR=6.7						
YKA	**Yellowknife Ar**	**65.94**	**29**	P	**P**	**21 33 37.4**	**+0.9**
	comp=Z,0.1nm,0.3s,mb3.0,baz=308,slow=6.0,SNR=3.6						
FINES	**FINESS Array B**	**66.25**	**330**	P	**P**	**21 33 38.2**	**-0.3**
	comp=Z,1.9nm,0.7s,mb4.0,baz=76,slow=6.0,SNR=9.6						
KIV	**Kislovodsk**	**67.01**	**308**	*e*P	**P**	**21 33 43.9**	**+0.3**
	comp=Z,6.0nm,0.9s,mb4.3						
AKASG	**Malin Array Be**	**71.04**	**320**	P	**P**	**21 34 07.8**	**-0.1**
	comp=Z,1.2nm,0.6s,mb3.8,baz=50,slow=6.4,SNR=9.5						
NOA	**NORSAR Array B**	**71.98**	**335**	P	**P**	**21 34 12.8**	**-0.4**
	comp=Z,2.1nm,0.7s,mb4.0,baz=42,slow=6.0,SNR=5.6						
BRTR	**Keskin Array B**	**74.97**	**309**	P	**P**	**21 34 31.8**	**+0.8**
	comp=Z,0.9nm,0.8s,mb3.6,baz=73,slow=4.3,SNR=6.2						
GERES	**GERESS Array B**	**79.83**	**325**	P	**P**	**21 34 57.6**	**+0.2**
	comp=Z,0.4nm,0.5s,mb3.4,baz=22,slow=4.3,SNR=4.5						
TXAR	**Lajitas Array**	**93.68**	**49**	P	**P**	**21 36 06.8**	**+1.8**
	comp=Z,0.3nm,0.6s,mb3.5,baz=306,slow=3.0,SNR=4.3						

IDC ***16*** *22:06:56.2±2.3, 5.34N×94.52E, h0^{km}, mb3.9/6, mb1 4.0/6, mb1mx3.7/21, mbtmp3.9/6, Error ellipse: s-maj=100.9km s-min=20.8km az=59.0*
ISCJB ***16*** *22:06:59.1±0.9, 5.4N±0.1×94.7E±0.1, h30^{km}, mb3.9/7, Error ellipse: s-maj=20.8km s-min=15.4km az=31.7*
NEIC ***16*** *22:07:01.1±0.6, 5.44N×94.67E, h30^{km}, mb4.3/2, Error ellipse: s-maj=15.0km s-min=11.2km az=207.0*
ISC 16 22:07:00.1±7.5**, 5.4N**±0.1×**94.7E**±0.1**, h21**^{km}±58^{km}**, n9, σ0^{s}38**/9**, mb3.9**/7**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	**14.02**	**278**	*e*Pn	**Pn**	**22 10 17.5**	**0.0**
	5.8nm,0.9s						
QIZ	**Qiongzhong**	**20.02**	**46**	P	**P**	**22 11 31.4**	**-0.3**
	47nm,1.5s						
LSA	**Lhasa**	**24.36**	**353**	*e*P	**P**	**22 12 16.7**	**0.0**
	2.2nm,0.5s,mb3.8						
MKAR	**Makanchi Array**	**42.57**	**347**	P	**P**	**22 14 54.6**	**+0.2**
	1.7nm,0.6s,mb4.0,baz=168,slow=7.9,SNR=21						
SONM	**Songino Array**	**43.42**	**11**	P	**P**	**22 15 01.5**	**+0.3**
	0.8nm,0.7s,mb3.6,baz=189,slow=7.9,SNR=11						
SONM				PcP	PcP	22 16 49.9	+0.5
	0.1nm,0.4s,baz=218,slow=3.9,SNR=4.9						
WRA	**Warramunga Arr**	**46.44**	**124**	P	**P**	**22 15 25.4**	**-0.3**
	0.8nm,0.5s,mb3.9,baz=305,slow=9.1,SNR=3.7						
ASAR	**Alice Springs**	**47.96**	**129**	P	**P**	**22 15 38.0**	**+0.5**
	0.4nm,0.6s,mb3.6,baz=311,slow=8.4,SNR=3.2						
ZALV	**Zalesovo Beam**	**49.03**	**352**	P	**P**	**22 15 45.6**	**+0.4**
	1.0nm,0.2s,mb4.4,baz=168,slow=6.5,SNR=9.7						
ARCES	**ARCESS Array B**	**77.73**	**340**	P	**P**	**22 18 54.2**	**-0.8**
	2.8nm,1.0s,mb4.1,baz=98,slow=6.5,SNR=4.8						

IDC ***16*** *22:06:59.5±2.2, 6.79S×129.56E, h0^{km}, mb3.4/1, mb1 3.7/4, mb1mx3.4/15, mbtmp3.5/4, ML3.6/3, Error ellipse: s-maj=89.1km s-min=28.6km az=77.0*
ISCJB ***16*** *22:07:17.3±2.0, 7.7S±0.1×129.3E±0.1, h196^{km}±22^{km}, mb2.9/1, Error ellipse: s-maj=20.4km s-min=15.8km az=158.8*
NEIC ***16*** *22:07:17.8±3.7, 7.66S×129.30E, h186^{km}±45^{km}, Error ellipse: s-maj=36.9km s-min=32.9km az=179.0*
ISC 16 22:07:18.3±1.7**, 7.79S**±0.10×**129.3E**±0.1**, h182**^{km}±15^{km}**, n10, σ1^{s}23**/18**, mb3.0**/1**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**5.80**	**148**	*e*P	**Pn**	**22 08 43.6**	**+0.8**
	7.2nm,0.1s						
KAKA				*e*S	**Sn**	**22 09 48.6**	**-0.7**
KAKA	**Kakadu**	**5.80**	**148**	*e*Pn	**Pn**	**22 08 43.1**	**+0.4**
KAKA				*e*Sn	**Sn**	**22 09 49.7**	**+0.4**
FITZ	**Fitzroy Crossi**	**10.84**	**199**	*e*Pn	**Pn**	**22 09 50.0**	**+1.2**
FITZ				*e*S	**Sn**	**22 11 47.4**	**-2.0**
FITZ	**Fitzroy Crossi**	**10.84**	**199**	Pn	**Pn**	**22 09 49.4**	**+0.6**
	0.4nm,0.3s,baz=16,slow=14,SNR=15						
FITZ				Sn	**Sn**	**22 11 50.2**	**+0.9**
	0.8nm,0.3s,baz=144,slow=23,SNR=7.7						
WRA	**Warramunga Arr**	**13.04**	**158**	Pn	**Pn**	**22 10 17.2**	**+0.3**
WRA				Sn	**Sn**	**22 12 38.3**	**-3.8**
WRA	**Warramunga Arr**	**13.04**	**158**	Pn	**Pn**	**22 10 17.2**	**+0.3**
	0.4nm,0.3s,baz=344,slow=13,SNR=39						
WRA				Sn	**Sn**	**22 12 38.3**	**-3.8**
	0.5nm,0.3s,baz=333,slow=22,SNR=10						
WB2	**Warramunga Arr**	**13.05**	**158**	*e*Pn	**Pn**	**22 10 18.3**	**+1.3**
WB2				*e*Sn	**Sn**	**22 12 39.4**	**-2.7**
ASAR	**Alice Springs**	**16.40**	**165**	P	**Pn**	**22 11 03.5**	**+5.2**
	0.1nm,0.3s,baz=354,slow=13,SNR=4.9						
ASAR				S	**S**	**22 14 00.9**	**+0.7**
	0.1nm,0.3s,baz=348,slow=26,SNR=4.5						
MKAR	**Makanchi Array**	**68.49**	**327**	P	**P**	**22 17 59.5**	**-1.3**
MKAR	**Makanchi Array**	**68.49**	**327**	P	**P**	**22 17 59.5**	**-1.3**
	0.1nm,0.3s,mb3.0,baz=119,slow=7.6,SNR=5.3						

IDC 16 22:14:20.7±4.4**, 46.33N**×**153.11E, h0**^{km}**, mb3.8**/4**, mb1 3.9**/4**, mb1mx3.4**/22**, mbtmp3.8**/4**, Error ellipse: s-maj=147.9km s-min=39.2km az=9.0, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**47.14**	**298**	P	P	22 22 54.4	0.0
	0.6nm,0.8s,baz=64,slow=6.7,SNR=5.4						
FINES	**FINESS Array B**	**64.42**	**335**	P	P	22 24 58.2	0.0
	0.3nm,0.3s,baz=42,slow=6.6,SNR=9.3						
AKASG	**Malin Array Be**	**71.90**	**326**	P	P	22 25 45.2	0.0
	1.1nm,0.5s,baz=35,slow=6.1,SNR=4.4						
TXAR	**Lajitas Array**	**77.70**	**60**	P	P	22 26 19.5	+0.2
	0.4nm,0.6s,baz=318,slow=3.5,SNR=4.5						

TEH ***16*** *22:13:25.7, 31.57N×56.60E, h15^{km}, ML4.2*
CSEM ***16*** *22:14:50.6±0.1, 31.42N×56.75E, h20^{km}, ML4.2, Error ellipse: s-maj=4.1km s-min=1.9km az=158.0*
BJI ***16*** *22:14:51.3, 31.84N×56.53E, h30^{km}, mB5.0, mb4.4*
ISCJB ***16*** *22:14:52.6±0.8, 31.47N±0.06×56.76E±0.05, h40^{km}±7^{km}, mb3.9/15, MS3.2/3, Error ellipse: s-maj=11.5km s-min=5.2km az=158.0*
NEIC ***16*** *22:14:53.3±0.7, 31.38N×56.82E, h35^{km}, mb3.8/3, MN4.2(TEH), Error ellipse: s-maj=11.6km s-min=5.3km az=156.0*
IDC ***16*** *22:14:54.9±5.1, 31.38N×56.81E, h50^{km}±49^{km}, mb3.6/14, mb1 3.8/18, mb1mx3.7/27, mbtmp3.7/18, ML3.7/4, MS3.2/3, Ms1 3.2/3, ms1mx2.9/31, Error ellipse: s-maj=24.4km s-min=16.5km az=154.0*
ISC 16 22:14:54.0±0.8**, 31.41N**±0.07×**56.80E**±0.05**, h40**^{km}±7^{km}**, n97, σ1^{s}00**/101**, mb3.9**/15**, MS3.2**/3**, 1D, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IBAF	**Bafgh**	**1.07**	**280**	Pg	**Pn**	**22 15 08.0**	**-4.5**
IBAF				Sg	**Sn**	**22 15 22.3**	**-3.8**
IBAF	**Bafgh**	**1.07**	**280**	*e*Sg	**Sn**	**22 15 22.3**	**-3.8**
IBAF				*e*		22 15 30.9	
	comp=Z,45µm,0.1s						
IBAF	**Bafgh**	**1.07**	**280**	Pg	**Pn**	**22 15 08.0**	**-4.5**
IMEH	**Mehriz**	**1.87**	**270**	Pn	**Pn**	**22 15 22.9**	**-0.6**
IMEH				Sn	**Sn**	**22 15 45.4**	**-0.4**
IMEH	**Mehriz**	**1.87**	**270**	*e*Pn	**Pn**	**22 15 22.9**	**-0.6**
IMEH				*e*Sn	**Sn**	**22 15 45.5**	**-0.3**
IMEH				*e*		22 15 50.0	
	comp=Z,49µm,0.2s						
IMEH	**Mehriz**	**1.87**	**270**	*e*Pn	**Pn**	**22 15 22.9**	**-0.6**
IMEH				*e*Sn	**Sn**	**22 15 45.5**	**-0.3**
ICHK	**Chekchek**	**2.20**	**293**	Pn	**Pn**	**22 15 27.2**	**-0.8**
ICHK				Lg		22 15 56.8	
ICHK	**Chekchek**	**2.20**	**293**	*e*Pn	**Pn**	**22 15 27.2**	**-0.8**
ICHK				*e*Sg	**Sn**	**22 15 56.8**	**+2.8**
ICHK				*e*		22 16 02.5	
	comp=Z,26µm,0.3s						
ICHK	**Chekchek**	**2.20**	**293**	*e*Pn	**Pn**	**22 15 27.2**	**-0.8**
ICHK				*e*Sg	**Sn**	**22 15 56.8**	**+2.8**
ITEG		**2.22**	**48**	⇓*e*Pn	**Pn**	**22 15 27.5**	**-0.8**
ISAD	**Sadrabad**	**2.70**	**281**	Pn	**Pn**	**22 15 34.8**	**-0.1**
ISAD	**Sadrabad**	**2.70**	**281**	*e*Pn	**Pn**	**22 15 34.8**	**-0.1**
ISAD				*e*		22 16 29.2	
	comp=N,10µm,0.4s						
ISAD	**Sadrabad**	**2.70**	**281**	*e*Pn	**Pn**	**22 15 34.8**	**-0.1**
IDAH		**2.92**	**62**	*e*Pn	**Pn**	**22 15 38.3**	**+0.4**
IGAR	**Garneh**	**4.00**	**283**	*e*Pn	**Pn**	**22 15 56.1**	**+3.3**
IGAR				*e*		22 17 06.5	
	comp=Z,4µm,0.2s						
IZEF	**Zefreh**	**4.07**	**292**	Pn	**Pn**	**22 15 53.4**	**-0.3**
IZEF	**Zefreh**	**4.07**	**292**	*e*Pn	**Pn**	**22 15 53.4**	**-0.3**
IZEF				*e*		22 16 08.6	
	comp=Z,3µm,0.4s						
IZEF	**Zefreh**	**4.07**	**292**	*e*Pn	**Pn**	**22 15 53.4**	**-0.3**
SHI	**Shiraz**	**4.10**	**246**	*e*Pn	**Pn**	**22 16 00.7**	**+6.6**
SHI				*e*		22 16 13.9	
	comp=Z,2µm,0.3s						
IMOK	**Mook**	**4.25**	**237**	Pn	**Pn**	**22 15 55.9**	**-0.3**
IMOK	**Mook**	**4.25**	**237**	*e*Pn	**Pn**	**22 15 56.0**	**-0.2**
IMOK				*e*		22 17 20.5	
	comp=Z,2µm,0.4s						
IMOK	**Mook**	**4.25**	**237**	*e*Pn	**Pn**	**22 15 56.0**	**-0.2**
IKLH	**Kalahroud**	**4.81**	**295**	Pn	**Pn**	**22 16 04.7**	**+0.8**
IKLH	**Kalahroud**	**4.81**	**295**	*e*Pn	**Pn**	**22 16 04.8**	**+0.9**
IKLH				*e*		22 17 37.6	
	comp=Z,2µm,0.4s						
IKLH	**Kalahroud**	**4.81**	**295**	*e*Pn	**Pn**	**22 16 04.8**	**+0.9**
ISFB	**Sefidab**	**4.83**	**309**	Pn	**Pn**	**22 16 03.1**	**-1.1**
ISFB	**Sefidab**	**4.83**	**309**	*e*Pn	**Pn**	**22 16 03.1**	**-1.1**
ISFB				*e*		22 17 25.4	
	comp=Z,2µm,0.2s						
ISFB	**Sefidab**	**4.83**	**309**	*e*Pn	**Pn**	**22 16 03.1**	**-1.1**
IMOG	**Moghan**	**5.14**	**24**	Pn	**Pn**	**22 16 08.7**	**+0.3**
IMOG	**Moghan**	**5.14**	**24**	*e*Pn	**Pn**	**22 16 08.8**	**+0.4**
IMOG				*e*		22 17 50.3	
	comp=Z,1µm,0.3s						
IMOG	**Moghan**	**5.14**	**24**	*e*Pn	**Pn**	**22 16 08.8**	**+0.4**
IPIR	**Pirpir**	**5.17**	**286**	Pn	**Pn**	**22 16 11.0**	**+2.1**
IPIR	**Pirpir**	**5.17**	**286**	*e*Pn	**Pn**	**22 16 11.0**	**+2.1**
IPIR				*e*		22 17 50.5	
	comp=Z,1µm,0.3s						
IPAY	**Payeh**	**5.35**	**19**	Pn	**Pn**	**22 16 12.6**	**+1.4**
IPAY	**Payeh**	**5.35**	**19**	*e*Pn	**Pn**	**22 16 12.6**	**+1.4**
IPAY				*e*		22 16 16.3	
	comp=Z,1µm,0.1s						
IPAY	**Payeh**	**5.35**	**19**	*e*Pn	**Pn**	**22 16 12.6**	**+1.4**
IAKL	**Akhlamad**	**5.39**	**17**	Pn	**Pn**	**22 16 12.7**	**+0.8**
IAKL	**Akhlamad**	**5.39**	**17**	*e*Pn	**Pn**	**22 16 12.8**	**+0.9**
IAKL				*e*		22 17 55.0	
	comp=Z,2µm,0.6s						
IAKL	**Akhlamad**	**5.39**	**17**	*e*Pn	**Pn**	**22 16 12.8**	**+0.9**
IFIR	**Firoozkooh**	**5.40**	**322**	Pn	**Pn**	**22 16 10.8**	**-1.2**
IFIR	**Firoozkooh**	**5.40**	**322**	*e*Pn	**Pn**	**22 16 10.8**	**-1.2**
IFIR				*e*		22 16 12.3	
	comp=Z,976nm,0.1s						
IFIR	**Firoozkooh**	**5.40**	**322**	*e*Pn	**Pn**	**22 16 10.8**	**-1.2**
IKRD	**Kardeh**	**5.53**	**14**	Pn	**Pn**	**22 16 18.6**	**+4.8**
IKRD	**Kardeh**	**5.53**	**14**	*e*Pn	**Pn**	**22 16 18.7**	**+4.9**
IKRD				*e*		22 18 18.0	
	comp=Z,1µm,0.6s						
IVRN	**Varamin**	**5.55**	**311**	Pn	**Pn**	**22 16 13.4**	**-0.7**
IVRN	**Varamin**	**5.55**	**311**	*e*Pn	**Pn**	**22 16 13.5**	**-0.6**
IVRN				*e*		22 18 06.0	
	comp=Z,967nm,0.4s						
IVRN	**Varamin**	**5.55**	**311**	*e*Pn	**Pn**	**22 16 13.5**	**-0.6**
IGLO	**Galoogah**	**5.60**	**332**	Pn	**Pn**	**22 16 15.7**	**+0.9**
IGLO	**Galoogah**	**5.60**	**332**	*e*Pn	**Pn**	**22 16 15.7**	**+0.9**
IGLO				*e*		22 18 10.5	
	comp=Z,3µm,0.3s						
IMYA	**Miamay**	**5.63**	**28**	Pn	**Pn**	**22 16 15.7**	**+0.5**
IMYA	**Miamay**	**5.63**	**28**	*e*Pn	**Pn**	**22 16 15.8**	**+0.6**
IMYA				*e*		22 18 43.1	
	comp=Z,1µm,0.5s						
IMYA	**Miamay**	**5.63**	**28**	*e*Pn	**Pn**	**22 16 15.8**	**+0.6**
ISFR	**Esferayen**	**5.71**	**10**	Pn	**Pn**	**22 16 16.6**	**+0.4**
ISFR	**Esferayen**	**5.71**	**10**	*e*Pn	**Pn**	**22 16 16.7**	**+0.5**
ISFR	**Esferayen**	**5.71**	**10**	*e*Pn	**Pn**	**22 16 16.7**	**+0.5**
IPRN	**Paran-Amol**	**6.13**	**323**	Pn	**Pn**	**22 16 21.3**	**-0.7**
IPRN	**Paran-Amol**	**6.13**	**323**	*e*Pn	**Pn**	**22 16 21.3**	**-0.7**
IPRN				*e*		22 18 18.6	
	comp=Z,2µm,0.3s						
ISHV	**Shirvan**	**6.15**	**7**	Pn	**Pn**	**22 16 22.1**	**-0.2**
ISHV	**Shirvan**	**6.15**	**7**	*e*Pn	**Pn**	**22 16 22.1**	**-0.2**
ISHV				*e*		22 18 46.0	
	comp=Z,2µm,0.3s						
ISHV	**Shirvan**	**6.15**	**7**	*e*Pn	**Pn**	**22 16 22.1**	**-0.2**
IEMG	**Emamqoli**	**6.17**	**14**	Pn	**Pn**	**22 16 22.4**	**-0.2**
IEMG	**Emamqoli**	**6.17**	**14**	*e*Pn	**Pn**	**22 16 22.5**	**-0.1**
IEMG				*e*		22 18 18.5	
	comp=Z,2µm,0.6s						
IEMG	**Emamqoli**	**6.17**	**14**	*e*Pn	**Pn**	**22 16 22.5**	**-0.1**
IMHD	**Mahdasht**	**6.66**	**311**	Pn	**Pn**	**22 16 28.7**	**-0.6**
IMHD	**Mahdasht**	**6.66**	**311**	*e*Pn	**Pn**	**22 16 28.7**	**-0.6**
IMHD				*e*		22 16 33.4	
	comp=Z,351nm,0.1s						
IMHD	**Mahdasht**	**6.66**	**311**	*e*Pn	**Pn**	**22 16 28.7**	**-0.6**
KIV	**Kislovodsk**	**16.75**	**322**	Pn	**Pn**	**22 18 43.6**	**-2.0**
	comp=Z,10.0nm,0.8s						
KIV	**Kislovodsk**	**16.75**	**322**	Pn	**Pn**	**22 18 43.6**	**-1.9**
	comp=Z,10.0nm,0.8s						
ASF	**Jabal al Asfar**	**16.94**	**278**	P	**Pn**	**22 18 49.0**	**+1.0**
	comp=Z,0.3nm,0.3s,baz=298,slow=5.2,SNR=11						
EKS2	**Erkin-Say**	**17.57**	**46**	*e*Pn	**Pn**	**22 18 53.4**	**-2.3**
	comp=Z,7.6nm,1.3s						
UCH	**Uchtor**	**17.79**	**48**	*e*Pn	**Pn**	**22 18 57.7**	**-0.7**
	comp=Z,14nm,1.5s						
UCH	**Uchtor**	**17.79**	**48**	*e*Pn	**Pn**	**22 18 57.7**	**-0.7**
	comp=Z,14nm,1.5s						
MMAI	**Mount Meron Ar**	**18.18**	**281**	P	**Pn**	**22 19 03.9**	**+0.6**
	comp=Z,0.2nm,0.3s,baz=78,slow=16,SNR=4.6						
EIL	**Elat**	**18.90**	**270**	P	**Pn**	**22 19 12.1**	**0.0**
EIL	**Elat**	**18.90**	**270**	P	**Pn**	**22 19 12.1**	**0.0**
	comp=Z,0.2nm,0.3s,baz=45,slow=3.5,SNR=7.9						
AKTK	**Aktyubinsk**	**19.03**	**2**	P	**Pn**	**22 19 12.9**	**-0.4**
AKTK	**Aktyubinsk**	**19.03**	**2**	P	**Pn**	**22 19 12.9**	**-0.5**
AKTO	**Aktyubinsk**	**19.03**	**2**	P	**Pn**	**22 19 12.9**	**-0.4**
	comp=Z,0.2nm,0.3s,baz=198,slow=10,SNR=15						
BRTR	**Keskin Array B**	**20.55**	**300**	P	**P**	**22 19 29.0**	**0.0**
	comp=Z,4.0nm,0.8s,baz=119,slow=13,SNR=23						
ATD	**Arta Tunnel**	**23.62**	**216**	LR	LR	22 30 05.8	
	comp=Z,31nm,19.0s,MS2.8,baz=35,slow=39						
MKAR	**Makanchi Array**	**24.89**	**45**	P	**P**	**22 20 12.7**	**-0.3**
	comp=Z,1.4nm,0.9s,mb3.5,baz=228,slow=8.5,SNR=12						
AKASG	**Malin Array Be**	**28.09**	**321**	P	**P**	**22 20 41.1**	**-0.6**
	comp=Z,0.9nm,0.6s,mb3.6,baz=126,slow=8.5,SNR=5.9						
ZALV	**Zalesovo Beam**	**30.18**	**34**	P	**P**	**22 20 59.5**	**-0.7**
	comp=Z,1.4nm,0.6s,mb3.9,baz=236,slow=9.7,SNR=8.3						
ZALV				LR	LR	22 34 55.2	
	comp=Z,17nm,20.7s,MS2.7,baz=206,slow=40						
GTA	**Gaotai**	**35.68**	**65**	*e*P	**P**	**22 21 50.8**	**+2.4**
GTA				AP	pP	22 21 54.6	-4.9
GTA				XP	sP	22 21 57.5	-6.8
GTA				AMB	AMB		
	comp=Z,11nm,1.2s,mb4.7						
FINES	**FINESS Array B**	**36.10**	**335**	P	**P**	**22 21 51.8**	**+0.1**
	comp=Z,2.2nm,1.0s,mb4.0,baz=132,slow=8.5,SNR=4.5						
GERES	**GERESS Array B**	**36.70**	**311**	P	**P**	**22 21 58.3**	**+1.3**
	comp=Z,0.6nm,0.6s,mb3.6,baz=125,slow=10,SNR=3.1						
SONM	**Songino Array**	**40.83**	**52**	P	**P**	**22 22 32.8**	**+1.2**
	comp=Z,1.0nm,1.1s,mb3.4,baz=259,slow=9.9,SNR=5.0						
NOA	**NORSAR Array B**	**41.90**	**329**	P	**P**	**22 22 41.4**	**+1.2**
	comp=Z,1.4nm,0.8s,mb3.6,baz=78,slow=4.2,SNR=3.5						
NOA	**NORSAR Array B**	**41.90**	**329**	P	**P**	**22 22 41.3**	**+1.1**
HHC	**Hu-ho-hao-te**	**44.59**	**62**	*e*P	**P**	**22 23 07.3**	**+5.1**
HHC				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.3						
HHC				AMB	AMB		
	comp=Z,120nm,4.8s						
TORD	**Torodi Ar. Bea**	**53.58**	**263**	P	**P**	**22 24 09.7**	**-1.7**
	comp=Z,1.0nm,0.9s,mb3.7,baz=63,slow=7.2,SNR=4.9						
BOSA	**Boshof**	**66.82**	**210**	P	**P**	**22 25 42.3**	**+0.7**
	comp=Z,3.7nm,1.0s,mb4.4,baz=45,slow=7.9,SNR=3.1						
SUR	**Sutherland**	**72.00**	**212**	LR	LR	23 00 02.1	
	comp=Z,95nm,21.4s,MS4.0,baz=185,slow=38						
INK	**Inuvik**	**80.29**	**4**	P	**P**	**22 27 00.6**	**+0.4**
	comp=Z,1.2nm,0.9s,mb3.8,baz=9.7,slow=6.5,SNR=3.8						
YKA	**Yellowknife Ar**	**86.17**	**356**	P	**P**	**22 27 30.3**	**-0.3**
	comp=Z,0.3nm,0.6s,mb3.7,baz=358,slow=4.9,SNR=13						
WRA	**Warramunga Arr**	**90.13**	**113**	P	**P**	**22 27 49.6**	**-0.6**
	comp=Z,0.5nm,0.8s,mb3.9,baz=316,slow=4.1,SNR=10						
ASAR	**Alice Springs**	**91.84**	**117**	P	**P**	**22 27 57.6**	**-0.5**
	comp=Z,0.6nm,0.8s,mb4.0,baz=304,slow=6.0,SNR=7.4						

CSEM ***16*** *22:21:29.7±0.9, 32.49N×27.2W, h10^{km}, MD3.8, Error ellipse: s-maj=18.4km s-min=9.4km az=135.0*
CNRM ***16*** *22:21:31.0, 32.27N×27.9W, h0^{km}, MD3.8*
MDD ***16*** *22:21:31.1±1.7, 32.29N×28.3W, h0^{km}, mb3.7/8, Error ellipse: s-maj=17.0km s-min=7.1km az=133.0, PRXIMO*
NEIC ***16*** *22:21:35.8, 32.53N×35.0W, h0^{km}, MG3.8(MDD), After MDD.*
INMG ***16*** *22:21:37.1±1.0, 32.46N×33.8W, h31^{km}, ML2.5, Error*

ellipse: s-maj=10.7km s-min=8.3km az=87.0

ISC 16 22:21:32.1±1.9,**32.30N**±0.10×**2.7W**±0.1,**h27**km±31km,**n40,** σ**1.33**/68,**Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZFT	Errachidia	1.40	259	P	Pn	22 21 55.0	-0.7
ZFT				S	Sn	22 22 14.0	+0.7
CZD	Col de Zad	2.08	291	P	Pn	22 22 05.0	-0.1
CZD				S	Sn	22 22 32.0	+1.9
TZK	Tazeka	2.15	326	P	Pn	22 22 06.0	-0.2
TZK				S	Sn	22 22 32.0	0.0
IFR	Ifrane	2.35	302	P	Pn	22 22 11.0	+2.2
IFR				S	Sn	22 22 36.0	-0.7
MIF	Mishlifen	2.37	298	*i* P	Pn	22 22 09.5	+0.4
MIF				*i* S	Sn	22 22 38.0	+0.7
TGT	Taghat	2.62	313	P	Pn	22 22 14.0	+1.4
TGT				S	Sn	22 22 45.0	+1.4
TGT	Taghat	2.62	313	*i* P	Pn	22 22 14.0	+1.4
ZAI	Zaio	2.66	360	P	Pn	22 22 15.0	+1.9
ZAI				S	Sn	22 22 47.0	+2.5
KIB	El Ksiba	2.81	276	*i* P	Pn	22 22 16.0	+0.9
KIB				*i* S	Sn	22 22 48.0	-0.1
MPAL	Palemas	3.08	341	P	Pn	22 22 20.0	+1.1
MPAL				S	Sn	22 22 57.0	+2.1
MPAL	Palemas	3.08	341	*i* P	Pn	22 22 20.0	+1.1
TZC	Tazercounte	3.18	268	P	Pn	22 22 20.0	-0.4
TZC				S	Sn	22 22 55.0	-2.4
AVE	Averroes	4.06	285	P	Pn	22 22 32.5	+0.1
EMIJ	Mijas	4.57	339	P	Pn	22 22 39.0	-0.5
EMIJ				S	Sn	22 23 26.4	-5.2
EMIJ	Mijas	4.57	339	P	Pn	22 22 39.4	0.0
	0.7nm,0.3s,SNR=7.9						
EMIJ				S	Sn	22 23 30.1	-1.5
	3.1nm,0.5s,SNR=7.9						
EMIJ	Mijas	4.57	339	P	Pn	22 22 39.0	-0.4
	0.7nm,0.3s,SNR=7.9						
EMIJ				S	Sn	22 23 26.4	-5.2
	SNR=7.9						
EBER	Berja	4.58	358	P	Pn	22 22 43.1	+3.5
EBER				S	Sn	22 23 30.0	-1.9
EBER	Berja	4.58	358	P	Pn	22 22 41.9	+2.3
	1.3nm,0.2s,SNR=7.9						
EBER				S	Sn	22 23 31.7	-0.2
	2.5nm,0.4s,SNR=7.9						
EBER	Berja	4.58	358	P	Pn	22 22 42.5	+2.9
	1.3nm,0.2s,SNR=7.9						
EBER				S	Sn	22 23 30.0	-2.0
	2.5nm,0.4s,SNR=7.9						
EQUE	Quentar	4.92	353	P	Pn	22 22 45.9	+1.7
	1.7nm,0.3s,SNR=4.6						
EQUE				S	Sn	22 23 39.5	-0.8
	0.4nm,0.2s,SNR=7.9						
EQES	Quesada	5.49	357	P	Pn	22 22 55.8	+3.7
EQES				S	Sn	22 23 52.2	-2.1
EQES	Quesada	5.49	357	P	Pn	22 22 53.6	+1.5
	0.7nm,0.2s,SNR=5.7						
EQES				S	Sn	22 23 54.4	+0.1
	0.6nm,0.3s						
EQES	Quesada	5.49	357	P	Pn	22 22 55.8	+3.7
	0.7nm,0.2s,SNR=5.7						
EQES				S	Sn	22 23 52.2	-2.1
EADA	Adamuz	6.04	346	P	Pn	22 22 59.4	-0.2
EADA				S	Sn	22 24 03.0	-4.8
EADA	Adamuz	6.04	346	P	Pn	22 22 59.4	-0.2
	0.9nm,0.1s,SNR=52						
EADA				S	Sn	22 24 05.9	-1.9
	0.2nm,0.2s,SNR=7.9						
EADA	Adamuz	6.04	346	P	Pn	22 22 59.4	-0.2
EADA				S	Sn	22 24 03.0	-4.8
EMIN	Mina Concepcio	6.33	330	P	Pn	22 23 02.5	-1.1
EMIN				S	Sn	22 24 06.4	-8.7
EMIN	Mina Concepcio	6.33	330	P	Pn	22 23 03.3	-0.4
	0.6nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	6.33	330	P	Pn	22 23 02.5	-1.1
	0.6nm,0.2s,SNR=7.9						
EGRO	El Granado	6.51	325	P	Pn	22 23 04.0	-2.1
EGRO				S	Sn	22 24 09.6	-10
EGRO	El Granado	6.51	325	P	Pn	22 23 04.0	-2.1
	1.2nm,0.2s,SNR=5.1						
EGRO	El Granado	6.51	325	P	Pn	22 23 04.0	-2.1
	1.2nm,0.2s,SNR=5.1						
PBDV	Barranco-do-Ve	6.52	321	*e*Pn	Pn	22 23 05.1	-1.1
PBDV				*e*Sn	Sn	22 24 10.8	-8.9
PVAQ	Vaqueiros	6.53	323	*e*Pn	Pn	22 23 04.4	-1.9
PVAQ				*e*Sn	Sn	22 24 10.7	-9.2
PVAQ				A		22 24 15.9	
	4.5nm,0.5s						
PBEJ	Beja	7.09	325	*e*Sn	Sn	22 24 25.5	-8.1
EBAD	Badajoz	7.32	333	P	Pn	22 23 13.8	-3.4
EBAD				S	Sn	22 24 29.1	-10
EBAD	Badajoz	7.32	333	P	Pn	22 23 15.8	-1.3
	0.2nm,0.2s,SNR=7.9						
EBAD	Badajoz	7.32	333	P	Pn	22 23 15.8	-1.4
	0.2nm,0.2s,SNR=7.9						
EVO	Evora	7.56	327	*e*Pn	Pn	22 23 19.0	-1.4
PESTR	Estremoz	7.65	330	*e*Pn	Pn	22 23 20.8	-0.9

IDC 16 22:38:17.3±2.5,**2.35N×99.08E,h137**km±7km,**mb3.0**/2, **mb1 3.2**/2,**mb1mx2.8**/21,**mbtmp3.0**/2,**Error ellipse: s-maj=161.5km s-min=24.9km az=54.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	0.47	341	P	Pn	22 38 37.6	+0.7
	13nm,0.3s,baz=207,slow=6.8,SNR=44						
PSI				S	Sn	22 38 52.9	+0.9
	5.6nm,0.3s,baz=0.3,slow=20,SNR=24						
WRA	Warramunga Arr	41.09	124	P	P	22 45 47.8	-0.1
	0.4nm,0.4s,baz=301,slow=9.0,SNR=11						
MKAR	Makanchi Array	46.62	344	P	P	22 46 31.7	+0.1
	0.2nm,0.4s,baz=157,slow=8.7,SNR=6.8						
TXAR	Lajitas Array	141.70	33	PKP	PKPdf	22 57 30.5	-2.8
	0.5nm,0.8s,baz=327,slow=1.5,SNR=4.4						

IDC 16 22:39:46.0±80.0,**17.45S×177.70W,h0**km,**mb3.8**/3, **mb1 3.9**/3,**mb1mx3.7**/14,**mbtmp3.8**/3,**Error ellipse: s-maj=1478.0km s-min=170.9km az=79.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	39.45	241	P	P	22 47 17.6	-0.6
	0.9nm,0.5s,baz=76,slow=12,SNR=2.4						
WRA	Warramunga Arr	45.38	259	P	P	22 48 06.5	-0.1
	0.6nm,1.1s,baz=91,slow=7.5,SNR=5.4						
ASAR	Alice Springs	45.57	254	P	P	22 48 08.5	+0.4
	2.1nm,0.6s,baz=88,slow=8.1,SNR=24						

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*ISCJB **16** 22:39:54.5±0.6,2.70N±0.06×76.84W±0.07,h148km±7km, mb3.9/12,Error ellipse: s-maj=13.4km s-min=8.0km az=33.8*

*IDC **16** 22:39:54.6±0.7,2.69N×76.83W,h132km±5km,mb3.7/11, mb1 3.9/13,mb1mx3.8/21,mbtmp3.7/13,Error ellipse: s-maj=12.8km s-min=11.7km az=148.0*

*NEIC **16** 22:39:56.0±0.8,2.66N×76.88W,h147km±8km,mb4.3/2, Error ellipse: s-maj=11.6km s-min=9.4km az=96.0*

ISC 16 22:39:55.7±0.6,**2.68N**±0.06×**76.85W**±0.07,**h142**km±7km, **h132**km±5.0km**:pP-P,n32,**σ**0.84**/23,**mb3.9**/12,**Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OTAV	Otavalo	2.91	213	*e*Pn	Pn	22 40 42.6	+1.0
OTAV				*e*Sn	Sn	22 41 16.3	-0.8
ROSC	El Rosal	3.31	49	P	Pn	22 40 47.0	+0.2
	26nm,0.3s,baz=291,slow=4.0,SNR=43						
ROSC				S	Sn	22 41 25.9	-0.5
	35nm,0.3s,baz=76,slow=22,SNR=17						
BCIP	Isla Barro Col	7.10	335	*e*Pn	Pn	22 41 36.3	-0.7
PCRV	Puerto La Cruz	14.23	58	P	Pn	22 43 14.0	+3.1
	1.2nm,0.3s,baz=261,slow=6.2,SNR=3.9						
SJG	San Juan	18.58	34	P	P	22 44 02.0	+0.1
	1.7nm,0.3s,baz=201,slow=7.3,SNR=4.3						
MTP	Monte Pirata	18.90	35	*e*P	P	22 44 06.0	+0.5
LPAZ	La Paz	20.72	156	P	P	22 44 25.2	+0.1
	3.3nm,0.8s,baz=328,slow=8.0,SNR=12						
SIV	San Ignacio	24.24	140	P	P	22 44 59.6	0.0
	5.8nm,0.8s,mb4.2,baz=312,slow=9.1,SNR=23						
TZTN	Tazewell	34.26	350	*e*P	P	22 46 28.8	+0.6
	4.3nm,0.5s,mb4.4						
TXAR	Lajitas Array	36.77	319	P	P	22 46 51.5	+1.7
	0.9nm,0.6s,mb3.5,baz=145,slow=7.9,SNR=5.4						
TXAR				PcP	PcP	22 49 10.9	+1.8
	0.9nm,0.8s,baz=134,slow=5.4,SNR=3.8						
LONY	Lake Ozonia	41.81	2	*e*P	P	22 47 31.2	-0.1
	2.7nm,0.4s,mb4.2						
PDAR	Pinedale Array	49.43	328	P	P	22 48 31.4	+0.1
	1.2nm,0.7s,mb3.6,baz=128,slow=10,SNR=9.5						
ULM	Lac du Bonnet	50.07	344	P	P	22 48 34.2	-1.6
	2.8nm,0.4s,mb4.2,baz=152,slow=8.0,SNR=9.9						
NVAR	Mina Array Bea	51.92	319	P	P	22 48 50.4	+0.4
NVAR				pP	pP	22 49 19.6	-3.2
NVAR				PcP	PcP	22 50 01.5	+0.8
NVAR	Mina Array Bea	51.92	319	P	P	22 48 50.4	+0.4
	0.7nm,0.5s,mb3.6,baz=128,slow=7.3,SNR=5.1						
NVAR				pP	pP	22 49 19.6	-3.2
	0.4nm,0.3s,baz=207,slow=30,SNR=3.5						
NVAR				PcP	PcP	22 50 01.5	+0.8
	0.8nm,0.6s,baz=156,slow=4.7,SNR=4.2						
SCHQ	Schefferville	52.62	7	P	P	22 48 54.4	-0.5
	4.2nm,0.8s,mb4.2,baz=181,slow=8.1,SNR=8.1						
YKA	Yellowknife Ar	65.93	342	P	P	22 50 25.5	-0.6
	1.7nm,0.6s,mb4.1,baz=136,slow=6.1,SNR=33						
YKA				pP	pP	22 50 56.4	-4.0
	0.3nm,0.5s,baz=132,slow=5.9,SNR=2.2						
ESDC	Sonseca Array	75.14	50	P	P	22 51 22.0	-0.6
	0.1nm,0.3s,mb2.9,baz=275,slow=6.3,SNR=5.2						
INK	Inuvik	75.69	341	P	P	22 51 25.5	+0.5
INK	Inuvik	75.69	341	P	P	22 51 25.5	+0.5
	2.1nm,0.5s,mb4.0,baz=109,slow=6.3,SNR=14						
TORD	Torodi Ar. Bea	78.24	77	P	P	22 51 39.4	-1.1
	0.7nm,0.5s,mb3.6,baz=283,slow=6.1,SNR=18						
TORD				pP	pP	22 52 14.4	-1.2
	0.7nm,0.7s,baz=284,slow=4.4,SNR=3.7						
ZALV	Zalesovo Beam	121.54	13	PKP	PKPdf	22 58 31.8	-0.6
ZALV	Zalesovo Beam	121.54	13	PKP	PKPdf	22 58 31.8	-0.6
	0.8nm,0.3s,baz=275,slow=1.7,SNR=7.1						
MKAR	Makanchi Array	127.42	18	PKP	PKPdf	22 58 44.0	+0.1
MKAR	Makanchi Array	127.42	18	PKP	PKPdf	22 58 44.0	+0.1
	0.6nm,0.5s,baz=300,slow=2.6,SNR=18						
SONM	Songino Array	129.62	357	PKP	PKPdf	22 58 48.4	+0.4
SONM	Songino Array	129.62	357	PKP	PKPdf	22 58 48.4	+0.4
	0.6nm,0.9s,baz=225,slow=1.9,SNR=4.4						
ASAR	Alice Springs	143.68	232	PKP	PKPdf	22 59 12.2	-2.5
ASAR	Alice Springs	143.68	232	PKP	PKPdf	22 59 12.2	-2.5
	1.4nm,0.7s,baz=116,slow=3.7,SNR=21						
WRA	Warramunga Arr	145.06	238	PKPbc	PKPbc	22 59 17.3	+0.4
WRA				pPKPbc		22 59 51.3	
WRA	Warramunga Arr	145.06	238	PKPbc	PKPbc	22 59 17.3	+0.4
	1.0nm,0.5s,baz=114,slow=3.4,SNR=27						
WRA				pPKPbc		22 59 51.3	
	0.7nm,0.7s,baz=113,slow=3.0,SNR=3.4						
LSA	Lhasa	145.81	19	*e*PKP	PKPdf	22 59 19.9	+1.6

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*BJI **16** 22:40:07.6,53.78N×159.08E,h152km,mB4.6,mb4.4*

*KRSC **16** 22:40:07.4±0.1,53.53N×159.36E,h136km±25km,ML4.3*

*MOS **16** 22:40:07.2±1.1,53.68N×158.89E,h136km,mb4.3/25,Error ellipse: s-maj=11.2km s-min=6.4km az=79.6*

*ISCJB **16** 22:40:07.6±0.2,53.62N±0.02×158.94E±0.04,h139km±1km, mb4.2/55,Error ellipse: s-maj=4.4km s-min=2.8km az=135.6*

*NEIC **16** 22:40:08.8±0.6,53.72N×158.80E,h135km±6km,mb4.5/23, Error ellipse: s-maj=7.2km s-min=4.3km az=166.0*

*IDC **16** 22:40:08.7±0.7,53.78N×158.84E,h131km±6km,mb3.9/23, mb1 4.1/24,mb1mx4.1/26,mbtmp3.9/24,MS2.9/1, Ms1 2.9/1,ms1mx2.5/48,Error ellipse: s-maj=13.7km s-min=9.3km az=154.0*

ISC 16 22:40:09.0±0.2,**53.65N**±0.02×**158.84E**±0.04,**h134**km±1km, **h134**km±2.5km**:pP-P,n284,**σ**0.88**/314,**mb4.2**/55,**47C-53D, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AVH	Avacha	0.39	189	*i* P	Pn	22 40 27.9	0.0
AVH				*i* S	Sn	22 40 42.0	-0.2
KII	Karymskiy	0.53	43	PN	Pn	22 40 27.5	-1.1
KII				S	Sn	22 40 42.5	-1.1
KII	Karymskiy	0.53	43	*i* P	Pn	22 40 27.5	-1.1
KII				*i* S	Sn	22 40 42.5	-1.1
GNL	Ganaly	0.54	276	*i* P	Pn	22 40 29.4	+0.8
NLC	Nalytchevo	0.56	147	PN	Pn	22 40 27.3	-1.5
NLC				S	Sn	22 40 41.9	-2.0
NLC	Nalytchevo	0.56	147	*i* P	Pn	22 40 27.3	-1.5
NLC				*i* S	Sn	22 40 41.9	-2.0
INSR	Institute	0.60	194	*e*P	Pn	22 40 29.0	0.0
INSR				*i* S	Sn	22 40 44.3	+0.1
PET	Petropavlovsk	0.63	190	*e*P	Pn	22 40 28.4	-0.9
PET				*e*S	Sn	22 40 44.5	-0.2
PET	Petropavlovsk	0.63	190	PN	Pn	22 40 28.9	-0.4
PET				S	Sn	22 40 44.0	-0.6
PET	Petropavlovsk	0.63	190	*i* P	Pn	22 40 28.9	-0.4
PET				*i* S	Sn	22 40 44.0	-0.6
SPN	Mys Shipunski	0.90	127	PN	Pn	22 40 28.5	-2.8
SPN				S	Sn	22 40 43.8	-4.4
SPN	Mys Shipunski	0.90	127	*i* P	Pn	22 40 28.5	-2.8
SPN				*i* S	Sn	22 40 43.8	-4.4
GRL	Gorelyy	1.19	203	*e*P	Pn	22 40 34.8	+0.8
GRL				*i* S	Sn	22 40 54.7	+1.6
RUS	Russkaya	1.23	189	PN	Pn	22 40 33.6	-0.8
RUS				S	Sn	22 40 52.5	-1.3
RUS	Russkaya	1.23	189	*e*P	Pn	22 40 33.6	-0.8
RUS				*i* S	Sn	22 40 52.5	-1.3
TUMR	Tumrok	1.81	24	*e*P	Pn	22 40 40.9	+0.1
TUMR				*i* S	Sn	22 41 06.2	+1.0
MIPR	Malaya Ipel'ka	1.86	223	*e*P	Pn	22 40 42.7	+1.3
MKZ	Mys Kozlova	1.93	61	PN	Pn	22 40 39.6	-2.6
MKZ				S	Sn	22 41 02.5	-5.3
MKZ	Mys Kozlova	1.93	61	*e*P	Pn	22 40 39.6	-2.6
MKZ				*i* S	Sn	22 41 02.5	-5.3
KMNR	Kamenistaya	2.27	20	*i* P	Pn	22 40 46.7	+0.4
KMNR				*i* S	Sn	22 41 15.7	+0.7
KPT	Kopyto	2.46	18	*e*P	Pn	22 40 48.8	+0.1
KIRR	Kirishev	2.47	20	*e*P	Pn	22 40 49.0	+0.1
KIRR				*i* S	Sn	22 41 20.0	+0.4
BZMR	Bezymyannaya	2.49	22	*i* P	Pn	22 40 49.5	+0.5
BZMR				*i* S	Sn	22 41 20.6	+0.7
KOZ	Kozyrevsk	2.49	13	*e*P	Pn	22 40 49.1	0.0
KOZR	Kozyr	2.50	14	PN	Pn	22 40 49.1	-0.1
ZLN	Zelenaya	2.63	25	*e*P	Pn	22 40 51.8	+0.9
ZLN				*i* S	Sn	22 41 23.0	-0.3
CIRR	Tsirk	2.71	23	*e*P	Pn	22 40 52.5	+0.6
CIRR				*i* S	Sn	22 41 25.9	+0.9
SRDR	Sredinnyy	2.73	10	*i* P	Pn	22 40 52.3	+0.2
KRSR	Krestovskiy	2.76	20	*e*P	Pn	22 40 52.7	+0.1
KLY	Klyuchi	2.87	21	PN	Pn	22 40 55.0	+1.1
KLY				S	Sn	22 41 30.7	+2.0
KLY	Klyuchi	2.87	21	*e*P	Pn	22 40 55.0	+1.1
KLY				*i* S	Sn	22 41 30.7	+2.0
BDR	Baidarnaya	3.23	24	P	Pn	22 40 59.4	+0.8
SRKR	Sorokina	3.30	23	*e*P	Pn	22 41 00.1	+0.6
SMKR	Semkarok	3.31	26	*e*P	Pn	22 41 00.2	+0.6
SMKR				*i* S	Sn	22 41 37.3	-1.5
SKR	Severo-Kuril's	3.41	211	*e*PN	Pn	22 41 01.2	+0.2
SKR				*e*S	Sn	22 41 41.0	-0.2
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=N,230nm,0.5s						
SKR				smax			
	comp=E,170nm,0.5s						
SKR				smax			
	comp=Z,80nm,0.5s						
ALID	Alaid	3.44	217	P	Pn	22 41 03.0	+1.7
KBTR	Krutoberegovo	3.44	40	PN	Pn	22 41 00.0	-1.4
KBTR				S	Sn	22 41 37.4	-4.6
KBTR	Krutoberegovo	3.44	40	*e*P	Pn	22 41 00.0	-1.4
KBTR				*i* S	Sn	22 41 37.4	-4.6
MA2	Magadan	7.42	326	*e*Pn	Pn	22 41 55.6	+1.1
MA2	Magadan	7.42	326	*e*PN	Pn	22 41 55.4	+1.0
MA2				pmax	pmax		
	comp=Z,8.0nm,0.5s						
SEY	Seymchan	9.91	343	*e*PN	Pn	22 42 29.6	+1.9
ASAJ	Asahikawa	14.29	235	P	Pn	22 43 27.1	+2.2
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	14.29	235	P	Pn	22 43 27.1	+2.2
	comp=Z,1.9nm,0.3s,baz=49,slow=13,SNR=18						
BILL	Bilibino	14.87	11	*e*P	Pn	22 43 33.4	+1.4
BILL				pmax	pmax		
	comp=Z,5.0nm,1.5s						
ERM	Erimo	15.65	228	*e*P	Pn	22 43 40.5	-1.4
HABR	Khabarovsk	15.79	261	*e*P	Pn	22 43 47.2	+3.6
HABR				pmax	pmax		
	comp=Z,35nm,1.5s						
KLR	Kul'dur	17.41	266	*e*P	Pn	22 44 04.3	+1.0
KLR				pmax	pmax		
	comp=Z,34nm,1.6s						
YAK	Yakutsk	17.51	310	*e*Pn	Pn	22 44 03.8	-0.5
YAK	Yakutsk	17.51	310	*e*P	Pn	22 44 04.4	+0.1
YAK				*e*S	S	22 47 16.1	-2.1
YAK				pmax	pmax		
	comp=Z,22nm,1.0s						
YAK				pmax	pmax		
	comp=N,10.0nm,1.5s						
YAK				pmax	pmax		
	comp=E,18nm,1.3s						
YAK				smax			
	comp=N,114nm,6.0s						
YAK				smax			
	comp=E,145nm,5.4s						
CLNS	Chul'man	19.49	293	*e*P	P	22 44 24.8	-0.4
CLNS				pmax	pmax		
	comp=Z,15nm,0.8s						
CLNS				pmax	pmax		
	comp=N,7.0nm,0.7s						
CLNS				pmax	pmax		
	comp=E,12nm,0.9s						
TNA	Tin City	20.32	41	*e*P	P	22 44 33.8	-0.1
UNV	Unalaska Valle	20.38	75	*e*P	P	22 44 34.4	-0.4
VLA	Vladivostok	20.64	250	*e*P	P	22 44 34.0	-3.6
VLA				pmax	pmax		
	comp=Z,21nm,0.8s						
MDJ	Mudanjiang	21.03	256	P	P	22 44 41.0	-0.8
MDJ				S	S	22 48 27.9	-0.3
MDJ				AMB	AMB		
	comp=Z,6.0nm,1.9s,mb3.6						
MDJ				AMB	AMB		
	comp=Z,67nm,5.0s						
FALS	False Pass	21.92	72	*e*P	P	22 44 50.0	-1.0
TIXI	Tiksi	22.26	335	*e*P	P	22 44 53.5	-1.1
TIXI	Tiksi	22.26	335	*e*P	P	22 44 53.6	-1.0
TIXI				*e*		22 45 23.7	
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.0						
MAJO	Matsushiro	22.33	228	*e*P	P	22 44 56.2	+0.6
	comp=Z,17nm,0.6s,mb4.7						
MAJO	Matsushiro	22.33	228	*e*P	P	22 44 56.2	+0.6
MAJO				pmax	pmax		
	comp=Z,17nm,0.6s,mb4.7						
MAT	Matsushiro	22.33	228	P	P	22 44 56.5	+0.9
MJAR	Matsushiro Arr	22.33	228	P	P	22 44 56.7	+1.1
MJAR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
MJAR	Matsushiro Arr	22.33	228	P	P	22 44 56.7	+1.1
	comp=Z,10nm,0.6s,mb4.4,baz=10,slow=9.7,SNR=22						
CN2	Changchun	23.92	259	*e*P	P	22 45 09.9	-0.3
CN2				*e*S	S	22 49 12.9	-3.7
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.3						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
HIA	Hailar	24.53	276	*e*P	P	22 45 14.8	-0.9
	comp=Z,4.4nm,0.6s,mb4.2						
HIA	Hailar	24.53	276	*e*P	P	22 45 14.8	-0.9
HIA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BOD	Bodaibo	25.22	298	*e*P	P	22 45 20.3	-1.5
BOD				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.9						
IMA2	Indian Mountai	26.14	43	*e*P	P	22 45 28.7	-1.4
KSRS	Korea Array	26.75	245	P	P	22 45 36.5	+0.8
	comp=Z,2.4nm,0.8s,mb3.9,baz=36,slow=9.5,SNR=3.9						
KSRS				LR	LR	22 57 56.3	
	comp=Z,22nm,18.2s,baz=45,slow=40						
KDAK	Kodiak Island	27.20	62	P	P	22 45 37.5	-2.0
	comp=Z,6.1nm,0.8s,mb4.3,baz=287,slow=19,SNR=5.7						
MCK	McKinley	28.14	48	*e*P	P	22 45 47.3	-0.6
EGAK	Eagle	31.41	45	*e*P	P	22 46 14.8	-1.9
	comp=Z,3.2nm,0.6s,mb4.2						
BJI	Beijing	31.68	262	P	P	22 46 18.8	-0.6
BJI				AMB	AMB		
	comp=Z,2.0nm,1.0s,mb3.8						
SONM	Songino Array	33.05	282	P	P	22 46 32.4	+1.2
SONM						22 49 12.1	
SONM				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM				pmax	pmax		
	comp=N,1.0nm,0.8s						
SONM	Songino Array	33.05	282	P	P	22 46 32.4	+1.1
	comp=N,1.6nm,0.6s,mb4.0,baz=62,slow=8.0,SNR=19						
SONM				PcP	PcP	22 49 12.1	+0.7
	comp=N,0.6nm,0.5s,baz=79,slow=1.6,SNR=11						
SONM				ScP	ScP	22 52 44.0	+1.2
	comp=N,0.8nm,0.8s,baz=45,slow=1.8,SNR=7.0						
INK	Inuvik	33.90	38	P	P	22 46 37.9	-0.4
INK				PcP	PcP	22 49 13.6	+0.1
INK	Inuvik	33.90	38	P	P	22 46 37.9	-0.4
INK						22 49 13.6	
INK				pmax	pmax		
	comp=Z,6.0nm,0.7s						
INK	Inuvik	33.90	38	P	P	22 46 37.9	-0.4
	comp=Z,6.2nm,0.7s,mb4.5,baz=281,slow=7.4,SNR=32						
INK				PcP	PcP	22 49 13.6	+0.1
	comp=Z,0.7nm,0.4s,baz=248,slow=1.1,SNR=6.2						
HHC	Hu-ho-hao-te	33.91	267	*e*P	P	22 46 39.9	+1.1
HHC				PP	PP	22 47 57.3	-0.7
HHC				PCP	PcP	22 49 17.6	+3.6
HHC				S	S	22 51 53.3	+0.1
HHC				SCP	ScP	22 52 48.1	+2.1
HHC				PCS	PcS	22 53 02.4	+2.3
HHC				SS	SS	22 54 08.8	-16
HHC				SCS	ScS	22 56 49.1	+1.1
HHC				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.3						
HHC				AMB	AMB		
	comp=Z,70nm,5.8s						
HHC				LR	LR		
	comp=N,101nm,16.1s						
HHC				LR	LR		
	comp=E,311nm,16.1s						
HHC				LR	LR		
	comp=Z,68nm,19.0s						
LZH	Lanzhou	41.60	268	*e*P	P	22 47 43.3	-0.1
LZH				AP	pP	22 48 13.4	+0.1
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.6						
LZH	Lanzhou	41.60	268	*e*P	P	22 47 43.3	-0.1
	comp=Z,15nm,1.0s,mb4.6						
LZH				pP	pP	22 48 13.4	+0.1
LZH				sP	sP	22 48 29.2	+0.7
LZH	Lanzhou	41.60	268	*e*P	P	22 47 43.3	-0.1
LZH				*PP	pP	22 48 13.4	+0.1
LZH				*SP	sP	22 48 29.2	+0.7
LZH				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.6						
GTA	Gaotai	41.80	275	⇑P	P	22 47 46.1	+1.1
GTA				AP	pP	22 48 14.9	-0.1
GTA				PP	PP	22 49 28.3	+4.1
GTA				PPP		22 50 03.9	
GTA				S	S	22 53 55.3	+3.1
GTA				SS	SS	22 57 00.5	-2.7
GTA				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.5						
GTA				AMB	AMB		
	comp=Z,59nm,5.7s						
GTA				LR	LR		
	comp=N,57nm,13.7s						
GTA				LR	LR		
	comp=E,78nm,14.8s						
GTA				LR	LR		
	comp=Z,124nm,16.0s						
ZALV	Zalesovo Beam	41.84	302	P	P	22 47 44.4	-0.7
	comp=Z,1.6nm,0.5s,mb3.9,baz=60,slow=7.7,SNR=11						
ZALV				PcP	PcP	22 49 38.5	+0.2
	comp=Z,0.8nm,0.5s,baz=94,slow=2.1,SNR=3.8						
ZAL	Zalesovo	41.86	302	P	P	22 47 44.4	-0.9
ZAL						22 49 38.5	
NVS	Novosibirsk	42.18	303	⇑*i*P	P	22 47 47.3	-0.6
RES	Resolute Bay	43.09	22	*e*P	P	22 47 55.0	+0.1
	comp=Z,208nm,0.8s						
YKA	Yellowknife Ar	43.26	43	P	P	22 47 56.0	-0.5
YKA				PcP	PcP	22 49 43.0	+0.1
YKA				ScP	ScP	22 53 20.6	-0.8

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YKA   Yellowknife Ar    43.26  43   P      P       22 47 56.0 -0.5
      comp=Z,3.4nm,0.8s,mb4.0,baz=300,slow=8.1,SNR=33
YKA                                 PcP    PcP     22 49 43.0 +0.1
      comp=Z,0.1nm,0.3s,baz=298,slow=3.9,SNR=3.7
YKA                                 ScP    ScP     22 53 20.6 -0.8
      comp=Z,0.2nm,0.7s,baz=290,slow=3.8,SNR=4.0
CD2   Chengdu           45.28 263  eP      P       22 48 13.6 +0.7
CD2                                 PP     PP      22 50 02.3 +1.0
CD2                                 S      S       22 54 43.1 +0.1
CD2                                 SS     SS      22 58 00.4 -7.5
CD2                                 AMB    AMB
      comp=Z,10.0nm,0.6s,mb4.6
CD2                                 AMB    AMB
      comp=Z,30nm,4.8s
CD2                                 LR     LR
      comp=N,110nm,12.4s
CD2                                 LR     LR
      comp=Z,100nm,14.2s
WMQ   Urumqi            46.08 288  eP      P       22 48 20.4 +1.4
KURK  Kurchatov         46.80 301  eP      P       22 48 23.6 -1.0
GYA   Guiyang           46.89 256⇑iP       P       22 48 26.3 +0.7
GYA                                 AP     pP      22 48 56.3 +0.2
GYA                                 PCP    PcP     22 49 57.8 +1.7
GYA                                 PP     PP      22 50 17.4 +0.3
GYA                                 SCP    ScP     22 53 38.0 +1.0
GYA                                 PCS    PcS     22 53 51.5 +0.1
GYA                                 S      S       22 55 05.9 -0.2
GYA                                 SCS    ScS     22 58 05.0 -1.0
GYA                                 AMB    AMB
      comp=Z,10.0nm,1.0s,mb4.4
GYA                                 AMB    AMB
      comp=Z,80nm,4.6s
A04A  Legoe Bay, Lum    47.08  62  ⇓P      P       22 48 26.3 -0.5
      baz=47
MKAR  Makanchi Array    47.24 294   P      P       22 48 27.3 -0.7
MKAR                                *PP    pP      22 48 58.6  0.0
MKAR                                pmax   pmax
      comp=Z,3.0nm,0.5s
MKAR                                pmax   pmax
      comp=Z,1.0nm,0.7s
MKAR  Makanchi Array    47.24 294   P      P       22 48 27.3 -0.7
      comp=Z,3.4nm,0.5s,mb4.3,baz=53,slow=6.8,SNR=96
MKAR                                pP     pP      22 48 58.5  0.0
      comp=Z,1.4nm,0.7s,baz=52,slow=6.8,SNR=3.4
B05A  Bryant            47.68  63  ⇓P      P       22 48 30.5 -0.9
      baz=48
B06A  Marblemount       47.85  62  ⇓P      P       22 48 32.2 -0.5
      baz=48
A07A  Ashnola River,    48.10  61  ⇓P      P       22 48 34.4 -0.2
      baz=48
B07A  Winthrop          48.60  61  ⇑P      P       22 48 37.5 -0.9
      baz=48
A08A  Turner Farm, O    48.73  60  ⇓P      P       22 48 39.2 -0.2
      baz=48
EDM   Edmonton          49.03  53  eP      P       22 48 41.1 -0.5
B08A  Colville Reser    49.07  61  ⇑P      P       22 48 41.5 -0.6
      baz=49
A09A  Danville          49.08  60  ⇓P      P       22 48 41.8 -0.2
      baz=49
C07A  Waterville        49.11  62  ⇑P      P       22 48 41.8 -0.5
      baz=49
E06A  Yakima            49.35  64  ⇑P      P       22 48 43.7 -0.5
      baz=49
C08A  Higginbotham F    49.59  61  ⇑P      P       22 48 45.0 -0.9
      baz=49
A10A  Northport         49.60  59  ⇓P      P       22 48 45.1 -1.0
      baz=49
B09A  Rice              49.65  60  ⇓P      P       22 48 45.8 -0.6
      baz=49
K01A  Sixes             49.84  70  ⇑P      P       22 48 47.3 -0.7
      baz=50
NEW   Newport           50.28  60  eP      P       22 48 50.8 -0.3
I04A  Tendick Farm,     50.34  67  ⇑P      P       22 48 51.3 -0.4
      baz=50
D09A  Jones Farm, Ri    50.43  62  ⇑P      P       22 48 51.1 -1.3
      baz=50
E09A  Wood Farm, Sta    50.87  62  ⇓P      P       22 48 54.7 -0.9
      baz=51
J04A  Umpqua Nationa    50.87  68  ⇓P      P       22 48 55.6 -0.1
      baz=51
D10A  Wagner Farm, O    50.98  61  ⇑P      P       22 48 55.1 -1.3
      baz=51
F08A  Pendleton         51.00  63  ⇑P      P       22 48 55.8 -0.9
      baz=51
G08A  Pilot Rock        51.24  64  ⇑P      P       22 48 57.5 -0.9
      baz=51
J05A  Fort Rock         51.32  67  ⇑P      P       22 48 59.4 +0.3
      baz=51
WALA  Waterton Lakes    51.40  57  eP      P       22 48 59.4 -0.1
      comp=Z,9.2nm,0.8s,mb4.5
YBH   Yreka Blue Hor    51.54  69  ⇑P      P       22 49 01.0 +0.4
      baz=51
B13A  Whitefish         51.56  58  ⇓P      P       22 49 00.5 -0.3
      baz=51
M02C  Callahan          51.68  70  ⇓P      P       22 49 02.5 +0.7
      baz=52
F10A  Beach Ranch, E    51.71  62  ⇓P      P       22 49 01.3 -0.5
      baz=52
BSMT  Bassoo Peak       51.74  59  eP      P       22 49 02.5 +0.4
H08A  Prairie City      51.90  64  ⇑P      P       22 49 03.5 +0.2
      baz=52
J06A  Christmas Vall    51.94  66  ⇑P      P       22 49 03.5 -0.1
      baz=52
C13A  Hot Springs       51.96  59   P      P       22 49 04.2 +0.5
      baz=52,SNR=6.2
M04C  Macdoel           51.99  69  ⇓P      P       22 49 03.6 -0.4
      baz=52
E11A  Bogner Ranch,     51.99  61  ⇓P      P       22 49 03.8 -0.2
      baz=52
K06A  Valley Falls      52.18  67  ⇓P      P       22 49 06.1 +0.6
      baz=52
F11A  Grangeville       52.33  62  ⇓P      P       22 49 05.9 -0.6
      baz=52
L05A  Lakeview          52.37  68  ⇑P      P       22 49 07.1 +0.3
      baz=52
WDC   Whiskeytown Da    52.40  70  ⇓P      P       22 49 06.8 -0.3
      baz=52
D13A  Huson             52.41  59  ⇓P      P       22 49 06.1 -1.0
      baz=52
ARU   Arti              52.48 316  eP      P       22 49 06.7 -0.7
      comp=Z,4.7nm,0.5s,mb4.4
ARU   Arti              52.48 316  eP      P       22 49 06.7 -0.7
ARU                                 pmax   pmax
      comp=Z,5.0nm,0.5s,mb4.4
ARCES ARCESS Array B    52.52 341   P      P       22 49 06.2 -1.4
ARCES                               pmax   pmax
      comp=Z,1.0nm,0.8s
ARCES ARCESS Array B    52.52 341   P      P       22 49 06.2 -1.4
      comp=Z,1.3nm,0.8s,mb3.7,baz=42,slow=8.1,SNR=7.7
O02C  Red Bluff         52.54  71  ⇓P      P       22 49 08.9 +0.8
      baz=52
M05C  Lookout           52.66  69  ⇑P      P       22 49 09.7 +0.7
      baz=52
MOD   Modoc             52.76  68  eP      P       22 49 10.6 +0.9
MOD   Modoc             52.76  68  ⇓P      P       22 49 10.0 +0.3
      baz=53
K07A  Rock Creek Ran    52.80  66  ⇑P      P       22 49 10.3 +0.3
      baz=53
MSO   Missoula          52.85  59  eP      P       22 49 10.3 +0.1
      comp=Z,7.6nm,1.3s,mb4.3
F12A  Elk City          52.88  61   P      P       22 49 09.4 -1.2
      baz=53,SNR=5.4
D14A  Greenough         52.90  59   P      P       22 49 10.5 -0.2
      baz=53,SNR=5.2
GASB  Alder Springs     52.94  71  ⇑P      P       22 49 12.1 +1.1
      baz=53
M06C  Likely Place G    53.13  69  ⇓P      P       22 49 12.4  0.0
      baz=53
J09A  Fry Pan Ranch,    53.17  65  ⇓P      P       22 49 10.8 -1.9
      baz=53
H11A  Donnelly          53.19  63   P      P       22 49 12.8 -0.1
      baz=53,SNR=5.0
K08A  Mann Creek Ran    53.19  66  ⇑P      P       22 49 10.6 -2.2
      baz=53
O04C  Chester           53.40  70  ⇑P      P       22 49 15.1 +0.7
      baz=53
D15A  Lincoln           53.43  58  ⇓P      P       22 49 14.3 -0.3
      baz=53
FCC   Fort Churchill    53.52  38  eP      P       22 49 14.3 -0.7
      comp=Z,7.4nm,0.6s,mb4.6
FCC   Fort Churchill    53.52  38  eP      P       22 49 14.3 -0.7
FCC                                 pmax   pmax
      comp=Z,7.0nm,0.6s,mb4.6
LSA   Lhasa             53.65 272  eP      P       22 49 18.0 +1.6
      comp=Z,1.6nm,0.6s,mb3.9
LSA   Lhasa             53.65 272  eP      P       22 49 18.0 +1.6
LSA                                 pmax   pmax
      comp=Z,2.0nm,0.6s,mb4.0
ORV   Oroville          53.69  71  ⇑P      P       22 49 15.8 -0.7
      baz=54
M07A  Soldier Meadow    53.73  68   P      P       22 49 17.8 +1.0
      baz=54,SNR=9.1
O05C  Quincy            53.73  70  ⇑P      P       22 49 17.6 +0.7
      baz=54
E15A  Deer Lodge        53.78  59  ⇑P      P       22 49 17.2 +0.1
      baz=54
N06A  Buffalo Meadow    53.80  69   P      P       22 49 18.1 +0.8
      baz=54,SNR=5.6
G13A  Cobalt            53.86  61  ⇑P      P       22 49 17.5 -0.2
      baz=54
K10A  MacKenzie Ranc    54.03  65  ⇑P      P       22 49 18.9 -0.1
      baz=54
BEKR  Beckwourth        54.11  70   P      P       22 49 20.4 +0.8
      baz=54,SNR=6.3
L09A  Wilkinson Ranc    54.12  66  ⇓P      P       22 49 19.6 -0.1
      baz=54
M08A  Happy Creek Ra    54.12  67  ⇑P      P       22 49 20.3 +0.7
      baz=54
EGMT  Eagleton          54.15  56  ⇓P      P       22 49 19.1 -0.7
      baz=54
MFID  Camas Ranch       54.16  64  ⇓P      P       22 49 19.8 -0.1
      baz=54
AAK   Ala-Archa         54.16 295  eP      P       22 49 18.7 -1.2
AAK                                epP     pP      22 49 52.4 +1.1
O06A  Flanigan          54.20  69   P      P       22 49 21.1 +0.8
      baz=54,SNR=5.2
H13A  Challis           54.21  62  ⇓P      P       22 49 19.0 -1.3
      baz=54
N07B  Gerlach           54.26  68  ⇓P      P       22 49 21.0 +0.3
      baz=54
K11A  Parker Ranch,     54.49  64  ⇑P      P       22 49 22.2 -0.1
      baz=54
EKS2  Erkin-Say         54.53 296  eP      P       22 49 21.0 -1.6
      comp=Z,3.4nm,0.6s,mb4.2
J12A  Stokes Ranch,     54.66  63  ⇑P      P       22 49 23.4 -0.1
      baz=54
LAVA  Lava Cap Winer    54.67  71  ⇓P      P       22 49 23.0 -0.7
      baz=54
N08A  GE Springer Mi    54.72  67  ⇓P      P       22 49 24.6 +0.7
      baz=54
G15A  Dillon            54.72  60  ⇑P      P       22 49 23.7 -0.2
      baz=54
I13A  Wildhorse Cree    54.73  62  ⇓P      P       22 49 24.2 +0.2
      baz=54
L10A  Juniper Basin     54.73  65   P      P       22 49 25.1 +1.1
      baz=54,SNR=5.1
O07A  Toulon            54.73  68   P      P       22 49 25.2 +1.1
      baz=54,SNR=6.7
HLID  Hailey            54.81  63  eP      P       22 49 25.2 +0.6
HLID  Hailey            54.81  63  ⇓P      P       22 49 24.4 -0.2
      baz=55
WCN   Washoe City       54.84  70  ⇑P      P       22 49 25.2 +0.4
      baz=55
N09A  Rock Creek Ran    55.00  67   P      P       22 49 27.0 +1.0
      baz=55,SNR=5.8
L11A  Cat Creek Ranc    55.05  65   P      P       22 49 27.3 +0.9
      baz=55,SNR=7.6
M10A  I.L. Ranch, Tu    55.08  66  ⇓P      P       22 49 26.8 +0.3
      baz=55
K12A  Draper Farm, C    55.19  64   P      P       22 49 28.1 +0.8
      baz=55,SNR=6.0
CMB   Columbia Colle    55.37  71  ⇓P      P       22 49 29.4 +0.8
      baz=55
L12A  House Creek Ra    55.47  64   P      P       22 49 30.5 +1.2
      baz=55,SNR=5.4
QLMT  Earthquake Lak    55.49  60  eP      P       22 49 29.1 -0.3
PACP  Pacheco Peak      55.58  73  ⇓P      P       22 49 29.9 -0.2
      baz=55
O09A  Fish Creek Ran    55.66  67  ⇓P      P       22 49 31.0 +0.3
      baz=56
S06C  San Francisco     55.78  71   P      P       22 49 32.1 +0.6
      baz=56,SNR=5.2
M12A  Wells             56.03  65  ⇓P      P       22 49 33.9 +0.6
      baz=56
L13A  Double Diamond    56.08  64   P      P       22 49 35.0 +1.3
      baz=56,SNR=6.4
R07C  Lee Vining        56.08  70  ⇓P      P       22 49 34.5 +0.8
      baz=56
K14A  Jones Ranch, D    56.17  63  ⇓P      P       22 49 34.9 +0.6
      baz=56
NVAR  Mina Array Bea    56.26  70   P      P       22 49 35.8 +0.8
      comp=Z,2.7nm,0.7s,mb4.2,baz=312,slow=6.3,SNR=15
N12A  Clover Valley,    56.35  65   P      P       22 49 37.2 +1.5
      baz=56,SNR=6.0
KCC   Kaiser Creek      56.47  71  ⇑P      P       22 49 36.6 +0.1
      baz=56
M13A  Montello          56.47  64  ⇓P      P       22 49 36.7 +0.3
      baz=56
MLAC  Mammoth Lakes     56.52  71  ⇓P      P       22 49 36.6 -0.3
      baz=56
O11A  Cowboy Ranch,     56.52  66  ⇑P      P       22 49 37.9 +1.0
      baz=56
MOOW  Moose Ponds       56.60  60  eP      P       22 49 38.6 +1.2
      comp=Z,3.2nm,0.9s,mb4.2
JOF   Joensuu           56.74 334  ep      P       22 49 36.8 -1.3
      comp=Z,1.6nm,0.5s,mb4.1
JOF   Joensuu           56.74 334  eP      P       22 49 36.8 -1.3
JOF                                 pmax   pmax
      comp=Z,2.0nm,0.5s,mb4.2
LOHW  Long Hollow       56.77  60  eP      P       22 49 39.9 +1.4
      comp=Z,8.0nm,1.0s,mb4.5
M14A  Sheep Mountain    56.81  64  ⇑P      P       22 49 39.4 +0.6
      baz=57
S08C  White Mtn Res     56.99  70  ⇑P      P       22 49 41.3 +1.1
      baz=57
Q10A  Clear Creek Ra    57.04  68  ⇑P      P       22 49 41.2 +0.7
      baz=57
HELL  Mitchell Peak,    57.09  72   P      P       22 49 41.1 +0.2
      baz=57,SNR=5.3
M15A  Larsen Ranch,     57.31  63  ⇑P      P       22 49 43.4 +0.9
      baz=57
S09A  Goldfield         57.36  69   P      P       22 49 43.5 +0.7
      baz=57,SNR=5.4
S10A  Tonopah Range,    57.57  69  ⇓P      P       22 49 44.6 +0.4
      baz=57
CM31  Chiang Mai Arr    57.57 257  eP      P       22 49 42.5 -2.0
HWUT  Hardware Ranch    57.68  63  eP      P       22 49 46.2 +1.2
PDAR  Pinedale Array    57.91  60   P      P       22 49 47.0 +0.5
      comp=Z,11nm,0.8s,mb4.7,baz=320,slow=2.7,SNR=65
DUG   Dugway            58.02  65  eP      P       22 49 48.5 +1.1
      comp=Z,4.1nm,0.9s,mb4.3
DUG   Dugway            58.02  65  eP      P       22 49 48.5 +1.1
DUG                                 pmax   pmax
      comp=Z,4.0nm,0.9s,mb4.2
MPMC  Manual Prospec    58.40  71  ⇑P      P       22 49 50.2 +0.1
      baz=58
NLU   North Lily Min    58.59  64  eP      P       22 49 52.5 +1.1
KAF   Kangasniemi       58.68 336  ep      P       22 49 50.4 -1.2
      comp=Z,1.6nm,0.5s,mb4.1,baz=31,slow=6.3
KAF   Kangasniemi       58.68 336  eP      P       22 49 50.4 -1.2
KAF                                 pmax   pmax
      comp=Z,2.0nm,0.5s,mb4.2
EDW2  Edwards Air Fo    58.96  72  ⇓P      P       22 49 54.5 +0.5
      baz=59
ULM   Lac du Bonnet     58.99  46   P      P       22 49 53.1 -0.8
      comp=Z,2.3nm,0.5s,mb4.3,baz=317,slow=7.8,SNR=9.5
FINES FINESS Array B    59.31 336   P      P       22 49 55.6 -0.3
FINES                               pmax   pmax
      comp=Z,1.0nm,0.4s
FINES FINESS Array B    59.31 336   P      P       22 49 55.5 -0.4
      comp=Z,1.3nm,0.4s,mb4.1,baz=42,slow=8.0,SNR=21
GSC   Goldstone         59.33  71  ⇓P      P       22 49 57.0 +0.5
      baz=59
RSSD  Black Hills       59.72  56  eP      P       22 49 59.1 +0.1
      comp=Z,18nm,0.7s,mb5.0
RSSD  Black Hills       59.72  56  eP      P       22 49 59.2 +0.2
RSSD                                pmax   pmax
      comp=Z,17nm,0.7s,mb5.0
SRU   San Rafael        60.02  64  eP      P       22 50 02.2 +1.0
V12A  Nelson            60.12  69  ⇓P      P       22 50 01.6 -0.3
      baz=60
GMRC  Granite Mounta    60.35  71  ⇑P      P       22 50 03.9 +0.5
      baz=60
IRM   Iron Mountain     61.09  71  ⇓P      P       22 50 08.7 +0.2
      baz=61
X13A  Yucca             61.51  70  ⇓P      P       22 50 11.8 +0.5
      baz=61
ISCO  Idaho Springs     62.10  60  eP      P       22 50 16.5 +1.4
      comp=Z,6.2nm,0.9s,mb4.4
ISCO  Idaho Springs     62.10  60  eP      P       22 50 16.5 +1.3
ISCO                                pmax   pmax
      comp=Z,6.0nm,0.9s,mb4.4
X14A  Yava              62.13  69  ⇑P      P       22 50 15.6 +0.1
      baz=62
Y14A  Wickenburg        62.46  70  ⇓P      P       22 50 17.8 +0.1
      baz=62
X15A  Humboldt          62.48  69  ⇑P      P       22 50 18.2 +0.5
      baz=62
MVCO  Mesa Verde        62.50  64  ⇓P      P       22 50 17.9  0.0
      baz=62
NB2   NORSAR Subarra    62.80 343   P      P       22 50 18.3 -1.1
      comp=Z,1.2nm,0.5s,mb4.0,baz=22,slow=6.9
NOA   NORSAR Array B    62.80 343   P      P       22 50 18.0 -1.4
NOA                                 pmax   pmax
      comp=Z,1.0nm,0.4s
NOA   NORSAR Array B    62.80 343   P      P       22 50 18.0 -1.4
      comp=Z,0.7nm,0.4s,mb3.8,baz=15,slow=5.1,SNR=6.4
ECSD  EROS,Sioux Fal    63.57  52  eP      P       22 50 24.0 -0.8
      comp=Z,15nm,1.0s,mb4.8
115A  Sonoran Desert    63.81  70  ⇓P      P       22 50 27.1 +0.5
      baz=64
ANMO  Albuquerque       65.29  64  eP      P       22 50 37.1 +0.9
      comp=Z,3.5nm,0.8s,mb4.2
ANMO  Albuquerque       65.29  64  eP      P       22 50 36.8 +0.7
SCHQ  Schefferville     65.50  27   P      P       22 50 36.1 -1.1
      comp=Z,3.7nm,0.7s,mb4.3,baz=58,slow=4.0,SNR=5.2
SCIA  State Center      66.57  51  eP      P       22 50 43.7 -0.5
      comp=Z,29nm,0.6s,mb5.3
AKASG Malin Array Be    67.75 328   P      P       22 50 50.1 -1.4
AKASG                               pmax   pmax
      comp=Z,1.0nm,0.4s
AKASG Malin Array Be    67.75 328   P      P       22 50 50.1 -1.4
      comp=Z,0.5nm,0.4s,mb3.6,baz=29,slow=6.3,SNR=4.4
MNTX  Cornudas Mount    68.35  66  eP      P       22 50 54.2 -1.3
      comp=Z,12nm,1.4s,mb4.4
WMOK  Wichita Mounta    69.47  59  eP      P       22 51 01.9 -0.6
      comp=Z,8.7nm,0.9s,mb4.5
WMOK  Wichita Mounta    69.47  59  eP      P       22 51 01.9 -0.6
WMOK                                pmax   pmax
      comp=Z,9.0nm,0.9s,mb4.5
FVM   French Village    70.98  51  eP      P       22 51 11.1 -0.5
TXAR  Lajitas Array     71.11  66   P      P       22 51 12.8 +0.3
TXAR                                *PP    pP      22 51 44.2 -1.2
TXAR                                pmax   pmax
      comp=Z,5.0nm,0.7s
TXAR                                pmax   pmax
      comp=Z,1.0nm,0.6s
TXAR  Lajitas Array     71.11  66   P      P       22 51 12.8 +0.3
      comp=Z,5.1nm,0.7s,mb4.3,baz=305,slow=4.4,SNR=18
TXAR                                pP     pP      22 51 44.1 -1.2
      comp=Z,1.2nm,0.6s,baz=310,slow=3.9,SNR=3.0
BURAR Bucovina Array    71.72 329⇓iP       P       22 51 15.3 -0.5
PARMO Parma             72.37  52  eP      P       22 51 19.1 -0.8
WCI   Wyandotte Cave    72.67  48  eP      P       22 51 19.3 -2.3
      comp=Z,10.0nm,0.8s,mb4.6
WCI   Wyandotte Cave    72.67  48  eP      P       22 51 19.3 -2.4
WCI                                 pmax   pmax
      comp=Z,10.0nm,0.8s,mb4.6
VRI   Vrincioaia        72.79 327⇑iP       P       22 51 22.5 +0.2
MLR   Muntele Rosu      73.38 327⇑iP       P       22 51 26.2 +0.5
GERES GERESS Array B    73.71 337   P      P       22 51 27.3 -0.3
      comp=Z,0.4nm,0.5s,baz=15,slow=4.1,SNR=4.2
PKSM  Moragy            74.90 333⇓iP       P       22 51 27.9 -6.6
MALT  Malatya           74.99 315⇑iP       P       22 51 35.7 +0.5
BRTR  Keskin Array B    75.71 319   P      P       22 51 39.0 -0.3
BRTR                                pmax   pmax
      comp=Z,1.0nm,0.6s
BRTR  Keskin Array B    75.71 319   P      P       22 51 39.0 -0.4
      comp=Z,0.9nm,0.6s,mb3.6,baz=52,slow=3.3,SNR=9.7
WB2   Warramunga Arr    76.27 204  eP      P       22 51 42.8 +0.3
WRA   Warramunga Arr    76.28 204   P      P       22 51 42.4 -0.1
WRA                                 *PP    pP      22 52 15.9  0.0
WRA                                 pmax   pmax
      comp=Z,2.0nm,0.7s
WRA                                 pmax   pmax
      comp=Z,1.0nm,0.6s
WRA   Warramunga Arr    76.28 204   P      P       22 51 42.4 -0.1
      comp=Z,2.3nm,0.7s,mb3.9,baz=19,slow=6.1,SNR=18
WRA                                 pP     pP      22 52 15.9 +0.1
      comp=Z,0.7nm,0.6s,baz=20,slow=6.2,SNR=3.3
FITZ  Fitzroy Crossi    76.95 212  eP      P       22 51 47.1 +0.7
      comp=Z,1.8nm,0.6s,mb3.9
ASAR  Alice Springs     79.96 203   P      P       22 52 04.0 +1.2
ASAR                                *PP    pP      22 52 36.2 -0.2
ASAR                                pmax   pmax
      comp=Z,3.0nm,0.8s
ASAR                                pmax   pmax
      comp=Z,1.0nm,0.8s
ASAR  Alice Springs     79.96 203   P      P       22 52 04.0 +1.2
      comp=Z,2.5nm,0.8s,mb3.9,baz=13,slow=5.1,SNR=23
ASAR                                pP     pP      22 52 36.1 -0.2
      comp=Z,1.1nm,0.8s,baz=16,slow=5.4,SNR=4.4
ESDC  Sonseca Array     85.88 347   P      P       22 52 33.3 +0.1
      comp=Z,0.9nm,0.5s,mb3.8,baz=1.2,slow=5.0,SNR=11
KEST  Kesra             87.15 336   P      P       22 52 39.7 +0.2
      comp=Z,0.7nm,0.6s,mb3.7,baz=288,slow=11,SNR=4.9
LPAZ  La Paz           127.89  63   PKP    PKPdf   22 58 58.4 -0.2
LPAZ  La Paz           127.89  63   PKIKP  PKPdf   22 58 58.4 -0.2
LPAZ  La Paz           127.89  63   PKP    PKPdf   22 58 58.4 -0.2
      comp=Z,0.3nm,0.4s,baz=26,slow=12,SNR=4.0
SIV   San Ignacio      131.24  55   PKP    PKPdf   22 59 03.7 -1.3
SIV   San Ignacio      131.24  55   PKP    PKPdf   22 59 03.7 -1.3
      comp=Z,0.9nm,0.7s,baz=308,slow=6.1,SNR=4.9
```

ISCJB ***16*** *22:56:10.0±0.3, 43.15N±0.02×0.19E±0.02, $h24^{km}\pm2^{km}$, Error ellipse: s-maj=3.0km s-min=2.2km az=167.1*

CSEM ***16*** *22:56:11.4±0.0, 43.10N×0.17E, $h10^{km}$, ML3.8/44, Error ellipse: s-maj=0.7km s-min=0.6km az=131.0*

MDD ***16*** *22:56:11.6±0.2, 43.07N×0.19E, $h10^{km}$, mbLg3.0/44, Error ellipse: s-maj=1.7km s-min=1.2km az=4.0, PRXIMO*

LDG ***16*** *22:56:11.4±0.1, 43.11N×0.20E, $h4^{km}$, Md3.6/4, Ml3.8/39, Error ellipse: s-maj=1.3km s-min=1.0km az=128.0*

STR ***16*** *22:56:11.3±0.3, 43.09N×0.20E, $h5^{km}$, Ml3.1, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

NEIC ***16*** *22:56:11.4, 43.11N×0.20E, $h4^{km}$, ML3.8(LDG), ML3.7(STR), After LDG.*

INMG ***16*** *22:56:12.6±1.2, 43.01N×0.12E, $h8^{km}\pm3^{km}$, ML2.8, Error ellipse: s-maj=2.9km s-min=2.0km az=54.0*

ISC 16 22:56:09.8±0.2**, 43.153N**±0.009×**0.20E**±0.01**, $h16^{km}\pm1^{km}$, n439, $\sigma 1^{s}26$/838, 3C-1D, France**

```
Code  Station Name       Δ°  AZ°    Phase ID          Time     Res
                                    Op     ISC      h  m  s    ISC
LABF  Labassere         0.14 222    Pg     Pg      22 56 14.3 +0.6
LABF                                Sg     Sg      22 56 18.0 +1.7
LABF  Labassere         0.14 222    Pg     Pg      22 56 14.3 +0.6
LABF  Labassere         0.14 222    Pg     Pg      22 56 14.3 +0.7
LABF                                Lg             22 56 16.6
LABF  Labassere         0.14 222    Pg     Pg      22 56 14.3 +0.6
EPF   Esparros          0.16 141   ePg     Pg      22 56 15.0 +1.1
      SNR=1.0
EPF                                eSg     Sg      22 56 17.0 +0.3
      4µm,0.2s
EPF   Esparros          0.16 141   ePg     Pg      22 56 15.0 +1.1
EPF                                eSg     Sg      22 56 17.0 +0.3
EPF   Esparros          0.16 141    Pg     Pg      22 56 15.0 +1.1
EPF                                 Lg             22 56 17.0
      2µm,0.2s
EPF   Esparros          0.16 141   ePg     Pg      22 56 15.0 +1.1
      SNR=1.0
EPF                                eSg     Sg      22 56 17.0 +0.3
      2µm,0.2s
VIEF  Viey              0.30 206    Pg     Pg      22 56 15.8 -0.4
VIEF                                Sg     Sg      22 56 20.1 -0.4
VIEF  Viey              0.30 206    Pg     Pg      22 56 15.9 -0.3
VIEF                                Lg             22 56 19.1
VIEF  Viey              0.30 206    Pg     Pg      22 56 15.8 -0.4
VIEF                                Sg     Sg      22 56 20.1 -0.4
RESF  Ens               0.36 164    Pg     Pg      22 56 17.3 +0.1
RESF                                Sg     Sg      22 56 22.2  0.0
RESF  Ens               0.36 164    Pg     Pg      22 56 17.3 +0.1
RESF  Ens               0.36 164    Pg     Pg      22 56 17.3  0.0
RESF                                Lg             22 56 21.3
RESF  Ens               0.36 164    Pg     Pg      22 56 17.3 +0.1
RESF                                Sg     Sg      22 56 22.2  0.0
REYF  Montagne du Re    0.44 259    Pg     Pg      22 56 19.1 +0.3
REYF                                Sg     Sg      22 56 24.9 +0.1
REYF  Montagne du Re    0.44 259    Pg     Pg      22 56 19.0 +0.2
REYF                                Lg             22 56 25.3
REYF  Montagne du Re    0.44 259    Pg     Pg      22 56 19.1 +0.3
REYF                                Sg     Sg      22 56 24.9 +0.1
EBIE  Bielsa            0.47 185   ⇑Pg     Pg      22 56 18.7 -0.5
EBIE                                Lg             22 56 23.5
EBIE  Bielsa            0.47 185   ⇑Pg     Pg      22 56 18.7 -0.5
      114nm,0.2s,SNR=18
EBIE                                Lg             22 56 23.8
      923nm,0.1s
```

EBIE	**Bielsa**	0.47	185	Pg	Pg	22 56 18.7	-0.5
	114nm,0.2s,SNR=18						
EBIE				Lg		22 56 23.5	
	923nm,0.1s						
MELF	**Melles**	0.49	124	Pg	Pg	22 56 20.0	+0.3
MELF				Sg	Sg	22 56 26.0	-0.3
MELF	**Melles**	0.49	124	Pg	Pg	22 56 20.0	+0.3
MELF	**Melles**	0.49	124	Pg	Pg	22 56 20.1	+0.4
MELF				Lg		22 56 26.5	
MELF	**Melles**	0.49	124	Pg	Pg	22 56 20.0	+0.3
MELF				Sg	Sg	22 56 26.0	-0.3
ETSF	**Etsaut**	0.61	246	*e*Pg	Pg	22 56 21.7	-0.2
	SNR=1.0						
ETSF				*e*Sg	Sg	22 56 29.2	-0.9
	4µm,0.4s,SNR=1.0						
ETSF	**Etsaut**	0.61	246	*e*Pg	Pg	22 56 21.7	-0.2
ETSF				*e*Sg	Sg	22 56 29.2	-0.9
ETSF	**Etsaut**	0.61	246	Pg	Pg	22 56 21.7	-0.2
ETSF				Lg		22 56 29.2	
	2µm,0.4s						
ETSF	**Etsaut**	0.61	246	*e*Pg	Pg	22 56 21.7	-0.2
	SNR=1.0						
ETSF				*e*Sg	Sg	22 56 29.2	-0.9
	2µm,0.4s,SNR=1.0						
FDAF	**Les Forges d’A**	0.66	240	Pg	Pg	22 56 22.5	-0.2
FDAF				Lg		22 56 30.4	
ATE	**Arette**	0.67	264	Pg	Pg	22 56 23.0	+0.1
ATE				Lg		22 56 32.2	
MLS	**Moulis**	0.68	106	Pg	Pg	22 56 24.7	+1.5
MLS				Sg	Sg	22 56 32.8	+0.6
MLS	**Moulis**	0.68	106	Pg	Pg	22 56 24.7	+1.5
MLS				Sg	Sg	22 56 34.5	+2.3
MLS	**Moulis**	0.68	106	Pg	Pg	22 56 23.2	0.0
MLS				Lg		22 56 32.9	
MLS	**Moulis**	0.68	106	Pg	Pg	22 56 24.7	+1.5
MLS				Sg	Sg	22 56 32.8	+0.6
SALF	**Salau**	0.82	118	Pg	Pg	22 56 26.6	+0.7
SALF				Sg	Sg	22 56 36.9	+0.2
SALF	**Salau**	0.82	118	Pg	Pg	22 56 25.7	-0.2
SALF				Lg		22 56 36.2	
SALF	**Salau**	0.82	118	Pg	Pg	22 56 26.6	+0.7
SALF				Sg	Sg	22 56 36.9	+0.2
ORDF	**Ordiarp**	0.83	275	Pg	Pg	22 56 27.8	+1.7
ORDF				Sg	Sg	22 56 39.9	+2.8
ORDF	**Ordiarp**	0.83	275	Pg	Pg	22 56 27.8	+1.7
ORDF				Sg	Sg	22 56 39.9	+2.8
ORDF	**Ordiarp**	0.83	275	Pg	Pg	22 56 27.3	+1.2
ORDF				Lg		22 56 37.3	
ORDF	**Ordiarp**	0.83	275	Pg	Pg	22 56 27.8	+1.7
ORDF				Sg	Sg	22 56 39.9	+2.8
LARF	**Larrau**	0.88	263	Pg	Pg	22 56 27.7	+0.8
LARF				Sg	Sg	22 56 39.4	+0.9
LARF	**Larrau**	0.88	263	Pg	Pg	22 56 27.7	+0.8
LARF	**Larrau**	0.88	263	Pg	Pg	22 56 27.1	+0.2
LARF				Lg		22 56 38.9	
LARF	**Larrau**	0.88	263	Pg	Pg	22 56 27.7	+0.8
LARF				Sg	Sg	22 56 39.4	+0.9
CTRE	**Tremp**	0.93	153	Pg	Pg	22 56 27.7	-0.1
CEST	**Esterri de Car**	0.95	125	Pg	Pg	22 56 27.8	-0.5
CEST				Lg		22 56 40.6	
	215nm,0.2s						
GRBF	**Gourbit**	1.03	107	Pg	Pg	22 56 30.6	+0.9
SJPF	**Ste Jean**	1.05	268	*e*Pg	Pg	22 56 30.0	-0.1
SJPF	**Ste Jean**	1.05	268	*e*Pn	Pn	22 56 30.9	+1.1
	SNR=1.0						
SJPF				*e*Sn	Sn	22 56 43.8	-0.3
	223nm,0.3s,SNR=1.0						
SJPF	**Ste Jean**	1.05	268	*e*Pg	Pg	22 56 30.0	-0.1
SJPF				*e*Pn	Pn	22 56 30.9	+1.1
SJPF				*e*Sn	Sn	22 56 43.8	-0.3
SJPF	**Ste Jean**	1.05	268	Pg	Pg	22 56 30.0	-0.1
SJPF				Pn	Pn	22 56 30.9	+1.1
SJPF				Lg		22 56 43.8	
	112nm,0.3s						
SJPF	**Ste Jean**	1.05	268	*e*Pg	Pg	22 56 30.0	-0.1
SJPF	**Ste Jean**	1.05	268	*e*Pn	Pn	22 56 30.9	+1.1
	SNR=1.0						
SJPF				*e*Sn	Sn	22 56 43.8	-0.3
	111nm,0.3s,SNR=1.0						
OSSF	**Osses**	1.08	276	Pg	Pg	22 56 31.0	+0.4
OSSF	**Osses**	1.08	276	Pg	Pg	22 56 30.6	0.0
OSSF	**Osses**	1.08	276	Pg	Pg	22 56 31.0	+0.4
IPRE	**Itoiz**	1.20	254	⇑Pg	Pg	22 56 32.9	0.0
	16nm,0.2s,SNR=18						
IPRE				Lg		22 56 49.4	
	56nm,0.2s,SNR=16						
IPRE	**Itoiz**	1.20	254	Pg	Pg	22 56 32.9	0.0
	16nm,0.2s,SNR=18						
CORG	**Organya**	1.23	138	Pg	Pg	22 56 32.3	-1.4
CORG				Lg		22 56 49.9	
	161nm,0.3s						
LPEF	**Le Peyrat**	1.27	99	Pg	Pg	22 56 34.4	+0.2
LPEF				Lg		22 56 53.4	
ELIZ	**Elizondo**	1.27	271	Pg	Pg	22 56 34.6	+0.3
ELIZ				Lg		22 56 52.3	
ELIZ	**Elizondo**	1.27	271	Pg	Pg	22 56 34.6	+0.3
	13nm,0.2s,SNR=9.1						
ELIZ				Lg		22 56 52.3	
	20nm,0.1s,SNR=8.8						
ELIZ	**Elizondo**	1.27	271	Pg	Pg	22 56 34.6	+0.3
	13nm,0.2s,SNR=9.1						
IUSE	**Utxeti**	1.30	261	Pg	Pg	22 56 35.3	+0.4
	10nm,0.1s,SNR=47						
IUSE				Lg		22 56 52.4	
	41nm,0.2s,SNR=24						
IUSE	**Utxeti**	1.30	261	Pg	Pg	22 56 35.3	+0.4
	10nm,0.1s,SNR=47						
CAVN	**Les Avellanes**	1.33	162	Pg	Pg	22 56 35.0	-0.5
CAVN				Lg		22 56 51.5	
	460nm,0.2s						
CARF	**Carcanieres**	1.46	107	Pg	Pg	22 56 39.1	+1.1
CARF				Sg	Sg	22 57 01.4	+4.3
CARF	**Carcanieres**	1.46	107	Pg	Pg	22 56 39.1	+1.1
CARF				Sg	Sg	22 57 01.4	+4.3
CARF	**Carcanieres**	1.46	107	Pg	Pg	22 56 38.5	+0.5
CARF				Lg		22 56 58.2	
CARF	**Carcanieres**	1.46	107	Pg	Pg	22 56 39.1	+1.1
MTLF	**Montolieu**	1.48	82	*e*Pn	Pn	22 56 37.0	+1.1
	SNR=1.0						
MTLF	**Montolieu**	1.48	82	*e*Pg	Pg	22 56 39.7	+1.3
MTLF				*e*Sn	Sn	22 56 55.8	+0.9
	SNR=1.0						
MTLF				*e*Sg	Sg	22 56 59.1	+1.4
	312nm,0.2s						
MTLF	**Montolieu**	1.48	82	*e*Pn	Pn	22 56 37.0	+1.1
MTLF				*e*Pg	Pg	22 56 39.7	+1.3
MTLF				*e*Sn	Sn	22 56 55.8	+0.9
MTLF				*e*Sg	Sg	22 56 59.1	+1.4
MTLF	**Montolieu**	1.48	82	Pn	Pn	22 56 37.0	+1.1
MTLF				Pg	Pg	22 56 39.7	+1.3
MTLF				Sn	Sn	22 56 55.8	+0.9
MTLF				Lg		22 56 59.1	
	156nm,0.2s						
MTLF	**Montolieu**	1.48	82	*e*Pn	Pn	22 56 37.0	+1.1
	SNR=1.0						
MTLF	**Montolieu**	1.48	82	*e*Pg	Pg	22 56 39.7	+1.3
MTLF				*e*Sn	Sn	22 56 55.8	+0.9
	SNR=1.0						
MTLF				*e*Sg	Sg	22 56 59.1	+1.4
	156nm,0.2s						
ESAC	**San Caprasio**	1.51	199	Pg	Pg	22 56 37.5	-1.5
ESAC				Lg		22 56 56.6	
ESAC	**San Caprasio**	1.51	199	⇓Pg	Pg	22 56 37.4	-1.5
	640nm,0.2s,SNR=18						
ESAC				Lg		22 56 57.1	
	2µm,0.3s,SNR=42						
ESAC	**San Caprasio**	1.51	199	Pg	Pg	22 56 37.5	-1.5
VALF	**Valcebollere**	1.53	119	Pg	Pg	22 56 39.4	+0.1
VALF				Lg		22 56 59.2	
EMIR	**Miracle**	1.58	141	Pg	Pg	22 56 40.2	0.0
EMIR				Lg		22 57 00.8	
EMIR	**Miracle**	1.58	141	Pg	Pg	22 56 39.9	-0.3
	121nm,0.4s,SNR=178						
EMIR				Lg		22 57 00.8	
	785nm,0.3s,SNR=29						
EMIR	**Miracle**	1.58	141	Pg	Pg	22 56 39.9	-0.3
	121nm,0.4s,SNR=178						
LRDF	**Laroque-de-Fa**	1.73	96	Pg	Pg	22 56 44.3	+1.3
LRDF				Sg	Sg	22 57 07.9	+2.5
LRDF	**Laroque-de-Fa**	1.73	96	Pg	Pg	22 56 44.3	+1.3
LRDF				Sg	Sg	22 57 07.9	+2.5
LRDF	**Laroque-de-Fa**	1.73	96	Pg	Pg	22 56 44.3	+1.3
LRDF				Lg		22 57 06.4	
LRDF	**Laroque-de-Fa**	1.73	96	Pg	Pg	22 56 44.3	+1.3
LRDF				Sg	Sg	22 57 07.9	+2.5
LFF	**La Frestale**	1.83	12	*e*Pn	Pn	22 56 42.1	+1.5
	SNR=1.0						
LFF	**La Frestale**	1.83	12	*e*Pg	Pg	22 56 46.3	+1.4
	SNR=1.0						
LFF				*e*Sn	Sn	22 57 05.0	+1.6
	SNR=1.0						
LFF				*e*Sg	Sg	22 57 10.4	+1.7
	623nm,0.3s,SNR=1.0						
LFF	**La Frestale**	1.83	12	*e*Pn	Pn	22 56 42.1	+1.5
LFF				*e*Pg	Pg	22 56 46.3	+1.4
LFF				*e*Sn	Sn	22 57 05.0	+1.6
LFF				*e*Sg	Sg	22 57 10.4	+1.7
LFF	**La Frestale**	1.83	12	Pn	Pn	22 56 42.1	+1.5
LFF				Pg	Pg	22 56 46.3	+1.4
LFF				Sn	Sn	22 57 05.0	+1.6
LFF	**La Frestale**	1.83	12	*e*Pn	Pn	22 56 42.1	+1.5
	SNR=1.0						
LFF	**La Frestale**	1.83	12	*e*Pg	Pg	22 56 46.3	+1.4
	SNR=1.0						
LFF				*e*Sn	Sn	22 57 05.0	+1.6
	SNR=1.0						
LFF				*e*Sg	Sg	22 57 10.4	+1.7
	311nm,0.3s,SNR=1.0						
FILF	**Fillols**	1.83	108	Pg	Pg	22 56 44.2	-0.8
FILF				Sg	Sg	22 57 08.5	-0.3
FILF	**Fillols**	1.83	108	Pg	Pg	22 56 44.2	-0.8
FILF				Sg	Sg	22 57 08.5	-0.3
FILF	**Fillols**	1.83	108	Pg	Pg	22 56 44.2	-0.9
FILF				Lg		22 57 08.4	
FILF	**Fillols**	1.83	108	Pg	Pg	22 56 44.2	-0.8
FILF				Sg	Sg	22 57 08.5	-0.3
EPOB	**Poblet**	1.91	160	Pn	Pn	22 56 43.0	+1.2
EPOB				Pg	Pg	22 56 45.4	-1.1
EPOB				Sn	Sn	22 57 05.9	+0.4
EPOB				Lg		22 57 09.2	
EPOB	**Poblet**	1.91	160	Pn	Pn	22 56 42.3	+0.5
	5.1nm,0.1s,SNR=18						
EPOB				Pg	Pg	22 56 45.0	-1.6
	19nm,0.1s,SNR=7.9						
EPOB				Sn	Sn	22 57 05.0	-0.5
	18nm,0.1s,SNR=7.9						
EPOB				Lg		22 57 09.3	
	123nm,0.2s,SNR=40						
EPOB	**Poblet**	1.91	160	Pn	Pn	22 56 43.0	+1.2
	5.1nm,0.1s,SNR=18						
EPOB	**Poblet**	1.91	160	Pg	Pg	22 56 45.4	-1.2
CGAR	**Garraf**	1.98	159	Pn	Pn	22 56 47.5	+4.8
ECRI	**Cripan**	2.07	256	Pn	Pn	22 56 46.9	+3.0
ECRI				Pg	Pg	22 56 49.5	0.0
ECRI				Sn	Sn	22 57 11.6	+2.3
ECRI				Lg		22 57 16.1	
ECRI	**Cripan**	2.07	256	Pn	Pn	22 56 46.2	+2.3
	7.4nm,0.1s,SNR=7.9						
ECRI				Pg	Pg	22 56 48.8	-0.7
	50nm,0.2s,SNR=7.9						
ECRI				Sn	Sn	22 57 09.4	+0.1
	5.5nm,0.1s,SNR=7.9						
ECRI				Lg		22 57 16.1	
	37nm,0.2s,SNR=7.9						
ECRI	**Cripan**	2.07	256	Pn	Pn	22 56 46.9	+3.0
	7.4nm,0.1s,SNR=7.9						
ECRI	**Cripan**	2.07	256	Pg	Pg	22 56 49.5	0.0
	50nm,0.2s,SNR=7.9						
ECRI				Sn	Sn	22 57 11.6	+2.3
	SNR=7.9						
SJAF	**Saint Jean de**	2.08	108	Pg	Pg	22 56 46.9	-2.9
SJAF				Sg	Sg	22 57 16.4	-0.4
SJAF	**Saint Jean de**	2.08	108	Pg	Pg	22 56 48.2	-1.6
SJAF	**Saint Jean de**	2.08	108	Pg	Pg	22 56 46.9	-2.9
SJAF				Sg	Sg	22 57 16.4	-0.4
EJON	**La Jonquera**	2.10	109	Pn	Pn	22 56 47.8	+3.4
EJON				Pg	Pg	22 56 51.1	+1.0
EJON				Sn	Sn	22 57 14.2	+4.2
EJON				Lg		22 57 19.6	
EJON	**La Jonquera**	2.10	109	Pn	Pn	22 56 46.2	+1.9
	24nm,0.3s,SNR=7.9						
EJON				Pg	Pg	22 56 49.9	-0.2
	6.7nm,0.3s,SNR=7.9						
EJON				Sn	Sn	22 57 10.9	+0.8
	5.8nm,0.1s,SNR=7.9						
EJON				Lg		22 57 18.4	
	12nm,0.2s,SNR=11						
EJON	**La Jonquera**	2.10	109	Pn	Pn	22 56 47.8	+3.5
EJON	**La Jonquera**	2.10	109	Pg	Pg	22 56 51.1	+1.0
ERTA	**Horta de San J**	2.20	177	Pn	Pn	22 56 46.7	+1.0
ERTA				Pg	Pg	22 56 50.2	-1.8
ERTA				Sn	Sn	22 57 12.4	-0.1
ERTA				Lg		22 57 17.1	
ERTA	**Horta de San J**	2.20	177	Pn	Pn	22 56 46.1	+0.5
	0.4nm,0.1s,SNR=52						
ERTA				Pg	Pg	22 56 50.1	-1.9
	8.4nm,0.1s,SNR=7.9						
ERTA				Sn	Sn	22 57 11.6	-0.9
	14nm,0.1s,SNR=7.9						
ERTA				Lg		22 57 18.6	
	86nm,0.2s,SNR=21						
ERTA	**Horta de San J**	2.20	177	Pn	Pn	22 56 46.7	+1.0
ERTA	**Horta de San J**	2.20	177	Pg	Pg	22 56 50.2	-1.8
CAF	**Calviac**	2.22	37	*e*Pn	Pn	22 56 47.6	+1.6
	SNR=1.0						
CAF	**Calviac**	2.22	37	*e*Pg	Pg	22 56 53.5	+1.0
CAF				*e*Sn	Sn	22 57 14.4	+1.3
	SNR=1.0						
CAF				*e*Sg	Sg	22 57 22.9	+1.6
	150nm,0.2s,SNR=1.0						
CAF	**Calviac**	2.22	37	*e*Pn	Pn	22 56 47.6	+1.6
CAF				*e*Pg	Pg	22 56 53.5	+1.0
CAF				*e*Sn	Sn	22 57 14.4	+1.3
CAF				*e*Sg	Sg	22 57 22.9	+1.6
CAF	**Calviac**	2.22	37	Pn	Pn	22 56 47.6	+1.6
CAF				Pg	Pg	22 56 53.5	+1.0
CAF				Sn	Sn	22 57 14.4	+1.3
CAF				Lg		22 57 22.9	
	75nm,0.2s						
CAF	**Calviac**	2.22	37	*e*Pn	Pn	22 56 47.6	+1.6
	SNR=1.0						
CAF	**Calviac**	2.22	37	*e*Pg	Pg	22 56 53.5	+1.0
CAF				*e*Sn	Sn	22 57 14.4	+1.3
	SNR=1.0						
CAF				*e*Sg	Sg	22 57 22.9	+1.6
	75nm,0.2s,SNR=1.0						
RJF	**Les Rejaudoux**	2.35	23	*e*Pn	Pn	22 56 48.6	+0.8
	SNR=1.0						
RJF	**Les Rejaudoux**	2.35	23	*e*Pg	Pg	22 56 56.1	+1.2
RJF				*e*Sn	Sn	22 57 17.1	+0.9
	SNR=1.0						
RJF				*e*Sg	Sg	22 57 26.8	+1.5
	270nm,0.2s,SNR=1.0						
RJF	**Les Rejaudoux**	2.35	23	*e*Pn	Pn	22 56 48.6	+0.8
RJF				*e*Pg	Pg	22 56 56.1	+1.2
RJF				*e*Sn	Sn	22 57 17.1	+0.9
RJF				*e*Sg	Sg	22 57 26.8	+1.5
RJF	**Les Rejaudoux**	2.35	23	Pn	Pn	22 56 48.6	+0.8
RJF				Pg	Pg	22 56 56.1	+1.2
RJF				Sn	Sn	22 57 17.1	+0.9
RJF	**Les Rejaudoux**	2.35	23	*e*Pn	Pn	22 56 48.6	+0.8
	SNR=1.0						
RJF	**Les Rejaudoux**	2.35	23	*e*Pg	Pg	22 56 56.1	+1.2
RJF				*e*Sn	Sn	22 57 17.1	+0.9
	SNR=1.0						
RJF				*e*Sg	Sg	22 57 26.8	+1.5
	135nm,0.2s,SNR=1.0						
CMAS	**Mas de Barbera**	2.43	178	Pn	Pn	22 56 49.8	+1.0
ELAN	**Lanestosa**	2.66	273	Pn	Pn	22 56 55.4	+3.4
ELAN				Pg	Pg	22 57 00.0	-0.8
ELAN				Sn	Sn	22 57 26.0	+2.1
ELAN				Lg		22 57 36.2	
ELAN	**Lanestosa**	2.66	273	Pn	Pn	22 56 53.0	+0.9
	0.9nm,0.2s,SNR=7.9						
ELAN				Pg	Pg	22 57 00.0	-0.8
	2.4nm,0.1s,SNR=7.9						
ELAN				Sn	Sn	22 57 24.3	+0.4
	1.8nm,0.1s,SNR=7.9						
ELAN				Lg		22 57 36.2	
	23nm,0.3s,SNR=7.9						
ELAN	**Lanestosa**	2.66	273	Pn	Pn	22 56 55.4	+3.4
	0.9nm,0.2s,SNR=7.9						
ELAN	**Lanestosa**	2.66	273	Pg	Pg	22 57 00.0	-0.8
EMOS	**Mosqueruela**	2.83	190	Pn	Pn	22 56 56.9	+2.5
EMOS				Pg	Pg	22 57 02.3	-1.8
EMOS				Sn	Sn	22 57 27.2	-0.9
EMOS				Lg		22 57 37.2	
EMOS	**Mosqueruela**	2.83	190	Pn	Pn	22 56 55.3	+0.9
	7.4nm,0.3s,SNR=41						
EMOS				Pg	Pg	22 57 01.7	-2.4
	2.1nm,0.1s,SNR=30						
EMOS				Sn	Sn	22 57 27.2	-0.9
	3.7nm,0.1s,SNR=7.9						
EMOS				Lg		22 57 38.6	
	42nm,0.3s,SNR=8.9						
EMOS	**Mosqueruela**	2.83	190	Pn	Pn	22 56 55.6	+1.2
	7.4nm,0.3s,SNR=41						
EMOS	**Mosqueruela**	2.83	190	Pg	Pg	22 57 02.3	-1.8
EMOS				Sn	Sn	22 57 27.2	-1.0
	3.7nm,0.1s,SNR=7.9						
ETOR	**Torete**	2.88	217	Pn	Pn	22 56 56.6	+1.6
ETOR				Pg	Pg	22 57 04.3	-0.6
ETOR				Sn	Sn	22 57 29.9	+0.7
ETOR				Lg		22 57 39.0	
ETOR	**Torete**	2.88	217	Pn	Pn	22 56 55.9	+0.9
	39nm,0.2s,SNR=18						
ETOR				Pg	Pg	22 57 03.0	-1.9
	67nm,0.4s,SNR=21						
ETOR				Sn	Sn	22 57 28.3	-0.9
	33nm,0.1s,SNR=7.6						
ETOR				Lg		22 57 41.0	
	92nm,0.2s,SNR=5.9						
ETOR	**Torete**	2.88	217	Pn	Pn	22 56 56.6	+1.6
	39nm,0.2s,SNR=18						
ETOR	**Torete**	2.88	217	Pg	Pg	22 57 04.0	-1.0
	67nm,0.4s,SNR=21						
ETOR	**Torete**	2.88	217	Pg	Pg	22 57 04.3	-0.7
ETOR				Sn	Sn	22 57 28.8	-0.4
	33nm,0.1s,SNR=7.6						
TCF	**Toulx Ste Croi**	3.44	24	*e*Pn	Pn	22 57 02.8	0.0
	SNR=1.0						
TCF	**Toulx Ste Croi**	3.44	24	*e*Pg	Pg	22 57 15.9	+0.1
TCF				*e*Sn	Sn	22 57 42.3	-1.0
TCF				*e*Sg	Sg	22 58 00.0	-0.5
	120nm,0.3s,SNR=1.0						
TCF	**Toulx Ste Croi**	3.44	24	*e*Pn	Pn	22 57 02.8	0.0
TCF				*e*Pg	Pg	22 57 15.9	+0.1
TCF				*e*Sn	Sn	22 57 42.3	-1.0
TCF				*e*Sg	Sg	22 58 00.0	-0.5
TCF	**Toulx Ste Croi**	3.44	24	Pg	Pg	22 57 15.9	+0.1
TCF	**Toulx Ste Croi**	3.44	24	*e*Pn	Pn	22 57 02.8	0.0
	SNR=1.0						
TCF	**Toulx Ste Croi**	3.44	24	*e*Pg	Pg	22 57 15.9	+0.1
TCF				*e*Sn	Sn	22 57 42.3	-1.0
TCF				*e*Sg	Sg	22 58 00.0	-0.5
	60nm,0.3s,SNR=1.0						
MFF	**Saint Martin d**	3.46	356	*e*Pn	Pn	22 57 03.9	+0.9
	SNR=1.0						
MFF	**Saint Martin d**	3.46	356	*e*Pg	Pg	22 57 16.1	0.0
MFF				*e*Sn	Sn	22 57 43.8	+0.2
MFF				*e*Sg	Sg	22 58 00.0	-0.9
	104nm,0.4s,SNR=1.0						
MFF	**Saint Martin d**	3.46	356	*e*Pn	Pn	22 57 03.9	+0.9
MFF				*e*Pg	Pg	22 57 16.1	0.0
MFF				*e*Sn	Sn	22 57 43.8	+0.2
MFF				*e*Sg	Sg	22 58 00.0	-0.9
MFF	**Saint Martin d**	3.46	356	Pn	Pn	22 57 03.9	+0.9
MFF				Pg	Pg	22 57 16.1	0.0
MFF				Sn	Sn	22 57 43.8	+0.2
MFF	**Saint Martin d**	3.46	356	*e*Pn	Pn	22 57 03.9	+0.9
	SNR=1.0						
MFF	**Saint Martin d**	3.46	356	*e*Pg	Pg	22 57 16.1	0.0
MFF				*e*Sn	Sn	22 57 43.8	+0.2
MFF				*e*Sg	Sg	22 58 00.0	-0.9
	52nm,0.4s,SNR=1.0						
VIVF	**Saint-Julien-l**	3.65	61	*e*Pn	Pn	22 57 06.4	+0.8
	SNR=1.0						
VIVF	**Saint-Julien-l**	3.65	61	*e*Pg	Pg	22 57 19.9	+0.2
VIVF				*e*Sn	Sn	22 57 47.4	-0.8
	SNR=1.0						
VIVF				*e*Sg	Sg	22 58 06.6	-0.3
	70nm,0.3s,SNR=1.0						
VIVF	**Saint-Julien-l**	3.65	61	*e*Pn	Pn	22 57 06.4	+0.8
VIVF				*e*Pg	Pg	22 57 19.9	+0.2
VIVF				*e*Sn	Sn	22 57 47.4	-0.8
VIVF				*e*Sg	Sg	22 58 06.6	-0.3
VIVF	**Saint-Julien-l**	3.65	61	Pn	Pn	22 57 06.4	+0.8
VIVF				Pg	Pg	22 57 19.9	+0.2
VIVF				Sn	Sn	22 57 47.4	-0.8
VIVF	**Saint-Julien-l**	3.65	61	*e*Pn	Pn	22 57 06.4	+0.8
	SNR=1.0						
VIVF	**Saint-Julien-l**	3.65	61	*e*Pg	Pg	22 57 19.9	+0.2
VIVF				*e*Sn	Sn	22 57 47.4	-0.8
	SNR=1.0						
VIVF				*e*Sg	Sg	22 58 06.6	-0.3
	35nm,0.3s,SNR=1.0						
ECHE	**Chera**	3.67	194	Pn	Pn	22 57 06.7	+0.9
ECHE				Pg	Pg	22 57 17.6	-2.5
ECHE				Sn	Sn	22 57 47.6	-1.2
ECHE				Lg		22 58 04.5	
ECHE	**Chera**	3.67	194	Pn	Pn	22 57 06.7	+0.9
	2.6nm,0.2s,SNR=7.9						
ECHE				Pg	Pg	22 57 16.8	-3.3
	13nm,0.5s,SNR=7.9						
ECHE				Sn	Sn	22 57 46.3	-2.4
	3.7nm,0.2s,SNR=7.9						
ECHE				Lg		22 58 04.5	
	10nm,0.2s,SNR=7.9						
ECHE	**Chera**	3.67	194	Pn	Pn	22 57 06.7	+0.8
	2.6nm,0.2s,SNR=7.9						
ECHE	**Chera**	3.67	194	Pg	Pg	22 57 17.6	-2.5
	SNR=7.9						
ECHE				Sn	Sn	22 57 46.3	-2.5
	3.7nm,0.2s,SNR=7.9						
BGF	**Bois d’Agland**	3.89	28	*e*Pn	Pn	22 57 09.1	+0.2
	SNR=1.0						
BGF	**Bois d’Agland**	3.89	28	*e*Pg	Pg	22 57 25.3	+1.0
	SNR=1.0						
BGF				*e*Sn	Sn	22 57 53.3	-0.9
BGF				*e*Sg	Sg	22 58 15.6	+0.9
	458nm,0.3s,SNR=1.0						
BGF	**Bois d’Agland**	3.89	28	*e*Pn	Pn	22 57 09.1	+0.2
BGF				*e*Pg	Pg	22 57 25.3	+1.0
BGF				*e*Sn	Sn	22 57 53.3	-0.9
BGF				*e*Sg	Sg	22 58 15.6	+0.9
BGF	**Bois d’Agland**	3.89	28	Pg	Pg	22 57 25.3	+1.0
BGF	**Bois d’Agland**	3.89	28	*e*Pn	Pn	22 57 09.1	+0.2
	SNR=1.0						
BGF	**Bois d’Agland**	3.89	28	*e*Pg	Pg	22 57 25.3	+1.0
	SNR=1.0						
BGF				*e*Sn	Sn	22 57 53.3	-0.9
BGF				*e*Sg	Sg	22 58 15.6	+0.9
	229nm,0.3s,SNR=1.0						
ETOS	**Mallorca**	3.91	149	Pn	Pn	22 57 10.5	+1.3
ETOS				Pg	Pg	22 57 20.9	-3.9
ETOS				Sn	Sn	22 57 53.2	-1.6
ETOS				Lg		22 58 13.2	
ETOS	**Mallorca**	3.91	149	Pn	Pn	22 57 10.1	+0.9
	5.0nm,0.2s,SNR=17						
ETOS				Sn	Sn	22 57 52.3	-2.5
	2.6nm,0.1s,SNR=7.9						
ETOS	**Mallorca**	3.91	149	Pn	Pn	22 57 10.5	+1.3
	5.0nm,0.2s,SNR=17						
ETOS	**Mallorca**	3.91	149	Pg	Pg	22 57 20.9	-3.8
ETOS				Sn	Sn	22 57 53.2	-1.6
	2.6nm,0.1s,SNR=7.9						
EARI	**Arriondas**	3.96	274	Pn	Pn	22 57 12.9	+3.0
EARI				Pg	Pg	22 57 23.6	-2.1
EARI				Sn	Sn	22 57 56.9	+0.9
EARI	**Arriondas**	3.96	274	Pn	Pn	22 57 11.3	+1.5
	1.5nm,0.2s,SNR=20						
EARI				Pg	Pg	22 57 23.6	-2.1
	0.7nm,0.1s,SNR=7.9						
EARI				Sn	Sn	22 57 55.3	-0.7
	0.7nm,0.1s						
EARI				Lg		22 58 17.7	
	9.5nm,0.7s,SNR=7.9						
EARI	**Arriondas**	3.96	274	Pn	Pn	22 57 12.9	+3.0
	1.5nm,0.2s,SNR=20						
EARI	**Arriondas**	3.96	274	Pg	Pg	22 57 23.6	-2.0
EARI				Sn	Sn	22 57 56.9	+1.0
	0.7nm,0.1s						
SMRF	**Simiane la Rot**	3.99	76	*e*Pn	Pn	22 57 11.4	+1.1
	SNR=1.0						
SMRF	**Simiane la Rot**	3.99	76	*e*Pg	Pg	22 57 25.9	-0.3
	SNR=1.0						
SMRF				*e*Sn	Sn	22 57 55.3	-1.4
SMRF				*e*Sg	Sg	22 58 17.5	-0.4
	36nm,0.5s,SNR=1.0						
SMRF	**Simiane la Rot**	3.99	76	*e*Pn	Pn	22 57 11.4	+1.1
SMRF				*e*Pg	Pg	22 57 25.9	-0.3
SMRF				*e*Sn	Sn	22 57 55.3	-1.4

SMRF				*e*Sg	Sg	22 58 17.5	-0.4
SMRF	**Simiane la Rot**	3.99	76	Pn	Pn	22 57 11.4	+1.1
SMRF				Pg	Pg	22 57 25.9	-0.3
SMRF				Sn	Sn	22 57 55.3	-1.4
SMRF	**Simiane la Rot**	3.99	76	*e*Pn	Pn	22 57 11.4	+1.1
	SNR=1.0						
SMRF	**Simiane la Rot**	3.99	76	*e*Pg	Pg	22 57 25.9	-0.3
	SNR=1.0						
SMRF				*e*Sn	Sn	22 57 55.3	-1.4
SMRF				*e*Sg	Sg	22 58 17.5	-0.4
	18nm,0.5s,SNR=1.0						
GUD	**Guadarrama**	4.11	234	Pn	Pn	22 57 14.0	+2.1
GUD				Pg	Pg	22 57 25.0	-3.5
GUD				Sn	Sn	22 57 58.4	-1.2
GUD				Lg		22 58 20.8	
GUD	**Guadarrama**	4.11	234	Pn	Pn	22 57 13.3	+1.4
	5.7nm,0.2s,SNR=7.9						
GUD				Pg	Pg	22 57 25.5	-3.0
	3.4nm,0.2s,SNR=7.9						
GUD				Sn	Sn	22 57 57.2	-2.4
	6.7nm,0.4s,SNR=7.9						
GUD	**Guadarrama**	4.11	234	Pn	Pn	22 57 13.9	+2.0
	5.7nm,0.2s,SNR=7.9						
GUD	**Guadarrama**	4.11	234	Pg	Pg	22 57 25.0	-3.5
GUD				Sn	Sn	22 57 58.4	-1.2
	6.7nm,0.4s,SNR=7.9						
EIBI	**Ibiza**	4.21	168	Pn	Pn	22 57 13.5	+0.1
EIBI				Pg	Pg	22 57 27.2	-3.3
EIBI				Sn	Sn	22 57 59.8	-2.4
EIBI				Lg		22 58 22.6	
EIBI	**Ibiza**	4.21	168	Pn	Pn	22 57 13.8	+0.4
	1.2nm,0.2s,SNR=8.6						
EIBI				Sn	Sn	22 57 59.0	-3.2
	3.7nm,0.2s,SNR=7.9						
EIBI	**Ibiza**	4.21	168	Pn	Pn	22 57 13.8	+0.4
	1.2nm,0.2s,SNR=8.6						
EIBI	**Ibiza**	4.21	168	Pg	Pg	22 57 27.2	-3.3
EIBI				Sn	Sn	22 57 59.0	-3.2
	3.7nm,0.2s,SNR=7.9						
AVF	**Avril sur Loir**	4.27	30	*e*Pn	Pn	22 57 14.1	0.0
	SNR=1.0						
AVF	**Avril sur Loir**	4.27	30	*e*Pg	Pg	22 57 32.1	+0.5
AVF				*e*Sn	Sn	22 58 01.1	-2.5
	SNR=1.0						
AVF				*e*Sg	Sg	22 58 25.6	-1.2
	159nm,0.5s,SNR=1.0						
AVF	**Avril sur Loir**	4.27	30	*e*Pn	Pn	22 57 14.1	0.0
AVF				*e*Pg	Pg	22 57 32.1	+0.5
AVF				*e*Sn	Sn	22 58 01.1	-2.5
AVF				*e*Sg	Sg	22 58 25.6	-1.2
AVF	**Avril sur Loir**	4.27	30	Pg	Pg	22 57 32.1	+0.5
AVF	**Avril sur Loir**	4.27	30	*e*Pn	Pn	22 57 14.1	0.0
	SNR=1.0						
AVF	**Avril sur Loir**	4.27	30	*e*Pg	Pg	22 57 32.1	+0.5
AVF				*e*Sn	Sn	22 58 01.1	-2.5
	SNR=1.0						
AVF				*e*Sg	Sg	22 58 25.6	-1.2
	79nm,0.5s,SNR=1.0						
SMF	**Signal de Mont**	4.34	35	*e*Pn	Pn	22 57 15.4	+0.2
	SNR=1.0						
SMF	**Signal de Mont**	4.34	35	*e*Pg	Pg	22 57 33.2	+0.2
	SNR=1.0						
SMF				*e*Sn	Sn	22 58 04.6	-0.8
	SNR=1.0						
SMF				*e*Sg	Sg	22 58 29.6	+0.4
	66nm,0.5s,SNR=1.0						
SMF	**Signal de Mont**	4.34	35	*e*Pn	Pn	22 57 15.4	+0.2
SMF				*e*Pg	Pg	22 57 33.2	+0.2
SMF				*e*Sn	Sn	22 58 04.6	-0.8
SMF				*e*Sg	Sg	22 58 29.6	+0.4
SMF	**Signal de Mont**	4.34	35	Pg	Pg	22 57 33.2	+0.2
SMF				Sn	Sn	22 58 04.6	-0.8
SMF	**Signal de Mont**	4.34	35	*e*Pn	Pn	22 57 15.4	+0.2
	SNR=1.0						
SMF	**Signal de Mont**	4.34	35	*e*Pg	Pg	22 57 33.2	+0.2
	SNR=1.0						
SMF				*e*Sn	Sn	22 58 04.6	-0.8
	SNR=1.0						
SMF				*e*Sg	Sg	22 58 29.6	+0.4
	33nm,0.5s,SNR=1.0						
EBEN	**Beniarda**	4.46	184	Pn	Pn	22 57 17.6	+0.8
EBEN				Sn	Sn	22 58 07.7	-0.6
EBEN				Lg		22 58 29.5	
EBEN	**Beniarda**	4.46	184	Pn	Pn	22 57 17.6	+0.8
	2.3nm,0.2s,SNR=20						
EBEN				Pg	Pg	22 57 31.4	-3.7
	SNR=7.9						
EBEN				Sn	Sn	22 58 04.2	-4.1
	2.2nm,0.2s,SNR=7.9						
EBEN				Lg		22 58 29.9	
	4.8nm,0.3s						
EBEN	**Beniarda**	4.46	184	Pn	Pn	22 57 17.6	+0.9
	2.3nm,0.2s,SNR=20						
EBEN				Sn	Sn	22 58 07.7	-0.5
ORIF	**Oris-en-Rattie**	4.46	65	*e*Pn	Pn	22 57 16.5	-0.2
	SNR=1.0						
ORIF	**Oris-en-Rattie**	4.46	65	*e*Pg	Pg	22 57 35.5	+0.3
ORIF				*e*Sg	Sg	22 58 33.3	+0.4
	16nm,0.5s,SNR=1.0						
ORIF	**Oris-en-Rattie**	4.46	65	*e*Pn	Pn	22 57 16.5	-0.2
ORIF				*e*Pg	Pg	22 57 35.5	+0.3
ORIF				*e*Sg	Sg	22 58 33.3	+0.4
ORIF	**Oris-en-Rattie**	4.46	65	Lg		22 58 33.3	
	8.2nm,0.5s						
ORIF	**Oris-en-Rattie**	4.46	65	*e*Pn	Pn	22 57 16.5	-0.2
	SNR=1.0						
ORIF	**Oris-en-Rattie**	4.46	65	*e*Pg	Pg	22 57 35.5	+0.3
ORIF				*e*Sg	Sg	22 58 33.3	+0.4
	8.2nm,0.5s,SNR=1.0						
HYF	**Humbligny**	4.46	22	*e*Pn	Pn	22 57 18.2	+1.4
HYF	**Humbligny**	4.46	22	*e*Pg	Pg	22 57 34.8	-0.4
HYF				*e*Sn	Sn	22 58 07.6	-0.7
HYF				*e*Sg	Sg	22 58 32.9	-0.1
HYF	**Humbligny**	4.46	22	*e*Pn	Pn	22 57 18.2	+1.4
HYF				*e*Pg	Pg	22 57 34.8	-0.4
HYF				*e*Sn	Sn	22 58 07.6	-0.7
HYF				*e*Sg	Sg	22 58 32.9	-0.1
HYF	**Humbligny**	4.46	22	Pn	Pn	22 57 18.2	+1.4
HYF				Pg	Pg	22 57 34.8	-0.4
HYF				Sn	Sn	22 58 07.6	-0.7
HYF	**Humbligny**	4.46	22	*e*Pn	Pn	22 57 18.2	+1.4
HYF	**Humbligny**	4.46	22	*e*Pg	Pg	22 57 34.8	-0.4
HYF				*e*Sn	Sn	22 58 07.6	-0.7
HYF				*e*Sg	Sg	22 58 32.9	-0.1
SSF	**Saint Saulge**	4.55	30	*e*Pn	Pn	22 57 18.0	0.0
	SNR=1.0						
SSF	**Saint Saulge**	4.55	30	*e*Pg	Pg	22 57 36.2	-0.8
	SNR=1.0						
SSF				*e*Sn	Sn	22 58 09.9	-0.7
SSF				*e*Sg	Sg	22 58 36.0	0.0
	86nm,0.5s						
SSF	**Saint Saulge**	4.55	30	*e*Pn	Pn	22 57 18.0	0.0
SSF				*e*Pg	Pg	22 57 36.2	-0.8
SSF				*e*Sn	Sn	22 58 09.9	-0.7
SSF				*e*Sg	Sg	22 58 36.0	0.0
SSF	**Saint Saulge**	4.55	30	Pg	Pg	22 57 36.2	-0.8
SSF				Sn	Sn	22 58 09.9	-0.7
SSF	**Saint Saulge**	4.55	30	*e*Pn	Pn	22 57 18.0	0.0
	SNR=1.0						
SSF	**Saint Saulge**	4.55	30	*e*Pg	Pg	22 57 36.2	-0.8
	SNR=1.0						
SSF				*e*Sn	Sn	22 58 09.9	-0.7
SSF				*e*Sg	Sg	22 58 36.0	0.0
	43nm,0.5s						
LMR	**La Mourre**	4.61	86	*e*Pn	Pn	22 57 19.4	+0.6
	SNR=1.0						
LMR	**La Mourre**	4.61	86	*e*Pg	Pg	22 57 37.2	-0.9
	SNR=1.0						
LMR				*e*Sn	Sn	22 58 10.9	-1.1
LMR				*e*Sg	Sg	22 58 38.7	+0.9
	7.7nm,0.3s,SNR=1.0						
LMR	**La Mourre**	4.61	86	*e*Pn	Pn	22 57 19.4	+0.6
LMR				*e*Pg	Pg	22 57 37.2	-0.9
LMR				*e*Sn	Sn	22 58 10.9	-1.1
LMR				*e*Sg	Sg	22 58 38.7	+0.9
LMR	**La Mourre**	4.61	86	Pn	Pn	22 57 19.4	+0.6
LMR				Pg	Pg	22 57 37.2	-0.9
LMR				Sn	Sn	22 58 10.9	-1.1
LMR				Lg		22 58 38.7	
	3.8nm,0.3s						
LMR	**La Mourre**	4.61	86	*e*Pn	Pn	22 57 19.4	+0.6
	SNR=1.0						
LMR	**La Mourre**	4.61	86	*e*Pg	Pg	22 57 37.2	-0.9
	SNR=1.0						
LMR				*e*Sn	Sn	22 58 10.9	-1.1
LMR				*e*Sg	Sg	22 58 38.7	+0.9
	3.8nm,0.3s,SNR=1.0						
ESDC	**Sonseca Array**	4.68	223	Pn	Pn	22 57 20.2	+0.5
ESDC				Pg	Pg	22 57 34.2	-5.2
ESDC				Sn	Sn	22 58 10.8	-2.9
ESDC				Lg		22 58 34.9	
ESDC	**Sonseca Array**	4.68	223	Pn	Pn	22 57 20.2	+0.5
	4.3nm,0.3s,baz=44,slow=14,SNR=84						
ESDC				Pg	Pg	22 57 35.6	-3.8
	1.1nm,0.2s,baz=43,slow=14,SNR=7.3						
ESDC				Sn	Sn	22 58 10.8	-2.9
	9.1nm,0.3s,baz=44,slow=25,SNR=9.1						
ESDC				Lg		22 58 37.9	
	5.7nm,0.3s,baz=42,slow=30,SNR=4.7						
ESDC	**Sonseca Array**	4.68	223	Pn	Pn	22 57 20.2	+0.4
	4.3nm,0.3s,SNR=84						
ESDC	**Sonseca Array**	4.68	223	Pg	Pg	22 57 35.6	-3.8
	1.1nm,0.2s,SNR=7.3						
ESDC				Sn	Sn	22 58 10.8	-2.9
	9.1nm,0.3s,SNR=9.1						
ETOB	**Tobarra**	4.70	197	Pn	Pn	22 57 21.2	+1.2
ETOB				Pg	Pg	22 57 34.7	-5.0
ETOB				Sn	Sn	22 58 11.1	-3.0
ETOB				Lg		22 58 36.9	
ETOB	**Tobarra**	4.70	197	Pn	Pn	22 57 20.7	+0.7
	1.4nm,0.2s,SNR=12						
ETOB				Pg	Pg	22 57 34.7	-5.0
	1.6nm,0.2s,SNR=7.9						
ETOB				Sn	Sn	22 58 11.1	-3.0
	2.6nm,0.2s,SNR=7.9						
ETOB				Lg		22 58 38.8	
	7.2nm,0.3s						
ETOB	**Tobarra**	4.70	197	Pn	Pn	22 57 21.2	+1.2
	1.4nm,0.2s,SNR=12						
ETOB	**Tobarra**	4.70	197	Pg	Pg	22 57 34.7	-5.0
	1.6nm,0.2s,SNR=7.9						
ETOB				Sn	Sn	22 58 11.1	-3.0
	2.6nm,0.2s,SNR=7.9						
FRF	**La Foret Royal**	4.72	83	*e*Pn	Pn	22 57 21.1	+0.8
	SNR=1.0						
FRF	**La Foret Royal**	4.72	83	*e*Pg	Pg	22 57 39.7	-0.4
	SNR=1.0						
FRF				*e*Sn	Sn	22 58 13.6	-1.0
	SNR=1.0						
FRF				*e*Sg	Sg	22 58 40.2	-1.0
	16nm,0.4s,SNR=1.0						
FRF	**La Foret Royal**	4.72	83	*e*Pn	Pn	22 57 21.1	+0.8
FRF				*e*Pg	Pg	22 57 39.7	-0.4
FRF				*e*Sn	Sn	22 58 13.6	-1.0
FRF				*e*Sg	Sg	22 58 40.2	-1.0
FRF	**La Foret Royal**	4.72	83	Pn	Pn	22 57 21.1	+0.8
FRF				Sn	Sn	22 58 13.6	-1.0
FRF	**La Foret Royal**	4.72	83	*e*Pn	Pn	22 57 21.1	+0.8
	SNR=1.0						
FRF	**La Foret Royal**	4.72	83	*e*Pg	Pg	22 57 39.7	-0.4
	SNR=1.0						
FRF				*e*Sn	Sn	22 58 13.6	-1.0
	SNR=1.0						
FRF				*e*Sg	Sg	22 58 40.2	-1.0
	8.2nm,0.4s,SNR=1.0						
LOR	**Lormes**	4.86	31	*e*Pn	Pn	22 57 22.4	+0.2
	baz=209,SNR=1.0						
LOR	**Lormes**	4.86	31	*e*Pg	Pg	22 57 42.2	-0.6
	baz=214,SNR=1.0						
LOR				*e*Sn	Sn	22 58 17.2	-0.9
LOR				*e*Sg	Sg	22 58 42.7	-3.0
	74nm,0.4s,SNR=1.0						
LOR	**Lormes**	4.86	31	*e*Pn	Pn	22 57 22.4	+0.2
LOR				*e*Pg	Pg	22 57 42.2	-0.6
LOR				*e*Sn	Sn	22 58 17.2	-0.9
LOR				*e*Sg	Sg	22 58 42.7	-3.0
LOR	**Lormes**	4.86	31	Pg	Pg	22 57 42.2	-0.6
LOR				Sn	Sn	22 58 17.2	-0.9
LOR	**Lormes**	4.86	31	*e*Pn	Pn	22 57 22.4	+0.2
	SNR=1.0						
LOR	**Lormes**	4.86	31	*e*Pg	Pg	22 57 42.2	-0.6
	SNR=1.0						
LOR				*e*Sn	Sn	22 58 17.2	-0.9
LOR				*e*Sg	Sg	22 58 42.7	-3.0
	37nm,0.4s,SNR=1.0						
EVIA	**Vianos**	4.95	205	Pn	Pn	22 57 24.2	+0.6
EVIA	**Vianos**	4.95	205	Pn	Pn	22 57 24.2	+0.6
	0.1nm,0.1s,SNR=4.0						
EVIA				Pg	Pg	22 57 40.6	-4.1
	0.5nm,0.2s,SNR=7.9						
EVIA				Sn	Sn	22 58 17.3	-3.2
	5.5nm,0.4s,SNR=7.9						
EVIA				Lg		22 58 46.3	
	3.5nm,0.8s,SNR=7.9						
EVIA	**Vianos**	4.95	205	Pn	Pn	22 57 24.2	+0.6
	SNR=4.0						
MBDF	**Montbardon**	5.00	69	*e*Pn	Pn	22 57 26.4	+2.3
	SNR=1.0						
MBDF	**Montbardon**	5.00	69	*e*Pg	Pg	22 57 43.6	-1.9
MBDF				*e*Sg	Sg	22 58 49.0	-1.2
	14nm,0.8s						
MBDF	**Montbardon**	5.00	69	*e*Pn	Pn	22 57 26.4	+2.3
MBDF				*e*Pg	Pg	22 57 43.6	-1.9
MBDF				*e*Sg	Sg	22 58 49.0	-1.2
MBDF	**Montbardon**	5.00	69	Pn	Pn	22 57 26.4	+2.3
MBDF				Pg	Pg	22 57 43.6	-1.9
MBDF	**Montbardon**	5.00	69	*e*Pn	Pn	22 57 26.4	+2.3
	SNR=1.0						
MBDF	**Montbardon**	5.00	69	*e*Pg	Pg	22 57 43.6	-1.9
MBDF				*e*Sg	Sg	22 58 49.0	-1.2
	7.0nm,0.8s						
LPL	**La Plagne**	5.25	61	*e*Pn	Pn	22 57 30.0	+2.5
	SNR=1.0						
LPL	**La Plagne**	5.25	61	*e*Pg	Pg	22 57 49.4	-0.8
LPL				*e*Sg	Sg	22 58 57.3	-0.8
	13nm,0.6s						
LPL	**La Plagne**	5.25	61	*e*Pn	Pn	22 57 30.0	+2.5
LPL				*e*Pg	Pg	22 57 49.4	-0.8
LPL				*e*Sg	Sg	22 58 57.3	-0.8
LPL	**La Plagne**	5.25	61	Pn	Pn	22 57 30.0	+2.5
LPL				Pg	Pg	22 57 49.4	-0.8
LPL	**La Plagne**	5.25	61	*e*Pn	Pn	22 57 30.0	+2.5
	SNR=1.0						
LPL	**La Plagne**	5.25	61	*e*Pg	Pg	22 57 49.4	-0.8
LPL				*e*Sg	Sg	22 58 57.3	-0.8
	6.6nm,0.6s						
LPG	**La Plagne**	5.25	61	*e*Pn	Pn	22 57 31.2	+3.6
	SNR=1.0						
LPG	**La Plagne**	5.25	61	*e*Pg	Pg	22 57 49.6	-0.7
LPG				*e*Sn	Sn	22 58 26.4	-1.4
LPG				*e*Sg	Sg	22 58 57.5	-0.8
	16nm,0.5s						
LPG	**La Plagne**	5.25	61	*e*Pn	Pn	22 57 31.2	+3.6
LPG				*e*Pg	Pg	22 57 49.6	-0.7
LPG				*e*Sn	Sn	22 58 26.4	-1.4
LPG				*e*Sg	Sg	22 58 57.5	-0.8
LPG	**La Plagne**	5.25	61	Pn	Pn	22 57 31.2	+3.6
LPG				Pg	Pg	22 57 49.6	-0.7
LPG				Sn	Sn	22 58 26.4	-1.4
LPG	**La Plagne**	5.25	61	*e*Pn	Pn	22 57 31.2	+3.6
	SNR=1.0						
LPG	**La Plagne**	5.25	61	*e*Pg	Pg	22 57 49.6	-0.7
LPG				*e*Sg	Sg	22 58 57.5	-0.8
	7.9nm,0.5s						
ECAL	**Calabor**	5.27	259	Pn	Pn	22 57 30.1	+2.2
ECAL				Pg	Pg	22 57 48.5	-2.2
ECAL				Sn	Sn	22 58 27.3	-0.9
ECAL				Lg		22 58 58.0	
ECAL	**Calabor**	5.27	259	Pn	Pn	22 57 29.5	+1.6
	4.8nm,0.2s,SNR=7.5						
ECAL				Pg	Pg	22 57 46.8	-3.9
	3.1nm,0.2s,SNR=7.9						
ECAL				Sn	Sn	22 58 26.2	-2.0
	8.3nm,0.2s,SNR=6.3						
ECAL				Lg		22 58 57.4	
	6.5nm,0.2s						
ECAL	**Calabor**	5.27	259	Pn	Pn	22 57 30.1	+2.2
	4.8nm,0.2s,SNR=7.5						
ECAL	**Calabor**	5.27	259	Pg	Pg	22 57 48.5	-2.2
	3.1nm,0.2s,SNR=7.9						
ECAL				Sn	Sn	22 58 27.3	-0.9
	8.3nm,0.2s,SNR=6.3						
GRR	**Gorron**	5.29	352	*e*Pn	Pn	22 57 28.7	+0.6
	SNR=1.0						
GRR	**Gorron**	5.29	352	*e*Pg	Pg	22 57 50.6	-0.4
	SNR=1.0						
GRR				*e*Sn	Sn	22 58 25.6	-3.1
	SNR=1.0						
GRR				*e*Sg	Sg	22 58 59.8	+0.3
	28nm,0.3s,SNR=1.0						
GRR	**Gorron**	5.29	352	*e*Pn	Pn	22 57 28.7	+0.6
GRR				*e*Pg	Pg	22 57 50.6	-0.4
GRR				*e*Sn	Sn	22 58 25.6	-3.1
GRR				*e*Sg	Sg	22 58 59.8	+0.3
GRR	**Gorron**	5.29	352	Pn	Pn	22 57 28.7	+0.6
GRR				Pg	Pg	22 57 50.6	-0.4
GRR	**Gorron**	5.29	352	*e*Pn	Pn	22 57 28.7	+0.6
	SNR=1.0						
GRR	**Gorron**	5.29	352	*e*Pg	Pg	22 57 50.6	-0.4
	SNR=1.0						
GRR				*e*Sn	Sn	22 58 25.6	-3.1
	SNR=1.0						
GRR				*e*Sg	Sg	22 58 59.8	+0.3
	14nm,0.3s,SNR=1.0						
SBF	**Sospel**	5.31	80	*e*Pn	Pn	22 57 29.3	+0.9
	SNR=1.0						
SBF	**Sospel**	5.31	80	*e*Pg	Pg	22 57 49.4	-2.0
SBF				*e*Sn	Sn	22 58 25.1	-4.1
	SNR=1.0						
SBF				*e*Sg	Sg	22 58 58.7	-1.5
	19nm,0.4s						
SBF	**Sospel**	5.31	80	*e*Pn	Pn	22 57 29.3	+0.9
SBF				*e*Pg	Pg	22 57 49.4	-2.0
SBF				*e*Sn	Sn	22 58 25.1	-4.1
SBF				*e*Sg	Sg	22 58 58.7	-1.5
SBF	**Sospel**	5.31	80	Pn	Pn	22 57 29.3	+0.9
SBF				Pg	Pg	22 57 49.4	-2.0
SBF	**Sospel**	5.31	80	*e*Pn	Pn	22 57 29.3	+0.9
	SNR=1.0						
SBF	**Sospel**	5.31	80	*e*Pg	Pg	22 57 49.4	-2.0
SBF				*e*Sg	Sg	22 58 58.7	-1.5
	9.4nm,0.4s						
PBRG	**Braganca**	5.31	258	*e*Pn	Pn	22 57 30.1	+1.7
PBRG				*e*Sn	Sn	22 58 28.0	-1.2
PBRG				A		22 58 30.8	
	19nm,0.4s						
PBRG	**Braganca**	5.31	258	Pn	Pn	22 57 30.1	+1.7
PBRG				Sn	Sn	22 58 28.0	-1.2
	9.7nm,0.4s						
PBRG	**Braganca**	5.31	258	*e*Pn	Pn	22 57 30.1	+1.7
PBRG				*e*Sn	Sn	22 58 28.0	-1.2
	19nm,0.4s						
QUIF	**Quistinic**	5.32	335	*e*Pn	Pn	22 57 29.8	+1.3
	SNR=1.0						
QUIF	**Quistinic**	5.32	335	*e*Pg	Pg	22 57 50.2	-1.4
QUIF				*e*Sn	Sn	22 58 27.9	-1.5
	SNR=1.0						
QUIF				*e*Sg	Sg	22 58 59.5	-1.0
	16nm,0.3s						
QUIF	**Quistinic**	5.32	335	*e*Pn	Pn	22 57 29.8	+1.3
QUIF				*e*Pg	Pg	22 57 50.2	-1.4
QUIF				*e*Sn	Sn	22 58 27.9	-1.5
QUIF				*e*Sg	Sg	22 58 59.5	-1.0
QUIF	**Quistinic**	5.32	335	Pn	Pn	22 57 29.8	+1.3
QUIF				Pg	Pg	22 57 50.2	-1.4
QUIF				Sn	Sn	22 58 27.9	-1.5
QUIF	**Quistinic**	5.32	335	*e*Pn	Pn	22 57 29.8	+1.3
	SNR=1.0						
QUIF	**Quistinic**	5.32	335	*e*Pg	Pg	22 57 50.2	-1.4
QUIF				*e*Sn	Sn	22 58 27.9	-1.5
	SNR=1.0						
QUIF				*e*Sg	Sg	22 58 59.5	-1.0
	7.8nm,0.3s						
EPON	**Pontenova**	5.37	274	Pn	Pn	22 57 33.4	+4.0
EPON				Pg	Pg	22 57 49.0	-3.7
EPON				Sn	Sn	22 58 31.6	+0.7
EPON				Lg		22 59 04.9	
EPON	**Pontenova**	5.37	274	Pn	Pn	22 57 31.2	+1.9
	3.0nm,0.3s,SNR=9.2						
EPON				Pg	Pg	22 57 49.0	-3.7
	1.5nm,0.1s,SNR=7.9						
EPON				Sn	Sn	22 58 28.4	-2.4
	2.2nm,0.6s,SNR=7.9						
EPON				Lg		22 59 02.6	
	1.0nm,0.1s,SNR=5.0						
EPON	**Pontenova**	5.37	274	Pn	Pn	22 57 32.1	+2.8
	3.0nm,0.3s,SNR=9.2						
EPON	**Pontenova**	5.37	274	Pg	Pg	22 57 49.0	-3.7
EPON				Sn	Sn	22 58 31.5	+0.7
	SNR=7.9						
EMUR	**La Murta**	5.42	192	Pn	Pn	22 57 31.2	+1.3
EMUR				Pg	Pg	22 57 50.2	-3.3
EMUR				Sn	Sn	22 58 28.0	-3.9
EMUR				Lg		22 58 58.2	
EMUR	**La Murta**	5.42	192	Pn	Pn	22 57 31.2	+1.3
	1.7nm,0.1s,SNR=11						
EMUR				Pg	Pg	22 57 48.4	-5.2
	0.8nm,0.2s,SNR=7.9						
EMUR				Sn	Sn	22 58 28.0	-3.9
	10nm,0.7s,SNR=7.9						
EMUR				Lg		22 59 00.7	
	9.5nm,0.4s						
EMUR	**La Murta**	5.42	192	Pn	Pn	22 57 31.2	+1.3
	1.7nm,0.1s,SNR=11						
EMUR	**La Murta**	5.42	192	Pg	Pg	22 57 50.2	-3.4
	0.8nm,0.2s,SNR=7.9						
EMUR				Sn	Sn	22 58 28.0	-3.9
	SNR=7.9						
CABF	**La Chapelle**	5.42	48	*e*Pn	Pn	22 57 32.3	+2.3
CABF	**La Chapelle**	5.42	48	*e*Pg	Pg	22 57 54.2	+0.5
	SNR=1.0						
CABF				*e*Sg	Sg	22 59 03.5	-0.4
	37nm,0.6s,SNR=1.0						
CABF	**La Chapelle**	5.42	48	*e*Pn	Pn	22 57 32.3	+2.3
CABF				*e*Pg	Pg	22 57 54.2	+0.5
CABF				*e*Sg	Sg	22 59 03.5	-0.4
CABF	**La Chapelle**	5.42	48	Pn	Pn	22 57 32.3	+2.3
CABF	**La Chapelle**	5.42	48	*e*Pn	Pn	22 57 32.3	+2.3
CABF	**La Chapelle**	5.42	48	*e*Pg	Pg	22 57 54.2	+0.5
	SNR=1.0						
CABF				*e*Sg	Sg	22 59 03.5	-0.4
	18nm,0.6s,SNR=1.0						
LDF	**La Druitiere**	5.45	358	*e*Pn	Pn	22 57 31.0	+0.7
	SNR=1.0						
LDF	**La Druitiere**	5.45	358	*e*Pg	Pg	22 57 52.5	-1.6
LDF				*e*Sn	Sn	22 58 27.1	-5.5
	SNR=1.0						
LDF				*e*Sg	Sg	22 59 02.8	-1.7
	41nm,0.5s,SNR=1.0						
LDF	**La Druitiere**	5.45	358	*e*Pn	Pn	22 57 31.0	+0.7
LDF				*e*Pg	Pg	22 57 52.5	-1.6
LDF				*e*Sn	Sn	22 58 27.1	-5.5
LDF				*e*Sg	Sg	22 59 02.8	-1.7
LDF	**La Druitiere**	5.45	358	*e*Pn	Pn	22 57 31.0	+0.7
	SNR=1.0						
LDF	**La Druitiere**	5.45	358	*e*Pg	Pg	22 57 52.5	-1.6
LDF				*e*Sg	Sg	22 59 02.8	-1.7
	20nm,0.5s,SNR=1.0						
SGMF	**Saint Gilles**	5.46	340	*e*Pn	Pn	22 57 31.1	+0.7
	SNR=1.0						
SGMF	**Saint Gilles**	5.46	340	*e*Pg	Pg	22 57 52.4	-1.8
SGMF				*e*Sn	Sn	22 58 28.6	-4.2
	SNR=1.0						
SGMF				*e*Sg	Sg	22 59 03.3	-1.5
	24nm,0.4s,SNR=1.0						
SGMF	**Saint Gilles**	5.46	340	*e*Pn	Pn	22 57 31.1	+0.7
SGMF				*e*Pg	Pg	22 57 52.4	-1.8
SGMF				*e*Sn	Sn	22 58 28.6	-4.2
SGMF				*e*Sg	Sg	22 59 03.3	-1.5
SGMF	**Saint Gilles**	5.46	340	Pn	Pn	22 57 31.1	+0.7
SGMF				Pg	Pg	22 57 52.4	-1.8
SGMF	**Saint Gilles**	5.46	340	*e*Pn	Pn	22 57 31.1	+0.7
	SNR=1.0						
SGMF	**Saint Gilles**	5.46	340	*e*Pg	Pg	22 57 52.4	-1.8
SGMF				*e*Sn	Sn	22 58 28.6	-4.2
	SNR=1.0						
SGMF				*e*Sg	Sg	22 59 03.3	-1.5
	12nm,0.4s,SNR=1.0						
ERUA	**La Rua**	5.46	264	Pn	Pn	22 57 33.0	+2.5
ERUA				Sn	Sn	22 58 33.6	+0.6
ERUA	**La Rua**	5.46	264	Pn	Pn	22 57 31.5	+1.0
	7.7nm,0.1s,SNR=7.9						
ERUA				Sn	Sn	22 58 31.0	-2.0
	26nm,0.6s,SNR=8.8						
ERUA				Lg		22 59 04.7	
	55nm,1.8s,SNR=7.9						
ERUA	**La Rua**	5.46	264	Pn	Pn	22 57 33.0	+2.5
	7.7nm,0.1s,SNR=7.9						
ERUA				Sn	Sn	22 58 33.6	+0.6
	26nm,0.6s,SNR=8.8						
FLN	**La Foliniere**	5.63	355	*e*Pn	Pn	22 57 33.0	+0.2
	baz=180,SNR=1.0						
FLN	**La Foliniere**	5.63	355	*e*Pg	Pg	22 57 56.6	-1.0
	baz=178						

FLN				*e*Sn	**Sn**	**22 58 33.2**	**-3.9**
	SNR=1.0						
FLN				*e*Sg	**Sg**	**22 59 10.8**	**+0.3**
	40nm,0.4s,SNR=1.0						
FLN	**La Foliniere**	**5.63**	**355**	*e*Pn	**Pn**	**22 57 33.0**	**+0.2**
FLN				*e*Pg	**Pg**	**22 57 56.6**	**-1.0**
FLN				*e*Sn	**Sn**	**22 58 33.2**	**-3.9**
FLN				*e*Sg	**Sg**	**22 59 10.8**	**+0.3**
FLN	**La Foliniere**	**5.63**	**355**	Pg	**Pg**	**22 57 56.6**	**-1.0**
FLN	**La Foliniere**	**5.63**	**355**	*e*Pn	**Pn**	**22 57 33.0**	**+0.2**
	SNR=1.0						
FLN	**La Foliniere**	**5.63**	**355**	*e*Pg	**Pg**	**22 57 56.6**	**-1.0**
FLN				*e*Sn	**Sn**	**22 58 33.2**	**-3.9**
	SNR=1.0						
FLN				*e*Sg	**Sg**	**22 59 10.8**	**+0.3**
	20nm,0.4s,SNR=1.0						
ROSF	**Rostrenen**	**5.73**	**336**	*e*Pn	**Pn**	**22 57 35.0**	**+0.9**
	SNR=1.0						
ROSF				*e*Sn	**Sn**	**22 58 37.4**	**-2.1**
ROSF				*e*Sg	**Sg**	**22 59 12.0**	**-1.5**
	37nm,0.6s						
ROSF	**Rostrenen**	**5.73**	**336**	*e*Pn	**Pn**	**22 57 35.0**	**+0.9**
ROSF				*e*Sn	**Sn**	**22 58 37.4**	**-2.1**
ROSF				*e*Sg	**Sg**	**22 59 12.0**	**-1.5**
ROSF	**Rostrenen**	**5.73**	**336**	Pn	**Pn**	**22 57 35.0**	**+0.9**
ROSF				Sn	**Sn**	**22 58 37.4**	**-2.1**
ROSF	**Rostrenen**	**5.73**	**336**	*e*Pn	**Pn**	**22 57 35.0**	**+0.9**
	SNR=1.0						
ROSF				*e*Sn	**Sn**	**22 58 37.4**	**-2.1**
ROSF				*e*Sg	**Sg**	**22 59 12.0**	**-1.5**
	18nm,0.6s						
MVO	**Moncorvo**	**5.73**	**252**	*e*Pn	**Pn**	**22 57 35.7**	**+1.5**
MVO				*e*Sn	**Sn**	**22 58 37.0**	**-2.6**
MVO				A		22 59 16.1	
	21nm,0.5s						
MVO	**Moncorvo**	**5.73**	**252**	Pn	**Pn**	**22 57 35.7**	**+1.5**
MVO				Sn	**Sn**	**22 58 37.0**	**-2.6**
	10nm,0.5s						
MVO	**Moncorvo**	**5.73**	**252**	*e*Pn	**Pn**	**22 57 35.7**	**+1.5**
MVO				*e*Sn	**Sn**	**22 58 37.0**	**-2.6**
	21nm,0.5s						
EBAN	**Banos Encina**	**5.83**	**213**	Pn	**Pn**	**22 57 36.0**	**+0.3**
EBAN				Sn	**Sn**	**22 58 39.3**	**-2.9**
EBAN				Lg		22 59 12.4	
EBAN	**Banos Encina**	**5.83**	**213**	Pn	**Pn**	**22 57 36.0**	**+0.3**
	1.9nm,0.2s,SNR=7.9						
EBAN				Pg	**Pg**	**22 57 56.5**	**-5.0**
	1.5nm,0.2s,SNR=7.9						
EBAN				Sn	**Sn**	**22 58 38.2**	**-4.0**
	0.2nm,0.2s,SNR=7.9						
EBAN				Lg		22 59 14.4	
	2.5nm,0.2s,SNR=7.9						
EBAN	**Banos Encina**	**5.83**	**213**	Pn	**Pn**	**22 57 36.0**	**+0.4**
	SNR=7.9						
EBAN				Sn	**Sn**	**22 58 39.3**	**-2.9**
	SNR=7.9						
EQES	**Quesada**	**5.90**	**206**	Pn	**Pn**	**22 57 38.0**	**+1.5**
EQES				Pg	**Pg**	**22 57 56.8**	**-5.9**
EQES				Sn	**Sn**	**22 58 40.0**	**-3.8**
EQES				Lg		22 59 13.4	
EQES	**Quesada**	**5.90**	**206**	Pn	**Pn**	**22 57 37.1**	**+0.5**
	1.6nm,0.4s,SNR=7.1						
EQES				Pg	**Pg**	**22 57 57.3**	**-5.4**
	0.7nm,0.2s,SNR=7.9						
EQES				Sn	**Sn**	**22 58 40.0**	**-3.8**
	16nm,1.5s,SNR=7.9						
EQES				Lg		22 59 16.8	
	1.0nm,0.2s						
EQES	**Quesada**	**5.90**	**206**	Pn	**Pn**	**22 57 38.0**	**+1.5**
	1.6nm,0.4s,SNR=7.1						
EQES	**Quesada**	**5.90**	**206**	Pg	**Pg**	**22 57 56.8**	**-5.9**
EQES				Sn	**Sn**	**22 58 40.0**	**-3.8**
	SNR=7.9						
SFTF	**Sexfontaines**	**6.08**	**32**	*e*Pn	**Pn**	**22 57 40.5**	**+1.5**
SFTF	**Sexfontaines**	**6.08**	**32**	*e*Pg	**Pg**	**22 58 04.6**	**-1.6**
SFTF				*e*Sg	**Sg**	**22 59 23.5**	**-1.4**
	47nm,0.5s						
SFTF	**Sexfontaines**	**6.08**	**32**	*e*Pn	**Pn**	**22 57 40.5**	**+1.5**
SFTF				*e*Pg	**Pg**	**22 58 04.6**	**-1.6**
SFTF				*e*Sg	**Sg**	**22 59 23.5**	**-1.4**
SFTF	**Sexfontaines**	**6.08**	**32**	Pn	**Pn**	**22 57 40.5**	**+1.5**
SFTF				Pg	**Pg**	**22 58 04.6**	**-1.6**
SFTF	**Sexfontaines**	**6.08**	**32**	*e*Pn	**Pn**	**22 57 40.5**	**+1.5**
SFTF	**Sexfontaines**	**6.08**	**32**	*e*Pg	**Pg**	**22 58 04.6**	**-1.6**
SFTF				*e*Sg	**Sg**	**22 59 23.5**	**-1.4**
	23nm,0.5s						
EADA	**Adamuz**	**6.16**	**218**	Pn	**Pn**	**22 57 41.4**	**+1.2**
EADA				Pg	**Pg**	**22 58 03.2**	**-4.7**
EADA				Sn	**Sn**	**22 58 46.6**	**-3.7**
EADA				Lg		22 59 21.5	
EADA	**Adamuz**	**6.16**	**218**	Pn	**Pn**	**22 57 41.0**	**+0.9**
	2.4nm,0.3s,SNR=9.7						
EADA				Pg	**Pg**	**22 58 02.6**	**-5.2**
	2.9nm,0.2s,SNR=7.9						
EADA				Sn	**Sn**	**22 58 46.3**	**-4.0**
	41nm,1.6s,SNR=7.9						
EADA	**Adamuz**	**6.16**	**218**	Pn	**Pn**	**22 57 41.4**	**+1.2**
	2.4nm,0.3s,SNR=9.7						
EADA	**Adamuz**	**6.16**	**218**	Pg	**Pg**	**22 58 03.2**	**-4.6**
EADA				Sn	**Sn**	**22 58 46.6**	**-3.7**
	SNR=7.9						
PVRL	**Vila Real**	**6.17**	**255**	*e*Pn	**Pn**	**22 57 41.9**	**+1.6**
PVRL				*e*Sn	**Sn**	**22 58 47.3**	**-3.2**
PVRL				A		22 58 49.7	
	4.1nm,0.2s						
PVRL	**Vila Real**	**6.17**	**255**	Pn	**Pn**	**22 57 41.9**	**+1.6**
PVRL				Sn	**Sn**	**22 58 47.3**	**-3.2**
	2.0nm,0.2s						
PVRL	**Vila Real**	**6.17**	**255**	*e*Pn	**Pn**	**22 57 41.9**	**+1.6**
PVRL				*e*Sn	**Sn**	**22 58 47.3**	**-3.2**
	4.1nm,0.2s						
ELOB	**Lobios**	**6.24**	**261**	Pn	**Pn**	**22 57 42.8**	**+1.6**
ELOB				Pg	**Pg**	**22 58 06.2**	**-3.1**
ELOB				Sn	**Sn**	**22 58 48.6**	**-3.6**
ELOB				Lg		22 59 27.7	
ELOB	**Lobios**	**6.24**	**261**	Pn	**Pn**	**22 57 42.8**	**+1.6**
	0.4nm,0.1s,SNR=7.9						
ELOB				Pg	**Pg**	**22 58 04.7**	**-4.6**
	1.8nm,0.2s,SNR=7.9						
ELOB				Sn	**Sn**	**22 58 48.6**	**-3.6**
	8.7nm,0.5s,SNR=7.9						
ELOB				Lg		22 59 29.7	
	0.9nm,0.2s,SNR=7.9						
ELOB	**Lobios**	**6.24**	**261**	Pn	**Pn**	**22 57 42.8**	**+1.6**
	SNR=7.9						
ELOB	**Lobios**	**6.24**	**261**	Pg	**Pg**	**22 58 06.2**	**-3.1**
	SNR=7.9						
PCAB	**Cabril**	**6.26**	**259**	*e*Pn	**Pn**	**22 57 43.3**	**+1.8**
PCAB				*e*Sn	**Sn**	**22 58 49.7**	**-2.9**
PCAB	**Cabril**	**6.26**	**259**	Pn	**Pn**	**22 57 43.3**	**+1.8**
PCAB				Sn	**Sn**	**22 58 49.7**	**-2.9**
PCAB	**Cabril**	**6.26**	**259**	*e*Pn	**Pn**	**22 57 43.3**	**+1.8**
PCAB				*e*Sn	**Sn**	**22 58 49.7**	**-2.9**
MEZF	**Maizieres J’vi**	**6.33**	**31**	*e*Pn	**Pn**	**22 57 43.5**	**+1.1**
MEZF	**Maizieres J’vi**	**6.33**	**31**	*e*Pg	**Pg**	**22 58 08.9**	**-2.1**
	baz=213						
MEZF				*e*Sg	**Sg**	**22 59 31.1**	**-1.8**
	48nm,0.4s						
MEZF	**Maizieres J’vi**	**6.33**	**31**	*e*Pn	**Pn**	**22 57 43.5**	**+1.1**
MEZF				*e*Pg	**Pg**	**22 58 08.9**	**-2.1**
MEZF				*e*Sg	**Sg**	**22 59 31.1**	**-1.8**
MEZF	**Maizieres J’vi**	**6.33**	**31**	Pn	**Pn**	**22 57 43.5**	**+1.1**
MEZF				Pg	**Pg**	**22 58 08.9**	**-2.1**
MEZF	**Maizieres J’vi**	**6.33**	**31**	*e*Pn	**Pn**	**22 57 43.5**	**+1.1**
MEZF	**Maizieres J’vi**	**6.33**	**31**	*e*Pg	**Pg**	**22 58 08.9**	**-2.1**
MEZF				*e*Sg	**Sg**	**22 59 31.1**	**-1.8**
	24nm,0.4s						
ENIJ	**Nijar**	**6.44**	**197**	Pn	**Pn**	**22 57 46.1**	**+2.1**
ENIJ	**Nijar**	**6.44**	**197**	Pn	**Pn**	**22 57 44.6**	**+0.6**
	1.1nm,0.1s,SNR=7.9						
ENIJ				Sn	**Sn**	**22 58 53.0**	**-4.2**
	7.7nm,0.9s,SNR=7.9						
ENIJ	**Nijar**	**6.44**	**197**	Pn	**Pn**	**22 57 46.1**	**+2.1**
	1.1nm,0.1s,SNR=7.9						
HAU	**Haudompre**	**6.49**	**39**	*e*Pn	**Pn**	**22 57 45.9**	**+1.3**
HAU	**Haudompre**	**6.49**	**39**	*e*Pg	**Pg**	**22 58 12.1**	**-1.9**
HAU				*e*Sg	**Sg**	**22 59 35.9**	**-2.1**
	20nm,0.4s						
HAU	**Haudompre**	**6.49**	**39**	*e*Pn	**Pn**	**22 57 45.9**	**+1.3**
HAU				*e*Pg	**Pg**	**22 58 12.1**	**-1.9**
HAU				*e*Sg	**Sg**	**22 59 35.9**	**-2.1**
HAU	**Haudompre**	**6.49**	**39**	Pn	**Pn**	**22 57 45.9**	**+1.3**
HAU				Pg	**Pg**	**22 58 12.1**	**-1.9**
HAU	**Haudompre**	**6.49**	**39**	*e*Pn	**Pn**	**22 57 45.9**	**+1.3**
HAU	**Haudompre**	**6.49**	**39**	*e*Pg	**Pg**	**22 58 12.1**	**-1.9**
HAU				*e*Sg	**Sg**	**22 59 35.9**	**-2.1**
	9.9nm,0.4s						
PGF	**Pioggiola**	**6.49**	**92**	*e*Pn	**Pn**	**22 57 45.0**	**+0.3**
	SNR=1.0						
PGF				*e*Sn	**Sn**	**22 58 56.0**	**-2.4**
	6.1nm,0.4s						
PGF	**Pioggiola**	**6.49**	**92**	*e*Pn	**Pn**	**22 57 45.0**	**+0.3**
PGF				*e*Sn	**Sn**	**22 58 56.0**	**-2.4**
PGF	**Pioggiola**	**6.49**	**92**	Pn	**Pn**	**22 57 45.0**	**+0.3**
PGF				Sn	**Sn**	**22 58 56.0**	**-2.4**
	3.0nm,0.4s						
PGF	**Pioggiola**	**6.49**	**92**	*e*Pn	**Pn**	**22 57 45.0**	**+0.3**
	SNR=1.0						
PGF				*e*Sn	**Sn**	**22 58 56.0**	**-2.4**
	3.0nm,0.4s						
PVIS	**Viseu**	**6.51**	**251**	*e*Pn	**Pn**	**22 57 46.1**	**+1.2**
PVIS				*e*Sn	**Sn**	**22 58 55.8**	**-3.0**
PVIS	**Viseu**	**6.51**	**251**	Pn	**Pn**	**22 57 46.1**	**+1.2**
PVIS				Sn	**Sn**	**22 58 55.8**	**-3.0**
PVIS	**Viseu**	**6.51**	**251**	*e*Pn	**Pn**	**22 57 46.1**	**+1.2**
PVIS				*e*Sn	**Sn**	**22 58 55.8**	**-3.0**
ELUQ	**Luque**	**6.54**	**213**	Pn	**Pn**	**22 57 46.2**	**+0.8**
ELUQ				Lg		22 59 33.7	
ELUQ	**Luque**	**6.54**	**213**	Pn	**Pn**	**22 57 46.2**	**+0.8**
	0.4nm,0.1s,SNR=7.9						
ELUQ				Lg		22 59 37.7	
	0.7nm,0.1s,SNR=7.9						
ELUQ	**Luque**	**6.54**	**213**	Pn	**Pn**	**22 57 46.2**	**+0.8**
	0.4nm,0.1s,SNR=7.9						
EQUE	**Quentar**	**6.56**	**206**	Pn	**Pn**	**22 57 45.8**	**+0.2**
	0.4nm,0.1s,SNR=7.9						
EQUE				Sn	**Sn**	**22 58 55.5**	**-4.6**
	1.2nm,0.0s,SNR=7.9						
EQUE				Lg		22 59 38.1	
	12nm,0.8s,SNR=7.9						
RFYF	**Reffroy**	**6.60**	**32**	*e*Sg	Sx	22 59 39.6	
	58nm,0.5s						
RFYF	**Reffroy**	**6.60**	**32**	*e*Sg	Sx	22 59 39.6	
	29nm,0.5s						
HINF	**Hinteralfeld**	**6.60**	**43**	*e*Pn	**Pn**	**22 57 47.1**	**+0.9**
HINF	**Hinteralfeld**	**6.60**	**43**	*e*Pg	Px	22 58 14.1	
HINF				*e*Sg	Sx	22 59 39.9	
	21nm,0.6s						
HINF	**Hinteralfeld**	**6.60**	**43**	*e*Pn	**Pn**	**22 57 47.1**	**+0.9**
HINF				*e*Pg	Pn	22 58 14.1	+28
HINF				*e*Sg	Sn	22 59 39.9	+39
HINF	**Hinteralfeld**	**6.60**	**43**	Pn	**Pn**	**22 57 47.1**	**+0.9**
HINF				Pg	Pn	22 58 14.1	+28
HINF	**Hinteralfeld**	**6.60**	**43**	*e*Pn	**Pn**	**22 57 47.1**	**+0.9**
HINF	**Hinteralfeld**	**6.60**	**43**	*e*Pg	Px	22 58 14.1	
HINF				*e*Sg	Sx	22 59 39.9	
	10nm,0.6s						
EBER	**Berja**	**6.68**	**202**	Pn	**Pn**	**22 57 49.9**	**+2.6**
EBER				Sn	**Sn**	**22 58 55.8**	**-7.3**
EBER				Lg		22 59 39.5	
EBER	**Berja**	**6.68**	**202**	Pn	**Pn**	**22 57 47.3**	**0.0**
	0.3nm,0.3s,SNR=7.9						
EBER				Sn	**Sn**	**22 58 58.2**	**-4.9**
	7.3nm,0.7s,SNR=4.0						
EBER				Lg		22 59 41.8	
	1.9nm,0.3s,SNR=4.0						
EBER	**Berja**	**6.68**	**202**	Pn	**Pn**	**22 57 49.9**	**+2.6**
EMAZ	**Mazaricos**	**6.73**	**271**	Pn	**Pn**	**22 57 53.0**	**+5.1**
EMAZ				Sn	**Sn**	**22 59 02.2**	**-2.0**
EMAZ	**Mazaricos**	**6.73**	**271**	Pn	**Pn**	**22 57 49.8**	**+1.9**
	0.7nm,0.3s,SNR=7.9						
EMAZ				Sn	**Sn**	**22 59 01.2**	**-3.0**
	0.9nm,0.1s,SNR=7.9						
EMAZ				Lg		22 59 45.4	
	32nm,1.2s,SNR=7.9						
EMAZ	**Mazaricos**	**6.73**	**271**	Sn	**Sn**	**22 59 02.2**	**-2.0**
EBAD	**Badajoz**	**7.01**	**234**	Pn	**Pn**	**22 57 51.9**	**+0.1**
EBAD				Pg	Pn	22 58 17.0	+25
EBAD				Sn	**Sn**	**22 59 06.7**	**-4.4**
EBAD				Lg		22 59 51.9	
EBAD	**Badajoz**	**7.01**	**234**	Pn	**Pn**	**22 57 52.2**	**+0.4**
	0.3nm,0.1s,SNR=7.9						
EBAD				Pg	Pn	22 58 17.8	+26
	0.9nm,0.3s,SNR=7.9						
EBAD				Sn	**Sn**	**22 59 06.7**	**-4.4**
	0.9nm,0.2s,SNR=7.9						
EBAD				Lg		22 59 52.9	
	2.1nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**7.01**	**234**	Pn	**Pn**	**22 57 51.9**	**+0.1**
EBAD	**Badajoz**	**7.01**	**234**	Pg	Px	22 58 17.0	
CDF	**Champ du Feu**	**7.22**	**41**	*e*Sg	Sx	23 00 00.1	
	17nm,0.8s						
CDF	**Champ du Feu**	**7.22**	**41**	*e*Sg	Sx	23 00 00.1	
	8.6nm,0.8s						
PESTR	**Estremoz**	**7.28**	**237**	*e*Pn	**Pn**	**22 57 56.4**	**+0.9**
PESTR	**Estremoz**	**7.28**	**237**	*e*Pn	**Pn**	**22 57 56.4**	**+0.9**
BAIF	**Baives**	**7.44**	**20**	*e*Pn	**Pn**	**22 57 58.9**	**+1.3**
BAIF				*e*Sg	Sn	23 00 05.8	+44
	16nm,0.6s						
BAIF	**Baives**	**7.44**	**20**	*e*Pn	**Pn**	**22 57 58.9**	**+1.3**
BAIF				*e*Sg	Sn	23 00 05.8	+44
BAIF	**Baives**	**7.44**	**20**	Pn	**Pn**	**22 57 58.9**	**+1.3**
BAIF	**Baives**	**7.44**	**20**	*e*Pn	**Pn**	**22 57 58.9**	**+1.3**
BAIF				*e*Sg	Sn	23 00 05.8	+44
	8.1nm,0.6s						
EMIN	**Mina Concepcio**	**7.51**	**227**	Pn	**Pn**	**22 57 58.1**	**-0.6**
EMIN				Sn	**Sn**	**22 59 17.1**	**-6.4**
EMIN				Lg		23 00 07.2	
EMIN	**Mina Concepcio**	**7.51**	**227**	Pn	**Pn**	**22 57 58.3**	**-0.3**
	1.4nm,0.4s,SNR=7.9						
EMIN				Sn	**Sn**	**22 59 17.0**	**-6.4**
	0.4nm,0.2s,SNR=7.9						
EMIN				Lg		23 00 08.5	
	1.2nm,0.4s,SNR=7.9						
EMIN	**Mina Concepcio**	**7.51**	**227**	Pn	**Pn**	**22 57 58.1**	**-0.5**
GIVF	**Givet**	**7.64**	**23**	*e*Pn	**Pn**	**22 58 01.8**	**+1.4**
GIVF				*e*Sg	Sn	23 00 12.5	+46
	23nm,0.6s						
GIVF	**Givet**	**7.64**	**23**	*e*Pn	**Pn**	**22 58 01.8**	**+1.4**
GIVF				*e*Sg	Sn	23 00 12.5	+46
GIVF	**Givet**	**7.64**	**23**	Pn	**Pn**	**22 58 01.8**	**+1.4**
GIVF	**Givet**	**7.64**	**23**	*e*Pn	**Pn**	**22 58 01.8**	**+1.4**
GIVF				*e*Sg	Sn	23 00 12.5	+46
	12nm,0.6s						
EVO	**Evora**	**7.75**	**236**	*e*Pn	**Pn**	**22 58 02.7**	**+0.7**
EVO	**Evora**	**7.75**	**236**	Pn	**Pn**	**22 58 02.7**	**+0.7**
ESPR	**Espera**	**7.81**	**219**	Pn	**Pn**	**22 58 05.3**	**+2.5**
ESPR				Sn	**Sn**	**22 59 27.2**	**-3.6**
ESPR				Lg		23 00 19.5	
ESPR	**Espera**	**7.81**	**219**	Pn	**Pn**	**22 58 02.4**	**-0.3**
	2.0nm,0.4s,SNR=7.9						
ESPR				Sn	**Sn**	**22 59 25.5**	**-5.3**
	15nm,1.3s,SNR=7.9						
ESPR				Lg		23 00 17.4	
	0.2nm,0.1s,SNR=7.9						
ESPR	**Espera**	**7.81**	**219**	Pn	**Pn**	**22 58 05.3**	**+2.5**
ESPR				Sn	**Sn**	**22 59 27.2**	**-3.6**
EGRO	**El Granado**	**8.12**	**229**	Pn	**Pn**	**22 58 06.1**	**-0.9**
EGRO				Sn	**Sn**	**22 59 30.1**	**-8.3**
EGRO				Lg		23 00 26.2	
EGRO	**El Granado**	**8.12**	**229**	Pn	**Pn**	**22 58 07.0**	**-0.1**
	0.2nm,0.2s,SNR=7.9						
EGRO				Sn	**Sn**	**22 59 31.8**	**-6.6**
	4.3nm,0.8s,SNR=7.9						
EGRO				Lg		23 00 27.6	
	0.8nm,0.3s,SNR=7.9						
EGRO	**El Granado**	**8.12**	**229**	Pn	**Pn**	**22 58 06.1**	**-0.9**
PVAQ	**Vaqueiros**	**8.34**	**229**	*e*Sn	**Sn**	**22 59 37.1**	**-6.8**
PVAQ	**Vaqueiros**	**8.34**	**229**	Sn	**Sn**	**22 59 37.1**	**-6.8**
MORF	**Marmelete**	**8.94**	**232**	*e*Pn	**Pn**	**22 58 18.3**	**+0.1**
MORF	**Marmelete**	**8.94**	**232**	Pn	**Pn**	**22 58 18.3**	**+0.1**

BJI ***16*** *23:14:28.4, 4.36N×124.58E, h517^{km}, mB4.7, mb4.4*

IDC ***16*** *23:14:35.3±1.5, 4.99N×124.00E, h508^{km}±16^{km}, mb3.7/14, mb1 3.8/14, mb1mx3.6/24, mbtmp3.7/14, Error ellipse: s-maj=31.3km s-min=7.3km az=70.0*

ISCJB ***16*** *23:14:36.3±2.4, 4.95N±0.09×124.1E±0.2, h535^{km}±31^{km}, mb4.3/25, Error ellipse: s-maj=29.1km s-min=8.2km az=157.9*

NEIC ***16*** *23:14:36.1±1.9, 4.99N×124.01E, h517^{km}±23^{km}, mb4.5/12, Error ellipse: s-maj=19.3km s-min=7.6km az=66.0*

ISC 16 23:14:37.9±2.4, **4.96N**±0.08×**124.1E**±0.2, **h538**^{km}±29^{km}, **n46**, σ**0^{s}.87**/42, **mb4.3**/25, **3C-1D, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**22.97**	**176**	P	**P**	**23 19 00.9**	**-0.4**
	6.5nm,0.5s,mb4.6,baz=6.5,slow=8.5,SNR=61						
FITZ				ScP	ScP	23 25 23.4	+4.6
	1.2nm,0.7s,baz=213,slow=17,SNR=5.2						
MBWA	**Marble Bar**	**26.31**	**189**	*e*P	**P**	**23 19 29.2**	**-1.7**
	5.6nm,0.4s,mb4.5						
WRA	**Warramunga Arr**	**26.71**	**158**	P	**P**	**23 19 33.8**	**-0.6**
	4.7nm,0.5s,mb4.4,baz=339,slow=9.6,SNR=130						
WRA				S	**S**	**23 23 31.1**	**-1.2**
	0.6nm,0.7s,baz=319,slow=22,SNR=4.0						
WRA				ScP	ScP	23 25 33.7	+4.2
	0.3nm,0.6s,baz=340,slow=3.0,SNR=5.0						
ASAR	**Alice Springs**	**30.02**	**162**	P	**P**	**23 20 03.5**	**+0.4**
	11nm,0.3s,mb4.8,baz=340,slow=7.3,SNR=193						
ASAR				S	**S**	**23 24 25.4**	**+1.9**
	0.8nm,0.6s,baz=211,slow=17,SNR=6.3						
ASAR				ScP	ScP	23 25 44.5	+4.5
	0.6nm,0.4s,baz=344,slow=3.1,SNR=6.6						
FORT	**Forrest**	**35.74**	**174**	⇑*i*P	**P**	**23 20 52.0**	**+0.5**
	20nm,0.4s,mb5.0						
LZH	**Lanzhou**	**36.15**	**332**	*e*P	**P**	**23 20 55.0**	**+0.1**
LZH				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.4						
LZH	**Lanzhou**	**36.15**	**332**	*e*P	**P**	**23 20 55.0**	**+0.1**
	comp=Z,16nm,1.3s,mb4.4						
KLBR	**Kellerberrin**	**36.85**	**189**	⇑*i*P	**P**	**23 21 00.5**	**-0.1**
	comp=Z,5.6nm,0.3s,mb4.6						
MUN	**Mundaring**	**37.50**	**191**	*e*P	**P**	**23 21 06.3**	**+0.4**
NWAO	**Narrogin (SRO)**	**38.24**	**189**	P	**P**	**23 21 11.8**	**-0.2**
NWAO	**Narrogin (SRO)**	**38.24**	**189**	P	**P**	**23 21 11.8**	**-0.2**
	comp=Z,6.1nm,0.4s,mb4.5,baz=342,slow=10,SNR=12						
LSA	**Lhasa**	**39.67**	**312**	P	**P**	**23 21 24.8**	**+1.1**
LSA	**Lhasa**	**39.67**	**312**	*e*P	**P**	**23 21 24.5**	**+0.8**
	comp=Z,5.4nm,0.6s,mb4.2						
STKA	**Stephens Creek**	**40.24**	**157**	⇑*i*P	**P**	**23 21 29.5**	**+1.3**
	comp=Z,4.9nm,0.4s,mb4.4						
STKA	**Stephens Creek**	**40.24**	**157**	P	**P**	**23 21 29.6**	**+1.4**
	comp=Z,6.1nm,0.4s,mb4.5,baz=336,slow=7.8,SNR=31						
GTA	**Gaotai**	**40.73**	**331**	*e*P	**P**	**23 21 31.8**	**-0.1**
GTA				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.4						
SONM	**Songino Array**	**45.34**	**343**	P	**P**	**23 22 06.7**	**-1.0**
	comp=Z,0.8nm,0.5s,mb3.5,baz=159,slow=8.2,SNR=12						
SONM				PcP	PcP	23 23 35.9	0.0
	comp=Z,0.4nm,0.5s,baz=164,slow=3.2,SNR=4.3						
WMQ	**Urumqi**	**50.24**	**326**	*e*P	**P**	**23 22 44.8**	**+0.3**
WMQ				AMB	AMB		
	comp=Z,13nm,0.8s,mb4.4						
MKAR	**Makanchi Array**	**55.07**	**326**	P	**P**	**23 23 18.6**	**-0.3**
	comp=Z,15nm,0.4s,mb4.6,baz=121,slow=7.7,SNR=355						
MKAR				PcP	PcP	23 24 12.2	-0.1
	comp=Z,1.4nm,0.4s,baz=119,slow=3.5,SNR=7.1						
KZA	**Kyzart**	**56.95**	**318**	P	**P**	**23 23 33.3**	**+1.2**
	SNR=9.1						
TKM2	**Tokmak 2**	**57.10**	**319**	P	**P**	**23 23 33.5**	**+0.4**
	SNR=8.1						
TKM2	**Tokmak 2**	**57.10**	**319**	*e*P	**P**	**23 23 33.3**	**+0.2**
	comp=Z,4.6nm,0.4s,mb4.1						
KBK	**Karagaybulak**	**57.41**	**319**	P	**P**	**23 23 35.8**	**+0.6**
	SNR=7.2						
UCH	**Uchtor**	**57.51**	**318**	P	**P**	**23 23 37.4**	**+1.5**
	SNR=10						
AAK	**Ala-Archa**	**57.70**	**318**	P	**P**	**23 23 37.7**	**+0.6**
	SNR=5.0						
USP	**Ospenovka**	**57.98**	**319**	P	**P**	**23 23 39.1**	**+0.1**
	SNR=9.1						
AML	**Almayashu**	**58.02**	**317**	P	**P**	**23 23 40.3**	**+1.0**
	SNR=9.5						
EKS2	**Erkin-Say**	**58.19**	**318**	P	**P**	**23 23 41.2**	**+0.7**
	SNR=9.8						
ZALV	**Zalesovo Beam**	**58.33**	**334**	P	**P**	**23 23 39.1**	**-2.1**
	comp=Z,1.4nm,0.4s,mb3.6,baz=121,slow=6.7,SNR=12						
KBL	**Kabul**	**58.70**	**308**	*e*P	**P**	**23 23 43.4**	**-0.8**
KURK	**Kurchatov**	**59.31**	**328**	⇓*i*P	**P**	**23 23 47.3**	**-0.5**
	comp=Z,23nm,0.5s,mb4.7						
BRVK	**Borovoye**	**64.95**	**327**	*e*P	**P**	**23 24 23.5**	**-0.9**
	comp=Z,8.3nm,0.8s,mb4.2						
AKTK	**Aktyubinsk**	**71.08**	**322**	P	**P**	**23 25 01.7**	**-0.1**
AKTO	**Aktyubinsk**	**71.08**	**322**	P	**P**	**23 25 01.7**	**-0.1**
	comp=Z,2.7nm,0.3s,mb4.2,baz=103,slow=7.1,SNR=21						
KDAK	**Kodiak Island**	**82.26**	**32**	P	**P**	**23 26 03.8**	**+1.1**
	comp=Z,4.4nm,0.7s,mb4.0,baz=121,slow=23,SNR=5.7						
MCK	**McKinley**	**84.23**	**27**	*e*P	**P**	**23 26 12.7**	**+0.2**
	comp=Z,2.3nm,0.4s,mb4.1						
ASF	**Jabal al Asfar**	**85.03**	**302**	P	**P**	**23 26 17.7**	**+0.6**
	comp=Z,1.8nm,0.6s,mb3.8,baz=27,slow=4.5,SNR=3.2						
BRTR	**Keskin Array B**	**87.23**	**309**	P	**P**	**23 26 26.2**	**-1.1**
	comp=Z,0.7nm,0.8s,mb3.4,baz=116,slow=5.6,SNR=4.5						
ARCES	**ARCESS Array B**	**88.39**	**340**	P	**P**	**23 26 31.0**	**-1.2**
	comp=Z,5.7nm,1.0s,mb4.2,baz=88,slow=3.9,SNR=7.3						
FINES	**FINESS Array B**	**89.52**	**332**	P	**P**	**23 26 36.4**	**-1.2**
	comp=Z,0.6nm,0.4s,mb3.8,baz=86,slow=4.2,SNR=7.7						
SCHQ	**Schefferville**	**119.73**	**7**	PKP	PKPdf	23 32 27.9	+1.1
SCHQ	**Schefferville**	**119.73**	**7**	PKP	PKPdf	23 32 27.9	+1.1
	comp=Z,3.3nm,1.0s,baz=0.0,slow=1.0,SNR=4.4						
TORD	**Torodi Ar. Bea**	**120.05**	**288**	PKP	PKPdf	23 32 28.7	+0.2
TORD	**Torodi Ar. Bea**	**120.05**	**288**	PKP	PKPdf	23 32 28.7	+0.2
	comp=Z,0.6nm,0.5s,baz=64,slow=1.5,SNR=14						
TXAR	**Lajitas Array**	**122.87**	**50**	PKP	PKPdf	23 32 35.0	+1.4
TXAR	**Lajitas Array**	**122.87**	**50**	PKP	PKPdf	23 32 35.0	+1.4
	comp=Z,0.2nm,0.5s,baz=184,slow=5.0,SNR=3.6						

BEO ***16*** *23:16:45.0±1.3, 41.10N×24.10E, h4^{km}±6^{km}, ML3.0/3*

ISCJB ***16*** *23:16:45.0±0.5, 41.22N±0.02×24.14E±0.03, h6^{km}±4^{km}, Error ellipse: s-maj=4.4km s-min=3.7km az=177.0*

SOF ***16*** *23:16:45.3, 41.18N×24.14E, h10^{km}, MD2.7*

NEIC ***16*** *23:16:46.8, 41.23N×24.12E, h16^{km}, MD3.4(ATH), MD2.7(SOF), After ATH.*

CSEM ***16*** *23:16:46.4±0.1, 41.23N×24.13E, h20^{km}, MD3.4, Error ellipse: s-maj=2.0km s-min=1.5km az=83.0*

ATH ***16*** *23:16:46.8, 41.23N×24.12E, h16^{km}, MD3.4/4*

THE ***16*** *23:16:47.5, 41.14N×24.11E, h10^{km}, ML2.6*

SKO ***16*** *23:16:48.5, 41.19N×24.05E, h7^{km}, ML2.2*

ISC 16 23:16:45.9±0.5, **41.20N**±0.02×**24.16E**±0.04, **h7**^{km}±4^{km}, **n59**, σ**0^{s}.94**/87, **3C-2D, Greece-Bulgaria border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NVR	**Nevrokopi**	**0.27**	**304**	*e*Pb	**Pg**	**23 16 52.0**	**+0.8**
NVR				*e*Sb	**Sg**	**23 16 55.6**	**+0.9**
NVR	**Nevrokopi**	**0.27**	**304**	*e*PB	**Pg**	**23 16 52.0**	**+0.8**
NVR				*e*SB	**Sg**	**23 16 55.6**	**+0.9**
NVR	**Nevrokopi**	**0.27**	**304**	*e*Pb	**Pg**	**23 16 52.0**	**+0.8**
NVR				*e*Sb	**Sg**	**23 16 55.6**	**+0.9**
SRS	**Serrai**	**0.43**	**259**	*e*Pg	**Pg**	**23 16 54.5**	**+0.2**
SRS				*e*Sg	**Sg**	**23 17 00.7**	**+0.7**
SRS	**Serrai**	**0.43**	**259**	*e*Pg	**Pg**	**23 16 54.5**	**+0.2**
SRS				*e*Sg	**Sg**	**23 17 00.7**	**+0.7**
MMB	**Musomiste**	**0.50**	**320**	Pg	**Pg**	**23 16 55.0**	**-0.6**
MMB	**Musomiste**	**0.50**	**320**	Pg	**Pg**	**23 16 55.0**	**-0.6**
MMB	**Musomiste**	**0.50**	**320**	Pg	**Pg**	**23 16 55.0**	**-0.6**
SOH	**Sokhos**	**0.72**	**238**	*e*Pg	**Pg**	**23 16 59.9**	**+0.2**
SOH				*e*Sg	**Sg**	**23 17 09.8**	**+0.8**
SOH	**Sokhos**	**0.72**	**238**	*e*Pg	**Pg**	**23 16 59.9**	**+0.2**
SOH				*e*Sg	**Sg**	**23 17 09.8**	**+0.8**
OUR	**Ouranopolis**	**0.88**	**189**	*e*Pg	**Pg**	**23 17 03.3**	**+0.5**
OUR	**Ouranopolis**	**0.88**	**189**	*e*Pg	**Pg**	**23 17 03.3**	**+0.6**
KNT	**Kendrikon**	**0.95**	**268**	*e*Pg	**Pg**	**23 17 04.1**	**-0.1**
KNT	**Kendrikon**	**0.95**	**268**	*e*Pg	**Pg**	**23 17 04.1**	**-0.1**
PLG	**Polygyros**	**0.99**	**213**	*e*Pn	**Pn**	**23 17 05.3**	**-0.9**
PLG				*e*Sn	**Sn**	**23 17 18.8**	**-1.6**
PLG	**Polygyros**	**0.99**	**213**	*e*Pg	**Pg**	**23 17 05.4**	**+0.5**
PLG				*e*Sg	**Sg**	**23 17 18.2**	**+0.6**
PLG	**Polygyros**	**0.99**	**213**	*e*PN	**Pn**	**23 17 05.3**	**-0.9**
PLG				*e*SN	**Sn**	**23 17 18.8**	**-1.6**
PLG	**Polygyros**	**0.99**	**213**	*e*Pn	**Pn**	**23 17 05.3**	**-0.9**
PLG				*e*Sn	**Sn**	**23 17 18.8**	**-1.6**
HORT	**Hortiatis**	**1.00**	**233**	*e*Pg	**Pg**	**23 17 06.0**	**+0.8**
HORT				*e*Sg	**Sg**	**23 17 18.4**	**+0.2**
HORT	**Hortiatis**	**1.00**	**233**	*e*Pg	**Pg**	**23 17 05.9**	**+0.7**
HORT				*e*Sg	**Sg**	**23 17 18.4**	**+0.2**
KKB	**Krupnik**	**1.04**	**310**	Pg	**Pg**	**23 17 05.3**	**-0.6**
KKB	**Krupnik**	**1.04**	**310**	Pg	**Pg**	**23 17 05.3**	**-0.6**
KKB	**Krupnik**	**1.04**	**310**	Pg	**Pg**	**23 17 05.3**	**-0.6**
RDO	**Rodhopi**	**1.04**	**93**	*e*Pn	**Pn**	**23 17 07.2**	**+0.3**
RDO	**Rodhopi**	**1.04**	**93**	*e*PN	**Pn**	**23 17 07.2**	**+0.3**
RDO	**Rodhopi**	**1.04**	**93**	*e*Pn	**Pn**	**23 17 07.2**	**+0.3**
KDZ	**Kurdzhali**	**1.05**	**64**	Pg	**Pg**	**23 17 05.3**	**-0.7**
KDZ	**Kurdzhali**	**1.05**	**64**	Pg	**Pg**	**23 17 05.3**	**-0.7**
KDZ	**Kurdzhali**	**1.05**	**64**	Pg	**Pg**	**23 17 05.3**	**-0.7**
VAY	**Valandovo**	**1.20**	**276**	*i* Pg	**Pg**	**23 17 09.1**	**+0.1**
VAY				*i* Sg	**Sg**	**23 17 23.9**	**-0.6**

VAY				*e*Lg		23 17 26.2	
	comp=E,23nm,0.3s						
VAY	**Valandovo**	**1.20**	**276**	*i* Pg	**Pg**	**23 17 09.0**	**0.0**
VAY				*i* Sg	**Sg**	**23 17 23.9**	**-0.6**
PAIG	**Paliouri**	**1.32**	**196**	*e*Pg	**Pg**	**23 17 10.1**	**-1.2**
PAIG				*e*Sg	**Sg**	**23 17 27.6**	**-0.9**
PAIG	**Paliouri**	**1.32**	**196**	*e*Pg	**Pg**	**23 17 10.1**	**-1.2**
PAIG				*e*Sg	**Sg**	**23 17 27.5**	**-1.0**
PGB	**Panagyurishte**	**1.35**	**0**	P	**Pn**	**23 17 11.0**	**-0.1**
GRG	**Griva**	**1.35**	**260**	*e*Pg	**Pg**	**23 17 11.5**	**-0.3**
GRG	**Griva**	**1.35**	**260**	*e*Pg	**Pg**	**23 17 11.5**	**-0.3**
ALN	**Alexandroupoli**	**1.46**	**101**	*e*Pg	**Pg**	**23 17 12.8**	**-1.1**
ALN	**Alexandroupoli**	**1.46**	**101**	*e*Pg	**Pg**	**23 17 12.8**	**-1.1**
LIA	**Limnos Island**	**1.52**	**149**	*e*Pn	**Pn**	**23 17 16.0**	**+2.5**
LIA	**Limnos Island**	**1.52**	**149**	*e*PN	**Pn**	**23 17 16.0**	**+2.5**
VTS	**Vitosha**	**1.56**	**333**	*e*Pg	**Pg**	**23 17 14.8**	**-1.0**
VTS				*e*Sg	**Sg**	**23 17 36.9**	**+0.9**
VTS	**Vitosha**	**1.56**	**333**	P	**Pg**	**23 17 15.0**	**-0.8**
VTS	**Vitosha**	**1.56**	**333**	⇓*i*P	**Pn**	**23 17 14.9**	**+0.9**
VTS	**Vitosha**	**1.56**	**333**	*e*Pg	**Pg**	**23 17 15.0**	**-0.8**
VTS				*e*Sg	**Sg**	**23 17 37.6**	**+1.6**
VTS	**Vitosha**	**1.56**	**333**	*e*Pg	**Pg**	**23 17 14.8**	**-1.0**
VTS				*e*Sg	**Sg**	**23 17 36.9**	**+0.9**
STIP	**Stip**	**1.56**	**289**	*i* Pg	**Pg**	**23 17 15.9**	**+0.1**
STIP				*i* Sg	**Sg**	**23 17 35.5**	**-0.5**
STIP				*e*Lg		23 17 37.7	
	comp=E,21nm,0.6s						
STIP				*e*Lg		23 17 37.8	
	comp=N,25nm,0.3s						
STIP	**Stip**	**1.56**	**289**	*i* Pg	**Pg**	**23 17 15.9**	**+0.1**
STIP				*i* Sg	**Sg**	**23 17 35.5**	**-0.6**
BARS	**Barje**	**2.37**	**314**	*e*Pn	**Pn**	**23 17 24.5**	**-0.7**
BARS				*e*Sg	**Sg**	**23 18 01.7**	**-0.4**
BARS	**Barje**	**2.37**	**314**	Pn	**Pn**	**23 17 24.6**	**-0.6**
BARS				Sg	**Sg**	**23 18 01.8**	**-0.3**
SZH	**Strazhica**	**2.45**	**32**	*e*P	**Pn**	**23 17 29.2**	**+2.9**
GRUS	**Gruza**	**3.70**	**318**	*e*Pn	**Pn**	**23 17 43.0**	**-0.4**
GRUS				*e*Sn	**Sn**	**23 18 28.6**	**+1.4**
GRUS	**Gruza**	**3.70**	**318**	Pn	**Pn**	**23 17 43.0**	**-0.4**
DIVS	**Divcibare**	**4.22**	**315**	*e*Pn	**Pn**	**23 17 50.2**	**-0.4**
DIVS				*e*Sn	**Sn**	**23 18 38.4**	**-1.7**
DIVS	**Divcibare**	**4.22**	**315**	Pn	**Pn**	**23 17 50.2**	**-0.4**
DIVS				Sn	**Sn**	**23 18 38.5**	**-1.6**
GZR	**Gura Zlata**	**4.31**	**347**	⇑*i*P	**Pn**	**23 17 52.2**	**+0.4**
MLR	**Muntele Rosu**	**4.48**	**16**	⇑*i*P	**Pn**	**23 17 56.4**	**+2.2**
BZS	**Buzias**	**4.78**	**338**	⇑*i*P	**Pn**	**23 17 58.9**	**+0.6**
BZS	**Buzias**	**4.78**	**338**	*e*Pn	**Pn**	**23 17 58.8**	**+0.5**
BZS				*e*Sg	**Sg**	**23 19 17.9**	**-1.6**
PLOR	**Plostina**	**4.99**	**20**	⇓*i*P	**Pn**	**23 18 00.5**	**-0.6**

CSEM ***16*** *23:20:29.7±0.1, 34.49N×27.39E, h80^{km}, Mw3.4, Error ellipse: s-maj=2.5km s-min=1.4km az=38.0*

ISCJB ***16*** *23:20:30.2±0.3, 34.44N±0.03×27.50E±0.02, h71^{km}±8^{km}, mb3.5/7, Error ellipse: s-maj=4.5km s-min=2.9km az=28.3*

IDC ***16*** *23:20:32.2±1.1, 34.61N×27.46E, h43^{km}±14^{km}, mb3.4/7, mb1 3.5/14, mb1mx3.4/25, mbtmp3.4/14, ML3.5/7, Error ellipse: s-maj=22.0km s-min=7.9km az=14.0*

NEIC ***16*** *23:20:33.1, 34.78N×27.26E, h84^{km}, MG3.5(ATH), After ATH.*

ATH ***16*** *23:20:33.1, 34.78N×27.27E, h84^{km}±4^{km}*

GII ***16*** *23:20:37.2±0.0, 33.93N×27.90E, h0^{km}, ML3.0/4, Mw3.4/3*

HLW ***16*** *23:20:43.3, 33.64N×27.79E, h48^{km}, Mb3.4*

ISC 16 23:20:31.8±0.3**, 34.46N**±0.02×**27.46E**±0.02**, h53**^{km}±8^{km}**, n94, σ1^{s}17**/121**, mb3.6**/7**, 1D, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	**Karpathos**	**1.11**	**347**	*e*P	**Pn**	**23 20 50.3**	**-0.8**
XRY	**Khrisi**	**1.51**	**286**	*e*P	**Pn**	**23 20 56.6**	**+0.1**
NPS	**Neapolis**	**1.71**	**298**	*e*P	**Pn**	**23 21 00.0**	**+0.7**
NPS	**Neapolis**	**1.71**	**298**	*e*P	**Pn**	**23 21 00.1**	**+0.8**
ARG	**Arkhangelos**	**1.83**	**17**	*e*P	**Pn**	**23 21 01.1**	**+0.2**
ARG				*e*S	**Sn**	**23 21 21.7**	**-1.2**
IDI	**Anoyia**	**2.27**	**292**	P	**Pn**	**23 21 07.7**	**+0.9**
	6.7nm,0.3s,baz=108,slow=15,SNR=75						
IDI				S	**Sn**	**23 21 33.3**	**-0.3**
	21nm,0.3s,baz=174,slow=22,SNR=10						
AKAS	**Kas**	**2.49**	**44**	*i* P	**Pn**	**23 21 10.2**	**+0.4**
AKAS	**Kas**	**2.49**	**44**	*i* P	**Pn**	**23 21 10.2**	**+0.3**
AKAS				*i* S	**Sn**	**23 21 36.3**	**-2.8**
GVD	**Gavdhos**	**2.81**	**279**	P	**Pn**	**23 21 15.8**	**+1.6**
VAM	**Vamos**	**2.84**	**290**	⇓*i*P	**Pn**	**23 21 16.0**	**+1.3**
APE	**Apeiranthos**	**3.04**	**329**	*e*P	**Pn**	**23 21 16.1**	**-1.3**
APE				*e*S	**Sn**	**23 21 47.4**	**-5.1**
GOLH	**Golhisar**	**3.25**	**31**	*i* P	**Pn**	**23 21 21.1**	**+0.8**
SMG	**Samos**	**3.28**	**351**	*e*P	**Pn**	**23 21 19.3**	**-1.4**
HMAT	**Matruh**	**3.37**	**185**	P	**Pn**	**23 21 22.9**	**+0.9**
LTBQ	**Tobruq**	**3.81**	**232**	*i* P	**Pn**	**23 21 29.9**	**+1.8**
	SNR=76						
LTBQ				*e*S	**Sn**	**23 22 10.8**	**-0.8**
	95nm,0.4s,SNR=76						
KYTH	**Kithira**	**4.04**	**298**	*e*P	**Pn**	**23 21 30.3**	**-0.9**
VLI	**Veliai**	**4.32**	**303**	*e*P	**Pn**	**23 21 33.5**	**-1.4**
VLI				*e*S	**Sn**	**23 22 18.2**	**-5.8**
CSS	**Prodhromos**	**4.86**	**82**	*e*Pn	**Pn**	**23 21 42.8**	**+0.4**
CSS				*e*Sn	**Sn**	**23 22 37.5**	**+0.1**
CSS	**Prodhromos**	**4.86**	**82**	*e*Pn	**Pn**	**23 21 42.8**	**+0.4**
CSS				*e*Sn	**Sn**	**23 22 37.5**	**+0.1**
GDZ	**Gediz**	**4.89**	**19**	*i* P	**Pn**	**23 21 41.3**	**-1.6**
ERMK	**Ermenek**	**4.95**	**62**	*i* P	**Pn**	**23 21 45.1**	**+1.5**
ITM	**Ithomi**	**5.25**	**303**	*e*P	**Pn**	**23 21 47.0**	**-0.7**
HNAT	**Natroun**	**5.51**	**150**	P	**Pn**	**23 21 50.6**	**-0.8**
KDHN	**Kadinhani**	**5.52**	**41**	*i* P	**Pn**	**23 21 51.5**	**+0.1**
AYT	**Al ‘Ayyat**	**5.69**	**146**	P	**Pn**	**23 21 53.2**	**-0.6**
KOT	**Kottamia**	**5.84**	**139**	P	**Pn**	**23 21 55.7**	**-0.2**
GLL	**Jalalah**	**6.06**	**142**	P	**Pn**	**23 21 58.3**	**-0.6**
AMAG	**Maghara**	**6.17**	**127**	P	**Pn**	**23 22 01.1**	**+0.7**
SUZ		**6.48**	**134**	P	**Pn**	**23 22 04.9**	**+0.3**
OFRI	**‘Ofer**	**6.55**	**104**	Sn	**Sn**	**23 23 19.5**	**+0.7**
OFRI	**‘Ofer**	**6.55**	**104**	Sn	**Sn**	**23 23 19.5**	**+0.7**
GULE	**Gulek**	**6.57**	**63**	*i* P	**Pn**	**23 22 07.4**	**+1.5**
SLTI	**Sal’it**	**6.72**	**107**	Sn	**Sn**	**23 23 23.4**	**+0.3**
SLTI	**Sal’it**	**6.72**	**107**	Sn	**Sn**	**23 23 23.4**	**+0.3**
MMA0	**Mount Meron ar**	**6.77**	**100**	Sn	**Sn**	**23 23 26.7**	**+2.4**
MMAI	**Mount Meron Ar**	**6.77**	**100**	P	**Pn**	**23 22 09.8**	**+1.2**
	2.5nm,0.3s,baz=309,slow=11,SNR=31						
MMAI				S	**Sn**	**23 23 24.2**	**-0.1**
	6.2nm,0.3s,baz=256,slow=25,SNR=9.4						
KZIT	**Kziot**	**6.84**	**119**	Pn	**Pn**	**23 22 11.0**	**+1.4**
KZIT				Sn	**Sn**	**23 23 23.7**	**-2.3**
KZIT	**Kziot**	**6.84**	**119**	Sn	**Sn**	**23 23 24.2**	**-1.8**
KZIT	**Kziot**	**6.84**	**119**	Pn	**Pn**	**23 22 11.0**	**+1.5**
KZIT				Sn	**Sn**	**23 23 24.2**	**-1.8**
LJBD	**Adjabya**	**7.07**	**242**	*i* P	**Pn**	**23 22 12.4**	**-0.3**
	SNR=76						
MASH	**Mash‘abbe Sade**	**7.07**	**117**	Sn	**Sn**	**23 23 30.2**	**-1.5**
MASH	**Mash‘abbe Sade**	**7.07**	**117**	Sn	**Sn**	**23 23 30.2**	**-1.6**
HMDT	**Nahal Hemdat**	**7.10**	**106**	Sn	**Sn**	**23 23 33.0**	**+0.6**
HMDT	**Nahal Hemdat**	**7.10**	**106**	Sn	**Sn**	**23 23 33.0**	**+0.6**
HNKL	**Nakhl**	**7.14**	**127**	P	**Pn**	**23 22 14.7**	**+1.1**
YTIR	**Yattir**	**7.14**	**114**	Sn	**Sn**	**23 23 32.5**	**-0.9**
YTIR	**Yattir**	**7.14**	**114**	Sn	**Sn**	**23 23 32.5**	**-0.9**
BRTR	**Keskin Array B**	**7.21**	**41**	P	**Pn**	**23 22 14.7**	**+0.2**
	0.1nm,0.3s,baz=221,slow=16,SNR=6.0						
BRTR				S	**Sn**	**23 23 30.0**	**-5.0**
	0.4nm,0.3s,baz=203,slow=17,SNR=6.1						
YAYL	**Yayladag**	**7.25**	**75**	*i* P	**Pn**	**23 22 15.2**	**+0.1**
DRGI	**Dragot**	**7.25**	**111**	Sn	**Sn**	**23 23 35.6**	**-0.5**
DRGI	**Dragot**	**7.25**	**111**	Sn	**Sn**	**23 23 35.6**	**-0.5**
DSI	**Dead Sea**	**7.25**	**111**	Pn	**Pn**	**23 22 17.0**	**+1.8**
DSI				Sn	**Sn**	**23 23 36.0**	**-0.1**
DSI	**Dead Sea**	**7.25**	**111**	Pn	**Pn**	**23 22 17.0**	**+1.8**
DSI				Sn	**Sn**	**23 23 36.0**	**-0.1**
RMNI	**Mount Ramon**	**7.27**	**120**	Pn	**Pn**	**23 22 16.7**	**+1.3**
RMNI				Sn	**Sn**	**23 23 35.4**	**-1.2**
RMNI	**Mount Ramon**	**7.27**	**120**	Pn	**Pn**	**23 22 16.7**	**+1.2**
RMNI				Sn	**Sn**	**23 23 35.4**	**-1.2**
MZDA	**Masada**	**7.35**	**113**	Sn	**Sn**	**23 23 37.6**	**-1.0**
MZDA	**Masada**	**7.35**	**113**	Sn	**Sn**	**23 23 37.9**	**-0.8**
MZDA	**Masada**	**7.35**	**113**	Sn	**Sn**	**23 23 37.6**	**-1.0**
COBT	**Iskenderun**	**7.46**	**72**	*i* P	**Pn**	**23 22 18.2**	**+0.2**
KRMI	**Paran Flat**	**7.52**	**123**	Pn	**Pn**	**23 22 20.0**	**+1.1**
KRMI				Sn	**Sn**	**23 23 40.2**	**-2.6**
KRMI	**Paran Flat**	**7.52**	**123**	Pn	**Pn**	**23 22 20.0**	**+1.1**
KRMI				Sn	**Sn**	**23 23 40.2**	**-2.6**
PRNI	**Paran**	**7.58**	**121**	Pn	**Pn**	**23 22 21.0**	**+1.3**
PRNI				Sn	**Sn**	**23 23 42.9**	**-1.4**
PRNI	**Paran**	**7.58**	**121**	Pn	**Pn**	**23 22 21.0**	**+1.3**
PRNI				Sn	**Sn**	**23 23 42.9**	**-1.4**
HRFI	**Mount Harif**	**7.79**	**122**	Pn	**Pn**	**23 22 23.7**	**+1.2**
HRFI				Sn	**Sn**	**23 23 47.9**	**-1.4**
HRFI	**Mount Harif**	**7.79**	**122**	Pn	**Pn**	**23 22 23.7**	**+1.2**
HRFI				Sn	**Sn**	**23 23 47.9**	**-1.4**
ANDN	**Andirin**	**7.84**	**64**	*i* P	**Pn**	**23 22 24.1**	**+0.8**
EIL	**Elat**	**7.95**	**125**	P	**Pn**	**23 22 26.1**	**+1.3**
EIL				S	**Sn**	**23 23 49.7**	**-3.7**
EIL	**Elat**	**7.95**	**125**	P	**Pn**	**23 22 26.1**	**+1.3**
	0.5nm,0.3s,baz=274,slow=6.9,SNR=20						
EIL				S	**Sn**	**23 23 49.7**	**-3.7**
	2.5nm,0.3s,baz=113,slow=23,SNR=9.9						
EIL	**Elat**	**7.95**	**125**	Pn	**Pn**	**23 22 25.8**	**+1.0**
EIL				Sn	**Sn**	**23 23 50.9**	**-2.4**
EIL	**Elat**	**7.95**	**125**	Pn	**Pn**	**23 22 25.8**	**+1.0**
EIL	**Elat**	**7.95**	**125**	P	**Pn**	**23 22 26.0**	**+1.2**
EIL				Sn	**Sn**	**23 23 50.9**	**-2.4**
AQBJ	**Aqaba**	**7.98**	**124**	Sn	**Sn**	**23 23 52.7**	**-1.4**
HBST	**Basata**	**8.10**	**128**	P	**Pn**	**23 22 27.4**	**+0.5**
HKAT	**Jabal Katrina**	**8.13**	**135**	P	**Pn**	**23 22 27.2**	**-0.1**
ASF	**Jabal al Asfar**	**8.22**	**104**	P	**Pn**	**23 22 29.5**	**+1.0**
	0.4nm,0.3s,baz=159,slow=6.4,SNR=6.8						
ASF				S	**Sn**	**23 24 00.7**	**+0.8**
	0.4nm,0.3s,baz=216,slow=19,SNR=2.7						
HQLS		**8.26**	**126**	P	**Pn**	**23 22 30.2**	**+1.2**
HDHB	**Dhahab**	**8.37**	**131**	P	**Pn**	**23 22 30.7**	**+0.2**
RSHS		**8.78**	**132**	P	**Pn**	**23 22 37.5**	**+1.4**
JLOS		**8.91**	**128**	P	**Pn**	**23 22 38.7**	**+0.7**
HHRG	**Al Ghardaqah**	**8.93**	**142**	P	**Pn**	**23 22 37.2**	**-0.9**
HDK1	**Dakhla**	**9.05**	**169**	P	**Pn**	**23 22 38.6**	**-1.2**
AKRG	**Al Kharijah**	**9.31**	**163**	P	**Pn**	**23 22 41.6**	**-1.7**
GTR	**Jabal at Tayr**	**9.32**	**162**	P	**Pn**	**23 22 41.8**	**-1.7**
HSFG		**9.64**	**143**	P	**Pn**	**23 22 46.9**	**-1.1**
VAE	**Valguarnera**	**10.99**	**290**	S	**Sn**	**23 24 55.4**	**-12**
	1.9nm,0.3s,baz=135,slow=1.4,SNR=5.2						
AKASG	**Malin Array Be**	**16.28**	**4**	P	**Pn**	**23 24 14.5**	**-2.2**
	0.7nm,0.3s,baz=193,slow=11,SNR=6.6						
GERES	**GERESS Array B**	**17.63**	**329**	P	**Pn**	**23 24 34.6**	**+1.1**
	0.1nm,0.3s,baz=132,slow=13,SNR=2.4						
ESDC	**Sonseca Array**	**25.53**	**291**	P	**P**	**23 25 54.5**	**-1.0**
	0.3nm,0.4s,mb3.1,baz=82,slow=9.7,SNR=3.7						
FINES	**FINESS Array B**	**27.01**	**359**	P	**P**	**23 26 07.7**	**-0.8**
	0.7nm,0.4s,mb3.5,baz=169,slow=11,SNR=9.8						
EKA	**Eskdalemuir Ar**	**29.71**	**324**	P	**P**	**23 26 31.4**	**-1.2**
	3.4nm,1.0s,mb4.0,baz=124,slow=10,SNR=4.2						
TORD	**Torodi Ar. Bea**	**31.55**	**234**	P	**P**	**23 26 51.9**	**+2.6**
	0.5nm,0.7s,mb3.5,baz=26,slow=9.9,SNR=4.8						
ARCES	**ARCESS Array B**	**35.14**	**359**	P	**P**	**23 27 18.9**	**-1.0**
	3.9nm,0.9s,mb4.3,baz=168,slow=7.9,SNR=12						
MKAR	**Makanchi Array**	**42.59**	**56**	P	**P**	**23 28 24.7**	**+2.2**
	0.2nm,0.5s,mb3.1,baz=274,slow=7.3,SNR=4.5						
SONM	**Songino Array**	**58.46**	**51**	P	**P**	**23 30 25.0**	**+2.8**
	0.2nm,0.7s,mb3.2,baz=242,slow=3.1,SNR=2.4						

JMA 16 23:31:10.8±0.4**, 33.76N×142.60E, h32**^{km}**, M3.5, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSO1	**Boso 1**	**1.61**	**304**	P	Pn	23 31 38.0	+1.0
BSO1				*e*S	Sn	23 31 57.5	+0.8
BSO2	**Boso 2**	**1.82**	**303**	*e*S	Sn	23 32 04.8	+3.0
BSO3	**Boso 3**	**2.02**	**302**	P	Pn	23 31 44.2	+1.6
BSO3				*e*S	Sn	23 32 08.9	+2.2
BSO4	**Boso 4**	**2.24**	**304**	P	Pn	23 31 47.6	+2.0
BSO4				*e*S	Sn	23 32 14.0	+1.9
JHJ2	**Mitsune**	**2.42**	**255**	P	Pn	23 31 49.6	+1.5
JOD2	**Odawara 2**	**3.26**	**298**	P	Pn	23 32 01.5	+1.8
JOD2				S	Sn	23 32 39.3	+1.8
JAG	**Ashikaga**	**3.71**	**317**	P	Pn	23 32 07.5	+1.7
JAG				S	Sn	23 32 50.1	+1.8
JYN	**Shimob**	**3.77**	**299**	P	Pn	23 32 09.3	+2.7
JYN				*e*S	Sn	23 32 50.5	+0.7
JRY	**Ryogami san**	**3.78**	**308**	P	Pn	23 32 11.2	+4.4
JRY				*e*S	Sn	23 32 52.1	+1.9
JMM	**Marumori**	**4.35**	**341**	P	Pn	23 32 15.5	+0.8
MAT	**Matsushiro**	**4.54**	**309**	*e*S	Sn	23 33 11.9	+2.9
JMK	**Ichinoseki**	**5.30**	**348**	P	Pn	23 32 29.3	+1.6
JMK				*e*S	Sn	23 33 24.2	-3.4

ISCJB ***16*** *23:36:01.3±1.0, 15.2N±0.2×44.9W±0.2, h10^{km}, mb3.8/7, MS3.3/3, Error ellipse: s-maj=28.3km s-min=22.9km az=25.2*

IDC ***16*** *23:36:01.4±1.2, 15.13N×44.96W, h0^{km}, mb3.8/6, mb1 4.0/6, mb1mx3.7/19, mbtmp3.8/6, MS3.4/3, Ms1 3.4/3, ms1mx2.8/28, Error ellipse: s-maj=35.2km s-min=29.2km az=22.0*

NEIC ***16*** *23:36:02.8±0.8, 15.10N×44.92W, h10^{km}, mb3.9/1, Error ellipse: s-maj=21.6km s-min=17.5km az=205.0*

ISC 16 23:36:03.2±1.0**, 15.2N**±0.2×**44.9W**±0.2**, h10**^{km}**, n8, σ0^{s}29**/7**, mb3.8**/7**, MS3.3**/3**, Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SJG	**San Juan**	**20.55**	**281**	LR	LR	23 47 02.5	
	comp=Z,116nm,18.5s,MS3.3,baz=82,slow=32						
LPAZ	**La Paz**	**38.75**	**217**	P	**P**	**23 43 27.9**	**-0.1**
	0.8nm,0.6s,mb3.6,baz=10,slow=11,SNR=4.0						
LPAZ				LR	LR	23 57 47.3	
	comp=Z,30nm,21.9s,MS3.1,baz=94,slow=34						
WVT	**Waverly**	**43.53**	**307**	P	**P**	**23 44 07.6**	**+0.4**
	1.6nm,0.7s,mb3.9						
TORD	**Torodi Ar. Bea**	**45.18**	**86**	P	**P**	**23 44 20.8**	**+0.1**
	1.8nm,1.1s,mb3.8,baz=278,slow=7.5,SNR=5.2						
TORD				LR	LR	23 59 49.5	
	comp=Z,68nm,19.9s,MS3.6,baz=305,slow=32						
ULM	**Lac du Bonnet**	**53.87**	**322**	P	**P**	**23 45 25.9**	**-0.6**
	1.7nm,0.8s,mb4.0,baz=110,slow=8.4,SNR=4.7						
TXAR	**Lajitas Array**	**55.66**	**295**	P	**P**	**23 45 40.0**	**+0.1**
	0.5nm,0.8s,mb3.6,baz=111,slow=9.0,SNR=3.4						
PDAR	**Pinedale Array**	**61.29**	**311**	P	**P**	**23 46 19.1**	**+0.2**
	0.4nm,0.6s,mb3.7,baz=122,slow=7.5,SNR=3.7						
YKA	**Yellowknife Ar**	**67.31**	**332**	P	**P**	**23 46 57.9**	**-0.1**
	1.1nm,0.8s,mb3.9,baz=100,slow=7.5,SNR=11						

IDC 16 23:52:13.1±6.8**, 31.18S×178.32W, h73**^{km}±47^{km}**, mb3.6**/3**, mb1 3.7**/3**, mb1mx3.6**/12**, mbtmp3.6**/3**, MS2.8**/1**, Ms1 2.8**/1**, ms1mx2.5**/20**, Error ellipse: s-maj=85.0km s-min=30.2km az=134.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**1.96**	**10**	P	Pn	23 52 42.9	-1.3
	89nm,0.3s,baz=233,slow=23,SNR=9.2						
RAO				S	Sn	23 53 08.6	+0.7
	61nm,0.3s,baz=73,slow=19,SNR=3.9						
RAO				LR	LR	23 53 16.7	
	comp=Z,474nm,20.1s,baz=209,slow=32						
URZ	**Urewera**	**8.00**	**207**	LR	LR	23 56 54.6	
	comp=Z,70nm,21.7s,baz=225,slow=35						
STKA	**Stephens Creek**	**34.04**	**258**	P	P	23 58 52.1	+1.8
	2.0nm,0.6s,baz=82,slow=9.3,SNR=4.6						
ASAR	**Alice Springs**	**42.80**	**268**	P	P	00 00 03.3	-0.5
	0.3nm,0.3s,baz=103,slow=7.4,SNR=5.1						
WRA	**Warramunga Arr**	**43.86**	**273**	P	P	00 00 11.4	-0.9
	1.0nm,0.5s,baz=110,slow=8.1,SNR=22						
FINES	**FINESS Array B**	**145.78**	**339**	PKPbc	PKPbc	00 11 42.2	-0.8
	1.7nm,0.6s,baz=67,slow=4.5,SNR=16						

NIED ***17*** *00:02:00, 41.70N×143.70E, h29^{km}, Mw6.0 Best double couple: $M_0$1.20000×10^{18} NP1:ϕ_s255.00000°, δ33.00000°, λ141.00000°. NP2:ϕ_s19.00000°, δ70.00000°, λ63.00000°.*

BJI ***17*** *00:02:53.8, 41.66N×143.41E, h21^{km}, mB6.3, mb6.1, Ms6.2, Msz6.1*

BGS ***17*** *00:02:54.8, 41.45N×144.11E, h33^{km}, mb5.9, MS6.0*

CRAAG ***17*** *00:02:54.7, 41.75N×143.58E, Mb6.1*

ISCJB ***17*** *00:02:55.2±0.1, 41.74N±0.01×143.55E±0.01, h31^{km}, mb6.0/347, MS5.9/243, Error ellipse: s-maj=2.2km s-min=1.4km az=152.4*

NEIC ***17*** *00:02:56.8±0.1, 41.79N×143.55E, h31^{km}, mb5.9/209, ME5.8, MS5.9/179, MW6.0, MW6.0(NIED), Error ellipse: s-maj=3.1km s-min=2.1km az=162.0 Broadband fault plane solution: P waves. NP1:ϕ_s20.00000°, δ75.00000°, λ90.00000°. NP2:ϕ_s200.00000°, δ15.00000°, λ90.00000°. Principal axes: T Plg60.0000°, Azm290.0000°; N Plg0.0000°, Azm0.0000°; P Plg30.0000°, Azm110.0000°; Moment Tensor Solution. s80 Moment tensor: Scale 10^{18} Nm; M_{rr}0.00; $M_{\theta\theta}$0.00; $M_{\phi\phi}$0.00; $M_{r\theta}$0.00; $M_{\theta\phi}$0.00; $M_{\phi r}$0.00; Best double couple: $M_0$1.20000×10^{18} NP1: ϕ_s253.00000°, δ22.00000°, λ139.00000°. NP2: ϕ_s22.00000°, δ76.00000°, λ73.00000°. Principal axes: T 1.1700, Plg56.0000°, Azm271.0000°; N 0.0000, Plg16.0000°, Azm26.0000°; P -1.1700, Plg29.0000°, Azm125.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from MT mechanism.*

NEIC Felt [III] at Misawa, Honshu. Also felt at Sapporo, Hokkaido. Recorded [4 JMA] in the Obihiro area, [3 JMA] in south-central Hokkaido, [2 JMA] throughout southern Hokkaido and [1 JMA] in northern Hokkaido. Also recorded [3 JMA] in Aomori; [2 JMA] in Iwate and Miyagi; [1 JMA] in Akita Prefectures, Honshu.

JMA ***17*** *00:02:56.6±0.2, 41.73N×143.72E, h40^{km}±3^{km}, M6.2 Broadband fault plane solution: P waves. NP1: ϕ_s135.00000°, δ14.00000°, λ19.00000°. NP2:ϕ_s26.00000°, δ85.00000°, λ103.00000°. Principal axes: T Plg48.0000°, Azm310.0000°; N Plg13.0000°, Azm205.0000°; P Plg39.0000°, Azm104.0000°;*

JMA Felt IV J1.

MOS ***17*** *00:02:56.1±0.8, 41.83N×143.56E, h35^{km}, mb6.2/137, MS6.1/73 Error ellipse: s-maj=6.0km s-min=3.1km az=108.0*

GCMT ***17*** *00:02:56.8±0.1, 41.65N×143.97E, h38^{km}, MW6.0/93, Moment Tensor Solution. s93,c216; s93,c291; Duration: 2^{s}4 Moment tensor: Scale 10^{18}Nm; M_{rr}0.72±.01; $M_{\theta\theta}$-0.12±.01; $M_{\phi\phi}$-0.60±.01; $M_{r\theta}$0.34±.01; $M_{\theta\phi}$-0.42±.01; $M_{\phi r}$0.82±.01; Best double couple: $M_0$1.18100×10^{18} NP1:ϕ_s218.00000°, δ21.00000°, λ103.00000°. NP2:ϕ_s24.00000°, δ69.00000°, λ85.00000°. Principal axes: T 1.1240, Plg65.0000°, Azm285.0000°; N 0.1150, Plg5.0000°, Azm26.0000°; P -1.2390, Plg24.0000°, Azm118.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

IDC ***17*** *00:02:58.2±1.2, 41.66N×143.58E, h48^{km}±11^{km}, mb5.2/23, mb1 5.3/30, mb1mx5.3/31, mbtmp5.3/30, ML4.7/7, MS5.8/30, Ms1 5.8/30, ms1mx5.7/39 Error ellipse: s-maj=12.5km s-min=9.3km az=90.0*

SZGRF ***17*** *00:02:59.7, 42.38N×144.63E, h34^{km}, mb6.4, MS6.2, Hokkaido, Japan, region*

ISC 17 00:02:57.4±0.1**, 41.80N**±0.01×**143.51E**±0.02**, h33**^{km}**, h33**^{km}±.7^{km}**:pP-P, n1576, σ0^{s}81**/1560**, mb6.0**/347**, MS5.9**/243**, 681C-300D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ERM	**Erimo**	**0.34**	**309**	Pn	**Pb**	**00 03 07.3**	**+1.6**
	2108μm,0.8s						
ERM	**Erimo**	**0.34**	**309**	*c i*P	**Pb**	**00 03 06.9**	**+1.2**
JEM	**Erimo**	**0.34**	**309**	⇓P	**Pb**	**00 03 06.8**	**+1.1**
JEM				*e*S	**Sb**	**00 03 15.6**	**+4.2**
JNBK	**Urakawa-nobuka**	**0.74**	**310**	⇓P	**Pn**	**00 03 13.8**	**+2.2**
JCH	**Churui**	**0.82**	**352**	⇑P	**Pn**	**00 03 13.1**	**+0.4**
JCH				*e*S	**Sn**	**00 03 27.4**	**+3.7**
JOB	**Onbets**	**1.13**	**12**	⇑P	**Pn**	**00 03 17.1**	**+0.2**
JOB				*e*S	**Sn**	**00 03 33.5**	**+2.3**
JBT2	**Biratori 2**	**1.30**	**319**	⇑P	**Pn**	**00 03 20.8**	**+1.6**
JAK	**Akkeshi**	**1.48**	**36**	P	**Pn**	**00 03 20.5**	**-1.2**
JAK				*e*S	**Sn**	**00 03 39.1**	**-0.8**
JAR	**Ashorobuto**	**1.51**	**7**	⇑P	**Pn**	**00 03 21.9**	**-0.2**
JAR				*e*S	**Sn**	**00 03 41.0**	**+0.4**
JFR	**Furan**	**1.52**	**334**	⇑P	**Pn**	**00 03 22.6**	**+0.3**
JEW	**Eniwo**	**1.85**	**305**	⇑P	**Pn**	**00 03 29.9**	**+3.1**
JKB	**Kayabe**	**1.86**	**274**	⇑P	**Pn**	**00 03 28.7**	**+1.8**
JAB	**Ashibetsu**	**1.95**	**331**	⇑P	**Pn**	**00 03 30.3**	**+2.1**
JNB	**Noboribetsu**	**1.96**	**291**	⇑P	**Pn**	**00 03 30.2**	**+1.9**
JNK	**Nakash**	**1.99**	**26**	⇑P	**Pn**	**00 03 27.3**	**-1.5**
JANG	**Nango**	**2.08**	**227**	⇑P	**Pn**	**00 03 29.3**	**-0.6**
JTM	**Tenmabayashi**	**2.10**	**242**	⇑P	**Pn**	**00 03 31.4**	**+1.1**
JKK2	**Kamakawa 2**	**2.15**	**345**	P	**Pn**	**00 03 31.9**	**+1.0**
JTKR	**Abashiri--Toko**	**2.19**	**7**	⇑P	**Pn**	**00 03 31.8**	**+0.3**
JMP	**Maruseppu**	**2.21**	**357**	⇑P	**Pn**	**00 03 32.1**	**+0.4**
JTH	**Tanohata**	**2.24**	**214**	⇑P	**Pn**	**00 03 30.2**	**-2.0**
NEM2	**Nemuro 2**	**2.27**	**46**	P	**Pn**	**00 03 30.0**	**-2.6**
JSR	**Shiriuchi**	**2.33**	**264**	⇑P	**Pn**	**00 03 35.1**	**+1.6**
JHR	**Hokuryu**	**2.35**	**326**	⇑P	**Pn**	**00 03 36.2**	**+2.6**
JYM2	**Yakumo 2**	**2.37**	**279**	⇑P	**Pn**	**00 03 35.9**	**+2.0**
ASAJ	**Asahikawa**	**2.41**	**344**	⇑P	**Pn**	**00 03 35.9**	**+1.4**
ASAJ	**Asahikawa**	**2.41**	**344**	P	**Pn**	**00 03 36.0**	**+1.4**
	101nm,0.3s,baz=200,slow=15,SNR=384						
ASAJ				S	**Sn**	**00 04 15.3**	**+12**
	542nm,0.3s,baz=40,slow=26,SNR=8.1						
ASAJ				LR	LR	00 05 03.8	
	comp=Z,360μm,19.4s,baz=194,slow=49						
JSI2	**Shiura 2**	**2.45**	**253**	⇑P	**Pn**	**00 03 36.9**	**+1.9**
JKZ	**Kuzumaki**	**2.46**	**223**	⇑P	**Pn**	**00 03 34.6**	**-0.5**
JAH	**Hinai**	**2.71**	**234**	⇑P	**Pn**	**00 03 39.4**	**+0.8**
JSH	**Shimam**	**2.71**	**289**	⇑P	**Pn**	**00 03 41.0**	**+2.4**
JSK	**Shakotan**	**2.73**	**306**	P	**Pn**	**00 03 41.2**	**+2.3**
YUK	**Yuzh-Kuril’sk**	**2.82**	**37**	*e*P	**Pn**	**00 03 38.3**	**-1.8**
YUK	**Yuzh-Kuril’sk**	**2.82**	**37**	κ *i*P	**Pn**	**00 03 38.2**	**-1.9**
YUK				*i* S	**Sn**	**00 04 10.0**	**-3.0**
YUK				pmax	pmax		
	comp=Z,14μm,1.3s						
YUK				pmax	pmax		
	comp=N,10μm,2.5s						
YUK				pmax	pmax		
	comp=E,5μm,1.2s						
YUK				pmax	pmax		
	comp=Z,3μm,0.4s						
YUK				pmax	pmax		
	comp=N,3μm,0.5s						
YUK				pmax	pmax		
	comp=E,1μm,0.5s						
YUK				smax			
	comp=E,198μm,8.0s						
YUK				smax			
	comp=N,95μm,2.5s						
YUK				smax			
	comp=N,31μm,0.6s						
YUK				smax			
	comp=E,34μm,0.6s						
YUK				MLR	MLR		
	comp=Z,159μm,12.0s						
JSS	**Shosan**	**2.87**	**335**	⇑P	**Pn**	**00 03 43.3**	**+2.5**
JOM	**Ohasama**	**2.88**	**217**	⇑P	**Pn**	**00 03 40.2**	**-0.7**
JIW	**Iwasaki**	**2.91**	**247**	⇑P	**Pn**	**00 03 42.6**	**+1.2**
JOSM	**Okushiri--Mats**	**3.03**	**277**	⇑P	**Pn**	**00 03 44.6**	**+1.6**
JYG	**Yagishiri**	**3.04**	**330**	⇑P	**Pn**	**00 03 45.0**	**+1.9**
OFUJ	**Ofunato**	**3.06**	**208**	⇑P	**Pn**	**00 03 42.0**	**-1.5**
JSE	**Soyaes**	**3.23**	**348**	P	**Pn**	**00 03 46.5**	**+0.8**
JMK	**Ichinoseki**	**3.34**	**212**	P	**Pn**	**00 03 46.2**	**-1.1**
JIO	**Ouri**	**3.73**	**207**	⇑P	**Pn**	**00 03 50.8**	**-1.9**
JYA	**Atsumi**	**4.33**	**223**	⇑P	**Pn**	**00 04 00.9**	**0.0**
JYS	**Shirataka**	**4.45**	**218**	P	**Pn**	**00 04 02.2**	**-0.3**
KUR	**Kuril’sk**	**4.67**	**41**	⇓*i*P	**Pn**	**00 04 04.2**	**-1.3**
KUR	**Kuril’sk**	**4.67**	**41**	*j i*P	**Pn**	**00 04 04.0**	**-1.5**
KUR				*i* S	**Sn**	**00 04 51.0**	**-7.5**
KUR				pmax	pmax		
	comp=N,20μm,4.0s						
KUR				pmax	pmax		
	comp=E,10μm,4.0s						
KUR				pmax	pmax		
	comp=Z,28μm,4.0s						
KUR				pmax	pmax		
	comp=N,3μm,1.0s						
KUR				pmax	pmax		
	comp=E,2μm,1.0s						
KUR				pmax	pmax		
	comp=Z,11μm,1.0s						
KUR				smax			
	comp=N,7μm,0.8s						
KUR				smax			
	comp=E,7μm,0.8s						
KUR				smax			
	comp=N,158μm,5.0s						
KUR				smax			
	comp=E,165μm,5.0s						
KUR				MLR	MLR		
	comp=N,106μm,12.0s						
KUR				MLR	MLR		
	comp=E,69μm,12.0s						
KUR				MLR	MLR		
	comp=Z,132μm,12.0s						
JAW	**Awa shima**	**4.67**	**226**	P	**Pn**	**00 04 06.0**	**+0.4**
JNS	**Sasagawa**	**5.12**	**220**	P	**Pn**	**00 04 11.7**	**-0.1**
YSS	**Yuzh-Sakhalins**	**5.18**	**354**	*e*Pn	**Pn**	**00 04 13.0**	**+0.4**

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YSS   Yuzh-Sakhalins      5.18 354α iP     Pn     00 04 12.7 +0.1
YSS                               eS     Sn     00 05 10.0  -1.1
YSS                                pmax  pmax
      comp=N,500nm,1.2s
YSS                                pmax  pmax
      comp=Z,500nm,1.2s
YSS                                pmax  pmax
      comp=E,600nm,1.7s
YSS                                pmax  pmax
      comp=Z,6µm,8.0s
YSS                                pmax  pmax
      comp=N,5µm,7.0s
YSS                                MLR   MLR
      comp=N,183µm,15.0s
YSS                                MLR   MLR
      comp=Z,216µm,15.0s
JSD   Sado                5.52 229 ⇑P     Pn     00 04 17.8 +0.6
JHK   Hiroka              5.72 219  P     Pn     00 04 19.9  -0.1
JAG   Ashikaga            6.23 212  P     Pn     00 04 25.5  -1.5
JJN   Nakama              6.26 223  P     Pn     00 04 28.1 +0.7
JSZ   Suzu                6.44 230  P     Pn     00 04 30.7 +0.9
MAJO  Matsushiro          6.67 220 ePn    Pn     00 04 33.0  -0.1
MAT   Matsushiro          6.67 220  P     Pn     00 04 32.9  -0.2
MAT                                 S     Sn     00 05 52.5 +4.5
MAT   Matsushiro          6.67 220  P     Pn     00 04 33.0  -0.1
MJAR  Matsushiro Arr      6.67 220  P     Pn     00 04 33.1   0.0
MJAR                                S     Sn     00 05 55.1 +7.1
MJAR                                pmax  pmax
      comp=Z,12nm,0.3s
MJAR                                smax
      comp=N,7.0nm,0.3s
MJAR                                MLR   MLR
      comp=Z,79µm,20.7s
MJAR  Matsushiro Arr      6.67 220  P     Pn     00 04 33.1   0.0
      comp=Z,12nm,0.3s,baz=31,slow=12,SNR=137
MJAR                                S     Sn     00 05 55.1 +7.1
      comp=Z,6.7nm,0.3s,baz=58,slow=12,SNR=4.5
MJAR                                LR    LR     00 07 39.8
      comp=Z,79µm,20.7s,baz=30,slow=43
JRY   Ryogami san         6.80 213  P     Pn     00 04 33.6  -1.3
JNG   Nsakai              6.83 220  P     Pn     00 04 35.4 +0.1
JTT   Ttatey              7.07 225  P     Pn     00 04 39.9 +1.4
JJH   Hakui               7.13 229 ⇑P     Pn     00 04 40.8 +1.4
JNT   Takato              7.25 217  P     Pn     00 04 42.4 +1.4
UGL   Uglegorsk           7.35 353⇑iP     Pn     00 04 43.0 +0.7
UGL                                pmax  pmax
      comp=N,157nm,1.0s
UGL                                pmax  pmax
      comp=E,180nm,1.0s
UGL                                pmax  pmax
      comp=Z,302nm,1.0s
UGL                                pmax  pmax
      comp=N,7µm,8.0s
UGL                                pmax  pmax
      comp=Z,7µm,8.0s
UGL                                pmax  pmax
      comp=E,1µm,5.0s
UGL                                MLR   MLR
      comp=N,62µm,14.0s
UGL                                MLR   MLR
      comp=E,41µm,16.0s
UGL                                MLR   MLR
      comp=Z,82µm,16.0s
JGN   Niukaw              7.37 223  P     Pn     00 04 43.4 +0.8
JGM   Miyama              8.08 223  P     Pn     00 04 53.4 +1.0
JAO   Obara               8.16 219  P     Pn     00 04 54.6 +1.1
JFM   Mihama              8.59 226  P     Pn     00 05 01.1 +1.6
VLA   Vladivostok         8.69 283⇓iP     Pn     00 05 03.3 +2.5
VLA   Vladivostok         8.69 283⇓iP     Pn     00 05 03.2 +2.4
VLA                                pmax  pmax
      comp=Z,2µm,1.5s
HABR  Khabarovsk          8.96 321⇑iP     Pn     00 05 07.2 +2.9
HABR                              e             00 06 45.8
HABR                               MLR   MLR
      comp=Z,129µm,17.6s
TYV   Tymovskoe           9.08 357 eP     Pn     00 05 06.8 +0.7
TYV                                eS     Sn     00 06 51.0 +3.9
TYV                                pmax  pmax
      comp=Z,297nm,0.7s
TYV                                pmax  pmax
      comp=E,257nm,0.8s
TYV                                pmax  pmax
      comp=Z,9µm,5.0s
TYV                                pmax  pmax
      comp=E,4µm,3.0s
TYV                                smax
      comp=E,20µm,11.0s
TYV                                smax
      comp=N,11µm,10.0s
TYV                                smax
      comp=E,96µm,16.0s
JHJ   Hachijo jima 2      9.16 200  P     Pn     00 05 04.3  -2.8
      comp=E,176nm,0.3s,baz=18,slow=13,SNR=20
JHJ                                 S     Sn     00 06 37.1   -12
      comp=E,244nm,0.3s,baz=258,slow=24,SNR=9.2
JAD   Aida               10.03 230  P     Pn     00 05 20.1 +0.9
MDJ   Mudanjiang         10.55 290  P     Pn     00 05 28.6 +2.5
MDJ                                 S     Sn     00 07 31.3 +8.3
MDJ                                 PCP   PcP    00 11 27.4  -1.3
MDJ                                 SCP   ScP    00 14 55.8  -2.7
MDJ                                 PCS   PcS    00 15 05.8 +3.6
MDJ                                 SCS   ScS    00 18 37.6 +4.3
MDJ                                 AMB   AMB
      comp=Z,584nm,1.1s
MDJ                                 AMB   AMB
      comp=Z,8µm,8.0s
MDJ                                 LR    LR
      comp=Z,148µm,17.8s
KLR   Kul'dur            11.10 316⇓iP     Pn     00 05 32.5  -1.1
KLR                                eS     Sn     00 07 39.0 +2.6
KLR                                pmax  pmax
      comp=N,180nm,1.8s
KLR                                pmax  pmax
      comp=Z,660nm,1.8s
KLR                                pmax  pmax
      comp=N,9µm,7.0s
KLR                                pmax  pmax
      comp=Z,16µm,7.0s
OKH   Okha               11.76 358⇑iP     Pn     00 05 38.6  -4.1
OKH                                pmax  pmax
      comp=Z,6µm,7.0s
JTY   Toyota             12.36 237  P     Pn     00 05 51.8 +0.8
SKR   Severo-Kuril's     12.44  40 eP     Pn     00 05 50.0  -1.9
SKR                                pmax  pmax
      comp=N,100nm,0.6s
SKR                                pmax  pmax
      comp=E,100nm,0.6s
SKR                                pmax  pmax
      comp=Z,210nm,0.6s
SKR                                pmax  pmax
      comp=Z,2µm,4.0s
SKR                                smax
      comp=E,28µm,16.0s
SKR                                smax
      comp=N,16µm,20.0s
SKR                                MLR   MLR
      comp=Z,26µm,18.0s
KSRS  Korea Array        12.78 255  P     Pn     00 05 58.6 +1.9
      comp=Z,1.6nm,0.3s,baz=72,slow=12,SNR=282
KSRS                                S     Sn     00 08 26.5 +8.8
      comp=Z,3.3nm,0.3s,baz=67,slow=24,SNR=5.6
KSRS                                LR    LR     00 10 46.0
      comp=Z,78µm,19.2s,baz=65,slow=36
KS15  Wonju Array Si     12.81 255 ePn    Pn     00 05 58.8 +1.7
JNU   Nakatsue           13.25 233  P     Pn     00 06 02.1  -1.0
      comp=Z,1.8nm,0.3s,baz=46,slow=18,SNR=17
JNU                                 LR    LR     00 11 37.7
      comp=Z,55µm,20.4s,baz=38,slow=39
CN2   Changchun          13.42 285 ⇑P     Pn     00 06 05.8 +0.4
CN2                                 AMB   AMB
      comp=Z,50nm,1.1s
CN2                                 LR    LR
      comp=N,56µm,16.0s
CN2                                 LR    LR
      comp=E,139µm,16.0s
CN2                                 LR    LR
      comp=Z,155µm,16.0s
INCN  Inchon             13.70 257 ePn    Pn     00 06 09.7 +0.4
CBIJ  Chichi jima        14.71 185  P     Pn     00 06 21.4  -1.7
      comp=Z,21nm,0.3s,baz=284,slow=22,SNR=6.3
SNY   Shenyang           14.87 277 ⇑P     Pn     00 06 25.8 +0.6
SNY                                 XP    sP     00 06 37.3  -6.1
SNY                                 S     Sn     00 09 14.1 +5.5
SNY                                 AMB   AMB
      comp=Z,367nm,1.2s
SNY                                 AMB   AMB
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      comp=Z,12µm,12.0s
SNY                                 LR    LR
      comp=N,31µm,13.7s
SNY                                 LR    LR
      comp=E,66µm,16.1s
SNY                                 LR    LR
      comp=Z,70µm,16.8s
PET   Petropavlovsk      15.16  37 ePn    Pn     00 06 28.2  -0.7
      comp=Z,528nm,1.4s
PET   Petropavlovsk      15.16  37 eP     Pn     00 06 28.7  -0.2
PET                                eS     Sn     00 09 14.9  -0.8
PET                                pmax  pmax
      comp=Z,252nm,1.2s
PET                                pmax  pmax
      comp=Z,3µm,11.3s
PET                                pmax  pmax
      comp=Z,4µm,9.8s
PET                                smax
      comp=N,13µm,26.0s
PET                                MLR   MLR
      comp=Z,32µm,18.0s
DL2   Dalian             16.93 267⇑iP     Pn     00 06 51.8 +0.2
DL2                                 AP    pP     00 06 58.3  -3.7
DL2                                 PP           00 07 05.0
DL2                                 PPP          00 07 14.8
DL2                                 S     Sn     00 09 57.3  -1.3
DL2                                 SS           00 10 15.9
DL2                                 SSS          00 10 27.9
DL2                                 SCS   ScS    00 18 48.3  -0.4
DL2                                 AMB   AMB
      comp=Z,1µm,1.0s
DL2                                 AMB   AMB
      comp=Z,4µm,6.6s
DL2                                 LR    LR
      comp=N,10µm,12.9s
DL2                                 LR    LR
      comp=E,12µm,14.5s
DL2                                 LR    LR
      comp=Z,19µm,19.9s
HIA   Hailar             18.20 302⇑iP     Pn     00 07 04.7  -2.6
MA2   Magadan            18.36  12 eP     Pn     00 07 05.1  -4.1
      comp=Z,697nm,1.5s
MA2   Magadan            18.36  12c iP    Pn     00 07 05.0  -4.1
MA2                                eS     Sn     00 10 27.0  -6.0
MA2                                pmax  pmax
      comp=Z,600nm,2.1s
MA2                                pmax  pmax
      comp=N,400nm,2.0s
MA2                                MLR   MLR
      comp=Z,16µm,13.3s
NRGR  Nerungri           19.18 327 i P    Pn     00 07 17.0  -2.0
NRGR                                S     Sn     00 10 49.0  -3.8
NRGR                                smax
      comp=E,968nm,1.2s
CLNS  Chul'man           19.23 328⇑iP     Pn     00 07 17.5  -2.2
JOW   Kunigami           19.48 225  P     Pn     00 07 19.6  -3.3
      comp=E,3.0nm,0.3s,baz=32,slow=10,SNR=20
BJI   Beijing            20.70 274  P     P      00 07 32.8  -1.9
BJI                                 S     S      00 11 20.8  -3.3
BJI                                 AMB   AMB
      comp=Z,668nm,1.3s
BJI                                 LR    LR
      comp=N,22µm,15.0s,MS6.1
BJI                                 LR    LR
      comp=E,69µm,17.8s,MS6.1
BJI   Beijing            20.70 274  P     P      00 07 32.7  -2.0
      comp=E,0.7nm,1.3s
BJI                                 S     S      00 11 20.7  -3.4
BJT   Baijiatuau         20.71 274  PFAKE        00 07 50.0   +15
BJT                                 LR    LR
      comp=Z,84µm,19.0s,MS6.1
SSE   Sheshan            20.84 246 ⇑P     P      00 07 33.8  -2.5
SSE                                 AP           00 07 44.3
SSE                                 XP    sP     00 07 48.3  -0.9
SSE                                 S     S      00 11 25.4  -1.5
SSE                                 AMB   AMB
      comp=Z,250nm,1.6s
SSE                                 AMB   AMB
      comp=Z,990nm,4.3s
SSE                                 LR    LR
      comp=N,35µm,18.4s,MS5.8
SSE                                 LR    LR
      comp=E,11µm,18.4s,MS5.8
SSE                                 LR    LR
      comp=Z,26µm,21.1s,MS5.6
TIA   Tai'an             21.21 263 ⇑P     P      00 07 37.6  -2.6
TIA                                 AP           00 07 46.5
TIA                                 XP    sP     00 07 51.0  -2.2
TIA                                 S     S      00 11 27.6  -6.6
TIA                                 XS    sS     00 11 38.0   -10
TIA                                 AMB   AMB
      comp=Z,175nm,0.9s,mb5.4
TIA                                 AMB   AMB
      comp=Z,3µm,5.0s
TIA                                 LR    LR
      comp=N,4µm,11.0s
SEY   Seymchan           21.81  11c iP    P      00 07 42.6  -3.8
YAK   Yakutsk            21.89 342 eP     P      00 07 43.1  -4.2
      comp=N,984nm,0.9s,mb6.2
YAK                                 LR    LR
      comp=Z,44µm,19.0s,MS5.9
YAK   Yakutsk            21.89 342c iP    P      00 07 43.4  -3.9
YAK                                eS     S      00 11 38.3  -8.7
YAK                                e             00 11 46.3
YAK                                eSSS          00 12 17.2
YAK                                pmax  pmax
      comp=Z,1µm,1.0s,mb6.2
YAK                                pmax  pmax
      comp=N,418nm,1.3s
YAK                                pmax  pmax
      comp=E,397nm,1.3s
YAK                                pmax  pmax
      comp=Z,990nm,1.6s,mb6.0
YAK                                pmax  pmax
      comp=N,2µm,2.7s
YAK                                pmax  pmax
      comp=E,1µm,2.7s
YAK                                smax
      comp=E,4µm,1.4s
YAK                                smax
      comp=Z,6µm,2.6s
YAK                                smax
      comp=N,13µm,3.8s
YAK                                MLR   MLR
      comp=Z,45µm,19.0s,MS5.9
YAK                                MLR   MLR
      comp=N,42µm,20.0s,MS6.0
YAK                                MLR   MLR
      comp=E,45µm,20.0s,MS6.0
NJ2   Nanjing            21.92 252 eP     P      00 07 45.0  -2.9
NJ2                                 AP           00 07 54.1
NJ2                                 XP    sP     00 07 58.1  -2.8
NJ2                                 PP           00 08 10.4
NJ2                                 S     S      00 11 47.0  -1.1
NJ2                                 AMB   AMB
      comp=Z,5µm,7.2s
NJ2                                 LR    LR
      comp=N,96µm,18.2s,MS6.3
NJ2                                 LR    LR
      comp=E,69µm,17.7s,MS6.3
NJ2                                 LR    LR
      comp=Z,69µm,17.7s,MS6.1
CIT   Chita              22.73 307 eP     P      00 07 53.4  -2.8
CIT                                e             00 08 08.7
CIT                                e             00 08 17.8
CIT                                eS     S      00 12 04.0 +1.3
CIT                                pmax  pmax
      comp=Z,5µm,2.4s,mb6.5
SMY   Shemya             23.28  52 eP     P      00 08 02.7 +0.6
      comp=Z,1µm,1.2s,mb6.2
SMY                                 LR    LR
      comp=Z,16µm,22.0s,MS5.4
HHC   Hu-ho-hao-te       23.95 278 eP     P      00 08 06.3  -2.1
HHC                                 AP           00 08 15.6
HHC                                 XP    sP     00 08 19.8  -2.1
HHC                                 PP           00 08 39.9
HHC                                 PCP   PcP    00 11 51.3 +1.2
HHC                                 S     S      00 12 16.9  -5.8
HHC                                 XS    sS     00 12 32.5  -5.8
HHC                                 SS           00 13 07.0
HHC                                 SCP   ScP    00 15 25.8   0.0
HHC                                 PCS   PcS    00 15 28.6  -1.0
HHC                                 AMB   AMB
      comp=Z,104nm,1.3s,mb5.1
HHC                                 AMB   AMB
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      comp=Z,4µm,4.6s
HHC                                 LR    LR
      comp=N,27µm,15.7s,MS6.1
HHC                                 LR    LR
      comp=E,45µm,19.0s,MS6.1
HHC                                 LR    LR
      comp=Z,54µm,21.6s,MS6.0
TIY   Taiyuan            24.17 271⇑iP     P      00 08 08.6  -1.9
TIY                                 S     S      00 12 19.4  -7.0
TIY                                 LR    LR
      comp=N,19µm,17.2s,MS5.8
TIY                                 LR    LR
      comp=E,20µm,14.9s,MS5.8
BOD   Bodaibo            24.61 321⇑iP     P      00 08 11.4  -2.9
BOD                                pmax  pmax
      comp=Z,340nm,1.2s,mb5.8
TATO  Taipei             24.79 234 eP     P      00 08 17.3 +1.1
TATO                                LR    LR
      comp=Z,26µm,19.0s,MS5.8
YHNB  Yeheng             25.08 234⇑eP     P      00 08 16.4  -2.5
BTO   Baotou             25.14 279 eP     P      00 08 17.6  -1.7
BTO                                 AMB   AMB
      comp=Z,109nm,1.1s,mb5.3
BTO                                 LR    LR
      comp=N,7µm,16.5s,MS5.6
BTO                                 LR    LR
      comp=E,18µm,19.6s,MS5.6
NACB  Ninganchiao        25.32 233 eP     P      00 08 18.5  -2.6
ULN   Ulaanbaatar        26.38 296⇑iP     P      00 08 30.8 +0.3
ULN   Ulaanbaatar        26.38 296c iP    P      00 08 30.7 +0.2
QZH   Quanzhou           26.61 239⇑iP     P      00 08 34.5 +1.7
QZH                                 S     S      00 13 09.3 +3.8
QZH                                 AMB   AMB
      comp=Z,460nm,1.2s,mb5.9
QZH                                 AMB   AMB
      comp=Z,9µm,4.0s
QZH                                 LR    LR
      comp=N,21µm,14.0s,MS6.0
QZH                                 LR    LR
      comp=E,18µm,14.9s,MS6.0
QZH                                 LR    LR
      comp=Z,35µm,17.8s,MS6.0
SONM  Songino Array      26.82 296  P     P      00 08 35.1 +0.6
SONM                               pmax  pmax
      comp=Z,458nm,1.0s
SONM                                MLR   MLR
      comp=Z,90µm,18.3s
SONM  Songino Array      26.82 296  P     P      00 08 35.1 +0.6
      comp=Z,458nm,1.0s,mb6.0,baz=85,slow=6.3,SNR=928
SONM                                LR    LR     00 20 18.6
      comp=Z,90µm,18.3s,MS6.4,baz=83,slow=39
GUMO  Guam               28.13 177  PFAKE        00 09 00.0   +14
GUMO                                LR    LR
      comp=Z,10µm,19.0s,MS5.5
GUMO  Guam               28.13 177  LR    LR     00 18 24.2
      comp=Z,10µm,21.0s,MS5.4,baz=17,slow=33
XAN   Xi'an              28.22 265  P     P      00 08 46.1  -1.1
XAN                                 AP    pP     00 08 57.1 +0.4
XAN                                 AMB   AMB
      comp=Z,66nm,1.0s,mb5.2
XAN                                 AMB   AMB
      comp=Z,3µm,9.6s
XAN                                 LR    LR
      comp=N,11µm,14.5s,MS5.9
XAN                                 LR    LR
      comp=E,19µm,14.9s,MS5.9
XAN                                 LR    LR
      comp=Z,24µm,15.7s,MS5.9
IRK   Irkutsk            28.39 305⇑iP     P      00 08 48.9 +0.5
IRK                                e             00 09 57.3
IRK                                pmax  pmax
      comp=Z,2µm,1.5s,mb6.4
TLY   Talaya             28.73 304  P     P      00 08 52.6 +1.2
      comp=Z,3µm,0.9s,mb7.0
TLY   Talaya             28.73 304 eP     P      00 08 52.1 +0.7
TLY                                 LR    LR
      comp=Z,66µm,19.0s,MS6.3
TLY   Talaya             28.73 304c iP    P      00 08 52.3 +0.9
ZAK   Zakamensk          28.89 301 eP     P      00 08 53.3 +0.4
ZAK                                pmax  pmax
      comp=Z,314nm,1.1s,mb6.0
BILL  Bilibino           29.00  17c iP    P      00 08 49.8  -3.9
BILL                               e*PP   pP     00 08 59.6  -3.6
BILL                                *SP   sP     00 09 05.3  -1.9
BILL                               i S    S      00 13 39.1  -3.2
BILL                               eSS    SS     00 15 13.5   -32
BILL                               pmax  pmax
      comp=Z,90nm,1.6s,mb5.2
BILL                                MLR   MLR
      comp=Z,18µm,20.0s,MS5.7
CVP   Callao Caves       30.35 224⇑eP     P      00 09 04.5  -1.6
MOY   Mondy              30.37 304⇑iP     P      00 09 07.0 +1.0
MOY                                pmax  pmax
      comp=Z,2µm,2.1s,mb6.5
APYP  Conner             30.52 225 eP     P      00 09 13.3 +5.6
TIXI  Tiksi              30.80 351 eP     P      00 09 07.4  -2.1
TIXI                                LR    LR
      comp=Z,37µm,19.0s,MS6.1
TIXI  Tiksi              30.80 351c iP    P      00 09 05.3  -4.2
TIXI                               e             00 12 03.9
TIXI                               eS     S      00 14 05.2  -5.2
TIXI                               pmax  pmax
      comp=N,32nm,1.2s
TIXI                               pmax  pmax
      comp=Z,56nm,1.2s,mb5.3
TIXI                               pmax  pmax
      comp=E,14nm,1.3s
TIXI                               pmax  pmax
      comp=Z,1µm,20.7s
TIXI                                MLR   MLR
      comp=Z,37µm,17.0s,MS6.1
TIXI                                MLR   MLR
      comp=N,20µm,16.0s,MS6.1
TIXI                                MLR   MLR
      comp=E,28µm,18.0s,MS6.1
LZH   Lanzhou            31.18 273 ⇑P     P      00 09 13.5 +0.2
LZH                                 AP    pP     00 09 22.0  -0.8
LZH                                 XP    sP     00 09 26.0  -0.8
LZH                                 PP    PP     00 10 16.0  -7.9
LZH                                 S     S      00 14 15.3  -1.7
LZH                                 XS    sS     00 14 30.0  -2.8
LZH                                 SS    SS     00 16 00.0   -31
LZH                                 AMB   AMB
      comp=Z,609nm,1.3s,mb6.3
LZH                                 AMB   AMB
      comp=Z,3µm,4.3s
LZH                                 LR    LR
      comp=E,35µm,15.6s
LZH                                 LR    LR
      comp=Z,42µm,16.4s,MS6.2
LZH   Lanzhou            31.18 273 ⇑P     P      00 09 13.5 +0.2
      comp=Z,609nm,1.3s,mb6.3
LZH                                 pP    pP     00 09 22.0  -0.8
LZH                                 sP    sP     00 09 26.0  -0.8
LZH                                 PP    PP     00 10 16.0  -7.9
LZH                                 S     S      00 14 15.2  -1.8
LZH                                 sS    sS     00 14 30.0  -2.8
LZH                                 SS    SS     00 16 00.0   -31
LZH                                 LR    LR
      comp=Z,42µm,16.4s,MS6.2
LZH   Lanzhou            31.18 273 ⇑P     P      00 09 13.5 +0.2
LZH                                 *PP   pP     00 09 22.0  -0.8
LZH                                 *SP   sP     00 09 26.0  -0.8
LZH                                              00 10 16.0
LZH                                 S     S      00 14 15.2  -1.8
LZH                                 *SS   sS     00 14 30.0  -2.8
LZH                                 SS    SS     00 16 00.0   -31
LZH                                pmax  pmax
      comp=Z,609nm,1.3s,mb6.3
LZH                                 MLR   MLR
      comp=Z,42µm,16.4s,MS6.2
GZH   Guangzhou          31.33 243  P     P      00 09 09.3  -5.5
GZH                                 S     S      00 14 12.3  -7.4
GZH                                 LR    LR
      comp=N,22µm,19.0s,MS6.0
GZH                                 LR    LR
      comp=E,17µm,17.6s,MS6.0
GZH                                 LR    LR
      comp=Z,39µm,20.5s,MS6.1
HKC   Hong Kong Obse     31.33 241⇑iP     P      00 09 16.0 +1.2
HKC                                i S    S      00 14 24.0 +4.3
BCPH  Baguio City Da     32.10 225⇑eP     P      00 09 20.0  -1.6
BALP  Baler              32.12 223 eP     P      00 09 20.5  -1.3
PVCP  Virac              32.75 217 eP     P      00 09 27.4 +0.2
GTA   Gaotai             33.00 281⇑iP     P      00 09 30.1 +0.8
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GTA				AP	pP	00 09 35.8	-3.0
GTA				XP	sP	00 09 39.0	-3.8
GTA				PP	PP	00 10 40.5	-3.6
GTA				PPP		00 10 56.8	
GTA				PCP	PcP	00 12 13.6	+1.1
GTA				S	**S**	**00 14 46.8**	**+1.4**
GTA				SCP	ScP	00 15 55.8	+1.7
GTA				PCS	PcS	00 15 58.5	+0.6
GTA				SS	SS	00 16 46.8	-21
GTA				SCS	ScS	00 19 54.3	0.0
GTA				AMB	AMB		
	comp=Z,510nm,1.3s,mb6.3						
GTA				AMB	AMB		
	comp=Z,4µm,7.8s						
GTA				LR	LR		
	comp=N,23µm,19.8s,MS6.2						
GTA				LR	LR		
	comp=E,45µm,18.2s,MS6.2						
GTA				LR	LR		
	comp=Z,54µm,18.3s,MS6.3						
CD2	**Chengdu**	**33.54**	**264**	P	**P**	**00 09 33.4**	**-0.7**
CD2				AP	pP	00 09 43.6	-0.1
CD2				XP	sP	00 09 47.3	-0.4
CD2				PP	PP	00 10 45.0	-5.2
CD2				PCP	PcP	00 12 13.4	-0.8
CD2				S	**S**	**00 14 51.0**	**-3.0**
CD2				XS	sS	00 15 08.3	-1.5
CD2				SS	SS	00 16 55.3	-24
CD2				SCS	ScS	00 19 54.1	-3.3
CD2				AMB	AMB		
	comp=Z,430nm,1.2s,mb6.2						
CD2				AMB	AMB		
	comp=Z,3µm,7.8s						
CD2				LR	LR		
	comp=N,23µm,15.6s,MS6.1						
CD2				LR	LR		
	comp=E,17µm,13.2s,MS6.1						
CD2				LR	LR		
	comp=Z,24µm,15.0s,MS6.0						
GYA	**Guiyang**	**33.84**	**255**	⇑*i*P	**P**	**00 09 36.3**	**-0.4**
GYA				AP	pP	00 09 48.6	+2.3
GYA				XP	sP	00 09 52.8	+2.6
GYA				PP	PP	00 10 52.0	-1.5
GYA				PPP		00 11 10.0	
GYA				PCP	PcP	00 12 17.4	+2.3
GYA				S	**S**	**00 14 53.3**	**-5.3**
GYA				XS	sS	00 15 16.0	+1.6
GYA				SCP	ScP	00 15 58.4	+1.2
GYA				PCS	PcS	00 16 02.8	+1.6
GYA				SS	SS	00 17 05.5	-20
GYA				SCS	ScS	00 19 57.9	-1.1
GYA				AMB	AMB		
	comp=Z,380nm,1.0s,mb6.3						
GYA				AMB	AMB		
	comp=Z,2µm,8.4s						
GYA				LR	LR		
	comp=N,19µm,18.5s,MS6.0						
GYA				LR	LR		
	comp=E,23µm,19.4s,MS6.0						
GYA				LR	LR		
	comp=Z,38µm,20.1s,MS6.1						
LUBP	**Lubang**	**34.50**	**223**	*e*P	**P**	**00 09 41.3**	**-1.2**
OTRP	**Odiongan**	**34.81**	**219**	*e*P	**P**	**00 09 45.4**	**+0.2**
UNV	**Unalaska Valle**	**34.94**	**52**	PFAKE		00 10 00.0	+14
UNV				LR	LR		
	comp=Z,28µm,22.0s,MS6.0						
MSLP	**Maasin**	**35.55**	**213**	*e*P	**P**	**00 09 51.1**	**-0.4**
SCPH	**Surigao**	**35.62**	**212**	⇓*e*P	**P**	**00 09 52.2**	**+0.1**
TNA	**Tin City**	**35.93**	**32**	*e*P	**P**	**00 09 53.4**	**-0.9**
	comp=Z,64nm,1.0s,mb5.5						
TNA				LR	LR		
	comp=Z,5µm,19.0s,MS5.3						
BUSP	**Coron**	**36.00**	**221**	*e*P	**P**	**00 09 55.0**	**-0.3**
QIZ	**Qiongzhong**	**36.50**	**242**	P	**P**	**00 10 01.0**	**+1.4**
QIZ				XP	sP	00 10 14.8	+1.6
QIZ				PP	PP	00 11 25.4	+2.4
QIZ				S	**S**	**00 15 39.4**	**-0.2**
QIZ				XS	sS	00 15 54.9	-0.6
QIZ				PCS	PcS	00 16 12.8	+1.8
QIZ				AMB	AMB		
	comp=Z,85nm,1.6s,mb5.4						
QIZ				AMB	AMB		
	comp=Z,2µm,10.2s						
QIZ				LR	LR		
	comp=N,12µm,17.6s,MS6.0						
QIZ				LR	LR		
	comp=E,20µm,20.4s,MS6.0						
QIZ				LR	LR		
	comp=Z,15µm,20.4s,MS5.8						
QIZ	**Qiongzhong**	**36.50**	**242**	⇑*i*P	**P**	**00 10 00.5**	**+0.9**
	comp=Z,119nm,1.4s,mb5.6						
QIZ				LR	LR		
	comp=Z,16µm,20.0s,MS5.8						
ENPP	**El Nido**	**37.06**	**222**	*e*P	**P**	**00 10 04.7**	**+0.2**
KMI	**Kunming**	**37.47**	**257**	⇑P	**P**	**00 10 08.4**	**+0.5**
KMI				AP	pP	00 10 17.3	-0.2
KMI				PP	PP	00 11 34.5	+0.9
KMI				S	**S**	**00 15 50.9**	**-3.5**
KMI				XS	sS	00 16 05.8	-4.5
KMI				SS	SS	00 18 20.3	-19
KMI				AMB	AMB		
	comp=Z,356nm,1.1s,mb6.1						
KMI				AMB	AMB		
	comp=Z,4µm,7.5s						
KMI				LR	LR		
	comp=N,20µm,17.5s,MS6.1						
KMI				LR	LR		
	comp=E,18µm,19.0s,MS6.1						
KMI				LR	LR		
	comp=Z,28µm,20.2s,MS6.0						
KMI	**Kunming**	**37.47**	**257**	⇑P	**P**	**00 10 08.4**	**+0.5**
	comp=Z,356nm,1.1s,mb6.1						
KMI				pP	pP	00 10 17.3	-0.2
KMI				PP	PP	00 11 34.5	+0.9
KMI				S	**S**	**00 15 50.9**	**-3.5**
KMI				sS	sS	00 16 05.7	-4.6
KMI				SS	SS	00 18 20.3	-19
KMI				LR	LR		
	comp=Z,28µm,20.2s,MS6.0						
KMI	**Kunming**	**37.47**	**257**	⇑P	**P**	**00 10 08.4**	**+0.5**
KMI				*PP	pP	00 10 17.3	-0.2
KMI						00 11 34.5	
KMI				S	**S**	**00 15 50.9**	**-3.5**
KMI				*SS	sS	00 16 05.7	-4.6
KMI				pmax	pmax		
	comp=Z,356nm,1.1s,mb6.1						
KMI				MLR	MLR		
	comp=Z,28µm,20.2s,MS6.0						
BUKP	**Musuan**	**37.53**	**211**	*e*P	**P**	**00 10 08.0**	**-0.4**
DAV	**Davao City (W)**	**38.07**	**210**	PFAKE		00 10 20.0	+7.0
DAV				LR	LR		
	comp=Z,9µm,20.0s,MS5.6						
PAGZ	**Pagadian**	**38.22**	**213**	*e*P	**P**	**00 10 13.6**	**-0.6**
SDPT	**Sand Point**	**38.39**	**50**	*e*P	**P**	**00 10 11.9**	**-3.4**
	comp=Z,49nm,1.0s,mb5.2						
PPR	**Puerto Princes**	**38.64**	**221**	⇓*i*P	**P**	**00 10 19.5**	**+1.7**
BATP	**Bataraza**	**39.94**	**222**	*e*P	**P**	**00 10 29.9**	**+1.2**
ZALV	**Zalesovo Beam**	**40.07**	**308**	P	**P**	**00 10 29.4**	**+0.1**
	comp=Z,304nm,0.8s,mb6.1,baz=86,slow=7.6,SNR=896						
ZALV				ScP	ScP	00 16 20.1	+0.1
	comp=Z,20nm,1.1s,baz=153,slow=4.3,SNR=3.9						
ZALV				LR	LR	00 28 19.2	
	comp=Z,27µm,19.0s,MS6.1,baz=76,slow=38						
ZAL	**Zalesovo**	**40.08**	**308**	P	**P**	**00 10 29.5**	**+0.1**
WMQ	**Urumqi**	**40.34**	**292**	P	**P**	**00 10 31.9**	**+0.2**
WMQ				AP	pP	00 10 41.8	+0.4
WMQ				XP	sP	00 10 45.8	+0.4
WMQ				PP	PP	00 12 09.0	+4.3
WMQ				PCP	PcP	00 12 36.3	+1.8
WMQ				SCP	ScP	00 16 21.6	+0.4
WMQ				S	**S**	**00 16 36.4**	**-0.8**
WMQ				SS	SS	00 19 29.4	-6.9
WMQ				SCS	ScS	00 20 33.8	-1.2
WMQ				AMB	AMB		
	comp=Z,582nm,1.0s,mb6.3						
WMQ				AMB	AMB		
	comp=Z,2µm,9.7s						
WMQ				LR	LR		
	comp=N,14µm,16.6s,MS6.4						
WMQ				LR	LR		
	comp=E,48µm,18.0s,MS6.4						
WMQ				LR	LR		
	comp=Z,57µm,18.2s,MS6.5						
SVW2	**Sparrevohn**	**40.80**	**41**	*e*P	**P**	**00 10 35.4**	**+0.2**
NVS	**Novosibirsk**	**40.88**	**310**	⇑*i*P	**P**	**00 10 36.2**	**+0.2**
NVS				*i*		00 20 32.7	
NVS				pmax	pmax		
	comp=N,440nm,2.0s						
NVS				pmax	pmax		
	comp=Z,1µm,2.0s,mb6.2						
NVS				pmax	pmax		
	comp=E,980nm,1.7s						
IMA2	**Indian Mountai**	**41.78**	**33**	⇑*i*P	**P**	**00 10 42.5**	**-0.7**
KDM	**Kudat**	**42.04**	**222**	⇓P	**P**	**00 10 46.4**	**+0.5**
KDAK	**Kodiak Island**	**42.53**	**45**	P	**P**	**00 10 49.5**	**+0.1**
	comp=E,716nm,0.8s,mb6.5,SNR=8.7						
KDAK	**Kodiak Island**	**42.53**	**45**	*e*P	**P**	**00 10 48.8**	**-0.6**
KDAK				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
KDAK	**Kodiak Island**	**42.53**	**45**	P	**P**	**00 10 48.8**	**-0.7**
	comp=Z,73nm,0.9s,mb5.4,baz=288,slow=6.7,SNR=25						
MYLDM	**Lahad Datu**	**42.74**	**218**	⇑P	**P**	**00 10 53.3**	**+1.7**
SDKM	**Sandakan**	**42.96**	**220**	⇑P	**P**	**00 10 53.6**	**+0.2**
KKM	**Kota Kinabalu**	**43.09**	**222**	*e*P	**P**	**00 10 54.8**	**+0.4**
KKM	**Kota Kinabalu**	**43.09**	**222**	⇓P	**P**	**00 10 55.0**	**+0.6**
MK31	**Makanchi Array**	**43.13**	**298**	P	**P**	**00 10 54.4**	**-0.1**
MK31				pmax	pmax		
	comp=Z,365nm,0.9s,mb6.1						
MKAR	**Makanchi Array**	**43.13**	**298**	P	**P**	**00 10 54.8**	**+0.3**
MKAR				pmax	pmax		
	comp=Z,221nm,0.8s						
MKAR	**Makanchi Array**	**43.13**	**298**	P	**P**	**00 10 54.8**	**+0.3**
	comp=Z,221nm,0.8s,mb5.9,baz=81,slow=9.7,SNR=1460						
SLKM	**Skilak Lake**	**43.45**	**41**	*e*P	**P**	**00 10 55.1**	**-1.7**
LSA	**Lhasa**	**43.57**	**271**	P	**P**	**00 11 00.8**	**+2.6**
LSA				AP	pP	00 11 07.8	-0.2
LSA				AMB	AMB		
	comp=Z,290nm,1.0s,mb6.0						
LSA				LR	LR		
	comp=E,25µm,17.4s						
LSA				LR	LR		
	comp=Z,36µm,18.4s,MS6.3						
LSA	**Lhasa**	**43.57**	**271**	⇑*i*P	**P**	**00 10 59.8**	**+1.6**
	comp=Z,314nm,1.0s,mb6.0						
LSA				LR	LR		
	comp=Z,37µm,19.0s,MS6.3						
LSA	**Lhasa**	**43.57**	**271**	⇑*i*P	**P**	**00 10 59.8**	**+1.6**
LSA				pmax	pmax		
	comp=Z,314nm,1.0s,mb6.0						
LSA				MLR	MLR		
	comp=Z,37µm,19.0s,MS6.3						
MCK	**McKinley**	**43.80**	**36**	*e*P	**P**	**00 10 59.0**	**-0.6**
	comp=Z,130nm,1.2s,mb5.5						
MCK				LR	LR		
	comp=Z,5µm,22.0s,MS5.4						
TSM	**Tawau**	**43.81**	**219**	⇓P	**P**	**00 11 00.8**	**+0.5**
PMR	**Palmer**	**43.88**	**40**	*e*P	**P**	**00 10 59.5**	**-0.8**
	comp=Z,106nm,1.1s,mb5.5						
PMR				LR	LR		
	comp=Z,10µm,19.0s,MS5.7						
PMR	**Palmer**	**43.88**	**40**	*e*P	**P**	**00 10 59.5**	**-0.7**
PMR				pmax	pmax		
	comp=Z,106nm,1.1s,mb5.5						
PMR				MLR	MLR		
	comp=Z,10µm,19.0s,MS5.7						
IMP	**Imphal**	**44.15**	**263**	*e*P	**P**	**00 11 04.0**	**+1.0**
IMP				*e*x	x	00 16 39.0	
CHG	**Chiang Mai**	**44.16**	**253**	⇑P	**P**	**00 11 03.6**	**+0.6**
CHTO	**Chiang Mai**	**44.16**	**253**	⇑*i*P	**P**	**00 11 03.4**	**+0.3**
	comp=Z,219nm,1.3s,mb5.7						
CHTO				LR	LR		
	comp=Z,17µm,20.0s,MS6.0						
CHTO	**Chiang Mai**	**44.16**	**253**	⇑*i*P	**P**	**00 11 03.4**	**+0.4**
CHTO				pmax	pmax		
	comp=Z,219nm,1.3s,mb5.7						
CHTO				MLR	MLR		
	comp=Z,17µm,20.0s,MS6.0						
COLA	**College**	**44.21**	**35**	⇑*i*P	**P**	**00 11 02.2**	**-0.7**
COLA				LR	LR		
	comp=Z,8µm,20.0s,MS5.6						
COLA	**College**	**44.21**	**35**	P	**P**	**00 11 02.1**	**-0.8**
COLA				pmax	pmax		
	comp=Z,230nm,0.9s,mb5.9						
SML	**Sawmill**	**44.23**	**39**	*e*P	**P**	**00 11 02.8**	**-0.3**
CM31	**Chiang Mai Arr**	**44.39**	**252**	PFAKE		00 11 20.0	+15
CM31				LR	LR		
	comp=Z,13µm,19.0s,MS5.9						
KURK	**Kurchatov**	**44.42**	**305**	P	**P**	**00 11 04.2**	**-0.5**
	comp=Z,4µm,0.8s,mb7.2						
KURK	**Kurchatov**	**44.42**	**305**	⇑*e*P	**P**	**00 11 04.6**	**-0.1**
KURK				LR	LR		
	comp=Z,24µm,19.0s,MS6.1						
BDT	**Bhumibol Dam**	**45.16**	**251**	P	**P**	**00 11 12.0**	**+1.0**
	comp=Z,29nm,1.0s,mb5.1						
SHL	**Shillong**	**45.23**	**266**	*e*P	**P**	**00 11 13.0**	**+1.4**
SHL				*e*S	**S**	**00 17 53.0**	**+3.5**
NST	**Nakhon Sawan**	**45.43**	**248**	⇓P	**P**	**00 11 14.0**	**+0.8**
	comp=Z,148nm,1.4s,mb5.6						
DIV	**Divide**	**45.54**	**40**	PFAKE		00 11 20.0	+6.5
DIV				LR	LR		
	comp=Z,29µm,22.0s,MS6.2						
EYAK	**Cordova Ski Ar**	**45.64**	**41**	*e*P	**P**	**00 11 14.1**	**-0.2**
AGT	**Agartala**	**46.67**	**264**	*i* P	**P**	**00 11 23.0**	**+0.1**
AGT				*i* x	x	00 11 59.0	
EGAK	**Eagle**	**47.07**	**34**	*e*P	**P**	**00 11 24.4**	**-1.0**
	comp=Z,190nm,1.1s,mb5.9						
EGAK				LR	LR		
	comp=Z,6µm,19.0s,MS5.6						
BTM	**Bintulu**	**47.12**	**224**	⇓P	**P**	**00 11 26.3**	**-0.1**
TAPN	**Taplejung**	**47.37**	**271**	*e*P	**P**	**00 11 26.6**	**-1.8**
	comp=Z,2µm,1.2s,mb6.8						
NNT	**Nongplab**	**47.87**	**246**	P	**P**	**00 11 34.0**	**+1.7**
AAA	**Alma-Ata**	**47.88**	**295**	*i* P	**P**	**00 11 33.9**	**+1.8**
AAA				*e*S	**S**	**00 18 26.1**	**-0.8**
AAA				pmax	pmax		
	comp=Z,4µm,4.3s						
AAA				smax			
	comp=E,4µm,18.4s						
AAA				MLR	MLR		
	comp=Z,49µm,19.8s,MS6.5						
ODAN	**Odare**	**47.88**	**270**	*e*P	**P**	**00 11 31.3**	**-1.0**
	comp=Z,2µm,1.5s,mb7.0						
DAWY	**Dawson**	**47.95**	**35**	*e*P	**P**	**00 11 31.7**	**-0.6**
SBUM	**Sibu**	**48.20**	**224**	⇓P	**P**	**00 11 35.2**	**+0.3**
JIRN	**Jiri**	**48.34**	**272**	*e*P	**P**	**00 11 35.2**	**-0.7**
	comp=Z,514nm,1.3s,mb6.4						
BRVK	**Borovoye**	**48.73**	**310**	P	**P**	**00 11 38.3**	**-0.2**
	comp=Z,2µm,1.1s,mb7.1						
BRVK	**Borovoye**	**48.73**	**310**	⇑*i*P	**P**	**00 11 38.8**	**+0.3**
BRVK				MLR	MLR		
	comp=Z,31µm,19.0s,MS6.3						
ULHL	**Ulahol**	**48.76**	**294**	P	**P**	**00 11 39.6**	**+0.7**
	SNR=18						
TKM2	**Tokmak 2**	**48.92**	**295**	P	**P**	**00 11 41.3**	**+1.1**
	SNR=507						
TKM2	**Tokmak 2**	**48.92**	**295**	⇑*i*P	**P**	**00 11 41.1**	**+1.0**
	comp=Z,665nm,0.9s,mb6.7						
TKM2				LR	LR		
	comp=Z,25µm,19.0s,MS6.2						
TKM2	**Tokmak 2**	**48.92**	**295**	⇑*i*P	**P**	**00 11 41.1**	**+1.0**
TKM2				pmax	pmax		
	comp=Z,665nm,0.9s,mb6.7						
TKM2				MLR	MLR		
	comp=Z,25µm,19.0s,MS6.2						
KKN	**Kakani**	**48.95**	**273**	*e*P	**P**	**00 11 39.4**	**-1.1**
	comp=Z,2µm,1.0s,mb7.1						
GKN	**Gorkha**	**49.32**	**273**	*e*P	**P**	**00 11 42.1**	**-1.2**
	comp=Z,3µm,1.3s,mb7.1						
INK	**Inuvik**	**49.42**	**29**	*e*P	**P**	**00 11 43.0**	**-0.6**
	comp=Z,2µm,0.8s,mb7.2						
INK	**Inuvik**	**49.42**	**29**	LR	LR	00 36 35.9	
	comp=Z,8µm,18.4s,MS5.8,baz=278,slow=41						
CHMS	**Chumysh**	**49.46**	**296**	P	**P**	**00 11 44.5**	**+0.3**
	SNR=61						
KBK	**Karagaybulak**	**49.47**	**295**	P	**P**	**00 11 45.1**	**+0.8**
	SNR=532						
KZA	**Kyzart**	**49.50**	**295**	P	**P**	**00 11 46.4**	**+1.9**
	SNR=215						
USP	**Ospenovka**	**49.53**	**296**	P	**P**	**00 11 45.1**	**+0.4**
	SNR=173						
FRU	**Bishkek**	**49.62**	**296**	⇑*i*P	**P**	**00 11 46.0**	**+0.5**
FRU				*i*		00 13 42.0	
FRU				*e*S	**S**	**00 19 06.0**	**+15**
FRU				pmax	pmax		
	comp=Z,940nm,2.0s,mb6.5						
FRU				MLR	MLR		
	comp=E,41µm,18.0s						
FRU				MLR	MLR		
	comp=Z,45µm,18.0s,MS6.5						
AAK	**Ala-Archa**	**49.78**	**296**	P	**P**	**00 11 46.3**	**-0.4**
	comp=Z,906nm,1.1s,mb6.7						
AAK	**Ala-Archa**	**49.78**	**296**	P	**P**	**00 11 47.2**	**+0.5**
	SNR=167						
AAK	**Ala-Archa**	**49.78**	**296**	*c i*P	**P**	**00 11 46.1**	**-0.6**
AAK				pmax	pmax		
	comp=Z,307nm,1.4s,mb6.1						
AAK				MLR	MLR		
	comp=Z,46µm,21.0s,MS6.5						
UCH	**Uchtor**	**49.94**	**295**	P	**P**	**00 11 49.0**	**+1.1**
	SNR=96						
UCH	**Uchtor**	**49.94**	**295**	PFAKE		00 12 00.0	+12
UCH				LR	LR		
	comp=Z,30µm,19.0s,MS6.3						
KSM	**Kuching**	**50.03**	**226**	⇑*i*P	**P**	**00 11 49.4**	**+0.5**
KSM	**Kuching**	**50.03**	**226**	⇓P	**P**	**00 11 49.7**	**+0.8**
KSH	**Kashi**	**50.08**	**291**	⇑*i*P	**P**	**00 11 50.1**	**+1.1**
KSH				*e*AP	pP	00 12 00.1	+1.2
KSH				*e*XP	sP	00 12 04.0	+1.2
KSH				*e*PCP	PcP	00 13 10.1	+1.8
KSH				*e*PP	PP	00 13 46.1	+2.1
KSH				*e*PPP		00 14 42.1	
KSH				*e*SCP	ScP	00 17 02.1	+0.7
KSH				*e*PCS	PcS	00 17 05.4	+0.1
KSH				*e*S	**S**	**00 18 56.8**	**-1.1**
KSH				*e*XS	sS	00 19 14.1	-0.1
KSH				*e*SCS	ScS	00 21 36.0	-1.6
KSH				*e*SS	SS	00 22 27.3	-3.6
KSH				AMB	AMB		
	comp=Z,7µm,3.8s						
KSH				LR	LR		
	comp=Z,134µm,17.4s,MS7.0						
EKS2	**Erkin-Say**	**50.26**	**296**	P	**P**	**00 11 50.8**	**+0.5**
	SNR=232						
EKS2	**Erkin-Say**	**50.26**	**296**	⇑*i*P	**P**	**00 11 50.5**	**+0.2**
	comp=Z,203nm,0.9s,mb6.2						
EKS2				LR	LR		
	comp=Z,41µm,19.0s,MS6.5						
AML	**Almayashu**	**50.53**	**295**	P	**P**	**00 11 53.6**	**+1.3**
	SNR=227						
AML	**Almayashu**	**50.53**	**295**	⇑*i*P	**P**	**00 11 53.5**	**+1.2**
	comp=Z,376nm,1.1s,mb6.2						
AML				LR	LR		
	comp=Z,30µm,19.0s,MS6.3						
BOK	**Bokaro**	**50.72**	**268**	*e*P	**P**	**00 11 53.0**	**-1.1**
BOK				*e*P		00 11 55.1	
BOK				AMb	AMB	00 11 58.0	
	comp=Z,470nm,1.6s,mb6.2						
BOK				*i* S	**S**	**00 19 05.8**	**-1.4**
SKAG	**Skagway**	**50.98**	**41**	*e*P	**P**	**00 11 55.1**	**-0.4**
	comp=Z,99nm,1.2s,mb5.6						
PMG	**Port Moresby**	**51.06**	**175**	PFAKE		00 12 10.0	+13
PMG				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
PMG	**Port Moresby**	**51.06**	**175**	*e*P	**P**	**00 11 58.5**	**+1.9**
KTGM	**Kuala Trenggan**	**51.07**	**236**	⇓P	**P**	**00 11 57.9**	**+1.2**
SNG	**Songkhla**	**51.25**	**240**	P	**P**	**00 11 58.0**	**-0.1**
	comp=Z,306nm,1.0s,mb6.2						
SIT	**Sitka**	**51.76**	**43**	PFAKE		00 12 10.0	+8.6
SIT				LR	LR		
	comp=Z,10µm,19.0s,MS5.9						
KK31	**Karatay Array**	**52.25**	**298**	*i* P	**P**	**00 12 04.7**	**-0.5**
KK31	**Karatay Array**	**52.25**	**298**	*i* P	**P**	**00 12 04.6**	**-0.6**
KKAR	**Karatay Array**	**52.25**	**298**	P	**P**	**00 12 04.6**	**-0.6**
KULM	**Kulim**	**52.66**	**238**	⇑*i*P	**P**	**00 12 09.3**	**+0.7**
KULM	**Kulim**	**52.66**	**238**	⇓P	**P**	**00 12 09.4**	**+0.8**
SVE	**Sverdlovsk**	**52.72**	**317**	⇑*e*P	**P**	**00 12 09.0**	**+0.5**
SVE				*e*		00 13 17.0	
SVE				*e*		00 14 12.0	
SVE				*e*PPP		00 15 18.0	
SVE				*e*S	**S**	**00 19 36.0**	**+2.1**
SVE				*e*		00 21 54.0	
SVE				pmax	pmax		
	comp=Z,750nm,1.7s,mb6.3						
SVE				pmax	pmax		
	comp=Z,4µm,4.0s						
SVE				MLR	MLR		
	comp=N,14µm,18.0s,MS6.2						
SVE				MLR	MLR		
	comp=Z,24µm,18.0s,MS6.3						
SVE				MLR	MLR		
	comp=E,14µm,19.0s,MS6.2						
KIP	**Kipapa**	**52.74**	**94**	PFAKE		00 12 20.0	+11
KIP				LR	LR		
	comp=Z,14µm,20.0s,MS6.0						
ALBI	**Allahabad**	**52.91**	**272**	*e*P	**P**	**00 12 08.0**	**-2.3**
IPM	**Ipoh**	**53.04**	**237**	⇓P	**P**	**00 12 11.6**	**+0.2**
HNR	**Honiara**	**53.17**	**160**	P	**P**	**00 12 10.9**	**-1.4**
HNR				LR	LR		
	comp=Z,7µm,22.0s,MS5.7						
HNR	**Honiara**	**53.17**	**160**	P	**P**	**00 12 10.9**	**-1.4**
	comp=Z,39nm,0.3s,mb5.8,baz=249,slow=6.6,SNR=2.3						
SDNR	**Sundarnagar**	**53.17**	**282**	*e*P	**P**	**00 12 12.0**	**-0.2**
SDNR				*e*S	**S**	**00 19 43.0**	**+2.3**
DLH	**Dalhousie**	**53.37**	**283**	*e*P	**P**	**00 12 14.0**	**+0.4**
PBA	**Port Blair**	**53.38**	**251**	*e*P	**P**	**00 12 16.8**	**+2.9**
PBA				AMb	AMB	00 12 22.5	
	comp=Z,423nm,2.2s,mb6.0						
MYKOM	**Kota Tinggi**	**53.42**	**233**	⇑P	**P**	**00 12 15.3**	**+1.1**
CRAG	**Craig**	**53.48**	**45**	*e*P	**P**	**00 12 13.3**	**-0.8**
	comp=Z,149nm,1.5s,mb5.7						
WRAK	**Wrangell Islan**	**53.52**	**43**	PFAKE		00 12 30.0	+16
WRAK				LR	LR		
	comp=Z,6µm,20.0s,MS5.7						
KGM	**Kluang**	**53.56**	**233**	⇑P	**P**	**00 12 16.2**	**+1.0**
THN	**Thein Dam**	**53.60**	**283**	*e*P	**P**	**00 12 15.1**	**-0.3**
THN				*e*x	x	00 19 36.3	
SOKR	**Solikamsk**	**53.61**	**321**	*c i*P	**P**	**00 12 14.8**	**-0.2**
SOKR						00 14 19.4	
SOKR				S	**S**	**00 19 45.5**	**-0.3**
SOKR				SS	SS	00 23 30.9	+5.0
SOKR				pmax	pmax		
	comp=Z,630nm,1.0s,mb6.5						
SOKR				MLR	MLR		
	comp=Z,9µm,14.0s,MS6.0						
FRIM	**Kepong**	**53.63**	**236**	⇓P	**P**	**00 12 16.3**	**+0.6**
PONG	**Pong**	**53.68**	**283**	*e*x	x	00 13 15.0	
DLBC	**Dease Lake**	**53.91**	**41**	⇑*e*P	**P**	**00 12 16.9**	**-0.3**
ARU	**Arti**	**53.94**	**317**	P	**P**	**00 12 17.3**	**-0.1**
	comp=Z,4µm,1.1s,mb7.2						
ARU	**Arti**	**53.94**	**317**	⇑*i*P	**P**	**00 12 17.3**	**-0.1**
ARU				LR	LR		
	comp=Z,22µm,22.0s,MS6.2						
ARU	**Arti**	**53.94**	**317**	*c i*P	**P**	**00 12 17.4**	**0.0**
ARU				*e*		00 13 19.0	
ARU				*e*		00 14 15.6	
ARU				*e*S	**S**	**00 19 49.8**	**-0.6**
ARU				*e*		00 21 58.0	
ARU				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.7						
ARU				pmax	pmax		
	comp=N,210nm,1.4s						
ARU				pmax	pmax		
	comp=E,472nm,1.4s						
NDI	**New Delhi**	**54.47**	**279**	*e*P	**P**	**00 12 21.7**	**0.0**
BLSP	**Bilaspur**	**54.50**	**269**	*e*P	**P**	**00 12 21.5**	**-0.5**
KAKA	**Kakadu**	**55.19**	**193**	⇑*i*P	**P**	**00 12 25.4**	**-1.5**
	comp=E,33nm,0.6s,mb5.5						
ALE	**Alert**	**55.26**	**4**	P	**P**	**00 12 25.0**	**-1.7**
	comp=E,670nm,1.2s,mb6.5,SNR=45						
COEN	**Coen**	**55.48**	**180**	*e*P	**P**	**00 12 28.0**	**-1.0**
JBP	**Jabalpur**	**55.50**	**271**	⇑*i*P	**P**	**00 12 30.4**	**+1.2**
JBP				*i* x	x	00 20 07.7	
POHA	**Pohakuloa**	**55.59**	**94**	PFAKE		00 12 40.0	+10
POHA				LR	LR		
	comp=Z,13µm,20.0s,MS6.0						
SPB4	**Spitsbergen Ar**	**56.18**	**349**	*e*P	**P**	**00 12 32.5**	**-0.8**
AB31	**Akbulak array**	**56.19**	**308**	⇑*e*P	**P**	**00 12 33.5**	**-0.3**
AB31	**Akbulak array**	**56.19**	**308**	*i* P	**P**	**00 12 33.4**	**-0.4**
AB31				pmax	pmax		
	comp=Z,300nm,0.9s,mb6.3						
KBS	**Kingsbay**	**56.25**	**350**	⇑*i*P	**P**	**00 12 33.5**	**-0.3**
KBS				LR	LR		
	comp=Z,10µm,20.0s,MS5.9						
KBS	**Kingsbay**	**56.25**	**350**	*c i*P	**P**	**00 12 33.5**	**-0.3**
VIS	**Vishakhapatnam**	**56.27**	**264**	*e*P	**P**	**00 12 34.1**	**-0.7**
VIS				AMb	AMB	00 12 37.5	
	comp=Z,556nm,1.4s,mb6.4						
VIS				*i* S	**S**	**00 20 25.3**	**+2.7**
AKTO	**Aktyubinsk**	**56.77**	**310**	LR	LR	00 38 54.0	
	comp=Z,22µm,19.5s,MS6.3,baz=259,slow=38						
KBL	**Kabul**	**57.31**	**289**	⇑*i*P	**P**	**00 12 41.2**	**-0.8**
BHPL	**Bhopal**	**57.37**	**273**	*e*P	**P**	**00 12 41.5**	**-1.0**
NGP	**Nagpur**	**57.38**	**270**	*e*P	**P**	**00 12 41.7**	**-0.9**
NGP				*e*x	x	00 20 34.2	

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RES   Resolute Bay      57.58  16 eP      P       00 12 40.4 -2.9
RES   Resolute Bay      57.58  16  P      P       00 12 40.8 -2.5
AJM   Ajmer             57.59 278 eP      P       00 12 43.1 -0.9
AJM                                AMb    AMB     00 12 47.4
      comp=Z,2µm,2.2s,mb6.7
PRGR  Permogore         57.69 326⇑iP      P       00 12 44.0 -0.3
PRGR                              eS      S       00 20 40.9 +0.6
PRGR                              eSS     SS      00 24 31.7 +1.6
PRGR                               pmax   pmax
      comp=Z,205nm,0.9s,mb6.2
LVZ   Lovozero          58.45 335  P      P       00 12 49.9 +0.4
      comp=Z,820nm,1.1s,mb6.7,SNR=18
LVZ   Lovozero          58.45 335⇑iP      P       00 12 48.2 -1.3
LVZ                                LR     LR
      comp=Z,15µm,19.0s,MS6.1
LVZ   Lovozero          58.45 335ciP      P       00 12 48.1 -1.4
LVZ                                pmax   pmax
      comp=Z,203nm,1.2s,mb6.0
LVZ                                MLR    MLR
      comp=Z,17µm,23.0s,MS6.1
YKA   Yellowknife Ar    58.89  32  P      P       00 12 51.9 -0.7
YKA                                LR     LR      00 39 50.7
YKA                              ⇑e               00 42 34.7
YKA   Yellowknife Ar    58.89  32  P      P       00 12 51.9 -0.7
      comp=Z,11nm,0.9s,mb4.9,baz=300,slow=6.8,SNR=121
YKA                                LR     LR      00 39 50.7
      comp=Z,4µm,21.7s,MS5.5,baz=235,slow=38
YKA                                PKP2bc         00 42 34.7
      comp=Z,0.7nm,0.9s,baz=122,slow=3.1,SNR=6.4
APA   Apatity           59.03 335⇓iP      P       00 12 52.3 -1.2
APA                               i S     S       00 20 54.0 -3.5
APA                               i               00 22 42.0
APA                                pmax   pmax
      comp=Z,159nm,1.1s,mb6.0
APA                                MLR    MLR
      comp=Z,13µm,18.0s,MS6.1
AKL   Akola             59.17 271 eP      P       00 12 55.2 +0.1
AKL                               i S     S       00 21 00.6  0.0
KEV   Kevo              59.58 339 eP      P       00 12 56.6 -0.7
      comp=Z,84nm,0.6s,mb6.0
KEV                                LR     LR
      comp=Z,15µm,20.0s,MS6.1
KEV   Kevo              59.58 339  P      P       00 12 56.8 -0.5
KEV                                pmax   pmax
      comp=Z,180nm,0.9s,mb6.1
FUNA  Funafuti          59.81 138  PFAKE          00 13 10.0  +10
FUNA                               LR     LR
      comp=Z,14µm,20.0s,MS6.1
HYB   Hyderabad         60.02 267 eP      P       00 13 01.0 -0.1
HYB                               e       pP      00 13 11.5 +0.3
HYB                               e               00 13 46.5
HYB   Hyderabad         60.02 267 i P     P       00 13 01.0 -0.1
      comp=Z,857nm,1.5s,mb6.6
HYB                               epP     pP      00 13 11.5 +0.3
HYB                               ePcP    PcP     00 13 49.5 +2.6
HYB                               ePP     PP      00 15 12.0 -1.6
HYB                               eS      S       00 21 10.0 -1.6
HYB                                LR     LR      00 30 00.0
      comp=Z,9.2nm,20.0s
ARCES ARCESS Array B    60.12 339  P      P       00 13 00.5 -0.5
ARCES                              LR     LR      00 44 28.3
ARCES ARCESS Array B    60.12 339  P      P       00 13 00.5 -0.5
ARCES                              pmax   pmax
      comp=Z,210nm,1.2s
ARCES                              MLR    MLR
      comp=Z,13µm,18.9s
ARCES ARCESS Array B    60.12 339  P      P       00 13 00.5 -0.5
      comp=Z,210nm,1.2s,mb6.0,baz=60,slow=7.2,SNR=51
ARCES                              LR     LR      00 44 28.3
      comp=Z,13µm,18.9s,MS6.1,baz=35,slow=41
ARE0  ARCESS Array S    60.12 339⇑iP      P       00 13 00.4 -0.6
LATR  Latur             60.90 269 i P     P       00 13 05.4 -1.6
KTK1  Kautokeino        61.08 339 eP      P       00 13 07.9 +0.4
KTK1                               AMb    AMB     00 13 10.5
      comp=Z,281nm,1.1s,mb6.3
QUE   Quetta            61.14 286 eP      P       00 13 04.0 -4.6
QUE                               eS      S       00 21 20.0 -5.7
MDRS  Chennai           61.52 262⇑iP      P       00 13 10.9 -0.3
MDRS                              i x     x       00 15 25.5
MDRS                              i S     S       00 21 33.5 +2.8
CTA   Charters Tower    61.62 177 eP      P       00 13 12.1 +0.4
      comp=Z,12nm,1.1s,mb4.9
CTA                               eS      S       00 21 28.3 -3.3
CTA   Charters Tower    61.62 177 eP      P       00 13 12.1 +0.4
CTA                               eS      S       00 21 28.3 -3.3
CTA                                pmax   pmax
      comp=Z,12nm,1.1s
CTAO  Charters Tower    61.62 177 eP      P       00 13 11.9 +0.2
      comp=Z,62nm,1.4s,mb5.5
CTAO                               LR     LR
      comp=Z,2µm,20.0s,MS5.3
CTAO  Charters Tower    61.62 177 eP      P       00 13 11.9 +0.2
CTAO                               pmax   pmax
      comp=Z,62nm,1.4s,mb5.5
CTAO                               MLR    MLR
      comp=Z,2µm,20.0s,MS5.3
TRO   Tromso            61.74 341⇑iP      P       00 13 10.3 -1.7
TRO                                AMb    AMB     00 13 12.9
      comp=Z,365nm,1.2s,mb6.4
TRO                               epP     pP      00 13 19.6 -2.5
FITZ  Fitzroy Crossi    61.85 199⇑iP      P       00 13 12.4 -0.9
      comp=Z,47nm,0.9s,mb5.6
FITZ                              eS      S       00 21 32.2 -2.4
PGC   Sidney            61.92  49 eP      P       00 13 12.7 -0.8
      comp=Z,372nm,1.8s,mb6.2
WB2   Warramunga Arr    62.01 190 eP      P       00 13 11.9 -2.4
WB2                               eS      S       00 21 29.8 -6.7
WRA   Warramunga Arr    62.01 190  P      P       00 13 12.3 -2.0
WRA                                S      S       00 21 30.1 -6.5
WRA                                LR     LR      00 40 27.7
WRA                                P’P’           00 42 22.8
WRA                              ⇑e               00 42 30.1
WRA                                P’P’ab         00 42 38.7
WRA   Warramunga Arr    62.01 190  P      P       00 13 12.3 -2.0
WRA                                S      S       00 21 30.1 -6.5
WRA                                pmax   pmax
      comp=Z,27nm,1.0s
WRA                                smax
      comp=N,7.0nm,1.3s
WRA                                MLR    MLR
      comp=Z,3µm,20.3s
WRA   Warramunga Arr    62.01 190  P      P       00 13 12.3 -2.0
      comp=Z,27nm,1.0s,mb5.3,baz=7.8,slow=6.9,SNR=82
WRA                                S      S       00 21 30.1 -6.5
      comp=Z,6.9nm,1.3s,baz=6.8,slow=12,SNR=5.3
WRA                                LR     LR      00 40 27.7
      comp=Z,3µm,20.3s,MS5.5,baz=10.0,slow=36
WRA                                PKPPKP         00 42 22.8
      comp=Z,1.2nm,1.1s,baz=177,slow=2.8,SNR=5.1
WRA                                PKP2bc         00 42 30.1
      comp=Z,2.4nm,1.0s,baz=193,slow=2.1,SNR=7.1
WRA                                PKP2ab         00 42 38.7
      comp=Z,4.5nm,1.0s,baz=198,slow=2.5,SNR=8.7
B04A  Port Angeles      62.20  49⇑ P      P       00 13 15.4  0.0
      baz=62,SNR=6.3
A04A  Legoe Bay, Lum    62.30  48⇓ P      P       00 13 16.1 +0.1
      baz=62,SNR=15
NLWA  Neilton Lookou    62.35  50  PFAKE          00 13 30.0  +14
NLWA                               LR     LR
      comp=Z,5µm,20.0s,MS5.6
A05A  Maple Falls       62.49  48⇑ P      P       00 13 17.2 -0.2
      baz=62
A05A                             ⇓ S      S       00 21 40.4 -1.8
      baz=62
JOF   Joensuu           62.54 331 ep      P       00 13 16.5 -0.9
      comp=Z,273nm,0.9s,mb6.4
JOF   Joensuu           62.54 331 eP      P       00 13 16.5 -0.9
JOF                                pmax   pmax
      comp=Z,273nm,0.9s,mb6.4
D03A  Wishkah Elem.     62.56  50⇓ P      P       00 13 18.4 +0.6
      baz=62
XMIS  Christmas Isla    62.58 223 eP      P       00 13 16.4 -1.9
C04A  Brinnon           62.69  49⇑ P      P       00 13 18.5 -0.2
      baz=62
A06A  Chilliwack        62.77  47⇓ P      P       00 13 18.7 -0.5
      baz=62,SNR=13
A06A                             ⇓ S      S       00 21 44.2 -1.5
      baz=62
POO   Poona             62.85 271 eP      P       00 13 19.3 -0.9
POO                                AMb    AMB     00 13 22.0
      comp=Z,742nm,1.4s,mb6.6
B05A  Bryant            62.88  48⇓ P      P       00 13 19.8 -0.2
      baz=63,SNR=13
B05A                             ⇓ S      S       00 21 47.2 +0.1
      baz=63
E03A  Lebam             62.99  51⇓ P      P       00 13 20.8 +0.1
      baz=63,SNR=7.3
E03A                             ⇓ S      S       00 21 48.8 +0.3
      baz=63
VAN   Vannovskaya       63.00 298⇑iP      P       00 13 21.1 +0.2
ABKT  Ailbek            63.00 298  P      P       00 13 21.0 +0.1
      comp=Z,2µm,1.0s,mb7.1
B06A  Marblemount       63.09  48  P      P       00 13 21.4 +0.1
      baz=63,SNR=7.4
B06A                             ⇓ S      S       00 21 47.7 -2.0
      baz=63
RPW   Rockport          63.11  48  P      P       00 13 21.0 -0.5
D04A  Dobbs Creek Ra    63.12  50⇓ P      P       00 13 21.7 +0.2
      baz=63
BHJ   Bhuj              63.14 278⇑eP      P       00 13 22.7 +0.7
BHJ                                AMb    AMB     00 13 26.0
      comp=Z,561nm,1.9s,mb6.4
BHJ                               eS      S       00 21 52.8 +1.8
BHJ                               ex      x       00 42 48.1
F03A  Seaside           63.33  51⇑ P      P       00 13 23.6 +0.6
      baz=63
F03A                             ⇓ S      S       00 21 52.8  0.0
      baz=63
KAD   Karad             63.35 270 eP      P       00 13 23.1 -0.4
A07A  Ashnola River,    63.40  47  P      P       00 13 23.2 -0.1
      baz=63,SNR=22
A07A                             ⇓ S      S       00 21 52.9 -0.7
      baz=63
C05A  Tolt Reservoir    63.42  49⇓ P      P       00 13 23.4 -0.1
      baz=63,SNR=11
C05A                             ⇓ S      S       00 21 53.9  0.0
      baz=63
E04A  Onalaska          63.45  50⇓ P      P       00 13 24.5 +0.8
      baz=63
E04A                             ⇑ S      S       00 21 56.7 +2.4
      baz=63
D05A  Enumclaw          63.54  49⇓ P      P       00 13 24.7 +0.4
      baz=63,SNR=7.0
D05A                             ⇓ S      S       00 21 56.9 +1.6
      baz=63
C06A  Tall Timber Ra    63.74  48⇑ P      P       00 13 25.7 +0.1
      baz=64
C06A                             ⇑ S      S       00 21 58.0 +0.1
      baz=64
H02A  Toledo            63.76  53⇓ P      P       00 13 26.7 +0.8
      baz=64
H02A                             ⇑ S      S       00 21 59.6 +1.5
      baz=64
G03A  Yamhill           63.83  52⇓ P      P       00 13 26.5 +0.2
      baz=64
G03A                             ⇑ S      S       00 22 00.1 +1.0
      baz=64
TDL   Tradedollar La    63.87  50  P      P       00 13 27.1 +0.6
B07A  Winthrop          63.87  47⇑ P      P       00 13 26.5  0.0
      baz=64,SNR=33
B07A                             ⇓ S      S       00 21 58.8 -0.7
      baz=64
F04A  Amboy             63.99  51⇓ P      P       00 13 27.4 +0.1
      baz=64,SNR=11
F04A                             ⇓ S      S       00 22 01.4 +0.4
      baz=64
E05A  Randle            64.02  50  P      P       00 13 27.8 +0.3
      baz=64,SNR=12
E05A                             ⇑ S      S       00 22 02.1 +0.8
      baz=64
A08A  Turner Farm, O    64.06  47  P      P       00 13 27.7  0.0
      baz=64,SNR=33
A08A                             ⇓ S      S       00 22 00.0 -1.7
      baz=64
H03A  Soap Creek Ran    64.18  52⇑ P      P       00 13 28.9 +0.3
      baz=64
H03A                             ⇑ S      S       00 22 04.3 +1.0
      baz=64
D06A  Cle Elum          64.18  49⇓ P      P       00 13 28.5 -0.1
      baz=64,SNR=9.9
D06A                             ⇑ S      S       00 22 02.3 -1.0
      baz=64
COR   Corvallis         64.22  52 eP      P       00 13 29.2 +0.3
      comp=Z,88nm,1.0s,mb5.7
COR                               e       pP      00 13 40.8 +1.8
COR                                LR     LR
      comp=Z,3µm,20.0s,MS5.5
COR   Corvallis         64.22  52 eP      P       00 13 29.2 +0.3
COR                               e       pP      00 13 40.8 +1.8
COR                                pmax   pmax
      comp=Z,88nm,1.0s,mb5.7
COR                                MLR    MLR
      comp=Z,3µm,20.0s,MS5.5
I02A  Mapleton          64.23  53⇓ P      P       00 13 29.1 +0.1
      baz=64
TBM   Table Mountain    64.33  49  P      P       00 13 29.9 +0.3
C07A  Waterville        64.34  48  P      P       00 13 29.6 +0.1
      baz=64,SNR=10.0
C07A                             ⇓ S      S       00 22 03.3 -2.0
      baz=64
G04A  Mulino            64.36  51⇓ P      P       00 13 29.6 -0.1
      baz=64
G04A                             ⇓ S      S       00 22 06.6 +1.0
      baz=64
B08A  Colville Reser    64.36  47  P      P       00 13 29.1 -0.6
      baz=64,SNR=18
B08A                             ⇓ S      S       00 22 05.1 -0.4
      baz=64
MOS   Moscow            64.41 323αiP      P       00 13 29.9  0.0
MOS                               e               00 13 36.5
MOS                               e               00 14 05.5
MOS                               e               00 15 48.6
MOS                               i S     S       00 22 05.0 -0.9
MOS                               e               00 22 18.0
MOS                               ePS             00 22 43.1
MOS                               e               00 23 17.2
MOS                                pmax   pmax
      comp=Z,3µm,2.1s,mb7.0
MOS                                pmax   pmax
      comp=N,900nm,2.0s
MOS                                pmax   pmax
      comp=E,700nm,2.0s
MOS                                pmax   pmax
      comp=N,451nm,1.6s
MOS                                pmax   pmax
      comp=E,275nm,1.6s
MOS                                pmax   pmax
      comp=Z,1µm,1.6s,mb6.7
MOS                                MLR    MLR
      comp=Z,20µm,17.0s,MS6.4
MOS                                MLR    MLR
      comp=N,13µm,17.5s,MS6.3
MOS                                MLR    MLR
      comp=E,13µm,16.0s,MS6.3
A09A  Danville          64.42  46  P      P       00 13 30.1  0.0
      baz=64,SNR=38
A09A                             ⇓ S      S       00 22 06.3 +0.1
      baz=64
E06A  Yakima            64.47  50⇑ P      P       00 13 30.7 +0.2
      baz=64,SNR=7.7
E06A                             ⇓ S      S       00 22 06.8 -0.2
      baz=64
EBG   Ellensburg        64.50  49  P      P       00 13 30.9 +0.3
K01A  Sixes             64.52  55⇓ P      P       00 13 31.3 +0.5
      baz=64
KEBM  Edson Butte       64.56  54 eP      P       00 13 32.7 +1.6
KEBM                              epP     pP      00 13 42.8 +1.5
F05A  White Salmon      64.57  50⇓ P      P       00 13 31.2 +0.1
      baz=64
I03A  Eugene            64.58  53⇓ P      P       00 13 31.6 +0.4
      baz=64
I03A                             ⇓ S      S       00 22 09.5 +1.2
      baz=64
EDM   Edmonton          64.63  40 eP      P       00 13 30.7 -0.7
D07A  Quincy            64.67  49  P      P       00 13 31.6 -0.2
      baz=64,SNR=20
D07A                             ⇑ S      S       00 22 08.9 -0.5
      baz=64
J02A  Umpqua            64.75  54⇑ P      P       00 13 32.5 +0.2
      baz=64
J02A                             ⇑ S      S       00 22 10.9 +0.5
      baz=64
H04A  Detroit Lake      64.83  52⇓ P      P       00 13 32.9 +0.1
      baz=65,SNR=14
H04A                             ⇑ S      S       00 22 12.5 +1.1
      baz=65
KAF   Kangasniemi       64.83 332 ep      P       00 13 30.2 -2.3
      comp=E,209nm,0.8s,mb6.2,baz=46,slow=6.1
KAF   Kangasniemi       64.83 332 eP      P       00 13 30.2 -2.3
KAF                                pmax   pmax
      comp=Z,209nm,0.8s,mb6.2
MXC   Moxie City        64.84  49  P      P       00 13 33.3 +0.4
C08A  Higginbotham F    64.85  48  P      P       00 13 32.5 -0.5
      baz=65,SNR=27
C08A                             ⇓ S      S       00 22 11.1 -0.5
      baz=65
PUL   Pulkovo           64.93 329 eP      P       00 13 32.6 -0.6
A10A  Northport         64.97  46⇑ P      P       00 13 33.5 -0.2
      baz=65
A10A                             ⇓ S      S       00 22 14.1 +1.1
      baz=65
B09A  Rice              64.97  47  P      P       00 13 33.7  0.0
      baz=65,SNR=29
B09A                             ⇓ S      S       00 22 12.8 -0.3
      baz=65
PALK  Pallekele         65.01 257  P      P       00 13 34.0 -0.4
      comp=Z,1µm,1.1s,mb6.8,SNR=36
PALK  Pallekele         65.01 257⇑iP      P       00 13 34.4  0.0
      comp=Z,316nm,1.3s,mb6.2
PALK                               LR     LR
      comp=Z,10µm,21.0s,MS6.0
G05A  Wamic             65.02  51⇓ P      P       00 13 34.3 +0.3
      baz=65,SNR=5.7
G05A                             ⇓ S      S       00 22 15.1 +1.4
      baz=65
F06A  Goldendale        65.03  50  P      P       00 13 34.9 +0.8
      baz=65,SNR=6.5
E07A  Sunnyside         65.10  49  P      P       00 13 34.8 +0.2
      baz=65,SNR=24
E07A                             ⇑ S      S       00 22 15.1 +0.4
      baz=65
J03A  Ideyld Park       65.11  53⇑ P      P       00 13 35.1 +0.4
      baz=65
J03A                             ⇑ S      S       00 22 15.5 +0.6
      baz=65
K02A  Glendale          65.14  54  P      P       00 13 35.4 +0.5
      baz=65,SNR=6.5
K02A                             ⇑ S      S       00 22 16.9 +1.6
      baz=65
I04A  Tendick Farm,     65.20  53⇓ P      P       00 13 35.8 +0.5
      baz=65,SNR=8.4
I04A                             ⇑ S      S       00 22 16.4 +0.4
      baz=65
C09A  Chrisman Ranch    65.27  47  P      P       00 13 35.5 -0.1
      baz=65,SNR=21
C09A                             ⇓ S      S       00 22 16.1 -0.6
      baz=65
M01C  Crescent City     65.27  55⇓ P      P       00 13 36.0 +0.2
      baz=65
OBN   Obninsk           65.27 323  P      P       00 13 35.8 +0.3
      comp=Z,3µm,1.4s,mb7.1,SNR=43
OBN   Obninsk           65.27 323⇑iP      P       00 13 35.0 -0.6
OBN                                LR     LR
      comp=Z,22µm,20.0s,MS6.4
OBN   Obninsk           65.27 323αiP      P       00 13 35.1 -0.4
OBN                               i *PP   pP      00 13 44.9 -0.8
OBN                               i *SP   sP      00 13 46.3 -3.3
OBN                               e               00 14 07.6
OBN                               e               00 15 56.2
OBN                               ePPP            00 17 34.0
OBN                               eS      S       00 22 14.5 -2.0
OBN                                PPS            00 22 37.0
OBN                               i SS    SS      00 26 28.4 -0.4
OBN                                pmax   pmax
      comp=Z,933nm,1.2s,mb6.7
OBN                                MLR    MLR
      comp=Z,22µm,20.0s,MS6.4
VRHR  Novokhopersk      65.28 317 eP      P       00 13 35.0 -0.6
VRHR                              eS      S       00 22 16.3 -0.4
VRHR                               pmax   pmax
      comp=Z,210nm,0.9s,mb6.2
VRHR                               pmax   pmax
      comp=N,140nm,1.1s
VRHR                               pmax   pmax
      comp=E,180nm,1.0s
VRHR                               smax
      comp=N,300nm,1.2s
VRHR                               smax
      comp=Z,20nm,1.2s
VRHR                               smax
      comp=E,420nm,2.0s
VRHR                               MLR    MLR
      comp=Z,10µm,18.0s,MS6.0
VRHR                               MLR    MLR
      comp=N,8µm,19.0s,MS6.0
VRHR                               MLR    MLR
      comp=E,5µm,19.0s,MS6.0
D08A  Wollman Farm,     65.34  48  P      P       00 13 36.0 -0.1
      baz=65,SNR=31
D08A                             ⇑ S      S       00 22 16.6 -1.0
      baz=65
FIA1  FINESS Array S    65.36 332⇑iP      P       00 13 35.4 -0.6
FINES FINESS Array B    65.37 332  P      P       00 13 35.5 -0.5
FINES                              S      S       00 22 17.4  0.0
FINES                              LR     LR      00 44 49.4
FINES FINESS Array B    65.37 332  P      P       00 13 35.5 -0.5
FINES                              S      S       00 22 17.4 -0.1
FINES                              pmax   pmax
      comp=Z,225nm,0.8s
FINES                              smax
      comp=N,7.0nm,1.0s
FINES                              MLR    MLR
      comp=Z,21µm,20.2s
FINES FINESS Array B    65.37 332  P      P       00 13 35.5 -0.5
      comp=Z,224nm,0.8s,mb6.2,baz=52,slow=7.5,SNR=530
FINES                              S      S       00 22 17.4  0.0
      comp=Z,6.8nm,1.0s,baz=50,slow=13,SNR=4.5
FINES                              LR     LR      00 44 49.4
      comp=Z,21µm,20.1s,MS6.3,baz=50,slow=38
HAWA  Hanford           65.38  49 eP      P       00 13 36.2 -0.2
      comp=Z,92nm,1.2s,mb5.7
HAWA                               LR     LR
      comp=Z,4µm,22.0s,MS5.5
G06A  Carlson Farm,     65.42  51⇑ P      P       00 13 36.8 +0.2
      baz=65
L02A  Cave Junction     65.42  55⇑ P      P       00 13 37.5 +0.8
      baz=65,SNR=5.1
L02A                             ⇑ S      S       00 22 20.1 +1.4
      baz=65
KOD   Kodaikanal        65.42 262 eP      P       00 13 37.0  0.0
F07A  Phinny Hill Vi    65.44  50⇑ P      P       00 13 37.1 +0.3
      baz=65,SNR=10.0
F07A                             ⇓ S      S       00 22 19.3 +0.4
      baz=65
MOR8  Moi Rana          65.46 340⇑iP      P       00 13 34.9 -1.7
MOR8                               AMb    AMB     00 13 38.2
      comp=Z,559nm,1.2s,mb6.5
MOR8                              epP     pP      00 13 45.0 -1.8
B10A  Chitwood Farm,    65.55  46⇑ P      P       00 13 37.2 -0.2
      baz=65
B10A                             ⇓ S      S       00 22 19.0 -1.1
      baz=65
HUMO  Hull Mountain     65.55  54 eP      P       00 13 38.1 +0.5
      comp=Z,69nm,1.4s,mb5.5
HUMO                               LR     LR
      comp=Z,4µm,22.0s,MS5.6
HUMO  Hull Mountain     65.55  54⇓ P      P       00 13 37.8 +0.2
      baz=65
HUMO                             ⇓ S      S       00 22 21.8 +1.5
      baz=65
E08A  Dider Farm, El    65.59  49⇑ P      P       00 13 37.8 +0.1
      baz=65
A11A  Hall Mountain,    65.62  45⇑ P      P       00 13 38.4 +0.6
      baz=65
A11A                             ⇓ S      S       00 22 20.6 -0.4
      baz=65
NEW   Newport           65.62  46 eP      P       00 13 37.6 -0.3
      comp=Z,78nm,1.1s,mb5.7
NEW                                LR     LR
      comp=Z,5µm,22.0s,MS5.7
NEW   Newport           65.62  46 eP      P       00 13 37.6 -0.3
NEW                                pmax   pmax
      comp=Z,79nm,1.1s
NEW                                MLR    MLR
      comp=Z,5µm,22.0s
NEW   Newport           65.62  46  LR     LR      00 42 09.4
      comp=Z,3µm,21.8s,MS5.5,baz=316,slow=36
MNGI  Mangalore         65.63 266 eP      P       00 13 37.8 -0.6
MNGI                               AMb    AMB     00 13 39.8
      comp=Z,420nm,1.9s,mb6.1
MNGI                              i S     S       00 22 22.2 +0.3
I05A  Bend              65.66  52⇓ P      P       00 13 38.8 +0.5
      baz=65
I05A                             ⇑ S      S       00 22 23.9 +2.2
      baz=65
D09A  Jones Farm, Ri    65.67  48  P      P       00 13 38.0 -0.2
      baz=65,SNR=11
D09A                             ⇑ S      S       00 22 20.7 -1.0
      baz=65
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J04A  Umpqua Nationa   65.70  53 ⇑P      P       00 13 39.1 +0.6
      baz=65,SNR=17
J04A                             ⇑S      S       00 22 23.3 +1.2
      baz=65
JMIC  Jan Mayen        65.74 350  LR     LR      00 42 09.6
      comp=Z,3µm,20.4s,MS5.5,baz=180,slow=36
ASAR  Alice Springs    65.74 190  P      P       00 13 37.5 -1.2
      comp=Z,11nm,0.8s,mb4.9,baz=2.4,slow=5.0,SNR=40
ASAR                              PKPPKP         00 42 15.8
      comp=Z,1.2nm,0.8s,baz=162,slow=5.8,SNR=5.9
C10A  Spilker Farm,    65.78  47 ⇑P      P       00 13 38.7 -0.3
      baz=66,SNR=5.4
C10A                             ⇓S      S       00 22 22.5 -0.5
      baz=66
H06A  Lindquist Farm   65.88  51 ⇑P      P       00 13 39.6  0.0
      baz=66
H06A                             ⇓S      S       00 22 24.9 +0.7
      baz=66
JCC   Jacoby Creek     65.92  56 ⇓P      P       00 13 40.1 +0.1
      baz=66
B11A  Sandpoint        65.93  46 ⇑P      P       00 13 40.2 +0.3
      baz=66
B11A                             ⇓S      S       00 22 25.1 +0.4
      baz=66
G07A  Ruggs Ranch, H   65.95  50 ⇑P      P       00 13 40.5 +0.4
      baz=66
G07A                             ⇓S      S       00 22 26.0 +0.8
      baz=66
A12A  Yaak River Ran   66.01  45 ⇑P      P       00 13 40.4  0.0
      baz=66
E09A  Wood Farm, Sta   66.09  48 ⇑P      P       00 13 40.7 -0.2
      baz=66
E09A                             ⇓S      S       00 22 26.5 -0.3
      baz=66
VOR   Voronezh         66.11 319 eP      P       00 13 39.0 -2.0
VOR                               pmax   pmax
      comp=Z,800nm,1.0s,mb6.7
F08A  Pendleton        66.15  49 ⇑P      P       00 13 41.6 +0.2
      baz=66
F08A                             ⇓S      S       00 22 28.1 +0.5
      baz=66
J05A  Fort Rock        66.19  53 ⇑P      P       00 13 42.2 +0.5
      baz=66,SNR=19
J05A                             ⇓S      S       00 22 29.3 +1.1
      baz=66
YBH   Yreka Blue Hor   66.20  55 eP      P       00 13 42.4 +0.7
      comp=Z,70nm,1.1s,mb5.6
YBH                              epP     pP      00 13 53.6 +1.6
YBH                               LR     LR
      comp=Z,4µm,22.0s,MS5.6
YBH   Yreka Blue Hor   66.20  55 eP      P       00 13 42.4 +0.6
YBH                              e*PP    pP      00 13 53.6 +1.6
YBH                               pmax   pmax
      comp=Z,70nm,1.1s
YBH                               MLR    MLR
      comp=Z,4µm,22.0s
YBH   Yreka Blue Hor   66.20  55 ⇑P      P       00 13 42.1 +0.3
      baz=66
YBH                              ⇓S      S       00 22 29.7 +1.4
      baz=66
D10A  Wagner Farm, O   66.25  48  P      P       00 13 41.5 -0.4
      baz=66,SNR=47
D10A                             ⇑S      S       00 22 27.5 -1.2
      baz=66
K04A  Chilquin         66.28  53 ⇓P      P       00 13 42.5 +0.3
      baz=66
K04A                             ⇓S      S       00 22 29.9 +0.6
      baz=66
M02C  Callahan         66.31  55 ⇓P      P       00 13 43.0 +0.6
      baz=66,SNR=12
M02C                             ⇑S      S       00 22 30.7 +1.0
      baz=66
B12A  Libby            66.33  46 ⇓P      P       00 13 42.8 +0.4
      baz=66
B12A                             ⇓S      S       00 22 30.5 +0.9
      baz=66
G08A  Pilot Rock       66.35  50  P      P       00 13 43.0 +0.4
      baz=66,SNR=15
G08A                             ⇓S      S       00 22 29.9  0.0
      baz=66
MBWA  Marble Bar       66.40 204 eP      P       00 13 41.6 -1.5
      comp=Z,60nm,1.1s,mb5.5
MBWA                              LR     LR
      comp=Z,2µm,22.0s,MS5.4
H07A  Lands Inn, Kim   66.41  51 ⇓P      P       00 13 43.2 +0.2
      baz=66
I06A  Prineville       66.41  52 ⇓P      P       00 13 43.5 +0.4
      baz=66
I06A                             ⇑S      S       00 22 30.8 +0.1
      baz=66
VRSR  Storozhevoye     66.43 318 eP      P       00 13 42.9 -0.1
VRSR                             eS      S       00 22 30.3 -0.4
VRSR                              pmax   pmax
      comp=E,70nm,1.0s
VRSR                              pmax   pmax
      comp=Z,60nm,1.0s,mb5.6
VRSR                              pmax   pmax
      comp=N,60nm,0.9s
VRSR                              smax
      comp=N,10.0nm,1.0s
VRSR                              smax
      comp=E,10.0nm,1.1s
VRSR                              smax
      comp=Z,3.0nm,1.1s
VRSR                              MLR    MLR
      comp=Z,2µm,19.0s,MS5.3
VRSR                              MLR    MLR
      comp=N,910nm,20.0s,MS5.3
VRSR                              MLR    MLR
      comp=E,1µm,17.0s,MS5.3
O01C  Eel River Cons   66.44  57 ⇓P      P       00 13 44.2 +0.9
      baz=66
O01C                             ⇑S      S       00 22 33.0 +1.7
      baz=66
L04A  Klamath Falls    66.44  54 ⇑P      P       00 13 43.7 +0.4
      baz=66
L04A                             ⇑S      S       00 22 31.5 +0.3
      baz=66
VORD  Divnogorie       66.53 318 eP      P       00 13 43.1 -0.6
VORD                              pmax   pmax
      comp=Z,590nm,1.5s,mb6.4
VORD                              pmax   pmax
      comp=N,140nm,0.7s
VORD                              pmax   pmax
      comp=E,130nm,0.8s
VORD                              MLR    MLR
      comp=N,10µm,17.0s,MS6.3
VORD                              MLR    MLR
      comp=E,11µm,16.0s,MS6.3
VORD                              MLR    MLR
      comp=Z,12µm,16.0s,MS6.2
A13A  Flathead Natio   66.67  45 ⇑P      P       00 13 44.5 -0.1
      baz=66
E10A  Myers Farm, Un   66.68  48 ⇓P      P       00 13 44.6 -0.1
      baz=66,SNR=32
E10A                             ⇓S      S       00 22 32.2 -1.7
      baz=66
F09A  S2 Ranch, Elgi   66.69  49 ⇓P      P       00 13 45.1 +0.3
      baz=66
F09A                             ⇓S      S       00 22 35.2 +1.0
      baz=66
M04C  Macdoel          66.70  54 ⇓P      P       00 13 45.4 +0.5
      baz=66,SNR=20
M04C                             ⇑S      S       00 22 35.1 +0.8
      baz=66
K05A  Summer Lake      66.72  53  P      P       00 13 45.9 +0.8
      baz=66,SNR=46
K05A                             ⇑S      S       00 22 35.2 +0.6
      baz=66
I07A  Izee             66.74  51  P      P       00 13 45.8 +0.6
      baz=66,SNR=12
I07A                             ⇑S      S       00 22 35.6 +0.8
      baz=66
D11A  Klaveano Farm,   66.77  47 ⇑P      P       00 13 45.4 +0.1
      baz=66
D11A                             ⇑S      S       00 22 34.5 -0.5
      baz=66
M03C  McCloud          66.83  55 ⇑P      P       00 13 46.4 +0.6
      baz=67
M03C                             ⇓S      S       00 22 36.2 +0.3
      baz=67
MAK   Makhachkala      66.83 307c iP     P       00 13 46.6 +0.8
MAK                              i               00 14 13.8
MAK                              i               00 16 10.8
MAK                              ePPP            00 17 53.7
MAK                              i S     S       00 22 37.1 +1.2
MAK                              eSSS            00 29 53.2
MAK                               pmax   pmax
      comp=Z,547nm,1.5s,mb6.4
MAK                               pmax   pmax
      comp=N,542nm,1.9s
MAK                               pmax   pmax
      comp=E,2µm,2.7s
KIPM  Iron Peak        66.84  57 eP      P       00 13 46.3 +0.4
KCPM  Cahto Peak       66.85  57 eP      P       00 13 46.2 +0.3
J06A  Christmas Vall   66.85  52 ⇑P      P       00 13 46.3 +0.4
      baz=67,SNR=13
J06A                             ⇓S      S       00 22 35.7 -0.4
      baz=67
WALA  Waterton Lakes   66.85  44 eP      P       00 13 45.4 -0.4
      comp=E,49nm,0.9s,mb5.5
F10A  Beach Ranch, E   66.92  48 ⇓P      P       00 13 46.6 +0.3
      baz=67
F10A                             ⇓S      S       00 22 37.2 +0.3
      baz=67
TRD   Trivandrum       66.93 261 eP      P       00 13 46.2 -0.6
TRD                               AMb    AMB     00 13 50.0
      comp=Z,540nm,1.4s,mb6.4
H08A  Prairie City     66.97  50 ⇓P      P       00 13 46.7 +0.1
      baz=67
H08A                             ⇑S      S       00 22 38.1 +0.6
      baz=67
LASM  Arnica Sink      66.97  54  P      P       00 13 47.7 +1.0
WDC   Whiskeytown Da   66.98  56 eP      P       00 13 47.0 +0.2
      comp=Z,68nm,1.0s,mb5.6
WDC                               LR     LR
      comp=Z,3µm,22.0s,MS5.5
WDC   Whiskeytown Da   66.98  56 eP      P       00 13 47.0 +0.3
WDC                               pmax   pmax
      comp=Z,68nm,1.0s,mb5.6
WDC                               MLR    MLR
      comp=Z,3µm,22.0s,MS5.5
WDC   Whiskeytown Da   66.98  56 ⇑P      P       00 13 47.0 +0.3
      baz=67
WDC                              ⇓S      S       00 22 38.3 +0.6
      baz=67
B13A  Whitefish        66.98  45 ⇑P      P       00 13 46.7 +0.1
      baz=67,SNR=55
B13A                             ⇑S      S       00 22 36.0 -1.4
      baz=67
G09A  Cove             67.03  49 ⇑P      P       00 13 46.6 -0.3
      baz=67
O02C  Red Bluff        67.06  56 ⇓P      P       00 13 48.1 +0.9
      baz=67
O02C                             ⇓S      S       00 22 40.6 +1.8
      baz=67
K06A  Valley Falls     67.06  53 ⇑P      P       00 13 47.5 +0.3
      baz=67
K06A                             ⇓S      S       00 22 38.8 +0.1
      baz=67
P01C  Double 8 Ranch   67.13  57 ⇑P      P       00 13 48.4 +0.6
      baz=67
P01C                             ⇓S      S       00 22 41.3 +1.7
      baz=67
L05A  Lakeview         67.16  54 ⇓P      P       00 13 48.4 +0.6
      baz=67
L05A                             ⇑S      S       00 22 41.4 +1.5
      baz=67
VSU   Vasula           67.18 329⇑iP      P       00 13 47.5 -0.2
VSU   Vasula           67.18 329c iP     P       00 13 47.4 -0.3
EIDS  Eidsvold         67.19 173 eP      P       00 13 48.8 +0.8
E11A  Bogner Ranch,    67.26  48 ⇓P      P       00 13 48.6 +0.2
      baz=67
E11A                             ⇑S      S       00 22 40.1 -0.8
      baz=67
J07A  Hines            67.28  52 ⇓P      P       00 13 48.9 +0.3
      baz=67
J07A                             ⇑S      S       00 22 41.8 +0.6
      baz=67
D12A  Red Ives Fores   67.31  47 ⇑P      P       00 13 48.2 -0.5
      baz=67
D12A                             ⇑S      S       00 22 40.7 -0.8
      baz=67
C13A  Hot Springs      67.34  46 ⇑P      P       00 13 49.0 +0.1
      baz=67
C13A                             ⇑S      S       00 22 41.8 -0.1
      baz=67
M05C  Lookout          67.37  54 ⇑P      P       00 13 50.3 +1.1
      baz=67
M05C                             ⇓S      S       00 22 44.2 +1.7
      baz=67
I08A  Drewsey          67.39  51 ⇑P      P       00 13 49.4 +0.1
      baz=67
I08A                             ⇓S      S       00 22 44.2 +1.6
      baz=67
NSS   Namsos           67.40 339 eP      P       00 13 47.1 -1.8
NSS                               AMb    AMB     00 13 52.5
      comp=Z,267nm,1.9s,mb6.0
GASB  Alder Springs    67.41  57 ⇑P      P       00 13 50.6 +1.1
      baz=67
GASB                             ⇑S      S       00 22 43.9 +1.0
      baz=67
H09A  Durkee           67.46  50 ⇓P      P       00 13 49.8 +0.1
      baz=67
H09A                             ⇓S      S       00 22 44.8 +1.5
      baz=67
HATC  Hat Creek Radi   67.50  55 ⇑P      P       00 13 50.9 +0.9
      baz=67
HATC                             ⇓S      S       00 22 45.9 +1.8
      baz=67
BMO   Blue Mountains   67.55  49 eP      P       00 13 50.1 -0.2
      comp=Z,21nm,1.0s,mb5.1
BMO                               LR     LR
      comp=Z,4µm,22.0s,MS5.6
BMO   Blue Mountains   67.55  49  P      P       00 14 00.8  +11
MOD   Modoc            67.56  53 eP      P       00 13 50.7 +0.3
      comp=Z,14nm,0.8s,mb5.0
MOD                               LR     LR
      comp=Z,2µm,21.0s,MS5.4
MOD   Modoc            67.56  53 ⇑P      P       00 13 50.6 +0.2
      baz=67
MOD                              ⇑S      S       00 22 46.2 +1.5
      baz=67
F11A  Grangeville      67.57  48 ⇑P      P       00 13 50.2 -0.2
      baz=67
F11A                             ⇑S      S       00 22 44.9 +0.3
      baz=67
HOPS  Hopland          67.58  57  PFAKE          00 14 00.0 +9.4
HOPS                              LR     LR
      comp=Z,4µm,21.0s,MS5.7
HOPS  Hopland          67.58  57 ⇑P      P       00 13 50.9 +0.4
      baz=67
O03C  Acorn Hollow,    67.64  56 ⇓P      P       00 13 51.2 +0.3
      baz=67
O03C                             ⇑S      S       00 22 45.9 +0.3
      baz=67
K07A  Rock Creek Ran   67.72  52 ⇓P      P       00 13 51.6 +0.3
      baz=67
K07A                             ⇓S      S       00 22 45.5 -1.1
      baz=67
C14A  Swan Lake        67.73  45 ⇓P      P       00 13 51.2 -0.1
      baz=67
D13A  Huson            67.76  46 ⇑P      P       00 13 51.4 -0.2
      baz=68
D13A                             ⇓S      S       00 22 46.4 -0.6
      baz=68
J08A  Circle Bar Ran   67.77  51 ⇓P      P       00 13 51.8 +0.1
      baz=68
J08A                             ⇓S      S       00 22 47.7 +0.5
      baz=68
G11A  Walters Elk Ra   67.80  48 ⇓P      P       00 13 51.5 -0.4
      baz=68
I09A  Lost Marbles R   67.83  50 ⇑P      P       00 13 52.3 +0.2
      baz=68
I09A                             ⇑S      S       00 22 49.7 +1.9
      baz=68
M06C  Likely Place G   67.87  54 ⇓P      P       00 13 52.7 +0.4
      baz=68
M06C                             ⇑S      S       00 22 49.6 +1.1
      baz=68
H10A  Noah's Angus R   68.03  49 ⇑P      P       00 13 53.0 -0.3
      baz=68
O04C  Chester          68.03  55 ⇑P      P       00 13 53.5 +0.2
      baz=68
O04C                             ⇓S      S       00 22 51.1 +0.8
      baz=68
MNRC  McLaughlin Nat   68.04  57 ⇑P      P       00 13 54.0 +0.5
      baz=68
MNRC                             ⇑S      S       00 22 52.1 +1.6
      baz=68
ELFS  Eagle Lake Fie   68.07  55 ⇑P      P       00 13 54.2 +0.6
      baz=68
ELFS                             ⇑S      S       00 22 52.2 +1.4
      baz=68
L07A  Adell            68.07  53 ⇑P      P       00 13 54.1 +0.5
      baz=68
L07A                             ⇑S      S       00 22 52.4 +1.7
      baz=68
K08A  Mann Creek Ran   68.14  52 ⇑P      P       00 13 54.0 -0.1
      baz=68
K08A                             ⇑S      S       00 22 52.6 +1.0
      baz=68
F12A  Elk City         68.15  48 ⇓P      P       00 13 53.6 -0.4
      baz=68
F12A                             ⇑S      S       00 22 52.5 +0.9
      baz=68
NSHM  Saint Helena R   68.15  57 eP      P       00 13 54.3 +0.2
J09A  Fry Pan Ranch,   68.20  51 ⇓P      P       00 13 54.1 -0.3
      baz=68
J09A                             ⇓S      S       00 22 54.1 +1.8
      baz=68
MCCM  Marconi Confer   68.20  58  PFAKE          00 14 10.0  +16
MCCM                              LR     LR
      comp=Z,4µm,21.0s,MS5.6
MCCM  Marconi Confer   68.20  58 ⇑P      P       00 13 54.8 +0.3
      baz=68
MCCM                             ⇑S      S       00 22 52.3 -0.1
      baz=68
MSO   Missoula         68.21  46 eP      P       00 13 54.0 -0.4
      comp=Z,50nm,1.2s,mb5.4
MSO                               LR     LR
      comp=Z,2µm,22.0s,MS5.4
ORV   Oroville         68.23  56 ⇑P      P       00 13 54.9 +0.2
      baz=68
ORV                              ⇓S      S       00 22 52.7  0.0
      baz=68
WVOR  Wild Horse Val   68.23  52 eP      P       00 13 54.5 -0.1
      comp=Z,47nm,1.0s,mb5.5
WVOR                              LR     LR
      comp=Z,3µm,20.0s,MS5.5
WVOR  Wild Horse Val   68.23  52 eP      P       00 13 54.6  0.0
WVOR                              pmax   pmax
      comp=Z,47nm,1.0s,mb5.5
WVOR                              MLR    MLR
      comp=Z,3µm,20.0s,MS5.5
D14A  Greenough        68.28  46 ⇑P      P       00 13 54.4 -0.5
      baz=68
D14A                             ⇓S      S       00 22 53.0 -0.1
      baz=68
I10A  Payette          68.30  50 ⇑P      P       00 13 55.1 +0.1
      baz=68
E13A  Victor           68.31  47 ⇑P      P       00 13 54.4 -0.7
      baz=68
E13A                             ⇓S      S       00 22 53.5  0.0
      baz=68
O05C  Quincy           68.34  55 ⇑P      P       00 13 55.4  0.0
      baz=68
O05C                             ⇑S      S       00 22 55.4 +1.3
      baz=68
CVS   Carmenet Viney   68.35  58 ⇑P      P       00 13 55.7 +0.2
      baz=68
CVS                              ⇓S      S       00 22 54.9 +0.7
      baz=68
OHCM  Honcut           68.37  56 eP      P       00 13 56.0 +0.5
H11A  Donnelly         68.37  49 ⇑P      P       00 13 55.0 -0.4
      baz=68
H11A                             ⇑S      S       00 22 54.5 +0.2
      baz=68
FARB  Farallon Islan   68.39  58 ⇑P      P       00 13 55.9 +0.3
      baz=68
FARB                             ⇑S      S       00 22 54.1 -0.6
      baz=68
Q03C  Winters          68.46  57 ⇓P      P       00 13 56.4 +0.3
      baz=68
Q03C                             ⇑S      S       00 22 56.2 +0.7
      baz=68
CHMT  Chamberlain Mo   68.53  46 eP      P       00 13 55.9 -0.5
N06A  Buffalo Meadow   68.53  54 ⇑P      P       00 13 56.7 +0.2
      baz=68
N06A                             ⇓S      S       00 22 56.5 +0.2
      baz=68
M07A  Soldier Meadow   68.55  53 ⇑P      P       00 13 56.9 +0.3
      baz=68
M07A                             ⇓S      S       00 22 56.9 +0.4
      baz=68
L08A  Fields           68.55  52 ⇑P      P       00 13 56.9 +0.3
      baz=68
L08A                             ⇑S      S       00 22 57.5 +0.9
      baz=68
K09A  Rome             68.61  51 ⇓P      P       00 13 57.2 +0.3
      baz=68
K09A                             ⇓S      S       00 22 56.9 -0.2
      baz=68
F13A  Darby            68.64  47 ⇑P      P       00 13 56.5 -0.6
      baz=68
F13A                             ⇑S      S       00 22 57.8 +0.4
      baz=68
E14A  Clinton          68.71  46 ⇑P      P       00 13 57.0 -0.5
      baz=68
E14A                             ⇑S      S       00 22 58.5 +0.3
      baz=68
J10A  Berg Farm, Mel   68.72  50 ⇑P      P       00 13 57.2 -0.4
      baz=68
J10A                             ⇑S      S       00 22 59.0 +0.5
      baz=68
Q04C  Lincoln          68.73  57 ⇓P      P       00 13 58.1 +0.3
      baz=68
Q04C                             ⇓S      S       00 22 59.8 +1.1
      baz=68
BEKR  Beckwourth       68.74  55 ⇑P      P       00 13 58.3 +0.4
      baz=68
BEKR                             ⇑S      S       00 22 58.7 -0.1
      baz=68
COCO  West Island      68.76 230 eP      P       00 13 57.7 -0.4
      comp=Z,1µm,1.8s,mb6.5
COCO                              LR     LR
      comp=Z,2µm,21.0s,MS5.3
D15A  Lincoln          68.84  45 ⇓P      P       00 13 57.8 -0.5
      baz=68
D15A                             ⇓S      S       00 22 59.3 -0.4
      baz=68
FFC   Flin Flon        68.84  34  P      P       00 13 57.3 -0.9
      comp=Z,451nm,1.4s,mb6.2,SNR=33
I11A  Placerville      68.89  50 ⇑P      P       00 13 59.0 +0.4
      baz=69
I11A                             ⇓S      S       00 23 00.6 +0.1
      baz=69
O06A  Flanigan         68.89  55 ⇑P      P       00 13 59.6 +0.9
      baz=69
O06A                             ⇓S      S       00 23 01.3 +0.7
      baz=69
P05C  Yuba Gap, Truc   68.93  56 ⇑P      P       00 13 59.4 +0.4
      baz=69
P05C                             ⇑S      S       00 23 01.9 +0.8
      baz=69
BDM   Black Diamond    68.96  58 ⇑P      P       00 13 59.8 +0.6
      baz=69
BDM                              ⇓S      S       00 23 01.3 -0.2
      baz=69
M08A  Happy Creek Ra   68.98  53 ⇑P      P       00 13 60.0 +0.7
      baz=69
M08A                             ⇓S      S       00 23 02.4 +0.8
      baz=69
DGRG  David-gareji     69.00 307  P      P       00 14 00.3 +0.8
DGRG                              S      S       00 23 04.2 +2.3
FCC   Fort Churchill   69.03  28 eP      P       00 13 58.2 -1.1
      comp=Z,126nm,1.0s,mb5.8
FCC   Fort Churchill   69.03  28 eP      P       00 13 58.2 -1.1
FCC                               pmax   pmax
      comp=Z,126nm,1.0s,mb5.8
KIV   Kislovodsk       69.03 311  P      P       00 14 00.1 +0.5
      comp=Z,5µm,1.0s,mb7.4
KIV   Kislovodsk       69.03 311c iP     P       00 14 00.4 +0.8
KIV                              e               00 14 16.7
KIV                              i               00 16 32.3
KIV                              i S     S       00 23 05.1 +3.0
KIV                              i SS    SS      00 27 29.0 +1.5
KIV                               pmax   pmax
      comp=Z,1µm,1.0s,mb6.8
N07B  Gerlach          69.04  54 ⇑P      P       00 14 00.1 +0.5
      baz=69
N07B                             ⇓S      S       00 23 02.8 +0.5
      baz=69
JRSC  Jasper Ridge     69.05  58 ⇓P      P       00 13 59.9 +0.1
      baz=69
L09A  Wilkinson Ranc   69.06  52 ⇑P      P       00 14 00.2 +0.4
      baz=69
L09A                             ⇓S      S       00 23 02.6  0.0
      baz=69
K10A  MacKenzie Ranc   69.06  51 ⇑P      P       00 14 00.1 +0.4
      baz=69
K10A                             ⇑S      S       00 23 02.8 +0.3
      baz=69
AFI   Afiamalu         69.06 133  PFAKE          00 14 10.0  +10
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AFI				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
ZEI	**Tsey**	**69.06**	**309**	eP	**P**	**00 13 59.6**	**-0.2**
ZEI				e*PP	pP	00 14 11.2	+1.2
ZEI				e		00 16 30.6	
ZEI				eS	S	00 23 00.1	-2.5
ZEI				pmax	pmax		
	comp=Z,257nm,0.9s,mb6.2						
ZEI				smax			
	comp=E,66nm,2.0s						
H12A	**Diamond D Ranc**	**69.12**	**49**	⇓P	**P**	**00 13 59.9**	**-0.2**
	baz=69						
H12A				⇑S	S	00 23 02.5	-0.6
	baz=69						
G13A	**Cobalt**	**69.12**	**48**	⇑P	**P**	**00 13 59.5**	**-0.6**
	baz=69						
G13A				⇑S	S	00 23 02.6	-0.6
	baz=69						
P06A	**Stead Airport,**	**69.14**	**55**	⇓P	**P**	**00 14 00.8**	**+0.5**
	baz=69						
P06A				⇑S	S	00 23 04.0	+0.5
	baz=69						
F14A	**Wisdom**	**69.15**	**47**	⇑P	**P**	**00 13 60.0**	**-0.3**
	baz=69						
F14A				⇑S	S	00 23 03.5	+0.1
	baz=69						
E15A	**Deer Lodge**	**69.16**	**46**	⇑P	**P**	**00 13 60.0**	**-0.3**
	baz=69						
E15A				⇓S	S	00 23 03.3	-0.3
	baz=69						
LAVA	**Lava Cap Winer**	**69.18**	**56**	⇑P	**P**	**00 14 01.1**	**+0.5**
	baz=69						
LAVA				⇓S	S	00 23 05.2	+1.1
	baz=69						
MTA	**Mtatsminda**	**69.20**	**308**	P	**P**	**00 14 01.4**	**+0.8**
MTA				S	S	00 23 06.3	+2.2
TBLG	**Delisi**	**69.21**	**308**	P	**P**	**00 14 01.7**	**+1.0**
WENL	**Wente Brothers**	**69.22**	**58**	⇓P	**P**	**00 14 01.1**	**+0.3**
	baz=69						
WENL				⇑S	S	00 23 05.2	+0.6
	baz=69						
BNLO	**Ben Lomond (Sa**	**69.26**	**58**	⇑P	**P**	**00 14 01.0**	**-0.1**
	baz=69						
MFID	**Camas Ranch**	**69.27**	**50**	⇑P	**P**	**00 14 01.0**	**0.0**
	baz=69						
MFID				⇑S	S	00 23 05.5	+0.5
	baz=69						
R04C	**Big Horse Ranc**	**69.36**	**57**	⇓P	**P**	**00 14 02.1**	**+0.4**
	baz=69						
R04C				⇓S	S	00 23 06.0	-0.2
	baz=69						
GOR	**Gori**	**69.42**	**308**	P	**P**	**00 14 03.5**	**+1.5**
ONI	**Oni**	**69.44**	**309**	P	**P**	**00 14 03.5**	**+1.4**
ONI				S	S	00 23 10.5	+3.5
H13A	**Challis**	**69.44**	**48**	⇓P	**P**	**00 14 02.1**	**0.0**
	baz=69						
H13A				⇓S	S	00 23 06.8	-0.2
	baz=69						
WCN	**Washoe City**	**69.46**	**55**	⇓P	**P**	**00 14 03.2**	**+0.9**
	baz=69						
WCN				⇑S	S	00 23 08.0	+0.7
	baz=69						
G14A	**Jackson**	**69.46**	**47**	⇑P	**P**	**00 14 01.6**	**-0.6**
	baz=69						
G14A				⇑S	S	00 23 06.0	-1.1
	baz=69						
O07A	**Toulon**	**69.47**	**54**	⇑P	**P**	**00 14 02.7**	**+0.4**
	baz=69						
O07A				⇓S	S	00 23 08.6	+1.1
	baz=69						
MNK	**Minsk**	**69.49**	**326**	⇑iP	**P**	**00 14 01.0**	**-1.2**
MNK				e		00 14 14.0	
MNK				eS	S	00 23 04.0	-3.2
MNK				e		00 23 50.0	
MNK				pmax	pmax		
	comp=N,1µm,1.0s						
MNK				pmax	pmax		
	comp=Z,1µm,1.0s,mb6.8						
MNK				pmax	pmax		
	comp=E,1µm,1.0s						
MNK				MLR	MLR		
	comp=E,19µm,18.0s,MS6.6						
MNK				MLR	MLR		
	comp=Z,41µm,18.0s,MS6.7						
MNK				MLR	MLR		
	comp=N,21µm,18.0s,MS6.6						
N08A	**GE Springer Mi**	**69.54**	**53**	⇓P	**P**	**00 14 03.0**	**+0.2**
	baz=69						
N08A				⇑S	S	00 23 08.1	-0.1
	baz=69						
K11A	**Parker Ranch,**	**69.55**	**51**	⇑P	**P**	**00 14 02.8**	**0.0**
	baz=69						
K11A				⇑S	S	00 23 08.4	+0.1
	baz=69						
M09A	**Marrel Ranch,**	**69.55**	**52**	⇓P	**P**	**00 14 03.1**	**+0.3**
	baz=69						
S04C	**Ingram Canyon,**	**69.57**	**58**	⇑P	**P**	**00 14 03.5**	**+0.5**
	baz=69						
S04C				⇑S	S	00 23 08.4	-0.2
	baz=69						
F15A	**Butte**	**69.61**	**46**	⇓P	**P**	**00 14 03.1**	**0.0**
	baz=69						
F15A				⇑S	S	00 23 08.6	-0.3
	baz=69						
R05C	**Kirkwood Meado**	**69.62**	**56**	⇑P	**P**	**00 14 03.8**	**+0.5**
	baz=69						
R05C				⇓S	S	00 23 09.6	+0.3
	baz=69						
EGMT	**Eagleton**	**69.66**	**43**	eP	**P**	**00 14 03.0**	**-0.3**
	comp=N,101nm,0.9s,mb5.8						
EGMT				LR	LR		
	comp=Z,5µm,22.0s,MS5.7						
EGMT	**Eagleton**	**69.66**	**43**	⇑P	**P**	**00 14 03.2**	**-0.2**
	baz=69						
EGMT				⇓S	S	00 23 09.4	0.0
	baz=69						
L10A	**Juniper Basin**	**69.72**	**51**	⇑P	**P**	**00 14 04.2**	**+0.3**
	baz=69						
L10A				⇓S	S	00 23 10.6	+0.2
	baz=69						
J12A	**Stokes Ranch,**	**69.79**	**50**	⇓P	**P**	**00 14 04.3**	**+0.1**
	baz=70						
J12A				⇓S	S	00 23 12.4	+1.3
	baz=70						
O08A	**Rochester Mine**	**69.83**	**54**	⇑P	**P**	**00 14 04.7**	**+0.2**
	baz=70						
O08A				⇑S	S	00 23 11.9	+0.3
	baz=70						
CMB	**Columbia Colle**	**69.84**	**57**	eP	**P**	**00 14 04.5**	**-0.1**
	comp=Z,42nm,1.0s,mb5.3						
CMB				LR	LR		
	comp=Z,4µm,21.0s,MS5.6						
CMB	**Columbia Colle**	**69.84**	**57**	eP	**P**	**00 14 04.5**	**-0.2**
CMB				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
CMB				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.6						
CMB	**Columbia Colle**	**69.84**	**57**	⇑P	**P**	**00 14 04.9**	**+0.3**
	baz=70						
CMB				⇓S	S	00 23 11.8	0.0
	baz=70						
P07A	**Fallon**	**69.84**	**55**	⇑S	S	00 23 12.9	+1.0
	baz=70						
DLMT	**Dillon**	**69.86**	**47**	eP	**P**	**00 14 04.9**	**+0.3**
	comp=Z,153nm,1.1s,mb5.8						
N09A	**Rock Creek Ran**	**69.86**	**53**	⇑P	**P**	**00 14 05.3**	**+0.6**
	baz=70						
N09A				⇓S	S	00 23 11.2	-0.8
	baz=70						
PACP	**Pacheco Peak**	**69.89**	**58**	⇓P	**P**	**00 14 05.3**	**+0.3**
	baz=70						
PACP				⇑S	S	00 23 12.7	+0.2
	baz=70						
I13A	**Wildhorse Cree**	**69.93**	**49**	⇑P	**P**	**00 14 05.2**	**+0.1**
	baz=70						
I13A				⇑S	S	00 23 12.6	-0.1
	baz=70						
SAO	**San Andreas Ge**	**69.94**	**58**	eP	**P**	**00 14 04.8**	**-0.5**
	comp=Z,80nm,1.5s,mb5.4						
SAO				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
SAO	**San Andreas Ge**	**69.94**	**58**	eP	**P**	**00 14 04.8**	**-0.5**
SAO				pmax	pmax		
	comp=Z,80nm,1.5s,mb5.4						
SAO				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.5						
HLID	**Hailey**	**69.98**	**49**	eP	**P**	**00 14 05.5**	**0.0**
	comp=Z,32nm,1.1s,mb5.2						
HLID				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
HLID	**Hailey**	**69.98**	**49**	⇑P	**P**	**00 14 05.7**	**+0.2**
	baz=70						
HLID				⇓S	S	00 23 13.0	-0.4
	baz=70						
M10A	**I.L. Ranch, Tu**	**70.03**	**52**	⇓P	**P**	**00 14 06.2**	**+0.4**
	baz=70						
M10A				⇑S	S	00 23 14.2	+0.2
	baz=70						
G15A	**Dillon**	**70.04**	**47**	⇓P	**P**	**00 14 05.7**	**-0.1**
	baz=70						
G15A				⇓S	S	00 23 13.8	-0.1
	baz=70						
MCMT	**McKenzie Canyo**	**70.06**	**47**	eP	**P**	**00 14 05.9**	**+0.1**
L11A	**Cat Creek Ranc**	**70.09**	**51**	⇓P	**P**	**00 14 06.6**	**+0.5**
	baz=70						
L11A				⇓S	S	00 23 15.4	+0.8
	baz=70						
HAST	**UC Hastings Re**	**70.10**	**59**	⇓P	**P**	**00 14 06.7**	**+0.4**
	baz=70						
HAST				⇓S	S	00 23 14.3	-0.7
	baz=70						
R06C	**Coleville**	**70.12**	**56**	⇓P	**P**	**00 14 07.0**	**+0.6**
	baz=70						
R06C				⇓S	S	00 23 16.3	+1.2
	baz=70						
DOMB	**Dombas**	**70.19**	**339**	⇑iP	**P**	**00 14 06.0**	**-0.4**
DOMB				AMb	AMB	00 14 08.6	
	comp=Z,364nm,1.6s,mb6.0						
DOMB				epP	pP	00 14 15.6	-1.1
BOZ	**Bozeman (W)**	**70.20**	**46**	⇑eP	**P**	**00 14 06.8**	**0.0**
	comp=Z,40nm,0.8s,mb5.4						
BOZ				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
BOZ	**Bozeman (W)**	**70.20**	**46**	⇑eP	**P**	**00 14 06.8**	**+0.1**
BOZ				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.4						
BOZ				MLR	MLR		
	comp=Z,3µm,22.0s,MS5.6						
BOZ	**Bozeman (W)**	**70.20**	**46**	⇓P	**P**	**00 14 06.7**	**0.0**
	baz=70						
BOZ				⇓S	S	00 23 16.2	+0.4
	baz=70						
J13A	**Cove Ranch, Pi**	**70.22**	**49**	⇓P	**P**	**00 14 07.3**	**+0.4**
	baz=70						
J13A				⇑S	S	00 23 17.0	+0.8
	baz=70						
P08A	**Dixie Valley**	**70.24**	**54**	⇓P	**P**	**00 14 07.4**	**+0.3**
	baz=70						
P08A				⇑S	S	00 23 18.1	+1.6
	baz=70						
Q07A	**Schurz**	**70.26**	**55**	⇑S	S	00 23 17.4	+0.7
	baz=70						
S06C	**San Francisco**	**70.27**	**57**	⇓P	**P**	**00 14 07.4**	**+0.1**
	baz=70						
S06C				⇓S	S	00 23 16.7	-0.2
	baz=70						
K12A	**Draper Farm, C**	**70.28**	**50**	⇓P	**P**	**00 14 07.4**	**+0.1**
	baz=70						
K12A				⇑S	S	00 23 16.8	-0.1
	baz=70						
S05C	**Merced**	**70.29**	**57**	⇑P	**P**	**00 14 07.5**	**+0.1**
	baz=70						
S05C				⇑S	S	00 23 16.3	-0.9
	baz=70						
T05C	**Eagle Field, D**	**70.35**	**58**	⇑P	**P**	**00 14 08.6**	**+0.8**
	baz=70						
T05C				⇑S	S	00 23 18.9	+1.0
	baz=70						
NB2	**NORSAR Subarra**	**70.42**	**338**	P	**P**	**00 14 07.3**	**-0.5**
	comp=Z,770nm,1.4s,mb6.4,baz=35,slow=6.2						
NOA	**NORSAR Array B**	**70.42**	**338**	P	**P**	**00 14 07.3**	**-0.5**
NOA				LR	LR	00 48 46.3	
NOA	**NORSAR Array B**	**70.42**	**338**	P	**P**	**00 14 07.3**	**-0.5**
NOA				pmax	pmax		
	comp=Z,134nm,0.9s						
NOA				MLR	MLR		
	comp=Z,13µm,20.1s						
NOA	**NORSAR Array B**	**70.42**	**338**	P	**P**	**00 14 07.3**	**-0.5**
	comp=Z,134nm,0.9s,mb5.9,baz=36,slow=6.1,SNR=109						
NOA				LR	LR	00 48 46.3	
	comp=Z,13µm,20.1s,MS6.2,baz=0.0,slow=39						
O09A	**Fish Creek Ran**	**70.48**	**53**	⇑P	**P**	**00 14 09.0**	**+0.4**
	baz=70						
O09A				⇑S	S	00 23 19.3	0.0
	baz=70						
M11A	**Holland Ranch,**	**70.53**	**52**	⇑P	**P**	**00 14 09.3**	**+0.5**
	baz=70						
M11A				⇓S	S	00 23 19.8	0.0
	baz=70						
L12A	**House Creek Ra**	**70.53**	**51**	⇓P	**P**	**00 14 09.2**	**+0.4**
	baz=70						
L12A				⇓S	S	00 23 20.9	+1.1
	baz=70						
V03C	**Hunter Liggett**	**70.53**	**59**	⇓P	**P**	**00 14 09.5**	**+0.5**
	baz=70						
V03C				⇓S	S	00 23 19.2	-0.8
	baz=70						
N10A	**Dunphy**	**70.55**	**53**	⇓P	**P**	**00 14 09.7**	**+0.8**
	baz=70						
N10A				⇓S	S	00 23 21.0	+1.0
	baz=70						
U04C	**Hernandez Rese**	**70.61**	**58**	⇓P	**P**	**00 14 10.2**	**+0.8**
	baz=70						
U04C				⇑S	S	00 23 20.8	-0.1
	baz=70						
R07C	**Lee Vining**	**70.64**	**56**	⇓P	**P**	**00 14 10.4**	**+0.9**
	baz=70						
R07C				⇑S	S	00 23 22.0	+0.8
	baz=70						
NAO01	**NORSAR Array S**	**70.67**	**338**	⇑iP	**P**	**00 14 08.6**	**-0.8**
	comp=Z,267nm,1.3s,mb6.0						
NAO01				LR	LR		
	comp=Z,15µm,20.0s,MS6.2						
K13A	**Stover Farm, H**	**70.75**	**50**	⇓P	**P**	**00 14 10.2**	**+0.1**
	baz=70						
K13A				⇓S	S	00 23 22.4	+0.2
	baz=70						
O10A	**Cortez Mining,**	**70.82**	**53**	⇑P	**P**	**00 14 11.1**	**+0.5**
	baz=70						
O10A				⇑S	S	00 23 23.3	+0.1
	baz=70						
QLMT	**Earthquake Lak**	**70.83**	**47**	eP	**P**	**00 14 10.8**	**+0.2**
Q08A	**Gabbs**	**70.85**	**55**	⇑P	**P**	**00 14 11.2**	**+0.4**
	baz=71						
Q08A				⇓S	S	00 23 24.4	+0.8
	baz=71						
NVAR	**Mina Array Bea**	**70.89**	**55**	P	**P**	**00 14 11.7**	**+0.6**
	comp=Z,34nm,0.8s,mb5.3,baz=296,slow=4.5,SNR=148						
T06C	**Millerton Lake**	**70.89**	**57**	⇓P	**P**	**00 14 11.5**	**+0.4**
	baz=71						
T06C				⇑S	S	00 23 23.9	-0.3
	baz=71						
P09A	**Austin**	**70.90**	**54**	⇓P	**P**	**00 14 11.6**	**+0.5**
	baz=71						
P09A				⇑S	S	00 23 24.4	+0.2
	baz=71						
SOC	**Sochi**	**70.94**	**312**	i P	**P**	**00 14 11.7**	**+0.4**
SOC	**Sochi**	**70.94**	**312**	c iP	**P**	**00 14 11.5**	**+0.2**
SOC				e*PP	pP	00 14 20.7	-0.9
SOC				e		00 16 54.8	
SOC				ePPP		00 18 30.3	
SOC				eS	S	00 23 26.3	+1.8
SOC				e		00 23 53.2	
SOC				e		00 24 04.6	
SOC				eSS	SS	00 28 03.5	+6.7
SOC				eSSS		00 31 04.0	
SOC				pmax	pmax		
	comp=Z,461nm,1.5s,mb6.2						
SOC				pmax	pmax		
	comp=Z,2µm,3.2s						
SOC				MLR	MLR		
	comp=Z,23µm,20.0s,MS6.4						
KCC	**Kaiser Creek**	**70.94**	**57**	⇓P	**P**	**00 14 11.7**	**+0.2**
	baz=71						
KCC				⇑S	S	00 23 24.4	-0.3
	baz=71						
N11A	**Elko Archery C**	**70.94**	**52**	⇓P	**P**	**00 14 11.7**	**+0.3**
	baz=71						
N11A				⇑S	S	00 23 24.9	+0.2
	baz=71						
SFJD	**Kangerlussuaq**	**71.00**	**6**	⇑eP	**P**	**00 14 10.3**	**-0.9**
	comp=Z,83nm,0.9s,mb5.7						
SFJD				LR	LR		
	comp=Z,8µm,20.0s,MS6.0						
SFJD	**Kangerlussuaq**	**71.00**	**6**	⇑iP	**P**	**00 14 10.4**	**-0.8**
SFJD				i S	S	00 23 24.1	-0.3
SFJD				pmax	pmax		
	comp=Z,98nm,0.9s,mb5.7						
SFJD				MLR	MLR		
	comp=Z,7µm,19.0s,MS5.9						
SFJD	**Kangerlussuaq**	**71.00**	**6**	⇑iP	**P**	**00 14 10.4**	**-0.8**
	comp=Z,98nm,0.9s,mb5.7						
SFJD				i S	S	00 23 24.1	-0.3
SFJD							
	comp=Z,7µm,19.0s						
PKD	**Parkfield**	**71.02**	**59**	⇓P	**P**	**00 14 12.0**	**+0.1**
	baz=71						
PKD				⇓S	S	00 23 25.6	-0.1
	baz=71						
M12A	**Wells**	**71.05**	**51**	⇑P	**P**	**00 14 12.4**	**+0.4**
	baz=71						
M12A				⇓S	S	00 23 26.0	+0.2
	baz=71						
U05C	**Westside ANR,**	**71.05**	**58**	⇑P	**P**	**00 14 12.7**	**+0.6**
	baz=71						
U05C				⇓S	S	00 23 27.4	+1.4
	baz=71						
MLAC	**Mammoth Lakes**	**71.05**	**56**	⇓P	**P**	**00 14 13.1**	**+1.1**
	baz=71						
MLAC				⇓S	S	00 23 27.1	+1.1
	baz=71						
R08A	**Mina**	**71.06**	**55**	⇑P	**P**	**00 14 13.0**	**+0.9**
	baz=71						
R08A				⇑S	S	00 23 26.5	+0.5
	baz=71						
GCMT	**Greycliff**	**71.15**	**45**	eP	**P**	**00 14 12.6**	**+0.1**
L13A	**Double Diamond**	**71.18**	**50**	⇓P	**P**	**00 14 13.3**	**+0.5**
	baz=71						
L13A				⇓S	S	00 23 28.8	+1.4
	baz=71						
YMR	**Madison River**	**71.19**	**47**	⇑eP	**P**	**00 14 13.2**	**+0.5**
	comp=Z,138nm,1.3s,mb5.7						
YMR				LR	LR		
	comp=Z,5µm,21.0s,MS5.8						
BANOM	**Banah**	**71.25**	**288**	⇑P	**P**	**00 14 13.8**	**+0.3**
	SNR=19						
P10A	**Eureka**	**71.26**	**53**	⇑P	**P**	**00 14 13.7**	**+0.4**
	baz=71						
P10A				⇑S	S	00 23 29.4	+1.0
	baz=71						
ELK	**Elko**	**71.28**	**52**	eP	**P**	**00 14 13.5**	**+0.1**
	comp=Z,16nm,0.8s,mb5.0						
ELK				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
ELK	**Elko**	**71.28**	**52**	eP	**P**	**00 14 13.5**	**+0.1**
ELK				pmax	pmax		
	comp=Z,16nm,0.8s						
ELK				MLR	MLR		
	comp=Z,2µm,19.0s						
YNR	**Norris Junctio**	**71.31**	**46**	eP	**P**	**00 14 14.7**	**+1.2**
Q09A	**Carvers**	**71.32**	**54**	⇓P	**P**	**00 14 14.2**	**+0.5**
	baz=71						
Q09A				⇑S	S	00 23 29.8	+0.7
	baz=71						
K14A	**Jones Ranch, D**	**71.33**	**49**	⇑P	**P**	**00 14 14.1**	**+0.4**
	baz=71						
K14A				⇓S	S	00 23 29.9	+0.9
	baz=71						
N12A	**Clover Valley,**	**71.33**	**52**	⇓P	**P**	**00 14 14.0**	**+0.3**
	baz=71						
N12A				⇑S	S	00 23 29.4	+0.3
	baz=71						
WBK	**Wadi Bani Khal**	**71.37**	**284**	⇑P	**P**	**00 14 15.3**	**+1.1**
	SNR=60						
MTUM	**Tungsten Hills**	**71.39**	**56**	eP	**P**	**00 14 15.1**	**+1.0**
YFT	**Old Faithful**	**71.40**	**47**	eP	**P**	**00 14 15.7**	**+1.6**
ANN	**Anapa**	**71.41**	**314**	i P	**P**	**00 14 13.9**	**-0.2**
ANN	**Anapa**	**71.41**	**314**	c iP	**P**	**00 14 13.8**	**-0.3**
ANN				e		00 16 50.9	
ANN				ePPP		00 18 30.5	
ANN				eS	S	00 23 29.1	-0.8
ANN				pmax	pmax		
	comp=Z,559nm,1.7s,mb6.2						
BIDO	**Bidbid**	**71.42**	**285**	⇑P	**P**	**00 14 15.7**	**+1.2**
	SNR=50						
O11A	**Cowboy Ranch,**	**71.42**	**53**	⇑P	**P**	**00 14 14.5**	**+0.3**
	baz=71						
O11A				⇓S	S	00 23 30.6	+0.4
	baz=71						
OSL	**Oslo**	**71.46**	**337**	eP	**P**	**00 14 14.3**	**+0.2**
OSL				AMb	AMB	00 14 16.1	
	comp=Z,341nm,1.3s,mb6.1						
V05C	**Boulder Hill,**	**71.47**	**58**	⇓P	**P**	**00 14 15.5**	**+0.8**
	baz=71						
V05C				⇓S	S	00 23 31.4	+0.4
	baz=71						
M13A	**Montello**	**71.52**	**51**	⇓P	**P**	**00 14 14.9**	**+0.1**
	baz=71						
M13A				⇑S	S	00 23 32.2	+1.0
	baz=71						
AKASG	**Malin Array Be**	**71.53**	**322**	P	**P**	**00 14 14.3**	**-0.4**
AKASG				PP	PP	00 16 51.3	-1.7
AKASG				S	S	00 23 31.1	0.0
AKASG				LR	LR	00 49 53.0	
AKASG	**Malin Array Be**	**71.53**	**322**	P	**P**	**00 14 14.3**	**-0.4**
AKASG						00 16 51.3	
AKASG				S	S	00 23 31.1	+0.1
AKASG				pmax	pmax		
	comp=Z,116nm,0.7s						
AKASG				pmax	pmax		
	comp=Z,38nm,1.0s						
AKASG				smax			
	comp=N,1.0nm,0.6s						
AKASG				MLR	MLR		
	comp=Z,16µm,18.1s						
AKASG	**Malin Array Be**	**71.53**	**322**	P	**P**	**00 14 14.3**	**-0.4**
	comp=Z,116nm,0.7s,mb5.9,baz=42,slow=6.2,SNR=542						
AKASG				PP	PP	00 16 51.3	-1.7
	comp=Z,38nm,1.0s,baz=44,slow=8.7,SNR=5.1						
AKASG				S	S	00 23 31.1	0.0
	comp=Z,1.1nm,0.6s,baz=38,slow=11,SNR=9.6						
AKASG				LR	LR	00 49 53.0	
	comp=Z,16µm,18.1s,MS6.3,baz=70,slow=39						
AKBB	**Malin Array Si**	**71.53**	**322**	⇑iP	**P**	**00 14 14.2**	**-0.5**
HELL	**Mitchell Peak,**	**71.53**	**57**	⇓P	**P**	**00 14 15.2**	**+0.2**
	baz=71						
HELL				⇓S	S	00 23 31.1	-0.4
	baz=71						
KIEV	**Kiev**	**71.54**	**322**	P	**P**	**00 14 14.4**	**-0.4**
KIEV				P	pP	00 14 23.5	-1.5
KIEV				PP	PP	00 16 50.2	-2.9
KIEV				S	S	00 23 30.6	-0.5
KIEV				pS		00 23 49.0	
KIEV	**Kiev**	**71.54**	**322**	⇑iP	**P**	**00 14 14.2**	**-0.6**
	comp=Z,320nm,1.0s,mb6.2						
KIEV				LR	LR		
	comp=Z,16µm,19.0s,MS6.3						
KIEV	**Kiev**	**71.54**	**322**	⇑iP	**P**	**00 14 14.2**	**-0.6**
KIEV				pmax	pmax		
	comp=Z,320nm,1.0s,mb6.2						
KIEV				MLR	MLR		
	comp=Z,16µm,19.0s,MS6.3						
S08C	**White Mtn Res**	**71.55**	**56**	⇑P	**P**	**00 14 16.1**	**+1.0**
	baz=71						
S08C				⇓S	S	00 23 32.9	+1.1
	baz=71						
RCTC	**Rector, Farmer**	**71.62**	**58**	⇑S	S	00 23 31.7	-0.9
	baz=71						
P11A	**Circle Ranch,**	**71.73**	**53**	⇓P	**P**	**00 14 17.0**	**+0.8**
	baz=72						
P11A				⇑S	S	00 23 34.4	+0.7
	baz=72						
SUW	**Suwalki**	**71.75**	**328**	ePc	**P**	**00 14 15.3**	**-0.6**
	comp=Z,1µm,1.8s,mb6.5						
SUW				epP	pP	00 14 25.5	-0.8
SUW				ePcP	PcP	00 14 35.2	+0.3
SUW				eS	S	00 23 31.7	-1.8
SUW				esS	sS	00 23 41.6	-8.9
SUW				LMZ		00 47 05.8	
	comp=Z,13µm,22.7s						
SUW	**Suwalki**	**71.75**	**328**	⇑eP	**P**	**00 14 15.3**	**-0.7**
SUW				e*PP	pP	00 14 25.5	-0.8
SUW				e		00 14 35.2	
SUW				eS	S	00 23 31.7	-1.8
SUW				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.5						
SMDO	**Samad**	**71.76**	**285**	⇓P	**P**	**00 14 17.8**	**+1.3**
	SNR=49						
SMMC	**Simmler**	**71.76**	**59**	⇓P	**P**	**00 14 16.9**	**+0.5**
	baz=72						
SMMC				⇑S	S	00 23 35.1	+0.9

	baz=72						
R09A	**Tonopah**	71.76	55	⇓P	P	00 14 16.9	+0.5
	baz=72						
R09A				⇓S	S	00 23 34.7	+0.5
	baz=72						
DCID1	**Drake Creek**	71.77	48	*e*P	P	00 14 17.3	+1.0
TIN	**Tinemaha**	71.79	56	⇑P	P	00 14 17.2	+0.6
	baz=72						
TIN				⇓S	S	00 23 34.9	+0.4
	baz=72						
Q10A	**Clear Creek Ra**	71.80	54	⇑P	P	00 14 17.1	+0.5
	baz=72						
Q10A				⇑S	S	00 23 35.2	+0.6
	baz=72						
RLMT	**Red Lodge**	71.80	45	*e*P	P	00 14 16.7	+0.2
	comp=Z,80nm,1.3s,mb5.5						
RLMT				LR	LR		
	comp=Z,4µm,21.0s,MS5.7						
N13A	**Wendover, West**	71.82	51	⇓P	P	00 14 17.0	+0.4
	baz=72						
N13A				⇓S	S	00 23 33.8	-1.0
	baz=72						
M14A	**Sheep Mountain**	71.90	50	⇑P	P	00 14 17.2	+0.1
	baz=72						
M14A				⇑S	S	00 23 35.6	0.0
	baz=72						
MOOW	**Moose Ponds**	71.91	47	*e*P	P	00 14 17.8	+0.6
	comp=Z,55nm,1.0s,mb5.4						
HOQ	**Hoqain**	71.97	286	⇑P	P	00 14 18.6	+0.8
	SNR=102						
S09A	**Goldfield**	71.99	55	⇑P	P	00 14 17.8	0.0
	baz=72						
S09A				⇓S	S	00 23 36.7	-0.2
	baz=72						
VES	**Vestal, Richgr**	72.01	58	⇑P	P	00 14 17.6	-0.3
	baz=72						
VES				⇓S	S	00 23 36.9	-0.3
	baz=72						
KONO	**Kongsberg**	72.02	337	*e*P	P	00 14 17.5	0.0
KONO				LR	LR		
	comp=Z,20µm,20.0s,MS6.4						
HATD	**Hatta, Dubai**	72.04	287	⇓P	P	00 14 19.2	+1.0
	SNR=78						
HVU	**Hansel Valley**	72.05	50	*e*P	P	00 14 18.0	0.0
	comp=Z,25nm,0.9s,mb5.1						
HVU	**Hansel Valley**	72.05	50	*e*P	P	00 14 18.0	0.0
HVU				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
LOHW	**Long Hollow**	72.07	47	*e*P	P	00 14 18.4	+0.2
	comp=Z,191nm,1.7s,mb5.8						
REDW	**Red Top Meadow**	72.10	48	*e*P	P	00 14 18.5	+0.2
	comp=Z,108nm,1.3s,mb5.6						
DGMT	**Dagmar**	72.13	40	*e*P	P	00 14 17.6	-0.7
	comp=Z,104nm,0.9s,mb5.8						
DGMT				LR	LR		
	comp=Z,10µm,22.0s,MS6.0						
PKM	**Peak Mountain**	72.13	59	⇓P	P	00 14 19.4	+0.7
	baz=72						
PKM				⇓S	S	00 23 39.4	+0.8
	baz=72						
JMDO	**Jabal Madar**	72.14	284	⇑P	P	00 14 19.7	+0.9
	SNR=51						
ASHO	**Ashiyiah**	72.18	287	⇓P	P	00 14 19.4	+0.3
	SNR=78						
R10A	**Warm Springs**	72.20	54	⇑P	P	00 14 19.8	+0.9
	baz=72						
R10A				⇑S	S	00 23 39.6	+0.3
	baz=72						
Q11A	**Duckwater**	72.24	54	⇓P	P	00 14 19.3	+0.1
	baz=72						
Q11A				⇓S	S	00 23 39.2	-0.4
	baz=72						
S10A	**Tonopah Range,**	72.25	55	⇑P	P	00 14 19.8	+0.5
	baz=72						
S10A				⇓S	S	00 23 40.2	+0.3
	baz=72						
CWC	**Cottonwood Cre**	72.27	57	⇓P	P	00 14 19.6	+0.2
	baz=72						
CWC				⇑S	S	00 23 40.1	0.0
	baz=72						
P12A	**McGill**	72.28	53	⇑P	P	00 14 19.9	+0.5
	baz=72						
P12A				⇓S	S	00 23 40.6	+0.4
	baz=72						
LAO	**LASA Array**	72.34	43	*e*P	P	00 14 19.3	-0.4
	comp=Z,487nm,1.9s,mb6.1						
LAO				LR	LR		
	comp=Z,5µm,21.0s,MS5.8						
AHID	**Auburn Hatcher**	72.35	48	*e*P	P	00 14 19.4	-0.4
	comp=Z,57nm,1.3s,mb5.3						
AHID				LR	LR		
	comp=Z,5µm,21.0s,MS5.7						
GRAC	**Grapevine Rang**	72.36	56	⇑P	P	00 14 20.2	+0.3
	baz=72						
GRAC				⇓S	S	00 23 42.0	+0.9
	baz=72						
M15A	**Larsen Ranch,**	72.44	50	⇓P	P	00 14 20.3	0.0
	baz=72						
M15A				⇑S	S	00 23 41.1	-0.7
	baz=72						
BGU	**Big Grassy Mou**	72.45	51	*e*P	P	00 14 20.2	-0.3
SBC	**Santa Barbara**	72.48	59	⇑P	P	00 14 20.7	0.0
	baz=72						
SBC				⇑S	S	00 23 42.8	+0.3
	baz=72						
ISA	**Isabella**	72.51	58	⇑P	P	00 14 20.7	-0.2
	baz=72						
ISA				⇑S	S	00 23 41.0	-1.9
	baz=72						
RUND	**Rundenannen**	72.53	340	⇑*i*P	P	00 14 22.9	+2.4
RUND				AMb	AMB	00 14 24.5	
	comp=Z,381nm,1.6s,mb6.1						
SPUT	**South Promonto**	72.54	50	*e*P	P	00 14 21.1	+0.1
BSY	**Bisya**	72.56	285	⇑P	P	00 14 21.8	+0.4
	SNR=99						
TRCR	**Troy Canyon**	72.59	54	*e*P	P	00 14 21.4	+0.1
TRCR				*e*pP	pP	00 14 31.2	-0.4
Q12A	**Willow Creek R**	72.61	53	⇑P	P	00 14 21.9	+0.5
	baz=72						
ARVC	**Arvin**	72.62	58	⇑P	P	00 14 21.2	-0.3
	baz=72						
ARVC				⇑S	S	00 23 43.1	-1.1
	baz=72						
ARQ	**Araqi**	72.69	286	⇓P	P	00 14 22.5	+0.4
	SNR=77						
BSC	**Santa Cruz Isl**	72.82	60	⇑P	P	00 14 23.0	+0.2
	baz=73						
BSC				⇑S	S	00 23 45.4	-1.0
	baz=73						
HWUT	**Hardware Ranch**	72.85	49	*e*P	P	00 14 23.0	+0.2
	comp=Z,90nm,1.3s,mb5.5						
HWUT				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
MPMC	**Manual Prospec**	72.88	57	⇑P	P	00 14 23.6	+0.5
	baz=73						
MPMC				⇑S	S	00 23 45.4	-1.6
	baz=73						
S11A	**Rachel**	72.95	55	⇑P	P	00 14 23.8	+0.4
	baz=73						
S11A				⇑S	S	00 23 48.2	+0.5
	baz=73						
FURC	**Furnace Creek,**	73.01	56	⇑P	P	00 14 24.2	+0.4
	baz=73						
FURC				⇑S	S	00 23 48.4	-0.1
	baz=73						
DUG	**Dugway**	73.05	51	*e*P	P	00 14 24.3	+0.2
	comp=Z,87nm,1.2s,mb5.6						
DUG				*e*pP	pP	00 14 34.2	-0.2
DUG				LR	LR		
	comp=Z,4µm,22.0s,MS5.6						
DUG	**Dugway**	73.05	51	P	P	00 14 24.2	+0.2
DUG				pmax	pmax		
	comp=Z,87nm,1.2s,mb5.6						
DUG	**Dugway**	73.05	51	⇑P	P	00 14 24.1	+0.1
	baz=73						
DUG				⇑S	S	00 23 49.0	+0.1
	baz=73						
SIM	**Simferopol’**	73.07	316	*i* P	P	00 14 23.9	-0.1
SIM	**Simferopol’**	73.07	316	c*e*P	P	00 14 23.8	-0.2
SIM				*e*		00 17 06.5	
SIM				*e*S	S	00 23 49.1	+0.2
SIM				pmax	pmax		
	comp=Z,186nm,0.8s,mb6.1						
SIM				pmax	pmax		
	comp=Z,460nm,10.0s						
SIM				MLR	MLR		
	comp=Z,15µm,17.0s,MS6.3						
BLG	**Laguna Peak**	73.11	59	⇑P	P	00 14 24.6	+0.1
	baz=73						
BLG				⇓S	S	00 23 48.5	-1.2
	baz=73						
LRMC	**Laurel Mountai**	73.12	57	⇓P	P	00 14 24.9	+0.4
	baz=73						
LRMC				⇓S	S	00 23 48.0	-1.8
	baz=73						
NOQ	**North Oquirrh**	73.16	50	*e*P	P	00 14 24.4	-0.2
	comp=Z,164nm,1.2s,mb5.8						
R12A	**Pony Springs,**	73.20	54	⇓P	P	00 14 25.6	+0.7
	baz=73						
R12A				⇑S	S	00 23 51.1	+0.5
	baz=73						
BW06	**Boulder Array**	73.21	47	*e*P	P	00 14 24.4	-0.4
	comp=Z,31nm,0.8s,mb5.3						
BW06				LR	LR		
	comp=Z,4µm,21.0s,MS5.7						
PDAR	**Pinedale Array**	73.21	47	P	P	00 14 24.6	-0.3
	comp=Z,29nm,0.8s,mb5.3,baz=270,slow=1.7,SNR=140						
PDAR				LR	LR	00 46 55.9	
	comp=Z,4µm,21.4s,MS5.7,baz=339,slow=36						
EDW2	**Edwards Air Fo**	73.31	58	⇑P	P	00 14 26.2	+0.6
	baz=73						
EDW2				⇑S	S	00 23 50.8	-1.2
	baz=73						
STKA	**Stephens Creek**	73.33	182	*e*P	P	00 14 25.9	+0.4
	comp=Z,12nm,0.9s,mb4.8						
STKA				*e*S	S	00 23 51.1	-0.7
STKA	**Stephens Creek**	73.33	182	P	P	00 14 25.0	-0.5
	comp=Z,9.7nm,0.9s,mb4.7,baz=359,slow=6.4,SNR=8.9						
STKA				LR	LR	00 47 53.9	
	comp=Z,3µm,20.6s,MS5.5,baz=5.5,slow=37						
CTU	**Camp Tracy**	73.34	50	*e*P	P	00 14 25.8	0.0
	comp=Z,125nm,1.5s,mb5.6						
SNCC	**San Nicolas Is**	73.36	60	⇓P	P	00 14 26.7	+0.7
	baz=73						
U10A	**Ash Meadows, A**	73.37	56	⇑P	P	00 14 27.0	+1.0
	baz=73						
U10A				⇑S	S	00 23 53.1	+0.4
	baz=73						
DECC	**Green Verdugo**	73.49	59	⇑P	P	00 14 26.9	+0.2
	baz=73						
DECC				⇑S	S	00 23 52.4	-1.6
	baz=73						
S12A	**Delamar Landin**	73.52	54	⇑P	P	00 14 27.4	+0.6
	baz=73						
T11A	**Corn Creek, Al**	73.53	55	⇑P	P	00 14 27.1	+0.2
	baz=73						
JLU	**Jordanelle**	73.57	50	*e*P	P	00 14 26.1	-1.0
FORT	**Forrest**	73.61	194	*e*P	P	00 14 26.5	-0.7
	comp=Z,49nm,0.9s,mb5.4						
FORT	**Forrest**	73.61	194	*e*P	P	00 14 26.5	-0.6
MSL	**Mosul**	73.62	304	*i* P	x	00 14 30.0	
MSL				*e*pP	x	00 14 40.5	
MSL				*e*S	x	00 23 56.0	
MSL				*e*sS	x	00 24 07.0	
NLU	**North Lily Min**	73.64	51	*e*P	P	00 14 26.8	-0.7
SHOC	**Shoshone**	73.73	56	⇑P	P	00 14 28.5	+0.4
	baz=74						
SHOC				⇑S	S	00 23 55.8	-0.9
	baz=74						
GSC	**Goldstone**	73.79	57	⇓P	P	00 14 29.0	+0.5
	baz=74						
GSC				⇑S	S	00 23 57.0	-0.4
	baz=74						
DAU	**Daniels Canyon**	73.81	50	*e*P	P	00 14 29.0	+0.5
MPU	**Maple Canyon**	73.85	51	*e*P	P	00 14 28.8	+0.1
	comp=Z,86nm,1.1s,mb5.6						
MPU				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
FMP	**Fort Macarthur**	73.86	59	⇑P	P	00 14 29.0	+0.2
	baz=74						
FMP				⇓S	S	00 23 56.3	-1.9
	baz=74						
BFSC	**Mount Baldy St**	73.93	58	⇓P	P	00 14 29.6	+0.3
	baz=74						
BFSC				⇑S	S	00 23 57.3	-1.7
	baz=74						
RRX	**Edison Barstow**	73.94	58	⇑P	P	00 14 29.8	+0.5
	baz=74						
RRX				⇓S	S	00 23 57.6	-1.4
	baz=74						
WAR	**Warsaw**	73.94	327	*e*Pc	P	00 14 29.5	+0.5
WAR				*e*PcP	PcP	00 14 41.6	-2.7
WAR				*e*S	S	00 23 59.4	+0.9
WAR				*e*sS	sS	00 24 12.8	-2.7
WAR				LMZ		00 49 47.2	
	comp=Z,12µm,20.9s						
WAR	**Warsaw**	73.94	327	⇑*e*P	P	00 14 29.5	+0.5
WAR				*e*	pP	00 14 41.6	+2.3
WAR				*e*S	S	00 23 59.4	+0.9
WAR				MLR	MLR		
	comp=Z,12µm,20.9s,MS6.2						
U11A	**Corn Creek**	73.95	55	⇓P	P	00 14 29.7	+0.3
	baz=74						
U11A				⇑S	S	00 24 00.7	+1.5
	baz=74						
CIS	**Catalina Islan**	73.98	60	⇑P	P	00 14 29.9	+0.3
	baz=74						
CIS				⇓S	S	00 23 58.7	-0.9
	baz=74						
BSD	**Bornholm Skovb**	74.01	332	⇑*i*P	P	00 14 29.0	-0.3
BSD				*i* S	S	00 24 00.6	+1.4
BSD				pmax	pmax		
	comp=Z,410nm,1.2s,mb6.2						
BSD				MLR	MLR		
	comp=Z,14µm,20.0s,MS6.2						
BSD	**Bornholm Skovb**	74.01	332	⇑*i*P	P	00 14 29.0	-0.3
	comp=Z,408nm,1.2s,mb6.2						
BSD				*i* S	S	00 24 00.6	+1.4
BSD							
	comp=Z,14µm,20.0s						
S13A	**Holt Ranch, En**	74.13	54	⇓P	P	00 14 30.6	+0.2
	baz=74						
SCI	**San Clemente I**	74.16	60	⇓P	P	00 14 31.1	+0.5
	baz=74						
SCI				⇓S	S	00 24 01.8	+0.2
	baz=74						
T12A	**Moapa**	74.17	55	⇑P	P	00 14 31.3	+0.6
	baz=74						
T12A				⇑S	S	00 24 01.1	-0.5
	baz=74						
ARUT	**Antelope Range**	74.25	53	*e*P	P	00 14 31.5	+0.5
TUQ	**Turquoise Mtn.**	74.25	57	⇓P	P	00 14 31.8	+0.7
	baz=74						
TUQ				⇑S	S	00 24 03.3	+0.7
	baz=74						
V11A	**Goodsprings**	74.30	56	⇑P	P	00 14 32.1	+0.7
	baz=74						
V11A				⇓S	S	00 24 03.9	+0.8
	baz=74						
KIS	**Kishinev**	74.32	320	α*i*P	P	00 14 31.0	-0.3
KIS				*i*	pP	00 14 42.0	+0.4
KIS				*e*		00 17 15.0	
KIS				*e*PPP		00 19 02.0	
KIS				*e*S	S	00 23 59.0	-3.9
KIS				*e*PS		00 24 30.0	
KIS				*e*SSS		00 32 04.0	
KIS				pmax	pmax		
	comp=N,500nm,1.5s						
KIS				pmax	pmax		
	comp=E,400nm,1.5s						
KIS				pmax	pmax		
	comp=Z,900nm,1.5s,mb6.5						
KIS				MLR	MLR		
	comp=N,13µm,20.0s,MS6.3						
KIS				MLR	MLR		
	comp=Z,12µm,20.0s,MS6.2						
KIS				MLR	MLR		
	comp=E,6µm,15.0s,MS6.3						
KIS				MLR	MLR		
	comp=Z,13µm,20.0s						
KIS	**Kishinev**	74.32	320	*i* P	P	00 14 31.0	-0.3
	comp=Z,900nm,1.5s,mb6.5						
KIS	**Kishinev**	74.32	320	*i* PcP	PcP	00 14 42.0	-4.0
KIS	**Kishinev**	74.32	320	*e*PP	PP	00 17 15.0	-1.9
KIS	**Kishinev**	74.32	320	*e*PS		00 24 30.0	
KIS				*e*SS	SS	00 29 32.0	+44
KIS				*e*SSS		00 32 04.0	
KIS				*e*LQ		00 38 56.0	
	comp=Z,8µm,25.0s						
KIS				LRM		00 49 30.0	
	comp=Z,13µm,20.0s						
BBRC	**Big Bear Sol-O**	74.38	58	⇓P	P	00 14 32.5	+0.6
	baz=74						
BBRC				⇑S	S	00 24 03.3	-0.8
	baz=74						
HEC	**Hector,Ludlow**	74.39	57	⇓P	P	00 14 32.4	+0.4
	baz=74						
HEC				⇓S	S	00 24 03.9	-0.3
	baz=74						
COP	**Copenhagen**	74.39	334	⇑*i*P	P	00 14 31.6	0.0
COP				*i*		00 19 05.0	
COP				pmax	pmax		
	comp=Z,270nm,1.4s,mb6.0						
COP				MLR	MLR		
	comp=Z,9µm,19.0s,MS6.1						
COP	**Copenhagen**	74.39	334	⇑*i*P	P	00 14 31.6	0.0
	comp=Z,270nm,1.4s,mb6.0						
COP				*i*		00 19 05.0	
COP				*i* S	S	00 24 16.9	+13
COP							
	comp=Z,9µm,19.0s						
S14A	**Cedar City**	74.43	53	⇑P	P	00 14 32.7	+0.6
	baz=74						
S14A				⇓S	S	00 24 06.2	+1.7
	baz=74						
CCUT	**Cedar City**	74.45	53	*e*P	P	00 14 32.9	+0.6
U12A	**Valley of Fire**	74.47	55	⇑P	P	00 14 32.9	+0.5
	baz=74						
U12A				⇑S	S	00 24 05.9	+1.0
	baz=74						
T13A	**Saint George**	74.47	54	⇑P	P	00 14 33.0	+0.6
	baz=74						
T13A				⇓S	S	00 24 06.2	+1.2
	baz=74						
LVV	**L’vov**	74.48	324	⇓*i*P	P	00 14 32.1	-0.1
LVV				*e*		00 14 48.5	
LVV				*e*		00 17 26.1	
LVV				*i* S	S	00 24 04.3	-0.4
LVV				*e*SS	SS	00 28 45.7	-4.8
LVV				MLR	MLR		
	comp=Z,7µm,17.5s,MS6.0						
LVV				MLR	MLR		
	comp=N,3µm,17.0s,MS6.0						
LVV				MLR	MLR		
	comp=E,6µm,17.2s,MS6.0						
MSU	**Marysvale**	74.53	52	*e*P	P	00 14 33.1	+0.4
TMUT	**Trail Mountain**	74.58	51	*e*P	P	00 14 33.2	+0.3
GKP	**Gorka Klasztor**	74.62	330	*e*Pc	P	00 14 33.1	+0.2
	comp=E,1µm,2.0s,mb6.5						
GKP				*e*pP	pP	00 14 37.9	-5.4
GKP				*e*sP	sP	00 14 45.6	-1.5
GKP				*e*PP	PP	00 17 18.1	-1.2
GKP				*e*S	S	00 24 04.5	-1.5
GKP				*e*SKS		00 24 36.5	
GKP				LMZ		00 50 03.2	
	comp=E,24µm,21.3s						
GKP	**Gorka Klasztor**	74.62	330	⇑*e*P	P	00 14 33.2	+0.2
	comp=E,1.4nm,2.0s						
GKP				*e*pP	pP	00 14 37.9	-5.4
GKP				*e*SP		00 14 45.6	
GKP				*e*PP	PP	00 17 18.1	-1.2
GKP				*e*S	S	00 24 04.5	-1.6
GKP				*e*SKS		00 24 36.5	
GKP	**Gorka Klasztor**	74.62	330	⇑*e*P	P	00 14 33.2	+0.2
GKP				*e**SP	sP	00 14 45.6	-1.5
GKP				*e*		00 17 18.1	
GKP				*e*S	S	00 24 04.5	-1.6
GKP				*e*		00 24 36.5	
GKP				pmax	pmax		
	comp=Z,1µm,2.0s,mb6.5						
MURC	**Murrieta**	74.63	59	⇓P	P	00 14 33.6	+0.3
	baz=74						
MURC				⇑S	S	00 24 05.6	-1.2
	baz=74						
ULM	**Lac du Bonnet**	74.65	35	P	P	00 14 31.8	-1.4
	comp=Z,10nm,0.8s,mb4.8,baz=312,slow=6.8,SNR=26						
ULM				LR	LR	00 52 40.4	
	comp=Z,3µm,20.0s,MS5.5,baz=328,slow=40						
V12A	**Nelson**	74.73	56	⇑P	P	00 14 34.3	+0.4
	baz=74						
V12A				⇑S	S	00 24 08.3	+0.4
	baz=74						
BHD	**Baghdad**	74.74	301	*i* P	x	00 14 34.0	
BHD				*e*pP	x	00 17 42.0	
BHD				*e*S	x	00 24 06.5	
BHD				*e*PS	x	00 24 41.5	
IAS	**Iasi**	74.78	321	P	P	00 14 34.3	+0.3
IAS	**Iasi**	74.78	321	⇑*i*P	P	00 14 34.0	0.0
MUD	**Monsted U’grnd**	74.80	336	⇑*i*P	P	00 14 34.1	+0.2
MUD				*i* S	S	00 24 11.9	+3.9
MUD				*i*		00 24 30.5	
MUD				pmax	pmax		
	comp=Z,160nm,1.1s,mb5.9						
MUD				MLR	MLR		
	comp=Z,9µm,18.0s,MS6.1						
MUD	**Monsted U’grnd**	74.80	336	⇑*i*P	P	00 14 34.1	+0.2
	comp=Z,158nm,1.1s,mb5.9						
MUD				*i* S	S	00 24 11.9	+3.9
MUD				*i*		00 24 30.5	
MUD							
	comp=Z,9µm,18.0s						
GMRC	**Granite Mounta**	74.84	57	⇓P	P	00 14 35.1	+0.5
	baz=75						
GMRC				⇑S	S	00 24 09.0	-0.2
	baz=75						
UMR	**Umm Al-Rimmam**	74.93	296	*e*P	P	00 14 33.9	-1.2
UMR				AMb	AMB	00 14 36.1	
	comp=Z,380nm,1.0s,mb6.3						
T14A	**Hurricane**	74.94	54	⇓P	P	00 14 35.5	+0.4
	baz=75						
T14A				⇑S	S	00 24 10.3	+0.1
	baz=75						
W12A	**Cal Nev Ari**	75.00	56	⇑P	P	00 14 36.2	+0.8
	baz=75						
W12A				⇓S	S	00 24 11.6	+0.7
	baz=75						
MIB	**Mutribah**	75.02	297	*e*P	P	00 14 34.9	-0.7
MIB				AMb	AMB	00 14 37.2	
	comp=Z,501nm,1.0s,mb6.4						
SRU	**San Rafael**	75.09	51	*e*P	P	00 14 36.0	0.0
	comp=Z,79nm,0.9s,mb5.7						
SRU	**San Rafael**	75.09	51	*e*P	P	00 14 36.0	0.0
SRU				pmax	pmax		
	comp=Z,79nm,0.9s,mb5.6						
PFO	**Pinyon Flat Ob**	75.10	58	P	P	00 14 36.9	+0.8
	comp=Z,233nm,0.9s,mb6.1,SNR=12						
PFO	**Pinyon Flat Ob**	75.10	58	*e*P	P	00 14 36.2	+0.1
	comp=Z,42nm,1.0s,mb5.3						
PFO				LR	LR		
	comp=Z,5µm,21.0s,MS5.8						
PFO	**Pinyon Flat Ob**	75.10	58	*e*P	P	00 14 36.2	+0.1
PFO				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
PFO				MLR	MLR		
	comp=Z,5µm,21.0s,MS5.8						
PFO	**Pinyon Flat Ob**	75.10	58	LR	LR	00 42 42.5	
	comp=Z,5µm,20.8s,MS5.8,baz=338,slow=32						
PFO	**Pinyon Flat Ob**	75.10	58	⇓P	P	00 14 36.4	+0.3
	baz=75						
PFO				⇑S	S	00 24 10.8	-1.3
	baz=75						
MALT	**Malatya**	75.11	308	P	P	00 14 37.8	+1.7
MALT	**Malatya**	75.11	308	P	P	00 14 37.7	+1.6
MALT				pmax	pmax		
	comp=Z,350nm,1.2s,mb6.2						
MALT	**Malatya**	75.11	308	⇑*i*P	P	00 14 37.7	+1.6
BELC	**Belle Mtn.**	75.14	58	⇑P	P	00 14 36.5	+0.2
	baz=75						
BELC				⇓S	S	00 24 11.3	-1.2
	baz=75						
109C	**Camp Elliot, M**	75.15	59	⇑P	P	00 14 36.9	+0.5
	baz=75						
109C				⇑S	S	00 24 11.7	-0.9
	baz=75						
KBD	**Kabd**	75.18	296	*e*P	P	00 14 35.5	-1.1
KBD				AMb	AMB	00 14 38.6	
	comp=Z,1µm,1.4s,mb6.7						
KWP	**Kalwaria**	75.20	325	*e*Pc	P	00 14 37.0	+0.7
	comp=Z,2µm,1.8s,mb6.8						
KWP				*e*pP	pP	00 14 47.2	+0.6
KWP				*e*S	S	00 24 13.1	+0.5
KWP				*e*sS	sS	00 24 26.1	-3.6
KWP				LMZ		00 50 38.8	
	comp=Z,19µm,20.0s						
KWP	**Kalwaria**	75.20	325	⇑*e*P	P	00 14 37.0	+0.7
KWP				*e**PP	pP	00 14 47.2	+0.5
KWP				*e*S	S	00 24 13.1	+0.5
KWP				pmax	pmax		
	comp=Z,2µm,1.8s,mb6.8						
RWWY	**Rawlins**	75.22	47	*e*P	P	00 14 36.5	-0.1

	comp=Z,68nm,0.9s,mb5.6						
RSSD	**Black Hills**	**75.22**	**44**	*e*P	**P**	**00 14 35.9**	**-0.7**
	comp=Z,41nm,0.9s,mb5.4						
RSSD				LR	LR		
	comp=Z,6µm,22.0s,MS5.8						
RSSD	**Black Hills**	**75.22**	**44**	*e*P	**P**	**00 14 35.9**	**-0.7**
RSSD				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.4						
RSSD				MLR	MLR		
	comp=Z,6µm,22.0s,MS5.8						
QRN	**Al-Qurain**	**75.31**	**295**	*e*P	**P**	**00 14 36.5**	**-0.8**
QRN				AMb	AMB	00 14 38.5	
	comp=Z,554nm,0.9s,mb6.5						
T15A	**Red Dirt Ranch**	**75.39**	**53**	⇑P	**P**	**00 14 37.9**	**+0.2**
	baz=75						
RDF	**Al-Radifah**	**75.44**	**296**	*e*P	**P**	**00 14 37.3**	**-0.8**
RDF				AMb	AMB	00 14 39.4	
	comp=Z,570nm,0.9s,mb6.5						
NEE2	**Needles Airpor**	**75.50**	**56**	⇑S	S	00 24 16.5	-0.1
	baz=75						
IRM	**Iron Mountain**	**75.57**	**57**	⇓P	**P**	**00 14 39.3**	**+0.6**
	baz=75						
IRM				⇑S	S	00 24 16.0	-1.2
	baz=75						
BURAR	**Bucovina Array**	**75.57**	**322**	P	**P**	**00 14 39.2**	**+0.7**
BURAR	**Bucovina Array**	**75.57**	**322**	⇑*i*P	**P**	**00 14 38.8**	**+0.3**
MONP	**Monument Peak**	**75.59**	**59**	⇓P	**P**	**00 14 39.3**	**+0.5**
	baz=75						
MONP				⇓S	S	00 24 16.5	-1.1
	baz=75						
BC3	**Big Chuckw Mtn**	**75.70**	**58**	⇑P	**P**	**00 14 40.0**	**+0.4**
	baz=76						
BC3				⇑S	S	00 24 17.7	-1.1
	baz=76						
W13A	**Hualapai Mount**	**75.74**	**56**	⇓P	**P**	**00 14 40.1**	**+0.4**
	baz=76						
W13A				⇓S	S	00 24 19.2	+0.1
	baz=76						
KOLS	**Kolonicke sedl**	**75.91**	**324**	*e*P	**P**	**00 14 40.7**	**+0.3**
KOLS				*e*PP	PP	00 17 16.1	-14
DVTC	**Desert V Tower**	**75.94**	**59**	⇑P	**P**	**00 14 41.2**	**+0.3**
	baz=76						
DVTC				⇓S	S	00 24 20.5	-0.9
	baz=76						
CFR	**Carcaliu**	**75.95**	**319**	P	**P**	**00 14 45.7**	**+5.0**
SWSC	**Sam W. Stewart**	**75.95**	**58**	⇓P	**P**	**00 14 41.2**	**+0.2**
	baz=76						
SWSC				⇓S	S	00 24 21.4	-0.2
	baz=76						
OJC	**Ojcow**	**75.98**	**327**	⇑*i*P	**P**	**00 14 41.2**	**+0.4**
OJC				*e*PP	PP	00 17 33.9	+3.1
OJC				*e*S	S	00 24 21.1	-0.1
OJC				LR	LR		
	comp=Z,11µm,19.3s,MS6.2						
STHS	**Stebnicka Huta**	**75.99**	**325**	*i* P	**P**	**00 14 41.4**	**+0.5**
	comp=Z,112nm,1.1s,mb5.7						
STHS	**Stebnicka Huta**	**75.99**	**325**	*i* P	**P**	**00 14 41.4**	**+0.5**
STHS				pmax	pmax		
	comp=Z,112nm,1.1s,mb5.7						
X13A	**Yucca**	**76.11**	**56**	⇓P	**P**	**00 14 42.5**	**+0.7**
	baz=76						
X13A				⇓S	S	00 24 23.3	+0.1
	baz=76						
PDMCI	**Parker Dam,Lak**	**76.11**	**56**	⇓P	**P**	**00 14 42.1**	**+0.3**
	baz=76						
PDMCI				⇓S	S	00 24 23.6	+0.4
	baz=76						
AGMN	**Agassiz Refuge**	**76.12**	**36**	*e*P	**P**	**00 14 39.7**	**-2.0**
	comp=Z,36nm,0.9s,mb5.3						
AGMN				LR	LR		
	comp=Z,4µm,21.0s,MS5.7						
UZH	**Uzhgorod**	**76.13**	**324**	⇓*i*P	**P**	**00 14 41.4**	**-0.3**
UZH				*e*		00 17 30.4	
UZH				*i* S	S	00 24 23.0	+0.1
UZH				*i*		00 24 39.0	
UZH				*i*		00 25 11.6	
UZH				*e*		00 32 40.0	
UZH				MLR	MLR		
	comp=Z,9µm,16.0s,MS6.2						
VRI	**Vrincioaia**	**76.14**	**320**	P	**P**	**00 14 42.8**	**+1.0**
VRI	**Vrincioaia**	**76.14**	**320**	⇑*i*P	**P**	**00 14 42.3**	**+0.5**
W14A	**Seligman**	**76.16**	**55**	⇑P	**P**	**00 14 42.6**	**+0.5**
	baz=76						
W14A				⇓S	S	00 24 24.7	+0.9
	baz=76						
PLOR	**Plostina**	**76.19**	**320**	⇑*i*P	**P**	**00 14 42.6**	**+0.5**
Y12C	**Blythe**	**76.23**	**57**	⇑P	**P**	**00 14 42.9**	**+0.4**
	baz=76						
Y12C				⇑S	S	00 24 24.9	+0.3
	baz=76						
CRVS	**Cervenica-Dubn**	**76.28**	**325**	*e*P	**P**	**00 14 42.9**	**+0.3**
TIRR	**Tirgusor**	**76.33**	**318**	P	**P**	**00 14 43.6**	**+0.7**
TIRR	**Tirgusor**	**76.33**	**318**	⇑*i*P	**P**	**00 14 43.0**	**+0.1**
ORE	**Reay**	**76.37**	**343**	⇑*e*P	**P**	**00 14 43.0**	**+0.2**
NIE	**Niedzica**	**76.38**	**326**	⇑*e*P	**P**	**00 14 44.0**	**+0.9**
HARR	**Harsova**	**76.40**	**319**	P	**P**	**00 14 45.6**	**+2.3**
PHWY	**Pilot Hill**	**76.44**	**46**	*e*P	**P**	**00 14 42.9**	**-0.7**
PV10	**Paradox Valley**	**76.45**	**50**	*e*P	**P**	**00 14 44.1**	**+0.5**
GLA	**Glamis**	**76.49**	**58**	⇑P	**P**	**00 14 44.8**	**+0.7**
	baz=76						
GLA				⇑S	S	00 24 26.4	-1.1
	baz=76						
MLA1	**Latheron**	**76.51**	**343**	⇑*i*P	**P**	**00 14 43.6**	**0.0**
RUE	**Ruedersdorf**	**76.52**	**331**	*e*P	**P**	**00 14 43.9**	**+0.1**
	comp=Z,522nm,1.4s,mb6.3						
RUE				*e*	pP	00 14 53.9	-0.4
BSEG	**Bad Segeberg**	**76.53**	**334**	*e*P	**P**	**00 14 44.2**	**+0.3**
BSEG				*e**PP	pP	00 14 53.7	-0.5
BSEG				pmax	pmax		
	comp=Z,313nm,1.2s,mb6.1						
BSEG	**Bad Segeberg**	**76.53**	**334**	*e*P	**P**	**00 14 44.2**	**+0.3**
	comp=Z,313nm,1.2s,mb6.1						
BSEG				*e*pP	pP	00 14 53.7	-0.5
Y13A	**Salome**	**76.62**	**57**	⇓P	**P**	**00 14 45.3**	**+0.6**
	baz=76						
Y13A				⇑S	S	00 24 28.8	-0.1
	baz=76						
W15A	**Williams**	**76.68**	**55**	⇓P	**P**	**00 14 45.6**	**+0.5**
	baz=76						
W15A				⇑S	S	00 24 30.5	+1.0
	baz=76						
RAC	**Raciborz**	**76.74**	**327**	*e*P	**P**	**00 14 46.0**	**+0.9**
RAC				*e*S	S	00 24 27.3	-2.3
RAC				LR	LR		
	comp=Z,19µm,19.2s,MS6.4						
RAC	**Raciborz**	**76.74**	**327**	*e*P	**P**	**00 14 46.0**	**+0.9**
RAC				*e*S	S	00 24 27.3	-2.3
RAC				MLR	MLR		
	comp=Z,19µm,19.2s,MS6.4						
RAC				MLR	MLR		
	comp=N,17µm,20.6s						
X14A	**Yava**	**76.77**	**56**	⇑P	**P**	**00 14 46.0**	**+0.4**
	baz=76						
X14A				⇓S	S	00 24 31.8	+1.4
	baz=76						
MLR	**Muntele Rosu**	**76.79**	**320**	P	**P**	**00 14 46.2**	**+0.7**
MLR	**Muntele Rosu**	**76.79**	**320**	⇑*i*P	**P**	**00 14 46.1**	**+0.6**
KLBR	**Kellerberrin**	**76.79**	**202**	*e*P	**P**	**00 14 45.0**	**-0.4**
	comp=N,88nm,1.3s,mb5.5						
RSC	**Scourie**	**76.86**	**344**	*e*P	**P**	**00 14 45.4**	**-0.2**
PV01	**Paradox Valley**	**76.88**	**50**	*e*P	**P**	**00 14 46.2**	**+0.1**
KSP	**Ksiaz**	**76.89**	**329**	*e*Pc	**P**	**00 14 46.6**	**+0.7**
	comp=N,2µm,2.2s,mb6.7						
KSP				*e*pP	pP	00 14 54.9	-1.4
KSP				*e*PcP	PcP	00 14 58.4	+1.4
KSP				*e*S	S	00 24 31.7	+0.5
KSP				*e*SKS		00 24 47.5	
KSP				LMZ		00 51 26.4	
	comp=N,26µm,22.0s						
KSP	**Ksiaz**	**76.89**	**329**	⇑*e*P	**P**	**00 14 46.2**	**+0.2**
KSP				*e*PP	PP	00 17 34.0	-4.5
KSP				*e*S	S	00 24 31.0	-0.2
KSP				*e*SS	SS	00 29 55.0	+28
KSP				LR	LR		
	comp=Z,30µm,22.0s,MS6.6						
KSP	**Ksiaz**	**76.89**	**329**	⇑*e*P	**P**	**00 14 46.2**	**+0.2**
KSP				*e*		00 17 34.0	
KSP				*e*S	S	00 24 31.0	-0.2
KSP				MLR	MLR		
	comp=Z,30µm,22.0s,MS6.6						
BR131	**Keskin Array S**	**76.90**	**312**	*e*P	**P**	**00 14 46.7**	**+0.5**
	comp=Z,72nm,1.0s,mb5.6						
BR131				LR	LR		
	comp=Z,6µm,19.0s,MS5.9						
BRTR	**Keskin Array B**	**76.90**	**312**	P	**P**	**00 14 46.7**	**+0.5**
BRTR						00 17 42.0	
BRTR				pmax	pmax		
	comp=Z,45nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,31nm,1.0s						
BRTR	**Keskin Array B**	**76.90**	**312**	P	**P**	**00 14 46.6**	**+0.4**
	comp=Z,45nm,0.9s,mb5.4,baz=56,slow=4.8,SNR=236						
BRTR				PP	PP	00 17 42.0	+3.0
	comp=Z,31nm,1.0s,baz=64,slow=7.2,SNR=7.4						
BRTR				LR	LR	00 55 47.8	
	comp=Z,7µm,18.6s,MS6.0,baz=206,slow=41						
OKC	**Ostrava-Krasne**	**76.95**	**327**	⇑*i*P	**P**	**00 14 46.7**	**+0.4**
OKC				*e*		00 14 52.6	
OKC				*e*S	S	00 24 32.4	+0.5
OKC				*e*		00 24 50.7	
OKC	**Ostrava-Krasne**	**76.95**	**327**	⇑*i*P	**P**	**00 14 46.7**	**+0.4**
OKC				*e*pP	pP	00 14 52.6	-4.1
OKC				*e*S	S	00 24 32.4	+0.5
OKC				*e*XS	sS	00 24 50.7	+1.7
OKC				AMS	AMS	00 51 50.0	
	comp=Z,11µm,17.3s						
WUAZ	**Wupatki**	**77.00**	**54**	PFAKE		00 15 00.0	+13
WUAZ				LR	LR		
	comp=Z,4µm,22.0s,MS5.7						
WUAZ	**Wupatki**	**77.00**	**54**	⇑P	**P**	**00 14 47.2**	**+0.3**
	baz=77						
KECS	**Kecovo**	**77.02**	**325**	*i* P	**P**	**00 14 47.0**	**+0.3**
	comp=Z,51nm,1.5s,mb5.2						
KECS				*e*PP	PP	00 17 24.3	-15
KECS	**Kecovo**	**77.02**	**325**	*i* P	**P**	**00 14 47.0**	**+0.3**
KECS				pmax	pmax		
	comp=Z,51nm,1.5s,mb5.2						
MVH1	**Achvaich**	**77.03**	**343**	⇑*i*P	**P**	**00 14 46.5**	**-0.2**
RTO	**Tolsta**	**77.05**	**344**	⇑*i*P	**P**	**00 14 46.5**	**-0.2**
Y14A	**Wickenburg**	**77.05**	**56**	⇓P	**P**	**00 14 47.7**	**+0.5**
	baz=77						
Y14A				⇑S	S	00 24 33.7	+0.2
	baz=77						
REB	**Eisghbrachaidh**	**77.09**	**344**	⇑*i*P	**P**	**00 14 46.8**	**-0.1**
MCD	**Coleburn Disti**	**77.14**	**342**	⇑*i*P	**P**	**00 14 47.0**	**-0.3**
X15A	**Humboldt**	**77.16**	**55**	⇓P	**P**	**00 14 48.4**	**+0.7**
	baz=77						
X15A				⇓S	S	00 24 36.3	+1.6
	baz=77						
LIKS	**Likavka**	**77.17**	**326**	*e*P	**P**	**00 14 48.8**	**+1.3**
	comp=Z,122nm,1.2s,mb5.7						
LIKS	**Likavka**	**77.17**	**326**	*e*P	**P**	**00 14 48.8**	**+1.3**
LIKS				pmax	pmax		
	comp=Z,122nm,1.2s,mb5.7						
MORC	**Moravsky Berou**	**77.24**	**327**	P	**P**	**00 14 48.7**	**+0.7**
MORC	**Moravsky Berou**	**77.24**	**327**	P	**P**	**00 14 48.0**	**+0.1**
MORC				pmax	pmax		
	comp=Z,410nm,1.5s,mb6.1						
MORC	**Moravsky Berou**	**77.24**	**327**	⇓*i*P	**P**	**00 14 48.4**	**+0.5**
VOIR		**77.25**	**321**	P	**P**	**00 14 48.7**	**+0.6**
VOIR		**77.25**	**321**	⇑*i*P	**P**	**00 14 48.8**	**+0.7**
UPC	**Upice**	**77.27**	**329**	⇑*i*P	**P**	**00 14 48.5**	**+0.4**
UPC				*e*pP	pP	00 14 53.3	-5.2
ANTO	**Ankara**	**77.27**	**312**	P	**P**	**00 14 49.3**	**+1.0**
ANTO				LR	LR		
	comp=Z,6µm,20.0s,MS5.9						
ANTO	**Ankara**	**77.27**	**312**	⇑*i*P	**P**	**00 14 49.2**	**+0.9**
DPC	**Dobruska-Polom**	**77.27**	**328**	⇑*i*P	**P**	**00 14 48.9**	**+0.8**
DPC				*e*pP	pP	00 14 55.0	-3.5
DPC				*e*S	S	00 24 36.4	+1.0
DPC				*e*XS	sS	00 24 51.4	-1.1
DPC				AMS	AMS	00 52 00.0	
	comp=Z,14µm,17.4s						
MME1	**Meikle Cairn**	**77.32**	**342**	⇑*i*P	**P**	**00 14 47.8**	**-0.4**
DRGR		**77.33**	**323**	P	**P**	**00 14 48.9**	**+0.4**
DRGR		**77.33**	**323**	⇓*i*P	**P**	**00 14 48.9**	**+0.4**
ISCO	**Idaho Springs**	**77.40**	**48**	*e*P	**P**	**00 14 49.0**	**0.0**
	comp=Z,34nm,0.9s,mb5.3						
ISCO				LR	LR		
	comp=Z,4µm,21.0s,MS5.7						
ISCO	**Idaho Springs**	**77.40**	**48**	*e*P	**P**	**00 14 49.0**	**0.0**
ISCO				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.3						
ISCO				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.7						
RRR	**Rubha Reidh**	**77.44**	**344**	⇑*e*P	**P**	**00 14 48.7**	**-0.3**
Z14A	**Wintersburg**	**77.47**	**56**	⇑P	**P**	**00 14 50.1**	**+0.6**
	baz=77						
Z14A				⇑S	S	00 24 38.3	+0.2
	baz=77						
MDO	**Dochfour**	**77.52**	**343**	⇑*i*P	**P**	**00 14 49.0**	**-0.3**
MVCO	**Mesa Verde**	**77.55**	**51**	*e*P	**P**	**00 14 50.3**	**+0.3**
	comp=Z,162nm,1.5s,mb5.7						
MVCO				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
MVCO	**Mesa Verde**	**77.55**	**51**	⇓P	**P**	**00 14 50.1**	**+0.1**
	baz=77						
MVCO				⇓S	S	00 24 39.8	+0.8
	baz=77						
RRH	**Rhenigidale**	**77.57**	**344**	⇑*i*P	**P**	**00 14 49.4**	**-0.2**
BUC1	**Bucharest**	**77.58**	**319**	P	**P**	**00 14 50.5**	**+0.6**
BUC1	**Bucharest**	**77.58**	**319**	⇑*i*P	**P**	**00 14 50.0**	**0.0**
MUN	**Mundaring**	**77.61**	**204**	*e*P	**P**	**00 14 49.3**	**-0.7**
MUN				*e*S	S	00 24 38.1	-1.0
KAC	**Achnashellach**	**77.67**	**343**	⇑*e*P	**P**	**00 14 49.8**	**-0.4**
PSZ	**Piszkesteto**	**77.71**	**325**	P	**P**	**00 14 51.4**	**+0.8**
PSZ	**Piszkesteto**	**77.71**	**325**	P	**P**	**00 14 51.2**	**+0.6**
PSZ				pmax	pmax		
	comp=Z,380nm,1.4s,mb6.1						
PSZ	**Piszkesteto**	**77.71**	**325**	*i* Pc	**P**	**00 14 51.5**	**+0.9**
PSZ	**Piszkesteto**	**77.71**	**325**	⇑*i*P	**P**	**00 14 51.4**	**+0.8**
VYHS	**Vyhne**	**77.71**	**326**	*i* P	**P**	**00 14 51.1**	**+0.5**
VYHS				*e*S	S	00 24 47.5	+7.3
VYHS				LR	LR		
	comp=Z,8µm,20.7s,MS6.0						
VYHS	**Vyhne**	**77.71**	**326**	*i* P	**P**	**00 14 51.1**	**+0.5**
VYHS				*e*S	S	00 24 47.5	+7.3
CLL	**Collm**	**77.76**	**331**	⇑*i*P	**P**	**00 14 50.7**	**-0.1**
	comp=Z,950nm,2.0s,mb6.4						
CLL				*e*		00 14 57.0	
CLL				*i*	pP	00 15 00.2	-1.0
CLL				*e*S	S	00 24 40.0	-0.6
CLL				LR	LR		
	comp=Z,19µm,19.9s,MS6.4						
CLL	**Collm**	**77.76**	**331**	⇑*i*P	**P**	**00 14 50.7**	**-0.1**
CLL				*e*		00 14 57.0	
CLL				*i*	pP	00 15 00.2	-1.0
CLL				*e*S	S	00 24 40.0	-0.6
CLL				pmax	pmax		
	comp=Z,950nm,2.0s,mb6.4						
CLL				MLR	MLR		
	comp=Z,19µm,19.9s,MS6.4						
CLL	**Collm**	**77.76**	**331**	*e*P	**P**	**00 14 50.7**	**-0.1**
	comp=Z,260nm,1.1s,mb6.1						
CLL				*e*pP	pP	00 15 01.0	-0.2
CLL				*e*PP	PP	00 17 44.3	-1.4
CLL				*e*S	S	00 24 40.9	+0.3
CLL				*e*SS	SS	00 29 46.2	+6.4
CLL				*e*SSS		00 33 00.3	
CLL				*e*SSSS		00 35 28.4	
CLL				*e*LR	LR	00 41 33.3	
CLL				*e*L		00 52 02.9	
	comp=Z,21µm,20.0s						
CLL	**Collm**	**77.76**	**331**	⇑*i*P	**P**	**00 14 50.7**	**-0.1**
	comp=Z,950nm,2.0s,mb6.4						
CLL				*i* pP	pP	00 15 00.2	-1.0
CLL				*e*x	x	00 17 26.0	
CLL				*i* PP	PP	00 17 46.7	+1.0
CLL				*e*S	S	00 24 40.0	-0.6
CLL				*e*(SS)		00 30 41.0	
CLL				*e*x	x	00 34 27.0	
BRG	**Berggiesshubel**	**77.76**	**330**	⇑*i*P	**P**	**00 14 50.9**	**+0.1**
	comp=Z,137nm,1.5s,mb5.7						
BRG				*i*	pP	00 15 00.1	-1.1
BRG				*i* PP	PP	00 17 38.5	-7.3
BRG				S	S	00 24 42.0	+1.3
BRG				*i*		00 25 16.7	
BRG				SS	SS	00 29 20.0	-20
BRG				LR	LR		
	comp=Z,10µm,22.3s,MS6.1						
BRG	**Berggiesshubel**	**77.76**	**330**	⇑*i*P	**P**	**00 14 50.9**	**+0.1**
BRG				*i*	pP	00 15 00.1	-1.1
BRG				S	S	00 24 42.0	+1.3
BRG				*i*		00 25 16.7	
BRG				pmax	pmax		
	comp=Z,137nm,1.5s,mb5.7						
BRG				MLR	MLR		
	comp=N,6µm,19.5s,MS6.1						
BRG				MLR	MLR		
	comp=E,8µm,23.7s,MS6.1						
BRG				MLR	MLR		
	comp=Z,10µm,22.3s,MS6.1						
BRG	**Berggiesshubel**	**77.76**	**330**	*e*P	**P**	**00 14 51.1**	**+0.3**
	comp=Z,626nm,2.2s,mb6.2						
BRG	**Berggiesshubel**	**77.76**	**330**	⇑*i*P	**P**	**00 14 50.9**	**+0.1**
	comp=Z,229nm,1.5s,mb5.9						
BRG				*i*	pP	00 15 00.1	-1.1
	comp=Z,86nm,1.2s						
BRG				*i* PP	PP	00 17 38.5	-7.3
	comp=Z,84nm,1.5s						
BRG				S	S	00 24 42.0	+1.3
BRG				*i*		00 25 16.7	
	comp=Z,50nm,1.9s						
BRG				SS	SS	00 29 20.0	-20
BRG							
	comp=N,11µm,19.5s						
BRG							
	comp=E,13µm,23.6s						
BRG							
	comp=Z,16µm,22.3s						
PVCC	**Panska Ves**	**77.81**	**329**	⇑*i*P	**P**	**00 14 51.6**	**+0.5**
PVCC				*e*S	S	00 24 41.6	+0.4
PVCC				*e*XS	sS	00 25 00.2	+1.9
PVCC				AMS	AMS	00 52 50.0	
	comp=Z,20µm,17.3s						
KPL	**Plockton**	**77.89**	**343**	⇑*e*P	**P**	**00 14 51.6**	**+0.2**
KPL				AMb	AMB	00 14 54.9	
	comp=Z,582nm,1.7s,mb6.2						
KPL				AMS	AMS	00 51 17.8	
	comp=Z,4µm,20.1s,MS5.7						
KPL	**Plockton**	**77.89**	**343**	P	**P**	**00 14 51.6**	**+0.2**
KPL				AMb	AMB	00 14 54.9	
	comp=Z,582nm,1.7s,mb6.2						
VRAC	**Vranov**	**77.99**	**328**	P	**P**	**00 14 52.9**	**+0.8**
VRAC	**Vranov**	**77.99**	**328**	⇑*i*P	**P**	**00 14 52.9**	**+0.8**
NWAO	**Narrogin (SRO)**	**78.19**	**202**	*e*P	**P**	**00 14 52.7**	**-0.6**
	comp=Z,92nm,1.4s,mb5.5						
NWAO				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
NWAO	**Narrogin (SRO)**	**78.19**	**202**	*e*P	**P**	**00 14 52.7**	**-0.5**
NWAO				pmax	pmax		
	comp=Z,93nm,1.4s						
NWAO				MLR	MLR		
	comp=Z,1µm,20.0s						
PRA	**Prague**	**78.23**	**329**	⇑P	**P**	**00 14 54.0**	**+0.6**
PRA				*e*x	x	00 15 04.0	
PRU	**Pruhonice**	**78.25**	**329**	⇑*i*P	**P**	**00 14 54.1**	**+0.5**
PRU				*e*pP	pP	00 14 59.6	-4.4
PRU				*e*S	S	00 24 44.9	-1.1
PRU				*e*XS	sS	00 25 06.4	+3.3
PRU				AMS	AMS	00 53 00.0	
	comp=Z,17µm,16.7s						
CLZ	**Clausthal**	**78.25**	**332**	*e*P	**P**	**00 14 54.0**	**+0.5**
CLZ				pmax	pmax		
	comp=Z,848nm,1.8s,mb6.4						
CLZ	**Clausthal**	**78.25**	**332**	*e*P	**P**	**00 14 54.0**	**+0.5**
	comp=Z,848nm,1.8s,mb6.4						
EYMN	**Ely**	**78.27**	**34**	*e*P	**P**	**00 14 52.4**	**-1.3**
	comp=Z,47nm,0.8s,mb5.5						
EYMN				LR	LR		
	comp=Z,5µm,22.0s,MS5.8						
SMOL	**Smolenice**	**78.28**	**327**	*i* P	**P**	**00 14 54.7**	**+0.9**
KAR1	**Arisaig**	**78.31**	**343**	⇑*i*P	**P**	**00 14 53.9**	**+0.1**
GZR	**Gura Zlata**	**78.35**	**322**	P	**P**	**00 14 54.6**	**+0.4**
GZR	**Gura Zlata**	**78.35**	**322**	⇑*i*P	**P**	**00 14 54.4**	**+0.2**
115A	**Sonoran Desert**	**78.36**	**57**	⇑P	**P**	**00 14 54.9**	**+0.4**
	baz=78						
115A				⇑S	S	00 24 48.7	+0.9
	baz=78						
ZIMR		**78.42**	**319**	P	**P**	**00 14 55.1**	**+0.5**
BUD	**Budapest**	**78.42**	**325**	⇑*i*P	**P**	**00 14 55.3**	**+0.8**
TREC	**Trest**	**78.44**	**328**	⇑*i*P	**P**	**00 14 55.0**	**+0.4**
TREC				*e*pP	pP	00 15 04.7	-0.3
TREC				*e*S	S	00 24 49.4	+1.4
TREC				AMS	AMS	00 53 20.0	
	comp=Z,16µm,17.1s						
ESY	**Stoneypath**	**78.50**	**341**	⇑*i*P	**P**	**00 14 54.7**	**-0.2**
EDI	**Edinburgh**	**78.63**	**342**	⇑*e*P	**P**	**00 14 55.4**	**-0.2**
EDI				AMb	AMB	00 14 58.0	
	comp=Z,168nm,1.9s,mb5.7						
EDI				AMS	AMS	00 55 52.6	
	comp=Z,5µm,19.8s,MS5.8						
EDI	**Edinburgh**	**78.63**	**342**	P	**P**	**00 14 55.4**	**-0.2**
EDI				AMb	AMB	00 14 58.0	
	comp=Z,168nm,1.9s,mb5.7						
EAB	**Aberfoyle**	**78.66**	**342**	⇑*i*P	**P**	**00 14 55.2**	**-0.5**
WIT	**Witteveen**	**78.66**	**335**	*e*P	**P**	**00 14 56.6**	**+0.8**
WIT				*e*x	x	00 15 06.5	
ZST	**Bratislava**	**78.66**	**327**	*e*P	**P**	**00 14 56.9**	**+1.0**
	comp=Z,95nm,1.4s,mb5.5						
ZST				*e*		00 15 20.9	
ZST				*e*PP	PP	00 17 46.3	-7.1
ZST				*e*S	S	00 24 54.1	+3.6
ZST				LR	LR		
	comp=Z,12µm,18.6s,MS6.3						
ZST	**Bratislava**	**78.66**	**327**	*e*P	**P**	**00 14 56.9**	**+1.0**
ZST				*e*S	S	00 24 54.1	+3.6
ZST				pmax	pmax		
	comp=Z,95nm,1.4s,mb5.5						
ZST				MLR	MLR		
	comp=Z,12µm,18.6s,MS6.3						
ZST	**Bratislava**	**78.66**	**327**	*e*P	**P**	**00 14 56.9**	**+1.0**
ZST				*e*		00 15 20.9	
ZST				*e*PP	PP	00 17 46.3	-7.1
ZST				*e*S	S	00 24 54.1	+3.6
CRAR	**CRAIOVA**	**78.67**	**321**	P	**P**	**00 14 56.8**	**+0.8**
TANN	**Tannenbergstha**	**78.69**	**331**	*e*P	**P**	**00 14 56.3**	**+0.3**
BZS	**Buzias**	**78.71**	**323**	P	**P**	**00 14 56.4**	**+0.2**
BZS	**Buzias**	**78.71**	**323**	⇑*i*P	**P**	**00 14 56.2**	**0.0**
EBL	**Broad Law**	**78.74**	**341**	⇑*i*P	**P**	**00 14 56.2**	**0.0**
IBBN	**Ibbenburen**	**78.74**	**334**	*e*P	**P**	**00 14 56.2**	**0.0**
EAU	**Auchinoon**	**78.77**	**342**	⇑*i*P	**P**	**00 14 56.1**	**-0.2**
116A	**Eloy**	**78.78**	**56**	⇓P	**P**	**00 14 57.4**	**+0.6**
	baz=78						
116A				⇑S	S	00 24 52.9	+0.7
	baz=78						
XSO	**Sourhope Farm**	**78.80**	**341**	⇑*i*P	**P**	**00 14 56.5**	**0.0**
MOX	**Moxa**	**78.81**	**331**	*e*P	**P**	**00 14 56.6**	**0.0**
	comp=Z,456nm,1.9s,mb6.1						
MOX				*e*pP	pP	00 15 06.3	-0.7
MOX				*e*S	S	00 24 53.0	+1.1
MOX	**Moxa**	**78.81**	**331**	*e*P	**P**	**00 14 56.6**	**0.0**
	comp=Z,456nm,1.9s,mb6.1						
MOX				*e*	pP	00 15 06.3	-0.7
MOX							
	comp=Z,11µm,21.0s						
MOX	**Moxa**	**78.81**	**331**	*e*P	**P**	**00 14 56.6**	**0.0**
MOX				*e*	pP	00 15 06.3	-0.7
MOX				pmax	pmax		
	comp=Z,456nm,1.9s,mb6.1						
MOX				MLR	MLR		
	comp=Z,11µm,21.0s,MS6.2						
MOX	**Moxa**	**78.81**	**331**	⇑*i*P	**P**	**00 14 56.8**	**+0.2**
	comp=Z,523nm,1.9s,mb6.1						
MOX				*e*pP	pP	00 15 06.5	-0.5
NKC	**Novy Kostel**	**78.84**	**330**	⇑*i*P	**P**	**00 14 57.1**	**+0.3**
NKC				*e*		00 15 02.2	
NKC				*e*S	S	00 24 52.4	+0.1
NKC	**Novy Kostel**	**78.84**	**330**	⇑*i*P	**P**	**00 14 57.1**	**+0.3**
NKC				*e*pP	pP	00 15 02.2	-5.0
NKC				*e*S	S	00 24 52.4	+0.1
NKC				AMS	AMS	00 52 20.0	
	comp=Z,18µm,20.6s						
SDCO	**Great Sand Dun**	**78.90**	**49**	*e*P	**P**	**00 14 57.6**	**+0.3**
	comp=Z,56nm,1.3s,mb5.3						
SDCO				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
TOO	**Toolangi**	**79.01**	**178**	*e*P	**P**	**00 15 00.5**	**+2.9**
	comp=Z,8.2nm,0.9s,mb4.7						
TOO	**Toolangi**	**79.01**	**178**	*e*P	**P**	**00 15 00.5**	**+2.9**
TOO				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
PGBU	**Glenifferbraes**	**79.04**	**342**	⇑*e*P	**P**	**00 14 57.8**	**0.0**
PGBU				AMb	AMB	00 15 01.4	
	comp=Z,297nm,1.7s,mb5.9						
DJES	**Djerdap**	**79.04**	**321**	*e*P	**P**	**00 14 57.5**	**-0.5**
PMSU	**Muirshiel**	**79.06**	**342**	⇑*e*P	**P**	**00 14 57.8**	**-0.2**
FKH	**Fakeheh**	**79.07**	**306**	*e*P	**P**	**00 14 59.3**	**+0.9**
RAO	**Raoul Island**	**79.16**	**146**	PFAKE		00 15 10.0	+11
RAO				LR	LR		
	comp=Z,7µm,19.0s,MS6.0						
MANZ	**Manzenberg**	**79.17**	**330**	*e*P	**P**	**00 14 59.0**	**+0.4**
ESK	**Eskdalemuir**	**79.19**	**341**	P	**P**	**00 14 58.5**	**-0.1**
	comp=Z,413nm,1.0s,mb6.3,SNR=13						

ESK	Eskdalemuir	79.19	341	⇑*i*P	P	00 14 58.5	-0.1
ESK				AMb	AMB	00 14 59.7	
	comp=Z,211nm,1.7s,mb5.8						
ESK				AMS	AMS	00 56 18.8	
	comp=Z,6µm,19.1s,MS6.0						
ESK	Eskdalemuir	79.19	341	P	P	00 14 58.5	-0.1
ESK				AMb	AMB	00 14 59.7	
	comp=Z,211nm,1.7s,mb5.8						
ESK	Eskdalemuir	79.19	341	*e*P	P	00 14 58.4	-0.3
	comp=Z,494nm,1.9s,mb6.1						
ESK				LR	LR		
	comp=Z,7µm,19.0s,MS6.0						
ESK	Eskdalemuir	79.19	341	*e*P	P	00 14 58.4	-0.2
ESK				pmax	pmax		
	comp=Z,494nm,1.9s,mb6.1						
ESK				MLR	MLR		
	comp=Z,7µm,19.0s,MS6.0						
ECSD	EROS,Sioux Fal	79.19	40	⇑*e*P	P	00 14 57.6	-1.2
	comp=Z,77nm,0.9s,mb5.6						
ECSD				LR	LR		
	comp=Z,8µm,22.0s,MS6.0						
UBBA	Unterbreizbach	79.23	332	*e*P	P	00 14 58.9	-0.1
SOP	Sopron	79.29	327	⇑*i*P	P	00 15 00.4	+1.1
ROTZ	Rotzenmuhle	79.31	330	*e*P	P	00 15 00.0	+0.6
	comp=Z,767nm,2.0s,mb6.3						
KHC	Kasperske Hory	79.31	329	⇑*i*P	P	00 14 59.9	+0.5
KHC				*e*pP	pP	00 15 06.1	-3.7
KHC				*e*S	S	00 24 57.0	-0.3
KHC				AMS	AMS	00 53 30.0	
	comp=Z,17µm,17.3s						
WTSB	Winterswijk	79.34	334	*e*P	P	00 14 59.3	-0.3
	comp=Z,339nm,2.0s,mb5.9						
WTSB				*e*x	pP	00 15 09.2	-0.7
XAL	Allendale	79.36	341	⇑*i*P	P	00 14 59.4	-0.2
CONA	Conrad Observa	79.38	327	⇓*i*P	P	00 15 00.8	+1.0
	comp=Z,188nm,1.8s,mb5.7,SNR=44						
BHH	Howats Hill	79.40	341	⇑*i*P	P	00 14 59.8	0.0
BWH	Wardlaw	79.43	342	⇑*i*P	P	00 14 59.8	-0.2
GEC2	GERESS Array S	79.50	329	*e*P	P	00 15 00.7	+0.3
GEC2				pmax	pmax		
	comp=Z,437nm,2.1s,mb6.0						
GEC2	GERESS Array S	79.50	329	*e*P	P	00 15 00.7	+0.3
	comp=Z,437nm,2.1s,mb6.0						
GERES	GERESS Array B	79.50	329	P	P	00 15 00.6	+0.2
GERES				LR	LR	00 54 12.2	
GERES	GERESS Array B	79.50	329	P	P	00 15 00.6	+0.2
GERES				pmax	pmax		
	comp=Z,20nm,0.9s						
GERES				MLR	MLR		
	comp=Z,18µm,18.9s						
GERES	GERESS Array B	79.50	329	P	P	00 15 00.6	+0.2
	comp=Z,20nm,0.8s,mb5.1,baz=34,slow=5.2,SNR=60						
GERES				LR	LR	00 54 12.2	
	comp=Z,18µm,18.9s,MS6.4,baz=22,slow=39						
TUC	Tucson	79.52	56	*e*P	P	00 15 00.9	+0.1
	comp=Z,84nm,1.6s,mb5.4						
TUC				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
TUC	Tucson	79.52	56	*e*P	P	00 15 00.9	0.0
TUC				pmax	pmax		
	comp=Z,84nm,1.6s,mb5.4						
TUC				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.6						
WET	Wettzell	79.57	330	*e*P	P	00 15 01.5	+0.7
WET				*e**PP	pP	00 15 11.4	+0.2
WET				pmax	pmax		
	comp=Z,870nm,2.1s,mb6.3						
WET	Wettzell	79.57	330	*e*P	P	00 15 01.5	+0.7
	comp=Z,870nm,2.1s,mb6.3						
WET				*e*pP	pP	00 15 11.4	+0.2
PKSM	Moragy	79.57	325	P	P	00 15 00.8	-0.1
PKSM	Moragy	79.57	325	⇑*i*P	P	00 15 00.6	-0.3
BDL	Dobcross Hall	79.59	341	⇑*i*P	P	00 15 00.7	-0.2
BUG	Bochum--Univer	79.64	334	*e*P	P	00 15 01.0	-0.1
GMK	Mull of Kintyr	79.72	343	⇑*e*P	P	00 15 01.4	-0.1
GRA1	Grafenberg Arr	79.73	331	*e*P	P	00 15 02.4	+0.7
	comp=Z,1µm,2.1s,mb6.5						
GRA1				*e*pP	pP	00 15 12.3	+0.2
GRA1				*e*S	S	00 25 02.3	+0.5
GRA1				LR	LR		
	comp=Z,12µm,21.0s,MS6.2						
GRF	Grafenberg Arr	79.73	331	*e*P	P	00 15 02.4	+0.7
GRF				*e**PP	pP	00 15 12.3	+0.2
GRF				*e*S	S	00 25 02.3	+0.5
GRF				pmax	pmax		
	comp=Z,1µm,2.1s,mb6.5						
GRF				MLR	MLR		
	comp=Z,12µm,21.0s,MS6.2						
GRF	Grafenberg Arr	79.73	331	*e*P	P	00 15 02.4	+0.7
GRF				*e**PP	pP	00 15 12.3	+0.2
GRF				*e*S	S	00 25 02.3	+0.5
GRF				pmax	pmax		
	comp=Z,1µm,2.1s,mb6.5						
GRF				MLR	MLR		
	comp=Z,12µm,21.0s,MS6.2						
GRF	Grafenberg Arr	79.73	331	*e*P	P	00 15 02.4	+0.7
	comp=Z,1µm,2.1s,mb6.5						
GRF				*e*pP	pP	00 15 12.3	+0.2
GRF				*e*S	S	00 25 02.3	+0.5
GRF				*e*L		00 52 39.6	
	comp=Z,12µm,21.0s						
GRFO	Grafenberg	79.74	331	*e*P	P	00 15 02.1	+0.4
	comp=Z,318nm,1.1s,mb6.2						
GRFO				LR	LR		
	comp=Z,11µm,20.0s,MS6.2						
GRFO	Grafenberg	79.74	331	*e*P	P	00 15 02.1	+0.4
GRFO				pmax	pmax		
	comp=Z,318nm,1.1s,mb6.2						
GRFO				MLR	MLR		
	comp=Z,11µm,20.0s,MS6.2						
BHL	Bhannes	79.75	306	*e*P	P	00 15 02.5	+0.4
GCD	Castle Douglas	79.78	342	⇑*i*P	P	00 15 01.7	-0.1
CKE	Keswick	79.83	341	⇑*i*P	P	00 15 02.3	+0.2
BEO	Belgrade	79.85	323	*i* P	P	00 15 01.8	-0.6
FGSL	Fruska Gora	79.88	323	*i* P	P	00 15 02.5	-0.1
SVIS	Svilajnac	79.90	322	*i* P	P	00 15 02.3	-0.4
RCY	Rachaya	79.94	306	*e*P	P	00 15 03.8	+0.7
GAL1	Galloway	79.96	342	⇑*e*P	P	00 15 02.5	-0.3
GAL1				AMb	AMB	00 15 05.2	
	comp=Z,316nm,1.4s,mb6.0						
GAL1				AMS	AMS	00 54 15.7	
	comp=Z,4µm,19.7s,MS5.8						
GAL1	Galloway	79.96	342	P	P	00 15 02.5	-0.3
GAL1				AMb	AMB	00 15 05.2	
	comp=Z,316nm,1.4s,mb6.0						
ISP	Isparta	79.96	312	*e*P	P	00 15 02.9	-0.3
ISP	Isparta	79.96	312	P	P	00 15 03.6	+0.4
ISP				pmax	pmax		
	comp=Z,110nm,1.1s,mb5.7						
HPK	Haverah Park	80.03	340	⇑*e*P	P	00 15 03.2	0.0
HPK				AMb	AMB	00 15 15.5	
	comp=Z,412nm,1.3s,mb6.2						
HPK				AMS	AMS	00 56 06.2	
	comp=Z,13µm,19.9s,MS6.3						
HPK	Haverah Park	80.03	340	P	P	00 15 03.2	0.0
HPK				AMb	AMB	00 15 15.5	
	comp=Z,412nm,1.3s,mb6.2						
ARSA	Arzberg	80.06	327	*i* P	P	00 15 04.0	+0.5
	comp=Z,1µm,2.8s,mb6.3,SNR=25						
GCL	Cushendall	80.08	343	⇑*i*P	P	00 15 03.6	+0.1
MOA	Molln	80.08	328	*i* P	P	00 15 03.9	+0.3
	comp=Z,1µm,2.7s,mb6.3,SNR=16						
ALN	Alexandroupoli	80.12	317	*e*P	P	00 15 04.4	+0.4
ASF	Jabal al Asfar	80.18	304	P	P	00 15 05.0	+0.6
ASF						00 18 11.1	
ASF				pmax	pmax		
	comp=Z,36nm,0.9s						
ASF				MLR	MLR		
	comp=Z,1µm,20.7s						
ASF	Jabal al Asfar	80.18	304	P	P	00 15 05.0	+0.6
	comp=Z,36nm,0.9s,mb5.3,baz=277,slow=1.9,SNR=69						
ASF				PP	PP	00 18 11.1	+4.6
	comp=Z,40nm,1.2s,baz=306,slow=1.2,SNR=4.6						
ASF				LR	LR	00 51 51.7	
	comp=Z,1µm,20.7s,MS5.2,baz=153,slow=36						
RDO	Rodhopi	80.19	317	*e*P	P	00 15 05.3	+1.0
VTS	Vitosha	80.26	320	*e*P	P	00 15 05.5	+0.8
VTS	Vitosha	80.26	320	⇓*i*P	P	00 15 05.7	+1.0
VTS	Vitosha	80.26	320	*i* P	P	00 15 05.4	+0.7
TNS	Taunus Mts	80.28	333	*e*P	P	00 15 04.7	+0.1
TNS				pmax	pmax		
	comp=Z,205nm,1.4s,mb5.9						
TNS	Taunus Mts	80.28	333	*e*P	P	00 15 04.7	+0.1
	comp=Z,205nm,1.4s,mb5.9						
LAZ	Ladron	80.29	52	*e*P	P	00 15 05.5	+0.5
ANMO	Albuquerque	80.31	52	*e*P	P	00 15 05.4	+0.3
	comp=Z,133nm,1.7s,mb5.6						
ANMO				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
ANMO	Albuquerque	80.31	52	⇑*i*P	P	00 15 05.2	+0.1
MAMC	Mammari	80.31	309	⇑P	P	00 15 05.0	-0.1
SCHQ	Schefferville	80.31	17	P	P	00 15 04.2	-0.6
	comp=Z,38nm,0.8s,mb5.4,baz=349,slow=5.2,SNR=41						
SCHQ				LR	LR	00 56 03.4	
	comp=Z,4µm,18.0s,MS5.8,baz=334,slow=40						
CSS	Prodhromos	80.39	309	*e*P	P	00 15 05.4	-0.1
KOGS	Kog	80.41	326	*e*P	P	00 15 05.0	-0.4
GIM	North Isle of	80.43	342	⇑*e*P	P	00 15 04.4	-0.9
GRUS	Gruza	80.45	322	*i* P	P	00 15 05.4	-0.3
LHO	Holmfirth	80.46	340	⇑*i*P	P	00 15 05.5	-0.1
LENM	Lemitar	80.55	52	*e*P	P	00 15 06.7	+0.3
WIM	Isle of Man	80.61	342	⇑*i*P	P	00 15 06.4	+0.1
DIVS	Divcibare	80.62	322	*e*P	P	00 15 06.6	0.0
DIVS	Divcibare	80.62	322	*i* P	P	00 15 06.6	0.0
KBI1	Birley Grange	80.64	340	⇑*i*P	P	00 15 06.4	-0.1
Y22C	IRIS PASSCAL I	80.65	52	⇑P	P	00 15 07.8	+0.9
	baz=80						
Y22C				⇑S	S	00 25 15.6	+3.7
	baz=80						
HGN	Heimansgroeve	80.65	334	*e*P	P	00 15 04.7	-1.9
	comp=Z,252nm,2.0s,mb5.8						
HGN				*e*x	x	00 15 15.9	
HGN				*e*PP	PP	00 18 16.7	+6.9
HGN				*e*S	S	00 25 09.1	-2.3
LPM	Los Pinos Moun	80.65	52	*e*P	P	00 15 07.3	+0.3
TOD	Tromm	80.67	332	*e*P	P	00 15 06.8	0.0
ALFC	Alevga	80.68	309	⇑P	P	00 15 06.6	-0.5
	comp=Z,2.3nm,1.1s						
ALFC	Alevga	80.68	309	⇑*e*P	P	00 15 06.6	-0.5
BEBN	Eben Emael	80.71	334	P	P	00 15 06.8	-0.1
	comp=Z,62nm,1.2s,mb5.4						
PERS	Pernice	80.72	327	*e*P	P	00 15 07.5	+0.4
PERS				*e*	pP	00 15 16.4	-1.1
PERS				*e*S	S	00 25 11.3	-1.0
BARS	Barje	80.75	321	*i* P	P	00 15 07.4	+0.1
MEM	Membach	80.76	334	P	P	00 15 07.0	-0.3
	comp=Z,100nm,1.5s,mb5.5						
BNM	Barren Site	80.77	52	*e*P	P	00 15 08.0	+0.4
SZAC	Souni-Zanaja	80.80	309	⇑P	P	00 15 07.7	0.0
SZAC	Souni-Zanaja	80.80	309	⇑*e*P	P	00 15 07.7	0.0
GMM	Mts of Mourne	80.82	342	⇑*i*P	P	00 15 07.1	-0.3
ABH	Alteburg	80.87	333	*e*P	P	00 15 07.6	-0.2
NVR	Nevrokopi	80.88	318	*e*P	P	00 15 08.8	+0.8
AKMC	Akamas	80.93	309	⇑P	P	00 15 07.5	-0.9
KWE	Weaver Farm	80.94	340	⇑*i*P	P	00 15 08.0	-0.1
FUR	Furstenfeldbru	80.98	330	*e*P	P	00 15 08.9	+0.5
FUR				*e**PP	pP	00 15 18.6	-0.3
FUR				pmax	pmax		
	comp=Z,2µm,2.2s,mb6.6						
FUR	Furstenfeldbru	80.98	330	*e*P	P	00 15 08.9	+0.5
	comp=Z,2µm,2.2s,mb6.6						
FUR				*e*pP	pP	00 15 18.6	-0.3
OBKA	Obir	81.06	327	*i* P	P	00 15 08.9	0.0
	comp=Z,2µm,3.8s,SNR=24						
BBLS	Bajina Basta -	81.06	323	*i* P	P	00 15 10.1	+1.1
KBA	Koelnbreinsper	81.08	328	*i* P	P	00 15 09.2	+0.3
	comp=Z,1µm,2.2s,mb6.4,SNR=58						
KBA	Koelnbreinsper	81.08	328	*i* P	P	00 15 09.2	+0.2
KBA				pmax	pmax		
	comp=Z,1µm,2.2s,mb6.4						
UCC	Uccle	81.13	335	P	P	00 15 08.7	-0.4
	comp=Z,146nm,2.0s,mb5.6						
SISC	Sisak	81.13	325	iP	P	00 15 09.6	+0.3
BCLA	Clavier	81.16	334	P	P	00 15 09.0	-0.3
	comp=Z,92nm,1.9s,mb5.4						
KTD	Kalmit	81.17	332	*e*P	P	00 15 09.4	0.0
SRS	Serrai	81.19	318	*e*P	P	00 15 10.5	+0.9
RUP	Ruppelstein	81.19	333	*e*P	P	00 15 09.4	-0.1
PRK	Paraskevi	81.22	316	*e*P	P	00 15 10.4	+0.5
STU	Stuttgart	81.24	331	*e*P	P	00 15 09.9	+0.1
	comp=Z,1µm,2.3s,mb6.4						
STU				*e*pP	pP	00 15 19.7	-0.5
TCR	Colchester	81.25	338	⇑*e*P	P	00 15 09.6	-0.2
CBKS	Cedar Bluff	81.28	45	*e*P	P	00 15 09.0	-1.2
	comp=Z,155nm,1.3s,mb5.8						
CBKS				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
CBKS	Cedar Bluff	81.28	45	P	P	00 15 09.4	-0.8
CBKS				pmax	pmax		
	comp=Z,160nm,1.2s,mb5.8						
WCB1	Church Bay	81.28	341	⇑*e*P	P	00 15 09.6	-0.3
SJES	Sjenica	81.29	322	*i* P	P	00 15 10.0	-0.2
LIA	Limnos Island	81.30	317	*e*P	P	00 15 13.3	+3.0
MYKA	Terra Mystica	81.32	328	⇑*i*P	P	00 15 10.0	-0.3
	comp=Z,3µm,2.1s,mb6.8						
WLF1	Llynfaes	81.33	341	⇑*i*P	P	00 15 09.8	-0.4
SBD1	Bryn Du	81.40	340	⇑*i*P	P	00 15 10.7	+0.1
SNF	Seneffe	81.40	335	P	P	00 15 10.1	-0.5
	comp=Z,131nm,2.1s,mb5.5						
YRC	Rhoscolyn	81.41	341	⇑*i*P	P	00 15 10.3	-0.3
STIP	Stip	81.44	320	*e*P	P	00 15 10.5	-0.5
STIP	Stip	81.44	320	⇑*i*P	P	00 15 10.8	-0.2
STIP				*i* PP	PP	00 18 07.5	-9.1
STIP				*i* S	S	00 25 22.3	+2.4
LJU	Ljubljana	81.44	327	*e*P	P	00 15 10.5	-0.4
LJU				*e*S	S	00 25 18.1	-1.7
LJU				*e*		00 25 26.2	
PLE	Pljevlja	81.49	322	⇑*i*P	P	00 15 12.1	+0.9
KNT	Kendrikon	81.50	319	*e*P	P	00 15 11.5	+0.2
SOH	Sokhos	81.53	318	*e*P	P	00 15 11.4	-0.1
WLF	Walferdange	81.53	334	*e*P	P	00 15 11.2	-0.1
	comp=Z,387nm,1.8s,mb6.0						
WLF	Walferdange	81.53	334	*e*P	P	00 15 11.2	-0.1
WLF				pmax	pmax		
	comp=Z,387nm,1.8s,mb6.0						
WLF	Walferdange	81.53	334	P	P	00 15 11.7	+0.4
	comp=Z,157nm,2.3s,mb5.5						
WLF	Walferdange	81.53	334	*e*P	P	00 15 11.4	+0.1
VAY	Valandovo	81.54	319	*e*P	P	00 15 11.5	0.0
VAY	Valandovo	81.54	319	⇑*i*P	P	00 15 11.4	-0.1
VAY				*i* PP	PP	00 18 17.0	-0.4
VAY				*i* S	S	00 25 19.4	-1.6
LANF	Langenberg	81.55	332	*e*P	P	00 15 11.1	-0.3
WATA	Walderalm	81.55	329	*i* P	P	00 15 11.9	+0.4
	comp=Z,531nm,1.8s,mb6.2,SNR=44						
WATA	Walderalm	81.55	329	*i* P	P	00 15 11.9	+0.4
WATA				pmax	pmax		
	comp=Z,531nm,1.8s,mb6.2						
BOJS	Bojanci	81.58	326	*e*P	P	00 15 11.5	-0.1
BOJS				*e*S	S	00 25 20.7	-0.5
OUR	Ouranopolis	81.58	318	*e*P	P	00 15 11.8	0.0
GIVF	Givet	81.58	335	*e*P	P	00 15 11.2	-0.4
	comp=Z,212nm,1.2s,mb5.7						
GIVF	Givet	81.58	335	*e*P	P	00 15 11.2	-0.4
	comp=Z,106nm,1.2s,mb5.7						
GIVF	Givet	81.58	335	*e*P	P	00 15 11.2	-0.4
GIVF				pmax	pmax		
	comp=Z,106nm,1.2s,mb5.7						
SKO	Skopje	81.58	320	*e*P	P	00 15 13.0	+1.3
SKO	Skopje	81.58	320	⇑*i*P	P	00 15 13.2	+1.5
SKO				*i* PP	PP	00 18 20.6	+2.8
SKO				*i* S	S	00 25 24.0	+2.6
WTTA	Wattenberg	81.59	329	*i* P	P	00 15 12.2	+0.5
	comp=Z,2µm,2.7s,mb6.5,SNR=49						
WTTA	Wattenberg	81.59	329	*i* P	P	00 15 12.2	+0.5
WTTA				pmax	pmax		
	comp=Z,2µm,2.7s,mb6.5						
CADS	Cadrg	81.61	327	*e*P	P	00 15 10.5	-1.3
CADS				*e*	pP	00 15 20.2	-2.0
IVA	Berane	81.61	322	⇑*i*P	P	00 15 12.0	+0.1
YRE	Yr Eifl	81.62	341	⇑*i*P	P	00 15 11.7	0.0
PTCC	Patocco-Chiusa	81.62	328	*i* Pu	P	00 15 11.0	-0.9
	comp=Z,377nm,2.0s,mb6.0						
HLM1	Long Mynd	81.66	340	⇑*e*P	P	00 15 11.8	-0.1
DOU	Dourbes	81.66	335	P	P	00 15 11.7	-0.4
	comp=Z,67nm,1.9s,mb5.2						
ABTA	Abfaltersbach	81.67	328	⇑*i*P	P	00 15 11.4	-0.8
	comp=Z,610nm,2.6s,mb6.1,SNR=21						
VOY	Vojsko	81.71	327	*e*P	P	00 15 11.2	-1.1
VOY				*e*		00 15 17.3	
VOY				*e*		00 15 56.3	
MOTA	Moosalm	81.72	330	*i* P	P	00 15 12.9	+0.5
	comp=Z,216nm,1.1s,mb6.0,SNR=81						
MOTA	Moosalm	81.72	330	*i* P	P	00 15 12.9	+0.5
MOTA				pmax	pmax		
	comp=Z,216nm,1.1s,mb6.0						
RETA	Reutte	81.74	330	*i* P	P	00 15 12.7	+0.3
	comp=Z,2µm,2.8s,mb6.5,SNR=67						
GMNA	Gemona	81.78	328	P	P	00 15 12.0	-0.7
	comp=Z,367nm,0.9s,mb6.3						
SQTA	Sankt Quirin	81.79	329	*i* P	P	00 15 13.2	+0.5
	comp=Z,777nm,2.1s,mb6.3,SNR=29						
SQTA	Sankt Quirin	81.79	329	*i* P	P	00 15 13.2	+0.5
SQTA				pmax	pmax		
	comp=Z,777nm,2.1s,mb6.3						
PVY	Plav	81.79	322	⇑*i*P	P	00 15 12.2	-0.7
UPM	Unac-Piva	81.81	323	⇑*i*P	P	00 15 12.7	-0.2
BAIF	Baives	81.82	335	*e*P	P	00 15 12.5	-0.3
	comp=Z,500nm,1.8s,mb5.8						
BAIF	Baives	81.82	335	*e*P	P	00 15 12.5	-0.3
	comp=Z,250nm,1.8s,mb5.8						
BAIF	Baives	81.82	335	*e*P	P	00 15 12.5	-0.3
BAIF				pmax	pmax		
	comp=Z,250nm,1.8s,mb5.8						
PLG	Polygyros	81.82	318	*e*P	P	00 15 13.1	0.0
PLG	Polygyros	81.82	318	*e*P	P	00 15 13.6	+0.6
DLF	Lyons Farm	81.82	342	⇓*i*P	P	00 15 11.3	-1.5
HORT	Hortiatis	81.82	318	*e*P	P	00 15 12.7	-0.3
SKP1	Kophill	81.83	338	⇑*i*P	P	00 15 12.4	-0.4
DSB	Dublin	81.83	342	*e*P	P	00 15 12.8	-0.1
	comp=Z,81nm,1.1s,mb5.6						
THE	Thessaloniki	81.86	319	*e*P	P	00 15 12.6	-0.6
SSW	Stow on the Wo	81.89	339	⇑*e*P	P	00 15 13.3	+0.1
GRG	Griva	81.89	319	*e*P	P	00 15 13.2	-0.2
STR	Strasbourg	81.90	332	*e*P	P	00 15 13.5	+0.2
BFO	Black Forest	81.92	332	P	P	00 15 13.5	+0.1
	comp=Z,578nm,1.8s,mb6.2,SNR=26						
BFO	Black Forest	81.92	332	*e*P	P	00 15 13.4	0.0
	comp=Z,460nm,1.8s,mb6.1						
BFO				LR	LR		
	comp=Z,9µm,22.0s,MS6.1						
BFO	Black Forest	81.92	332	*e*P	P	00 15 13.4	0.0
	comp=Z,460nm,1.8s,mb6.1						
DCN	Croghan	81.94	343	⇓*i*P	P	00 15 12.3	-1.1
SPAK	Spaichingen-Ko	81.95	331	*e*P	P	00 15 13.7	+0.2
CHOS	Chios island	81.97	315	*e*P	P	00 15 13.9	+0.1
MENF	Mencas	82.02	336	*e*P	P	00 15 13.5	-0.4
PAIG	Paliouri	82.04	318	*e*P	P	00 15 14.0	-0.2
SKDS	Skadanscina	82.06	327	*e*P	P	00 15 13.3	-0.8
NKY	Niksic	82.07	322	⇑*i*P	P	00 15 13.3	-1.0
FETA	Feichten	82.14	330	*i* P	P	00 15 14.9	+0.4
	comp=Z,2µm,4.1s,SNR=56						
KRUS	Krusevo	82.14	320	⇑*i*P	P	00 15 15.5	+0.8
KRUS				*i* PP	PP	00 18 19.5	-2.9
KRUS				*i* S	S	00 25 28.5	+1.4
HTR	Trewern Hill	82.16	340	⇑*e*P	P	00 15 13.8	-0.8
MCH1	Michaelchurch	82.16	340	⇑*i*P	P	00 15 14.4	-0.2
MCH1				⇑*i*P		00 15 14.4	
MCH1				AMb	AMB	00 15 15.6	
	comp=Z,222nm,1.3s,mb5.9						
MCH1	Michaelchurch	82.16	340	P	P	00 15 14.4	-0.1
MCH1				AMb	AMB	00 15 15.6	
	comp=Z,222nm,1.3s,mb5.9						
SCIA	State Center	82.20	39	*e*P	P	00 15 14.1	-0.9
	comp=Z,107nm,0.8s,mb5.8						
SCIA				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
BRY	Bratogost	82.21	323	⇑*i*P	P	00 15 14.2	-0.8
CDF	Champ du Feu	82.22	332	⇑*i*P	P	00 15 14.8	-0.2
	comp=Z,768nm,1.7s,mb6.1						
CDF	Champ du Feu	82.22	332	⇑*i*P	P	00 15 14.8	-0.2
	comp=Z,384nm,1.7s,mb6.0						
CDF	Champ du Feu	82.22	332	⇑*i*P	P	00 15 14.8	-0.2
CDF				pmax	pmax		
	comp=Z,384nm,1.7s,mb6.0						
DAVA	Damuels	82.23	330	*i* P	P	00 15 15.4	+0.3
	comp=Z,1µm,2.9s,mb6.4,SNR=28						
TTG	Podgorica	82.25	322	⇑*i*P	P	00 15 15.0	-0.3
SWN1	Swindon	82.29	339	⇑*e*P	P	00 15 15.3	+0.1
BIA	Bitola	82.37	320	*e*P	P	00 15 15.1	-0.8
BIA	Bitola	82.37	320	⇑*i*P	P	00 15 15.1	-0.8
BIA				*i* PP	PP	00 18 24.2	-0.1
BIA				*i* S	S	00 25 31.7	+2.2
APPI	Appiano	82.40	329	P	P	00 15 14.8	-1.1
FELD	Feldberg im Sc	82.42	332	*e*P	P	00 15 15.7	-0.3
ECH	Echery	82.43	332	*e*P	P	00 15 15.7	-0.4
HGH	Gray Hill	82.44	340	⇑*i*P	P	00 15 15.6	-0.5
NVLJ	Novalja	82.50	326	iP	P	00 15 15.5	-1.0
LIT	Litokhoron	82.50	318	*e*P	P	00 15 16.0	-0.7
AOS	Alonnisos	82.51	317	*e*P	P	00 15 17.0	+0.3
BUM	Brajici-Budva	82.52	322	⇑*i*P	P	00 15 16.2	-0.5
FNA	Florina	82.53	320	*e*P	P	00 15 16.3	-0.5
OHR	Ohrid	82.55	320	*e*P	P	00 15 16.4	-0.5
OHR	Ohrid	82.55	320	⇑*i*P	P	00 15 16.2	-0.6
OHR				*i* PP	PP	00 18 29.8	+4.0
OHR				*i* S	S	00 25 29.4	-2.0
CTI	Castel Tesino	82.59	328	*i* Pu	P	00 15 16.1	-0.9
	comp=Z,93nm,0.9s,mb5.8						
CTI	Castel Tesino	82.59	328	*i* P	P	00 15 16.1	-0.9
CTI				pmax	pmax		
	comp=Z,93nm,0.9s,mb5.8						
HCY	Herceg Novi	82.59	322	⇑*i*P	P	00 15 16.3	-0.7
STON	Ston	82.62	323	iP	P	00 15 16.0	-1.2
ULC	Ulcinj	82.62	322	⇑*i*P	P	00 15 16.9	-0.3
KSU1	Kansas State U	82.69	43	*e*P	P	00 15 16.1	-1.5
	comp=Z,59nm,0.8s,mb5.7						
KSU1				LR	LR		
	comp=Z,9µm,22.0s,MS6.1						
KZN	Kozani	82.70	319	*e*P	P	00 15 17.4	-0.2
XOR	Xorichti	82.71	318	*e*P	P	00 15 17.1	-0.6
MOF	Molkenrain	82.75	332	*e*P	P	00 15 17.2	-0.5
JFWS	Jewell Farm	82.77	37	*e*P	P	00 15 16.4	-1.5
	comp=Z,38nm,1.0s,mb5.4						
JFWS				LR	LR		
	comp=Z,8µm,22.0s,MS6.0						
JFWS	Jewell Farm	82.77	37	P	P	00 15 16.8	-1.2
JFWS				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.4						
TIR	Tirane	82.81	321	*e*P	P	00 15 18.3	+0.1
THEF	They Montfort	82.82	333	*e*P	P	00 15 17.8	-0.3
HINF	Hinteralfeld	82.88	332	⇑*i*P	P	00 15 17.8	-0.6
	comp=Z,105nm,1.0s,mb5.5						
HINF	Hinteralfeld	82.88	332	⇑*i*P	P	00 15 17.8	-0.6
	comp=Z,52nm,1.0s,mb5.5						
HINF	Hinteralfeld	82.88	332	⇑*i*P	P	00 15 17.8	-0.6
HINF				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.5						
HAU	Haudompre	82.89	333	*e*P	P	00 15 17.9	-0.6
	comp=Z,166nm,1.1s,mb5.7						
HAU				*e*MLR	MLR		
	comp=Z,11µm,19.5s,MS5.9						
HAU	Haudompre	82.89	333	*e*P	P	00 15 17.9	-0.6
	comp=Z,83nm,1.1s,mb5.7						
HAU				LR	LR		
	comp=Z,11µm,19.5s,MS6.2						
HAU	Haudompre	82.89	333	*e*P	P	00 15 17.9	-0.6
HAU				pmax	pmax		
	comp=Z,83nm,1.1s,mb5.7						
HAU				MLR	MLR		
	comp=Z,11µm,19.5s,MS6.2						
MEZF	Maizieres J'vi	82.90	334	*e*P	P	00 15 18.5	0.0
	comp=Z,770nm,1.5s,mb6.2						
MEZF	Maizieres J'vi	82.90	334	*e*P	P	00 15 18.5	0.0
	comp=Z,770nm,1.5s,mb6.5						
BBS	Basel-Blauen	82.94	332	*e*P	P	00 15 18.7	-0.1
MABI	Malga Bissina	83.02	329	*i* Pu	P	00 15 18.8	-0.4
AMTX	Amarillo	83.10	49	*e*P	P	00 15 19.7	-0.1
	comp=Z,63nm,1.1s,mb5.6						
AMTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
THL	Klokotos Trika	83.15	318	*e*P	P	00 15 19.2	-0.8
HEX	Exmoor	83.22	340	⇑*i*P	P	00 15 19.9	-0.2
APE	Apeiranthos	83.23	315	*e*P	P	00 15 19.0	-1.4
APE	Apeiranthos	83.23	315	*e*P	P	00 15 19.8	-0.6
MNTX	Cornudas Mount	83.24	53	*e*P	P	00 15 20.1	-0.5
	comp=Z,52nm,1.3s,mb5.4						
MNTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
LOMF	Lomont	83.28	332	*e*P	P	00 15 20.0	-0.5
LKR	Lokris	83.35	317	*e*P	P	00 15 20.5	-0.5
AGG	Agios Georgios	83.41	318	*e*P	P	00 15 20.1	-1.2
HTL	Hartland	83.46	340	*e*P	P	00 15 21.7	+0.4
HTL				AMb	AMB	00 15 38.6	
	comp=Z,276nm,1.9s,mb6.0						
HTL				AMS	AMS	00 58 21.0	
	comp=Z,11µm,19.9s,MS6.2						
HTL	Hartland	83.46	340	P	P	00 15 21.7	+0.4
HTL				AMb	AMB	00 15 38.6	
	comp=Z,276nm,1.9s,mb6.0						
KARP	Karpathos	83.47	313	*e*P	P	00 15 22.1	+0.4
GLMI	Grayling	83.61	32	PFAKE		00 15 30.0	+7.8
GLMI				LR	LR		

	comp=Z,7µm,20.0s,MS6.0						
JAN	Janina	83.65	319	eP	P	00 15 23.5	+0.9
DYA	Yadsworthy	83.83	340	⇑eP	P	00 15 22.8	-0.5
DYA				AMb	AMB	00 15 25.6	
	comp=Z,382nm,1.7s,mb6.3						
DYA				AMS	AMS	00 58 33.2	
	comp=Z,12µm,19.7s,MS6.3						
DYA	Yadsworthy	83.83	340	P	P	00 15 22.8	-0.5
DYA				AMb	AMB	00 15 25.6	
	comp=Z,382nm,1.7s,mb6.3						
LTK	Loutraki	83.85	317	eP	P	00 15 21.7	-1.9
IGT	Igoumenitsa	84.00	319	eP	P	00 15 23.9	-0.5
DID	Didima	84.10	316	eP	P	00 15 22.4	-2.5
KEK	Kerkira	84.12	320	eP	P	00 15 24.9	-0.1
CSA1	St Austell	84.15	340	⇑iP	P	00 15 24.5	-0.4
CABF	La Chapelle	84.18	332	⇑iP	P	00 15 25.1	0.0
	comp=Z,566nm,1.9s,mb6.1						
CABF	La Chapelle	84.18	332	⇑iP	P	00 15 25.1	0.0
	comp=Z,283nm,1.9s,mb6.1						
CABF	La Chapelle	84.18	332	⇑iP	P	00 15 25.1	0.0
CABF				pmax	pmax		
	comp=Z,283nm,1.9s,mb6.1						
ZKR	Zakros	84.31	313	eP	P	00 15 25.9	-0.1
FGMS	Monte Sant'Ang	84.33	323	P	P	00 15 25.7	-0.3
	comp=Z,208nm,1.0s,mb6.2						
FNVD	Fontana Vidola	84.36	328	i Pu	P	00 15 27.1	+1.0
LOR	Lormes	84.37	334	eP	P	00 15 25.8	-0.3
	comp=Z,454nm,1.2s,mb6.2						
LOR				eMLR	MLR		
	comp=Z,8µm,19.2s,MS5.8						
LOR	Lormes	84.37	334	eP	P	00 15 25.8	-0.3
	comp=Z,227nm,1.3s,mb6.1						
LOR				LR	LR		
	comp=Z,8µm,19.3s,MS6.1						
LOR	Lormes	84.37	334	eP	P	00 15 25.8	-0.3
LOR				pmax	pmax		
	comp=Z,227nm,1.3s,mb6.1						
LOR				MLR	MLR		
	comp=Z,8µm,19.3s,MS6.1						
SNTG	Esanatoglia	84.37	326	i Pu	P	00 15 26.3	+0.1
	comp=Z,119nm,1.0s,mb6.0						
CCA1	Carnmenellis	84.39	340	⇑iP	P	00 15 25.8	-0.3
CRQ2	Rosemanowes 2	84.39	340	⇑eP	P	00 15 25.3	-0.8
FLN	La Foliniere	84.40	337	⇑iP	P	00 15 25.5	-0.7
	comp=Z,117nm,0.9s,mb5.7						
FLN				eMLR	MLR		
	comp=Z,9µm,18.5s,MS5.9						
FLN	La Foliniere	84.40	337	⇑iP	P	00 15 25.5	-0.7
	comp=Z,59nm,0.9s,mb5.7						
FLN				LR	LR		
	comp=Z,9µm,18.5s,MS6.2						
FLN	La Foliniere	84.40	337	⇑iP	P	00 15 25.5	-0.7
FLN				pmax	pmax		
	comp=Z,59nm,0.9s,mb5.7						
FLN				MLR	MLR		
	comp=Z,9µm,18.5s,MS6.2						
TAU	Tasmania Unive	84.40	177	PFAKE		00 15 40.0	+14
TAU				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
LDF	La Druitiere	84.44	337	⇑iP	P	00 15 25.7	-0.7
	comp=Z,134nm,1.0s,mb5.7						
LDF	La Druitiere	84.44	337	⇑iP	P	00 15 25.7	-0.7
	comp=Z,67nm,1.0s,mb5.7						
LDF	La Druitiere	84.44	337	⇑iP	P	00 15 25.7	-0.7
LDF				pmax	pmax		
	comp=Z,67nm,1.0s,mb5.7						
JRS	Jersey	84.47	338	⇑eP	P	00 15 26.2	-0.3
LKD	Levkas	84.48	319	eP	P	00 15 26.5	-0.3
BOB	Bobbio (Coli)	84.51	329	i Pu	P	00 15 27.1	+0.2
NPS	Neapolis	84.53	313	eP	P	00 15 26.2	-0.9
MURB	Monte Urbino	84.54	326	i Pu	P	00 15 27.5	+0.5
RLS	Riolos of Patr	84.58	318	eP	P	00 15 27.7	+0.4
VLX	Vlachokerasia	84.64	317	eP	P	00 15 26.5	-1.2
BDI	Bagni Di Lucca	84.66	328	i Pu	P	00 15 26.9	-0.7
VLC	Villacollemand	84.66	328	eP	P	00 15 27.1	-0.5
	comp=Z,165nm,1.0s,mb6.1						
SSF	Saint Saulge	84.67	334	eP	P	00 15 27.2	-0.4
	comp=Z,242nm,1.3s,mb5.9						
SSF	Saint Saulge	84.67	334	eP	P	00 15 27.2	-0.4
	comp=Z,121nm,1.3s,mb5.9						
SSF	Saint Saulge	84.67	334	eP	P	00 15 27.2	-0.4
SSF				pmax	pmax		
	comp=Z,121nm,1.3s,mb5.9						
PMOR	Pomariorio Ree	84.67	115	eP	P	00 15 29.6	+1.7
	comp=Z,8.3nm,0.8s,mb4.9						
LAST	Lasithi	84.68	313	eP	P	00 15 27.7	-0.2
HYF	Humbligny	84.77	334	⇑iP	P	00 15 28.2	+0.1
WMOK	Wichita Mounta	84.81	47	eP	P	00 15 27.8	-0.8
	comp=Z,119nm,1.5s,mb5.8						
WMOK				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
WMOK	Wichita Mounta	84.81	47	eP	P	00 15 27.8	-0.8
WMOK				pmax	pmax		
	comp=Z,119nm,1.5s,mb5.8						
WMOK				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.7						
GRR	Gorron	84.84	337	⇑iP	P	00 15 28.2	-0.2
	comp=Z,560nm,1.5s,mb6.2						
GRR	Gorron	84.84	337	⇑iP	P	00 15 28.2	-0.2
	comp=Z,280nm,1.5s,mb6.2						
GRR	Gorron	84.84	337	⇑iP	P	00 15 28.2	-0.2
GRR				pmax	pmax		
	comp=Z,280nm,1.5s,mb6.2						
VLI	Veliai	84.86	316	eP	P	00 15 27.1	-1.6
CSNT	Castellina Chi	84.87	327	i Pu	P	00 15 27.8	-0.9
LPL	La Plagne	84.89	331	⇑iP	P	00 15 29.1	+0.4
	comp=Z,558nm,1.4s,mb6.2						
LPL	La Plagne	84.89	331	⇑iP	P	00 15 29.1	+0.4
	comp=Z,279nm,1.4s,mb6.2						
LPL	La Plagne	84.89	331	⇑iP	P	00 15 29.1	+0.4
LPL				pmax	pmax		
	comp=Z,279nm,1.4s,mb6.2						
LPG	La Plagne	84.90	331	⇑iP	P	00 15 29.3	+0.5
	comp=Z,462nm,1.2s,mb6.2						
LPG	La Plagne	84.90	331	⇑iP	P	00 15 29.3	+0.5
	comp=Z,231nm,1.2s,mb6.2						
LPG	La Plagne	84.90	331	⇑iP	P	00 15 29.3	+0.5
LPG				pmax	pmax		
	comp=Z,231nm,1.2s,mb6.2						
AQU	L'Aquila	84.92	325	P	P	00 15 28.6	-0.3
AQU	L'Aquila	84.92	325	⇑iP	P	00 15 29.2	+0.3
SMF	Signal de Mont	84.92	333	⇑iP	P	00 15 28.7	-0.1
	comp=Z,798nm,1.5s,mb6.3						
SMF	Signal de Mont	84.92	333	⇑iP	P	00 15 28.7	-0.1
	comp=Z,399nm,1.5s,mb6.3						
SMF	Signal de Mont	84.92	333	⇑iP	P	00 15 28.7	-0.1
SMF				pmax	pmax		
	comp=Z,399nm,1.5s,mb6.3						
VLS	Valsamata	84.93	318	eP	P	00 15 29.0	-0.1
AVF	Avril sur Loir	84.95	334	⇑iP	P	00 15 28.9	-0.1
	comp=Z,600nm,1.3s,mb6.3						
AVF	Avril sur Loir	84.95	334	⇑iP	P	00 15 28.9	-0.1
	comp=Z,300nm,1.3s,mb6.3						
AVF	Avril sur Loir	84.95	334	⇑iP	P	00 15 28.9	-0.1
AVF				pmax	pmax		
	comp=Z,300nm,1.3s,mb6.3						
VAH	Vaihoa	85.02	115	eP	P	00 15 31.1	+1.4
	comp=Z,20nm,1.0s,mb5.2						
ITM	Ithomi	85.02	317	eP	P	00 15 29.2	-0.4
HDIL	Hopedale	85.08	38	eP	P	00 15 28.5	-1.3
	comp=Z,141nm,1.0s,mb6.0						
HDIL				LR	LR		
	comp=Z,8µm,22.0s,MS6.1						
MIDA	Miranda	85.13	324	i Pu	P	00 15 30.2	+0.2
SIVA	Sivas	85.15	314	eP	P	00 15 30.1	-0.2
VAM	Vamos	85.18	314	eP	P	00 15 30.1	-0.3
BNI	Bardonecchia	85.31	331	⇑iP	P	00 15 30.9	+0.1
	comp=Z,111nm,1.1s,mb5.9						
BNI	Bardonecchia	85.31	331	⇑iP	P	00 15 30.9	+0.1
BNI				pmax	pmax		
	comp=Z,111nm,1.1s,mb5.9						
QLNO	Quiliano	85.31	329	i Pu	P	00 15 29.8	-1.1
BGF	Bois d'Agland	85.32	334	⇑iP	P	00 15 30.8	-0.1
	comp=Z,762nm,1.8s,mb6.2						
BGF	Bois d'Agland	85.32	334	⇑iP	P	00 15 30.8	-0.1
	comp=Z,381nm,1.8s,mb6.2						
BGF	Bois d'Agland	85.32	334	⇑iP	P	00 15 30.8	-0.1
BGF				pmax	pmax		
	comp=Z,381nm,1.8s,mb6.2						
PYL	PYLOS	85.33	317	eP	P	00 15 29.9	-1.2
KARN	Karanos	85.34	315	eP	P	00 15 30.5	-0.7
GDM	Grand'Maison	85.38	331	eP	P	00 15 31.6	+0.4
PPT	Papeete	85.38	118	ePP	PP	00 18 42.8	-7.3
	comp=Z,277nm,27.2s						
PPT	Papeete	85.38	118	eS	S	00 26 01.4	+1.2
	comp=Z,3µm,26.2s						
PPT				eSS	SS	00 31 40.6	+4.5
	comp=Z,2µm,24.8s						
PPT				eLR	LR	00 42 27.1	
	comp=Z,13µm,24.5s,baz=310						
PPT	Papeete	85.38	118	eP	P	00 15 33.1	+1.6
	comp=Z,19nm,1.2s,mb5.1						
PPT				ePP	PP	00 18 42.8	-7.3
PPT				eS	S	00 26 01.4	+1.2
PPT				eSS	SS	00 31 40.6	+4.5
PPT	Papeete	85.38	118	eP	P	00 15 33.1	+1.6
PPT				eS	S	00 26 01.4	+1.2
PPT				eSS	SS	00 31 40.6	+4.5
PPT				pmax	pmax		
	comp=Z,19nm,1.2s						
PPT	Papeete	85.38	118	LR	LR	00 53 19.4	
	comp=Z,6µm,18.2s,MS6.0,baz=360,slow=35						
ORI	Oriolo Calabro	85.42	322	i Pu	P	00 15 32.1	+0.6
CERT	Cerreto	85.42	325	i Pu	P	00 15 30.7	-0.8
SGMF	Saint Gilles	85.45	338	⇑iP	P	00 15 31.5	0.0
	comp=Z,2µm,1.9s,mb6.5						
SGMF	Saint Gilles	85.45	338	⇑iP	P	00 15 31.5	0.0
	comp=Z,787nm,1.9s,mb6.5						
SGMF	Saint Gilles	85.45	338	⇑iP	P	00 15 31.5	0.0
SGMF				pmax	pmax		
	comp=Z,787nm,1.9s,mb6.5						
LPIG	La Paz	85.45	62	LR	LR	00 46 31.7	
	comp=Z,2µm,21.6s,MS5.4,baz=328,slow=31						
GRN	Grenoble	85.48	332	eP	P	00 15 32.2	+0.5
RFI	Roccamonfina	85.52	324	i Pu	P	00 15 32.5	+0.5
	comp=Z,82nm,1.3s,mb5.8						
MBDF	Montbardon	85.55	331	⇑iP	P	00 15 31.6	-0.5
	comp=Z,498nm,1.3s,mb6.3						
MBDF	Montbardon	85.55	331	⇑iP	P	00 15 31.6	-0.5
	comp=Z,249nm,1.3s,mb6.3						
MBDF	Montbardon	85.55	331	⇑iP	P	00 15 31.6	-0.5
MBDF				pmax	pmax		
	comp=Z,249nm,1.3s,mb6.3						
DOI	San Damiano	85.57	330	i Pu	P	00 15 30.1	-2.0
	comp=Z,51nm,0.8s,mb5.8						
DOI	San Damiano	85.57	330	i P	P	00 15 30.1	-2.0
DOI				pmax	pmax		
	comp=Z,51nm,0.8s,mb5.8						
ROSF	Rostrenen	85.57	338	⇑iP	P	00 15 32.3	+0.2
	comp=Z,1µm,1.6s,mb6.6						
ROSF	Rostrenen	85.57	338	⇑iP	P	00 15 32.3	+0.2
	comp=Z,595nm,1.6s,mb6.6						
ROSF	Rostrenen	85.57	338	⇑iP	P	00 15 32.3	+0.2
ROSF				pmax	pmax		
	comp=Z,595nm,1.6s,mb6.6						
PLDF	La Plantade	85.58	333	eP	P	00 15 32.4	+0.2
GVD	Gavdhos	85.67	314	eP	P	00 15 32.3	-0.6
AGO	Saint Agoulin	85.67	334	eP	P	00 15 32.5	-0.1
ORIF	Oris-en-Rattie	85.71	331	⇑iP	P	00 15 33.1	+0.3
	comp=Z,236nm,1.1s,mb6.0						
ORIF				eMLR	MLR		
	comp=Z,9µm,21.0s,MS5.9						
ORIF	Oris-en-Rattie	85.71	331	⇑iP	P	00 15 33.1	+0.3
	comp=Z,118nm,1.1s,mb6.0						
ORIF	Oris-en-Rattie	85.71	331	⇑iP	P	00 15 33.1	+0.3
ORIF				pmax	pmax		
	comp=Z,118nm,1.1s,mb6.0						
TOLF	Tolfa	85.75	326	P	P	00 15 32.6	-0.5
SURF	Saint Ours	85.75	331	eP	P	00 15 33.2	+0.2
TVO	Taravao	85.75	118	eP	P	00 15 35.5	+2.2
	comp=Z,33nm,1.0s,mb5.5						
TVO	Taravao	85.75	118	eP	P	00 15 35.5	+2.2
TVO				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.5						
MGR	Morigerati	85.77	323	i Pu	P	00 15 32.0	-1.2
TCF	Toulx Ste Croi	85.77	334	⇑iP	P	00 15 33.3	+0.2
	comp=Z,945nm,1.8s,mb6.4						
TCF	Toulx Ste Croi	85.77	334	⇑iP	P	00 15 33.3	+0.2
	comp=Z,472nm,1.8s,mb6.4						
TCF	Toulx Ste Croi	85.77	334	⇑iP	P	00 15 33.3	+0.2
TCF				pmax	pmax		
	comp=Z,473nm,1.8s,mb6.4						
TAOE	Nuku Hiva Isla	85.81	106	eLR	LR	00 42 42.4	
	comp=Z,38µm,22.6s,baz=316						
SAOF	Saorge	85.89	330	eP	P	00 15 32.9	-0.9
QUIF	Quistinic	85.93	338	⇑iP	P	00 15 33.6	-0.2
	comp=Z,318nm,1.3s,mb6.1						
QUIF	Quistinic	85.93	338	⇑iP	P	00 15 33.6	-0.2
	comp=Z,159nm,1.3s,mb6.1						
QUIF	Quistinic	85.93	338	⇑iP	P	00 15 33.6	-0.2
QUIF				pmax	pmax		
	comp=Z,159nm,1.3s,mb6.1						
AUTN	L'Aution	85.94	330	eP	P	00 15 33.4	-0.6
LTX	Lajitas	85.96	54	eP	P	00 15 34.2	-0.1
	comp=Z,42nm,0.8s,mb5.7						
LTX				LR	LR		
	comp=Z,5µm,22.0s,MS5.9						
TXAR	Lajitas Array	85.96	54	P	P	00 15 34.2	-0.2
TXAR				pmax	pmax		
	comp=Z,21nm,0.7s						
TXAR	Lajitas Array	85.96	54	P	P	00 15 34.1	-0.2
	comp=Z,21nm,0.7s,mb5.5,baz=294,slow=3.2,SNR=108						
PYM	Petit Puy Mans	85.98	333	eP	P	00 15 34.3	+0.1
TIP	Timpagrande	85.98	321	⇑iP	P	00 15 34.3	-0.1
TIP				epP	pP	00 15 44.1	-0.7
TOUF	Mont Tournerai	85.99	330	eP	P	00 15 33.9	-0.3
SBF	Sospel	86.05	330	⇑iP	P	00 15 33.7	-0.8
	comp=Z,674nm,1.4s,mb6.4						
SBF	Sospel	86.05	330	⇑iP	P	00 15 33.7	-0.8
	comp=Z,337nm,1.4s,mb6.4						
SBF	Sospel	86.05	330	⇑iP	P	00 15 33.7	-0.8
SBF				pmax	pmax		
	comp=Z,337nm,1.4s,mb6.4						
LUCF	Luceram	86.05	330	eP	P	00 15 33.9	-0.7
MVIF	Mont Vial	86.12	330	eP	P	00 15 34.3	-0.6
REVF	Revere	86.18	330	eP	P	00 15 34.5	-0.7
SLM	Saint Louis	86.18	39	eP	P	00 15 34.1	-1.2
	comp=Z,89nm,1.0s,mb6.0						
SLM	Saint Louis	86.18	39	P	P	00 15 34.3	-1.0
SLM				pmax	pmax		
	comp=Z,89nm,1.0s,mb6.0						
VIVF	Saint-Julien-l	86.19	332	⇑iP	P	00 15 35.3	+0.1
	comp=Z,688nm,1.4s,mb6.4						
VIVF	Saint-Julien-l	86.19	332	⇑iP	P	00 15 35.3	+0.1
	comp=Z,344nm,1.4s,mb6.4						
VIVF	Saint-Julien-l	86.19	332	⇑iP	P	00 15 35.3	+0.1
VIVF				pmax	pmax		
	comp=Z,344nm,1.4s,mb6.4						
MFF	Saint Martin d	86.23	336	⇑iP	P	00 15 35.5	+0.1
	comp=Z,665nm,1.3s,mb6.4						
MFF	Saint Martin d	86.23	336	⇑iP	P	00 15 35.5	+0.1
	comp=Z,333nm,1.3s,mb6.4						
MFF	Saint Martin d	86.23	336	⇑iP	P	00 15 35.5	+0.1
MFF				pmax	pmax		
	comp=Z,333nm,1.3s,mb6.4						
CALN	Calern	86.34	330	eP	P	00 15 35.6	-0.4
LBL	Lubilhac	86.36	333	eP	P	00 15 36.4	+0.4
PGF	Pioggiola	86.56	328	⇑iP	P	00 15 36.4	-0.7
	comp=Z,443nm,1.9s,mb6.1						
PGF	Pioggiola	86.56	328	⇑iP	P	00 15 36.4	-0.7
	comp=Z,222nm,1.9s,mb6.1						
PGF	Pioggiola	86.56	328	⇑iP	P	00 15 36.4	-0.7
PGF				pmax	pmax		
	comp=Z,222nm,1.9s,mb6.1						
FRF	La Foret Royal	86.60	330	⇑iP	P	00 15 36.5	-0.8
	comp=Z,543nm,1.6s,mb6.2						
FRF	La Foret Royal	86.60	330	⇑iP	P	00 15 36.5	-0.8
	comp=Z,272nm,1.6s,mb6.2						
FRF	La Foret Royal	86.60	330	⇑iP	P	00 15 36.5	-0.8
FRF				pmax	pmax		
	comp=Z,272nm,1.6s,mb6.2						
FVM	French Village	86.61	40	eP	P	00 15 36.2	-1.2
	comp=Z,55nm,1.1s,mb5.7						
FVM	French Village	86.61	40	eP	P	00 15 36.2	-1.2
FVM				pmax	pmax		
	comp=Z,55nm,1.1s,mb5.7						
SMRF	Simiane la Rot	86.64	331	⇑iP	P	00 15 37.5	+0.1
	comp=Z,507nm,1.7s,mb6.2						
SMRF	Simiane la Rot	86.64	331	⇑iP	P	00 15 37.5	+0.1
	comp=Z,507nm,1.7s,mb6.5						
LMR	La Mourre	86.84	330	⇑iP	P	00 15 38.1	-0.4
	comp=Z,777nm,1.5s,mb6.4						
LMR	La Mourre	86.84	330	⇑iP	P	00 15 38.1	-0.4
	comp=Z,389nm,1.5s,mb6.4						
LMR	La Mourre	86.84	330	⇑iP	P	00 15 38.1	-0.4
LMR				pmax	pmax		
	comp=Z,389nm,1.5s,mb6.4						
RJF	Les Rejaudoux	86.87	334	⇑iP	P	00 15 38.8	+0.3
	comp=Z,1µm,1.8s,mb6.5						
RJF				eMLR	MLR		
	comp=Z,11µm,18.8s,MS6.0						
RJF	Les Rejaudoux	86.87	334	⇑iP	P	00 15 38.8	+0.3
	comp=Z,556nm,1.8s,mb6.5						
RJF				LR	LR		
	comp=Z,11µm,18.8s,MS6.3						
RJF	Les Rejaudoux	86.87	334	⇑iP	P	00 15 38.8	+0.3
RJF				pmax	pmax		
	comp=Z,556nm,1.8s,mb6.5						
RJF				MLR	MLR		
	comp=Z,11µm,18.8s,MS6.3						
MSNY	Massena	87.02	26	eP	P	00 15 38.2	-1.1
CAF	Calviac	87.02	334	⇑iP	P	00 15 40.1	+0.8
	comp=Z,952nm,1.4s,mb6.5						
CAF	Calviac	87.02	334	⇑iP	P	00 15 40.1	+0.8
	comp=Z,476nm,1.4s,mb6.5						
CAF	Calviac	87.02	334	⇑iP	P	00 15 40.1	+0.8
CAF				pmax	pmax		
	comp=Z,476nm,1.4s,mb6.5						
SOI	Samo	87.20	321	i Pu	P	00 15 39.8	-0.5
SIUC	Southern Illin	87.40	39	eP	P	00 15 40.5	-0.7
	comp=Z,172nm,0.9s,mb6.3						
JCT	Junction City	87.41	51	eP	P	00 15 40.6	-0.8
	comp=Z,353nm,1.9s,mb6.3						
JCT				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
JCT	Junction City	87.41	51	eP	P	00 15 40.6	-0.8
JCT				pmax	pmax		
	comp=Z,353nm,1.9s,mb6.3						
JCT				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.7						
SNZO	South Karori	87.41	157	PFAKE		00 15 50.0	+9.1
SNZO				LR	LR		
	comp=Z,7µm,22.0s,MS6.0						
LFF	La Frestale	87.44	335	⇑iP	P	00 15 41.8	+0.5
	comp=Z,1µm,1.5s,mb6.6						
LFF	La Frestale	87.44	335	⇑iP	P	00 15 41.8	+0.5
	comp=Z,629nm,1.5s,mb6.6						
LFF	La Frestale	87.44	335	⇑iP	P	00 15 41.8	+0.5
LFF				pmax	pmax		
	comp=Z,629nm,1.5s,mb6.6						
LONY	Lake Ozonia	87.44	26	PFAKE		00 15 50.0	+8.7
LONY				LR	LR		
	comp=Z,5µm,20.0s,MS5.9						
BLO	Bloomington	87.45	37	eP	P	00 15 40.5	-1.0
	comp=Z,49nm,1.0s,mb5.7						
BLO	Bloomington	87.45	37	eP	P	00 15 40.5	-1.0
BLO				pmax	pmax		
	comp=Z,49nm,1.0s,mb5.7						
MIAR	Mount Ida	87.74	44	eP	P	00 15 42.1	-0.8
	comp=Z,59nm,1.0s,mb5.8						
MIAR				LR	LR		
	comp=Z,7µm,22.0s,MS6.0						
MIAR	Mount Ida	87.74	44	eP	P	00 15 42.1	-0.8
MIAR				pmax	pmax		
	comp=Z,59nm,1.0s,mb5.8						
MIAR				MLR	MLR		
	comp=Z,7µm,22.0s,MS6.0						
USIN	University of	87.92	38	eP	P	00 15 42.9	-0.8
	comp=Z,49nm,0.9s,mb5.7						
PARMO	Parma	87.98	40	eP	P	00 15 43.5	-0.5
ALLY	Alegheny Colle	88.04	31	eP	P	00 15 43.6	-0.7
ACSO	Alum Creek Sta	88.10	34	eP	P	00 15 43.7	-0.9
	comp=Z,63nm,0.8s,mb5.9						
ACSO				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
NCB	Newcomb	88.14	26	eP	P	00 15 43.5	-1.2
	comp=Z,126nm,1.5s,mb5.9						
NCB				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
UALR	University of	88.19	43	eP	P	00 15 43.7	-1.4
	comp=Z,123nm,1.8s,mb5.8						
WCI	Wyandotte Cave	88.33	37	eP	P	00 15 45.0	-0.7
	comp=Z,52nm,0.9s,mb5.8						
WCI				LR	LR		
	comp=Z,7µm,22.0s,MS6.1						
WCI	Wyandotte Cave	88.33	37	eP	P	00 15 45.0	-0.7
WCI				pmax	pmax		
	comp=Z,52nm,0.9s,mb5.8						
WCI				MLR	MLR		
	comp=Z,7µm,22.0s,MS6.1						
MTLF	Montolieu	88.37	333	⇑iP	P	00 15 46.2	+0.4
	comp=Z,530nm,1.7s,mb6.2						
MTLF	Montolieu	88.37	333	⇑iP	P	00 15 46.2	+0.4
	comp=Z,265nm,1.7s,mb6.2						
MTLF	Montolieu	88.37	333	⇑iP	P	00 15 46.2	+0.4
MTLF				pmax	pmax		
	comp=Z,265nm,1.7s,mb6.2						
GNAR	Gosnell	88.41	41	P	P	00 15 45.9	-0.2
	comp=Z,302nm,0.3s,mb7.0						
HBAR	Harrisburg	88.42	41	eP	P	00 15 46.2	0.0
PKME	Peaks-Kenny Pk	88.49	23	PFAKE		00 16 00.0	+14
PKME				LR	LR		
	comp=Z,5µm,20.0s,MS6.0						
GLAT	Glass	88.52	40	eP	P	00 15 46.7	+0.1
GLAT				e	pP	00 15 57.1	0.0
LRDF	Laroque-de-Fa	88.62	332	eP	P	00 15 47.2	+0.3
LBNH	Lisbon	88.64	25	PFAKE		00 16 00.0	+13
LBNH				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
UTMT	University of	88.67	40	eP	P	00 15 47.0	-0.3
	comp=Z,91nm,0.3s,mb6.6						
ACCN	Adirondack Com	88.84	26	eP	P	00 15 47.4	-0.6
EJON	La Jonquera	88.93	332	P	P	00 15 46.2	-2.2
	comp=Z,709nm,2.6s,mb6.5						
FILF	Fillols	88.94	332	eP	P	00 15 48.6	+0.1
VSL	Villasalto	88.98	326	eP	P	00 15 47.6	-1.2
	comp=Z,67nm,1.1s,mb5.9						
VSL				epP	pP	00 15 57.3	-2.0
MLS	Moulis	89.09	333	eP	P	00 15 49.4	+0.2
BINY	Binghamton	89.10	28	eP	P	00 15 48.6	-0.7
	comp=Z,75nm,1.4s,mb5.8						
BINY				LR	LR		
	comp=Z,6µm,20.0s,MS6.0						
EPF	Esparros	89.28	334	⇑iP	P	00 15 49.9	-0.1
	comp=Z,401nm,1.9s,mb6.1						
EPF	Esparros	89.28	334	⇑iP	P	00 15 49.9	-0.1
	comp=Z,200nm,1.9s,mb6.1						
EPF	Esparros	89.28	334	⇑iP	P	00 15 49.9	-0.1
EPF				pmax	pmax		
	comp=Z,200nm,1.9s,mb6.1						
NATX	Nacogdoches	89.31	46	eP	P	00 15 49.7	-0.7
	comp=Z,111nm,1.5s,mb6.0						
NATX				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
WVT	Waverly	89.33	39	eP	P	00 15 49.6	-0.9
	comp=Z,34nm,0.9s,mb5.7						
WVT				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
WVT	Waverly	89.33	39	eP	P	00 15 49.6	-0.8
WVT				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.7						
WVT				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.8						
RESF	Ens	89.48	334	eP	P	00 15 52.0	+1.0
REYF	Montagne du Re	89.48	334	eP	P	00 15 50.6	-0.4
VIEF	Viey	89.51	334	eP	P	00 15 52.0	+0.9
EBIE	Bielsa	89.65	334	P	P	00 15 50.9	-0.9
	comp=Z,989nm,2.6s,mb6.7						
ETSF	Etsaut	89.69	334	⇑iP	P	00 15 52.5	+0.5
	comp=Z,122nm,1.0s,mb5.9						
ETSF	Etsaut	89.69	334	⇑iP	P	00 15 52.5	+0.5
	comp=Z,61nm,1.0s,mb5.9						
ETSF	Etsaut	89.69	334	⇑iP	P	00 15 52.5	+0.5
ETSF				pmax	pmax		
	comp=Z,61nm,1.0s,mb5.9						
SJPF	Ste Jean	89.71	335	⇑iP	P	00 15 52.0	-0.1
	comp=Z,96nm,1.2s,mb5.7						
SJPF	Ste Jean	89.71	335	⇑iP	P	00 15 52.0	-0.1
	comp=Z,48nm,1.2s,mb5.7						
SJPF	Ste Jean	89.71	335	⇑iP	P	00 15 52.0	-0.1
SJPF				pmax	pmax		
	comp=Z,48nm,1.2s,mb5.7						
ELIZ	Elizondo	89.76	335	P	P	00 15 52.4	+0.1
	comp=Z,92nm,1.4s,mb5.9						
ELIZ	Elizondo	89.76	335	P	P	00 15 52.4	+0.1
ELIZ				pmax	pmax		
	comp=Z,92nm,1.4s,mb5.9						
SSPA	Standing Stone	89.77	30	eP	P	00 15 51.6	-0.8
	comp=Z,57nm,1.0s,mb5.8						
SSPA				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
MCWV	Mont Chateau	89.86	32	eP	P	00 15 51.8	-1.0
	comp=Z,69nm,1.0s,mb5.9						
MCWV				e	pP	00 16 02.4	-1.0
MCWV				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
OXF	Oxford	89.87	41	eP	P	00 15 52.1	-0.9
	comp=Z,167nm,1.4s,mb6.2						
OXF				e	pP	00 16 02.1	-1.4

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OXF                                   LR     LR
       comp=Z,4µm,20.0s,MS5.8
OXF   Oxford            89.87  41   eP     P          00 15 52.1  -0.9
OXF                                 e      pP         00 16 02.1  -1.4
OXF                                   pmax   pmax
       comp=Z,167nm,1.4s,mb6.2
OXF                                   MLR    MLR
       comp=Z,4µm,20.0s,MS5.8
EMIR  Miracle           89.87 333     P      P          00 15 52.0  -0.8
       comp=Z,950nm,2.5s,mb6.7
HKT   Hockley           90.06  48   eP     P          00 15 52.9  -1.0
       comp=Z,80nm,1.8s,mb5.8
HKT                                   LR     LR
       comp=Z,3µm,19.0s,MS5.8
HKT   Hockley           90.06  48   eP     P          00 15 52.9  -1.0
HKT                                   pmax   pmax
       comp=Z,80nm,1.8s,mb5.8
HKT                                   MLR    MLR
       comp=Z,3µm,19.0s,MS5.8
PLAL  Pickwick Lake     90.14  40     PFAKE             00 16 10.0  +16
PLAL                                  LR     LR
       comp=Z,5µm,21.0s,MS5.9
ELAN  Lanestosa         90.28 337     P      P          00 15 55.5  +0.8
       comp=Z,499nm,2.4s,mb6.4
HRV   Harvard--Oak R    90.31  25     PFAKE             00 16 10.0  +15
HRV                                   LR     LR
       comp=Z,3µm,20.0s,MS5.7
WES   Weston            90.50  25   eP     P          00 15 55.6  -0.1
       comp=Z,37nm,0.8s,mb5.8
WES                                 e      pP         00 16 05.3  -1.0
WES                                   LR     LR
       comp=Z,4µm,19.0s,MS5.9
WES   Weston            90.50  25   eP     P          00 15 55.6  -0.2
WES                                 e      pP         00 16 05.3  -1.0
WES                                   pmax   pmax
       comp=Z,37nm,0.8s,mb5.8
WES                                   MLR    MLR
       comp=Z,4µm,19.0s,MS5.9
EPOB  Poblet            90.52 333     P      P          00 15 54.0  -1.9
       comp=Z,1µm,3.7s
ECRI  Cripan            90.56 336     P      P          00 15 55.9  -0.1
       comp=Z,44nm,1.1s,mb5.7
ECRI  Cripan            90.56 336     P      P          00 15 55.9  -0.2
ECRI                                  pmax   pmax
       comp=Z,44nm,1.1s,mb5.7
KVTX  Kingsville        90.70  51     PFAKE             00 16 10.0  +13
KVTX                                  LR     LR
       comp=Z,3µm,20.0s,MS5.7
ESAC  San Caprasio      90.71 334     P      P          00 15 54.7  -2.1
       comp=Z,2µm,2.3s,mb6.9
TZTN  Tazewell          90.94  36   eP     P          00 15 57.2  -0.7
       comp=Z,63nm,1.3s,mb5.8
TZTN                                epP    pP         00 16 07.2  -1.3
TZTN                                  LR     LR
       comp=Z,9µm,22.0s,MS6.1
SWET  Sewanee           90.97  38   eP     P          00 15 56.8  -1.3
SWET                                epP    pP         00 16 07.6  -1.0
CPNY  Central Park      91.06  28   eP     P          00 15 56.4  -2.0
CPNY                                e      pP         00 16 08.3  -0.6
ERTA  Horta de San J    91.13 333     P      P          00 15 56.7  -2.0
       comp=Z,412nm,2.1s,mb6.4
ZAIG  Zacatecas         91.39  58   eP     P          00 16 02.0  +1.8
CPCT  Cooper Cave       91.42  37   eP     P          00 15 59.3  -0.9
ELN   Prospectdale      91.57  34   eP     P          00 15 59.8  -1.0
TKL   Tuckaleechee C    91.58  37     LR     LR         01 02 56.9
       comp=Z,6µm,20.2s,MS6.0,baz=336,slow=39
MSEY  Mahe Island       91.61 265     PFAKE             00 16 10.0  +8.6
MSEY                                  LR     LR
       comp=Z,7µm,21.0s,MS6.1
BLA   Blacksburg        91.72  34   eP     P          00 16 00.7  -0.9
       comp=Z,43nm,1.0s,mb5.7
BLA                                   LR     LR
       comp=Z,3µm,20.0s,MS5.8
BLA   Blacksburg        91.72  34   eP     P          00 16 00.7  -0.8
BLA                                   pmax   pmax
       comp=Z,43nm,1.0s,mb5.7
BLA                                   MLR    MLR
       comp=Z,3µm,20.0s,MS5.8
EMOS  Mosqueruela       91.93 333     P      P          00 16 02.0  -0.4
       comp=Z,963nm,3.9s
ETOR  Torete            92.04 335     P      P          00 16 02.8  -0.2
       comp=Z,50nm,1.0s,mb5.8
ETOR  Torete            92.04 335     P      P          00 16 02.8  -0.2
ETOR                                  pmax   pmax
       comp=Z,50nm,1.0s,mb5.8
CBN   Corbin            92.08  31     PFAKE             00 16 10.0  +6.8
CBN                                   LR     LR
       comp=Z,4µm,20.0s,MS5.8
KEST  Kesra             92.17 324     P      P          00 16 03.0  -0.7
       comp=Z,10nm,1.0s,mb5.1,baz=321,slow=2.4,SNR=18
KEST                                  PP     PP         00 19 45.1  +2.0
       comp=Z,13nm,1.3s,baz=273,slow=6.0,SNR=5.6
KEST                                  LR     LR         01 02 26.1
       comp=Z,7µm,20.2s,MS6.1,baz=74,slow=39
CMAH  Djebel Manchou    92.23 326     P      P          00 16 00.0  -3.9
LRAL  Lakeview Retre    92.24  40     PFAKE             00 16 10.0  +6.0
LRAL                                  LR     LR
       comp=Z,6µm,22.0s,MS6.0
CAEH  'Ain El Ouahch    92.34 327     P      P          00 16 04.0  -0.4
PBRG  Braganca          92.54 338   eP     P          00 16 05.2   0.0
       comp=Z,89nm,2.3s,mb5.8
PBRG                                epP    pP         00 16 15.8   0.0
CKFL  Kef-Lekhel        92.72 326     P      P          00 16 05.0  -1.1
ECHE  Chera             92.80 333     P      P          00 16 04.8  -1.7
       comp=Z,78nm,1.7s,mb5.9
ECHE  Chera             92.80 333     P      P          00 16 04.8  -1.7
ECHE                                  pmax   pmax
       comp=Z,78nm,1.7s,mb5.9
DESE  Dese              92.80 287   eP     P          00 16 04.7  -2.2
DESE                                  S      PP         00 19 38.9   -10
GUD   Guadarrama        92.86 336     P      P          00 16 06.5  -0.2
       comp=Z,90nm,1.7s,mb5.9
GUD   Guadarrama        92.86 336     P      P          00 16 06.5  -0.2
GUD                                   pmax   pmax
       comp=Z,90nm,1.7s,mb5.9
CASM  Ain Smara         92.93 327     P      P          00 16 06.0  -1.1
DFRA  Djebel Bou Aff    92.94 327     P      P          00 16 08.0  +0.8
MVO   Moncorvo          93.22 338   eP     P          00 16 07.9  -0.5
       comp=Z,91nm,1.4s,mb6.0
MVO                                 epP    pP         00 16 19.1  +0.2
MVO   Moncorvo          93.22 338   eLQ                 00 44 52.0
MVO                                   A                 01 03 35.9
       comp=Z,10µm,19.5s
PVRL  Vila Real         93.30 339   eP     P          00 16 07.7  -1.1
       comp=Z,92nm,1.4s,mb6.0
PVRL                                epP    pP         00 16 19.4  +0.1
SET   Setif             93.43 327     P      P          00 16 10.0  +0.6
GOGA  Godfrey           93.60  38     PFAKE             00 16 20.0  +10
GOGA                                  LR     LR
       comp=Z,5µm,20.0s,MS5.9
ESDC  Sonseca Array     93.69 335     P      P          00 16 10.2  -0.4
       comp=Z,7.6nm,1.0s,mb5.1,baz=20,slow=3.4,SNR=19
ESDC                                  PP     PP         00 19 53.9  -0.9
       comp=Z,13nm,1.1s,baz=28,slow=8.8,SNR=5.6
ESDC                                  LR     LR         01 02 36.8
       comp=Z,9µm,21.6s,MS6.2,baz=5.0,slow=38
ESLA  Sonseca Array     93.69 335     PFAKE             00 16 20.0  +9.4
ESLA                                  LR     LR
       comp=Z,62µm,20.0s,MS7.1
ETOB  Tobarra           93.84 333     P      P          00 16 09.7  -1.6
       comp=Z,513nm,2.6s,mb6.5
BRAL  Brewton           93.86  42     PFAKE             00 16 20.0  +8.5
BRAL                                  LR     LR
       comp=Z,4µm,20.0s,MS5.9
PAB   San Pablo         93.92 336   eP     P          00 16 10.8  -0.9
       comp=Z,69nm,1.5s,mb5.9
PAB                                 e      pP         00 16 22.2   0.0
PAB                                   LR     LR
       comp=Z,12µm,21.0s,MS6.3
PAB   San Pablo         93.92 336   eP     P          00 16 10.8  -0.9
PAB                                 e      pP         00 16 22.2   0.0
PAB                                   pmax   pmax
       comp=Z,69nm,1.5s,mb5.9
PAB                                   MLR    MLR
       comp=Z,12µm,21.0s,MS6.3
MTE   Manteigas         94.07 338   eP     P          00 16 11.5  -0.8
       comp=Z,147nm,1.8s,mb6.1
MTE                                 epP    pP         00 16 23.5  +0.6
MTE   Manteigas         94.07 338   eLQ                 00 44 59.1
MTE                                 eLR    LR         00 54 28.4
       comp=Z,11µm,23.0s
EVIA  Vianos            94.16 334     P      P          00 16 11.6  -1.2
       comp=Z,35nm,0.9s,mb5.8
EVIA  Vianos            94.16 334     P      P          00 16 11.6  -1.2
EVIA                                  pmax   pmax
       comp=Z,35nm,0.9s,mb5.8
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CNNC  Cliffs of the     94.45  33     PFAKE             00 16 20.0  +5.8
CNNC                                  LR     LR
       comp=Z,3µm,20.0s,MS5.8
MRKH  Merkhyat          94.66 296  i P      P          00 16 15.2  -0.2
       baz=33,slow=5.3
MRKH                                  AMb    AMB        00 16 17.8
       comp=Z,154nm,1.5s,mb6.2
EBAN  Banos Encina      95.01 335     P      P          00 16 15.3  -1.3
       comp=Z,40nm,1.2s,mb5.7
EBAN  Banos Encina      95.01 335     P      P          00 16 15.3  -1.4
EBAN                                  pmax   pmax
       comp=Z,40nm,1.2s,mb5.7
EQES  Quesada           95.11 334     P      P          00 16 16.8  -0.3
       comp=Z,624nm,3.0s
EADA  Adamuz            95.26 335     P      P          00 16 17.6  -0.2
       comp=Z,454nm,3.1s
NHSC  New Hope          95.32  36     PFAKE             00 16 30.0  +12
NHSC                                  LR     LR
       comp=Z,7µm,22.0s,MS6.1
PESTR Estremoz          95.51 338   eP     P          00 16 17.9  -1.0
PESTR Estremoz          95.51 338   eLQ                 00 46 50.6
PESTR                                 A                 01 05 49.5
       comp=Z,5µm,16.5s
ELUQ  Luque             95.72 335     P      P          00 16 17.3  -2.6
       comp=Z,190nm,1.9s,mb6.2
ELUQ  Luque             95.72 335     P      P          00 16 17.3  -2.6
ELUQ                                  pmax   pmax
       comp=Z,190nm,1.9s,mb6.2
PMAFR Mafra             95.89 339   eLQ                 00 46 45.5
PMAFR                               eLR    LR         00 54 32.1
       comp=Z,6µm,18.0s
EVO   Evora             95.94 338   eP     P          00 16 20.5  -0.4
       comp=Z,47nm,1.3s,mb5.5
EVO                                 eMLR   MLR
       comp=Z,9µm,23.0s,MS5.9
EVO   Evora             95.94 338   eP     P          00 16 21.1  +0.2
ELOJ  Sierra Loja       96.06 335     P      P          00 16 19.2  -2.2
       comp=Z,16nm,1.0s,mb5.4
ELOJ  Sierra Loja       96.06 335     P      P          00 16 19.2  -2.3
ELOJ                                  pmax   pmax
       comp=Z,16nm,1.0s,mb5.4
PVAQ  Vaqueiros         96.91 337   eLQ                 00 45 56.8
PVAQ                                  A                 01 06 32.0
       comp=Z,8µm,19.1s
PBDV  Barranco-do-Ve    97.12 337   eLQ                 00 47 24.6
PBDV                                eLR    LR         00 56 11.1
       comp=Z,8µm,19.0s
MORF  Marmelete         97.27 338   eLQ                 00 48 26.5
MORF                                  A                 01 02 52.6
       comp=Z,6µm,19.8s
DWPF  Disney            98.99  39     PFAKE             00 16 50.0  +15
DWPF                                  LR     LR
       comp=Z,5µm,21.0s,MS6.0
RKT   Rikitea           99.07 113   ePP    PP         00 20 34.3  -3.6
       comp=Z,326nm,31.2s
RKT   Rikitea           99.07 113   eSKSac SKSac      00 27 10.9   0.0
       comp=Z,2µm,28.8s
RKT                                 eSP    SP         00 29 30.8  +0.7
       comp=Z,3µm,29.2s
RKT                                 eSS    SS         00 34 55.0  +2.3
       comp=Z,2µm,26.8s
RKT                                 eLR    LR         00 48 38.7
       comp=Z,8µm,22.8s,baz=308
BBSR  BB Station       101.76  24     PFAKE             00 17 00.0  +13
BBSR                                  LR     LR
       comp=Z,3µm,19.0s,MS5.8
TEIG  Tepich           101.89  49     PFAKE             00 17 00.0  +12
TEIG                                  LR     LR
       comp=Z,2µm,19.0s,MS5.7
KMBO  Kilima Mbogo     102.84 280     P      Pdif       00 16 53.1  +1.3
KMBO                                  PP     PP         00 21 04.8  -1.5
KMBO                                  LR     LR
       comp=Z,4µm,21.0s,MS6.0
KMBO  Kilima Mbogo     102.84 280     P      Pdif       00 16 53.2  +1.4
KMBO                                                    00 21 04.8
KMBO                                  pmax   pmax
       comp=Z,12nm,1.0s
KMBO                                  pmax   pmax
       comp=Z,6.0nm,1.1s
KMBO  Kilima Mbogo     102.84 280     P      Pdif       00 16 53.1  +1.3
       comp=Z,12nm,1.0s,baz=28,slow=7.1,SNR=29
KMBO                                  PP     PP         00 21 04.8  -1.5
       comp=Z,6.0nm,1.1s,baz=43,slow=17,SNR=3.1
PTCN  Pitcairn Islan   103.72 111     PFAKE             00 17 10.0  +14
PTCN                                  LR     LR
       comp=Z,7µm,22.0s,MS6.2
TGUH  Tegucigalpa,Un   107.36  52     PFAKE             00 21 30.0  +9.1
TGUH                                  LR     LR
       comp=Z,3µm,22.0s,MS5.8
CASY  Casey            110.70 194     PFAKE             00 21 40.0  +15
CASY                                  LR     LR
       comp=Z,1µm,20.0s,MS5.5
SDDR  Presa de Saban   111.49  35     PFAKE             00 21 40.0  +11
SDDR                                  LR     LR
       comp=Z,6µm,20.0s,MS6.1
JTS   JuntasAbangare   111.72  52     PFAKE             00 21 40.0  +11
JTS                                   LR     LR
       comp=Z,2µm,19.0s,MS5.8
SJG   San Juan         114.38  31     PFAKE             00 21 50.0  +16
SJG                                   LR     LR
       comp=Z,2µm,19.0s,MS5.8
TORD  Torodi Ar. Bea   114.99 318     PKP    PKiKP      00 21 33.6  -1.7
TORD                                  PP     PP         00 22 29.9  -3.8
TORD                                  PKKPab PKKPab     00 32 17.7  -1.6
TORD  Torodi Ar. Bea   114.99 318     PKP    PKiKP      00 21 33.6  -1.7
       comp=Z,4.3nm,1.0s,baz=18,slow=1.6,SNR=12
TORD                                  PP     PP         00 22 29.9  -3.8
       comp=Z,33nm,1.1s,baz=31,slow=6.7,SNR=7.1
TORD                                  PKKPab PKKPab     00 32 17.7  -1.6
       comp=Z,0.4nm,0.6s,baz=237,slow=0.7,SNR=5.4
PAYG  Puerto Ayora     116.70  65     PFAKE             00 21 50.0  +11
PAYG                                  LR     LR
       comp=Z,2µm,21.0s,MS5.8
LSZ   Lusaka           118.85 275     PFAKE             00 21 50.0  +7.4
LSZ                                   LR     LR
       comp=Z,8µm,19.0s,MS6.4
VNDA  Vanda            119.59 175     PFAKE             00 21 50.0  +7.7
VNDA                                  LR     LR
       comp=Z,2µm,22.0s,MS5.7
RPN   Rapa Nui         119.85 101     PFAKE             00 22 00.0  +16
RPN                                   LR     LR
       comp=Z,3µm,21.0s,MS5.9
SBA   Scott Base       120.23 174     PFAKE             00 21 50.0  +6.5
SBA                                   LR     LR
       comp=Z,2µm,21.0s,MS5.7
BBGH  Gun Hill         121.34  27     PFAKE             00 22 00.0  +12
BBGH                                  LR     LR
       comp=Z,6µm,22.0s,MS6.2
OTAV  Otavalo          123.59  53     PFAKE             00 22 00.0  +8.1
OTAV                                  LR     LR
       comp=Z,1µm,20.0s,MS5.6
LIC   Lamto            124.23 321⇑iPKIKP PKPdf      00 21 51.9  -1.2
       comp=Z,38nm,1.1s
LIC                                 eMLR   MLR
       comp=Z,7µm,18.8s,MS6.0
LIC   Lamto            124.23 321⇑iPKPdf PKPdf      00 21 51.9  -1.2
LIC                                   LR     LR
       comp=Z,3µm,18.8s,MS6.0
MAW   Mawson           124.53 207     PKP    PKPdf      00 21 50.6  -1.3
MAW   Mawson           124.53 207     PKIKP  PKPdf      00 21 50.6  -1.3
MAW                                   pmax   pmax
       comp=Z,10.0nm,0.9s
MAW   Mawson           124.53 207     PKP    PKPdf      00 21 50.6  -1.3
       comp=Z,9.6nm,0.9s,baz=44,slow=1.4,SNR=6.0
LBTB  Lobatse          126.64 268   ePKPdf PKPdf      00 21 57.6  +0.3
LBTB                                  LR     LR
       comp=Z,5µm,19.0s,MS6.2
LBTB  Lobatse          126.64 268   ePKIKP PKPdf      00 21 57.6  +0.3
LBTB                                  MLR    MLR
       comp=Z,5µm,19.0s,MS6.2
BOSA  Boshof           128.87 264     PKP    PKPdf      00 22 00.3  -1.2
BOSA                                  PP     PP         00 24 07.5  -1.6
BOSA                                  LR     LR
       comp=Z,3µm,21.0s,MS5.9
BOSA  Boshof           128.87 264     PKIKP  PKPdf      00 22 00.3  -1.2
BOSA                                                    00 24 07.5
BOSA                                  pmax   pmax
       comp=Z,9.0nm,1.0s
BOSA                                  pmax   pmax
       comp=Z,27nm,1.1s
BOSA  Boshof           128.87 264     PKP    PKPdf      00 22 00.3  -1.2
       comp=Z,8.6nm,1.0s,baz=55,slow=4.1,SNR=4.4
BOSA                                  PP     PP         00 24 07.5  -1.6
       comp=Z,27nm,1.1s,baz=62,slow=7.9,SNR=6.9
TSUM  Tsumeb           129.18 279   ePKPdf PKPdf      00 22 01.9  -0.4
TSUM                                e                   00 22 14.5
```

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TSUM                                  LR     LR
       comp=Z,3µm,20.0s,MS6.0
NNA   Nana             133.99  62     PFAKE             00 22 20.0  +8.4
NNA                                   LR     LR
       comp=Z,2µm,20.0s,MS5.9
SUR   Sutherland       134.08 262     PFAKE             00 22 20.0  +8.8
SUR                                   LR     LR
       comp=Z,4µm,21.0s,MS6.1
ARE   Arequipa         140.77  61   eP     PKPdf      00 22 25.0  +1.0
ARE   Arequipa         140.77  61   ePKIKP PKPdf      00 22 25.0  +1.0
ASCN  Ascension        141.00 324     PFAKE             00 22 40.0  +15
ASCN                                  LR     LR
       comp=Z,5µm,22.0s,MS6.3
MAIT  Maitri           142.33 204   ePKPdf PKPdf      00 22 19.0  -6.2
LPAZ  La Paz           142.79  56     PKP    PKPdf      00 22 25.3  -2.3
LPAZ                                  LR     LR
       comp=Z,3µm,22.0s,MS6.0
LPAZ  La Paz           142.79  56     PKIKP  PKPdf      00 22 25.3  -2.3
LPAZ                                  pmax   pmax
       comp=Z,4.0nm,0.9s
LPAZ  La Paz           142.79  56     PKP    PKPdf      00 22 25.3  -2.3
       comp=Z,4.1nm,0.9s,baz=330,slow=4.2,SNR=14
RCBR  Riachuelo        144.18 359     PFAKE             00 22 40.0  +10
RCBR                                  LR     LR
       comp=Z,2µm,21.0s,MS5.9
SNAA  Sanae            145.78 198     PKP2   PKPab      00 22 30.2  -2.0
SNAA                                  pmax   pmax
       comp=Z,15nm,1.0s
SNAA  Sanae            145.78 198     PKPbc  PKPbc      00 22 30.2  -1.6
       comp=Z,15nm,0.9s,baz=119,slow=2.5,SNR=35
VNA2  Neumayer--Watz   147.34 197   ePKPdf PKPdf      00 22 32.9  -0.9
VNA2                                e                   00 22 35.6
VNA2                                e                   00 22 40.8
VNA2                                e                   00 22 45.3
VNA2                                e                   00 22 49.2
VNA2                                e                   00 22 57.2
VNA2                                e                   00 23 04.0
VNA2                                e                   00 23 10.8
VNA2                                e                   00 23 20.9
VNA2                                e                   00 23 24.8
VNA2                                e                   00 23 28.3
VNA3  Neumayer Olymp   147.59 196   ePKPdf PKPdf      00 22 33.6  -0.6
VNA3                                e                   00 22 35.9
VNA3                                e                   00 22 40.7
VNA3                                e                   00 22 45.8
VNA3                                e                   00 22 49.2
VNA3                                e                   00 22 57.6
VNA3                                e                   00 23 03.2
VNA3                                e                   00 23 11.5
VNA3                                e                   00 23 20.6
VNA3                                e                   00 23 28.8
VNA1  Neumayer--Stat   147.74 197   ePKPdf PKPdf      00 22 35.6  +1.1
VNA1                                e                   00 22 37.0
VNA1                                e                   00 22 42.6
VNA1                                e                   00 22 47.7
VNA1                                e                   00 22 51.1
VNA1                                e                   00 23 19.1
LCO   Las Campanas     149.54  76   ePKPbc PKPbc      00 22 42.8  -0.4
LCO                                   LR     LR
       comp=Z,4µm,20.0s,MS6.2
PMSA  Palmer Station   152.13 155     PFAKE             00 22 50.0  +8.4
PMSA                                  LR     LR
       comp=Z,4µm,20.0s,MS6.2
TRIS  Tristan da Cun   160.76 276     PFAKE             00 23 00.0  +6.3
TRIS                                  LR     LR
       comp=Z,3µm,19.0s
LPA   La Plata         161.85  75cePKP   PKPdf      00 22 51.0  -3.9
LPA                                 epPKP  PKPab      00 23 48.0  +7.2
LPA                                 ePP    PP         00 27 25.0   0.0
LPA
       comp=Z,3µm,22.0s
EFI   East Falkland    162.28 131     PFAKE             00 23 10.0  +15
EFI                                   LR     LR
       comp=Z,5µm,20.0s
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GUC 17 00:08:26.9±0.3**, 4539S**×**7305W, h5**^{km}±1^{km}**, ML3.5, Southern Chile**

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*CSEM **17** 00:22:03.5±0.1, 3590N×3182E, h80^{km}, Mw3.0, Error ellipse: s-maj=2.1km s-min=1.8km az=82.0*
*ISCJB **17** 00:22:04.8±0.4, 3581N±003×3182E±005, h79^{km}±12^{km}, Error ellipse: s-maj=7.0km s-min=5.7km az=176.6*
*ISK **17** 00:22:04.2, 3598N×3187E, h12^{km}, MD3.6*
*NIC **17** 00:22:07.8±0.3, 3579N×3205E, h61^{km}, ML3.5, MW3.0*
*HLW **17** 00:22:15.7, 3516N×3155E, h33^{km}, Mb3.7*
ISC 17 00:22:06.3±0.5**, 3582N**±003×**3182E**±005**, h56**^{km}±24^{km}**, n47, σ0**^{s}**64**/52**, 1D, Cyprus region**

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Code  Station Name        Δ°   AZ°   Phase ID            Time      Res
                                     Op     ISC         h  m  s    ISC
AKMC  Akamas             0.90 152    P      Pn         00 22 23.3  +0.4
ALFC  Alevga             0.92 136⇓ eP     Pn         00 22 23.1   0.0
       33nm,0.2s
ALFC                                 S      Sn         00 22 35.6   0.0
MAMC  Mammari            1.31 119    P      Pn         00 22 28.4   0.0
SZAC  Souni-Zanaja       1.38 140    P      Pn         00 22 30.6  +1.4
       6.3nm,0.4s
SZAC                                 S      Sn         00 22 54.1  +7.7
CSS   Prodhromos         1.50 124    P      Pn         00 22 30.3  -0.6
CSS                                  S      Sn         00 22 47.8  -1.7
IKL   Isikli             1.57  74    PN     Pn         00 22 31.9  +0.1
IKL                                  SN     Sn         00 22 51.4  +0.4
IKL   Isikli             1.57  74  ePn    Pn         00 22 31.9  +0.1
IKL                                eSn    Sn         00 22 51.4  +0.4
ELL   Elmali             1.80 301    PN     Pn         00 22 35.2  +0.3
ELL   Elmali             1.80 301  ePn    Pn         00 22 35.2  +0.3
BCK   Bucak              1.91 329    PN     Pn         00 22 36.1  -0.3
BCK   Bucak              1.91 329  ePn    Pn         00 22 36.1  -0.3
KONT  Konya--Tatoy       2.16  11    PN     Pn         00 22 38.8  -1.1
KONT  Konya--Tatoy       2.16  11  ePn    Pn         00 22 38.8  -1.1
FETY  Fethiye            2.35 291  ePN    Pn         00 22 43.5  +1.0
FETY  Fethiye            2.35 291  ePn    Pn         00 22 43.5  +1.0
MERS  Mersin             2.42  64    PN     Pn         00 22 43.2  -0.2
MERS  Mersin             2.42  64  ePn    Pn         00 22 43.2  -0.2
SHUT  Suhut-Afyon        2.91 340  ePN    Pn         00 22 49.8  -0.2
SHUT  Suhut-Afyon        2.91 340  ePn    Pn         00 22 49.8  -0.2
KRTS  Karatas            2.97  74  ePN    Pn         00 22 51.4  +0.5
KRTS  Karatas            2.97  74  ePn    Pn         00 22 51.4  +0.5
KARA  Karaisali          2.97  60  ePN    Pn         00 22 51.3  +0.3
KARA  Karaisali          2.97  60  ePn    Pn         00 22 51.3  +0.3
KIZT  Kizilcal           3.05   1  ePN    Pn         00 22 51.5  -0.5
KIZT  Kizilcal           3.05   1  ePn    Pn         00 22 51.5  -0.5
KHL   Karahalli          3.10 324  ePN    Pn         00 22 52.9  +0.2
KHL   Karahalli          3.10 324  ePn    Pn         00 22 52.9  +0.2
NIG   Nigde              3.19  44  ePN    Pn         00 22 54.0   0.0
NIG   Nigde              3.19  44  ePn    Pn         00 22 54.0   0.0
CEYT  Ceyhan             3.38  68  ePN    Pn         00 22 56.3  -0.3
CEYT  Ceyhan             3.38  68  ePn    Pn         00 22 56.3  -0.3
HTY   Hatay              3.52  84  ePN    Pn         00 22 58.7  +0.3
HTY   Hatay              3.52  84  ePn    Pn         00 22 58.7  +0.3
KOZT  Kozan              3.62  62  ePN    Pn         00 23 00.1  +0.3
ESKT  Eskisehir          3.77 349  ePN    Pn         00 23 01.7  -0.1
ESKT  Eskisehir          3.77 349  ePn    Pn         00 23 01.7  -0.1
KAMT  Kaman              3.84  22  ePN    Pn         00 23 02.2  -0.7
KAMT  Kaman              3.84  22  ePn    Pn         00 23 02.2  -0.7
KMRS  Kahramanmaras      4.42  66  ePN    Pn         00 23 12.0  +1.3
KMRS  Kahramanmaras      4.42  66  ePn    Pn         00 23 12.0  +1.3
AMAG  Maghara            5.30 167    P      Pn         00 23 23.8  +0.9
HHAG  Hagoal             5.86 178    P      Pn         00 23 30.6   0.0
HHAG  Hagoal             5.86 178    P      Pn         00 23 30.5   0.0
HMAT  Matruh             6.15 221    P      Pn         00 23 34.6  +0.1
GLL   Jalalah            6.23 181    P      Pn         00 23 35.2  -0.4
HNAT  Natroun            6.26 190    P      Pn         00 23 35.8  -0.2
HFRF  Wahat Farafira     9.15 200    P      Pn         00 24 14.5  -1.1
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*NIED **17** 00:22:00, 4170N×14370E, h29^{km}, Mw5.2 Best double couple: M$_0$7.61000×10^{16} NP1:φ$_s$257.00000°, δ37.00000°, λ140.00000°. NP2:φ$_s$20.00000°, δ68.00000°, λ60.00000°.*
*BJI **17** 00:22:24.9, 4179N×14355E, h30^{km}, mB5.7, mb5.1, Ms5.2, Msz5.0*
*ISCJB **17** 00:22:25.3±0.1, 4176N±002×14360E±002, h31^{km}, mb5.1/179, MS5.2/14, Error ellipse: s-maj=3.3km s-min=2.1km az=160.7*
*JMA **17** 00:22:26.0±0.2, 4170N×14373E, h45^{km}±3^{km}, M5.1*
JMA Felt II J1.
*MOS **17** 00:22:26.1±0.8, 4185N×14354E, h34^{km}, mb5.3/93,*

MS4.9/8, Error ellipse: s-maj=7.0km s-min=3.9km az=108.3
NEIC ***17*** *00:22:27.5±0.2, 4177N×14360E, h35^{km}, mb5.1/95, MW5.2(NIED), Error ellipse: s-maj=4.8km s-min=3.0km az=164.0*
NEIC Recorded [2 JMA] south-central Hokkaido and [1 JMA] in much of southern Hokkaido. Recorded [1 JMA] in Aomori and Iwate Prefectures, Honshu.
IDC ***17*** *00:22:27.5±2.5, 4172N×14364E, h38^{km}±21^{km}, mb4.6/26, mb1 4.7/32, mb1mx4.6/34, mbtmp4.6/32, ML4.3/6, MS4.9/5, Ms1 4.9/5, ms1mx4.2/44, Error ellipse: s-maj=14.2km s-min=12.3km az=138.0*
GCMT ***17*** *00:22:27.5±0.4, 4170N×14420E, h41^{km}±1^{km}, MW5.3/68, Moment Tensor Solution. s29,c34; s68,c109; Duration: $1\overset{s}{.}1$ Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.96±.07; M$_{\theta\theta}$-0.08±.04; M$_{\phi\phi}$-0.88±.04; M$_{r\theta}$0.18±.03; M$_{\theta\phi}$-0.23±.02; M$_{\phi r}$0.49±.03; Best double couple: M$_0$1.08700×10^{17} NP1:ϕ_s193.00000°, δ31.00000°, λ86.00000°. NP2: ϕ_s17.00000°, δ59.00000°, λ92.00000°. Principal axes: T 1.0960, Plg76.0000°, Azm294.0000°; N -0.0200, Plg2.0000°, Azm196.0000°; P -1.0770, Plg14.0000°, Azm106.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
SZGRF ***17*** *00:22:34.9, 4266N×14274E, h33^{km}, mb5.3, Hokkaido, Japan, region*
ISC 17 00:22:27.7±0.1, **4186N**±002×**14356E**±002, **h33**^{km}, **h33**^{km}±.7^{km}**:pP-P, n714,** σ**0$\overset{s}{.}$79**/729, **mb5.1**/179, **MS5.2**/14, **137C-59D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ERM	**Erimo**	**0.34**	**298**	Pn	**Pb**	**00 22 36.0**	**+0.1**
	202μm,0.4s						
ERM	**Erimo**	**0.34**	**298**	⇑*i*P	**Pb**	**00 22 36.8**	**+0.9**
JEM	**Erimo**	**0.34**	**298**	⇓P	**Pb**	**00 22 36.7**	**+0.8**
JEM				*e*S	**Sb**	**00 22 45.9**	**+4.5**
JNBK	**Urakawa-nobuka**	**0.73**	**305**	⇓P	**Pn**	**00 22 43.7**	**+2.0**
JNBK				*e*S	**Sn**	**00 22 58.7**	**+7.0**
JCH	**Churui**	**0.77**	**349**	⇑P	**Pn**	**00 22 43.0**	**+0.7**
JCH				*e*S	**Sn**	**00 22 57.5**	**+4.8**
JOB	**Onbets**	**1.06**	**11**	⇑P	**Pn**	**00 22 46.7**	**+0.4**
JOB				*e*S	**Sn**	**00 23 02.9**	**+2.9**
JBT2	**Biratori 2**	**1.27**	**317**	⇑P	**Pn**	**00 22 50.7**	**+1.5**
JAK	**Akkeshi**	**1.42**	**36**	P	**Pn**	**00 22 50.5**	**-0.7**
JAR	**Ashorobuto**	**1.45**	**6**	⇑P	**Pn**	**00 22 51.8**	**+0.2**
JAR				*e*S	**Sn**	**00 23 10.8**	**+1.4**
JFR	**Furan**	**1.48**	**332**	⇑P	**Pn**	**00 22 52.2**	**+0.1**
JNK	**Nakash**	**1.93**	**26**	⇑P	**Pn**	**00 22 57.1**	**-1.1**
JTKR	**Abashiri--Toko**	**2.13**	**7**	⇑P	**Pn**	**00 23 01.6**	**+0.7**
ASAJ	**Asahikawa**	**2.36**	**343**	P	**Pn**	**00 23 05.9**	**+1.7**
ASAJ				pmax	pmax		
	comp=Z,38nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,25μm,19.5s						
ASAJ	**Asahikawa**	**2.36**	**343**	Pn	**Pn**	**00 23 05.9**	**+1.7**
	comp=Z,38nm,0.3s,baz=197,slow=14,SNR=70						
ASAJ				Sn	**Sn**	**00 23 42.8**	**+11**
	comp=Z,138nm,0.3s,baz=139,slow=20,SNR=6.3						
ASAJ				LR	LR	00 24 34.6	
	comp=Z,25μm,19.5s,baz=33,slow=51						
YUK	**Yuzh-Kuril'sk**	**2.76**	**37**	*e*P	**Pn**	**00 23 08.5**	**-1.1**
YUK				*i* S	**Sn**	**00 23 38.8**	**-2.9**
YUK				pmax	pmax		
	comp=Z,1μm,0.3s						
YUK				pmax	pmax		
	comp=N,390nm,0.5s						
YUK				pmax	pmax		
	comp=E,390nm,0.5s						
YUK				pmax	pmax		
	comp=Z,4μm,1.0s						
YUK				pmax	pmax		
	comp=N,4μm,0.8s						
YUK				pmax	pmax		
	comp=E,2μm,1.0s						
YUK				smax			
	comp=N,6μm,0.5s						
YUK				smax			
	comp=E,3μm,0.5s						
YUK				smax			
	comp=N,40μm,1.7s						
YUK				smax			
	comp=E,20μm,2.0s						
YUK				MLR	MLR		
	comp=Z,13μm,11.0s						
KUR	**Kuril'sk**	**4.60**	**41**	⇑*i*P	**Pn**	**00 23 34.5**	**-0.4**
KUR				*i* S	**Sn**	**00 24 27.0**	**-0.2**
KUR				pmax	pmax		
	comp=N,380nm,1.0s						
KUR				pmax	pmax		
	comp=E,570nm,1.0s						
KUR				pmax	pmax		
	comp=Z,2μm,1.0s						
KUR				smax			
	comp=N,2μm,0.8s						
KUR				smax			
	comp=E,1μm,0.8s						
KUR				smax			
	comp=N,25μm,4.0s						
KUR				smax			
	comp=E,12μm,4.0s						
YSS	**Yuzh-Sakhalins**	**5.13**	**354**	*e*Pn	**Pn**	**00 23 43.8**	**+1.7**
YSS	**Yuzh-Sakhalins**	**5.13**	**354**	⇓*e*P	**Pn**	**00 23 43.2**	**+1.1**
YSS				*e*S	**Sn**	**00 24 40.2**	**+0.1**
YSS				pmax	pmax		
	comp=Z,190nm,1.4s						
YSS				MLR	MLR		
	comp=N,12μm,16.0s						
YSS				MLR	MLR		
	comp=Z,13μm,16.0s						
JSZ	**Suzu**	**6.50**	**229**	P	**Pn**	**00 24 01.1**	**+0.1**
MJAR	**Matsushiro Arr**	**6.74**	**220**	Pn	**Pn**	**00 24 03.6**	**-0.7**
MJAR	**Matsushiro Arr**	**6.74**	**220**	P	**Pn**	**00 24 03.6**	**-0.7**
MJAR				pmax	pmax		
	comp=Z,7.0nm,0.3s						
MJAR	**Matsushiro Arr**	**6.74**	**220**	Pn	**Pn**	**00 24 03.6**	**-0.7**
	comp=Z,7.2nm,0.3s,baz=32,slow=13,SNR=93						
MAJO	**Matsushiro**	**6.74**	**220**	*e*Pn	**Pn**	**00 24 03.5**	**-0.8**
MAT	**Matsushiro**	**6.74**	**220**	P	**Pn**	**00 24 03.3**	**-1.0**
MAT				*e*S	**Sn**	**00 25 21.8**	**+1.9**
MAT	**Matsushiro**	**6.74**	**220**	P	**Pn**	**00 24 03.4**	**-0.9**
JNG	**Nsakai**	**6.90**	**220**	P	**Pn**	**00 24 05.8**	**-0.7**
JJH	**Hakui**	**7.20**	**229**	P	**Pn**	**00 24 11.1**	**+0.5**
VLA	**Vladivostok**	**8.71**	**282**	*i* P	**Pn**	**00 24 34.2**	**+2.9**
VLA	**Vladivostok**	**8.71**	**282**	*e*P	**Pn**	**00 24 30.2**	**-1.1**
VLA				pmax	pmax		
	comp=Z,161nm,1.5s						
VLA				MLR	MLR		
	comp=Z,11μm,19.7s						
HABR	**Khabarovsk**	**8.93**	**321**	*e*P	**Pn**	**00 24 37.1**	**+2.8**
HABR				*e*		00 26 18.5	
HABR				pmax	pmax		
	comp=Z,42nm,1.2s						
JHJ	**Hachijo jima 2**	**9.22**	**200**	Pn	**Pn**	**00 24 35.2**	**-3.2**
	comp=Z,46nm,0.3s,baz=41,slow=20,SNR=10.0						
JHJ				Sn	**Sn**	**00 26 09.3**	**-12**
	comp=Z,62nm,0.3s,baz=247,slow=23,SNR=8.9						
JHJ				LR	LR	00 28 24.4	
	comp=Z,5μm,18.4s,baz=56,slow=39						
MDJ	**Mudanjiang**	**10.55**	**290**	P	**Pn**	**00 24 57.9**	**+1.3**
MDJ				S	**Sn**	**00 26 59.3**	**+5.7**
MDJ				PCP	PcP	00 30 56.9	-2.1
MDJ				SCP	ScP	00 34 28.6	-0.3
MDJ				SCS	ScS	00 37 56.9	-6.8
MDJ				AMB	AMB		
	comp=Z,37nm,1.9s						
MDJ				LR	LR		
	comp=N,2μm,13.9s						
MDJ				LR	LR		
	comp=E,7μm,19.1s						
MDJ				LR	LR		
	comp=Z,11μm,20.8s						
MDJ	**Mudanjiang**	**10.55**	**290**	*e*Pn	**Pn**	**00 24 59.3**	**+2.8**
	comp=Z,56nm,1.1s						
SKR	**Severo-Kuril's**	**12.37**	**40**	*e*P	**Pn**	**00 25 22.0**	**+0.6**
SKR				*e*		00 27 30.2	
SKR				pmax	pmax		
	comp=N,180nm,1.0s						
SKR				pmax	pmax		
	comp=Z,180nm,1.0s						
KSRS	**Korea Array**	**12.82**	**255**	Pn	**Pn**	**00 25 29.1**	**+1.5**
	comp=Z,0.4nm,0.3s,baz=69,slow=13,SNR=34						
KSRS				Sn	**Sn**	**00 27 58.6**	**+10**
	comp=Z,0.5nm,0.3s,baz=70,slow=24,SNR=4.1						
KSRS				LR	LR	00 30 16.8	
	comp=Z,4μm,18.9s,baz=225,slow=36						
KS15	**Wonju Array Si**	**12.86**	**255**	*e*Pn	**Pn**	**00 25 29.2**	**+1.2**
JNU	**Nakatsue**	**13.31**	**233**	Pn	**Pn**	**00 25 33.5**	**-0.8**
JNU	**Nakatsue**	**13.31**	**233**	Pn	**Pn**	**00 25 33.5**	**-0.8**
	comp=Z,1.2nm,0.3s,baz=18,slow=13,SNR=6.0						
CN2	**Changchun**	**13.43**	**284**	⇑P	**Pn**	**00 25 36.3**	**+0.4**
CN2				AMB	AMB		
	comp=Z,20nm,1.3s						
SNY	**Shenyang**	**14.89**	**277**	⇑P	**Pn**	**00 25 55.9**	**+0.1**
SNY				AMB	AMB		
	comp=Z,23nm,1.4s						
PET	**Petropavlovsk**	**15.10**	**37**	*e*P	**Pn**	**00 25 54.7**	**-3.7**
PET	**Petropavlovsk**	**15.10**	**37**	*e*P	**Pn**	**00 25 56.4**	**-2.0**
PET				*e*		00 28 50.1	
PET				pmax	pmax		
	comp=Z,50nm,1.3s						
DL2	**Dalian**	**16.96**	**267**	⇑P	**Pn**	**00 26 21.8**	**-0.5**
DL2				AMB	AMB		
	comp=Z,50nm,1.0s						
HIA	**Hailar**	**18.20**	**302**	*i* P	**Pn**	**00 26 36.3**	**-1.2**
MA2	**Magadan**	**18.30**	**12**	*e*Pn	**Pn**	**00 26 36.0**	**-2.7**
NRGR	**Nerungri**	**19.15**	**327**	*e*P	**Pn**	**00 26 48.0**	**-1.0**
CLNS	**Chul'man**	**19.20**	**328**	*d i*P	**Pn**	**00 26 48.5**	**-1.1**
CLNS				*e*S	**Sn**	**00 30 21.3**	**-2.4**
CLNS				pmax	pmax		
	comp=N,46nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,65nm,0.9s						
CLNS				pmax	pmax		
	comp=E,20nm,1.3s						
CLNS				pmax	pmax		
	comp=Z,51nm,0.8s						
CLNS				pmax	pmax		
	comp=N,60nm,0.9s						
CLNS				pmax	pmax		
	comp=E,42nm,0.9s						
CLNS				smax			
	comp=E,11nm,1.2s						
CLNS				smax			
	comp=Z,6.0nm,0.8s						
CLNS				smax			
	comp=N,22nm,1.0s						
CLNS				MLR	MLR		
	comp=Z,4μm,14.0s						
CLNS				MLR	MLR		
	comp=N,1μm,13.0s						
CLNS				MLR	MLR		
	comp=E,2μm,16.0s						
JOW	**Kunigami**	**19.55**	**225**	P	**Pn**	**00 26 49.8**	**-4.2**
	comp=E,2.0nm,0.3s,baz=48,slow=14,SNR=4.6						
SSE	**Sheshan**	**20.89**	**246**	*e*P	**P**	**00 27 06.8**	**-0.3**
SSE				AMB	AMB		
	comp=Z,25nm,1.3s						
SSE				AMB	AMB		
	comp=Z,4μm,12.0s						
TIA	**Tai'an**	**21.25**	**263**	*e*P	**P**	**00 27 08.6**	**-2.4**
SEY	**Seymchan**	**21.74**	**11**	*i* P	**P**	**00 27 12.3**	**-3.7**
YAK	**Yakutsk**	**21.84**	**342**	*e*P	**P**	**00 27 13.6**	**-3.5**
YAK	**Yakutsk**	**21.84**	**342**	*e*P	**P**	**00 27 14.1**	**-3.0**
YAK				*e*		00 27 37.3	
YAK				*e*S	**S**	**00 31 13.1**	**-3.3**
YAK				*e**SS	sS	00 31 27.2	-3.2
YAK				*e*SSS		00 31 56.5	
YAK				pmax	pmax		
	comp=Z,84nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,29nm,1.1s						
YAK				pmax	pmax		
	comp=E,30nm,1.2s						
YAK				pmax	pmax		
	comp=Z,76nm,1.2s,mb5.0						
YAK				pmax	pmax		
	comp=N,160nm,1.6s						
YAK				pmax	pmax		
	comp=E,81nm,1.6s						
YAK				smax			
	comp=E,144nm,1.5s						
YAK				smax			
	comp=Z,132nm,1.6s						
YAK				smax			
	comp=N,81nm,0.7s						
YAK				MLR	MLR		
	comp=Z,4μm,18.0s,MS4.9						
YAK				MLR	MLR		
	comp=N,4μm,20.0s,MS4.9						
YAK				MLR	MLR		
	comp=E,4μm,21.0s,MS4.9						
CIT	**Chita**	**22.71**	**307**	*e*P	**P**	**00 27 23.4**	**-3.0**
CIT				*e*		00 27 38.4	
CIT				*e*		00 27 54.8	
CIT				*e*S	**S**	**00 31 32.4**	**-0.5**
CIT				pmax	pmax		
	comp=Z,348nm,2.3s,mb5.4						
HHC	**Hu-ho-hao-te**	**23.97**	**278**	*e*P	**P**	**00 27 36.8**	**-2.2**
HHC				AP		00 27 46.1	
HHC				XP	sP	00 27 50.1	-2.2
HHC				PP		00 28 11.0	
HHC				PCP	PcP	00 31 20.8	+0.4
HHC				S	**S**	**00 31 48.3**	**-5.2**
HHC				XS	sS	00 32 04.3	-4.6
HHC				SS		00 32 41.4	
HHC				SCP	ScP	00 34 54.1	-2.2
HHC				PCS	PcS	00 34 57.9	-2.1
HHC				SCS	ScS	00 38 40.6	-2.6
HHC				AMB	AMB		
	comp=Z,2μm,4.7s						
HHC				LR	LR		
	comp=N,2μm,19.9s,MS4.7						
HHC				LR	LR		
	comp=E,2μm,19.0s,MS4.7						
HHC				LR	LR		
	comp=Z,2μm,20.9s,MS4.6						
BOD	**Bodaibo**	**24.58**	**321**	⇑*i*P	**P**	**00 27 41.4**	**-3.0**
BOD				pmax	pmax		
	comp=Z,29nm,1.1s,mb4.7						
WHN	**Wuhan**	**26.01**	**254**	P	**P**	**00 27 57.3**	**-0.3**
WHN				AMB	AMB		
	comp=Z,79nm,0.8s,mb5.3						
ULN	**Ulaanbaatar**	**26.38**	**296**	⇑*i*P	**P**	**00 28 01.2**	**+0.4**
QZH	**Quanzhou**	**26.67**	**239**	⇓*i*P	**P**	**00 28 05.1**	**+1.5**
QZH				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.1						
SONM	**Songino Array**	**26.83**	**296**	P	**P**	**00 28 05.9**	**+1.1**
SONM				pmax	pmax		
	comp=Z,35nm,1.0s						
SONM				MLR	MLR		
	comp=Z,4μm,19.5s						
SONM	**Songino Array**	**26.83**	**296**	P	**P**	**00 28 05.9**	**+1.1**
	comp=Z,35nm,1.0s,mb4.8,baz=82,slow=7.5,SNR=134						
SONM				LR	LR	00 38 39.0	
	comp=Z,4μm,19.4s,MS5.0,baz=354,slow=36						
XAN	**Xi'an**	**28.26**	**265**	P	**P**	**00 28 17.4**	**-0.4**
XAN				AP	pP	00 28 27.4	+0.2
XAN				AMB	AMB		
	comp=Z,11nm,0.7s,mb4.6						
IRK	**Irkutsk**	**28.38**	**305**	*e*P	**P**	**00 28 18.9**	**+0.2**
IRK				*e*		00 29 14.0	
IRK				pmax	pmax		
	comp=Z,126nm,1.4s,mb5.3						
TLY	**Talaya**	**28.72**	**304**	P	**P**	**00 28 22.0**	**+0.3**
	comp=Z,265nm,0.8s,mb6.0,SNR=12						
TLY	**Talaya**	**28.72**	**304**	*e*P	**P**	**00 28 24.1**	**+2.4**
TLY	**Talaya**	**28.72**	**304**	*e*P	**P**	**00 28 22.2**	**+0.5**
TLY				*e*		00 31 30.6	
TLY				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.1						
TLY				MLR	MLR		
	comp=Z,4μm,17.0s,MS5.1						
ZAK	**Zakamensk**	**28.89**	**301**	⇑*i*P	**P**	**00 28 23.5**	**+0.3**
ZAK				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.7						
BILL	**Bilibino**	**28.93**	**17**	*e*P	**P**	**00 28 20.8**	**-2.6**
BILL	**Bilibino**	**28.93**	**17**	⇑*e*P	**P**	**00 28 20.7**	**-2.7**
BILL				*e*	pP	00 28 30.3	-2.6
BILL						00 31 32.0	
BILL				S	**S**	**00 33 10.0**	**-1.6**
BILL				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.5						
BILL				MLR	MLR		
	comp=Z,2μm,15.0s,MS4.8						
MOY	**Mondy**	**30.37**	**304**	*e*P	**P**	**00 28 36.4**	**+0.1**
MOY				pmax	pmax		
	comp=Z,143nm,2.5s,mb5.3						
TIXI	**Tiksi**	**30.74**	**351**	*e*P	**P**	**00 28 35.9**	**-3.5**
TIXI	**Tiksi**	**30.74**	**351**	*e*P	**P**	**00 28 35.4**	**-4.0**
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
LZH	**Lanzhou**	**31.20**	**273**	⇑P	**P**	**00 28 44.9**	**+1.1**
LZH				AP	pP	00 28 54.3	+1.0
LZH				XP	sP	00 28 57.8	+0.5
LZH				PP	PP	00 29 48.0	-6.5
LZH				S	**S**	**00 33 47.5**	**-0.3**
LZH				XS	sS	00 34 03.5	+0.1
LZH				SS	SS	00 35 34.0	-28
LZH				AMB	AMB		
	comp=Z,83nm,1.5s,mb5.3						
LZH				AMB	AMB		
	comp=Z,490nm,7.9s						
LZH				LR	LR		
	comp=E,2μm,13.2s						
LZH				LR	LR		
	comp=Z,4μm,13.7s,MS5.2						
LZH	**Lanzhou**	**31.20**	**273**	⇑P	**P**	**00 28 44.9**	**+1.1**
	comp=Z,83nm,1.5s,mb5.3						
LZH				pP	pP	00 28 54.2	+0.9
LZH				sP	sP	00 28 57.8	+0.5
LZH				PP	PP	00 29 48.0	-6.5
LZH				S	**S**	**00 33 47.5**	**-0.3**
LZH				sS	sS	00 34 03.5	+0.1
LZH				SS	SS	00 35 34.0	-28
LZH				LR	LR		
	comp=Z,4μm,13.7s,MS5.2						
LZH	**Lanzhou**	**31.20**	**273**	⇑P	**P**	**00 28 44.9**	**+1.1**
LZH				*PP	pP	00 28 54.2	+0.9
LZH				*SP	sP	00 28 57.8	+0.5
LZH						00 29 48.0	
LZH				S	**S**	**00 33 47.5**	**-0.3**
LZH				*SS	sS	00 34 03.5	+0.1
LZH				SS	SS	00 35 34.0	-28
LZH				pmax	pmax		
	comp=Z,83nm,1.5s,mb5.3						
LZH				MLR	MLR		
	comp=Z,4μm,13.7s,MS5.2						
GTA	**Gaotai**	**33.02**	**281**	⇑P	**P**	**00 29 00.4**	**+0.7**
GTA				AP	pP	00 29 06.3	-2.9
GTA				XP	sP	00 29 09.3	-3.9
GTA				PP	PP	00 30 10.4	-4.2
GTA				PPP		00 30 26.8	
GTA				PCP	PcP	00 31 43.9	+1.0
GTA				S	**S**	**00 34 17.3**	**+1.2**
GTA				XS	sS	00 34 27.1	-4.6
GTA				SCP	ScP	00 35 26.1	+1.6
GTA				PCS	PcS	00 35 28.8	+0.5
GTA				SS	SS	00 36 16.6	-22
GTA				SCS	ScS	00 39 25.3	+0.5
GTA				AMB	AMB		
	comp=Z,29nm,1.0s,mb5.2						
GTA				LR	LR		
	comp=N,4μm,15.6s,MS5.3						
GTA				LR	LR		
	comp=E,3μm,15.6s,MS5.3						
GTA				LR	LR		
	comp=Z,4μm,16.7s,MS5.2						
CD2	**Chengdu**	**33.58**	**264**	*e*P	**P**	**00 29 03.9**	**-0.8**
CD2				XP	sP	00 29 17.4	-0.8
CD2				PP	PP	00 30 15.9	-5.0
CD2				S	**S**	**00 34 21.8**	**-3.1**
CD2				XS	sS	00 34 37.4	-3.2
CD2				SS	SS	00 36 24.9	-26
CD2				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.3						
CD2				LR	LR		
	comp=N,2μm,15.6s,MS5.3						
CD2				LR	LR		
	comp=E,4μm,15.6s,MS5.3						
CD2				LR	LR		
	comp=Z,4μm,13.2s,MS5.3						
GYA	**Guiyang**	**33.88**	**255**	⇑*i*P	**P**	**00 29 06.6**	**-0.8**
GYA				AP	pP	00 29 19.4	+2.5
GYA				XP	sP	00 29 23.3	+2.5
GYA				PP	PP	00 30 23.4	-0.9
GYA				PCP	PcP	00 31 47.6	+2.1
GYA				S	**S**	**00 34 22.4**	**-7.3**
GYA				XS	sS	00 34 47.3	+2.0
GYA				SCP	ScP	00 35 28.8	+1.1
GYA				PCS	PcS	00 35 32.8	+1.1
GYA				SS	SS	00 36 37.3	-19
GYA				SCS	ScS	00 39 28.8	-0.8
GYA				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.2						
GYA				AMB	AMB		
	comp=Z,100nm,4.5s						
GYA				LR	LR		
	comp=N,3μm,20.7s,MS5.2						
GYA				LR	LR		
	comp=E,3μm,18.0s,MS5.2						
GYA				LR	LR		
	comp=Z,3μm,17.5s,MS5.0						
TNA	**Tin City**	**35.87**	**32**	*e*P	**P**	**00 29 23.8**	**-0.2**
KMI	**Kunming**	**37.52**	**257**	P	**P**	**00 29 38.1**	**-0.5**
KMI				AP	pP	00 29 47.4	-0.7
KMI				XP	sP	00 29 51.5	-0.6
KMI				PP	PP	00 31 06.4	+2.0
KMI				AMB	AMB		
	comp=Z,31nm,1.0s,mb5.0						
KMI	**Kunming**	**37.52**	**257**	P	**P**	**00 29 38.1**	**-0.5**
	comp=Z,31nm,1.0s,mb5.0						
KMI				pP	pP	00 29 47.4	-0.7
KMI				sP	sP	00 29 51.5	-0.6
KMI				PP	PP	00 31 06.4	+2.0
ZALV	**Zalesovo Beam**	**40.06**	**308**	P	**P**	**00 30 00.2**	**+0.7**
	comp=Z,42nm,0.8s,mb5.2,baz=87,slow=7.6,SNR=118						
ZALV				PcP	PcP	00 32 03.9	+0.1
	comp=Z,9.5nm,0.8s,baz=93,slow=3.2,SNR=4.9						
ZALV				LR	LR	00 47 48.4	
	comp=Z,2μm,19.1s,MS5.0,baz=356,slow=38						
ZAL	**Zalesovo**	**40.07**	**308**	P	**P**	**00 30 00.2**	**+0.6**
ZAL						00 32 03.9	
WMQ	**Urumqi**	**40.34**	**292**	P	**P**	**00 30 03.5**	**+1.5**
WMQ				AP	pP	00 30 13.3	+1.6
WMQ				XP	sP	00 30 17.3	+1.7
WMQ				AMB	AMB		
	comp=Z,51nm,1.0s,mb5.2						
WMQ				LR	LR		
	comp=N,2μm,16.3s,MS5.3						
WMQ				LR	LR		
	comp=E,3μm,17.0s,MS5.3						
WMQ				LR	LR		
	comp=Z,5μm,19.0s,MS5.4						
SVW2	**Sparrevohn**	**40.73**	**41**	*e*P	**P**	**00 30 05.3**	**+0.3**
NVS	**Novosibirsk**	**40.87**	**310**	⇑*i*P	**P**	**00 30 06.0**	**-0.2**
NVS				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.0						
NVS				pmax	pmax		
	comp=E,55nm,1.3s						
IMA2	**Indian Mountai**	**41.72**	**33**	*e*P	**P**	**00 30 12.5**	**-0.5**
KDAK	**Kodiak Island**	**42.47**	**45**	*e*P	**P**	**00 30 18.5**	**-0.7**
	comp=E,33nm,1.0s,mb4.9						
KDAK	**Kodiak Island**	**42.47**	**45**	P	**P**	**00 30 18.8**	**-0.4**
	comp=E,11nm,0.8s,mb4.6,baz=243,slow=1.1,SNR=12						
MYLDM	**Lahad Datu**	**42.81**	**218**	⇑P	**P**	**00 30 25.0**	**+2.5**
SDKM	**Sandakan**	**43.02**	**220**	⇓P	**P**	**00 30 24.4**	**+0.2**
MK31	**Makanchi Array**	**43.13**	**298**	P	**P**	**00 30 24.6**	**-0.2**
MK31				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.0						
MKAR	**Makanchi Array**	**43.13**	**298**	P	**P**	**00 30 25.3**	**+0.5**
MKAR						00 32 14.2	
MKAR				pmax	pmax		
	comp=Z,28nm,0.9s						
MKAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MKAR	**Makanchi Array**	**43.13**	**298**	P	**P**	**00 30 25.3**	**+0.5**
	comp=Z,28nm,0.8s,mb5.0,baz=83,slow=9.7,SNR=206						
MKAR				PcP	PcP	00 32 14.2	+0.2
	comp=Z,6.1nm,0.8s,baz=78,slow=1.9,SNR=3.6						
KKM	**Kota Kinabalu**	**43.16**	**222**	⇓P	**P**	**00 30 25.9**	**+0.6**
LSA	**Lhasa**	**43.59**	**271**	P	**P**	**00 30 30.1**	**+1.4**
LSA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
MCK	**McKinley**	**43.74**	**36**	*e*P	**P**	**00 30 29.2**	**-0.3**
PMR	**Palmer**	**43.81**	**40**	*e*P	**P**	**00 30 29.5**	**-0.5**
	comp=Z,22nm,1.0s,mb4.8						
PMR	**Palmer**	**43.81**	**40**	*e*P	**P**	**00 30 29.5**	**-0.6**
PMR				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.8						
TSM	**Tawau**	**43.88**	**219**	⇓P	**P**	**00 30 32.5**	**+1.3**
COLA	**College**	**44.15**	**35**	⇑*i*P	**P**	**00 30 31.4**	**-1.3**

COLA	College	44.15	35	c iP	P	00 30 31.3	-1.4
SML	Sawmill	44.17	39	eP	P	00 30 32.7	-0.2
CHG	Chiang Mai	44.21	253	⇑P	P	00 30 33.6	-0.1
	comp=Z,27nm,1.0s,mb4.9						
CHTO	Chiang Mai	44.21	253	eP	P	00 30 33.3	-0.5
	comp=Z,11nm,0.9s,mb4.6						
CHTO	Chiang Mai	44.21	253	eP	P	00 30 33.3	-0.4
CHTO				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
KURK	Kurchatov	44.41	305	P	P	00 30 35.5	+0.5
	comp=Z,410nm,0.6s,mb6.3,SNR=36						
KURK	Kurchatov	44.41	305	eP	P	00 30 35.2	+0.2
KURK	Kurchatov	44.41	305	c iP	P	00 30 34.8	-0.2
SHL	Shillong	45.27	266	eP	P	00 30 42.0	-0.2
NST	Nakhon Sawan	45.48	248	P	P	00 30 42.2	-1.7
EGAK	Eagle	47.00	35	eP	P	00 30 54.5	-0.8
	comp=Z,29nm,1.1s,mb5.1						
BTM	Bintulu	47.18	224	⇑P	P	00 30 57.4	+0.2
TAPN	Taplejung	47.40	271	eP	P	00 30 59.7	+0.8
	comp=Z,79nm,0.9s,mb5.6						
DAWY	Dawson	47.88	35	eP	P	00 31 02.0	-0.1
ODAN	Odare	47.91	270	eP	P	00 31 02.7	-0.1
	comp=Z,208nm,1.5s,mb6.0						
SBUM	Sibu	48.26	224	⇓P	P	00 31 06.5	+0.8
JIRN	Jiri	48.37	272	eP	P	00 31 07.4	+1.0
	comp=Z,5.1nm,0.2s,mb5.1						
BRVK	Borovoye	48.71	310	P	P	00 31 09.6	+0.9
	comp=Z,190nm,0.8s,mb6.2,SNR=20						
BRVK	Borovoye	48.71	310	⇑iP	P	00 31 09.1	+0.4
TKM2	Tokmak 2	48.93	295	P	P	00 31 11.9	+1.4
	SNR=49						
TKM2	Tokmak 2	48.93	295	eP	P	00 31 11.2	+0.8
	comp=Z,50nm,0.8s,mb5.6						
TKM2	Tokmak 2	48.93	295	eP	P	00 31 11.2	+0.7
TKM2				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.6						
KKN	Kakani	48.98	273	eP	P	00 31 11.1	0.0
	comp=Z,180nm,1.0s,mb6.1						
GKN	Gorkha	49.34	273	eP	P	00 31 13.8	-0.1
	comp=Z,240nm,1.2s,mb6.1						
INK	Inuvik	49.36	29	eP	P	00 31 12.7	-0.7
INK	Inuvik	49.36	29	P	P	00 31 13.0	-0.4
	comp=Z,21nm,0.9s,mb5.2,baz=297,slow=6.6,SNR=58						
CHMS	Chumysh	49.47	296	P	P	00 31 14.8	+0.2
	SNR=5.8						
KBK	Karagaybulak	49.47	295	P	P	00 31 15.1	+0.4
	SNR=37						
KZA	Kyzart	49.50	295	P	P	00 31 16.9	+2.0
	SNR=18						
USP	Ospenovka	49.53	296	P	P	00 31 15.8	+0.7
	SNR=18						
AAK	Ala-Archa	49.79	296	P	P	00 31 16.6	-0.4
	comp=Z,84nm,0.5s,mb6.0,SNR=9.4						
AAK	Ala-Archa	49.79	296	P	P	00 31 16.5	-0.5
	SNR=14						
AAK	Ala-Archa	49.79	296	c iP	P	00 31 16.1	-0.9
AAK				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.0						
UCH	Uchtor	49.94	295	P	P	00 31 19.3	+1.1
	SNR=8.1						
KSH	Kashi	50.08	291	eP	P	00 31 20.0	+0.7
KSH				eAP	pP	00 31 29.0	-0.2
KSH				eXP	sP	00 31 33.3	+0.3
KSH				ePCP	PcP	00 32 39.0	+0.4
KSH				ePP	PP	00 33 15.1	+0.7
KSH				ePPP		00 34 11.3	
KSH				eSCP	ScP	00 36 31.1	-0.7
KSH				ePCS	PcS	00 36 35.3	-0.3
KSH				eS	S	00 38 26.3	-2.0
KSH				ePS		00 38 39.0	
KSH				eXS	sS	00 38 43.5	-1.0
KSH				eSCS	ScS	00 41 05.4	-2.6
KSH				eSS	SS	00 41 56.1	-5.2
KSH				LR	LR		
	comp=Z,6µm,12.7s,MS5.8						
KSM	Kuching	50.09	226	eP	P	00 31 19.5	-0.2
KSM	Kuching	50.09	226	⇓P	P	00 31 20.5	+0.8
EKS2	Erkin-Say	50.26	296	P	P	00 31 20.7	+0.1
	SNR=15						
EKS2	Erkin-Say	50.26	296	eP	P	00 31 20.8	+0.2
	comp=Z,18nm,0.8s,mb5.2						
EKS2				epP	pP	00 31 31.2	+0.7
AML	Almayashu	50.53	295	P	P	00 31 23.0	+0.3
	SNR=20						
AML	Almayashu	50.53	295	eP	P	00 31 23.4	+0.7
	comp=Z,21nm,0.9s,mb5.1						
BOK	Bokaro	50.75	268	eP	P	00 31 23.5	-1.1
BOK				AMb	AMB	00 31 27.6	
	comp=Z,42nm,1.4s,mb5.2						
PMG	Port Moresby	51.12	175	i P	P	00 31 29.7	+2.4
KTGM	Kuala Trenggan	51.13	236	⇑P	P	00 31 27.1	-0.4
KK31	Karatay Array	52.25	298	i P	P	00 31 35.1	-0.5
KK31				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.3						
KKAR	Karatay Array	52.25	298	i P	P	00 31 35.1	-0.5
KKAR				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.0						
KULM	Kulim	52.72	238	eP	P	00 31 39.4	0.0
KULM	Kulim	52.72	238	⇑P	P	00 31 39.5	+0.2
IPM	Ipoh	53.10	237	⇓P	P	00 31 41.8	-0.3
SDNR	Sundarnagar	53.19	282	eP	P	00 31 43.6	+1.0
MYKOM	Kota Tinggi	53.48	233	⇑P	P	00 31 46.0	+1.1
SOKR	Solikamsk	53.58	321	eP	P	00 31 44.9	-0.2
SOKR				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.4						
KGM	Kluang	53.62	233	⇓P	P	00 31 47.1	+1.1
THN	Thein Dam	53.62	283	eP	P	00 31 45.5	-0.3
FRIM	Kepong	53.69	236	⇓P	P	00 31 47.2	+0.7
DLBC	Dease Lake	53.85	41	eP	P	00 31 48.5	+1.5
ARU	Arti	53.91	317	P	P	00 31 47.2	-0.4
	comp=Z,371nm,1.0s,mb6.3,SNR=17						
ARU	Arti	53.91	317	eP	P	00 31 49.6	+2.0
ARU	Arti	53.91	317	⇑iP	P	00 31 47.5	-0.1
ARU				pmax	pmax		
	comp=Z,97nm,1.2s,mb5.6						
NDI	New Delhi	54.49	279	eP	P	00 31 51.9	-0.3
NDI				AMb	AMB	00 31 53.1	
	comp=Z,95nm,1.5s,mb5.5						
BLSP	Bilaspur	54.53	269	eP	P	00 31 51.2	-1.3
BLSP				AMb	AMB	00 31 52.9	
	comp=Z,64nm,1.1s,mb5.6						
KAKA	Kakadu	55.26	193	eP	P	00 31 55.5	-2.2
	comp=Z,7.6nm,0.7s,mb4.8						
AB31	Akbulak array	56.17	308	⇑eP	P	00 32 04.2	+0.2
VIS	Vishakhapatnam	56.31	264	eP	P	00 32 05.3	-0.1
VIS				AMb	AMB	00 32 06.9	
	comp=Z,45nm,1.3s,mb5.3						
AKTK	Aktyubinsk	56.75	310	P	P	00 32 07.3	-0.8
AKTO	Aktyubinsk	56.75	310	P	P	00 32 07.3	-0.8
AKTO				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
AKTO	Aktyubinsk	56.75	310	P	P	00 32 07.3	-0.8
	comp=Z,10nm,0.8s,mb4.9,baz=65,slow=7.8,SNR=22						
KBL	Kabul	57.32	289	eP	P	00 32 11.4	-1.0
BHPL	Bhopal	57.39	273	eP	P	00 32 12.3	-0.7
BHPL				AMb	AMB	00 32 15.2	
	comp=Z,111nm,1.3s,mb5.7						
NGP	Nagpur	57.41	270	eP	P	00 32 12.4	-0.8
NGP				AMb	AMB	00 32 13.3	
	comp=Z,97nm,1.1s,mb5.8						
RES	Resolute Bay	57.52	16	eP	P	00 32 12.4	-0.8
AJM	Ajmer	57.61	278	i P	P	00 32 14.0	-0.5
LVZ	Lovozero	58.41	335	eP	P	00 32 17.9	-1.6
LVZ	Lovozero	58.41	335	eP	P	00 32 17.8	-1.7
LVZ				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.2						
YKW3	Yellowknife Ar	58.79	32	eP	P	00 32 21.5	-0.7
YKA	Yellowknife Ar	58.83	32	P	P	00 32 21.7	-0.7
	comp=Z,2.9nm,0.7s,mb4.4,baz=301,slow=6.9,SNR=36						
APA	Apatity	58.99	335	⇑iP	P	00 32 23.0	-0.6
APA				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
APA				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
AKL	Akola	59.20	271	eP	P	00 32 25.9	+0.2
AKL				AMb	AMB	00 32 26.9	
	comp=Z,102nm,1.5s,mb5.6						
KEV	Kevo	59.54	339	ep	P	00 32 25.7	-1.6
	comp=Z,20nm,0.6s,mb5.3						
KEV	Kevo	59.54	339	eP	P	00 32 25.7	-1.6
KEV				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
HYB	Hyderabad	60.05	267	eP	P	00 32 31.0	-0.6
HYB	Hyderabad	60.05	267	i P	P	00 32 31.0	-0.6
ARCES	ARCESS Array B	60.08	339	P	P	00 32 30.4	-0.6
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.6s						
ARCES	ARCESS Array B	60.08	339	P	P	00 32 30.4	-0.7
	comp=Z,5.3nm,0.6s,mb4.8,baz=52,slow=7.9,SNR=34						
ARE0	ARCESS Array S	60.08	339	eP	P	00 32 30.2	-0.8
KTK1	Kautokeino	61.03	339	eP	P	00 32 38.6	+1.1
KTK1				AMb	AMB	00 32 40.9	
	comp=Z,40nm,0.8s,mb5.6						
TRO	Tromso	61.70	341	eP	P	00 32 40.9	-1.1
FITZ	Fitzroy Crossi	61.92	199	eP	P	00 32 42.2	-1.8
	comp=Z,9.5nm,1.1s,mb4.8						
WB2	Warramunga Arr	62.07	190	eP	P	00 32 42.6	-2.5
WRA	Warramunga Arr	62.08	190	P	P	00 32 43.0	-2.1
WRA	Warramunga Arr	62.08	190	P	P	00 32 43.0	-2.1
WRA				pmax	pmax		
	comp=Z,6.0nm,1.1s						
WRA	Warramunga Arr	62.08	190	P	P	00 32 43.0	-2.1
	comp=Z,5.6nm,1.1s,mb4.6,baz=7.3,slow=6.7,SNR=28						
B04A	Port Angeles	62.14	49	⇑P	P	00 32 44.4	-1.0
	baz=62						
A04A	Legoe Bay, Lum	62.23	48	⇓P	P	00 32 44.7	-1.3
	baz=62						
A05A	Maple Falls	62.43	48	⇓P	P	00 32 46.9	-0.4
	baz=62						
JOF	Joensuu	62.51	331	ep	P	00 32 45.3	-2.2
	comp=Z,38nm,0.6s,mb5.7						
JOF	Joensuu	62.51	331	eP	P	00 32 45.3	-2.2
JOF				pmax	pmax		
	comp=Z,38nm,0.6s,mb5.7						
A06A	Chilliwack	62.71	47	⇑P	P	00 32 48.4	-0.7
	baz=62						
B05A	Bryant	62.82	48	⇓P	P	00 32 49.8	-0.1
	baz=63						
POO	Poona	62.88	271	eP	P	00 32 49.4	-1.4
POO				AMb	AMB	00 32 52.5	
	comp=Z,54nm,1.5s,mb5.5						
ABKT	Ailbek	63.00	298	P	P	00 32 51.3	0.0
	comp=Z,157nm,1.0s,mb6.1,SNR=15						
A07A	Ashnola River,	63.34	47	⇑P	P	00 32 52.9	-0.4
	baz=63						
KAD	Karad	63.39	270	eP	P	00 32 53.0	-1.0
KAD				AMb	AMB	00 32 54.6	
	comp=Z,57nm,0.8s,mb5.8						
E04A	Onalaska	63.39	50	⇓P	P	00 32 53.9	+0.2
	baz=63						
B07A	Winthrop	63.81	48	P	P	00 32 56.7	+0.3
	baz=64,SNR=5.3						
F04A	Amboy	63.93	51	⇑P	P	00 32 57.4	+0.2
	baz=64						
E05A	Randle	63.95	50	⇑P	P	00 32 57.6	+0.2
	baz=64						
A08A	Turner Farm, O	64.00	47	P	P	00 32 57.9	+0.2
	baz=64,SNR=7.8						
C07A	Waterville	64.28	48	⇓P	P	00 32 59.4	-0.1
	baz=64						
B08A	Colville Reser	64.30	47	P	P	00 32 59.5	-0.2
	baz=64,SNR=5.5						
A09A	Danville	64.36	46	P	P	00 33 00.4	+0.4
	baz=64,SNR=7.7						
MOS	Moscow	64.39	323	eP	P	00 32 56.6	-3.5
MOS				e		00 33 29.1	
MOS				e		00 35 18.5	
MOS				eS	S	00 41 35.1	-0.8
MOS				pmax	pmax		
	comp=Z,103nm,1.5s,mb5.6						
MOS				pmax	pmax		
	comp=N,65nm,0.9s						
E06A	Yakima	64.41	50	⇑P	P	00 33 00.6	+0.2
	baz=64						
EDM	Edmonton	64.57	40	eP	P	00 33 01.2	-0.1
D07A	Quincy	64.61	49	⇓P	P	00 33 01.6	-0.1
	baz=64						
J02A	Umpqua	64.69	54	⇑P	P	00 33 02.5	+0.2
	baz=64						
H04A	Detroit Lake	64.77	52	⇓P	P	00 33 01.8	-1.0
	baz=64						
C08A	Higginbotham F	64.79	48	P	P	00 33 02.6	-0.2
	baz=65,SNR=5.7						
KAF	Kangasniemi	64.79	332	ep	P	00 33 00.7	-1.9
	comp=N,42nm,0.7s,mb5.6,baz=46,slow=6.2						
KAF	Kangasniemi	64.79	332	eP	P	00 33 00.7	-1.9
KAF				pmax	pmax		
	comp=Z,42nm,0.7s,mb5.6						
PUL	Pulkovo	64.90	329	eP	P	00 33 03.4	+0.1
A10A	Northport	64.91	46	P	P	00 33 03.9	+0.3
	baz=65,SNR=7.4						
B09A	Rice	64.91	47	P	P	00 33 03.9	+0.3
	baz=65,SNR=7.9						
E07A	Sunnyside	65.04	49	P	P	00 33 05.1	+0.6
	baz=65,SNR=5.3						
I04A	Tendick Farm,	65.14	53	⇓P	P	00 33 04.5	-0.7
	baz=65						
C09A	Chrisman Ranch	65.20	47	⇑P	P	00 33 04.9	-0.7
	baz=65						
OBN	Obninsk	65.25	323	P	P	00 33 05.6	-0.1
	comp=Z,280nm,1.1s,mb6.2,SNR=5.8						
OBN	Obninsk	65.25	323	eP	P	00 33 05.1	-0.6
OBN	Obninsk	65.25	323	αeP	P	00 33 05.3	-0.4
OBN				e	pP	00 33 15.1	-0.7
OBN						00 33 42.0	
OBN				S	S	00 41 51.0	+4.5
OBN				pmax	pmax		
	comp=Z,93nm,1.5s,mb5.6						
OBN				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.6						
D08A	Wollman Farm,	65.28	48	P	P	00 33 05.9	-0.1
	baz=65,SNR=6.0						
HAWA	Hanford	65.32	49	eP	P	00 33 06.7	+0.4
FIA1	FINESS Array S	65.33	332	eP	P	00 33 05.2	-0.9
FIA1				epP	pP	00 33 15.1	-1.1
FINES	FINESS Array B	65.33	332	P	P	00 33 05.8	-0.3
FINES				pmax	pmax		
	comp=Z,37nm,0.7s						
FINES	FINESS Array B	65.33	332	P	P	00 33 05.8	-0.3
	comp=Z,37nm,0.7s,mb5.5,baz=49,slow=8.2,SNR=158						
F07A	Phinny Hill Vi	65.38	50	⇓P	P	00 33 06.6	-0.1
	baz=65						
MOR8	Moi Rana	65.42	340	eP	P	00 33 05.0	-1.6
MOR8				AMb	AMB	00 33 08.5	
	comp=Z,79nm,1.4s,mb5.6						
KOD	Kodaikanal	65.46	262	eP	P	00 33 07.3	-0.4
KOD				AMb	AMB	00 33 08.8	
	comp=Z,33nm,1.4s,mb5.2						
HUMO	Hull Mountain	65.49	54	⇑P	P	00 33 08.0	+0.5
	baz=65						
A11A	Hall Mountain,	65.56	45	P	P	00 33 08.5	+0.7
	baz=65,SNR=12						
NEW	Newport	65.56	46	eP	P	00 33 08.0	+0.1
	comp=Z,13nm,0.9s,mb5.0						
NEW	Newport	65.56	46	eP	P	00 33 08.0	+0.2
NEW				pmax	pmax		
	comp=Z,13nm,0.9s						
NEW	Newport	65.56	46	P	P	00 33 07.4	-0.4
	comp=Z,12nm,1.0s,mb4.9,baz=322,slow=6.4,SNR=14						
D09A	Jones Farm, Ri	65.61	48	⇑P	P	00 33 07.2	-1.0
	baz=65						
J04A	Umpqua Nationa	65.64	53	⇓P	P	00 33 08.0	-0.4
	baz=65						
C10A	Spilker Farm,	65.72	47	⇑P	P	00 33 09.1	+0.2
	baz=66						
ASAR	Alice Springs	65.80	190	P	P	00 33 07.9	-1.6
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	65.80	190	P	P	00 33 07.8	-1.7
	comp=Z,0.9nm,0.6s,mb4.0,baz=1.7,slow=5.7,SNR=11						
H06A	Lindquist Farm	65.82	51	⇑P	P	00 33 08.6	-1.0
	baz=66						
B11A	Sandpoint	65.86	46	P	P	00 33 10.4	+0.6
	baz=66,SNR=8.2						
G07A	Ruggs Ranch, H	65.89	50	⇓P	P	00 33 09.9	-0.1
	baz=66						
E09A	Wood Farm, Sta	66.03	48	P	P	00 33 11.3	+0.4
	baz=66,SNR=8.0						
F08A	Pendleton	66.09	49	⇑P	P	00 33 11.2	-0.1
	baz=66						
J05A	Fort Rock	66.13	53	P	P	00 33 12.6	+1.0
	baz=66,SNR=5.5						
YBH	Yreka Blue Hor	66.14	55	eP	P	00 33 13.1	+1.4
	comp=Z,34nm,1.5s,mb5.2						
YBH	Yreka Blue Hor	66.14	55	eP	P	00 33 13.1	+1.4
YBH				pmax	pmax		
	comp=Z,34nm,1.5s						
YBH	Yreka Blue Hor	66.14	55	⇑P	P	00 33 11.9	+0.2
	baz=66						
D10A	Wagner Farm, O	66.19	48	P	P	00 33 11.8	-0.1
	baz=66,SNR=9.4						
M02C	Callahan	66.25	55	⇑P	P	00 33 12.3	-0.1
	baz=66						
G08A	Pilot Rock	66.28	50	⇑P	P	00 33 11.9	-0.7
	baz=66						
I06A	Prineville	66.35	52	⇑P	P	00 33 12.9	-0.1
	baz=66						
L04A	Klamath Falls	66.39	54	⇑P	P	00 33 13.1	-0.1
	baz=66						
VRSR	Storozhevoye	66.41	318	c iP	P	00 33 13.0	-0.2
VRSR				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
VRSR				pmax	pmax		
	comp=N,2.0nm,0.5s						
VRSR				pmax	pmax		
	comp=E,5.0nm,0.8s						
E10A	Myers Farm, Un	66.62	48	P	P	00 33 15.0	+0.3
	baz=66,SNR=6.2						
M04C	Macdoel	66.64	54	⇓P	P	00 33 14.8	-0.1
	baz=66						
K05A	Summer Lake	66.66	53	P	P	00 33 16.2	+1.2
	baz=66,SNR=6.5						
I07A	Izee	66.68	51	⇓P	P	00 33 14.7	-0.4
	baz=66						
D11A	Klaveano Farm,	66.71	47	P	P	00 33 15.1	-0.2
	baz=66,SNR=12						
WALA	Waterton Lakes	66.79	44	eP	P	00 33 15.9	+0.1
	comp=E,11nm,0.9s,mb4.9						
J06A	Christmas Vall	66.79	52	⇓P	P	00 33 15.7	-0.1
	baz=67						
F10A	Beach Ranch, E	66.86	48	⇓P	P	00 33 15.5	-0.7
	baz=67						
H08A	Prairie City	66.91	50	⇓P	P	00 33 16.4	-0.1
	baz=67						
B13A	Whitefish	66.92	45	P	P	00 33 17.2	+0.7
	baz=67,SNR=14						
WDC	Whiskeytown Da	66.92	56	⇑P	P	00 33 16.0	-0.7
	baz=67						
K06A	Valley Falls	67.00	53	⇑P	P	00 33 17.1	-0.1
	baz=67						
O02C	Red Bluff	67.00	56	⇑P	P	00 33 16.8	-0.4
	baz=67						
BSMT	Bassoo Peak	67.06	46	eP	P	00 33 18.1	+0.7
L05A	Lakeview	67.10	54	⇓P	P	00 33 17.7	-0.1
	baz=67						
VSU	Vasula	67.15	329	⇑iP	P	00 33 17.3	-0.5
E11A	Bogner Ranch,	67.20	48	P	P	00 33 18.3	-0.1
	baz=67,SNR=6.8						
J07A	Hines	67.22	52	⇓P	P	00 33 17.8	-0.7
	baz=67						
D12A	Red Ives Fores	67.24	47	⇓P	P	00 33 18.2	-0.4
	baz=67						
C13A	Hot Springs	67.28	46	P	P	00 33 19.4	+0.6
	baz=67,SNR=6.5						
M05C	Lookout	67.31	54	⇓P	P	00 33 19.7	+0.5
	baz=67						
I08A	Drewsey	67.33	51	⇑P	P	00 33 19.1	-0.1
	baz=67						
HATC	Hat Creek Radi	67.44	55	⇓P	P	00 33 19.6	-0.4
	baz=67						
BMO	Blue Mountains	67.49	49	eP	P	00 33 20.4	+0.2
	comp=E,7.5nm,1.0s,mb4.7						
MOD	Modoc	67.50	53	eP	P	00 33 20.7	+0.3
MOD	Modoc	67.50	53	⇓P	P	00 33 20.5	+0.2
	baz=67						
F11A	Grangeville	67.51	48	P	P	00 33 20.4	+0.1
	baz=67,SNR=12						
K07A	Rock Creek Ran	67.66	52	P	P	00 33 22.1	+0.8
	baz=67,SNR=6.9						
D13A	Huson	67.70	46	P	P	00 33 21.7	+0.2
	baz=68,SNR=10						
J08A	Circle Bar Ran	67.71	51	P	P	00 33 22.4	+0.7
	baz=68,SNR=5.3						
O04C	Chester	67.97	55	⇑P	P	00 33 22.9	-0.4
	baz=68						
L07A	Adell	68.01	53	P	P	00 33 24.5	+1.0
	baz=68,SNR=6.5						
K08A	Mann Creek Ran	68.08	52	P	P	00 33 24.7	+0.7
	baz=68,SNR=6.6						
F12A	Elk City	68.09	48	P	P	00 33 24.4	+0.4
	baz=68,SNR=15						
J09A	Fry Pan Ranch,	68.14	51	P	P	00 33 24.9	+0.6
	baz=68,SNR=8.9						
MSO	Missoula	68.14	46	eP	P	00 33 24.3	0.0
	comp=E,9.2nm,1.1s,mb4.7						
ORV	Oroville	68.17	56	⇑P	P	00 33 24.2	-0.4
	baz=68						
WVOR	Wild Horse Val	68.17	52	eP	P	00 33 24.4	-0.2
	comp=E,7.9nm,0.9s,mb4.7						
WVOR	Wild Horse Val	68.17	52	eP	P	00 33 24.4	-0.2
WVOR				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
D14A	Greenough	68.22	46	P	P	00 33 24.6	-0.2
	baz=68,SNR=9.0						
I10A	Payette	68.24	50	⇑P	P	00 33 24.3	-0.7
	baz=68						
E13A	Victor	68.25	47	⇓P	P	00 33 24.9	-0.1
	baz=68						
O05C	Quincy	68.28	55	⇓P	P	00 33 25.2	-0.1
	baz=68						
H11A	Donnelly	68.31	49	P	P	00 33 25.2	-0.1
	baz=68,SNR=7.6						
N06A	Buffalo Meadow	68.47	54	⇑P	P	00 33 27.0	+0.5
	baz=68						
M07A	Soldier Meadow	68.49	53	P	P	00 33 27.2	+0.7
	baz=68,SNR=20						
L08A	Fields	68.50	52	⇑P	P	00 33 26.2	-0.4
	baz=68						
K09A	Rome	68.55	52	⇓P	P	00 33 25.9	-1.0
	baz=68						
F13A	Darby	68.58	47	⇑P	P	00 33 25.7	-1.3
	baz=68						
E14A	Clinton	68.64	46	⇑P	P	00 33 27.3	-0.1
	baz=68						
BEKR	Beckwourth	68.69	55	P	P	00 33 28.1	+0.3
	baz=68,SNR=5.9						
D15A	Lincoln	68.77	45	⇑P	P	00 33 28.4	+0.2
	baz=68						
FFC	Flin Flon	68.78	35	P	P	00 33 27.2	-0.9
	comp=Z,109nm,0.8s,mb5.8,SNR=8.1						
O06A	Flanigan	68.83	55	P	P	00 33 29.0	+0.3
	baz=69,SNR=6.5						
P05C	Yuba Gap, Truc	68.87	56	⇑P	P	00 33 29.2	+0.2
	baz=69						
M08A	Happy Creek Ra	68.92	53	⇑P	P	00 33 28.6	-0.7
	baz=69						
FCC	Fort Churchill	68.96	28	eP	P	00 33 28.6	-0.6
	comp=Z,23nm,1.1s,mb5.0						
FCC	Fort Churchill	68.96	28	eP	P	00 33 28.6	-0.6
FCC				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
N07B	Gerlach	68.98	54	⇓P	P	00 33 29.5	-0.1
	baz=69						
K10A	MacKenzie Ranc	69.00	51	P	P	00 33 30.4	+0.6
	baz=69,SNR=5.2						
KIV	Kislovodsk	69.02	311	P	P	00 33 30.8	+1.0
	comp=Z,560nm,0.9s,mb6.5,SNR=25						
KIV	Kislovodsk	69.02	311	⇑iP	P	00 33 30.5	+0.7
KIV	Kislovodsk	69.02	311	⇑iP	P	00 33 30.8	+1.0
KIV				pmax	pmax		
	comp=Z,104nm,1.0s,mb5.7						
ZEI	Tsey	69.05	309	eP	P	00 33 29.0	-1.0
ZEI				i	pP	00 33 39.6	-0.6
ZEI				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
H12A	Diamond D Ranc	69.06	49	P	P	00 33 30.1	0.0
	baz=69,SNR=7.6						
G13A	Cobalt	69.06	48	P	P	00 33 29.8	-0.3
	baz=69,SNR=7.9						
F14A	Wisdom	69.09	47	⇑P	P	00 33 29.5	-0.7
	baz=69						
E15A	Deer Lodge	69.10	46	P	P	00 33 30.4	+0.1
	baz=69,SNR=9.5						
MFID	Camas Ranch	69.21	50	⇓P	P	00 33 30.6	-0.4
	baz=69						
H13A	Challis	69.38	48	P	P	00 33 32.3	+0.2
	baz=69,SNR=8.6						
WCN	Washoe City	69.40	55	⇑P	P	00 33 31.9	-0.4
	baz=69						
O07A	Toulon	69.41	54	P	P	00 33 33.1	+0.8
	baz=69,SNR=9.7						
N08A	GE Springer Mi	69.48	53	P	P	00 33 33.3	+0.6
	baz=69,SNR=6.1						
K11A	Parker Ranch,	69.49	51	⇓P	P	00 33 32.7	-0.1
	baz=69						
F15A	Butte	69.55	46	P	P	00 33 33.5	+0.5
	baz=69,SNR=15						
LRM	Limekiln Ridge	69.58	46	eP	P	00 33 33.7	+0.5
EGMT	Eagleton	69.59	43	eP	P	00 33 33.4	+0.1
	comp=Z,21nm,0.9s,mb5.1						

EGMT	Eagleton	69.59	43	P	P	00 33 33.5	+0.2
	baz=69,SNR=9.9						
L10A	Juniper Basin	69.66	51	⇓P	P	00 33 33.7	-0.1
	baz=69						
J12A	Stokes Ranch,	69.73	50	⇓P	P	00 33 34.4	+0.2
	baz=70						
CMB	Columbia Colle	69.78	57	*e*P	P	00 33 34.5	-0.2
	comp=Z,18nm,1.3s,mb4.8						
CMB				*e*pP	pP	00 33 44.0	-0.8
CMB	Columbia Colle	69.78	57	*e*P	P	00 33 34.5	-0.1
CMB				*e**PP	pP	00 33 44.0	-0.8
CMB				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.8						
CMB	Columbia Colle	69.78	57	⇓P	P	00 33 35.1	+0.5
	baz=70						
DLMT	Dillon	69.79	47	*e*P	P	00 33 34.9	+0.3
	comp=Z,23nm,1.0s,mb5.0						
I13A	Wildhorse Cree	69.87	49	P	P	00 33 35.4	+0.3
	baz=70,SNR=10						
HLID	Hailey	69.92	49	*e*P	P	00 33 35.9	+0.5
HLID	Hailey	69.92	49	P	P	00 33 36.0	+0.6
	baz=70,SNR=6.4						
M10A	I.L. Ranch, Tu	69.97	52	⇓P	P	00 33 36.8	+1.1
	baz=70						
G15A	Dillon	69.98	47	P	P	00 33 35.5	-0.2
	baz=70,SNR=29						
L11A	Cat Creek Ranc	70.03	51	P	P	00 33 36.9	+0.8
	baz=70,SNR=7.8						
R06C	Coleville	70.06	56	⇑P	P	00 33 36.0	-0.4
	baz=70						
BOZ	Bozeman (W)	70.14	46	*e*P	P	00 33 36.8	+0.1
BOZ	Bozeman (W)	70.14	46	P	P	00 33 36.8	+0.2
	baz=70,SNR=16						
J13A	Cove Ranch, Pi	70.16	49	P	P	00 33 37.6	+0.8
	baz=70,SNR=11						
S06C	San Francisco	70.21	57	⇓P	P	00 33 37.5	+0.2
	baz=70						
K12A	Draper Farm, C	70.22	50	⇑P	P	00 33 36.6	-0.7
	baz=70						
NB2	NORSAR Subarra	70.38	338	P	P	00 33 37.2	-0.7
	comp=Z,25nm,0.9s,mb5.1,baz=36,slow=6.5						
NOA	NORSAR Array B	70.38	338	P	P	00 33 37.2	-0.7
NOA				pmax	pmax		
	comp=Z,20nm,0.9s						
NOA	NORSAR Array B	70.38	338	P	P	00 33 37.1	-0.7
	comp=Z,20nm,0.9s,mb5.0,baz=36,slow=6.1,SNR=31						
O09A	Fish Creek Ran	70.42	53	P	P	00 33 39.5	+0.9
	baz=70,SNR=5.0						
M11A	Holland Ranch,	70.47	52	⇑P	P	00 33 39.0	+0.2
	baz=70						
L12A	House Creek Ra	70.47	51	⇓P	P	00 33 39.0	+0.2
	baz=70						
R07C	Lee Vining	70.58	56	⇑P	P	00 33 39.4	-0.1
	baz=70						
O10A	Cortez Mining,	70.76	53	⇑P	P	00 33 41.4	+0.8
	baz=70						
QLMT	Earthquake Lak	70.77	47	*e*P	P	00 33 41.1	+0.6
NVAR	Mina Array Bea	70.83	55	P	P	00 33 41.6	+0.6
	comp=Z,4.0nm,0.8s,mb4.4,baz=301,slow=4.6,SNR=19						
SOC	Sochi	70.92	312	*e*P	P	00 33 41.3	-0.2
SOC				*e**PP	pP	00 33 49.8	-1.9
SOC				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
SFJD	Kangerlussuaq	70.94	6	*e*P	P	00 33 40.5	-0.7
	comp=Z,18nm,1.0s,mb5.0						
SFJD				*e*pP	pP	00 33 50.1	-1.2
SFJD	Kangerlussuaq	70.94	6	*e*P	P	00 33 40.5	-0.7
SFJD				*e**PP	pP	00 33 50.1	-1.3
SFJD				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
SFJD	Kangerlussuaq	70.94	6	P	P	00 33 40.7	-0.4
	comp=Z,6.4nm,0.6s,mb4.7,baz=336,slow=12,SNR=3.4						
M12A	Wells	70.99	51	P	P	00 33 43.0	+1.1
	baz=71,SNR=6.2						
P10A	Eureka	71.20	53	⇑P	P	00 33 43.2	-0.1
	baz=71						
YNR	Norris Junctio	71.25	46	*e*P	P	00 33 45.4	+1.9
Q09A	Carvers	71.26	54	⇓P	P	00 33 44.5	+0.8
	baz=71						
K14A	Jones Ranch, D	71.27	49	⇑P	P	00 33 43.5	-0.1
	baz=71						
N12A	Clover Valley,	71.27	52	P	P	00 33 44.6	+0.9
	baz=71,SNR=6.5						
YFT	Old Faithful	71.34	47	*e*P	P	00 33 46.5	+2.5
O11A	Cowboy Ranch,	71.36	53	⇑P	P	00 33 44.7	+0.5
	baz=71						
ANN	Anapa	71.39	314	*e*P	P	00 33 43.8	-0.5
ANN				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
M13A	Montello	71.46	51	⇓P	P	00 33 44.7	-0.1
	baz=71						
HELL	Mitchell Peak,	71.47	57	P	P	00 33 44.8	-0.1
	baz=71,SNR=6.4						
S08C	White Mtn Res	71.49	56	P	P	00 33 46.0	+0.9
	baz=71,SNR=5.7						
AKASG	Malin Array Be	71.50	322	P	P	00 33 44.5	-0.4
AKASG				pmax	pmax		
	comp=Z,32nm,0.8s						
AKASG	Malin Array Be	71.50	322	P	P	00 33 44.5	-0.3
	comp=Z,32nm,0.8s,mb5.3,baz=43,slow=5.9,SNR=94						
AKBB	Malin Array Si	71.50	322	*e*P	P	00 33 44.5	-0.4
AKBB				*e*pP	pP	00 33 54.0	-1.0
KIEV	Kiev	71.51	322	*e*P	P	00 33 44.3	-0.7
	comp=Z,36nm,0.9s,mb5.3						
KIEV				*e*pP	pP	00 33 54.1	-1.0
KIEV	Kiev	71.51	322	*e*P	P	00 33 44.3	-0.6
KIEV				*e**PP	pP	00 33 54.1	-1.0
KIEV				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.3						
R09A	Tonopah	71.70	55	P	P	00 33 46.8	+0.5
	baz=72,SNR=6.0						
SUW	Suwalki	71.72	328	*e*P	P	00 33 45.2	-0.9
Q10A	Clear Creek Ra	71.74	54	P	P	00 33 47.1	+0.6
	baz=72,SNR=6.4						
N13A	Wendover, West	71.76	51	⇑P	P	00 33 46.5	-0.1
	baz=72						
M14A	Sheep Mountain	71.84	50	P	P	00 33 47.8	+0.8
	baz=72,SNR=7.7						
MOOW	Moose Ponds	71.84	47	*e*P	P	00 33 48.1	+1.1
	comp=Z,14nm,1.0s,mb4.8						
S09A	Goldfield	71.93	55	P	P	00 33 48.3	+0.6
	baz=72,SNR=6.7						
VES	Vestal, Richgr	71.96	58	⇓P	P	00 33 48.4	+0.5
	baz=72						
LOHW	Long Hollow	72.01	47	*e*P	P	00 33 49.0	+0.9
	comp=Z,18nm,1.3s,mb4.8						
REDW	Red Top Meadow	72.04	48	*e*P	P	00 33 49.2	+1.0
	comp=Z,18nm,1.2s,mb4.9						
DGMT	Dagmar	72.06	40	*e*P	P	00 33 48.2	-0.1
	comp=Z,21nm,0.7s,mb5.2						
PKM	Peak Mountain	72.08	59	⇓P	P	00 33 48.3	-0.3
	baz=72						
R10A	Warm Springs	72.14	54	⇓P	P	00 33 48.3	-0.7
	baz=72						
Q11A	Duckwater	72.18	54	⇑P	P	00 33 48.5	-0.7
	baz=72						
S10A	Tonopah Range,	72.19	55	P	P	00 33 49.8	+0.5
	baz=72,SNR=6.8						
P12A	McGill	72.22	53	P	P	00 33 50.2	+0.7
	baz=72,SNR=7.2						
LAO	LASA Array	72.28	43	*e*P	P	00 33 49.8	+0.2
	comp=Z,19nm,1.0s,mb5.0						
LAO				*e*pP	pP	00 34 00.6	+0.8
M15A	Larsen Ranch,	72.38	50	P	P	00 33 51.0	+0.6
	baz=72,SNR=7.0						
ISA	Isabella	72.45	58	⇑P	P	00 33 50.2	-0.7
	baz=72						
SPUT	South Promonto	72.48	50	*e*P	P	00 33 51.5	+0.6
HWUT	Hardware Ranch	72.79	49	*e*P	P	00 33 52.7	0.0
	comp=Z,16nm,1.1s,mb4.8						
HWUT				*e*pP	pP	00 34 03.4	+0.4
MPMC	Manual Prospec	72.82	57	⇑P	P	00 33 53.3	+0.2
	baz=73						
S11A	Rachel	72.89	55	P	P	00 33 54.2	+0.8
	baz=73,SNR=6.3						
FURC	Furnace Creek,	72.95	56	⇓P	P	00 33 53.7	-0.1
	baz=73						
DUG	Dugway	72.99	51	*e*P	P	00 33 54.3	+0.3
	comp=Z,29nm,1.3s,mb5.0						
DUG				*e*pP	pP	00 34 04.5	+0.3
DUG	Dugway	72.99	51	*e*P	P	00 33 54.3	+0.3
DUG				*e**PP	pP	00 34 04.5	+0.3
DUG				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.0						
DUG	Dugway	72.99	51	P	P	00 33 54.7	+0.7
	baz=73,SNR=21						
SIM	Simferopol’	73.05	316	*ce*P	P	00 33 53.6	-0.6
SIM				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
R12A	Pony Springs,	73.14	54	P	P	00 33 55.5	+0.6
	baz=73,SNR=6.2						
BW06	Boulder Array	73.14	47	*e*P	P	00 33 54.7	-0.1
	comp=Z,12nm,0.9s,mb4.8						
PDAR	Pinedale Array	73.14	47	P	P	00 33 54.7	-0.1
	comp=Z,7.9nm,0.8s,mb4.7,baz=254,slow=1.5,SNR=53						
EDW2	Edwards Air Fo	73.25	58	⇑P	P	00 33 55.8	+0.2
	baz=73						
U10A	Ash Meadows, A	73.31	56	⇑P	P	00 33 56.2	+0.2
	baz=73						
JLU	Jordanelle	73.51	50	*e*P	P	00 33 57.7	+0.7
NLU	North Lily Min	73.58	51	*e*P	P	00 33 58.1	+0.7
NLU				*e*pP	pP	00 34 08.1	+0.4
DAU	Daniels Canyon	73.75	50	*e*P	P	00 33 58.9	+0.5
MPU	Maple Canyon	73.79	51	*e*P	P	00 33 59.0	+0.3
BFSC	Mount Baldy St	73.87	58	⇑P	P	00 33 58.9	-0.4
	baz=74						
SHPR	Sheep Range	73.98	55	*e*P	P	00 34 00.6	+0.8
KIS	Kishinev	74.29	320	*e*P	P	00 34 00.0	-1.5
KIS				*e*	pP	00 34 09.0	-2.7
KIS				*e*		00 34 22.0	
KIS	Kishinev	74.29	320	*e*UNK		00 34 00.0	
CCUT	Cedar City	74.39	53	*e*P	P	00 34 02.6	+0.4
CCUT				*e*pP	pP	00 34 12.4	0.0
T13A	Saint George	74.41	54	P	P	00 34 03.4	+1.0
	baz=74,SNR=8.6						
LVV	L’vov	74.45	324	*e*P	P	00 34 01.7	-0.7
LVV				*e*	pP	00 34 12.1	-0.5
LVV				*e*S	S	00 43 32.7	-2.0
MSU	Marysvale	74.47	52	*e*P	P	00 34 03.7	+1.0
ULM	Lac du Bonnet	74.59	35	P	P	00 34 01.8	-1.3
	comp=Z,2.9nm,0.5s,mb4.4,baz=314,slow=6.5,SNR=9.0						
GKP	Gorka Klasztor	74.59	330	*e*P	P	00 34 03.0	-0.1
V12A	Nelson	74.67	56	⇑P	P	00 34 03.5	-0.4
	baz=74						
IAS	Iasi	74.76	321	P	P	00 34 04.3	+0.2
GMRC	Granite Mounta	74.79	57	⇑P	P	00 34 04.5	-0.1
	baz=75						
T14A	Hurricane	74.88	54	⇑P	P	00 34 04.4	-0.7
	baz=75						
SRU	San Rafael	75.03	51	*e*P	P	00 34 06.4	+0.5
PFO	Pinyon Flat Ob	75.04	58	*e*P	P	00 34 05.0	-1.1
	comp=Z,13nm,1.0s,mb4.8						
PFO				*e*pP	pP	00 34 14.9	-1.4
PFO	Pinyon Flat Ob	75.04	58	*e*P	P	00 34 05.0	-1.1
PFO				*e**PP	pP	00 34 14.9	-1.4
PFO				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
PFO	Pinyon Flat Ob	75.04	58	⇑P	P	00 34 05.4	-0.7
	baz=75						
MALT	Malatya	75.10	308	P	P	00 34 08.2	+1.8
MALT	Malatya	75.10	308	⇓*i*P	P	00 34 07.7	+1.4
RWWY	Rawlins	75.16	47	*e*P	P	00 34 06.7	+0.1
	comp=Z,20nm,0.9s,mb5.0						
RSSD	Black Hills	75.16	44	*e*P	P	00 34 06.0	-0.6
	comp=Z,7.2nm,0.8s,mb4.7						
RSSD	Black Hills	75.16	44	*e*P	P	00 34 06.0	-0.6
RSSD				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
KWP	Kalwaria	75.17	325	*e*P	P	00 34 07.0	+0.5
IRM	Iron Mountain	75.51	57	⇑P	P	00 34 08.4	-0.3
	baz=75						
BURAR	Bucovina Array	75.55	322	⇑P	P	00 34 08.8	+0.1
BURAR	Bucovina Array	75.55	322	⇑*i*P	P	00 34 08.8	+0.1
W13A	Hualapai Mount	75.68	56	⇑P	P	00 34 09.9	+0.2
	baz=76						
KOLS	Kolonicke sedl	75.88	324	*e*P	P	00 34 10.5	-0.1
OJC	Ojcow	75.95	327	*e*P	P	00 34 11.2	+0.3
STHS	Stebnicka Huta	75.96	325	*e*P	P	00 34 11.5	+0.5
	comp=Z,17nm,1.0s,mb4.9						
STHS	Stebnicka Huta	75.96	325	*e*P	P	00 34 11.5	+0.5
STHS				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
X13A	Yucca	76.05	56	P	P	00 34 12.1	+0.3
	baz=76,SNR=5.7						
PDMCI	Parker Dam,Lak	76.05	56	⇑P	P	00 34 12.0	+0.2
	baz=76						
UZH	Uzhgorod	76.10	324	⇑*i*P	P	00 34 12.2	+0.4
UZH				*i*		00 34 18.6	
UZH				*e*		00 34 28.4	
W14A	Seligman	76.10	55	P	P	00 34 12.6	+0.4
	baz=76,SNR=11						
VRI	Vrincioaia	76.11	320	⇑P	P	00 34 13.1	+1.1
VRI	Vrincioaia	76.11	320	⇑*i*P	P	00 34 13.1	+1.1
Y12C	Blythe	76.17	57	⇓P	P	00 34 12.5	-0.1
	baz=76						
CRVS	Cervenica-Dubn	76.25	325	*e*P	P	00 34 13.1	+0.4
PV10	Paradox Valley	76.39	51	*e*P	P	00 34 14.5	+0.8
GLA	Glamis	76.44	58	⇑P	P	00 34 13.7	-0.3
	baz=76						
BSEG	Bad Segeberg	76.49	334	*e*P	P	00 34 14.5	+0.5
BSEG				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
BSEG	Bad Segeberg	76.49	334	*e*P	P	00 34 14.5	+0.5
	comp=Z,38nm,1.0s,mb5.3						
W15A	Williams	76.62	55	⇑P	P	00 34 15.3	+0.2
	baz=76						
X14A	Yava	76.71	56	⇓P	P	00 34 15.8	+0.2
	baz=76						
MLR	Muntele Rosu	76.76	320	⇑P	P	00 34 16.0	+0.3
MLR	Muntele Rosu	76.76	320	⇑*i*P	P	00 34 16.0	+0.3
PV01	Paradox Valley	76.82	50	*e*P	P	00 34 16.2	+0.1
KSP	Ksiaz	76.86	329	*e*P	P	00 34 16.3	+0.2
KSP	Ksiaz	76.86	329	*e*P	P	00 34 16.2	+0.1
KSP				*e**PP	pP	00 34 26.1	-0.3
BR131	Keskin Array S	76.88	312	*e*P	P	00 34 16.5	0.0
	comp=Z,0.8nm,0.4s						
BRTR	Keskin Array B	76.88	312	P	P	00 34 16.7	+0.2
BRTR						00 37 13.2	
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
BRTR	Keskin Array B	76.88	312	P	P	00 34 16.6	+0.2
	comp=Z,5.1nm,0.8s,mb4.5,baz=52,slow=4.8,SNR=29						
BRTR				PP	PP	00 37 13.2	+4.0
	comp=Z,2.4nm,0.9s,baz=63,slow=7.5,SNR=4.9						
OKC	Ostrava-Krasne	76.92	327	⇑*e*P	P	00 34 16.6	+0.2
WUAZ	Wupatki	76.94	54	*e*P	P	00 34 17.4	+0.6
	comp=Z,22nm,1.0s,mb5.0						
WUAZ				*e*pP	pP	00 34 27.3	+0.2
KECS	Kecovo	76.99	325	*e*P	P	00 34 17.1	+0.2
	comp=Z,4.3nm,1.0s,mb4.3						
KECS				*e*	pP	00 34 26.9	-0.3
KECS	Kecovo	76.99	325	*e*P	P	00 34 17.1	+0.2
KECS				*e*	pP	00 34 26.9	-0.3
KECS				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
Y14A	Wickenburg	76.99	56	⇑P	P	00 34 16.8	-0.4
	baz=77						
X15A	Humboldt	77.10	55	P	P	00 34 18.4	+0.7
	baz=77,SNR=9.2						
MORC	Moravsky Berou	77.21	327	P	P	00 34 18.7	+0.6
MORC	Moravsky Berou	77.21	327	⇑*i*P	P	00 34 18.6	+0.5
VOIR		77.23	321	P	P	00 34 19.3	+1.0
VOIR		77.23	321	⇑*i*P	P	00 34 19.1	+0.8
UPC	Upice	77.23	329	⇑*e*P	P	00 34 18.1	-0.1
UPC				*e*pP	pP	00 34 26.7	-1.8
DPC	Dobruska-Polom	77.24	328	⇑*i*P	P	00 34 18.6	+0.4
ANTO	Ankara	77.25	312	P	P	00 34 19.7	+1.2
DRGR		77.30	323	P	P	00 34 19.0	+0.3
DRGR		77.30	323	⇓*i*P	P	00 34 19.3	+0.6
ISCO	Idaho Springs	77.34	48	*e*P	P	00 34 19.4	+0.4
	comp=Z,6.9nm,0.8s,mb4.6						
ISCO	Idaho Springs	77.34	48	*e*P	P	00 34 19.4	+0.4
ISCO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
MVCO	Mesa Verde	77.49	51	⇓P	P	00 34 19.8	-0.1
	baz=77						
VYHS	Vyhne	77.68	326	*e*P	P	00 34 20.8	0.0
	comp=Z,16nm,1.5s,mb4.7						
VYHS				*e*	pP	00 34 30.6	-0.4
VYHS				*e*PP	PP	00 37 25.5	+10
VYHS	Vyhne	77.68	326	*e*P	P	00 34 20.8	0.0
VYHS				*e*	pP	00 34 30.6	-0.4
VYHS				*e*		00 37 25.5	
VYHS				pmax	pmax		
	comp=Z,16nm,1.5s,mb4.7						
CLL	Collm	77.72	331	⇑*i*P	P	00 34 20.4	-0.5
	comp=Z,29nm,0.9s,mb5.2						
CLL				*i* pP	pP	00 34 30.3	-0.9
CLL	Collm	77.72	331	⇑*i*P	P	00 34 20.4	-0.5
CLL				*i* *PP	pP	00 34 30.3	-0.9
CLL				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
CLL	Collm	77.72	331	*e*P	P	00 34 20.8	-0.1
	comp=Z,28nm,0.9s,mb5.2						
CLL	Collm	77.72	331	⇑*i*P	P	00 34 20.4	-0.5
	comp=Z,29nm,0.9s,mb5.2						
CLL				*i* pP	pP	00 34 30.3	-0.9
CLL				*e*PP	PP	00 37 12.0	-3.7
BRG	Berggiesshubel	77.73	330	*e*P	P	00 34 20.9	-0.1
BRG				*e*	pP	00 34 30.0	-1.3
BRG				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
BRG				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
BRG	Berggiesshubel	77.73	330	*e*P	P	00 34 21.1	+0.1
	comp=Z,12nm,1.0s,mb4.8						
BRG	Berggiesshubel	77.73	330	*e*P	P	00 34 20.9	-0.1
	comp=Z,12nm,1.0s,mb4.8						
BRG				*e*	pP	00 34 30.0	-1.3
BRG				PP	PP	00 37 09.9	-5.9
	comp=Z,6.7nm,1.1s						
PVCC	Panska Ves	77.77	329	⇑*e*P	P	00 34 21.8	+0.6
PVCC				*e*pP	pP	00 34 29.5	-2.0
VRAC	Vranov	77.96	328	P	P	00 34 23.1	+0.8
VRAC	Vranov	77.96	328	⇑*i*P	P	00 34 22.9	+0.6
EYMN	Ely	78.20	34	*e*P	P	00 34 22.7	-1.0
	comp=Z,21nm,1.0s,mb5.0						
CLZ	Clausthal	78.22	332	*e*P	P	00 34 24.2	+0.5
CLZ				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
CLZ	Clausthal	78.22	332	*e*P	P	00 34 24.2	+0.5
	comp=Z,30nm,0.8s,mb5.3						
PRU	Pruhonice	78.22	329	⇑*i*P	P	00 34 24.0	+0.3
PRU				*e*pP	pP	00 34 30.0	-4.0
115A	Sonoran Desert	78.30	57	⇑P	P	00 34 24.7	+0.2
	baz=78						
GZR	Gura Zlata	78.33	322	P	P	00 34 24.9	+0.5
GZR	Gura Zlata	78.33	322	⇑*i*P	P	00 34 24.7	+0.3
TREC	Trest	78.41	328	⇑*i*P	P	00 34 24.8	0.0
TREC				*e*x	x	00 34 31.0	
ZST	Bratislava	78.63	327	*e*P	P	00 34 27.0	+1.0
	comp=Z,9.8nm,1.1s,mb4.7						
ZST				*e*	pP	00 34 36.7	+0.4
ZST	Bratislava	78.63	327	*e*P	P	00 34 27.0	+1.0
ZST				*e*	pP	00 34 36.7	+0.4
ZST				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
TANN	Tannenbergstha	78.65	331	*e*P	P	00 34 26.4	+0.3
BZS	Buzias	78.69	323	P	P	00 34 26.6	+0.3
BZS	Buzias	78.69	323	⇑*i*P	P	00 34 26.3	-0.1
IBBN	Ibbenburen	78.70	334	*e*P	P	00 34 26.5	+0.2
116A	Eloy	78.72	56	⇑P	P	00 34 26.5	-0.4
	baz=78						
MOX	Moxa	78.77	331	*e*P	P	00 34 26.6	-0.1
MOX	Moxa	78.77	331	*e*P	P	00 34 27.0	+0.3
	comp=Z,14nm,1.0s,mb4.8						
NKC	Novy Kostel	78.80	330	⇑*e*P	P	00 34 27.2	+0.3
NKC				*e*pP	pP	00 34 32.7	-4.5
ECSD	EROS,Sioux Fal	79.13	40	*e*P	P	00 34 27.8	-1.0
	comp=Z,20nm,0.9s,mb5.0						
MANZ	Manzenberg	79.13	330	*e*P	P	00 34 28.9	+0.2
UBBA	Unterbreizbach	79.20	332	*e*P	P	00 34 28.9	-0.2
ROTZ	Rotzenmuhle	79.28	330	*e*P	P	00 34 30.0	+0.5
KHC	Kasperske Hory	79.28	329	⇑*i*P	P	00 34 29.7	+0.1
KHC				*e*pP	pP	00 34 38.3	-1.6
GEC2	GERESS Array S	79.47	329	*e*P	P	00 34 30.9	+0.3
GERES	GERESS Array B	79.47	329	P	P	00 34 30.6	0.0
GERES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
GERES	GERESS Array B	79.47	329	P	P	00 34 30.6	0.0
	comp=Z,4.1nm,0.8s,mb4.4,baz=51,slow=7.0,SNR=12						
WET	Wettzell	79.53	330	*e*P	P	00 34 31.8	+0.8
WET				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
WET	Wettzell	79.53	330	*e*P	P	00 34 31.8	+0.8
	comp=Z,21nm,1.1s,mb5.0						
PKSM	Moragy	79.55	325	⇑P	P	00 34 30.4	-0.6
PKSM	Moragy	79.55	325	⇑*i*P	P	00 34 30.5	-0.6
BUG	Bochum--Univer	79.60	334	*e*P	P	00 34 31.3	0.0
GRA1	Grafenberg Arr	79.70	331	*e*P	P	00 34 32.3	+0.5
	comp=Z,44nm,1.0s,mb5.3						
GRA1				*e*pP	pP	00 34 42.0	-0.1
GRF	Grafenberg Arr	79.70	331	*e*P	P	00 34 32.3	+0.5
GRF				*e**PP	pP	00 34 42.0	-0.1
GRF				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.3						
GRF	Grafenberg Arr	79.70	331	*e*P	P	00 34 32.3	+0.5
GRF				*e**PP	pP	00 34 42.0	-0.1
GRF				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.3						
GRF	Grafenberg Arr	79.70	331	*e*P	P	00 34 32.3	+0.5
	comp=Z,44nm,1.0s,mb5.3						
GRF				*e*pP	pP	00 34 42.0	-0.1
GRFO	Grafenberg	79.70	331	*e*P	P	00 34 32.6	+0.7
	comp=Z,34nm,1.0s,mb5.2						
GRFO				*e*pP	pP	00 34 42.2	0.0
GRFO				*e*sP	sP	00 34 47.7	+1.8
GRFO	Grafenberg	79.70	331	*e*P	P	00 34 32.6	+0.8
GRFO				*e**PP	pP	00 34 42.2	+0.1
GRFO				*e**SP	sP	00 34 47.7	+1.8
GRFO				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.2						
ASF	Jabal al Asfar	80.17	304	P	P	00 34 35.4	+0.7
ASF				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ASF	Jabal al Asfar	80.17	304	P	P	00 34 35.4	+0.7
	comp=Z,3.6nm,0.7s,mb4.4,baz=305,slow=5.0,SNR=12						
LAZ	Ladron	80.23	52	*e*P	P	00 34 35.6	+0.6
TNS	Taunus Mts	80.24	333	*e*P	P	00 34 35.0	+0.3
VTS	Vitosha	80.24	320	P	P	00 34 36.0	+1.1
VTS	Vitosha	80.24	320	⇑*i*P	P	00 34 35.8	+0.9
SCHQ	Schefferville	80.25	17	P	P	00 34 34.2	-0.4
	comp=Z,10nm,0.8s,mb4.8,baz=357,slow=5.8,SNR=11						
ANMO	Albuquerque	80.25	52	*e*P	P	00 34 35.5	+0.4
	comp=Z,11nm,1.1s,mb4.7						
ANMO	Albuquerque	80.25	52	*e*P	P	00 34 35.5	+0.4
ANMO				pmax	pmax		
	comp=Z,11nm,1.1s						
MMAI	Mount Meron Ar	80.50	306	P	P	00 34 37.6	+1.1
	comp=Z,14nm,0.7s,mb5.0,baz=32,slow=7.9,SNR=28						
BEBN	Eben Emael	80.67	334	P	P	00 34 36.9	-0.2
	comp=Z,8.3nm,0.9s,mb4.7						
PERS	Pernice	80.69	327	*e*P	P	00 34 37.5	+0.2
BNM	Barren Site	80.71	52	*e*P	P	00 34 38.4	+0.8
MEM	Membach	80.72	334	P	P	00 34 37.3	-0.1
	comp=Z,17nm,3.1s						
FUR	Furstenfeldbru	80.94	330	*e*P	P	00 34 39.2	+0.6
UCC	Uccle	81.09	335	P	P	00 34 38.4	-0.9
	comp=Z,48nm,3.5s						
BCLA	Clavier	81.12	334	P	P	00 34 39.4	-0.1
	comp=Z,18nm,2.1s,mb4.6						
STU	Stuttgart	81.20	331	*e*P	P	00 34 40.2	+0.3
CBKS	Cedar Bluff	81.22	45	*e*P	P	00 34 39.0	-1.2
	comp=Z,31nm,1.4s,mb5.0						
CBKS				*e*pP	pP	00 34 50.8	+0.3
CBKS				sP	sP	00 34 55.4	+1.1
CBKS	Cedar Bluff	81.22	45	*e*P	P	00 34 39.0	-1.2
CBKS				*e**PP	pP	00 34 50.8	+0.3
CBKS				*SP	sP	00 34 55.4	+1.1
CBKS				pmax	pmax		
	comp=Z,31nm,1.4s,mb5.0						
SNF	Seneffe	81.36	335	P	P	00 34 40.6	-0.2
	comp=Z,37nm,3.2s						
LJU	Ljubljana	81.41	327	*e*P	P	00 34 40.4	-0.7
STIP	Stip	81.41	320	*i* P	P	00 34 40.7	-0.5
WLF	Walferdange	81.49	334	P	P	00 34 41.3	-0.1
WLF	Walferdange	81.49	334	*e*P	P	00 34 42.8	+1.4
VAY	Valandovo	81.51	319	*i* P	P	00 34 41.2	-0.5
GIVF	Givet	81.55	335	*e*P	P	00 34 41.0	-0.7
WTTA	Wattenberg	81.56	329	⇑*i*P	P	00 34 41.9	0.0
	comp=Z,19nm,0.9s,mb5.0						
WTTA	Wattenberg	81.56	329	⇑*i*P	P	00 34 41.9	+0.1
WTTA				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
SKO	Skopje	81.56	320	*i* P	P	00 34 43.0	+1.1
DOU	Dourbes	81.62	335	P	P	00 34 42.0	-0.1
MOTA	Moosalm	81.69	330	⇑*i*P	P	00 34 42.5	0.0
	comp=Z,21nm,0.9s,mb5.0,SNR=11						
MOTA	Moosalm	81.69	330	⇑*i*P	P	00 34 42.5	0.0
MOTA				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
CEY	Cerknica	81.70	327	*e*P	P	00 34 41.9	-0.7
RETA	Reutte	81.70	330	⇑*i*P	P	00 34 43.0	+0.4

	comp=Z,20nm,1.0s,mb5.0,SNR=12						
BAIF	Baives	81.78	335	eP	P	00 34 42.3	-0.6
	comp=Z,8.4nm,0.7s,mb4.5						
BAIF	Baives	81.78	335	eP	P	00 34 42.3	-0.6
	comp=Z,4.2nm,0.7s,mb4.5						
BAIF	Baives	81.78	335	eP	P	00 34 42.3	-0.6
BAIF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
BFO	Black Forest	81.88	332	eP	P	00 34 43.3	-0.2
	comp=Z,27nm,1.4s,mb5.0						
BFO	Black Forest	81.88	332	eP	P	00 34 43.5	0.0
BFO				pmax	pmax		
	comp=Z,42nm,1.9s,mb5.0						
BFO	Black Forest	81.88	332	eP	P	00 34 43.5	0.0
	comp=Z,42nm,1.9s,mb5.0						
FETA	Feichten	82.10	330	⇑iP	P	00 34 44.9	+0.2
	comp=Z,14nm,1.0s,mb4.9,SNR=12						
KRUS	Krusevo	82.11	320	⇓iP	P	00 34 45.9	+1.0
SCIA	State Center	82.14	39	eP	P	00 34 44.4	-0.6
	comp=Z,49nm,1.0s,mb5.4						
CDF	Champ du Feu	82.18	332	eP	P	00 34 44.7	-0.4
	comp=Z,22nm,0.9s,mb4.8						
CDF	Champ du Feu	82.18	332	eP	P	00 34 44.7	-0.4
	comp=Z,11nm,0.9s,mb4.8						
CDF	Champ du Feu	82.18	332	eP	P	00 34 44.7	-0.4
CDF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
DAVA	Damuels	82.20	330	⇑iP	P	00 34 45.6	+0.4
	comp=Z,20nm,1.0s,mb5.0						
BIA	Bitola	82.35	320	i P	P	00 34 45.6	-0.5
CTI	Castel Tesino	82.56	328	P	P	00 34 46.3	-0.8
	comp=Z,11nm,0.8s,mb4.9						
CTI	Castel Tesino	82.56	328	P	P	00 34 46.3	-0.8
CTI				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
KSU1	Kansas State U	82.62	43	eP	P	00 34 46.2	-1.3
	comp=Z,14nm,0.7s,mb5.1						
KSU1				epP	pP	00 34 58.1	+0.2
BRMO	Bormio	82.69	329	P	P	00 34 47.9	+0.1
	comp=Z,19nm,1.2s,mb5.0						
HINF	Hinteralfeld	82.84	332	eP	P	00 34 47.6	-0.9
HAU	Haudompre	82.85	333	eP	P	00 34 48.3	-0.3
	comp=Z,15nm,0.8s,mb4.8						
HAU	Haudompre	82.85	333	eP	P	00 34 48.3	-0.3
	comp=Z,7.4nm,0.8s,mb4.8						
HAU	Haudompre	82.85	333	eP	P	00 34 48.3	-0.3
HAU				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
MEZF	Maizieres J'vi	82.86	334	eP	P	00 34 48.3	-0.3
VAI	Varese	83.81	330	P	P	00 34 53.2	-0.4
	comp=Z,25nm,0.7s,mb5.5						
VAI	Varese	83.81	330	P	P	00 34 53.2	-0.4
VAI				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.5						
CABF	La Chapelle	84.14	332	eP	P	00 34 54.7	-0.5
ZKR	Zakros	84.29	313	P	P	00 34 58.5	+2.2
VMG	Vicchio	84.33	327	P	P	00 34 57.6	+1.3
	comp=Z,66nm,1.3s,mb5.6						
LOR	Lormes	84.33	334	eP	P	00 34 55.5	-0.7
	comp=Z,43nm,0.9s,mb5.3						
LOR	Lormes	84.33	334	eP	P	00 34 55.5	-0.7
	comp=Z,22nm,0.9s,mb5.3						
LOR	Lormes	84.33	334	eP	P	00 34 55.5	-0.7
LOR				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.3						
FLN	La Foliniere	84.36	337	eP	P	00 34 55.5	-0.8
	comp=Z,12nm,0.7s,mb4.8						
FLN	La Foliniere	84.36	337	eP	P	00 34 55.5	-0.8
	comp=Z,5.9nm,0.7s,mb4.8						
FLN	La Foliniere	84.36	337	eP	P	00 34 55.5	-0.8
FLN				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.8						
GSCL	Gusciola	84.39	328	P	P	00 34 57.7	+1.2
LDF	La Druitiere	84.40	337	eP	P	00 34 56.2	-0.3
	comp=Z,26nm,0.8s,mb5.1						
LDF	La Druitiere	84.40	337	eP	P	00 34 56.2	-0.3
	comp=Z,13nm,0.8s,mb5.1						
LDF	La Druitiere	84.40	337	eP	P	00 34 56.2	-0.3
LDF				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.1						
NRCA	Norcia	84.61	326	P	P	00 34 58.4	+0.7
SSF	Saint Saulge	84.63	334	eP	P	00 34 57.1	-0.6
	comp=Z,33nm,1.1s,mb5.1						
SSF	Saint Saulge	84.63	334	eP	P	00 34 57.1	-0.6
	comp=Z,16nm,1.1s,mb5.1						
SSF	Saint Saulge	84.63	334	eP	P	00 34 57.1	-0.6
SSF				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.1						
HYF	Humbligny	84.73	334	eP	P	00 34 57.9	-0.3
GRR	Gorron	84.80	337	eP	P	00 34 58.0	-0.6
LPL	La Plagne	84.85	331	eP	P	00 34 59.0	+0.1
	comp=Z,29nm,0.9s,mb5.1						
LPL	La Plagne	84.85	331	eP	P	00 34 59.0	+0.1
	comp=Z,14nm,0.9s,mb5.1						
LPL	La Plagne	84.85	331	eP	P	00 34 59.0	+0.1
LPL				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.1						
LPG	La Plagne	84.86	331	eP	P	00 34 59.2	+0.3
	comp=Z,36nm,1.0s,mb5.2						
LPG	La Plagne	84.86	331	eP	P	00 34 59.2	+0.3
	comp=Z,18nm,1.0s,mb5.2						
LPG	La Plagne	84.86	331	eP	P	00 34 59.2	+0.3
LPG				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.2						
SMF	Signal de Mont	84.88	333	eP	P	00 34 58.4	-0.6
	comp=Z,45nm,1.0s,mb5.2						
SMF	Signal de Mont	84.88	333	eP	P	00 34 58.4	-0.6
	comp=Z,22nm,1.0s,mb5.2						
SMF	Signal de Mont	84.88	333	eP	P	00 34 58.4	-0.6
SMF				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.2						
IDI	Anoyia	84.88	314	P	P	00 34 58.9	-0.3
AVF	Avril sur Loir	84.92	334	eP	P	00 34 58.7	-0.5
	comp=Z,41nm,0.8s,mb5.3						
AVF	Avril sur Loir	84.92	334	eP	P	00 34 58.7	-0.5
	comp=Z,20nm,0.8s,mb5.3						
AVF	Avril sur Loir	84.92	334	eP	P	00 34 58.7	-0.5
AVF				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.3						
ITM	Ithomi	85.00	317	P	P	00 35 00.5	+0.7
VAM	Vamos	85.17	314	P	P	00 35 02.5	+1.9
BNI	Bardonecchia	85.27	331	eP	P	00 35 00.9	-0.1
	comp=Z,11nm,1.0s,mb5.0						
BNI	Bardonecchia	85.27	331	eP	P	00 35 00.9	-0.1
BNI				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.9						
BGF	Bois d'Agland	85.29	334	eP	P	00 35 00.7	-0.3
	comp=Z,15nm,0.8s,mb4.8						
BGF	Bois d'Agland	85.29	334	eP	P	00 35 00.7	-0.3
	comp=Z,7.3nm,0.8s,mb4.9						
BGF	Bois d'Agland	85.29	334	eP	P	00 35 00.7	-0.3
BGF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.8						
SGMF	Saint Gilles	85.41	338	eP	P	00 35 01.3	-0.3
	comp=Z,47nm,1.1s,mb5.2						
SGMF	Saint Gilles	85.41	338	eP	P	00 35 01.3	-0.3
	comp=Z,24nm,1.1s,mb5.2						
SGMF	Saint Gilles	85.41	338	eP	P	00 35 01.3	-0.3
SGMF				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.2						
MBDF	Montbardon	85.52	331	eP	P	00 35 01.6	-0.6
	comp=Z,14nm,0.7s,mb5.0						
MBDF	Montbardon	85.52	331	eP	P	00 35 01.6	-0.6
	comp=Z,6.9nm,0.7s,mb5.0						
MBDF	Montbardon	85.52	331	eP	P	00 35 01.6	-0.6
MBDF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.0						
ROSF	Rostrenen	85.53	339	eP	P	00 35 02.0	-0.2
	comp=Z,102nm,1.3s,mb5.6						
ROSF	Rostrenen	85.53	339	eP	P	00 35 02.0	-0.2
	comp=Z,51nm,1.3s,mb5.6						
ROSF	Rostrenen	85.53	339	eP	P	00 35 02.0	-0.2
ROSF				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.6						
ORIF	Oris-en-Rattie	85.67	331	eP	P	00 35 02.8	-0.2
	comp=Z,22nm,0.8s,mb5.1						
ORIF	Oris-en-Rattie	85.67	331	eP	P	00 35 02.8	-0.2
	comp=Z,11nm,0.8s,mb5.1						
ORIF	Oris-en-Rattie	85.67	331	eP	P	00 35 02.8	-0.2
ORIF				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.1						
TCF	Toulx Ste Croi	85.73	334	eP	P	00 35 03.1	-0.1
	comp=Z,71nm,1.5s,mb5.4						
TCF	Toulx Ste Croi	85.73	334	eP	P	00 35 03.1	-0.1
	comp=Z,36nm,1.5s,mb5.4						
TCF	Toulx Ste Croi	85.73	334	eP	P	00 35 03.1	-0.1
TCF				pmax	pmax		
	comp=Z,36nm,1.5s,mb5.4						
QUIF	Quistinic	85.88	338	eP	P	00 35 03.6	-0.4
TXAR	Lajitas Array	85.90	54	P	P	00 35 04.4	0.0
TXAR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
TXAR	Lajitas Array	85.90	54	P	P	00 35 04.4	0.0
	comp=Z,3.5nm,0.8s,mb4.7,baz=300,slow=3.4,SNR=26						
SBF	Sospel	86.01	330	eP	P	00 35 03.7	-1.0
VIVF	Saint-Julien-l	86.16	332	eP	P	00 35 05.2	-0.2
	comp=Z,48nm,1.0s,mb5.4						
VIVF	Saint-Julien-l	86.16	332	eP	P	00 35 05.2	-0.2
	comp=Z,24nm,1.0s,mb5.4						
VIVF	Saint-Julien-l	86.16	332	eP	P	00 35 05.2	-0.2
VIVF				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.4						
MFF	Saint Martin d	86.19	336	eP	P	00 35 05.5	0.0
	comp=Z,46nm,0.9s,mb5.4						
MFF	Saint Martin d	86.19	336	eP	P	00 35 05.5	0.0
	comp=Z,23nm,0.9s,mb5.4						
MFF	Saint Martin d	86.19	336	eP	P	00 35 05.5	0.0
MFF				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.4						
PGF	Pioggiola	86.53	328	eP	P	00 35 05.9	-1.3
FVM	French Village	86.54	40	eP	P	00 35 06.9	-0.5
	comp=Z,6.7nm,0.8s,mb4.9						
FVM	French Village	86.54	40	eP	P	00 35 06.9	-0.5
FVM				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.9						
FRF	La Foret Royal	86.56	330	eP	P	00 35 06.5	-0.9
	comp=Z,60nm,1.3s,mb5.4						
FRF	La Foret Royal	86.56	330	eP	P	00 35 06.5	-0.9
	comp=Z,30nm,1.3s,mb5.4						
FRF	La Foret Royal	86.56	330	eP	P	00 35 06.5	-0.9
FRF				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.4						
SMRF	Simiane la Rot	86.60	331	eP	P	00 35 07.2	-0.4
LMR	La Mourre	86.81	330	eP	P	00 35 07.9	-0.7
	comp=Z,48nm,1.1s,mb5.3						
LMR	La Mourre	86.81	330	eP	P	00 35 07.9	-0.7
	comp=Z,24nm,1.1s,mb5.3						
LMR	La Mourre	86.81	330	eP	P	00 35 07.9	-0.7
LMR				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.3						
RJF	Les Rejaudoux	86.83	334	eP	P	00 35 08.6	-0.1
	comp=Z,30nm,1.1s,mb5.2						
RJF	Les Rejaudoux	86.83	334	eP	P	00 35 08.6	-0.1
	comp=Z,15nm,1.1s,mb5.1						
RJF	Les Rejaudoux	86.83	334	eP	P	00 35 08.6	-0.1
RJF				pmax	pmax		
	comp=Z,15nm,1.1s,mb5.1						
CAF	Calviac	86.98	334	eP	P	00 35 09.9	+0.5
	comp=Z,45nm,0.9s,mb5.4						
CAF	Calviac	86.98	334	eP	P	00 35 09.9	+0.5
	comp=Z,23nm,0.9s,mb5.4						
CAF	Calviac	86.98	334	eP	P	00 35 09.9	+0.5
CAF				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.4						
SIUC	Southern Illin	87.33	39	eP	P	00 35 10.9	-0.4
	comp=Z,56nm,1.0s,mb5.8						
JCT	Junction City	87.34	51	eP	P	00 35 11.4	-0.1
	comp=Z,20nm,1.3s,mb5.2						
JCT	Junction City	87.34	51	eP	P	00 35 11.4	-0.1
JCT				pmax	pmax		
	comp=Z,20nm,1.3s,mb5.2						
LFF	La Frestale	87.40	335	eP	P	00 35 11.7	+0.2
	comp=Z,101nm,1.2s,mb5.6						
LFF	La Frestale	87.40	335	eP	P	00 35 11.7	+0.2
	comp=Z,50nm,1.3s,mb5.6						
LFF	La Frestale	87.40	335	eP	P	00 35 11.7	+0.2
LFF				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.6						
MIAR	Mount Ida	87.67	44	epP	pP	00 35 22.5	-0.9
	comp=Z,24nm,1.3s						
MIAR	Mount Ida	87.67	44	eP	pP	00 35 22.5	-0.9
MIAR				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.3						
MTLF	Montolieu	88.33	333	eP	P	00 35 16.1	+0.2
	comp=Z,22nm,1.1s,mb5.0						
MTLF	Montolieu	88.33	333	eP	P	00 35 16.1	+0.2
	comp=Z,11nm,1.1s,mb5.0						
MTLF	Montolieu	88.33	333	eP	P	00 35 16.1	+0.2
MTLF				pmax	pmax		
	comp=Z,11nm,1.1s,mb5.0						
EPF	Esparros	89.24	334	eP	P	00 35 19.9	-0.3
ETSF	Etsaut	89.65	334	eP	P	00 35 22.4	+0.3
	comp=Z,16nm,0.7s,mb5.2						
ETSF	Etsaut	89.65	334	eP	P	00 35 22.4	+0.3
	comp=Z,8.3nm,0.7s,mb5.2						
ETSF	Etsaut	89.65	334	eP	P	00 35 22.4	+0.3
ETSF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb5.2						
KEST	Kesra	92.14	324	P	P	00 35 32.9	-0.9
	comp=Z,1.3nm,1.0s,mb4.2,baz=276,slow=14,SNR=4.6						
ESDC	Sonseca Array	93.65	335	P	P	00 35 40.7	0.0
	comp=Z,0.4nm,0.5s,mb4.1,baz=20,slow=3.5,SNR=3.4						
EVO	Evora	95.90	338	eP	P	00 35 50.2	-0.8
	comp=Z,62nm,1.3s,mb5.6						
TORD	Torodi Ar. Bea	114.97	318	PKP	PKiKP	00 41 03.8	-1.8
TORD	Torodi Ar. Bea	114.97	318	PKP	PKiKP	00 41 03.8	-1.8
	comp=Z,0.3nm,0.3s,baz=21,slow=1.9,SNR=14						
LPAZ	La Paz	142.73	56	PKP	PKPdf	00 41 58.5	+0.6
LPAZ	La Paz	142.73	56	PKIKP	PKPdf	00 41 58.5	+0.7
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPAZ	La Paz	142.73	56	PKP	PKPdf	00 41 58.5	+0.6
	comp=Z,0.7nm,0.7s,baz=218,slow=0.5,SNR=4.2						
VNA2	Neumayer--Watz	147.41	197	ePKPdf	PKPdf	00 42 05.7	+1.4
	baz=354,slow=2.2						
VNA2				e		00 42 11.6	
VNA2				e		00 42 17.9	
VNA2				e		00 42 23.5	
VNA2				e		00 42 28.3	
VNA2				e		00 42 32.5	
VNA3	Neumayer Olymp	147.65	196	ePKPdf	PKPdf	00 42 05.7	+1.0
VNA3				e		00 42 11.5	
VNA3				e		00 42 18.6	
VNA3				e		00 42 23.9	
VNA3				e		00 42 30.4	
VNA3				e		00 42 34.4	
VNA3				e		00 42 38.1	
VNA1	Neumayer--Stat	147.81	197	ePKPdf	PKPdf	00 42 06.7	+1.8

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*ISCJB **17** 00:28:32.7±0.8, 34.4N±0.1×27.5E±0.1, h10km, Error ellipse: s-maj=20.6km s-min=7.5km az=136.8*

*CSEM **17** 00:28:35.5±0.3, 34.56N×27.81E, h40km, MD3.5, Error ellipse: s-maj=31.8km s-min=5.2km az=56.0*

*ATH **17** 00:28:36.7, 34.58N×27.33E, h10km, MD3.4/3*

*HLW **17** 00:28:45.5, 34.04N×28.05E, h33km, Mb2.8*

ISC 17 00:28:34.0±0.8, **34.57N**±0.10×**27.6E**±0.1, **h10**km, **n12**, σ**0ˢ.91**/13, **Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	1.04	340	ePB	Pb	00 28 55.1	+1.0
KARP	Karpathos	1.04	340	ePb	Pb	00 28 55.1	+1.0
XRY	Khrisi	1.60	282	ePG	Pn	00 29 02.0	-0.3
XRY	Khrisi	1.60	282	ePn	Pn	00 29 02.0	-0.3
NPS	Neapolis	1.77	294	ePG	Pg	00 29 06.5	-1.5
NPS	Neapolis	1.77	294	ePg	Pg	00 29 07.5	-0.5
HMAT	Matruh	3.49	187	P	Pn	00 29 30.8	+2.5
HNAT	Natroun	5.55	152	P	Pn	00 29 56.8	+0.2
HHAG	Hagoal	5.97	139	P	Pn	00 30 02.2	-0.3
AMAG	Maghara	6.14	128	P	Pn	00 30 04.5	-0.2
SUZ		6.47	135	P	Pn	00 30 08.6	-0.7
SUZ				S	Sn	00 31 10.6	-13
HDK1	Dakhla	9.13	170	P	Pn	00 30 45.5	-0.3

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*ISCJB **17** 00:41:21.9±0.8, 25.58N±0.06×109.48W±0.08, h10km, Error ellipse: s-maj=11.5km s-min=5.9km az=33.5*

*IDC **17** 00:41:23.9±1.6, 25.37N×109.51W, h0km, mb1 3.6/4, mb1mx3.5/19, mbtmp3.2/4, ML3.6/4, Error ellipse: s-maj=33.2km s-min=15.2km az=124.0*

*NEIC **17** 00:41:24.5±1.0, 25.58N×109.77W, h10km, MN3.3, Error ellipse: s-maj=21.9km s-min=12.2km az=110.0*

ISC 17 00:41:24.2±0.7, **25.53N**±0.05×**109.65W**±0.08, **h10**km, **n12**, σ**1ˢ.02**/19, **Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	1.54	203	Pn	Pn	00 41 52.2	+0.4
LPIG				Sn	Sn	00 42 11.1	-0.7
LPIG	La Paz	1.54	203	Pn	Pn	00 41 52.2	+0.4
	12nm,0.3s,baz=0.0,slow=12,SNR=8.2						
LPIG				Sn	Sn	00 42 11.1	-0.7
	26nm,0.3s,baz=181,slow=21,SNR=15						
TXAR	Lajitas Array	6.53	53	Pn	Pn	00 43 01.3	+1.0
TXAR				Lg		00 44 51.5	
TXAR	Lajitas Array	6.53	53	Pn	Pn	00 43 01.3	+1.0
	0.4nm,0.3s,baz=223,slow=13,SNR=9.9						
TXAR				Lg		00 44 51.5	
	1.4nm,0.3s,baz=226,slow=32,SNR=4.2						
LTX	Lajitas	6.53	53	Pn	Pn	00 43 01.4	+1.0
LTX				ePg	Pg	00 43 28.5	-0.7
LTX				eSg	Sg	00 44 53.4	-0.4
TUC	Tucson	6.83	352	ePn	Pn	00 43 02.5	-2.0
TUC				eSn	Sn	00 44 22.4	+0.1
MNTX	Cornudas Mount	7.20	30	Pn	Pn	00 43 04.9	-4.7
MNTX				ePg	Pg	00 43 40.8	-1.3
MNTX				eSg	Sg	00 45 08.3	-7.0
ANMO	Albuquerque	9.79	16	Pn	Pn	00 43 46.0	+1.0
ANMO				Lg		00 46 33.0	
ANMO	Albuquerque	9.79	16	Pn	Pn	00 43 46.0	+1.0
	0.1nm,0.3s,baz=204,slow=11,SNR=3.1						
ANMO				Lg		00 46 33.0	
	0.2nm,0.3s,baz=274,slow=22,SNR=4.5						
NVAR	Mina Array Bea	14.80	332	Pn	Pn	00 45 01.1	+7.5
NVAR	Mina Array Bea	14.80	332	Pn	Pn	00 45 01.0	+7.5
	0.1nm,0.3s,baz=149,slow=7.2,SNR=3.6						
PDAR	Pinedale Array	17.20	0	P	Pn	00 45 25.9	+1.4
	0.1nm,0.3s,baz=162,slow=11,SNR=5.1						

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*HLW **17** 00:41:08.2, 35.83N×26.04E, h22km, Mb3.1*

*ISCJB **17** 00:41:28.4±0.8, 34.4N±0.1×27.5E±0.1, h10km, Error ellipse: s-maj=19.9km s-min=7.9km az=138.0*

*CSEM **17** 00:41:28.7±0.1, 34.39N×27.49E, h12km, ML3.1, Error ellipse: s-maj=4.6km s-min=2.0km az=42.0*

*ATH **17** 00:41:39.0, 35.03N×26.89E, h10km, MD3.4/3*

ISC 17 00:41:29.7±0.8, **34.5N**±0.1×**27.5E**±0.1, **h10**km, **n12**, σ**0ˢ.43**/12, **Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	1.05	344	ePB	Pg	00 41 49.7	-0.1
KARP	Karpathos	1.05	344	ePb	Pg	00 41 49.7	-0.1
XRY	Khrisi	1.53	283	ePG	Pn	00 41 57.5	+0.4
XRY	Khrisi	1.53	283	ePg	Pn	00 41 57.5	+0.4
NPS	Neapolis	1.72	295	ePN	Pn	00 41 59.5	-0.2
NPS	Neapolis	1.72	295	ePn	Pn	00 41 59.5	-0.2
HMAT	Matruh	3.45	186	P	Pn	00 42 18.8	-4.7
HNAT	Natroun	5.55	151	P	Pn	00 42 51.7	-0.8
HHAG	Hagoal	6.00	138	P	Pn	00 42 59.1	+0.5
AMAG	Maghara	6.18	127	P	Pn	00 43 01.3	+0.3
HKAT	Jabal Katrina	8.16	136	P	Pn	00 43 28.1	-0.1
HKAT	Jabal Katrina	8.16	136	P	Pn	00 43 28.0	-0.2

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*CSEM **17** 01:06:37.5±0.1, 37.61N×21.84E, h60km, ML3.7, Error ellipse: s-maj=2.9km s-min=2.5km az=95.0*

*ISCJB **17** 01:06:38.5±0.8, 37.64N±0.04×21.86E±0.04, h61km±10km, Error ellipse: s-maj=6.7km s-min=5.2km az=33.8*

*NEIC **17** 01:06:38.5, 37.67N×21.88E, h44km, MD3.3(ATH), After ATH.*

*ATH **17** 01:06:38.3, 37.67N×21.88E, h50km±6km, MD3.3/5, ML3.2*

*THE **17** 01:06:39.3, 37.60N×21.89E, h57km, ML3.7*

ISC 17 01:06:39.1±0.8, **37.63N**±0.04×**21.86E**±0.04, **h58**km±10km, **n32**, σ**0ˢ.88**/54, **2C**, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.45	173	⇑iP	Pn	01 06 49.4	-0.9
ITM				eS	Sn	01 06 59.0	+0.6
VLX	Vlachokerasia	0.48	121	ePg	Pn	01 06 50.1	-0.6
VLX				eSg	Sn	01 06 58.9	-0.2
VLX	Vlachokerasia	0.48	121	ePg	Pn	01 06 50.1	-0.6
RLS	Riolos of Patr	0.53	324	⇑iP	Pn	01 06 49.9	-1.4
RLS				eS	Sn	01 06 59.1	-1.0
PYL	PYLOS	0.73	187	ePg	Pn	01 06 53.0	-0.7
PYL				eSg	Sn	01 07 04.8	+0.5
PYL	PYLOS	0.73	187	ePg	Pn	01 06 53.0	-0.6
PYL				eSg	Sn	01 07 04.8	+0.6
LTK	Loutraki	0.96	65	ePg	Pn	01 06 55.6	-0.9
LTK				eSg	Sn	01 07 09.7	+0.3
LTK	Loutraki	0.96	65	ePg	Pn	01 06 55.6	-0.9
LTK				eSg	Sn	01 07 09.7	+0.3
DID	Didima	1.10	96	ePg	Pn	01 06 58.0	-0.3
DID				eSg	Sn	01 07 13.8	+1.2
DID	Didima	1.10	96	ePg	Pn	01 06 58.0	-0.3
DID				eSg	Sn	01 07 13.8	+1.2
VLS	Valsamata	1.15	299	eP	Pn	01 06 58.8	-0.2
VLS				eS	Sn	01 07 14.8	+1.0
VLS	Valsamata	1.15	299	eP	Pn	01 06 57.9	-1.1
VLS				eS	Sn	01 07 15.8	+2.0
VLI	Veliai	1.25	136	eP	Pn	01 07 01.8	+1.5
EVR	Evrytania	1.29	358	eP	Pn	01 07 01.9	+1.0
NAIG	Nisos Aigina	1.30	84	eP	Pn	01 07 00.5	-0.5
LKR	Lokris	1.36	41	eP	Pn	01 07 01.5	-0.3
LKR				eS	Sn	01 07 18.2	-0.7
LKR	Lokris	1.36	41	eP	Pn	01 07 01.5	-0.3
LKR				eS	Sn	01 07 20.2	+1.3
LKD	Levkas	1.44	319	P	Pn	01 07 03.4	+0.5
LKD				S	Sn	01 07 23.1	+2.2
LKD	Levkas	1.44	319	ePg	Pn	01 07 03.4	+0.5
LKD				eSg	Sn	01 07 23.1	+2.2
LKD	Levkas	1.44	319	ePg	Pn	01 07 03.4	+0.5
LKD				eSg	Sn	01 07 23.1	+2.3
AGG	Agios Georgios	1.44	15	P	Pn	01 07 03.2	+0.3
AGG				S	Sn	01 07 21.7	+0.8
AGG	Agios Georgios	1.44	15	ePg	Pn	01 07 03.2	+0.3
AGG				eSg	Sn	01 07 21.7	+0.8
AGG	Agios Georgios	1.44	15	ePg	Pn	01 07 03.2	+0.2
AGG				eSg	Sn	01 07 21.7	+0.8
ATH	Athens Observa	1.51	76	eP	Pn	01 07 03.3	-0.5
THL	Klokotos Trika	1.94	3	eP	Pn	01 07 09.8	+0.1
NEO	Neokhori	1.99	32	eP	Pn	01 07 10.3	-0.1
NEO				eS	Sn	01 07 34.1	-0.1
XOR	Xorichti	2.03	31	P	Pn	01 07 11.7	+0.8
XOR	Xorichti	2.03	31	ePn	Pn	01 07 11.7	+0.8
XOR	Xorichti	2.03	31	ePn	Pn	01 07 11.7	+0.8
KEK	Kerkira	2.64	323	eP	Pn	01 07 17.9	-1.3
KRUS	Krusevo	3.77	353	ePn	Pn	01 07 34.1	-0.5
KRUS				eSn	Sn	01 08 16.6	-1.1
KRUS	Krusevo	3.77	353	ePn	Pn	01 07 34.1	-0.6
KRUS				eSn	Sn	01 08 16.6	-1.1

IDC 17 01:35:20.0±28.0, **16.25S**×**173.76W**, **h0**km, **mb4.2**/4, **mb1 4.3**/4, **mb1mx3.9**/16, **mbtmp4.2**/4, **Error ellipse: s-maj=519.2km s-min=169.9km az=72.0**, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	38.12	258	P	P	01 42 41.0	-0.1
	5.8nm,1.0s,baz=107,slow=11,SNR=3.0						
STKA	Stephens Creek	43.31	241	P	P	01 43 24.3	+0.5
	1.4nm,0.8s,baz=109,slow=12,SNR=3.7						
WRA	Warramunga Arr	49.32	257	P	P	01 44 11.0	-0.2
	1.0nm,0.5s,baz=96,slow=7.1,SNR=39						
ASAR	Alice Springs	49.52	253	P	P	01 44 12.7	-0.1
	5.0nm,0.5s,baz=87,slow=8.6,SNR=78						

IDC 17 01:45:38.7±32.0, **15.75S**×**177.41W**, **h0**km, **mb3.9**/4, **mb1 4.1**/4, **mb1mx3.8**/15, **mbtmp3.9**/4, **Error ellipse: s-maj=628.1km s-min=152.2km az=84.0**, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	40.53	239	eP	P	01 53 19.4	-0.4
	3.0nm,1.2s						
STKA	Stephens Creek	40.53	239	P	P	01 53 19.1	-0.7
	1.3nm,0.6s,baz=101,slow=15,SNR=4.7						
WB2	Warramunga Arr	45.99	257	eP	P	01 54 04.2	+0.1
WRA	Warramunga Arr	46.00	257	P	P	01 54 04.5	+0.3
	0.4nm,0.5s,baz=89,slow=8.1,SNR=12						
ASAR	Alice Springs	46.33	252	P	P	01 54 06.8	0.0
	4.0nm,0.5s,baz=89,slow=8.1,SNR=60						
KAKA	Kakadu	48.62	267	eP	P	01 54 27.5	+2.8
	1.4nm,0.4s						
FITZ	Fitzroy Crossi	54.36	259	eP	P	01 55 08.3	+0.7
	4.7nm,1.6s						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	54.36	259	P	P	01 55 07.6	0.0
	1.4nm,1.0s,baz=63,slow=4.5,SNR=4.6						

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*ISCJB **17** 01:53:27.8±0.5, 50.21N±0.04×18.86E±0.03, h0^{km}, Error ellipse: s-maj=5.8km s-min=2.7km az=5.4*
*CSEM **17** 01:53:28.6±0.2, 50.18N×18.94E, h2^{km}, ML2.7/4, Error ellipse: s-maj=5.0km s-min=2.2km az=1.0*
*IPEC **17** 01:53:28.5±0.1, 50.20N×18.93E, h3^{km}±1^{km}, ML1.5/3, Error ellipse: s-maj=1.5km s-min=0.8km az=171.0*
*PRU **17** 01:53:28.8, 50.27N×18.85E, h0^{km}*
*WAR **17** 01:53:28.0, 50.25N×18.95E, ML2.4, Mining Induced*
ISC 17 01:53:28.6±0.5**, 50.21N**±0.04×**18.87E**±0.03**, h0**^{km}**, n36, σ1**^{s}**23**/57**, 2C-4D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	Raciborz	0.45	254	ePg	Pg	01 53 38.7	+1.5
RAC				eSg	Sg	01 53 46.5	+3.4
OKC	Ostrava-Krasne	0.60	231	ePG	Pg	01 53 40.4	+0.4
OKC				eSG	Sg	01 53 49.4	+1.7
	21nm,0.6s						
OKC	Ostrava-Krasne	0.60	231	ePg	Pg	01 53 40.5	+0.5
OKC				eSg	Sg	01 53 49.4	+1.7
	21nm,0.6s						
OJC	Ojcow	0.60	89	ePg	Pg	01 53 38.8	-1.3
OJC				eSg	Sg	01 53 46.7	-1.2
MORC	Moravsky Berou	0.96	243	⇓iP	Pg	01 53 47.0	0.0
MORC	Moravsky Berou	0.96	243	S	Sg	01 54 00.9	+1.5
MORC	Moravsky Berou	0.96	243	ePg	Pg	01 53 47.0	0.0
MORC				eSg	Sg	01 54 00.0	+0.6
	9.7nm,0.2s						
NIE	Niedzica	1.23	130	ePg	Pg	01 53 51.2	-1.0
NIE				eSg	Sg	01 54 08.4	+0.3
JAVC	Velka Javorina	1.56	210	ePn	Pn	01 53 58.0	+0.4
DPC	Dobruska-Polom	1.64	276	ePG	Pn	01 53 57.8	-0.8
DPC				eSG	Sg	01 54 19.9	-1.3
	11nm,0.5s						
DPC	Dobruska-Polom	1.64	276	ePn	Pn	01 53 57.8	-0.8
DPC	Dobruska-Polom	1.64	276	ePg	Pn	01 53 57.8	-0.8
DPC				eSg	Sg	01 54 21.2	0.0
VYHS	Vyhne	1.72	181	ePN	Pn	01 53 58.7	-1.1
VYHS				eSN	Sn	01 54 21.5	-0.9
VYHS	Vyhne	1.72	181	ePn	Pn	01 53 58.4	-1.4
VYHS				eSn	Sn	01 54 21.5	-0.9
VYHS				eSg	Sg	01 54 21.7	-2.2
VRAC	Vranov	1.73	239	⇑iP	Pn	01 54 00.0	+0.1
VRAC	Vranov	1.73	239	S	Sn	01 54 23.6	+1.0
VRAC	Vranov	1.73	239	ePn	Pn	01 54 00.1	+0.2
VRAC				eSg	Sg	01 54 23.0	-1.1
	4.4nm,0.3s						
STHS	Stebnicka Huta	1.73	116	ePN	Pn	01 54 00.5	+0.5
STHS				eSN	Sn	01 54 24.0	+1.2
STHS	Stebnicka Huta	1.73	116	ePn	Pn	01 54 00.5	+0.5
STHS				eSn	Sn	01 54 24.0	+1.2
KSP	Ksiaz	1.76	292	ePn	Pn	01 54 01.5	+1.2
KSP				eSn	Sn	01 54 25.6	+2.2
UPC	Upice	1.85	280	eSG	Sg	01 54 27.5	-0.6
UPC	Upice	1.85	280	eSg	Sg	01 54 27.5	-0.6
KRUC	Moravsky	1.98	235	ePn	Pn	01 54 03.9	+0.6
KRUC				eSg	Sg	01 54 31.2	-0.9
	2.3nm,0.3s						
KECS	Kecovo	2.03	148	ePN	Pn	01 54 02.6	-1.4
KECS				eSN	Sn	01 54 32.6	+2.6
CRVS	Cervenica-Dubn	2.14	127	ePN	Pn	01 54 07.8	+2.3
CRVS	Cervenica-Dubn	2.14	127	ePn	Pn	01 54 07.8	+2.3
PSZ	Piszkesteto	2.39	163	⇑iP	Pn	01 54 11.1	+2.1
PVCC	Panska Ves	2.77	278	eSG	Sg	01 54 56.9	-0.6
	12nm,0.8s						
PVCC	Panska Ves	2.77	278	eSg	Sg	01 54 56.9	-0.6
	12nm,0.8s						
PRU	Pruhonice	2.79	267	ePG	Pg	01 54 19.3	-2.8
PRU				eSG	Sg	01 54 57.1	-1.2
PRU	Pruhonice	2.79	267	ePg	Pg	01 54 19.3	-2.8
PRU				eSg	Sg	01 54 57.1	-1.2
KHC	Kasperske Hory	3.60	255	ePN	Pn	01 54 24.5	-1.1
KHC				eSG	Sg	01 55 23.8	-0.4
KHC	Kasperske Hory	3.60	255	ePn	Pn	01 54 24.5	-1.1
KHC				eSg	Sg	01 55 23.8	-0.4
DRGR		4.27	142	⇓iP	Pn	01 54 34.5	-0.3
BURAR	Bucovina Array	4.93	119	⇓iP	Pn	01 54 43.3	-0.6
GZR	Gura Zlata	5.50	150	⇓iP	Pn	01 54 52.4	+0.8

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*IDC **17** 02:06:31.6±1.2, 25.54N×127.43E, h0^{km}, mb3.7/7, mb1 3.8/8, mb1mx3.7/21, mbtmp3.7/8, ML3.9/1, Error ellipse: s-maj=29.1km s-min=20.4km az=108.0*
*NEIC **17** 02:06:32.4±9.7, 25.55N×127.48E, h5^{km}±61^{km}, mb4.0/1, Error ellipse: s-maj=29.3km s-min=18.1km az=66.0*
*ISCJB **17** 02:06:34.9±1.1, 25.52N±0.07×127.74E±0.06, h42^{km}±9^{km}, mb3.5/8, Error ellipse: s-maj=11.9km s-min=7.6km az=22.2*
*JMA **17** 02:06:34.4±0.2, 25.49N×127.66E, h48^{km}±3^{km}, M3.3*
ISC 17 02:06:34.9±1.4**, 25.49N**±0.06×**127.67E**±0.06**, h28**^{km}±8^{km}**, n21, σ0**^{s}**89**/29**, mb3.5**/8**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JJT2	Tamagusuku 2	0.65	7	P	Pb	02 06 47.6	-0.1
JJT2				eS	Sb	02 06 57.1	+0.7
NAH1	Naha	0.71	2	P	Pb	02 06 48.3	-0.4
NAH1				eS	Sb	02 06 58.2	+0.1
JKE	Kume jima 2	1.15	316	P	Pn	02 06 54.4	-0.7
JKE				eS	Sn	02 07 09.0	-0.9
JAGN	Aguni-jima	1.16	341	P	Pn	02 06 54.6	-0.7
JAGN				eS	Sn	02 07 10.3	+0.2
JOW	Kunigami	1.44	22	Pn	Pn	02 06 58.9	-0.3
JOW				Sn	Sn	02 07 22.6	+5.4
JOW	Kunigami	1.44	22	Pn	Pn	02 06 58.9	-0.3
	31nm,0.3s,baz=189,slow=13,SNR=46						
JOW				Sn	Sn	02 07 22.6	+5.4
	33nm,0.3s,baz=339,slow=22,SNR=11						
JTK	Tokunoshima	2.56	26	P	Pn	02 07 14.8	+0.3
JMZ	Minamidaito 2	3.22	83	P	Pn	02 07 22.8	-0.9
JMZ				eS	Sn	02 07 58.6	-2.6
JAM	Amami Oshima	3.38	30	P	Pn	02 07 26.1	+0.2
JAM				eS	Sn	02 08 04.7	-0.4
JNU	Nakatsue	8.10	19	Pn	Pn	02 08 31.2	+0.5
JNU	Nakatsue	8.10	19	Pn	Pn	02 08 31.2	+0.5
	1.3nm,0.3s,baz=158,slow=5.4,SNR=7.5						
KSRS	Korea Array	11.93	1	Sn	Sn	02 11 36.0	+0.8
	0.2nm,0.3s,baz=135,slow=26,SNR=6.9						
SONM	Songino Array	27.90	329	P	P	02 12 23.9	+1.5
	0.3nm,0.5s,mb3.1,baz=142,slow=10,SNR=3.7						
MKAR	Makanchi Array	41.65	313	P	P	02 14 19.4	-1.4
	0.5nm,0.6s,mb3.3,baz=99,slow=9.6,SNR=13						
ZALV	Zalesovo Beam	42.53	324	P	P	02 14 26.6	-1.2
	0.4nm,0.4s,mb3.5,baz=124,slow=8.7,SNR=3.9						
WRA	Warramunga Arr	45.63	171	P	P	02 14 54.7	+1.7
	0.2nm,0.7s,mb3.2,baz=353,slow=8.5,SNR=5.4						
BRVK	Borovoye	50.56	319	eP	P	02 15 30.9	+0.1
	0.7nm,0.4s,mb3.9						
FINES	FINESS Array B	73.25	331	P	P	02 18 03.6	+0.3
	1.3nm,0.8s,mb3.9,baz=51,slow=7.3,SNR=5.3						
YKA	Yellowknife Ar	79.41	25	P	P	02 18 39.3	+1.2
	0.1nm,0.4s,mb3.1,baz=300,slow=5.2,SNR=4.2						
NOA	NORSAR Array B	79.75	334	P	P	02 18 40.5	+0.5
NOA	NORSAR Array B	79.75	334	P	P	02 18 40.5	+0.5
	1.0nm,0.9s,mb3.7,baz=59,slow=5.2,SNR=3.2						

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*MAN **17** 02:43:04, 5.26N×126.99E, h22^{km}, mb5.1, ML4.1, MS4.2*
*IDC **17** 02:43:10.7±4.6, 5.34N×125.61E, h22^{km}±28^{km}, mb3.9/11, mb1 4.0/11, mb1mx3.9/20, mbtmp3.9/11, Error ellipse: s-maj=71.4km s-min=13.7km az=69.0*
*ISCJB **17** 02:43:13.6±0.8, 5.59N±0.06×126.53E±0.09, h75^{km}±7^{km}, mb4.1/24, Error ellipse: s-maj=14.6km s-min=8.7km az=163.4*
*NEIC **17** 02:43:15.2±1.2, 5.58N×126.45E, h71^{km}±10^{km}, mb4.3/13, Error ellipse: s-maj=19.9km s-min=6.5km az=69.0*
*BJI **17** 02:43:16.0, 5.78N×125.65E, h43^{km}, mB4.6, mb4.1, Ms4.3, Msz4.1*
ISC 17 02:43:14.9±0.8**, 5.55N**±0.05×**126.49E**±0.08**, h70**^{km}±7^{km}**, n48, σ1**^{s}**01**/47**, mb4.1**/24**, 2C-3D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	1.40	350	eP	Pn	02 43 35.6	-3.1
MATI				eS	Sn	02 43 56.5	0.0
GSPH	General Santos	1.62	289	⇑eP	Pn	02 43 36.7	-4.9
GSPH				eS	Sn	02 44 02.0	+0.3
DAV	Davao City (W)	1.76	329	ePn	Pn	02 43 42.8	-0.5
DAV	Davao City (W)	1.76	329	eP	Pn	02 43 42.0	-1.4
KCP	Kidapawan	2.01	316	⇓eP	Pn	02 43 49.7	+3.0
BIPH	Bislig	2.62	357	⇑eP	Pn	02 43 51.4	-3.6
BIPH				iS	Sn	02 44 28.7	+3.0
BUKP	Musuan	2.71	329	eP	Pn	02 43 55.2	-1.0
CGP	Cagayan de Oro	3.39	328	⇓eP	Pn	02 44 05.2	-0.2
CGP				eS	Sn	02 44 50.4	+5.9
PAGZ	Pagadian	3.84	307	eP	Pn	02 44 11.5	-0.1
SCPH	Surigao	4.32	347	⇓eP	Pn	02 44 18.7	+0.6
MSLP	Maasin	4.83	341	eP	Pn	02 44 25.2	+0.1
TBP	Tagbilaran	4.87	328	eP	Pn	02 44 26.0	+0.3
KAKA	Kakadu	19.08	162	eP	Pn	02 47 31.3	-2.2
	5.5nm,0.6s						
FITZ	Fitzroy Crossi	23.52	182	eP	P	02 48 19.4	+0.5
	8.0nm,1.1s,mb4.0						
FITZ	Fitzroy Crossi	23.52	182	P	P	02 48 18.7	-0.2
	3.2nm,0.8s,mb3.7,baz=27,slow=10.0,SNR=16						
KULM	Kulim	25.73	271	eP	P	02 48 40.5	+1.4
WRA	Warramunga Arr	26.48	163	P	P	02 48 46.5	+0.7
	1.9nm,0.8s,mb3.6,baz=342,slow=10,SNR=18						
WRA				ScP	ScP	02 55 49.5	+6.0
	0.6nm,1.0s,baz=339,slow=3.2,SNR=5.5						
WB2	Warramunga Arr	26.49	163	eP	P	02 48 47.0	+1.1
ASAR	Alice Springs	29.93	166	P	P	02 49 16.6	+0.2
	0.6nm,0.6s,mb3.4,baz=342,slow=7.0,SNR=9.1						
ASAR				PcP	PcP	02 52 18.5	+0.6
	0.7nm,0.7s,baz=347,slow=2.2,SNR=4.3						
XAN	Xi'an	32.70	332	P	P	02 49 40.5	-0.3
XAN				AMB	AMB		
	comp=Z,1.0nm,0.5s,mb3.9						
BJT	Baijiatuau	35.55	346	eP	P	02 50 06.2	+0.9
	comp=Z,3.1nm,0.4s,mb4.6						
STKA	Stephens Creek	39.91	160	P	P	02 50 43.3	+1.1
	comp=Z,2.8nm,0.7s,mb4.2,baz=324,slow=7.0,SNR=6.0						
GTA	Gaotai	41.42	328	eP	P	02 50 55.3	+0.6
GTA				AMB	AMB		
	comp=Z,3.0nm,0.9s,mb4.1						
ULN	Ulaanbaatar	45.32	342	eP	P	02 51 28.0	+2.1
	comp=Z,2.7nm,1.0s,mb3.9						
SONM	Songino Array	45.51	341	P	P	02 51 27.2	-0.1
	comp=Z,0.8nm,0.6s,mb3.6,baz=152,slow=7.3,SNR=7.0						
SONM				PcP	PcP	02 53 07.4	+2.2
	comp=Z,0.9nm,0.9s,baz=161,slow=5.7,SNR=2.8						
MKAR	Makanchi Array	55.94	325	P	P	02 52 45.6	-0.2
	comp=Z,1.1nm,0.5s,mb4.1,baz=117,slow=8.0,SNR=16						
MKAR				PcP	PcP	02 53 45.1	+1.4
	comp=Z,1.0nm,0.7s,baz=135,slow=3.3,SNR=3.6						
TKM2	Tokmak 2	58.24	318	eP	P	02 53 01.7	-0.5
	comp=Z,1.4nm,0.6s,mb4.2						
UCH	Uchtor	58.69	317	eP	P	02 53 06.1	+0.8
	comp=Z,5.2nm,1.1s,mb4.5						
AAK	Ala-Archa	58.86	317	eP	P	02 53 07.1	+0.6
	comp=Z,1.5nm,0.8s,mb4.1						
ZALV	Zalesovo Beam	58.87	333	P	P	02 53 05.8	-0.6
	comp=Z,1.4nm,0.7s,mb4.1,baz=142,slow=7.3,SNR=8.6						
EKS2	Erkin-Say	59.36	317	eP	P	02 53 09.3	-0.7
	comp=Z,4.2nm,0.9s,mb4.5						
KURK	Kurchatov	60.09	327	eP	P	02 53 14.1	-0.7
	comp=Z,8.4nm,1.0s,mb4.7						
KBL	Kabul	60.24	307	eP	P	02 53 16.0	-0.2
BRVK	Borovoye	65.75	327	eP	P	02 53 52.2	-0.2
	comp=Z,6.7nm,0.9s,mb4.5						
TIXI	Tiksi	66.03	1	eP	P	02 53 53.4	-0.5
	comp=Z,2.1nm,0.6s,mb4.1						
AKTK	Aktyubinsk	72.09	321	P	P	02 54 30.7	-1.1
AKTO	Aktyubinsk	72.09	321	P	P	02 54 30.7	-1.1
	comp=Z,2.0nm,0.7s,mb4.1,baz=107,slow=9.2,SNR=9.2						
MCK	McKinley	82.65	27	eP	P	02 55 31.5	+1.1
	comp=Z,2.2nm,1.0s,mb3.9						
MALT	Malatya	85.08	308	eP	P	02 55 43.2	-0.3
	comp=Z,0.9nm,0.7s,mb3.8						
ARCES	ARCESS Array B	88.67	340	P	P	02 55 60.0	-0.2
ARCES	ARCESS Array B	88.67	340	P	P	02 55 60.0	-0.2
	comp=Z,4.1nm,0.9s,mb4.5,baz=76,slow=7.5,SNR=4.4						
BRTR	Keskin Array B	88.68	310	P	P	02 55 59.0	-2.0
	comp=Z,0.7nm,0.9s,mb3.7,baz=90,slow=2.9,SNR=5.2						
FINES	FINESS Array B	90.12	332	P	P	02 56 07.1	0.0
	comp=Z,1.6nm,0.9s,mb4.1,baz=87,slow=5.7,SNR=5.1						
TXAR	Lajitas Array	120.66	51	PKP	PKPdf	03 02 05.2	+5.6
TXAR	Lajitas Array	120.66	51	PKP	PKPdf	03 02 05.2	+5.6
	comp=Z,0.2nm,0.7s,baz=316,slow=2.5,SNR=2.1						
TOA0	Torodi Ar. Sit	122.11	289	ePKPdf	PKPdf	03 02 03.3	+0.6
TORD	Torodi Ar. Bea	122.11	289	PKP	PKPdf	03 02 03.9	+1.2
TORD	Torodi Ar. Bea	122.11	289	PKP	PKPdf	03 02 03.9	+1.2
	comp=Z,0.7nm,0.7s,baz=54,slow=1.6,SNR=8.1						

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*BJI **17** 03:23:05.8, 10.99N×143.77E, h9^{km}, mB4.9, mb4.8, Ms4.6, Msz4.3*
*IDC **17** 03:23:10.9±0.5, 11.46N×143.20E, h0^{km}, mb4.7/22, mb1 4.7/23, mb1mx4.7/29, mbtmp4.7/23, ML5.1/1, MS3.9/12, Ms1 3.9/12, ms1mx3.7/33, Error ellipse: s-maj=19.7km s-min=11.3km az=81.0*
*ISCJB **17** 03:23:11.5±0.1, 11.46N±0.03×143.17E±0.03, h10^{km}, mb4.9/88, MS4.0/15, Error ellipse: s-maj=5.0km s-min=3.9km az=179.4*
*NEIC **17** 03:23:12.7±3.2, 11.47N×143.27E, h10^{km}±20^{km}, mb4.9/46, Error ellipse: s-maj=5.3km s-min=4.0km az=96.0*
*GCMT **17** 03:23:12.7±0.3, 11.43N×143.17E, h21^{km}±1^{km}, MW5.0/62, Moment Tensor Solution. s24,c26; s62,c93; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.50±.28; $M_{\theta\theta}$3.56±.17; $M_{\phi\phi}$-0.06±.16; $M_{r\theta}$1.82±.25; $M_{\theta\phi}$-0.15±.14; $M_{\phi r}$-1.39±.39; Best double couple: $M_0$4.20400×10^{16} NP1:ϕ_s77.00000°, δ33.00000°, λ-118.00000°. NP2: ϕ_s290.00000°, δ61.00000°, λ-73.00000°. Principal axes: T 4.0600, Plg15.0000°, Azm7.0000°; N 0.2860, Plg15.0000°, Azm101.0000°; P -4.3470, Plg69.0000°, Azm235.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*MOS **17** 03:23:14.4±1.2, 11.49N×143.18E, h33^{km}, mb5.0/36 Error ellipse: s-maj=10.7km s-min=6.1km az=100.9*
ISC 17 03:23:12.5±1.7**, 11.48N**±0.04×**143.25E**±0.03**, h6**^{km}±10^{km}**, h39**^{km}±4.8^{km}**:pP-P, n396, σ0**^{s}**71**/396**, mb4.9**/88**, MS4.0**/15**, 55C-54D, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.63	37	ePn	Pn	03 23 55.6	+0.1
GUMO				eSn	Sn	03 24 24.1	-3.6
GUMO	Guam	2.63	37	Pn	Pn	03 23 55.8	+0.3
	315nm,0.3s,baz=187,slow=7.9,SNR=198						
GUMO				Sn	Sn	03 24 24.8	-3.0
	321nm,0.3s,baz=354,slow=23,SNR=9.3						
CBIJ	Chichi jima	15.57	356	LR	LR	03 31 14.9	
	comp=Z,264nm,20.7s,baz=142,slow=31						
JOW	Kunigami	20.78	319	P	P	03 27 55.1	+0.7
	31nm,0.4s,baz=124,slow=16,SNR=14						
PMG	Port Moresby	21.11	169	eP	P	03 27 57.6	-0.5
	76nm,1.0s,mb5.0						
PMG	Port Moresby	21.11	169	eP	P	03 27 56.5	-1.6
PMG	Port Moresby	21.11	169	P	P	03 27 56.9	-1.1
	78nm,1.1s,mb5.0,baz=311,slow=5.5,SNR=9.5						
JHJ	Hachijo jima 2	21.77	352	LR	LR	03 34 38.1	
	comp=Z,458nm,21.8s,MS3.8,baz=46,slow=32						
JNU	Nakatsue	24.35	334	P	P	03 28 30.2	-1.0
JNU				LR	LR	03 37 07.4	
JNU	Nakatsue	24.35	334	P	P	03 28 30.2	-1.0
	23nm,0.7s,mb4.7,baz=109,slow=5.5,SNR=15						
JNU				LR	LR	03 37 07.4	
	comp=Z,224nm,20.4s,baz=296,slow=34						
COEN	Coen	25.27	180	eP	P	03 28 39.7	-0.1
MJAR	Matsushiro Arr	25.36	350	P	P	03 28 38.0	-2.4
	5.2nm,0.7s,mb4.2,baz=183,slow=11,SNR=9.4						
MJAR				LR	LR	03 37 02.4	
	comp=Z,230nm,21.8s,MS3.7,baz=145,slow=33						
MAJO	Matsushiro	25.36	350	eP	P	03 28 38.4	-2.1
	14nm,0.7s,mb4.6						
MAJO	Matsushiro	25.36	350	eP	P	03 28 38.4	-2.1
MAJO				pmax	pmax		
	comp=Z,14nm,0.7s,mb4.6						
MAT	Matsushiro	25.36	350	P	P	03 28 38.0	-2.5
MAT				S	S	03 33 09.0	+1.7
KAKA	Kakadu	26.32	204	eP	P	03 28 47.9	-1.4
	comp=Z,30nm,0.6s,mb5.0						
KAKA				e		03 29 02.3	
KKM	Kota Kinabalu	27.25	261	eP	P	03 28 58.5	+0.7
KSRS	Korea Array	29.30	335	P	P	03 29 15.3	-0.5
	comp=Z,1.6nm,0.6s,mb3.9,baz=148,slow=9.6,SNR=6.1						
KSRS				LR	LR	03 40 00.7	
	comp=Z,150nm,18.4s,baz=340,slow=34						
NJ2	Nanjing	30.40	316	eP	P	03 29 28.8	+3.2
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.0						
CTA	Charters Tower	31.51	175	eP	P	03 29 35.1	-0.4
	comp=Z,9.4nm,1.9s,mb4.3						
CTA				e		03 29 47.9	
CTA	Charters Tower	31.51	175	eP	P	03 29 35.1	-0.4
CTA				e		03 29 47.9	
CTA				pmax	pmax		
	comp=Z,9.0nm,1.9s						
CTAO	Charters Tower	31.51	175	eP	P	03 29 35.1	-0.3
	comp=Z,19nm,0.8s,mb5.0						
CTAO	Charters Tower	31.51	175	eP	P	03 29 35.1	-0.4
CTAO				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.0						
WB2	Warramunga Arr	32.43	196	eP	P	03 29 42.3	-1.3
WB2				e		03 29 55.5	
WRA	Warramunga Arr	32.43	196	P	P	03 29 42.6	-1.0
	comp=Z,13nm,0.6s,mb5.0,baz=19,slow=9.8,SNR=160						
WRA				LR	LR	03 42 38.3	
	comp=Z,338nm,18.1s,MS4.1,baz=10.0,slow=36						
ASAJ	Asahikawa	32.52	359	P	P	03 29 43.3	-0.9
	comp=Z,5.1nm,0.7s,mb4.5,baz=190,slow=6.1,SNR=3.1						
ASAJ				LR	LR	03 41 08.0	
	comp=Z,192nm,20.9s,MS3.8,baz=165,slow=33						
WHN	Wuhan	32.82	310	⇓P	P	03 29 47.0	0.0
QIZ	Qiongzhong	33.05	287	P	P	03 29 50.0	+0.9
FITZ	Fitzroy Crossi	34.15	211	eP	P	03 29 58.2	-0.4
	comp=Z,10nm,0.8s,mb4.8						
FITZ				ePCP	PcP	03 32 36.0	+0.1
KSM	Kuching	34.16	255	eP	P	03 29 58.3	-0.6
CN2	Changchun	35.69	338	eP	P	03 30 16.0	+4.3
ASAR	Alice Springs	36.11	195	P	P	03 30 15.1	-0.3
	comp=Z,3.5nm,0.6s,mb4.5,baz=20,slow=11,SNR=73						
ASAR				PP	PP	03 31 43.5	+5.8
	comp=Z,4.1nm,1.1s,baz=18,slow=9.3,SNR=4.2						
ASAR				PcP	PcP	03 32 40.8	-0.7
	comp=Z,2.1nm,0.8s,baz=12,slow=2.4,SNR=5.5						
BJT	Baijiatuau	37.16	325	eP	P	03 30 24.3	0.0
	comp=Z,12nm,0.6s,mb4.9						
BJT	Baijiatuau	37.16	325	eP	P	03 30 24.3	0.0
BJT				pmax	pmax		
	comp=Z,12nm,0.6s						
EIDS	Eidsvold	37.41	168	eP	P	03 30 25.5	-1.1
HABR	Khabarovsk	37.51	351	eP	P	03 30 26.2	-0.9
HABR				eS	S	03 36 14.7	-1.7
HABR				e		03 36 31.1	
HABR				e		03 40 34.5	
GYA	Guiyang	37.51	299	P	P	03 30 28.8	+1.3
GYA				PP	PP	03 31 58.8	+5.8
GYA				PCP	PcP	03 32 47.8	+2.0
GYA				S	S	03 36 16.8	-0.2
GYA				XS	sS	03 36 33.8	+14
GYA				PCS	PcS	03 36 35.6	+1.1
GYA				SCS	ScS	03 40 38.3	-4.1
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
GYA				AMB	AMB		
	comp=Z,90nm,4.7s						
GYA				LR	LR		
	comp=N,1μm,29.4s						
GYA				LR	LR		
	comp=E,2μm,18.2s						
GYA				LR	LR		
	comp=Z,1μm,17.6s						
KKTK	Khon Kaen	39.49	282	P	P	03 30 46.0	+1.8
	comp=Z,340nm,0.7s						
MBWA	Marble Bar	39.82	216	eP	P	03 30 46.1	-0.8
	comp=Z,14nm,0.9s,mb4.7						
DZM	Mont Dzumac	40.37	146	P	P	03 30 50.9	-0.5
	comp=Z,16nm,0.6s,mb5.0,baz=342,slow=9.2,SNR=16						
HHC	Hu-ho-hao-te	40.39	322	eP	P	03 30 53.0	+1.6
HHC				AP	pP	03 31 02.8	+10
HHC				PP	PP	03 32 31.8	+7.5
HHC				SCP	ScP	03 36 41.3	-3.4
HHC				PCS	PcS	03 36 45.1	+0.1
HHC				S	S	03 37 01.3	+1.2
HHC				XS	sS	03 37 16.4	+13
HHC				SS	SS	03 39 56.8	-2.1
HHC				SCS	ScS	03 40 54.8	-3.8
HHC				AMB	AMB		
	comp=Z,4.0nm,1.1s,mb4.1						
HHC				AMB	AMB		
	comp=Z,123nm,5.1s						
HHC				LR	LR		
	comp=N,172nm,19.0s,MS3.9						
HHC				LR	LR		
	comp=E,79nm,20.9s,MS3.9						
HHC				LR	LR		
	comp=Z,217nm,19.0s,MS4.0						
KMI	Kunming	40.61	295	P	P	03 30 55.3	+1.8
KMI				AP	pP	03 31 04.3	+9.1
KMI				AMB	AMB		
	comp=Z,13nm,1.1s,mb4.5						
KMI	Kunming	40.61	295	P	P	03 30 55.2	+1.7
	comp=Z,13nm,1.1s,mb4.5						
KMI				pP	pP	03 31 04.3	+9.1
KMI	Kunming	40.61	295	P	P	03 30 55.2	+1.7
KMI				*PP	pP	03 31 04.3	+9.1
KMI				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.5						
CD2	Chengdu	41.30	304	P	P	03 30 58.9	-0.2
CD2				PP	PP	03 32 38.0	+3.6
CD2				S	S	03 37 13.1	-0.8
CD2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.1						
CD2				AMB	AMB		
	comp=Z,40nm,5.9s						
CD2				LR	LR		
	comp=N,120nm,15.6s,MS4.1						
CD2				LR	LR		
	comp=E,150nm,15.6s,MS4.1						
CD2				LR	LR		
	comp=Z,230nm,15.5s,MS4.2						
NANT	Nan	41.63	285	⇑P	P	03 31 02.8	+0.9
	comp=Z,212nm,1.0s,mb5.7						
NST	Nakhon Sawan	42.06	281	P	P	03 31 07.0	+1.5
	comp=Z,48nm,0.7s,mb5.2						
HIA	Hailar	42.42	337	eP	P	03 31 07.5	-0.4
KULM	Kulim	42.55	265	eP	P	03 31 10.4	+0.9
STKA	Stephens Creek	43.14	182	eP	P	03 31 12.4	-1.5
	comp=Z,3.0nm,0.6s,mb4.2						
STKA				e		03 31 25.7	
STKA	Stephens Creek	43.14	182	P	P	03 31 12.0	-1.9
	comp=Z,4.3nm,0.6s,mb4.4,baz=0.8,slow=6.3,SNR=19						
STKA				LR	LR	03 51 12.2	
	comp=Z,222nm,18.5s,MS4.1,baz=23,slow=39						
LZH	Lanzhou	43.16	311	eP	P	03 31 15.3	+1.2
LZH				PP	PP	03 32 57.5	+3.2
LZH				eS	S	03 37 41.0	-0.2
LZH				AMB	AMB		
	comp=Z,31nm,1.2s,mb4.9						
LZH				AMB	AMB		
	comp=Z,80nm,4.3s						
LZH				LR	LR		
	comp=E,445nm,14.2s						
LZH				LR	LR		
	comp=Z,650nm,15.1s,MS4.7						
LZH	Lanzhou	43.16	311	eP	P	03 31 15.2	+1.1
	comp=Z,31nm,1.2s,mb4.9						
LZH				pP	pP	03 31 17.5	+1.6
LZH				sP	sP	03 31 19.4	+2.8
LZH				PP	PP	03 32 57.5	+3.2
LZH				eS	S	03 37 41.0	-0.2
LZH				sS	sS	03 37 46.1	+2.1
LZH				SS	SS	03 40 47.0	-6.8
LZH				LR	LR		
	comp=Z,650nm,15.1s,MS4.7						
LZH	Lanzhou	43.16	311	eP	P	03 31 15.2	+1.1
LZH						03 32 57.5	
LZH				eS	S	03 37 41.0	-0.2
LZH				SS	SS	03 40 47.0	-6.8
LZH				pmax	pmax		
	comp=Z,31nm,1.2s,mb4.9						
LZH				MLR	MLR		
	comp=Z,650nm,15.1s,MS4.7						
CM31	Chiang Mai Arr	43.27	285	eP	P	03 31 16.8	+1.5
CHG	Chiang Mai	43.29	285	⇑P	P	03 31 16.7	+1.2
	comp=Z,22nm,0.6s,mb5.0						
CHTO	Chiang Mai	43.29	285	eP	P	03 31 16.4	+0.9
	comp=Z,4.5nm,0.7s,mb4.3						
CHTO	Chiang Mai	43.29	285	eP	P	03 31 16.4	+0.9
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
FORT	Forrest	44.48	199	eP	P	03 31 25.0	+0.2

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      comp=Z,67nm,0.7s,mb5.5
FORT                           e               03 31 38.1
ULN   Ulaanbaatar   47.24 327 eP      P        03 31 46.8 +0.4
      comp=Z,5.6nm,0.8s,mb4.5
ULN   Ulaanbaatar   47.24 327 eP      P        03 31 46.8 +0.4
ULN                            pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.6
CLNS  Chul'man      47.42 346 eP      P        03 31 45.2  -2.5
CLNS                           pmax   pmax
      comp=Z,18nm,0.9s,mb5.0
CLNS                           pmax   pmax
      comp=N,7.0nm,1.0s
CLNS                           pmax   pmax
      comp=E,9.0nm,1.0s
GTA   Gaotai        47.43 314 eP      P        03 31 48.5 +0.5
GTA                            AP     pP       03 31 58.5 +8.7
GTA                            XP     sP       03 32 02.5  +12
GTA                            PP     PP       03 33 39.4 +0.1
GTA                            PPP             03 34 28.8
GTA                            S      S        03 38 40.9  -2.0
GTA                            XS     sS       03 38 56.9  +11
GTA                            AMB    AMB
      comp=Z,11nm,0.7s,mb4.9
GTA                            AMB    AMB
      comp=Z,86nm,6.1s
GTA                            LR     LR
      comp=N,133nm,16.0s,MS4.1
GTA                            LR     LR
      comp=E,91nm,16.7s,MS4.1
GTA                            LR     LR
      comp=Z,142nm,16.7s,MS4.0
SONM  Songino Array 47.58 327  P      P        03 31 49.0   0.0
SONM                                           03 33 18.2
SONM  Songino Array 47.58 327  P      P        03 31 49.0   0.0
      comp=Z,1.9nm,0.4s,mb4.5,baz=134,slow=7.7,SNR=26
SONM                           PcP    PcP      03 33 18.2  -0.6
      comp=Z,1.7nm,0.7s,baz=141,slow=5.3,SNR=2.8
SONM                           LR     LR       03 52 35.9
      comp=Z,264nm,18.4s,MS4.2,baz=357,slow=37
MA2   Magadan       48.33   5 eP      P        03 31 55.4 +0.8
      comp=Z,7.6nm,0.8s,mb4.8
MA2   Magadan       48.33   5 eP      P        03 31 55.3 +0.7
MA2                            pmax   pmax
      comp=Z,6.0nm,0.7s,mb4.7
TOO   Toolangi      48.84 178 eP      P        03 31 59.6 +0.8
      comp=Z,2.4nm,0.4s,mb4.6
TOO                           e                03 32 12.4
TOO   Toolangi      48.84 178 eP      P        03 31 59.6 +0.8
TOO                           e                03 32 12.4
TOO                            pmax   pmax
      comp=Z,2.0nm,0.4s,mb4.5
KLBR  Kellerberrin  49.31 209 eP      P        03 32 01.8  -0.7
      comp=Z,17nm,0.8s,mb5.1
MUN   Mundaring     50.37 210 eP      P        03 32 10.3  -0.3
MUN                           e                03 32 23.8
SHL   Shillong      50.38 294 eP      P        03 32 11.0 +0.1
ZAK   Zakamensk     50.74 328 eP      P        03 32 13.1  -0.1
ZAK                            pmax   pmax
      comp=Z,10.0nm,1.0s,mb4.7
BOD   Bodaibo       51.33 340 eP      P        03 32 16.4  -1.1
BOD                            pmax   pmax
      comp=Z,8.0nm,1.0s,mb4.6
YAK   Yakutsk       51.42 352 eP      P        03 32 17.5  -0.6
      comp=Z,89nm,0.9s,mb5.7
YAK                           epP     pP       03 32 31.2  +11
YAK   Yakutsk       51.42 352 eP      P        03 32 18.1   0.0
YAK                           e*PP    pP       03 32 31.3  +11
YAK                           e                03 34 15.1
YAK                           eS      S        03 39 31.3  -6.8
YAK                           e*SS    sS       03 39 42.4 +1.4
YAK                           e                03 42 02.2
YAK                           eSS     SS       03 43 11.1  -2.7
YAK                            pmax   pmax
      comp=Z,63nm,0.8s,mb5.6
YAK                            pmax   pmax
      comp=N,21nm,1.0s
YAK                            pmax   pmax
      comp=E,5.0nm,0.9s
YAK                            pmax   pmax
      comp=Z,15nm,0.9s,mb4.9
YAK                            pmax   pmax
      comp=N,6.0nm,0.6s
YAK                            pmax   pmax
      comp=E,2.0nm,0.7s
YAK                            smax
      comp=E,115nm,2.2s
YAK                            smax
      comp=Z,10.0nm,0.5s
YAK                            smax
      comp=N,109nm,3.4s
YAK                            MLR    MLR
      comp=Z,96nm,20.0s,MS3.8
YAK                            MLR    MLR
      comp=N,124nm,17.0s,MS4.1
YAK                            MLR    MLR
      comp=E,51nm,12.0s,MS4.1
LSA   Lhasa         51.58 299 eP      P        03 32 20.7 +0.8
      comp=E,8.5nm,0.6s,mb4.8
LSA   Lhasa         51.58 299 eP      P        03 32 20.7 +0.8
LSA                            pmax   pmax
      comp=Z,9.0nm,0.6s,mb4.9
SEY   Seymchan      51.79   5 eP      P        03 32 20.7  -0.1
TAPN  Taplejung     54.28 295 eP      P        03 32 40.5 +0.6
      comp=Z,38nm,0.8s,mb5.4
ODAN  Odare         54.52 295 eP      P        03 32 42.2 +0.5
      comp=Z,48nm,1.0s,mb5.5
JIRN  Jiri          55.66 296 eP      P        03 32 50.7 +0.8
      comp=Z,4.2nm,0.3s,mb5.0
KKN   Kakani        56.47 296 eP      P        03 32 55.0  -0.7
      comp=Z,56nm,0.9s,mb5.6
GKN   Gorkha        57.06 296 eP      P        03 33 00.1 +0.3
      comp=Z,58nm,0.8s,mb5.7
WMQ   Urumqi        57.47 315  P      P        03 33 04.1 +1.7
WMQ                            PP     PP       03 35 13.3 +3.4
WMQ                            AMB    AMB
      comp=Z,23nm,1.0s,mb5.2
WMQ                            LR     LR
      comp=N,147nm,26.0s
WMQ                            LR     LR
      comp=Z,124nm,22.3s,MS4.0
BILL  Bilibino      58.49  10 eP      P        03 33 09.4 +0.2
      comp=Z,4.6nm,0.6s,mb4.7
BILL  Bilibino      58.49  10 eP      P        03 33 09.4 +0.2
BILL                           pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.7
TIXI  Tiksi         60.77 355 eP      P        03 33 23.5  -1.3
      comp=Z,17nm,0.9s,mb5.2
TIXI  Tiksi         60.77 355 eP      P        03 33 24.3  -0.5
TIXI                          e                03 33 37.0
TIXI                           pmax   pmax
      comp=Z,10.0nm,0.7s,mb5.0
PALK  Pallekele     61.76 272 eP      P        03 33 32.9 +0.4
      comp=Z,14nm,1.3s,mb4.9
MK31  Makanchi Array 61.92 317 P      P        03 33 33.1   0.0
MK31                           pmax   pmax
      comp=Z,7.0nm,0.7s,mb4.9
MKAR  Makanchi Array 61.92 317 P      P        03 33 33.4 +0.3
      comp=Z,15nm,0.8s,mb5.2,baz=95,slow=8.3,SNR=122
ZALV  Zalesovo Beam 62.43 325  P      P        03 33 35.6  -0.7
      comp=Z,7.5nm,0.5s,mb5.1,baz=107,slow=7.0,SNR=60
ZALV                           LR     LR       04 01 41.5
      comp=Z,86nm,18.2s,MS4.0,baz=119,slow=37
ZAL   Zalesovo      62.44 325  P      P        03 33 35.6  -0.8
HYB   Hyderabad     62.69 284 eP      P        03 33 39.0 +0.3
HYB   Hyderabad     62.69 284 i P     P        03 33 39.0 +0.3
TNA   Tin City      63.37  21 eP      P        03 33 42.0  -0.4
      comp=Z,7.5nm,1.0s,mb4.8
NVS   Novosibirsk   63.59 326 eP      P        03 33 42.6  -1.5
NVS                           i                03 33 57.7
NVS                           e                03 34 17.6
NVS                            pmax   pmax
      comp=Z,22nm,1.0s,mb5.1
NVS                            pmax   pmax
      comp=N,6.0nm,0.8s
NVS                            pmax   pmax
      comp=E,13nm,0.9s
KURK  Kurchatov     65.19 321 eP      P        03 33 53.8  -0.8
KURK                          epP     pP       03 34 08.6  +12
KURK                          ePcP    PcP      03 34 28.7 +1.6
TKM2  Tokmak 2      65.92 312 eP      P        03 33 59.8 +0.3
      comp=E,3.4nm,0.6s,mb4.5
TKM2  Tokmak 2      65.92 312 eP      P        03 33 59.8 +0.3
TKM2                           pmax   pmax
      comp=Z,3.0nm,0.6s,mb4.5
SVW2  Sparrevohn    66.27  28 eP      P        03 34 02.1 +0.7
UCH   Uchtor        66.64 311 eP      P        03 34 05.2 +1.0
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      comp=Z,7.1nm,0.9s,mb4.7
KDAK  Kodiak Island 66.69  32  P      P        03 34 05.4 +1.3
      comp=Z,8.9nm,1.0s,mb4.7,baz=211,slow=5.9,SNR=4.9
AAK   Ala-Archa     66.70 312 eP      P        03 34 03.3  -1.2
      comp=Z,13nm,1.5s,mb4.8
AAK   Ala-Archa     66.70 312 eP      P        03 34 03.3  -1.2
AAK                            pmax   pmax
      comp=Z,13nm,1.5s,mb4.7
EKS2  Erkin-Say     67.23 311 eP      P        03 34 08.0 +0.1
      comp=Z,5.1nm,0.9s,mb4.5
AML   Almayashu     67.24 311 eP      P        03 34 08.9 +0.9
      comp=Z,12nm,1.0s,mb4.9
IMA2  Indian Mountai 68.80 23 eP      P        03 34 16.6  -0.6
PMR   Palmer        69.38  28 eP      P        03 34 19.1  -1.9
      comp=Z,14nm,0.8s,mb5.0
PMR   Palmer        69.38  28 eP      P        03 34 19.1  -1.9
PMR                            pmax   pmax
      comp=Z,14nm,0.8s,mb4.9
KK31  Karatay Array 69.65 312 i P     P        03 34 22.8  -0.3
KK31                           pmax   pmax
      comp=Z,12nm,1.0s,mb4.8
KKAR  Karatay Array 69.65 312 i P     P        03 34 22.8  -0.3
KKAR                           pmax   pmax
      comp=Z,12nm,1.0s,mb4.8
MCK   McKinley      70.02  26 eP      P        03 34 24.2  -0.6
      comp=Z,4.5nm,1.0s,mb4.3
MCK   McKinley      70.02  26 eP      P        03 34 24.3  -0.6
MCK                            pmax   pmax
      comp=Z,4.0nm,1.0s,mb4.3
KBL   Kabul         70.62 303 eP      P        03 34 29.0  -0.2
BRVK  Borovoye      70.67 322 eP      P        03 34 28.9  -0.2
      comp=Z,38nm,0.7s,mb5.4
BRVK                          epP     pP       03 34 43.7  +13
BRVK  Borovoye      70.67 322 eP      P        03 34 28.9  -0.2
BRVK                          e*PP    pP       03 34 43.7  +13
BRVK                           pmax   pmax
      comp=Z,38nm,0.7s,mb5.4
COLA  College       70.76  25 eP      P        03 34 28.5  -0.9
      comp=Z,3.0nm,0.5s,mb4.5
COLA  College       70.76  25 eP      P        03 34 28.5  -0.9
COLA                           pmax   pmax
      comp=Z,3.0nm,0.5s,mb4.5
PPT   Papeete       72.34 113  LR     LR       03 59 25.3
      comp=Z,100nm,21.6s,MS4.0,baz=184,slow=30
DAWY  Dawson        74.22  26 eP      P        03 34 49.3  -0.7
INK   Inuvik        76.91  22 eP      P        03 35 04.2  -1.2
      comp=Z,205nm,0.9s,mb6.1
INK   Inuvik        76.91  22  P      P        03 35 04.3  -1.1
      comp=Z,6.8nm,1.0s,mb4.5,baz=269,slow=7.7,SNR=17
ARU   Arti          77.59 326 eP      P        03 35 08.7  -0.8
      comp=Z,15nm,0.8s,mb5.0
ARU   Arti          77.59 326 eP      P        03 35 08.5  -1.0
ARU                            pmax   pmax
      comp=Z,13nm,0.8s,mb4.9
AKTK  Aktyubinsk    78.22 319  P      P        03 35 12.5  -0.6
AKTO  Aktyubinsk    78.22 319  P      P        03 35 12.5  -0.6
      comp=Z,4.3nm,0.9s,mb4.4,baz=78,slow=11,SNR=8.6
DLBC  Dease Lake    78.60  32  P      P        03 35 15.3 +0.3
DLBC  Dease Lake    78.60  32  P      P        03 35 15.3 +0.3
      baz=288,slow=3.2
PRGR  Permogore     83.59 332⇓iP      P        03 35 40.7  -0.8
PRGR                          eS      S        03 46 00.0  -4.0
PRGR                           pmax   pmax
      comp=Z,20nm,0.8s,mb5.3
PGC   Sidney        83.65  42 eP      P        03 35 41.1  -1.0
B04A  Port Angeles  83.72  42 ⇑P      P        03 35 43.0 +0.5
      baz=84
C04A  Brinnon       84.13  43 ⇓P      P        03 35 44.8 +0.2
      baz=84
H03A  Soap Creek Ran 84.47 46 ⇑P      P        03 35 46.2  -0.2
      baz=84
J02A  Umpqua        84.51  47 ⇓P      P        03 35 46.1  -0.5
      baz=84
B05A  Bryant        84.61  42 ⇓P      P        03 35 46.9  -0.1
      baz=84
K02A  Glendale      84.68  48 ⇑P      P        03 35 46.6  -0.9
      baz=85
L02A  Cave Junction 84.71  48 ⇑P      P        03 35 47.4  -0.3
      baz=85
JCW   Jim Creek     84.73  42  P      P        03 35 48.0 +0.4
O01C  Eel River Cons 84.92 50 ⇓P      P        03 35 48.5  -0.3
      baz=85
G04A  Mulino        84.94  45 ⇑P      P        03 35 48.5  -0.2
      baz=85
HUMO  Hull Mountain 85.10  48 ⇑P      P        03 35 49.0  -0.6
      baz=85
E05A  Randle        85.17  44 ⇑P      P        03 35 48.4  -1.4
      baz=85
H04A  Detroit Lake  85.24  46 ⇓P      P        03 35 49.5  -0.8
      baz=85
I04A  Tendick Farm, 85.26  46 ⇓P      P        03 35 49.2  -1.2
      baz=85
M02C  Callahan      85.41  49 ⇑P      P        03 35 52.1 +0.9
      baz=85
P01C  Double 8 Ranch 85.41 51 ⇓P      P        03 35 51.8 +0.6
      baz=85
YKW3  Yellowknife Ar 85.42 27 eP      P        03 35 50.1  -0.7
YBH   Yreka Blue Hor 85.44 49 eP      P        03 35 51.8 +0.4
      comp=Z,6.1nm,0.8s,mb4.8
YBH   Yreka Blue Hor 85.44 49 eP      P        03 35 51.8 +0.4
YBH                            pmax   pmax
      comp=Z,6.0nm,0.8s
YBH   Yreka Blue Hor 85.44 49  P      P        03 35 51.9 +0.5
      baz=85,SNR=5.4
YKA   Yellowknife Ar 85.45 27  P      P        03 35 50.1  -0.8
      comp=Z,6.5nm,0.8s,mb4.8,baz=290,slow=5.2,SNR=60
YKA                            LR     LR       04 12 59.6
      comp=Z,106nm,20.6s,MS4.2,baz=225,slow=35
A07A  Ashnola River, 85.56 41  P      P        03 35 51.9 +0.1
      baz=86,SNR=9.4
J04A  Umpqua Nationa 85.58 47 ⇓P      P        03 35 51.8  -0.3
      baz=86
D06A  Cle Elum      85.65  43 ⇓P      P        03 35 52.1  -0.2
      baz=86
O02C  Red Bluff     85.69  50 ⇓P      P        03 35 52.3  -0.3
      baz=86
E06A  Yakima        85.70  44 ⇑P      P        03 35 52.6 +0.1
      baz=86
WDC   Whiskeytown Da 85.80 50 ⇓P      P        03 35 53.1   0.0
      baz=86
GASB  Alder Springs 85.84  51 ⇓P      P        03 35 54.3 +0.9
      baz=86
B07A  Winthrop      85.86  42  P      P        03 35 53.5 +0.3
      baz=86,SNR=8.2
L04A  Klamath Falls 85.96  48  P      P        03 35 54.1 +0.2
      baz=86,SNR=5.3
M03C  McCloud       85.97  49  P      P        03 35 54.2 +0.3
      baz=86,SNR=6.4
I05A  Bend          85.99  46 ⇓P      P        03 35 54.1 +0.1
      baz=86
F06A  Goldendale    86.00  44 ⇑P      P        03 35 53.5  -0.5
      baz=86
KBS   Kingsbay      86.05 352 eP      P        03 35 52.5  -1.2
C07A  Waterville    86.06  42  P      P        03 35 54.1  -0.2
      baz=86,SNR=6.0
M04C  Macdoel       86.07  48  P      P        03 35 55.0 +0.5
      baz=86,SNR=8.6
J05A  Fort Rock     86.20  47 ⇑P      P        03 35 54.8  -0.3
      baz=86
MNRC  McLaughlin Nat 86.21 51 ⇑P      P        03 35 55.5 +0.2
      baz=86
D07A  Quincy        86.23  43 ⇑P      P        03 35 55.0  -0.2
      baz=86
A08A  Turner Farm, O 86.30 41  P      P        03 35 55.8 +0.4
      baz=86,SNR=14
CVS   Carmenet Viney 86.30 52 ⇑P      P        03 35 55.3  -0.4
      baz=86
B08A  Colville Reser 86.39 42  P      P        03 35 55.6  -0.3
      baz=86,SNR=22
EPH   Ephrata       86.45  43  P      P        03 35 56.0  -0.2
E07A  Sunnyside     86.45  43  P      P        03 35 56.3   0.0
      baz=86,SNR=6.7
LTIM  Timbered Crate 86.46 49  P      P        03 35 56.7 +0.3
MDW   Midway        86.50  43  P      P        03 35 56.6 +0.1
H06A  Lindquist Farm 86.53 45  P      P        03 35 56.7   0.0
      baz=86,SNR=7.0
F07A  Phinny Hill Vi 86.55 44 ⇓P      P        03 35 55.9  -0.8
      baz=86
K05A  Summer Lake   86.56  47 ⇑P      P        03 35 56.6  -0.3
      baz=86
M05C  Lookout       86.67  49  P      P        03 35 57.5   0.0
      baz=87,SNR=7.6
GBL   Gable Mountain 86.71 43  P      P        03 35 57.7 +0.2
C08A  Higginbotham F 86.71 42  P      P        03 35 57.2  -0.3
      baz=87,SNR=12
A09A  Danville      86.73  41  P      P        03 35 57.6 +0.1
      baz=87,SNR=7.8
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L05A  Lakeview      86.75  48 ⇓P      P        03 35 57.8   0.0
      baz=87
I06A  Prineville    86.78  46  P      P        03 35 58.4 +0.4
      baz=87,SNR=5.6
ORV   Oroville      86.79  50 ⇑P      P        03 35 57.4  -0.7
      baz=87
G07A  Ruggs Ranch, H 86.87 45 ⇑P      P        03 35 58.4 +0.1
      baz=87
O04C  Chester       86.94  50  P      P        03 35 59.0 +0.3
      baz=87,SNR=6.8
RES   Resolute Bay  86.95  13 eP      P        03 35 57.7  -0.5
      comp=Z,330nm,0.8s
D08A  Wollman Farm, 86.96  43  P      P        03 35 58.5  -0.2
      baz=87,SNR=5.1
J06A  Christmas Vall 86.98 47  P      P        03 35 59.0 +0.1
      baz=87,SNR=5.4
K06A  Valley Falls  87.01  47 ⇓P      P        03 35 59.1   0.0
      baz=87
OD2   Odessa Site #2 87.02 42  P      P        03 35 58.8  -0.2
H07A  Lands Inn, Kim 87.09 45 ⇓P      P        03 35 59.5   0.0
      baz=87
ELFS  Eagle Lake Fie 87.14 49  P      P        03 36 00.5 +0.7
      baz=87,SNR=5.3
O05C  Quincy        87.14  50 ⇓P      P        03 35 59.4  -0.4
      baz=87
B09A  Rice          87.14  41  P      P        03 35 59.9 +0.3
      baz=87,SNR=9.4
MOD   Modoc         87.17  48 eP      P        03 36 00.1 +0.2
MOD   Modoc         87.17  48  P      P        03 36 00.2 +0.3
      baz=87,SNR=8.3
M06C  Likely Place G 87.20 49  P      P        03 36 00.2 +0.2
      baz=87,SNR=5.2
C09A  Chrisman Ranch 87.21 42 ⇑P      P        03 35 59.4  -0.5
      baz=87
I07A  Izee          87.25  46 ⇓P      P        03 36 00.2   0.0
      baz=87
G08A  Pilot Rock    87.35  44 ⇑P      P        03 36 00.1  -0.6
      baz=87
S04C  Ingram Canyon, 87.35 52 ⇑P      P        03 36 01.0 +0.2
      baz=87
F08A  Pendleton     87.36  44  P      P        03 36 00.8 +0.2
      baz=87,SNR=12
D09A  Jones Farm, Ri 87.37 43  P      P        03 36 00.8 +0.1
      baz=87,SNR=6.0
A10A  Northport     87.39  41  P      P        03 36 01.1 +0.4
      baz=87,SNR=6.8
HAST  UC Hastings Re 87.42 54 ⇑P      P        03 36 01.0  -0.1
      baz=87
P05C  Yuba Gap, Truc 87.52 51 ⇓P      P        03 36 01.5  -0.1
      baz=87
LAVA  Lava Cap Winer 87.54 51 ⇓P      P        03 36 01.3  -0.4
      baz=87
J07A  Hines         87.55  46 ⇓P      P        03 36 02.3 +0.6
      baz=87
BEKR  Beckwourth    87.58  50  P      P        03 36 02.1 +0.3
      baz=88,SNR=11
E09A  Wood Farm, Sta 87.61 43 ⇓P      P        03 36 01.9 +0.1
      baz=88
H08A  Prairie City  87.73  45 ⇓P      P        03 36 02.2  -0.3
      baz=88
K07A  Rock Creek Ran 87.75 47  P      P        03 36 02.9 +0.2
      baz=88,SNR=7.4
N06A  Buffalo Meadow 87.77 49  P      P        03 36 03.0 +0.2
      baz=88,SNR=9.3
L07A  Adell         87.84  48  P      P        03 36 03.7 +0.6
      baz=88,SNR=10
NEW   Newport       87.85  41 eP      P        03 36 02.6  -0.4
      comp=Z,9.9nm,1.0s,mb5.0
NEW   Newport       87.85  41  P      P        03 36 02.9  -0.1
NEW                            pmax   pmax
      comp=Z,8.0nm,0.9s
NEW   Newport       87.85  41  P      P        03 36 02.9  -0.1
      comp=Z,7.8nm,0.8s,mb5.0,baz=257,slow=2.5,SNR=16
O06A  Flanigan      87.91  50  P      P        03 36 03.7 +0.3
      baz=88,SNR=14
I08A  Drewsey       87.95  46 ⇓P      P        03 36 03.2  -0.3
      baz=88
CMB   Columbia Colle 87.97 52  P      P        03 36 03.9 +0.1
      baz=88,SNR=6.0
KEV   Kevo          88.02 342 ep      P        03 35 59.8  -3.6
      comp=Z,1.4nm,0.5s,mb4.5
KEV   Kevo          88.02 342 eP      P        03 35 59.8  -3.6
KEV                            pmax   pmax
      comp=Z,1.0nm,0.5s,mb4.3
U04C  Hernandez Rese 88.03 53 ⇑P      P        03 36 04.9 +0.8
      baz=88
D10A  Wagner Farm, O 88.06 42  P      P        03 36 03.9  -0.1
      baz=88,SNR=6.8
M07A  Soldier Meadow 88.11 48  P      P        03 36 05.1 +0.7
      baz=88,SNR=8.8
J08A  Circle Bar Ran 88.15 46  P      P        03 36 04.7 +0.2
      baz=88,SNR=11
A11A  Hall Mountain, 88.16 40  P      P        03 36 05.4 +1.0
      baz=88,SNR=5.5
WCN   Washoe City   88.16  50  P      P        03 36 05.4 +0.8
      baz=88,SNR=5.8
S05C  Merced        88.16  52  P      P        03 36 05.5 +0.8
      baz=88,SNR=6.4
WVOR  Wild Horse Val 88.25 47 eP      P        03 36 04.8  -0.3
      comp=Z,10nm,0.9s,mb5.1
WVOR  Wild Horse Val 88.25 47 eP      P        03 36 04.8  -0.2
WVOR                           pmax   pmax
      comp=Z,10.0nm,0.9s,mb5.0
K08A  Mann Creek Ran 88.29 47  P      P        03 36 05.3 +0.1
      baz=88,SNR=15
B11A  Sandpoint     88.29  41 ⇑P      P        03 36 05.2 +0.1
      baz=88
PKD   Parkfield     88.31  54  P      P        03 36 06.1 +0.7
      baz=88,SNR=5.3
F10A  Beach Ranch, E 88.36 43  P      P        03 36 05.5   0.0
      baz=88,SNR=6.4
N07B  Gerlach       88.40  49  P      P        03 36 06.3 +0.6
      baz=88,SNR=7.2
S06C  San Francisco 88.41  52 ⇓P      P        03 36 05.4  -0.5
      baz=88
I09A  Lost Marbles R 88.51 46 ⇓P      P        03 36 06.2   0.0
      baz=88
L08A  Fields        88.52  47  P      P        03 36 06.8 +0.4
      baz=88,SNR=20
U05C  Westside ANR, 88.55  53 ⇓P      P        03 36 06.7 +0.1
      baz=88
R06C  Coleville     88.57  51  P      P        03 36 07.3 +0.7
      baz=88,SNR=6.1
ARCES ARCESS Array B 88.59 342 P      P        03 36 04.9  -1.1
      comp=Z,2.4nm,0.5s,mb4.8,baz=68,slow=7.0,SNR=23
BMO   Blue Mountains 88.59 45 eP      P        03 36 06.2  -0.4
      comp=Z,10nm,0.8s,mb5.2
BMO   Blue Mountains 88.59 45 eP      P        03 36 06.2  -0.4
BMO                            pmax   pmax
      comp=Z,10.0nm,0.8s,mb5.2
A12A  Yaak River Ran 88.61 40 ⇓P      P        03 36 06.4  -0.2
      baz=88
O07A  Toulon        88.62  49  P      P        03 36 07.1 +0.3
      baz=88,SNR=5.8
J09A  Fry Pan Ranch, 88.66 46  P      P        03 36 07.0   0.0
      baz=88,SNR=11
M08A  Happy Creek Ra 88.68 48  P      P        03 36 07.6 +0.5
      baz=89,SNR=5.9
D11A  Klaveano Farm, 88.68 42  P      P        03 36 06.7  -0.2
      baz=89,SNR=7.7
T06C  Millerton Lake 88.72 53  P      P        03 36 07.3   0.0
      baz=89,SNR=14
EDM   Edmonton      88.78  36 eP      P        03 36 06.6  -0.6
K09A  Rome          88.84  47  P      P        03 36 07.8   0.0
      baz=89,SNR=5.9
E11A  Bogner Ranch, 88.94  43  P      P        03 36 07.6  -0.6
      baz=89,SNR=5.4
KCC   Kaiser Creek  88.95  52 ⇑P      P        03 36 08.0  -0.5
      baz=89
R07C  Lee Vining    88.98  51  P      P        03 36 09.2 +0.6
      baz=89,SNR=9.2
N08A  GE Springer Mi 89.02 49  P      P        03 36 09.1 +0.4
      baz=89,SNR=11
H10A  Noah's Angus R 89.05 45 ⇓P      P        03 36 07.8  -0.9
      baz=89
ZEI   Tsey          89.05 313 eP      P        03 36 05.5  -3.3
ZEI                           i                03 36 16.8
ZEI                            pmax   pmax
      comp=Z,3.0nm,1.0s,mb4.6
L09A  Wilkinson Ranc 89.05 47  P      P        03 36 09.3 +0.5
      baz=89,SNR=9.7
F11A  Grangeville   89.11  43 ⇑P      P        03 36 08.1  -0.9
      baz=89
I10A  Payette       89.14  45 ⇓P      P        03 36 09.1   0.0
      baz=89
G11A  Walters Elk Ra 89.16 44 ⇑P      P        03 36 08.9  -0.3
      baz=89
D12A  Red Ives Fores 89.32 42 ⇑P      P        03 36 09.7  -0.3
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Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	baz=89						
HELL	Mitchell Peak,	89.33	53	P	P	03 36 10.0	-0.2
	baz=89,SNR=7.5						
J10A	Berg Farm, Mel	89.33	46	⇓P	P	03 36 10.1	-0.1
	baz=89						
M09A	Marrel Ranch,	89.36	48	P	P	03 36 10.8	+0.5
	baz=89,SNR=7.2						
A13A	Flathead Natio	89.40	40	⇓P	P	03 36 10.7	+0.4
	baz=89						
K10A	MacKenzie Ranc	89.43	47	P	P	03 36 10.8	+0.3
	baz=89,SNR=12						
N09A	Rock Creek Ran	89.45	48	P	P	03 36 11.3	+0.6
	baz=89,SNR=8.6						
NVAR	Mina Array Bea	89.47	51	P	P	03 36 11.3	+0.5
NVAR	Mina Array Bea	89.47	51	P	P	03 36 11.3	+0.5
	comp=Z,13nm,0.7s,mb5.4,baz=269,slow=4.3,SNR=92						
VES	Vestal, Richgr	89.49	54	⇓P	P	03 36 10.2	-0.8
	baz=89						
H11A	Donnelly	89.52	44	P	P	03 36 10.5	-0.5
	baz=89,SNR=10						
B13A	Whitefish	89.52	41	⇓P	P	03 36 11.2	+0.4
	baz=89						
JOF	Joensuu	89.53	335	*e*p	P	03 36 06.6	-4.0
	comp=Z,9.2nm,0.7s,mb5.2						
R08A	Mina	89.64	51	⇓P	P	03 36 12.1	+0.5
	baz=90						
Q08A	Gabbs	89.64	50	⇓P	P	03 36 11.8	+0.2
	baz=90						
SNCC	San Nicolas Is	89.74	56	⇑P	P	03 36 12.9	+0.7
	baz=90						
F12A	Elk City	89.75	43	⇓P	P	03 36 11.7	-0.3
	baz=90						
I11A	Placerville	89.77	45	P	P	03 36 12.3	+0.1
	baz=90,SNR=5.2						
S08C	White Mtn Res	89.80	52	P	P	03 36 13.2	+0.8
	baz=90,SNR=10						
O09A	Fish Creek Ran	89.87	49	P	P	03 36 13.3	+0.6
	baz=90,SNR=6.8						
D13A	Huson	89.90	42	⇑P	P	03 36 12.1	-0.6
	baz=90						
L10A	Juniper Basin	89.90	47	P	P	03 36 13.0	+0.2
	baz=90,SNR=11						
OBN	Obninsk	89.99	327	P	P	03 36 12.0	-0.9
OBN				*e*		03 36 28.7	
OBN				pmax	pmax		
	comp=Z,19nm,1.8s,mb5.1						
MFID	Camas Ranch	90.00	46	P	P	03 36 13.3	+0.1
	baz=90,SNR=11						
ISA	Isabella	90.01	54	⇑P	P	03 36 12.9	-0.5
	baz=90						
K11A	Parker Ranch,	90.03	46	P	P	03 36 13.5	+0.1
	baz=90,SNR=5.4						
O10A	Cortez Mining,	90.35	49	⇑P	P	03 36 15.1	+0.2
	baz=90						
H12A	Diamond D Ranc	90.36	44	⇓P	P	03 36 15.1	+0.3
	baz=90						
F13A	Darby	90.36	43	P	P	03 36 14.2	-0.6
	baz=90,SNR=6.0						
L11A	Cat Creek Ranc	90.39	47	⇑P	P	03 36 15.0	-0.1
	baz=90						
R09A	Tonopah	90.45	51	P	P	03 36 15.8	+0.3
	baz=90,SNR=20						
S09A	Goldfield	90.47	51	P	P	03 36 16.0	+0.5
	baz=90,SNR=16						
D14A	Greenough	90.52	42	⇑P	P	03 36 15.0	-0.6
	baz=90						
GRAC	Grapevine Rang	90.54	52	P	P	03 36 16.5	+0.6
	baz=90,SNR=5.1						
P10A	Eureka	90.55	49	⇑P	P	03 36 16.0	+0.2
	baz=90						
J12A	Stokes Ranch,	90.55	46	⇑P	P	03 36 16.0	+0.2
	baz=90						
M11A	Holland Ranch,	90.56	48	⇑P	P	03 36 16.1	+0.2
	baz=90						
EDW2	Edwards Air Fo	90.58	54	P	P	03 36 16.3	+0.2
	baz=90,SNR=5.6						
G13A	Cobalt	90.63	44	P	P	03 36 15.8	-0.3
	baz=90,SNR=11						
MPMC	Manual Prospec	90.69	53	P	P	03 36 17.1	+0.6
	baz=91,SNR=16						
H13A	Challis	90.77	44	P	P	03 36 17.2	+0.4
	baz=91,SNR=6.0						
N11A	Elko Archery C	90.77	48	⇓P	P	03 36 16.7	-0.1
	baz=91						
Q10A	Clear Creek Ra	90.81	50	⇓P	P	03 36 17.5	+0.4
	baz=91						
K12A	Draper Farm, C	90.86	46	⇑P	P	03 36 17.2	-0.1
	baz=91						
S10A	Tonopah Range,	90.90	51	P	P	03 36 18.2	+0.6
	baz=91,SNR=19						
L12A	House Creek Ra	90.92	47	P	P	03 36 18.4	+0.8
	baz=91,SNR=8.3						
HLID	Hailey	90.94	45	*e*P	P	03 36 17.3	-0.3
	comp=Z,7.2nm,1.1s,mb4.9						
HLID	Hailey	90.94	45	P	P	03 36 17.8	+0.2
	baz=91,SNR=7.8						
O11A	Cowboy Ranch,	91.01	49	⇑P	P	03 36 17.9	-0.2
	baz=91						
R10A	Warm Springs	91.03	51	⇑P	P	03 36 17.9	-0.2
	baz=91						
I13A	Wildhorse Cree	91.05	45	P	P	03 36 18.7	+0.6
	baz=91,SNR=5.9						
FURC	Furnace Creek,	91.07	53	P	P	03 36 18.9	+0.5
	baz=91,SNR=9.0						
ELK	Elko	91.15	48	*e*P	P	03 36 18.8	+0.2
	comp=Z,5.8nm,0.7s,mb5.0						
ELK	Elko	91.15	48	*e*P	P	03 36 18.8	+0.2
ELK				pmax	pmax		
	comp=Z,6.0nm,0.7s						
J13A	Cove Ranch, Pi	91.16	45	P	P	03 36 19.2	+0.6
	baz=91,SNR=6.0						
M12A	Wells	91.20	47	⇓P	P	03 36 18.4	-0.4
	baz=91						
N12A	Clover Valley,	91.27	48	⇑P	P	03 36 19.3	+0.2
	baz=91						
E15A	Deer Lodge	91.29	42	P	P	03 36 19.3	+0.1
	baz=91,SNR=12						
Q11A	Duckwater	91.36	50	⇑P	P	03 36 20.1	+0.4
	baz=91						
GSC	Goldstone	91.42	54	P	P	03 36 20.4	+0.4
	baz=91,SNR=14						
K13A	Stover Farm, H	91.44	46	⇑P	P	03 36 20.4	+0.5
	baz=91						
U10A	Ash Meadows, A	91.50	53	P	P	03 36 21.4	+1.1
	baz=91,SNR=7.9						
MURC	Murrieta	91.54	55	⇑P	P	03 36 20.0	-0.6
	baz=91						
F15A	Butte	91.57	43	P	P	03 36 20.4	-0.1
	baz=91,SNR=6.4						
LRM	Limekiln Ridge	91.60	43	*e*P	P	03 36 20.7	+0.1
S11A	Rachel	91.62	51	⇓P	P	03 36 21.3	+0.4
	baz=92						
SHOC	Shoshone	91.67	53	⇑P	P	03 36 20.9	-0.2
	baz=92						
M13A	Montello	91.75	47	⇑P	P	03 36 21.3	-0.1
	baz=92						
G15A	Dillon	91.78	43	⇑P	P	03 36 21.1	-0.4
	baz=92						
HEC	Hector,Ludlow	91.92	54	P	P	03 36 22.7	+0.3
	baz=92,SNR=11						
Q12A	Willow Creek R	91.93	50	⇑P	P	03 36 22.7	+0.4
	baz=92						
KAF	Kangasniemi	91.97	335	*e*p	P	03 36 16.5	-5.4
	comp=Z,4.0nm,0.7s,mb4.9,baz=58,slow=4.3						
KAF	Kangasniemi	91.97	335	*e*P	P	03 36 16.5	-5.4
KAF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.9						
TUQ	Turquoise Mtn.	92.08	53	P	P	03 36 23.4	+0.3
	baz=92,SNR=8.9						
K14A	Jones Ranch, D	92.11	46	⇓P	P	03 36 22.9	-0.1
	baz=92						
PFO	Pinyon Flat Ob	92.14	55	⇓P	P	03 36 22.1	-1.2
	baz=92						
BOZ	Bozeman (W)	92.20	43	*e*P	P	03 36 23.1	-0.3
	comp=Z,7.7nm,1.5s,mb4.8						
BOZ	Bozeman (W)	92.20	43	*e*P	P	03 36 23.1	-0.3
BOZ				pmax	pmax		
	comp=Z,8.0nm,1.5s,mb4.8						
BOZ	Bozeman (W)	92.20	43	⇑P	P	03 36 23.6	+0.2
	baz=92						
U11A	Corn Creek	92.23	52	⇓P	P	03 36 24.4	+0.7
	baz=92						
R12A	Pony Springs,	92.30	50	P	P	03 36 24.8	+0.8
	baz=92,SNR=6.7						
M14A	Sheep Mountain	92.30	47	⇓P	P	03 36 24.1	+0.1
	baz=92						
V11A	Goodsprings	92.36	53	P	P	03 36 24.8	+0.4
	baz=92,SNR=7.0						
SHPR	Sheep Range	92.38	52	*e*P	P	03 36 25.4	+0.9
FINES	FINESS Array B	92.39	335	P	P	03 36 21.6	-2.3
	comp=Z,3.0nm,0.9s,mb4.6,baz=65,slow=3.9,SNR=15						
BELC	Belle Mtn.	92.40	55	⇑P	P	03 36 24.6	0.0
	baz=92						
GMRC	Granite Mounta	92.46	54	P	P	03 36 25.2	+0.4
	baz=92,SNR=9.7						
QLMT	Earthquake Lak	92.60	43	*e*P	P	03 36 26.2	+0.9
EGMT	Eagleton	92.62	40	⇓P	P	03 36 25.3	0.0
	baz=92						
V12A	Nelson	92.84	53	P	P	03 36 27.2	+0.6
	baz=93,SNR=14						
BC3	Big Chuckw Mtn	92.93	55	⇑P	P	03 36 26.4	-0.6
	baz=93						
YMR	Madison River	92.97	43	*e*P	P	03 36 27.6	+0.6
	comp=Z,13nm,1.1s,mb5.3						
IRM	Iron Mountain	93.04	54	P	P	03 36 28.0	+0.5
	baz=93,SNR=8.2						
DUG	Dugway	93.08	48	*e*P	P	03 36 27.7	+0.1
	comp=Z,4.3nm,0.9s,mb4.9						
DUG	Dugway	93.08	48	*e*P	P	03 36 27.7	+0.1
DUG				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.8						
DUG	Dugway	93.08	48	⇓P	P	03 36 27.7	+0.1
	baz=93						
YFT	Old Faithful	93.12	44	*e*P	P	03 36 30.5	+2.8
YNR	Norris Junctio	93.14	43	*e*P	P	03 36 30.1	+2.3
T13A	Saint George	93.20	51	P	P	03 36 28.8	+0.6
	baz=93,SNR=5.1						
ARUT	Antelope Range	93.33	51	*e*P	P	03 36 29.1	+0.3
GCMT	Greycliff	93.45	42	*e*P	P	03 36 29.1	-0.1
HWUT	Hardware Ranch	93.54	46	*e*P	P	03 36 29.2	-0.4
	comp=Z,3.3nm,1.0s,mb4.7						
S14A	Cedar City	93.55	51	⇓P	P	03 36 30.1	+0.4
	baz=93						
GLA	Glamis	93.60	55	⇓P	P	03 36 30.4	+0.3
	baz=94						
Y12C	Blythe	93.65	55	⇑P	P	03 36 30.6	+0.3
	baz=94						
W13A	Hualapai Mount	93.77	53	P	P	03 36 31.7	+0.8
	baz=94,SNR=6.3						
PDMCI	Parker Dam,Lak	93.80	54	P	P	03 36 31.5	+0.4
	baz=94,SNR=5.7						
T14A	Hurricane	93.82	51	⇓P	P	03 36 31.4	+0.3
	baz=94						
X13A	Yucca	93.96	54	P	P	03 36 32.2	+0.4
	baz=94,SNR=9.1						
MSU	Marysvale	94.07	50	*e*P	P	03 36 32.6	+0.5
W14A	Seligman	94.37	53	P	P	03 36 34.3	+0.7
	baz=94,SNR=6.2						
PDAR	Pinedale Array	94.57	45	P	P	03 36 33.3	-1.1
	comp=Z,0.3nm,0.6s,mb3.9,baz=240,slow=4.7,SNR=3.4						
X14A	Yava	94.74	54	P	P	03 36 36.0	+0.7
	baz=95,SNR=7.3						
Y14A	Wickenburg	94.81	54	P	P	03 36 36.0	+0.4
	baz=95,SNR=5.7						
W15A	Williams	95.02	53	⇑P	P	03 36 36.9	+0.3
	baz=95						
X15A	Humboldt	95.25	53	P	P	03 36 38.4	+0.7
	baz=95,SNR=8.2						
LAO	LASA Array	95.35	40	*e*P	P	03 36 37.3	-0.5
	comp=Z,42nm,1.4s,mb5.7						
LAO				*e*pP	pP	03 36 53.3	+14
WUAZ	Wupatki	95.61	52	⇑P	P	03 36 39.5	+0.2
	baz=96						
NOA	NORSAR Array B	98.44	339	P	P	03 36 49.2	-2.3
NOA	NORSAR Array B	98.44	339	P	P	03 36 49.2	-2.3
	comp=Z,1.8nm,0.8s,mb4.7,baz=50,slow=4.8,SNR=3.5						
TOA0	Torodi Ar. Sit	134.68	302	*e*PKPdf	PKPdf	03 42 32.8	-0.4
TORD	Torodi Ar. Bea	134.68	302	PKP		03 42 23.9	
TORD				PKP	PKPdf	03 42 32.0	-1.2
TORD				PP	PP	03 45 04.4	-1.6
TORD	Torodi Ar. Bea	134.68	302	PKhKP		03 42 23.9	
	comp=Z,0.5nm,0.9s,baz=25,slow=1.7,SNR=4.2						
TORD				PKP	PKPdf	03 42 32.0	-1.2
	comp=Z,2.1nm,0.8s,baz=41,slow=2.3,SNR=14						
TORD				PP	PP	03 45 04.4	-1.6
	comp=Z,0.8nm,0.9s,baz=55,slow=6.0,SNR=4.6						
KIC	Kosan Boka	143.55	298	*e*PKP1	PKPdf	03 42 45.3	-4.1
	comp=Z,70nm,0.7s						
TIC	Toumodi	143.66	298	*e*PKP1	PKPdf	03 42 45.7	-3.9
	comp=Z,14nm,0.3s						
LIC	Lamto	143.87	298	*e*PKP1	PKPdf	03 42 46.4	-3.6
	comp=Z,93nm,0.7s						
LPAZ	La Paz	149.19	103	*e*PKPdf	PKPdf	03 42 59.3	+0.5
LPAZ				*e*PKPbc	PKPbc	03 43 03.2	+0.2
LPAZ				PKPbc	PKPbc	03 43 03.5	+0.5
LPAZ	La Paz	149.19	103	*e*PKHKP		03 42 59.3	
LPAZ						03 43 03.5	
LPAZ	La Paz	149.19	103	PKPbc	PKPbc	03 43 03.5	+0.5
	comp=Z,10nm,0.8s,baz=266,slow=3.5,SNR=34						

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*IDC **17** 03:52:26.3±0.7, 7.68S×158.62E, h0^{km}, mb4.2/11, mb1 4.3/12, mb1mx4.3/17, mbtmp4.2/12, ML4.6/1, MS3.0/1, Ms1 3.0/1, ms1mx2.6/35, Error ellipse: s-maj=22.9km s-min=16.9km az=80.0*

*ISCJB **17** 03:52:31.8±2.6, 7.8S±0.1×158.57E±0.09, h54^{km}±26^{km}, mb4.2/18, Error ellipse: s-maj=20.0km s-min=14.1km az=153.4*

*NEIC **17** 03:52:32.3±1.9, 7.75S×158.65E, h45^{km}±19^{km}, mb4.4/7, Error ellipse: s-maj=15.3km s-min=9.3km az=146.0*

ISC 17 03:52:33.4±2.5, **7.8S**±0.1×**158.63E**±0.10, **h54**^{km}±26^{km}, **n28, σ0^s.74**/26, **mb4.2**/18, **Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	2.11	142	Pn	Pn	03 53 05.4	-1.0
HNR				Sn	Sn	03 53 32.4	+0.9
HNR				LR	LR	03 53 59.3	
HNR	Honiara	2.11	142	Pn	Pn	03 53 05.4	-1.0
	180nm,0.3s,baz=285,slow=10,SNR=28						
HNR				Sn	Sn	03 53 32.4	+0.9
	640nm,0.3s,baz=86,slow=14,SNR=7.9						
HNR				LR	LR	03 53 59.3	
	comp=Z,352nm,18.9s,baz=338,slow=43						
KAKA	Kakadu	26.23	257	*e*P	P	03 58 03.4	-0.2
	4.4nm,0.6s,mb4.2						
WB2	Warramunga Arr	26.46	240	*e*P	P	03 58 06.0	+0.4
WB2				*e*	pP	03 58 18.1	-1.1
WB2	Warramunga Arr	26.46	240	*e*P	P	03 58 05.7	0.0
WB2				*e*	pP	03 58 18.1	-1.1
WRA	Warramunga Arr	26.47	240	P	P	03 58 06.0	+0.3
	3.4nm,0.6s,mb4.0,baz=64,slow=8.8,SNR=68						
ASAR	Alice Springs	28.50	233	P	P	03 58 23.6	-0.2
	0.8nm,0.5s,mb3.7,baz=63,slow=9.3,SNR=17						
STKA	Stephens Creek	28.77	211	P	P	03 58 26.4	+0.3
	1.1nm,0.4s,mb3.9,baz=18,slow=14,SNR=4.9						
FITZ	Fitzroy Crossi	33.70	249	*e*P	P	03 59 09.0	-0.8
	1.8nm,0.4s,mb4.3						
FITZ				*e*	pP	03 59 20.5	-3.0
RPZ	Rata Peaks	37.44	165	P	P	03 59 41.1	-0.3
	1.5nm,0.4s,mb4.2,baz=344,slow=7.4,SNR=3.7						
KSRS	Korea Array	53.35	330	P	P	04 01 47.9	+0.5
	1.6nm,0.7s,mb4.1,baz=142,slow=7.2,SNR=6.9						
HIA	Hailar	66.17	333	*e*P	P	04 03 15.7	+0.5
	5.0nm,0.9s,mb4.5						
ULN	Ulaanbaatar	71.61	326	*e*P	P	04 03 50.5	+1.4
	2.3nm,1.1s,mb4.0						
SONM	Songino Array	71.95	326	P	P	04 03 52.3	+1.2
	3.9nm,0.8s,mb4.4,baz=137,slow=5.6,SNR=33						
BILL	Bilibino	75.80	3	*e*P	P	04 04 13.2	-0.1
	5.6nm,0.8s,mb4.5						
MCK	McKinley	81.44	21	*e*P	P	04 04 43.0	-1.4
	2.8nm,0.9s,mb4.2						
COLA	College	82.51	20	*e*P	P	04 04 49.2	-0.7
	4.3nm,0.5s,mb4.7						
MK31	Makanchi Array	86.37	318	*e*P	P	04 05 09.6	-0.3
MKAR	Makanchi Array	86.37	318	P	P	04 05 10.1	+0.2
MKAR	Makanchi Array	86.37	318	P	P	04 05 10.1	+0.2
	1.3nm,0.7s,mb4.3,baz=98,slow=5.7,SNR=16						
ZALV	Zalesovo Beam	86.84	325	P	P	04 05 11.1	-0.9
	0.5nm,0.6s,mb4.0,baz=121,slow=3.8,SNR=3.1						
INK	Inuvik	89.17	20	P	P	04 05 22.6	-0.1
	0.9nm,1.0s,mb4.1,baz=280,slow=6.1,SNR=4.0						
NVAR	Mina Array Bea	89.37	51	P	P	04 05 25.7	+1.4
	0.2nm,0.3s,mb3.9,baz=237,slow=11,SNR=4.8						
YKA	Yellowknife Ar	95.32	28	P	P	04 05 50.6	-0.7
	0.4nm,0.7s,mb4.0,baz=264,slow=4.6,SNR=8.2						
GERES	GERESS Array B	129.53	331	PKP	PKPdf	04 11 36.7	+0.4
GERES	GERESS Array B	129.53	331	PKP	PKPdf	04 11 36.7	+0.4
	0.3nm,0.5s,baz=267,slow=1.9,SNR=3.0						
TORD	Torodi Ar. Bea	156.71	285	PKP	PKPdf	04 12 25.1	+1.5
TORD				PKPab	PKPab	04 12 53.0	-0.1
TORD	Torodi Ar. Bea	156.71	285	PKP	PKPdf	04 12 25.1	+1.5
	0.1nm,0.6s,baz=207,slow=2.6,SNR=2.9						
TORD				PKPab	PKPab	04 12 53.0	-0.1
	0.7nm,0.7s,baz=84,slow=4.8,SNR=10						

IDC 17 03:54:42.1±10.0, **1.10N**×**79.17W**, **h66**^{km}±71^{km}, **mb3.1**/2, **mb1 3.5**/3, **mb1mx3.2**/17, **mbtmp3.2**/3, **ML2.3**/1, **Error ellipse: s-maj=157.3km s-min=50.6km az=161.0, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	El Rosal	6.11	52	P	Pn	03 56 10.4	+0.5
	1.6nm,0.3s,baz=85,slow=12,SNR=5.6						
ROSC				S	Sn	03 57 19.6	+1.2
	2.4nm,0.3s,baz=108,slow=22,SNR=14						
TXAR	Lajitas Array	36.51	323	P	P	04 01 41.2	-0.1
	0.1nm,0.6s,baz=150,slow=7.3,SNR=2.3						
YKA	Yellowknife Ar	66.73	343	P	P	04 05 26.1	+0.1
	0.7nm,0.6s,baz=137,slow=5.9,SNR=14						

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*IDC **17** 03:57:48.7±3.2, 15.38N×146.18E, h47^{km}±31^{km}, mb3.6/11, mb1 3.8/12, mb1mx3.7/23, mbtmp3.7/12, MS3.5/1, Ms1 3.5/1, ms1mx2.6/35, Error ellipse: s-maj=31.8km s-min=17.8km az=87.0*

*ISCJB **17** 03:57:49.4±2.6, 15.38N±0.10×146.1E±0.2, h67^{km}±23^{km}, mb3.9/14, Error ellipse: s-maj=29.3km s-min=16.6km az=178.9*

*NEIC **17** 03:57:49.4±2.1, 15.38N×146.26E, h55^{km}±18^{km}, mb4.2/3, Error ellipse: s-maj=22.5km s-min=11.2km az=84.0*

ISC 17 03:57:49.7±2.7, **15.4N**±0.1×**146.2E**±0.2, **h55**^{km}±24^{km}, **n20, σ0^s.69**/19, **mb3.9**/14, **Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.17	216	P	Pn	03 58 23.7	+0.2
	77nm,0.3s,baz=140,slow=7.1,SNR=35						
GUMO				S	Sn	03 58 48.7	-0.5
	165nm,0.3s,baz=188,slow=14,SNR=22						
KSRS	Korea Array	27.31	327	P	P	04 03 29.8	+0.6
	1.2nm,0.7s,mb3.5,baz=142,slow=9.8,SNR=4.3						
WRA	Warramunga Arr	36.96	199	P	P	04 04 53.5	-0.3
	1.4nm,0.7s,mb3.9,baz=23,slow=9.7,SNR=11						
FITZ	Fitzroy Crossi	38.93	212	P	P	04 05 11.1	+0.7
	0.5nm,0.4s,mb3.6,baz=45,slow=13,SNR=2.7						
ASAR	Alice Springs	40.60	197	P	P	04 05 24.8	+0.5
	0.2nm,0.5s,mb3.0,baz=20,slow=11,SNR=3.8						
ULN	Ulaanbaatar	45.69	324	*e*P	P	04 06 06.2	+1.2
	1.0nm,0.7s,mb3.9						
SONM	Songino Array	46.05	323	P	P	04 06 08.2	+0.3
	0.9nm,0.6s,mb3.9,baz=135,slow=8.0,SNR=6.5						
ZALV	Zalesovo Beam	60.94	324	P	P	04 07 56.1	-0.8
	1.8nm,0.4s,mb4.5,baz=113,slow=7.6,SNR=10						
MK31	Makanchi Array	61.12	315	*e*P	P	04 07 58.5	+0.3
MKAR	Makanchi Array	61.12	315	P	P	04 07 58.6	+0.4
	1.1nm,0.4s,mb4.3,baz=91,slow=8.0,SNR=28						
KURK	Kurchatov	64.06	319	*e*P	P	04 08 17.0	-0.8
	6.5nm,0.8s,mb4.7						
BRVK	Borovoye	69.40	321	*e*P	P	04 08 51.8	0.0
	2.1nm,0.6s,mb4.2						
INK	Inuvik	72.25	23	*e*P	P	04 09 08.9	+0.1
INK	Inuvik	72.25	23	P	P	04 09 08.5	-0.3
	0.6nm,0.5s,mb3.8,baz=270,slow=3.4,SNR=5.6						
YKA	Yellowknife Ar	80.71	28	P	P	04 09 56.1	-0.6
	0.4nm,0.4s,mb3.7,baz=290,slow=5.4,SNR=8.2						
RES	Resolute Bay	82.54	14	*e*P	P	04 10 05.8	-0.4
	90nm,0.8s						
NVAR	Mina Array Bea	84.83	52	P	P	04 10 19.5	+0.9
	0.6nm,0.6s,mb3.9,baz=277,slow=4.7,SNR=6.1						
FINES	FINESS Array B	90.09	335	P	P	04 10 41.8	-1.7
	1.1nm,0.9s,mb4.2,baz=85,slow=4.2,SNR=4.5						
CFAA	Coronel Fontan	144.72	123	PKP	PKPdf	04 17 20.0	-0.8
CFAA	Coronel Fontan	144.72	123	PKP	PKPdf	04 17 20.0	-0.8
	0.6nm,0.7s,baz=256,slow=4.1,SNR=10						

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*ISCJB **17** 04:01:50.6±0.8, 3.59S±0.04×151.24E±0.03, h428^{km}±9^{km}, mb4.7/98, Error ellipse: s-maj=6.2km s-min=4.3km az=10.5*

*BJI **17** 04:01:51.6, 3.35S×151.48E, h441^{km}, mB4.6, mb4.4*

*MOS **17** 04:01:51.0±0.8, 3.52S×151.25E, h430^{km}, mb4.8/29, Error ellipse: s-maj=8.9km s-min=6.4km az=105.2*

*NEIC **17** 04:01:52.8±0.4, 3.60S×151.23E, h444^{km}±4^{km}, mb4.8/53, Error ellipse: s-maj=3.6km s-min=3.5km az=56.0*

*GCMT **17** 04:01:52.8±0.6, 3.54S×151.40E, h423^{km}±2^{km}, MW5.1/41, Moment Tensor Solution. s41,c63; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}5.14±.38; $M_{\theta\theta}$-6.32±.48; $M_{\phi\phi}$1.18±.68; $M_{r\theta}$1.00±.62; $M_{\theta\phi}$-0.25±.54; $M_{\phi r}$-1.67±.58; Best double couple: $M_0$6.12200×10^{16} NP1:ϕ_s249.00000°, δ44.00000°, λ61.00000°. NP2:ϕ_s107.00000°, δ53.00000°, λ115.00000°. Principal axes: T 5.8360, Plg69.0000°, Azm76.0000°; N 0.5710, Plg20.0000°, Azm271.0000°; P -6.4080, Plg5.0000°, Azm179.0000°; nsta1 refers to body waves, cutoff=40s.*

*IDC **17** 04:01:52.1±0.4, 3.60S×151.22E, h435^{km}±4^{km}, mb4.4/28, mb1 4.4/32, mb1mx4.4/32, mbtmp4.5/32 Error ellipse: s-maj=8.4km s-min=5.7km az=90.0*

ISC 17 04:01:52.9±0.7, **3.60S**±0.04×**151.26E**±0.03, **h440**^{km}±7^{km}, **h438**^{km}±2.1^{km}**:pP-P, n784, σ0^s.66**/459, **mb4.7**/97, **128C-98D, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	7.06	215	*e*Pn	P	04 03 37.2	-0.9
PMG	Port Moresby	7.06	215	*d i*P	P	04 03 37.5	-0.6
PMG	Port Moresby	7.06	215	P	P	04 03 37.6	-0.5
	30nm,0.3s,baz=36,slow=5.3,SNR=98						
PMG				S	S	04 05 05.0	+0.9
	4.3nm,0.3s,baz=21,slow=6.0,SNR=4.5						
HNR	Honiara	10.39	124	P	P	04 04 13.5	-0.9
	13nm,0.3s,baz=316,slow=1.8,SNR=4.5						
HNR				S	S	04 06 12.8	+1.9
	11nm,0.3s,baz=270,slow=20,SNR=3.2						
COEN	Coen	13.02	217	*e*Pn	P	04 04 44.0	+1.0
CTA	Charters Tower	17.10	196	⇓*i*P	P	04 05 27.3	+0.7
	204nm,0.6s						
CTA				*e*S	S	04 08 27.4	+4.3
CTA	Charters Tower	17.10	196	⇓*i*P	P	04 05 27.3	+0.7
CTA				*e*S	S	04 08 27.4	+4.3
CTA				pmax	pmax		
	comp=Z,204nm,0.6s						
CTA	Charters Tower	17.10	196	P	P	04 05 27.3	+0.7
	comp=Z,25nm,0.3s,baz=17,slow=11,SNR=234						
CTA				S	S	04 08 26.4	+3.3
	comp=Z,0.7nm,0.3s,baz=236,slow=19,SNR=13						
CTAO	Charters Tower	17.10	196	*e*P	P	04 05 27.0	+0.4
	comp=Z,247nm,0.7s						
CTAO				*e*S	S	04 08 26.9	+3.8
CTAO	Charters Tower	17.10	196	*e*P	P	04 05 27.0	+0.4
CTAO				*e*S	S	04 08 26.9	+3.8
CTAO				pmax	pmax		
	comp=Z,247nm,0.7s						
GUMO	Guam	18.22	340	*e*P	P	04 05 36.5	-1.8
	comp=Z,648nm,0.9s						
GUMO	Guam	18.22	340	*e*P	P	04 05 36.5	-1.8
GUMO				pmax	pmax		
	comp=Z,648nm,0.9s						
GUMO	Guam	18.22	340	P	P	04 05 36.3	-1.9
	comp=Z,29nm,0.3s,baz=172,slow=8.6,SNR=24						
KAKA	Kakadu	20.70	243	⇑*i*P	P	04 06 00.2	-1.2
	comp=Z,53nm,0.5s						
KAKA				*e*S	S	04 09 24.8	+1.1
EIDS	Eidsvold	21.64	180	*e*P	P	04 06 09.7	-0.2
WB2	Warramunga Arr	23.15	224	*e*P	P	04 06 23.1	-0.4
WB2				*e*S	S	04 09 58.3	-4.2
WB2	Warramunga Arr	23.15	224	*e*P	P	04 06 23.0	-0.5
WB2				*e*S	S	04 09 58.3	-4.2
WRA	Warramunga Arr	23.16	224	P	P	04 06 23.0	-0.6
WRA				PP		04 07 42.5	
WRA				PcP	PcP	04 09 57.1	0.0
WRA				S	S	04 10 02.9	+0.3
WRA				ScP	ScP	04 12 54.3	+1.3
WRA	Warramunga Arr	23.16	224	P	P	04 06 23.0	-0.6
WRA						04 09 57.1	
WRA				S	S	04 10 02.9	+0.2
WRA	Warramunga Arr	23.16	224	P	P	04 06 23.0	-0.6
	comp=Z,21nm,0.3s,mb5.1,baz=46,slow=9.0,SNR=178						
WRA				PP		04 07 42.5	
	comp=Z,13nm,1.0s,baz=47,slow=10,SNR=4.9						
WRA				PcP	PcP	04 09 57.1	0.0

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          comp=Z,17nm,0.8s,baz=38,slow=2.4,SNR=9.0
WRA                                   S        S         04 10 02.9 +0.3
          comp=Z,12nm,0.8s,baz=44,slow=12,SNR=7.4
WRA                                   ScP      ScP       04 12 54.3 +1.3
          comp=Z,1.5nm,0.8s,baz=51,slow=2.3,SNR=4.6
WRA                                   PKiKP    PKiKP     04 17 38.8  -2.2
          comp=Z,0.6nm,0.6s,baz=299,slow=1.0,SNR=5.4
DZM   Mont Dzumac      23.54 143  eP       P         04 06 26.6  -0.4
DZM   Mont Dzumac      23.54 143   P       P         04 06 26.6  -0.3
          comp=Z,23nm,0.5s,mb4.9,baz=70,slow=16,SNR=29
ASAR  Alice Springs    26.06 219   P       P         04 06 48.5  -0.9
ASAR                               PcP     PcP       04 10 02.7  -0.8
ASAR                               S       S         04 10 45.8  -2.5
ASAR                              e                  04 39 27.1
ASAR  Alice Springs    26.06 219   P       P         04 06 48.6  -0.8
ASAR                                                 04 10 02.7
ASAR                               S       S         04 10 45.8  -2.5
ASAR  Alice Springs    26.06 219   P       P         04 06 48.5  -0.9
          comp=Z,48nm,0.5s,mb5.2,baz=50,slow=7.9,SNR=244
ASAR                               PcP     PcP       04 10 02.7  -0.8
          comp=Z,12nm,0.8s,baz=50,slow=3.4,SNR=8.0
ASAR                               S       S         04 10 45.8  -2.5
          comp=Z,11nm,0.6s,baz=48,slow=14,SNR=8.6
ASAR                               P3KPbc            04 39 27.1
          comp=Z,0.4nm,0.9s,baz=228,slow=4.2,SNR=4.8
ASAR                               P3KP              04 40 28.8
          comp=Z,0.3nm,0.7s,baz=150,slow=3.3,SNR=4.3
FITZ  Fitzroy Crossi   28.93 238  eP       P         04 07 13.6  -1.2
          comp=Z,39nm,0.9s,mb4.7
FITZ                              e                  04 07 42.8
FITZ                              epP                04 08 31.0
FITZ  Fitzroy Crossi   28.93 238   P       P         04 07 13.6  -1.2
          comp=Z,16nm,0.5s,mb4.7,baz=54,slow=10,SNR=41
FITZ                               pP                04 08 30.7
          comp=Z,20nm,0.8s,baz=71,slow=7.2,SNR=3.8
STKA  Stephens Creek   29.56 197  eP       P         04 07 19.7  -0.4
          comp=Z,17nm,0.4s,mb4.7
STKA                              e                  04 08 43.8
STKA                              ePCP     PcP       04 10 12.5 +0.4
STKA                              eS       S         04 11 38.7  -4.1
STKA  Stephens Creek   29.56 197  eP       P         04 07 19.5  -0.6
STKA                              ePcP     PcP       04 10 12.5 +0.4
STKA                              eS       S         04 11 38.7  -4.1
STKA  Stephens Creek   29.56 197   P       P         04 07 19.7  -0.4
          comp=Z,22nm,0.6s,mb4.7,baz=12,slow=10.0,SNR=40
STKA                               pP                04 08 38.7
          comp=Z,8.9nm,0.7s,baz=20,slow=7.1,SNR=2.0
STKA                               PcP     PcP       04 10 11.4  -0.7
          comp=Z,5.6nm,0.4s,baz=80,slow=6.3,SNR=3.0
STKA                               S       S         04 11 41.4  -1.4
          comp=Z,11nm,0.8s,baz=92,slow=20,SNR=4.3
CNB   Canberra Magne   31.61 183  eP       P         04 07 38.1 +0.3
          comp=Z,27nm,0.6s,mb4.8
CBIJ  Chichi jima      31.75 344   P       P         04 07 37.6  -1.5
          comp=Z,47nm,0.5s,mb5.1,baz=170,slow=12,SNR=4.0
MYLDM Lahad Datu       33.87 285 ⇓P        P         04 07 57.9 +0.4
TSM   Tawau            34.27 283 ⇓P        P         04 08 00.8  -0.1
FORT  Forrest          34.79 216  eP       P         04 08 03.6  -1.4
          comp=Z,53nm,0.6s,mb5.0
FORT                              e                  04 08 34.1
SDKM  Sandakan         35.24 285 ⇑P        P         04 08 09.6 +0.5
MBWA  Marble Bar       35.27 238  eP       P         04 08 08.2  -1.0
          comp=Z,13nm,0.5s,mb4.5
MBWA                              ePcP     PcP       04 10 27.8  -0.5
KDM   Kudat            35.92 287 ⇓P        P         04 08 19.5 +4.8
KKM   Kota Kinabalu    36.28 285  eP       P         04 08 17.8   0.0
KKM   Kota Kinabalu    36.28 285 ⇑P        P         04 08 18.1 +0.3
JOW   Kunigami         37.53 325   P       P         04 08 27.7  -0.2
          comp=Z,50nm,0.6s,mb5.1,baz=159,slow=12,SNR=9.5
AFI   Afiamalu         37.88 108   P       P         04 08 30.7  -0.2
          comp=Z,11nm,0.5s,mb4.4,baz=34,slow=6.3,SNR=4.6
BTM   Bintulu          38.75 280 ⇓P        P         04 08 39.8 +1.7
TAU   Tasmania Unive   39.30 185  eP       P         04 08 41.9  -0.2
          comp=Z,14nm,0.7s,mb4.4
TAU   Tasmania Unive   39.30 185  eP       P         04 08 41.9  -0.2
TAU                                pmax    pmax
          comp=Z,13nm,0.7s,mb4.4
SBUM  Sibu             39.48 278 ⇑P        P         04 08 45.8 +1.7
YHNB  Yeheng           40.41 316  eP       P         04 08 52.0 +0.6
KSM   Kuching          41.24 276  eP       P         04 08 58.5 +0.2
KSM   Kuching          41.24 276 ⇑P        P         04 08 58.6 +0.4
JNU   Nakatsue         41.31 334   P       P         04 08 58.3  -0.1
          comp=Z,60nm,0.7s,mb5.0,baz=113,slow=7.5,SNR=31
JNU                                pP      pP        04 10 20.4  -0.9
          comp=Z,21nm,0.9s,baz=56,slow=7.4,SNR=3.8
MJAR  Matsushiro Arr   41.75 344   P       P         04 08 59.6  -2.3
MJAR                                                 04 10 47.9
MJAR  Matsushiro Arr   41.75 344   P       P         04 08 59.6  -2.3
          comp=Z,14nm,0.9s,mb4.3,baz=169,slow=8.2,SNR=21
MJAR                               PcP     PcP       04 10 47.9  -0.6
          comp=Z,6.3nm,0.6s,baz=158,slow=4.1,SNR=9.1
MJAR                               ScP     ScP       04 13 57.8 +1.5
          comp=Z,5.6nm,1.0s,baz=171,slow=5.4,SNR=8.1
MAJO  Matsushiro       41.75 344  eP       P         04 09 00.2  -1.7
          comp=Z,24nm,0.9s,mb4.5
MAJO  Matsushiro       41.75 344  eP       P         04 09 00.2  -1.7
MAJO                               pmax    pmax
          comp=Z,24nm,0.9s,mb4.5
MAT   Matsushiro       41.75 344   P       P         04 09 00.1  -1.8
MAT                               eS       S         04 14 45.0  -1.1
URZ   Urewera          41.79 149   P       P         04 09 02.5 +0.2
          comp=Z,33nm,0.4s,mb5.0,baz=290,slow=2.9,SNR=50
URZ                                PcP     PcP       04 10 46.2  -2.4
          comp=Z,22nm,0.6s,baz=10,slow=1.9,SNR=6.9
KLBR  Kellerberrin     42.04 225  eP       P         04 09 02.1  -2.2
          comp=Z,9.6nm,0.3s,mb4.6
NWAO  Narrogin (SRO)   43.16 223   P       P         04 09 12.3  -0.9
          comp=Z,5.5nm,0.5s,mb4.2,baz=25,slow=10,SNR=7.8
MUN   Mundaring        43.35 225  eP       P         04 09 13.1  -1.6
RPZ   Rata Peaks       43.62 159   P       P         04 09 17.0 +0.3
          comp=Z,17nm,0.5s,mb4.7,baz=261,slow=1.3,SNR=20
KSRS  Korea Array      46.25 334   P       P         04 09 36.9  -0.1
          comp=Z,11nm,0.9s,mb4.2,baz=150,slow=8.3,SNR=28
KSRS                               PcP     PcP       04 11 03.8  -0.3
          comp=Z,4.2nm,0.6s,baz=150,slow=3.4,SNR=13
KSRS                               ScP     ScP       04 14 16.8 +2.0
          comp=Z,2.9nm,0.9s,baz=146,slow=5.9,SNR=6.2
QIZ   Qiongzhong       46.54 300   P       P         04 09 40.3 +0.7
QIZ                                S       S         04 15 55.3 +0.3
QIZ                                XS      sS        04 18 31.5 +2.4
QIZ                                AMB     AMB
          comp=Z,14nm,1.0s,mb4.2
QIZ                                AMB     AMB
          comp=Z,64nm,3.3s
INCN  Inchon           46.85 333  eP       P         04 09 41.8 +0.2
          comp=Z,59nm,1.0s,mb4.9
NJ2   Nanjing          46.95 321  eP       P         04 09 44.3 +1.8
NJ2                                AMB     AMB
          comp=Z,10.0nm,0.6s,mb4.3
MYKOM Kota Tinggi      47.69 276 ⇓P        P         04 09 48.7 +0.3
ASAJ  Asahikawa        48.13 352   P       P         04 09 51.3 +0.1
          comp=Z,11nm,0.6s,mb4.3,baz=204,slow=11,SNR=5.9
ASAJ                               PcP     PcP       04 11 11.4 +0.8
          comp=Z,5.3nm,0.7s,baz=271,slow=21,SNR=3.6
KGM   Kluang           48.24 276 ⇓P        P         04 09 53.2 +0.6
KTGM  Kuala Trenggan   48.88 280 ⇑P        P         04 09 57.6 +0.2
FRIM  Kepong           50.07 277 ⇓P        P         04 10 06.7 +0.5
RAR   Rarotonga        50.67 115   P       P         04 10 10.6 +0.1
          comp=Z,24nm,0.6s,mb4.6,baz=283,slow=6.5,SNR=5.8
IPM   Ipoh             50.83 279 ⇑P        P         04 10 11.7  -0.1
KULM  Kulim            51.32 280  eP       P         04 10 14.6  -0.9
KULM  Kulim            51.32 280 ⇓P        P         04 10 14.8  -0.6
GYA   Guiyang          52.45 307⇑iP        P         04 10 24.4 +1.0
GYA                                PCP     PcP       04 11 27.6 +0.5
GYA                                AP      pP        04 11 54.3 +2.9
GYA                                PP      PP        04 12 31.6 +3.6
GYA                                SCP     ScP       04 14 42.9 +1.2
GYA                                PCS     PcS       04 15 26.8 +0.3
GYA                                S       S         04 17 19.9 +4.1
GYA                                PS                04 18 35.3
GYA                                SCS     ScS       04 19 26.1  -0.6
GYA                                AMB     AMB
          comp=Z,10.0nm,0.7s,mb4.2
GYA                                AMB     AMB
          comp=Z,140nm,6.3s
CN2   Changchun        52.59 337  eP       P         04 10 24.9 +0.9
CN2                                PCP     PcP       04 11 26.8  -0.5
CN2                               eAP      pP        04 11 57.8 +5.7
CN2                               eS       S         04 17 18.3 +1.3
CN2                                AMB     AMB
          comp=Z,10.0nm,1.0s,mb4.0
CN2                                AMB     AMB
          comp=Z,200nm,3.0s
PSI   Prapat           52.69 276   P       P         04 10 25.1  -0.3
          comp=Z,5.0nm,0.5s,mb4.0,baz=333,slow=9.0,SNR=3.7
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NST   Nakhon Sawan     54.08 292   P       P         04 10 36.0 +0.8
          comp=Z,33nm,0.5s,mb4.8
KMI   Kunming          55.05 304   P       P         04 10 43.3 +1.4
KMI                                PCP     PcP       04 11 37.5 +0.3
KMI                                AMB     AMB
          comp=Z,11nm,1.0s,mb4.0
KMI   Kunming          55.05 304   P       P         04 10 43.2 +1.3
          comp=Z,11nm,1.0s,mb4.0
KMI                                PcP     PcP       04 11 37.5 +0.3
KMI   Kunming          55.05 304   P       P         04 10 43.2 +1.3
KMI                                                  04 11 37.5
KMI                                pmax    pmax
          comp=Z,11nm,1.0s,mb4.0
CHG   Chiang Mai       56.09 295 ⇑P        P         04 10 49.8 +0.5
          comp=Z,17nm,0.8s,mb4.4
CHTO  Chiang Mai       56.09 295  eP       P         04 10 49.9 +0.5
          comp=Z,10.0nm,1.0s,mb4.1
CHTO  Chiang Mai       56.09 295  eP       P         04 10 49.9 +0.6
CHTO                               pmax    pmax
          comp=Z,10.0nm,1.0s,mb4.1
CD2   Chengdu          56.80 311   P       P         04 10 54.3 +0.3
CD2                                AP      pP        04 12 25.9 +2.1
CD2                                PP      PP        04 13 10.3 +3.8
CD2                                XP      sP        04 13 14.5 +2.7
CD2                                S       S         04 18 12.5  -0.3
CD2                                XS      sS        04 20 54.3 +0.7
CD2                                SS      SS        04 22 12.8 +3.2
CD2                                AMB     AMB
          comp=Z,80nm,0.6s,mb5.2
CD2                                AMB     AMB
          comp=Z,140nm,5.2s
POHA  Pohakuloa        57.17  64  eP       P         04 10 57.3 +0.5
          comp=Z,693nm,1.6s,mb5.7
HHC   Hu-ho-hao-te     57.19 325  eP       P         04 10 57.4 +0.9
HHC                                S       S         04 18 18.9 +1.4
HHC                                AMB     AMB
          comp=Z,15nm,1.0s,mb4.3
HHC                                AMB     AMB
          comp=Z,104nm,5.1s
BTO   Baotou           57.93 324  eP       P         04 11 01.8 +0.2
LZH   Lanzhou          59.31 316  eP       P         04 11 12.1 +1.0
LZH                                PCP     PcP       04 11 54.8 +1.0
LZH                                AP      pP        04 12 43.8 +1.9
LZH                                XP      sP        04 13 31.0 +1.4
LZH                                SCP     ScP       04 15 14.0 +2.3
LZH                                PCS     PcS       04 15 54.5  -1.9
LZH                               eS       S         04 18 44.3  -0.4
LZH                                XS      sS        04 21 27.1   0.0
LZH                                SS      SS        04 22 50.3 +1.6
LZH                                AMB     AMB
          comp=Z,38nm,1.0s,mb4.7
LZH                                AMB     AMB
          comp=Z,110nm,4.0s
LZH   Lanzhou          59.31 316  eP       P         04 11 12.1 +1.0
          comp=Z,38nm,1.0s,mb4.7
LZH                                PcP     PcP       04 11 54.7 +0.9
LZH                                pP      pP        04 12 43.8 +1.9
LZH                                sP      sP        04 13 31.0 +1.4
LZH                                PP      PP        04 13 32.2 +3.6
LZH                                ScP     ScP       04 15 14.0 +2.3
LZH                                PcS     PcS       04 15 54.5  -1.9
LZH                               eS       S         04 18 44.3  -0.4
LZH                                sS      sS        04 21 27.1   0.0
LZH                                SS      SS        04 22 50.2 +1.5
LZH   Lanzhou          59.31 316  eP       P         04 11 12.1 +1.0
LZH                                                  04 11 54.7
LZH                                *PP     pP        04 12 43.8 +1.9
LZH                                *SP     sP        04 13 31.0 +1.4
LZH                                                  04 13 32.2
LZH                               eS       S         04 18 44.3  -0.4
LZH                                SS      SS        04 22 50.2 +1.5
LZH                                pmax    pmax
          comp=Z,38nm,1.0s,mb4.7
HIA   Hailar           59.32 337  eP       P         04 11 10.8  -0.1
          comp=Z,4.2nm,0.6s,mb4.0
HIA   Hailar           59.32 337  eP       P         04 11 10.8  -0.1
HIA                                pmax    pmax
          comp=Z,4.0nm,0.6s
PPT   Papeete          59.55 108   P       P         04 11 14.0 +1.0
          comp=Z,18nm,0.4s,mb4.8,baz=55,slow=14,SNR=3.7
PAE   Paea             59.56 108⇑iP        P         04 11 14.0 +0.9
          comp=Z,39nm,0.8s,mb4.9
PAE   Paea             59.56 108⇑iP        P         04 11 14.0 +0.9
PAE                                pmax    pmax
          comp=Z,39nm,0.8s,mb4.9
TVO   Taravao          59.88 108⇑iP        P         04 11 16.7 +1.4
          comp=Z,91nm,0.9s,mb5.2
TVO   Taravao          59.88 108⇑iP        P         04 11 16.7 +1.4
TVO                                pmax    pmax
          comp=Z,91nm,0.9s,mb5.2
PMOR  Pomariorio Ree   60.93 105⇑iP        P         04 11 23.1 +0.8
          comp=Z,120nm,0.9s,mb5.3
PMOR                              epP      pP        04 12 55.0 +1.3
          comp=Z,16nm,1.1s
VAH   Vaihoa           61.20 105⇑iP        P         04 11 24.6 +0.5
          comp=Z,70nm,1.0s,mb5.0
MA2   Magadan          62.98 360  eP       P         04 11 34.3  -0.5
          comp=Z,13nm,0.8s,mb4.5
MA2                               ePcP     PcP       04 12 07.1  -1.1
MA2                               epP      pP        04 13 08.1 +1.0
MA2   Magadan          62.98 360  eP       P         04 11 34.3  -0.5
MA2                               e                  04 12 07.1
MA2                               e*PP     pP        04 13 08.1 +1.0
MA2                                pmax    pmax
          comp=Z,13nm,0.8s,mb4.5
GTA   Gaotai           63.74 318 ⇑P        P         04 11 41.4 +1.2
GTA                                PCP     PcP       04 12 12.4 +0.6
GTA                                AP      pP        04 13 14.4 +1.8
GTA                                XP      sP        04 13 57.6  -2.3
GTA                                PP      PP        04 14 10.3 +3.0
GTA                                SCP               04 15 33.3
GTA                                PPP               04 15 47.6
GTA                                PCS               04 16 15.5
GTA                                S       S         04 19 43.8 +4.2
GTA                                SCS     ScS       04 20 51.4 +1.6
GTA                                XS      sS        04 22 18.8  -5.9
GTA                                SS      SS        04 24 02.6 +4.9
GTA                                AMB     AMB
          comp=Z,18nm,0.9s,mb4.6
GTA                                AMB     AMB
          comp=Z,71nm,6.5s
ULN   Ulaanbaatar      64.17 329  eP       P         04 11 43.1 +0.3
          comp=Z,7.8nm,0.9s,mb4.2
ULN                               epP      pP        04 13 15.5 +0.1
ULN   Ulaanbaatar      64.17 329  eP       P         04 11 43.1 +0.3
ULN                               e*PP     pP        04 13 15.5 +0.1
ULN                                pmax    pmax
          comp=Z,8.0nm,0.9s,mb4.2
SHL   Shillong         64.38 300  eP       P         04 11 44.5  -0.1
SONM  Songino Array    64.50 328   P       P         04 11 45.7 +0.9
SONM                               PcP     PcP       04 12 14.3  -0.5
SONM                               pP      pP        04 13 18.1 +0.5
SONM                             ⇑e                  04 40 30.6
SONM  Songino Array    64.50 328   P       P         04 11 45.7 +0.8
SONM                                                 04 12 14.3
SONM                               *PP     pP        04 13 18.1 +0.5
SONM  Songino Array    64.50 328   P       P         04 11 45.7 +0.9
          comp=Z,6.7nm,0.7s,mb4.3,baz=151,slow=4.3,SNR=51
SONM                               PcP     PcP       04 12 14.3  -0.5
          comp=Z,5.7nm,0.5s,baz=150,slow=3.5,SNR=6.4
SONM                               pP      pP        04 13 18.1 +0.5
          comp=Z,2.2nm,0.7s,baz=149,slow=5.5,SNR=3.7
SONM                               PKP2bc            04 40 30.6
          comp=Z,1.5nm,0.9s,baz=318,slow=1.6,SNR=8.3
LSA   Lhasa            66.30 305   P       P         04 11 57.6 +1.0
LSA   Lhasa            66.30 305  eP       P         04 11 57.8 +1.1
          comp=Z,17nm,0.8s,mb4.7
LSA   Lhasa            66.30 305  eP       P         04 11 57.8 +1.2
LSA                                pmax    pmax
          comp=Z,17nm,0.8s,mb4.7
SEY   Seymchan         66.36   1⇑iP        P         04 11 55.8  -0.5
YAK   Yakutsk          67.51 349  eP       P         04 12 03.6 +0.2
YAK                                pmax    pmax
          comp=Z,15nm,0.8s,mb4.7
ZAK   Zakamensk        67.68 329⇑iP        P         04 12 05.4 +0.7
ZAK                               e        pP        04 13 36.6  -1.9
ZAK                                pmax    pmax
          comp=Z,15nm,0.8s,mb4.7
ZAK                                pmax    pmax
          comp=Z,3.0nm,1.1s,mb3.8
BOD   Bodaibo          68.13 340  eP       P         04 12 06.2  -1.1
BOD                                pmax    pmax
          comp=Z,6.0nm,1.3s,mb4.1
TLY   Talaya           68.28 330  eP       P         04 12 09.2 +0.9
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TLY   Talaya           68.28 330  eP       P         04 12 08.8 +0.4
TLY                                pmax    pmax
          comp=Z,7.0nm,0.9s,mb4.3
TAPN  Taplejung        68.48 301  eP       P         04 12 10.6 +0.5
          comp=Z,56nm,0.7s,mb5.3
ODAN  Odare            68.62 301  eP       P         04 12 11.7 +0.7
          comp=Z,104nm,0.7s,mb5.6
CASY  Casey            68.71 196  eP       P         04 12 09.7  -1.1
          comp=Z,22nm,0.4s,mb5.1
MOY   Mondy            69.60 329  eP       P         04 12 17.5 +1.1
MOY                                pmax    pmax
          comp=Z,24nm,1.9s,mb4.4
JIRN  Jiri             69.86 301  eP       P         04 12 19.3 +0.8
          comp=Z,12nm,0.2s,mb5.0
KKN   Kakani           70.67 301  eP       P         04 12 23.4 +0.1
          comp=Z,58nm,0.5s,mb5.4
SDPT  Sand Point       70.83  27  eP       P         04 12 22.9  -0.8
          comp=Z,71nm,0.7s,mb5.3
PALK  Pallekele        71.23 279  eP       P         04 12 26.9   0.0
          comp=Z,11nm,0.7s,mb4.5
GKN   Gorkha           71.28 301  eP       P         04 12 27.0 +0.1
          comp=Z,54nm,0.6s,mb5.3
BILL  Bilibino         72.25   6  eP       P         04 12 31.5  -0.2
          comp=Z,21nm,0.8s,mb4.7
BILL  Bilibino         72.25   6αeP        P         04 12 31.7  -0.1
BILL                                                 04 12 43.0
BILL                               *PP     pP        04 14 09.0 +1.9
BILL                               pmax    pmax
          comp=Z,32nm,1.0s,mb4.8
WMQ   Urumqi           73.83 318   P       P         04 12 41.1  -0.3
WMQ                                PCP     PcP       04 12 54.4 +0.1
WMQ                                AP      pP        04 14 18.8 +1.6
WMQ                                XP      sP        04 15 04.4 +0.9
WMQ                                AMB     AMB
          comp=Z,22nm,1.1s,mb4.7
VNDA  Vanda            74.08 178  eP       P         04 12 41.9  -0.4
          comp=Z,12nm,0.5s,mb4.8
VNDA  Vanda            74.08 178  eP       P         04 12 41.9  -0.3
VNDA                               pmax    pmax
          comp=Z,12nm,0.5s
VNDA  Vanda            74.08 178   P       P         04 12 42.1  -0.1
          comp=Z,13nm,0.6s,mb4.8,baz=332,slow=6.9,SNR=44
HYB   Hyderabad        74.65 289  eP       P         04 12 46.0  -0.6
HYB   Hyderabad        74.65 289  i P      P         04 12 46.0  -0.6
TNA   Tin City         75.08  16  eP       P         04 12 47.7  -0.3
          comp=Z,9.0nm,1.1s,mb4.3
KDAK  Kodiak Island    75.81  27  eP       P         04 12 51.7  -0.5
          comp=Z,24nm,0.9s,mb4.8
KDAK  Kodiak Island    75.81  27   P       P         04 12 52.1  -0.2
          comp=Z,12nm,0.5s,mb4.8,baz=261,slow=2.3,SNR=26
SVW2  Sparrevohn       76.33  24  eP       P         04 12 55.5 +0.4
TIXI  Tiksi            76.52 353  eP       P         04 12 54.5  -1.4
          comp=Z,11nm,0.9s,mb4.5
TIXI  Tiksi            76.52 353⇑iP        P         04 12 53.5  -2.4
TIXI                               pmax    pmax
          comp=Z,10.0nm,1.0s,mb4.4
SLKM  Skilak Lake      78.25  26  eP       P         04 13 04.8  -0.7
MK31  Makanchi Array   78.42 319  eP       P         04 13 06.7  -0.1
MKAR  Makanchi Array   78.42 319   P       P         04 13 07.0 +0.1
MKAR                               pP      pP        04 14 43.2  -0.8
MKAR                               PKKPbc  PKKPbc    04 31 59.5  -2.7
MKAR                             ⇑e                  04 40 05.0
MKAR  Makanchi Array   78.42 319   P       P         04 13 07.0 +0.2
MKAR                               *PP     pP        04 14 43.2  -0.8
MKAR  Makanchi Array   78.42 319   P       P         04 13 07.0 +0.1
          comp=Z,9.8nm,0.6s,mb4.6,baz=96,slow=7.6,SNR=175
MKAR                               pP      pP        04 14 43.2  -0.8
          comp=Z,1.2nm,0.6s,baz=99,slow=6.8,SNR=2.0
MKAR                               PKKPbc  PKKPbc    04 31 59.5  -2.7
          comp=Z,0.5nm,0.6s,baz=263,slow=3.0,SNR=6.2
MKAR                               PKP2bc            04 40 05.0
          comp=Z,1.5nm,1.0s,baz=24,slow=3.3,SNR=4.1
PMR   Palmer           79.24  25  eP       P         04 13 10.0  -0.9
          comp=Z,33nm,0.9s,mb5.0
PMR   Palmer           79.24  25  eP       P         04 13 10.0  -0.9
PMR                                pmax    pmax
          comp=Z,33nm,0.9s,mb5.0
ZALV  Zalesovo Beam    79.31 327   P       P         04 13 10.6  -0.9
          comp=Z,23nm,0.6s,mb5.0,baz=110,slow=5.4,SNR=94
ZALV                               pP      pP        04 14 46.7  -2.1
          comp=Z,3.2nm,0.8s,baz=88,slow=4.9,SNR=3.7
ZALV                               PKKPbc  PKKPbc    04 31 57.3  -3.3
          comp=Z,1.0nm,0.5s,baz=295,slow=1.5,SNR=5.4
ZALV                               PKPPKP            04 40 01.4
          comp=Z,0.7nm,0.6s,baz=316,slow=4.0,SNR=3.9
ZAL   Zalesovo         79.32 327   P       P         04 13 10.6  -0.9
ZAL                                *PP     pP        04 14 46.7  -2.2
SML   Sawmill          79.68  25  eP       P         04 13 13.0  -0.2
IMA2  Indian Mountai   79.85  20  eP       P         04 13 13.9  -0.1
IMA2                              epP      pP        04 14 52.3 +0.7
MCK   McKinley         80.36  23  eP       P         04 13 15.5  -1.2
NVS   Novosibirsk      80.49 327⇑iP        P         04 13 16.5  -1.2
NVS                               e*PP     pP        04 14 52.1  -3.3
NVS                               eS       S         04 22 40.8  -6.2
NVS                                pmax    pmax
          comp=N,13nm,1.7s
NVS                                pmax    pmax
          comp=Z,32nm,1.7s,mb4.7
NVS                                pmax    pmax
          comp=E,21nm,1.3s
NVS                                smax
          comp=E,47nm,2.1s
KSH   Kashi            80.99 311   P       P         04 13 22.5 +1.9
KSH                               eAP      pP        04 15 02.0 +3.5
KSH                               eXP      sP        04 15 47.3 +2.9
KSH                               ePP      PP        04 16 38.3 +5.3
KSH                               ePPP               04 18 32.8
KSH                               eS       S         04 22 46.4  -6.3
KSH                               eXS      sS        04 25 50.8 +3.7
COLA  College          81.32  22  eP       P         04 13 19.6  -2.1
          comp=E,44nm,0.8s,mb5.2
COLA  College          81.32  22  eP       P         04 13 19.6  -2.1
COLA                               pmax    pmax
          comp=Z,43nm,0.8s,mb5.2
ULHL  Ulahol           81.39 313   P       P         04 13 23.7 +1.1
          SNR=5.7
KURK  Kurchatov        81.89 322  eP       P         04 13 24.2  -0.7
          comp=Z,25nm,0.9s,mb4.9
KURK  Kurchatov        81.89 322c iP       P         04 13 24.6  -0.4
TKM2  Tokmak 2         82.00 314   P       P         04 13 26.3 +0.6
          SNR=22
TKM2  Tokmak 2         82.00 314  eP       P         04 13 26.1 +0.4
          comp=Z,15nm,0.5s,mb5.0
TKM2  Tokmak 2         82.00 314  eP       P         04 13 26.1 +0.4
TKM2                               pmax    pmax
          comp=Z,15nm,0.5s,mb5.0
KZA   Kyzart           82.07 313   P       P         04 13 28.0 +1.9
          SNR=40
KBK   Karagaybulak     82.41 314   P       P         04 13 28.8 +0.9
          SNR=8.6
CHMS  Chumysh          82.62 314   P       P         04 13 29.4 +0.5
          SNR=18
UCH   Uchtor           82.64 313   P       P         04 13 30.8 +1.8
          SNR=53
AAK   Ala-Archa        82.73 314   P       P         04 13 30.3 +0.8
          SNR=27
AAK   Ala-Archa        82.73 314  eP       P         04 13 29.4  -0.1
          comp=Z,18nm,0.7s,mb4.9
AAK   Ala-Archa        82.73 314c iP       P         04 13 29.2  -0.3
AAK                                pmax    pmax
          comp=Z,31nm,1.1s,mb5.0
AML   Almayashu        83.22 313   P       P         04 13 33.5 +1.6
          SNR=87
AML   Almayashu        83.22 313  eP       P         04 13 33.1 +1.2
          comp=Z,99nm,0.9s,mb5.5
EKS2  Erkin-Say        83.26 314   P       P         04 13 33.0 +0.9
          SNR=31
EKS2  Erkin-Say        83.26 314  eP       P         04 13 32.8 +0.7
          comp=Z,39nm,0.9s,mb5.1
EGAK  Eagle            83.87  23  eP       P         04 13 34.3  -0.4
          comp=Z,38nm,0.9s,mb5.1
DAWY  Dawson           84.33  24  eP       P         04 13 37.3 +0.3
KBL   Kabul            85.62 305  eP       P         04 13 42.7  -1.3
KK31  Karatay Array    85.70 314  i P      P         04 13 43.6  -0.6
KK31                               pmax    pmax
          comp=Z,7.0nm,0.5s,mb4.7
KKAR  Karatay Array    85.70 314  i P      P         04 13 43.6  -0.6
KKAR                               pmax    pmax
          comp=Z,3.0nm,0.5s,mb4.3
MAW   Mawson           86.08 203  eP       P         04 13 44.6  -0.9
          comp=Z,18nm,0.8s,mb4.8
MAW   Mawson           86.08 203  eP       P         04 13 44.6  -0.9
MAW                                pmax    pmax
          comp=Z,18nm,0.8s
MAW   Mawson           86.08 203   P       P         04 13 45.2  -0.3
          comp=Z,22nm,0.7s,mb5.0,baz=100,slow=7.1,SNR=27
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DLBC  Dease Lake        87.15  31 eP      P        04 13 51.6 +0.9
BRVK  Borovoye          87.44 323 eP      P        04 13 50.9 -1.3
      comp=Z,19nm,0.8s,mb4.9
BRVK  Borovoye          87.44 323 eP      P        04 13 50.9 -1.3
BRVK                               pmax   pmax
      comp=Z,19nm,0.8s,mb4.9
INK   Inuvik            87.89  21 eP      P        04 13 53.1 -0.9
INK   Inuvik            87.89  21  P      P        04 13 53.1 -0.9
      comp=Z,22nm,1.0s,mb4.8,baz=260,slow=3.8,SNR=55
INK                                pP     pP       04 15 31.9 -2.0
      comp=Z,6.4nm,1.1s,baz=218,slow=3.2,SNR=4.7
L02A  Cave Junction     88.78  48 ⇑P      P        04 13 59.0 +0.2
      baz=89
J02A  Umpqua            88.93  47 ⇑P      P        04 13 59.1 -0.3
      baz=89
K02A  Glendale          88.93  47 ⇑P      P        04 13 59.1 -0.4
      baz=89
MCCM  Marconi Confer    88.94  52 ⇓P      P        04 14 00.4 +0.8
      baz=89
D03A  Wishkah Elem.     89.18  43 ⇑P      P        04 14 01.2 +0.7
      baz=89
O02C  Red Bluff         89.20  50 ⇑P      P        04 14 00.9 +0.2
      baz=89
F03A  Seaside           89.20  44 ⇓P      P        04 14 01.0 +0.3
      baz=89
GASB  Alder Springs     89.20  50 ⇑P      P        04 14 00.7 -0.1
      baz=89
H03A  Soap Creek Ran    89.26  45 ⇑P      P        04 14 00.6 -0.3
      baz=89
E03A  Lebam             89.27  43 ⇓P      P        04 14 01.1 +0.2
      baz=89
M02C  Callahan          89.27  49  P      P        04 14 01.6 +0.5
      baz=89,SNR=8.5
HUMO  Hull Mountain     89.30  47 eP      P        04 14 01.3 +0.1
      comp=Z,24nm,0.8s,mb5.0
HUMO  Hull Mountain     89.30  47 ⇓P      P        04 14 01.4 +0.2
      baz=89,SNR=15
MNRC  McLaughlin Nat    89.35  51 ⇓P      P        04 14 01.3 -0.1
      baz=89
J03A  Ideyld Park       89.37  47 ⇓P      P        04 14 01.4  0.0
      baz=89
YBH   Yreka Blue Hor    89.40  48 eP      P        04 14 02.3 +0.6
      comp=Z,16nm,0.9s,mb4.8
YBH   Yreka Blue Hor    89.40  48 eP      P        04 14 02.3 +0.6
YBH                                pmax   pmax
      comp=Z,16nm,0.9s
YBH   Yreka Blue Hor    89.40  48  P      P        04 14 02.0 +0.3
      baz=89,SNR=9.1
WDC   Whiskeytown Da    89.43  49  P      P        04 14 02.0 +0.2
      baz=90,SNR=5.3
B04A  Port Angeles      89.46  42 ⇓P      P        04 14 02.2 +0.4
      baz=90
O03C  Acorn Hollow,     89.76  50 ⇓P      P        04 14 03.1 -0.3
      baz=90
C04A  Brinnon           89.78  42 ⇓P      P        04 14 03.3 +0.1
      baz=90
M03C  McCloud           89.80  49  P      P        04 14 03.8 +0.3
      baz=90,SNR=16
I04A  Tendick Farm,     89.81  46 ⇑P      P        04 14 03.5  0.0
      baz=90
E04A  Onalaska          89.85  43 ⇓P      P        04 14 03.9 +0.3
      baz=90
GNW   Green Mountain    89.87  42 eP      P        04 14 04.0 +0.3
G04A  Mulino            89.89  45 ⇑P      P        04 14 04.0 +0.2
      baz=90
J04A  Umpqua Nationa    89.98  47  P      P        04 14 04.9 +0.6
      baz=90,SNR=6.9
F04A  Amboy             90.00  44 ⇓P      P        04 14 04.5 +0.2
      baz=90
H04A  Detroit Lake      90.05  45 ⇑P      P        04 14 04.3 -0.3
      baz=90
L04A  Klamath Falls     90.05  48  P      P        04 14 05.0 +0.4
      baz=90,SNR=11
A04A  Legoe Bay, Lum    90.06  41 ⇓P      P        04 14 05.6 +1.1
      baz=90
M04C  Macdoel           90.06  48  P      P        04 14 05.2 +0.5
      baz=90,SNR=11
S04C  Ingram Canyon,    90.11  53 ⇓P      P        04 14 05.5 +0.5
      baz=90
ORV   Oroville          90.14  51  P      P        04 14 04.7 -0.5
      baz=90,SNR=7.0
K04A  Chilquin          90.21  47 ⇓P      P        04 14 05.4 +0.1
      baz=90
HATC  Hat Creek Radi    90.26  49 ⇓P      P        04 14 05.4 -0.2
      baz=90
D05A  Enumclaw          90.40  43 ⇓P      P        04 14 06.1 -0.1
      baz=90
B05A  Bryant            90.42  42 ⇑P      P        04 14 06.3 +0.1
      baz=90
U04C  Hernandez Rese    90.46  54 ⇑P      P        04 14 07.6 +0.9
      baz=90
E05A  Randle            90.50  44 ⇓P      P        04 14 05.7 -0.9
      baz=90
O04C  Chester           90.51  50  P      P        04 14 07.0 +0.2
      baz=90,SNR=7.8
M05C  Lookout           90.54  49  P      P        04 14 07.0  0.0
      baz=91,SNR=11
J05A  Fort Rock         90.62  47  P      P        04 14 07.9 +0.6
      baz=91,SNR=10
PKD   Parkfield         90.63  54 ⇑P      P        04 14 07.9 +0.4
      baz=91
LAVA  Lava Cap Winer    90.67  51 ⇓P      P        04 14 07.4 -0.2
      baz=91
G05A  Wamic             90.71  45 ⇑P      P        04 14 08.0 +0.4
      baz=91
ELFS  Eagle Lake Fie    90.81  50  P      P        04 14 08.4 +0.3
      baz=91,SNR=5.8
P05C  Yuba Gap, Truc    90.81  51 ⇓P      P        04 14 08.3 +0.1
      baz=91
L05A  Lakeview          90.83  48  P      P        04 14 08.5 +0.3
      baz=91,SNR=5.7
K05A  Summer Lake       90.83  47  P      P        04 14 08.9 +0.7
      baz=91,SNR=12
B06A  Marblemount       90.85  42 ⇓P      P        04 14 08.3 +0.1
      baz=91
S05C  Merced            90.89  53  P      P        04 14 08.8 +0.1
      baz=91,SNR=6.6
CMB   Columbia Colle    90.89  52 ⇓P      P        04 14 08.6 -0.1
      baz=91
A06A  Chilliwack        90.89  41 ⇓P      P        04 14 08.6 +0.2
      baz=91
U05C  Westside ANR,     90.99  54 ⇑P      P        04 14 10.0 +0.8
      baz=91
M06C  Likely Place G    91.03  49  P      P        04 14 09.7 +0.5
      baz=91,SNR=5.6
BEKR  Beckwourth        91.04  50  P      P        04 14 09.1 -0.1
      baz=91,SNR=8.1
E06A  Yakima            91.04  44 ⇑P      P        04 14 09.0 -0.1
      baz=91
F06A  Goldendale        91.12  44 ⇓P      P        04 14 10.1 +0.5
      baz=91
PKM   Peak Mountain     91.15  55 ⇓P      P        04 14 10.3 +0.4
      baz=91
D06A  Cle Elum          91.18  43 ⇓P      P        04 14 09.9 +0.2
      baz=91
R05C  Kirkwood Meado    91.18  51 ⇓P      P        04 14 10.1 +0.1
      baz=91
G06A  Carlson Farm,     91.19  45 ⇑P      P        04 14 10.2 +0.4
      baz=91
MOD   Modoc             91.21  48 eP      P        04 14 10.4 +0.4
      comp=Z,11nm,1.0s,mb4.6
MOD   Modoc             91.21  48  P      P        04 14 10.3 +0.2
      baz=91,SNR=14
K06A  Valley Falls      91.31  47  P      P        04 14 10.7 +0.3
      baz=91,SNR=6.9
S06C  San Francisco     91.31  52  P      P        04 14 10.2 -0.4
      baz=91,SNR=9.5
T06C  Millerton Lake    91.37  53  P      P        04 14 10.8 -0.1
      baz=91,SNR=15
H06A  Lindquist Farm    91.37  45 ⇑P      P        04 14 11.1 +0.4
      baz=91
P06A  Stead Airport,    91.38  51 ⇑P      P        04 14 11.4 +0.5
      baz=91
J06A  Christmas Vall    91.41  47  P      P        04 14 10.8 -0.1
      baz=91,SNR=7.8
I06A  Prineville        91.41  46  P      P        04 14 11.3 +0.4
      baz=91,SNR=5.2
O06A  Flanigan          91.46  50 ⇑P      P        04 14 11.2  0.0
      baz=92
WCN   Washoe City       91.47  51 ⇑P      P        04 14 11.4 +0.1
      baz=92
N06A  Buffalo Meadow    91.49  49  P      P        04 14 11.2 -0.1
      baz=92,SNR=12
A07A  Ashnola River,    91.61  41  P      P        04 14 12.1 +0.4
      baz=92,SNR=5.2
R06C  Coleville         91.66  52  P      P        04 14 12.4 +0.3
      baz=92,SNR=5.2
WAKR  Walker            91.67  52 eP      P        04 14 12.4 +0.1
KCC   Kaiser Creek      91.69  53  P      P        04 14 12.5 +0.2
      baz=92,SNR=8.0
RCTC  Rector, Farmer    91.70  54 ⇓P      P        04 14 12.0 -0.4
      baz=92
C07A  Waterville        91.74  43 ⇑P      P        04 14 12.4  0.0
      baz=92
B07A  Winthrop          91.75  42 ⇑P      P        04 14 12.4  0.0
      baz=92
D07A  Quincy            91.77  43 ⇓P      P        04 14 12.2 -0.3
      baz=92
VES   Vestal, Richgr    91.81  54 ⇑P      P        04 14 12.5 -0.4
      baz=92
E07A  Sunnyside         91.82  44 ⇓P      P        04 14 13.0 +0.3
      baz=92
G07A  Ruggs Ranch, H    91.87  45 ⇑P      P        04 14 12.5 -0.5
      baz=92
HELL  Mitchell Peak,    91.90  54  P      P        04 14 13.2 -0.1
      baz=92,SNR=9.4
H07A  Lands Inn, Kim    91.91  46 ⇑P      P        04 14 13.1 -0.1
      baz=92
I07A  Izee              91.93  46  P      P        04 14 13.4 +0.2
      baz=92,SNR=5.4
L07A  Adell             91.94  48  P      P        04 14 13.8 +0.4
      baz=92,SNR=12
R07C  Lee Vining        91.95  52 ⇑P      P        04 14 13.7 +0.2
      baz=92
M07A  Soldier Meadow    92.03  49  P      P        04 14 14.2 +0.4
      baz=92,SNR=7.9
J07A  Hines             92.03  47 ⇓P      P        04 14 14.1 +0.3
      baz=92
HAWA  Hanford           92.03  44 eP      P        04 14 13.6 -0.1
K07A  Rock Creek Ran    92.04  48  P      P        04 14 14.0 +0.2
      baz=92,SNR=6.8
O07A  Toulon            92.19  50 ⇑P      P        04 14 14.7 +0.1
      baz=92
CIS   Catalina Islan    92.24  57 ⇓P      P        04 14 14.7 -0.3
      baz=92
B08A  Colville Reser    92.27  42 ⇑P      P        04 14 14.5 -0.3
      baz=92
ISA   Isabella          92.29  55  P      P        04 14 15.0 -0.1
      baz=92,SNR=8.2
MTUM  Tungsten Hills    92.30  53 eP      P        04 14 15.3 +0.2
A08A  Turner Farm, O    92.34  41 ⇓P      P        04 14 15.5 +0.4
      baz=92
E08A  Dider Farm, El    92.36  44 ⇓P      P        04 14 14.9 -0.3
      baz=92
G08A  Pilot Rock        92.38  45 ⇓P      P        04 14 15.2 -0.1
      baz=92
C08A  Higginbotham F    92.43  42  P      P        04 14 15.8 +0.3
      baz=92,SNR=5.8
WVOR  Wild Horse Val    92.48  48 eP      P        04 14 15.2 -0.6
      comp=Z,8.3nm,1.1s,mb4.6
WVOR  Wild Horse Val    92.48  48 eP      P        04 14 15.2 -0.7
WVOR                               pmax   pmax
      comp=Z,8.0nm,1.1s,mb4.6
D08A  Wollman Farm,     92.48  43 ⇓P      P        04 14 15.9 +0.1
      baz=92
F08A  Pendleton         92.53  44 ⇑P      P        04 14 15.7 -0.3
      baz=92
H08A  Prairie City      92.55  46 ⇓P      P        04 14 15.7 -0.4
      baz=93
NVAR  Mina Array Bea    92.55  52  P      P        04 14 16.4 +0.1
      comp=Z,5.6nm,0.8s,mb4.6,baz=256,slow=4.4,SNR=32
S08C  White Mtn Res     92.62  53  P      P        04 14 17.1 +0.5
      baz=93,SNR=6.0
M08A  Happy Creek Ra    92.63  49 ⇓P      P        04 14 16.8 +0.2
      baz=93,SNR=5.4
J08A  Circle Bar Ran    92.64  47  P      P        04 14 16.4 -0.2
      baz=93,SNR=6.8
CWC   Cottonwood Cre    92.64  54 ⇑P      P        04 14 16.7  0.0
      baz=93
EDW2  Edwards Air Fo    92.65  55  P      P        04 14 17.3 +0.5
      baz=93,SNR=8.3
L08A  Fields            92.68  48  P      P        04 14 16.8  0.0
      baz=93,SNR=9.1
R08A  Mina              92.70  52 ⇓P      P        04 14 16.9 -0.1
      baz=93
N08A  GE Springer Mi    92.78  49  P      P        04 14 17.6 +0.3
      baz=93,SNR=7.4
A09A  Danville          92.79  41  P      P        04 14 17.4 +0.3
      baz=93,SNR=5.0
Q08A  Gabbs             92.86  51 ⇑P      P        04 14 17.3 -0.4
      baz=93
BFSC  Mount Baldy St    92.89  56 ⇓P      P        04 14 17.5 -0.5
      baz=93
D09A  Jones Farm, Ri    92.90  43 ⇑P      P        04 14 17.4 -0.3
      baz=93
LRMC  Laurel Mountai    92.92  55 ⇑P      P        04 14 18.0  0.0
      baz=93
C09A  Chrisman Ranch    92.95  42 ⇓P      P        04 14 18.0 +0.1
      baz=93
E09A  Wood Farm, Sta    92.99  44 ⇓P      P        04 14 17.4 -0.7
      baz=93
B09A  Rice              93.06  42 ⇓P      P        04 14 18.4  0.0
      baz=93,SNR=6.5
MPMC  Manual Prospec    93.11  54  P      P        04 14 19.0 +0.1
      baz=93,SNR=11
K09A  Rome              93.16  48 ⇓P      P        04 14 18.4 -0.6
      baz=93
J09A  Fry Pan Ranch,    93.16  47  P      P        04 14 18.8 -0.2
      baz=93,SNR=6.8
L09A  Wilkinson Ranc    93.18  48 ⇑P      P        04 14 19.1  0.0
      baz=93
I09A  Lost Marbles R    93.19  46 ⇑P      P        04 14 18.6 -0.5
      baz=93
GRAC  Grapevine Rang    93.24  53  P      P        04 14 19.4  0.0
      baz=93,SNR=6.6
MURC  Murrieta          93.25  57 ⇓P      P        04 14 19.4 -0.2
      baz=93
109C  Camp Elliot, M    93.30  57 ⇑P      P        04 14 20.2 +0.3
      baz=93
M09A  Marrel Ranch,     93.32  49 ⇓P      P        04 14 20.1 +0.3
      baz=93
S09A  Goldfield         93.38  53  P      P        04 14 20.2 +0.1
      baz=93,SNR=17
Q09A  Carvers           93.45  51 ⇓P      P        04 14 20.3 -0.1
      baz=94
A10A  Northport         93.47  41  P      P        04 14 20.5 +0.3
      baz=94,SNR=5.2
O09A  Fish Creek Ran    93.48  50  P      P        04 14 20.5  0.0
      baz=94,SNR=5.7
R09A  Tonopah           93.51  52  P      P        04 14 20.9 +0.2
      baz=94,SNR=5.5
BMO   Blue Mountains    93.53  45 eP      P        04 14 19.5 -1.1
      comp=Z,2.8nm,0.7s,mb4.4
BMO   Blue Mountains    93.53  45 eP      P        04 14 19.5 -1.1
BMO                                pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.4
AB31  Akbulak array     93.56 319 i P     P        04 14 18.4 -2.3
AB31                               pmax   pmax
      comp=Z,2.0nm,0.6s,mb4.3
D10A  Wagner Farm, O    93.61  43  P      P        04 14 20.4 -0.6
      baz=94,SNR=8.5
F10A  Beach Ranch, E    93.61  44  P      P        04 14 20.2 -0.8
      baz=94,SNR=9.7
FURC  Furnace Creek,    93.63  54 ⇑P      P        04 14 21.1 -0.2
      baz=94
GSC   Goldstone         93.64  55  P      P        04 14 21.6 +0.2
      baz=94,SNR=6.8
B10A  Chitwood Farm,    93.67  42 ⇑P      P        04 14 21.5 +0.4
      baz=94
E10A  Myers Farm, Un    93.71  44 ⇑P      P        04 14 21.4  0.0
      baz=94
NEW   Newport           93.74  42 eP      P        04 14 20.8 -0.6
      comp=Z,4.4nm,0.8s,mb4.5
NEW   Newport           93.74  42 eP      P        04 14 20.8 -0.7
NEW                                pmax   pmax
      comp=Z,4.0nm,0.8s
K10A  MacKenzie Ranc    93.79  48  P      P        04 14 21.9  0.0
      baz=94,SNR=5.5
I10A  Payette           93.87  46 ⇓P      P        04 14 22.2  0.0
      baz=94
PFO   Pinyon Flat Ob    93.87  57 eP      P        04 14 22.8 +0.4
      comp=Z,5.9nm,0.8s,mb4.7
PFO   Pinyon Flat Ob    93.87  57 eP      P        04 14 22.8 +0.3
PFO                                pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.7
PFO   Pinyon Flat Ob    93.87  57 ⇑P      P        04 14 22.9 +0.4
      baz=94
MONP  Monument Peak     93.88  57  P      P        04 14 23.6 +1.1
      baz=94,SNR=5.9
S10A  Tonopah Range,    93.88  52  P      P        04 14 22.4  0.0
      baz=94,SNR=11
J10A  Berg Farm, Mel    93.88  47 ⇓P      P        04 14 22.1 -0.2
      baz=94
H10A  Noah’s Angus R    93.92  46 ⇑P      P        04 14 21.9 -0.6
      baz=94
HEC   Hector,Ludlow     94.01  55  P      P        04 14 23.3 +0.2
      baz=94,SNR=5.8
U10A  Ash Meadows, A    94.05  54  P      P        04 14 23.6 +0.3
      baz=94,SNR=5.4
L10A  Juniper Basin     94.07  48  P      P        04 14 23.0 -0.2
      baz=94,SNR=6.0
SHOC  Shoshone          94.08  54 ⇑P      P        04 14 23.3 -0.1
      baz=94
DVTC  Desert V Tower    94.14  58 ⇓P      P        04 14 23.5 -0.2
      baz=94
B11A  Sandpoint         94.24  42  P      P        04 14 23.6 -0.2
      baz=94,SNR=5.3
D11A  Klaveano Farm,    94.25  43 ⇓P      P        04 14 23.2 -0.6
      baz=94
A11A  Hall Mountain,    94.25  41  P      P        04 14 24.4 +0.6
      baz=94,SNR=9.3
BELC  Belle Mtn.        94.26  56 ⇓P      P        04 14 24.4 +0.1
      baz=94
G11A  Walters Elk Ra    94.28  45 ⇓P      P        04 14 23.3 -0.7
      baz=94
E11A  Bogner Ranch,     94.33  44  P      P        04 14 23.5 -0.8
      baz=94,SNR=9.1
TUQ   Turquoise Mtn.    94.36  55 ⇓P      P        04 14 24.5 -0.1
      baz=94
F11A  Grangeville       94.36  44  P      P        04 14 22.6 -1.8
      baz=94,SNR=6.2
SWSC  Sam W. Stewart    94.41  57 ⇓P      P        04 14 25.0 +0.1
      baz=94
K11A  Parker Ranch,     94.41  48 ⇑P      P        04 14 24.3 -0.4
      baz=94
H11A  Donnelly          94.45  46 ⇑P      P        04 14 24.1 -0.7
      baz=94
ARU   Arti              94.47 326 eP      P        04 14 22.5 -2.2
      comp=Z,7.7nm,0.7s,mb4.8
ARU   Arti              94.47 326d iP     P        04 14 22.6 -2.0
ARU                               e                04 18 18.0
ARU                               eS      S        04 24 13.6  -44
ARU                               eSS     SS       04 31 30.7 -2.1
ARU                                pmax   pmax
      comp=Z,10.0nm,0.9s,mb4.8
I11A  Placerville       94.48  46 ⇓P      P        04 14 24.5 -0.5
      baz=94
GMRC  Granite Mounta    94.56  56  P      P        04 14 26.0 +0.4
      baz=95,SNR=10
MFID  Camas Ranch       94.57  47 ⇓P      P        04 14 25.2 -0.2
      baz=95
M11A  Holland Ranch,    94.57  49 ⇑P      P        04 14 25.2 -0.3
      baz=95
L11A  Cat Creek Ranc    94.61  48 ⇓P      P        04 14 25.2 -0.4
      baz=95
Q11A  Duckwater         94.64  51 ⇓P      P        04 14 25.8  0.0
      baz=95
O11A  Cowboy Ranch,     94.66  50 ⇑P      P        04 14 25.7 -0.2
      baz=95
BC3   Big Chuckw Mtn    94.71  57 ⇑P      P        04 14 26.4 +0.1
      baz=95
A12A  Yaak River Ran    94.72  41 ⇓P      P        04 14 26.4 +0.5
      baz=95
B12A  Libby             94.76  42 ⇓P      P        04 14 25.9 -0.2
      baz=95
V11A  Goodsprings       94.77  54  P      P        04 14 27.0 +0.5
      baz=95,SNR=5.0
U11A  Corn Creek        94.82  54 ⇓P      P        04 14 26.7  0.0
      baz=95
D12A  Red Ives Fores    94.92  43 ⇓P      P        04 14 26.4 -0.5
      baz=95
IRM   Iron Mountain     94.97  56 ⇑P      P        04 14 27.4  0.0
      baz=95
F12A  Elk City          94.99  45 ⇓P      P        04 14 26.3 -1.0
      baz=95
SHPR  Sheep Range       95.00  54 eP      P        04 14 27.4 -0.1
YKW3  Yellowknife Ar    95.08  28 eP      P        04 14 26.6 -0.7
YKA   Yellowknife Ar    95.08  28  P      P        04 14 26.6 -0.6
YKA                                pP     pP       04 16 06.4 -1.5
YKA   Yellowknife Ar    95.08  28  P      P        04 14 26.6 -0.6
      comp=Z,4.6nm,0.6s,mb4.7,baz=271,slow=4.9,SNR=88
YKA                                pP     pP       04 16 06.4 -1.5
      comp=Z,2.2nm,0.8s,baz=272,slow=4.6,SNR=6.6
YKA                                PKiKP  PKiKP    04 19 04.9 -0.9
      comp=Z,0.3nm,0.4s,baz=279,slow=1.4,SNR=7.4
YKA                                PKKPbc PKKPbc   04 31 18.5 -4.1
      comp=Z,1.5nm,0.7s,baz=89,slow=2.8,SNR=24
J12A  Stokes Ranch,     95.10  47 ⇑P      P        04 14 27.8  0.0
      baz=95
N12A  Clover Valley,    95.13  49 ⇓P      P        04 14 28.1 +0.1
      baz=95
L12A  House Creek Ra    95.16  48 ⇓P      P        04 14 28.0 -0.1
      baz=95
GLA   Glamis            95.22  57 ⇑P      P        04 14 29.0 +0.3
      baz=95
P12A  McGill            95.23  51 ⇓P      P        04 14 28.1 -0.3
      baz=95
M12A  Wells             95.23  49  P      P        04 14 28.4 -0.1
      baz=95,SNR=5.1
V12A  Nelson            95.24  55  P      P        04 14 29.1 +0.5
      baz=95,SNR=5.5
K12A  Draper Farm, C    95.24  48 ⇓P      P        04 14 27.9 -0.5
      baz=95
H12A  Diamond D Ranc    95.27  46 ⇑P      P        04 14 28.1 -0.5
      baz=95
Q12A  Willow Creek R    95.28  51 ⇓P      P        04 14 28.5 -0.2
      baz=95
BSMT  Bassoo Peak       95.30  42 eP      P        04 14 28.5 -0.1
C13A  Hot Springs       95.45  43 ⇓P      P        04 14 28.4 -0.8
      baz=96
R12A  Pony Springs,     95.45  52 ⇑P      P        04 14 29.3 -0.2
      baz=96
Y12C  Blythe            95.48  57 ⇓P      P        04 14 30.1 +0.3
      baz=96
B13A  Whitefish         95.51  42  P      P        04 14 29.5 -0.1
      baz=96,SNR=9.9
A13A  Flathead Natio    95.54  41 ⇓P      P        04 14 29.5 -0.1
      baz=96
HLID  Hailey            95.60  47 eP      P        04 14 29.4 -0.7
      comp=Z,1.8nm,0.7s,mb4.3
HLID  Hailey            95.60  47 ⇑P      P        04 14 29.9 -0.1
      baz=96
F13A  Darby             95.64  45  P      P        04 14 29.5 -0.7
      baz=96,SNR=10
H13A  Challis           95.70  46  P      P        04 14 30.2 -0.3
      baz=96,SNR=6.5
G13A  Cobalt            95.71  45 ⇑P      P        04 14 30.2 -0.4
      baz=96
M13A  Montello          95.79  49 ⇓P      P        04 14 31.0  0.0
      baz=96
I13A  Wildhorse Cree    95.81  46 ⇓P      P        04 14 31.0  0.0
      baz=96
PDMCI Parker Dam,Lak    95.81  56 ⇓P      P        04 14 31.2 -0.1
      baz=96
K13A  Stover Farm, H    95.84  48 ⇑P      P        04 14 31.0 -0.2
      baz=96
WALA  Waterton Lakes    95.87  41 eP      P        04 14 31.5 +0.4
      comp=Z,10nm,1.0s,mb4.9
T13A  Saint George      96.01  53  P      P        04 14 32.5 +0.5
      baz=96,SNR=7.2
W13A  Hualapai Mount    96.02  55 ⇑P      P        04 14 32.8 +0.6
      baz=96
Y13A  Salome            96.06  57 ⇓P      P        04 14 32.6 +0.2
      baz=96
X13A  Yucca             96.07  56 ⇓P      P        04 14 31.9 -0.5
      baz=96
EDM   Edmonton          96.09  37 eP      P        04 14 32.2 +0.1
M14A  Sheep Mountain    96.41  49 ⇑P      P        04 14 33.7 -0.1
      baz=96
K14A  Jones Ranch, D    96.52  48 ⇑P      P        04 14 34.4 +0.2
      baz=96
T14A  Hurricane         96.67  53 ⇑P      P        04 14 35.4 +0.4
      baz=97
W14A  Seligman          96.68  55 ⇑P      P        04 14 35.5 +0.3
      baz=97
E15A  Deer Lodge        96.80  44  P      P        04 14 35.0 -0.4
      baz=97,SNR=5.2
DUG   Dugway            96.83  50 eP      P        04 14 35.4 -0.3
DUG   Dugway            96.83  50 ⇓P      P        04 14 35.0 -0.7
      baz=97
X14A  Yava              96.84  56  P      P        04 14 37.0 +1.1
      baz=97,SNR=5.9
X15A  Humboldt          97.38  56  P      P        04 14 39.5 +1.2
      baz=97,SNR=9.1
BOZ   Bozeman (W)       97.53  45 eP      P        04 14 38.2 -0.5
      comp=Z,1.8nm,0.7s,mb4.4
BOZ   Bozeman (W)       97.53  45 eP      P        04 14 38.2 -0.5
BOZ                                pmax   pmax
      comp=Z,2.0nm,0.7s,mb4.5
BOZ   Bozeman (W)       97.53  45 ⇓P      P        04 14 38.5 -0.2
      baz=98
HWUT  Hardware Ranch    97.74  49 eP      P        04 14 38.7 -1.1
      comp=Z,2.3nm,0.6s,mb4.6
WUAZ  Wupatki           98.07  55 eP      P        04 14 41.8 +0.5
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      comp=Z,4.1nm,0.9s,mb4.7
WUAZ  Wupatki           98.07  55 ⇑P       P        04 14 41.8 +0.4
      baz=98
EGMT  Eagleton          98.67  42 ⇓P       Pdif     04 14 43.2 -0.5
      baz=99
PDAR  Pinedale Array    99.17  47  P       Pdif     04 14 45.1 -0.7
      comp=Z,2.9nm,0.5s,baz=202,slow=1.9,SNR=30
PDAR                               PKKPbc  PKKPbc   04 31 08.9 -1.9
      comp=Z,0.8nm,0.9s,baz=101,slow=6.2,SNR=5.4
RES   Resolute Bay      99.63  14 ePdif    Pdif     04 14 46.7 -1.2
MVCO  Mesa Verde       100.32  53 ⇑P       Pdif     04 14 51.7 +0.7
      baz=100
ANMO  Albuquerque      102.12  55 ePdif    Pdif     04 15 00.1 +1.2
KEV   Kevo             104.72 343 epkp     PKiKP    04 19 19.9 -3.0
TXAR  Lajitas Array    104.89  61  Pdif    Pdif     04 15 12.8 +1.5
TXAR  Lajitas Array    104.89  61  Pdiff   Pdif     04 15 12.8 +1.5
      comp=Z,0.3nm,0.7s,baz=265,slow=0.7,SNR=4.7
TXAR                               PKiKP   PKiKP    04 19 23.6 -0.8
      comp=Z,0.3nm,0.6s,baz=135,slow=0.2,SNR=5.1
TXAR                               PKKPbc  PKKPbc   04 30 54.0 +0.3
      comp=Z,0.7nm,0.7s,baz=124,slow=5.1,SNR=9.9
ARCES ARCESS Array B   105.28 343  Pdif    Pdif     04 15 10.9 -2.1
ARCES                              PKPdf   PKiKP    04 19 23.3 -0.7
ARCES                              PKKPbc  PKKPbc   04 30 49.0 -5.1
ARCES ARCESS Array B   105.28 343  Pdiff   Pdif     04 15 10.9 -2.1
      comp=Z,0.9nm,0.7s,baz=72,slow=8.6,SNR=4.1
ARCES                              PKiKP   PKiKP    04 19 23.3 -0.7
      comp=Z,3.1nm,0.7s,baz=94,slow=1.8,SNR=24
ARCES                              PKKPbc  PKKPbc   04 30 49.0 -5.1
      comp=Z,2.9nm,0.8s,baz=242,slow=3.1,SNR=15
JOF   Joensuu          106.47 336 ep       Pdif     04 15 14.9 -3.4
      comp=Z,1.1nm,0.4s
JOF   Joensuu          106.47 336 epkp     PKiKP    04 19 16.2  -10
JOF   Joensuu          106.47 336 eP       Pdif     04 15 14.9 -3.4
JOF                               ePKP     PKiKP    04 19 16.2  -10
ULM   Lac du Bonnet    107.26  38  Pdif    Pdif     04 15 21.5 -0.3
ULM                               ePKP     PKiKP    04 19 26.9 -1.2
ULM   Lac du Bonnet    107.26  38  Pdiff   Pdif     04 15 21.5 -0.3
      comp=Z,1.2nm,0.8s,baz=326,slow=3.6,SNR=2.9
ULM                                PKiKP   PKiKP    04 19 26.2 -2.0
      comp=Z,2.1nm,0.7s,baz=250,slow=5.5,SNR=4.6
JCT   Junction City    108.12  59 ePKP     PKiKP    04 19 30.2 -0.2
WMOK  Wichita Mounta   108.42  55 ePKP     PKiKP    04 19 30.2 -0.6
KAF   Kangasniemi      108.90 336 epkp     PKiKP    04 19 29.3 -1.6
KAF   Kangasniemi      108.90 336 ePKP     PKiKP    04 19 29.3 -1.6
FINES FINESS Array B   109.33 335  Pdif    Pdif     04 15 28.9 -2.1
FINES                              PKPdf   PKiKP    04 19 31.1 -0.6
FINES FINESS Array B   109.33 335  Pdiff   Pdif     04 15 28.9 -2.1
      comp=Z,1.1nm,0.6s,baz=59,slow=3.8,SNR=8.2
FINES                              PKiKP   PKiKP    04 19 31.1 -0.6
      comp=Z,2.3nm,0.7s,baz=108,slow=3.2,SNR=12
MALT  Malatya          110.07 309 ePKP     PKiKP    04 19 33.7 -0.1
MALT  Malatya          110.07 309 ⇓PKIKP   PKiKP    04 19 33.9 +0.1
MALT  Malatya          110.07 309⇓iP       PKiKP    04 19 33.9 +0.1
AKASG Malin Array Be   112.63 324  PKPdf   PKiKP    04 19 37.1 -1.2
AKASG Malin Array Be   112.63 324  PKIKP   PKiKP    04 19 37.1 -1.2
AKASG Malin Array Be   112.63 324  PKiKP   PKiKP    04 19 37.1 -1.2
      comp=Z,3.1nm,0.5s,baz=55,slow=2.5,SNR=22
AKBB  Malin Array Si   112.63 324 ePKP     PKiKP    04 19 37.1 -1.2
AKBB  Malin Array Si   112.63 324 ePKIKP   PKiKP    04 19 37.1 -1.2
BR131 Keskin Array S   113.36 312 ePKP     PKiKP    04 19 39.7 -0.4
BRTR  Keskin Array B   113.36 312  PKPdf   PKiKP    04 19 39.0 -1.1
BRTR                               PKKPbc  PKKPbc   04 30 26.7 -0.6
BRTR  Keskin Array B   113.36 312  PKIKP   PKiKP    04 19 39.0 -1.0
BRTR                                                04 30 26.7
BRTR  Keskin Array B   113.36 312  PKiKP   PKiKP    04 19 39.0 -1.1
      comp=Z,1.5nm,0.5s,baz=127,slow=2.8,SNR=13
BRTR                               PKKPbc  PKKPbc   04 30 26.7 -0.6
      comp=Z,0.8nm,0.7s,baz=227,slow=2.4,SNR=6.7
KMBO  Kilima Mbogo     113.88 267 ePKP     PKiKP    04 19 42.1 +0.4
KMBO  Kilima Mbogo     113.88 267 ePKIKP   PKiKP    04 19 42.2 +0.4
KMBO  Kilima Mbogo     113.88 267  PKiKP   PKiKP    04 19 41.9 +0.1
      comp=Z,1.6nm,0.7s,baz=270,slow=3.0,SNR=4.8
ANTO  Ankara           113.95 312 ⇑P       PKiKP    04 19 40.6 -0.5
ANTO  Ankara           113.95 312 ⇑PKIKP   PKiKP    04 19 40.7 -0.5
ANTO  Ankara           113.95 312⇑iP       PKiKP    04 19 40.7 -0.5
SFJD  Kangerlussuaq    114.92   9  PKP     PKPdf    04 19 40.5 -1.8
SFJD  Kangerlussuaq    114.92   9  PKIKP   PKPdf    04 19 40.5 -1.7
SFJD  Kangerlussuaq    114.92   9  PKP     PKPdf    04 19 40.4 -1.8
      comp=Z,3.2nm,0.5s,baz=91,slow=1.1,SNR=4.1
HFS   Hagfors          115.00 338  PKP     PKPdf    04 19 40.8 -1.8
HFS   Hagfors          115.00 338  PKIKP   PKPdf    04 19 40.8 -1.8
HFS   Hagfors          115.00 338  PKP     PKPdf    04 19 40.8 -1.8
      comp=Z,1.1nm,0.4s,baz=33,slow=3.5,SNR=7.7
NB2   NORSAR Subarra115.27 340  PKPd    PKPdf    04 19 41.9 -1.1
      comp=Z,3.2nm,0.7s,baz=45,slow=1.9
NB2   NORSAR Subarra115.27 340  PKPdf   PKPdf    04 19 41.9 -1.1
NB2   NORSAR Subarra115.27 340  PKPd    PKPdf    04 19 41.9 -1.1
      baz=45,slow=1.9
NB2   NORSAR Subarra115.27 340  PKIKP   PKPdf    04 19 41.9 -1.1
NOA   NORSAR Array B 115.27 340  PKP     PKPdf    04 19 42.0 -1.1
NOA   NORSAR Array B 115.27 340  PKIKP   PKPdf    04 19 42.0 -1.0
NOA   NORSAR Array B 115.27 340  PKP     PKPdf    04 19 42.0 -1.1
      comp=Z,3.6nm,0.7s,baz=48,slow=1.9,SNR=14
BURAR Bucovina Array   116.31 322 ⇑P       PKPdf    04 19 46.1 +0.6
BURAR Bucovina Array   116.31 322 ⇑PKIKP   PKPdf    04 19 46.1 +0.6
BURAR Bucovina Array   116.31 322⇑iP       PKPdf    04 19 46.1 +0.6
MLR   Muntele Rosu     116.75 320 ⇓P       PKPdf    04 19 46.0 -0.3
MLR   Muntele Rosu     116.75 320 ⇓PKIKP   PKPdf    04 19 46.0 -0.4
MLR   Muntele Rosu     116.75 320  PKP     PKPdf    04 19 45.6 -0.8
      comp=Z,3.0nm,0.7s,baz=137,slow=2.2,SNR=5.5
MLR   Muntele Rosu     116.75 320⇓iP       PKPdf    04 19 46.0 -0.4
KWP   Kalwaria         116.86 325 ePKPdf   PKPdf    04 19 45.6 -0.9
KWP   Kalwaria         116.86 325 ePKIKP   PKPdf    04 19 45.6 -0.9
WCI   Wyandotte Cave   117.39  48 ePKPdf   PKPdf    04 19 46.6 -1.2
WCI   Wyandotte Cave   117.39  48 ePKIKP   PKPdf    04 19 46.6 -1.2
KOLS  Kolonicke sedl   117.45 325 i PKP    PKPdf    04 19 47.3 -0.3
KOLS  Kolonicke sedl   117.45 325 i PKIKP  PKPdf    04 19 47.3 -0.3
KOLS  Kolonicke sedl   117.45 325 i PKP    PKPdf    04 19 47.3 -0.3
STHS  Stebnicka Huta   117.80 326 ePKP     PKPdf    04 19 48.2 -0.1
STHS  Stebnicka Huta   117.80 326 ePKIKP   PKPdf    04 19 48.2 -0.1
STHS  Stebnicka Huta   117.80 326 ePKP     PKPdf    04 19 48.2 -0.1
CRVS  Cervenica-Dubn   117.93 325 ePKP     PKPdf    04 19 47.7 -0.8
CRVS  Cervenica-Dubn   117.93 325 ePKIKP   PKPdf    04 19 47.7 -0.8
CRVS  Cervenica-Dubn   117.93 325 ePKP     PKPdf    04 19 47.7 -0.8
OJC   Ojcow            118.19 327 ePKP     PKPdf    04 19 49.2 +0.2
OJC   Ojcow            118.19 327 ePKIKP   PKPdf    04 19 49.2 +0.2
DRGR                   118.21 322 ⇑P       PKPdf    04 19 48.4 -0.8
DRGR                   118.21 322 ⇑PKIKP   PKPdf    04 19 48.4 -0.7
DRGR                   118.21 322⇑iP       PKPdf    04 19 48.4 -0.7
NIE   Niedzica         118.32 326 ePKP     PKPdf    04 19 49.6 +0.3
NIE   Niedzica         118.32 326 ePKIKP   PKPdf    04 19 49.6 +0.3
GZR   Gura Zlata       118.81 321 ⇑P       PKPdf    04 19 50.0 -0.3
GZR   Gura Zlata       118.81 321 ⇑PKIKP   PKPdf    04 19 50.0 -0.3
GZR   Gura Zlata       118.81 321⇑iP       PKPdf    04 19 50.0 -0.3
BOSA  Boshof           119.09 234 ePKPdf   PKPdf    04 19 50.7 -0.7
BOSA  Boshof           119.09 234 ePKIKP   PKPdf    04 19 50.7 -0.7
BOSA  Boshof           119.09 234  PKP     PKPdf    04 19 51.0 -0.4
      comp=Z,3.9nm,0.6s,baz=284,slow=1.1,SNR=12
ACSO  Alum Creek Sta   119.12  45 ePKPdf   PKPdf    04 19 49.7 -1.4
OKC   Ostrava-Krasne   119.29 327 ePKP     PKPdf    04 19 50.9 -0.2
OKC   Ostrava-Krasne   119.29 327 ePKIKP   PKPdf    04 19 50.9 -0.2
OKC   Ostrava-Krasne   119.29 327 ePKPdf   PKPdf    04 19 50.9 -0.2
PSZ   Piszkesteto      119.33 325 ePKPdf   PKPdf    04 19 50.0 -1.2
PSZ   Piszkesteto      119.33 325 ePKIKP   PKPdf    04 19 50.1 -1.2
BZS   Buzias           119.43 322 ⇑P       PKPdf    04 19 50.6 -0.9
BZS   Buzias           119.43 322 ⇑PKIKP   PKPdf    04 19 50.6 -0.9
BZS   Buzias           119.43 322⇑iP       PKPdf    04 19 50.6 -0.9
VYHS  Vyhne            119.63 326 i PKP    PKPdf    04 19 50.8 -1.0
VYHS  Vyhne            119.63 326 i PKIKP  PKPdf    04 19 50.8 -1.0
VYHS  Vyhne            119.63 326 i PKP    PKPdf    04 19 50.8 -1.0
MORC  Moravsky Berou   119.65 327 ePKPdf   PKPdf    04 19 51.2 -0.6
MORC  Moravsky Berou   119.65 327 ⇑PKIKP   PKPdf    04 19 51.6 -0.2
MORC  Moravsky Berou   119.65 327⇑iP       PKPdf    04 19 51.6 -0.2
VTS   Vitosha          119.76 318 ⇑P       PKPdf    04 19 52.2  0.0
VTS   Vitosha          119.76 318 ⇑PKIKP   PKPdf    04 19 52.2 -0.1
VTS   Vitosha          119.76 318⇑iP       PKPdf    04 19 52.2 -0.1
DPC   Dobruska-Polom   119.97 328 ePKP     PKPdf    04 19 52.2 -0.2
DPC   Dobruska-Polom   119.97 328 ePKIKP   PKPdf    04 19 52.2 -0.2
DPC   Dobruska-Polom   119.97 328 ePKPdf   PKPdf    04 19 52.2 -0.2
TZTN  Tazewell         120.01  49 ePKPdf   PKPdf    04 19 52.1 -0.8
UPC   Upice            120.04 329 ePKP     PKPdf    04 19 52.3 -0.2
UPC   Upice            120.04 329 ePKIKP   PKPdf    04 19 52.3 -0.2
UPC   Upice            120.04 329 ePKPdf   PKPdf    04 19 52.3 -0.2
LBTB  Lobatse          120.11 238 ePKPdf   PKPdf    04 19 53.0 -0.5
LBTB  Lobatse          120.11 238 ePKIKP   PKPdf    04 19 53.0 -0.5
SCHQ  Schefferville    120.35  24  PKP     PKPdf    04 19 52.4 -0.6
SCHQ                               PKKPbc  PKKPbc   04 30 00.1 -3.5
SCHQ  Schefferville    120.35  24  PKP     PKPdf    04 19 52.4 -0.6
      comp=Z,4.1nm,0.6s,baz=11,slow=1.3,SNR=13
SCHQ                               PKKPbc  PKKPbc   04 30 00.1 -3.5
      comp=Z,2.2nm,0.8s,baz=127,slow=4.6,SNR=5.6
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VRAC  Vranov           120.42 327 ⇑P       PKPdf    04 19 52.9 -0.4
VRAC  Vranov           120.42 327 ⇑PKIKP   PKPdf    04 19 52.9 -0.4
VRAC  Vranov           120.42 327  PKP     PKPdf    04 19 52.4 -0.9
      comp=Z,2.5nm,0.8s,baz=60,slow=4.5,SNR=5.3
VRAC  Vranov           120.42 327⇑iP       PKPdf    04 19 52.9 -0.4
BSEG  Bad Segeberg     120.57 334 ePKPdf   PKPdf    04 19 53.4  0.0
BSEG  Bad Segeberg     120.57 334 ePKIKP   PKPdf    04 19 53.4  0.0
PVCC  Panska Ves       120.77 329 ePKP     PKPdf    04 19 53.9  0.0
PVCC  Panska Ves       120.77 329 ePKIKP   PKPdf    04 19 53.9  0.0
PVCC  Panska Ves       120.77 329 ePKPdf   PKPdf    04 19 53.9  0.0
ZST   Bratislava       120.77 326 ePKP     PKPdf    04 19 53.9 -0.1
ZST   Bratislava       120.77 326 ePKIKP   PKPdf    04 19 53.9 -0.1
ZST   Bratislava       120.77 326 ePKP     PKPdf    04 19 53.9 -0.1
BRG   Berggiesshubel   120.87 330 i PKP    PKPdf    04 19 53.9 -0.2
BRG   Berggiesshubel   120.87 330 i PKIKP  PKPdf    04 19 53.9 -0.2
BRG   Berggiesshubel   120.87 330 i PKP    PKPdf    04 19 53.9 -0.2
      comp=Z,8.2nm,0.8s
LAST  Lasithi          120.92 309  P       PKPdf    04 19 54.9 +0.2
PKSM  Moragy           120.94 323 ⇑P       PKPdf    04 19 53.6 -0.8
PKSM  Moragy           120.94 323 ⇑PKIKP   PKPdf    04 19 53.6 -0.8
PKSM  Moragy           120.94 323⇑iP       PKPdf    04 19 53.6 -0.8
TREC  Trest            121.02 328 ePKIKP   PKPdf    04 19 53.8 -0.7
TREC  Trest            121.02 328 ePKPdf   PKPdf    04 19 53.8 -0.7
CLL   Collm            121.06 331 i PKP    PKPdf    04 19 54.1 -0.4
CLL   Collm            121.06 331 i PKIKP  PKPdf    04 19 54.1 -0.4
CLL   Collm            121.06 331 i PKPdf  PKPdf    04 19 54.1 -0.4
PRU   Pruhonice        121.11 329 ePKP     PKPdf    04 19 53.7 -0.9
PRU   Pruhonice        121.11 329 ePKIKP   PKPdf    04 19 53.7 -0.9
PRU   Pruhonice        121.11 329 ePKPdf   PKPdf    04 19 53.7 -0.9
CLZ   Clausthal        121.96 333 ePKPdf   PKPdf    04 19 56.1 -0.1
CLZ   Clausthal        121.96 333 ePKIKP   PKPdf    04 19 56.1 -0.1
NKC   Novy Kostel      122.02 330 ePKP     PKPdf    04 19 56.1 -0.2
NKC   Novy Kostel      122.02 330 ePKIKP   PKPdf    04 19 56.1 -0.2
NKC   Novy Kostel      122.02 330 ePKPdf   PKPdf    04 19 56.1 -0.2
GVD   Gavdhos          122.11 309 ePKPdf   PKPdf    04 19 56.2 -0.8
KHC   Kasperske Hory   122.13 329 ePKP     PKPdf    04 19 56.2 -0.4
KHC   Kasperske Hory   122.13 329 ePKIKP   PKPdf    04 19 56.2 -0.4
KHC   Kasperske Hory   122.13 329 ePKPdf   PKPdf    04 19 56.2 -0.4
GEC2  GERESS Array S   122.23 328 ePKPdf   PKPdf    04 19 56.5 -0.3
GEC2  GERESS Array S   122.23 328 ePKIKP   PKPdf    04 19 56.5 -0.3
GERES GERESS Array B   122.23 328  PKP     PKPdf    04 19 56.6 -0.3
GERES                              pPKP    pPKPdf   04 21 40.9 -2.1
GERES                              PKKPbc  PKKPbc   04 29 54.1 -2.2
GERES GERESS Array B   122.23 328  PKIKP   PKPdf    04 19 56.6 -0.2
GERES                                               04 21 40.9
GERES GERESS Array B   122.23 328  PKP     PKPdf    04 19 56.6 -0.2
      comp=Z,8.2nm,0.5s,baz=74,slow=2.0,SNR=69
GERES                              pPKP    pPKPdf   04 21 40.9 -2.1
      comp=Z,1.3nm,0.8s,baz=336,slow=2.9,SNR=3.2
GERES                              PKKPbc  PKKPbc   04 29 54.1 -2.2
      comp=Z,0.5nm,0.6s,baz=219,slow=1.7,SNR=4.3
WET   Wettzell         122.48 329 ePKPdf   PKPdf    04 19 57.1 -0.2
WET   Wettzell         122.48 329 ePKIKP   PKPdf    04 19 57.1 -0.2
MOA   Molln            122.53 327⇓iP       PKPdf    04 19 56.6 -0.8
      comp=Z,4.7nm,0.6s
MOA   Molln            122.53 327⇓iPKiKP   PKiKP    04 19 56.6 -1.0
      comp=Z,4.7nm,0.6s
JSC   Jenkinsville     122.53  51 ePKPdf   PKPdf    04 19 57.6 -0.3
JSC   Jenkinsville     122.53  51 ePKIKP   PKPdf    04 19 57.6 -0.2
PERS  Pernice          122.76 325 i PKPdf  PKPdf    04 19 56.8 -1.1
PERS  Pernice          122.76 325 i PKPdf  PKPdf    04 19 56.8 -1.1
RLS   Riolos of Patr   122.86 314  P       PKPdf    04 19 58.9 +0.5
ITM   Ithomi           122.88 313  P       PKPdf    04 19 58.0 -0.4
GRA1  Grafenberg Arr   122.97 330 ePKPdf   PKPdf    04 19 57.9 -0.3
GRF   Grafenberg Arr   122.97 330 ePKP     PKPdf    04 19 57.9 -0.3
GRF   Grafenberg Arr   122.97 330 ePKIKP   PKPdf    04 19 57.9 -0.3
GRF   Grafenberg Arr   122.97 330 ePKIKP   PKPdf    04 19 57.9 -0.3
CRES  Cresnjev         123.02 324 ePKPdf   PKPdf    04 19 57.7 -0.7
CRES  Cresnjev         123.02 324 ePKPdf   PKPdf    04 19 57.7 -0.7
BOJS  Bojanci          123.32 324 ePKPdf   PKPdf    04 19 58.6 -0.4
BOJS  Bojanci          123.32 324 ePKPdf   PKPdf    04 19 58.6 -0.4
LJU   Ljubljana        123.43 325 i PKPdf  PKPdf    04 19 58.7 -0.5
LJU   Ljubljana        123.43 325 i PKIKP  PKPdf    04 19 58.7 -0.5
LJU   Ljubljana        123.43 325 i PKPdf  PKPdf    04 19 58.7 -0.5
JTS   JuntasAbangare   123.87  80 ePKPdf   PKPdf    04 19 59.5 -1.4
JTS   JuntasAbangare   123.87  80 ePKIKP   PKPdf    04 19 59.5 -1.4
TNS   Taunus Mts       123.96 332 ePKPdf   PKPdf    04 20 00.1  0.0
TNS   Taunus Mts       123.96 332 ePKIKP   PKPdf    04 20 00.1  0.0
ABTA  Abfaltersbach    124.14 327⇑iPKPdf   PKPdf    04 19 59.4 -1.2
      comp=Z,15nm,1.0s
WTTA  Wattenberg       124.30 328⇑iP       PKPdf    04 20 00.5 -0.4
      comp=Z,11nm,0.5s
WTTA  Wattenberg       124.30 328⇑iPKiKP   PKiKP    04 20 00.5 -0.7
      comp=Z,11nm,0.5s
WTTA  Wattenberg       124.30 328⇑iPKIKP   PKPdf    04 20 00.5 -0.3
EKA   Eskdalemuir Ar   124.44 343  PKP     PKPdf    04 20 00.3 -0.5
EKA                                PKKPbc  PKKPbc   04 29 45.3 -2.8
EKA   Eskdalemuir Ar   124.44 343  PKIKP   PKPdf    04 20 00.4 -0.4
EKA   Eskdalemuir Ar   124.44 343  PKP     PKPdf    04 20 00.3 -0.5
      comp=Z,6.1nm,0.6s,baz=9.1,slow=2.5,SNR=44
EKA                                PKKPbc  PKKPbc   04 29 45.3 -2.8
      comp=Z,0.7nm,0.7s,baz=211,slow=4.0,SNR=3.5
ESK   Eskdalemuir      124.47 343 ePKPdf   PKPdf    04 20 00.6 -0.3
ESK   Eskdalemuir      124.47 343 ePKIKP   PKPdf    04 20 00.6 -0.3
MOTA  Moosalm          124.53 328⇑iP       PKPdf    04 20 00.6 -0.6
      comp=Z,12nm,0.9s
MOTA  Moosalm          124.53 328⇑iPKiKP   PKiKP    04 20 00.6 -1.0
      comp=Z,12nm,0.9s
MOTA  Moosalm          124.53 328⇑iPKIKP   PKPdf    04 20 00.6 -0.7
SQTA  Sankt Quirin     124.55 328⇑iP       PKPdf    04 20 00.8 -0.5
      comp=Z,7.7nm,0.9s
SQTA  Sankt Quirin     124.55 328⇑iPKiKP   PKiKP    04 20 00.8 -0.8
      comp=Z,7.7nm,0.9s
SQTA  Sankt Quirin     124.55 328⇑iPKIKP   PKPdf    04 20 00.8 -0.5
MEM   Membach          124.79 334  PKPdf   PKPdf    04 20 01.6 -0.1
FETA  Feichten         124.93 328⇑iPKiKP   PKiKP    04 20 01.6 -0.9
      comp=Z,19nm,1.0s
DAVA  Damuels          125.21 329⇑iP       PKPdf    04 20 02.1 -0.5
      comp=Z,17nm,0.8s
DAVA  Damuels          125.21 329⇑iPKiKP   PKiKP    04 20 02.1 -0.9
      comp=Z,17nm,0.8s
BFO   Black Forest     125.30 330 ePKPdf   PKPdf    04 20 02.4 -0.3
BFO   Black Forest     125.30 330 ePKIKP   PKPdf    04 20 02.4 -0.3
WLF   Walferdange      125.41 333 ePKPdf   PKPdf    04 20 03.0 +0.1
WLF   Walferdange      125.41 333 ePKIKP   PKPdf    04 20 03.0 +0.1
WLF   Walferdange      125.41 333  PKPdf   PKPdf    04 20 03.6 +0.8
DAVOX Davos/Dischmat   125.54 328  PKP     PKPdf    04 20 03.4 +0.2
DAVOX Davos/Dischmat   125.54 328  PKP     PKPdf    04 20 03.4 +0.2
      comp=Z,13nm,0.6s,baz=168,slow=1.7,SNR=25
DAVOS Davos            125.54 328  PKIKP   PKPdf    04 20 03.4 +0.2
SNF   Seneffe          125.61 335  PKPdf   PKPdf    04 20 03.1 -0.1
TIP   Timpagrande      125.66 317 ePKPdf   PKPdf    04 20 03.5 -0.2
GIVF  Givet            125.68 334 ePKIKP   PKPdf    04 20 02.9 -0.5
GIVF  Givet            125.68 334 ePKPdf   PKPdf    04 20 02.9 -0.5
GIVF  Givet            125.68 334 ePKIKP   PKPdf    04 20 02.9 -0.5
CDF   Champ du Feu     125.76 331 ePKIKP   PKPdf    04 20 02.5 -1.1
      comp=Z,4.8nm,0.5s
CDF   Champ du Feu     125.76 331 ePKPdf   PKPdf    04 20 02.5 -1.1
CDF   Champ du Feu     125.76 331 ePKIKP   PKPdf    04 20 02.5 -1.1
DOU   Dourbes          125.79 334  PKPdf   PKPdf    04 20 03.6  0.0
BAIF  Baives           125.98 334 ePKIKP   PKPdf    04 20 03.4 -0.6
BAIF  Baives           125.98 334 ePKPdf   PKPdf    04 20 03.4 -0.6
BAIF  Baives           125.98 334 ePKIKP   PKPdf    04 20 03.4 -0.6
AQU   L’Aquila         126.19 322 ePKPdf   PKPdf    04 20 04.7 +0.1
AQU   L’Aquila         126.19 322 ePKIKP   PKPdf    04 20 04.7 +0.1
HINF  Hinteralfeld     126.38 331 ePKIKP   PKPdf    04 20 03.8 -1.0
      comp=Z,14nm,0.7s
HINF  Hinteralfeld     126.38 331 ePKPdf   PKPdf    04 20 03.8 -1.0
HINF  Hinteralfeld     126.38 331 ePKIKP   PKPdf    04 20 03.8 -1.0
HAU   Haudompre        126.49 331 ePKIKP   PKPdf    04 20 04.2 -0.8
      comp=Z,27nm,0.8s
HAU   Haudompre        126.49 331 ePKPdf   PKPdf    04 20 04.2 -0.8
HAU   Haudompre        126.49 331 ePKIKP   PKPdf    04 20 04.2 -0.8
MEZF  Maizieres J’vi   126.74 333 ePKIKP   PKPdf    04 20 05.2 -0.3
      comp=Z,24nm,0.7s
MEZF  Maizieres J’vi   126.74 333 ePKPdf   PKPdf    04 20 05.2 -0.3
CABF  La Chapelle      127.59 330 ePKIKP   PKPdf    04 20 07.0 -0.1
      comp=Z,22nm,0.8s
CABF  La Chapelle      127.59 330 ePKPdf   PKPdf    04 20 07.0 -0.1
CABF  La Chapelle      127.59 330 ePKIKP   PKPdf    04 20 07.0 -0.1
LPL   La Plagne        128.01 329 ePKIKP   PKPdf    04 20 07.8 -0.2
      comp=Z,14nm,0.6s
LPL   La Plagne        128.01 329 ePKPdf   PKPdf    04 20 07.8 -0.2
LPL   La Plagne        128.01 329 ePKIKP   PKPdf    04 20 07.8 -0.2
LPG   La Plagne        128.02 329 ePKIKP   PKPdf    04 20 08.0  0.0
      comp=Z,12nm,0.6s
LPG   La Plagne        128.02 329 ePKPdf   PKPdf    04 20 08.0  0.0
LPG   La Plagne        128.02 329 ePKIKP   PKPdf    04 20 08.0  0.0
LOR   Lormes           128.19 332 ePKIKP   PKPdf    04 20 07.6 -0.7
      comp=Z,11nm,0.6s
LOR   Lormes           128.19 332 ePKPdf   PKPdf    04 20 07.6 -0.7
LOR   Lormes           128.19 332 ePKIKP   PKPdf    04 20 07.6 -0.7
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LCO   Las Campanas     128.31 132 ePKPdf   PKPdf    04 20 09.4 +0.3
BNI   Bardonecchia     128.36 328 ePKPdf   PKPdf    04 20 09.3 +0.6
BNI   Bardonecchia     128.36 328 ePKIKP   PKPdf    04 20 09.3 +0.7
SSF   Saint Saulge     128.51 332 ePKIKP   PKPdf    04 20 08.5 -0.4
      comp=Z,36nm,1.2s
SSF   Saint Saulge     128.51 332 ePKPdf   PKPdf    04 20 08.5 -0.4
SSF   Saint Saulge     128.51 332 ePKIKP   PKPdf    04 20 08.5 -0.4
MBDF  Montbardon       128.53 328 ePKIKP   PKPdf    04 20 08.3 -0.7
MBDF  Montbardon       128.53 328 ePKPdf   PKPdf    04 20 08.3 -0.7
MBDF  Montbardon       128.53 328 ePKIKP   PKPdf    04 20 08.3 -0.7
CFAA  Coronel Fontan   128.65 136  PKP     PKPdf    04 20 09.6 -0.1
CFAA  Coronel Fontan   128.65 136  PKP     PKPdf    04 20 09.6 -0.1
      comp=Z,2.6nm,0.7s,baz=248,slow=3.1,SNR=38
SMF   Signal de Mont   128.65 332 ePKIKP   PKPdf    04 20 08.5 -0.7
      comp=Z,6.5nm,0.5s
SMF   Signal de Mont   128.65 332 ePKPdf   PKPdf    04 20 08.5 -0.7
SMF   Signal de Mont   128.65 332 ePKIKP   PKPdf    04 20 08.5 -0.7
PGF   Pioggiola        128.70 325 ePKIKP   PKPdf    04 20 08.8 -0.6
      comp=Z,41nm,0.8s
PGF   Pioggiola        128.70 325 ePKPdf   PKPdf    04 20 08.8 -0.6
PGF   Pioggiola        128.70 325 ePKIKP   PKPdf    04 20 08.8 -0.6
SBF   Sospel           128.74 327 ePKIKP   PKPdf    04 20 09.2 -0.2
SBF   Sospel           128.74 327 ePKPdf   PKPdf    04 20 09.2 -0.2
SBF   Sospel           128.74 327 ePKIKP   PKPdf    04 20 09.2 -0.2
HYF   Humbligny        128.75 333 ePKIKP   PKPdf    04 20 09.4 +0.1
HYF   Humbligny        128.75 333 ePKPdf   PKPdf    04 20 09.4 +0.1
AVF   Avril sur Loir   128.78 332 ePKIKP   PKPdf    04 20 08.6 -0.8
      comp=Z,8.8nm,0.9s
AVF   Avril sur Loir   128.78 332 ePKPdf   PKPdf    04 20 08.6 -0.8
AVF   Avril sur Loir   128.78 332 ePKIKP   PKPdf    04 20 08.6 -0.8
ORIF  Oris-en-Rattie   128.86 329 ePKIKP   PKPdf    04 20 08.7 -0.9
      comp=Z,13nm,0.7s
ORIF  Oris-en-Rattie   128.86 329 ePKPdf   PKPdf    04 20 08.7 -0.9
ORIF  Oris-en-Rattie   128.86 329 ePKIKP   PKPdf    04 20 08.7 -0.9
LDF   La Druitiere     128.93 336 ePKIKP   PKPdf    04 20 09.0 -0.6
      comp=Z,7.8nm,0.6s
LDF   La Druitiere     128.93 336 ePKPdf   PKPdf    04 20 09.0 -0.6
LDF   La Druitiere     128.93 336 ePKIKP   PKPdf    04 20 09.0 -0.6
FLN   La Foliniere     128.94 336 ePKIKP   PKPdf    04 20 09.1 -0.5
      comp=Z,19nm,0.6s
FLN   La Foliniere     128.94 336 ePKPdf   PKPdf    04 20 09.1 -0.5
FLN   La Foliniere     128.94 336 ePKIKP   PKPdf    04 20 09.1 -0.5
BCIP  Isla Barro Col   128.96  81 ePKPdf   PKPdf    04 20 09.7 -1.0
TSUM  Tsumeb           129.12 242 ePKPdf   PKPdf    04 20 11.4 +0.6
BGF   Bois d’Agland    129.19 332 ePKIKP   PKPdf    04 20 09.9 -0.3
      comp=Z,12nm,0.6s
BGF   Bois d’Agland    129.19 332 ePKPdf   PKPdf    04 20 09.9 -0.3
BGF   Bois d’Agland    129.19 332 ePKIKP   PKPdf    04 20 09.9 -0.3
ATAH  Atahualpa        129.33 102  PKP     PKPdf    04 20 13.3 +1.9
      comp=Z,25nm,0.8s,baz=179,slow=0.7,SNR=16
FRF   La Foret Royal   129.37 327 ePKIKP   PKPdf    04 20 09.9 -0.7
      comp=Z,19nm,0.7s
FRF   La Foret Royal   129.37 327 ePKPdf   PKPdf    04 20 09.9 -0.7
FRF   La Foret Royal   129.37 327 ePKIKP   PKPdf    04 20 09.9 -0.7
GRR   Gorron           129.39 336 ePKIKP   PKPdf    04 20 09.7 -0.8
      comp=Z,12nm,0.6s
GRR   Gorron           129.39 336 ePKPdf   PKPdf    04 20 09.7 -0.8
GRR   Gorron           129.39 336 ePKIKP   PKPdf    04 20 09.7 -0.8
VIVF  Saint-Julien-l   129.52 329 ePKIKP   PKPdf    04 20 10.5 -0.4
VIVF  Saint-Julien-l   129.52 329 ePKPdf   PKPdf    04 20 10.5 -0.4
VIVF  Saint-Julien-l   129.52 329 ePKIKP   PKPdf    04 20 10.5 -0.4
LMR   La Mourre        129.60 327 ePKIKP   PKPdf    04 20 10.5 -0.6
      comp=Z,15nm,0.7s
LMR   La Mourre        129.60 327 ePKPdf   PKPdf    04 20 10.5 -0.6
LMR   La Mourre        129.60 327 ePKIKP   PKPdf    04 20 10.5 -0.6
SMRF  Simiane la Rot   129.67 328 ePKIKP   PKPdf    04 20 11.2  0.0
      comp=Z,42nm,1.1s
SMRF  Simiane la Rot   129.67 328 ePKPdf   PKPdf    04 20 11.2  0.0
TCF   Toulx Ste Croi   129.68 332 ePKIKP   PKPdf    04 20 10.9 -0.2
      comp=Z,13nm,0.7s
TCF   Toulx Ste Croi   129.68 332 ePKPdf   PKPdf    04 20 10.9 -0.2
TCF   Toulx Ste Croi   129.68 332 ePKIKP   PKPdf    04 20 10.9 -0.2
NNA   Nana             129.74 109 ePKPdf   PKPdf    04 20 12.5 +0.4
SGMF  Saint Gilles     130.16 337 ePKIKP   PKPdf    04 20 11.5 -0.5
      comp=Z,20nm,0.7s
SGMF  Saint Gilles     130.16 337 ePKPdf   PKPdf    04 20 11.5 -0.5
SGMF  Saint Gilles     130.16 337 ePKIKP   PKPdf    04 20 11.5 -0.5
OTAV  Otavalo          130.21  93 ePKPdf   PKPdf    04 20 14.2 +1.1
ROSF  Rostrenen        130.37 338 ePKIKP   PKPdf    04 20 11.9 -0.5
ROSF  Rostrenen        130.37 338 ePKPdf   PKPdf    04 20 11.9 -0.5
ROSF  Rostrenen        130.37 338 ePKIKP   PKPdf    04 20 11.9 -0.5
MFF   Saint Martin d   130.50 334 ePKIKP   PKPdf    04 20 12.3 -0.4
MFF   Saint Martin d   130.50 334 ePKPdf   PKPdf    04 20 12.3 -0.4
MFF   Saint Martin d   130.50 334 ePKIKP   PKPdf    04 20 12.3 -0.4
RJF   Les Rejaudoux    130.74 332 ePKIKP   PKPdf    04 20 13.0 -0.2
RJF   Les Rejaudoux    130.74 332 ePKPdf   PKPdf    04 20 13.0 -0.2
RJF   Les Rejaudoux    130.74 332 ePKIKP   PKPdf    04 20 13.0 -0.2
MTLF  Montolieu        131.84 330 ePKIKP   PKPdf    04 20 15.2 -0.1
MTLF  Montolieu        131.84 330 ePKPdf   PKPdf    04 20 15.2 -0.1
MTLF  Montolieu        131.84 330 ePKIKP   PKPdf    04 20 15.2 -0.1
KEST  Kesra            132.49 317  PKP     PKPdf    04 20 17.4 +0.6
      comp=Z,2.3nm,0.6s,baz=35,slow=0.8,SNR=15
KEST                               SKPbc   SKPbc    04 23 03.6 +1.6
      comp=Z,3.2nm,1.0s,baz=22,slow=1.6,SNR=6.1
EPF   Esparros         133.00 331 ePKIKP   PKPdf    04 20 16.7 -0.8
EPF   Esparros         133.00 331 ePKPdf   PKPdf    04 20 16.7 -0.8
EPF   Esparros         133.00 331 ePKIKP   PKPdf    04 20 16.7 -0.8
ETSF  Etsaut           133.53 331 ePKIKP   PKPdf    04 20 18.4 -0.1
      comp=Z,11nm,0.5s
ETSF  Etsaut           133.53 331 ePKPdf   PKPdf    04 20 18.4 -0.1
ETSF  Etsaut           133.53 331 ePKIKP   PKPdf    04 20 18.4 -0.1
SJPF  Ste Jean         133.68 332 ePKIKP   PKPdf    04 20 18.8  0.0
      comp=Z,8.7nm,0.6s
SJPF  Ste Jean         133.68 332 ePKPdf   PKPdf    04 20 18.8  0.0
SJPF  Ste Jean         133.68 332 ePKIKP   PKPdf    04 20 18.8  0.0
ROSC  El Rosal         134.52  87 ePKPdf   PKPdf    04 20 19.0 -2.2
ROSC                               PKP     PKPdf    04 20 22.2 +1.0
ROSC  El Rosal         134.52  87  PKhKP            04 20 18.3
      comp=Z,27nm,0.6s,baz=98,slow=4.2,SNR=17
ROSC                               PKP     PKPdf    04 20 22.2 +1.0
      comp=Z,27nm,0.6s,baz=236,slow=2.5,SNR=20
LPAZ  La Paz           136.33 118  PKP              04 20 13.0
LPAZ                              ePKPdf   PKPdf    04 20 25.2 +0.8
LPAZ  La Paz           136.33 118  PKHKP            04 20 13.0
LPAZ                              e                 04 20 25.2
LPAZ  La Paz           136.33 118  PKhKP            04 20 13.0
      comp=Z,3.9nm,0.7s,baz=268,slow=3.1,SNR=12
LPAZ                               PKP     PKPdf    04 20 25.2 +0.8
      comp=Z,12nm,0.7s,baz=307,slow=4.2,SNR=6.3
LPAZ                               SKiKP            04 23 21.3
      comp=Z,1.2nm,0.6s,baz=244,slow=3.0,SNR=3.6
ESDC  Sonseca Array    137.65 331  PKP              04 20 16.5
ESDC                               PKP     PKPdf    04 20 26.3  0.0
ESDC                               SKPbc   SKPbc    04 23 17.7 -0.4
ESDC                               SKPab            04 23 27.5
ESDC  Sonseca Array    137.65 331  PKhKP            04 20 16.5
      comp=Z,1.1nm,0.8s,baz=162,slow=2.3,SNR=3.4
ESDC                               PKP     PKPdf    04 20 26.3  0.0
      comp=Z,0.7nm,0.4s,baz=5.8,slow=2.6,SNR=6.0
ESDC                               SKPbc   SKPbc    04 23 17.7 -0.4
      comp=Z,0.7nm,0.7s,baz=30,slow=2.9,SNR=3.7
ESDC                               SKPab            04 23 27.5
      comp=Z,1.5nm,0.9s,baz=53,slow=2.6,SNR=4.4
EVO   Evora            140.43 334 ePKIKP   PKPdf    04 20 30.5 -0.9
      comp=Z,127nm,1.7s
SJG   San Juan         140.64  66  PKP              04 20 25.3
SJG                               ePKPdf   PKPdf    04 20 31.9 -0.4
SJG   San Juan         140.64  66  PKHKP            04 20 25.3
SJG                               e                 04 20 31.9
SJG   San Juan         140.64  66  PKhKP            04 20 25.3
      comp=Z,11nm,0.8s,baz=14,slow=4.2,SNR=3.6
SJG                                PKP     PKPdf    04 20 32.1 -0.2
      comp=Z,25nm,0.8s,baz=38,slow=4.3,SNR=10
SIV   San Ignacio      142.56 122  PKP     PKPdf    04 20 31.4 -4.3
SIV                                PKP     PKPdf    04 20 35.1 -0.6
SIV   San Ignacio      142.56 122  PKhKP            04 20 31.4
      comp=Z,16nm,0.5s,baz=264,slow=4.0,SNR=110
SIV                                PKP     PKPdf    04 20 35.1 -0.6
      comp=Z,9.6nm,0.6s,baz=270,slow=7.0,SNR=14
PCRV  Puerto La Cruz   143.79  78  PKP     PKPdf    04 20 35.5 -2.5
PCRV  Puerto La Cruz   143.79  78  PKP     PKPdf    04 20 35.5 -2.5
      comp=Z,67nm,0.7s,baz=138,slow=1.1,SNR=20
HMG   Houelmont        145.34  67 eP       PKPdf    04 20 40.7 +0.2
TBG   Guadaloupe-3     145.43  67 eP       PKPdf    04 20 40.3 -0.4
MGG   Marie-Galante    145.71  67 eP       PKPdf    04 20 41.5 +0.3
FDF   Fort de France   146.20  69 eP       PKPdf    04 20 43.7 +1.6
BIM   Bigot            146.33  69 eP       PKPdf    04 20 43.8 +1.5
GRGR  Grenville        146.34  74 ePKPdf   PKPdf    04 20 41.2 -1.1
MVM   Montagne Vaucl   146.49  69 eP       PKPdf    04 20 44.1 +1.5
TOA0  Torodi Ar. Sit   148.47 289 ePKPdf   PKPdf    04 20 45.0 -0.8
TOA0                              ePKPbc   PKPbc    04 20 49.2 -0.8
TORD  Torodi Ar. Bea   148.47 289  PKPbc   PKPbc    04 20 49.4 -0.6
TORD                               pPKPbc  pPKPbc   04 22 32.5 -2.7
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TORD	Torodi Ar. Bea	148.47	289	PKPbc	PKPbc	04 20 49.4	-0.6
	comp=Z,36nm,0.5s,baz=50,slow=2.2,SNR=774						
TORD				pPKPbc	pPKPbc	04 22 32.5	-2.7
	comp=Z,13nm,1.0s,baz=55,slow=3.0,SNR=4.7						
KIC	Kosan Boka	155.94	277	ePKP1	PKPab	04 21 26.2	-0.4
	comp=Z,87nm,0.7s						
TIC	Toumodi	156.19	278	ePKP1	PKPab	04 21 27.1	-0.6
	comp=Z,32nm,0.6s						
LIC	Lamto	156.24	277	ePKP2	PKPab	04 21 27.1	-0.8
	comp=Z,13nm,0.6s						
LIC	Lamto	156.24	277	ePKP1	PKPab	04 21 26.9	-1.0
	comp=Z,89nm,1.7s						

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*IDC **17** 04:36:51.2±0.8, 54.62N×161.66W, h0^{km}, mb4.1/18, mb1 4.2/20, mb1mx4.1/26, mbtmp4.0/20, ML3.9/2, MS3.5/6, Ms1 3.5/6, ms1mx3.1/33, Error ellipse: s-maj=22.8km s-min=14.2km az=171.0*

*MOS **17** 04:36:53.0±1.0, 54.63N×161.65W, h24^{km}, mb4.8/18, Error ellipse: s-maj=14.5km s-min=7.2km az=88.7*

*ISCJB **17** 04:36:57.2±0.7, 54.64N±0.07×161.52W±0.07, h56^{km}±5^{km}, mb4.4/50, MS3.8/8, Error ellipse: s-maj=12.7km s-min=5.1km az=160.7*

*BJI **17** 04:36:57.5, 54.60N×161.60W, h45^{km}, mB5.2, mb4.7, Ms4.5, Msz4.1*

*NEIC **17** 04:36:58.5±0.6, 54.56N×161.56W, h55^{km}±4^{km}, mb4.4/17, ML4.5(PMR), ML3.9(AEIC), Error ellipse: s-maj=9.2km s-min=4.1km az=160.0*

ISC 17 04:36:58.6±0.7**, 54.58N**±0.07×**161.54W**±0.06**, h55**^{km}±4^{km}**, n112, σ0**^{s}**.93**/115**, mb4.4**/50**, MS3.8**/8**, 4C-3D, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDPT	Sand Point	0.98	38	eP	Pn	04 37 14.6	-1.5
FALS	False Pass	1.12	285	P	Pn	04 37 17.3	-0.7
FALS				S	Sn	04 37 33.8	+1.4
AKUT	Akutan	2.52	261	eP	Pn	04 37 37.1	+0.2
AKLV	Akutan Long Va	2.62	263	P	Pn	04 37 38.2	-0.1
UNV	Unalaska Valle	3.01	258	P	Pn	04 37 42.9	-0.7
SPIA	Saint Paul Isl	5.55	301	P	Pn	04 38 19.2	+0.8
KDAK	Kodiak Island	5.94	54	P	Pn	04 38 22.6	-1.2
KDAK	Kodiak Island	5.94	54	Pn	Pn	04 38 21.8	-2.0
	2.1nm,0.3s,baz=229,slow=8.5,SNR=27						
KDAK				Sn	Sn	04 39 28.9	-1.4
	1.6nm,0.3s,baz=331,slow=19,SNR=1.9						
SVW2	Sparrevohn	7.26	24	eP	Pn	04 38 43.0	+1.1
SLKM	Skilak Lake	8.50	41	ePn	Pn	04 38 60.0	+1.2
PMR	Palmer	9.61	38	ePn	Pn	04 39 14.2	+0.3
	8.2nm,0.8s						
PMR	Palmer	9.61	38	eP	Pn	04 39 14.2	+0.3
PMR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
MCK	McKinley	11.20	30	ePn	Pn	04 39 35.5	-0.2
TNA	Tin City	11.46	347	ePn	Pn	04 39 40.4	+1.2
	comp=Z,6.7nm,0.6s						
IMA2	Indian Mountai	12.15	15	ePn	Pn	04 39 49.5	+1.0
COLA	College	12.38	28	Pn	Pn	04 39 51.8	+0.1
	comp=Z,4.6nm,0.9s						
COLA	College	12.38	28	eP	Pn	04 39 48.6	-3.1
EGAK	Eagle	14.42	37	ePn	Pn	04 40 20.5	+1.2
	comp=Z,3.7nm,0.6s						
DAWY	Dawson	14.68	41	ePn	Pn	04 40 22.3	-0.3
DLBC	Dease Lake	17.72	65	P	Pn	04 41 03.8	+2.8
	baz=335,slow=19						
INK	Inuvik	18.94	33	eP	Pn	04 41 13.5	-2.2
INK	Inuvik	18.94	33	P	Pn	04 41 12.0	-3.7
	comp=Z,0.4nm,0.3s,baz=234,slow=12,SNR=15						
INK				LR	LR	04 49 15.0	
	comp=Z,101nm,18.3s,baz=230,slow=39						
BBB	Bella Bella	19.98	83	LR	LR	04 47 46.4	
	comp=Z,126nm,21.1s,baz=283,slow=33						
BILL	Bilibino	20.17	324	eP	P	04 41 28.1	+0.1
	comp=Z,3.5nm,0.6s						
BILL	Bilibino	20.17	324	P	P	04 41 33.0	+5.0
BILL				e		04 41 41.8	
BILL				pmax	pmax		
	comp=Z,7.0nm,1.0s						
BILL				MLR	MLR		
	comp=Z,100nm,14.0s,MS3.3						
PET	Petropavlovsk	23.35	283	eP	P	04 42 00.6	-1.2
PET				pmax	pmax		
	comp=Z,54nm,1.5s,mb4.8						
SEY	Seymchan	24.80	308	eP	P	04 42 13.6	-1.4
YKA	Yellowknife Ar	25.22	53	P	P	04 42 18.9	+0.2
YKA				PcP	PcP	04 45 50.5	-0.1
YKA	Yellowknife Ar	25.22	53	P	P	04 42 18.9	+0.2
	comp=Z,0.7nm,0.6s,mb3.4,baz=274,slow=9.6,SNR=12						
YKA				PcP	PcP	04 45 50.5	-0.1
	comp=Z,0.4nm,0.5s,baz=282,slow=2.0,SNR=4.9						
MA2	Magadan	25.93	301	eP	P	04 42 24.9	-0.3
MA2				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.1						
RES	Resolute Bay	32.31	27	eP	P	04 43 21.1	-0.6
	comp=Z,25nm,0.5s,mb5.3						
NVAR	Mina Array Bea	33.24	101	P	P	04 43 31.8	+1.6
	comp=Z,0.6nm,0.8s,mb3.6,baz=300,slow=8.0,SNR=3.9						
TIXI	Tiksi	33.33	327	eP	P	04 43 29.8	-0.8
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.0						
TIXI				MLR	MLR		
	comp=Z,69nm,16.0s,MS3.5						
YAK	Yakutsk	35.27	310	eP	P	04 43 46.6	-0.9
YAK				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
FCC	Fort Churchill	35.88	55	eP	P	04 43 53.2	+0.4
	comp=Z,1.4nm,0.7s,mb4.0						
FCC	Fort Churchill	35.88	55	eP	P	04 43 53.2	+0.5
FCC				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
ULM	Lac du Bonnet	38.98	68	eP	P	04 44 18.6	-0.4
	comp=Z,0.8nm,0.5s,mb3.7						
ULM	Lac du Bonnet	38.98	68	P	P	04 44 19.5	+0.5
	comp=Z,0.6nm,0.4s,mb3.7,baz=308,slow=5.9,SNR=3.3						
BOD	Bodaibo	44.20	310	eP	P	04 44 59.1	-2.5
BOD				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
MJAR	Matsushiro Arr	44.39	272	P	P	04 45 03.1	-0.3
	comp=Z,1.2nm,0.4s,mb4.0,baz=38,slow=6.0,SNR=4.9						
MAJO	Matsushiro	44.39	272	eP	P	04 45 03.5	+0.1
	comp=Z,9.3nm,0.9s,mb4.5						
MAJO	Matsushiro	44.39	272	eP	P	04 45 03.5	+0.1
MAJO				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.5						
TXAR	Lajitas Array	48.19	97	P	P	04 45 33.6	+0.3
TXAR						04 47 00.1	
TXAR	Lajitas Array	48.19	97	P	P	04 45 33.5	+0.2
	comp=Z,0.3nm,0.7s,mb3.4,baz=307,slow=6.5,SNR=3.8						
TXAR				PcP	PcP	04 47 00.1	+0.3
	comp=Z,0.1nm,0.5s,baz=5.4,slow=1.9,SNR=3.8						
TXAR				LR	LR	05 05 05.1	
	comp=Z,59nm,19.5s,MS3.6,baz=5.0,slow=35						
KSRS	Korea Array	49.71	280	P	P	04 45 45.4	+0.5
	comp=Z,5.8nm,0.7s,mb4.7,baz=48,slow=7.2,SNR=19						
KSRS				LR	LR	05 06 20.0	
	comp=Z,37nm,18.6s,MS3.4,baz=125,slow=36						
WVT	Waverly	52.45	79	eP	P	04 46 04.6	-0.7
	comp=Z,2.6nm,0.5s,mb4.4						
WVT	Waverly	52.45	79	eP	P	04 46 04.6	-0.8
WVT				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
TLY	Talaya	52.71	309	eP	P	04 46 06.2	-0.9
ULN	Ulaanbaatar	53.74	303	eP	P	04 46 15.0	+0.3
	comp=Z,5.4nm,0.9s,mb4.5						
ULN	Ulaanbaatar	53.74	303	eP	P	04 46 14.2	-0.5
SONM	Songino Array	54.08	304	P	P	04 46 17.4	+0.3
	comp=Z,2.4nm,0.6s,mb4.3,baz=41,slow=6.4,SNR=27						
SONM				PcP	PcP	04 47 22.1	+0.8
	comp=Z,1.2nm,0.6s,baz=54,slow=2.2,SNR=6.8						
KEV	Kevo	55.82	356	ep	P	04 46 26.1	-3.3
	comp=Z,3.2nm,0.5s,mb4.6						
KEV	Kevo	55.82	356	eP	P	04 46 26.1	-3.3
KEV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
ARCES	ARCESS Array B	56.09	357	P	P	04 46 30.3	-1.0
	comp=Z,2.5nm,0.9s,mb4.2,baz=32,slow=5.6,SNR=8.5						
NJ2	Nanjing	58.76	282	eP	P	04 46 51.1	+0.4
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
ZALV	Zalesovo Beam	58.81	321	P	P	04 46 50.5	-0.2
	comp=Z,0.9nm,0.4s,mb4.1,baz=31,slow=6.4,SNR=5.9						
ZALV				PcP	PcP	04 47 40.7	+1.0
	comp=Z,0.4nm,0.4s,baz=9.5,slow=3.5,SNR=3.5						
ZALV				LR	LR	05 14 52.9	
	comp=Z,51nm,18.6s,MS3.7,baz=41,slow=39						
ZAL	Zalesovo	58.83	321	P	P	04 46 50.5	-0.4
ZAL						04 47 40.7	
JOF	Joensuu	62.41	353	ep	P	04 47 14.0	-1.1
	comp=Z,4.5nm,0.5s,mb4.8						
KAF	Kangasniemi	63.48	356	ep	P	04 47 20.3	-1.9
	comp=Z,6.3nm,0.5s,mb5.0,baz=1.7,slow=6.3						
KAF	Kangasniemi	63.48	356	eP	P	04 47 20.3	-1.9
KAF				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb5.0						
GTA	Gaotai	63.49	301	eP	P	04 47 22.8	+0.2
GTA				AP	pP	04 47 36.1	-1.5
GTA				XP	sP	04 47 41.1	-2.7
GTA				PP	PP	04 49 44.8	+2.5
GTA				PPP		04 51 16.8	
GTA				S	S	04 55 52.5	+1.0
GTA				XS	sS	04 56 13.4	-3.3
GTA				SS	SS	05 00 01.9	+3.4
GTA				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.6						
GTA				AMB	AMB		
	comp=Z,51nm,7.2s						
GTA				LR	LR		
	comp=N,104nm,17.5s,MS4.2						
GTA				LR	LR		
	comp=E,103nm,17.9s,MS4.2						
GTA				LR	LR		
	comp=Z,76nm,19.0s,MS3.9						
KURK	Kurchatov	63.67	322	eP	P	04 47 23.7	+0.1
	comp=Z,2.3nm,0.6s,mb4.4						
KURK	Kurchatov	63.67	322	eP	P	04 47 23.7	+0.1
KURK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
LZH	Lanzhou	63.97	296	eP	P	04 47 26.8	+1.0
LZH				AP	pP	04 47 40.3	-0.5
LZH				XP	sP	04 47 45.0	-2.0
LZH				AMB	AMB		
	comp=Z,17nm,1.3s,mb4.9						
LZH	Lanzhou	63.97	296	eP	P	04 47 26.8	+1.0
	comp=Z,17nm,1.3s,mb4.9						
LZH				pP	pP	04 47 40.2	-0.6
LZH				sP	sP	04 47 45.0	-2.0
LZH	Lanzhou	63.97	296	eP	P	04 47 26.8	+1.0
LZH				*PP	pP	04 47 40.2	-0.6
LZH				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.9						
FINES	FINESS Array B	64.16	356	eP	P	04 47 26.1	-0.6
FINES	FINESS Array B	64.16	356	P	P	04 47 26.4	-0.3
	comp=Z,2.3nm,0.5s,mb4.5,baz=24,slow=7.5,SNR=32						
BRVK	Borovoye	64.46	328	eP	P	04 47 29.2	+0.4
	comp=Z,7.0nm,0.9s,mb4.7						
BRVK	Borovoye	64.46	328	eP	P	04 47 29.2	+0.4
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
NB2	NORSAR Subarra	64.58	4	P	P	04 47 29.3	-0.1
	comp=Z,2.5nm,0.6s,mb4.4,baz=358,slow=6.5						
NOA	NORSAR Array B	64.58	4	P	P	04 47 28.9	-0.5
NOA	NORSAR Array B	64.58	4	P	P	04 47 28.9	-0.5
	comp=Z,2.7nm,0.8s,mb4.4,baz=356,slow=6.5,SNR=7.0						
ARU	Arti	64.61	337	c iP	P	04 47 28.9	-0.8
ARU				e		04 49 48.0	
ARU				eS	S	04 56 09.8	+4.9
ARU				eSS	SS	05 00 22.0	+6.9
ARU				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
MK31	Makanchi Array	65.52	317	eP	P	04 47 35.4	-0.3
MKAR	Makanchi Array	65.52	317	P	P	04 47 35.0	-0.8
MKAR				LR	LR	05 16 40.4	
MKAR	Makanchi Array	65.52	317	P	P	04 47 35.0	-0.8
	comp=Z,0.4nm,0.4s,mb3.8,baz=42,slow=6.6,SNR=12						
MKAR				LR	LR	05 16 40.4	
	comp=Z,43nm,20.3s,MS3.6,baz=357,slow=36						
GYA	Guiyang	69.88	287	P	P	04 48 10.3	+6.8
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
TKM2	Tokmak 2	71.36	319	eP	P	04 48 13.0	+0.7
	comp=Z,1.8nm,0.6s,mb4.2						
TKM2	Tokmak 2	71.36	319	eP	P	04 48 13.0	+0.8
TKM2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
AAK	Ala-Archa	72.02	320	eP	P	04 48 16.0	-0.2
	comp=Z,2.3nm,0.5s,mb4.4						
AAK	Ala-Archa	72.02	320	eP	P	04 48 16.0	-0.2
AAK				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
EKS2	Erkin-Say	72.26	320	eP	P	04 48 18.6	+0.9
	comp=Z,1.6nm,0.7s,mb4.1						
AKASG	Malin Array Be	74.70	353	P	P	04 48 31.4	-0.4
	comp=Z,3.6nm,0.5s,mb4.6,baz=7.6,slow=5.6,SNR=16						
KIEV	Kiev	74.71	353	eP	P	04 48 31.1	-0.8
	comp=Z,8.7nm,0.9s,mb4.7						
KIEV	Kiev	74.71	353	eP	P	04 48 31.1	-0.8
KIEV				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
MORC	Moravsky Berou	76.01	1	⇑iP	P	04 48 40.0	+0.6
STHS	Stebnicka Huta	76.35	358	eP	P	04 48 42.6	+1.3
	comp=Z,3.9nm,0.6s,mb4.5						
STHS	Stebnicka Huta	76.35	358	eP	P	04 48 42.6	+1.3
STHS				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
VRAC	Vranov	76.47	1	⇓iP	P	04 48 43.1	+1.1
KHC	Kasperske Hory	76.58	3	eP	P	04 48 41.5	-1.1
KHC	Kasperske Hory	76.58	3	eP	P	04 48 43.5	+0.9
GERES	GERESS Array B	76.87	3	P	P	04 48 44.8	+0.6
	comp=Z,1.2nm,0.6s,mb4.0,baz=18,slow=4.6,SNR=6.3						
KECS	Kecovo	77.30	359	eP	P	04 48 47.1	+0.5
VYHS	Vyhne	77.30	360	i P	P	04 48 47.3	+0.6
	comp=Z,3.8nm,1.2s,mb4.2						
VYHS	Vyhne	77.30	360	i P	P	04 48 47.3	+0.6
VYHS				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.2						
ZST	Bratislava	77.59	1	eP	P	04 48 49.4	+1.1
	comp=Z,6.8nm,0.6s,mb4.8						
ZST				LR	LR		
	comp=Z,1μm,20.0s,MS5.1						
ZST	Bratislava	77.59	1	eP	P	04 48 49.4	+1.1
ZST				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
ZST				MLR	MLR		
	comp=Z,1μm,20.0s,MS5.1						
BURAR	Bucovina Array	78.02	355	⇓iP	P	04 48 51.2	+0.5
DRGR		78.94	357	⇑iP	P	04 48 56.2	+0.4
TAPN	Taplejung	79.16	302	eP	P	04 48 57.8	+0.5
	comp=Z,12nm,0.5s,mb5.1						
JIRN	Jiri	79.64	303	eP	P	04 49 01.1	+1.2
	comp=Z,5.9nm,0.3s,mb4.9						
KIV	Kislovodsk	79.69	342	eP	P	04 48 58.4	-1.5
KIV				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
ODAN	Odare	79.72	302	eP	P	04 49 01.0	+0.6
	comp=Z,7.7nm,0.3s,mb5.1						
KKN	Kakani	79.97	304	eP	P	04 49 01.7	0.0
	comp=Z,11nm,0.5s,mb5.0						
BZS	Buzias	80.14	358	⇑iP	P	04 49 02.7	+0.4
GZR	Gura Zlata	80.33	357	⇓iP	P	04 49 04.4	+1.0
KBL	Kabul	81.16	320	eP	P	04 49 07.5	-0.4
ESDC	Sonseca Array	84.16	17	P	P	04 49 24.3	+0.8
	comp=Z,0.9nm,0.6s,mb4.1,baz=349,slow=4.5,SNR=5.0						
BRTR	Keskin Array B	85.17	348	P	P	04 49 29.6	+1.1
	comp=Z,2.1nm,0.8s,mb4.3,baz=34,slow=3.2,SNR=14						
WRA	Warramunga Arr	92.10	238	P	P	04 50 00.6	-1.0
	comp=Z,0.5nm,0.9s,mb3.9,baz=34,slow=5.8,SNR=4.2						
ASAR	Alice Springs	95.47	236	P	P	04 50 16.4	-0.5
	comp=Z,0.4nm,0.7s,mb3.9,baz=35,slow=4.3,SNR=4.0						

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*ISCJB **17** 05:07:27.0±0.9, 33.74N±0.05×142.38E±0.08, h10^{km}, mb3.4/4, Error ellipse: s-maj=9.9km s-min=6.9km az=146.4*

*JMA **17** 05:07:27.5±0.3, 33.71N×142.42E, h20^{km}, M3.7*

*IDC **17** 05:07:29.1±1.8, 33.62N×141.88E, h0^{km}, mb3.4/4, mb1 3.5/5, mb1mx3.4/21, mbtmp3.3/5, ML3.3/1, MS2.8/1, Ms1 2.8/1, ms1mx2.3/21, Error ellipse: s-maj=47.3km s-min=21.9km az=64.0*

ISC 17 05:07:28.9±0.9**, 33.75N**±0.06×**142.33E**±0.08**, h10**^{km}**, n14, σ0**^{s}**.80**/21**, mb3.4**/4**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSO1	Boso 1	1.44	309	P	Pn	05 07 54.2	-0.7
BSO1				eS	Sn	05 08 13.7	-0.1
BSO3	Boso 3	1.83	305	P	Pn	05 08 00.5	+0.1
BSO3				eS	Sn	05 08 24.8	+1.1
BSO4	Boso 4	2.06	308	P	Pn	05 08 03.1	-0.4
BSO4				eS	Sn	05 08 30.4	+1.2
JHJ2	Mitsune	2.19	254	P	Pn	05 08 04.8	-0.5
JHJ2				eS	Sn	05 08 32.4	-0.1
JHJ	Hachijo jima 2	2.22	254	Pn	Pn	05 08 01.1	-4.6
	16nm,0.3s,baz=73,slow=19,SNR=2.6						
JHJ				Sn	Sn	05 08 32.6	-0.5
	42nm,0.3s,baz=76,slow=24,SNR=5.1						
JOD2	Odawara 2	3.07	300	P	Pn	05 08 18.0	+0.6
JOD2				eS	Sn	05 08 54.0	-0.2
JHO	Hitachi	3.20	334	P	Pn	05 08 16.9	-2.2
MJAR	Matsushiro Arr	4.38	311	Pn	Pn	05 08 34.8	-0.5
	1.6nm,0.3s,baz=132,slow=12,SNR=11						
MJAR				Sn	Sn	05 09 26.9	+0.6
	2.0nm,0.3s,baz=144,slow=22,SNR=6.6						
MAT	Matsushiro	4.38	311	P	Pn	05 08 36.0	+0.6
MAT				S	Sn	05 09 25.7	-0.7
ASAJ	Asahikawa	10.35	1	LR	LR	05 14 21.0	
	comp=Z,52nm,18.2s,baz=133,slow=39						
MKAR	Makanchi Array	46.55	305	P	P	05 15 55.7	-0.9
	0.3nm,0.6s,mb3.4,baz=94,slow=7.9,SNR=4.7						
WRA	Warramunga Arr	53.93	189	P	P	05 16 53.0	+0.3
	0.2nm,0.5s,mb3.3,baz=6.5,slow=7.7,SNR=4.1						
ASAR	Alice Springs	57.66	189	P	P	05 17 20.2	+0.9
	0.3nm,0.8s,mb3.4,baz=9.7,slow=6.6,SNR=4.0						
BRTR	Keskin Array B	81.60	312	P	P	05 19 48.1	+1.1
	0.4nm,0.7s,mb3.5,baz=29,slow=7.4,SNR=3.6						

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*NEIC **17** 05:11:45.2, 16.36N×95.40W, h84^{km}, MD3.8(MEX), After MEX.*

MEX 17 05:11:47.1±0.8**, 16.34N×95.42W, h55**^{km}±21^{km}**, MD3.8, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	Huatulco	0.87	230	i P	Pn	05 12 01.4	-1.9
HUIG				i S	Sn	05 12 15.9	+0.8
HUIG	Huatulco	0.87	230	i P	Pn	05 12 01.4	-1.9
HUIG				i S	Sn	05 12 13.7	-1.5
CMIG	Matias Romero	0.91	34	i P	Pn	05 12 02.8	-0.9
CMIG				i S	Sn	05 12 13.6	-2.5
OXX	Oaxaca	1.46	301	eP	Pn	05 12 10.0	-1.1
OXX				i S	Sn	05 12 28.0	-1.1
VHO	Vista Hermosa	1.46	300	i P	Pn	05 12 09.6	-1.5
VHO				i S	Sn	05 12 27.6	-1.6
UTMO	Huajuapan	2.73	303	eP	Pn	05 12 26.8	-1.6
UTMO				i S	Sn	05 12 58.1	-2.1

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*IDC **17** 05:13:20.6±1.2, 46.91N×155.70E, h0^{km}, mb3.5/4, mb1 3.8/4, mb1mx3.4/22, mbtmp3.5/4, Error ellipse: s-maj=44.2km s-min=30.4km az=136.0*

*ISCJB **17** 05:13:21.3±4.5, 47.25N±0.09×155.6E±0.3, h13^{km}±29^{km}, mb3.5/4, Error ellipse: s-maj=35.6km s-min=14.8km az=10.5*

*MOS **17** 05:13:23.4±1.4, 47.25N×155.41E, h32^{km}, mb3.9/2, Error ellipse: s-maj=74.4km s-min=22.0km az=79.6*

ISC 17 05:13:23.1±5.5**, 47.25N**±0.09×**155.5E**±0.3**, h14**^{km}±34^{km}**, n9, σ0**^{s}**.95**/10**, mb3.5**/4**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	3.46	6	ePN	Pn	05 14 16.0	-0.5
SKR				eS	Sn	05 14 56.6	-0.6
SKR				smax			
	comp=N,120nm,0.2s						
SKR				smax			
	comp=E,120nm,0.2s						
SKR				smax			
	comp=Z,30nm,0.5s						
PET	Petropavlovsk	6.11	18	ePN	Pn	05 14 52.9	-0.1
MKAR	Makanchi Array	48.18	298	P	P	05 22 04.0	+1.3
	comp=Z,0.4nm,0.8s,mb3.5,baz=60,slow=5.8,SNR=4.7						
YKA	Yellowknife Ar	49.52	38	P	P	05 22 13.8	+1.0
YKA	Yellowknife Ar	49.52	38	P	P	05 22 13.8	+1.1
	comp=Z,0.2nm,0.5s,mb3.4,baz=294,slow=7.1,SNR=3.5						
WRA	Warramunga Arr	69.56	201	P	P	05 24 29.6	-1.8
WRA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
WRA	Warramunga Arr	69.56	201	P	P	05 24 29.6	-1.8
	comp=Z,0.7nm,0.9s,mb3.6,baz=24,slow=7.2,SNR=4.2						
TXAR	Lajitas Array	75.79	62	P	P	05 25 09.1	+0.5
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
TXAR	Lajitas Array	75.79	62	P	P	05 25 09.1	+0.4
	comp=Z,0.5nm,0.8s,mb3.5,baz=304,slow=5.2,SNR=5.8						

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*NNC **17** 05:24:08.8±2.5, 42.00N×84.79E, h0^{km}, mb3.0, mpv2.6, Error ellipse: s-maj=26.4km s-min=15.7km az=126.0*

BJI 17 05:24:10.6, 41.92N×84.66E, h15^{km}**, ML3.0, 2C-4D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	Urumqi	2.93	49	PG	Pg	05 25 03.6	-3.1
WMQ				SG	Sg	05 25 41.4	-3.3
WMQ				Smax			
	comp=N,56nm,0.5s						
WMQ				Smax			
	comp=E,160nm,0.6s						
MK31	Makanchi Array	5.16	342	⇓Pn	Pn	05 25 29.2	+2.0
	comp=E,0.8nm,0.8s,baz=154,slow=16,SNR=19						
MK31				⇓Pg	Pg	05 25 42.9	-6.4
	comp=E,1.0nm,0.3s,baz=156,slow=17,SNR=13						
MK31				⇓Lg		05 26 49.1	
	comp=E,6.4nm,0.4s,baz=154,slow=29,SNR=11						
TKM2	Tokmak 2	6.78	282	⇑Pn	Pn	05 25 51.0	+1.5
	comp=E,0.1nm,0.7s						
TKM2				⇓Lg		05 27 44.5	
	comp=E,0.8nm,0.8s						
KURK	Kurchatov	9.73	337	⇑Lg		05 29 16.7	
	comp=E,3.4nm,0.8s						

IDC 17 05:32:13.2±1.2**, 6.68N×124.64E, h0**^{km}**, mb3.7**/6**, mb1 3.8**/6**, mb1mx3.6**/20**, mbtmp3.7**/6**, MS3.7**/2**, Ms1 3.7**/2**, ms1mx3.1**/36**, Error ellipse: s-maj=114.7km s-min=17.8km az=70.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	24.64	178	P	P	05 37 35.9	+0.3
	0.4nm,0.5s,baz=0.0,slow=9.1,SNR=6.1						
WRA	Warramunga Arr	28.12	160	P	P	05 38 07.0	-0.1
	0.3nm,0.4s,baz=343,slow=9.0,SNR=8.8						
ASAR	Alice Springs	31.49	164	P	P	05 38 37.5	+0.7
	0.9nm,0.3s,baz=336,slow=8.1,SNR=32						
MJAR	Matsushiro Arr	32.21	21	LR	LR	05 49 39.0	
	comp=Z,146nm,19.6s,baz=195,slow=32						
STKA	Stephens Creek	41.62	158	P	P	05 40 02.2	-1.0
	0.5nm,0.5s,baz=340,slow=15,SNR=3.6						
SONM	Songino Array	43.86	342	P	P	05 40 22.8	+1.6
	0.2nm,0.5s,baz=149,slow=6.6,SNR=2.5						
MKAR	Makanchi Array	53.96	325	P	P	05 41 37.5	-1.2
	0.7nm,0.5s,baz=125,slow=7.3,SNR=14						
AKASG	Malin Array Be	88.30	321	LR	LR	06 27 04.0	
	comp=Z,40nm,19.8s,baz=250,slow=37						

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*CSEM **17** 05:39:48.8±0.1, 38.43N×39.10E, h5^{km}, MD3.6, Error ellipse: s-maj=2.1km s-min=1.8km az=139.0*

*DDA **17** 05:39:48.6, 38.48N×39.11E, h14^{km}±2^{km}, Md3.6*

*ISK **17** 05:39:48.2, 38.44N×39.09E, h5^{km}, MD3.5*

*ISCJB **17** 05:39:49.3±0.6, 38.44N±0.03×39.13E±0.03, h3^{km}±5^{km}, Error ellipse: s-maj=4.5km s-min=3.8km az=136.8*

ISC 17 05:39:49.9±0.5**, 38.45N**±0.03×**39.12E**±0.03**, h4**^{km}±4^{km}**, n38, σ0**^{s}**.96**/52**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.12	295	i P	Pg	05 39 52.5	+0.3
ELZG				i S	Sg	05 39 53.3	-0.5
PTK	Pertek	0.49	25	PG	Pg	05 39 58.7	-0.6
PTK				SG	Sg	05 40 07.8	+2.1
PTK	Pertek	0.49	25	ePg	Pg	05 39 58.7	-0.6
PTK				eSg	Sg	05 40 07.8	+2.1
MYA	Malataya	0.56	258	PG	Pg	05 39 59.6	-1.0
MYA				SG	Sg	05 40 08.4	+0.5
MYA	Malataya	0.56	258	ePg	Pg	05 39 59.6	-1.0
MYA				eSg	Sg	05 40 08.4	+0.5
DIYA	Diyarbakir	0.94	123	i P	Pg	05 40 08.0	0.0
DIYA				i S	Sg	05 40 21.2	+1.0

DIYA	Diyarbakir	0.94	123	*i* P	Pg	05 40 08.0	0.0
DIYA				*i* S	Sg	05 40 21.2	+1.0
DIY	Diyarbakir	1.03	122	PG	Pg	05 40 09.0	-0.6
DIY	Diyarbakir	1.03	122	*e*Pg	Pg	05 40 09.0	-0.6
URFA	Urfa	1.03	193	PG	Pg	05 40 08.5	-1.2
URFA				SG	Sg	05 40 24.2	+1.2
URFA	Urfa	1.03	193	*e*Pg	Pg	05 40 08.5	-1.2
URFA				*e*Sg	Sg	05 40 24.2	+1.2
BINT	Bingol	1.15	68	PN	Pn	05 40 11.3	-1.5
BINT	Bingol	1.15	68	*e*Pn	Pn	05 40 11.3	-1.5
ATAB	Bozova	1.17	214	*i* P	Pg	05 40 11.7	-0.7
ATAB				*i* S	Sg	05 40 27.7	+0.1
EZC	Erzincan	1.41	22	PN	Pn	05 40 14.9	-1.4
GZT	Gaziantep	1.65	229	*i* P	Pn	05 40 18.4	-1.2
GZT				*i* S	Sn	05 40 42.3	+1.1
KELT	Kelkit	1.70	3	*i* P	Pn	05 40 21.1	+0.7
KELT				*i* S	Sn	05 40 42.0	-0.6
MARD	Mardin	1.73	130	*i* P	Pn	05 40 20.4	-0.4
MARD				*i* S	Sn	05 40 43.0	-0.4
BTMT	Batman	1.88	97	PN	Pn	05 40 20.9	-1.9
GAZ	Gaziantep	1.98	231	PN	Pn	05 40 23.8	-0.4
GAZ	Gaziantep	1.98	231	*e*Pn	Pn	05 40 23.8	-0.4
KMRS	Kahramanmaras	1.99	243	PN	Pn	05 40 24.3	-0.1
KMRS	Kahramanmaras	1.99	243	*e*Pn	Pn	05 40 24.3	-0.1
GUMT	Gumushane	2.03	8	PN	Pn	05 40 25.0	+0.1
GUMT	Gumushane	2.03	8	*e*Pn	Pn	05 40 25.0	+0.1
EZM	Erzurum	2.27	49	PN	Pn	05 40 28.9	+0.7
ANDN	Andirin	2.36	249	*i* P	Pn	05 40 32.6	+3.2
ANDN				*i* S	Sn	05 41 06.6	+7.8
BNN	Bunyan	2.60	280	*e*PN	Pn	05 40 32.9	+0.2
BNN	Bunyan	2.60	280	*e*Pn	Pn	05 40 32.9	+0.2
KOZT	Kozan	2.78	251	*e*PN	Pn	05 40 35.6	+0.4
YOZ	Yozgat	3.19	293	*e*PN	Pn	05 40 41.1	+0.2
YOZ	Yozgat	3.19	293	*e*Pn	Pn	05 40 41.1	+0.2
AGRB	Hanur-Agry	3.22	68	*e*PN	Pn	05 40 42.4	+1.2
AGRB	Hanur-Agry	3.22	68	*e*Pn	Pn	05 40 42.4	+1.2
CUKT	Cukurca	3.75	107	*e*PN	Pn	05 40 50.1	+1.6
CUKT	Cukurca	3.75	107	*e*Pn	Pn	05 40 50.1	+1.6
CORM	Corum	3.89	298	*e*PN	Pn	05 40 50.8	+0.3
CORM	Corum	3.89	298	*e*Pn	Pn	05 40 50.8	+0.3

MAN 17 05:39:57, 1958N×12197E, h42km, mb4.3, ML3.1, MS2.9, 1D, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGCP	Mt. Cagua	1.33	177	*e*P	Pn	05 40 21.0	+1.8
CVP	Callao Caves	1.87	184	⇓*e*P	Pn	05 40 27.3	+0.7
CVP				*i* S	Sn	05 40 52.3	+3.3
ABRA	Dolores	2.26	212	*e*P	Pn	05 40 33.6	+1.7

IDC 17 05:40:04.1±2.7, 2315S×14806E, h0km, mb1 3.4/3, mb1mx3.2/11, mbtmp3.1/3, ML2.9/3, Error ellipse: s-maj=31.3km s-min=24.4km az=71.0, Queensland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	3.48	331	Pn	Pn	05 40 59.6	+0.1
	0.8nm,0.3s,baz=148,slow=14,SNR=5.1						
CTA				Pg	Pg	05 41 08.5	-2.4
	5.6nm,0.3s,baz=150,slow=17,SNR=32						
CTA				Lg		05 41 53.6	
	7.1nm,0.3s,baz=54,slow=22,SNR=14						
ASAR	Alice Springs	13.01	265	Pn	Pn	05 43 09.7	-0.7
	0.1nm,0.3s,baz=90,slow=13,SNR=14						
ASAR				Sn	Sn	05 45 35.9	-0.1
	0.0nm,0.3s,baz=94,slow=22,SNR=2.4						
ASAR				Lg		05 46 59.4	
	0.0nm,0.3s,baz=80,slow=29,SNR=3.2						
WRA	Warramunga Arr	13.16	281	Pn	Pn	05 43 11.2	-1.3
	0.1nm,0.3s,baz=102,slow=12,SNR=6.0						
WRA				Sn	Sn	05 45 41.9	+2.3
	0.0nm,0.3s,baz=92,slow=21,SNR=2.6						
WRA				Lg		05 47 05.0	
	0.1nm,0.3s,baz=110,slow=28,SNR=6.6						
TORD	Torodi Ar. Bea	146.60	259	PKPbc	PKPbc	05 59 48.0	-0.5
	0.4nm,0.9s,baz=106,slow=3.6,SNR=4.2						

NIED ***17*** *05:42:00, 2900N×12980E, h41km, Mw4.5 Best double couple: M0 7.25000×10^15 NP1: φs333.00000°, δ7.00000°, λ-148.00000°. NP2: φs211.00000°, δ86.00000°, λ-84.00000°.*

BJI ***17*** *05:42:11.6, 2863N×13049E, h60km, mB4.4, mb4.1, Ms3.9, Msz3.7*

JMA ***17*** *05:42:13.8±0.2, 2897N×12982E, h62km±3km, M4.0*

ISCJB ***17*** *05:42:14.6±0.5, 2895N±003×12998E±008, h54km±4km, mb4.0/19, MS3.6/3, Error ellipse: s-maj=11.7km s-min=4.2km az=18.9*

NEIC ***17*** *05:42:16.7±1.2, 2893N×12987E, h61km±10km, mb4.2/5, Error ellipse: s-maj=15.4km s-min=9.9km az=92.0*

IDC ***17*** *05:42:17.5±1.3, 2898N×12977E, h68km±11km, mb3.6/12, mb1 3.7/15, mb1mx3.6/25, mbtmp3.6/15, MS3.5/6, Ms1 3.5/6, ms1mx3.2/28, Error ellipse: s-maj=22.8km s-min=8.5km az=108.0*

ISC 17 05:42:15.4±0.5, 2896N±003×12999E±008, h46km±5km, n49, σ1.09/53, mb4.0/19, MS3.6/3, Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAM	Amami Oshima	0.64	212	P	Pn	05 42 26.7	-1.6
JAM				*e*S	Sn	05 42 36.5	-1.0
JZK	Kikaishima	0.64	181	P	Pn	05 42 27.8	-0.5
JZK				*e*S	Sn	05 42 38.8	+1.3
JNN	Nakanoshima	0.88	353	P	Pn	05 42 30.3	-1.2
JNN				*e*S	Sn	05 42 42.5	-0.7
JTK	Tokunoshima	1.49	218	P	Pn	05 42 39.8	+0.1
JTK				*e*S	Sn	05 42 59.1	+1.2
JKC	Kuchinoerabu	1.51	7	P	Pn	05 42 39.3	-0.7
JKC				S	Sn	05 42 58.0	-0.4
JTN	Tanegashima 3	1.89	27	P	Pn	05 42 45.0	-0.3
JOW	Kunigami	2.61	216	P	Pn	05 42 55.2	+0.1
JOW	Kunigami	2.61	216	P	Pn	05 42 55.4	+0.3
	22nm,0.3s,baz=68,slow=18,SNR=25						
JOW				S	Sn	05 43 26.6	+1.0
	28nm,0.3s,baz=132,slow=28,SNR=6.0						
JIH	Iheya	2.62	223	P	Pn	05 42 55.1	-0.2
JIH				*e*S	Sn	05 43 25.1	-0.8
JAGN	Aguni-jima	3.39	227	P	Pn	05 43 05.7	-0.1
JKE	Kume jima 2	3.87	228	P	Pn	05 43 12.3	-0.1
JNU	Nakatsue	4.22	10	P	Pn	05 43 18.9	+1.8
	6.2nm,0.3s,baz=167,slow=10,SNR=39						
JNU				S	Sn	05 44 08.2	+3.1
	1.7nm,0.3s,baz=164,slow=16,SNR=2.4						
KSRS	Korea Array	8.64	349	P	Pn	05 44 21.7	+3.8
	0.3nm,0.3s,baz=174,slow=13,SNR=10						
KSRS				LR	LR	05 47 53.2	
	comp=Z,222nm,19.9s,baz=157,slow=39						
JHJ	Hachijo jima 2	9.37	61	LR	LR	05 47 51.5	
	comp=Z,158nm,21.8s,baz=146,slow=35						
MJAR	Matsushiro Arr	10.24	40	P	Pn	05 44 45.3	+5.6
	0.5nm,0.3s,baz=223,slow=16,SNR=2.8						
CBIJ	Chichi jima	10.93	97	LR	LR	05 47 56.2	
	comp=Z,209nm,18.7s,baz=258,slow=30						
CN2	Changchun	15.25	347	*e*P	Pn	05 45 53.4	+5.9
CN2				AMB	AMB		
	comp=Z,50nm,0.9s						
CN2				LR	LR		
	comp=N,500nm,12.0s						
CN2				LR	LR		
	comp=E,300nm,12.0s						
CN2				LR	LR		
	comp=Z,400nm,13.0s						
BJT	Baijiatuau	15.84	318	*e*P	Pn	05 45 59.0	+3.8
	comp=Z,11nm,0.7s						
ASAJ	Asahikawa	18.17	30	P	Pn	05 46 28.4	+4.3
	comp=Z,0.5nm,0.3s,baz=97,slow=16,SNR=2.3						
XAN	Xi'an	18.66	291	P	Pn	05 46 29.6	-0.5
XAN				AMB	AMB		
	comp=Z,4.0nm,0.8s						
HHC	Hu-ho-hao-te	19.17	313	*e*P	Pn	05 46 38.1	+1.9
HHC				AMB	AMB		
	comp=Z,6.0nm,1.2s						
HHC				AMB	AMB		
	comp=Z,73nm,4.0s						
GUMO	Guam	20.61	135	LR	LR	05 53 13.7	
	comp=Z,85nm,21.4s,MS3.1,baz=354,slow=32						
GYA	Guiyang	20.80	269	P	P	05 46 57.4	+4.6
GYA				AMB	AMB		
	comp=Z,10.0nm,1.1s						
CD2	Chengdu	22.80	281	P	P	05 47 14.5	+0.3
CD2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.4						
LZH	Lanzhou	23.12	295	*e*P	P	05 47 19.3	+1.8
LZH				AP		05 47 31.6	
LZH				XP	sP	05 47 36.0	+1.5
LZH				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.6						
LZH				AMB	AMB		
	comp=Z,120nm,4.4s						
LZH	Lanzhou	23.12	295	*e*P	P	05 47 19.2	+1.7
	comp=Z,25nm,1.0s,mb4.6						
LZH				pP		05 47 31.6	
LZH				sP	sP	05 47 36.0	+1.5
ULN	Ulaanbaatar	25.90	323	*e*P	P	05 47 44.4	+1.5
	comp=Z,7.1nm,0.6s,mb4.4						
SONM	Songino Array	26.23	322	P	P	05 47 44.9	-0.9
	comp=Z,6.5nm,0.7s,mb4.3,baz=140,slow=10.0,SNR=50						
GTA	Gaotai	26.94	301	*e*P	P	05 47 55.8	+3.5
GTA				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.1						
MK31	Makanchi Array	40.95	309	*e*P	P	05 49 54.0	+0.6
MKAR	Makanchi Array	40.95	309	P	P	05 49 52.1	-1.3
	comp=Z,0.4nm,0.7s,mb3.2,baz=105,slow=9.2,SNR=4.3						
MKAR				PcP	PcP	05 51 51.7	-1.2
	comp=Z,0.7nm,0.7s,baz=86,slow=3.2,SNR=5.9						
MKAR				LR	LR	06 08 37.8	
	comp=Z,55nm,18.5s,MS3.5,baz=1.1,slow=39						
ZALV	Zalesovo Beam	41.09	320	P	P	05 49 52.9	-1.5
	comp=Z,1.1nm,0.6s,mb3.6,baz=104,slow=9.3,SNR=5.8						
TKM2	Tokmak 2	45.44	303	*e*P	P	05 50 30.3	+0.6
	comp=Z,1.6nm,0.7s,mb4.0						
UCH	Uchtor	46.26	302	*e*P	P	05 50 36.0	-0.1
	comp=Z,2.1nm,0.9s,mb4.1						
WRA	Warramunga Arr	48.80	175	P	P	05 50 55.4	-0.5
	comp=Z,0.9nm,0.9s,mb3.8,baz=4.1,slow=8.3,SNR=4.9						
BRVK	Borovoye	49.39	317	*e*P	P	05 50 59.9	-0.3
	comp=Z,2.1nm,0.6s,mb4.3						
ASAR	Alice Springs	52.46	175	P	P	05 51 23.6	+0.1
	comp=Z,0.4nm,0.5s,mb3.6,baz=6.1,slow=12,SNR=5.9						
INK	Inuvik	65.77	24	*e*P	P	05 52 57.2	+2.0
ARCES	ARCESS Array B	68.05	338	P	P	05 53 07.7	-1.9
ARCES	ARCESS Array B	68.05	338	P	P	05 53 07.7	-1.9
	comp=Z,1.7nm,0.8s,mb4.1,baz=56,slow=7.1,SNR=2.2						
FINES	FINESS Array B	71.26	330	P	P	05 53 28.3	-1.3
	comp=Z,4.4nm,1.2s,mb4.3,baz=72,slow=6.2,SNR=5.5						
RES	Resolute Bay	72.58	11	*e*P	P	05 53 37.2	0.0
	comp=Z,614nm,1.7s						
AKASG	Malin Array Be	74.47	320	P	P	05 53 47.2	-1.6
	comp=Z,0.5nm,0.5s,mb3.7,baz=57,slow=6.1,SNR=3.8						
YKA	Yellowknife Ar	75.40	26	P	P	05 53 54.0	+0.1
YKA	Yellowknife Ar	75.40	26	P	P	05 53 54.0	+0.1
	comp=Z,0.5nm,0.7s,mb3.6,baz=302,slow=5.5,SNR=7.9						
BRTR	Keskin Array B	76.59	308	P	P	05 54 01.0	-0.1
	comp=Z,0.9nm,0.8s,mb3.7,baz=38,slow=7.3,SNR=6.0						
HFS	Hagfors	77.13	333	P	P	05 54 03.0	-0.7
	comp=Z,0.5nm,0.4s,mb3.8,baz=80,slow=10,SNR=2.8						
HFS				LR	LR	06 29 48.9	
	comp=Z,150nm,18.2s,MS4.3,baz=254,slow=37						
NOA	NORSAR Array B	77.56	334	P	P	05 54 07.0	+0.9
	comp=Z,1.1nm,0.8s,mb3.9,baz=53,slow=5.2,SNR=3.6						
NNA	Nana	149.83	62	*e*PKPbc	PKPbc	06 02 00.5	-0.5

CSEM ***17*** *05:43:54.9±0.2, 3599N×1014W, h10km, ML4.0/8, Error ellipse: s-maj=4.4km s-min=2.3km az=90.0*

ISCJB ***17*** *05:43:55.4±0.4, 3605N±002×1013W±003, h10km, mb3.6/5, Error ellipse: s-maj=3.9km s-min=3.1km az=165.1*

MDD ***17*** *05:43:58.4±0.6, 3595N×1042W, h54km±33km, mb4.4/26, Error ellipse: s-maj=6.3km s-min=4.9km az=95.0, PRXIMO*

NEIC ***17*** *05:43:58.7, 3614N×1018W, h0km, MN3.8(MDD), After MDD.*

INMG ***17*** *05:43:59.8±2.0, 3600N×1043W, h33km±13km, MD3.1, ML3.7, Error ellipse: s-maj=4.8km s-min=3.4km az=69.0*

SFS ***17*** *05:43:59.0, 3616N×1010W, h0km, ML3.6*

IGIL ***17*** *05:44:00.9, 3600N×1030W, h31km, ML4.1*

LDG ***17*** *05:44:01.0±0.2, 3613N×1028W, h20km, Md3.9/1, Ml4.1/17, Error ellipse: s-maj=4.1km s-min=2.7km az=40.0*

IDC ***17*** *05:44:02.1±5.9, 3590N×983W, h58km±44km, mb3.4/5, mb1 3.8/7, mb1mx3.4/23, mbtmp3.6/7, ML4.9/2, Error ellipse: s-maj=49.6km s-min=15.7km az=87.0*

CNRM ***17*** *05:44:03.9, 3560N×972W, h2km, MD3.8*

ISC 17 05:43:58.6±0.4, 3610N±002×1006W±003, h10km, n228, σ1.26/394, mb3.6/5, 14C-2D, Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PFVI	Vila Bisbo	1.43	44	*i* P	Pn	05 44 26.1	+1.6
PFVI				*e*S	Sn	05 44 44.5	+1.2
PFVI				A		05 44 46.3	
	618nm,0.2s						
PFVI	Vila Bisbo	1.43	44	⇑P	Pn	05 44 26.1	+1.6
PFVI				S	Sn	05 44 44.5	+1.2
	309nm,0.2s						
MORF	Marmelete	1.65	43	*i* P	Pn	05 44 29.2	+1.6
MORF				*e*S	Sn	05 44 50.3	+1.5
MORF				A		05 44 53.3	
	605nm,0.2s						
MORF	Marmelete	1.65	43	⇑P	Pn	05 44 29.2	+1.6
MORF				S	Sn	05 44 50.3	+1.5
	605nm,0.2s						
PTEO	Sao Teotonio	1.79	36	*i* P	Pn	05 44 31.0	+1.5
PTEO				*e*S	Sn	05 44 53.5	+1.1
PTEO				A		05 44 55.2	
	467nm,0.2s						
PTEO	Sao Teotonio	1.79	36	⇑P	Pn	05 44 31.0	+1.5
PTEO				S	Sn	05 44 53.5	+1.1
	234nm,0.2s						
PBDV	Barranco-do-Ve	2.05	56	*i* P	Pn	05 44 35.0	+1.9
PBDV				*e*S	Sn	05 44 59.8	+1.0
PBDV				A		05 45 05.1	
	169nm,0.2s						
PBDV	Barranco-do-Ve	2.05	56	⇑P	Pn	05 44 35.0	+1.9
PBDV				S	Sn	05 44 59.8	+1.0
	85nm,0.2s						
PVAQ	Vaqueiros	2.28	55	*i* P	Pn	05 44 38.1	+1.8
PVAQ				*e*S	Sn	05 45 05.3	+0.8
PVAQ				A		05 45 07.1	
	251nm,0.3s						
PVAQ	Vaqueiros	2.28	55	⇑P	Pn	05 44 38.1	+1.8
PVAQ				S	Sn	05 45 05.3	+0.8
	126nm,0.3s						
EGRO	El Granado	2.51	55	⇑P	Pn	05 44 41.0	+1.6
EGRO				S	Sn	05 45 10.9	+0.9
EGRO	El Granado	2.51	55	⇑P	Pn	05 44 41.0	+1.6
	5.6nm,0.1s,SNR=18						
EGRO				S	Sn	05 45 11.3	+1.2
	426nm,0.1s,SNR=12						
EGRO	El Granado	2.51	55	P	Pn	05 44 41.0	+1.6
	5.6nm,0.1s,SNR=18						
EGRO				S	Sn	05 45 10.9	+0.8
	426nm,0.1s,SNR=12						
PBEJ	Beja	2.60	42	*i* P	Pn	05 44 41.9	+1.3
PBEJ				*e*S	Sn	05 45 13.2	+1.0
PBEJ				A		05 45 15.0	
	226nm,0.2s						
PBEJ	Beja	2.60	42	⇑P	Pn	05 44 41.9	+1.3
PBEJ				S	Sn	05 45 13.2	+1.0
	113nm,0.2s						
LIS	Lisbon	2.71	15	*e*P	Pn	05 44 42.9	+0.7
LIS				*e*S	Sn	05 45 13.6	-1.3
LIS				*e*S	Sn	05 45 13.6	-1.3
LIS				AML	AML	05 45 15.4	
	comp=E,1μm,0.2s						
LIS	Lisbon	2.71	15	*e*P	Pn	05 44 42.9	+0.8
LIS				*e*S	Sn	05 45 13.6	-1.3
MOE	Montemor	2.77	29	*e*P	Pn	05 44 44.4	+1.4
MOE				*e*S	Sn	05 45 16.8	+0.3
EVOP	Sao Brissos	2.87	32	*e*Pn	Pn	05 44 45.1	+0.8
EVOP				*e*Sn	Sn	05 45 18.7	-0.2
	comp=E,444nm,0.2s						
PMAFR	Mafra	2.91	12	*e*P	Pn	05 44 44.8	-0.1
PMAFR				*e*S	Sn	05 45 18.1	-1.9
PMAFR				A		05 45 21.6	
	comp=E,739nm,0.3s						
PMAFR	Mafra	2.91	12	P	Pn	05 44 44.8	-0.1
PMAFR				S	Sn	05 45 18.1	-1.9
	comp=E,369nm,0.3s						
EVO	Evora	2.92	33	*e*Pn	Pn	05 44 45.1	+0.1
EVO				*e*Sn	Sn	05 45 18.7	-1.5
	comp=E,889nm,0.2s						
EVO	Evora	2.92	33	*e*P	Pn	05 44 46.0	+1.0
EVO				*e*S	Sn	05 45 20.1	-0.1
EVO				A		05 45 22.4	
	comp=E,233nm,0.1s						
EVO	Evora	2.92	33	*e*P	Pn	05 44 46.0	+1.0
EVO				*e*S	Sn	05 45 20.1	-0.1
	comp=E,233nm,0.1s						
SCRT	Cerro San Cris	3.18	79	S	Sn	05 45 25.8	-0.7
SCRT	Cerro San Cris	3.18	79	*e*S	Sn	05 45 25.8	-0.7
EMIN	Mina Concepcio	3.18	57	⇑P	Pn	05 44 49.9	+1.3
EMIN				S	Sn	05 45 26.8	+0.2
EMIN	Mina Concepcio	3.18	57	⇑P	Pn	05 44 49.9	+1.3
	comp=E,2.4nm,0.2s,SNR=18						
EMIN				S	Sn	05 45 27.3	+0.8
	comp=E,13nm,0.1s						
EMIN	Mina Concepcio	3.18	57	P	Pn	05 44 49.9	+1.3
	comp=E,2.4nm,0.2s,SNR=18						
EMIN				S	Sn	05 45 26.8	+0.2
	comp=E,13nm,0.1s						
CNIL	Conil	3.25	84	P	Pn	05 44 51.0	+1.5
CNIL				S	Sn	05 45 29.6	+1.4
CNIL	Conil	3.25	84	*i* P	Pn	05 44 51.0	+1.5
CNIL				*e*S	Sn	05 45 29.6	+1.4
ALMR	Almeirim	3.27	21	*e*P	Pn	05 44 50.1	+0.4
ALMR				*e*S	Sn	05 45 27.7	-0.9
ALMR				*e*S	Sn	05 45 27.8	-0.9
ALMR				AML	AML	05 45 30.8	
	comp=N,362nm,0.2s						
ALMR	Almeirim	3.27	21	*e*P	Pn	05 44 50.1	+0.3
ALMR				*e*S	Sn	05 45 27.7	-1.0
GIBL	Gibalbin	3.38	76	P	Pn	05 44 53.0	+1.7
GIBL				S	Sn	05 45 32.2	+0.9
GIBL	Gibalbin	3.38	76	*i* P	Pn	05 44 53.0	+1.7
GIBL				*e*S	Sn	05 45 32.2	+0.8
PESTR	Estremoz	3.38	35	*e*P	Pn	05 44 52.2	+0.8
PESTR				*e*S	Sn	05 45 31.4	-0.2
PESTR				A		05 45 35.8	
	comp=N,98nm,0.2s						
PESTR	Estremoz	3.38	35	*e*P	Pn	05 44 52.2	+0.8
PESTR				*e*S	Sn	05 45 31.4	-0.2
	comp=N,98nm,0.2s						
ESPR	Espera	3.47	76	⇑P	Pn	05 44 54.2	+1.6
	comp=N,33nm,0.2s,SNR=18						
ESPR				S	Sn	05 45 33.9	+0.2
	comp=N,589nm,0.3s						
ESPR	Espera	3.47	76	P	Pn	05 44 54.2	+1.6
	comp=N,33nm,0.2s,SNR=18						
ESPR				S	Sn	05 45 33.9	+0.2
	comp=N,589nm,0.3s						
AVE	Averroes	3.54	141	P	Pn	05 44 51.8	-1.8
AVE				S	Sn	05 45 29.5	-6.1
EBAD	Badajoz	3.59	42	P	Pn	05 44 55.1	+0.9
EBAD				S	Sn	05 45 35.5	-1.2
EBAD	Badajoz	3.59	42	P	Pn	05 44 55.1	+0.9
	comp=N,1.1nm,0.1s,SNR=109						
EBAD				S	Sn	05 45 37.0	+0.4
	comp=N,187nm,0.1s,SNR=5.3						
EBAD	Badajoz	3.59	42	P	Pn	05 44 55.1	+0.9
	comp=N,1.1nm,0.1s,SNR=109						
EBAD				S	Sn	05 45 35.5	-1.1
	comp=N,187nm,0.1s,SNR=5.3						
EJIF	Jimena Fronter	3.72	83	P	Pn	05 44 58.0	+1.9
EJIF				S	Sn	05 45 41.7	+1.7
EJIF	Jimena Fronter	3.72	83	P	Pn	05 44 57.7	+1.6
	comp=N,9.8nm,0.2s,SNR=7.9						
EJIF				S	Sn	05 45 40.7	+0.7
	comp=N,9.9nm,0.2s,SNR=7.9						
EJIF	Jimena Fronter	3.72	83	P	Pn	05 44 58.0	+1.9
	comp=N,9.8nm,0.2s,SNR=7.9						
EJIF				S	Sn	05 45 41.7	+1.7
	comp=N,9.9nm,0.2s,SNR=7.9						
EMIJ	Mijas	4.29	82	P	Pn	05 45 04.8	+1.0
	comp=N,5.6nm,0.2s,SNR=34						
EMIJ				S	Sn	05 45 54.4	+0.4
	comp=N,53nm,0.3s						
TGT	Taghat	4.58	115	*i* P	Pn	05 45 07.0	-0.8
EMAL	Malaga-Limoner	4.58	80	S	Sn	05 46 01.3	0.0
EMAL	Malaga-Limoner	4.58	80	*e*S	Sn	05 46 01.3	+0.1
CIA	Chichaoua	4.65	166	P	Pn	05 45 06.0	-2.9
CIA				S	Sn	05 45 53.0	-10
CIA	Chichaoua	4.65	166	*i* P	Pn	05 45 06.0	-2.9
MTE	Manteigas	4.72	24	*e*P	Pn	05 45 11.3	+1.5
MTE				*e*S	Sn	05 46 03.2	-1.4
MTE				A		05 46 11.1	
	comp=N,99nm,0.3s						
MTE	Manteigas	4.72	24	P	Pn	05 45 11.3	+1.5
MTE				S	Sn	05 46 03.2	-1.4
	comp=N,50nm,0.3s						
MIF	Mishlifen	4.80	123	*i* P	Pn	05 45 10.0	-0.8
IFR	Ifrane	4.81	121	P	Pn	05 45 10.0	-1.0
IFR				S	Sn	05 46 00.0	-6.7
EADA	Adamuz	4.84	63	⇓P	Pn	05 45 12.7	+1.3
	comp=N,40nm,0.3s,SNR=18						
EADA				S	Sn	05 46 07.0	-0.5
	comp=N,38nm,0.1s,SNR=9.7						
EADA	Adamuz	4.84	63	P	Pn	05 45 12.7	+1.3
	comp=N,40nm,0.3s,SNR=18						
EADA				S	Sn	05 46 07.0	-0.5
	comp=N,38nm,0.1s,SNR=9.7						
KIB	El Ksiba	4.84	135	*i* P	Pn	05 45 09.0	-2.4
ELOJ	Sierra Loja	4.86	76	P	Pn	05 45 13.6	+1.9
ELOJ				S	Sn	05 46 07.1	-0.9
ELOJ	Sierra Loja	4.86	76	P	Pn	05 45 13.3	+1.6
	comp=N,4.3nm,0.2s,SNR=7.9						
ELOJ				S	Sn	05 46 07.1	-0.9
	comp=N,5.2nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	4.86	76	P	Pn	05 45 13.6	+1.9
	comp=N,4.3nm,0.2s,SNR=7.9						
ELOJ				S	Sn	05 46 07.1	-0.9
	comp=N,5.2nm,0.2s,SNR=7.9						
ELUQ	Luque	4.87	71	P	Pn	05 45 13.1	+1.3
	comp=N,24nm,0.3s,SNR=40						
ELUQ				S	Sn	05 46 07.6	-0.5
	comp=N,30nm,0.2s						
PVIS	Viseu	4.91	20	*e*P	Pn	05 45 12.3	-0.1
PVIS				*e*S	Sn	05 46 05.9	-3.3
PVIS				A		05 46 11.5	
	comp=N,73nm,0.2s						
PVIS	Viseu	4.91	20	P	Pn	05 45 12.3	-0.1
PVIS				S	Sn	05 46 05.9	-3.3
	comp=N,36nm,0.2s						
TZC	Tazercounte	4.93	142	*i* P	Pn	05 45 10.0	-2.7
ERON	Agron	5.11	78	P	Pn	05 45 17.4	+2.2
ERON				S	Sn	05 46 13.6	-0.6
ERON	Agron	5.11	78	P	Pn	05 45 16.7	+1.5
	comp=N,13nm,0.3s,SNR=26						
ERON				S	Sn	05 46 13.6	-0.6
	comp=N,5.4nm,0.2s						
ERON	Agron	5.11	78	P	Pn	05 45 17.4	+2.2
	comp=N,13nm,0.3s,SNR=26						
ERON				S	Sn	05 46 13.6	-0.7
	comp=N,5.4nm,0.2s						
CZD	Col de Zad	5.15	125	*i* P	Pn	05 45 14.0	-1.6
PTO	Porto	5.16	12	*e*P	Pn	05 45 15.1	-0.6
PTO				S	Sn	05 46 11.1	-4.2
PTO				A		05 46 13.8	
	comp=N,114nm,0.4s						
PTO	Porto	5.16	12	P	Pn	05 45 15.1	-0.6
PTO				S	Sn	05 46 11.1	-4.2
	comp=N,57nm,0.4s						
TZK	Tazeka	5.22	111	*i* P	Pn	05 45 16.0	-0.6
EGUA	Guajares	5.28	80	P	Pn	05 45 18.3	+0.8
EGUA				S	Sn	05 46 18.3	-0.1
EGUA	Guajares	5.28	80	P	Pn	05 45 18.3	+0.8
	comp=N,1.6nm,0.2s,SNR=7.9						
EGUA				S	Sn	05 46 17.5	-0.9
	comp=N,4.5nm,0.2s,SNR=7.9						
EGUA	Guajares	5.28	80	P	Pn	05 45 18.3	+0.8
	comp=N,1.6nm,0.2s,SNR=7.9						
EGUA				S	Sn	05 46 18.3	-0.1
	comp=N,4.5nm,0.2s,SNR=7.9						
ECOG	Cogollos-Vega	5.34	75	⇓P	Pn	05 45 20.4	+2.0
ECOG				S	Sn	05 46 18.2	-1.8
ECOG	Cogollos-Vega	5.34	75	P	Pn	05 45 19.9	+1.5
	comp=N,58nm,0.4s,SNR=18						
ECOG				S	Sn	05 46 18.2	-1.8
	comp=N,5.3nm,0.3s,SNR=7.9						
ECOG	Cogollos-Vega	5.34	75	P	Pn	05 45 20.4	+2.0
	comp=N,58nm,0.4s,SNR=18						
ECOG				S	Sn	05 46 18.2	-1.8
	comp=N,5.3nm,0.3s,SNR=7.9						
EBAN	Banos Encina	5.42	66	⇑P	Pn	05 45 20.2	+0.8
EBAN				S	Sn	05 46 19.0	-2.7
EBAN	Banos Encina	5.42	66	⇑P	Pn	05 45 20.2	+0.8
	comp=N,17nm,0.2s,SNR=18						
EBAN				S	Sn	05 46 20.9	-0.8

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             comp=N,19nm,0.1s
EQUE  Quentar            5.43  76  P      Pn      05 45 21.2 +1.7
             comp=N,4.4nm,0.1s,SNR=4.0
EQUE                               S      Sn      05 46 21.3  -0.8
             comp=N,6.9nm,0.1s,SNR=5.2
EQUE  Quentar            5.43  76  P      Pn      05 45 21.5 +1.9
             comp=N,4.4nm,0.1s,SNR=4.0
EQUE                               S      Sn      05 46 23.4 +1.3
             comp=N,6.9nm,0.1s,SNR=5.2
PVRL  Vila Real          5.48  19  eP     Pn      05 45 20.0  -0.2
PVRL                               eS     Sn      05 46 18.7  -4.6
PVRL                               A              05 46 22.3
             comp=N,90nm,0.1s
PVRL  Vila Real          5.48  19  P      Pn      05 45 20.0  -0.2
PVRL                               S      Sn      05 46 18.7  -4.6
             comp=N,45nm,0.1s
MDT   Midelt             5.56 125  P      Pn      05 45 20.3  -1.0
             comp=N,16nm,0.3s,baz=316,slow=6.9,SNR=496
MDT                                S      Sn      05 46 18.9  -6.5
             comp=N,60nm,0.3s,baz=223,slow=23,SNR=32
MVO   Moncorvo           5.58  24  eP     Pn      05 45 21.6   0.0
MVO                                eS     Sn      05 46 22.6  -3.2
MVO                                A              05 46 26.8
             comp=N,57nm,0.3s
MVO   Moncorvo           5.58  24  P      Pn      05 45 21.6   0.0
MVO                                S      Sn      05 46 22.6  -3.2
             comp=N,29nm,0.3s
TIO   Tiouine            5.67 155  P      Pn      05 45 19.5  -3.3
PCAB  Cabril             5.82  15  eP     Pn      05 45 24.3  -0.6
PCAB                               eS     Sn      05 46 26.9  -4.7
PCAB                               A              05 46 30.3
             comp=N,55nm,0.3s
PCAB  Cabril             5.82  15  P      Pn      05 45 24.3  -0.6
PCAB                               S      Sn      05 46 26.9  -4.7
             comp=N,28nm,0.3s
EBER  Berja              5.83  80  P      Pn      05 45 26.4 +1.4
EBER                               S      Sn      05 46 31.7  -0.1
EBER  Berja              5.83  80  P      Pn      05 45 26.4 +1.4
             comp=N,2.2nm,0.2s,SNR=7.9
EBER                               S      Sn      05 46 30.8  -1.0
             comp=N,5.0nm,0.2s,SNR=7.9
EBER  Berja              5.83  80  P      Pn      05 45 26.4 +1.4
             comp=N,2.2nm,0.2s,SNR=7.9
EBER                               S      Sn      05 46 31.7  -0.2
             comp=N,5.0nm,0.2s,SNR=7.9
EQES  Quesada            5.84  71  ⇑P     Pn      05 45 26.2 +0.9
             comp=N,4.0nm,0.1s,SNR=18
EQES                               S      Sn      05 46 30.4  -1.9
             comp=N,6.6nm,0.1s,SNR=12
EQES  Quesada            5.84  71  P      Pn      05 45 26.2 +1.0
             comp=N,4.0nm,0.1s,SNR=18
ELOB  Lobios             5.96  14  P      Pn      05 45 26.3  -0.5
             comp=N,1.1nm,0.1s,SNR=18
ELOB                               S      Sn      05 46 30.9  -4.2
             comp=N,46nm,0.2s,SNR=8.0
ELOB  Lobios             5.96  14  P      Pn      05 45 26.4  -0.4
ESDC  Sonseca Array      5.99  52  P      Pn      05 45 28.1 +0.8
             comp=N,17nm,0.3s,baz=239,slow=13,SNR=174
ESDC                               S      Sn      05 46 35.4  -0.6
             comp=N,56nm,0.3s,baz=239,slow=23,SNR=62
ESDC  Sonseca Array      5.99  52  P      Pn      05 45 27.7 +0.5
             comp=N,27nm,0.2s,baz=235,slow=13,SNR=225
ESDC                               S      Sn      05 46 34.6  -1.3
             comp=N,106nm,0.5s,baz=240,slow=23,SNR=95
ESDC  Sonseca Array      5.99  52  P      Pn      05 45 27.7 +0.4
             comp=N,27nm,0.2s,SNR=225
ESLA  Sonseca Array      5.99  52  ePn    Pn      05 45 27.8 +0.5
             comp=N,1.3nm,0.3s
ESLA                               eSn    Sn      05 46 34.6  -1.3
ESLA  Sonseca Array      5.99  52  ePn    Pn      05 45 27.8 +0.5
             comp=N,1.3nm,0.3s
PMPS  Porto Santo        6.00 241  eP     Pn      05 45 19.0  -8.4
PMPS                               eS     Sn      05 46 17.5   -19
PMPS                               A              05 46 24.4
             comp=N,94nm,0.3s
PMPS  Porto Santo        6.00 241  P      Pn      05 45 19.0  -8.4
PMPS                               S      Sn      05 46 17.5   -19
             comp=N,47nm,0.3s
EZAM  Zamans             6.13  10  P      Pn      05 45 28.1  -1.0
             comp=N,9.3nm,0.2s,SNR=7.9
EZAM                               S      Sn      05 46 35.0  -4.2
             comp=N,20nm,0.2s,SNR=7.9
ZFT   Errachidia         6.23 129  i P    Pn      05 45 29.0  -1.6
PBRG  Braganca           6.25  23  eP     Pn      05 45 30.7  -0.1
PBRG                               eS     Sn      05 46 38.4  -3.9
PBRG                               A              05 46 41.9
             comp=N,41nm,0.2s
PBRG  Braganca           6.25  23  P      Pn      05 45 30.7  -0.1
PBRG                               S      Sn      05 46 38.4  -3.9
             comp=N,20nm,0.2s
ECAL  Calabor            6.38  23  P      Pn      05 45 32.6 +0.1
             comp=N,10nm,0.2s,SNR=18
ECAL                               S      Sn      05 46 41.5  -3.9
             comp=N,70nm,0.3s,SNR=9.4
ECAL  Calabor            6.38  23  P      Pn      05 45 32.7 +0.2
ENIJ  Nijar              6.38  80  P      Pn      05 45 34.8 +2.3
ENIJ  Nijar              6.38  80  P      Pn      05 45 34.0 +1.4
             comp=N,2.3nm,0.2s,SNR=6.5
ENIJ                               S      Sn      05 46 43.9  -1.5
             comp=N,12nm,1.2s,SNR=7.9
ENIJ  Nijar              6.38  80  P      Pn      05 45 34.8 +2.2
             comp=N,2.3nm,0.2s,SNR=6.5
GUD   Guadarrama         6.48  44  P      Pn      05 45 34.7 +0.7
             comp=N,10nm,0.2s,SNR=7.9
GUD                                S      Sn      05 46 45.7  -2.3
             comp=N,12nm,0.2s,SNR=7.9
EVIA  Vianos             6.53  65  P      Pn      05 45 35.2 +0.6
             comp=N,2.0nm,0.2s,SNR=24
EVIA                               S      Sn      05 46 46.7  -2.3
             comp=N,7.0nm,0.1s
PMAR  Madeira            6.59 241  eP     Pn      05 45 26.8  -8.7
PMAR                               eS     Sn      05 46 30.1   -21
PMAR                               A              05 46 37.8
             comp=N,95nm,0.2s
ERUA  La Rua             6.67  19  P      Pn      05 45 36.0  -0.6
             comp=N,14nm,0.1s,SNR=4.0
ERUA                               S      Sn      05 46 48.2  -4.5
             comp=N,19nm,0.2s,SNR=9.0
STS   Santiago           6.87   9  P      Pn      05 45 38.9  -0.4
STS                                S      Sn      05 46 51.4  -6.2
STS   Santiago           6.87   9  P      Pn      05 45 38.9  -0.4
             comp=N,5.8nm,0.1s,SNR=6.4
STS                                S      Sn      05 46 51.6  -5.9
             comp=N,6.2nm,0.2s
EMAZ  Mazaricos          6.89   7  P      Pn      05 45 38.3  -1.3
EMAZ                               S      Sn      05 46 50.8  -7.1
EMAZ  Mazaricos          6.89   7  P      Pn      05 45 38.3  -1.3
             comp=N,6.4nm,0.1s,SNR=11
EMAZ                               S      Sn      05 46 51.9  -6.0
             comp=N,28nm,0.2s,SNR=7.9
ETOB  Tobarra            7.23  67  P      Pn      05 45 44.9 +0.6
             comp=N,8.0nm,0.3s,SNR=41
ETOB                               S      Sn      05 47 03.7  -2.8
             comp=N,11nm,0.1s,SNR=7.9
ETOB  Tobarra            7.23  67  P      Pn      05 45 44.9 +0.6
             comp=N,8.0nm,0.3s,SNR=41
EMUR  La Murta           7.27  74  P      Pn      05 45 45.8 +1.0
             comp=N,2.5nm,0.2s,SNR=7.7
EMUR                               S      Sn      05 47 05.0  -2.3
             comp=N,4.9nm,0.2s,SNR=7.9
EMUR  La Murta           7.27  74  P      Pn      05 45 45.8 +1.0
             comp=N,2.5nm,0.2s,SNR=7.7
CART  Cartagena          7.41  76  ePn    Pn      05 45 46.7   0.0
CART  Cartagena          7.41  76  ePn    Pn      05 45 46.7   0.0
EPON  Pontenova          7.55  16  P      Pn      05 45 48.1  -0.6
             comp=N,2.1nm,0.3s,SNR=8.9
EPON                               S      Sn      05 47 08.9  -5.4
             comp=N,0.7nm,0.1s,SNR=7.9
EPON  Pontenova          7.55  16  P      Pn      05 45 48.1  -0.6
             comp=N,2.1nm,0.3s,SNR=8.9
ETOR  Torete             7.84  51  P      Pn      05 45 53.9 +1.2
             comp=N,28nm,0.3s,SNR=102
ETOR                               S      Sn      05 47 17.8  -3.7
             comp=N,33nm,0.3s,SNR=5.6
ECHE  Chera              7.99  61  P      Pn      05 45 56.6 +2.0
ECHE                               S      Sn      05 47 21.6  -3.4
ECHE  Chera              7.99  61  P      Pn      05 45 55.8 +1.1
             comp=N,2.2nm,0.2s,SNR=7.9
ECHE                               S      Sn      05 47 21.6  -3.4
             comp=N,0.8nm,0.1s,SNR=7.9
ECHE  Chera              7.99  61  P      Pn      05 45 56.7 +2.1
             comp=N,2.2nm,0.2s,SNR=7.9
EARI  Arriondas          8.10  26  P      Pn      05 45 57.1 +0.9
EARI                               S      Sn      05 47 23.7  -4.0
EARI  Arriondas          8.10  26  P      Pn      05 45 56.6 +0.5
             comp=N,0.5nm,0.2s,SNR=11
EARI                               S      Sn      05 47 23.6  -4.2
             comp=N,1.8nm,0.2s,SNR=7.9
EARI  Arriondas          8.10  26  P      Pn      05 45 57.1 +0.9
             comp=N,0.5nm,0.2s,SNR=11
CFUE  Fuerteventura      8.12 205  S      Sn      05 47 10.8   -18
             comp=N,26nm,0.2s,SNR=7.9
EBEN  Beniarda           8.24  69  P      Pn      05 45 58.5 +0.3
             comp=N,1.3nm,0.2s,SNR=11
EBEN                               S      Sn      05 47 28.5  -2.8
             comp=N,3.4nm,0.4s,SNR=7.9
EBEN  Beniarda           8.24  69  P      Pn      05 45 58.5 +0.4
             comp=N,1.3nm,0.2s,SNR=11
CFTV  Fuerteventura      8.39 205  S      Sn      05 47 17.3   -18
             comp=N,3.3nm,0.2s,SNR=7.9
EMOS  Mosqueruela        8.66  58  P      Pn      05 46 06.4 +2.5
EMOS                               S      Sn      05 47 38.3  -3.1
EMOS  Mosqueruela        8.66  58  P      Pn      05 46 04.7 +0.9
             comp=N,1.7nm,0.2s,SNR=22
EMOS                               S      Sn      05 47 38.3  -3.1
             comp=N,2.1nm,0.3s,SNR=6.2
EMOS  Mosqueruela        8.66  58  P      Pn      05 46 06.4 +2.6
             comp=N,1.7nm,0.2s,SNR=22
ECRI  Cripan             8.74  40  P      Pn      05 46 06.6 +1.7
ECRI                               S      Sn      05 47 39.1  -4.3
ECRI  Cripan             8.74  40  P      Pn      05 46 06.0 +1.1
             comp=N,1.6nm,0.2s,SNR=7.9
ECRI                               S      Sn      05 47 39.1  -4.3
             comp=N,1.7nm,0.2s,SNR=7.9
ECRI  Cripan             8.74  40  P      Pn      05 46 06.6 +1.7
             comp=N,1.6nm,0.2s,SNR=7.9
ELAN  Lanestosa          8.76  34  P      Pn      05 46 07.2 +2.0
ELAN                               S      Sn      05 47 38.9  -5.0
ELAN  Lanestosa          8.76  34  P      Pn      05 46 06.1 +0.9
             comp=N,0.9nm,0.2s,SNR=5.9
ELAN                               S      Sn      05 47 38.9  -5.0
             comp=N,6.6nm,0.2s,SNR=7.9
ELAN  Lanestosa          8.76  34  P      Pn      05 46 07.2 +2.0
             comp=N,0.9nm,0.2s,SNR=5.9
EOSO  Osorio             9.26 212  S      Sn      05 47 37.5   -19
             comp=N,6.0nm,0.2s,SNR=7.9
ESAC  San Caprasio       9.34  50  P      Pn      05 46 13.4 +0.2
ESAC                               S      Sn      05 47 54.8  -3.4
ESAC  San Caprasio       9.34  50  P      Pn      05 46 13.4 +0.2
             comp=N,1.5nm,0.3s,SNR=4.0
ESAC                               S      Sn      05 47 54.0  -4.2
             comp=N,13nm,0.4s,SNR=7.9
ESAC  San Caprasio       9.34  50  P      Pn      05 46 13.4 +0.2
             comp=N,1.5nm,0.3s,SNR=4.0
ERTA  Horta de San J     9.47  56  P      Pn      05 46 16.2 +1.2
             comp=N,0.5nm,0.2s,SNR=7.9
ERTA                               S      Sn      05 47 57.3  -4.1
             comp=N,6.2nm,0.3s,SNR=7.9
ERTA  Horta de San J     9.47  56  P      Pn      05 46 16.2 +1.2
             comp=N,0.5nm,0.2s,SNR=7.9
IUSE  Utxeti             9.48  41  P      Pn      05 46 16.0 +1.0
             comp=N,1.0nm,0.2s,SNR=7.9
IUSE                               S      Sn      05 47 57.3  -4.3
             comp=N,1.1nm,0.2s,SNR=7.9
IUSE  Utxeti             9.48  41  P      Pn      05 46 16.0 +0.9
             comp=N,1.0nm,0.2s,SNR=7.9
EIBI  Ibiza              9.51  69  P      Pn      05 46 16.5 +1.0
             comp=N,4.8nm,4.4s,SNR=7.9
EIBI                               S      Sn      05 47 57.4  -5.0
             comp=N,2.3nm,0.2s,SNR=7.9
CRAJ  Montana Rajada     9.58 217  S      Sn      05 47 44.1   -20
             comp=N,14nm,0.3s,SNR=7.9
CCAN  Las Canadas        9.62 217  S      Sn      05 47 43.3   -22
             comp=N,1.4nm,0.2s,SNR=7.9
SJPF  Ste Jean           9.77  42  ePn    Pn      05 46 20.4 +1.4
SJPF                               eSn    Sn      05 48 01.9  -6.8
             comp=N,22nm,0.4s
SJPF  Ste Jean           9.77  42  ePn    Pn      05 46 20.4 +1.4
SJPF                               eSn    Sn      05 48 01.9  -6.8
SJPF  Ste Jean           9.77  42  ePn    Pn      05 46 20.4 +1.4
SJPF                               eSn    Sn      05 48 01.9  -6.8
             comp=N,11nm,0.4s
ETSF  Etsaut             9.99  44  ePn    Pn      05 46 23.3 +1.2
ETSF                               eSn    Sn      05 48 07.9  -6.3
             comp=N,20nm,0.4s
ETSF  Etsaut             9.99  44  ePn    Pn      05 46 23.3 +1.2
ETSF                               eSn    Sn      05 48 07.9  -6.3
ETSF  Etsaut             9.99  44  ePn    Pn      05 46 23.3 +1.2
ETSF                               eSn    Sn      05 48 07.9  -6.3
             comp=N,10nm,0.4s
EPOB  Poblet            10.15  56  P      Pn      05 46 25.5 +1.2
             comp=N,0.9nm,0.3s
EPOB                               S      Sn      05 48 14.3  -3.9
EPOB  Poblet            10.15  56  P      Pn      05 46 25.5 +1.2
             comp=N,0.9nm,0.3s,SNR=7.9
EPOB                               S      Sn      05 48 12.8  -5.4
             comp=N,0.0nm,0.2s,SNR=7.9
EPOB  Poblet            10.15  56  P      Pn      05 46 25.5 +1.2
             comp=N,0.9nm,0.3s
EBIE  Bielsa            10.27  47  P      Pn      05 46 27.1 +1.2
             comp=N,2.6nm,0.2s
EBIE                               S      Sn      05 48 16.7  -4.2
EBIE  Bielsa            10.27  47  P      Pn      05 46 27.1 +1.2
             comp=N,2.6nm,0.2s,SNR=18
EBIE                               S      Sn      05 48 16.2  -4.8
             comp=N,2.7nm,0.2s,SNR=9.4
EBIE  Bielsa            10.27  47  P      Pn      05 46 27.1 +1.2
             comp=N,2.6nm,0.2s
EPF   Esparros          10.59  46  ePn    Pn      05 46 31.2 +0.9
EPF                                eSn    Sn      05 48 23.4  -5.5
             comp=N,15nm,0.3s
EPF   Esparros          10.59  46  ePn    Pn      05 46 31.2 +0.9
EPF                                eSn    Sn      05 48 23.4  -5.5
EPF   Esparros          10.59  46  ePn    Pn      05 46 31.2 +0.9
EPF                                eSn    Sn      05 48 23.4  -5.5
             comp=N,7.4nm,0.3s
MTLF  Montolieu         11.89  49  ePn    Pn      05 46 48.1   0.0
MTLF                               eSn    Sn      05 48 55.0  -5.7
             comp=N,3.8nm,0.3s
MTLF  Montolieu         11.89  49  ePn    Pn      05 46 48.1   0.0
MTLF                               eSn    Sn      05 48 55.0  -5.7
MTLF  Montolieu         11.89  49  P      Pn      05 46 48.1   0.0
MTLF                               S      Sn      05 48 55.0  -5.7
             comp=N,1.9nm,0.3s
MTLF  Montolieu         11.89  49  ePn    Pn      05 46 48.1   0.0
CAF   Calviac           12.74  43  ePn    Pn      05 47 00.0 +0.3
CAF                                eSn    Sn      05 49 14.8  -6.8
             comp=N,3.6nm,0.3s
CAF   Calviac           12.74  43  ePn    Pn      05 47 00.0 +0.3
CAF                                eSn    Sn      05 49 14.8  -6.8
CAF   Calviac           12.74  43  P      Pn      05 47 00.0 +0.3
CAF                                S      Sn      05 49 14.8  -6.8
             comp=N,1.8nm,0.3s
MFF   Saint Martin d    12.85  32  ePn    Pn      05 47 00.8  -0.4
MFF   Saint Martin d    12.85  32  ePn    Pn      05 47 00.8  -0.4
MFF   Saint Martin d    12.85  32  ePn    Pn      05 47 00.8  -0.4
QUIF  Quistinic         12.86  21  ePn    Pn      05 47 00.3  -1.0
QUIF                               eSn    Sn      05 49 13.7   -11
             comp=N,2.3nm,0.3s
QUIF  Quistinic         12.86  21  ePn    Pn      05 47 00.3  -1.0
QUIF                               eSn    Sn      05 49 13.7   -11
QUIF  Quistinic         12.86  21  ePn    Pn      05 47 00.3  -1.0
QUIF                               eSn    Sn      05 49 13.7   -11
             comp=N,1.1nm,0.3s
ROSF  Rostrenen         13.21  20  ePn    Pn      05 47 05.5  -0.6
ROSF                               eSn    Sn      05 49 22.9   -10
             comp=N,3.1nm,0.4s
ROSF  Rostrenen         13.21  20  ePn    Pn      05 47 05.5  -0.6
ROSF                               eSn    Sn      05 49 22.9   -10
ROSF  Rostrenen         13.21  20  ePn    Pn      05 47 05.5  -0.6
ROSF                               eSn    Sn      05 49 22.9   -10
             comp=N,1.5nm,0.4s
SGMF  Saint Gilles      13.35  22  ePn    Pn      05 47 07.4  -0.5
SGMF                               eSn    Sn      05 49 25.9   -10
             comp=N,3.1nm,0.4s
SGMF  Saint Gilles      13.35  22  ePn    Pn      05 47 07.4  -0.5
SGMF                               eSn    Sn      05 49 25.9   -10
SGMF  Saint Gilles      13.35  22  ePn    Pn      05 47 07.4  -0.5
SGMF                               eSn    Sn      05 49 25.9   -10
             comp=N,1.5nm,0.4s
TCF   Toulx Ste Croi    13.72  38  ePn    Pn      05 47 12.9  -0.2
TCF                                eSn    Sn      05 49 35.9   -10
             comp=N,3.9nm,0.5s
TCF   Toulx Ste Croi    13.72  38  ePn    Pn      05 47 12.9  -0.2
TCF                                eSn    Sn      05 49 35.9   -10
TCF   Toulx Ste Croi    13.72  38  ePn    Pn      05 47 12.9  -0.2
TCF                                eSn    Sn      05 49 35.9   -10
             comp=N,2.0nm,0.5s
GRR   Gorron            14.03  26  ePn    Pn      05 47 16.0  -1.2
GRR   Gorron            14.03  26  ePn    Pn      05 47 16.0  -1.2
GRR   Gorron            14.03  26  ePn    Pn      05 47 16.0  -1.2
BGF   Bois d'Agland     14.23  39  ePn    Pn      05 47 19.2  -0.8
BGF                                eSn    Sn      05 49 49.0  -8.9
             comp=N,16nm,0.5s
BGF   Bois d'Agland     14.23  39  ePn    Pn      05 47 19.2  -0.8
BGF                                eSn    Sn      05 49 49.0  -8.9
BGF   Bois d'Agland     14.23  39  ePn    Pn      05 47 19.2  -0.8
BGF                                eSn    Sn      05 49 49.0  -8.9
             comp=N,8.1nm,0.5s
LDF   La Druitiere      14.46  27  eSn    Sn      05 49 54.0   -10
             comp=N,1.4nm,0.3s
LDF   La Druitiere      14.46  27  eSn    Sn      05 49 54.0   -10
             comp=N,0.7nm,0.3s
FLN   La Foliniere      14.47  26  ePn    Pn      05 47 22.8  -0.5
FLN                                eSn    Sn      05 49 53.8   -10
             comp=N,1.8nm,0.3s
FLN   La Foliniere      14.47  26  ePn    Pn      05 47 22.8  -0.5
FLN                                eSn    Sn      05 49 53.8   -10
FLN   La Foliniere      14.47  26  ePn    Pn      05 47 22.8  -0.5
FLN                                eSn    Sn      05 49 53.8   -10
             comp=N,0.9nm,0.3s
AVF   Avril sur Loir    14.64  39  ePn    Pn      05 47 25.0  -0.7
AVF                                eSn    Sn      05 49 59.4  -8.6
             comp=N,2.4nm,0.5s
AVF   Avril sur Loir    14.64  39  ePn    Pn      05 47 25.0  -0.7
AVF                                eSn    Sn      05 49 59.4  -8.6
AVF   Avril sur Loir    14.64  39  ePn    Pn      05 47 25.0  -0.7
AVF                                eSn    Sn      05 49 59.4  -8.6
             comp=N,1.2nm,0.5s
SSF   Saint Saulge      14.90  39  ePn    Pn      05 47 28.8  -0.4
SSF                                eSn    Sn      05 50 04.4   -10
             comp=N,2.4nm,0.4s
SSF   Saint Saulge      14.90  39  ePn    Pn      05 47 28.8  -0.4
SSF                                eSn    Sn      05 50 04.4   -10
SSF   Saint Saulge      14.90  39  ePn    Pn      05 47 28.8  -0.4
SSF                                eSn    Sn      05 50 04.4   -10
             comp=N,1.2nm,0.4s
LOR   Lormes            15.22  39  ePn    Pn      05 47 33.4   0.0
LOR                                eSn    Sn      05 50 13.2  -8.8
             comp=N,2.2nm,0.5s
LOR   Lormes            15.22  39  ePn    Pn      05 47 33.4   0.0
LOR                                eSn    Sn      05 50 13.2  -8.8
LOR   Lormes            15.22  39  ePn    Pn      05 47 33.4   0.0
LOR                                eSn    Sn      05 50 13.2  -8.8
             comp=N,1.1nm,0.5s
GERES GERESS Array B    21.55  46  P      P       05 48 47.9  -0.1
             comp=N,0.9nm,0.6s,mb3.4,baz=224,slow=11,SNR=4.6
KHC   Kasperske Hory    21.62  46  eP     P       05 48 48.5  -0.1
TORD  Torodi Ar. Bea    25.18 152  P      P       05 49 19.2  -5.0
             comp=N,0.2nm,0.4s,mb3.0,baz=326,slow=10.0,SNR=6.0
FINES FINESS Array B    34.03  30  P      P       05 50 40.5  -1.9
             comp=N,1.6nm,0.7s,mb4.0,baz=242,slow=4.1,SNR=6.9
ARCES ARCESS Array B    38.66  19  P      P       05 51 20.1  -1.7
             comp=N,3.4nm,1.0s,mb4.0,baz=236,slow=8.6,SNR=6.2
MKAR  Makanchi Array    66.20  49  P      P       05 54 44.2  -2.2
             comp=N,0.2nm,0.5s,mb3.4,baz=297,slow=6.1,SNR=3.5
WRA   Warramunga Arr   144.92  72  PKP    PKPdf   06 03 31.9  -4.4
WRA   Warramunga Arr   144.92  72  PKP    PKPdf   06 03 31.9  -4.4
             comp=N,0.3nm,0.7s,baz=308,slow=3.9,SNR=5.7
ASAR  Alice Springs    146.57  78  PKPbc  PKPbc   06 03 36.8  -3.7
ASAR  Alice Springs    146.57  78  PKPbc  PKPbc   06 03 36.8  -3.7
             comp=N,0.4nm,0.6s,baz=307,slow=2.3,SNR=5.6
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*ISCJB **17** 06:04:02.7±2.4, 11.7S±0.1×166.2E±0.1, h66^{km}±20^{km}, mb4.1/12, Error ellipse: s-maj=21.9km s-min=11.6km az=139.0*

*NEIC **17** 06:04:04.5±1.6, 11.63S×166.21E, h70^{km}±14^{km}, mb4.3/4, Error ellipse: s-maj=15.3km s-min=10.5km az=52.0*

*IDC **17** 06:04:05.5±3.1, 11.70S×166.09E, h80^{km}±26^{km}, mb4.0/10, mb1 4.1/12, mb1mx3.9/19, mbtmp4.0/12, MS3.4/6, Ms1 3.4/6, ms1mx3.2/21, Error ellipse: s-maj=23.3km s-min=15.9km az=56.0*

ISC 17 06:04:04.8±1.9**, 11.65S**±0.10×**166.2E**±0.1**, h71**^{km}±16^{km}**, n22, σ0^{s}.75**/22**, mb4.1**/12**, Santa Cruz Islands**

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Code  Station Name        Δ°   AZ°   Phase ID             Time      Res
                                     Op     ISC          h  m  s    ISC
HNR   Honiara            6.51 289    P      Pn      06 05 37.8  -0.2
             16nm,0.3s,baz=86,slow=1.5,SNR=6.3
HNR                                  S      Sn      06 06 50.7  -0.1
             4.3nm,0.3s,baz=273,slow=18,SNR=4.1
HNR                                  LR     LR      06 07 04.2
             comp=Z,103nm,20.4s,baz=181,slow=28
DZM   Mont Dzumac       10.37 179    P      Pn      06 06 30.8  +0.1
             0.6nm,0.3s,baz=41,slow=20,SNR=4.6
DZM                                  S      Sn      06 08 19.1  -6.1
             0.2nm,0.3s,baz=127,slow=20,SNR=2.3
DZM                                  LR     LR      06 10 06.3
             comp=Z,197nm,20.6s,baz=9.1,slow=35
PMG   Port Moresby      18.83 275    eP     Pn      06 08 14.9  -5.4
             10.0nm,0.9s
PMG   Port Moresby      18.83 275    LR     LR      06 14 47.2
             comp=Z,197nm,19.5s,baz=99,slow=34
CTA   Charters Tower    20.90 244    P      P       06 08 46.1  +4.7
             2.6nm,0.6s,baz=72,slow=12,SNR=2.9
CTA                                  LR     LR      06 15 09.4
             comp=Z,127nm,21.2s,baz=49,slow=32
COEN  Coen              22.55 262    eP     P       06 08 59.8  +0.8
URZ   Urewera           28.24 162    P      P       06 09 50.5  -0.6
             5.7nm,0.8s,mb4.2,baz=290,slow=4.6,SNR=2.9
STKA  Stephens Creek    30.30 225    eP     P       06 10 10.8  +1.4
             3.4nm,0.7s,mb4.1
STKA  Stephens Creek    30.30 225    P      P       06 10 08.3  -1.1
             3.9nm,0.7s,mb4.2,baz=30,slow=8.6,SNR=11
STKA                                 LR     LR      06 21 41.6
             comp=Z,115nm,21.4s,baz=24,slow=35
WRA   Warramunga Arr    31.68 251    P      P       06 10 21.6  -0.1
             3.2nm,1.0s,mb4.0,baz=84,slow=9.2,SNR=26
WRA                                  PcP    PcP     06 13 10.5  -1.7
             0.5nm,0.9s,baz=75,slow=3.4,SNR=6.0
RPZ   Rata Peaks        32.23 173    P      P       06 10 26.0  -0.2
             7.3nm,0.6s,mb4.6,baz=27,slow=3.6,SNR=5.4
ASAR  Alice Springs     32.91 244    P      P       06 10 31.7  -0.8
             2.5nm,0.8s,mb4.1,baz=74,slow=9.5,SNR=29
ASAR                                 PcP    PcP     06 13 15.7  +0.1
             1.0nm,0.8s,baz=80,slow=3.0,SNR=5.9
KAKA  Kakadu            32.98 265    eP     P       06 10 33.7  +0.5
             4.9nm,0.8s,mb4.4
FITZ  Fitzroy Crossi    39.64 256    eP     P       06 11 30.7  +0.8
             6.9nm,0.8s,mb4.5
PPT   Papeete           43.14 103    LR     LR      06 27 00.6
             comp=Z,41nm,20.1s,baz=180,slow=32
SONM  Songino Array     79.40 324    P      P       06 16 02.9  -0.2
             0.9nm,0.9s,mb3.6,baz=135,slow=5.9,SNR=5.7
NVAR  Mina Array Bea    86.09  50    P      P       06 16 39.3  +1.3
             0.2nm,0.5s,mb3.4,baz=224,slow=5.0,SNR=2.6
MK31  Makanchi Array    94.25 317    eP     P       06 17 16.4  +0.3
MK31                                 epP    pP      06 17 29.0  -6.8
MKAR  Makanchi Array    94.25 317    P      P       06 17 16.1   0.0
             2.7nm,0.8s,mb4.6,baz=101,slow=6.3,SNR=23
ZALV  Zalesovo Beam     94.29 324    P      P       06 17 14.1  -2.0
ZALV  Zalesovo Beam     94.29 324    P      P       06 17 14.1  -2.0
             0.5nm,0.3s,mb4.3,baz=107,slow=5.0,SNR=3.7
YKA   Yellowknife Ar    95.31  27    P      P       06 17 20.5   0.0
             0.1nm,0.5s,mb3.5,baz=257,slow=4.5,SNR=3.5
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*IDC **17** 06:31:16.5±3.3, 7.37S×155.97E, h15^{km}±19^{km}, mb4.7/12, mb1 4.7/14, mb1mx4.7/17, mbtmp4.6/14, ML3.9/2, MS4.0/12, Ms1 4.0/12, ms1mx3.8/22, Error ellipse: s-maj=21.2km s-min=16.0km az=123.0*

*BJI **17** 06:31:18.0, 6.94S×155.94E, h26^{km}, mB5.1, mb4.9, Ms4.9, Msz4.3*

*MOS **17** 06:31:18.5±1.1, 7.21S×155.84E, h33^{km}, mb5.1/28, Error ellipse: s-maj=9.7km s-min=7.8km az=112.3*

*ISCJB **17** 06:31:18.9±0.2, 7.25S±0.04×155.87E±0.04, h41^{km}, mb4.9/70, MS4.1/20, Error ellipse: s-maj=5.8km s-min=5.4km az=18.4*

*NEIC **17** 06:31:20.1±0.2, 7.22S×155.88E, mb5.0/41, Error ellipse: s-maj=6.9km s-min=6.3km az=109.0*

*GCMT **17** 06:31:20.1±0.4, 7.56S×155.84E, h30^{km}±1^{km}, MW4.9/42, Moment Tensor Solution. s27,c28; s42,c53; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.67±.18; $M_{\theta\theta}$-2.03±.12; $M_{\phi\phi}$-0.64±.13; $M_{r\theta}$1.13±.15; $M_{\theta\phi}$1.24±.08; $M_{\phi r}$-0.95±.18; Best double couple: $M_0$3.09000×10^{16} NP1:ϕ_s295.00000°, δ31.00000°, λ82.00000°. NP2: ϕ_s125.00000°, δ59.00000°, λ95.00000°. Principal axes: T 3.0560, Plg75.0000°, Azm49.0000°; N 0.0680, Plg4.0000°, Azm303.0000°; P -3.1240, Plg14.0000°, Azm211.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 17 06:31:20.8±0.2,**727S**±004×**15588E**±004,**h43**^{km},
h43^{km}±4.6^{km}**:pP-P,n234,**σ**1**$\overset{s}{.}$**02**/145,**mb4.9**/70,**MS4.1**/20,
7C-6D,Bougainville - Solomon Islands region

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Code  Station Name        Δ°   AZ°    Phase ID          Time       Res
                                     Op      ISC      h  m  s     ISC
HNR   Honiara            4.56 118  ePn     Pn       06 32 28.0  +0.6
HNR                                eSn     Sn       06 33 21.6  +2.5
HNR   Honiara            4.56 118   Pn     Pn       06 32 27.8  +0.5
      24nm,0.3s,baz=262,slow=5.2,SNR=14
HNR                                 Sn     Sn       06 33 23.9  +4.8
      75nm,0.3s,baz=97,slow=1.8,SNR=4.1
HNR                                 LR     LR       06 33 24.2
      comp=Z,475nm,18.4s,baz=354,slow=29
PMG   Port Moresby       8.89 256  ePn     Pn       06 33 27.5  +0.7
      68nm,0.8s
PMG                                eSn     Sn       06 35 09.6  +4.0
PMG   Port Moresby       8.89 256  eP      Pn       06 33 27.5  +0.7
PMG                                e                06 35 09.6
PMG                                 pmax   pmax
      comp=Z,68nm,0.8s
PMG   Port Moresby       8.89 256   Pn     Pn       06 33 27.3  +0.5
      comp=Z,3.1nm,0.3s,baz=41,slow=7.1,SNR=23
PMG                                 Sn     Sn       06 35 08.5  +2.8
      baz=14,slow=8.3,SNR=1.8
PMG                                 LR     LR       06 36 49.9
      comp=Z,1µm,20.1s,baz=57,slow=37
CTA   Charters Tower    15.79 215  eP      Pn       06 35 01.1  +0.7
      comp=Z,11nm,0.7s
CTA                                i pP    pP       06 35 15.7  +1.8
CTA                                eS      S        06 38 22.9   +15
CTA   Charters Tower    15.79 215   Pn     Pn       06 34 57.0  -3.4
      comp=Z,0.6nm,0.3s,baz=39,slow=16,SNR=3.4
CTAO  Charters Tower    15.79 215  ePn     Pn       06 35 01.1  +0.7
      comp=Z,46nm,1.0s
CTAO  Charters Tower    15.79 215  eP      Pn       06 35 01.1  +0.7
CTAO                                pmax   pmax
      comp=Z,46nm,1.0s
DZM   Mont Dzumac       17.90 146   P      Pn       06 35 29.8  +3.1
      comp=Z,0.3nm,0.3s,baz=323,slow=20,SNR=3.1
DZM                                 LR     LR       06 40 39.0
      comp=Z,327nm,19.6s,baz=201,slow=32
EIDS  Eidsvold          18.57 194  eP      Pn       06 35 34.2  -0.6
FUNA  Funafuti          23.13  95  eP      P        06 36 23.4  -0.1
      comp=Z,59nm,0.8s,mb5.1
GUMO  Guam              23.43 332   LR     LR       06 43 23.8
      comp=Z,155nm,21.1s,MS3.4,baz=111,slow=31
KAKA  Kakadu            23.70 255  eP      P        06 36 28.4  -0.7
      comp=Z,15nm,0.7s,mb4.5
WB2   Warramunga Arr    24.38 237  eP      P        06 36 35.1  -0.2
WRA   Warramunga Arr    24.39 237   P      P        06 36 34.3  -1.1
WRA                                                 06 40 13.4
WRA   Warramunga Arr    24.39 237   P      P        06 36 34.3  -1.1
      comp=Z,11nm,1.0s,mb4.3,baz=65,slow=9.3,SNR=22
WRA                                 PcP    PcP      06 40 13.4  -0.6
      comp=Z,2.4nm,0.9s,baz=62,slow=2.3,SNR=4.9
WRA                                 ScP    ScP      06 43 52.1  +2.6
      comp=Z,3.0nm,1.0s,baz=65,slow=2.9,SNR=9.5
WRA                                 LR     LR       06 45 54.9
      comp=Z,543nm,19.4s,MS4.0,baz=65,slow=36
ASAR  Alice Springs     26.66 230   P      P        06 36 54.9  -1.0
ASAR                                                06 40 18.5
ASAR  Alice Springs     26.66 230   P      P        06 36 54.9  -1.0
      comp=Z,2.2nm,0.6s,mb3.9,baz=63,slow=8.7,SNR=39
ASAR                                PcP    PcP      06 40 18.5  -0.6
      comp=Z,1.3nm,0.7s,baz=61,slow=2.6,SNR=5.0
ASAR                                ScP    ScP      06 43 58.3  +2.4
      comp=Z,1.5nm,0.7s,baz=63,slow=2.9,SNR=10
STKA  Stephens Creek    27.87 207  eP      P        06 37 06.2  -0.5
      comp=Z,5.2nm,0.8s,mb4.2
STKA  Stephens Creek    27.87 207   P      P        06 37 05.5  -1.1
      comp=Z,3.7nm,0.6s,mb4.2,baz=7.8,slow=10,SNR=7.6
STKA                                LR     LR       06 48 06.2
      comp=Z,574nm,18.3s,MS4.2,baz=23,slow=36
FITZ  Fitzroy Crossi    31.35 247⇑iP      P        06 37 36.8  -0.9
      comp=Z,22nm,0.8s,mb5.0
AFI   Afiamalu          32.44 104   P      P        06 37 46.2  -1.1
      comp=Z,16nm,0.4s,mb5.2,baz=250,slow=8.1,SNR=4.4
AFI                                 LR     LR       06 49 57.6
      comp=Z,294nm,18.7s,MS4.0,baz=82,slow=35
FORT  Forrest           35.00 224  eP      P        06 38 08.1  -1.3
      comp=Z,21nm,0.7s,mb5.2
TAU   Tasmania Unive    36.29 191  eP      P        06 38 19.8  -0.4
      comp=Z,21nm,1.1s,mb5.0
TAU   Tasmania Unive    36.29 191  eP      P        06 38 19.8  -0.4
TAU                                 pmax   pmax
      comp=Z,21nm,1.1s,mb5.0
MBWA  Marble Bar        37.55 245  eP      P        06 38 30.6  -0.7
      comp=Z,6.4nm,0.6s,mb4.5
RPZ   Rata Peaks        38.66 162   P      P        06 38 41.9  +1.6
      comp=Z,6.1nm,0.6s,mb4.5,baz=340,slow=5.2,SNR=3.7
KKM   Kota Kinabalu     41.73 287  eP      P        06 39 06.1   0.0
KLBR  Kellerberrin      42.99 231  eP      P        06 39 15.0  -1.2
      comp=Z,14nm,0.6s,mb4.9
NWAO  Narrogin (SRO)    43.98 229  eP      P        06 39 22.9  -1.2
      comp=Z,22nm,1.1s,mb4.8
NWAO  Narrogin (SRO)    43.98 229  eP      P        06 39 22.9  -1.2
NWAO                                pmax   pmax
      comp=Z,22nm,1.1s
NACB  Ninganchiao       45.78 314  eP      P        06 39 38.6  +0.1
KSM   Kuching           46.29 279  eP      P        06 39 42.2  -0.5
MJAR  Matsushiro Arr    46.63 340   P      P        06 39 44.3  -0.7
      comp=Z,8.0nm,0.8s,mb4.7,baz=165,slow=8.4,SNR=19
MJAR                                PcP    PcP      06 41 18.1  -0.4
      comp=Z,3.7nm,0.7s,baz=158,slow=4.1,SNR=5.1
MAJO  Matsushiro        46.63 340  eP      P        06 39 44.3  -0.8
      comp=Z,13nm,0.8s,mb4.9
MAJO                               ePcP    PcP      06 41 19.0  +0.6
MAJO  Matsushiro        46.63 340  eP      P        06 39 44.3  -0.7
MAJO                               e                06 41 19.0
MAJO                                pmax   pmax
      comp=Z,13nm,0.8s,mb4.9
KSRS  Korea Array       51.59 332   P      P        06 40 23.7  +0.7
      comp=Z,7.8nm,0.8s,mb4.7,baz=148,slow=6.8,SNR=20
KSRS                                PcP    PcP      06 41 37.2  +0.8
      comp=Z,2.2nm,0.7s,baz=141,slow=4.3,SNR=7.3
KSRS                                LR     LR       06 58 39.6
      comp=Z,72nm,19.4s,MS3.7,baz=332,slow=32
INCN  Inchon            52.24 331  eP      P        06 40 26.6  -1.2
      comp=Z,13nm,0.8s,mb4.9
QIZ   Qiongzhong        52.36 301   P      P        06 40 29.8  +0.8
QIZ                                 PP     PP       06 42 27.8  -0.3
QIZ                                 S      S        06 47 53.6  +1.6
QIZ                                 AMB    AMB
      comp=Z,17nm,1.1s,mb4.9
QIZ                                 AMB    AMB
      comp=Z,111nm,4.3s
QIZ                                 LR     LR
      comp=Z,221nm,20.0s,MS4.2
QIZ   Qiongzhong        52.36 301  eP      P        06 40 29.9  +0.9
      comp=Z,12nm,0.8s,mb4.9
NJ2   Nanjing           52.69 320  eP      P        06 40 33.1  +1.9
NJ2                                 AMB    AMB
      comp=Z,30nm,1.1s,mb5.1
PPT   Papeete           54.08 106  eLR     LR       06 56 23.6
      comp=Z,115nm,25.5s
WHN   Wuhan             54.75 316 ⇓P      P        06 40 47.0  +0.6
YSS   Yuzh-Sakhalins    55.23 349  eP      P        06 40 51.3  +1.8
      comp=Z,10nm,0.6s,mb5.0
YSS   Yuzh-Sakhalins    55.23 349⇑eP      P        06 40 52.6  +3.1
YSS                                e       pP       06 41 02.0  +0.3
YSS                                 pmax   pmax
      comp=Z,30nm,1.0s,mb5.3
PMOR  Pomariorio Ree    55.58 103  eP      P        06 40 53.4  +0.8
      comp=Z,57nm,1.2s,mb5.5
VAH   Vaihoa            55.84 103  eP      P        06 40 55.1  +0.6
      comp=Z,32nm,1.2s,mb5.2
KULM  Kulim             56.51 281  eP      P        06 40 58.6  -0.7
MDJ   Mudanjiang        56.82 338   P      P        06 41 00.3  -0.6
MDJ                                 AMB    AMB
      comp=Z,10.0nm,1.4s,mb4.7
MDJ                                 AMB    AMB
      comp=Z,88nm,5.3s
MDJ                                 LR     LR
      comp=N,118nm,42.0s,MS3.8
MDJ                                 LR     LR
      comp=E,109nm,37.8s,MS3.8
MDJ                                 LR     LR
      comp=Z,27nm,21.0s
MDJ   Mudanjiang        56.82 338  eP      P        06 41 01.6  +0.7
      comp=Z,17nm,1.2s,mb5.0
CN2   Changchun         57.82 334  eP      P        06 41 08.0   0.0
GYA   Guiyang           58.32 307   P      P        06 41 12.6  +0.8
GYA                                 PCP    PcP      06 42 04.3  +1.7
GYA                                 PP     PP       06 43 26.5  +5.1
GYA                                 SCP    ScP      06 45 58.4  -1.3
GYA                                 PCS    PcS      06 46 04.8  +0.5
GYA                                 S      S        06 49 13.3  +1.8
GYA                                 PS              06 49 33.4
GYA                                 SCS    ScS      06 50 55.5  -3.0
GYA                                 SS     SS       06 53 06.4  +2.1
GYA                                 AMB    AMB
      comp=Z,10.0nm,0.8s,mb4.9
GYA                                 AMB    AMB
      comp=Z,100nm,5.1s
GYA                                 LR     LR
      comp=N,560nm,19.0s,MS4.8
GYA                                 LR     LR
      comp=E,290nm,18.8s,MS4.8
GYA                                 LR     LR
      comp=Z,380nm,19.6s,MS4.5
HABR  Khabarovsk        58.45 344  eP      P        06 41 03.4  -8.9
HABR                               e                06 41 59.4
HABR                               eS      S        06 49 03.6  -8.9
HABR                               e                06 50 52.5
BJT   Baijiatuau        59.63 325  eP      P        06 41 20.6  -0.1
      comp=Z,6.2nm,0.6s,mb4.8
BJT   Baijiatuau        59.63 325  eP      P        06 41 20.6  -0.1
BJT                                 pmax   pmax
      comp=Z,6.0nm,0.6s
XAN   Xi'an             60.52 316   P      P        06 41 25.8  -1.1
XAN                                 AMB    AMB
      comp=Z,7.0nm,0.8s,mb4.8
KMI   Kunming           60.90 304   P      P        06 41 29.4  -0.2
      comp=Z,16nm,1.4s,mb5.0
KMI                                 pP     pP       06 41 46.8  +4.8
KMI                                 LR     LR
      comp=Z,90nm,19.3s,MS3.9
KMI   Kunming           60.90 304   P      P        06 41 29.4  -0.2
KMI                                 *PP    pP       06 41 46.8  +4.8
KMI                                 pmax   pmax
      comp=Z,16nm,1.4s,mb5.0
KMI                                 MLR    MLR
      comp=Z,90nm,19.3s,MS3.9
CM31  Chiang Mai Arr    61.70 295  eP      P        06 41 37.0  +1.8
      comp=Z,15nm,0.9s,mb5.1
CHTO  Chiang Mai        61.81 296  eP      P        06 41 36.2  +0.3
      comp=Z,21nm,1.4s,mb5.1
CHTO  Chiang Mai        61.81 296  eP      P        06 41 36.2  +0.3
CHTO                                pmax   pmax
      comp=Z,21nm,1.4s,mb5.1
CD2   Chengdu           62.66 310   P      P        06 41 42.1  +0.7
CD2                                 S      S        06 50 04.9  -2.1
CD2                                 SS     SS       06 54 12.6  +0.3
CD2                                 AMB    AMB
      comp=Z,20nm,0.6s,mb5.4
CD2                                 AMB    AMB
      comp=Z,50nm,5.8s
CD2                                 LR     LR
      comp=N,310nm,12.9s,MS4.7
CD2                                 LR     LR
      comp=E,210nm,16.5s,MS4.7
CD2                                 LR     LR
      comp=Z,310nm,14.6s,MS4.6
HHC   Hu-ho-hao-te      62.84 323  eP      P        06 41 40.6  -1.7
HHC                                 AP     pP       06 41 56.8  +2.1
HHC                                 PCP    PcP      06 42 17.9  -2.5
HHC                                 PP     PP       06 44 01.3  +0.2
HHC                                 PCS    PcS      06 46 19.8  -4.0
HHC                                 S      S        06 50 05.5  -3.3
HHC                                 PS              06 50 31.4
HHC                                 SCS    ScS      06 51 24.3  -7.3
HHC                                 SS     SS       06 54 13.1  -1.6
HHC                                 AMB    AMB
      comp=Z,9.0nm,0.9s,mb4.9
HHC                                 AMB    AMB
      comp=Z,82nm,5.1s
HHC                                 LR     LR
      comp=N,93nm,19.9s,MS4.2
HHC                                 LR     LR
      comp=E,117nm,20.9s,MS4.2
HHC                                 LR     LR
      comp=Z,85nm,21.8s,MS3.9
HIA   Hailar            64.54 335  eP      P        06 41 53.5  +0.1
      comp=Z,10nm,0.8s,mb4.9
HIA   Hailar            64.54 335  eP      P        06 41 53.5  +0.1
HIA                                 pmax   pmax
      comp=Z,10.0nm,0.8s
LZH   Lanzhou           65.13 315  eP      P        06 41 58.5  +1.0
LZH                                 AP     pP       06 42 10.4  +0.4
LZH                                 PCP    PcP      06 42 31.0  +1.0
LZH                                 PP     PP       06 44 23.3  +2.0
LZH                                eS      S        06 50 36.0  -1.4
LZH                                 XS     sS       06 50 56.3  -1.8
LZH                                 SS     SS       06 54 52.3  +1.7
LZH                                 AMB    AMB
      comp=Z,26nm,1.2s,mb5.1
LZH                                 AMB    AMB
      comp=Z,110nm,4.3s
LZH                                 LR     LR
      comp=E,450nm,14.0s
LZH                                 LR     LR
      comp=Z,665nm,14.9s,MS5.0
LZH   Lanzhou           65.13 315  eP      P        06 41 58.5  +1.0
      comp=Z,26nm,1.2s,mb5.1
LZH                                 pP     pP       06 42 10.4  +0.4
LZH                                 sP     sP       06 42 16.7  +1.9
LZH                                 PcP    PcP      06 42 31.0  +1.0
LZH                                 PP     PP       06 44 23.2  +1.9
LZH                                eS      S        06 50 36.0  -1.4
LZH                                 sS     sS       06 50 56.3  -1.8
LZH                                 SS     SS       06 54 52.2  +1.6
LZH                                 LR     LR
      comp=Z,670nm,14.9s,MS5.0
LZH   Lanzhou           65.13 315  eP      P        06 41 58.5  +1.0
LZH                                 *PP    pP       06 42 10.4  +0.4
LZH                                 *SP    sP       06 42 16.7  +1.9
LZH                                                 06 42 31.0
LZH                                                 06 44 23.2
LZH                                eS      S        06 50 36.0  -1.4
LZH                                 *SS    sS       06 50 56.3  -1.8
LZH                                 SS     SS       06 54 52.2  +1.6
LZH                                 pmax   pmax
      comp=Z,26nm,1.2s,mb5.1
LZH                                 MLR    MLR
      comp=Z,670nm,14.9s,MS5.0
CASY  Casey             66.61 198  eP      P        06 42 08.0  +1.5
      comp=Z,128nm,1.3s,mb5.8
MA2   Magadan           66.75 357  eP      P        06 42 07.3  -0.2
      comp=Z,6.1nm,0.9s,mb4.6
MA2   Magadan           66.75 357  eP      P        06 42 07.1  -0.4
MA2                                 pmax   pmax
      comp=Z,8.0nm,0.9s,mb4.8
RKT   Rikitea           68.02 112  eLR     LR       07 02 49.6
      comp=Z,128nm,22.5s
CLNS  Chul'man          68.75 342  eP      P        06 42 21.3  +1.2
CLNS                                pmax   pmax
      comp=Z,12nm,0.7s,mb4.9
CLNS                                pmax   pmax
      comp=N,5.0nm,0.8s
GTA   Gaotai            69.54 317  eP      P        06 42 26.5  +1.1
GTA                                 PP     PP       06 45 01.0  +1.3
GTA                                 PPP             06 46 39.1
GTA                                 S      S        06 51 23.0  -7.3
GTA                                 XS     sS       06 51 50.9  -0.3
GTA                                 PS              06 51 56.9
GTA                                 AMB    AMB
      comp=Z,6.0nm,1.4s,mb4.3
GTA                                 AMB    AMB
      comp=Z,55nm,6.5s
GTA                                 LR     LR
      comp=N,117nm,15.6s,MS4.4
GTA                                 LR     LR
      comp=E,95nm,14.1s,MS4.4
GTA                                 LR     LR
      comp=Z,149nm,14.8s,MS4.4
ULN   Ulaanbaatar       69.71 327  eP      P        06 42 27.9  +1.6
      comp=Z,19nm,0.9s,mb5.0
ULN   Ulaanbaatar       69.71 327c iP      P        06 42 27.3  +1.1
SONM  Songino Array     70.04 327   P      P        06 42 29.7  +1.4
      comp=Z,23nm,0.9s,mb5.1,baz=136,slow=6.5,SNR=153
SEY   Seymchan          70.05 358  eP      P        06 42 28.1  +0.1
SHL   Shillong          70.19 300  i P     P        06 42 29.5  -0.2
VNDA  Vanda             70.28 179   LR     LR       07 06 57.7
      comp=Z,155nm,18.2s,MS4.3,baz=352,slow=30
YAK   Yakutsk           72.01 347  eP      P        06 42 40.2  +0.3
YAK                                 pmax   pmax
      comp=Z,21nm,1.3s,mb4.9
LSA   Lhasa             72.15 304   P      P        06 42 42.8  +1.3
LSA   Lhasa             72.15 304  eP      P        06 42 42.8  +1.3
      comp=Z,23nm,1.3s,mb5.0
LSA   Lhasa             72.15 304  eP      P        06 42 42.8  +1.3
LSA                                 pmax   pmax
      comp=Z,23nm,1.3s,mb5.0
ZAK   Zakamensk         73.19 328⇑iP      P        06 42 47.8  +0.6
ZAK                                 pmax   pmax
      comp=Z,9.0nm,1.3s,mb4.5
BOD   Bodaibo           73.20 338  eP      P        06 42 46.2  -0.8
BOD                                 pmax   pmax
      comp=Z,7.0nm,1.4s,mb4.4
TLY   Talaya            73.75 329  eP      P        06 42 50.9  +0.5
      comp=Z,6.8nm,0.9s,mb4.6
TLY                                epP     pP       06 43 03.0  -0.1
TLY                                esP     sP       06 43 09.4  +1.5
TLY   Talaya            73.75 329  eP      P        06 42 50.1  -0.3
TLY                                 pmax   pmax
      comp=Z,7.0nm,0.9s,mb4.6
TLY                                 MLR    MLR
      comp=Z,75nm,20.0s,MS4.0
IRK   Irkutsk           73.76 330  eP      P        06 42 50.2  -0.3
IRK                                e                06 43 10.9
IRK                                 pmax   pmax
      comp=Z,40nm,1.5s,mb5.1
TAPN  Taplejung         74.30 301  eP      P        06 42 54.8  +0.6
      comp=Z,59nm,1.0s,mb5.5
ODAN  Odare             74.43 300  eP      P        06 42 55.5  +0.5
      comp=Z,94nm,0.9s,mb5.7
MOY   Mondy             75.11 328  eP      P        06 42 58.8  +0.5
MOY                                 pmax   pmax
      comp=Z,16nm,1.5s,mb4.7
BILL  Bilibino          75.49   4  eP      P        06 43 00.9  +0.7
      comp=Z,25nm,1.1s,mb5.0
BILL  Bilibino          75.49   4κeP      P        06 43 00.7  +0.5
BILL                                pmax   pmax
      comp=Z,25nm,1.4s,mb5.0
BILL                                MLR    MLR
      comp=Z,100nm,17.0s,MS4.2
KKN   Kakani            76.49 301  eP      P        06 43 07.1  +0.3
      comp=Z,35nm,0.9s,mb5.3
GKN   Gorkha            77.10 301  eP      P        06 43 10.4  +0.2
      comp=Z,84nm,1.0s,mb5.6
TNA   Tin City          77.36  15  eP      P        06 43 10.1  -0.7
      comp=Z,3.3nm,1.3s,mb4.1
SVW2  Sparrevohn        77.92  22  eP      P        06 43 11.8  -2.2
WMQ   Urumqi            79.63 317   P      P        06 43 24.3  +0.5
WMQ                                 AMB    AMB
      comp=Z,12nm,1.2s,mb4.7
WMQ                                 LR     LR
      comp=N,53nm,15.8s
WMQ                                 LR     LR
      comp=Z,57nm,20.0s,MS3.9
PMR   Palmer            80.69  23  eP      P        06 43 26.2  -2.9
      comp=Z,6.0nm,0.8s,mb4.6
PMR   Palmer            80.69  23  eP      P        06 43 26.2  -2.9
PMR                                 pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.6
TIXI  Tiksi             80.75 352  eP      P        06 43 27.2  -2.0
      comp=Z,2.1nm,0.6s,mb4.2
TIXI  Tiksi             80.75 352  eP      P        06 43 27.4  -1.9
TIXI                                pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.3
MCK   McKinley          81.98  22  eP      P        06 43 35.1  -0.8
      comp=Z,12nm,0.9s,mb4.8
MCK   McKinley          81.98  22  eP      P        06 43 35.1  -0.8
MCK                                 pmax   pmax
      comp=Z,12nm,0.9s,mb4.8
COLA  College           83.02  21  eP      P        06 43 39.6  -1.7
      comp=Z,9.6nm,1.0s,mb4.8
COLA  College           83.02  21  eP      P        06 43 39.6  -1.7
COLA                                pmax   pmax
      comp=Z,10.0nm,1.0s,mb4.8
MK31  Makanchi Array    84.19 319  eP      P        06 43 48.3  +0.6
MK31                               epP     pP       06 43 58.5  -2.1
MKAR  Makanchi Array    84.19 319  i P     P        06 43 47.8  +0.1
MKAR                                pmax   pmax
      comp=Z,27nm,0.7s
MKAR  Makanchi Array    84.19 319   P      P        06 43 48.0  +0.2
      comp=Z,35nm,0.7s,mb5.6,baz=103,slow=5.8,SNR=390
MKAR                                LR     LR       07 23 43.6
      comp=Z,50nm,18.2s,MS3.9,baz=355,slow=37
MAW   Mawson            84.48 203   LR     LR       07 19 18.2
      comp=Z,194nm,18.4s,MS4.5,baz=244,slow=34
ZALV  Zalesovo Beam     84.90 326   P      P        06 43 50.4  -0.8
ZALV                                PKKPbc PKKPbc   07 01 59.2  -2.4
ZALV                                LR     LR       07 22 54.3
ZALV  Zalesovo Beam     84.90 326   P      P        06 43 50.4  -0.8
      comp=Z,22nm,0.7s,mb5.4,baz=110,slow=5.6,SNR=112
ZALV                                PKKPbc PKKPbc   07 01 59.2  -2.4
      comp=Z,0.4nm,0.3s,baz=340,slow=7.9,SNR=4.1
ZALV                                LR     LR       07 22 54.3
      comp=Z,67nm,19.3s,MS4.0,baz=205,slow=36
ZAL   Zalesovo          84.91 326   P      P        06 43 50.4  -0.8
NVS   Novosibirsk       86.07 326⇑iP      P        06 43 56.2  -0.7
NVS                                 pmax   pmax
      comp=N,9.0nm,1.4s
NVS                                 pmax   pmax
      comp=Z,29nm,1.4s,mb5.3
NVS                                 pmax   pmax
      comp=E,18nm,1.3s
KSH   Kashi             86.86 310  eP      P        06 44 02.1  +0.9
KSH                                eAP     pP       06 44 15.4  +1.3
KSH                                ePPP             06 49 24.1
KSH                                eSKS             06 54 22.0
KSH                                eS      S        06 54 33.0  -3.3
KSH                                eSS     SS       07 00 20.5  +1.1
KURK  Kurchatov         87.59 322  eP      P        06 44 03.8  -0.7
      comp=E,38nm,1.4s,mb5.4
KURK  Kurchatov         87.59 322c iP      P        06 44 03.6  -0.9
TKM2  Tokmak 2          87.84 314   P      P        06 44 06.5  +0.6
      SNR=8.2
TKM2  Tokmak 2          87.84 314  eP      P        06 44 05.9   0.0
      comp=E,6.7nm,0.8s,mb4.9
TKM2  Tokmak 2          87.84 314  eP      P        06 44 05.9   0.0
TKM2                                pmax   pmax
      comp=Z,7.0nm,0.8s,mb4.9
KZA   Kyzart            87.92 313   P      P        06 44 07.1  +0.9
      SNR=9.4
UCH   Uchtor            88.49 313   P      P        06 44 10.5  +1.6
      SNR=8.4
UCH   Uchtor            88.49 313  eP      P        06 44 10.0  +1.0
      comp=Z,10.0nm,1.3s,mb4.9
AAK   Ala-Archa         88.58 313   P      P        06 44 10.1  +0.7
      SNR=5.2
AAK   Ala-Archa         88.58 313  eP      P        06 44 08.3  -1.1
      comp=Z,5.1nm,0.8s,mb4.9
AAK   Ala-Archa         88.58 313  eP      P        06 44 07.8  -1.6
AAK                                 pmax   pmax
      comp=Z,10.0nm,1.5s,mb4.9
USP   Ospenovka         88.70 314   P      P        06 44 09.9   0.0
      SNR=10
AML   Almayashu         89.07 313   P      P        06 44 12.7  +1.0
      SNR=6.9
AML   Almayashu         89.07 313  eP      P        06 44 12.7  +1.1
      comp=Z,11nm,1.1s,mb5.1
EKS2  Erkin-Say         89.11 313  eP      P        06 44 12.2  +0.4
      comp=Z,5.3nm,1.0s,mb4.8
NVAR  Mina Array Bea    91.20  52   P      P        06 44 22.2  +0.4
NVAR  Mina Array Bea    91.20  52   P      P        06 44 22.2  +0.5
      comp=Z,0.7nm,0.7s,mb4.1,baz=259,slow=6.3,SNR=7.3
BRVK  Borovoye          93.11 323  eP      P        06 44 28.9  -1.2
      comp=Z,8.0nm,0.6s,mb5.3
BRVK  Borovoye          93.11 323  eP      P        06 44 29.0  -1.2
BRVK                                pmax   pmax
      comp=Z,8.0nm,0.6s,mb5.3
YKA   Yellowknife Ar    96.17  28   P      P        06 44 43.7  -0.2
YKA                                 PKKPbc PKKPbc   07 01 32.6  -0.8
YKA   Yellowknife Ar    96.17  28   P      P        06 44 43.7  -0.2
      comp=Z,1.4nm,0.7s,mb4.5,baz=265,slow=4.5,SNR=29
YKA                                 PKKPbc PKKPbc   07 01 32.6  -0.8
      comp=Z,0.3nm,0.5s,baz=93,slow=2.9,SNR=7.6
PDAR  Pinedale Array    98.23  48   P      P        06 44 52.9  -0.9
      comp=Z,1.0nm,0.8s,mb4.4,baz=259,slow=3.0,SNR=9.3
AB31  Akbulak array     99.34 319  i P     P        06 44 56.6  -2.0
ARU   Arti             100.06 326c iP      Pdif     06 45 00.0  -1.7
ARU                                i                06 45 06.9
ARU                                e                06 49 06.1
ARU                                eS      SKSac    06 55 36.1  -0.8
ARU                                eSS     SS       07 03 28.1  +0.9
ARU                                 pmax   pmax
      comp=Z,5.0nm,1.1s
JOF   Joensuu          111.68 336  ep      PKiKP    06 49 42.9  -7.6
      comp=Z,0.4nm,0.3s
JOF   Joensuu          111.68 336  ePKIKP  PKiKP    06 49 42.9  -7.6
FINES FINESS Array B   114.55 336   PKP    PKiKP    06 49 55.0  -1.0
FINES FINESS Array B   114.55 336   PKIKP  PKiKP    06 49 55.0  -1.0
FINES FINESS Array B   114.55 336   PKP    PKiKP    06 49 55.0  -1.0
      comp=Z,2.0nm,0.8s,baz=180,slow=5.7,SNR=4.7
KMBO  Kilima Mbogo     118.22 265  ePKPdf  PKPdf    06 50 04.6  +0.1
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KMBO	Kilima Mbogo	118.22	265	*e*PKIKP	PKPdf	06 50 04.6	+0.1
AKASG	Malin Array Be	118.27	325	PKP	PKPdf	06 50 02.0	-1.5
AKASG	Malin Array Be	118.27	325	PKIKP	PKPdf	06 50 02.0	-1.5
AKASG	Malin Array Be	118.27	325	PKP	PKPdf	06 50 02.0	-1.5
	comp=Z,0.9nm,0.5s,baz=58,slow=2.2,SNR=8.1						
BRTR	Keskin Array B	119.22	312	PKP	PKPdf	06 50 05.0	-0.7
BRTR				PKKPbc	PKKPbc	07 00 19.4	-0.4
BRTR	Keskin Array B	119.22	312	PKIKP	PKPdf	06 50 05.1	-0.6
BRTR	Keskin Array B	119.22	312	PKP	PKPdf	06 50 05.0	-0.7
	comp=Z,0.4nm,0.6s,baz=70,slow=1.4,SNR=4.8						
BRTR				PKKPbc	PKKPbc	07 00 19.4	-0.4
	comp=Z,0.5nm,0.7s,baz=223,slow=4.0,SNR=3.8						
NB2	NORSAR Subarra	120.25	341	PKPd	PKPdf	06 50 04.7	-2.3
	comp=Z,3.8nm,1.1s,baz=39,slow=1.9						
NOA	NORSAR Array B	120.25	341	PKP	PKPdf	06 50 06.1	-0.9
NOA	NORSAR Array B	120.25	341	PKIKP	PKPdf	06 50 06.1	-0.9
NOA	NORSAR Array B	120.25	341	PKP	PKPdf	06 50 06.1	-0.9
	comp=Z,1.5nm,0.8s,baz=41,slow=1.8,SNR=4.7						
BOSA	Boshof	120.53	231	*e*PKPdf	PKPdf	06 50 08.2	-0.4
BOSA	Boshof	120.53	231	*e*PKIKP	PKPdf	06 50 08.2	-0.4
BOSA	Boshof	120.53	231	PKP	PKPdf	06 50 07.8	-0.7
	comp=Z,1.7nm,0.7s,baz=8.0,slow=6.6,SNR=4.3						
OKC	Ostrava-Krasne	124.83	328	*e*PKP	PKPdf	06 50 15.8	-0.3
OKC	Ostrava-Krasne	124.83	328	*e*PKIKP	PKPdf	06 50 15.8	-0.3
OKC	Ostrava-Krasne	124.83	328	*e*PKPdf	PKPdf	06 50 15.8	-0.3
UPC	Upice	125.53	330	*e*PKP	PKPdf	06 50 17.6	+0.1
UPC	Upice	125.53	330	*e*PKIKP	PKPdf	06 50 17.6	+0.1
UPC	Upice	125.53	330	*e*PKPdf	PKPdf	06 50 17.6	+0.1
BSEG	Bad Segeberg	125.82	336	*e*PKPdf	PKPdf	06 50 19.0	+1.1
BSEG	Bad Segeberg	125.82	336	*e*PKIKP	PKPdf	06 50 19.0	+1.1
PVCC	Panska Ves	126.23	330	*e*PKP	PKPdf	06 50 18.0	-0.8
PVCC	Panska Ves	126.23	330	*e*PKIKP	PKPdf	06 50 18.0	-0.8
PVCC	Panska Ves	126.23	330	*e*PKPdf	PKPdf	06 50 18.0	-0.8
BRG	Berggiesshubel	126.31	331	*e*PKP	PKPdf	06 50 19.1	+0.2
BRG	Berggiesshubel	126.31	331	*e*PKIKP	PKPdf	06 50 19.1	+0.1
BRG				pmax	pmax		
	comp=Z,4.0nm,1.0s						
BRG	Berggiesshubel	126.31	331	*e*PKP	PKPdf	06 50 19.1	+0.2
	comp=Z,7.3nm,1.0s						
CLL	Collm	126.47	332	⇓*i*PKP	PKPdf	06 50 19.2	0.0
CLL				*i*		06 50 21.7	
CLL	Collm	126.47	332	⇓*i*PKIKP	PKPdf	06 50 19.2	0.0
CLL				pmax	pmax		
	comp=Z,8.0nm,0.9s						
CLL	Collm	126.47	332	⇓*i*PKPdf	PKPdf	06 50 19.2	0.0
	comp=Z,8.0nm,0.9s						
CLL				*i* (PKiKP)		06 50 21.7	
TREC	Trest	126.55	329	*e*PKIKP	PKPdf	06 50 18.3	-1.1
TREC	Trest	126.55	329	*e*PKPdf	PKPdf	06 50 18.3	-1.1
PRU	Pruhonice	126.59	330	*e*PKP	PKPdf	06 50 19.5	0.0
PRU	Pruhonice	126.59	330	*e*PKIKP	PKPdf	06 50 19.5	0.0
PRU	Pruhonice	126.59	330	*e*PKPdf	PKPdf	06 50 19.5	0.0
CLZ	Clausthal	127.29	334	*e*PKPdf	PKPdf	06 50 21.8	+1.0
CLZ	Clausthal	127.29	334	*e*PKIKP	PKPdf	06 50 21.8	+1.0
KHC	Kasperske Hory	127.62	330	*e*PKP	PKPdf	06 50 22.1	+0.6
KHC	Kasperske Hory	127.62	330	*i* PKIKP	PKPdf	06 50 20.0	-1.5
KHC	Kasperske Hory	127.62	330	*e*PKPdf	PKPdf	06 50 22.1	+0.6
GEC2	GERESS Array S	127.74	329	*e*PKPdf	PKPdf	06 50 22.4	+0.7
GEC2	GERESS Array S	127.74	329	*e*PKIKP	PKPdf	06 50 22.4	+0.7
GERES	GERESS Array B	127.74	329	PKP	PKPdf	06 50 22.1	+0.3
GERES	GERESS Array B	127.74	329	PKIKP	PKPdf	06 50 22.1	+0.4
GERES	GERESS Array B	127.74	329	PKP	PKPdf	06 50 22.1	+0.3
	comp=Z,2.7nm,0.8s,baz=48,slow=2.0,SNR=11						
WET	Wettzell	127.96	330	*e*PKPdf	PKPdf	06 50 23.2	+1.0
WET	Wettzell	127.96	330	*e*PKIKP	PKPdf	06 50 23.2	+1.0
GRA1	Grafenberg Arr	128.40	331	*e*PKPdf	PKPdf	06 50 23.9	+0.9
GRF	Grafenberg Arr	128.40	331	*e*PKP	PKPdf	06 50 23.9	+0.9
GRF	Grafenberg Arr	128.40	331	*e*PKIKP	PKPdf	06 50 23.9	+0.9
GRF	Grafenberg Arr	128.40	331	*e*PKIKP	PKPdf	06 50 23.9	+0.9
TNS	Taunus Mts	129.30	333	*e*PKPdf	PKPdf	06 50 25.9	+1.2
TNS	Taunus Mts	129.30	333	*e*PKIKP	PKPdf	06 50 25.9	+1.2
FUR	Furstenfeldbru	129.41	330	*e*PKPdf	PKPdf	06 50 26.0	+1.1
FUR	Furstenfeldbru	129.41	330	*e*PKIKP	PKPdf	06 50 26.0	+1.1
LPAZ	La Paz	130.55	119	PKP	PKPdf	06 50 28.2	+0.2
LPAZ	La Paz	130.55	119	PKIKP	PKPdf	06 50 28.2	+0.2
LPAZ	La Paz	130.55	119	PKP	PKPdf	06 50 28.2	+0.2
	comp=Z,3.3nm,0.9s,baz=178,slow=0.8,SNR=9.7						
GUD	Guadarrama	142.29	335	P	PKPdf	06 50 44.6	-4.5
GUD	Guadarrama	142.29	335	PKIKP	PKPdf	06 50 44.6	-4.5
ESDC	Sonseca Array	143.01	334	P	PKPdf	06 50 46.3	-4.1
ESDC	Sonseca Array	143.01	334	PKhKP		06 50 46.5	
	comp=Z,2.6nm,0.8s,baz=18,slow=4.0,SNR=6.0						
EVIA	Vianos	143.18	331	P	PKPdf	06 50 48.1	-2.6
EVIA	Vianos	143.18	331	PKIKP	PKPdf	06 50 48.1	-2.6
EQES	Quesada	144.11	331	P	PKPdf	06 50 49.6	-2.8
EBAN	Banos Encina	144.16	332	P	PKPdf	06 50 49.9	-2.5
EBAN	Banos Encina	144.16	332	PKIKP	PKPdf	06 50 49.9	-2.6
EADA	Adamuz	144.52	333	P	PKPdf	06 50 51.0	-2.0
ECOG	Cogollos-Vega	144.77	331	P	PKPdf	06 50 51.6	-2.0
ECOG	Cogollos-Vega	144.77	331	PKIKP	PKPdf	06 50 51.6	-2.0
ELUQ	Luque	144.87	332	P	PKPdf	06 50 52.8	-0.9
ELUQ	Luque	144.87	332	PKIKP	PKPdf	06 50 52.8	-0.9
EBAD	Badajoz	145.06	336	P	PKPbc	06 50 53.1	-0.3
ERON	Agron	145.09	331	P	PKPbc	06 50 52.9	-0.6
EGUA	Guajares	145.12	330	P	PKPbc	06 50 53.0	-0.7
EGUA	Guajares	145.12	330	PKIKP	PKPdf	06 50 53.0	-1.2
ELOJ	Sierra Loja	145.15	331	P	PKPbc	06 50 52.7	-1.0
ELOJ	Sierra Loja	145.15	331	PKP2	PKPab	06 50 52.7	-1.1
EALB	Alboran	145.55	329	P	PKPdf	06 50 52.1	-2.8
EMIN	Mina Concepcio	145.76	335	P	PKPdf	06 50 55.9	+0.7
EMIJ	Mijas	145.91	332	P	PKPdf	06 50 54.9	-0.7
ESPR	Espera	146.16	333	P	PKPdf	06 50 57.5	+1.6
EJIF	Jimena Fronter	146.33	332	P	PKPdf	06 50 56.9	+0.7
EJIF	Jimena Fronter	146.33	332	PKP2	PKPab	06 50 56.9	-1.4
TORD	Torodi Ar. Bea	153.95	285	PKP	PKPdf	06 51 08.3	-0.5
TORD				PKPbc	PKPbc	06 51 15.9	-0.9
TORD	Torodi Ar. Bea	153.95	285	PKP	PKPdf	06 51 08.3	-0.5
	comp=Z,1.8nm,0.7s,baz=61,slow=1.6,SNR=3.9						
TORD				PKPbc	PKPbc	06 51 15.9	-0.9
	comp=Z,1.6nm,0.7s,baz=46,slow=2.4,SNR=8.6						

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*ISCJB **17** 06:46:06.7±1.5, 26.9S±0.1×178.3W±0.3, h200^{km}, mb3.8/4, Error ellipse: s-maj=38.3km s-min=11.5km az=156.9*
*NEIC **17** 06:46:08.7±2.3, 27.17S×178.00W, h226^{km}±30^{km}, Error ellipse: s-maj=67.0km s-min=27.1km az=166.0*
*IDC **17** 06:46:08.6±1.8, 27.07S×178.14W, h215^{km}±18^{km}, mb3.7/4, mb1 3.9/5, mb1mx3.6/13, mbtmp3.7/5, MS3.2/1, Ms1 3.2/1, ms1mx2.7/19, Error ellipse: s-maj=31.0km s-min=24.5km az=12.0*
ISC 17 06:46:08.0±1.5, **26.9S**±0.1×**178.3W**±0.3, **h200**^{km}, **n19, σ0^{s}.28**/7, **mb3.8**/4, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	2.34	173	P	Pn	06 46 49.9	-0.2
	57nm,0.3s,baz=284,slow=23,SNR=6.3						
RAO				S	Sn	06 47 23.1	+0.1
	138nm,0.3s,baz=276,slow=23,SNR=5.2						
RAO				LR	LR	06 47 26.8	
	comp=Z,524nm,21.3s,baz=140,slow=36						
ASAR	Alice Springs	43.17	263	P	P	06 53 49.1	-0.1
	0.5nm,0.5s,mb3.2,baz=90,slow=7.5,SNR=13						
WB2	Warramunga Arr	43.83	269	*e*P	P	06 53 54.6	+0.1
WRA	Warramunga Arr	43.84	269	P	P	06 53 54.5	-0.1
	3.6nm,0.7s,mb3.8,baz=106,slow=7.5,SNR=63						
MJAR	Matsushiro Arr	75.27	325	P	P	06 57 28.4	-0.4
	5.3nm,0.8s,mb4.2,baz=160,slow=5.9,SNR=11						
KSRS	Korea Array	81.56	320	P	P	06 58 03.8	+0.6
	1.9nm,0.7s,mb3.9,baz=135,slow=6.3,SNR=12						
MKAR	Makanchi Array	115.34	311	PKP	PKPdf	07 04 23.4	-2.0
MKAR	Makanchi Array	115.34	311	PKP	PKPdf	07 04 23.4	-2.0
	0.2nm,0.6s,baz=63,slow=2.6,SNR=4.1						
ARCES	ARCESS Array B	135.16	348	PKhKP		07 04 54.9	
	1.3nm,0.7s,baz=356,slow=3.9,SNR=4.3						
ARCES				PKP	PKPdf	07 05 02.6	0.0
	0.8nm,0.6s,baz=153,slow=1.4,SNR=5.9						
JOF	Joensuu	139.10	340	*e*pkp		07 05 00.5	
KAF	Kangasniemi	141.20	342	*e*pkp		07 05 05.7	
FINES	FINESS Array B	141.80	341	PKhKP		07 05 07.7	
	1.3nm,0.6s,baz=32,slow=3.2,SNR=11						
NB2	NORSAR Subarra	145.29	352	PKPa	PKPdf	07 05 20.5	-0.6
	comp=Z,2.4nm,0.8s,baz=13,slow=3.1						
NOA	NORSAR Array B	145.29	352	PKPbc	PKPbc	07 05 20.5	-0.9
	comp=Z,1.7nm,0.7s,baz=15,slow=3.0,SNR=6.4						
AKASG	Malin Array Be	148.35	326	PKPbc	PKPbc	07 05 28.8	-1.5
AKASG				PKPab	PKPab	07 05 33.0	-1.1
AKASG	Malin Array Be	148.35	326	PKPbc	PKPbc	07 05 28.8	-1.5
	comp=Z,1.0nm,0.3s,baz=44,slow=4.0,SNR=13						
AKASG				PKPab	PKPab	07 05 33.0	-1.1
	comp=Z,1.0nm,0.3s,baz=45,slow=4.5,SNR=8.2						
BRTR	Keskin Array B	150.61	304	PKPab	PKPab	07 05 43.9	+0.1
BRTR	Keskin Array B	150.61	304	PKPbc	PKPbc	07 05 35.3	-0.9
	comp=Z,0.7nm,0.6s,baz=85,slow=3.2,SNR=5.0						
BRTR				PKPab	PKPab	07 05 43.9	+0.1
	comp=Z,1.7nm,0.7s,baz=73,slow=3.9,SNR=9.4						
TORD	Torodi Ar. Bea	166.29	180	PKP	PKPdf	07 05 47.8	-2.0
	comp=Z,0.3nm,0.8s,baz=187,slow=3.6,SNR=2.0						
TORD				PKPab	PKPab	07 06 50.0	-1.9
	comp=Z,0.3nm,0.7s,baz=193,slow=3.8,SNR=2.5						

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*ISCJB **17** 07:30:19.1±0.4, 36.58N±0.02×1.49E±0.03, h10^{km}, Error ellipse: s-maj=4.0km s-min=3.5km az=170.6*
*CSEM **17** 07:30:19.0±0.1, 36.54N×1.49E, h12^{km}, ML4.0, Error ellipse: s-maj=2.8km s-min=2.4km az=39.0*
*CRAAG **17** 07:30:20.1, 36.47N×1.48E, Ml4.0*
*MDD **17** 07:30:20.3±0.9, 36.48N×1.59E, h5^{km}±11^{km}, mb3.8/19, Error ellipse: s-maj=9.5km s-min=5.4km az=159.0, PRXIMO*
*NEIC **17** 07:30:20.6, 36.58N×1.57E, h0^{km}, MG3.8(MDD), After MDD.*
ISC 17 07:30:19.9±0.4, **36.55N**±0.02×**1.53E**±0.04, **h10**^{km}, **n74, σ1^{s}.22**/121, **Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EBNR	Beni Rached	0.26	179	P	Pg	07 30 24.7	-0.5
ECHA	Ech Chlef	0.42	198	P	Pg	07 30 27.1	-1.0
ECHF	Ech Chlef	0.42	201	P	Pg	07 30 27.1	-1.1
EANR	'Ain N'Sour	0.69	210	P	Pg	07 30 33.0	-0.3
ETRT	Tiaret	1.17	189	P	Pb	07 30 41.0	-1.2
EMHD	Djebel Mahouad	1.20	106	P	Pb	07 30 40.0	-2.8
ABA	Alger-Bouzarea	1.24	78	P	Sb	07 30 53.2	-6.2
ABMS	Boumerdes	1.58	82	P	Pn	07 30 47.9	-0.1
ADJB	Djebel Djouab	1.59	104	P	Pg	07 30 56.5	+6.0
ODJA	Bouhanifia	1.82	229	P	Pg	07 30 58.0	+3.1
AKET	Djebel Ketaf	1.97	104	P	Pg	07 31 04.3	+6.6
EIBI	Ibiza	2.48	357	P	Pn	07 31 01.0	+0.7
EIBI				S	Sn	07 31 29.2	-1.3
EIBI	Ibiza	2.48	357	P	Pn	07 31 01.0	+0.7
	6.9nm,0.1s,SNR=18						
EIBI				S	Sn	07 31 30.0	-0.6
	64nm,0.3s,SNR=6.0						
EIBI	Ibiza	2.48	357	P	Pn	07 31 01.0	+0.7
	6.9nm,0.1s,SNR=18						
EIBI				S	Sn	07 31 29.3	-1.3
	64nm,0.3s,SNR=6.0						
EMUR	La Murta	2.56	301	P	Pn	07 31 01.4	0.0
EMUR				S	Sn	07 31 32.1	-0.5
EMUR	La Murta	2.56	301	P	Pn	07 31 01.4	0.0
	4.5nm,0.3s,SNR=7.9						
EMUR				S	Sn	07 31 32.6	0.0
	15nm,0.5s,SNR=7.9						
EMUR	La Murta	2.56	301	P	Pn	07 31 01.4	0.0
	4.5nm,0.3s,SNR=7.9						
EMUR				S	Sn	07 31 32.1	-0.5
	15nm,0.5s,SNR=7.9						
EBEN	Beniarda	2.56	328	P	Pn	07 31 02.4	+1.0
EBEN				S	Sn	07 31 32.5	-0.2
EBEN	Beniarda	2.56	328	P	Pn	07 31 02.4	+1.0
	1.0nm,0.1s,SNR=15						
EBEN				S	Sn	07 31 33.6	+1.0
	10.0nm,0.3s						
EBEN	Beniarda	2.56	328	P	Pn	07 31 02.4	+0.9
	1.0nm,0.1s,SNR=15						
EBEN				S	Sn	07 31 32.5	-0.1
	10.0nm,0.3s						
ENIJ	Nijar	3.03	279	P	Pn	07 31 08.6	+0.7
	2.1nm,0.2s,SNR=7.9						
ENIJ				S	Sn	07 31 44.2	+0.1
	9.7nm,0.4s,SNR=7.9						
ETOB	Tobarra	3.21	312	P	Pn	07 31 11.8	+1.4
ETOB				S	Sn	07 31 48.9	+0.2
ETOB	Tobarra	3.21	312	P	Pn	07 31 11.8	+1.3
	1.2nm,0.3s,SNR=11						
ETOB				S	Sn	07 31 48.9	+0.2
	1.2nm,0.4s						
ETOB	Tobarra	3.21	312	P	Pn	07 31 11.8	+1.4
	1.2nm,0.3s,SNR=11						
ETOB				S	Sn	07 31 48.9	+0.1
	1.2nm,0.4s						
ETOS	Mallorca	3.37	17	P	Pn	07 31 11.8	-0.8
ETOS				S	Sn	07 31 49.1	-3.5
ETOS	Mallorca	3.37	17	P	Pn	07 31 12.5	-0.1
	1.7nm,0.3s,SNR=5.9						
ETOS				S	Sn	07 31 52.1	-0.5
	0.4nm,0.3s						
ETOS	Mallorca	3.37	17	P	Pn	07 31 11.8	-0.8
	1.7nm,0.3s,SNR=5.9						
EBER	Berja	3.56	277	P	Pn	07 31 15.7	+0.4
EBER				S	Sn	07 31 58.3	+0.8
EBER	Berja	3.56	277	P	Pn	07 31 15.7	+0.4
	5.5nm,0.2s,SNR=7.9						
EBER				S	Sn	07 31 57.3	-0.1
	6.5nm,0.2s,SNR=7.9						
EBER	Berja	3.56	277	P	Pn	07 31 15.7	+0.4
	5.5nm,0.2s,SNR=7.9						
EBER				S	Sn	07 31 58.3	+0.9
	6.5nm,0.2s,SNR=7.9						
ECHE	Chera	3.62	328	P	Pn	07 31 17.2	+1.2
ECHE				S	Sn	07 31 56.7	-2.0
ECHE	Chera	3.62	328	P	Pn	07 31 17.2	+1.2
	1.9nm,0.3s,SNR=7.9						
ECHE				S	Sn	07 31 58.8	+0.1
	2.4nm,0.3s,SNR=7.9						
ECHE	Chera	3.62	328	P	Pn	07 31 17.2	+1.2
	1.9nm,0.3s,SNR=7.9						
ECHE				S	Sn	07 31 56.7	-2.0
	2.4nm,0.3s,SNR=7.9						
EVIA	Vianos	3.82	304	P	Pn	07 31 19.0	+0.3
	1.7nm,0.1s,SNR=7.9						
EVIA				S	Sn	07 32 03.9	+0.2
	1.7nm,0.3s,SNR=7.9						
EQES	Quesada	3.88	290	P	Pn	07 31 22.0	+2.4
EQES				S	Sn	07 32 06.4	+1.3
EQES	Quesada	3.88	290	P	Pn	07 31 21.0	+1.4
	5.2nm,0.6s,SNR=8.4						
EQES				S	Sn	07 32 05.0	-0.1
	51nm,0.9s						
EQES	Quesada	3.88	290	P	Pn	07 31 22.0	+2.4
	1.4nm,0.2s,SNR=8.4						
EQES				S	Sn	07 32 06.4	+1.2
	28nm,0.4s						
EQUE	Quentar	4.04	281	P	Pn	07 31 23.1	+1.3
	2.0nm,0.2s,SNR=9.6						
EQUE				S	Sn	07 32 08.3	-0.7
	2.1nm,0.5s,SNR=7.9						
EGUA	Guajares	4.10	275	P	Pn	07 31 22.4	-0.3
EGUA	Guajares	4.10	275	P	Pn	07 31 23.9	+1.3
	1.5nm,0.6s,SNR=4.0						
EGUA				S	Sn	07 32 09.4	-1.2
	1.8nm,0.7s,SNR=7.9						
EGUA	Guajares	4.10	275	P	Pn	07 31 22.4	-0.2
EMOS	Mosqueruela	4.12	338	P	Pn	07 31 24.6	+1.7
EMOS				S	Sn	07 32 09.7	-1.3
EMOS	Mosqueruela	4.12	338	P	Pn	07 31 24.6	+1.7
	4.7nm,0.1s,SNR=14						
EMOS				S	Sn	07 32 10.7	-0.4
	8.0nm,0.3s						
EMOS	Mosqueruela	4.12	338	P	Pn	07 31 24.6	+1.7
	4.7nm,0.1s,SNR=14						
EMOS				S	Sn	07 32 09.7	-1.4
	8.0nm,0.3s						
ECOG	Cogollos-Vega	4.14	282	P	Pn	07 31 25.4	+2.2
ECOG	Cogollos-Vega	4.14	282	P	Pn	07 31 24.5	+1.3
	1.2nm,0.2s,SNR=4.0						
ECOG				S	Sn	07 32 11.1	-0.7
	6.9nm,0.6s,SNR=7.9						
ECOG	Cogollos-Vega	4.14	282	P	Pn	07 31 25.4	+2.2
	1.2nm,0.2s,SNR=4.0						
ERTA	Horta de San J	4.50	348	P	Pn	07 31 27.6	-0.5
ERTA				S	Sn	07 32 18.1	-2.3
ERTA	Horta de San J	4.50	348	P	Pn	07 31 29.0	+0.9
	1.0nm,0.3s,SNR=7.9						
ERTA				S	Sn	07 32 19.6	-0.8
	2.6nm,0.3s,SNR=7.9						
ERTA	Horta de San J	4.50	348	P	Pn	07 31 27.6	-0.5
	1.0nm,0.3s,SNR=7.9						
EBAN	Banos Encina	4.53	292	P	Pn	07 31 29.7	+1.2
	1.0nm,0.2s,SNR=4.0						
EBAN				S	Sn	07 32 19.6	-1.6
	2.1nm,0.3s,SNR=4.0						
EPOB	Poblet	4.81	356	P	Pn	07 31 33.1	+0.8
EPOB				S	Sn	07 32 25.1	-2.9
EPOB	Poblet	4.81	356	P	Pn	07 31 33.1	+0.8
	0.7nm,0.2s,SNR=7.9						
EPOB				S	Sn	07 32 26.6	-1.5
	1.5nm,0.3s,SNR=7.9						
EPOB	Poblet	4.81	356	P	Pn	07 31 33.1	+0.8
	0.7nm,0.2s,SNR=7.9						
EPOB				S	Sn	07 32 25.1	-3.0
	1.5nm,0.3s,SNR=7.9						
EMIJ	Mijas	5.07	272	P	Pn	07 31 34.9	-1.1
EMIJ				S	Sn	07 32 32.4	-2.2
EMIJ	Mijas	5.07	272	P	Pn	07 31 35.9	-0.1
	2.4nm,0.2s,SNR=4.0						
EMIJ				S	Sn	07 32 32.4	-2.2
	2.5nm,0.2s,SNR=4.0						
EMIJ	Mijas	5.07	272	P	Pn	07 31 34.9	-1.1
	2.4nm,0.2s,SNR=4.0						
EMIJ				S	Sn	07 32 32.4	-2.2
	2.5nm,0.2s,SNR=4.0						
ETOR	Torete	5.10	328	P	Pn	07 31 39.0	+2.6
ETOR	Torete	5.10	328	P	Pn	07 31 38.0	+1.6
	1.6nm,0.3s,SNR=5.3						
ETOR				S	Sn	07 32 34.4	-0.9
	8.2nm,1.2s,SNR=7.9						
ETOR	Torete	5.10	328	P	Pn	07 31 39.0	+2.6
	1.6nm,0.3s,SNR=5.3						
EADA	Adamuz	5.12	290	P	Pn	07 31 37.1	+0.4
EADA				S	Sn	07 32 35.2	-0.6
EADA	Adamuz	5.12	290	P	Pn	07 31 37.1	+0.4
	0.7nm,0.1s,SNR=4.0						
EADA				S	Sn	07 32 34.3	-1.5
	3.9nm,0.4s,SNR=7.9						
EADA	Adamuz	5.12	290	P	Pn	07 31 37.1	+0.4
	0.7nm,0.1s,SNR=4.0						
EADA				S	Sn	07 32 35.2	-0.6
	3.9nm,0.4s,SNR=7.9						
ESDC	Sonseca Array	5.33	307	P	Pn	07 31 40.9	+1.3
	1.2nm,0.2s,baz=125,slow=13,SNR=6.1						
ESDC	Sonseca Array	5.33	307	P	Pn	07 31 39.2	-0.4
	1.2nm,0.2s,SNR=6.1						
EMIR	Miracle	5.36	360	P	Pn	07 31 41.6	+1.8
	1.4nm,0.2s,SNR=7.9						
EMIR				S	Sn	07 32 39.4	-2.2
	11nm,0.3s,SNR=7.9						
EMIR	Miracle	5.36	360	P	Pn	07 31 41.6	+1.7
	1.4nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	6.66	283	P	Pn	07 31 58.5	+0.7
EMIN				S	Sn	07 33 12.4	-1.3
EMIN	Mina Concepcio	6.66	283	P	Pn	07 31 58.5	+0.7
	0.4nm,0.2s,SNR=7.9						
EMIN				S	Sn	07 33 10.9	-2.8
	SNR=7.9						
EMIN	Mina Concepcio	6.66	283	P	Pn	07 31 58.5	+0.7
	0.4nm,0.2s,SNR=7.9						
ELAN	Lanestosa	7.68	332	P	Pn	07 32 13.3	+1.5
	0.7nm,0.1s,SNR=5.6						
ELAN	Lanestosa	7.68	332	P	Pn	07 32 13.3	+1.5
	0.7nm,0.1s,SNR=5.6						
EARI	Arriondas	8.50	325	P	Pn	07 32 24.3	+1.3
	0.7nm,0.4s,SNR=7.9						
EARI	Arriondas	8.50	325	P	Pn	07 32 24.3	+1.3

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*MOS **17** 07:34:11.9±0.9, 28.84N×139.44E, h434^{km}, mb4.0/22, Error ellipse: s-maj=21.3km s-min=8.9km az=114.2*
*IDC **17** 07:34:12.8±0.6, 28.82N×139.46E, h425^{km}±6^{km}, mb3.5/18, mb1 3.6/22, mb1mx3.6/25, mbtmp3.5/22, Error ellipse: s-maj=13.6km s-min=8.4km az=75.0*
*ISCJB **17** 07:34:12.4±0.4, 28.88N±0.04×139.53E±0.07, h436^{km}±4^{km}, mb4.1/38, Error ellipse: s-maj=10.1km s-min=6.3km az=164.4*
*JMA **17** 07:34:13.8±0.1, 29.03N×140.15E, h452^{km}, M3.8*
*BJI **17** 07:34:13.8, 28.72N×139.39E, h457^{km}, mB4.6, mb4.4*
*NEIC **17** 07:34:14.7±1.0, 28.89N×139.51E, h447^{km}±10^{km}, mb4.2/7, Error ellipse: s-maj=12.8km s-min=10.0km az=98.0*
ISC 17 07:34:13.4±0.4, **28.89N**±0.04×**139.58E**±0.07, **h431**^{km}±4^{km}, **n85, σ0^{s}.90**/94, **mb4.1**/38, **2D, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	2.91	127	P	P	07 35 18.7	+0.4
CBIJ	Chichi jima	2.91	127	P	P	07 35 18.8	+0.5
	120nm,0.3s,baz=2.5,slow=2.3,SNR=47						
CBIJ				S	S	07 36 09.4	-1.5
	453nm,0.3s,baz=290,slow=20,SNR=34						
JHHJ	Haha-jima-NKT	3.22	134	P	P	07 35 21.2	+0.5
JHHJ				S	S	07 36 15.3	0.0
JHJ	Hachijo jima 2	4.22	2	P	P	07 35 29.0	-0.3
	9.0nm,0.3s,baz=97,slow=17,SNR=3.1						
JHJ				S	S	07 36 31.4	+0.2
	18nm,0.3s,baz=50,slow=24,SNR=6.0						
BSO1	Boso 1	5.87	11	P	P	07 35 46.8	+1.2
BSO1				*e*S	S	07 36 56.6	-4.3
JRY	Ryogami san	7.13	356	P	P	07 35 58.8	-0.2
JAG	Ashikaga	7.52	359	P	P	07 36 02.1	-1.0
JAG				S	S	07 37 28.0	-5.1
MJAR	Matsushiro Arr	7.72	352	P	P	07 36 05.5	+0.2
MJAR				S	S	07 37 37.4	+0.2
MJAR	Matsushiro Arr	7.72	352	P	P	07 36 05.5	+0.2
MJAR				S	S	07 37 37.4	+0.2
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR				smax			
	comp=N,1.0nm,0.3s						
MJAR	Matsushiro Arr	7.72	352	P	P	07 36 05.5	+0.1
	comp=N,0.7nm,0.3s,baz=171,slow=11,SNR=4.9						
MJAR				S	S	07 37 37.4	+0.2
	comp=N,0.5nm,0.3s,baz=125,slow=11,SNR=4.7						
MAJO	Matsushiro	7.72	352	*e*P	P	07 36 04.9	-0.5
JHO	Hitachi	7.75	6	P	P	07 36 06.0	+0.4
JHO				S	S	07 37 35.7	-2.0
JNU	Nakatsue	8.58	302	P	P	07 36 17.8	+3.0
	comp=N,0.7nm,0.3s,baz=220,slow=24,SNR=4.9						
JOW	Kunigami	10.21	261	P	P	07 36 34.9	+2.0
	comp=N,3.2nm,0.3s,baz=95,slow=15,SNR=6.2						
KSRS	Korea Array	12.97	314	P	P	07 37 03.7	+0.9
	comp=N,0.4nm,0.3s,baz=125,slow=10,SNR=20						
WHN	Wuhan	21.96	281	⇓P	P	07 38 33.8	+0.1
XAN	Xi'an	26.59	289	P	P	07 39 14.5	-0.5
XAN				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
LZH	Lanzhou	30.86	293	*e*P	P	07 39 52.5	+0.1
LZH				AMB	AMB		
	comp=Z,19nm,1.4s,mb4.2						
CD2	Chengdu	31.04	283	P	P	07 39 53.4	-0.6
CD2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.4						
ULN	Ulaanbaatar	31.44	316	*e*P	P	07 39 57.9	+0.7
	comp=Z,8.9nm,0.9s,mb4.1						
ULN	Ulaanbaatar	31.44	316	*e*P	P	07 39 57.9	+0.7
ULN				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.1						
SONM	Songino Array	31.83	316	P	P	07 40 01.1	+0.6
	comp=Z,5.4nm,0.6s,mb4.0,baz=129,slow=7.8,SNR=56						
SONM				ScP	ScP	07 45 39.1	-1.9
	comp=Z,0.3nm,0.7s,baz=124,slow=4.3,SNR=3.2						
BOD	Bodaibo	33.98	336	*e*P	P	07 40 18.4	-0.3
BOD				pmax	pmax		
	comp=Z,3.0nm,1.5s,mb3.4						
GTA	Gaotai	34.30	298	*e*P	P	07 40 21.5	-0.3
GTA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.1						
ZAK	Zakamensk	34.75	318	⇓*i*P	P	07 40 25.7	+0.3
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb3.7						
BILL	Bilibino	42.27	15	*e*P	P	07 41 27.8	+1.1
	comp=Z,6.6nm,0.8s,mb4.0						
BILL	Bilibino	42.27	15	*e*P	P	07 41 27.8	+1.1
BILL				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.0						
ZALV	Zalesovo Beam	46.63	318	P	P	07 42 00.3	-0.5
	comp=Z,1.7nm,0.5s,mb3.6,baz=101,slow=7.7,SNR=13						
ZAL	Zalesovo	46.64	318	P	P	07 42 00.3	-0.6
MK31	Makanchi Array	47.56	308	*e*P	P	07 42 07.7	-0.3
MKAR	Makanchi Array	47.56	308	*i* P	P	07 42 07.5	-0.5
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
MKAR	Makanchi Array	47.56	308	P	P	07 42 07.8	-0.2
	comp=Z,4.7nm,0.6s,mb4.0,baz=91,slow=8.7,SNR=80						
MKAR				ScP	ScP	07 46 38.9	-3.2
	comp=Z,0.3nm,0.6s,baz=82,slow=4.3,SNR=4.0						
NVS	Novosibirsk	47.69	319	*e*P	P	07 42 07.5	-1.3
WB2	Warramunga Arr	48.80	187	*e*P	P	07 42 17.2	-0.4
WRA	Warramunga Arr	48.80	187	P	P	07 42 17.3	-0.3
WRA				pmax	pmax		
	comp=Z,9.0nm,0.4s						
WRA				pmax	pmax		

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	comp=N,1.0nm,0.9s						
WRA	**Warramunga Arr**	48.80	187	P	**P**	**07 42 17.3**	**-0.3**
	comp=N,8.6nm,0.4s,mb4.4,baz=3.0,slow=7.8,SNR=214						
WRA				ScP	ScP	07 46 45.7	-2.0
	comp=N,0.6nm,0.9s,baz=4.6,slow=5.0,SNR=4.8						
KURK	**Kurchatov**	50.09	314	*e*P	**P**	**07 42 26.3**	**-0.5**
	comp=N,17nm,1.0s,mb4.3						
KURK	**Kurchatov**	50.09	314	P	**P**	**07 42 26.3**	**-0.5**
KURK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb3.8						
ULHL	**Ulahol**	52.11	303	P	**P**	**07 42 42.3**	**+0.5**
	SNR=8.3						
TKM2	**Tokmak 2**	52.51	304	P	**P**	**07 42 45.5**	**+0.8**
	SNR=7.4						
ASAR	**Alice Springs**	52.53	187	P	**P**	**07 42 44.6**	**-0.3**
ASAR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
ASAR	**Alice Springs**	52.53	187	P	**P**	**07 42 44.5**	**-0.4**
	comp=Z,3.3nm,0.5s,mb3.8,baz=16,slow=11,SNR=78						
KZA	**Kyzart**	52.87	303	P	**P**	**07 42 48.9**	**+1.7**
	SNR=9.1						
USP	**Ospenovka**	53.27	304	P	**P**	**07 42 50.3**	**+0.3**
	SNR=5.4						
AAK	**Ala-Archa**	53.35	303	P	**P**	**07 42 50.6**	**-0.1**
	SNR=6.2						
UCH	**Uchtor**	53.39	303	P	**P**	**07 42 52.3**	**+1.3**
	SNR=12						
AML	**Almayashu**	54.01	303	P	**P**	**07 42 56.7**	**+1.4**
	SNR=15						
KDAK	**Kodiak Island**	54.34	38	P	**P**	**07 42 58.1**	**+0.7**
	comp=Z,18nm,0.9s,mb4.3,baz=296,slow=5.8,SNR=24						
BRVK	**Borovoye**	55.23	317	*e*P	**P**	**07 43 03.9**	**+0.1**
	comp=Z,7.0nm,1.0s,mb3.9						
BRVK	**Borovoye**	55.23	317	*e*P	**P**	**07 43 03.9**	**+0.1**
BRVK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb3.9						
KKAR	**Karatay Array**	56.17	305	P	**P**	**07 43 10.4**	**-0.2**
KKAR				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.0						
STKA	**Stephens Creek**	60.46	178	P	**P**	**07 43 39.2**	**-0.6**
STKA	**Stephens Creek**	60.46	178	P	**P**	**07 43 39.2**	**-0.6**
	comp=Z,1.0nm,0.6s,mb3.4,baz=348,slow=9.1,SNR=3.4						
AB31	**Akbulak array**	62.20	313	*i* P	**P**	**07 43 50.6**	**-0.6**
AB31				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.9						
INK	**Inuvik**	62.37	25	P	**P**	**07 43 52.4**	**+0.4**
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	**Inuvik**	62.37	25	P	**P**	**07 43 52.4**	**+0.4**
	comp=Z,1.1nm,0.5s,mb3.6,baz=296,slow=7.4,SNR=10.0						
KEV	**Kevo**	70.53	340	*e*p	**P**	**07 44 41.7**	**-1.1**
	comp=Z,11nm,1.0s,mb4.3						
KEV	**Kevo**	70.53	340	*e*P	**P**	**07 44 41.7**	**-1.1**
KEV				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.3						
ARCES	**ARCESS Array B**	71.09	340	P	**P**	**07 44 46.5**	**+0.3**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARCES	**ARCESS Array B**	71.09	340	P	**P**	**07 44 46.5**	**+0.3**
	comp=Z,1.9nm,0.6s,mb3.8,baz=57,slow=9.0,SNR=10						
YKA	**Yellowknife Ar**	71.66	28	P	**P**	**07 44 50.1**	**+0.5**
	comp=Z,1.1nm,0.6s,mb3.6,baz=296,slow=5.9,SNR=19						
JOF	**Joensuu**	72.45	333	*e*p	**P**	**07 44 53.0**	**-1.3**
	comp=Z,3.1nm,0.4s,mb4.2						
JOF	**Joensuu**	72.45	333	*e*P	**P**	**07 44 53.0**	**-1.3**
JOF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.2						
KAF	**Kangasniemi**	74.86	333	*e*p	**P**	**07 45 05.6**	**-2.5**
	comp=Z,1.2nm,0.4s,mb3.9,baz=56,slow=5.4						
KAF	**Kangasniemi**	74.86	333	*e*P	**P**	**07 45 05.6**	**-2.5**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.8						
FINES	**FINESS Array B**	75.32	333	P	**P**	**07 45 10.5**	**-0.2**
FINES	**FINESS Array B**	75.32	333	P	**P**	**07 45 10.5**	**-0.2**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	**FINESS Array B**	75.32	333	P	**P**	**07 45 10.5**	**-0.2**
	comp=Z,1.4nm,0.4s,mb3.9,baz=78,slow=4.9,SNR=25						
MIB	**Mutribah**	78.00	297	*e*P	**P**	**07 45 25.6**	**-0.5**
MIB				AMb	AMB	07 45 26.4	
	comp=Z,35nm,0.6s,mb5.2						
KBD	**Kabd**	78.00	297	*e*P	**P**	**07 45 25.6**	**-0.5**
KBD				AMb	AMB	07 45 26.9	
	comp=Z,50nm,0.7s,mb5.3						
QRN	**Al-Qurain**	78.02	296	*e*P	**P**	**07 45 25.6**	**-0.7**
QRN				AMb	AMB	07 45 26.9	
	comp=Z,40nm,1.1s,mb5.0						
NAY	**Al-Naaiem**	78.33	297	*e*P	**P**	**07 45 27.4**	**-0.5**
NAY				AMb	AMB	07 45 28.6	
	comp=Z,12nm,0.6s,mb4.7						
RST	**Umm Al-Ruwaisa**	78.41	297	*e*P	**P**	**07 45 27.5**	**-0.8**
RST				AMb	AMB	07 45 28.2	
	comp=Z,27nm,0.6s,mb5.1						
AKASG	**Malin Array Be**	79.81	323	P	**P**	**07 45 33.5**	**-1.9**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	**Malin Array Be**	79.81	323	P	**P**	**07 45 33.5**	**-1.9**
	comp=Z,0.8nm,0.5s,mb3.6,baz=49,slow=5.4,SNR=8.0						
NOA	**NORSAR Array B**	81.09	337	P	**P**	**07 45 41.3**	**-0.6**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	**NORSAR Array B**	81.09	337	P	**P**	**07 45 41.3**	**-0.6**
	comp=Z,1.1nm,0.8s,mb3.7,baz=39,slow=5.0,SNR=2.5						
NVAR	**Mina Array Bea**	81.21	51	P	**P**	**07 45 44.6**	**+1.6**
	comp=Z,2.2nm,0.7s,mb4.0,baz=282,slow=6.9,SNR=21						
BRTR	**Keskin Array B**	83.10	312	P	**P**	**07 45 52.4**	**-0.2**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
BRTR	**Keskin Array B**	83.10	312	P	**P**	**07 45 52.4**	**-0.2**
	comp=Z,0.9nm,0.5s,mb3.7,baz=103,slow=4.4,SNR=5.9						
PDAR	**Pinedale Array**	84.54	44	P	**P**	**07 46 01.1**	**+1.4**
	comp=Z,0.7nm,0.5s,mb3.6,baz=305,slow=1.1,SNR=8.2						
ULM	**Lac du Bonnet**	87.18	32	P	**P**	**07 46 13.8**	**+1.5**
ULM	**Lac du Bonnet**	87.18	32	P	**P**	**07 46 13.8**	**+1.5**
	comp=Z,0.9nm,0.6s,mb3.7,baz=315,slow=1.4,SNR=3.4						
TXAR	**Lajitas Array**	96.34	52	P	**P**	**07 46 56.0**	**+1.1**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	**Lajitas Array**	96.34	52	P	**P**	**07 46 56.0**	**+1.0**
	comp=Z,0.5nm,0.7s,mb3.8,baz=325,slow=3.2,SNR=5.3						
HNR	**Honiara**	4.57	117	*e*Pn	**Pn**	**07 44 41.6**	**-0.3**
HNR	**Honiara**	4.57	117	P	**Pn**	**07 44 39.7**	**-2.3**
	89nm,0.3s,baz=262,slow=1.7,SNR=14						
HNR				S	**Sn**	**07 45 37.9**	**+4.0**
	219nm,0.3s,baz=286,slow=2.0,SNR=4.4						
HNR				LR	LR	07 46 26.3	
	comp=Z,70µm,18.4s,baz=344,slow=37						
PMG	**Port Moresby**	8.81	256	*e*Pn	**Pn**	**07 45 41.9**	**+1.8**
PMG				*e*Sn	**Sn**	**07 47 16.8**	**-1.4**
PMG	**Port Moresby**	8.81	256	P	**Pn**	**07 45 42.9**	**+2.9**
	8.1nm,0.3s,baz=59,slow=12,SNR=22						
PMG				S	**Sn**	**07 47 21.2**	**+3.0**
	1.5nm,0.3s,baz=64,slow=20,SNR=2.1						
COEN	**Coen**	14.04	241	*e*Pn	**Pn**	**07 46 53.6**	**+1.8**
CTA	**Charters Tower**	15.69	215	*e*P	**Pn**	**07 47 15.0**	**+1.3**
	103nm,1.4s						
CTA				*e*S	**Sn**	**07 50 25.9**	**+19**
CTA	**Charters Tower**	15.69	215	*e*P	**Pn**	**07 47 15.0**	**+1.3**
CTA				pmax	pmax		
	comp=Z,103nm,1.4s						
CTA	**Charters Tower**	15.69	215	P	**Pn**	**07 47 14.9**	**+1.2**
	comp=Z,1.3nm,0.3s,baz=36,slow=14,SNR=16						
CTAO	**Charters Tower**	15.69	215	*e*Pn	**Pn**	**07 47 15.2**	**+1.5**
DZM	**Mont Dzumac**	17.86	146	*e*P	**Pn**	**07 47 41.0**	**0.0**
DZM	**Mont Dzumac**	17.86	146	P	**Pn**	**07 47 41.4**	**+0.4**
	comp=Z,0.8nm,0.3s,baz=8.0,slow=14,SNR=9.1						
DZM				LR	LR	07 52 55.5	
	comp=Z,6µm,20.7s,baz=319,slow=31						
EIDS	**Eidsvold**	18.47	194	*e*P	**Pn**	**07 47 47.7**	**-0.8**
FUNA	**Funafuti**	23.18	94	*e*P	**P**	**07 48 38.6**	**-0.6**
	comp=Z,264nm,1.0s,mb5.6						
FUNA				LR	LR		
	comp=Z,7µm,20.0s,MS5.1						
GUMO	**Guam**	23.48	332	PFAKE		07 48 50.0	+8.0
GUMO				LR	LR		
	comp=Z,2µm,19.0s,MS4.7						
KAKA	**Kakadu**	23.62	255	*e*P	**P**	**07 48 42.6**	**-0.8**
	comp=Z,76nm,0.6s,mb5.3						
WB2	**Warramunga Arr**	24.28	237	*e*P	**P**	**07 48 49.1**	**-0.3**
WRA	**Warramunga Arr**	24.29	237	P	**P**	**07 48 48.8**	**-0.7**
	comp=Z,33nm,0.8s,mb4.8,baz=62,slow=8.8,SNR=33						
WRA				LR	LR	07 58 10.4	
	comp=Z,10µm,18.6s,MS5.3,baz=60,slow=36						
ASAR	**Alice Springs**	26.56	230	P	**P**	**07 49 09.4**	**-0.6**
	comp=Z,7.8nm,0.8s,mb4.3,baz=63,slow=9.2,SNR=66						
STKA	**Stephens Creek**	27.77	207	*e*P	**P**	**07 49 20.1**	**-0.7**
	comp=Z,31nm,0.9s,mb4.9						
STKA				*e*S	**S**	**07 54 00.5**	**-0.8**
STKA	**Stephens Creek**	27.77	207	P	**P**	**07 49 20.9**	**+0.2**
	comp=Z,8.8nm,0.6s,mb4.6,baz=8.1,slow=7.7,SNR=22						
STKA				LR	LR	08 00 32.1	
	comp=Z,11µm,18.0s,MS5.5,baz=18,slow=37						
CNB	**Canberra Magne**	28.45	191	*e*P	**P**	**07 49 27.0**	**+0.2**
	comp=Z,48nm,1.5s,mb4.9						
FITZ	**Fitzroy Crossi**	31.26	247	*e*P	**P**	**07 49 51.1**	**-0.8**
	comp=Z,40nm,0.7s,mb5.3						
FITZ				*e*S	**S**	**07 54 55.9**	**-0.6**
FITZ	**Fitzroy Crossi**	31.26	247	P	**P**	**07 49 51.5**	**-0.4**
	comp=Z,15nm,0.8s,mb4.9,baz=83,slow=9.6,SNR=38						
FITZ				LR	LR	08 02 41.5	
	comp=Z,6µm,18.1s,MS5.3,baz=321,slow=37						
AFI	**Afiamalu**	32.48	104	*e*P	**P**	**07 50 02.3**	**-0.4**
	comp=Z,100nm,0.9s,mb5.6						
AFI	**Afiamalu**	32.48	104	*e*P	**P**	**07 50 02.3**	**-0.4**
AFI				pmax	pmax		
	comp=Z,99nm,1.0s,mb5.6						
AFI	**Afiamalu**	32.48	104	P	**P**	**07 50 01.5**	**-1.2**
	comp=Z,82nm,0.9s,mb5.6,baz=92,slow=7.3,SNR=9.8						
AFI				LR	LR	08 01 53.8	
	comp=Z,4µm,18.2s,MS5.2,baz=284,slow=34						
RAO	**Raoul Island**	32.95	135	P	**P**	**07 50 05.3**	**-1.3**
	comp=Z,101nm,0.4s,mb6.1						
RAO				LR	LR		
	comp=Z,4µm,21.0s,MS5.1						
RAO	**Raoul Island**	32.95	135	P	**P**	**07 50 05.3**	**-1.3**
RAO				pmax	pmax		
	comp=Z,101nm,0.4s,mb6.1						
RAO				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.1						
DAV	**Davao City (W)**	33.39	295	PFAKE		07 50 20.0	+9.3
DAV				LR	LR		
	comp=Z,4µm,22.0s,MS5.0						
FORT	**Forrest**	34.90	224	*e*P	**P**	**07 50 22.7**	**-0.8**
	comp=Z,67nm,0.8s,mb5.6						
TAU	**Tasmania Unive**	36.19	191	*e*P	**P**	**07 50 35.0**	**+0.5**
	comp=Z,28nm,0.9s,mb5.2						
TAU				*e*pP	pP	07 50 42.7	-1.9
TAU				LR	LR		
	comp=Z,3µm,20.0s,MS5.0						
URZ	**Urewera**	36.29	151	P	**P**	**07 50 35.2**	**-0.3**
	comp=Z,6.3nm,0.5s,mb4.8,baz=287,slow=5.1,SNR=5.7						
URZ				LR	LR	08 03 34.4	
	comp=Z,2µm,19.8s,MS4.8,baz=342,slow=33						
CBIJ	**Chichi jima**	36.71	339	LR	LR	08 04 44.0	
	comp=Z,1µm,18.7s,MS4.8,baz=336,slow=34						
MBWA	**Marble Bar**	37.46	245	*e*P	**P**	**07 50 45.5**	**-0.1**
	comp=Z,14nm,0.5s,mb5.1						
MBWA				*e*pP	pP	07 50 53.2	-2.4
MBWA				LR	LR		
	comp=Z,4µm,20.0s,MS5.2						
SNZO	**South Karori**	37.75	157	PFAKE		07 51 00.0	+12
SNZO				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
RPZ	**Rata Peaks**	38.60	162	P	**P**	**07 50 53.1**	**-1.7**
	comp=Z,25nm,0.8s,mb5.0,baz=72,slow=0.8,SNR=14						
RPZ				LR	LR	08 05 11.8	
	comp=Z,3µm,18.7s,MS5.1,baz=325,slow=34						
OTRP	**Odiongan**	38.89	300	*e*P	**P**	**07 50 58.6**	**+0.9**
CUYO	**Cuyo Island**	39.08	297	*e*P	**P**	**07 51 00.9**	**+1.6**
MYLDM	**Lahad Datu**	39.27	287	⇑P	**P**	**07 51 03.9**	**+3.0**
TSM	**Tawau**	39.60	286	⇓P	**P**	**07 51 05.0**	**+1.4**
ENPP	**El Nido**	40.64	297	*e*P	**P**	**07 51 13.0**	**+0.7**
SDKM	**Sandakan**	40.64	287	⇑P	**P**	**07 51 10.9**	**-1.4**
PPR	**Puerto Princes**	40.67	294	*e*P	**P**	**07 51 12.4**	**-0.1**
BALP	**Baler**	40.95	304	*e*P	**P**	**07 51 14.5**	**-0.3**
LUBP	**Lubang**	41.06	301	*e*P	**P**	**07 51 14.9**	**-0.8**
BATP	**Bataraza**	41.15	292	*e*P	**P**	**07 51 17.3**	**+0.9**
CAUP	**Cauayan**	41.39	306	*e*P	**P**	**07 51 19.7**	**+1.3**
KDM	**Kudat**	41.39	289	⇓P	**P**	**07 51 19.7**	**+1.2**
KKM	**Kota Kinabalu**	41.69	288	*e*P	**P**	**07 51 21.3**	**+0.3**
KKM	**Kota Kinabalu**	41.69	288	⇓P	**P**	**07 51 21.8**	**+0.9**
BCPH	**Baguio City Da**	42.10	304	⇓*e*P	**P**	**07 51 24.9**	**+0.7**
KLBR	**Kellerberrin**	42.88	231	*e*P	**P**	**07 51 29.4**	**-1.0**
	comp=Z,40nm,0.6s,mb5.3						
NWAO	**Narrogin (SRO)**	43.87	229	*e*P	**P**	**07 51 37.8**	**-0.6**
	comp=Z,53nm,1.4s,mb5.1						
NWAO				*e*pP	pP	07 51 51.9	+3.3
NWAO				LR	LR		
	comp=Z,5µm,20.0s,MS5.5						
NWAO	**Narrogin (SRO)**	43.87	229	*e*P	**P**	**07 51 37.8**	**-0.6**
NWAO				*e**PP	pP	07 51 51.9	+3.3
NWAO				pmax	pmax		
	comp=Z,53nm,1.4s						
NWAO				MLR	MLR		
	comp=Z,5µm,20.0s						
NWAO	**Narrogin (SRO)**	43.87	229	P	**P**	**07 51 37.3**	**-1.1**
	comp=Z,14nm,0.9s,mb4.7,baz=52,slow=6.1,SNR=6.1						
NWAO				LR	LR	08 10 01.1	
	comp=Z,6µm,19.9s,MS5.5,baz=62,slow=36						
BTM	**Bintulu**	43.92	282	⇑P	**P**	**07 51 40.9**	**+1.9**
MUN	**Mundaring**	44.24	231	*e*P	**P**	**07 51 41.3**	**0.0**
SBUM	**Sibu**	44.58	281	⇓P	**P**	**07 51 46.0**	**+1.6**
RAR	**Rarotonga**	45.02	113	P	**P**	**07 51 46.7**	**-1.0**
	comp=Z,28nm,0.7s,mb5.2,baz=272,slow=3.5,SNR=5.8						
RAR				LR	LR	08 07 24.9	
	comp=Z,2µm,19.8s,MS5.0,baz=249,slow=32						
NACB	**Ninganchiao**	45.79	314	*e*P	**P**	**07 51 53.7**	**-0.1**
NACB				*e*pP	pP	07 52 02.4	-1.6
KSM	**Kuching**	46.24	279	*e*P	**P**	**07 51 57.5**	**0.0**
YHNB	**Yeheng**	46.26	315	*e*P	**P**	**07 51 57.6**	**+0.2**
YHNB				*e*pP	pP	07 52 06.6	-1.1
TATO	**Taipei**	46.37	315	PFAKE		07 52 10.0	+12
TATO				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
MJAR	**Matsushiro Arr**	46.69	340	P	**P**	**07 51 59.5**	**-1.1**
	comp=Z,18nm,0.9s,mb5.0,baz=165,slow=7.9,SNR=35						
MJAR				PcP	PcP	07 53 32.6	-1.3
	comp=Z,8.2nm,0.8s,baz=161,slow=3.1,SNR=4.8						
MAJO	**Matsushiro**	46.69	340	*e*P	**P**	**07 51 59.2**	**-1.4**
	comp=Z,26nm,0.8s,mb5.2						
MAJO				*e*PcP	PcP	07 53 33.9	0.0
MAJO				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
MAT	**Matsushiro**	46.69	340	P	**P**	**07 51 59.4**	**-1.2**
MAT				S	**S**	**07 58 44.0**	**-3.9**
QZH	**Quanzhou**	48.42	313	⇑*i*P	**P**	**07 52 16.5**	**+2.2**
QZH				AMB	AMB		
	comp=Z,80nm,1.0s,mb5.7						
QZH				LR	LR		
	comp=N,5µm,23.3s,MS5.5						
QZH				LR	LR		
	comp=E,2µm,19.8s,MS5.5						
QZH				LR	LR		
	comp=Z,5µm,22.1s,MS5.4						
ERM	**Erimo**	50.48	348	PFAKE		07 52 40.0	+10
ERM				LR	LR		
	comp=Z,4µm,20.0s,MS5.4						
SSE	**Sheshan**	50.60	321	*e*P	**P**	**07 52 31.0**	**+0.2**
SSE				S	**S**	**07 59 39.4**	**-3.8**
SSE				AMB	AMB		
	comp=Z,17nm,1.7s,mb4.7						
SSE				AMB	AMB		
	comp=Z,384nm,4.7s						
SSE				LR	LR		
	comp=N,696nm,27.8s,MS4.7						
SSE				LR	LR		
	comp=E,723nm,27.9s,MS4.7						
SSE				LR	LR		
	comp=Z,1µm,20.7s						
GZH	**Guangzhou**	51.38	307	P	**P**	**07 52 37.5**	**+0.7**
GZH				LR	LR		
	comp=N,549nm,14.9s,MS5.2						
GZH				LR	LR		
	comp=E,2µm,17.7s,MS5.2						
GZH				LR	LR		
	comp=Z,2µm,18.6s,MS5.2						
KSRS	**Korea Array**	51.64	332	P	**P**	**07 52 38.2**	**-0.2**
	comp=Z,18nm,0.9s,mb5.0,baz=148,slow=8.0,SNR=49						
KSRS				PcP	PcP	07 53 50.4	-1.5
	comp=Z,4.1nm,0.8s,baz=169,slow=3.0,SNR=5.1						
KSRS				LR	LR	08 11 36.9	
	comp=Z,951nm,19.6s,MS4.8,baz=136,slow=32						
KS15	**Wonju Array Si**	51.65	332	*e*P	**P**	**07 52 38.9**	**+0.4**
INCN	**Inchon**	52.28	331	*e*P	**P**	**07 52 42.8**	**-0.4**
	comp=Z,140nm,1.3s,mb5.7						
INCN				*e*pP	pP	07 52 52.5	-1.1
INCN				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
INCN	**Inchon**	52.28	331	⇑P	**P**	**07 52 44.3**	**+1.1**
	SNR=5.3						
QIZ	**Qiongzhong**	52.35	301	P	**P**	**07 52 44.3**	**+0.2**
QIZ				AP	pP	07 52 58.3	+3.8
QIZ				AMB	AMB		
	comp=Z,55nm,1.9s,mb5.2						
QIZ				AMB	AMB		
	comp=Z,619nm,4.6s						
QIZ				LR	LR		
	comp=N,883nm,21.9s,MS5.2						
QIZ				LR	LR		
	comp=E,2µm,21.0s,MS5.2						
QIZ				LR	LR		
	comp=Z,4µm,21.5s,MS5.4						
QIZ	**Qiongzhong**	52.35	301	*e*P	**P**	**07 52 43.9**	**-0.2**
	comp=Z,69nm,1.1s,mb5.5						
QIZ				LR	LR		
	comp=Z,4µm,21.0s,MS5.4						
ASAJ	**Asahikawa**	52.61	348	P	**P**	**07 52 45.8**	**+0.3**
	comp=Z,34nm,0.8s,mb5.3,baz=232,slow=16,SNR=13						
ASAJ				LR	LR	08 14 09.8	
	comp=Z,4µm,20.4s,MS5.4,baz=175,slow=35						
MYKOM	**Kota Tinggi**	52.64	278	⇓P	**P**	**07 52 47.1**	**+0.7**
NJ2	**Nanjing**	52.71	320	*e*P	**P**	**07 52 47.6**	**+1.0**
NJ2				PP	PP	07 54 49.0	+2.8
NJ2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,1µm,6.2s						
NJ2				LR	LR		
	comp=N,3µm,21.9s						
NJ2				LR	LR		
	comp=E,2µm,29.0s						
NJ2				LR	LR		
	comp=Z,2µm,29.5s						
KGM	**Kluang**	53.20	278	⇑P	**P**	**07 52 51.4**	**+0.9**
KTGM	**Kuala Trenggan**	54.06	282	⇓P	**P**	**07 52 57.4**	**+0.6**
PPT	**Papeete**	54.11	106	*e*S	**S**	**08 00 32.4**	**+0.6**
	comp=Z,2µm,26.0s						
PPT				*e*LQ		08 06 27.9	
	comp=Z,5µm,27.2s						
PPT				*e*LR	LR	08 08 46.4	
	comp=Z,2µm,26.0s						
PPT	**Papeete**	54.11	106	*e*P	**P**	**07 52 57.0**	**-0.1**
	comp=Z,16nm,1.0s,mb4.9						
PPT				*e*S	**S**	**08 00 32.4**	**+0.6**
PPT				*e*LQ		08 06 27.9	
PPT	**Papeete**	54.11	106	*e*P	**P**	**07 52 57.0**	**-0.1**
PPT				*e*S	**S**	**08 00 32.4**	**+0.6**
PPT				pmax	pmax		
	comp=Z,16nm,1.0s						
PPT	**Papeete**	54.11	106	LR	LR	08 12 44.8	
	comp=Z,1µm,18.6s,MS5.0,baz=335,slow=32						
PAE	**Paea**	54.11	106	*e*P	**P**	**07 52 57.2**	**+0.1**
	comp=Z,52nm,1.1s,mb5.4						
PAE	**Paea**	54.11	106	*e*P	**P**	**07 52 57.2**	**+0.1**
PAE				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.4						
TVO	**Taravao**	54.43	107	*e*P	**P**	**07 52 59.5**	**0.0**
	comp=Z,57nm,0.9s,mb5.5						
TVO	**Taravao**	54.43	107	*e*P	**P**	**07 52 59.5**	**0.0**
TVO				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.5						
VLA	**Vladivostok**	54.74	339	*i* P	**P**	**07 53 02.5**	**+1.3**
VLA	**Vladivostok**	54.74	339	*e*P	**P**	**07 53 00.6**	**-0.6**
VLA				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.7						
VLA				MLR	MLR		
	comp=Z,1µm,20.7s,MS5.0						
WHN	**Wuhan**	54.77	316	P	**P**	**07 53 01.8**	**+0.2**
WHN				LR	LR		
	comp=Z,4µm,21.5s,MS5.4						
POHA	**Pohakuloa**	54.94	60	PFAKE		07 53 10.0	+6.9
POHA				LR	LR		
	comp=Z,4µm,19.0s,MS5.6						
FRIM	**Kepong**	55.09	279	⇑P	**P**	**07 53 06.6**	**+2.3**
YSS	**Yuzh-Sakhalins**	55.30	349	*e*P	**P**	**07 53 05.6**	**+0.5**
	comp=Z,37nm,0.8s,mb5.5						
YSS				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
YSS	**Yuzh-Sakhalins**	55.30	349	α*e*P	**P**	**07 53 05.0**	**-0.2**
YSS				*e**PP	pP	07 53 21.0	+5.4
YSS				*e*		07 54 04.0	
YSS				*e*S	**S**	**08 00 38.0**	**-8.8**
YSS				*e*PS		08 00 48.0	
YSS				*e*		08 02 55.0	
YSS				*e*SS	SS	08 04 24.0	-7.8
YSS				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.6						
YSS				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.5						
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
YSS				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
YSS				MLR	MLR		
	comp=N,2µm,18.0s,MS5.4						
YSS				MLR	MLR		
	comp=E,2µm,18.0s,MS5.4						
MEH	**Mehetia**	55.57	107	*e*P	**P**	**07 53 07.8**	**+0.1**
PMOR	**Pomariorio Ree**	55.62	103	*e*P	**P**	**07 53 08.1**	**+0.1**
	comp=E,80nm,1.0s,mb5.7						
VAH	**Vaihoa**	55.88	103	*e*P	**P**	**07 53 09.6**	**-0.3**
	comp=E,52nm,1.1s,mb5.5						
DL2	**Dalian**	55.90	328	⇑P	**P**	**07 53 08.8**	**-0.9**
DL2				PCP	PcP	07 54 06.3	-1.8
DL2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.4						
DL2				AMB	AMB		
	comp=Z,210nm,7.2s						
DL2				LR	LR		
	comp=N,430nm,16.0s,MS4.8						
DL2				LR	LR		
	comp=E,410nm,17.9s,MS4.8						
DL2				LR	LR		
	comp=Z,500nm,19.5s,MS4.6						
IPM	**Ipoh**	55.93	280	⇑P	**P**	**07 53 08.8**	**-1.6**
KULM	**Kulim**	56.46	281	*e*P	**P**	**07 53 13.1**	**-1.1**
KULM	**Kulim**	56.46	281	⇓P	**P**	**07 53 14.3**	**+0.1**
MDJ	**Mudanjiang**	56.88	338	P	**P**	**07 53 16.4**	**-0.1**
MDJ				PCP	PcP	07 54 08.0	-3.7
MDJ				PP	PP	07 55 21.1	-2.2

BJI ***17*** *07:43:31.3, 7.05S×156.13E, h25^{km}, mB5.6, mb5.2, Ms5.3, Msz5.2*

GCMT ***17*** *07:43:33.7±0.1, 7.56S×155.92E, h24^{km}, MW5.7/105, Moment Tensor Solution. s101,c198; s105,c262; Duration: $1^{s}7$ Moment tensor: Scale 10^{17}Nm; M_{rr}3.95±.06; $M_{\theta\theta}$-2.96±.04; $M_{\phi\phi}$-0.98±.05; $M_{r\theta}$1.48±.11; $M_{\theta\phi}$2.19±.04; $M_{\phi r}$-1.34±.12; Best double couple: $M_0$4.61800×10^{17} NP1:ϕ_s298.00000°,δ33.00000°, λ82.00000°. NP2:ϕ_s127.00000°,δ58.00000°,λ95.00000°. Principal axes: T 4.4180, Plg77.0000°, Azm53.0000°; N 0.4050, Plg4.0000°, Azm305.0000°; P -4.8190, Plg13.0000°, Azm214.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

ISCJB ***17*** *07:43:33.4±0.1, 7.34S±0.03×155.78E±0.02, h33^{km}, mb5.3/113, MS5.4/203 Error ellipse: s-maj=4.3km s-min=3.1km az=0.0*

NEIC ***17*** *07:43:33.7±0.1, 7.32S×155.86E, mb5.4/51, MS5.5/166, MW5.6, Error ellipse: s-maj=4.5km s-min=4.3km az=138.0, Moment Tensor Solution. s33 Moment tensor: Scale 10^{17}Nm; M_{rr}3.01; $M_{\theta\theta}$-0.62; $M_{\phi\phi}$-2.39; $M_{r\theta}$0.50; $M_{\theta\phi}$0.98; $M_{\phi r}$-1.00; Best double couple: $M_0$3.10000×10^{17} NP1: ϕ_s337.00000°,δ35.00000°,λ91.00000°. NP2: ϕ_s155.00000°,δ55.00000°,λ89.00000°. Principal axes: T 3.2200, Plg79.0000°, Azm61.0000°; N -0.1900, Plg1.0000°, Azm156.0000°; P -3.0400, Plg10.0000°, Azm246.0000°;*

MOS ***17*** *07:43:34.1±1.1, 7.28S×155.85E, h38^{km}, mb5.6/44, MS5.2/20 Error ellipse: s-maj=7.9km s-min=6.2km az=114.9*

IDC ***17*** *07:43:37.4±3.0, 7.40S×155.83E, h61^{km}±27^{km}, mb4.8/21, mb1 4.9/24, mb1mx4.8/25, mbtmp4.8/24, ML4.2/3, MS5.2/20, Ms1 5.2/20, ms1mx5.0/29, Error ellipse: s-maj=14.3km s-min=11.8km az=61.0*

ISC 17 07:43:35.1±0.1**, 7.36S**±0.03×**155.82E**±0.02**, h35**^{km}**,** **h35**^{km}±2.3^{km}**:pP-P, n756,** σ**0**^{s}**90**/363**, mb5.3**/113**, MS5.4**/203**,** **77C-73D, Bougainville - Solomon Islands region**

MDJ				AMB	AMB		
	comp=Z,33nm,1.9s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,416nm,6.6s						
MDJ				LR	LR		
	comp=N,591nm,35.7s,MS4.7						
MDJ				LR	LR		
	comp=E,819nm,33.4s,MS4.7						
MDJ				LR	LR		
	comp=Z,1µm,20.1s						
MDJ	**Mudanjiang**	**56.88**	**338**	*e*P	**P**	**07 53 16.8**	**+0.3**
	comp=Z,50nm,1.4s,mb5.3						
MDJ				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
SNG	**Songkhla**	**56.91**	**283**	P	**P**	**07 53 17.0**	**-0.3**
SNY	**Shenyang**	**57.15**	**332**	⇑P	**P**	**07 53 17.9**	**-0.5**
SNY				AMB	AMB		
	comp=Z,17nm,2.2s,mb4.7						
SNY				AMB	AMB		
	comp=Z,408nm,9.6s						
SNY				LR	LR		
	comp=N,999nm,18.4s,MS5.1						
SNY				LR	LR		
	comp=E,984nm,18.0s,MS5.1						
SNY				LR	LR		
	comp=Z,1µm,18.6s,MS5.0						
KKTK	**Khon Kaen**	**57.48**	**295**	P	**P**	**07 53 22.0**	**+0.8**
	comp=Z,309nm,0.7s,mb6.4						
CN2	**Changchun**	**57.87**	**334**	*e*P	**P**	**07 53 21.9**	**-1.6**
CN2				*e*AP	pP	07 53 35.0	+1.0
CN2				AMB	AMB		
	comp=Z,40nm,1.3s,mb5.3						
CN2				AMB	AMB		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,1µm,19.0s,MS5.1						
CN2				LR	LR		
	comp=E,800nm,19.0s,MS5.1						
CN2				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
ENH	**Enshi**	**58.08**	**313**	PFAKE		07 53 40.0	+15
ENH				LR	LR		
	comp=Z,4.0nm,20.0s						
COCO	**West Island**	**58.24**	**260**	PFAKE		07 53 40.0	+13
COCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
GYA	**Guiyang**	**58.32**	**307**	⇑*i*P	**P**	**07 53 27.8**	**+0.8**
GYA				PCP	PcP	07 54 19.9	+2.0
GYA				PP	PP	07 55 41.9	+5.4
GYA				PPP		07 57 02.3	
GYA				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.4						
GYA				AMB	AMB		
	comp=Z,370nm,8.0s						
GYA				LR	LR		
	comp=N,1µm,23.3s,MS5.2						
GYA				LR	LR		
	comp=E,1µm,22.7s,MS5.2						
GYA				LR	LR		
	comp=Z,2µm,23.0s,MS5.1						
HABR	**Khabarovsk**	**58.52**	**344**	⇑*i*P	**P**	**07 53 28.0**	**+0.1**
HABR				*e*SP		07 53 43.6	
HABR				*e*		07 55 37.4	
HABR				*e*S	**S**	**08 01 32.1**	**+3.0**
HABR				*e*		08 01 47.4	
HABR				*e*		08 03 13.5	
HABR				*e*SS	SS	08 05 28.3	+6.0
HABR				pmax	pmax		
	comp=Z,62nm,1.6s,mb5.4						
BJT	**Baijiatuau**	**59.67**	**325**	*e*P	**P**	**07 53 35.7**	**-0.4**
	comp=Z,12nm,0.8s,mb5.0						
BJT				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
BJT	**Baijiatuau**	**59.67**	**325**	*e*P	**P**	**07 53 35.7**	**-0.4**
BJT				pmax	pmax		
	comp=Z,12nm,0.8s						
BJT				MLR	MLR		
	comp=Z,2µm,19.0s						
NST	**Nakhon Sawan**	**59.70**	**293**	P	**P**	**07 53 37.4**	**+0.6**
	comp=Z,56nm,0.7s,mb5.7						
KLR	**Kul'dur**	**60.16**	**342**	*e*P	**P**	**07 53 35.8**	**-3.4**
KLR				*e*S	**S**	**08 01 48.0**	**-2.3**
KLR				pmax	pmax		
	comp=Z,900nm,9.0s						
PET	**Petropavlovsk**	**60.20**	**2**	*e*P	**P**	**07 53 38.5**	**-0.9**
PET				*e*S	**S**	**08 01 52.8**	**+2.2**
PET				*e*SS	SS	08 05 53.6	+5.1
PET				pmax	pmax		
	comp=Z,700nm,7.7s						
PET				pmax	pmax		
	comp=Z,38nm,1.6s,mb5.2						
PET				smax			
	comp=E,800nm,14.5s						
PET				smax			
	comp=N,2µm,32.2s						
PET				MLR	MLR		
	comp=Z,3µm,17.0s,MS5.4						
DRV	**Dumont d'Urvil**	**60.21**	**187**	P	**P**	**07 53 42.0**	**+2.7**
DRV				S	**S**	**08 02 05.0**	**+14**
DRV				SS	SS	08 05 54.0	+6.0
DRV				L		08 08 00.0	
DRV				R		08 13 00.0	
NANT	**Nan**	**60.23**	**296**	⇓P	**P**	**07 53 41.0**	**+0.7**
	comp=Z,212nm,1.0s,mb6.1						
TIY	**Taiyuan**	**60.38**	**321**	⇑*i*P	**P**	**07 53 39.8**	**-1.2**
TIY				LR	LR		
	comp=N,966nm,18.5s,MS5.1						
TIY				LR	LR		
	comp=E,624nm,14.9s,MS5.1						
XAN	**Xi'an**	**60.53**	**316**	P	**P**	**07 53 40.9**	**-1.2**
XAN				AP	pP	07 53 52.3	-0.4
XAN				AMB	AMB		
	comp=Z,24nm,1.0s,mb5.3						
XAN				AMB	AMB		
	comp=Z,371nm,10.3s						
XAN				LR	LR		
	comp=N,748nm,21.2s,MS5.0						
XAN				LR	LR		
	comp=E,1µm,21.2s,MS5.0						
XAN				LR	LR		
	comp=Z,2µm,21.2s,MS5.2						
KMI	**Kunming**	**60.90**	**304**	P	**P**	**07 53 46.1**	**+1.3**
KMI				AP	pP	07 53 54.5	-0.9
KMI				PP	PP	07 56 02.9	+3.6
KMI				AMB	AMB		
	comp=Z,40nm,1.6s,mb5.3						
KMI				AMB	AMB		
	comp=Z,551nm,9.0s						
KMI				LR	LR		
	comp=N,907nm,21.3s,MS5.1						
KMI				LR	LR		
	comp=E,1µm,23.8s,MS5.1						
KMI				LR	LR		
	comp=Z,2µm,21.3s,MS5.2						
KMI	**Kunming**	**60.90**	**304**	P	**P**	**07 53 46.1**	**+1.3**
	comp=Z,40nm,1.6s,mb5.3						
KMI				pP	pP	07 53 54.5	-0.9
KMI				PP	PP	07 56 02.9	+3.6
KMI				S	**S**	**08 02 01.9**	**+1.3**
KMI				sS	sS	08 02 15.6	-2.5
KMI				SS	SS	08 06 02.0	+1.5
KMI				LR	LR		
	comp=Z,2µm,21.3s,MS5.2						
CM31	**Chiang Mai Arr**	**61.68**	**295**	PFAKE		07 54 00.0	+10
CM31				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
CHG	**Chiang Mai**	**61.79**	**296**	⇓P	**P**	**07 53 52.1**	**+1.1**
	comp=Z,94nm,0.9s,mb5.9						
CHTO	**Chiang Mai**	**61.79**	**296**	*e*P	**P**	**07 53 51.9**	**+0.9**
	comp=Z,58nm,1.2s,mb5.6						
CHTO				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
CHTO	**Chiang Mai**	**61.79**	**296**	*e*P	**P**	**07 53 51.9**	**+0.9**
CHTO				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.6						
CHTO				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
CHTO	**Chiang Mai**	**61.79**	**296**	⇑P	**P**	**07 53 50.8**	**-0.1**
	SNR=32						
SMY	**Shemya**	**61.85**	**12**	PFAKE		07 54 00.0	+9.4
SMY				LR	LR		
	comp=Z,4µm,22.0s,MS5.5						
CD2	**Chengdu**	**62.67**	**310**	P	**P**	**07 53 56.3**	**-0.3**
CD2				AMB	AMB		
	comp=Z,70nm,0.6s,mb6.0						
CD2				AMB	AMB		
	comp=Z,510nm,8.7s						
CD2				LR	LR		
	comp=N,1µm,23.4s						
CD2				LR	LR		
	comp=Z,2µm,21.6s,MS5.1						
HHC	**Hu-ho-hao-te**	**62.87**	**323**	*e*P	**P**	**07 53 57.6**	**-0.1**
HHC				PCP	PcP	07 54 34.8	-1.0
HHC				PP	PP	07 56 18.3	+1.9
HHC				AMB	AMB		
	comp=Z,21nm,1.0s,mb5.2						
HHC				AMB	AMB		
	comp=Z,384nm,3.9s						
HHC				LR	LR		
	comp=N,744nm,21.7s,MS5.0						
HHC				LR	LR		
	comp=E,872nm,20.6s,MS5.0						
HHC				LR	LR		
	comp=Z,843nm,22.6s,MS4.9						
TAOE	**Nuku Hiva Isla**	**63.34**	**96**	*e*LQ		08 10 24.5	
	comp=Z,7µm,24.9s						
TAOE	**Nuku Hiva Isla**	**63.34**	**96**	*e*LR	LR	08 12 45.3	
	comp=Z,5µm,21.5s						
TAOE	**Nuku Hiva Isla**	**63.34**	**96**	*e*P	**P**	**07 54 01.1**	**-0.3**
	comp=Z,419nm,1.1s,mb6.5						
TAOE				*e*LQ		08 10 24.5	
BTO	**Baotou**	**63.64**	**322**	*e*P	**P**	**07 54 01.4**	**-1.4**
HIA	**Hailar**	**64.59**	**335**	*e*P	**P**	**07 54 08.7**	**-0.3**
	comp=Z,42nm,1.0s,mb5.4						
HIA				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
HIA	**Hailar**	**64.59**	**335**	*e*P	**P**	**07 54 08.7**	**-0.2**
HIA				pmax	pmax		
	comp=Z,42nm,1.0s						
HIA				MLR	MLR		
	comp=Z,1µm,19.0s						
LZH	**Lanzhou**	**65.15**	**315**	⇑P	**P**	**07 54 13.5**	**+0.7**
LZH				AP	pP	07 54 22.3	-1.2
LZH				XP	sP	07 54 25.9	-1.6
LZH				PCP	PcP	07 54 45.1	-0.2
LZH				PP	PP	07 56 39.3	+2.8
LZH				AMB	AMB		
	comp=Z,69nm,1.5s,mb5.5						
LZH				AMB	AMB		
	comp=Z,520nm,5.2s						
LZH				LR	LR		
	comp=E,1µm,15.0s						
LZH				LR	LR		
	comp=Z,2µm,15.7s,MS5.3						
LZH	**Lanzhou**	**65.15**	**315**	⇑P	**P**	**07 54 13.5**	**+0.7**
	comp=Z,69nm,1.5s,mb5.5						
LZH				pP	pP	07 54 22.3	-1.2
LZH				sP	sP	07 54 25.9	-1.6
LZH				PcP	PcP	07 54 45.1	-0.2
LZH				PP	PP	07 56 39.2	+2.6
LZH				ScP		07 58 41.5	
LZH				PcS		07 58 50.0	
LZH				*e*S	S	08 02 51.0	-2.5
LZH				sS	sS	08 03 10.0	-1.0
LZH				SS	SS	08 07 06.0	-0.6
LZH				LR	LR		
	comp=Z,2µm,15.7s,MS5.3						
LZH	**Lanzhou**	**65.15**	**315**	⇑P	**P**	**07 54 13.5**	**+0.7**
LZH				*SP	sP	07 54 25.9	-1.6
LZH						07 54 45.1	
LZH						07 56 39.2	
LZH				*e*S	S	08 02 51.0	-2.5
LZH				*SS	sS	08 03 10.0	-1.0
LZH				SS	SS	08 07 06.0	-0.6
LZH				pmax	pmax		
	comp=Z,69nm,1.5s,mb5.5						
LZH				MLR	MLR		
	comp=Z,2µm,15.7s,MS5.3						
CASY	**Casey**	**66.50**	**198**	PFAKE		07 54 30.0	+9.0
CASY				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
MA2	**Magadan**	**66.84**	**357**	*e*P	**P**	**07 54 22.3**	**-0.9**
	comp=Z,37nm,1.3s,mb5.2						
MA2				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
MA2	**Magadan**	**66.84**	**357**	c *i*P	**P**	**07 54 22.0**	**-1.2**
MA2				pmax	pmax		
	comp=Z,39nm,1.9s,mb5.1						
RKT	**Rikitea**	**68.05**	**112**	*e*S	S	08 03 28.9	-0.3
	comp=Z,759nm,27.2s						
RKT				*e*SS	SS	08 07 49.4	-2.6
	comp=Z,376nm,37.2s						
RKT				*e*LQ		08 12 28.7	
	comp=Z,2µm,32.5s						
RKT				*e*LR	LR	08 15 19.1	
	comp=Z,3µm,24.2s,baz=281						
IMP	**Imphal**	**68.17**	**300**	*e*x	**P**	**07 54 33.0**	**+0.6**
CLNS	**Chul'man**	**68.82**	**342**	c *i*P	**P**	**07 54 36.0**	**+0.3**
CLNS				*e**PP	pP	07 54 43.1	-3.3
CLNS				*e*		07 55 05.3	
CLNS				*e*PS		08 04 09.2	
CLNS				*e*		08 04 13.1	
CLNS				pmax	pmax		
	comp=N,17nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.3						
CLNS				pmax	pmax		
	comp=E,13nm,2.0s						
CLNS				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
CIT	**Chita**	**69.30**	**334**	*e*P	**P**	**07 54 39.6**	**+0.8**
CIT				*e*	pP	07 54 48.2	-1.3
CIT				*e*		07 54 59.7	
CIT				pmax	pmax		
	comp=Z,129nm,2.0s,mb5.5						
GTA	**Gaotai**	**69.56**	**317**	*e*P	**P**	**07 54 41.6**	**+0.9**
GTA				PP	PP	07 57 19.1	+4.2
GTA				AMB	AMB		
	comp=Z,20nm,1.6s,mb4.8						
GTA				AMB	AMB		
	comp=Z,650nm,8.4s						
GTA				LR	LR		
	comp=N,696nm,19.0s,MS5.2						
GTA				LR	LR		
	comp=E,1µm,19.8s,MS5.2						
GTA				LR	LR		
	comp=Z,2µm,19.8s,MS5.2						
ULN	**Ulaanbaatar**	**69.75**	**327**	*e*P	**P**	**07 54 41.9**	**+0.3**
	comp=Z,57nm,0.9s,mb5.5						
ULN				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
ULN	**Ulaanbaatar**	**69.75**	**327**	*e*P	**P**	**07 54 41.9**	**+0.2**
ULN				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.5						
ULN				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
ULN	**Ulaanbaatar**	**69.75**	**327**	⇓P	**P**	**07 54 42.4**	**+0.8**
	SNR=39						
SONM	**Songino Array**	**70.08**	**327**	P	**P**	**07 54 44.2**	**+0.5**
	comp=Z,59nm,0.9s,mb5.5,baz=134,slow=6.3,SNR=302						
SONM				PKPPKP		08 22 45.8	
	comp=Z,2.6nm,1.0s,baz=316,slow=2.6,SNR=13						
SONM				LR	LR	08 26 13.0	
	comp=Z,1µm,20.1s,MS5.1,baz=131,slow=36						
SEY	**Seymchan**	**70.14**	**358**	⇑*e*P	**P**	**07 54 43.5**	**-0.2**
SHL	**Shillong**	**70.18**	**300**	*e*x	x	07 54 36.4	
SHL				AMb	AMB	07 54 41.5	
	comp=Z,902nm,0.6s						
VNDA	**Vanda**	**70.20**	**179**	P	**P**	**07 54 44.4**	**+0.3**
	comp=Z,5.5nm,0.9s,mb4.5,baz=358,slow=5.9,SNR=4.1						
VNDA				LR	LR	08 23 46.4	
	comp=Z,1µm,18.2s,MS5.2,baz=358,slow=34						
AGT	**Agartala**	**70.20**	**299**	*e*P	**P**	**07 54 44.0**	**-1.0**
YAK	**Yakutsk**	**72.08**	**347**	*e*P	**P**	**07 54 55.9**	**+0.4**
	comp=Z,52nm,0.8s,mb5.5						
YAK				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
YAK	**Yakutsk**	**72.08**	**347**	⇑*e*P	**P**	**07 54 55.0**	**-0.5**
YAK				pmax	pmax		
	comp=Z,55nm,0.9s,mb5.5						
LSA	**Lhasa**	**72.15**	**304**	*e*P	**P**	**07 54 57.2**	**+0.6**
	comp=Z,37nm,1.0s,mb5.3						
LSA				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
LSA	**Lhasa**	**72.15**	**304**	*e*P	**P**	**07 54 57.2**	**+0.5**
LSA				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.3						
LSA				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.2						
ZAK	**Zakamensk**	**73.23**	**328**	*e*P	**P**	**07 55 02.4**	**-0.2**
ZAK				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
BOD	**Bodaibo**	**73.25**	**338**	*e*P	**P**	**07 55 01.6**	**-1.0**
BOD				pmax	pmax		
	comp=Z,22nm,1.6s,mb4.8						
TLY	**Talaya**	**73.79**	**329**	P	**P**	**07 55 06.5**	**+0.6**
	comp=Z,155nm,0.8s,mb6.0,SNR=6.4						
TLY	**Talaya**	**73.79**	**329**	*e*P	**P**	**07 55 05.8**	**0.0**
	comp=Z,24nm,0.9s,mb5.1						
TLY				LR	LR		
	comp=Z,734nm,20.0s,MS5.0						
TLY	**Talaya**	**73.79**	**329**	*e*P	**P**	**07 55 05.6**	**-0.3**
TLY				*e*S	S	08 04 41.3	+6.6
TLY				*e*		08 05 22.5	
TLY				*e*SS	SS	08 09 24.0	+4.8
TLY				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
TLY				MLR	MLR		
	comp=Z,689nm,18.0s,MS5.0						
TLY	**Talaya**	**73.79**	**329**	⇑P	**P**	**07 55 06.0**	**+0.1**
	SNR=17						
IRK	**Irkutsk**	**73.80**	**330**	*e*P	**P**	**07 55 04.7**	**-1.2**
IRK				pmax	pmax		
	comp=Z,105nm,2.4s,mb5.3						
TAPN	**Taplejung**	**74.29**	**301**	*e*P	**P**	**07 55 09.2**	**-0.1**
	comp=Z,142nm,1.0s,mb5.8						
ODAN	**Odare**	**74.42**	**300**	*e*P	**P**	**07 55 10.1**	**0.0**
	comp=Z,208nm,0.9s,mb6.0						
BOK	**Bokaro**	**74.89**	**297**	*e*P	**P**	**07 55 12.5**	**-0.4**
BOK				AMb	AMB	07 55 16.8	
	comp=Z,53nm,2.2s,mb5.1						
MOY	**Mondy**	**75.15**	**328**	*e*P	**P**	**07 55 13.7**	**-0.1**
MOY				pmax	pmax		
	comp=Z,146nm,3.1s						
BILL	**Bilibino**	**75.58**	**4**	*e*P	**P**	**07 55 15.2**	**-0.7**
	comp=Z,47nm,1.0s,mb5.4						
BILL				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
BILL	**Bilibino**	**75.58**	**4**	α*e*P	**P**	**07 55 15.5**	**-0.4**
BILL				*e*	pP	07 55 23.8	-2.9
BILL				*e*		07 55 30.3	
BILL				*e*S	S	08 04 55.9	+1.8
BILL				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
BILL				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.3						
JIRN	**Jiri**	**75.67**	**301**	*e*P	**P**	**07 55 17.9**	**+0.6**
	comp=Z,5.9nm,0.4s,mb4.8						
VIS	**Vishakhapatnam**	**75.76**	**290**	*e*P	**P**	**07 55 17.4**	**-0.6**
VIS				AMb	AMB	07 55 30.6	
	comp=Z,43nm,1.5s,mb5.2						
PALK	**Pallekele**	**76.31**	**279**	PFAKE		07 55 30.0	+8.8
PALK				LR	LR		
	comp=Z,768nm,20.0s,MS5.0						
KKN	**Kakani**	**76.48**	**301**	*e*P	**P**	**07 55 21.7**	**-0.2**
	comp=Z,81nm,0.9s,mb5.7						
GKN	**Gorkha**	**77.09**	**301**	*e*P	**P**	**07 55 25.5**	**+0.2**
	comp=Z,168nm,1.0s,mb5.9						
KDAK	**Kodiak Island**	**77.14**	**26**	P	**P**	**07 55 25.6**	**+0.7**
KDAK				LR	LR		
	comp=Z,405nm,20.0s,MS4.7						
KDAK	**Kodiak Island**	**77.14**	**26**	P	**P**	**07 55 25.6**	**+0.7**
	comp=Z,9.4nm,0.9s,mb4.7,baz=135,slow=4.3,SNR=4.6						
TNA	**Tin City**	**77.46**	**15**	*e*P	**P**	**07 55 26.3**	**-0.3**
	comp=Z,5.3nm,0.8s,mb4.5						
TNA				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
BLSP	**Bilaspur**	**77.84**	**294**	*e*P	**P**	**07 55 27.5**	**-2.1**
BLSP				AMb	AMB	07 55 31.9	
	comp=Z,51nm,1.4s,mb5.3						
SVW2	**Sparrevohn**	**78.03**	**22**	*e*P	**P**	**07 55 29.0**	**-0.8**
WMQ	**Urumqi**	**79.65**	**317**	P	**P**	**07 55 39.9**	**+0.8**
WMQ				PCP	PcP	07 55 47.9	+1.0
WMQ				AP	pP	07 55 53.3	+3.3
WMQ				PP	PP	07 58 42.8	+2.4
WMQ				AMB	AMB		
	comp=Z,39nm,1.2s,mb5.2						
WMQ				AMB	AMB		
	comp=Z,211nm,9.2s						
WMQ				LR	LR		
	comp=N,558nm,24.8s,MS5.1						
WMQ				LR	LR		
	comp=E,963nm,21.2s,MS5.1						
WMQ				LR	LR		
	comp=Z,1µm,21.4s,MS5.2						
SLKM	**Skilak Lake**	**79.73**	**24**	P	**P**	**07 55 38.3**	**-0.9**
KOD	**Kodaikanal**	**79.94**	**282**	*e*P	**P**	**07 55 42.1**	**+0.7**
KOD				AMb	AMB	07 55 45.0	
	comp=Z,31nm,1.9s,mb4.9						
HYB	**Hyderabad**	**80.16**	**289**	*i* P	**P**	**07 55 42.0**	**-0.5**
HYB				*e*S	S	08 05 44.0	-1.4
NGP	**Nagpur**	**80.43**	**293**	*e*P	**P**	**07 55 43.3**	**-0.5**
NGP				AMb	AMB	07 55 45.9	
	comp=Z,51nm,1.4s,mb5.3						
PMR	**Palmer**	**80.79**	**23**	*e*P	**P**	**07 55 43.4**	**-1.5**
	comp=Z,64nm,2.2s,mb5.2						
PMR				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
PMR	**Palmer**	**80.79**	**23**	*e*P	**P**	**07 55 43.4**	**-1.5**
PMR				pmax	pmax		
	comp=Z,64nm,2.2s,mb5.2						
PMR				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.2						
TIXI	**Tiksi**	**80.83**	**352**	*e*P	**P**	**07 55 43.8**	**-1.1**
	comp=Z,3.8nm,0.5s,mb4.6						
TIXI				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
TIXI	**Tiksi**	**80.83**	**352**	*e*P	**P**	**07 55 42.5**	**-2.4**
TIXI				*e*S	S	08 05 44.5	-5.9
TIXI				*e*SS	SS	08 11 06.1	+1.5
TIXI				pmax	pmax		
	comp=Z,24nm,1.6s,mb4.9						
TIXI				MLR	MLR		
	comp=Z,602nm,16.0s,MS5.0						
SML	**Sawmill**	**81.23**	**23**	*e*P	**P**	**07 55 46.5**	**-0.7**
IMA2	**Indian Mountai**	**81.88**	**19**	*e*P	**P**	**07 55 50.1**	**-0.5**
DIV	**Divide**	**81.90**	**25**	PFAKE		07 56 00.0	+9.2
DIV				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
MCK	**McKinley**	**82.09**	**22**	*e*P	**P**	**07 55 50.1**	**-1.6**
	comp=Z,12nm,0.8s,mb4.9						
MCK				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
AKL	**Akola**	**82.21**	**292**	*e*P	**P**	**07 55 53.2**	**-0.1**
AKL				AMb	AMB	07 55 55.7	
	comp=Z,67nm,1.8s,mb5.3						
BHPL	**Bhopal**	**82.32**	**295**	*e*P	**P**	**07 55 52.1**	**-1.8**
BHPL				AMb	AMB	07 56 04.6	
	comp=Z,33nm,0.8s,mb5.3						
BHPL				*e*x	x	08 00 16.3	
QSPA	**South Pole Qui**	**82.62**	**180**	P	**P**	**07 55 54.1**	**-0.2**
MNGI	**Mangalore**	**82.93**	**284**	*i* P	**P**	**07 55 56.9**	**-0.3**
MNGI				AMb	AMB	07 56 00.0	
	comp=Z,15nm,0.2s,mb5.6						
MNGI				*i* S	S	08 06 16.4	+2.2
COLA	**College**	**83.12**	**21**	*e*P	**P**	**07 55 55.2**	**-1.9**
	comp=Z,15nm,0.8s,mb5.1						
COLA				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
COLA	**College**	**83.12**	**21**	*e*P	**P**	**07 55 55.2**	**-1.9**
COLA				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
COLA				MLR	MLR		
	comp=Z,3µm,22.0s,MS5.6						
NDI	**New Delhi**	**83.60**	**300**	*e*P	**P**	**07 55 59.6**	**-0.8**
NDI				AMb	AMB	07 56 01.9	
	comp=Z,62nm,2.2s,mb5.3						
MENT	**Mentasta**	**83.65**	**24**	*e*P	**P**	**07 55 59.1**	**-0.8**
MK31	**Makanchi Array**	**84.22**	**319**	*e*P	**P**	**07 56 02.1**	**-0.9**
MK31	**Makanchi Array**	**84.22**	**319**	P	**P**	**07 56 02.3**	**-0.8**
MKAR	**Makanchi Array**	**84.22**	**319**	*i* P	**P**	**07 56 02.3**	**-0.8**
MKAR				pmax	pmax		
	comp=Z,107nm,0.9s						
MKAR	**Makanchi Array**	**84.22**	**319**	P	**P**	**07 56 02.5**	**-0.6**
	comp=Z,86nm,0.8s,mb5.9,baz=102,slow=5.5,SNR=649						
MKAR				PKPPKP		08 22 19.8	
	comp=Z,0.9nm,1.0s,baz=270,slow=1.2,SNR=3.9						
MKAR				LR	LR	08 32 24.2	
	comp=Z,643nm,21.9s,MS5.0,baz=106,slow=35						
KAD	**Karad**	**84.25**	**288**	*e*P	**P**	**07 56 01.3**	**-2.6**
KAD				AMb	AMB	07 56 18.4	
	comp=Z,85nm,1.9s,mb5.5						
KAD				*e*x	x	08 00 17.3	
MAW	**Mawson**	**84.38**	**203**	*e*P	**P**	**07 56 03.7**	**+0.1**
	comp=Z,34nm,1.8s,mb5.2						
MAW	**Mawson**	**84.38**	**203**	*e*P	**P**	**07 56 03.7**	**+0.1**
MAW				pmax	pmax		
	comp=Z,34nm,1.8s						

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MAW    Mawson          84.38 203  P       P       07 56 03.4 -0.2
       comp=Z,12nm,0.8s,mb5.1,baz=81,slow=8.6,SNR=9.6
MAW                               LR      LR      08 32 10.6
       comp=Z,1µm,18.6s,MS5.3,baz=80,slow=34
POO    Poona           84.76 289 eP       P       07 56 04.9 -1.6
POO                               AMb     AMB     07 56 08.9
       comp=Z,53nm,1.2s,mb5.5
SIT    Sitka           84.90  31  PFAKE           07 56 20.0  +14
SIT                               LR      LR
       comp=Z,2µm,19.0s,MS5.6
ZALV   Zalesovo Beam   84.94 326  P       P       07 56 05.2 -1.3
       comp=Z,62nm,0.8s,mb5.8,baz=108,slow=5.3,SNR=198
ZAL    Zalesovo        84.94 326  P       P       07 56 05.3 -1.3
AJM    Ajmer           85.41 297 eP       P       07 56 08.0 -1.6
AJM                               AMb     AMB     07 56 11.7
       comp=Z,74nm,1.5s,mb5.6
EGAK   Eagle           85.53  23 eP       P       07 56 09.2 -0.2
       comp=Z,18nm,0.9s,mb5.3
EGAK                              LR      LR
       comp=Z,1µm,20.0s,MS5.3
DAWY   Dawson          85.90  24 eP       P       07 56 10.0 -1.2
NVS    Novosibirsk     86.10 326⇑iP       P       07 56 10.6 -1.7
NVS                              eS       S       08 06 35.3 -9.0
NVS                               pmax    pmax
       comp=Z,160nm,1.9s,mb5.9
NVS                               pmax    pmax
       comp=N,39nm,1.7s
NVS                               pmax    pmax
       comp=E,76nm,1.6s
NVS                               smax
       comp=N,38nm,2.2s
NVS                               smax
       comp=E,50nm,3.0s
WRAK   Wrangell Islan  86.21  32  PFAKE           07 56 20.0 +7.2
WRAK                              LR      LR
       comp=Z,1µm,21.0s,MS5.2
KSH    Kashi           86.87 310⇑iP       P       07 56 17.6 +1.1
KSH                              eAP      pP      07 56 30.3 +2.8
KSH                              ePP      PP      07 59 42.5 +2.8
KSH                               LR      LR
       comp=N,868nm,6.9s
KSH                               LR      LR
       comp=E,848nm,4.8s
KSH                               LR      LR
       comp=Z,741nm,6.4s
ULHL   Ulahol          87.25 313  P       P       07 56 18.6 +0.3
       SNR=11
KURK   Kurchatov       87.62 322  P       P       07 56 18.9 -0.9
       comp=Z,222nm,1.1s,mb6.3,SNR=33
KURK   Kurchatov       87.62 322 eP       P       07 56 18.6 -1.2
       comp=Z,39nm,1.0s,mb5.6
KURK                              LR      LR
       comp=Z,945nm,20.0s,MS5.2
KURK   Kurchatov       87.62 322c iP      P       07 56 18.4 -1.4
KURK                              pmax    pmax
       comp=Z,28nm,1.4s,mb5.3
KURK   Kurchatov       87.62 322 ⇑P       P       07 56 18.3 -1.5
       SNR=15
MCCM   Marconi Confer  87.71  51  PFAKE           07 56 30.0 +9.4
MCCM                              LR      LR
       comp=Z,1µm,19.0s,MS5.4
HOPS   Hopland         87.72  50  PFAKE           07 56 30.0 +9.4
HOPS                              LR      LR
       comp=Z,2µm,21.0s,MS5.5
TKM2   Tokmak 2        87.86 314  P       P       07 56 20.6 -0.5
       SNR=15
TKM2   Tokmak 2        87.86 314 eP       P       07 56 20.8 -0.4
       comp=Z,18nm,0.9s,mb5.3
TKM2                              LR      LR
       comp=Z,673nm,20.0s,MS5.0
TKM2   Tokmak 2        87.86 314 eP       P       07 56 20.8 -0.4
TKM2                              pmax    pmax
       comp=Z,18nm,0.9s,mb5.3
TKM2                              MLR     MLR
       comp=Z,673nm,20.0s,MS5.0
KZA    Kyzart          87.93 313  P       P       07 56 23.2 +1.7
       SNR=22
KBK    Karagaybulak    88.27 313  P       P       07 56 23.8 +0.6
       SNR=5.6
M02C   Callahan        88.35  48 ⇑P       P       07 56 24.5 +1.0
       baz=88
WDC    Whiskeytown Da  88.43  49  PFAKE           07 56 30.0 +6.1
WDC                               LR      LR
       comp=Z,2µm,20.0s,MS5.5
CHMS   Chumysh         88.48 314  P       P       07 56 24.1  0.0
       SNR=12
UCH    Uchtor          88.50 313  P       P       07 56 25.1 +0.9
       SNR=15
UCH    Uchtor          88.50 313 eP       P       07 56 24.8 +0.6
       comp=Z,258nm,2.4s,mb6.0
UCH                               LR      LR
       comp=Z,1µm,19.0s,MS5.3
HUMO   Hull Mountain   88.52  47  PFAKE           07 56 30.0 +5.7
HUMO                              LR      LR
       comp=Z,3µm,19.0s,MS5.7
YBH    Yreka Blue Hor  88.53  48  PFAKE           07 56 30.0 +5.6
YBH                               LR      LR
       comp=Z,3µm,19.0s,MS5.7
FRU    Bishkek         88.54 313 eP       P       07 56 24.0 -0.4
FRU                              e        pP      07 56 34.0 -1.4
FRU                               pmax    pmax
       comp=Z,80nm,2.0s,mb5.7
FRU                               MLR     MLR
       comp=Z,1µm,16.0s,MS5.3
SAO    San Andreas Ge  88.57  53  PFAKE           07 56 40.0  +15
SAO                               LR      LR
       comp=Z,2µm,19.0s,MS5.5
AAK    Ala-Archa       88.59 313  P       P       07 56 23.2 -1.5
       comp=Z,90nm,0.8s,mb6.2,SNR=9.2
AAK    Ala-Archa       88.59 313  P       P       07 56 24.7  0.0
       SNR=16
AAK    Ala-Archa       88.59 313 eP       P       07 56 23.5 -1.2
       comp=Z,15nm,0.9s,mb5.3
AAK                               LR      LR
       comp=Z,803nm,20.0s,MS5.1
AAK    Ala-Archa       88.59 313c iP      P       07 56 23.7 -1.0
AAK                               pmax    pmax
       comp=Z,15nm,0.9s,mb5.3
AAK    Ala-Archa       88.59 313 ⇓P       P       07 56 23.4 -1.3
       SNR=12
COR    Corvallis       88.66  45  PFAKE           07 56 40.0  +15
COR                               LR      LR
       comp=Z,3µm,19.0s,MS5.7
USP    Ospenovka       88.71 314  P       P       07 56 25.2  0.0
       SNR=21
NLWA   Neilton Lookou  88.85  42  PFAKE           07 56 40.0  +14
NLWA                              LR      LR
       comp=Z,2µm,20.0s,MS5.6
M03C   McCloud         88.87  48 ⇓P       P       07 56 25.7 -0.3
       baz=89
AML    Almayashu       89.08 313  P       P       07 56 28.0 +1.0
       SNR=18
AML    Almayashu       89.08 313 eP       P       07 56 27.9 +1.0
       comp=Z,19nm,1.0s,mb5.4
AML                               LR      LR
       comp=Z,1µm,20.0s,MS5.3
EKS2   Erkin-Say       89.12 313  P       P       07 56 27.6 +0.4
       SNR=13
EKS2   Erkin-Say       89.12 313 eP       P       07 56 27.5 +0.4
       comp=Z,11nm,1.0s,mb5.1
EKS2                              LR      LR
       comp=Z,987nm,21.0s,MS5.2
BHJ    Bhuj            89.36 293 eP       P       07 56 27.6 -1.1
C04A   Brinnon         89.51  42 ⇑P       P       07 56 28.2 -0.7
       baz=90
M05C   Lookout         89.61  48 ⇑P       P       07 56 29.5  0.0
       baz=90
CMB    Columbia Colle  89.62  52  PFAKE           07 56 40.0  +10
CMB                               LR      LR
       comp=Z,1µm,19.0s,MS5.3
INK    Inuvik          89.77  21 eP       P       07 56 28.9 -0.7
       comp=Z,789nm,1.4s
INK    Inuvik          89.77  21  P       P       07 56 24.6 -5.0
       comp=Z,4.3nm,0.9s,mb4.8,baz=208,slow=4.4,SNR=8.0
J05A   Fort Rock       89.88  46 ⇓P       P       07 56 31.1 +0.4
       baz=90
T06C   Millerton Lake  89.99  53 ⇓P       P       07 56 32.7 +1.4
       baz=90
S06C   San Francisco   90.02  52 ⇓P       P       07 56 31.3 -0.1
       baz=90
WCN    Washoe City     90.31  51 ⇓P       P       07 56 33.0 +0.2
       baz=90
MOD    Modoc           90.33  48 eP       P       07 56 33.9 +1.1
MOD                               LR      LR
       comp=Z,2µm,20.0s,MS5.5
MOD    Modoc           90.33  48 ⇑P       P       07 56 33.4 +0.6
       baz=90
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KCC    Kaiser Creek    90.34  53 ⇑P       P       07 56 34.4 +1.4
       baz=90
O06A   Flanigan        90.40  50 ⇓P       P       07 56 34.1 +0.9
       baz=90
ARVC   Arvin           90.40  55 ⇑P       P       07 56 34.0 +0.7
       baz=90
HELL   Mitchell Peak,  90.48  53  P       P       07 56 34.6 +1.0
       baz=90,SNR=5.8
N06A   Buffalo Meadow  90.49  49 ⇓P       P       07 56 34.5 +0.9
       baz=90
K06A   Valley Falls    90.51  47 ⇑P       P       07 56 34.3 +0.7
       baz=91
I06A   Prineville      90.73  46 ⇑P       P       07 56 35.3 +0.7
       baz=91
ISA    Isabella        90.77  54 ⇓P       P       07 56 34.8 -0.2
       baz=91
MTUM   Tungsten Hills  90.94  53 eP       P       07 56 37.0 +1.2
RPN    Rapa Nui        90.97 117  PFAKE           07 56 50.0  +14
RPN                               LR      LR
       comp=Z,2µm,20.0s,MS5.4
EDW2   Edwards Air Fo  91.05  55  P       P       07 56 37.9 +1.6
       baz=91,SNR=7.2
L07A   Adell           91.05  48  P       P       07 56 36.6 +0.5
       baz=91,SNR=6.9
M07A   Soldier Meadow  91.08  49  P       P       07 56 36.7 +0.4
       baz=91,SNR=8.3
O07A   Toulon          91.12  50 ⇓P       P       07 56 37.7 +1.2
       baz=91
N07B   Gerlach         91.14  49 ⇓P       P       07 56 37.5 +0.9
       baz=91
CWC    Cottonwood Cre  91.19  54 ⇑P       P       07 56 37.7 +0.7
       baz=91
K07A   Rock Creek Ran  91.22  47 ⇑P       P       07 56 36.7 -0.3
       baz=91
BFSC   Mount Baldy St  91.23  56 ⇓P       P       07 56 37.2 +0.1
       baz=91
I07A   Izee            91.25  46 ⇑P       P       07 56 37.1 +0.1
       baz=91
S08C   White Mtn Res   91.27  53 ⇑P       P       07 56 37.5 +0.2
       baz=91
H07A   Lands Inn, Kim  91.29  45 ⇓P       P       07 56 37.3 +0.1
       baz=91
NVAR   Mina Array Bea  91.30  52  P       P       07 56 38.4 +1.0
       comp=Z,2.3nm,0.8s,mb4.5,baz=242,slow=4.2,SNR=14
G07A   Ruggs Ranch, H  91.32  45 ⇓P       P       07 56 36.8 -0.5
       baz=91
E07A   Sunnyside       91.40  43 ⇑P       P       07 56 36.9 -0.8
       baz=91
D07A   Quincy          91.42  43 ⇓P       P       07 56 37.6 -0.2
       baz=92
C07A   Waterville      91.44  42 ⇑P       P       07 56 36.5 -1.4
       baz=92
KK31   Karatay Array   91.56 313 i P      P       07 56 37.2 -1.3
KK31                              pmax    pmax
       comp=Z,39nm,1.4s,mb5.5
KKAR   Karatay Array   91.56 313 i P      P       07 56 37.2 -1.3
KKAR                              pmax    pmax
       comp=Z,56nm,1.5s,mb5.7
HAWA   Hanford         91.59  44  PFAKE           07 56 50.0  +11
HAWA                              LR      LR
       comp=Z,2µm,19.0s,MS5.7
MPMC   Manual Prospec  91.61  54 ⇑P       P       07 56 39.0 +0.1
       baz=92,SNR=5.7
WVOR   Wild Horse Val  91.63  48 eP       P       07 56 38.7 -0.1
       comp=Z,21nm,1.5s,mb5.2
WVOR                              LR      LR
       comp=Z,3µm,20.0s,MS5.7
WVOR   Wild Horse Val  91.63  48 eP       P       07 56 38.7 -0.2
WVOR                              pmax    pmax
       comp=Z,21nm,1.5s,mb5.2
WVOR                              MLR     MLR
       comp=Z,3µm,20.0s,MS5.7
Q08A   Gabbs           91.65  51 ⇓P       P       07 56 38.9 -0.1
       baz=92
M08A   Happy Creek Ra  91.68  49 ⇓P       P       07 56 40.0 +0.9
       baz=92
N08A   GE Springer Mi  91.77  49  P       P       07 56 39.9 +0.4
       baz=92,SNR=8.2
L08A   Fields          91.81  48  P       P       07 56 41.1 +1.4
       baz=92,SNR=7.1
G08A   Pilot Rock      91.82  45 ⇑P       P       07 56 39.4 -0.2
       baz=92
GRAC   Grapevine Rang  91.84  53 ⇓P       P       07 56 40.4 +0.4
       baz=92
J08A   Circle Bar Ran  91.88  47 ⇓P       P       07 56 39.4 -0.6
       baz=92
H08A   Prairie City    91.91  46 ⇓P       P       07 56 40.8 +0.7
       baz=92
F08A   Pendleton       92.02  44 ⇑P       P       07 56 40.4 -0.2
       baz=92
B08A   Colville Reser  92.03  42 ⇑P       P       07 56 39.5 -1.1
       baz=92
S09A   Goldfield       92.05  52  P       P       07 56 41.3 +0.4
       baz=92,SNR=11
GSC    Goldstone       92.06  55 ⇑P       P       07 56 41.4 +0.4
       baz=92
PFO    Pinyon Flat Ob  92.14  57  PFAKE           07 56 50.0 +8.6
PFO                               LR      LR
       comp=Z,3µm,19.0s,MS5.7
PFO    Pinyon Flat Ob  92.14  57 ⇓P       P       07 56 42.6 +1.2
       baz=92
FURC   Furnace Creek,  92.17  54  P       P       07 56 41.9 +0.4
       baz=92,SNR=11
R09A   Tonopah         92.24  52  P       P       07 56 43.1 +1.4
       baz=92,SNR=6.2
SYO    Syowa Base      92.25 199⇑eP       P       07 56 40.4 -0.8
L09A   Wilkinson Ranc  92.29  48 ⇓P       P       07 56 43.4 +1.5
       baz=92
M09A   Marrel Ranch,   92.37  49 ⇓P       P       07 56 43.8 +1.5
       baz=92,SNR=6.5
HEC    Hector,Ludlow   92.39  55 ⇑P       P       07 56 42.9 +0.3
       baz=92
O09A   Fish Creek Ran  92.40  50 ⇓P       P       07 56 43.3 +0.8
       baz=92
J09A   Fry Pan Ranch,  92.40  47 ⇓P       P       07 56 43.6 +1.2
       baz=92
BELC   Belle Mtn.      92.56  56 ⇓P       P       07 56 44.0 +0.6
       baz=93
S10A   Tonopah Range,  92.57  52 ⇓P       P       07 56 43.8 +0.4
       baz=93,SNR=12
U10A   Ash Meadows, A  92.59  54  P       P       07 56 43.6 +0.2
       baz=93,SNR=5.3
G09A   Cove            92.64  45 ⇓P       P       07 56 43.5 +0.1
       baz=93
B09A   Rice            92.82  42 ⇓P       P       07 56 43.4 -0.8
       baz=93
R10A   Warm Springs    92.84  52 ⇓P       P       07 56 44.7 +0.1
       baz=93
BMO    Blue Mountains  92.92  45 eP       P       07 56 44.4 -0.4
       comp=Z,20nm,1.8s,mb5.2
BMO                               LR      LR
       comp=Z,2µm,19.0s,MS5.6
GMRC   Granite Mounta  92.93  55 ⇑P       P       07 56 45.4 +0.3
       baz=93
K10A   MacKenzie Ranc  92.97  47 ⇑P       P       07 56 45.3 +0.3
       baz=93
M10A   I.L. Ranch, Tu  93.06  49 ⇑P       P       07 56 46.6 +1.2
       baz=93
BRVK   Borovoye        93.14 323 eP       P       07 56 44.1 -1.5
       comp=Z,26nm,0.8s,mb5.7
BRVK                             epP      pP      07 56 59.8 +3.1
BRVK                              LR      LR
       comp=Z,959nm,20.0s,MS5.2
BRVK   Borovoye        93.14 323 ⇑P       P       07 56 44.2 -1.4
       SNR=14
L10A   Juniper Basin   93.18  48  P       P       07 56 47.3 +1.3
       baz=93,SNR=5.3
D10A   Wagner Farm, O  93.22  43 ⇓P       P       07 56 46.2 +0.1
       baz=93
V11A   Goodsprings     93.24  54 ⇓P       P       07 56 47.1 +0.7
       baz=93
A10A   Northport       93.28  41 ⇑P       P       07 56 45.5 -0.8
       baz=93
H10A   Noah’s Angus R  93.28  46 ⇓P       P       07 56 44.9 -1.5
       baz=93
Q11A   Duckwater       93.41  51  P       P       07 56 47.7 +0.5
       baz=93,SNR=6.6
NEW    Newport         93.48  42  PFAKE           07 57 00.0  +13
NEW                               LR      LR
       comp=Z,2µm,19.0s,MS5.7
SHPR   Sheep Range     93.54  54 eP       P       07 56 47.9 +0.1
O11A   Cowboy Ranch,   93.56  50 ⇑P       P       07 56 48.3 +0.5
       baz=94
K11A   Parker Ranch,   93.58  48 ⇑P       P       07 56 48.4 +0.6
       baz=94
M11A   Holland Ranch,  93.61  49 ⇓P       P       07 56 48.8 +0.8
       baz=94
V12A   Nelson          93.70  55 ⇓P       P       07 56 48.6  0.0
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       baz=94
L11A   Cat Creek Ranc  93.72  48 ⇑P       P       07 56 48.7 +0.2
       baz=94
I11A   Placerville     93.77  46 ⇑P       P       07 56 48.0 -0.6
       baz=94
H11A   Donnelly        93.82  46 ⇑P       P       07 56 48.6 -0.3
       baz=94
ELK    Elko            93.94  50  PFAKE           07 57 00.0  +10
ELK                               LR      LR
       comp=Z,1µm,22.0s,MS5.4
A11A   Hall Mountain,  94.06  41 ⇓P       P       07 56 50.0 +0.1
       baz=94
P12A   McGill          94.06  51 ⇓P       P       07 56 50.3 +0.1
       baz=94
Q12A   Willow Creek R  94.08  51  P       P       07 56 51.6 +1.4
       baz=94,SNR=6.1
N12A   Clover Valley,  94.11  50 ⇓P       P       07 56 51.1 +0.8
       baz=94
PDMCI  Parker Dam,Lak  94.13  56 ⇑P       P       07 56 50.2 -0.3
       baz=94
R12A   Pony Springs,   94.17  52 ⇑P       P       07 56 50.5 -0.2
       baz=94
M12A   Wells           94.26  49 ⇓P       P       07 56 51.2 +0.2
       baz=94
L12A   House Creek Ra  94.26  48 ⇓P       P       07 56 51.5 +0.5
       baz=94
J12A   Stokes Ranch,   94.32  47 ⇓P       P       07 56 50.5 -0.7
       baz=94
K12A   Draper Farm, C  94.39  48 ⇑P       P       07 56 51.5 -0.1
       baz=94
T13A   Saint George    94.59  53 ⇑P       P       07 56 53.3 +0.7
       baz=95
M13A   Montello        94.82  49 ⇓P       P       07 56 53.7 +0.2
       baz=95
HLID   Hailey          94.84  47  PFAKE           07 57 00.0 +6.4
HLID                              LR      LR
       comp=Z,2µm,20.0s,MS5.5
HLID   Hailey          94.84  47 ⇑P       P       07 56 53.9 +0.2
       baz=95
ARUT   Antelope Range  95.04  53  P       P       07 56 54.5 -0.2
H13A   Challis         95.05  46 ⇓P       P       07 56 54.2 -0.4
       baz=95
I13A   Wildhorse Cree  95.09  47 ⇓P       P       07 56 55.0 +0.2
       baz=95
F13A   Darby           95.11  45 ⇓P       P       07 56 54.8  0.0
       baz=95
G13A   Cobalt          95.12  45 ⇑P       P       07 56 54.2 -0.7
       baz=95
B13A   Whitefish       95.25  42 ⇓P       P       07 56 55.7 +0.4
       baz=95
MSO    Missoula        95.47  44  PFAKE           07 57 10.0  +14
MSO                               LR      LR
       comp=Z,1µm,19.0s,MS5.4
K14A   Jones Ranch, D  95.66  48 ⇑P       P       07 56 57.2 -0.1
       baz=96
DUG    Dugway          95.73  50  PFAKE           07 57 10.0  +12
DUG                               LR      LR
       comp=Z,1µm,20.0s,MS5.4
MSU    Marysvale       96.09  52 eP       P       07 56 59.5  0.0
YKA    Yellowknife Ar  96.27  28  P       P       07 56 58.6 -1.1
       comp=Z,3.8nm,0.8s,mb4.9,baz=266,slow=4.5,SNR=46
YKA                               PKKPbc  PKKPbc  08 13 43.6 -4.7
       comp=Z,0.4nm,0.5s,baz=83,slow=3.0,SNR=6.4
YKA                               LR      LR      08 39 10.0
       comp=Z,712nm,18.8s,MS5.2,baz=200,slow=35
YKW3   Yellowknife Ar  96.27  28 eP       P       07 56 58.6 -1.1
E15A   Deer Lodge      96.33  44 ⇑P       P       07 57 00.3 -0.1
       baz=96
G15A   Dillon          96.35  45 ⇓P       P       07 57 00.7 +0.2
       baz=96
F15A   Butte           96.40  45 ⇓P       P       07 57 01.5 +0.8
       baz=96
WUAZ   Wupatki         96.50  55  PFAKE           07 57 10.0 +8.6
WUAZ                              LR      LR
       comp=Z,2µm,20.0s,MS5.6
MPU    Maple Canyon    96.62  51  PFAKE           07 57 10.0 +8.2
MPU                               LR      LR
       comp=Z,2µm,21.0s,MS5.5
TUC    Tucson          96.74  58  PFAKE           07 57 10.0 +7.4
TUC                               LR      LR
       comp=Z,2µm,20.0s,MS5.6
HWUT   Hardware Ranch  96.78  49  PFAKE           07 57 10.0 +7.5
HWUT                              LR      LR
       comp=Z,1µm,20.0s,MS5.4
BOZ    Bozeman (W)     96.99  45 eP       P       07 57 02.3 -1.1
       comp=Z,9.5nm,1.8s,mb4.9
BOZ                               LR      LR
       comp=Z,1µm,21.0s,MS5.4
BOZ    Bozeman (W)     96.99  45 ⇓P       P       07 57 02.9 -0.4
       baz=97
AHID   Auburn Hatcher  97.20  48  PFAKE           07 57 20.0  +16
AHID                              LR      LR
       comp=Z,2µm,20.0s,MS5.6
YMR    Madison River   97.40  46  PFAKE           07 57 20.0  +15
YMR                               LR      LR
       comp=Z,2µm,20.0s,MS5.7
LKWY   Lake            97.80  46  PFAKE           07 57 20.0  +13
LKWY                              LR      LR
       comp=Z,1µm,19.0s,MS5.3
BW06   Boulder Array   98.33  48  PFAKE           07 57 20.0  +11
BW06                              LR      LR
       comp=Z,2µm,20.0s,MS5.6
PDAR   Pinedale Array  98.33  48  P       P       07 57 08.0 -1.5
       comp=Z,2.6nm,0.8s,mb4.8,baz=302,slow=2.8,SNR=20
PDAR                              LR      LR      08 39 09.2
       comp=Z,2µm,18.5s,MS5.6,baz=272,slow=34
EGMT   Eagleton        98.38  43  PFAKE           07 57 20.0  +10
EGMT                              LR      LR
       comp=Z,1µm,19.0s,MS5.5
RLMT   Red Lodge       98.63  46  PFAKE           07 57 20.0 +9.3
RLMT                              LR      LR
       comp=Z,2µm,19.0s,MS5.6
MVCO   Mesa Verde      98.92  54  PFAKE           07 57 20.0 +7.8
MVCO                              LR      LR
       comp=Z,1µm,20.0s,MS5.5
AB31   Akbulak array   99.36 319 i P      P       07 57 10.0 -3.9
AB31   Akbulak array   99.36 319 i P      P       07 57 10.9 -3.0
AB31                              pmax    pmax
       comp=Z,1.0nm,0.6s,mb4.5
MSEY   Mahe Island     99.62 264  PFAKE           07 57 30.0  +15
MSEY                              LR      LR
       comp=Z,977nm,22.0s,MS5.3
ARU    Arti           100.10 326 ePdif    Pdif    07 57 14.8 -2.4
ARU                               LR      LR
       comp=Z,883nm,20.0s,MS5.3
ARU    Arti           100.10 326d iP      Pdif    07 57 14.6 -2.5
ARU                              e                08 01 23.4
ARU                              ePPP             08 03 35.1
ARU                              eS       SKSac   08 07 49.3 -3.8
ARU                              eSP      SP      08 10 20.4 +2.8
ARU                              eSS      SS      08 15 45.5 +2.0
ARU                               pmax    pmax
       comp=Z,14nm,1.0s
ANMO   Albuquerque    100.49  56  PFAKE           07 57 30.0  +11
ANMO                              LR      LR
       comp=Z,967nm,19.0s,MS5.3
LAO    LASA Array     100.77  44  PFAKE           07 57 30.0  +10
LAO                               LR      LR
       comp=Z,2µm,20.0s,MS5.5
ISCO   Idaho Springs  101.24  51  PFAKE           07 57 30.0 +7.8
ISCO                              LR      LR
       comp=Z,1µm,19.0s,MS5.4
MNTX   Cornudas Mount 101.30  59  PFAKE           07 57 30.0 +7.6
MNTX                              LR      LR
       comp=Z,4µm,20.0s,MS5.9
SDCO   Great Sand Dun 101.32  53  PFAKE           07 57 30.0 +7.5
SDCO                              LR      LR
       comp=Z,2µm,21.0s,MS5.6
DGMT   Dagmar         102.09  42  PFAKE           07 57 40.0  +14
DGMT                              LR      LR
       comp=Z,1µm,20.0s,MS5.5
PMSA   Palmer Station 102.20 164  PFAKE           07 57 40.0  +14
PMSA                              LR      LR
       comp=Z,1µm,19.0s,MS5.5
RSSD   Black Hills    102.36  47  PFAKE           07 57 40.0  +13
RSSD                              LR      LR
       comp=Z,2µm,21.0s,MS5.7
LTX    Lajitas        102.71  62  PFAKE           07 57 40.0  +11
LTX                               LR      LR
       comp=Z,3µm,21.0s,MS5.8
FFC    Flin Flon      103.02  36  PFAKE           07 57 40.0  +10
FFC                               LR      LR
       comp=Z,3µm,19.0s,MS5.8
AMTX   Amarillo       104.41  56  PFAKE           07 57 50.0  +14
AMTX                              LR      LR
       comp=Z,2µm,19.0s,MS5.6
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CBKS	**Cedar Bluff**	**105.83**	**52**	PFAKE		08 02 10.0	+14
CBKS				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
PRGR	**Permogore**	**105.98**	**332**	*e*P	Pdif	07 57 40.7	-2.5
JCT	**Junction City**	**106.07**	**60**	PFAKE		08 02 10.0	+14
JCT				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
KBS	**Kingsbay**	**106.24**	**353**	PFAKE		08 02 10.0	+15
KBS				LR	LR		
	comp=Z,976nm,22.0s,MS5.3						
WMOK	**Wichita Mounta**	**106.80**	**56**	PFAKE		08 02 10.0	+12
WMOK				LR	LR		
	comp=Z,987nm,20.0s,MS5.4						
ULM	**Lac du Bonnet**	**107.31**	**40**	PFAKE		08 02 10.0	+12
ULM				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
AGMN	**Agassiz Refuge**	**107.63**	**42**	PFAKE		08 02 10.0	+11
AGMN				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
ECSD	**EROS,Sioux Fal**	**107.74**	**47**	PFAKE		08 02 10.0	+11
ECSD				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
KVTX	**Kingsville**	**107.79**	**64**	PFAKE		08 02 10.0	+10
KVTX				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
LVZ	**Lovozero**	**108.18**	**340**	PFAKE		08 02 10.0	+11
LVZ				LR	LR		
	comp=Z,932nm,22.0s,MS5.3						
KSU1	**Kansas State U**	**108.23**	**51**	PFAKE		08 02 10.0	+10
KSU1				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
HKT	**Hockley**	**109.52**	**61**	PFAKE		08 02 10.0	+7.3
HKT				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
KEV	**Kevo**	**109.61**	**343**	PFAKE		08 02 10.0	+8.3
KEV				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
ARCES	**ARCESS Array B**	**110.17**	**343**	Pdiff	PKiKP	08 02 01.9	-0.8
	comp=Z,3.6nm,1.0s,baz=92,slow=2.0,SNR=19						
NATX	**Nacogdoches**	**110.42**	**59**	PFAKE		08 02 20.0	+16
NATX				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
SCIA	**State Center**	**110.46**	**48**	PFAKE		08 02 20.0	+16
SCIA				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
EYMN	**Ely**	**110.57**	**41**	PFAKE		08 02 20.0	+16
EYMN				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
MIAR	**Mount Ida**	**111.10**	**56**	PFAKE		08 02 20.0	+14
MIAR				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
KIV	**Kislovodsk**	**111.68**	**314**	PFAKE		08 02 20.0	+14
KIV				LR	LR		
	comp=Z,784nm,22.0s,MS5.2						
JOF	**Joensuu**	**111.73**	**336**	*e*pkp	PKiKP	08 02 04.0	-1.9
JOF	**Joensuu**	**111.73**	**336**	*e*PKP	PKiKP	08 02 04.0	-1.9
JOF	**Joensuu**	**111.73**	**336**	*e*PKIKP	PKiKP	08 02 04.0	-1.9
JFWS	**Jewell Farm**	**112.45**	**47**	PFAKE		08 02 20.0	+12
JFWS				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
OBN	**Obninsk**	**112.49**	**327**	PFAKE		08 02 20.0	+12
OBN				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
PAYG	**Puerto Ayora**	**113.59**	**94**	PFAKE		08 02 20.0	+9.1
PAYG				LR	LR		
	comp=Z,826nm,19.0s,MS5.3						
HDIL	**Hopedale**	**113.61**	**49**	PFAKE		08 02 20.0	+10
HDIL				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
KAF	**Kangasniemi**	**114.14**	**337**	*e*pkp	PKiKP	08 02 07.5	-3.0
KAF	**Kangasniemi**	**114.14**	**337**	*e*PKP	PKiKP	08 02 07.5	-3.0
KAF	**Kangasniemi**	**114.14**	**337**	*e*PKIKP	PKiKP	08 02 07.5	-3.0
EFI	**East Falkland**	**114.41**	**158**	PFAKE		08 02 20.0	+8.6
EFI				LR	LR		
	comp=Z,634nm,19.0s,MS5.2						
OXF	**Oxford**	**114.52**	**55**	PFAKE		08 02 20.0	+7.9
OXF				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
FINES	**FINESS Array B**	**114.60**	**336**	PKP	PKiKP	08 02 10.3	-1.1
FINES				P'P'		08 21 24.1	
FINES	**FINESS Array B**	**114.60**	**336**	PKIKP	PKiKP	08 02 10.3	-1.1
FINES	**FINESS Array B**	**114.60**	**336**	PKP	PKiKP	08 02 10.3	-1.1
	comp=Z,3.7nm,0.8s,baz=103,slow=3.1,SNR=12						
FINES				PKPPKP		08 21 24.1	
	comp=Z,0.8nm,0.5s,baz=49,slow=3.3,SNR=10						
PLAL	**Pickwick Lake**	**115.53**	**55**	PFAKE		08 02 30.0	+16
PLAL				LR	LR		
	comp=Z,959nm,21.0s,MS5.4						
WVT	**Waverly**	**115.54**	**54**	PFAKE		08 02 30.0	+16
WVT				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
GLMI	**Grayling**	**115.95**	**44**	PFAKE		08 02 30.0	+15
GLMI				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
WCI	**Wyandotte Cave**	**116.34**	**51**	PFAKE		08 02 30.0	+15
WCI				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
LRAL	**Lakeview Retre**	**116.72**	**57**	PFAKE		08 02 30.0	+14
LRAL				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
TEIG	**Tepich**	**116.79**	**71**	PFAKE		08 02 30.0	+13
TEIG				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
BRAL	**Brewton**	**116.97**	**59**	PFAKE		08 02 30.0	+13
BRAL				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
AAM	**Ann Arbor**	**117.33**	**46**	PFAKE		08 02 30.0	+13
AAM				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
HOPE	**Hope Point**	**117.72**	**172**	PFAKE		08 02 30.0	+12
HOPE				LR	LR		
	comp=Z,6.0nm,21.0s						
SFJD	**Kangerlussuaq**	**117.78**	**11**	PFAKE		08 02 30.0	+13
SFJD				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
TGUH	**Tegucigalpa,Un**	**117.80**	**78**	PFAKE		08 02 30.0	+11
TGUH				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
KMBO	**Kilima Mbogo**	**118.15**	**265**	PFAKE		08 02 30.0	+10
KMBO				LR	LR		
	comp=Z,787nm,20.0s,MS5.3						
AKASG	**Malin Array Be**	**118.31**	**325**	PKP	PKPdf	08 02 17.4	-1.5
AKASG				PKKPbc	PKKPbc	08 12 36.0	-2.8
AKASG	**Malin Array Be**	**118.31**	**325**	PKIKP	PKPdf	08 02 17.4	-1.5
AKASG	**Malin Array Be**	**118.31**	**325**	PKP	PKPdf	08 02 17.4	-1.5
	comp=Z,1.6nm,0.5s,baz=60,slow=2.3,SNR=16						
AKASG				PKKPbc	PKKPbc	08 12 36.0	-2.8
	comp=Z,0.6nm,0.5s,baz=257,slow=4.1,SNR=6.6						
AKBB	**Malin Array Si**	**118.31**	**325**	*e*PKPdf	PKPdf	08 02 16.8	-2.1
AKBB	**Malin Array Si**	**118.31**	**325**	*e*PKIKP	PKPdf	08 02 16.8	-2.1
KIEV	**Kiev**	**118.32**	**325**	PFAKE		08 02 30.0	+11
KIEV				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
ACSO	**Alum Creek Sta**	**118.37**	**48**	PFAKE		08 02 30.0	+11
ACSO				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
TZTN	**Tazewell**	**118.84**	**52**	PFAKE		08 02 30.0	+10
TZTN				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
BR131	**Keskin Array S**	**119.23**	**312**	PFAKE		08 02 30.0	+9.0
BR131				LR	LR		
	comp=Z,367nm,20.0s,MS5.0						
BRTR	**Keskin Array B**	**119.23**	**312**	PKP	PKPdf	08 02 19.6	-1.5
BRTR				PKKPbc	PKKPbc	08 12 33.1	-1.9
BRTR	**Keskin Array B**	**119.23**	**312**	PKIKP	PKPdf	08 02 19.6	-1.4
BRTR	**Keskin Array B**	**119.23**	**312**	PKP	PKPdf	08 02 19.6	-1.5
	comp=Z,1.3nm,0.7s,baz=63,slow=3.1,SNR=6.5						
BRTR				PKKPbc	PKKPbc	08 12 33.1	-1.9
	comp=Z,1.0nm,0.7s,baz=210,slow=3.8,SNR=5.7						
GOGA	**Godfrey**	**119.57**	**56**	PFAKE		08 02 30.0	+8.2
GOGA				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
ANTO	**Ankara**	**119.82**	**312**	PFAKE		08 02 30.0	+7.9
ANTO				LR	LR		
	comp=Z,453nm,22.0s,MS5.1						
JTS	**JuntasAbangare**	**119.95**	**82**	PFAKE		08 02 30.0	+6.9
JTS				LR	LR		
	comp=Z,764nm,20.0s,MS5.3						
NB2	**NORSAR Subarra**	**120.31**	**341**	PKPd	PKPdf	08 02 20.5	-1.9
	comp=Z,2.5nm,0.9s,baz=44,slow=1.9						
NOA	**NORSAR Array B**	**120.31**	**341**	PKP	PKPdf	08 02 21.1	-1.3
NOA	**NORSAR Array B**	**120.31**	**341**	PKIKP	PKPdf	08 02 21.1	-1.3
NOA	**NORSAR Array B**	**120.31**	**341**	PKP	PKPdf	08 02 21.1	-1.3
	comp=Z,2.9nm,0.9s,baz=45,slow=1.9,SNR=7.1						
BOSA	**Boshof**	**120.43**	**231**	PKP	PKPdf	08 02 22.8	-0.9
BOSA				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
BOSA	**Boshof**	**120.43**	**231**	PKIKP	PKPdf	08 02 22.8	-0.9
BOSA				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.7						
BOSA	**Boshof**	**120.43**	**231**	PKP	PKPdf	08 02 22.8	-0.9
	comp=Z,4.4nm,0.8s,baz=33,slow=0.5,SNR=6.8						
MCWV	**Mont Chateau**	**120.85**	**48**	PFAKE		08 02 40.0	+16
MCWV				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
BLA	**Blacksburg**	**121.11**	**51**	PFAKE		08 02 40.0	+15
BLA				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
LVV	**L'vov**	**121.67**	**325**	*i* PKIKP	PKPdf	08 02 22.5	-2.9
SUR	**Sutherland**	**121.72**	**225**	PFAKE		08 02 40.0	+14
SUR				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
SCHQ	**Schefferville**	**121.72**	**27**	PFAKE		08 02 40.0	+15
SCHQ				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
LBTB	**Lobatse**	**121.84**	**235**	PFAKE		08 02 40.0	+14
LBTB				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
KONO	**Kongsberg**	**121.89**	**341**	PFAKE		08 02 40.0	+15
KONO				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
SSPA	**Standing Stone**	**121.96**	**46**	PFAKE		08 02 40.0	+14
SSPA				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
BURAR	**Bucovina Array**	**122.03**	**323**	⇑PKIKP	PKPdf	08 02 26.8	+0.7
BURAR	**Bucovina Array**	**122.03**	**323**	⇑*i*P	PKPdf	08 02 26.8	+0.7
DWPF	**Disney**	**122.25**	**61**	PFAKE		08 02 40.0	+13
DWPF				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
NHSC	**New Hope**	**122.33**	**55**	PFAKE		08 02 40.0	+13
NHSC				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
LCO	**Las Campanas**	**122.44**	**131**	PFAKE		08 02 40.0	+12
LCO				LR	LR		
	comp=Z,919nm,19.0s,MS5.5						
MLR	**Muntele Rosu**	**122.53**	**320**	⇑P	PKPdf	08 02 26.9	-0.2
MLR	**Muntele Rosu**	**122.53**	**320**	⇑PKIKP	PKPdf	08 02 26.9	-0.3
MLR	**Muntele Rosu**	**122.53**	**320**	⇑*i*P	PKPdf	08 02 26.9	-0.3
LONY	**Lake Ozonia**	**122.72**	**41**	PFAKE		08 02 40.0	+12
LONY				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
BINY	**Binghamton**	**122.74**	**44**	PFAKE		08 02 40.0	+12
BINY				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
KOLS	**Kolonicke sedl**	**123.11**	**325**	*e*PKP	PKPdf	08 02 28.4	+0.2
KOLS				*e*		08 02 39.8	
KOLS	**Kolonicke sedl**	**123.11**	**325**	*e*PKIKP	PKPdf	08 02 28.4	+0.2
KOLS				*e*		08 02 39.8	
KOLS	**Kolonicke sedl**	**123.11**	**325**	*e*PKP	PKPdf	08 02 28.4	+0.2
KOLS				*e*		08 02 39.8	
CBN	**Corbin**	**123.13**	**49**	PFAKE		08 02 40.0	+11
CBN				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
NCB	**Newcomb**	**123.23**	**41**	PFAKE		08 02 40.0	+11
NCB				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
UZH	**Uzhgorod**	**123.25**	**325**	*e*PKIKP	PKPdf	08 02 33.5	+5.1
STHS	**Stebnicka Huta**	**123.43**	**326**	*e*PKP	PKPdf	08 02 29.2	+0.4
STHS				*e*		08 02 39.4	
STHS	**Stebnicka Huta**	**123.43**	**326**	*e*PKIKP	PKPdf	08 02 29.2	+0.4
STHS				*e*		08 02 39.4	
STHS	**Stebnicka Huta**	**123.43**	**326**	*e*PKP	PKPdf	08 02 29.2	+0.4
STHS				*e*		08 02 39.4	
LSZ	**Lusaka**	**123.45**	**246**	PFAKE		08 02 40.0	+10
LSZ				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
CRVS	**Cervenica-Dubn**	**123.58**	**326**	*e*PKP	PKPdf	08 02 28.8	-0.3
CRVS	**Cervenica-Dubn**	**123.58**	**326**	*e*PKIKP	PKPdf	08 02 28.8	-0.3
CRVS	**Cervenica-Dubn**	**123.58**	**326**	*e*PKP	PKPdf	08 02 28.8	-0.3
CNNC	**Cliffs of the**	**123.62**	**52**	PFAKE		08 02 40.0	+10
CNNC				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
OJC	**Ojcow**	**123.78**	**328**	*e*PKP	PKPdf	08 02 33.0	+3.6
OJC	**Ojcow**	**123.78**	**328**	*e*PKIKP	PKPdf	08 02 33.0	+3.6
DRGR		**123.93**	**323**	⇓P	PKPdf	08 02 27.2	-2.5
DRGR		**123.93**	**323**	⇓PKIKP	PKPdf	08 02 27.3	-2.5
DRGR		**123.93**	**323**	⇓*i*P	PKPdf	08 02 27.3	-2.5
NNA	**Nana**	**124.22**	**110**	PFAKE		08 02 40.0	+8.7
NNA				LR	LR		
	comp=Z,702nm,19.0s,MS5.3						
GZR	**Gura Zlata**	**124.56**	**321**	⇑P	PKPdf	08 02 31.2	+0.1
GZR	**Gura Zlata**	**124.56**	**321**	⇑PKIKP	PKPdf	08 02 31.2	+0.1
GZR	**Gura Zlata**	**124.56**	**321**	⇑*i*P	PKPdf	08 02 31.2	+0.1
LBNH	**Lisbon**	**124.60**	**40**	PFAKE		08 02 40.0	+8.8
LBNH				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
BZS	**Buzias**	**125.17**	**322**	⇓P	PKPdf	08 02 31.9	-0.3
BZS	**Buzias**	**125.17**	**322**	⇓PKIKP	PKPdf	08 02 31.9	-0.3
BZS	**Buzias**	**125.17**	**322**	⇓*i*P	PKPdf	08 02 31.9	-0.3
KSP	**Ksiaz**	**125.22**	**330**	*e*PKP	PKPdf	08 02 32.5	+0.4
KSP				*e*pPKP	pPKPdf	08 02 42.0	-1.5
KSP				LR	LR		
	comp=Z,2µm,22.4s,MS5.7						
KSP	**Ksiaz**	**125.22**	**330**	*e*PKIKP	PKPdf	08 02 32.5	+0.4
KSP				*e*		08 02 42.0	
MORC	**Moravsky Berou**	**125.23**	**328**	*e*PKPdf	PKPdf	08 02 32.4	+0.3
MORC	**Moravsky Berou**	**125.23**	**328**	⇑PKIKP	PKPdf	08 02 32.4	+0.2
MORC	**Moravsky Berou**	**125.23**	**328**	⇑*i*P	PKPdf	08 02 32.4	+0.2
VYHS	**Vyhne**	**125.27**	**326**	*e*PKP	PKPdf	08 02 32.2	-0.1
VYHS				*e*		08 02 41.5	
VYHS	**Vyhne**	**125.27**	**326**	*e*PKIKP	PKPdf	08 02 32.2	-0.1
VYHS				*e*		08 02 41.5	
VYHS	**Vyhne**	**125.27**	**326**	*e*PKP	PKPdf	08 02 32.2	-0.1
VYHS				*e*		08 02 41.5	
OTAV	**Otavalo**	**125.43**	**95**	PFAKE		08 02 50.0	+16
OTAV				LR	LR		
	comp=Z,656nm,20.0s,MS5.3						
DPC	**Dobruska-Polom**	**125.51**	**329**	*e*PKP	PKPdf	08 02 33.0	+0.3
DPC				*e*		08 02 41.7	
DPC	**Dobruska-Polom**	**125.51**	**329**	*e*PKIKP	PKPdf	08 02 33.0	+0.3
DPC				*e*		08 02 41.7	
DPC	**Dobruska-Polom**	**125.51**	**329**	*e*PKPdf	PKPdf	08 02 33.0	+0.3
DPC				*e*pPKP	pPKPdf	08 02 41.7	-2.4
VTS	**Vitosha**	**125.57**	**318**	⇓P	PKPdf	08 02 33.2	+0.1
VTS	**Vitosha**	**125.57**	**318**	⇓PKIKP	PKPdf	08 02 33.2	+0.1
VTS	**Vitosha**	**125.57**	**318**	⇓*i*P	PKPdf	08 02 33.2	+0.1
UPC	**Upice**	**125.57**	**330**	*e*PKP	PKPdf	08 02 33.3	+0.5
UPC				*e*		08 02 40.8	
UPC	**Upice**	**125.57**	**330**	*e*PKIKP	PKPdf	08 02 33.3	+0.5
UPC				*e*		08 02 40.8	
UPC	**Upice**	**125.57**	**330**	*e*PKPdf	PKPdf	08 02 33.3	+0.5
UPC				*e*pPKP	pPKPdf	08 02 40.8	-3.4
HRV	**Harvard--Oak R**	**125.61**	**42**	PFAKE		08 02 40.0	+6.8
HRV				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
PKME	**Peaks-Kenny Pk**	**125.76**	**38**	PFAKE		08 02 40.0	+6.6
PKME				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
WES	**Weston**	**125.82**	**42**	PFAKE		08 02 40.0	+6.4
WES				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
BSEG	**Bad Segeberg**	**125.87**	**336**	*e*PKPdf	PKPdf	08 02 33.7	+0.4
BSEG	**Bad Segeberg**	**125.87**	**336**	*e*PKIKP	PKPdf	08 02 33.7	+0.4
PVCC	**Panska Ves**	**126.28**	**330**	*e*PKP	PKPdf	08 02 34.5	+0.3
PVCC	**Panska Ves**	**126.28**	**330**	*e*PKIKP	PKPdf	08 02 34.5	+0.3
PVCC	**Panska Ves**	**126.28**	**330**	*e*PKPdf	PKPdf	08 02 34.5	+0.3
BRG	**Berggiesshubel**	**126.36**	**331**	*e*PKP	PKPdf	08 02 34.3	0.0
BRG				*e*		08 02 44.4	
BRG	**Berggiesshubel**	**126.36**	**331**	*e*PKIKP	PKPdf	08 02 34.3	0.0
BRG				*e*		08 02 44.3	
BRG				pmax	pmax		
	comp=Z,7.0nm,1.0s						
BRG				pmax	pmax		
	comp=Z,15nm,1.2s						
BRG	**Berggiesshubel**	**126.36**	**331**	*e*PKP	PKPdf	08 02 34.3	0.0
	comp=Z,12nm,1.0s						
BRG				*e*		08 02 44.4	
	comp=Z,24nm,1.2s						
CLL	**Collm**	**126.52**	**332**	*i* PKP	PKPdf	08 02 34.3	-0.3
CLL				*i* pPKP	pPKPdf	08 02 44.1	-1.8
CLL	**Collm**	**126.52**	**332**	*i* PKIKP	PKPdf	08 02 34.3	-0.3
CLL				*i*		08 02 44.1	
CLL				pmax	pmax		
	comp=Z,12nm,0.9s						
CLL	**Collm**	**126.52**	**332**	*i* PKPdf	PKPdf	08 02 34.3	-0.3
	comp=Z,12nm,0.9s						
CLL				*i* pPKPdf	pPKPdf	08 02 44.1	-1.8
TREC	**Trest**	**126.59**	**329**	*e*PKIKP	PKPdf	08 02 34.8	0.0
TREC				*e*		08 02 43.7	
TREC	**Trest**	**126.59**	**329**	*e*PKPdf	PKPdf	08 02 34.8	0.0
TREC				*e*pPKP	pPKPdf	08 02 43.7	-2.4
PRU	**Pruhonice**	**126.63**	**330**	*e*PKP	PKPdf	08 02 33.6	-1.3
PRU				*e*		08 02 43.7	
PRU	**Pruhonice**	**126.63**	**330**	*e*PKIKP	PKPdf	08 02 33.6	-1.3
PRU				*e*		08 02 43.7	
PRU	**Pruhonice**	**126.63**	**330**	*e*PKPdf	PKPdf	08 02 33.6	-1.3
PRU				*e*pPKP	pPKPdf	08 02 43.7	-2.5
PKSM	**Moragy**	**126.64**	**324**	⇓P	PKPdf	08 02 34.9	-0.2
PKSM	**Moragy**	**126.64**	**324**	⇓PKIKP	PKPdf	08 02 34.9	-0.1
PKSM	**Moragy**	**126.64**	**324**	⇓*i*P	PKPdf	08 02 34.8	-0.2
CLZ	**Clausthal**	**127.34**	**334**	*e*PKPdf	PKPdf	08 02 36.3	+0.1
CLZ	**Clausthal**	**127.34**	**334**	*e*PKIKP	PKPdf	08 02 36.3	+0.1
NKC	**Novy Kostel**	**127.50**	**331**	*e*PKP	PKPdf	08 02 36.6	+0.1
NKC				*e*		08 02 45.7	
NKC	**Novy Kostel**	**127.50**	**331**	*e*PKIKP	PKPdf	08 02 36.6	+0.1
NKC				*e*		08 02 45.7	
NKC	**Novy Kostel**	**127.50**	**331**	*e*PKPdf	PKPdf	08 02 36.6	+0.1
NKC				*e*pPKP	pPKPdf	08 02 45.7	-2.2
MOX	**Moxa**	**127.61**	**332**	*e*PKP	PKPdf	08 02 38.8	+2.1
MOX	**Moxa**	**127.61**	**332**	*e*PKP	PKPdf	08 02 38.8	+2.1
	comp=Z,34nm,1.9s						
MOX							
	comp=Z,800nm,21.0s						
MOX	**Moxa**	**127.61**	**332**	*e*PKIKP	PKPdf	08 02 38.8	+2.1
MOX				pmax	pmax		
	comp=Z,34nm,1.9s						
MOX				MLR	MLR		
	comp=Z,800nm,21.0s,MS5.4						
KHC	**Kasperske Hory**	**127.66**	**329**	*e*PKP	PKPdf	08 02 36.9	0.0
KHC				*e*		08 02 44.9	
KHC	**Kasperske Hory**	**127.66**	**329**	*e*PKIKP	PKPdf	08 02 36.9	0.0
KHC				*e*		08 02 44.9	
KHC	**Kasperske Hory**	**127.66**	**329**	*e*PKPdf	PKPdf	08 02 36.9	0.0
KHC				*e*pPKP	pPKPdf	08 02 44.9	-3.3
GEC2	**GERESS Array S**	**127.78**	**329**	*e*PKPdf	PKPdf	08 02 37.2	+0.1
GEC2	**GERESS Array S**	**127.78**	**329**	*e*PKIKP	PKPdf	08 02 37.2	+0.1
GERES	**GERESS Array B**	**127.78**	**329**	PKP	PKPdf	08 02 36.7	-0.4
GERES	**GERESS Array B**	**127.78**	**329**	PKIKP	PKPdf	08 02 36.7	-0.4
GERES	**GERESS Array B**	**127.78**	**329**	PKP	PKPdf	08 02 36.7	-0.4
	comp=Z,4.5nm,0.8s,baz=73,slow=1.8,SNR=21						
WET	**Wettzell**	**128.00**	**330**	*e*PKPdf	PKPdf	08 02 37.6	+0.1
WET	**Wettzell**	**128.00**	**330**	*e*PKIKP	PKPdf	08 02 37.6	+0.1
GRA1	**Grafenberg Arr**	**128.45**	**331**	*e*PKPdf	PKPdf	08 02 38.4	+0.1
GRA1				*e*		08 02 48.9	
GRF	**Grafenberg Arr**	**128.45**	**331**	*e*PKP	PKPdf	08 02 38.4	+0.1
GRF				*e*		08 02 48.9	
GRF	**Grafenberg Arr**	**128.45**	**331**	*e*PKIKP	PKPdf	08 02 38.4	+0.1
GRF				*e*		08 02 48.9	
GRF	**Grafenberg Arr**	**128.45**	**331**	*e*PKIKP	PKPdf	08 02 38.4	+0.1
GRF				*e*		08 02 48.9	
GRFO	**Grafenberg**	**128.45**	**331**	PFAKE		08 02 50.0	+12
GRFO				LR	LR		
	comp=Z,806nm,19.0s,MS5.4						
GCIS	**Gornji Cirnik**	**128.57**	**325**	*e*PKPdf	PKPdf	08 02 38.7	0.0
BOJS	**Bojanci**	**128.99**	**325**	*e*PKPdf	PKPdf	08 02 39.8	+0.3
LJU	**Ljubljana**	**129.08**	**326**	*e*PKPdf	PKPdf	08 02 39.7	+0.1
ESK	**Eskdalemuir**	**129.33**	**345**	PFAKE		08 02 50.0	+10
ESK				LR	LR		
	comp=Z,756nm,19.0s,MS5.4						
TNS	**Taunus Mts**	**129.35**	**333**	*e*PKPdf	PKPdf	08 02 40.5	+0.4
TNS	**Taunus Mts**	**129.35**	**333**	*e*PKIKP	PKPdf	08 02 40.5	+0.4
ROSC	**El Rosal**	**130.09**	**90**	*e*PKPdf	PKPdf	08 02 41.9	-0.7
ROSC	**El Rosal**	**130.09**	**90**	PKP	PKPdf	08 02 41.6	-0.9
	comp=Z,7.3nm,0.5s,baz=346,slow=4.2,SNR=7.5						
MEM	**Membach**	**130.12**	**335**	PKPdf	PKPdf	08 02 40.7	-0.8
LPAZ	**La Paz**	**130.57**	**119**	*e*PKPdf	PKPdf	08 02 44.3	+0.9
LPAZ				LR	LR		
	comp=Z,502nm,21.0s,MS5.2						
LPAZ	**La Paz**	**130.57**	**119**	PKIKP	PKPdf	08 02 38.5	-4.8
LPAZ	**La Paz**	**130.57**	**119**	PKP	PKPdf	08 02 43.4	+0.1
	comp=Z,7.5nm,0.9s,baz=6.5,slow=1.4,SNR=20						
BFO	**Black Forest**	**130.76**	**332**	PFAKE		08 02 50.0	+7.2
BFO				LR	LR		
	comp=Z,852nm,19.0s,MS5.5						
GIVF	**Givet**	**130.99**	**336**	*e*PKIKP	PKPdf	08 02 42.7	-0.5
GIVF	**Givet**	**130.99**	**336**	*e*PKPdf	PKPdf	08 02 42.7	-0.5
GIVF	**Givet**	**130.99**	**336**	*e*PKIKP	PKPdf	08 02 42.7	-0.5
TSUM	**Tsumeb**	**131.12**	**237**	PFAKE		08 03 00.0	+16
TSUM				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
CDF	**Champ du Feu**	**131.19**	**332**	*e*PKIKP	PKPdf	08 02 42.8	-0.8
CDF	**Champ du Feu**	**131.19**	**332**	*e*PKPdf	PKPdf	08 02 42.8	-0.8
CDF	**Champ du Feu**	**131.19**	**332**	*e*PKIKP	PKPdf	08 02 42.8	-0.8
BAIF	**Baives**	**131.28**	**336**	*e*PKIKP	PKPdf	08 02 43.3	-0.4
	comp=Z,18nm,1.0s						
BAIF	**Baives**	**131.28**	**336**	*e*PKPdf	PKPdf	08 02 43.3	-0.4
BAIF	**Baives**	**131.28**	**336**	*e*PKIKP	PKPdf	08 02 43.3	-0.4
HINF	**Hinteralfeld**	**131.82**	**332**	*e*PKIKP	PKPdf	08 02 44.1	-0.7
HINF	**Hinteralfeld**	**131.82**	**332**	*e*PKPdf	PKPdf	08 02 44.1	-0.7
HINF	**Hinteralfeld**	**131.82**	**332**	*e*PKIKP	PKPdf	08 02 44.1	-0.7
HAU	**Haudompre**	**131.91**	**333**	*e*PKIKP	PKPdf	08 02 44.4	-0.6
	comp=Z,24nm,0.9s						
HAU	**Haudompre**	**131.91**	**333**	*e*PKPdf	PKPdf	08 02 44.4	-0.6
HAU	**Haudompre**	**131.91**	**333**	*e*PKIKP	PKPdf	08 02 44.4	-0.6
MEZF	**Maizieres J'vi**	**132.12**	**334**	*e*PKIKP	PKPdf	08 02 45.2	-0.2
MEZF	**Maizieres J'vi**	**132.12**	**334**	*e*PKPdf	PKPdf	08 02 45.2	-0.2
SDDR	**Presa de Saban**	**132.84**	**71**	PFAKE		08 03 00.0	+12
SDDR				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
CABF	**La Chapelle**	**133.06**	**332**	*e*PKIKP	PKPdf	08 02 46.6	-0.6
	comp=Z,30nm,1.1s						
CABF	**La Chapelle**	**133.06**	**332**	*e*PKPdf	PKPdf	08 02 46.6	-0.6
CABF	**La Chapelle**	**133.06**	**332**	*e*PKIKP	PKPdf	08 02 46.6	-0.6
LPL	**La Plagne**	**133.53**	**330**	*e*PKIKP	PKPdf	08 02 48.1	0.0
	comp=Z,24nm,0.9s						
LPL	**La Plagne**	**133.53**	**330**	*e*PKPdf	PKPdf	08 02 48.1	0.0
LPL	**La Plagne**	**133.53**	**330**	*e*PKIKP	PKPdf	08 02 48.1	0.0
LPG	**La Plagne**	**133.54**	**330**	*e*PKIKP	PKPdf	08 02 48.2	+0.1
	comp=Z,38nm,1.1s						
LPG	**La Plagne**	**133.54**	**330**	*e*PKPdf	PKPdf	08 02 48.2	+0.1
LPG	**La Plagne**	**133.54**	**330**	*e*PKIKP	PKPdf	08 02 48.2	+0.1
LOR	**Lormes**	**133.58**	**334**	*e*PKIKP	PKPdf	08 02 47.7	-0.5
	comp=Z,20nm,1.0s						
LOR	**Lormes**	**133.58**	**334**	*e*PKPdf	PKPdf	08 02 47.7	-0.5
LOR	**Lormes**	**133.58**	**334**	*e*PKIKP	PKPdf	08 02 47.7	-0.5
SSF	**Saint Saulge**	**133.89**	**334**	*e*PKIKP	PKPdf	08 02 48.6	-0.1
	comp=Z,21nm,0.9s						
SSF	**Saint Saulge**	**133.89**	**334**	*e*PKPdf	PKPdf	08 02 48.6	-0.1
SSF	**Saint Saulge**	**133.89**	**334**	*e*PKIKP	PKPdf	08 02 48.6	-0.1
SMF	**Signal de Mont**	**134.06**	**333**	*e*PKIKP	PKPdf	08 02 48.8	-0.3
	comp=Z,16nm,1.0s						
SMF	**Signal de Mont**	**134.06**	**333**	*e*PKPdf	PKPdf	08 02 48.8	-0.3
SMF	**Signal de Mont**	**134.06**	**333**	*e*PKIKP	PKPdf	08 02 48.8	-0.3
MBDF	**Montbardon**	**134.07**	**329**	*e*PKIKP	PKPdf	08 02 48.7	-0.5
MBDF	**Montbardon**	**134.07**	**329**	*e*PKPdf	PKPdf	08 02 48.7	-0.5
MBDF	**Montbardon**	**134.07**	**329**	*e*PKIKP	PKPdf	08 02 48.7	-0.5
FLN	**La Foliniere**	**134.13**	**338**	*e*PKIKP	PKPdf	08 02 48.7	-0.4
	comp=Z,40nm,1.0s						
FLN	**La Foliniere**	**134.13**	**338**	*e*PKPdf	PKPdf	08 02 48.7	-0.4
FLN	**La Foliniere**	**134.13**	**338**	*e*PKIKP	PKPdf	08 02 48.7	-0.4
LDF	**La Druitiere**	**134.14**	**338**	*e*PKIKP	PKPdf	08 02 48.5	-0.7
	comp=Z,66nm,1.4s						
LDF	**La Druitiere**	**134.14**	**338**	*e*PKPdf	PKPdf	08 02 48.5	-0.7
LDF	**La Druitiere**	**134.14**	**338**	*e*PKIKP	PKPdf	08 02 48.5	-0.7
AVF	**Avril sur Loir**	**134.17**	**334**	*e*PKIKP	PKPdf	08 02 48.6	-0.7
AVF	**Avril sur Loir**	**134.17**	**334**	*e*PKPdf	PKPdf	08 02 48.6	-0.7
AVF	**Avril sur Loir**	**134.17**	**334**	*e*PKIKP	PKPdf	08 02 48.6	-0.7
SBF	**Sospel**	**134.33**	**328**	*e*PKIKP	PKPdf	08 02 48.9	-0.8
SBF	**Sospel**	**134.33**	**328**	*e*PKPdf	PKPdf	08 02 48.9	-0.8
SBF	**Sospel**	**134.33**	**328**	*e*PKIKP	PKPdf	08 02 48.9	-0.8
PGF	**Pioggiola**	**134.36**	**326**	*e*PKIKP	PKPdf	08 02 49.3	-0.5
	comp=Z,47nm,1.0s						
PGF	**Pioggiola**	**134.36**	**326**	*e*PKPdf	PKPdf	08 02 49.3	-0.5
PGF	**Pioggiola**	**134.36**	**326**	*e*PKIKP	PKPdf	08 02 49.3	-0.5
ORIF	**Oris-en-Rattie**	**134.38**	**330**	*e*PKIKP	PKPdf	08 02 49.3	-0.4
ORIF	**Oris-en-Rattie**	**134.38**	**330**	*e*PKPdf	PKPdf	08 02 49.3	-0.4
ORIF	**Oris-en-Rattie**	**134.38**	**330**	*e*PKIKP	PKPdf	08 02 49.3	-0.4
BGF	**Bois d'Agland**	**134.57**	**334**	*e*PKIKP	PKPdf	08 02 49.6	-0.4
BGF	**Bois d'Agland**	**134.57**	**334**	*e*PKPdf	PKPdf	08 02 49.6	-0.4
BGF	**Bois d'Agland**	**134.57**	**334**	*e*PKIKP	PKPdf	08 02 49.6	-0.4
GRR	**Gorron**	**134.59**	**338**	*e*PKIKP	PKPdf	08 02 49.5	-0.5
GRR	**Gorron**	**134.59**	**338**	*e*PKPdf	PKPdf	08 02 49.5	-0.5
GRR	**Gorron**	**134.59**	**338**	*e*PKIKP	PKPdf	08 02 49.5	-0.5
FRF	**La Foret Royal**	**134.95**	**328**	*e*PKIKP	PKPdf	08 02 50.0	-0.8
FRF	**La Foret Royal**	**134.95**	**328**	*e*PKPdf	PKPdf	08 02 50.0	-0.8
FRF	**La Foret Royal**	**134.95**	**328**	*e*PKIKP	PKPdf	08 02 50.0	-0.8
VIVF	**Saint-Julien-l**	**135.02**	**331**	*e*PKIKP	PKPdf	08 02 50.5	-0.4
	comp=Z,17nm,1.0s						
VIVF	**Saint-Julien-l**	**135.02**	**331**	*e*PKPdf	PKPdf	08 02 50.5	-0.4
VIVF	**Saint-Julien-l**	**135.02**	**331**	*e*PKIKP	PKPdf	08 02 50.5	-0.4

TCF	Toulx Ste Croi	135.06	334	ePKIKP	PKPdf	08 02 50.1	-0.9
	comp=Z,22nm,0.9s						
TCF	Toulx Ste Croi	135.06	334	ePKPdf	PKPdf	08 02 50.1	-0.9
TCF	Toulx Ste Croi	135.06	334	ePKIKP	PKPdf	08 02 50.1	-0.9
SGMF	Saint Gilles	135.31	340	ePKIKP	PKPdf	08 02 51.1	-0.3
SGMF	Saint Gilles	135.31	340	ePKPdf	PKPdf	08 02 51.1	-0.3
SGMF	Saint Gilles	135.31	340	ePKIKP	PKPdf	08 02 51.1	-0.3
MFF	Saint Martin d	135.79	336	ePKIKP	PKPdf	08 02 51.8	-0.5
MFF	Saint Martin d	135.79	336	ePKPdf	PKPdf	08 02 51.8	-0.5
MFF	Saint Martin d	135.79	336	ePKIKP	PKPdf	08 02 51.8	-0.5
QUIF	Quistinic	135.81	340	ePKIKP	PKPdf	08 02 51.5	-0.8
QUIF	Quistinic	135.81	340	ePKPdf	PKPdf	08 02 51.5	-0.8
QUIF	Quistinic	135.81	340	ePKIKP	PKPdf	08 02 51.5	-0.8
CAF	Calviac	136.18	333	ePKIKP	PKPdf	08 02 52.2	-0.9
	comp=Z,26nm,1.2s						
CAF	Calviac	136.18	333	ePKPdf	PKPdf	08 02 52.2	-0.9
CAF	Calviac	136.18	333	ePKIKP	PKPdf	08 02 52.2	-0.9
LFF	La Frestale	136.75	334	ePKIKP	PKPdf	08 02 53.3	-0.9
LFF	La Frestale	136.75	334	ePKPdf	PKPdf	08 02 53.3	-0.9
LFF	La Frestale	136.75	334	ePKIKP	PKPdf	08 02 53.3	-0.9
MTLF	Montolieu	137.32	331	ePKIKP	PKPdf	08 02 54.7	-0.6
MTLF	Montolieu	137.32	331	ePKPdf	PKPdf	08 02 54.7	-0.6
MTLF	Montolieu	137.32	331	ePKIKP	PKPdf	08 02 54.7	-0.6
SJG	San Juan	137.79	71	ePKPdf	PKPdf	08 02 55.8	-1.0
SJG				LR	LR		
	comp=Z,539nm,19.0s,MS5.3						
SJG	San Juan	137.79	71	ePKIKP	PKPdf	08 02 55.8	-1.0
EPF	Esparros	138.44	333	ePKIKP	PKPdf	08 02 56.8	-0.5
EPF	Esparros	138.44	333	ePKPdf	PKPdf	08 02 56.8	-0.5
EPF	Esparros	138.44	333	ePKIKP	PKPdf	08 02 56.8	-0.5
ETSF	Etsaut	138.95	333	ePKIKP	PKPdf	08 02 57.0	-1.3
	comp=Z,20nm,0.9s						
ETSF	Etsaut	138.95	333	ePKPdf	PKPdf	08 02 57.0	-1.3
ETSF	Etsaut	138.95	333	ePKIKP	PKPdf	08 02 57.0	-1.3
ELIZ	Elizondo	139.16	334	PKP	PKPdf	08 02 54.7	-3.9
ELIZ	Elizondo	139.16	334	PKIKP	PKPdf	08 02 54.7	-3.9
GUD	Guadarrama	142.34	335	PKP	PKPdf	08 03 00.4	-4.1
GUD	Guadarrama	142.34	335	PKIKP	PKPdf	08 03 00.4	-4.1
MVO	Moncorvo	143.03	338	ePKP	PKPdf	08 03 02.6	-3.1
ESDC	Sonseca Array	143.06	334	PKP	PKPdf	08 03 01.8	-4.0
ESDC	Sonseca Array	143.06	334	PKhKP		08 03 00.9	
	comp=Z,5.6nm,0.8s,baz=25,slow=3.0,SNR=14						
ESLA	Sonseca Array	143.06	334	PFAKE		08 03 20.0	+14
ESLA				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
PVRL	Vila Real	143.18	339	ePKP	PKPdf	08 03 04.9	-1.0
EVIA	Vianos	143.22	331	PKP	PKPdf	08 03 02.9	-3.2
EVIA	Vianos	143.22	331	PKIKP	PKPdf	08 03 02.9	-3.2
PAB	San Pablo	143.33	334	PFAKE		08 03 20.0	+14
PAB				LR	LR		
	comp=Z,788nm,19.0s,MS5.5						
PVIS	Viseu	143.74	339	ePKP	PKPdf	08 03 04.4	-2.5
MTE	Manteigas	143.89	338	ePKP	PKPdf	08 03 06.3	-0.9
MTE	Manteigas	143.89	338	ePKPdf	PKPdf	08 03 05.6	-1.6
EQES	Quesada	144.16	331	PKP	PKPdf	08 03 04.9	-2.8
EBAN	Banos Encina	144.21	332	PKP	PKPdf	08 03 05.5	-2.4
EBAN	Banos Encina	144.21	332	PKIKP	PKPdf	08 03 05.5	-2.3
ENIJ	Nijar	144.38	329	PKP	PKPdf	08 03 05.3	-2.8
ENIJ	Nijar	144.38	329	PKIKP	PKPdf	08 03 05.3	-2.9
EADA	Adamuz	144.57	333	PKP	PKPdf	08 03 06.9	-1.6
EBER	Berja	144.78	330	PKP	PKPdf	08 03 06.7	-2.1
ECOG	Cogollos-Vega	144.81	331	PKP	PKPdf	08 03 06.2	-2.8
ECOG	Cogollos-Vega	144.81	331	PKIKP	PKPdf	08 03 06.2	-2.7
ELUQ	Luque	144.92	332	PKP	PKPdf	08 03 07.5	-1.6
ELUQ	Luque	144.92	332	PKIKP	PKPdf	08 03 07.5	-1.6
EBAD	Badajoz	145.11	336	PKP	PKPdf	08 03 07.9	-1.5
ERON	Agron	145.13	331	PKP	PKPdf	08 03 07.3	-2.1
EGUA	Guajares	145.16	330	PKP	PKPdf	08 03 07.8	-1.7
EGUA	Guajares	145.16	330	PKIKP	PKPdf	08 03 07.8	-1.7
ELOJ	Sierra Loja	145.20	331	PKP	PKPdf	08 03 07.4	-2.2
ELOJ	Sierra Loja	145.20	331	PKP2	PKPab	08 03 07.4	-1.9
PESTR	Estremoz	145.24	337	ePKP	PKPdf	08 03 08.8	-0.8
EALB	Alboran	145.59	329	PKP	PKPdf	08 03 07.9	-2.4
EVO	Evora	145.70	337	ePKIKP	PKPdf	08 03 10.1	-0.3
	comp=Z,124nm,1.1s						
EVO	Evora	145.70	337	ePKP	PKPdf	08 03 10.5	+0.1
EMIN	Mina Concepcio	145.81	335	PKP	PKPdf	08 03 10.8	+0.1
MOE	Montemor	145.84	338	ePKP	PKPdf	08 03 10.4	-0.2
EMIJ	Mijas	145.96	331	PKP	PKPdf	08 03 09.3	-1.6
PBEJ	Beja	146.08	337	ePKP	PKPdf	08 03 12.1	+1.0
ESPR	Espera	146.21	333	PKP	PKPdf	08 03 12.4	+1.1
EGRO	El Granado	146.35	336	PKP	PKPdf	08 03 11.9	+0.4
EJIF	Jimena Fronter	146.38	332	PKP	PKPdf	08 03 12.3	+0.6
EJIF	Jimena Fronter	146.38	332	PKP2	PKPab	08 03 12.3	-1.4
PVAQ	Vaqueiros	146.56	336	ePKP	PKPdf	08 03 13.7	+1.8
PBDV	Barranco-do-Ve	146.78	336	ePKP	PKPdf	08 03 14.6	+2.3
PTEO	Sao Teotonio	146.83	337	ePKP	PKPdf	08 03 14.5	+2.1
MORF	Marmelete	147.01	337	ePKP	PKPdf	08 03 15.2	+2.5
PFVI	Vila Bisbo	147.23	337	ePKP	PKPdf	08 03 16.0	+3.0
TOA0	Torodi Ar. Sit	153.91	285	ePKPbc	PKPbc	08 03 31.1	-0.9
TORD	Torodi Ar. Bea	153.91	285	PKP	PKPdf	08 03 22.0	-2.0
TORD				PKPbc	PKPbc	08 03 30.6	-1.4
TORD	Torodi Ar. Bea	153.91	285	PKP	PKPdf	08 03 22.0	-2.0
	comp=Z,1.6nm,0.8s,baz=15,slow=2.5,SNR=5.3						
TORD				PKPbc	PKPbc	08 03 30.6	-1.4
	comp=Z,4.6nm,0.8s,baz=76,slow=2.0,SNR=19						
KIC	Kosan Boka	160.67	268	ePKP2	PKPab	08 04 14.2	-0.3
	comp=Z,104nm,0.9s						
LIC	Lamto	160.95	268	ePKIKP	PKPdf	08 03 31.7	-1.2
	comp=Z,125nm,1.5s						
LIC	Lamto	160.95	268	ePKP2	PKPab	08 04 15.3	-0.4
	comp=Z,64nm,1.1s						
LIC	Lamto	160.95	268	ePKPdf	PKPdf	08 03 31.7	-1.2
TIC	Toumodi	160.97	269	ePKP2	PKPab	08 04 15.1	-0.7
	comp=Z,118nm,1.1s						
RCBR	Riachuelo	162.44	138	PFAKE		08 03 40.0	+5.6
RCBR				LR	LR		
	comp=Z,906nm,21.0s						

ISCJB **17** *07:47:47.8±0.2, 7.27S±0.04×155.87E±0.04, h27^{km}, mb5.3/95, MS5.2/19, Error ellipse: s-maj=5.3km s-min=5.0km az=18.8*

BJI **17** *07:47:47.2, 7.08S×156.12E, h26^{km}, mB5.4, mb5.3, Ms5.3, Msz5.2*

GCMT **17** *07:47:49.6±0.2, 7.51S×155.88E, h31^{km}, MW5.6/82, Moment Tensor Solution. s58,c84; s82,c140; Duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}2.73±.10; $M_{\theta\theta}$-1.78±.06; $M_{\phi\phi}$-0.94±.06; $M_{r\theta}$0.60±.09; $M_{\theta\phi}$1.30±.05; $M_{\phi r}$-0.84±.10; Best double couple: $M_0$2.91700×10^{17} NP1:ϕ_s300.00000°,δ35.00000°,λ80.00000°. NP2: ϕ_s132.00000°,δ55.00000°,λ97.00000°. Principal axes: T 2.9350, Plg78.0000°, Azm69.0000°; N -0.0300, Plg6.0000°, Azm308.0000°; P -2.8990, Plg10.0000°, Azm217.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC **17** *07:47:49.6±0.1, 7.26S×155.89E, mb5.4/49 Error ellipse: s-maj=4.7km s-min=4.3km az=140.0*

MOS **17** *07:47:49.7±0.9, 7.15S×155.83E, h33^{km}, mb5.6/42, MS5.2/10, Error ellipse: s-maj=8.5km s-min=6.6km az=114.9*

IDC **17** *07:47:52.1±2.1, 7.28S×155.91E, h51^{km}±17^{km}, mb4.8/20, mb1 4.9/23, mb1mx4.9/24, mbtmp4.8/23, ML4.4/3, MS5.0/2, Ms1 5.0/2, ms1mx4.2/28, Error ellipse: s-maj=13.6km s-min=12.2km az=69.0*

ISC 17 07:47:49.9±0.2, **7.28S**±0.04×**155.88E**±0.04, **h28**^{km}, **h28**^{km}±2.1^{km}**:pP-P, n503,** σ0^{s}88/202, **mb5.3**/95, **MS5.2**/19,
25C-10D, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	4.55	118	ePn	Pn	07 49 00.7	+3.8
HNR	Honiara	4.55	118	P	Pn	07 49 02.5	+5.5
	85nm,0.3s,baz=262,slow=8.6,SNR=3.4						
HNR				S	Sn	07 49 54.6	+5.6
	182nm,0.3s,baz=275,slow=19,SNR=3.4						
PMG	Port Moresby	8.89	256	ePn	Pn	07 49 58.7	+2.2
PMG				eSn	Sn	07 51 46.6	+11
PMG	Port Moresby	8.89	256	P	Pn	07 50 00.2	+3.7
	40nm,0.3s,baz=51,slow=8.0,SNR=25						
PMG				S	Sn	07 51 35.9	+0.2
	baz=99,slow=19,SNR=1.4						
COEN	Coen	14.14	241	ePn	Pn	07 51 09.9	+1.5
CTA	Charters Tower	15.79	215	eP	Pn	07 51 31.6	+1.3
	60nm,0.8s						
CTA	Charters Tower	15.79	215	eP	Pn	07 51 31.6	+1.3
CTA				pmax	pmax		
	comp=Z,60nm,0.8s						
CTA	Charters Tower	15.79	215	P	Pn	07 51 31.3	+1.0
	comp=Z,0.8nm,0.3s,baz=38,slow=16,SNR=5.9						
CTA				LR	LR	07 56 16.1	
	comp=Z,8µm,19.1s,baz=20,slow=32						
CTAO	Charters Tower	15.79	215	ePn	Pn	07 51 32.2	+1.9
DZM	Mont Dzumac	17.89	146	P	Pn	07 51 57.4	+0.6
	comp=Z,0.4nm,0.3s,baz=5.3,slow=15,SNR=3.7						
EIDS	Eidsvold	18.56	194	eP	Pn	07 52 04.7	-0.3
FUNA	Funafuti	23.12	95	eP	P	07 52 54.3	+0.3
	comp=Z,138nm,1.1s,mb5.3						
KAKA	Kakadu	23.70	255	eP	P	07 52 58.3	-1.4
	comp=Z,62nm,0.6s,mb5.2						
WRA	Warramunga Arr	24.39	237	P	P	07 53 05.8	-0.2
	comp=Z,35nm,1.0s,mb4.8,baz=61,slow=9.0,SNR=13						
WRA				ScP	ScP	08 00 21.2	-0.8
	comp=Z,7.0nm,1.0s,baz=67,slow=3.0,SNR=7.7						
ASAR	Alice Springs	26.65	230	P	P	07 53 25.8	-0.7
ASAR						07 56 49.3	
ASAR	Alice Springs	26.65	230	P	P	07 53 25.8	-0.7
	comp=Z,7.6nm,0.8s,mb4.3,baz=64,slow=8.8,SNR=9.7						
ASAR				PcP	PcP	07 56 49.3	-0.8
	comp=Z,5.5nm,0.9s,baz=49,slow=2.7,SNR=3.8						
ASAR				ScP	ScP	08 00 24.9	-3.4
	comp=Z,2.0nm,0.9s,baz=90,slow=1.9,SNR=3.2						
STKA	Stephens Creek	27.86	207	eP	P	07 53 36.9	-0.3
	comp=Z,13nm,0.7s,mb4.7						
STKA	Stephens Creek	27.86	207	P	P	07 53 37.0	-0.2
	comp=Z,8.5nm,0.7s,mb4.5,baz=14,slow=12,SNR=5.6						
STKA				ScP	ScP	08 00 28.9	-2.9
	comp=Z,4.1nm,0.9s,baz=122,slow=1.4,SNR=4.5						
FITZ	Fitzroy Crossi	31.35	247	eP	P	07 54 08.2	-0.1
	comp=Z,65nm,0.8s,mb5.5						
FITZ	Fitzroy Crossi	31.35	247	P	P	07 54 07.9	-0.4
	comp=Z,10nm,0.7s,mb4.8,baz=83,slow=7.0,SNR=6.7						
AFI	Afiamalu	32.44	104	eP	P	07 54 17.9	0.0
	comp=Z,117nm,0.9s,mb5.7						
AFI	Afiamalu	32.44	104	eP	P	07 54 17.9	0.0
AFI				pmax	pmax		
	comp=Z,117nm,0.9s,mb5.7						
AFI	Afiamalu	32.44	104	P	P	07 54 17.3	-0.6
	comp=Z,56nm,0.8s,mb5.4,baz=314,slow=2.2,SNR=7.2						
FORT	Forrest	34.99	224	eP	P	07 54 39.1	-0.9
	comp=Z,46nm,0.6s,mb5.6						
URZ	Urewera	36.33	151	P	P	07 54 52.4	+1.1
	comp=Z,24nm,1.1s,mb5.0,baz=254,slow=1.0,SNR=4.1						
MBWA	Marble Bar	37.55	245	eP	P	07 55 01.6	-0.4
	comp=Z,14nm,0.6s,mb4.9						
MBWA				epP	pP	07 55 10.5	+0.2
RPZ	Rata Peaks	38.65	162	P	P	07 55 10.4	-0.6
	comp=Z,6.7nm,0.5s,mb4.7,baz=288,slow=3.8,SNR=4.2						
KKM	Kota Kinabalu	41.73	287	eP	P	07 55 36.7	-0.2
KKM				epP	pP	07 55 45.9	+0.6
BCPH	Baguio City Da	42.11	304	⇓eP	P	07 55 40.5	+0.6
KLBR	Kellerberrin	42.98	231	eP	P	07 55 45.8	-1.0
	comp=Z,36nm,0.6s,mb5.3						
NWAO	Narrogin (SRO)	43.97	229	eP	P	07 55 53.2	-1.6
	comp=Z,65nm,1.4s,mb5.2						
NWAO				epP	pP	07 56 01.3	-1.9
NWAO	Narrogin (SRO)	43.97	229	eP	P	07 55 53.2	-1.6
NWAO				e*PP	pP	07 56 01.3	-2.0
NWAO				pmax	pmax		
	comp=Z,65nm,1.4s						
NWAO	Narrogin (SRO)	43.97	229	P	P	07 55 52.1	-2.6
	comp=Z,34nm,1.2s,mb5.0,baz=357,slow=7.8,SNR=3.0						
MUN	Mundaring	44.34	231	eP	P	07 55 57.9	+0.2
RAR	Rarotonga	44.99	113	P	P	07 56 01.8	-1.3
	comp=Z,6.7nm,0.5s,mb4.7,baz=242,slow=8.3,SNR=2.3						
NACB	Ninganchiao	45.79	314	eP	P	07 56 09.2	-0.2
NACB				epP	pP	07 56 17.0	-0.9
YHNB	Yeheng	46.25	314	eP	P	07 56 12.3	-0.7
YHNB				epP	pP	07 56 23.1	+1.6
KSM	Kuching	46.29	279	eP	P	07 56 13.4	-0.2
KSM				epP	pP	07 56 22.9	+0.8
MJAR	Matsushiro Arr	46.64	340	P	P	07 56 15.1	-0.8
	comp=Z,20nm,0.8s,mb5.1,baz=170,slow=7.9,SNR=25						
MJAR				PcP	PcP	07 57 48.9	-0.6
	comp=Z,11nm,0.9s,baz=170,slow=4.3,SNR=4.4						
MAJO	Matsushiro	46.64	340	eP	P	07 56 15.1	-0.7
	comp=Z,24nm,0.6s,mb5.3						
MAJO				ePcP	PcP	07 57 49.4	-0.1
MAJO	Matsushiro	46.64	340	eP	P	07 56 15.1	-0.8
MAJO				e		07 57 49.4	
MAJO				pmax	pmax		
	comp=Z,24nm,0.6s,mb5.3						
MAT	Matsushiro	46.64	340	P	P	07 56 15.1	-0.8
JNU	Nakatsue	46.69	331	LR	LR	08 14 22.9	
	comp=Z,1µm,18.4s,MS4.9,baz=324,slow=34						
QZH	Quanzhou	48.42	313	⇑iP	P	07 56 32.5	+2.6
QZH				AMB	AMB		
	comp=Z,140nm,1.4s,mb5.8						
GZH	Guangzhou	51.39	307	P	P	07 56 54.3	+1.8
GZH				S	S	08 04 14.6	+4.0
GZH				LR	LR		
	comp=N,681nm,17.1s,MS4.9						
GZH				LR	LR		
	comp=E,598nm,15.2s,MS4.9						
GZH				LR	LR		
	comp=Z,2µm,15.5s,MS5.2						
KSRS	Korea Array	51.60	332	P	P	07 56 54.1	+0.3
	comp=Z,18nm,0.8s,mb5.1,baz=149,slow=8.0,SNR=26						
KSRS				PcP	PcP	07 58 07.7	+0.2
	comp=Z,7.4nm,0.7s,baz=142,slow=4.5,SNR=7.5						
KS15	Wonju Array Si	51.61	332	eP	P	07 56 54.5	+0.6
INCN	Inchon	52.25	331	eP	P	07 56 58.6	0.0
	comp=Z,31nm,0.8s,mb5.3						
INCN				epP	pP	07 57 05.8	-1.5
QIZ	Qiongzhong	52.36	301	P	P	07 57 00.8	+1.0
QIZ				eS	S	08 04 22.3	-1.8
QIZ				AMB	AMB		
	comp=Z,48nm,1.0s,mb5.4						
QIZ				AMB	AMB		
	comp=Z,250nm,5.6s						
QIZ				LR	LR		
	comp=E,2µm,21.1s						
QIZ				LR	LR		
	comp=Z,4µm,21.5s,MS5.4						
QIZ	Qiongzhong	52.36	301	eP	P	07 57 01.1	+1.3
	comp=Z,111nm,1.2s,mb5.7						
NJ2	Nanjing	52.70	320	eP	P	07 57 03.1	+1.0
NJ2				PP	PP	07 59 04.5	+2.9
NJ2				S	S	08 04 26.0	-2.3
NJ2				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,510nm,4.7s						
NJ2				LR	LR		
	comp=N,3µm,24.2s						
NJ2				LR	LR		
	comp=E,1µm,16.9s						
NJ2				LR	LR		
	comp=Z,1µm,16.9s						
PPT	Papeete	54.07	106	eP	P	07 57 13.0	+0.5
	comp=Z,22nm,1.4s,mb4.9						
PPT	Papeete	54.07	106	eP	P	07 57 13.0	+0.5
PPT				pmax	pmax		
	comp=Z,22nm,1.4s						
PAE	Paea	54.07	106	eP	P	07 57 12.6	+0.1
	comp=Z,51nm,1.2s,mb5.3						
PAE	Paea	54.07	106	eP	P	07 57 12.6	+0.1
PAE				pmax	pmax		
	comp=Z,51nm,1.2s,mb5.3						
TVO	Taravao	54.39	107	eP	P	07 57 15.5	+0.7
	comp=Z,94nm,1.1s,mb5.6						
TVO	Taravao	54.39	107	eP	P	07 57 15.5	+0.7
TVO				pmax	pmax		
	comp=Z,94nm,1.1s,mb5.6						
VLA	Vladivostok	54.70	339	i P	P	07 57 17.6	+1.1
VLA	Vladivostok	54.70	339	eP	P	07 57 14.4	-2.1
VLA				pmax	pmax		
	comp=Z,120nm,1.4s,mb5.7						
WHN	Wuhan	54.76	316	P	P	07 57 17.3	+0.1
WHN				AP	pP	07 57 24.0	-1.9
POHA	Pohakuloa	54.84	60	eP	P	07 57 19.1	+1.1
YSS	Yuzh-Sakhalins	55.24	349	eP	P	07 57 20.0	-0.4
	comp=Z,51nm,0.9s,mb5.5						
YSS	Yuzh-Sakhalins	55.24	349	⇑eP	P	07 57 20.3	-0.1
YSS				e		07 57 26.0	
YSS				e		07 57 34.9	
YSS				e		07 58 21.0	
YSS				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.5						
YSS				pmax	pmax		
	comp=E,50nm,1.0s						
YSS				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.5						
YSS				MLR	MLR		
	comp=N,1µm,18.0s						
YSS				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.2						
PMOR	Pomariorio Ree	55.57	103	eP	P	07 57 24.1	+0.7
	comp=Z,161nm,1.2s,mb5.9						
VAH	Vaihoa	55.84	103	eP	P	07 57 25.6	+0.3
	comp=Z,93nm,1.2s,mb5.7						
DL2	Dalian	55.88	328	P	P	07 57 25.8	+0.7
DL2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.3						
KULM	Kulim	56.51	281	eP	P	07 57 28.8	-1.4
MDJ	Mudanjiang	56.83	338	P	P	07 57 32.4	+0.6
MDJ				AMB	AMB		
	comp=Z,20nm,1.1s,mb5.1						
MDJ				AMB	AMB		
	comp=Z,273nm,6.0s						
MDJ	Mudanjiang	56.83	338	eP	P	07 57 32.4	+0.6
	comp=Z,42nm,1.1s,mb5.4						
SNY	Shenyang	57.11	332	⇑P	P	07 57 33.8	0.0
SNY				AMB	AMB		
	comp=Z,16nm,1.6s,mb4.8						
KKTK	Khon Kaen	57.51	295	⇓P	P	07 57 38.0	+0.9
	comp=Z,247nm,0.5s,mb6.5						
CN2	Changchun	57.83	334	eP	P	07 57 38.8	0.0
CN2				AMB	AMB		
	comp=Z,20nm,1.3s,mb5.0						
GYA	Guiyang	58.33	307	⇑iP	P	07 57 43.4	+0.7
GYA				PCP	PcP	07 58 35.5	+1.9
GYA				PP	PP	07 59 57.4	+5.3
GYA				PPP		08 01 20.5	
GYA				SCP	ScP	08 02 29.0	-3.2
GYA				PCS	PcS	08 02 35.6	+0.3
GYA				S	S	08 05 37.9	-5.8
GYA				PS		08 06 04.3	
GYA				AMB	AMB		
	comp=Z,30nm,1.2s,mb5.2						
GYA				AMB	AMB		
	comp=Z,140nm,6.0s						
GYA				LR	LR		
	comp=N,1µm,18.9s,MS5.2						
GYA				LR	LR		
	comp=E,1µm,20.1s,MS5.2						
GYA				LR	LR		
	comp=Z,1µm,18.6s,MS5.1						
HABR	Khabarovsk	58.46	344	eP	P	07 57 43.2	0.0
HABR				eS	S	08 05 43.6	-1.1
HABR				e		08 07 26.7	
HABR				eSS	SS	08 09 38.8	+1.2
HABR				pmax	pmax		
	comp=Z,76nm,1.5s,mb5.5						
BJT	Baijiatuau	59.64	325	eP	P	07 57 51.1	-0.5
	comp=Z,13nm,0.7s,mb5.1						
BJT	Baijiatuau	59.64	325	eP	P	07 57 51.1	-0.5
BJT				pmax	pmax		
	comp=Z,13nm,0.7s						
NST	Nakhon Sawan	59.73	293	P	P	07 57 53.0	+0.4
	comp=Z,58nm,1.0s,mb5.6						
PET	Petropavlovsk	60.12	2	eP	P	07 57 54.8	+0.3
PET				eS	S	08 06 09.2	+3.3
PET				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.5						
PET				smax			
	comp=N,1µm,32.4s						
PET				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.4						
XAN	Xi’an	60.52	316	P	P	07 57 57.3	-0.4
XAN				AP	pP	07 58 03.8	-2.7
XAN				AMB	AMB		
	comp=Z,23nm,0.9s,mb5.3						
KMI	Kunming	60.91	304	P	P	07 58 00.6	+0.1
KMI				AP	pP	07 58 07.4	-1.9
KMI				AMB	AMB		
	comp=Z,43nm,1.3s,mb5.4						
KMI	Kunming	60.91	304	P	P	07 58 00.6	+0.1
	comp=Z,43nm,1.3s,mb5.4						
KMI				pP	pP	07 58 07.4	-1.9
CM31	Chiang Mai Arr	61.70	295	P	P	07 58 05.7	-0.3
	comp=Z,26nm,0.7s,mb5.5						
CHTO	Chiang Mai	61.82	296	eP	P	07 58 07.2	+0.4
	comp=Z,86nm,1.3s,mb5.7						
CHTO	Chiang Mai	61.82	296	eP	P	07 58 07.2	+0.4
CHTO				pmax	pmax		
	comp=Z,86nm,1.3s,mb5.7						
CD2	Chengdu	62.67	310	P	P	07 58 12.4	+0.1
CD2				S	S	08 06 30.0	-9.2
CD2				XS	sS	08 06 57.0	+3.4
CD2				AMB	AMB		
	comp=Z,70nm,0.7s,mb5.9						
CD2				AMB	AMB		
	comp=Z,160nm,5.8s						
CD2				LR	LR		
	comp=N,870nm,16.8s						
CD2				LR	LR		
	comp=Z,1µm,18.0s,MS5.2						
HHC	Hu-ho-hao-te	62.85	323	eP	P	07 58 13.4	+0.2
HHC				PCP	PcP	07 58 50.6	-0.8
HHC				PP	PP	08 00 33.9	+2.1
HHC				SCP	ScP	08 02 46.8	-5.1
HHC				PCS	PcS	08 02 52.4	-2.4
HHC				S	S	08 06 37.3	-3.7
HHC				PS		08 07 04.1	
HHC				AMB	AMB		
	comp=Z,25nm,1.3s,mb5.2						
HHC				AMB	AMB		
	comp=Z,124nm,4.0s						
HHC				LR	LR		
	comp=N,631nm,16.4s,MS5.0						
HHC				LR	LR		
	comp=E,558nm,19.4s,MS5.0						
HHC				LR	LR		
	comp=Z,855nm,16.5s,MS5.0						
TAOE	Nuku Hiva Isla	63.29	96	eP	P	07 58 16.8	+0.1
	comp=Z,817nm,1.4s						
HIA	Hailar	64.55	335	eP	P	07 58 24.9	+0.6
	comp=Z,26nm,0.8s,mb5.3						
HIA	Hailar	64.55	335	eP	P	07 58 24.9	+0.6
HIA				pmax	pmax		
	comp=Z,26nm,0.8s						
LZH	Lanzhou	65.14	315	⇑P	P	07 58 29.6	+1.2
LZH				PCP	PcP	07 59 01.5	+0.6
LZH				PP	PP	08 00 55.3	+3.2
LZH				eS	S	08 07 08.8	-0.8
LZH				AMB	AMB		
	comp=Z,56nm,1.5s,mb5.4						
LZH				AMB	AMB		
	comp=Z,190nm,5.3s						
LZH				LR	LR		
	comp=E,442nm,14.6s						
LZH				LR	LR		
	comp=Z,750nm,15.5s,MS5.0						
LZH	Lanzhou	65.14	315	⇑P	P	07 58 29.6	+1.2
	comp=Z,56nm,1.5s,mb5.4						
LZH				pP	pP	07 58 46.4	+9.2
LZH				sP	sP	07 58 53.6	+13
LZH				PcP	PcP	07 59 01.5	+0.6
LZH				PP	PP	08 00 55.3	+3.2
LZH				eS	S	08 07 08.7	-0.9
LZH				sS	sS	08 07 32.0	+7.8
LZH				SS	SS	08 11 24.5	+1.9
LZH				LR	LR		
	comp=Z,750nm,15.5s,MS5.0						
LZH	Lanzhou	65.14	315	⇑P	P	07 58 29.6	+1.2
LZH				*PP	pP	07 58 46.4	+9.2
LZH						07 59 01.5	
LZH						08 00 55.3	
LZH				eS	S	08 07 08.7	-0.9
LZH				*SS	sS	08 07 32.0	+7.8
LZH				SS	SS	08 11 24.5	+1.9
LZH				pmax	pmax		
	comp=Z,56nm,1.5s,mb5.4						
LZH				MLR	MLR		
	comp=Z,750nm,15.5s,MS5.0						
MA2	Magadan	66.77	357	eP	P	07 58 38.2	-0.2
	comp=Z,23nm,0.9s,mb5.2						
MA2	Magadan	66.77	357	⇑eP	P	07 58 38.1	-0.3
MA2				pmax	pmax		
	comp=Z,35nm,1.7s,mb5.1						
CLNS	Chul’man	68.76	342	d iP	P	07 58 53.3	+2.3
CLNS				e*PP	pP	07 58 58.5	-1.4
CLNS				eS	S	08 07 58.0	+5.4
CLNS				ePS		08 08 17.0	
CLNS				e		08 08 39.8	
CLNS				pmax	pmax		
	comp=N,14nm,0.6s						
CLNS				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.1						

CLNS				pmax	pmax		
	comp=E,8.0nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
CLNS				smax			
	comp=N,194nm,12.2s						
CLNS				smax			
	comp=E,77nm,11.5s						
CLNS				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
CLNS				MLR	MLR		
	comp=N,300nm,15.0s,MS4.8						
CLNS				MLR	MLR		
	comp=E,300nm,14.0s,MS4.8						
CIT	**Chita**	69.26	334	*e*P	P	07 58 54.9	+0.7
CIT				*e*		07 59 06.5	
CIT				*e*		07 59 09.6	
CIT				*e*		07 59 12.3	
CIT				pmax	pmax		
	comp=Z,70nm,1.9s,mb5.3						
GTA	**Gaotai**	69.55	317	*e*P	P	07 58 57.3	+1.0
GTA				PP	PP	08 01 35.3	+4.9
GTA				PPP		08 03 15.3	
GTA				AMB	AMB		
	comp=Z,19nm,1.6s,mb4.8						
GTA				AMB	AMB		
	comp=Z,229nm,6.5s						
GTA				LR	LR		
	comp=N,724nm,20.5s,MS5.2						
GTA				LR	LR		
	comp=E,1µm,19.8s,MS5.2						
GTA				LR	LR		
	comp=Z,2µm,19.8s,MS5.2						
ULN	**Ulaanbaatar**	69.72	327	*e*P	P	07 58 58.4	+1.2
	comp=Z,62nm,0.9s,mb5.5						
ULN	**Ulaanbaatar**	69.72	327	*e*P	P	07 58 58.4	+1.3
ULN				pmax	pmax		
	comp=Z,61nm,0.9s,mb5.5						
SONM	**Songino Array**	70.05	327	P	P	07 59 00.2	+0.9
	comp=Z,48nm,0.8s,mb5.5,baz=135,slow=6.8,SNR=77						
SONM				PKPPKP		08 27 02.1	
	comp=Z,2.4nm,1.0s,baz=304,slow=2.6,SNR=11						
SEY	**Seymchan**	70.06	358⇑	*e*P	P	07 58 59.3	+0.4
SEY	**Seymchan**	70.06	358⇑	*e*P	P	07 58 59.2	+0.3
VNDA	**Vanda**	70.27	179	*e*P	P	07 59 00.2	+0.1
	comp=Z,53nm,1.5s,mb5.2						
VNDA	**Vanda**	70.27	179	*e*P	P	07 59 00.2	+0.1
VNDA				pmax	pmax		
	comp=Z,53nm,1.5s						
VNDA	**Vanda**	70.27	179	P	P	07 58 59.7	-0.4
	comp=Z,4.8nm,0.9s,mb4.5,baz=45,slow=4.3,SNR=3.0						
YAK	**Yakutsk**	72.03	347	*e*P	P	07 59 10.8	0.0
	comp=Z,77nm,1.2s,mb5.5						
YAK	**Yakutsk**	72.03	347⇑	*e*P	P	07 59 10.9	0.0
YAK				pmax	pmax		
	comp=Z,53nm,1.2s,mb5.3						
LSA	**Lhasa**	72.16	304	*e*P	P	07 59 13.7	+1.3
	comp=Z,32nm,0.8s,mb5.3						
LSA	**Lhasa**	72.16	304	*e*P	P	07 59 13.7	+1.3
LSA				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.3						
ZAK	**Zakamensk**	73.20	328⇑	*i*P	P	07 59 18.7	+0.6
ZAK				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.2						
BOD	**Bodaibo**	73.21	338	*e*P	P	07 59 17.0	-1.0
BOD				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
TLY	**Talaya**	73.76	329	P	P	07 59 21.4	0.0
	comp=Z,154nm,1.0s,mb5.9,SNR=5.7						
TLY	**Talaya**	73.76	329	*e*P	P	07 59 22.0	+0.7
	comp=Z,28nm,0.9s,mb5.2						
TLY	**Talaya**	73.76	329	*e*P	P	07 59 21.5	+0.1
TLY				*e*		07 59 40.6	
TLY				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
TLY				MLR	MLR		
	comp=Z,849nm,18.0s,MS5.1						
IRK	**Irkutsk**	73.77	330	*e*P	P	07 59 21.0	-0.4
IRK				*e*		07 59 44.4	
IRK				pmax	pmax		
	comp=Z,84nm,1.3s,mb5.5						
TAPN	**Taplejung**	74.30	301	*e*P	P	07 59 25.4	+0.3
	comp=Z,287nm,1.1s,mb6.1						
ODAN	**Odare**	74.44	300	*e*P	P	07 59 26.2	+0.3
	comp=Z,275nm,0.9s,mb6.2						
BILL	**Bilibino**	75.50	4	*e*P	P	07 59 31.2	+0.1
	comp=Z,36nm,0.9s,mb5.3						
BILL	**Bilibino**	75.50	4α	*e*P	P	07 59 31.1	0.0
BILL				*i*		07 59 37.0	
BILL				pmax	pmax		
	comp=Z,72µm,1.3s						
BILL				MLR	MLR		
	comp=Z,1µm,19.0s						
JIRN	**Jiri**	75.69	301	*e*P	P	07 59 33.8	+0.7
	comp=Z,6.6nm,0.6s,mb4.8						
PALK	**Pallekele**	76.36	279	*e*P	P	07 59 37.3	+0.1
	comp=Z,16nm,1.0s,mb4.9						
KKN	**Kakani**	76.50	301	*e*P	P	07 59 37.9	+0.2
	comp=Z,105nm,0.8s,mb5.8						
KDAK	**Kodiak Island**	77.04	25	P	P	07 59 37.6	-2.5
	comp=Z,13nm,1.1s,mb4.8,baz=135,slow=13,SNR=2.5						
GKN	**Gorkha**	77.10	301	*e*P	P	07 59 41.2	+0.1
	comp=Z,232nm,1.0s,mb6.0						
TNA	**Tin City**	77.37	15	*e*P	P	07 59 41.3	-0.5
	comp=Z,8.4nm,0.8s,mb4.7						
SVW2	**Sparrevohn**	77.93	22	*e*P	P	07 59 45.6	+0.6
WMQ	**Urumqi**	79.64	317	P	P	07 59 55.3	+0.5
WMQ				PP	PP	08 02 58.3	+2.4
WMQ				AMB	AMB		
	comp=Z,42nm,1.1s,mb5.3						
WMQ				LR	LR		
	comp=N,498nm,17.0s,MS5.2						
WMQ				LR	LR		
	comp=E,764nm,20.3s,MS5.2						
WMQ				LR	LR		
	comp=Z,781nm,19.6s,MS5.1						
SLKM	**Skilak Lake**	79.64	24	*e*P	P	07 59 54.0	-0.4
PMR	**Palmer**	80.70	23	P	P	07 59 59.6	-0.5
	comp=Z,13nm,0.8s,mb4.9						
PMR	**Palmer**	80.70	23	P	P	07 59 59.6	-0.5
PMR				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
TIXI	**Tiksi**	80.76	352	*e*P	P	07 59 59.8	-0.4
	comp=Z,5.7nm,0.6s,mb4.7						
TIXI	**Tiksi**	80.76	352	*e*P	P	07 59 58.9	-1.4
TIXI				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
SML	**Sawmill**	81.13	23	*e*P	P	08 00 02.2	-0.2
IMA2	**Indian Mountai**	81.79	19	*e*P	P	08 00 05.9	+0.1
MCK	**McKinley**	81.99	22	*e*P	P	08 00 06.0	-0.9
	comp=Z,36nm,1.0s,mb5.3						
MCK	**McKinley**	81.99	22	*e*P	P	08 00 06.0	-0.9
MCK				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
COLA	**College**	83.03	21	*e*P	P	08 00 10.9	-1.4
	comp=Z,19nm,0.8s,mb5.2						
COLA	**College**	83.03	21	*e*P	P	08 00 10.9	-1.4
COLA				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
MK31	**Makanchi Array**	84.20	319	*e*P	P	08 00 18.9	+0.1
MK31	**Makanchi Array**	84.20	319	*i* P	P	08 00 18.6	-0.1
MK31				pmax	pmax		
	comp=Z,120nm,0.7s,mb6.1						
MKAR	**Makanchi Array**	84.20	319	P	P	08 00 18.8	+0.1
MKAR				PKKPbc	PKKPbc	08 18 36.1	+2.2
MKAR				P'P'		08 26 39.3	
MKAR	**Makanchi Array**	84.20	319	P	P	08 00 18.6	-0.1
MKAR				pmax	pmax		
	comp=Z,90nm,0.8s						
MKAR	**Makanchi Array**	84.20	319	P	P	08 00 18.8	+0.1
	comp=Z,99nm,0.7s,mb6.0,baz=102,slow=5.8,SNR=163						
MKAR				PKKPbc	PKKPbc	08 18 36.1	+2.2
	comp=Z,0.3nm,0.7s,baz=314,slow=4.0,SNR=3.9						
MKAR				PKPPKP		08 26 39.3	
	comp=Z,0.6nm,0.8s,baz=267,slow=2.4,SNR=3.8						
MAW	**Mawson**	84.47	203	P	P	08 00 19.6	-0.1
	comp=Z,26nm,1.0s,mb5.3,baz=101,slow=8.2,SNR=12						
ZALV	**Zalesovo Beam**	84.91	326	P	P	08 00 21.1	-1.0
	comp=Z,51nm,0.7s,mb5.8,baz=111,slow=5.7,SNR=97						
ZALV				PKPPKP		08 26 36.6	
	comp=Z,0.5nm,0.5s,baz=333,slow=1.7,SNR=4.1						
ZAL	**Zalesovo**	84.92	326	P	P	08 00 21.2	-1.0
EGAK	**Eagle**	85.44	23	*e*P	P	08 00 24.4	-0.2
	comp=Z,177nm,1.2s,mb6.1						
DAWY	**Dawson**	85.80	23	*e*P	P	08 00 26.9	+0.6
NVS	**Novosibirsk**	86.08	326⇑	*i*P	P	08 00 26.9	-1.0
NVS				pmax	pmax		
	comp=N,47nm,1.5s						
NVS				pmax	pmax		
	comp=Z,138nm,1.5s,mb6.0						
NVS				pmax	pmax		
	comp=E,91nm,1.4s						
KSH	**Kashi**	86.87	310⇑	*i*P	P	08 00 33.1	+0.9
KSH				*e*AP	pP	08 00 46.3	+5.0
KSH				*e*PP	PP	08 03 58.3	+3.0
KSH				*e*PPP		08 05 55.3	
KSH				*e*SKS		08 10 53.0	
KSH				*e*S	S	08 11 02.8	-5.9
KSH				*e*XS	sS	08 11 28.3	+4.6
KSH				*e*SS	SS	08 16 51.3	-0.2
KSH				LR	LR		
	comp=N,803nm,9.2s						
KSH				LR	LR		
	comp=E,1µm,7.3s						
KSH				LR	LR		
	comp=Z,1µm,8.6s						
ULHL	**Ulahol**	87.24	313	P	P	08 00 34.4	+0.5
	SNR=13						
KURK	**Kurchatov**	87.60	322	P	P	08 00 34.2	-1.3
	comp=Z,249nm,0.8s,mb6.5,SNR=12						
KURK	**Kurchatov**	87.60	322	*e*P	P	08 00 34.1	-1.4
	comp=Z,21nm,0.7s,mb5.5						
KURK	**Kurchatov**	87.60	322	P	P	08 00 33.7	-1.8
KURK				pmax	pmax		
	comp=Z,123nm,2.0s,mb5.8						
KURK	**Kurchatov**	87.60	322	*e*P	P	08 00 34.1	-1.4
KURK				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.5						
TKM2	**Tokmak 2**	87.85	314	P	P	08 00 36.9	0.0
	SNR=11						
TKM2	**Tokmak 2**	87.85	314	*e*P	P	08 00 36.7	-0.2
	comp=Z,18nm,0.7s,mb5.4						
TKM2	**Tokmak 2**	87.85	314	*e*P	P	08 00 36.7	-0.1
TKM2				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.4						
KZA	**Kyzart**	87.93	313	P	P	08 00 38.5	+1.3
	SNR=10						
DLBC	**Dease Lake**	87.94	30	*e*P	P	08 00 37.2	+0.3
CHMS	**Chumysh**	88.47	314	P	P	08 00 40.0	+0.2
	SNR=12						
UCH	**Uchtor**	88.50	313	P	P	08 00 41.0	+1.0
	SNR=10						
UCH	**Uchtor**	88.50	313	*e*P	P	08 00 41.0	+1.1
	comp=Z,22nm,1.0s,mb5.3						
AAK	**Ala-Archa**	88.59	313	P	P	08 00 39.0	-1.3
	comp=Z,133nm,1.0s,mb6.2,SNR=6.3						
AAK	**Ala-Archa**	88.59	313	P	P	08 00 40.9	+0.6
	SNR=8.4						
AAK	**Ala-Archa**	88.59	313	*e*P	P	08 00 39.2	-1.1
	comp=Z,13nm,0.8s,mb5.3						
AAK	**Ala-Archa**	88.59	313⇓	*i*P	P	08 00 39.1	-1.2
AAK				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.4						
USP	**Ospenovka**	88.71	314	P	P	08 00 40.5	-0.4
	SNR=14						
AML	**Almayashu**	89.08	313	P	P	08 00 43.9	+1.3
	SNR=16						
AML	**Almayashu**	89.08	313	*e*P	P	08 00 43.0	+0.4
	comp=Z,43nm,1.1s,mb5.7						
EKS2	**Erkin-Say**	89.11	313	P	P	08 00 43.4	+0.6
	SNR=7.9						
EKS2	**Erkin-Say**	89.11	313	*e*P	P	08 00 42.6	-0.2
	comp=Z,15nm,0.8s,mb5.4						
INK	**Inuvik**	89.68	21	*e*P	P	08 00 44.2	-0.6
	comp=Z,508nm,1.1s						
INK	**Inuvik**	89.68	21	P	P	08 00 43.8	-1.0
	comp=Z,5.3nm,0.9s,mb4.9,baz=235,slow=3.4,SNR=7.5						
NVAR	**Mina Array Bea**	91.21	52	P	P	08 00 53.4	+0.7
	comp=Z,2.6nm,0.9s,mb4.6,baz=248,slow=4.1,SNR=8.9						
NVAR				PP	PP	08 04 28.1	-1.9
	comp=Z,0.8nm,0.8s,baz=248,slow=9.3,SNR=2.9						
KBL	**Kabul**	91.49	304	*e*P	P	08 00 52.9	-1.2
WVOR	**Wild Horse Val**	91.53	48	*e*P	P	08 00 55.4	+1.3
	comp=Z,10nm,1.0s,mb5.1						
WVOR	**Wild Horse Val**	91.53	48	*e*P	P	08 00 55.4	+1.3
WVOR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.1						
KK31	**Karatay Array**	91.55	313	*i* P	P	08 00 53.2	-1.0
KK31				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.5						
KKAR	**Karatay Array**	91.55	313	*e*P	P	08 00 53.2	-1.0
KKAR				pmax	pmax		
	comp=Z,47nm,1.3s,mb5.7						
PFO	**Pinyon Flat Ob**	92.04	57	*e*P	P	08 00 57.5	+0.8
	comp=Z,9.6nm,1.1s,mb5.0						
PFO	**Pinyon Flat Ob**	92.04	57	*e*P	P	08 00 57.5	+0.8
PFO				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb5.1						
SYO	**Syowa Base**	92.34	199⇓	*e*P	P	08 00 55.8	-1.5
BRVK	**Borovoye**	93.12	323	P	P	08 00 59.0	-2.2
	comp=Z,294nm,0.8s,SNR=9.8						
BRVK	**Borovoye**	93.12	323	*e*P	P	08 00 59.8	-1.4
	comp=Z,59nm,1.0s,mb6.0						
BRVK	**Borovoye**	93.12	323	*e*P	P	08 00 59.8	-1.4
BRVK				pmax	pmax		
	comp=Z,59nm,1.0s,mb6.0						
SHPR	**Sheep Range**	93.44	54	*e*P	P	08 01 03.8	+0.7
YKA	**Yellowknife Ar**	96.18	28	P	P	08 01 14.1	-0.9
YKA				PKKPbc	PKKPbc	08 18 00.1	-4.2
YKA	**Yellowknife Ar**	96.18	28	P	P	08 01 14.1	-0.9
	comp=Z,2.4nm,0.7s,mb4.8,baz=266,slow=4.5,SNR=4.3						
YKA				PKKPbc	PKKPbc	08 18 00.1	-4.2
	comp=Z,0.4nm,0.6s,baz=86,slow=3.1,SNR=7.7						
YKW3	**Yellowknife Ar**	96.18	28	*e*P	P	08 01 13.9	-1.1
PDAR	**Pinedale Array**	98.24	48	P	P	08 01 24.0	-0.7
	comp=Z,2.2nm,0.9s,mb4.7,baz=257,slow=2.7,SNR=11						
AB31	**Akbulak array**	99.35	319	*i* P	P	08 01 27.2	-2.3
AB31				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.3						
ARU	**Arti**	100.07	326	*e*Pdif	Pdif	08 01 30.8	-1.9
ARU	**Arti**	100.07	326c	*i*P	Pdif	08 01 30.4	-2.3
ARU				*e*		08 05 37.9	
ARU				*e*S	SKSac	08 12 03.9	-5.5
ARU				*e*SS	SS	08 19 59.2	-0.1
ARU				pmax	pmax		
	comp=Z,11nm,0.7s						
ANMO	**Albuquerque**	100.39	56⇑	*e*P	Pdif	08 01 31.3	-2.8
RES	**Resolute Bay**	102.02	15	*e*Pdif	Pdif	08 01 37.7	-3.6
TXAR	**Lajitas Array**	102.62	62	P	Pdif	08 01 38.8	-5.3
	comp=Z,0.5nm,0.9s,baz=245,slow=5.1,SNR=3.9						
TXAR				PP	PP	08 05 53.8	-4.4
	comp=Z,0.5nm,0.8s,baz=242,slow=2.7,SNR=3.9						
TXAR				PKKPbc	PKKPbc	08 17 45.7	+0.8
	comp=Z,0.5nm,0.8s,baz=108,slow=4.1,SNR=3.6						
PRGR	**Permogore**	105.94	332	*i* P	Pdif	08 01 56.4	-2.4
ARCES	**ARCESS Array B**	110.11	343	PKPdf	PKiKP	08 06 16.6	-1.8
ARCES	**ARCESS Array B**	110.11	343	PKiKP	PKiKP	08 06 16.6	-1.8
	comp=Z,1.4nm,0.7s,baz=358,slow=4.0,SNR=7.9						
GOF	**Gofitskoye**	111.22	316	*e*PKIKP	PKiKP	08 06 11.2	-10
JOF	**Joensuu**	111.69	336	*e*pkp	PKiKP	08 06 16.0	-5.5
JOF	**Joensuu**	111.69	336	*e*PKP	PKiKP	08 06 16.0	-5.5
JOF	**Joensuu**	111.69	336	*e*PKIKP	PKiKP	08 06 16.0	-5.5
OBN	**Obninsk**	112.47	327	*i* P	Pdif	08 02 32.0	+4.2
KAF	**Kangasniemi**	114.10	337	*e*pkp	PKiKP	08 06 24.3	-1.9
KAF	**Kangasniemi**	114.10	337	*e*PKP	PKiKP	08 06 24.3	-1.9
KAF	**Kangasniemi**	114.10	337	*e*PKIKP	PKiKP	08 06 24.3	-1.9
FINES	**FINESS Array B**	114.56	336	PKP	PKiKP	08 06 26.1	-0.9
FINES	**FINESS Array B**	114.56	336	PKIKP	PKiKP	08 06 26.2	-0.9
FINES	**FINESS Array B**	114.56	336	PKP	PKiKP	08 06 26.1	-0.9
	comp=Z,3.4nm,0.7s,baz=111,slow=8.4,SNR=11						
AKASG	**Malin Array Be**	118.28	325	PKP	PKPdf	08 06 33.2	-1.3
AKASG				PP	PP	08 07 50.4	+0.1
AKASG				PKKPbc	PKKPbc	08 16 51.0	-3.5
AKASG	**Malin Array Be**	118.28	325	PKIKP	PKPdf	08 06 33.2	-1.4
AKASG						08 07 50.4	
AKASG	**Malin Array Be**	118.28	325	PKP	PKPdf	08 06 33.2	-1.3
	comp=Z,3.3nm,0.5s,baz=59,slow=2.1,SNR=22						
AKASG				PP	PP	08 07 50.4	+0.1
	comp=Z,0.9nm,0.7s,baz=52,slow=6.2,SNR=4.5						
AKASG				PKKPbc	PKKPbc	08 16 51.0	-3.5
	comp=Z,0.1nm,0.2s,baz=263,slow=3.6,SNR=5.7						
BRTR	**Keskin Array B**	119.23	312	PKP	PKPdf	08 06 35.9	-0.9
BRTR				PKKPbc	PKKPbc	08 16 50.5	-0.3
BRTR	**Keskin Array B**	119.23	312	PKIKP	PKPdf	08 06 35.9	-0.8
BRTR	**Keskin Array B**	119.23	312	PKP	PKPdf	08 06 35.9	-0.9
	comp=Z,1.5nm,0.7s,baz=60,slow=3.0,SNR=5.2						
BRTR				PKKPbc	PKKPbc	08 16 50.5	-0.3
	comp=Z,1.1nm,0.7s,baz=202,slow=1.3,SNR=4.8						
SUW	**Suwalki**	119.92	330	*e*PKP	PKPdf	08 06 37.0	-0.5
SUW	**Suwalki**	119.92	330	*e*PKP	PKPdf	08 06 37.1	-0.5
SUW	**Suwalki**	119.92	330	*e*PKIKP	PKPdf	08 06 37.1	-0.5
NB2	**NORSAR Subarra**	120.26	341	PKPd	PKPdf	08 06 36.4	-1.6
	comp=Z,5.1nm,1.0s,baz=39,slow=1.9						
NOA	**NORSAR Array B**	120.26	341	PKP	PKPdf	08 06 37.0	-1.0
NOA	**NORSAR Array B**	120.26	341	PKIKP	PKPdf	08 06 37.0	-1.0
NOA	**NORSAR Array B**	120.26	341	PKP	PKPdf	08 06 37.0	-1.0
	comp=Z,3.0nm,0.7s,baz=42,slow=1.7,SNR=8.0						
BOSA	**Boshof**	120.53	231	*e*PKPdf	PKPdf	08 06 38.8	-0.9
BOSA	**Boshof**	120.53	231	*e*PKIKP	PKPdf	08 06 38.8	-0.8
BOSA	**Boshof**	120.53	231	PKP	PKPdf	08 06 38.4	-1.2
	comp=Z,3.2nm,0.7s,baz=104,slow=5.3,SNR=7.0						
LVV	**L'vov**	121.65	325	*i* PKIKP	PKPdf	08 06 36.8	-4.3
LBTB	**Lobatse**	121.94	235	*e*PKPdf	PKPdf	08 06 42.2	-0.2
LBTB	**Lobatse**	121.94	235	*e*PKIKP	PKPdf	08 06 42.2	-0.2
BURAR	**Bucovina Array**	122.01	323⇓	*i*P	PKPdf	08 06 42.9	+1.1
KWP	**Kalwaria**	122.48	326	*e*PKP	PKPdf	08 06 42.6	-0.1
KWP	**Kalwaria**	122.48	326	*e*PKP	PKPdf	08 06 42.6	-0.1
KWP	**Kalwaria**	122.48	326	*e*PKIKP	PKPdf	08 06 42.6	-0.1
MLR	**Muntele Rosu**	122.51	320⇑	*i*P	PKPdf	08 06 42.6	-0.3
KOLS	**Kolonicke sedl**	123.09	325	*e*PKP	PKPdf	08 06 43.9	+0.1
KOLS	**Kolonicke sedl**	123.09	325	*e*PKIKP	PKPdf	08 06 43.9	+0.1
KOLS	**Kolonicke sedl**	123.09	325	*e*PKP	PKPdf	08 06 43.9	+0.1
GKP	**Gorka Klasztor**	123.23	332	*e*PKP	PKPdf	08 06 44.2	+0.2
GKP	**Gorka Klasztor**	123.23	332	*e*PKP	PKPdf	08 06 44.2	+0.2
GKP	**Gorka Klasztor**	123.23	332	*e*PKIKP	PKPdf	08 06 44.2	+0.2
UZH	**Uzhgorod**	123.23	325	*e*PKIKP	PKPdf	08 06 45.2	+1.1
STHS	**Stebnicka Huta**	123.41	326	*e*PKP	PKPdf	08 06 44.6	+0.1
STHS	**Stebnicka Huta**	123.41	326	*e*PKIKP	PKPdf	08 06 44.6	+0.1
STHS	**Stebnicka Huta**	123.41	326	*e*PKP	PKPdf	08 06 44.6	+0.1
LSZ	**Lusaka**	123.54	246	*e*PKPdf	PKPdf	08 06 45.5	-0.2
LSZ	**Lusaka**	123.54	246	*e*PKIKP	PKPdf	08 06 45.5	-0.2
CRVS	**Cervenica-Dubn**	123.56	326	*e*PKP	PKPdf	08 06 44.5	-0.3
CRVS	**Cervenica-Dubn**	123.56	326	*e*PKIKP	PKPdf	08 06 44.5	-0.3
CRVS	**Cervenica-Dubn**	123.56	326	*e*PKP	PKPdf	08 06 44.5	-0.3
OJC	**Ojcow**	123.75	328	*e*PKP	PKPdf	08 06 44.7	-0.4
OJC	**Ojcow**	123.75	328	*e*PKIKP	PKPdf	08 06 44.7	-0.4
DRGR		123.91	323⇓	*i*P	PKPdf	08 06 45.1	-0.4
NIE	**Niedzica**	123.92	327	*e*PKP	PKPdf	08 06 45.9	+0.5
NIE	**Niedzica**	123.92	327	*e*PKIKP	PKPdf	08 06 45.9	+0.5
ATAH	**Atahualpa**	124.03	103	PKP	PKPdf	08 06 46.7	0.0
	comp=Z,7.1nm,0.7s,baz=88,slow=3.1,SNR=4.3						
NNA	**Nana**	124.19	110	PKP	PKPdf	08 06 43.9	-3.0
NNA	**Nana**	124.19	110	PKP	PKPdf	08 06 43.9	-3.0
	comp=Z,3.7nm,0.5s,baz=225,slow=9.2,SNR=3.5						
GZR	**Gura Zlata**	124.54	321⇓	*i*P	PKPdf	08 06 46.9	+0.1
OKC	**Ostrava-Krasne**	124.84	328	*e*PKP	PKPdf	08 06 47.0	-0.2
OKC				*e*		08 06 53.6	
OKC	**Ostrava-Krasne**	124.84	328	*e*PKIKP	PKPdf	08 06 47.0	-0.2
OKC				*e*		08 06 53.6	
OKC	**Ostrava-Krasne**	124.84	328	*e*PKPdf	PKPdf	08 06 47.0	-0.2
OKC				*e*pPKP	pPKPdf	08 06 53.6	-2.9
PSZ	**Piszkesteto**	124.97	325	*e*PKPdf	PKPdf	08 06 47.4	-0.1
PSZ	**Piszkesteto**	124.97	325	*e*PKIKP	PKPdf	08 06 47.4	-0.1
PSZ	**Piszkesteto**	124.97	325⇓	*e*PKP/D	PKPdf	08 06 47.5	0.0
PSZ	**Piszkesteto**	124.97	325⇑	*i*P	PKPdf	08 06 48.0	+0.5
BZS	**Buzias**	125.15	322⇑	*i*P	PKPdf	08 06 47.6	-0.3
MORC	**Moravsky Berou**	125.20	328	*e*PKPdf	PKPdf	08 06 48.1	+0.3
MORC	**Moravsky Berou**	125.20	328	*e*PKIKP	PKPdf	08 06 48.2	+0.3
MORC	**Moravsky Berou**	125.20	328⇓	*i*P	PKPdf	08 06 48.3	+0.4
VYHS	**Vyhne**	125.24	326	*e*PKP	PKPdf	08 06 47.4	-0.6
VYHS				*e*		08 06 53.7	
VYHS	**Vyhne**	125.24	326	*e*PKIKP	PKPdf	08 06 47.4	-0.6
VYHS				*e*		08 06 53.7	
VYHS	**Vyhne**	125.24	326	*e*PKP	PKPdf	08 06 47.4	-0.6
VYHS				*e*		08 06 53.7	
OTAV	**Otavalo**	125.38	95	*e*PKPdf	PKPdf	08 06 50.0	+0.7
DPC	**Dobruska-Polom**	125.48	329	*e*PKP	PKPdf	08 06 48.7	+0.3
DPC				*e*		08 06 54.3	
DPC	**Dobruska-Polom**	125.48	329	*e*PKIKP	PKPdf	08 06 48.7	+0.3
DPC				*e*		08 06 54.3	
DPC	**Dobruska-Polom**	125.48	329	*e*PKPdf	PKPdf	08 06 48.7	+0.3
DPC				*e*pPKP	pPKPdf	08 06 54.3	-3.5
UPC	**Upice**	125.54	330	*e*PKP	PKPdf	08 06 48.2	-0.3
UPC				*e*		08 06 54.1	
UPC	**Upice**	125.54	330	*e*PKIKP	PKPdf	08 06 48.2	-0.3
UPC				*e*		08 06 54.1	
UPC	**Upice**	125.54	330	*e*PKPdf	PKPdf	08 06 48.2	-0.3
UPC				*e*pPKP	pPKPdf	08 06 54.1	-3.8
BSEG	**Bad Segeberg**	125.83	336	*e*PKPdf	PKPdf	08 06 49.2	+0.3
BSEG	**Bad Segeberg**	125.83	336	*e*PKIKP	PKPdf	08 06 49.2	+0.3
BSEG	**Bad Segeberg**	125.83	336	*e*PKPdf	PKPdf	08 06 49.2	+0.3
PVCC	**Panska Ves**	126.24	330	*e*PKP	PKPdf	08 06 50.0	+0.2
PVCC				*e*		08 06 55.9	
PVCC	**Panska Ves**	126.24	330	*e*PKIKP	PKPdf	08 06 50.0	+0.2
PVCC				*e*		08 06 55.9	
PVCC	**Panska Ves**	126.24	330	*e*PKPdf	PKPdf	08 06 50.0	+0.2
PVCC				*e*pPKP	pPKPdf	08 06 55.9	-3.3
BRG	**Berggiesshubel**	126.32	331	*e*PKP	PKPdf	08 06 49.7	-0.3
BRG				*i*		08 06 56.2	
BRG	**Berggiesshubel**	126.32	331	*e*PKIKP	PKPdf	08 06 49.7	-0.3
BRG				*i*		08 06 56.2	
BRG				pmax	pmax		
	comp=Z,15nm,1.1s						
BRG				pmax	pmax		
	comp=Z,25nm,1.4s						
BRG	**Berggiesshubel**	126.32	331	*e*PKPdf	PKPdf	08 06 49.9	-0.1
BRG	**Berggiesshubel**	126.32	331	*e*PKP	PKPdf	08 06 49.7	-0.3
	comp=Z,25nm,1.1s						
BRG				*i*		08 06 56.2	
	comp=Z,42nm,1.4s						
ZST	**Bratislava**	126.36	327	*e*PKP	PKPdf	08 06 50.4	+0.3
ZST	**Bratislava**	126.36	327	*e*PKIKP	PKPdf	08 06 50.4	+0.3
ZST	**Bratislava**	126.36	327	*e*PKP	PKPdf	08 06 50.4	+0.3
CLL	**Collm**	126.48	332⇑	*i*PKP	PKPdf	08 06 49.7	-0.6
CLL				*i* pPKP	pPKPdf	08 06 56.1	-3.5
CLL				LR	LR		
	comp=Z,1µm,19.3s,MS5.7						
CLL	**Collm**	126.48	332⇑	*i*PKIKP	PKPdf	08 06 49.7	-0.6
CLL				*i*		08 06 56.1	
CLL				pmax	pmax		
	comp=Z,24nm,1.0s						
CLL				MLR	MLR		
	comp=Z,1µm,19.3s,MS5.7						
CLL	**Collm**	126.48	332	*e*PKPdf	PKPdf	08 06 49.7	-0.6
CLL	**Collm**	126.48	332⇑	*i*PKPdf	PKPdf	08 06 49.7	-0.6
	comp=Z,24nm,1.0s						
CLL				*i* pPKPdf	pPKPdf	08 06 56.1	-3.5
CLL				Lm		09 03 00.0	
	comp=N,1µm,21.0s						
CLL				Lm		09 03 00.0	
	comp=E,600nm,21.6s						
CLL				Lm		09 03 00.0	
	comp=Z,1µm,19.3s						
TREC	**Trest**	126.56	329	*e*PKIKP	PKPdf	08 06 50.0	-0.5
TREC				*e*		08 06 56.8	
TREC	**Trest**	126.56	329	*e*PKPdf	PKPdf	08 06 50.0	-0.5
TREC				*e*pPKP	pPKPdf	08 06 56.8	-3.0
PRU	**Pruhonice**	126.60	330	*e*PKP	PKPdf	08 06 50.3	-0.2
PRU				*e*		08 06 56.6	
PRU	**Pruhonice**	126.60	330	*e*PKIKP	PKPdf	08 06 50.3	-0.2
PRU				*e*		08 06 56.6	
PRU	**Pruhonice**	126.60	330	*e*PKPdf	PKPdf	08 06 50.3	-0.2
PRU				*e*pPKP	pPKPdf	08 06 56.6	-3.3
PKSM	**Moragy**	126.61	324⇑	*i*P	PKPdf	08 06 50.3	-0.4
SOP	**Sopron**	126.96	327⇑	*e*PKP/D	PKPdf	08 06 51.9	+0.6
CLZ	**Clausthal**	127.30	334	*e*PKPdf	PKPdf	08 06 51.9	+0.1
CLZ	**Clausthal**	127.30	334	*e*PKIKP	PKPdf	08 06 51.9	+0.1
CLZ	**Clausthal**	127.30	334	*e*PKPdf	PKPdf	08 06 51.9	+0.1
TANN	**Tannenbergstha**	127.33	331	*e*PKPdf	PKPdf	08 06 51.6	-0.3
NKC	**Novy Kostel**	127.46	331	*e*PKP	PKPdf	08 06 52.5	+0.3
NKC				*e*		08 06 58.4	
NKC	**Novy Kostel**	127.46	331	*e*PKIKP	PKPdf	08 06 52.5	+0.3
NKC				*e*		08 06 58.4	
NKC	**Novy Kostel**	127.46	331	*e*PKPdf	PKPdf	08 06 52.5	+0.3
NKC				*e*pPKP	pPKPdf	08 06 58.4	-3.1
ARE	**Arequipa**	127.53	117	P	PKPdf	08 06 53.0	-0.3
ARE	**Arequipa**	127.53	117	PKIKP	PKPdf	08 06 53.0	-0.3
MOX	**Moxa**	127.58	332	*e*PKP	PKPdf	08 06 52.2	-0.2
MOX				*e*		08 06 58.5	
MOX	**Moxa**	127.58	332	*e*PKP	PKPdf	08 06 52.2	-0.2
	comp=Z,27nm,1.6s						
MOX				*e*		08 06 58.5	
MOX	**Moxa**	127.58	332	*e*PKIKP	PKPdf	08 06 52.2	-0.2
MOX				*e*		08 06 58.5	
MOX				pmax	pmax		
	comp=Z,27nm,1.6s						
MOX	**Moxa**	127.58	332	*e*PKPdf	PKPdf	08 06 52.5	+0.1
KHC	**Kasperske Hory**	127.63	330	*e*PKP	PKPdf	08 06 52.4	-0.1
KHC				*e*		08 06 58.9	
KHC	**Kasperske Hory**	127.63	330	*e*PKIKP	PKPdf	08 06 52.4	-0.1
KHC				*e*		08 06 58.9	
KHC	**Kasperske Hory**	127.63	330	*e*PKPdf	PKPdf	08 06 52.4	-0.1

KHC				ePKP	pPKPdf	08 06 58.9	-3.0
GEC2	GERESS Array S	127.75	329	ePKPdf	PKPdf	08 06 52.9	+0.1
GEC2	GERESS Array S	127.75	329	ePKIKP	PKPdf	08 06 52.9	+0.1
GEC2	GERESS Array S	127.75	329	ePKPdf	PKPdf	08 06 52.9	+0.1
GERES	GERESS Array B	127.75	329	PKP	PKPdf	08 06 52.5	-0.3
GERES	GERESS Array B	127.75	329	PKIKP	PKPdf	08 06 52.5	-0.3
GERES	GERESS Array B	127.75	329	PKP	PKPdf	08 06 52.5	-0.3
	comp=Z,7.3nm,0.8s,baz=48,slow=2.0,SNR=23						
MANZ	Manzenberg	127.79	331	ePKPdf	PKPdf	08 06 52.6	-0.2
ROTZ	Rotzenmuhle	127.89	331	ePKPdf	PKPdf	08 06 52.7	-0.3
WET	Wettzell	127.97	330	ePKPdf	PKPdf	08 06 53.2	0.0
WET	Wettzell	127.97	330	ePKIKP	PKPdf	08 06 53.2	0.0
WET	Wettzell	127.97	330	ePKPdf	PKPdf	08 06 53.2	0.0
IBBN	Ibbenburen	128.07	336	ePKPdf	PKPdf	08 06 53.3	0.0
GRA1	Grafenberg Arr	128.41	331	ePKPdf	PKPdf	08 06 54.1	+0.1
GRF	Grafenberg Arr	128.41	331	ePKP	PKPdf	08 06 54.1	+0.1
GRF	Grafenberg Arr	128.41	331	ePKIKP	PKPdf	08 06 54.1	+0.1
GRF	Grafenberg Arr	128.41	331	ePKIKP	PKPdf	08 06 54.1	+0.1
GRF	Grafenberg Arr	128.41	331	ePKPdf	PKPdf	08 06 54.1	+0.1
GRF				ePKP	PKPdf	08 07 00.8	+6.8
TNS	Taunus Mts	129.31	333	ePKPdf	PKPdf	08 06 56.0	+0.3
TNS	Taunus Mts	129.31	333	ePKIKP	PKPdf	08 06 56.0	+0.3
TNS	Taunus Mts	129.31	333	ePKPdf	PKPdf	08 06 56.0	+0.3
ROSC	El Rosal	130.03	90	ePKPdf	PKPdf	08 06 58.3	+0.1
ROSC	El Rosal	130.03	90	PKP	PKPdf	08 06 57.2	-1.0
	comp=Z,6.0nm,0.6s,baz=79,slow=6.8,SNR=6.2						
MEM	Membach	130.07	335	PKPdf	PKPdf	08 06 57.3	+0.1
LPAZ	La Paz	130.55	119	ePKPdf	PKPdf	08 07 00.0	+1.0
LPAZ	La Paz	130.55	119	ePKIKP	PKPdf	08 07 00.0	+1.0
LPAZ	La Paz	130.55	119	PKhKP		08 06 07.7	
	comp=Z,3.7nm,0.9s,baz=278,slow=6.5,SNR=8.2						
LPAZ				PKP	PKPdf	08 06 58.8	-0.2
	comp=Z,11nm,1.0s,baz=339,slow=1.6,SNR=8.2						
BFO	Black Forest	130.73	332	ePKPdf	PKPdf	08 06 59.0	+0.5
BFO	Black Forest	130.73	332	ePKIKP	PKPdf	08 06 59.0	+0.5
BFO	Black Forest	130.73	332	ePKPdf	PKPdf	08 06 59.0	+0.5
SNF	Seneffe	130.85	336	PKPdf	PKPdf	08 06 59.4	+0.8
GIVF	Givet	130.95	336	ePKIKP	PKPdf	08 06 58.5	-0.3
	comp=Z,34nm,0.9s						
GIVF	Givet	130.95	336	ePKPdf	PKPdf	08 06 58.5	-0.3
GIVF	Givet	130.95	336	ePKIKP	PKPdf	08 06 58.5	-0.3
DOU	Dourbes	131.05	336	PKPdf	PKPdf	08 06 58.7	-0.3
CDF	Champ du Feu	131.16	333	ePKIKP	PKPdf	08 06 58.7	-0.6
	comp=Z,94nm,1.7s						
CDF	Champ du Feu	131.16	333	ePKPdf	PKPdf	08 06 58.7	-0.6
CDF	Champ du Feu	131.16	333	ePKIKP	PKPdf	08 06 58.7	-0.6
TSUM	Tsumeb	131.21	237	ePKPdf	PKPdf	08 06 59.9	-0.4
BAIF	Baives	131.23	336	ePKIKP	PKPdf	08 06 59.3	-0.1
	comp=Z,35nm,1.2s						
BAIF	Baives	131.23	336	ePKPdf	PKPdf	08 06 59.3	-0.1
BAIF	Baives	131.23	336	ePKIKP	PKPdf	08 06 59.3	-0.1
HINF	Hinteralfeld	131.78	332	ePKIKP	PKPdf	08 06 59.8	-0.7
	comp=Z,87nm,1.4s						
HINF	Hinteralfeld	131.78	332	ePKPdf	PKPdf	08 06 59.8	-0.7
HINF	Hinteralfeld	131.78	332	ePKIKP	PKPdf	08 06 59.8	-0.7
HAU	Haudompre	131.88	333	ePKIKP	PKPdf	08 06 59.9	-0.8
	comp=Z,26nm,0.9s						
HAU				eMLR	MLR		
	comp=Z,718nm,19.2s,MS5.1						
HAU	Haudompre	131.88	333	ePKPdf	PKPdf	08 06 59.9	-0.8
HAU				LR	LR		
	comp=Z,720nm,19.3s,MS5.4						
HAU	Haudompre	131.88	333	ePKIKP	PKPdf	08 06 59.9	-0.8
HAU				MLR	MLR		
	comp=Z,720nm,19.3s,MS5.4						
MEZF	Maizieres J'vi	132.08	334	ePKIKP	PKPdf	08 07 00.9	-0.1
	comp=Z,181nm,1.5s						
MEZF	Maizieres J'vi	132.08	334	ePKPdf	PKPdf	08 07 00.9	-0.1
CABF	La Chapelle	133.02	332	ePKIKP	PKPdf	08 07 02.9	0.0
CABF	La Chapelle	133.02	332	ePKPdf	PKPdf	08 07 02.9	0.0
CABF	La Chapelle	133.02	332	ePKIKP	PKPdf	08 07 02.9	0.0
LPL	La Plagne	133.50	330	ePKIKP	PKPdf	08 07 03.5	-0.3
LPL	La Plagne	133.50	330	ePKPdf	PKPdf	08 07 03.5	-0.3
LPL	La Plagne	133.50	330	ePKIKP	PKPdf	08 07 03.5	-0.3
LPG	La Plagne	133.50	330	ePKIKP	PKPdf	08 07 03.7	-0.1
	comp=Z,28nm,0.9s						
LPG	La Plagne	133.50	330	ePKPdf	PKPdf	08 07 03.7	-0.1
LPG	La Plagne	133.50	330	ePKIKP	PKPdf	08 07 03.7	-0.1
LOR	Lormes	133.54	334	ePKIKP	PKPdf	08 07 03.5	-0.3
	comp=Z,39nm,1.1s						
LOR				eMLR	MLR		
	comp=Z,1µm,21.0s,MS5.2						
LOR	Lormes	133.54	334	ePKPdf	PKPdf	08 07 03.5	-0.3
LOR				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
LOR	Lormes	133.54	334	ePKIKP	PKPdf	08 07 03.5	-0.3
LOR				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.5						
SSF	Saint Saulge	133.85	334	ePKIKP	PKPdf	08 07 04.0	-0.4
	comp=Z,30nm,1.0s						
SSF	Saint Saulge	133.85	334	ePKPdf	PKPdf	08 07 04.0	-0.4
SSF	Saint Saulge	133.85	334	ePKIKP	PKPdf	08 07 04.0	-0.4
BNI	Bardonecchia	133.86	330	ePKPdf	PKPdf	08 07 04.3	-0.2
BNI	Bardonecchia	133.86	330	ePKIKP	PKPdf	08 07 04.3	-0.2
SMF	Signal de Mont	134.03	333	ePKIKP	PKPdf	08 07 04.4	-0.3
SMF	Signal de Mont	134.03	333	ePKPdf	PKPdf	08 07 04.4	-0.3
SMF	Signal de Mont	134.03	333	ePKIKP	PKPdf	08 07 04.4	-0.3
MBDF	Montbardon	134.04	329	ePKIKP	PKPdf	08 07 04.7	-0.1
MBDF	Montbardon	134.04	329	ePKPdf	PKPdf	08 07 04.7	-0.1
MBDF	Montbardon	134.04	329	ePKIKP	PKPdf	08 07 04.7	-0.1
FLN	La Foliniere	134.09	338	ePKIKP	PKPdf	08 07 03.9	-0.9
	comp=Z,82nm,1.3s						
FLN				eMLR	MLR		
	comp=Z,946nm,22.2s,MS5.2						
FLN	La Foliniere	134.09	338	ePKPdf	PKPdf	08 07 03.9	-0.9
FLN				LR	LR		
	comp=Z,950nm,22.3s,MS5.5						
FLN	La Foliniere	134.09	338	ePKIKP	PKPdf	08 07 03.9	-0.9
FLN				MLR	MLR		
	comp=Z,950nm,22.3s,MS5.5						
LDF	La Druitiere	134.10	338	ePKIKP	PKPdf	08 07 04.3	-0.5
	comp=Z,78nm,1.4s						
LDF	La Druitiere	134.10	338	ePKPdf	PKPdf	08 07 04.3	-0.5
LDF	La Druitiere	134.10	338	ePKIKP	PKPdf	08 07 04.3	-0.5
AVF	Avril sur Loir	134.13	334	ePKIKP	PKPdf	08 07 04.7	-0.2
AVF	Avril sur Loir	134.13	334	ePKPdf	PKPdf	08 07 04.7	-0.2
AVF	Avril sur Loir	134.13	334	ePKIKP	PKPdf	08 07 04.7	-0.2
SBF	Sospel	134.30	328	ePKIKP	PKPdf	08 07 05.1	-0.3
SBF	Sospel	134.30	328	ePKPdf	PKPdf	08 07 05.1	-0.3
SBF	Sospel	134.30	328	ePKIKP	PKPdf	08 07 05.1	-0.3
PGF	Pioggiola	134.34	326	ePKIKP	PKPdf	08 07 05.1	-0.4
	comp=Z,46nm,0.9s						
PGF	Pioggiola	134.34	326	ePKPdf	PKPdf	08 07 05.1	-0.4
PGF	Pioggiola	134.34	326	ePKIKP	PKPdf	08 07 05.1	-0.4
ORIF	Oris-en-Rattie	134.35	330	ePKIKP	PKPdf	08 07 05.1	-0.3
	comp=Z,31nm,1.1s						
ORIF				eMLR	MLR		
	comp=Z,1µm,20.5s,MS5.3						
ORIF	Oris-en-Rattie	134.35	330	ePKPdf	PKPdf	08 07 05.1	-0.3
ORIF	Oris-en-Rattie	134.35	330	ePKIKP	PKPdf	08 07 05.1	-0.3
BGF	Bois d'Agland	134.53	334	ePKIKP	PKPdf	08 07 05.3	-0.4
	comp=Z,35nm,1.0s						
BGF	Bois d'Agland	134.53	334	ePKPdf	PKPdf	08 07 05.3	-0.4
BGF	Bois d'Agland	134.53	334	ePKIKP	PKPdf	08 07 05.3	-0.4
GRR	Gorron	134.54	338	ePKIKP	PKPdf	08 07 05.1	-0.6
GRR	Gorron	134.54	338	ePKPdf	PKPdf	08 07 05.1	-0.6
GRR	Gorron	134.54	338	ePKIKP	PKPdf	08 07 05.1	-0.6
FRF	La Foret Royal	134.92	328	ePKIKP	PKPdf	08 07 06.0	-0.5
	comp=Z,94nm,1.4s						
FRF	La Foret Royal	134.92	328	ePKPdf	PKPdf	08 07 06.0	-0.5
FRF	La Foret Royal	134.92	328	ePKIKP	PKPdf	08 07 06.0	-0.5
VIVF	Saint-Julien-l	134.98	331	ePKIKP	PKPdf	08 07 06.2	-0.4
VIVF	Saint-Julien-l	134.98	331	ePKPdf	PKPdf	08 07 06.2	-0.4
VIVF	Saint-Julien-l	134.98	331	ePKIKP	PKPdf	08 07 06.2	-0.4
TCF	Toulx Ste Croi	135.02	334	ePKIKP	PKPdf	08 07 06.2	-0.4
	comp=Z,47nm,1.1s						
TCF	Toulx Ste Croi	135.02	334	ePKPdf	PKPdf	08 07 06.2	-0.4
TCF	Toulx Ste Croi	135.02	334	ePKIKP	PKPdf	08 07 06.2	-0.4
LMR	La Mourre	135.15	328	ePKIKP	PKPdf	08 07 06.4	-0.6
	comp=Z,99nm,1.4s						
LMR	La Mourre	135.15	328	ePKPdf	PKPdf	08 07 06.4	-0.6
LMR	La Mourre	135.15	328	ePKIKP	PKPdf	08 07 06.4	-0.6
SMRF	Simiane la Rot	135.18	330	ePKIKP	PKPdf	08 07 06.5	-0.5
SMRF	Simiane la Rot	135.18	330	ePKPdf	PKPdf	08 07 06.5	-0.5
SGMF	Saint Gilles	135.26	340	ePKIKP	PKPdf	08 07 06.5	-0.5
SGMF	Saint Gilles	135.26	340	ePKPdf	PKPdf	08 07 06.5	-0.5
SGMF	Saint Gilles	135.26	340	ePKIKP	PKPdf	08 07 06.5	-0.5
MFF	Saint Martin d	135.74	336	ePKIKP	PKPdf	08 07 07.5	-0.5
MFF	Saint Martin d	135.74	336	ePKPdf	PKPdf	08 07 07.5	-0.5
MFF	Saint Martin d	135.74	336	ePKIKP	PKPdf	08 07 07.5	-0.5
LFF	La Frestale	136.72	334	ePKIKP	PKPdf	08 07 09.6	-0.2
LFF	La Frestale	136.72	334	ePKPdf	PKPdf	08 07 09.6	-0.2
LFF	La Frestale	136.72	334	ePKIKP	PKPdf	08 07 09.6	-0.2
SIV	San Ignacio	136.72	122	PKhKP		08 06 57.2	
	comp=Z,1.4nm,0.7s,baz=248,slow=8.6,SNR=5.5						
EPF	Esparros	138.40	333	ePKIKP	PKPdf	08 07 12.5	-0.5
EPF	Esparros	138.40	333	ePKPdf	PKPdf	08 07 12.5	-0.5
EPF	Esparros	138.40	333	ePKIKP	PKPdf	08 07 12.5	-0.5
ETSF	Etsaut	138.91	333	ePKIKP	PKPdf	08 07 12.9	-1.0
	comp=Z,34nm,1.0s						
ETSF	Etsaut	138.91	333	ePKPdf	PKPdf	08 07 12.9	-1.0
ETSF	Etsaut	138.91	333	ePKIKP	PKPdf	08 07 12.9	-1.0
EMOS	Mosqueruela	140.86	331	PKP	PKPdf	08 07 18.7	+1.1
ETOR	Torete	141.24	333	PKP	PKPdf	08 07 19.8	+1.5
ETOR	Torete	141.24	333	PKIKP	PKPdf	08 07 19.8	+1.6
GUD	Guadarrama	142.30	335	PKP	PKPdf	08 07 16.3	-3.9
GUD	Guadarrama	142.30	335	PKIKP	PKPdf	08 07 16.3	-3.8
ETOB	Tobarra	142.72	330	PKP	PKPdf	08 07 20.7	-0.2
ESDC	Sonseca Array	143.02	334	PKP	PKPdf	08 07 17.2	-4.3
ESDC	Sonseca Array	143.02	334	PKhKP		08 07 17.2	
	comp=Z,4.6nm,0.7s,baz=15,slow=4.1,SNR=11						
ESLA	Sonseca Array	143.02	334	ePKPdf	PKPdf	08 07 17.9	-3.5
PVRL	Vila Real	143.14	339	ePKPdf	PKPdf	08 07 19.1	-2.5
EVIA	Vianos	143.19	331	PKP	PKPdf	08 07 18.8	-2.9
EVIA	Vianos	143.19	331	PKIKP	PKPdf	08 07 18.8	-3.0
PVIS	Viseu	143.69	339	ePKPdf	PKPdf	08 07 20.2	-2.4
MTE	Manteigas	143.85	338	ePKPdf	PKPdf	08 07 22.2	-0.7
EQES	Quesada	144.12	331	PKP	PKPdf	08 07 20.3	-3.2
EBAN	Banos Encina	144.17	332	PKP	PKPdf	08 07 21.5	-2.0
EBAN	Banos Encina	144.17	332	PKIKP	PKPdf	08 07 21.5	-2.0
ENIJ	Nijar	144.34	329	PKP	PKPdf	08 07 22.0	-1.9
ENIJ	Nijar	144.34	329	PKIKP	PKPdf	08 07 22.0	-1.8
EADA	Adamuz	144.53	333	PKP	PKPdf	08 07 22.2	-2.0
EBER	Berja	144.74	330	PKP	PKPdf	08 07 21.8	-2.8
ECOG	Cogollos-Vega	144.78	331	PKP	PKPdf	08 07 22.4	-2.2
ECOG	Cogollos-Vega	144.78	331	PKIKP	PKPdf	08 07 22.4	-2.2
ELUQ	Luque	144.88	332	PKP	PKPdf	08 07 23.9	-0.9
ELUQ	Luque	144.88	332	PKIKP	PKPdf	08 07 23.9	-0.9
EBAD	Badajoz	145.07	336	PKP	PKPdf	08 07 22.8	-2.3
ERON	Agron	145.10	331	PKP	PKPdf	08 07 22.9	-2.2
ELOJ	Sierra Loja	145.16	331	PKP	PKPdf	08 07 23.9	-1.4
ELOJ	Sierra Loja	145.16	331	PKIKP	PKPdf	08 07 23.9	-1.4
PESTR	Estremoz	145.20	337	ePKPdf	PKPdf	08 07 24.7	-0.6
EALB	Alboran	145.56	329	PKP	PKPdf	08 07 25.1	-0.9
EVO	Evora	145.65	337	ePKIKP	PKPdf	08 07 25.8	-0.3
	comp=Z,261nm,1.3s						
EVO				eMLR	MLR		
	comp=Z,864nm,22.2s,MS5.2						
EVO	Evora	145.65	337	ePKPab	PKPab	08 07 26.3	-0.3
PMAFR	Mafra	145.75	339	ePKPab	PKPab	08 07 27.1	+0.2
EMIN	Mina Concepcio	145.77	335	PKP	PKPdf	08 07 26.1	-0.2
MOE	Montemor	145.79	338	ePKPab	PKPab	08 07 26.4	-0.7
EMIJ	Mijas	145.92	332	PKP	PKPdf	08 07 25.0	-1.6
PBEJ	Beja	146.04	337	ePKPab	PKPab	08 07 28.1	0.0
ESPR	Espera	146.17	333	PKP	PKPdf	08 07 27.0	0.0
EGRO	El Granado	146.31	336	PKP	PKPdf	08 07 27.7	+0.5
EJIF	Jimena Fronter	146.34	332	PKP	PKPdf	08 07 27.9	+0.6
EJIF	Jimena Fronter	146.34	332	PKP2	PKPab	08 07 27.9	-1.4
PVAQ	Vaqueiros	146.51	336	ePKPab	PKPab	08 07 29.9	0.0
PBDV	Barranco-do-Ve	146.74	336	ePKPab	PKPab	08 07 30.0	-0.8
PTEO	Sao Teotonio	146.79	337	ePKPab	PKPab	08 07 30.6	-0.4
MORF	Marmelete	146.97	337	ePKPdf	PKPdf	08 07 28.6	+0.3
MORF	Marmelete	146.97	337	ePKPab	PKPab	08 07 31.2	-0.5
PFVI	Vila Bisbo	147.19	337	ePKPdf	PKPdf	08 07 27.4	-1.3
PFVI	Vila Bisbo	147.19	337	ePKPab	PKPab	08 07 31.8	-0.7
TOA0	Torodi Ar. Sit	153.95	285	ePKPbc	PKPbc	08 07 46.8	-1.0
TOA0				ePKPab	PKPab	08 08 00.6	-0.5
TORD	Torodi Ar. Bea	153.95	285	PKP	PKPdf	08 07 37.9	-1.9
TORD				PKPbc	PKPbc	08 07 45.5	-2.3
TORD				PP	PP	08 11 36.2	+0.3
TORD	Torodi Ar. Bea	153.95	285	PKP	PKPdf	08 07 37.9	-1.9
	comp=Z,1.4nm,0.7s,baz=70,slow=2.0,SNR=3.6						
TORD				PKPbc	PKPbc	08 07 45.5	-2.3
	comp=Z,6.7nm,0.8s,baz=56,slow=2.0,SNR=9.8						
TORD				PP	PP	08 11 36.2	+0.3
	comp=Z,1.6nm,0.9s,baz=30,slow=5.2,SNR=3.6						
KIC	Kosan Boka	160.74	268	ePKP2	PKPab	08 08 30.2	-0.3
	comp=Z,138nm,1.0s						
LIC	Lamto	161.01	268	ePKIKP	PKPdf	08 07 47.3	-1.4
	comp=Z,132nm,1.6s						
LIC				eMLR	MLR		
	comp=Z,986nm,18.8s						
LIC	Lamto	161.01	268	ePKP2	PKPab	08 08 31.2	-0.5
	comp=Z,107nm,1.3s						
LIC	Lamto	161.01	268	ePKPdf	PKPdf	08 07 47.3	-1.4
LIC				LR	LR		
	comp=Z,490nm,18.8s						
TIC	Toumodi	161.03	269	ePKP2	PKPab	08 08 31.4	-0.4
	comp=Z,157nm,1.2s						

BJI **17** *07:56:42.7, 7.29S×156.03E, h33^{km}, mB5.3, mb5.0, Ms5.1, Msz4.8*

IDC **17** *07:56:42.4±2.7, 7.30S×155.89E, h16^{km}±16^{km}, mb4.7/15, mb1 4.7/18, mb1mx4.7/20, mbtmp4.6/18, ML3.9/3, MS4.3/2, Ms1 4.3/2, ms1mx3.7/28, Error ellipse: s-maj=17.5km s-min=14.9km az=107.0*

ISCJB **17** *07:56:44.5±1.2, 7.31S±0.06×155.86E±0.04, h39^{km}±12^{km}, mb5.0/73, MS4.8/8, Error ellipse: s-maj=9.9km s-min=7.1km az=1.3*

MOS **17** *07:56:44.0±1.0, 7.22S×155.86E, h33^{km}, mb5.1/27, Error ellipse: s-maj=9.6km s-min=7.6km az=113.3*

NEIC **17** *07:56:44.8±0.2, 7.29S×155.88E, mb5.0/36, Error ellipse: s-maj=7.1km s-min=6.6km az=170.0*

ISC 17 07:56:48.1±1.1**, 7.37S**±0.06×**155.87E**±0.04**, h57**^{km}±11^{km}**, h62**^{km}±4.5^{km}**:pP-P, n228,** $\sigma 0^{s}93$/152**, mb5.0**/73**, MS4.8**/8**,**
6C-11D, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	Honiara	4.53	117	ePn	Pn	07 57 52.9	-1.2
HNR				eSn	Sn	07 58 46.4	+0.9
HNR	Honiara	4.53	117	Pn	Pn	07 57 51.2	-2.9
	24nm,0.3s,baz=272,slow=5.1,SNR=5.6						
HNR				Sn	Sn	07 58 49.4	+3.9
	45nm,0.3s,baz=131,slow=1.2,SNR=3.9						
HNR				LR	LR	07 58 51.2	
	comp=Z,2µm,19.4s,baz=356,slow=28						
PMG	Port Moresby	8.85	256	ePn	Pn	07 58 53.3	0.0
PMG				eSn	Sn	08 00 40.9	+9.3
PMG	Port Moresby	8.85	256	Pn	Pn	07 58 54.8	+1.5
	11nm,0.3s,baz=47,slow=8.3,SNR=24						
PMG				Sn	Sn	08 00 38.6	+7.0
	2.1nm,0.3s,baz=249,slow=22,SNR=4.1						
CTA	Charters Tower	15.70	215	eP	Pn	08 00 30.3	+4.5
	27nm,0.9s						
CTA	Charters Tower	15.70	215	Pn	Pn	08 00 26.3	+0.5
CTA	Charters Tower	15.70	215	Pn	Pn	08 00 26.3	+0.5
	0.2nm,0.3s,baz=36,slow=14,SNR=4.0						
CTAO	Charters Tower	15.70	215	ePn	Pn	08 00 26.6	+0.8
DZM	Mont Dzumac	17.82	146	P	Pn	08 00 52.4	+0.2
	0.2nm,0.3s,baz=108,slow=20,SNR=2.3						
FUNA	Funafuti	23.14	94	eP	P	08 01 48.8	-0.9
	52nm,0.9s,mb5.0						
KAKA	Kakadu	23.66	255	eP	P	08 01 53.8	-0.8
	27nm,0.6s,mb4.8						
WB2	Warramunga Arr	24.31	237	eP	P	08 02 00.3	-0.2
WB2				epP		08 02 08.3	
WRA	Warramunga Arr	24.32	237	P	P	08 02 00.4	-0.2
WRA						08 05 39.3	
WRA	Warramunga Arr	24.32	237	P	P	08 02 00.4	-0.2
	9.5nm,0.8s,mb4.2,baz=65,slow=10.0,SNR=26						
WRA				PcP	PcP	08 05 39.3	+0.1
	2.7nm,0.9s,baz=60,slow=2.5,SNR=5.0						
WRA				ScP	ScP	08 09 17.8	+4.6
	2.5nm,0.9s,baz=66,slow=3.1,SNR=10						
ASAR	Alice Springs	26.58	230	P	P	08 02 20.5	-0.5
ASAR						08 05 43.8	
ASAR	Alice Springs	26.58	230	P	P	08 02 20.5	-0.5
	1.8nm,0.6s,baz=62,slow=8.3,SNR=16						
ASAR				PcP	PcP	08 05 43.8	-0.6
	1.4nm,0.6s,baz=56,slow=2.7,SNR=5.3						
ASAR				ScP	ScP	08 09 24.5	+4.8
	1.0nm,0.7s,baz=64,slow=3.1,SNR=8.0						
STKA	Stephens Creek	27.77	207	eP	P	08 02 31.5	-0.1
	5.2nm,0.8s,mb4.2						
STKA	Stephens Creek	27.77	207	P	P	08 02 31.2	-0.4
	4.4nm,0.9s,mb4.1,baz=5.8,slow=13,SNR=4.0						
STKA				PcP	PcP	08 05 47.1	+0.1
	2.8nm,0.8s,baz=352,slow=7.1,SNR=3.4						
STKA				ScP	ScP	08 09 27.4	+4.3
	1.4nm,0.8s,baz=94,slow=11,SNR=4.2						
FITZ	Fitzroy Crossi	31.30	247	eP	P	08 03 02.6	-0.4
	23nm,0.8s,mb5.1						
FITZ	Fitzroy Crossi	31.30	247	P	P	08 03 02.3	-0.7
	4.9nm,0.7s,mb4.5,baz=118,slow=7.7,SNR=14						
FITZ				PcP	PcP	08 05 56.3	0.0
	4.1nm,0.8s,baz=72,slow=7.4,SNR=4.6						
AFI	Afiamalu	32.43	104	eP	P	08 03 12.8	-0.2
	32nm,0.9s,mb5.2						
AFI	Afiamalu	32.43	104	eP	P	08 03 12.8	-0.2
AFI				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
AFI	Afiamalu	32.43	104	P	P	08 03 12.1	-1.0
	comp=Z,26nm,0.7s,mb5.1,baz=358,slow=6.9,SNR=4.6						
FORT	Forrest	34.92	225	eP	P	08 03 41.4	+7.0
	comp=Z,15nm,0.5s,mb5.2						
MBWA	Marble Bar	37.49	245	eP	P	08 03 55.5	-1.1
	comp=Z,7.0nm,0.4s,mb4.8						
MBWA				epP	pP	08 04 06.0	-5.2
KKM	Kota Kinabalu	41.74	288	eP	P	08 04 31.9	-0.1
KLBR	Kellerberrin	42.91	231	eP	P	08 04 40.8	-0.5
RAR	Rarotonga	44.97	113	LR	LR	08 21 34.9	
	comp=Z,521nm,18.9s,MS4.5,baz=46,slow=33						
KSM	Kuching	46.29	279	eP	P	08 05 07.6	-0.9
KSM				epP	pP	08 05 23.2	-0.2
YHNB	Yeheng	46.30	315	eP	P	08 05 07.7	-0.7
MJAR	Matsushiro Arr	46.72	340	P	P	08 05 09.8	-1.7
	comp=Z,10nm,0.8s,mb4.8,baz=165,slow=8.1,SNR=26						
MJAR				PcP	PcP	08 06 43.6	-0.6
	comp=Z,4.0nm,0.7s,baz=162,slow=4.3,SNR=5.5						
MAJO	Matsushiro	46.72	340	eP	P	08 05 10.2	-1.2
	comp=Z,12nm,0.6s,mb5.0						
MAJO				epP	pP	08 05 18.7	-7.7
MAJO				ePcP	PcP	08 06 44.5	+0.2
MAJO	Matsushiro	46.72	340	eP	P	08 05 10.2	-1.2
MAJO				e*PP	pP	08 05 18.7	-7.7
MAJO				e		08 06 44.5	
MAJO				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.0						
MAT	Matsushiro	46.72	340	P	P	08 05 10.2	-1.2
KSRS	Korea Array	51.67	332	P	P	08 05 49.1	-0.1
	comp=Z,9.5nm,0.8s,mb4.8,baz=148,slow=6.7,SNR=25						
KSRS				PcP	PcP	08 07 02.9	+0.7
	comp=Z,3.0nm,0.7s,baz=143,slow=4.5,SNR=6.8						
KS15	Wonju Array Si	51.68	332	eP	P	08 05 48.9	-0.4
INCN	Inchon	52.32	331	eP	P	08 05 53.3	-0.7
	comp=Z,28nm,1.0s,mb5.2						
QIZ	Qiongzhong	52.39	301	eP	P	08 05 56.1	+1.1
	comp=Z,37nm,1.4s,mb5.1						
NJ2	Nanjing	52.75	320	eP	P	08 05 59.6	+2.2
NJ2				PP	PP	08 08 01.0	+3.7
NJ2				S	S	08 13 22.0	+0.5
NJ2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,310nm,7.9s						
NJ2				LR	LR		
	comp=N,710nm,23.8s						
NJ2				LR	LR		
	comp=E,690nm,18.0s						
NJ2				LR	LR		
	comp=Z,690nm,18.0s						
PAE	Paea	54.07	106	eP	P	08 06 08.3	+1.0
	comp=Z,35nm,1.2s,mb5.2						
PAE	Paea	54.07	106	eP	P	08 06 08.3	+1.0
PAE				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.2						
WHN	Wuhan	54.81	316	⇓P	P	08 06 12.8	+0.3
YSS	Yuzh-Sakhalins	55.33	349	i P	P	08 06 18.0	+2.1
YSS				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.2						
PMOR	Pomariorio Ree	55.57	103	eP	P	08 06 19.1	+0.9
	comp=Z,58nm,1.1s,mb5.5						
VAH	Vaihoa	55.83	103	eP	P	08 06 20.7	+0.6
	comp=Z,36nm,1.2s,mb5.3						
KULM	Kulim	56.51	281	eP	P	08 06 20.1	-4.9
KULM				epP	pP	08 06 39.4	-0.9
KULM				esP	sP	08 06 47.7	+0.8
MDJ	Mudanjiang	56.91	338	P	P	08 06 29.3	+2.1
MDJ				AMB	AMB		
	comp=Z,9.0nm,1.3s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,265nm,9.6s						
MDJ	Mudanjiang	56.91	338	eP	P	08 06 26.7	-0.5
	comp=Z,11nm,1.0s,mb4.8						
CN2	Changchun	57.90	334	eP	P	08 06 33.5	-0.7
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
GYA	Guiyang	58.37	307	⇑iP	P	08 06 38.3	+0.5
GYA				PCP	PcP	08 07 30.0	+1.7
GYA				PP	PP	08 08 52.3	+4.6
GYA				PPP		08 10 13.3	
GYA				SCP	ScP	08 11 23.8	-0.1
GYA				PCS	PcS	08 11 30.3	+0.3
GYA				S	S	08 14 37.6	+1.0
GYA				PS		08 14 59.5	
GYA				SCS	ScS	08 16 20.9	-2.0
GYA				SS	SS	08 18 32.0	+2.2
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.2						
GYA				AMB	AMB		
	comp=Z,160nm,9.0s						
GYA				LR	LR		
	comp=N,670nm,18.9s,MS4.9						
GYA				LR	LR		
	comp=E,470nm,19.4s,MS4.9						
GYA				LR	LR		
	comp=Z,580nm,20.0s,MS4.7						
HABR	Khabarovsk	58.55	344	eP	P	08 06 38.5	-0.1
HABR				e		08 08 48.0	
HABR				eSS	SS	08 18 38.8	+7.0
HABR				pmax	pmax		
	comp=Z,38nm,1.5s,mb5.2						
BJT	Baijiatuau	59.71	325	eP	P	08 06 46.7	-0.1
	comp=Z,6.4nm,0.8s,mb4.7						
BJT	Baijiatuau	59.71	325	eP	P	08 06 46.7	-0.1
BJT				pmax	pmax		
	comp=Z,6.0nm,0.8s						
PET	Petropavlovsk	60.21	2	eP	P	08 06 50.3	+0.3
PET				eS	S	08 15 04.6	+5.2
PET				pmax	pmax		
	comp=Z,29nm,1.8s,mb5.0						
PET				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.2						
NANT	Nan	60.27	296	⇓P	P	08 06 51.8	+0.7
	comp=Z,80nm,1.0s,mb5.7						
XAN	Xi'an	60.58	316	P	P	08 06 51.9	-1.0
XAN				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb5.0						
KMI	Kunming	60.94	304	P	P	08 06 56.0	+0.4
KMI				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.9						
KMI	Kunming	60.94	304	P	P	08 06 56.0	+0.4
	comp=Z,12nm,1.2s,mb4.9						
CM31	Chiang Mai Arr	61.72	295	eP	P	08 07 02.5	+1.5
	comp=Z,11nm,0.7s,mb5.1						
CHG	Chiang Mai	61.84	296	⇑P	P	08 07 01.9	+0.2
	comp=Z,31nm,0.7s,mb5.5						
CHTO	Chiang Mai	61.84	296	eP	P	08 07 01.9	+0.2
	comp=Z,10nm,1.0s,mb4.9						
CHTO	Chiang Mai	61.84	296	eP	P	08 07 01.9	+0.2
CHTO				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
CD2	Chengdu	62.71	310	P	P	08 07 07.3	-0.1
CD2				AP	pP	08 07 23.4	+0.4
CD2				PP	PP	08 09 27.8	+1.8
CD2				S	S	08 15 31.3	-0.7
CD2				SS	SS	08 19 39.6	+1.8
CD2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.5						
CD2				AMB	AMB		
	comp=Z,60nm,5.8s						
CD2				LR	LR		
	comp=N,490nm,16.8s						
CD2				LR	LR		
	comp=Z,480nm,18.0s,MS4.7						
HHC	Hu-ho-hao-te	62.91	323	eP	P	08 07 08.1	-0.3
HHC				AP	pP	08 07 24.4	+0.4
HHC				PCP	PcP	08 07 45.4	-0.8
HHC				PP	PP	08 09 28.6	+1.1
HHC				SCP	ScP	08 11 41.4	-2.3
HHC				PCS	PcS	08 11 48.1	-1.5
HHC				S	S	08 15 32.0	-2.1
HHC				PS		08 15 58.9	
HHC				SCS	ScS	08 16 51.6	-4.7
HHC				SS	SS	08 19 40.5	0.0
HHC				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.8						
HHC				AMB	AMB		

	comp=Z,189nm,5.2s						
HHC				LR	LR		
	comp=N,507nm,16.9s,MS4.9						
HHC				LR	LR		
	comp=E,421nm,17.1s,MS4.9						
HHC				LR	LR		
	comp=Z,473nm,15.5s,MS4.8						
TAOE	**Nuku Hiva Isla**	**63.30**	**96**	*e*P	**P**	**08 07 11.8**	**+0.2**
	comp=Z,245nm,1.0s						
HIA	**Hailar**	**64.63**	**335**	*e*P	**P**	**08 07 19.5**	**0.0**
	comp=Z,25nm,1.2s,mb5.1						
HIA	**Hailar**	**64.63**	**335**	*e*P	**P**	**08 07 19.5**	**-0.1**
HIA				pmax	pmax		
	comp=Z,25nm,1.2s						
LZH	**Lanzhou**	**65.19**	**315**	*e*P	**P**	**08 07 24.5**	**+1.0**
LZH				PP	PP	08 09 50.5	+2.8
LZH				*e*S	S	08 16 03.3	+0.8
LZH				XS	sS	08 16 25.0	-3.9
LZH				SS	SS	08 20 17.0	+0.8
LZH				AMB	AMB		
	comp=Z,42nm,1.5s,mb5.2						
LZH				AMB	AMB		
	comp=Z,120nm,4.4s						
LZH				LR	LR		
	comp=E,382nm,14.4s						
LZH				LR	LR		
	comp=Z,568nm,15.5s,MS4.9						
LZH	**Lanzhou**	**65.19**	**315**	*e*P	**P**	**08 07 24.5**	**+1.0**
	comp=Z,42nm,1.5s,mb5.2						
LZH				pP	pP	08 07 41.0	+1.8
LZH				sP	sP	08 07 46.5	+0.9
LZH				PP	PP	08 09 50.5	+2.8
LZH				*e*S	S	08 16 03.2	+0.7
LZH				sS	sS	08 16 25.0	-3.9
LZH				SS	SS	08 20 17.0	+0.8
LZH				LR	LR		
	comp=Z,570nm,15.5s,MS4.9						
LZH	**Lanzhou**	**65.19**	**315**	*e*P	**P**	**08 07 24.5**	**+1.0**
LZH				*PP	pP	08 07 41.0	+1.8
LZH						08 09 50.5	
LZH				*e*S	S	08 16 03.2	+0.7
LZH				*SS	sS	08 16 25.0	-3.9
LZH				SS	SS	08 20 17.0	+0.8
LZH				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.2						
LZH				MLR	MLR		
	comp=Z,570nm,15.5s,MS4.9						
MA2	**Magadan**	**66.85**	**357**	*e*P	**P**	**08 07 33.8**	**+0.1**
	comp=Z,9.1nm,1.0s,mb4.8						
MA2	**Magadan**	**66.85**	**357**	⇓*e*P	**P**	**08 07 34.3**	**+0.6**
MA2				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
GTA	**Gaotai**	**69.60**	**317**	*e*P	**P**	**08 07 52.0**	**+0.6**
GTA				PP	PP	08 10 29.1	+3.1
GTA				PPP		08 12 09.1	
GTA				S	S	08 16 56.8	+1.4
GTA				PS		08 17 32.0	
GTA				SKS		08 17 43.4	
GTA				SS	SS	08 21 28.9	+4.4
GTA				AMB	AMB		
	comp=Z,10.0nm,1.4s,mb4.5						
GTA				AMB	AMB		
	comp=Z,197nm,6.5s						
GTA				LR	LR		
	comp=N,366nm,16.7s,MS4.8						
GTA				LR	LR		
	comp=E,373nm,17.5s,MS4.8						
GTA				LR	LR		
	comp=Z,345nm,17.5s,MS4.7						
ULN	**Ulaanbaatar**	**69.78**	**327**	*e*P	**P**	**08 07 53.3**	**+1.0**
	comp=Z,22nm,0.9s,mb5.1						
ULN	**Ulaanbaatar**	**69.78**	**327**	⇓*i*P	**P**	**08 07 52.9**	**+0.6**
SONM	**Songino Array**	**70.12**	**327**	P	**P**	**08 07 55.0**	**+0.7**
	comp=Z,22nm,0.8s,mb5.2,baz=135,slow=6.4,SNR=150						
SEY	**Seymchan**	**70.15**	**358**	⇓*i*P	**P**	**08 07 53.2**	**-1.0**
YAK	**Yakutsk**	**72.11**	**347**	*e*P	**P**	**08 08 06.4**	**+0.4**
	comp=Z,24nm,0.5s,mb5.4						
YAK	**Yakutsk**	**72.11**	**347**	*i* P	**P**	**08 08 06.1**	**0.0**
YAK				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.0						
LSA	**Lhasa**	**72.20**	**304**	P	**P**	**08 08 08.4**	**+1.1**
LSA	**Lhasa**	**72.20**	**304**	*e*P	**P**	**08 08 08.2**	**+0.9**
	comp=Z,26nm,1.3s,mb5.0						
LSA	**Lhasa**	**72.20**	**304**	*e*P	**P**	**08 08 08.2**	**+0.9**
LSA				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.0						
ZAK	**Zakamensk**	**73.27**	**328**	⇑*i*P	**P**	**08 08 13.5**	**+0.3**
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.5						
BOD	**Bodaibo**	**73.28**	**338**	*e*P	**P**	**08 08 11.9**	**-1.2**
BOD				pmax	pmax		
	comp=Z,8.0nm,1.5s,mb4.4						
TLY	**Talaya**	**73.83**	**329**	*e*P	**P**	**08 08 16.9**	**+0.4**
	comp=Z,9.2nm,0.8s,mb4.8						
TLY	**Talaya**	**73.83**	**329**	*e*P	**P**	**08 08 16.4**	**0.0**
TLY				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
IRK	**Irkutsk**	**73.84**	**330**	*e*P	**P**	**08 08 16.0**	**-0.5**
IRK				pmax	pmax		
	comp=Z,65nm,0.9s,mb5.6						
TAPN	**Taplejung**	**74.33**	**301**	*e*P	**P**	**08 08 20.4**	**+0.4**
	comp=Z,65nm,1.0s,mb5.5						
ODAN	**Odare**	**74.47**	**300**	*e*P	**P**	**08 08 21.4**	**+0.7**
	comp=Z,100nm,0.9s,mb5.8						
MOY	**Mondy**	**75.18**	**328**	*e*P	**P**	**08 08 25.2**	**+0.9**
MOY				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.9						
BILL	**Bilibino**	**75.59**	**4**	*e*P	**P**	**08 08 26.0**	**-0.3**
	comp=Z,22nm,1.0s,mb5.0						
BILL	**Bilibino**	**75.59**	**4**	α*e*P	**P**	**08 08 26.2**	**-0.1**
BILL				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.9						
KKN	**Kakani**	**76.53**	**301**	*e*P	**P**	**08 08 33.0**	**+0.5**
	comp=Z,41nm,0.8s,mb5.4						
GKN	**Gorkha**	**77.13**	**301**	*e*P	**P**	**08 08 36.2**	**+0.2**
	comp=Z,73nm,0.9s,mb5.6						
TNA	**Tin City**	**77.47**	**15**	*e*P	**P**	**08 08 37.2**	**+0.2**
SVW2	**Sparrevohn**	**78.02**	**22**	*e*P	**P**	**08 08 40.8**	**+0.6**
WMQ	**Urumqi**	**79.69**	**317**	P	**P**	**08 08 50.8**	**+1.1**
WMQ				PCP	PcP	08 08 58.8	+1.5
WMQ				PP	PP	08 11 53.8	+2.4
WMQ				*e*S	S	08 18 47.0	-0.8
WMQ				SCS	ScS	08 19 06.0	-3.0
WMQ				SS	SS	08 23 59.4	+1.8
WMQ				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.7						
WMQ				LR	LR		
	comp=N,498nm,16.8s,MS5.2						
WMQ				LR	LR		
	comp=E,761nm,19.0s,MS5.2						
WMQ				LR	LR		
	comp=Z,772nm,18.4s,MS5.1						
SLKM	**Skilak Lake**	**79.73**	**24**	*e*P	**P**	**08 08 51.8**	**+2.3**
PMR	**Palmer**	**80.79**	**23**	*e*P	**P**	**08 08 56.0**	**+0.8**
TIXI	**Tiksi**	**80.85**	**352**	*e*P	**P**	**08 08 56.8**	**+1.4**
	comp=Z,2.1nm,0.5s,mb4.3						
TIXI	**Tiksi**	**80.85**	**352**	⇓*i*P	**P**	**08 08 56.5**	**+1.2**
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
IMA2	**Indian Mountai**	**81.88**	**19**	*e*P	**P**	**08 09 02.4**	**+1.5**
MCK	**McKinley**	**82.08**	**22**	*e*P	**P**	**08 09 01.0**	**-1.0**
	comp=Z,12nm,0.9s,mb4.8						
MCK				*e*PcP	PcP	08 09 05.5	-1.8
MCK	**McKinley**	**82.08**	**22**	*e*P	**P**	**08 09 01.0**	**-1.0**
MCK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
COLA	**College**	**83.12**	**21**	*e*P	**P**	**08 09 05.7**	**-1.7**
	comp=Z,6.9nm,0.8s,mb4.7						
COLA				*e*PcP	PcP	08 09 11.4	-0.5
COLA	**College**	**83.12**	**21**	⇓*e*P	**P**	**08 09 05.3**	**-2.1**
MK31	**Makanchi Array**	**84.26**	**319**	*e*P	**P**	**08 09 13.6**	**0.0**
MK31	**Makanchi Array**	**84.26**	**319**	*i* P	**P**	**08 09 13.7**	**+0.1**
MK31				pmax	pmax		
	comp=Z,52nm,0.7s,mb5.8						
MKAR	**Makanchi Array**	**84.26**	**319**	P	**P**	**08 09 13.8**	**+0.2**
	comp=Z,42nm,0.7s,mb5.7,baz=102,slow=5.9,SNR=337						
MAW	**Mawson**	**84.38**	**203**	P	**P**	**08 09 14.0**	**+0.1**
	comp=Z,9.9nm,1.0s,mb4.9,baz=71,slow=8.4,SNR=5.1						
ZALV	**Zalesovo Beam**	**84.97**	**326**	P	**P**	**08 09 16.1**	**-1.0**
	comp=Z,25nm,0.7s,mb5.5,baz=109,slow=5.5,SNR=104						
ZAL	**Zalesovo**	**84.98**	**326**	P	**P**	**08 09 16.1**	**-1.0**
EGAK	**Eagle**	**85.53**	**23**	*e*P	**P**	**08 09 19.0**	**-0.5**
	comp=Z,8.4nm,0.9s,mb5.0						
NVS	**Novosibirsk**	**86.14**	**326**	*e*P	**P**	**08 09 21.3**	**-1.5**
NVS				pmax	pmax		
	comp=N,11nm,1.5s						
NVS				pmax	pmax		
	comp=Z,34nm,1.5s,mb5.4						
NVS				pmax	pmax		
	comp=E,26nm,1.4s						
ULHL	**Ulahol**	**87.29**	**313**	P	**P**	**08 09 29.7**	**+0.9**
	SNR=5.6						
KURK	**Kurchatov**	**87.66**	**322**	P	**P**	**08 09 29.8**	**-0.5**
	comp=E,93nm,0.7s,mb6.1,SNR=11						
KURK	**Kurchatov**	**87.66**	**322**	*e*P	**P**	**08 09 29.3**	**-1.0**
	comp=E,15nm,0.9s,mb5.2						
KURK	**Kurchatov**	**87.66**	**322**	*e*P	**P**	**08 09 29.3**	**-1.0**
KURK				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.2						
TKM2	**Tokmak 2**	**87.90**	**314**	P	**P**	**08 09 31.9**	**+0.3**
	SNR=8.6						
TKM2	**Tokmak 2**	**87.90**	**314**	*e*P	**P**	**08 09 31.9**	**+0.2**
	comp=Z,7.4nm,0.7s,mb5.0						
TKM2	**Tokmak 2**	**87.90**	**314**	*e*P	**P**	**08 09 31.9**	**+0.3**
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.0						
KZA	**Kyzart**	**87.98**	**313**	P	**P**	**08 09 33.3**	**+1.3**
	SNR=7.8						
UCH	**Uchtor**	**88.54**	**313**	P	**P**	**08 09 36.2**	**+1.5**
	SNR=6.3						
UCH	**Uchtor**	**88.54**	**313**	*e*P	**P**	**08 09 35.3**	**+0.6**
	comp=Z,5.9nm,1.1s,mb4.8						
AAK	**Ala-Archa**	**88.64**	**313**	P	**P**	**08 09 34.1**	**-1.0**
	comp=Z,47nm,0.8s,mb5.9,SNR=5.6						
AAK	**Ala-Archa**	**88.64**	**313**	P	**P**	**08 09 35.7**	**+0.6**
	SNR=6.6						
AAK	**Ala-Archa**	**88.64**	**313**	*e*P	**P**	**08 09 34.6**	**-0.5**
	comp=Z,5.0nm,0.7s,mb5.0						
AAK	**Ala-Archa**	**88.64**	**313**	⇓*i*P	**P**	**08 09 33.9**	**-1.2**
AAK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb5.0						
USP	**Ospenovka**	**88.75**	**314**	P	**P**	**08 09 35.8**	**+0.1**
	SNR=8.7						
AML	**Almayashu**	**89.12**	**313**	P	**P**	**08 09 38.7**	**+1.3**
	SNR=6.9						
AML	**Almayashu**	**89.12**	**313**	*e*P	**P**	**08 09 38.3**	**+0.8**
	comp=Z,12nm,1.1s,mb5.2						
EKS2	**Erkin-Say**	**89.16**	**313**	P	**P**	**08 09 38.4**	**+0.8**
	SNR=5.7						
EKS2	**Erkin-Say**	**89.16**	**313**	*e*P	**P**	**08 09 37.7**	**+0.1**
	comp=Z,5.7nm,0.9s,mb4.9						
INK	**Inuvik**	**89.77**	**21**	P	**P**	**08 09 38.0**	**-1.8**
	comp=Z,2.6nm,0.9s,mb4.5,baz=225,slow=4.3,SNR=5.9						
NVAR	**Mina Array Bea**	**91.28**	**52**	P	**P**	**08 09 48.9**	**+1.3**
	comp=Z,0.9nm,0.8s,mb4.1,baz=242,slow=4.6,SNR=6.6						
KK31	**Karatay Array**	**91.60**	**313**	*i* P	**P**	**08 09 48.2**	**-0.8**
KK31				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.5						
KKAR	**Karatay Array**	**91.60**	**313**	*i* P	**P**	**08 09 48.2**	**-0.8**
KKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.4						
BRVK	**Borovoye**	**93.18**	**323**	P	**P**	**08 09 54.8**	**-1.2**
	comp=Z,110nm,0.7s,SNR=5.1						
BRVK	**Borovoye**	**93.18**	**323**	*e*P	**P**	**08 09 54.6**	**-1.4**
	comp=Z,21nm,1.0s,mb5.5						
BRVK	**Borovoye**	**93.18**	**323**	*e*P	**P**	**08 09 54.6**	**-1.4**
BRVK				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.5						
YKA	**Yellowknife Ar**	**96.26**	**28**	P	**P**	**08 10 09.2**	**-0.7**
YKA	**Yellowknife Ar**	**96.26**	**28**	P	**P**	**08 10 09.2**	**-0.7**
	comp=Z,1.4nm,0.7s,mb4.5,baz=266,slow=4.5,SNR=24						
PDAR	**Pinedale Array**	**98.31**	**48**	P	**P**	**08 10 18.6**	**-1.0**
	comp=Z,1.1nm,0.8s,mb4.4,baz=247,slow=2.4,SNR=8.5						
AB31	**Akbulak array**	**99.40**	**319**	*i* P	**P**	**08 10 22.2**	**-2.1**
AB31				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.6						
ARU	**Arti**	**100.14**	**326**	*c* *i*P	Pdif	08 10 24.8	-2.7
ARU				*e*		08 14 33.9	
ARU				*e*S	SKSac	08 20 58.5	-2.7
ARU				*e*SS	SS	08 29 00.9	+8.1
ARU				pmax	pmax		
	comp=Z,5.0nm,0.9s						
PRGR	**Permogore**	**106.01**	**332**	*e*P	Pdif	08 10 51.3	-2.3
JOF	**Joensuu**	**111.77**	**336**	*e*pkp	PKiKP	08 15 20.4	+4.3
JOF	**Joensuu**	**111.77**	**336**	*e*PKP	PKiKP	08 15 20.4	+4.3
JOF	**Joensuu**	**111.77**	**336**	*e*PKIKP	PKiKP	08 15 20.4	+4.3
KAF	**Kangasniemi**	**114.17**	**337**	*e*pkp	PKiKP	08 15 18.7	-2.0
KAF	**Kangasniemi**	**114.17**	**337**	*e*PKP	PKiKP	08 15 18.7	-2.0
KAF	**Kangasniemi**	**114.17**	**337**	*e*PKIKP	PKiKP	08 15 18.7	-2.0
FINES	**FINESS Array B**	**114.63**	**336**	PKP	PKiKP	08 15 20.7	-0.9
FINES	**FINESS Array B**	**114.63**	**336**	PKIKP	PKiKP	08 15 20.7	-0.9
FINES	**FINESS Array B**	**114.63**	**336**	PKP	PKiKP	08 15 20.7	-0.9
	comp=Z,1.3nm,0.7s,baz=118,slow=2.8,SNR=4.4						
AKASG	**Malin Array Be**	**118.35**	**325**	PKP	PKPdf	08 15 27.9	-1.2
AKASG	**Malin Array Be**	**118.35**	**325**	PKIKP	PKPdf	08 15 27.9	-1.2
AKASG	**Malin Array Be**	**118.35**	**325**	PKP	PKPdf	08 15 27.9	-1.2
	comp=Z,1.4nm,0.6s,baz=64,slow=2.0,SNR=11						
BRTR	**Keskin Array B**	**119.28**	**312**	PKP	PKPdf	08 15 30.5	-0.8
BRTR	**Keskin Array B**	**119.28**	**312**	PKIKP	PKPdf	08 15 30.5	-0.7
BRTR	**Keskin Array B**	**119.28**	**312**	PKP	PKPdf	08 15 30.5	-0.8
	comp=Z,0.7nm,0.7s,baz=118,slow=3.7,SNR=3.4						
NB2	**NORSAR Subarra**	**120.34**	**341**	PKPd	PKPdf	08 15 31.7	-0.9
	comp=Z,2.6nm,0.9s,baz=39,slow=1.9						
NOA	**NORSAR Array B**	**120.34**	**341**	PKP	PKPdf	08 15 31.5	-1.1
NOA	**NORSAR Array B**	**120.34**	**341**	PKIKP	PKPdf	08 15 31.5	-1.1
NOA	**NORSAR Array B**	**120.34**	**341**	PKP	PKPdf	08 15 31.5	-1.1
	comp=Z,2.1nm,0.7s,baz=43,slow=1.8,SNR=4.7						
BOSA	**Boshof**	**120.46**	**231**	*e*PKPdf	PKPdf	08 15 34.6	+0.7
BOSA	**Boshof**	**120.46**	**231**	*e*PKIKP	PKPdf	08 15 34.6	+0.7
MATP	**Matopo**	**121.36**	**241**	PKP	PKPdf	08 15 35.3	-0.5
MATP	**Matopo**	**121.36**	**241**	PKP	PKPdf	08 15 35.3	-0.5
	comp=Z,2.0nm,0.6s,baz=52,slow=1.9,SNR=8.0						
LBTB	**Lobatse**	**121.87**	**235**	*e*PKPdf	PKPdf	08 15 36.7	0.0
LBTB	**Lobatse**	**121.87**	**235**	*e*PKIKP	PKPdf	08 15 36.7	0.0
LBTB	**Lobatse**	**121.87**	**235**	PKP	PKPdf	08 15 36.1	-0.6
	comp=Z,2.0nm,0.7s,baz=162,slow=4.7,SNR=3.6						
STHS	**Stebnicka Huta**	**123.47**	**326**	*e*PKP	PKPdf	08 15 37.9	-1.1
STHS	**Stebnicka Huta**	**123.47**	**326**	*e*PKIKP	PKPdf	08 15 37.9	-1.1
STHS	**Stebnicka Huta**	**123.47**	**326**	*e*PKP	PKPdf	08 15 37.9	-1.1
CRVS	**Cervenica-Dubn**	**123.62**	**326**	*e*PKP	PKPdf	08 15 39.6	+0.3
CRVS	**Cervenica-Dubn**	**123.62**	**326**	*e*PKIKP	PKPdf	08 15 39.6	+0.3
CRVS	**Cervenica-Dubn**	**123.62**	**326**	*e*PKP	PKPdf	08 15 39.6	+0.3
BRG	**Berggiesshubel**	**126.39**	**331**	*e*PKP	PKPdf	08 15 44.7	+0.2
BRG	**Berggiesshubel**	**126.39**	**331**	*e*PKIKP	PKPdf	08 15 44.7	+0.2
BRG				pmax	pmax		
	comp=Z,6.0nm,1.1s						
BRG	**Berggiesshubel**	**126.39**	**331**	*e*PKP	PKPdf	08 15 44.7	+0.2
	comp=Z,10.0nm,1.1s						
CLL	**Collm**	**126.55**	**332**	⇓*i*PKP	PKPdf	08 15 45.0	+0.2
CLL				*e*pPKP	pPKPdf	08 15 54.0	-7.8
CLL	**Collm**	**126.55**	**332**	⇓*i*PKIKP	PKPdf	08 15 45.0	+0.2
CLL				*e*		08 15 54.0	
CLL	**Collm**	**126.55**	**332**	⇓*i*PKPdf	PKPdf	08 15 45.0	+0.2
CLL				*e*pPKPdf	pPKPdf	08 15 54.0	-7.8
KHC	**Kasperske Hory**	**127.70**	**329**	*e*PKP	PKPdf	08 15 47.5	+0.4
KHC	**Kasperske Hory**	**127.70**	**329**	*e*PKIKP	PKPdf	08 15 47.5	+0.4
KHC	**Kasperske Hory**	**127.70**	**329**	*e*PKPdf	PKPdf	08 15 47.5	+0.4
GERES	**GERESS Array B**	**127.82**	**329**	PKP	PKPdf	08 15 47.1	-0.2
GERES	**GERESS Array B**	**127.82**	**329**	PKIKP	PKPdf	08 15 47.1	-0.2
GERES	**GERESS Array B**	**127.82**	**329**	PKP	PKPdf	08 15 47.1	-0.2
	comp=Z,2.9nm,0.8s,baz=122,slow=1.7,SNR=14						
ROSC	**El Rosal**	**130.05**	**90**	PKP	PKPdf	08 15 52.0	-0.6
ROSC	**El Rosal**	**130.05**	**90**	PKP	PKPdf	08 15 52.0	-0.6
	comp=Z,4.3nm,0.7s,baz=137,slow=15,SNR=4.9						
LPAZ	**La Paz**	**130.52**	**119**	PKP	PKPdf	08 15 54.1	+0.7
LPAZ	**La Paz**	**130.52**	**119**	PKIKP	PKPdf	08 15 54.1	+0.7
LPAZ	**La Paz**	**130.52**	**119**	PKP	PKPdf	08 15 54.1	+0.7
	comp=Z,4.5nm,1.0s,baz=41,slow=2.5,SNR=10						
SIV	**San Ignacio**	**136.69**	**123**	PKP	PKPdf	08 16 05.2	+0.3
SIV	**San Ignacio**	**136.69**	**123**	PKhKP		08 15 53.4	
	comp=Z,1.0nm,0.7s,baz=135,slow=2.0,SNR=3.9						
SIV				PKP	PKPdf	08 16 05.2	+0.3
	comp=Z,2.3nm,0.9s,baz=205,slow=1.8,SNR=4.8						
ESDC	**Sonseca Array**	**143.09**	**334**	PKP	PKPdf	08 16 12.6	-3.3
ESDC	**Sonseca Array**	**143.09**	**334**	PKhKP		08 16 11.6	
	comp=Z,1.4nm,0.7s,baz=32,slow=3.1,SNR=7.4						
EVIA	**Vianos**	**143.26**	**331**	PKP	PKPdf	08 16 13.5	-2.8
EVIA	**Vianos**	**143.26**	**331**	PKIKP	PKPdf	08 16 13.5	-2.8
EHUE	**Huescar**	**143.95**	**330**	PKP	PKPdf	08 16 17.1	-0.5
EHUE	**Huescar**	**143.95**	**330**	PKIKP	PKPdf	08 16 17.1	-0.4
EQES	**Quesada**	**144.19**	**331**	PKP	PKPdf	08 16 15.8	-2.1
EBAN	**Banos Encina**	**144.24**	**332**	PKP	PKPdf	08 16 16.4	-1.6
EBAN	**Banos Encina**	**144.24**	**332**	PKIKP	PKPdf	08 16 16.4	-1.6
ENIJ	**Nijar**	**144.41**	**329**	PKP	PKPdf	08 16 15.6	-2.7
ENIJ	**Nijar**	**144.41**	**329**	PKIKP	PKPdf	08 16 15.6	-2.8
EADA	**Adamuz**	**144.60**	**333**	PKP	PKPdf	08 16 17.3	-1.3
EBER	**Berja**	**144.81**	**330**	PKP	PKPdf	08 16 17.3	-1.7
ECOG	**Cogollos-Vega**	**144.85**	**331**	PKP	PKPdf	08 16 17.4	-1.7
ECOG	**Cogollos-Vega**	**144.85**	**331**	PKIKP	PKPdf	08 16 17.4	-1.7
ELUQ	**Luque**	**144.95**	**332**	PKP	PKPdf	08 16 18.4	-0.9
ELUQ	**Luque**	**144.95**	**332**	PKIKP	PKPdf	08 16 18.4	-0.9
EBAD	**Badajoz**	**145.15**	**336**	PKP	PKPdf	08 16 19.0	-0.5
ERON	**Agron**	**145.17**	**331**	PKP	PKPdf	08 16 18.3	-1.4
EGUA	**Guajares**	**145.20**	**330**	PKP	PKPdf	08 16 18.7	-1.1
EGUA	**Guajares**	**145.20**	**330**	PKIKP	PKPdf	08 16 18.7	-1.0
ELOJ	**Sierra Loja**	**145.23**	**331**	PKP	PKPdf	08 16 18.7	-1.0
ELOJ	**Sierra Loja**	**145.23**	**331**	PKIKP	PKPdf	08 16 18.7	-1.1
EMIN	**Mina Concepcio**	**145.85**	**335**	PKP	PKPdf	08 16 21.9	+1.1
EMIJ	**Mijas**	**145.99**	**331**	PKP	PKPdf	08 16 18.8	-2.3
ESPR	**Espera**	**146.25**	**333**	PKP	PKPdf	08 16 23.2	+1.7
EGRO	**El Granado**	**146.38**	**336**	PKP	PKPdf	08 16 23.3	+1.6
EJIF	**Jimena Fronter**	**146.41**	**332**	PKP	PKPdf	08 16 23.0	+1.2
EJIF	**Jimena Fronter**	**146.41**	**332**	PKP2	PKPab	08 16 23.0	-1.1
TORD	**Torodi Ar. Bea**	**153.96**	**285**	PKP	PKPdf	08 16 33.1	-1.1
TORD				PKPbc	PKPbc	08 16 41.2	-1.0
TORD	**Torodi Ar. Bea**	**153.96**	**285**	PKP	PKPdf	08 16 33.1	-1.1
	comp=Z,0.8nm,0.8s,baz=58,slow=1.6,SNR=3.0						
TORD				PKPbc	PKPbc	08 16 41.2	-1.0
	comp=Z,2.7nm,0.8s,baz=67,slow=1.6,SNR=4.2						

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*CSEM **17** 08:04:31.4, 3932N×3313E, h7^{km}, MD3.1, After ERD*

DDA 17 08:04:31.4, 3932N×3313E, h7^{km}±5^{km}, Md3.1, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDAG	**Cicekdag**	**1.01**	**72**	*i* P	Pg	08 04 48.8	-2.1
CDAG				*i* S	Sg	08 05 03.5	-0.4
KDHN	**Kadinhani**	**1.12**	**225**	*i* P	Pg	08 04 51.5	-1.5
KDHN				*i* S	Sg	08 05 07.0	-0.6
ELDT	**Eldivan**	**1.19**	**11**	*i* P	Pg	08 04 52.8	-1.4
ELDT				*i* S	Sg	08 05 09.8	+0.1
AVNT	**Avonos**	**1.45**	**111**	*i* P	Pn	08 04 57.8	-0.3
AVNT				*i* S	Sn	08 05 18.2	+0.9
CTKT	**Corum**	**1.82**	**44**	*i* P	Pn	08 05 03.9	+0.7
CTKT				*i* S	Sn	08 05 30.1	+3.6
CTKT	**Corum**	**1.82**	**44**	*i* P	Pn	08 05 03.9	+0.7
CTKT				*i* S	Sn	08 05 30.0	+3.5
BALT	**Daday**	**2.22**	**5**	*i* P	Pn	08 05 10.5	+1.9
BALT				*i* S	Sn	08 05 30.0	-6.3

IDC 17 08:07:08.6±4.9, 2131S×17111E, h117^{km}±35^{km}, mb3.5/4, mb1 3.8/5, mb1mx3.6/13, mbtmp3.5/5, Error ellipse: s-maj=95.3km s-min=32.2km az=159.0, Southeast of Loyalty Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**4.40**	**259**	*e*P	Pn	08 08 13.8	+0.3
DZM				*e*S	Sn	08 09 03.7	-0.2
DZM	**Mont Dzumac**	**4.40**	**259**	P	Pn	08 08 13.9	+0.4
	11nm,0.3s,baz=341,slow=22,SNR=150						
DZM				S	Sn	08 09 04.4	+0.5
	38nm,0.3s,baz=84,slow=22,SNR=33						
WRA	**Warramunga Arr**	**34.39**	**266**	P	P	08 13 44.6	-0.2
	0.3nm,0.4s,baz=95,slow=8.6,SNR=13						
ASAR	**Alice Springs**	**34.40**	**259**	P	P	08 13 44.6	-0.1
	1.7nm,0.7s,baz=80,slow=9.3,SNR=23						
NVAR	**Mina Array Bea**	**88.87**	**48**	P	P	08 19 49.6	-0.1
	0.6nm,0.8s,baz=211,slow=6.6,SNR=5.3						
SONM	**Songino Array**	**89.92**	**322**	P	P	08 19 55.1	+0.8
	0.5nm,0.8s,baz=123,slow=5.3,SNR=3.2						

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*ISCJB **17** 08:10:16.5±3.0, 15.1S±0.1×1670E±03, h134^{km}±21^{km}, mb3.9/4, Error ellipse: s-maj=54.6km s-min=15.0km az=164.7*

*NEIC **17** 08:10:16.1±2.7, 1490S×16724E, h129^{km}±18^{km}, Error ellipse: s-maj=43.3km s-min=17.7km az=71.0*

*IDC **17** 08:10:17.0±7.0, 1501S×16722E, h134^{km}±66^{km}, mb3.7/5, mb1 3.8/6, mb1mx3.6/17, mbtmp3.7/6, Error ellipse: s-maj=57.0km s-min=52.6km az=120.0*

ISC 17 08:10:16.3±2.9, 150S±01×1672E±03, h125^{km}±19^{km}, n7, σ1^{s}45/8, mb4.0/4, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**7.09**	**186**	P	**Pn**	**08 11 58.5**	**+1.0**
	2.7nm,0.3s,baz=12,slow=20,SNR=17						
DZM				S	**Sn**	**08 13 15.7**	**-0.9**
	2.8nm,0.3s,baz=149,slow=19,SNR=4.8						
HNR	**Honiara**	**8.97**	**307**	*e*Pn	**Pn**	**08 12 22.5**	**-0.4**
CTA	**Charters Tower**	**20.59**	**253**	P	**P**	**08 14 47.6**	**+2.0**
	6.1nm,1.0s,baz=68,slow=17,SNR=3.2						
STKA	**Stephens Creek**	**28.77**	**230**	P	**P**	**08 16 03.0**	**+0.7**
	3.1nm,0.6s,mb4.1,baz=46,slow=9.8,SNR=11						
WRA	**Warramunga Arr**	**31.69**	**256**	P	**P**	**08 16 26.9**	**-1.3**
	0.8nm,0.6s,mb3.6,baz=85,slow=8.9,SNR=7.4						
ASAR	**Alice Springs**	**32.51**	**249**	P	**P**	**08 16 34.6**	**-0.7**
	2.3nm,0.7s,mb4.2,baz=80,slow=9.0,SNR=26						
MKAR	**Makanchi Array**	**97.33**	**316**	P	**P**	**08 23 35.1**	**-0.1**
	0.4nm,0.7s,mb3.9,baz=91,slow=7.3,SNR=3.6						

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*MOS **17** 08:11:34.7±1.6, 4180N×14395E, h28^{km}, mb4.3/7, Error ellipse: s-maj=18.6km s-min=12.5km az=107.6*

*ISCJB **17** 08:11:37.3±0.9, 4172N±006×14385E±009, h54^{km}±6^{km}, mb3.9/10, Error ellipse: s-maj=12.9km s-min=7.2km az=39.8*

*JMA **17** 08:11:37.5±0.3, 4170N×14379E, h46^{km}±4^{km}, M3.7*

*NEIC **17** 08:11:40.0±1.4, 4190N×14356E, h44^{km}±10^{km}, mb4.3/1, Error ellipse: s-maj=22.0km s-min=11.9km az=87.0*

*IDC **17** 08:11:40.4±2.8, 4186N×14347E, h49^{km}±24^{km}, mb3.5/8, mb1 3.6/10, mb1mx3.4/23, mbtmp3.5/10, ML3.2/2, Error ellipse: s-maj=34.4km s-min=22.3km az=87.0*

ISC 17 08:11:39.0±0.9, 4177N±006×14378E±008, h45^{km}±7^{km}, n37, σ1^{s}05/41, mb3.9/10, 3C-2D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ERM	**Erimo**	**0.53**	**298**	*e*Pg	**Pn**	**08 11 48.7**	**-1.6**
JEM	**Erimo**	**0.53**	**299**	⇓P	**Pn**	**08 11 48.8**	**-1.5**
JCH	**Churui**	**0.90**	**340**	⇑P	**Pn**	**08 11 54.8**	**-0.5**
JCH				*e*S	**Sn**	**08 12 08.7**	**+1.5**
JNBK	**Urakawa-nobuka**	**0.92**	**304**	⇓P	**Pn**	**08 11 55.9**	**+0.4**
JNBK				*e*S	**Sn**	**08 12 09.9**	**+2.2**
JOB	**Onbets**	**1.14**	**2**	⇑P	**Pn**	**08 11 58.4**	**-0.1**
JAK	**Akkeshi**	**1.41**	**29**	P	**Pn**	**08 12 01.4**	**-0.7**
JAK				*e*S	**Sn**	**08 12 19.8**	**+0.4**
JBT2	**Biratori 2**	**1.46**	**314**	P	**Pn**	**08 12 02.6**	**-0.3**
JAR	**Ashorobuto**	**1.53**	**360**	⇑P	**Pn**	**08 12 03.3**	**-0.5**
JAR				*e*S	**Sn**	**08 12 24.0**	**+1.5**
JFR	**Furan**	**1.65**	**328**	P	**Pn**	**08 12 04.7**	**-0.8**
ASAJ	**Asahikawa**	**2.51**	**340**	P	**Pn**	**08 12 16.6**	**-0.6**
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ	**Asahikawa**	**2.51**	**340**	P	**Pn**	**08 12 16.6**	**-0.6**
	comp=Z,4.0nm,0.3s,baz=192,slow=11,SNR=16						
YUK	**Yuzh-Kuril'sk**	**2.74**	**33**	*e*S	**Sn**	**08 12 52.0**	**-0.1**
YUK				smax			
	comp=N,2μm,0.8s						
YUK				smax			
	comp=E,2μm,1.0s						
YUK				smax			
	comp=N,420nm,0.4s						
MAJO	**Matsushiro**	**6.78**	**222**	*e*Pn	**Pn**	**08 13 18.0**	**+2.2**
MJAR	**Matsushiro Arr**	**6.78**	**221**	P	**Pn**	**08 13 15.8**	**-0.1**
MJAR	**Matsushiro Arr**	**6.78**	**221**	P	**Pn**	**08 13 15.8**	**0.0**
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	**Matsushiro Arr**	**6.78**	**221**	P	**Pn**	**08 13 15.8**	**0.0**
	comp=Z,0.6nm,0.3s,baz=33,slow=13,SNR=4.3						
SONM	**Songino Array**	**27.02**	**296**	P	**P**	**08 17 15.8**	**-0.8**
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	**Songino Array**	**27.02**	**296**	P	**P**	**08 17 15.8**	**-0.7**
	comp=Z,0.9nm,0.6s,mb3.5,baz=77,slow=9.5,SNR=9.4						
ZALV	**Zalesovo Beam**	**40.25**	**308**	P	**P**	**08 19 10.4**	**-0.6**
	comp=Z,0.7nm,0.3s,mb3.8,baz=79,slow=7.9,SNR=6.3						
ZAL	**Zalesovo**	**40.26**	**308**	P	**P**	**08 19 10.4**	**-0.8**
MK31	**Makanchi Array**	**43.32**	**298**	*e*P	**P**	**08 19 36.9**	**+0.6**
MKAR	**Makanchi Array**	**43.32**	**298**	P	**P**	**08 19 35.6**	**-0.7**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	**Makanchi Array**	**43.32**	**298**	P	**P**	**08 19 35.6**	**-0.7**
	comp=Z,0.9nm,0.7s,mb3.6,baz=81,slow=9.3,SNR=8.1						
KURK	**Kurchatov**	**44.60**	**305**	*e*P	**P**	**08 19 46.7**	**+0.2**
	comp=Z,4.5nm,0.9s,mb4.3						
KURK	**Kurchatov**	**44.60**	**305**	*e*P	**P**	**08 19 46.7**	**+0.3**
KURK				pmax	pmax		

	comp=Z,4.0nm,0.9s,mb4.2						
ARCES	ARCESS Array B	60.23	339	P	P	08 21 41.1	-0.8
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ARCES	ARCESS Array B	60.23	339	P	P	08 21 41.1	-0.8
	comp=Z,1.8nm,0.8s,mb4.1,baz=32,slow=7.1,SNR=5.6						
WRA	Warramunga Arr	62.01	190	P	P	08 21 55.7	+1.2
	comp=Z,0.2nm,0.6s,mb3.4,baz=7.4,slow=6.8,SNR=3.7						
JOF	Joensuu	62.67	332	ep	P	08 21 57.8	-0.6
	comp=Z,1.4nm,0.4s,mb4.4						
JOF	Joensuu	62.67	332	ep	P	08 21 57.8	-0.6
	comp=Z,1.4nm,0.4s,mb4.4						
JOF	Joensuu	62.67	332	eP	P	08 21 57.8	-0.6
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.3						
KAF	Kangasniemi	64.95	333	ep	P	08 22 16.8	+3.3
FINES	FINESS Array B	65.49	332	P	P	08 22 16.3	-0.7
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	65.49	332	P	P	08 22 16.2	-0.7
	comp=Z,1.4nm,0.5s,mb4.3,baz=54,slow=7.8,SNR=8.8						
AKASG	Malin Array Be	71.67	322	P	P	08 22 55.6	-0.1
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	71.67	322	P	P	08 22 55.6	-0.1
	comp=Z,0.6nm,0.4s,mb3.9,baz=40,slow=5.8,SNR=6.3						
TXAR	Lajitas Array	85.82	54	P	P	08 24 16.4	+2.6
	comp=Z,0.2nm,0.6s,mb3.5,baz=343,slow=2.8,SNR=2.6						

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*MOS **17** 08:33:35.8±1.1, 37.00N×72.05E, h183^{km}, mb3.9/2, Error ellipse: s-maj=22.4km s-min=8.9km az=80.9*
*IDC **17** 08:33:38.3±6.1, 37.10N×72.06E, h184^{km}±54^{km}, mb3.1/5, mb1 3.4/8, mb1mx3.1/23, mbtmp3.4/8, Error ellipse: s-maj=41.5km s-min=22.3km az=171.0*
*ISCJB **17** 08:33:39.9±0.4, 37.30N±0.03×72.16E±0.06, h210^{km}±6^{km}, mb3.6/5, Error ellipse: s-maj=8.2km s-min=4.9km az=178.0*
*NEIC **17** 08:33:41.1±0.9, 37.31N×72.12E, h205^{km}±8^{km}, mb4.7/7, Error ellipse: s-maj=18.5km s-min=8.6km az=136.0*
*BJI **17** 08:33:41.1, 37.58N×72.00E, h223^{km}, mb4.2*
*NNC **17** 08:33:50.0±3.2, 38.20N×72.29E, h274^{km}±35^{km}, mb2.4, mpv3.5, Error ellipse: s-maj=36.1km s-min=18.5km az=13.0*

ISC 17 08:33:40.9±0.4**, 37.31N**±0.03×**72.14E**±0.06**, h200**^{km}±6^{km}**, n52, σ1^{s}10**/64**, mb3.6**/5**, 3C-1D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	3.73	223	ePn	Pn	08 34 40.7	+1.3
KBL				eSn	Sn	08 35 25.5	+0.4
KSH	Kashi	3.74	53	i P	Pn	08 34 41.3	+2.0
KSH				Smax			
	comp=N,3μm,0.3s						
KSH				Smax			
	comp=E,2μm,0.3s						
AML	Almayashu	4.97	14	P	Pn	08 34 55.2	+0.5
	SNR=121						
AML	Almayashu	4.97	14	ePn	Pn	08 34 55.7	+0.9
AML				eSn	Sn	08 35 50.3	-2.8
UCH	Uchtor	5.25	20	P	Pn	08 34 59.2	+0.9
	SNR=59						
UCH	Uchtor	5.25	20	ePn	Pn	08 34 59.1	+0.8
	comp=E,111nm,0.8s						
UCH				eSn	Sn	08 35 54.3	-5.2
KZA	Kyzart	5.34	26	P	Pn	08 34 59.9	+0.4
	SNR=15						
EKS2	Erkin-Say	5.50	13	P	Pn	08 35 02.2	+0.7
	SNR=28						
EKS2	Erkin-Say	5.50	13	ePn	Pn	08 35 02.0	+0.5
	comp=E,23nm,0.6s						
EKS2				eSn	Sn	08 36 02.0	-3.3
AAK	Ala-Archa	5.62	18	P	Pn	08 35 04.0	+0.9
	SNR=19						
AAK	Ala-Archa	5.62	18	ePn	Pn	08 35 03.2	+0.1
	comp=E,32nm,0.6s						
AAK				eSn	Sn	08 36 05.2	-2.9
AAK	Ala-Archa	5.62	18	ePN	Pn	08 35 03.2	+0.1
AAK				pmax	pmax		
	comp=Z,32nm,0.6s						
THN	Thein Dam	5.68	148	eP	Pn	08 35 05.5	+1.4
THN				ex	x	08 36 10.0	
DLH	Dalhousie	5.70	145	eS	Sn	08 36 06.0	-4.2
KBK	Karagaybulak	5.76	21	P	Pn	08 35 06.7	+1.7
	SNR=6.1						
ULHL	Ulahol	5.86	31	P	Pn	08 35 06.5	+0.3
	SNR=15						
KK31	Karatay Array	5.92	348	P	Pn	08 35 06.8	-0.2
	comp=Z,3.6nm,0.3s,baz=161,slow=11,SNR=86						
KK31				⇑S	Sn	08 36 10.2	-5.0
	comp=Z,29nm,0.3s,baz=171,slow=23,SNR=21						
KKAR	Karatay Array	5.92	348	ePN	Pn	08 35 06.7	-0.3
KKAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
CHMS	Chumysh	6.03	19	P	Pn	08 35 08.8	+0.5
	SNR=12						
TKM2	Tokmak 2	6.20	24	P	Pn	08 35 11.4	+0.8
	SNR=35						
TKM2	Tokmak 2	6.20	24	⇑P	Pn	08 35 11.2	+0.6
	comp=Z,1.4nm,0.5s						
TKM2				⇑S	Sn	08 36 15.6	-6.1
	comp=Z,1.0nm,0.6s						
TKM2	Tokmak 2	6.20	24	ePn	Pn	08 35 11.3	+0.7
	comp=Z,36nm,0.6s						
TKM2	Tokmak 2	6.20	24	ePN	Pn	08 35 11.3	+0.7
TKM2				pmax	pmax		
	comp=Z,36nm,0.6s						
USP	Ospenovka	6.22	16	P	Pn	08 35 10.7	-0.2
	SNR=19						
SDNR	Sundarnagar	7.04	144	eP	Pn	08 35 22.0	+0.4
SDNR				eS	Sn	08 36 38.0	-3.5
KLP	Kalpa	7.66	137	eP	Pn	08 35 29.1	-0.6
KLP				AMb	AMB	08 35 32.9	
	comp=Z,11nm,0.3s						
KLP				eS	Sn	08 36 51.2	-5.0
JOSI	Joshimath	9.13	135	eP	Pn	08 35 49.0	+0.2
JOSI				eS	Sn	08 37 23.0	-8.1
KUDL	Kundal	9.84	157	eP	Pn	08 35 57.1	-1.0
KUDL				AMb	AMB	08 35 57.9	
	comp=Z,7.7nm,0.3s						
KUDL				eS	Sn	08 37 39.6	-8.6
SONA	Sohna	9.94	154	ex	x	08 36 36.3	
SONA				AMb	AMB	08 36 38.8	
	comp=Z,9.0nm,0.3s						
SONA				eS	Sn	08 37 42.3	-8.2
MK31	Makanchi Array	12.11	35	ePn	Pn	08 36 25.9	-1.0
MKAR	Makanchi Array	12.11	35	i P	Pn	08 36 26.6	-0.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	12.11	35	P	Pn	08 36 26.2	-0.7
	comp=Z,0.3nm,0.3s,baz=221,slow=9.1,SNR=15						
KURK	Kurchatov	14.19	17	ePn	Pn	08 36 53.8	+0.9
	comp=Z,3.6nm,0.7s						
KURK	Kurchatov	14.19	17	eP	Pn	08 36 53.8	+1.0
KURK				pmax	pmax		
	comp=Z,4.0nm,0.7s						
AB31	Akbulak array	14.86	327	P	Pn	08 36 59.9	-1.2
	comp=Z,2.5nm,0.7s,baz=131,slow=12,SNR=24						
AB31				⇓S	Sn	08 39 35.2	-12
	comp=Z,1.7nm,0.6s,baz=142,slow=24,SNR=5.6						
AB31	Akbulak array	14.86	327	P	Pn	08 36 59.8	-1.3
AKTK	Aktyubinsk	16.57	327	P	Pn	08 37 21.9	+0.1
AKTO	Aktyubinsk	16.57	327	P	Pn	08 37 21.9	+0.1
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKTO	Aktyubinsk	16.57	327	P	Pn	08 37 21.9	+0.1
	comp=Z,1.0nm,0.3s,baz=128,slow=10,SNR=12						
LSA	Lhasa	17.56	110	P	Pn	08 37 36.3	+2.6
ZAL	Zalesovo	18.79	24	P	P	08 37 45.3	+0.3
ZALV	Zalesovo Beam	18.81	24	P	P	08 37 45.3	+0.2
	comp=Z,5.9nm,0.3s,baz=217,slow=11,SNR=73						
NVS	Novosibirsk	19.11	20	eP	P	08 37 47.6	-0.8
TLY	Talaya	26.43	47	P	P	08 38 59.1	+0.3
	comp=Z,9.1nm,0.9s,mb4.4						
SONM	Songino Array	27.13	56	P	P	08 39 06.9	+1.7
	comp=Z,0.2nm,0.5s,mb3.0,baz=296,slow=8.5,SNR=2.9						
CSS	Prodhromos	31.28	278	eP	P	08 39 40.3	-1.7
	comp=Z,19nm,0.4s						
FINES	FINESS Array B	37.33	325	P	P	08 40 34.0	+0.4
FINES				pmax	pmax		
	comp=Z,2.0nm,1.0s						
FINES	FINESS Array B	37.33	325	P	P	08 40 34.0	+0.4
	comp=Z,1.7nm,1.0s,mb3.5,baz=102,slow=10,SNR=2.9						
ARCES	ARCESS Array B	40.75	337	P	P	08 41 02.5	+0.7
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	ARCESS Array B	40.75	337	P	P	08 41 02.5	+0.7
	comp=Z,1.6nm,0.8s,mb3.5,baz=110,slow=8.1,SNR=6.7						
TORD	Torodi Ar. Bea	66.64	269	P	P	08 44 08.8	-1.4
	comp=Z,0.5nm,0.4s,mb3.5,baz=46,slow=5.6,SNR=12						
YKA	Yellowknife Ar	80.40	3	P	P	08 45 29.0	-0.5
	comp=Z,0.1nm,0.5s,baz=350,slow=5.2,SNR=3.3						

IDC 17 08:40:18.6±9.3**, 21.71S×109.95W, h0**^{km}**, mb3.3**/1**, mb1 3.7**/1**, mb1mx3.4**/12**, mbtmp3.3**/1**, Error ellipse: s-maj=1003.0km s-min=152.3km az=101.0, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YKA	Yellowknife Ar	84.00	358	P	P	08 52 50.7	+0.4
	0.2nm,0.7s,baz=174,slow=6.1,SNR=4.9						
ZALV	Zalesovo Beam	145.91	344	PKPbc	PKPbc	08 59 58.5	-1.2
	0.7nm,0.6s,baz=0.0,slow=4.3,SNR=5.7						
MKAR	Makanchi Array	153.08	341	PKPbc	PKPbc	09 00 18.1	0.0
	1.3nm,0.6s,baz=27,slow=2.6,SNR=15						

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*NSSP **17** 08:45:02.1, 40.52N×42.33E, h10^{km}, ML4.2*
*TIF **17** 08:45:04.1, 40.37N×42.42E, h3^{km}±1^{km}*
*ISK **17** 08:45:04.3, 40.50N×42.35E, h5^{km}, ML4.0*
*NEIC **17** 08:45:04.4, 40.51N×42.36E, h5^{km}, mb4.6/24, ML4.2(ISK), After ISK.*
*IDC **17** 08:45:04.5±1.0, 40.31N×42.32E, h0^{km}, mb3.9/12, mb1 4.1/15, mb1mx4.0/21, mbtmp3.9/15, ML4.4/3, MS4.1/2, Ms1 4.1/2, ms1mx3.2/34, Error ellipse: s-maj=23.4km s-min=11.8km az=5.0*
*ISCJB **17** 08:45:05.2±0.5, 40.52N±0.01×42.41E±0.02, h0^{km}±3^{km}, mb4.4/47, Error ellipse: s-maj=2.5km s-min=2.0km az=2.5*
*DDA **17** 08:45:06.4, 40.51N×42.42E, h12^{km}±4^{km}, Md3.9*
*MOS **17** 08:45:06.8±1.9, 40.64N×42.40E, h10^{km}, mb4.7/23, Error ellipse: s-maj=6.2km s-min=4.5km az=125.7*
*CSEM **17** 08:45:06.0±0.1, 40.42N×42.47E, h5^{km}, mb4.6/22, Error ellipse: s-maj=2.0km s-min=1.3km az=19.0*
*BJI **17** 08:45:08.3, 40.50N×42.40E, h15^{km}, mB5.2, mb4.3, Ms5.1, Msz4.7*
*SZGRF **17** 08:45:08.1, 39.81N×42.73E, h33^{km}, mb4.7, Turkey*

ISC 17 08:45:06.6±0.4**, 40.50N**±0.02×**42.42E**±0.02**, h2**^{km}±3^{km}**, n248, σ1^{s}47**/291**, mb4.3**/47**, 21C-12D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARS	Kars	0.52	77	i PG	Pg	08 45 16.5	-0.1
KARS				i SG	Sg	08 45 25.7	+2.3
KARS	Kars	0.52	77	Pg	Pg	08 45 16.3	-0.4
KARS	Kars	0.52	77	PG	Pg	08 45 16.3	-0.3
KARS	Kars	0.52	77	Pg	Pg	08 45 16.3	-0.3
KARS				i Sg	Sg	08 45 25.7	+2.3
DIGO	Kars	0.73	96	i P	Pg	08 45 19.3	-1.3
DIGO				i S	Sg	08 45 29.9	-0.2
ARTV	Artvin	0.78	332	i P	Pg	08 45 20.1	-1.5
ARTV				i S	Sg	08 45 31.9	+0.1
ERZM	Erzurum	1.00	234	i P	Pg	08 45 23.4	-2.4
ERZM				i S	Sg	08 45 37.8	-0.9
EZM	Erzurum	1.00	234	i PG	Pg	08 45 23.3	-2.5
EZM	Erzurum	1.00	234	Pg	Pg	08 45 23.4	-2.4
AGRB	Hanur-Agry	1.02	154	i PG	Pg	08 45 24.7	-1.4
AGRB	Hanur-Agry	1.02	154	i Pg	Pg	08 45 24.7	-1.4
GYMZ	Gyumri	1.12	73	P	Pg	08 45 30.3	+2.3
GYMZ				S	Sg	08 45 42.5	0.0
BCA	Borcka	1.13	328	i PN	Pn	08 45 25.8	-3.6
BCA				i SN	Sn	08 45 42.9	-2.5
BCA	Borcka	1.13	328	Pn	Pn	08 45 26.0	-3.3
BCA	Borcka	1.13	328	i Pn	Pn	08 45 25.8	-3.6
BCA				i Sn	Sn	08 45 42.9	-2.5
TUTA	Tutak	1.13	164	i P	Pg	08 45 26.3	-2.0
TUTA				i S	Sg	08 45 43.0	0.0
VNNZ	Vanand	1.14	110	P	Pg	08 45 26.1	-2.3
VNNZ				S	Sg	08 45 44.6	+1.4
AKSZ	Araks	1.16	105	P	Pg	08 45 26.2	-2.6
AKSZ				S	Sg	08 45 42.8	-1.0
HARI	Harich	1.21	84	P	Pg	08 45 30.3	+0.6
HARI				S	Sg	08 45 44.4	-1.0
KAMZ	Kamo	1.21	74	P	Pg	08 45 30.3	+0.6
KAMZ				S	Sg	08 45 48.0	+2.6
ARUZ	Aruch	1.29	99	⇓P	Pn	08 45 28.4	-3.2
ARUZ				S	Sg	08 45 47.8	-0.3
HNAZ	Hnaberd	1.32	83	P	Pn	08 45 31.6	-0.4
HNAZ				S	Sb	08 45 48.6	-0.8
NPPZ	NPP	1.35	104	⇓P	Pn	08 45 31.9	-0.5
NPPZ				S	Sb	08 45 48.0	-2.2
DYDN	Diyadin	1.36	134	i P	Pn	08 45 30.8	-1.8
DYDN				i S	Sg	08 45 52.6	+2.3
AMBZ	Amberd	1.41	94	P	Pn	08 45 30.8	-2.4
AMBZ				S	Sb	08 45 51.7	-0.2
PAAR	P’arak’ar	1.54	102	⇓P	Pn	08 45 33.4	-1.6
PAAR				S	Sn	08 45 56.1	+0.6
STE	Stepanavan	1.56	71	P	Pn	08 45 33.0	-2.4
KAPZ	Kaputan	1.75	95	P	Pn	08 45 36.5	-1.4
KAPZ				S	Sn	08 45 59.6	-1.1
CLDR	Caldiran	1.77	139	i PN	Pn	08 45 38.7	+0.4
CLDR	Caldiran	1.77	139	i Pn	Pn	08 45 38.7	+0.4
BNGL	BINGOL	1.83	213	i P	Pn	08 45 38.4	-0.6
BNGL				i S	Sg	08 46 09.2	+3.9
GOR	Gori	1.96	40	P	Pn	08 45 42.7	+1.9
GOR				S	Sg	08 46 10.8	+1.3
VANB	Van	2.04	158	PN	Pn	08 45 40.9	-1.0
VANB	Van	2.04	158	ePn	Pn	08 45 40.9	-1.0
MACK	Trabzon	2.07	283	i P	Pn	08 45 42.3	0.0
MACK				i S	Sn	08 46 09.7	+1.1
KTUT	Trabzon	2.08	285	PN	Pn	08 45 41.1	-1.3
KTUT	Trabzon	2.08	285	ePn	Pn	08 45 41.1	-1.3
TVAN	Van	2.11	159	i P	Pn	08 45 42.8	0.0
TVAN				i S	Sg	08 46 24.8	+11
TBLG	Delisi	2.14	54	i PN	Pn	08 45 43.9	+0.6
TBLG				i S	Sg	08 46 16.8	+1.4
TBLG	Delisi	2.14	54	P	Pn	08 45 43.9	+0.6
TBLG				S	Sg	08 46 16.8	+1.4
MTA	Mtatsminda	2.15	55	P	Pn	08 45 43.5	0.0
MTA				S	Sg	08 46 15.7	-0.1
VANT	Van	2.18	160	PN	Pn	08 45 43.5	-0.3
VANT	Van	2.18	160	ePn	Pn	08 45 43.5	-0.3
BINT	Bingol	2.20	223	PN	Pn	08 45 43.2	-0.9
BINT	Bingol	2.20	223	ePn	Pn	08 45 43.2	-0.9
ONI	Oni	2.22	20	P	Pn	08 45 44.7	+0.3
ONI				S	Sg	08 46 17.8	-0.1
GUMT	Gumushane	2.25	270	PN	Pn	08 45 43.3	-1.4
GUMT	Gumushane	2.25	270	ePn	Pn	08 45 43.3	-1.4
BTMT	Batman	2.41	198	PN	Pn	08 45 47.9	+0.9
DGRG	David-gareji	2.43	66	P	Pn	08 45 48.3	+1.0
DGRG				S	Sg	08 46 24.7	+0.1
KELT	Kelkit	2.45	263	i P	Pn	08 45 45.6	-1.9
KELT				i S	Sg	08 46 22.4	-2.8
ZEI	Tsey	2.53	25	ePN	Pn	08 45 46.1	-2.5
PTK	Pertek	2.83	237	PN	Pn	08 45 52.3	-0.5
PTK	Pertek	2.83	237	ePn	Pn	08 45 52.3	-0.5
SIRT	Sirnak	2.99	180	PN	Pn	08 45 54.9	-0.1
SIRT	Sirnak	2.99	180	ePn	Pn	08 45 54.9	-0.1
HKR	Hakkari	3.09	160	PN	Pn	08 45 56.5	+0.2
HKR	Hakkari	3.09	160	ePn	Pn	08 45 56.5	+0.2
HAKT	HAKKARI	3.10	161	i P	Pn	08 45 57.6	+1.1
HAKT				i S	Sg	08 46 50.4	+4.3
DIY	Diyarbakir	3.11	214	PN	Pn	08 45 56.3	-0.3
DIY	Diyarbakir	3.11	214	ePn	Pn	08 45 56.3	-0.3
DIYA	Diyarbakir	3.13	216	i P	Pn	08 45 57.0	+0.1
DIYA				i S	Sg	08 46 45.1	-2.0
GRSN	GIRESUNGRSN	3.19	279	i P	Pn	08 45 58.4	+0.7
GRSN				i S	Sn	08 46 37.1	+0.9
ELZG	Elazig	3.32	234	i P	Pn	08 45 58.3	-1.3
ELZG				i S	Sg	08 47 00.2	+6.8
CUKT	Cukurca	3.37	164	PN	Pn	08 46 00.9	+0.7
CUKT	Cukurca	3.37	164	ePn	Pn	08 46 00.9	+0.7
MARD	Mardin	3.42	202	i P	Pn	08 46 00.2	-0.8
MARD				i S	Sb	08 46 48.7	-1.3
KIV	Kislovodsk	3.46	3	d iPN	Pn	08 46 02.1	+0.6
KIV				pmax	pmax		
	comp=Z,12nm,0.6s						
SOC	Sochi	3.69	328	c iPN	Pn	08 46 04.5	0.0
SOC				e		08 46 09.9	
SOC				e		08 46 19.5	
SOC				e		08 46 47.1	
SOC				e		08 47 10.0	
SOC				pmax	pmax		
	comp=Z,175nm,0.6s						
SOC				MLR	MLR		
	comp=Z,759nm,13.0s						
MYA	Malataya	3.78	236	PN	Pn	08 46 05.1	-0.7
MYA	Malataya	3.78	236	ePn	Pn	08 46 05.1	-0.7
MALT	Malatya	3.79	236	ePn	Pn	08 46 04.2	-1.6
MALT	Malatya	3.79	236	ePN	Pn	08 46 04.3	-1.6
MALT	Malatya	3.79	236	ePn	Pn	08 46 04.2	-1.7
MSL	Mosul	4.23	173	ePn	x	08 46 24.0	
MSL				ePb	x	08 46 34.0	
MSL				ePg	x	08 46 44.0	
MSL				eSn	x	08 47 14.0	
MSL				eSb	x	08 47 25.5	
MSL				eSg	x	08 47 41.0	
TOKT	Tokat	4.49	270	ePN	Pn	08 46 15.7	+0.1
TOKT	Tokat	4.49	270	ePn	Pn	08 46 15.7	+0.1
MAK	Makhachkala	4.53	55	ePG	Pg	08 46 43.1	+10
MAK				MLR	MLR		
	comp=Z,1μm,9.0s						
KVT	Kavak	4.88	279	ePN	Pn	08 46 20.9	0.0
KVT	Kavak	4.88	279	ePn	Pn	08 46 20.9	0.0
KMRS	Kahramanmaras	5.24	237	ePN	Pn	08 46 26.6	+0.8
KMRS	Kahramanmaras	5.24	237	ePn	Pn	08 46 26.6	+0.8
YOZ	Yozgat	5.51	263	ePN	Pn	08 46 29.8	+0.1
YOZ	Yozgat	5.51	263	ePn	Pn	08 46 29.8	+0.1
DIKM	Dikmen	5.54	284	ePN	Pn	08 46 30.6	+0.6
DIKM	Dikmen	5.54	284	ePn	Pn	08 46 30.6	+0.6
ANN	Anapa	5.66	321	eP	Pn	08 46 33.4	+1.7
BRTR	Keskin Array B	6.78	266	Pn	Pn	08 46 47.8	+0.8
BRTR				Pg	Pg	08 47 06.9	-10
BRTR				LR	LR	08 49 42.8	
BRTR	Keskin Array B	6.78	266	Pn	Pn	08 46 47.8	+0.8
	comp=Z,0.0nm,0.3s,baz=84,slow=8.7,SNR=7.0						
BRTR				Pg	Pg	08 47 06.9	-10
	comp=Z,0.3nm,0.3s,baz=98,slow=15,SNR=6.7						
BRTR				LR	LR	08 49 42.8	
	comp=Z,808nm,21.3s,baz=326,slow=42						
BRTR	Keskin Array B	6.78	266	Pn	Pn	08 46 47.8	+0.8
ALU	Alushta	7.25	308	⇓iP	Pn	08 46 53.8	+0.4
ALU				eS	Sn	08 48 13.5	-2.7
ALU				pmax	pmax		
	comp=Z,38nm,0.8s						
ALU				smax			
	comp=N,290nm,0.7s						
ALU				smax			
	comp=E,20nm,0.3s						
YAL	Yalta	7.30	306	⇓iP	Pn	08 46 54.6	+0.5
YAL				eS	Sn	08 48 13.9	-3.6
YAL				pmax	pmax		
	comp=Z,60nm,0.3s						
YAL				smax			
	comp=N,60nm,0.7s						
YAL				smax			
	comp=E,50nm,0.7s						
BHD	Baghdad	7.38	167	ePn	x	08 47 28.0	
BHD				eSn	x	08 49 23.0	
SIM	Simferopol’	7.56	309	eP	Pn	08 47 00.6	+2.8
SIM				eS	Sn	08 48 20.4	-3.6
SIM				smax			
	comp=N,90nm,0.8s						
SIM				smax			
	comp=E,135nm,0.8s						
SEV	Sevastopol’	7.63	305	eP	Pn	08 47 00.5	+1.8
SEV				eS	Sn	08 48 26.6	+1.0
SEV				pmax	pmax		
	comp=Z,5.0nm,0.4s						
SEV				smax			
	comp=N,20nm,0.4s						
SEV				smax			
	comp=E,5.0nm,0.4s						
MMAI	Mount Meron Ar	9.35	219	Pn	Pn	08 47 26.0	+3.7
	comp=E,0.5nm,0.3s,baz=72,slow=11,SNR=3.0						
VRSR	Storozhevoye	10.95	349	eP	Pn	08 47 44.5	+0.3
VRSR				eS	Sn	08 49 42.3	-4.9
VRSR				pmax	pmax		
	comp=Z,2.0nm,1.2s						
VRSR				pmax	pmax		
	comp=N,7.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,1.0nm,0.7s						
VRSR				smax			
	comp=N,80nm,6.7s						
VRSR				smax			
	comp=Z,120nm,6.1s						
VRSR				smax			
	comp=E,100nm,4.6s						
VRSR				MLR	MLR		
	comp=Z,170nm,19.0s						
VRSR				MLR	MLR		
	comp=N,130nm,40.0s						
VRSR				MLR	MLR		
	comp=E,200nm,19.0s						
TIRR	Tirgusor	11.08	296	⇑P	Pn	08 47 44.3	-1.7
TIRR	Tirgusor	11.08	296	⇑iP	Pn	08 47 44.3	-1.6
VRI	Vrincioaia	12.64	300	⇓iP	Pn	08 48 06.0	-1.4
MLR	Muntele Rosu	13.05	298	P	Pn	08 48 13.0	+0.1
MLR						08 50 34.3	
MLR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MLR	Muntele Rosu	13.05	298	Pn	Pn	08 48 13.0	+0.1
	comp=Z,0.5nm,0.3s,baz=138,slow=10.0,SNR=5.5						
MLR				Sn	Sn	08 50 34.3	-4.3
	comp=Z,0.2nm,0.3s,baz=133,slow=17,SNR=3.1						
MLR	Muntele Rosu	13.05	298	⇑iP	Pn	08 48 13.0	+0.1
VOIR		13.64	297	⇓iP	Pn	08 48 20.9	-0.1
AKASG	Malin Array Be	13.74	322	Pn	Pn	08 48 19.4	-2.9
AKASG				Sn	Sn	08 50 47.1	-8.4
AKASG	Malin Array Be	13.74	322	P	Pn	08 48 19.4	-2.9
AKASG						08 50 47.1	
AKASG	Malin Array Be	13.74	322	Pn	Pn	08 48 19.4	-2.9
	comp=Z,2.7nm,0.3s,baz=137,slow=13,SNR=21						
AKASG				Sn	Sn	08 50 47.1	-8.4
	comp=Z,0.6nm,0.3s,baz=138,slow=24,SNR=7.0						
AKBB	Malin Array Si	13.74	322	ePn	Pn	08 48 20.0	-2.3
AKBB				eSn	Sn	08 50 46.7	-8.8
AKBB	Malin Array Si	13.74	322	ePn	Pn	08 48 20.0	-2.3
KIEV	Kiev	13.75	322	ePn	Pn	08 48 19.5	-2.9
	comp=Z,5.6nm,0.6s						
KIEV				eSn	Sn	08 50 47.7	-7.9
KIEV	Kiev	13.75	322	eP	Pn	08 48 19.5	-2.9
KIEV				e		08 50 47.7	
KIEV				pmax	pmax		
	comp=Z,6.0nm,0.6s						
BURAR	Bucovina Array	14.26	306	⇑P	Pn	08 48 27.1	-2.2
BURAR	Bucovina Array	14.26	306	⇑iP	Pn	08 48 27.1	-2.2
AKTK	Aktyubinsk	14.75	42	Pn	Pn	08 48 33.5	-2.6
AKTK	Aktyubinsk	14.75	42	Pn	Pn	08 48 33.5	-2.6
AKTO	Aktyubinsk	14.75	42	P	Pn	08 48 33.5	-2.6
AKTO	Aktyubinsk	14.75	42	Pn	Pn	08 48 33.5	-2.6
	comp=Z,0.6nm,0.3s,baz=232,slow=12,SNR=18						
OBN	Obninsk	15.14	347	⇑P	Pn	08 48 43.0	+1.7
OBN				eS	Sn	08 51 27.6	-1.8
OBN				pmax	pmax		
	comp=Z,11nm,0.7s						
OBN				MLR	MLR		
	comp=Z,1μm,17.0s						
AB31	Akbulak array	15.17	49	P	Pn	08 48 40.2	-1.5
AB31				pmax	pmax		
	comp=Z,5.0nm,0.8s						
GZR	Gura Zlata	15.19	295	⇓iP	Pn	08 48 42.3	+0.3
MOS	Moscow	15.58	350	eP	Pn	08 48 40.3	-6.8
LVV	L’vov	15.94	312	eP	Pn	08 48 48.5	-3.3
LVV				eS	Sn	08 51 44.7	-4.2
BZS	Buzias	16.03	295	⇓P	Pn	08 48 55.4	+2.4
BZS	Buzias	16.03	295	⇓iP	Pn	08 48 55.4	+2.4
PKSM	Moragy	18.18	296	⇑P	Pn	08 49 23.6	+3.6
PKSM	Moragy	18.18	296	⇑iP	Pn	08 49 23.6	+3.6
ARU	Arti	19.12	28	eP	Pn	08 49 30.8	-0.6
	comp=Z,15nm,1.0s						
ARU	Arti	19.12	28	⇑eP	Pn	08 49 31.0	-0.4
ARU				pmax	pmax		
	comp=Z,53nm,2.7s						
ARU	Arti	19.12	28	eP	Pn	08 49 30.8	-0.6
	comp=Z,15nm,1.0s						
SVE	Sverdlovsk	20.19	30	⇑eP	P	08 49 44.0	+1.8
SVE				pmax	pmax		
	comp=Z,80nm,1.3s						
SVE	Sverdlovsk	20.19	30	eP	P	08 49 44.0	+1.8
	comp=Z,80nm,1.3s						
CONA	Conrad Observa	20.37	300	⇑ipP	pP	08 49 47.3	+2.4
	comp=Z,27nm,1.2s						
DPC	Dobruska-Polom	20.70	307	eP	P	08 49 45.0	-2.9
KK31	Karatay Array	21.06	74	i P	P	08 49 53.1	+1.2

KK31				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.4						
KK31	Karatay Array	21.06	74	*i* P	P	08 49 53.1	+1.2
	comp=Z,17nm,0.8s,mb4.4						
KKAR	Karatay Array	21.06	74	*i* P	P	08 49 53.1	+1.2
KKAR				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.3						
KKAR	Karatay Array	21.06	74	*i* P	P	08 49 53.1	+1.2
	comp=Z,14nm,0.9s,mb4.3						
PRGR	Permogore	21.26	4	⇑*i*P	P	08 49 56.9	+3.1
PRGR				*e*S	S	08 53 56.1	+5.7
PRGR				pmax	pmax		
	comp=Z,40nm,0.6s,mb4.9						
PRGR	Permogore	21.26	4	*i* P	P	08 49 56.9	+3.1
	comp=Z,40nm,0.6s,mb4.9						
PRGR	Permogore	21.26	4	*e*PcP	PcP	08 53 56.1	-2.3
PRU	Pruhonice	21.70	305	*e*P	P	08 50 00.3	+1.7
KBA	Koelnbreinsper	21.92	297	⇑*i*P	P	08 50 03.1	+2.1
	comp=Z,33nm,1.0s,mb4.7						
KBA	Koelnbreinsper	21.92	297	⇑*i*pP	pP	08 50 03.1	+1.6
	comp=Z,33nm,1.0s						
GEC2	GERESS Array S	21.96	302	*e*P	P	08 49 58.7	-2.8
GERES	GERESS Array B	21.96	302	P	P	08 50 01.5	+0.1
	comp=Z,2.4nm,0.7s,mb3.8,baz=104,slow=11,SNR=13						
KHC	Kasperske Hory	22.10	303	*e*P	P	08 49 58.0	-4.9
KHC				pP		08 50 07.0	
KHC				*e*x	x	08 50 21.0	
BRG	Berggiesshubel	22.31	307	*e*P	P	08 50 12.3	+7.2
BRG				pmax	pmax		
	comp=Z,19nm,1.9s,mb4.2						
BRG	Berggiesshubel	22.31	307	*e*P	P	08 50 12.3	+7.1
	comp=Z,32nm,1.9s,mb4.4						
BRVK	Borovoye	22.68	47	P	P	08 50 06.5	-2.5
	comp=Z,9.4nm,0.8s,mb4.3						
BRVK	Borovoye	22.68	47	P	P	08 50 06.5	-2.5
BRVK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.2						
CLL	Collm	23.00	308	*e*P	P	08 50 13.0	+0.5
	comp=Z,15nm,1.4s,mb4.2						
CLL				*e*		08 50 30.0	
CLL	Collm	23.00	308	*e*P	P	08 50 13.0	+0.5
CLL				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.2						
CLL	Collm	23.00	308	*e*sP	sP	08 50 13.0	-0.3
	comp=Z,15nm,1.4s						
CLL				*e*(PP)		08 50 30.0	
FINES	FINESS Array B	23.23	340	P	P	08 50 15.0	+0.2
	comp=Z,3.6nm,0.8s,mb3.9,baz=139,slow=13,SNR=8.6						
JOF	Joensuu	23.42	347	*e*p	P	08 50 14.7	-2.1
	comp=Z,8.0nm,0.6s,mb4.3						
MOTA	Moosalm	23.47	297	⇑*i*P	P	08 50 17.0	-0.4
	comp=Z,27nm,1.0s,mb4.6						
MOTA	Moosalm	23.47	297	⇑*i*pP	pP	08 50 17.0	-1.0
	comp=Z,27nm,1.0s						
MOTA	Moosalm	23.47	297	⇑*i*P	P	08 50 17.0	-0.4
MOTA				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.6						
AML	Almayashu	23.48	76	P	P	08 50 23.2	+5.6
	comp=Z,14nm,1.2s,mb4.3						
EKS2	Erkin-Say	23.49	74	*e*P	P	08 50 19.7	+2.0
	comp=Z,9.9nm,1.0s,mb4.2						
EKS2	Erkin-Say	23.49	74	*e*P	P	08 50 19.7	+2.0
	comp=Z,9.9nm,1.0s,mb4.2						
FETA	Feichten	23.69	297	⇓*i*pP	pP	08 50 20.1	-0.1
	comp=Z,27nm,1.1s						
GRA1	Grafenberg Arr	23.72	303	*e*P	P	08 50 22.3	+2.4
	comp=Z,38nm,1.6s,mb4.6						
GRF	Grafenberg Arr	23.72	303	*e*P	P	08 50 22.3	+2.4
GRF				pmax	pmax		
	comp=Z,38nm,1.6s,mb4.6						
GRF	Grafenberg Arr	23.72	303	*e*P	P	08 50 22.3	+2.4
GRF				pmax	pmax		
	comp=Z,38nm,1.6s,mb4.6						
GRF	Grafenberg Arr	23.72	303	*e*P	P	08 50 22.3	+2.4
	comp=Z,38nm,1.6s,mb4.6						
KAF	Kangasniemi	23.74	341	*e*p	P	08 50 11.8	-8.1
AAK	Ala-Archa	24.02	74	*e*P	P	08 50 19.8	-2.9
	comp=Z,8.6nm,1.0s,mb4.1						
AAK	Ala-Archa	24.02	74	*i* P	P	08 50 23.2	+0.5
AAK				pmax	pmax		
	comp=Z,7.0nm,2.2s,mb3.7						
AAK	Ala-Archa	24.02	74	*i* P	P	08 50 23.2	+0.5
	comp=Z,7.0nm,2.2s,mb3.7						
UCH	Uchtor	24.08	75	*e*P	P	08 50 30.4	+7.2
	comp=Z,5.2nm,1.0s,mb3.9						
DAVOX	Davos/Dischmat	24.26	296	P	P	08 50 25.6	+0.8
	comp=Z,9.3nm,0.9s,mb4.2,baz=136,slow=8.2,SNR=5.3						
TKM2	Tokmak 2	24.80	73	*e*P	P	08 50 32.3	+2.5
	comp=Z,4.2nm,0.8s,mb4.0						
TKM2	Tokmak 2	24.80	73	*e*P	P	08 50 32.3	+2.5
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.0						
TKM2	Tokmak 2	24.80	73	*e*P	P	08 50 32.3	+2.5
	comp=Z,4.2nm,0.8s,mb4.0						
PGF	Pioggiola	25.02	286	*e*P	P	08 50 32.7	+0.9
	comp=Z,123nm,1.4s,mb4.9						
PGF	Pioggiola	25.02	286	*e*P	P	08 50 32.7	+0.9
PGF				pmax	pmax		
	comp=Z,62nm,1.4s,mb5.0						
PGF	Pioggiola	25.02	286	*e*P	P	08 50 32.7	+0.9
	comp=Z,62nm,1.4s,mb4.9						
KSH	Kashi	25.63	81	*e*P	P	08 50 42.5	+5.1
KSH				*e*PCP	PcP	08 54 08.0	-0.1
KSH				*e*S	S	08 55 09.9	+3.6
KSH				LR	LR		
	comp=N,1μm,7.0s						
KSH				LR	LR		
	comp=E,880nm,5.5s						
KSH				LR	LR		
	comp=Z,1μm,7.3s						
SBF	Sospel	26.03	289	*e*P	P	08 50 41.8	+0.9
	comp=Z,239nm,1.4s,mb5.2						
SBF	Sospel	26.03	289	*e*P	P	08 50 41.8	+0.9
SBF				pmax	pmax		
	comp=Z,119nm,1.4s,mb5.2						
SBF	Sospel	26.03	289	*e*P	P	08 50 41.8	+0.9
	comp=Z,119nm,1.4s,mb5.2						
KEST	Kesra	26.36	270	P	P	08 50 46.0	+2.0
	comp=Z,8.4nm,1.1s,mb4.2,baz=238,slow=1.6,SNR=6.5						
LPG	La Plagne	26.42	293	*e*P	P	08 50 46.6	+2.1
LPL	La Plagne	26.43	293	*e*P	P	08 50 46.5	+1.9
MBDF	Montbardon	26.44	291	*e*P	P	08 50 45.0	+0.3
	comp=Z,30nm,1.2s,mb4.4						
MBDF	Montbardon	26.44	291	*e*P	P	08 50 45.0	+0.3
MBDF				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.4						
MBDF	Montbardon	26.44	291	*e*P	P	08 50 45.0	+0.3
	comp=Z,15nm,1.2s,mb4.4						
BNI	Bardonecchia	26.49	292	*e*P	P	08 50 41.1	-4.0
	comp=Z,14nm,1.1s,mb4.4						
BNI	Bardonecchia	26.49	292	*e*P	P	08 50 41.1	-4.0
BNI				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.4						
HFS	Hagfors	26.53	327	P	P	08 50 46.6	+1.4
	comp=Z,3.2nm,0.6s,mb4.0,baz=124,slow=13,SNR=7.8						
FRF	La Foret Royal	26.62	288	*e*P	P	08 50 48.0	+1.7
	comp=Z,70nm,1.2s,mb4.8						
FRF	La Foret Royal	26.62	288	*e*P	P	08 50 48.0	+1.7
FRF				pmax	pmax		
	comp=Z,35nm,1.2s,mb4.8						
FRF	La Foret Royal	26.62	288	*e*P	P	08 50 48.0	+1.7
	comp=Z,35nm,1.2s,mb4.8						
HAU	Haudompre	26.72	298	*e*P	P	08 50 48.8	+1.7
CABF	La Chapelle	26.86	295	*e*P	P	08 50 50.6	+2.2
	comp=Z,36nm,1.2s,mb4.5						
CABF	La Chapelle	26.86	295	*e*P	P	08 50 50.6	+2.2
	comp=Z,18nm,1.2s,mb4.5						
KURK	Kurchatov	27.06	56	*e*P	P	08 50 53.2	+3.1
	comp=Z,12nm,1.0s,mb4.4						
KURK				*e*pP	pP	08 51 01.2	+10
KURK				*e*sP	sP	08 51 05.5	+14
KURK	Kurchatov	27.06	56	*e*P	P	08 50 53.2	+3.0
KURK				*e**PP	pP	08 51 01.2	+10
KURK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.4						
KURK	Kurchatov	27.06	56	*e*P	P	08 50 53.2	+3.0
	comp=Z,12nm,1.0s,mb4.4						
ORIF	Oris-en-Rattie	27.06	292	*e*P	P	08 50 50.4	+0.1
	comp=Z,54nm,1.5s,mb4.6						
ORIF	Oris-en-Rattie	27.06	292	*e*P	P	08 50 50.4	+0.1
ORIF				pmax	pmax		
	comp=Z,27nm,1.5s,mb4.6						
ORIF	Oris-en-Rattie	27.06	292	*e*P	P	08 50 50.4	+0.1
	comp=Z,27nm,1.5s,mb4.6						
SMRF	Simiane la Rot	27.36	290	*e*P	P	08 50 54.9	+2.0
	comp=Z,88nm,1.5s,mb4.8						
SMRF	Simiane la Rot	27.36	290	*e*P	P	08 50 54.9	+2.0
	comp=Z,44nm,1.5s,mb4.8						
MEZF	Maizieres J'vi	27.61	299	*e*P	P	08 50 57.0	+1.9
NOA	NORSAR Array B	28.05	328	P	P	08 50 59.9	+1.0
	comp=Z,0.7nm,0.8s,mb3.3,baz=133,slow=8.6,SNR=2.8						
BAIF	Baives	28.27	303	*e*P	P	08 51 03.1	+2.1
LOR	Lormes	28.39	297	*e*P	P	08 51 04.1	+2.0
SMF	Signal de Mont	28.41	295	*e*P	P	08 51 04.3	+2.0
SSF	Saint Saulge	28.63	296	*e*P	P	08 51 06.2	+1.9
	comp=Z,5.9nm,0.7s,mb4.1						
SSF	Saint Saulge	28.63	296	*e*P	P	08 51 06.2	+1.9
SSF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
SSF	Saint Saulge	28.63	296	*e*P	P	08 51 06.2	+1.9
	comp=Z,3.0nm,0.7s,mb4.1						
AVF	Avril sur Loir	28.74	296	*e*P	P	08 51 07.1	+1.8
	comp=Z,44nm,1.6s,mb4.7						
AVF	Avril sur Loir	28.74	296	*e*P	P	08 51 07.1	+1.8
AVF				pmax	pmax		
	comp=Z,22nm,1.6s,mb4.6						
AVF	Avril sur Loir	28.74	296	*e*P	P	08 51 07.1	+1.8
	comp=Z,22nm,1.6s,mb4.7						
MK31	Makanchi Array	29.29	64	P	P	08 51 11.2	+1.1
MKAR	Makanchi Array	29.29	64	P	P	08 51 10.4	+0.3
	comp=Z,0.2nm,0.3s,mb3.3,baz=293,slow=7.5,SNR=3.6						
TCF	Toulx Ste Croi	29.55	295	*e*P	P	08 51 14.7	+2.3
ARCES	ARCESS Array B	30.44	348	P	P	08 51 18.3	-1.8
	comp=Z,3.2nm,1.1s,mb4.0,baz=149,slow=9.5,SNR=2.9						
NVS	Novosibirsk	30.51	48	*e*P	P	08 51 23.8	+3.0
EPF	Esparros	31.26	289	*e*P	P	08 51 29.8	+2.2
ZAL	Zalesovo	31.27	50	P	P	08 51 26.4	-1.1
ZALV	Zalesovo Beam	31.28	50	P	P	08 51 26.4	-1.2
	comp=Z,0.7nm,0.4s,mb3.9,baz=248,slow=7.6,SNR=3.4						
GRR	Gorron	31.54	299	*e*P	P	08 51 32.4	+2.4
TOA0	Torodi Ar. Sit	44.83	244	*e*P	P	08 53 21.6	-0.7
TOA0	Torodi Ar. Sit	44.83	244	*e*P	P	08 53 21.5	-0.7
TORD	Torodi Ar. Bea	44.83	244	P	P	08 53 18.4	-3.8
	comp=Z,7.0nm,1.0s,mb4.5,baz=45,slow=5.3,SNR=25						
SONM	Songino Array	45.30	58	P	P	08 53 24.7	-0.8
SONM				PcP	PcP	08 55 03.9	-1.3
SONM				LR	LR	09 14 39.5	
SONM	Songino Array	45.30	58	P	P	08 53 24.7	-0.8
SONM						08 55 03.9	
SONM	Songino Array	45.30	58	P	P	08 53 24.7	-0.8
	comp=Z,0.2nm,0.6s,mb3.1,baz=270,slow=8.6,SNR=2.9						
SONM				PcP	PcP	08 55 03.9	-1.3
	comp=Z,0.5nm,0.8s,baz=254,slow=2.7,SNR=2.7						
SONM				LR	LR	09 14 39.5	
	comp=Z,332nm,18.2s,baz=313,slow=39						
ULN	Ulaanbaatar	45.71	58	*e*P	P	08 53 26.5	-2.4
	comp=Z,6.7nm,0.9s,mb4.6						
ULN	Ulaanbaatar	45.71	58	⇑*e*P	P	08 53 29.3	+0.5
BOD	Bodaibo	47.52	44	*e*P	P	08 53 39.4	-3.4
BOD				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.2						
TIXI	Tiksi	51.06	24	*e*P	P	08 54 04.1	-5.6
	comp=Z,4.3nm,0.4s,mb4.7						
TIXI	Tiksi	51.06	24	*e*P	P	08 54 08.5	-1.2
TIXI				*e*		08 54 13.4	
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
LIC	Lamto	54.38	244	*e*P	P	08 54 35.9	+0.8
	comp=Z,32nm,1.0s,mb4.9						
LIC	Lamto	54.38	244	*e*P	P	08 54 35.9	+0.8
	comp=Z,16nm,1.0s,mb4.9						
SEY	Seymchan	62.86	29	⇑*e*P	P	08 55 33.3	-0.2
BILL	Bilibino	63.92	20	P	P	08 55 48.0	+7.5
BILL				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
KSRS	Korea Array	63.94	62	P	P	08 55 40.1	-1.0
	comp=Z,2.4nm,1.1s,mb4.2,baz=281,slow=6.7,SNR=2.6						
MA2	Magadan	64.24	32	P	P	08 55 40.7	-1.9
	comp=Z,4.2nm,0.9s,mb4.5						
MA2	Magadan	64.24	32	⇑*e*P	P	08 55 42.5	-0.1
MA2				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
SCHQ	Schefferville	67.54	324	P	P	08 56 04.7	+0.7
SCHQ	Schefferville	67.54	324	P	P	08 56 04.7	+0.7
	comp=Z,2.0nm,0.8s,mb4.2,baz=18,slow=4.3,SNR=3.2						
MJAR	Matsushiro Arr	71.24	58	P	P	08 56 27.7	+0.4
	comp=Z,4.4nm,1.1s,mb4.3,baz=293,slow=6.5,SNR=6.1						
YKA	Yellowknife Ar	75.71	349	P	P	08 56 50.3	-2.8
YKA	Yellowknife Ar	75.71	349	P	P	08 56 50.3	-2.8
	comp=Z,0.4nm,0.9s,mb3.3,baz=22,slow=6.4,SNR=3.4						

IDC ***17*** *08:57:13.5±0.8, 12.10N×88.48W, h0^{km}, mb4.4/14, mb1 4.5/16, mb1mx4.4/23, mbtmp4.4/16, ML4.0/2, MS3.9/2, Ms1 3.9/2, ms1mx3.2/34, Error ellipse: s-maj=22.5km s-min=12.8km az=45.0*

ISCJB ***17*** *08:57:14.5±1.2, 11.84N±0.04×88.75W±0.02, h21^{km}±9^{km}, mb4.5/33, MS4.5/4, Error ellipse: s-maj=7.4km s-min=3.2km az=20.3*

CASC ***17*** *08:57:15.3±2.5, 11.87N×88.72W, h14^{km}±16^{km}, MD4.3, ML4.1, mb4.6(NEIC)*

MOS ***17*** *08:57:16.5±1.7, 12.12N×88.48W, h20^{km}, mb4.8/9, Error ellipse: s-maj=17.1km s-min=8.5km az=104.3*

NEIC ***17*** *08:57:18.9±0.6, 12.00N×88.53W, mb4.6/20, Error ellipse: s-maj=11.9km s-min=6.4km az=216.0*

BJI ***17*** *08:57:18.8, 12.00N×88.50W, h38^{km}, mB5.3, Ms5.3, Msz5.0*

ISC 17 08:57:18.4±0.6**, 11.87N**±0.04×**88.68W**±0.03**, h40**^{km}±6^{km}**, h41**^{km}±1.5^{km}**:pP-P, n125,** σ1^{s}.**33**/125**, mb4.5**/33**, MS4.5**/4**, 17C-5D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNET	Serv Nac Est T	1.88	344	⇑*e*P	x	08 57 46.4	
SNET				*e*S	x	08 58 11.5	
LBRS	Las Brisas	1.89	349	⇑*e*P	x	08 58 01.6	
TEL3	Telica 3	1.93	69	⇑*e*P	Pn	08 57 47.6	-1.1
TEL3				*e*S	Sn	08 58 13.6	+1.8
BOQS	Boqueron	1.94	343	⇓*e*P	x	08 58 02.4	
BOQS				*e*S	x	08 58 28.1	
CAHU	Cacacuatique	1.94	14	⇑*i*P	x	08 58 03.1	
CAHU				*e*S	x	08 58 29.9	
TELN	Telica	1.95	68	*e*P	Pn	08 57 47.9	-1.2
TELN				*e*S	Sn	08 58 15.2	+2.8
CNGN	Cerro Negro	2.04	72	⇑*i*P	Pn	08 57 47.9	-2.4
CNGN				*e*S	Sn	08 58 15.3	+0.8
COPN	Copaltepe	2.07	81	⇓*i*P	Pn	08 57 49.7	-1.0
COPN				*e*S	Sn	08 58 17.6	+2.3
SBLS	San Blas	2.16	335	*e*P	x	08 58 05.3	
SBLS				*e*S	x	08 58 30.4	
MOMJ	Momotombo	2.16	75	⇑*e*P	Pn	08 57 50.6	-1.4
MOMJ				*e*S	Sn	08 58 19.6	+2.0
SNJE	San Jose	2.18	336	*e*P	x	08 58 05.7	
SNJE				*e*S	x	08 58 31.6	
APYN	Apoyeque	2.31	81	*e*S	Sn	08 58 22.7	+1.5
XAVN	Gruta Xavier	2.32	83	⇑*e*P	Pn	08 57 53.1	-1.1
XAVN				*e*S	Sn	08 58 20.1	-1.4
TISN	Laguna Tiscapa	2.38	83	⇓*e*P	Pn	08 57 53.8	-1.1
MGAN	Managua	2.40	83	⇑*e*P	Pn	08 57 54.1	-1.1
MGAN				*e*S	Sn	08 58 24.0	+0.6
	comp=E,2μm,0.3s						
TICN	Ticuantepe	2.41	86	⇑*e*P	Pn	08 57 54.4	-0.9
TICN				*e*S	Sn	08 58 26.8	+3.3
RBDL	Robledal	2.44	336	*e*P	x	08 58 09.7	
RBDL				*e*S	x	08 58 39.6	
HUEN		2.50	79	*e*P	Pn	08 57 55.4	-1.2
HUEN				⇑*e*P		08 57 55.6	
HUEN				*e*S	Sn	08 58 27.1	+1.3
APON	Apoyo	2.56	89	⇑*e*P	Pn	08 57 56.0	-1.5
TGUH	Tegucigalpa,Un	2.57	32	⇑*i*Pn	Pn	08 57 57.5	-0.1
SSNN	San Juan del S	2.84	101	⇓*e*P	Pn	08 57 59.9	-1.4
SSNN				*e*S	Sn	08 58 36.0	+1.9
BOAB	BOACO BROADBAN	3.01	79	⇑*e*P	Pn	08 58 01.6	-1.9
BOAB				*e*S	Sn	08 58 39.9	+1.6
CONN	Concepcion	3.01	95	*e*P	Pn	08 58 02.0	-1.6
MADN	Villa Maderas	3.12	98	*e*P	Pn	08 58 03.5	-1.6
MADN				*e*S	Sn	08 58 43.2	+2.0
LIM1	Limonal	3.56	109	*i* P	Pn	08 58 10.7	-0.5
JTS	JuntasAbangare	3.98	113	⇓*i*Pn	Pn	08 58 16.0	-1.0
JTS	JuntasAbangare	3.98	113	Pn	Pn	08 58 16.2	-0.8
	comp=E,11nm,0.3s,baz=298,slow=22,SNR=114						
JTS				Sn	Sn	08 59 02.0	-0.5
	comp=E,3.8nm,0.3s,baz=162,slow=20,SNR=2.0						
JCR	Jicaral	4.04	119	*e*P	Pn	08 58 17.2	-0.7
CGA2	Cerro Gallo 2	4.53	114	*e*P	Pn	08 58 25.4	+0.8
CGA2				*e*S	Sn	08 59 16.3	+0.3
PRS1	Puriscal	4.69	113	⇑*e*P	Pn	08 58 27.4	+0.7
PRS1				*e*S	Sn	08 59 20.0	+0.2
LAJ	Bijagual	4.90	114	*e*P	Pn	08 58 25.2	-4.4
LCR2	La Lucha 2	5.06	114	*e*P	Pn	08 58 32.6	+0.8
QCR	Quepos	5.06	118	*e*P	Pn	08 58 32.2	+0.4
URSC	Urasca	5.22	112	*e*P	Pn	08 58 35.2	+1.2
BUS	Buena Vista	5.36	115	*e*P	Pn	08 58 37.3	+1.4
BAR1		5.89	116	⇑*e*P	Pn	08 58 43.9	+0.6
CMIG	Matias Romero	7.94	312	Pn	Pn	08 59 10.8	-0.5
CMIG				Sn	Sn	09 00 40.9	+1.0
CMIG	Matias Romero	7.94	312	Pn	Pn	08 59 10.8	-0.5
	comp=E,1.9nm,0.3s,baz=122,slow=8.8,SNR=52						
CMIG				Sn	Sn	09 00 40.9	+1.0
	comp=E,1.2nm,0.3s,baz=342,slow=20,SNR=3.5						
TEIG	Tepich	8.32	3	*e*Pn	Pn	08 59 16.7	+0.2
TEIG	Tepich	8.32	3	Pn	Pn	08 59 18.1	+1.6
	comp=E,4.5nm,0.3s,baz=183,slow=9.1,SNR=25						
TEIG				LR	LR	09 03 00.3	
	comp=E,717nm,18.1s,baz=194,slow=43						
IIO	Organos	12.34	310	*e*P	Pn	09 00 12.0	+0.4
ROSC	El Rosal	15.81	115	Pn	Pn	09 00 56.2	-2.1
ROSC	El Rosal	15.81	115	Pn	Pn	09 01 06.6	+8.2
	comp=E,0.5nm,0.3s,baz=100,slow=8.5,SNR=12						
BRAL	Brewton	19.11	4	*e*P	Pn	09 01 41.0	+1.9
	comp=E,20nm,0.6s						
NATX	Nacogdoches	20.55	345	*e*Pn	P	09 01 56.4	+2.8
LRAL	Lakeview Retre	21.12	4	*e*Pn	P	09 02 00.7	+0.9
	comp=E,24nm,0.9s,mb4.5						
JCT	Junction City	21.20	333	*e*P	P	09 02 02.0	+1.4
	comp=E,13nm,0.7s,mb4.4						
JCT	Junction City	21.20	333	*e*P	P	09 02 02.0	+1.4
JCT				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.4						
ATAH	Atahualpa	21.36	151	P	P	09 02 05.9	+3.4
	comp=Z,15nm,0.8s,mb4.3,baz=326,slow=6.1,SNR=9.5						
ATAH				LR	LR	09 08 54.5	
	comp=Z,353nm,18.3s,MS3.8,baz=213,slow=32						
GOGA	Godfrey	21.97	12	*e*P	P	09 02 09.2	+0.3
TXAR	Lajitas Array	22.29	323	P	P	09 02 13.5	+1.2
	comp=Z,3.2nm,0.6s,mb4.0,baz=139,slow=9.5,SNR=49						
OXF	Oxford	22.55	358	*e*P	P	09 02 14.6	-0.5
SJG	San Juan	22.62	71	*e*P	P	09 02 15.4	-0.6
	comp=Z,18nm,0.8s,mb4.5						
SJG				*e*pP		09 02 24.1	
SJG	San Juan	22.62	71	*e*P	P	09 02 15.4	-0.6
SJG				*e**PP		09 02 24.1	
SJG				pmax	pmax		
	comp=Z,18nm,0.8s						
SJG	San Juan	22.62	71	P	P	09 02 13.4	-2.6
	comp=Z,10.0nm,0.4s,mb4.6,baz=289,slow=4.2,SNR=10						
COW	Cow Castle Cre	22.62	18	*e*P	P	09 02 18.0	+2.2
COW				*e*pP		09 02 25.1	
HUMP	Col San Antoni	22.91	71	*e*P	P	09 02 18.1	-0.9
CBYP	Canovanas	22.93	71	*e*P	P	09 02 17.5	-1.8
MIAR	Mount Ida	23.01	350	*e*P	P	09 02 19.1	-0.7
	comp=Z,30nm,1.2s,mb4.6						
MIAR	Mount Ida	23.01	350	*e*P	P	09 02 19.1	-0.8
MIAR				pmax	pmax		
	comp=Z,30nm,1.2s,mb4.6						
UALR	University of	23.04	352	*e*P	P	09 02 19.6	-0.7
	comp=Z,24nm,1.0s,mb4.6						
UALR				*e*pP		09 02 30.4	
MTP	Monte Pirata	23.17	72	*e*P	P	09 02 21.2	-0.6
JSC	Jenkinsville	23.31	16	*e*P	P	09 02 23.2	+0.1
SWET	Sewanee	23.38	6	*e*P	P	09 02 22.3	-1.4
LHS	Liberty Hill	23.62	16	*e*P	P	09 02 26.1	+0.1
LHS				*e*pP		09 02 35.4	
HBAR	Harrisburg	23.65	356	*e*P	P	09 02 23.8	-2.4
PCRV	Puerto La Cruz	23.66	92	P	P	09 02 27.1	+0.5
	comp=Z,36nm,0.8s,mb4.8,baz=342,slow=18,SNR=9.8						
CPCT	Cooper Cave	23.78	8	*e*P	P	09 02 26.5	-0.9
TKL	Tuckaleechee C	24.10	10	P	P	09 02 29.5	-0.8
	comp=Z,32nm,0.9s,mb4.7,baz=186,slow=12,SNR=24						
WMOK	Wichita Mounta	24.55	340	*e*P	P	09 02 34.6	+0.2
	comp=Z,13nm,1.2s,mb4.3						
WMOK	Wichita Mounta	24.55	340	*e*P	P	09 02 34.7	+0.3
WMOK				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.3						
TZTN	Tazewell	25.00	10	*e*P	P	09 02 38.0	-0.5
	comp=Z,10nm,1.0s,mb4.3						
MNTX	Cornudas Mount	25.03	325	*e*P	P	09 02 39.8	+1.0
SIUC	Southern Illin	25.74	359	*e*P	P	09 02 44.0	-1.2
	comp=Z,15nm,0.7s,mb4.6						
AMTX	Amarillo	25.78	335	*e*P	P	09 02 46.6	+1.0
WCI	Wyandotte Cave	26.34	4	*e*P	P	09 02 47.8	-2.8
	comp=Z,9.7nm,0.7s,mb4.4						
WCI	Wyandotte Cave	26.34	4	*e*P	P	09 02 47.8	-2.8
WCI				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.5						
NNA	Nana	26.46	153	P	P	09 02 54.7	+2.8
NNA	Nana	26.46	153	P	P	09 02 54.7	+2.8
	comp=Z,3.4nm,0.4s,mb4.2,baz=299,slow=5.0,SNR=3.5						
ANMO	Albuquerque	28.08	328	*i* P	P	09 03 11.2	+4.9
SDCO	Great Sand Dun	29.84	333	*e*P	P	09 03 26.0	+4.0
SDCO				*e*pP	pP	09 03 35.3	+2.4
PV10	Paradox Valley	32.04	329	*e*P	P	09 03 42.3	+1.0
SADO	Sadowa	33.79	12	P	P	09 03 54.7	-1.8
	baz=215,slow=11						
RWWY	Rawlins	33.84	335	*e*P	P	09 03 58.4	+1.5
LPAZ	La Paz	34.58	144	P	P	09 04 09.1	+5.5
	comp=Z,1.5nm,1.0s,mb3.9,baz=333,slow=2.3,SNR=5.0						
PDAR	Pinedale Array	35.73	333	P	P	09 04 14.6	+1.3
	comp=Z,0.9nm,0.7s,mb3.8,baz=130,slow=9.5,SNR=7.2						
PDAR				PcP	PcP	09 06 41.7	+0.9
	comp=Z,0.5nm,0.7s,baz=106,slow=3.3,SNR=3.3						
EYMN	Ely	36.04	357	*e*P	P	09 04 13.9	-2.0
	comp=Z,3.4nm,0.6s,mb4.5						
EYMN				*e*pP	pP	09 04 24.9	-2.1
REDW	Red Top Meadow	36.78	333	*e*P	P	09 04 22.5	+0.3
	comp=Z,5.8nm,0.6s,mb4.6						
REDW				*e*pP	pP	09 04 34.8	+1.4
AGMN	Agassiz Refuge	36.81	352	*e*P	P	09 04 21.0	-1.3
	comp=Z,12nm,0.9s,mb4.7						
AGMN				*e*pP	pP	09 04 32.1	-1.5
LOHW	Long Hollow	36.86	333	*e*P	P	09 04 25.6	+2.7
	comp=Z,4.0nm,0.8s,mb4.3						
NVAR	Mina Array Bea	37.36	320	P	P	09 04 29.5	+2.3
	comp=Z,3.3nm,1.0s,mb4.1,baz=128,slow=9.2,SNR=15						
NVAR				PcP	PcP	09 06 47.1	+1.4
	comp=Z,0.8nm,0.7s,baz=121,slow=4.2,SNR=4.4						
DGMT	Dagmar	38.72	343	*e*P	P	09 04 38.5	0.0
	comp=Z,17nm,0.6s,mb5.0						
DGMT				*e*pP	pP	09 04 49.6	-0.1
ULM	Lac du Bonnet	38.72	353	*e*P	P	09 04 36.2	-2.3
	comp=Z,17nm,1.2s,mb4.7						
ULM				*e*pP	pP	09 04 47.5	-2.2
ULM	Lac du Bonnet	38.72	353	P	P	09 04 35.8	-2.8
	comp=Z,3.5nm,0.5s,mb4.3,baz=167,slow=8.7,SNR=10						
BOZ	Bozeman (W)	38.92	334	*e*P	P	09 04 44.4	+4.1
EGMT	Eagleton	40.12	338	*e*P	P	09 04 50.8	+0.6
	comp=Z,9.9nm,0.8s,mb4.6						
EDM	Edmonton	45.72	339	*e*P	P	09 05 35.2	-0.2
EDM				*e*pP	pP	09 05 46.7	-0.2
SCHQ	Schefferville	46.18	17	P	P	09 05 36.8	-2.3
	comp=Z,7.8nm,0.7s,mb4.7,baz=203,slow=5.3,SNR=17						
FCC	Fort Churchill	46.98	356	*e*P	P	09 05 44.1	-1.2
	comp=Z,3.8nm,0.6s,mb4.5						
FCC	Fort Churchill	46.98	356	*e*P	P	09 05 44.1	-1.1
FCC				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
YKA	Yellowknife Ar	53.86	345	P	P	09 06 36.4	-0.8
YKA				PcP	PcP	09 07 43.2	+0.8
YKA	Yellowknife Ar	53.86	345	P	P	09 06 36.4	-0.8
	comp=Z,3.4nm,0.7s,mb4.4,baz=142,slow=7.4,SNR=68						
YKA				PcP	PcP	09 07 43.2	+0.8
	comp=Z,1.0nm,0.7s,baz=148,slow=3.9,SNR=8.1						
YKW3	Yellowknife Ar	53.92	345	*e*P	P	09 06 36.9	-0.7
DAWY	Dawson	62.86	338	*e*P	P	09 07 43.1	+3.1
INK	Inuvik	63.40	343	P	P	09 07 43.2	-0.3
INK	Inuvik	63.40	343	P	P	09 07 43.2	-0.3
	comp=Z,2.7nm,0.7s,mb4.5,baz=158,slow=8.7,SNR=9.3						
TNA	Tin City	74.82	335	*e*P	P	09 08 56.4	+2.0
ESDC	Sonseca Array	78.49	52	P	P	09 09 14.6	-1.1
	comp=Z,1.0nm,0.6s,mb3.9,baz=281,slow=5.3,SNR=4.2						
BILL	Bilibino	84.62	339	*e*P	P	09 09 48.2	+0.8
	comp=Z,8.5nm,0.8s,mb4.9						
BILL	Bilibino	84.62	339	⇑P	P	09 09 50.0	+2.6
BILL				pmax	pmax		
	comp=Z,15nm,1.3s,mb5.0						
BILL				MLR	MLR		
	comp=Z,100nm,14.0s,MS4.3						
TORD	Torodi Ar. Bea	87.71	77	P	P	09 10 02.5	-1.2
	comp=Z,0.9nm,1.0s,mb4.0,baz=298,slow=5.4,SNR=4.5						
CLL	Collm	88.02	38	*e*P	P	09 10 05.0	+0.6
CLL				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.7						
CLL	Collm	88.02	38	*e*P	P	09 10 05.0	+0.6

	comp=Z,4.0nm,0.9s,mb4.7						
SEY	**Seymchan**	**92.00**	**336**	⇑*i*P	**P**	**09 10 23.4**	**+0.6**
TIXI	**Tiksi**	**92.98**	**349**	*e*P	**P**	**09 10 26.6**	**-0.6**
TIXI				*e*		09 10 35.2	
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.9						
HHC	**Hu-ho-hao-te**	**124.30**	**341**	*e*PKP	PKPdf	09 16 11.0	-2.4
HHC				XPKP		09 16 25.4	
HHC				PP	PP	09 17 59.6	+1.9
HHC				PKS		09 19 46.4	
HHC				SKS	SKSdf	09 23 18.4	-3.9
HHC				SKKS	SKKSac	09 24 48.5	-5.9
HHC				LR	LR		
	comp=N,140nm,29.4s,MS4.7						
HHC				LR	LR		
	comp=E,226nm,28.5s,MS4.7						
HHC				LR	LR		
	comp=Z,249nm,25.6s,MS4.8						
WMQ	**Urumqi**	**124.48**	**3**	*e*PKP	PKPdf	09 16 13.9	+0.3
GTA	**Gaotai**	**128.38**	**352**	*e*PKP	PKPdf	09 16 20.3	-0.9
GTA				XPKP		09 16 34.8	
GTA				PKS		09 19 55.9	
GTA				PPP		09 21 07.9	
GTA				SKS	SKSdf	09 23 26.6	-3.4
GTA				SKKS	SKKSac	09 25 11.9	-8.2
GTA				PP	PP		
	comp=Z,162nm,9.9s						
GTA				LR	LR		
	comp=N,268nm,19.8s,MS5.1						
GTA				LR	LR		
	comp=E,264nm,19.8s,MS5.1						
GTA				LR	LR		
	comp=Z,304nm,18.2s,MS5.0						
NJ2	**Nanjing**	**128.99**	**330**	*e*PKP	PKPdf	09 16 21.0	-1.6
CD2	**Chengdu**	**135.82**	**345**	*e*PKP	PKPdf	09 16 34.6	-0.9
ASAR	**Alice Springs**	**137.94**	**248**	PKhKP		09 16 35.1	
	comp=Z,0.8nm,1.0s,baz=100,slow=2.9,SNR=4.2						
ASAR				PKP	PKPdf	09 16 39.8	+0.3
	comp=Z,1.2nm,0.9s,baz=108,slow=2.9,SNR=7.5						
WRA	**Warramunga Arr**	**137.95**	**253**	PKP	PKPdf	09 16 39.5	-0.2
	comp=Z,1.6nm,0.8s,baz=92,slow=2.7,SNR=16						
GYA	**Guiyang**	**139.08**	**339**	PKP	PKPdf	09 16 41.4	-0.2
GYA				XPKP		09 16 58.3	
GYA				PP	PP	09 19 37.3	+4.3
GYA				PP	PP		
	comp=Z,70nm,8.7s						
FITZ	**Fitzroy Crossi**	**146.31**	**255**	*e*PKPdf	PKPdf	09 16 55.5	+0.9
FITZ	**Fitzroy Crossi**	**146.31**	**255**	PKPbc	PKPbc	09 16 54.8	-1.0
	comp=Z,7.3nm,0.9s,baz=101,slow=2.2,SNR=19						

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*NEIC **17** 09:08:13.9, 16.33N×98.31W, h10^{km}, MD3.7(MEX), After MEX.*

MEX 17 09:08:13.9±1.0**, 16.33N×98.31W, h10**^{km}±7^{km}**, MD3.7, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	**Pinotepa**	**0.18**	**72**	*i* P	Pg	09 08 16.9	-0.9
PNIG				*i* S	Sg	09 08 20.6	0.0
UTMO	**Huajuapan**	**1.56**	**18**	*i* P	Pn	09 08 38.8	-3.0
UTMO				*i* S	Sn	09 08 57.5	-4.6
ACX	**Acapulco**	**1.63**	**289**	*i* P	Pn	09 08 39.0	-3.7
ACX				*i* S	Sn	09 08 58.0	-5.7
VHO	**Vista Hermosa**	**1.68**	**64**	*i* P	Pn	09 08 40.6	-2.7
VHO				*i* S	Sn	09 08 59.7	-5.2
OXX	**Oaxaca**	**1.69**	**64**	*i* P	Pn	09 08 41.0	-2.5
OXX				*i* S	Sn	09 09 01.0	-4.2
CAIG	**El Cayaco**	**2.01**	**291**	*i* P	Pn	09 08 46.3	-1.5
CAIG				*i* S	Sn	09 09 07.0	-6.0
MEIG	**Mezcala**	**2.02**	**322**	*e*P	Pn	09 08 45.4	-2.6
MEIG				*i* S	Sn	09 09 08.6	-4.7
TPIG	**Tehuac#an**	**2.26**	**23**	*i* P	Pn	09 08 48.7	-2.6
TPIG				*i* S	Sn	09 09 14.7	-4.6
PLIG	**Platanillo**	**2.34**	**331**	*e*P	Pn	09 08 49.8	-2.7
PLIG				*i* S	Sn	09 09 16.4	-4.9
CMIG	**Matias Romero**	**3.37**	**77**	*e*P	Pn	09 09 04.0	-2.5
CMIG				*i* S	Sn	09 09 41.7	-4.9

IDC 17 09:16:43.0±3.6**, 4.44S×140.28E, h0**^{km}**, mb3.5**/3**, mb1 3.6**/4**, mb1mx3.5**/11**, mbtmp3.5**/4**, ML3.3**/1**, Error ellipse: s-maj=139.0km s-min=28.5km az=90.0, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**16.46**	**200**	Pn	Pn	09 20 37.3	+1.9
	0.1nm,0.3s,baz=23,slow=12,SNR=9.5						
ASAR	**Alice Springs**	**20.08**	**197**	P	P	09 21 17.4	-0.7
	0.9nm,0.7s,baz=30,slow=11,SNR=9.0						
SONM	**Songino Array**	**59.94**	**334**	P	P	09 26 51.3	+0.4
	0.4nm,0.5s,baz=141,slow=5.9,SNR=4.8						
MKAR	**Makanchi Array**	**72.10**	**322**	P	P	09 28 09.3	0.0
	0.6nm,0.6s,baz=106,slow=6.4,SNR=7.0						

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*BJI **17** 09:18:32.4, 7.04S×155.88E, h25^{km}, mB5.2, mb4.9, Ms4.9, Msz4.6*

*IDC **17** 09:18:32.4±3.2, 7.28S×155.82E, h22^{km}±19^{km}, mb4.7/15, mb1 4.8/17, mb1mx4.8/19, mbtmp4.7/17, ML4.3/2, MS4.6/24, Ms1 4.6/24, ms1mx4.4/31, Error ellipse: s-maj=16.7km s-min=14.4km az=87.0*

*MOS **17** 09:18:32.8±0.9, 7.22S×155.81E, h33^{km}, mb5.3/30, MS4.7/11, Error ellipse: s-maj=9.5km s-min=7.3km az=107.3*

*ISCJB **17** 09:18:32.5±1.0, 7.26S±0.04×155.85E±0.04, h33^{km}±9^{km}, mb5.0/72, MS4.6/43, Error ellipse: s-maj=7.5km s-min=6.2km az=166.9*

*NEIC **17** 09:18:34.4±0.2, 7.25S×155.85E, mb5.0/37, Error ellipse: s-maj=6.1km s-min=5.1km az=123.0*

*GCMT **17** 09:18:34.3±0.2, 7.52S×155.89E, h20^{km}, MW5.3/92, Moment Tensor Solution. s83,c120; s92,c152; Duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.10±.03; M$_{\theta\theta}$-0.77±.02; M$_{\phi\phi}$-0.32±.02; M$_{r\theta}$0.30±.04; M$_{\theta\phi}$0.53±.01; M$_{\phi r}$-0.31±.04; Best double couple: M$_0$1.19000×10^{17} NP1:φ$_s$299.00000°, δ35.00000°, λ82.00000°. NP2:φ$_s$128.00000°, δ56.00000°, λ95.00000°. Principal axes: T 1.1840, Plg79.0000°, Azm57.0000°; N 0.0150, Plg4.0000°, Azm305.0000°; P -1.1960, Plg10.0000°, Azm214.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 17 09:18:35.7±0.8**, 7.30S**±0.04**×155.86E**±0.04**, h46**^{km}±8^{km}**, h44**^{km}±2.0^{km}**:pP-P, n326, σ0^{s}91**/156**, mb5.0**/72**, MS4.6**/43**, 7C-6D, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**4.57**	**118**	*e*Pn	**Pn**	**09 19 42.7**	**+0.5**
HNR				*e*Sn	**Sn**	**09 20 33.0**	**-1.0**
HNR	**Honiara**	**4.57**	**118**	Pn	**Pn**	**09 19 42.1**	**-0.1**
	48nm,0.3s,baz=262,slow=3.6,SNR=13						
HNR				Sn	**Sn**	**09 20 42.7**	**+8.6**
	79nm,0.3s,baz=276,slow=19,SNR=2.6						
HNR				LR	LR	09 21 26.4	
	comp=Z,17µm,18.3s,baz=353,slow=38						
PMG	**Port Moresby**	**8.86**	**256**	*e*Pn	**Pn**	**09 20 41.5**	**+0.4**
PMG				*e*Sn	**Sn**	**09 22 19.4**	**-0.3**
PMG	**Port Moresby**	**8.86**	**256**	Pn	**Pn**	**09 20 41.6**	**+0.5**
	12nm,0.3s,baz=45,slow=8.1,SNR=25						
PMG				Sn	**Sn**	**09 22 23.8**	**+4.2**
	1.3nm,0.3s,baz=2.0,slow=22,SNR=1.9						
PMG				LR	LR	09 23 54.2	
	comp=Z,6µm,21.4s,baz=59,slow=36						
COEN	**Coen**	**14.10**	**241**	*e*Pn	**Pn**	**09 21 53.4**	**+0.5**
CTA	**Charters Tower**	**15.75**	**215**	*e*P	**Pn**	**09 22 14.7**	**+0.2**
	25nm,0.7s						
CTA				*e*S	**S**	**09 25 24.9**	**+3.8**
CTA	**Charters Tower**	**15.75**	**215**	*e*P	**Pn**	**09 22 14.7**	**+0.2**
CTA				pmax	pmax		
	comp=Z,25nm,0.7s						
CTA	**Charters Tower**	**15.75**	**215**	Pn	**Pn**	**09 22 16.8**	**+2.2**
	comp=Z,0.6nm,0.3s,baz=33,slow=13,SNR=7.6						
CTAO	**Charters Tower**	**15.75**	**215**	*e*Pn	**Pn**	**09 22 14.9**	**+0.4**
	comp=Z,39nm,0.8s						
CTAO	**Charters Tower**	**15.75**	**215**	*e*P	**Pn**	**09 22 14.9**	**+0.4**
CTAO				pmax	pmax		
	comp=Z,39nm,0.8s						
DZM	**Mont Dzumac**	**17.88**	**146**	P	**Pn**	**09 22 40.7**	**-0.4**
	comp=Z,0.3nm,0.3s,baz=341,slow=4.8,SNR=5.1						
EIDS	**Eidsvold**	**18.54**	**194**	*e*P	**Pn**	**09 22 50.5**	**+1.4**
FUNA	**Funafuti**	**23.15**	**95**	*e*P	**P**	**09 23 38.2**	**-0.2**
	comp=Z,112nm,0.9s,mb5.3						
FUNA				*e*pP		09 23 46.8	
KAKA	**Kakadu**	**23.67**	**255**	*e*P	**P**	**09 23 42.3**	**-1.0**
	comp=Z,75nm,1.0s,mb5.1						
WB2	**Warramunga Arr**	**24.34**	**237**	*e*P	**P**	**09 23 48.9**	**-0.5**
WRA	**Warramunga Arr**	**24.35**	**237**	P	**P**	**09 23 49.0**	**-0.5**
WRA						09 27 28.5	
WRA	**Warramunga Arr**	**24.35**	**237**	P	**P**	**09 23 49.0**	**-0.5**
	comp=Z,12nm,0.6s,mb4.5,baz=62,slow=9.4,SNR=58						
WRA				PcP	PcP	09 27 28.5	+0.1
	comp=Z,3.7nm,0.8s,baz=64,slow=2.8,SNR=4.8						
WRA				ScP	ScP	09 31 06.2	+2.8
	comp=Z,2.3nm,1.0s,baz=65,slow=3.6,SNR=5.6						
WRA				LR	LR	09 33 18.5	
	comp=Z,3µm,18.0s,MS4.8,baz=60,slow=36						
ASAR	**Alice Springs**	**26.62**	**230**	P	**P**	**09 24 08.8**	**-1.2**
	comp=Z,3.0nm,0.7s,baz=61,slow=9.2,SNR=24						
ASAR				ScP	ScP	09 31 12.1	+2.2
	comp=Z,0.8nm,0.7s,baz=59,slow=2.6,SNR=6.5						
STKA	**Stephens Creek**	**27.83**	**207**	*e*P	**P**	**09 24 21.4**	**+0.6**
	comp=Z,7.4nm,0.9s,mb4.3						
STKA				*e*S	**S**	**09 29 02.6**	**+1.7**
STKA	**Stephens Creek**	**27.83**	**207**	P	**P**	**09 24 20.5**	**-0.3**
	comp=Z,4.1nm,0.7s,mb4.2,baz=15,slow=17,SNR=10						
STKA				LR	LR	09 35 22.3	
	comp=Z,2µm,20.1s,MS4.7,baz=24,slow=36						
FITZ	**Fitzroy Crossi**	**31.32**	**247**	*e*P	**P**	**09 24 51.0**	**-0.9**
	comp=Z,31nm,0.6s,mb5.3						
FITZ				*e*S	**S**	**09 29 55.9**	**-0.1**
FITZ	**Fitzroy Crossi**	**31.32**	**247**	P	**P**	**09 24 51.0**	**-0.9**
	comp=Z,8.9nm,0.7s,mb4.7,baz=88,slow=7.5,SNR=31						
FITZ				PcP	PcP	09 27 45.7	+0.4
	comp=Z,8.8nm,1.1s,baz=180,slow=1.0,SNR=3.8						
FITZ				LR	LR	09 37 31.9	
	comp=Z,1µm,19.3s,MS4.5,baz=247,slow=36						
AFI	**Afiamalu**	**32.46**	**104**	*e*P	**P**	**09 25 01.3**	**-0.6**
	comp=Z,76nm,1.0s,mb5.5						
AFI	**Afiamalu**	**32.46**	**104**	*e*P	**P**	**09 25 01.3**	**-0.6**
AFI				pmax	pmax		
	comp=Z,76nm,1.0s,mb5.5						
AFI	**Afiamalu**	**32.46**	**104**	P	**P**	**09 25 01.8**	**-0.1**
	comp=Z,61nm,1.0s,mb5.4,baz=82,slow=14,SNR=7.5						
AFI				LR	LR	09 37 02.9	
	comp=Z,954nm,19.1s,MS4.5,baz=282,slow=34						
RAO	**Raoul Island**	**32.96**	**135**	LR	LR	09 35 41.0	
	comp=Z,1µm,18.9s,MS4.6,baz=150,slow=31						
FORT	**Forrest**	**34.96**	**224**	*e*P	**P**	**09 25 22.7**	**-0.8**
	comp=Z,24nm,0.6s,mb5.3						
TAU	**Tasmania Unive**	**36.25**	**191**	*e*P	**P**	**09 25 34.6**	**+0.2**
	comp=Z,40nm,1.3s,mb5.2						
TAU	**Tasmania Unive**	**36.25**	**191**	*e*P	**P**	**09 25 34.7**	**+0.3**
TAU				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.2						
URZ	**Urewera**	**36.32**	**151**	LR	LR	09 36 33.0	
	comp=Z,800nm,20.3s,MS4.5,baz=181,slow=30						
CBIJ	**Chichi jima**	**36.67**	**339**	LR	LR	09 39 53.0	
	comp=Z,372nm,18.5s,MS4.2,baz=170,slow=35						
MBWA	**Marble Bar**	**37.51**	**245**	*e*P	**P**	**09 25 45.1**	**-0.4**
	comp=Z,16nm,0.8s,mb4.8						
MBWA				*e*pP	pP	09 25 55.4	-2.4
RPZ	**Rata Peaks**	**38.64**	**162**	P	**P**	**09 25 54.6**	**0.0**
	comp=Z,9.8nm,0.6s,mb4.7,baz=41,slow=13,SNR=7.1						
RPZ				LR	LR	09 39 27.1	
	comp=Z,509nm,21.7s,MS4.3,baz=342,slow=32						
KKM	**Kota Kinabalu**	**41.71**	**288**	*e*P	**P**	**09 26 20.3**	**-0.2**
KKM				*e*pP	pP	09 26 30.1	-2.9
KLBR	**Kellerberrin**	**42.95**	**231**	*e*P	**P**	**09 26 29.4**	**-0.9**
	comp=Z,19nm,0.6s,mb5.0						
NWAO	**Narrogin (SRO)**	**43.93**	**229**	LR	LR	09 44 30.0	
	comp=Z,1µm,18.4s,MS4.9,baz=53,slow=36						
MUN	**Mundaring**	**44.30**	**231**	*e*P	**P**	**09 26 39.7**	**-1.5**
RAR	**Rarotonga**	**45.00**	**113**	LR	LR	09 41 38.1	
	comp=Z,694nm,20.6s,MS4.6,baz=36,slow=31						
KSM	**Kuching**	**46.27**	**279**	*e*P	**P**	**09 26 56.6**	**-0.6**
MJAR	**Matsushiro Arr**	**46.65**	**340**	P	**P**	**09 26 58.8**	**-0.9**
MJAR						09 28 32.7	
MJAR	**Matsushiro Arr**	**46.65**	**340**	P	**P**	**09 26 58.8**	**-0.9**
	comp=Z,12nm,0.7s,mb4.9,baz=164,slow=8.3,SNR=32						
MJAR				PcP	PcP	09 28 32.6	-0.3
	comp=Z,5.0nm,0.8s,baz=163,slow=4.2,SNR=5.2						
MJAR				LR	LR	09 44 26.6	
	comp=Z,294nm,19.9s,MS4.2,baz=180,slow=33						
MAJO	**Matsushiro**	**46.65**	**340**	*e*P	**P**	**09 26 58.7**	**-1.0**
	comp=Z,16nm,0.6s,mb5.1						
MAJO	**Matsushiro**	**46.65**	**340**	*e*P	**P**	**09 26 58.7**	**-1.0**
MAJO				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.1						
MAT	**Matsushiro**	**46.65**	**340**	P	**P**	**09 26 58.5**	**-1.2**
MAT				*e*S	**S**	**09 33 34.0**	**-12**
JNU	**Nakatsue**	**46.69**	**331**	LR	LR	09 42 04.9	
	comp=Z,267nm,21.9s,MS4.2,baz=321,slow=30						
KSRS	**Korea Array**	**51.61**	**332**	P	**P**	**09 27 38.0**	**+0.3**
	comp=Z,11nm,0.8s,mb4.9,baz=148,slow=7.5,SNR=30						
KSRS				PcP	PcP	09 28 51.6	+0.7
	comp=Z,2.6nm,0.7s,baz=150,slow=4.0,SNR=7.1						
KSRS				LR	LR	09 46 26.9	
	comp=Z,222nm,20.5s,MS4.2,baz=134,slow=32						
KS15	**Wonju Array Si**	**51.62**	**332**	*e*P	**P**	**09 27 37.4**	**-0.3**
INCN	**Inchon**	**52.25**	**331**	*e*P	**P**	**09 27 43.1**	**+0.7**
	comp=Z,32nm,0.8s,mb5.3						
QIZ	**Qiongzhong**	**52.35**	**301**	P	**P**	**09 27 46.3**	**+2.9**
QIZ				XP	sP	09 28 00.9	-0.6
QIZ				PP	PP	09 29 45.6	+3.0
QIZ				S	**S**	**09 35 07.1**	**+0.9**
QIZ				SS	SS	09 38 42.8	-1.8
QIZ				AMB	AMB		
	comp=Z,17nm,1.1s,mb4.9						
QIZ				LR	LR		
	comp=N,216nm,19.6s,MS4.5						
QIZ				LR	LR		
	comp=E,474nm,21.9s,MS4.5						
QIZ				LR	LR		
	comp=Z,849nm,22.4s,MS4.7						
ASAJ	**Asahikawa**	**52.57**	**348**	LR	LR	09 49 09.1	
	comp=Z,793nm,19.2s,MS4.8,baz=277,slow=35						
NJ2	**Nanjing**	**52.70**	**320**	*e*P	**P**	**09 27 46.1**	**+0.3**
NJ2				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.4						
PPT	**Papeete**	**54.09**	**106**	*e*LR	LR	09 43 41.9	
	comp=Z,432nm,26.0s						
PPT	**Papeete**	**54.09**	**106**	LR	LR	09 47 55.2	
	comp=Z,368nm,18.9s,MS4.5,baz=196,slow=33						
WHN	**Wuhan**	**54.76**	**316**	⇓P	**P**	**09 28 01.5**	**+0.6**
YSS	**Yuzh-Sakhalins**	**55.26**	**349**	P	**P**	**09 28 03.7**	**-0.4**
	comp=Z,15nm,0.6s,mb5.2						
YSS				*e*pP	pP	09 28 15.7	-1.3
YSS	**Yuzh-Sakhalins**	**55.26**	**349**	*e*P	**P**	**09 28 04.0**	**-0.2**
YSS				*e*	pP	09 28 15.0	-2.0
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
YSS				MLR	MLR		
	comp=Z,700nm,18.0s,MS4.8						
PMOR	**Pomariorio Ree**	**55.59**	**103**	*e*P	**P**	**09 28 07.9**	**+0.7**
	comp=Z,56nm,0.9s,mb5.6						
VAH	**Vaihoa**	**55.86**	**103**	*e*P	**P**	**09 28 09.5**	**+0.4**
	comp=Z,40nm,1.0s,mb5.4						
MDJ	**Mudanjiang**	**56.84**	**338**	P	**P**	**09 28 17.8**	**+2.3**
MDJ				AP	pP	09 28 29.1	+0.6
MDJ				PCP	PcP	09 29 12.3	+1.5
MDJ				SCP	ScP	09 33 09.5	+2.7
MDJ				PCS	PcS	09 33 15.3	+3.8
MDJ				S	**S**	**09 36 04.6**	**-1.1**
MDJ				PS		09 40 05.8	
MDJ				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,159nm,6.2s						
MDJ				LR	LR		
	comp=N,137nm,41.8s						
MDJ				LR	LR		
	comp=E,194nm,35.7s						
MDJ				LR	LR		
	comp=Z,149nm,20.4s						
MDJ	**Mudanjiang**	**56.84**	**338**	*e*P	**P**	**09 28 16.0**	**+0.4**
	comp=Z,11nm,1.2s,mb4.8						
MDJ				*e*pP	pP	09 28 28.6	+0.2
PSI	**Prapat**	**57.69**	**278**	LR	LR	09 51 31.1	
	comp=Z,746nm,20.7s,MS4.8,baz=356,slow=34						
CN2	**Changchun**	**57.84**	**334**	*e*P	**P**	**09 28 22.4**	**-0.2**
CN2				*e*S	**S**	**09 36 18.4**	**-0.4**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,200nm,14.0s,MS4.7						
CN2				LR	LR		
	comp=E,400nm,14.0s,MS4.7						
CN2				LR	LR		
	comp=Z,400nm,15.0s,MS4.7						
GYA	**Guiyang**	**58.32**	**307**	⇑*i*P	**P**	**09 28 26.9**	**+0.6**
GYA				PCP	PcP	09 29 18.8	+1.8
GYA				PP	PP	09 30 40.5	+4.6
GYA				SCP	ScP	09 33 13.4	-0.4
GYA				PCS	PcS	09 33 19.8	+1.1
GYA				S	**S**	**09 36 26.3**	**+0.6**
GYA				PS		09 36 43.8	
GYA				SCS	ScS	09 38 10.3	-2.3
GYA				SS	SS	09 40 20.3	+1.7
GYA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb5.0						
GYA				AMB	AMB		
	comp=Z,130nm,7.1s						
GYA				LR	LR		
	comp=N,480nm,18.0s,MS4.8						
GYA				LR	LR		
	comp=E,560nm,21.0s,MS4.8						
GYA				LR	LR		
	comp=Z,680nm,21.3s,MS4.7						
HABR	**Khabarovsk**	**58.48**	**344**	*e*P	**P**	**09 28 25.9**	**-1.1**
HABR				*e*		09 30 36.7	
HABR				*e*S	**S**	**09 36 28.3**	**+1.3**
HABR				*e*		09 38 09.7	
HABR				*e*SS	SS	09 40 24.3	+4.0
HABR				pmax	pmax		
	comp=Z,41nm,1.7s,mb5.2						
BJT	**Baijiatuau**	**59.65**	**325**	*e*P	**P**	**09 28 34.0**	**-1.2**
	comp=Z,9.7nm,0.8s,mb4.9						
BJT	**Baijiatuau**	**59.65**	**325**	*e*P	**P**	**09 28 34.0**	**-1.2**
BJT				pmax	pmax		
	comp=Z,10.0nm,0.8s						
PET	**Petropavlovsk**	**60.14**	**2**	*e*P	**P**	**09 28 39.4**	**+1.1**
PET				*e*		09 37 17.4	
PET				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
PET				MLR	MLR		
	comp=Z,700nm,17.0s,MS4.9						
NANT	**Nan**	**60.23**	**296**	⇓P	**P**	**09 28 40.3**	**+0.6**
	comp=Z,90nm,1.0s,mb5.8						
XAN	**Xi’an**	**60.52**	**316**	P	**P**	**09 28 40.6**	**-0.8**
XAN				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.9						
KMI	**Kunming**	**60.90**	**304**	P	**P**	**09 28 45.0**	**+0.9**
KMI				AP	pP	09 28 58.0	+0.9
KMI				AMB	AMB		
	comp=Z,22nm,1.1s,mb5.2						
KMI				LR	LR		
	comp=Z,424nm,21.0s,MS4.6						
KMI	**Kunming**	**60.90**	**304**	P	**P**	**09 28 45.0**	**+0.9**
	comp=Z,22nm,1.1s,mb5.2						
KMI				pP	pP	09 28 58.0	+0.9
KMI				LR	LR		
	comp=Z,420nm,21.0s,MS4.6						
CHG	**Chiang Mai**	**61.80**	**296**	⇓P	**P**	**09 28 51.1**	**+0.8**
	comp=Z,35nm,0.9s,mb5.5						
CHTO	**Chiang Mai**	**61.80**	**296**	*e*P	**P**	**09 28 51.2**	**+0.8**
	comp=Z,22nm,1.2s,mb5.2						
CHTO	**Chiang Mai**	**61.80**	**296**	*e*P	**P**	**09 28 51.2**	**+0.9**
CHTO				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.2						
CD2	**Chengdu**	**62.66**	**310**	P	**P**	**09 28 55.8**	**-0.1**
CD2				AP	pP	09 29 08.8	-0.2
CD2				XP	sP	09 29 13.8	-0.4
CD2				PP	PP	09 31 14.8	+0.5
CD2				S	**S**	**09 37 17.5**	**-3.7**
CD2				XS	sS	09 37 39.3	-3.7
CD2				SCS	ScS	09 38 40.3	-4.6
CD2				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.7						
CD2				AMB	AMB		
	comp=Z,80nm,5.8s						
CD2				LR	LR		
	comp=N,540nm,18.4s,MS4.8						
CD2				LR	LR		
	comp=E,360nm,19.4s,MS4.8						
CD2				LR	LR		
	comp=Z,400nm,21.0s,MS4.6						
HHC	**Hu-ho-hao-te**	**62.85**	**323**	*e*P	**P**	**09 28 57.4**	**+0.5**
HHC				AP	pP	09 29 10.3	+0.3
HHC				XP	sP	09 29 15.5	+0.3
HHC				PCP	PcP	09 29 34.8	-0.1
HHC				PP	PP	09 31 17.8	+2.1
HHC				SCP	ScP	09 33 32.1	-1.4
HHC				PCS	PcS	09 33 36.9	-1.4
HHC				S	**S**	**09 37 21.8**	**-1.3**
HHC				PS		09 37 47.3	
HHC				SCS	ScS	09 38 42.6	-3.3
HHC				SS	SS	09 41 30.9	+1.8
HHC				AMB	AMB		
	comp=Z,7.0nm,1.5s,mb4.6						
HHC				LR	LR		
	comp=N,226nm,19.0s,MS4.6						
HHC				LR	LR		
	comp=E,287nm,18.0s,MS4.6						
HHC				LR	LR		
	comp=Z,226nm,20.9s,MS4.3						
TAOE	**Nuku Hiva Isla**	**63.31**	**96**	*e*P	**P**	**09 29 01.2**	**+0.7**
	comp=Z,422nm,1.2s						
TAOE	**Nuku Hiva Isla**	**63.31**	**96**	*e*LR	LR	09 47 43.6	
	comp=Z,951nm,21.2s						
BTO	**Baotou**	**63.62**	**322**	*e*P	**P**	**09 29 01.6**	**-0.4**
HIA	**Hailar**	**64.56**	**335**	*e*P	**P**	**09 29 08.2**	**+0.2**
	comp=Z,31nm,1.1s,mb5.2						
HIA				*e*pP	pP	09 29 18.8	-2.3
HIA	**Hailar**	**64.56**	**335**	*e*P	**P**	**09 29 08.2**	**+0.2**
HIA				e*PP	pP	09 29 18.8	-2.3
HIA				pmax	pmax		
	comp=Z,31nm,1.1s						
LZH	**Lanzhou**	**65.13**	**315**	*e*P	**P**	**09 29 13.0**	**+1.0**
LZH				AP	pP	09 29 25.1	-0.1
LZH				XP	sP	09 29 29.4	-1.0
LZH				PP	PP	09 31 39.0	+3.1
LZH				*e*S	S	09 37 52.0	+0.3
LZH				XS	sS	09 38 12.0	-1.6
LZH				SS	SS	09 42 05.3	+0.3
LZH				AMB	AMB		
	comp=Z,31nm,1.5s,mb5.1						
LZH				AMB	AMB		
	comp=Z,250nm,6.1s						
LZH				LR	LR		
	comp=N,413nm,16.0s						
LZH				LR	LR		
	comp=Z,668nm,16.9s,MS4.9						
LZH	**Lanzhou**	**65.13**	**315**	*e*P	**P**	**09 29 13.0**	**+1.0**
	comp=Z,31nm,1.5s,mb5.1						
LZH				pP	pP	09 29 25.1	-0.1
LZH				sP	sP	09 29 29.4	-1.0
LZH				PP	PP	09 31 39.0	+3.1
LZH				*e*S	S	09 37 52.0	+0.3
LZH				sS	sS	09 38 12.0	-1.6
LZH				SS	SS	09 42 05.3	+0.3
LZH				LR	LR		
	comp=Z,670nm,16.9s,MS4.9						
LZH	**Lanzhou**	**65.13**	**315**	*e*P	**P**	**09 29 13.0**	**+1.0**
LZH				*PP	pP	09 29 25.1	-0.1
LZH						09 31 39.0	
LZH							
LZH				*e*S	S	09 37 52.0	+0.3
LZH				*SS	sS	09 38 12.0	-1.6
LZH				SS	SS	09 42 05.3	+0.3
LZH				pmax	pmax		
	comp=Z,31nm,1.5s,mb5.1						
LZH				MLR	MLR		
	comp=Z,670nm,16.9s,MS4.9						
MA2	**Magadan**	**66.78**	**357**	*e*P	**P**	**09 29 22.0**	**-0.2**
	comp=Z,7.1nm,0.8s,mb4.8						
MA2				*e*pP	pP	09 29 33.9	-1.5
MA2	**Magadan**	**66.78**	**357**	⇑*e*P	**P**	**09 29 21.8**	**-0.3**
MA2				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
RKT	**Rikitea**	**68.03**	**112**	*e*LR	LR	09 50 03.2	
	comp=Z,731nm,22.8s,baz=280						
CLNS	**Chul’man**	**68.78**	**342**	*d* *i*P	**P**	**09 29 37.2**	**+2.5**
CLNS				e*PP	pP	09 29 43.7	-4.2
CLNS				*e*	pP	09 29 53.3	+5.4
CLNS				*e*		09 33 43.9	
CLNS				*e*PS		09 38 42.1	
CLNS				*e*		09 39 28.4	
CLNS				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
CLNS				pmax	pmax		

	comp=N,29nm,1.9s						
CLNS				pmax	pmax		
	comp=E,16nm,2.0s						
CLNS				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
CLNS				MLR	MLR		
	comp=Z,400nm,18.0s,MS4.7						
CLNS				MLR	MLR		
	comp=N,100nm,14.0s,MS4.3						
CLNS				MLR	MLR		
	comp=E,100nm,14.0s,MS4.3						
CIT	Chita	69.26	334	eP	P	09 29 38.7	+0.9
CIT				e	pP	09 29 53.4	+2.3
CIT				pmax	pmax		
	comp=Z,25nm,2.0s,mb4.8						
GTA	Gaotai	69.55	317	eP	P	09 29 40.6	+0.7
GTA				AP	pP	09 29 55.0	+1.9
GTA				PP	PP	09 32 17.3	+3.1
GTA				PPP		09 33 57.6	
GTA				S	S	09 38 45.5	+0.9
GTA				PS		09 39 18.3	
GTA				SS	SS	09 43 16.3	+3.0
GTA				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.4						
GTA				AMB	AMB		
	comp=Z,179nm,9.1s						
GTA				LR	LR		
	comp=N,268nm,19.4s,MS4.6						
GTA				LR	LR		
	comp=E,194nm,19.8s,MS4.6						
GTA				LR	LR		
	comp=Z,405nm,19.0s,MS4.7						
ULN	Ulaanbaatar	69.72	327	eP	P	09 29 38.8	-2.0
ULN	Ulaanbaatar	69.72	327	⇑eP	P	09 29 41.4	+0.6
SONM	Songino Array	70.06	327	P	P	09 29 43.6	+0.8
	comp=Z,22nm,0.8s,mb5.2,baz=134,slow=6.4,SNR=123						
SONM				LR	LR	09 55 48.4	
	comp=Z,304nm,20.8s,MS4.5,baz=2.2,slow=32						
SEY	Seymchan	70.08	358	⇑eP	P	09 29 42.5	-0.2
VNDA	Vanda	70.25	179	LR	LR	09 57 08.9	
	comp=Z,373nm,19.0s,MS4.7,baz=357,slow=33						
YAK	Yakutsk	72.04	347	eP	P	09 29 56.4	+1.9
YAK				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
YAK				pmax	pmax		
	comp=N,7.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.1s						
LSA	Lhasa	72.15	304	P	P	09 29 57.0	+1.1
LSA	Lhasa	72.15	304	eP	P	09 29 57.0	+1.1
	comp=E,28nm,1.2s,mb5.1						
LSA	Lhasa	72.15	304	eP	P	09 29 57.0	+1.1
LSA				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.0						
ZAK	Zakamensk	73.20	328	⇑iP	P	09 30 02.2	+0.5
ZAK				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
BOD	Bodaibo	73.22	338	eP	P	09 30 00.9	-0.7
BOD				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
TLY	Talaya	73.76	329	eP	P	09 30 05.0	+0.1
	comp=Z,13nm,1.0s,mb4.8						
TLY				e	pP	09 30 20.0	+1.6
TLY	Talaya	73.76	329	eP	P	09 30 05.3	+0.3
TLY				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
TLY				MLR	MLR		
	comp=Z,181nm,17.0s,MS4.4						
IRK	Irkutsk	73.78	330	eP	P	09 30 04.1	-0.9
IRK				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.3						
TAPN	Taplejung	74.29	301	eP	P	09 30 09.0	+0.4
	comp=Z,104nm,1.0s,mb5.7						
ODAN	Odare	74.42	300	eP	P	09 30 09.5	+0.1
	comp=Z,61nm,0.6s,mb5.7						
MOY	Mondy	75.12	328	eP	P	09 30 13.8	+0.9
MOY				pmax	pmax		
	comp=Z,23nm,1.4s,mb4.9						
BILL	Bilibino	75.52	4	eP	P	09 30 14.9	+0.1
	comp=Z,18nm,0.9s,mb5.0						
BILL	Bilibino	75.52	4	P	P	09 30 15.0	+0.2
BILL				e		09 30 35.3	
BILL				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
BILL				MLR	MLR		
	comp=Z,400nm,18.0s,MS4.8						
KKN	Kakani	76.48	301	eP	P	09 30 21.3	+0.1
	comp=Z,23nm,0.6s,mb5.3						
KDAK	Kodiak Island	77.07	26	LR	LR	10 02 12.6	
	comp=Z,388nm,18.3s,MS4.8,baz=184,slow=34						
GKN	Gorkha	77.09	301	eP	P	09 30 24.7	+0.1
	comp=Z,146nm,1.1s,mb5.8						
TNA	Tin City	77.40	15	eP	P	09 30 25.6	+0.1
	comp=Z,1.8nm,0.8s,mb4.0						
WMQ	Urumqi	79.63	317	P	P	09 30 39.0	+0.7
WMQ				PCP	PcP	09 30 47.0	+1.0
WMQ				AP	pP	09 30 52.3	+0.5
WMQ				PP	PP	09 33 41.8	+2.1
WMQ				AMB	AMB		
	comp=Z,17nm,1.2s,mb4.8						
WMQ				AMB	AMB		
	comp=Z,51nm,6.6s						
WMQ				LR	LR		
	comp=N,179nm,24.0s,MS4.7						
WMQ				LR	LR		
	comp=E,391nm,22.0s,MS4.7						
WMQ				LR	LR		
	comp=Z,224nm,22.0s,MS4.5						
TIXI	Tiksi	80.78	352	eP	P	09 30 44.8	+0.9
	comp=Z,3.5nm,0.5s,mb4.5						
TIXI	Tiksi	80.78	352	eP	P	09 30 42.4	-1.5
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
TIXI				MLR	MLR		
	comp=Z,149nm,17.0s,MS4.4						
SML	Sawmill	81.17	23	eP	P	09 30 46.4	+0.2
IMA2	Indian Mountai	81.82	19	eP	P	09 30 49.5	0.0
IMA2				ePcP	PcP	09 30 56.0	+1.0
MCK	McKinley	82.02	22	eP	P	09 30 49.7	-0.9
	comp=Z,12nm,0.9s,mb4.8						
MCK	McKinley	82.02	22	eP	P	09 30 49.7	-0.9
MCK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
COLA	College	83.06	21	eP	P	09 30 54.2	-1.8
	comp=Z,7.3nm,0.8s,mb4.8						
COLA	College	83.06	21	⇓iP	P	09 30 54.0	-2.0
MK31	Makanchi Array	84.20	319	eP	P	09 31 02.5	+0.2
MK31	Makanchi Array	84.20	319	i P	P	09 31 02.3	+0.1
MK31				pmax	pmax		
	comp=Z,44nm,0.7s,mb5.7						
MKAR	Makanchi Array	84.20	319	i P	P	09 31 02.3	+0.1
MKAR				pmax	pmax		
	comp=Z,33nm,0.8s						
MKAR	Makanchi Array	84.20	319	P	P	09 31 02.4	+0.2
	comp=Z,43nm,0.8s,mb5.6,baz=102,slow=5.9,SNR=236						
MKAR				LR	LR	10 08 13.5	
	comp=Z,171nm,18.1s,MS4.5,baz=102,slow=35						
MAW	Mawson	84.44	203	eP	P	09 31 03.0	-0.1
	comp=Z,7.0nm,1.2s,mb4.7						
MAW	Mawson	84.44	203	eP	P	09 31 03.0	-0.1
MAW				pmax	pmax		
	comp=Z,7.0nm,1.2s						
MAW	Mawson	84.44	203	P	P	09 31 03.7	+0.6
	comp=Z,7.6nm,0.7s,mb4.9,baz=90,slow=6.7,SNR=8.7						
MAW				LR	LR	10 07 12.7	
	comp=Z,250nm,18.1s,MS4.6,baz=51,slow=35						
ZALV	Zalesovo Beam	84.91	326	P	P	09 31 04.7	-1.0
	comp=Z,27nm,0.6s,mb5.5,baz=111,slow=5.8,SNR=112						
ZAL	Zalesovo	84.92	326	P	P	09 31 04.7	-1.0
EGAK	Eagle	85.47	23	eP	P	09 31 07.8	-0.4
	comp=Z,9.3nm,0.9s,mb4.9						
NVS	Novosibirsk	86.08	326	eP	P	09 31 08.7	-2.7
NVS				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.4						
NVS				pmax	pmax		
	comp=N,17nm,1.5s						
NVS				pmax	pmax		
	comp=E,29nm,1.4s						
KSH	Kashi	86.86	310	eP	P	09 31 17.0	+1.3
KSH				eAP	pP	09 31 30.5	+1.2
KSH				ePP	PP	09 34 43.3	+4.3
KSH				ePPP		09 36 40.1	
KSH				eSKS		09 41 37.3	
KSH				eS	S	09 41 51.0	+0.5
KSH				eSS	SS	09 47 37.4	+3.7
KSH				AMB	AMB		
	comp=Z,854nm,7.1s						
KSH				LR	LR		
	comp=Z,693nm,7.9s						
KURK	Kurchatov	87.60	322	P	P	09 31 18.4	-0.6
	comp=Z,93nm,0.6s,mb6.2,SNR=17						
KURK	Kurchatov	87.60	322	eP	P	09 31 18.0	-1.0
	comp=Z,12nm,0.8s,mb5.2						
KURK	Kurchatov	87.60	322	⇑eP	P	09 31 18.4	-0.6
TKM2	Tokmak 2	87.84	314	eP	P	09 31 20.2	-0.1
	comp=Z,7.3nm,0.8s,mb5.0						
TKM2	Tokmak 2	87.84	314	eP	P	09 31 20.2	-0.1
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.9						
UCH	Uchtor	88.49	313	eP	P	09 31 24.0	+0.6
	comp=Z,10.0nm,1.3s,mb4.9						
UCH				epP	pP	09 31 35.2	-1.9
AAK	Ala-Archa	88.58	313	P	P	09 31 22.9	-0.9
	comp=Z,34nm,1.0s,mb5.6,SNR=5.4						
AAK	Ala-Archa	88.58	313	eP	P	09 31 22.4	-1.4
	comp=Z,2.7nm,0.6s,mb4.8						
AAK	Ala-Archa	88.58	313	⇑iP	P	09 31 22.3	-1.5
AAK				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.9						
AML	Almayashu	89.07	313	eP	P	09 31 26.2	+0.1
	comp=Z,19nm,1.3s,mb5.3						
AML				epP	pP	09 31 34.3	-5.5
EKS2	Erkin-Say	89.11	313	eP	P	09 31 25.9	-0.4
	comp=Z,8.3nm,1.1s,mb5.0						
EKS2				epP	pP	09 31 37.0	-2.9
INK	Inuvik	89.71	21	eP	P	09 31 27.9	-0.6
	comp=Z,379nm,1.2s						
NVAR	Mina Array Bea	91.24	52	P	P	09 31 37.0	+0.6
NVAR	Mina Array Bea	91.24	52	P	P	09 31 37.0	+0.6
	comp=Z,0.7nm,0.7s,mb4.1,baz=230,slow=4.6,SNR=7.5						
BRVK	Borovoye	93.12	323	eP	P	09 31 43.0	-1.7
	comp=Z,20nm,0.9s,mb5.6						
BRVK	Borovoye	93.12	323	eP	P	09 31 43.0	-1.7
BRVK				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.6						
SHPR	Sheep Range	93.48	54	eP	P	09 31 48.8	+2.1
YKA	Yellowknife Ar	96.21	28	P	P	09 31 57.7	-0.9
YKA				PKKPbc	PKKPbc	09 48 49.1	+1.4
YKA				LR	LR	10 11 44.5	
YKA	Yellowknife Ar	96.21	28	P	P	09 31 57.7	-0.9
	comp=Z,1.4nm,0.6s,mb4.5,baz=265,slow=4.6,SNR=24						
YKA				PKKPbc	PKKPbc	09 48 49.1	+1.4
	comp=Z,0.2nm,0.5s,baz=76,slow=2.9,SNR=4.7						
YKA				LR	LR	10 11 44.5	
	comp=Z,214nm,18.4s,MS4.7,baz=350,slow=33						
HRY	Holter Researc	96.84	44	eP	P	09 32 04.2	+2.3
PDAR	Pinedale Array	98.27	48	P	P	09 32 07.8	-0.6
	comp=Z,1.0nm,0.8s,mb4.4,baz=227,slow=1.7,SNR=7.8						
ARU	Arti	100.08	326	ePdif	Pdif	09 32 14.2	-2.0
ARU	Arti	100.08	326	d iP	Pdif	09 32 14.4	-1.8
ARU				e		09 36 22.3	
ARU				eS	SKSac	09 42 48.0	-3.0
ARU				eSS	SS	09 50 43.7	+2.1
ARU				pmax	pmax		
	comp=Z,16nm,1.4s						
JOF	Joensuu	111.70	336	ep	PKiKP	09 37 03.2	-1.8
	comp=Z,4.8nm,0.8s						
JOF	Joensuu	111.70	336	ePKIKP	PKiKP	09 37 03.2	-1.8
KAF	Kangasniemi	114.11	337	ep	PKiKP	09 37 06.4	-3.2
	comp=Z,2.1nm,0.5s						
KAF	Kangasniemi	114.11	337	ePKIKP	PKiKP	09 37 06.4	-3.2
FINES	FINESS Array B	114.57	336	PKP	PKiKP	09 37 09.1	-1.4
FINES	FINESS Array B	114.57	336	PKIKP	PKiKP	09 37 09.1	-1.4
FINES	FINESS Array B	114.57	336	PKP	PKiKP	09 37 09.1	-1.4
	comp=Z,2.8nm,0.8s,baz=105,slow=3.1,SNR=6.3						
AKASG	Malin Array Be	118.28	325	PKP	PKPdf	09 37 16.6	-1.3
AKASG	Malin Array Be	118.28	325	PKIKP	PKPdf	09 37 16.6	-1.4
AKASG	Malin Array Be	118.28	325	PKP	PKPdf	09 37 16.6	-1.3
	comp=Z,1.4nm,0.5s,baz=48,slow=2.5,SNR=11						
BRTR	Keskin Array B	119.23	312	PKP	PKPdf	09 37 19.2	-0.9
BRTR	Keskin Array B	119.23	312	PKIKP	PKPdf	09 37 19.2	-0.9
BRTR	Keskin Array B	119.23	312	PKP	PKPdf	09 37 19.2	-0.9
	comp=Z,0.4nm,0.4s,baz=96,slow=2.9,SNR=3.4						
NB2	NORSAR Subarra	120.27	341	PKPd	PKPdf	09 37 20.0	-1.5
	comp=Z,1.2nm,0.6s,baz=41,slow=1.9						
NOA	NORSAR Array B	120.27	341	PKP	PKPdf	09 37 19.8	-1.7
NOA	NORSAR Array B	120.27	341	PKIKP	PKPdf	09 37 19.8	-1.7
NOA	NORSAR Array B	120.27	341	PKP	PKPdf	09 37 19.8	-1.7
	comp=Z,1.6nm,0.7s,baz=47,slow=2.0,SNR=5.4						
BOSA	Boshof	120.49	231	PKP	PKPdf	09 37 22.7	-0.2
BOSA	Boshof	120.49	231	PKIKP	PKPdf	09 37 22.7	-0.2
BOSA	Boshof	120.49	231	PKP	PKPdf	09 37 22.7	-0.2
	comp=Z,1.4nm,0.6s,baz=80,slow=19,SNR=4.0						
SCHQ	Schefferville	121.66	27	PKP	PKPdf	09 37 25.1	+0.8
SCHQ	Schefferville	121.66	27	PKP	PKPdf	09 37 25.1	+0.8
	comp=Z,2.0nm,1.0s,baz=12,slow=9.3,SNR=3.0						
KOLS	Kolonicke sedl	123.09	325	ePKP	PKPdf	09 37 27.6	+0.3
KOLS	Kolonicke sedl	123.09	325	ePKIKP	PKPdf	09 37 27.6	+0.3
KOLS	Kolonicke sedl	123.09	325	ePKP	PKPdf	09 37 27.6	+0.3
UZH	Uzhgorod	123.23	325	ePKIKP	PKPdf	09 37 28.4	+0.9
STHS	Stebnicka Huta	123.41	326	ePKP	PKPdf	09 37 30.3	+2.4
STHS	Stebnicka Huta	123.41	326	ePKIKP	PKPdf	09 37 30.3	+2.4
STHS	Stebnicka Huta	123.41	326	ePKP	PKPdf	09 37 30.3	+2.4
CRVS	Cervenica-Dubn	123.56	326	ePKP	PKPdf	09 37 29.7	+1.5
CRVS	Cervenica-Dubn	123.56	326	ePKIKP	PKPdf	09 37 29.7	+1.5
CRVS	Cervenica-Dubn	123.56	326	ePKP	PKPdf	09 37 29.6	+1.4
VYHS	Vyhne	125.24	326	ePKP	PKPdf	09 37 31.4	0.0
VYHS	Vyhne	125.24	326	ePKIKP	PKPdf	09 37 31.4	0.0
VYHS	Vyhne	125.24	326	ePKP	PKPdf	09 37 31.4	0.0
BRG	Berggiesshubel	126.33	331	ePKIKP	PKPdf	09 37 34.5	+1.1
BRG				pmax	pmax		
	comp=Z,7.0nm,1.1s						
CLL	Collm	126.49	332	i PKP	PKPdf	09 37 33.3	-0.4
CLL				LR	LR		
	comp=Z,300nm,18.6s,MS5.0						
CLL	Collm	126.49	332	i PKIKP	PKPdf	09 37 33.3	-0.4
CLL				pmax	pmax		
	comp=Z,8.0nm,0.8s						
CLL				MLR	MLR		
	comp=Z,300nm,18.6s,MS5.0						
CLL	Collm	126.49	332	i PKPdf	PKPdf	09 37 33.3	-0.4
	comp=Z,8.0nm,0.8s						
KHC	Kasperske Hory	127.64	330	ePKP	PKPdf	09 37 36.0	0.0
KHC	Kasperske Hory	127.64	330	ePKIKP	PKPdf	09 37 36.0	0.0
KHC	Kasperske Hory	127.64	330	ePKPdf	PKPdf	09 37 36.0	0.0
GERES	GERESS Array B	127.76	329	PKP	PKPdf	09 37 36.2	0.0
GERES	GERESS Array B	127.76	329	PKIKP	PKPdf	09 37 36.2	0.0
GERES	GERESS Array B	127.76	329	PKP	PKPdf	09 37 36.2	0.0
	comp=Z,3.4nm,0.8s,baz=90,slow=2.7,SNR=16						
ROSC	El Rosal	130.06	90	PKP	PKPdf	09 37 42.4	+0.7
ROSC	El Rosal	130.06	90	PKP	PKPdf	09 37 42.4	+0.7
	comp=Z,4.3nm,0.3s,baz=90,slow=20,SNR=3.4						
LPAZ	La Paz	130.56	119	ePKPdf	PKPdf	09 37 43.4	+1.0
LPAZ	La Paz	130.56	119	ePKIKP	PKPdf	09 37 43.4	+0.9
LPAZ	La Paz	130.56	119	PKP	PKPdf	09 37 42.7	+0.2
	comp=Z,4.0nm,0.8s,baz=15,slow=2.3,SNR=12						
GIVF	Givet	130.96	336	ePKIKP	PKPdf	09 37 41.4	-0.9
GIVF	Givet	130.96	336	ePKPdf	PKPdf	09 37 41.4	-0.9
GIVF	Givet	130.96	336	ePKIKP	PKPdf	09 37 41.4	-0.9
CDF	Champ du Feu	131.16	333	ePKIKP	PKPdf	09 37 42.4	-0.3
CDF	Champ du Feu	131.16	333	ePKPdf	PKPdf	09 37 42.4	-0.3
CDF	Champ du Feu	131.16	333	ePKIKP	PKPdf	09 37 42.4	-0.3
BAIF	Baives	131.24	336	ePKIKP	PKPdf	09 37 42.6	-0.2
BAIF	Baives	131.24	336	ePKPdf	PKPdf	09 37 42.6	-0.2
BAIF	Baives	131.24	336	ePKIKP	PKPdf	09 37 42.6	-0.2
HINF	Hinteralfeld	131.79	332	ePKIKP	PKPdf	09 37 42.6	-1.3
HINF	Hinteralfeld	131.79	332	ePKPdf	PKPdf	09 37 42.6	-1.3
HINF	Hinteralfeld	131.79	332	ePKIKP	PKPdf	09 37 42.6	-1.3
HAU	Haudompre	131.88	333	ePKIKP	PKPdf	09 37 42.8	-1.3
HAU				eMLR	MLR		
	comp=Z,302nm,22.5s,MS4.7						
HAU	Haudompre	131.88	333	ePKPdf	PKPdf	09 37 42.8	-1.3
HAU				LR	LR		
	comp=Z,300nm,22.5s,MS4.9						
HAU	Haudompre	131.88	333	ePKIKP	PKPdf	09 37 42.8	-1.3
HAU				MLR	MLR		
	comp=Z,300nm,22.5s,MS4.9						
MEZF	Maizieres J'vi	132.09	334	ePKIKP	PKPdf	09 37 43.8	-0.6
MEZF	Maizieres J'vi	132.09	334	ePKPdf	PKPdf	09 37 43.8	-0.6
CABF	La Chapelle	133.03	332	ePKIKP	PKPdf	09 37 45.5	-0.8
	comp=Z,47nm,1.1s						
CABF	La Chapelle	133.03	332	ePKPdf	PKPdf	09 37 45.5	-0.8
CABF	La Chapelle	133.03	332	ePKIKP	PKPdf	09 37 45.5	-0.8
LPL	La Plagne	133.51	330	ePKIKP	PKPdf	09 37 46.7	-0.5
LPL	La Plagne	133.51	330	ePKPdf	PKPdf	09 37 46.7	-0.5
LPL	La Plagne	133.51	330	ePKIKP	PKPdf	09 37 46.7	-0.5
LPG	La Plagne	133.51	330	ePKIKP	PKPdf	09 37 46.9	-0.3
LPG	La Plagne	133.51	330	ePKPdf	PKPdf	09 37 46.9	-0.3
LPG	La Plagne	133.51	330	ePKIKP	PKPdf	09 37 46.9	-0.3
LOR	Lormes	133.55	334	ePKIKP	PKPdf	09 37 46.4	-0.8
	comp=Z,49nm,1.4s						
LOR				eMLR	MLR		
	comp=Z,235nm,19.5s,MS4.6						
LOR	Lormes	133.55	334	ePKPdf	PKPdf	09 37 46.4	-0.8
LOR				LR	LR		
	comp=Z,230nm,19.5s,MS4.9						
LOR	Lormes	133.55	334	ePKIKP	PKPdf	09 37 46.4	-0.8
LOR				MLR	MLR		
	comp=Z,230nm,19.5s,MS4.9						
SSF	Saint Saulge	133.86	334	ePKIKP	PKPdf	09 37 47.4	-0.4
	comp=Z,18nm,1.1s						
SSF	Saint Saulge	133.86	334	ePKPdf	PKPdf	09 37 47.4	-0.4
SSF	Saint Saulge	133.86	334	ePKIKP	PKPdf	09 37 47.4	-0.4
SMF	Signal de Mont	134.03	333	ePKIKP	PKPdf	09 37 47.6	-0.6
	comp=Z,26nm,1.2s						
SMF	Signal de Mont	134.03	333	ePKPdf	PKPdf	09 37 47.6	-0.6
SMF	Signal de Mont	134.03	333	ePKIKP	PKPdf	09 37 47.6	-0.6
MBDF	Montbardon	134.05	329	ePKIKP	PKPdf	09 37 47.5	-0.8
	comp=Z,11nm,0.8s						
MBDF	Montbardon	134.05	329	ePKPdf	PKPdf	09 37 47.5	-0.8
MBDF	Montbardon	134.05	329	ePKIKP	PKPdf	09 37 47.5	-0.8
FLN	La Foliniere	134.10	338	ePKIKP	PKPdf	09 37 47.4	-0.8
	comp=Z,136nm,1.7s						
FLN				eMLR	MLR		
	comp=Z,320nm,20.0s,MS4.7						
FLN	La Foliniere	134.10	338	ePKPdf	PKPdf	09 37 47.4	-0.8
FLN				LR	LR		
	comp=Z,320nm,20.0s,MS5.0						
FLN	La Foliniere	134.10	338	ePKIKP	PKPdf	09 37 47.4	-0.8
FLN				MLR	MLR		
	comp=Z,320nm,20.0s,MS5.0						
LDF	La Druitiere	134.11	338	ePKIKP	PKPdf	09 37 47.6	-0.6
LDF	La Druitiere	134.11	338	ePKPdf	PKPdf	09 37 47.6	-0.6
LDF	La Druitiere	134.11	338	ePKIKP	PKPdf	09 37 47.6	-0.6
AVF	Avril sur Loir	134.14	334	ePKIKP	PKPdf	09 37 47.2	-1.2
AVF	Avril sur Loir	134.14	334	ePKPdf	PKPdf	09 37 47.2	-1.2
AVF	Avril sur Loir	134.14	334	ePKIKP	PKPdf	09 37 47.2	-1.2
SBF	Sospel	134.31	328	ePKIKP	PKPdf	09 37 48.1	-0.7
	comp=Z,49nm,1.0s						
SBF	Sospel	134.31	328	ePKPdf	PKPdf	09 37 48.1	-0.7
SBF	Sospel	134.31	328	ePKIKP	PKPdf	09 37 48.1	-0.7
PGF	Pioggiola	134.34	326	ePKIKP	PKPdf	09 37 48.2	-0.7
PGF	Pioggiola	134.34	326	ePKPdf	PKPdf	09 37 48.2	-0.7
PGF	Pioggiola	134.34	326	ePKIKP	PKPdf	09 37 48.2	-0.7
ORIF	Oris-en-Rattie	134.35	330	ePKIKP	PKPdf	09 37 48.2	-0.6
ORIF				eMLR	MLR		
	comp=Z,296nm,20.2s,MS4.7						
ORIF	Oris-en-Rattie	134.35	330	ePKPdf	PKPdf	09 37 48.2	-0.6
ORIF	Oris-en-Rattie	134.35	330	ePKIKP	PKPdf	09 37 48.2	-0.6
GRR	Gorron	134.55	338	ePKIKP	PKPdf	09 37 48.3	-0.8
GRR	Gorron	134.55	338	ePKPdf	PKPdf	09 37 48.3	-0.8
GRR	Gorron	134.55	338	ePKIKP	PKPdf	09 37 48.3	-0.8
FRF	La Foret Royal	134.93	328	ePKIKP	PKPdf	09 37 49.0	-0.9
FRF	La Foret Royal	134.93	328	ePKPdf	PKPdf	09 37 49.0	-0.9
FRF	La Foret Royal	134.93	328	ePKIKP	PKPdf	09 37 49.0	-0.9
TCF	Toulx Ste Croi	135.02	334	ePKIKP	PKPdf	09 37 49.3	-0.7
	comp=Z,65nm,1.4s						
TCF	Toulx Ste Croi	135.02	334	ePKPdf	PKPdf	09 37 49.3	-0.7
TCF	Toulx Ste Croi	135.02	334	ePKIKP	PKPdf	09 37 49.3	-0.7
LMR	La Mourre	135.16	328	ePKIKP	PKPdf	09 37 49.4	-1.0
	comp=Z,44nm,1.1s						
LMR	La Mourre	135.16	328	ePKPdf	PKPdf	09 37 49.4	-1.0
LMR	La Mourre	135.16	328	ePKIKP	PKPdf	09 37 49.4	-1.0
SMRF	Simiane la Rot	135.18	329	ePKIKP	PKPdf	09 37 49.8	-0.6
	comp=Z,63nm,1.2s						
SMRF	Simiane la Rot	135.18	329	ePKPdf	PKPdf	09 37 49.8	-0.6
EPF	Esparros	138.41	333	ePKIKP	PKPdf	09 37 55.4	-1.0
	comp=Z,35nm,1.2s						
EPF	Esparros	138.41	333	ePKPdf	PKPdf	09 37 55.4	-1.0
EPF	Esparros	138.41	333	ePKIKP	PKPdf	09 37 55.4	-1.0
ETSF	Etsaut	138.91	333	ePKIKP	PKPdf	09 37 56.3	-1.0
	comp=Z,30nm,1.1s						
ETSF	Etsaut	138.91	333	ePKPdf	PKPdf	09 37 56.3	-1.0
ETSF	Etsaut	138.91	333	ePKIKP	PKPdf	09 37 56.3	-1.0
SJPF	Ste Jean	139.03	334	ePKIKP	PKPdf	09 37 56.9	-0.7
	comp=Z,61nm,1.4s						
SJPF	Ste Jean	139.03	334	ePKPdf	PKPdf	09 37 56.9	-0.7
SJPF	Ste Jean	139.03	334	ePKIKP	PKPdf	09 37 56.9	-0.7
GUD	Guadarrama	142.31	335	PKP	PKPdf	09 37 59.4	-4.1
GUD	Guadarrama	142.31	335	PKIKP	PKPdf	09 37 59.4	-4.2
ESDC	Sonseca Array	143.03	334	PKP	PKPdf	09 38 01.0	-3.8
ESDC	Sonseca Array	143.03	334	PKhKP		09 38 01.0	
	comp=Z,1.5nm,0.6s,baz=38,slow=2.8,SNR=6.4						
PVRL	Vila Real	143.15	339	ePKP	PKPdf	09 38 04.0	-1.0
PVIS	Viseu	143.71	339	ePKP	PKPdf	09 38 04.0	-2.0
MTE	Manteigas	143.86	338	ePKP	PKPdf	09 38 06.1	-0.2
EQES	Quesada	144.13	331	PKP	PKPdf	09 38 03.8	-3.0
EBAN	Banos Encina	144.18	332	PKP	PKPdf	09 38 05.4	-1.5
EBAN	Banos Encina	144.18	332	PKIKP	PKPdf	09 38 05.4	-1.5
EADA	Adamuz	144.54	333	PKP	PKPdf	09 38 05.8	-1.8
EBER	Berja	144.75	330	PKP	PKPdf	09 38 06.1	-1.9
ECOG	Cogollos-Vega	144.78	331	PKP	PKPdf	09 38 06.7	-1.3
ECOG	Cogollos-Vega	144.78	331	PKIKP	PKPdf	09 38 06.7	-1.3
ELUQ	Luque	144.89	332	PKP	PKPdf	09 38 07.5	-0.7
ELUQ	Luque	144.89	332	PKIKP	PKPdf	09 38 07.5	-0.7
EBAD	Badajoz	145.08	336	PKP	PKPdf	09 38 07.3	-1.2
ERON	Agron	145.10	331	PKP	PKPdf	09 38 06.8	-1.8
EGUA	Guajares	145.13	330	PKP	PKPdf	09 38 07.5	-1.1
EGUA	Guajares	145.13	330	PKIKP	PKPdf	09 38 07.5	-1.1
ELOJ	Sierra Loja	145.17	331	PKP	PKPdf	09 38 07.7	-1.0
ELOJ	Sierra Loja	145.17	331	PKIKP	PKPdf	09 38 07.7	-1.0
PESTR	Estremoz	145.21	337	ePKP	PKPdf	09 38 08.5	-0.2
EVO	Evora	145.66	337	ePKIKP	PKPdf	09 38 07.2	-2.3
	comp=Z,52nm,0.9s						
EVO				eMLR	MLR		
	comp=Z,295nm,22.2s,MS4.7						
EVO	Evora	145.66	337	ePKP	PKPdf	09 38 09.8	+0.3
EMIN	Mina Concepcio	145.78	335	PKP	PKPdf	09 38 09.8	0.0
MOE	Montemor	145.80	338	ePKP	PKPdf	09 38 10.0	+0.3
EMIJ	Mijas	145.93	332	PKP	PKPdf	09 38 09.1	-0.9
PBEJ	Beja	146.05	337	ePKP	PKPdf	09 38 12.3	+2.2
ESPR	Espera	146.18	333	PKP	PKPdf	09 38 11.1	+0.7
EGRO	El Granado	146.32	336	PKP	PKPdf	09 38 11.7	+1.1
EJIF	Jimena Fronter	146.35	332	PKP	PKPdf	09 38 12.2	+1.5
EJIF	Jimena Fronter	146.35	332	PKP2	PKPab	09 38 12.2	-0.6
PVAQ	Vaqueiros	146.52	336	ePKP	PKPdf	09 38 14.3	+3.3
MORF	Marmelete	146.98	337	ePKP	PKPdf	09 38 14.6	+2.9
TOA0	Torodi Ar. Sit	153.93	285	ePKPdf	PKPdf	09 38 21.6	-1.6
TOA0				ePKPbc	PKPbc	09 38 29.0	-2.1
TORD	Torodi Ar. Bea	153.93	285	PKP	PKPdf	09 38 21.8	-1.3
TORD				PKPbc	PKPbc	09 38 30.6	-0.6
TORD	Torodi Ar. Bea	153.93	285	PKP	PKPdf	09 38 21.8	-1.3
	comp=Z,0.7nm,0.7s,baz=17,slow=1.8,SNR=2.8						
TORD				PKPbc	PKPbc	09 38 30.6	-0.6
	comp=Z,2.7nm,0.8s,baz=57,slow=2.2,SNR=7.0						
LIC	Lamto	160.99	268	ePKIKP	PKPdf	09 38 27.9	-4.2
	comp=Z,6.8nm,0.8s						
LIC				eMLR	MLR		
	comp=Z,232nm,18.5s						
LIC	Lamto	160.99	268	ePKPdf	PKPdf	09 38 27.9	-4.2
LIC				LR	LR		
	comp=Z,120nm,18.5s						

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*MOS **17** 09:37:39.4±0.7, 48.51N×154.15E, h33^{km}, mb4.2/3, Error ellipse: s-maj=77.7km s-min=37.0km az=80.1*

*ISCJB **17** 09:37:42.1±2.0, 48.7N±0.2×154.3E±0.3, h46^{km}±16^{km}, mb3.6/6, Error ellipse: s-maj=41.2km s-min=11.8km az=136.3*

*IDC **17** 09:37:44.7±8.0, 48.64N×154.33E, h59^{km}±83^{km}, mb3.4/6, mb1 3.6/7, mb1mx3.3/23, mbtmp3.4/7, ML3.5/1, Error ellipse: s-maj=69.7km s-min=36.3km az=6.0*

ISC 17 09:37:43.9±1.8**, 48.7N**±0.2×**154.3E**±0.3**, h48**^{km}±14^{km}**, n13, $\sigma 0\overset{s}{.}34$**/14**, mb3.6**/6**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	2.26	30	ePN	Pn	09 38 18.5	-0.2
SKR				eS	Sn	09 38 45.5	+0.1
SKR				pmax	pmax		
	comp=Z,60nm,0.5s						
SKR				smax			
	comp=N,110nm,0.5s						
SKR				smax			
	comp=Z,50nm,0.5s						
SKR				smax			
	comp=E,160nm,0.4s						
PET	Petropavlovsk	5.08	31	ePN	Pn	09 39 07.7	+10
ASAJ	Asahikawa	9.33	245	PN	Pn	09 39 56.0	+0.3
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	9.33	245	P	Pn	09 39 56.0	+0.3

	comp=Z,0.6nm,0.3s,baz=95,slow=20,SNR=7.1						
KSRS	Korea Array	22.23	249	P	P	09 42 35.9	-0.4
	comp=Z,1.2nm,0.6s,mb3.5,baz=44,slow=10,SNR=6.7						
ZALV	Zalesovo Beam	42.15	304	P	P	09 45 31.0	-0.2
	comp=Z,0.2nm,0.3s,mb3.2,baz=67,slow=4.8,SNR=2.7						
MKAR	Makanchi Array	46.78	296	P	P	09 46 08.3	0.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	46.78	296	P	P	09 46 08.2	-0.1
	comp=Z,0.8nm,0.6s,mb3.9,baz=71,slow=8.3,SNR=8.8						
FINES	FINESS Array B	62.59	335	P	P	09 48 02.2	-0.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	FINESS Array B	62.59	335	P	P	09 48 02.1	-0.3
	comp=Z,1.4nm,0.8s,mb4.1,baz=36,slow=5.2,SNR=4.4						
TXAR	Lajitas Array	75.81	62	P	P	09 49 24.8	0.0
	comp=Z,0.3nm,0.8s,mb3.3,baz=280,slow=2.8,SNR=3.6						
GERES	GERESS Array B	77.02	335	P	P	09 49 32.1	+0.7
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GERES	GERESS Array B	77.02	335	P	P	09 49 32.1	+0.7
	comp=Z,0.5nm,0.5s,mb3.7,baz=24,slow=5.8,SNR=2.9						

IDC 17 09:45:12.4±2.3, 587S×13023E, h0^{km}, mb3.5/1, mb1 3.6/4, mb1mx3.4/14, mbtmp3.4/4, ML3.4/3, Error ellipse: s-maj=96.6km s-min=28.8km az=77.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.96	200	Pn	Pn	09 48 17.8	-0.1
	0.1nm,0.3s,baz=41,slow=11,SNR=4.2						
FITZ				Sn	Sn	09 50 25.2	-18
	0.1nm,0.3s,baz=271,slow=14,SNR=2.9						
WRA	Warramunga Arr	14.55	164	Pn	Pn	09 48 41.5	+1.9
	0.3nm,0.3s,baz=345,slow=11,SNR=21						
WRA				Sn	Sn	09 51 04.3	-18
	0.2nm,0.3s,baz=339,slow=23,SNR=5.3						
ASAR	Alice Springs	18.05	169	P	Pn	09 49 23.6	-1.1
	0.1nm,0.3s,baz=346,slow=10,SNR=10						
MKAR	Makanchi Array	67.41	326	P	P	09 56 09.9	+0.2
	0.2nm,0.4s,baz=115,slow=7.1,SNR=4.8						

IDC 17 09:46:01.1±2.8, 722S×15576E, h92^{km}±33^{km}, mb3.7/7, mb1 3.8/9, mb1mx3.7/16, mbtmp3.8/9, Error ellipse: s-maj=26.9km s-min=19.1km az=164.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	4.69	118	P	Pn	09 47 09.3	-0.3
	9.2nm,0.3s,baz=264,slow=1.5,SNR=6.3						
HNR				S	Sn	09 48 03.6	+0.8
	13nm,0.3s,baz=94,slow=19,SNR=5.8						
PMG	Port Moresby	8.79	255	P	Pn	09 48 05.7	+0.4
	1.7nm,0.3s,baz=16,slow=14,SNR=6.7						
WRA	Warramunga Arr	24.32	237	P	P	09 51 09.9	-0.4
	0.4nm,0.3s,baz=62,slow=9.0,SNR=9.4						
ASAR	Alice Springs	26.60	230	P	P	09 51 31.2	+0.2
	0.3nm,0.6s,baz=54,slow=13,SNR=3.5						
MJAR	Matsushiro Arr	46.54	340	P	P	09 54 18.7	-0.7
	1.7nm,0.8s,baz=170,slow=9.8,SNR=4.8						
KSRS	Korea Array	51.49	332	P	P	09 54 57.3	0.0
	1.6nm,0.8s,baz=148,slow=8.7,SNR=5.6						
SONM	Songino Array	69.93	327	P	P	09 57 03.1	+0.8
	1.8nm,0.7s,baz=145,slow=6.4,SNR=9.1						
MKAR	Makanchi Array	84.07	319	P	P	09 58 22.1	+0.5
	3.3nm,0.7s,baz=100,slow=6.1,SNR=16						
ZALV	Zalesovo Beam	84.78	326	P	P	09 58 24.1	-1.0
	1.2nm,0.4s,baz=110,slow=5.3,SNR=3.4						

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*IDC **17** 09:47:05.7±1.1, 309S×10025E, h0^{km}, mb4.2/12, mb1 4.2/13, mb1mx4.1/22, mbtmp4.1/13, ML3.3/1, Error ellipse: s-maj=40.9km s-min=15.8km az=52.0*
*BJI **17** 09:47:07.9, 348S×10045E, h47^{km}, mB5.2, mb4.6*
*ISCJB **17** 09:47:08.7±0.7, 31S±01×1003E±01, h30^{km}, mb4.3/22, Error ellipse: s-maj=18.0km s-min=10.7km az=138.1*
*NEIC **17** 09:47:10.5±0.6, 310S×10026E, h30^{km}, mb4.6/7, Error ellipse: s-maj=15.7km s-min=8.5km az=50.0*
ISC 17 09:47:07.6±8.1, 31S±01×1002E±02, h11^{km}±47^{km}, n34, σ0^{s}97/31, mb4.3/22, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	6.05	348	Pn	Pn	09 48 34.4	-2.7
PSI	Prapat	6.05	348	Pn	Pn	09 48 34.4	-2.7
	0.8nm,0.3s,baz=194,slow=17,SNR=3.2						
KULM	Kulim	8.39	3	ePn	Pn	09 49 09.6	+0.4
KSM	Kuching	11.07	66	ePn	Pn	09 49 46.9	+0.9
LSA	Lhasa	33.79	346	P	P	09 53 51.1	+1.4
LSA	Lhasa	33.79	346	eP	P	09 53 51.0	+1.3
	3.9nm,0.5s,mb4.6						
WRA	Warramunga Arr	37.23	119	P	P	09 54 18.8	-0.6
	1.3nm,0.5s,mb4.1,baz=303,slow=8.9,SNR=18						
XAN	Xi'an	37.88	12	P	P	09 54 23.3	-1.4
XAN				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
ASAR	Alice Springs	38.41	125	P	P	09 54 29.4	+0.1
	comp=Z,0.8nm,0.4s,mb3.8,baz=300,slow=7.5,SNR=15						
LZH	Lanzhou	39.17	5	eP	P	09 54 36.0	+0.5
LZH				AMB	AMB		
	comp=Z,18nm,1.4s,mb4.6						
LZH	Lanzhou	39.17	5	eP	P	09 54 36.0	+0.5
	comp=Z,18nm,1.4s,mb4.6						
LZH				pP	pP	09 54 41.2	+2.3
LZH				sP	sP	09 54 44.5	+4.2
GTA	Gaotai	42.35	360	eP	P	09 55 02.1	+0.4
GTA				AMB	AMB		
	comp=Z,4.0nm,0.9s,mb4.0						
HHC	Hu-ho-hao-te	44.99	12	eP	P	09 55 23.6	+0.6
HHC				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.6						
HHC				AMB	AMB		
	comp=Z,74nm,5.1s						
KSRS	Korea Array	47.89	30	P	P	09 55 44.6	-1.2
	comp=Z,2.4nm,1.1s,mb4.1,baz=248,slow=6.6,SNR=4.9						
STKA	Stephens Creek	48.23	131	P	P	09 55 49.1	+0.6
	comp=Z,0.6nm,0.4s,mb4.0,baz=223,slow=6.9,SNR=3.3						
UCH	Uchtor	50.82	335	eP	P	09 56 09.6	+1.4
	comp=Z,5.0nm,1.3s,mb4.3						
TKM2	Tokmak 2	50.97	337	eP	P	09 56 10.2	+1.0
	comp=Z,3.5nm,0.4s,mb4.6						
SONM	Songino Array	51.05	5	P	P	09 56 10.5	+0.7
	comp=Z,6.2nm,0.7s,mb4.7,baz=189,slow=9.5,SNR=55						
ULN	Ulaanbaatar	51.15	6	eP	P	09 56 11.0	+0.5
	comp=Z,8.2nm,0.9s,mb4.7						
EKS2	Erkin-Say	51.49	335	eP	P	09 56 14.3	+1.2
	comp=Z,2.9nm,0.4s,mb4.6						
MK31	Makanchi Array	52.18	344	eP	P	09 56 18.7	+0.5
MKAR	Makanchi Array	52.18	344	P	P	09 56 18.6	+0.3
	comp=Z,3.5nm,0.4s,mb4.6,baz=149,slow=8.1,SNR=64						
MJAR	Matsushiro Arr	53.02	38	P	P	09 56 22.6	-2.1
	comp=Z,2.1nm,1.1s,mb4.0,baz=221,slow=8.2,SNR=5.0						
KURK	Kurchatov	56.76	344	eP	P	09 56 51.5	0.0
	comp=Z,5.2nm,0.9s,mb4.6						
ZALV	Zalesovo Beam	58.33	349	P	P	09 57 02.1	-0.3
	comp=Z,2.2nm,0.3s,mb4.7,baz=163,slow=5.4,SNR=22						
AKTK	Aktyubinsk	64.46	332	P	P	09 57 42.9	-1.2
AKTO	Aktyubinsk	64.46	332	P	P	09 57 42.9	-1.2
	comp=Z,0.5nm,0.3s,mb4.1,baz=106,slow=14,SNR=2.9						
BRTR	Keskin Array B	74.26	313	P	P	09 58 43.9	-1.1
	comp=Z,0.2nm,0.3s,mb3.5,baz=116,slow=5.6,SNR=4.0						
FINES	FINESS Array B	85.22	332	P	P	09 59 44.2	+0.3
FINES	FINESS Array B	85.22	332	P	P	09 59 44.2	+0.3
	comp=Z,2.0nm,0.9s,mb4.2,baz=108,slow=4.2,SNR=8.9						
ARCES	ARCESS Array B	87.62	340	P	P	09 59 55.5	-0.1
	comp=Z,1.4nm,0.7s,mb4.3,baz=116,slow=2.8,SNR=4.4						
TXAR	Lajitas Array	145.46	39	PKPbc	PKPbc	10 06 46.9	+0.4
TXAR	Lajitas Array	145.46	39	PKPbc	PKPbc	10 06 46.9	+0.4
	comp=Z,2.2nm,0.6s,baz=223,slow=1.1,SNR=48						
JCT	Junction City	146.86	33	ePKPbc	PKPbc	10 06 50.7	0.0

IDC 17 09:50:42.1±9.0, 2466S×17942W, h420^{km}±78^{km}, mb3.0/4, mb1 3.3/5, mb1mx3.1/14, mbtmp3.2/5, Error ellipse: s-maj=168.2km s-min=22.8km az=158.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	12.89	35	P	P	09 53 31.4	+0.2
	1.9nm,0.3s,baz=245,slow=14,SNR=3.6						
CTA	Charters Tower	32.02	271	P	P	09 56 32.6	+0.5
	3.5nm,0.5s,baz=92,slow=9.8,SNR=11						
ASAR	Alice Springs	42.44	261	P	P	09 57 58.3	0.0
	0.2nm,0.5s,baz=98,slow=7.9,SNR=4.5						
WRA	Warramunga Arr	42.89	267	P	P	09 58 01.3	-0.7
	0.8nm,0.5s,baz=104,slow=8.2,SNR=8.0						
TXAR	Lajitas Array	90.38	58	P	P	10 02 57.3	-0.1
	0.3nm,0.8s,baz=236,slow=2.9,SNR=3.5						
MMAI	Mount Meron Ar	148.49	293	PKPbc	PKPbc	10 09 40.6	0.0
	1.0nm,0.4s,baz=57,slow=6.3,SNR=4.6						

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*IDC **17** 09:54:00.5±1.0, 727S×15550E, h0^{km}, mb3.9/9, mb1 4.0/10, mb1mx3.9/16, mbtmp3.9/10, ML4.3/1, MS3.6/3, Ms1 3.6/3, ms1mx3.0/24, Error ellipse: s-maj=27.1km s-min=19.3km az=97.0*
*ISCJB **17** 09:54:03.7±0.6, 731S±010×15554E±009, h35^{km}, mb3.8/9, Error ellipse: s-maj=14.1km s-min=12.1km az=12.9*
*NEIC **17** 09:54:05.2±0.5, 730S×15561E, Error ellipse: s-maj=11.9km s-min=10.9km az=172.0*
ISC 17 09:54:05.7±1.7, 73S±01×1556E±01, h40^{km}±18^{km}, n18, σ0^{s}58/19, mb3.8/9, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	4.77	116	Pn	Pn	09 55 15.1	0.0
HNR				Sn	Sn	09 56 15.6	+6.4
HNR				LR	LR	09 57 03.9	
HNR	Honiara	4.77	116	Pn	Pn	09 55 15.1	0.0
	13nm,0.3s,baz=249,slow=0.2,SNR=5.6						
HNR				Sn	Sn	09 56 15.6	+6.4
	18nm,0.3s,baz=94,slow=9.0,SNR=5.3						
HNR				LR	LR	09 57 03.9	
	comp=Z,284nm,18.4s,baz=179,slow=37						
PMG	Port Moresby	8.62	256	Pn	Pn	09 56 08.1	+0.1
COEN	Coen	13.88	241	eP	Pn	09 57 27.4	+7.5
CTA	Charters Tower	15.59	215	LR	LR	10 02 43.7	
	comp=Z,126nm,20.0s,baz=84,slow=34						
WRA	Warramunga Arr	24.14	237	P	P	09 59 18.2	+0.1
	0.7nm,0.6s,mb3.3,baz=61,slow=9.4,SNR=7.5						
ASAR	Alice Springs	26.42	230	P	P	09 59 37.7	-1.1
	0.3nm,0.5s,mb3.0,baz=57,slow=10,SNR=4.6						
STKA	Stephens Creek	27.70	206	P	P	09 59 50.8	+0.6
	1.1nm,0.7s,mb3.6,baz=31,slow=12,SNR=2.5						
FITZ	Fitzroy Crossi	31.08	247	P	P	10 00 20.5	+0.1
	0.7nm,0.8s,mb3.6,baz=60,slow=10,SNR=2.6						
MJAR	Matsushiro Arr	46.59	341	P	P	10 02 28.9	-0.9
MJAR	Matsushiro Arr	46.59	341	P	P	10 02 28.9	-0.9
	1.2nm,0.7s,mb4.0,baz=164,slow=8.5,SNR=7.8						
KSRS	Korea Array	51.52	332	P	P	10 03 08.0	+0.4
	0.6nm,0.6s,mb3.7,baz=151,slow=6.8,SNR=3.7						
SONM	Songino Array	69.95	327	P	P	10 05 13.6	+0.7
	1.9nm,0.7s,mb4.1,baz=138,slow=6.3,SNR=16						
MK31	Makanchi Array	84.06	319	eP	P	10 06 32.9	+0.7
MK31				epP	pP	10 06 44.4	-0.1
MKAR	Makanchi Array	84.06	319	P	P	10 06 32.7	+0.5
MKAR	Makanchi Array	84.06	319	P	P	10 06 32.7	+0.5
	2.4nm,0.7s,mb4.5,baz=105,slow=5.8,SNR=33						
ZAA0	Zalesovo Array	84.80	326	eP	P	10 06 35.3	-0.5
ZAA0				epP	pP	10 06 45.8	-2.3
ZALV	Zalesovo Beam	84.80	326	P	P	10 06 35.1	-0.6
	2.4nm,0.6s,mb4.5,baz=116,slow=5.7,SNR=14						

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*TIF **17** 10:59:03.7, 4052N×4232E, h13^{km}±3^{km}*
*CSEM **17** 10:59:03.2±0.1, 4048N×4235E, h2^{km}, MD3.4, Error ellipse: s-maj=1.6km s-min=1.2km az=21.0*
*ISK **17** 10:59:03.7, 4050N×4233E, h5^{km}, MD3.4*
*ISCJB **17** 10:59:05.3±0.3, 4047N±002×4233E±003, h10^{km}, Error ellipse: s-maj=3.5km s-min=3.1km az=175.7*
*DDA **17** 10:59:05.6, 4051N×4238E, h7^{km}±4^{km}, Md3.1*
ISC 17 10:59:05.7±0.3, 4047N±002×4235E±003, h10^{km}, n31, σ1^{s}21/44, 4C-2D, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARS	Kars	0.59	76	i PG	Pg	10 59 15.6	-1.5
KARS				i SG	Sg	10 59 24.4	-0.4
KARS	Kars	0.59	76	i Pg	Pg	10 59 15.6	-1.5
KARS				i Sg	Sg	10 59 24.4	-0.4
ARTV	Artvin	0.78	336	⇓iP	Pg	10 59 19.5	-1.3
ARTV				i S	Sg	10 59 30.6	-0.3
DIGO	Kars	0.79	94	⇑iP	Pg	10 59 18.6	-2.3
DIGO				i S	Sg	10 59 30.6	-0.6
DIGO	Kars	0.79	94	i P	Pg	10 59 18.6	-2.3
DIGO				i S	Sg	10 59 30.5	-0.6
ERZM	Erzurum	0.94	233	⇑iP	Pg	10 59 22.6	-1.1
EZM	Erzurum	0.94	233	i PG	Pg	10 59 22.6	-1.2
EZM				i SG	Sg	10 59 36.1	0.0
AGRB	Hanur-Agry	1.02	151	PG	Pg	10 59 24.0	-1.4
AGRB				SG	Sg	10 59 39.8	+1.2
AGRB	Hanur-Agry	1.02	151	ePg	Pg	10 59 24.0	-1.4
AGRB				eSg	Sg	10 59 39.8	+1.2
BCA	Borcka	1.12	331	PN	Pn	10 59 24.9	-2.5
BCA	Borcka	1.12	331	ePn	Pn	10 59 24.9	-2.5
TUTA	Tutak	1.13	161	⇓iP	Pb	10 59 25.6	-1.7
TUTA				i S	Sb	10 59 42.8	+0.9
DYDN	Diyadin	1.39	131	⇑iP	Pn	10 59 31.6	+0.5
DYDN				i S	Sb	10 59 49.0	-0.4
BNGL	BINGOL	1.77	212	eP	Pn	10 59 37.5	+1.1
CLDR	Caldiran	1.80	137	ePN	Pn	10 59 36.3	-0.4
CLDR	Caldiran	1.80	137	ePn	Pn	10 59 36.3	-0.4
GOR	Gori	2.01	41	P	Pn	10 59 38.8	-0.9
MACK	Trabzon	2.02	284	⇑iP	Pn	10 59 41.2	+1.4
MACK				i S	Sg	11 00 09.8	-0.6
KTUT	Trabzon	2.03	286	ePN	Pn	10 59 39.6	-0.3
KTUT	Trabzon	2.03	286	ePn	Pn	10 59 39.6	-0.3
BINT	Bingol	2.14	223	ePN	Pn	10 59 41.5	0.0
BINT	Bingol	2.14	223	ePn	Pn	10 59 41.5	0.0
GUMT	Gumushane	2.19	271	ePN	Pn	10 59 42.1	0.0
GUMT	Gumushane	2.19	271	ePn	Pn	10 59 42.1	0.0
TBLG	Delisi	2.20	54	P	Pn	10 59 43.4	+1.1
TBLG				S	Sb	11 00 14.2	+1.2
MTA	Mtatsminda	2.22	56	P	Pn	10 59 44.4	+1.9
ONI	Oni	2.26	21	P	Pn	10 59 45.8	+2.6
ONI				S	Sb	11 00 15.5	+0.8
BTMT	Batman	2.37	197	ePN	Pn	10 59 46.9	+2.3
KELT	Kelkit	2.38	263	eP	Pn	10 59 46.4	+1.6
PTK	Pertek	2.77	236	ePN	Pn	10 59 50.5	+0.4
PTK	Pertek	2.77	236	ePn	Pn	10 59 50.5	+0.4

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*TRN **17** 11:15:49.6, 1780N×6092W, h62^{km}, MD3.4, M3.4(FDF), M3.7(FDF)*
*RSPR **17** 11:15:54.6, 2072N×6194W, h25^{km}±31^{km}, MD4.2/5, MD4.2/5*
*NEIC **17** 11:15:54.6, 2072N×6194W, h25^{km}, MD4.2(RSPR), After RSPR.*
ISC 17 11:15:52.3±1.6, 177N±01×610W±01, h80^{km}±26^{km}, n15, σ0^{s}82/22, 5C-1D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BPA	Boggy Peak	1.05	230	eP	Pn	11 16 10.5	-1.5
BPA				eS	Sn	11 16 28.5	+1.8
DEG	La Desirade	1.40	182	eP	Pn	11 16 15.3	-1.1
DEG				eS	Sn	11 16 33.9	-0.6
SCG	Saint Claude	1.80	201	eP	Pn	11 16 21.6	0.0
MGG	Marie-Galante	1.82	189	eP	Pn	11 16 22.0	+0.2
HMG	Houelmont	1.85	201	eP	Pn	11 16 23.4	+1.2
TBG	Guadaloupe-3	1.96	198	eP	Pn	11 16 23.9	+0.3
FDF	Fort de France	2.98	183	eP	Pn	11 16 38.0	+0.6
FDF				eS	Sn	11 17 11.3	-0.8
MVM	Montagne Vaucl	3.15	178	eP	Pn	11 16 39.6	-0.2
MVM				eS	Sn	11 17 16.6	+0.2
TBVI	Tortola	3.50	282	⇑eP	Pn	11 16 43.4	-1.1
TBVI				eS	Sn	11 17 24.5	-0.3
STVI	Saint Thomas	3.80	280	⇓eP	Pn	11 16 48.2	-0.4
STVI				eS	Sn	11 17 31.1	-1.1
MTP	Monte Pirata	4.34	276	⇑eP	Pn	11 16 56.2	+0.3
MTP				eS	Sn	11 17 44.8	-0.5
HUMP	Col San Antoni	4.63	276	⇑eP	Pn	11 17 00.4	+0.6
CBYP	Canovanas	4.64	277	⇑eP	Pn	11 17 01.1	+1.1
CPD	Cerro la Pandu	4.68	275	⇑eP	Pn	11 17 01.3	+0.7
SJG	San Juan	4.91	275	ePn	Pn	11 17 04.4	+0.7

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*NEIC **17** 11:26:29.8, 3147S×6915W, h144^{km}, MG4.0(GUC), After GUC.*
GUC 17 11:26:29.8±0.8, 3147S×6915W, h144^{km}±25^{km}, MD3.5, ML4.0, 2C-11D, San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDZ	Mendoza	1.43	170	eP	Pn	11 26 56.4	-1.7
MDZ				e		11 27 14.3	
MDZ				i S	Sn	11 27 24.3	+4.4
CMCH	Combarbala	1.61	280	⇓iP	Pn	11 27 00.6	+0.5
CMCH				i S	Sn	11 27 24.4	+1.2
CMCH	Combarbala	1.61	280	⇓iP	Pn	11 27 00.6	+0.5
CMCH				i S	Sn	11 27 24.4	+1.2
CMCH				AML	AML	11 27 26.5	
	comp=E,9µm,0.8s						
PTCH	Petorca	1.70	242	⇓iP	Pn	11 27 01.2	+0.1
PTCH				i S	Sn	11 27 25.2	+0.1
PTCH	Petorca	1.70	242	⇓iP	Pn	11 27 01.2	+0.1
PTCH				i S	Sn	11 27 25.2	+0.1
PTCH				AML	AML	11 27 26.6	
	comp=N,7µm,0.4s						
OVCH	Ovalle	1.96	296	⇓iP	Pn	11 27 05.2	+1.1
OVCH				i S	Sn	11 27 30.7	+0.4
OVCH	Ovalle	1.96	296	⇓iP	Pn	11 27 05.2	+1.1
OVCH				i S	Sn	11 27 30.7	+0.4
OVCH				AML	AML	11 27 40.5	
	comp=E,7µm,0.7s						
CHNG	Los Chungos	2.04	258	⇓iP	Pn	11 26 53.2	-12
CHNG				i S	Sn	11 27 19.7	-12
CHNG				AML	AML	11 27 27.9	
	comp=N,709nm,0.5s						
FCH	Farellones	2.08	207	⇓iP	Pn	11 27 06.7	+1.2
FCH				i S	Sn	11 27 35.1	+2.0
CLCH	Cerro Calan	2.25	211	eP	Pn	11 27 08.9	+1.5
CLCH				eS	Sn	11 27 37.8	+1.4
CLCH	Cerro Calan	2.25	211	eP	Pn	11 27 08.9	+1.5
CLCH				eS	Sn	11 27 37.8	+1.4
CLCH				AML	AML	11 27 39.9	
	comp=E,817nm,0.7s						
DSCH	Colegio Aleman	2.26	212	AML	AML	11 27 44.2	
	comp=E,143nm,0.2s						
STL	Santa Lucia	2.33	212	AML	AML	11 27 42.6	
	comp=E,106nm,0.3s						
LSCH	La Serena	2.38	310	⇑iP	Pn	11 27 09.9	+0.7
LSCH				i S	Sn	11 27 39.4	-0.1
LSCH	La Serena	2.38	310	⇑iP	Pn	11 27 09.9	+0.7
LSCH				i S	Sn	11 27 39.4	-0.1
LSCH				AML	AML	11 27 40.4	
	comp=E,339nm,0.2s						
ANTU	Antumapu	2.43	210	eP	Pn	11 27 10.3	+0.5
ANTU				i S	Sn	11 27 41.2	+0.6
ANTU	Antumapu	2.43	210	eP	Pn	11 27 10.3	+0.5
ANTU				i S	Sn	11 27 41.2	+0.6
ANTU				AML	AML	11 27 44.3	
	comp=E,442nm,0.4s						
CHCH	Chadas Angostu	2.76	207	i P	Pn	11 27 14.2	+0.4
CACH	El Canelo	2.90	204	⇓iP	Pn	11 27 16.7	+1.1
CICH	Cipreses	3.03	200	⇓iP	Pn	11 27 18.2	+0.9
VACH	Vallenar	3.21	334	⇓iP	Pn	11 27 20.6	+1.0
VACH				i S	Sn	11 27 58.2	+0.2
CPCH	Copiapo	4.23	345	i S	Sn	11 28 22.2	+0.1

IDC 17 11:40:24.0±3.8, 670S×10650E, h0^{km}, mb3.5/3, mb1 3.7/3, mb1mx3.3/19, mbtmp3.5/3, Error ellipse: s-maj=190.5km s-min=28.7km az=50.0, Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	30.05	119	P	P	11 46 34.4	-0.7
	0.2nm,0.3s,baz=290,slow=12,SNR=9.7						
ASAR	Alice Springs	31.27	126	P	P	11 46 46.6	+0.9
	0.4nm,0.4s,baz=297,slow=7.8,SNR=11						
MKAR	Makanchi Array	57.44	340	P	P	11 50 14.5	0.0
	0.2nm,0.5s,baz=145,slow=8.6,SNR=4.3						

IDC 17 11:51:55.3±9.4, 3292S×17802W, h73^{km}±90^{km}, mb3.4/2, mb1 3.6/3, mb1mx3.4/13, mbtmp3.4/3, ML3.4/1, Error ellipse: s-maj=86.1km s-min=57.7km az=155.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	6.64	215	P	Pn	11 53 29.5	-0.7
	0.8nm,0.3s,baz=356,slow=20,SNR=8.8						
URZ				S	Sn	11 54 45.6	+1.2
	1.3nm,0.3s,baz=111,slow=23,SNR=8.6						
ASAR	Alice Springs	43.02	270	P	P	11 59 47.7	0.0
	0.5nm,0.8s,baz=110,slow=7.9,SNR=7.3						
WRA	Warramunga Arr	44.23	275	P	P	11 59 57.1	-0.5
	0.4nm,0.3s,baz=116,slow=6.5,SNR=9.2						
FINES	FINESS Array B	147.49	339	PKPbc	PKPbc	12 11 30.0	-0.2
	2.2nm,1.1s,baz=35,slow=7.0,SNR=4.4						

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*IDC **17** 11:51:51.3±1.1, 1338N×8777W, h0^{km}, mb4.1/7, mb1 4.4/9, mb1mx4.1/19, mbtmp4.2/9, ML3.8/2, MS3.1/3, Ms1 3.2/3, ms1mx2.7/28, Error ellipse: s-maj=44.4km s-min=14.1km az=50.0*
*ISCJB **17** 11:51:58.0±0.6, 1280N±004×8834W±005, h75^{km}±7^{km}, mb4.3/39, Error ellipse: s-maj=9.1km s-min=4.8km az=146.3*
*CASC **17** 11:51:57.7±3.2, 1275N×8843W, h49^{km}±94^{km}, MD4.4, ML4.7, mb4.4(NEIC)*
*BJI **17** 11:51:58.9, 1280N×8830W, h69^{km}, mB4.9, Ms4.7, Msz4.4*
*NEIC **17** 11:51:58.9±0.7, 1280N×8831W, h70^{km}±7^{km}, mb4.3/35, MD4.6(SNET), Error ellipse: s-maj=9.0km s-min=5.5km az=57.0*
NEIC Felt [II] at San Salvador.
ISC 17 11:51:59.2±0.6, 1284N±004×8832W±005, h67^{km}±6^{km}, n173, σ0^{s}94/175, mb4.3/39, 22C-30D, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNCH	Conchagua	0.64	47	eP	x	11 52 28.7	
CNCH				eS	x	11 52 42.4	
SNVI	San Vicente	0.92	327	eP	x	11 52 30.5	
SNVI				eS	x	11 52 43.8	
CAHU	Cacacuatique	0.93	6	eP	x	11 52 32.3	
CAHU				eS	x	11 52 48.5	
SNET	Serv Nac Est T	1.23	314	eP	x	11 52 17.4	
SNET				eS	x	11 52 32.6	
BOQS	Boqueron	1.29	314	⇓eP	x	11 52 34.7	
BOQS				eS	x	11 52 52.0	
TEL3	Telica 3	1.46	100	⇓eP	Pn	11 52 23.2	-0.3
TEL3				eS	Sn	11 52 43.3	+1.4
TELN	Telica	1.47	99	⇓eP	Pn	11 52 23.3	-0.3
TELN				eS	Sn	11 52 43.8	+1.8
TGUH	Tegucigalpa,Un	1.58	40	ePn	Pn	11 52 26.4	+1.2
TGUH				eSn	Sn	11 52 44.9	+0.2
MOMJ	Momotombo	1.79	104	⇓eP	Pn	11 52 27.3	-0.6
MOMJ				eS	Sn	11 52 50.4	+0.7
COPN	Copaltepe	1.81	111	⇑eP	Pn	11 52 27.2	-0.9
COPN				eS	Sn	11 52 49.4	-0.7
MTO2	Montecristo 2	1.85	327	eP	x	11 52 43.0	
MTO2				eS	x	11 53 07.2	
XAVN	Gruta Xavier	2.06	109	⇑eP	Pn	11 52 31.1	-0.5
XAVN				eS	Sn	11 52 56.3	0.0
TISN	Laguna Tiscapa	2.12	109	⇑eP	Pn	11 52 31.8	-0.6
TISN				eS	Sn	11 52 57.8	+0.1
MGAN	Managua	2.14	109	eP	Pn	11 52 32.1	-0.5
MGAN				eS	Sn	11 52 56.9	-1.3
MGAN				i		11 52 59.4	
	comp=E,4µm,0.5s						
HUEN		2.15	103	⇓iP	Pn	11 52 32.5	-0.3
TICN	Ticuantepe	2.19	111	⇓eP	Pn	11 52 32.8	-0.6
TICN				eS	Sn	11 52 59.3	-0.1
MASN	Masaya	2.28	112	eP	Pn	11 52 34.9	+0.4
MASN				eS	Sn	11 53 01.6	0.0
APON	Apoyo	2.38	112	⇑eP	Pn	11 52 35.0	-0.9
APON				eS	Sn	11 53 04.4	+0.3
SSNN	San Juan del S	2.86	122	eP	Pn	11 52 40.6	-1.9
SSNN				eS	Sn	11 53 14.2	-1.7
CONN	Concepcion	2.92	115	⇓eP	Pn	11 52 42.5	-0.7
MADN	Villa Maderas	3.07	117	eP	Pn	11 52 43.8	-1.5
VCR	Vista de Mar	3.77	135	eP	Pn	11 52 54.4	-0.4
2RIO	Dos Rios de Up	3.79	127	⇓eP	Pn	11 52 50.2	-5.0
2RIO				eS	Sn	11 53 31.3	-7.3
JTS	JuntasAbangare	4.16	127	ePn	Pn	11 52 58.8	-1.4
JTS				eSn	Sn	11 53 45.7	-1.9
JTS	JuntasAbangare	4.16	127	Pn	Pn	11 52 57.2	-3.0
	comp=E,8.3nm,0.3s,baz=298,slow=22,SNR=30						
JTS				Pg	Pn	11 53 06.7	+6.5

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         comp=E,87nm,0.3s,baz=321,slow=14,SNR=60
JTS                                   Sn      Sn        11 53 44.7  -2.9
         comp=E,66nm,0.3s,baz=317,slow=21,SNR=8.2
JTS                                   Lg                11 54 01.6
         comp=E,27nm,0.3s,baz=352,slow=21,SNR=6.9
JTS                                   LR      LR        11 54 52.2
         comp=E,228nm,21.8s,baz=301,slow=44
JCR      Jicaral              4.32 133 eP     Pn        11 53 02.4  -0.1
CGA2     Cerro Gallo 2        4.70 126 eP     Pn        11 53 08.9  +1.2
CGA2                                   eS     Sn        11 54 02.2  +1.2
PRS1     Puriscal             4.84 125 eP     Pn        11 53 11.2  +1.6
LAJ      Bijagual             5.07 125 eP     Pn        11 53 10.1  -2.5
LCR2     La Lucha 2           5.23 126 eP     Pn        11 53 16.8  +1.9
QCR      Quepos               5.30 129⇑iP     Pn        11 53 16.8  +1.0
URSC     Urasca               5.36 123 eP     Pn        11 53 17.8  +1.2
URSC                                   eS     Sn        11 54 19.0  +2.0
BUS      Buena Vista          5.54 126 eP     Pn        11 53 21.2  +2.1
BUS                                    eS     Sn        11 54 22.6  +1.3
BAR1                          6.08 126 eP     Pn        11 53 27.7  +1.3
BAR1                                   eS     Sn        11 54 34.3  -0.3
TEIG     Tepich               7.35   0 ePn    Pn        11 53 46.0  +2.2
TEIG     Tepich               7.35   0  Pn    Pn        11 53 45.4  +1.6
         comp=E,8.9nm,0.3s,baz=181,slow=8.2,SNR=48
CMIG     Matias Romero        7.62 304  Pn    Pn        11 53 45.6  -2.0
CMIG                                    Lg              11 55 12.5
CMIG     Matias Romero        7.62 304  Pn    Pn        11 53 45.6  -2.0
         comp=E,1.1nm,0.3s,baz=117,slow=8.1,SNR=16
CMIG                                    Lg              11 55 12.5
         comp=E,1.4nm,0.3s,baz=26,slow=15,SNR=3.2
PAYG     Puerto Ayora        13.56 188 ePn    Pn        11 55 07.8  -0.9
OTAV     Otavalo             15.89 141  Pn    Pn        11 55 37.8  -0.9
         comp=E,2.1nm,0.5s
NATX     Nacogdoches         19.72 344 eP     Pn        11 56 23.2  -2.0
         comp=E,24nm,0.8s
LRAL     Lakeview Retre      20.14   3 eP     P         11 56 28.9  +1.1
         comp=E,14nm,1.2s
JCT      Junction City       20.52 331 eP     P         11 56 31.6  -0.3
         comp=E,10.0nm,0.6s
GOGA     Godfrey             20.95  11 ePn    P         11 56 34.9  -1.7
         comp=E,9.7nm,0.8s
OXF      Oxford              21.60 358 eP     P         11 56 43.4  -0.1
         comp=E,6.0nm,0.6s,mb4.1
TXAR     Lajitas Array       21.74 321  P     P         11 56 45.0  -0.1
         comp=E,7.9nm,0.8s,mb4.1,baz=137,slow=11,SNR=28
MIAR     Mount Ida           22.13 348 eP     P         11 56 49.4  +0.2
         comp=E,9.7nm,0.8s,mb4.2
JSC      Jenkinsville        22.29  16 eP     P         11 56 51.8  +0.9
SWET     Sewanee             22.38   5 eP     P         11 56 51.5  -0.4
MTP      Monte Pirata        22.55  74 eP     P         11 56 52.9  -0.9
TKL      Tuckaleechee C      23.09   9  P     P         11 56 57.7  -1.5
TKL                                     LR    LR        12 06 38.8
TKL      Tuckaleechee C      23.09   9  P     P         11 56 57.7  -1.5
         comp=E,9.3nm,0.8s,mb4.2,baz=183,slow=12,SNR=11
TKL                                     LR    LR        12 06 38.8
         comp=E,52nm,19.4s,baz=64,slow=40
WVT      Waverly             23.20   1 eP     P         11 57 00.1  -0.2
         comp=E,2.7nm,0.7s,mb3.7
WMOK     Wichita Mounta      23.78 338 eP     P         11 57 05.0  -0.5
         comp=E,8.5nm,1.0s,mb4.0
TZTN     Tazewell            23.99   9 eP     P         11 57 07.6  +0.1
         comp=E,3.8nm,0.7s,mb3.8
MNTX     Cornudas Mount      24.47 323 eP     P         11 57 12.1  +0.2
SIUC     Southern Illin      24.79 358 eP     P         11 57 14.1  -0.7
         comp=E,6.3nm,0.8s,mb4.1
BNM      Barren Site         26.97 325 eP     P         11 57 35.6  +1.1
KSU1     Kansas State U      27.17 346 eP     P         11 57 36.4  +0.1
         comp=E,7.7nm,0.4s,mb4.6
LAZ      Ladron              27.44 325 eP     P         11 57 40.0  +1.3
ANMO     Albuquerque         27.47 326 eP     P         11 57 39.5  +0.5
         comp=E,1.1nm,0.9s,mb3.4
ANMO                                   eP               11 57 40.8
ANMO     Albuquerque         27.47 326  P     P         11 57 37.9  -1.1
         comp=E,1.1nm,0.8s,mb3.5,baz=172,slow=14,SNR=7.3
ACSO     Alum Creek Sta      27.69   9 eP     P         11 57 40.0  -0.9
         comp=E,4.4nm,0.5s,mb4.2
SDCO     Great Sand Dun      29.16 331 eP     P         11 57 55.0  +1.0
         comp=E,5.5nm,0.9s,mb4.2
ISCO     Idaho Springs       30.89 334 eP     P         11 58 09.9  +0.6
         comp=E,3.4nm,0.8s,mb4.1
PV01     Paradox Valley      30.98 328 eP     P         11 58 11.0  +0.9
SMCO     Snowmass            31.00 331 eP     P         11 58 11.3  +1.0
         comp=E,5.8nm,0.7s,mb4.4
PV10     Paradox Valley      31.41 328 eP     P         11 58 13.8  -0.1
SRU      San Rafael          32.73 327 eP     P         11 58 26.4  +0.9
V12A     Nelson              33.03 318 ⇓P     P         11 58 28.5  +0.4
         baz=33
RWWY     Rawlins             33.13 334 eP     P         11 58 29.8  +0.9
RSSD     Black Hills         33.97 340 eP     P         11 58 36.1  -0.1
         comp=E,1.1nm,0.4s,mb4.0
PDAR     Pinedale Array      35.03 332  P     P         11 58 43.5  -1.8
         comp=E,1.4nm,0.6s,mb4.0,baz=131,slow=9.8,SNR=13
HWUT     Hardware Ranch      35.11 329 eP     P         11 58 46.8  +0.8
         comp=E,2.7nm,0.7s,mb4.2
LPAZ     La Paz              35.16 145 eP     P         11 58 47.3  +0.6
         comp=E,0.7nm,0.8s,mb3.5
LPAZ     La Paz              35.16 145  LR    LR        12 12 24.9
         comp=E,32nm,20.2s,baz=243,slow=35
GRAC     Grapevine Rang      35.42 318 ⇓P     P         11 58 49.4  +0.6
         baz=36
M15A     Larsen Ranch,       35.45 328 ⇑P     P         11 58 49.2  +0.2
         baz=36
S09A     Goldfield           35.75 319 ⇑P     P         11 58 52.0  +0.4
         baz=36
AGMN     Agassiz Refuge      35.91 351 eP     P         11 58 50.9  -1.9
         comp=E,16nm,1.0s,mb4.9
M14A     Sheep Mountain      35.95 327 ⇑P     P         11 58 53.4  +0.2
         baz=36
N13A     Wendover, West      35.96 326 ⇑P     P         11 58 54.0  +0.7
         baz=36
R09A     Tonopah             35.96 320 ⇓P     P         11 58 53.2  -0.2
         baz=36
REDW     Red Top Meadow      36.09 332 eP     P         11 58 54.6  +0.2
LOHW     Long Hollow         36.17 332 eP     P         11 58 55.7  +0.5
         comp=E,6.1nm,0.8s,mb4.6
MOOW     Moose Ponds         36.34 332 eP     P         11 58 56.8  +0.2
         comp=E,3.6nm,0.7s,mb4.4
DCID1    Drake Creek         36.42 332 eP     P         11 58 58.2  +0.9
DCID1                                  epP    pP        11 59 14.0  +0.3
K14A     Jones Ranch, D      36.61 329  P     P         11 58 58.8  -0.1
         baz=37,SNR=7.0
L13A     Double Diamond      36.68 327 ⇓P     P         11 59 01.2  +1.7
         baz=37
RLMT     Red Lodge           36.80 335 eP     P         11 58 59.7  -0.7
         comp=E,9.1nm,0.9s,mb4.7
NVAR     Mina Array Bea      36.86 319  P     P         11 59 01.3  +0.3
         comp=E,1.5nm,0.9s,mb3.9,baz=129,slow=9.4,SNR=12
Q08A     Gabbs               36.87 320 ⇑P     P         11 59 02.2  +1.0
         baz=37
YFT      Old Faithful        36.93 333 eP     P         11 59 03.2  +1.6
YMR      Madison River       37.16 333 eP     P         11 59 03.7  +0.2
         comp=E,14nm,0.9s,mb4.9
QLMT     Earthquake Lak      37.49 333 eP     P         11 59 07.4  +1.0
GCMT     Greycliff           37.50 335 eP     P         11 59 05.8  -0.6
J13A     Cove Ranch, Pi      37.73 329 ⇑P     P         11 59 08.9  +0.5
         baz=38
ULM      Lac du Bonnet       37.82 352  P     P         11 59 05.0  -3.9
         comp=E,5.4nm,0.6s,mb4.6,baz=166,slow=9.0,SNR=18
DGMT     Dagmar              37.90 343 eP     P         11 59 09.1  -0.6
         comp=E,6.3nm,0.4s,mb4.8
HLID     Hailey              37.97 329 eP     P         11 59 10.6  +0.3
         comp=E,0.9nm,0.6s,mb3.8
HLID     Hailey              37.97 329 ⇑P     P         11 59 11.2  +0.8
         baz=38
CMB      Columbia Colle      37.99 317 eP     P         11 59 11.0  +0.4
         comp=E,2.6nm,1.4s,mb3.9
I13A     Wildhorse Cree      38.08 329 ⇑P     P         11 59 11.8  +0.6
         baz=38
MCMT     McKenzie Canyo      38.14 331 eP     P         11 59 12.4  +0.7
G15A     Dillon              38.23 332  P     P         11 59 13.0  +0.5
         baz=38,SNR=10
DLMT     Dillon              38.43 332 eP     P         11 59 15.3  +1.1
H13A     Challis             38.62 330  P     P         11 59 16.2  +0.5
         baz=39,SNR=7.2
LRM      Limekiln Ridge      38.72 333 eP     P         11 59 17.6  +1.0
M08A     Happy Creek Ra      38.72 323 ⇓P     P         11 59 16.7  -0.1
         baz=39
K10A     MacKenzie Ranc      38.73 326 ⇓P     P         11 59 18.0  +1.3
         baz=39
G14A     Jackson             38.74 331 ⇑P     P         11 59 17.1  +0.3
         baz=39
F15A     Butte               38.75 333  P     P         11 59 16.9   0.0
         baz=39,SNR=6.9
H12A     Diamond D Ranc      38.90 329 ⇑P     P         11 59 18.4  +0.2
         baz=39
BEKR     Beckwourth          38.99 320 ⇓P     P         11 59 19.1  +0.1
         baz=39
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G13A     Cobalt              38.99 331 ⇓P     P         11 59 18.6  -0.3
         baz=39
I11A     Placerville         39.01 328  P     P         11 59 19.1   0.0
         baz=39,SNR=5.3
F14A     Wisdom              39.12 332 ⇓P     P         11 59 19.4  -0.6
         baz=39
K09A     Rome                39.15 325 ⇑P     P         11 59 21.2  +1.0
         baz=39
L08A     Fields              39.17 324 ⇑P     P         11 59 20.4   0.0
         baz=39
E15A     Deer Lodge          39.27 333  P     P         11 59 21.4  +0.2
         baz=39,SNR=13
EGMT     Eagleton            39.37 337 eP     P         11 59 21.4  -0.6
         comp=E,4.7nm,0.6s,mb4.5
EGMT     Eagleton            39.37 337 ⇓P     P         11 59 21.7  -0.4
         baz=40
F13A     Darby               39.55 331  P     P         11 59 23.3  -0.3
         baz=40,SNR=6.7
J09A     Fry Pan Ranch,      39.59 326 ⇓P     P         11 59 23.4  -0.6
         baz=40
K08A     Mann Creek Ran      39.59 324  P     P         11 59 24.6  +0.6
         baz=40,SNR=7.9
E14A     Clinton             39.64 333  P     P         11 59 23.9  -0.4
         baz=40,SNR=5.7
L07A     Adell               39.64 323 ⇓P     P         11 59 23.7  -0.7
         baz=40
ELFS     Eagle Lake Fie      39.65 320 ⇓P     P         11 59 25.5  +1.0
         baz=40
D15A     Lincoln             39.69 334  P     P         11 59 24.6  -0.1
         baz=40,SNR=9.1
F12A     Elk City            39.97 330  P     P         11 59 26.8  -0.2
         baz=40,SNR=9.8
E13A     Victor              39.97 332  P     P         11 59 26.4  -0.6
         baz=40,SNR=9.9
J08A     Circle Bar Ran      39.99 325 ⇑P     P         11 59 26.4  -0.9
         baz=40
K07A     Rock Creek Ran      40.00 324 ⇓P     P         11 59 26.1  -1.3
         baz=40
D14A     Greenough           40.15 333  P     P         11 59 28.5   0.0
         baz=40,SNR=5.7
G11A     Walters Elk Ra      40.21 329 ⇓P     P         11 59 28.6  -0.4
         baz=40
D13A     Huson               40.59 332  P     P         11 59 31.9  -0.3
         baz=41,SNR=5.5
G09A     Cove                40.89 328 ⇓P     P         11 59 33.6  -1.1
         baz=41
D12A     Red Ives Fores      40.96 332 ⇓P     P         11 59 35.2   0.0
         baz=41
C13A     Hot Springs         41.08 333 ⇑P     P         11 59 35.9  -0.2
         baz=41
D11A     Klaveano Farm,      41.42 331 ⇑P     P         11 59 38.3  -0.6
         baz=42
B13A     Whitefish           41.56 334 ⇓P     P         11 59 39.2  -0.8
         baz=42
WALA     Waterton Lakes      41.85 335 eP     P         11 59 42.4   0.0
         comp=E,2.8nm,0.5s,mb4.2
A13A     Flathead Natio      41.96 334 ⇑P     P         11 59 42.9  -0.5
         baz=42
NEW      Newport             42.67 332 eP     P         11 59 49.7  +0.6
         comp=E,1.0nm,0.8s,mb3.6
A11A     Hall Mountain,      42.83 333  P     P         11 59 50.1  -0.3
         baz=43,SNR=5.2
B09A     Rice                43.26 331 ⇑P     P         11 59 53.9   0.0
         baz=43
B08A     Colville Reser      43.78 330 ⇓P     P         11 59 57.1  -1.0
         baz=44
A09A     Danville            43.85 331 ⇓P     P         11 59 58.3  -0.3
         baz=44
A08A     Turner Farm, O      44.16 331 ⇓P     P         12 00 00.8  -0.4
         baz=44
A07A     Ashnola River,      44.76 330 ⇓P     P         12 00 06.1  +0.2
         baz=45
EDM      Edmonton            44.95 339 eP     P         12 00 05.8  -1.5
SCHQ     Schefferville       45.16  17  P     P         12 00 04.5  -4.4
         comp=E,2.6nm,0.7s,mb4.1,baz=254,slow=5.3,SNR=6.4
FCC      Fort Churchill      46.04 356 eP     P         12 00 13.7  -2.1
         comp=E,9.6nm,1.0s,mb4.5
YKA      Yellowknife Ar      53.02 345  P     P         12 01 06.9  -2.0
YKA      Yellowknife Ar      53.02 345  P     P         12 01 06.9  -2.0
         comp=E,3.4nm,0.9s,mb4.4,baz=141,slow=7.5,SNR=40
DLBC     Dease Lake          55.20 335 eP     P         12 01 24.7  -0.1
RCBR     Riachuelo           55.28 106 eP     P         12 01 27.5  +1.3
         comp=E,6.7nm,0.9s,mb4.7
RES      Resolute Bay        61.95 358 eP     P         12 02 13.1  +1.6
         comp=E,133nm,1.4s
INK      Inuvik              62.58 343 eP     P         12 02 14.4  -1.4
         comp=E,17nm,0.6s,mb5.2
MCK      McKinley            65.75 335 eP     P         12 02 36.5  -0.2
         comp=E,1.9nm,0.9s,mb3.9
BORG     Borgarnes           68.72  25 eP     P         12 02 53.1  -2.3
         comp=E,70nm,1.1s,mb5.4
AQU      L'Aquila            89.92  47 eP     P         12 04 51.5  +0.3
         comp=E,5.7nm,0.2s,mb5.3
LSZ      Lusaka             118.55 101 ePKPdf PKPdf     12 10 39.7  -0.5
MAW      Mawson             122.10 167 ePKPdf PKPdf     12 10 45.3  -0.3
WMQ      Urumqi             123.50   3 ePKP   PKPdf     12 10 49.1   0.0
HHC      Hu-ho-hao-te       123.50 342 ePKP   PKPdf     12 10 52.3  +3.1
HHC                                     PP    PP        12 12 38.3  +8.3
HHC                                     PKS             12 14 28.3
HHC                                     SKS   SKSdf     12 17 53.1  -2.3
HHC                                     SKKS  SKKSac    12 19 20.4  -3.6
HHC                                     SS    SS        12 29 13.8  +2.6
HHC                                     PP    PP
         comp=Z,56nm,4.6s
HHC                                     LR    LR
         comp=N,129nm,28.5s
HHC                                     LR    LR
         comp=E,144nm,28.5s
HHC                                     LR    LR
         comp=Z,156nm,27.5s
GTA      Gaotai             127.47 352 ePKP   PKPdf     12 10 58.1  +1.3
NJ2      Nanjing            128.33 330 ePKP   PKPdf     12 11 01.1  +2.4
LZH      Lanzhou            130.00 347 ePKP   PKPdf     12 11 03.8  +2.1
CD2      Chengdu            134.98 345 ePKP   PKPdf     12 11 09.0  -2.3
GYA      Guiyang            138.31 340  PKP   PKPdf     12 11 17.5  -0.1
GYA                                     PP    PP        12 14 10.3  +4.4
GYA                                     PP    PP
         comp=Z,60nm,7.9s
WRA      Warramunga Arr     138.56 254  PKhKP           12 11 11.7
         comp=Z,0.2nm,0.9s,baz=336,slow=15,SNR=2.6
WRA                                     PKP   PKPdf     12 11 20.5  +2.4
         comp=Z,0.5nm,0.5s,baz=85,slow=1.9,SNR=11
ASAR     Alice Springs      138.62 249  PKhKP           12 11 11.3
         comp=Z,0.5nm,0.9s,baz=107,slow=3.2,SNR=4.4
ASAR                                    PKP   PKPdf     12 11 20.2  +2.1
         comp=Z,0.3nm,0.7s,baz=90,slow=1.9,SNR=4.2
```

GCMT **17** *12:24:49.5±0.4, 7.64S×155.77E, h27^{km}±1^{km}, MW5.0/33, Moment Tensor Solution. s25,c30; s33,c45; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$3.08±.25; M$_{\theta\theta}$-2.33±.16; M$_{\phi\phi}$-0.75±.16; M$_{r\theta}$1.30±.27; M$_{\theta\phi}$1.39±.12; M$_{\phi r}$-0.80±.32; Best double couple: M$_0$3.46400×10^{16} NP1:ϕ_s300.00000°,δ32.00000°,λ89.00000°. NP2: ϕ_s121.00000°,δ58.00000°,λ91.00000°. Principal axes: T 3.4340, Plg77.0000°, Azm33.0000°; N 0.0530, Plg0.0000°, Azm300.0000°; P -3.4940, Plg13.0000°, Azm210.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISCJB **17** *12:24:49.5±2.2, 7.20S±0.07×155.90E±0.06, h23^{km}±15^{km}, mb4.7/46, MS3.9/4 Error ellipse: s-maj=12.6km s-min=9.3km az=157.4*

NEIC **17** *12:24:49.5±0.4, 7.13S×155.83E, h10^{km}, mb4.8/20, Error ellipse: s-maj=11.7km s-min=9.9km az=128.0*

BJI **17** *12:24:49.7, 6.89S×155.60E, h10^{km}, mB5.0, mb4.8, Ms4.4, Msz4.3*

MOS **17** *12:24:51.4±0.9, 7.15S×155.79E, h33^{km}, mb5.0/15, Error ellipse: s-maj=11.1km s-min=9.4km az=105.1*

IDC **17** *12:24:57.1±2.7, 7.33S×155.73E, h75^{km}±25^{km}, mb4.2/12, mb1 4.3/15, mb1mx4.3/18, mbtmp4.2/15, MS4.0/7, Ms1 4.0/7, ms1mx3.6/27, Error ellipse: s-maj=19.9km s-min=16.8km az=105.0*

ISC 17 12:24:55.5±1.3,**7.32S**±0.08×**155.85E**±0.06,**h59**^{km}±12^{km}, **h15**^{km}±4.1^{km}**:pP-P, n96,** σ1^s**08**/91, **mb4.7**/46, **MS3.9**/4, **8C-1D, Bougainville - Solomon Islands region**

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Code     Station Name          Δ°  AZ°    Phase ID          Time      Res
                                       Op     ISC         h  m  s    ISC
HNR      Honiara              4.57 118 ePn    Pn        12 26 02.6  +0.5
HNR                                    eSn    Sn        12 27 03.0  +9.0
HNR      Honiara              4.57 118  P     Pn        12 26 04.2  +2.0
         32nm,0.3s,baz=260,slow=3.8,SNR=13
HNR                                     S     Sn        12 27 02.9  +8.9
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         104nm,0.3s,baz=266,slow=22,SNR=9.3
HNR                                     LR    LR        12 27 43.9
         comp=Z,3μm,18.3s,baz=352,slow=36
PMG      Port Moresby         8.84 256 ePn    Pn        12 27 00.6  -0.1
         36nm,0.8s
PMG                                    eSn    Sn        12 28 41.9  +3.0
PMG      Port Moresby         8.84 256 eP     Pn        12 27 00.6  -0.1
PMG                                    e                12 28 41.9
PMG                                     pmax  pmax
         comp=Z,36nm,0.8s
PMG      Port Moresby         8.84 256  P     Pn        12 27 01.9  +1.2
         comp=Z,2.5nm,0.3s,baz=9.2,slow=12,SNR=11
PMG                                     S     Sn        12 28 43.9  +5.0
         comp=Z,0.7nm,0.3s,baz=143,slow=20,SNR=2.0
PMG                                     LR    LR        12 30 09.9
         comp=Z,1μm,20.7s,baz=64,slow=36
CTA      Charters Tower      15.74 215⇑iP     Pn        12 28 33.4  -0.1
         comp=Z,23nm,1.7s
CTA                                    e                12 28 42.4
CTA                                    eS     S         12 31 46.0  +7.1
CTA      Charters Tower      15.74 215⇑iP     Pn        12 28 33.4  -0.1
CTA                                     pmax  pmax
         comp=Z,23nm,1.7s
CTA      Charters Tower      15.74 215  P     Pn        12 28 33.2  -0.3
         comp=Z,0.3nm,0.3s,baz=33,slow=15,SNR=4.7
CTA                                     LR    LR        12 34 06.2
         comp=Z,597nm,18.0s,baz=44,slow=35
CTAO     Charters Tower      15.74 215 eP     Pn        12 28 35.2  +1.7
         comp=Z,32nm,1.0s
CTAO     Charters Tower      15.74 215 eP     Pn        12 28 35.2  +1.7
CTAO                                    pmax  pmax
         comp=Z,32nm,1.0s
DZM      Mont Dzumac         17.88 146  LR    LR        12 34 20.4
         comp=Z,332nm,21.1s,baz=317,slow=31
GUMO     Guam                23.46 332  LR    LR        12 37 07.4
         comp=Z,116nm,19.6s,MS3.4,baz=132,slow=31
KAKA     Kakadu              23.66 255 eP     P         12 30 01.2  -0.6
         comp=Z,13nm,0.6s,mb4.5
WB2      Warramunga Arr      24.33 237 eP     P         12 30 06.7  -1.1
WRA      Warramunga Arr      24.34 237  P     P         12 30 06.7  -1.2
         comp=Z,5.6nm,0.9s,mb4.0,baz=60,slow=9.2,SNR=33
WRA                                     LR    LR        12 39 33.2
         comp=Z,440nm,18.3s,MS4.0,baz=55,slow=36
ASAR     Alice Springs       26.60 230  P     P         12 30 26.9  -1.5
         comp=Z,1.4nm,0.8s,mb3.5,baz=56,slow=10,SNR=23
STKA     Stephens Creek      27.81 207 eP     P         12 30 38.7  -0.5
         comp=Z,5.2nm,0.7s,mb4.3
STKA     Stephens Creek      27.81 207 eP     P         12 30 42.2  +3.0
STKA     Stephens Creek      27.81 207  P     P         12 30 39.0  -0.2
         comp=Z,5.1nm,0.8s,mb4.2,baz=35,slow=12,SNR=7.8
STKA                                    LR    LR        12 41 04.0
         comp=Z,472nm,19.8s,MS4.1,baz=40,slow=35
FITZ     Fitzroy Crossi      31.30 247 eP     P         12 31 08.5  -1.8
         comp=Z,10nm,0.8s,mb4.7
RPZ      Rata Peaks          38.63 162  P     P         12 32 15.2  +2.2
         comp=Z,8.4nm,0.8s,mb4.5,baz=103,slow=5.5,SNR=4.4
KKM      Kota Kinabalu       41.71 288 eP     P         12 32 41.0  +2.1
MJAR     Matsushiro Arr      46.66 340  P     P         12 33 16.8  -1.3
MJAR                                    PcP   PcP       12 34 51.4  +0.3
MJAR     Matsushiro Arr      46.66 340  P     P         12 33 16.8  -1.3
         comp=Z,3.8nm,0.7s,mb4.4,baz=160,slow=7.5,SNR=19
MJAR                                    PcP   PcP       12 34 51.4  +0.3
         comp=Z,2.2nm,0.8s,baz=179,slow=3.0,SNR=4.7
MAJO     Matsushiro          46.66 340 eP     P         12 33 17.0  -1.2
         comp=Z,8.1nm,0.7s,mb4.8
MAJO     Matsushiro          46.66 340 eP     P         12 33 17.0  -1.2
MAJO                                    pmax  pmax
         comp=Z,8.0nm,0.7s,mb4.8
MAT      Matsushiro          46.66 340  P     P         12 33 17.5  -0.7
MAT                                    eS     S         12 40 04.6  +1.3
KSRS     Korea Array         51.62 332  P     P         12 33 56.2  +0.2
         comp=Z,2.5nm,0.6s,mb4.3,baz=149,slow=7.7,SNR=12
NJ2      Nanjing             52.70 320 eP     P         12 34 01.9  -2.3
NJ2                                     AMB   AMB
         comp=Z,80nm,1.0s,mb5.6
PPT      Papeete             54.10 106 eLR    LR        12 49 55.7
         comp=Z,310nm,25.2s
WHN      Wuhan               54.76 316 eP     P         12 34 19.6  +0.3
PMOR     Pomariorio Ree      55.60 103 eP     P         12 34 26.0  +0.4
         comp=Z,32nm,1.2s,mb5.2
VAH      Vaihoa              55.86 103 eP     P         12 34 27.5   0.0
         comp=Z,20nm,0.9s,mb5.1
GYA      Guiyang             58.32 307  P     P         12 34 45.5  +0.8
GYA                                     AMB   AMB
         comp=Z,10.0nm,1.1s,mb4.8
HABR     Khabarovsk          58.49 344 eP     P         12 34 44.1  -1.3
HABR                                   eS     S         12 42 46.5  +2.1
HABR                                   e                12 44 28.4
HABR                                   eSS    SS        12 46 42.4  +4.5
XAN      Xi'an               60.52 316  P     P         12 34 59.0  -0.7
XAN                                     AP    pP        12 35 04.8   -11
XAN                                     AMB   AMB
         comp=Z,5.0nm,1.0s,mb4.6
CHTO     Chiang Mai          61.80 296 eP     P         12 35 08.9  +0.2
         comp=Z,14nm,1.4s,mb4.9
CHTO     Chiang Mai          61.80 296 eP     P         12 35 08.9  +0.2
CHTO                                    pmax  pmax
         comp=Z,14nm,1.4s,mb4.9
CD2      Chengdu             62.66 310 eP     P         12 35 16.3  +2.1
CD2                                     PP    PP        12 37 36.8  +4.0
CD2                                     S     S         12 43 39.1  +0.7
CD2                                     SS    SS        12 47 46.8  +2.7
CD2                                     AMB   AMB
         comp=Z,10.0nm,0.8s,mb5.0
CD2                                     AMB   AMB
         comp=Z,30nm,6.4s
HHC      Hu-ho-hao-te        62.85 323 eP     P         12 35 19.1  +3.8
HHC                                     PCP   PcP       12 35 56.8  +3.7
HHC                                     PP    PP        12 37 39.5  +5.2
HHC                                     SCP   ScP       12 39 52.6  +2.2
HHC                                     PCS   PcS       12 39 59.3  +2.8
HHC                                     S     S         12 43 41.8  +1.4
HHC                                     PS              12 44 08.4
HHC                                     SCS   ScS       12 45 02.4  -0.4
HHC                                     SS    SS        12 47 49.3  +2.6
HHC                                     AMB   AMB
         comp=Z,6.0nm,0.8s,mb4.8
HHC                                     AMB   AMB
         comp=Z,108nm,5.9s
HHC                                     LR    LR
         comp=N,65nm,21.4s,MS4.1
HHC                                     LR    LR
         comp=E,106nm,20.2s,MS4.1
HHC                                     LR    LR
         comp=Z,199nm,19.0s,MS4.3
TAOE     Nuku Hiva Isla      63.32  96 eLR    LR        12 54 14.5
         comp=Z,1μm,29.0s
HIA      Hailar              64.57 335 eP     P         12 35 26.2  -0.2
         comp=Z,11nm,0.9s,mb4.9
HIA      Hailar              64.57 335 eP     P         12 35 26.2  -0.2
HIA                                     pmax  pmax
         comp=Z,11nm,0.9s
LZH      Lanzhou             65.14 315 eP     P         12 35 31.5  +1.1
LZH                                     AP    pP        12 35 37.0   -10
LZH                                     XP    sP        12 35 40.8   -12
LZH                                     AMB   AMB
         comp=Z,15nm,1.1s,mb4.9
LZH                                     AMB   AMB
         comp=Z,70nm,4.5s
LZH      Lanzhou             65.14 315 eP     P         12 35 31.5  +1.1
         comp=Z,15nm,1.1s,mb4.9
LZH                                     pP    pP        12 35 37.0   -10
LZH                                     sP    sP        12 35 40.7   -12
MA2      Magadan             66.80 357 eP     P         12 35 42.0  +1.5
         comp=Z,8.8nm,1.3s,mb4.6
MA2      Magadan             66.80 357 eP     P         12 35 42.0  +1.5
MA2                                     pmax  pmax
         comp=Z,9.0nm,1.3s,mb4.6
GTA      Gaotai              69.55 317 eP     P         12 35 59.0  +0.8
GTA                                     AP    pP        12 36 04.9   -10
GTA                                     XP    sP        12 36 07.8   -13
GTA                                     AMB   AMB
         comp=Z,5.0nm,1.6s,mb4.2
ULN      Ulaanbaatar         69.73 327 eP     P         12 35 59.6  +0.5
         comp=Z,17nm,1.1s,mb4.9
ULN      Ulaanbaatar         69.73 327c iP    P         12 36 00.3  +1.2
SONM     Songino Array       70.06 327  P     P         12 36 02.4  +1.2
         comp=Z,11nm,0.9s,mb4.8,baz=138,slow=6.3,SNR=64
SEY      Seymchan            70.09 358 i P    P         12 36 01.0  -0.1
YAK      Yakutsk             72.05 347⇑eP     P         12 36 14.1  +1.2
YAK                                     pmax  pmax
         comp=Z,10.0nm,0.8s,mb4.8
LSA      Lhasa               72.15 304  P     P         12 36 14.5  +0.3
LSA      Lhasa               72.15 304 eP     P         12 36 15.0  +0.8
         comp=Z,12nm,1.1s,mb4.7
```

LSA	**Lhasa**	**72.15**	**304**	*e*P	**P**	**12 36 15.0**	**+0.8**
LSA				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
ZAK	**Zakamensk**	**73.21**	**328**	⇑*i*P	**P**	**12 36 20.5**	**+0.4**
ZAK				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
BOD	**Bodaibo**	**73.22**	**338**	*e*P	**P**	**12 36 19.3**	**-0.7**
BOD				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.3						
TLY	**Talaya**	**73.77**	**329**	*e*P	**P**	**12 36 24.1**	**+0.8**
	comp=Z,3.2nm,0.6s,mb4.4						
TLY	**Talaya**	**73.77**	**329**	*i* P	**P**	**12 36 23.6**	**+0.3**
TAPN	**Taplejung**	**74.29**	**301**	*e*P	**P**	**12 36 26.5**	**-0.4**
	comp=Z,46nm,1.3s,mb5.3						
ODAN	**Odare**	**74.42**	**300**	*e*P	**P**	**12 36 28.3**	**+0.6**
	comp=Z,42nm,1.0s,mb5.3						
MOY	**Mondy**	**75.13**	**328**	*e*P	**P**	**12 36 32.2**	**+1.0**
MOY				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.7						
BILL	**Bilibino**	**75.54**	**4**	*e*P	**P**	**12 36 33.6**	**+0.4**
	comp=Z,6.4nm,0.8s,mb4.6						
BILL	**Bilibino**	**75.54**	**4**	⇓*e*P	**P**	**12 36 33.4**	**+0.2**
BILL				*e*		12 36 44.5	
BILL				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
KKN	**Kakani**	**76.48**	**301**	*e*P	**P**	**12 36 39.9**	**+0.4**
	comp=Z,5.3nm,0.2s,mb5.1						
GKN	**Gorkha**	**77.09**	**301**	*e*P	**P**	**12 36 42.7**	**-0.2**
	comp=Z,75nm,1.4s,mb5.4						
TIXI	**Tiksi**	**80.79**	**352**	*e*P	**P**	**12 36 59.2**	**-3.0**
TIXI				pmax	pmax		
	comp=Z,10.0nm,2.2s,mb4.4						
MCK	**McKinley**	**82.04**	**22**	*e*P	**P**	**12 37 07.5**	**-1.4**
	comp=Z,7.3nm,1.1s,mb4.5						
MCK	**McKinley**	**82.04**	**22**	*e*P	**P**	**12 37 07.5**	**-1.5**
MCK				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
COLA	**College**	**83.08**	**21**	*e*P	**P**	**12 37 13.6**	**-0.7**
	comp=Z,4.2nm,0.9s,mb4.5						
COLA	**College**	**83.08**	**21**	⇑*e*P	**P**	**12 37 13.0**	**-1.3**
MK31	**Makanchi Array**	**84.20**	**319**	*e*P	**P**	**12 37 20.6**	**+0.1**
MKAR	**Makanchi Array**	**84.20**	**319**	P	**P**	**12 37 20.6**	**+0.1**
	comp=Z,9.1nm,0.7s,mb5.0,baz=104,slow=6.2,SNR=115						
ZALV	**Zalesovo Beam**	**84.92**	**326**	P	**P**	**12 37 23.4**	**-0.6**
	comp=Z,13nm,0.8s,mb5.1,baz=109,slow=5.3,SNR=48						
ZAL	**Zalesovo**	**84.92**	**326**	P	**P**	**12 37 23.4**	**-0.6**
NVS	**Novosibirsk**	**86.08**	**326**	⇑*i*P	**P**	**12 37 28.4**	**-1.3**
NVS				pmax	pmax		
	comp=Z,22nm,1.4s,mb5.2						
NVS				pmax	pmax		
	comp=N,12nm,1.5s						
NVS				pmax	pmax		
	comp=E,16nm,1.5s						
KURK	**Kurchatov**	**87.61**	**322**	*e*P	**P**	**12 37 36.5**	**-0.7**
	comp=E,3.6nm,0.8s,mb4.7						
KURK	**Kurchatov**	**87.61**	**322**	⇑*e*P	**P**	**12 37 36.2**	**-1.0**
AAK	**Ala-Archa**	**88.58**	**313**	*e*P	**P**	**12 37 40.5**	**-1.6**
	comp=E,2.6nm,1.0s,mb4.5						
AAK	**Ala-Archa**	**88.58**	**313**	*i* P	**P**	**12 37 41.5**	**-0.6**
AAK				pmax	pmax		
	comp=Z,5.0nm,1.6s,mb4.6						
NVAR	**Mina Array Bea**	**91.26**	**52**	P	**P**	**12 37 55.1**	**+0.4**
	comp=Z,1.7nm,1.2s,mb4.2,baz=247,slow=3.2,SNR=5.5						
BRVK	**Borovoye**	**93.13**	**323**	*e*P	**P**	**12 38 01.7**	**-1.3**
	comp=Z,7.2nm,1.1s,mb5.0						
BRVK	**Borovoye**	**93.13**	**323**	*e*P	**P**	**12 38 01.7**	**-1.2**
BRVK				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb5.0						
YKA	**Yellowknife Ar**	**96.22**	**28**	P	**P**	**12 38 16.3**	**-0.6**
	comp=Z,0.5nm,0.6s,mb4.1,baz=265,slow=4.6,SNR=11						
PDAR	**Pinedale Array**	**98.29**	**48**	P	**P**	**12 38 26.9**	**+0.2**
	comp=Z,0.3nm,0.8s,mb3.9,baz=343,slow=2.0,SNR=4.4						
FINES	**FINESS Array B**	**114.57**	**336**	PKP	PKiKP	12 43 27.6	-1.1
FINES	**FINESS Array B**	**114.57**	**336**	PKIKP	PKiKP	12 43 27.6	-1.0
FINES	**FINESS Array B**	**114.57**	**336**	PKP	PKiKP	12 43 27.6	-1.1
	comp=Z,1.3nm,0.9s,baz=108,slow=4.2,SNR=5.2						
AKASG	**Malin Array Be**	**118.29**	**325**	PKP	PKPdf	12 43 35.0	-1.1
AKASG	**Malin Array Be**	**118.29**	**325**	PKIKP	PKPdf	12 43 35.0	-1.1
AKASG	**Malin Array Be**	**118.29**	**325**	PKP	PKPdf	12 43 35.0	-1.1
	comp=Z,0.6nm,0.4s,baz=46,slow=2.6,SNR=5.5						
GERES	**GERESS Array B**	**127.76**	**329**	PKP	PKPdf	12 43 54.5	+0.1
GERES	**GERESS Array B**	**127.76**	**329**	PKIKP	PKPdf	12 43 54.5	+0.1
GERES	**GERESS Array B**	**127.76**	**329**	PKP	PKPdf	12 43 54.5	+0.1
	comp=Z,0.6nm,0.6s,baz=266,slow=3.5,SNR=4.5						
TORD	**Torodi Ar. Bea**	**153.92**	**285**	PKPbc	PKPbc	12 44 47.9	-1.5
	comp=Z,0.4nm,0.3s,baz=30,slow=1.6,SNR=9.3						

IDC 17 12:32:24.1±3.5,**247S×14041E,h0^{km},mb3.5**/3,**mb1 3.9**/4,**mb1mx3.6**/13,**mbtmp3.7**/4,**ML3.9**/1,**Error ellipse: s-maj=112.1km s-min=26.7km az=93.0,Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**18.35**	**198**	P	Pn	12 36 39.7	-0.4
	0.4nm,0.3s,baz=20,slow=12,SNR=23						
FITZ	**Fitzroy Crossi**	**21.24**	**222**	P	P	12 37 11.6	-0.3
	1.9nm,0.7s,baz=56,slow=8.3,SNR=7.8						
ASAR	**Alice Springs**	**21.99**	**196**	P	P	12 37 20.2	+0.3
	1.1nm,0.5s,baz=27,slow=11,SNR=16						
MKAR	**Makanchi Array**	**70.64**	**322**	P	P	12 43 41.8	+0.2
	0.2nm,0.4s,baz=98,slow=8.9,SNR=7.8						

IDC 17 12:32:38.4±1.6,**1924S×17710W,h594^{km}**±65^{km}**,mb3.2**/4,**mb1 3.4**/7,**mb1mx3.1**/18,**mbtmp3.3**/7,**1D,Error ellipse: s-maj=57.3km s-min=27.1km az=84.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**7.36**	**45**	P	P	12 34 32.5	+0.9
	7.3nm,0.3s,baz=102,slow=1.1,SNR=14						
AFI				S	S	12 36 03.8	-0.3
	1.6nm,0.3s,baz=218,slow=20,SNR=3.8						
DZM	**Mont Dzumac**	**15.66**	**257**	P	P	12 35 52.9	0.0
	0.3nm,0.3s,baz=82,slow=19,SNR=2.9						
URZ	**Urewera**	**19.61**	**194**	P	P	12 36 28.4	-0.2
	1.4nm,0.3s,baz=294,slow=12,SNR=8.1						
STKA	**Stephens Creek**	**39.11**	**243**	⇓*i*P	P	12 39 16.5	+0.4
	2.3nm,0.8s						
STKA	**Stephens Creek**	**39.11**	**243**	P	P	12 39 16.6	+0.5
	3.5nm,0.6s,baz=91,slow=11,SNR=9.2						
WRA	**Warramunga Arr**	**45.63**	**261**	P	P	12 40 06.5	-0.7
	1.4nm,0.4s,baz=98,slow=7.5,SNR=38						
ASAR	**Alice Springs**	**45.65**	**255**	P	P	12 40 07.0	-0.2
	2.1nm,0.4s,baz=86,slow=8.3,SNR=41						
FITZ	**Fitzroy Crossi**	**54.05**	**261**	*e*P	P	12 41 08.2	-0.5
	1.9nm,0.4s						
FITZ	**Fitzroy Crossi**	**54.05**	**261**	P	P	12 41 08.9	+0.3
	1.0nm,0.5s,baz=101,slow=5.2,SNR=13						

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*BJI **17** 12:43:10.8,720S×15620E,h44^{km},mB5.4,mb5.5,Ms5.2,Msz5.0*

*ISCJB **17** 12:43:11.9±0.1,735S±003×15568E±002,h35^{km},mb5.4/118,MS5.3/206,Error ellipse: s-maj=4.4km s-min=3.0km az=175.4*

*MOS **17** 12:43:12.1±1.1,722S×15573E,h33^{km},mb5.7/39,MS5.1/37,Error ellipse: s-maj=8.0km s-min=6.2km az=112.6*

*GCMT **17** 12:43:12.9±0.1,758S×15585E,h18^{km},MW5.7/98,Moment Tensor Solution. s98,c190; s98,c274; Duration: 1^{s}7 Moment tensor: Scale 10^{17}Nm; M_{rr}3.31±.05; $M_{\theta\theta}$-2.67±.03; $M_{\phi\phi}$-0.64±.04; $M_{r\theta}$1.68±.09; $M_{\theta\phi}$1.62±.03; $M_{\phi r}$-1.14±.09; Best double couple: $M_0$3.99400×10^{17} NP1:ϕ_s296.00000°,δ30.00000°,λ85.00000°. NP2:ϕ_s122.00000°,δ60.00000°,λ93.00000°. Principal axes: T 3.8690, Plg75.0000°, Azm39.0000°; N 0.2420, Plg3.0000°, Azm300.0000°; P -4.1200, Plg15.0000°, Azm210.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*IDC **17** 12:43:12.4±1.9,735S×15578E,h32^{km}±13^{km},mb5.0/20,mb1 5.1/24,mb1mx5.0/26,mbtmp5.0/24,ML4.1/4,MS5.0/23,Ms1 5.0/23,ms1mx4.9/32 Error ellipse: s-maj=12.3km s-min=10.4km az=111.0*

*NEIC **17** 12:43:12.9±0.1,731S×15576E,mb5.4/59,MS5.3/172,MW5.6,Error ellipse: s-maj=4.4km s-min=4.0km az=159.0,Moment Tensor Solution. s26 Moment tensor: Scale 10^{17}Nm; M_{rr}2.99; $M_{\theta\theta}$-0.99; $M_{\phi\phi}$-2.00; $M_{r\theta}$0.88; $M_{\theta\phi}$1.40; $M_{\phi r}$-0.86; Best double couple: $M_0$3.20000×10^{17} NP1: ϕ_s329.00000°,δ34.00000°,λ97.00000°. NP2: ϕ_s141.00000°,δ56.00000°,λ86.00000°. Principal axes: T 3.2500, Plg78.0000°, Azm35.0000°; N -0.0200, Plg4.0000°, Azm143.0000°; P -3.2200, Plg11.0000°, Azm234.0000°;*

NEIC Felt at Arawa, Papua New Guinea.

ISC 17 12:43:13.7±0.1,**735S**±003×**15573E**±002,**h37^{km}, h37^{km}**±1.8^{km}**:pP-P,n892,**σ**0^{s}90**/499,**mb5.4**/118,**MS5.3**/206,**103C-93D,Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**4.66**	**117**	*e*Pn	**Pn**	**12 44 21.4**	**-0.2**
HNR				*e*Sn	**Sn**	**12 45 24.2**	**+10**
HNR	**Honiara**	**4.66**	**117**	Pn	**Pn**	**12 44 18.5**	**-3.1**
	41nm,0.3s,baz=256,slow=2.0,SNR=16						
HNR				Sn	**Sn**	**12 45 21.2**	**+6.7**
	184nm,0.3s,baz=272,slow=24,SNR=11						
HNR				LR	LR	12 46 05.5	
	comp=Z,47µm,18.3s,baz=348,slow=38						
PMG	**Port Moresby**	**8.72**	**256**	*e*Pn	**Pn**	**12 45 18.6**	**+1.2**
PMG				*e*Sn	**Sn**	**12 46 55.4**	**+0.9**
PMG	**Port Moresby**	**8.72**	**256**	Pn	**Pn**	**12 45 19.0**	**+1.6**
	4.3nm,0.3s,baz=43,slow=8.6,SNR=33						
PMG				Sn	**Sn**	**12 46 59.4**	**+4.8**
	3.6nm,0.3s,baz=343,slow=17,SNR=1.7						
PMG				LR	LR	12 48 40.9	
	comp=Z,17µm,20.1s,baz=62,slow=37						
COEN	**Coen**	**13.97**	**241**	*e*Pn	**Pn**	**12 46 29.8**	**+0.5**
COEN				*e*S	Sn	12 49 28.9	+26
CTA	**Charters Tower**	**15.64**	**215**	*e*P	**Pn**	**12 46 52.9**	**+1.4**
	86nm,0.9s						
CTA				*e*S	**S**	**12 50 06.9**	**+8.9**
CTA	**Charters Tower**	**15.64**	**215**	*e*P	**Pn**	**12 46 52.9**	**+1.4**
CTA				pmax	pmax		
	comp=Z,86nm,0.9s						
CTA	**Charters Tower**	**15.64**	**215**	Pn	**Pn**	**12 46 52.1**	**+0.6**
	comp=Z,0.9nm,0.3s,baz=42,slow=14,SNR=18						
CTA				Sn	**Sn**	**12 49 58.9**	**+15**
	comp=Z,0.1nm,0.3s,baz=169,slow=5.6,SNR=1.5						
CTA				LR	LR	12 52 27.8	
	comp=Z,11µm,18.3s,baz=36,slow=35						
CTAO	**Charters Tower**	**15.64**	**215**	*e*P	**Pn**	**12 46 52.9**	**+1.3**
NOUC	**Port Laguerre**	**17.86**	**146**	*e*P	**Pn**	**12 47 18.2**	**-1.3**
NOUC	**Port Laguerre**	**17.86**	**146**	*e*P	**Pn**	**12 47 18.1**	**-1.3**
DZM	**Mont Dzumac**	**17.92**	**146**	*e*P	**Pn**	**12 47 19.0**	**-1.1**
DZM	**Mont Dzumac**	**17.92**	**146**	P	**Pn**	**12 47 19.6**	**-0.6**
	comp=Z,0.3nm,0.3s,baz=4.8,slow=12,SNR=6.4						
DZM				S	**S**	**12 50 46.4**	**+2.0**
	comp=Z,0.1nm,0.3s,baz=37,slow=19,SNR=2.4						
EIDS	**Eidsvold**	**18.46**	**193**	*e*P	**Pn**	**12 47 27.2**	**+0.4**
FUNA	**Funafuti**	**23.27**	**94**	*e*P	**P**	**12 48 16.0**	**-2.5**
	comp=Z,407nm,1.0s,mb5.8						
FUNA				LR	LR		
	comp=Z,9µm,19.0s,MS5.2						
GUMO	**Guam**	**23.43**	**333**	P	**P**	**12 48 20.1**	**+0.1**
	comp=Z,94nm,1.0s,mb5.2,baz=9.8,slow=15,SNR=3.3						
GUMO				LR	LR	12 55 38.2	
	comp=Z,2µm,21.6s,MS4.5,baz=145,slow=32						
KAKA	**Kakadu**	**23.53**	**255**	*e*P	**P**	**12 48 20.5**	**-0.5**
	comp=Z,99nm,0.9s,mb5.2						
WB2	**Warramunga Arr**	**24.21**	**237**	*e*P	**P**	**12 48 27.3**	**+0.1**
WRA	**Warramunga Arr**	**24.22**	**237**	P	**P**	**12 48 27.3**	**+0.1**
WRA				PcP	PcP	12 52 06.4	-0.8
WRA				S	**S**	**12 52 43.2**	**-0.3**
WRA				ScP	ScP	12 55 44.0	+0.8
WRA				LR	LR	12 57 54.5	
WRA	**Warramunga Arr**	**24.22**	**237**	P	**P**	**12 48 27.3**	**+0.1**
WRA						12 52 06.4	
WRA				S	**S**	**12 52 43.2**	**-0.3**
WRA	**Warramunga Arr**	**24.22**	**237**	P	**P**	**12 48 27.3**	**0.0**
	comp=Z,36nm,1.0s,mb4.7,baz=61,slow=9.2,SNR=84						
WRA				PcP	PcP	12 52 06.4	-0.8
	comp=Z,11nm,1.0s,baz=62,slow=2.1,SNR=5.8						
WRA				S	**S**	**12 52 43.2**	**-0.3**
	comp=Z,1.3nm,0.7s,baz=84,slow=13,SNR=4.8						
WRA				ScP	ScP	12 55 44.0	+0.8
	comp=Z,11nm,1.2s,baz=66,slow=2.6,SNR=9.6						
WRA				LR	LR	12 57 54.5	
	comp=Z,8µm,18.1s,MS5.2,baz=60,slow=36						
WRA				PKiKP	PKiKP	12 59 49.2	-0.8
	comp=Z,0.9nm,0.9s,baz=25,slow=1.9,SNR=5.2						
ASAR	**Alice Springs**	**26.49**	**230**	P	**P**	**12 48 47.2**	**-0.6**
	comp=Z,7.0nm,0.8s,mb4.2,baz=62,slow=9.1,SNR=53						
ASAR				ScP	ScP	12 55 50.5	+1.0
	comp=Z,2.6nm,0.8s,baz=52,slow=2.7,SNR=7.4						
STKA	**Stephens Creek**	**27.73**	**207**	*e*P	**P**	**12 48 57.9**	**-0.9**
	comp=Z,18nm,1.6s,mb4.5						
STKA				*e*pP	pP	12 49 06.9	-2.3
STKA				*e*S	**S**	**12 53 37.8**	**-1.2**
STKA	**Stephens Creek**	**27.73**	**207**	P	**P**	**12 48 58.9**	**+0.1**
	comp=Z,9.8nm,0.8s,mb4.5,baz=12,slow=10.0,SNR=11						
STKA				S	**S**	**12 53 39.2**	**+0.3**
	comp=Z,1.5nm,0.3s,baz=83,slow=22,SNR=2.0						
STKA				ScP	ScP	12 55 54.3	+1.1
	comp=Z,8.0nm,0.9s,baz=43,slow=4.2,SNR=7.1						
STKA				LR	LR	12 59 16.0	
	comp=Z,7µm,21.1s,MS5.2,baz=18,slow=35						
CNB	**Canberra Magne**	**28.44**	**191**	*e*P	**P**	**12 49 05.3**	**+0.2**
	comp=Z,16nm,0.8s,mb4.7						
FITZ	**Fitzroy Crossi**	**31.18**	**247**	*e*P	**P**	**12 49 27.9**	**-1.7**
	comp=Z,34nm,0.7s,mb5.3						
FITZ				*e*pP	pP	12 49 41.0	+1.0
FITZ				*e*S	**S**	**12 54 33.8**	**+0.4**
FITZ	**Fitzroy Crossi**	**31.18**	**247**	P	**P**	**12 49 29.5**	**-0.1**
	comp=Z,20nm,0.7s,mb5.0,baz=83,slow=9.9,SNR=59						
FITZ				PcP	PcP	12 52 24.6	+0.4
	comp=Z,18nm,0.9s,baz=117,slow=8.3,SNR=5.0						
FITZ				LR	LR	13 01 37.2	
	comp=Z,3µm,18.9s,MS5.0,baz=235,slow=35						
AFI	**Afiamalu**	**32.57**	**104**	*e*P	**P**	**12 49 40.1**	**-1.7**
	comp=Z,196nm,1.0s,mb6.0						
AFI				LR	LR		
	comp=Z,3µm,19.0s,MS5.1						
AFI	**Afiamalu**	**32.57**	**104**	*e*P	**P**	**12 49 40.1**	**-1.7**
AFI				pmax	pmax		
	comp=Z,196nm,1.0s,mb6.0						
AFI				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.1						
AFI	**Afiamalu**	**32.57**	**104**	P	**P**	**12 49 40.5**	**-1.3**
	comp=Z,170nm,1.0s,mb5.9,baz=262,slow=4.1,SNR=23						
DAV	**Davao City (W)**	**33.31**	**295**	PFAKE		12 50 00.0	+12
DAV				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
FORT	**Forrest**	**34.84**	**224**	*e*P	**P**	**12 50 01.6**	**+0.2**
	comp=Z,71nm,0.7s,mb5.7						
TAU	**Tasmania Unive**	**36.19**	**190**	*e*P	**P**	**12 50 13.4**	**+0.7**
	comp=Z,121nm,1.5s,mb5.6						
TAU				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
TAU	**Tasmania Unive**	**36.19**	**190**	*e*P	**P**	**12 50 13.4**	**+0.6**
TAU				pmax	pmax		
	comp=Z,121nm,1.5s,mb5.6						
TAU				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.0						
URZ	**Urewera**	**36.35**	**151**	P	**P**	**12 50 14.4**	**+0.2**
	comp=Z,23nm,0.9s,mb5.1,baz=343,slow=5.4,SNR=3.7						
URZ				LR	LR	13 03 12.2	
	comp=Z,1µm,18.9s,MS4.7,baz=347,slow=33						
CBIJ	**Chichi jima**	**36.67**	**340**	LR	LR	13 01 55.0	
	comp=Z,1µm,20.0s,MS4.7,baz=141,slow=31						
MBWA	**Marble Bar**	**37.38**	**245**	*e*P	**P**	**12 50 22.7**	**-0.6**
	comp=Z,27nm,0.8s,mb5.1						
MBWA				LR	LR		
	comp=Z,5µm,20.0s,MS5.3						
PVCP	**Virac**	**37.63**	**303**	⇓*e*P	**P**	**12 50 25.8**	**+0.4**
SNZO	**South Karori**	**37.80**	**156**	PFAKE		12 50 40.0	+14
SNZO				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
RPZ	**Rata Peaks**	**38.63**	**162**	P	**P**	**12 50 31.5**	**-2.0**
	comp=Z,24nm,1.0s,mb4.9,baz=353,slow=12,SNR=7.8						
MYLDM	**Lahad Datu**	**39.18**	**287**	⇓P	**P**	**12 50 42.4**	**+3.9**
TSM	**Tawau**	**39.51**	**286**	⇑P	**P**	**12 50 44.3**	**+3.0**
SDKM	**Sandakan**	**40.55**	**288**	⇓P	**P**	**12 50 53.6**	**+3.7**
PCPH	**Palayan**	**41.17**	**304**	⇓*e*P	**P**	**12 50 55.2**	**+0.3**
KKM	**Kota Kinabalu**	**41.60**	**288**	*e*P	**P**	**12 50 59.0**	**+0.4**
KKM	**Kota Kinabalu**	**41.60**	**288**	⇓P	**P**	**12 50 58.7**	**+0.1**
BCPH	**Baguio City Da**	**42.02**	**304**	⇓*e*P	**P**	**12 51 02.4**	**+0.5**
KLBR	**Kellerberrin**	**42.82**	**231**	*e*P	**P**	**12 51 07.0**	**-1.3**
	comp=Z,37nm,0.6s,mb5.3						
NWAO	**Narrogin (SRO)**	**43.81**	**229**	*e*P	**P**	**12 51 16.1**	**-0.1**
	comp=Z,30nm,1.0s,mb5.0						
NWAO				LR	LR		
	comp=Z,5µm,20.0s,MS5.4						
NWAO	**Narrogin (SRO)**	**43.81**	**229**	*e*P	**P**	**12 51 16.1**	**-0.1**
NWAO				pmax	pmax		
	comp=Z,30nm,1.0s						
NWAO				MLR	MLR		
	comp=Z,5µm,20.0s						
NWAO	**Narrogin (SRO)**	**43.81**	**229**	P	**P**	**12 51 16.0**	**-0.2**
	comp=Z,27nm,1.1s,mb4.9,baz=128,slow=8.3,SNR=3.3						
NWAO				LR	LR	13 09 16.3	
	comp=Z,5µm,19.5s,MS5.5,baz=67,slow=36						
MUN	**Mundaring**	**44.17**	**231**	*e*P	**P**	**12 51 13.8**	**-5.4**
MUN				*e*S	**S**	**12 57 49.0**	**-1.0**
SBUM	**Sibu**	**44.49**	**281**	⇓P	**P**	**12 51 24.4**	**+2.4**
RAR	**Rarotonga**	**45.10**	**113**	P	**P**	**12 51 25.8**	**-1.0**
	comp=Z,35nm,0.8s,mb5.3,baz=228,slow=6.2,SNR=6.6						
RAR				LR	LR	13 06 52.6	
	comp=Z,2µm,18.4s,MS5.0,baz=270,slow=32						
NACB	**Ninganchiao**	**45.72**	**314**	*e*P	**P**	**12 51 32.1**	**+0.6**
KSM	**Kuching**	**46.15**	**279**	*e*P	**P**	**12 51 35.2**	**+0.1**
KSM	**Kuching**	**46.15**	**279**	⇓P	**P**	**12 51 36.5**	**+1.4**
YHNB	**Yeheng**	**46.19**	**315**	*e*P	**P**	**12 51 36.0**	**+0.7**
TATO	**Taipei**	**46.30**	**315**	PFAKE		12 51 50.0	+14
TATO				LR	LR		
	comp=Z,3µm,20.0s,MS5.2						
MJAR	**Matsushiro Arr**	**46.65**	**341**	P	**P**	**12 51 36.9**	**-1.7**
MJAR						12 53 11.6	
MJAR	**Matsushiro Arr**	**46.65**	**341**	P	**P**	**12 51 36.9**	**-1.7**
	comp=Z,34nm,0.8s,mb5.3,baz=162,slow=7.7,SNR=137						
MJAR				PcP	PcP	12 53 11.6	-0.4
	comp=Z,21nm,0.8s,baz=163,slow=3.9,SNR=10						
MJAR				LR	LR	13 09 04.3	
	comp=Z,995nm,19.4s,MS4.8,baz=160,slow=33						
MAJO	**Matsushiro**	**46.65**	**341**	*e*P	**P**	**12 51 37.3**	**-1.3**
	comp=Z,53nm,0.7s,mb5.6						
MAJO				*e*PcP	PcP	12 53 11.9	-0.1
MAJO				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
MAJO	**Matsushiro**	**46.65**	**341**	*e*P	**P**	**12 51 37.3**	**-1.3**
MAJO				*e*		12 53 11.9	
MAJO				pmax	pmax		
	comp=Z,53nm,0.7s,mb5.6						
MAJO				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.8						
MAT	**Matsushiro**	**46.65**	**341**	P	**P**	**12 51 37.2**	**-1.4**
MAT				S	**S**	**12 58 25.0**	**-0.5**
QZH	**Quanzhou**	**48.35**	**313**	⇑*i*P	**P**	**12 51 54.8**	**+2.7**
QZH				S	**S**	**12 58 54.8**	**+4.7**
QZH				AMB	AMB		
	comp=Z,150nm,0.8s,mb6.1						
QZH				LR	LR		
	comp=Z,3µm,22.4s,MS5.2						
ERM	**Erimo**	**50.45**	**348**	PFAKE		12 52 20.0	+12
ERM				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
SSE	**Sheshan**	**50.54**	**321**	⇑P	**P**	**12 52 08.8**	**+0.2**
SSE				AP	pP	12 52 19.8	+0.3
SSE				XP	sP	12 52 25.5	+1.7
SSE				S	**S**	**12 59 23.9**	**+3.4**
SSE				XS	sS	12 59 43.9	+5.5
SSE				AMB	AMB		
	comp=Z,28nm,2.1s,mb4.8						
SSE				LR	LR		
	comp=N,270nm,19.0s,MS4.7						
SSE				LR	LR		
	comp=E,729nm,19.0s,MS4.7						
SSE				LR	LR		
	comp=Z,1µm,19.2s,MS4.9						
GZH	**Guangzhou**	**51.31**	**307**	P	**P**	**12 52 16.3**	**+1.7**
GZH				S	**S**	**12 59 36.8**	**+5.4**
GZH				LR	LR		
	comp=N,622nm,15.8s,MS5.0						
GZH				LR	LR		
	comp=E,1µm,20.8s,MS5.0						
GZH				LR	LR		
	comp=Z,2µm,19.6s,MS5.0						
KSRS	**Korea Array**	**51.59**	**332**	P	**P**	**12 52 16.4**	**0.0**
	comp=Z,24nm,0.8s,mb5.2,baz=149,slow=7.7,SNR=78						
KSRS				PcP	PcP	12 53 30.4	+0.4
	comp=Z,9.4nm,0.7s,baz=142,slow=4.2,SNR=11						
KSRS				LR	LR	13 11 02.5	
	comp=Z,838nm,20.9s,MS4.8,baz=135,slow=32						
KS15	**Wonju Array Si**	**51.60**	**332**	*e*P	**P**	**12 52 15.9**	**-0.6**
INCN	**Inchon**	**52.23**	**331**	*e*P	**P**	**12 52 21.3**	**+0.1**
	comp=Z,116nm,1.2s,mb5.7						
INCN				*e*PcP	PcP	12 53 32.6	+0.2
INCN				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
QIZ	**Qiongzhong**	**52.26**	**301**	P	**P**	**12 52 22.8**	**+1.0**
QIZ				AP	pP	12 52 33.0	+0.3
QIZ				XP	sP	12 52 39.8	+2.8
QIZ				PP	PP	12 54 20.8	+0.1
QIZ				S	**S**	**12 59 49.0**	**+4.3**
QIZ				XS	sS	13 00 05.8	+3.1
QIZ				AMB	AMB		
	comp=Z,66nm,1.3s,mb5.4						
QIZ				AMB	AMB		
	comp=Z,489nm,9.4s						
QIZ				LR	LR		
	comp=E,2µm,21.4s						
QIZ				LR	LR		
	comp=Z,3µm,21.0s,MS5.3						
QIZ	**Qiongzhong**	**52.26**	**301**	*e*P	**P**	**12 52 22.6**	**+0.8**
	comp=Z,54nm,0.9s,mb5.5						
QIZ				LR	LR		
	comp=Z,3µm,21.0s,MS5.3						
MYKOM	**Kota Tinggi**	**52.55**	**278**	⇑P	**P**	**12 52 24.4**	**+0.4**
NJ2	**Nanjing**	**52.65**	**320**	*e*P	**P**	**12 52 25.3**	**+0.9**
NJ2				AP	pP	12 52 35.3	0.0
NJ2				XP	sP	12 52 39.6	0.0
NJ2				PP	PP	12 54 26.0	+2.1
NJ2				S	**S**	**12 59 51.0**	**+1.4**
NJ2				XS	sS	13 00 09.0	+1.5
NJ2				AMB	AMB		
	comp=Z,80nm,1.1s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,530nm,6.4s						
NJ2				LR	LR		
	comp=N,3µm,19.0s,MS5.3						
NJ2				LR	LR		
	comp=E,2µm,21.1s,MS5.3						
NJ2				LR	LR		
	comp=Z,1µm,23.5s,MS5.0						
KGM	**Kluang**	**53.11**	**278**	⇓P	**P**	**12 52 29.1**	**+0.9**
KTGM	**Kuala Trenggan**	**53.97**	**282**	⇑P	**P**	**12 52 35.2**	**+0.7**
PPT	**Papeete**	**54.20**	**106**	*e*S	**S**	**13 00 09.7**	**-1.5**
	comp=Z,699nm,29.8s						
PPT				*e*LQ		13 06 05.8	
	comp=Z,4µm,27.0s						
PPT				*e*LR	LR	13 08 24.1	
	comp=Z,2µm,25.5s						
PPT	**Papeete**	**54.20**	**106**	*e*P	**P**	**12 52 35.8**	**-0.3**
	comp=Z,24nm,1.1s,mb5.0						
PPT				*e*S	**S**	**13 00 09.7**	**-1.5**
PPT				*e*LQ		13 06 05.8	
PPT	**Papeete**	**54.20**	**106**	*e*P	**P**	**12 52 35.8**	**-0.3**
PPT				*e*S	**S**	**13 00 09.7**	**-1.5**
PPT				pmax	pmax		
	comp=Z,24nm,1.1s						
PPT	**Papeete**	**54.20**	**106**	LR	LR	13 11 56.8	
	comp=Z,940nm,18.3s,MS4.9,baz=182,slow=32						
PAE	**Paea**	**54.20**	**106**	*e*P	**P**	**12 52 35.6**	**-0.5**
	comp=Z,65nm,1.0s,mb5.5						
PAE	**Paea**	**54.20**	**106**	*e*P	**P**	**12 52 35.6**	**-0.5**
PAE				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.5						
TVO	**Taravao**	**54.52**	**107**	*e*P	**P**	**12 52 38.3**	**-0.2**
	comp=Z,93nm,0.8s,mb5.8						
TVO	**Taravao**	**54.52**	**107**	*e*P	**P**	**12 52 38.3**	**-0.2**
TVO				pmax	pmax		
	comp=Z,93nm,0.8s,mb5.9						
WHN	**Wuhan**	**54.70**	**316**	⇓P	**P**	**12 52 40.0**	**+0.5**
WHN				S	**S**	**13 00 18.4**	**+1.0**
WHN				AMB	AMB		
	comp=Z,63nm,0.8s,mb5.7						
WHN				LR	LR		
	comp=Z,2µm,18.5s,MS5.3						
VLA	**Vladivostok**	**54.70**	**339**	*i* Pr	**P**	**12 52 39.5**	**+0.3**
VLA	**Vladivostok**	**54.70**	**339**	⇑*i*P	**P**	**12 52 39.2**	**0.0**
VLA				*e**PP	pP	12 52 52.3	+2.1
VLA				pmax	pmax		
	comp=Z,93nm,0.8s,mb5.9						
VLA				MLR	MLR		
	comp=Z,1µm,20.4s,MS4.9						
KHU	**Kahuku**	**54.73**	**60**	*e*P	**P**	**12 52 39.6**	**-0.3**
FRIM	**Kepong**	**55.00**	**279**	⇓P	**P**	**12 52 42.8**	**+0.8**
POHA	**Pohakuloa**	**55.01**	**60**	*e*P	**P**	**12 52 41.1**	**-0.8**

	comp=Z,164nm,0.9s,mb6.1						
POHA				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
YSS	**Yuzh-Sakhalins**	**55.28**	**349**	eP	**P**	**12 52 43.2**	**-0.1**
	comp=Z,39nm,0.8s,mb5.5						
YSS				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
YSS	**Yuzh-Sakhalins**	**55.28**	**349**j	eP	**P**	**12 52 43.7**	**+0.4**
YSS				e*PP	pP	12 52 53.2	-1.1
YSS				e		12 52 58.0	
YSS				eS	**S**	**13 00 16.0**	**-8.6**
YSS				ePS		13 00 36.0	
YSS				e		13 02 32.0	
YSS				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.7						
YSS				pmax	pmax		
	comp=Z,300nm,7.0s						
YSS				MLR	MLR		
	comp=N,1µm,19.0s						
YSS				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.0						
PMOR	**Pomariorio Ree**	**55.71**	**103**	eP	**P**	**12 52 46.9**	**-0.1**
	comp=Z,178nm,1.0s,mb6.1						
IPM	**Ipoh**	**55.84**	**280**	⇓P	**P**	**12 52 47.8**	**-0.2**
DL2	**Dalian**	**55.85**	**328**	P	**P**	**12 52 48.8**	**+1.2**
DL2				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.5						
DL2				AMB	AMB		
	comp=Z,200nm,6.4s						
DL2				LR	LR		
	comp=N,580nm,14.3s,MS4.9						
DL2				LR	LR		
	comp=E,440nm,16.6s,MS4.9						
DL2				LR	LR		
	comp=Z,520nm,18.5s,MS4.7						
VAH	**Vaihoa**	**55.97**	**103**	eP	**P**	**12 52 48.5**	**-0.4**
	comp=Z,101nm,1.0s,mb5.8						
KULM	**Kulim**	**56.37**	**281**	eP	**P**	**12 52 50.4**	**-1.4**
KULM	**Kulim**	**56.37**	**281**	⇓P	**P**	**12 52 51.9**	**+0.1**
TIA	**Tai’an**	**56.48**	**323**	eP	**P**	**12 52 51.3**	**-0.9**
SNG	**Songkhla**	**56.82**	**283**	P	**P**	**12 52 56.0**	**+1.0**
MDJ	**Mudanjiang**	**56.84**	**338**	P	**P**	**12 52 54.4**	**-0.1**
MDJ				AP	pP	12 53 03.9	-1.6
MDJ				XP	sP	12 53 07.9	-1.9
MDJ				PCP	PcP	12 53 50.6	+0.7
MDJ				PP	PP	12 55 01.6	+0.3
MDJ				SCP	ScP	12 57 47.1	+0.3
MDJ				PCS	PcS	12 57 52.8	+2.3
MDJ				S	**S**	**13 00 45.1**	**-0.3**
MDJ				AMB	AMB		
	comp=Z,37nm,1.4s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,331nm,9.3s						
MDJ				LR	LR		
	comp=E,781nm,32.8s,MS4.6						
MDJ				LR	LR		
	comp=N,458nm,35.0s,MS4.6						
MDJ				LR	LR		
	comp=Z,866nm,17.5s						
MDJ	**Mudanjiang**	**56.84**	**338**	eP	**P**	**12 52 54.0**	**-0.5**
	comp=Z,31nm,1.0s,mb5.3						
MDJ				LR	LR		
	comp=Z,859nm,19.0s,MS4.9						
SNY	**Shenyang**	**57.10**	**332**	⇓P	**P**	**12 52 56.3**	**-0.1**
SNY				S	**S**	**13 00 47.4**	**-1.5**
SNY				SS	SS	13 04 37.4	-1.0
SNY				AMB	AMB		
	comp=Z,35nm,1.5s,mb5.2						
SNY				AMB	AMB		
	comp=Z,556nm,11.9s						
SNY				LR	LR		
	comp=N,919nm,16.0s,MS5.0						
SNY				LR	LR		
	comp=E,746nm,18.8s,MS5.0						
SNY				LR	LR		
	comp=Z,852nm,20.6s,MS4.8						
PSI	**Prapat**	**57.57**	**278**	P	**P**	**12 52 58.2**	**-2.1**
	comp=Z,1.8nm,0.4s,mb4.5,baz=36,slow=8.8,SNR=3.9						
CN2	**Changchun**	**57.82**	**334**	⇑P	**P**	**12 53 00.6**	**-0.9**
CN2				PCP	PcP	12 53 53.3	-0.5
CN2				eS	**S**	**13 00 59.3**	**+1.0**
CN2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.5						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,900nm,22.0s,MS5.0						
CN2				LR	LR		
	comp=E,1µm,22.0s,MS5.0						
CN2				LR	LR		
	comp=Z,900nm,21.0s,MS4.9						
COCO	**West Island**	**58.15**	**260**	eP	**P**	**12 53 04.9**	**+0.5**
	comp=Z,74nm,0.7s,mb5.8						
COCO				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
GYA	**Guiyang**	**58.24**	**307**	⇑iP	**P**	**12 53 05.4**	**+0.6**
GYA				AP	pP	12 53 17.3	+1.5
GYA				XP	sP	12 53 21.4	+1.3
GYA				PCP	PcP	12 53 57.3	+1.4
GYA				PP	PP	12 55 18.3	+4.1
GYA				PPP		12 56 40.6	
GYA				SCP	ScP	12 57 53.4	-0.1
GYA				PCS	PcS	12 57 57.8	+0.3
GYA				S	**S**	**13 01 06.8**	**+2.3**
GYA				XS	sS	13 01 22.5	-0.2
GYA				SCS	ScS	13 02 49.9	-2.1
GYA				SS	SS	13 04 58.4	+1.4
GYA				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.3						
GYA				AMB	AMB		
	comp=Z,500nm,9.0s						
GYA				LR	LR		
	comp=N,1µm,21.8s,MS5.2						
GYA				LR	LR		
	comp=E,1µm,20.3s,MS5.2						
GYA				LR	LR		
	comp=Z,2µm,20.9s,MS5.1						
HABR	**Khabarovsk**	**58.48**	**344**	⇑iP	**P**	**12 53 04.9**	**-1.1**
HABR				e		12 55 13.1	
HABR				eS	**S**	**13 01 09.3**	**+2.5**
HABR				ePS		13 01 23.1	
HABR				e		13 01 30.5	
HABR				e		13 02 49.5	
HABR				SS	SS	13 05 04.8	+4.8
HABR				pmax	pmax		
	comp=Z,76nm,1.5s,mb5.5						
BJT	**Baijiatuau**	**59.61**	**325**	eP	**P**	**12 53 13.3**	**-0.7**
	comp=Z,24nm,0.8s,mb5.3						
BJT				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
BJT	**Baijiatuau**	**59.61**	**325**	eP	**P**	**12 53 13.3**	**-0.7**
BJT				pmax	pmax		
	comp=Z,24nm,0.8s						
BJT				MLR	MLR		
	comp=Z,2µm,22.0s						
NANT	**Nan**	**60.14**	**296**	⇓P	**P**	**12 53 19.0**	**+0.9**
	comp=Z,285nm,1.0s,mb6.2						
PET	**Petropavlovsk**	**60.19**	**2**	eP	**P**	**12 53 17.0**	**-0.7**
	comp=Z,16nm,0.8s,mb5.1						
PET				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
PET	**Petropavlovsk**	**60.19**	**2**	eP	**P**	**12 53 17.8**	**+0.1**
PET				eS	**S**	**13 01 29.3**	**+0.6**
PET				e		13 02 58.0	
PET				eSS	SS	13 05 24.6	-2.0
PET				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.4						
PET				pmax	pmax		
	comp=Z,800nm,15.4s						
PET				smax			
	comp=E,800nm,13.7s						
PET				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.1						
DRV	**Dumont d’Urvil**	**60.20**	**187**	P	**P**	**12 53 27.0**	**+9.3**
DRV	**Dumont d’Urvil**	**60.20**	**187**	PP	PP	12 55 27.0	-3.6
DRV				S	**S**	**13 01 38.0**	**+9.4**
DRV				SS	SS	13 05 25.0	-1.2
DRV				L		13 08 00.0	
DRV				R		13 12 00.0	
XAN	**Xi’an**	**60.46**	**316**	P	**P**	**12 53 19.1**	**-0.9**
XAN				PP	PP	12 55 32.8	-0.9
XAN				S	**S**	**13 01 25.6**	**-7.4**
XAN				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.3						
XAN				AMB	AMB		
	comp=Z,334nm,9.2s						
XAN				LR	LR		
	comp=N,480nm,20.1s,MS4.9						
XAN				LR	LR		
	comp=E,782nm,22.0s,MS4.9						
XAN				LR	LR		
	comp=Z,1µm,21.4s,MS5.0						
KMI	**Kunming**	**60.81**	**304**	P	**P**	**12 53 23.4**	**+0.8**
KMI				AP	pP	12 53 34.9	+1.3
KMI				PP	PP	12 55 39.1	+2.1
KMI				PPP		12 57 08.9	
KMI				PCS	PcS	12 58 10.0	+1.0
KMI				S	**S**	**13 01 39.3**	**+1.5**
KMI				SS	SS	13 05 42.9	+5.5
KMI				SSS		13 08 21.4	
KMI				LR	LR		
	comp=N,495nm,17.9s,MS5.0						
KMI				LR	LR		
	comp=E,995nm,18.2s,MS5.0						
KMI				LR	LR		
	comp=Z,2µm,20.4s,MS5.2						
KMI	**Kunming**	**60.81**	**304**	P	**P**	**12 53 23.4**	**+0.8**
KMI				pP	pP	12 53 34.9	+1.3
KMI				PP	PP	12 55 39.1	+2.1
KMI				PPP		12 57 08.9	
KMI				PcS	PcS	12 58 10.0	+1.0
KMI				S	**S**	**13 01 39.2**	**+1.4**
KMI				SS	SS	13 05 42.9	+5.5
KMI				SSS		13 08 21.4	
KMI				LR	LR		
	comp=Z,2µm,20.4s,MS5.2						
KMI	**Kunming**	**60.81**	**304**	P	**P**	**12 53 23.4**	**+0.8**
KMI				*PP	pP	12 53 34.9	+1.3
KMI						12 55 39.1	
KMI				PPP		12 57 08.9	
KMI				S	**S**	**13 01 39.2**	**+1.4**
KMI				SS	SS	13 05 42.9	+5.5
KMI				MLR	MLR		
	comp=Z,2µm,20.4s,MS5.2						
CHRT	**Chiangrai**	**61.32**	**297**	⇓P	**P**	**12 53 27.0**	**+0.9**
	comp=Z,316nm,1.0s,mb6.4						
CM31	**Chiang Mai Arr**	**61.59**	**295**	eP	**P**	**12 53 28.6**	**+0.7**
	comp=Z,60nm,1.0s,mb5.7						
CM31				LR	LR		
	comp=Z,929nm,20.0s,MS4.9						
CHG	**Chiang Mai**	**61.71**	**296**	⇑P	**P**	**12 53 30.3**	**+1.6**
	comp=Z,86nm,1.2s,mb5.8						
CHTO	**Chiang Mai**	**61.71**	**296**	eP	**P**	**12 53 28.8**	**+0.1**
	comp=Z,51nm,1.1s,mb5.6						
CHTO				LR	LR		
	comp=Z,864nm,20.0s,MS4.9						
CHTO	**Chiang Mai**	**61.71**	**296**	eP	**P**	**12 53 28.8**	**+0.1**
CHTO				pmax	pmax		
	comp=Z,51nm,1.1s,mb5.6						
CHTO				MLR	MLR		
	comp=Z,864nm,20.0s,MS4.9						
SMY	**Shemya**	**61.86**	**13**	PFAKE		12 53 40.0	+11
SMY				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
CD2	**Chengdu**	**62.59**	**310**	P	**P**	**12 53 34.3**	**-0.2**
CD2				AP	pP	12 53 45.4	-0.2
CD2				XP	sP	12 53 49.0	-0.8
CD2				PP	PP	12 55 56.1	+3.5
CD2				PCS	PcS	12 58 14.6	-2.1
CD2				S	**S**	**13 01 58.1**	**-2.0**
CD2				SCS	ScS	13 03 20.3	-4.1
CD2				SS	SS	13 06 04.5	-0.6
CD2				AMB	AMB		
	comp=Z,110nm,0.8s,mb6.0						
CD2				AMB	AMB		
	comp=Z,410nm,8.4s						
CD2				LR	LR		
	comp=N,980nm,18.0s,MS5.1						
CD2				LR	LR		
	comp=E,960nm,21.4s,MS5.1						
CD2				LR	LR		
	comp=Z,1µm,21.6s,MS5.0						
HHC	**Hu-ho-hao-te**	**62.81**	**324**	eP	**P**	**12 53 35.5**	**-0.2**
HHC				AP	pP	12 53 45.8	-1.0
HHC				XP	sP	12 53 49.8	-1.2
HHC				PCP	PcP	12 54 13.0	-0.9
HHC				PP	PP	12 55 55.8	+1.6
HHC				SCP	ScP	12 58 11.3	-2.1
HHC				PCS	PcS	12 58 15.0	-2.2
HHC				S	**S**	**13 02 01.6**	**-0.8**
HHC				XS	sS	13 02 18.8	-1.9
HHC				PS		13 02 24.4	
HHC				SCS	ScS	13 03 22.3	-3.2
HHC				SS	SS	13 06 08.9	+0.8
HHC				AMB	AMB		
	comp=Z,22nm,0.8s,mb5.3						
HHC				AMB	AMB		
	comp=Z,342nm,5.4s						
HHC				LR	LR		
	comp=N,601nm,20.5s,MS5.0						
HHC				LR	LR		
	comp=E,739nm,19.7s,MS5.0						
HHC				LR	LR		
	comp=Z,744nm,22.5s,MS4.8						
TAOE	**Nuku Hiva Isla**	**63.44**	**96**	eLQ		13 09 53.2	
	comp=Z,3µm,24.3s						
TAOE	**Nuku Hiva Isla**	**63.44**	**96**	eS	**S**	**13 02 09.8**	**-1.4**
	comp=Z,1µm,27.9s						
TAOE				eLR	LR	13 12 36.6	
	comp=Z,3µm,21.4s,baz=272						
TAOE	**Nuku Hiva Isla**	**63.44**	**96**	eP	**P**	**12 53 40.1**	**-0.3**
	comp=Z,1µm,1.3s						
TAOE				eS	**S**	**13 02 09.8**	**-1.4**
TAOE				eLQ		13 09 53.2	
BTO	**Baotou**	**63.58**	**323**	eP	**P**	**12 53 39.8**	**-1.0**
HIA	**Hailar**	**64.55**	**335**	eP	**P**	**12 53 46.5**	**-0.5**
	comp=Z,70nm,0.8s,mb5.7						
HIA				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
HIA	**Hailar**	**64.55**	**335**	eP	**P**	**12 53 46.5**	**-0.4**
HIA				pmax	pmax		
	comp=Z,70nm,0.8s						
HIA				MLR	MLR		
	comp=Z,1µm,19.0s						
LZH	**Lanzhou**	**65.08**	**315**	⇑P	**P**	**12 53 51.5**	**+0.8**
LZH				AP	pP	12 54 01.5	-0.3
LZH				XP	sP	12 54 05.0	-1.1
LZH				PCP	PcP	12 54 23.0	-0.3
LZH				PP	PP	12 56 16.3	+2.0
LZH				eS	S	13 02 30.9	+0.2
LZH				XS	sS	13 02 50.0	+0.8
LZH				SS	SS	13 06 44.0	+0.3
LZH				AMB	AMB		
	comp=Z,89nm,1.5s,mb5.6						
LZH				AMB	AMB		
	comp=Z,270nm,4.8s						
LZH				LR	LR		
	comp=E,835nm,17.1s						
LZH				LR	LR		
	comp=Z,1µm,18.4s,MS5.1						
LZH	**Lanzhou**	**65.08**	**315**	⇑P	**P**	**12 53 51.5**	**+0.8**
	comp=Z,89nm,1.5s,mb5.6						
LZH				pP	pP	12 54 01.5	-0.3
LZH				sP	sP	12 54 05.0	-1.1
LZH				PcP	PcP	12 54 23.0	-0.3
LZH				PP	PP	12 56 16.2	+1.9
LZH				ScP		12 58 29.8	
LZH				eS	S	13 02 30.9	+0.2
LZH				sS	sS	13 02 50.0	+0.8
LZH				SS	SS	13 06 44.0	+0.3
LZH				LR	LR		
	comp=Z,1µm,18.4s,MS5.1						
LZH	**Lanzhou**	**65.08**	**315**	⇑P	**P**	**12 53 51.5**	**+0.8**
LZH				*PP	pP	12 54 01.5	-0.3
LZH				*SP	sP	12 54 05.0	-1.1
LZH						12 54 23.0	
LZH						12 56 16.2	
LZH				eS	S	13 02 30.9	+0.2
LZH				*SS	sS	13 02 50.0	+0.8
LZH				SS	SS	13 06 44.0	+0.3
LZH				pmax	pmax		
	comp=Z,89nm,1.5s,mb5.6						
LZH				MLR	MLR		
	comp=Z,1µm,18.4s,MS5.1						
CASY	**Casey**	**66.48**	**198**	PFAKE		12 54 10.0	+11
CASY				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
MA2	**Magadan**	**66.82**	**357**	eP	**P**	**12 54 00.3**	**-1.1**
	comp=Z,21nm,0.9s,mb5.2						
MA2				LR	LR		
	comp=Z,945nm,19.0s,MS5.0						
MA2	**Magadan**	**66.82**	**357**	eP	**P**	**12 54 00.3**	**-1.1**
MA2				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.2						
MA2				MLR	MLR		
	comp=Z,945nm,19.0s,MS5.0						
IMP	**Imphal**	**68.09**	**300**	ex	**P**	**12 54 10.0**	**-0.2**
RKT	**Rikitea**	**68.14**	**112**	eS	S	13 03 06.2	-2.2
	comp=Z,492nm,27.8s						
RKT				eSS	SS	13 07 29.0	-2.5
	comp=Z,389nm,36.8s						
RKT				eLQ		13 11 59.1	
	comp=Z,2µm,33.5s						
RKT				eLR	LR	13 14 45.2	
	comp=Z,2µm,22.8s,baz=283						
NRGR	**Nerungri**	**68.68**	**342**	eP	**P**	**12 54 15.6**	**+2.4**
UNV	**Unalaska Valle**	**68.76**	**23**	PFAKE		12 54 30.0	+16
UNV				LR	LR		
	comp=Z,5µm,19.0s,MS5.7						
CLNS	**Chul’man**	**68.78**	**342**	eP	**P**	**12 54 15.0**	**+1.2**
CLNS				e*PP	pP	12 54 20.0	-5.0
CLNS				e		12 54 40.1	
CLNS				eS	S	13 03 06.0	-8.6
CLNS				ePS		13 03 44.3	
CLNS				pmax	pmax		
	comp=N,26nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,71nm,0.9s,mb5.6						
CLNS				pmax	pmax		
	comp=E,8.0nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.0						
CLNS				pmax	pmax		
	comp=N,11nm,0.8s						
CLNS				pmax	pmax		
	comp=E,10.0nm,0.8s						
CLNS				smax			
	comp=N,193nm,10.8s						
CLNS				smax			
	comp=Z,99nm,11.6s						
CLNS				smax			
	comp=E,193nm,11.9s						
CIT	**Chita**	**69.25**	**334**	eP	**P**	**12 54 17.0**	**+0.2**
CIT				e	pP	12 54 25.1	-2.9
CIT				e		12 54 38.8	
CIT				pmax	pmax		
	comp=Z,149nm,1.8s,mb5.6						
GTA	**Gaotai**	**69.49**	**317**	⇑P	**P**	**12 54 19.1**	**+0.5**
GTA				AP	pP	12 54 29.5	-0.3
GTA				XP	sP	12 54 33.8	-0.3
GTA				PP	PP	12 56 55.8	+3.1
GTA				PPP		12 58 34.8	
GTA				S	S	13 03 25.3	+1.5
GTA				XS	sS	13 03 41.9	-0.4
GTA				PS		13 03 54.4	
GTA				SS	SS	13 07 55.9	+3.9
GTA				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.7						
GTA				AMB	AMB		
	comp=Z,414nm,8.0s						
GTA				LR	LR		
	comp=N,618nm,21.3s,MS5.0						
GTA				LR	LR		
	comp=E,673nm,18.2s,MS5.0						
GTA				LR	LR		
	comp=Z,770nm,19.0s,MS5.0						
ULN	**Ulaanbaatar**	**69.69**	**327**	eP	**P**	**12 54 20.1**	**+0.5**
	comp=Z,78nm,0.9s,mb5.6						
ULN				LR	LR		
	comp=Z,605nm,20.0s,MS4.8						
ULN	**Ulaanbaatar**	**69.69**	**327**	eP	**P**	**12 54 20.1**	**+0.5**
ULN				pmax	pmax		
	comp=Z,78nm,0.9s,mb5.6						
ULN				MLR	MLR		
	comp=Z,605nm,20.0s,MS4.8						
SONM	**Songino Array**	**70.03**	**327**	P	**P**	**12 54 21.7**	**0.0**
	comp=Z,81nm,0.8s,mb5.7,baz=135,slow=4.8,SNR=372						
SONM				PKPPKP		13 22 23.3	
	comp=Z,4.2nm,1.0s,baz=302,slow=1.9,SNR=22						
SONM				LR	LR	13 25 48.9	
	comp=Z,631nm,18.9s,MS4.9,baz=123,slow=36						
SHL	**Shillong**	**70.10**	**300**	i P	**P**	**12 54 22.8**	**+0.2**
SHL				eS	S	13 03 34.2	+2.8
SEY	**Seymchan**	**70.12**	**358**	⇑eP	**P**	**12 54 21.1**	**-0.9**
VNDA	**Vanda**	**70.21**	**179**	PFAKE		12 54 30.0	+7.6
VNDA				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
VNDA	**Vanda**	**70.21**	**179**	LR	LR	13 21 47.0	
	comp=Z,694nm,18.6s,MS4.9,baz=359,slow=33						
YAK	**Yakutsk**	**72.06**	**347**	eP	**P**	**12 54 33.6**	**-0.1**
	comp=Z,92nm,0.9s,mb5.7						
YAK				LR	LR		
	comp=Z,766nm,20.0s,MS5.0						
YAK	**Yakutsk**	**72.06**	**347**	eP	**P**	**12 54 33.2**	**-0.5**
YAK				e*PP	pP	12 54 41.3	-3.7
YAK				e		12 54 56.8	
YAK				e		12 57 17.0	
YAK				eS	S	13 03 51.3	-1.4
YAK				e		13 04 31.6	
YAK				pmax	pmax		
	comp=Z,72nm,0.8s,mb5.7						
YAK				pmax	pmax		
	comp=N,12nm,1.1s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,102nm,2.8s,mb5.3						
YAK				pmax	pmax		
	comp=N,36nm,3.0s						
YAK				pmax	pmax		
	comp=E,74nm,3.3s						
YAK				smax			
	comp=N,247nm,4.5s						
YAK				smax			
	comp=Z,148nm,4.5s						
YAK				smax			
	comp=E,399nm,6.6s						
LSA	**Lhasa**	**72.07**	**304**	P	**P**	**12 54 35.0**	**+0.5**
LSA				XP	sP	12 54 54.6	+4.6
LSA				S	S	13 03 56.1	+2.0
LSA				LR	LR		
	comp=N,300nm,17.9s,MS4.9						
LSA				LR	LR		
	comp=E,620nm,21.2s,MS4.9						
LSA				LR	LR		
	comp=Z,960nm,22.9s,MS5.0						
LSA	**Lhasa**	**72.07**	**304**	eP	**P**	**12 54 35.4**	**+0.9**
	comp=Z,53nm,1.0s,mb5.4						
LSA				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
LSA	**Lhasa**	**72.07**	**304**	eP	**P**	**12 54 35.4**	**+0.9**
LSA				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.4						
LSA				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.1						
CAL	**Calcutta**	**72.30**	**296**	ex	**P**	**12 54 40.1**	**+4.1**
ZAK	**Zakamensk**	**73.17**	**328**	⇑iP	**P**	**12 54 40.7**	**+0.1**
ZAK				pmax	pmax		
	comp=Z,33nm,1.4s,mb5.1						
BOD	**Bodaibo**	**73.21**	**338**	eP	**P**	**12 54 39.8**	**-0.8**
BOD				pmax	pmax		
	comp=Z,36nm,1.4s,mb5.1						
TLY	**Talaya**	**73.73**	**329**	P	**P**	**12 54 44.8**	**+0.9**
	comp=Z,283nm,0.8s,mb6.2,SNR=11						
TLY	**Talaya**	**73.73**	**329**	eP	**P**	**12 54 43.8**	**-0.1**
	comp=Z,52nm,1.0s,mb5.4						
TLY				LR	LR		
	comp=Z,583nm,20.0s,MS4.9						
TLY	**Talaya**	**73.73**	**329**c	iP	**P**	**12 54 44.1**	**+0.2**
IRK	**Irkutsk**	**73.75**	**330**	eP	**P**	**12 54 42.7**	**-1.2**
IRK				pmax	pmax		
	comp=Z,126nm,1.8s,mb5.5						
TAPN	**Taplejung**	**74.20**	**301**	eP	**P**	**12 54 47.4**	**+0.2**
	comp=Z,278nm,1.2s,mb6.1						
ODAN	**Odare**	**74.34**	**300**	eP	**P**	**12 54 47.9**	**0.0**
	comp=Z,301nm,0.9s,mb6.2						
BOK	**Bokaro**	**74.80**	**297**	eP	**P**	**12 54 51.3**	**+0.6**
BOK				AMb	AMB	12 54 54.0	
	comp=Z,58nm,1.4s,mb5.3						
MOY	**Mondy**	**75.09**	**328**	eP	**P**	**12 54 52.0**	**+0.2**
MOY				pmax	pmax		
	comp=Z,117nm,2.4s,mb5.4						
BILL	**Bilibino**	**75.58**	**4**	eP	**P**	**12 54 53.3**	**-0.9**
	comp=Z,73nm,0.9s,mb5.6						
BILL				LR	LR		

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      comp=Z,849nm,19.0s,MS5.1
BILL  Bilibino          75.58   4αeP     P        12 54 53.5 -0.7
BILL                             e       pP       12 55 04.0 -1.5
BILL                             e                12 55 10.2
BILL                             SS      SS       13 09 24.0 +0.1
BILL                             pmax    pmax
      comp=Z,68nm,0.9s,mb5.6
BILL                             MLR     MLR
      comp=Z,800nm,17.0s,MS5.1
VIS   Vishakhapatnam    75.67 290 eP     P        12 54 55.8 -0.1
VIS                              AMb     AMB      12 55 05.1
      comp=Z,24nm,1.0s,mb5.1
PALK  Pallekele         76.22 279 eP     P        12 54 58.1 -0.9
      comp=Z,14nm,0.9s,mb4.9
PALK                             LR      LR
      comp=Z,539nm,20.0s,MS4.8
KKN   Kakani            76.40 301 eP     P        12 54 59.8  0.0
      comp=Z,116nm,0.9s,mb5.8
GKN   Gorkha            77.00 301 eP     P        12 55 02.8 -0.4
      comp=Z,263nm,1.0s,mb6.1
KDAK  Kodiak Island     77.17  26  PFAKE          12 55 10.0 +6.6
KDAK                             LR      LR
      comp=Z,257nm,20.0s,MS4.5
TNA   Tin City          77.48  15 eP     P        12 55 03.7 -1.3
      comp=Z,9.6nm,0.9s,mb4.7
TNA                              LR      LR
      comp=Z,1µm,20.0s,MS5.2
MDRS  Chennai           77.66 285⇑eP     P        12 55 06.5 -0.6
MDRS                             ex      x        12 58 04.5
BLSP  Bilaspur          77.75 294 ex     x        12 54 57.3
BLSP                             AMb     AMB      12 55 09.9
      comp=Z,62nm,1.2s,mb5.4
SVW2  Sparrevohn        78.05  22 eP     P        12 55 07.2 -1.1
WMQ   Urumqi            79.58 317  P     P        12 55 18.0 +0.9
WMQ                              AP      pP       12 55 28.4 -0.1
WMQ                              XP      sP       12 55 32.3 -0.4
WMQ                              PP      PP       12 58 20.1 +1.9
WMQ                              S       S        13 05 15.6 -0.8
WMQ                              PS               13 06 04.1
WMQ                              SS      SS       13 10 26.6 +1.4
WMQ                              AMB     AMB
      comp=Z,51nm,1.1s,mb5.4
WMQ                              AMB     AMB
      comp=Z,166nm,8.0s
WMQ                              LR      LR
      comp=N,446nm,24.0s,MS5.0
WMQ                              LR      LR
      comp=E,685nm,20.0s,MS5.0
WMQ                              LR      LR
      comp=Z,602nm,21.4s,MS4.9
SLKM  Skilak Lake       79.76  24 eP     P        12 55 16.7 -1.0
KOD   Kodaikanal        79.85 282 eP     P        12 55 19.8 +0.6
KOD                              AMb     AMB      12 55 23.2
      comp=Z,32nm,2.2s,mb4.9
HYB   Hyderabad         80.07 289 eP     P        12 55 20.0 -0.3
HYB                              eS      S        13 05 24.0 +1.4
HYB   Hyderabad         80.07 289 i P    P        12 55 20.0 -0.3
HYB                              eS      S        13 05 24.0 +1.4
TRD   Trivandrum        80.07 280 eP     P        12 55 17.8 -2.6
TRD                              AMb     AMB      12 55 23.6
      comp=Z,40nm,1.3s,mb5.2
NGP   Nagpur            80.34 293 eP     P        12 55 21.9 +0.2
NGP                              AMb     AMB      12 55 24.5
      comp=Z,60nm,0.9s,mb5.5
TIXI  Tiksi             80.81 352 eP     P        12 55 21.9 -1.2
TIXI                             LR      LR
      comp=Z,736nm,19.0s,MS5.0
TIXI  Tiksi             80.81 352 eP     P        12 55 21.5 -1.6
TIXI                             eS      S        13 05 28.2 -0.1
TIXI                             eSS     SS       13 10 44.9 +2.4
TIXI                             pmax    pmax
      comp=Z,12nm,1.0s,mb4.8
TIXI                             MLR     MLR
      comp=Z,302nm,15.0s,MS4.8
PMR   Palmer            80.82  23 eP     P        12 55 21.2 -2.2
      comp=Z,21nm,0.9s,mb5.1
PMR                              LR      LR
      comp=Z,930nm,20.0s,MS5.1
PMR   Palmer            80.82  23 eP     P        12 55 22.9 -0.5
PMR                              pmax    pmax
      comp=Z,21nm,0.9s,mb5.1
LGTI  Lohaghat          81.10 301 eP     P        12 55 25.0 -0.6
SML   Sawmill           81.26  23 eP     P        12 55 24.2 -1.5
IMA2  Indian Mountai    81.90  19 eP     P        12 55 28.7 -0.3
DIV   Divide            81.93  25  PFAKE          12 55 40.0 +11
DIV                              LR      LR
      comp=Z,2µm,20.0s,MS5.6
MCK   McKinley          82.11  22 eP     P        12 55 28.4 -1.8
      comp=Z,22nm,1.0s,mb5.0
MCK                              LR      LR
      comp=Z,984nm,21.0s,MS5.2
MCK   McKinley          82.11  22 eP     P        12 55 28.4 -1.8
MCK                              pmax    pmax
      comp=Z,22nm,1.0s,mb5.0
MCK                              MLR     MLR
      comp=Z,984nm,21.0s,MS5.2
AKL   Akola             82.12 292 eP     P        12 55 30.7 -0.4
AKL                              AMb     AMB      12 55 33.7
      comp=Z,63nm,2.1s,mb5.2
BHPL  Bhopal            82.23 295 eP     P        12 55 31.1 -0.6
BHPL                             AMb     AMB      12 55 33.7
      comp=Z,36nm,1.2s,mb5.2
QSPA  South Pole Qui    82.63 180  P     P        12 55 32.2 -0.5
QSPA  South Pole Qui    82.63 180  PFAKE          12 55 40.0 +7.3
QSPA                             LR      LR
      comp=Z,1.0nm,20.0s
MNGI  Mangalore         82.84 284 ex     x        12 56 42.2
COLA  College           83.15  21 eP     P        12 55 33.0 -2.5
      comp=Z,29nm,0.8s,mb5.4
COLA                             LR      LR
      comp=Z,2µm,20.0s,MS5.4
COLA  College           83.15  21⇓iP     P        12 55 32.1 -3.4
NDI   New Delhi         83.52 300 eP     P        12 55 37.4 -0.9
NDI                              AMb     AMB      12 55 40.4
      comp=Z,85nm,1.3s,mb5.7
MK31  Makanchi Array    84.15 319 eP     P        12 55 40.6 -0.4
MK31  Makanchi Array    84.15 319 i P    P        12 55 40.8 -0.3
MK31                             pmax    pmax
      comp=Z,163nm,0.8s,mb6.2
MKAR  Makanchi Array    84.15 319  P     P        12 55 40.7 -0.4
MKAR                             PKKPbc  PKKPbc   13 13 54.5 -2.2
MKAR                             P'P'             13 21 58.8
MKAR                             LR      LR       13 32 20.2
MKAR  Makanchi Array    84.15 319  P     P        12 55 40.7 -0.4
      comp=Z,122nm,0.8s,mb6.1,baz=104,slow=4.6,SNR=524
MKAR                             PKKPbc  PKKPbc   13 13 54.5 -2.2
      comp=Z,0.5nm,0.7s,baz=288,slow=2.6,SNR=5.9
MKAR                             PKPPKP           13 21 58.8
      comp=Z,1.3nm,1.0s,baz=274,slow=7.1,SNR=9.0
MKAR                             LR      LR       13 32 20.2
      comp=Z,438nm,18.8s,MS4.9,baz=103,slow=35
KAD   Karad             84.16 288 eP     P        12 55 40.5 -1.2
KAD                              AMb     AMB      12 55 45.0
      comp=Z,56nm,1.1s,mb5.6
GOA   Goa               84.20 286 eP     P        12 55 39.3 -2.8
GOA                              AMb     AMB      12 55 41.5
      comp=Z,47nm,2.2s,mb5.2
MAW   Mawson            84.35 203 eP     P        12 55 41.7  0.0
      comp=Z,14nm,0.9s,mb5.1
MAW   Mawson            84.35 203 eP     P        12 55 41.7  0.0
MAW                              pmax    pmax
      comp=Z,14nm,0.9s
MAW   Mawson            84.35 203  P     P        12 55 41.9 +0.1
      comp=Z,29nm,1.1s,mb5.3,baz=82,slow=8.2,SNR=12
MAW                              LR      LR       13 31 38.3
      comp=Z,704nm,18.1s,MS5.1,baz=85,slow=34
POO   Poona             84.67 289 eP     P        12 55 43.7 -0.6
POO                              eP               12 55 44.0
POO                              AMb     AMB      12 55 47.5
      comp=Z,48nm,1.0s,mb5.6
ZALV  Zalesovo Beam     84.88 326  P     P        12 55 43.2 -1.4
ZALV                             P'P'             13 21 53.0
ZALV                             LR      LR       13 34 47.4
ZALV  Zalesovo Beam     84.88 326  P     P        12 55 43.2 -1.4
      comp=Z,103nm,0.8s,mb6.0,baz=110,slow=5.5,SNR=330
ZALV                             PKPPKP           13 21 53.0
      comp=Z,0.7nm,0.7s,baz=270,slow=4.4,SNR=4.2
ZALV                             LR      LR       13 34 47.4
      comp=Z,505nm,21.4s,MS4.9,baz=107,slow=36
ZAL   Zalesovo          84.89 326  P     P        12 55 43.2 -1.4
SIT   Sitka             84.94  31  PFAKE          12 56 00.0 +15
SIT                              LR      LR
      comp=Z,2µm,21.0s,MS5.5
AJM   Ajmer             85.33 297 eP     P        12 55 46.6 -0.9
AJM                              AMb     AMB      12 55 50.5
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      comp=Z,110nm,1.1s,mb5.9
THN   Thein Dam         85.55 303 eP     P        12 55 47.0 -1.4
EGAK  Eagle             85.56  23 eP     P        12 55 46.5 -1.3
      comp=Z,26nm,0.8s,mb5.5
EGAK                             LR      LR
      comp=Z,1µm,20.0s,MS5.2
DAWY  Dawson            85.93  24 eP     P        12 55 48.8 -0.8
NVS   Novosibirsk       86.05 326⇑iP     P        12 55 49.3 -1.1
NVS                             i S      S        13 06 20.5 -1.3
NVS                              pmax    pmax
      comp=Z,137nm,1.5s,mb6.0
NVS                              pmax    pmax
      comp=N,58nm,1.6s
NVS                              pmax    pmax
      comp=E,106nm,1.6s
NVS                              smax
      comp=N,39nm,2.5s
NVS                              smax
      comp=E,98nm,3.2s
WRAK  Wrangell Islan    86.25  32  PFAKE          12 56 00.0 +8.6
WRAK                             LR      LR
      comp=Z,1µm,20.0s,MS5.3
KSH   Kashi             86.79 310⇑iP     P        12 55 54.5 +0.1
KSH                             eAP      pP       12 56 08.3 +2.4
KSH                             eXP      sP       12 56 13.3 +3.2
KSH                             ePP      PP       12 59 21.1 +3.7
KSH                             ePPP              13 01 18.1
KSH                             eSKS              13 06 15.1
KSH                             eS       S        13 06 25.8 -4.0
KSH                             eXS      sS       13 06 51.0 +2.1
KSH                             eSS      SS       13 12 15.0 +2.6
KSH                              AMB     AMB
      comp=Z,2µm,3.0s
KSH                              LR      LR
      comp=N,751nm,6.3s
KSH                              LR      LR
      comp=E,843nm,5.3s
KSH                              LR      LR
      comp=Z,732nm,6.9s
ULHL  Ulahol            87.17 313  P     P        12 55 50.3 -5.9
      SNR=8.3
KURK  Kurchatov         87.56 322  P     P        12 55 56.8 -1.1
      comp=Z,268nm,1.1s,mb6.4,SNR=25
KURK  Kurchatov         87.56 322 eP     P        12 55 56.7 -1.1
      comp=Z,41nm,0.9s,mb5.7
KURK                             LR      LR
      comp=Z,831nm,20.0s,MS5.1
KURK  Kurchatov         87.56 322⇑eP     P        12 55 55.8 -2.1
MCCM  Marconi Confer    87.77  51  PFAKE          12 56 10.0 +11
MCCM                             LR      LR
      comp=Z,1µm,20.0s,MS5.3
TKM2  Tokmak 2          87.78 314  P     P        12 55 58.9 -0.2
      SNR=28
TKM2  Tokmak 2          87.78 314 eP     P        12 55 58.7 -0.5
      comp=Z,25nm,0.8s,mb5.5
TKM2                             LR      LR
      comp=Z,555nm,19.0s,MS5.0
TKM2  Tokmak 2          87.78 314 eP     P        12 55 58.7 -0.4
TKM2                             pmax    pmax
      comp=Z,25nm,0.8s,mb5.5
TKM2                             MLR     MLR
      comp=Z,555nm,19.0s,MS5.0
HOPS  Hopland           87.79  50  PFAKE          12 56 10.0 +11
HOPS                             LR      LR
      comp=Z,1µm,20.0s,MS5.4
KZA   Kyzart            87.86 313  P     P        12 56 00.3 +0.7
      SNR=26
DLBC  Dease Lake        88.08  30 eP     P        12 56 00.3 +0.1
KBK   Karagaybulak      88.20 313  P     P        12 56 01.4 +0.3
      SNR=9.0
K02A  Glendale          88.22  47 ⇑P     P        12 56 01.4 +0.1
      baz=88
O02C  Red Bluff         88.23  49 ⇑P     P        12 56 02.0 +0.7
      baz=88
CHMS  Chumysh           88.41 314  P     P        12 56 01.6 -0.5
      SNR=24
M02C  Callahan          88.42  48 ⇑P     P        12 56 02.6 +0.4
      baz=88
UCH   Uchtor            88.43 313  P     P        12 56 02.0 -0.2
      SNR=22
UCH   Uchtor            88.43 313 eP     P        12 56 02.8 +0.6
      comp=Z,53nm,1.5s,mb5.5
UCH                              LR      LR
      comp=Z,904nm,19.0s,MS5.2
FRU   Bishkek           88.47 313 eP     P        12 56 02.0 -0.4
FRU                              pmax    pmax
      comp=Z,90nm,2.0s,mb5.7
WDC   Whiskeytown Da    88.49  49  PFAKE          12 56 10.0 +7.5
WDC                              LR      LR
      comp=Z,1µm,22.0s,MS5.3
AAK   Ala-Archa         88.52 313  P     P        12 56 01.9 -0.7
      comp=Z,152nm,0.9s,mb6.3,SNR=14
AAK   Ala-Archa         88.52 313  P     P        12 56 02.4 -0.2
      SNR=23
AAK   Ala-Archa         88.52 313 eP     P        12 56 01.1 -1.5
      comp=Z,22nm,0.9s,mb5.5
AAK                              LR      LR
      comp=Z,671nm,19.0s,MS5.1
AAK   Ala-Archa         88.52 313⇓iP     P        12 56 00.9 -1.7
AAK                              pmax    pmax
      comp=Z,23nm,1.0s,mb5.5
HUMO  Hull Mountain     88.58  47 eP     P        12 56 02.7 -0.2
      comp=Z,9.0nm,1.1s,mb5.0
HUMO                             LR      LR
      comp=Z,2µm,20.0s,MS5.5
HUMO  Hull Mountain     88.58  47 ⇓P     P        12 56 03.0 +0.1
      baz=89
YBH   Yreka Blue Hor    88.59  48  PFAKE          12 56 10.0 +7.0
YBH                              LR      LR
      comp=Z,2µm,19.0s,MS5.5
YBH   Yreka Blue Hor    88.59  48 ⇑P     P        12 56 02.5 -0.5
      baz=89
SAO   San Andreas Ge    88.64  53  PFAKE          12 56 10.0 +6.7
SAO                              LR      LR
      comp=Z,1µm,19.0s,MS5.4
USP   Ospenovka         88.64 314  P     P        12 56 02.7 -0.5
      SNR=43
V03C  Hunter Liggett    88.68  54 ⇑P     P        12 56 03.5  0.0
      baz=89
COR   Corvallis         88.72  45  PFAKE          12 56 10.0 +6.5
COR                              LR      LR
      comp=Z,1µm,19.0s,MS5.4
H03A  Soap Creek Ran    88.74  45 ⇑P     P        12 56 03.2 -0.4
      baz=89
O03C  Acorn Hollow,     88.77  50 ⇓P     P        12 56 04.5 +0.7
      baz=89
S04C  Ingram Canyon,    88.86  52 ⇑P     P        12 56 04.7 +0.3
      baz=89
NLWA  Neilton Lookou    88.90  42  PFAKE          12 56 20.0 +16
NLWA                             LR      LR
      comp=Z,2µm,20.0s,MS5.5
M03C  McCloud           88.93  48  P     P        12 56 05.3 +0.7
      baz=89,SNR=5.7
AML   Almayashu         89.01 313  P     P        12 56 05.6 +0.6
      SNR=28
AML   Almayashu         89.01 313 eP     P        12 56 05.3 +0.3
      comp=Z,48nm,1.1s,mb5.7
AML                              LR      LR
      comp=Z,946nm,19.0s,MS5.2
EKS2  Erkin-Say         89.05 313  P     P        12 56 05.5 +0.4
      SNR=21
EKS2  Erkin-Say         89.05 313 eP     P        12 56 05.2 +0.1
      comp=Z,19nm,0.9s,mb5.4
EKS2                             LR      LR
      comp=Z,711nm,21.0s,MS5.1
OHCM  Honcut            89.06  50 eP     P        12 56 06.7 +1.4
ORV   Oroville          89.09  50 ⇓P     P        12 56 05.7 +0.3
      baz=89
U04C  Hernandez Rese    89.10  53 ⇓P     P        12 56 06.7 +1.2
      baz=89
PKD   Parkfield         89.22  54 ⇓P     P        12 56 05.7 -0.4
      baz=89
M04C  Macdoel           89.23  48 ⇓P     P        12 56 06.1 +0.1
      baz=89
L04A  Klamath Falls     89.27  47 ⇓P     P        12 56 07.8 +1.6
      baz=89
J04A  Umpqua Nationa    89.31  46 ⇓P     P        12 56 06.5 +0.1
      baz=89
HATC  Hat Creek Radi    89.34  49 ⇓P     P        12 56 06.3 -0.2
      baz=89
G04A  Mulino            89.41  44 ⇑P     P        12 56 06.7 -0.1
      baz=89
H04A  Detroit Lake      89.52  45 ⇓P     P        12 56 06.5 -0.8
      baz=90
LAVA  Lava Cap Winer    89.53  51 ⇑P     P        12 56 08.4 +0.9
      baz=90
O04C  Chester           89.54  49 ⇑P     P        12 56 07.8 +0.4
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      baz=90
SMMC  Simmler           89.55  54 ⇓P     P        12 56 08.2 +0.6
      baz=90
C04A  Brinnon           89.56  42 ⇑P     P        12 56 07.4 -0.1
      baz=90
F04A  Amboy             89.59  44 ⇓P     P        12 56 06.9 -0.7
      baz=90
SNCC  San Nicolas Is    89.61  57 ⇓P     P        12 56 08.2 +0.2
      baz=90
PKM   Peak Mountain     89.63  55 ⇑P     P        12 56 08.6 +0.5
      baz=90,SNR=6.3
GNW   Green Mountain    89.63  42 eP     P        12 56 07.9 +0.2
M05C  Lookout           89.67  48 ⇓P     P        12 56 08.5 +0.4
      baz=90
CMB   Columbia Colle    89.69  52 eP     P        12 56 09.1 +0.9
      comp=Z,9.1nm,1.5s,mb4.9
CMB                              LR      LR
      comp=Z,826nm,20.0s,MS5.2
CMB   Columbia Colle    89.69  52 eP     P        12 56 09.1 +0.9
CMB                              pmax    pmax
      comp=Z,9.0nm,1.5s,mb4.9
CMB                              MLR     MLR
      comp=Z,826nm,20.0s,MS5.2
CMB   Columbia Colle    89.69  52 ⇓P     P        12 56 09.1 +0.9
      baz=90
INK   Inuvik            89.79  21 eP     P        12 56 06.7 -1.3
      comp=Z,597nm,1.0s
ELFS  Eagle Lake Fie    89.86  49 ⇑P     P        12 56 09.6 +0.7
      baz=90
J05A  Fort Rock         89.94  46 ⇓P     P        12 56 09.4 +0.1
      baz=90
BEKR  Beckwourth        90.01  50 ⇑P     P        12 56 09.1 -0.6
      baz=90
L05A  Lakeview          90.02  48 ⇑P     P        12 56 10.4 +0.7
      baz=90
R05C  Kirkwood Meado    90.04  51 ⇓P     P        12 56 09.8  0.0
      baz=90
T06C  Millerton Lake    90.05  53  P     P        12 56 11.3 +1.4
      baz=90,SNR=9.9
I05A  Bend              90.07  46 ⇑P     P        12 56 10.6 +0.8
      baz=90
S06C  San Francisco     90.08  52 ⇓P     P        12 56 10.7 +0.6
      baz=90
K05A  Summer Lake       90.09  47 ⇑P     P        12 56 11.0 +1.0
      baz=90,SNR=5.5
D05A  Enumclaw          90.12  43 ⇓P     P        12 56 10.9 +0.8
      baz=90
M06C  Likely Place G    90.14  49 ⇓P     P        12 56 10.3 +0.1
      baz=90
VES   Vestal, Richgr    90.37  54 ⇓P     P        12 56 11.7 +0.2
      baz=90
WCN   Washoe City       90.38  51 ⇓P     P        12 56 12.0 +0.6
      baz=90
MOD   Modoc             90.39  48 eP     P        12 56 10.8 -0.6
      comp=Z,6.1nm,1.0s,mb4.9
MOD                              LR      LR
      comp=Z,1µm,20.0s,MS5.4
MOD   Modoc             90.39  48  P     P        12 56 11.5 +0.1
      baz=90,SNR=10
A05A  Maple Falls       90.39  41 ⇓P     P        12 56 12.4 +1.2
      baz=90
KCC   Kaiser Creek      90.41  53 ⇑P     P        12 56 12.2 +0.6
      baz=90
O06A  Flanigan          90.46  50 ⇓P     P        12 56 11.5 -0.3
      baz=90
R06C  Coleville         90.49  51 ⇓P     P        12 56 13.2 +1.2
      baz=90
WAKR  Walker            90.50  51 eP     P        12 56 12.2 +0.1
HELL  Mitchell Peak,    90.55  53 ⇑P     P        12 56 12.2 -0.1
      baz=90,SNR=6.5
N06A  Buffalo Meadow    90.55  49  P     P        12 56 12.2  0.0
      baz=90,SNR=6.8
CIS   Catalina Islan    90.56  57 ⇓P     P        12 56 11.6 -0.8
      baz=90,SNR=6.0
K06A  Valley Falls      90.57  47  P     P        12 56 12.7 +0.5
      baz=91,SNR=5.5
E06A  Yakima            90.69  43 ⇓P     P        12 56 12.6 -0.1
      baz=91
F06A  Goldendale        90.69  44 ⇓P     P        12 56 12.0 -0.8
      baz=91
J06A  Christmas Vall    90.72  47  P     P        12 56 12.5 -0.4
      baz=91,SNR=7.2
R07C  Lee Vining        90.74  52 ⇓P     P        12 56 13.7 +0.6
      baz=91
I06A  Prineville        90.79  46  P     P        12 56 13.3 +0.1
      baz=91,SNR=5.7
A06A  Chilliwack        90.80  41 ⇑P     P        12 56 11.9 -1.3
      baz=91
H06A  Lindquist Farm    90.83  45 ⇓P     P        12 56 13.5 +0.1
      baz=91
ISA   Isabella          90.83  54  P     P        12 56 14.7 +1.0
      baz=91,SNR=9.6
D06A  Cle Elum          90.89  43 ⇑P     P        12 56 12.9 -0.7
      baz=91
MTUM  Tungsten Hills    91.01  53 eP     P        12 56 15.4 +1.0
Q07A  Schurz            91.05  51 ⇓P     P        12 56 14.9 +0.3
      baz=91
EDW2  Edwards Air Fo    91.11  55  P     P        12 56 16.5 +1.5
      baz=91,SNR=15
L07A  Adell             91.11  48  P     P        12 56 15.4 +0.7
      baz=91,SNR=14
M07A  Soldier Meadow    91.14  49  P     P        12 56 15.5 +0.6
      baz=91,SNR=18
O07A  Toulon            91.18  50  P     P        12 56 15.3 +0.2
      baz=91,SNR=8.1
N07B  Gerlach           91.20  49  P     P        12 56 15.5 +0.3
      baz=91,SNR=14
TIN   Tinemaha          91.23  53 ⇓P     P        12 56 16.0 +0.5
      baz=91
CWC   Cottonwood Cre    91.26  54  P     P        12 56 17.0 +1.4
      baz=91,SNR=6.2
K07A  Rock Creek Ran    91.28  47  P     P        12 56 15.7 +0.1
      baz=91,SNR=6.4
BFSC  Mount Baldy St    91.30  56 ⇑P     P        12 56 15.4 -0.5
      baz=91
I07A  Izee              91.31  46  P     P        12 56 15.2 -0.5
      baz=91,SNR=6.8
S08C  White Mtn Res     91.34  53 ⇑P     P        12 56 15.9 -0.1
      baz=91,SNR=6.8
J07A  Hines             91.34  47 ⇑P     P        12 56 15.6 -0.2
      baz=91
H07A  Lands Inn, Kim    91.35  45 ⇑P     P        12 56 15.6 -0.2
      baz=91
NVAR  Mina Array Bea    91.37  52  P     P        12 56 15.7 -0.3
      comp=Z,4.6nm,0.9s,mb4.8,baz=238,slow=4.2,SNR=26
NVAR                             PP      PP       12 59 51.8 -2.2
      comp=Z,2.4nm,1.1s,baz=256,slow=14,SNR=5.4
G07A  Ruggs Ranch, H    91.38  45 ⇓P     P        12 56 15.1 -0.8
      baz=91
KBL   Kabul             91.39 304 eP     P        12 56 15.1 -1.2
LRMC  Laurel Mountai    91.44  55 ⇑P     P        12 56 17.3 +0.8
      baz=91
E07A  Sunnyside         91.45  43 ⇑P     P        12 56 15.2 -1.1
      baz=91,SNR=6.4
D07A  Quincy            91.47  43  P     P        12 56 15.4 -0.9
      baz=92,SNR=7.2
KK31  Karatay Array     91.48 313 i P    P        12 56 15.3 -1.2
KKAR  Karatay Array     91.48 313  P     P        12 56 15.3 -1.2
KKAR                             pmax    pmax
      comp=Z,11nm,0.9s,mb5.2
C07A  Waterville        91.50  42 ⇑P     P        12 56 15.1 -1.3
      baz=92
A07A  Ashnola River,    91.50  41 ⇑P     P        12 56 15.1 -1.3
      baz=92
R08A  Mina              91.51  52 ⇓P     P        12 56 17.0 +0.3
      baz=92,SNR=6.0
B07A  Winthrop          91.58  41 ⇑P     P        12 56 15.5 -1.3
      baz=92
MURC  Murrieta          91.59  56 ⇑P     P        12 56 16.7 -0.5
      baz=92
HAWA  Hanford           91.65  44 eP     P        12 56 16.8 -0.4
HAWA                             LR      LR
      comp=Z,2µm,19.0s,MS5.6
MPMC  Manual Prospec    91.68  54  P     P        12 56 19.0 +1.4
      baz=92,SNR=11
WVOR  Wild Horse Val    91.69  48 eP     P        12 56 16.8 -0.7
      comp=Z,12nm,1.0s,mb5.2
WVOR                             LR      LR
      comp=Z,2µm,19.0s,MS5.5
WVOR  Wild Horse Val    91.69  48 eP     P        12 56 16.8 -0.7
WVOR                             pmax    pmax
      comp=Z,13nm,1.0s,mb5.2
WVOR                             MLR     MLR
      comp=Z,2µm,19.0s,MS5.5
Q08A  Gabbs             91.72  51  P     P        12 56 18.4 +0.7
      baz=92,SNR=8.4
M08A  Happy Creek Ra    91.74  49  P     P        12 56 18.4 +0.7
      baz=92,SNR=11
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N08A  GE Springer Mi     91.83  49  P       P        12 56 17.9 -0.2
      baz=92,SNR=14
K08A  Mann Creek Ran     91.84  47 ⇓P       P        12 56 17.6 -0.6
      baz=92
L08A  Fields             91.87  48  P       P        12 56 18.4 +0.2
      baz=92,SNR=16
G08A  Pilot Rock         91.88  45 ⇑P       P        12 56 18.1 -0.2
      baz=92
GRAC  Grapevine Rang     91.90  53  P       P        12 56 19.9 +1.3
      baz=92,SNR=8.3
J08A  Circle Bar Ran     91.94  47  P       P        12 56 18.1 -0.4
      baz=92,SNR=8.5
I08A  Drewsey            91.95  46 ⇓P       P        12 56 17.8 -0.8
      baz=92
H08A  Prairie City       91.97  46 ⇓P       P        12 56 18.8 +0.1
      baz=92
E08A  Dider Farm, El     91.99  44 ⇓P       P        12 56 17.0 -1.7
      baz=92
F08A  Pendleton          92.08  44 ⇓P       P        12 56 18.1 -1.1
      baz=92
B08A  Colville Reser     92.08  42  P       P        12 56 18.1 -1.0
      baz=92,SNR=5.6
S09A  Goldfield          92.11  52  P       P        12 56 20.6 +1.0
      baz=92,SNR=15
GSC   Goldstone          92.13  55  P       P        12 56 21.2 +1.6
      baz=92,SNR=8.5
D08A  Wollman Farm,      92.16  43 ⇓P       P        12 56 18.4 -1.1
      baz=92
C08A  Higginbotham F     92.19  42 ⇓P       P        12 56 18.9 -0.7
      baz=92
PFO   Pinyon Flat Ob     92.20  57  PFAKE            12 56 30.0  +10
PFO                                 LR      LR
      comp=Z,2µm,19.0s,MS5.5
PFO   Pinyon Flat Ob     92.20  57  LR      LR       13 34 58.8
      comp=Z,2µm,18.2s,MS5.5,baz=255,slow=34
PFO   Pinyon Flat Ob     92.20  57 ⇓P       P        12 56 20.8 +0.7
      baz=92
A08A  Turner Farm, O     92.21  41 ⇑P       P        12 56 18.4 -1.3
      baz=92
SYO   Syowa Base         92.23 199⇑eP       P        12 56 18.2 -1.2
SYO   Syowa Base         92.23 199⇑ePcP     PcP      12 56 20.4 +0.2
SYO   Syowa Base         92.23 199⇓epP      pP       12 56 29.6 -1.4
FURC  Furnace Creek,     92.24  54 ⇓P       P        12 56 20.0 -0.1
      baz=92,SNR=19
N09A  Rock Creek Ran     92.30  49  P       P        12 56 20.7 +0.4
      baz=92,SNR=7.0
R09A  Tonopah            92.30  52  P       P        12 56 22.1 +1.7
      baz=92,SNR=7.3
L09A  Wilkinson Ranc     92.35  48  P       P        12 56 21.4 +0.9
      baz=92,SNR=5.1
DVTC  Desert V Tower     92.38  58 ⇓P       P        12 56 21.0 +0.1
      baz=92
K09A  Rome               92.40  47 ⇓P       P        12 56 20.1 -0.6
      baz=92
P09A  Austin             92.42  51 ⇑P       P        12 56 21.5 +0.6
      baz=92
M09A  Marrel Ranch,      92.43  49  P       P        12 56 21.6 +0.7
      baz=92,SNR=19
HEC   Hector,Ludlow      92.46  55 ⇓P       P        12 56 21.3 +0.1
      baz=92
J09A  Fry Pan Ranch,     92.46  47  P       P        12 56 20.9 -0.1
      baz=92,SNR=9.4
O09A  Fish Creek Ran     92.46  50  P       P        12 56 21.9 +0.8
      baz=92,SNR=13
D09A  Jones Farm, Ri     92.58  43 ⇓P       P        12 56 21.0 -0.5
      baz=93
BELC  Belle Mtn.         92.63  56 ⇑P       P        12 56 21.8 -0.2
      baz=93,SNR=7.7
S10A  Tonopah Range,     92.64  52  P       P        12 56 23.1 +1.2
      baz=93,SNR=16
SHOC  Shoshone           92.64  54 ⇑P       P        12 56 22.2 +0.2
      baz=93
U10A  Ash Meadows, A     92.66  54  P       P        12 56 23.7 +1.6
      baz=93,SNR=6.5
A09A  Danville           92.66  41 ⇑P       P        12 56 20.4 -1.3
      baz=93
SWSC  Sam W. Stewart     92.67  57 ⇓P       P        12 56 22.6 +0.4
      baz=93
G09A  Cove               92.70  45 ⇑P       P        12 56 21.2 -0.8
      baz=93
B09A  Rice               92.87  42  P       P        12 56 22.4 -0.3
      baz=93,SNR=6.3
Q10A  Clear Creek Ra     92.90  51  P       P        12 56 24.5 +1.4
      baz=93,SNR=6.9
P10A  Eureka             92.95  51 ⇑P       P        12 56 24.2 +0.9
      baz=93
BMO   Blue Mountains     92.98  45 eP       P        12 56 22.1 -1.2
      comp=Z,2.0nm,0.6s,mb4.7
BMO                                 LR      LR
      comp=Z,1µm,19.0s,MS5.5
BMO   Blue Mountains     92.98  45 eP       P        12 56 22.1 -1.2
BMO                                 pmax    pmax
      comp=Z,2.0nm,0.6s,mb4.7
BMO                                 MLR     MLR
      comp=Z,1µm,19.0s,MS5.5
O10A  Cortez Mining,     93.00  50 ⇓P       P        12 56 23.2 -0.3
      baz=93
GMRC  Granite Mounta     93.00  55 ⇑P       P        12 56 23.5 -0.2
      baz=93,SNR=6.7
K10A  MacKenzie Ranc     93.03  47  P       P        12 56 23.8 +0.1
      baz=93,SNR=8.0
BC3   Big Chuckw Mtn     93.04  57 ⇓P       P        12 56 24.6 +0.7
      baz=93,SNR=5.3
N10A  Dunphy             93.05  50 ⇑P       P        12 56 25.0 +1.2
      baz=93
BRVK  Borovoye           93.08 323  P       P        12 56 21.2 -2.4
      comp=Z,313nm,0.9s,SNR=27
BRVK  Borovoye           93.08 323 eP       P        12 56 21.8 -1.9
      comp=Z,46nm,0.9s,mb5.9
BRVK                                LR      LR
      comp=Z,740nm,21.0s,MS5.1
BRVK  Borovoye           93.08 323 eP       P        12 56 21.8 -1.8
BRVK                                pmax    pmax
      comp=Z,46nm,0.9s,mb5.9
BRVK                                MLR     MLR
      comp=Z,740nm,21.0s,MS5.1
M10A  I.L. Ranch, Tu     93.12  49  P       P        12 56 24.8 +0.7
      baz=93,SNR=6.0
F10A  Beach Ranch, E     93.18  44 ⇓P       P        12 56 24.0 -0.2
      baz=93
J10A  Berg Farm, Mel     93.19  47 ⇓P       P        12 56 23.4 -0.9
      baz=93
L10A  Juniper Basin      93.24  48  P       P        12 56 24.6  0.0
      baz=93,SNR=9.5
I10A  Payette            93.24  46 ⇑P       P        12 56 23.7 -0.9
      baz=93
S11A  Rachel             93.27  53 ⇓P       P        12 56 25.0 +0.2
      baz=93
V11A  Goodsprings        93.31  54  P       P        12 56 26.5 +1.4
      baz=93,SNR=5.9
A10A  Northport          93.33  41  P       P        12 56 24.3 -0.5
      baz=93,SNR=6.9
H10A  Noah's Angus R     93.34  46 ⇓P       P        12 56 24.2 -0.9
      baz=93
IRM   Iron Mountain      93.35  56 ⇓P       P        12 56 25.4 +0.1
      baz=93,SNR=9.4
Q11A  Duckwater          93.48  51  P       P        12 56 26.5 +0.7
      baz=94,SNR=15
P11A  Circle Ranch,      93.48  51 ⇓P       P        12 56 27.0 +1.2
      baz=94
NEW   Newport            93.53  42 eP       P        12 56 24.3 -1.5
      comp=Z,7.1nm,1.1s,mb5.0
NEW                                 LR      LR
      comp=Z,2µm,20.0s,MS5.5
NEW   Newport            93.53  42 eP       P        12 56 24.3 -1.5
NEW                                 pmax    pmax
      comp=Z,7.0nm,1.1s
NEW                                 MLR     MLR
      comp=Z,2µm,20.0s
SHPR  Sheep Range        93.61  54 eP       P        12 56 27.1 +0.7
O11A  Cowboy Ranch,      93.62  50  P       P        12 56 27.7 +1.2
      baz=94,SNR=9.7
K11A  Parker Ranch,      93.64  48  P       P        12 56 26.6 +0.2
      baz=94,SNR=6.0
M11A  Holland Ranch,     93.67  49  P       P        12 56 27.9 +1.3
      baz=94,SNR=9.5
V12A  Nelson             93.77  55 ⇑P       P        12 56 27.3 +0.1
      baz=94
G11A  Walters Elk Ra     93.78  45 ⇑P       P        12 56 27.4 +0.4
      baz=94
L11A  Cat Creek Ranc     93.78  48  P       P        12 56 27.9 +0.8
      baz=94,SNR=6.2
Y12C  Blythe             93.82  57 ⇓P       P        12 56 27.9 +0.4
      baz=94
I11A  Placerville        93.83  46  P       P        12 56 26.9 -0.4
      baz=94,SNR=7.0
NEE2  Needles Airpor     93.85  56 ⇓P       P        12 56 28.0 +0.4
      baz=94
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H11A  Donnelly           93.88  46 ⇑P       P        12 56 27.5  0.0
      baz=94
D11A  Klaveano Farm,     93.92  43 ⇑P       P        12 56 27.4 -0.2
      baz=94
E11A  Bogner Ranch,      93.92  44 ⇑P       P        12 56 28.4 +0.7
      baz=94
ELK   Elko               94.01  50  PFAKE            12 56 40.0  +12
ELK                                 LR      LR
      comp=Z,1µm,21.0s,MS5.3
B11A  Sandpoint          94.05  42 ⇑P       P        12 56 27.7 -0.5
      baz=94
U12A  Valley of Fire     94.09  54 ⇑P       P        12 56 29.1 +0.4
      baz=94
A11A  Hall Mountain,     94.11  41  P       P        12 56 28.1 -0.3
      baz=94,SNR=12
P12A  McGill             94.13  51  P       P        12 56 30.0 +1.3
      baz=94,SNR=9.2
Q12A  Willow Creek R     94.14  51  P       P        12 56 30.1 +1.2
      baz=94,SNR=10
N12A  Clover Valley,     94.17  50  P       P        12 56 29.8 +0.9
      baz=94,SNR=12
PDMCI Parker Dam,Lak     94.20  56 ⇓P       P        12 56 30.5 +1.3
      baz=94
R12A  Pony Springs,      94.24  52  P       P        12 56 30.1 +0.8
      baz=94,SNR=10.0
M12A  Wells              94.32  49  P       P        12 56 30.3 +0.7
      baz=94,SNR=8.2
L12A  House Creek Ra     94.32  48 ⇓P       P        12 56 29.9 +0.3
      baz=94
J12A  Stokes Ranch,      94.38  47  P       P        12 56 30.5 +0.7
      baz=94,SNR=9.9
Y13A  Salome             94.40  57 ⇓P       P        12 56 31.8 +1.6
      baz=94
K12A  Draper Farm, C     94.46  48  P       P        12 56 30.8 +0.6
      baz=94,SNR=5.9
W13A  Hualapai Mount     94.49  55 ⇑P       P        12 56 31.8 +1.3
      baz=94
F12A  Elk City           94.52  45 ⇓P       P        12 56 32.0 +1.6
      baz=94
T13A  Saint George       94.66  53  P       P        12 56 33.2 +2.0
      baz=95,SNR=6.7
H12A  Diamond D Ranc     94.68  46 ⇓P       P        12 56 30.9 -0.3
      baz=95
N13A  Wendover, West     94.80  50 ⇓P       P        12 56 32.3 +0.5
      baz=95
M13A  Montello           94.88  49  P       P        12 56 33.0 +0.9
      baz=95,SNR=6.3
HLID  Hailey             94.90  47 eP       P        12 56 31.7 -0.5
      comp=Z,2.1nm,0.7s,mb4.7
HLID                                LR      LR
      comp=Z,1µm,20.0s,MS5.4
HLID  Hailey             94.90  47  P       P        12 56 31.9 -0.3
      baz=95,SNR=5.3
ARUT  Antelope Range     95.10  53 eP       P        12 56 34.8 +1.5
H13A  Challis            95.11  46  P       P        12 56 32.9 -0.3
      baz=95,SNR=10
L13A  Double Diamond     95.11  48 ⇑P       P        12 56 32.8 -0.4
      baz=95
I13A  Wildhorse Cree     95.15  47  P       P        12 56 33.3  0.0
      baz=95,SNR=8.0
W14A  Seligman           95.15  55 ⇑P       P        12 56 35.2 +1.6
      baz=95
F13A  Darby              95.17  45  P       P        12 56 32.2 -1.1
      baz=95,SNR=7.4
G13A  Cobalt             95.17  45 ⇑P       P        12 56 31.9 -1.5
      baz=95
B13A  Whitefish          95.30  42 ⇓P       P        12 56 33.4 -0.5
      baz=95
S14A  Cedar City         95.31  53 ⇓P       P        12 56 34.1 -0.2
      baz=95
T14A  Hurricane          95.32  53 ⇓P       P        12 56 34.1 -0.2
      baz=95
M14A  Sheep Mountain     95.50  49 ⇑P       P        12 56 34.9 -0.1
      baz=96
MSO   Missoula           95.53  44  PFAKE            12 56 50.0  +15
MSO                                 LR      LR
      comp=Z,782nm,20.0s,MS5.2
K14A  Jones Ranch, D     95.72  48 ⇓P       P        12 56 36.8 +0.8
      baz=96
WALA  Waterton Lakes     95.73  41 eP       P        12 56 35.9  0.0
      comp=Z,3.3nm,0.8s,mb4.8
X15A  Humboldt           95.78  56 ⇓P       P        12 56 37.1 +0.6
      baz=96
DUG   Dugway             95.80  50 eP       P        12 56 36.7 +0.3
DUG                                 LR      LR
      comp=Z,807nm,19.0s,MS5.2
MCMT  McKenzie Canyo     96.13  46 eP       P        12 56 37.1 -0.7
MSU   Marysvale          96.16  52 eP       P        12 56 39.6 +1.6
M15A  Larsen Ranch,      96.17  49 ⇑P       P        12 56 37.0 -1.1
      baz=96
YKA   Yellowknife Ar     96.31  28  P       P        12 56 37.0 -1.2
YKA                                 PP      PP       13 00 32.6 +0.7
YKA                                 PKKP    PKKPbc   13 13 21.4 -5.1
YKA                                 LR      LR       13 36 14.4
YKA   Yellowknife Ar     96.31  28  P       P        12 56 37.0 -1.2
YKA                                                  13 00 32.6
YKA   Yellowknife Ar     96.31  28  P       P        12 56 37.0 -1.2
      comp=Z,7.1nm,0.8s,mb5.2,baz=266,slow=4.5,SNR=101
YKA                                 PP      PP       13 00 32.6 +0.7
      comp=Z,0.3nm,0.7s,baz=262,slow=6.0,SNR=3.9
YKA                                 PKKP    PKKPbc   13 13 21.4 -5.1
      comp=Z,0.5nm,0.6s,baz=82,slow=2.7,SNR=9.5
YKA                                 LR      LR       13 36 14.4
      comp=Z,620nm,19.5s,MS5.1,baz=215,slow=33
YKW3  Yellowknife Ar     96.31  28 eP       P        12 56 37.4 -0.7
NLU   North Lily Min     96.34  51 eP       P        12 56 40.9 +2.0
EDM   Edmonton           96.38  37 eP       P        12 56 37.9 -0.8
E15A  Deer Lodge         96.39  44 ⇓P       P        12 56 38.3 -0.6
      baz=96
G15A  Dillon             96.41  45 ⇑P       P        12 56 38.1 -1.0
      baz=96
LPIG  La Paz             96.56  67  LR      LR       13 32 22.1
      comp=Z,809nm,20.8s,MS5.2,baz=91,slow=31
WUAZ  Wupatki            96.57  55  PFAKE            12 56 50.0  +10
WUAZ                                LR      LR
      comp=Z,2µm,19.0s,MS5.6
MPU   Maple Canyon       96.69  51  PFAKE            12 56 50.0  +10
MPU                                 LR      LR
      comp=Z,1µm,20.0s,MS5.4
TUC   Tucson             96.82  58  PFAKE            12 56 50.0 +8.8
TUC                                 LR      LR
      comp=Z,2µm,19.0s,MS5.5
HWUT  Hardware Ranch     96.84  49 eP       P        12 56 40.4 -0.7
      comp=Z,1.4nm,0.6s,mb4.6
HWUT                                LR      LR
      comp=Z,937nm,19.0s,MS5.3
JLU   Jordanelle         96.87  50 eP       P        12 56 42.4 +1.2
TMUT  Trail Mountain     96.97  51 eP       P        12 56 42.6 +0.8
BOZ   Bozeman (W)        97.04  45  PFAKE            12 56 50.0 +8.1
BOZ                                 LR      LR
      comp=Z,1µm,19.0s,MS5.3
DCID1 Drake Creek        97.25  47 eP       P        12 56 43.2 +0.3
AHID  Auburn Hatcher     97.26  48  PFAKE            12 56 50.0 +7.0
AHID                                LR      LR
      comp=Z,1µm,20.0s,MS5.4
YMR   Madison River      97.46  46  PFAKE            12 56 50.0 +6.2
YMR                                 LR      LR
      comp=Z,2µm,21.0s,MS5.6
LKWY  Lake               97.86  46  PFAKE            12 57 00.0  +14
LKWY                                LR      LR
      comp=Z,2µm,19.0s,MS5.5
PDAR  Pinedale Array     98.39  48  P       P        12 56 46.5 -1.6
      comp=Z,5.1nm,0.8s,mb5.1,baz=242,slow=2.3,SNR=38
PDAR                                LR      LR       13 38 48.9
      comp=Z,1µm,18.4s,MS5.5,baz=269,slow=34
EGMT  Eagleton           98.43  43  PFAKE            12 57 00.0  +12
EGMT                                LR      LR
      comp=Z,1µm,19.0s,MS5.4
PV10  Paradox Valley     98.61  52 eP       P        12 56 49.8 +0.6
RLMT  Red Lodge          98.69  46  PFAKE            12 57 00.0  +11
RLMT                                LR      LR
      comp=Z,1µm,22.0s,MS5.4
MVCO  Mesa Verde         98.98  54  PFAKE            12 57 00.0 +9.2
MVCO                                LR      LR
      comp=Z,1µm,21.0s,MS5.3
AB31  Akbulak array      99.29 319 i P      P        12 56 49.2 -2.7
MSEY  Mahe Island        99.53 264  PFAKE            12 57 00.0 +6.2
MSEY                                LR      LR
      comp=Z,744nm,22.0s,MS5.2
ARU   Arti              100.04 326 ePdif    Pdif     12 56 53.0 -2.2
ARU                                 LR      LR
      comp=Z,853nm,21.0s,MS5.2
ARU   Arti              100.04 326d iP      Pdif     12 56 52.9 -2.3
ARU                                e                 13 01 01.8
ARU                                ePPP              13 03 13.3
ARU                                eS       SKSac    13 07 27.6 -3.3
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ARU                                eSS      SS       13 15 26.3 +5.5
ARU                                 pmax    pmax
      comp=Z,23nm,0.9s
SMCO  Snowmass          100.25  52 ePdif    Pdif     12 56 58.0 +1.9
ANMO  Albuquerque       100.56  56  PFAKE            12 57 10.0  +13
ANMO                                LR      LR
      comp=Z,625nm,20.0s,MS5.1
LAO   LASA Array        100.82  44  PFAKE            12 57 10.0  +11
LAO                                 LR      LR
      comp=Z,952nm,19.0s,MS5.3
ISCO  Idaho Springs     101.31  51  PFAKE            12 57 10.0 +9.2
ISCO                                LR      LR
      comp=Z,850nm,20.0s,MS5.3
MNTX  Cornudas Mount    101.37  59  PFAKE            12 57 10.0 +8.9
MNTX                                LR      LR
      comp=Z,3µm,20.0s,MS5.8
SDCO  Great Sand Dun    101.38  53  PFAKE            12 57 10.0 +8.9
SDCO                                LR      LR
      comp=Z,1µm,20.0s,MS5.5
DGMT  Dagmar            102.14  42  PFAKE            12 57 20.0  +16
DGMT                                LR      LR
      comp=Z,1µm,22.0s,MS5.4
RSSD  Black Hills       102.42  47  PFAKE            12 57 20.0  +14
RSSD                                LR      LR
      comp=Z,1µm,19.0s,MS5.5
LTX   Lajitas           102.79  62  PFAKE            12 57 20.0  +13
LTX                                 LR      LR
      comp=Z,3µm,20.0s,MS5.8
TXAR  Lajitas Array     102.79  62  PKiKP   PKiKP    13 01 25.8 -2.8
      comp=Z,1.7nm,0.9s,baz=248,slow=6.6,SNR=5.9
TXAR                                PKKPbc  PKKPbc   13 13 04.8 -2.1
      comp=Z,0.2nm,0.6s,baz=195,slow=17,SNR=2.9
FFC   Flin Flon         103.06  36  PFAKE            12 57 20.0  +11
FFC                                 LR      LR
      comp=Z,2µm,19.0s,MS5.6
CBKS  Cedar Bluff       105.89  52  PFAKE            13 01 50.0  +16
CBKS                                LR      LR
      comp=Z,985nm,20.0s,MS5.3
JCT   Junction City     106.15  60  PFAKE            13 01 50.0  +15
JCT                                 LR      LR
      comp=Z,2µm,19.0s,MS5.6
KBS   Kingsbay          106.22 353  PFAKE            13 01 40.0 +6.5
KBS                                 LR      LR
      comp=Z,698nm,20.0s,MS5.2
WMOK  Wichita Mounta    106.87  56  PFAKE            13 01 50.0  +14
WMOK                                LR      LR
      comp=Z,831nm,19.0s,MS5.3
ULM   Lac du Bonnet     107.36  40  PFAKE            13 01 50.0  +14
ULM                                 LR      LR
      comp=Z,2µm,21.0s,MS5.6
AGMN  Agassiz Refuge    107.68  42  PFAKE            13 01 50.0  +13
AGMN                                LR      LR
      comp=Z,870nm,19.0s,MS5.3
ECSD  EROS,Sioux Fal    107.80  47  PFAKE            13 01 50.0  +13
ECSD                                LR      LR
      comp=Z,1µm,19.0s,MS5.5
KVTX  Kingsville        107.87  64  PFAKE            13 01 50.0  +12
KVTX                                LR      LR
      comp=Z,1µm,20.0s,MS5.4
LVZ   Lovozero          108.14 340  PFAKE            13 01 50.0  +13
LVZ                                 LR      LR
      comp=Z,651nm,19.0s,MS5.2
KSU1  Kansas State U    108.30  51  PFAKE            13 01 50.0  +12
KSU1                                LR      LR
      comp=Z,1µm,20.0s,MS5.5
KEV   Kevo              109.58 343  PFAKE            13 01 50.0  +10
KEV                                 LR      LR
      comp=Z,960nm,21.0s,MS5.3
HKT   Hockley           109.60  61  PFAKE            13 01 50.0 +8.8
HKT                                 LR      LR
      comp=Z,1µm,19.0s,MS5.5
ARCES ARCESS Array B    110.13 343  PKPdf   PKiKP    13 01 40.5 -0.5
ARCES ARCESS Array B    110.13 343  PKIKP   PKiKP    13 01 40.5 -0.5
ARCES ARCESS Array B    110.13 343  PKiKP   PKiKP    13 01 40.5 -0.5
      comp=Z,3.6nm,0.9s,baz=97,slow=2.9,SNR=14
NATX  Nacogdoches       110.50  59  PFAKE            13 01 50.0 +7.2
NATX                                LR      LR
      comp=Z,3µm,19.0s,MS5.8
SCIA  State Center      110.52  48  PFAKE            13 01 50.0 +7.5
SCIA                                LR      LR
      comp=Z,2µm,20.0s,MS5.6
EYMN  Ely               110.62  41  PFAKE            13 01 50.0 +7.5
EYMN                                LR      LR
      comp=Z,1µm,22.0s,MS5.4
MIAR  Mount Ida         111.17  56  PFAKE            13 02 00.0  +16
MIAR                                LR      LR
      comp=Z,1µm,22.0s,MS5.5
KIV   Kislovodsk        111.61 314  PFAKE            13 02 00.0  +15
KIV                                 LR      LR
      comp=Z,354nm,19.0s,MS5.0
JOF   Joensuu           111.69 336 epkp     Pdif     12 57 43.7 -3.2
JOF   Joensuu           111.69 336 epkp     PKiKP    13 01 41.3 -2.8
JOF   Joensuu           111.69 336 ePKP     Pdif     12 57 43.7 -3.2
JOF                                ePKP     PKiKP    13 01 41.3 -2.8
JOF   Joensuu           111.69 336 ePKIKP   PKiKP    13 01 41.3 -2.8
OBN   Obninsk           112.44 327  PFAKE            13 02 00.0  +14
OBN                                 LR      LR
      comp=Z,531nm,20.0s,MS5.1
JFWS  Jewell Farm       112.51  47  PFAKE            13 02 00.0  +14
JFWS                                LR      LR
      comp=Z,1µm,19.0s,MS5.6
HDIL  Hopedale          113.67  49  PFAKE            13 02 00.0  +11
HDIL                                LR      LR
      comp=Z,826nm,20.0s,MS5.3
PAYG  Puerto Ayora      113.69  94  PFAKE            13 02 00.0  +11
PAYG                                LR      LR
      comp=Z,568nm,20.0s,MS5.2
KAF   Kangasniemi       114.10 337 epkp     Pdif     12 57 55.1 -2.5
KAF   Kangasniemi       114.10 337 epkp     PKiKP    13 01 46.4 -2.3
KAF   Kangasniemi       114.10 337 ePKP     Pdif     12 57 55.1 -2.5
KAF                                ePKP     PKiKP    13 01 46.4 -2.3
KAF   Kangasniemi       114.10 337 ePKIKP   PKiKP    13 01 46.4 -2.3
FINES FINESS Array B    114.56 336  PKP     PKiKP    13 01 48.5 -1.1
FINES                               PKKPbc  PKKPbc   13 12 26.6 -3.9
FINES FINESS Array B    114.56 336  PKIKP   PKiKP    13 01 48.5 -1.1
FINES                                                13 12 26.6
FINES FINESS Array B    114.56 336  PKP     PKiKP    13 01 48.5 -1.1
      comp=Z,4.1nm,0.8s,baz=106,slow=6.8,SNR=11
FINES                               PKKPbc  PKKPbc   13 12 26.6 -3.9
      comp=Z,1.6nm,0.8s,baz=232,slow=2.2,SNR=3.9
OXF   Oxford            114.59  55  PFAKE            13 02 00.0 +9.5
OXF                                 LR      LR
      comp=Z,964nm,20.0s,MS5.4
PLAL  Pickwick Lake     115.60  55  PFAKE            13 02 00.0 +7.5
PLAL                                LR      LR
      comp=Z,877nm,22.0s,MS5.3
WVT   Waverly           115.61  53  PFAKE            13 02 00.0 +7.6
WVT                                 LR      LR
      comp=Z,1µm,20.0s,MS5.4
GLMI  Grayling          116.01  43  PFAKE            13 02 00.0 +7.1
GLMI                                LR      LR
      comp=Z,981nm,19.0s,MS5.4
WCI   Wyandotte Cave    116.41  51  PFAKE            13 02 10.0  +16
WCI                                 LR      LR
      comp=Z,1µm,19.0s,MS5.6
LRAL  Lakeview Retre    116.79  57  PFAKE            13 02 10.0  +15
LRAL                                LR      LR
      comp=Z,2µm,20.0s,MS5.7
TEIG  Tepich            116.87  71  PFAKE            13 02 10.0  +15
TEIG                                LR      LR
      comp=Z,895nm,20.0s,MS5.4
BRAL  Brewton           117.04  59  PFAKE            13 02 10.0  +15
BRAL                                LR      LR
      comp=Z,1µm,19.0s,MS5.5
AAM   Ann Arbor         117.38  46  PFAKE            13 02 10.0  +14
AAM                                 LR      LR
      comp=Z,1µm,22.0s,MS5.5
SFJD  Kangerlussuaq     117.79  11  PFAKE            13 02 10.0  +14
SFJD                                LR      LR
      comp=Z,1µm,19.0s,MS5.5
TGUH  Tegucigalpa,Un    117.88  78  PFAKE            13 02 10.0  +13
TGUH                                LR      LR
      comp=Z,686nm,19.0s,MS5.3
KMBO  Kilima Mbogo      118.06 265  PFAKE            13 02 10.0  +12
KMBO                                LR      LR
      comp=Z,546nm,20.0s,MS5.2
ASF   Jabal al Asfar    118.23 303  PKP     PKPdf    13 01 57.7 +0.1
ASF   Jabal al Asfar    118.23 303  PKIKP   PKPdf    13 01 57.7 +0.1
ASF   Jabal al Asfar    118.23 303  PKP     PKPdf    13 01 57.7 +0.1
      comp=Z,2.2nm,0.7s,baz=226,slow=5.8,SNR=4.6
AKASG Malin Array Be    118.25 325  PKP     PKPdf    13 01 55.1 -2.0
AKASG                               PKKPbc  PKKPbc   13 12 15.1 -2.2
AKASG Malin Array Be    118.25 325  PKIKP   PKPdf    13 01 55.1 -2.0
AKASG Malin Array Be    118.25 325  PKP     PKPdf    13 01 55.1 -2.0
      comp=Z,3.9nm,0.6s,baz=57,slow=2.1,SNR=20
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AKASG				PKKPbc	PKKPbc	13 12 15.1	-2.2
	comp=Z,1.7nm,0.8s,baz=254,slow=4.0,SNR=5.5						
AKBB	**Malin Array Si**	**118.25**	**325**	*e*PKPdf	PKPdf	13 01 55.9	-1.2
AKBB	**Malin Array Si**	**118.25**	**325**	*e*PKIKP	PKPdf	13 01 55.9	-1.2
KIEV	**Kiev**	**118.26**	**325**	*e*PKPdf	PKPdf	13 01 56.2	-0.9
KIEV				LR	LR		
	comp=Z,835nm,21.0s,MS5.3						
KIEV	**Kiev**	**118.26**	**325**	PKIKP	PKPdf	13 01 56.4	-0.7
ACSO	**Alum Creek Sta**	**118.43**	**48**	PFAKE		13 02 10.0	+12
ACSO				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
TZTN	**Tazewell**	**118.91**	**52**	PFAKE		13 02 10.0	+11
TZTN				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
BR131	**Keskin Array S**	**119.16**	**312**	PFAKE		13 02 10.0	+11
BR131				LR	LR		
	comp=Z,321nm,21.0s,MS4.9						
BRTR	**Keskin Array B**	**119.16**	**312**	PKP	PKPdf	13 01 57.6	-1.5
BRTR				PKKPbc	PKKPbc	13 12 12.9	-0.6
BRTR	**Keskin Array B**	**119.16**	**312**	PKIKP	PKPdf	13 01 57.7	-1.5
BRTR	**Keskin Array B**	**119.16**	**312**	PKP	PKPdf	13 01 57.6	-1.5
	comp=Z,2.6nm,0.8s,baz=160,slow=3.9,SNR=8.6						
BRTR				PKKPbc	PKKPbc	13 12 12.9	-0.6
	comp=Z,2.2nm,0.8s,baz=221,slow=4.5,SNR=9.1						
GOGA	**Godfrey**	**119.64**	**56**	PFAKE		13 02 10.0	+10
GOGA				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
ANTO	**Ankara**	**119.75**	**312**	PFAKE		13 02 10.0	+10
ANTO				LR	LR		
	comp=Z,332nm,21.0s,MS5.0						
JTS	**JuntasAbangare**	**120.04**	**82**	PFAKE		13 02 10.0	+8.4
JTS				LR	LR		
	comp=Z,578nm,19.0s,MS5.2						
NB2	**NORSAR Subarra**	**120.27**	**341**	PKPd	PKPdf	13 01 59.9	-0.7
	comp=Z,3.8nm,0.7s,baz=42,slow=1.9						
NOA	**NORSAR Array B**	**120.27**	**341**	PKP	PKPdf	13 01 59.9	-0.8
NOA	**NORSAR Array B**	**120.27**	**341**	PKIKP	PKPdf	13 01 59.9	-0.7
NOA	**NORSAR Array B**	**120.27**	**341**	PKP	PKPdf	13 01 59.9	-0.8
	comp=Z,6.6nm,0.8s,baz=45,slow=1.9,SNR=16						
BOSA	**Boshof**	**120.37**	**231**	PKP	PKPdf	13 02 01.6	-0.2
BOSA				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
BOSA	**Boshof**	**120.37**	**231**	PKIKP	PKPdf	13 02 01.6	-0.3
BOSA				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.6						
BOSA	**Boshof**	**120.37**	**231**	PKP	PKPdf	13 02 01.6	-0.2
	comp=Z,4.9nm,0.7s,baz=158,slow=2.9,SNR=10						
MCWV	**Mont Chateau**	**120.91**	**48**	PFAKE		13 02 10.0	+7.5
MCWV				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
BLA	**Blacksburg**	**121.17**	**51**	PFAKE		13 02 10.0	+6.9
BLA				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
MATP	**Matopo**	**121.25**	**241**	PKP	PKPdf	13 02 02.9	-0.8
MATP				PKKPbc	PKKPbc	13 12 03.5	-1.9
MATP	**Matopo**	**121.25**	**241**	PKP	PKPdf	13 02 02.9	-0.8
	comp=Z,12nm,0.8s,baz=138,slow=1.7,SNR=21						
MATP				PKKPbc	PKKPbc	13 12 03.5	-1.9
	comp=Z,6.1nm,1.0s,baz=275,slow=5.4,SNR=8.1						
LVV	**L'vov**	**121.61**	**325**	*i* PKIKP	PKPdf	13 02 03.3	-0.3
SUR	**Sutherland**	**121.66**	**225**	PFAKE		13 02 20.0	+16
SUR				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
SCHQ	**Schefferville**	**121.76**	**27**	PFAKE		13 02 10.0	+6.3
SCHQ				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
LBTB	**Lobatse**	**121.78**	**235**	*e*PKPdf	PKPdf	13 02 04.2	-0.5
LBTB				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
LBTB	**Lobatse**	**121.78**	**235**	*e*PKIKP	PKPdf	13 02 04.2	-0.5
LBTB				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.6						
LBTB	**Lobatse**	**121.78**	**235**	PKP	PKPdf	13 02 03.9	-0.8
	comp=Z,8.9nm,0.8s,baz=164,slow=4.5,SNR=16						
KONO	**Kongsberg**	**121.85**	**341**	PFAKE		13 02 10.0	+6.3
KONO				LR	LR		
	comp=Z,917nm,21.0s,MS5.4						
BURAR	**Bucovina Array**	**121.97**	**323**	⇑P	PKPdf	13 02 05.2	+0.9
BURAR	**Bucovina Array**	**121.97**	**323**	⇑PKIKP	PKPdf	13 02 05.2	+0.9
BURAR	**Bucovina Array**	**121.97**	**323**	⇑*i*P	PKPdf	13 02 05.2	+0.9
SSPA	**Standing Stone**	**122.02**	**46**	PFAKE		13 02 20.0	+15
SSPA				LR	LR		
	comp=Z,941nm,19.0s,MS5.5						
DWPF	**Disney**	**122.32**	**61**	PFAKE		13 02 20.0	+14
DWPF				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
NHSC	**New Hope**	**122.39**	**55**	PFAKE		13 02 20.0	+14
NHSC				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
MLR	**Muntele Rosu**	**122.46**	**320**	⇓PKIKP	PKPdf	13 02 05.3	0.0
MLR	**Muntele Rosu**	**122.46**	**320**	⇓*i*P	PKPdf	13 02 05.3	0.0
LCO	**Las Campanas**	**122.52**	**131**	PFAKE		13 02 20.0	+14
LCO				LR	LR		
	comp=Z,493nm,19.0s,MS5.2						
LONY	**Lake Ozonia**	**122.77**	**41**	PFAKE		13 02 20.0	+14
LONY				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
BINY	**Binghamton**	**122.80**	**44**	PFAKE		13 02 20.0	+14
BINY				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
KOLS	**Kolonicke sedl**	**123.05**	**325**	*e*PKP	PKPdf	13 02 05.8	-0.5
KOLS	**Kolonicke sedl**	**123.05**	**325**	*e*PKIKP	PKPdf	13 02 05.8	-0.5
KOLS	**Kolonicke sedl**	**123.05**	**325**	*e*PKP	PKPdf	13 02 05.8	-0.5
VOIR		**123.05**	**320**	⇑P	PKPdf	13 02 09.4	+2.9
VOIR		**123.05**	**320**	⇑PKIKP	PKPdf	13 02 09.4	+2.9
VOIR		**123.05**	**320**	⇑*i*P	PKPdf	13 02 09.4	+2.9
CBN	**Corbin**	**123.19**	**49**	PFAKE		13 02 20.0	+13
CBN				LR	LR		
	comp=Z,997nm,19.0s,MS5.5						
UZH	**Uzhgorod**	**123.19**	**325**	*e*PKIKP	PKPdf	13 02 03.0	-3.6
UZH				*e*		13 02 07.4	
NCB	**Newcomb**	**123.28**	**41**	PFAKE		13 02 20.0	+13
NCB				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
LSZ	**Lusaka**	**123.37**	**246**	PFAKE		13 02 20.0	+12
LSZ				LR	LR		
	comp=Z,707nm,22.0s,MS5.3						
STHS	**Stebnicka Huta**	**123.38**	**326**	*e*PKP	PKPdf	13 02 07.1	+0.1
STHS				*e*		13 02 14.9	
STHS	**Stebnicka Huta**	**123.38**	**326**	*e*PKIKP	PKPdf	13 02 07.1	+0.1
STHS				*e*		13 02 14.9	
STHS	**Stebnicka Huta**	**123.38**	**326**	*e*PKP	PKPdf	13 02 07.1	+0.1
STHS				*e*		13 02 14.9	
CRVS	**Cervenica-Dubn**	**123.53**	**325**	*e*PKP	PKPdf	13 02 07.4	+0.1
CRVS	**Cervenica-Dubn**	**123.53**	**325**	*e*PKIKP	PKPdf	13 02 07.4	+0.1
CRVS	**Cervenica-Dubn**	**123.53**	**325**	*e*PKP	PKPdf	13 02 07.4	+0.1
CNNC	**Cliffs of the**	**123.68**	**52**	PFAKE		13 02 20.0	+12
CNNC				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
OJC	**Ojcow**	**123.72**	**328**	*e*PKP	PKPdf	13 02 06.6	-1.0
OJC	**Ojcow**	**123.72**	**328**	*e*PKIKP	PKPdf	13 02 06.6	-1.0
NNA	**Nana**	**124.31**	**110**	PFAKE		13 02 20.0	+10
NNA				LR	LR		
	comp=Z,321nm,20.0s,MS5.0						
GZR	**Gura Zlata**	**124.50**	**321**	⇑P	PKPdf	13 02 08.6	-0.6
GZR	**Gura Zlata**	**124.50**	**321**	⇑PKIKP	PKPdf	13 02 08.6	-0.6
GZR	**Gura Zlata**	**124.50**	**321**	⇑*i*P	PKPdf	13 02 08.6	-0.6
LBNH	**Lisbon**	**124.65**	**40**	PFAKE		13 02 20.0	+10
LBNH				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
OKC	**Ostrava-Krasne**	**124.82**	**328**	*e*PKP	PKPdf	13 02 09.2	-0.5
OKC	**Ostrava-Krasne**	**124.82**	**328**	*e*PKIKP	PKPdf	13 02 09.2	-0.5
OKC	**Ostrava-Krasne**	**124.82**	**328**	*e*PKPdf	PKPdf	13 02 09.2	-0.5
OKC				AMS	AMS	14 01 00.0	
	comp=Z,900nm,18.9s						
PSZ	**Piszkesteto**	**124.93**	**325**	*e*PKP/D	PKPdf	13 02 09.8	-0.2
BZS	**Buzias**	**125.11**	**322**	⇑P	PKPdf	13 02 10.1	-0.3
BZS	**Buzias**	**125.11**	**322**	⇑PKIKP	PKPdf	13 02 10.1	-0.3
BZS	**Buzias**	**125.11**	**322**	⇑*i*P	PKPdf	13 02 10.1	-0.3
KSP	**Ksiaz**	**125.17**	**330**	*e*PKP	PKPdf	13 02 11.7	+1.4
KSP				LR	LR		
	comp=Z,1µm,21.1s,MS5.6						
KSP	**Ksiaz**	**125.17**	**330**	*e*PKIKP	PKPdf	13 02 11.7	+1.4
KSP				MLR	MLR		
	comp=Z,1µm,21.1s,MS5.6						
MORC	**Moravsky Berou**	**125.17**	**328**	*e*PKPdf	PKPdf	13 02 09.9	-0.4
MORC	**Moravsky Berou**	**125.17**	**328**	⇑PKIKP	PKPdf	13 02 10.5	+0.1
MORC	**Moravsky Berou**	**125.17**	**328**	⇑*i*P	PKPdf	13 02 10.5	+0.1
VYHS	**Vyhne**	**125.21**	**326**	*e*PKP	PKPdf	13 02 09.9	-0.6
VYHS				*e*		13 02 17.7	
VYHS	**Vyhne**	**125.21**	**326**	*e*PKIKP	PKPdf	13 02 09.9	-0.6
VYHS				*e*		13 02 17.7	
VYHS	**Vyhne**	**125.21**	**326**	*e*PKP	PKPdf	13 02 09.9	-0.6
VYHS				*e*		13 02 17.7	
DPC	**Dobruska-Polom**	**125.46**	**329**	*e*PKP	PKPdf	13 02 10.7	-0.2
DPC	**Dobruska-Polom**	**125.46**	**329**	*e*PKIKP	PKPdf	13 02 10.7	-0.2
DPC	**Dobruska-Polom**	**125.46**	**329**	*e*PKPdf	PKPdf	13 02 10.7	-0.2
UPC	**Upice**	**125.52**	**330**	*e*PKP	PKPdf	13 02 10.8	-0.2
UPC	**Upice**	**125.52**	**330**	*e*PKIKP	PKPdf	13 02 10.8	-0.2
UPC	**Upice**	**125.52**	**330**	*e*PKPdf	PKPdf	13 02 10.8	-0.2
OTAV	**Otavalo**	**125.52**	**95**	PFAKE		13 02 20.0	+7.8
OTAV				LR	LR		
	comp=Z,486nm,19.0s,MS5.2						
BUD	**Budapest**	**125.66**	**325**	⇑*e*PKP/D	PKPdf	13 02 12.8	+1.4
HRV	**Harvard--Oak R**	**125.67**	**42**	PFAKE		13 02 20.0	+8.4
HRV				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
PKME	**Peaks-Kenny Pk**	**125.81**	**38**	PFAKE		13 02 20.0	+8.2
PKME				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
BSEG	**Bad Segeberg**	**125.82**	**336**	*e*PKPdf	PKPdf	13 02 11.8	+0.3
BSEG	**Bad Segeberg**	**125.82**	**336**	*e*PKIKP	PKPdf	13 02 11.8	+0.3
WES	**Weston**	**125.88**	**42**	PFAKE		13 02 20.0	+8.0
WES				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
PVCC	**Panska Ves**	**126.22**	**330**	*e*PKP	PKPdf	13 02 12.5	+0.1
PVCC				LR	LR		
	comp=Z,700nm,19.4s,MS5.3						
PVCC	**Panska Ves**	**126.22**	**330**	*e*PKIKP	PKPdf	13 02 12.5	+0.1
PVCC				MLR	MLR		
	comp=Z,700nm,19.4s,MS5.3						
PVCC	**Panska Ves**	**126.22**	**330**	*e*PKPdf	PKPdf	13 02 12.5	+0.1
PVCC				AMS	AMS	13 59 40.0	
	comp=Z,700nm,19.4s						
BRG	**Berggiesshubel**	**126.31**	**331**	*e*PKP	PKPdf	13 02 12.1	-0.4
BRG	**Berggiesshubel**	**126.31**	**331**	*e*PKIKP	PKPdf	13 02 12.1	-0.4
BRG				pmax	pmax		
	comp=Z,23nm,1.2s						
BRG	**Berggiesshubel**	**126.31**	**331**	*e*PKP	PKPdf	13 02 12.1	-0.4
	comp=Z,38nm,1.2s						
ZST	**Bratislava**	**126.33**	**327**	*e*PKP	PKPdf	13 02 12.7	0.0
ZST				LR	LR		
	comp=Z,700nm,18.7s,MS5.4						
ZST	**Bratislava**	**126.33**	**327**	*e*PKIKP	PKPdf	13 02 12.7	0.0
ZST	**Bratislava**	**126.33**	**327**	*e*PKP	PKPdf	13 02 12.7	0.0
CLL	**Collm**	**126.47**	**332**	*i* PKP	PKPdf	13 02 12.3	-0.5
CLL				*i* pPKP	pPKPdf	13 02 20.1	-4.6
CLL				LR	LR		
	comp=Z,700nm,20.6s,MS5.3						
CLL	**Collm**	**126.47**	**332**	*i* PKIKP	PKPdf	13 02 12.3	-0.5
CLL				*i*		13 02 20.1	
CLL				pmax	pmax		
	comp=Z,27nm,1.1s						
CLL				MLR	MLR		
	comp=Z,700nm,20.6s,MS5.3						
CLL	**Collm**	**126.47**	**332**	*i* PKPdf	PKPdf	13 02 12.3	-0.5
	comp=Z,27nm,1.1s						
CLL				*i* x	x	13 02 20.1	
CLL				*i* pPKPdf	pPKPdf	13 02 21.9	-2.8
CLL				*e*PP	PP	13 04 16.0	+7.8
CLL				*e*SPP		13 15 40.0	
TREC	**Trest**	**126.53**	**329**	*e*PKIKP	PKPdf	13 02 12.7	-0.3
TREC	**Trest**	**126.53**	**329**	*e*PKPdf	PKPdf	13 02 12.7	-0.3
PKSM	**Moragy**	**126.58**	**324**	⇑P	PKPdf	13 02 12.8	-0.4
PKSM	**Moragy**	**126.58**	**324**	⇑PKIKP	PKPdf	13 02 12.8	-0.4
PKSM	**Moragy**	**126.58**	**324**	⇑*i*P	PKPdf	13 02 12.8	-0.4
PRU	**Pruhonice**	**126.58**	**330**	*e*PKP	PKPdf	13 02 12.6	-0.5
PRU				LR	LR		
	comp=Z,500nm,19.4s,MS5.2						
PRU	**Pruhonice**	**126.58**	**330**	*e*PKIKP	PKPdf	13 02 12.6	-0.5
PRU				MLR	MLR		
	comp=Z,500nm,19.4s,MS5.2						
PRU	**Pruhonice**	**126.58**	**330**	*e*PKPdf	PKPdf	13 02 12.6	-0.5
PRU				AMS	AMS	13 57 50.0	
	comp=Z,500nm,19.4s						
SOP	**Sopron**	**126.93**	**326**	⇑*e*PKP/D	PKPdf	13 02 15.2	+1.4
CLZ	**Clausthal**	**127.30**	**334**	*e*PKPdf	PKPdf	13 02 15.0	+0.6
CLZ	**Clausthal**	**127.30**	**334**	*e*PKIKP	PKPdf	13 02 15.0	+0.6
NKC	**Novy Kostel**	**127.44**	**331**	*e*PKP	PKPdf	13 02 14.5	-0.2
NKC	**Novy Kostel**	**127.44**	**331**	*e*PKIKP	PKPdf	13 02 14.5	-0.2
NKC	**Novy Kostel**	**127.44**	**331**	*e*PKPdf	PKPdf	13 02 14.5	-0.2
MOX	**Moxa**	**127.56**	**332**	*e*PKP	PKPdf	13 02 15.0	+0.1
MOX	**Moxa**	**127.56**	**332**	*e*PKP	PKPdf	13 02 15.0	+0.1
	comp=Z,34nm,1.6s						
MOX							
	comp=Z,500nm,21.0s						
MOX	**Moxa**	**127.56**	**332**	*e*PKIKP	PKPdf	13 02 15.0	+0.1
MOX				pmax	pmax		
	comp=Z,34nm,1.6s						
MOX				MLR	MLR		
	comp=Z,500nm,21.0s,MS5.2						
KHC	**Kasperske Hory**	**127.61**	**329**	*e*PKP	PKPdf	13 02 14.3	-0.8
KHC				*e*		13 02 22.5	
KHC				LR	LR		
	comp=Z,1µm,18.2s,MS5.5						
KHC	**Kasperske Hory**	**127.61**	**329**	*e*PKIKP	PKPdf	13 02 14.3	-0.8
KHC				*e*		13 02 22.5	
KHC				MLR	MLR		
	comp=Z,1µm,18.2s,MS5.5						
KHC	**Kasperske Hory**	**127.61**	**329**	*e*PKPdf	PKPdf	13 02 14.3	-0.8
KHC				pPKP	pPKPdf	13 02 22.5	-4.5
KHC				AMS	AMS	13 58 20.0	
	comp=Z,1µm,18.2s						
GEC2	**GERESS Array S**	**127.73**	**329**	*e*PKPdf	PKPdf	13 02 14.8	-0.5
GEC2	**GERESS Array S**	**127.73**	**329**	PKIKP	PKPdf	13 02 14.9	-0.4
GERES	**GERESS Array B**	**127.73**	**329**	PKP	PKPdf	13 02 14.9	-0.4
GERES	**GERESS Array B**	**127.73**	**329**	PKIKP	PKPdf	13 02 14.9	-0.4
GERES	**GERESS Array B**	**127.73**	**329**	PKP	PKPdf	13 02 14.9	-0.4
	comp=Z,12nm,1.1s,baz=75,slow=1.5,SNR=20						
WET	**Wettzell**	**127.95**	**330**	*e*PKPdf	PKPdf	13 02 16.0	+0.3
WET	**Wettzell**	**127.95**	**330**	*e*PKIKP	PKPdf	13 02 16.0	+0.3
GRA1	**Grafenberg Arr**	**128.40**	**331**	*e*PKPdf	PKPdf	13 02 16.9	+0.3
GRF	**Grafenberg Arr**	**128.40**	**331**	*e*PKP	PKPdf	13 02 16.9	+0.3
GRF	**Grafenberg Arr**	**128.40**	**331**	*e*PKIKP	PKPdf	13 02 16.9	+0.3
GRF	**Grafenberg Arr**	**128.40**	**331**	*e*PKIKP	PKPdf	13 02 16.9	+0.3
GRFO	**Grafenberg**	**128.40**	**331**	PFAKE		13 02 30.0	+13
GRFO				LR	LR		
	comp=Z,479nm,19.0s,MS5.2						
TNS	**Taunus Mts**	**129.30**	**333**	*e*PKPdf	PKPdf	13 02 18.8	+0.5
TNS	**Taunus Mts**	**129.30**	**333**	*e*PKIKP	PKPdf	13 02 18.8	+0.5
SQTA	**Sankt Quirin**	**130.06**	**329**	⇑*i*P	PKPdf	13 02 19.9	+0.1
	comp=Z,25nm,1.3s						
SQTA	**Sankt Quirin**	**130.06**	**329**	⇑*i*PKiKP	PKiKP	13 02 19.9	-0.7
	comp=Z,25nm,1.3s						
SQTA	**Sankt Quirin**	**130.06**	**329**	⇑*i*PKIKP	PKPdf	13 02 19.9	+0.1
MEM	**Membach**	**130.07**	**335**	PKPdf	PKPdf	13 02 21.0	+1.3
ROSC	**El Rosal**	**130.18**	**90**	*e*PKPdf	PKPdf	13 02 20.8	-0.2
ROSC	**El Rosal**	**130.18**	**90**	PKP	PKPdf	13 02 20.2	-0.9
	comp=Z,22nm,0.7s,baz=108,slow=8.1,SNR=8.3						
BCLA	**Clavier**	**130.50**	**335**	PKPdf	PKPdf	13 02 22.3	+1.8
LPAZ	**La Paz**	**130.65**	**119**	*e*PKPdf	PKPdf	13 02 21.9	+0.1
LPAZ				LR	LR		
	comp=Z,437nm,21.0s,MS5.1						
LPAZ	**La Paz**	**130.65**	**119**	PKIKP	PKPdf	13 02 22.4	+0.6
LPAZ	**La Paz**	**130.65**	**119**	PKP	PKPdf	13 02 21.9	+0.1
	comp=Z,18nm,1.0s,baz=79,slow=4.1,SNR=4.6						
BFO	**Black Forest**	**130.71**	**332**	*e*PKPdf	PKPdf	13 02 21.7	+0.7
BFO	**Black Forest**	**130.71**	**332**	*e*PKIKP	PKPdf	13 02 21.7	+0.7
WLF	**Walferdange**	**130.72**	**334**	PKPdf	PKPdf	13 02 23.0	+2.0
GIVF	**Givet**	**130.95**	**336**	*e*PKIKP	PKPdf	13 02 21.6	+0.2
GIVF	**Givet**	**130.95**	**336**	*e*PKPdf	PKPdf	13 02 21.6	+0.2
GIVF	**Givet**	**130.95**	**336**	*e*PKIKP	PKPdf	13 02 21.6	+0.2
DOU	**Dourbes**	**131.04**	**336**	PKPdf	PKPdf	13 02 22.4	+0.8
TSUM	**Tsumeb**	**131.04**	**237**	PFAKE		13 02 30.0	+7.5
TSUM				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
CDF	**Champ du Feu**	**131.14**	**332**	*e*PKIKP	PKPdf	13 02 21.5	-0.3
CDF	**Champ du Feu**	**131.14**	**332**	*e*PKPdf	PKPdf	13 02 21.5	-0.3
CDF	**Champ du Feu**	**131.14**	**332**	*e*PKIKP	PKPdf	13 02 21.5	-0.3
BAIF	**Baives**	**131.23**	**336**	*e*PKIKP	PKPdf	13 02 22.1	+0.2
	comp=Z,49nm,1.2s						
BAIF	**Baives**	**131.23**	**336**	*e*PKPdf	PKPdf	13 02 22.1	+0.2
BAIF	**Baives**	**131.23**	**336**	*e*PKIKP	PKPdf	13 02 22.1	+0.2
HINF	**Hinteralfeld**	**131.77**	**332**	*e*PKIKP	PKPdf	13 02 22.8	-0.2
	comp=Z,98nm,1.3s						
HINF	**Hinteralfeld**	**131.77**	**332**	*e*PKPdf	PKPdf	13 02 22.8	-0.2
HINF	**Hinteralfeld**	**131.77**	**332**	*e*PKIKP	PKPdf	13 02 22.8	-0.2
HAU	**Haudompre**	**131.86**	**333**	*e*PKIKP	PKPdf	13 02 22.9	-0.3
	comp=Z,126nm,1.5s						
HAU				*e*MLR	MLR		
	comp=Z,538nm,19.8s,MS5.0						
HAU	**Haudompre**	**131.86**	**333**	*e*PKPdf	PKPdf	13 02 22.9	-0.3
HAU				LR	LR		
	comp=Z,540nm,19.8s,MS5.3						
HAU	**Haudompre**	**131.86**	**333**	*e*PKIKP	PKPdf	13 02 22.9	-0.3
HAU				MLR	MLR		
	comp=Z,540nm,19.8s,MS5.3						
MEZF	**Maizieres J'vi**	**132.07**	**334**	*e*PKIKP	PKPdf	13 02 23.9	+0.3
	comp=Z,121nm,1.3s						
MEZF	**Maizieres J'vi**	**132.07**	**334**	*e*PKPdf	PKPdf	13 02 23.9	+0.3
SDDR	**Presa de Saban**	**132.93**	**71**	PFAKE		13 02 40.0	+14
SDDR				LR	LR		
	comp=Z,808nm,20.0s,MS5.4						
CABF	**La Chapelle**	**133.01**	**332**	*e*PKIKP	PKPdf	13 02 25.8	+0.4
	comp=Z,166nm,1.6s						
CABF	**La Chapelle**	**133.01**	**332**	*e*PKPdf	PKPdf	13 02 25.8	+0.4
CABF	**La Chapelle**	**133.01**	**332**	*e*PKIKP	PKPdf	13 02 25.8	+0.4
LPL	**La Plagne**	**133.48**	**330**	*e*PKIKP	PKPdf	13 02 26.7	+0.4
LPL	**La Plagne**	**133.48**	**330**	*e*PKPdf	PKPdf	13 02 26.7	+0.4
LPL	**La Plagne**	**133.48**	**330**	*e*PKIKP	PKPdf	13 02 26.7	+0.4
LPG	**La Plagne**	**133.49**	**330**	*e*PKIKP	PKPdf	13 02 26.8	+0.5
	comp=Z,42nm,1.1s						
LPG	**La Plagne**	**133.49**	**330**	*e*PKPdf	PKPdf	13 02 26.8	+0.5
LPG	**La Plagne**	**133.49**	**330**	*e*PKIKP	PKPdf	13 02 26.8	+0.5
LOR	**Lormes**	**133.53**	**334**	*e*PKIKP	PKPdf	13 02 26.7	+0.3
	comp=Z,56nm,1.2s						
LOR				*e*MLR	MLR		
	comp=Z,804nm,21.5s,MS5.1						
LOR	**Lormes**	**133.53**	**334**	*e*PKPdf	PKPdf	13 02 26.7	+0.3
LOR				LR	LR		
	comp=Z,800nm,21.5s,MS5.4						
LOR	**Lormes**	**133.53**	**334**	*e*PKIKP	PKPdf	13 02 26.7	+0.3
LOR				MLR	MLR		
	comp=Z,800nm,21.5s,MS5.4						
SSF	**Saint Saulge**	**133.84**	**334**	*e*PKIKP	PKPdf	13 02 27.3	+0.3
	comp=Z,52nm,1.1s						
SSF	**Saint Saulge**	**133.84**	**334**	*e*PKPdf	PKPdf	13 02 27.3	+0.3
SSF	**Saint Saulge**	**133.84**	**334**	*e*PKIKP	PKPdf	13 02 27.3	+0.3
SMF	**Signal de Mont**	**134.01**	**333**	*e*PKIKP	PKPdf	13 02 27.5	+0.2
	comp=Z,28nm,1.0s						
SMF	**Signal de Mont**	**134.01**	**333**	*e*PKPdf	PKPdf	13 02 27.5	+0.2
SMF	**Signal de Mont**	**134.01**	**333**	*e*PKIKP	PKPdf	13 02 27.5	+0.2
FLN	**La Foliniere**	**134.09**	**338**	*e*PKIKP	PKPdf	13 02 26.9	-0.5
	comp=Z,55nm,0.9s						
FLN				*e*MLR	MLR		
	comp=Z,682nm,21.0s,MS5.0						
FLN	**La Foliniere**	**134.09**	**338**	*e*PKPdf	PKPdf	13 02 26.9	-0.5
FLN				LR	LR		
	comp=Z,680nm,21.0s,MS5.3						
FLN	**La Foliniere**	**134.09**	**338**	*e*PKIKP	PKPdf	13 02 26.9	-0.5
FLN				MLR	MLR		
	comp=Z,680nm,21.0s,MS5.3						
LDF	**La Druitiere**	**134.10**	**338**	*e*PKIKP	PKPdf	13 02 27.4	0.0
	comp=Z,66nm,1.3s						
LDF	**La Druitiere**	**134.10**	**338**	*e*PKPdf	PKPdf	13 02 27.4	0.0
LDF	**La Druitiere**	**134.10**	**338**	*e*PKIKP	PKPdf	13 02 27.4	0.0
AVF	**Avril sur Loir**	**134.12**	**334**	*e*PKIKP	PKPdf	13 02 27.3	-0.2
AVF	**Avril sur Loir**	**134.12**	**334**	*e*PKPdf	PKPdf	13 02 27.3	-0.2
AVF	**Avril sur Loir**	**134.12**	**334**	*e*PKIKP	PKPdf	13 02 27.3	-0.2
SBF	**Sospel**	**134.28**	**328**	*e*PKIKP	PKPdf	13 02 27.2	-0.7
SBF	**Sospel**	**134.28**	**328**	*e*PKPdf	PKPdf	13 02 27.2	-0.7
SBF	**Sospel**	**134.28**	**328**	*e*PKIKP	PKPdf	13 02 27.2	-0.7
PGF	**Pioggiola**	**134.30**	**325**	*e*PKIKP	PKPdf	13 02 28.1	+0.1
	comp=Z,92nm,1.2s						
PGF	**Pioggiola**	**134.30**	**325**	*e*PKPdf	PKPdf	13 02 28.1	+0.1
PGF	**Pioggiola**	**134.30**	**325**	*e*PKIKP	PKPdf	13 02 28.1	+0.1
ORIF	**Oris-en-Rattie**	**134.33**	**330**	*e*PKIKP	PKPdf	13 02 27.4	-0.5
	comp=Z,22nm,0.9s						
ORIF	**Oris-en-Rattie**	**134.33**	**330**	*e*PKPdf	PKPdf	13 02 27.4	-0.5
ORIF	**Oris-en-Rattie**	**134.33**	**330**	*e*PKIKP	PKPdf	13 02 27.4	-0.5
BGF	**Bois d'Agland**	**134.52**	**334**	*e*PKIKP	PKPdf	13 02 28.2	0.0
	comp=Z,48nm,1.1s						
BGF	**Bois d'Agland**	**134.52**	**334**	*e*PKPdf	PKPdf	13 02 28.2	0.0
BGF	**Bois d'Agland**	**134.52**	**334**	*e*PKIKP	PKPdf	13 02 28.2	0.0
GRR	**Gorron**	**134.54**	**338**	*e*PKIKP	PKPdf	13 02 28.2	0.0
GRR	**Gorron**	**134.54**	**338**	*e*PKPdf	PKPdf	13 02 28.2	0.0
GRR	**Gorron**	**134.54**	**338**	*e*PKIKP	PKPdf	13 02 28.2	0.0
FRF	**La Foret Royal**	**134.90**	**328**	*e*PKIKP	PKPdf	13 02 28.1	-0.9
FRF	**La Foret Royal**	**134.90**	**328**	*e*PKPdf	PKPdf	13 02 28.1	-0.9
FRF	**La Foret Royal**	**134.90**	**328**	*e*PKIKP	PKPdf	13 02 28.1	-0.9
VIVF	**Saint-Julien-l**	**134.97**	**331**	*e*PKIKP	PKPdf	13 02 28.7	-0.4
	comp=Z,133nm,1.7s						
VIVF	**Saint-Julien-l**	**134.97**	**331**	*e*PKPdf	PKPdf	13 02 28.7	-0.4
VIVF	**Saint-Julien-l**	**134.97**	**331**	*e*PKIKP	PKPdf	13 02 28.7	-0.4
BBSR	**BB Station**	**134.97**	**51**	PFAKE		13 02 40.0	+10
BBSR				LR	LR		
	comp=Z,806nm,19.0s,MS5.5						
TCF	**Toulx Ste Croi**	**135.01**	**334**	*e*PKIKP	PKPdf	13 02 29.5	+0.3
	comp=Z,56nm,1.1s						
TCF	**Toulx Ste Croi**	**135.01**	**334**	*e*PKPdf	PKPdf	13 02 29.5	+0.3
TCF	**Toulx Ste Croi**	**135.01**	**334**	*e*PKIKP	PKPdf	13 02 29.5	+0.3
LMR	**La Mourre**	**135.13**	**328**	*e*PKIKP	PKPdf	13 02 29.1	-0.4
	comp=Z,165nm,1.6s						
LMR	**La Mourre**	**135.13**	**328**	*e*PKPdf	PKPdf	13 02 29.1	-0.4
LMR	**La Mourre**	**135.13**	**328**	*e*PKIKP	PKPdf	13 02 29.1	-0.4
SMRF	**Simiane la Rot**	**135.16**	**329**	*e*PKIKP	PKPdf	13 02 29.3	-0.2
SMRF	**Simiane la Rot**	**135.16**	**329**	*e*PKPdf	PKPdf	13 02 29.3	-0.2
SGMF	**Saint Gilles**	**135.27**	**339**	*e*PKIKP	PKPdf	13 02 29.6	0.0
	comp=Z,155nm,1.4s						
SGMF	**Saint Gilles**	**135.27**	**339**	*e*PKPdf	PKPdf	13 02 29.6	0.0
SGMF	**Saint Gilles**	**135.27**	**339**	*e*PKIKP	PKPdf	13 02 29.6	0.0
MFF	**Saint Martin d**	**135.74**	**336**	*e*PKIKP	PKPdf	13 02 30.7	+0.2
	comp=Z,91nm,1.2s						
MFF	**Saint Martin d**	**135.74**	**336**	*e*PKPdf	PKPdf	13 02 30.7	+0.2
MFF	**Saint Martin d**	**135.74**	**336**	*e*PKIKP	PKPdf	13 02 30.7	+0.2
LASF	**Ste Croix**	**135.94**	**331**	*e*PKIKP	PKPdf	13 02 30.6	-0.4
	comp=Z,70nm,1.1s						
LASF	**Ste Croix**	**135.94**	**331**	*e*PKPdf	PKPdf	13 02 30.6	-0.4
MTLF	**Montolieu**	**137.27**	**331**	*e*PKIKP	PKPdf	13 02 33.3	-0.2
MTLF	**Montolieu**	**137.27**	**331**	*e*PKPdf	PKPdf	13 02 33.3	-0.2
MTLF	**Montolieu**	**137.27**	**331**	*e*PKIKP	PKPdf	13 02 33.3	-0.2
SJG	**San Juan**	**137.87**	**71**	*e*PKPdf	PKPdf	13 02 34.6	-0.7
SJG				LR	LR		
	comp=Z,409nm,19.0s,MS5.2						
SJG	**San Juan**	**137.87**	**71**	*e*PKIKP	PKPdf	13 02 34.6	-0.7
SJG				MLR	MLR		
	comp=Z,409nm,19.0s						
CPD	**Cerro la Pandu**	**138.11**	**71**	*e*PKPdf	PKPdf	13 02 34.7	-1.0
CPD	**Cerro la Pandu**	**138.11**	**71**	*e*PKIKP	PKPdf	13 02 34.7	-1.0
EPF	**Esparros**	**138.39**	**333**	*e*PKIKP	PKPdf	13 02 35.6	+0.1
	comp=Z,28nm,1.1s						
EPF	**Esparros**	**138.39**	**333**	*e*PKPdf	PKPdf	13 02 35.6	+0.1
EPF	**Esparros**	**138.39**	**333**	*e*PKIKP	PKPdf	13 02 35.6	+0.1
MTP	**Monte Pirata**	**138.44**	**71**	*e*PKPdf	PKPdf	13 02 36.3	0.0
EBIE	**Bielsa**	**138.75**	**332**	PKP	PKPdf	13 02 38.6	+2.4
ETSF	**Etsaut**	**138.90**	**333**	*e*PKIKP	PKPdf	13 02 36.0	-0.5
	comp=Z,37nm,1.0s						
ETSF	**Etsaut**	**138.90**	**333**	*e*PKPdf	PKPdf	13 02 36.0	-0.5
ETSF	**Etsaut**	**138.90**	**333**	*e*PKIKP	PKPdf	13 02 36.0	-0.5
ELAN	**Lanestosa**	**139.84**	**336**	PKP	PKPdf	13 02 34.1	-4.1
EMOS	**Mosqueruela**	**140.84**	**331**	PKP	PKPdf	13 02 36.5	-3.6
ECAL	**Calabor**	**142.21**	**338**	PKP	PKPdf	13 02 37.6	-4.9
GUD	**Guadarrama**	**142.29**	**335**	PKP	PKPdf	13 02 38.1	-4.6
GUD	**Guadarrama**	**142.29**	**335**	PKIKP	PKPdf	13 02 38.1	-4.6
PBRG	**Braganca**	**142.33**	**338**	*e*PKPdf	PKPdf	13 02 38.7	-4.0
ETOB	**Tobarra**	**142.70**	**330**	PKP	PKPdf	13 02 39.8	-3.6
ELOB	**Lobios**	**142.74**	**340**	PKP	PKPdf	13 02 39.5	-3.9
MVO	**Moncorvo**	**142.99**	**338**	*e*PKPdf	PKPdf	13 02 40.6	-3.3
ESDC	**Sonseca Array**	**143.01**	**334**	PKP	PKPdf	13 02 40.5	-3.5
ESDC	**Sonseca Array**	**143.01**	**334**	PKhKP		13 02 40.2	
	comp=Z,11nm,0.8s,baz=24,slow=3.1,SNR=26						
ESLA	**Sonseca Array**	**143.01**	**334**	PFAKE		13 03 00.0	+16
ESLA				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
PVRL	**Vila Real**	**143.14**	**339**	*e*PKPdf	PKPdf	13 02 41.6	-2.6
EMUR	**La Murta**	**143.16**	**329**	PKP	PKPdf	13 02 39.9	-4.4
EVIA	**Vianos**	**143.17**	**331**	PKP	PKPdf	13 02 41.4	-2.9
EVIA	**Vianos**	**143.17**	**331**	PKIKP	PKPdf	13 02 41.4	-2.9
PAB	**San Pablo**	**143.28**	**334**	PFAKE		13 03 00.0	+16
PAB				LR	LR		
	comp=Z,604nm,19.0s,MS5.4						
PVIS	**Viseu**	**143.70**	**339**	*e*PKPdf	PKPdf	13 02 43.4	-1.8
MTE	**Manteigas**	**143.85**	**338**	*e*PKPdf	PKPdf	13 02 44.7	-0.7
MTE	**Manteigas**	**143.85**	**338**	*e*PKPdf	PKPdf	13 02 44.5	-1.0
EQES	**Quesada**	**144.10**	**331**	PKP	PKPdf	13 02 43.1	-2.9
EBAN	**Banos Encina**	**144.16**	**332**	PKP	PKPdf	13 02 43.6	-2.4
EBAN	**Banos Encina**	**144.16**	**332**	PKIKP	PKPdf	13 02 43.6	-2.4
ENIJ	**Nijar**	**144.32**	**329**	PKP	PKPdf	13 02 43.6	-2.7
ENIJ	**Nijar**	**144.32**	**329**	PKIKP	PKPdf	13 02 43.6	-2.8
EADA	**Adamuz**	**144.52**	**333**	PKP	PKPdf	13 02 43.9	-2.8
EBER	**Berja**	**144.72**	**330**	PKP	PKPdf	13 02 43.9	-3.2
ECOG	**Cogollos-Vega**	**144.76**	**331**	PKP	PKPdf	13 02 44.6	-2.5
ECOG	**Cogollos-Vega**	**144.76**	**331**	PKIKP	PKPdf	13 02 44.6	-2.5
PTOM	**Tomar**	**144.85**	**338**	*e*PKPdf	PKPdf	13 02 46.1	-1.1
ELUQ	**Luque**	**144.87**	**332**	PKP	PKPdf	13 02 45.9	-1.4
ELUQ	**Luque**	**144.87**	**332**	PKIKP	PKPdf	13 02 45.9	-1.4
EBAD	**Badajoz**	**145.07**	**336**	PKP	PKPdf	13 02 46.0	-1.6
ERON	**Agron**	**145.08**	**331**	PKP	PKPdf	13 02 45.2	-2.5
EGUA	**Guajares**	**145.11**	**330**	PKP	PKPdf	13 02 46.0	-1.7
EGUA	**Guajares**	**145.11**	**330**	PKP2	PKPab	13 02 46.0	-1.3

ELOJ	**Sierra Loja**	145.14	331	PKP	PKPdf	13 02 46.0	-1.8
ELOJ	**Sierra Loja**	145.14	331	PKP2	PKPab	13 02 46.0	-1.4
PESTR	**Estremoz**	145.20	337	*e*PKPdf	PKPdf	13 02 47.2	-0.6
EALB	**Alboran**	145.54	329	PKP	PKPdf	13 02 46.7	-1.8
EVO	**Evora**	145.66	337	⇑*i*PKIKP	PKPdf	13 02 48.6	0.0
	comp=Z,274nm,1.2s						
EVO				*e*MLR	MLR		
	comp=Z,678nm,23.0s,MS5.1						
EVO	**Evora**	145.66	337	*e*PKPab	PKPab	13 02 48.9	-0.3
PMAFR	**Mafra**	145.75	339	*e*PKPab	PKPab	13 02 49.8	+0.2
EMIN	**Mina Concepcio**	145.77	335	PKP	PKPdf	13 02 48.7	-0.1
MOE	**Montemor**	145.79	337	*e*PKPab	PKPab	13 02 49.0	-0.7
EMIJ	**Mijas**	145.91	331	PKP	PKPdf	13 02 47.3	-1.8
PBEJ	**Beja**	146.04	336	*e*PKPab	PKPab	13 02 50.3	-0.4
ESPR	**Espera**	146.16	333	PKP	PKPdf	13 02 49.9	+0.3
EGRO	**El Granado**	146.30	336	PKP	PKPdf	13 02 50.4	+0.7
EJIF	**Jimena Fronter**	146.33	332	PKP	PKPdf	13 02 50.4	+0.5
EJIF	**Jimena Fronter**	146.33	332	PKP2	PKPab	13 02 50.4	-1.4
PVAQ	**Vaqueiros**	146.51	336	*e*PKPab	PKPab	13 02 52.1	-0.4
PBDV	**Barranco-do-Ve**	146.74	336	*e*PKPab	PKPab	13 02 53.3	-0.1
PTEO	**Sao Teotonio**	146.79	337	*e*PKPab	PKPab	13 02 52.8	-0.8
MORF	**Marmelete**	146.97	337	*e*PKPdf	PKPdf	13 02 51.2	+0.3
MORF	**Marmelete**	146.97	337	*e*PKPab	PKPab	13 02 53.5	-0.8
TOA0	**Torodi Ar. Sit**	153.82	285	PKPdf	PKPdf	13 03 01.8	-0.4
TOA0				*e*PKPbc	PKPbc	13 03 09.6	-0.5
TORD	**Torodi Ar. Bea**	153.82	285	PKP	PKPdf	13 02 59.1	-3.0
TORD				PKPbc	PKPbc	13 03 09.0	-1.1
TORD	**Torodi Ar. Bea**	153.82	285	PKP	PKPdf	13 02 59.1	-3.0
	comp=Z,2.0nm,0.9s,baz=81,slow=1.8,SNR=9.7						
TORD				PKPbc	PKPbc	13 03 09.0	-1.1
	comp=Z,8.6nm,0.8s,baz=39,slow=2.0,SNR=26						
PMAR	**Madeira**	153.84	346	*e*PKPbc	PKPbc	13 03 09.6	-0.1
KIC	**Kosan Boka**	160.58	268	*e*PKP1	PKPdf	13 03 09.6	-1.2
	comp=Z,188nm,0.9s						
LIC	**Lamto**	160.86	268	*e*PKIKP	PKPdf	13 03 09.2	-1.9
	comp=Z,58nm,1.3s						
LIC				*e*MLR	MLR		
	comp=Z,770nm,21.2s						
LIC	**Lamto**	160.86	268	*e*PKP1	PKPdf	13 03 10.6	-0.5
	comp=Z,99nm,1.0s						
LIC	**Lamto**	160.86	268	*e*PKPdf	PKPdf	13 03 09.2	-1.9
LIC				LR	LR		
	comp=Z,390nm,21.3s						
TIC	**Toumodi**	160.88	269	*e*PKP1	PKPdf	13 03 10.2	-0.9
	comp=Z,99nm,0.8s						
RCBR	**Riachuelo**	162.51	138	PFAKE		13 03 20.0	+7.2
RCBR				LR	LR		
	comp=Z,761nm,21.0s						

IDC 17 13:05:24.1±1.9**, 6.17S×129.98E, h0^{km}, mb3.3**/2**, mb1 3.6**/5**, mb1mx3.4**/15**, mbtmp3.4**/5**, ML3.6**/3**, Error ellipse: s-maj=100.3km s-min=25.2km az=79.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	12.59	199	Pn	Pn	13 08 24.2	-0.4
	0.2nm,0.3s,baz=27,slow=16,SNR=20						
FITZ				Sn	Sn	13 10 31.4	-14
	0.5nm,0.3s,baz=80,slow=22,SNR=9.7						
WRA	**Warramunga Arr**	14.33	163	Pn	Pn	13 08 49.4	+0.9
	0.4nm,0.3s,baz=349,slow=11,SNR=14						
WRA				Sn	Sn	13 11 18.2	-10
	0.5nm,0.3s,baz=333,slow=22,SNR=7.1						
ASAR	**Alice Springs**	17.80	168	P	Pn	13 09 33.4	-0.1
	0.2nm,0.3s,baz=348,slow=10,SNR=28						
ASAR				S	Sn	13 12 45.6	-7.0
	0.1nm,0.3s,baz=318,slow=45,SNR=5.0						
SONM	**Songino Array**	57.65	341	P	P	13 15 17.6	+1.5
	0.2nm,0.7s,baz=126,slow=7.3,SNR=2.0						
MKAR	**Makanchi Array**	67.52	327	P	P	13 16 21.5	-0.7
	0.2nm,0.4s,baz=112,slow=9.6,SNR=7.8						

IDC ***17*** *13:18:58.5±1.2, 17.73N×120.53E, h0^{km}, mb3.4/4, mb1 3.6/4, mb1mx3.3/20, mbtmp3.4/4, Error ellipse: s-maj=81.9km s-min=23.6km az=68.0*

ISCJB ***17*** *13:19:08.9±2.3, 17.5N±0.1×120.2E±0.2, h98^{km}±21^{km}, mb3.3/4, Error ellipse: s-maj=38.3km s-min=21.2km az=5.5*

ISC 17 13:19:09.8±2.3**, 17.6N**±0.1×**120.2E**±0.2**, h93**^{km}±21^{km}**, n6, σ0^{s}.26**/7**, mb3.3**/4**, 2C, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CVP	**Callao Caves**	1.56	84	⇑*e*P	Pn	13 19 31.1	-5.3
CVP				*i* S	Sn	13 19 56.6	+0.1
PCPH	**Palayan**	2.16	156	⇑*e*P	Pn	13 19 44.0	-0.1
WRA	**Warramunga Arr**	39.76	159	P	P	13 26 33.5	-0.1
	0.3nm,0.5s,mb3.4,baz=340,slow=9.4,SNR=3.8						
MKAR	**Makanchi Array**	42.70	322	P	P	13 26 57.5	+0.1
	0.2nm,0.6s,mb3.0,baz=118,slow=6.5,SNR=3.2						
ASAR	**Alice Springs**	43.10	161	P	P	13 27 01.1	+0.3
	0.2nm,0.4s,mb3.2,baz=338,slow=6.8,SNR=12						
YKA	**Yellowknife Ar**	89.42	22	P	P	13 31 55.6	-0.3
	0.3nm,0.6s,mb3.5,baz=313,slow=4.5,SNR=6.5						

ISCJB ***17*** *13:44:08.6±0.6, 18.14S±0.06×126.76E±0.04, h10^{km}, Error ellipse: s-maj=9.6km s-min=5.5km az=161.0*

IDC ***17*** *13:44:11.7±8.0, 17.86S×126.75E, h0^{km}, mb1 3.9/3, mb1mx3.5/13, mbtmp3.7/3, ML3.6/2, Error ellipse: s-maj=116.9km s-min=52.6km az=177.0*

AUST ***17*** *13:44:12.6, 17.90S×126.62E, h0^{km}, ML3.3*

ISC 17 13:44:10.6±0.6**, 18.04S**±0.06×**126.68E**±0.04**, h10**^{km}**, n10, σ1^{s}.08**/17**, Western Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	0.99	266	*e*P	Pg	13 44 29.9	+0.3
FITZ				*e*S	Sg	13 44 41.9	-0.6
	246nm,0.2s						
KNA	**Kununurra**	3.03	42	*e*P	Pn	13 44 59.1	+0.5
KNA				*e*S	Sn	13 45 34.6	-0.4
	23nm,0.2s						
WRA	**Warramunga Arr**	7.49	106	Pn	Pn	13 46 02.6	+2.6
	0.8nm,0.3s,baz=284,slow=14,SNR=89						
WRA				Sn	Sn	13 47 23.3	-1.7
	3.8nm,0.3s,baz=282,slow=26,SNR=22						
WRA				Lg		13 48 08.4	
	1.8nm,0.3s,baz=281,slow=28,SNR=7.4						
KAKA	**Kakadu**	7.68	47	*e*P	Pn	13 46 02.3	-0.2
KAKA				*e*S	Sn	13 47 24.0	-5.6
	11nm,0.2s						
ASAR	**Alice Springs**	8.77	131	Pn	Pn	13 46 22.8	+5.2
	1.1nm,0.3s,baz=313,slow=12,SNR=65						
MEEK	**Meekatharra**	11.35	220	*e*P	Pn	13 46 54.0	+1.2
MEEK				*e*S	Sn	13 48 54.5	-5.2
	2.9nm,0.2s						
GIRL	**Giralia**	12.54	247	*e*P	Pn	13 47 09.3	+0.2
	390nm,1.3s						
KMBL	**Kambalda**	13.96	197	*e*P	Pn	13 47 28.1	-0.4
KMBL				*e*S	Sn	13 49 54.7	-9.0
	18nm,0.3s						
MORW	**Morawa**	14.67	220	*e*P	Pn	13 47 36.7	-1.5
MORW				*e*S	Sn	13 50 09.8	-11
	98nm,2.0s						
STKA	**Stephens Creek**	19.28	138	P	Pn	13 48 37.8	+1.3
	0.3nm,0.3s,baz=314,slow=14,SNR=5.4						

IDC ***17*** *14:20:41.2±5.0, 23.05N×122.40E, h0^{km}, mb3.4/2, mb1 3.7/3, mb1mx3.3/20, mbtmp3.5/3, ML3.6/1, Error ellipse: s-maj=112.3km s-min=72.6km az=31.0*

ISCJB ***17*** *14:20:54.1±1.3, 24.2N±0.1×122.91E±0.07, h53^{km}±7^{km}, mb3.1/2, Error ellipse: s-maj=22.1km s-min=9.1km az=15.4*

JMA ***17*** *14:20:54.3±0.1, 24.23N×122.93E, h54^{km}±1^{km}, M3.1*

ISC 17 14:20:54.6±1.4**, 24.2N**±0.1×**122.91E**±0.07**, h45**^{km}±9^{km}**, n12, σ0^{s}.47**/19**, mb3.1**/2**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	0.31	17	P	Pn	14 21 03.3	-0.1
YOJ				S	Sn	14 21 09.7	0.0
IRIF	**Iriomote-Funau**	0.77	77	P	Pn	14 21 08.5	-0.6
IRIF				*e*S	Sn	14 21 19.3	-0.3
HATJ	**Hateruma jima**	0.82	97	P	Pn	14 21 09.7	-0.1
HATJ				*e*S	Sn	14 21 21.4	+0.5
JKRS	**Kuro-shima**	1.01	86	P	Pn	14 21 12.3	0.0
JKRS				*e*S	Sn	14 21 25.6	+0.3
JIJ	**Ishigaki jima**	1.14	80	P	Pn	14 21 13.6	-0.6
JIJ				*e*S	Sn	14 21 28.0	-0.7
JTJ	**Tarama**	1.70	73	P	Pn	14 21 21.7	-0.1
JTJ				*e*S	Sn	14 21 42.2	-0.2
JMJ	**Miyako jima 2**	2.27	73	*e*S	Sn	14 21 55.8	-0.5
JOGS	**Gusukube**	2.35	75	P	Pn	14 21 31.6	+0.9
JOGS				*e*S	Sn	14 21 59.0	+0.6
JKE	**Kume jima 2**	4.12	58	P	Pn	14 21 56.0	+1.0
KSRS	**Korea Array**	13.93	17	Pn	Pn	14 24 16.1	+6.8
	0.2nm,0.3s,baz=196,slow=11,SNR=9.9						
SONM	**Songino Array**	27.02	335	P	P	14 26 32.4	+0.1
	0.1nm,0.5s,mb2.6,baz=146,slow=8.8,SNR=2.7						
YKA	**Yellowknife Ar**	82.37	23	P	P	14 33 11.1	-0.4
	0.5nm,0.7s,mb3.6,baz=309,slow=5.3,SNR=7.6						

IDC 17 14:28:23.9±7.6**, 21.08N×140.28E, h0^{km}, mb3.0**/4**, mb1 3.2**/4**, mb1mx3.1**/18**, mbtmp3.0**/4**, MS3.6**/1**, Ms1 3.6**/1**, ms1mx2.7**/13**, Error ellipse: s-maj=318.7km s-min=25.0km az=74.0, West of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	38.13	323	P	P	14 35 45.6	+1.0
	0.1nm,0.5s,baz=113,slow=11,SNR=2.1						
WRA	**Warramunga Arr**	41.18	189	P	P	14 36 11.1	+0.8
	0.1nm,0.3s,baz=9.0,slow=8.1,SNR=16						
CTA	**Charters Tower**	41.33	171	LR	LR	14 52 44.1	
	comp=Z,92nm,21.4s,baz=53,slow=35						
ASAR	**Alice Springs**	44.91	188	P	P	14 36 39.0	-1.4
	0.1nm,0.4s,baz=22,slow=8.2,SNR=4.3						
MKAR	**Makanchi Array**	53.13	313	P	P	14 37 42.6	-0.7
	0.1nm,0.6s,baz=87,slow=10.0,SNR=4.1						

ISCJB ***17*** *14:49:44.5±4.1, 2.9N±0.3×96.3E±0.3, h87^{km}±30^{km}, mb4.1/9, Error ellipse: s-maj=68.0km s-min=22.3km az=136.7*

IDC ***17*** *14:49:45.9±6.1, 2.85N×96.38E, h80^{km}±44^{km}, mb3.5/5, mb1 3.5/6, mb1mx3.3/22, mbtmp3.5/6, ML2.5/1, Error ellipse: s-maj=77.1km s-min=24.1km az=57.0*

ISC 17 14:49:46.0±4.0**, 2.9N**±0.3×**96.4E**±0.3**, h82**^{km}±29^{km}**, n10, σ0^{s}.71**/10**, mb4.1**/9**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	2.56	91	P	Pn	14 50 25.4	0.0
	1.0nm,0.3s,baz=300,slow=6.0,SNR=11						
ODAN	**Odare**	25.36	341	*e*P	P	14 55 05.8	+0.3
	13nm,0.8s,mb4.4						
TAPN	**Taplejung**	25.72	342	*e*P	P	14 55 05.1	-3.6
	9.6nm,0.7s,mb4.4						
KKN	**Kakani**	26.95	338	*e*P	P	14 55 19.6	-0.2
	16nm,0.9s,mb4.5						
GKN	**Gorkha**	27.39	337	*e*P	P	14 55 23.5	-0.2
	18nm,0.8s,mb4.7						
WRA	**Warramunga Arr**	43.63	123	P	P	14 57 42.6	0.0
	0.6nm,1.0s,mb3.3,baz=301,slow=9.6,SNR=3.9						
KSRS	**Korea Array**	44.98	36	P	P	14 57 52.2	-0.9
	0.5nm,0.6s,mb3.5,baz=217,slow=9.9,SNR=4.2						
MKAR	**Makanchi Array**	45.44	346	P	P	14 57 56.5	0.0
	1.6nm,0.5s,mb4.0,baz=158,slow=8.7,SNR=42						
SONM	**Songino Array**	45.63	9	P	P	14 57 59.3	+1.3
	1.4nm,0.7s,mb3.8,baz=190,slow=9.0,SNR=18						
ZALV	**Zalesovo Beam**	51.79	351	P	P	14 58 45.3	+0.2
	1.6nm,0.5s,mb4.3,baz=180,slow=8.0,SNR=12						

BJI ***17*** *14:51:37.6, 64.28N×147.41W, h16^{km}, mB5.1, mb4.8, Ms4.7, Msz4.6*

ISCJB ***17*** *14:51:38.8±1.0, 64.36N±0.02×147.66W±0.04, h9^{km}±6^{km}, mb4.7/128, MS4.1/24, Error ellipse: s-maj=3.5km s-min=2.4km az=44.2*

MOS ***17*** *14:51:39.4±0.9, 64.35N×147.61W, h15^{km}, mb4.9/52, MS4.1/7, Error ellipse: s-maj=11.7km s-min=4.3km az=95.5*

IDC ***17*** *14:51:39.1±0.6, 64.36N×147.57W, h0^{km}, mb4.4/22, mb1 4.6/24, mb1mx4.6/28, mbtmp4.4/24, ML4.1/2, MS3.8/12, Ms1 3.8/12, ms1mx3.6/37, Error ellipse: s-maj=16.7km s-min=11.3km az=27.0*

NEIC ***17*** *14:51:40.2, 64.25N×147.49W, h14^{km}, mb4.8/83, MS4.2/2, ML4.8(AEIC), After AEIC.*

NEIC Felt [IV] at Fort Wainwright and Salcha; [III] at Eielson AFB, Fairbanks, Healy and North Pole; [II] at Delta Junction. Also felt at Anderson, Cantwell, Clear and Nenana.

ISC 17 14:51:40.2±0.7**, 64.36N**±0.02×**147.65W**±0.04**, h5**^{km}±4^{km}**, h15**^{km}±1.7^{km}**:pP-P, n540, σ0^{s}.76**/544**, mb4.7**/128**, MS4.1**/24**, 88C-97D, Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COLA	**College**	0.53	351	P	Pg	14 51 52.1	+1.9
COLA				S	Sg	14 52 01.7	+4.6
IL1	**Eielson Array**	0.53	38	P	Pg	14 51 50.5	+0.1
IL1				S	Sg	14 51 59.3	+2.0
MCK	**McKinley**	0.84	223	P	Pg	14 51 55.2	-1.1
MCK				S	Sg	14 52 07.2	0.0
TRF	**Thorofare Moun**	1.48	233	P	Pn	14 52 06.4	-0.9
KTH	**Kantishna Hill**	1.65	242	P	Pn	14 52 08.5	-1.2
PAX	**Paxson**	1.70	144	P	Pn	14 52 08.1	-2.2
DOT	**Dot Lake**	1.73	113	P	Pn	14 52 07.7	-3.1
MENT	**Mentasta**	2.26	127	*e*P	Pn	14 52 14.8	-3.3
SML	**Sawmill**	2.58	187	P	Pn	14 52 20.9	-1.5
GHO	**Glory Hole Cre**	2.66	193	P	Pn	14 52 21.8	-1.8
EGAK	**Eagle**	2.83	79	P	Pn	14 52 24.1	-1.9
PMR	**Palmer**	2.86	194	*e*P	Pn	14 52 24.6	-1.6
BCA3	**Beaver Creek A**	2.92	114	P	Pn	14 52 23.9	-3.2
KNK	**Knik Glacier**	2.98	187	P	Pn	14 52 27.1	-0.8
IM3	**Indian Mountai**	3.05	305	P	Pn	14 52 29.4	+0.5
COLD	**Coldfoot**	3.07	341	P	Pn	14 52 30.8	+1.6
IMA2	**Indian Mountai**	3.07	307	*e*P	Pn	14 52 29.7	+0.5
BM3	**Burnt Mountain**	3.32	21	P	Pn	14 52 33.5	+0.8
FIB	**Fire Island**	3.41	201	P	Pn	14 52 33.1	-0.7
RC01	**Rabbit Creek A**	3.42	197	P	Pn	14 52 32.6	-1.3
DAWY	**Dawson**	3.62	91	P	Pn	14 52 35.9	-0.9
BMRM	**Bremner River**	3.68	156	P	Pn	14 52 36.2	-1.4
EYAK	**Cordova Ski Ar**	3.92	166	P	Pn	14 52 39.9	-1.0
SLKM	**Skilak Lake**	4.04	198	*e*Pn	Pn	14 52 45.0	+2.5
SLKM				*e*Sn	Sn	14 53 41.7	+12
RAGM	**Ragged Mountai**	4.22	159	P	Pn	14 52 44.2	-0.8
SEW	**Seward**	4.35	192	P	Pn	14 52 45.8	-1.0
SVW2	**Sparrevohn**	4.90	232	*e*P	Pn	14 52 54.3	0.0
MID	**Middleton Isla**	4.99	172	*e*P	Pn	14 52 55.4	-0.1
INK	**Inuvik**	6.92	49	*e*Pn	Pn	14 53 21.3	-0.8
	4µm,1.0s						
INK	**Inuvik**	6.92	49	*e*P	Pn	14 53 21.3	-0.8
INK				pmax	pmax		
	comp=Z,4µm,1.0s						
INK	**Inuvik**	6.92	49	Pn	Pn	14 53 21.2	-0.8
	comp=Z,6.3nm,0.3s,baz=239,slow=15,SNR=97						
INK				Sn	Sn	14 54 38.9	-2.1
	baz=180,slow=22,SNR=2.2						
INK				Lg		14 54 58.0	
	comp=Z,7.1nm,0.3s,baz=221,slow=0.9,SNR=4.5						
WHY	**Whitehorse**	6.97	116	P	Pn	14 53 20.6	-2.2
KDAK	**Kodiak Island**	7.01	202	P	Pn	14 53 22.4	-0.9
KDAK	**Kodiak Island**	7.01	202	Pn	Pn	14 53 22.2	-1.1
	comp=Z,3.0nm,0.3s,baz=30,slow=11,SNR=46						
KDAK				Sn	Sn	14 54 44.1	+0.8
	comp=Z,6.3nm,0.3s,baz=163,slow=22,SNR=3.9						
KDAK				Lg		14 55 12.1	
	comp=Z,8.2nm,0.3s,baz=145,slow=18,SNR=4.7						
KDAK				LR	LR	14 56 43.1	
	comp=Z,455nm,21.8s,baz=42,slow=43						
SKAG	**Skagway**	7.61	125	*e*P	Pn	14 53 31.2	-0.2
TNA	**Tin City**	8.67	287	P	Pn	14 53 46.4	+0.3
SIT	**Sitka**	9.48	135	*e*Pn	Pn	14 53 55.4	-1.7
DLBC	**Dease Lake**	10.30	117	*e*Pn	Pn	14 54 05.3	-3.1
DLBC	**Dease Lake**	10.30	117	Pn	Pn	14 54 04.1	-4.2
	baz=312,slow=15						
DLBC				Lg		14 56 55.8	
YKA	**Yellowknife Ar**	14.81	82	Pn	Pn	14 55 05.3	-4.5
YKA				Sn	Sn	14 57 59.1	+5.1
YKA				LR	LR	15 01 36.5	
YKA	**Yellowknife Ar**	14.81	82	P	Pn	14 55 05.3	-4.5
YKA						14 57 59.2	
YKA	**Yellowknife Ar**	14.81	82	Pn	Pn	14 55 05.3	-4.5
	comp=Z,0.6nm,0.3s,baz=293,slow=13,SNR=20						
YKA				Sn	Sn	14 57 59.1	+5.1
	comp=Z,0.1nm,0.3s,baz=297,slow=23,SNR=3.7						
YKA				LR	LR	15 01 36.5	
	comp=Z,306nm,18.6s,baz=240,slow=40						
BILL	**Bilibino**	18.60	302	*e*P	Pn	14 55 59.4	+1.4
	comp=Z,80nm,1.3s						
BILL	**Bilibino**	18.60	302	*e*P	Pn	14 55 59.4	+1.5
BILL				pmax	pmax		
	comp=Z,80nm,1.3s						
RES	**Resolute Bay**	20.29	38	*e*P	P	14 56 16.0	-0.1
	comp=Z,0.4nm,0.3s						
A05A	**Maple Falls**	20.60	126	⇑P	P	14 56 20.3	+0.5
	baz=20						
EDM	**Edmonton**	20.68	106	*e*P	P	14 56 19.4	-1.2
A06A	**Chilliwack**	20.73	125	⇑P	P	14 56 21.6	+0.5
	baz=20						
B04A	**Port Angeles**	20.92	130	⇑P	P	14 56 24.1	+0.9
	baz=21						
A07A	**Ashnola River,**	21.17	123	P	P	14 56 26.4	+0.6
	baz=21,SNR=6.5						
B06A	**Marblemount**	21.22	126	⇑P	P	14 56 26.1	-0.3
	baz=21						
B05A	**Bryant**	21.23	127	⇓P	P	14 56 26.4	-0.1
	baz=21						
C04A	**Brinnon**	21.40	129	⇑P	P	14 56 28.2	-0.1
	baz=21						
A08A	**Turner Farm, O**	21.66	122	P	P	14 56 31.1	+0.1
	baz=22,SNR=6.8						
B07A	**Winthrop**	21.76	124	P	P	14 56 32.0	-0.1
	baz=22,SNR=6.8						
C05A	**Tolt Reservoir**	21.85	127	⇑P	P	14 56 33.1	-0.1
	baz=22						
A09A	**Danville**	21.89	121	⇑P	P	14 56 33.4	-0.2
	baz=22,SNR=5.4						
NLW	**Nelson Butte**	22.00	125	P	P	14 56 34.7	-0.1
B08A	**Colville Reser**	22.13	123	P	P	14 56 36.0	-0.1
	baz=22,SNR=16						
A10A	**Northport**	22.27	119	⇓P	P	14 56 36.8	-0.9
	baz=22						
C07A	**Waterville**	22.43	125	P	P	14 56 38.6	-0.7
	baz=22,SNR=13						
E04A	**Onalaska**	22.46	130	⇓P	P	14 56 39.7	0.0
	baz=22						
WTV	**Waterville**	22.46	125	P	P	14 56 39.2	-0.4
B09A	**Rice**	22.51	121	⇓P	P	14 56 39.7	-0.6
	baz=22,SNR=10						
D06A	**Cle Elum**	22.58	127	⇓P	P	14 56 40.5	-0.4
	baz=22						
TBM	**Table Mountain**	22.69	126	P	P	14 56 42.5	+0.4
C08A	**Higginbotham F**	22.72	123	P	P	14 56 41.9	-0.5
	baz=22,SNR=17						
A11A	**Hall Mountain,**	22.75	118	⇓P	P	14 56 42.3	-0.4
	baz=23,SNR=5.1						
WPW	**White Pass**	22.77	128	P	P	14 56 44.6	+1.7
D07A	**Quincy**	22.89	125	⇑P	P	14 56 44.2	0.0
	baz=23,SNR=8.0						
C09A	**Chrisman Ranch**	22.99	122	⇓P	P	14 56 44.7	-0.5
	baz=23						
NEW	**Newport**	23.03	120	*e*P	P	14 56 45.1	-0.6
	comp=Z,35nm,1.6s,mb4.5						
NEW	**Newport**	23.03	120	*e*P	P	14 56 45.1	-0.6
NEW				pmax	pmax		
	comp=Z,35nm,1.6s						
NEW	**Newport**	23.03	120	P	P	14 56 44.9	-0.8
	comp=Z,8.5nm,1.0s,mb4.1,baz=341,slow=8.2,SNR=12						
A12A	**Yaak River Ran**	23.05	117	⇑P	P	14 56 45.2	-0.7
	baz=23						
E06A	**Yakima**	23.09	128	⇑P	P	14 56 45.8	-0.6
	baz=23						
F04A	**Amboy**	23.14	131	⇑P	P	14 56 47.1	+0.2
	baz=23						
B11A	**Sandpoint**	23.18	119	⇓P	P	14 56 46.5	-0.7
	baz=23						
D08A	**Wollman Farm,**	23.38	124	⇑P	P	14 56 48.8	-0.6
	baz=23,SNR=8.5						
B12A	**Libby**	23.45	117	⇓P	P	14 56 49.4	-0.7
	baz=23						
E07A	**Sunnyside**	23.47	126	⇓P	P	14 56 49.2	-1.2
	baz=23,SNR=7.3						
A13A	**Flathead Natio**	23.53	115	⇓P	P	14 56 49.3	-1.7
	baz=23						
D09A	**Jones Farm, Ri**	23.59	123	⇑P	P	14 56 50.3	-1.3
	baz=23						
WALA	**Waterton Lakes**	23.63	114	*e*P	P	14 56 51.2	-0.7
	comp=Z,33nm,1.3s,mb4.6						
G04A	**Mulino**	23.77	132	⇓P	P	14 56 52.6	-0.6
	baz=24						
E08A	**Dider Farm, El**	23.81	125	⇓P	P	14 56 52.6	-1.0
	baz=24,SNR=7.1						
F06A	**Goldendale**	23.84	128	⇓P	P	14 56 53.0	-0.9
	baz=24						
B13A	**Whitefish**	23.96	116	⇓P	P	14 56 53.7	-1.2
	baz=24,SNR=9.4						
H03A	**Soap Creek Ran**	23.98	134	⇑P	P	14 56 54.6	-0.6
	baz=24						
D10A	**Wagner Farm, O**	23.98	122	P	P	14 56 54.3	-0.8
	baz=24,SNR=9.8						
G05A	**Wamic**	24.12	130	⇑P	P	14 56 56.0	-0.4
	baz=24						
H04A	**Detroit Lake**	24.33	132	⇑P	P	14 56 57.9	-0.4
	baz=24						
D11A	**Klaveano Farm,**	24.34	120	⇑P	P	14 56 57.7	-0.7
	baz=24						
G06A	**Carlson Farm,**	24.35	129	⇑P	P	14 56 57.9	-0.7
	baz=24						
C13A	**Hot Springs**	24.49	117	⇑P	P	14 56 59.2	-0.6
	baz=24,SNR=9.5						
F08A	**Pendleton**	24.51	125	⇑P	P	14 56 59.5	-0.5
	baz=24						
E10A	**Myers Farm, Un**	24.52	122	⇑P	P	14 56 59.5	-0.6
	baz=24,SNR=6.1						
FFC	**Flin Flon**	24.53	91	*e*P	P	14 56 59.1	-1.0
	comp=Z,22nm,1.4s,mb4.5						
FFC	**Flin Flon**	24.53	91	*e*P	P	14 56 59.1	-1.0
FFC				pmax	pmax		
	comp=Z,22nm,1.4s,mb4.5						
I03A	**Eugene**	24.62	134	⇓P	P	14 57 00.8	-0.1
	baz=24,SNR=8.6						
G07A	**Ruggs Ranch, H**	24.66	127	⇓P	P	14 57 00.5	-0.8
	baz=24						
D12A	**Red Ives Fores**	24.70	119	⇑P	P	14 57 01.1	-0.6
	baz=24						
G08A	**Pilot Rock**	24.88	126	⇓P	P	14 57 03.0	-0.3
	baz=25						
F09A	**S2 Ranch, Elgi**	24.89	124	⇑P	P	14 57 03.1	-0.3
	baz=25						
H06A	**Lindquist Farm**	24.89	129	P	P	14 57 03.3	-0.2
	baz=25,SNR=5.8						
E11A	**Bogner Ranch,**	24.96	121	⇓P	P	14 57 03.4	-0.7
	baz=25						
D13A	**Huson**	25.01	118	⇓P	P	14 57 04.4	-0.2
	baz=25,SNR=7.1						
I04A	**Tendick Farm,**	25.05	133	⇑P	P	14 57 04.6	-0.3
	baz=25,SNR=5.7						
J02A	**Umpqua**	25.07	135	⇓P	P	14 57 05.3	+0.2
	baz=25						
I05A	**Bend**	25.09	131	⇓P	P	14 57 05.2	-0.1
	baz=25,SNR=8.1						
J03A	**Ideyld Park**	25.26	134	⇓P	P	14 57 06.7	-0.1
	baz=25,SNR=7.8						
H07A	**Lands Inn, Kim**	25.28	128	⇑P	P	14 57 06.9	-0.1
	baz=25						
G09A	**Cove**	25.31	125	⇑P	P	14 57 07.0	-0.2
	baz=25						
K01A	**Sixes**	25.31	137	⇑P	P	14 57 07.7	+0.4
	baz=25						
F11A	**Grangeville**	25.38	122	⇑P	P	14 57 07.7	-0.1
	baz=25,SNR=14						
D14A	**Greenough**	25.39	117	⇓P	P	14 57 07.8	-0.2
	baz=25						
FCC	**Fort Churchill**	25.43	78	*e*P	P	14 57 08.0	-0.3
	comp=Z,18nm,1.1s,mb4.5						
FCC	**Fort Churchill**	25.43	78	*e*P	P	14 57 08.0	-0.2
FCC				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.5						
CHMT	**Chamberlain Mo**	25.63	116	*e*P	P	14 57 09.3	-0.8
I06A	**Prineville**	25.64	130	⇓P	P	14 57 10.3	+0.1
	baz=25						
J04A	**Umpqua Nationa**	25.64	133	⇑P	P	14 57 10.5	+0.2
	baz=26						
K02A	**Glendale**	25.64	136	⇓P	P	14 57 10.8	+0.5
	baz=26,SNR=6.7						
H08A	**Prairie City**	25.66	127	⇑P	P	14 57 10.3	-0.1
	baz=26,SNR=7.3						
E13A	**Victor**	25.66	118	⇑P	P	14 57 10.2	-0.2
	baz=26						
I07A	**Izee**	25.75	129	⇓P	P	14 57 11.3	0.0
	baz=26,SNR=7.7						
G11A	**Walters Elk Ra**	25.75	122	⇓P	P	14 57 11.3	0.0
	baz=26						
SEY	**Seymchan**	25.81	295	⇑*e*P	P	14 57 12.1	+0.5
D15A	**Lincoln**	25.81	115	⇑P	P	14 57 11.3	-0.5
	baz=26						

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F12A  Elk City         25.83 121 ⇓P    P     14 57 11.8 -0.2
      baz=26,SNR=20
H09A  Durkee           25.88 125  P    P     14 57 12.7 +0.3
      baz=26,SNR=5.9
J05A  Fort Rock        25.88 132 ⇓P    P     14 57 12.7 +0.2
      baz=26,SNR=13
E14A  Clinton          25.95 117 ⇓P    P     14 57 12.8 -0.3
      baz=26
HUMO  Hull Mountain    25.95 135 eP    P     14 57 13.4 +0.3
      comp=Z,39nm,1.6s,mb4.7
HUMO  Hull Mountain    25.95 135 ⇑P    P     14 57 13.4 +0.3
      baz=26,SNR=6.6
EGMT  Eagleton         26.13 111 eP    P     14 57 13.6 -1.0
      comp=Z,22nm,0.8s,mb4.7
EGMT  Eagleton         26.13 111 ⇑P    P     14 57 14.3 -0.3
      baz=26
F13A  Darby            26.15 119 ⇑P    P     14 57 14.4 -0.5
      baz=26,SNR=18
L02A  Cave Junction    26.17 137 ⇑P    P     14 57 15.1 +0.1
      baz=26
I08A  Drewsey          26.22 127 ⇓P    P     14 57 15.8 +0.2
      baz=26
J06A  Christmas Vall   26.27 130 ⇓P    P     14 57 16.1 +0.1
      baz=26,SNR=13
E15A  Deer Lodge       26.27 116 ⇓P    P     14 57 15.8 -0.1
      baz=26
H10A  Noah’s Angus R   26.28 124 ⇓P    P     14 57 15.9 -0.1
      baz=26
M01C  Crescent City    26.30 138 ⇑P    P     14 57 16.6 +0.3
      baz=26
K04A  Chilquin         26.33 133 ⇑P    P     14 57 16.8 +0.3
      baz=26
J07A  Hines            26.44 129 ⇑P    P     14 57 17.6  0.0
      baz=26
H11A  Donnelly         26.44 123  P    P     14 57 17.2 -0.3
      baz=26,SNR=15
I09A  Lost Marbles R   26.46 126 ⇓P    P     14 57 17.5 -0.1
      baz=26
K05A  Summer Lake      26.50 132 ⇑P    P     14 57 18.3 +0.3
      baz=26,SNR=8.4
F14A  Wisdom           26.50 118 ⇓P    P     14 57 18.1 +0.1
      baz=26
K06A  Valley Falls     26.64 131  P    P     14 57 20.1 +0.8
      baz=26,SNR=14
L04A  Klamath Falls    26.68 134 ⇓P    P     14 57 20.0 +0.4
      baz=26
I10A  Payette          26.69 125 ⇓P    P     14 57 19.9 +0.2
      baz=26
J08A  Circle Bar Ran   26.74 128  P    P     14 57 20.9 +0.7
      baz=26,SNR=6.0
G13A  Cobalt           26.77 120  P    P     14 57 20.9 +0.5
      baz=27,SNR=12
F15A  Butte            26.81 117 ⇑P    P     14 57 20.9 +0.1
      baz=27
YBH   Yreka Blue Hor   26.82 136 eP    P     14 57 21.5 +0.6
      comp=Z,22nm,1.4s,mb4.5
YBH   Yreka Blue Hor   26.82 136 eP    P     14 57 21.5 +0.5
YBH                               pmax  pmax
      comp=Z,23nm,1.4s
YBH   Yreka Blue Hor   26.82 136 ⇓P    P     14 57 21.6 +0.6
      baz=27,SNR=7.9
G14A  Jackson          26.94 119 ⇓P    P     14 57 22.0  0.0
      baz=27
J09A  Fry Pan Ranch,   27.00 127  P    P     14 57 23.2 +0.7
      baz=27,SNR=7.6
H12A  Diamond D Ranc   27.00 121  P    P     14 57 22.9 +0.4
      baz=27,SNR=7.5
M04C  Macdoel          27.05 134  P    P     14 57 23.8 +0.8
      baz=27,SNR=7.0
K07A  Rock Creek Ran   27.07 130 ⇓P    P     14 57 23.3 +0.1
      baz=27,SNR=7.1
M02C  Callahan         27.09 136 ⇑P    P     14 57 24.1 +0.7
      baz=27,SNR=6.7
L05A  Lakeview         27.13 133 ⇓P    P     14 57 24.1 +0.4
      baz=27,SNR=7.3
I11A  Placerville      27.15 124 ⇓P    P     14 57 23.5 -0.3
      baz=27,SNR=20
H13A  Challis          27.21 121  P    P     14 57 24.6 +0.1
      baz=27,SNR=7.8
K08A  Mann Creek Ran   27.29 128 ⇓P    P     14 57 25.3 +0.2
      baz=27,SNR=7.3
G15A  Dillon           27.38 118 ⇓P    P     14 57 26.1 +0.2
      baz=27
M03C  McCloud          27.42 135 ⇓P    P     14 57 27.2 +0.8
      baz=27
MOD   Modoc            27.43 132  P    P     14 57 27.1 +0.7
      baz=27,SNR=7.8
WVOR  Wild Horse Val   27.50 129 eP    P     14 57 27.6 +0.5
      comp=Z,15nm,1.1s,mb4.5
WVOR  Wild Horse Val   27.50 129 eP    P     14 57 27.6 +0.5
WVOR                              pmax  pmax
      comp=Z,15nm,1.1s,mb4.5
MCMT  McKenzie Canyo   27.52 118 eP    P     14 57 27.8 +0.6
K09A  Rome             27.58 127  P    P     14 57 28.6 +0.8
      baz=27,SNR=6.7
MFID  Camas Ranch      27.62 124 ⇑P    P     14 57 28.4 +0.2
      baz=27,SNR=6.9
L07A  Adell            27.64 130  P    P     14 57 29.2 +0.9
      baz=27,SNR=12
M05C  Lookout          27.65 134  P    P     14 57 29.1 +0.7
      baz=28,SNR=9.7
K10A  MacKenzie Ranc   27.81 126  P    P     14 57 30.2 +0.4
      baz=28,SNR=6.7
I13A  Wildhorse Cree   27.82 121  P    P     14 57 30.2 +0.4
      baz=28,SNR=12
L08A  Fields           27.82 129 ⇓P    P     14 57 30.2 +0.3
      baz=28,SNR=13
WDC   Whiskeytown Da   27.93 136 eP    P     14 57 31.4 +0.5
      comp=Z,32nm,1.2s,mb4.8
WDC   Whiskeytown Da   27.93 136 eP    P     14 57 31.4 +0.5
WDC                               pmax  pmax
      comp=Z,32nm,1.2s,mb4.8
WDC   Whiskeytown Da   27.93 136 ⇑P    P     14 57 31.2 +0.3
      baz=28,SNR=10
HLID  Hailey           28.01 122 eP    P     14 57 31.6  0.0
      comp=Z,17nm,1.2s,mb4.5
HLID  Hailey           28.01 122  P    P     14 57 32.1 +0.5
      baz=28,SNR=17
HATC  Hat Creek Radi   28.05 135 ⇓P    P     14 57 32.4 +0.5
      baz=28
QLMT  Earthquake Lak   28.07 117 eP    P     14 57 32.8 +0.7
K11A  Parker Ranch,    28.11 125 ⇓P    P     14 57 32.7 +0.2
      baz=28,SNR=11
O02C  Red Bluff        28.23 137 ⇓P    P     14 57 34.0 +0.4
      baz=28
J13A  Cove Ranch, Pi   28.24 122 ⇓P    P     14 57 33.8 +0.2
      baz=28,SNR=8.8
M07A  Soldier Meadow   28.26 131 ⇑P    P     14 57 34.0 +0.2
      baz=28,SNR=8.1
MA2   Magadan          28.30 289 eP    P     14 57 34.2 +0.2
      comp=Z,18nm,1.0s,mb4.7
MA2   Magadan          28.30 289 eP    P     14 57 34.2 +0.1
MA2                               pmax  pmax
      comp=Z,18nm,1.0s,mb4.7
YMR   Madison River    28.38 116 eP    P     14 57 35.7 +0.8
      comp=Z,74nm,1.8s,mb5.0
ELFS  Eagle Lake Fie   28.45 134 ⇓P    P     14 57 35.8 +0.2
      baz=28,SNR=8.1
YNR   Norris Junctio   28.46 116 eP    P     14 57 36.3 +0.7
L10A  Juniper Basin    28.57 126 ⇓P    P     14 57 36.7 +0.1
      baz=28,SNR=10
O04C  Chester          28.61 134  P    P     14 57 37.6 +0.6
      baz=28,SNR=25
YFT   Old Faithful     28.62 116 eP    P     14 57 39.2 +2.2
N06A  Buffalo Meadow   28.62 132 ⇑P    P     14 57 37.3 +0.3
      baz=28,SNR=9.3
K12A  Draper Farm, C   28.64 124 ⇑P    P     14 57 37.2 +0.1
      baz=28
LKWY  Lake             28.69 116 eP    P     14 57 39.6 +2.0
      comp=Z,52nm,1.8s,mb5.0
LKWY  Lake             28.69 116 eP    P     14 57 39.6 +1.9
LKWY                              pmax  pmax
      comp=Z,53nm,1.8s,mb5.0
GASB  Alder Springs    28.73 137 ⇓P    P     14 57 38.5 +0.4
      baz=28
L11A  Cat Creek Ranc   28.74 125 ⇓P    P     14 57 37.8 -0.3
      baz=28,SNR=9.0
M09A  Marrel Ranch,    28.81 128 ⇑P    P     14 57 39.0 +0.3
      baz=29
K13A  Stover Farm, H   28.92 122 ⇓P    P     14 57 40.2 +0.5
      baz=29
O05C  Quincy           28.99 134  P    P     14 57 40.8 +0.4
      baz=29,SNR=9.3
L12A  House Creek Ra   29.02 124 ⇑P    P     14 57 40.9 +0.3
      baz=29
M10A  I.L. Ranch, Tu   29.03 127 ⇓P    P     14 57 41.2 +0.5
      baz=29,SNR=10.0
N08A  GE Springer Mi   29.15 130  P    P     14 57 42.4 +0.6
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      baz=29,SNR=9.5
O06A  Flanigan         29.15 133 ⇑P    P     14 57 41.9 +0.1
      baz=29,SNR=8.1
ORV   Oroville         29.19 136  P    P     14 57 41.8 -0.3
      baz=29,SNR=5.4
DCID1 Drake Creek      29.20 118 eP    P     14 57 43.7 +1.5
N09A  Rock Creek Ran   29.29 129 ⇑P    P     14 57 43.2 +0.2
      baz=29
K14A  Jones Ranch, D   29.35 121 ⇑P    P     14 57 44.0 +0.5
      baz=29
M11A  Holland Ranch,   29.38 126 ⇓P    P     14 57 44.4 +0.7
      baz=29,SNR=8.3
OHCM  Honcut           29.39 136 eP    P     14 57 42.6 -1.3
LOHW  Long Hollow      29.41 117 eP    P     14 57 45.0 +1.0
      comp=Z,9.8nm,1.1s,mb4.5
O07A  Toulon           29.46 131  P    P     14 57 45.5 +1.0
      baz=29,SNR=8.6
MNRC  McLaughlin Nat   29.53 138 ⇓P    P     14 57 45.7 +0.6
      baz=29
REDW  Red Top Meadow   29.53 118 eP    P     14 57 45.6 +0.5
      comp=Z,14nm,1.2s,mb4.5
TIXI  Tiksi            29.58 320 eP    P     14 57 45.1 -0.2
      comp=Z,7.3nm,0.9s,mb4.4
TIXI  Tiksi            29.58 320 eP    P     14 57 43.9 -1.4
TIXI                             e           14 57 52.1
TIXI                              pmax  pmax
      comp=Z,10.0nm,1.3s,mb4.4
TIXI                              MLR   MLR
      comp=Z,231nm,14.0s,MS4.0
P05C  Yuba Gap, Truc   29.69 135 ⇓P    P     14 57 46.1 -0.4
      baz=30
M12A  Wells            29.70 125  P    P     14 57 47.9 +1.3
      baz=30,SNR=8.2
NSHM  Saint Helena R   29.81 138 eP    P     14 57 47.6 -0.1
Q03C  Winters          29.88 137 ⇑P    P     14 57 48.5 +0.3
      baz=30
Q04C  Lincoln          29.88 136 ⇓P    P     14 57 48.2 -0.1
      baz=30
WCN   Washoe City      29.96 133  P    P     14 57 49.3 +0.3
      baz=30,SNR=6.0
O09A  Fish Creek Ran   30.02 129 ⇓P    P     14 57 49.8 +0.4
      baz=30
M13A  Montello         30.02 124 ⇑P    P     14 57 49.6 +0.1
      baz=30
O10A  Cortez Mining,   30.14 128 ⇑P    P     14 57 51.0 +0.5
      baz=30
N12A  Clover Valley,   30.15 126 ⇑P    P     14 57 51.2 +0.6
      baz=30,SNR=8.7
LAVA  Lava Cap Winer   30.15 135 ⇓P    P     14 57 50.2 -0.4
      baz=30
ELK   Elko             30.18 126 eP    P     14 57 51.6 +0.8
      comp=Z,17nm,1.2s,mb4.7
ELK   Elko             30.18 126 eP    P     14 57 51.6 +0.8
ELK                               pmax  pmax
      comp=Z,17nm,1.2s
M14A  Sheep Mountain   30.19 123 ⇓P    P     14 57 51.1 +0.2
      baz=30,SNR=15
ULM   Lac du Bonnet    30.33  93 eP    P     14 57 50.9 -1.2
      comp=Z,9.9nm,1.1s,mb4.5
ULM   Lac du Bonnet    30.33  93 P     P     14 57 51.2 -0.9
      comp=Z,1.8nm,0.5s,mb4.0,baz=321,slow=9.1,SNR=7.9
ULM                              LR    LR    15 09 07.8
      comp=Z,77nm,20.7s,MS3.3,baz=282,slow=35
R05C  Kirkwood Meado   30.41 134 P     P     14 57 53.4 +0.5
      baz=30,SNR=8.3
N13A  Wendover, West   30.45 124 ⇑P    P     14 57 53.5 +0.2
      baz=30,SNR=7.1
PDAR  Pinedale Array   30.54 117 P     P     14 57 54.8 +0.8
      comp=Z,10nm,1.1s,mb4.6,baz=328,slow=5.3,SNR=40
PDAR                             PcP   PcP   15 00 52.0 -0.6
      comp=Z,0.8nm,0.7s,baz=86,slow=0.3,SNR=3.7
M15A  Larsen Ranch,    30.56 122 ⇓P    P     14 57 54.0 -0.2
      baz=30
O11A  Cowboy Ranch,    30.57 127  P    P     14 57 55.2 +0.8
      baz=30,SNR=6.0
Q07A  Schurz           30.59 132 ⇓P    P     14 57 54.8 +0.2
      baz=30
P10A  Eureka           30.75 129 ⇑P    P     14 57 56.3 +0.3
      baz=31
HWUT  Hardware Ranch   30.76 120 eP    P     14 57 56.1 +0.1
      comp=Z,13nm,1.3s,mb4.6
R06C  Coleville        30.77 134  P    P     14 57 56.3 +0.2
      baz=31,SNR=18
CMB   Columbia Colle   30.92 135 eP    P     14 57 56.9 -0.6
      comp=Z,4.3nm,1.2s,mb4.2
CMB   Columbia Colle   30.92 135 eP    P     14 57 56.9 -0.6
CMB                               pmax  pmax
      comp=Z,4.0nm,1.2s,mb4.1
CMB   Columbia Colle   30.92 135 ⇑P    P     14 57 57.4  0.0
      baz=31
Q08A  Gabbs            30.95 131  P    P     14 57 58.3 +0.6
      baz=31,SNR=9.3
S04C  Ingram Canyon,   31.13 137 ⇓P    P     14 57 59.6 +0.3
      baz=31
NVAR  Mina Array Bea   31.22 132 P     P     14 57 59.9 -0.1
NVAR                             PcP   PcP   15 00 54.0 -0.5
NVAR  Mina Array Bea   31.22 132 P     P     14 57 59.9 -0.1
      comp=Z,7.9nm,0.8s,mb4.6,baz=331,slow=6.7,SNR=50
NVAR                             PcP   PcP   15 00 54.0 -0.5
      comp=Z,0.9nm,0.8s,baz=307,slow=0.4,SNR=3.7
S06C  San Francisco    31.23 135 P     P     14 58 00.4 +0.2
      baz=31,SNR=9.5
R07C  Lee Vining       31.29 133 P     P     14 58 01.7 +1.0
      baz=31,SNR=5.9
R08A  Mina             31.36 132 ⇓P    P     14 58 01.8 +0.5
      baz=31
P12A  McGill           31.42 127 P     P     14 58 02.3 +0.5
      baz=31,SNR=6.4
Q10A  Clear Creek Ra   31.49 129 P     P     14 58 03.4 +0.9
      baz=31,SNR=11
DUG   Dugway           31.53 123 eP    P     14 58 03.0 +0.2
      comp=Z,16nm,1.3s,mb4.7
DUG   Dugway           31.53 123 eP    P     14 58 03.0 +0.2
DUG                               pmax  pmax
      comp=Z,16nm,1.3s,mb4.7
DUG   Dugway           31.53 123 ⇑P    P     14 58 03.1 +0.3
      baz=31
S05C  Merced           31.58 136 ⇓P    P     14 58 03.3 +0.1
      baz=31
PACP  Pacheco Peak     31.60 137 ⇑P    P     14 58 03.7 +0.3
      baz=31
RSSD  Black Hills      31.62 109 eP    P     14 58 03.1 -0.4
      comp=Z,18nm,1.4s,mb4.7
RSSD  Black Hills      31.62 109 eP    P     14 58 03.1 -0.5
RSSD                              pmax  pmax
      comp=Z,18nm,1.4s,mb4.7
Q11A  Duckwater        31.73 128  P    P     14 58 05.3 +0.8
      baz=32,SNR=16
R09A  Tonopah          31.79 130  P    P     14 58 05.5 +0.4
      baz=32,SNR=19
AGMN  Agassiz Refuge   31.80  95 eP    P     14 58 03.7 -1.3
      comp=Z,3.6nm,0.6s,mb4.4
Q12A  Willow Creek R   31.84 127 ⇓P    P     14 58 05.8 +0.4
      baz=32
KCC   Kaiser Creek     31.91 134  P    P     14 58 06.8 +0.7
      baz=32,SNR=5.6
DAU   Daniels Canyon   31.91 121 eP    P     14 58 07.3 +1.1
T06C  Millerton Lake   32.08 135  P    P     14 58 08.0 +0.3
      baz=32,SNR=5.6
HAST  UC Hastings Re   32.10 138 ⇓P    P     14 58 08.4 +0.5
      baz=32
S08C  White Mtn Res    32.11 133 ⇑P    P     14 58 08.5 +0.6
      baz=32,SNR=9.3
MTUM  Tungsten Hills   32.12 133 eP    P     14 58 08.9 +1.0
TRCR  Troy Canyon      32.19 128 eP    P     14 58 08.5 -0.2
S09A  Goldfield        32.21 131  P    P     14 58 09.4 +0.7
      baz=32,SNR=12
S10A  Tonopah Range,   32.24 130 ⇓P    P     14 58 09.5 +0.5
      baz=32,SNR=17
U04C  Hernandez Rese   32.35 137 ⇓P    P     14 58 11.1 +1.1
      baz=32
TIN   Tinemaha         32.50 133 ⇑P    P     14 58 11.9 +0.6
      baz=32
R12A  Pony Springs,    32.55 127 ⇑P    P     14 58 12.2 +0.5
      baz=32
HELL  Mitchell Peak,   32.59 134 ⇓P    P     14 58 12.1 -0.1
      baz=32
S11A  Rachel           32.77 129 ⇑P    P     14 58 13.8  0.0
      baz=33
PKD   Parkfield        32.81 137 ⇑P    P     14 58 14.5 +0.4
      baz=33
GRAC  Grapevine Rang   32.82 132 ⇓P    P     14 58 15.0 +0.9
      baz=33
RCTC  Rector, Farmer   32.87 135 ⇓P    P     14 58 14.8 +0.2
      baz=33
CWC   Cottonwood Cre   33.11 133 ⇓P    P     14 58 17.2 +0.5
      baz=33
PTRM  Twissleman Ran   33.18 137 eP    P     14 58 18.1 +0.8
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MSU   Marysvale        33.25 124 eP    P     14 58 18.8 +0.9
SRU   San Rafael       33.33 121 eP    P     14 58 18.9 +0.4
      comp=Z,24nm,1.2s,mb5.0
SRU   San Rafael       33.33 121 eP    P     14 58 18.9 +0.4
SRU                               pmax  pmax
      comp=Z,24nm,1.2s,mb5.0
ARUT  Antelope Range   33.44 126 eP    P     14 58 20.2 +0.7
FURC  Furnace Creek,   33.47 132 ⇓P    P     14 58 20.3 +0.4
      baz=33
SMMC  Simmler          33.56 137 ⇓P    P     14 58 21.1 +0.5
      baz=33
S14A  Cedar City       33.56 126  P    P     14 58 21.2 +0.6
      baz=33,SNR=6.1
MPMC  Manual Prospec   33.65 133  P    P     14 58 22.2 +0.9
      baz=34,SNR=7.8
ISA   Isabella         33.70 134  P    P     14 58 22.0 +0.1
      baz=34,SNR=11
EYMN  Ely              33.96  92 eP    P     14 58 23.0 -1.0
      comp=Z,10nm,0.5s,mb5.0
T13A  Saint George     33.97 127 ⇑P    P     14 58 24.3 +0.2
      baz=34,SNR=17
PKM   Peak Mountain    34.00 137 ⇑P    P     14 58 24.9 +0.5
      baz=34
LRMC  Laurel Mountai   34.12 133  P    P     14 58 26.3 +0.8
      baz=34,SNR=7.7
SHOC  Shoshone         34.18 131 ⇓P    P     14 58 26.7 +0.6
      baz=34
T14A  Hurricane        34.22 126  P    P     14 58 27.1 +0.8
      baz=34,SNR=8.0
U12A  Valley of Fire   34.28 129  P    P     14 58 27.4 +0.5
      baz=34,SNR=5.6
SBC   Santa Barbara    34.45 137 ⇓P    P     14 58 29.1 +0.7
      baz=34
V11A  Goodsprings      34.52 130  P    P     14 58 29.4 +0.5
      baz=34,SNR=5.2
GSC   Goldstone        34.56 132  P    P     14 58 30.0 +0.7
      baz=34,SNR=14
EDW2  Edwards Air Fo   34.57 134  P    P     14 58 29.6 +0.2
      baz=34,SNR=5.6
ISCO  Idaho Springs    34.61 115 eP    P     14 58 29.7  0.0
      comp=Z,3.1nm,0.7s,mb4.3
ISCO  Idaho Springs    34.61 115 eP    P     14 58 29.7  0.0
ISCO                              pmax  pmax
      comp=Z,3.0nm,0.7s,mb4.3
V12A  Nelson           34.81 129  P    P     14 58 32.5 +1.0
      baz=35,SNR=12
ECSD  EROS,Sioux Fal   35.06 101 eP    P     14 58 32.3 -1.2
      comp=Z,22nm,1.3s,mb4.9
HEC   Hector,Ludlow    35.15 132 ⇑P    P     14 58 34.7 +0.4
      baz=35
W12A  Cal Nev Ari      35.20 130 ⇓P    P     14 58 35.1 +0.3
      baz=35
BFSC  Mount Baldy St   35.27 134  P    P     14 58 36.4 +1.0
      baz=35,SNR=8.4
GMRC  Granite Mounta   35.41 131  P    P     14 58 37.2 +0.6
      baz=35,SNR=10.0
W13A  Hualapai Mount   35.71 129  P    P     14 58 40.0 +0.8
      baz=36,SNR=8.0
MVCO  Mesa Verde       35.75 120 eP    P     14 58 39.5 -0.1
      comp=Z,19nm,1.5s,mb4.8
CIS   Catalina Islan   35.81 136 ⇓P    P     14 58 40.7 +0.6
      baz=36
W14A  Seligman         35.88 128  P    P     14 58 41.6 +0.9
      baz=36,SNR=6.8
BELC  Belle Mtn.       36.02 132 ⇓P    P     14 58 42.1 +0.3
      baz=36
IRM   Iron Mountain    36.15 131  P    P     14 58 43.9 +1.0
      baz=36,SNR=6.5
SCI   San Clemente I   36.16 136 ⇑P    P     14 58 43.6 +0.5
      baz=36
X13A  Yucca            36.19 129  P    P     14 58 44.0 +0.7
      baz=36,SNR=8.4
W15A  Williams         36.20 127  P    P     14 58 44.6 +1.2
      baz=36,SNR=5.9
WUAZ  Wupatki          36.21 125 eP    P     14 58 43.9 +0.5
      comp=Z,19nm,1.0s,mb5.0
WUAZ  Wupatki          36.21 125 ⇓P    P     14 58 44.0 +0.5
      baz=36
PFO   Pinyon Flat Ob   36.23 133 ⇑P    P     14 58 44.0 +0.3
      baz=36
PDMCI Parker Dam,Lak   36.35 130 ⇓P    P     14 58 45.0 +0.3
      baz=36
SDCO  Great Sand Dun   36.43 116 eP    P     14 58 45.7 +0.4
      comp=Z,15nm,1.1s,mb4.8
BC3   Big Chuckw Mtn   36.51 132 ⇑P    P     14 58 46.4 +0.4
      baz=36
X14A  Yava             36.62 128 ⇓P    P     14 58 47.2 +0.2
      baz=36
109C  Camp Elliot, M   36.69 134 ⇓P    P     14 58 47.8 +0.2
      baz=36
Y12C  Blythe           36.73 130 ⇑P    P     14 58 48.4 +0.5
      baz=36
X15A  Humboldt         36.83 127 ⇑P    P     14 58 49.1 +0.3
      baz=37
Y13A  Salome           36.90 129  P    P     14 58 49.9 +0.5
      baz=37,SNR=6.7
SWSC  Sam W. Stewart   37.05 133 ⇓P    P     14 58 50.9 +0.2
      baz=37
Y14A  Wickenburg       37.07 128  P    P     14 58 51.5 +0.7
      baz=37,SNR=8.6
DVTC  Desert V Tower   37.22 133 ⇓P    P     14 58 52.6 +0.5
      baz=37
GLA   Glamis           37.27 131 ⇑P    P     14 58 52.7 +0.2
      baz=37
Z14A  Wintersburg      37.61 129  P    P     14 58 56.3 +0.9
      baz=37,SNR=9.1
CBKS  Cedar Bluff      37.83 109 eP    P     14 58 57.1 -0.1
      comp=Z,27nm,1.2s,mb4.8
CBKS  Cedar Bluff      37.83 109 eP    P     14 58 57.1 -0.1
CBKS                              pmax  pmax
      comp=Z,27nm,1.2s,mb4.8
115A  Sonoran Desert   38.46 128  P    P     14 59 03.8 +1.2
      baz=38,SNR=5.5
JFWS  Jewell Farm      38.46  96 eP    P     14 59 01.0 -1.5
      comp=Z,9.0nm,0.5s,mb4.8
JFWS  Jewell Farm      38.46  96 eP    P     14 59 01.0 -1.5
JFWS                              pmax  pmax
      comp=Z,9.0nm,0.5s,mb4.8
ANMO  Albuquerque      38.52 120 eP    P     14 59 04.0 +0.9
      comp=Z,11nm,1.0s,mb4.5
ANMO  Albuquerque      38.52 120⇑eP    P     14 59 03.4 +0.4
116A  Eloy             38.76 128 ⇑P    P     14 59 05.9 +0.8
      baz=39
KSU1  Kansas State U   38.88 105 eP    P     14 59 05.0 -1.0
      comp=Z,18nm,0.6s,mb5.0
BNM   Barren Site      39.16 120 eP    P     14 59 08.8 +0.4
SCHQ  Schefferville    39.24  65 P     P     14 59 08.6 -0.3
      comp=Z,5.9nm,0.7s,mb4.4,baz=331,slow=10,SNR=7.6
SCHQ                             LR    LR    15 14 30.4
      comp=Z,111nm,21.3s,MS3.7,baz=14,slow=35
TUC   Tucson           39.31 127 eP    P     14 59 10.1 +0.4
      comp=Z,8.6nm,1.1s,mb4.4
TUC   Tucson           39.31 127 eP    P     14 59 10.1 +0.4
TUC                               pmax  pmax
      comp=Z,9.0nm,1.1s,mb4.4
CLNS  Chul’man         40.29 302 eP    P     14 59 18.8 +1.2
CLNS                              pmax  pmax
      comp=Z,17nm,1.0s,mb4.7
CLNS                              pmax  pmax
      comp=N,6.0nm,0.7s
CLNS                              pmax  pmax
      comp=E,10.0nm,1.0s
CLNS                              MLR   MLR
      comp=Z,300nm,13.0s,MS4.3
CLNS                              MLR   MLR
      comp=N,100nm,10.0s
YSS   Yuzh-Sakhalins   40.55 279⇑eP    P     14 59 20.2 +0.4
YSS                               pmax  pmax
      comp=Z,36nm,1.6s,mb4.8
WMOK  Wichita Mounta   41.72 111 eP    P     14 59 28.8 -0.8
      comp=Z,17nm,1.1s,mb4.6
WMOK  Wichita Mounta   41.72 111 eP    P     14 59 28.8 -0.8
WMOK                              pmax  pmax
      comp=Z,17nm,1.1s,mb4.6
MNTX  Cornudas Mount   41.82 121 eP    P     14 59 29.3 -1.2
      comp=Z,2.5nm,0.9s,mb3.8
FVM   French Village   42.45 100 eP    P     14 59 34.0 -1.5
      comp=Z,21nm,0.6s,mb5.0
FVM   French Village   42.45 100 eP    P     14 59 34.0 -1.5
FVM                               pmax  pmax
      comp=Z,21nm,0.6s,mb4.9
HABR  Khabarovsk       42.63 287 eP    P     14 59 34.6 -2.3
HABR                             e*PP  pP    14 59 40.7 +2.2
HABR                             e           14 59 43.3
HABR                             e           15 01 27.8
HABR                             eS    S     15 05 57.4 -2.5
HABR                             e           15 06 06.6
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HABR				*e*SS	SS	15 09 11.1	+1.8
HABR				*e*		15 09 36.5	
HABR				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.5						
ASAJ	**Asahikawa**	42.86	277	LR	LR	15 19 09.7	
	comp=Z,167nm,18.8s,MS4.0,baz=313,slow=38						
SIUC	**Southern Illin**	43.19	99	*e*P	**P**	**14 59 40.3**	**-1.2**
	comp=Z,66nm,1.2s,mb5.2						
BOD	**Bodaibo**	43.38	310	*e*P	**P**	**14 59 41.7**	**-1.1**
BOD				pmax	pmax		
	comp=Z,24nm,1.1s,mb4.8						
MSNY	**Massena**	43.46	80	*e*P	**P**	**14 59 42.6**	**-1.1**
USIN	**University of**	43.65	97	*e*P	**P**	**14 59 44.3**	**-0.9**
	comp=Z,23nm,0.8s,mb5.0						
ACSO	**Alum Creek Sta**	43.80	91	*e*P	**P**	**14 59 45.6**	**-0.8**
	comp=Z,32nm,0.8s,mb5.1						
ALLY	**Alegheny Colle**	43.88	88	*e*P	**P**	**14 59 46.6**	**-0.5**
LONY	**Lake Ozonia**	43.88	80	*e*P	**P**	**14 59 45.8**	**-1.2**
	comp=Z,5.9nm,0.5s,mb4.6						
WCI	**Wyandotte Cave**	44.02	96	*e*P	**P**	**14 59 46.0**	**-2.2**
	comp=Z,12nm,0.8s,mb4.7						
WCI	**Wyandotte Cave**	44.02	96	*e*P	**P**	**14 59 46.1**	**-2.1**
WCI				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.7						
MIAR	**Mount Ida**	44.03	106	*e*P	**P**	**14 59 47.0**	**-1.3**
	comp=Z,9.1nm,0.6s,mb4.7						
MIAR	**Mount Ida**	44.03	106	*e*P	**P**	**14 59 47.1**	**-1.3**
MIAR				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.7						
TXAR	**Lajitas Array**	44.59	120	P	**P**	**14 59 53.0**	**+0.2**
	comp=Z,7.2nm,0.8s,mb4.5,baz=330,slow=6.8,SNR=34						
TXAR				LR	LR	15 20 15.9	
	comp=Z,182nm,19.4s,MS4.0,baz=250,slow=38						
JCT	**Junction City**	45.05	115	*e*P	**P**	**14 59 55.7**	**-0.8**
	comp=Z,8.7nm,0.6s,mb4.8						
JCT	**Junction City**	45.05	115	*e*P	**P**	**14 59 55.7**	**-0.8**
JCT				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.8						
WVT	**Waverly**	45.12	99	*e*P	**P**	**14 59 56.2**	**-0.8**
	comp=Z,65nm,1.3s,mb5.3						
WVT	**Waverly**	45.12	99	*e*P	**P**	**14 59 56.2**	**-0.8**
WVT				pmax	pmax		
	comp=Z,65nm,1.3s,mb5.3						
MCWV	**Mont Chateau**	45.64	89	*e*P	**P**	**15 00 00.4**	**-0.7**
	comp=Z,20nm,0.9s,mb5.0						
PLAL	**Pickwick Lake**	45.99	100	*e*P	**P**	**15 00 02.7**	**-1.2**
	comp=Z,23nm,1.1s,mb5.0						
KEV	**Kevo**	46.11	3	*e*p	**P**	**15 00 03.8**	**-0.7**
	comp=Z,1.5nm,0.5s,mb4.2						
KEV	**Kevo**	46.11	3	*e*P	**P**	**15 00 03.8**	**-0.7**
KEV				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
ARCES	**ARCESS Array B**	46.30	3	P	**P**	**15 00 07.0**	**+1.1**
ARCES				PcP	PcP	15 01 39.7	-1.3
ARCES	**ARCESS Array B**	46.30	3	P	**P**	**15 00 07.0**	**+1.1**
	comp=Z,1.7nm,0.7s,mb4.1,baz=21,slow=10,SNR=6.3						
ARCES				PcP	PcP	15 01 39.7	-1.3
	comp=Z,1.4nm,0.6s,baz=5.7,slow=3.7,SNR=5.7						
TZTN	**Tazewell**	46.62	95	*e*P	**P**	**15 00 07.9**	**-1.0**
	comp=Z,22nm,0.6s,mb5.3						
SWET	**Sewanee**	46.71	98	*e*P	**P**	**15 00 08.0**	**-1.6**
CPCT	**Cooper Cave**	47.12	96	*e*P	**P**	**15 00 11.6**	**-1.2**
ELN	**Prospectdale**	47.26	92	*e*P	**P**	**15 00 12.1**	**-1.8**
BLA	**Blacksburg**	47.42	91	*e*P	**P**	**15 00 14.1**	**-1.0**
	comp=Z,15nm,0.6s,mb5.1						
BLA	**Blacksburg**	47.42	91	*e*P	**P**	**15 00 14.1**	**-1.0**
BLA				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
MDJ	**Mudanjiang**	47.98	288	P	**P**	**15 00 18.0**	**-1.3**
MDJ				AMB	AMB		
	comp=Z,8.0nm,1.3s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,109nm,5.1s						
LRAL	**Lakeview Retre**	48.12	100	*e*P	**P**	**15 00 19.1**	**-1.4**
	comp=Z,14nm,1.1s,mb4.9						
HIA	**Hailar**	48.14	299	*e*P	**P**	**15 00 21.0**	**+0.5**
	comp=Z,23nm,1.0s,mb5.2						
HIA	**Hailar**	48.14	299	*e*P	**P**	**15 00 21.0**	**+0.5**
HIA				pmax	pmax		
	comp=Z,23nm,1.0s						
JSC	**Jenkinsville**	49.53	94	*e*P	**P**	**15 00 30.2**	**-1.1**
CN2	**Changchun**	50.35	290	*e*P	**P**	**15 00 37.3**	**-0.2**
CN2				*e*S	**S**	**15 07 47.5**	**-3.1**
CN2				AMB	AMB		
	comp=Z,20nm,1.3s,mb5.0						
CN2				LR	LR		
	comp=N,400nm,13.0s,MS4.8						
CN2				LR	LR		
	comp=E,400nm,13.0s,MS4.8						
CN2				LR	LR		
	comp=Z,200nm,12.0s,MS4.3						
MAJO	**Matsushiro**	50.98	274	*e*P	**P**	**15 00 41.7**	**-0.6**
	comp=Z,7.6nm,1.0s,mb4.6						
MAJO	**Matsushiro**	50.98	274	*e*P	**P**	**15 00 41.7**	**-0.7**
MAJO				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
MJAR	**Matsushiro Arr**	50.98	274	P	**P**	**15 00 42.4**	**0.0**
	comp=Z,6.2nm,1.0s,mb4.5,baz=12,slow=7.3,SNR=18						
IRK	**Irkutsk**	51.17	311	*e*P	**P**	**15 00 43.4**	**-0.2**
IRK				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.8						
TLY	**Talaya**	51.85	311	*e*P	**P**	**15 00 48.9**	**+0.2**
	comp=Z,4.1nm,0.7s,mb4.5						
TLY	**Talaya**	51.85	311	*e*P	**P**	**15 00 49.3**	**+0.6**
TLY				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
TLY				MLR	MLR		
	comp=Z,130nm,15.0s,MS4.1						
MOY	**Mondy**	52.72	313	*e*P	**P**	**15 00 56.7**	**+1.6**
MOY				pmax	pmax		
	comp=Z,29nm,1.8s,mb4.9						
JOF	**Joensuu**	53.03	1	*e*p	**P**	**15 00 56.5**	**-0.7**
	comp=Z,3.2nm,0.5s,mb4.5						
ZAK	**Zakamensk**	53.08	311	*e*P	**P**	**15 00 57.6**	**-0.2**
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb3.8						
JHJ	**Hachijo jima 2**	53.20	271	LR	LR	15 19 56.2	
	comp=Z,72nm,21.3s,MS3.7,baz=73,slow=32						
NB2	**NORSAR Subarra**	53.91	13	P	**P**	**15 01 03.5**	**-0.3**
	comp=Z,3.9nm,0.7s,mb4.5,baz=349,slow=7.4						
NOA	**NORSAR Array B**	53.91	13	P	**P**	**15 01 03.3**	**-0.5**
	comp=Z,2.5nm,0.7s,mb4.2,baz=349,slow=7.4,SNR=7.4						
ULN	**Ulaanbaatar**	53.96	307	*e*P	**P**	**15 01 05.3**	**+1.1**
	comp=Z,8.5nm,1.0s,mb4.6						
ULN	**Ulaanbaatar**	53.96	307	*e*P	**P**	**15 01 05.4**	**+1.1**
ULN				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
SONM	**Songino Array**	54.21	307	P	**P**	**15 01 07.2**	**+1.1**
	comp=Z,6.9nm,1.0s,mb4.5,baz=17,slow=5.9,SNR=39						
SONM				LR	LR	15 26 06.3	
	comp=Z,167nm,18.4s,MS4.1,baz=360,slow=38						
FINES	**FINESS Array B**	54.42	4	P	**P**	**15 01 06.8**	**-0.7**
	comp=Z,1.3nm,0.5s,mb4.1,baz=2.3,slow=6.0,SNR=12						
KSRS	**Korea Array**	54.63	284	P	**P**	**15 01 09.4**	**+0.1**
	comp=Z,8.5nm,1.1s,mb4.7,baz=27,slow=7.0,SNR=29						
KSRS				LR	LR	15 26 15.9	
	comp=Z,104nm,18.2s,MS3.9,baz=335,slow=38						
NVS	**Novosibirsk**	54.85	327	*e*P	**P**	**15 01 09.2**	**-1.5**
NVS				pmax	pmax		
	comp=N,15nm,1.7s						
NVS				pmax	pmax		
	comp=Z,14nm,1.7s,mb4.7						
NVS				pmax	pmax		
	comp=E,8.0nm,1.5s						
HFS	**Hagfors**	55.03	11	P	**P**	**15 01 11.0**	**-0.8**
	comp=E,1.9nm,0.6s,mb4.3,baz=0.0,slow=4.4,SNR=7.8						
ZALV	**Zalesovo Beam**	55.28	325	P	**P**	**15 01 13.4**	**-0.4**
	comp=E,3.3nm,0.4s,mb4.8,baz=18,slow=6.2,SNR=25						
ZALV				LR	LR	15 25 53.0	
	comp=E,88nm,19.8s,MS3.8,baz=143,slow=37						
ZAL	**Zalesovo**	55.30	325	P	**P**	**15 01 13.4**	**-0.5**
BJT	**Baijiatuau**	57.27	295	*e*P	**P**	**15 01 28.4**	**+0.2**
	comp=E,3.2nm,0.6s,mb4.5						
BJT	**Baijiatuau**	57.27	295	*e*P	**P**	**15 01 28.4**	**+0.2**
BJT				pmax	pmax		
	comp=Z,3.0nm,0.6s						
EKA	**Eskdalemuir Ar**	57.55	23	P	**P**	**15 01 30.2**	**+0.3**
	comp=Z,14nm,0.5s,mb5.2,baz=331,slow=5.8,SNR=130						
ARU	**Arti**	57.88	343	*e*P	**P**	**15 01 32.2**	**0.0**
	comp=Z,9.6nm,0.8s,mb4.9						
ARU	**Arti**	57.88	343	d *i*P	**P**	**15 01 32.0**	**-0.2**
ARU				*i*	pP	15 01 33.4	-0.5
ARU				*e*S	**S**	**15 09 31.4**	**-0.4**
ARU				*e*SS	SS	15 13 19.2	-2.2
ARU				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.9						
HHC	**Hu-ho-hao-te**	58.34	299	*e*P	**P**	**15 01 35.9**	**+0.2**
HHC				AP	pP	15 01 40.5	+3.1
HHC				XP	sP	15 01 42.9	+4.9
HHC				PCP	PcP	15 02 27.0	+0.4
HHC				PP	PP	15 03 46.5	+2.2
HHC				SCP	ScP	15 06 25.3	-1.8
HHC				PCS	PcS	15 06 27.1	-0.9
HHC				S	**S**	**15 09 36.3**	**-2.0**
HHC				PS		15 09 51.6	
HHC				SCS	ScS	15 11 21.4	-4.2
HHC				SS	SS	15 13 28.8	-0.7
HHC				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.9						
HHC				AMB	AMB		
	comp=Z,151nm,4.1s						
HHC				LR	LR		
	comp=N,210nm,18.0s,MS4.4						
HHC				LR	LR		
	comp=E,189nm,18.0s,MS4.4						
HHC				LR	LR		
	comp=Z,167nm,20.9s,MS4.1						
BRVK	**Borovoye**	59.29	334	*e*P	**P**	**15 01 42.0**	**-0.1**
	comp=Z,24nm,1.4s,mb5.0						
BRVK	**Borovoye**	59.29	334	*e*P	**P**	**15 01 42.0**	**-0.1**
BRVK				pmax	pmax		
	comp=Z,24nm,1.4s,mb5.0						
KURK	**Kurchatov**	59.75	328	*e*P	**P**	**15 01 44.9**	**-0.4**
	comp=Z,17nm,1.4s,mb4.9						
KURK	**Kurchatov**	59.75	328	c *i*P	**P**	**15 01 44.6**	**-0.7**
OBN	**Obninsk**	60.82	357	⇑*e*P	**P**	**15 01 53.7**	**+1.2**
OBN				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.1						
MKAR	**Makanchi Array**	62.50	324	P	**P**	**15 02 02.6**	**-1.4**
	comp=Z,2.8nm,0.6s,mb4.6,baz=41,slow=6.3,SNR=62						
MKAR				LR	LR	15 32 38.1	
	comp=Z,106nm,19.4s,MS4.0,baz=7.2,slow=39						
NJ2	**Nanjing**	63.06	288	*e*P	**P**	**15 02 07.8**	**-0.2**
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.5						
WMQ	**Urumqi**	63.76	318	P	**P**	**15 02 14.5**	**+2.1**
WMQ				AP	pP	15 02 19.3	+5.2
WMQ				XP	sP	15 02 21.5	+6.7
WMQ				PCP	PcP	15 02 49.8	+1.4
WMQ				AMB	AMB		
	comp=Z,11nm,1.2s,mb4.8						
WMQ				LR	LR		
	comp=N,105nm,18.6s						
WMQ				LR	LR		
	comp=Z,112nm,16.5s,MS4.1						
BAIF	**Baives**	63.83	20	*e*P	**P**	**15 02 12.8**	**0.0**
	comp=Z,9.7nm,0.6s,mb4.7						
BAIF	**Baives**	63.83	20	*e*P	**P**	**15 02 12.8**	**0.0**
	comp=Z,4.8nm,0.6s,mb4.7						
BAIF	**Baives**	63.83	20	*e*P	**P**	**15 02 12.8**	**0.0**
BAIF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
GIVF	**Givet**	63.88	19	*e*P	**P**	**15 02 13.0**	**-0.1**
GTA	**Gaotai**	63.89	307	⇑P	**P**	**15 02 13.4**	**+0.1**
GTA				AP	pP	15 02 18.1	+3.1
GTA				XP	sP	15 02 20.4	+4.7
GTA				PP	PP	15 04 36.5	+3.2
GTA				PPP		15 06 08.4	
GTA				S	**S**	**15 10 48.8**	**-0.1**
GTA				XS	sS	15 10 56.4	+4.7
GTA				PS		15 11 10.1	
GTA				SS	SS	15 15 00.1	+3.8
GTA				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.9						
GTA				AMB	AMB		
	comp=Z,149nm,7.2s						
GTA				LR	LR		
	comp=N,235nm,15.2s,MS4.5						
GTA				LR	LR		
	comp=E,153nm,16.0s,MS4.5						
GTA				LR	LR		
	comp=Z,258nm,16.7s,MS4.5						
BRG	**Berggiesshubel**	64.22	13	*e*P	**P**	**15 02 15.3**	**0.0**
BRG				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
BRG	**Berggiesshubel**	64.22	13	*e*P	**P**	**15 02 15.3**	**0.0**
	comp=Z,2.5nm,0.7s,mb4.4						
FLN	**La Foliniere**	64.33	23	*e*P	**P**	**15 02 16.3**	**+0.2**
	comp=Z,9.8nm,0.7s,mb4.7						
FLN				*e*MLR	MLR		
	comp=Z,178nm,18.0s,MS4.0						
FLN	**La Foliniere**	64.33	23	*e*P	**P**	**15 02 16.3**	**+0.2**
	comp=Z,4.9nm,0.7s,mb4.7						
FLN				LR	LR		
	comp=Z,180nm,18.0s,MS4.3						
FLN	**La Foliniere**	64.33	23	*e*P	**P**	**15 02 16.3**	**+0.2**
FLN				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
FLN				MLR	MLR		
	comp=Z,180nm,18.0s,MS4.3						
GRR	**Gorron**	64.63	24	*e*P	**P**	**15 02 17.9**	**-0.2**
VRSR	**Storozhevoye**	64.64	355	*e*P	**P**	**15 02 18.5**	**+0.4**
VRSR				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
VRSR				pmax	pmax		
	comp=N,2.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.9s						
AB31	**Akbulak array**	64.69	340	*i* P	**P**	**15 02 18.1**	**-0.3**
AB31				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
AKASG	**Malin Array Be**	65.26	2	P	**P**	**15 02 21.7**	**-0.4**
AKASG	**Malin Array Be**	65.26	2	P	**P**	**15 02 21.7**	**-0.4**
	comp=Z,7.8nm,0.5s,mb5.0,baz=358,slow=6.3,SNR=71						
AKBB	**Malin Array Si**	65.26	2	*e*P	**P**	**15 02 21.5**	**-0.6**
KIEV	**Kiev**	65.26	2	*e*P	**P**	**15 02 21.3**	**-0.9**
	comp=Z,9.1nm,0.5s,mb5.1						
KIEV	**Kiev**	65.26	2	*e*P	**P**	**15 02 21.3**	**-0.8**
KIEV				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.1						
LZH	**Lanzhou**	65.41	302	*e*P	**P**	**15 02 23.5**	**+0.2**
LZH				AP	pP	15 02 27.3	+2.3
LZH				XP	sP	15 02 30.5	+4.8
LZH				PP	PP	15 04 49.8	+3.1
LZH				*e*S	S	15 11 03.0	-4.8
LZH				SS	SS	15 15 19.0	-1.1
LZH				AMB	AMB		
	comp=Z,43nm,1.4s,mb5.3						
LZH				AMB	AMB		
	comp=Z,130nm,4.9s						
LZH				LR	LR		
	comp=E,435nm,16.1s						
LZH				LR	LR		
	comp=Z,635nm,17.1s,MS4.9						
LZH	**Lanzhou**	65.41	302	*e*P	**P**	**15 02 23.5**	**+0.2**
	comp=Z,43nm,1.4s,mb5.3						
LZH				pP	pP	15 02 27.2	+2.2
LZH				sP	sP	15 02 30.5	+4.8
LZH				PP	PP	15 04 49.7	+3.0
LZH				*e*S	S	15 11 03.0	-4.8
LZH				sS	sS	15 11 11.0	+0.4
LZH				SS	SS	15 15 19.0	-1.1
LZH				LR	LR		
	comp=Z,640nm,17.1s,MS4.9						
LZH	**Lanzhou**	65.41	302	*e*P	**P**	**15 02 23.5**	**+0.2**
LZH				*PP	pP	15 02 27.2	+2.2
LZH				*SP	sP	15 02 30.5	+4.8
LZH						15 04 49.7	
LZH				*e*S	S	15 11 03.0	-4.8
LZH				SS	SS	15 15 19.0	-1.1
LZH				pmax	pmax		
	comp=Z,43nm,1.4s,mb5.3						
LZH				MLR	MLR		
	comp=Z,640nm,17.1s,MS4.9						
CDF	**Champ du Feu**	65.87	18	*e*P	**P**	**15 02 26.2**	**+0.1**
KHC	**Kasperske Hory**	65.90	13	⇑*e*P	**P**	**15 02 25.7**	**-0.6**
KHC	**Kasperske Hory**	65.90	13	*e*P	**P**	**15 02 27.5**	**+1.2**
HAU	**Haudompre**	66.14	19	*e*P	**P**	**15 02 27.8**	**0.0**
HAU				*e*MLR	MLR		
	comp=Z,143nm,21.8s,MS3.8						
HAU	**Haudompre**	66.14	19	*e*P	**P**	**15 02 27.8**	**0.0**
HAU				MLR	MLR		
	comp=Z,140nm,21.8s,MS4.1						
GERES	**GERESS Array B**	66.20	13	P	**P**	**15 02 28.5**	**+0.3**
	comp=Z,1.8nm,0.8s,mb4.2,baz=14,slow=5.9,SNR=4.5						
WHN	**Wuhan**	66.23	291	⇓P	**P**	**15 02 28.4**	**-0.3**
STHS	**Stebnicka Huta**	66.24	8	*e*P	**P**	**15 02 28.9**	**+0.5**
	comp=Z,6.5nm,1.1s,mb4.6						
STHS	**Stebnicka Huta**	66.24	8	*e*P	**P**	**15 02 28.9**	**+0.5**
STHS				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
HINF	**Hinteralfeld**	66.40	18	*e*P	**P**	**15 02 29.2**	**-0.3**
LOR	**Lormes**	66.50	21	*e*P	**P**	**15 02 30.0**	**-0.1**
	comp=Z,6.5nm,0.6s,mb4.5						
LOR				*e*MLR	MLR		
	comp=Z,118nm,22.2s,MS3.8						
LOR	**Lormes**	66.50	21	*e*P	**P**	**15 02 30.0**	**-0.1**
	comp=Z,3.3nm,0.6s,mb4.5						
LOR				LR	LR		
	comp=Z,120nm,22.3s,MS4.1						
LOR	**Lormes**	66.50	21	*e*P	**P**	**15 02 30.0**	**-0.1**
LOR				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
LOR				MLR	MLR		
	comp=Z,120nm,22.3s,MS4.1						
SSF	**Saint Saulge**	66.64	21	*e*P	**P**	**15 02 31.4**	**+0.3**
	comp=Z,10nm,0.7s,mb4.7						
SSF	**Saint Saulge**	66.64	21	*e*P	**P**	**15 02 31.4**	**+0.3**
	comp=Z,5.2nm,0.7s,mb4.7						
SSF	**Saint Saulge**	66.64	21	*e*P	**P**	**15 02 31.4**	**+0.3**
SSF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
AVF	**Avril sur Loir**	66.88	21	*e*P	**P**	**15 02 32.3**	**-0.3**
	comp=Z,6.2nm,0.6s,mb4.5						
AVF	**Avril sur Loir**	66.88	21	*e*P	**P**	**15 02 32.3**	**-0.3**
	comp=Z,3.1nm,0.6s,mb4.5						
AVF	**Avril sur Loir**	66.88	21	*e*P	**P**	**15 02 32.3**	**-0.3**
AVF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
SMF	**Signal de Mont**	67.10	21	*e*P	**P**	**15 02 33.6**	**-0.4**
KECS	**Kecovo**	67.12	9	*e*P	**P**	**15 02 34.2**	**+0.1**
	comp=Z,2.3nm,0.8s,mb4.3						
KECS	**Kecovo**	67.12	9	*e*P	**P**	**15 02 34.2**	**+0.1**
KECS				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
CABF	**La Chapelle**	67.47	19	*e*P	**P**	**15 02 36.5**	**+0.2**
	comp=Z,6.2nm,0.6s,mb4.5						
CABF	**La Chapelle**	67.47	19	*e*P	**P**	**15 02 36.5**	**+0.2**
	comp=Z,3.1nm,0.6s,mb4.5						
CABF	**La Chapelle**	67.47	19	*e*P	**P**	**15 02 36.5**	**+0.2**
CABF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
USP	**Ospenovka**	67.71	328	P	**P**	**15 02 37.8**	**-0.1**
	SNR=7.7						
DAVOS	**Davos**	67.74	17	P	**P**	**15 02 39.4**	**+1.4**
TKM2	**Tokmak 2**	67.78	327	P	**P**	**15 02 38.5**	**+0.1**
	SNR=6.2						
TKM2	**Tokmak 2**	67.78	327	*e*P	**P**	**15 02 38.1**	**-0.3**
	comp=Z,9.8nm,1.1s,mb4.8						
TKM2	**Tokmak 2**	67.78	327	*e*P	**P**	**15 02 38.1**	**-0.3**
TKM2				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
DAVOX	**Davos/Dischmat**	67.81	16	P	**P**	**15 02 39.4**	**+0.9**
	comp=Z,2.7nm,0.6s,mb4.5,baz=118,slow=2.9,SNR=6.3						
CHMS	**Chumysh**	67.91	328	P	**P**	**15 02 39.2**	**0.0**
	SNR=5.7						
KBA	**Koelnbreinsper**	67.91	14	⇑*i*P	**P**	**15 02 40.1**	**+1.0**
	comp=Z,8.3nm,0.7s,mb4.9						
KBA	**Koelnbreinsper**	67.91	14	⇑*i*P	**P**	**15 02 40.1**	**+1.0**
	comp=Z,8.3nm,0.6s,mb4.9						
KBA	**Koelnbreinsper**	67.91	14	⇑*i*pP	pP	15 02 40.1	-0.7
	comp=Z,8.3nm,0.7s						
KBA	**Koelnbreinsper**	67.91	14	⇑*i*P	**P**	**15 02 40.1**	**+1.0**
KBA				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
RJF	**Les Rejaudoux**	68.03	23	*e*P	**P**	**15 02 39.7**	**-0.2**
RJF				*e*MLR	MLR		
	comp=Z,235nm,17.5s,MS4.2						
RJF	**Les Rejaudoux**	68.03	23	*e*P	**P**	**15 02 39.7**	**-0.2**
RJF				MLR	MLR		
	comp=Z,230nm,17.5s,MS4.5						
KBK	**Karagaybulak**	68.19	327	P	**P**	**15 02 40.9**	**0.0**
	SNR=8.1						
BURAR	**Bucovina Array**	68.23	5	⇓*i*P	**P**	**15 02 41.5**	**+0.4**
LFF	**La Frestale**	68.25	24	*e*P	**P**	**15 02 41.3**	**+0.1**
AAK	**Ala-Archa**	68.31	328	P	**P**	**15 02 41.8**	**+0.1**
	SNR=7.2						
AAK	**Ala-Archa**	68.31	328	*e*P	**P**	**15 02 40.4**	**-1.3**
	comp=Z,11nm,1.2s,mb4.8						
AAK	**Ala-Archa**	68.31	328	⇓*i*P	**P**	**15 02 40.5**	**-1.2**
AAK				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.8						
EKS2	**Erkin-Say**	68.45	328	P	**P**	**15 02 42.6**	**0.0**
	SNR=17						
EKS2	**Erkin-Say**	68.45	328	*e*P	**P**	**15 02 42.4**	**-0.1**
	comp=Z,16nm,1.0s,mb5.0						
KKAR	**Karatay Array**	68.75	331	*i* P	**P**	**15 02 43.4**	**-1.0**
DRGR		68.94	7	⇓*i*P	**P**	**15 02 45.7**	**+0.2**
VIVF	**Saint-Julien-l**	68.97	21	*e*P	**P**	**15 02 45.8**	**0.0**
	comp=Z,5.3nm,0.6s,mb4.3						
VIVF	**Saint-Julien-l**	68.97	21	*e*P	**P**	**15 02 45.8**	**0.0**
	comp=Z,2.7nm,0.6s,mb4.3						
VIVF	**Saint-Julien-l**	68.97	21	*e*P	**P**	**15 02 45.8**	**0.0**
VIVF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
AML	**Almayashu**	68.98	328	P	**P**	**15 02 45.5**	**-0.4**
	SNR=6.8						
AML	**Almayashu**	68.98	328	*e*P	**P**	**15 02 45.7**	**-0.2**
	comp=Z,7.4nm,0.9s,mb4.6						
MTLF	**Montolieu**	70.05	23	*e*P	**P**	**15 02 52.4**	**-0.1**
CD2	**Chengdu**	70.06	300	P	**P**	**15 02 52.5**	**-0.2**
CD2				AP	pP	15 02 57.3	+2.9
CD2				PP	PP	15 05 29.3	+2.1
CD2				S	S	15 12 01.3	-2.4
CD2				SS	SS	15 16 31.8	-0.5
CD2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
CD2				AMB	AMB		
	comp=Z,40nm,5.4s						
CD2				LR	LR		
	comp=N,310nm,14.6s						
CD2				LR	LR		
	comp=Z,260nm,15.6s,MS4.6						
MLR	**Muntele Rosu**	70.38	5	P	**P**	**15 02 55.0**	**+0.5**
	comp=Z,3.0nm,0.6s,mb4.4,baz=328,slow=22,SNR=5.8						
MLR	**Muntele Rosu**	70.38	5	⇓*i*P	**P**	**15 02 55.1**	**+0.7**
ANN	**Anapa**	71.11	356	*e*P	**P**	**15 03 01.9**	**+3.0**
ANN				pmax	pmax		
	comp=Z,78nm,1.2s,mb5.5						
KIV	**Kislovodsk**	71.72	352	*e*P	**P**	**15 03 02.9**	**+0.3**
	comp=Z,22nm,1.3s,mb4.9						
KIV	**Kislovodsk**	71.72	352	*e*P	**P**	**15 03 02.9**	**+0.3**
KIV				pmax	pmax		
	comp=Z,22nm,1.3s,mb4.9						
ESDC	**Sonseca Array**	72.43	29	P	**P**	**15 03 07.1**	**+0.2**
ESDC				LR	LR	15 36 01.5	
ESDC	**Sonseca Array**	72.43	29	P	**P**	**15 03 07.1**	**+0.2**
	comp=Z,1.3nm,0.4s,mb4.2,baz=346,slow=6.3,SNR=12						
ESDC				LR	LR	15 36 01.5	
	comp=Z,97nm,18.8s,MS4.1,baz=220,slow=37						
ZEI	**Tsey**	72.83	351	*e*P	**P**	**15 03 09.1**	**-0.1**
ZEI				*e*		15 05 49.2	
ZEI				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
GYA	**Guiyang**	72.93	295	⇑*i*P	**P**	**15 03 09.8**	**-0.3**
GYA				AP	pP	15 03 14.8	+3.0
GYA				XP	sP	15 03 18.3	+5.9
GYA				PCP	PcP	15 03 28.0	+0.9
GYA				PP	PP	15 05 54.5	+2.6
GYA				S	S	15 12 35.3	-1.6
GYA				PS		15 13 08.3	
GYA				SKS		15 13 10.9	
GYA				SCS	ScS	15 13 14.8	-3.5
GYA				SS	SS	15 17 17.3	+0.9
GYA				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.7						
GYA				AMB	AMB		
	comp=Z,130nm,6.8s						
GYA				LR	LR		
	comp=Z,630nm,21.6s,MS4.9						
KMI	**Kunming**	75.65	298	P	**P**	**15 03 24.5**	**-1.5**
KMI				AMB	AMB		
	comp=Z,4.0nm,1.6s,mb4.1						
KMI	**Kunming**	75.65	298	P	**P**	**15 03 24.5**	**-1.5**
	comp=Z,4.0nm,1.6s,mb4.1						
LSA	**Lhasa**	75.66	310	*e*P	**P**	**15 03 26.8**	**+0.8**
	comp=Z,12nm,1.1s,mb4.7						
LSA	**Lhasa**	75.66	310	*e*P	**P**	**15 03 26.8**	**+0.9**
LSA				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
BRTR	**Keskin Array B**	76.25	359	P	**P**	**15 03 29.2**	**0.0**
	comp=Z,1.3nm,0.6s,mb4.0,baz=15,slow=6.4,SNR=8.1						
MALT	**Malatya**	77.56	355	*e*P	**P**	**15 03 37.5**	**+0.9**
	comp=Z,7.2nm,1.3s,mb4.4						
MALT	**Malatya**	77.56	355	*e*P	**P**	**15 03 37.5**	**+1.0**

MALT				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
QIZ	**Qiongzhong**	**78.31**	**289**	P	**P**	**15 03 41.6**	**+0.6**
QIZ				S	S	15 13 35.8	-0.7
QIZ				LR	LR		
	comp=E,74nm,26.6s						
QIZ				LR	LR		
	comp=Z,101nm,18.7s						
TAPN	**Taplejung**	**78.96**	**312**	*e*P	**P**	**15 03 44.3**	**-0.2**
	comp=Z,53nm,1.1s,mb5.4						
KKN	**Kakani**	**79.33**	**314**	*e*P	**P**	**15 03 46.2**	**-0.3**
	comp=Z,23nm,1.0s,mb5.1						
GKN	**Gorkha**	**79.33**	**315**	*e*P	**P**	**15 03 45.9**	**-0.6**
	comp=Z,50nm,1.3s,mb5.3						
ODAN	**Odare**	**79.52**	**312**	*e*P	**P**	**15 03 47.3**	**-0.3**
	comp=Z,37nm,1.2s,mb5.2						
CM31	**Chiang Mai Arr**	**83.15**	**299**	*e*P	**P**	**15 04 06.1**	**-0.8**
	comp=Z,4.6nm,1.1s,mb4.4						
BOSA	**Boshof**	**143.96**	**11**	PKP	PKPdf	15 11 11.4	-4.5
BOSA	**Boshof**	**143.96**	**11**	PKIKP	PKPdf	15 11 11.4	-4.5
BOSA	**Boshof**	**143.96**	**11**	PKhKP		15 11 11.4	
	comp=Z,2.6nm,0.4s,baz=360,slow=4.6,SNR=17						
VNDA	**Vanda**	**144.94**	**197**	PKP	PKPdf	15 11 14.8	-1.3
VNDA	**Vanda**	**144.94**	**197**	PKIKP	PKPdf	15 11 14.8	-1.3
VNDA	**Vanda**	**144.94**	**197**	PKP	PKPdf	15 11 14.8	-1.3
	comp=Z,23nm,1.2s,baz=14,slow=3.6,SNR=3.2						

*ISCJB **17** 14:59:12.5±0.5, 5796S±007×596W±02, h10^{km}, mb4.4/12, MS4.0/9, Error ellipse: s-maj=15.0km s-min=8.6km az=153.1*

*IDC **17** 14:59:12.3±0.7, 5794S×5936W, h0^{km}, mb4.3/7, mb1 4.4/9, mb1mx4.3/16, mbtmp4.3/9, MS4.0/9, Ms1 4.0/9, ms1mx3.7/21, Error ellipse: s-maj=29.5km s-min=18.0km az=65.0*

*NEIC **17** 14:59:13.8±0.3, 5803S×5946W, h10^{km}, mb4.7/5, Error ellipse: s-maj=11.8km s-min=8.2km az=67.0*

*BJI **17** 14:59:15.8, 5800S×5950W, h10^{km}, Msz5.0*

ISC 17 14:59:14.1±0.5, **5799S**±007×**597W**±02, **h10**^{km}, **n60**, σ**0^{s}89**/24, **mb4.4**/12, **MS4.0**/9, **Drake Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
USHA	**Ushuaia**	**5.80**	**299**	Pn	**Pn**	**15 00 41.4**	**+1.3**
USHA				Sn	**Sn**	**15 01 42.7**	**-3.9**
USHA				LR	LR	15 02 15.5	
USHA	**Ushuaia**	**5.80**	**299**	Pn	**Pn**	**15 00 41.4**	**+1.3**
	2.1nm,0.3s,baz=112,slow=13,SNR=12						
USHA				Sn	**Sn**	**15 01 42.7**	**-3.9**
	8.4nm,0.3s,baz=11,slow=8.3,SNR=8.6						
USHA				LR	LR	15 02 15.5	
	comp=Z,834nm,20.1s,baz=185,slow=31						
EFI	**East Falkland**	**6.39**	**9**	*e*Pn	**Pn**	**15 00 48.5**	**+0.4**
	40nm,0.8s						
PMSA	**Palmer Station**	**7.13**	**195**	*e*Pn	**Pn**	**15 00 56.9**	**-1.3**
	74nm,0.5s						
PMSA	**Palmer Station**	**7.13**	**195**	Pn	**Pn**	**15 00 57.8**	**-0.4**
	21nm,0.3s,baz=21,slow=12,SNR=24						
PMSA				Sn	**Sn**	**15 02 12.9**	**-6.2**
	5.6nm,0.3s,baz=296,slow=23,SNR=6.0						
PMSA				LR	LR	15 03 27.7	
	comp=Z,927nm,21.2s,baz=197,slow=35						
VNA3	**Neumayer Olymp**	**24.28**	**143**	*e*	**P**	**15 04 31.5**	**+0.6**
VNA3				*e*		15 04 38.4	
VNA3				*e*		15 04 43.7	
VNA1	**Neumayer--Stat**	**24.68**	**141**	*e*	**P**	**15 04 35.6**	**+1.1**
VNA1				*e*		15 04 42.6	
VNA1				*e*		15 04 47.2	
VNA2	**Neumayer--Watz**	**24.99**	**142**	*e*	**P**	**15 04 37.5**	**+0.2**
	baz=284,slow=12						
VNA2				*e*		15 04 44.3	
VNA2				*e*		15 04 49.6	
SNAA	**Sanae**	**26.49**	**144**	P	**P**	**15 04 50.9**	**-0.1**
	3.2nm,0.8s,mb3.9,baz=272,slow=9.4,SNR=13						
CFAA	**Coronel Fontan**	**27.02**	**344**	P	**P**	**15 04 55.9**	**-0.3**
	0.8nm,0.5s,mb3.5,baz=166,slow=8.9,SNR=15						
CFAA				LR	LR	15 16 45.9	
	comp=Z,21nm,18.1s,MS2.8,baz=299,slow=39						
SIV	**San Ignacio**	**41.94**	**358**	P	**P**	**15 07 04.3**	**-0.4**
	4.3nm,0.9s,mb4.1,baz=172,slow=6.3,SNR=10						
LPAZ	**La Paz**	**42.10**	**348**	LR	LR	15 27 04.9	
	comp=Z,70nm,20.6s,MS3.5,baz=104,slow=40						
VNDA	**Vanda**	**42.33**	**192**	LR	LR	15 22 43.3	
	comp=Z,217nm,21.3s,MS4.0,baz=134,slow=33						
MAW	**Mawson**	**47.79**	**154**	LR	LR	15 26 15.5	
	comp=Z,215nm,20.0s,MS4.1,baz=67,slow=34						
OTAV	**Otavalo**	**59.94**	**338**	*e*P	**P**	**15 09 22.9**	**+2.6**
	26nm,1.3s,mb5.1						
RKT	**Rikitea**	**62.95**	**269**	*e*LR	LR	15 28 26.5	
	200nm,30.5s						
BOSA	**Boshof**	**63.60**	**102**	P	**P**	**15 09 44.6**	**-0.3**
	3.0nm,0.8s,mb4.4,baz=226,slow=6.3,SNR=5.1						
BOSA				LR	LR	15 30 14.8	
	comp=Z,183nm,19.3s,MS4.3,baz=194,slow=29						
ROSC	**El Rosal**	**63.74**	**344**	LR	LR	15 36 44.2	
	comp=Z,107nm,18.6s,MS4.0,baz=112,slow=35						
LBTB	**Lobatse**	**66.69**	**100**	*e*P	**P**	**15 10 03.8**	**-1.1**
	5.0nm,0.8s,mb4.6						
TSUM	**Tsumeb**	**67.18**	**90**	*e*P	**P**	**15 10 07.4**	**-0.7**
	3.1nm,0.8s,mb4.4						
JTS	**JuntasAbangare**	**71.11**	**334**	*e*P	**P**	**15 10 32.4**	**+0.1**
	7.3nm,0.9s,mb4.6						
PPT	**Papeete**	**75.24**	**261**	*e*LR	LR	15 34 07.1	
	230nm,26.0s						
PPT	**Papeete**	**75.24**	**261**	LR	LR	15 35 37.9	
	comp=Z,190nm,20.9s,MS4.4,baz=15,slow=29						
LSZ	**Lusaka**	**76.06**	**96**	*e*P	**P**	**15 11 01.4**	**-0.2**
	3.7nm,0.6s,mb4.5						
TAOE	**Nuku Hiva Isla**	**77.50**	**273**	*e*LR	LR	15 35 12.3	
	351nm,23.7s						
TORD	**Torodi Ar. Bea**	**86.71**	**59**	P	**P**	**15 11 56.7**	**-1.2**
TORD				LR	LR	15 45 07.4	
TORD	**Torodi Ar. Bea**	**86.71**	**59**	P	**P**	**15 11 56.7**	**-1.2**
	2.1nm,0.7s,mb4.5,baz=211,slow=4.9,SNR=10.0						
TORD				LR	LR	15 45 07.4	
	comp=Z,119nm,18.5s,MS4.3,baz=230,slow=32						
STKA	**Stephens Creek**	**88.72**	**198**	P	**P**	**15 12 08.1**	**+0.6**
	1.7nm,0.7s,mb4.5,baz=156,slow=11,SNR=4.6						
TXAR	**Lajitas Array**	**94.47**	**323**	P	**P**	**15 12 34.6**	**+0.7**
	1.4nm,0.9s,mb4.4,baz=142,slow=6.3,SNR=5.8						
WRA	**Warramunga Arr**	**101.50**	**193**	P	Pdif	15 13 05.5	-0.6
	0.3nm,0.7s,baz=173,slow=4.1,SNR=7.7						
GERES	**GERESS Array B**	**122.32**	**49**	PKP	PKPdf	15 18 07.4	-0.6
GERES	**GERESS Array B**	**122.32**	**49**	PKP	PKPdf	15 18 07.4	-0.6
	0.5nm,0.6s,baz=123,slow=4.9,SNR=3.8						
BRTR	**Keskin Array B**	**124.22**	**69**	PKP	PKPdf	15 18 12.2	+0.2
BRTR	**Keskin Array B**	**124.22**	**69**	PKP	PKPdf	15 18 12.2	+0.2
	2.3nm,0.9s,baz=190,slow=3.6,SNR=10.0						
YKA	**Yellowknife Ar**	**127.41**	**331**	PKP	PKPdf	15 18 17.6	+0.2
YKA	**Yellowknife Ar**	**127.41**	**331**	PKP	PKPdf	15 18 17.5	+0.2
	2.3nm,0.8s,baz=139,slow=2.4,SNR=30						
AKASG	**Malin Array Be**	**130.28**	**56**	PKP	PKPdf	15 18 20.9	-2.3
AKASG	**Malin Array Be**	**130.28**	**56**	PKP	PKPdf	15 18 20.9	-2.3
	1.0nm,0.4s,baz=257,slow=1.9,SNR=10						
NOA	**NORSAR Array B**	**130.87**	**37**	PKP	PKPdf	15 18 25.0	+1.0
NOA	**NORSAR Array B**	**130.87**	**37**	PKP	PKPdf	15 18 25.0	+1.0
	0.6nm,0.9s,baz=209,slow=15,SNR=2.8						
FINES	**FINESS Array B**	**136.32**	**44**	PKP	PKPdf	15 18 34.0	-0.2
FINES	**FINESS Array B**	**136.32**	**44**	PKP	PKPdf	15 18 34.0	-0.3
	3.8nm,0.9s,baz=216,slow=9.4,SNR=5.8						
INK	**Inuvik**	**136.93**	**328**	*e*PKPdf	PKPdf	15 18 35.7	+0.5
KMI	**Kunming**	**144.85**	**152**	PKP	PKPdf	15 18 49.6	-1.2
KMI				LR	LR		
	comp=Z,172nm,16.2s,MS4.9						
LSA	**Lhasa**	**145.27**	**132**	PKP	PKPdf	15 18 50.6	-0.8
LSA	**Lhasa**	**145.27**	**132**	*e*PKPdf	PKPdf	15 18 51.0	-0.4
AML	**Almayashu**	**146.90**	**98**	*e*PKPdf	PKPdf	15 18 54.8	+1.1
TNA	**Tin City**	**147.03**	**313**	*e*PKPbc	PKPbc	15 18 56.0	+0.6
GYA	**Guiyang**	**147.04**	**157**	*i* PKP	PKPdf	15 18 56.4	+1.9
EKS2	**Erkin-Say**	**147.31**	**97**	*e*PKPdf	PKPdf	15 18 53.3	-1.1
EKS2				*e*PKPbc	PKPbc	15 18 56.7	-0.1
ARU	**Arti**	**147.53**	**66**	*e*PKPdf	PKPdf	15 18 55.5	+1.2
AAK	**Ala-Archa**	**147.67**	**98**	*e*PKPbc	PKPbc	15 18 56.6	-1.2
CD2	**Chengdu**	**150.62**	**150**	PKP	PKPbc	15 19 05.0	-0.6
BRVK	**Borovoye**	**151.79**	**78**	*e*PKPbc	PKPbc	15 19 07.2	-0.4
WHN	**Wuhan**	**152.25**	**169**	*e*PKP	PKPbc	15 19 09.1	-0.3
MK31	**Makanchi Array**	**154.58**	**100**	*e*PKPdf	PKPdf	15 19 04.3	-1.1
MK31				*e*PKPbc	PKPbc	15 19 13.2	-0.7
MKAR	**Makanchi Array**	**154.58**	**100**	PKP	PKPdf	15 19 03.9	-1.5
	comp=Z,0.7nm,0.9s,baz=245,slow=2.6,SNR=5.9						
MKAR				PKPbc	PKPbc	15 19 13.1	-0.8
	comp=Z,0.7nm,0.6s,baz=250,slow=2.4,SNR=9.3						
LZH	**Lanzhou**	**155.51**	**146**	*e*PKP	PKPdf	15 19 09.3	+2.2
LZH				APKP		15 19 14.3	
ZALV	**Zalesovo Beam**	**159.87**	**86**	PKPab	PKPab	15 19 49.2	-2.2
	comp=Z,0.3nm,0.3s,baz=288,slow=5.6,SNR=2.7						
SONM	**Songino Array**	**166.84**	**135**	PKPab	PKPab	15 20 21.7	-0.3
	comp=Z,1.1nm,0.9s,baz=200,slow=3.3,SNR=6.3						

*ISCJB **17** 15:01:13.7±0.5, 4056N±003×2872E±003, h0^{km}±6^{km}, Error ellipse: s-maj=5.1km s-min=4.0km az=32.6*

*CSEM **17** 15:01:13.3±0.1, 4056N×2873E, h5^{km}, MD2.8, Error ellipse: s-maj=1.7km s-min=1.3km az=17.0*

*ISK **17** 15:01:13.6, 4057N×2873E, h5^{km}, MD2.8*

*DDA **17** 15:01:14.6, 4053N×2872E, h10^{km}±1^{km}, Md2.7*

ISC 17 15:01:14.2±0.5, **4056N**±003×**2871E**±004, **h6**^{km}±5^{km}, **n33**, σ**0^{s}64**/46, **1D**, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GEMT	**Gemlik**	**0.38**	**109**	*i* PG	**Pg**	**15 01 21.5**	**-0.1**
GEMT				*i* SG	**Sg**	**15 01 27.0**	**+0.4**
GEMT	**Gemlik**	**0.38**	**109**	*i* Pg	**Pg**	**15 01 21.5**	**-0.1**
GEMT				*i* Sg	**Sg**	**15 01 27.0**	**+0.4**
KCT	**Karacabey**	**0.40**	**223**	PG	**Pg**	**15 01 21.8**	**-0.1**
KCT	**Karacabey**	**0.40**	**223**	*e*Pg	**Pg**	**15 01 21.8**	**-0.1**
YLV	**Yalova**	**0.50**	**89**	PG	**Pg**	**15 01 23.8**	**-0.1**
YLV				SG	**Sg**	**15 01 30.6**	**+0.2**
YLV	**Yalova**	**0.50**	**89**	*e*Pg	**Pg**	**15 01 23.8**	**-0.1**
YLV				*e*Sg	**Sg**	**15 01 30.6**	**+0.2**
ULDT	**Uludag**	**0.53**	**142**	*i* P	**Pg**	**15 01 24.1**	**-0.2**
ULDT				*i* S	**Sg**	**15 01 31.1**	**0.0**
ISK	**Istanbul-Kandi**	**0.57**	**27**	PG	**Pg**	**15 01 25.4**	**+0.2**
ISK				SG	**Sg**	**15 01 32.7**	**+0.1**
ISK	**Istanbul-Kandi**	**0.57**	**27**	*e*Pg	**Pg**	**15 01 25.4**	**+0.2**
ISK				*e*Sg	**Sg**	**15 01 32.7**	**+0.1**
IZI	**Iznik**	**0.62**	**111**	PG	**Pg**	**15 01 26.0**	**-0.1**
IZI				SG	**Sg**	**15 01 34.6**	**+0.5**
IZI	**Iznik**	**0.62**	**111**	*e*Pg	**Pg**	**15 01 26.0**	**-0.1**
IZI				*e*Sg	**Sg**	**15 01 34.6**	**+0.5**
CTT	**Catalca**	**0.63**	**340**	PG	**Pg**	**15 01 26.3**	**0.0**
CTT				SG	**Sg**	**15 01 34.6**	**+0.2**
CTT	**Catalca**	**0.63**	**340**	*e*Pg	**Pg**	**15 01 26.3**	**0.0**
CTT				*e*Sg	**Sg**	**15 01 34.6**	**+0.2**
EDC	**Edincik**	**0.68**	**252**	PG	**Pg**	**15 01 27.2**	**-0.1**
EDC	**Edincik**	**0.68**	**252**	*e*Pg	**Pg**	**15 01 27.2**	**-0.1**
KLYT	**Kilyos**	**0.74**	**20**	*e*PG	**Pg**	**15 01 27.8**	**-0.6**
KLYT	**Kilyos**	**0.74**	**20**	*e*Pg	**Pg**	**15 01 27.8**	**-0.6**
HRT	**Hereke**	**0.77**	**70**	*e*PG	**Pg**	**15 01 27.8**	**-1.2**
HRT	**Hereke**	**0.77**	**70**	*e*Pg	**Pg**	**15 01 27.8**	**-1.2**
ADVT	**Abdulvahap**	**0.79**	**99**	*e*PG	**Pg**	**15 01 28.8**	**-0.6**
ADVT	**Abdulvahap**	**0.79**	**99**	*e*Pg	**Pg**	**15 01 28.8**	**-0.6**
MRMT	**Marmara Adasi**	**0.85**	**273**	*e*PG	**Pg**	**15 01 31.5**	**+1.0**
MRMT	**Marmara Adasi**	**0.85**	**273**	*e*Pg	**Pg**	**15 01 31.5**	**+1.0**
DST	**Dursunbey**	**0.95**	**184**	*e*PG	**Pg**	**15 01 33.2**	**+0.7**
DST	**Dursunbey**	**0.95**	**184**	*e*Pg	**Pg**	**15 01 33.2**	**+0.7**
BALB	**Balikesir**	**1.12**	**215**	*e*PN	**Pn**	**15 01 35.3**	**-1.1**
BALB	**Balikesir**	**1.12**	**215**	*e*Pn	**Pn**	**15 01 35.3**	**-1.1**
GULT	**Gulveren**	**1.38**	**95**	*e*PN	**Pn**	**15 01 40.4**	**+0.4**
GULT	**Gulveren**	**1.38**	**95**	*e*Pn	**Pn**	**15 01 40.4**	**+0.4**
BORA	**Eskisehir**	**1.49**	**116**	*i* P	**Pn**	**15 01 40.7**	**-0.8**
BORA				*i* S	**Sn**	**15 02 01.5**	**+0.1**
HENT	**Hendek**	**1.68**	**80**	*i* P	**Pn**	**15 01 43.4**	**-0.8**
HENT				*i* S	**Sn**	**15 02 07.0**	**+0.9**
SGKT	**Sivrigoynuk**	**2.55**	**89**	*i* P	**Pn**	**15 01 59.6**	**+3.5**
GZR	**Gura Zlata**	**6.50**	**320**	⇓*i*P	**Pn**	**15 02 54.4**	**+4.0**

*IDC **17** 15:21:36.0±0.9, 279S×13806E, h0^{km}, mb4.1/7, mb1 4.3/10, mb1mx4.2/14, mbtmp4.2/10, ML3.8/3, MS3.9/3, Ms1 3.9/3, ms1mx3.5/20, Error ellipse: s-maj=48.2km s-min=15.4km az=71.0*

*ISCJB **17** 15:21:37.4±0.4, 279S±004×13848E±009, h30^{km}, mb4.3/19, MS3.9/2, Error ellipse: s-maj=13.3km s-min=5.9km az=7.5*

*NEIC **17** 15:21:40.1±0.5, 278S×13828E, h30^{km}, mb4.5/10, Error ellipse: s-maj=16.6km s-min=8.4km az=81.0*

*BJI **17** 15:21:40.0, 280S×13830E, h30^{km}, mb4.4*

ISC 17 15:21:41.0±1.4, **281S**±006×**13829E**±010, **h38**^{km}±15^{km}, **n37**, σ**1^{s}20**/38, **mb4.3**/19, **MS3.9**/2, **1C**, **Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**10.98**	**127**	Pn	**Pn**	**15 24 17.9**	**+2.2**
PMG	**Port Moresby**	**10.98**	**127**	Pn	**Pn**	**15 24 17.8**	**+2.2**
	0.6nm,0.3s,baz=39,slow=5.0,SNR=5.6						
KAKA	**Kakadu**	**11.41**	**210**	⇑*i*P	**Pn**	**15 24 22.1**	**+0.5**
	31nm,0.4s						
KAKA				*e*S	**Sn**	**15 26 33.4**	**+5.5**
COEN	**Coen**	**12.08**	**157**	*e*Pn	**Pn**	**15 24 28.7**	**-1.9**
WB2	**Warramunga Arr**	**17.45**	**192**	*e*P	**Pn**	**15 25 40.5**	**-1.2**
WRA	**Warramunga Arr**	**17.46**	**192**	P	**Pn**	**15 25 40.1**	**-1.6**
	1.1nm,0.3s,baz=14,slow=12,SNR=42						
WRA				S	**S**	**15 28 49.2**	**-13**
	baz=11,slow=22,SNR=8.0						
GUMO	**Guam**	**17.55**	**22**	LR	LR	15 30 46.6	
	comp=Z,285nm,19.4s,baz=192,slow=31						
CTA	**Charters Tower**	**18.85**	**156**	P	**Pn**	**15 26 00.3**	**+1.7**
	0.2nm,0.3s,baz=289,slow=11,SNR=2.9						
FITZ	**Fitzroy Crossi**	**19.62**	**218**	*e*P	**Pn**	**15 26 07.3**	**-0.6**
	15nm,0.7s						
FITZ				*e*S	**S**	**15 29 46.1**	**+0.3**
FITZ	**Fitzroy Crossi**	**19.62**	**218**	P	**Pn**	**15 26 07.6**	**-0.2**
	0.2nm,0.3s,baz=58,slow=12,SNR=11						
FITZ				S	**S**	**15 29 42.5**	**-3.3**
	0.2nm,0.3s,baz=122,slow=20,SNR=4.3						
ASAR	**Alice Springs**	**21.16**	**191**	P	**P**	**15 26 23.0**	**0.0**
	17nm,0.9s,mb4.4,baz=23,slow=10,SNR=64						
ASAR				S	**S**	**15 30 17.6**	**+1.2**
	5.9nm,0.9s,baz=18,slow=24,SNR=7.5						
KKM	**Kota Kinabalu**	**23.74**	**292**	P	**P**	**15 26 54.2**	**+4.2**
MBWA	**Marble Bar**	**25.67**	**223**	*e*P	**P**	**15 27 10.0**	**+2.5**
	16nm,1.2s,mb4.4						
STKA	**Stephens Creek**	**29.08**	**174**	P	**P**	**15 27 37.5**	**-0.4**
	1.5nm,0.7s,mb3.8,baz=326,slow=11,SNR=2.9						
CBIJ	**Chichi jima**	**29.97**	**7**	LR	LR	15 37 06.9	
	comp=Z,214nm,21.3s,MS3.8,baz=180,slow=31						
WHN	**Wuhan**	**40.28**	**327**	*e*P	**P**	**15 29 18.0**	**+3.5**
KSRS	**Korea Array**	**41.20**	**347**	P	**P**	**15 29 20.6**	**-1.5**
	0.8nm,0.6s,mb3.5,baz=160,slow=6.9,SNR=5.1						
XAN	**Xi'an**	**45.92**	**325**	P	**P**	**15 30 00.6**	**+0.5**
XAN				AP	pP	15 30 06.8	-4.4
XAN				AMB	AMB		
	comp=Z,3.0nm,0.6s,mb4.4						
CD2	**Chengdu**	**46.98**	**318**	P	**P**	**15 30 13.3**	**+4.8**
CD2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.6						
RPZ	**Rata Peaks**	**50.01**	**149**	P	**P**	**15 30 32.7**	**+1.1**
	comp=Z,6.0nm,0.7s,mb4.7,baz=184,slow=3.3,SNR=5.1						
LZH	**Lanzhou**	**50.31**	**323**	*e*P	**P**	**15 30 35.5**	**+1.5**
LZH				AP	pP	15 30 43.1	-2.1
LZH				XP	sP	15 30 45.3	-4.4
LZH				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.9						
LZH	**Lanzhou**	**50.31**	**323**	*e*P	**P**	**15 30 35.5**	**+1.5**
	comp=Z,16nm,1.3s,mb4.9						
LZH				pP	pP	15 30 43.1	-2.1
LZH				sP	sP	15 30 45.2	-4.5
HIA	**Hailar**	**54.31**	**345**	*e*P	**P**	**15 31 02.4**	**-1.0**
	comp=Z,3.4nm,0.6s,mb4.5						
GTA	**Gaotai**	**54.91**	**324**	*e*P	**P**	**15 31 08.8**	**+0.8**
GTA				AMB	AMB		
	comp=Z,2.0nm,1.3s,mb4.0						
ULN	**Ulaanbaatar**	**57.38**	**336**	*e*P	**P**	**15 31 25.9**	**+0.4**
	comp=Z,1.4nm,0.6s,mb4.2						
SONM	**Songino Array**	**57.64**	**335**	P	**P**	**15 31 27.8**	**+0.5**
	comp=Z,1.4nm,0.7s,mb4.1,baz=157,slow=8.6,SNR=12						
SONM				LR	LR	15 55 32.1	
	comp=Z,133nm,19.2s,MS4.1,baz=159,slow=35						
MA2	**Magadan**	**62.98**	**7**	*e*P	**P**	**15 32 02.5**	**-1.0**
	comp=Z,4.1nm,0.8s,mb4.6						
YAK	**Yakutsk**	**65.00**	**356**	*e*P	**P**	**15 32 16.0**	**-0.8**
	comp=Z,12nm,0.6s,mb5.1						
MK31	**Makanchi Array**	**69.62**	**323**	*e*P	**P**	**15 32 46.5**	**+0.1**
MKAR	**Makanchi Array**	**69.62**	**323**	P	**P**	**15 32 46.5**	**+0.1**
	comp=Z,1.1nm,0.7s,mb3.9,baz=115,slow=8.2,SNR=11						
ZALV	**Zalesovo Beam**	**71.82**	**330**	P	**P**	**15 32 59.6**	**0.0**
	comp=Z,1.3nm,0.6s,mb4.1,baz=111,slow=6.9,SNR=9.9						
KURK	**Kurchatov**	**73.56**	**325**	*e*P	**P**	**15 33 09.9**	**-0.1**
	comp=Z,4.0nm,1.0s,mb4.3						
BRVK	**Borovoye**	**79.23**	**325**	*e*P	**P**	**15 33 42.9**	**+0.8**
	comp=Z,4.4nm,0.9s,mb4.4						
MAW	**Mawson**	**81.87**	**202**	*e*P	**P**	**15 33 53.5**	**-2.5**
	comp=Z,14nm,1.0s,mb4.8						
DAWY	**Dawson**	**89.14**	**26**	*e*P	**P**	**15 34 30.9**	**-1.3**
TORD	**Torodi Ar. Bea**	**135.88**	**286**	PKP	PKPdf	15 41 00.6	+1.8
TORD	**Torodi Ar. Bea**	**135.88**	**286**	PKP	PKPdf	15 41 00.6	+1.8
	comp=Z,0.4nm,0.7s,baz=100,slow=2.1,SNR=3.2						

IDC 17 15:33:53.0±2.1, **118N**×**12640E**, **h0**^{km}, **mb3.1**/3, **mb1 3.4**/3, **mb1mx3.2**/16, **mbtmp3.2**/3, **Error ellipse: s-maj=172.6km s-min=26.6km az=65.0**, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**22.39**	**160**	P	P	15 38 52.0	-1.1
	0.7nm,0.7s,baz=338,slow=11,SNR=14						
ASAR	**Alice Springs**	**25.75**	**164**	P	P	15 39 26.6	+1.1
	0.3nm,0.4s,baz=346,slow=12,SNR=7.2						
MKAR	**Makanchi Array**	**59.46**	**326**	P	P	15 43 57.6	0.0
	0.1nm,0.4s,baz=120,slow=7.7,SNR=4.2						

IDC 17 15:39:25.9±3.9, **256S**×**13983E**, **h0**^{km}, **mb3.5**/4, **mb1 3.7**/4, **mb1mx3.5**/12, **mbtmp3.5**/4, **MS3.1**/1, **Ms1 3.1**/1, **ms1mx2.7**/20, **Error ellipse: s-maj=135.7km s-min=25.6km az=94.0**, **Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**9.96**	**133**	LR	LR	15 46 31.0	
	comp=Z,91nm,18.1s,baz=139,slow=43						
KAKA	**Kakadu**	**12.46**	**216**	*e*P	Pn	15 42 19.2	-5.4
	7.9nm,0.6s						
WRA	**Warramunga Arr**	**18.09**	**197**	P	Pn	15 43 35.5	-3.2
	0.5nm,0.3s,baz=17,slow=13,SNR=29						
FITZ	**Fitzroy Crossi**	**20.79**	**221**	*e*P	P	15 44 09.7	+0.8
	2.6nm,0.6s						
FITZ	**Fitzroy Crossi**	**20.79**	**221**	P	P	15 44 09.1	+0.3
	1.0nm,0.5s,baz=38,slow=15,SNR=4.3						
ASAR	**Alice Springs**	**21.75**	**195**	P	P	15 44 19.1	0.0
	1.4nm,0.4s,baz=18,slow=11,SNR=26						
SONM	**Songino Array**	**58.07**	**334**	P	P	15 49 21.9	+1.0
	0.3nm,0.8s,baz=144,slow=6.0,SNR=3.3						
MKAR	**Makanchi Array**	**70.36**	**322**	P	P	15 50 40.8	-0.8
	0.4nm,0.7s,baz=108,slow=7.7,SNR=5.0						

IDC 17 15:46:19.9±59.0, **1741S**×**17533W**, **h0**^{km}, **mb4.0**/3, **mb1 4.2**/3, **mb1mx3.7**/14, **mbtmp4.0**/3, **MS3.1**/1, **Ms1 3.1**/1, **ms1mx2.7**/22, **Error ellipse: s-maj=1102.0km s-min=170.0km az=80.0**, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPT	**Papeete**	**24.56**	**94**	LR	LR	15 58 45.2	
	comp=Z,44nm,19.7s,baz=160,slow=30						
STKA	**Stephens Creek**	**41.45**	**241**	P	P	15 54 09.2	+0.6
	1.1nm,0.7s,baz=86,slow=13,SNR=4.6						
WRA	**Warramunga Arr**	**47.61**	**259**	P	P	15 54 57.8	-0.2
	1.0nm,0.4s,baz=97,slow=7.3,SNR=47						
ASAR	**Alice Springs**	**47.75**	**254**	P	P	15 54 58.6	-0.4
	1.6nm,0.8s,baz=88,slow=8.2,SNR=31						

IDC 17 15:59:04.8±6.6, **660S**×**15193E**, **h46**^{km}±51^{km}, **mb3.5**/4, **mb1 3.7**/5, **mb1mx3.4**/16, **mbtmp3.6**/5, **Error ellipse: s-maj=64.9km s-min=27.4km az=6.0**, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**5.49**	**239**	P	Pn	16 00 25.8	+1.8
	baz=46,slow=8.5						
PMG				S	Sn	16 01 25.5	-0.4
	1.7nm,0.3s,baz=129,slow=16,SNR=3.1						
DZM	**Mont Dzumac**	**20.81**	**139**	P	P	16 03 41.9	-0.6
	7.7nm,0.7s,baz=328,slow=23,SNR=5.1						
WRA	**Warramunga Arr**	**21.62**	**230**	P	P	16 03 51.3	0.0
	0.3nm,0.5s,baz=55,slow=10,SNR=5.9						
WRA				pP	pP	16 04 04.7	+2.4
	0.4nm,0.6s,baz=54,slow=10,SNR=3.5						
ASAR	**Alice Springs**	**24.25**	**224**	P	P	16 04 18.9	+1.2
	1.9nm,0.8s,baz=57,slow=9.0,SNR=22						
ASAR				pP	pP	16 04 31.9	+2.2
	0.8nm,0.5s,baz=54,slow=9.1,SNR=6.1						
FITZ	**Fitzroy Crossi**	**28.07**	**244**	P	P	16 04 51.6	-0.6
	0.8nm,0.6s,baz=70,slow=12,SNR=4.2						
TORD	**Torodi Ar. Bea**	**149.98**	**285**	PKPbc	PKPbc	16 18 50.9	-0.5
	0.5nm,0.7s,baz=60,slow=2.0,SNR=3.3						

*ISCJB **17** 15:59:06.4±3.1, 121S±02×1663E±02, h56^{km}±22^{km}, mb3.7/6, MS2.8/2, Error ellipse: s-maj=42.1km s-min=19.4km az=154.6*

*IDC **17** 15:59:08.3±4.4, 1200S×16627E, h56^{km}±32^{km}, mb3.6/6, mb1 3.8/8, mb1mx3.6/18, mbtmp3.8/8, ML4.3/2, MS3.1/4, Ms1 3.1/4, ms1mx2.9/20, Error ellipse: s-maj=41.5km s-min=29.5km az=82.0*

ISC 17 15:59:08.5±2.6, **120S**±02×**1663E**±02, **h61**^{km}±18^{km}, **n11**, σ**0^{s}94**/8, **mb3.7**/6, **Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**6.75**	**292**	P	**Pn**	**16 00 45.1**	**+0.1**
	14nm,0.3s,baz=102,slow=5.8,SNR=5.2						
HNR				LR	LR	16 03 05.5	
	comp=Z,142nm,20.8s,baz=180,slow=35						
DZM	**Mont Dzumac**	**10.00**	**179**	P	**Pn**	**16 01 29.4**	**-0.1**
	0.9nm,0.3s,baz=116,slow=22,SNR=12						
PMG	**Port Moresby**	**18.98**	**276**	LR	LR	16 09 49.5	
	comp=Z,162nm,20.9s,baz=234,slow=34						
STKA	**Stephens Creek**	**30.12**	**225**	P	**P**	**16 05 13.5**	**+0.9**
	0.9nm,0.6s,mb3.7,baz=6.9,slow=10,SNR=3.9						
STKA				LR	LR	16 14 56.6	
	comp=Z,95nm,20.5s,baz=26,slow=32						
WRA	**Warramunga Arr**	**31.67**	**252**	P	**P**	**16 05 25.5**	**-0.9**
	0.5nm,0.7s,mb3.5,baz=84,slow=9.1,SNR=8.1						
WRA				PcP	PcP	16 08 17.5	+0.2
	0.5nm,0.8s,baz=80,slow=3.3,SNR=5.1						
ASAR	**Alice Springs**	**32.85**	**245**	P	**P**	**16 05 35.9**	**-0.9**
	0.9nm,0.7s,mb3.8,baz=70,slow=9.5,SNR=11						
ASAR				PcP	PcP	16 08 20.4	0.0
	0.5nm,0.6s,baz=77,slow=2.4,SNR=7.0						
FITZ	**Fitzroy Crossi**	**39.66**	**256**	P	**P**	**16 06 35.9**	**+1.0**
	1.5nm,0.9s,mb3.7,baz=63,slow=4.5,SNR=3.8						
FITZ				PcP	PcP	16 08 41.6	+0.7
	1.2nm,0.7s,baz=76,slow=4.2,SNR=4.4						
PPT	**Papeete**	**42.95**	**103**	*e*LR	LR	16 19 12.7	
	112nm,25.8s						
PPT	**Papeete**	**42.95**	**103**	LR	LR	16 20 45.0	
	comp=Z,3.5nm,21.8s,baz=122,slow=30						
SONM	**Songino Array**	**79.76**	**324**	P	**P**	**16 11 09.9**	**-0.1**
	0.2nm,0.4s,mb3.4,baz=143,slow=4.5,SNR=4.5						
MKAR	**Makanchi Array**	**94.59**	**317**	P	**P**	**16 12 22.7**	**0.0**
	1.0nm,0.7s,mb4.3,baz=91,slow=6.6,SNR=14						

*IDC **17** 16:02:49.7±1.4, 3558N×7080E, h0^{km}, mb3.5/3, mb1 3.6/5, mb1mx3.3/23, mbtmp3.5/5, ML3.1/2, Error ellipse: s-maj=35.8km s-min=28.6km az=137.0*

*ISCJB **17** 16:03:03.8±1.3, 3620N±006×709E±01, h130^{km}±17^{km}, mb3.2/2, Error ellipse: s-maj=19.0km s-min=8.6km az=161.2*

*NNC **17** 16:03:10.4±2.7, 3718N×7022E, h0^{km}, mb3.4, mpv3.0, Error ellipse: s-maj=24.2km s-min=20.9km az=89.0*

ISC 17 16:03:05.0±1.2, **3619N**±006×**709E**±01, **h124**^{km}±16^{km}, **n17**, σ**0^{s}88**/21, **mb3.3**/2, **4C**, **Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THN	**Thein Dam**	**5.50**	**132**	*e*P	**Pn**	**16 04 26.1**	**+1.4**
THN				*e*S	**Sn**	**16 05 26.2**	**-0.6**
AML	**Almayashu**	**6.33**	**20**	P	**Pn**	**16 04 35.6**	**-0.1**
	SNR=22						
UCH	**Uchtor**	**6.66**	**24**	P	**Pn**	**16 04 40.3**	**+0.1**
	SNR=8.7						
KZA	**Kyzart**	**6.80**	**29**	P	**Pn**	**16 04 42.3**	**+0.3**
	SNR=8.2						
EKS2	**Erkin-Say**	**6.84**	**18**	P	**Pn**	**16 04 42.5**	**-0.2**
	SNR=7.2						
KK31	**Karatay Array**	**6.91**	**358**	Pn	**Pn**	**16 04 42.4**	**-1.2**
	0.8nm,0.2s,baz=190,slow=16,SNR=37						
KK31				⇑Sn	**Sn**	**16 05 54.4**	**-6.2**
	1.7nm,0.3s,baz=180,slow=21,SNR=6.4						
AAK	**Ala-Archa**	**7.02**	**23**	P	**Pn**	**16 04 45.0**	**-0.1**
	SNR=12						
ULHL	**Ulahol**	**7.35**	**33**	P	**Pn**	**16 04 49.5**	**0.0**
	SNR=5.9						

CHMS	**Chumysh**	7.43	23	P	Pn	16 04 51.3	+0.7
	SNR=7.0						
USP	**Ospenovka**	7.60	21	P	Pn	16 04 52.7	-0.3
	SNR=8.2						
TKM2	**Tokmak 2**	7.65	27	⇑Pn	Pn	16 04 53.5	-0.1
	0.3nm,0.7s						
TKM2				⇑Sn	Sn	16 06 18.7	+0.1
	0.1nm,0.4s						
MKAR	**Makanchi Array**	13.61	35	Pn	Pn	16 06 11.2	-1.4
	0.0nm,0.3s,baz=217,slow=12,SNR=5.3						
AB31	**Akbulak array**	15.30	332	Pn	Pn	16 06 33.5	-0.6
	0.5nm,0.4s,baz=148,slow=11,SNR=18						
AB31				⇑Sn	Sn	16 09 11.9	-11
	0.3nm,0.3s						
AKTO	**Aktyubinsk**	16.99	331	P	Pn	16 06 56.9	+2.0
	0.2nm,0.3s,baz=163,slow=10,SNR=4.5						
ZALV	**Zalesovo Beam**	20.24	24	P	P	16 07 32.2	+2.1
	1.3nm,0.4s,baz=225,slow=11,SNR=13						
TORD	**Torodi Ar. Bea**	65.59	269	P	P	16 13 35.1	-0.7
	0.3nm,0.5s,mb3.4,baz=38,slow=5.8,SNR=2.4						
WRA	**Warramunga Arr**	81.93	122	P	P	16 15 10.3	-0.5
	0.2nm,0.4s,mb3.3,baz=325,slow=4.9,SNR=5.9						

KRSC 17 16:19:30.1±1.3**, 49.18N×156.43E, h10**^{km}±10^{km}**, ML3.9, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALID	**Alaid**	1.78	342	eP	Pn	16 20 00.7	-0.2
ALID				i S	Sn	16 20 23.0	-0.6
MIPR	**Malaya Ipel'ka**	3.11	4	eP	Pn	16 20 20.9	+1.8
RUS	**Russkaya**	3.52	21	eP	Pn	16 20 27.3	+2.6
RUS				i S	Sn	16 21 08.2	+1.9
GRL	**Gorelyy**	3.53	17	P	Pn	16 20 28.4	+3.4
PET	**Petropavlovsk**	4.10	19	eP	Pn	16 20 35.9	+3.2
PET				i S	Sn	16 21 23.5	+2.9
AVH	**Avacha**	4.34	19	eP	Pn	16 20 40.8	+4.8
SPN	**Mys Shipunski**	4.53	29	eP	Pn	16 20 41.9	+3.3
SPN				i S	Sn	16 21 34.3	+3.0
GNL	**Ganaly**	4.62	11	eP	Pn	16 20 44.0	+4.1
MKZ	**Mys Kozlova**	6.30	29	eP	Pn	16 21 04.7	+1.7
MKZ				i S	Sn	16 22 14.9	-0.1
KBTR	**Krutoberegovo**	8.04	26	eP	Pn	16 21 29.7	+3.0

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*NEIC **17** 16:51:45.9±0.5, 7.27S×155.60E, h10^{km}, mb4.4/3, Error ellipse: s-maj=12.1km s-min=11.1km az=140.0*

*ISCJB **17** 16:51:48.3±2.1, 7.3S±0.1×155.61E±0.09, h40^{km}±22^{km}, mb4.0/10, MS3.4/1, Error ellipse: s-maj=20.7km s-min=14.5km az=161.7*

*IDC **17** 16:51:51.2±3.2, 7.39S×155.69E, h57^{km}±35^{km}, mb3.6/7, mb1 3.8/9, mb1mx3.7/16, mbtmp3.8/9, ML2.8/1, MS3.5/1, Ms1 3.4/1, ms1mx2.8/17, Error ellipse: s-maj=35.5km s-min=22.9km az=129.0*

ISC 17 16:51:50.8±1.6**, 7.4S**±0.1×**155.7E**±0.1**, h51**^{km}±18^{km}**, n20, σ0^{s}.67**/21**, mb4.0**/10**, MS3.4**/1**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	4.70	116	P	Pn	16 52 59.5	+0.3
HNR				eSn	Sn	16 53 58.3	+5.8
HNR	**Honiara**	4.70	116	P	Pn	16 52 59.5	+0.3
	23nm,0.3s,baz=257,slow=5.3,SNR=5.9						
HNR				S	Sn	16 53 59.9	+7.4
	12nm,0.3s,baz=268,slow=22,SNR=9.7						
PMG	**Port Moresby**	8.65	256	P	Pn	16 53 52.6	-0.8
PMG	**Port Moresby**	8.65	256	P	Pn	16 53 54.4	+1.0
	0.6nm,0.3s,baz=80,slow=6.1,SNR=3.8						
KAKA	**Kakadu**	23.47	255	eP	P	16 56 55.8	-0.2
WRA	**Warramunga Arr**	24.15	237	P	P	16 57 02.5	+0.2
	1.0nm,0.6s,mb3.4,baz=59,slow=9.2,SNR=18						
ASAR	**Alice Springs**	26.43	230	P	P	16 57 22.6	-0.3
	0.7nm,0.9s,mb3.2,baz=60,slow=9.3,SNR=13						
STKA	**Stephens Creek**	27.68	206	eP	P	16 57 33.4	-0.6
STKA	**Stephens Creek**	27.68	206	LR	LR	17 06 56.4	
	comp=Z,90nm,19.7s,MS3.4,baz=27,slow=33						
MJAR	**Matsushiro Arr**	46.66	341	P	P	17 00 13.2	-1.1
	0.8nm,0.6s,mb3.8,baz=163,slow=8.1,SNR=5.4						
MAJO	**Matsushiro**	46.66	341	eP	P	17 00 13.3	-1.0
	3.2nm,0.7s,mb4.4						
KSRS	**Korea Array**	51.59	332	P	P	17 00 51.9	-0.1
	1.1nm,0.8s,mb3.8,baz=146,slow=8.2,SNR=3.6						
ULN	**Ulaanbaatar**	69.68	327	eP	P	17 02 56.0	+1.0
	2.3nm,0.9s,mb4.1						
SONM	**Songino Array**	70.02	327	P	P	17 02 57.7	+0.6
	1.4nm,0.8s,mb4.0,baz=137,slow=6.0,SNR=13						
LSA	**Lhasa**	72.04	304	P	P	17 03 11.0	+1.3
BILL	**Bilibino**	75.61	4	eP	P	17 03 29.4	-0.4
	5.4nm,1.3s,mb4.3						
MK31	**Makanchi Array**	84.13	319	eP	P	17 04 16.9	+0.5
MKAR	**Makanchi Array**	84.13	319	P	P	17 04 16.5	+0.2
MKAR	**Makanchi Array**	84.13	319	P	P	17 04 16.5	+0.2
	1.9nm,0.7s,mb4.3,baz=105,slow=5.7,SNR=36						
ZALV	**Zalesovo Beam**	84.87	326	P	P	17 04 19.6	-0.3
	2.7nm,0.8s,mb4.4,baz=111,slow=5.9,SNR=13						

IDC 17 16:57:57.1±1.6**, 7.07S×155.31E, h0**^{km}**, mb3.3**/3**, mb1 3.6**/4**, mb1mx3.4**/15**, mbtmp3.6**/4**, ML4.0**/1**, Error ellipse: s-maj=38.8km s-min=28.5km az=10.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	5.16	117	Pn	Pn	16 59 16.1	+0.4
	5.7nm,0.3s,baz=271,slow=16,SNR=5.0						
HNR				Sn	Sn	17 00 15.9	-0.1
	10nm,0.3s,baz=87,slow=11,SNR=4.5						
WRA	**Warramunga Arr**	24.03	236	P	P	17 03 14.9	+0.9
	0.4nm,0.9s,baz=59,slow=9.2,SNR=5.2						
ASAR	**Alice Springs**	26.36	229	P	P	17 03 34.3	-0.9
	0.4nm,1.1s,baz=57,slow=10,SNR=3.5						
MKAR	**Makanchi Array**	83.66	319	P	P	17 10 28.1	+0.3
	0.6nm,0.7s,baz=102,slow=6.0,SNR=9.9						

IDC 17 17:35:41.5±6.2**, 6.84S×155.19E, h0**^{km}**, mb3.5**/3**, mb1 3.6**/3**, mb1mx3.4**/14**, mbtmp3.5**/3**, Error ellipse: s-maj=178.3km s-min=39.5km az=115.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	24.06	235	P	P	17 40 58.6	0.0
	0.3nm,0.5s,baz=59,slow=9.2,SNR=8.1						
SONM	**Songino Array**	69.31	327	P	P	17 46 52.0	+1.3
	0.6nm,0.9s,baz=144,slow=5.6,SNR=5.0						
MKAR	**Makanchi Array**	83.42	319	P	P	17 48 10.0	-0.8
	0.5nm,0.6s,baz=105,slow=5.6,SNR=8.2						

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*ISCJB **17** 17:39:49.8±0.6, 16.99N±0.04×100.13W±0.03, h15^{km}±4^{km}, mb3.3/2, Error ellipse: s-maj=6.5km s-min=4.1km az=24.3*

*IDC **17** 17:39:49.9±2.0, 16.82N×100.26W, h0^{km}, mb3.5/2, mb1 3.9/5, mb1mx3.7/19, mbtmp3.7/5, ML3.4/2, MS3.5/1, Ms1 3.5/1, ms1mx2.4/24, Error ellipse: s-maj=49.1km s-min=29.5km az=22.0*

*MEX **17** 17:39:51.4±1.0, 16.94N×100.16W, h9^{km}±9^{km}, MD4.4*

*NEIC **17** 17:39:51.4, 16.95N×100.16W, h9^{km}, mb3.7/4, MD4.4(MEX), After MEX.*

ISC 17 17:39:50.6±0.6**, 17.04N**±0.04×**100.10W**±0.03**, h8**^{km}±4^{km}**, n37, σ1^{s}.35**/60**, mb3.3**/2**, 2C, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	0.16	272	i P	Pg	17 39 54.1	+0.1
CAIG				i S	Sg	17 39 56.0	-0.3
ACX	**Acapulco**	0.25	135	i P	Pg	17 39 56.0	+0.4
ACX				i S	Sg	17 39 59.0	+0.1
MEIG	**Mezcala**	0.99	27	⇑iP	Pg	17 40 09.7	0.0
MEIG				i S	Sg	17 40 22.3	-0.2
PLIG	**Platanillo**	1.46	23	⇑iP	Pn	17 40 17.4	+0.1
PLIG				i S	Sn	17 40 35.1	-1.6
PNIG	**Pinotepa**	2.00	109	eP	Pn	17 40 23.4	-1.4
PNIG				i S	Sn	17 40 46.5	-3.5
UTMO	**Huajuapan**	2.33	70	eP	Pn	17 40 28.3	-1.0
UTMO				i S	Sn	17 40 56.2	-1.9
SZVM	**Salazar**	2.37	17	eP	Pn	17 40 29.5	-0.3
SZVM				i S	Sn	17 40 58.9	-0.2
UNM	**Universidad Na**	2.44	21	eP	Pn	17 40 30.0	-0.8
UNM				i S	Sn	17 41 00.0	-0.8
PPM	**Popocatepetl**	2.45	35	eP	Pn	17 40 31.0	0.0
PPM				i S	Sn	17 41 03.0	+1.8
MOIG	**Morelia**	2.82	339	eP	Pn	17 40 34.7	-1.4
MOIG				i S	Sn	17 41 04.5	-5.8
MOIG	**Morelia**	2.82	339	eP	Pn	17 40 34.7	-1.4
MOIG				i S	Sn	17 41 07.1	-3.2
IIO	**Organos**	2.85	27	eP	Pn	17 40 36.0	-0.6
IIO				i S	Sn	17 41 11.2	+0.1
TPIG	**Tehuac#an**	2.94	62	eP	Pn	17 40 39.5	+1.7
TPIG				i S	Sn	17 41 16.4	+2.9
VHO	**Vista Hermosa**	3.22	89	eP	Pn	17 40 40.8	-0.8
VHO				i S	Sn	17 41 18.8	-1.4
OXX	**Oaxaca**	3.23	89	i P	Pn	17 40 43.0	+1.3
OXX				i S	Sn	17 41 24.0	+3.6
MMIG	**Aquila**	3.33	292	eP	Pn	17 40 41.3	-1.8
MMIG				i S	Sn	17 41 19.9	-3.2
HUIG	**Huatulco**	4.03	108	i S	Sn	17 41 35.7	-4.6
SFJM	**Santa Fe**	4.42	321	eP	Pn	17 40 56.5	-1.5
SFJM				i S	Sn	17 41 52.0	+2.3
CMIG	**Matias Romero**	4.99	89	eP	Pn	17 41 05.3	-0.6
CMIG				Pn	Pn	17 41 07.5	+1.6
CMIG				i S	Sn	17 42 00.6	-3.3
CMIG				Sn	Sn	17 42 04.5	+0.7
CMIG				Lg		17 42 30.4	
CMIG	**Matias Romero**	4.99	89	Pn	Pn	17 41 07.5	+1.6
	0.8nm,0.3s,baz=258,slow=13,SNR=17						
CMIG				Sn	Sn	17 42 04.5	+0.7
	3.4nm,0.3s,baz=260,slow=16,SNR=3.5						
CMIG				Lg		17 42 30.4	
	10nm,0.3s,baz=177,slow=19,SNR=14						
CMIG	**Matias Romero**	4.99	89	eP	Pn	17 41 05.3	-0.6
CMIG				i S	Sn	17 42 00.6	-3.3
ANIG	**Ahuacatlan**	5.78	314	i P	Pn	17 41 18.9	+2.1
ANIG				i S	Sn	17 42 18.7	-4.6
SCX	**San Cristobal**	7.15	91	eP	Pn	17 41 48.0	+12
LNIG	**Linares**	7.84	4	i P	Pn	17 41 51.9	+6.8
LNIG				i S	Sn	17 43 24.7	+11
TEIG	**Tepich**	11.64	72	Pn	Pn	17 42 38.3	+1.0
TEIG				Pn	Pn	17 42 42.0	+4.7
TEIG	**Tepich**	11.64	72	Pn	Pn	17 42 42.0	+4.7
	0.3nm,0.3s,baz=342,slow=19,SNR=2.3						
TXAR	**Lajitas Array**	12.66	346	Pn	Pn	17 43 00.7	+9.5
TXAR	**Lajitas Array**	12.66	346	Pn	Pn	17 43 00.7	+9.5
	0.1nm,0.3s,baz=171,slow=13,SNR=4.2						
MIAR	**Mount Ida**	18.38	17	P	Pn	17 44 01.7	-4.3
	6.2nm,0.9s						
ANMO	**Albuquerque**	18.72	344	eP	Pn	17 44 10.3	+0.2
	1.3nm,0.8s						
ANMO				P		17 44 12.2	
ANMO	**Albuquerque**	18.72	344	P	Pn	17 44 12.2	+2.1
	0.2nm,0.3s,baz=74,slow=2.3,SNR=3.4						
LRAL	**Lakeview Retre**	19.83	34	P	Pn	17 44 25.5	+2.0
	5.7nm,0.8s						
WUAZ	**Wupatki**	20.96	334	P	P	17 44 39.6	+5.4
	2.7nm,0.8s						
NVAR	**Mina Array Bea**	26.61	327	P	P	17 45 31.7	+2.0
	1.0nm,1.0s,mb3.3,baz=137,slow=9.6,SNR=3.9						
YKA	**Yellowknife Ar**	46.53	351	P	P	17 48 19.6	+1.2
	0.2nm,0.5s,mb3.3,baz=157,slow=7.2,SNR=3.9						
YKA				LR	LR	18 09 15.1	
	comp=Z,48nm,18.3s,baz=115,slow=38						
WRA	**Warramunga Arr**	128.48	258	PKP	PKPdf	17 58 59.0	0.0
WRA	**Warramunga Arr**	128.48	258	PKP	PKPdf	17 58 59.0	0.0
	0.4nm,0.7s,baz=81,slow=2.4,SNR=7.3						

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*NEIC **17** 17:46:28.2±0.7, 7.20S×155.82E, h10^{km}, mb4.6/5, Error ellipse: s-maj=17.7km s-min=15.2km az=153.0*

*ISCJB **17** 17:46:32.0±2.0, 7.4S±0.1×155.8E±0.1, h56^{km}±21^{km}, mb4.2/14, MS3.4/1, Error ellipse: s-maj=23.0km s-min=14.8km az=154.7*

*IDC **17** 17:46:34.5±3.1, 7.40S×155.83E, h64^{km}±32^{km}, mb3.8/9, mb1 3.9/11, mb1mx3.9/16, mbtmp3.9/11, ML3.5/2, MS3.4/4, Ms1 3.4/4, ms1mx3.0/25, Error ellipse: s-maj=29.4km s-min=20.1km az=124.0*

ISC 17 17:46:34.5±1.6**, 7.4S**±0.1×**155.85E**±0.10**, h66**^{km}±17^{km}**, n25, σ0^{s}.76**/26**, mb4.0**/14**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	4.52	117	ePn	Pn	17 47 39.8	-0.7
HNR				eSn	Sn	17 48 39.8	+8.0
HNR	**Honiara**	4.52	117	P	Pn	17 47 41.1	+0.7
	12nm,0.3s,baz=251,slow=1.4,SNR=17						
HNR				S	Sn	17 48 39.8	+8.1
	18nm,0.3s,baz=92,slow=20,SNR=8.5						
HNR				LR	LR	17 49 21.8	
	comp=Z,735nm,18.3s,baz=179,slow=37						
PMG	**Port Moresby**	8.82	256	P	Pn	17 48 39.5	+0.1
	0.9nm,0.3s,baz=69,slow=8.6,SNR=4.8						
PMG				LR	LR	17 51 59.8	
	comp=Z,239nm,19.3s,baz=234,slow=37						
CTA	**Charters Tower**	15.66	215	LR	LR	17 54 09.1	
	comp=Z,71nm,20.3s,baz=34,slow=29						
WB2	**Warramunga Arr**	24.28	237	eP	P	17 51 46.0	+0.2
WRA	**Warramunga Arr**	24.29	237	P	P	17 51 45.8	0.0
	0.9nm,0.4s,mb3.5,baz=59,slow=9.2,SNR=22						
WRA				LR	LR	18 01 03.9	
	comp=Z,130nm,19.6s,baz=245,slow=36						
ASAR	**Alice Springs**	26.55	230	P	P	17 52 06.0	-0.3
	0.3nm,0.7s,mb3.0,baz=60,slow=9.5,SNR=9.4						
STKA	**Stephens Creek**	27.73	207	P	P	17 52 12.9	-3.9
STKA	**Stephens Creek**	27.73	207	P	P	17 52 17.4	+0.5
	2.4nm,0.9s,mb3.8,baz=24,slow=9.7,SNR=3.0						
MJAR	**Matsushiro Arr**	46.76	340	P	P	17 54 55.9	-1.3
MJAR	**Matsushiro Arr**	46.76	340	P	P	17 54 55.9	-1.3
	1.8nm,0.8s,mb3.9,baz=162,slow=8.1,SNR=9.0						
MAJO	**Matsushiro**	46.76	340	eP	P	17 54 53.1	-4.1
	5.0nm,0.7s,mb4.3						
KSRS	**Korea Array**	51.71	332	P	P	17 55 35.1	+0.1
	1.6nm,0.8s,mb4.1,baz=149,slow=8.3,SNR=5.2						
ULN	**Ulaanbaatar**	69.81	327	eP	P	17 57 39.1	+1.2
	4.9nm,1.0s,mb4.3						
SONM	**Songino Array**	70.15	327	P	P	17 57 41.1	+1.2
	4.2nm,0.7s,mb4.4,baz=135,slow=6.5,SNR=35						
YAK	**Yakutsk**	72.15	347	P	P	17 57 53.0	+1.3
	7.6nm,0.8s,mb4.6						
LSA	**Lhasa**	72.21	304	eP	P	17 57 51.3	-1.5
BILL	**Bilibino**	75.63	4	eP	P	17 58 11.7	-0.3
	3.7nm,0.8s,mb4.2						
MK31	**Makanchi Array**	84.28	319	eP	P	17 58 59.5	+0.4
MKAR	**Makanchi Array**	84.28	319	P	P	17 58 59.3	+0.2
	4.1nm,0.8s,mb4.3,baz=106,slow=5.9,SNR=47						
ZALV	**Zalesovo Beam**	85.00	326	P	P	17 59 02.6	0.0
	3.9nm,0.7s,mb4.4,baz=103,slow=6.0,SNR=25						
KURK	**Kurchatov**	87.69	322	eP	P	17 59 15.2	-0.6
AAK	**Ala-Archa**	88.66	313	P	P	17 59 20.4	-0.2
	1.5nm,1.0s,mb4.0						
YKA	**Yellowknife Ar**	96.31	28	P	P	17 59 55.2	-0.3
YKA	**Yellowknife Ar**	96.31	28	P	P	17 59 55.2	-0.3
	0.3nm,0.6s,mb3.9,baz=265,slow=4.7,SNR=6.2						

MAN 17 18:08:43, 13.74N×120.57E, h92^{km}**, mb3.8, ML2.6, MS2.1, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	**Lubang**	0.31	269	eP	Pn	18 08 58.4	+1.7
LUBP				eS	Sn	18 09 09.8	+2.9
BOAC	**Boac**	1.27	102	eP	Pn	18 09 06.2	+0.1
POLP	**Polilio Island**	1.66	53	eP	Pn	18 09 12.0	+1.2
BUSP	**Coron**	1.76	192	eP	Pn	18 09 12.8	+0.6
OTRP	**Odiongan**	1.97	134	eP	Pn	18 09 16.2	+1.3
ENPP	**El Nido**	2.75	204	eP	Pn	18 09 26.4	+1.1
CUYO	**Cuyo Island**	2.91	171	eP	Pn	18 09 28.0	+0.7

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*ISCJB **17** 18:11:40.7±1.2, 45.66N±0.08×26.71E±0.08, h127^{km}±8^{km}, Error ellipse: s-maj=13.6km s-min=9.0km az=22.1*

*CSEM **17** 18:11:40.9±0.9, 45.68N×26.66E, h129^{km}±9^{km}, MD3.5/1, Error ellipse: s-maj=10.3km s-min=6.7km az=29.0, After BUC*

*BUC **17** 18:11:40.9±0.9, 45.68N×26.66E, h129^{km}±9^{km}, MD3.5/1, Error ellipse: s-maj=10.3km s-min=6.7km az=29.0*

ISC 17 18:11:41.5±1.2**, 45.67N**±0.08×**26.73E**±0.09**, h124**^{km}±9^{km}**, n12, σ0^{s}.63**/17**, 4C-4D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRI	**Vrincioaia**	0.19	360	⇑iP	Pn	18 11 58.6	+0.1
VRI				i S	Sn	18 12 11.4	-0.1
MLR	**Muntele Rosu**	0.58	252	⇑iP	Pn	18 12 00.7	+0.4
MLR				i S	Sn	18 12 14.8	+0.2
VOIR		1.20	259	⇓iP	Pn	18 12 05.6	-0.3
VOIR				i S	Sn	18 12 23.6	-0.8
BUC1	**Bucharest**	1.42	201	i S	Sn	18 12 28.8	+0.3
BUC1	**Bucharest**	1.42	201	S	Sn	18 12 28.8	+0.3
BUC1	**Bucharest**	1.42	201	i S	Sn	18 12 28.8	+0.3
TIRR	**Tirgusor**	1.70	135	⇓iP	Pn	18 12 12.3	+0.8
TIRR				i S	Sn	18 12 33.8	-0.6
KIS	**Kishinev**	1.96	47	eS	Sn	18 12 35.0	-5.0
	200nm,0.5s						
BURAR	**Bucovina Array**	2.20	332	⇑iP	Pn	18 12 18.5	+0.9
GZR	**Gura Zlata**	2.79	266	⇓iP	Pn	18 12 25.0	-0.1
GZR				i S	Sn	18 12 59.8	+1.1
DRGR		3.00	293	⇓iP	Pn	18 12 26.7	-1.2
BZS	**Buzias**	3.59	271	⇑iP	Pn	18 12 34.9	-0.6

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*IDC **17** 18:16:37.4±2.7, 9.82N×128.19E, h0^{km}, mb3.5/4, mb1 3.7/4, mb1mx3.4/20, mbtmp3.5/4, Error ellipse: s-maj=148.9km s-min=25.5km az=70.0*

*ISCJB **17** 18:16:43.0±1.8, 9.14N±0.05×126.91E±0.07, h28^{km}±14^{km}, mb3.4/4, Error ellipse: s-maj=12.0km s-min=7.5km az=150.1*

*MAN **17** 18:16:42, 9.15N×126.76E, h2^{km}, mb4.8, ML3.8, MS3.8*

ISC 17 18:16:42.5±1.6**, 9.11N**±0.05×**126.86E**±0.07**, h9**^{km}±10^{km}**, n16, σ1^{s}.09**/22**, mb3.4**/4**, 1C-3D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	**Bislig**	1.05	208	⇓iP	Pg	18 17 02.3	-0.3
BIPH				i S	Sg	18 17 16.3	0.0
SCPH	**Surigao**	1.51	296	⇓eP	Pn	18 17 07.6	-2.2
SCPH				eS	Sn	18 17 26.2	-3.4
BUKP	**Musuan**	2.16	236	eP	Pn	18 17 20.0	+1.2
MSLP	**Maasin**	2.22	297	eP	Pn	18 17 19.6	0.0
MSLP				eS	Sn	18 17 46.6	-0.6
MATI	**Mati**	2.23	196	eP	Pn	18 17 21.2	+1.4
CGP	**Cagayan de Oro**	2.24	253	⇑eP	Pn	18 17 19.7	-0.1
CGP				i S	Sn	18 17 46.9	-0.8
PLP	**Palo**	2.76	318	eP	Pn	18 17 26.8	-0.2
PLP				eS	Sn	18 18 03.1	+2.7
OCLP	**Ormoc**	2.94	311	eP	Pn	18 17 29.9	+0.4
TBP	**Tagbilaran**	3.02	281	eP	Pn	18 17 30.4	-0.1
LLP	**Lapu-Lapu**	3.10	293	⇓eP	Pn	18 17 32.2	+0.5
LLP				i S	Sn	18 18 10.3	+1.5
GUIM	**Jordan**	4.47	290	eP	Pn	18 17 50.4	-0.2
PVCP	**Virac**	5.19	329	eP	Pn	18 18 01.0	+0.6
FITZ	**Fitzroy Crossi**	27.07	183	P	P	18 22 29.4	+3.8
	1.7nm,1.0s,mb3.5,baz=8.6,slow=13,SNR=4.4						
WRA	**Warramunga Arr**	29.79	166	P	P	18 22 49.1	-0.8
	0.4nm,0.8s,mb3.2,baz=348,slow=9.4,SNR=5.2						
ASAR	**Alice Springs**	33.30	168	P	P	18 23 20.8	+0.1
	0.1nm,0.3s,mb3.2,baz=354,slow=6.7,SNR=12						
MKAR	**Makanchi Array**	53.30	323	P	P	18 25 59.9	-2.0
	0.4nm,0.6s,mb3.5,baz=128,slow=7.9,SNR=6.6						

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*ISCJB **17** 18:22:27.9±1.2, 55.2N±0.1×156.1W±0.2, h10^{km}, mb3.6/6, Error ellipse: s-maj=23.7km s-min=15.1km az=144.5*

*IDC **17** 18:22:27.2±1.8, 54.93N×156.19W, h0^{km}, mb3.5/6, mb1 3.8/8, mb1mx3.6/25, mbtmp3.6/8, ML3.6/2, Error ellipse: s-maj=42.7km s-min=26.8km az=5.0*

*NEIC **17** 18:22:31.8, 55.15N×156.04W, h10^{km}, ML3.2(AEIC), After AEIC.*

ISC 17 18:22:29.6±1.2**, 55.1N**±0.1×**156.1W**±0.2**, h10**^{km}**, n15, σ0^{s}.63**/15**, mb3.6**/6**, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDAK	**Kodiak Island**	3.29	34	P	Pn	18 23 21.3	+0.1
KDAK	**Kodiak Island**	3.29	34	Pn	Pn	18 23 20.6	-0.5
	2.7nm,0.3s,baz=232,slow=8.2,SNR=84						
KDAK				Sn	Sn	18 23 39.3	-21
	4.7nm,0.3s,baz=232,slow=10,SNR=9.3						
SEW	**Seward**	6.13	33	P	Pn	18 23 59.0	-1.1
SLKM	**Skilak Lake**	6.24	28	P	Pn	18 24 01.4	-0.2
RC01	**Rabbit Creek A**	6.86	27	P	Pn	18 24 10.1	0.0
BMRM	**Bremner River**	8.44	41	P	Pn	18 24 31.5	-0.2
INK	**Inuvik**	16.84	29	Pn	Pn	18 26 26.0	+0.9
INK	**Inuvik**	16.84	29	Pn	Pn	18 26 26.0	+0.9
	0.2nm,0.3s,baz=227,slow=9.9,SNR=9.5						
YKA	**Yellowknife Ar**	22.35	54	P	P	18 27 28.2	+1.0
YKA	**Yellowknife Ar**	22.35	54	P	P	18 27 28.2	+1.0
	0.4nm,0.7s,mb3.0,baz=276,slow=9.8,SNR=8.0						
TXAR	**Lajitas Array**	45.16	103	P	P	18 30 45.6	-0.6
	0.4nm,0.5s,mb3.5,baz=283,slow=5.8,SNR=4.8						
SONM	**Songino Array**	56.37	307	P	P	18 32 10.5	0.0
	0.3nm,0.7s,mb3.4,baz=51,slow=6.2,SNR=3.9						
FINES	**FINESS Array B**	63.77	359	P	P	18 33 00.8	-0.2
	2.3nm,1.0s,mb4.2,baz=90,slow=1.9,SNR=4.5						
MKAR	**Makanchi Array**	67.20	321	P	P	18 33 23.1	-0.4
	0.2nm,0.6s,mb3.3,baz=52,slow=6.8,SNR=3.5						
ESDC	**Sonseca Array**	82.61	21	P	P	18 34 53.7	+1.0
	1.1nm,0.7s,mb4.0,baz=333,slow=5.4,SNR=6.3						

IDC 17 18:30:27.7±5.2**, 7.26S×155.45E, h0**^{km}**, mb3.5**/5**, mb1 3.6**/5**, mb1mx3.5**/14**, mbtmp3.5**/5**, MS3.1**/2**, Ms1 3.1**/2**, ms1mx2.5**/19**, Error ellipse: s-maj=160.5km s-min=30.9km az=113.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	4.94	116	LR	LR	18 33 14.8	
	comp=Z,90nm,19.4s,baz=1.3,slow=34						
WRA	**Warramunga Arr**	24.04	236	P	P	18 35 45.1	+0.4
	0.4nm,0.7s,baz=59,slow=9.0,SNR=5.1						
ASAR	**Alice Springs**	26.34	229	P	P	18 36 05.0	-0.6
	0.3nm,0.8s,baz=63,slow=9.4,SNR=4.2						
FITZ	**Fitzroy Crossi**	30.96	247	LR	LR	18 50 13.3	
	comp=Z,85nm,20.2s,baz=297,slow=38						
SONM	**Songino Array**	69.80	327	P	P	18 41 41.2	+1.3
	0.4nm,0.6s,baz=137,slow=6.6,SNR=3.6						
MKAR	**Makanchi Array**	83.90	319	P	P	18 42 59.7	+0.2
	0.5nm,0.7s,baz=100,slow=6.4,SNR=8.2						
ZALV	**Zalesovo Beam**	84.65	326	P	P	18 43 02.5	-0.6
	0.3nm,0.4s,baz=116,slow=6.6,SNR=3.1						

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*IDC **17** 18:44:15.4±2.1, 30.33S×177.89W, h0^{km}, mb4.1/3, mb1 4.2/4, mb1mx3.9/13, mbtmp4.0/4, ML3.3/1, Error ellipse: s-maj=56.1km s-min=32.9km az=124.0*

ISC 17 18:44:16.5±2.9**, 30.4S**±0.1×**177.3W**±0.4**, h35**^{km}**, n11, σ0^{s}.42**/9**, mb4.1**/3**, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	8.05	206	PN	Pn	18 46 11.1	+0.2
PUZ	**Puketiti**	8.52	204	PN	Pn	18 46 17.8	+0.5
PUZ				SN	Sx	18 47 50.6	
MWZ	**Matawai**	9.02	207	PN	Pn	18 46 24.1	-0.1
URZ	**Urewera**	9.13	209	Pn	Pn	18 46 24.8	-0.9
	0.4nm,0.3s,baz=94,slow=23,SNR=5.2						
URZ				Sn	Sn	18 48 07.1	0.0
	3.9nm,0.3s,baz=229,slow=20,SNR=18						
URZ	**Urewera**	9.13	209	PN	Pn	18 46 24.8	-0.8
STKA	**Stephens Creek**	35.07	257	P	P	18 51 06.7	+0.5
	1.1nm,0.3s,mb4.2,baz=76,slow=12,SNR=4.8						
ASAR	**Alice Springs**	43.71	267	P	P	18 52 17.9	-0.4
	0.8nm,0.5s,mb3.7,baz=106,slow=7.2,SNR=35						
WRA	**Warramunga Arr**	44.69	272	P	P	18 52 26.3	0.0
	1.4nm,0.3s,mb4.3,baz=110,slow=8.1,SNR=31						
MKAR	**Makanchi Array**	118.21	310	PKP	PKPdf	19 03 05.0	+5.5
	0.2nm,0.8s,baz=166,slow=1.2,SNR=2.9						
KAF	**Kangasniemi**	144.71	341	ep	PKPdf	19 03 47.5	-1.2
	8.4nm,1.2s						
FINES	**FINESS Array B**	145.31	340	PKPbc	PKPbc	19 03 51.4	+1.8
	1.4nm,0.6s,baz=55,slow=4.3,SNR=15						

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*IDC **17** 19:03:23.8±1.8, 43.41N×105.20W, h0^{km}, mb3.7/3, mb1 3.7/7, mb1mx3.6/22, mbtmp3.6/7, ML3.4/4, Error ellipse: s-maj=44.3km s-min=7.5km az=153.0*

*ISCJB **17** 19:03:24.6±0.4, 43.78N±0.03×105.24W±0.04, h0^{km}, mb3.7/3, Error ellipse: s-maj=4.6km s-min=4.1km az=16.4*

*NEIC **17** 19:03:26.1±0.3, 43.79N×105.22W, h0^{km}, mb4.3/1, ML3.3, Error ellipse: s-maj=4.5km s-min=3.3km az=136.0, Suspected Mining explosion.*

NEIC 60 km [40 miles] SSE of Gillette.

ISC 17 19:03:26.3±0.4, 4379N±003×10520W±004, h0^{km}, n81, σ0^{s}.88/82, mb3.7/3, 16C-17D, Wyoming

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.91	68	*e*Pg	Pg	19 03 44.5	+1.0
PHWY	Pilot Hill	2.50	184	*e*Pn	Pn	19 04 07.8	-0.2
RWWY	Rawlins	2.57	216	*e*Pn	Pn	19 04 09.8	+0.7
LAO	LASA Array	2.99	346	*e*Pn	Pn	19 04 14.7	-0.1
RLMT	Red Lodge	3.20	296	*e*Pn	Pn	19 04 17.6	-0.2
PDAR	Pinedale Array	3.34	254	Pn	Pn	19 04 19.8	+0.1
PDAR				Pg	Pg	19 04 25.0	-5.3
PDAR				Sn	Sn	19 05 00.1	+0.1
PDAR				Lg		19 05 05.5	
PDAR	Pinedale Array	3.34	254	Pn	Pn	19 04 19.8	+0.1
	4.4nm,0.3s,baz=71,slow=16,SNR=38						
PDAR				Pg	Pg	19 04 25.0	-5.3
	9.6nm,0.3s,baz=64,slow=18,SNR=46						
PDAR				Sn	Sn	19 05 00.1	+0.1
	4.0nm,0.3s,baz=80,slow=21,SNR=3.7						
PDAR				Lg		19 05 05.5	
	15nm,0.3s,baz=76,slow=32,SNR=10						
LKWY	Lake	3.82	283	*e*Pn	Pn	19 04 27.2	+0.9
LOHW	Long Hollow	3.92	269	*e*Pn	Pn	19 04 27.9	+0.2
ISCO	Idaho Springs	4.00	185	*e*Pn	Pn	19 04 29.0	+0.3
MOOW	Moose Ponds	4.01	271	*e*Pn	Pn	19 04 29.1	+0.2
YNR	Norris Junctio	4.04	285	*e*Pn	Pn	19 04 31.5	+2.2
YFT	Old Faithful	4.11	281	*e*Pn	Pn	19 04 29.9	-0.4
REDW	Red Top Meadow	4.13	266	*e*Pn	Pn	19 04 32.1	+1.6
TPAW	Teton Pass	4.18	268	*e*Pn	Pn	19 04 31.9	+0.6
YMR	Madison River	4.23	284	Pn	Pn	19 04 31.4	-0.5
DCID1	Drake Creek	4.34	269	*e*Pn	Pn	19 04 34.5	+1.0
AHID	Auburn Hatcher	4.43	259	*e*Pn	Pn	19 04 35.2	+0.6
QLMT	Earthquake Lak	4.59	285	Pn	Pn	19 04 42.9	+6.1
DGMT	Dagmar	4.73	8	*e*Pn	Pn	19 04 40.5	+1.7
SMCO	Snowmass	4.80	197	*e*Pn	Pn	19 04 41.5	+1.8
BOZ	Bozeman (W)	4.94	294	*e*Pn	Pn	19 04 41.5	-0.1
BOZ	Bozeman (W)	4.94	294	⇑P	Pn	19 04 40.2	-1.5
	baz=4.7						
BOZ				⇑S	Sn	19 05 38.1	-1.4
	baz=4.7						
HWUT	Hardware Ranch	5.17	247	*e*Pn	Pn	19 04 44.1	-0.7
	13nm,0.4s						
EGMT	Eagleton	5.29	325	*e*Pn	Pn	19 04 46.3	-0.1
	30nm,0.6s						
EGMT				*e*Pg	Pg	19 05 05.7	-1.9
EGMT	Eagleton	5.29	325	⇑P	Pn	19 04 46.9	+0.4
	baz=5.1						
EGMT				⇓S	Sn	19 05 50.8	+2.7
	baz=5.1						
G15A	Dillon	5.39	287	⇑Lg		19 06 08.2	
	baz=5.2						
DLMT	Dillon	5.51	289	*e*Pn	Pn	19 04 48.3	-1.2
	7.2nm,0.6s						
F15A	Butte	5.58	294	⇑P	Pn	19 04 50.3	-0.1
	baz=5.3						
F15A				⇓Lg		19 06 15.5	
	baz=5.3						
MCMT	McKenzie Canyo	5.58	283	*e*Pn	Pn	19 04 53.0	+2.5
DAU	Daniels Canyon	5.63	235	*e*Pn	Pn	19 04 51.0	-0.2
JLU	Jordanelle	5.63	238	*e*Pn	Pn	19 04 50.8	-0.3
CTU	Camp Tracy	5.76	240	*e*Pn	Pn	19 04 52.4	-0.5
	10nm,0.5s						
M15A	Larsen Ranch,	5.83	249	⇓P	Pn	19 04 54.0	+0.2
	baz=5.6						
M15A				⇓Lg		19 06 22.5	
	baz=5.6						
E15A	Deer Lodge	5.88	299	P	Pn	19 04 54.4	-0.3
	baz=5.7,SNR=20						
E15A				⇓S	Sn	19 06 03.9	+1.2
	baz=5.7						
SPUT	South Promonto	5.90	248	*e*Pn	Pn	19 04 55.4	+0.5
HVU	Hansel Valley	5.92	253	*e*Pn	Pn	19 04 54.6	-0.5
	5.4nm,0.4s						
SDCO	Great Sand Dun	6.04	182	*e*Pn	Pn	19 04 57.1	+0.3
	3.0nm,0.6s						
G14A	Jackson	6.08	287	⇑Lg		19 06 31.7	
	baz=5.8						
D15A	Lincoln	6.09	305	⇑P	Pn	19 04 57.2	-0.2
	baz=5.9,SNR=6.7						
D15A				⇑Lg		19 06 31.5	
	baz=5.9						
MPU	Maple Canyon	6.10	234	*e*Pn	Pn	19 04 57.2	-0.5
	12nm,0.7s						
SRU	San Rafael	6.15	222	*e*Pn	Pn	19 04 57.2	-1.1
	9.0nm,0.4s						
F14A	Wisdom	6.15	292	⇓Lg		19 06 32.7	
	baz=5.9						
ECSD	EROS,Sioux Fal	6.22	88	*e*Pn	Pn	19 04 59.8	+0.6
	8.4nm,0.6s						
TMUT	Trail Mountain	6.36	227	*e*Pn	Pn	19 05 00.9	-0.3
M14A	Sheep Mountain	6.42	252	⇓P	Pn	19 05 01.8	-0.2
	baz=6.2						
M14A				⇑Lg		19 06 42.9	
	baz=6.2						
E14A	Clinton	6.43	297	⇓P	Pn	19 05 01.9	-0.1
	baz=6.2,SNR=6.8						
E14A				⇓Lg		19 06 43.6	
	baz=6.2						
BGU	Big Grassy Mou	6.47	246	*e*Pn	Pn	19 05 01.4	-1.2
CHMT	Chamberlain Mo	6.47	302	*e*Pn	Pn	19 05 03.0	+0.3
K13A	Stover Farm, H	6.59	263	⇓P	Pn	19 05 04.3	0.0
	baz=6.3						
G13A	Cobalt	6.59	285	⇓Lg		19 06 47.1	
	baz=6.3						
HLID	Hailey	6.68	271	*e*Pn	Pn	19 05 05.6	0.0
	1.7nm,0.6s						
D14A	Greenough	6.70	302	⇑P	Pn	19 05 05.3	-0.6
	baz=6.5,SNR=12						
DUG	Dugway	6.71	240	*e*Pn	Pn	19 05 04.8	-1.2
	4.6nm,0.6s						
DUG	Dugway	6.71	240	⇑P	Pn	19 05 05.2	-0.8
	baz=6.5						
DUG				⇑Lg		19 06 53.9	
	baz=6.5						
F13A	Darby	6.79	290	⇓Lg		19 06 56.2	
	baz=6.6						
E13A	Victor	6.89	296	⇓Lg		19 06 58.1	
	baz=6.7						
N13A	Wendover, West	7.29	249	⇓P	Pn	19 05 14.3	+0.5
	baz=7.1						
D13A	Huson	7.30	300	⇑P	Pn	19 05 14.0	-0.1
	baz=7.1,SNR=9.3						
F12A	Elk City	7.42	289	⇓Lg		19 07 12.8	
	baz=7.2						
MSU	Marysvale	7.45	227	*e*P	Pn	19 05 15.8	-0.3
M12A	Wells	7.55	255	⇑Lg		19 07 17.9	
	baz=7.3						
C13A	Hot Springs	7.62	304	⇓P	Pn	19 05 18.8	+0.3
	baz=7.4						
C13A				⇓Lg		19 07 23.0	
	baz=7.4						
N12A	Clover Valley,	7.86	251	⇑P	Pn	19 05 22.1	+0.4
	baz=7.6						
AGMN	Agassiz Refuge	7.91	52	*e*Pn	Pn	19 05 21.7	-0.7
	13nm,0.5s						
A13A	Flathead Natio	8.18	312	⇑P	Pn	19 05 26.0	-0.2
	baz=8.0						
CCUT	Cedar City	8.79	228	*e*Pn	Pn	19 05 34.5	0.0
ULM	Lac du Bonnet	9.07	41	Pn	Pn	19 05 37.4	-0.9
ULM				Pg	Pg	19 06 08.9	-11
ULM				Lg		19 08 13.0	
ULM	Lac du Bonnet	9.07	41	Pn	Pn	19 05 37.4	-0.9
	1.0nm,0.3s,baz=226,slow=11,SNR=16						
ULM				Pg	Pg	19 06 08.9	-11
	0.8nm,0.3s,baz=220,slow=17,SNR=5.5						
ULM				Lg		19 08 13.0	
	0.6nm,0.3s,baz=129,slow=23,SNR=3.8						
NEW	Newport	9.42	303	Lg		19 08 22.2	
	0.1nm,0.3s,baz=24,slow=7.7,SNR=4.4						
WUAZ	Wupatki	9.53	212	*e*Pn	Pn	19 05 44.8	+0.1
	7.1nm,0.6s						
FFC	Flin Flon	11.14	10	*e*Pn	Pn	19 06 05.0	-1.7
	2.8nm,0.6s						
NVAR	Mina Array Bea	11.24	246	Pn	Pn	19 06 06.8	-1.2
NVAR	Mina Array Bea	11.24	246	Pn	Pn	19 06 06.8	-1.2
	0.2nm,0.3s,baz=61,slow=13,SNR=5.6						
WCI	Wyandotte Cave	15.31	105	*e*Pn	Pn	19 07 07.5	+4.0
	9.0nm,0.6s						
YKA	Yellowknife Ar	19.53	347	P	Pn	19 07 57.0	+0.9
YKA	Yellowknife Ar	19.53	347	P	Pn	19 07 57.0	+0.9
	0.2nm,0.3s,baz=152,slow=13,SNR=6.1						
ZALV	Zalesovo Beam	82.26	354	P	P	19 15 48.0	-1.0
	0.6nm,0.6s,mb3.9,baz=348,slow=3.8,SNR=4.6						
SONM	Songino Array	84.61	339	P	P	19 16 01.5	+0.2
	0.2nm,0.6s,mb3.5,baz=16,slow=3.5,SNR=3.2						
MKAR	Makanchi Array	89.56	355	P	P	19 16 24.2	-1.2
MKAR	Makanchi Array	89.56	355	P	P	19 16 24.2	-1.2
	0.3nm,0.7s,mb3.6,baz=360,slow=4.3,SNR=4.9						

MEX 17 19:34:49.7±0.7, 1927N×10257W, h20^{km}±48^{km}, MD3.8, Michoacan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMIG	Aquila	1.22	217	*i* P	Pn	19 35 08.4	-3.2
MMIG				*i* S	Sb	19 35 23.0	-4.5
SFJM	Santa Fe	1.28	340	*i* P	Pn	19 35 10.0	-2.5
SFJM				*i* S	Sn	19 35 24.0	-5.1
ANIG	Ahuacatlan	2.55	314	*e*P	Pn	19 35 29.5	-0.4
ANIG				*i* S	Sn	19 35 57.4	-2.9
PLIG	Platanillo	3.04	106	*e*P	Pn	19 35 34.2	-2.4
PLIG				*i* S	Sn	19 36 09.4	-3.0

IDC 17 19:42:48.2±7.6, 616S×14667E, h75^{km}±69^{km}, mb2.9/2, mb1 3.2/4, mb1mx2.9/15, mbtmp3.0/4, ML2.8/2, Error ellipse: s-maj=56.8km s-min=53.7km az=126.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.26	172	P	Pn	19 43 37.5	+0.5
	2.3nm,0.3s,baz=34,slow=2.1,SNR=10						
PMG				S	Sn	19 44 15.3	+0.5
	4.5nm,0.3s,baz=184,slow=24,SNR=14						
WRA	Warramunga Arr	18.20	220	P	Pn	19 46 55.4	-0.5
	0.1nm,0.3s,baz=46,slow=12,SNR=8.4						
ASAR	Alice Springs	21.30	214	P	P	19 47 29.3	+0.4
	0.2nm,0.4s,baz=55,slow=8.8,SNR=8.5						
FITZ	Fitzroy Crossi	23.71	238	P	P	19 47 53.6	+0.1
	1.3nm,0.7s,baz=38,slow=12,SNR=4.0						
TORD	Torodi Ar. Bea	144.82	284	PKP	PKPdf	20 02 16.3	-1.3
	0.3nm,0.8s,baz=80,slow=3.5,SNR=2.7						

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*NEIC **17** 19:46:12.0, 16.17N×97.29W, h16^{km}, MD3.7(MEX), After MEX.*

MEX 17 19:46:11.8±1.1, 1617N×9729W, h17^{km}±18^{km}, MD3.7, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.83	285	*e*P	Pb	19 46 25.9	-2.0
PNIG				*i* S	Sb	19 46 33.6	-5.3
PNIG	Pinotepa	0.83	285	*e*P	Pb	19 46 25.9	-2.0
PNIG				*i* S	Sb	19 46 33.6	-5.2
VHO	Vista Hermosa	1.04	31	*i* P	Pb	19 46 28.6	-2.8
VHO				*i* S	Sb	19 46 40.6	-4.2
VHO				*i* S	Sb	19 46 42.0	-2.8
VHO	Vista Hermosa	1.04	31	*i* P	Pb	19 46 28.6	-2.8
VHO				*i* S	Sb	19 46 40.6	-4.2
OXX	Oaxaca	1.05	31	*i* S	Sb	19 46 40.0	-5.1
OXX				*i* S	Sb	19 46 41.0	-4.1
OXX	Oaxaca	1.05	31	*i* P	Pb	19 46 27.5	-4.1
OXX				*i* S	Sb	19 46 40.0	-5.1
HUIG	Huatulco	1.20	109	*i* P	Pn	19 46 30.7	-3.2
HUIG				*i* S	Sb	19 46 43.8	-5.7
UTMO	Huajuapan	1.72	343	*i* P	Pn	19 46 38.9	-2.1
UTMO				*i* S	Sn	19 46 59.1	-3.5
CMIG	Matias Romero	2.48	68	*e*P	Pn	19 46 48.1	-3.3
CMIG				*i* S	Sn	19 47 16.9	-4.5
MEIG	Mezcala	2.83	308	*e*P	Pn	19 46 58.8	+2.5
MEIG				*i* S	Sn	19 47 33.8	+3.7

IDC 17 19:50:29.6±3.9, 227S×15109E, h0^{km}, mb3.3/2, mb1 3.5/2, mb1mx3.1/14, mbtmp3.3/2, Error ellipse: s-maj=162.1km s-min=49.4km az=113.0, New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.01	222	P	P	19 55 48.2	+1.9
	0.3nm,0.3s,baz=46,slow=9.5,SNR=9.9						
ASAR	Alice Springs	27.00	217	P	P	19 56 12.3	-1.1
	0.2nm,0.3s,baz=48,slow=8.7,SNR=5.9						
TORD	Torodi Ar. Bea	147.85	291	PKPbc	PKPbc	20 10 16.8	-1.0
	0.4nm,1.0s,baz=79,slow=2.0,SNR=4.1						

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*IDC **17** 20:00:47.9±4.8, 9.09S×122.48E, h72^{km}±48^{km}, mb4.0/4, mb1 4.2/7, mb1mx3.9/16, mbtmp4.1/7, ML4.4/3, Error ellipse: s-maj=87.1km s-min=23.3km az=63.0*

*ISCJB **17** 20:00:51.1±1.3, 9.29S±0.07×122.6E±0.1, h132^{km}±14^{km}, mb4.2/18, Error ellipse: s-maj=18.8km s-min=8.2km az=147.7*

*NEIC **17** 20:00:51.5±1.3, 9.30S×122.52E, h116^{km}±15^{km}, mb4.3/11, Error ellipse: s-maj=17.1km s-min=8.7km az=61.0*

ISC 17 20:00:52.2±1.4, 936S±008×1226E±01, h127^{km}±15^{km}, n34, σ0^{s}.93/38, mb4.3/18, Savu Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	9.19	161	*e*P	Pn	20 03 00.9	-0.8
	16nm,0.3s						
FITZ				*e*S	Sn	20 04 38.4	-4.9
FITZ	Fitzroy Crossi	9.19	161	P	Pn	20 03 01.6	-0.1
	3.1nm,0.3s,baz=1.0,slow=11,SNR=146						
FITZ				S	Sn	20 04 38.1	-5.2
	9.3nm,0.3s,baz=90,slow=17,SNR=14						
KAKA	Kakadu	10.24	110	*e*Pn	Pn	20 03 16.1	+0.2
KAKA				*e*Sn	Sn	20 04 59.2	-10
MBWA	Marble Bar	12.05	193	*e*Pn	Pn	20 03 38.3	-1.4
	7.3nm,0.7s						
WRA	Warramunga Arr	15.49	134	P	Pn	20 04 23.8	0.0
	0.8nm,0.3s,baz=299,slow=13,SNR=45						
WRA				S	S	20 07 06.2	-16
	2.4nm,0.3s,baz=306,slow=24,SNR=17						
WB2	Warramunga Arr	15.50	134	*e*Pn	Pn	20 04 23.4	-0.5
WB2				*e*Sn	Sn	20 07 01.9	-14
KSM	Kuching	16.28	311	*e*Pn	Pn	20 04 34.4	+0.8
KKM	Kota Kinabalu	16.56	337	*e*Pn	Pn	20 04 37.1	+0.1
ASAR	Alice Springs	17.88	144	P	Pn	20 04 55.5	+2.6
	2.8nm,0.3s,baz=325,slow=12,SNR=107						
ASAR				S	S	20 08 05.3	-5.4
	1.5nm,0.3s,baz=306,slow=21,SNR=20						
FORT	Forrest	21.92	167	*e*P	P	20 05 37.4	+2.2
	9.3nm,0.6s,mb4.3						
KLBR	Kellerberrin	22.57	191	*e*P	P	20 05 43.3	+1.3
	47nm,1.6s,mb4.6						
STKA	Stephens Creek	28.52	144	*e*P	P	20 06 39.4	+3.7
	2.0nm,1.0s,mb3.7						
STKA	Stephens Creek	28.52	144	*e*P	P	20 06 38.1	+2.4
STKA	Stephens Creek	28.52	144	P	P	20 06 39.3	+3.6
	1.0nm,0.5s,mb3.7,baz=306,slow=12,SNR=6.5						
LSA	Lhasa	49.23	323	*e*P	P	20 09 28.7	+0.9
	0.9nm,0.5s,mb4.0						
BJT	Baijiatuau	49.48	354	*e*P	P	20 09 29.8	+0.2
	3.6nm,0.6s,mb4.5						
MDJ	Mudanjiang	54.10	6	P	P	20 10 02.7	-1.0
	5.1nm,0.9s,mb4.5						
SONM	Songino Array	58.72	347	P	P	20 10 36.7	+0.3
	1.4nm,0.6s,mb4.2,baz=167,slow=8.6,SNR=15						
MK31	Makanchi Array	66.43	331	*e*P	P	20 11 28.0	+0.3
MKAR	Makanchi Array	66.43	331	P	P	20 11 28.1	+0.5
	3.8nm,0.5s,mb4.5,baz=138,slow=7.7,SNR=103						
KBL	Kabul	66.86	314	*e*P	P	20 11 30.1	-0.5
UCH	Uchtor	67.56	323	*e*P	P	20 11 33.0	-1.9
	2.2nm,1.0s,mb3.9						
AAK	Ala-Archa	67.82	324	*e*P	P	20 11 35.6	-0.9
	3.2nm,0.9s,mb4.2						
AML	Almayashu	67.99	323	*e*P	P	20 11 38.2	+0.7
	2.1nm,0.6s,mb4.1						
EKS2	Erkin-Say	68.26	323	*e*P	P	20 11 38.8	-0.5
	6.7nm,1.6s,mb4.2						
ZALV	Zalesovo Beam	70.68	337	P	P	20 11 53.4	-0.4
	2.1nm,0.4s,mb4.3,baz=131,slow=4.7,SNR=16						
KURK	Kurchatov	70.92	332	*e*P	P	20 11 55.2	-0.2
QRN	Al-Qurain	81.25	301	*e*P	P	20 12 54.1	-0.4
QRN				AMb	AMB	20 12 55.9	
	comp=Z,18nm,0.6s,mb5.1						
RDF	Al-Radifah	81.61	301	*e*P	P	20 12 56.9	+0.5
RDF				AMb	AMB	20 12 57.5	
	comp=Z,13nm,0.7s,mb4.9						
NAY	Al-Naaiem	81.96	301	*e*P	P	20 12 58.1	0.0
NAY				AMb	AMB	20 12 59.2	
	comp=Z,4.8nm,0.6s,mb4.5						
MIB	Mutribah	82.03	302	*e*P	P	20 12 58.0	-0.5
MIB				AMb	AMB	20 13 00.6	
	comp=Z,12nm,1.0s,mb4.7						
ARU	Arti	83.92	330	P	P	20 13 08.4	+0.8
	comp=Z,1.8nm,0.6s,mb4.1						
TORD	Torodi Ar. Bea	122.00	280	PKP	PKPdf	20 19 34.5	+1.9
TORD	Torodi Ar. Bea	122.00	280	PKP	PKPdf	20 19 34.5	+1.9
	comp=Z,0.9nm,0.6s,baz=44,slow=2.5,SNR=18						

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*IDC **17** 20:10:39.0±8.9, 36.75N×71.54E, h79^{km}±76^{km}, mb3.4/6, mb1 3.6/9, mb1mx3.3/23, mbtmp3.5/9, ML3.7/3, Error ellipse: s-maj=54.7km s-min=21.3km az=29.0*

*MOS **17** 20:10:40.7±1.0, 36.93N×71.49E, h106^{km}, mb3.7/1, Error ellipse: s-maj=17.2km s-min=9.2km az=88.3*

*ISCJB **17** 20:10:42.4±0.4, 37.01N±0.02×71.70E±0.05, h120^{km}±6^{km}, mb3.6/6, Error ellipse: s-maj=6.5km s-min=3.6km az=1.8*

*NEIC **17** 20:10:43.7±0.6, 37.01N×71.67E, h116^{km}±6^{km}, mb4.6/5, Error ellipse: s-maj=8.4km s-min=7.0km az=114.0*

*BJI **17** 20:10:44.3, 36.92N×71.84E, h89^{km}, mb4.2*

*NNC **17** 20:10:51.2±9.1, 37.72N×71.36E, h217^{km}±96^{km}, mb2.6, mpv3.6, Error ellipse: s-maj=87.9km s-min=42.3km az=9.0*

ISC 17 20:10:43.7±0.3, 3700N±002×7171E±005, h117^{km}±6^{km}, n63, σ1^{s}.19/82, mb3.6/6, 10C-1D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	3.17	177	⇑P	Pn	20 11 34.1	+1.9
CEP				S	Sn	20 12 09.0	-0.6
KBL	Kabul	3.27	222	*e*Pn	Pn	20 11 33.7	+0.2
KBL				*e*Sn	Sn	20 12 12.3	+0.4
CHCP	Chirah Chowk	3.57	159	P	Pn	20 11 40.6	+3.2
THW	Thamme Wali	4.19	180	⇑P	Pn	20 11 44.8	-1.0
KSH	Kashi	4.20	52	*e*P	Pn	20 11 48.8	+3.0
KSH				S	Sn	20 12 33.9	0.0
KSH				Smax			
	comp=N,507nm,0.5s						
KSH				Smax			
	comp=E,559nm,0.6s						
SBDP	Sheikh Budin	4.75	189	P	Pn	20 11 53.1	-0.1
SBDP				S	Sn	20 12 46.0	-1.2
AML	Almayashu	5.35	16	P	Pn	20 12 01.7	+0.4
	SNR=82						
AML	Almayashu	5.35	16	*e*Pn	Pn	20 12 01.7	+0.4
	comp=E,146nm,0.2s						
AML				*e*Sn	Sn	20 12 58.4	-3.3
DRP	Derazinda	5.39	194	⇑P	Pn	20 12 02.6	+0.8
THN	Thein Dam	5.62	143	*e*P	Pn	20 12 06.8	+1.7
THN				*e*S	Sn	20 13 07.9	-0.5
UCH	Uchtor	5.66	22	P	Pn	20 12 06.0	+0.7
	SNR=32						
UCH	Uchtor	5.66	22	*e*Pn	Pn	20 12 05.9	+0.5
	comp=E,16nm,0.3s						
UCH				*e*Sn	Sn	20 13 07.6	-1.4
DLH	Dalhousie	5.66	140	*e*P	Pn	20 12 10.0	+4.4
DLH				*e*S	Sn	20 13 09.0	-0.3
KZA	Kyzart	5.76	27	P	Pn	20 12 07.4	+0.6
	SNR=9.1						
EKS2	Erkin-Say	5.88	15	P	Pn	20 12 08.8	+0.4
	SNR=47						
EKS2	Erkin-Say	5.88	15	*e*Pn	Pn	20 12 08.5	+0.1
	comp=E,21nm,0.4s						
EKS2				*e*Sn	Sn	20 13 07.1	-7.3
AAK	Ala-Archa	6.02	20	P	Pn	20 12 11.2	+0.9
	SNR=86						
AAK	Ala-Archa	6.02	20	*e*Pn	Pn	20 12 09.9	-0.4
	comp=E,37nm,0.4s						
AAK				*e*Sn	Sn	20 13 13.9	-4.0
AAK	Ala-Archa	6.02	20	*e*PN	Pn	20 12 10.0	-0.4
AAK				pmax	pmax		
	comp=Z,37nm,0.4s						
KK31	Karatay Array	6.17	352	⇓P	Pn	20 12 11.0	-1.3
	comp=Z,13nm,0.3s,baz=181,slow=14,SNR=634						
KK31				⇑S	Sn	20 13 15.6	-5.8
	comp=Z,9.8nm,0.4s,baz=169,slow=22						
KKAR	Karatay Array	6.17	352	*e*PN	Pn	20 12 10.9	-1.4
KKAR				pmax	pmax		
	comp=Z,5.0nm,0.2s						
KBK	Karagaybulak	6.18	23	P	Pn	20 12 13.4	+0.9
	SNR=15						
ULHL	Ulahol	6.30	32	P	Pn	20 12 15.4	+1.3
	SNR=11						
CHMS	Chumysh	6.43	20	P	Pn	20 12 16.3	+0.4
	SNR=35						
USP	Ospenovka	6.62	18	P	Pn	20 12 18.1	-0.3
	SNR=35						
TKM2	Tokmak 2	6.63	26	P	Pn	20 12 19.0	+0.5
	SNR=25						
TKM2	Tokmak 2	6.63	26	⇑P	Pn	20 12 19.1	+0.6
	comp=Z,0.6nm,0.5s						
TKM2				⇑S	Sn	20 13 31.9	-0.7
	comp=Z,1.0nm,0.7s						
TKM2	Tokmak 2	6.63	26	*e*Pn	Pn	20 12 19.1	+0.6
	comp=Z,13nm,0.5s						
TKM2	Tokmak 2	6.63	26	*e*PN	Pn	20 12 19.1	+0.6
TKM2				pmax	pmax		
	comp=Z,13nm,0.5s						
SDNR	Sundarnagar	7.00	140	*e*P	Pn	20 12 25.0	+1.3
SDNR				*e*S	Sn	20 13 39.0	-2.9
KLP	Kalpa	7.68	133	*e*P	Pn	20 12 35.4	+2.5
KLP				*e*S	Sn	20 13 55.1	-3.2
JOSI	Joshimath	9.16	132	*e*P	Pn	20 12 55.1	+2.2
JOSI				AMb	AMB	20 13 02.2	
	comp=Z,24nm,0.6s						
JOSI				*e*S	Sn	20 14 29.3	-4.9
KHET	Khetri	9.55	158	*e*P	Pn	20 12 57.8	-0.4
KHET				AMb	AMB	20 12 58.3	
	comp=Z,8.3nm,0.2s						
KHET				*e*S	Sn	20 14 37.6	-5.9
KUDL	Kundal	9.71	154	*e*P	Pn	20 12 59.3	-1.0
KUDL				AMb	AMB	20 13 01.6	
	comp=Z,7.6nm,0.2s						
KUDL				*e*S	Sn	20 14 39.2	-8.2
MK31	Makanchi Array	12.56	35	⇑P	Pn	20 13 37.2	-0.9
	comp=Z,1.3nm,0.8s,baz=222,slow=11,SNR=12						
MK31	Makanchi Array	12.56	35	*e*Pn	Pn	20 13 37.6	-0.5
MK31	Makanchi Array	12.56	35	*e*P	Pn	20 13 37.6	-0.5
MKAR	Makanchi Array	12.56	35	P	Pn	20 13 38.3	+0.2
	comp=Z,0.1nm,0.3s,baz=224,slow=13,SNR=9.8						
GKN	Gorkha	14.11	126	*e*P	Pn	20 13 56.9	-1.5
	comp=Z,12nm,0.5s						
GKN				*e*S	Sn	20 16 23.7	-10
KURK	Kurchatov	14.58	18	⇑P	Pn	20 14 01.7	-2.4
	comp=Z,1.4nm,0.8s						
KURK	Kurchatov	14.58	18	*e*Pn	Pn	20 14 09.3	+5.2
	comp=Z,2.5nm,0.7s						
KURK	Kurchatov	14.58	18	*e*P	Pn	20 14 09.3	+5.2
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
KKN	Kakani	14.68	125	*e*P	Pn	20 14 04.3	-1.2
	comp=Z,6.3nm,0.4s						
AB31	Akbulak array	14.94	329	⇑P	Pn	20 14 05.4	-3.2
	comp=Z,0.7nm,0.3s						
AB31				⇑S	Sn	20 16 36.4	-17
	comp=Z,1.3nm,0.5s,baz=144,slow=22,SNR=6.6						
JIRN	Jiri	15.37	123	*e*P	Pn	20 14 13.8	-0.4
	comp=Z,4.3nm,0.2s						
TAPN	Taplejung	16.60	121	*e*P	Pn	20 14 31.4	+2.0
	comp=Z,6.9nm,0.4s						
AKTK	Aktyubinsk	16.64	328	P	Pn	20 14 29.5	-0.3
AKTO	Aktyubinsk	16.64	328	P	Pn	20 14 29.5	-0.3
	comp=Z,0.4nm,0.3s,baz=139,slow=12,SNR=5.4						
ODAN	Odare	16.70	123	*e*P	Pn	20 14 28.2	-2.4
	comp=Z,5.7nm,0.4s						
LSA	Lhasa	17.79	109	*e*Pn	Pn	20 14 45.4	+1.6
	comp=Z,1.8nm,0.6s						
LSA	Lhasa	17.79	109	*e*P	Pn	20 14 45.4	+1.6
LSA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ZAL	Zalesovo	19.21	24	P	P	20 14 58.7	+0.4
ZALV	Zalesovo Beam	19.23	24	P	P	20 14 58.7	+0.3
	comp=Z,0.8nm,0.3s,baz=216,slow=10,SNR=14						
GTA	Gaotai	22.19	75	*e*P	P	20 15 34.4	+4.1
SONM	Songino Array	27.59	56	P	P	20 16 21.5	+1.9
	comp=Z,0.8nm,0.9s,mb3.3,baz=254,slow=9.5,SNR=8.0						
JOF	Joensuu	35.72	329	*e*p	P	20 17 30.8	+0.2
FINES	FINESS Array B	37.39	326	P	P	20 17 44.8	0.0
	comp=Z,5.1nm,1.2s,mb4.3,baz=127,slow=9.2,SNR=6.5						
ARCES	ARCESS Array B	40.90	337	P	P	20 18 14.3	+0.5
	comp=Z,1.4nm,0.9s,mb3.8,baz=112,slow=9.8,SNR=4.0						
NB2	NORSAR Subarra	44.33	323	P	P	20 18 41.6	0.0
	comp=Z,0.7nm,0.5s,mb3.6,baz=97,slow=7.9						
NOA	NORSAR Array B	44.33	323	P	P	20 18 41.7	0.0
NOA	NORSAR Array B	44.33	323	P	P	20 18 41.7	0.0
	comp=Z,1.2nm,0.7s,mb3.8,baz=96,slow=7.8,SNR=4.1						

WRA	**Warramunga Arr**	**81.78**	**122**	P	**P**	**20 22 49.0**	**-0.6**
	comp=Z,0.2nm,0.3s,mb3.4,baz=325,slow=4.9,SNR=7.1						
ASAR	**Alice Springs**	**84.08**	**125**	P	**P**	**20 23 01.2**	**-0.2**
	comp=Z,0.2nm,0.6s,mb3.1,baz=316,slow=5.3,SNR=5.7						

CSEM ***17*** *20:13:48.5±0.2, 40.48N×42.33E, h0^{km}±1^{km}, MD3.1, Error ellipse: s-maj=2.0km s-min=1.8km az=24.0*
ISK ***17*** *20:13:49.8, 40.52N×42.33E, h6^{km}, MD3.1*
ISCJB ***17*** *20:13:50.2±0.4, 40.52N±0.03×42.34E±0.03, h6^{km}, Error ellipse: s-maj=4.0km s-min=3.1km az=35.6*
DDA ***17*** *20:13:50.1, 40.49N×42.37E, h7^{km}±4^{km}, Md3.5*
ISC 17 20:13:50.7±0.5**, 40.51N**±0.03×**42.35E**±0.03**, h3**^{km}±6^{km}**, n22,** σ**0**^{s}**97**/37**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARS	**Kars**	**0.57**	**79**	PG	**Pg**	**20 14 01.2**	**-0.6**
KARS				SG	**Sg**	**20 14 10.8**	**+1.6**
KARS	**Kars**	**0.57**	**79**	*e*Pg	**Pg**	**20 14 01.2**	**-0.6**
KARS				*e*Sg	**Sg**	**20 14 10.8**	**+1.6**
ARTV	**Artvin**	**0.75**	**335**	*i* P	**Pg**	**20 14 05.2**	**+0.1**
ARTV				*i* S	**Sg**	**20 14 16.6**	**+1.8**
DIGO	**Kars**	**0.79**	**97**	*i* P	**Pg**	**20 14 04.5**	**-1.4**
DIGO				*i* S	**Sg**	**20 14 15.6**	**-0.4**
DIGO	**Kars**	**0.79**	**97**	*i* P	**Pg**	**20 14 04.4**	**-1.4**
DIGO				*i* S	**Sg**	**20 14 15.6**	**-0.4**
ERZM	**Erzurum**	**0.97**	**232**	*i* P	**Pg**	**20 14 08.6**	**-0.7**
ERZM				*i* S	**Sg**	**20 14 22.4**	**+0.7**
EZM	**Erzurum**	**0.97**	**232**	PG	**Pg**	**20 14 08.3**	**-1.0**
EZM				SG	**Sg**	**20 14 23.0**	**+1.2**
AGRB	**Hanur-Agry**	**1.05**	**152**	PG	**Pg**	**20 14 09.8**	**-1.1**
AGRB				SG	**Sg**	**20 14 26.4**	**+1.8**
AGRB	**Hanur-Agry**	**1.05**	**152**	*e*Pg	**Pg**	**20 14 09.8**	**-1.1**
AGRB				*e*Sg	**Sg**	**20 14 26.4**	**+1.8**
BCA	**Borcka**	**1.09**	**330**	PG	**Pg**	**20 14 10.7**	**-0.9**
BCA				SG	**Sg**	**20 14 25.9**	**+0.3**
BCA	**Borcka**	**1.09**	**330**	*e*Pg	**Pg**	**20 14 10.7**	**-0.9**
BCA				*e*Sg	**Sg**	**20 14 25.9**	**+0.3**
TUTA	**Tutak**	**1.16**	**162**	*i* P	**Pg**	**20 14 11.3**	**-1.7**
TUTA				*i* S	**Sg**	**20 14 28.5**	**+0.5**
DYDN	**Diyadin**	**1.41**	**133**	*i* P	**Pn**	**20 14 17.3**	**+0.1**
DYDN				*i* S	**Sb**	**20 14 36.9**	**+0.9**
CLDR	**Caldiran**	**1.82**	**138**	*e*PN	**Pn**	**20 14 22.1**	**-0.8**
CLDR				*e*SN	**Sn**	**20 14 47.1**	**+0.6**
CLDR	**Caldiran**	**1.82**	**138**	*e*Pn	**Pn**	**20 14 22.1**	**-0.8**
CLDR				*e*Sn	**Sn**	**20 14 47.1**	**+0.6**
KTUT	**Trabzon**	**2.02**	**285**	*e*PN	**Pn**	**20 14 25.4**	**-0.3**
KTUT	**Trabzon**	**2.02**	**285**	*e*Pn	**Pn**	**20 14 25.4**	**-0.3**
GUMT	**Gumushane**	**2.19**	**270**	*e*PN	**Pn**	**20 14 27.7**	**-0.3**
GUMT	**Gumushane**	**2.19**	**270**	*e*Pn	**Pn**	**20 14 27.7**	**-0.3**
KELT	**Kelkit**	**2.39**	**262**	*i* P	**Pn**	**20 14 35.0**	**+4.2**
PTK	**Pertek**	**2.80**	**236**	*e*PN	**Pn**	**20 14 36.1**	**-0.3**
PTK	**Pertek**	**2.80**	**236**	*e*Pn	**Pn**	**20 14 36.1**	**-0.3**

IDC 17 20:20:37.1±7.2**, 7.01S**×**129.63E, h166**^{km}±76^{km}**, mb3.0**/1**, mb1 3.2**/3**, mb1mx2.9**/14**, mbtmp3.0**/3**, Error ellipse: s-maj=114.6km s-min=27.4km az=72.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**13.64**	**161**	P	Pn	20 23 42.7	-1.2
	0.3nm,0.3s,baz=339,slow=12,SNR=13						
WRA				S	Sn	20 26 05.0	-10
	0.8nm,0.3s,baz=334,slow=23,SNR=12						
ASAR	**Alice Springs**	**17.06**	**167**	P	Pn	20 24 26.9	+1.0
	0.2nm,0.3s,baz=349,slow=11,SNR=23						
ASAR				S	S	20 27 34.2	-0.1
	0.2nm,0.3s,baz=350,slow=24,SNR=6.4						
MKAR	**Makanchi Array**	**68.03**	**327**	P	P	20 31 18.5	0.0
	0.2nm,0.4s,baz=115,slow=8.2,SNR=10						

BJI ***17*** *21:15:11.6, 6.60S×154.70E, h52^{km}, mB4.7, mb4.7, Msz4.0*
NEIC ***17*** *21:15:12.7±1.7, 6.64S×154.73E, h53^{km}±17^{km}, mb4.5/14, Error ellipse: s-maj=16.7km s-min=12.7km az=156.0*
ISCJB ***17*** *21:15:15.3±1.9, 6.5S±0.1×154.40E±0.05, h71^{km}±19^{km}, mb4.4/31, Error ellipse: s-maj=17.8km s-min=8.2km az=179.7*
IDC ***17*** *21:15:16.7±2.3, 6.50S×154.38E, h75^{km}±21^{km}, mb3.9/10, mb1 4.1/13, mb1mx4.1/17, mbtmp4.0/13, MS3.9/10, Ms1 3.9/10, ms1mx3.6/24, Error ellipse: s-maj=18.2km s-min=14.0km az=170.0*
ISC 17 21:15:14.3±2.9**, 6.7S**±0.1×**154.6E**±0.1**, h61**^{km}±24^{km}**, n60,** σ**1**^{s}**16**/53**, mb4.5**/31**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	**5.93**	**118**	Pn	**Pn**	**21 16 36.1**	**-3.5**
	127nm,0.7s						
HNR				S	**Sn**	**21 17 56.4**	**+10**
HNR				LR	LR	21 19 05.7	
HNR	**Honiara**	**5.93**	**118**	P	**Pn**	**21 16 47.6**	**+8.0**
	12nm,0.3s,baz=263,slow=10,SNR=3.5						
HNR				S	**Sn**	**21 17 56.4**	**+10**
	7.6nm,0.3s,baz=89,slow=22,SNR=3.8						
HNR				LR	LR	21 19 05.7	
	comp=Z,2μm,18.1s,baz=180,slow=37						
PMG	**Port Moresby**	**7.89**	**249**	*e*Pn	**Pn**	**21 17 06.9**	**+0.4**
PMG				S	**Sn**	**21 18 34.1**	**-0.3**
PMG				LR	LR	21 20 00.1	
PMG	**Port Moresby**	**7.89**	**249**	P	**Pn**	**21 17 07.5**	**+1.0**
	3.0nm,0.3s,baz=38,slow=8.4,SNR=11						
PMG				S	**Sn**	**21 18 34.1**	**-0.3**
	1.4nm,0.3s,baz=59,slow=15,SNR=2.6						
PMG				LR	LR	21 20 00.1	
	comp=Z,520nm,21.3s,baz=58,slow=37						
CTA	**Charters Tower**	**15.63**	**211**	P	**Pn**	**21 18 54.8**	**+3.8**
	0.2nm,0.3s,baz=34,slow=12,SNR=8.2						
CTAO	**Charters Tower**	**15.63**	**211**	*e*Pn	**Pn**	**21 18 54.0**	**+3.1**
	20nm,0.9s						
DZM	**Mont Dzumac**	**19.09**	**145**	P	**Pn**	**21 19 40.2**	**+6.6**
	0.6nm,0.3s,baz=70,slow=20,SNR=5.7						
KAKA	**Kakadu**	**22.68**	**253**	*e*P	**P**	**21 20 08.8**	**-2.1**
	6.7nm,0.8s,mb4.1						
WB2	**Warramunga Arr**	**23.71**	**234**	*e*P	**P**	**21 20 19.8**	**-1.1**
WRA	**Warramunga Arr**	**23.72**	**234**	P	**P**	**21 20 19.8**	**-1.2**
	6.1nm,0.9s,mb4.0,baz=56,slow=9.2,SNR=45						
WRA				PcP	PcP	21 24 05.2	+1.4
	0.8nm,0.9s,baz=58,slow=2.4,SNR=5.9						
WRA				ScP	ScP	21 27 42.2	+5.2
	1.3nm,0.9s,baz=50,slow=3.0,SNR=7.1						
ASAR	**Alice Springs**	**26.13**	**227**	P	**P**	**21 20 42.0**	**-0.8**
	2.8nm,0.9s,mb3.8,baz=60,slow=8.6,SNR=14						
ASAR				PcP	PcP	21 24 10.6	+1.5
	0.6nm,0.8s,baz=71,slow=3.4,SNR=4.0						
ASAR				ScP	ScP	21 27 48.5	+4.7
	1.0nm,0.8s,baz=64,slow=3.5,SNR=7.2						
STKA	**Stephens Creek**	**27.89**	**204**	*e*P	**P**	**21 20 51.4**	**-7.2**
	3.8nm,1.1s,mb3.9						
STKA	**Stephens Creek**	**27.89**	**204**	*e*P	**P**	**21 20 56.0**	**-2.5**
STKA				ScP	ScP	21 27 54.1	+5.2
STKA				LR	LR	21 32 32.0	
STKA	**Stephens Creek**	**27.89**	**204**	P	**P**	**21 20 59.5**	**+1.0**
	4.1nm,0.8s,mb4.1,baz=23,slow=9.9,SNR=6.4						
STKA				ScP	ScP	21 27 54.1	+5.2
	3.1nm,1.0s,baz=136,slow=5.7,SNR=3.3						
STKA				LR	LR	21 32 32.0	
	comp=Z,223nm,21.4s,baz=25,slow=37						
FITZ	**Fitzroy Crossi**	**30.47**	**245**	*e*P	**P**	**21 21 13.8**	**-7.8**
	4.9nm,0.9s,mb4.2						
KKM	**Kota Kinabalu**	**40.37**	**287**	P	**P**	**21 22 46.3**	**-0.3**
NWAO	**Narrogin (SRO)**	**43.45**	**228**	LR	LR	21 42 38.5	
	comp=Z,290nm,21.2s,baz=27,slow=38						
JNU	**Nakatsue**	**45.55**	**332**	LR	LR	21 38 19.9	
	comp=Z,27nm,20.5s,baz=266,slow=30						
MJAR	**Matsushiro Arr**	**45.66**	**341**	P	**P**	**21 23 26.5**	**-2.5**
	0.3nm,0.5s,mb3.5,baz=56,slow=38,SNR=3.8						
KSRS	**Korea Array**	**50.48**	**332**	P	**P**	**21 24 04.8**	**-1.4**
	3.2nm,0.9s,mb4.3,baz=150,slow=8.8,SNR=7.7						
KSRS				LR	LR	21 42 10.7	
	comp=Z,46nm,18.7s,baz=143,slow=32						
GYA	**Guiyang**	**56.97**	**307**	P	**P**	**21 24 54.9**	**+1.0**
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
KMI	**Kunming**	**59.54**	**304**	P	**P**	**21 25 13.3**	**+1.4**
KMI				AP	pP	21 25 26.4	-1.7
KMI				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.9						
KMI				LR	LR		
	comp=Z,53nm,21.5s						
KMI	**Kunming**	**59.54**	**304**	P	**P**	**21 25 13.3**	**+1.4**
	comp=Z,13nm,1.0s,mb4.9						
KMI				pP	pP	21 25 26.4	-1.7
KMI				LR	LR		
	comp=Z,50nm,21.5s						
CM31	**Chiang Mai Arr**	**60.32**	**296**	*e*P	**P**	**21 25 16.3**	**-1.1**
	comp=Z,8.0nm,1.0s,mb4.7						
CD2	**Chengdu**	**61.33**	**311**	P	**P**	**21 25 24.6**	**+0.6**
CD2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.6						
LZH	**Lanzhou**	**63.83**	**316**	*e*P	**P**	**21 25 41.5**	**+0.9**
LZH				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.9						
LZH	**Lanzhou**	**63.83**	**316**	*e*P	**P**	**21 25 41.5**	**+0.9**
	comp=Z,16nm,1.3s,mb4.9						
LZH				pP	pP	21 25 50.3	-6.6
LZH				sP	sP	21 25 56.4	-7.4
MA2	**Magadan**	**66.10**	**358**	*e*P	**P**	**21 25 53.1**	**-1.6**
	comp=Z,5.1nm,1.0s,mb4.5						
GTA	**Gaotai**	**68.26**	**317**	*e*P	**P**	**21 26 09.4**	**+0.5**
GTA				AMB	AMB		
	comp=Z,3.0nm,1.4s,mb4.1						
ULN	**Ulaanbaatar**	**68.54**	**328**	*e*P	**P**	**21 26 10.2**	**-0.2**
	comp=Z,3.3nm,1.1s,mb4.2						
SHL	**Shillong**	**68.82**	**301**	*e*P	**P**	**21 26 14.0**	**+1.3**
SONM	**Songino Array**	**68.87**	**327**	P	**P**	**21 26 12.8**	**+0.3**
	comp=Z,0.6nm,0.4s,mb3.8,baz=142,slow=5.1,SNR=11						
LSA	**Lhasa**	**70.79**	**304**	P	**P**	**21 26 26.3**	**+1.5**
LSA	**Lhasa**	**70.79**	**304**	*e*P	**P**	**21 26 26.2**	**+1.5**
	comp=Z,12nm,0.8s,mb4.9						
VNDA	**Vanda**	**70.92**	**178**	LR	LR	21 54 30.9	
	comp=Z,79nm,19.0s,baz=58,slow=33						
YAK	**Yakutsk**	**71.16**	**348**	*e*P	**P**	**21 26 23.4**	**-2.9**
	comp=Z,11nm,1.1s,mb4.7						
TAPN	**Taplejung**	**72.93**	**301**	*e*P	**P**	**21 26 38.8**	**+1.2**
	comp=Z,39nm,1.0s,mb5.3						
ODAN	**Odare**	**73.06**	**301**	*e*P	**P**	**21 26 39.3**	**+0.9**
	comp=Z,57nm,0.8s,mb5.6						
KKN	**Kakani**	**75.12**	**301**	*e*P	**P**	**21 26 51.0**	**+0.6**
	comp=Z,39nm,0.8s,mb5.4						
GKN	**Gorkha**	**75.73**	**301**	*e*P	**P**	**21 26 54.4**	**+0.5**
	comp=Z,64nm,0.9s,mb5.5						
MK31	**Makanchi Array**	**82.92**	**319**	*e*P	**P**	**21 27 32.5**	**-0.1**
MKAR	**Makanchi Array**	**82.92**	**319**	P	**P**	**21 27 32.7**	**0.0**
MKAR				LR	LR	22 06 39.8	
MKAR	**Makanchi Array**	**82.92**	**319**	P	**P**	**21 27 32.7**	**0.0**
	comp=Z,3.4nm,0.7s,mb4.5,baz=102,slow=5.2,SNR=49						
MKAR				LR	LR	22 06 39.7	
	comp=Z,46nm,19.0s,baz=354,slow=37						
ZALV	**Zalesovo Beam**	**83.71**	**326**	P	**P**	**21 27 35.2**	**-1.3**
	comp=Z,2.0nm,0.8s,mb4.3,baz=105,slow=5.2,SNR=13						
MAW	**Mawson**	**84.56**	**203**	LR	LR	22 01 32.2	
	comp=Z,194nm,19.1s,baz=64,slow=33						
KURK	**Kurchatov**	**86.35**	**322**	*e*P	**P**	**21 27 48.0**	**-1.8**
	comp=Z,2.4nm,1.0s,mb4.4						
UCH	**Uchtor**	**87.17**	**313**	*e*P	**P**	**21 27 55.3**	**+1.3**
	comp=Z,3.1nm,1.0s,mb4.5						
AAK	**Ala-Archa**	**87.27**	**313**	*e*P	**P**	**21 27 54.6**	**+0.1**
	comp=Z,0.7nm,0.6s,mb4.1						
AML	**Almayashu**	**87.75**	**313**	*e*P	**P**	**21 27 57.8**	**+1.0**
	comp=Z,4.2nm,0.9s,mb4.7						
EKS2	**Erkin-Say**	**87.79**	**313**	P	**P**	**21 27 57.8**	**+0.8**
	comp=Z,3.0nm,1.1s,mb4.4						
KBL	**Kabul**	**90.12**	**305**	*e*P	**P**	**21 28 07.0**	**-1.2**
NVAR	**Mina Array Bea**	**91.79**	**52**	P	**P**	**21 28 16.6**	**+0.8**
	comp=Z,2.3nm,0.9s,mb4.5,baz=263,slow=3.6,SNR=12						
YKA	**Yellowknife Ar**	**96.21**	**28**	P	**P**	**21 28 35.5**	**-0.1**
	comp=Z,0.2nm,0.4s,mb3.9,baz=266,slow=4.1,SNR=5.4						
PDAR	**Pinedale Array**	**98.74**	**48**	LR	LR	22 08 25.9	
	comp=Z,74nm,18.0s,baz=147,slow=32						
LSZ	**Lusaka**	**122.64**	**247**	PKPdf	PKPdf	21 34 05.0	+0.9
GERES	**GERESS Array B**	**126.59**	**329**	PKP	PKPdf	21 34 11.0	+0.2
GERES	**GERESS Array B**	**126.59**	**329**	PKP	PKPdf	21 34 11.0	+0.2
	comp=Z,0.3nm,0.6s,baz=45,slow=1.7,SNR=3.6						
TOA0	**Torodi Ar. Sit**	**152.60**	**286**	*e*PKPdf	PKPdf	21 34 58.3	+0.3
TOA0				*e*PKPbc	PKPbc	21 35 04.5	-0.6
TOA0				*e*		21 35 16.2	
TORD	**Torodi Ar. Bea**	**152.60**	**286**	PKP	PKPdf	21 34 57.3	-0.7
TORD				PKPbc	PKPbc	21 35 05.0	-0.1
TORD				PKPab	PKPab	21 35 16.2	+0.4
TORD	**Torodi Ar. Bea**	**152.60**	**286**	PKP	PKPdf	21 34 57.3	-0.7
	comp=Z,1.0nm,0.8s,baz=21,slow=2.2,SNR=5.2						
TORD				PKPbc	PKPbc	21 35 05.0	-0.1
	comp=Z,8.8nm,0.8s,baz=68,slow=2.4,SNR=42						
TORD				PKPab	PKPab	21 35 16.2	+0.4
	comp=Z,3.1nm,0.8s,baz=52,slow=1.8,SNR=6.6						

ISCJB ***17*** *21:25:37.7±1.0, 57.2S±0.2×25.8W±0.4, h10^{km}, mb4.2/4, Error ellipse: s-maj=32.8km s-min=24.5km az=169.9*
IDC ***17*** *21:25:37.6±0.9, 57.26S×25.78W, h0^{km}, mb4.2/4, mb1 4.3/4, mb1mx4.0/13, mbtmp4.2/4, Error ellipse: s-maj=39.1km s-min=29.2km az=62.0*
NEIC ***17*** *21:25:42.7±0.5, 57.25S×25.82W, h35^{km}, Error ellipse: s-maj=22.4km s-min=17.5km az=73.0*
ISC 17 21:25:39.6±1.0**, 57.3S**±0.2×**25.8W**±0.4**, h10**^{km}**, n15,** σ**0**^{s}**39**/7**, mb4.2**/4**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNDA	**Vanda**	**45.40**	**182**	P	**P**	**21 33 57.5**	**0.0**
VNDA	**Vanda**	**45.40**	**182**	P	**P**	**21 33 57.5**	**0.0**
	3.0nm,0.6s,mb4.3,baz=193,slow=7.9,SNR=5.3						
SIV	**San Ignacio**	**48.96**	**313**	P	**P**	**21 34 25.5**	**-0.5**
	1.0nm,0.6s,mb4.0,baz=162,slow=13,SNR=4.4						
LPAZ	**La Paz**	**51.69**	**305**	*e*P	**P**	**21 34 46.9**	**+0.3**
LPAZ				P		21 34 47.2	
LPAZ	**La Paz**	**51.69**	**305**	P	**P**	**21 34 47.2**	**+0.6**
	2.2nm,0.5s,mb4.3,baz=146,slow=5.4,SNR=7.1						
TOA0	**Torodi Ar. Sit**	**73.75**	**28**	P	**P**	**21 37 13.2**	**-0.4**
TORD	**Torodi Ar. Bea**	**73.75**	**28**	P	**P**	**21 37 14.1**	**+0.4**
	1.3nm,0.7s,mb4.0,baz=199,slow=6.5,SNR=8.9						
FINES	**FINESS Array B**	**125.10**	**28**	PKP	PKPdf	21 44 37.2	-1.3
FINES	**FINESS Array B**	**125.10**	**28**	PKP	PKPdf	21 44 37.2	-1.3
	0.7nm,0.5s,baz=222,slow=2.6,SNR=5.0						
YKA	**Yellowknife Ar**	**137.58**	**317**	PKP	PKPdf	21 45 01.1	-0.9
YKA	**Yellowknife Ar**	**137.58**	**317**	PKP	PKPdf	21 45 01.1	-0.9
	0.8nm,0.6s,baz=126,slow=2.4,SNR=9.5						
INK	**Inuvik**	**147.22**	**319**	PKPbc	PKPbc	21 45 20.4	-0.9
INK	**Inuvik**	**147.22**	**319**	PKPbc	PKPbc	21 45 20.4	-0.9
	1.6nm,0.6s,baz=88,slow=2.7,SNR=12						
SONM	**Songino Array**	**150.03**	**88**	PKPbc	PKPbc	21 45 28.1	-1.0
SONM	**Songino Array**	**150.03**	**88**	PKPbc	PKPbc	21 45 28.1	-1.0
	1.3nm,0.7s,baz=226,slow=3.2,SNR=14						

ISCJB ***17*** *21:35:53.8±0.7, 13.82S±0.07×76.62W±0.09, h37^{km}, mb4.0/8, Error ellipse: s-maj=14.9km s-min=5.6km az=142.7*
IDC ***17*** *21:35:56.1±0.8, 13.64S×76.26W, h36^{km}±4^{km}, mb3.7/7, mb1 3.9/9, mb1mx3.8/16, mbtmp3.7/9, ML3.4/2, MS2.9/4, Ms1 3.0/4, ms1mx2.8/25, Error ellipse: s-maj=39.3km s-min=16.3km az=54.0*
NEIC ***17*** *21:35:56.9±1.8, 13.61S×76.36W, h41^{km}±16^{km}, mb4.1/1, Error ellipse: s-maj=33.2km s-min=10.6km az=51.0*
NEIC Felt [IV] at Pisco.
ISC 17 21:35:56.3±0.7**, 13.75S**±0.08×**76.5W**±0.1**, h39**^{km}**, h39**^{km}±1.4^{km}**:pP-P, n25,** σ**1**^{s}**17**/23**, mb4.0**/8**, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	**Nana**	**1.80**	**348**	*e*Pn	**Pn**	**21 36 22.8**	**-2.0**
NNA				*e*Sn	**Sn**	**21 36 44.6**	**-1.8**
NNA	**Nana**	**1.80**	**348**	Pn	**Pn**	**21 36 24.4**	**-0.4**
NNA				Sn	**Sn**	**21 36 45.3**	**-1.1**
ARE	**Arequipa**	**5.49**	**120**	*e*P	**Pn**	**21 37 17.0**	**+1.4**
ARE				*e*S	**Sn**	**21 38 25.0**	**+7.5**
ATAH	**Atahualpa**	**6.98**	**344**	Pn	**Pn**	**21 37 36.8**	**+0.8**
	6.1nm,0.3s,baz=200,slow=3.8,SNR=18						
ATAH				Sn	**Sn**	**21 38 56.4**	**+2.2**
	2.2nm,0.3s,baz=82,slow=22,SNR=2.3						
ATAH				LR	LR	21 40 08.8	
	comp=Z,156nm,20.0s,baz=292,slow=37						
LPAZ	**La Paz**	**8.42**	**108**	*e*Pn	**Pn**	**21 37 57.6**	**+1.8**
	9.9nm,0.5s						
LPAZ				*e*		21 38 15.4	
LPAZ	**La Paz**	**8.42**	**108**	Pn	**Pn**	**21 37 59.5**	**+3.7**
	2.2nm,0.3s,baz=300,slow=9.2,SNR=24						
LPAZ				Sn	**Sn**	**21 39 36.4**	**+6.7**
	baz=21,slow=23,SNR=2.9						
LPAZ				LR	LR	21 40 34.0	
	comp=Z,43nm,19.7s,baz=287,slow=34						
SIV	**San Ignacio**	**15.03**	**100**	Pn	**Pn**	**21 39 25.2**	**-0.8**
SIV	**San Ignacio**	**15.03**	**100**	Pn	**Pn**	**21 39 25.2**	**-0.8**
	0.1nm,0.3s,baz=284,slow=13,SNR=7.5						
CFAA	**Coronel Fontan**	**19.30**	**158**	P	**Pn**	**21 40 18.6**	**-0.7**
	0.1nm,0.3s,baz=333,slow=11,SNR=15						
CFAA				LR	LR	21 46 31.9	
	comp=Z,18nm,19.6s,baz=208,slow=33						
JTS	**JuntasAbangare**	**25.34**	**340**	LR	LR	21 49 55.7	
	comp=Z,94nm,21.8s,baz=359,slow=33						
CMIG	**Matias Romero**	**35.65**	**329**	pP	pP	21 43 02.9	+1.2
	2.3nm,0.8s,baz=135,slow=8.0,SNR=3.1						
TEIG	**Tepich**	**35.72**	**341**	P	**P**	**21 42 51.7**	**+0.4**
	6.2nm,0.8s,mb4.6,baz=182,slow=3.6,SNR=3.3						
TXAR	**Lajitas Array**	**50.26**	**329**	P	**P**	**21 44 49.0**	**+0.2**
	0.7nm,0.8s,mb3.8,baz=142,slow=6.3,SNR=4.1						
TXAR				pP	pP	21 44 59.3	-0.8
	1.1nm,0.7s,baz=140,slow=9.9,SNR=6.4						
PDAR	**Pinedale Array**	**63.93**	**333**	P	**P**	**21 46 25.6**	**+0.4**
	0.3nm,0.7s,mb3.5,baz=134,slow=9.1,SNR=2.4						
NVAR	**Mina Array Bea**	**65.03**	**325**	P	**P**	**21 46 33.7**	**+1.1**
	0.6nm,0.7s,mb3.7,baz=140,slow=7.9,SNR=4.1						
ULM	**Lac du Bonnet**	**65.97**	**346**	P	**P**	**21 46 37.0**	**-1.4**
	2.5nm,0.7s,mb4.3,baz=121,slow=7.9,SNR=7.1						
ULM				pP	pP	21 46 49.5	-0.5
	5.4nm,0.7s,baz=149,slow=5.7,SNR=11						
HLID	**Hailey**	**66.76**	**331**	*e*P	**P**	**21 46 44.4**	**+0.8**
	1.6nm,0.9s,mb4.0						
YKA	**Yellowknife Ar**	**81.63**	**343**	P	**P**	**21 48 09.2**	**-0.7**
	0.5nm,0.7s,mb3.5,baz=140,slow=5.1,SNR=7.3						
YKA				pP	pP	21 48 20.1	-1.7
	0.7nm,0.6s,baz=144,slow=6.3,SNR=5.9						
TOA0	**Torodi Ar. Sit**	**81.89**	**74**	*e*P	**P**	**21 48 10.6**	**-1.7**
TOA0				*e*	pP	21 48 21.5	-2.7
TORD	**Torodi Ar. Bea**	**81.89**	**74**	P	**P**	**21 48 11.2**	**-1.1**
	1.9nm,0.7s,mb4.2,baz=261,slow=3.7,SNR=15						
TORD				pP	pP	21 48 22.4	-1.8
	2.8nm,0.8s,baz=260,slow=3.0,SNR=8.5						
WRA	**Warramunga Arr**	**134.85**	**223**	PKP	PKPdf	21 55 12.2	+0.3
	0.2nm,0.5s,baz=151,slow=2.0,SNR=4.1						
WRA				pPKP	pPKPdf	21 55 22.9	-1.4
	0.7nm,0.8s,baz=138,slow=1.6,SNR=4.5						
ZALV	**Zalesovo Beam**	**137.26**	**16**	PKP	PKPdf	21 55 15.3	-0.1
	0.2nm,0.3s,baz=114,slow=43,SNR=2.4						
ZALV				pPKP	pPKPdf	21 55 26.6	-1.1
	0.3nm,0.3s,baz=297,slow=1.3,SNR=2.3						
MKAR	**Makanchi Array**	**142.54**	**24**	PKP	PKPdf	21 55 24.2	-0.9
	0.3nm,1.0s,baz=294,slow=2.4,SNR=2.9						
MKAR				pPKP	pPKPdf	21 55 36.2	-1.3
	0.3nm,0.8s,baz=0.0,slow=1.8,SNR=3.7						
ULN	**Ulaanbaatar**	**145.87**	**356**	*e*PKPdf	PKPdf	21 55 31.7	+0.8
ULN				*e*		21 55 43.2	
SONM	**Songino Array**	**145.94**	**357**	PKPbc	PKPbc	21 55 31.7	0.0
	0.8nm,0.7s,baz=319,slow=1.9,SNR=12						
SONM				pPKPbc	pPKPbc	21 55 43.9	-0.1
	1.9nm,0.7s,baz=332,slow=2.5,SNR=8.6						

NEIC ***17*** *21:49:22.0, 39.56S×174.10E, h194^{km}, MG3.8(WEL), After WEL.*
WEL 17 21:49:21.7±0.3**, 39.56S**×**174.10E, h197**^{km}±2^{km}**, ML3.6**/13**, Error ellipse: s-maj=3.1km s-min=1.6km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VRZ	**Vera Road**	**0.67**	**50**	P	Pn	21 49 48.9	-0.3
VRZ				S	Sn	21 50 09.7	-0.6
VRZ	**Vera Road**	**0.67**	**50**	PN	Pn	21 49 48.9	-0.3
VRZ				SN	Sn	21 50 09.7	-0.7
WAZ	**Wanganui**	**0.71**	**107**	PN	Pn	21 49 50.1	+0.8
WAZ				SN	Sn	21 50 10.8	0.0
PKVZ	**Pokaka**	**1.00**	**75**	PN	Pn	21 49 51.0	-0.1
PKVZ				SN	Sn	21 50 12.6	-1.2
MTVZ	**Mangateitei**	**1.07**	**81**	SN	Sn	21 50 13.6	-1.2
TWVZ	**Taurewa**	**1.15**	**66**	P	Pn	21 49 51.8	-0.4
TWVZ	**Taurewa**	**1.15**	**66**	PN	Pn	21 49 51.8	-0.4
TRVZ	**Turoa**	**1.15**	**78**	PN	Pn	21 49 52.6	+0.4
FWVZ	**Far West T-bar**	**1.17**	**76**	P	Pn	21 49 52.4	+0.1
FWVZ	**Far West T-bar**	**1.17**	**76**	PN	Pn	21 49 52.4	+0.1
WPVZ	**Whakapapa**	**1.18**	**73**	PN	Pn	21 49 52.4	0.0
WNVZ	**Wahianoa**	**1.18**	**79**	P	Pn	21 49 52.7	+0.2
WNVZ				S	Sn	21 50 14.7	-1.5
WNVZ	**Wahianoa**	**1.18**	**79**	PN	Pn	21 49 52.7	+0.2
WNVZ				SN	Sn	21 50 14.7	-1.5
HIZ	**Hauiti**	**1.20**	**30**	P	Pn	21 49 52.2	-0.4
HIZ				S	Sn	21 50 15.4	-1.0
HIZ	**Hauiti**	**1.20**	**30**	PN	Pn	21 49 52.2	-0.4
HIZ				SN	Sn	21 50 15.4	-1.1
NGZ	**Ngauruhoe**	**1.23**	**72**	P	Pn	21 49 53.0	+0.2
NGZ	**Ngauruhoe**	**1.23**	**72**	PN	Pn	21 49 53.0	+0.2
WTVZ	**West Tongariro**	**1.24**	**70**	P	Pn	21 49 52.8	-0.1
WTVZ	**West Tongariro**	**1.24**	**70**	PN	Pn	21 49 52.8	-0.1
TUVZ	**Tukino**	**1.24**	**77**	P	Pn	21 49 53.2	+0.3
TUVZ	**Tukino**	**1.24**	**77**	PN	Pn	21 49 53.2	+0.3
DUWZ	**D'Urville Isla**	**1.25**	**186**	PN	Pn	21 49 53.3	+0.3
OTVZ	**Oturere**	**1.27**	**73**	PN	Pn	21 49 53.3	+0.1
KRVZ	**Karewarewa**	**1.28**	**70**	PN	Pn	21 49 53.1	-0.1
MOVZ	**Moawhango**	**1.29**	**84**	P	Pn	21 49 52.9	-0.4
MOVZ	**Moawhango**	**1.29**	**84**	PN	Pn	21 49 52.9	-0.4
KIW	**Kapiti Island**	**1.45**	**155**	P	Pn	21 49 54.5	-0.1
KIW	**Kapiti Island**	**1.45**	**155**	PN	Pn	21 49 54.5	-0.1
TSZ	**Takapari Road**	**1.52**	**110**	P	Pn	21 49 55.3	0.0
TSZ	**Takapari Road**	**1.52**	**110**	PN	Pn	21 49 55.3	0.0
MRZ	**Mangatainoka R**	**1.58**	**135**	*e*P	Pn	21 49 55.5	-0.3
MRZ	**Mangatainoka R**	**1.58**	**135**	PN	Pn	21 49 55.5	-0.3
TCW	**Tory Channel**	**1.66**	**175**	P	Pn	21 49 56.9	+0.3
TCW	**Tory Channel**	**1.66**	**175**	PN	Pn	21 49 56.9	+0.3
CAW	**Cannon Point**	**1.72**	**155**	P	Pn	21 49 56.9	-0.2
CAW	**Cannon Point**	**1.72**	**155**	PN	Pn	21 49 56.9	-0.2
MRW	**Makara Radio**	**1.73**	**165**	P	Pn	21 49 57.1	-0.2
MRW	**Makara Radio**	**1.73**	**165**	PN	Pn	21 49 57.1	-0.1
QRZ	**Quartz Range**	**1.75**	**223**	P	Pn	21 49 57.1	-0.3
QRZ	**Quartz Range**	**1.75**	**223**	PN	Pn	21 49 57.1	-0.4
NNZ	**Nelson**	**1.75**	**198**	P	Pn	21 49 57.4	0.0
NNZ	**Nelson**	**1.75**	**198**	PN	Pn	21 49 57.4	0.0
SNZO	**South Karori**	**1.81**	**165**	P	Pn	21 49 57.7	-0.3
SNZO	**South Karori**	**1.81**	**165**	PN	Pn	21 49 57.7	-0.3
TIWZ	**Tintock**	**1.83**	**132**	PN	Pn	21 49 57.7	-0.6
TUWZ	**Tuamarina**	**1.88**	**184**	PN	Pn	21 49 58.5	-0.1
BKZ	**Black Stump Fm**	**1.90**	**79**	P	Pn	21 49 58.1	-0.8
BKZ	**Black Stump Fm**	**1.90**	**79**	PN	Pn	21 49 58.1	-0.8
MTW	**Mount Morrison**	**1.93**	**147**	P	Pn	21 49 58.5	-0.7
MTW	**Mount Morrison**	**1.93**	**147**	PN	Pn	21 49 58.5	-0.7
BHW	**Baring Head**	**1.94**	**163**	P	Pn	21 49 58.7	-0.6
BHW	**Baring Head**	**1.94**	**163**	PN	Pn	21 49 58.7	-0.6
BFZ	**Birch Farm**	**1.99**	**125**	*e*P	Pn	21 49 59.3	-0.6
BFZ	**Birch Farm**	**1.99**	**125**	PN	Pn	21 49 59.3	-0.5
MSWZ	**Moikau Station**	**2.06**	**155**	P	Pn	21 49 59.7	-0.8
MSWZ	**Moikau Station**	**2.06**	**155**	PN	Pn	21 49 59.7	-0.8
PAWZ	**Paruwai Farm**	**2.09**	**151**	P	Pn	21 50 00.1	-0.7
PAWZ	**Paruwai Farm**	**2.09**	**151**	PN	Pn	21 50 00.1	-0.7
BSWZ	**Blackbirch Sta**	**2.16**	**184**	P	Pn	21 50 01.8	+0.2
BSWZ	**Blackbirch Sta**	**2.16**	**184**	PN	Pn	21 50 01.8	+0.2
PXZ	**Pawanui**	**2.18**	**103**	PN	Pn	21 50 01.4	-0.4
THZ	**Tophouse**	**2.39**	**202**	P	Pn	21 50 03.6	-0.5
THZ	**Tophouse**	**2.39**	**202**	PN	Pn	21 50 03.6	-0.4
URZ	**Urewera**	**2.68**	**62**	P	Pn	21 50 05.4	-2.1
URZ	**Urewera**	**2.68**	**62**	PN	Pn	21 50 05.4	-2.1
DSZ	**Denniston Nort**	**2.80**	**218**	P	Pn	21 50 08.1	-0.7
DSZ	**Denniston Nort**	**2.80**	**218**	PN	Pn	21 50 08.1	-0.6
KHZ	**Kahutara**	**2.89**	**188**	P	Pn	21 50 09.3	-0.5
KHZ	**Kahutara**	**2.89**	**188**	PN	Pn	21 50 09.3	-0.5
MWZ	**Matawai**	**2.94**	**67**	*e*P	Pn	21 50 08.6	-1.8
MWZ	**Matawai**	**2.94**	**67**	PN	Pn	21 50 08.6	-1.9
LTZ	**Lake Taylor**	**3.51**	**203**	*e*P	Pn	21 50 16.2	-1.0
LTZ	**Lake Taylor**	**3.51**	**203**	PN	Pn	21 50 16.2	-0.9
PUZ	**Puketiti**	**3.57**	**67**	P	Pn	21 50 15.7	-2.3
PUZ	**Puketiti**	**3.57**	**67**	PN	Pn	21 50 15.7	-2.3
MXZ	**Matakaoa Point**	**3.85**	**60**	*e*P	Pn	21 50 19.1	-2.4
MXZ	**Matakaoa Point**	**3.85**	**60**	PN	Pn	21 50 19.1	-2.4

GUC 17 21:58:00.6±0.2**, 45.38S**×**73.05W, h6**^{km}±1^{km}**, ML3.8, Southern Chile**

IDC ***17*** *22:00:53.4±0.8, 50.99N×178.62E, h0^{km}, mb3.7/14, mb1 4.0/15, mb1mx3.8/27, mbtmp3.8/15, ML4.5/1, MS3.6/2, Ms1 3.6/2, ms1mx2.9/44, Error ellipse: s-maj=25.3km s-min=16.3km az=172.0*
ISCJB ***17*** *22:00:57.0±0.7, 51.1N±0.1×178.69E±0.08, h33^{km}, mb3.8/17, MS3.7/2, Error ellipse: s-maj=14.8km s-min=6.8km az=3.5*
NEIC ***17*** *22:00:59.0±0.6, 51.07N×178.59E, h35^{km}, mb4.1/4, Error*

ellipse: s-maj=15.5km s-min=7.7km az=171.0

ISC 17 22:00:53.9±4.9**,510N**±01×**17861E**±010**,h1**^{km}±29^{km}**,n29,** σ**0**^{s}**96**/30**,mb3.9**/17**,MS3.7**/2**,Rat Islands**

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Code  Station Name        Δ°    AZ°   Phase ID          Time        Res
                                      Op      ISC       h  m  s     ISC
SMY   Shemya              3.31  304   P       Pn        22 01 46.6  0.0
SMY                                   S       Sn        22 02 27.7 +1.2
ATKA  Atka Island         4.66   72   P       Pn        22 02 07.3 +2.1
SPIA  Saint Paul Isl      9.03   42   P       Pn        22 03 05.5 +0.3
UNV   Unalaska Valle      9.55   67   P       Pn        22 03 12.6 +0.3
TNA   Tin City           16.20   20  eP       Pn        22 04 47.1 +4.8
      6.9nm,1.2s
KDAK  Kodiak Island      18.02   57   P       Pn        22 05 03.1 -2.1
      1.5nm,0.3s,baz=270,slow=6.0,SNR=20
SLKM  Skilak Lake        19.80   49  eP       Pn        22 05 26.0 -0.7
IMA2  Indian Mountai     20.66   33  eP       P         22 05 34.7 +0.1
COLA  College            22.25   39  eP       P         22 05 51.1 -0.6
      3.8nm,0.7s,mb3.9
EGAK  Eagle              24.93   41  eP       P         22 06 17.8 -0.3
      12nm,1.0s,mb4.4
DAWY  Dawson             25.52   43  eP       P         22 06 25.5 +2.0
INK   Inuvik             28.74   35   P       P         22 06 50.8 -1.4
      3.1nm,1.0s,mb4.0,baz=242,slow=17,SNR=6.4
YKA   Yellowknife Ar     36.70   46   P       P         22 08 00.8 -0.9
      0.8nm,0.8s,mb3.6,baz=282,slow=8.5,SNR=7.2
NVAR  Mina Array Bea     45.23   81   P       P         22 09 12.4 +0.1
      0.7nm,0.7s,mb3.6,baz=310,slow=6.7,SNR=5.6
SONM  Songino Array      45.36  296   P       P         22 09 14.6 +1.2
      0.3nm,0.9s,mb3.1,baz=90,slow=7.9,SNR=2.2
DUG   Dugway             47.55   75  eP       P         22 09 31.6 +1.0
      3.5nm,1.0s,mb4.3
PDAR  Pinedale Array     47.99   70   P       P         22 09 34.8 +0.8
      3.2nm,0.9s,mb4.3,baz=305,slow=5.2,SNR=18
ZALV  Zalesovo Beam      53.12  312   P       P         22 10 12.8 +0.3
ZALV  Zalesovo Beam      53.12  312   P       P         22 10 12.8 +0.3
      0.3nm,0.4s,mb3.5,baz=69,slow=7.9,SNR=2.8
MKAR  Makanchi Array     59.00  307   P       P         22 10 54.1 -0.6
      0.2nm,0.5s,mb3.4,baz=54,slow=5.1,SNR=5.7
MKAR                                  LR      LR        22 37 47.9
      comp=Z,39nm,18.8s,MS3.6,baz=172,slow=38
TXAR  Lajitas Array      60.34   79   P       P         22 11 04.5 +0.3
      1.4nm,0.8s,mb4.0,baz=310,slow=4.7,SNR=5.6
FINES FINESS Array B     65.81  346   P       P         22 11 39.4 -0.6
      2.2nm,0.8s,mb4.2,baz=5.4,slow=10,SNR=4.5
AKTK  Aktyubinsk         67.06  323   P       P         22 11 47.5 -0.7
AKTO  Aktyubinsk         67.06  323   P       P         22 11 47.5 -0.7
      1.4nm,0.6s,mb4.2,baz=46,slow=7.8,SNR=6.8
NOA   NORSAR Array B     67.89  353   P       P         22 11 52.8 -0.5
      1.1nm,0.9s,mb3.9,baz=360,slow=8.1,SNR=3.2
WRA   Warramunga Arr     80.60  222   P       P         22 13 06.9 -1.0
      0.4nm,0.8s,mb3.4,baz=33,slow=6.0,SNR=4.2
WRA                                   LR      LR        22 47 38.0
      comp=Z,49nm,19.5s,MS3.9,baz=215,slow=35
ASAR  Alice Springs      84.09  220   P       P         22 13 25.9 -0.1
      0.4nm,0.8s,mb3.6,baz=31,slow=5.9,SNR=3.7
BRTR  Keskin Array B     84.62  334   P       P         22 13 28.1 -0.7
      0.7nm,0.8s,mb3.9,baz=90,slow=1.4,SNR=3.5
BBGH  Gun Hill           98.62   57  eP       P         22 14 36.3 +1.6
      731nm,1.4s
```

IDC 17 22:25:14.4±7.7**,190S**×**10449E,h0**^{km}**,mb3.3**/3**,mb1 3.5**/3**, mb1mx3.3**/19**,mbtmp3.3**/3**,Error ellipse: s-maj=466.2km s-min=26.9km az=52.0,Southern Sumatera**

```
Code  Station Name        Δ°    AZ°   Phase ID          Time        Res
                                      Op      ISC       h  m  s     ISC
WRA   Warramunga Arr     34.24  124   P       P         22 32 02.6 +0.4
      0.1nm,0.3s,baz=310,slow=8.8,SNR=9.1
ASAR  Alice Springs      35.76  130   P       P         22 32 14.9 -0.4
      0.3nm,0.4s,baz=301,slow=7.6,SNR=7.4
MKAR  Makanchi Array     52.28  341   P       P         22 34 27.5  0.0
      0.2nm,0.4s,baz=159,slow=8.8,SNR=7.4
```

ISCJB ***17*** *22:26:43.0±0.3, 7078N±004×628W±007, h10*^{km}*, mb3.3/6, MS3.3/5, Error ellipse: s-maj=5.1km s-min=3.4km az=175.8*
IDC ***17*** *22:26:43.8±0.8, 7082N×687W, h0*^{km}*, mb3.4/6, mb1 3.6/10, mb1mx3.5/25, mbtmp3.5/10, ML3.3/4, MS3.4/8, Ms1 3.4/8, ms1mx3.0/27, Error ellipse: s-maj=29.6km s-min=12.5km az=27.0*
NAO ***17*** *22:26:43.9±1.6, 7080N×633W*
NEIC ***17*** *22:26:44.9±0.5, 7084N×638W, h10*^{km}*, mb3.7/1, Error ellipse: s-maj=11.8km s-min=6.1km az=198.0*
CSEM ***17*** *22:26:44.5±0.1, 7070N×661W, h10*^{km}*, mb3.7/1, Error ellipse: s-maj=2.3km s-min=1.8km az=173.0*
BER ***17*** *22:26:45.6±0.4, 71.18N×6.15W, h15*^{km}*±999*^{km}*, MD3.3, ML3.1*
REY ***17*** *22:26:51.8, 7090N×942W, h15*^{km}*, ML3.3, ML3.2*
ISC 17 22:26:45.1±0.9**,7081N**±004×**644W**±009**,h9**^{km}±7^{km}**,n68,** σ**0**^{s}**99**/79**,mb3.3**/6**,MS3.3**/5**,6C,Jan Mayen Island region**

```
Code  Station Name        Δ°    AZ°   Phase ID          Time        Res
                                      Op      ISC       h  m  s     ISC
JNE   Jan Mayen East      0.64  287⇑ iP       Pg        22 26 57.7 +0.3
JNE                                   AML     AML       22 27 11.2
      comp=Z,7µm,0.2s
JNW   Jan Mayen West      0.69  290⇑ iP       Pg        22 26 58.4  0.0
JNW                                  eS       Sg        22 27 07.5 +0.1
JNW   Jan Mayen West      0.69  290⇑ iP       Pg        22 26 58.4  0.0
JNW                                  eS       Sg        22 27 07.5 +0.1
JNW                                   AML     AML       22 27 08.2
      comp=Z,8µm,0.3s
JNW   Jan Mayen West      0.69  290⇑ iP       Pg        22 26 58.4  0.0
      SNR=53
JNW                                  eS       Sg        22 27 07.5 +0.1
      comp=Z,8µm,0.3s,SNR=53
JMIC  Jan Mayen           0.71  286   Pg      Pg        22 26 58.5 -0.2
JMIC                                  Lg                22 27 07.8
JMIC  Jan Mayen           0.71  286   Pn      Pg        22 26 58.5 -0.2
JMIC                                  Sn      Sg        22 27 06.7 -1.2
JMIC  Jan Mayen           0.71  286   Pn      Pg        22 26 58.5 -0.2
      comp=Z,601nm,0.3s,baz=8.7,slow=2.3,SNR=129
JMIC                                  Sn      Sg        22 27 06.7 -1.2
      comp=Z,1µm,0.3s,baz=198,slow=21,SNR=65
JMIC  Jan Mayen           0.71  286   Pg      Pg        22 26 58.5 -0.2
JMIC                                  Sn      Sg        22 27 06.7 -1.2
JMI   Jan Mayen           0.77  280⇑ iP       Pg        22 27 00.0 +0.2
JMI                                  eS       Sg        22 27 10.6 +0.8
ILEI  Leirhofn            5.75  225   P       Pn        22 28 10.2 -0.2
ILEI                                  S       Sn        22 29 13.8 -2.5
IGIL  Gilhagi             5.99  222   P       Pn        22 28 13.4 -0.3
IGIL                                  S       Sn        22 29 21.5 -0.8
IGRI  Grimsey             6.01  230   P       Pn        22 28 12.8 -1.2
IHED  Heoinshofoi         6.20  225   P       Pn        22 28 16.8 +0.1
IGRS  Grimsstaoir         6.31  219   P       Pn        22 28 19.0 +0.8
IGRS                                  S       Sn        22 29 30.1 -0.2
IREN  Reynihlio           6.47  222   P       Pn        22 28 21.7 +1.3
IGLU  Glumsstadir         6.70  213   P       Pn        22 28 24.0 +0.6
IADA  Aoalbol             6.75  215   P       Pn        22 28 24.9 +0.7
IHVA  Hvannstoosfjol      6.86  216   P       Pn        22 28 26.2 +0.4
DAG   Danmarks Havn       6.88  336⇑ iP       Pn        22 28 24.5 -1.4
      comp=Z,16nm,0.6s
DAG                                  i                  22 29 36.9
IBRU  Bruarjokull         7.02  216   P       Pn        22 28 28.4 +0.5
STOK  Stokkvaagen         8.39  113  eP       Pn        22 28 46.2 -0.5
STOK                                  AML     AML       22 30 17.7
      comp=Z,7.3nm,0.5s
TRO   Tromso              8.65   86  eP       Pn        22 28 47.0 -3.2
TRO                                  eS       Sn        22 30 18.9 -8.9
TRO                                   AML     AML       22 30 20.2
      comp=Z,1.9nm,0.4s
MOR8  Moi Rana            8.93  111  eP       Pn        22 28 54.3 +0.2
MOR8                                 eS       Sn        22 30 29.9 -4.8
MOR8                                  AML     AML       22 30 35.4
      comp=Z,5.3nm,0.2s
NSS   Namsos              9.38  123  eP       Pn        22 28 59.6 -0.7
NSS                                   AML     AML       22 30 54.1
      comp=Z,8.6nm,0.6s
KBS   Kingsbay            9.39   22   Pn      Pn        22 29 00.3  0.0
KBS   Kingsbay            9.39   22  ePn      Pn        22 29 00.2 -0.1
      comp=Z,17nm,0.6s
KBS   Kingsbay            9.39   22  eP       Pn        22 29 00.7 +0.4
KBS   Kingsbay            9.39   22  ePn      Pn        22 29 00.2 -0.1
      comp=Z,17nm,0.6s
SPB4  Spitsbergen Ar      9.49   29  eP       Pn        22 29 02.6 +0.9
SPB4  Spitsbergen Ar      9.49   29  eP       Pn        22 29 02.6 +1.0
SPA0  Spitsbergen Ar      9.49   29   Pn      Pn        22 29 03.0 +1.3
      baz=228,slow=12
SPA0  Spitsbergen Ar      9.49   29   Pn      Pn        22 29 03.0 +1.3
      SNR=7.7
KTK1  Kautokeino         10.30   86  eP       Pn        22 29 13.1 +0.3
ARA0  ARCESS Array S     10.85   81   Pn      Pn        22 29 19.4 -0.9
      baz=284,slow=12
ARA0                                  Sn      Sn        22 31 14.8 -6.8
      baz=280,slow=22
ARA0  ARCESS Array S     10.85   81   Pn      Pn        22 29 19.4 -0.8
      SNR=2.8
ARA0                                  Sn      Sn        22 31 14.8 -6.7
ARCES ARCESS Array B     10.85   81   Pn      Pn        22 29 19.5 -0.8
ARCES ARCESS Array B     10.85   81   Pn      Pn        22 29 19.5 -0.8
      comp=Z,0.2nm,0.3s,baz=299,slow=12,SNR=18
ARCES ARCESS Array B     10.85   81   Pn      Pn        22 29 19.5 -0.7
KEV   Kevo               11.26   79  ep       Pn        22 29 23.7 -2.1
NB2   NORSAR Subarra     12.10  135   Pn      Pn        22 29 36.9 -0.5
NB2   NORSAR Subarra     12.10  135   Pn      Pn        22 29 36.8 -0.6
NOA   NORSAR Array B     12.10  135   Pn      Pn        22 29 38.0 +0.7
NOA                                   LR      LR        22 33 41.5
NOA   NORSAR Array B     12.10  135   Pn      Pn        22 29 38.0 +0.7
      comp=Z,0.2nm,0.3s,baz=160,slow=9.5,SNR=2.9
NOA                                   LR      LR        22 33 41.6
      comp=Z,109nm,20.9s,baz=310,slow=34
NOA   NORSAR Array B     12.10  135   Pn      Pn        22 29 38.0 +0.6
HFS   Hagfors            13.49  132   Pn      Pn        22 29 57.6 +1.3
HFS                                   LR      LR        22 34 34.5
HFS   Hagfors            13.49  132   Pn      Pn        22 29 57.6 +1.3
      comp=Z,0.3nm,0.3s,baz=347,slow=12,SNR=10
HFS                                   LR      LR        22 34 34.5
      comp=Z,205nm,21.3s,baz=249,slow=35
HFS   Hagfors            13.49  132   Pn      Pn        22 29 57.6 +1.3
KAF   Kangasniemi        15.49  108  ep       Pn        22 30 21.0 -2.3
      comp=Z,2.0nm,0.5s
EKA   Eskdalemuir Ar     15.60  173   Pn      Pn        22 30 24.9  0.0
EKA   Eskdalemuir Ar     15.60  173   Pn      Pn        22 30 24.9  0.0
      comp=Z,0.1nm,0.3s,baz=3.1,slow=14,SNR=3.7
EKA   Eskdalemuir Ar     15.60  173   Pn      Pn        22 30 24.9  0.0
FIA0  FINESS Array S     15.92  110   Pn      Pn        22 30 29.8 +0.8
      baz=320,slow=12
FIA0  FINESS Array S     15.92  110   Pn      Pn        22 30 29.8 +0.8
      SNR=2.3
FINES FINESS Array B     15.92  110   Pn      Pn        22 30 29.6 +0.7
FINES                                 LR      LR        22 35 58.5
FINES FINESS Array B     15.92  110   Pn      Pn        22 30 29.6 +0.6
      comp=Z,0.2nm,0.3s,baz=329,slow=11,SNR=9.1
FINES                                 LR      LR        22 35 58.5
      comp=Z,91nm,19.8s,baz=8.1,slow=34
FINES FINESS Array B     15.92  110   Pn      Pn        22 30 29.6 +0.6
JOF   Joensuu            16.51  100  ep       Pn        22 30 33.3 -3.2
      comp=Z,1.2nm,0.4s
GERES GERESS Array B     23.99  146   P       P         22 31 59.9 +0.3
      comp=Z,0.5nm,0.8s,mb3.0,baz=9.7,slow=9.4,SNR=2.1
GERES                                 LR      LR        22 41 59.9
      comp=Z,51nm,18.6s,MS3.0,baz=16,slow=38
VRAC  Vranov             24.12  141   LR      LR        22 39 54.8
      comp=Z,74nm,20.2s,MS3.2,baz=334,slow=33
DAVOX Davos/Dischmat     25.36  153   LR      LR        22 43 24.1
      comp=Z,88nm,18.6s,MS3.3,baz=162,slow=39
AKASG Malin Array Be     25.95  122   P       P         22 32 18.4 +1.0
      comp=Z,0.2nm,0.3s,mb3.2,baz=338,slow=9.3,SNR=3.1
MLR   Muntele Rosu       29.86  131   LR      LR        22 45 52.9
      comp=Z,162nm,19.1s,MS3.7,baz=320,slow=38
AKTK  Aktyubinsk         35.24   91   P       P         22 33 40.0 +0.6
AKTK  Aktyubinsk         35.24   91   P       P         22 33 40.0 +0.6
AKTO  Aktyubinsk         35.24   91   P       P         22 33 40.0 +0.6
      comp=Z,0.5nm,0.4s,mb3.8,baz=332,slow=4.9,SNR=3.8
YKA   Yellowknife Ar     38.00  314   P       P         22 34 02.6 -0.2
      comp=Z,0.3nm,0.7s,mb3.1,baz=29,slow=8.7,SNR=4.7
YKA                                   LR      LR        22 49 12.3
      comp=Z,46nm,18.4s,MS3.3,baz=185,slow=36
MKAR  Makanchi Array     46.31   72   P       P         22 35 12.1 +1.4
      comp=Z,0.2nm,0.8s,mb3.1,baz=345,slow=9.0,SNR=2.7
TORD  Torodi Ar. Bea     57.85  171   P       P         22 36 38.3 +1.5
      comp=Z,0.5nm,0.6s,mb3.8,baz=339,slow=9.0,SNR=7.9
```

ISCJB ***17*** *22:45:24.0±0.9, 4028N±005×2546E±007, h10*^{km}*, Error ellipse: s-maj=9.2km s-min=6.6km az=137.4*
ATH ***17*** *22:45:24.0, 4028N×2542E, h10*^{km}*, MD3.0/3*
CSEM ***17*** *22:45:25.4±0.2, 4032N×2546E, h24*^{km}*±3*^{km}*, MD3.0, Error ellipse: s-maj=7.9km s-min=5.9km az=80.0*
DDA ***17*** *22:45:26.5, 4027N×2562E, h6*^{km}*±4*^{km}
ISC 17 22:45:23.4±1.5**,4031N**±006×**2545E**±008**,h5**^{km}±14^{km}**,n9,** σ**0**^{s}**43**/12**,Aegean Sea**

```
Code  Station Name        Δ°    AZ°   Phase ID          Time        Res
                                      Op      ISC       h  m  s     ISC
BOZC  Bozcaada            0.65  135  i P      Pg        22 45 36.5 +0.6
BOZC                                 i S      Sg        22 45 43.9 -0.5
RDO   Rodhopi             0.84    4  ePB      Pb        22 45 40.5  0.0
RDO   Rodhopi             0.84    4  ePb      Pb        22 45 40.5  0.0
PRK   Paraskevi           1.23  149  ePB      Pb        22 45 47.0 -0.1
PRK   Paraskevi           1.23  149  ePb      Pb        22 45 47.0 -0.1
SART  Tekirdag            1.37   73  i P      Pn        22 45 48.9 -0.3
SART                                 i S      Sb        22 46 07.3  0.0
AYVA  Ayvalik             1.38  136  i P      Pn        22 45 50.1 +0.9
AYVA                                 i S      Sb        22 46 07.3 -0.3
PLG   Polygyros           1.54  273  ePB      Pb        22 45 52.0 -0.3
PLG   Polygyros           1.54  273  ePb      Pb        22 45 52.0 -0.3
```

ISCJB ***17*** *22:46:23.3±1.0, 15.18N±006×9276W±005, h117*^{km}*±13*^{km}*, Error ellipse: s-maj=11.1km s-min=7.0km az=23.1*
CASC ***17*** *22:46:26.8±1.9, 1504N×9266W, h17*^{km}*±9*^{km}*, MD3.9*
MEX ***17*** *22:46:27.2±0.9, 1560N×9271W, h152*^{km}*±40*^{km}*, MD4.1*
NEIC ***17*** *22:46:27.2, 1560N×9271W, h152*^{km}*, MD4.1(MEX), After MEX.*
ISC 17 22:46:24.2±1.1**,1515N**±006×**9276W**±005**,h108**^{km}±17^{km}**, n14,** σ**1**^{s}**08**/16**,4C,Mexico-Guatemala border region**

```
Code  Station Name        Δ°    AZ°   Phase ID          Time        Res
                                      Op      ISC       h  m  s     ISC
CCIG  Comitan             1.28   28  i P      Pn        22 46 49.7 +1.3
CCIG                                 i S      Sn        22 47 08.2 +1.6
JAT   Jato                1.37  127⇑ eP       Pn        22 46 49.0 -0.3
JAT                                  eS       Sn        22 47 04.5 -3.9
SCX   San Cristobal       1.58    4  i P      Pn        22 46 53.0 +1.0
SCX                                  i S      Sn        22 47 11.0 -2.1
FUG   Fuego 3             1.98  110⇑ eP       Pn        22 46 57.0  0.0
FUG                                  eS       Sn        22 47 21.5 -0.4
CMIG  Matias Romero       2.81  314  eP       Pn        22 47 07.6 -0.1
CMIG                                 i S      Sn        22 47 40.4 -0.7
RBDL  Robledal            3.15  109  eP       x         22 47 13.5
SBLS  San Blas            3.31  113⇑ eP       x         22 47 15.8
BOQS  Boqueron            3.65  112  eS       x         22 48 03.6
LFRS  El Faro             3.89  112  eP       x         22 47 23.9
LCBS  La Ceiba            3.96  112  eP       x         22 47 24.6
LCBS                                 eS       x         22 48 12.2
SNVI  San Vicente         4.10  111⇑ eP       x         22 47 27.4
SNVI                                 eS       x         22 48 15.7
OXX   Oaxaca              4.26  297  eP       Pn        22 47 27.0 -0.1
OXX                                  i S      Sn        22 48 10.0 -5.9
VHO   Vista Hermosa       4.27  297  i P      Pn        22 47 29.4 +2.2
VHO                                  i S      Sn        22 48 15.2 -0.9
TEIG  Tepich              6.62   40  ePn      Pn        22 47 59.0  0.0
TEIG                                 eSn      Sn        22 49 12.2 -0.8
```

IDC 17 22:51:32.7±1.7**,074S**×**12902E,h0**^{km}**,mb3.5**/2**,mb1 3.6**/3**, mb1mx3.4**/16**,mbtmp3.4**/3**,ML3.3**/1**,Error ellipse: s-maj=143.7km s-min=25.4km az=75.0,Halmahera**

```
Code  Station Name        Δ°    AZ°   Phase ID          Time        Res
                                      Op      ISC       h  m  s     ISC
WRA   Warramunga Arr     19.78  165   P       Pn        22 56 03.9 -2.2
      0.1nm,0.3s,baz=345,slow=12,SNR=5.4
ASAR  Alice Springs      23.28  169   P       P         22 56 42.8 +0.5
      1.0nm,0.5s,baz=350,slow=11,SNR=16
SONM  Songino Array      52.24  341   P       P         23 00 45.6 +0.1
      0.4nm,0.6s,baz=134,slow=7.2,SNR=7.1
```

IDC 17 22:56:28.3±1.6**,3403N**×**2609E,h0**^{km}**,mb3.6**/4**,mb1 3.7**/4**, mb1mx3.4**/17**,mbtmp3.6**/4**,Error ellipse: s-maj=35.0km s-min=26.8km az=149.0,Crete**

```
Code  Station Name        Δ°    AZ°   Phase ID          Time        Res
                                      Op      ISC       h  m  s     ISC
IDI   Anoyia              1.60  322   Pn      Pn        22 56 59.1 +1.3
      1.8nm,0.3s,baz=348,slow=19,SNR=7.1
FINES FINESS Array B     27.43  360   P       P         23 02 13.8 -1.6
      7.1nm,1.1s,baz=172,slow=14,SNR=4.6
TORD  Torodi Ar. Bea     30.38  233   P       P         23 02 41.9 -0.1
      0.1nm,0.4s,baz=34,slow=7.8,SNR=4.5
MKAR  Makanchi Array     43.77   56   P       P         23 04 36.1 +0.7
      0.1nm,0.3s,baz=268,slow=8.7,SNR=7.1
ZALV  Zalesovo Beam      45.25   45   P       P         23 04 47.1  0.0
      0.6nm,0.4s,baz=259,slow=9.6,SNR=3.7
```

PRU ***17*** *23:11:31.7, 4768N×933E, h0*^{km}
ISCJB ***17*** *23:11:31.4±0.3, 4678N±001×1053E±002, h2*^{km}*±3*^{km}*, Error ellipse: s-maj=2.5km s-min=1.9km az=169.0*
CSEM ***17*** *23:11:32.1±0.0, 4677N×1056E, h12*^{km}*, ML2.5/16, Error ellipse: s-maj=0.9km s-min=0.6km az=166.0*
ZUR ***17*** *23:11:32.5, 4676N×1051E, h8*^{km}*±1*^{km}*, ML2.3/14*
LDG ***17*** *23:11:32.8±0.3, 4674N×1050E, h10*^{km}*, Ml2.4/11, Error ellipse: s-maj=5.5km s-min=2.5km az=77.0*
ROM ***17*** *23:11:32.7±0.3, 4675N×1050E, h10*^{km}*±2*^{km}*, Md2.6/13, Ml2.1/6, Error ellipse: s-maj=3.4km s-min=1.7km az=19.0*
VIE ***17*** *23:11:32.2±0.2, 4680N×1056E, h9*^{km}*±3*^{km}*, mb2.0/8, ML2.6/13, Error ellipse: s-maj=0.8km s-min=0.8km az=34.0*
ISC 17 23:11:32.0±0.2**,4678N**±001×**1050E**±001**,h3**^{km}±2^{km}**,n163,** σ**1**^{s}**29**/236**,24C-16D,Northern Italy**

```
Code  Station Name        Δ°    AZ°   Phase ID          Time        Res
                                      Op      ISC       h  m  s     ISC
FUORN Ofenpass-Fuorn      0.23  225 ⇑ Pg      Pg        23 11 37.6 +1.2
FUORN                                 Sg      Sg        23 11 41.1 +1.8
FUORN Ofenpass-Fuorn      0.23  225⇑ iPg      Pg        23 11 37.6 +1.2
      839nm,0.4s
FUORN                                i Sg     Sg        23 11 40.9 +1.6
      839nm,0.4s
FUORN Ofenpass-Fuorn      0.23  225⇑ iPg      Pg        23 11 37.6 +1.2
      839nm,0.4s
FUORN                                 Sg      Sg        23 11 41.1 +1.8
FETA  Feichten            0.29   33⇑ iPg      Pg        23 11 38.1 +0.6
      11nm,0.1s
FETA                                ⇓iSg      Sg        23 11 41.5 +0.3
      52nm,0.1s
FETA  Feichten            0.29   33   Pg      Pg        23 11 38.1 +0.6
      11nm,0.1s
FETA                                  Sg      Sg        23 11 41.5 +0.3
      52nm,0.1s
BRMO  Bormio              0.32  196 ⇓ Pg      Pg        23 11 38.8 +0.8
BRMO                                  Sg      Sg        23 11 43.2 +1.0
      124nm,0.1s
BRMO  Bormio              0.32  196 ⇓ Pg      Pg        23 11 38.8 +0.8
BRMO                                  Sg      Sg        23 11 43.2 +1.0
      124nm,0.1s
DAVOX Davos/Dischmat      0.43  270⇓ iPg      Pg        23 11 41.1 +1.0
DAVOX                                 Sg      Sg        23 11 48.2 +2.5
DAVOX Davos/Dischmat      0.43  270⇑ iPg      Pg        23 11 41.1 +1.0
      336nm,0.3s
DAVOX                                i Sg     Sg        23 11 47.4 +1.7
      336nm,0.3s
DAVOX Davos/Dischmat      0.43  270⇑ iPg      Pg        23 11 41.1 +1.0
      336nm,0.3s
DAVOX                                 Sg      Sg        23 11 48.2 +2.5
BERNI Berninapass         0.49  222  i P      Pg        23 11 42.1 +0.7
      607nm,0.2s
BERNI                                eS       Sg        23 11 48.9 +1.1
      607nm,0.2s
APPI  Appiano             0.59  121   Pg      Pg        23 11 43.5 +0.3
APPI                                  Sg      Sg        23 11 51.5 +0.7
APPI  Appiano             0.59  121   Pg      Pg        23 11 43.5 +0.3
APPI                                  Sg      Sg        23 11 51.5 +0.7
SQTA  Sankt Quirin        0.65   48  ePg      Pg        23 11 44.7 +0.2
      comp=Z,9.1nm,0.1s,SNR=34
SQTA  Sankt Quirin        0.65   48  ePg      Pg        23 11 44.7 +0.2
      9.1nm,0.1s,SNR=34
SQTA                                ⇑iSg      Sg        23 11 52.8 -0.2
      83nm,0.3s
SQTA  Sankt Quirin        0.65   48   Pg      Pg        23 11 44.7 +0.2
      9.1nm,0.1s,SNR=34
SQTA                                  Sg      Sg        23 11 52.8 -0.2
      83nm,0.3s
DAVA  Damuels             0.66  320⇑ ePg      Pg        23 11 45.2 +0.6
      comp=Z,4.7nm,0.1s,SNR=8.4
DAVA  Damuels             0.66  320⇑ ePg      Pg        23 11 45.2 +0.6
      4.7nm,0.1s,SNR=8.4
DAVA                                ⇓iSg      Sg        23 11 54.8 +1.6
      21nm,0.2s
DAVA  Damuels             0.66  320   Pg      Pg        23 11 45.2 +0.6
      4.7nm,0.1s,SNR=8.4
DAVA                                  Sg      Sg        23 11 54.8 +1.6
      21nm,0.2s
MOTA  Moosalm             0.70   36⇑ ePg      Pg        23 11 45.6 +0.2
      comp=Z,3.8nm,0.1s,SNR=50
MOTA  Moosalm             0.70   36⇑ ePg      Pg        23 11 45.6 +0.2
      3.8nm,0.1s,SNR=50
MOTA                                ⇓iSg      Sg        23 11 54.3 -0.1
      8.8nm,0.1s
MOTA  Moosalm             0.70   36   Pg      Pg        23 11 45.6 +0.3
      3.8nm,0.1s,SNR=50
MOTA                                  Sg      Sg        23 11 54.3 -0.1
      8.8nm,0.1s
MABI  Malga Bissina       0.73  179   Pg      Pg        23 11 46.3 +0.4
MABI                                  Sg      Sg        23 11 55.7 +0.4
      12nm,0.2s
MABI  Malga Bissina       0.73  179   Pg      Pg        23 11 46.3 +0.4
MABI                                  Sg      Sg        23 11 55.7 +0.4
      12nm,0.2s
RETA  Reutte              0.73   14⇓ ePg      Pg        23 11 46.1 +0.2
      0.8nm,0.1s,SNR=10
RETA                                ⇑iSg      Sg        23 11 55.8 +0.5
      4.3nm,0.1s
RETA  Reutte              0.73   14   Pg      Pg        23 11 46.1 +0.2
      0.8nm,0.1s,SNR=10
RETA                                  Sg      Sg        23 11 55.8 +0.4
      4.3nm,0.1s
VDL   Val di Lei          0.78  248⇑ iP       Pg        23 11 47.2 +0.2
      223nm,0.2s
PLONS Plons/SG            0.81  290⇑ eP       Pg        23 11 47.9 +0.4
      54nm,0.3s
TUE   Stuetta             0.85  249   Pg      Pg        23 11 48.6 +0.3
TUE                                   Sg      Sg        23 12 00.2 +0.9
      47nm,0.3s
TUE   Stuetta             0.85  249   Pg      Pg        23 11 48.6 +0.3
LIENZ Kamor/St.Gall       0.86  307⇓ iP       Pg        23 11 49.6 +1.2
      70nm,0.9s
WTTA  Wattenberg          0.92   58⇑ ePg      Pg        23 11 49.3 -0.2
      comp=Z,2.5nm,0.1s,SNR=12
WTTA  Wattenberg          0.92   58⇑ ePg      Pg        23 11 49.3 -0.2
      2.5nm,0.1s,SNR=12
WTTA                                ⇓iSg      Sg        23 12 01.1 -0.2
      5.8nm,0.2s
WTTA  Wattenberg          0.92   58   Pg      Pg        23 11 49.3 -0.2
      2.5nm,0.1s,SNR=12
WTTA                                  Sg      Sg        23 12 01.1 -0.2
      5.8nm,0.2s
WATA  Walderalm           0.92   53⇑ ePg      Pg        23 11 49.4 -0.2
      comp=Z,5.0nm,0.1s,SNR=9.3
WATA  Walderalm           0.92   53⇑ ePg      Pg        23 11 49.4 -0.2
      5.0nm,0.1s,SNR=9.3
WATA                                ⇓iSg      Sg        23 12 01.6 +0.1
      7.8nm,0.1s
WATA  Walderalm           0.92   53   Pg      Pg        23 11 49.4 -0.2
      5.0nm,0.1s,SNR=9.3
WATA                                  Sg      Sg        23 12 01.6 +0.1
      7.8nm,0.1s
MAGA  Magasa              1.01  175   Pn      Pn        23 11 51.4 -1.6
MAGA                                  Sn      Sn        23 12 04.9 -2.8
      109nm,0.3s
MAGA  Magasa              1.01  175   Pn      Pn        23 11 51.4 -1.6
MAGA                                  Sn      Sn        23 12 04.9 -2.8
      109nm,0.3s
LLS   Linth-Limmern       1.03  274  eP       Pg        23 11 51.8 +0.2
      67nm,0.3s
CTI   Castel Tesino       1.08  132   Pn      Pn        23 11 53.1 -0.9
CTI                                   Sn      Sn        23 12 06.6 -2.9
      62nm,0.3s
CTI   Castel Tesino       1.08  132   Pn      Pn        23 11 53.1 -0.9
CTI                                   Sn      Sn        23 12 06.6 -2.9
      62nm,0.3s
MDI   Monti di Nese       1.14  209   Pn      Pn        23 11 54.4 -0.4
MDI   Monti di Nese       1.14  209   Pn      Pn        23 11 54.4 -0.4
FAU   Forcella Aurin      1.16  118⇓ iPg      Pg        23 11 54.1 -0.1
FAU                                  i Sg     Sg        23 12 06.6 -2.7
FAU   Forcella Aurin      1.16  118  i Pg     Pg        23 11 54.1 -0.1
FAU                                  i Sg     Sg        23 12 06.6 -2.6
SEST  Monte Rota          1.18   91   Pn      Pn        23 11 54.5 -0.8
SEST                                  Sn      Sn        23 12 09.2 -2.7
SEST  Monte Rota          1.18   91   Pn      Pn        23 11 54.5 -0.8
SEST                                  Sn      Sn        23 12 09.2 -2.7
WILA  Wila                1.26  301⇑ iP       Pg        23 11 57.2 +1.1
      317nm,0.4s
CGRP  Cima Grappa         1.27  135⇓ iPg      Pg        23 11 57.0 +0.6
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CGRP				i Sg	Sg	23 12 13.6	+0.7
CGRP	Cima Grappa	1.27	135	i Pg	Pg	23 11 57.0	+0.6
CGRP				i Sg	Sg	23 12 13.6	+0.7
WEIN	Weingarten	1.27	306	ePn	Pn	23 11 57.4	+0.7
	112nm,0.3s						
WEIN	Weingarten	1.27	306	ePn	Pn	23 11 57.4	+0.7
	112nm,0.3s						
MUGIO	Muggio	1.33	230	ePn	Pn	23 11 57.7	+0.3
	138nm,0.5s						
MUGIO				eS	Sg	23 12 14.9	+0.3
	138nm,0.5s						
MUGIO	Muggio	1.33	230	ePn	Pn	23 11 57.7	+0.3
	138nm,0.5s						
MUGIO				eS	Sg	23 12 14.9	+0.3
	138nm,0.5s						
ABTA	Abfaltersbach	1.38	91	⇑ePg	Pg	23 11 57.9	-0.6
	2.5nm,0.1s,SNR=21						
ABTA				⇑iSg	Sg	23 12 16.8	+0.4
	5.6nm,0.1s						
ABTA	Abfaltersbach	1.38	91	Pg	Pg	23 11 57.9	-0.6
	2.5nm,0.1s,SNR=21						
ABTA				Sg	Sg	23 12 16.8	+0.4
	5.6nm,0.1s						
BNALP	Bannalp	1.43	274	ePn	Pn	23 11 59.3	+0.6
	112nm,0.4s						
BNALP	Bannalp	1.43	274	ePn	Pn	23 11 59.3	+0.6
	112nm,0.4s						
VAI	Varese	1.51	233	Pn	Pn	23 12 00.7	+0.8
	16nm,0.3s						
VAI	Varese	1.51	233	Pn	Pn	23 12 00.7	+0.8
	16nm,0.3s						
FVI	Forni Avoltri	1.58	96	Pn	Pn	23 12 01.4	+0.6
	20nm,0.3s						
FVI	Forni Avoltri	1.58	96	Pn	Pn	23 12 01.4	+0.6
	20nm,0.3s						
HASLI	Hasliberg/Brie	1.61	270	ePn	Pg	23 12 02.7	-0.2
	80nm,0.4s						
HASLI	Hasliberg/Brie	1.61	270	ePn	Pg	23 12 02.7	-0.2
	80nm,0.4s						
TEOL	Teolo	1.64	150	⇑ePg	Pg	23 12 04.3	+1.0
TEOL				eSg	Sg	23 12 25.4	+0.9
TEOL	Teolo	1.64	150	ePg	Pg	23 12 04.3	+1.0
TEOL				eSg	Sg	23 12 25.4	+0.8
SLE	Schleitheim	1.68	306	ePn	Pn	23 12 03.4	+1.1
	147nm,0.5s						
SLE	Schleitheim	1.68	306	ePn	Pn	23 12 03.4	+1.1
	147nm,0.5s						
SULZ	Cheisacher	1.79	295	⇓iPn	Pb	23 12 05.4	0.0
	149nm,0.6s						
SULZ	Cheisacher	1.79	295	⇓iPn	Pb	23 12 05.4	0.0
	149nm,0.6s						
KBA	Koelnbreinsper	1.97	80	⇑ePg	Pg	23 12 08.3	-1.4
	comp=Z,3.8nm,0.2s,SNR=9.7						
KBA				⇓iSg	Sg	23 12 36.7	+1.4
	comp=N,6.5nm,0.3s						
KBA	Koelnbreinsper	1.97	80	⇑ePg	Pg	23 12 08.3	-1.4
	3.8nm,0.2s,SNR=9.7						
KBA				⇓iSg	Sg	23 12 36.7	+1.4
	6.5nm,0.3s						
KBA	Koelnbreinsper	1.97	80	Pg	Pg	23 12 08.3	-1.4
	3.8nm,0.2s,SNR=9.7						
KBA				Sg	Sg	23 12 36.7	+1.4
	6.5nm,0.3s						
PTCC	Patocco-Chiusa	2.00	100	Pn	Pb	23 12 09.5	+0.5
	9.0nm,0.4s						
ORO	Oropa	2.10	237	Pn	Pb	23 12 10.3	-0.3
	13nm,0.3s						
ROBS	Robic	2.15	103	i Pn	Pg	23 12 12.6	-0.5
ROBS				eSn	Sg	23 12 40.7	-0.2
ROBS							
	comp=Z,3.0nm,0.3s						
CADS	Cadrg	2.30	103	i Pn	Pb	23 12 14.7	+0.6
CADS				i Sn	Sb	23 12 43.0	+0.1
CADS							
	comp=Z,5.0nm,0.3s						
GORS	Gorjuse	2.46	100	i Pn	Pb	23 12 17.7	+1.0
GORS				eSn	Sb	23 12 47.9	+0.5
HINF	Hinteralfeld	2.69	294	eP	Pn	23 12 17.1	+1.0
HINF	Hinteralfeld	2.69	294	ePg	Pg	23 12 23.0	-0.5
HINF				eSn	Sn	23 12 45.3	-3.8
HINF				eSg	Sg	23 12 57.3	-1.0
	comp=Z,1.9nm,0.3s						
HINF	Hinteralfeld	2.69	294	ePg	Pg	23 12 23.0	-0.5
HINF				eSn	Sn	23 12 45.3	-3.8
HINF				eSg	Sg	23 12 57.3	-1.0
	comp=Z,0.9nm,0.3s						
CDF	Champ du Feu	2.72	308	ePn	Pn	23 12 14.6	-2.0
CDF	Champ du Feu	2.72	308	eP	Pn	23 12 17.7	+1.1
CDF	Champ du Feu	2.72	308	ePg	Pg	23 12 23.6	-0.5
CDF				eSg	Sg	23 12 58.8	-0.6
	comp=Z,4.4nm,0.3s						
CDF	Champ du Feu	2.72	308	ePn	Pn	23 12 14.6	-2.0
CDF	Champ du Feu	2.72	308	eP	Pn	23 12 17.7	+1.1
CDF	Champ du Feu	2.72	308	ePg	Pg	23 12 23.6	-0.5
CDF				eSg	Sg	23 12 58.8	-0.6
	comp=Z,2.2nm,0.3s						
LPG	La Plagne	2.91	245	ePn	Pn	23 12 17.5	-1.6
LPG	La Plagne	2.91	245	eP	Pn	23 12 20.4	+1.3
LPG	La Plagne	2.91	245	ePg	Pg	23 12 26.0	-1.6
LPG				eSg	Sg	23 13 04.0	-1.2
	comp=Z,3.7nm,0.4s						
LPG	La Plagne	2.91	245	ePn	Pn	23 12 17.5	-1.6
LPG	La Plagne	2.91	245	eP	Pn	23 12 20.4	+1.3
LPG	La Plagne	2.91	245	ePg	Pg	23 12 26.0	-1.6
LPG				eSg	Sg	23 13 04.0	-1.2
	comp=Z,1.9nm,0.4s						
LPL	La Plagne	2.91	246	ePn	Pn	23 12 17.2	-1.9
LPL	La Plagne	2.91	246	eP	Pn	23 12 20.5	+1.4
LPL	La Plagne	2.91	246	ePg	Pg	23 12 26.0	-1.7
LPL				eSg	Sg	23 13 04.0	-1.4
	comp=Z,3.1nm,0.4s						
LPL	La Plagne	2.91	246	ePn	Pn	23 12 17.2	-1.9
LPL	La Plagne	2.91	246	eP	Pn	23 12 20.5	+1.4
LPL	La Plagne	2.91	246	ePg	Pg	23 12 26.0	-1.7
LPL				eSg	Sg	23 13 04.0	-1.4
	comp=Z,1.5nm,0.4s						
CABF	La Chapelle	3.04	268	eP	Pn	23 12 22.8	+1.9
CABF	La Chapelle	3.04	268	ePg	Pg	23 12 30.3	+0.1
CABF				eSg	Sg	23 13 08.6	-1.0
	comp=Z,1.6nm,0.3s						
CABF	La Chapelle	3.04	268	ePg	Pg	23 12 30.3	+0.1
CABF				eSg	Sg	23 13 08.6	-1.0
	comp=Z,0.8nm,0.3s						
HAU	Haudompre	3.08	295	eP	Pn	23 12 23.7	+2.3
HAU	Haudompre	3.08	295	ePg	Pg	23 12 30.4	-0.5
HAU				eSg	Sg	23 13 09.8	-0.9
	comp=Z,5.4nm,0.3s						
HAU	Haudompre	3.08	295	ePg	Pg	23 12 30.4	-0.5
HAU				eSg	Sg	23 13 09.8	-0.9
	comp=Z,2.7nm,0.3s						
KHC	Kasperske Hory	3.13	40	ePN	Pn	23 12 25.1	+2.9
KHC				ePG	Pg	23 12 30.7	-1.2
KHC				eSN	Sn	23 13 00.7	+0.7
KHC				eSG	Sg	23 13 11.7	-0.8
	comp=Z,11nm,1.0s						
KHC	Kasperske Hory	3.13	40	ePn	Pn	23 12 25.1	+2.9
MBDF	Montbardon	3.32	233	ePn	Pn	23 12 23.0	-1.8
MBDF	Montbardon	3.32	233	eP	Pn	23 12 26.4	+1.6
MBDF				eSg	Sg	23 13 16.7	-1.9
	comp=Z,1.0nm,0.3s						
MBDF	Montbardon	3.32	233	ePn	Pn	23 12 23.0	-1.8
MBDF	Montbardon	3.32	233	eP	Pn	23 12 26.4	+1.6
MBDF				eSg	Sg	23 13 16.7	-1.9
	comp=Z,0.5nm,0.3s						
ORIF	Oris-en-Rattie	3.73	242	ePn	Pn	23 12 28.7	-1.7
ORIF	Oris-en-Rattie	3.73	242	eP	Pn	23 12 31.9	+1.5
ORIF	Oris-en-Rattie	3.73	242	ePn	Pn	23 12 28.7	-1.7
ORIF	Oris-en-Rattie	3.73	242	eP	Pn	23 12 31.9	+1.5
RFYF	Reffroy	3.86	300	ePn	Pn	23 12 30.6	-1.6
	baz=121						
RFYF	Reffroy	3.86	300	ePg	Pg	23 12 44.3	-1.7
RFYF				eSg	Sg	23 13 34.3	-1.7
	comp=Z,4.4nm,0.3s						
RFYF	Reffroy	3.86	300	ePn	Pn	23 12 30.6	-1.6
	baz=121						
RFYF	Reffroy	3.86	300	ePg	Pg	23 12 44.3	-1.7
RFYF				eSg	Sg	23 13 34.3	-1.7
	comp=Z,2.2nm,0.3s						
SFTF	Sexfontaines	3.97	293	eP	Pn	23 12 35.4	+1.8
	baz=120						
SFTF	Sexfontaines	3.97	293	ePg	Pg	23 12 46.3	-1.6
SFTF				eSg	Sg	23 13 37.4	-1.9
	comp=Z,1.5nm,0.3s						
SFTF	Sexfontaines	3.97	293	ePg	Pg	23 12 46.3	-1.6
SFTF				eSg	Sg	23 13 37.4	-1.9
	comp=Z,0.8nm,0.3s						
PRU	Pruhonice	4.19	39	eSG	Sg	23 13 44.2	-2.2
PRU	Pruhonice	4.19	39	eSg	Sg	23 13 44.2	-2.2
FRF	La Foret Royal	4.22	222	ePn	Pn	23 12 34.6	-2.5
FRF	La Foret Royal	4.22	222	eP	Pn	23 12 38.7	+1.6
FRF	La Foret Royal	4.22	222	ePg	Pg	23 12 50.1	-2.7
FRF	La Foret Royal	4.22	222	ePn	Pn	23 12 34.6	-2.5
FRF	La Foret Royal	4.22	222	eP	Pn	23 12 38.7	+1.6
FRF	La Foret Royal	4.22	222	ePg	Pg	23 12 50.1	-2.7
PGF	Pioggiola	4.37	195	ePn	Pn	23 12 36.6	-2.5
PGF	Pioggiola	4.37	195	ePn	Pn	23 12 36.6	-2.5
LMR	La Mourre	4.46	221	ePn	Pn	23 12 37.9	-2.5
LMR	La Mourre	4.46	221	eP	Pn	23 12 41.8	+1.4
LMR	La Mourre	4.46	221	ePg	Pg	23 12 54.7	-2.7
LMR	La Mourre	4.46	221	ePn	Pn	23 12 37.9	-2.5
LMR	La Mourre	4.46	221	eP	Pn	23 12 41.8	+1.4
LMR	La Mourre	4.46	221	ePg	Pg	23 12 54.7	-2.7
SMRF	Simiane la Rot	4.46	233	ePn	Pn	23 12 38.4	-2.1
SMRF	Simiane la Rot	4.46	233	ePn	Pn	23 12 38.4	-2.1
VIVF	Saint-Julien-l	4.51	247	ePn	Pn	23 12 39.0	-2.1
VIVF	Saint-Julien-l	4.51	247	eP	Pn	23 12 43.2	+2.1
VIVF	Saint-Julien-l	4.51	247	ePn	Pn	23 12 39.0	-2.1
VIVF	Saint-Julien-l	4.51	247	eP	Pn	23 12 43.2	+2.1
LOR	Lormes	4.57	279	eP	Pn	23 12 43.5	+1.6
	baz=103						
LOR	Lormes	4.57	279	ePg	Pg	23 12 56.2	-3.2
	baz=99						
LOR	Lormes	4.57	279	ePg	Pg	23 12 56.2	-3.2
	baz=99						
SMF	Signal de Mont	4.58	271	eP	Pn	23 12 44.3	+2.2
SSF	Saint Saulge	4.80	276	eP	Pn	23 12 47.1	+2.0
AVF	Avril sur Loir	4.91	273	eP	Pn	23 12 48.4	+1.8
BGF	Bois d'Agland	5.27	270	ePn	Pn	23 12 49.7	-1.9
BGF	Bois d'Agland	5.27	270	eP	Pn	23 12 53.1	+1.5
BGF	Bois d'Agland	5.27	270	ePn	Pn	23 12 49.7	-1.9
BGF	Bois d'Agland	5.27	270	eP	Pn	23 12 53.1	+1.5
HYF	Humbligny	5.40	278	ePn	Pn	23 12 51.2	-2.1
HYF	Humbligny	5.40	278	ePn	Pn	23 12 51.2	-2.1
LASF	Ste Croix	5.40	242	ePn	Pn	23 12 51.1	-2.3
LASF	Ste Croix	5.40	242	ePn	Pn	23 12 51.1	-2.3
TCF	Toulx Ste Croi	5.74	268	eP	Pn	23 12 59.4	+1.4
CAF	Calviac	6.18	256	eP	Pn	23 13 06.0	+2.0
MFF	Saint Martin d	7.33	272	eP	Pn	23 13 21.7	+2.0
FLN	La Foliniere	7.66	289	eP	Pn	23 13 26.9	+2.5

IDC 17 23:26:18.4±5.2**, 3008S**×**17814W, h0**^{km}**, mb3.3**/2**, mb1 3.6**/2**, mb1mx3.5**/12**, mbtmp3.3**/2**, Error ellipse: s-maj=301.2km s-min=73.8km az=166.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	43.01	267	P	P	23 34 19.8	0.0
	0.4nm,0.8s,baz=108,slow=7.3,SNR=3.8						
WRA	Warramunga Arr	43.97	272	P	P	23 34 27.5	-0.1
	0.2nm,0.3s,baz=111,slow=8.2,SNR=8.9						
FINES	FINESS Array B	144.80	340	PKP	PKPdf	23 45 56.0	-0.6
	2.6nm,1.0s,baz=20,slow=6.1,SNR=3.4						

IDC ***17*** *23:34:24.7±0.8, 4072N×7904E, h0^{km}, mb4.0/16, mb1 4.1/19, mb1mx4.1/29, mbtmp4.0/19, ML3.8/3, MS3.2/3, Ms1 3.2/3, ms1mx2.8/35, Error ellipse: s-maj=20.1km s-min=14.6km az=179.0*

NNC ***17*** *23:34:27.6±3.4, 4085N×79.17E, h0^{km}, mb4.2, mpv3.9, Error ellipse: s-maj=36.2km s-min=21.4km az=169.0*

MOS ***17*** *23:34:28.6±1.5, 4079N×7908E, h33^{km}, mb4.5/7, Error ellipse: s-maj=9.8km s-min=5.7km az=114.7*

BJI ***17*** *23:34:29.2, 4081N×7928E, h19^{km}, mB4.7, mb4.2, ML4.3, Ms3.8, Msz3.4*

NEIC ***17*** *23:34:30.5±0.5, 4079N×7909E, h35^{km}, mb4.4/7, Error ellipse: s-maj=9.4km s-min=7.9km az=209.0*

ISCJB ***17*** *23:34:30.8±0.5, 4065N±002×7906E±005, h65^{km}±5^{km}, mb4.2/25, Error ellipse: s-maj=6.2km s-min=3.9km az=174.8*

ISC 17 23:34:31.7±0.4**, 4072N**±002×**7916E**±004**, h55**^{km}±4^{km}**, n119,** σ1^{s}**26**/141**, mb4.2**/25**, MS3.4**/2**, 9C-12D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ULHL	Ulahol	2.67	306	P	Pn	23 35 13.4	+1.1
	SNR=232						
KSH	Kashi	2.72	245	P	Pn	23 35 15.3	+2.3
KSH				S	Sn	23 35 50.5	+5.8
KSH				Smax			
	comp=N,6µm,1.1s						
KSH				Smax			
	comp=E,3µm,0.5s						
KNDC	Almaty	2.99	327	⇓Pn	Pn	23 35 17.7	+1.1
	comp=E,207nm,0.6s						
KNDC				⇓Lg		23 35 58.8	
	comp=E,2µm,1.8s						
AAA	Alma-Ata	3.04	328	ePN	Pn	23 35 21.9	+4.6
AAA				eS	Sn	23 36 00.5	+8.1
AAA				smax			
	comp=N,2.0nm,0.9s						
KZA	Kyzart	3.24	296	P	Pn	23 35 20.5	+0.4
	SNR=30						
TKM2	Tokmak 2	3.46	311	P	Pn	23 35 23.7	+0.7
	SNR=34						
TKM2	Tokmak 2	3.46	311	⇓Pn	Pn	23 35 23.6	+0.6
	comp=N,6.0nm,0.7s						
TKM2				⇓Lg		23 36 12.5	
	comp=N,24nm,0.7s						
TKM2	Tokmak 2	3.46	311	⇑iPn	Pn	23 35 23.6	+0.6
TKM2	Tokmak 2	3.46	311	⇑iPN	Pn	23 35 23.6	+0.6
KBK	Karagaybulak	3.71	303	P	Pn	23 35 27.4	+1.0
	SNR=23						
UCH	Uchtor	3.81	295	P	Pn	23 35 28.4	+0.6
	SNR=7.9						
UCH	Uchtor	3.81	295	ePn	Pn	23 35 28.2	+0.4
AAK	Ala-Archa	3.99	300	P	Pn	23 35 31.5	+1.3
	SNR=6.2						
AAK	Ala-Archa	3.99	300	ePn	Pn	23 35 29.7	-0.5
AAK				eSn	Sn	23 36 16.9	+1.2
AAK	Ala-Archa	3.99	300	ePN	Pn	23 35 29.7	-0.5
AAK				e		23 36 16.9	
FRU	Bishkek	4.00	303	ePN	Pn	23 35 31.0	+0.5
FRU				e		23 35 41.0	
FRU				i		23 35 47.0	
FRU				i S	Sn	23 36 31.0	+15
FRU				pmax	pmax		
	comp=Z,240nm,1.8s						
FRU				smax			
	comp=E,440nm,2.0s						
USP	Ospenovka	4.31	308	P	Pn	23 35 34.5	-0.1
	SNR=5.9						
AML	Almayashu	4.35	291	P	Pn	23 35 35.6	+0.4
	SNR=17						
AML	Almayashu	4.35	291	ePn	Pn	23 35 35.2	0.0
EKS2	Erkin-Say	4.48	297	P	Pn	23 35 37.9	+1.0
	SNR=20						
EKS2	Erkin-Say	4.48	297	ePn	Pn	23 35 37.8	+0.9
MK31	Makanchi Array	6.48	19	⇑Pn	Pn	23 36 03.7	-0.7
	comp=E,4.8nm,0.4s,baz=197,slow=13,SNR=159						
MK31				⇓Lg		23 37 52.7	
	comp=E,38nm,0.7s,baz=207,slow=29						
MK31	Makanchi Array	6.48	19	⇓iPn	Pn	23 36 03.5	-1.0
MK31				eSn	Sn	23 37 15.2	-1.8
MK31	Makanchi Array	6.48	19	⇓iPN	Pn	23 36 03.5	-0.9
MKAR	Makanchi Array	6.48	19	Pn	Pn	23 36 03.7	-0.7
MKAR				Sn	Sn	23 37 15.3	-1.7
MKAR				LR	LR	23 39 11.7	
MKAR	Makanchi Array	6.48	19	PN	Pn	23 36 03.6	-0.8
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MKAR	Makanchi Array	6.48	19	Pn	Pn	23 36 03.7	-0.7
	comp=Z,3.0nm,0.3s,baz=201,slow=13,SNR=166						
MKAR				Sn	Sn	23 37 15.3	-1.7
	comp=Z,4.5nm,0.3s,baz=182,slow=19,SNR=4.6						
MKAR				LR	LR	23 39 11.7	
	comp=Z,98nm,20.0s,baz=142,slow=44						
KK31	Karatay Array	6.88	293	⇓Pn	Pn	23 36 10.3	+0.5
	comp=Z,2.3nm,0.9s,baz=114,slow=10,SNR=22						
KK31				⇓Pg	Pn	23 36 33.9	+24
	comp=Z,9.3nm,0.6s,baz=105,slow=16,SNR=18						
KK31				⇓Lg		23 37 58.8	
	comp=Z,16nm,0.6s,baz=92,slow=26,SNR=4.0						
KK31	Karatay Array	6.88	293	i PN	Pn	23 36 10.3	+0.4
KK31				pmax	pmax		
	comp=Z,1.0nm,0.4s						
KKAR	Karatay Array	6.88	293	i PN	Pn	23 36 10.3	+0.4
WMQ	Urumqi	7.05	61	P	Pn	23 36 13.1	+0.9
WMQ				Smax			
	comp=N,143nm,1.0s						
CHCP	Chirah Chowk	8.47	216	P	Pn	23 36 34.0	+2.3
DLH	Dalhousie	8.55	198	eP	Pn	23 36 34.0	+1.2
DLH				eS	Sn	23 38 07.0	-0.9
THN	Thein Dam	8.72	200	eP	Pn	23 36 36.3	+1.2
THN				eS	Sn	23 38 10.5	-1.4
CEP	Cherat	8.98	222	P	Pn	23 36 40.5	+1.8
CEP				S	Sn	23 38 17.0	-1.4
PONG	Pong	9.12	197	ex	x	23 36 05.5	
KLP	Kalpa	9.19	185	eP	Pn	23 36 42.7	+1.1
KLP				AMb	AMB	23 36 50.3	
	comp=Z,12nm,0.5s						
KLP				eS	Sn	23 38 20.9	-2.7
SDNR	Sundarnagar	9.37	192	eP	Pn	23 36 45.6	+1.6
SDNR				eS	Sn	23 38 24.2	-3.6
THW	Thamme Wali	9.89	219	P	Pn	23 36 51.4	+0.2
KURK	Kurchatov	10.01	358	⇑Pn	Pn	23 36 50.5	-2.1
	comp=Z,4.7nm,1.1s						
KURK				⇑Lg		23 39 39.6	
	comp=Z,24nm,0.8s						
KURK	Kurchatov	10.01	358	ePn	Pn	23 36 50.7	-1.9
	comp=Z,6.9nm,0.6s						
KURK				eSn	Sn	23 38 49.5	+6.2
KURK	Kurchatov	10.01	358	eP	Pn	23 36 50.7	-1.9
KURK				e		23 38 49.5	
KURK				pmax	pmax		
	comp=Z,7.0nm,0.6s						
KBL	Kabul	10.12	236	ePn	Pn	23 36 55.2	+1.0
KBL				eSn	Sn	23 38 42.5	-3.6
JOSI	Joshimath	10.14	178	eP	Pn	23 36 55.3	+0.7
JOSI				eS	Sn	23 38 39.8	-7.0
DRP	Derazinda	11.51	222	P	Pn	23 37 13.0	-0.2
DRP				S	Sn	23 39 14.0	-6.1
NDI	New Delhi	12.11	188	eP	Pn	23 37 20.0	-1.5
SONA	Sohna	12.55	188	eP	Pn	23 37 25.8	-1.7
SONA				AMb	AMB	23 37 32.7	
	comp=Z,9.9nm,0.4s						
SONA				eS	Sn	23 39 38.0	-7.7
KUDL	Kundal	12.73	191	eP	Pn	23 37 28.0	-2.0
KUDL				AMb	AMB	23 37 35.6	
	comp=Z,10nm,0.2s						
KUDL				eS	Sn	23 39 41.3	-8.8
KHET	Khetri	12.91	193	eP	Pn	23 37 30.2	-2.2
KHET				AMb	AMB	23 37 35.9	
	comp=Z,8.9nm,0.6s						
KHET				ex	x	23 39 43.4	
BRVK	Borovoye	13.74	337	⇑Pn	Pn	23 37 40.5	-3.1
	comp=Z,4.4nm,0.8s						
BRVK				⇑Lg		23 41 41.2	
	comp=Z,12nm,1.1s						
BRVK	Borovoye	13.74	337	ePn	Pn	23 37 40.7	-2.8
	comp=Z,14nm,0.8s						
BRVK				eSn	Sn	23 40 29.8	+15
BRVK	Borovoye	13.74	337	eP	Pn	23 37 40.7	-2.8
BRVK				pmax	pmax		
	comp=Z,14nm,0.8s						
ZAL	Zalesovo	13.76	14	P	Pn	23 37 40.8	-3.0
ZAL						23 40 21.3	
ZALV	Zalesovo Beam	13.78	14	Pn	Pn	23 37 40.8	-3.2
ZALV				Sn	Sn	23 40 21.3	+6.1
ZALV				LR	LR	23 43 24.3	
ZALV	Zalesovo Beam	13.78	14	Pn	Pn	23 37 40.8	-3.2
	comp=Z,0.4nm,0.3s,baz=197,slow=13,SNR=32						
ZALV				Sn	Sn	23 40 21.3	+6.1
	comp=Z,0.6nm,0.3s,baz=208,slow=21,SNR=4.4						
ZALV				LR	LR	23 43 24.3	
	comp=Z,90nm,19.5s,baz=301,slow=39						
NVS	Novosibirsk	14.39	10	eP	Pn	23 37 50.9	-1.2
NVS				i S	Sn	23 40 19.9	-10
LSA	Lhasa	14.71	135	P	Pn	23 37 59.9	+3.5
LSA	Lhasa	14.71	135	eP	Pn	23 38 00.0	+3.6
	comp=Z,3.9nm,0.8s						
LSA	Lhasa	14.71	135	eP	Pn	23 38 00.0	+3.6
LSA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
GTA	Gaotai	15.87	88	eP	Pn	23 38 16.8	+5.5
GTA				AP	pP	23 38 23.3	-2.9
GTA				XP	sP	23 38 25.9	-7.4
GTA				LG1		23 43 31.8	
GTA				LG2		23 43 58.4	
GTA				AMB	AMB		
	comp=Z,7.0nm,0.7s						
GTA				AMB	AMB		
	comp=Z,100nm,6.1s						
GTA				LR	LR		
	comp=N,139nm,14.4s						
GTA				LR	LR		
	comp=E,138nm,13.7s						
GTA				LR	LR		
	comp=Z,160nm,14.5s						
AB31	Akbulak array	16.02	309	⇑P	Pn	23 38 10.2	-3.0
	comp=Z,3.1nm,0.8s						
AB31	Akbulak array	16.02	309	P	Pn	23 38 10.2	-3.0
AB31				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKTK	Aktyubinsk	17.65	310	P	Pn	23 38 32.5	-1.0
AKTO	Aktyubinsk	17.65	310	P	Pn	23 38 32.5	-1.0
	comp=Z,0.2nm,0.3s,baz=95,slow=12,SNR=12						
ZAK	Zakamensk	19.38	52	eP	Pn	23 38 54.0	-0.3
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.1s						
TLY	Talaya	20.08	49	i P	P	23 39 03.0	+2.6
ARU	Arti	20.68	326	eP	P	23 39 05.8	-0.9
	comp=Z,18nm,1.2s						
ARU	Arti	20.68	326	d iP	P	23 39 05.3	-1.5
ARU				e		23 39 23.0	
ARU				ePPP		23 39 32.6	
ARU				eS	S	23 42 48.1	-6.4
ARU				pmax	pmax		
	comp=Z,17nm,1.5s						
SONM	Songino Array	20.68	61	P	P	23 39 09.2	+2.3
SONM						23 43 16.0	
SONM	Songino Array	20.68	61	P	P	23 39 09.2	+2.2
	comp=Z,7.6nm,0.9s,baz=257,slow=11,SNR=39						
SONM				PcP	PcP	23 43 16.0	+1.2
	comp=Z,0.6nm,0.6s,baz=258,slow=2.0,SNR=4.4						
SONM				LR	LR	23 47 44.1	
	comp=Z,124nm,18.2s,MS3.3,baz=326,slow=38						
ULN	Ulaanbaatar	21.13	61	eP	P	23 39 14.8	+3.1
	comp=Z,9.5nm,0.9s,mb4.1						
ULN	Ulaanbaatar	21.13	61	⇓iP	P	23 39 15.9	+4.2
HYB	Hyderabad	23.23	181	eP	P	23 39 33.0	-1.1
HYB	Hyderabad	23.23	181	i P	P	23 39 33.0	-1.1
SOKR	Solikamsk	23.49	331	c iP	P	23 39 37.4	+1.2
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.3						
KMI	Kunming	25.06	121	P	P	23 39 52.4	+1.6
KMI				AMB	AMB		
	comp=Z,6.0nm,0.7s,mb4.2						
KMI	Kunming	25.06	121	P	P	23 39 52.4	+1.6
	comp=Z,6.0nm,0.7s,mb4.2						
HAKT	HAKKARI	27.57	275	i P	P	23 40 13.5	+0.2
BOD	Bodaibo	28.02	41	eP	P	23 40 20.2	+3.0
NJ2	Nanjing	32.88	92	eP	P	23 41 07.3	+7.0
NJ2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
BRTR	Keskin Array B	34.48	284	P	P	23 41 15.2	+1.0
	comp=Z,4.1nm,0.8s,mb4.4,baz=99,slow=6.5,SNR=16						
AKASG	Malin Array Be	35.65	303	P	P	23 41 24.1	0.0
	comp=Z,1.3nm,0.4s,mb4.2,baz=67,slow=9.7,SNR=9.9						
JOF	Joensuu	35.79	325	ep	P	23 41 24.3	-0.8
	comp=Z,1.8nm,0.4s,mb4.3						
KSRS	Korea Array	37.60	79	P	P	23 41 41.8	+0.9
	comp=Z,0.9nm,0.9s,mb3.5,baz=294,slow=8.7,SNR=2.9						
KAF	Kangasniemi	37.88	322	ep	P	23 41 41.0	-1.9
FINES	FINESS Array B	37.89	321	P	P	23 41 42.5	-0.5
FINES	FINESS Array B	37.89	321	eP	P	23 41 43.0	0.0
FINES	FINESS Array B	37.89	321	P	P	23 41 42.5	-0.5
	comp=Z,1.6nm,0.6s,mb4.0,baz=112,slow=9.1,SNR=12						
TIXI	Tiksi	39.46	22	eP	P	23 41 51.5	-4.5
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.0						
TIXI				MLR	MLR		
	comp=Z,50nm,15.0s,MS3.5						
ARCES	ARCESS Array B	39.94	334	P	P	23 41 58.8	-1.3
	comp=Z,3.7nm,0.9s,mb4.1,baz=94,slow=8.6,SNR=8.5						
HFS	Hagfors	43.91	319	P	P	23 42 32.2	-0.2
	comp=Z,2.2nm,0.8s,mb4.0,baz=111,slow=11,SNR=4.1						
NB2	NORSAR Subarra	45.05	320	P	P	23 42 40.9	-0.7
	comp=Z,1.4nm,0.6s,mb4.0,baz=74,slow=7.9						

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NOA   NORSAR Array B  45.05 320  P      P        23 42 41.2 -0.3
      comp=Z,0.5nm,0.5s,mb3.6,baz=225,slow=21,SNR=4.5
GERES GERESS Array B  45.87 303  P      P        23 42 48.2  0.0
      comp=Z,0.9nm,0.8s,mb3.7,baz=73,slow=4.5,SNR=6.7
DAVOX Davos/Dischmat  48.94 302  P      P        23 43 11.8 -0.3
DAVOX Davos/Dischmat  48.94 302  P      P        23 43 11.8 -0.3
      comp=Z,1.5nm,0.5s,mb4.3,baz=162,slow=13,SNR=4.7
VAE   Valguarnera     49.34 288  P      P        23 43 16.0 +0.8
      comp=Z,1.9nm,0.3s,mb4.6,baz=260,slow=17,SNR=4.3
HINF  Hinteralfeld    50.53 304  eP     P        23 43 24.1 -0.1
      comp=Z,2.4nm,0.4s,mb4.2
HINF  Hinteralfeld    50.53 304  eP     P        23 43 24.1 -0.1
      comp=Z,1.2nm,0.4s,mb4.2
HINF  Hinteralfeld    50.53 304  eP     P        23 43 24.1 -0.1
HINF                              pmax   pmax
      comp=Z,1.0nm,0.4s,mb4.1
LPG   La Plagne       51.43 301  eP     P        23 43 31.4 +0.4
      comp=Z,10nm,0.9s,mb4.5
LPG   La Plagne       51.43 301  eP     P        23 43 31.4 +0.4
      comp=Z,5.2nm,0.9s,mb4.5
LPG   La Plagne       51.43 301  eP     P        23 43 31.4 +0.4
LPG                               pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.4
LPL   La Plagne       51.44 301  eP     P        23 43 31.6 +0.6
      comp=Z,13nm,0.9s,mb4.6
LPL   La Plagne       51.44 301  eP     P        23 43 31.6 +0.6
      comp=Z,6.6nm,0.9s,mb4.6
LPL   La Plagne       51.44 301  eP     P        23 43 31.6 +0.6
LPL                               pmax   pmax
      comp=Z,7.0nm,0.9s,mb4.6
ORIF  Oris-en-Rattie  52.22 301  eP     P        23 43 37.0 +0.1
      comp=Z,31nm,1.2s,mb4.8
ORIF  Oris-en-Rattie  52.22 301  eP     P        23 43 37.0 +0.1
      comp=Z,16nm,1.2s,mb4.8
ORIF  Oris-en-Rattie  52.22 301  eP     P        23 43 37.0 +0.1
ORIF                              pmax   pmax
      comp=Z,16nm,1.2s,mb4.8
SMF   Signal de Mont  52.87 303  eP     P        23 43 41.4 -0.2
AVF   Avril sur Loir  53.12 304  eP     P        23 43 43.1 -0.4
EKA   Eskdalemuir Ar  53.75 315  P      P        23 43 47.8 -0.2
      comp=Z,1.8nm,0.8s,mb4.0,baz=74,slow=9.6,SNR=5.0
ESDC  Sonseca Array   61.09 299  P      P        23 44 39.9  0.0
      comp=Z,0.9nm,0.5s,mb4.2,baz=54,slow=6.8,SNR=11
TORD  Torodi Ar. Bea  72.09 272  P      P        23 45 48.9 -1.4
TORD  Torodi Ar. Bea  72.09 272  P      P        23 45 48.9 -1.4
      comp=Z,0.9nm,0.7s,mb3.8,baz=46,slow=4.9,SNR=17
KAKA  Kakadu          72.45 125  eP     P        23 45 53.4 +1.0
YKA   Yellowknife Ar  76.54   7  P      P        23 46 15.6 +0.1
YKA                               pmax   pmax
      comp=Z,1.0nm,0.7s
YKA   Yellowknife Ar  76.54   7  P      P        23 46 15.6 +0.2
      comp=Z,1.1nm,0.7s,mb3.9,baz=345,slow=5.4,SNR=16
ASAR  Alice Springs   81.78 131  P      P        23 46 45.9 +1.4
      comp=Z,1.8nm,0.8s,mb4.0,baz=326,slow=5.6,SNR=16
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MOS **17** *23:41:42.7±0.9, 399S×15444E, h463^{km}, mb5.3/33, Error ellipse: s-maj=10.0km s-min=6.4km az=97.5*

BJI **17** *23:41:43.8, 367S×15483E, h478^{km}, mB5.0, mb5.2*

ISCJB **17** *23:41:43.6±0.6, 4.10S±003×15441E±002, h474^{km}±7^{km}, mb5.2/105, Error ellipse: s-maj=5.2km s-min=3.8km az=8.0*

IDC **17** *23:41:44.5±0.6, 4.13S×15440E, h473^{km}±6^{km}, mb4.6/24, mb1 4.7/28, mb1mx4.7/29, mbtmp4.7/28, Error ellipse: s-maj=9.2km s-min=6.3km az=95.0*

NEIC **17** *23:41:45.0±0.6, 4.10S×15445E, h483^{km}±6^{km}, mb5.2/41, Error ellipse: s-maj=5.1km s-min=4.2km az=86.0*

GCMT **17** *23:41:45.0±0.4, 395S×15446E, h466^{km}±2^{km}, MW5.5/65, Moment Tensor Solution. s65,c94; Duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.47±.05; M$_{\theta\theta}$0.46±.07; M$_{\phi\phi}$-0.92±.08; M$_{r\theta}$2.03±.07; M$_{\theta\phi}$1.41±.07; M$_{\phi r}$-0.12±.08; Best double couple: M$_0$2.58900×10^{17} NP1:ϕ_s6.00000°, δ39.00000°, λ169.00000°. NP2:ϕ_s105.00000°, δ83.00000°, λ52.00000°. Principal axes: T 2.7400, Plg40.0000°, Azm340.0000°; N -0.3030, Plg38.0000°, Azm111.0000°; P -2.4370, Plg28.0000°, Azm225.0000°; nsta1 refers to body waves, cutoff=40s.*

ISC 17 23:41:45.1±0.6, **412S**±003×**15446E**±002, **h479**^{km}±7^{km}, **h477**^{km}±3.2^{km}**:pP-P, n498, σ0^{s}82**/431, **mb5.1**/104, **94C-93D, Bougainville - Solomon Islands region**

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Code  Station Name     Δ°  AZ°   Phase ID           Time    Res
                                 Op     ISC        h  m  s  ISC
HNR   Honiara          7.59 134  P      P        23 43 35.9 -0.8
HNR                              S      S        23 45 06.9 -1.3
HNR   Honiara          7.59 134  P      P        23 43 35.9 -0.8
      102nm,0.3s,baz=268,slow=1.5,SNR=55
HNR                              S      S        23 45 06.9 -1.3
      baz=76,slow=17,SNR=3.2
PMG   Port Moresby     8.95 234  eP     P        23 43 53.0 +1.9
PMG                              eS     S        23 45 38.6 +4.0
PMG   Port Moresby     8.95 234  P      P        23 43 52.0 +0.9
      34nm,0.3s,baz=49,slow=6.3,SNR=281
PMG                              S      S        23 45 35.8 +1.2
      15nm,0.3s,baz=211,slow=18,SNR=5.1
COEN  Coen            14.81 228⇓iP      P        23 44 54.8 +1.0
CTA   Charters Tower  17.77 206⇓iP      P        23 45 24.1 -0.4
      655nm,1.2s
CTA                              eS     S        23 48 30.7 +7.0
CTA   Charters Tower  17.77 206⇓iP      P        23 45 24.1 -0.4
CTA                              eS     S        23 48 30.7 +7.0
CTA                              pmax   pmax
      comp=Z,655nm,1.2s
CTA   Charters Tower  17.77 206  P      P        23 45 24.7 +0.2
      comp=Z,22nm,0.3s,baz=31,slow=10,SNR=136
CTA                              ScP    ScP      23 52 25.5 +0.9
      comp=Z,0.1nm,0.3s,baz=58,slow=10,SNR=3.2
CTAO  Charters Tower  17.77 206  eP     P        23 45 24.2 -0.2
GUMO  Guam            20.00 332  eP     P        23 45 44.2 -0.8
GUMO  Guam            20.00 332  P      P        23 45 44.7 -0.3
      comp=Z,45nm,0.3s,baz=182,slow=8.3,SNR=36
NOUC  Port Laguerre   21.25 148  eP     P        23 45 56.1 -0.1
NOUC  Port Laguerre   21.25 148  eP     P        23 45 56.1 -0.1
DZM   Mont Dzumac     21.30 148  eP     P        23 45 56.7  0.0
DZM   Mont Dzumac     21.30 148  P      P        23 45 56.6  0.0
      comp=Z,88nm,0.5s,mb5.5,baz=327,slow=7.4,SNR=107
EIDS  Eidsvold        21.37 188  eP     P        23 45 56.9 -0.4
KAKA  Kakadu          23.37 247  eP     P        23 46 14.1 -1.4
      comp=Z,45nm,0.5s,mb5.2
WB2   Warramunga Arr  25.12 230  eP     P        23 46 30.8 -0.2
WB2                              epP             23 47 49.6
WB2                              eS     S        23 50 20.8 -0.5
WRA   Warramunga Arr  25.13 230  P      P        23 46 30.2 -0.9
WRA                              S      S        23 50 21.0 -0.4
WRA   Warramunga Arr  25.13 230  P      P        23 46 30.2 -0.9
      comp=Z,149nm,0.8s,mb5.5,baz=53,slow=9.3,SNR=474
WRA                              S      S        23 50 21.0 -0.4
      comp=Z,27nm,0.9s,baz=47,slow=15,SNR=8.9
WRA                              ScP    ScP      23 52 44.4 +1.2
      comp=Z,15nm,1.1s,baz=46,slow=3.0,SNR=7.8
ASAR  Alice Springs   27.77 224  P      P        23 46 53.5 -0.8
ASAR                             pP              23 48 14.9
ASAR                             S      S        23 51 01.0 -1.6
ASAR                             ScP    ScP      23 52 52.5 +1.5
ASAR  Alice Springs   27.77 224  P      P        23 46 53.6 -0.7
ASAR                             S      S        23 51 01.0 -1.6
ASAR  Alice Springs   27.77 224  P      P        23 46 53.5 -0.8
      comp=Z,51nm,0.5s,mb5.2,baz=53,slow=8.5,SNR=545
ASAR                             pP              23 48 14.9
      comp=Z,28nm,1.0s,baz=59,slow=9.3,SNR=3.0
ASAR                             S      S        23 51 01.0 -1.6
      comp=Z,6.0nm,0.6s,baz=65,slow=12,SNR=5.2
ASAR                             ScP    ScP      23 52 52.5 +1.5
      comp=Z,6.7nm,0.9s,baz=48,slow=3.4,SNR=5.0
RIV   Riverview       29.72 186  eP     P        23 47 12.1 +0.9
STKA  Stephens Creek  30.14 202⇓iP      P        23 47 14.3 -0.6
      comp=Z,44nm,0.8s,mb4.9
STKA                             eSCP   ScP      23 53 01.9 +3.5
STKA  Stephens Creek  30.14 202  P      P        23 47 14.4 -0.5
      comp=Z,46nm,0.7s,mb5.0,baz=8.1,slow=8.5,SNR=51
STKA                             ScP    ScP      23 53 00.7 +2.2
      comp=Z,23nm,1.1s,baz=35,slow=3.7,SNR=9.4
CNB   Canberra Magne  31.39 188⇓iP      P        23 47 26.5 +0.8
      comp=Z,116nm,0.7s,mb5.4
FITZ  Fitzroy Crossi  31.43 242⇓iP      P        23 47 24.7 -1.6
      comp=Z,147nm,0.9s,mb5.4
FITZ                             epP             23 48 54.8
FITZ                             eS     S        23 51 55.8 -3.8
FITZ                             eSCP   ScP      23 53 04.6 +1.5
FITZ  Fitzroy Crossi  31.43 242  eP     P        23 47 24.5 -1.8
FITZ  Fitzroy Crossi  31.43 242  P      P        23 47 24.9 -1.4
      comp=Z,76nm,0.8s,mb5.2,baz=63,slow=7.8,SNR=218
FITZ                             pP              23 48 49.3
      comp=Z,8.4nm,0.5s,baz=307,slow=20,SNR=1.8
FITZ                             S      S        23 51 59.5 -0.1
      comp=Z,9.5nm,0.9s,baz=323,slow=17,SNR=3.5
FITZ                             ScP    ScP      23 53 04.3 +1.3
      comp=Z,8.2nm,0.8s,baz=120,slow=12,SNR=3.5
CBIJ  Chichi jima     33.22 340  P      P        23 47 38.1 -3.2
      comp=Z,211nm,0.8s,mb5.6,baz=277,slow=22,SNR=7.6
ADE   Adelaide        33.98 204  eP     P        23 47 48.2 +0.4
TOO   Toolangi        34.29 193⇓iP      P        23 47 51.4 +1.1
      comp=Z,9.3nm,0.6s,mb4.4
TOO   Toolangi        34.29 193⇓iP      P        23 47 51.4 +1.1
TOO                              pmax   pmax
      comp=Z,9.0nm,0.6s,mb4.4
FORT  Forrest         36.36 220⇓iP      P        23 48 06.9 -0.8
      comp=Z,219nm,0.5s,mb5.8
FORT                             eS     S        23 53 12.4 -1.7
MYLDM Lahad Datu      37.09 284 ⇓P      P        23 48 15.6 +1.6
TSM   Tawau           37.49 282 ⇑P      P        23 48 17.9 +0.6
MBWA  Marble Bar      37.74 240  eP     P        23 48 18.3 -0.9
      comp=Z,176nm,1.2s,mb5.4
MBWA  Marble Bar      37.74 240 ⇑P      P        23 48 18.5 -0.7
      SNR=11
SDKM  Sandakan        38.46 284 ⇓P      P        23 48 25.4 +0.2
KDM   Kudat           39.12 286 ⇑P      P        23 48 31.4 +0.7
TAU   Tasmania Unive  39.14 188  P      P        23 48 31.7 +1.4
      comp=Z,803nm,0.7s,mb6.3,SNR=18
TAU   Tasmania Unive  39.14 188  eP     P        23 48 31.7 +1.4
      comp=Z,78nm,0.7s,mb5.2
TAU   Tasmania Unive  39.14 188  eP     P        23 48 31.7 +1.4
TAU                              pmax   pmax
      comp=Z,78nm,0.7s,mb5.2
KKM   Kota Kinabalu   39.50 285  eP     P        23 48 33.9 +0.2
KKM   Kota Kinabalu   39.50 285 ⇓P      P        23 48 34.3 +0.6
URZ   Urewera         39.77 152  P      P        23 48 35.5 +0.1
      comp=Z,17nm,0.4s,mb4.9,baz=282,slow=5.8,SNR=10.0
JOW   Kunigami        39.84 322  P      P        23 48 37.0 +0.7
      comp=Z,135nm,0.9s,mb5.4,baz=150,slow=7.4,SNR=20
QRZ   Quartz Range    40.00 159  PN     P        23 48 36.1 -1.1
PUZ   Puketiti        40.17 150  PN     P        23 48 38.5 -0.2
BKZ   Black Stump Fm  40.21 153  PN     P        23 48 37.6 -1.4
KNZ   Kokohu          40.64 152  PN     P        23 48 42.6 +0.1
THZ   Tophouse        40.95 159  PN     P        23 48 44.6 -0.3
BFZ   Birch Farm      41.35 155  PN     P        23 48 47.6 -0.5
BTM   Bintulu         41.98 279 ⇑P      P        23 48 55.0 +1.4
RPZ   Rata Peaks      42.08 162  P      P        23 48 53.5 -0.3
      comp=Z,24nm,0.6s,mb4.8,baz=61,slow=2.4,SNR=15
RPZ                              ScP    ScP      23 53 44.8 +2.4
      comp=Z,9.1nm,0.9s,baz=194,slow=2.4,SNR=3.6
NACB  Ninganchiao     42.59 313  eP     P        23 48 58.1 -0.2
SBUM  Sibu            42.71 278 ⇓P      P        23 49 01.2 +1.9
YHNB  Yeheng          43.05 313  eP     P        23 49 02.2 +0.4
TATO  Taipei          43.16 314  eP     P        23 49 02.8 +0.2
      comp=Z,110nm,0.8s,mb5.3
MJAR  Matsushiro Arr  43.21 341  P      P        23 49 01.2 -1.6
MJAR                             pP     pP       23 50 31.9 -0.2
MJAR                             PcP    PcP      23 50 41.9 +0.2
MJAR                             ScP    ScP      23 53 47.9 +0.8
MJAR  Matsushiro Arr  43.21 341  P      P        23 49 01.3 -1.5
MJAR                             *PP    pP       23 50 31.9 -0.2
MJAR                                             23 50 41.9
MJAR  Matsushiro Arr  43.21 341  P      P        23 49 01.2 -1.6
      comp=Z,56nm,0.8s,mb5.1,baz=162,slow=7.5,SNR=140
MJAR                             pP     pP       23 50 31.9 -0.2
      comp=Z,3.6nm,0.9s,baz=169,slow=9.6,SNR=1.8
MJAR                             PcP    PcP      23 50 41.9 +0.2
      comp=Z,9.8nm,0.7s,baz=160,slow=6.3,SNR=5.8
MJAR                             ScP    ScP      23 53 47.9 +0.8
      comp=Z,7.6nm,1.1s,baz=167,slow=4.5,SNR=6.8
MAJO  Matsushiro      43.21 341  eP     P        23 49 01.0 -1.9
      comp=Z,104nm,0.8s,mb5.3
MAJO  Matsushiro      43.21 341  eP     P        23 49 01.0 -1.8
MAJO                             pmax   pmax
      comp=Z,104nm,0.8s,mb5.3
MAT   Matsushiro      43.21 341  P      P        23 49 00.8 -2.0
MAT                              S      S        23 54 51.0 -3.1
JNU   Nakatsue        43.25 331  P      P        23 49 02.9 -0.3
      comp=Z,346nm,0.9s,mb5.8,baz=110,slow=8.3,SNR=96
KLBR  Kellerberrin    43.97 227⇑iP      P        23 49 07.2 -1.7
      comp=Z,75nm,1.0s,mb5.1
KLBR                             e               23 50 06.1
KSM   Kuching         44.47 276  eP     P        23 49 12.8 -0.3
KSM   Kuching         44.47 276 ⇓P      P        23 49 13.4 +0.4
NWAO  Narrogin (SRO)  45.04 226  P      P        23 49 16.1 -1.0
      comp=Z,6.3nm,0.4s,mb4.4,baz=50,slow=5.7,SNR=6.5
QZH   Quanzhou        45.26 312⇑iP      P        23 49 21.1 +2.1
QZH                              S      S        23 55 25.6 +1.9
QZH                              AMB    AMB
      comp=Z,360nm,1.0s,mb5.8
MUN   Mundaring       45.30 228⇓iP      P        23 49 18.3 -0.9
SSE   Sheshan         47.26 320  P      P        23 49 34.0 -0.1
SSE                              XP     sP       23 52 01.9 +3.1
SSE                              S      S        23 55 52.3 +0.9
SSE                              AMB    AMB
      comp=Z,80nm,1.0s,mb5.1
SSE                              AMB    AMB
      comp=Z,283nm,7.4s
KSRS  Korea Array     48.17 332  P      P        23 49 40.4 -0.5
      comp=Z,132nm,1.0s,mb5.2,baz=150,slow=8.5,SNR=164
KS15  Wonju Array Si  48.18 331  eP     P        23 49 40.6 -0.3
GZH   Guangzhou       48.38 306  P      P        23 49 43.5 +0.8
GZH                              S      S        23 56 06.4 -0.8
INCN  Inchon          48.81 330  eP     P        23 49 45.4 -0.3
INCN  Inchon          48.81 330 ⇑P      P        23 49 45.9 +0.2
      SNR=16
ASAJ  Asahikawa       49.19 349  P      P        23 49 48.8 +0.5
      comp=Z,69nm,0.8s,mb5.0,baz=232,slow=14,SNR=33
NJ2   Nanjing         49.38 319  eP     P        23 49 50.4 +0.4
NJ2                              AP     pP       23 51 23.0 +0.5
NJ2                              PP     PP       23 51 51.8 +1.5
NJ2                              XP     sP       23 52 15.1 -0.4
NJ2                              S      S        23 56 24.0 +3.3
NJ2                              XS     sS       23 59 08.0 +0.5
NJ2                              AMB    AMB
      comp=Z,320nm,1.0s,mb5.6
NJ2                              AMB    AMB
      comp=Z,1µm,5.6s
QIZ   Qiongzhong      49.56 299  P      P        23 49 52.5 +0.9
QIZ                              XP     sP       23 52 15.6 -1.5
QIZ                              S      S        23 56 23.6  0.0
QIZ                              SCS    ScS      23 58 53.8 +1.8
QIZ                              XS     sS       23 59 09.8 -0.6
QIZ                              AMB    AMB
      comp=Z,58nm,1.4s,mb4.7
QIZ                              AMB    AMB
      comp=Z,116nm,4.3s
MYKOM Kota Tinggi     50.91 276 ⇑P      P        23 50 02.7 +1.1
VLA   Vladivostok     51.26 339d iP     P        23 50 03.4 -0.1
KGM   Kluang          51.47 276 ⇑P      P        23 50 06.5 +0.8
WHN   Wuhan           51.53 315 ⇑P      P        23 50 06.4 +0.6
WHN                              S      S        23 56 49.5 -0.4
WHN                              AMB    AMB
      comp=Z,119nm,1.0s,mb5.2
YSS   Yuzh-Sakhalins  51.90 350  eP     P        23 50 07.7 -0.4
      comp=Z,131nm,1.1s,mb5.2
YSS   Yuzh-Sakhalins  51.90 350⇓eP      P        23 50 07.2 -0.9
YSS                              pmax   pmax
      comp=Z,120nm,1.0s,mb5.2
KTGM  Kuala Trenggan  52.11 280 ⇑P      P        23 50 11.5 +1.2
DL2   Dalian          52.46 328⇑iP      P        23 50 11.5 -0.9
DL2                              S      S        23 57 00.6 -1.5
DL2                              XS     sS       23 59 50.0 -1.1
DL2                              AMB    AMB
      comp=Z,90nm,0.9s,mb5.1
DL2                              AMB    AMB
      comp=Z,280nm,3.9s
TIA   Tai'an          53.17 322  eP     P        23 50 16.8 -0.7
TIA                              AMB    AMB
      comp=Z,86nm,1.1s,mb5.0
FRIM  Kepong          53.30 277 ⇑P      P        23 50 19.3 +0.5
MDJ   Mudanjiang      53.39 338  P      P        23 50 19.0 +0.1
MDJ                              PCP    PcP      23 51 18.9 +0.2
MDJ                              AP     pP       23 51 53.4 +0.1
MDJ                              PP     PP       23 52 26.4 +0.5
MDJ                              XP     sP       23 52 46.5 +0.7
MDJ                              SCP    ScP      23 54 31.8 +1.6
MDJ                              PCS    PcS      23 55 17.3 -1.0
MDJ                              S      S        23 57 12.3 -1.9
MDJ                              SCS    ScS      23 59 17.5 -0.2
MDJ                              AMB    AMB
      comp=Z,147nm,1.1s,mb5.2
MDJ                              AMB    AMB
      comp=Z,316nm,6.6s
MDJ   Mudanjiang      53.39 338  eP     P        23 50 17.9 -0.9
      comp=Z,242nm,1.3s,mb5.4
IPM   Ipoh            54.06 279 ⇑P      P        23 50 24.5 +0.2
CN2   Changchun       54.38 334 ⇑P      P        23 50 25.8 -0.1
CN2                              PCP    PcP      23 51 21.9 -0.6
CN2                              AMB    AMB
      comp=Z,20nm,1.1s,mb4.4
CN2                              AMB    AMB
      comp=Z,200nm,3.0s
KULM  Kulim           54.55 279  eP     P        23 50 26.0 -1.7
KULM  Kulim           54.55 279 ⇓P      P        23 50 27.9 +0.1
HABR  Khabarovsk      55.05 344⇑iP      P        23 50 30.8 +0.2
HABR                             e               23 51 22.7
HABR                             e*PP   pP       23 52 08.4 +2.6
HABR                             e               23 52 39.2
HABR                             eS     S        23 57 36.8 +0.8
HABR                             e               23 59 24.8
HABR                             pmax   pmax
      comp=Z,266nm,1.5s,mb5.3
GYA   Guiyang         55.31 306⇑iP      P        23 50 33.8 +0.9
GYA                              PCP    PcP      23 51 27.4 +0.8
GYA                              AP     pP       23 52 11.3 +3.1
GYA                              PP     PP       23 52 46.3 +3.0
GYA                              PPP             23 54 13.9
GYA                              SCP    ScP      23 54 38.6 -0.5
GYA                              PCS    PcS      23 55 26.5 -1.0
GYA                              S      S        23 57 42.5 +2.3
GYA                              PS              23 59 04.8
GYA                              SCS    ScS      23 59 34.8 +2.4
GYA                              AMB    AMB
      comp=Z,70nm,1.1s,mb4.9
GYA                              AMB    AMB
      comp=Z,260nm,6.5s
PSI   Prapat          55.92 276  P      P        23 50 35.8 -1.6
      comp=Z,2.8nm,0.4s,baz=343,slow=9.4,SNR=5.2
BJT   Baijiatuau      56.25 325  eP     P        23 50 38.5 -0.6
      comp=Z,147nm,1.4s,mb5.1
BJT   Baijiatuau      56.25 325  eP     P        23 50 38.5 -0.6
BJT                              pmax   pmax
      comp=Z,147nm,1.4s
KLR   Kul'dur         56.68 342⇓eP      P        23 50 38.0 -3.9
KLR                              e               23 52 52.0
KLR                              eS     S        23 57 55.0 -2.1
KLR                              pmax   pmax
      comp=N,48nm,1.4s
KLR                              pmax   pmax
      comp=E,120nm,1.4s
KLR                              pmax   pmax
      comp=Z,300nm,1.4s,mb5.4
TIY   Taiyuan         57.03 321⇑iP      P        23 50 44.5 -0.1
TIY                              S      S        23 58 00.4 -1.7
TIY                              AMB    AMB
      comp=Z,371nm,2.6s,mb5.2
PET   Petropavlovsk   57.04   3  eP     P        23 50 43.6 -0.7
      comp=Z,64nm,0.6s,mb5.1
PET   Petropavlovsk   57.04   3⇑iP      P        23 50 43.3 -1.0
PET                              eS     ScS      23 59 46.3 +2.5
PET                              pmax   pmax
      comp=Z,127nm,0.8s,mb5.3
PET                              pmax   pmax
      comp=Z,100nm,14.1s
XAN   Xi'an           57.29 315  P      P        23 50 46.0 -0.4
XAN                              AP     pP       23 52 24.0 +1.4
XAN                              S      S        23 58 00.8 -4.7
XAN                              AMB    AMB
      comp=Z,8.0nm,0.3s,mb4.5
XAN                              AMB    AMB
      comp=Z,208nm,3.9s
KMI   Kunming         57.99 303  P      P        23 50 53.1 +1.7
KMI                              AMB    AMB
      comp=Z,73nm,1.2s,mb4.9
KMI   Kunming         57.99 303  P      P        23 50 53.1 +1.7
      comp=Z,73nm,1.2s,mb4.9
CHTO  Chiang Mai      59.20 295  eP     P        23 50 59.8 +0.1
      comp=Z,43nm,1.4s,mb4.6
CHTO  Chiang Mai      59.20 295  eP     P        23 50 59.8 +0.2
CHTO                             pmax   pmax
      comp=Z,43nm,1.4s,mb4.6
CHTO  Chiang Mai      59.20 295 ⇓P      P        23 51 00.5 +0.9
      SNR=16
HHC   Hu-ho-hao-te    59.48 323  eP     P        23 51 01.1  0.0
HHC                              PCP    PcP      23 51 43.1 +0.3
HHC                              AP     pP       23 52 39.4 +1.1
HHC                              PP     PP       23 53 21.8 +2.0
HHC                              XP     sP       23 53 29.6 -0.4
HHC                              SCP    ScP      23 54 56.9 -0.3
HHC                              PCS    PcS      23 55 45.1 -0.3
HHC                              S      S        23 58 31.3 -1.8
HHC                              AMB    AMB
      comp=Z,82nm,1.2s,mb4.9
HHC                              AMB    AMB
      comp=Z,220nm,4.2s
CD2   Chengdu         59.57 310  P      P        23 51 01.8 -0.1
CD2                              AP     pP       23 52 42.1 +3.0
CD2                              PP     PP       23 53 21.4 +0.6
CD2                              XP     sP       23 53 33.1 +2.3
CD2                              S      S        23 58 33.9 -0.7
CD2                              AMB    AMB
      comp=Z,400nm,0.9s,mb5.8
CD2                              AMB    AMB
      comp=Z,330nm,5.6s
BTO   Baotou          60.27 322  eP     P        23 51 06.0 -0.4
HIA   Hailar          61.11 335  eP     P        23 51 11.4 -0.4
      comp=Z,80nm,0.8s,mb5.2
HIA   Hailar          61.11 335c iP     P        23 51 12.0 +0.2
LZH   Lanzhou         61.91 315 ⇑P      P        23 51 18.4 +1.1
LZH                              PCP    PcP      23 51 52.5 -0.3
LZH                              AP     pP       23 52 53.0 -2.6
LZH                              PP     PP       23 53 44.5 +3.2
LZH                              XP     sP       23 53 45.8 -1.1
LZH                              SCP    ScP      23 55 10.0 +1.9
LZH                              PCS             23 55 55.6
LZH                              S      S        23 59 05.3 +1.7
LZH                              AMB    AMB
      comp=Z,347nm,1.5s,mb5.6
LZH                              AMB    AMB
      comp=Z,959nm,4.0s
LZH   Lanzhou         61.91 315 ⇑P      P        23 51 18.4 +1.1
      comp=Z,347nm,1.5s,mb5.6
LZH                              PcP    PcP      23 51 52.5 -0.3
LZH                              pP     pP       23 52 53.0 -2.6
LZH                              PP     PP       23 53 44.5 +3.2
LZH                              sP     sP       23 53 45.8 -1.1
LZH                              ScP    ScP      23 55 10.0 +1.9
LZH                              PcS             23 55 55.6
LZH                              S      S        23 59 05.2 +1.6
LZH                              sS     sS       00 01 51.1 -8.1
LZH                              SS     SS       00 03 17.2 +0.3
LZH   Lanzhou         61.91 315 ⇑P      P        23 51 18.4 +1.1
LZH                                              23 51 52.5
LZH                              *PP    pP       23 52 53.0 -2.6
LZH                                              23 53 44.5
LZH                              *SP    sP       23 53 45.8 -1.1
LZH                              S      S        23 59 05.2 +1.6
LZH                              SS     SS       00 03 17.2 +0.3
LZH                              pmax   pmax
      comp=Z,347nm,1.5s,mb5.6
MA2   Magadan         63.57 358  eP     P        23 51 26.5 -1.0
      comp=Z,122nm,0.9s,mb5.4
MA2   Magadan         63.57 358c iP     P        23 51 26.4 -1.1
MA2                              pmax   pmax
      comp=Z,174nm,1.2s,mb5.5
NRGR  Nerungri        65.24 342  eP     P        23 51 39.2 +0.9
CLNS  Chul'man        65.34 343  eP     P        23 51 39.7 +0.8
CLNS                             pmax   pmax
      comp=Z,70nm,0.9s,mb5.3
CLNS                             pmax   pmax
      comp=N,30nm,0.8s
CLNS                             pmax   pmax
      comp=E,16nm,0.9s
IMP   Imphal          65.39 300  eP     P        23 51 40.0 +0.1
CIT   Chita           65.81 334  eP     P        23 51 42.6 +0.7
CIT                              pmax   pmax
      comp=Z,218nm,2.0s,mb5.4
GTA   Gaotai          66.30 316 ⇑P      P        23 51 46.0 +0.8
GTA                              S      S        23 59 52.4 -4.1
GTA                              AMB    AMB
      comp=Z,616nm,6.1s
ULN   Ulaanbaatar     66.31 327⇑iP      P        23 51 45.5 +0.4
      comp=Z,265nm,1.3s,mb5.7
ULN   Ulaanbaatar     66.31 327⇑iP      P        23 51 45.5 +0.4
ULN                              pmax   pmax
      comp=Z,265nm,1.3s,mb5.7
ULN   Ulaanbaatar     66.31 327 ⇓P      P        23 51 46.1 +1.0
      SNR=56
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SONM Songino Array     66.65 327   P     P      23 51 47.6 +0.4
     comp=Z,78nm,0.8s,mb5.4,baz=141,slow=5.3,SNR=284
SEY  Seymchan          66.89 359⇑ eP     P      23 51 47.5 -0.9
SHL  Shillong          67.40 300  eP     P      23 51 50.4 -2.0
SHL                               AMb    AMB    23 51 51.5
     comp=Z,814nm,1.2s,mb6.2
AGT  Agartala          67.49 298  ex     x      23 53 43.0
YAK  Yakutsk           68.65 348  eP     P      23 51 59.4 +0.2
YAK  Yakutsk           68.65 348c iP     P      23 51 59.3 +0.1
YAK                               pmax   pmax
     comp=Z,186nm,1.4s,mb5.4
LSA  Lhasa             69.23 304   P     P      23 52 05.5 +2.1
LSA  Lhasa             69.23 304  eP     P      23 52 04.9 +1.5
     comp=Z,53nm,1.1s,mb5.0
LSA  Lhasa             69.23 304  eP     P      23 52 04.9 +1.5
LSA                               pmax   pmax
     comp=Z,53nm,1.1s,mb5.0
BOD  Bodaibo           69.76 338  eP     P      23 52 04.9 -1.1
BOD                               pmax   pmax
     comp=Z,56nm,1.5s,mb4.9
ZAK  Zakamensk         69.79 328  eP     P      23 52 06.4 +0.1
ZAK                               pmax   pmax
     comp=Z,66nm,1.1s,mb5.1
TLY  Talaya            70.33 329   P     P      23 52 10.0 +0.4
     comp=Z,285nm,1.0s,mb5.8,SNR=11
TLY  Talaya            70.33 329  eP     P      23 52 10.1 +0.6
TLY  Talaya            70.33 329⇑ iP     P      23 52 10.0 +0.4
TLY                               e             23 54 41.7
TLY                               eS     S      00 00 45.4 +2.4
TLY                               pmax   pmax
     comp=Z,72nm,1.1s,mb5.1
TLY  Talaya            70.33 329  ⇑P     P      23 52 10.4 +0.8
     SNR=21
IRK  Irkutsk           70.34 330  eP     P      23 52 09.4 -0.2
IRK                               e             23 54 46.6
IRK                               pmax   pmax
     comp=Z,141nm,1.7s,mb5.2
TAPN Taplejung         71.48 300  eP     P      23 52 17.4 +0.5
     comp=Z,219nm,1.2s,mb5.6
ODAN Odare             71.63 300  eP     P      23 52 18.3 +0.5
     comp=Z,394nm,1.3s,mb5.8
MOY  Mondy             71.70 328  eP     P      23 52 18.4 +0.8
MOY                               pmax   pmax
     comp=Z,117nm,1.8s,mb5.1
BOK  Bokaro            72.23 296  eP     P      23 52 22.2 +0.9
BOK                               AMb    AMB    23 52 24.3
     comp=Z,45nm,1.4s,mb4.8
BILL Bilibino          72.48   5  eP     P      23 52 21.1 -0.7
     comp=Z,148nm,1.0s,mb5.5
BILL Bilibino          72.48   5αeP      P      23 52 21.4 -0.4
BILL                                            23 52 34.0
BILL                              pmax   pmax
     comp=Z,182nm,1.2s,mb5.5
JIRN Jiri              72.86 300  eP     P      23 52 25.2 +0.3
     comp=Z,4.0nm,0.2s,mb4.6
VNDA Vanda             73.45 178   P     P      23 52 28.0 +0.7
     comp=Z,14nm,0.6s,mb4.6,baz=328,slow=6.9,SNR=25
KKN  Kakani            73.68 300  eP     P      23 52 30.1 +0.5
     comp=Z,62nm,0.7s,mb5.2
GKN  Gorkha            74.28 300  eP     P      23 52 33.1 +0.1
     comp=Z,270nm,1.1s,mb5.7
TNA  Tin City          74.70  15  eP     P      23 52 34.2 -0.4
KDAK Kodiak Island     74.84  26   P     P      23 52 34.9 -0.6
     comp=Z,39nm,1.0s,mb4.9,baz=305,slow=3.0,SNR=13
BLSP Bilaspur          75.28 294  eP     P      23 52 39.0 +0.2
SVW2 Sparrevohn        75.56  23  eP     P      23 52 39.3 -0.2
WMQ  Urumqi            76.37 317   P     P      23 52 44.1 -0.3
WMQ                               PCP    PcP    23 52 54.1 +0.3
WMQ                               AP     pP     23 54 28.3 +0.3
WMQ                               XP     sP     23 55 16.9 -1.0
WMQ                               PP     PP     23 55 44.9 +0.5
WMQ                               AMB    AMB
     comp=Z,68nm,1.4s,mb5.0
WMQ                               AMB    AMB
     comp=Z,59nm,7.8s
SLKM Skilak Lake       77.36  25  eP     P      23 52 48.2 -1.3
TIXI Tiksi             77.45 352  eP     P      23 52 48.7 -1.0
TIXI Tiksi             77.45 352  eP     P      23 52 48.8 -0.9
TIXI                              eS     S      00 01 59.9 -0.6
TIXI                              pmax   pmax
     comp=Z,48nm,1.2s,mb4.9
HYB  Hyderabad         77.84 289  eP     P      23 52 53.0 +0.1
HYB  Hyderabad         77.84 289  i P    P      23 52 53.0 +0.1
NGP  Nagpur            77.94 293  eP     P      23 52 53.5  0.0
NGP                               AMb    AMB    23 52 55.5
     comp=Z,42nm,1.1s,mb4.8
KOD  Kodaikanal        77.97 281  eP     P      23 52 54.0 +0.3
KOD                               AMb    AMB    23 52 55.8
     comp=Z,22nm,0.9s,mb4.6
TRD  Trivandrum        78.28 280  eP     P      23 52 55.5  0.0
PMR  Palmer            78.39  24  eP     P      23 52 54.7 -0.3
     comp=Z,94nm,1.3s,mb5.1
PMR  Palmer            78.39  24  eP     P      23 52 54.7 -0.3
PMR                               pmax   pmax
     comp=Z,94nm,1.3s,mb5.1
SML  Sawmill           78.83  24  eP     P      23 52 56.9 -0.5
IMA2 Indian Mountai    79.27  19  eP     P      23 52 58.6 -1.0
MCK  McKinley          79.61  22  eP     P      23 52 59.7 -1.8
AKL  Akola             79.75 292  eP     P      23 53 02.3 -0.8
AKL                               AMb    AMB    23 53 05.1
     comp=Z,49nm,1.2s,mb4.9
BHPL Bhopal            79.75 294  eP     P      23 53 02.8 -0.3
COLA College           80.62  21  eP     P      23 53 04.7 -2.0
     comp=Z,52nm,1.0s,mb5.0
COLA                              epP    pP     23 54 48.5 -3.1
COLA College           80.62  21  eP     P      23 53 04.7 -2.0
COLA                              e*PP   pP     23 54 48.5 -3.1
COLA                              pmax   pmax
     comp=Z,52nm,1.0s,mb5.0
NDI  New Delhi         80.82 300  eP     P      23 53 08.6  0.0
NDI                               AMb    AMB    23 53 10.4
     comp=Z,83nm,1.1s,mb5.2
MNGI Mangalore         80.85 284  ex     x      23 53 39.0
MK31 Makanchi Array    80.91 319  eP     P      23 53 08.5 -0.1
MKAR Makanchi Array    80.91 319   P     P      23 53 08.4 -0.2
     comp=Z,46nm,0.8s,mb5.0,baz=101,slow=6.3,SNR=181
ZALV Zalesovo Beam     81.51 326   P     P      23 53 10.9 -0.7
     comp=Z,14nm,0.4s,mb4.9,baz=102,slow=6.2,SNR=103
ZAL  Zalesovo          81.52 326   P     P      23 53 10.9 -0.7
KAD  Karad             81.96 288  eP     P      23 53 14.0 -0.7
KAD                               AMb    AMB    23 53 16.0
     comp=Z,47nm,1.3s,mb4.9
POO  Poona             82.42 289  eP     P      23 53 16.9 -0.1
POO                               AMb    AMB    23 53 18.5
     comp=Z,23nm,0.6s,mb4.9
NVS  Novosibirsk       82.67 326⇑ iP     P      23 53 17.0 -0.5
NVS                               e             23 56 36.6
NVS                               i S    S      00 02 48.5 -6.2
NVS                               pmax   pmax
     comp=N,58nm,1.5s
NVS                               pmax   pmax
     comp=E,103nm,1.5s
NVS                               pmax   pmax
     comp=Z,152nm,1.5s,mb5.3
NVS                               pmax   pmax
     comp=Z,29nm,1.8s,mb4.5
NVS                               pmax   pmax
     comp=N,8.0nm,2.0s
NVS                               pmax   pmax
     comp=E,34nm,2.2s
NVS                               smax
     comp=N,11nm,1.2s
NVS                               smax
     comp=E,29nm,1.2s
AJM  Ajmer             82.73 297  eP     P      23 53 18.5 +0.1
AJM                               AMb    AMB    23 53 19.9
     comp=Z,116nm,1.2s,mb5.3
EGAK Eagle             83.09  23  eP     P      23 53 18.8 -0.5
     comp=Z,57nm,1.0s,mb5.1
EGAK                              epP    pP     23 55 03.2 -1.9
DAWY Dawson            83.50  24  eP     P      23 53 21.5 +0.1
DAWY                              epP    pP     23 55 05.5 -1.7
KSH  Kashi             83.75 310⇑ iP     P      23 53 25.1 +1.8
KSH                               AMB    AMB
     comp=Z,1µm,2.2s,mb6.0
ULHL Ulahol            84.06 313   P     P      23 53 25.9 +1.2
     SNR=21
KURK Kurchatov         84.26 322   P     P      23 53 24.1 -1.4
     comp=Z,362nm,1.0s,mb5.9,SNR=7.3
KURK Kurchatov         84.26 322  eP     P      23 53 24.6 -0.9
     comp=Z,148nm,1.4s,mb5.3
KURK Kurchatov         84.26 322  eP     P      23 53 24.6 -0.9
KURK                              pmax   pmax
     comp=Z,148nm,1.4s,mb5.3
KURK Kurchatov         84.26 322  ⇑P     P      23 53 24.8 -0.7
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     SNR=24
TKM2 Tokmak 2          84.66 314   P     P      23 53 27.7 +0.1
     SNR=37
TKM2 Tokmak 2          84.66 314  eP     P      23 53 27.6 -0.1
     comp=Z,22nm,0.5s,mb5.0
TKM2 Tokmak 2          84.66 314  eP     P      23 53 27.6  0.0
TKM2                              pmax   pmax
     comp=Z,22nm,0.5s,mb5.0
KZA  Kyzart            84.76 313   P     P      23 53 29.8 +1.6
     SNR=5.6
KBK  Karagaybulak      85.08 313   P     P      23 53 30.3 +0.6
     SNR=18
CHMS Chumysh           85.28 314   P     P      23 53 30.3 -0.3
     SNR=24
UCH  Uchtor            85.32 313   P     P      23 53 32.5 +1.6
     SNR=26
UCH  Uchtor            85.32 313  eP     P      23 53 32.0 +1.1
     comp=Z,52nm,1.4s,mb5.0
FRU  Bishkek           85.35 313  eP     P      23 53 31.0  0.0
FRU                               pmax   pmax
     comp=Z,120nm,1.8s,mb5.2
AAK  Ala-Archa         85.40 313   P     P      23 53 30.9 -0.4
     comp=Z,158nm,0.8s,mb5.7,SNR=20
AAK  Ala-Archa         85.40 313   P     P      23 53 31.6 +0.3
     SNR=30
AAK  Ala-Archa         85.40 313  eP     P      23 53 30.4 -0.9
     comp=Z,20nm,0.8s,mb4.8
AAK  Ala-Archa         85.40 313⇑ iP     P      23 53 29.9 -1.4
AAK                               pmax   pmax
     comp=Z,64nm,2.0s,mb4.9
AAK  Ala-Archa         85.40 313  ⇑P     P      23 53 31.0 -0.3
     SNR=14
USP  Ospenovka         85.51 314   P     P      23 53 31.4 -0.4
     SNR=42
AML  Almayashu         85.91 313   P     P      23 53 34.4 +0.7
     SNR=38
AML  Almayashu         85.91 313⇑ eP     P      23 53 34.1 +0.4
     comp=Z,46nm,0.9s,mb5.1
EKS2 Erkin-Say         85.93 313   P     P      23 53 34.6 +0.8
     SNR=34
EKS2 Erkin-Say         85.93 313  eP     P      23 53 33.5 -0.3
     comp=Z,25nm,0.9s,mb4.8
DLBC Dease Lake        85.96  31  eP     P      23 53 33.6  0.0
L02A Cave Junction     86.78  48  ⇓P     P      23 53 39.2 +1.3
     baz=87
MAW  Mawson            86.83 203  eP     P      23 53 37.1 -0.5
     comp=Z,10.0nm,0.6s,mb4.7
MAW  Mawson            86.83 203  eP     P      23 53 37.1 -0.5
MAW                               pmax   pmax
     comp=Z,10.0nm,0.6s
MAW  Mawson            86.83 203   P     P      23 53 37.2 -0.4
     comp=Z,13nm,0.6s,mb4.8,baz=94,slow=7.9,SNR=17
O02C Red Bluff         87.11  50  ⇑P     P      23 53 39.4  0.0
     baz=87
M02C Callahan          87.22  48  ⇓P     P      23 53 41.2 +1.3
     baz=87
INK  Inuvik            87.24  21  eP     P      23 53 38.2 -1.2
INK                               epP    pP     23 55 24.2 -2.3
HUMO Hull Mountain     87.31  47  ⇑P     P      23 53 41.1 +0.7
     baz=87
WDC  Whiskeytown Da    87.35  49  ⇓P     P      23 53 41.2 +0.6
     baz=87
H03A Soap Creek Ran    87.37  45  ⇓P     P      23 53 40.1 -0.5
     baz=87
YBH  Yreka Blue Hor    87.38  48  ⇓P     P      23 53 42.6 +1.9
     baz=87
E03A Lebam             87.46  43  ⇑P     P      23 53 41.1 +0.2
     baz=88
M03C McCloud           87.75  49  ⇑P     P      23 53 42.8 +0.3
     baz=88
V03C Hunter Liggett    87.80  54  ⇓P     P      23 53 42.0 -0.8
     baz=88
M04C Macdoel           88.03  48  ⇓P     P      23 53 44.7 +0.9
     baz=88
H04A Detroit Lake      88.15  45  ⇓P     P      23 53 44.0 -0.2
     baz=88
PKD  Parkfield         88.35  54  ⇓P     P      23 53 45.5 +0.1
     baz=88
O04C Chester           88.42  50  ⇑P     P      23 53 46.5 +0.9
     baz=88
LAVA Lava Cap Winer    88.50  51  ⇓P     P      23 53 46.6 +0.5
     baz=88
O05C Quincy            88.50  50  ⇓P     P      23 53 47.5 +1.5
     baz=88
KBL  Kabul             88.54 305  eP     P      23 53 45.2 -1.1
D05A Enumclaw          88.62  43  ⇑P     P      23 53 46.5 +0.2
     baz=89
J05A Fort Rock         88.66  47  ⇓P     P      23 53 46.7  0.0
     baz=89
P05C Yuba Gap, Truc    88.67  51  ⇑P     P      23 53 47.3 +0.5
     baz=89
CMB  Columbia Colle    88.70  52  ⇓P     P      23 53 46.8 -0.1
     baz=89
L05A Lakeview          88.81  48  ⇑P     P      23 53 48.0 +0.6
     baz=89
H05A Madras            88.83  45  ⇑P     P      23 53 47.2 -0.2
     baz=89
PKM  Peak Mountain     88.83  55  ⇑P     P      23 53 48.1 +0.4
     baz=89
G05A Wamic             88.83  45  ⇑P     P      23 53 47.5 +0.1
     baz=89
K05A Summer Lake       88.84  47  ⇓P     P      23 53 48.5 +0.9
     baz=89
BEKR Beckwourth        88.92  50  ⇑P     P      23 53 47.9 -0.1
     baz=89
R05C Kirkwood Meado    89.01  51  ⇑P     P      23 53 49.2 +0.8
     baz=89
S06C San Francisco     89.11  52  ⇑P     P      23 53 49.4 +0.5
     baz=89
T06C Millerton Lake    89.13  53  ⇓P     P      23 53 48.5 -0.5
     baz=89
MOD  Modoc             89.18  48  ⇑P     P      23 53 50.0 +0.9
     baz=89
E06A Yakima            89.22  43  ⇓P     P      23 53 49.0 -0.2
     baz=89
F06A Goldendale        89.27  44  ⇓P     P      23 53 49.2 -0.2
     baz=89
K06A Valley Falls      89.32  47  ⇑P     P      23 53 50.0 +0.3
     baz=89
WCN  Washoe City       89.32  51  ⇓P     P      23 53 49.7 -0.1
     baz=89
O06A Flanigan          89.36  50  ⇓P     P      23 53 49.6 -0.4
     baz=89
D06A Cle Elum          89.39  43  ⇓P     P      23 53 50.1 +0.1
     baz=89
N06A Buffalo Meadow    89.41  49  ⇑P     P      23 53 50.2 -0.1
     baz=89
J06A Christmas Vall    89.44  47  ⇓P     P      23 53 50.3  0.0
     baz=90
H06A Lindquist Farm    89.47  45  ⇓P     P      23 53 50.1 -0.3
     baz=90
I06A Prineville        89.47  46  ⇑P     P      23 53 50.4  0.0
     baz=90
KCC  Kaiser Creek      89.47  53  ⇓P     P      23 53 50.4 -0.2
     baz=90
R06C Coleville         89.48  52  ⇑P     P      23 53 50.8 +0.2
     baz=90
WAKR Walker            89.49  52  eP     P      23 53 49.9 -0.8
HELL Mitchell Peak,    89.64  53   P     P      23 53 52.0 +0.6
     baz=90,SNR=5.7
R07C Lee Vining        89.76  52  ⇑P     P      23 53 51.7 -0.2
     baz=90
BRVK Borovoye          89.76 323   P     P      23 53 50.9 -0.6
     comp=Z,315nm,1.0s,mb6.1,SNR=44
BRVK Borovoye          89.76 323  eP     P      23 53 49.8 -1.8
     comp=Z,70nm,1.0s,mb5.4
BRVK Borovoye          89.76 323  eP     P      23 53 49.8 -1.7
BRVK                              pmax   pmax
     comp=Z,70nm,1.0s,mb5.5
BRVK Borovoye          89.76 323  ⇑P     P      23 53 50.4 -1.1
     SNR=22
A07A Ashnola River,    89.91  41  ⇓P     P      23 53 52.2 -0.1
     baz=90
L07A Adell             89.91  48  ⇑P     P      23 53 52.8 +0.3
     baz=90
C07A Waterville        89.97  42  ⇑P     P      23 53 51.9 -0.8
     baz=90
D07A Quincy            89.98  43  ⇑P     P      23 53 52.2 -0.5
     baz=90
I07A Izee              89.99  46  ⇑P     P      23 53 51.9 -0.9
     baz=90
G07A Ruggs Ranch, H    89.99  45  ⇓P     P      23 53 52.6 -0.2
     baz=90
ISA  Isabella          90.00  54  ⇓P     P      23 53 53.1 +0.1
     baz=90
E07A Sunnyside         90.00  43  ⇑P     P      23 53 52.6 -0.2
     baz=90
K07A Rock Creek Ran    90.04  47  ⇓P     P      23 53 53.1  0.0
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     baz=90
MTUM Tungsten Hills    90.07  53  eP     P      23 53 53.6 +0.2
O07A Toulon            90.08  50  ⇓P     P      23 53 53.2 -0.1
     baz=90
HAWA Hanford           90.20  44  eP     P      23 53 54.2 +0.5
EDW2 Edwards Air Fo    90.32  55   P     P      23 53 56.4 +1.8
     baz=90,SNR=6.7
NVAR Mina Array Bea    90.37  52   P     P      23 53 54.8 +0.1
     comp=Z,5.9nm,1.0s,mb4.4,baz=257,slow=3.8,SNR=24
NVAR                              pP     pP     23 55 43.5 +1.1
     comp=Z,0.5nm,0.8s,baz=255,slow=8.9,SNR=2.0
CWC  Cottonwood Cre    90.38  54   P     P      23 53 55.9 +1.1
     baz=90,SNR=5.7
S08C White Mtn Res     90.40  53   P     P      23 53 56.4 +1.5
     baz=90,SNR=6.5
G08A Pilot Rock        90.49  45  ⇑P     P      23 53 54.5 -0.6
     baz=90
B08A Colville Reser    90.53  42  ⇓P     P      23 53 54.1 -1.1
     baz=90
BFSC Mount Baldy St    90.54  56  ⇓P     P      23 53 56.3 +0.7
     baz=91
K08A Mann Creek Ran    90.60  47  ⇓P     P      23 53 55.7  0.0
     baz=91
LRMC Laurel Mountai    90.62  55   P     P      23 53 57.4 +1.5
     baz=91,SNR=7.8
A08A Turner Farm, O    90.63  41  ⇑P     P      23 53 54.9 -0.8
     baz=91
H08A Prairie City      90.63  46  ⇓P     P      23 53 56.1 +0.3
     baz=91
C08A Higginbotham F    90.67  42   P     P      23 53 55.9 +0.1
     baz=91,SNR=5.5
J08A Circle Bar Ran    90.67  47  ⇓P     P      23 53 56.3 +0.3
     baz=91
F08A Pendleton         90.67  44  ⇑P     P      23 53 55.0 -0.9
     baz=91
D08A Wollman Farm,     90.68  43  ⇓P     P      23 53 56.4 +0.4
     baz=91
N08A GE Springer Mi    90.70  49  ⇓P     P      23 53 56.4 +0.2
     baz=91
MPMC Manual Prospec    90.82  54   P     P      23 53 57.2 +0.4
     baz=91,SNR=8.8
GRAC Grapevine Rang    90.99  53  ⇓P     P      23 53 57.7 +0.1
     baz=91
A09A Danville          91.08  41  ⇓P     P      23 53 57.3 -0.5
     baz=91
D09A Jones Farm, Ri    91.10  43  ⇓P     P      23 53 58.0 +0.1
     baz=91
K09A Rome              91.16  47  ⇓P     P      23 53 58.2 -0.1
     baz=91
S09A Goldfield         91.16  52   P     P      23 53 58.6 +0.2
     baz=91,SNR=12
E09A Wood Farm, Sta    91.17  44  ⇓P     P      23 53 58.0 -0.2
     baz=91
J09A Fry Pan Ranch,    91.19  47   P     P      23 53 59.0 +0.6
     baz=91,SNR=5.9
Q09A Carvers           91.28  51  ⇓P     P      23 53 57.8 -1.1
     baz=91
B09A Rice              91.32  42  ⇓P     P      23 53 58.7 -0.2
     baz=91
R09A Tonopah           91.32  52   P     P      23 53 59.5 +0.4
     baz=91,SNR=6.5
GSC  Goldstone         91.32  55  ⇑P     P      23 53 59.2  0.0
     baz=91
FURC Furnace Creek,    91.36  54  ⇑P     P      23 54 00.0 +0.7
     baz=91
MONP Monument Peak     91.47  57  ⇓P     P      23 54 00.5 +0.6
     baz=92
PFO  Pinyon Flat Ob    91.50  57  eP     P      23 54 01.4 +1.4
PFO  Pinyon Flat Ob    91.50  57  ⇑P     P      23 54 00.9 +0.9
     baz=92
BMO  Blue Mountains    91.62  45  eP     P      23 53 59.7 -0.7
     comp=Z,13nm,1.2s,mb4.7
BMO  Blue Mountains    91.62  45  eP     P      23 53 59.7 -0.7
BMO                               pmax   pmax
     comp=Z,13nm,1.2s,mb4.7
S10A Tonopah Range,    91.67  52   P     P      23 54 01.1 +0.3
     baz=92,SNR=11
A10A Northport         91.75  41  ⇓P     P      23 54 00.7 -0.2
     baz=92
F10A Beach Ranch, E    91.76  44  ⇓P     P      23 54 01.0  0.0
     baz=92
K10A MacKenzie Ranc    91.79  47  ⇑P     P      23 54 00.5 -0.7
     baz=92
D10A Wagner Farm, O    91.80  43   P     P      23 54 01.3 +0.1
     baz=92,SNR=11
Q10A Clear Creek Ra    91.89  51  ⇑P     P      23 54 02.5 +0.7
     baz=92
BELC Belle Mtn.        91.90  56  ⇑P     P      23 54 02.2 +0.3
     baz=92
NEW  Newport           91.99  42  eP     P      23 54 00.8 -1.2
     comp=Z,7.6nm,1.1s,mb4.5
NEW  Newport           91.99  42  eP     P      23 54 00.8 -1.2
NEW                               pmax   pmax
     comp=Z,8.0nm,1.1s
H10A Noah's Angus R    92.00  46   P     P      23 54 01.6 -0.5
     baz=92,SNR=9.7
L10A Juniper Basin     92.04  48  ⇑P     P      23 54 02.3 -0.1
     baz=92
TUQ  Turquoise Mtn.    92.05  55   P     P      23 54 03.6 +1.1
     baz=92,SNR=5.6
GMRC Granite Mounta    92.23  55  ⇑P     P      23 54 03.4  0.0
     baz=92,SNR=6.1
S11A Rachel            92.33  53  ⇓P     P      23 54 03.8 +0.1
     baz=92
BC3  Big Chuckw Mtn    92.33  57  ⇑P     P      23 54 03.8  0.0
     baz=92
G11A Walters Elk Ra    92.39  45  ⇑P     P      23 54 03.3 -0.6
     baz=92
K11A Parker Ranch,     92.41  47  ⇑P     P      23 54 04.9 +0.8
     baz=92
D11A Klaveano Farm,    92.44  43   P     P      23 54 03.5 -0.5
     baz=92,SNR=6.0
Q11A Duckwater         92.47  51   P     P      23 54 05.0 +0.6
     baz=92,SNR=6.4
E11A Bogner Ranch,     92.49  44   P     P      23 54 03.5 -0.8
     baz=92,SNR=8.5
F11A Grangeville       92.50  44  ⇑P     P      23 54 02.8 -1.6
     baz=92
H11A Donnelly          92.53  46  ⇓P     P      23 54 04.5  0.0
     baz=92
A11A Hall Mountain,    92.54  41   P     P      23 54 04.7 +0.2
     baz=92,SNR=9.3
L11A Cat Creek Ranc    92.58  48  ⇓P     P      23 54 05.3 +0.5
     baz=93
MFID Camas Ranch       92.60  47  ⇑P     P      23 54 04.8 -0.1
     baz=93
IRM  Iron Mountain     92.61  56  ⇓P     P      23 54 05.5 +0.3
     baz=93
SHPR Sheep Range       92.73  54  eP     P      23 54 07.1 +1.4
V12A Nelson            92.94  55   P     P      23 54 08.1 +1.5
     baz=93,SNR=5.6
A12A Yaak River Ran    93.00  41  ⇓P     P      23 54 07.3 +0.7
     baz=93
B12A Libby             93.02  42  ⇑P     P      23 54 05.8 -0.9
     baz=93
N12A Clover Valley,    93.05  49  ⇑P     P      23 54 07.5 +0.5
     baz=93
P12A McGill            93.08  51  ⇓P     P      23 54 07.9 +0.7
     baz=93
D12A Red Ives Fores    93.12  43  ⇑P     P      23 54 07.2  0.0
     baz=93
J12A Stokes Ranch,     93.12  47   P     P      23 54 08.7 +1.5
     baz=93,SNR=6.2
Q12A Willow Creek R    93.12  51  ⇑P     P      23 54 06.8 -0.5
     baz=93
F12A Elk City          93.12  45  ⇓P     P      23 54 06.3 -1.0
     baz=93
M12A Wells             93.17  49  ⇓P     P      23 54 07.4 -0.2
     baz=93
U12A Valley of Fire    93.23  54  ⇑P     P      23 54 08.3 +0.3
     baz=93
K12A Draper Farm, C    93.23  48  ⇓P     P      23 54 08.6 +0.8
     baz=93
R12A Pony Springs,     93.26  52  ⇑P     P      23 54 08.4 +0.4
     baz=93
H12A Diamond D Ranc    93.35  46  ⇓P     P      23 54 08.5 +0.2
     baz=93
HLID Hailey            93.63  47  ⇑P     P      23 54 10.1 +0.5
     baz=94
C13A Hot Springs       93.67  43  ⇓P     P      23 54 09.4 -0.3
     baz=94
Y13A Salome            93.69  57  ⇑P     P      23 54 10.0 -0.1
     baz=94
W13A Hualapai Mount    93.70  55  ⇑P     P      23 54 11.3 +1.2
     baz=94
X13A Yucca             93.72  56  ⇑P     P      23 54 11.4 +1.2
     baz=94
M13A Montello          93.73  49  ⇑P     P      23 54 11.2 +1.1
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	baz=94						
T13A	Saint George	93.76	53	⇓P	P	23 54 11.0	+0.6
	baz=94						
B13A	Whitefish	93.77	42	⇓P	P	23 54 09.5	-0.6
	baz=94						
F13A	Darby	93.77	45	P	P	23 54 10.1	-0.1
	baz=94,SNR=9.1						
H13A	Challis	93.78	46	⇑P	P	23 54 10.8	+0.5
	baz=94						
G13A	Cobalt	93.82	45	⇓P	P	23 54 11.3	+0.9
	baz=94						
I13A	Wildhorse Cree	93.86	46	⇑P	P	23 54 12.4	+1.8
	baz=94						
E13A	Victor	93.89	44	⇓P	P	23 54 10.4	-0.4
	baz=94						
YKW3	Yellowknife Ar	94.06	28	eP	P	23 54 10.2	-0.9
YKA	Yellowknife Ar	94.06	28	P	P	23 54 10.3	-0.8
	comp=Z,11nm,1.0s,mb4.8,baz=270,slow=4.6,SNR=61						
YKA				pP	pP	23 55 56.9	-2.1
	comp=Z,1.1nm,0.7s,baz=265,slow=4.7,SNR=4.7						
YKA				PKKP	PKKPbc	00 11 09.6	-3.9
	comp=Z,0.4nm,0.6s,baz=88,slow=2.9,SNR=9.1						
WALA	Waterton Lakes	94.16	41	eP	P	23 54 12.1	+0.2
	comp=Z,75nm,1.8s,mb5.4						
M14A	Sheep Mountain	94.35	49	⇓P	P	23 54 13.3	+0.4
	baz=94						
W14A	Seligman	94.36	55	⇓P	P	23 54 14.0	+0.9
	baz=94						
D14A	Greenough	94.38	43	⇓P	P	23 54 11.6	-1.3
	baz=94						
T14A	Hurricane	94.42	53	⇓P	P	23 54 14.3	+0.9
	baz=94						
K14A	Jones Ranch, D	94.50	48	⇓P	P	23 54 14.1	+0.4
	baz=94						
EDM	Edmonton	94.59	37	eP	P	23 54 13.1	-0.6
DUG	Dugway	94.72	50	⇑P	P	23 54 14.4	-0.3
	baz=95						
E15A	Deer Lodge	94.96	44	⇓P	P	23 54 14.6	-1.0
	baz=95						
DLMT	Dillon	94.98	45	eP	P	23 54 15.7	0.0
	comp=Z,29nm,1.1s,mb5.2						
M15A	Larsen Ranch,	95.02	49	⇓P	P	23 54 15.1	-0.9
	baz=95						
D15A	Lincoln	95.05	43	⇓P	P	23 54 15.6	-0.4
	baz=95						
G15A	Dillon	95.05	45	⇓P	P	23 54 16.2	+0.2
	baz=95						
F15A	Butte	95.06	44	⇑P	P	23 54 15.6	-0.4
	baz=95						
WUAZ	Wupatki	95.77	55	⇓P	P	23 54 19.7	+0.2
	baz=96						
TUC	Tucson	96.20	58	eP	P	23 54 17.8	-3.7
	comp=Z,5.2nm,0.7s,mb4.8						
TUC	Tucson	96.20	58	eP	P	23 54 17.8	-3.7
TUC				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
LKWY	Lake	96.54	46	eP	P	23 54 22.6	-0.1
	comp=Z,16nm,1.0s,mb5.2						
LKWY	Lake	96.54	46	eP	P	23 54 22.6	-0.1
LKWY				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.2						
ARU	Arti	96.68	326	P	P	23 54 21.5	-1.6
	comp=Z,70nm,0.6s,mb6.1,SNR=5.1						
ARU	Arti	96.68	326	eP	P	23 54 20.7	-2.4
	comp=Z,3.9nm,0.6s,mb4.8						
ARU	Arti	96.68	326	⇑eP	P	23 54 20.3	-2.8
ARU				pmax	pmax		
	comp=Z,22nm,1.6s,mb5.1						
EGMT	Eagleton	96.92	42	⇓P	P	23 54 23.6	-0.8
	baz=97						
PDAR	Pinedale Array	97.17	48	P	P	23 54 24.7	-0.9
	comp=Z,1.1nm,0.9s,mb4.1,baz=245,slow=3.1,SNR=6.5						
AKTK	Aktyubinsk	97.26	320	P	P	23 54 23.9	-1.9
AKTO	Aktyubinsk	97.26	320	P	P	23 54 23.9	-1.9
	comp=Z,5.0nm,0.8s,mb4.8,baz=94,slow=3.9,SNR=22						
RES	Resolute Bay	99.34	15	ePdif	Pdif	23 54 34.1	-0.9
	comp=Z,117nm,0.2s						
PRGR	Permogore	102.50	332	i P	Pdif	23 54 46.8	-2.3
ARCES	ARCESS Array B	106.70	343	Pdif	Pdif	23 55 04.8	-3.0
ARCES				PKPdf	PKiKP	23 59 16.3	+1.6
ARCES	ARCESS Array B	106.70	343	Pdiff	Pdif	23 55 04.8	-3.0
	comp=Z,2.1nm,0.9s,baz=58,slow=4.6,SNR=3.9						
ARCES				PKiKP	PKiKP	23 59 16.3	+1.6
	comp=Z,2.8nm,0.9s,baz=79,slow=1.9,SNR=4.4						
JOF	Joensuu	108.25	336	ep	Pdif	23 55 10.7	-4.0
	comp=Z,5.3nm,0.6s						
OBN	Obninsk	109.06	328	⇓eP	Pdif	23 55 16.7	-1.6
OBN				e		23 59 55.9	
OBN						00 05 08.0	
OBN				pmax	pmax		
	comp=Z,8.0nm,0.7s						
KAF	Kangasniemi	110.65	337	ep	Pdif	23 55 22.8	-2.6
	comp=Z,0.6nm,0.4s						
KAF	Kangasniemi	110.65	337	eP	Pdif	23 55 22.8	-2.6
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	111.11	336	Pdif	Pdif	23 55 26.1	-1.4
FINES	FINESS Array B	111.11	336	Pdiff	Pdif	23 55 26.1	-1.4
	comp=Z,1.3nm,0.6s,baz=76,slow=3.9,SNR=11						
AKASG	Malin Array Be	114.90	325	PKPdf	PKPdf	23 59 29.9	-0.9
AKASG				PP	PP	00 00 26.7	-11
AKASG	Malin Array Be	114.90	325	PKIKP	PKPdf	23 59 29.9	-0.9
AKASG	Malin Array Be	114.90	325	PKiKP	PKiKP	23 59 29.9	-0.9
	comp=Z,1.0nm,0.4s,baz=45,slow=2.6,SNR=11						
AKASG				PP	PP	00 00 26.7	-11
	comp=Z,1.6nm,0.8s,baz=52,slow=6.8,SNR=6.5						
BRTR	Keskin Array B	116.08	312	PKPdf	PKPdf	23 59 33.6	+0.2
BRTR				PP	PP	00 00 37.5	-9.0
BRTR	Keskin Array B	116.08	312	PKIKP	PKPdf	23 59 33.6	+0.2
BRTR	Keskin Array B	116.08	312	PKiKP	PKiKP	23 59 33.6	+0.2
	comp=Z,1.2nm,0.7s,baz=141,slow=1.2,SNR=5.5						
BRTR				PP	PP	00 00 37.5	-9.0
	comp=Z,2.9nm,1.1s,baz=59,slow=11,SNR=4.1						
NB2	NORSAR Subarra	116.83	341	PKPd	PKPdf	23 59 33.4	-0.8
	comp=Z,1.2nm,0.8s,baz=43,slow=1.9						
NOA	NORSAR Array B	116.83	341	PKP	PKPdf	23 59 33.3	-0.9
NOA				PP	PP	00 00 49.2	-1.5
NOA	NORSAR Array B	116.83	341	PKIKP	PKPdf	23 59 33.3	-0.9
NOA						00 00 49.2	
NOA	NORSAR Array B	116.83	341	PKP	PKPdf	23 59 33.3	-0.9
	comp=Z,1.6nm,0.8s,baz=46,slow=1.9,SNR=5.6						
NOA				PP	PP	00 00 49.2	-1.5
	comp=Z,4.4nm,1.0s,baz=42,slow=6.4,SNR=4.5						
EIL	Elat	117.56	301	PKP	PKPdf	23 59 35.6	-1.0
EIL	Elat	117.56	301	PKP	PKPdf	23 59 35.6	-1.0
	comp=Z,2.2nm,0.8s,baz=29,slow=14,SNR=3.0						
SCHQ	Schefferville	119.46	26	PKP	PKPdf	23 59 38.4	-1.0
SCHQ	Schefferville	119.46	26	PKP	PKPdf	23 59 38.4	-1.0
	comp=Z,2.8nm,0.9s,baz=358,slow=19,SNR=4.3						
BOSA	Boshof	121.35	233	PKP	PKPdf	23 59 44.0	0.0
BOSA	Boshof	121.35	233	PKIKP	PKPdf	23 59 44.0	+0.1
BOSA	Boshof	121.35	233	PKP	PKPdf	23 59 44.0	0.0
	comp=Z,4.0nm,0.7s,baz=85,slow=2.6,SNR=7.2						
DPC	Dobruska-Polom	122.05	330	ePKPdf	PKPdf	23 59 44.9	+0.3
DPC				ePP	PP	00 01 23.0	-3.5
UPC	Upice	122.11	330	ePKPdf	PKPdf	23 59 45.1	+0.4
UPC				ePP	PP	00 01 25.0	-1.8
PVCC	Panska Ves	122.81	331	ePKPdf	PKPdf	23 59 46.7	+0.7
PVCC				ePP	PP	00 01 28.1	-3.4
BRG	Berggiesshubel	122.89	331	ePKP	PKPdf	23 59 46.5	+0.3
BRG	Berggiesshubel	122.89	331	ePKIKP	PKPdf	23 59 46.5	+0.3
BRG				pmax	pmax		
	comp=Z,11nm,1.3s						
BRG	Berggiesshubel	122.89	331	ePKP	PKPdf	23 59 46.5	+0.3
	comp=Z,19nm,1.3s						
CLL	Collm	123.04	332	i PKP	PKPdf	23 59 46.1	-0.4
CLL	Collm	123.04	332	i PKIKP	PKPdf	23 59 46.1	-0.4
CLL				pmax	pmax		
	comp=Z,9.0nm,0.9s						
CLL	Collm	123.04	332	i PKPdf	PKPdf	23 59 46.1	-0.4
	comp=Z,9.0nm,0.9s						
TREC	Trest	123.13	329	ePKIKP	PKPdf	23 59 47.0	+0.3
TREC	Trest	123.13	329	ePKPdf	PKPdf	23 59 47.0	+0.3
PRU	Pruhonice	123.17	330	ePKPdf	PKPdf	23 59 47.4	+0.7
PRU				ePP	PP	00 01 36.0	+2.1
NKC	Novy Kostel	124.03	332	ePKP	PKPdf	23 59 48.5	+0.1
NKC	Novy Kostel	124.03	332	ePKIKP	PKPdf	23 59 48.5	+0.1
NKC	Novy Kostel	124.03	332	ePKPdf	PKPdf	23 59 48.5	+0.1
KHC	Kasperske Hory	124.20	330	ePKPdf	PKPdf	23 59 49.1	+0.4
KHC				ex	x	00 01 17.0	
KHC				ePP	PP	00 01 39.3	-1.5
GERES	GERESS Array B	124.33	330	PKP	PKPdf	23 59 49.1	+0.1
GERES				PP	PP	00 01 37.1	-4.5
GERES	GERESS Array B	124.33	330	PKIKP	PKPdf	23 59 49.1	+0.1
GERES						00 01 37.1	
GERES	GERESS Array B	124.33	330	PKP	PKPdf	23 59 49.1	+0.1
	comp=Z,4.7nm,0.9s,baz=75,slow=1.5,SNR=25						
GERES				PP	PP	00 01 37.1	-4.5
	comp=Z,2.0nm,1.0s,baz=57,slow=9.7,SNR=6.0						
GRA1	Grafenberg Arr	124.97	332	ePKPdf	PKPdf	23 59 50.3	+0.1
GRF	Grafenberg Arr	124.97	332	ePKP	PKPdf	23 59 50.3	+0.1
GRF	Grafenberg Arr	124.97	332	ePKIKP	PKPdf	23 59 50.3	+0.1
GRF				e		00 22 56.2	
GRF	Grafenberg Arr	124.97	332	ePKIKP	PKPdf	23 59 50.3	+0.1
MEM	Membach	126.63	335	PKPdf	PKPdf	23 59 54.6	+1.2
WLF	Walferdange	127.28	335	PKPdf	PKPdf	23 59 56.8	+2.2
SNF	Seneffe	127.41	336	PKPdf	PKPdf	23 59 56.0	+1.1
GIVF	Givet	127.50	336	ePKIKP	PKPdf	23 59 54.6	-0.4
GIVF	Givet	127.50	336	ePKPdf	PKPdf	23 59 54.6	-0.4
GIVF	Givet	127.50	336	ePKIKP	PKPdf	23 59 54.6	-0.4
CDF	Champ du Feu	127.72	333	ePKIKP	PKPdf	23 59 54.9	-0.6
	comp=Z,17nm,1.3s						
CDF	Champ du Feu	127.72	333	ePKPdf	PKPdf	23 59 54.9	-0.6
CDF	Champ du Feu	127.72	333	ePKIKP	PKPdf	23 59 54.9	-0.6
HINF	Hinteralfeld	128.34	333	ePKIKP	PKPdf	23 59 56.2	-0.5
	comp=Z,35nm,1.3s						
HINF	Hinteralfeld	128.34	333	ePKPdf	PKPdf	23 59 56.2	-0.5
HINF	Hinteralfeld	128.34	333	ePKIKP	PKPdf	23 59 56.2	-0.5
HAU	Haudompre	128.43	333	ePKIKP	PKPdf	23 59 56.1	-0.8
HAU	Haudompre	128.43	333	ePKPdf	PKPdf	23 59 56.1	-0.8
HAU	Haudompre	128.43	333	ePKIKP	PKPdf	23 59 56.1	-0.8
MEZF	Maizieres J’vi	128.63	334	ePKIKP	PKPdf	23 59 57.0	-0.2
MEZF	Maizieres J’vi	128.63	334	ePKPdf	PKPdf	23 59 57.0	-0.2
SSF	Saint Saulge	130.41	334	ePKIKP	PKPdf	00 00 00.2	-0.5
	comp=Z,42nm,1.4s						
SSF	Saint Saulge	130.41	334	ePKPdf	PKPdf	00 00 00.2	-0.5
SSF	Saint Saulge	130.41	334	ePKIKP	PKPdf	00 00 00.2	-0.5
SMF	Signal de Mont	130.58	334	ePKIKP	PKPdf	00 00 00.6	-0.4
SMF	Signal de Mont	130.58	334	ePKPdf	PKPdf	00 00 00.6	-0.4
SMF	Signal de Mont	130.58	334	ePKIKP	PKPdf	00 00 00.6	-0.4
HYF	Humbligny	130.62	335	ePKIKP	PKPdf	00 00 01.3	+0.3
HYF	Humbligny	130.62	335	ePKPdf	PKPdf	00 00 01.3	+0.3
FLN	La Foliniere	130.65	338	ePKIKP	PKPdf	00 00 00.3	-0.7
	comp=Z,90nm,1.4s						
FLN	La Foliniere	130.65	338	ePKPdf	PKPdf	00 00 00.3	-0.7
FLN	La Foliniere	130.65	338	ePKIKP	PKPdf	00 00 00.3	-0.7
AVF	Avril sur Loir	130.69	334	ePKIKP	PKPdf	00 00 00.4	-0.8
AVF	Avril sur Loir	130.69	334	ePKPdf	PKPdf	00 00 00.4	-0.8
AVF	Avril sur Loir	130.69	334	ePKIKP	PKPdf	00 00 00.4	-0.8
ROSC	El Rosal	131.37	87	PKP	PKPdf	00 00 04.1	+0.7
ROSC	El Rosal	131.37	87	PKP	PKPdf	00 00 04.1	+0.7
	comp=Z,2.9nm,0.4s,baz=107,slow=20,SNR=3.0						
FRF	La Foret Royal	131.50	329	ePKIKP	PKPdf	00 00 02.4	-0.4
	comp=Z,50nm,1.0s						
FRF	La Foret Royal	131.50	329	ePKPdf	PKPdf	00 00 02.4	-0.4
FRF	La Foret Royal	131.50	329	ePKIKP	PKPdf	00 00 02.4	-0.4
TCF	Toulx Ste Croi	131.57	334	ePKIKP	PKPdf	00 00 02.6	-0.3
	comp=Z,40nm,1.3s						
TCF	Toulx Ste Croi	131.57	334	ePKPdf	PKPdf	00 00 02.6	-0.3
TCF	Toulx Ste Croi	131.57	334	ePKIKP	PKPdf	00 00 02.6	-0.3
LASF	Ste Croix	132.52	331	ePKIKP	PKPdf	00 00 04.5	-0.2
	comp=Z,85nm,1.2s						
LASF	Ste Croix	132.52	331	ePKPdf	PKPdf	00 00 04.5	-0.2
LPAZ	La Paz	133.26	117	PKP	PKPdf	00 00 07.9	+1.0
LPAZ	La Paz	133.26	117	PKIKP	PKPdf	00 00 07.9	+1.0
LPAZ	La Paz	133.26	117	PKP	PKPdf	00 00 07.9	+1.0
	comp=Z,1.9nm,0.6s,baz=243,slow=5.7,SNR=10						
KEST	Kesra	135.01	319	PKP	PKPdf	00 00 09.2	-0.5
	comp=Z,0.9nm,0.8s,baz=338,slow=11,SNR=5.0						
ESDC	Sonseca Array	139.57	334	PKP	PKPdf	00 00 17.7	-0.2
ESDC				PP	PP	00 03 17.6	-0.5
ESDC	Sonseca Array	139.57	334	PKhKP		00 00 10.9	
	comp=Z,1.5nm,0.8s,baz=10,slow=6.7,SNR=5.7						
ESDC				PKP	PKPdf	00 00 17.7	-0.2
	comp=Z,0.8nm,0.8s,baz=54,slow=3.8,SNR=4.2						
ESDC				PP	PP	00 03 17.6	-0.5
	comp=Z,2.9nm,0.9s,baz=39,slow=5.3,SNR=4.7						
TORD	Torodi Ar. Bea	151.65	290	PKP	PKPdf	00 00 39.2	+0.3
TORD				PKPbc	PKPbc	00 00 44.6	-1.1
TORD				SKP		00 03 19.9	
TORD	Torodi Ar. Bea	151.65	290	PKP	PKPdf	00 00 39.2	+0.3
	comp=Z,1.6nm,0.9s,baz=10,slow=2.6,SNR=16						
TORD				PKPbc	PKPbc	00 00 44.6	-1.1
	comp=Z,11nm,0.6s,baz=60,slow=1.3,SNR=12						
TORD				SKP		00 03 19.9	
	comp=Z,4.4nm,0.9s,baz=59,slow=2.8,SNR=5.7						

IDC ***17*** *23:42:50.7±1.6, 4.36N×128.45E, h0^{km}, mb4.2/4, mb1 4.3/4, mb1mx4.0/19, mbtmp4.2/4, Error ellipse: s-maj=95.2km s-min=25.3km az=78.0*

ISCJB ***17*** *23:42:53.3±2.5, 4.4N±0.2×128.6E±0.8, h33^{km}, mb4.3/7, Error ellipse: s-maj=117.9km s-min=18.7km az=172.7*

NEIC ***17*** *23:42:55.1±1.8, 4.35N×128.68E, h35^{km}, mb4.4/3, Error ellipse: s-maj=86.8km s-min=13.3km az=83.0*

ISC 17 23:42:55.0±2.5**, 4.4N**±0.2×**128.8E**±0.8**, h35**^{km}**, n12,** σ**0^{s}.33**/11**, mb4.3**/7**, 1C, North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	4.50	328	⇑iP	Pn	23 44 06.3	+5.6
BIPH				i S	Sn	23 44 31.6	-20
FITZ	Fitzroy Crossi	22.52	188	P	P	23 47 51.9	0.0
	12nm,0.7s,mb4.5,baz=39,slow=13,SNR=2.3						
ULN	Ulaanbaatar	47.20	340	eP	P	23 51 24.5	+0.3
	4.0nm,0.9s,mb4.3						
SONM	Songino Array	47.40	340	P	P	23 51 26.1	+0.3
	1.2nm,0.7s,mb4.0,baz=158,slow=7.7,SNR=13						
MK31	Makanchi Array	58.23	324	eP	P	23 52 45.5	-0.4
MKAR	Makanchi Array	58.23	324	P	P	23 52 45.6	-0.2
	1.8nm,0.5s,mb4.4,baz=122,slow=7.9,SNR=45						
ZAA0	Zalesovo Array	60.98	332	eP	P	23 53 04.2	-0.4
ZALV	Zalesovo Beam	60.98	332	P	P	23 53 04.4	-0.2
	0.7nm,0.3s,mb4.2,baz=135,slow=5.9,SNR=10						
UCH	Uchtor	61.11	316	eP	P	23 53 06.4	+0.6
	5.3nm,1.2s,mb4.5						
EKS2	Erkin-Say	61.78	317	eP	P	23 53 10.3	0.0
	2.0nm,0.8s,mb4.3						
ROSC	El Rosal	155.18	69	PKP	PKPdf	00 02 47.3	+1.6
	5.6nm,0.6s,baz=107,slow=19,SNR=3.5						
LPAZ	La Paz	159.60	127	PKP	PKPdf	00 02 53.0	+1.9
	2.1nm,0.7s,baz=191,slow=0.6,SNR=6.6						

BJI ***17*** *23:52:37.0, 24.46N×94.81E, h95^{km}, mb4.2*

ISCJB ***17*** *23:52:38.1±0.8, 24.3N±0.1×94.60E±0.07, h114^{km}±10^{km}, mb4.0/9, Error ellipse: s-maj=18.5km s-min=7.2km az=28.0*

NEIC ***17*** *23:52:40.0±1.0, 24.42N×94.81E, h110^{km}±10^{km}, mb4.4/3, Error ellipse: s-maj=20.1km s-min=8.2km az=53.0*

IDC ***17*** *23:52:46.5±13.0, 24.53N×95.05E, h172^{km}±129^{km}, mb3.6/9, mb1 3.7/9, mb1mx3.4/23, mbtmp3.6/9, Error ellipse: s-maj=53.3km s-min=15.0km az=50.0*

ISC 17 23:52:39.4±0.8**, 24.3N**±0.1×**94.63E**±0.07**, h105**^{km}±9^{km}**, n27,** σ**0^{s}.93**/36**, mb4.0**/9**, 1D, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHL	Shillong	2.79	297	i PN	Pn	23 53 23.4	+1.0
SHL				ePG	Pn	23 53 31.0	+8.6
SHL				eSN	Sn	23 53 55.8	+0.3
LSA	Lhasa	6.19	331	P	Pn	23 54 08.8	+0.6
LSA				Smax			
	comp=N,80nm,0.5s						
LSA				Smax			
	comp=E,150nm,0.6s						
LSA	Lhasa	6.19	331	ePn	Pn	23 54 08.5	+0.3
	comp=E,23nm,0.3s						
LSA				eSn	Sn	23 55 04.0	-14
CHTO	Chiang Mai	6.79	143	ePn	Pn	23 54 17.2	+0.7
	comp=E,7.3nm,0.6s						
TAPN	Taplejung	6.92	297	eP	Pn	23 54 19.1	+0.9
	comp=E,210nm,0.3s						
TAPN	Taplejung	6.92	297	ePn	Pn	23 54 19.6	+1.4
TAPN				eSn	Sn	23 55 36.2	+0.7
	comp=E,230nm,0.6s						
ODAN	Odare	7.01	293	eP	Pn	23 54 19.0	-0.4
	comp=E,117nm,0.4s						
ODAN				eS	Sn	23 55 37.0	-0.5
ODAN	Odare	7.01	293	ePn	Pn	23 54 19.5	+0.1
ODAN				eSn	Sn	23 55 36.1	-1.4
	comp=E,343nm,0.5s						
KMI	Kunming	7.41	82	P	Pn	23 54 23.8	-1.1
KMI				AMB	AMB		
	comp=Z,10.0nm,1.2s						
KMI	Kunming	7.41	82	P	Pn	23 54 23.7	-1.2
	comp=Z,10.0nm,1.2s						
KMI				pP		23 54 32.7	
JIRN	Jiri	8.29	295	eP	Pn	23 54 37.7	+0.9
	comp=Z,57nm,0.2s						
JIRN	Jiri	8.29	295	ePn	Pn	23 54 38.1	+1.3
JIRN				eSn	Sn	23 56 07.9	-0.8
	comp=Z,112nm,0.3s						
KKN	Kakani	9.09	294	eP	Pn	23 54 47.8	+0.2
	comp=Z,56nm,0.2s						
KKN	Kakani	9.09	294	ePn	Pn	23 54 47.6	0.0
KKN				eSn	Sn	23 56 26.4	-1.7
	comp=Z,65nm,0.4s						
GKN	Gorkha	9.70	294	eP	Pn	23 54 55.5	-0.4
	comp=Z,89nm,0.4s						
GKN	Gorkha	9.70	294	ePn	Pn	23 54 55.4	-0.5
GKN				eSn	Sn	23 56 39.4	-3.5
	comp=Z,204nm,0.6s						
MK31	Makanchi Array	24.50	339	⇓iP	P	23 57 49.2	+0.5
MKAR	Makanchi Array	24.50	339	P	P	23 57 49.4	+0.6
	comp=Z,12nm,0.4s,mb4.6,baz=151,slow=9.2,SNR=149						
SONM	Songino Array	25.25	19	P	P	23 57 53.8	-1.7
	comp=Z,1.5nm,0.7s,mb3.5,baz=200,slow=10.0,SNR=9.7						
ZALV	Zalesovo Beam	30.49	349	P	P	23 58 42.4	+0.3
	comp=Z,0.8nm,0.5s,mb3.6,baz=160,slow=6.5,SNR=4.3						
AKTK	Aktyubinsk	38.45	322	P	P	23 59 52.0	+1.2
AKTO	Aktyubinsk	38.45	322	P	P	23 59 52.0	+1.2
	comp=Z,0.9nm,0.3s,mb4.0,baz=106,slow=7.3,SNR=8.0						
WRA	Warramunga Arr	58.58	135	P	P	00 02 24.2	-1.1
	comp=Z,0.3nm,0.3s,mb3.8,baz=322,slow=7.4,SNR=17						
FINES	FINESS Array B	58.70	328	P	P	00 02 26.1	+0.4
	comp=Z,6.5nm,1.1s,mb4.6,baz=93,slow=5.5,SNR=9.5						
ARCES	ARCESS Array B	60.15	338	P	P	00 02 35.5	+0.1
	comp=Z,1.8nm,0.7s,mb4.2,baz=96,slow=6.4,SNR=6.7						
ASAR	Alice Springs	61.05	138	P	P	00 02 42.2	0.0
	comp=Z,0.6nm,0.5s,mb3.9,baz=323,slow=6.7,SNR=6.7						
NOA	NORSAR Array B	65.88	328	P	P	00 03 12.6	-0.9
	comp=Z,0.8nm,0.8s,mb3.6,baz=94,slow=5.7,SNR=3.3						

BJI ***18*** *00:02:19.2, 35.70N×95.14E, h12^{km}, mb4.2, ML3.3, Ms3.2*

ISCJB ***18*** *00:02:21.1±0.9, 35.4N±0.1×94.3E±0.1, h10^{km}, mb3.9/5, Error ellipse: s-maj=18.2km s-min=12.5km az=43.6*

NEIC ***18*** *00:02:23.3±0.9, 35.45N×94.43E, h10^{km}, Error ellipse: s-maj=23.9km s-min=13.0km az=54.0*

IDC ***18*** *00:02:29.9±7.1, 35.54N×94.61E, h60^{km}±65^{km}, mb3.6/5, mb1 3.7/8, mb1mx3.4/24, mbtmp3.5/8, ML3.1/2, MS3.7/1, Ms1 3.7/1, ms1mx2.8/24, Error ellipse: s-maj=59.4km s-min=23.8km az=53.0*

ISC 18 00:02:25.1±6.2**, 35.4N**±0.2×**94.4E**±0.1**, h21**^{km}±44^{km}**, n15,** σ**0^{s}.76**/15**, mb3.9**/5**, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GTA	Gaotai	5.88	46	ePG	Pn	00 03 51.8	+1.0
WMQ	Urumqi	9.82	330	eP	Pn	00 04 45.8	+0.9
WMQ				AMB	AMB		
	comp=Z,11nm,1.2s						
WMQ				LR	LR		
	comp=N,126nm,28.0s						
WMQ				LR	LR		
	comp=E,228nm,21.4s						
MK31	Makanchi Array	14.52	325	ePn	Pn	00 05 47.9	-1.2
MKAR	Makanchi Array	14.52	325	Pn	Pn	00 05 48.8	-0.3
MKAR	Makanchi Array	14.52	325	Pn	Pn	00 05 48.8	-0.3
	comp=E,0.4nm,0.3s,baz=124,slow=13,SNR=34						
SONM	Songino Array	15.28	32	Pn	Pn	00 05 58.2	-1.1
SONM	Songino Array	15.28	32	Pn	Pn	00 05 58.2	-1.1
	comp=E,0.1nm,0.3s,baz=216,slow=14,SNR=12						
ZALV	Zalesovo Beam	19.67	343	P	Pn	00 06 54.5	+0.5
ZALV	Zalesovo Beam	19.67	343	P	Pn	00 06 54.5	+0.5
	comp=E,0.1nm,0.3s,baz=165,slow=12,SNR=6.5						
FINES	FINESS Array B	49.35	324	P	P	00 11 13.4	+1.0
	comp=E,4.8nm,1.0s,mb4.5,baz=108,slow=8.9,SNR=3.8						
NB2	NORSAR Subarra	56.51	325	P	P	00 12 05.2	-0.1
	comp=Z,1.6nm,0.8s,mb4.1,baz=76,slow=7.4						
NOA	NORSAR Array B	56.51	325	P	P	00 12 04.7	-0.6
	comp=Z,1.7nm,0.9s,mb4.1,baz=78,slow=7.0,SNR=3.1						
WRA	Warramunga Arr	66.86	139	P	P	00 13 15.4	-0.1
	comp=Z,0.3nm,0.8s,mb3.4,baz=311,slow=6.3,SNR=3.0						
ASAR	Alice Springs	69.70	142	P	P	00 13 33.3	+0.1
	comp=Z,0.5nm,0.7s,mb3.6,baz=330,slow=6.7,SNR=6.0						
INK	Inuvik	70.59	17	P	P	00 13 37.6	-0.5
	comp=Z,1.5nm,1.1s,mb3.9,baz=6.5,slow=5.9,SNR=3.1						

TEH ***18*** *00:02:43.2, 28.47N×51.82E, h3^{km}, ML3.6*

NEIC ***18*** *00:03:16.9, 28.49N×51.80E, h2^{km}, mb3.9/1, MN3.5(TEH), After TEH.*

IDC ***18*** *00:03:16.7±1.6, 28.67N×51.97E, h0^{km}, mb3.8/12, mb1 3.9/13, mb1mx3.8/23, mbtmp3.8/13, ML3.4/1, Error ellipse: s-maj=36.6km s-min=20.7km az=169.0*

KISR ***18*** *00:03:17.6±0.7, 28.32N×51.53E, h34^{km}±195^{km}, ML3.2*

ISCJB ***18*** *00:03:17.1±0.3, 28.62N±0.03×51.93E±0.02, h10^{km}, mb3.8/15, Error ellipse: s-maj=3.6km s-min=3.1km az=168.0*

CSEM ***18*** *00:03:17.2±0.1, 28.59N×51.95E, h10^{km}, ML3.6, Error ellipse: s-maj=2.3km s-min=1.7km az=178.0*

MOS ***18*** *00:03:17.8±0.8, 28.41N×51.84E, h33^{km}, mb4.3/1, Error ellipse: s-maj=24.6km s-min=12.1km az=100.2*

ISC 18 00:03:19.8±0.8**, 28.66N**±0.03×**51.93E**±0.03**, h15**^{km}±6^{km}**, n87,** σ**1^{s}.10**/101**, mb3.8**/15**, 5C-2D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMOK	Mook	0.79	60	Pg	Pg	00 03 33.1	-2.1
IMOK	Mook	0.79	60	ePg	Pg	00 03 33.2	-2.0
IMOK				e		00 03 51.2	
	comp=Z,49µm,0.2s						
IMOK	Mook	0.79	60	ePg	Pg	00 03 33.2	-2.0
SHI	Shiraz	1.11	27	ePg	Pg	00 03 40.4	-0.8
SHI				e		00 04 04.5	
	comp=Z,10µm,0.2s						
SHI	Shiraz	1.11	27	ePg	Pg	00 03 40.4	-0.8
ISRV	Sarvestan	1.26	55	eSn	Sn	00 04 04.4	+4.8
ISRV	Sarvestan	1.26	55	eSn	Sn	00 04 04.4	+4.8
QRN	Al-Qurain	3.53	272	eP	Pn	00 04 13.4	-0.7
QRN				eS	Sn	00 04 55.1	-0.4
QRN				AML	AML	00 04 56.2	
	comp=Z,38nm,0.4s						
KFJS		3.54	263	P	Pg	00 04 27.6	-0.2
IMEH	Mehriz	3.58	40	Pn	Pn	00 04 16.0	+1.2
IMEH	Mehriz	3.58	40	ePn	Pn	00 04 16.1	+1.3
IMEH				e		00 04 30.5	
	comp=Z,1µm,0.3s						
IMEH	Mehriz	3.58	40	ePn	Pn	00 04 16.1	+1.3
IGAR	Garneh	3.58	4	ePn	Pn	00 04 17.6	+2.8
IGAR				e		00 05 36.6	
	comp=Z,864nm,0.3s						
BOQSS		3.59	220	P	Pn	00 04 17.1	+2.2
KBD	Kabd	3.75	279	eP	Pn	00 04 17.3	+0.1
KBD				eS	Sn	00 05 01.5	+0.5
KBD				AML	AML	00 05 03.5	
	comp=Z,96nm,0.4s						
KBD	Kabd	3.75	279	eP	Pn	00 04 17.3	+0.2
KBD				eS	Sn	00 05 01.5	+0.5
UMR	Umm Al-Rimmam	3.80	285	eP	Pn	00 04 17.9	+0.1
UMR				eS	Sn	00 05 03.9	+1.8
UMR				AML	AML	00 05 05.5	
	comp=Z,31nm,0.5s						
UMR	Umm Al-Rimmam	3.80	285	eP	Pn	00 04 17.9	+0.2
UMR				eS	Sn	00 05 03.9	+1.8
	comp=Z,31nm,0.5s						
RDF	Al-Radifah	3.85	275	eP	Pn	00 04 18.1	-0.5
RDF				eS	Sn	00 05 03.1	-0.5
RDF				AML	AML	00 05 05.9	
	comp=Z,27nm,0.4s						
RDF	Al-Radifah	3.85	275	eP	Pn	00 04 18.1	-0.5
RDF				eS	Sn	00 05 03.1	-0.5
IPIR	Pirpir	4.11	348	Pn	Pn	00 04 22.1	0.0
IPIR	Pirpir	4.11	348	ePn	Pn	00 04 22.1	0.0
IPIR				e		00 05 51.2	
	comp=Z,1µm,0.5s						
IPIR	Pirpir	4.11	348	ePn	Pn	00 04 22.1	0.0
NAY	Al-Naaiem	4.15	279	eP	Pn	00 04 22.9	+0.2
NAY				eS	Sn	00 05 11.4	+0.5
NAY				AML	AML	00 05 16.0	
	comp=Z,25nm,0.5s						
NAY	Al-Naaiem	4.15	279	eP	Pn	00 04 22.9	+0.3
NAY				eS	Sn	00 05 11.4	+0.5
ICHK	Chekchek	4.17	30	ePn	Pn	00 04 23.8	+1.0
ICHK				e		00 04 40.6	
	comp=Z,514nm,0.2s						
ICHK	Chekchek	4.17	30	ePn	Pn	00 04 23.8	+1.0
MIB	Mutribah	4.17	287	eP	Pn	00 04 23.7	+0.7

MIB				eS	Sn	00 05 13.7	+2.3
MIB				AML	AML	00 05 16.2	
	comp=Z,54nm,0.5s						
MIB	Mutribah	4.17	287	eP	Pn	00 04 23.7	+0.8
MIB				eS	Sn	00 05 13.7	+2.3
	comp=Z,54nm,0.5s						
IBAF	Bafgh	4.30	46	Pn	Pn	00 04 25.4	+0.8
IBAF				Sn	Sn	00 05 16.6	+2.1
IBAF	Bafgh	4.30	46	e	Pg	00 04 44.2	+2.1
	comp=Z,556nm,0.2s						
IBAF				eSn	Sn	00 05 16.7	+2.2
IBAF	Bafgh	4.30	46	Pn	Pn	00 04 25.4	+0.8
IBAF				Sn	Sn	00 05 16.6	+2.1
IKLH	Kalahroud	4.66	356	Pn	Pn	00 04 30.3	+0.7
IKLH	Kalahroud	4.66	356	ePn	Pn	00 04 30.3	+0.7
IKLH				e		00 06 10.1	
	comp=Z,372nm,0.3s						
IKLH	Kalahroud	4.66	356	ePn	Pn	00 04 30.3	+0.7
BTHS		4.69	192	P	Pn	00 04 31.1	+1.0
BTHS				S	Sn	00 05 23.8	-0.5
BTHS		4.69	192	P	Pn	00 04 31.1	+1.0
BANOM	Banah	4.75	124	⇑P	Pn	00 04 31.4	+0.6
	SNR=12						
ASUD	Al Ashush, Dub	5.04	142	P	Pn	00 04 37.2	+2.4
	SNR=49						
ASHO	Ashiyiah	5.41	136	⇑P	Pn	00 04 40.6	+0.6
	SNR=29						
ISFB	Sefidab	5.69	3	Pn	Pn	00 04 43.2	-0.5
ISFB	Sefidab	5.69	3	ePn	Pn	00 04 43.3	-0.4
ISFB				e		00 05 11.5	
	comp=Z,159nm,0.2s						
ISFB	Sefidab	5.69	3	ePn	Pn	00 04 43.3	-0.4
HRDDS		6.12	202	S	Sn	00 05 59.7	+0.1
HRDDS		6.12	202	P	Pn	00 04 50.9	+1.1
IKOM	Komasi	6.67	327	ePn	Pn	00 04 57.9	+0.6
IKOM				e		00 06 18.6	
	comp=Z,315nm,0.2s						
IKOM	Komasi	6.67	327	ePn	Pn	00 04 57.9	+0.6
ASYS		6.80	262	P	Pn	00 04 57.9	-1.2
IRAZ	Razeghan	6.94	346	Pn	Pn	00 05 00.7	-0.2
IRAZ	Razeghan	6.94	346	ePn	Pn	00 05 00.8	-0.1
IRAZ				e		00 06 25.2	
	comp=Z,98nm,0.2s						
IRAZ	Razeghan	6.94	346	ePn	Pn	00 05 00.8	-0.1
IVIS	Veys	7.28	325	ePn	Pn	00 05 05.0	-0.6
IVIS				e		00 06 36.2	
	comp=Z,229nm,0.2s						
IVIS	Veys	7.28	325	ePn	Pn	00 05 05.0	-0.6
BSY	Bisya	7.56	140	⇓P	Pn	00 05 10.3	+0.7
	SNR=6.2						
BSYO	Bisya	7.60	140	P	Pn	00 05 10.3	+0.3
	SNR=6.2						
SMDO	Samad	7.84	134	⇑P	Pn	00 05 13.6	+0.3
BHD	Baghdad	7.95	307	ePn	x	00 05 58.0	
BHD				eSn	x	00 08 09.0	
WHFO	Wadi Hawf	10.82	171	⇓P	Pn	00 05 52.9	-1.3
RBK	Rabkut	11.29	169	⇑P	Pn	00 05 59.8	-0.9
ABTO	Aybut	11.32	173	⇑P	Pn	00 05 59.3	-1.7
ZEI	Tsey	15.51	337	eP	Pn	00 06 58.6	+0.7
KBL	Kabul	15.71	64	eP	Pn	00 07 02.1	+1.5
KBL	Kabul	15.71	64	eP	Pn	00 07 02.1	+1.6
BRTR	Keskin Array B	18.70	311	P	Pn	00 07 38.4	+0.5
	comp=Z,0.1nm,0.3s,baz=134,slow=10,SNR=4.6						
AML	Almayashu	22.18	47	eP	P	00 08 15.3	+0.1
	comp=Z,2.7nm,0.6s,mb3.9						
AML	Almayashu	22.18	47	eP	P	00 08 15.3	0.0
AKTK	Aktyubinsk	22.24	10	P	P	00 08 15.7	-0.1
AKTK	Aktyubinsk	22.24	10	P	P	00 08 15.7	-0.1
AKTO	Aktyubinsk	22.24	10	P	P	00 08 15.7	-0.1
	comp=Z,2.2nm,0.8s,mb3.6,baz=209,slow=14,SNR=6.5						
AKASG	Malin Array Be	27.90	328	P	P	00 09 07.6	-1.4
	comp=Z,0.2nm,0.3s,mb3.2,baz=139,slow=8.8,SNR=4.2						
MKAR	Makanchi Array	29.81	44	P	P	00 09 25.1	-1.0
	comp=Z,0.6nm,0.7s,mb3.5,baz=232,slow=6.0,SNR=5.1						
ZAL	Zalesovo	34.79	34	P	P	00 10 09.0	-0.6
ZALV	Zalesovo Beam	34.81	34	P	P	00 10 09.0	-0.8
	comp=Z,1.1nm,0.5s,mb4.0,baz=246,slow=9.2,SNR=7.5						
JOF	Joensuu	36.81	344	ep	P	00 10 24.9	-1.9
	comp=Z,0.6nm,0.3s,mb3.9						
FINES	FINESS Array B	37.02	340	P	P	00 10 27.5	-1.1
	comp=Z,1.4nm,0.5s,mb4.0,baz=145,slow=11,SNR=14						
KAF	Kangasniemi	37.47	340	ep	P	00 10 31.0	-1.4
	comp=Z,1.0nm,0.4s,mb4.0						
KAF	Kangasniemi	37.47	340	eP	P	00 10 31.0	-1.4
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
NB2	NORSAR Subarra	42.19	332	P	P	00 11 10.1	-1.5
	comp=Z,1.7nm,0.7s,mb3.8,baz=120,slow=8.6						
NOA	NORSAR Array B	42.19	332	P	P	00 11 10.1	-1.6
	comp=Z,0.6nm,0.5s,mb3.5,baz=121,slow=8.2,SNR=3.5						
ARCES	ARCESS Array B	43.66	347	P	P	00 11 21.9	-1.6
	comp=Z,1.2nm,0.7s,mb3.8,baz=90,slow=3.8,SNR=4.9						
SONM	Songino Array	45.84	50	P	P	00 11 41.3	+0.2
	comp=Z,0.3nm,0.4s,mb3.5,baz=260,slow=8.1,SNR=6.4						
TORD	Torodi Ar. Bea	49.05	262	P	P	00 12 06.4	-0.1
	comp=Z,1.0nm,0.6s,mb4.0,baz=59,slow=8.8,SNR=15						
BOD	Bodaibo	51.44	37	eP	P	00 12 22.5	-1.6
KSRS	Korea Array	62.73	60	P	P	00 13 41.7	-2.6
	comp=Z,0.9nm,0.8s,mb4.0,baz=273,slow=7.5,SNR=4.3						
SCHQ	Schefferville	81.70	329	P	P	00 15 36.8	-0.7
	comp=Z,1.6nm,0.8s,mb4.0,baz=22,slow=11,SNR=3.7						
YKA	Yellowknife Ar	88.53	354	P	P	00 16 11.3	-0.2
YKA	Yellowknife Ar	88.53	354	P	P	00 16 11.3	-0.1
	comp=Z,0.4nm,0.7s,mb3.8,baz=0.6,slow=5.1,SNR=5.6						

ISCJB ***18*** *01:12:37.5±0.7, 11.19N±0.03×61.86W±0.04, h75^{km}±8^{km}, Error ellipse: s-maj=7.0km s-min=4.9km az=31.0*

TRN ***18*** *01:12:39.6, 11.32N×61.72W, h5^{km}, MD2.7*

NEIC ***18*** *01:12:39.6, 11.32N×61.72W, h5^{km}, MD2.7(TRN), After TRN.*

FUNV ***18*** *01:12:40.4, 11.15N×61.83W, h48^{km}, MW2.6*

ISC 18 01:12:38.7±0.7**, 11.20N**±0.03×**61.86W**±0.04**, h65**^{km}±10^{km}**,**
n20, σ0^{s}88/34**, 1C, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TCE	Chacachacare	0.51	168	eP	Pn	01 12 51.2	0.0
TCE				eS	Sn	01 13 01.0	+0.6
GUIV	Guiria	0.66	213	⇑eP	Pn	01 12 52.6	-0.2
GUIV				eS	Sn	01 13 02.9	-0.2
TRN	Trinidad (W)	0.71	141	eP	Pn	01 12 54.5	+1.1
TRN				eS	Sn	01 13 03.9	-0.3
TPP	Pointe-a-Pierr	0.97	155	eP	Pn	01 13 02.3	+5.7
TPP				eS	Sn	01 13 18.6	+8.8
GRW	Mount Saint Ca	0.97	12	eP	Pn	01 12 56.3	-0.3
GRW				eS	Sn	01 13 11.2	+1.3
GRHS	Sauteurs	1.04	12	eP	Pn	01 12 56.4	-1.1
GRHS				eS	Sn	01 13 10.6	-0.8
TBH	Brigand Hill	1.06	132	eP	Pn	01 13 01.0	+3.3
TBH				eS	Sn	01 13 18.2	+6.3
TPR	Prospect	1.06	91	eP	Pn	01 12 57.4	-0.4
TPR				eS	Sn	01 13 11.2	-0.7
GRSS	Sisters	1.12	13	eP	Pn	01 12 58.5	0.0
GRSS				eS	Sn	01 13 12.3	-0.9
ITEV	Isla Los Testi	1.26	277	eP	Pn	01 13 01.1	+0.8
ITEV				eS	Sn	01 13 17.8	+1.3
CRUV	Carupano	1.45	249	eP	Pn	01 13 03.0	+0.1
CRUV				eS	Sn	01 13 20.8	-0.3
GUNV	Guanoco	1.48	226	eP	Pn	01 13 03.9	+0.6
GUNV				eS	Sn	01 13 21.0	-0.8
PCRV	Puerto La Cruz	2.91	250	eP	Pn	01 13 23.8	+1.1
PCRV				eS	Sn	01 13 53.8	-2.7
RIOV	Rio Grande	3.11	179	eP	Pn	01 13 25.9	+0.5
GURV	El Guri	3.63	200	eP	Pn	01 13 32.0	-0.4
PRGV	PARIAGUAN	3.66	229	eP	Pn	01 13 32.6	-0.4
PRGV				eS	Sn	01 14 13.2	-1.7
BIRV	Birongo	4.39	261	eP	Pn	01 13 43.9	+1.0
MERV	Las Mercedes	4.78	246	eP	Pn	01 13 48.8	+0.6
CAOV	Caicara del Or	5.85	229	eP	Pn	01 14 02.8	-0.1
BAUV	El Baul	6.49	250	eP	Pn	01 14 11.8	+0.1

ISCJB ***18*** *01:13:19.2±1.1, 31.70N±0.06×115.98W±0.05, h25^{km}±6^{km}, Error ellipse: s-maj=11.1km s-min=5.7km az=151.6*

ECX ***18*** *01:13:20.2±0.4, 31.71N×115.98W, h8^{km}, MD2.6, ML2.7*

ISC 18 01:13:19.2±1.1**, 31.70N**±0.07×**115.98W**±0.05**, h19**^{km}±9^{km}**,**
n13, σ0^{s}56/24**, 9C-7D, Baja California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ECNX	Esteban Cantu	0.53	265	⇑eP	Pg	01 13 29.4	-0.4
ECNX				⇑eP		01 13 30.8	
ECNX				eS	Sg	01 13 37.1	+0.2
ECNX				eS	Sg	01 13 39.4	+2.4
ENX	Ensenada	0.61	287	⇑eP	Pg	01 13 30.9	-0.4
ENX				eS	Sg	01 13 39.4	-0.1
ENX				⇑e		01 13 40.0	
	comp=N,537nm,0.3s						
ENX				⇓e		01 13 40.2	
	comp=E,446nm,0.4s						
PBX	Punta Banda	0.63	274	⇑eP	Pb	01 13 31.2	-0.4
PBX				eS	Sg	01 13 40.2	-0.1
CBX	Cerro Bola	0.84	317	⇓eP	Pb	01 13 34.7	-0.4
CBX				eS	Sb	01 13 46.1	+0.1
RMX	La Rumorosa	0.90	355	⇓eP	Pb	01 13 35.8	-0.4
RMX				eS	Sb	01 13 47.9	+0.1
CPBX	Cerro Prieto	0.92	39	eP	Pb	01 13 36.3	-0.1
CPBX				eS	Sb	01 13 49.7	+1.4
DVTC	Desert V Tower	0.96	354	P	Pb	01 13 36.8	-0.4
	baz=0.9,SNR=18						
DVTC				⇑S	Sb	01 13 49.0	-0.4
	baz=0.9						
MONP	Monument Peak	1.24	343	P	Pn	01 13 41.6	+0.1
	baz=1.2,SNR=216						
MONP				⇓S	Sb	01 13 57.5	-0.1
	baz=1.2						
SWSC	Sam W. Stewart	1.24	7	⇑P	Pn	01 13 41.8	+0.2
	baz=1.2,SNR=19						
SWSC				⇓S	Sb	01 13 57.8	+0.1
	baz=1.2						
109C	Camp Elliot, M	1.52	322	⇓P	Pn	01 13 45.5	+0.3
	baz=1.5,SNR=6.3						
109C				⇑S	Sn	01 14 04.8	+0.3
	baz=1.5						
GLA	Glamis	1.66	36	⇓S	Sn	01 14 06.9	-1.2
	baz=1.7						
PFO	Pinyon Flat Ob	1.94	348	P	Pn	01 13 51.4	+0.3
	baz=1.9,SNR=8.8						
BELC	Belle Mtn.	2.29	360	⇑P	Pn	01 13 56.4	+0.4
	baz=2.3						

MEX 18 01:23:01.7±1.2**, 19.44N×104.40W, h7**^{km}±14^{km}**, MD3.6,**
Near coast of Jalisco

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CJM	Chamela	0.61	276	i P	Pg	01 23 12.1	-1.3
CJM				i S	Sg	01 23 21.0	-0.3
MMIG	Aquila	1.52	139	i P	Pn	01 23 26.2	-3.1
MMIG				i S	Sn	01 23 44.3	-5.1
ANIG	Ahuacatlan	1.61	356	i P	Pn	01 23 27.6	-2.9
ANIG				i S	Sn	01 23 48.2	-3.3
SFJM	Santa Fe	1.65	51	i P	Pn	01 23 27.0	-4.2
SFJM				i S	Sn	01 23 47.0	-5.7

MOS ***18*** *01:36:08.0±1.5, 34.21N×27.40E, h29^{km}, mb4.1/3, Error ellipse: s-maj=11.2km s-min=5.4km az=118.3*

IDC ***18*** *01:36:10.0±1.0, 34.72N×27.31E, h0^{km}, mb3.8/12, mb1 3.8/18, mb1mx3.8/26, mbtmp3.8/18, ML3.7/6, MS3.4/1, Ms1 3.4/1, ms1mx2.4/35, Error ellipse: s-maj=20.5km s-min=15.1km az=175.0*

CSEM ***18*** *01:36:12.4±0.1, 34.55N×27.37E, h60^{km}, mb4.0/2, Ms2.8, Mw3.2, Error ellipse: s-maj=3.1km s-min=1.1km az=35.0*

ISCJB ***18*** *01:36:13.2±0.3, 34.58N±0.02×27.53E±0.03, h65^{km}±5^{km}, mb3.8/18, Error ellipse: s-maj=4.6km s-min=2.8km az=44.1*

HLW ***18*** *01:36:15.4, 34.68N×27.75E, h33^{km}, Mb4.1*

DDA ***18*** *01:36:18.2, 35.12N×27.44E, h5^{km}±4^{km}, Md3.7*

GII ***18*** *01:36:21.4±0.0, 33.94N×28.02E, h0^{km}±1^{km}, ML3.3/4, Mw3.2/4*

ATH ***18*** *01:36:22.7, 35.58N×26.85E, h56^{km}±3^{km}, MD3.6/7*

NEIC ***18*** *01:36:23.0, 35.27N×26.78E, h10^{km}, mb3.9/3, ML3.6(ATH), After ATH.*

ISC 18 01:36:14.4±0.3**, 34.58N**±0.02×**27.44E**±0.03**, h51**^{km}±4^{km}**,**
n163, σ1^{s}29/193**, mb3.8**/18**, 7D, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	Karpathos	0.99	347	⇓iP	Pn	01 36 32.5	+0.4
XRY	Khrisi	1.47	282	eP	Pn	01 36 44.0	+5.5
NPS	Neapolis	1.65	295	eP	Pn	01 36 41.6	+0.6
ARG	Arkhangelos	1.73	19	eP	Pn	01 36 44.5	+2.5
DAT	Datca	2.15	3	PN	Pn	01 36 46.9	-0.9
DAT				SN	Sn	01 37 09.5	-3.8
IDI	Anoyia	2.21	289	Pn	Pn	01 36 50.0	+1.3
IDI	Anoyia	2.21	289	Pn	Pn	01 36 50.0	+1.3
	12nm,0.3s,baz=114,slow=16,SNR=39						
IDI	Anoyia	2.21	289	Pn	Pn	01 36 50.0	+1.4
DALT	Dalyan (Mudla)	2.40	24	PN	Pn	01 36 50.5	-0.6
AKAS	Kas	2.42	46	i P	Pn	01 36 52.7	+1.2
AKAS				i S	Sn	01 37 19.6	-0.3
FETY	Fethiye	2.45	33	PN	Pn	01 36 52.1	+0.2
BODT	Bodrum	2.48	358	PN	Pn	01 36 51.2	-1.1
BDRM	Kayabasi	2.48	0	i P	Pn	01 36 52.1	-0.2
BDRM				i S	Sn	01 37 31.6	+10
YER	Yerkesik	2.64	15	PN	Pn	01 36 53.4	-1.1
MLSB	Milas	2.73	6	PN	Pn	01 36 54.4	-1.3
VAM	Vamos	2.79	288	eP	Pn	01 36 58.3	+1.8
APE	Apeiranthos	2.93	329	P	Pn	01 37 00.2	+1.7
ELL	Elmali	2.96	42	PN	Pn	01 36 59.8	+1.0
SMG	Samos	3.16	351	P	Pn	01 37 01.8	+0.1
GOLH	Golhisar	3.16	32	i P	Pn	01 37 03.1	+1.5
GOLH				i S	Sn	01 37 36.6	-1.6
DENT	Denizli	3.42	22	PN	Pn	01 37 05.4	+0.2
HMAT	Matruh	3.48	185	P	Pn	01 37 08.2	+2.1
ANTB	Antalya	3.49	48	ePN	Pn	01 37 07.6	+1.4
BLCB	Balcova	3.81	355	ePN	Pn	01 37 09.8	-0.8
IZM	Izmir	3.82	358	ePN	Pn	01 37 10.1	-0.5
KDAG	Bornova	3.82	358	i P	Pn	01 37 10.4	-0.3
KDAG				i S	Sn	01 37 43.6	-11
BCK	Bucak	3.85	41	ePN	Pn	01 37 12.1	+1.1
KYTH	Kithira	3.98	297	eP	Pn	01 37 12.0	-0.8
KHL	Karahalli	4.10	24	ePN	Pn	01 37 14.3	-0.2
VLI	Veliai	4.24	302	eP	Pn	01 37 15.0	-1.5
AKS	Akhisar	4.30	4	ePN	Pn	01 37 16.7	-0.6
SHUT	Suhut-Afyon	4.69	31	ePN	Pn	01 37 22.8	+0.2
ERMK	Ermenek	4.91	64	i P	Pn	01 37 28.1	+2.4
ERMK				i S	Sn	01 38 08.2	-13
BALB	Balikesir	5.07	4	ePN	Pn	01 37 27.6	-0.1
DST	Dursunbey	5.11	10	ePN	Pn	01 37 28.3	0.0
ITM	Ithomi	5.17	302	P	Pn	01 37 29.8	+0.5
KONT	Konya--Tatoy	5.21	48	ePN	Pn	01 37 32.5	+2.8
LKR	Lokris	5.41	320	P	Pn	01 37 35.3	+2.8
KDHN	Kadinhani	5.45	42	i P	Pn	01 37 34.0	+1.0
KDHN				i S	Sn	01 38 28.3	-6.0
KIZT	Kizilcal	5.58	38	ePN	Pn	01 37 36.0	+1.2
HNAT	Natroun	5.62	150	⇓P	Pn	01 37 36.2	+0.8
ESKT	Eskisehir	5.64	28	ePN	Pn	01 37 36.6	+1.0
FYM	Al Fayyum	5.75	147	⇓P	Pn	01 37 38.2	+1.1
FYM	Al Fayyum	5.75	147	P	Pn	01 37 38.2	+1.0
AYT	Al ‘Ayyat	5.79	146	P	Pn	01 37 38.3	+0.6
KOT	Kottamia	5.94	140	⇓P	Pn	01 37 40.2	+0.4
IZI	Iznik	5.97	15	ePN	Pn	01 37 40.6	+0.4
HSAF	As Saff	6.05	144	⇓P	Pn	01 37 42.6	+1.3
HHAG	Hagoal	6.07	138	P	Pn	01 37 42.9	+1.4
GPA	Golpazari	6.14	21	ePN	Pn	01 37 43.1	+0.6
GLL	Jalalah	6.16	143	⇓P	Pn	01 37 43.8	+0.9
MERS	Mersin	6.20	66	eP	Pn	01 37 47.6	+4.3
AMAG	Maghara	6.25	127	P	Pn	01 37 43.0	-1.0
GULT	Gulveren	6.33	22	ePN	Pn	01 37 45.9	+0.8
SUZ		6.57	134	P	Pn	01 37 48.7	+0.2
VLS	Valsamata	6.59	305	P	Pn	01 37 48.9	+0.2
OFRI	‘Ofer	6.59	105	Sn	Sn	01 39 02.0	-0.5
OFRI	‘Ofer	6.59	105	Sn	Sn	01 39 02.0	-0.5
SLTI	Sal’it	6.77	108	Sn	Sn	01 39 04.7	-2.2
SLTI	Sal’it	6.77	108	Sn	Sn	01 39 04.7	-2.1
MMAI	Mount Meron Ar	6.81	101	Pn	Pn	01 37 51.8	+0.1
	1.9nm,0.3s,baz=269,slow=13,SNR=11						
MMAI				Sn	Sn	01 39 06.4	-1.4
	8.7nm,0.3s,baz=268,slow=15,SNR=10						
KZIT	Kziot	6.91	120	Sn	Sn	01 39 06.5	-3.9
KZIT	Kziot	6.91	120	Sn	Sn	01 39 06.5	-3.8
ZNM		6.94	137	⇓P	Pn	01 37 53.9	+0.4
MMLI	Mount Malkishu	7.00	106	Sn	Sn	01 39 10.8	-1.7
MMLI	Mount Malkishu	7.00	106	Sn	Sn	01 39 10.8	-1.7
BRTR	Keskin Array B	7.13	42	Pn	Pn	01 37 56.8	+0.7
BRTR				Sn	Sn	01 39 15.5	-0.2
BRTR	Keskin Array B	7.13	42	Pn	Pn	01 37 56.8	+0.7
	0.2nm,0.3s,baz=138,slow=11,SNR=8.4						
BRTR				Sn	Sn	01 39 15.5	-0.2
	0.6nm,0.3s,baz=66,slow=20,SNR=7.8						
BRTR	Keskin Array B	7.13	42	Pn	Pn	01 37 56.8	+0.7
BRTR				Sn	Sn	01 39 15.5	-0.2
MASH	Mash‘abbe Sade	7.14	118	Sn	Sn	01 39 11.7	-4.3
MASH	Mash‘abbe Sade	7.14	118	Sn	Sn	01 39 11.7	-4.3
HMDT	Nahal Hemdat	7.15	107	Sn	Sn	01 39 15.1	-1.1
HMDT	Nahal Hemdat	7.15	107	Sn	Sn	01 39 15.1	-1.0
YTIR	Yattir	7.20	114	Pn	Pn	01 37 59.4	+2.3
YTIR				Sn	Sn	01 39 14.8	-2.7
YTIR	Yattir	7.20	114	Pn	Pn	01 37 59.4	+2.3
YTIR				Sn	Sn	01 39 14.8	-2.7
HNKL	Nakhl	7.22	128	P	Pn	01 37 57.2	-0.2
DRGI	Dragot	7.31	112	Sn	Sn	01 39 18.4	-1.6
DRGI	Dragot	7.31	112	Sn	Sn	01 39 18.4	-1.7
DSI	Dead Sea	7.31	112	Pn	Pn	01 37 59.9	+1.4
DSI				Sn	Sn	01 39 17.5	-2.6
DSI	Dead Sea	7.31	112	Pn	Pn	01 37 59.9	+1.4
DSI				Sn	Sn	01 39 17.5	-2.6
JAN	Janina	7.31	316	P	Pn	01 37 59.5	+1.0
MZDA	Masada	7.41	114	Sn	Sn	01 39 19.8	-2.9
MZDA	Masada	7.41	114	Sn	Sn	01 39 19.8	-2.9
KRMI	Paran Flat	7.60	124	Pn	Pn	01 38 02.7	+0.2
KRMI				Sn	Sn	01 39 22.6	-4.6
KRMI	Paran Flat	7.60	124	Pn	Pn	01 38 02.7	+0.2
KRMI				Sn	Sn	01 39 22.6	-4.7
PRNI	Paran	7.65	121	Pn	Pn	01 38 04.3	+1.1
PRNI				Sn	Sn	01 39 24.1	-4.6
PRNI	Paran	7.65	121	Pn	Pn	01 38 04.3	+1.0
PRNI				Sn	Sn	01 39 24.0	-4.6
HRFI	Mount Harif	7.86	123	Pn	Pn	01 38 06.9	+0.7
HRFI				Sn	Sn	01 39 31.0	-2.8
HRFI	Mount Harif	7.86	123	Pn	Pn	01 38 06.9	+0.8
HRFI				Sn	Sn	01 39 31.0	-2.7
KEK	Kerkira	7.97	312	P	Pn	01 38 05.5	-2.0
EIL	Elat	8.03	125	Pn	Pn	01 38 08.4	0.0
EIL				Sn	Sn	01 39 32.9	-5.0
EIL	Elat	8.03	125	Pn	Pn	01 38 08.4	0.0
	0.8nm,0.3s,baz=349,slow=9.5,SNR=12						
EIL				Sn	Sn	01 39 32.9	-5.0
	4.3nm,0.3s,baz=314,slow=22,SNR=11						
EIL	Elat	8.03	125	Pn	Pn	01 38 09.1	+0.6
EIL				Sn	Sn	01 39 33.2	-4.6
EIL	Elat	8.03	125	Pn	Pn	01 38 09.0	+0.6
EIL				Sn	Sn	01 39 33.2	-4.7
HQLS		8.34	127	P	Pn	01 38 12.6	-0.1
HQLS				S	Sn	01 39 39.8	-5.7
RSHS		8.87	133	P	Pn	01 38 19.9	0.0
JLOS		9.00	128	P	Pn	01 38 21.3	-0.4
JLOS				S	Sn	01 39 54.2	-7.4
JLOS		9.00	128	P	Pn	01 38 21.3	-0.4
TIP	Timpagrande	9.71	301	P	Pn	01 38 28.3	-3.1
SOI	Samo	9.82	294	Pn	Pn	01 38 30.9	-2.1
	7.4nm,0.3s						
SOI	Samo	9.82	294	P	Pn	01 38 30.9	-2.1
SOI				pmax	pmax		
	comp=Z,7.0nm,0.3s						
SOI	Samo	9.82	294	Pn	Pn	01 38 30.9	-2.1
	comp=Z,7.4nm,0.3s						
AGST	Augusta-Monte	10.26	289	Pn	Pn	01 38 36.1	-2.8
	comp=Z,60nm,0.5s						
AGST	Augusta-Monte	10.26	289	Pn	Pn	01 38 36.1	-2.8
	comp=Z,60nm,0.5s						
HAVL	Avola	10.29	287	Pn	Pn	01 38 37.1	-2.2
HAVL	Avola	10.29	287	Pn	Pn	01 38 37.1	-2.2
HMDC	Modica	10.56	287	Pn	Pn	01 38 40.8	-2.2
	comp=Z,56nm,0.4s						
HMDC	Modica	10.56	287	Pn	Pn	01 38 40.8	-2.2
	comp=Z,56nm,0.4s						
VAE	Valguarnera	10.94	289	Pn	Pn	01 38 47.3	-0.9
VAE				Sn	Sn	01 40 37.2	-12
VAE	Valguarnera	10.94	289	Pn	Pn	01 38 47.3	-0.9
	comp=Z,1.9nm,0.3s,baz=58,slow=12,SNR=7.8						
VAE				Sn	Sn	01 40 37.2	-12
	comp=Z,1.3nm,0.3s,baz=252,slow=20,SNR=3.7						
VAE	Valguarnera	10.94	289	Pn	Pn	01 38 47.3	-0.9
VAE				Sn	Sn	01 40 37.2	-12
KEST	Kesra	14.85	280	Pn	Pn	01 39 44.3	+3.1
	comp=Z,0.2nm,0.3s,baz=125,slow=16,SNR=9.6						
AKASG	Malin Array Be	16.17	4	Pn	Pn	01 39 57.1	-0.9
AKASG	Malin Array Be	16.17	4	Pn	Pn	01 39 57.1	-0.9
	comp=Z,1.8nm,0.3s,baz=194,slow=12,SNR=14						
AKASG	Malin Array Be	16.17	4	Pn	Pn	01 39 57.1	-0.9
GERES	GERESS Array B	17.52	329	P	Pn	01 40 14.1	-0.8
	comp=Z,0.1nm,0.3s,baz=137,slow=12,SNR=5.3						
KHC	Kasperske Hory	17.79	329	eP	Pn	01 40 21.0	+2.8
KHC				ex	x	01 40 33.0	
MBDF	Montbardon	18.82	309	eP	Pn	01 40 29.0	-1.7
	comp=Z,26nm,1.1s						
MBDF	Montbardon	18.82	309	eP	Pn	01 40 29.0	-1.7
MBDF				pmax	pmax		
	comp=Z,13nm,1.1s						
MBDF	Montbardon	18.82	309	eP	Pn	01 40 29.0	-1.7
	comp=Z,13nm,1.1s						
LPG	La Plagne	19.18	311	eP	Pn	01 40 33.4	-1.5
	comp=Z,21nm,1.0s						
LPG	La Plagne	19.18	311	eP	Pn	01 40 33.4	-1.5
LPG				pmax	pmax		
	comp=Z,11nm,1.0s						
LPG	La Plagne	19.18	311	eP	Pn	01 40 33.4	-1.5
	comp=Z,11nm,1.0s						
CABF	La Chapelle	20.11	313	eP	P	01 40 43.0	-0.8
HINF	Hinteralfeld	20.29	317	eP	P	01 40 45.9	+0.2
CDF	Champ du Feu	20.39	319	eP	P	01 40 47.0	+0.2
OBN	Obninsk	21.50	14	eP	P	01 40 59.9	+1.3
OBN				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.7						
SMF	Signal de Mont	21.50	311	eP	P	01 40 58.4	-0.4
LOR	Lormes	21.77	313	eP	P	01 40 59.4	-2.2
AVF	Avril sur Loir	21.87	311	eP	P	01 41 01.3	-1.4
SSF	Saint Saulge	21.89	312	eP	P	01 41 01.5	-1.4
TCF	Toulx Ste Croi	22.39	309	eP	P	01 41 07.8	-0.4
RJF	Les Rejaudoux	22.49	306	eP	P	01 41 07.9	-1.4
BAIF	Baives	22.98	319	eP	P	01 41 13.7	-0.7
LDF	La Druitiere	24.76	313	eP	P	01 41 30.6	-0.4
	comp=Z,3.6nm,0.6s,mb3.8						
LDF	La Druitiere	24.76	313	eP	P	01 41 30.6	-0.4
LDF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.8						
LDF	La Druitiere	24.76	313	eP	P	01 41 30.6	-0.4
	comp=Z,1.8nm,0.6s,mb3.8						
FLN	La Foliniere	25.04	313	eP	P	01 41 33.5	-0.1
	comp=Z,6.5nm,0.4s,mb4.2						
FLN	La Foliniere	25.04	313	eP	P	01 41 33.5	-0.1
	comp=Z,3.2nm,0.4s,mb4.2						
GRR	Gorron	25.12	312	eP	P	01 41 33.9	-0.4
ESDC	Sonseca Array	25.48	291	P	P	01 41 38.5	+0.9
	comp=Z,0.7nm,0.4s,mb3.5,baz=83,slow=9.5,SNR=12						
ROSF	Rostrenen	26.60	310	eP	P	01 41 47.4	-0.4
FINES	FINESS Array B	26.90	359	P	P	01 41 49.6	-0.6
	comp=Z,5.1nm,1.0s,mb4.0,baz=159,slow=12,SNR=14						
HFS	Hagfors	27.10	345	P	P	01 41 51.5	-0.5
	comp=Z,0.8nm,0.5s,mb3.5,baz=130,slow=13,SNR=5.7						
HFS				LR	LR	01 54 05.4	
	comp=Z,74nm,20.8s,baz=251,slow=40						
AKTK	Aktyubinsk	27.30	45	P	P	01 41 55.6	+1.7
AKTK	Aktyubinsk	27.30	45	P	P	01 41 55.7	+1.7
AKTO	Aktyubinsk	27.30	45	P	P	01 41 55.6	+1.7
	comp=Z,0.4nm,0.4s,mb3.3,baz=270,slow=5.1,SNR=2.2						
KAF	Kangasniemi	27.57	359	ep	P	01 41 54.9	-1.3
	comp=Z,1.4nm,0.4s,mb3.9						
KAF	Kangasniemi	27.57	359	eP	P	01 41 54.9	-1.3
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.8						
NOA	NORSAR Array B	28.47	343	P	P	01 42 05.4	+1.2
	comp=Z,0.3nm,0.5s,mb3.2,baz=158,slow=12,SNR=2.7						
JOF	Joensuu	28.47	4	ep	P	01 42 03.3	-0.9
	comp=Z,1.1nm,0.4s,mb3.8						
EKA	Eskdalemuir Ar	29.61	324	P	P	01 42 14.8	+0.4
	comp=Z,1.0nm,0.8s,mb3.6,baz=118,slow=10,SNR=4.0						
TORD	Torodi Ar. Bea	31.61	234	P	P	01 42 34.9	+2.5
TORD	Torodi Ar. Bea	31.61	234	P	P	01 42 34.9	+2.5
	comp=Z,1.4nm,0.7s,mb3.9,baz=29,slow=8.5,SNR=14						
ARCES	ARCESS Array B	35.03	359	P	P	01 43 02.3	+0.6
	comp=Z,1.8nm,0.8s,mb4.0,baz=167,slow=7.9,SNR=8.1						
LIC	Lamto	41.15	234	eP	P	01 43 57.4	+3.5
	comp=Z,63nm,1.4s,mb4.7						
LIC	Lamto	41.15	234	eP	P	01 43 57.4	+3.5
	comp=Z,31nm,1.4s,mb4.7						
MKAR	Makanchi Array	42.54	56	P	P	01 44 08.2	+3.4
	comp=Z,2.1nm,0.7s,mb4.0,baz=276,slow=6.5,SNR=11						
MKAR	Makanchi Array	42.54	56	P	P	01 44 08.2	+3.4
ZAL	Zalesovo	44.05	46	P	P	01 44 19.5	+2.6
ZALV	Zalesovo Beam	44.06	46	P	P	01 44 19.5	+2.5

	comp=Z,1.0nm,0.6s,mb3.7,baz=271,slow=9.6,SNR=4.9						
SONM	**Songino Array**	**58.40**	**51**	P	**P**	**01 46 07.8**	**+3.3**
	comp=Z,0.1nm,0.3s,mb3.3,baz=309,slow=5.2,SNR=2.7						
SCHQ	**Schefferville**	**64.84**	**320**	P	**P**	**01 46 49.1**	**+1.4**
	comp=Z,2.8nm,0.6s,mb4.5,baz=261,slow=6.5,SNR=7.9						

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*ISCJB **18** 01:56:44.0±0.4, 36.86N±0.02×121.64W±0.04, h20^{km}±4^{km}, Error ellipse: s-maj=5.2km s-min=3.6km az=145.1*

*NEIC **18** 01:56:44.2, 36.89N×121.63W, h8^{km}, MD2.8(NCEDC), After NCEDC.*

NEIC Felt [III] at Aromas. Felt at San Juan Bautista, Santa Cruz and Watsonville.

ISC 18 01:56:43.9±0.4**, 3686N**±002×**12163W**±003**, h16**^{km}±3^{km}**, n24, σ0^{s}72**/42**, 14C-17D, Central California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SAO	**San Andreas Ge**	**0.17**	**123**	⇓*i*P	**Pg**	**01 56 48.0**	**-0.3**
SAO				*e*S	**Sg**	**01 56 50.9**	**-0.3**
PACP	**Pacheco Peak**	**0.31**	**62**	P	**Pg**	**01 56 50.7**	**+0.2**
	baz=0.3,SNR=532						
PACP				⇓S	**Sg**	**01 56 55.4**	**+0.4**
	baz=0.3						
HAST	**UC Hastings Re**	**0.47**	**172**	⇑P	**Pg**	**01 56 53.6**	**+0.2**
	baz=0.5,SNR=1000						
HAST				⇓S	**Sg**	**01 57 00.5**	**+0.7**
	baz=0.5						
BNLO	**Ben Lomond (Sa**	**0.51**	**302**	P	**Pg**	**01 56 53.5**	**-0.6**
	baz=0.5,SNR=33						
BNLO				⇓S	**Sg**	**01 57 00.6**	**-0.4**
	baz=0.5						
S04C	**Ingram Canyon,**	**0.69**	**20**	⇑P	**Pg**	**01 56 57.5**	**+0.1**
	baz=0.7,SNR=88						
S04C				⇓S	**Sg**	**01 57 07.7**	**+1.2**
	baz=0.7						
JRSC	**Jasper Ridge**	**0.73**	**318**	⇑P	**Pg**	**01 56 57.5**	**-0.7**
	baz=0.7,SNR=39						
JRSC				⇑S	**Sg**	**01 57 08.4**	**+0.5**
	baz=0.7						
T05C	**Eagle Field, D**	**0.77**	**87**	⇑P	**Pg**	**01 56 59.3**	**+0.4**
	baz=0.8,SNR=62						
WENL	**Wente Brothers**	**0.77**	**352**	⇑P	**Pb**	**01 56 58.6**	**-0.3**
	baz=0.7,SNR=19						
WENL				⇑S	**Sg**	**01 57 09.9**	**+0.8**
	baz=0.7						
U04C	**Hernandez Rese**	**0.84**	**126**	⇓P	**Pb**	**01 57 00.2**	**0.0**
	baz=0.9,SNR=6.5						
V03C	**Hunter Liggett**	**0.90**	**159**	⇓P	**Pb**	**01 57 01.1**	**+0.1**
	baz=0.9,SNR=72						
V03C				⇑S	**Sb**	**01 57 13.5**	**+0.8**
	baz=0.9						
BDM	**Black Diamond**	**1.11**	**350**	⇓P	**Pb**	**01 57 04.1**	**-0.6**
	baz=1.1,SNR=7.2						
S05C	**Merced**	**1.15**	**65**	⇓P	**Pn**	**01 57 04.4**	**-0.9**
	baz=1.1,SNR=27						
S05C				⇓S	**Sb**	**01 57 20.0**	**0.0**
	baz=1.1						
PKD	**Parkfield**	**1.27**	**136**	⇓P	**Pn**	**01 57 06.3**	**-0.6**
	baz=1.3,SNR=18						
PKD				⇑S	**Sb**	**01 57 23.3**	**-0.1**
	baz=1.3						
R04C	**Big Horse Ranc**	**1.50**	**21**	⇑P	**Pn**	**01 57 09.8**	**-0.3**
	baz=1.5						
CMB	**Columbia Colle**	**1.53**	**40**	*e*Pn	**Pn**	**01 57 11.6**	**+1.0**
CMB				*e*Sn	**Sn**	**01 57 30.1**	**-0.1**
CMB				*e*Sg	**Sg**	**01 57 32.2**	**-1.2**
CMB	**Columbia Colle**	**1.53**	**40**	P	**Pn**	**01 57 10.2**	**-0.4**
	baz=1.5,SNR=20						
CMB				⇓S	**Sn**	**01 57 29.6**	**-0.6**
	baz=1.5						
T06C	**Millerton Lake**	**1.55**	**84**	⇓P	**Pn**	**01 57 10.6**	**-0.2**
	baz=1.5,SNR=14						
T06C				⇓S	**Sn**	**01 57 30.6**	**+0.1**
	baz=1.5						
CVS	**Carmenet Viney**	**1.62**	**336**	⇓P	**Pn**	**01 57 10.9**	**-0.9**
	baz=1.6,SNR=21						
S06C	**San Francisco**	**1.75**	**54**	⇑P	**Pn**	**01 57 13.8**	**+0.2**
	baz=1.7,SNR=34						
S06C				⇑S	**Sn**	**01 57 35.7**	**+0.2**
	baz=1.7						
Q03C	**Winters**	**1.80**	**350**	⇓P	**Pn**	**01 57 14.3**	**0.0**
	baz=1.8						
NSHM	**Saint Helena R**	**1.83**	**335**	Pn	**Pn**	**01 57 13.7**	**-1.0**
NSHM				*e*Sg	**Sg**	**01 57 43.9**	**+1.1**
KCC	**Kaiser Creek**	**1.91**	**75**	⇑P	**Pn**	**01 57 16.1**	**+0.4**
	baz=1.9						
KCC				⇑S	**Sn**	**01 57 39.5**	**+0.2**
	baz=1.9						
R05C	**Kirkwood Meado**	**2.21**	**33**	⇓S	**Sn**	**01 57 48.0**	**+1.0**
	baz=2.2						
MTUM	**Tungsten Hills**	**2.50**	**78**	*e*Pn	**Pn**	**01 57 25.8**	**+1.9**
MTUM				*e*Sg	**Sg**	**01 58 01.9**	**-2.4**

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*BJI **18** 02:06:38.8, 60.80N×165.60E, h10^{km}, mB4.7, mb4.4, Ms4.5, Msz4.2*

*IDC **18** 02:06:40.5±0.8, 60.80N×165.51E, h0^{km}, mb3.8/14, mb1 4.0/14, mb1mx3.9/25, mbtmp3.8/14, Error ellipse: s-maj=26.6km s-min=16.7km az=172.0*

*ISCJB **18** 02:06:41.2±3.6, 60.8N±0.1×165.54E±0.09, h17^{km}±25^{km}, mb4.0/27, Error ellipse: s-maj=18.4km s-min=7.0km az=170.2*

*MOS **18** 02:06:41.1±0.9, 60.75N×165.55E, h17^{km}, mb4.3/6, Error ellipse: s-maj=19.2km s-min=11.8km az=108.8*

*NEIC **18** 02:06:41.9±0.4, 60.82N×165.56E, h10^{km}, mb4.2/11, Error ellipse: s-maj=13.5km s-min=5.4km az=176.0*

ISC 18 02:06:44.7±3.8**, 608N**±01×**16560E**±009**, h28**^{km}±26^{km}**, n44, σ0^{s}76**/45**, mb4.0**/27**, 3C-1D, Eastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SEY	**Seymchan**	**6.62**	**295**	*i* PN	**Pn**	**02 08 19.5**	**-0.4**
BILL	**Bilibino**	**7.32**	**2**	*e*PN	**Pn**	**02 08 29.9**	**+0.5**
BILL				pmax	pmax		
	comp=Z,3.0nm,1.0s						
MA2	**Magadan**	**7.49**	**267**	*e*Pn	**Pn**	**02 08 30.8**	**-1.1**
	comp=Z,10nm,0.7s						
MA2				*e*Sn	**Sn**	**02 09 56.7**	**+1.0**
MA2	**Magadan**	**7.49**	**267**	*e*PN	**Pn**	**02 08 30.8**	**-1.1**
MA2				pmax	pmax		
	comp=Z,11nm,0.7s						
YAK	**Yakutsk**	**17.11**	**290**	⇑*e*P	**Pn**	**02 10 41.5**	**+0.2**
YAK				pmax	pmax		
	comp=Z,16nm,0.8s						
TIXI	**Tiksi**	**18.02**	**322**	*e*P	**Pn**	**02 10 54.2**	**+1.7**
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.7s						
EGAK	**Eagle**	**24.07**	**57**	*e*P	**P**	**02 11 55.4**	**-1.6**
	comp=Z,4.8nm,0.7s,mb4.0						
DAWY	**Dawson**	**25.01**	**58**	*e*P	**P**	**02 12 04.7**	**-0.9**
BOD	**Bodaibo**	**25.95**	**287**	*e*P	**P**	**02 12 14.3**	**+0.1**
BOD				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.1						
INK	**Inuvik**	**26.16**	**47**	P	**P**	**02 12 17.9**	**+1.9**
	comp=Z,1.2nm,0.7s,mb3.5,baz=260,slow=12,SNR=6.0						
ULN	**Ulaanbaatar**	**35.26**	**276**	⇑*e*P	**P**	**02 13 37.3**	**+1.0**
SONM	**Songino Array**	**35.60**	**276**	P	**P**	**02 13 39.6**	**+0.4**
	comp=Z,0.3nm,0.5s,mb3.5,baz=55,slow=6.5,SNR=4.5						
SONM				PcP	PcP	02 16 08.1	+0.7
	comp=Z,0.3nm,0.6s,baz=59,slow=2.7,SNR=3.3						
YKA	**Yellowknife Ar**	**35.71**	**52**	P	**P**	**02 13 39.3**	**-0.7**
	comp=Z,0.5nm,0.5s,mb3.7,baz=303,slow=8.6,SNR=10						
ZALV	**Zalesovo Beam**	**41.48**	**298**	P	**P**	**02 14 28.8**	**+0.3**
	comp=Z,0.4nm,0.4s,mb3.4,baz=38,slow=7.3,SNR=3.4						
ZAL	**Zalesovo**	**41.50**	**298**	P	**P**	**02 14 28.8**	**+0.1**
NJ2	**Nanjing**	**41.77**	**248**	*e*P	**P**	**02 14 30.3**	**-0.9**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.6						
EDM	**Edmonton**	**42.10**	**62**	*e*P	**P**	**02 14 33.3**	**-0.3**
KURK	**Kurchatov**	**46.45**	**299**	*e*P	**P**	**02 15 08.4**	**0.0**
	comp=Z,4.9nm,0.7s,mb4.5						
KURK	**Kurchatov**	**46.45**	**299**	⇑*e*P	**P**	**02 15 08.2**	**-0.3**
ARCES	**ARCESS Array B**	**46.92**	**342**	P	**P**	**02 15 10.8**	**-1.0**
	comp=Z,2.3nm,0.9s,mb4.1,baz=28,slow=7.9,SNR=5.1						
MK31	**Makanchi Array**	**47.76**	**293**	*e*P	**P**	**02 15 17.9**	**-0.8**
MKAR	**Makanchi Array**	**47.76**	**293**	P	**P**	**02 15 18.1**	**-0.5**
	comp=Z,1.0nm,0.5s,mb4.1,baz=47,slow=7.3,SNR=19						
BRVK	**Borovoye**	**48.16**	**306**	*e*P	**P**	**02 15 22.1**	**+0.4**
	comp=Z,2.1nm,0.6s,mb4.3						
BRVK	**Borovoye**	**48.16**	**306**	*e*P	**P**	**02 15 22.1**	**+0.4**
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
HLID	**Hailey**	**48.68**	**72**	*e*P	**P**	**02 15 25.9**	**0.0**
	comp=Z,0.8nm,0.8s,mb3.8						
ARU	**Arti**	**49.88**	**316**	*e*P	**P**	**02 15 34.4**	**-0.4**
	comp=Z,1.8nm,0.6s,mb4.3						
ARU	**Arti**	**49.88**	**316**	*e*P	**P**	**02 15 34.4**	**-0.4**
ARU				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
TPAW	**Teton Pass**	**50.34**	**70**	*e*P	**P**	**02 15 38.9**	**+0.4**
	comp=Z,1.9nm,0.7s,mb4.2						
LOHW	**Long Hollow**	**50.41**	**70**	*e*P	**P**	**02 15 39.6**	**+0.6**
	comp=Z,1.9nm,0.8s,mb4.2						
NVAR	**Mina Array Bea**	**50.81**	**80**	P	**P**	**02 15 42.8**	**+0.7**
	comp=Z,0.5nm,0.7s,mb3.6,baz=306,slow=8.5,SNR=3.3						
PDAR	**Pinedale Array**	**51.55**	**69**	P	**P**	**02 15 47.9**	**+0.3**
	comp=Z,1.7nm,0.8s,mb4.0,baz=332,slow=3.5,SNR=12						
SRU	**San Rafael**	**53.98**	**73**	*e*P	**P**	**02 16 06.2**	**+0.6**
	comp=Z,2.2nm,0.9s,mb4.1						
SRU	**San Rafael**	**53.98**	**73**	*e*P	**P**	**02 16 06.2**	**+0.6**
SRU				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
FINES	**FINESS Array B**	**54.23**	**337**	P	**P**	**02 16 06.0**	**-1.0**
	comp=Z,2.0nm,0.8s,mb4.1,baz=47,slow=8.2,SNR=3.8						
AAK	**Ala-Archa**	**54.48**	**295**	*e*P	**P**	**02 16 08.6**	**-0.6**
	comp=Z,1.6nm,0.7s,mb4.1						
AAK	**Ala-Archa**	**54.48**	**295**	⇓*e*P	**P**	**02 16 08.7**	**-0.5**
AAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
EKS2	**Erkin-Say**	**54.78**	**296**	*e*P	**P**	**02 16 12.2**	**+0.8**
	comp=Z,1.9nm,0.8s,mb4.2						
UCH	**Uchtor**	**54.80**	**295**	*e*P	**P**	**02 16 10.6**	**-0.9**
	comp=Z,0.7nm,0.5s,mb4.0						
NOA	**NORSAR Array B**	**56.94**	**345**	P	**P**	**02 16 25.8**	**-0.7**
	comp=Z,0.8nm,0.6s,mb3.9,baz=14,slow=7.2,SNR=2.9						
TXAR	**Lajitas Array**	**65.22**	**74**	P	**P**	**02 17 23.6**	**+0.5**
	comp=Z,0.5nm,0.8s,mb3.6,baz=319,slow=5.4,SNR=3.5						
ESDC	**Sonseca Array**	**79.56**	**352**	P	**P**	**02 18 48.8**	**+0.3**
	comp=Z,0.4nm,0.7s,mb3.5,baz=358,slow=9.1,SNR=3.1						
WRA	**Warramunga Arr**	**84.29**	**209**	P	**P**	**02 19 13.4**	**0.0**
WRA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
WRA	**Warramunga Arr**	**84.29**	**209**	P	**P**	**02 19 13.4**	**+0.1**
	comp=Z,1.2nm,1.0s,mb4.0,baz=12,slow=5.4,SNR=4.4						
ASAR	**Alice Springs**	**87.98**	**209**	P	**P**	**02 19 31.8**	**+0.4**
	comp=Z,0.2nm,0.3s,mb3.8,baz=8.4,slow=4.8,SNR=4.0						

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*ISCJB **18** 02:08:30.8±2.5, 31.45S±0.07×178.3W±0.2, h15^{km}±17^{km}, mb4.2/5, Error ellipse: s-maj=32.3km s-min=10.1km az=10.5*

*IDC **18** 02:08:36.5±6.7, 31.43S×178.21W, h54^{km}±59^{km}, mb4.0/5, mb1 4.2/7, mb1mx4.0/15, mbtmp4.1/7, ML4.0/2, MS3.2/1, Ms1 3.2/1, ms1mx2.6/27, Error ellipse: s-maj=41.7km s-min=29.4km az=17.0*

ISC 18 02:08:31.5±2.8**, 3137S**±007×**1783W**±02**, h9**^{km}±20^{km}**, n22, σ1^{s}22**/19**, mb4.2**/5**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**6.80**	**204**	PN	**Pn**	**02 10 13.2**	**+1.8**
MXZ				SN	**Sn**	**02 11 31.3**	**+2.3**
PUZ	**Puketiti**	**7.28**	**202**	PN	**Pn**	**02 10 17.3**	**-0.7**
PUZ				SN	**Sn**	**02 11 38.2**	**-2.6**
MWZ	**Matawai**	**7.77**	**205**	PN	**Pn**	**02 10 25.6**	**+0.9**
MWZ				SN	**Sn**	**02 11 52.9**	**+0.1**
URZ	**Urewera**	**7.86**	**208**	P	**Pn**	**02 10 27.3**	**+1.3**
	0.7nm,0.3s,baz=291,slow=14,SNR=4.1						
URZ				S	**Sn**	**02 11 55.4**	**+0.3**
	12nm,0.3s,baz=315,slow=20,SNR=26						
BKZ	**Black Stump Fm**	**8.89**	**207**	PN	**Pn**	**02 10 38.3**	**-1.8**
BFZ	**Birch Farm**	**10.30**	**204**	PN	**Pn**	**02 10 52.3**	**-7.2**
KIW	**Kapiti Island**	**10.97**	**208**	PN	**Pn**	**02 11 05.8**	**-2.7**
THZ	**Tophouse**	**12.57**	**212**	PN	**Pn**	**02 11 30.0**	**-0.4**
RPZ	**Rata Peaks**	**14.95**	**211**	P	**Pn**	**02 12 03.5**	**+0.7**
	2.0nm,0.3s,baz=343,slow=1.3,SNR=10						
RPZ				S	**Sn**	**02 14 33.3**	**-15**
	0.9nm,0.3s,baz=18,slow=7.2,SNR=4.0						
DZM	**Mont Dzumac**	**16.50**	**300**	LR	LR	02 16 11.0	
	comp=Z,81nm,20.4s,baz=40,slow=28						
CTA	**Charters Tower**	**33.75**	**281**	P	**P**	**02 15 14.2**	**+0.7**
	6.1nm,0.8s,mb4.6,baz=78,slow=14,SNR=3.6						
STKA	**Stephens Creek**	**34.06**	**258**	P	**P**	**02 15 16.7**	**+0.5**
	1.1nm,0.5s,mb4.1,baz=94,slow=14,SNR=4.2						
ASAR	**Alice Springs**	**42.85**	**268**	P	**P**	**02 16 29.6**	**-0.5**
	1.2nm,0.3s,mb4.1,baz=108,slow=7.9,SNR=18						
WRA	**Warramunga Arr**	**43.92**	**273**	P	**P**	**02 16 38.1**	**-0.8**
	2.5nm,0.3s,mb4.4,baz=111,slow=8.1,SNR=153						
VNA3	**Neumayer Olymp**	**77.36**	**176**	*e*	pP	02 20 32.1	+3.0
VNA2	**Neumayer--Watz**	**77.79**	**177**	*e*	pP	02 20 34.8	+3.3
	baz=196,slow=4.7						
NVAR	**Mina Array Bea**	**89.09**	**43**	P	**P**	**02 21 27.2**	**+0.1**
	0.5nm,0.8s,mb3.9,baz=222,slow=6.0,SNR=4.7						
ARCES	**ARCESS Array B**	**139.48**	**347**	PKP	PKPdf	02 27 57.5	-0.8
	3.6nm,1.0s,baz=64,slow=2.8,SNR=4.1						
FINES	**FINESS Array B**	**145.97**	**339**	PKPbc	PKPbc	02 28 07.6	-3.2
	1.3nm,0.8s,baz=98,slow=3.9,SNR=7.1						
NB2	**NORSAR Subarra**	**149.67**	**351**	PKPa	PKPdf	02 28 18.2	+2.0
	comp=Z,0.9nm,0.5s,baz=12,slow=2.5						
NOA	**NORSAR Array B**	**149.67**	**351**	PKPbc	PKPbc	02 28 18.5	-2.4
	comp=Z,1.0nm,0.5s,baz=14,slow=4.1,SNR=5.5						
TORD	**Torodi Ar. Bea**	**161.87**	**180**	PKPab	PKPab	02 29 17.5	-1.7
	comp=Z,0.9nm,1.2s,baz=189,slow=3.1,SNR=6.9						

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*IDC **18** 02:21:26.7±1.3, 57.09S×27.06W, h0^{km}, mb4.9/2, mb1 5.0/2, mb1mx4.2/12, mbtmp4.9/2, Error ellipse: s-maj=63.0km s-min=39.2km az=7.0*

NEIC 18 02:21:52.6±0.7**, 5647S**×**2734W, h200**^{km}**, mb4.1**/2**, Error ellipse: s-maj=35.7km s-min=20.7km az=182.0, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA3	**Neumayer Olymp**	**16.63**	**160**	*e*PKPdf	P	02 25 27.9	-5.0
VNA3				*e*		02 25 33.3	
VNA2	**Neumayer--Watz**	**16.84**	**157**	*e*PKPdf	P	02 25 31.6	-3.6
	baz=312,slow=12						
VNA2				*e*		02 25 36.2	
VNA2				*e*		02 25 42.5	
LPAZ	**La Paz**	**50.55**	**306**	*e*P	P	02 30 30.8	+0.3
	3.2nm,0.4s						
LPAZ	**La Paz**	**50.55**	**306**	P	P	02 30 31.4	+0.9
	7.7nm,0.4s,baz=116,slow=5.4,SNR=54						
OTAV	**Otavalo**	**69.82**	**304**	*e*P	P	02 32 42.3	+1.1
	2.6nm,0.8s						
TOA0	**Torodi Ar. Sit**	**73.46**	**30**	*e*P	P	02 33 03.1	+0.3
TORD	**Torodi Ar. Bea**	**73.46**	**30**	P	P	02 33 03.6	+0.7
	5.2nm,0.5s,baz=200,slow=6.5,SNR=125						
PDAR	**Pinedale Array**	**120.49**	**302**	PKP	PKPdf	02 40 18.9	-0.3
PDAR	**Pinedale Array**	**120.49**	**302**	PKP	PKPdf	02 40 18.9	-0.3
	0.2nm,0.5s,baz=111,slow=4.9,SNR=3.7						
NVAR	**Mina Array Bea**	**121.48**	**293**	PKP	PKPdf	02 40 22.6	+1.4
NVAR	**Mina Array Bea**	**121.48**	**293**	PKP	PKPdf	02 40 22.6	+1.4
	0.3nm,0.5s,baz=127,slow=2.4,SNR=3.4						
FINES	**FINESS Array B**	**124.79**	**28**	PKP	PKPdf	02 40 26.9	+0.1
FINES	**FINESS Array B**	**124.79**	**28**	PKP	PKPdf	02 40 26.9	+0.1
	2.6nm,0.9s,baz=150,slow=3.5,SNR=11						
KAF	**Kangasniemi**	**125.41**	**28**	*e*p	PKPdf	02 40 27.5	-0.5
	0.8nm,0.3s						
ARCES	**ARCESS Array B**	**131.36**	**22**	PKP	PKPdf	02 40 39.0	-0.2
ARCES	**ARCESS Array B**	**131.36**	**22**	PKP	PKPdf	02 40 39.0	-0.2
	3.2nm,0.9s,baz=195,slow=1.4,SNR=4.3						
YKA	**Yellowknife Ar**	**136.42**	**318**	PKP	PKPdf	02 40 49.0	+0.2
YKA	**Yellowknife Ar**	**136.42**	**318**	PKP	PKPdf	02 40 49.0	+0.2
	0.9nm,0.6s,baz=124,slow=2.3,SNR=9.8						
INK	**Inuvik**	**146.07**	**320**	*e*PKPbc	PKPbc	02 41 07.2	-0.1
SONM	**Songino Array**	**150.83**	**87**	PKPbc	PKPbc	02 41 20.3	+0.2
SONM	**Songino Array**	**150.83**	**87**	PKPbc	PKPbc	02 41 20.3	+0.2
	0.8nm,0.4s,baz=219,slow=3.8,SNR=16						

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*NIED **18** 02:37:00, 42.50N×144.50E, h47^{km}, Mw3.7   Best double couple: M$_0$4.20000×10^{14} NP1:φ$_s$208.00000°, δ13.00000°, λ82.00000°.   NP2:φ$_s$36.00000°, δ78.00000°, λ92.00000°.*

*MOS **18** 02:37:36.9±1.2, 42.51N×144.44E, h58^{km}, mb4.2/1, Error ellipse: s-maj=18.6km s-min=11.7km az=84.1*

*JMA **18** 02:37:37.3±0.1, 42.54N×144.54E, h55^{km}±1^{km}, M3.6*

*ISCJB **18** 02:37:37.5±0.6, 42.57N±0.05×144.51E±0.05, h58^{km}±4^{km}, mb3.7/8, Error ellipse: s-maj=9.5km s-min=4.5km az=146.5*

*NEIC **18** 02:37:40.2±1.7, 42.52N×144.35E, h68^{km}±22^{km}, MG3.6(JMA), Error ellipse: s-maj=30.7km s-min=16.5km az=175.0*

*IDC **18** 02:37:40.0±3.2, 42.53N×144.32E, h60^{km}±26^{km}, mb3.4/7, mb1 3.5/9, mb1mx3.4/23, mbtmp3.4/9, ML3.5/2, Error ellipse: s-maj=33.3km s-min=27.7km az=172.0*

ISC 18 02:37:38.4±0.6**, 4257N**±005×**14451E**±005**, h49**^{km}±4^{km}**, n35, σ0^{s}89**/48**, mb3.7**/8**, 2C-5D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	**Akkeshi**	**0.44**	**18**	⇓P	**Pn**	**02 37 48.5**	**-0.4**
JAK				S	**Sn**	**02 37 56.7**	**+0.2**
JOB	**Onbets**	**0.60**	**304**	⇓P	**Pn**	**02 37 50.6**	**-0.2**
JOB				*e*S	**Sn**	**02 38 00.3**	**+0.6**
JCH	**Churui**	**0.85**	**273**	⇓P	**Pn**	**02 37 53.6**	**-0.5**
JCH				*e*S	**Sn**	**02 38 05.2**	**-0.3**
JAR	**Ashorobuto**	**0.91**	**323**	⇓P	**Pn**	**02 37 54.6**	**-0.2**
JAR				*e*S	**Sn**	**02 38 06.0**	**-0.9**
JNK	**Nakash**	**1.02**	**8**	⇓P	**Pn**	**02 37 55.8**	**-0.6**
JNK				*e*S	**Sn**	**02 38 08.0**	**-1.6**
JEM	**Erimo**	**1.15**	**241**	P	**Pn**	**02 37 58.1**	**0.0**
ERM	**Erimo**	**1.15**	**241**	*e*Pn	**Pn**	**02 37 59.3**	**+1.2**
ERM				*e*Sn	**Sn**	**02 38 14.6**	**+1.9**
NEM2	**Nemuro 2**	**1.20**	**48**	P	**Pn**	**02 37 57.9**	**-0.9**
NEM2				*e*S	**Sn**	**02 38 12.4**	**-1.5**
JNBK	**Urakawa-nobuka**	**1.34**	**258**	P	**Pn**	**02 37 59.6**	**-1.0**
JRA	**Rausu**	**1.43**	**18**	⇑P	**Pn**	**02 38 02.1**	**+0.1**
JRA				*e*S	**Sn**	**02 38 20.1**	**+0.5**
JTKR	**Abashiri--Toko**	**1.46**	**343**	P	**Pn**	**02 38 03.2**	**+0.8**
JTKR				*e*S	**Sn**	**02 38 22.1**	**+1.7**
JFR	**Furan**	**1.53**	**293**	P	**Pn**	**02 38 03.1**	**-0.2**
JFR				*e*S	**Sn**	**02 38 21.9**	**-0.1**
JBT2	**Biratori 2**	**1.60**	**278**	P	**Pn**	**02 38 02.9**	**-1.3**
JMP	**Maruseppu**	**1.66**	**330**	⇑P	**Pn**	**02 38 05.7**	**+0.6**
YUK	**Yuzh-Kuril'sk**	**1.76**	**34**	*e*PN	**Pn**	**02 38 06.6**	**+0.2**
YUK				*i* S	**Sn**	**02 38 28.5**	**+0.9**
YUK				pmax	pmax		
	comp=Z,360nm,0.3s						
YUK				smax			
	comp=N,1µm,0.5s						
YUK				smax			
	comp=E,1µm,0.5s						
YUK				smax			
	comp=N,2µm,0.7s						
YUK				smax			
	comp=E,2µm,1.0s						
ASAJ	**Asahikawa**	**2.08**	**318**	P	**Pn**	**02 38 11.9**	**+1.1**
	comp=E,15nm,0.3s,baz=135,slow=15,SNR=51						
ASAJ				S	**Sn**	**02 38 40.9**	**+5.4**
	comp=E,33nm,0.3s,baz=278,slow=15,SNR=26						
KUR	**Kuril'sk**	**3.60**	**41**	*e*PN	**Pn**	**02 38 32.5**	**+0.9**
KUR				*e*S	**Sn**	**02 39 16.4**	**+3.6**
KUR				pmax	pmax		
	comp=N,50nm,0.7s						
KUR				pmax	pmax		
	comp=E,50nm,0.7s						
KUR				pmax	pmax		
	comp=Z,50nm,0.7s						
KUR				smax			
	comp=N,220nm,0.8s						
KUR				smax			
	comp=E,170nm,0.8s						
MJAR	**Matsushiro Arr**	**7.74**	**221**	PN	**Pn**	**02 39 27.8**	**-0.7**
MJAR	**Matsushiro Arr**	**7.74**	**221**	P	**Pn**	**02 39 27.8**	**-0.7**
	comp=E,0.3nm,0.3s,baz=33,slow=13,SNR=5.0						
SONM	**Songino Array**	**27.17**	**294**	P	**P**	**02 43 17.1**	**+0.2**
	comp=E,0.5nm,0.7s,mb3.2,baz=75,slow=8.3,SNR=5.9						
ZALV	**Zalesovo Beam**	**40.18**	**308**	P	**P**	**02 45 09.4**	**-0.1**
	comp=E,0.5nm,0.5s,mb3.5,baz=96,slow=9.1,SNR=4.1						
ZAL	**Zalesovo**	**40.19**	**308**	P	**P**	**02 45 09.4**	**-0.2**
MK31	**Makanchi Array**	**43.42**	**298**	*e*P	**P**	**02 45 36.0**	**-0.1**
MKAR	**Makanchi Array**	**43.42**	**298**	P	**P**	**02 45 36.1**	**+0.1**
	comp=E,0.4nm,0.4s,mb3.5,baz=83,slow=10,SNR=7.1						
INK	**Inuvik**	**48.38**	**30**	*e*P	**P**	**02 46 15.6**	**+0.7**
	comp=E,16nm,0.4s						
RES	**Resolute Bay**	**56.64**	**16**	*e*P	**P**	**02 47 15.6**	**-0.2**
	comp=E,14nm,0.4s						
YKA	**Yellowknife Ar**	**57.84**	**33**	P	**P**	**02 47 25.7**	**+1.2**
YKA	**Yellowknife Ar**	**57.84**	**33**	P	**P**	**02 47 25.7**	**+1.2**
	comp=E,0.3nm,0.6s,mb3.5,baz=303,slow=7.0,SNR=5.2						
JOF	**Joensuu**	**62.22**	**332**	*e*p	**P**	**02 47 52.6**	**-1.8**
	comp=E,1.4nm,0.5s,mb4.3						
KAF	**Kangasniemi**	**64.48**	**333**	*e*p	**P**	**02 48 08.1**	**-1.3**
FINES	**FINESS Array B**	**65.03**	**332**	P	**P**	**02 48 12.8**	**-0.2**
	comp=E,1.2nm,0.5s,mb4.2,baz=46,slow=6.6,SNR=23						
NB2	**NORSAR Subarra**	**69.98**	**338**	P	**P**	**02 48 43.8**	**-0.4**
	comp=Z,0.5nm,0.5s,mb3.7,baz=34,slow=6.5						
NOA	**NORSAR Array B**	**69.98**	**338**	P	**P**	**02 48 44.2**	**-0.1**
NOA	**NORSAR Array B**	**69.98**	**338**	P	**P**	**02 48 44.2**	**-0.1**
	comp=Z,0.6nm,0.5s,mb3.8,baz=36,slow=6.2,SNR=3.2						
TXAR	**Lajitas Array**	**84.91**	**54**	P	**P**	**02 50 09.7**	**+1.6**
	comp=Z,0.2nm,0.6s,mb3.4,baz=326,slow=8.0,SNR=3.3						

IDC 18 02:45:36.2±64.0**, 1607S**×**17688W, h0**^{km}**, mb3.9**/3**, mb1 4.1**/3**, mb1mx3.6**/14**, mbtmp3.9**/3**, Error ellipse: s-maj=1192.0km s-min=164.9km az=78.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**40.80**	**240**	P	P	02 53 19.5	-0.1
	0.6nm,0.3s,baz=77,slow=11,SNR=6.1						
WRA	**Warramunga Arr**	**46.43**	**258**	P	P	02 54 05.2	+0.1
	0.2nm,0.3s,baz=93,slow=7.4,SNR=15						
ASAR	**Alice Springs**	**46.71**	**252**	P	P	02 54 07.2	-0.2
	3.2nm,0.5s,baz=88,slow=8.2,SNR=51						

IDC 18 02:51:00.4±2.2**, 199N**×**12754E, h0**^{km}**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.3**/16**, mbtmp3.4**/3**, MS3.9**/1**, Ms1 3.9**/1**, ms1mx3.0**/11**, Error ellipse: s-maj=174.3km s-min=24.0km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**22.79**	**163**	P	P	02 56 04.6	-0.1
	0.4nm,0.6s,baz=343,slow=11,SNR=4.6						
ASAR	**Alice Springs**	**26.24**	**167**	P	P	02 56 37.3	0.0
	0.2nm,0.5s,baz=356,slow=7.4,SNR=3.0						
CBIJ	**Chichi jima**	**28.64**	**28**	LR	LR	03 06 24.8	
	comp=Z,245nm,18.8s,baz=100,slow=32						
MKAR	**Makanchi Array**	**59.44**	**325**	P	P	03 01 05.1	+0.2
	0.8nm,0.4s,baz=119,slow=8.0,SNR=20						

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*NIED **18** 02:54:00, 44.30N×148.80E, h65^{km}, Mw4.2   Best double couple: M$_0$2.57000×10^{15} NP1:φ$_s$3.00000°, δ24.00000°, λ119.00000°.   NP2:φ$_s$152.00000°, δ70.00000°, λ78.00000°.*

*BJI **18** 02:54:46.6, 44.90N×148.70E, h10^{km}, mB4.6, mb4.7, Ms4.1, Msz4.0*

*NEIC **18** 02:54:46.6±0.3, 44.89N×148.74E, h10^{km}, mb4.4/13, Error ellipse: s-maj=12.6km s-min=6.3km az=148.0*

*JMA **18** 02:54:51.9±0.4, 44.35N×148.81E, h30^{km}, M4.9*

*MOS **18** 02:54:51.3±1.3, 44.70N×148.70E, h73^{km}, mb4.3/6, Error ellipse: s-maj=11.1km s-min=9.1km az=68.2*

*ISCJB **18** 02:54:51.6±0.6, 44.66N±0.04×148.72E±0.06, h72^{km}±5^{km}, mb4.1/35, Error ellipse: s-maj=9.0km s-min=4.9km az=135.9*

*IDC **18** 02:54:51.7±4.3, 44.77N×148.60E, h55^{km}±40^{km}, mb3.8/15, mb1 4.0/17, mb1mx3.9/25, mbtmp3.8/17, ML3.8/2, MS3.1/6, Ms1 3.1/6, ms1mx2.9/32, Error ellipse: s-maj=19.5km s-min=15.0km az=136.0*

*SKHL **18** 02:54:52.3±0.2, 44.73N×148.85E, h56^{km}±3^{km}, mb5.4/3*

ISC 18 02:54:53.0±0.6**, 4468N**±004×**14871E**±006**, h67**^{km}±5^{km}**, n109, σ1^{s}23**/131**, mb4.1**/35**, 3C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	**0.82**	**313**	*e*PN	**Pn**	**02 55 07.6**	**-1.4**
KUR				*i* S	**Sn**	**02 55 19.2**	**-1.6**
KUR				pmax	pmax		
	comp=N,2µm,0.3s						
KUR				pmax	pmax		
	comp=E,2µm,0.3s						
KUR				pmax	pmax		
	comp=Z,8µm,0.3s						
KUR				pmax	pmax		
	comp=N,4µm,1.0s						
KUR				pmax	pmax		
	comp=E,5µm,1.0s						
KUR				pmax	pmax		
	comp=Z,10µm,1.0s						
KUR				smax			
	comp=N,30µm,1.0s						
KUR				smax			
	comp=E,22µm,1.0s						

KUR	Kuril'sk	0.82	313	*e*P	Pn	02 55 07.6	-1.4
KUR				AMB	AMB	02 55 08.0	
	comp=E,2µm,0.3s						
KUR				AMB	AMB	02 55 08.0	
	comp=E,2µm,0.3s						
KUR				AMB	AMB	02 55 08.0	
	comp=E,8µm,0.3s						
KUR				AMB	AMB	02 55 09.2	
	comp=E,4µm,1.0s						
KUR				AMB	AMB	02 55 09.2	
	comp=E,5µm,1.0s						
KUR				AMB	AMB	02 55 09.2	
	comp=E,10µm,1.0s						
KUR				*i* S	Sn	02 55 19.2	-1.6
KUR				A		02 55 22.4	
	comp=E,30µm,1.0s						
KUR				A		02 55 22.4	
	comp=E,22µm,1.0s						
YUK	Yuzh-Kuril'sk	2.14	253	⇑*i*PN	Pn	02 55 26.5	0.0
YUK				*i* S	Sn	02 55 52.0	+0.1
YUK				pmax	pmax		
	comp=N,380nm,0.3s						
YUK				pmax	pmax		
	comp=E,570nm,0.3s						
YUK				pmax	pmax		
	comp=Z,2µm,0.3s						
YUK				smax			
	comp=N,2µm,0.5s						
YUK				smax			
	comp=E,4µm,0.5s						
YUK				smax			
	comp=N,10µm,1.5s						
YUK				smax			
	comp=E,5µm,1.0s						
YUK	Yuzh-Kuril'sk	2.14	253	*i* P	Pn	02 55 26.5	0.0
YUK				AMB	AMB	02 55 27.9	
	comp=E,380nm,0.3s						
YUK				AMB	AMB	02 55 27.9	
	comp=E,570nm,0.3s						
YUK				AMB	AMB	02 55 27.9	
	comp=E,2µm,0.3s						
YUK				*i* S	Sn	02 55 52.0	+0.1
YUK				A		02 55 54.7	
	comp=E,2µm,0.5s						
YUK				A		02 55 54.7	
	comp=E,4µm,0.5s						
YUK				A		02 55 57.1	
	comp=E,10µm,1.5s						
YUK				A		02 55 57.1	
	comp=E,5µm,1.5s						
NEM2	Nemuro 2	2.51	239	P	Pn	02 55 30.8	-0.7
NEM2				*e*S	Sn	02 55 59.4	-1.5
JRA	Rausu	2.68	255	P	Pn	02 55 34.7	+0.9
JRA				*e*S	Sn	02 56 06.9	+1.9
JNK	Nakash	3.08	251	P	Pn	02 55 40.1	+0.9
JNK				*e*S	Sn	02 56 15.4	+0.7
JAK	Akkeshi	3.36	241	P	Pn	02 55 42.8	-0.2
JAK				*e*S	Sn	02 56 20.8	-0.8
JTKR	Abashiri--Toko	3.52	260	P	Pn	02 55 46.4	+1.2
JAR	Ashorobuto	3.83	251	P	Pn	02 55 51.1	+1.7
JAR				*e*S	Sn	02 56 34.6	+1.5
JMP	Maruseppu	3.90	262	P	Pn	02 55 51.9	+1.5
JOB	Onbets	3.95	245	P	Pn	02 55 51.9	+0.8
JOB				*e*S	Sn	02 56 35.6	-0.6
JKK2	Kamakawa 2	4.36	261	P	Pn	02 55 58.9	+2.2
JSE	Soyaes	4.37	276	P	Pn	02 55 58.6	+1.8
JCH	Churui	4.40	244	P	Pn	02 55 57.5	+0.3
JCH				*e*S	Sn	02 56 46.7	-0.4
ASAJ	Asahikawa	4.42	265	PN	Pn	02 55 59.7	+2.2
ASAJ				pmax	pmax		
	comp=Z,13nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,166nm,18.8s						
ASAJ	Asahikawa	4.42	265	P	Pn	02 55 59.6	+2.2
	comp=Z,13nm,0.3s,baz=77,slow=15,SNR=53						
ASAJ				LR	LR	02 57 58.2	
	comp=Z,166nm,18.8s,baz=357,slow=43						
JFR	Furan	4.67	253	P	Pn	02 56 02.0	+1.0
JFR				*e*S	Sn	02 56 56.0	+2.2
YSS	Yuzh-Sakhalins	4.74	301	*e*Pn	Pn	02 56 02.8	+0.9
YSS				*e*Sn	Sn	02 56 52.3	-3.2
YSS	Yuzh-Sakhalins	4.74	301	*e*PN	Pn	02 56 03.0	+1.1
YSS				*i* S	Sn	02 56 54.5	-1.1
YSS				pmax	pmax		
	comp=Z,50nm,0.7s						
YSS				smax			
	comp=E,220nm,0.7s						
YSS	Yuzh-Sakhalins	4.74	301	*e*P	Pn	02 56 03.0	+1.1
YSS				AMB	AMB	02 56 04.8	
	comp=E,50nm,0.7s						
YSS				*i* S	Sn	02 56 54.5	-1.1
YSS				A		02 56 59.5	
	comp=E,220nm,0.7s						
JAB	Ashibetsu	4.82	258	P	Pn	02 56 06.3	+3.3
ERM	Erimo	4.85	239	*e*Pn	Pn	02 56 04.5	+1.2
ERM				*e*Sg	Sn	02 57 15.5	+17
ERM	Erimo	4.85	239	*e*PN	Pn	02 56 04.6	+1.2
JEM	Erimo	4.85	239	P	Pn	02 56 04.5	+1.1
JWK2	Keihoku	4.88	280	P	Pn	02 56 07.2	+3.5
JNBK	Urakawa-nobuka	4.96	243	P	Pn	02 56 04.8	0.0
JBT2	Biratori 2	4.98	250	P	Pn	02 56 05.9	+0.8
JHR	Hokuryu	5.11	262	P	Pn	02 56 10.0	+3.1
JNB	Noboribetsu	6.00	251	P	Pn	02 56 20.1	+1.0
JNB				*e*S	Sn	02 57 27.2	+0.9
JKB	Kayabe	6.26	246	P	Pn	02 56 22.8	+0.1
JKB				*e*S	Sn	02 57 29.8	-3.0
JYM2	Yakumo 2	6.59	250	P	Pn	02 56 27.8	+0.6
JSR	Shiriuchi	6.84	245	P	Pn	02 56 30.3	-0.3
JSR				*e*S	Sn	02 57 44.5	-2.4
JANG	Nango	6.84	233	P	Pn	02 56 28.3	-2.3
JANG				*e*S	Sn	02 57 41.2	-5.8
JTM	Tenmabayashi	6.84	238	*e*S	Sn	02 57 41.2	-5.8
JTH	Tanohata	6.94	229	P	Pn	02 56 29.6	-2.4
JTH				*e*S	Sn	02 57 42.2	-7.3
JOSM	Okushiri--Mats	7.21	252	P	Pn	02 56 36.3	+0.6
OFUJ	Ofunato	7.67	226	P	Pn	02 56 39.7	-2.3
SKR	Severo-Kuril's	7.81	37	*e*PN	Pn	02 56 43.4	-0.4
JRG	Rokugo	8.00	231	P	Pn	02 56 45.0	-1.5
JIO	Ouri	8.31	224	P	Pn	02 56 48.2	-2.6
JIO				*e*S	Sn	02 58 14.7	-8.4
JYA	Atsumi	9.07	231	P	Pn	02 56 59.8	-1.3
MJAR	Matsushiro Arr	11.38	228	PN	Pn	02 57 31.3	-1.4
MJAR	Matsushiro Arr	11.38	228	P	Pn	02 57 31.3	-1.4
	comp=E,0.7nm,0.3s,baz=26,slow=14,SNR=20						
MJAR				LR	LR	03 02 10.8	
	comp=E,80nm,19.5s,baz=60,slow=39						
MAJO	Matsushiro	11.39	228	*e*Pn	Pn	02 57 30.8	-1.9
	comp=E,10nm,0.6s						
MAJO	Matsushiro	11.39	228	*e*PN	Pn	02 57 30.8	-1.9
MAJO				pmax	pmax		
	comp=Z,10.0nm,0.6s						
MAT	Matsushiro	11.39	228	P	Pn	02 57 30.9	-1.8
MAT				*e*S	Sn	02 59 51.8	+14
KLR	Kul'dur	12.45	297	*e*PN	Pn	02 57 46.8	-0.3
MDJ	Mudanjiang	13.62	276	*e*Pn	Pn	02 58 00.8	-2.2
KSRS	Korea Array	17.23	252	P	Pn	02 58 47.8	-1.3
	comp=Z,0.3nm,0.3s,baz=65,slow=12,SNR=8.5						
KSRS				LR	LR	03 04 34.8	
	comp=Z,60nm,20.2s,baz=353,slow=34						
JNU	Nakatsue	18.01	236	P	Pn	02 59 00.5	+1.9
	comp=Z,0.7nm,0.3s,baz=38,slow=18,SNR=8.9						
SEY	Seymchan	18.41	5	*i* P	Pn	02 59 03.5	+0.3
YAK	Yakutsk	20.62	334	*i* P	P	02 59 24.9	-1.6
YAK				pmax	pmax		
	comp=Z,12nm,0.5s						
BILL	Bilibino	25.16	15	*e*P	P	03 00 15.1	+3.5
BILL				*e**PP	pP	03 00 29.4	+2.0
BILL				*e**SP	sP	03 00 37.7	+2.4
BILL				*e*		03 04 36.7	
BILL				pmax	pmax		
	comp=Z,9.0nm,2.0s,mb3.9						
SONM	Songino Array	29.16	291	P	P	03 00 48.4	+0.7
	comp=Z,0.3nm,0.4s,mb3.3,baz=81,slow=9.6,SNR=5.4						
SONM				LR	LR	03 13 34.5	
	comp=Z,60nm,18.9s,baz=355,slow=39						
LZH	Lanzhou	34.87	272	⇑P	P	03 01 38.5	+0.8
LZH				AMB	AMB		
	comp=Z,25nm,1.3s,mb4.9						
LZH				AMB	AMB		
	comp=Z,127nm,4.1s						
LZH	Lanzhou	34.87	272	⇑P	P	03 01 38.5	+0.8
	comp=Z,25nm,1.3s,mb4.9						
LZH				pP	pP	03 02 02.3	+8.3
LZH				sP	sP	03 02 13.6	+12
GTA	Gaotai	36.25	279	*e*P	P	03 01 49.8	+0.2
GTA				AP	pP	03 01 53.3	-13
GTA				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.4						
KDAK	Kodiak Island	37.79	48	P	P	03 02 01.4	-0.9
	comp=Z,2.2nm,0.4s,mb4.4,baz=239,slow=2.1,SNR=6.8						
GYA	Guiyang	38.24	256	P	P	03 02 08.0	+1.5
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
ZALV	Zalesovo Beam	41.34	307	LR	LR	03 21 10.8	
	comp=Z,16nm,19.8s,baz=359,slow=38						
EGAK	Eagle	42.52	37	*e*P	P	03 02 40.5	-0.9
	comp=Z,0.8nm,0.5s,mb3.7						
INK	Inuvik	45.03	31	P	P	03 03 01.2	-0.3
	comp=Z,0.8nm,0.6s,mb3.6,baz=300,slow=3.4,SNR=5.4						
MK31	Makanchi Array	45.15	297	*e*P	P	03 03 01.7	-1.0
MKAR	Makanchi Array	45.15	297	*e*P	P	03 03 02.1	-0.6
MKAR	Makanchi Array	45.15	297	P	P	03 03 01.8	-0.9
	comp=Z,0.4nm,0.3s,mb3.6,baz=77,slow=7.5,SNR=8.4						
MKAR				LR	LR	03 22 47.4	
	comp=Z,55nm,18.8s,baz=246,slow=37						
KURK	Kurchatov	45.95	304	*e*P	P	03 03 07.5	-1.4
	comp=Z,0.9nm,0.5s,mb3.8						
KURK	Kurchatov	45.95	304	*e*P	P	03 03 07.5	-1.4
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
YKA	Yellowknife Ar	54.40	35	P	P	03 04 12.7	+0.1
YKA	Yellowknife Ar	54.40	35	*e*P	P	03 04 11.1	-1.6
YKA	Yellowknife Ar	54.40	35	P	P	03 04 12.7	+0.1
	comp=Z,1.1nm,0.5s,mb4.1,baz=298,slow=6.9,SNR=12						
EDM	Edmonton	59.96	43	*e*P	P	03 04 51.5	-0.5
MOD	Modoc	62.80	57	*e*P	P	03 05 12.0	+0.7
	comp=Z,2.2nm,0.7s,mb4.2						
WVOR	Wild Horse Val	63.47	56	*e*P	P	03 05 16.4	+0.6
	comp=Z,1.5nm,0.7s,mb4.0						
WVOR	Wild Horse Val	63.47	56	*e*P	P	03 05 16.4	+0.6
WVOR				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
FINES	FINESS Array B	64.55	333	P	P	03 05 21.2	-1.3
	comp=Z,6.2nm,1.1s,mb4.3,baz=242,slow=4.1,SNR=6.2						
WB2	Warramunga Arr	65.63	195	*e*P	P	03 05 30.2	+0.2
WRA	Warramunga Arr	65.64	195	P	P	03 05 29.9	0.0
	comp=Z,1.0nm,0.7s,mb3.8,baz=14,slow=6.8,SNR=12						
NVAR	Mina Array Bea	66.14	59	P	P	03 05 34.4	+1.2
	comp=Z,3.6nm,0.7s,mb4.3,baz=288,slow=8.7,SNR=33						
MOOW	Moose Ponds	67.15	51	*e*P	P	03 05 40.6	+1.0
	comp=Z,2.0nm,0.6s,mb4.1						
TPAW	Teton Pass	67.21	51	*e*P	P	03 05 41.4	+1.5
	comp=Z,11nm,1.4s,mb4.5						
LOHW	Long Hollow	67.32	51	*e*P	P	03 05 41.3	+0.7
	comp=Z,1.6nm,0.6s,mb4.0						
DUG	Dugway	68.29	55	*e*P	P	03 05 47.8	+1.0
	comp=Z,2.7nm,0.8s,mb4.1						
DUG	Dugway	68.29	55	*e*P	P	03 05 47.8	+1.1
DUG				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
PDAR	Pinedale Array	68.45	51	P	P	03 05 48.3	+0.6
	comp=Z,2.5nm,0.7s,mb4.2,baz=265,slow=1.8,SNR=22						
MPU	Maple Canyon	69.09	54	*e*P	P	03 05 52.4	+0.6
	comp=Z,3.0nm,0.7s,mb4.2						
NB2	NORSAR Subarra	69.14	339	P	P	03 05 50.8	-0.8
	comp=Z,2.8nm,1.0s,mb4.0,baz=31,slow=6.5						
NB2	NORSAR Subarra	69.14	339	P	P	03 05 49.2	-2.4
	comp=Z,2.9nm,1.0s,mb4.1,baz=31,slow=6.5						
NOA	NORSAR Array B	69.14	339	P	P	03 05 51.0	-0.6
	comp=Z,0.8nm,0.8s,mb3.6,baz=32,slow=6.3,SNR=3.4						
ASAR	Alice Springs	69.35	195	*e*P	P	03 05 54.2	+0.9
ASAR	Alice Springs	69.35	195	P	P	03 05 54.2	+0.9
	comp=Z,0.8nm,0.7s,mb3.7,baz=11,slow=5.4,SNR=14						
ULM	Lac du Bonnet	70.08	38	P	P	03 05 56.5	-1.2
ULM	Lac du Bonnet	70.08	38	P	P	03 05 56.5	-1.2
	comp=Z,0.5nm,0.4s,mb3.7,baz=304,slow=9.5,SNR=5.2						
PFO	Pinyon Flat Ob	70.37	62	P	P	03 05 56.5	-3.3
	comp=Z,2.2nm,0.4s,mb4.3,baz=335,slow=8.1,SNR=7.7						
AKASG	Malin Array Be	71.49	324	*e*P	P	03 06 05.1	-1.1
AKASG	Malin Array Be	71.49	324	P	P	03 06 04.8	-1.4
	comp=Z,0.2nm,0.3s,mb3.4,baz=38,slow=6.0,SNR=4.3						
SMCO	Snowmass	72.31	52	*e*P	P	03 06 12.1	+0.7
	comp=Z,3.5nm,1.1s,mb4.1						
ANMO	Albuquerque	75.54	55	*e*P	P	03 06 31.1	+0.8
	comp=Z,1.1nm,0.6s,mb3.8						
ANMO	Albuquerque	75.54	55	*e*P	P	03 06 31.1	+0.8
ANMO				pmax	pmax		
	comp=Z,1.0nm,0.6s						
CLL	Collm	77.00	333	*e*P	P	03 06 39.0	+0.8
MIB	Mutribah	77.04	299	*e*P	P	03 06 38.2	-0.7
MIB				AML	AML	03 06 39.2	
	comp=Z,7.7nm,0.6s						
QRN	Al-Qurain	77.41	298	*e*P	P	03 06 40.4	-0.5
QRN				AMb	AMB	03 06 41.2	
	comp=Z,17nm,0.4s,mb5.1						
NAY	Al-Naaiem	77.49	299	*e*P	P	03 06 40.5	-0.8
NAY				AMb	AMB	03 06 41.5	
	comp=Z,4.0nm,0.7s,mb4.3						
RDF	Al-Radifah	77.52	298	*e*P	P	03 06 41.0	-0.5
RDF				AMb	AMB	03 06 42.0	
	comp=Z,18nm,0.5s,mb5.0						
KHC	Kasperske Hory	78.68	332	*e*P	P	03 06 47.0	-0.6
GERES	GERESS Array B	78.89	332	P	P	03 06 48.2	-0.5
	comp=Z,0.7nm,0.6s,mb3.6,baz=35,slow=5.1,SNR=8.1						
LTX	Lajitas	81.20	57	*e*P	P	03 07 01.9	+0.4
	comp=Z,3.7nm,0.5s,mb4.5						
LTX	Lajitas	81.20	57	*e*P	P	03 07 02.0	+0.4
LTX				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.5						
TXAR	Lajitas Array	81.20	57	P	P	03 07 02.1	+0.6
	comp=Z,3.9nm,0.5s,mb4.5,baz=300,slow=4.0,SNR=63						

NAO ***18*** *03:18:07.1±1.4, 67.65N×33.74E, ML2.2*

HEL ***18*** *03:18:07.6±0.4, 67.71N×33.71E, h0*^{km}*, ML1.4, ML1.8(BER), ML2.2(NAO), Explosion*

ISCJB ***18*** *03:18:10.7±0.7, 67.70N±0.04×32.7E±0.1, h0*^{km}*, Error ellipse: s-maj=6.5km s-min=4.2km az=136.9*

ISC 18 03:18:07.7±1.3**, 67.70N**±0.04×**33.5E**±0.2**, h0**^{km}**, n18, σ1**^{s}**.35**/27**, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APA0	Apatity Array	0.20	241	Pg	Pg	03 18 12.5	+1.0
	baz=81,slow=16						
APA0				Lg		03 18 16.7	
	baz=80,slow=37						
APA0				Rg		03 18 18.3	
	baz=80,slow=37						
APA0	Apatity Array	0.20	241	*i* P	Pg	03 18 12.5	+1.0
APA0				*i* S	Sg	03 18 16.7	+2.7
APA0				*e*RG		03 18 18.3	
APA0	Apatity Array	0.20	241	Pg	Pg	03 18 12.5	+1.0
	baz=81,slow=16						
APA0				Lg		03 18 16.7	
	baz=80,slow=37						
APA0				Rg		03 18 18.3	
	baz=80,slow=37						
KU6	Riekki	2.19	221	*e*P	Pn	03 18 46.6	+1.3
KU6				*e*SG	Sg	03 19 17.3	-0.7
MSF	Maaselka	2.51	226	*e*PB	Pb	03 18 52.8	-0.7
MSF				*e*SG	Sg	03 19 27.9	-0.2
MSF				MSG		03 19 27.9	
	comp=Z,0.7nm,0.4s						
SGF	Sodankyl	2.67	268	*e*PG	Pg	03 18 56.5	-2.2
	baz=76						
SGF				*e*SB	Sb	03 19 30.5	+1.1
SGF				MSG		03 19 30.5	
	comp=Z,2.1nm,0.4s						
KEV	Kevo	3.12	314	*e*P	Pn	03 18 59.5	+1.5
ARA0	ARCESS Array S	3.44	306	Pn	Pn	03 19 03.3	+0.9
	baz=122,slow=16						
ARA0				Sn	Sn	03 19 44.3	+0.5
	baz=121,slow=28						
ARA0				Lg		03 19 56.1	
	baz=114,slow=37						
ARA0	ARCESS Array S	3.44	306	*e*P	Pn	03 19 03.3	+0.9
ARA0				*e*S	Sn	03 19 44.3	+0.5
ARA0				*e*SG	Sg	03 19 56.1	-2.0
ARA0	ARCESS Array S	3.44	306	Pn	Pn	03 19 03.3	+0.9
	baz=122,slow=16						
ARA0				Sn	Sn	03 19 44.3	+0.5
	baz=121,slow=28						
ARA0				Lg		03 19 56.1	
	baz=114,slow=37						
HEF	Hetta	3.74	285	*e*SG	Sg	03 20 06.9	-0.8
KTK1	Kautokeino	4.00	294	*e*P	Pn	03 19 11.3	+1.2
KTK1				AML	AML	03 20 21.1	
	comp=Z,4.6nm,0.7s						
FIA0	FINESS Array S	7.04	210	Sn	Sn	03 21 08.9	-3.4
	baz=28,slow=22						
FIA0				Lg		03 21 42.5	
	baz=69,slow=28						
FIA0	FINESS Array S	7.04	210	*e*S	Sn	03 21 08.9	-3.4
FIA0				*e*SG	Sg	03 21 42.5	-11
FIA0	FINESS Array S	7.04	210	Sn	Sn	03 21 08.9	-3.4
	baz=28,slow=22						
FIA0				Lg		03 21 42.5	
	baz=69,slow=28						
SPA0	Spitsbergen Ar	11.57	342	Pn	Pn	03 20 52.1	-1.6
	baz=144,slow=12						
SPA0	Spitsbergen Ar	11.57	342	*e*P	Pn	03 20 52.1	-1.6
SPA0	Spitsbergen Ar	11.57	342	P	Pn	03 20 52.1	-1.6
	baz=144,slow=12						

ISCJB ***18*** *03:24:36.7±0.5, 51.42N±0.03×16.06E±0.03, h0*^{km}*, Error ellipse: s-maj=3.9km s-min=2.3km az=20.3*

IPEC ***18*** *03:24:36.3±0.3, 51.59N×16.23E, h0*^{km}*, ML2.1/2, Error ellipse: s-maj=4.2km s-min=2.0km az=82.0*

WAR ***18*** *03:24:37.8, 51.55N×16.10E, ML2.5, Mining Induced*

CSEM ***18*** *03:24:37.1±0.3, 51.54N×16.11E, h0*^{km}*, ML3.1/7, Error ellipse: s-maj=5.0km s-min=2.7km az=15.0*

PRU ***18*** *03:24:38.5, 51.48N×16.08E, h0*^{km}

NEIC ***18*** *03:24:38.2±0.9, 51.46N×16.08E, h5*^{km}*, ML2.7(SZGRF), ML2.6(BRA), Error ellipse: s-maj=11.1km s-min=4.8km az=212.0*

VIE ***18*** *03:24:40.3±0.8, 51.29N×16.03E, h0*^{km}*, mb2.3/6, ML2.6/6, Error ellipse: s-maj=5.0km s-min=4.6km az=126.0, Suspected Mining induced.*

ISC 18 03:24:37.3±0.5**, 51.50N**±0.03×**16.11E**±0.03**, h0**^{km}**, n76, σ0**^{s}**.98**/144**, 11C-7D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.67	170	*e*Pg	Pg	03 24 51.0	+0.9
KSP				*e*Sg	Sg	03 25 01.1	+2.3
KSP	Ksiaz	0.67	170	⇓*i*Pg	Pg	03 24 51.0	+0.9
KSP				*e*Sg	Sg	03 25 00.6	+1.8
KSP	Ksiaz	0.67	170	*e*Pg	Pg	03 24 50.9	+0.8
KSP				*e*Sg	Sg	03 25 00.2	+1.4
UPC	Upice	1.00	184	*e*Pg	Pg	03 24 56.9	+0.5
UPC	Upice	1.00	184	*e*PG	Pg	03 24 56.9	+0.5
UPC	Upice	1.00	184	*e*Pg	Pg	03 24 56.9	+0.5
DPC	Dobruska-Polom	1.16	173	*e*Pg	Pg	03 24 59.8	+0.3
DPC				*e*Sg	Sg	03 25 15.4	+0.9
DPC	Dobruska-Polom	1.16	173	*e*PG	Pg	03 24 59.8	+0.3
DPC				*e*SG	Sg	03 25 15.4	+0.9
	20nm,0.5s						
DPC	Dobruska-Polom	1.16	173	*e*Pg	Pg	03 24 59.8	+0.3
DPC				*e*Sg	Sg	03 25 15.2	+0.7
PVCC	Panska Ves	1.38	226	*e*Pg	Pg	03 25 03.2	-0.4
PVCC				*e*Sg	Sg	03 25 23.2	+1.7
PVCC	Panska Ves	1.38	226	*e*PG	Pg	03 25 03.2	-0.4
PVCC				*e*SG	Sg	03 25 23.2	+1.7
	96nm,0.2s						
PVCC	Panska Ves	1.38	226	*e*Pg	Pg	03 25 03.2	-0.4
PVCC				*e*Sg	Sg	03 25 23.2	+1.7
BRG	Berggiesshubel	1.50	246	Pg	Pg	03 25 05.5	-0.5
BRG				Sg	Sg	03 25 26.1	+0.6
BRG	Berggiesshubel	1.50	246	Pg	Pg	03 25 05.5	-0.5
BRG				Sg	Sg	03 25 26.1	+0.6
BRG				SG	Sg	03 25 26.1	+0.6
	55nm,0.4s						
BRG	Berggiesshubel	1.50	246	PG	Pg	03 25 05.5	-0.5
RUE	Ruedersdorf	1.74	305	*e*Pg	Pg	03 25 13.1	+2.4
RUE				*e*Sg	Sg	03 25 35.3	+2.1
PRU	Pruhonice	1.81	214	*e*Pn	Pn	03 25 08.9	-0.8
PRU				*e*Pg	Pg	03 25 11.1	-0.9
PRU				*e*Sg	Sg	03 25 35.5	0.0
PRU	Pruhonice	1.81	214	*e*PN	Pn	03 25 08.9	-0.8
PRU				*e*PG	Pg	03 25 11.1	-0.9
PRU				*e*SG	Sg	03 25 35.5	0.0
	17nm,0.4s						
PRU	Pruhonice	1.81	214	*e*Pn	Pn	03 25 08.9	-0.8
RAC	Raciborz	1.94	136	*e*Pg	Pg	03 25 14.7	+0.2
RAC				*e*Sg	Sg	03 25 41.7	+2.1
RAC	Raciborz	1.94	136	*e*Pg	Pg	03 25 14.7	+0.2
RAC				*e*Sg	Sg	03 25 41.7	+2.1
MORC	Moravsky Berou	1.95	152	*e*Pn	Pn	03 25 10.8	-0.9
MORC				*e*Sg	Sg	03 25 40.1	+0.1
MORC	Moravsky Berou	1.95	152	*e*Pn	Pn	03 25 11.0	-0.6
MORC				*e*Sg	Sg	03 25 40.1	+0.1
CLL	Collm	1.96	265	*i* Pn	Pn	03 25 10.0	-1.6
CLL				*i* Pg	Pg	03 25 13.1	-1.6
CLL				*i* Sg	Sg	03 25 39.2	-0.8
CLL	Collm	1.96	265	*i* Pn	Pn	03 25 10.0	-1.6
CLL				*i* Pg	Pg	03 25 13.1	-1.6
CLL				*i* x	x	03 25 17.1	
CLL				*i* Sg	Sg	03 25 39.2	-0.8
	comp=Z,29nm,0.4s						
CLL	Collm	1.96	265	*i* Pn	Pn	03 25 10.0	-1.6
CLL	Collm	1.96	265	*i* Pg	Pg	03 25 13.1	-1.6
OKC	Ostrava-Krasne	2.11	141	*e*Pg	Pg	03 25 17.1	-0.6
OKC				*e*Sg	Sg	03 25 43.8	-1.3
OKC	Ostrava-Krasne	2.11	141	*e*PG	Pg	03 25 17.1	-0.6
OKC				*e*SG	Sg	03 25 43.8	-1.3
OKC	Ostrava-Krasne	2.11	141	*e*Pg	Pg	03 25 17.1	-0.6
OKC				*e*Sg	Sg	03 25 43.8	-1.3
VRAC	Vranov	2.22	172	*e*Pn	Pn	03 25 15.9	+0.6
VRAC				*e*Sg	Sg	03 25 47.9	-0.6
	comp=Z,9.8nm,0.3s						
KRUC	Moravsky	2.45	176	*e*Pn	Pn	03 25 18.8	+0.4
NKC	Novy Kostel	2.64	243	*e*Pn	Pn	03 25 21.1	0.0
NKC				*e*Pg	Pg	03 25 26.9	-1.0
NKC				*e*Sg	Sg	03 26 02.3	+0.1
NKC	Novy Kostel	2.64	243	*e*PN	Pn	03 25 21.1	0.0
NKC				*e*PG	Pg	03 25 26.9	-1.0
NKC				*e*SG	Sg	03 26 02.3	+0.1
	comp=Z,33nm,0.3s						
NKC	Novy Kostel	2.64	243	*e*Pn	Pn	03 25 21.1	0.0
OJC	Ojcow	2.67	117	*e*Pg	Pg	03 25 27.4	-1.0
OJC				*e*Sg	Sg	03 26 03.2	+0.3
OJC	Ojcow	2.67	117	*e*Pg	Pg	03 25 27.4	-1.0
OJC				*e*Sg	Sg	03 26 03.2	+0.3
KHC	Kasperske Hory	2.88	215	*e*Pn	Pn	03 25 23.9	-0.4
KHC				*e*Pg	Pg	03 25 29.5	-2.8
KHC				*e*Sn	Sn	03 25 59.8	+0.3
KHC				*e*Sg	Sg	03 26 08.8	-0.8
KHC	Kasperske Hory	2.88	215	*e*PN	Pn	03 25 23.9	-0.4
KHC				*e*PG	Pg	03 25 29.5	-2.8
KHC				*e*SN	Sn	03 25 59.8	+0.3
KHC				*e*SG	Sg	03 26 08.8	-0.8
KHC	Kasperske Hory	2.88	215	*e*Pn	Pn	03 25 23.9	-0.4
MOX	Moxa	2.96	255	*e*Pg	Pg	03 25 32.9	-1.1
MOX				*e*Sg	Sg	03 26 13.1	+0.8
MOX	Moxa	2.96	255	*e*PG	Pg	03 25 32.9	-1.1
MOX				*e*SG	Sg	03 26 13.1	+0.8
MOX	Moxa	2.96	255	*e*Pg	Pg	03 25 32.9	-1.1
MOX				*e*Sg	Sg	03 26 13.1	+0.8
GEC2	GERESS Array S	3.08	211	*e*Pn	Pn	03 25 27.1	+0.1
GEC2				*e*Pg	Pg	03 25 35.3	-0.9
GEC2				*e*Sg	Sg	03 26 11.8	-4.3
GEC2	GERESS Array S	3.08	211	*e*Pn	Pn	03 25 27.1	0.0
GEC2	GERESS Array S	3.08	211	*e*Pg	Pg	03 25 35.3	-0.9
WET	Wettzell	3.14	222	*e*Pn	Pn	03 25 28.2	+0.3
WET				*e*Sg	Sg	03 26 16.9	-1.2
WET	Wettzell	3.14	222	*e*Pn	Pn	03 25 28.2	+0.3
WET				*e*Sg	Sg	03 26 16.9	-1.2
ZST	Bratislava	3.37	169	*e*SG	Sg	03 26 25.8	+0.3
ZST	Bratislava	3.37	169	*e*Sg	Sg	03 26 25.8	+0.3
NIE	Niedzica	3.40	126	*e*Pg	Pg	03 25 40.2	-2.2
NIE				*e*Sg	Sg	03 26 26.1	-0.4
NIE	Niedzica	3.40	126	*e*Pg	Pg	03 25 40.2	-2.2
NIE				*e*Sg	Sg	03 26 26.1	-0.4
CONA	Conrad Observa	3.58	183	⇓*i*Pn	Pn	03 25 35.1	+1.1
CONA				⇓*i*Sg	Sg	03 26 31.6	-0.7
	comp=Z,5.8nm,0.4s						
CONA	Conrad Observa	3.58	183	Pn	Pn	03 25 35.1	+1.1
CONA				Sg	Sg	03 26 31.6	-0.7
	comp=Z,5.8nm,0.4s						
GRA1	Grafenberg Arr	3.60	242	*e*Pn	Pn	03 25 34.7	+0.4
GRA1				*e*Sg	Sg	03 26 33.8	+0.9
GRA1	Grafenberg Arr	3.60	242	*e*Pn	Pn	03 25 34.7	+0.4
GRA1				*e*Sg	Sg	03 26 33.8	+0.9
GRF	Grafenberg Arr	3.60	242	*e*Pn	Pn	03 25 34.7	+0.4
GRF				*e*Sg	Sg	03 26 33.8	+0.9
GRF	Grafenberg Arr	3.60	242	*e*Pn	Pn	03 25 34.7	+0.4
GRF				*e*Sg	Sg	03 26 33.8	+0.9
MOA	Molln	3.85	199	⇑*i*Pn	Pn	03 25 38.0	+0.3

MOA	Molln	3.85	199	⇓iSg	Sg	03 26 41.2	+0.4
	comp=Z,4.9nm,0.4s						
MOA	Molln	3.85	199	⇑iPn	Pn	03 25 38.0	+0.3
MOA				i Sg	Sg	03 26 41.2	+0.4
MOA	Molln	3.85	199	⇑iPn	Pn	03 25 38.0	+0.3
MOA				⇓iSg	Sg	03 26 41.2	+0.4
	comp=Z,4.9nm,0.4s						
MOA	Molln	3.85	199	Pn	Pn	03 25 38.0	+0.3
MOA				Sg	Sg	03 26 41.2	+0.4
	comp=Z,4.9nm,0.4s						
STHS	Stebnicka Huta	3.89	120	ePg	Pg	03 25 52.2	+0.4
STHS				eSg	Sg	03 26 46.8	+4.7
STHS	Stebnicka Huta	3.89	120	ePG	Pg	03 25 52.2	+0.4
STHS				eSG	Sg	03 26 46.8	+4.7
STHS	Stebnicka Huta	3.89	120	ePg	Pg	03 25 52.2	+0.4
STHS				eSg	Sg	03 26 46.8	+4.7
ARSA	Arzberg	4.27	185	⇑iPn	Pn	03 25 44.4	+0.9
ARSA	Arzberg	4.27	185	⇓iSg	Sg	03 26 55.1	+0.6
	comp=Z,4.5nm,0.4s						
ARSA	Arzberg	4.27	185	⇑iPn	Pn	03 25 44.4	+0.9
ARSA				i Sg	Sg	03 26 55.1	+0.6
ARSA	Arzberg	4.27	185	⇑iPn	Pn	03 25 44.4	+0.9
ARSA				⇓iSg	Sg	03 26 55.1	+0.6
	comp=Z,4.5nm,0.4s						
ARSA	Arzberg	4.27	185	Pn	Pn	03 25 44.4	+0.9
ARSA				Sg	Sg	03 26 55.1	+0.6
	comp=Z,4.5nm,0.4s						
KBA	Koelnbreinsper	4.78	203	⇑iPn	Pn	03 25 51.3	+0.8
KBA	Koelnbreinsper	4.78	203	⇑iSg	Sg	03 27 10.4	-0.5
	comp=Z,4.3nm,0.6s						
KBA	Koelnbreinsper	4.78	203	⇑iPn	Pn	03 25 51.3	+0.8
KBA				i Sg	Sg	03 27 10.4	-0.5
KBA	Koelnbreinsper	4.78	203	⇑iPn	Pn	03 25 51.3	+0.8
KBA				⇑iSg	Sg	03 27 10.4	-0.5
	comp=Z,4.3nm,0.6s						
KBA	Koelnbreinsper	4.78	203	Pn	Pn	03 25 51.3	+0.8
KBA				Sg	Sg	03 27 10.4	-0.4
	comp=Z,4.3nm,0.6s						

*NEIC **18** 03:30:19.8, 4241S×16968E, h5^{km}, ML3.8(WEL), After WEL.*

WEL 18 03:30:21.5±0.4**, 4250S×16982E, h5^{km}, ML3.7**/10**, Error ellipse: s-maj=3.1km s-min=2.5km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WVZ	Waitaha Valley	0.89	131	P	Pg	03 30 39.0	+0.4
WVZ	Waitaha Valley	0.89	131	P*	Pb	03 30 39.0	-0.4
WVZ				S*	Sb	03 30 50.6	-1.0
FOZ	Fox Glacier	1.07	185	P	Pg	03 30 40.7	-1.4
FOZ	Fox Glacier	1.07	185	P*	Pb	03 30 40.7	-1.9
FOZ				S*	Sb	03 30 55.4	-1.5
RPZ	Rata Peaks	1.52	144	P	Pn	03 30 49.1	-0.2
RPZ	Rata Peaks	1.52	144	PN	Pn	03 30 49.1	-0.2
RPZ				SN	Sn	03 31 08.6	-0.8
DSZ	Denniston Nort	1.65	64	P	Pn	03 30 49.8	-1.3
DSZ	Denniston Nort	1.65	64	PN	Pn	03 30 49.8	-1.4
JCZ	Jackson Bay	1.76	206	P	Pn	03 30 50.3	-2.3
JCZ	Jackson Bay	1.76	206	PN	Pn	03 30 50.3	-2.3
LTZ	Lake Taylor	1.83	100	P	Pn	03 30 52.8	-0.8
LTZ	Lake Taylor	1.83	100	PN	Pn	03 30 52.8	-0.7
LBZ	Lake Benmore	1.91	172	eP	Pn	03 30 54.4	-0.3
LBZ	Lake Benmore	1.91	172	ePN	Pn	03 30 54.4	-0.3
MQZ	McQueen’s Vall	2.40	121	eP	Pn	03 31 00.1	-1.3
MQZ	McQueen’s Vall	2.40	121	ePN	Pn	03 31 00.1	-1.4
WKZ	Wanaka	2.40	194	eP	Pn	03 31 00.5	-1.0
WKZ	Wanaka	2.40	194	ePN	Pn	03 31 00.5	-1.0
THZ	Tophouse	2.41	73	eP	Pn	03 31 00.3	-1.2
THZ	Tophouse	2.41	73	ePN	Pn	03 31 00.3	-1.2
ODZ	Otahua Downs	2.62	167	eP	Pn	03 31 03.1	-1.3
ODZ	Otahua Downs	2.62	167	ePN	Pn	03 31 03.1	-1.3
QRZ	Quartz Range	2.63	52	P	Pn	03 31 02.6	-1.9
QRZ	Quartz Range	2.63	52	PN	Pn	03 31 02.6	-1.9
EAZ	Earnscleugh	2.76	188	eP	Pn	03 31 04.4	-2.0
EAZ	Earnscleugh	2.76	188	ePN	Pn	03 31 04.4	-2.0
NNZ	Nelson	2.95	66	eP	Pn	03 31 08.6	-0.3
NNZ	Nelson	2.95	66	ePN	Pn	03 31 08.6	-0.4
MLZ	Mavora Lakes	3.09	202	P	Pn	03 31 11.2	+0.3
MLZ	Mavora Lakes	3.09	202	PN	Pn	03 31 11.2	+0.3
TUZ	Tuapeka	3.46	182	eP	Pn	03 31 14.6	-1.4
TUZ	Tuapeka	3.46	182	PN	Pn	03 31 14.6	-1.4
DUWZ	D’Urville Isla	3.51	63	PN	Pn	03 31 16.8	+0.2
DCZ	Deep Cove	3.55	212	eP	Pn	03 31 14.8	-2.4
DCZ	Deep Cove	3.55	212	PN	Pn	03 31 14.8	-2.4
TCW	Tory Channel	3.57	70	P	Pn	03 31 18.2	+0.8
WHZ	Wether Hill Ro	3.66	201	eP	Pn	03 31 17.4	-1.2
WHZ	Wether Hill Ro	3.66	201	PN	Pn	03 31 17.4	-1.3
SYZ	Scrubby Hill	4.07	187	PN	Pn	03 31 23.0	-1.4
KIW	Kapiti Island	4.15	69	P	Pn	03 31 25.2	-0.2
KIW	Kapiti Island	4.15	69	PN	Pn	03 31 25.2	-0.2
CAW	Cannon Point	4.16	72	P	Pn	03 31 24.6	-1.0
CAW	Cannon Point	4.16	72	PN	Pn	03 31 24.6	-1.0
MTW	Mount Morrison	4.45	74	P	Pn	03 31 27.4	-2.2
MTW	Mount Morrison	4.45	74	PN	Pn	03 31 27.4	-2.2
APZ	The Paps	4.53	196	PN	Pn	03 31 29.7	-0.9
WCZ	Waipu Caves	7.43	30	eP	Pn	03 32 08.9	-1.6

WEL 18 03:41:17.9±0.2**, 3665S×17712E, h12^{km}, ML3.6**/4**, Error ellipse: s-maj=2.3km s-min=1.4km az=0.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MYRZ	Mayor Island	0.94	228	P*	Pb	03 41 34.4	-1.7
MYRZ				S*	Sb	03 41 46.5	-2.1
KUZ	Kuaotunu	1.12	265	P*	Pb	03 41 38.3	-0.9
KUZ				S*	Sb	03 41 52.9	-1.0
TGRZ	Tauranga	1.28	212	P*	Pb	03 41 39.1	-2.8
MXZ	Matakaoa Point	1.32	134	P*	Pb	03 41 39.8	-2.8
TOZ	Tahuroa Road	1.68	230	P*	Pb	03 41 45.6	-3.1
PUZ	Puketiti	1.69	148	PN	Pn	03 41 46.4	-0.7

*ISCJB **18** 03:54:22.1±1.0, 349N±02×3409E±007, h39^{km}±15^{km}, Error ellipse: s-maj=26.4km s-min=5.0km az=17.7*
*CSEM **18** 03:54:22.5±0.1, 3492N×3402E, h30^{km}, Mw3.0, Error ellipse: s-maj=5.8km s-min=3.0km az=19.0*
*GRAL **18** 03:54:22.2±1.8, 3479N×3421E, h0^{km}±523^{km}, MD3.2*
*NIC **18** 03:54:24.1±0.3, 3506N×3405E, h27^{km}, ML2.7, MW3.0*

ISC 18 03:54:22.5±0.9**, 349N**±01×**3408E**±007**, h38**^{km}±12^{km}**, n12, σ0ˢ62**/22**, 1C, Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PHNC	Paralimni	0.10	333	⇑P	Pn	03 54 28.9	+0.1
	19nm,0.2s						
PHNC				S	Sn	03 54 33.1	0.0
CSS	Prodhromos	0.62	274	P	Pn	03 54 34.5	-0.3
CSS				S	Sn	03 54 43.4	-0.1
MAMC	Mammari	0.75	290	P	Pn	03 54 36.6	0.0
SZAC	Souni-Zanaja	1.00	261	P	Pn	03 54 40.5	+0.5
SZAC				S	Sn	03 54 53.4	+0.5
ALFC	Alevga	1.24	281	P	Pn	03 54 43.0	-0.3
	1.4nm,0.2s						
ALFC				S	Sn	03 54 57.7	-1.1
AKMC	Akamas	1.45	275	P	Pn	03 54 47.1	+1.0
BHL	Bhannes	1.65	128	ePn	Pn	03 54 48.1	-0.7
BHL				Sn	Sn	03 55 07.4	-1.4
BHL	Bhannes	1.65	128	ePn	Pn	03 54 48.1	-0.8
BHL				Sn	Sn	03 55 07.4	-1.4
HWQ	Hawqa	1.66	112	ePn	Pn	03 54 49.5	+0.4
HWQ				Sn	Sn	03 55 09.8	+0.6
HWQ	Hawqa	1.66	112	ePn	Pn	03 54 49.5	+0.4
HWQ				Sn	Sn	03 55 09.9	+0.7
RCY	Rachaya	2.03	134	ePn	Pn	03 54 54.5	+0.4
RCY				Sn	Sn	03 55 18.5	+0.3
RCY	Rachaya	2.03	134	ePn	Pn	03 54 54.5	+0.4
RCY				Sn	Sn	03 55 18.5	+0.3

*IDC **18** 04:02:33.0±7.7, 3079S×17998E, h356^{km}±79^{km}, mb3.0/2, mb1 3.4/4, mb1mx3.2/14, mbtmp3.3/4, Error ellipse: s-maj=80.1km s-min=34.0km az=12.0*

NEIC 18 04:02:26.8±4.1**, 3054S×17898W, h369**^{km}±38^{km}**, Error ellipse: s-maj=45.5km s-min=30.7km az=214.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	8.35	202	P	Pn	04 04 25.2	0.0
	6.6nm,0.3s,baz=302,slow=3.9,SNR=55						
URZ				S	S	04 05 55.9	-6.1
	8.9nm,0.3s,baz=77,slow=22,SNR=8.4						
SNZO	South Karori	11.90	204	eP	Pn	04 05 06.3	-0.7
SNZO				eS	S	04 07 05.3	-13
RPZ	Rata Peaks	15.35	208	P	P	04 05 44.4	+0.2
	1.4nm,0.3s,baz=326,slow=4.7,SNR=6.2						
ASAR	Alice Springs	42.26	268	P	P	04 09 45.4	-0.2
	0.3nm,0.4s,baz=106,slow=7.2,SNR=7.1						
WB2	Warramunga Arr	43.25	273	eP	P	04 09 53.7	+0.2
WRA	Warramunga Arr	43.26	273	P	P	04 09 53.8	+0.2
	0.7nm,0.3s,baz=111,slow=8.1,SNR=77						
ARCES	ARCESS Array B	138.54	347	PKP		04 21 08.1	
ARCES	ARCESS Array B	138.54	347	PKhKP		04 21 08.1	
	5.8nm,1.1s,baz=54,slow=1.9,SNR=5.6						
JOF	Joensuu	142.23	338	epkp	PKPdf	04 21 17.4	+2.5
JOF	Joensuu	142.23	338	ePKP	PKPdf	04 21 17.4	+2.5
KAF	Kangasniemi	144.39	340	epkp	PKPdf	04 21 24.7	+6.0
KAF	Kangasniemi	144.39	340	ePKP	PKPdf	04 21 24.7	+6.0
FINES	FINESS Array B	144.98	339	PKP	PKPdf	04 21 27.3	+7.6
FINES	FINESS Array B	144.98	339	PKP	PKPdf	04 21 27.3	+7.6
	1.7nm,0.3s,baz=49,slow=3.4,SNR=48						
HFS	Hagfors	149.20	348	PKPbc	PKPbc	04 21 38.4	+6.9
HFS	Hagfors	149.20	348	PKPbc	PKPbc	04 21 38.4	+6.9
	6.1nm,1.1s,baz=58,slow=3.6,SNR=4.4						

*NIED **18** 04:20:00, 2380N×12550E, h8^{km}, Mw3.7 Best double couple: $M_0$4.00000×10^{14} NP1:ϕ_s190.00000°, δ76.00000°, λ175.00000°. NP2:ϕ_s281.00000°, δ85.00000°, λ14.00000°.*

JMA 18 04:20:08.2±0.2**, 2378N×12546E, h57^{km}, M3.6, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOGS	Gusukube	0.98	357	P	Pn	04 20 26.0	+0.2
JOGS				eS	Sn	04 20 39.4	+0.6
JMJ	Miyako jima 2	1.04	352	P	Pn	04 20 26.8	+0.1
JTJ	Tarama	1.10	321	P	Pn	04 20 27.7	+0.2
JTJ				S	Sn	04 20 42.0	+0.2
JIJ	Ishigaki jima	1.34	296	P	Pn	04 20 30.9	+0.3
JIJ				S	Sn	04 20 47.5	+0.1
JKRS	Kuro-shima	1.40	289	P	Pn	04 20 32.1	+0.6
JKRS				S	Sn	04 20 49.6	+0.6
HATJ	Hateruma jima	1.54	281	P	Pn	04 20 33.7	+0.4
HATJ				eS	Sn	04 20 51.8	-0.5
IRIF	Iriomote-Funau	1.68	290	P	Pn	04 20 36.0	+0.8
IRIF				eS	Sn	04 20 56.2	+0.6
YOJ	Yonaguni jima	2.34	287	P	Pn	04 20 45.0	+0.8
YOJ				eS	Sn	04 21 11.2	-0.6

*IDC **18** 05:35:54.1±1.8, 3272S×178.15W, h0^{km}, mb4.3/3, mb1 4.5/4, mb1mx4.1/14, mbtmp4.3/4, ML3.9/1, Error ellipse: s-maj=38.6km s-min=34.8km az=103.0*

ISC 18 05:36:09.3±1.4**, 3252S**±010×**1796W**±02**, h35^{km}, n10, σ0ˢ84**/8**, mb4.2**/3**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	6.33	204	Pn	Pn	05 37 35.2	-4.9
	2.1nm,0.3s,baz=30,slow=1.8,SNR=14						
URZ				Sn	Sn	05 38 51.2	+0.1
	5.5nm,0.3s,baz=164,slow=18,SNR=11						
CTA	Charters Tower	32.87	284	P	P	05 42 42.0	+2.0
	6.8nm,0.9s,mb4.6,baz=90,slow=15,SNR=5.5						
ASAR	Alice Springs	41.69	270	P	P	05 43 54.0	-0.7
	2.5nm,0.6s,mb4.0,baz=104,slow=7.2,SNR=34						
WB2	Warramunga Arr	42.86	275	eP	P	05 44 03.6	-0.7
WRA	Warramunga Arr	42.87	275	P	P	05 44 03.9	-0.5
	3.2nm,0.7s,mb4.2,baz=112,slow=8.1,SNR=48						
VNA3	Neumayer Olymp	76.28	177	e	P	05 47 53.8	-0.1
VNA2	Neumayer--Watz	76.70	177	e	P	05 47 56.5	+0.2
	baz=199,slow=5.9						
FINES	FINESS Array B	146.62	338	PKPbc	PKPdf	05 55 37.8	-7.0
	1.5nm,0.5s,baz=48,slow=2.3,SNR=14						
NB2	NORSAR Subarra	150.60	349	PKPa	PKPdf	05 55 46.1	-5.1
	comp=Z,2.3nm,1.1s,baz=17,slow=2.6						
TORD	Torodi Ar. Bea	160.68	184	PKPab	PKPab	05 56 37.1	-11
	comp=Z,0.4nm,0.7s,baz=182,slow=2.1,SNR=2.9						

*IDC **18** 06:10:13.0±5.4, 3643N×7083E, h239^{km}±51^{km}, mb3.3/11, mb1 3.4/13, mb1mx3.2/23, mbtmp3.3/13, Error ellipse: s-maj=27.0km s-min=15.4km az=8.0*
*MOS **18** 06:10:13.4±0.6, 3653N×7078E, h255^{km}, mb4.0/2, Error ellipse: s-maj=18.9km s-min=9.8km az=83.7*
*ISCJB **18** 06:10:15.8±0.4, 3672N±003×7082E±006, h268^{km}±5^{km}, mb3.8/16, Error ellipse: s-maj=7.6km s-min=5.5km az=176.6*
*NEIC **18** 06:10:16.1±0.7, 3658N×7088E, h268^{km}±7^{km}, mb3.8/1, Error ellipse: s-maj=11.0km s-min=8.7km az=137.0*
*NNC **18** 06:10:22.4±5.2, 3725N×7083E, h279^{km}±63^{km}, mb2.5, mpv3.7, Error ellipse: s-maj=76.6km s-min=35.0km az=33.0*

ISC 18 06:10:16.6±0.3**, 3669N**±003×**7080E**±006**, h262**^{km}±6^{km}**, n61, σ0ˢ81**/64**, mb3.7**/15**, 4C, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	2.58	214	ePn	Pn	06 11 05.7	+0.3
CEP	Cherat	3.00	162	⇑P	Pn	06 11 10.1	+0.3
CEP				S	S	06 11 48.0	-4.1
CHCP	Chirah Chowk	3.64	146	P	Pn	06 11 17.8	+1.0
THW	Thamme Wali	3.97	168	P	Pn	06 11 20.4	-0.1
DRP	Derazinda	4.96	186	P	Pn	06 11 32.2	-0.1
SARP	Sargodha	5.01	161	P	Pn	06 11 32.2	-0.6
AML	Almayashu	5.88	22	P	Pn	06 11 43.2	-0.1
	SNR=32						
AML	Almayashu	5.88	22	ePn	Pn	06 11 42.9	-0.4
	30nm,0.4s						
THN	Thein Dam	5.88	135	eP	Pn	06 11 43.9	+0.5
THN				eS	S	06 12 50.2	-2.8
DLH	Dalhousie	5.94	133	ex	Pn	06 11 44.0	-0.2
DLH				ex	x	06 12 51.0	
UCH	Uchtor	6.23	26	P	Pn	06 11 47.8	+0.2
	SNR=39						
UCH	Uchtor	6.23	26	ePn	Pn	06 11 47.7	0.0
	16nm,0.4s						
KZA	Kyzart	6.39	31	P	Pn	06 11 49.6	0.0
	SNR=12						
EKS2	Erkin-Say	6.39	20	P	Pn	06 11 50.0	+0.4
	SNR=14						
EKS2	Erkin-Say	6.39	20	ePn	Pn	06 11 49.9	+0.3
KK31	Karatay Array	6.41	358	P	Pn	06 11 49.4	-0.4
	10nm,0.4s,baz=184,slow=12,SNR=246						
KK31				⇑S	S	06 12 59.3	-5.4
	6.8nm,0.5s,baz=182,slow=21						
AAK	Ala-Archa	6.58	25	P	Pn	06 11 52.3	+0.3
	SNR=34						
AAK	Ala-Archa	6.58	25	ePn	Pn	06 11 51.0	-1.0
	18nm,0.4s						
AAK	Ala-Archa	6.58	25	ePN	Pn	06 11 51.0	-1.0
AAK				pmax	pmax		
	comp=Z,18nm,0.4s						
ULHL	Ulahol	6.96	36	P	Pn	06 11 57.0	+0.2
	SNR=10						
USP	Ospenovka	7.16	22	P	Pn	06 11 58.2	-1.0
	SNR=8.1						
TKM2	Tokmak 2	7.23	29	P	Pn	06 12 00.2	+0.1
	SNR=22						
TKM2	Tokmak 2	7.23	29	⇑P	Pn	06 11 60.0	-0.1
	comp=Z,1.0nm,0.6s						
TKM2	Tokmak 2	7.23	29	ePn	Pn	06 11 59.9	-0.2
	comp=Z,14nm,0.5s						
TKM2	Tokmak 2	7.23	29	ePN	Pn	06 11 59.9	-0.2
TKM2				pmax	pmax		
	comp=Z,14nm,0.5s						
SDNR	Sundarnagar	7.28	134	ex	Pn	06 12 01.0	+0.1
SDNR				ex	x	06 13 12.0	
MK31	Makanchi Array	13.23	37	ePn	Pn	06 13 14.4	-0.4
MKAR	Makanchi Array	13.23	37	P	Pn	06 13 14.1	-0.7
	comp=Z,0.3nm,0.3s,baz=226,slow=15,SNR=20						
GKN	Gorkha	14.54	123	eP	Pn	06 13 32.2	+1.3
	comp=Z,17nm,0.4s						
AB31	Akbulak array	14.84	331	⇑P	Pn	06 13 33.2	-0.9
	comp=Z,1.3nm,0.5s,baz=145,slow=11,SNR=44						
KKN	Kakani	15.12	122	eP	Pn	06 13 38.7	+1.0
	comp=Z,28nm,0.5s						
JIRN	Jiri	15.83	120	eP	Pn	06 13 46.8	+0.7
	comp=Z,6.6nm,0.2s						
BRVK	Borovoye	16.37	359	eP	P	06 13 51.3	+0.9
	comp=Z,4.5nm,0.6s						
BRVK	Borovoye	16.37	359	eP	P	06 13 51.3	+0.9
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.6s						
AKTK	Aktyubinsk	16.53	330	P	P	06 13 53.2	+1.0
AKTO	Aktyubinsk	16.53	330	P	P	06 13 53.2	+1.0
	comp=Z,1.7nm,0.3s,baz=138,slow=11,SNR=49						
TAPN	Taplejung	17.08	118	eP	P	06 14 00.7	+2.2
	comp=Z,12nm,0.5s						
ZAL	Zalesovo	19.79	25	P	P	06 14 27.2	-0.1
ZALV	Zalesovo Beam	19.81	25	P	P	06 14 27.1	-0.3
	comp=Z,1.2nm,0.3s,baz=220,slow=10,SNR=9.4						
KBD	Kabd	20.76	256	eP	P	06 14 38.4	+0.6
KBD				AMb	AMB	06 14 40.7	
	comp=Z,34nm,0.5s						
QRN	Al-Qurain	20.78	254	eP	P	06 14 38.0	-0.1
QRN				AMb	AMB	06 14 40.1	
	comp=Z,18nm,0.5s						
RDF	Al-Radifah	20.98	255	eP	P	06 14 40.4	+0.2
RDF				AMb	AMB	06 14 44.7	
	comp=Z,24nm,0.5s						
NAY	Al-Naaiem	21.08	256	eP	P	06 14 40.5	-0.6
NAY				AMb	AMB	06 14 42.8	
	comp=Z,6.1nm,0.4s,mb4.3						
RST	Umm Al-Ruwaisa	21.16	257	eP	P	06 14 41.7	-0.2
RST				AMb	AMB	06 14 43.1	
	comp=Z,15nm,0.3s,mb4.7						
SONM	Songino Array	28.36	56	P	P	06 15 46.9	+0.4
	comp=Z,0.4nm,0.6s,mb3.0,baz=284,slow=11,SNR=3.6						
BRTR	Keskin Array B	29.22	287	P	P	06 15 54.6	+0.4
	comp=Z,1.0nm,0.8s,mb3.3,baz=68,slow=13,SNR=3.9						
OBN	Obninsk	29.68	319	eP	P	06 15 58.8	+0.7
OBN				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.7						
JOF	Joensuu	35.62	330	ep	P	06 16 49.3	0.0
	comp=Z,5.0nm,0.4s,mb4.4						
FINES	FINESS Array B	37.23	326	P	P	06 17 03.4	+0.5
	comp=Z,1.8nm,0.6s,mb3.7,baz=116,slow=9.8,SNR=17						
ARCES	ARCESS Array B	40.91	338	P	P	06 17 33.6	+0.6
	comp=Z,1.8nm,0.4s,mb3.6,baz=118,slow=8.2,SNR=24						
NB2	NORSAR Subarra	44.13	323	P	P	06 17 58.6	-0.4
	comp=Z,2.1nm,0.6s,mb3.5,baz=96,slow=7.9						
NOA	NORSAR Array B	44.13	323	P	P	06 17 59.0	0.0
NOA	NORSAR Array B	44.13	323	P	P	06 17 59.0	0.0
	comp=Z,2.1nm,0.7s,mb3.5,baz=97,slow=7.7,SNR=7.3						
TIXI	Tiksi	45.66	22	eP	P	06 18 10.9	0.0
	comp=Z,1.6nm,0.3s,mb3.8						
TIXI	Tiksi	45.66	22	eP	P	06 18 10.9	+0.1
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb3.9						
ESDC	Sonseca Array	57.22	298	P	P	06 19 35.8	-0.9
	comp=Z,0.3nm,0.5s,mb3.0,baz=57,slow=8.1,SNR=4.2						
TORD	Torodi Ar. Bea	65.56	268	P	P	06 20 31.2	-1.5
	comp=Z,4.5nm,0.4s,mb4.5,baz=50,slow=5.9,SNR=147						
YKA	Yellowknife Ar	81.06	3	P	P	06 22 02.3	+0.2
YKA	Yellowknife Ar	81.06	3	P	P	06 22 02.3	+0.3
	comp=Z,0.3nm,0.3s,mb3.5,baz=348,slow=5.3,SNR=10.0						
WRA	Warramunga Arr	82.23	122	P	P	06 22 06.8	-2.0
	comp=Z,0.5nm,0.8s,mb3.3,baz=325,slow=4.9,SNR=4.9						
ASAR	Alice Springs	84.50	125	P	P	06 22 18.4	-1.8
	comp=Z,0.2nm,0.5s,mb3.2,baz=318,slow=5.4,SNR=4.9						

*NEIC **18** 06:18:27.2, 1647N×9889W, h16^{km}, MD3.6(MEX), After MEX.*

MEX 18 06:18:26.5±1.1**, 1645N×9901W, h11**^{km}±14^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.84	94	i P	Pg	06 18 39.7	-3.2
PNIG				i S	Sg	06 18 46.7	-7.1
PNIG	Pinotepa	0.84	94	i P	Pg	06 18 40.0	-2.8
PNIG				i S	Sg	06 18 51.8	-2.0
ACX	Acapulco	0.97	296	i P	Pg	06 18 41.5	-3.7
ACX				i S	Sg	06 18 53.5	-4.3
CAIG	El Cayaco	1.35	296	eP	Pn	06 18 49.0	-2.3
CAIG				i S	Sb	06 19 04.4	-4.7
MEIG	Mezcala	1.58	338	i P	Pn	06 18 51.6	-3.0
MEIG				i S	Sn	06 19 10.1	-5.0
UTMO	Huajuapan	1.79	40	eP	Pn	06 18 54.3	-3.1
UTMO				i S	Sn	06 19 15.3	-4.9
PLIG	Platanillo	1.99	346	eP	Pn	06 18 57.6	-2.6
PLIG				i S	Sn	06 19 20.1	-5.0
VHO	Vista Hermosa	2.26	74	eP	Pn	06 18 59.4	-4.5
VHO				i S	Sn	06 19 24.2	-7.7
VHO	Vista Hermosa	2.26	74	eP	Pn	06 19 01.8	-2.1
VHO				i S	Sn	06 19 29.9	-2.0
TPIG	Tehuac#an	2.51	38	eP	Pn	06 19 08.7	+1.4
TPIG				i S	Sn	06 19 32.8	-5.2

IDC 18 06:42:54.4±5.4**, 2136S×17992W, h0^{km}, mb4.0**/2**, mb1 4.4**/3**, mb1mx3.9**/14**, mbtmp4.2**/3**, ML4.2**/1**, Error ellipse: s-maj=104.5km s-min=58.8km az=62.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	17.03	188	P	Pn	06 46 53.4	-0.6
	0.9nm,0.3s,baz=354,slow=6.3,SNR=5.4						
ASAR	Alice Springs	42.58	258	P	P	06 50 51.6	-0.7
	0.9nm,0.5s,baz=89,slow=7.3,SNR=15						
WRA	Warramunga Arr	42.71	263	P	P	06 50 54.1	+0.6
	1.4nm,0.4s,baz=95,slow=8.4,SNR=26						
AKASG	Malin Array Be	142.87	329	PKP	PKPdf	07 02 29.6	-0.1
	0.6nm,0.5s,baz=50,slow=4.3,SNR=5.4						

MEX 18 06:44:01.6±0.8**, 1661N×9907W, h12**^{km}±14^{km}**, MD3.5, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	Acapulco	0.85	288	i P	Pg	06 44 15.0	-3.0
ACX				i S	Sg	06 44 26.5	-2.6
ACX	Acapulco	0.85	288	i P	Pg	06 44 15.0	-3.0
ACX				i S	Sg	06 44 26.5	-2.6
CAIG	El Cayaco	1.23	291	i P	Pn	06 44 22.4	-2.2
CAIG				i S	Sb	06 44 36.8	-3.8
CAIG	El Cayaco	1.23	291	i P	Pn	06 44 22.4	-2.2
CAIG				i S	Sb	06 44 36.8	-3.8
MEIG	Mezcala	1.41	338	eP	Pn	06 44 24.0	-3.2
MEIG				i S	Sn	06 44 40.5	-5.3
MEIG	Mezcala	1.41	338	eP	Pn	06 44 23.6	-3.6
MEIG				i S	Sn	06 44 40.5	-5.3
UTMO	Huajuapan	1.72	45	eP	Pn	06 44 28.4	-3.0
UTMO				i S	Sn	06 44 48.7	-4.7
UTMO	Huajuapan	1.72	45	eP	Pn	06 44 28.4	-3.0
UTMO				i S	Sn	06 44 48.7	-4.7
PLIG	Platanillo	1.82	347	eP	Pn	06 44 29.8	-3.1
PLIG				i S	Sn	06 44 51.6	-4.3
PLIG	Platanillo	1.82	347	eP	Pn	06 44 29.8	-3.1
PLIG				i S	Sn	06 44 51.6	-4.3
VHO	Vista Hermosa	2.29	78	eP	Pn	06 44 35.9	-3.4
VHO				i S	Sn	06 45 03.5	-3.9
VHO	Vista Hermosa	2.29	78	eP	Pn	06 44 35.9	-3.4
VHO				i S	Sn	06 45 03.5	-3.9

*NDI **18** 06:44:50.5±2.6, 3488N×7223E, h20^{km}, ML3.2*
*ISCJB **18** 06:44:54.4±1.4, 345N±0.1×725E±02, h33^{km}, Error ellipse: s-maj=23.0km s-min=9.1km az=145.8*

ISC 18 06:44:57.2±1.4**, 345N**±01×**725E**±02**, h35^{km}, n5, σ0ˢ54**/8**, 1C, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THN	Thein Dam	3.38	127	eP	Pn	06 45 48.4	+1.0
THN				ex	x	06 46 36.6	
KLP	Kalpa	5.65	120	eP	Pn	06 46 18.2	-0.5
KLP				eS	Sn	06 47 21.9	-0.5
KLP				AML	AML	06 47 47.2	
	comp=E,46nm,0.4s						
KLP				AML	AML	06 47 47.5	
	comp=N,55nm,0.6s						
JOSI	Joshimath	7.13	121	eS	Sn	06 47 59.2	+0.4
JOSI				AML	AML	06 48 47.1	
	comp=E,56nm,0.1s						
JOSI				AML	AML	06 48 47.1	
	comp=N,50nm,0.1s						
KUDL	Kundal	7.18	151	eP	Pn	06 46 40.0	+0.2

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUDL				eS	Sn	06 47 59.6	-0.4
KUDL				AML	AML	06 48 49.2	
	comp=E,4.1nm,0.4s						
KUDL				AML	AML	06 48 51.6	
	comp=N,3.1nm,0.7s						
KK31	Karatay Array	8.74	350	Pn	Pn	06 47 00.8	-0.2
	comp=N,1.0nm,0.5s,baz=171,slow=13,SNR=22						
KK31				⇑Sn	Sn	06 48 32.5	-5.7
	comp=N,2.2nm,0.7s,baz=174,slow=24,SNR=7.2						

ISCJB 18 06:56:35.8±0.6, 38.42N±0.05×39.09E±0.04, h8^{km}±7^{km}, Error ellipse: s-maj=9.4km s-min=4.9km az=158.3
CSEM 18 06:56:35.0±0.1, 38.42N×39.07E, h10^{km}, MD2.9, Error ellipse: s-maj=3.0km s-min=1.9km az=7.0
DDA 18 06:56:35.0, 38.64N×39.01E, h14^{km}±1^{km}, Md2.9
ISK 18 06:56:35.2, 38.42N×39.06E, h7^{km}, MD3.0
ISC 18 06:56:36.1±0.5, 38.43N±0.04×39.08E±0.04, h11^{km}±5^{km}, n15, σ0^{s}.77/25, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.10	313	i P	Pg	06 56 38.8	0.0
ELZG				i S	Sg	06 56 40.9	+0.1
PTK	Pertek	0.52	28	PG	Pg	06 56 45.6	-0.7
PTK				SG	Sg	06 56 54.1	+0.9
PTK	Pertek	0.52	28	ePg	Pg	06 56 45.6	-0.7
PTK				eSg	Sg	06 56 54.1	+0.9
MYA	Malataya	0.52	259	PG	Pg	06 56 45.7	-0.6
MYA				SG	Sg	06 56 53.3	+0.1
MYA	Malataya	0.52	259	ePg	Pg	06 56 45.7	-0.6
MYA				eSg	Sg	06 56 53.3	+0.1
DIYA	Diyarbakir	0.96	121	i P	Pg	06 56 54.6	-0.1
DIYA				i S	Sg	06 57 08.1	+0.9
DIY	Diyarbakir	1.05	120	PG	Pg	06 56 56.0	-0.3
DIY	Diyarbakir	1.05	120	ePg	Pg	06 56 56.0	-0.3
ATAB	Bozova	1.14	213	i P	Pb	06 56 58.3	+0.5
ATAB				i S	Sb	06 57 11.2	-1.4
ATAB	Bozova	1.14	213	i P	Pb	06 56 58.3	+0.5
ATAB				i S	Sb	06 57 11.2	-1.4
EZC	Erzincan	1.44	23	PN	Pn	06 57 01.4	-0.7
GZT	Gaziantep	1.61	229	i P	Pn	06 57 05.0	+0.6
GZT				i S	Sn	06 57 27.3	+2.2
MARD	Mardin	1.75	129	i P	Pn	06 57 06.6	+0.3
MARD				i S	Sn	06 57 27.9	-0.7
GAZ	Gaziantep	1.94	230	ePN	Pn	06 57 08.6	-0.4
GAZ	Gaziantep	1.94	230	ePn	Pn	06 57 08.6	-0.4

IDC 18 07:22:37.9±2.1, 2.39N×127.72E, h0^{km}, mb3.6/4, mb1 3.8/4, mb1mx3.5/16, mbtmp3.6/4, Error ellipse: s-maj=177.9km s-min=23.4km az=66.0
ISCJB 18 07:22:38.8±1.2, 3.0N±0.1×129.0E±0.2, h33^{km}, mb3.4/4, Error ellipse: s-maj=33.3km s-min=19.4km az=7.0
NEIC 18 07:22:41.1±0.9, 2.92N×129.03E, h35^{km}, mb4.5/1, Error ellipse: s-maj=26.5km s-min=14.7km az=93.0
ISC 18 07:22:41.1±1.2, 3.0N±0.1×129.1E±0.2, h35^{km}, n5, σ0^{s}.27/5, mb3.4/4, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	18.83	55	eP	Pn	07 26 58.8	0.0
	34nm,1.0s						
WRA	Warramunga Arr	23.32	167	P	P	07 27 46.6	+0.2
	0.8nm,0.7s,mb3.2,baz=342,slow=10,SNR=7.8						
ASAR	Alice Springs	26.86	170	P	P	07 28 18.2	-0.3
	0.6nm,0.4s,mb3.4,baz=355,slow=7.9,SNR=14						
STKA	Stephens Creek	36.61	162	P	P	07 29 44.1	+0.1
	0.6nm,0.3s,mb3.8,baz=344,slow=8.5,SNR=5.8						
MKAR	Makanchi Array	59.55	324	P	P	07 32 41.1	0.0
	0.1nm,0.4s,mb3.2,baz=108,slow=7.9,SNR=7.3						

IDC 18 07:28:30.3±1.7, 6.81S×128.44E, h0^{km}, mb3.7/2, mb1 4.2/5, mb1mx3.9/14, mbtmp4.0/5, ML4.0/3, Error ellipse: s-maj=83.3km s-min=25.0km az=75.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.56	193	Pn	Pn	07 31 15.9	-0.7
	1.8nm,0.3s,baz=35,slow=12,SNR=43						
FITZ				Sn	Sn	07 33 11.3	-15
	1.2nm,0.3s,baz=311,slow=24,SNR=3.7						
WRA	Warramunga Arr	14.26	157	Pn	Pn	07 31 53.7	+0.1
	0.5nm,0.3s,baz=336,slow=12,SNR=37						
WRA				Sn	Sn	07 34 17.6	-15
	1.7nm,0.3s,baz=332,slow=22,SNR=17						
ASAR	Alice Springs	17.57	163	P	Pn	07 32 37.2	+0.5
	0.5nm,0.3s,baz=346,slow=12,SNR=41						
SONM	Songino Array	57.78	343	P	P	07 38 26.7	+3.6
	0.3nm,0.6s,baz=153,slow=7.0,SNR=3.6						
MKAR	Makanchi Array	67.22	327	P	P	07 39 26.3	-0.1
	0.3nm,0.5s,baz=119,slow=8.3,SNR=8.2						
ZALV	Zalesovo Beam	70.73	334	P	P	07 39 48.4	+0.3
	0.7nm,0.7s,baz=134,slow=8.3,SNR=4.0						

NIED 18 07:34:00, 46.70N×153.30E, h11^{km}, Mw4.1 Best double couple: $M_0$1.62000×10^{15} NP1:ϕ_s152.00000°, δ39.00000°, λ18.00000°. NP2:ϕ_s48.00000°, δ79.00000°, λ127.00000°.
SKHL 18 07:34:29.1±2.2, 46.05N×154.07E, h47^{km}±15^{km}, mb5.2/3, Ms3.9/1, msh5.5/1
BJI 18 07:34:29.0, 46.87N×153.75E, h24^{km}, mB4.7, mb4.4, Ms4.3, Msz3.9
ISCJB 18 07:34:30.3±1.4, 46.40N±0.06×153.35E±0.08, h22^{km}±10^{km}, mb4.5/60, MS3.5/11, Error ellipse: s-maj=12.4km s-min=5.8km az=141.8
NEIC 18 07:34:30.5±0.5, 46.56N×153.41E, h10^{km}, mb4.7/23, Error ellipse: s-maj=13.0km s-min=7.9km az=151.0
JMA 18 07:34:31.5±0.7, 46.66N×153.35E, h30^{km}, M4.6
MOS 18 07:34:33.0±1.3, 46.53N×153.30E, h39^{km}, mb4.8/24, Error ellipse: s-maj=9.3km s-min=5.9km az=104.5
IDC 18 07:34:36.7±3.8, 46.52N×153.18E, h56^{km}±34^{km}, mb3.9/19, mb1 4.1/20, mb1mx4.0/26, mbtmp3.9/20, ML4.1/1, MS3.5/7, Ms1 3.5/7, ms1mx3.2/33, Error ellipse: s-maj=17.2km s-min=14.7km az=143.0
SZGRF 18 07:34:37.7, 46.80N×151.52E, h33^{km}, mb4.9, Kuril Islands, Russia
ISC 18 07:34:32.5±1.4, 46.46N±0.06×153.44E±0.08, h25^{km}±10^{km}, n180, σ1^{s}.14/189, mb4.5/60, MS3.5/11, 16C-7D, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	4.08	254	⇓iPN	Pn	07 35 34.4	+1.1
KUR				i S	Sn	07 36 21.8	+1.5
KUR				pmax	pmax		
	comp=N,170nm,0.5s						
KUR				pmax	pmax		
	comp=E,150nm,0.5s						
KUR				pmax	pmax		
	comp=Z,430nm,0.5s						
KUR				smax			
	comp=N,380nm,0.6s						
KUR				smax			
	comp=E,300nm,0.6s						
KUR				smax			
	comp=N,2μm,2.0s						
KUR				smax			
	comp=E,2μm,2.0s						
KUR	Kuril'sk	4.08	254	i P	Pn	07 35 34.4	+1.1
KUR				AMB	AMB	07 35 35.5	
	comp=E,170nm,0.5s						
KUR				AMB	AMB	07 35 35.5	
	comp=E,150nm,0.5s						
KUR				AMB	AMB	07 35 35.5	
	comp=E,430nm,0.5s						
KUR				i S	Sn	07 36 21.8	+1.5
KUR				A		07 36 22.0	
	comp=E,380nm,0.6s						
KUR				A		07 36 22.0	
	comp=E,300nm,0.6s						
KUR				A		07 36 38.0	
	comp=E,2μm,2.0s						
KUR				A		07 36 38.0	
	comp=E,2μm,2.0s						
SKR	Severo-Kuril's	4.58	22	ePN	Pn	07 35 38.5	-1.7
SKR				pmax	pmax		
	comp=N,60nm,0.5s						
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
YUK	Yuzh-Kuril'sk	5.87	248	eP	Pn	07 35 57.0	-0.9
YUK				AMB	AMB	07 36 01.5	
	comp=Z,300nm,0.3s						
YUK				eS	Sn	07 37 04.7	+0.3
YUK				A		07 37 10.5	
	comp=Z,600nm,0.8s						
YUK				A		07 37 10.5	
	comp=Z,750nm,0.8s						
NEM2	Nemuro 2	6.28	243	P	Pn	07 36 01.6	-1.9
NEM2				eS	Sn	07 37 08.2	-6.2
JRA	Rausu	6.39	250	P	Pn	07 36 05.9	+0.8
JNK	Nakash	6.81	248	P	Pn	07 36 11.2	+0.4
JAK	Akkeshi	7.12	244	P	Pn	07 36 13.4	-1.7
JAK				eS	Sn	07 37 28.9	-6.3
JTKR	Abashiri--Toko	7.18	253	P	Pn	07 36 16.9	+1.1
YSS	Yuzh-Sakhalins	7.36	278	ePn	Pn	07 36 18.7	+0.3
	comp=Z,15nm,0.4s						
YSS	Yuzh-Sakhalins	7.36	278	ePN	Pn	07 36 24.0	+5.7
YSS				eS	Sn	07 37 50.0	+9.0
YSS				pmax	pmax		
	comp=Z,20nm,0.8s						
YSS				MLR	MLR		
	comp=Z,500nm,16.0s						
YSS				MLR	MLR		
	comp=E,500nm,14.0s						
YSS	Yuzh-Sakhalins	7.36	278	eP	Pn	07 36 24.0	+5.7
YSS				AMB	AMB	07 36 25.0	
	comp=E,20nm,0.8s						
YSS				eS	Sn	07 37 50.0	+9.0
YSS				AMS	AMS	07 39 00.5	
	comp=E,500nm,15.0s						
PET	Petropavlovsk	7.38	25	ePN	Pn	07 36 23.3	+4.7
PET				MLR	MLR		
	comp=Z,100nm,19.0s						
JMP	Maruseppu	7.53	255	P	Pn	07 36 21.9	+1.3
JAR	Ashorobuto	7.56	249	P	Pn	07 36 21.4	+0.3
JAR				eS	Sn	07 37 43.0	-2.9
JOB	Onbets	7.71	246	P	Pn	07 36 22.2	-1.0
JKK2	Kamakawa 2	7.99	255	P	Pn	07 36 28.5	+1.6
ASAJ	Asahikawa	8.00	257	P	Pn	07 36 29.3	+2.3
ASAJ	Asahikawa	8.00	257	PN	Pn	07 36 29.4	+2.4
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,156nm,19.7s						
ASAJ	Asahikawa	8.00	257	P	Pn	07 36 29.4	+2.3
	comp=Z,3.0nm,0.3s,baz=93,slow=17,SNR=17						
ASAJ				LR	LR	07 39 21.3	
	comp=Z,156nm,19.7s,baz=356,slow=36						
UGL	Uglegorsk	8.10	293	ePN	Pn	07 36 31.0	+2.6
UGL				pmax	pmax		
	comp=Z,36nm,0.8s						
UGL				MLR	MLR		
	comp=N,400nm,16.0s						
UGL				MLR	MLR		
	comp=E,500nm,16.0s						
UGL				MLR	MLR		
	comp=Z,600nm,16.0s						
JCH	Churui	8.16	245	P	Pn	07 36 27.5	-1.8
JCH				eS	Sn	07 37 53.9	-6.7
JFR	Furan	8.38	251	P	Pn	07 36 33.2	+0.8
JAB	Ashibetsu	8.48	254	P	Pn	07 36 35.6	+1.9
JEM	Erimo	8.61	243	P	Pn	07 36 35.2	-0.3
ERM	Erimo	8.61	243	ePn	Pn	07 36 36.6	+1.1
	comp=Z,30nm,0.5s						
ERM	Erimo	8.61	243	i PN	Pn	07 36 36.8	+1.3
JBT2	Biratori 2	8.71	249	P	Pn	07 36 36.4	-0.5
JNBK	Urakawa-nobuka	8.72	245	P	Pn	07 36 34.9	-2.1
JEW	Eniwo	9.28	251	P	Pn	07 36 45.9	+1.3
JNB	Noboribetsu	9.72	250	P	Pn	07 36 49.9	-0.8
JKB	Kayabe	10.01	247	P	Pn	07 36 52.5	-2.2
JSH	Shimam	10.29	253	P	Pn	07 36 58.9	+0.4
JYM2	Yakumo 2	10.32	250	P	Pn	07 36 58.3	-0.7
JANG	Nango	10.59	239	P	Pn	07 36 58.3	-4.3
JANG				eS	Sn	07 38 48.4	-12
JTM	Tenmabayashi	10.61	242	P	Pn	07 36 59.9	-2.9
JOSM	Okushiri--Mats	10.92	251	P	Pn	07 37 06.2	-1.0
OFUJ	Ofunato	11.36	234	eS	Sn	07 39 08.0	-11
JRG	Rokugo	11.74	238	P	Pn	07 37 15.4	-2.9
JRG				eS	Sn	07 39 18.7	-10
JIO	Ouri	11.98	232	P	Pn	07 37 17.4	-4.2
JIO				eS	Sn	07 39 20.9	-13
MA2	Magadan	13.23	354	ePn	Pn	07 37 39.5	+0.9
	comp=Z,5.2nm,0.6s						
MA2	Magadan	13.23	354	⇑ePN	Pn	07 37 39.1	+0.5
MA2				pmax	pmax		
	comp=Z,4.0nm,0.5s						
KLR	Kul'dur	14.81	289	eP	Pn	07 38 02.0	+1.8
MJAR	Matsushiro Arr	15.09	234	P	Pn	07 37 59.9	-4.0
	comp=Z,0.4nm,0.3s,baz=24,slow=13,SNR=5.7						
MDJ	Mudanjiang	16.80	272	P	Pn	07 38 27.8	+1.9
MDJ				AMB	AMB		
	comp=Z,11nm,1.0s						
MDJ				AMB	AMB		
	comp=Z,96nm,5.3s						
MDJ	Mudanjiang	16.80	272	ePn	Pn	07 38 25.9	+0.1
	comp=Z,5.7nm,0.8s						
YAK	Yakutsk	20.68	327	i P	P	07 39 10.3	0.0
YAK				pmax	pmax		
	comp=Z,8.0nm,0.5s						
YAK				MLR	MLR		
	comp=Z,100nm,22.0s,MS3.1						
KSRS	Korea Array	20.93	254	P	P	07 39 12.7	-0.5
	comp=Z,3.9nm,0.6s,baz=60,slow=9.8,SNR=19						
KSRS				LR	LR	07 46 11.9	
	comp=Z,43nm,19.5s,MS2.8,baz=70,slow=33						
JNU	Nakatsue	21.77	240	LR	LR	07 47 53.5	
	comp=Z,35nm,20.3s,MS2.8,baz=144,slow=37						
BILL	Bilibino	22.62	13	eP	P	07 39 30.3	-0.8
	comp=Z,6.5nm,0.5s,mb4.3						
BILL	Bilibino	22.62	13	i P	P	07 39 31.2	+0.1
BILL				e*PP		07 39 41.6	
BILL				e*SP	sP	07 39 50.3	+9.2
BILL				e		07 43 20.7	
BILL				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
BILL				MLR	MLR		
	comp=Z,100nm,24.0s,MS3.2						
BOD	Bodaibo	26.34	310	eP	P	07 40 03.0	-3.2
BOD				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.7						
BJT	Baijiatuau	27.71	270	eP	P	07 40 20.0	+1.3
	comp=Z,5.3nm,0.5s,mb4.4						
BJT	Baijiatuau	27.71	270	eP	P	07 40 20.0	+1.3
BJT				pmax	pmax		
	comp=Z,5.0nm,0.5s						
TIXI	Tiksi	27.81	344	i P	P	07 40 21.8	+2.6
TIXI				MLR	MLR		
	comp=Z,100nm,22.0s,MS3.4						
ULN	Ulaanbaatar	31.20	290	eP	P	07 40 51.5	+2.0
	comp=Z,3.4nm,0.9s,mb4.2						
ULN	Ulaanbaatar	31.20	290	⇑eP	P	07 40 48.8	-0.7
SONM	Songino Array	31.64	290	P	P	07 40 52.1	-1.3
SONM						07 43 44.8	
SONM	Songino Array	31.64	290	P	P	07 40 52.1	-1.2
	comp=Z,0.6nm,0.4s,mb3.8,baz=83,slow=8.1,SNR=8.5						
SONM				PcP	PcP	07 43 44.8	-0.1
	comp=Z,0.7nm,0.7s,baz=118,slow=3.2,SNR=5.3						
SONM				LR	LR	07 54 37.0	
	comp=Z,98nm,18.7s,MS3.5,baz=163,slow=38						
TLY	Talaya	32.51	298	eP	P	07 40 58.7	-2.3
TLY				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
TLY				MLR	MLR		
	comp=Z,169nm,15.0s,MS3.9						
COLA	College	36.23	38	i P	P	07 41 33.8	+0.9
LZH	Lanzhou	38.12	272	⇑P	P	07 41 50.0	+0.6
LZH				AP	pP	07 42 01.5	+4.6
LZH				XP	sP	07 42 05.3	+5.4
LZH				AMB	AMB		
	comp=Z,25nm,1.2s,mb4.8						
LZH				AMB	AMB		
	comp=Z,128nm,4.1s						
LZH	Lanzhou	38.12	272	⇑P	P	07 41 50.0	+0.6
	comp=Z,25nm,1.2s,mb4.8						
LZH				pP	pP	07 42 01.5	+4.6
LZH				sP	sP	07 42 05.2	+5.3
LZH	Lanzhou	38.12	272	⇑P	P	07 41 50.0	+0.6
LZH				*PP	pP	07 42 01.5	+4.6
LZH				*SP	sP	07 42 05.2	+5.3
LZH				pmax	pmax		
	comp=Z,25nm,1.2s,mb4.8						
GTA	Gaotai	39.24	280	eP	P	07 42 00.1	+1.4
GTA				AP	pP	07 42 07.3	+1.1
GTA				XP	sP	07 42 11.8	+2.6
GTA				AMB	AMB		
	comp=Z,5.0nm,1.3s,mb4.1						
CD2	Chengdu	41.08	266	P	P	07 42 14.8	+0.7
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
INK	Inuvik	41.78	32	P	P	07 42 19.7	+0.4
	comp=Z,1.1nm,0.5s,mb3.8,baz=280,slow=14,SNR=9.6						
GYA	Guiyang	41.87	258	P	P	07 42 21.3	+0.7
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.4						
ZALV	Zalesovo Beam	42.96	306	P	P	07 42 27.5	-1.7
	comp=Z,1.2nm,0.4s,mb4.0,baz=68,slow=7.0,SNR=1.6						
ZALV				PcP	PcP	07 44 19.5	+0.2
	comp=Z,0.5nm,0.3s,baz=60,slow=3.6,SNR=4.0						
ZALV				LR	LR	08 01 38.0	
	comp=Z,118nm,18.3s,MS3.8,baz=92,slow=38						
ZAL	Zalesovo	42.98	306	P	P	07 42 27.5	-1.8
ZAL						07 44 19.5	
MK31	Makanchi Array	47.27	298	eP	P	07 43 02.6	-0.9
MK31	Makanchi Array	47.27	298	i P	P	07 43 02.2	-1.3
MK31				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
MKAR	Makanchi Array	47.27	298	P	P	07 43 02.2	-1.3
MKAR				PcP	PcP	07 44 34.7	+0.4
MKAR	Makanchi Array	47.27	298	P	P	07 43 02.2	-1.3
	comp=Z,3.9nm,0.7s,mb4.4,baz=58,slow=6.0,SNR=50						
MKAR				PcP	PcP	07 44 34.7	+0.4
	comp=Z,1.0nm,0.7s,baz=62,slow=5.1,SNR=3.7						
KURK	Kurchatov	47.71	304	eP	P	07 43 05.2	-1.6
	comp=Z,7.0nm,0.8s,mb4.7						
KURK	Kurchatov	47.71	304	d iP	P	07 43 05.7	-1.1
LSA	Lhasa	50.51	274	P	P	07 43 32.3	+3.7
LSA				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
LSA	Lhasa	50.51	274	eP	P	07 43 30.6	+2.0
	comp=Z,8.4nm,0.6s,mb4.8						
LSA	Lhasa	50.51	274	eP	P	07 43 30.6	+2.0
LSA				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
YKA	Yellowknife Ar	51.02	37	P	P	07 43 32.7	+0.8
YKA	Yellowknife Ar	51.02	37	P	P	07 43 32.7	+0.8
	comp=Z,2.6nm,0.7s,mb4.3,baz=295,slow=7.1,SNR=33						
BRVK	Borovoye	51.25	310	eP	P	07 43 32.9	-0.9
	comp=Z,5.9nm,0.8s,mb4.6						
BRVK	Borovoye	51.25	310	eP	P	07 43 32.9	-0.9
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
CHTO	Chiang Mai	52.27	257	eP	P	07 43 43.1	+1.3
	comp=Z,7.5nm,0.8s,mb4.7						
CHTO	Chiang Mai	52.27	257	eP	P	07 43 43.1	+1.3
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
AAK	Ala-Archa	54.16	297	d iP	P	07 43 54.6	-0.9
AAK				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
AAK				MLR	MLR		
	comp=Z,100nm,20.0s,MS3.9						
TAPN	Taplejung	54.34	274	eP	P	07 43 57.8	+0.8
	comp=Z,18nm,0.7s,mb5.1						
EKS2	Erkin-Say	54.59	297	eP	P	07 43 58.1	-0.5
	comp=Z,5.1nm,0.9s,mb4.5						
ODAN	Odare	54.87	273	eP	P	07 44 04.0	+3.2
	comp=Z,11nm,0.5s,mb5.1						
JIRN	Jiri	55.19	275	eP	P	07 44 04.5	+1.4
	comp=Z,4.6nm,0.2s,mb5.1						
ARU	Arti	55.38	318	c iP	P	07 44 02.6	-1.4
ARU				e		07 46 06.3	
ARU				eS	S	07 51 46.0	-0.6
ARU				eSS	SS	07 55 29.8	-0.7
ARU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
KKN	Kakani	55.74	276	eP	P	07 44 08.3	+1.2
	comp=Z,23nm,0.5s,mb5.4						
GKN	Gorkha	56.05	276	eP	P	07 44 10.4	+1.1
	comp=Z,28nm,0.5s,mb5.5						
KEV	Kevo	57.69	341	ep	P	07 44 18.1	-2.2
	comp=Z,3.2nm,0.7s,mb4.5						
KEV	Kevo	57.69	341	eP	P	07 44 18.1	-2.2
KEV				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
ARCES	ARCESS Array B	58.20	341	P	P	07 44 23.7	-0.2
	comp=Z,4.8nm,0.8s,mb4.6,baz=53,slow=8.6,SNR=7.4						
ARCES				LR	LR	08 12 46.5	
	comp=Z,110nm,19.7s,MS4.0,baz=3.9,slow=39						
AB31	Akbulak array	58.78	310	P	P	07 44 27.2	-1.1
AB31				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
AKTK	Aktyubinsk	59.09	312	P	P	07 44 29.5	-0.8
AKTO	Aktyubinsk	59.09	312	P	P	07 44 29.5	-0.9
	comp=Z,1.3nm,0.5s,mb4.3,baz=58,slow=7.3,SNR=8.8						
JOF	Joensuu	61.69	334	ep	P	07 44 46.5	-1.4
	comp=Z,1.8nm,0.4s,mb4.5						
NVAR	Mina Array Bea	62.37	62	P	P	07 44 56.1	+3.3
	comp=Z,0.8nm,0.8s,mb3.9,baz=291,slow=9.8,SNR=4.8						
KBL	Kabul	62.38	292	eP	P	07 44 52.5	-0.5
KAF	Kangasniemi	63.80	335	ep	P	07 45 00.0	-2.0
	comp=Z,2.8nm,0.5s,mb4.5,baz=37,slow=6.2						
KAF	Kangasniemi	63.80	335	eP	P	07 45 00.0	-2.0
KAF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
FINES	FINESS Array B	64.40	335	P	P	07 45 05.3	-0.6
	comp=Z,4.9nm,0.4s,mb4.9,baz=40,slow=7.3,SNR=73						
FINES				LR	LR	08 17 01.0	
	comp=Z,60nm,18.0s,MS3.8,baz=336,slow=40						
PDAR	Pinedale Array	64.74	54	P	P	07 45 09.5	+1.1
	comp=Z,0.9nm,0.8s,mb3.9,baz=287,slow=4.1,SNR=6.4						
OBN	Obninsk	65.67	326	eP	P	07 45 13.6	-0.7
OBN				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
WRA	Warramunga Arr	68.31	199	P	P	07 45 31.1	-0.3
	comp=Z,1.1nm,0.8s,mb4.0,baz=22,slow=7.1,SNR=8.0						
NB2	NORSAR Subarra	68.57	341	P	P	07 45 32.3	-0.3
	comp=Z,7.0nm,0.7s,mb4.7,baz=28,slow=6.5						
NOA	NORSAR Array B	68.57	341	P	P	07 45 32.5	-0.1
	comp=Z,4.7nm,0.6s,mb4.6,baz=27,slow=6.4,SNR=26						
AKASG	Malin Array Be	71.91	326	P	P	07 45 52.6	-0.6
	comp=Z,6.1nm,0.5s,mb4.8,baz=33,slow=6.2,SNR=29						
AKBB	Malin Array Si	71.91	326	eP	P	07 45 52.4	-0.8
KIEV	Kiev	71.92	326	eP	P	07 45 52.4	-0.9
	comp=Z,15nm,1.0s,mb4.9						
KIEV	Kiev	71.92	326	eP	P	07 45 52.4	-0.9
KIEV				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
ASAR	Alice Springs	72.01	199	P	P	07 45 54.8	+0.8
	comp=Z,1.5nm,0.5s,mb4.2,baz=12,slow=5.5,SNR=30						
STHS	Stebnicka Huta	75.88	330	eP	P	07 46 17.5	+1.1
STHS				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
KOLS	Kolonicke sedl	75.93	329	eP	P	07 46 17.2	+0.5
BURAR	Bucovina Array	75.95	327	⇑iP	P	07 46 17.1	+0.2
WMOK	Wichita Mounta	76.35	54	eP	P	07 46 17.6	-1.8
	comp=Z,2.0nm,0.4s,mb4.4						
WMOK	Wichita Mounta	76.35	54	eP	P	07 46 17.6	-1.8
WMOK				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
OKC	Ostrava-Krasne	76.55	332	eP	P	07 46 21.8	+1.5
EKA	Eskdalemuir Ar	76.67	347	P	P	07 46 21.1	+0.2
	comp=Z,0.7nm,0.5s,mb3.9,baz=18,slow=4.5,SNR=8.7						
DPC	Dobruska-Polom	76.68	333	eP	P	07 46 21.8	+0.8
MORC	Moravsky Berou	76.80	332	⇓P	P	07 46 21.7	0.0
MORC	Moravsky Berou	76.80	332	⇓iP	P	07 46 21.7	0.0
CLL	Collm	76.82	336	i P	P	07 46 22.4	+0.6
CLL	Collm	76.82	336	i (P)	P	07 46 22.4	+0.6
	comp=Z,10.0nm,0.7s,mb4.8						
KECS	Kecovo	76.93	330	eP	P	07 46 22.4	-0.1
KECS				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
PVCC	Panska Ves	77.06	334	eP	P	07 46 24.3	+1.2
TXAR	Lajitas Array	77.44	61	P	P	07 46 26.1	+0.5
	comp=Z,0.9nm,0.5s,mb4.0,baz=302,slow=4.8,SNR=18						
VYHS	Vyhne	77.49	331	eP	P	07 46 25.7	+0.1
VYHS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
VRAC	Vranov	77.51	333	⇑iP	P	07 46 26.2	+0.5
MALT	Malatya	77.51	313	⇑P	P	07 46 27.5	+1.6
MALT	Malatya	77.51	313	⇑iP	P	07 46 27.5	+1.6
PRU	Pruhonice	77.54	334	eP	P	07 46 26.4	+0.5
DRGR		77.58	328	⇓iP	P	07 46 26.5	+0.4
PSZ	Piszkesteto	77.62	330	⇑iP	P	07 46 27.5	+1.2
VOIR		77.83	326	⇑iP	P	07 46 28.2	+0.7
KHC	Kasperske Hory	78.59	334	⇓eP	P	07 46 32.5	+0.8
KHC	Kasperske Hory	78.59	334	eP	P	07 46 32.0	+0.3
GZR	Gura Zlata	78.73	327	⇑iP	P	07 46 32.9	+0.4
BRTR	Keskin Array B	78.75	317	P	P	07 46 32.8	0.0
	comp=Z,1.4nm,0.8s,mb4.0,baz=19,slow=5.2,SNR=4.8						

GRA1	**Grafenberg Arr**	**78.77**	**336**	*e*P	**P**	**07 46 30.9**	**-1.8**
	comp=Z,9.0nm,0.8s,mb4.8						
GRF	**Grafenberg Arr**	**78.77**	**336**	*e*P	**P**	**07 46 30.9**	**-1.8**
GRF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
GRF	**Grafenberg Arr**	**78.77**	**336**	*e*P	**P**	**07 46 30.9**	**-1.8**
GRF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
GRF	**Grafenberg Arr**	**78.77**	**336**	*e*P	**P**	**07 46 30.9**	**-1.8**
	comp=Z,9.0nm,0.8s,mb4.8						
GERES	**GERESS Array B**	**78.81**	**334**	P	**P**	**07 46 33.0**	**+0.1**
	comp=Z,2.0nm,0.8s,mb4.1,baz=31,slow=6.1,SNR=13						
BAIF	**Baives**	**80.23**	**340**	*e*P	**P**	**07 46 40.4**	**-0.2**
KBA	**Koelnbreinsper**	**80.50**	**334**	⇑*i*P	**P**	**07 46 42.6**	**+0.5**
	comp=Z,9.7nm,0.9s,mb4.7						
KBA	**Koelnbreinsper**	**80.50**	**334**	⇑*i*pP	**P**	**07 46 42.6**	**+0.5**
	comp=Z,9.7nm,0.9s,mb4.7						
KBA	**Koelnbreinsper**	**80.50**	**334**	⇑*i*P	**P**	**07 46 42.6**	**+0.5**
KBA				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
CDF	**Champ du Feu**	**81.01**	**338**	*e*P	**P**	**07 46 44.7**	**-0.1**
	comp=Z,6.3nm,0.8s,mb4.3						
CDF	**Champ du Feu**	**81.01**	**338**	*e*P	**P**	**07 46 44.7**	**-0.1**
	comp=Z,3.2nm,0.8s,mb4.3						
CDF	**Champ du Feu**	**81.01**	**338**	*e*P	**P**	**07 46 44.7**	**-0.1**
CDF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
HAU	**Haudompre**	**81.62**	**338**	*e*P	**P**	**07 46 47.8**	**-0.3**
HINF	**Hinteralfeld**	**81.67**	**338**	*e*P	**P**	**07 46 47.9**	**-0.4**
FLN	**La Foliniere**	**82.47**	**343**	*e*P	**P**	**07 46 52.1**	**-0.4**
	comp=Z,46nm,1.2s,mb5.0						
FLN	**La Foliniere**	**82.47**	**343**	*e*P	**P**	**07 46 52.1**	**-0.4**
	comp=Z,23nm,1.2s,mb5.0						
FLN	**La Foliniere**	**82.47**	**343**	*e*P	**P**	**07 46 52.1**	**-0.4**
FLN				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
GRR	**Gorron**	**82.91**	**343**	*e*P	**P**	**07 46 54.6**	**-0.2**
	comp=Z,25nm,1.0s,mb4.9						
GRR	**Gorron**	**82.91**	**343**	*e*P	**P**	**07 46 54.6**	**-0.2**
	comp=Z,13nm,1.0s,mb4.9						
GRR	**Gorron**	**82.91**	**343**	*e*P	**P**	**07 46 54.6**	**-0.2**
GRR				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
LOR	**Lormes**	**82.92**	**340**	*e*P	**P**	**07 46 54.7**	**-0.2**
	comp=Z,22nm,1.2s,mb4.8						
LOR	**Lormes**	**82.92**	**340**	*e*P	**P**	**07 46 54.7**	**-0.2**
	comp=Z,11nm,1.2s,mb4.8						
LOR	**Lormes**	**82.92**	**340**	*e*P	**P**	**07 46 54.7**	**-0.2**
LOR				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.8						
SSF	**Saint Saulge**	**83.20**	**340**	*e*P	**P**	**07 46 56.3**	**0.0**
SGMF	**Saint Gilles**	**83.37**	**344**	*e*P	**P**	**07 46 57.2**	**0.0**
AVF	**Avril sur Loir**	**83.49**	**340**	*e*P	**P**	**07 46 57.8**	**0.0**
	comp=Z,22nm,1.0s,mb4.8						
SMF	**Signal de Mont**	**83.51**	**339**	*e*P	**P**	**07 46 58.0**	**+0.1**
	comp=Z,30nm,1.1s,mb5.0						
SMF	**Signal de Mont**	**83.51**	**339**	*e*P	**P**	**07 46 58.0**	**+0.1**
	comp=Z,15nm,1.1s,mb5.0						
SMF	**Signal de Mont**	**83.51**	**339**	*e*P	**P**	**07 46 58.0**	**+0.1**
SMF				pmax	pmax		
	comp=Z,15nm,1.1s,mb5.0						
BGF	**Bois d'Agland**	**83.83**	**340**	*e*P	**P**	**07 46 59.6**	**0.0**
LPG	**La Plagne**	**83.84**	**337**	*e*P	**P**	**07 46 59.4**	**-0.2**
TCF	**Toulx Ste Croi**	**84.23**	**340**	*e*P	**P**	**07 47 01.7**	**+0.1**
	comp=Z,12nm,1.0s,mb4.7						
TCF	**Toulx Ste Croi**	**84.23**	**340**	*e*P	**P**	**07 47 01.7**	**+0.1**
	comp=Z,5.8nm,1.0s,mb4.7						
TCF	**Toulx Ste Croi**	**84.23**	**340**	*e*P	**P**	**07 47 01.7**	**+0.1**
TCF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
ORIF	**Oris-en-Rattie**	**84.61**	**337**	*e*P	**P**	**07 47 03.5**	**0.0**
TORD	**Torodi Ar. Bea**	**115.45**	**329**	PKP	PKPdf	07 53 11.7	-0.8
TORD	**Torodi Ar. Bea**	**115.45**	**329**	PKP	PKPdf	07 53 11.7	-0.8
	comp=Z,0.1nm,0.3s,baz=157,slow=34,SNR=3.3						
CFAA	**Coronel Fontan**	**144.82**	**80**	PKP	PKPdf	07 54 05.5	-1.4
	comp=Z,0.2nm,0.9s,baz=329,slow=3.2						

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*CRAAG **18** 07:53:07.9, 35.53N×1.19E, Ml4.2*

*CSEM **18** 07:53:08.4±0.1, 35.57N×1.33E, h20^{km}, ML4.2, Error ellipse: s-maj=2.6km s-min=1.7km az=12.0*

*IDC **18** 07:53:09.1±1.4, 35.60N×1.31E, h0^{km}, mb3.2/2, mb1 3.5/6, mb1mx3.3/25, mbtmp3.3/6, ML3.6/4, Error ellipse: s-maj=26.1km s-min=19.7km az=151.0*

*ISCJB **18** 07:53:09.6±0.5, 35.60N±0.03×1.28E±0.03, h23^{km}±4^{km}, mb3.0/2, Error ellipse: s-maj=5.0km s-min=3.6km az=4.5*

*NEIC **18** 07:53:09.7±0.8, 35.64N×1.37E, h10^{km}, MG4.1(MDD), Error ellipse: s-maj=9.4km s-min=6.0km az=129.0*

*MDD **18** 07:53:10.2±0.6, 35.58N×1.19E, h14^{km}±6^{km}, mb4.1/21, Error ellipse: s-maj=7.9km s-min=5.4km az=132.0, PRXIMO*

ISC 18 07:53:10.3±0.6, **35.62N**±0.03×**1.28E**±0.03, **h11**^{km}±4^{km}, **n106, σ1§13**/175, **mb3.0**/2, **1C-2D, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ETRT	**Tiaret**	**0.23**	**177**	P	**Pg**	**07 53 14.8**	**-0.3**
EANR	**'Ain N'Sour**	**0.36**	**336**	P	**Pg**	**07 53 18.2**	**+0.7**
OJGS	**Djebel Guires**	**0.45**	**256**	P	**Pg**	**07 53 17.0**	**-2.1**
ECHA	**Ech Chlef**	**0.54**	**7**	P	**Pg**	**07 53 20.5**	**-0.3**
ECHF	**Ech Chlef**	**0.54**	**5**	P	**Pg**	**07 53 20.5**	**-0.3**
OKGL	**Djebel Kef Gue**	**0.67**	**309**	P	**Pg**	**07 53 15.0**	**-8.3**
EBNR	**Beni Rached**	**0.70**	**17**	P	**Pg**	**07 53 23.5**	**-0.4**
OJBR	**Djebel Berber**	**0.77**	**268**	P	**Pg**	**07 53 16.0**	**-9.1**
EMHD	**Djebel Mahouad**	**1.48**	**66**	P	**Pn**	**07 53 34.0**	**-2.8**
USTO	**Oran**	**1.50**	**275**	P	**Sn**	**07 53 52.0**	**-4.6**
USTO	**Oran**	**1.50**	**275**	S	**Sn**	**07 53 52.0**	**-4.6**
ADJB	**Djebel Djouab**	**1.83**	**72**	P	**Pn**	**07 53 39.9**	**-1.8**
ADJB				P		07 53 42.9	
ADJB	**Djebel Djouab**	**1.83**	**72**	P	**Pn**	**07 53 42.9**	**+1.2**
ABA	**Alger-Bouzarea**	**1.84**	**50**	P	**Pn**	**07 53 42.4**	**+0.5**
EMUR	**La Murta**	**3.01**	**318**	P	**Pn**	**07 53 57.4**	**-0.4**
EMUR				S	**Sn**	**07 54 34.5**	**+0.7**
EMUR	**La Murta**	**3.01**	**318**	P	**Pn**	**07 53 57.4**	**-0.4**
	8.5nm,0.3s,SNR=7.2						
EMUR				S	**Sn**	**07 54 34.3**	**+0.5**
	15nm,0.4s,SNR=9.2						
EMUR	**La Murta**	**3.01**	**318**	P	**Pn**	**07 53 57.4**	**-0.4**
	8.5nm,0.3s,SNR=7.2						
EMUR				S	**Sn**	**07 54 34.5**	**+0.7**
	15nm,0.4s,SNR=9.2						
ENIJ	**Nijar**	**3.13**	**297**	P	**Pn**	**07 53 58.7**	**-0.8**
ENIJ				S	**Sn**	**07 54 37.8**	**+1.0**
ENIJ	**Nijar**	**3.13**	**297**	P	**Pn**	**07 53 59.4**	**-0.1**
	5.7nm,0.3s,SNR=7.9						
ENIJ				S	**Sn**	**07 54 36.4**	**-0.4**
	11nm,0.4s,SNR=7.9						
ENIJ	**Nijar**	**3.13**	**297**	P	**Pn**	**07 53 58.7**	**-0.8**
	5.7nm,0.3s,SNR=7.9						
ENIJ				S	**Sn**	**07 54 37.8**	**+1.0**
	11nm,0.4s,SNR=7.9						
EBEN	**Beniarda**	**3.31**	**339**	P	**Pn**	**07 54 01.6**	**-0.4**
EBEN				S	**Sn**	**07 54 39.8**	**-1.5**
EBEN	**Beniarda**	**3.31**	**339**	P	**Pn**	**07 54 02.4**	**+0.4**
	2.9nm,0.2s,SNR=7.6						
EBEN				S	**Sn**	**07 54 42.7**	**+1.4**
	10nm,0.4s,SNR=5.9						
EBEN	**Beniarda**	**3.31**	**339**	P	**Pn**	**07 54 01.6**	**-0.4**
	2.9nm,0.2s,SNR=7.6						
EBEN				S	**Sn**	**07 54 39.8**	**-1.4**
	10nm,0.4s,SNR=5.9						
EIBI	**Ibiza**	**3.40**	**1**	P	**Pn**	**07 54 02.5**	**-0.8**
EIBI				S	**Sn**	**07 54 39.2**	**-4.4**
EIBI	**Ibiza**	**3.40**	**1**	P	**Pn**	**07 54 03.8**	**+0.5**
	42nm,0.4s,SNR=7.9						
EIBI				S	**Sn**	**07 54 45.1**	**+1.5**
	40nm,0.4s,SNR=7.9						
EIBI	**Ibiza**	**3.40**	**1**	P	**Pn**	**07 54 02.5**	**-0.8**
	42nm,0.4s,SNR=7.9						
EIBI				S	**Sn**	**07 54 39.2**	**-4.4**
	40nm,0.4s,SNR=7.9						
EBER	**Berja**	**3.61**	**292**	P	**Pn**	**07 54 05.9**	**-0.1**
	7.7nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**07 54 48.5**	**-0.1**
	20nm,0.3s,SNR=7.9						
EBER	**Berja**	**3.61**	**292**	P	**Pn**	**07 54 05.9**	**-0.2**
	7.7nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**07 54 48.5**	**-0.1**
	20nm,0.3s,SNR=7.9						
CMER	**Merouana**	**3.76**	**89**	P	**Pg**	**07 54 22.0**	**-0.4**
ETOB	**Tobarra**	**3.77**	**324**	⇑P	**Pn**	**07 54 08.8**	**+0.4**
	14nm,0.3s,SNR=18						
ETOB				S	**Sn**	**07 54 53.4**	**+0.7**
	79nm,0.7s,SNR=4.9						
ETOB	**Tobarra**	**3.77**	**324**	P	**Pn**	**07 54 08.8**	**+0.4**
	14nm,0.3s,SNR=18						
ETOB				S	**Sn**	**07 54 53.4**	**+0.6**
	79nm,0.7s,SNR=4.9						
DFRA	**Djebel Bou Aff**	**3.83**	**75**	P	**Pn**	**07 54 08.0**	**-1.2**
EGUA	**Guajares**	**4.10**	**289**	P	**Pn**	**07 54 12.3**	**-0.6**
	3.6nm,0.4s,SNR=7.9						
EGUA				S	**Sn**	**07 55 00.5**	**-0.4**
	3.2nm,0.4s,SNR=7.9						
EQES	**Quesada**	**4.12**	**303**	⇓P	**Pn**	**07 54 14.9**	**+1.7**
EQES				S	**Sn**	**07 55 04.8**	**+3.5**
EQES	**Quesada**	**4.12**	**303**	⇓P	**Pn**	**07 54 13.8**	**+0.6**
	20nm,0.3s,SNR=18						
EQES				S	**Sn**	**07 55 01.9**	**+0.6**
	30nm,0.4s,SNR=7.9						
EQES	**Quesada**	**4.12**	**303**	P	**Pn**	**07 54 14.9**	**+1.7**
	20nm,0.3s,SNR=18						
EQES				S	**Sn**	**07 55 04.8**	**+3.5**
	30nm,0.4s,SNR=7.9						
EQUE	**Quentar**	**4.13**	**294**	P	**Pn**	**07 54 13.3**	**+0.1**
	15nm,0.3s,SNR=41						
EQUE				S	**Sn**	**07 55 01.2**	**-0.2**
	6.4nm,0.3s,SNR=8.3						
EQUE	**Quentar**	**4.13**	**294**	P	**Pn**	**07 54 14.3**	**+1.1**
	15nm,0.3s,SNR=41						
EQUE				S	**Sn**	**07 54 59.9**	**-1.5**
	6.4nm,0.3s,SNR=8.3						
ECOG	**Cogollos-Vega**	**4.25**	**294**	P	**Pn**	**07 54 16.4**	**+1.5**
ECOG				S	**Sn**	**07 55 01.6**	**-2.8**
ECOG	**Cogollos-Vega**	**4.25**	**294**	P	**Pn**	**07 54 15.2**	**+0.3**
	9.8nm,0.4s,SNR=7.9						
ECOG				S	**Sn**	**07 55 03.9**	**-0.5**
	4.4nm,0.4s,SNR=7.9						
ECOG	**Cogollos-Vega**	**4.25**	**294**	P	**Pn**	**07 54 16.4**	**+1.5**
	9.8nm,0.4s,SNR=7.9						
ECOG				S	**Sn**	**07 55 01.6**	**-2.8**
	4.4nm,0.4s,SNR=7.9						
EVIA	**Vianos**	**4.27**	**316**	P	**Pn**	**07 54 15.8**	**+0.6**
EVIA				S	**Sn**	**07 55 06.6**	**+1.6**
EVIA	**Vianos**	**4.27**	**316**	P	**Pn**	**07 54 15.8**	**+0.6**
	3.0nm,0.2s,SNR=7.9						
EVIA				S	**Sn**	**07 55 05.6**	**+0.6**
	50nm,0.9s,SNR=5.0						
EVIA	**Vianos**	**4.27**	**316**	P	**Pn**	**07 54 15.8**	**+0.6**
	3.0nm,0.2s,SNR=7.9						
EVIA				S	**Sn**	**07 55 06.6**	**+1.6**
	50nm,0.9s,SNR=5.0						
ETOS	**Mallorca**	**4.32**	**16**	P	**Pn**	**07 54 14.0**	**-1.9**
	4.6nm,0.3s,SNR=8.2						
ETOS				S	**Sn**	**07 55 01.6**	**-4.6**
	4.7nm,0.3s,SNR=6.2						
ETOS	**Mallorca**	**4.32**	**16**	P	**Pn**	**07 54 14.0**	**-1.8**
	4.6nm,0.3s,SNR=8.2						
ETOS				S	**Sn**	**07 55 01.6**	**-4.5**
	4.7nm,0.3s,SNR=6.2						
ERON	**Agron**	**4.34**	**290**	P	**Pn**	**07 54 17.0**	**+0.8**
ERON				S	**Sn**	**07 55 07.4**	**+0.6**
ERON	**Agron**	**4.34**	**290**	P	**Pn**	**07 54 16.5**	**+0.3**
	6.2nm,0.4s,SNR=7.9						
ERON				S	**Sn**	**07 55 06.6**	**-0.2**
	2.4nm,0.4s,SNR=7.9						
ERON	**Agron**	**4.34**	**290**	P	**Pn**	**07 54 17.0**	**+0.8**
	6.2nm,0.4s,SNR=7.9						
ERON				S	**Sn**	**07 55 07.4**	**+0.7**
	2.4nm,0.4s,SNR=7.9						
ECHE	**Chera**	**4.35**	**336**	P	**Pn**	**07 54 17.0**	**+0.7**
ECHE				S	**Sn**	**07 55 07.0**	**+0.1**
ECHE	**Chera**	**4.35**	**336**	P	**Pn**	**07 54 17.0**	**+0.7**
	5.2nm,0.4s,SNR=7.9						
ECHE				S	**Sn**	**07 55 08.2**	**+1.2**
	15nm,0.9s,SNR=7.9						
ECHE	**Chera**	**4.35**	**336**	P	**Pn**	**07 54 17.0**	**+0.7**
	5.2nm,0.4s,SNR=7.9						
ECHE				S	**Sn**	**07 55 07.0**	**+0.1**
	15nm,0.9s,SNR=7.9						
ELOJ	**Sierra Loja**	**4.64**	**291**	P	**Pn**	**07 54 20.9**	**+0.5**
ELOJ				S	**Sn**	**07 55 14.3**	**+0.1**
ELOJ	**Sierra Loja**	**4.64**	**291**	P	**Pn**	**07 54 20.9**	**+0.5**
	2.1nm,0.3s,SNR=7.9						
ELOJ				S	**Sn**	**07 55 14.1**	**-0.1**
	5.0nm,0.6s,SNR=7.9						
ELOJ	**Sierra Loja**	**4.64**	**291**	P	**Pn**	**07 54 20.9**	**+0.6**
	2.1nm,0.3s,SNR=7.9						
ELOJ				S	**Sn**	**07 55 14.3**	**+0.1**
	5.0nm,0.6s,SNR=7.9						
EBAN	**Banos Encina**	**4.79**	**304**	P	**Pn**	**07 54 23.0**	**+0.6**
EBAN				S	**Sn**	**07 55 15.5**	**-2.3**
EBAN	**Banos Encina**	**4.79**	**304**	P	**Pn**	**07 54 23.0**	**+0.6**
	6.6nm,0.3s,SNR=7.5						
EBAN				S	**Sn**	**07 55 18.1**	**+0.2**
	9.2nm,0.5s,SNR=7.9						
EBAN	**Banos Encina**	**4.79**	**304**	P	**Pn**	**07 54 23.0**	**+0.6**
	6.6nm,0.3s,SNR=7.5						
EBAN				S	**Sn**	**07 55 15.5**	**-2.4**
	9.2nm,0.5s,SNR=7.9						
ELUQ	**Luque**	**4.87**	**295**	P	**Pn**	**07 54 23.7**	**+0.3**
	2.9nm,1.0s,SNR=7.9						
ELUQ				S	**Sn**	**07 55 19.6**	**-0.1**
	4.4nm,0.4s,SNR=4.0						
ELUQ	**Luque**	**4.87**	**295**	S	**Sn**	**07 55 21.0**	**+1.3**
	4.4nm,0.4s,SNR=4.0						
EMOS	**Mosqueruela**	**4.94**	**344**	P	**Pn**	**07 54 24.7**	**+0.4**
EMOS				S	**Sn**	**07 55 18.7**	**-2.7**
EMOS	**Mosqueruela**	**4.94**	**344**	P	**Pn**	**07 54 25.3**	**+0.9**
	1.0nm,0.3s,SNR=10						
EMOS				S	**Sn**	**07 55 21.7**	**+0.3**
	0.8nm,0.3s,SNR=7.2						
EMOS	**Mosqueruela**	**4.94**	**344**	P	**Pn**	**07 54 24.7**	**+0.3**
	1.0nm,0.3s,SNR=10						
EMOS				S	**Sn**	**07 55 18.7**	**-2.7**
	0.8nm,0.3s,SNR=7.2						
EMIJ	**Mijas**	**4.99**	**283**	P	**Pn**	**07 54 23.9**	**-1.2**
EMIJ				S	**Sn**	**07 55 20.1**	**-2.8**
EMIJ	**Mijas**	**4.99**	**283**	P	**Pn**	**07 54 24.8**	**-0.3**
	2.5nm,0.3s,SNR=7.9						
EMIJ				S	**Sn**	**07 55 20.1**	**-2.8**
	9.0nm,0.4s,SNR=7.9						
EMIJ	**Mijas**	**4.99**	**283**	P	**Pn**	**07 54 23.9**	**-1.3**
	2.5nm,0.3s,SNR=7.9						
EMIJ				S	**Sn**	**07 55 20.1**	**-2.8**
	9.0nm,0.4s,SNR=7.9						
CMAH	**Djebel Manchou**	**5.07**	**77**	P	**Pn**	**07 54 25.0**	**-1.2**
EADA	**Adamuz**	**5.34**	**300**	P	**Pn**	**07 54 30.1**	**+0.1**
	0.9nm,0.2s,SNR=5.4						
EADA				S	**Sn**	**07 55 30.4**	**-1.0**
	7.8nm,0.4s,SNR=5.0						
EADA	**Adamuz**	**5.34**	**300**	P	**Pn**	**07 54 30.1**	**+0.2**
	0.9nm,0.2s,SNR=5.4						
EADA				S	**Sn**	**07 55 30.4**	**-1.0**
	7.8nm,0.4s,SNR=5.0						
ERTA	**Horta de San J**	**5.38**	**352**	P	**Pn**	**07 54 30.2**	**-0.3**
ERTA				S	**Sn**	**07 55 29.4**	**-3.0**
ERTA	**Horta de San J**	**5.38**	**352**	P	**Pn**	**07 54 30.6**	**+0.1**
	1.1nm,0.2s,SNR=6.4						
ERTA				S	**Sn**	**07 55 33.4**	**+1.0**
	2.9nm,0.3s,SNR=6.1						
ERTA	**Horta de San J**	**5.38**	**352**	P	**Pn**	**07 54 30.2**	**-0.3**
	1.1nm,0.2s,SNR=6.4						
ERTA				S	**Sn**	**07 55 29.4**	**-3.0**
	2.9nm,0.3s,SNR=6.1						
EJIF	**Jimena Fronter**	**5.54**	**281**	P	**Pn**	**07 54 33.1**	**+0.5**
	2.4nm,0.4s,SNR=7.9						
EJIF				S	**Sn**	**07 55 35.4**	**-0.8**
	3.2nm,0.5s,SNR=7.9						
EJIF	**Jimena Fronter**	**5.54**	**281**	P	**Pn**	**07 54 33.7**	**+1.1**
	2.4nm,0.4s,SNR=7.9						
EJIF				S	**Sn**	**07 55 35.4**	**-0.8**
	3.2nm,0.5s,SNR=7.9						
MDT	**Midelt**	**5.63**	**242**	Pn	**Pn**	**07 54 36.0**	**+2.1**
MDT				Lg		07 56 08.4	
MDT	**Midelt**	**5.63**	**242**	Pn	**Pn**	**07 54 36.0**	**+2.1**
	0.5nm,0.3s,baz=70,slow=18,SNR=22						
MDT				Lg		07 56 08.4	
	1.1nm,0.3s,baz=299,slow=17,SNR=2.7						
EPOB	**Poblet**	**5.73**	**358**	P	**Pn**	**07 54 34.2**	**-1.1**
EPOB				S	**Sn**	**07 55 36.1**	**-4.8**
EPOB	**Poblet**	**5.73**	**358**	P	**Pn**	**07 54 35.0**	**-0.3**
	3.4nm,0.3s,SNR=6.7						
EPOB				S	**Sn**	**07 55 36.1**	**-4.8**
	4.0nm,0.5s						
EPOB	**Poblet**	**5.73**	**358**	P	**Pn**	**07 54 34.2**	**-1.0**
	3.4nm,0.3s,SNR=6.7						
EPOB				S	**Sn**	**07 55 36.2**	**-4.7**
	4.0nm,0.5s						
ESDC	**Sonseca Array**	**5.81**	**316**	P	**Pn**	**07 54 36.5**	**+0.2**
ESDC				S	**Sn**	**07 55 41.1**	**-1.7**
ESDC	**Sonseca Array**	**5.81**	**316**	Pn	**Pn**	**07 54 37.1**	**+0.8**
	1.6nm,0.3s,baz=131,slow=12,SNR=23						
ESDC				Sn	**Sn**	**07 55 42.6**	**-0.2**
	0.9nm,0.3s,baz=124,slow=23,SNR=4.4						
ESDC				Lg		07 55 59.1	
	1.4nm,0.3s,baz=122,slow=30,SNR=5.9						
ESDC	**Sonseca Array**	**5.81**	**316**	P	**Pn**	**07 54 36.5**	**+0.2**
	4.3nm,0.3s,baz=136,slow=12,SNR=18						
ESDC				S	**Sn**	**07 55 43.7**	**+0.9**
	1.7nm,0.3s,baz=132,slow=24,SNR=5.1						
ESDC	**Sonseca Array**	**5.81**	**316**	P	**Pn**	**07 54 36.5**	**+0.2**
	4.3nm,0.3s,SNR=18						
ESLA	**Sonseca Array**	**5.81**	**316**	*e*Pn	**Pn**	**07 54 34.5**	**-1.8**
ETOR	**Torete**	**5.82**	**334**	P	**Pb**	**07 54 47.8**	**-3.9**
ETOR				S	**Sb**	**07 56 02.4**	**+1.0**
ETOR	**Torete**	**5.82**	**334**	P	**Pn**	**07 54 38.4**	**+1.9**
	5.9nm,0.4s,SNR=5.4						
ETOR				S	**Sn**	**07 55 44.3**	**+1.1**
	3.8nm,0.5s,SNR=4.0						
ETOR	**Torete**	**5.82**	**334**	P	**Pb**	**07 54 47.8**	**-4.0**
	5.9nm,0.4s,SNR=5.4						
ETOR				S	**Sb**	**07 56 02.4**	**+1.0**
	3.8nm,0.5s,SNR=4.0						
ZFT	**Errachidia**	**5.90**	**234**	P	**Pn**	**07 54 39.0**	**+1.4**
ESAC	**San Caprasio**	**6.25**	**348**	P	**Pn**	**07 54 41.9**	**-0.5**
ESAC				S	**Sn**	**07 55 51.3**	**-2.4**
ESAC	**San Caprasio**	**6.25**	**348**	P	**Pn**	**07 54 43.6**	**+1.3**
	8.7nm,0.3s,SNR=4.8						
EMIR	**Miracle**	**6.29**	**2**	P	**Pn**	**07 54 42.8**	**-0.2**
EMIR	**Miracle**	**6.29**	**2**	P	**Pn**	**07 54 43.3**	**+0.4**
	8.0nm,0.2s,SNR=6.1						
KEST	**Kesra**	**6.56**	**87**	Pn	**Pn**	**07 54 48.0**	**+1.3**
	0.3nm,0.3s,baz=309,slow=14,SNR=2.8						
KEST				Sn	**Sn**	**07 56 01.6**	**+0.1**
	0.3nm,0.3s,baz=16,slow=21,SNR=3.7						
GUD	**Guadarrama**	**6.60**	**321**	P	**Pn**	**07 54 48.9**	**+1.7**
	15nm,0.6s,SNR=7.9						
EMIN	**Mina Concepcio**	**6.74**	**291**	P	**Pn**	**07 54 49.4**	**+0.3**
EMIN				S	**Sn**	**07 56 02.9**	**-3.0**
EMIN	**Mina Concepcio**	**6.74**	**291**	P	**Pn**	**07 54 49.4**	**+0.3**
	0.3nm,0.2s,SNR=7.9						
EBIE	**Bielsa**	**7.11**	**353**	P	**Pn**	**07 54 54.4**	**+0.1**
EBIE	**Bielsa**	**7.11**	**353**	P	**Pn**	**07 54 55.6**	**+1.3**
	0.3nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**7.33**	**298**	P	**Pn**	**07 54 57.2**	**0.0**
EBAD				S	**Sn**	**07 56 16.9**	**-3.4**
EBAD	**Badajoz**	**7.33**	**298**	P	**Pn**	**07 54 57.5**	**+0.3**
	0.7nm,0.2s,SNR=4.0						
ECAL	**Calabor**	**8.89**	**318**	P	**Pn**	**07 55 18.7**	**+0.1**
ECAL	**Calabor**	**8.89**	**318**	P	**Pn**	**07 55 19.3**	**+0.7**
	1.9nm,0.2s,SNR=7.9						
GERES	**GERESS Array B**	**16.07**	**31**	Pn	**Pn**	**07 56 58.1**	**+2.0**
GERES	**GERESS Array B**	**16.07**	**31**	Pn	**Pn**	**07 56 58.1**	**+2.0**
	0.1nm,0.3s,baz=214,slow=11,SNR=4.9						
TORD	**Torodi Ar. Bea**	**22.38**	**179**	P	**P**	**07 58 08.3**	**-0.3**
	0.4nm,0.6s,mb3.0,baz=352,slow=12,SNR=3.0						
YKA	**Yellowknife Ar**	**69.61**	**334**	P	**P**	**08 04 19.0**	**-0.1**
	0.1nm,0.6s,mb2.9,baz=59,slow=5.6,SNR=4.2						

IDC 18 08:02:55.9±2.1, **1.84N×126.72E, h0**^{km}**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.3**/16**, mbtmp3.4**/3**, Error ellipse: s-maj=174.8km s-min=25.2km az=66.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**22.90**	**161**	P	P	08 08 01.0	-0.4
	1.0nm,0.4s,baz=340,slow=11,SNR=29						
ASAR	**Alice Springs**	**26.29**	**165**	P	P	08 08 33.9	+0.5
	0.2nm,0.4s,baz=341,slow=7.6,SNR=7.1						
MKAR	**Makanchi Array**	**59.10**	**326**	P	P	08 12 58.2	0.0
	0.1nm,0.3s,baz=116,slow=8.8,SNR=6.3						

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*NNC **18** 08:28:56.5±4.4, 42.19N×84.17E, h0^{km}, mb2.8, mpv2.4, Error ellipse: s-maj=36.3km s-min=20.1km az=129.0*

*IDC **18** 08:29:00.8±3.0, 42.61N×83.68E, h0^{km}, mb3.9/1, mb1 3.5/4, mb1mx3.2/24, mbtmp3.4/4, ML3.1/3, Error ellipse: s-maj=46.1km s-min=29.9km az=73.0*

*ISCJB **18** 08:29:03.3±0.9, 42.99N±0.06×83.54E±0.07, h10^{km}, mb4.2/4, Error ellipse: s-maj=8.9km s-min=7.0km az=40.9*

*BJI **18** 08:29:03.2, 42.64N×83.86E, h14^{km}, ML3.0*

*NEIC **18** 08:29:06.2±1.1, 42.70N×83.82E, h30^{km}, mb4.0/2, Error ellipse: s-maj=17.9km s-min=11.6km az=204.0*

ISC 18 08:29:05.1±0.9, **42.90N**±0.06×**83.59E**±0.08, **h10**^{km}**, n16, σ1§22**/24**, mb4.2**/4**, 1C-5D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WMQ	**Urumqi**	**3.13**	**72**	*e*P	**Pn**	**08 29 55.0**	**+0.6**
WMQ				S	**Sn**	**08 30 32.8**	**+1.0**
WMQ				Smax			
	comp=N,127nm,0.6s						
WMQ				Smax			
	comp=E,92nm,0.4s						
MK31	**Makanchi Array**	**4.00**	**347**	Pn	**Pn**	**08 30 13.0**	**+6.7**
	comp=E,0.3nm,0.3s,baz=154,slow=14,SNR=52						
MK31				Sn	**Sg**	**08 31 12.9**	**-0.6**
	comp=E,47nm,0.7s,baz=162,slow=21,SNR=9.8						
MK31	**Makanchi Array**	**4.00**	**347**	*e*Pn	**Pn**	**08 30 09.0**	**+2.6**
MKAR	**Makanchi Array**	**4.00**	**347**	Pn	**Pn**	**08 30 09.2**	**+2.8**
MKAR				Pg	**Pg**	**08 30 19.1**	**-2.5**
MKAR				Sn	**Sn**	**08 30 53.2**	**0.0**
MKAR				Lg		08 31 19.1	
MKAR	**Makanchi Array**	**4.00**	**347**	Pn	**Pn**	**08 30 09.2**	**+2.8**
	comp=E,0.6nm,0.3s,baz=163,slow=14,SNR=27						
MKAR				Pg	**Pg**	**08 30 19.1**	**-2.5**
	comp=E,2.9nm,0.3s,baz=171,slow=16,SNR=28						
MKAR				Sn	**Sn**	**08 30 53.2**	**0.0**
	comp=E,3.9nm,0.3s,baz=164,slow=18,SNR=8.3						
MKAR				Lg		08 31 19.1	
	comp=E,11nm,0.3s,baz=167,slow=34,SNR=14						
TKM2	**Tokmak 2**	**5.87**	**273**	⇓Pn	**Pn**	**08 30 32.0**	**0.0**
	comp=E,0.1nm,0.5s						
TKM2				⇓Sn	**Sn**	**08 31 45.7**	**+6.3**
	comp=E,1.1nm,0.8s						
TKM2				⇓Lg		08 32 16.9	
	comp=E,2.5nm,0.9s						
KURK	**Kurchatov**	**8.53**	**338**	⇓Sn	**Sn**	**08 32 59.6**	**+15**
	comp=E,1.9nm,0.8s						
KURK				⇑Lg		08 33 43.1	
	comp=E,4.0nm,0.7s						
KK31	**Karatay Array**	**9.59**	**276**	⇓Lg		08 34 12.5	
	comp=E,1.5nm,0.5s,baz=79,slow=29,SNR=5.2						
ZALV	**Zalesovo Beam**	**11.09**	**4**	Pn	**Pn**	**08 31 44.5**	**+1.0**
ZALV				Sn	**Sn**	**08 33 47.4**	**0.0**
ZALV				Lg		08 34 58.8	
ZALV	**Zalesovo Beam**	**11.09**	**4**	Pn	**Pn**	**08 31 44.5**	**+1.0**
	comp=E,0.3nm,0.3s,baz=188,slow=13,SNR=2.9						
ZALV				Sn	**Sn**	**08 33 47.4**	**0.0**
	comp=E,0.6nm,0.3s,baz=175,slow=26,SNR=8.0						
ZALV				Lg		08 34 58.8	
	comp=E,0.1nm,0.3s,baz=186,slow=29,SNR=3.1						
SONM	**Songino Array**	**16.75**	**65**	Pn	**Pn**	**08 32 58.1**	**-1.4**
SONM	**Songino Array**	**16.75**	**65**	Pn	**Pn**	**08 32 58.1**	**-1.4**
	comp=E,0.1nm,0.3s,baz=261,slow=12,SNR=4.6						
BJT	**Baijiatuau**	**24.50**	**86**	*e*P	**P**	**08 34 21.1**	**-3.3**
	comp=E,1.1nm,0.3s,mb3.9						
BR131	**Keskin Array S**	**37.21**	**283**	*e*P	**P**	**08 36 16.8**	**+0.4**
	comp=E,7.3nm,0.3s,mb5.0						
ARCES	**ARCESS Array B**	**39.51**	**332**	P	**P**	**08 36 35.3**	**-0.1**
	comp=E,1.8nm,0.9s,mb3.8,baz=96,slow=7.4,SNR=3.6						
TNA	**Tin City**	**58.68**	**28**	*e*P	**P**	**08 39 01.2**	**-0.9**
	comp=E,2.0nm,1.1s,mb4.1						

MEX 18 08:38:03.3±0.6, **15.83N×93.78W, h44**^{km}±750^{km}**, MD3.7, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCX	**San Cristobal**	**1.42**	**50**	*i* P	Pn	08 38 24.0	-2.7
SCX				*i* S	Sn	08 38 43.0	-1.2
CCIG	**Comitan**	**1.64**	**74**	*e*P	Pn	08 38 28.6	-1.1
CCIG				*i* S	Sn	08 38 46.5	-3.0
VHO	**Vista Hermosa**	**3.10**	**294**	*e*P	Pn	08 38 48.1	-1.6
VHO				*i* S	Sn	08 39 24.2	-1.2

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*CSEM **18** 09:09:17.0±0.3, 44.03N×12.95E, h30^{km}, ML2.5/4, Error ellipse: s-maj=5.5km s-min=2.4km az=45.0*

*ROM **18** 09:09:17.5±0.3, 44.02N×12.92E, h33^{km}±1^{km}, Md2.3/9, Ml1.8/3, Error ellipse: s-maj=4.2km s-min=2.2km az=124.0*

*ISCJB **18** 09:09:18.7±0.5, 44.01N±0.03×12.87E±0.07, h33^{km}, Error*

ellipse: s-maj=7.4km s-min=3.7km az=24.0

ISC 18 09:09:18.9±0.5, 4401N±003×1285E±007, h30^{km}±4^{km}, n22, σ0^{s}91/39, 2C, Northern Italy

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PESA	**Pesaro**	0.07	188	Pg	Pb	09 09 23.7	-0.3
PESA				Sg	Sb	09 09 28.4	+0.8
PESA	**Pesaro**	0.07	188	Pg	Pb	09 09 23.7	-0.3
PESA				Sg	Sb	09 09 28.4	+0.8
FSSB	**Fossombrone**	0.32	190	Pg	Pb	09 09 25.5	-1.1
FSSB				Sg	Sb	09 09 31.5	-0.3
	237nm,0.2s						
FSSB	**Fossombrone**	0.32	190	Pg	Pb	09 09 25.5	-1.1
FSSB				Sg	Sb	09 09 31.5	-0.3
	237nm,0.2s						
ARVD	**Arcevia**	0.51	173	Pg	Pb	09 09 28.5	-1.0
ARVD	**Arcevia**	0.51	173	Pg	Pb	09 09 28.5	-1.0
SFI	**Santa Sofia**	0.73	262	Pg	Pn	09 09 32.8	-0.3
SFI				Sg	Sb	09 09 44.0	+1.1
	11nm,0.2s						
SFI	**Santa Sofia**	0.73	262	Pg	Pn	09 09 32.8	-0.3
SFI				Sg	Sb	09 09 44.0	+1.1
	11nm,0.2s						
SNTG	**Esanatoglia**	0.75	175	⇑Pg	Pn	09 09 32.3	-1.1
SNTG				Sg	Sb	09 09 43.7	+0.3
	14nm,0.2s						
SNTG	**Esanatoglia**	0.75	175	⇑Pg	Pn	09 09 32.3	-1.1
SNTG				Sg	Sb	09 09 43.7	+0.3
	14nm,0.2s						
CRE	**Caprese Michel**	0.76	240	Pg	Pn	09 09 33.2	-0.3
	37nm,1.4s						
CRE	**Caprese Michel**	0.76	240	Pg	Pn	09 09 33.2	-0.3
	37nm,1.4s						
MURB	**Monte Urbino**	0.78	198	Pg	Pn	09 09 33.2	-0.6
MURB				Sg	Sb	09 09 44.9	+0.7
MURB	**Monte Urbino**	0.78	198	Pg	Pn	09 09 33.2	-0.6
MURB				Sg	Sb	09 09 44.9	+0.7
CESI	**CESI - Serrava**	1.00	178	Pg	Pn	09 09 35.9	-0.9
CESI				Sg	Sn	09 09 51.1	+1.2
	11nm,0.3s						
NRCA	**Norcia**	1.19	171	Pg	Pn	09 09 38.9	-0.5
NRCA				Sg	Sn	09 09 55.4	+0.9
	5.0nm,0.4s						
NRCA	**Norcia**	1.19	171	Pg	Pn	09 09 38.9	-0.5
NRCA				Sg	Sn	09 09 55.4	+0.9
	5.0nm,0.4s						
SKDS	**Skadanscina**	1.75	28	*i* Pn	Pn	09 09 46.1	-1.0
SKDS				*i* Sn	Sn	09 10 07.2	-1.1
BOJS	**Bojanci**	2.27	48	*i* Pn	Pn	09 09 56.9	+2.6
BOJS				*i* Sn	Sn	09 10 22.0	+0.8
BOJS	**Bojanci**	2.27	48	*i* Sn	Sn	09 10 22.0	+0.7
VISS	**Visnje**	2.29	37	*i* Pn	Pn	09 09 54.8	+0.3
VISS				*i* Sn	Sn	09 10 22.2	+0.6
VISS	**Visnje**	2.29	37	Pn	Pn	09 09 54.8	+0.3
VISS				*i* Sn	Sn	09 10 22.2	+0.6

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*CSEM **18** 09:27:34.6±0.1, 3883N×2674E, h2^{km}, MD3.3, Error ellipse: s-maj=2.0km s-min=1.1km az=89.0*
*ISCJB **18** 09:27:36.0±0.6, 3883N±002×2685E±004, h3^{km}±5^{km}, Error ellipse: s-maj=5.8km s-min=3.2km az=150.6*
*ISK **18** 09:27:35.2, 3882N×2684E, h2^{km}, MD3.3*
*DDA **18** 09:27:36.2, 3896N×2709E, h2^{km}, Md3.2*
*NEIC **18** 09:27:38.1, 3864N×2637E, h14^{km}, MD3.5(ATH), ML3.4(ISK), After ATH.*
*ATH **18** 09:27:38.1, 3864N×2637E, h14^{km}±14^{km}, MD3.5/5*

ISC 18 09:27:36.4±0.5, 3882N±002×2681E±004, h4^{km}±4^{km}, n89, σ0^{s}98/104, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BLCB	**Balcova**	0.47	157	*i* PG	Pg	09 27 45.2	-0.3
BLCB				*i* SG	Sg	09 27 51.8	+0.2
BLCB	**Balcova**	0.47	157	*i* Pg	Pg	09 27 45.2	-0.3
BLCB				*i* Sg	Sg	09 27 51.8	+0.2
AYVA	**Ayvalik**	0.49	350	*i* P	Pg	09 27 45.4	-0.5
AYVA				*i* S	Sg	09 27 53.1	+0.7
KDAG	**Bornova**	0.55	139	*i* P	Pg	09 27 46.0	-0.9
KDAG				*i* S	Sg	09 27 53.9	-0.3
KDAG	**Bornova**	0.55	139	*i* P	Pg	09 27 46.0	-1.0
IZM	**Izmir**	0.55	140	*i* PG	Pg	09 27 46.4	-0.6
IZM				*i* SG	Sg	09 27 54.3	+0.1
IZM	**Izmir**	0.55	140	*i* Pg	Pg	09 27 46.4	-0.6
IZM				*i* Sg	Sg	09 27 54.3	+0.1
PRK	**Paraskevi**	0.59	316	*e*Pg	Pg	09 27 49.6	+1.8
PRK				*e*Sb	Sg	09 27 59.0	+3.4
PRK	**Paraskevi**	0.59	316	*e*PG	Pg	09 27 49.6	+1.8
PRK				*e*SB	Sg	09 27 59.0	+3.4
PRK	**Paraskevi**	0.59	316	*e*Pg	Pg	09 27 49.6	+1.8
AKS	**Akhisar**	0.79	85	PG	Pg	09 27 49.8	-1.7
AKS	**Akhisar**	0.79	85	*e*Pg	Pg	09 27 49.8	-1.7
EZN	**Ezine**	1.07	340	PN	Pn	09 27 56.4	-1.7
EZN				SN	Sn	09 28 12.9	-0.5
EZN	**Ezine**	1.07	340	*e*Pn	Pn	09 27 56.4	-1.7
EZN				*e*Sn	Sn	09 28 12.9	-0.5
SMG	**Samos**	1.11	179	*e*Pb	Pb	09 27 57.1	-1.0
SMG	**Samos**	1.11	179	*e*PB	Pb	09 27 57.1	-1.0
SMG	**Samos**	1.11	179	*e*Pb	Pb	09 27 57.1	-1.0
BALB	**Balikesir**	1.17	45	PN	Pn	09 27 57.4	-2.1
BALB	**Balikesir**	1.17	45	*e*Pn	Pn	09 27 57.4	-2.1
BOZC	**Bozcaada**	1.18	330	*i* P	Pg	09 27 58.6	-0.3
BOZC				*i* S	Sg	09 28 14.6	+0.4
GADA	**Gvkgeada**	1.54	333	*e*PN	Pn	09 28 03.8	-0.7
GADA	**Gvkgeada**	1.54	333	*e*Pn	Pn	09 28 03.8	-0.7
LIA	**Limnos Island**	1.66	311	*e*Pb	Pb	09 28 07.9	+0.5
LIA	**Limnos Island**	1.66	311	*e*PB	Pb	09 28 07.9	+0.5
LIA	**Limnos Island**	1.66	311	*e*Pb	Pb	09 28 07.9	+0.5
MLSB	**Milas**	1.71	153	*e*PN	Pn	09 28 07.3	+0.5
MLSB	**Milas**	1.71	153	*e*Pn	Pn	09 28 07.3	+0.5
EDC	**Edincik**	1.73	28	*e*PN	Pn	09 28 06.6	-0.6
EDC	**Edincik**	1.73	28	*e*Pn	Pn	09 28 06.6	-0.6
BNT	**Bandirma**	1.76	29	*e*PN	Pn	09 28 07.2	-0.4
BNT	**Bandirma**	1.76	29	*e*Pn	Pn	09 28 07.2	-0.4
BODT	**Bodrum**	1.80	167	*e*PN	Pn	09 28 07.9	-0.3
BODT	**Bodrum**	1.80	167	*e*Pn	Pn	09 28 07.9	-0.3
BDRM	**Kayabasi**	1.82	164	*i* P	Pn	09 28 12.3	+3.8
BDRM				*i* S	Sn	09 28 37.6	+5.6
KCT	**Karacabey**	1.88	39	*e*PN	Pn	09 28 08.5	-0.7
KCT	**Karacabey**	1.88	39	*e*Pn	Pn	09 28 08.5	-0.7
RKY	**Sarkoy-Tekirda**	1.89	9	*e*PN	Pn	09 28 08.9	-0.4
RKY	**Sarkoy-Tekirda**	1.89	9	*e*Pn	Pn	09 28 08.9	-0.4
SART	**Tekirdag**	1.89	9	*i* P	Pn	09 28 07.5	-1.9
SART				*i* S	Sn	09 28 31.3	-2.3
ENEZ	**Enez**	1.98	345	*e*PN	Pn	09 28 11.1	+0.5
ENEZ	**Enez**	1.98	345	*e*Pn	Pn	09 28 11.1	+0.5
APE	**Apeiranthos**	2.02	210	*e*Pn	Pn	09 28 09.5	-1.7
APE	**Apeiranthos**	2.02	210	*e*PN	Pn	09 28 09.5	-1.7
APE	**Apeiranthos**	2.02	210	*e*Pn	Pn	09 28 09.5	-1.7
YER	**Yerkesik**	2.05	145	*e*PN	Pn	09 28 11.7	+0.1
YER	**Yerkesik**	2.05	145	*e*Pn	Pn	09 28 11.7	+0.1
DENT	**Denizli**	2.05	121	*e*PN	Pn	09 28 12.0	+0.4
DENT	**Denizli**	2.05	121	*e*Pn	Pn	09 28 12.0	+0.4
DAT	**Datca**	2.18	163	*e*PN	Pn	09 28 13.4	+0.1
DAT	**Datca**	2.18	163	*e*Pn	Pn	09 28 13.4	+0.1
KHL	**Karahalli**	2.19	102	*e*PN	Pn	09 28 14.2	+0.7
KHL	**Karahalli**	2.19	102	*e*Pn	Pn	09 28 14.2	+0.7
ULDT	**Uludag**	2.23	53	*i* P	Pn	09 28 12.3	-1.8
ULDT				*i* S	Sn	09 28 42.2	+0.1
ULDT	**Uludag**	2.23	53	*i* P	Pn	09 28 12.3	-1.8
ULDT				*i* S	Sn	09 28 42.2	+0.1
GEMT	**Gemlik**	2.45	48	*e*PN	Pn	09 28 17.5	+0.5
GEMT	**Gemlik**	2.45	48	*e*Pn	Pn	09 28 17.5	+0.5
DALT	**Dalyan (Mudla)**	2.51	144	*e*PN	Pn	09 28 18.4	+0.5
DALT	**Dalyan (Mudla)**	2.51	144	*e*Pn	Pn	09 28 18.4	+0.5
GEDT	**Gedikpinar**	2.54	62	*e*PN	Pn	09 28 19.1	+0.8
GEDT	**Gedikpinar**	2.54	62	*e*Pn	Pn	09 28 19.1	+0.8
IZI	**Iznik**	2.56	53	*e*PN	Pn	09 28 18.9	+0.3
IZI	**Iznik**	2.56	53	*e*Pn	Pn	09 28 18.9	+0.3
ALT	**Altintas**	2.59	84	*e*PN	Pn	09 28 19.0	0.0
ALT	**Altintas**	2.59	84	*e*Pn	Pn	09 28 19.0	0.0
YLV	**Yalova**	2.64	48	*e*PN	Pn	09 28 20.4	+0.7
YLV	**Yalova**	2.64	48	*e*Pn	Pn	09 28 20.4	+0.7
ADVT	**Abdulvahap**	2.78	54	*e*PN	Pn	09 28 21.8	+0.2
ADVT	**Abdulvahap**	2.78	54	*e*Pn	Pn	09 28 21.8	+0.2
FETY	**Fethiye**	2.83	140	*e*PN	Pn	09 28 23.1	+0.8
FETY	**Fethiye**	2.83	140	*e*Pn	Pn	09 28 23.1	+0.8
ISK	**Istanbul-Kandi**	2.83	37	*e*PN	Pn	09 28 22.8	+0.5
ISK	**Istanbul-Kandi**	2.83	37	*e*Pn	Pn	09 28 22.8	+0.5
HRT	**Hereke**	2.97	47	*e*PN	Pn	09 28 25.4	+1.1
HRT	**Hereke**	2.97	47	*e*Pn	Pn	09 28 25.4	+1.1
EDRB	**Edirne**	3.02	359	*e*PN	Pn	09 28 24.8	-0.2
EDRB	**Edirne**	3.02	359	*e*Pn	Pn	09 28 24.8	-0.2
ELL	**Elmali**	3.21	129	*e*PN	Pn	09 28 28.3	+0.7
ELL	**Elmali**	3.21	129	*e*Pn	Pn	09 28 28.3	+0.7
ESKT	**Eskisehir**	3.22	76	*e*PN	Pn	09 28 28.9	+1.2
ESKT	**Eskisehir**	3.22	76	*e*Pn	Pn	09 28 28.9	+1.2
GULT	**Gulveren**	3.29	60	*e*PN	Pn	09 28 29.6	+1.0
GULT	**Gulveren**	3.29	60	*e*Pn	Pn	09 28 29.6	+1.0
NVR	**Nevrokopi**	3.39	319	*e*Pn	Pn	09 28 31.4	+1.4
NVR	**Nevrokopi**	3.39	319	*e*PN	Pn	09 28 31.4	+1.4
NVR	**Nevrokopi**	3.39	319	*e*Pn	Pn	09 28 31.4	+1.4
MDU	**Mudurnu**	3.78	63	*e*PN	Pn	09 28 36.7	+1.4
MDU	**Mudurnu**	3.78	63	*e*Pn	Pn	09 28 36.7	+1.4
KIZT	**Kizilcal**	3.96	88	*e*PN	Pn	09 28 39.4	+1.5
KIZT	**Kizilcal**	3.96	88	*e*Pn	Pn	09 28 39.4	+1.5

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*IDC **18** 10:00:39.8±0.5, 1039N×125.19E, h0^{km}, mb4.3/18, mb1 4.4/18, mb1mx4.3/25, mbtmp4.3/18, MS3.8/11, Ms1 3.9/11, ms1mx3.6/29, Error ellipse: s-maj=30.8km s-min=11.4km az=76.0*
*MAN **18** 10:00:41, 1031N×12524E, h8^{km}, mb4.9, ML3.9, MS4.0*
MAN INTENSITY III - SOGOD, SOUTHERN LEYTE.
*MOS **18** 10:00:42.6±1.1, 1040N×12531E, h31^{km}, mb4.7/13, Error ellipse: s-maj=20.5km s-min=8.1km az=105.4*
*ISCJB **18** 10:00:43.2±0.8, 1038N±003×12526E±004, h33^{km}±6^{km}, mb4.4/43, MS4.0/19, Error ellipse: s-maj=6.8km s-min=4.3km az=160.5*
*BJI **18** 10:00:46.2, 1040N×12520E, h43^{km}, mB5.0, mb4.4, Ms4.3, Msz4.0*
*NEIC **18** 10:00:46.2±1.9, 1038N×12522E, h44^{km}±18^{km}, mb4.6/13, Error ellipse: s-maj=16.7km s-min=7.4km az=73.0*
NEIC Felt [III PIVS] at Sogod.

ISC 18 10:00:42.9±0.8, 1038N±003×12523E±004, h17^{km}±5^{km}, n100, σ1^{s}08/107, mb4.4/43, MS4.0/19, 6C-3D, Leyte

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSLP	**Maasin**	0.44	237	*e*P	Pg	10 00 50.6	-1.2
SCPH	**Surigao**	0.64	157	*e*P	Pg	10 00 54.7	-0.8
SCPH				*e*S	Sg	10 01 04.9	+0.8
PLP	**Palo**	0.82	342	*i* P	Pb	10 00 58.1	-0.7
PLP				*i* S	Sb	10 01 10.9	+1.3
OCLP	**Ormoc**	0.91	318	*e*P	Pb	10 00 59.2	-1.1
BESP	**Borongan**	1.23	9	*e*P	Pn	10 01 04.6	-0.8
LLP	**Lapu-Lapu**	1.25	267	⇓*e*P	Pn	10 01 04.2	-1.4
LLP				*i* S	Sb	10 01 22.1	+0.2
TBP	**Tagbilaran**	1.51	243	*e*P	Pn	10 01 08.6	-0.7
TBP				*e*S	Sn	10 01 32.3	+3.7
CGP	**Cagayan de Oro**	1.98	196	⇑*i*P	Pn	10 01 14.0	-1.7
CGP				*i* S	Sn	10 01 38.6	-1.5
CNP	**Catarman**	2.19	345	*e*P	Pn	10 01 19.3	+0.7
SNPH	**Sibulan**	2.22	243	*e*P	Pn	10 01 19.0	0.0
SNPH				*i* S	Sn	10 01 51.5	+5.4
BIPH	**Bislig**	2.44	153	⇓*i*P	Pn	10 01 23.1	+1.0
BIPH				*i* S	Sn	10 01 55.3	+3.7
BUKP	**Musuan**	2.49	184	*e*P	Pn	10 01 22.6	-0.1
GUIM	**Jordan**	2.61	276	*e*P	Pn	10 01 24.5	+0.1
RCP	**Roxas**	2.71	296	⇑*e*P	Pn	10 01 27.0	+1.2
PAGZ	**Pagadian**	3.11	216	*e*P	Pn	10 01 32.5	+1.3
KALP	**Kalibo**	3.12	295	⇑*e*P	Pn	10 01 26.6	-4.8
DAV	**Davao City (W)**	3.30	174	*e*Pn	Pn	10 01 36.2	+2.3
PVCP	**Virac**	3.37	342	⇑*i*P	Pn	10 01 37.8	+2.9
PVCP				*i* S	Sn	10 02 28.7	+14
PVCP	**Virac**	3.37	342	*e*P	Pn	10 01 36.4	+1.5
MATI	**Mati**	3.55	163	*e*P	Pn	10 01 40.7	+3.3
OTRP	**Odiongan**	3.72	302	*e*P	Pn	10 01 40.3	+0.7
ENPP	**El Nido**	5.77	279	*e*P	Pn	10 02 08.7	+0.9
LUBP	**Lubang**	5.91	305	*e*P	Pn	10 02 12.5	+2.7
GZH	**Guangzhou**	17.00	320	P	Pn	10 04 46.3	+6.3
GZH				LR	LR		
	comp=N,649nm,20.5s						
GZH				LR	LR		
	comp=E,665nm,19.9s						
GZH				LR	LR		
	comp=Z,414nm,14.3s						
GUMO	**Guam**	19.47	79	LR	LR	10 12 26.5	
	comp=Z,159nm,18.1s,baz=255,slow=36						
WHN	**Wuhan**	22.48	335	P	P	10 05 42.0	+0.5
WHN				S	S	10 09 44.9	-3.0
WHN				LR	LR		
	comp=Z,807nm,16.8s,MS4.2						
JNU	**Nakatsue**	23.23	12	P	P	10 05 49.2	-0.2
	comp=Z,10nm,1.0s,mb4.2,baz=119,slow=12,SNR=4.7						
JNU				LR	LR	10 14 01.3	
	comp=Z,138nm,18.7s,MS3.4,baz=322,slow=34						
GYA	**Guiyang**	23.74	315	⇑*i*P	P	10 05 55.3	+0.7
GYA				AMB	AMB		
	comp=Z,10.0nm,1.6s,mb4.0						
GYA				AMB	AMB		
	comp=Z,70nm,6.2s						
GYA				LR	LR		
	comp=N,620nm,17.9s,MS4.2						
GYA				LR	LR		
	comp=E,520nm,16.8s,MS4.2						
GYA				LR	LR		
	comp=Z,400nm,18.2s,MS3.9						
KAKA	**Kakadu**	24.03	163	*e*P	P	10 05 57.6	+0.4
	comp=Z,20nm,0.6s,mb4.7						
KSRS	**Korea Array**	27.07	5	P	P	10 06 24.7	+0.1
	comp=Z,7.1nm,0.9s,mb4.2,baz=182,slow=11,SNR=14						
XAN	**Xi'an**	27.90	330	P	P	10 06 31.3	-0.8
XAN				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.3						
XAN				LR	LR		
	comp=N,118nm,13.6s,MS3.9						
XAN				LR	LR		
	comp=E,153nm,12.2s,MS3.9						
XAN				LR	LR		
	comp=Z,304nm,14.3s,MS4.0						
FITZ	**Fitzroy Crossi**	28.30	179	*e*P	P	10 06 36.3	+0.5
	comp=Z,6.7nm,0.7s,mb4.4						
FITZ	**Fitzroy Crossi**	28.30	179	P	P	10 06 35.6	-0.1
	comp=Z,3.3nm,0.7s,mb4.1,baz=58,slow=4.5,SNR=10						
CD2	**Chengdu**	28.55	319	P	P	10 06 38.4	+0.4
CD2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
MJAR	**Matsushiro Arr**	28.58	22	P	P	10 06 36.7	-1.4
MJAR				LR	LR	10 17 36.8	
MJAR	**Matsushiro Arr**	28.58	22	P	P	10 06 36.7	-1.4
	comp=Z,2.1nm,1.1s,mb3.8,baz=167,slow=11,SNR=3.2						
MJAR				LR	LR	10 17 36.8	
	comp=Z,198nm,18.1s,MS3.8,baz=195,slow=36						
WRA	**Warramunga Arr**	31.43	163	P	P	10 07 01.3	-2.2
	comp=Z,2.8nm,0.8s,mb4.1,baz=343,slow=9.3,SNR=18						
WB2	**Warramunga Arr**	31.43	163	*e*P	P	10 07 02.6	-0.9
LZH	**Lanzhou**	32.12	326	*e*P	P	10 07 10.5	+1.1
	comp=Z,18nm,1.3s,mb4.7						
LZH				pP	pP	10 07 16.2	+1.6
LZH				sP	sP	10 07 18.6	+1.9
LZH	**Lanzhou**	32.12	326	*e*P	P	10 07 10.5	+1.1
LZH				*SP	sP	10 07 18.6	+1.9
LZH				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.7						
ASAR	**Alice Springs**	34.88	166	P	P	10 07 33.3	-0.3
	comp=Z,2.8nm,0.5s,mb4.4,baz=342,slow=6.9,SNR=63						
ASAR				PcP	PcP	10 10 06.0	-0.5
	comp=Z,0.9nm,0.8s,baz=0.4,slow=1.7,SNR=4.2						
SHL	**Shillong**	35.01	300	*e*P	P	10 07 35.0	+0.2
CTA	**Charters Tower**	36.67	146	P	P	10 07 48.9	-0.1
	comp=Z,6.6nm,1.0s,mb4.4,baz=308,slow=13,SNR=3.3						
LSA	**Lhasa**	37.14	306	*e*P	P	10 07 54.3	+1.3
	comp=Z,7.7nm,1.1s,mb4.5						
LSA	**Lhasa**	37.14	306	*e*P	P	10 07 54.3	+1.3
LSA				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.5						
HABR	**Khabarovsk**	38.86	10	P	P	10 08 05.8	-1.4
HABR				*e*		10 09 33.9	
HABR				*e*		10 10 17.6	
HABR				*e*S	S	10 13 59.2	-5.2
HABR				*e*SS	SS	10 16 49.6	-6.3
HABR				*e*		10 18 13.0	
HNR	**Honiara**	39.75	119	LR	LR	10 22 06.1	
	comp=Z,150nm,18.5s,MS3.9,baz=0.0,slow=32						
ULN	**Ulaanbaatar**	40.39	341	*i* P	P	10 08 20.6	+0.7
SONM	**Songino Array**	40.57	340	P	P	10 08 21.4	-0.1
	comp=Z,0.7nm,0.7s,mb3.4,baz=153,slow=7.9,SNR=8.0						
SONM				LR	LR	10 27 30.4	
	comp=Z,162nm,18.9s,MS3.9,baz=357,slow=40						
FORT	**Forrest**	41.01	176	*e*P	P	10 08 25.3	+0.1
	comp=Z,28nm,0.7s,mb5.0						
NWAO	**Narrogin (SRO)**	43.73	190	P	P	10 08 47.6	+0.3
	comp=Z,8.9nm,1.1s,mb4.4,baz=18,slow=11,SNR=3.5						
ZAK	**Zakamensk**	43.81	340	*e*P	P	10 08 43.5	-4.3
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb3.6						
TLY	**Talaya**	44.80	341	*e*P	P	10 08 55.8	+0.1
TLY				*e*PPP		10 11 17.1	
TLY				*e*S	S	10 15 39.5	+7.3
TLY				*e*SSS		10 19 35.5	
TLY				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
TLY				MLR	MLR		
	comp=Z,97nm,18.0s,MS3.8						
WMQ	**Urumqi**	46.52	323	*e*P	P	10 09 08.3	-1.2
WMQ				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.3						
WMQ				LR	LR		
	comp=N,634nm,22.2s,MS4.5						
WMQ				LR	LR		
	comp=E,281nm,26.0s,MS4.5						
WMQ				LR	LR		
	comp=Z,221nm,19.2s						
WMQ				LR	LR		
	comp=Z,131nm,24.0s,MS3.8						
BOD	**Bodaibo**	48.12	352	*e*P	P	10 09 21.3	-0.4
BOD				pmax	pmax		
	comp=Z,4.0nm,1.8s,mb4.2						
MK31	**Makanchi Array**	51.33	323	*e*P	P	10 09 46.2	-0.1
MKAR	**Makanchi Array**	51.33	323	P	P	10 09 46.2	-0.1
	comp=Z,2.3nm,0.7s,mb4.2,baz=124,slow=8.5,SNR=35						
YAK	**Yakutsk**	51.67	3	*i* P	P	10 09 48.7	+0.1
YAK				pmax	pmax		
	comp=Z,23nm,1.4s,mb4.9						
YAK				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.9						
DZM	**Mont Dzumac**	51.70	129	P	P	10 09 50.4	+0.9
	comp=Z,8.9nm,0.9s,mb4.7,baz=299,slow=13,SNR=3.6						
DZM				LR	LR	10 27 55.4	
	comp=Z,76nm,20.8s,MS3.7,baz=10,slow=32						
MA2	**Magadan**	52.71	16	*e*P	P	10 09 56.5	+0.2
	comp=Z,4.9nm,1.0s,mb4.4						
MA2	**Magadan**	52.71	16	*e*P	P	10 09 56.6	+0.2
MA2				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
ZALV	**Zalesovo Beam**	54.05	332	P	P	10 10 05.2	-1.2
	comp=Z,1.0nm,0.4s,mb4.1,baz=116,slow=6.6,SNR=11						
ZALV				LR	LR	10 33 39.5	
	comp=Z,75nm,21.0s,MS3.7,baz=135,slow=37						
ZAL	**Zalesovo**	54.05	332	P	P	10 10 05.2	-1.2
UCH	**Uchtor**	54.38	315	*e*P	P	10 10 09.4	+0.5
	comp=Z,6.2nm,1.0s,mb4.5						
AAK	**Ala-Archa**	54.53	315	*i* P	P	10 10 09.0	-1.1
AAK				MLR	MLR		
	comp=Z,200nm,24.0s,MS4.1						
AML	**Almayashu**	54.92	315	*e*P	P	10 10 12.2	-0.7
	comp=Z,3.7nm,1.0s,mb4.4						
NVS	**Novosibirsk**	55.33	332	*i* P	P	10 10 14.5	-1.1
NVS				pmax	pmax		
	comp=Z,16nm,1.9s,mb4.7						
NVS				pmax	pmax		
	comp=N,14nm,2.2s						
NVS				pmax	pmax		
	comp=E,9.0nm,2.4s						
KURK	**Kurchatov**	55.41	326	*e*P	P	10 10 15.2	-1.1
	comp=E,12nm,1.0s,mb4.9						
KURK	**Kurchatov**	55.41	326	⇑*e*P	P	10 10 15.9	-0.3
SEY	**Seymchan**	55.97	15	⇓*e*P	P	10 10 20.4	+0.3
BRVK	**Borovoye**	61.07	326	*e*P	P	10 10 57.4	+1.6
	comp=E,5.3nm,1.0s,mb4.6						
BRVK	**Borovoye**	61.07	326	*e*P	P	10 10 57.4	+1.5
BRVK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
TIXI	**Tiksi**	61.27	1	*e*P	P	10 10 55.8	-1.0
	comp=Z,6.1nm,0.9s,mb4.7						
TIXI	**Tiksi**	61.27	1	*e*P	P	10 10 54.5	-2.4
TIXI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
TIXI				MLR	MLR		
	comp=Z,97nm,17.0s,MS4.0						
BILL	**Bilibino**	63.58	16	*i* P	P	10 11 12.7	+0.3
BILL						10 11 29.1	
BILL				pmax	pmax		
	comp=Z,7.0nm,2.0s,mb4.3						
BILL				MLR	MLR		
	comp=Z,100nm,16.0s,MS4.1						
RPZ	**Rata Peaks**	68.04	146	P	P	10 11 41.3	-0.2
RPZ	**Rata Peaks**	68.04	146	P	P	10 11 41.3	-0.2
	comp=Z,6.5nm,0.8s,mb4.7,baz=304,slow=11,SNR=3.6						
ARU	**Arti**	68.58	327	*e*P	P	10 11 45.0	+0.3
ARU				*e*		10 14 14.3	
ARU				*e*S	S	10 20 45.2	-1.2
ARU				*e*SS	SS	10 25 06.5	-4.0
IMA2	**Indian Mountai**	76.96	24	*e*P	P	10 12 37.0	+2.6
PMR	**Palmer**	78.88	29	*e*P	P	10 12 47.2	+2.2
	comp=Z,3.8nm,0.9s,mb4.3						
PMR	**Palmer**	78.88	29	*e*P	P	10 12 47.2	+2.2
PMR				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
MCK	**McKinley**	78.93	27	*e*P	P	10 12 44.4	-0.9
	comp=Z,6.4nm,1.1s,mb4.5						
MCK	**McKinley**	78.93	27	*e*P	P	10 12 44.4	-0.9
MCK				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
COLA	**College**	79.37	26	*i* P	P	10 12 50.1	+2.4
OBN	**Obninsk**	80.82	324	*e*P	P	10 12 56.1	+0.4
OBN				*e*SS	SS	10 28 19.0	+2.6
OBN				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
JOF	**Joensuu**	82.63	333	*e*p	P	10 13 09.7	+4.6
	comp=Z,2.5nm,0.7s,mb4.3						
JOF	**Joensuu**	82.63	333	*e*P	P	10 13 09.7	+4.6
JOF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
ARCES	**ARCESS Array B**	83.74	340	P	P	10 13 10.8	0.0
ARCES				LR	LR	10 50 40.8	
ARCES	**ARCESS Array B**	83.74	340	P	P	10 13 10.8	0.0
	comp=Z,5.1nm,0.9s,mb4.6,baz=356,slow=3.9,SNR=4.1						
ARCES				LR	LR	10 50 40.8	
	comp=Z,102nm,19.1s,MS4.2,baz=46,slow=36						
INK	**Inuvik**	84.56	21	*e*P	P	10 13 14.6	-0.4
	comp=Z,428nm,1.5s						
KAF	**Kangasniemi**	85.06	332	*e*p	P	10 13 26.6	+9.1
	comp=Z,4.5nm,0.8s,mb4.7						
KAF	**Kangasniemi**	85.06	332	*e*P	P	10 13 26.6	+9.1
KAF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
FINES	**FINESS Array B**	85.31	332	P	P	10 13 17.3	-1.6
	comp=Z,2.3nm,1.0s,mb4.3,baz=70,slow=6.3,SNR=6.1						
AKASG	**Malin Array Be**	85.84	321	P	P	10 13 19.8	-1.9
	comp=Z,0.2nm,0.2s,mb3.9,baz=68,slow=3.8,SNR=4.1						
AKASG				LR	LR	10 51 35.3	
	comp=Z,50nm,21.2s,MS3.9,baz=315,slow=36						
VNDA	**Vanda**	90.16	173	P	P	10 13 42.7	+0.9
VNDA	**Vanda**	90.16	173	P	P	10 13 42.7	+0.9
	comp=Z,6.1nm,1.0s,mb4.9,baz=313,slow=6.3,SNR=4.6						
NOA	**NORSAR Array B**	92.21	334	LR	LR	10 57 58.9	
	comp=Z,85nm,19.3s,MS4.2,baz=295,slow=37						
YKA	**Yellowknife Ar**	94.07	24	P	P	10 13 58.9	-1.3
YKA	**Yellowknife Ar**	94.07	24	P	P	10 13 58.9	-1.3
	comp=Z,0.7nm,0.9s,mb4.1,baz=299,slow=4.4,SNR=7.1						
GERES	**GERESS Array B**	95.98	322	LR	LR	11 00 34.4	
	comp=Z,60nm,18.3s,MS4.1,baz=91,slow=38						

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*ISCJB **18** 10:15:27.9±4.5, 363N±03×707E±02, h186^{km}±35^{km}, mb3.3/1, Error ellipse: s-maj=55.0km s-min=28.8km az=17.9*
*IDC **18** 10:15:29.2±16.0, 3629N×7089E, h181^{km}±156^{km}, mb3.1/2, mb1 3.2/4, mb1mx2.8/23, mbtmp3.1/4, ML3.4/2, Error ellipse: s-maj=98.3km s-min=50.6km az=21.0*

ISC 18 10:15:28.6±4.3, 363N±03×707E±02, h180^{km}±34^{km}, n11, σ0^{s}39/12, mb3.3/1, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	**Almayashu**	6.26	21	P	Pn	10 16 59.1	+0.2
	SNR=20						
UCH	**Uchtor**	6.61	25	P	Pn	10 17 04.0	+0.5
	SNR=11						
EKS2	**Erkin-Say**	6.78	19	P	Pn	10 17 05.8	+0.2
	SNR=22						
KK31	**Karatay Array**	6.80	359	P	Pn	10 17 05.2	-0.7
	1.0nm,0.2s,baz=178,slow=13,SNR=29						
KK31				S	Sn	10 18 15.7	-7.1
	5.7nm,0.3s,baz=187,slow=22,SNR=22						
AAK	**Ala-Archa**	6.96	24	P	Pn	10 17 08.5	+0.4
	SNR=6.6						

USP	**Ospenovka**	**7.54**	**21**	P	**Pn**	**10 17 15.0**	**-0.7**
	SNR=8.3						
TKM2	**Tokmak 2**	**7.60**	**28**	P	**Pn**	**10 17 16.6**	**+0.1**
	SNR=7.2						
MKAR	**Makanchi Array**	**13.58**	**36**	P	**Pn**	**10 18 33.5**	**-0.3**
	0.1nm,0.3s,baz=213,slow=8.7,SNR=5.6						
AKTO	**Aktyubinsk**	**16.85**	**331**	P	**Pn**	**10 19 14.2**	**+0.3**
	0.2nm,0.3s,baz=136,slow=11,SNR=11						
ZALV	**Zalesovo Beam**	**20.19**	**25**	P	**P**	**10 19 49.2**	**+0.1**
	1.6nm,0.3s,baz=220,slow=12,SNR=11						
WRA	**Warramunga Arr**	**82.07**	**122**	P	**P**	**10 27 28.9**	**-0.1**
	1.0nm,1.3s,mb3.3,baz=325,slow=4.8,SNR=5.0						

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*ISCJB **18** 10:29:56.9±0.7, 58.43N±0.04×136.87W±0.09, h10^{km}, Error ellipse: s-maj=7.1km s-min=4.9km az=161.8*

*NEIC **18** 10:29:58.8, 58.31N×136.99W, h6^{km}, ML2.9(PGC), ML2.7(AEIC), After AEIC.*

*PGC **18** 10:30:01.2±3.0, 58.46N×136.74W, h20^{km}, ML2.9/3, 113km Wsw of Haines, Ak Southeastern Alaska*

ISC 18 10:29:57.7±0.7, **58.38N**±0.04×**136.83W**±0.08, **h10**^{km}**, n23,** σ**1ˢ.28**/34, **Southeastern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKAG	**Skagway**	**1.33**	**35**	P	**Pn**	**10 30 23.4**	**+1.0**
SKAG				S	**Sg**	**10 30 42.3**	**+1.7**
SIT	**Sitka**	**1.56**	**148**	P	**Pn**	**10 30 24.4**	**-1.0**
SIT				S	**Sn**	**10 30 45.5**	**-0.1**
PNL	**Peninsula**	**1.85**	**315**	P	**Pn**	**10 30 29.1**	**-0.4**
PNL				S	**Sn**	**10 30 52.6**	**-0.3**
HYT	**Haines Junctio**	**2.47**	**352**	Pn	**Pn**	**10 30 38.7**	**+0.7**
HYT				Pg	**Pg**	**10 30 41.7**	**-3.4**
HYT				Sg	**Sg**	**10 31 16.0**	**-1.2**
HYT	**Haines Junctio**	**2.47**	**352**	Trac			
HYT	**Haines Junctio**	**2.47**	**352**	Pn	**Pn**	**10 30 38.9**	**+0.8**
HYT				Sg	**Sg**	**10 31 16.0**	**-1.2**
HYT	**Haines Junctio**	**2.47**	**352**	Trac			
HYT	**Haines Junctio**	**2.47**	**352**	Pn	**Pn**	**10 30 38.7**	**+0.7**
HYT				Pg	**Pg**	**10 30 41.7**	**-3.4**
HYT				Sg	**Sg**	**10 31 16.0**	**-1.2**
WHY	**Whitehorse**	**2.49**	**23**	Pn	**Pn**	**10 30 40.1**	**+1.9**
WHY				Pg	**Pg**	**10 30 43.9**	**-1.6**
WHY				Sg	**Sg**	**10 31 16.6**	**-1.0**
WHY	**Whitehorse**	**2.49**	**23**	Trac			
WHY	**Whitehorse**	**2.49**	**23**	Pn	**Pn**	**10 30 40.1**	**+1.9**
WHY				Pg	**Pg**	**10 30 43.9**	**-1.6**
WHY				Sg	**Sg**	**10 31 16.6**	**-1.0**
WHY	**Whitehorse**	**2.49**	**23**	Trac			
WHY	**Whitehorse**	**2.49**	**23**	Pn	**Pn**	**10 30 40.1**	**+1.9**
WHY				Pg	**Pg**	**10 30 43.9**	**-1.6**
WHY				Sg	**Sg**	**10 31 16.6**	**-1.0**
DLBC	**Dease Lake**	**3.58**	**86**	Pn	**Pn**	**10 30 54.9**	**+1.7**
DLBC				Sg	**Sg**	**10 31 50.6**	**-2.1**
DLBC	**Dease Lake**	**3.58**	**86**	Trac			
DLBC	**Dease Lake**	**3.58**	**86**	Pn	**Pn**	**10 30 54.9**	**+1.7**
DLBC				Sg	**Sg**	**10 31 50.6**	**-2.1**
DLBC	**Dease Lake**	**3.58**	**86**	Trac			
DLBC	**Dease Lake**	**3.58**	**86**	Pn	**Pn**	**10 30 54.9**	**+1.7**
DLBC				Sg	**Sg**	**10 31 50.6**	**-2.1**
BMRM	**Bremner River**	**4.71**	**307**	P	**Pn**	**10 31 08.0**	**-0.8**
BCA3	**Beaver Creek A**	**5.29**	**335**	P	**Pn**	**10 31 17.0**	**+0.4**
DAWY	**Dawson**	**5.83**	**349**	*e*Pn	**Pn**	**10 31 26.2**	**+2.1**
DAWY	**Dawson**	**5.83**	**349**	Pn	**Pn**	**10 31 25.8**	**+1.7**
DAWY	**Dawson**	**5.83**	**349**	Pn	**Pn**	**10 31 25.7**	**+1.6**

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*IDC **18** 10:45:19.3±0.4, 1.10N×97.40E, h0^{km}, mb4.8/26, mb1 4.8/26, mb1mx4.7/30, mbtmp4.8/26, MS4.5/20, Ms1 4.5/20, ms1mx4.4/32, Error ellipse: s-maj=16.0km s-min=11.0km az=51.0*

*SZGRF **18** 10:45:20.8, 0.53N×97.89E, h33^{km}, mb5.0, Northern Sumatera, Indonesia*

*ISCJB **18** 10:45:22.3±0.2, 1.07N±0.03×97.41E±0.03, h29^{km}, mb5.0/109, MS4.8/52, Error ellipse: s-maj=4.5km s-min=3.3km az=32.1*

*BJI **18** 10:45:22.3, 0.86N×97.40E, h43^{km}, mB5.2, mb5.2, Ms5.1, Msz5.0*

*NEIC **18** 10:45:24.0±0.2, 1.07N×97.37E, h30^{km}, mb5.0/52, Error ellipse: s-maj=5.7km s-min=4.4km az=219.0*

*MOS **18** 10:45:23.3±0.9, 1.13N×97.45E, h35^{km}, mb5.3/45, MS4.8/15, Error ellipse: s-maj=9.5km s-min=5.0km az=107.7*

*GCMT **18** 10:45:24.0±0.5, 0.98N×97.26E, h31^{km}, MW5.1/66, Moment Tensor Solution. s51,c69; s66,c88; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}4.34±.17; $M_{\theta\theta}$-1.80±.10; $M_{\phi\phi}$-2.54±.13; $M_{r\theta}$2.35±.15; $M_{\theta\phi}$1.84±.08; $M_{\phi r}$-2.51±.20; Best double couple: $M_0$5.42300×10^{16} NP1:ϕ_s138.00000°,δ65.00000°,λ88.00000°. NP2: ϕ_s323.00000°,δ25.00000°,λ94.00000°. Principal axes: T 5.5720, Plg70.0000°, Azm44.0000°; N -0.3000, Plg2.0000°, Azm139.0000°; P -5.2730, Plg20.0000°, Azm230.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 18 10:45:24.5±0.2, **1.07N**±0.03×**97.39E**±0.03, **h31**^{km}**, h31**^{km}±.9^{km}**:pP-P, n317,** σ**1ˢ.01**/329, **mb5.0**/109, **MS4.8**/52, **31C-28D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	**2.30**	**42**	Pn	**Pn**	**10 46 00.8**	**+0.5**
PSI				Sn	**Sn**	**10 46 39.2**	**+12**
PSI	**Prapat**	**2.30**	**42**	Pn	**Pn**	**10 46 00.8**	**+0.5**
	63nm,0.3s,baz=258,slow=5.7,SNR=244						
PSI				Sn	**Sn**	**10 46 39.2**	**+12**
	107nm,0.3s,baz=162,slow=23,SNR=12						
PPI	**Padang Panjang**	**3.37**	**117**	P	**Pn**	**10 46 15.5**	**+0.5**
	1µm,0.7s						
FRIM	**Kepong**	**4.75**	**63**	⇓P	**Pn**	**10 46 34.8**	**+0.8**
BSI	**Banda Aceh**	**4.87**	**335**	P	**Pn**	**10 46 35.0**	**-0.6**
	152nm,1.0s						
IPM	**Ipoh**	**4.96**	**47**	⇓P	**Pn**	**10 46 38.7**	**+1.8**
KULM	**Kulim**	**5.30**	**38**	⇑*i*Pn	**Pn**	**10 46 42.1**	**+0.5**
KULM				*e*S	Sn	10 48 06.8	+25
KULM	**Kulim**	**5.30**	**38**	⇓P	**Pn**	**10 46 42.3**	**+0.7**
KGM	**Kluang**	**6.00**	**81**	⇓P	**Pn**	**10 46 52.2**	**+1.0**
MYKOM	**Kota Tinggi**	**6.50**	**84**	⇓P	**Pn**	**10 46 58.8**	**+0.7**
SNG	**Songkhla**	**6.87**	**28**	P	**Pn**	**10 47 03.0**	**-0.1**
	1µm,1.0s						
KSI	**Kapahiang**	**7.00**	**132**	P	**Pn**	**10 47 06.0**	**+1.0**
	277nm,1.0s						
KTGM	**Kuala Trenggan**	**7.12**	**53**	⇑P	**Pn**	**10 47 07.6**	**+1.0**
TPI	**Tanjungpandan**	**10.94**	**110**	P	**Pn**	**10 48 00.5**	**+1.5**
	113nm,1.1s						
PBA	**Port Blair**	**11.48**	**337**	*e*P	**Pn**	**10 48 05.7**	**-0.7**
PBA				*e*x	x	10 51 23.0	
KSM	**Kuching**	**12.92**	**88**	*e*Pn	**Pn**	**10 48 28.3**	**+2.1**
KSM	**Kuching**	**12.92**	**88**	⇑P	**Pn**	**10 48 28.7**	**+2.5**
NST	**Nakhon Sawan**	**14.76**	**10**	P	**Pn**	**10 48 48.5**	**-2.7**
SBUM	**Sibu**	**14.89**	**85**	⇓P	**Pn**	**10 48 54.2**	**+1.3**
BTM	**Bintulu**	**15.82**	**82**	⇑P	**Pn**	**10 49 08.7**	**+3.6**
KKTK	**Khon Kaen**	**16.09**	**19**	P	**Pn**	**10 49 08.0**	**-0.5**
	247nm,0.8s						
CM31	**Chiang Mai Arr**	**17.34**	**5**	*e*P	**Pn**	**10 49 23.5**	**-0.8**
	29nm,0.6s						
CHG	**Chiang Mai**	**17.70**	**5**	⇑P	**Pn**	**10 49 27.1**	**-1.6**
	33nm,0.8s						
CHTO	**Chiang Mai**	**17.70**	**5**	*e*P	**Pn**	**10 49 27.1**	**-1.6**
	23nm,0.8s						
CHTO	**Chiang Mai**	**17.70**	**5**	*e*P	**Pn**	**10 49 27.1**	**-1.6**
CHTO				pmax	pmax		
	comp=Z,23nm,0.8s						
CHTO	**Chiang Mai**	**17.70**	**5**	⇓Pn	**Pn**	**10 49 27.7**	**-1.0**
	SNR=16						
CHTO	**Chiang Mai**	**17.70**	**5**	⇓P	**Pn**	**10 49 27.7**	**-1.0**
	SNR=16						
PALK	**Pallekele**	**17.74**	**291**	*e*P	**Pn**	**10 49 29.2**	**-0.1**
KMMI	**Kalianget**	**18.40**	**116**	P	**Pn**	**10 49 35.7**	**-1.8**
	comp=Z,134nm,0.8s						
CHRT	**Chiangrai**	**18.83**	**7**	⇓P	**Pn**	**10 49 42.0**	**-0.5**
	comp=Z,290nm,1.0s						
KKM	**Kota Kinabalu**	**19.42**	**75**	*e*P	**Pn**	**10 49 48.5**	**-1.2**
KKM	**Kota Kinabalu**	**19.42**	**75**	⇓P	**Pn**	**10 49 49.1**	**-0.7**
KDM	**Kudat**	**20.24**	**73**	⇓P	**P**	**10 49 57.7**	**+0.4**
SDKM	**Sandakan**	**20.28**	**77**	⇑P	**P**	**10 49 58.4**	**+0.6**
TSM	**Tawau**	**20.71**	**81**	⇑P	**P**	**10 50 02.4**	**0.0**
MYLDM	**Lahad Datu**	**21.47**	**79**	⇓P	**P**	**10 50 11.1**	**+0.5**
VIS	**Vishakhapatnam**	**21.56**	**321**	*e*P	**P**	**10 50 13.1**	**+1.6**
VIS				AMb	AMB	10 50 28.7	
	comp=Z,116nm,0.9s,mb5.3						
VIS				*e*S	**S**	**10 54 07.8**	**-1.1**
QIZ	**Qiongzhong**	**21.62**	**34**	P	**P**	**10 50 11.3**	**-0.9**
QIZ				XP	sP	10 50 23.9	-0.6
QIZ				S	**S**	**10 54 14.3**	**+4.1**
QIZ				AMB	AMB		
	comp=Z,36nm,1.3s,mb4.6						
QIZ				LR	LR		
	comp=N,2µm,15.1s						
QIZ				LR	LR		
	comp=Z,2µm,14.2s,MS4.6						
QIZ	**Qiongzhong**	**21.62**	**34**	*e*P	**P**	**10 50 11.1**	**-1.1**
	comp=Z,37nm,1.1s,mb4.7						
KOD	**Kodaikanal**	**21.80**	**295**	*e*P	**P**	**10 50 14.8**	**+0.7**
IMP	**Imphal**	**23.81**	**352**	*e*P	**P**	**10 50 38.0**	**+3.2**
KMI	**Kunming**	**24.46**	**12**	⇑P	**P**	**10 50 41.8**	**+1.0**
KMI				AP		10 50 51.3	
KMI				XP	sP	10 50 54.3	+0.8
KMI				PP		10 51 19.4	
KMI				PPP		10 51 29.5	
KMI				PCP	PcP	10 54 21.5	+2.3
KMI				S	**S**	**10 54 58.6**	**-0.5**
KMI				XS	sS	10 55 13.0	-0.9
KMI				SS		10 55 55.8	
KMI				SSS		10 56 08.6	
KMI				AMB	AMB		
	comp=Z,67nm,1.3s,mb4.9						
KMI				AMB	AMB		
	comp=Z,571nm,3.5s						
KMI				LR	LR		
	comp=N,3µm,12.8s,MS5.2						
KMI				LR	LR		
	comp=E,3µm,12.8s,MS5.2						
KMI				LR	LR		
	comp=Z,5µm,13.7s,MS5.2						
KMI	**Kunming**	**24.46**	**12**	⇑P	**P**	**10 50 41.8**	**+1.0**
	comp=Z,67nm,1.3s,mb4.9						
KMI				pP		10 50 51.2	
KMI				sP	sP	10 50 54.3	+0.8
KMI				PP		10 51 19.4	
KMI				PPP		10 51 29.5	
KMI				PcP	PcP	10 54 21.5	+2.3
KMI				S	**S**	**10 54 58.6**	**-0.5**
KMI				sS	sS	10 55 13.0	-0.9
KMI				SS		10 55 55.7	
KMI				SSS		10 56 08.6	
KMI				LR	LR		
	comp=Z,5µm,13.7s,MS5.2						
KMI	**Kunming**	**24.46**	**12**	⇑P	**P**	**10 50 41.8**	**+1.0**
KMI				*PP		10 50 51.2	
KMI				*SP	sP	10 50 54.3	+0.8
KMI						10 51 19.4	
KMI				PPP		10 51 29.5	
KMI						10 54 21.5	
KMI				S	**S**	**10 54 58.6**	**-0.5**
KMI				*SS	sS	10 55 13.0	-0.9
KMI				SS		10 55 55.7	
KMI				SSS		10 56 08.6	
KMI				pmax	pmax		
	comp=Z,67nm,1.3s,mb4.9						
KMI				MLR	MLR		
	comp=Z,5µm,13.7s,MS5.2						
HYB	**Hyderabad**	**24.64**	**312**	*i* P	**P**	**10 50 45.0**	**+2.6**
HYB				*e*S	**S**	**10 55 12.0**	**+10**
SHL	**Shillong**	**24.92**	**348**	*e*x	x	10 50 25.0	
SHL				*e*S	**S**	**10 55 07.0**	**+0.5**
BOK	**Bokaro**	**25.19**	**335**	*e*P	**P**	**10 50 49.6**	**+2.2**
BOK				AMb	AMB	10 51 02.8	
	comp=Z,123nm,1.1s,mb5.3						
BOK				*e*S	**S**	**10 55 11.9**	**+1.1**
BLSP	**Bilaspur**	**25.66**	**326**	*e*P	**P**	**10 50 52.7**	**+1.0**
BLSP				AMb	AMB	10 51 22.7	
	comp=Z,56nm,1.3s,mb4.9						
LUBP	**Lubang**	**25.88**	**60**	*e*P	**P**	**10 50 54.2**	**+0.4**
GYA	**Guiyang**	**26.77**	**19**	⇑*i*P	**P**	**10 51 03.9**	**+2.2**
GYA				AP	pP	10 51 12.8	+2.1
GYA				XP	sP	10 51 16.3	+1.8
GYA				PP		10 51 49.9	
GYA				PPP		10 52 01.9	
GYA				PCP	PcP	10 54 26.6	+2.2
GYA				S	**S**	**10 55 37.3**	**+1.5**
GYA				XS	sS	10 55 51.8	+1.2
GYA				SS		10 56 50.8	
GYA				SCP	ScP	10 58 03.3	+0.8
GYA				AMB	AMB		
	comp=Z,40nm,1.0s,mb4.9						
GYA				AMB	AMB		
	comp=Z,340nm,8.1s						
GYA				LR	LR		
	comp=N,2µm,12.6s,MS5.1						
GYA				LR	LR		
	comp=E,2µm,14.9s,MS5.1						
GYA				LR	LR		
	comp=Z,3µm,13.5s,MS5.0						
NGP	**Nagpur**	**26.80**	**319**	*e*P	**P**	**10 51 02.9**	**+0.9**
NGP				AMb	AMB	10 51 07.0	
	comp=Z,13nm,0.9s,mb4.5						
GZH	**Guangzhou**	**26.81**	**34**	P	**P**	**10 51 07.1**	**+5.0**
GZH				LR	LR		
	comp=N,2µm,19.0s,MS4.7						
GZH				LR	LR		
	comp=E,1µm,18.0s,MS4.7						
GZH				LR	LR		
	comp=Z,3µm,13.4s,MS5.0						
OTRP	**Odiongan**	**26.87**	**64**	*e*P	**P**	**10 51 02.0**	**-0.7**
GOA	**Goa**	**27.31**	**303**	*e*x	x	10 51 03.3	
ODAN	**Odare**	**27.38**	**340**	*e*P	**P**	**10 51 07.7**	**+0.5**
	comp=Z,76nm,0.7s,mb5.3						
TAPN	**Taplejung**	**27.73**	**341**	*e*P	**P**	**10 51 11.4**	**+1.1**
	comp=Z,130nm,0.9s,mb5.5						
AKL	**Akola**	**27.87**	**316**	*e*P	**P**	**10 51 13.5**	**+1.9**
KAD	**Karad**	**27.95**	**307**	*e*P	**P**	**10 51 10.5**	**-1.9**
KAD				AMb	AMB	10 51 19.0	
	comp=Z,19nm,1.4s,mb4.5						
BALP	**Baler**	**27.96**	**57**	*e*P	**P**	**10 51 09.4**	**-3.0**
KKN	**Kakani**	**28.99**	**337**	*e*P	**P**	**10 51 22.1**	**+0.6**
	comp=Z,249nm,1.6s,mb5.7						
LSA	**Lhasa**	**29.08**	**349**	*e*P	**P**	**10 51 23.3**	**+1.0**
	comp=Z,29nm,0.9s,mb5.0						
LSA	**Lhasa**	**29.08**	**349**	*e*P	**P**	**10 51 23.3**	**+1.0**
LSA				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.0						
BHPL	**Bhopal**	**29.34**	**320**	*e*P	**P**	**10 51 26.6**	**+1.8**
BHPL				AMb	AMB	10 51 35.5	
	comp=Z,13nm,1.3s,mb4.5						
GKN	**Gorkha**	**29.43**	**337**	*e*P	**P**	**10 51 26.2**	**+0.8**
	comp=Z,113nm,1.0s,mb5.5						
CD2	**Chengdu**	**30.28**	**11**	P	**P**	**10 51 31.1**	**-1.8**
CD2				AP	pP	10 51 40.8	-1.2
CD2				PP	PP	10 52 29.3	-12
CD2				PCP	PcP	10 54 29.3	-3.8
CD2				S	**S**	**10 56 29.6**	**-1.3**
CD2				XS	sS	10 56 44.8	-1.1
CD2				SS	SS	10 58 11.8	-29
CD2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.1						
CD2				AMB	AMB		
	comp=Z,190nm,10.6s						
CD2				LR	LR		
	comp=N,5µm,14.4s,MS5.4						
CD2				LR	LR		
	comp=E,4µm,14.4s,MS5.4						
CD2				LR	LR		
	comp=Z,6µm,13.2s,MS5.4						
MBWA	**Marble Bar**	**31.07**	**137**	*e*P	**P**	**10 51 40.5**	**+0.5**
	comp=Z,16nm,0.9s,mb4.9						
AAI	**Ambon**	**31.15**	**99**	P	**P**	**10 51 41.4**	**+0.6**
	comp=Z,64nm,1.0s,mb5.4						
LGTI	**Lohaghat**	**32.61**	**332**	*e*P	**P**	**10 51 53.0**	**-0.4**
NACB	**Ninganchiao**	**32.81**	**44**	*e*P	**P**	**10 51 54.8**	**-0.5**
YHNB	**Yeheng**	**32.99**	**43**	*e*P	**P**	**10 51 55.9**	**-0.9**
WHN	**Wuhan**	**33.44**	**27**	P	**P**	**10 52 00.8**	**+0.1**
WHN				AMB	AMB		
	comp=Z,34nm,0.8s,mb5.3						
WHN				LR	LR		
	comp=Z,5µm,12.8s,MS5.5						
NDI	**New Delhi**	**33.54**	**327**	*e*P	**P**	**10 52 01.6**	**0.0**
NDI				AMb	AMB	10 52 03.7	
	comp=Z,18nm,1.1s,mb4.9						
FITZ	**Fitzroy Crossi**	**33.70**	**126**	*e*P	**P**	**10 52 01.2**	**-1.9**
	comp=Z,14nm,0.6s,mb5.1						
FITZ	**Fitzroy Crossi**	**33.70**	**126**	P	**P**	**10 52 01.3**	**-1.8**
	comp=Z,5.9nm,0.5s,mb4.8,baz=308,slow=7.8,SNR=33						
FITZ				LR	LR	11 06 26.9	
	comp=Z,587nm,21.4s,MS4.3,baz=306,slow=38						
XAN	**Xi'an**	**34.53**	**17**	P	**P**	**10 52 08.9**	**-1.2**
XAN				AP	pP	10 52 17.3	-1.9
XAN				PP	PP	10 53 22.3	-6.4
XAN				S	**S**	**10 57 34.8**	**-2.2**
XAN				SS	SS	10 59 50.3	-17
XAN				AMB	AMB		
	comp=Z,37nm,0.6s,mb5.5						
XAN				AMB	AMB		
	comp=Z,221nm,6.3s						
XAN				LR	LR		
	comp=N,2µm,13.7s,MS5.0						
XAN				LR	LR		
	comp=E,1µm,13.0s,MS5.0						
XAN				LR	LR		
	comp=Z,3µm,13.0s,MS5.2						
LZH	**Lanzhou**	**35.35**	**9**	⇓P	**P**	**10 52 16.0**	**-1.1**
LZH				AP	pP	10 52 25.8	-0.4
LZH				XP	sP	10 52 29.8	-0.2
LZH				PP	PP	10 53 36.5	-1.3
LZH				*e*S	**S**	**10 57 48.3**	**-1.3**
LZH				XS	sS	10 58 04.5	-0.1
LZH				SS	SS	11 00 07.8	-16
LZH				AMB	AMB		
	comp=Z,43nm,1.4s,mb5.2						
LZH				AMB	AMB		
	comp=Z,135nm,5.6s						
LZH				LR	LR		
	comp=E,1µm,13.2s						
LZH				LR	LR		
	comp=Z,2µm,17.5s,MS4.9						
LZH	**Lanzhou**	**35.35**	**9**	⇓P	**P**	**10 52 16.0**	**-1.1**
	comp=Z,43nm,1.4s,mb5.2						
LZH				pP	pP	10 52 25.8	-0.4
LZH				sP	sP	10 52 29.7	-0.3
LZH				PP	PP	10 53 36.5	-1.3
LZH				*e*S	**S**	**10 57 48.3**	**-1.3**
LZH				sS	sS	10 58 04.5	-0.1
LZH				SS	SS	11 00 07.8	-16
LZH				LR	LR		
	comp=Z,2µm,17.5s,MS4.9						
LZH	**Lanzhou**	**35.35**	**9**	⇓P	**P**	**10 52 16.0**	**-1.1**
LZH				*PP	pP	10 52 25.8	-0.4
LZH				*SP	sP	10 52 29.7	-0.3
LZH						10 53 36.5	
LZH				*e*S	**S**	**10 57 48.3**	**-1.3**
LZH				*SS	sS	10 58 04.5	-0.1
LZH				SS	SS	11 00 07.8	-16
LZH				pmax	pmax		
	comp=Z,43nm,1.4s,mb5.2						
LZH				MLR	MLR		
	comp=Z,2µm,17.5s,MS4.9						
NJ2	**Nanjing**	**36.87**	**31**	*e*P	**P**	**10 52 29.3**	**-1.0**
NJ2				AP	pP	10 52 39.0	-0.4
NJ2				XP	sP	10 52 43.1	-0.1
NJ2				PP	PP	10 53 55.5	+0.8
NJ2				S	**S**	**10 58 11.0**	**-2.0**
NJ2				XS	sS	10 58 28.0	-0.1
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,150nm,9.1s						
NJ2				LR	LR		
	comp=N,2µm,13.8s,MS5.3						
NJ2				LR	LR		
	comp=E,2µm,13.4s,MS5.3						
NJ2				LR	LR		
	comp=Z,2µm,13.3s,MS5.1						
THN	**Thein Dam**	**37.28**	**329**	*e*P	**P**	**10 52 32.6**	**-1.1**
KAKA	**Kakadu**	**37.38**	**113**	*e*P	**P**	**10 52 32.0**	**-2.8**
	comp=Z,39nm,1.0s,mb5.2						
KAKA				*e*PCP	PcP	10 55 02.5	+9.0
MUN	**Mundaring**	**37.39**	**153**	*e*P	**P**	**10 52 44.4**	**+10**
SSE	**Sheshan**	**37.41**	**35**	P	**P**	**10 52 35.3**	**+0.5**
SSE				PP	PP	10 54 01.0	+0.4
SSE				S	**S**	**10 58 22.6**	**+1.4**
SSE				SCS	ScS	11 02 45.9	-0.8
SSE				AMB	AMB		
	comp=Z,32nm,0.9s,mb5.2						
SSE				AMB	AMB		
	comp=Z,130nm,6.0s						
SSE				LR	LR		
	comp=N,1µm,13.8s,MS5.0						
SSE				LR	LR		
	comp=E,1µm,13.8s,MS5.0						
SSE				LR	LR		
	comp=Z,3µm,13.7s,MS5.2						
GTA	**Gaotai**	**38.22**	**3**	P	**P**	**10 52 40.8**	**-0.7**
GTA				AP	pP	10 52 50.3	-0.4
GTA				XP	sP	10 52 54.4	0.0
GTA				PP	PP	10 54 11.5	+2.2
GTA				PPP		10 54 34.4	
GTA				PCP	PcP	10 54 56.4	+0.8
GTA				S	**S**	**10 58 29.8**	**-3.5**
GTA				SCP	ScP	10 58 41.3	-0.1
GTA				PCS	PcS	10 58 43.9	-0.7
GTA				SCS	ScS	11 02 48.3	-2.6
GTA				AMB	AMB		
	comp=Z,24nm,0.9s,mb4.9						
GTA				AMB	AMB		
	comp=Z,361nm,5.3s						
GTA				LR	LR		
	comp=N,865nm,16.7s,MS4.8						
GTA				LR	LR		
	comp=E,861nm,14.4s,MS4.8						
GTA				LR	LR		
	comp=Z,870nm,13.7s,MS4.7						
NWAO	**Narrogin (SRO)**	**38.66**	**153**	*e*P	**P**	**10 52 46.3**	**+0.9**
	comp=Z,31nm,1.0s,mb5.0						
NWAO	**Narrogin (SRO)**	**38.66**	**153**	*e*P	**P**	**10 52 46.3**	**+1.0**
NWAO				pmax	pmax		
	comp=Z,31nm,1.0s						
NWAO	**Narrogin (SRO)**	**38.66**	**153**	P	**P**	**10 52 45.6**	**+0.3**
	comp=Z,22nm,1.0s,mb4.8,baz=338,slow=5.2,SNR=4.3						
JOW	**Kunigami**	**39.19**	**47**	P	**P**	**10 52 48.4**	**-1.5**
	comp=Z,80nm,0.8s,mb5.5,baz=260,slow=6.7,SNR=11						
HHC	**Hu-ho-hao-te**	**41.63**	**16**	*e*P	**P**	**10 53 10.5**	**+0.7**
HHC				AP	pP	10 53 20.3	+1.3
HHC				XP	sP	10 53 24.3	+1.5
HHC				PP	PP	10 54 51.1	+4.7
HHC				PCP	PcP	10 55 06.9	+0.4
HHC				SCP	ScP	10 58 53.9	-0.7
HHC				PCS	PcS	10 58 56.8	-1.0
HHC				S	**S**	**10 59 26.3**	**+2.1**
HHC				XS	sS	10 59 41.8	+2.4
HHC				SS	SS	11 02 26.6	-3.6
HHC				SCS	ScS	11 03 09.0	-2.1
HHC				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.5						
HHC				AMB	AMB		
	comp=Z,369nm,5.7s						
HHC				LR	LR		
	comp=N,3µm,15.0s,MS5.3						
HHC				LR	LR		
	comp=E,2µm,17.0s,MS5.3						
HHC				LR	LR		
	comp=Z,2µm,15.9s,MS5.2						
WRA	**Warramunga Arr**	**41.81**	**122**	P	**P**	**10 53 10.1**	**-1.5**
WRA				S	**S**	**10 59 23.8**	**-3.7**
WRA	**Warramunga Arr**	**41.81**	**122**	P	**P**	**10 53 10.1**	**-1.6**
	comp=Z,5.8nm,0.5s,mb4.5,baz=302,slow=9.1,SNR=110						
WRA				S	**S**	**10 59 23.8**	**-3.8**
	comp=Z,3.6nm,1.2s,baz=294,slow=16,SNR=4.6						
WRA				LR	LR	11 14 14.9	
	comp=Z,591nm,19.6s,MS4.5,baz=300,slow=42						
WB2	**Warramunga Arr**	**41.82**	**122**	*e*P	**P**	**10 53 10.1**	**-1.6**
BJT	**Baijiatuau**	**42.37**	**22**	*e*P	**P**	**10 53 16.6**	**+0.7**
	comp=Z,59nm,0.7s,mb5.3						
BJT	**Baijiatuau**	**42.37**	**22**	*e*P	**P**	**10 53 16.6**	**+0.7**
BJT				pmax	pmax		
	comp=Z,59nm,0.7s						
BJI	**Beijing**	**42.39**	**22**	P	**P**	**10 53 16.5**	**+0.5**
BJI				PP	PP	10 54 57.5	+2.8
BJI				S	**S**	**10 59 38.3**	**+2.8**
BJI				AMB	AMB		
	comp=Z,80nm,0.8s,mb5.4						
BJI				LR	LR		
	comp=N,1µm,14.6s,MS5.0						
BJI				LR	LR		
	comp=E,1µm,15.5s,MS5.0						
BJI				LR	LR		
	comp=Z,460nm,27.1s						
BJI	**Beijing**	**42.39**	**22**	P	**P**	**10 53 16.5**	**+0.5**
	comp=Z,0.1nm,0.8s						
BJI				PP	PP	10 54 57.5	+2.8

BJI				ScP	ScP	10 59 01.1	+3.4
BJI				S	**S**	**10 59 38.2**	**+2.7**
BJI				SS	SS	11 02 52.0	+6.7
BJI				ScS	ScS	11 03 19.6	+3.9
BJI				LR	LR		
	comp=Z,460nm,27.1s						
KSH	**Kashi**	**42.96**	**336**	*e*P	**P**	**10 53 20.4**	**-0.3**
KSH				*e*AP	pP	10 53 29.1	-0.9
KSH				*e*XP	sP	10 53 33.3	-0.4
KSH				*e*PP	PP	10 55 02.1	+1.2
KSH				*e*PCP	PcP	10 55 12.3	+1.4
KSH				*e*PPP		10 55 36.3	
KSH				*e*SCP	ScP	10 58 59.0	-1.0
KSH				*e*PCS	PcS	10 59 02.0	-1.2
KSH				*e*S	**S**	**10 59 41.0**	**-3.0**
KSH				*e*SS	SS	11 02 47.3	-9.3
KSH				*e*SCS	ScS	11 03 16.3	-3.0
KSH				AMB	AMB		
	comp=Z,275nm,3.0s						
KSH				LR	LR		
	comp=N,963nm,7.2s						
KSH				LR	LR		
	comp=E,1µm,8.8s						
KSH				LR	LR		
	comp=Z,580nm,5.2s						
FORT	**Forrest**	**43.06**	**140**	*e*P	**P**	**10 53 23.0**	**+1.4**
	comp=Z,76nm,0.7s,mb5.5						
ASAR	**Alice Springs**	**43.17**	**127**	P	**P**	**10 53 21.9**	**-0.8**
	comp=Z,10.0nm,0.8s,mb4.6,baz=299,slow=8.2,SNR=107						
ASAR				S	**S**	**10 59 45.6**	**-1.8**
	comp=Z,1.2nm,0.9s,baz=302,slow=12,SNR=6.3						
WMQ	**Urumqi**	**43.43**	**350**	P	**P**	**10 53 25.1**	**+0.7**
WMQ				AP	pP	10 53 35.0	+1.3
WMQ				XP	sP	10 53 38.9	+1.5
WMQ				PP	PP	10 55 08.3	+2.5
WMQ				SCP	ScP	10 59 01.3	-0.5
WMQ				S	**S**	**10 59 50.5**	**-0.2**
WMQ				SS	SS	11 02 57.8	-7.9
WMQ				SCS	ScS	11 03 19.9	-2.2
WMQ				AMB	AMB		
	comp=Z,58nm,1.0s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,98nm,9.6s						
WMQ				LR	LR		
	comp=N,612nm,23.0s,MS4.6						
WMQ				LR	LR		
	comp=E,725nm,23.8s,MS4.6						
WMQ				LR	LR		
	comp=Z,578nm,23.8s,MS4.4						
DL2	**Dalian**	**43.70**	**28**	⇑P	**P**	**10 53 27.1**	**+0.4**
DL2				AP	pP	10 53 37.8	+1.8
DL2				S	**S**	**10 59 58.0**	**+3.2**
DL2				XS	sS	11 00 14.3	+4.2
DL2				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.3						
DL2				AMB	AMB		
	comp=Z,140nm,5.2s						
DL2				LR	LR		
	comp=N,440nm,14.7s,MS4.6						
DL2				LR	LR		
	comp=E,370nm,13.6s,MS4.6						
DL2				LR	LR		
	comp=Z,660nm,14.1s,MS4.7						
ULHL	**Ulahol**	**45.18**	**338**	P	**P**	**10 53 39.1**	**+0.7**
	SNR=11						
KZA	**Kyzart**	**45.42**	**337**	P	**P**	**10 53 41.9**	**+1.5**
	SNR=6.0						
KS15	**Wonju Array Si**	**45.81**	**34**	*e*P	**P**	**10 53 43.8**	**+0.2**
UCH	**Uchtor**	**45.84**	**336**	P	**P**	**10 53 45.0**	**+1.3**
	SNR=29						
KSRS	**Korea Array**	**45.84**	**34**	P	**P**	**10 53 43.5**	**-0.4**
	comp=Z,24nm,0.8s,mb5.2,baz=223,slow=8.9,SNR=61						
KSRS				LR	LR	11 14 28.5	
	comp=Z,528nm,18.9s,MS4.5,baz=221,slow=38						
TKM2	**Tokmak 2**	**46.01**	**338**	P	**P**	**10 53 45.7**	**+0.7**
	SNR=19						
KBK	**Karagaybulak**	**46.03**	**337**	P	**P**	**10 53 46.8**	**+1.6**
	SNR=9.8						
AML	**Almayashu**	**46.10**	**335**	P	**P**	**10 53 47.0**	**+1.3**
	SNR=16						
AAK	**Ala-Archa**	**46.19**	**337**	*e*P	**P**	**10 53 46.9**	**+0.5**
	comp=Z,13nm,1.1s,mb4.8						
AAK	**Ala-Archa**	**46.19**	**337**	⇓*e*P	**P**	**10 53 46.8**	**+0.4**
AAK				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
AAK				MLR	MLR		
	comp=Z,600nm,16.0s,MS4.6						
AAK	**Ala-Archa**	**46.19**	**337**	⇑P	**P**	**10 53 47.3**	**+0.8**
	SNR=7.8						
AAK	**Ala-Archa**	**46.19**	**337**	⇑P	**P**	**10 53 47.3**	**+0.8**
	SNR=7.8						
FRU	**Bishkek**	**46.31**	**337**	*e*P	**P**	**10 53 49.5**	**+2.1**
FRU				*e*		10 54 06.0	
CHMS	**Chumysh**	**46.40**	**337**	P	**P**	**10 53 48.7**	**+0.6**
	SNR=5.6						
EKS2	**Erkin-Say**	**46.50**	**336**	P	**P**	**10 53 49.8**	**+0.9**
	SNR=13						
USP	**Ospenovka**	**46.72**	**337**	P	**P**	**10 53 51.2**	**+0.6**
	SNR=34						
SNY	**Shenyang**	**46.93**	**27**	⇑P	**P**	**10 53 51.8**	**-0.5**
SNY				AP	pP	10 54 01.9	+0.3
SNY				XP	sP	10 54 05.8	+0.5
SNY				S	**S**	**11 00 45.8**	**+4.4**
SNY				SS	SS	11 04 02.3	-6.2
SNY				AMB	AMB		
	comp=Z,58nm,0.9s,mb5.5						
SNY				AMB	AMB		
	comp=Z,340nm,3.5s						
SNY				LR	LR		
	comp=E,1µm,15.1s						
SNY				LR	LR		
	comp=Z,2µm,14.5s,MS5.2						
SONM	**Songino Array**	**47.23**	**8**	P	**P**	**10 53 54.9**	**+0.4**
SONM						10 55 25.8	
SONM	**Songino Array**	**47.23**	**8**	P	**P**	**10 53 54.9**	**+0.4**
	comp=Z,9.3nm,0.5s,mb5.0,baz=190,slow=9.4,SNR=112						
SONM				PcP	PcP	10 55 25.8	+0.3
	comp=Z,6.1nm,0.7s,baz=190,slow=4.2,SNR=6.2						
SONM				LR	LR	11 16 22.0	
	comp=Z,2µm,19.1s,MS5.1,baz=188,slow=40						
ULN	**Ulaanbaatar**	**47.36**	**9**	*e*P	**P**	**10 53 55.6**	**+0.2**
	comp=Z,16nm,0.9s,mb5.0						
ULN	**Ulaanbaatar**	**47.36**	**9**	*c i*P	**P**	**10 53 55.7**	**+0.2**
ULN	**Ulaanbaatar**	**47.36**	**9**	⇓P	**P**	**10 53 56.1**	**+0.6**
	SNR=7.4						
ULN	**Ulaanbaatar**	**47.36**	**9**	⇓P	**P**	**10 53 56.1**	**+0.6**
	SNR=7.4						
MK31	**Makanchi Array**	**47.41**	**346**	*e*P	**P**	**10 53 55.9**	**0.0**
MKAR	**Makanchi Array**	**47.41**	**346**	*i* P	**P**	**10 53 55.6**	**-0.3**
MKAR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
MKAR	**Makanchi Array**	**47.41**	**346**	P	**P**	**10 53 56.1**	**+0.2**
	comp=Z,26nm,0.8s,mb5.2,baz=158,slow=7.8,SNR=249						
MKAR				LR	LR	11 17 40.3	
	comp=Z,578nm,20.4s,MS4.5,baz=160,slow=41						
COEN	**Coen**	**47.74**	**110**	*e*P	**P**	**10 53 58.1**	**-1.0**
KK31	**Karatay Array**	**48.25**	**334**	*i* P	**P**	**10 54 02.4**	**-0.1**
KK31				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
KKAR	**Karatay Array**	**48.25**	**334**	*i* P	**P**	**10 54 02.4**	**-0.1**
KKAR				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
CN2	**Changchun**	**49.33**	**27**	⇑P	**P**	**10 54 09.8**	**-1.0**
CN2				*e*XP	sP	10 54 24.1	+0.2
CN2				PCP	PcP	10 55 30.3	-2.9
CN2				*e*S	**S**	**11 01 14.1**	**-1.2**
CN2				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.5						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,400nm,15.0s,MS4.8						
CN2				LR	LR		
	comp=E,700nm,15.0s,MS4.8						
CN2				LR	LR		
	comp=Z,2µm,15.0s,MS5.2						
ZAK	**Zakamensk**	**49.38**	**5**	*e*P	**P**	**10 54 10.7**	**-0.3**
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
MOY	**Mondy**	**50.51**	**3**	*e*P	**P**	**10 54 19.9**	**+0.3**
PMG	**Port Moresby**	**50.64**	**103**	P	**P**	**10 54 20.7**	**-0.5**
	comp=Z,16nm,0.6s,mb5.1,baz=280,slow=5.4,SNR=5.6						
TLY	**Talaya**	**50.70**	**5**	*e*P	**P**	**10 54 21.5**	**+0.4**
	comp=Z,8.8nm,0.6s,mb4.9						
TLY	**Talaya**	**50.70**	**5**	⇑*i*P	**P**	**10 54 21.6**	**+0.6**
TLY				*e*		10 56 17.6	
TLY				*e*PPP		10 57 23.3	
TLY				*e*S	**S**	**11 01 42.2**	**+8.0**
TLY				*e*		11 04 00.6	
TLY				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
TLY				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.1						
TLY	**Talaya**	**50.70**	**5**	⇑P	**P**	**10 54 22.1**	**+1.1**
	SNR=7.5						
TLY	**Talaya**	**50.70**	**5**	⇑P	**P**	**10 54 22.1**	**+1.1**
	SNR=7.5						
IRK	**Irkutsk**	**51.32**	**5**	*e*P	**P**	**10 54 26.0**	**+0.4**
IRK				pmax	pmax		
	comp=Z,34nm,1.8s,mb5.0						
MAT	**Matsushiro**	**51.66**	**42**	P	**P**	**10 54 27.7**	**-0.8**
MJAR	**Matsushiro Arr**	**51.66**	**42**	P	**P**	**10 54 27.4**	**-1.1**
MJAR				LR	LR	11 17 14.5	
MJAR	**Matsushiro Arr**	**51.66**	**42**	P	**P**	**10 54 27.4**	**-1.1**
	comp=Z,9.0nm,0.8s,mb4.8,baz=220,slow=6.3,SNR=24						
MJAR				LR	LR	11 17 14.5	
	comp=Z,440nm,20.6s,MS4.5,baz=250,slow=37						
HIA	**Hailar**	**51.70**	**19**	*e*P	**P**	**10 54 28.2**	**-0.3**
	comp=Z,27nm,0.8s,mb5.2						
HIA	**Hailar**	**51.70**	**19**	*e*P	**P**	**10 54 28.2**	**-0.4**
HIA				pmax	pmax		
	comp=Z,27nm,0.8s						
MDJ	**Mudanjiang**	**51.89**	**29**	P	**P**	**10 54 30.4**	**+0.3**
MDJ				AP	pP	10 54 39.6	+0.1
MDJ				XP	sP	10 54 43.4	+0.2
MDJ				PP	PP	10 56 29.6	+1.4
MDJ				PCS	PcS	10 59 38.3	-2.2
MDJ				S	**S**	**11 01 52.1**	**+1.3**
MDJ				XS	sS	11 02 09.8	+3.5
MDJ				SCS	ScS	11 04 14.8	-3.2
MDJ				AMB	AMB		
	comp=Z,26nm,0.9s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,205nm,5.8s						
MDJ				LR	LR		
	comp=N,1µm,17.0s,MS5.0						
MDJ				LR	LR		
	comp=E,618nm,17.0s,MS5.0						
MDJ				LR	LR		
	comp=Z,2µm,16.6s,MS5.1						
MDJ	**Mudanjiang**	**51.89**	**29**	*e*P	**P**	**10 54 30.5**	**+0.5**
	comp=Z,24nm,0.9s,mb5.1						
KURK	**Kurchatov**	**51.96**	**345**	P	**P**	**10 54 30.7**	**+0.2**
	comp=Z,197nm,1.0s,mb6.0,SNR=26						
KURK	**Kurchatov**	**51.96**	**345**	*e*P	**P**	**10 54 30.6**	**0.0**
	comp=Z,32nm,0.9s,mb5.2						
KURK	**Kurchatov**	**51.96**	**345**	*e*P	**P**	**10 54 30.6**	**+0.1**
KURK				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
KURK	**Kurchatov**	**51.96**	**345**	⇑P	**P**	**10 54 30.8**	**+0.3**
	SNR=11						
KURK	**Kurchatov**	**51.96**	**345**	⇑P	**P**	**10 54 30.8**	**+0.3**
	SNR=11						
VLA	**Vladivostok**	**51.98**	**32**	*d i*P	**P**	**10 54 30.3**	**-0.5**
VLA				*e*S	**S**	**11 01 47.5**	**-4.6**
VLA				pmax	pmax		
	comp=Z,54nm,1.8s,mb5.2						
VLA				MLR	MLR		
	comp=Z,1µm,12.1s,MS5.1						
CTA	**Charters Tower**	**52.28**	**116**	*e*P	**P**	**10 54 33.7**	**+0.3**
	comp=Z,11nm,0.9s,mb4.8						
CTA				*e*pP	pP	10 54 40.9	-1.9
CTA				*e*sP	sP	10 54 49.1	+2.6
CTA	**Charters Tower**	**52.28**	**116**	*e*P	**P**	**10 54 33.7**	**+0.3**
CTA				*e**PP	pP	10 54 40.9	-1.9
CTA				*e**SP	sP	10 54 49.1	+2.6
CTA				pmax	pmax		
	comp=Z,11nm,0.9s						
CTA	**Charters Tower**	**52.28**	**116**	P	**P**	**10 54 33.2**	**-0.2**
	comp=Z,15nm,0.9s,mb4.9,baz=281,slow=9.5,SNR=7.0						
CTA				LR	LR	11 19 53.8	
	comp=Z,588nm,20.5s,MS4.6,baz=285,slow=40						
CTAO	**Charters Tower**	**52.28**	**116**	*e*P	**P**	**10 54 33.5**	**+0.1**
	comp=Z,21nm,1.0s,mb5.0						
CTAO				*e*		10 54 48.5	
CTAO	**Charters Tower**	**52.28**	**116**	*e*P	**P**	**10 54 33.5**	**+0.1**
CTAO				*e*		10 54 48.5	
CTAO				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
CIT	**Chita**	**52.55**	**13**	*e*P	**P**	**10 54 35.6**	**+0.7**
CIT				*e*	pP	10 54 44.1	-0.2
CIT				pmax	pmax		
	comp=Z,79nm,1.5s,mb5.4						
OPO	**Ambohidratompo**	**53.05**	**246**	P	**P**	**10 54 38.9**	**-0.3**
	comp=Z,4.4nm,0.9s,mb4.4,baz=62,slow=9.2,SNR=4.2						
STKA	**Stephens Creek**	**53.13**	**132**	*e*P	**P**	**10 54 39.6**	**+0.1**
	comp=Z,26nm,1.1s,mb5.1						
STKA				*e*pP	pP	10 54 47.2	-1.8
STKA	**Stephens Creek**	**53.13**	**132**	P	**P**	**10 54 39.6**	**+0.1**
	comp=Z,31nm,0.9s,mb5.2,baz=306,slow=7.3,SNR=34						
STKA				LR	LR	11 19 27.8	
	comp=Z,920nm,21.7s,MS4.8,baz=297,slow=39						
ZAL	**Zalesovo**	**53.70**	**351**	P	**P**	**10 54 43.6**	**+0.3**
ZALV	**Zalesovo Beam**	**53.71**	**351**	P	**P**	**10 54 43.6**	**+0.2**
	comp=Z,45nm,0.7s,mb5.5,baz=175,slow=6.4,SNR=182						
ZALV				LR	LR	11 22 44.1	
	comp=Z,334nm,18.8s,MS4.4,baz=4.4,slow=42						
NVS	**Novosibirsk**	**54.83**	**350**	*i* P	**P**	**10 54 50.6**	**-0.9**
NVS				*e*S	**S**	**11 02 28.3**	**-2.1**
NVS				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.2						
NVS				pmax	pmax		
	comp=N,19nm,1.2s						
NVS				pmax	pmax		
	comp=E,16nm,1.1s						
NVS				smax			
	comp=N,13nm,1.8s						
NVS				smax			
	comp=E,7.0nm,1.6s						
KLR	**Kul’dur**	**56.28**	**26**	*e*P	**P**	**10 54 59.0**	**-3.0**
KLR				*e*S	**S**	**11 02 48.5**	**-1.5**
KLR				pmax	pmax		
	comp=E,64nm,1.8s						
KLR				pmax	pmax		
	comp=Z,120nm,1.8s,mb5.6						
KLR				MLR	MLR		
	comp=E,800nm,12.5s						
KLR				MLR	MLR		
	comp=Z,2µm,12.5s,MS5.3						
BRVK	**Borovoye**	**56.49**	**341**	P	**P**	**10 55 02.1**	**-1.4**
	comp=Z,102nm,0.7s,mb6.0,SNR=16						
BRVK	**Borovoye**	**56.49**	**341**	*e*P	**P**	**10 55 02.7**	**-0.8**
	comp=Z,11nm,0.6s,mb5.0						
BRVK	**Borovoye**	**56.49**	**341**	*e*P	**P**	**10 55 02.7**	**-0.8**
BRVK				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
HABR	**Khabarovsk**	**57.28**	**29**	⇑*e*P	**P**	**10 55 08.8**	**-0.3**
HABR				*e*		10 56 01.9	
HABR				*e*		10 57 16.8	
HABR				*e*S	**S**	**11 03 03.4**	**+0.2**
HABR				*e*		11 03 20.0	
HABR				*e*		11 04 53.9	
HABR				*e*SS	SS	11 06 54.2	+1.4
HABR				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
HABR				MLR	MLR		
	comp=Z,763nm,14.9s,MS4.9						
AB31	**Akbulak array**	**57.71**	**332**	P	**P**	**10 55 10.9**	**-1.3**
AB31				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
BOD	**Bodaibo**	**58.10**	**10**	*e*P	**P**	**10 55 14.6**	**-0.1**
BOD				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.5						
EIDS	**Eidsvold**	**58.15**	**121**	*e*P	**P**	**10 55 15.5**	**-0.3**
ASAJ	**Asahikawa**	**58.65**	**37**	LR	LR	11 19 44.0	
	comp=Z,431nm,21.4s,MS4.5,baz=74,slow=35						
TOO	**Toolangi**	**58.72**	**136**	*e*P	**P**	**10 55 21.4**	**+1.9**
	comp=Z,7.6nm,0.8s,mb4.8						
TOO				*e*pP	pP	10 55 29.3	+0.3
TOO	**Toolangi**	**58.72**	**136**	*e*P	**P**	**10 55 21.4**	**+1.9**
TOO				*e**PP	pP	10 55 29.3	+0.3
TOO				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
CLNS	**Chul’man**	**59.80**	**17**	*e*P	**P**	**10 55 28.1**	**+1.5**
CLNS				pmax	pmax		
	comp=N,9.0nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
CLNS				pmax	pmax		
	comp=E,12nm,1.0s						
CLNS				MLR	MLR		
	comp=Z,1µm,14.0s,MS5.2						
CLNS				MLR	MLR		
	comp=N,400nm,13.0s,MS5.0						
CLNS				MLR	MLR		
	comp=E,700nm,14.0s,MS5.0						
KMBO	**Kilima Mbogo**	**60.17**	**268**	*e*P	**P**	**10 55 30.2**	**+0.3**
	comp=E,7.5nm,1.3s,mb4.6						
KMBO				*e*	pP	10 55 39.2	-0.3
KMBO	**Kilima Mbogo**	**60.17**	**268**	*e*P	**P**	**10 55 30.2**	**+0.2**
KMBO				*e*	pP	10 55 39.2	-0.3
KMBO				pmax	pmax		
	comp=Z,7.0nm,1.3s						
KMBO	**Kilima Mbogo**	**60.17**	**268**	P	**P**	**10 55 30.9**	**+0.9**
	comp=Z,0.9nm,0.3s,mb4.3,baz=46,slow=23,SNR=4.8						
KMBO				LR	LR	11 20 12.7	
	comp=Z,349nm,18.4s,MS4.5,baz=93,slow=35						
YSS	**Yuzh-Sakhalins**	**60.35**	**34**	*e*P	**P**	**10 55 31.3**	**+0.8**
	comp=Z,28nm,0.8s,mb5.3						
YSS	**Yuzh-Sakhalins**	**60.35**	**34**	⇑*e*P	**P**	**10 55 31.0**	**+0.5**
YSS				*e*		10 55 49.5	
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
YSS				MLR	MLR		
	comp=Z,500nm,14.0s,MS4.8						
YSS				MLR	MLR		
	comp=N,400nm,13.0s,MS5.0						
YSS				MLR	MLR		
	comp=E,500nm,13.0s,MS5.0						
SVE	**Sverdlovsk**	**62.88**	**338**	*e*P	**P**	**10 55 46.0**	**-1.3**
ZEI	**Tsey**	**63.22**	**318**	*e*P	**P**	**10 55 49.2**	**-0.7**
ZEI				*i*	pP	10 55 57.9	-1.6
ARU	**Arti**	**63.37**	**337**	P	**P**	**10 55 49.0**	**-1.7**
	comp=E,79nm,1.1s,mb5.8,SNR=5.2						
ARU	**Arti**	**63.37**	**337**	*e*P	**P**	**10 55 49.4**	**-1.3**
	comp=E,12nm,1.0s,mb5.0						
ARU	**Arti**	**63.37**	**337**	*d i*P	**P**	**10 55 49.8**	**-0.9**
ARU				*e*		10 56 25.6	
ARU				*e*		10 58 08.4	
ARU				*e*PPP		10 59 36.9	
ARU				*e*S	**S**	**11 04 22.7**	**+1.7**
ARU				*e*SS	SS	11 08 27.5	-0.7
ARU				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.1						
KIV	**Kislovodsk**	**64.53**	**319**	*e*P	**P**	**10 55 58.2**	**-0.3**
	comp=Z,12nm,0.9s,mb4.9						
KIV	**Kislovodsk**	**64.53**	**319**	*e*P	**P**	**10 55 59.2**	**+0.7**
KIV				*e*		10 56 31.3	
KIV				*e*		10 58 20.9	
KIV				*e*S	**S**	**11 04 35.0**	**-0.8**
KIV				*e*SS	SS	11 08 49.6	+2.9
KIV				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
YAK	**Yakutsk**	**65.49**	**16**	*e*P	**P**	**10 56 03.6**	**-0.8**
	comp=Z,28nm,0.5s,mb5.6						
YAK	**Yakutsk**	**65.49**	**16**	*e*P	**P**	**10 56 03.6**	**-0.8**
YAK				pmax	pmax		
	comp=Z,29nm,0.5s,mb5.6						
SOKR	**Solikamsk**	**66.27**	**339**	*c i*P	**P**	**10 56 08.8**	**-0.7**
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
BRTR	**Keskin Array B**	**69.34**	**312**	P	**P**	**10 56 28.2**	**-1.0**
	comp=Z,1.8nm,0.8s,mb4.1,baz=120,slow=8.8,SNR=7.0						
DZM	**Mont Dzumac**	**71.06**	**114**	P	**P**	**10 56 40.9**	**+0.7**
	comp=Z,9.1nm,0.9s,mb4.7,baz=135,slow=22,SNR=3.7						
MA2	**Magadan**	**71.36**	**26**	*e*P	**P**	**10 56 41.1**	**-0.1**
	comp=Z,13nm,0.7s,mb5.0						
MA2	**Magadan**	**71.36**	**26**	*c i*P	**P**	**10 56 41.0**	**-0.2**
MA2				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
MA2				MLR	MLR		
	comp=Z,200nm,15.0s,MS4.5						
PRGR	**Permogore**	**71.83**	**337**	⇓*i*P	**P**	**10 56 43.3**	**-0.7**
PRGR				*e*S	S	11 06 08.5	+6.2
PET	**Petropavlovsk**	**72.23**	**34**	*e*P	**P**	**10 56 46.5**	**-0.1**
	comp=Z,40nm,1.1s,mb5.3						
PET	**Petropavlovsk**	**72.23**	**34**	*e*P	**P**	**10 56 46.1**	**-0.4**
PET				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.1						
PET				pmax	pmax		
	comp=Z,100nm,17.2s						
PET				MLR	MLR		
	comp=Z,300nm,19.0s,MS4.6						
MOS	**Moscow**	**72.54**	**329**	*e*P	**P**	**10 56 50.7**	**+2.4**
MOS				*e*		10 59 32.0	
MAW	**Mawson**	**72.63**	**193**	P	**P**	**10 56 49.1**	**+0.5**
	comp=Z,3.3nm,0.8s,mb4.3,baz=21,slow=13,SNR=2.6						
MAW				LR	LR	11 25 37.9	
	comp=Z,373nm,19.2s,MS4.7,baz=177,slow=33						
OBN	**Obninsk**	**72.83**	**328**	⇑*e*P	**P**	**10 56 49.3**	**-0.7**
OBN				pmax	pmax		
	comp=Z,27nm,1.3s,mb5.0						
OBN				MLR	MLR		
	comp=Z,300nm,22.0s,MS4.5						
TIXI	**Tiksi**	**73.28**	**10**	*e*P	**P**	**10 56 51.4**	**-1.0**
	comp=Z,13nm,0.7s,mb5.0						
TIXI	**Tiksi**	**73.28**	**10**	*e*P	**P**	**10 56 50.3**	**-2.1**
TIXI				*e*S	S	11 06 17.5	-1.0
TIXI				pmax	pmax		
	comp=Z,27nm,1.3s,mb5.0						
TIXI				MLR	MLR		
	comp=Z,790nm,15.0s,MS5.1						
SEY	**Seymchan**	**73.80**	**23**	⇑*e*P	**P**	**10 56 54.4**	**-1.2**
LBTB	**Lobatse**	**74.00**	**244**	*e*P	**P**	**10 56 58.0**	**+0.4**
BOSA	**Boshof**	**74.88**	**240**	*e*P	**P**	**10 57 02.6**	**-0.1**
	comp=Z,20nm,1.4s,mb4.9						
BOSA				*e*	pP	10 57 10.1	-2.3
BOSA	**Boshof**	**74.88**	**240**	*e*P	**P**	**10 57 02.6**	**0.0**
BOSA				*e*	pP	10 57 10.1	-2.3
BOSA				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.8						
BOSA	**Boshof**	**74.88**	**240**	P	**P**	**10 57 02.6**	**-0.1**
	comp=Z,3.6nm,0.9s,mb4.3,baz=102,slow=9.3,SNR=2.9						
BOSA				LR	LR	11 28 35.3	
	comp=Z,381nm,18.5s,MS4.7,baz=57,slow=35						
AKASG	**Malin Array Be**	**75.47**	**322**	P	**P**	**10 57 04.2**	**-1.4**
	comp=Z,5.3nm,0.9s,mb4.5,baz=88,slow=4.5,SNR=16						
KIEV	**Kiev**	**75.48**	**322**	*e*P	**P**	**10 57 04.2**	**-1.5**
	comp=Z,7.8nm,0.9s,mb4.6						
KIEV	**Kiev**	**75.48**	**322**	*e*P	**P**	**10 57 04.2**	**-1.4**
KIEV				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
BURAR	**Bucovina Array**	**77.24**	**319**	⇑*i*P	**P**	**10 57 16.2**	**+0.5**
JOF	**Joensuu**	**78.34**	**335**	*e*p	**P**	**10 57 19.6**	**-1.9**
	comp=Z,8.0nm,1.0s,mb4.6						
DRGR		**78.75**	**317**	⇑P	**P**	**10 57 24.8**	**+0.7**
DRGR		**78.75**	**317**	⇑*i*P	**P**	**10 57 24.8**	**+0.7**
RPZ	**Rata Peaks**	**78.98**	**135**	P	**P**	**10 57 25.7**	**+0.3**
	comp=Z,11nm,0.6s,mb5.0,baz=279,slow=5.0						
APA	**Apatity**	**79.31**	**339**	⇓*i*P	**P**	**10 57 27.5**	**+0.8**
APA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
UZH	**Uzhgorod**	**79.37**	**319**	*e*P	**P**	**10 57 28.0**	**+0.6**
UZH				*e*		10 57 46.7	
KOLS	**Kolonicke sedl**	**79.44**	**320**	*e*P	**P**	**10 57 28.3**	**+0.5**
SYO	**Syowa Base**	**79.94**	**198**	⇑*e*P	**P**	**10 57 29.8**	**-0.3**
SYO	**Syowa Base**	**79.94**	**198**	⇓*e*pP	pP	10 57 38.8	-1.2
CRVS	**Cervenica-Dubn**	**79.96**	**319**	*e*P	**P**	**10 57 31.9**	**+1.3**
STHS	**Stebnicka Huta**	**80.19**	**320**	*e*P	**P**	**10 57 32.6**	**+0.7**
	comp=Z,7.9nm,1.1s,mb4.6						
STHS				*e*	pP	10 57 41.6	-0.1
STHS	**Stebnicka Huta**	**80.19**	**320**	*e*P	**P**	**10 57 32.6**	**+0.7**
STHS				*e*	pP	10 57 41.6	-0.1
STHS				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
FINES	**FINESS Array B**	**80.20**	**332**	P	**P**	**10 57 30.9**	**-0.8**
	comp=Z,3.0nm,0.7s,mb4.3,baz=100,slow=5.9,SNR=11						
FINES				LR	LR	11 36 08.1	
	comp=Z,299nm,21.0s,MS4.6,baz=316,slow=38						
KAF	**Kangasniemi**	**80.28**	**333**	*e*p	**P**	**10 57 30.6**	**-1.5**
	comp=Z,9.7nm,0.7s,mb4.8,baz=103,slow=5.0						
KAF	**Kangasniemi**	**80.28**	**333**	*e*P	**P**	**10 57 30.6**	**-1.5**
KAF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
KECS	**Kecovo**	**80.53**	**319**	*e*P	**P**	**10 57 33.1**	**-0.6**
	comp=Z,3.7nm,0.9s,mb4.3						
KECS	**Kecovo**	**80.53**	**319**	*e*P	**P**	**10 57 33.1**	**-0.6**
KECS				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
PSZ	**Piszkesteto**	**80.83**	**318**	⇓P	**P**	**10 57 32.4**	**-2.9**
PSZ	**Piszkesteto**	**80.83**	**318**	⇓*i*P	**P**	**10 57 32.4**	**-2.9**
BILL	**Bilibino**	**81.22**	**21**	*i* P	**P**	**10 57 36.6**	**-0.4**
BILL				*e*SS	SS	11 13 01.9	+1.5
BILL				pmax	pmax		
	comp=Z,4µm,1.0s						

OJC	**Ojcow**	**81.24**	**321**	*e*P	**P**	**10 57 37.4**	**-0.1**
PKSM	**Moragy**	**81.44**	**316**	⇓P	**P**	**10 57 38.0**	**-0.6**
PKSM	**Moragy**	**81.44**	**316**	⇓*i*P	**P**	**10 57 38.0**	**-0.6**
VYHS	**Vyhne**	**81.61**	**319**	*e*P	**P**	**10 57 39.2**	**-0.3**
VYHS				*e*pP	pP	10 57 51.7	+2.3
OKC	**Ostrava-Krasne**	**82.24**	**320**	*e*P	**P**	**10 57 43.4**	**+0.6**
OKC				*e*pP	pP	10 57 51.6	-1.0
KEV	**Kevo**	**82.28**	**341**	*e*p	**P**	**10 57 42.4**	**-0.2**
	comp=Z,12nm,1.0s,mb4.8						
KEV	**Kevo**	**82.28**	**341**	*e*P	**P**	**10 57 42.4**	**-0.2**
KEV				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
URZ	**Urewera**	**82.59**	**129**	P	**P**	**10 57 44.6**	**-0.3**
	comp=Z,3.6nm,0.6s,mb4.6,baz=193,slow=7.6,SNR=7.4						
MORC	**Moravsky Berou**	**82.62**	**320**	*e*P	**P**	**10 57 43.9**	**-0.8**
	comp=Z,8.1nm,1.0s,mb4.7						
MORC	**Moravsky Berou**	**82.62**	**320**	⇓*i*P	**P**	**10 57 44.9**	**+0.1**
ARCES	**ARCESS Array B**	**82.72**	**340**	P	**P**	**10 57 44.4**	**-0.5**
	comp=Z,9.5nm,1.0s,mb4.8,baz=108,slow=4.8,SNR=12						
ARCES				LR	LR	11 38 36.0	
	comp=Z,482nm,20.1s,MS4.9,baz=97,slow=39						
ZST	**Bratislava**	**82.72**	**318**	*e*P	**P**	**10 57 44.9**	**-0.4**
	comp=Z,10nm,0.8s,mb4.9						
ZST				*e*	pP	10 57 53.4	-1.8
ZST	**Bratislava**	**82.72**	**318**	*e*P	**P**	**10 57 44.9**	**-0.4**
ZST				*e*	pP	10 57 53.4	-1.8
ZST				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
DPC	**Dobruska-Polom**	**83.47**	**320**	*e*P	**P**	**10 57 49.6**	**+0.5**
DPC				*e*pP	pP	10 57 57.7	-1.3
DPC				AMS	AMS	11 41 10.0	
	comp=Z,300nm,20.7s						
PRU	**Pruhonice**	**84.57**	**320**	*e*P	**P**	**10 57 54.4**	**-0.4**
PRU				*e*pP	pP	10 58 03.1	-1.6
PRU				AMS	AMS	11 42 20.0	
	comp=Z,300nm,22.3s						
AQU	**L'Aquila**	**84.83**	**312**	*e*P	**P**	**10 57 56.7**	**+0.5**
	comp=Z,29nm,1.2s,mb5.3						
AQU	**L'Aquila**	**84.83**	**312**	*e*P	**P**	**10 57 56.7**	**+0.5**
AQU				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.3						
BRG	**Berggiesshubel**	**85.03**	**321**	*e*P	**P**	**10 57 57.0**	**0.0**
BRG				*e*	pP	10 58 05.4	-1.5
BRG				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.3						
BRG				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.7						
BRG	**Berggiesshubel**	**85.03**	**321**	*e*P	**P**	**10 57 57.0**	**-0.1**
	comp=Z,4.2nm,1.1s,mb4.5						
BRG				*e*	pP	10 58 05.4	-1.5
	comp=Z,13nm,1.4s						
GEC2	**GERESS Array S**	**85.03**	**319**	*e*P	**P**	**10 57 57.2**	**+0.1**
GERES	**GERESS Array B**	**85.03**	**319**	P	**P**	**10 57 57.0**	**-0.1**
	comp=Z,6.3nm,1.0s,mb4.7,baz=97,slow=5.5,SNR=30						
GERES				LR	LR	11 43 06.4	
	comp=Z,147nm,19.6s,MS4.4,baz=283,slow=41						
KHC	**Kasperske Hory**	**85.13**	**319**	*e*P	**P**	**10 57 57.6**	**0.0**
KHC				*e*	pP	10 58 06.0	-1.5
KHC	**Kasperske Hory**	**85.13**	**319**	*e*P	**P**	**10 57 57.6**	**0.0**
KHC				*e*pP	pP	10 58 06.0	-1.5
KHC				AMS	AMS	11 42 10.0	
CLL	**Collm**	**85.65**	**321**	*i* P	**P**	**10 58 00.0**	**-0.1**
	comp=Z,6.0nm,1.2s,mb4.7						
CLL				*e*pP	pP	10 58 09.0	-1.0
CLL				*i* sP	sP	10 58 13.0	-0.6
CLL				*e*S	S	11 08 38.0	+7.7
CLL				LR	LR		
	comp=Z,200nm,19.8s,MS4.5						
CLL	**Collm**	**85.65**	**321**	*i* P	**P**	**10 58 00.0**	**-0.1**
CLL				*e**PP	pP	10 58 09.0	-1.0
CLL				*i* *SP	sP	10 58 13.0	-0.6
CLL				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.7						
CLL				MLR	MLR		
	comp=Z,200nm,19.8s,MS4.5						
CLL	**Collm**	**85.65**	**321**	*i* P	**P**	**10 58 00.0**	**-0.1**
	comp=Z,6.0nm,1.2s,mb4.7						
CLL				*e*pP	pP	10 58 09.0	-1.0
CLL				*i* sP	sP	10 58 13.0	-0.6
CLL				*e*S	S	11 08 38.0	+7.7
CLL				*e*PS		11 09 39.0	
CLL				LmV		11 40 00.0	
	comp=Z,200nm,19.8s						
VNDA	**Vanda**	**85.66**	**169**	LR	LR	11 31 04.3	
	comp=Z,363nm,18.0s,MS4.8,baz=317,slow=32						
NKC	**Novy Kostel**	**85.94**	**320**	*e*P	**P**	**10 58 02.7**	**+1.1**
NKC				*e*	pP	10 58 14.0	+2.5
NKC	**Novy Kostel**	**85.94**	**320**	*e*P	**P**	**10 58 02.7**	**+1.1**
NKC				*e*pP	pP	10 58 14.0	+2.5
NKC				AMS	AMS	11 40 40.0	
GRA1	**Grafenberg Arr**	**86.70**	**320**	*e*P	**P**	**10 58 05.2**	**-0.2**
	comp=Z,13nm,1.1s,mb5.1						
GRF	**Grafenberg Arr**	**86.70**	**320**	*e*P	**P**	**10 58 05.2**	**-0.2**
GRF				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.1						
GRF	**Grafenberg Arr**	**86.70**	**320**	*e*P	**P**	**10 58 05.2**	**-0.2**
GRF				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.1						
GRF	**Grafenberg Arr**	**86.70**	**320**	*e*P	**P**	**10 58 05.2**	**-0.2**
	comp=Z,13nm,1.1s,mb5.1						
NB2	**NORSAR Subarra**	**87.21**	**331**	P	**P**	**10 58 06.7**	**-0.9**
	comp=Z,9.9nm,1.1s,mb5.0,baz=96,slow=4.8						
NOA	**NORSAR Array B**	**87.21**	**331**	P	**P**	**10 58 07.0**	**-0.6**
NOA				LR	LR	11 44 27.2	
NOA	**NORSAR Array B**	**87.21**	**331**	P	**P**	**10 58 07.0**	**-0.6**
	comp=Z,6.8nm,1.0s,mb4.8,baz=94,slow=4.9,SNR=9.4						
NOA				LR	LR	11 44 27.2	
	comp=Z,192nm,19.2s,MS4.5,baz=60,slow=41						
KEST	**Kesra**	**87.79**	**306**	LR	LR	11 37 54.3	
	comp=Z,101nm,21.6s,MS4.2,baz=165,slow=36						
CDF	**Champ du Feu**	**89.28**	**318**	*e*P	**P**	**10 58 17.7**	**0.0**
LPG	**La Plagne**	**89.69**	**315**	*e*P	**P**	**10 58 19.5**	**-0.2**
	comp=Z,12nm,0.8s,mb5.0						
LPG	**La Plagne**	**89.69**	**315**	*e*P	**P**	**10 58 19.5**	**-0.2**
	comp=Z,6.3nm,0.8s,mb5.0						
LPG	**La Plagne**	**89.69**	**315**	*e*P	**P**	**10 58 19.5**	**-0.2**
LPG				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.0						
LPL	**La Plagne**	**89.70**	**315**	*e*P	**P**	**10 58 19.6**	**-0.1**
HAU	**Haudompre**	**89.91**	**318**	*e*P	**P**	**10 58 20.7**	**+0.1**
	comp=Z,29nm,1.1s,mb5.2						
HAU				*e*MLR	MLR		
	comp=Z,216nm,22.0s,MS4.2						
HAU	**Haudompre**	**89.91**	**318**	*e*P	**P**	**10 58 20.7**	**+0.1**
	comp=Z,14nm,1.1s,mb5.2						
HAU				LR	LR		
	comp=Z,220nm,22.0s,MS4.5						
HAU	**Haudompre**	**89.91**	**318**	*e*P	**P**	**10 58 20.7**	**+0.1**
HAU				pmax	pmax		
	comp=Z,14nm,1.1s,mb5.2						
HAU				MLR	MLR		
	comp=Z,220nm,22.0s,MS4.5						
CABF	**La Chapelle**	**90.12**	**316**	*e*P	**P**	**10 58 21.5**	**-0.2**
	comp=Z,21nm,1.0s,mb5.1						
CABF	**La Chapelle**	**90.12**	**316**	*e*P	**P**	**10 58 21.5**	**-0.2**
	comp=Z,10nm,1.0s,mb5.1						
CABF	**La Chapelle**	**90.12**	**316**	*e*P	**P**	**10 58 21.5**	**-0.2**
CABF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb5.1						
GIVF	**Givet**	**90.84**	**320**	*e*P	**P**	**10 58 24.7**	**-0.2**
BAIF	**Baives**	**91.23**	**320**	*e*P	**P**	**10 58 26.9**	**+0.1**
	comp=Z,30nm,1.0s,mb5.3						
BAIF	**Baives**	**91.23**	**320**	*e*P	**P**	**10 58 26.9**	**+0.1**
	comp=Z,15nm,1.0s,mb5.3						
BAIF	**Baives**	**91.23**	**320**	*e*P	**P**	**10 58 26.9**	**+0.1**
BAIF				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.3						
LOR	**Lormes**	**91.62**	**317**	*e*P	**P**	**10 58 28.3**	**-0.3**
	comp=Z,33nm,1.2s,mb5.2						
LOR				*e*MLR	MLR		
	comp=Z,234nm,21.5s,MS4.3						
LOR	**Lormes**	**91.62**	**317**	*e*P	**P**	**10 58 28.3**	**-0.3**
	comp=Z,17nm,1.2s,mb5.2						
LOR				LR	LR		
	comp=Z,230nm,21.5s,MS4.6						
LOR	**Lormes**	**91.62**	**317**	*e*P	**P**	**10 58 28.3**	**-0.3**
LOR				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.2						
LOR				MLR	MLR		
	comp=Z,230nm,21.5s,MS4.6						
SMF	**Signal de Mont**	**91.67**	**317**	*e*P	**P**	**10 58 28.4**	**-0.5**
	comp=Z,40nm,1.2s,mb5.3						
SMF	**Signal de Mont**	**91.67**	**317**	*e*P	**P**	**10 58 28.4**	**-0.5**
	comp=Z,20nm,1.2s,mb5.3						
SMF	**Signal de Mont**	**91.67**	**317**	*e*P	**P**	**10 58 28.4**	**-0.5**
SMF				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.3						
SSF	**Saint Saulge**	**91.88**	**317**	*e*P	**P**	**10 58 29.6**	**-0.2**
	comp=Z,45nm,1.5s,mb5.3						
SSF	**Saint Saulge**	**91.88**	**317**	*e*P	**P**	**10 58 29.6**	**-0.2**
	comp=Z,22nm,1.5s,mb5.3						
SSF	**Saint Saulge**	**91.88**	**317**	*e*P	**P**	**10 58 29.6**	**-0.2**
SSF				pmax	pmax		
	comp=Z,22nm,1.5s,mb5.3						
AVF	**Avril sur Loir**	**92.00**	**317**	*e*P	**P**	**10 58 30.0**	**-0.4**
	comp=Z,22nm,1.1s,mb5.1						
AVF	**Avril sur Loir**	**92.00**	**317**	*e*P	**P**	**10 58 30.0**	**-0.4**
	comp=Z,11nm,1.1s,mb5.1						
AVF	**Avril sur Loir**	**92.00**	**317**	*e*P	**P**	**10 58 30.0**	**-0.4**
AVF				pmax	pmax		
	comp=Z,11nm,1.1s,mb5.1						
BGF	**Bois d'Agland**	**92.36**	**316**	*e*P	**P**	**10 58 31.0**	**-1.1**
TORD	**Torodi Ar. Bea**	**95.30**	**283**	LR	LR	11 39 52.1	
	comp=Z,262nm,19.9s,MS4.7,baz=120,slow=34						
YKA	**Yellowknife Ar**	**112.16**	**15**	PP	PP	11 04 38.4	-2.3
	comp=Z,1.1nm,0.9s,baz=331,slow=7.7,SNR=5.0						
PPT	**Papeete**	**112.26**	**108**	*e*LR	LR	11 37 34.4	
	comp=Z,185nm,20.8s						
RKT	**Rikitea**	**124.71**	**118**	*e*LR	LR	11 43 27.5	
	comp=Z,282nm,24.2s						
ULM	**Lac du Bonnet**	**127.63**	**11**	PKP	PKPdf	11 04 26.0	-0.7
ULM	**Lac du Bonnet**	**127.63**	**11**	PKP	PKPdf	11 04 26.0	-0.7
	comp=Z,1.7nm,0.8s,baz=8.6,slow=5.0,SNR=3.5						
NVAR	**Mina Array Bea**	**128.77**	**36**	PKP	PKPdf	11 04 30.9	+1.6
NVAR	**Mina Array Bea**	**128.77**	**36**	PKP	PKPdf	11 04 30.9	+1.6
	comp=Z,1.3nm,0.9s,baz=247,slow=5.4,SNR=7.3						
PDAR	**Pinedale Array**	**130.07**	**26**	PKP	PKPdf	11 04 30.6	-1.0
PDAR	**Pinedale Array**	**130.07**	**26**	PKP	PKPdf	11 04 30.6	-1.0
	comp=Z,0.7nm,0.9s,baz=77,slow=7.8,SNR=4.4						
TXAR	**Lajitas Array**	**143.68**	**32**	PKP	PKPdf	11 04 54.6	-2.5
TXAR	**Lajitas Array**	**143.68**	**32**	PKIKP	PKPdf	11 04 54.6	-2.5
TXAR	**Lajitas Array**	**143.68**	**32**	PKP	PKPdf	11 04 54.6	-2.5
	comp=Z,2.0nm,0.9s,baz=276,slow=2.5,SNR=11						
JCT	**Junction City**	**144.61**	**26**	*e*PKPdf	PKPdf	11 04 57.3	-1.4
JCT	**Junction City**	**144.61**	**26**	*e*PKIKP	PKPdf	11 04 57.3	-1.4
NATX	**Nacogdoches**	**145.41**	**18**	*e*PKPdf	PKPdf	11 04 59.6	-0.5
LRAL	**Lakeview Retre**	**145.82**	**7**	*e*PKPdf	PKPdf	11 05 00.2	-0.6
LPAZ	**La Paz**	**159.21**	**223**	PKP	PKPdf	11 05 18.8	-1.9
LPAZ	**La Paz**	**159.21**	**223**	PKIKP	PKPdf	11 05 18.8	-1.9
LPAZ	**La Paz**	**159.21**	**223**	PKP	PKPdf	11 05 18.8	-1.9
	comp=Z,0.8nm,0.5s,baz=350,slow=2.5,SNR=3.7						

IDC 18 11:00:03.6±6.5,676N×7530W,h151^{km}±94^{km},mb3.2/1, mb1 3.5/2,mb1mx3.0/17,mbtmp3.4/2,Error ellipse: s-maj=286.1km s-min=33.6km az=84.0,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	**El Rosal**	**2.12**	**153**	P	Pn	11 00 40.8	+0.6
	24nm,0.3s,baz=94,slow=23,SNR=101						
ROSC				S	Sn	11 01 09.8	+1.4
	32nm,0.3s,baz=98,slow=20,SNR=8.0						
YKA	**Yellowknife Ar**	**62.59**	**341**	P	P	11 10 11.3	0.0
	0.4nm,0.6s,baz=131,slow=6.8,SNR=7.9						
ASAR	**Alice Springs**	**147.30**	**236**	PKPbc	PKPbc	11 19 29.5	-0.6
	0.5nm,1.0s,baz=114,slow=3.8,SNR=5.4						
WRA	**Warramunga Arr**	**148.40**	**243**	PKPbc	PKPbc	11 19 32.6	-0.6
	0.2nm,0.3s,baz=105,slow=3.0,SNR=10						

ISCJB ***18*** *11:08:22.7±0.6,3886N±003×2103E±005,h31^{km}±6^{km}, Error ellipse: s-maj=6.3km s-min=5.1km az=160.1*
CSEM ***18*** *11:08:22.6±0.1,3884N×2102E,h28^{km}±1^{km},ML3.1,Error ellipse: s-maj=4.1km s-min=3.2km az=23.0*
NEIC ***18*** *11:08:22.1,3882N×2104E,h30^{km},MD3.2(ATH),After ATH.*
ATH ***18*** *11:08:22.1,3882N×2104E,h30^{km}±1^{km},MD3.2/8*
THE ***18*** *11:08:22.4,3878N×2095E,h35^{km},ML3.1*
ISC 18 11:08:22.9±0.6,3885N±003×2102E±005,h30^{km}±6^{km},n36, σ1$\overset{s}{.}$00/53,Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKD	**Levkas**	**0.32**	**243**	*e*Pg	**Pb**	**11 08 30.5**	**-0.2**
LKD				*e*Sg	**Sb**	**11 08 37.8**	**+1.8**
LKD	**Levkas**	**0.32**	**243**	*e*Pg	**Pb**	**11 08 30.5**	**-0.2**
EVR	**Evrytania**	**0.62**	**84**	*e*Pn	**Pn**	**11 08 34.5**	**-1.2**
EVR	**Evrytania**	**0.62**	**84**	*e*PN	**Pn**	**11 08 34.5**	**-1.2**
EVR	**Evrytania**	**0.62**	**84**	*e*Pn	**Pn**	**11 08 34.5**	**-1.2**
VLS	**Valsamata**	**0.76**	**207**	*e*Pn	**Pn**	**11 08 36.7**	**-0.9**
VLS				*e*Sn	**Sn**	**11 08 48.5**	**+0.5**
VLS	**Valsamata**	**0.76**	**207**	*e*PN	**Pn**	**11 08 36.7**	**-0.9**
VLS				*e*SN	**Sn**	**11 08 48.5**	**+0.5**
VLS	**Valsamata**	**0.76**	**207**	*e*Pn	**Pn**	**11 08 36.7**	**-0.9**
VLS				*e*Sn	**Sn**	**11 08 48.5**	**+0.5**
JAN	**Janina**	**0.81**	**351**	*e*Pn	**Pn**	**11 08 38.6**	**+0.2**
JAN				*e*Sn	**Sn**	**11 08 51.2**	**+1.8**
JAN	**Janina**	**0.81**	**351**	*e*PN	**Pn**	**11 08 38.6**	**+0.2**
JAN				*e*SN	**Sn**	**11 08 51.2**	**+1.8**
JAN	**Janina**	**0.81**	**351**	*e*Pn	**Pn**	**11 08 38.6**	**+0.2**
JAN				*e*Sn	**Sn**	**11 08 51.2**	**+1.8**
IGT	**Igoumenitsa**	**0.86**	**322**	*e*Pg	**Pn**	**11 08 38.3**	**-0.8**
IGT				*e*Sg	**Sb**	**11 08 51.0**	**+0.4**
IGT	**Igoumenitsa**	**0.86**	**322**	*e*Pg	**Pn**	**11 08 38.3**	**-0.8**
IGT				*e*Sg	**Sb**	**11 08 51.0**	**+0.4**
RLS	**Riolos of Patr**	**0.87**	**156**	*e*Pn	**Pn**	**11 08 38.5**	**-0.6**
RLS	**Riolos of Patr**	**0.87**	**156**	*e*PN	**Pn**	**11 08 38.5**	**-0.6**
RLS	**Riolos of Patr**	**0.87**	**156**	*e*Pn	**Pn**	**11 08 38.5**	**-0.6**
AGG	**Agios Georgios**	**1.03**	**80**	*e*Pg	**Pn**	**11 08 41.3**	**-0.1**
AGG				*e*Sg	**Sn**	**11 08 55.9**	**+1.0**
AGG	**Agios Georgios**	**1.03**	**80**	*e*Pg	**Pn**	**11 08 41.3**	**-0.1**
AGG				*e*Sg	**Sn**	**11 08 55.9**	**+1.0**
THL	**Klokotos Trika**	**1.05**	**47**	*e*PN	**Pn**	**11 08 42.2**	**+0.6**
THL				*e*SN	**Sn**	**11 08 57.1**	**+1.8**
THL	**Klokotos Trika**	**1.05**	**47**	*e*Pn	**Pn**	**11 08 42.2**	**+0.6**
THL				*e*Sn	**Sn**	**11 08 57.1**	**+1.8**
KEK	**Kerkira**	**1.28**	**313**	*e*Pb	**Pb**	**11 08 45.7**	**-0.7**
KEK	**Kerkira**	**1.28**	**313**	*e*PB	**Pb**	**11 08 45.7**	**-0.7**
KEK	**Kerkira**	**1.28**	**313**	*e*Pb	**Pb**	**11 08 45.7**	**-0.7**
LKR	**Lokris**	**1.56**	**97**	*e*Pn	**Pn**	**11 08 49.4**	**+0.8**
LKR	**Lokris**	**1.56**	**97**	*e*PN	**Pn**	**11 08 49.4**	**+0.8**
LKR	**Lokris**	**1.56**	**97**	*e*Pn	**Pn**	**11 08 49.4**	**+0.8**
LIT	**Litokhoron**	**1.69**	**42**	*e*Pb	**Pb**	**11 08 51.3**	**-2.0**
LIT	**Litokhoron**	**1.69**	**42**	*e*Pb	**Pb**	**11 08 51.3**	**-2.0**
ITM	**Ithomi**	**1.82**	**157**	*e*Pn	**Pn**	**11 08 53.3**	**+1.1**
ITM	**Ithomi**	**1.82**	**157**	*e*PN	**Pn**	**11 08 53.3**	**+1.1**
ITM	**Ithomi**	**1.82**	**157**	*e*Pn	**Pn**	**11 08 53.3**	**+1.1**
DID	**Didima**	**2.20**	**127**	*e*Pn	**Pn**	**11 08 56.8**	**-0.7**
DID				*e*Sn	**Sn**	**11 09 23.5**	**-0.3**
DID	**Didima**	**2.20**	**127**	*e*Pn	**Pn**	**11 08 56.8**	**-0.7**
DID				*e*Sn	**Sn**	**11 09 23.5**	**-0.2**
KRUS	**Krusevo**	**2.52**	**4**	*e*Pn	**Pn**	**11 09 00.8**	**-1.1**
KRUS				*e*Sn	**Sn**	**11 09 31.0**	**-0.5**
KRUS	**Krusevo**	**2.52**	**4**	*e*Pn	**Pn**	**11 09 00.7**	**-1.1**
KRUS				*e*Sn	**Sn**	**11 09 31.0**	**-0.5**
SG1	**Sgolgore (BA)**	**3.89**	**302**	*e*Pn	**Pn**	**11 09 19.7**	**-0.9**

JMA ***18*** *11:18:14.6±0.3,25.11N×123.66E,h38^{km},M2.9*
IDC ***18*** *11:18:57.5±2.0,1923N×12324E,h0^{km},mb3.5/4, mb1 3.6/4,mb1mx3.4/20,mbtmp3.5/4,Error ellipse: s-maj=176.0km s-min=22.2km az=66.0*
ISC 18 11:18:13.4±2.0,2513N±008×12369E±007,h2^{km}±12^{km},n8, σ0$\overset{s}{.}$44/12,mb3.5/2,Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IRIF	**Iriomote-Funau**	**0.79**	**177**	P	**Pg**	**11 18 29.0**	**+0.4**
IRIF				*e*S	**Sg**	**11 18 39.5**	**+0.7**
JIJ	**Ishigaki jima**	**0.87**	**151**	P	**Pg**	**11 18 29.9**	**-0.1**
JIJ				*e*S	**Sg**	**11 18 40.7**	**-0.6**
YOJ	**Yonaguni jima**	**0.90**	**223**	P	**Pg**	**11 18 30.3**	**-0.4**
JKRS	**Kuro-shima**	**0.93**	**162**	P	**Pg**	**11 18 31.6**	**+0.3**
JKRS				*e*S	**Sg**	**11 18 43.4**	**0.0**
JTJ	**Tarama**	**1.04**	**117**	P	**Pg**	**11 18 33.5**	**+0.1**
JTJ				*e*S	**Sg**	**11 18 47.0**	**+0.1**
HATJ	**Hateruma jima**	**1.07**	**174**	*e*S	**Sg**	**11 18 47.5**	**-0.4**
WRA	**Warramunga Arr**	**45.98**	**166**	P	**P**	**11 26 37.4**	**-0.7**
	0.4nm,0.7s,mb3.5,baz=347,slow=8.7,SNR=6.0						
ASAR	**Alice Springs**	**49.50**	**168**	P	**P**	**11 27 06.1**	**+0.7**
	0.6nm,0.9s,mb3.6,baz=350,slow=6.4,SNR=5.7						

JMA 18 11:19:30.7±0.2,2520N×12389E,h29^{km},M2.9,Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JIJ	**Ishigaki jima**	**0.86**	**165**	P	Pn	11 19 46.7	-0.2
JIJ				*e*S	Sb	11 19 58.1	-0.2
IRIF	**Iriomote-Funau**	**0.87**	**190**	P	Pn	11 19 46.4	-0.6
IRIF				*e*S	Sb	11 19 58.1	-0.5
JTJ	**Tarama**	**0.92**	**127**	*e*S	Sn	11 19 59.2	-0.8
JKRS	**Kuro-shima**	**0.96**	**174**	P	Pn	11 19 47.9	-0.4
JKRS				*e*S	Sn	11 20 01.4	+0.4
YOJ	**Yonaguni jima**	**1.09**	**228**	P	Pn	11 19 50.2	+0.3
HATJ	**Hateruma jima**	**1.14**	**184**	P	Pn	11 19 50.9	+0.2
HATJ				*e*S	Sn	11 20 05.2	-0.2
SONM	**Songino Array**	**26.49**	**333**	P	sP	11 25 23.1	+5.8
	0.5nm,1.0s,baz=140,slow=9.6,SNR=3.6						
MKAR	**Makanchi Array**	**39.37**	**314**	P	P	11 27 00.3	+2.8
	0.2nm,0.3s,baz=103,slow=10,SNR=8.0						

IDC ***18*** *11:52:13.6±2.0,885S×12700E,h0^{km},mb3.5/1,mb1 3.6/4, mb1mx3.4/15,mbtmp3.4/4,ML3.4/3,Error ellipse: s-maj=92.4km s-min=28.8km az=70.0*
ISCJB ***18*** *11:52:16.8±1.4,921S±008×12667E±009,h33^{km},mb3.5/1, Error ellipse: s-maj=12.7km s-min=10.9km az=13.1*
ISC 18 11:52:19.2±1.4,911S±009×12668E±010,h35^{km},n6, σ1$\overset{s}{.}$21/11,mb3.5/1,Timor region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**6.69**	**123**	*e*P	**Pn**	**11 53 55.9**	**+0.8**
	2.2nm,0.3s						
KAKA				*e*S	**Sn**	**11 55 10.2**	**+0.1**
FITZ	**Fitzroy Crossi**	**9.00**	**186**	*e*P	**Pn**	**11 54 29.5**	**+2.8**
	1.8nm,0.2s						
FITZ				*e*S	**Sn**	**11 56 06.6**	**-0.2**
FITZ	**Fitzroy Crossi**	**9.00**	**186**	Pn	**Pn**	**11 54 29.0**	**+2.3**
	0.4nm,0.3s,baz=16,slow=8.2,SNR=34						
FITZ				Sn	**Sn**	**11 56 06.0**	**-0.9**
	0.8nm,0.3s,baz=263,slow=21,SNR=6.4						
WRA	**Warramunga Arr**	**13.07**	**146**	Pn	**Pn**	**11 55 20.4**	**-2.0**
	0.2nm,0.3s,baz=321,slow=13,SNR=14						
WRA				Sn	**Sn**	**11 57 40.4**	**-6.3**
	0.3nm,0.3s,baz=314,slow=25,SNR=11						
ASAR	**Alice Springs**	**16.04**	**155**	Pn	**Pn**	**11 56 02.8**	**+0.6**
	0.1nm,0.3s,baz=331,slow=11,SNR=16						
ASAR				Sn	**Sn**	**11 58 54.6**	**-4.4**
	0.1nm,0.3s,baz=320,slow=15,SNR=4.7						
MKAR	**Makanchi Array**	**68.25**	**329**	P	**P**	**12 03 15.9**	**-0.5**
	0.2nm,0.5s,mb3.5,baz=129,slow=6.9,SNR=3.8						

NEIC ***18*** *11:52:51.9,1994N×6797W,h12^{km},MD3.5(RSPR),After RSPR.*
RSPR 18 11:52:51.9,1994N×6797W,h12^{km}±27^{km},MD3.5/5, MD3.5/5,4C-1D,Mona Passage

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGPR	**Aguadilla, PR**	**1.67**	**151**	⇑*e*P	Pn	11 53 17.3	-3.6
AGPR				*e*S	Sn	11 53 38.4	-3.9
LSP	**Las Mesas**	**1.94**	**154**	⇓*e*P	Pn	11 53 22.4	-2.2
LSP				*e*S	Sn	11 53 45.5	-3.5
AOPR	**Arecibo Observ**	**1.95**	**144**	*e*S	Sn	11 53 45.2	-4.1
CRPR	**Cabo Rojo, PR**	**2.08**	**157**	⇑*e*P	Pn	11 53 23.6	-3.0
CRPR				*e*S	Sn	11 53 48.6	-3.8
CELP	**Cerrillos**	**2.27**	**144**	*e*S	Sn	11 53 53.3	-3.8
CBYP	**Canovanas**	**2.59**	**129**	⇑*e*P	Pn	11 53 30.8	-2.8
CBYP				*e*S	Sn	11 54 01.5	-3.5
HUMP	**Col San Antoni**	**2.68**	**131**	*e*S	Sn	11 54 03.0	-4.3
MTP	**Monte Pirata**	**2.92**	**128**	⇑*e*P	Pn	11 53 36.0	-2.2
MTP				*e*S	Sn	11 54 10.5	-2.8

IDC 18 12:01:17.9±3.3,537S×14749E,h179^{km}±48^{km},mb3.0/4, mb1 3.2/6,mb1mx3.1/14,mbtmp3.1/6,Error ellipse: s-maj=120.1km s-min=26.2km az=106.0,Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**4.03**	**185**	P	Pn	12 02 19.3	0.0
	3.8nm,0.3s,baz=30,slow=8.1,SNR=23						
PMG				S	Sn	12 03 03.7	-3.7
	5.6nm,0.3s,baz=330,slow=21,SNR=13						
WRA	**Warramunga Arr**	**19.33**	**220**	P	P	12 05 29.7	0.0
	0.5nm,0.3s,baz=48,slow=12,SNR=43						
ASAR	**Alice Springs**	**22.41**	**214**	P	P	12 06 02.0	+0.2
	0.8nm,0.5s,baz=52,slow=9.6,SNR=26						
SONM	**Songino Array**	**64.10**	**331**	P	P	12 11 33.9	+1.0
	0.2nm,0.6s,baz=115,slow=6.5,SNR=2.5						
MKAR	**Makanchi Array**	**77.33**	**320**	P	P	12 12 52.5	-0.3
	0.2nm,0.4s,baz=104,slow=4.6,SNR=3.5						
ZALV	**Zalesovo Beam**	**78.74**	**328**	P	P	12 12 59.8	-0.6
	0.3nm,0.3s,baz=111,slow=6.3,SNR=2.7						
TORD	**Torodi Ar. Bea**	**145.41**	**285**	PKPbc	PKPbc	12 20 35.5	-0.4
	0.2nm,0.4s,baz=50,slow=3.4,SNR=2.8						

SZGRF ***18*** *12:02:04.6,25.19S×179.80W,h33^{km},South of Fiji Islands*
BJI ***18*** *12:03:00.7,23.40S×179.39W,h497^{km},mB4.7,mb4.7*
NEIC ***18*** *12:03:01.7±0.9,2370S×17987W,h491^{km}±10^{km},mb4.7/38, Error ellipse: s-maj=8.6km s-min=5.4km az=153.0*
MOS ***18*** *12:03:03.3±3.2,2333S×17985E,h481^{km},mb4.9/19,Error ellipse: s-maj=10.9km s-min=10.2km az=167.2*
ISCJB ***18*** *12:03:04.1±1.0,2386S±005×17998E±004,h526^{km}±12^{km}, mb4.6/58,Error ellipse: s-maj=8.2km s-min=5.2km az=157.9*
BGS ***18*** *12:03:05.0,2370S×17987W,h490^{km},mb4.7(NEIC)*
IDC ***18*** *12:03:05.6±1.1,2370S×17997E,h531^{km}±10^{km},mb4.1/18, mb1 4.2/19,mb1mx4.2/20,mbtmp4.1/19,Error ellipse: s-maj=13.6km s-min=9.7km az=155.0*
ISC 18 12:03:04.8±0.9,2390S±005×17997W±004,h525^{km}±11^{km}, h481^{km}±1.8^{km}:pP-P,n531,σ0$\overset{s}{.}$64/355,mb4.6/58,111C-97D, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**12.60**	**39**	*e*Pn	**P**	**12 05 42.5**	**-7.2**
	167nm,0.6s						
AFI	**Afiamalu**	**12.60**	**39**	*e*P	**P**	**12 05 42.5**	**-7.2**
AFI				pmax	pmax		
	comp=Z,167nm,0.6s						
AFI	**Afiamalu**	**12.60**	**39**	P	**P**	**12 05 42.8**	**-6.9**
	comp=Z,30nm,0.3s,baz=217,slow=10,SNR=61						
AFI				S	**S**	**12 07 53.7**	**-12**
	comp=Z,27nm,0.3s,baz=168,slow=18,SNR=8.2						
DZM	**Mont Dzumac**	**12.65**	**276**	P	**P**	**12 05 52.3**	**+2.1**
	comp=Z,1.1nm,0.3s,baz=85,slow=19,SNR=10						
MXZ	**Matakaoa Point**	**13.70**	**186**	PN	**P**	**12 06 01.7**	**+0.8**
PUZ	**Puketiti**	**14.21**	**186**	*e*PN	**P**	**12 06 07.1**	**+0.9**
URZ	**Urewera**	**14.54**	**189**	P	**P**	**12 06 09.3**	**-0.3**
	comp=Z,6.2nm,0.3s,baz=50,slow=2.5,SNR=42						
URZ				S	**S**	**12 08 42.5**	**+0.6**
	comp=Z,4.5nm,0.3s,baz=11,slow=18,SNR=20						
URZ	**Urewera**	**14.54**	**189**	PN	**P**	**12 06 07.8**	**-1.8**
MWZ	**Matawai**	**14.55**	**188**	PN	**P**	**12 06 10.1**	**+0.3**
BKZ	**Black Stump Fm**	**15.52**	**190**	PN	**P**	**12 06 17.6**	**-2.2**
PXZ	**Pawanui**	**16.31**	**189**	PN	**P**	**12 06 27.4**	**-0.5**
TSZ	**Takapari Road**	**16.48**	**191**	PN	**P**	**12 06 28.9**	**-0.8**
BFZ	**Birch Farm**	**17.04**	**190**	PN	**P**	**12 06 34.4**	**-0.5**
MRZ	**Mangatainoka R**	**17.13**	**192**	PN	**P**	**12 06 33.2**	**-2.6**
CAW	**Cannon Point**	**17.66**	**192**	PN	**P**	**12 06 40.0**	**-0.6**
SNZO	**South Karori**	**17.93**	**193**	*e*P	**P**	**12 06 42.4**	**-0.6**
	comp=Z,23nm,0.5s						
SNZO	**South Karori**	**17.93**	**193**	PN	**P**	**12 06 42.8**	**-0.3**
QRZ	**Quartz Range**	**18.02**	**199**	*e*PN	**P**	**12 06 44.9**	**+1.0**
NNZ	**Nelson**	**18.15**	**196**	*e*PN	**P**	**12 06 44.7**	**-0.4**
NNZ				*e*SN	**S**	**12 09 41.6**	**-2.9**
TUWZ	**Tuamarina**	**18.21**	**195**	PN	**P**	**12 06 45.1**	**-0.5**
THZ	**Tophouse**	**18.78**	**197**	PN	**P**	**12 06 51.3**	**+0.4**
THZ				*e*SN	**S**	**12 09 52.5**	**-2.3**
RAR	**Rarotonga**	**18.84**	**86**	P	**P**	**12 06 49.4**	**-2.3**
	comp=Z,2.5nm,0.3s,baz=235,slow=8.6,SNR=4.6						
DSZ	**Denniston Nort**	**19.08**	**199**	*e*PN	**P**	**12 06 54.4**	**+0.9**
KHZ	**Kahutara**	**19.24**	**195**	PN	**P**	**12 06 54.4**	**-0.6**
LTZ	**Lake Taylor**	**19.90**	**197**	PN	**P**	**12 07 00.7**	**-0.4**
WVZ	**Waitaha Valley**	**20.61**	**200**	PN	**P**	**12 07 07.5**	**0.0**
RPZ	**Rata Peaks**	**21.10**	**198**	P	**P**	**12 07 11.3**	**-0.6**
	comp=Z,20nm,0.5s,mb5.0,baz=24,slow=9.0,SNR=34						
JCZ	**Jackson Bay**	**22.15**	**202**	PN	**P**	**12 07 21.6**	**+0.2**
HNR	**Honiara**	**23.97**	**304**	*e*P	**P**	**12 07 36.5**	**-1.5**
	comp=Z,98nm,0.8s,mb5.5						

HNR	Honiara	23.97	304	eP	P	12 07 36.5	-1.5
HNR				pmax	pmax		
	comp=Z,98nm,0.8s,mb5.5						
HNR	Honiara	23.97	304	P	P	12 07 36.0	-2.0
	comp=Z,100nm,0.6s,mb5.6,baz=129,slow=8.9,SNR=9.2						
WHZ	Wether Hill Ro	24.03	201	PN	P	12 07 38.0	-0.1
CNB	Canberra Magne	28.88	240	⇑iP	P	12 08 23.1	+2.2
	comp=Z,38nm,1.0s,mb5.0						
CTA	Charters Tower	31.50	270	⇓iP	P	12 08 44.8	+1.0
	comp=Z,47nm,0.6s,mb5.2						
CTA				ePCP	PcP	12 11 21.0	+0.2
CTA				eS	S	12 13 13.7	-1.3
CTA	Charters Tower	31.50	270	⇓iP	P	12 08 44.8	+1.0
CTA				e		12 11 21.0	
CTA				eS	S	12 13 13.7	-1.3
CTA				pmax	pmax		
	comp=Z,47nm,0.6s						
CTA	Charters Tower	31.50	270	P	P	12 08 44.8	+1.0
	comp=Z,50nm,0.5s,mb5.3,baz=96,slow=10,SNR=129						
CTA				PcP	PcP	12 11 20.9	+0.1
	comp=Z,12nm,1.0s,baz=107,slow=4.4,SNR=3.7						
CTAO	Charters Tower	31.50	270	eP	P	12 08 44.4	+0.6
	comp=Z,52nm,0.5s,mb5.3						
CTAO				ePcP	PcP	12 11 21.5	+0.6
CTAO	Charters Tower	31.50	270	eP	P	12 08 44.4	+0.6
CTAO				e		12 11 21.5	
CTAO				pmax	pmax		
	comp=Z,51nm,0.5s,mb5.3						
TOO	Toolangi	32.47	237	⇑iP	P	12 08 53.5	+1.7
	comp=Z,22nm,0.5s,mb4.9						
TOO	Toolangi	32.47	237	⇑iP	P	12 08 53.5	+1.7
TOO				pmax	pmax		
	comp=Z,22nm,0.5s,mb4.9						
TAU	Tasmania Unive	32.96	227	eP	P	12 08 57.3	+1.4
	comp=Z,25nm,0.5s,mb5.0						
TAU	Tasmania Unive	32.96	227	eP	P	12 08 57.3	+1.5
TAU				pmax	pmax		
	comp=Z,25nm,0.5s,mb5.0						
PMG	Port Moresby	34.52	289	eP	P	12 09 08.8	-0.6
	comp=Z,94nm,0.7s,mb5.4						
PMG	Port Moresby	34.52	289	d iP	P	12 09 09.2	-0.2
PMG	Port Moresby	34.52	289	P	P	12 09 09.3	-0.1
	comp=Z,98nm,0.7s,mb5.5,baz=104,slow=4.1,SNR=40						
STKA	Stephens Creek	34.75	248	⇑iP	P	12 09 12.4	+1.3
	comp=Z,5.9nm,0.4s,mb4.5						
STKA	Stephens Creek	34.75	248	P	P	12 09 12.4	+1.4
	comp=Z,7.1nm,0.4s,mb4.5,baz=91,slow=10,SNR=34						
ASAR	Alice Springs	42.06	261	P	P	12 10 11.1	+0.5
	comp=Z,11nm,0.5s,mb4.7,baz=97,slow=7.4,SNR=279						
ASAR				ScP	ScP	12 14 56.7	+2.8
	comp=Z,3.8nm,0.6s,baz=109,slow=4.2,SNR=12						
ASAR				S	S	12 15 51.3	-0.7
	comp=Z,2.8nm,0.8s,baz=95,slow=15,SNR=10.0						
WB2	Warramunga Arr	42.42	266	eP	P	12 10 13.2	-0.3
WB2				eS	S	12 15 53.9	-3.3
WRA	Warramunga Arr	42.43	266	P	P	12 10 13.3	-0.3
WRA						12 11 54.7	
WRA				S	S	12 15 54.7	-2.7
WRA	Warramunga Arr	42.43	266	P	P	12 10 13.3	-0.3
	comp=Z,21nm,0.5s,mb4.9,baz=103,slow=8.2,SNR=271						
WRA				PcP	PcP	12 11 54.7	0.0
	comp=Z,3.8nm,0.9s,baz=103,slow=3.6,SNR=6.0						
WRA				ScP	ScP	12 14 58.2	+2.8
	comp=Z,0.8nm,0.6s,baz=95,slow=3.7,SNR=3.6						
WRA				S	S	12 15 54.7	-2.7
	comp=Z,6.3nm,0.8s,baz=98,slow=14,SNR=20						
KAKA	Kakadu	46.34	275	⇓iP	P	12 10 43.1	-0.7
	comp=Z,32nm,0.6s,mb5.0						
FORT	Forrest	46.34	250	⇑iP	P	12 10 43.5	-0.1
	comp=Z,77nm,0.6s,mb5.4						
GUMO	Guam	50.69	314	eP	P	12 11 14.9	-1.1
	comp=Z,77nm,0.6s,mb5.2						
GUMO	Guam	50.69	314	eP	P	12 11 14.9	-1.2
GUMO				pmax	pmax		
	comp=Z,77nm,0.6s,mb5.2						
GUMO	Guam	50.69	314	P	P	12 11 15.3	-0.8
	comp=Z,82nm,0.6s,mb5.3,baz=171,slow=12,SNR=9.4						
FITZ	Fitzroy Crossi	50.86	266	eP	P	12 11 17.6	+0.3
	comp=Z,22nm,0.6s,mb4.7						
FITZ				eS	S	12 17 54.9	+0.3
FITZ	Fitzroy Crossi	50.86	266	P	P	12 11 17.7	+0.4
	comp=Z,13nm,0.7s,mb4.4,baz=120,slow=7.2,SNR=56						
VNDA	Vanda	54.39	185	P	P	12 11 43.5	+1.8
VNDA	Vanda	54.39	185	P	P	12 11 43.5	+1.8
	comp=Z,5.1nm,0.8s,mb3.9,baz=313,slow=9.0,SNR=5.9						
KLBR	Kellerberrin	55.02	247	eP	P	12 11 47.1	+0.3
	comp=Z,25nm,1.0s,mb4.4						
NWAO	Narrogin (SRO)	55.26	246	P	P	12 11 48.0	-0.5
	comp=Z,3.3nm,0.4s,mb3.9,baz=120,slow=5.3,SNR=9.2						
MBWA	Marble Bar	55.40	260	eP	P	12 11 49.3	-0.4
	comp=Z,10nm,0.6s,mb4.2						
MUN	Mundaring	56.26	247	eP	P	12 11 56.1	+0.6
MJAR	Matsushiro Arr	71.91	326	P	P	12 13 33.4	-1.3
MJAR	Matsushiro Arr	71.91	326	P	P	12 13 33.4	-1.3
	comp=Z,11nm,0.8s,mb4.3,baz=160,slow=5.6,SNR=32						
MAJO	Matsushiro	71.91	326	eP	P	12 13 34.0	-0.8
	comp=Z,15nm,0.9s,mb4.4						
MAJO	Matsushiro	71.91	326	eP	P	12 13 34.0	-0.8
MAJO				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.4						
MAT	Matsushiro	71.91	326	P	P	12 13 33.5	-1.3
MAW	Mawson	77.76	200	P	P	12 14 08.7	+1.6
	comp=Z,4.5nm,0.5s,mb4.0,baz=75,slow=7.3,SNR=9.5						
YSS	Yuzh-Sakhalins	78.14	335	eP	P	12 14 09.6	+0.2
	comp=Z,19nm,0.6s,mb4.6						
YSS	Yuzh-Sakhalins	78.14	335	⇓eP	P	12 14 09.1	-0.3
YSS				pmax	pmax		
	comp=Z,30nm,0.9s,mb4.6						
KSRS	Korea Array	78.26	320	P	P	12 14 10.3	0.0
	comp=Z,6.8nm,0.7s,mb4.1,baz=130,slow=6.1,SNR=29						
KS15	Wonju Array Si	78.28	320	eP	P	12 14 10.7	+0.3
NJ2	Nanjing	80.68	311	eP	P	12 14 23.8	+0.6
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.7						
HAST	UC Hastings Re	81.44	44	⇑P	P	12 14 27.2	+0.2
	baz=82						
CIS	Catalina Islan	81.73	48	⇑P	P	12 14 27.7	-0.9
	baz=82						
U04C	Hernandez Rese	81.91	44	⇓P	P	12 14 29.6	+0.2
	baz=82						
FMP	Fort Macarthur	81.98	48	⇑P	P	12 14 29.6	-0.2
	baz=82						
PACP	Pacheco Peak	81.99	44	⇓P	P	12 14 29.6	-0.2
	baz=82						
S04C	Ingram Canyon,	82.27	43	⇓P	P	12 14 31.3	+0.1
	baz=82						
MDJ	Mudanjiang	82.28	326	P	P	12 14 31.3	+0.3
MDJ				PP	PP	12 17 46.5	-3.1
MDJ				S	S	12 24 02.1	-0.9
MDJ				SS	SS	12 29 34.8	-4.4
MDJ				AMB	AMB		
	comp=Z,18nm,0.9s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,63nm,4.5s						
MDJ	Mudanjiang	82.28	326	eP	P	12 14 31.1	0.0
	comp=Z,8.5nm,0.7s,mb4.3						
MNRC	McLaughlin Nat	82.43	42	⇓P	P	12 14 32.1	+0.2
	baz=82						
ARVC	Arvin	82.45	46	⇓P	P	12 14 32.3	+0.1
	baz=82						
HABR	Khabarovsk	82.52	332	⇓iP	P	12 14 31.6	-0.6
HABR				e*PP	pP	12 16 17.5	-8.4
HABR				e		12 17 06.7	
HABR				e		12 17 50.6	
HABR				i		12 19 46.3	
HABR				eS	S	12 24 05.4	+0.1
HABR				eSS	SS	12 29 42.9	+0.3
HABR				pmax	pmax		
	comp=Z,44nm,1.6s,mb4.7						
Q03C	Winters	82.54	42	⇓P	P	12 14 32.8	+0.3
	baz=83						
MURC	Murrieta	82.66	48	⇓P	P	12 14 33.2	-0.1
	baz=83						
VES	Vestal, Richgr	82.70	46	⇑P	P	12 14 32.8	-0.6
	baz=83						
BFSC	Mount Baldy St	82.72	48	P	P	12 14 33.1	-0.4
	baz=83,SNR=8.2						
GASB	Alder Springs	82.75	41	⇓P	P	12 14 34.7	+1.1
	baz=83						
S05C	Merced	82.80	44	⇓P	P	12 14 33.7	-0.2
	baz=83						
MONP	Monument Peak	82.80	49	P	P	12 14 34.2	+0.2
	baz=83,SNR=9.6						
EDW2	Edwards Air Fo	82.86	47	P	P	12 14 34.0	-0.3
	baz=83,SNR=6.0						
DVTC	Desert V Tower	82.89	50	⇑P	P	12 14 34.6	+0.2
	baz=83						
T06C	Millerton Lake	82.99	44	P	P	12 14 34.6	-0.3
	baz=83,SNR=6.7						
ISA	Isabella	83.00	46	P	P	12 14 34.9	-0.1
	baz=83,SNR=15						
PSI	Prapat	83.00	276	P	P	12 14 34.0	-1.5
	comp=Z,8.0nm,0.7s,mb4.3,baz=144,slow=7.0,SNR=6.2						
WHN	Wuhan	83.02	308	⇓P	P	12 14 35.4	+0.3
WHN				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.9						
SYO	Syowa Base	83.02	193	⇑eP	P	12 14 34.2	-0.3
SYO	Syowa Base	83.02	193	⇑ePcP	PcP	12 14 38.0	+0.2
SYO	Syowa Base	83.02	193	⇓epP	pP	12 16 22.0	-6.3
SYO	Syowa Base	83.02	193	⇓ePP	PP	12 17 55.0	+0.9
O02C	Red Bluff	83.04	40	⇑P	P	12 14 35.4	+0.4
	baz=83						
Q04C	Lincoln	83.05	42	⇓P	P	12 14 35.3	+0.2
	baz=83						
CMB	Columbia Colle	83.18	43	eP	P	12 14 35.2	-0.6
	comp=Z,6.6nm,0.7s,mb4.3						
CMB	Columbia Colle	83.18	43	eP	P	12 14 35.2	-0.6
CMB				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.3						
CMB	Columbia Colle	83.18	43	P	P	12 14 35.6	-0.1
	baz=83,SNR=7.1						
PFO	Pinyon Flat Ob	83.18	49	⇓P	P	12 14 35.8	-0.1
	baz=83						
HELL	Mitchell Peak,	83.24	45	P	P	12 14 35.4	-0.7
	baz=83,SNR=6.6						
SWSC	Sam W. Stewart	83.26	50	⇑P	P	12 14 36.5	+0.2
	baz=83						
OHCM	Honcut	83.30	42	eP	P	12 14 35.9	-0.4
LAVA	Lava Cap Winer	83.40	43	⇓P	P	12 14 36.2	-0.6
	baz=83						
LRMC	Laurel Mountai	83.41	47	P	P	12 14 36.8	-0.2
	baz=83,SNR=5.4						
ORV	Oroville	83.42	42	P	P	12 14 36.3	-0.7
	baz=84,SNR=8.6						
S06C	San Francisco	83.42	44	⇑P	P	12 14 36.7	-0.3
	baz=83						
KCC	Kaiser Creek	83.43	44	⇓P	P	12 14 37.1	+0.1
	baz=84						
WDC	Whiskeytown Da	83.44	40	⇑P	P	12 14 37.1	+0.1
	baz=84						
RRX	Edison Barstow	83.53	47	⇓P	P	12 14 36.4	-1.2
	baz=84						
CWC	Cottonwood Cre	83.71	46	⇓P	P	12 14 38.6	+0.2
	baz=84						
BELC	Belle Mtn.	83.72	49	P	P	12 14 38.6	+0.1
	baz=84,SNR=11						
M02C	Callahan	83.77	39	⇓P	P	12 14 38.6	0.0
	baz=84						
R05C	Kirkwood Meado	83.78	43	⇑P	P	12 14 38.9	+0.1
	baz=84						
P05C	Yuba Gap, Truc	83.81	42	P	P	12 14 39.1	+0.3
	baz=84,SNR=7.1						
MPMC	Manual Prospec	83.88	46	⇑P	P	12 14 39.3	0.0
	baz=84						
BC3	Big Chuckw Mtn	83.90	49	⇑P	P	12 14 39.2	-0.2
	baz=84						
CN2	Changchun	83.90	324	⇓P	P	12 14 38.8	-0.4
CN2				eAP	pP	12 16 26.8	-6.6
CN2				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.8						
GSC	Goldstone	83.90	47	P	P	12 14 39.5	0.0
	baz=84,SNR=6.7						
HEC	Hector,Ludlow	83.95	48	⇓P	P	12 14 39.6	-0.1
	baz=84						
GLA	Glamis	84.00	50	P	P	12 14 40.7	+0.8
	baz=84,SNR=6.4						
O05C	Quincy	84.03	42	⇓P	P	12 14 40.0	0.0
	baz=84						
R07C	Lee Vining	84.06	44	⇓P	P	12 14 40.7	+0.6
	baz=84						
R06C	Coleville	84.06	43	⇓P	P	12 14 40.5	+0.4
	baz=84						
YBH	Yreka Blue Hor	84.06	39	⇓P	P	12 14 40.8	+0.7
	baz=84						
M03C	McCloud	84.12	40	⇓P	P	12 14 40.4	+0.1
	baz=84						
O04C	Chester	84.14	41	⇑P	P	12 14 40.3	-0.2
	baz=84						
HATC	Hat Creek Radi	84.22	41	⇓P	P	12 14 41.1	+0.2
	baz=84						
S08C	White Mtn Res	84.27	45	⇑P	P	12 14 41.4	+0.2
	baz=84						
K02A	Glendale	84.28	38	⇑P	P	12 14 41.6	+0.5
	baz=84						
BEKR	Beckwourth	84.31	42	⇓P	P	12 14 41.6	+0.3
	baz=84						
WCN	Washoe City	84.34	43	⇑P	P	12 14 41.9	+0.5
	baz=84						
GMRC	Granite Mounta	84.38	48	P	P	12 14 41.8	0.0
	baz=84,SNR=5.1						
IRM	Iron Mountain	84.39	49	P	P	12 14 42.3	+0.5
	baz=84,SNR=5.1						
HUMO	Hull Mountain	84.48	38	⇓P	P	12 14 43.0	+0.9
	baz=84						
GRAC	Grapevine Rang	84.50	46	⇑P	P	12 14 42.8	+0.5
	baz=84						
KLR	Kul'dur	84.54	331	eP	P	12 14 38.1	-4.1
TUQ	Turquoise Mtn.	84.57	48	P	P	12 14 42.4	-0.3
	baz=85,SNR=5.2						
Y12C	Blythe	84.60	50	⇑P	P	12 14 42.6	-0.2
	baz=85						
M04C	Macdoel	84.60	40	⇓P	P	12 14 43.6	+0.9
	baz=85						
J02A	Umpqua	84.61	38	⇓P	P	12 14 43.5	+0.8
	baz=85						
NVAR	Mina Array Bea	84.73	44	P	P	12 14 42.9	-0.5
NVAR	Mina Array Bea	84.73	44	P	P	12 14 42.9	-0.5
	comp=Z,2.5nm,0.7s,mb3.9,baz=233,slow=9.7,SNR=19						
M05C	Lookout	84.75	40	P	P	12 14 43.7	+0.2
	baz=85,SNR=5.5						
R08A	Mina	84.81	44	⇑P	P	12 14 44.2	+0.4
	baz=85						
O06A	Flanigan	84.81	42	⇑P	P	12 14 43.7	-0.1
	baz=85						
L04A	Klamath Falls	84.82	39	⇓P	P	12 14 44.3	+0.6
	baz=85						
U10A	Ash Meadows, A	84.85	47	⇑P	P	12 14 44.2	+0.2
	baz=85						
S09A	Goldfield	85.01	45	⇓P	P	12 14 44.6	-0.2
	baz=85						
M06C	Likely Place G	85.05	41	⇓P	P	12 14 44.8	-0.1
	baz=85						
Y13A	Salome	85.12	50	P	P	12 14 45.8	+0.4
	baz=85,SNR=12						
V11A	Goodsprings	85.13	47	⇓P	P	12 14 45.4	0.0
	baz=85						
N06A	Buffalo Meadow	85.16	41	⇓P	P	12 14 45.5	+0.1
	baz=85						
PDMCI	Parker Dam,Lak	85.16	49	P	P	12 14 45.7	0.0
	baz=85,SNR=7.0						
W12A	Cal Nev Ari	85.21	48	⇓P	P	12 14 45.7	-0.2
	baz=85						
Q08A	Gabbs	85.22	44	P	P	12 14 45.1	-0.6
	baz=85,SNR=5.8						
L05A	Lakeview	85.36	40	⇓P	P	12 14 47.5	+1.2
	baz=85						
J04A	Umpqua Nationa	85.36	38	⇓P	P	12 14 47.1	+0.8
	baz=85						
O07A	Toulon	85.39	42	P	P	12 14 46.5	-0.1
	baz=85,SNR=7.0						
R09A	Tonopah	85.41	45	⇓P	P	12 14 46.2	-0.5
	baz=85						
V12A	Nelson	85.46	48	⇑P	P	12 14 46.6	-0.5
	baz=86						
U11A	Corn Creek	85.49	47	⇓P	P	12 14 47.3	+0.2
	baz=86						
Z14A	Wintersburg	85.50	51	⇓P	P	12 14 47.4	+0.2
	baz=86						
S10A	Tonopah Range,	85.53	45	P	P	12 14 47.1	-0.3
	baz=86,SNR=12						
X13A	Yucca	85.54	49	⇓P	P	12 14 47.5	+0.1
	baz=86						
I04A	Tendick Farm,	85.54	38	⇑P	P	12 14 47.2	0.0
	baz=86						
MOD	Modoc	85.58	40	eP	P	12 14 47.7	+0.2
MOD	Modoc	85.58	40	⇑P	P	12 14 47.9	+0.4
	baz=86						
115A	Sonoran Desert	85.66	51	⇑P	P	12 14 48.5	+0.4
	baz=86						
N07B	Gerlach	85.70	42	⇑P	P	12 14 47.8	-0.2
	baz=86						
K05A	Summer Lake	85.74	39	⇑P	P	12 14 49.1	+0.9
	baz=86						
Y14A	Wickenburg	85.76	50	⇓P	P	12 14 48.7	+0.2
	baz=86						
W13A	Hualapai Mount	85.77	49	⇓P	P	12 14 48.8	+0.2
	baz=86						
J05A	Fort Rock	85.89	39	P	P	12 14 49.5	+0.6
	baz=86,SNR=5.3						
S11A	Rachel	85.93	46	⇓P	P	12 14 49.1	-0.1
	baz=86						
R10A	Warm Springs	85.93	45	⇓P	P	12 14 49.0	-0.2
	baz=86						
116A	Eloy	85.96	52	⇓P	P	12 14 49.8	+0.3
	baz=86						
U12A	Valley of Fire	86.06	47	P	P	12 14 50.3	+0.4
	baz=86,SNR=5.1						
X14A	Yava	86.12	50	⇓P	P	12 14 50.8	+0.5
	baz=86						
K06A	Valley Falls	86.16	40	P	P	12 14 50.9	+0.7
	baz=86,SNR=5.1						
Q10A	Clear Creek Ra	86.17	45	⇓P	P	12 14 50.5	+0.1
	baz=86						
L07A	Adell	86.22	41	⇑P	P	12 14 50.9	+0.4
	baz=86						
W14A	Seligman	86.39	49	⇓P	P	12 14 52.0	+0.5
	baz=86						
I05A	Bend	86.41	38	⇑P	P	12 14 51.7	+0.3
	baz=86						
O09A	Fish Creek Ran	86.44	43	⇑P	P	12 14 51.8	+0.2
	baz=86						
M08A	Happy Creek Ra	86.46	41	⇓P	P	12 14 52.0	+0.4
	baz=86						
J06A	Christmas Vall	86.49	39	⇑P	P	12 14 51.9	+0.1
	baz=86						
TUC	Tucson	86.49	52	eP	P	12 14 52.5	+0.4
	comp=Z,4.9nm,0.7s,mb4.2						
TUC	Tucson	86.49	52	eP	P	12 14 52.5	+0.5
TUC				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.2						
MA2	Magadan	86.58	346	eP	P	12 14 50.4	-1.4
	comp=Z,22nm,0.9s,mb4.8						
MA2	Magadan	86.58	346	eP	P	12 14 50.4	-1.3
MA2				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.8						
P10A	Eureka	86.59	44	⇑P	P	12 14 52.3	0.0
	baz=87						
X15A	Humboldt	86.59	50	⇓P	P	12 14 52.7	+0.2
	baz=87						
N09A	Rock Creek Ran	86.63	42	⇑P	P	12 14 52.4	-0.1
	baz=87						
Q11A	Duckwater	86.67	45	⇓P	P	12 14 52.8	+0.1
	baz=87						
K07A	Rock Creek Ran	86.68	40	P	P	12 14 53.3	+0.7
	baz=87,SNR=5.5						
H05A	Madras	86.74	38	⇓P	P	12 14 53.2	+0.3
	baz=87						
GYA	Guiyang	86.77	301	P	P	12 14 54.8	+1.3
GYA				AP	pP	12 16 42.8	-5.8
GYA				XP	sP	12 17 30.9	-11
GYA				PP	PP	12 18 28.3	+2.4
GYA				SKS		12 24 34.4	
GYA				S	S	12 24 51.4	+4.0
GYA				PS	PS	12 27 02.0	-2.3
GYA				XS	sS	12 28 01.4	-11
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
GYA				AMB	AMB		
	comp=Z,60nm,5.4s						
T13A	Saint George	86.80	47	⇑P	P	12 14 53.4	0.0
	baz=87						
I06A	Prineville	86.88	39	P	P	12 14 54.1	+0.6
	baz=87,SNR=7.8						
F04A	Amboy	86.89	36	⇓P	P	12 14 54.4	+0.8
	baz=87						
L08A	Fields	86.92	41	⇑P	P	12 14 53.7	-0.1
	baz=87						
BJT	Baijiatuau	87.04	316	eP	P	12 14 54.5	+0.1
	comp=Z,9.7nm,0.8s,mb4.5						
BJT	Baijiatuau	87.04	316	eP	P	12 14 54.5	+0.1
BJT				pmax	pmax		
	comp=Z,10.0nm,0.8s						
BJI	Beijing	87.05	316	P	P	12 14 54.3	-0.1
BJI				AMB	AMB		
	comp=Z,14nm,0.7s,mb4.7						
J07A	Hines	87.05	40	⇓P	P	12 14 54.5	+0.1
	baz=87						
R12A	Pony Springs,	87.06	46	⇑P	P	12 14 54.5	-0.1
	baz=87						
K08A	Mann Creek Ran	87.15	40	P	P	12 14 55.0	+0.1
	baz=87,SNR=12						
L09A	Wilkinson Ranc	87.23	41	⇑P	P	12 14 55.5	+0.2
	baz=87						
H06A	Lindquist Farm	87.29	38	P	P	12 14 55.6	+0.1
	baz=87,SNR=6.5						
Q12A	Willow Creek R	87.31	45	⇑P	P	12 14 55.3	-0.4
	baz=87						
I07A	Izee	87.37	39	P	P	12 14 56.2	+0.4
	baz=87,SNR=7.7						
F05A	White Salmon	87.38	37	⇑P	P	12 14 56.1	+0.2
	baz=87						
T14A	Hurricane	87.38	47	⇓P	P	12 14 56.4	+0.3
	baz=87						
O11A	Cowboy Ranch,	87.39	44	⇓P	P	12 14 56.2	+0.1
	baz=87						
G06A	Carlson Farm,	87.43	37	⇑P	P	12 14 56.0	-0.1
	baz=88						
P12A	McGill	87.50	45	⇓P	P	12 14 56.7	+0.1
	baz=88						
SLKM	Skilak Lake	87.52	14	eP	P	12 14 54.7	-1.4
J08A	Circle Bar Ran	87.53	40	⇓P	P	12 14 56.9	+0.3
	baz=88						
K09A	Rome	87.59	41	P	P	12 14 57.2	+0.2
	baz=88,SNR=12						
M10A	I.L. Ranch, Tu	87.63	42	⇓P	P	12 14 57.6	+0.5
	baz=88						
E05A	Randle	87.64	36	⇓P	P	12 14 57.3	+0.3
	baz=88						
H07A	Lands Inn, Kim	87.64	38	P	P	12 14 57.3	+0.2
	baz=88,SNR=8.6						
F06A	Goldendale	87.68	37	⇑P	P	12 14 57.3	+0.1
	baz=88						
S14A	Cedar City	87.70	47	⇓P	P	12 14 57.5	-0.1
	baz=88						
C04A	Brinnon	87.73	35	⇓P	P	12 14 57.8	+0.3
	baz=88						
WUAZ	Wupatki	87.73	49	⇑P	P	12 14 58.2	+0.4
	baz=88						
I08A	Drewsey	87.81	39	P	P	12 14 57.8	-0.1
	baz=88,SNR=11						
J09A	Fry Pan Ranch,	87.95	40	P	P	12 14 58.6	0.0
	baz=88,SNR=7.2						
L10A	Juniper Basin	87.99	42	P	P	12 14 59.0	+0.2
	baz=88,SNR=12						
G07A	Ruggs Ranch, H	87.99	38	⇑P	P	12 14 58.8	0.0
	baz=88						
M11A	Holland Ranch,	88.04	43	P	P	12 14 59.6	+0.5
	baz=88,SNR=6.0						
E06A	Yakima	88.05	36	⇑P	P	12 14 59.4	+0.4
	baz=88						
H08A	Prairie City	88.11	39	⇓P	P	12 14 59.3	0.0
	baz=88						
K10A	MacKenzie Ranc	88.15	41	P	P	12 14 59.8	+0.2
	baz=88,SNR=5.8						
N12A	Clover Valley,	88.18	43	P	P	12 14 59.7	-0.1
	baz=88,SNR=5.5						
F07A	Phinny Hill Vi	88.23	37	⇑P	P	12 14 59.9	+0.1
	baz=88						
I09A	Lost Marbles R	88.33	40	P	P	12 15 00.2	-0.1
	baz=88,SNR=6.5						
C05A	Tolt Reservoir	88.39	35	⇑P	P	12 15 00.7	+0.1
	baz=88						
G08A	Pilot Rock	88.41	38	P	P	12 15 00.9	+0.3
	baz=88,SNR=9.1						
L11A	Cat Creek Ranc	88.48	42	P	P	12 15 01.2	+0.1
	baz=88,SNR=10						
D06A	Cle Elum	88.53	36	⇑P	P	12 15 01.3	+0.1
	baz=89						
B05A	Bryant	88.53	34	⇓P	P	12 15 01.5	+0.3
	baz=89						
M12A	Wells	88.57	43	⇑P	P	12 15 01.6	0.0
	baz=89						
J10A	Berg Farm, Mel	88.58	41	⇓P	P	12 15 01.7	+0.1
	baz=89						
K11A	Parker Ranch,	88.65	41	⇓P	P	12 15 01.8	-0.1
	baz=89						
E07A	Sunnyside	88.67	37	P	P	12 15 02.1	+0.2
	baz=89,SNR=7.2						
PMR	Palmer	88.73	14	eP	P	12 15 00.1	-1.7
	comp=Z,6.8nm,0.8s,mb4.5						
PMR	Palmer	88.73	14	eP	P	12 15 00.1	-1.7
PMR				pmax	pmax		

	comp=Z,7.0nm,0.8s,mb4.5						
XAN	**Xi'an**	**88.76**	**308**	P	**P**	**12 15 03.1**	**+0.5**
XAN				AMB	AMB		
	comp=Z,22nm,0.7s,mb5.1						
H09A	**Durkee**	**88.78**	**39**	⇓P	**P**	**12 15 02.3**	**-0.1**
	baz=89						
F08A	**Pendleton**	**88.81**	**38**	⇑P	**P**	**12 15 02.7**	**+0.2**
	baz=89						
L12A	**House Creek Ra**	**88.92**	**42**	P	**P**	**12 15 03.3**	**+0.1**
	baz=89,SNR=8.8						
I10A	**Payette**	**88.94**	**40**	⇑P	**P**	**12 15 03.3**	**+0.1**
	baz=89						
D07A	**Quincy**	**89.00**	**36**	⇑P	**P**	**12 15 03.9**	**+0.5**
	baz=89						
M13A	**Montello**	**89.01**	**43**	P	**P**	**12 15 03.5**	**-0.1**
	baz=89,SNR=6.0						
G09A	**Cove**	**89.07**	**39**	⇑P	**P**	**12 15 03.8**	**0.0**
	baz=89						
BMO	**Blue Mountains**	**89.09**	**39**	*e*P	**P**	**12 15 03.8**	**-0.1**
MFID	**Camas Ranch**	**89.14**	**41**	P	**P**	**12 15 03.9**	**-0.2**
	baz=89,SNR=7.3						
DUG	**Dugway**	**89.24**	**45**	⇑P	**P**	**12 15 04.8**	**+0.1**
	baz=89						
F09A	**S2 Ranch, Elgi**	**89.25**	**38**	⇓P	**P**	**12 15 04.6**	**0.0**
	baz=89						
C07A	**Waterville**	**89.25**	**36**	⇑P	**P**	**12 15 04.2**	**-0.3**
	baz=89						
K12A	**Draper Farm, C**	**89.26**	**42**	P	**P**	**12 15 04.6**	**-0.1**
	baz=89,SNR=6.8						
H10A	**Noah's Angus R**	**89.26**	**40**	P	**P**	**12 15 04.3**	**-0.4**
	baz=89,SNR=6.9						
SEY	**Seymchan**	**89.27**	**348**	⇓*e*P	**P**	**12 15 02.3**	**-2.0**
KMI	**Kunming**	**89.28**	**298**	P	**P**	**12 15 06.4**	**+1.1**
KMI				AP	pP	12 16 55.3	-5.8
KMI				XP	sP	12 17 43.4	-11
KMI				PP	PP	12 18 48.8	+3.0
KMI				PPP		12 20 50.8	
KMI				S	S	12 25 13.6	+2.9
KMI				XS	sS	12 28 25.8	-12
KMI				AMB	AMB		
	comp=Z,9.0nm,1.2s,mb4.5						
KMI				AMB	AMB		
	comp=Z,75nm,5.1s						
KMI	**Kunming**	**89.28**	**298**	P	**P**	**12 15 06.4**	**+1.1**
	comp=Z,9.0nm,1.2s,mb4.5						
KMI				pP	pP	12 16 55.2	-5.9
KMI				sP	sP	12 17 43.4	-11
KMI				PP	PP	12 18 48.7	+2.9
KMI				PPP		12 20 50.7	
KMI				S	S	12 25 13.6	+2.9
KMI				sS	sS	12 28 25.8	-12
KMI				SS	SS	12 31 27.5	+6.0
KMI				SSS		12 35 04.1	
KMI				LR	LR		
	comp=Z,170nm,21.7s						
KMI	**Kunming**	**89.28**	**298**	P	**P**	**12 15 06.4**	**+1.1**
KMI				*PP	pP	12 16 55.2	-5.9
KMI				*SP	sP	12 17 43.4	-11
KMI						12 18 48.7	
KMI				PPP		12 20 50.7	
KMI				S	S	12 25 13.6	+2.9
KMI				SS	SS	12 31 27.5	+6.0
KMI				SSS		12 35 04.1	
KMI				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.5						
KMI				MLR	MLR		
	comp=Z,170nm,21.7s						
I11A	**Placerville**	**89.34**	**41**	P	**P**	**12 15 04.8**	**-0.3**
	baz=89,SNR=7.4						
A06A	**Chilliwack**	**89.38**	**34**	⇑P	**P**	**12 15 05.0**	**-0.1**
	baz=89						
D08A	**Wollman Farm,**	**89.48**	**37**	⇓P	**P**	**12 15 05.7**	**+0.1**
	baz=90						
J12A	**Stokes Ranch,**	**89.48**	**41**	P	**P**	**12 15 06.2**	**+0.4**
	baz=90,SNR=14						
L13A	**Double Diamond**	**89.55**	**43**	⇓P	**P**	**12 15 06.1**	**0.0**
	baz=90						
M14A	**Sheep Mountain**	**89.61**	**44**	P	**P**	**12 15 06.5**	**+0.1**
	baz=90,SNR=8.4						
TNA	**Tin City**	**89.65**	**5**	*e*P	**P**	**12 15 05.2**	**-0.7**
	comp=Z,9.0nm,1.2s,mb4.5						
B07A	**Winthrop**	**89.69**	**35**	⇓P	**P**	**12 15 06.7**	**+0.1**
	baz=90						
CHTO	**Chiang Mai**	**89.70**	**291**	*e*P	**P**	**12 15 08.2**	**+0.9**
	comp=Z,41nm,1.6s,mb5.0						
CHTO	**Chiang Mai**	**89.70**	**291**	*e*P	**P**	**12 15 08.3**	**+1.0**
CHTO				pmax	pmax		
	comp=Z,41nm,1.6s,mb5.0						
H11A	**Donnelly**	**89.76**	**40**	P	**P**	**12 15 06.9**	**-0.1**
	baz=90,SNR=8.8						
K13A	**Stover Farm, H**	**89.77**	**42**	P	**P**	**12 15 07.5**	**+0.5**
	baz=90,SNR=9.4						
F10A	**Beach Ranch, E**	**89.79**	**38**	⇑P	**P**	**12 15 07.1**	**0.0**
	baz=90						
TMUT	**Trail Mountain**	**89.82**	**46**	*e*P	**P**	**12 15 07.9**	**+0.5**
D09A	**Jones Farm, Ri**	**89.82**	**37**	⇑P	**P**	**12 15 06.7**	**-0.5**
	baz=90						
A07A	**Ashnola River,**	**89.91**	**35**	⇓P	**P**	**12 15 07.4**	**-0.1**
	baz=90						
MPU	**Maple Canyon**	**89.91**	**46**	*e*P	**P**	**12 15 08.1**	**+0.3**
G11A	**Walters Elk Ra**	**90.01**	**39**	⇓P	**P**	**12 15 08.0**	**-0.2**
	baz=90						
B08A	**Colville Reser**	**90.04**	**36**	⇑P	**P**	**12 15 07.4**	**-0.8**
	baz=90						
SPUT	**South Promonto**	**90.07**	**44**	*e*P	**P**	**12 15 08.4**	**-0.1**
HLID	**Hailey**	**90.07**	**41**	P	**P**	**12 15 08.8**	**+0.4**
	baz=90,SNR=7.1						
HVU	**Hansel Valley**	**90.12**	**44**	*e*P	**P**	**12 15 08.0**	**-0.7**
	comp=Z,6.8nm,0.7s,mb4.6						
HVU	**Hansel Valley**	**90.12**	**44**	*e*P	**P**	**12 15 08.0**	**-0.7**
HVU				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.6						
J13A	**Cove Ranch, Pi**	**90.13**	**42**	P	**P**	**12 15 08.9**	**+0.2**
	baz=90,SNR=13						
M15A	**Larsen Ranch,**	**90.15**	**44**	P	**P**	**12 15 08.6**	**-0.3**
	baz=90,SNR=10.0						
SRU	**San Rafael**	**90.17**	**47**	*e*P	**P**	**12 15 08.7**	**-0.3**
	comp=Z,9.4nm,0.7s,mb4.7						
SRU	**San Rafael**	**90.17**	**47**	*e*P	**P**	**12 15 08.7**	**-0.3**
SRU				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.7						
MNTX	**Cornudas Mount**	**90.19**	**55**	*e*P	**P**	**12 15 09.2**	**-0.1**
	comp=Z,3.0nm,0.7s,mb4.2						
CTU	**Camp Tracy**	**90.19**	**45**	*e*P	**P**	**12 15 08.8**	**-0.3**
	comp=Z,7.7nm,0.8s,mb4.6						
K14A	**Jones Ranch, D**	**90.28**	**43**	P	**P**	**12 15 09.6**	**+0.1**
	baz=90,SNR=9.9						
C09A	**Chrisman Ranch**	**90.28**	**36**	⇓P	**P**	**12 15 09.1**	**-0.2**
	baz=90						
JLU	**Jordanelle**	**90.34**	**45**	*e*P	**P**	**12 15 09.4**	**-0.4**
F11A	**Grangeville**	**90.35**	**39**	⇓P	**P**	**12 15 09.5**	**-0.1**
	baz=90						
H12A	**Diamond D Ranc**	**90.36**	**40**	P	**P**	**12 15 09.5**	**-0.2**
	baz=90,SNR=7.2						
TXAR	**Lajitas Array**	**90.41**	**58**	P	**P**	**12 15 10.7**	**+0.3**
	comp=Z,4.7nm,0.7s,mb4.5,baz=214,slow=6.4,SNR=74						
HHC	**Hu-ho-hao-te**	**90.43**	**315**	*e*P	**P**	**12 15 10.9**	**+0.7**
HHC				S	S	12 25 23.5	+3.2
HHC				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.8						
HHC				AMB	AMB		
	comp=Z,64nm,4.8s						
A08A	**Turner Farm, O**	**90.44**	**35**	⇑P	**P**	**12 15 10.6**	**+0.6**
	baz=90						
I13A	**Wildhorse Cree**	**90.45**	**41**	⇑P	**P**	**12 15 10.5**	**+0.4**
	baz=90						
H13A	**Challis**	**90.72**	**41**	⇑P	**P**	**12 15 11.5**	**+0.1**
	baz=91						
HWUT	**Hardware Ranch**	**90.79**	**44**	*e*P	**P**	**12 15 11.4**	**-0.4**
	comp=Z,5.6nm,0.6s,mb4.7						
F12A	**Elk City**	**90.80**	**39**	P	**P**	**12 15 11.6**	**-0.1**
	baz=91,SNR=5.7						
A09A	**Danville**	**90.81**	**35**	⇑P	**P**	**12 15 11.4**	**-0.3**
	baz=91						
ANMO	**Albuquerque**	**90.93**	**52**	*e*P	**P**	**12 15 11.9**	**-0.8**
	comp=Z,1.3nm,0.7s,mb4.0						
ANMO	**Albuquerque**	**90.93**	**52**	*i* P	**P**	**12 15 12.4**	**-0.3**
G13A	**Cobalt**	**91.03**	**40**	⇑P	**P**	**12 15 12.9**	**+0.1**
	baz=91						
CD2	**Chengdu**	**91.10**	**303**	P	**P**	**12 15 14.8**	**+1.3**
CD2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
CD2				AMB	AMB		
	comp=Z,30nm,8.8s						
F13A	**Darby**	**91.35**	**40**	⇑P	**P**	**12 15 13.2**	**-1.1**
	baz=91						
A10A	**Northport**	**91.36**	**36**	⇓P	**P**	**12 15 13.9**	**-0.4**
	baz=91						
D12A	**Red Ives Fores**	**91.47**	**38**	⇑P	**P**	**12 15 14.7**	**-0.1**
	baz=92						
E13A	**Victor**	**91.80**	**39**	⇓P	**P**	**12 15 15.7**	**-0.6**
	baz=92						
COLA	**College**	**91.91**	**13**	*i* P	**P**	**12 15 14.7**	**-1.7**
A11A	**Hall Mountain,**	**91.99**	**36**	⇑P	**P**	**12 15 17.2**	**+0.1**
	baz=92						
D13A	**Huson**	**92.00**	**38**	⇓P	**P**	**12 15 17.1**	**-0.2**
	baz=92						
G15A	**Dillon**	**92.10**	**41**	⇑P	**P**	**12 15 17.9**	**+0.1**
	baz=92						
E14A	**Clinton**	**92.18**	**39**	⇓P	**P**	**12 15 17.3**	**-0.8**
	baz=92						
BILL	**Bilibino**	**92.22**	**355**	*e*P	**P**	**12 15 16.6**	**-1.1**
	comp=Z,8.5nm,0.9s,mb4.8						
BILL	**Bilibino**	**92.22**	**355**	*e*P	**P**	**12 15 16.7**	**-1.1**
BILL				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
LOHW	**Long Hollow**	**92.44**	**43**	*e*P	**P**	**12 15 19.2**	**-0.2**
SMCO	**Snowmass**	**92.60**	**48**	*e*P	**P**	**12 15 19.6**	**-0.7**
	comp=Z,3.1nm,0.7s,mb4.5						
PDAR	**Pinedale Array**	**92.67**	**44**	P	**P**	**12 15 19.6**	**-0.8**
	comp=Z,2.1nm,0.7s,mb4.3,baz=221,slow=3.7,SNR=21						
PDAR				PP	PP	12 19 07.0	-4.7
	comp=Z,0.8nm,1.1s,baz=264,slow=1.5,SNR=3.6						
BOZ	**Bozeman (W)**	**92.87**	**41**	*e*P	**P**	**12 15 20.5**	**-0.8**
	comp=Z,1.9nm,0.6s,mb4.3						
BOZ	**Bozeman (W)**	**92.87**	**41**	*e*P	**P**	**12 15 20.5**	**-0.8**
BOZ				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
SDCO	**Great Sand Dun**	**92.94**	**50**	*e*P	**P**	**12 15 21.3**	**-0.5**
	comp=Z,1.6nm,0.6s,mb4.2						
D15A	**Lincoln**	**93.08**	**39**	⇑P	**P**	**12 15 21.7**	**-0.5**
	baz=93						
LZH	**Lanzhou**	**93.39**	**308**	⇑P	**P**	**12 15 24.9**	**+1.0**
LZH				AP	pP	12 17 13.3	-6.9
LZH				XP	sP	12 18 01.3	-12
LZH				PP	PP	12 19 19.8	+2.3
LZH				AMB	AMB		
	comp=Z,21nm,1.3s,mb5.0						
LZH				AMB	AMB		
	comp=Z,69nm,8.7s						
LZH	**Lanzhou**	**93.39**	**308**	⇑P	**P**	**12 15 24.9**	**+1.0**
	comp=Z,21nm,1.3s,mb5.0						
LZH				pP	pP	12 17 13.2	-7.0
LZH				sP	sP	12 18 01.2	-12
LZH				PP	PP	12 19 19.8	+2.3
LZH	**Lanzhou**	**93.39**	**308**	⇑P	**P**	**12 15 24.9**	**+1.0**
LZH				*PP	pP	12 17 13.2	-7.0
LZH				*SP	sP	12 18 01.2	-12
LZH						12 19 19.8	
LZH				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.0						
YAK	**Yakutsk**	**94.58**	**339**	*d i*P	**P**	**12 15 28.1**	**-0.6**
SONM	**Songino Array**	**97.12**	**319**	P	**P**	**12 15 39.5**	**-0.9**
	comp=Z,0.7nm,0.6s,mb4.1,baz=117,slow=3.8,SNR=10						
SONM				PP	PP	12 19 40.3	-5.4
	comp=Z,0.7nm,0.9s,baz=125,slow=7.1,SNR=5.0						
GTA	**Gaotai**	**97.71**	**310**	*e*P	**P**	**12 15 43.9**	**+0.6**
GTA				AP	pP	12 17 32.5	-7.5
GTA				XP	sP	12 18 24.6	-8.2
GTA				PP	PP	12 19 52.0	+1.6
GTA				PPP		12 22 03.1	
GTA				SKS		12 25 34.3	
GTA				S	S	12 26 25.5	+2.2
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.6						
GTA				AMB	AMB		
	comp=Z,146nm,5.7s						
INK	**Inuvik**	**98.02**	**16**	*e*P	Pdif	12 15 42.6	-2.1
YKA	**Yellowknife Ar**	**100.35**	**25**	P	Pdif	12 15 53.8	-1.2
	comp=Z,0.1nm,0.5s,baz=243,slow=4.3,SNR=3.4						
ZALV	**Zalesovo Beam**	**111.96**	**321**	PKPdf	PKiKP	12 20 38.1	-1.7
ZALV				SKP		12 23 24.5	
ZALV	**Zalesovo Beam**	**111.96**	**321**	PKiKP	PKiKP	12 20 38.1	-1.7
	comp=Z,0.8nm,0.4s,baz=132,slow=2.1,SNR=7.7						
ZALV				SKP		12 23 24.5	
	comp=Z,0.7nm,0.5s,baz=90,slow=1.4,SNR=4.6						
ZAL	**Zalesovo**	**111.97**	**321**	PKIKP	PKiKP	12 20 38.1	-1.8
MK31	**Makanchi Array**	**112.17**	**313**	*e*PKPdf	PKiKP	12 20 39.1	-1.4
MK31	**Makanchi Array**	**112.17**	**313**	*e*PKIKP	PKiKP	12 20 39.1	-1.4
MKAR	**Makanchi Array**	**112.17**	**313**	Pdif	Pdif	12 16 49.5	+1.9
MKAR				PKPdf	PKiKP	12 20 39.0	-1.5
MKAR				SKP		12 23 26.0	
MKAR	**Makanchi Array**	**112.17**	**313**	P	Pdif	12 16 49.5	+1.9
MKAR						12 20 39.0	
MKAR	**Makanchi Array**	**112.17**	**313**	Pdiff	Pdif	12 16 49.4	+1.9
	comp=Z,0.2nm,0.3s,baz=78,slow=6.3,SNR=4.2						
MKAR				PKiKP	PKiKP	12 20 39.0	-1.5
	comp=Z,1.2nm,0.6s,baz=157,slow=0.4,SNR=15						
MKAR				SKP		12 23 26.0	
	comp=Z,0.6nm,0.5s,baz=49,slow=1.3,SNR=5.8						
KURK	**Kurchatov**	**115.22**	**316**	⇓*i*PKIKP	PKPdf	12 20 44.5	-1.7
AAK	**Ala-Archa**	**116.92**	**307**	⇑*i*PKIKP	PKPdf	12 20 47.6	-2.1
ARU	**Arti**	**126.89**	**324**	*e*PKPdf	PKPdf	12 21 07.2	-1.2
ARU	**Arti**	**126.89**	**324**	*i* PKIKP	PKPdf	12 21 07.9	-0.5
ARU				*e*		12 23 11.0	
AKTO	**Aktyubinsk**	**128.31**	**316**	PKP	PKPdf	12 21 10.3	-1.0
	comp=Z,3.6nm,0.6s,baz=97,slow=3.7,SNR=14						
KEV	**Kevo**	**131.42**	**348**	*e*pkp	PKPdf	12 21 12.1	-4.6
KEV	**Kevo**	**131.42**	**348**	*e*PKIKP	PKPdf	12 21 12.1	-4.6
ARCES	**ARCESS Array B**	**131.89**	**348**	PKhKP		12 21 07.0	
	comp=Z,3.1nm,1.0s,baz=35,slow=4.4,SNR=3.9						
ARCES				PKP	PKPdf	12 21 16.0	-1.6
	comp=Z,3.3nm,0.5s,baz=359,slow=0.9,SNR=20						
JOF	**Joensuu**	**135.74**	**340**	*e*pkp		12 21 13.5	
JOF	**Joensuu**	**135.74**	**340**	*e*PKHKP		12 21 13.5	
KAF	**Kangasniemi**	**137.85**	**342**	*e*pkp		12 21 18.8	
KAF	**Kangasniemi**	**137.85**	**342**	*e*PKHKP		12 21 18.8	
FINES	**FINESS Array B**	**138.45**	**341**	PKhKP		12 21 18.3	
	comp=Z,1.2nm,0.5s,baz=41,slow=4.5,SNR=12						
FINES				PKP	PKPdf	12 21 29.1	-0.9
	comp=Z,1.2nm,0.4s,baz=97,slow=4.6,SNR=10						
FINES				SKPbc	SKPbc	12 24 14.5	-0.6
	comp=Z,4.7nm,0.7s,baz=64,slow=4.4,SNR=12						
OBN	**Obninsk**	**138.78**	**329**	*i* PKIKP	PKPdf	12 21 32.1	+1.3
OBN				*e*		12 27 43.7	
OBN				pmax	pmax		
	comp=Z,6.0nm,1.0s						
NB2	**NORSAR Subarra**	**142.08**	**351**	PKPa	PKPdf	12 21 31.5	-5.0
	comp=Z,2.3nm,0.6s,baz=16,slow=3.2						
NOA	**NORSAR Array B**	**142.08**	**351**	PKhKP		12 21 31.0	
	comp=Z,7.3nm,0.9s,baz=16,slow=4.5,SNR=18						
NOA				SKPbc	SKPbc	12 24 23.2	-1.3
	comp=Z,1.9nm,0.7s,baz=15,slow=4.2,SNR=6.3						
HFS	**Hagfors**	**142.55**	**349**	PKhKP		12 21 32.8	
	comp=Z,16nm,0.4s,baz=72,slow=4.7,SNR=186						
HFS				SKPbc	SKPbc	12 24 24.9	-0.9
	comp=Z,3.9nm,0.8s,baz=10,slow=1.7,SNR=4.9						
ANN	**Anapa**	**143.18**	**314**	*i* PKHKP		12 21 35.2	
ANN				pmax	pmax		
	comp=Z,111nm,0.9s						
MALT	**Malatya**	**144.39**	**303**	*e*PKPbc	PKPdf	12 21 41.4	0.0
MALT	**Malatya**	**144.39**	**303**	⇑PKHKP		12 21 41.3	
MALT	**Malatya**	**144.39**	**303**	⇑*i*P	PKPdf	12 21 41.3	0.0
AKASG	**Malin Array Be**	**144.98**	**327**	PKP	PKPdf	12 21 41.0	-0.9
	comp=Z,16nm,0.6s,baz=41,slow=4.2,SNR=110						
AKASG				SKPbc	SKPbc	12 24 32.1	+0.3
	comp=Z,6.0nm,0.7s,baz=44,slow=2.7,SNR=20						
AKBB	**Malin Array Si**	**144.98**	**327**	*e*PKPdf	PKPdf	12 21 41.0	-1.0
AKBB	**Malin Array Si**	**144.98**	**327**	*e*PKHKP		12 21 41.0	
KIEV	**Kiev**	**144.99**	**327**	*e*PKPdf	PKPdf	12 21 40.9	-1.0
KIEV	**Kiev**	**144.99**	**327**	*e*PKHKP		12 21 40.9	
SUW	**Suwalki**	**145.27**	**336**	*e*PKP	PKPdf	12 21 42.4	+0.1
SUW	**Suwalki**	**145.27**	**336**	*e*PKHKP		12 21 42.4	
SIM	**Simferopol'**	**145.28**	**316**	⇑*e*PKIKP	PKPdf	12 21 43.4	+0.8
SIM				pmax	pmax		
	comp=Z,36nm,0.9s						
MVH1	**Achvaich**	**145.87**	**4**	⇑*e*P	PKPdf	12 21 43.7	+0.5
KAC	**Achnashellach**	**146.21**	**5**	*e*P	PKPdf	12 21 44.6	+0.8
MCD	**Coleburn Disti**	**146.26**	**3**	⇑*e*P	PKPdf	12 21 44.5	+0.7
KPL	**Plockton**	**146.34**	**6**	⇑*e*P	PKPdf	12 21 45.1	+1.1
MDO	**Dochfour**	**146.34**	**4**	⇑*e*P	PKPdf	12 21 45.2	+1.2
ASF	**Jabal al Asfar**	**146.56**	**293**	PKPbc	PKPbc	12 21 48.4	+0.7
	comp=Z,11nm,0.8s,baz=88,slow=3.0,SNR=12						
KAR1	**Arisaig**	**146.74**	**6**	*e*P	PKPdf	12 21 46.1	+1.4
EAB	**Aberfoyle**	**147.58**	**5**	*e*P	PKPdf	12 21 48.2	+2.1
BR131	**Keskin Array S**	**147.60**	**307**	*e*PKPdf	PKPdf	12 21 45.6	-1.0
BR131				*e*PKPbc	PKPbc	12 21 49.6	-0.6
BR131				*e*PKPab	PKPab	12 21 54.5	+0.2
MMAI	**Mount Meron Ar**	**147.72**	**294**	PKPbc	PKPbc	12 21 49.1	-1.6
	comp=Z,23nm,0.6s,baz=77,slow=5.5,SNR=28						
EDI	**Edinburgh**	**147.92**	**3**	*e*P	PKPbc	12 21 49.3	-1.2
PGBU	**Glenifferbraes**	**147.95**	**5**	⇑*e*P	PKPbc	12 21 49.4	-1.1
ESY	**Stoneypath**	**147.96**	**3**	⇑*e*P	PKPbc	12 21 49.0	-1.6
EAU	**Auchinoon**	**147.98**	**4**	*e*P	PKPbc	12 21 49.1	-1.5
LVV	**L'vov**	**148.05**	**330**	*i* PKIKP	PKPbc	12 21 50.1	-0.9
EBL	**Broad Law**	**148.08**	**3**	*e*P	PKPdf	12 21 48.8	+1.9
ANTO	**Ankara**	**148.16**	**308**	*e*PKPbc	PKPbc	12 21 51.3	-0.3
ANTO				*e*PKPab	PKPab	12 21 57.0	+0.4
ANTO	**Ankara**	**148.16**	**308**	*e*PKIKP	PKPbc	12 21 51.3	-0.3
ANTO				*e*		12 21 57.0	
GMK	**Mull of Kintyr**	**148.31**	**6**	⇑*e*P	PKPbc	12 21 50.5	-0.9
EIL	**Elat**	**148.38**	**288**	PKPbc	PKPbc	12 21 52.3	-0.2
	comp=Z,13nm,0.7s,baz=86,slow=2.9,SNR=12						
XSO	**Sourhope Farm**	**148.40**	**2**	*e*P	PKPbc	12 21 50.4	-1.2
EKA	**Eskdalemuir Ar**	**148.51**	**3**	PKPbc	PKPbc	12 21 50.6	-1.4
	comp=Z,3.3nm,0.4s,baz=347,slow=2.8,SNR=45						
ESK	**Eskdalemuir**	**148.53**	**4**	*e*P	PKPdf	12 21 49.7	+2.1
BWH	**Wardlaw**	**148.64**	**4**	*e*P	PKPbc	12 21 50.6	-1.7
ECK	**Cauldkaine Hil**	**148.66**	**3**	*e*P	PKPbc	12 21 50.6	-1.7
KWP	**Kalwaria**	**148.78**	**331**	*e*PKP	PKPbc	12 21 52.4	-0.4
KWP	**Kalwaria**	**148.78**	**331**	*e*PKP	PKPbc	12 21 52.4	-0.4
KWP	**Kalwaria**	**148.78**	**331**	*e*PKHKP	PKPbc	12 21 52.4	-0.4
GAL1	**Galloway**	**148.87**	**5**	*e*P	PKPbc	12 21 51.5	-1.3
BURAR	**Bucovina Array**	**148.98**	**326**	⇓*i*P	PKPbc	12 21 54.3	+0.9
BSEG	**Bad Segeberg**	**149.02**	**348**	*e*PKP2	PKPab	12 21 58.6	-0.9
BSEG	**Bad Segeberg**	**149.02**	**348**	*e*PKPbc	PKPbc	12 21 52.8	-0.5
BSEG				*e*PKPab	PKPab	12 21 58.6	-0.9
XAL	**Allendale**	**149.03**	**3**	⇑*e*P	PKPbc	12 21 51.6	-1.7
CSS	**Prodhromos**	**149.10**	**299**	*e*PKPbc	PKPbc	12 21 53.3	-0.8
VRI	**Vrincioaia**	**149.26**	**322**	⇑*i*P	PKPbc	12 21 53.7	-0.4
KOLS	**Kolonicke sedl**	**149.48**	**331**	*e*PKHKP	PKPbc	12 21 54.6	+0.1
KOLS	**Kolonicke sedl**	**149.48**	**331**	*e*PKP	PKPbc	12 21 54.6	+0.1
OJC	**Ojcow**	**149.54**	**335**	*e*PKHKP	PKPbc	12 21 53.9	-0.7
STHS	**Stebnicka Huta**	**149.57**	**332**	*e*PKHKP	PKPbc	12 21 54.7	0.0
STHS	**Stebnicka Huta**	**149.57**	**332**	*e*PKP	PKPbc	12 21 54.7	0.0
WIM	**Isle of Man**	**149.58**	**5**	*e*P	PKPbc	12 21 53.1	-1.5
UZH	**Uzhgorod**	**149.69**	**330**	⇓*i*PKHKP	PKPbc	12 21 54.7	-0.3
UZH				*e*		12 22 00.7	
CRVS	**Cervenica-Dubn**	**149.87**	**331**	*e*PKHKP	PKPbc	12 21 55.1	-0.3
CRVS	**Cervenica-Dubn**	**149.87**	**331**	*e*PKP	PKPbc	12 21 55.1	-0.3
MLR	**Muntele Rosu**	**149.93**	**322**	⇑PKHKP	PKPbc	12 21 55.3	-0.4
MLR	**Muntele Rosu**	**149.93**	**322**	PKPbc	PKPbc	12 21 54.9	-0.8
	comp=Z,5.2nm,0.6s,baz=321,slow=5.0,SNR=8.6						
MLR	**Muntele Rosu**	**149.93**	**322**	⇑*i*P	PKPbc	12 21 55.3	-0.4
NIE	**Niedzica**	**149.96**	**333**	*e*PKHKP	PKPbc	12 21 55.8	+0.1
KSP	**Ksiaz**	**150.29**	**339**	*e*PKP	PKPbc	12 21 56.2	-0.2
KSP	**Ksiaz**	**150.29**	**339**	*e*PKHKP	PKPbc	12 21 55.6	-0.8
WCB1	**Church Bay**	**150.36**	**6**	*e*P	PKPbc	12 21 54.8	-1.6
LHO	**Holmfirth**	**150.36**	**2**	⇑*e*P	PKPbc	12 21 55.4	-1.1
YRC	**Rhoscolyn**	**150.48**	**6**	⇑*e*P	PKPbc	12 21 55.2	-1.6
OKC	**Ostrava-Krasne**	**150.48**	**336**	*e*PKHKP	PKPbc	12 21 56.0	-0.9
OKC				*e*		12 22 05.5	
OKC	**Ostrava-Krasne**	**150.48**	**336**	⇑*e*PKPB	PKPbc	12 21 56.0	-0.9
OKC				*e*PKPAB	PKPab	12 22 05.5	-0.3
KECS	**Kecovo**	**150.61**	**332**	*e*PKIKP	PKPdf	12 21 53.3	+2.2
KECS				*e*		12 22 05.7	
KECS	**Kecovo**	**150.61**	**332**	*e*PKP	PKPdf	12 21 53.3	+2.2
KECS				*e*		12 22 05.7	
KBI1	**Birley Grange**	**150.66**	**2**	⇑*e*P	PKPbc	12 21 55.9	-1.3
UPC	**Upice**	**150.67**	**339**	*e*PKIKP	PKPbc	12 21 56.9	-0.4
UPC				*e*		12 22 06.4	
UPC	**Upice**	**150.67**	**339**	⇑*e*PKPB	PKPbc	12 21 56.9	-0.4
UPC				*e*PKPAB	PKPab	12 22 06.4	-0.2
DPC	**Dobruska-Polom**	**150.70**	**338**	*e*PKIKP	PKPbc	12 21 57.2	-0.1
DPC				*e*		12 22 06.8	
DPC	**Dobruska-Polom**	**150.70**	**338**	⇑*e*PKPB	PKPbc	12 21 57.2	-0.1
DPC				*e*PKPAB	PKPab	12 22 06.8	+0.1
MORC	**Moravsky Berou**	**150.76**	**336**	*e*PKPbc	PKPbc	12 21 57.3	-0.2
MORC				*e*PKPab	PKPab	12 22 06.5	-0.4
MORC	**Moravsky Berou**	**150.76**	**336**	*e*PKIKP	PKPbc	12 21 57.3	-0.2
MORC				*e*		12 22 06.5	
MORC	**Moravsky Berou**	**150.76**	**336**	⇓*i*P	PKPbc	12 21 57.1	-0.4
DRGR		**150.80**	**327**	⇑*i*P	PKPbc	12 21 57.2	-0.5
CLL	**Collm**	**150.86**	**343**	⇓*i*PKIKP	PKPbc	12 21 56.9	-0.8
CLL				*i*		12 22 06.3	
CLL				*e*		12 23 51.0	
CLL				pmax	pmax		
	comp=Z,31nm,0.9s						
CLL				pmax	pmax		
	comp=Z,15nm,0.8s						
CLL	**Collm**	**150.86**	**343**	*e*PKPbc	PKPbc	12 21 57.0	-0.7
CLL				*e*PKPab	PKPab	12 22 06.0	-1.3
CLL	**Collm**	**150.86**	**343**	⇓*i*PKPbc	PKPbc	12 21 56.9	-0.8
	comp=Z,31nm,0.9s						
CLL				⇑*i*PKPab	PKPab	12 22 06.3	-1.0
	comp=Z,15nm,0.8s						
CLL				*e*pPKPbc	pPKPbc	12 23 51.0	-9.5
KWE	**Weaver Farm**	**150.89**	**2**	*e*P	PKPbc	12 21 56.4	-1.3
SBD1	**Bryn Du**	**150.93**	**4**	*e*P	PKPbc	12 21 56.5	-1.3
BRG	**Berggiesshubel**	**150.99**	**342**	*i* PKIKP	PKPbc	12 21 57.5	-0.5
BRG				*i*		12 22 07.0	
BRG				pmax	pmax		
	comp=Z,16nm,1.1s						
BRG				pmax	pmax		
	comp=Z,6.0nm,0.7s						
BRG	**Berggiesshubel**	**150.99**	**342**	*e*PKPbc	PKPbc	12 21 57.3	-0.7
BRG				*e*PKPab	PKPab	12 22 06.9	-1.0
BRG	**Berggiesshubel**	**150.99**	**342**	*i* PKP	PKPbc	12 21 57.5	-0.5
	comp=Z,27nm,1.1s						
BRG				*i*		12 22 07.0	
	comp=Z,9.9nm,0.7s						
CLZ	**Clausthal**	**150.99**	**347**	*e*PKIKP	PKPab	12 22 07.0	-0.8
CLZ	**Clausthal**	**150.99**	**347**	*e*PKPbc	PKPbc	12 21 57.3	-0.6
CLZ				*e*PKPab	PKPab	12 22 07.0	-0.8
IBBN	**Ibbenburen**	**151.02**	**350**	*e*PKPbc	PKPbc	12 21 57.3	-0.7
IBBN				*e*PKPab	PKPab	12 22 07.4	-0.6
PVCC	**Panska Ves**	**151.11**	**341**	*e*PKIKP	PKPbc	12 21 57.8	-0.5
PVCC				*e*		12 22 08.3	
PVCC	**Panska Ves**	**151.11**	**341**	⇑*e*PKPB	PKPbc	12 21 57.8	-0.5
PVCC				*e*PKPAB	PKPab	12 22 08.3	-0.1
VYHS	**Vyhne**	**151.29**	**333**	*e*PKIKP	PKPbc	12 21 58.4	-0.4
VYHS				*e*		12 22 08.8	
VYHS	**Vyhne**	**151.29**	**333**	*e*PKP	PKPbc	12 21 58.4	-0.4
VYHS				*e*		12 22 08.8	
PSZ	**Piszkesteto**	**151.29**	**332**	⇑*i*P	PKPbc	12 21 56.8	-2.0
HLM1	**Long Mynd**	**151.34**	**4**	*e*P	PKPbc	12 21 57.0	-1.7
VRAC	**Vranov**	**151.49**	**337**	PKPbc	PKPbc	12 21 58.5	-0.7
	comp=Z,2.2nm,0.5s,baz=350,slow=2.9,SNR=3.6						
VRAC				PKPab	PKPab	12 22 10.0	-0.1
	comp=Z,14nm,0.6s,baz=45,slow=3.6,SNR=14						
VRAC	**Vranov**	**151.49**	**337**	⇑*i*P	PKPab	12 22 09.6	-0.4
PRU	**Pruhonice**	**151.59**	**340**	*e*PKIKP	PKPbc	12 21 58.6	-0.8
PRU				*e*		12 22 10.0	
PRU	**Pruhonice**	**151.59**	**340**	⇑*e*PKPB	PKPbc	12 21 58.6	-0.8
PRU				*e*PKPAB	PKPab	12 22 10.0	-0.4
GZR	**Gura Zlata**	**151.71**	**325**	⇑*i*P	PKPbc	12 21 58.9	-0.9
TANN	**Tannenbergstha**	**151.81**	**343**	*e*PKPbc	PKPbc	12 21 59.0	-0.8
TANN				*e*PKPab	PKPab	12 22 10.4	-1.0
MOX	**Moxa**	**151.82**	**344**	*e*PKPbc	PKPbc	12 21 59.1	-0.8
MOX				*e*PKPab	PKPab	12 22 10.4	-1.0
MCH1	**Michaelchurch**	**151.85**	**4**	⇑*e*P	PKPbc	12 21 58.3	-1.6
TREC	**Trest**	**151.89**	**338**	*e*PKIKP	PKPbc	12 21 58.8	-1.3
TREC				*e*		12 22 11.1	
TREC	**Trest**	**151.89**	**338**	⇑*e*PKPB	PKPbc	12 21 58.8	-1.3
TREC				*e*PKPAB	PKPab	12 22 11.1	-0.6
BUG	**Bochum--Univer**	**151.94**	**350**	*e*PKPbc	PKPbc	12 21 59.2	-0.9
NKC	**Novy Kostel**	**151.98**	**343**	*e*PKIKP	PKPbc	12 21 59.8	-0.4
NKC				*e*		12 22 11.6	
NKC	**Novy Kostel**	**151.98**	**343**	⇑*e*PKPB	PKPbc	12 21 59.8	-0.4
NKC				*e*PKPAB	PKPab	12 22 11.6	-0.5
HGH	**Gray Hill**	**152.22**	**4**	*e*P	PKPdf	12 21 59.4	+5.9
KHC	**Kasperske Hory**	**152.65**	**340**	*e*PKIKP	PKPbc	12 22 01.0	-0.7
KHC				*e*		12 22 14.5	
KHC	**Kasperske Hory**	**152.65**	**340**	⇑*e*PKPB	PKPbc	12 22 01.0	-0.7
KHC				*e*PKPAB	PKPab	12 22 14.5	-0.4
GRF	**Grafenberg Arr**	**152.80**	**344**	*e*PKIKP	PKPbc	12 22 01.1	-0.9
GRF	**Grafenberg Arr**	**152.80**	**344**	*e*PKPbc	PKPbc	12 22 01.1	-0.9
GRFO	**Grafenberg**	**152.80**	**344**	*e*PKPab	PKPab	12 22 15.1	-0.5
GRFO	**Grafenberg**	**152.80**	**344**	*e*PKIKP	PKPab	12 22 15.1	-0.5
WET	**Wettzell**	**152.85**	**341**	*e*PKIKP	PKPab	12 22 15.3	-0.5
WET	**Wettzell**	**152.85**	**341**	*e*PKPab	PKPab	12 22 15.3	-0.5
GERES	**GERESS Array B**	**152.86**	**340**	PKPbc	PKPbc	12 22 01.3	-0.9
	comp=Z,1.5nm,0.6s,baz=35,slow=1.3,SNR=17						
GERES				PKPab	PKPab	12 22 15.1	-0.7
	comp=Z,1.8nm,0.6s,baz=40,slow=4.5,SNR=8.2						
TNS	**Taunus Mts**	**152.91**	**348**	*e*PKIKP	PKPab	12 22 14.8	-1.2
TNS	**Taunus Mts**	**152.91**	**348**	*e*PKPbc	PKPbc	12 22 01.3	-1.0
TNS				*e*PKPab	PKPab	12 22 14.8	-1.2
PKSM	**Moragy**	**153.15**	**331**	⇑*i*P	PKPbc	12 22 02.1	-0.8
BCLA	**Clavier**	**153.21**	**353**	PKPab	PKPab	12 22 15.8	-1.4
SNF	**Seneffe**	**153.23**	**354**	PKPab	PKPab	12 22 16.1	-1.2

VTS	Vitosha	153.25	320	⇓iP	PKPab	12 22 18.3	+0.5
GIVF	Givet	153.57	353	ePKP2	PKPab	12 22 17.1	-1.7
DOU	Dourbes	153.60	353	PKPab	PKPab	12 22 17.5	-1.4
BAIF	Baives	153.68	354	ePKP2	PKPab	12 22 17.9	-1.4
FUR	Furstenfeldbru	154.19	343	ePKP2	PKPab	12 22 20.6	-0.9
FUR	Furstenfeldbru	154.19	343	ePKPab	PKPab	12 22 20.6	-0.9
VAY	Valandovo	154.38	318	ePKP	PKPab	12 22 21.8	-0.9
STIP	Stip	154.39	319	ePKP	PKPab	12 22 22.0	-0.7
SKO	Skopje	154.66	320	ePKP	PKPab	12 22 24.7	+0.8
BFO	Black Forest	154.74	347	ePKPab	PKPab	12 22 22.7	-1.2
BFO	Black Forest	154.74	347	ePKP2	PKPab	12 22 22.7	-1.2
BFO	Black Forest	154.74	347	ePKPab	PKPab	12 22 22.7	-1.2
CDF	Champ du Feu	154.87	349	ePKP2	PKPab	12 22 23.0	-1.4
	comp=Z,14nm,0.9s						
MEZF	Maizieres J'vi	155.12	352	ePKP2	PKPab	12 22 24.2	-1.3
	comp=Z,43nm,1.0s						
KRUS	Krusevo	155.15	320	ePKP	PKPab	12 22 26.1	+0.1
FLN	La Foliniere	155.18	1	ePKP2	PKPab	12 22 22.9	-2.8
	comp=Z,18nm,0.9s						
LDF	La Druitiere	155.35	0	ePKP2	PKPab	12 22 23.2	-3.3
	comp=Z,15nm,0.9s						
HAU	Haudompre	155.42	350	ePKP2	PKPab	12 22 25.3	-1.5
	comp=Z,14nm,0.7s						
HINF	Hinteralfeld	155.52	349	ePKP2	PKPab	12 22 25.5	-1.7
	comp=Z,5.8nm,0.6s						
OHR	Ohrid	155.57	320	ePKP	PKPab	12 22 27.0	-0.8
DAVOX	Davos/Dischmat	155.83	343	PKPbc	PKPdf	12 22 10.2	+12
	comp=Z,2.3nm,0.5s,baz=236,slow=3.6,SNR=4.1						
DAVOX				PKPab	PKPab	12 22 28.4	-0.2
	comp=Z,10nm,0.6s,baz=16,slow=2.3,SNR=16						
LOR	Lormes	156.48	353	ePKP2	PKPab	12 22 29.6	-1.8
	comp=Z,7.9nm,0.5s						
SSF	Saint Saulge	156.72	354	ePKP2	PKPab	12 22 30.9	-1.5
	comp=Z,14nm,0.7s						
CABF	La Chapelle	156.82	349	ePKP2	PKPab	12 22 31.8	-1.1
AVF	Avril sur Loir	157.00	354	ePKP2	PKPab	12 22 32.0	-1.7
	comp=Z,6.5nm,0.8s						
SMF	Signal de Mont	157.09	353	ePKP2	PKPab	12 22 32.6	-1.5
	comp=Z,19nm,0.7s						
TCF	Toulx Ste Croi	157.59	356	ePKP2	PKPab	12 22 34.4	-1.8
	comp=Z,5.7nm,0.7s						
LPL	La Plagne	157.75	347	ePKP2	PKPab	12 22 36.5	-0.5
LPG	La Plagne	157.77	347	ePKP2	PKPab	12 22 36.8	-0.3
ORIF	Oris-en-Rattie	158.49	349	ePKP2	PKPab	12 22 39.5	-0.7
	comp=Z,39nm,1.1s						
VIVF	Saint-Julien-l	158.75	351	ePKP2	PKPab	12 22 39.6	-1.7
ESDC	Sonseca Array	163.91	11	PKPab	PKPab	12 23 02.8	-1.3
	comp=Z,3.6nm,1.0s,baz=4.9,slow=4.2,SNR=8.4						
KEST	Kesra	165.71	328	PKPab	PKPab	12 23 11.7	-0.5
	comp=Z,2.1nm,0.9s,baz=45,slow=2.9,SNR=4.6						
TORD	Torodi Ar. Bea	169.19	189	PKP	PKPdf	12 22 10.2	-2.4
	comp=Z,2.6nm,1.1s,baz=180,slow=0.2,SNR=7.5						
TORD				PKPab	PKPab	12 23 28.2	+0.3
	comp=Z,1.8nm,0.7s,baz=172,slow=4.0,SNR=7.2						

KRSC 18 12:11:00.3±0.4, 53.62N×163.77E, $h43^{km}\pm43^{km}$, ML3.6, Off east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKZ	Mys Kozlova	1.52	309	eP	Pn	12 11 26.7	+1.7
MKZ				eS	Sn	12 11 45.8	+2.2
SPN	Mys Shipunski	2.31	258	eP	Pn	12 11 37.5	+1.8
SPN				eS	Sn	12 12 04.2	+1.4
KII	Karymskiy	2.59	281	P	Pn	12 11 42.1	+2.4
KII				S	Sn	12 12 11.7	+1.8
KBTR	Krutoberegovo	2.65	348	eP	Pn	12 11 39.2	-1.3
KBTR				S	Sn	12 12 08.4	-2.9
TUMR	Tumrok	2.69	310	P	Pn	12 11 44.9	+3.9
TUMR				S	Sn	12 12 16.6	+4.2
ZLN	Zelenaya	2.95	326	S	Sn	12 12 23.3	+4.6
KMNR	Kamenistaya	2.96	318	P	Pn	12 11 48.9	+4.2
KMNR				eS	Sn	12 12 23.2	+4.2
AVH	Avacha	3.03	265	eP	Pn	12 11 48.7	+3.0
AVH				eS	Sn	12 12 23.4	+2.7
KPT	Kopyto	3.12	320	P	Pn	12 11 50.3	+3.4
PET	Petropavlovsk	3.13	261	P	Pn	12 11 49.5	+2.5
PET				S	Sn	12 12 24.2	+1.2
KLY	Klyuchi	3.24	328	S	Sn	12 12 28.0	+2.1
RUS	Russkaya	3.39	252	eP	Pn	12 11 52.3	+1.7
RUS				eS	Sn	12 12 30.1	+0.6
GNL	Ganaly	3.47	274	eP	Pn	12 11 55.3	+3.6
GNL				eS	Sn	12 12 34.7	+3.3
SRDR	Sredinnyy	3.57	321	P	Pn	12 11 56.4	+3.3
GRL	Gorelyy	3.60	255	P	Pn	12 11 56.9	+3.4
MIPR	Malaya Ipel'ka	4.45	255	P	Pn	12 12 09.0	+3.9

*IDC **18** 12:26:06.1±0.6, 1.18N×96.96E, $h0^{km}$, mb4.5/17, mb1 4.6/18, mb1mx4.5/25, mbtmp4.5/18, ML4.1/1, MS3.8/8, Ms1 3.8/8, ms1mx3.5/33, Error ellipse: s-maj=22.6km s-min=12.4km az=51.0*

*ISCJB **18** 12:26:08.2±1.1, 1.21N±0.04×97.03E±0.04, $h25^{km}\pm8^{km}$, mb4.8/70, MS4.2/26, Error ellipse: s-maj=7.6km s-min=5.9km az=25.8*

*BJI **18** 12:26:08.7, 1.08N×97.25E, $h35^{km}$, mB4.9, mb5.0, Ms4.6, Msz4.4*

*MOS **18** 12:26:09.1±0.9, 1.20N×97.02E, $h33^{km}$, mb5.0/25, MS4.3/6, Error ellipse: s-maj=12.6km s-min=6.2km az=90.8*

*NEIC **18** 12:26:10.9±0.4, 1.23N×97.05E, $h30^{km}$, mb4.8/25, Error ellipse: s-maj=9.6km s-min=6.2km az=48.0*

NEIC Felt [II] at Gunungsitoli.

ISC 18 12:26:11.3±1.1, 1.22N±0.04×97.05E±0.04, $h32^{km}\pm8^{km}$, $h33^{km}\pm1.4^{km}$:pP-P, n156, $\sigma1^{s}04$/162, mb4.8/70, MS4.2/26, 18C-8D, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.45	50	Pn	Pn	12 26 47.9	-1.2
PSI				Sn	Sn	12 27 18.6	+0.6
PSI				LR	LR	12 27 38.2	
PSI	Prapat	2.45	50	P	Pn	12 26 47.9	-1.2
PSI						12 27 18.6	
PSI	Prapat	2.45	50	Pn	Pn	12 26 47.9	-1.2
	37nm,0.3s,baz=231,slow=5.0,SNR=107						
PSI				Sn	Sn	12 27 18.6	+0.6
	58nm,0.3s,baz=184,slow=8.3,SNR=6.2						
PSI				LR	LR	12 27 38.2	
	comp=Z,983nm,21.2s,baz=299,slow=37						
PPI	Padang Panjang	3.74	116	P	Pn	12 27 07.5	+0.6
	365nm,0.8s						
BSI	Banda Aceh	4.59	338	P	Pn	12 27 17.7	-1.0
	93nm,0.8s						
FRIM	Kepong	5.00	66	⇑P	Pn	12 27 23.8	-0.3
IPM	Ipoh	5.13	51	⇑P	Pn	12 27 25.9	0.0
KULM	Kulim	5.41	42	ePn	Pn	12 27 29.0	-0.9
KULM	Kulim	5.41	42	⇑P	Pn	12 27 29.1	-0.8
KGM	Kluang	6.32	83	⇑P	Pn	12 27 42.8	+0.4
MYKOM	Kota Tinggi	6.83	85	⇑P	Pn	12 27 50.0	+0.7
KTGM	Kuala Trenggan	7.32	56	⇓P	Pn	12 27 55.9	-0.3
KSM	Kuching	13.26	89	ePn	Pn	12 29 19.4	+1.9
KSM				e		12 29 27.8	
KSM	Kuching	13.26	89	⇓P	Pn	12 29 19.6	+2.1
SBUM	Sibu	15.21	85	⇑P	Pn	12 29 45.5	+1.5
BTM	Bintulu	16.14	83	⇑P	Pn	12 29 57.3	+1.2
CHTO	Chiang Mai	17.59	6	eP	Pn	12 30 11.6	-2.5
	11nm,0.9s						
CHTO	Chiang Mai	17.59	6	eP	Pn	12 30 11.6	-2.5
CHTO				pmax	pmax		
	comp=Z,11nm,0.9s						
KMMI	Kalianget	18.77	116	P	Pn	12 30 27.5	-1.2
	comp=Z,43nm,0.8s						
KKM	Kota Kinabalu	19.72	75	eP	Pn	12 30 37.9	-2.1
KKM	Kota Kinabalu	19.72	75	⇑P	Pn	12 30 40.6	+0.6
KDM	Kudat	20.52	73	⇓P	P	12 30 49.2	+1.9
SDKM	Sandakan	20.58	77	⇑P	P	12 30 48.1	+0.3
TSM	Tawau	21.02	81	⇓P	P	12 30 52.6	-0.1
QIZ	Qiongzhong	21.69	35	P	P	12 30 58.4	-1.4
QIZ				AP		12 31 08.3	
QIZ				XP	sP	12 31 11.9	-0.4
QIZ				PP		12 31 28.6	
QIZ				XS	sS	12 35 11.4	-0.5
QIZ				AMB	AMB		
	comp=Z,22nm,1.3s,mb4.4						
QIZ				LR	LR		
	comp=N,257nm,16.0s,MS4.0						
QIZ				LR	LR		
	comp=E,349nm,15.6s,MS4.0						
QIZ				LR	LR		
	comp=Z,295nm,15.0s,MS3.8						
QIZ	Qiongzhong	21.69	35	eP	P	12 30 58.4	-1.3
	comp=Z,14nm,0.8s,mb4.4						
MYLDM	Lahad Datu	21.77	79	⇑P	P	12 31 01.7	+0.9
KMI	Kunming	24.39	13	P	P	12 31 27.9	+1.0
KMI				AP		12 31 37.4	
KMI				XP	sP	12 31 41.0	+1.1
KMI				PP		12 32 05.3	
KMI				PPP		12 32 16.0	
KMI				PCP	PcP	12 35 07.4	+1.6
KMI				S	S	12 35 44.9	+0.2
KMI				XS	sS	12 35 58.4	-1.4
KMI				SS		12 36 41.8	
KMI				SSS		12 36 56.8	
KMI				AMB	AMB		
	comp=Z,55nm,1.2s,mb4.9						
KMI				AMB	AMB		
	comp=Z,110nm,3.1s						
KMI				LR	LR		
	comp=N,883nm,12.0s,MS4.5						
KMI				LR	LR		
	comp=E,470nm,12.0s,MS4.5						
KMI				LR	LR		
	comp=Z,977nm,13.8s,MS4.5						
KMI	Kunming	24.39	13	P	P	12 31 27.9	+1.0
	comp=Z,55nm,1.2s,mb4.9						
KMI				pP		12 31 37.4	
KMI				sP	sP	12 31 41.0	+1.1
KMI				PP		12 32 05.3	
KMI				PPP		12 32 16.0	
KMI				PcP	PcP	12 35 07.4	+1.6
KMI				S	S	12 35 44.9	+0.2
KMI				sS	sS	12 35 58.4	-1.4
KMI				SS		12 36 41.7	
KMI				SSS		12 36 56.7	
KMI				LR	LR		
	comp=Z,980nm,13.8s,MS4.5						
KMI	Kunming	24.39	13	P	P	12 31 27.9	+1.0
KMI				*PP		12 31 37.4	
KMI				*SP	sP	12 31 41.0	+1.1
KMI						12 32 05.3	
KMI				PPP		12 32 16.0	
KMI						12 35 07.4	
KMI				S	S	12 35 44.9	+0.2
KMI				*SS	sS	12 35 58.4	-1.4
KMI				SS		12 36 41.7	
KMI				SSS		12 36 56.7	
KMI				pmax	pmax		
	comp=Z,55nm,1.2s,mb4.9						
KMI				MLR	MLR		
	comp=Z,980nm,13.8s,MS4.5						
SHL	Shillong	24.71	349	i P	P	12 31 30.0	+0.2
GYA	Guiyang	26.75	19	⇑iP	P	12 31 47.3	-0.9
GYA				AP	pP	12 31 59.3	+1.9
GYA				XP	sP	12 32 02.9	+1.6
GYA				PP		12 32 36.3	
GYA				PCP	PcP	12 35 13.5	+2.4
GYA				S	S	12 36 23.4	+1.3
GYA				XS	sS	12 36 38.0	+0.8
GYA				SS		12 37 36.6	
GYA				SCP	ScP	12 38 49.9	+0.8
GYA				PCS	PcS	12 38 54.6	+2.0
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.6						
GYA				AMB	AMB		
	comp=Z,80nm,6.8s						
GYA				LR	LR		
	comp=N,620nm,15.4s,MS4.4						
GYA				LR	LR		
	comp=E,520nm,15.0s,MS4.4						
GYA				LR	LR		
	comp=Z,400nm,15.2s,MS4.1						
GZH	Guangzhou	26.89	35	P	P	12 31 52.4	+2.8
GZH				LR	LR		
	comp=N,243nm,14.6s,MS4.0						
GZH				LR	LR		
	comp=E,256nm,14.7s,MS4.0						
GZH				LR	LR		
	comp=Z,592nm,15.5s,MS4.3						
ODAN	Odare	27.13	341	eP	P	12 31 52.6	+0.9
	comp=Z,90nm,0.8s,mb5.3						
TAPN	Taplejung	27.48	342	eP	P	12 31 56.3	+1.5
	comp=Z,167nm,0.9s,mb5.6						
KKN	Kakani	28.73	338	eP	P	12 32 07.0	+1.1
	comp=Z,51nm,0.9s,mb5.2						
LSA	Lhasa	28.88	349	P	P	12 32 09.0	+1.8
LSA				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.0						
LSA	Lhasa	28.88	349	eP	P	12 32 08.9	+1.6
	comp=Z,15nm,0.8s,mb4.8						
LSA	Lhasa	28.88	349	eP	P	12 32 08.9	+1.7
LSA				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.8						
GKN	Gorkha	29.16	337	eP	P	12 32 10.0	+0.2
	comp=Z,71nm,0.9s,mb5.4						
CD2	Chengdu	30.21	12	P	P	12 32 18.0	-1.0
CD2				AP	pP	12 32 27.6	-0.6
CD2				XP	sP	12 32 31.9	-0.2
CD2				PP	PP	12 33 17.1	-11
CD2				S	S	12 37 13.9	-2.6
CD2				XS	sS	12 37 29.8	-1.9
CD2				SS	SS	12 38 53.1	-33
CD2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.0						
CD2				AMB	AMB		
	comp=Z,40nm,5.8s						
CD2				LR	LR		
	comp=N,700nm,14.4s,MS4.6						
CD2				LR	LR		
	comp=E,710nm,14.4s,MS4.6						
CD2				LR	LR		
	comp=Z,600nm,12.6s,MS4.4						
WHN	Wuhan	33.47	28	⇑P	P	12 32 48.0	+0.3
WHN				AMB	AMB		
	comp=Z,24nm,1.0s,mb5.1						
WHN				LR	LR		
	comp=Z,665nm,17.8s,MS4.4						
FITZ	Fitzroy Crossi	34.06	126	eP	P	12 32 52.0	-1.0
	comp=Z,7.1nm,0.6s,mb4.8						
FITZ	Fitzroy Crossi	34.06	126	P	P	12 32 52.1	-1.0
	comp=Z,4.1nm,0.6s,mb4.5,baz=297,slow=6.3,SNR=16						
XAN	Xi'an	34.49	18	P	P	12 32 55.0	-1.5
XAN				AP	pP	12 33 02.1	-3.7
XAN				S	S	12 38 28.3	+5.2
XAN				AMB	AMB		
	comp=Z,17nm,0.6s,mb5.2						
XAN				LR	LR		
	comp=N,292nm,14.3s,MS4.3						
XAN				LR	LR		
	comp=E,357nm,16.2s,MS4.3						
XAN				LR	LR		
	comp=Z,462nm,15.1s,MS4.3						
LZH	Lanzhou	35.26	10	eP	P	12 33 02.8	-0.4
LZH				AP	pP	12 33 12.3	-0.1
LZH				XP	sP	12 33 16.5	+0.2
LZH				eS	S	12 38 34.5	-0.4
LZH				XS	sS	12 38 50.6	+0.3
LZH				eSS	SS	12 40 52.5	-17
LZH				AMB	AMB		
	comp=Z,23nm,1.3s,mb5.0						
LZH				AMB	AMB		
	comp=Z,102nm,5.6s						
LZH				LR	LR		
	comp=E,512nm,13.5s						
LZH				LR	LR		
	comp=Z,934nm,17.8s,MS4.6						
LZH	Lanzhou	35.26	10	eP	P	12 33 02.7	-0.5
	comp=Z,23nm,1.3s,mb5.0						
LZH				pP	pP	12 33 12.3	-0.1
LZH				sP	sP	12 33 16.5	+0.2
LZH				PP	PP	12 34 33.7	+10
LZH				eS	S	12 38 34.5	-0.4
LZH				sS	sS	12 38 50.6	+0.3
LZH				eSS	SS	12 40 52.5	-17
LZH				LR	LR		
	comp=Z,930nm,17.8s,MS4.6						
LZH	Lanzhou	35.26	10	eP	P	12 33 02.7	-0.5
LZH				*PP	pP	12 33 12.3	-0.1
LZH				*SP	sP	12 33 16.5	+0.2
LZH						12 34 33.7	
LZH				eS	S	12 38 34.5	-0.4
LZH				*SS	sS	12 38 50.6	+0.3
LZH				eSS	SS	12 40 52.5	-17
LZH				pmax	pmax		
	comp=Z,23nm,1.3s,mb5.0						
LZH				MLR	MLR		
	comp=Z,930nm,17.8s,MS4.6						
NJ2	Nanjing	36.93	32	eP	P	12 33 16.8	-0.7
NJ2				AP	pP	12 33 26.6	-0.2
NJ2				XP	sP	12 33 30.3	-0.3
NJ2				PP	PP	12 34 42.6	+0.6
NJ2				S	S	12 38 59.0	-1.6
NJ2				XS	sS	12 39 16.0	+0.1
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,110nm,9.4s						
NJ2				LR	LR		
	comp=N,550nm,15.4s,MS4.6						
NJ2				LR	LR		
	comp=E,480nm,14.9s,MS4.6						
NJ2				LR	LR		
	comp=Z,480nm,14.9s,MS4.4						
KAKA	Kakadu	37.75	113	eP	P	12 33 22.6	-2.1
	comp=Z,6.6nm,0.6s,mb4.5						
GTA	Gaotai	38.09	3	⇓P	P	12 33 27.6	+0.4
GTA				AP	pP	12 33 36.8	+0.2
GTA				XP	sP	12 33 40.8	+0.4
GTA				PP	PP	12 34 59.8	+5.1
GTA				PPP		12 35 22.3	
GTA				S	S	12 39 19.9	+1.8
GTA				XS	sS	12 39 36.3	+2.8
GTA				SS	SS	12 41 59.6	-5.8
GTA				AMB	AMB		
	comp=Z,24nm,0.9s,mb4.9						
GTA				AMB	AMB		
	comp=Z,117nm,6.5s						
GTA				LR	LR		
	comp=N,328nm,14.1s,MS4.3						
GTA				LR	LR		
	comp=E,189nm,14.4s,MS4.3						
GTA				LR	LR		
	comp=Z,239nm,16.3s,MS4.1						
HHC	Hu-ho-hao-te	41.58	17	eP	P	12 33 55.3	-0.9
HHC				AP	pP	12 34 05.3	-0.3
HHC				XP	sP	12 34 09.1	-0.4
HHC				PP	PP	12 35 35.6	+2.8
HHC				PCP	PcP	12 35 51.8	-1.3
HHC				SCP	ScP	12 39 38.5	-2.6
HHC				PCS	PcS	12 39 42.5	-1.9
HHC				S	S	12 40 10.8	+0.5
HHC				XS	sS	12 40 27.1	+1.3
HHC				SS	SS	12 43 12.3	-3.8
HHC				SCS	ScS	12 43 53.6	-3.9
HHC				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.4						
HHC				AMB	AMB		
	comp=Z,102nm,5.6s						
HHC				LR	LR		
	comp=N,326nm,16.1s,MS4.4						
HHC				LR	LR		
	comp=E,293nm,16.0s,MS4.4						
HHC				LR	LR		
	comp=Z,331nm,17.1s,MS4.3						
WRA	Warramunga Arr	42.17	122	P	P	12 34 01.0	-0.4
WRA						12 35 55.6	
WRA	Warramunga Arr	42.17	122	P	P	12 34 01.0	-0.4
	comp=Z,7.5nm,0.6s,mb4.5,baz=302,slow=9.0,SNR=134						
WRA				PcP	PcP	12 35 55.6	+0.2
	comp=Z,1.4nm,0.8s,baz=306,slow=3.1,SNR=4.4						
WRA				LR	LR	12 51 04.6	
	comp=Z,138nm,21.9s,MS3.8,baz=305,slow=36						
WB2	Warramunga Arr	42.19	122	eP	P	12 34 00.7	-0.8
BJT	Baijiatuau	42.36	22	eP	P	12 34 03.0	+0.4
	comp=Z,20nm,0.6s,mb4.9						
BJT	Baijiatuau	42.36	22	eP	P	12 34 03.0	+0.4
BJT				pmax	pmax		
	comp=Z,20nm,0.6s						
BJI	Beijing	42.38	22	P	P	12 34 03.0	+0.3
BJI				PP	PP	12 35 40.6	-0.8
BJI				S	S	12 40 23.8	+1.7
BJI				AMB	AMB		
	comp=Z,32nm,0.7s,mb5.1						
BJI				LR	LR		
	comp=N,162nm,14.5s,MS4.3						
BJI				LR	LR		
	comp=E,190nm,12.4s,MS4.3						
BJI				LR	LR		
	comp=Z,87nm,22.9s						
KSH	Kashi	42.69	336	eP	P	12 34 07.1	+1.8
KSH				eAP	pP	12 34 16.1	+1.4
KSH				eXP	sP	12 34 20.4	+1.9
KSH				ePP	PP	12 35 49.1	+4.4
KSH				ePCP	PcP	12 35 58.3	+1.5
KSH				ePPP		12 36 23.0	
KSH				eSCP	ScP	12 39 45.1	-0.5
KSH				ePCS	PcS	12 39 49.3	+0.5
KSH				eS	S	12 40 28.1	+1.4
KSH				eXS	sS	12 40 44.1	+1.9
KSH				eSS	SS	12 43 33.1	-4.9
KSH				eSCS	ScS	12 44 03.0	-1.3
KSH				AMB	AMB		
	comp=Z,282nm,3.6s						
KSH				LR	LR		
	comp=N,785nm,4.9s						
KSH				LR	LR		
	comp=E,570nm,5.6s						
KSH				LR	LR		
	comp=Z,662nm,6.4s						
WMQ	Urumqi	43.23	350	P	P	12 34 10.5	+0.9
WMQ				AP	pP	12 34 20.5	+1.5
WMQ				XP	sP	12 34 24.5	+1.7
WMQ				PP	PP	12 35 53.3	+2.9
WMQ				AMB	AMB		
	comp=Z,21nm,1.0s,mb4.8						
WMQ				AMB	AMB		
	comp=Z,32nm,7.8s						
WMQ				LR	LR		
	comp=N,87nm,24.0s,MS3.8						
WMQ				LR	LR		
	comp=E,123nm,24.0s,MS3.8						
WMQ				LR	LR		
	comp=Z,78nm,26.0s,MS3.5						
FORT	Forrest	43.39	140	eP	P	12 34 13.4	+2.3
	comp=Z,16nm,0.5s,mb5.0						
ASAR	Alice Springs	43.53	127	P	P	12 34 12.4	+0.1
ASAR						12 35 59.9	
ASAR	Alice Springs	43.53	127	P	P	12 34 12.4	+0.1
	comp=Z,4.9nm,0.8s,mb4.3,baz=299,slow=7.9,SNR=79						
ASAR				PcP	PcP	12 35 59.9	0.0
	comp=Z,1.3nm,0.8s,baz=310,slow=3.0,SNR=6.9						
ASAR				ScP	ScP	12 39 51.7	+2.4
	comp=Z,0.3nm,1.0s,baz=317,slow=3.8,SNR=4.6						
JNU	Nakatsue	44.89	41	LR	LR	12 52 55.4	
	comp=Z,109nm,19.7s,MS3.8,baz=321,slow=36						
UCH	Uchtor	45.57	337	P	P	12 34 30.2	+1.9
	SNR=14						
UCH	Uchtor	45.57	337	eP	P	12 34 29.6	+1.3
	comp=Z,9.9nm,0.8s,mb4.8						
TKM2	Tokmak 2	45.74	338	P	P	12 34 31.0	+1.3
	SNR=9.0						
TKM2	Tokmak 2	45.74	338	eP	P	12 34 30.6	+0.9
	comp=Z,11nm,1.0s,mb4.7						
TKM2	Tokmak 2	45.74	338	eP	P	12 34 30.6	+0.9
TKM2				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
KBK	Karagaybulak	45.76	337	P	P	12 34 32.2	+2.4
	SNR=9.4						
AML	Almayashu	45.82	336	P	P	12 34 31.9	+1.6
	SNR=7.0						
AML	Almayashu	45.82	336	eP	P	12 34 32.1	+1.8
	comp=Z,17nm,0.8s,mb5.0						
KSRS	Korea Array	45.92	35	P	P	12 34 30.4	-0.7
	comp=Z,18nm,0.9s,mb5.0,baz=221,slow=9.1,SNR=43						
KSRS				LR	LR	12 54 13.8	
	comp=Z,84nm,19.9s,MS3.7,baz=147,slow=37						
AAK	Ala-Archa	45.92	337	P	P	12 34 37.5	+6.4
	SNR=5.7						
AAK	Ala-Archa	45.92	337	i P	P	12 34 32.0	+0.9
AAK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
AAK				MLR	MLR		
	comp=Z,100nm,14.0s,MS3.9						
EKS2	Erkin-Say	46.23	336	P	P	12 34 35.4	+1.8
	SNR=5.5						
USP	Ospenovka	46.46	337	P	P	12 34 36.4	+1.1
	SNR=19						
SONM	Songino Array	47.13	9	P	P	12 34 40.9	+0.4
SONM						12 36 12.5	
SONM	Songino Array	47.13	9	P	P	12 34 40.9	+0.3
	comp=Z,11nm,0.7s,mb4.9,baz=188,slow=9.1,SNR=132						

SONM				PcP	PcP	12 36 12.5	+0.6
	comp=Z,2.6nm,0.6s,baz=194,slow=3.5,SNR=7.0						
SONM				LR	LR	12 57 12.5	
	comp=Z,424nm,18.1s,MS4.5,baz=357,slow=40						
MK31	**Makanchi Array**	**47.19**	**346**	*e*P	**P**	**12 34 41.4**	**+0.5**
MK31	**Makanchi Array**	**47.19**	**346**	*i* P	**P**	**12 34 41.0**	**+0.1**
MK31				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
MKAR	**Makanchi Array**	**47.19**	**346**	*e*P	**P**	**12 34 41.0**	**+0.1**
MKAR				pmax	pmax		
	comp=Z,7.0nm,0.7s						
MKAR	**Makanchi Array**	**47.19**	**346**	P	**P**	**12 34 41.5**	**+0.6**
	comp=Z,7.2nm,0.5s,mb4.9,baz=159,slow=8.2,SNR=111						
MKAR				LR	LR	12 58 39.2	
	comp=Z,91nm,20.0s,MS3.7,baz=156,slow=41						
ULN	**Ulaanbaatar**	**47.27**	**9**	*e*P	**P**	**12 34 41.6**	**0.0**
	comp=Z,6.6nm,0.8s,mb4.6						
ULN	**Ulaanbaatar**	**47.27**	**9**	*e*P	**P**	**12 34 41.6**	**+0.1**
ULN				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
KK31	**Karatay Array**	**47.97**	**334**	*i* P	**P**	**12 34 47.3**	**+0.2**
KK31				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
KKAR	**Karatay Array**	**47.97**	**334**	P	**P**	**12 34 47.3**	**+0.2**
KKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
ZAK	**Zakamensk**	**49.27**	**5**	*e*P	**P**	**12 34 56.1**	**-0.8**
ZAK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
CN2	**Changchun**	**49.36**	**27**	⇑P	**P**	**12 34 57.0**	**-0.8**
CN2				*e*S	**S**	**12 42 01.3**	**-1.1**
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.2						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,500nm,18.0s,MS4.7						
CN2				LR	LR		
	comp=E,400nm,18.0s,MS4.7						
CN2				LR	LR		
	comp=Z,400nm,19.0s,MS4.4						
MOY	**Mondy**	**50.38**	**3**	*e*P	**P**	**12 35 05.5**	**+0.1**
TLY	**Talaya**	**50.59**	**5**	*e*P	**P**	**12 35 07.3**	**+0.4**
	comp=Z,7.8nm,0.8s,mb4.7						
TLY	**Talaya**	**50.59**	**5**	*e*P	**P**	**12 35 07.5**	**+0.6**
TLY				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
TLY				MLR	MLR		
	comp=Z,171nm,16.0s,MS4.2						
HIA	**Hailar**	**51.67**	**19**	*e*P	**P**	**12 35 14.9**	**-0.2**
	comp=Z,14nm,0.9s,mb4.9						
HIA	**Hailar**	**51.67**	**19**	*e*P	**P**	**12 35 14.9**	**-0.2**
HIA				pmax	pmax		
	comp=Z,13nm,0.9s						
KURK	**Kurchatov**	**51.73**	**345**	*e*P	**P**	**12 35 15.8**	**+0.3**
	comp=Z,10.0nm,0.9s,mb4.8						
KURK	**Kurchatov**	**51.73**	**345***c*	*i*P	**P**	**12 35 16.0**	**+0.4**
MJAR	**Matsushiro Arr**	**51.78**	**42**	P	**P**	**12 35 16.3**	**+0.1**
	comp=Z,2.8nm,0.8s,mb4.2,baz=224,slow=6.3,SNR=10						
MDJ	**Mudanjiang**	**51.92**	**29**	P	**P**	**12 35 17.6**	**+0.5**
MDJ				AP	pP	12 35 26.8	+0.1
MDJ				XP	sP	12 35 30.5	0.0
MDJ				PP	PP	12 37 15.6	+0.2
MDJ				PCS	PcS	12 40 27.8	+0.4
MDJ				S	**S**	**12 42 39.5**	**+1.5**
MDJ				XS	sS	12 42 55.3	+1.5
MDJ				SCS	ScS	12 45 05.3	+0.3
MDJ				AMB	AMB		
	comp=Z,12nm,0.8s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,125nm,4.8s						
MDJ				LR	LR		
	comp=N,142nm,14.5s,MS4.3						
MDJ				LR	LR		
	comp=E,132nm,14.8s,MS4.3						
MDJ				LR	LR		
	comp=Z,270nm,16.5s,MS4.4						
MDJ	**Mudanjiang**	**51.92**	**29**	*e*P	**P**	**12 35 17.3**	**+0.2**
	comp=Z,8.9nm,0.8s,mb4.8						
VLA	**Vladivostok**	**52.04**	**32**	*i* P	**P**	**12 35 18.7**	**+0.7**
CIT	**Chita**	**52.49**	**13**	*e*P	**P**	**12 35 22.0**	**+0.9**
CIT				*e*	pP	12 35 29.8	-1.0
CIT				*e*		12 35 40.7	
STKA	**Stephens Creek**	**53.48**	**132**	*e*P	**P**	**12 35 29.2**	**+0.3**
	comp=Z,4.4nm,0.6s,mb4.6						
STKA	**Stephens Creek**	**53.48**	**132**	P	**P**	**12 35 29.4**	**+0.6**
	comp=Z,4.8nm,0.6s,mb4.6,baz=307,slow=6.6,SNR=11						
ZAL	**Zalesovo**	**53.51**	**351**	P	**P**	**12 35 29.0**	**+0.4**
ZALV	**Zalesovo Beam**	**53.52**	**351**	P	**P**	**12 35 28.9**	**+0.3**
	comp=Z,31nm,0.7s,mb5.3,baz=180,slow=6.7,SNR=141						
NVS	**Novosibirsk**	**54.63**	**350**	*i* P	**P**	**12 35 36.4**	**-0.4**
NVS				pmax	pmax		
	comp=N,8.0nm,0.9s						
NVS				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
NVS				pmax	pmax		
	comp=E,3.0nm,0.4s						
BRVK	**Borovoye**	**56.24**	**341**	*e*P	**P**	**12 35 47.7**	**-0.7**
	comp=E,13nm,1.0s,mb4.9						
BRVK	**Borovoye**	**56.24**	**341**	*e*P	**P**	**12 35 47.7**	**-0.8**
BRVK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
KLR	**Kul'dur**	**56.31**	**27**	*e*P	**P**	**12 35 45.9**	**-3.1**
KLR				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.3						
HABR	**Khabarovsk**	**57.31**	**29**	*e*P	**P**	**12 35 55.5**	**-0.7**
HABR				*e*S	**S**	**12 43 55.0**	**+4.6**
HABR				*e*PS		12 44 09.7	
HABR				pmax	pmax		
	comp=Z,19nm,1.3s,mb5.0						
AB31	**Akbulak array**	**57.42**	**332**	*i* P	**P**	**12 35 56.5**	**-0.4**
AB31				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.0						
BOD	**Bodaibo**	**58.02**	**11**	⇑*i*P	**P**	**12 36 01.1**	**+0.2**
BOD				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
AKTK	**Aktyubinsk**	**59.14**	**332**	P	**P**	**12 36 08.5**	**-0.4**
AKTO	**Aktyubinsk**	**59.14**	**332**	P	**P**	**12 36 08.5**	**-0.4**
	comp=Z,6.0nm,0.8s,mb4.7,baz=138,slow=6.2,SNR=23						
YSS	**Yuzh-Sakhalins**	**60.42**	**34**	*e*P	**P**	**12 36 17.1**	**-0.7**
	comp=Z,10.0nm,0.8s,mb4.9						
YSS	**Yuzh-Sakhalins**	**60.42**	**34**	*e*P	**P**	**12 36 16.7**	**-1.1**
YSS				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.4						
ARU	**Arti**	**63.11**	**337**	*e*P	**P**	**12 36 35.0**	**-0.7**
	comp=Z,8.8nm,1.1s,mb4.8						
ARU	**Arti**	**63.11**	**337**	⇑*e*P	**P**	**12 36 35.2**	**-0.5**
ARU				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
KIV	**Kislovodsk**	**64.19**	**319**	*e*P	**P**	**12 36 43.2**	**+0.1**
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
ASF	**Jabal al Asfar**	**64.33**	**305**	LR	LR	13 06 14.8	
	comp=Z,37nm,21.0s,MS3.5,baz=36,slow=38						
YAK	**Yakutsk**	**65.44**	**16**	*e*P	**P**	**12 36 50.1**	**-0.8**
	comp=Z,52nm,1.0s,mb5.5						
YAK				*e*		12 36 57.3	
YAK	**Yakutsk**	**65.44**	**16**	*e*P	**P**	**12 36 50.1**	**-0.8**
YAK				*e*		12 36 57.3	
YAK				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.5						
SOKR	**Solikamsk**	**66.01**	**339**	*e*P	**P**	**12 36 52.5**	**-2.1**
SOKR				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
BRTR	**Keskin Array B**	**68.99**	**312**	P	**P**	**12 37 13.1**	**-0.8**
	comp=Z,1.3nm,0.7s,mb4.0,baz=101,slow=6.5,SNR=6.0						
MA2	**Magadan**	**71.38**	**26**	*e*P	**P**	**12 37 27.7**	**-0.4**
	comp=Z,10nm,0.7s,mb4.9						
MA2	**Magadan**	**71.38**	**26***c*	*i*P	**P**	**12 37 27.8**	**-0.3**
MA2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
MA2				MLR	MLR		
	comp=Z,100nm,14.0s,MS4.2						
PRGR	**Permogore**	**71.56**	**337**	*e*P	**P**	**12 37 28.4**	**-0.7**
PRGR				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.2						
PET	**Petropavlovsk**	**72.30**	**34**	*e*P	**P**	**12 37 32.8**	**-0.9**
PET				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.2						
OBN	**Obninsk**	**72.52**	**328**	*i* P	**P**	**12 37 34.5**	**-0.5**
OBN				*e*		12 40 12.4	
OBN				*e*S	S	12 47 00.2	+3.0
OBN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
TIXI	**Tiksi**	**73.19**	**10**	*e*P	**P**	**12 37 37.5**	**-1.2**
	comp=Z,8.7nm,0.8s,mb4.7						
TIXI	**Tiksi**	**73.19**	**10**	*e*P	**P**	**12 37 36.4**	**-2.3**
TIXI				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,195nm,16.0s,MS4.5						
SEY	**Seymchan**	**73.80**	**23**	⇓*e*P	**P**	**12 37 40.4**	**-2.0**
BOSA	**Boshof**	**74.66**	**240**	LR	LR	13 08 48.3	
	comp=Z,57nm,18.9s,MS3.9,baz=180,slow=34						
AKASG	**Malin Array Be**	**75.15**	**322**	P	**P**	**12 37 49.3**	**-1.2**
	comp=Z,2.2nm,0.6s,mb4.3,baz=88,slow=5.1,SNR=14						
JOF	**Joensuu**	**78.06**	**335**	*e*p	**P**	**12 38 05.6**	**-1.1**
	comp=Z,2.6nm,0.6s,mb4.3						
RPZ	**Rata Peaks**	**79.33**	**135**	P	**P**	**12 38 14.7**	**+0.6**
	comp=Z,3.4nm,0.6s,mb4.5,baz=247,slow=7.7,SNR=4.3						
FINES	**FINESS Array B**	**79.91**	**333**	P	**P**	**12 38 16.9**	**0.0**
	comp=Z,3.3nm,0.8s,mb4.3,baz=111,slow=5.0,SNR=9.0						
SYO	**Syowa Base**	**79.97**	**198**	⇑*e*P	**P**	**12 38 17.6**	**+0.6**
SYO	**Syowa Base**	**79.97**	**198**	⇓*e*pP	pP	12 38 32.0	+4.9
SYO	**Syowa Base**	**79.97**	**198**	⇓*e*PP	PP	12 41 23.0	+4.0
KAF	**Kangasniemi**	**80.00**	**333**	*e*p	**P**	**12 38 16.4**	**-0.9**
	comp=Z,2.0nm,0.5s,mb4.3						
KAF	**Kangasniemi**	**80.00**	**333**	*e*P	**P**	**12 38 16.4**	**-0.9**
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
BILL	**Bilibino**	**81.20**	**21**	*i* P	**P**	**12 38 22.5**	**-1.2**
BILL				*e*		12 41 31.0	
BILL				*e*SS	SS	12 53 55.9	+9.0
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
ARCES	**ARCESS Array B**	**82.47**	**340**	P	**P**	**12 38 30.1**	**-0.1**
	comp=Z,1.6nm,0.5s,mb4.2,baz=99,slow=4.5,SNR=14						
GERES	**GERESS Array B**	**84.70**	**319**	P	**P**	**12 38 42.4**	**+0.2**
	comp=Z,1.9nm,0.8s,mb4.3,baz=102,slow=4.5,SNR=7.4						
NB2	**NORSAR Subarra**	**86.92**	**331**	P	**P**	**12 38 52.7**	**-0.2**
	comp=Z,0.2nm,0.8s,mb3.4,baz=95,slow=5.6						
NOA	**NORSAR Array B**	**86.92**	**331**	P	**P**	**12 38 52.6**	**-0.3**
	comp=Z,1.8nm,0.8s,mb4.4,baz=94,slow=4.9,SNR=7.4						
COLA	**College**	**99.32**	**23**	*i* P	**P**	**12 39 47.1**	**-3.0**
YKA	**Yellowknife Ar**	**112.11**	**15**	PP	PP	12 45 23.5	-3.6
	comp=Z,0.8nm,1.0s,baz=330,slow=7.7,SNR=4.2						
NVAR	**Mina Array Bea**	**128.86**	**36**	PKP	PKPdf	12 45 16.6	+0.4
NVAR	**Mina Array Bea**	**128.86**	**36**	PKP	PKPdf	12 45 16.6	+0.4
	comp=Z,0.5nm,0.6s,baz=331,slow=0.5,SNR=4.7						
PDAR	**Pinedale Array**	**130.09**	**26**	PKP	PKPdf	12 45 16.9	-1.5
PDAR	**Pinedale Array**	**130.09**	**26**	PKP	PKPdf	12 45 16.9	-1.5
	comp=Z,0.6nm,0.8s,baz=319,slow=1.6,SNR=4.2						
TXAR	**Lajitas Array**	**143.73**	**31**	PKP	PKPdf	12 45 41.8	-2.1
	comp=Z,1.2nm,0.8s,baz=152,slow=0.2,SNR=15						
JCT	**Junction City**	**144.63**	**26**	*e*PKPdf	PKPdf	12 45 44.4	-1.1
JCT	**Junction City**	**144.63**	**26**	*e*PKIKP	PKPdf	12 45 44.4	-1.1

IDC 18 13:05:36.9±2.1, 256N×9613E, h0^{km}, mb3.4/5, mb1 3.4/6, mb1mx3.3/22, mbtmp3.3/6, ML2.3/1, Error ellipse: s-maj=67.4km s-min=21.4km az=55.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.81**	**85**	Pn	Pn	13 06 23.4	+0.3
	0.4nm,0.3s,baz=160,slow=15,SNR=2.6						
WRA	**Warramunga Arr**	**43.66**	**123**	P	P	13 13 43.8	0.0
	0.2nm,0.9s,baz=300,slow=9.3,SNR=2.8						
ASAR	**Alice Springs**	**45.06**	**127**	P	P	13 13 54.8	-0.2
	0.2nm,0.9s,baz=301,slow=7.4,SNR=3.1						
MKAR	**Makanchi Array**	**45.68**	**347**	P	P	13 13 59.7	+0.2
	0.3nm,0.4s,baz=152,slow=9.3,SNR=8.0						
SONM	**Songino Array**	**45.97**	**10**	P	P	13 14 01.5	-0.2
	0.5nm,0.7s,baz=188,slow=10,SNR=5.3						
ZALV	**Zalesovo Beam**	**52.06**	**352**	P	P	13 14 48.2	-0.2
	0.2nm,0.3s,baz=175,slow=8.1,SNR=4.1						

KRSC 18 13:11:28.3±0.6, 5436N×16268E, h18^{km}±18^{km}, ML3.6, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKZ	**Mys Kozlova**	**0.59**	**290**	*e*P	Pg	13 11 40.0	0.0
MKZ				*i* S	Sg	13 11 49.1	+1.2
TUMR	**Tumrok**	**1.73**	**303**	*e*P	Pn	13 11 58.4	+0.9
TUMR				*e*S	Sn	13 12 20.3	+1.2
KBTR	**Krutoberegovo**	**1.85**	**2**	*e*P	Pn	13 11 58.4	-0.7
KBTR				*i* S	Sn	13 12 20.6	-1.5
KII	**Karymskiy**	**1.93**	**262**	*e*P	Pn	13 12 01.3	+1.2
ZLN	**Zelenaya**	**1.98**	**328**	*e*P	Pn	13 12 02.3	+1.5
ZLN				*e*S	Sn	13 12 27.0	+1.9
KMNR	**Kamenistaya**	**1.98**	**316**	*e*P	Pn	13 12 02.6	+1.7
KMNR				*i* S	Sn	13 12 27.5	+2.3
SPN	**Mys Shipunski**	**2.02**	**232**	*e*P	Pn	13 12 01.3	-0.1
SPN				*i* S	Sn	13 12 25.9	-0.3
KPT	**Kopyto**	**2.14**	**320**	*e*P	Pn	13 12 05.1	+2.1
KPT				*i* S	Sn	13 12 32.4	+3.3
KRSR	**Krestovskiy**	**2.22**	**328**	P	Pn	13 12 05.0	+0.9
KRSR				*i* S	Sn	13 12 31.1	0.0
KLY	**Klyuchi**	**2.27**	**330**	*e*P	Pn	13 12 05.2	+0.3
KLY				*i* S	Sn	13 12 31.9	-0.5
NLC	**Nalytchevo**	**2.31**	**240**	*e*P	Pn	13 12 05.8	+0.4
NLC				*i* S	Sn	13 12 33.6	+0.3
KOZ	**Kozyrevsk**	**2.34**	**318**	*e*P	Pn	13 12 07.8	+2.0
KOZ				*i* S	Sn	13 12 36.7	+2.6
AVH	**Avacha**	**2.58**	**246**	*e*P	Pn	13 12 11.0	+1.9
AVH				*i* S	Sn	13 12 42.3	+2.3
SRDR	**Sredinnyy**	**2.59**	**320**	P	Pn	13 12 09.7	+0.5
SRDR				*i* S	Sn	13 12 39.4	-0.8
PET	**Petropavlovsk**	**2.74**	**242**	P	Pn	13 12 12.1	+0.8
PET				*i* S	Sn	13 12 44.5	+0.5
GNL	**Ganaly**	**2.87**	**259**	*e*P	Pn	13 12 15.6	+2.5
GNL				*e*S	Sn	13 12 49.9	+2.7
RUS	**Russkaya**	**3.15**	**234**	*e*P	Pn	13 12 18.1	+1.1
RUS				*i* S	Sn	13 12 53.7	-0.4
GRL	**Gorelyy**	**3.30**	**239**	P	Pn	13 12 22.9	+4.0

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*BJI **18** 13:20:22.1, 48.44N×155.12E, h37^{km}, mB4.6, mb4.5, Ms4.4, Msz4.0*

*NEIC **18** 13:20:23.6±0.2, 48.46N×154.48E, h10^{km}, mb4.6/37, Error ellipse: s-maj=8.0km s-min=4.3km az=149.0*

*MOS **18** 13:20:24.1±0.8, 48.34N×154.53E, h28^{km}, mb4.7/23, Error ellipse: s-maj=9.9km s-min=6.8km az=85.0*

*SKHL **18** 13:20:25.8±2.7, 48.12N×155.18E, h53^{km}±17^{km}, mb5.6/3, msh5.7/1*

*ISCJB **18** 13:20:26.3±0.2, 48.40N±0.04×154.59E±0.03, h45^{km}, mb4.5/80, MS3.9/18, Error ellipse: s-maj=6.0km s-min=2.4km az=158.8*

*IDC **18** 13:20:32.2±3.5, 48.52N×154.40E, h83^{km}±31^{km}, mb3.9/22, mb1 4.1/23, mb1mx4.1/27, mbtmp4.0/23, MS3.8/9, Ms1 3.8/9, ms1mx3.4/39, Error ellipse: s-maj=15.6km s-min=11.0km az=135.0*

ISC 18 13:20:28.6±0.2, 4846N±004×15451E±003, h47^{km}, h47^{km}±1.4^{km}:pP-P, n305, σ0^{s}89/311, mb4.5/80, MS3.9/18, 51C-46D, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**2.46**	**24**	*e*PN	**Pn**	**13 21 04.9**	**-1.3**
SKR				pmax	pmax		
	comp=Z,260nm,0.7s						
SKR				pmax	pmax		
	comp=N,100nm,0.4s						
SKR				pmax	pmax		
	comp=E,80nm,0.5s						
SKR	**Severo-Kuril's**	**2.46**	**24**	*e*P	**Pn**	**13 21 05.9**	**-0.3**
PET	**Petropavlovsk**	**5.28**	**28**	*e*Pn	**Pn**	**13 21 44.8**	**-0.1**
PET	**Petropavlovsk**	**5.28**	**28**	*e*PN	**Pn**	**13 21 45.2**	**+0.4**
PET				pmax	pmax		
	comp=Z,82nm,0.6s						
PET				MLR	MLR		
	comp=Z,200nm,19.0s						
PET	**Petropavlovsk**	**5.28**	**28**	*e*P	**Pn**	**13 21 45.1**	**+0.3**
KUR	**Kuril'sk**	**5.58**	**237**	⇑*i*PN	**Pn**	**13 21 52.2**	**+3.2**
KUR				*i* S	**Sn**	**13 22 55.0**	**+3.2**
KUR				pmax	pmax		
	comp=N,140nm,0.5s						
KUR				pmax	pmax		
	comp=E,140nm,0.5s						
KUR				pmax	pmax		
	comp=Z,360nm,0.5s						
KUR				smax			
	comp=N,380nm,0.5s						
KUR				smax			
	comp=E,90nm,0.5s						
KUR				smax			
	comp=N,2µm,2.0s						
KUR				smax			
	comp=E,2µm,2.0s						
KUR	**Kuril'sk**	**5.58**	**237**	*i* P	**Pn**	**13 21 52.2**	**+3.2**
KUR				AMB	AMB	13 21 53.4	
	comp=E,140nm,0.5s						
KUR				AMB	AMB	13 21 53.4	
	comp=E,360nm,0.5s						
KUR				*i* S	**Sn**	**13 22 55.0**	**+3.2**
KUR				A		13 23 01.6	
	comp=E,380nm,0.5s						
KUR				A		13 23 01.6	
	comp=E,90nm,0.5s						
KUR				A		13 23 15.6	
	comp=E,2µm,2.0s						
KUR				A		13 23 15.6	
	comp=E,2µm,2.0s						
YUK	**Yuzh-Kuril'sk**	**7.45**	**237**	⇑*i*PN	**Pn**	**13 22 16.2**	**+1.6**
YUK				*e*S	**Sn**	**13 23 41.0**	**+3.3**
YUK				pmax	pmax		
	comp=Z,570nm,0.5s						
YUK				smax			
	comp=N,280nm,0.5s						
YUK				smax			
	comp=E,180nm,0.5s						
YUK	**Yuzh-Kuril'sk**	**7.45**	**237**	*i* P	**Pn**	**13 22 16.2**	**+1.6**
YUK				AMB	AMB	13 22 16.6	
	comp=E,570nm,0.5s						
YUK				*e*S	**Sn**	**13 23 41.0**	**+3.3**
YUK				A		13 23 47.5	
	comp=E,280nm,0.5s						
YUK				A		13 23 47.5	
	comp=E,180nm,0.5s						
YSS	**Yuzh-Sakhalins**	**8.07**	**264**	*e*Pn	**Pn**	**13 22 26.9**	**+3.8**
YSS	**Yuzh-Sakhalins**	**8.07**	**264**	*i* P	**Pn**	**13 22 27.0**	**+3.8**
YSS				AMB	AMB	13 22 29.5	
	comp=E,90nm,1.0s						
YSS				*e*S	**Sn**	**13 23 54.0**	**+1.0**
YSS				A		13 23 59.5	
	comp=E,50nm,0.7s						
YSS				AMS	AMS	13 26 30.0	
	comp=E,300nm,14.0s						
UGL	**Uglegorsk**	**8.25**	**279**	*e*PN	**Pn**	**13 22 29.0**	**+3.4**
UGL				pmax	pmax		
	comp=Z,47nm,0.6s						
UGL				MLR	MLR		
	comp=N,500nm,17.0s						
UGL				MLR	MLR		
	comp=E,500nm,17.0s						
UGL				MLR	MLR		
	comp=Z,500nm,17.0s						
JMP	**Maruseppu**	**8.92**	**244**	P	**Pn**	**13 22 37.2**	**+2.5**
ASAJ	**Asahikawa**	**9.32**	**247**	P	**Pn**	**13 22 44.2**	**+4.0**
ASAJ	**Asahikawa**	**9.32**	**247**	PN	**Pn**	**13 22 44.4**	**+4.2**
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,360nm,21.5s						
ASAJ	**Asahikawa**	**9.32**	**247**	P	**Pn**	**13 22 44.4**	**+4.2**
	comp=Z,5.7nm,0.3s,baz=76,slow=13,SNR=113						
ASAJ				LR	LR	13 25 55.4	
	comp=Z,360nm,21.5s,baz=336,slow=35						
ERM	**Erimo**	**10.27**	**235**	*e*Pn	**Pn**	**13 22 52.5**	**-0.7**
	comp=Z,30nm,0.4s						
ERM	**Erimo**	**10.27**	**235**	*e*PN	**Pn**	**13 22 52.5**	**-0.7**
ERM				pmax	pmax		
	comp=Z,30nm,0.4s						
JEM	**Erimo**	**10.27**	**235**	P	**Pn**	**13 22 51.8**	**-1.4**
JEW	**Eniwo**	**10.72**	**243**	P	**Pn**	**13 23 00.9**	**+1.4**
MA2	**Magadan**	**11.36**	**350**	*e*Pn	**Pn**	**13 23 09.9**	**+1.9**
MA2	**Magadan**	**11.36**	**350**	⇓*e*PN	**Pn**	**13 23 10.2**	**+2.2**
JSH	**Shimam**	**11.68**	**246**	P	**Pn**	**13 23 13.8**	**+1.2**
JOT	**Ohata**	**11.87**	**238**	P	**Pn**	**13 23 12.4**	**-2.7**
JTM	**Tenmabayashi**	**12.26**	**236**	P	**Pn**	**13 23 17.0**	**-3.4**
HABR	**Khabarovsk**	**12.92**	**277**	*e*PN	**Pn**	**13 23 28.6**	**-0.8**
JOM	**Ohasama**	**13.07**	**232**	P	**Pn**	**13 23 26.8**	**-4.7**
JYA	**Atsumi**	**14.55**	**233**	P	**Pn**	**13 23 47.7**	**-3.8**
SEY	**Seymchan**	**14.56**	**356**	*i* P	**Pn**	**13 23 55.5**	**+4.0**
KLR	**Kul'dur**	**15.00**	**282**	*e*P	**Pn**	**13 24 00.0**	**+2.6**
JSD	**Sado**	**15.73**	**235**	P	**Pn**	**13 24 10.9**	**+3.9**
MAJO	**Matsushiro**	**16.88**	**231**	*e*P	**Pn**	**13 24 18.6**	**-2.8**
MAT	**Matsushiro**	**16.88**	**231**	P	**Pn**	**13 24 19.0**	**-2.4**
MAT	**Matsushiro**	**16.88**	**231**	P	**Pn**	**13 24 19.1**	**-2.3**
MJAR	**Matsushiro Arr**	**16.88**	**231**	P	**Pn**	**13 24 18.9**	**-2.4**
	comp=Z,0.9nm,0.3s,baz=28,slow=14,SNR=27						
MDJ	**Mudanjiang**	**17.54**	**267**	P	**Pn**	**13 24 28.3**	**-1.3**
MDJ				S	**S**	**13 27 42.3**	**-7.5**
MDJ				XS	sS	13 27 56.9	-10
MDJ				PCS	PcS	13 32 43.6	+0.2
MDJ				AMB	AMB		
	comp=Z,14nm,1.0s						
MDJ				AMB	AMB		
	comp=Z,53nm,5.3s						
MDJ				LR	LR		
	comp=Z,114nm,26.1s						
MDJ	**Mudanjiang**	**17.54**	**267**	*e*P	**Pn**	**13 24 30.7**	**+1.2**
	comp=Z,17nm,1.0s						
JWT	**Wachi**	**19.32**	**234**	P	**Pn**	**13 24 49.7**	**-1.4**
YAK	**Yakutsk**	**19.45**	**324**	*e*P	**Pn**	**13 24 50.4**	**-2.1**
	comp=Z,32nm,0.8s						
YAK	**Yakutsk**	**19.45**	**324**	*i* P	**Pn**	**13 24 53.6**	**+1.1**
CLNS	**Chul'man**	**19.70**	**306**	*e*P	**Pn**	**13 24 57.9**	**+2.4**
CLNS				pmax	pmax		
	comp=N,23nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,29nm,0.8s						
CLNS				pmax	pmax		
	comp=E,17nm,1.0s						
JAD	**Aida**	**20.24**	**236**	P	**P**	**13 25 00.1**	**+0.3**
BILL	**Bilibino**	**20.52**	**13**	*e*P	**P**	**13 25 00.8**	**-1.7**
BILL				*e*		13 25 11.4	
BILL				pmax	pmax		
	comp=Z,7.0nm,1.1s						
CN2	**Changchun**	**20.61**	**268**	⇓P	**P**	**13 25 01.6**	**-2.1**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s						
KSRS	**Korea Array**	**22.24**	**250**	P	**P**	**13 25 21.8**	**+0.6**
	comp=Z,15nm,1.0s,mb4.4,baz=49,slow=10,SNR=25						
KSRS				LR	LR	13 33 36.7	
	comp=Z,112nm,18.6s,MS3.3,baz=45,slow=35						
KS15	**Wonju Array Si**	**22.27**	**250**	*e*P	**P**	**13 25 21.9**	**+0.4**
HIA	**Hailar**	**22.77**	**285**	*i* P	**P**	**13 25 26.8**	**0.0**
JNU	**Nakatsue**	**23.42**	**238**	P	**P**	**13 25 33.8**	**+0.2**
	comp=Z,13nm,1.0s,mb4.3,baz=55,slow=8.6,SNR=4.6						
BOD	**Bodaibo**	**25.68**	**307**	*e*P	**P**	**13 25 50.7**	**-3.1**
BOD				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.5						
BOD				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.0						
TNA	**Tin City**	**26.09**	**35**	*e*P	**P**	**13 25 59.6**	**+2.1**
	comp=Z,8.0nm,0.9s,mb4.2						
TIXI	**Tiksi**	**26.12**	**342**	*e*P	**P**	**13 25 59.1**	**+1.4**
	comp=Z,6.0nm,1.2s,mb4.0						
TIXI	**Tiksi**	**26.12**	**342**	*e*P	**P**	**13 25 55.0**	**-2.7**
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb3.9						
BJI	**Beijing**	**28.47**	**267**	P	**P**	**13 26 18.9**	**-0.2**
BJI				S	**S**	**13 31 05.8**	**+2.6**
BJI				AMB	AMB		
	comp=Z,3.0nm,1.0s,mb3.9						
BJI				LR	LR		
	comp=Z,87nm,34.2s						
HHC	**Hu-ho-hao-te**	**31.15**	**272**	*e*P	**P**	**13 26 41.9**	**-0.8**
HHC				S	**S**	**13 31 47.0**	**+1.9**
HHC				AMB	AMB		
	comp=Z,7.0nm,1.2s,mb4.4						
HHC				AMB	AMB		
	comp=Z,48nm,4.8s						
HHC				LR	LR		
	comp=N,102nm,17.1s,MS3.7						
HHC				LR	LR		
	comp=E,82nm,17.1s,MS3.7						
HHC				LR	LR		
	comp=Z,151nm,19.9s,MS3.7						
ULN	**Ulaanbaatar**	**31.27**	**287**	*e*P	**P**	**13 26 44.5**	**+0.7**
	comp=Z,2.8nm,1.0s,mb4.0						
ULN	**Ulaanbaatar**	**31.27**	**287**	⇑*e*P	**P**	**13 26 44.2**	**+0.5**
NJ2	**Nanjing**	**31.42**	**252**	*e*P	**P**	**13 26 46.8**	**+1.6**
NJ2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.9						
SONM	**Songino Array**	**31.70**	**287**	P	**P**	**13 26 46.7**	**-0.8**
SONM						13 29 37.8	
SONM	**Songino Array**	**31.70**	**287**	P	**P**	**13 26 46.7**	**-0.8**
	comp=Z,1.4nm,0.9s,mb3.8,baz=66,slow=8.4,SNR=12						
SONM				PcP	PcP	13 29 37.8	-0.4

	comp=Z,1.7nm,0.7s,baz=101,slow=2.3,SNR=13						
SONM				LR	LR	13 40 47.7	
	comp=Z,194nm,19.0s,MS3.8,baz=28,slow=38						
TLY	**Talaya**	**32.27**	**295**	*i*P	**P**	**13 26 53.4**	**+0.9**
ZAK	**Zakamensk**	**32.85**	**293**	*e*P	**P**	**13 26 57.7**	**+0.1**
ZAK				*e*		13 29 40.4	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.8						
MCK	**McKinley**	**33.74**	**42**	*e*P	**P**	**13 27 04.7**	**-0.5**
	comp=Z,13nm,1.4s,mb4.7						
MCK	**McKinley**	**33.74**	**42**	*e*P	**P**	**13 27 04.7**	**-0.5**
MCK				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.7						
COLA	**College**	**34.22**	**40**	*e*P	**P**	**13 27 09.2**	**-0.1**
	comp=Z,8.9nm,0.8s,mb4.8						
COLA	**College**	**34.22**	**40**	*d* *i*P	**P**	**13 27 09.7**	**+0.4**
WHN	**Wuhan**	**35.29**	**254**	*e*P	**P**	**13 27 18.6**	**-0.3**
EGAK	**Eagle**	**37.08**	**40**	*e*P	**P**	**13 27 33.2**	**-0.6**
	comp=Z,11nm,0.9s,mb4.7						
LZH	**Lanzhou**	**38.80**	**271**	*e*P	**P**	**13 27 49.3**	**+0.7**
LZH				PP	PP	13 29 21.5	+3.5
LZH				AMB	AMB		
	comp=Z,19nm,1.4s,mb4.6						
LZH				AMB	AMB		
	comp=Z,63nm,5.3s						
LZH				LR	LR		
	comp=E,437nm,13.4s						
LZH				LR	LR		
	comp=Z,602nm,17.6s,MS4.5						
LZH	**Lanzhou**	**38.80**	**271**	*e*P	**P**	**13 27 49.2**	**+0.6**
	comp=Z,19nm,1.4s,mb4.6						
LZH				pP	pP	13 27 53.7	-7.4
LZH				sP	sP	13 27 56.3	-10
LZH				PP	PP	13 29 21.5	+3.5
LZH				LR	LR		
	comp=Z,600nm,17.6s,MS4.5						
LZH	**Lanzhou**	**38.80**	**271**	*e*P	**P**	**13 27 49.2**	**+0.6**
LZH				*SP	sP	13 27 56.3	-10
LZH						13 29 21.5	
LZH				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.6						
LZH				MLR	MLR		
	comp=Z,600nm,17.6s,MS4.5						
GTA	**Gaotai**	**39.66**	**278**	*e*P	**P**	**13 27 56.4**	**+0.6**
GTA				PP	PP	13 29 32.6	+5.3
GTA				PPP		13 29 56.6	
GTA				S	**S**	**13 34 00.3**	**+4.7**
GTA				SS	SS	13 36 49.9	-2.0
GTA				AMB	AMB		
	comp=Z,3.0nm,1.2s,mb3.9						
GTA				AMB	AMB		
	comp=Z,70nm,5.7s						
GTA				LR	LR		
	comp=N,106nm,16.0s,MS4.0						
GTA				LR	LR		
	comp=E,145nm,17.5s,MS4.0						
GTA				LR	LR		
	comp=Z,121nm,16.7s,MS3.8						
INK	**Inuvik**	**39.71**	**34**	*e*P	**P**	**13 27 56.3**	**+0.5**
	comp=Z,211nm,0.9s,mb5.9						
INK	**Inuvik**	**39.71**	**34**	P	**P**	**13 27 56.3**	**+0.5**
	comp=Z,2.4nm,0.6s,mb4.1,baz=293,slow=5.7,SNR=15						
CD2	**Chengdu**	**41.98**	**264**	*e*P	**P**	**13 28 14.6**	**-0.4**
CD2				PP	PP	13 29 55.0	+2.4
CD2				S	**S**	**13 34 32.8**	**+2.5**
CD2				SS	SS	13 37 34.3	-4.0
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.6						
CD2				AMB	AMB		
	comp=Z,30nm,4.8s						
CD2				LR	LR		
	comp=N,240nm,12.8s						
CD2				LR	LR		
	comp=Z,180nm,13.2s,MS4.1						
ZALV	**Zalesovo Beam**	**42.40**	**305**	P	**P**	**13 28 16.6**	**-1.5**
	comp=Z,0.6nm,0.4s,mb3.6,baz=86,slow=6.4,SNR=4.5						
ZALV				PcP	PcP	13 30 10.4	-0.1
	comp=Z,4.7nm,0.7s,baz=75,slow=3.6,SNR=18						
ZALV				LR	LR	13 46 22.1	
	comp=Z,67nm,19.9s,MS3.5,baz=116,slow=37						
ZAL	**Zalesovo**	**42.42**	**305**	P	**P**	**13 28 16.6**	**-1.7**
ZAL						13 30 10.4	
GYA	**Guiyang**	**43.02**	**257**	⇑*i*P	**P**	**13 28 23.3**	**-0.1**
GYA				PP	PP	13 30 07.3	+3.5
GYA				PCP	PcP	13 30 15.9	+2.9
GYA				S	**S**	**13 34 49.9**	**+4.3**
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.5						
GYA				AMB	AMB		
	comp=Z,60nm,5.2s						
GYA				LR	LR		
	comp=N,420nm,18.4s,MS4.6						
GYA				LR	LR		
	comp=E,520nm,19.0s,MS4.6						
GYA				LR	LR		
	comp=Z,460nm,17.2s,MS4.4						
WMQ	**Urumqi**	**45.21**	**290**	*e*P	**P**	**13 28 42.1**	**+1.3**
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.6s,mb4.4						
WMQ				LR	LR		
	comp=N,65nm,18.5s,MS3.7						
WMQ				LR	LR		
	comp=E,51nm,21.2s,MS3.7						
WMQ				LR	LR		
	comp=Z,76nm,23.2s,MS3.6						
KMI	**Kunming**	**46.49**	**259**	P	**P**	**13 28 51.5**	**+0.4**
KMI				PP	PP	13 30 41.5	+0.7
KMI				S	**S**	**13 35 39.8**	**+3.8**
KMI				SS	SS	13 38 58.0	-4.1
KMI				SSS		13 40 04.3	
KMI				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.7						
KMI				LR	LR		
	comp=Z,31nm,23.1s						
KMI	**Kunming**	**46.49**	**259**	P	**P**	**13 28 51.5**	**+0.4**
	comp=Z,9.0nm,0.9s,mb4.7						
KMI				pP	pP	13 28 55.4	-8.5
KMI				sP	sP	13 28 56.8	-12
KMI				PP	PP	13 30 41.5	+0.7
KMI				S	**S**	**13 35 39.7**	**+3.7**
KMI				sS	sS	13 35 44.7	-13
KMI				SS	SS	13 38 58.0	-4.1
KMI				SSS		13 40 04.2	
KMI				LR	LR		
	comp=Z,30nm,23.1s						
KMI	**Kunming**	**46.49**	**259**	P	**P**	**13 28 51.5**	**+0.4**
KMI				*SP	sP	13 28 56.8	-12
KMI						13 30 41.5	
KMI				S	**S**	**13 35 39.7**	**+3.7**
KMI				*SS	sS	13 35 44.7	-13
KMI				SS	SS	13 38 58.0	-4.1
KMI				SSS		13 40 04.2	
KMI				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
KMI				MLR	MLR		
	comp=Z,30nm,23.1s						
MK31	**Makanchi Array**	**47.01**	**297**	*e*P	**P**	**13 28 53.7**	**-1.3**
MKAR	**Makanchi Array**	**47.01**	**297**	P	**P**	**13 28 53.3**	**-1.6**
MKAR						13 30 26.1	
MKAR	**Makanchi Array**	**47.01**	**297**	P	**P**	**13 28 53.3**	**-1.6**
	comp=Z,5.8nm,0.8s,mb4.6,baz=67,slow=7.8,SNR=66						
MKAR				PcP	PcP	13 30 26.1	-0.4
	comp=Z,1.7nm,0.8s,baz=57,slow=4.5,SNR=4.5						
MKAR				LR	LR	13 49 58.7	
	comp=Z,110nm,18.4s,MS3.9,baz=28,slow=38						
KURK	**Kurchatov**	**47.22**	**303**	*e*P	**P**	**13 28 55.3**	**-1.2**
KURK	**Kurchatov**	**47.22**	**303**	*c* *i*P	**P**	**13 28 55.5**	**-1.0**
RES	**Resolute Bay**	**48.92**	**19**	*e*P	**P**	**13 29 09.1**	**-0.2**
	comp=Z,112nm,0.6s						
YKW3	**Yellowknife Ar**	**48.96**	**38**	*e*P	**P**	**13 29 09.9**	**+0.2**
YKA	**Yellowknife Ar**	**48.99**	**38**	P	**P**	**13 29 09.8**	**-0.2**
	comp=Z,3.2nm,0.7s,mb4.5,baz=298,slow=7.3,SNR=33						
BRVK	**Borovoye**	**50.55**	**309**	*e*P	**P**	**13 29 20.9**	**-1.1**
	comp=Z,2.8nm,0.6s,mb4.4						
BRVK	**Borovoye**	**50.55**	**309**	*e*P	**P**	**13 29 20.9**	**-1.1**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
LSA	**Lhasa**	**51.13**	**273**	*e*P	**P**	**13 29 27.6**	**+0.9**
LSA	**Lhasa**	**51.13**	**273**	*e*P	**P**	**13 29 28.2**	**+1.6**
	comp=Z,3.3nm,0.6s,mb4.4						
LSA	**Lhasa**	**51.13**	**273**	*e*P	**P**	**13 29 28.3**	**+1.6**
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
A07A	**Ashnola River,**	**53.18**	**55**	⇓P	**P**	**13 29 41.1**	**-0.5**
	baz=53						
SHL	**Shillong**	**53.37**	**268**	*e*P	**P**	**13 29 45.3**	**+2.0**
CHTO	**Chiang Mai**	**53.43**	**257**	*e*P	**P**	**13 29 44.3**	**+0.4**
	comp=Z,16nm,0.9s,mb5.0						
CHTO	**Chiang Mai**	**53.43**	**257**	*e*P	**P**	**13 29 44.3**	**+0.4**
CHTO				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
B07A	**Winthrop**	**53.65**	**55**	⇓P	**P**	**13 29 45.5**	**+0.4**
	baz=54						
CM31	**Chiang Mai Arr**	**53.69**	**256**	*e*P	**P**	**13 29 46.4**	**+0.7**
	comp=Z,14nm,0.8s,mb4.9						
A08A	**Turner Farm, O**	**53.84**	**55**	⇑P	**P**	**13 29 46.3**	**-0.2**
	baz=54						
AAK	**Ala-Archa**	**53.93**	**296**	*e*P	**P**	**13 29 45.9**	**-1.3**
	comp=Z,4.0nm,0.8s,mb4.4						
AAK	**Ala-Archa**	**53.93**	**296**	⇑*e*P	**P**	**13 29 46.1**	**-1.1**
AAK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
B08A	**Colville Reser**	**54.14**	**55**	⇑P	**P**	**13 29 47.9**	**-0.7**
	baz=54						
A09A	**Danville**	**54.20**	**54**	⇓P	**P**	**13 29 49.2**	**+0.1**
	baz=54						
ARU	**Arti**	**54.40**	**317**	*e*P	**P**	**13 29 48.7**	**-1.7**
	comp=Z,2.1nm,0.6s,mb4.2						
ARU	**Arti**	**54.40**	**317**	*e*P	**P**	**13 29 48.7**	**-1.7**
ARU				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
EDM	**Edmonton**	**54.46**	**48**	*e*P	**P**	**13 29 51.0**	**+0.2**
E07A	**Sunnyside**	**54.90**	**57**	⇑P	**P**	**13 29 53.7**	**-0.5**
	baz=55						
TAPN	**Taplejung**	**54.95**	**273**	*e*P	**P**	**13 29 54.6**	**-0.2**
	comp=Z,8.1nm,0.8s,mb4.8						
D08A	**Wollman Farm,**	**55.12**	**56**	⇓P	**P**	**13 29 55.3**	**-0.5**
	baz=55						
F07A	**Phinny Hill Vi**	**55.25**	**58**	⇓P	**P**	**13 29 55.9**	**-0.8**
	baz=55						
A11A	**Hall Mountain,**	**55.40**	**53**	⇓P	**P**	**13 29 57.6**	**-0.2**
	baz=55						
ODAN	**Odare**	**55.49**	**273**	*e*P	**P**	**13 29 57.0**	**-1.7**
	comp=Z,3.6nm,0.4s,mb4.8						
JIRN	**Jiri**	**55.76**	**274**	*e*P	**P**	**13 30 00.9**	**+0.3**
	comp=Z,5.1nm,0.2s,mb5.2						
I06A	**Prineville**	**56.25**	**60**	⇑P	**P**	**13 30 04.0**	**+0.1**
	baz=56						
KKN	**Kakani**	**56.27**	**275**	*e*P	**P**	**13 30 04.5**	**+0.2**
	comp=Z,14nm,0.6s,mb5.2						
A13A	**Flathead Natio**	**56.45**	**52**	⇑P	**P**	**13 30 05.1**	**-0.1**
	baz=56						
D11A	**Klaveano Farm,**	**56.55**	**55**	⇑P	**P**	**13 30 05.6**	**-0.4**
	baz=56						
ARCES	**ARCESS Array B**	**56.55**	**341**	LR	LR	13 58 06.7	
	comp=Z,148nm,20.2s,MS4.1,baz=12,slow=40						
GKN	**Gorkha**	**56.56**	**276**	*e*P	**P**	**13 30 06.5**	**+0.1**
	comp=Z,24nm,0.7s,mb5.4						
K05A	**Summer Lake**	**56.59**	**62**	⇑P	**P**	**13 30 06.2**	**-0.2**
	baz=56						
J06A	**Christmas Vall**	**56.70**	**61**	⇑P	**P**	**13 30 06.7**	**-0.5**
	baz=56						
B13A	**Whitefish**	**56.76**	**53**	⇓P	**P**	**13 30 07.3**	**-0.1**
	baz=56						
H08A	**Prairie City**	**56.78**	**59**	⇓P	**P**	**13 30 07.2**	**-0.5**
	baz=57						
K06A	**Valley Falls**	**56.92**	**61**	⇓P	**P**	**13 30 09.1**	**+0.4**
	baz=57						
E11A	**Bogner Ranch,**	**57.04**	**56**	⇑P	**P**	**13 30 08.8**	**-0.7**
	baz=57						
C13A	**Hot Springs**	**57.12**	**54**	⇑P	**P**	**13 30 10.2**	**+0.1**
	baz=57						
I08A	**Drewsey**	**57.21**	**59**	P	**P**	**13 30 11.6**	**+0.9**
	baz=57,SNR=5.3						
H09A	**Durkee**	**57.26**	**58**	⇓P	**P**	**13 30 11.2**	**+0.1**
	baz=57						
C14A	**Swan Lake**	**57.51**	**53**	⇑P	**P**	**13 30 13.5**	**+0.7**
	baz=57						
D13A	**Huson**	**57.54**	**54**	⇑P	**P**	**13 30 12.6**	**-0.4**
	baz=57						
I09A	**Lost Marbles R**	**57.64**	**59**	⇑P	**P**	**13 30 13.6**	**-0.2**
	baz=57						
M06C	**Likely Place G**	**57.77**	**63**	⇑P	**P**	**13 30 14.8**	**+0.1**
	baz=58						
H10A	**Noah’s Angus R**	**57.83**	**58**	⇓P	**P**	**13 30 15.2**	**+0.1**
	baz=58						
F12A	**Elk City**	**57.93**	**56**	⇑P	**P**	**13 30 15.6**	**-0.1**
	baz=58						
MSO	**Missoula**	**57.98**	**54**	*e*P	**P**	**13 30 16.6**	**+0.5**
	comp=Z,6.1nm,1.3s,mb4.5						
D14A	**Greenough**	**58.06**	**54**	P	**P**	**13 30 17.2**	**+0.6**
	baz=58,SNR=8.0						
E13A	**Victor**	**58.09**	**55**	⇓P	**P**	**13 30 17.0**	**+0.1**
	baz=58						
I10A	**Payette**	**58.10**	**58**	⇑P	**P**	**13 30 17.4**	**+0.4**
	baz=58						
H11A	**Donnelly**	**58.17**	**57**	P	**P**	**13 30 17.9**	**+0.4**
	baz=58,SNR=11						
AKTK	**Aktyubinsk**	**58.30**	**312**	P	**P**	**13 30 17.2**	**-1.0**
AKTO	**Aktyubinsk**	**58.30**	**312**	P	**P**	**13 30 17.2**	**-1.0**
	comp=Z,0.7nm,0.5s,mb4.0,baz=89,slow=11,SNR=5.4						
L08A	**Fields**	**58.40**	**61**	⇑P	**P**	**13 30 19.3**	**+0.1**
	baz=58						
F13A	**Darby**	**58.42**	**55**	⇑P	**P**	**13 30 19.6**	**+0.4**
	baz=58						
M07A	**Soldier Meadow**	**58.42**	**62**	⇑P	**P**	**13 30 19.4**	**+0.1**
	baz=58						
K09A	**Rome**	**58.44**	**60**	⇑P	**P**	**13 30 19.5**	**+0.1**
	baz=58						
E14A	**Clinton**	**58.48**	**54**	⇑P	**P**	**13 30 19.5**	**-0.1**
	baz=58						
D15A	**Lincoln**	**58.61**	**53**	⇓P	**P**	**13 30 20.9**	**+0.4**
	baz=58						
BEKR	**Beckwourth**	**58.67**	**64**	⇑P	**P**	**13 30 20.3**	**-0.7**
	baz=58						
O06A	**Flanigan**	**58.80**	**63**	⇓P	**P**	**13 30 22.1**	**+0.1**
	baz=59						
FFC	**Flin Flon**	**58.83**	**41**	*e*P	**P**	**13 30 22.5**	**+0.6**
K10A	**MacKenzie Ranc**	**58.88**	**59**	⇓P	**P**	**13 30 22.0**	**-0.4**
	baz=59						
G13A	**Cobalt**	**58.91**	**56**	⇑P	**P**	**13 30 22.5**	**-0.1**
	baz=59						
E15A	**Deer Lodge**	**58.94**	**54**	⇓P	**P**	**13 30 22.9**	**+0.2**
	baz=59						
MFID	**Camas Ranch**	**59.08**	**58**	⇑P	**P**	**13 30 23.9**	**+0.1**
	baz=59						
H13A	**Challis**	**59.23**	**56**	⇑P	**P**	**13 30 24.4**	**-0.4**
	baz=59						
FCC	**Fort Churchill**	**59.32**	**34**	*e*P	**P**	**13 30 24.7**	**-0.5**
	comp=Z,4.0nm,0.7s,mb4.6						
FCC	**Fort Churchill**	**59.32**	**34**	*e*P	**P**	**13 30 24.7**	**-0.5**
FCC				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
O07A	**Toulon**	**59.37**	**63**	⇓P	**P**	**13 30 25.7**	**-0.1**
	baz=59						
F15A	**Butte**	**59.39**	**54**	⇓P	**P**	**13 30 26.3**	**+0.5**
	baz=59						
EGMT	**Eagleton**	**59.44**	**51**	⇑P	**P**	**13 30 26.1**	**-0.1**
	baz=59						
L10A	**Juniper Basin**	**59.56**	**60**	⇓P	**P**	**13 30 27.0**	**-0.1**
	baz=59						
J12A	**Stokes Ranch,**	**59.59**	**58**	⇓P	**P**	**13 30 27.8**	**+0.4**
	baz=59						
I13A	**Wildhorse Cree**	**59.72**	**57**	P	**P**	**13 30 29.4**	**+1.2**
	baz=60,SNR=6.2						
HLID	**Hailey**	**59.78**	**57**	*e*P	**P**	**13 30 29.0**	**+0.4**
	comp=Z,1.5nm,0.9s,mb4.0						
HLID	**Hailey**	**59.78**	**57**	⇑P	**P**	**13 30 28.2**	**-0.4**
	baz=60						
G15A	**Dillon**	**59.82**	**55**	⇑P	**P**	**13 30 28.7**	**-0.1**
	baz=60						
M10A	**I.L. Ranch, Tu**	**59.87**	**60**	⇓P	**P**	**13 30 30.3**	**+1.0**
	baz=60						
L11A	**Cat Creek Ranc**	**59.91**	**59**	⇓P	**P**	**13 30 30.8**	**+1.3**
	baz=60						
J13A	**Cove Ranch, Pi**	**60.02**	**57**	⇑P	**P**	**13 30 29.9**	**-0.4**
	baz=60						
K12A	**Draper Farm, C**	**60.09**	**58**	⇑P	**P**	**13 30 31.0**	**+0.2**
	baz=60						
JOF	**Joensuu**	**60.22**	**334**	*e*p	pP	13 30 42.2	-2.3
	comp=Z,0.8nm,0.4s						
JOF	**Joensuu**	**60.22**	**334**	*e*P	pP	13 30 42.2	-2.3
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
O09A	**Fish Creek Ran**	**60.36**	**62**	⇑P	**P**	**13 30 31.9**	**-0.7**
	baz=60						
R07C	**Lee Vining**	**60.59**	**65**	⇓P	**P**	**13 30 34.5**	**+0.2**
	baz=60						
Q08A	**Gabbs**	**60.76**	**63**	⇓P	**P**	**13 30 35.6**	**+0.2**
	baz=61						
NVAR	**Mina Array Bea**	**60.82**	**64**	P	**P**	**13 30 35.8**	**0.0**
	comp=Z,1.3nm,0.7s,mb4.2,baz=308,slow=6.0,SNR=9.1						
M12A	**Wells**	**60.87**	**59**	⇑P	**P**	**13 30 36.0**	**-0.1**
	baz=61						
GCMT	**Greycliff**	**60.93**	**53**	*e*P	**P**	**13 30 37.4**	**+0.9**
L13A	**Double Diamond**	**60.99**	**58**	⇑P	**P**	**13 30 37.7**	**+0.7**
	baz=61						
NDI	**New Delhi**	**60.99**	**281**	*e*P	**P**	**13 30 35.1**	**-2.0**
PKD	**Parkfield**	**61.07**	**67**	⇑P	**P**	**13 30 38.6**	**+1.0**
	baz=61						
K14A	**Jones Ranch, D**	**61.13**	**57**	⇓P	**P**	**13 30 38.6**	**+0.8**
	baz=61						
HELL	**Mitchell Peak,**	**61.52**	**66**	⇑P	**P**	**13 30 40.5**	**-0.1**
	baz=61						
R09A	**Tonopah**	**61.68**	**63**	⇓P	**P**	**13 30 41.8**	**+0.2**
	baz=62						
TPAW	**Teton Pass**	**61.74**	**55**	*e*P	**P**	**13 30 44.0**	**+2.0**
LOHW	**Long Hollow**	**61.85**	**55**	*e*P	**P**	**13 30 44.4**	**+1.7**
REDW	**Red Top Meadow**	**61.88**	**56**	*e*P	**P**	**13 30 44.6**	**+1.6**
	comp=Z,4.7nm,0.8s,mb4.7						
S09A	**Goldfield**	**61.92**	**64**	⇓P	**P**	**13 30 43.2**	**-0.1**
	baz=62						
VES	**Vestal, Richgr**	**62.04**	**67**	⇓P	**P**	**13 30 44.0**	**-0.1**
	baz=62						
R10A	**Warm Springs**	**62.10**	**63**	⇓P	**P**	**13 30 44.1**	**-0.4**
	baz=62						
Q11A	**Duckwater**	**62.12**	**62**	⇓P	**P**	**13 30 43.9**	**-0.7**
	baz=62						
S10A	**Tonopah Range,**	**62.17**	**63**	⇑P	**P**	**13 30 44.8**	**-0.1**
	baz=62						
BLSP	**Bilaspur**	**62.20**	**273**	*e*P	**P**	**13 30 44.9**	**-0.5**
BLSP				AMb	AMB	13 30 45.5	
	comp=Z,11nm,0.6s,mb5.2						
M15A	**Larsen Ranch,**	**62.25**	**58**	P	**P**	**13 30 46.0**	**+0.7**
	baz=62,SNR=5.2						
Q12A	**Willow Creek R**	**62.48**	**61**	⇓P	**P**	**13 30 47.2**	**+0.2**
	baz=62						
S11A	**Rachel**	**62.86**	**63**	⇑P	**P**	**13 30 49.4**	**-0.1**
	baz=63						
MPMC	**Manual Prospec**	**62.86**	**66**	⇑P	**P**	**13 30 49.5**	**-0.1**
	baz=63						
DUG	**Dugway**	**62.88**	**59**	*e*P	**P**	**13 30 49.8**	**+0.2**
	comp=Z,2.3nm,1.0s,mb4.3						
DUG				*e*	pP	13 31 02.6	-0.2
DUG	**Dugway**	**62.88**	**59**	*e*P	**P**	**13 30 49.8**	**+0.2**
DUG				*e*	pP	13 31 02.6	-0.2
DUG				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.2						
DUG	**Dugway**	**62.88**	**59**	⇓P	**P**	**13 30 50.4**	**+0.8**
	baz=63						
FINES	**FINESS Array B**	**62.90**	**335**	P	**P**	**13 30 47.0**	**-2.4**
FINES				LR	LR	14 00 48.4	
FINES	**FINESS Array B**	**62.90**	**335**	P	**P**	**13 30 47.0**	**-2.4**
	comp=Z,1.6nm,0.7s,mb4.3,baz=30,slow=6.7,SNR=7.1						
FINES				LR	LR	14 00 48.4	
	comp=Z,69nm,19.2s,MS3.8,baz=332,slow=38						
FURC	**Furnace Creek,**	**62.97**	**65**	⇓P	**P**	**13 30 50.5**	**+0.2**
	baz=63						
PDAR	**Pinedale Array**	**62.99**	**55**	P	**P**	**13 30 50.7**	**+0.4**
	comp=Z,2.8nm,0.8s,mb4.4,baz=315,slow=1.9,SNR=22						
R12A	**Pony Springs,**	**63.08**	**62**	⇑P	**P**	**13 30 51.2**	**+0.2**
	baz=63						
LRMC	**Laurel Mountai**	**63.13**	**66**	⇓P	**P**	**13 30 51.0**	**-0.3**
	baz=63						
KAKA	**Kakadu**	**63.97**	**204**	*e*P	**P**	**13 30 56.2**	**-0.8**
	comp=Z,6.5nm,0.6s,mb4.8						
TUQ	**Turquoise Mtn.**	**64.22**	**65**	⇓P	**P**	**13 30 58.5**	**0.0**
	baz=64						
T13A	**Saint George**	**64.36**	**63**	⇑P	**P**	**13 30 59.4**	**0.0**
	baz=64						
HEC	**Hector,Ludlow**	**64.39**	**66**	⇓P	**P**	**13 30 59.6**	**0.0**
	baz=64						
VIS	**Vishakhapatnam**	**64.51**	**268**	AMb	AMB	13 30 59.9	
	comp=Z,14nm,1.0s,mb4.9						
VIS				*e*P		13 31 00.6	
BHPL	**Bhopal**	**64.56**	**277**	*e*P	**P**	**13 31 00.8**	**-0.1**
BHPL				AMb	AMB	13 31 02.8	
	comp=Z,18nm,0.8s,mb5.2						
ULM	**Lac du Bonnet**	**64.62**	**42**	P	**P**	**13 30 59.9**	**-1.0**
	comp=Z,2.7nm,0.7s,mb4.4,baz=313,slow=7.6,SNR=9.1						
T14A	**Hurricane**	**64.82**	**62**	⇓P	**P**	**13 31 01.6**	**-0.9**
	baz=65						
SRU	**San Rafael**	**64.91**	**59**	*e*P	**P**	**13 31 03.5**	**+0.5**
	comp=Z,4.5nm,0.9s,mb4.5						
SRU				*e*	pP	13 31 16.4	+0.1
SRU	**San Rafael**	**64.91**	**59**	*e*P	**P**	**13 31 03.5**	**+0.5**
SRU				*e*	pP	13 31 16.4	+0.1
SRU				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
NGP	**Nagpur**	**64.94**	**274**	*e*P	**P**	**13 31 02.6**	**-0.8**
RSSD	**Black Hills**	**65.01**	**51**	*e*P	**P**	**13 31 03.7**	**+0.1**
	comp=Z,2.2nm,0.6s,mb4.4						
RSSD				*e*	pP	13 31 17.0	+0.2
RSSD	**Black Hills**	**65.01**	**51**	*e*P	**P**	**13 31 03.7**	**+0.2**
RSSD				*e*	pP	13 31 17.0	+0.2
RSSD				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
W13A	**Hualapai Mount**	**65.68**	**64**	⇓P	**P**	**13 31 08.0**	**0.0**
	baz=66						
X13A	**Yucca**	**66.06**	**64**	⇑P	**P**	**13 31 09.9**	**-0.6**
	baz=66						
W14A	**Seligman**	**66.08**	**64**	⇓P	**P**	**13 31 10.9**	**+0.3**
	baz=66						
AKL	**Akola**	**66.60**	**275**	*e*P	**P**	**13 31 13.9**	**-0.2**
X14A	**Yava**	**66.70**	**64**	⇓P	**P**	**13 31 14.6**	**0.0**
	baz=66						
SMCO	**Snowmass**	**66.87**	**57**	*e*P	**P**	**13 31 15.7**	**+0.2**
	comp=Z,3.9nm,0.7s,mb4.5						
WUAZ	**Wupatki**	**66.88**	**62**	⇓P	**P**	**13 31 16.0**	**+0.3**
	baz=67						
NB2	**NORSAR Subarra**	**66.92**	**342**	P	**P**	**13 31 15.2**	**-0.3**
	comp=Z,7.6nm,1.2s,mb4.6,baz=30,slow=6.5						
NOA	**NORSAR Array B**	**66.92**	**342**	P	**P**	**13 31 14.4**	**-1.1**
	comp=Z,3.5nm,1.0s,mb4.4,baz=25,slow=6.3,SNR=6.1						
NOA				LR	LR	14 04 33.6	
	comp=Z,55nm,18.2s,MS3.8,baz=0.0,slow=40						
Y14A	**Wickenburg**	**67.00**	**64**	⇓P	**P**	**13 31 16.0**	**-0.6**
	baz=67						
X15A	**Humboldt**	**67.08**	**64**	⇓P	**P**	**13 31 17.0**	**0.0**
	baz=67						
ISCO	**Idaho Springs**	**67.18**	**55**	*e*P	**P**	**13 31 18.4**	**+0.8**
	comp=Z,3.0nm,0.8s,mb4.4						
ISCO				*e*	pP	13 31 31.1	+0.2
ISCO	**Idaho Springs**	**67.18**	**55**	*e*P	**P**	**13 31 18.4**	**+0.8**
ISCO				*e*	pP	13 31 31.1	+0.2
ISCO				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
MVCO	**Mesa Verde**	**67.38**	**59**	⇑P	**P**	**13 31 19.4**	**+0.6**
	baz=67						
HYB	**Hyderabad**	**67.90**	**272**	*e*P	**P**	**13 31 22.0**	**-0.4**
HYB	**Hyderabad**	**67.90**	**272**	*i*P	**P**	**13 31 22.0**	**-0.4**
EYMN	**Ely**	**68.26**	**41**	*e*P	**P**	**13 31 23.9**	**-0.3**
CTA	**Charters Tower**	**68.63**	**188**	*e*P	**P**	**13 31 25.9**	**-0.8**
	comp=Z,13nm,1.5s,mb4.6						
CTA	**Charters Tower**	**68.63**	**188**	*e*P	**P**	**13 31 25.9**	**-0.8**
CTA				pmax	pmax		
	comp=Z,13nm,1.5s						
ANMO	**Albuquerque**	**70.14**	**60**	*e*P	**P**	**13 31 35.7**	**-0.4**
POO	**Poona**	**70.23**	**276**	*e*P	**P**	**13 31 37.6**	**+0.7**
WRA	**Warramunga Arr**	**70.44**	**200**	P	**P**	**13 31 36.9**	**-1.0**
	comp=Z,8.8nm,0.8s,mb4.8,baz=17,slow=6.4,SNR=85						
AKASG	**Malin Array Be**	**70.65**	**327**	P	**P**	**13 31 38.0**	**-0.9**
AKASG	**Malin Array Be**	**70.65**	**327**	P	**P**	**13 31 38.0**	**-0.9**
	comp=Z,0.8nm,0.5s,mb3.9,baz=32,slow=5.8,SNR=4.4						
KAD	**Karad**	**70.88**	**275**	*e*P	**P**	**13 31 41.0**	**+0.2**
FITZ	**Fitzroy Crossi**	**71.09**	**209**	*e*P	**P**	**13 31 42.0**	**+0.1**
	comp=Z,3.1nm,0.6s,mb4.4						
FITZ	**Fitzroy Crossi**	**71.09**	**209**	P	**P**	**13 31 42.1**	**+0.2**
	comp=Z,1.7nm,0.6s,mb4.2,baz=334,slow=4.8,SNR=11						
SCHQ	**Schefferville**	**71.37**	**24**	*e*P	**P**	**13 31 42.8**	**-0.4**
	comp=Z,3.7nm,0.6s,mb4.5						
SCHQ	**Schefferville**	**71.37**	**24**	P	**P**	**13 31 42.5**	**-0.7**
	comp=Z,2.6nm,0.5s,mb4.4,baz=339,slow=5.8,SNR=22						
ASAR	**Alice Springs**	**74.13**	**200**	P	**P**	**13 31 59.8**	**0.0**
	comp=Z,2.9nm,0.6s,mb4.4,baz=14,slow=5.7,SNR=74						
STHS	**Stebnicka Huta**	**74.51**	**330**	*e*P	**P**	**13 32 02.6**	**+0.7**
	comp=Z,2.2nm,0.8s,mb4.1						
STHS	**Stebnicka Huta**	**74.51**	**330**	*e*P	**P**	**13 32 02.6**	**+0.7**
STHS				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
DPC	**Dobruska-Polom**	**75.22**	**334**	*e*P	**P**	**13 32 06.6**	**+0.6**
CLL	**Collm**	**75.30**	**336**	*i*P	**P**	**13 32 06.4**	**0.0**
KECS	**Kecovo**	**75.57**	**330**	*e*P	**P**	**13 32 07.2**	**-0.8**
	comp=Z,2.3nm,1.0s,mb4.1						
KECS	**Kecovo**	**75.57**	**330**	*e*P	**P**	**13 32 07.2**	**-0.8**
KECS				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						

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TXAR  Lajitas Array     75.84  62  P       P        13 32 09.8 -0.1
            comp=Z,1.7nm,0.8s,mb4.0,baz=295,slow=4.7,SNR=17
VYHS  Vyhne             76.09 331  eP      P        13 32 10.1 -0.9
            comp=Z,1.8nm,1.0s,mb4.0
VYHS  Vyhne             76.09 331  eP      P        13 32 10.1 -0.9
VYHS                                pmax   pmax
            comp=Z,2.0nm,1.0s,mb4.0
KHC   Kasperske Hory    77.11 335  eP      P        13 32 17.4 +0.7
KHC                                epP     pP       13 32 23.0 -7.2
GERES GERESS Array B    77.33 335  P       P        13 32 18.1 +0.2
            comp=Z,0.7nm,0.6s,mb3.8,baz=29,slow=6.1,SNR=6.3
GERES                               LR     LR       14 08 44.7
            comp=Z,84nm,18.6s,MS4.1,baz=272,slow=37
BRTR  Keskin Array B    77.79 317  P       P        13 32 20.9 +0.3
            comp=Z,1.5nm,0.9s,mb3.9,baz=350,slow=6.3,SNR=4.3
GIVF  Givet             78.42 341  eP      P        13 32 24.6 +0.6
BAIF  Baives            78.59 341  eP      P        13 32 25.4 +0.5
KBA   Koelnbreinsper    79.03 334⇑iP      P        13 32 28.4 +1.1
            comp=Z,9.4nm,1.0s,mb4.7
KBA   Koelnbreinsper    79.03 334⇑ipP     P        13 32 28.4 +1.1
            comp=Z,9.4nm,1.0s,mb4.7
KBA   Koelnbreinsper    79.03 334⇑iP      P        13 32 28.4 +1.0
KBA                                 pmax   pmax
            comp=Z,9.0nm,1.0s,mb4.7
CDF   Champ du Feu      79.43 338  eP      P        13 32 30.0 +0.5
MEZF  Maizieres J'vi    79.87 340  eP      P        13 32 31.7 -0.2
FLN   La Foliniere      80.78 344  eP      P        13 32 37.2 +0.4
FLN                                eMLR    MLR
            comp=Z,66nm,21.5s,MS3.6
STKA  Stephens Creek    80.80 191  P       P        13 32 36.5 -0.4
            comp=Z,1.4nm,0.4s,mb4.3,baz=9.1,slow=20,SNR=5.3
GRR   Gorron            81.21 344  eP      P        13 32 38.7 -0.4
LOR   Lormes            81.30 340  eP      P        13 32 39.1 -0.5
            comp=Z,19nm,1.0s,mb4.7
LOR                                eMLR    MLR
            comp=Z,52nm,18.1s,MS3.6
SSF   Saint Saulge      81.58 340  eP      P        13 32 40.7 -0.4
            comp=Z,27nm,1.2s,mb4.8
SGMF  Saint Gilles      81.64 345  eP      P        13 32 41.2 -0.2
ROSF  Rostrenen         81.69 345  eP      P        13 32 41.5 -0.1
AVF   Avril sur Loir    81.87 340  eP      P        13 32 42.3 -0.3
            comp=Z,16nm,0.9s,mb4.7
AVF   Avril sur Loir    81.87 340  eP      P        13 32 42.3 -0.3
            comp=Z,7.8nm,0.9s,mb4.6
AVF   Avril sur Loir    81.87 340  eP      P        13 32 42.3 -0.3
AVF                                 pmax   pmax
            comp=Z,8.0nm,0.9s,mb4.7
SMF   Signal de Mont    81.89 340  eP      P        13 32 42.5 -0.3
            comp=Z,20nm,1.0s,mb4.7
SMF   Signal de Mont    81.89 340  eP      P        13 32 42.5 -0.3
            comp=Z,10.0nm,1.0s,mb4.7
SMF   Signal de Mont    81.89 340  eP      P        13 32 42.5 -0.3
SMF                                 pmax   pmax
            comp=Z,10.0nm,1.0s,mb4.7
LPL   La Plagne         82.26 338  eP      P        13 32 45.3 +0.6
            comp=Z,33nm,1.1s,mb4.9
LPG   La Plagne         82.28 338  eP      P        13 32 45.5 +0.7
            comp=Z,19nm,0.9s,mb4.7
TCF   Toulx Ste Croi    82.59 341  eP      P        13 32 46.3 -0.1
            comp=Z,12nm,0.9s,mb4.6
TCF   Toulx Ste Croi    82.59 341  eP      P        13 32 46.3 -0.1
            comp=Z,6.2nm,0.9s,mb4.6
TCF   Toulx Ste Croi    82.59 341  eP      P        13 32 46.3 -0.1
TCF                                 pmax   pmax
            comp=Z,6.0nm,0.9s,mb4.6
MFF   Saint Martin d    82.78 343  eP      P        13 32 47.2 -0.2
            comp=Z,20nm,0.9s,mb4.9
ORIF  Oris-en-Rattie    83.03 338  eP      P        13 32 48.4 -0.3
            comp=Z,15nm,0.9s,mb4.7
ORIF                               eMLR    MLR
            comp=Z,82nm,18.8s,MS3.8
ORIF  Oris-en-Rattie    83.03 338  eP      P        13 32 48.4 -0.3
            comp=Z,7.6nm,0.9s,mb4.7
ORIF  Oris-en-Rattie    83.03 338  eP      P        13 32 48.4 -0.3
ORIF                                pmax   pmax
            comp=Z,8.0nm,0.9s,mb4.8
VIVF  Saint-Julien-l    83.39 339  eP      P        13 32 50.7 +0.1
            comp=Z,47nm,1.3s,mb5.1
RJF   Les Rejaudoux     83.68 341  eP      P        13 32 52.9 +0.9
RJF                                eMLR    MLR
            comp=Z,118nm,18.5s,MS4.0
RJF   Les Rejaudoux     83.68 341  eP      P        13 32 52.9 +0.9
RJF                                 MLR    MLR
            comp=Z,120nm,18.5s,MS4.3
SMRF  Simiane la Rot    84.00 338  eP      P        13 32 53.6 -0.1
FRF   La Foret Royal    84.11 337  eP      P        13 32 53.5 -0.8
LFF   La Frestale       84.19 342  eP      P        13 32 54.7  0.0
LASF  Ste Croix         84.32 339  eP      P        13 32 55.5 +0.2
LMR   La Mourre         84.36 337  eP      P        13 32 55.3 -0.2
            comp=Z,26nm,0.9s,mb5.1
MTLF  Montolieu         85.39 340  eP      P        13 33 00.2 -0.5
TORD  Torodi Ar. Bea   114.09 331  PKP     PKiKP    13 39 01.3 -1.6
            comp=Z,0.3nm,0.7s,baz=71,slow=1.8,SNR=3.9
CFAA  Coronel Fontan   143.73  78  PKP     PKPdf    13 39 54.6 -3.5
            comp=Z,0.3nm,0.6s,baz=237,slow=3.7,SNR=5.8
VNA2  Neumayer--Watz   155.89 194  ePKPdf  PKPdf    13 40 24.9 +9.0
VNA2                               e                13 40 43.0
VNA2                               e                13 40 47.7
VNA2                               e                13 40 56.4
VNA3  Neumayer Olymp   155.96 193  ePKPdf  PKPdf    13 40 24.7 +8.7
VNA3                               e                13 40 42.9
VNA3                               e                13 40 47.6
VNA3                               e                13 40 56.3
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IDC ***18*** *13:30:33.2±1.2, 6092N×16563E, h0^{km}, mb3.9/9, mb1 4.1/9, mb1mx3.9/24, mbtmp3.9/9, MS3.4/4, Ms1 3.4/4, ms1mx3.0/35, Error ellipse: s-maj=34.5km s-min=21.7km az=170.0*

KRSC ***18*** *13:30:33.2±3.1, 6096N×16547E, h21^{km}±20^{km}, ML4.2*

ISCJB ***18*** *13:30:33.5±0.3, 6088N±004×16567E±009, h10^{km}, mb4.3/30, MS3.7/11, Error ellipse: s-maj=7.2km s-min=4.9km az=41.0*

MOS ***18*** *13:30:34.7±0.8, 6091N×16566E, h22^{km}, mb4.5/11, Error ellipse: s-maj=16.4km s-min=8.9km az=87.3*

BJI ***18*** *13:30:37.6, 6096N×16516E, h28^{km}, mB4.7, mb4.4, Ms4.4, Msz4.1*

NEIC ***18*** *13:30:39.6±1.4, 6088N×16559E, h44^{km}±13^{km}, mb4.5/15, Error ellipse: s-maj=15.4km s-min=6.4km az=166.0*

ISC 18 13:30:35.5±0.3, **6092N**±004×**16569E**±009, **h10^{km}, (h36^{km}±.3^{km}:pP-P), n74,** σ1^{s}**16**/76, **mb4.3**/30, **MS3.7**/11, **4C-1D, Eastern Siberia**

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Code  Station Name       Δ°   AZ°   Phase ID          Time     Res
                                    Op      ISC      h  m  s   ISC
KBTR  Krutoberegovo      4.96 199  PN      Pn       13 31 49.2 -0.7
KBTR  Krutoberegovo      4.96 199  eP      Pn       13 31 49.2 -0.7
KBTR                               i S     Sn       13 32 44.6 -2.6
SRDR  Sredinnyy          5.57 217  P       Pn       13 31 58.6 +0.3
TUMR  Tumrok             6.37 210  P       Pn       13 32 09.2  0.0
SEY   Seymchan           6.60 294⇑ePN     Pn       13 32 12.7 +0.3
MKZ   Mys Kozlova        6.72 200  P       Pn       13 32 13.8 -0.3
MKZ   Mys Kozlova        6.72 200  PN      Pn       13 32 13.8 -0.3
BILL  Bilibino           7.15   2  ePn     Pn       13 32 20.6 +0.7
BILL  Bilibino           7.15   2  i PN    Pn       13 32 21.1 +1.1
BILL                                pmax   pmax
            comp=Z,1.0nm,0.5s
BILL  Bilibino           7.15   2  eP      Pn       13 32 20.6 +0.6
BILL                               i S     Sn       13 33 38.3 -2.9
MA2   Magadan            7.55 266  ePn     Pn       13 32 25.3 -0.1
            comp=Z,40nm,0.7s
MA2                                eSn     Sn       13 33 53.2 +2.3
MA2   Magadan            7.55 266  ePN     Pn       13 32 25.4  0.0
MA2                                 pmax   pmax
            comp=Z,30nm,0.6s
MA2   Magadan            7.55 266  eP      Pn       13 32 25.2 -0.2
MA2                                i S     Sn       13 33 46.1 -4.8
GNL   Ganaly             8.36 213  P       Pn       13 32 38.5 +1.9
SPN   Mys Shipunski      8.43 204  P       Pn       13 32 39.2 +1.7
SPN   Mys Shipunski      8.43 204  PN      Pn       13 32 39.2 +1.7
AVH   Avacha             8.55 209  P       Pn       13 32 39.6 +0.4
YAK   Yakutsk           17.10 289  eP      Pn       13 34 36.4 +2.1
            comp=Z,31nm,0.8s
YAK   Yakutsk           17.10 289c iP      Pn       13 34 36.5 +2.3
YAK                                 pmax   pmax
            comp=Z,40nm,1.0s
TIXI  Tiksi             17.92 322  eP      Pn       13 34 46.2 +1.8
            comp=Z,2.7nm,0.8s
TIXI  Tiksi             17.92 322  eP      Pn       13 34 45.4 +1.0
TIXI                                pmax   pmax
            comp=Z,3.0nm,0.7s
TIXI                                MLR    MLR
            comp=Z,56nm,10.0s
IMA2  Indian Mountai    18.57  56  eP      Pn       13 34 53.0 +0.6
MCK   McKinley          20.91  63  eP      P        13 35 17.9 +0.2
            comp=Z,9.5nm,1.0s
MCK   McKinley          20.91  63  eP      P        13 35 17.9 +0.2
MCK                                 pmax   pmax
            comp=Z,10.0nm,1.0s
COLA  College           21.14  59  eP      P        13 35 23.8 +3.7
            comp=Z,12nm,1.1s,mb4.1
COLA  College           21.14  59  eP      P        13 35 23.8 +3.7
COLA                                pmax   pmax
            comp=Z,12nm,1.1s,mb4.1
HABR  Khabarovsk        21.41 248⇓eP      P        13 35 22.8 -0.3
HABR                               e                13 35 41.3
HABR                               eS      S        13 39 19.2 -1.2
HABR                               eSS              13 39 43.7
HABR                                pmax   pmax
            comp=Z,15nm,1.1s,mb4.2
ASAJ  Asahikawa         21.73 230  LR      LR       13 45 17.8
            comp=Z,47nm,18.1s,MS2.9,baz=354,slow=41
DAWY  Dawson            24.89  59  eP      P        13 35 58.6 +0.7
BOD   Bodaibo           25.95 286  eP      P        13 36 07.2 -0.4
BOD                                 pmax   pmax
            comp=Z,11nm,0.8s,mb4.4
INK   Inuvik            26.02  48  eP      P        13 36 09.0 +0.9
            comp=Z,43nm,0.5s,mb5.2
INK   Inuvik            26.02  48  LR      LR       13 48 02.1
            comp=Z,161nm,19.6s,MS3.6,baz=277,slow=40
KSRS  Korea Array       33.31 243  LR      LR       13 52 59.6
            comp=Z,40nm,19.9s,MS3.1,baz=154,slow=40
ULN   Ulaanbaatar       35.29 276  i P     P        13 37 30.9 +0.8
YKA   Yellowknife Ar    35.58  52  P       P        13 37 31.8 -0.6
            comp=Z,1.0nm,0.5s,mb4.0,baz=304,slow=8.4,SNR=20
SONM  Songino Array     35.63 276  P       P        13 37 33.1 +0.2
            comp=Z,0.8nm,0.8s,mb3.7,baz=51,slow=7.0,SNR=6.1
SONM                               LR      LR       13 52 57.9
            comp=Z,77nm,18.2s,MS3.5,baz=8.9,slow=38
BJI   Beijing           36.62 258  P       P        13 37 40.5 -1.1
BJI                                AMB     AMB
            comp=Z,5.0nm,1.3s,mb4.2
BJI                                LR      LR
            comp=Z,39nm,21.3s,MS3.2
BJT   Baijiatuau        36.64 258  eP      P        13 37 41.2 -0.6
            comp=Z,6.2nm,1.0s,mb4.4
BJT   Baijiatuau        36.64 258  eP      P        13 37 41.2 -0.5
BJT                                 pmax   pmax
            comp=Z,6.0nm,1.0s
HHC   Hu-ho-hao-te      38.22 264  eP      P        13 37 52.4 -2.7
HHC                                AP      pP       13 38 02.3 +4.1
HHC                                XP      sP       13 38 06.1 +6.7
HHC                                PP      PP       13 39 22.9 +0.6
HHC                                PCP     PcP      13 40 08.3 -0.9
HHC                                AMB     AMB
            comp=Z,3.0nm,1.0s,mb4.0
HHC                                AMB     AMB
            comp=Z,67nm,5.2s
HHC                                LR      LR
            comp=N,149nm,18.0s,MS3.9
HHC                                LR      LR
            comp=E,99nm,19.0s,MS3.9
HHC                                LR      LR
            comp=Z,125nm,16.1s,MS3.8
NJ2   Nanjing           41.88 248  eP      P        13 38 25.1 -0.4
NJ2                                AMB     AMB
            comp=Z,10.0nm,0.6s,mb4.6
WALA  Waterton Lakes    44.70  67  eP      P        13 38 49.1 +0.9
            comp=Z,53nm,2.1s,mb5.0
GTA   Gaotai            45.06 273  eP      P        13 38 53.8 +2.7
GTA                                AP      pP       13 39 04.0  +10
GTA                                PP      PP       13 40 40.3 +4.1
GTA                                PPP              13 41 22.8
GTA                                AMB     AMB
            comp=Z,2.0nm,1.1s,mb3.9
GTA                                AMB     AMB
            comp=Z,73nm,6.1s
GTA                                LR      LR
            comp=N,67nm,13.7s,MS3.9
GTA                                LR      LR
            comp=E,80nm,15.6s,MS3.9
GTA                                LR      LR
            comp=Z,109nm,15.6s,MS3.9
FCC   Fort Churchill    45.61  46  eP      P        13 38 54.6 -0.7
            comp=Z,1.8nm,0.7s,mb4.1
FCC   Fort Churchill    45.61  46  eP      P        13 38 54.6 -0.7
FCC                                 pmax   pmax
            comp=Z,2.0nm,0.7s,mb4.2
LZH   Lanzhou           45.70 266  eP      P        13 38 56.3  0.0
LZH                                AP      pP       13 39 06.5 +7.1
LZH                                XP      sP       13 39 10.8  +10
LZH                                PP      PP       13 40 42.5 -0.6
LZH                                AMB     AMB
            comp=Z,18nm,1.3s,mb4.8
LZH                                AMB     AMB
            comp=Z,49nm,6.2s
LZH                                LR      LR
            comp=E,405nm,14.2s
LZH                                LR      LR
            comp=Z,597nm,18.1s,MS4.6
LZH   Lanzhou           45.70 266  eP      P        13 38 56.3  0.0
            comp=Z,18nm,1.3s,mb4.8
LZH                                pP      pP       13 39 06.5 +7.1
LZH                                sP      sP       13 39 10.7  +10
LZH                                PP      PP       13 40 42.5 -0.6
LZH                                LR      LR
            comp=Z,600nm,18.1s,MS4.6
KURK  Kurchatov         46.42 299  eP      P        13 39 01.3 -0.4
            comp=Z,27nm,1.4s,mb5.0
KURK  Kurchatov         46.42 299c iP      P        13 39 01.5 -0.2
WMQ   Urumqi            47.50 286  eP      P        13 39 11.8 +1.5
WMQ                                AP      pP       13 39 21.8 +8.4
WMQ                                XP      sP       13 39 25.8  +11
WMQ                                AMB     AMB
            comp=Z,5.0nm,1.0s,mb4.5
WMQ                                LR      LR
            comp=N,49nm,16.0s
WMQ                                LR      LR
            comp=Z,34nm,18.0s,MS3.4
MK31  Makanchi Array    47.74 293  eP      P        13 39 10.7 -1.3
MKAR  Makanchi Array    47.74 293  P       P        13 39 11.2 -0.8
            comp=Z,1.5nm,0.6s,mb4.2,baz=46,slow=7.2,SNR=28
BRVK  Borovoye          48.10 306  eP      P        13 39 14.8 +0.1
            comp=Z,1.7nm,0.4s,mb4.4
BRVK  Borovoye          48.10 306  eP      P        13 39 14.9 +0.1
BRVK                                pmax   pmax
            comp=Z,2.0nm,0.4s,mb4.5
CD2   Chengdu           49.94 262  eP      P        13 39 29.1 -0.1
CD2                                AMB     AMB
            comp=Z,10.0nm,0.9s,mb4.8
CD2                                AMB     AMB
            comp=Z,30nm,5.6s
CD2                                LR      LR
            comp=N,160nm,12.8s
CD2                                LR      LR
            comp=Z,180nm,14.4s,MS4.2
PDAR  Pinedale Array    51.45  70  P       P        13 39 40.7 +0.3
            comp=Z,1.5nm,1.0s,mb3.9,baz=336,slow=3.3,SNR=7.4
GYA   Guiyang           52.26 256  P       P        13 39 47.3 +0.6
GYA                                AMB     AMB
            comp=Z,10.0nm,0.8s,mb4.8
FINES FINESS Array B    54.10 337  P       P        13 39 58.8 -1.0
            comp=Z,2.2nm,0.8s,mb4.1,baz=348,slow=4.5,SNR=4.2
AAK   Ala-Archa         54.46 295  eP      P        13 40 01.9 -0.8
            comp=Z,2.6nm,0.8s,mb4.2
AAK   Ala-Archa         54.46 295⇑eP      P        13 40 02.0 -0.6
AAK                                 pmax   pmax
            comp=Z,5.0nm,1.0s,mb4.4
KMI   Kunming           55.26 259  P       P        13 40 12.6 +3.9
KMI                                AMB     AMB
            comp=Z,5.0nm,1.1s,mb4.5
KMI   Kunming           55.26 259  P       P        13 40 12.6 +3.9
            comp=Z,5.0nm,1.1s,mb4.5
NB2   NORSAR Subarra    56.80 345  P       P        13 40 18.4 -0.7
            comp=Z,1.5nm,0.5s,mb4.3,baz=14,slow=7.4
NOA   NORSAR Array B    56.80 345  P       P        13 40 18.5 -0.6
NOA   NORSAR Array B    56.80 345  P       P        13 40 18.5 -0.6
            comp=Z,1.6nm,0.6s,mb4.2,baz=14,slow=7.3,SNR=5.0
QIZ   Qiongzhong        57.16 249  P       P        13 40 24.3 +2.0
QIZ                                LR      LR
            comp=N,291nm,17.8s,MS4.5
QIZ                                LR      LR
            comp=E,239nm,17.8s,MS4.5
QIZ                                LR      LR
            comp=Z,239nm,23.5s
WMOK  Wichita Mounta    62.86  67  eP      P        13 41 01.7 +0.5
            comp=Z,2.3nm,1.0s,mb4.3
WMOK  Wichita Mounta    62.86  67  eP      P        13 41 01.7 +0.5
WMOK                                pmax   pmax
            comp=Z,2.0nm,1.0s,mb4.2
AKASG Malin Array Be    63.38 331  P       P        13 41 03.2 -1.2
AKASG Malin Array Be    63.38 331  P       P        13 41 03.2 -1.2
            comp=Z,0.1nm,0.3s,mb3.5,baz=25,slow=6.4,SNR=5.4
GERES GERESS Array B    68.28 340  P       P        13 41 34.6 -1.4
            comp=Z,0.3nm,0.6s,mb3.5,baz=22,slow=4.3,SNR=5.4
COEN  Coen              76.76 202  eP      P        13 42 30.5 +3.7
CTAO  Charters Tower    82.23 198  eP      P        13 42 54.1 -2.4
            comp=Z,22nm,0.8s,mb5.1
WRA   Warramunga Arr    84.45 209  P       P        13 43 06.5 -1.4
            comp=Z,0.5nm,0.6s,mb3.8,baz=14,slow=5.4,SNR=4.7
```

ISCJB ***18*** *13:32:53.3±2.4, 297S±006×1289E±0.1, h8^{km}±15^{km}, mb4.3/21, MS4.0/7, Error ellipse: s-maj=25.7km s-min=7.1km az=162.6*

MOS ***18*** *13:32:56.9±1.8, 293S×12886E, h33^{km}, mb4.8/8, Error ellipse: s-maj=36.7km s-min=11.6km az=109.3*

BJI ***18*** *13:32:57.4, 308S×12908E, h37^{km}, mB4.8, mb4.5, Ms4.3, Msz4.1*

NEIC ***18*** *13:32:57.9±0.7, 289S×12896E, h30^{km}, mb4.5/9, Error ellipse: s-maj=32.5km s-min=9.2km az=75.0*

IDC ***18*** *13:33:06.5±12.0, 307S×12898E, h124^{km}±131^{km}, mb3.5/5, mb1 3.8/7, mb1mx3.7/17, mbtmp3.6/7, ML4.0/2, MS4.5/1, Ms1 4.5/1, ms1mx3.1/27, Error ellipse: s-maj=81.9km s-min=40.5km az=82.0*

ISC 18 13:32:55.3±2.8, **292S**±006×**1289E**±01, **h6^{km}**±17^{km}, **h35^{km}**±.5^{km}**:pP-P, n41,** σ1^{s}**38**/43, **mb4.4**/21, **MS4.0**/7, **1C, Ceram Sea**

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Code  Station Name       Δ°   AZ°   Phase ID          Time     Res
                                    Op      ISC      h  m  s   ISC
KAKA  Kakadu            10.35 160  ePn     Pn       13 35 25.1 +0.7
KAKA                               eSn     Sn       13 37 21.7 +1.0
FITZ  Fitzroy Crossi    15.42 192  eP      Pn       13 36 36.7 +3.2
            4.5nm,0.6s
FITZ  Fitzroy Crossi    15.42 192  P       Pn       13 36 35.8 +2.2
            0.2nm,0.3s,baz=31,slow=9.0,SNR=5.6
WRA   Warramunga Arr    17.74 163  P       Pn       13 37 02.3 -0.7
            1.0nm,0.3s,baz=341,slow=12,SNR=79
WB2   Warramunga Arr    17.74 163  eP      Pn       13 37 01.5 -1.6
PMG   Port Moresby      19.27 110  LR      LR       13 44 31.9
            comp=Z,1µm,18.1s,baz=212,slow=36
MBWA  Marble Bar        20.20 205  eP      P        13 37 29.6 -1.4
            17nm,1.1s
ASAR  Alice Springs     21.19 167  P       P        13 37 41.0 -0.6
            18nm,0.9s,mb4.4,baz=351,slow=12,SNR=162
COCO  West Island       33.04 252  eP      P        13 39 25.2 -6.6
NJ2   Nanjing           36.06 345  eP      P        13 39 58.0 +0.3
NJ2                                AMB     AMB
            comp=Z,10.0nm,1.2s,mb4.6
GYA   Guiyang           36.26 325  P       P        13 40 01.3 +1.9
GYA                                PP      PP       13 41 25.5 +3.6
GYA                                AMB     AMB
            comp=Z,10.0nm,0.8s,mb4.8
GYA                                AMB     AMB
            comp=Z,60nm,4.2s
GYA                                LR      LR
            comp=N,320nm,19.4s,MS4.2
GYA                                LR      LR
            comp=E,220nm,18.0s,MS4.2
GYA                                LR      LR
            comp=Z,260nm,18.2s,MS4.0
KSRS  Korea Array       40.18 359  P       P        13 40 31.5 -0.8
            comp=Z,0.5nm,0.8s,mb3.3,baz=168,slow=5.0,SNR=3.0
CD2   Chengdu           41.30 326  eP      P        13 40 42.8 +1.1
CD2                                AP      pP       13 40 52.6 +8.9
CD2                                XP      sP       13 40 56.6  +12
CD2                                PP      PP       13 42 22.1 +5.0
CD2                                S       S        13 46 55.3 -1.1
CD2                                XS      sS       13 47 11.5  +12
CD2                                AMB     AMB
            comp=Z,10.0nm,0.8s,mb4.5
CD2                                AMB     AMB
            comp=Z,30nm,5.8s
CD2                                LR      LR
            comp=N,260nm,16.4s
CD2                                LR      LR
            comp=Z,180nm,12.8s,MS4.1
LZH   Lanzhou           45.31 331  eP      P        13 41 15.3 +1.3
LZH                                AP      pP       13 41 25.3 +9.3
LZH                                XP      sP       13 41 29.5  +13
LZH                                PP      PP       13 43 01.5 +1.4
LZH                                AMB     AMB
            comp=Z,20nm,1.4s,mb4.8
LZH                                AMB     AMB
            comp=Z,105nm,5.3s
LZH                                LR      LR
            comp=E,426nm,14.3s
LZH                                LR      LR
            comp=Z,617nm,17.8s,MS4.6
LZH   Lanzhou           45.31 331  eP      P        13 41 15.2 +1.2
            comp=Z,20nm,1.4s,mb4.8
LZH                                pP      pP       13 41 25.3 +9.3
LZH                                sP      sP       13 41 29.5  +13
LZH                                PP      PP       13 43 01.5 +1.4
LZH                                LR      LR
            comp=Z,620nm,17.8s,MS4.6
LZH   Lanzhou           45.31 331  eP      P        13 41 15.2 +1.2
LZH                                *PP     pP       13 41 25.3 +9.3
LZH                                *SP     sP       13 41 29.5  +13
LZH                                                 13 43 01.5
LZH                                 pmax   pmax
            comp=Z,20nm,1.4s,mb4.8
LZH                                MLR     MLR
            comp=Z,620nm,17.8s,MS4.6
SHL   Shillong          45.68 311  eP      P        13 41 18.0 +0.8
VLA   Vladivostok       45.91   3  i P     P        13 41 21.7 +3.1
HHC   Hu-ho-hao-te      46.34 342  eP      P        13 41 24.8 +2.7
HHC                                AP      pP       13 41 34.6  +10
HHC                                XP      sP       13 41 38.5  +14
HHC                                PCP     PcP      13 42 59.1 +1.8
HHC                                PP      PP       13 43 13.9 +2.9
HHC                                SCP     ScP      13 46 49.3 -2.1
HHC                                PCS     PcS      13 46 52.1 +0.3
HHC                                S       S        13 48 10.9 +1.1
HHC                                XS      sS       13 48 27.1  +14
HHC                                AMB     AMB
            comp=Z,8.0nm,0.9s,mb4.7
HHC                                AMB     AMB
            comp=Z,70nm,4.7s
HHC                                LR      LR
            comp=N,113nm,18.0s,MS4.0
HHC                                LR      LR
            comp=E,82nm,17.1s,MS4.0
HHC                                LR      LR
            comp=Z,104nm,19.0s,MS3.8
MDJ   Mudanjiang        47.33   1  P       P        13 41 31.0 +1.3
MDJ                                AMB     AMB
            comp=Z,6.0nm,2.2s,mb4.1
MDJ                                AMB     AMB
            comp=Z,59nm,4.5s
LSA   Lhasa             48.53 315  eP      P        13 41 40.1 +0.8
            comp=Z,3.1nm,0.8s,mb4.4
LSA   Lhasa             48.53 315  eP      P        13 41 40.1 +0.8
LSA                                 pmax   pmax
            comp=Z,3.0nm,0.8s,mb4.4
GTA   Gaotai            49.89 331  eP      P        13 41 56.6 +7.0
GTA                                AP      pP       13 42 06.1  +14
GTA                                XP      sP       13 42 10.4  +18
GTA                                PPP              13 44 54.8
GTA                                PS               13 49 23.9
GTA                                AMB     AMB
            comp=Z,1.0nm,1.2s,mb3.7
GTA                                AMB     AMB
            comp=Z,101nm,7.6s
GTA                                LR      LR
            comp=N,111nm,15.2s,MS4.0
GTA                                LR      LR
            comp=E,66nm,14.8s,MS4.0
GTA                                LR      LR
            comp=Z,72nm,15.6s,MS3.8
SONM  Songino Array     54.24 341  P       P        13 42 21.3 -0.5
            comp=Z,0.2nm,0.5s,mb3.3,baz=156,slow=7.8,SNR=3.1
WMQ   Urumqi            59.40 326  P       P        13 42 59.6 +1.0
WMQ                                AP      pP       13 43 09.6 +9.0
WMQ                                XP      sP       13 43 13.6  +12
WMQ                                AMB     AMB
            comp=Z,5.0nm,0.8s,mb4.6
WMQ                                LR      LR
            comp=N,48nm,16.4s
WMQ                                LR      LR
            comp=Z,52nm,18.0s,MS3.7
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MKAR	Makanchi Array	64.23	326	P	P	13 43 29.6	-1.5
	comp=Z,1.5nm,0.7s,mb4.2,baz=123,slow=8.1,SNR=19						
MA2	Magadan	64.65	12	eP	P	13 43 33.9	+0.3
	comp=Z,13nm,1.4s,mb4.8						
MA2	Magadan	64.65	12	eP	P	13 43 33.9	+0.3
MA2				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.8						
YAK	Yakutsk	64.77	0	i P	P	13 43 34.0	-0.3
YAK				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
AAK	Ala-Archa	66.73	319	eP	P	13 43 46.4	-1.0
	comp=Z,1.1nm,0.6s,mb4.1						
AAK	Ala-Archa	66.73	319	⇑eP	P	13 43 46.3	-1.1
AAK				MLR	MLR		
	comp=Z,100nm,21.0s,MS4.0						
ZALV	Zalesovo Beam	67.46	334	P	P	13 43 49.4	-2.4
	comp=Z,1.4nm,0.8s,mb4.0,baz=112,slow=6.6,SNR=6.9						
ZAL	Zalesovo	67.46	334	P	P	13 43 49.4	-2.3
SEY	Seymchan	68.03	11	i P	P	13 43 55.5	+0.3
KURK	Kurchatov	68.48	328	eP	P	13 43 56.7	-1.5
	comp=Z,6.5nm,0.9s,mb4.7						
KURK	Kurchatov	68.48	328	eP	P	13 43 56.7	-1.5
KURK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
BRVK	Borovoye	74.11	328	eP	P	13 44 30.6	-1.7
	comp=Z,3.0nm,0.8s,mb4.3						
BRVK	Borovoye	74.11	328	eP	P	13 44 30.6	-1.7
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
TIXI	Tiksi	74.43	360	eP	P	13 44 32.0	-1.8
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
MAW	Mawson	78.33	201	eP	P	13 44 58.6	+2.6
	comp=Z,20nm,0.8s,mb5.1						
MAW	Mawson	78.33	201	eP	P	13 44 58.6	+2.6
MAW				pmax	pmax		
	comp=Z,20nm,0.8s						

ISCJB ***18*** *13:39:05.7±0.2, 6.60S±0.04×154.87E±0.04, h17^{km}, mb4.8/70, MS4.1/18, Error ellipse: s-maj=6.1km s-min=5.7km az=31.9*

NEIC ***18*** *13:39:07.4±0.3, 6.62S×154.81E, mb4.9/27, Error ellipse: s-maj=9.8km s-min=7.7km az=97.0*

IDC ***18*** *13:39:07.8±3.3, 6.56S×154.75E, h20^{km}±20^{km}, mb4.5/18, mb1 4.6/20, mb1mx4.6/21, mbtmp4.5/20, ML3.9/2, MS4.0/13, Ms1 4.0/13, ms1mx3.8/24, Error ellipse: s-maj=18.3km s-min=13.7km az=100.0*

GCMT ***18*** *13:39:07.4±0.4, 6.81S×154.56E, h30^{km}±1^{km}, MW5.0/41, Moment Tensor Solution. s30,c38; s41,c56; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.84±.19; M$_{\theta\theta}$-1.58±.12; M$_{\phi\phi}$-1.26±.14; M$_{r\theta}$1.22±.18; M$_{\theta\phi}$1.66±.09; M$_{\phi r}$-1.58±.20; Best double couple: M$_0$3.57500×10^{16} NP1:φ$_s$306.00000°,δ29.00000°,λ79.00000°. NP2: φ$_s$138.00000°,δ62.00000°,λ96.00000°. Principal axes: T 3.4670, Plg72.0000°, Azm62.0000°; N 0.2160, Plg5.0000°, Azm315.0000°; P -3.6830, Plg17.0000°, Azm224.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BJI ***18*** *13:39:09.9, 5.66S×154.85E, h17^{km}, mB4.9, mb4.8, Ms4.8, Msz4.4*

MOS ***18*** *13:39:09.4±0.9, 6.25S×154.70E, h33^{km}, mb5.0/15, Error ellipse: s-maj=11.1km s-min=8.9km az=104.3*

ISC 18 13:39:07.5±0.3**, 6.62S**±0.04×**154.89E**±0.05**, h18**^{km}**, h18**^{km}±1.3^{km}**:pP-P, n150,** σ**1$\overset{s}{.}$07**/138**, mb4.8**/70**, MS4.1**/18**, 13C-1D, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	5.73	119	ePn	Pn	13 40 41.2	+9.4
	491nm,0.9s						
HNR				eSn	Sb	13 41 54.9	-0.6
HNR	Honiara	5.73	119	eP	Pn	13 40 41.2	+9.4
HNR				e		13 41 54.9	
HNR				pmax	pmax		
	comp=Z,491nm,0.9s						
HNR	Honiara	5.73	119	Pn	Pn	13 40 38.7	+6.9
	comp=Z,24nm,0.3s,baz=111,slow=0.5,SNR=15						
HNR				Sn	Sb	13 41 52.8	-2.7
	comp=Z,31nm,0.3s,baz=77,slow=20,SNR=4.0						
HNR				LR	LR	13 42 06.8	
	comp=Z,230nm,20.1s,baz=178,slow=30						
PMG	Port Moresby	8.14	250	ePn	Pn	13 41 08.8	+4.0
	comp=Z,68nm,0.6s						
PMG				eSn	Sn	13 42 39.1	+2.7
PMG	Port Moresby	8.14	250	eP	Pn	13 41 08.8	+3.9
PMG				e		13 42 39.1	
PMG				pmax	pmax		
	comp=Z,68nm,0.6s						
PMG	Port Moresby	8.14	250	Pn	Pn	13 41 05.4	+0.6
	comp=Z,4.1nm,0.3s,baz=58,slow=9.8,SNR=32						
PMG				Sn	Sn	13 42 38.8	+2.3
	comp=Z,3.6nm,0.3s,baz=70,slow=18,SNR=6.2						
CTA	Charters Tower	15.80	211	eP	Pn	13 42 54.8	+5.7
	comp=Z,19nm,0.8s						
CTA				LR	LR	13 47 43.8	
CTA	Charters Tower	15.80	211	eP	Pn	13 42 54.8	+5.7
CTA				pmax	pmax		
	comp=Z,19nm,0.8s						
CTA	Charters Tower	15.80	211	Pn	Pn	13 42 51.5	+2.4
	comp=Z,0.5nm,0.3s,baz=30,slow=11,SNR=12						
CTA				LR	LR	13 47 43.7	
	comp=Z,522nm,21.6s,baz=24,slow=33						
DZM	Mont Dzumac	18.98	145	P	Pn	13 43 29.9	+1.0
	comp=Z,1.0nm,0.3s,baz=327,slow=11,SNR=9.2						
DZM				LR	LR	13 49 45.9	
	comp=Z,433nm,19.4s,baz=8.9,slow=33						
GUMO	Guam	22.41	334	P	P	13 44 06.7	+1.4
	comp=Z,37nm,0.6s,mb5.0,baz=166,slow=16,SNR=3.5						
GUMO				LR	LR	13 50 54.7	
	comp=Z,173nm,19.9s,MS3.5,baz=151,slow=32						
KAKA	Kakadu	22.93	253	⇓iP	P	13 44 09.2	-1.7
	comp=Z,24nm,0.7s,mb4.7						
WB2	Warramunga Arr	23.94	234	eP	P	13 44 20.2	-0.6
WB2				ePcP	PcP	13 48 04.2	+1.0
WRA	Warramunga Arr	23.95	234	P	P	13 44 19.9	-1.0
WRA						13 48 02.8	
WRA	Warramunga Arr	23.95	234	P	P	13 44 19.9	-0.9
	comp=Z,15nm,0.7s,mb4.5,baz=57,slow=9.5,SNR=56						
WRA				PcP	PcP	13 48 02.8	-0.4
	comp=Z,5.6nm,0.7s,baz=59,slow=2.2,SNR=10.0						
WRA				ScP	ScP	13 51 40.2	-0.7
	comp=Z,1.8nm,1.0s,baz=62,slow=2.7,SNR=4.9						
WRA				LR	LR	13 53 41.0	
	comp=Z,454nm,19.2s,MS4.0,baz=55,slow=37						
ASAR	Alice Springs	26.34	228	P	P	13 44 41.9	-0.7
ASAR						13 48 08.6	
ASAR	Alice Springs	26.34	228	P	P	13 44 41.9	-0.7
	comp=Z,3.3nm,0.7s,mb4.0,baz=59,slow=8.3,SNR=38						
ASAR				PcP	PcP	13 48 08.6	0.0
	comp=Z,3.4nm,1.0s,baz=77,slow=2.2,SNR=6.8						
ASAR				ScP	ScP	13 51 47.5	-0.2
	comp=Z,1.5nm,0.8s,baz=54,slow=3.8,SNR=6.5						
STKA	Stephens Creek	28.03	205	eP	P	13 44 57.2	-0.5
	comp=Z,6.9nm,0.6s,mb4.5						
STKA	Stephens Creek	28.03	205	P	P	13 44 57.2	-0.4
	comp=Z,3.9nm,0.6s,mb4.2,baz=23,slow=13,SNR=10						
STKA				PcP	PcP	13 48 12.4	+0.1
	comp=Z,4.2nm,0.8s,baz=337,slow=3.2,SNR=3.1						
STKA				LR	LR	13 56 32.5	
	comp=Z,456nm,18.6s,MS4.1,baz=28,slow=37						
FITZ	Fitzroy Crossi	30.71	246	eP	P	13 45 21.2	-0.5
	comp=Z,8.4nm,0.4s,mb4.9						
FITZ	Fitzroy Crossi	30.71	246	P	P	13 45 21.3	-0.4
	comp=Z,6.2nm,0.8s,mb4.5,baz=98,slow=9.9,SNR=12						
AFI	Afiamalu	33.56	105	LR	LR	13 56 55.8	
	comp=Z,324nm,21.6s,MS4.0,baz=193,slow=32						
FORT	Forrest	34.79	223	eP	P	13 45 56.7	-0.5
	comp=Z,15nm,0.6s,mb5.1						
CBIJ	Chichi jima	35.70	340	LR	LR	13 59 25.9	
	comp=Z,148nm,18.1s,MS3.8,baz=157,slow=34						
URZ	Urewera	37.38	151	P	P	13 46 20.3	+1.0
	comp=Z,7.9nm,0.8s,mb4.6,baz=350,slow=6.2,SNR=3.8						
RPZ	Rata Peaks	39.58	162	P	P	13 46 38.3	+0.6
	comp=Z,4.6nm,0.7s,mb4.3,baz=315,slow=1.4,SNR=4.0						
KLBR	Kellerberrin	42.65	230	eP	P	13 47 02.2	-0.9
	comp=Z,24nm,1.1s,mb4.8						
NWAO	Narrogin (SRO)	43.66	228	LR	LR	14 04 44.0	
	comp=Z,470nm,19.2s,MS4.4,baz=62,slow=35						
NACB	Ninganchiao	44.62	314	eP	P	13 47 21.1	+2.0
KSM	Kuching	45.22	279	eP	P	13 47 23.8	-0.3
MJAR	Matsushiro Arr	45.70	341	P	P	13 47 29.1	+1.7
	comp=Z,1.0nm,0.4s,mb4.1,baz=164,slow=6.6,SNR=8.3						
RAR	Rarotonga	46.15	113	LR	LR	14 04 09.1	
	comp=Z,243nm,18.9s,MS4.2,baz=227,slow=32						
KSRS	Korea Array	50.56	332	P	P	13 48 04.2	-0.8
	comp=Z,4.9nm,0.7s,mb4.5,baz=146,slow=7.0,SNR=11						
QIZ	Qiongzhong	51.18	301	P	P	13 48 11.5	+1.5
QIZ				PP	PP	13 50 05.9	-1.1
QIZ				S	S	13 55 24.6	-3.2
QIZ				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb4.5						
QIZ				AMB	AMB		
	comp=Z,82nm,5.6s						
QIZ				LR	LR		
	comp=Z,239nm,22.4s,MS4.2						
NJ2	Nanjing	51.56	320	eP	P	13 48 13.1	+0.4
NJ2				AMB	AMB		
	comp=Z,20nm,1.1s,mb5.0						
ASAJ	Asahikawa	51.71	349	P	P	13 48 15.5	+2.0
	comp=Z,5.2nm,0.6s,mb4.6,baz=242,slow=16,SNR=11						
ASAJ				LR	LR	14 08 21.6	
	comp=Z,139nm,19.1s,MS4.0,baz=283,slow=34						
WHN	Wuhan	53.60	316	P	P	13 48 29.6	+1.8
PPT	Papeete	55.20	107	eLR	LR	14 04 43.7	
	comp=Z,114nm,23.0s						
KULM	Kulim	55.42	281	eP	P	13 48 32.3	-9.1
KULM	Kulim	55.42	281	⇑P	P	13 48 32.2	-9.1
CN2	Changchun	56.81	335	eP	P	13 48 49.9	-0.8
GYA	Guiyang	57.15	307	⇑iP	P	13 48 54.3	+0.9
GYA				PCP	PcP	13 49 48.8	+0.7
GYA				PP	PP	13 51 05.0	+4.4
GYA				S	S	13 56 41.5	-6.6
GYA				PS		13 57 08.3	
GYA				SS	SS	14 00 32.8	-4.7
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
GYA				AMB	AMB		
	comp=Z,90nm,4.9s						
GYA				LR	LR		
	comp=N,320nm,19.4s,MS4.7						
GYA				LR	LR		
	comp=E,420nm,18.6s,MS4.7						
GYA				LR	LR		
	comp=Z,460nm,18.9s,MS4.6						
HABR	Khabarovsk	57.56	344	eP	P	13 48 55.4	-0.5
HABR				eS	S	13 56 51.8	-1.0
HABR				pmax	pmax		
	comp=Z,22nm,1.7s,mb4.9						
BJT	Baijiatuau	58.54	326	eP	P	13 49 01.4	-1.6
	comp=Z,4.7nm,0.5s,mb4.8						
BJT	Baijiatuau	58.54	326	eP	P	13 49 01.4	-1.6
BJT				pmax	pmax		
	comp=Z,5.0nm,0.5s						
BJI	Beijing	58.55	326	P	P	13 49 02.5	-0.6
BJI				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.7						
BJI				LR	LR		
	comp=Z,93nm,27.1s,MS3.8						
KLR	Kul'dur	59.18	343	eP	P	13 49 03.1	-4.1
XAN	Xi'an	59.37	316	P	P	13 49 08.0	-0.8
XAN				AP	pP	13 49 13.3	-1.5
XAN				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.8						
PET	Petropavlovsk	59.50	3	eP	P	13 49 13.0	+3.6
	comp=Z,34nm,0.6s,mb5.5						
PET	Petropavlovsk	59.50	3	⇑iP	P	13 49 13.6	+4.3
PET				pmax	pmax		
	comp=Z,59nm,0.7s,mb5.7						
KMI	Kunming	59.72	304	⇑P	P	13 49 12.8	+1.3
KMI				PP	PP	13 51 25.8	+2.3
KMI				PPP		13 52 55.3	
KMI				S	S	13 57 13.3	-8.5
KMI				SS	SS	14 01 13.4	-4.7
KMI				SSS		14 03 46.8	
KMI				AMB	AMB		
	comp=Z,34nm,1.1s,mb5.3						
KMI				AMB	AMB		
	comp=Z,53nm,3.1s						
KMI				LR	LR		
	comp=N,183nm,11.3s,MS4.5						
KMI				LR	LR		
	comp=E,143nm,14.3s,MS4.5						
KMI				LR	LR		
	comp=Z,206nm,13.8s,MS4.4						
KMI	Kunming	59.72	304	⇑P	P	13 49 12.8	+1.3
	comp=Z,34nm,1.1s,mb5.3						
KMI				pP	pP	13 49 36.4	+19
KMI				sP	sP	13 49 47.0	+27
KMI				PP	PP	13 51 25.7	+2.2
KMI				PPP		13 52 55.3	
KMI				S	S	13 57 13.2	-8.6
KMI				sS	sS	13 57 53.5	+22
KMI				SS	SS	14 01 13.4	-4.7
KMI				SSS		14 03 46.7	
KMI				LR	LR		
	comp=Z,210nm,13.8s,MS4.4						
KMI	Kunming	59.72	304	⇑P	P	13 49 12.8	+1.3
KMI						13 51 25.7	
KMI				PPP		13 52 55.3	
KMI				S	S	13 57 13.2	-8.6
KMI				SS	SS	14 01 13.4	-4.7
KMI				SSS		14 03 46.7	
KMI				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.3						
KMI				MLR	MLR		
	comp=Z,210nm,13.8s,MS4.4						
CM31	Chiang Mai Arr	60.53	295	eP	P	13 49 18.1	+1.0
	comp=Z,5.4nm,0.7s,mb4.8						
CHTO	Chiang Mai	60.65	296	eP	P	13 49 17.4	-0.5
	comp=Z,11nm,1.2s,mb4.9						
CHTO	Chiang Mai	60.65	296	eP	P	13 49 17.4	-0.5
CHTO				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.9						
CD2	Chengdu	61.49	310	⇑iP	P	13 49 23.6	+0.2
CD2				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.8						
CD2				AMB	AMB		
	comp=Z,80nm,5.2s						
HHC	Hu-ho-hao-te	61.73	324	eP	P	13 49 25.8	+1.0
HHC				PCP	PcP	13 50 05.6	-0.4
HHC				PP	PP	13 51 45.3	+4.3
HHC				PCS	PcS	13 54 07.5	-1.4
HHC				S	S	13 57 40.6	-6.3
HHC				PS		13 58 11.3	
HHC				SS	SS	14 01 43.6	-5.4
HHC				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.6						
HHC				AMB	AMB		
	comp=Z,201nm,4.7s						
HHC				LR	LR		
	comp=N,117nm,23.7s,MS4.1						
HHC				LR	LR		
	comp=E,100nm,22.8s,MS4.1						
HHC				LR	LR		
	comp=Z,193nm,23.7s,MS4.2						
HIA	Hailar	63.54	335	eP	P	13 49 35.0	-1.7
	comp=Z,8.1nm,0.6s,mb4.9						
HIA	Hailar	63.54	335	c iP	P	13 49 36.3	-0.4
LZH	Lanzhou	63.98	315	eP	P	13 49 41.5	+1.6
LZH				PP	PP	13 52 05.3	+4.4
LZH				AMB	AMB		
	comp=Z,22nm,1.5s,mb5.0						
LZH				AMB	AMB		
	comp=Z,65nm,7.6s						
LZH				LR	LR		
	comp=E,478nm,15.2s						
LZH				LR	LR		
	comp=Z,632nm,18.5s,MS4.8						
LZH	Lanzhou	63.98	315	eP	P	13 49 41.5	+1.6
	comp=Z,22nm,1.5s,mb5.0						
LZH				pP	pP	13 50 05.4	+20
LZH				sP	sP	13 50 16.5	+28
LZH				PP	PP	13 52 05.3	+4.4
LZH				LR	LR		
	comp=Z,630nm,18.5s,MS4.8						
MA2	Magadan	66.06	358	i P	P	13 49 52.7	-0.3
IMP	Imphal	67.01	300	eP	P	13 50 00.0	+0.3
GTA	Gaotai	68.40	317	eP	P	13 50 09.0	+0.8
GTA				PP	PP	13 52 43.4	+4.0
GTA				PPP		13 54 22.6	
GTA				S	S	13 59 02.5	-6.4
GTA				PS		13 59 41.6	
GTA				SS	SS	14 03 30.9	-2.0
GTA				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.5						
GTA				AMB	AMB		
	comp=Z,114nm,5.3s						
GTA				LR	LR		
	comp=N,119nm,16.0s,MS4.3						
GTA				LR	LR		
	comp=E,87nm,15.6s,MS4.3						
GTA				LR	LR		
	comp=Z,114nm,14.1s,MS4.2						
ULN	Ulaanbaatar	68.63	328	eP	P	13 50 09.5	0.0
	comp=Z,2.1nm,0.6s,mb4.2						
ULN	Ulaanbaatar	68.63	328	c iP	P	13 50 09.8	+0.3
SONM	Songino Array	68.97	327	P	P	13 50 11.6	0.0
	comp=Z,1.7nm,0.5s,mb4.2,baz=145,slow=5.0,SNR=31						
SHL	Shillong	69.02	300	i P	P	13 50 13.0	+0.6
RKT	Rikitea	69.18	112	eLR	LR	14 11 17.3	
	comp=Z,212nm,25.5s						
SEY	Seymchan	69.38	359	⇑eP	P	13 50 13.7	-0.1
VNDA	Vanda	70.96	178	P	P	13 50 24.6	+1.3
	comp=Z,5.4nm,1.1s,mb4.4,baz=38,slow=11,SNR=3.6						
LSA	Lhasa	70.98	304	P	P	13 50 26.1	+1.8
LSA				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
LSA	Lhasa	70.98	304	eP	P	13 50 25.6	+1.3
	comp=Z,58nm,1.3s,mb5.3						
LSA	Lhasa	70.98	304	eP	P	13 50 25.6	+1.3
LSA				pmax	pmax		
	comp=Z,58nm,1.3s,mb5.3						
YAK	Yakutsk	71.17	348	⇑eP	P	13 50 25.1	+0.3
YAK				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
ZAK	Zakamensk	72.12	328	eP	P	13 50 30.1	-0.7
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.2						
BOD	Bodaibo	72.23	338	eP	P	13 50 29.3	-2.0
BOD				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.1						
TAPN	Taplejung	73.12	301	eP	P	13 50 37.3	0.0
	comp=Z,82nm,0.9s,mb5.7						
ODAN	Odare	73.25	300	eP	P	13 50 38.4	+0.4
	comp=Z,172nm,0.7s,mb6.1						
BOK	Bokaro	73.73	297	eP	P	13 50 41.8	+0.9
BOK				AMb	AMB	13 50 42.8	
	comp=Z,36nm,0.9s,mb5.3						
JIRN	Jiri	74.50	301	eP	P	13 50 45.9	+0.5
	comp=Z,3.6nm,0.4s,mb4.6						
VIS	Vishakhapatnam	74.64	290	eP	P	13 50 47.1	+0.8
VIS				AMb	AMB	13 50 47.8	
	comp=Z,16nm,0.8s,mb5.0						
BILL	Bilibino	74.92	4	eP	P	13 50 46.8	0.0
	comp=Z,18nm,0.6s,mb5.2						
BILL				e	pP	13 50 51.0	-1.9
BILL	Bilibino	74.92	4	c iP	P	13 50 46.9	0.0
BILL				e		13 51 00.3	
BILL				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
KKN	Kakani	75.31	301	eP	P	13 50 50.4	+0.4
	comp=Z,77nm,0.7s,mb5.8						
GKN	Gorkha	75.92	301	eP	P	13 50 53.5	0.0
	comp=Z,121nm,0.8s,mb5.9						
BLSP	Bilaspur	76.70	294	eP	P	13 50 58.0	0.0
BLSP				AMb	AMB	13 50 58.6	
	comp=Z,22nm,1.1s,mb5.0						
KDAK	Kodiak Island	76.87	26	P	P	13 51 00.1	+1.8
	comp=Z,5.5nm,0.7s,mb4.6,baz=324,slow=16,SNR=4.8						
TNA	Tin City	76.99	15	eP	P	13 50 59.2	+0.4
	comp=Z,2.7nm,0.8s,mb4.2						
WMQ	Urumqi	78.48	317	P	P	13 51 07.5	0.0
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.8s,mb4.5						
WMQ				LR	LR		
	comp=N,46nm,16.0s						
WMQ				LR	LR		
	comp=Z,58nm,18.4s,MS3.9						
NGP	Nagpur	79.30	293	eP	P	13 51 10.6	-1.9
NGP				AMb	AMB	13 51 12.5	
	comp=Z,20nm,1.5s,mb4.8						
SLKM	Skilak Lake	79.44	24	eP	P	13 51 11.9	-0.5
TIXI	Tiksi	79.97	352	eP	P	13 51 16.2	+1.1
	comp=Z,5.0nm,0.6s,mb4.6						
TIXI	Tiksi	79.97	352	eP	P	13 51 14.3	-0.8
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
AKL	Akola	81.08	292	eP	P	13 51 21.8	-0.4
AKL				AMb	AMB	13 51 22.6	
	comp=Z,38nm,0.9s,mb5.3						
BHPL	Bhopal	81.18	295	eP	P	13 51 22.2	-0.4
MCK	McKinley	81.75	22	eP	P	13 51 24.0	-0.8
	comp=Z,9.2nm,1.0s,mb4.7						
MCK	McKinley	81.75	22	eP	P	13 51 24.0	-0.7
MCK				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
NDI	New Delhi	82.44	300	eP	P	13 51 28.0	-1.1
NDI				AMb	AMB	13 51 28.7	
	comp=Z,37nm,1.7s,mb5.0						
COLA	College	82.77	21	eP	P	13 51 28.3	-1.7
	comp=Z,2.6nm,0.6s,mb4.4						
COLA	College	82.77	21	eP	P	13 51 28.3	-1.8
COLA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
MK31	Makanchi Array	83.06	319	eP	P	13 51 31.6	-0.3
MKAR	Makanchi Array	83.06	319	P	P	13 51 31.7	-0.3
MKAR	Makanchi Array	83.06	319	P	P	13 51 31.7	-0.3
	comp=Z,6.6nm,0.8s,mb4.7,baz=103,slow=5.2,SNR=83						
KAD	Karad	83.14	288	eP	P	13 51 32.4	-0.7
KAD				AMb	AMB	13 51 33.3	
	comp=Z,24nm,1.1s,mb5.2						
ZALV	Zalesovo Beam	83.81	326	P	P	13 51 34.2	-1.5
ZALV	Zalesovo Beam	83.81	326	P	P	13 51 34.2	-1.4
	comp=Z,3.7nm,0.6s,mb4.7,baz=117,slow=5.9,SNR=22						
ZAL	Zalesovo	83.82	326	P	P	13 51 34.2	-1.5
AJM	Ajmer	84.26	297	eP	P	13 51 38.0	-0.6
MAW	Mawson	84.70	203	P	P	13 51 40.9	+0.9
	comp=Z,15nm,1.1s,mb5.0,baz=107,slow=5.1,SNR=3.7						
NVS	Novosibirsk	84.98	327	i P	P	13 51 40.8	-0.8
EGAK	Eagle	85.21	23	eP	P	13 51 44.5	+2.0
	comp=Z,3.7nm,0.8s,mb4.6						
KSH	Kashi	85.69	310	eP	P	13 51 51.0	+5.5
KSH				eAP	pP	13 51 56.4	+4.7
KSH				eXP	sP	13 51 58.3	+4.4
KSH				ePPP		13 57 02.0	
KSH				eSKS		14 02 09.0	
KSH				eS	S	14 02 15.6	-1.7
KSH				AMB	AMB		
	comp=Z,269nm,3.4s						
KURK	Kurchatov	86.47	322	eP	P	13 51 47.5	-1.6
	comp=Z,5.5nm,0.5s,mb5.0						
KURK				e	pP	13 51 54.4	-0.9
KURK	Kurchatov	86.47	322	eP	P	13 51 47.5	-1.6
KURK				e	pP	13 51 54.4	-0.9
KURK				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb5.1						
TKM2	Tokmak 2	86.68	314	eP	P	13 51 49.8	-0.5
	comp=Z,8.9nm,0.5s,mb5.2						
TKM2				e	pP	13 51 55.6	-0.9
TKM2	Tokmak 2	86.68	314	eP	P	13 51 49.8	-0.5
TKM2				e	pP	13 51 55.6	-0.9
TKM2				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.3						
UCH	Uchtor	87.33	313	eP	P	13 51 55.2	+1.7
	comp=Z,2.4nm,0.6s,mb4.6						
AAK	Ala-Archa	87.42	313	eP	P	13 51 52.8	-1.1
	comp=Z,5.7nm,0.6s,mb5.0						
AAK				e	pP	13 51 58.5	-1.6
AAK	Ala-Archa	87.42	313	eP	P	13 51 52.8	-1.1
AAK				e	pP	13 51 58.5	-1.6
AAK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb5.0						
AML	Almayashu	87.91	313	eP	P	13 51 56.8	+0.6
	comp=Z,5.8nm,0.6s,mb5.0						
INK	Inuvik	89.41	21	P	P	13 52 02.7	0.0
INK	Inuvik	89.41	21	P	P	13 52 02.7	0.0
	comp=Z,0.7nm,0.6s,mb4.2,baz=282,slow=4.2,SNR=4.3						
KBL	Kabul	90.30	305	eP	P	13 52 06.8	-0.9
NVAR	Mina Array Bea	91.57	52	P	P	13 52 14.6	+1.1
	comp=Z,6.8nm,0.9s,mb5.0,baz=255,slow=9.2,SNR=33						
BRVK	Borovoye	92.00	323	eP	P	13 52 13.2	-2.0
	comp=Z,1.3nm,0.7s,mb4.4						
BRVK	Borovoye	92.00	323	eP	P	13 52 13.2	-1.9
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.2						
PFO	Pinyon Flat Ob	92.50	57	eP	P	13 52 19.7	+1.8
PFO	Pinyon Flat Ob	92.50	57	P	P	13 52 19.2	+1.3
	comp=Z,2.9nm,0.7s,mb4.7,baz=268,slow=1.8,SNR=3.7						
SYO	Syowa Base	92.64	199	⇑eP	P	13 52 17.5	-0.4
YKA	Yellowknife Ar	96.06	28	P	P	13 52 32.1	-1.4
	comp=Z,2.4nm,0.5s,mb4.9,baz=267,slow=4.3,SNR=34						
YKA				LR	LR	14 32 08.4	
	comp=Z,64nm,20.1s,MS4.1,baz=195,slow=33						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PDAR	Pinedale Array	98.53	48	P	P	13 52 44.7	-0.5
	comp=Z,1.1nm,0.9s,mb4.4,baz=225,slow=3.4,SNR=7.2						
PDAR				LR	LR	14 37 17.1	
	comp=Z,91nm,18.1s,MS4.3,baz=272,slow=35						
AKASG	Malin Array Be	117.18	324	PKP	PKPdf	13 57 51.1	-0.5
AKASG	Malin Array Be	117.18	324	PKIKP	PKPdf	13 57 51.1	-0.5
AKASG	Malin Array Be	117.18	324	PKP	PKPdf	13 57 51.1	-0.5
	comp=Z,0.3nm,0.4s,baz=95,slow=1.3,SNR=4.8						
NOA	NORSAR Array B	119.31	341	PKP	PKPdf	13 57 54.7	-0.7
NOA	NORSAR Array B	119.31	341	PKIKP	PKPdf	13 57 54.7	-0.7
NOA	NORSAR Array B	119.31	341	PKP	PKPdf	13 57 54.7	-0.7
	comp=Z,0.9nm,1.0s,baz=202,slow=14,SNR=2.7						
BOSA	Boshof	120.17	232	PKP	PKPdf	13 57 58.1	0.0
BOSA	Boshof	120.17	232	PKIKP	PKPdf	13 57 58.1	0.0
BOSA	Boshof	120.17	232	PKP	PKPdf	13 57 58.1	0.0
	comp=Z,2.2nm,0.7s,baz=110,slow=3.8,SNR=7.5						
LBTB	Lobatse	121.51	235	*e*PKPdf	PKPdf	13 58 01.1	+0.3
LBTB	Lobatse	121.51	235	*e*PKIKP	PKPdf	13 58 01.1	+0.3
GERES	GERESS Array B	126.68	329	PKP	PKPdf	13 58 09.2	-0.7
GERES	GERESS Array B	126.68	329	PKIKP	PKPdf	13 58 09.2	-0.7
GERES	GERESS Array B	126.68	329	PKP	PKPdf	13 58 09.2	-0.7
	comp=Z,0.5nm,0.6s,baz=54,slow=2.3,SNR=6.6						
TOA0	Torodi Ar. Sit	152.83	286	*e*PKPdf	PKPdf	13 58 56.5	-0.8
TOA0				*e*PKPbc	PKPbc	13 59 03.2	-1.3
TORD	Torodi Ar. Bea	152.83	286	PKP	PKPdf	13 58 56.0	-1.4
TORD				PKPbc	PKPbc	13 59 03.4	-1.1
TORD	Torodi Ar. Bea	152.83	286	PKP	PKPdf	13 58 56.0	-1.4
	comp=Z,2.4nm,0.9s,baz=34,slow=1.3,SNR=9.4						
TORD				PKPbc	PKPbc	13 59 03.4	-1.1
	comp=Z,13nm,0.7s,baz=71,slow=2.3,SNR=48						

DDA ***18*** *13:40:52.5, 3636N×3525E, h18^{km}±10^{km}, Md2.6*
CSEM ***18*** *13:40:54.8±0.2, 3672N×3691E, h25^{km}, Mc1.5, Error ellipse: s-maj=5.0km s-min=2.4km az=173.0*
ISCJB ***18*** *13:40:56.7±0.9, 3664N±006×3691E±005, h26^{km}±8^{km}, Error ellipse: s-maj=9.5km s-min=6.3km az=163.4*
NSSC ***18*** *13:40:56.3, 3660N×3693E, h17^{km}±1^{km}*
ISC 18 13:40:56.9±0.8**, 3663N**±005×**3692E**±005**, h24**^{km}±8^{km}**, n14,** σ**0^{s}87**/27**, 9D, Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DRWC	Darouich	0.20	268	⇑P	Pb	13 41 01.4	-1.0
DRWC				⇓S	Sb	13 41 05.7	-0.3
DRWC	Darouich	0.20	268	⇑*i*P	Pb	13 41 01.4	-1.0
COBT	Iskenderun	0.54	259	*i* P	Pb	13 41 07.3	-0.5
COBT				*i* S	Sb	13 41 15.3	+0.2
BTCH	Batrach	0.69	212	⇑P	Pb	13 41 09.8	-0.5
BTCH				⇓S	Sb	13 41 19.6	+0.1
BTCH	Batrach	0.69	212	⇑*i*P	Pb	13 41 09.8	-0.5
BTCH				⇓*i*S	Sb	13 41 19.6	+0.1
YAYL	Yayladag	0.88	228	*i* P	Pb	13 41 12.6	-0.9
YAYL				*i* S	Sb	13 41 26.8	+1.9
GZT	Gaziantep	0.89	35	*i* P	Pb	13 41 16.2	+2.5
GZT				*i* S	Sb	13 41 31.2	+6.0
SLMH	Al Salmeh	0.92	117	⇓P	Pb	13 41 13.0	-1.1
SLMH				⇑S	Sb	13 41 26.2	+0.4
SLMH	Al Salmeh	0.92	117	⇓*i*P	Pb	13 41 13.0	-1.1
SLMH				⇑*i*S	Sb	13 41 26.2	+0.4
ARNB	Al Arnab	1.08	225	⇑P	Pn	13 41 16.3	-0.3
ARNB				⇑S	Sb	13 41 31.1	+0.5
SLNF	Slenfeh	1.17	209	⇑P	Pn	13 41 17.5	-0.4
SLNF				⇑S	Sb	13 41 33.6	+0.4
SLNF	Slenfeh	1.17	209	⇑*i*P	Pn	13 41 17.5	-0.3
SLNF				⇑*i*S	Sb	13 41 33.6	+0.4
WRDH	Warideh	1.19	200	⇓P	Pn	13 41 17.3	-0.7
WRDH				⇓S	Sb	13 41 33.9	+0.2
WRDH	Warideh	1.19	200	⇓*i*P	Pn	13 41 17.3	-0.7
WRDH				⇓*i*S	Sb	13 41 33.9	+0.2

IDC ***18*** *13:47:23.5±1.5, 445N×9620E, h0^{km}, mb3.9/6, mb1 4.1/7, mb1mx3.8/22, mbtmp3.9/7, ML4.0/1, MS3.6/2, Ms1 3.6/2, ms1mx3.1/31, Error ellipse: s-maj=67.7km s-min=18.2km az=54.0*
ISCJB ***18*** *13:47:26.5±1.2, 44N±02×961E±01, h33^{km}, mb3.9/6, MS3.7/2, Error ellipse: s-maj=28.6km s-min=9.8km az=38.2*
ISC 18 13:47:28.1±1.2**, 43N**±02×**959E**±01**, h35**^{km}**, n22,** σ**1^{s}33**/20**, mb3.9**/6**, MS3.7**/2**, 10C-2D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.34	117	Pn	Pn	13 48 17.4	-0.4
	15nm,0.3s,baz=319,slow=13,SNR=31						
PSI				Sn	Sn	13 48 58.7	+2.5
	baz=51,slow=19						
IPM	Ipoh	5.07	88	⇑P	Pn	13 48 36.6	-5.0
FRIM	Kepong	5.77	101	⇑P	Pn	13 48 47.8	-3.5
KTGM	Kuala Trenggan	7.23	82	⇑P	Pn	13 49 06.8	-4.6
KGM	Kluang	7.71	107	⇓P	Pn	13 49 18.1	+0.1
MYKOM	Kota Tinggi	8.29	107	⇓P	Pn	13 49 30.3	+4.5
SBUM	Sibu	16.35	96	⇑P	Pn	13 51 13.4	-1.7
BTM	Bintulu	17.14	93	⇑P	Pn	13 51 22.2	-2.9
KKM	Kota Kinabalu	20.26	84	⇑P	P	13 52 01.5	+0.8
KDM	Kudat	20.95	82	⇑P	P	13 52 08.9	+0.8
SDKM	Sandakan	21.21	86	⇑P	P	13 52 11.1	+0.1
TSM	Tawau	21.87	89	⇑P	P	13 52 18.4	+0.3
MYLDM	Lahad Datu	22.49	87	⇑P	P	13 52 27.3	+2.6
MKAR	Makanchi Array	43.93	346	P	P	13 55 30.5	-1.0
	0.4nm,0.4s,mb3.5,baz=153,slow=9.4,SNR=8.0						
SONM	Songino Array	44.27	10	P	P	13 55 33.6	-0.6
	0.9nm,0.8s,mb3.5,baz=190,slow=8.2,SNR=6.0						
WRA	Warramunga Arr	44.78	124	P	P	13 55 37.5	-1.1
	4.0nm,0.6s,mb4.5,baz=302,slow=9.1,SNR=43						
ASAR	Alice Springs	46.29	129	P	P	13 55 50.0	-0.6
	1.5nm,0.5s,mb4.2,baz=299,slow=7.6,SNR=44						
GUMO	Guam	49.11	76	LR	LR	14 14 50.6	
	comp=Z,52nm,19.1s,MS3.5,baz=222,slow=34						
ZALV	Zalesovo Beam	50.30	351	P	P	13 56 21.7	+0.7
	0.6nm,0.4s,mb4.0,baz=178,slow=3.9,SNR=5.3						
KMBO	Kilima Mbogo	58.89	266	LR	LR	14 19 10.1	
	comp=Z,66nm,19.0s,MS3.8,baz=89,slow=32						
GERES	GERESS Array B	81.66	319	P	P	13 59 44.8	+2.1
	0.4nm,0.4s,mb3.7,baz=118,slow=5.6,SNR=6.9						
ULM	Lac du Bonnet	124.69	9	PKP	PKPdf	14 06 24.7	+0.6
	0.7nm,0.5s,baz=180,slow=1.0,SNR=3.4						

ISCJB ***18*** *14:01:01.0±1.1, 272N±02×1402E±03, h357^{km}±16^{km}, mb2.8/5, Error ellipse: s-maj=47.5km s-min=24.6km az=167.8*
IDC ***18*** *14:01:02.0±1.0, 2729N×14021E, h350^{km}±14^{km}, mb2.7/5, mb1 3.0/5, mb1mx2.8/19, mbtmp2.7/5, Error ellipse: s-maj=36.3km s-min=17.2km az=82.0*
ISC 18 14:01:02.1±1.1**, 273N**±02×**1402E**±03**, h352**^{km}±16^{km}**, n6,** σ**0^{s}40**/7**, mb2.8**/5**, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	1.78	95	P	Pn	14 01 52.6	+0.6
	23nm,0.3s,baz=281,slow=23,SNR=5.5						
CBIJ				S	S	14 02 31.8	-0.4
	52nm,0.3s,baz=122,slow=23,SNR=8.7						
SONM	Songino Array	33.37	317	P	P	14 07 08.4	0.0
	0.2nm,0.4s,mb2.7,baz=120,slow=8.5,SNR=3.7						
WRA	Warramunga Arr	47.27	188	P	P	14 09 01.5	+0.1
	0.4nm,0.3s,mb3.1,baz=6.1,slow=8.3,SNR=29						
MKAR	Makanchi Array	49.00	310	P	P	14 09 14.1	-0.1
	0.1nm,0.6s,mb2.2,baz=86,slow=9.2,SNR=3.8						
ASAR	Alice Springs	51.00	187	P	P	14 09 29.2	-0.2
	0.5nm,1.0s,mb2.7,baz=358,slow=5.4,SNR=4.1						
YKA	Yellowknife Ar	72.83	28	P	P	14 11 52.8	0.0
	0.2nm,0.4s,mb3.2,baz=298,slow=6.3,SNR=4.3						

ISCJB ***18*** *14:07:13.3±0.4, 3498N±004×13982E±004, h57^{km}±3^{km}, mb3.4/7, Error ellipse: s-maj=6.9km s-min=4.3km az=33.4*
JMA ***18*** *14:07:13.6±0.1, 3500N×13983E, h50^{km}±1^{km}, M3.3*
JMA Felt I J1.
NEIC ***18*** *14:07:14.6±1.9, 3494N×13979E, h55^{km}±15^{km}, MG3.3(JMA), Error ellipse: s-maj=30.7km s-min=15.0km az=78.0*
IDC ***18*** *14:07:14.8±2.0, 3496N×13975E, h54^{km}±16^{km}, mb3.1/7, mb1 3.3/7, mb1mx3.2/21, mbtmp3.1/7, Error ellipse: s-maj=40.7km s-min=5.4km az=71.0*
ISC 18 14:07:14.2±0.4**, 3498N**±004×**13981E**±004**, h49**^{km}±4^{km}**, n25,** σ**0^{s}70**/39**, mb3.4**/7**, 3C-7D, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TATJ	Tateyama 2	0.08	51	⇑P	Pn	14 07 21.5	-0.4
TATJ				S	Sn	14 07 27.3	0.0
JYO	Yokosk	0.27	334	⇓P	Pn	14 07 22.7	-0.3
JYO				S	Sn	14 07 29.4	+0.1
JIM2	Oshima 3	0.41	230	⇑P	Pn	14 07 23.7	-0.7
JIM2				S	Sn	14 07 31.5	-0.1
BSO4	Boso 4	0.43	88	⇓P	Pn	14 07 24.7	+0.1
BSO4				S	Sn	14 07 33.3	+1.2
BSO3	Boso 3	0.60	107	⇓P	Pn	14 07 26.4	-0.3
BSO3				S	Sn	14 07 36.8	+1.2
JOD2	Odawara 2	0.66	296	⇓P	Pn	14 07 26.5	-0.9
JOD2				S	Sn	14 07 35.8	-1.1
JIZS	Izushimoda	0.81	251	⇑P	Pn	14 07 29.2	-0.2
JIZS				S	Sn	14 07 40.0	-0.4
BSO1	Boso 1	1.01	108	⇓P	Pn	14 07 31.0	-1.1
BSO1				S	Sn	14 07 44.3	-1.0
JYN	Shimob	1.16	297	⇓P	Pn	14 07 33.8	-0.3
JYN				S	Sn	14 07 49.0	+0.2
JRY	Ryogami san	1.27	325	⇓P	Pn	14 07 35.1	-0.5
JRY				S	Sn	14 07 50.7	-0.9
SHZ3	Shizuoka 3	1.32	274	P	Pn	14 07 36.7	+0.5
SHZ3				*e*S	Sn	14 07 54.9	+2.3
JHJ	Hachijo jima 2	1.86	181	P	Pn	14 07 44.0	+0.4
	46nm,0.3s,baz=65,slow=20,SNR=8.9						
JHJ				S	Sn	14 08 06.2	+0.4
	168nm,0.3s,baz=109,slow=22,SNR=17						
MJAR	Matsushiro Arr	2.03	321	P	Pn	14 07 46.5	+0.5
	20nm,0.3s,baz=174,slow=15,SNR=205						
MJAR				S	Sn	14 08 10.1	0.0
	26nm,0.3s,baz=127,slow=13,SNR=23						
MAJO	Matsushiro	2.03	321	*e*P	Pn	14 07 47.0	+1.0
MAT	Matsushiro	2.03	321	P	Pn	14 07 46.9	+0.9
MAT				S	Sn	14 08 10.4	+0.2
SONM	Songino Array	27.93	308	P	P	14 12 59.8	+0.1
	0.2nm,0.4s,mb3.1,baz=185,slow=9.8,SNR=3.3						
ZALV	Zalesovo Beam	42.37	314	P	P	14 15 04.2	+0.8
	0.3nm,0.4s,mb3.2,baz=90,slow=7.1,SNR=2.5						
WRA	Warramunga Arr	54.86	186	P	P	14 16 38.7	-0.9
	0.7nm,0.8s,mb3.7,baz=1.2,slow=7.4,SNR=6.4						
ASAR	Alice Springs	58.59	186	P	P	14 17 06.2	+0.2
	0.1nm,0.4s,mb3.2,baz=88,slow=8.1,SNR=5.3						
YKA	Yellowknife Ar	66.23	29	P	P	14 17 56.9	+0.3
YKA	Yellowknife Ar	66.23	29	P	P	14 17 56.9	+0.3
	0.1nm,0.4s,mb3.2,baz=301,slow=6.6,SNR=4.1						
FINES	FINESS Array B	70.02	332	P	P	14 18 19.9	-0.5
FINES	FINESS Array B	70.02	332	P	P	14 18 19.9	-0.5
	1.3nm,0.8s,mb3.9,baz=88,slow=5.9,SNR=3.6						
AKASG	Malin Array Be	75.12	322	P	P	14 18 50.5	-0.4
AKASG	Malin Array Be	75.12	322	P	P	14 18 50.5	-0.4
	0.2nm,0.3s,mb3.5,baz=50,slow=6.1,SNR=5.3						

BJI ***18*** *14:24:53.0, 230N×12874E, h10^{km}, mb4.5*
IDC ***18*** *14:25:02.0±0.8, 319N×12786E, h0^{km}, mb4.0/9, mb1 4.1/9, mb1mx4.0/19, mbtmp4.0/9, MS3.0/2, Ms1 3.0/2, ms1mx2.5/24, Error ellipse: s-maj=54.2km s-min=13.9km az=77.0*
NEIC ***18*** *14:25:03.6±0.4, 321N×12802E, h10^{km}, mb4.5/12, Error ellipse: s-maj=24.1km s-min=7.3km az=74.0*
ISCJB ***18*** *14:25:12.2±1.3, 318N±008×1279E±02, h99^{km}±12^{km}, mb4.3/21, Error ellipse: s-maj=27.2km s-min=8.1km az=158.2*
ISC 18 14:25:12.9±1.3**, 316N**±007×**1280E**±02**, h89**^{km}±11^{km}**, n37,** σ**0^{s}99**/36**, mb4.3**/21**, 1C-1D, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	General Santos	4.17	314	⇓*e*P	Pn	14 26 13.6	-0.6
GSPH				*i* S	Sn	14 27 00.9	-1.0
BUKP	Musuan	5.50	329	*e*P	Pn	14 26 32.8	+0.5
CGP	Cagayan de Oro	6.17	329	⇑*e*P	Pn	14 26 43.8	+2.2
PAGZ	Pagadian	6.51	316	*e*P	Pn	14 26 45.2	-0.9
KAKA	Kakadu	16.39	164	*e*P	Pn	14 29 00.1	+2.5
	5.6nm,0.8s						
GUMO	Guam	19.67	57	LR	LR	14 35 23.6	
	comp=Z,54nm,18.6s,baz=207,slow=32						
FITZ	Fitzroy Crossi	21.25	186	*e*P	P	14 29 49.9	-2.0
	6.6nm,1.1s,mb3.9						
FITZ	Fitzroy Crossi	21.25	186	P	P	14 29 49.6	-2.4
	0.9nm,0.6s,mb3.3,baz=36,slow=14,SNR=4.0						
WRA	Warramunga Arr	23.80	165	P	P	14 30 16.8	-0.8
	2.5nm,0.5s,mb3.8,baz=344,slow=10.0,SNR=50						
WB2	Warramunga Arr	23.80	165	*e*P	P	14 30 17.5	-0.2
ASAR	Alice Springs	27.29	168	P	P	14 30 48.9	-0.2
	0.3nm,0.3s,mb3.3,baz=352,slow=7.2,SNR=20						
JNU	Nakatsue	29.93	5	LR	LR	14 42 34.0	
	comp=Z,26nm,19.8s,baz=143,slow=35						
WHN	Wuhan	30.12	336	P	P	14 31 13.5	-0.7
KMI	Kunming	32.64	314	P	P	14 31 37.5	+1.0
KMI				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.8						
KMI	Kunming	32.64	314	P	P	14 31 37.5	+1.0
	comp=Z,12nm,0.7s,mb4.8						
KSRS	Korea Array	34.13	360	P	P	14 31 49.1	-0.1
	comp=Z,1.1nm,0.6s,mb3.9,baz=178,slow=9.6,SNR=6.9						
MJAR	Matsushiro Arr	34.54	15	P	P	14 31 51.2	-1.6
	comp=Z,0.8nm,0.4s,mb3.9,baz=184,slow=9.3,SNR=5.9						
XAN	Xi'an	35.48	332	P	P	14 32 01.1	+0.2
XAN				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.8						
STKA	Stephens Creek	37.18	161	*e*P	P	14 32 16.1	+0.7
	comp=Z,1.8nm,0.3s,mb4.5						
STKA	Stephens Creek	37.18	161	P	P	14 32 16.1	+0.6
	comp=Z,1.9nm,0.3s,mb4.5,baz=343,slow=5.6,SNR=19						
BJT	Baijiatuau	38.21	345	*e*P	P	14 32 23.9	-0.1
	comp=Z,6.3nm,0.8s,mb4.5						
BJI	Beijing	38.23	345	P	P	14 32 23.4	-0.8
BJI				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.6						
LZH	Lanzhou	39.61	329	*e*P	P	14 32 37.5	+1.7
LZH				AP	pP	14 32 41.3	-15
LZH				XP	sP	14 32 43.5	-23
LZH				AMB	AMB		
	comp=Z,18nm,1.4s,mb4.7						
LZH	Lanzhou	39.61	329	*e*P	P	14 32 37.5	+1.7
	comp=Z,18nm,1.4s,mb4.7						
LZH				pP	pP	14 32 41.3	-15
LZH				sP	sP	14 32 43.5	-23
MDJ	Mudanjiang	41.31	2	P	P	14 32 49.2	-0.4
LSA	Lhasa	43.73	311	*e*P	P	14 33 10.6	+1.1
	comp=Z,3.9nm,0.6s,mb4.3						
GTA	Gaotai	44.21	328	*e*P	P	14 33 14.6	+1.4
GTA				AP	pP	14 33 18.3	-16
GTA				XP	sP	14 33 20.3	-24
GTA				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.2						
ULN	Ulaanbaatar	48.04	341	*e*P	P	14 33 43.7	+0.6
	comp=Z,4.0nm,0.9s,mb4.2						
SONM	Songino Array	48.23	341	P	P	14 33 44.6	+0.1
	comp=Z,1.9nm,0.8s,mb4.0,baz=150,slow=8.3,SNR=20						
MK31	Makanchi Array	58.71	325	*e*P	P	14 35 01.6	+0.3
MKAR	Makanchi Array	58.71	325	P	P	14 35 01.8	+0.5
	comp=Z,4.9nm,0.5s,mb4.8,baz=115,slow=8.0,SNR=134						
ZALV	Zalesovo Beam	61.65	333	P	P	14 35 19.7	-1.5
ZALV	Zalesovo Beam	61.65	333	P	P	14 35 19.7	-1.5
	comp=Z,1.3nm,0.5s,mb4.2,baz=118,slow=5.6,SNR=9.9						
AML	Almayashu	61.93	317	*e*P	P	14 35 22.6	-0.7
	comp=Z,4.3nm,0.8s,mb4.5						
EKS2	Erkin-Say	62.09	317	*e*P	P	14 35 24.7	+0.4
	comp=Z,2.4nm,0.7s,mb4.3						
KURK	Kurchatov	62.87	327	*e*P	P	14 35 29.3	-0.1
	comp=Z,6.3nm,0.6s,mb4.7						
BRVK	Borovoye	68.53	327	*e*P	P	14 36 05.4	-0.4
	comp=Z,4.5nm,0.9s,mb4.3						

IDC 18 14:49:42.7±4.3**, 614S**×**11183E, h602**^{km}±51^{km}**, mb3.0**/6**, mb1 3.1**/7**, mb1mx2.9**/19**, mbtmp2.9**/7**, Error ellipse: s-maj=67.3km s-min=13.5km az=64.0, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.97	133	P	P	14 53 17.7	-0.4
	0.2nm,0.3s,baz=265,slow=12,SNR=8.2						
WRA	Warramunga Arr	25.82	124	P	P	14 54 28.1	0.0
	0.9nm,0.4s,baz=306,slow=8.8,SNR=24						
WRA				PcP	PcP	14 57 36.2	-0.4
	0.9nm,1.2s,baz=324,slow=1.9,SNR=5.1						
ASAR	Alice Springs	27.47	132	P	P	14 54 42.4	-0.1
	0.9nm,0.3s,baz=304,slow=7.9,SNR=48						
ASAR				PcP	PcP	14 57 40.2	-0.3
	0.3nm,0.5s,baz=303,slow=1.9,SNR=6.5						
STKA	Stephens Creek	37.80	136	P	P	14 56 09.7	+0.3
	3.0nm,0.3s,baz=324,slow=7.2,SNR=29						
KSRS	Korea Array	45.89	18	P	P	14 57 12.9	+0.3
	1.4nm,0.9s,baz=198,slow=9.0,SNR=4.3						
SONM	Songino Array	53.95	355	P	P	14 58 10.9	-0.3
	0.9nm,0.5s,baz=174,slow=8.3,SNR=12						
MKAR	Makanchi Array	58.85	337	P	P	14 58 45.0	+0.3
	0.3nm,0.3s,baz=149,slow=7.2,SNR=16						

NEIC ***18*** *14:56:49.7, 3062S×7089W, h53^{km}, MD4.1(GUC), After GUC.*
GUC 18 14:56:49.7±2.1**, 3062S**×**7089W, h53**^{km}±11^{km}**, MD4.1, ML3.8, 2C-2D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OVCH	Ovalle	0.27	272	⇑*i*P	Pn	14 56 59.4	+0.6
OVCH				*i* S	Sn	14 57 05.8	+0.4
OVCH	Ovalle	0.27	272	⇑*i*P	Pn	14 56 59.4	+0.6
OVCH				*i* S	Sn	14 57 05.8	+0.4
OVCH				AML	AML	14 57 06.1	
	comp=N,14μm,0.2s						
CMCH	Combarbala	0.56	190	⇓*i*P	Pn	14 57 02.3	+0.4
CMCH				*i* S	Sn	14 57 11.5	+0.9
CMCH	Combarbala	0.56	190	⇓*i*P	Pn	14 57 02.3	+0.4
CMCH				*i* S	Sn	14 57 11.5	+0.9
CMCH				AML	AML	14 57 12.1	
	comp=N,8μm,0.5s						
LSCH	La Serena	0.77	336	*e*P	Pn	14 57 05.0	+0.5
LSCH				*i* S	Sn	14 57 16.0	+0.7
CHNG	Los Chungos	1.36	202	*e*P	Pn	14 57 00.0	-12
CHNG				*i* S	Sn	14 57 15.6	-14
PTCH	Petorca	1.64	181	*e*P	Pn	14 57 39.6	+23
PTCH				*i* S	Sn	14 58 00.5	+24
PTCH	Petorca	1.64	181	*e*P	Pn	14 57 39.6	+23
PTCH				*i* S	Sn	14 58 00.5	+24
PTCH				AML	AML	14 58 03.7	
	comp=N,1μm,0.4s						
PCH	Pirque	3.01	174	*e*P	Pn	14 57 35.3	+0.4
TACH	Talagante	3.03	181	*e*P	Pn	14 57 36.0	+0.9
CHCH	Chadas Angostu	3.31	177	*e*P	Pn	14 57 39.7	+0.7

NEIC ***18*** *14:57:48.1, 1808N×6836W, h129^{km}, MD3.6(RSPR), After RSPR.*
RSPR 18 14:57:48.1, 1808N×**6836W, h129**^{km}±1^{km}**, MD3.5**/14**, MD3.5**/14**, 16C, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRPR	Cabo Rojo, PR	1.19	93	⇑*e*P	Pn	14 58 12.2	-0.5
CRPR				*e*S	Sn	14 58 31.2	-0.2
LSP	Las Mesas	1.21	85	⇑*e*P	Pn	14 58 13.1	+0.1
LSP				*e*S	Sn	14 58 32.1	+0.2
AGPR	Aguadilla, PR	1.24	72	⇑*e*P	Pn	14 58 12.9	-0.4
AGPR				*e*S	Sn	14 58 32.6	+0.2
GBPR	Guanica, Bosqu	1.41	94	*e*S	Sn	14 58 36.1	+0.5
LRS	Lares	1.45	82	⇑*e*P	Pn	14 58 15.0	-0.5
LRS				*e*S	Sn	14 58 36.6	+0.1
AOPR	Arecibo Observ	1.54	80	⇑*e*P	Pn	14 58 16.2	-0.4
AOPR				*e*S	Sn	14 58 38.3	-0.1
OBIP	Obispado Ponce	1.66	91	⇑*e*P	Pn	14 58 17.7	-0.3
OBIP				*e*S	Sn	14 58 40.9	+0.1
CELP	Cerrillos	1.69	90	⇑*e*P	Pn	14 58 18.6	+0.3
CELP				*e*S	Sn	14 58 41.6	+0.3
ICM	Isla Caja Muer	1.75	96	⇑*e*P	Pn	14 58 18.4	-0.6
ICM				*e*S	Sn	14 58 42.7	0.0
SJG	San Juan	2.10	89	⇑*e*P	Pn	14 58 23.2	0.0
SJG				*e*S	Sn	14 58 50.2	+0.1
SJG	San Juan	2.10	89	⇑*e*P	Pn	14 58 23.3	+0.1
SJG	San Juan	2.10	89	⇑*e*P	Pn	14 58 23.3	+0.1
SJG				*e*S	Sn	14 58 50.1	+0.1
CPD	Cerro la Pandu	2.32	91	⇑*e*P	Pn	14 58 26.3	+0.3
CPD				*e*S	Sn	14 58 55.5	+0.5
CBYP	Canovanas	2.38	85	⇑*e*P	Pn	14 58 26.5	-0.2
CBYP				*e*S	Sn	14 58 56.6	+0.2
HUMP	Col San Antoni	2.38	88	⇑*e*P	Pn	14 58 26.5	-0.3
HUMP				*e*S	Sn	14 58 57.0	+0.5
MTP	Monte Pirata	2.67	89	⇑*e*P	Pn	14 58 30.6	+0.3
MTP				*e*S	Sn	14 59 03.4	+0.5
SDDR	Presa de Saban	2.92	288	*e*Pn	Pn	14 58 31.4	-2.3
SDDR				*e*Sn	Sn	14 59 05.0	-3.8
STVI	Saint Thomas	3.24	85	*e*S	Sn	14 59 16.8	+0.5
TBVI	Tortola	3.57	84	⇑*e*P	Pn	14 58 42.4	+0.3
TBVI				*e*S	Sn	14 59 24.6	+0.7
ABV	Anegada	3.87	80	*e*S	Sn	14 59 32.5	+1.4

NEIC ***18*** *15:01:30.7±0.8, 567N×12539E, h35^{km}, mb4.5/3, Error ellipse: s-maj=49.6km s-min=11.9km az=72.0*
ISCJB ***18*** *15:01:38.9±0.6, 563N±006×12578E±010, h134^{km}±7^{km}, mb4.1/7, Error ellipse: s-maj=16.1km s-min=9.9km az=171.4*
MAN ***18*** *15:01:39, 564N×12583E, h121^{km}, mb4.9, ML3.8, MS3.9*
IDC ***18*** *15:01:40.6±3.1, 561N×12560E, h132^{km}±29^{km}, mb3.6/7, mb1 3.7/7, mb1mx3.6/20, mbtmp3.6/7, Error ellipse: s-maj=60.6km s-min=12.5km az=74.0*
ISC 18 15:01:40.0±0.6**, 562N**±006×**12576E**±010**, h126**^{km}±7^{km}**, n23,** σ**1^{s}00**/28**, mb4.1**/7**, 3C-3D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GSPH	General Santos	0.93	300	⇓*e*P	Pn	15 02 01.1	-0.8
GSPH				*i* S	Sn	15 02 17.1	+6.0
MATI	Mati	1.41	21	*e*P	Pn	15 02 06.6	-0.3
MATI				*e*S	Sn	15 02 26.5	+3.7
KCP	Kidapawan	1.53	334	⇑*e*P	Pn	15 02 08.9	+0.6
KCP				*e*S	Sn	15 02 32.4	+6.6
BUKP	Musuan	2.35	343	*e*P	Pn	15 02 18.9	+0.7
CGP	Cagayan de Oro	3.01	340	⇑*i*P	Pn	15 02 27.5	+0.8
CGP				*i* S	Sn	15 03 03.5	+1.9
PAGZ	Pagadian	3.24	313	*e*P	Pn	15 02 30.1	+0.5
SCPH	Surigao	4.15	356	*e*P	Pn	15 02 40.5	-1.2
SCPH				*e*S	Sn	15 03 21.1	-8.0
KAKA	Kakadu	19.38	160	⇓*i*P	P	15 05 56.7	+0.6
	21nm,0.6s						
FITZ	Fitzroy Crossi	23.57	180	⇑*i*P	P	15 06 39.9	+0.7
	11nm,0.6s,mb4.3						
FITZ	Fitzroy Crossi	23.57	180	P	P	15 06 40.0	+0.8
	5.7nm,0.5s,mb4.2,baz=4.6,slow=7.9,SNR=95						
WRA	Warramunga Arr	26.76	162	P	P	15 07 07.7	-0.4
	1.6nm,0.5s,mb3.8,baz=344,slow=10,SNR=22						
ASAR	Alice Springs	30.17	165	P	P	15 07 38.5	+0.1
	1.2nm,0.5s,mb3.8,baz=338,slow=7.0,SNR=57						
ASAR				PcP	PcP	15 10 36.5	-0.1
	0.4nm,0.9s,baz=358,slow=2.1,SNR=4.2						
ASAR				ScP	ScP	15 14 06.3	-1.1
	0.2nm,0.5s,baz=343,slow=3.2,SNR=8.0						
KSRS	Korea Array	31.75	3	P	P	15 07 52.0	-0.1
	2.0nm,0.8s,mb3.9,baz=182,slow=9.6,SNR=6.9						
FORT	Forrest	36.26	177	*e*P	P	15 08 31.6	+0.6
	11nm,0.5s,mb5.0						
KLBR	Kellerberrin	37.78	191	*e*P	P	15 08 43.8	-0.1
	2μm,6.3s						
MUN	Mundaring	38.48	193	*e*P	P	15 08 49.0	-0.8
STKA	Stephens Creek	40.23	159	⇓*i*P	P	15 09 05.2	+0.9
	4.8nm,0.6s,mb4.5						
STKA	Stephens Creek	40.23	159	P	P	15 09 05.2	+0.9
	6.0nm,0.6s,mb4.6,baz=342,slow=6.1,SNR=20						
SONM	Songino Array	45.21	342	P	P	15 09 45.0	+0.6
SONM	Songino Array	45.21	342	P	P	15 09 45.0	+0.6
	0.1nm,0.4s,baz=162,slow=9.6,SNR=2.9						
MKAR	Makanchi Array	55.46	325	P	P	15 11 00.3	-1.2
MKAR	Makanchi Array	55.46	325	P	P	15 11 00.3	-1.2
	0.2nm,0.3s,mb3.6,baz=123,slow=6.9,SNR=15						
BRVK	Borovoye	65.29	327	P	P	15 12 05.7	-2.5

ISCJB ***18*** *15:24:40.2±2.1, 1555N±007×1463E±01, h60^{km}±19^{km}, mb4.2/22, MS3.2/2, Error ellipse: s-maj=21.8km s-min=11.1km az=7.3*
NEIC ***18*** *15:24:41.0±1.8, 1554N×14637E, h50^{km}±16^{km}, mb4.4/6, Error ellipse: s-maj=14.8km s-min=8.3km az=91.0*
IDC ***18*** *15:24:40.2±3.1, 1558N×14633E, h42^{km}±29^{km}, mb3.9/15, mb1 4.0/16, mb1mx3.9/25, mbtmp3.9/16, ML4.4/1, MS3.4/2, Ms1 3.4/2, ms1mx2.9/27, Error ellipse: s-maj=27.2km s-min=13.0km az=90.0*
ISC 18 15:24:41.1±2.0**, 1554N**±007×**1464E**±01**, h52**^{km}±19^{km}**, n31,** σ**0^{s}65**/29**, mb4.2**/22**, MS3.2**/2**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**2.41**	**217**	P	**Pn**	**15 25 18.4**	**+0.2**
	84nm,0.3s,baz=286,slow=2.3,SNR=46						
GUMO				S	**Sn**	**15 25 46.4**	**-0.1**
	590nm,0.3s,baz=16,slow=22,SNR=34						
MJAR	**Matsushiro Arr**	**22.14**	**342**	P	**P**	**15 29 32.1**	**-0.4**
	2.1nm,0.5s,mb3.8,baz=170,slow=9.8,SNR=6.4						
PMG	**Port Moresby**	**24.79**	**178**	P	**P**	**15 29 58.5**	**+0.2**
	4.1nm,0.6s,mb4.2,baz=330,slow=8.1,SNR=4.6						
PMG				LR	LR	15 37 47.5	
	comp=Z,79nm,20.2s,MS3.2,baz=98,slow=32						
HNR	**Honiara**	**28.22**	**151**	LR	LR	15 39 22.8	
	comp=Z,72nm,18.6s,MS3.3,baz=360,slow=31						
ASAJ	**Asahikawa**	**28.67**	**354**	P	**P**	**15 30 32.0**	**-0.9**
	6.7nm,1.0s,mb4.3,baz=294,slow=24,SNR=8.4						
KAKA	**Kakadu**	**31.26**	**207**	*e*P	**P**	**15 30 55.2**	**-1.0**
	4.5nm,0.7s,mb4.4						
WRA	**Warramunga Arr**	**37.18**	**199**	P	**P**	**15 31 47.2**	**-0.2**
	0.7nm,0.4s,mb3.9,baz=9.4,slow=8.7,SNR=26						
FITZ	**Fitzroy Crossi**	**39.17**	**212**	*e*P	**P**	**15 32 03.9**	**-0.2**
	1.3nm,0.3s,mb4.1						
ASAR	**Alice Springs**	**40.82**	**198**	P	**P**	**15 32 17.9**	**+0.2**
	0.3nm,0.4s,mb3.3,baz=18,slow=13,SNR=16						
MA2	**Magadan**	**44.09**	**3**	*e*P	**P**	**15 32 44.4**	**+0.5**
	6.2nm,0.8s,mb4.4						
SONM	**Songino Array**	**46.02**	**323**	P	**P**	**15 32 59.8**	**+0.4**
	0.5nm,0.5s,mb3.7,baz=127,slow=5.8,SNR=5.5						
STKA	**Stephens Creek**	**47.36**	**186**	P	**P**	**15 33 10.7**	**+0.6**
	1.8nm,1.0s,mb4.0,baz=227,slow=17,SNR=4.6						
LSA	**Lhasa**	**52.43**	**296**	*e*P	**P**	**15 33 51.7**	**+3.0**
	2.8nm,0.4s,mb4.5						
BILL	**Bilibino**	**54.02**	**9**	*e*P	**P**	**15 34 00.4**	**+0.7**
	22nm,1.6s,mb4.8						
ZALV	**Zalesovo Beam**	**60.91**	**324**	P	**P**	**15 34 48.0**	**-0.5**
	0.7nm,0.4s,mb4.1,baz=109,slow=8.2,SNR=3.2						
MK31	**Makanchi Array**	**61.12**	**315**	*e*P	**P**	**15 34 50.0**	**0.0**
MKAR	**Makanchi Array**	**61.12**	**315**	P	**P**	**15 34 50.9**	**+0.8**
	0.8nm,0.4s,mb4.2,baz=89,slow=7.2,SNR=27						
KDAK	**Kodiak Island**	**61.66**	**32**	P	**P**	**15 34 53.5**	**+0.1**
	5.7nm,0.9s,mb4.7,baz=284,slow=24,SNR=5.1						
SLKM	**Skilak Lake**	**63.59**	**30**	*e*P	**P**	**15 35 06.3**	**0.0**
KURK	**Kurchatov**	**64.05**	**319**	*e*P	**P**	**15 35 09.2**	**-0.3**
	3.6nm,0.8s,mb4.5						
SML	**Sawmill**	**64.82**	**28**	*e*P	**P**	**15 35 14.3**	**0.0**
INK	**Inuvik**	**72.03**	**23**	P	**P**	**15 35 58.8**	**-0.5**
	3.2nm,0.8s,mb4.3,baz=262,slow=6.7,SNR=11						
YKA	**Yellowknife Ar**	**80.48**	**28**	P	**P**	**15 36 47.3**	**+0.1**
	1.8nm,0.4s,mb4.3,baz=284,slow=5.3,SNR=37						
RES	**Resolute Bay**	**82.33**	**14**	*e*P	**P**	**15 36 57.2**	**+0.4**
	94nm,1.0s						
NVAR	**Mina Array Bea**	**84.59**	**52**	P	**P**	**15 37 09.3**	**+0.1**
NVAR	**Mina Array Bea**	**84.59**	**52**	P	**P**	**15 37 09.3**	**+0.1**
	0.5nm,0.7s,mb3.7,baz=251,slow=5.6,SNR=3.5						
ARCES	**ARCESS Array B**	**85.68**	**342**	P	**P**	**15 37 14.2**	**+0.1**
	2.9nm,0.9s,mb4.5,baz=61,slow=9.4,SNR=2.6						
DUG	**Dugway**	**88.14**	**49**	*e*P	**P**	**15 37 26.6**	**0.0**
	1.3nm,0.8s,mb4.2						
FINES	**FINESS Array B**	**90.01**	**335**	P	**P**	**15 37 33.0**	**-1.8**
	3.2nm,1.0s,mb4.6,baz=94,slow=4.2,SNR=3.1						
LPAZ	**La Paz**	**146.85**	**96**	PKPbc	PKPbc	15 44 21.3	+2.7
LPAZ	**La Paz**	**146.85**	**96**	PKPbc	PKPbc	15 44 21.3	+2.7
	1.3nm,1.0s,baz=270,slow=4.0,SNR=4.3						

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*ISCJB **18** 15:46:08.7±0.4, 24.36N±0.07×122.08E±0.03, h33^{km}, mb3.5/7, Error ellipse: s-maj=9.7km s-min=3.4km az=3.1*

*JMA **18** 15:46:09.0±0.2, 24.55N×122.11E, h50^{km}±2^{km}, M3.7*

*NEIC **18** 15:46:09.0±1.2, 24.37N×122.06E, h24^{km}±9^{km}, MG3.7(JMA), Error ellipse: s-maj=12.5km s-min=9.4km az=76.0*

*BJI **18** 15:46:11.0, 24.40N×122.10E, h24^{km}, ML3.8*

*IDC **18** 15:46:13.3±4.9, 24.44N×122.29E, h65^{km}±48^{km}, mb3.3/7, mb1 3.5/8, mb1mx3.4/21, mbtmp3.4/8, ML3.8/1, Error ellipse: s-maj=43.3km s-min=16.8km az=65.0*

ISC 18 15:46:09.8±0.4, 24.35N±0.07×122.08E±0.03, h35^{km}, n22, σ1^{s}11/30, mb3.5/7, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	**Ninganchiao**	**0.48**	**249**	*e*P	**Pn**	**15 46 18.6**	**-1.6**
NACB				*e*S	**Sn**	**15 46 25.6**	**-1.7**
YHNB	**Yeheng**	**0.72**	**297**	*e*P	**Pn**	**15 46 22.5**	**-1.0**
YHNB				*e*S	**Sn**	**15 46 30.7**	**-2.6**
TATO	**Taipei**	**0.83**	**319**	*e*P	**Pn**	**15 46 24.0**	**-1.0**
YOJ	**Yonaguni jima**	**0.85**	**82**	P	**Pn**	**15 46 24.5**	**-0.8**
YOJ				*e*S	**Sn**	**15 46 35.8**	**-0.8**
IRIF	**Iriomote-Funau**	**1.50**	**90**	P	**Pn**	**15 46 33.8**	**-0.5**
IRIF				*e*S	**Sn**	**15 46 52.6**	**0.0**
HATJ	**Hateruma jima**	**1.60**	**100**	P	**Pn**	**15 46 35.9**	**+0.3**
JKRS	**Kuro-shima**	**1.76**	**93**	P	**Pn**	**15 46 38.0**	**+0.2**
JKRS				*e*S	**Sn**	**15 46 59.3**	**+0.3**
JIJ	**Ishigaki jima**	**1.88**	**89**	P	**Pn**	**15 46 38.8**	**-0.7**
JIJ				*e*S	**Sn**	**15 47 00.5**	**-1.4**
JTJ	**Tarama**	**2.40**	**82**	P	**Pn**	**15 46 46.5**	**-0.2**
JTJ				*e*S	**Sn**	**15 47 14.2**	**-0.7**
JMJ	**Miyako jima 2**	**2.96**	**80**	P	**Pn**	**15 46 54.5**	**+0.2**
JOGS	**Gusukube**	**3.05**	**82**	P	**Pn**	**15 46 56.1**	**+0.5**
QZH	**Quanzhou**	**3.23**	**281**	P	**Pn**	**15 47 01.5**	**+3.4**
QZH				S	**Sn**	**15 47 38.4**	**+3.0**
QZH				Smax			
	comp=N,250nm,0.9s						
QZH				Smax			
	comp=E,150nm,0.5s						
JKE	**Kume jima 2**	**4.69**	**64**	P	**Pn**	**15 47 20.2**	**+2.1**
JOW	**Kunigami**	**6.11**	**65**	P	**Pn**	**15 47 38.4**	**+0.7**
	comp=E,5.4nm,0.3s,baz=145,slow=15,SNR=17						
SONM	**Songino Array**	**26.55**	**336**	P	**P**	**15 51 45.5**	**+1.3**
	comp=E,0.9nm,0.8s,mb3.3,baz=154,slow=8.5,SNR=8.8						
MKAR	**Makanchi Array**	**38.80**	**315**	P	**P**	**15 53 32.1**	**+1.0**
	comp=E,0.3nm,0.6s,mb3.2,baz=98,slow=8.9,SNR=12						
ZALV	**Zalesovo Beam**	**40.56**	**327**	P	**P**	**15 53 45.8**	**+0.2**
	comp=E,0.3nm,0.3s,mb3.3,baz=114,slow=5.2,SNR=2.9						
WRA	**Warramunga Arr**	**45.61**	**164**	P	**P**	**15 54 27.0**	**+0.2**
	comp=E,0.5nm,0.5s,mb3.7,baz=346,slow=8.7,SNR=9.6						
WB2	**Warramunga Arr**	**45.62**	**164**	*e*P	**P**	**15 54 28.6**	**+1.7**
ASAR	**Alice Springs**	**49.09**	**166**	P	**P**	**15 54 55.0**	**+1.2**
	comp=E,0.3nm,0.6s,mb3.5,baz=343,slow=6.6,SNR=7.7						
FINES	**FINESS Array B**	**71.72**	**330**	P	**P**	**15 57 28.6**	**+0.6**
	comp=E,2.2nm,1.0s,mb4.0,baz=102,slow=6.2,SNR=3.1						
YKA	**Yellowknife Ar**	**82.50**	**23**	P	**P**	**15 58 27.6**	**-0.9**
	comp=E,0.3nm,0.7s,mb3.5,baz=313,slow=4.8,SNR=6.9						

MAN 18 16:23:13, 8.07N×125.18E, h6^{km}, mb4.1, ML2.9, MS2.6, 1C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BUKP	**Musuan**	**0.22**	**213**	*e*P	Pg	16 23 18.3	+0.9
BUKP				*e*S	Sg	16 23 22.4	+2.0
CGP	**Cagayan de Oro**	**0.62**	**308**⇑	*e*P	Pg	16 23 24.6	-0.3
CGP				*e*S	Sg	16 23 32.8	-0.2
KCP	**Kidapawan**	**1.06**	**185**⇓	*i*P	Pg	16 23 31.1	-2.1
KCP				*i* S	Sg	16 23 45.5	-1.5
PAGZ	**Pagadian**	**1.80**	**263**	*e*P	Pn	16 23 45.1	+0.5
MSLP	**Maasin**	**2.08**	**351**	*e*P	Pn	16 23 48.6	+0.1
GUIM	**Jordan**	**3.61**	**315**	*e*P	Pn	16 24 10.0	+0.5

MAN 18 16:30:47, 16.22N×122.00E, h15^{km}, mb4.4, ML3.2, MS3.0, 1C-1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BALP	**Baler**	**0.63**	**220**	*e*P	Pg	16 30 59.1	-0.2
CAUP	**Cauayan**	**0.73**	**347**	*e*P	Pg	16 31 00.7	-0.6
BCPH	**Baguio City Da**	**1.37**	**277**⇑	*i*P	Pn	16 31 11.3	-0.2
BCPH				*i* S	Sn	16 31 30.2	+0.8
CVP	**Callao Caves**	**1.48**	**354**⇓	*e*P	Pn	16 31 12.4	-0.8
CVP				*i* S	Sn	16 31 32.1	-0.1
POLP	**Polilio Island**	**1.49**	**182**	*e*P	Pn	16 31 13.2	0.0
APYP	**Conner**	**1.78**	**336**	*e*P	Pn	16 31 16.9	-0.4
APYP				*e*S	Sn	16 31 38.5	-1.2
ABRA	**Dolores**	**1.88**	**319**	*e*P	Pn	16 31 18.9	+0.3

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*CSEM **18** 16:37:08.6±0.5, 32.54N×3.35W, h35^{km}, MD3.6, Error ellipse: s-maj=9.2km s-min=5.3km az=125.0*

CNRM 18 16:37:08.7, 32.52N×3.31W, h13^{km}, MD3.6, Morocco

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZFT	**Errachidia**	**1.01**	**242**	*i* P	Pb	16 37 25.5	-2.5
ZFT				*i* S	Sb	16 37 38.5	-2.6
CZD	**Col de Zad**	**1.55**	**290**	*i* P	Pn	16 37 34.0	-1.9
CZD				*i* S	Sn	16 37 55.0	-0.9
TZK	**Tazeka**	**1.73**	**335**	*i* P	Pn	16 37 36.5	-1.9
TZK				*i* S	Sn	16 37 57.0	-3.3
IFR	**Ifrane**	**1.82**	**304**	P	Pn	16 37 39.0	-0.7
IFR				S	Sn	16 38 00.0	-2.7
MIF	**Mishlifen**	**1.84**	**299**	*i* P	Pn	16 37 38.5	-1.5
MIF				*i* S	Sn	16 37 59.0	-4.1
TGT	**Taghat**	**2.13**	**317**	*i* P	Pn	16 37 42.0	-1.9
TGT				*i* S	Sn	16 38 07.0	-3.2
KIB	**El Ksiba**	**2.31**	**272**	*i* P	Pn	16 37 46.0	-0.4
KIB				*i* S	Sn	16 38 12.0	-2.6
TZC	**Tazercounte**	**2.72**	**263**	*e*P	Pn	16 37 52.0	0.0
TZC				*i* S	Sn	16 38 23.0	-1.8
OUK	**Oukaimeden**	**4.09**	**253**	*e*P	Pn	16 38 11.0	+0.1
OUK				*i* S	Sn	16 38 53.0	-5.7
CIA	**Chichaoua**	**4.72**	**260**	*e*P	Pn	16 38 18.0	-1.6
CIA				*i* S	Sn	16 39 10.0	-4.3

IDC 18 16:56:26.3±2.7, 0.29S×98.54E, h0^{km}, mb3.3/4, mb1 3.3/5, mb1mx3.3/22, mbtmp3.2/5, Error ellipse: s-maj=94.1km s-min=21.6km az=62.0, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	**3.09**	**7**	Pn	Pn	16 57 14.7	-1.7
	1.3nm,0.3s,baz=186,slow=15,SNR=4.7						
WRA	**Warramunga Arr**	**40.12**	**121**	P	P	17 04 04.5	+0.3
	0.3nm,0.7s,baz=300,slow=8.8,SNR=3.1						
ASAR	**Alice Springs**	**41.44**	**127**	P	P	17 04 14.5	-0.5
	0.1nm,0.6s,baz=306,slow=7.9,SNR=2.9						
SONM	**Songino Array**	**48.41**	**7**	P	P	17 05 10.8	+0.6
	0.2nm,0.6s,baz=182,slow=7.1,SNR=3.7						
MKAR	**Makanchi Array**	**49.00**	**345**	P	P	17 05 14.4	-0.3
	0.5nm,0.5s,baz=154,slow=7.5,SNR=10						

IDC 18 17:01:05.7±1.4, 34.68N×140.72E, h0^{km}, mb3.2/3, mb1 3.4/3, mb1mx3.2/21, mbtmp3.2/3, Error ellipse: s-maj=48.1km s-min=33.2km az=88.0, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	**Makanchi Array**	**44.92**	**304**	P	P	17 09 21.9	-0.2
	0.2nm,0.4s,baz=75,slow=7.6,SNR=9.0						
WRA	**Warramunga Arr**	**54.66**	**187**	P	P	17 10 36.5	+0.1
	0.3nm,0.8s,baz=7.5,slow=8.4,SNR=6.6						
YKA	**Yellowknife Ar**	**66.12**	**29**	P	P	17 11 54.4	+0.1
	0.1nm,0.3s,baz=283,slow=5.6,SNR=4.1						

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*ISCJB **18** 17:05:07.2±1.5, 21.91N±0.04×143.12E±0.05, h4^{km}±9^{km}, mb4.7/75, MS3.9/26, Error ellipse: s-maj=8.1km s-min=6.8km az=149.2*

*BJI **18** 17:05:08.2, 21.83N×143.51E, h31^{km}, mB4.8, mb4.6, Ms4.4, Msz4.0*

*GCMT **18** 17:05:09.4±0.5, 21.96N×143.03E, h12^{km}, MW4.8/61, Moment Tensor Solution. s12,c13; s61,c85; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.70±.06; $M_{\theta\theta}$0.50±.05; $M_{\phi\phi}$1.20±.06; $M_{r\theta}$-0.13±.23; $M_{\theta\phi}$-0.75±.04; $M_{\phi r}$0.93±.21; Best double couple: $M_0$1.92900×10^{16} NP1:ϕ_s317.00000°,δ32.00000°,λ-108.00000°. NP2: ϕ_s159.00000°,δ59.00000°,λ-79.00000°. Principal axes: T 1.8850, Plg14.0000°, Azm240.0000°; N 0.0930, Plg10.0000°, Azm333.0000°; P -1.9740, Plg73.0000°, Azm97.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **18** 17:05:09.4±0.2, 21.97N×143.13E, h10^{km}, mb4.8/37 Error ellipse: s-maj=8.1km s-min=6.6km az=75.0*

*MOS **18** 17:05:11.5±1.2, 21.94N×143.07E, h33^{km}, mb5.0/29, Error ellipse: s-maj=12.5km s-min=6.2km az=111.9*

*IDC **18** 17:05:14.7±2.7, 21.97N×142.97E, h51^{km}±24^{km}, mb4.2/20, mb1 4.3/22, mb1mx4.3/26, mbtmp4.2/22, ML4.1/2, MS3.8/17, Ms1 3.8/17, ms1mx3.7/37, Error ellipse: s-maj=20.9km s-min=10.8km az=92.0*

ISC 18 17:05:11.4±1.6, 21.92N±0.04×143.18E±0.05, h20^{km}±11^{km}, h15^{km}±.9^{km}:pP-P, n153, σ1^{s}04/154, mb4.7/75, MS3.9/26, 6C-3D, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	**Chichi jima**	**5.23**	**350**	P	**Pn**	**17 06 30.6**	**+2.2**
	29nm,0.3s,baz=272,slow=17,SNR=6.4						
CBIJ				S	**Sn**	**17 07 27.4**	**-0.7**
	16nm,0.3s,baz=238,slow=19,SNR=4.8						
CBIJ				LR	LR	17 08 09.4	
	comp=Z,571nm,19.7s,baz=165,slow=34						
GUMO	**Guam**	**8.44**	**169**	LR	LR	17 09 56.8	
	comp=Z,570nm,18.9s,baz=164,slow=33						
JOW	**Kunigami**	**14.43**	**293**	LR	LR	17 12 51.6	
	comp=Z,601nm,21.7s,baz=284,slow=32						
MJAR	**Matsushiro Arr**	**15.19**	**345**	P	**Pn**	**17 08 43.3**	**-1.5**
	0.3nm,0.3s,baz=156,slow=10,SNR=5.4						
MJAR				LR	LR	17 14 11.2	
	comp=Z,476nm,19.8s,baz=160,slow=36						
JNU	**Nakatsue**	**15.59**	**318**	P	**Pn**	**17 08 55.9**	**+5.9**
	0.1nm,0.3s,baz=151,slow=18,SNR=4.4						
JNU				LR	LR	17 13 53.3	
	comp=Z,120nm,20.0s,baz=28,slow=34						
KSRS	**Korea Array**	**20.33**	**323**	P	**P**	**17 09 48.0**	**+1.7**
	11nm,0.9s,baz=143,slow=9.1,SNR=31						
KSRS				LR	LR	17 16 40.7	
	comp=Z,214nm,19.7s,MS3.5,baz=140,slow=34						
SSE	**Sheshan**	**21.66**	**300**	P	**P**	**17 09 59.1**	**-1.7**
SSE				S	**S**	**17 13 59.1**	**-0.7**
SSE				AMB	AMB		
	comp=Z,10.0nm,1.0s						
SSE				AMB	AMB		
	comp=Z,151nm,4.8s						
SSE				LR	LR		
	comp=N,119nm,20.0s						
SSE				LR	LR		
	comp=E,116nm,20.0s						
SSE				LR	LR		
	comp=Z,193nm,20.0s						
ASAJ	**Asahikawa**	**22.14**	**359**	LR	LR	17 19 00.6	
	comp=Z,167nm,20.8s,MS3.4,baz=179,slow=37						
VLA	**Vladivostok**	**23.14**	**339**	*i* P	**P**	**17 10 17.1**	**+0.8**
VLA				pmax	pmax		
	comp=Z,34nm,1.5s,mb4.6						
VLA				MLR	MLR		
	comp=Z,1μm,15.5s,MS4.5						
NJ2	**Nanjing**	**23.86**	**300**	*e*P	**P**	**17 10 22.9**	**-0.6**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
YSS	**Yuzh-Sakhalins**	**24.97**	**359**	*e*P	**P**	**17 10 35.0**	**+1.5**
MDJ	**Mudanjiang**	**25.25**	**337**	P	**P**	**17 10 36.1**	**0.0**
MDJ				AP	pP	17 10 39.3	-2.9
MDJ				PCP	PcP	17 14 08.1	-1.0
MDJ				S	**S**	**17 15 01.6**	**+0.9**
MDJ				XS	sS	17 15 07.8	-2.9
MDJ				SCP	ScP	17 17 47.8	+0.5
MDJ				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.0						
MDJ				AMB	AMB		
	comp=Z,74nm,6.9s						
MDJ				LR	LR		
	comp=N,202nm,13.8s,MS4.0						
MDJ				LR	LR		
	comp=E,227nm,14.6s,MS4.0						
MDJ				LR	LR		
	comp=Z,269nm,17.4s,MS3.8						
CN2	**Changchun**	**26.31**	**330**	*e*P	**P**	**17 10 46.8**	**+1.2**
WHN	**Wuhan**	**27.19**	**294**	*e*P	**P**	**17 10 56.6**	**+2.9**
HABR	**Khabarovsk**	**27.28**	**348**⇑	*e*P	**P**	**17 10 58.1**	**+3.8**
HABR				*e*		17 11 41.3	
HABR				*e*		17 14 13.7	
HABR				*e*SS		17 16 53.1	
HABR				*e*		17 21 46.4	
HABR				pmax	pmax		
	comp=Z,43nm,1.6s,mb4.7						
KLR	**Kul'dur**	**28.72**	**344**	*e*P	**P**	**17 11 03.8**	**-3.4**
KLR				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.0						
BJI	**Beijing**	**29.19**	**314**	P	**P**	**17 11 11.3**	**-0.2**
BJI				S	**S**	**17 16 03.3**	**+0.4**
BJI				AMB	AMB		
	comp=Z,3.0nm,1.1s,mb3.9						
BJI				LR	LR		
	comp=N,148nm,15.3s,MS3.9						
BJI				LR	LR		
	comp=E,158nm,13.3s,MS3.9						
BJI				LR	LR		
	comp=Z,143nm,28.2s						
QIZ	**Qiongzhong**	**31.32**	**271**	P	**P**	**17 11 26.6**	**-4.0**
QIZ				S	**S**	**17 16 38.4**	**+1.6**
QIZ				AMB	AMB		
	comp=Z,85nm,5.0s						
QIZ				LR	LR		
	comp=E,196nm,23.3s						
QIZ				LR	LR		
	comp=Z,254nm,23.3s,MS3.8						
PMG	**Port Moresby**	**31.38**	**172**	P	**P**	**17 11 31.9**	**+0.9**
HHC	**Hu-ho-hao-te**	**32.68**	**313**	*e*P	**P**	**17 11 43.0**	**+0.8**
HHC				AP	pP	17 11 47.4	-1.0
HHC				PP	PP	17 12 51.9	-4.3
HHC				PCP	PcP	17 14 29.3	+1.5
HHC				S	**S**	**17 16 57.0**	**-0.4**
HHC				SCP	ScP	17 18 11.8	+1.0
HHC				SS	SS	17 18 54.5	-24
HHC				SCS	ScS	17 22 09.6	-0.8
HHC				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.6						
HHC				LR	LR		
	comp=N,116nm,16.7s,MS3.9						
HHC				LR	LR		
	comp=E,195nm,17.8s,MS3.9						
HHC				LR	LR		
	comp=Z,117nm,19.0s,MS3.6						
HIA	**Hailar**	**33.01**	**331**	*i* P	**P**	**17 11 44.9**	**-0.1**
GYA	**Guiyang**	**33.54**	**285**	P	**P**	**17 11 51.0**	**+1.1**
GYA				AP	pP	17 11 55.8	-0.3
GYA				XP	sP	17 11 58.4	-0.2
GYA				PP	PP	17 13 03.3	-2.6
GYA				PCP	PcP	17 14 32.4	+1.9
GYA				S	**S**	**17 17 11.8**	**+0.6**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
GYA				AMB	AMB		
	comp=Z,90nm,4.9s						
GYA				LR	LR		
	comp=N,420nm,17.4s,MS4.4						
GYA				LR	LR		
	comp=E,420nm,16.0s,MS4.4						
GYA				LR	LR		
	comp=Z,460nm,17.2s,MS4.3						
CD2	**Chengdu**	**36.27**	**293**	*e*P	**P**	**17 12 13.3**	**-0.1**
CD2				PP	PP	17 13 35.9	-0.1
CD2				S	**S**	**17 17 52.3**	**-0.8**
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
CD2				AMB	AMB		
	comp=Z,30nm,5.2s						
CD2				LR	LR		
	comp=N,280nm,12.8s,MS4.2						
CD2				LR	LR		
	comp=E,180nm,16.8s,MS4.2						
CD2				LR	LR		
	comp=Z,310nm,14.8s,MS4.2						
LZH	**Lanzhou**	**36.92**	**301**	*e*P	**P**	**17 12 20.8**	**+1.8**
LZH				AP	pP	17 12 25.3	+0.1
LZH				XP	sP	17 12 27.8	+0.1
LZH				PP	PP	17 13 45.6	+2.4
LZH				AMB	AMB		
	comp=Z,19nm,1.2s,mb4.8						
LZH				AMB	AMB		
	comp=Z,73nm,5.3s						
LZH				LR	LR		
	comp=E,798nm,13.5s						
LZH				LR	LR		
	comp=Z,997nm,17.6s,MS4.7						
LZH	**Lanzhou**	**36.92**	**301**	*e*P	**P**	**17 12 20.7**	**+1.7**
	comp=Z,19nm,1.2s,mb4.8						
LZH				pP	pP	17 12 25.2	0.0
LZH				sP	sP	17 12 27.8	+0.1
LZH				PP	PP	17 13 45.6	+2.4
LZH				LR	LR		
	comp=Z,1μm,17.6s,MS4.7						
LZH	**Lanzhou**	**36.92**	**301**	*e*P	**P**	**17 12 20.7**	**+1.7**
LZH				*SP	sP	17 12 27.8	+0.1
LZH						17 13 45.6	
LZH				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.8						
LZH				MLR	MLR		
	comp=Z,1μm,17.6s,MS4.7						
KMI	**Kunming**	**37.12**	**283**	P	**P**	**17 12 22.0**	**+1.2**
KMI				S	**S**	**17 18 07.4**	**+1.2**
KMI				AMB	AMB		
	comp=Z,4.0nm,2.0s,mb3.9						
KMI				AMB	AMB		
	comp=Z,75nm,4.9s						
KMI				LR	LR		
	comp=N,99nm,16.0s,MS4.0						
KMI				LR	LR		
	comp=E,140nm,14.5s,MS4.0						
KMI				LR	LR		
	comp=Z,170nm,19.3s,MS3.9						
KMI	**Kunming**	**37.12**	**283**	P	**P**	**17 12 22.0**	**+1.2**
	comp=Z,4.0nm,2.0s,mb3.9						
KMI				S	**S**	**17 18 07.4**	**+1.2**
KMI				LR	LR		
	comp=Z,170nm,19.3s,MS3.9						
CIT	**Chita**	**37.76**	**330**	*e*P	**P**	**17 12 26.3**	**+0.5**
MA2	**Magadan**	**38.00**	**6**	*e*P	**P**	**17 12 27.9**	**+0.1**
	comp=Z,5.7nm,1.4s,mb4.1						
MA2	**Magadan**	**38.00**	**6**	*i* P	**P**	**17 12 28.2**	**+0.4**
MA2				pmax	pmax		
	comp=Z,15nm,1.9s,mb4.4						
ULN	**Ulaanbaatar**	**38.79**	**321**	*e*P	**P**	**17 12 33.5**	**-1.0**
	comp=Z,17nm,1.2s,mb4.6						
ULN	**Ulaanbaatar**	**38.79**	**321**c	*i*P	**P**	**17 12 34.4**	**-0.2**
SONM	**Songino Array**	**39.16**	**320**	P	**P**	**17 12 37.0**	**-0.7**
	comp=Z,5.1nm,0.5s,mb4.5,baz=132,slow=7.7,SNR=62						
SONM				LR	LR	17 30 03.8	
	comp=Z,133nm,19.2s,MS3.8,baz=134,slow=38						
GTA	**Gaotai**	**40.74**	**305**	*e*P	**P**	**17 12 47.1**	**-3.8**
GTA				PP	PP	17 14 23.8	-1.1
GTA				PPP		17 14 49.6	
GTA				S	**S**	**17 18 54.0**	**-6.4**
GTA				AMB	AMB		
	comp=Z,2.0nm,1.0s,mb3.7						
GTA				AMB	AMB		
	comp=Z,178nm,5.3s						
GTA				LR	LR		
	comp=N,196nm,16.7s,MS4.1						
GTA				LR	LR		
	comp=E,128nm,16.0s,MS4.1						
GTA				LR	LR		
	comp=Z,145nm,16.4s,MS3.9						
YAK	**Yakutsk**	**41.15**	**350**	*e*P	**P**	**17 12 52.0**	**-1.9**
	comp=Z,17nm,0.8s,mb4.7						
YAK	**Yakutsk**	**41.15**	**350**c	*i*P	**P**	**17 12 52.9**	**-1.0**
YAK				pmax	pmax		
	comp=Z,19nm,0.8s,mb4.8						
SEY	**Seymchan**	**41.46**	**6**⇑	*e*P	**P**	**17 12 56.8**	**+0.3**
CHTO	**Chiang Mai**	**41.48**	**274**	*e*P	**P**	**17 12 57.8**	**+0.5**
	comp=Z,4.8nm,1.0s,mb4.1						
CHTO	**Chiang Mai**	**41.48**	**274**	*e*P	**P**	**17 12 57.8**	**+0.5**
CHTO				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.1						
BOD	**Bodaibo**	**41.63**	**337**	*e*P	**P**	**17 12 57.4**	**-0.6**
BOD				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.0						
CTA	**Charters Tower**	**41.86**	**176**	*e*P	**P**	**17 13 01.0**	**+0.8**
	comp=Z,15nm,1.0s,mb4.6						
CTA	**Charters Tower**	**41.86**	**176**	*e*P	**P**	**17 13 01.0**	**+0.8**
CTA				pmax	pmax		
	comp=Z,15nm,1.0s						
CTA	**Charters Tower**	**41.86**	**176**	P	**P**	**17 13 00.8**	**+0.6**
	comp=Z,19nm,0.9s,mb4.7,baz=5.4,slow=6.3,SNR=7.2						
CTAO	**Charters Tower**	**41.86**	**176**	*e*P	**P**	**17 13 01.2**	**+1.0**
	comp=Z,19nm,0.9s,mb4.7						
CTAO	**Charters Tower**	**41.86**	**176**	*e*P	**P**	**17 13 01.2**	**+1.0**
CTAO				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.7						
ZAK	**Zakamensk**	**42.16**	**322**⇑	*i*P	**P**	**17 13 02.3**	**-0.1**
ZAK				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.4						
WB2	**Warramunga Arr**	**42.49**	**192**	*e*P	**P**	**17 13 04.1**	**-1.3**
WRA	**Warramunga Arr**	**42.49**	**192**	P	**P**	**17 13 05.0**	**-0.5**
	comp=Z,8.1nm,1.0s,mb4.3,baz=14,slow=8.7,SNR=30						
IRK	**Irkutsk**	**42.52**	**325**	*e*P	**P**	**17 13 05.6**	**+0.3**
IRK				pmax	pmax		
	comp=Z,35nm,2.0s,mb4.7						
TLY	**Talaya**	**42.58**	**324**	*e*P	**P**	**17 13 06.3**	**+0.5**

	comp=Z,18nm,1.5s,mb4.6						
TLY	Talaya	42.58	324	eP	P	17 13 06.6	+0.8
TLY				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.5						
TLY				MLR	MLR		
	comp=Z,80nm,17.0s,MS3.7						
FITZ	Fitzroy Crossi	43.32	205	eP	P	17 13 11.6	-0.6
	comp=Z,8.2nm,0.9s,mb4.5						
FITZ	Fitzroy Crossi	43.32	205	P	P	17 13 11.7	-0.5
	comp=Z,4.6nm,0.8s,mb4.2,baz=23,slow=10,SNR=10						
MOY	Mondy	44.03	323	eP	P	17 13 17.9	+0.3
ASAR	Alice Springs	46.20	192	P	P	17 13 33.8	-1.3
	comp=Z,2.5nm,0.6s,mb4.3,baz=18,slow=10,SNR=64						
BILL	Bilibino	48.30	11	eP	P	17 13 50.7	-0.2
	comp=Z,2.3nm,0.6s,mb4.4						
BILL	Bilibino	48.30	11	i P	P	17 13 51.1	+0.2
BILL				e		17 14 01.7	
BILL				eSS	SS	17 24 15.9	-2.9
BILL				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
TAPN	Taplejung	50.37	288	eP	P	17 14 07.6	+0.2
	comp=Z,26nm,0.9s,mb5.3						
TIXI	Tiksi	50.43	354	eP	P	17 14 05.5	-1.6
	comp=Z,5.9nm,1.1s,mb4.5						
TIXI	Tiksi	50.43	354	eP	P	17 14 05.4	-1.7
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.5s,mb4.5						
TIXI				MLR	MLR		
	comp=Z,65nm,17.0s,MS3.7						
WMQ	Urumqi	50.43	309	P	P	17 14 07.8	+0.2
WMQ				AP	pP	17 14 12.6	-1.3
WMQ				PP	PP	17 16 04.3	+1.1
WMQ				AMB	AMB		
	comp=Z,18nm,1.2s,mb5.0						
WMQ				LR	LR		
	comp=N,78nm,17.4s						
WMQ				LR	LR		
	comp=E,71nm,26.0s						
WMQ				LR	LR		
	comp=Z,96nm,24.0s						
ODAN	Odare	50.71	287	eP	P	17 14 10.7	+0.8
	comp=Z,22nm,0.9s,mb5.1						
KKN	Kakani	52.46	289	eP	P	17 14 17.7	-5.3
	comp=Z,12nm,0.5s,mb5.1						
STKA	Stephens Creek	53.51	182	eP	P	17 14 30.4	-0.1
	comp=Z,3.0nm,0.7s,mb4.3						
STKA	Stephens Creek	53.51	182	P	P	17 14 30.5	0.0
	comp=Z,4.6nm,0.9s,mb4.4,baz=356,slow=3.9,SNR=6.9						
ZALV	Zalesovo Beam	54.03	322	P	P	17 14 32.7	-1.4
	comp=Z,14nm,0.9s,mb4.9,baz=102,slow=6.9,SNR=39						
ZALV				LR	LR	17 37 49.5	
	comp=Z,55nm,18.1s,MS3.7,baz=191,slow=36						
ZAL	Zalesovo	54.04	322	P	P	17 14 32.7	-1.5
MK31	Makanchi Array	54.54	313	eP	P	17 14 37.7	-0.3
MKAR	Makanchi Array	54.54	313	P	P	17 14 37.3	-0.7
MKAR						17 15 40.0	
MKAR	Makanchi Array	54.54	313	P	P	17 14 37.3	-0.7
	comp=Z,3.2nm,0.6s,mb4.5,baz=93,slow=9.1,SNR=5.9						
MKAR				PcP	PcP	17 15 40.0	-1.1
	comp=Z,2.6nm,0.9s,baz=84,slow=5.6,SNR=4.1						
MKAR				LR	LR	17 38 09.1	
	comp=Z,60nm,18.8s,MS3.7,baz=227,slow=36						
NVS	Novosibirsk	55.12	322	i P	P	17 14 41.8	-0.2
NVS				pmax	pmax		
	comp=N,11nm,1.9s						
NVS				pmax	pmax		
	comp=E,18nm,1.9s						
NVS				pmax	pmax		
	comp=Z,29nm,1.9s,mb5.0						
CNB	Canberra Magne	57.22	174	eP	P	17 14 57.0	-0.2
	comp=Z,25nm,1.0s,mb5.2						
KURK	Kurchatov	57.31	317	eP	P	17 14 56.6	-1.1
	comp=Z,16nm,1.0s,mb5.0						
KURK	Kurchatov	57.31	317	c iP	P	17 14 57.5	-0.2
KDAK	Kodiak Island	58.02	35	P	P	17 15 02.5	-0.2
	comp=Z,4.8nm,0.7s,mb4.6,baz=281,slow=5.2,SNR=2.8						
ULHL	Ulahol	58.75	307	P	P	17 15 08.9	+0.9
	SNR=7.2						
TKM2	Tokmak 2	59.20	308	P	P	17 15 11.9	+0.7
	SNR=8.0						
TKM2	Tokmak 2	59.20	308	eP	P	17 15 11.6	+0.5
	comp=Z,14nm,1.0s,mb5.0						
TKM2	Tokmak 2	59.20	308	eP	P	17 15 11.6	+0.5
TKM2				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
KZA	Kyzart	59.49	307	P	P	17 15 14.8	+1.6
	SNR=6.8						
KBK	Karagaybulak	59.69	307	P	P	17 15 14.9	+0.4
	SNR=6.9						
CHMS	Chumysh	59.82	308	P	P	17 15 16.6	+1.2
	SNR=5.6						
USP	Ospenovka	59.99	308	P	P	17 15 16.4	-0.1
	SNR=6.0						
AAK	Ala-Archa	60.02	307	eP	P	17 15 15.7	-1.1
	comp=Z,8.1nm,1.3s,mb4.6						
AAK	Ala-Archa	60.02	307	⇓eP	P	17 15 16.5	-0.3
AAK				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
AAK				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.0						
UCH	Uchtor	60.03	307	P	P	17 15 18.3	+1.5
	SNR=13						
UCH	Uchtor	60.03	307	eP	P	17 15 17.6	+0.7
	comp=Z,8.9nm,0.6s,mb5.0						
EKS2	Erkin-Say	60.55	308	eP	P	17 15 20.5	0.0
	comp=Z,4.5nm,1.0s,mb4.5						
AML	Almayashu	60.65	307	P	P	17 15 22.6	+1.5
	SNR=6.7						
AML	Almayashu	60.65	307	eP	P	17 15 22.4	+1.3
	comp=Z,147nm,0.8s						
BRVK	Borovoye	62.56	319	eP	P	17 15 32.5	-1.3
	comp=Z,19nm,0.9s,mb5.2						
BRVK	Borovoye	62.56	319	eP	P	17 15 32.5	-1.3
BRVK				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.2						
KBL	Kabul	65.22	299	eP	P	17 15 51.6	0.0
INK	Inuvik	67.37	24	eP	P	17 16 03.9	-0.8
	comp=Z,187nm,1.1s						
INK	Inuvik	67.37	24	P	P	17 16 04.0	-0.7
	comp=Z,3.6nm,1.0s,mb4.4,baz=275,slow=7.0,SNR=7.8						
ARU	Arti	69.08	324	eP	P	17 16 15.0	-0.7
	comp=Z,17nm,1.2s,mb4.8						
ARU	Arti	69.08	324	d iP	P	17 16 15.1	-0.6
ARU				eS	S	17 25 17.0	-2.8
ARU				eSS	SS	17 29 40.4	-5.0
ARU				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.9						
YKA	Yellowknife Ar	76.26	28	P	P	17 16 57.9	-0.4
	comp=Z,3.0nm,0.6s,mb4.4,baz=292,slow=5.9,SNR=37						
YKA				LR	LR	17 48 38.7	
	comp=Z,96nm,21.0s,MS4.1,baz=220,slow=34						
ARCES	ARCESS Array B	78.71	341	P	P	17 17 11.0	-0.8
	comp=Z,10nm,1.0s,mb4.7,baz=65,slow=9.5,SNR=8.6						
JOF	Joensuu	80.11	334	ep	P	17 17 16.2	-3.4
	comp=Z,5.3nm,0.6s,mb4.7						
MOS	Moscow	80.48	326	eP	P	17 17 31.3	+10
OBN	Obninsk	81.30	326	⇓eP	P	17 17 26.1	0.0
OBN				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
CMB	Columbia Colle	81.63	52	eP	P	17 17 27.8	-0.4
	comp=Z,5.0nm,0.8s,mb4.5						
CMB	Columbia Colle	81.63	52	eP	P	17 17 27.8	-0.5
CMB				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
ZEI	Tsey	81.90	313	eP	P	17 17 27.8	-1.8
ZEI				i		17 17 35.9	
ZEI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
KIV	Kislovodsk	82.26	314	eP	P	17 17 31.5	+0.1
	comp=Z,21nm,1.0s,mb5.0						
KIV	Kislovodsk	82.26	314	eP	P	17 17 32.1	+0.6
KIV				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
KIV				MLR	MLR		
	comp=Z,43nm,18.0s,MS3.9						
KAF	Kangasniemi	82.52	335	ep	P	17 17 29.0	-3.4
	comp=Z,1.3nm,0.6s,mb4.1						
KAF	Kangasniemi	82.52	335	eP	P	17 17 29.0	-3.4
KAF				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
FINES	FINESS Array B	82.98	334	P	P	17 17 32.7	-2.1
FINES				LR	LR	17 53 02.6	
FINES	FINESS Array B	82.98	334	P	P	17 17 32.7	-2.1
	comp=Z,1.7nm,0.6s,mb4.3,baz=73,slow=4.8,SNR=14						
FINES				LR	LR	17 53 02.6	
	comp=Z,57nm,20.4s,MS3.9,baz=139,slow=35						
NVAR	Mina Array Bea	83.01	51	P	P	17 17 36.5	+1.1
	comp=Z,5.5nm,0.8s,mb4.6,baz=267,slow=6.3,SNR=36						
QLMT	Earthquake Lak	85.10	44	eP	P	17 17 46.7	+0.7
ANN	Anapa	85.34	317	eP	P	17 17 38.2	-9.0
ANN				pmax	pmax		
	comp=Z,92nm,1.3s,mb5.8						
YMR	Madison River	85.47	44	eP	P	17 17 49.1	+1.3
	comp=Z,14nm,0.8s,mb5.1						
HVU	Hansel Valley	85.54	47	P	P	17 17 47.3	-1.0
	comp=Z,7.0nm,0.9s,mb4.9						
HVU	Hansel Valley	85.54	47	P	P	17 17 47.3	-0.9
HVU				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.9						
FFC	Flin Flon	85.64	32	eP	P	17 17 48.4	0.0
	comp=Z,18nm,0.8s,mb5.3						
FFC	Flin Flon	85.64	32	eP	P	17 17 48.4	-0.1
FFC				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.3						
GCMT	Greycliff	85.78	42	eP	P	17 17 49.8	+0.4
IMW	Indian Meadow	85.83	44	eP	P	17 17 50.4	+0.8
	comp=Z,9.3nm,0.8s,mb5.1						
LKWY	Lake	85.88	43	eP	P	17 17 52.0	+2.1
	comp=Z,6.0nm,0.9s,mb4.8						
LKWY	Lake	85.88	43	eP	P	17 17 52.0	+2.1
LKWY				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.8						
DUG	Dugway	86.19	48	eP	P	17 17 51.8	+0.3
	comp=Z,5.4nm,0.8s,mb4.8						
DUG	Dugway	86.19	48	eP	P	17 17 51.8	+0.3
DUG				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
RLMT	Red Lodge	86.34	43	eP	P	17 17 53.0	+0.9
	comp=Z,9.9nm,0.7s,mb5.2						
HWUT	Hardware Ranch	86.43	46	eP	P	17 17 52.7	+0.1
	comp=Z,7.1nm,0.8s,mb5.0						
ARUT	Antelope Range	86.78	51	eP	P	17 17 54.7	+0.3
FCC	Fort Churchill	86.84	26	eP	P	17 17 53.3	-1.0
	comp=Z,9.4nm,0.9s,mb5.0						
FCC	Fort Churchill	86.84	26	eP	P	17 17 53.3	-1.0
FCC				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.0						
JLU	Jordanelle	86.95	47	eP	P	17 17 55.5	+0.2
PDAR	Pinedale Array	87.24	45	P	P	17 17 56.0	-0.6
	comp=Z,1.3nm,0.8s,mb4.2,baz=251,slow=3.5,SNR=9.9						
PDAR				LR	LR	17 49 37.8	
	comp=Z,128nm,20.6s,MS4.3,baz=268,slow=30						
AKASG	Malin Array Be	87.32	324	P	P	17 17 54.1	-2.7
	comp=Z,3.3nm,0.8s,mb4.6,baz=46,slow=5.0,SNR=12						
MSU	Marysvale	87.36	49	eP	P	17 17 57.9	+0.6
MALT	Malatya	87.52	310	eP	P	17 17 57.2	-0.8
	comp=Z,6.1nm,1.1s,mb4.7						
MALT	Malatya	87.52	310	eP	P	17 17 57.2	-0.9
MALT				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.7						
NOA	NORSAR Array B	88.73	339	P	P	17 18 02.5	-0.8
	comp=Z,1.2nm,0.9s,mb4.2,baz=46,slow=4.8,SNR=3.3						
NOA				LR	LR	18 00 32.0	
	comp=Z,42nm,19.3s,MS3.9,baz=0.0,slow=37						
BRTR	Keskin Array B	90.18	313	P	P	17 18 09.0	-1.6
	comp=Z,4.3nm,0.9s,mb4.8,baz=74,slow=4.3,SNR=15						
SMCO	Snowmass	90.66	47	eP	P	17 18 13.6	+0.8
	comp=Z,5.6nm,0.9s,mb4.9						
ULM	Lac du Bonnet	91.26	33	P	P	17 18 14.7	-0.7
	comp=Z,2.2nm,0.8s,mb4.5,baz=315,slow=8.8,SNR=5.2						
ISCO	Idaho Springs	91.27	46	eP	P	17 18 15.5	-0.1
	comp=Z,2.5nm,0.9s,mb4.5						
ISCO	Idaho Springs	91.27	46	eP	P	17 18 15.5	-0.1
ISCO				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.6						
SDCO	Great Sand Dun	92.37	48	eP	P	17 18 21.2	+0.5
	comp=Z,4.8nm,1.4s,mb4.6						
ANMO	Albuquerque	93.08	50	i P	P	17 18 26.4	+2.3
EIL	Elat	94.01	304	LR	LR	18 08 13.9	
	comp=Z,34nm,18.9s,MS3.8,baz=104,slow=40						
ATD	Arta Tunnel	95.13	285	LR	LR	17 57 21.3	
	comp=Z,47nm,21.0s,MS3.9,baz=125,slow=33						
GERES	GERESS Array B	96.39	329	P	P	17 18 36.5	-2.4
	comp=Z,0.6nm,0.9s,mb4.0,baz=42,slow=2.2,SNR=3.8						
GERES				LR	LR	18 06 53.2	
	comp=Z,71nm,18.5s,MS4.2,baz=76,slow=38						
LPAZ	La Paz	149.93	85	ePKPbc	PKPbc	17 25 01.6	+0.6
LPAZ				ePKPab	PKPab	17 25 07.9	+1.2
LPAZ	La Paz	149.93	85	ePKIKP	PKPbc	17 25 01.6	+0.5
LPAZ				e		17 25 07.9	
LPAZ	La Paz	149.93	85	PKPbc	PKPbc	17 25 01.9	+0.9
	comp=Z,7.8nm,0.9s,baz=288,slow=4.1,SNR=14						
CFAA	Coronel Fontan	150.43	116	PKPbc	PKPbc	17 25 01.1	-0.8
CFAA	Coronel Fontan	150.43	116	PKPbc	PKPbc	17 25 01.1	-0.8
	comp=Z,0.5nm,0.9s,baz=305,slow=4.3,SNR=8.1						

BJI **18** *17:05:28.8, 5250N×15290E, h462^{km}, mB4.6, mb4.5*

ISCJB **18** *17:05:29.1±0.4, 5244N±006×15294E±008, h457^{km}±5^{km}, mb3.8/38, Error ellipse: s-maj=9.9km s-min=6.5km az=147.2*

MOS **18** *17:05:29.2±0.9, 5244N×15294E, h459^{km}, mb4.0/11, Error ellipse: s-maj=12.4km s-min=7.3km az=97.4*

NEIC **18** *17:05:30.9±0.4, 5251N×15290E, h463^{km}±4^{km}, mb4.0/17, Error ellipse: s-maj=6.7km s-min=4.3km az=151.0*

IDC **18** *17:05:31.3±2.1, 5250N×15281E, h467^{km}±25^{km}, mb3.3/18, mb1 3.5/20, mb1mx3.4/27, mbtmp3.3/20, Error ellipse: s-maj=12.1km s-min=9.1km az=143.0*

ISC 18 17:05:30.0±0.4**, 5243N**±005×**15295E**±008**, h454**^{km}±5^{km}**, n100, σ0.86**/104**, mb3.8**/38**, 7C-6D, Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	2.64	130	ePN	P	17 06 33.0	-1.7
SKR				eS	S	17 07 25.0	-2.3
SKR				pmax	pmax		
	comp=N,30nm,0.5s						
SKR				pmax	pmax		
	comp=E,80nm,0.5s						
SKR				pmax	pmax		
	comp=Z,180nm,0.5s						
SKR				smax			
	comp=N,230nm,0.5s						
SKR				smax			
	comp=E,150nm,0.5s						
SKR				smax			
	comp=Z,80nm,0.5s						
PET	Petropavlovsk	3.52	78	eP	P	17 06 41.9	+0.7
PET	Petropavlovsk	3.52	78	⇓iPN	P	17 06 42.3	+1.1
PET				eS	S	17 07 39.3	+0.1
PET				pmax	pmax		
	comp=Z,500nm,1.3s						
PET				pmax	pmax		
	comp=Z,239nm,1.1s						
PET				pmax	pmax		
	comp=E,80nm,1.0s						
PET				pmax	pmax		
	comp=N,105nm,0.7s						
PET				smax			
	comp=E,171nm,0.6s						
PET				smax			
	comp=N,181nm,0.7s						
PET				MLR	MLR		
	comp=Z,100nm,17.0s						
MA2	Magadan	7.27	351	eP	P	17 07 18.9	+1.6
	comp=Z,11nm,0.9s						
MA2	Magadan	7.27	351	c iPN	P	17 07 19.1	+1.8
YSS	Yuzh-Sakhalins	8.58	234	eP	P	17 07 33.8	+2.2
	comp=Z,21nm,0.6s						
YSS	Yuzh-Sakhalins	8.58	234	⇑iPN	P	17 07 33.2	+1.6
YSS				pmax	pmax		
	comp=Z,20nm,0.8s						
SEY	Seymchan	10.54	359	⇑iPN	P	17 07 55.1	+2.6
ASAJ	Asahikawa	10.79	224	PN	P	17 07 57.0	+1.4
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	10.79	224	P	P	17 07 57.0	+1.3
	comp=Z,0.8nm,0.3s,baz=38,slow=5.8,SNR=17						
ERM	Erimo	12.35	216	⇑ePN	P	17 08 11.1	-1.4
YAK	Yakutsk	15.75	317	eP	P	17 08 48.4	-0.2
	comp=Z,13nm,0.6s						
YAK	Yakutsk	15.75	317	d iP	P	17 08 48.3	-0.3
YAK				pmax	pmax		
	comp=Z,8.0nm,0.8s						
CLNS	Chul'man	16.77	296	eP	P	17 08 59.3	0.0
CLNS				pmax	pmax		
	comp=Z,31nm,0.8s						
CLNS				pmax	pmax		
	comp=N,10.0nm,0.9s						
CLNS				pmax	pmax		
	comp=E,20nm,0.9s						
BILL	Bilibino	16.93	17	eP	P	17 09 00.0	-0.9
	comp=E,2.2nm,0.4s						
BILL	Bilibino	16.93	17	⇓eP	P	17 09 00.7	-0.2
BILL				eS	S	17 11 56.0	+0.9
BILL				pmax	pmax		
	comp=Z,4.0nm,1.0s						
MAT	Matsushiro	18.99	219	P	P	17 09 22.5	+0.7
MJAR	Matsushiro Arr	18.99	219	P	P	17 09 22.6	+0.8
	comp=Z,1.7nm,0.3s,baz=19,slow=8.7,SNR=21						
HIA	Hailar	21.10	275	eP	P	17 09 41.1	+0.3
	comp=Z,12nm,0.7s,mb4.5						
HIA	Hailar	21.10	275	eP	P	17 09 41.1	+0.3
HIA				pmax	pmax		
	comp=Z,12nm,0.7s						
TIXI	Tiksi	22.03	340	⇓iP	P	17 09 48.2	-0.8
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.8						
BOD	Bodaibo	22.67	299	eP	P	17 09 54.6	-0.3
BOD				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.7						
TNA	Tin City	23.57	41	eP	P	17 10 02.8	-0.2
	comp=Z,2.3nm,0.8s,mb3.7						
ULN	Ulaanbaatar	29.37	280	i P	P	17 10 55.6	+1.3
SONM	Songino Array	29.78	280	P	P	17 10 57.8	-0.1
	comp=Z,0.2nm,0.3s,mb3.0,baz=59,slow=8.3,SNR=11						
TLY	Talaya	29.86	289	⇑eP	P	17 11 00.3	+1.8
ZAK	Zakamensk	30.56	286	eP	P	17 11 02.8	-1.8
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.4						
KDAK	Kodiak Island	30.88	58	P	P	17 11 07.3	0.0
	comp=Z,3.1nm,0.3s,mb4.2,baz=61,slow=5.0,SNR=18						
SLKM	Skilak Lake	31.48	52	eP	P	17 11 12.2	-0.2
JOW	Kunigami	31.55	225	P	P	17 11 13.2	-0.3
	comp=Z,17nm,0.9s,mb4.5,baz=46,slow=9.9,SNR=6.1						
MCK	McKinley	31.58	46	eP	P	17 11 12.9	-0.3
COLA	College	31.92	44	eP	P	17 11 16.7	+0.5
	comp=Z,6.6nm,0.8s,mb4.1						
COLA	College	31.92	44	c iP	P	17 11 16.8	+0.7
NJ2	Nanjing	31.99	244	eP	P	17 11 15.8	-1.4
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.3						
KRAR	Krasnoyarsk	34.34	300	i P	P	17 11 37.0	+0.2
EGAK	Eagle	34.77	43	eP	P	17 11 40.0	-0.3
	comp=Z,8.6nm,1.1s,mb4.1						
INK	Inuvik	37.02	36	eP	P	17 11 59.4	+0.4
INK	Inuvik	37.02	36	P	P	17 11 59.5	+0.5
INK				pmax	pmax		
	comp=Z,2.0nm,0.3s						
INK	Inuvik	37.02	36	P	P	17 11 59.5	+0.5
	comp=Z,2.4nm,0.3s,mb4.1,baz=293,slow=7.2,SNR=18						
ZALV	Zalesovo Beam	39.42	300	P	P	17 12 18.5	-0.3
ZALV				PcP	PcP	17 14 15.0	-0.8
ZALV	Zalesovo Beam	39.42	300	P	P	17 12 18.5	-0.3
	comp=Z,1.4nm,0.5s,mb3.7,baz=55,slow=7.7,SNR=9.6						
ZALV				PcP	PcP	17 14 15.0	-0.8
	comp=Z,0.8nm,0.5s,baz=57,slow=2.7,SNR=5.1						
ZAL	Zalesovo	39.43	300	P	P	17 12 18.5	-0.4
ZAL						17 14 15.0	
NVS	Novosibirsk	39.85	302	i P	P	17 12 22.3	0.0
KURK	Kurchatov	44.32	299	eP	P	17 12 57.8	0.0
	comp=Z,9.4nm,0.3s,mb4.7						
KURK	Kurchatov	44.32	299	d iP	P	17 12 58.0	+0.2
MK31	Makanchi Array	44.46	292	eP	P	17 12 58.8	-0.1
MKAR	Makanchi Array	44.46	292	P	P	17 12 59.0	+0.2
MKAR				PcP	PcP	17 14 32.4	-0.4
MKAR	Makanchi Array	44.46	292	P	P	17 12 59.0	+0.2
	comp=Z,1.4nm,0.4s,mb3.7,baz=64,slow=7.3,SNR=51						
MKAR				PcP	PcP	17 14 32.4	-0.4
	comp=Z,0.2nm,0.3s,baz=48,slow=4.3,SNR=0.8						
RES	Resolute Bay	45.51	20	eP	P	17 13 06.4	-0.2
YKA	Yellowknife Ar	46.52	40	P	P	17 13 14.7	+0.2
YKA	Yellowknife Ar	46.52	40	P	P	17 13 14.7	+0.2
	comp=Z,2.2nm,0.6s,mb3.7,baz=302,slow=7.3,SNR=27						
LSA	Lhasa	50.10	268	eP	P	17 13 43.1	+1.3
	comp=Z,4.5nm,0.6s,mb4.0						
LSA	Lhasa	50.10	268	eP	P	17 13 43.1	+1.3
LSA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb3.9						
ARU	Arti	50.85	314	c iP	P	17 13 46.7	-0.2
ARU				eS	S	17 20 27.5	-0.3
ARU				eSS	SS	17 24 09.2	+0.3
ARU				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.1						
AAK	Ala-Archa	51.39	292	eP	P	17 13 50.9	-0.2
	comp=Z,1.6nm,0.5s,mb3.6						
AAK	Ala-Archa	51.39	292	d iP	P	17 13 50.8	-0.3
AAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb3.7						
ARCES	ARCESS Array B	52.47	339	P	P	17 13 57.9	-0.6
ARCES	ARCESS Array B	52.47	339	P	P	17 13 57.9	-0.6
	comp=Z,2.3nm,0.8s,mb3.5,baz=37,slow=9.1,SNR=11						
GKN	Gorkha	55.29	272	eP	P	17 14 19.5	+0.3
	comp=Z,26nm,0.9s,mb4.5						
JOF	Joensuu	56.23	332	ep	P	17 14 24.0	-1.1
	comp=Z,0.9nm,0.4s,mb3.5						
KAF	Kangasniemi	58.27	334	ep	P	17 14 35.4	-3.8
FINES	FINESS Array B	58.88	333	P	P	17 14 42.8	-0.5
FINES				PcP	PcP	17 15 25.4	-1.5
FINES	FINESS Array B	58.88	333	P	P	17 14 42.8	-0.5
	comp=Z,1.2nm,0.5s,mb3.5,baz=40,slow=7.1,SNR=15						
FINES				PcP	PcP	17 15 25.4	-1.5
	comp=Z,1.8nm,1.0s,baz=70,slow=6.3,SNR=4.3						
NVAR	Mina Array Bea	60.01	65	P	P	17 14 52.7	+1.4
NVAR	Mina Array Bea	60.01	65	P	P	17 14 52.7	+1.4
	comp=Z,0.9nm,0.6s,mb3.4,baz=288,slow=8.1,SNR=7.5						
PDAR	Pinedale Array	61.57	56	P	P	17 15 02.4	+0.8
	comp=Z,1.5nm,0.6s,mb3.6,baz=338,slow=1.4,SNR=12						
NB2	NORSAR Subarra	62.83	340	P	P	17 15 08.7	-0.7
	comp=Z,1.2nm,0.6s,mb3.6,baz=25,slow=6.5						
NOA	NORSAR Array B	62.83	340	P	P	17 15 08.8	-0.6
	comp=Z,1.8nm,0.7s,mb3.7,baz=25,slow=6.4,SNR=8.5						
AKASG	Malin Array Be	66.80	325	P	P	17 15 33.4	-1.5
	comp=Z,0.8nm,0.4s,mb3.8,baz=32,slow=6.2,SNR=5.2						
CLL	Collm	71.26	335	eP	P	17 16 01.0	-0.8
GERES	GERESS Array B	73.32	333	P	P	17 16 13.6	-0.2
	comp=Z,0.6nm,0.6s,mb3.3,baz=30,slow=5.0,SNR=11						
WRA	Warramunga Arr	73.86	198	P	P	17 16 17.4	+0.2
	comp=Z,0.9nm,0.4s,mb3.6,baz=12,slow=5.9,SNR=19						
BRTR	Keskin Array B	74.21	316	P	P	17 16 19.3	+0.2
	comp=Z,1.2nm,1.0s,mb3.4,baz=63,slow=5.8,SNR=3.3						
TXAR	Lajitas Array	74.84	62	P	P	17 16 23.9	+1.1
	comp=Z,0.9nm,0.6s,mb3.5,baz=277,slow=4.1,SNR=6.7						
CDF	Champ du Feu	75.37	337	eP	P	17 16 24.9	-0.5
MEZF	Maizieres J'vi	75.80	339	eP	P	17 16 27.5	-0.3
FLN	La Foliniere	76.68	342	eP	P	17 16 31.9	-0.8
LDF	La Druitiere	76.78	342	eP	P	17 16 33.2	0.0
GRR	Gorron	77.11	342	eP	P	17 16 34.7	-0.4
	comp=Z,4.7nm,0.5s,mb3.9						
GRR	Gorron	77.11	342	eP	P	17 16 34.7	-0.4
	comp=Z,2.3nm,0.5s,mb4.0						
GRR	Gorron	77.11	342	eP	P	17 16 34.7	-0.4
GRR				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.9						
LOR	Lormes	77.22	339	eP	P	17 16 34.5	-1.2
	comp=Z,3.3nm,0.5s,mb3.8						
LOR	Lormes	77.22	339	eP	P	17 16 34.5	-1.2
	comp=Z,1.6nm,0.5s,mb3.8						
LOR	Lormes	77.22	339	eP	P	17 16 34.5	-1.2
LOR				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.9						
CABF	La Chapelle	77.34	337	eP	P	17 16 36.5	+0.2
SGMF	Saint Gilles	77.54	344	eP	P	17 16 37.0	-0.4
ASAR	Alice Springs	77.58	198	P	P	17 16 38.6	+0.8
	comp=Z,1.9nm,0.5s,mb3.8,baz=12,slow=4.9,SNR=45						
AVF	Avril sur Loir	77.79	339	eP	P	17 16 38.3	-0.5
	comp=Z,10nm,0.9s,mb3.9						
AVF	Avril sur Loir	77.79	339	eP	P	17 16 38.3	-0.5
	comp=Z,5.1nm,0.9s,mb4.0						
AVF	Avril sur Loir	77.79	339	eP	P	17 16 38.3	-0.5
AVF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb3.9						
LPL	La Plagne	78.21	336	eP	P	17 16 41.6	+0.5
	comp=Z,6.5nm,0.6s,mb3.9						
LPL	La Plagne	78.21	336	eP	P	17 16 41.6	+0.5
	comp=Z,3.3nm,0.6s,mb3.9						
LPL	La Plagne	78.21	336	eP	P	17 16 41.6	+0.5
LPL				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
LPG	La Plagne	78.22	336	eP	P	17 16 41.7	+0.5
	comp=Z,4.9nm,0.5s,mb3.9						
LPG	La Plagne	78.22	336	eP	P	17 16 41.7	+0.5
	comp=Z,2.5nm,0.5s,mb3.9						
LPG	La Plagne	78.22	336	eP	P	17 16 41.7	+0.5
LPG				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb3.8						
MFF	Saint Martin d	78.69	341	eP	P	17 16 43.4	-0.3

	comp=Z,5.8nm,0.7s,mb3.9						
MFF	Saint Martin d	78.69	341	*e*P	P	17 16 43.4	-0.3
	comp=Z,2.9nm,0.7s,mb3.9						
MFF	Saint Martin d	78.69	341	*e*P	P	17 16 43.4	-0.3
MFF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.9						
CAF	Calviac	79.84	339	*e*P	P	17 16 50.0	+0.2

IDC 18 17:12:27.4±1.5**,1693S×6586W,h0^{km},mb3.8**/2**, mb1 3.9**/5**,mb1mx3.7**/19**,mbtmp3.8**/5**,ML3.7**/3**,Error ellipse: s-maj=42.3km s-min=14.2km az=5.0,Central Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	2.27	286	Pn	Pn	17 13 07.0	+0.9
	34nm,0.3s,baz=106,slow=14,SNR=435						
LPAZ				Lg		17 13 38.7	
	51nm,0.3s,baz=97,slow=16,SNR=5.6						
SIV	San Ignacio	4.69	79	Pn	Pn	17 13 39.2	-0.2
	13nm,0.3s,baz=259,slow=12,SNR=339						
SIV				Lg		17 14 54.3	
	39nm,0.3s,baz=197,slow=19,SNR=13						
CFAA	Coronel Fontan	14.77	188	Pn	Pn	17 15 56.8	-0.8
	0.0nm,0.3s,baz=11,slow=10,SNR=6.8						
TORD	Torodi Ar. Bea	73.10	70	P	P	17 24 00.3	+0.2
	0.8nm,0.7s,baz=258,slow=5.5,SNR=4.8						
YKA	Yellowknife Ar	87.89	340	P	P	17 25 18.9	+0.5
	0.4nm,0.6s,baz=124,slow=4.4,SNR=9.3						

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*NEIC **18** 17:13:32.0±0.5,29.80S×177.69W,h10^{km},mb5.1/10,Error ellipse: s-maj=16.9km s-min=10.1km az=143.0*

*ISCJB **18** 17:13:32.7±0.5,30.16S±0.04×177.65W±0.09,h33^{km}, mb4.7/19,Error ellipse: s-maj=12.1km s-min=4.6km az=19.1*

*GCMT **18** 17:13:32.0±0.5,29.76S×177.69W,h25^{km}±1^{km},MW5.1/52, Moment Tensor Solution. s17,c19; s52,c63; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.00±.20; M$_{\theta\theta}$1.04±.23; M$_{\phi\phi}$-1.04±.17; M$_{r\theta}$0.64±.32; M$_{\theta\phi}$-0.10±.14; M$_{\phi r}$6.25±.72; Best double couple: M$_0$6.30500×10^{16} NP1:ϕ_s160.00000°,δ3.00000°,λ64.00000°. NP2: ϕ_s6.00000°,δ88.00000°,λ91.00000°. Principal axes: T 5.7860, Plg47.0000°, Azm277.0000°; N 1.0370, Plg1.0000°, Azm186.0000°; P -6.8250, Plg43.0000°, Azm95.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **18** 17:13:39.1±3.0,29.80S×177.72W,h64^{km}±25^{km},mb4.3/12, mb1 4.5/15,mb1mx4.4/18,mbtmp4.3/15,ML4.1/3,MS3.9/2, Ms1 3.9/2,ms1mx3.1/22 Error ellipse: s-maj=21.8km s-min=15.7km az=157.0*

ISC 18 17:13:35.2±0.4**,3011S**±004×**17770W**±009**,h35^{km},n93,** σ1§**63**/68**,mb4.7**/19**,2C-2D,Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	8.14	203	PN	Pn	17 15 33.9	+3.0
MXZ				SN	Sn	17 17 04.1	+2.5
PUZ	Puketiti	8.62	202	PN	Pn	17 15 39.2	+1.7
PUZ				SN	Sn	17 17 16.1	+2.6
MWZ	Matawai	9.11	204	PN	Pn	17 15 46.2	+2.1
MWZ				SN	Sn	17 17 27.1	+1.8
URZ	Urewera	9.20	206	P	Pn	17 15 48.5	+3.2
	2.4nm,0.3s,baz=264,slow=4.2,SNR=50						
URZ				S	Sn	17 17 30.0	+2.5
	28nm,0.3s,baz=161,slow=20,SNR=6.0						
URZ	Urewera	9.20	206	PN	Pn	17 15 47.4	+2.1
KNZ	Kokohu	9.67	202	PN	Pn	17 15 52.3	+0.4
BKZ	Black Stump Fm	10.22	206	PN	Pn	17 16 00.9	+1.6
PXZ	Pawanui	10.86	203	PN	Pn	17 16 07.7	-0.3
PXZ				SN	Sx	17 18 05.2	
TSZ	Takapari Road	11.20	206	PN	Pn	17 16 11.4	-1.4
BFZ	Birch Farm	11.65	203	PN	Pn	17 16 18.1	-0.7
BFZ				SN	Sx	17 18 25.4	
TIWZ	Tintock	11.86	204	PN	Pn	17 16 21.5	-0.2
MRZ	Mangatainoka R	11.87	206	PN	Pn	17 16 20.2	-1.7
KIW	Kapiti Island	12.30	207	PN	Pn	17 16 26.0	-1.8
MTW	Mount Morrison	12.33	205	PN	Pn	17 16 26.4	-1.8
CAW	Cannon Point	12.45	206	PN	Pn	17 16 27.1	-2.7
PAWZ	Paruwai Farm	12.55	204	SN	Sn	17 18 46.2	-3.5
MRW	Makara Radio	12.70	207	PN	Pn	17 16 34.3	+1.2
SNZO	South Karori	12.76	207	PN	Pn	17 16 31.3	-2.8
SNZO				SN	Sx	17 18 50.9	
BHW	Baring Head	12.78	206	SN	Sn	17 18 50.9	-4.4
TUWZ	Tuamarina	13.17	209	PN	Pn	17 16 37.9	-1.8
NNZ	Nelson	13.24	211	*e*SN	Sn	17 19 03.2	-3.2
CMWZ	Cape Campbell	13.33	207	SN	Sn	17 19 06.6	-2.1
THZ	Tophouse	13.89	211	PN	Pn	17 16 47.3	-2.2
THZ				SN	Sx	17 19 17.8	
KHZ	Kahutara	14.16	207	PN	Pn	17 16 50.6	-2.6
DSZ	Denniston Nort	14.38	213	SN	Sn	17 19 27.5	-6.8
LTZ	Lake Taylor	14.99	210	PN	Pn	17 17 03.1	-1.3
MQZ	McQueen's Vall	15.60	207	*e*SN	Sn	17 19 53.5	-10
RPZ	Rata Peaks	16.27	210	P	Pn	17 17 25.2	+4.3
	7.7nm,0.3s,baz=329,slow=0.9,SNR=42						
RPZ				S	S	17 20 10.8	-21
	5.7nm,0.3s,baz=105,slow=20,SNR=11						
DZM	Mont Dzumac	16.32	296	*e*P	Pn	17 17 28.2	+6.4
DZM	Mont Dzumac	16.32	296	P	Pn	17 17 29.0	+7.3
	1.5nm,0.3s,baz=109,slow=15,SNR=13						
NOUC	Port Laguerre	16.42	295	*e*P	Pn	17 17 28.4	+5.5
AFI	Afiamalu	17.02	20	P	Pn	17 17 27.9	-2.7
	2.0nm,0.3s,baz=212,slow=9.5,SNR=2.9						
AFI				S	S	17 20 22.5	-25
	3.4nm,0.3s,baz=150,slow=22,SNR=3.1						
JCZ	Jackson Bay	17.60	214	*e*PN	Pn	17 17 37.7	+0.1
RAR	Rarotonga	18.41	65	P	Pn	17 17 46.7	-0.9
	0.9nm,0.3s,baz=141,slow=6.5,SNR=2.6						
RAR				S	S	17 20 57.9	-18
	2.8nm,0.3s,baz=60,slow=17,SNR=5.7						
RAR				LR	LR	17 23 14.2	
	comp=Z,244nm,19.5s,baz=241,slow=31						
EIDS	Eidsvold	27.98	272	*e*P	P	17 19 25.0	+2.4
CNB	Canberra Magne	28.11	251	⇓*i*P	P	17 19 28.4	+4.6
	26nm,1.2s,mb4.7						
PAE	Paea	28.46	71	*e*T		17 49 03.3	
	80nm,0.4s						
PPT	Papeete	28.51	70	*e*LR	LR	17 26 32.5	
	853nm,33.0s						
PPT	Papeete	28.51	70	*e*T		17 49 07.0	
	13nm,0.3s						
PPT	Papeete	28.51	70	LR	LR	17 27 26.5	
	comp=Z,344nm,20.5s,baz=37,slow=29						
TVO	Taravao	28.66	71	*e*T		17 49 19.8	
	17nm,0.3s						
TOO	Toolangi	31.32	246	*e*P	P	17 19 56.5	+4.4
	4.6nm,0.6s,mb4.5						
VAH	Vaihoa	31.33	68	*e*T		17 52 34.9	
	40nm,0.3s						
CTA	Charters Tower	34.01	279	*e*P	P	17 20 17.7	+1.9
	23nm,0.6s,mb5.3						
CTA	Charters Tower	34.01	279	P	P	17 20 17.6	+1.7
	28nm,0.5s,mb5.4,baz=108,slow=11,SNR=41						
CTAO	Charters Tower	34.01	279	*e*P	P	17 20 17.9	+2.0
	23nm,0.6s,mb5.3						
STKA	Stephens Creek	34.80	256	⇓*i*P	P	17 20 25.2	+2.6
	20nm,0.6s,mb5.2						
STKA	Stephens Creek	34.80	256	P	P	17 20 25.2	+2.6
	34nm,0.8s,mb5.3,baz=96,slow=9.2,SNR=50						
RKT	Rikitea	38.66	90	*e*S	S	17 26 59.0	+9.0
	124nm,37.0s						
RKT				*e*LR	LR	17 31 22.1	
	469nm,32.2s						
RKT	Rikitea	38.66	90	*e*T		18 02 16.6	
	2.6nm,0.4s						
ASAR	Alice Springs	43.38	266	P	P	17 21 34.5	0.0
	9.2nm,0.6s,mb4.7,baz=100,slow=7.2,SNR=112						
ASAR				PcP	PcP	17 23 24.0	+1.4
	2.1nm,0.7s,baz=122,slow=4.1,SNR=4.6						
ASAR				ScP	ScP	17 27 05.7	-5.6
	1.1nm,0.8s,baz=108,slow=4.6,SNR=4.5						
WB2	Warramunga Arr	44.33	272	*e*P	P	17 21 41.9	-0.2
WRA	Warramunga Arr	44.34	272	P	P	17 21 41.9	-0.3
	26nm,0.7s,mb5.1,baz=110,slow=8.0,SNR=183						
FORT	Forrest	46.37	255	*e*P	P	17 21 57.9	-0.2
	37nm,0.6s,mb5.5						
VNDA	Vanda	48.41	186	P	P	17 22 20.8	+7.5
	1.9nm,0.6s,mb4.3,baz=20,slow=6.5,SNR=9.4						
KAKA	Kakadu	49.14	279	*e*P	P	17 22 18.7	-1.0
	9.1nm,0.7s,mb4.9						
FITZ	Fitzroy Crossi	52.62	270	*e*P	P	17 22 45.5	-0.4
	17nm,0.8s,mb5.0						
FITZ	Fitzroy Crossi	52.62	270	P	P	17 22 45.6	-0.4
	9.4nm,0.8s,mb4.8,baz=147,slow=7.4,SNR=24						
KLBR	Kellerberrin	54.69	251	*e*P	P	17 23 00.4	-0.5
	42nm,1.2s,mb5.3						
MUN	Mundaring	55.84	250	*e*P	P	17 23 09.3	+0.1
MAW	Mawson	72.67	200	P	P	17 25 01.3	+2.4
	5.5nm,0.7s,mb4.6,baz=148,slow=7.7,SNR=4.5						
MJAR	Matsushiro Arr	78.15	325	P	P	17 25 28.7	-1.9
	2.3nm,0.8s,mb4.2,baz=158,slow=5.0,SNR=5.7						
VNA3	Neumayer Olymp	78.58	176	*e*PKPdf	P	17 25 35.0	+2.3
VNA3				*e*		17 25 42.0	
VNA3				*e*		17 26 02.4	
VNA2	Neumayer--Watz	79.02	177	*e*PKPdf	P	17 25 38.2	+3.1
VNA2				*e*		17 25 44.5	
VNA2				*e*		17 26 05.2	
ASAJ	Asahikawa	82.30	332	P	P	17 25 53.9	+1.1
	4.2nm,0.9s,mb4.3,baz=283,slow=13,SNR=3.4						
KSRS	Korea Array	84.29	319	P	P	17 26 03.5	+0.3
	2.1nm,0.8s,mb4.3,baz=146,slow=6.9,SNR=4.9						
NVAR	Mina Array Bea	87.85	43	P	P	17 26 21.4	+0.6
	1.3nm,0.8s,mb4.2,baz=233,slow=11,SNR=7.5						
CFAA	Coronel Fontan	89.21	126	P	P	17 26 29.1	+1.5
	0.5nm,1.0s,mb3.8,baz=207,slow=6.5,SNR=4.5						
TXAR	Lajitas Array	92.01	57	P	P	17 26 39.7	-0.8
	0.4nm,0.8s,mb3.8,baz=246,slow=8.8,SNR=3.0						
COLA	College	97.49	12	*e*P	P	17 27 04.7	0.0
	1.9nm,0.9s,mb4.5						
MATP	Matopo	123.78	210	PKP	PKPdf	17 32 31.6	+1.7
MATP	Matopo	123.78	210	PKP	PKPdf	17 32 31.6	+1.7
	1.5nm,0.6s,baz=196,slow=6.8,SNR=5.8						
ARCES	ARCESS Array B	138.36	348	PKP		17 32 46.9	
ARCES				PKP	PKPdf	17 32 54.2	-1.6
ARCES	ARCESS Array B	138.36	348	PKhKP		17 32 46.9	
	7.3nm,1.1s,baz=75,slow=1.0,SNR=3.7						
ARCES				PKP	PKPdf	17 32 54.2	-1.7
	4.1nm,0.9s,baz=42,slow=2.0,SNR=5.3						
KAF	Kangasniemi	144.36	341	*e*pkp	PKPdf	17 33 02.5	-4.3
KAF	Kangasniemi	144.36	341	*e*PKP	PKPdf	17 33 02.5	-4.3
FINES	FINESS Array B	144.96	340	PKP	PKPdf	17 33 05.9	-1.9
FINES	FINESS Array B	144.96	340	PKP	PKPdf	17 33 05.9	-1.9
	20nm,0.5s,baz=62,slow=3.7,SNR=152						
NOA	NORSAR Array B	148.50	352	PKPbc	PKPbc	17 33 16.6	-0.8
NOA	NORSAR Array B	148.50	352	PKPbc	PKPbc	17 33 16.6	-0.8
	6.4nm,0.7s,baz=15,slow=4.2,SNR=20						
MALT	Malatya	149.17	295	⇑P	PKPbc	17 33 20.1	+0.2
MALT	Malatya	149.17	295	⇑*i*P	PKPbc	17 33 20.1	+0.2
ASF	Jabal al Asfar	150.39	283	PKPbc	PKPbc	17 33 23.6	+0.5
ASF	Jabal al Asfar	150.39	283	PKPbc	PKPbc	17 33 23.6	+0.5
	3.9nm,0.8s,baz=36,slow=5.0,SNR=5.5						
AKASG	Malin Array Be	151.22	323	PKP	PKPdf	17 33 17.9	-0.6
AKASG				PKPbc	PKPbc	17 33 23.5	-0.9
AKASG	Malin Array Be	151.22	323	PKP	PKPdf	17 33 17.9	-0.6
	2.6nm,0.6s,baz=80,slow=7.3,SNR=6.9						
AKASG				PKPbc	PKPbc	17 33 23.5	-0.9
	8.0nm,0.6s,baz=47,slow=2.8,SNR=22						
MMAI	Mount Meron Ar	151.71	284	PKPbc	PKPbc	17 33 26.9	+0.7
	12nm,0.7s,baz=74,slow=6.2,SNR=24						
BRTR	Keskin Array B	152.68	299	PKPbc	PKPbc	17 33 27.1	-1.1
BRTR	Keskin Array B	152.68	299	PKPbc	PKPbc	17 33 27.1	-1.1
	2.0nm,0.6s,baz=147,slow=6.6,SNR=7.1						
CLL	Collm	157.37	342	*i* PKPab	PKPab	17 33 57.8	-0.6
CLL				*i* pPKPab	pPKPab	17 34 00.1	-10
KHC	Kasperske Hory	159.15	339	*e*PKPAB	PKPab	17 34 05.5	-0.7
KHC				*e*x	x	17 34 16.5	
GERES	GERESS Array B	159.36	338	PKPab	PKPab	17 34 06.3	-0.8
	0.9nm,0.7s,baz=28,slow=3.6,SNR=7.7						
TORD	Torodi Ar. Bea	163.12	178	PKPab	PKPab	17 34 26.3	+2.0
	2.3nm,0.6s,baz=186,slow=3.9,SNR=10						

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*NEIC **18** 17:23:33.2,36.52N×25.44E,h20^{km},ML3.7(ATH),After ATH.*

*CSEM **18** 17:23:33.2,36.52N×25.44E,h20^{km},MD3.4/13,After ATH*

ATH 18 17:23:33.2,3652N×2544E,h20^{km}±1^{km}**,MD3.4**/13**,ML3.7, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APE	Apeiranthos	0.55	8	*e*Pn	Pb	17 23 44.6	+0.4
APE				*e*Sn	Sb	17 23 52.3	+0.6
APE	Apeiranthos	0.55	8	*e*PN	Pb	17 23 44.6	+0.4
APE				*e*SN	Sb	17 23 52.3	+0.6
APE	Apeiranthos	0.55	8	*e*Pn	Pb	17 23 44.6	+0.4
APE				*e*Sn	Sb	17 23 52.3	+0.6
NPS	Neapolis	1.26	174	*e*Pn	Pn	17 23 56.8	+1.1
NPS	Neapolis	1.26	174	*e*PN	Pn	17 23 56.8	+1.1
NPS	Neapolis	1.26	174	*e*Pn	Pn	17 23 56.8	+1.1
VAM	Vamos	1.50	223	*e*Pn	Pn	17 24 01.1	+2.2
VAM	Vamos	1.50	223	*e*PN	Pn	17 24 01.1	+2.2
VAM	Vamos	1.50	223	*e*Pn	Pn	17 24 01.1	+2.2
SMG	Samos	1.63	43	*e*Pn	Pn	17 24 02.5	+1.8
SMG	Samos	1.63	43	*e*PN	Pn	17 24 02.5	+1.8
SMG	Samos	1.63	43	*e*Pn	Pn	17 24 02.5	+1.8
KARP	Karpathos	1.70	124	*e*Pn	Pn	17 24 04.3	+2.6
KARP	Karpathos	1.70	124	*e*PN	Pn	17 24 04.3	+2.6
KARP	Karpathos	1.70	124	*e*Pn	Pn	17 24 04.3	+2.6
KVR	Kavouri	1.87	315	*e*PN	Pn	17 24 07.0	+3.0
KVR	Kavouri	1.87	315	*e*Pn	Pn	17 24 07.0	+3.0
KYTH	Kithira	1.95	264	*e*Pb	Pb	17 24 07.0	-1.1
KYTH	Kithira	1.95	264	*e*PB	Pb	17 24 07.0	-1.1
KYTH	Kithira	1.95	264	*e*Pb	Pb	17 24 07.0	-1.1
PTL	Penteli	1.98	321	*e*Pn	Pn	17 24 08.0	+2.5
PTL	Penteli	1.98	321	*e*PN	Pn	17 24 08.0	+2.5
PTL	Penteli	1.98	321	*e*Pn	Pn	17 24 08.0	+2.5
NAIG	Nisos Aigina	1.99	309	*e*Pn	Pn	17 24 08.5	+2.8
NAIG	Nisos Aigina	1.99	309	*e*PN	Pn	17 24 08.5	+2.8
NAIG	Nisos Aigina	1.99	309	*e*Pn	Pn	17 24 08.5	+2.8
ATH	Athens Observa	2.00	317	*e*Pn	Pn	17 24 08.0	+2.2
ATH	Athens Observa	2.00	317	*e*PN	Pn	17 24 08.0	+2.2
ATH	Athens Observa	2.00	317	*e*Pn	Pn	17 24 08.0	+2.2
VLI	Veliai	2.02	276	*e*Pn	Pn	17 24 08.3	+2.2
VLI	Veliai	2.02	276	*e*PN	Pn	17 24 08.3	+2.2
VLI	Veliai	2.02	276	*e*Pn	Pn	17 24 08.3	+2.2
ARG	Arkhangelos	2.19	97	*e*Pb	Pb	17 24 10.7	-1.4
ARG	Arkhangelos	2.19	97	*e*PB	Pb	17 24 10.7	-1.4
ARG	Arkhangelos	2.19	97	*e*Pb	Pb	17 24 10.7	-1.4
LKR	Lokris	2.88	318	*e*Pn	Pn	17 24 20.1	+2.2
LKR	Lokris	2.88	318	*e*PN	Pn	17 24 20.1	+2.2
LKR	Lokris	2.88	318	*e*Pn	Pn	17 24 20.1	+2.2

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*ISCJB **18** 17:26:26.5±0.3,37.17N±0.02×71.79E±0.03,h120^{km}±3^{km}, mb4.5/67,Error ellipse: s-maj=3.9km s-min=3.1km az=161.1*

*MOS **18** 17:26:26.6±1.0,37.22N×71.69E,h117^{km},mb4.7/20,Error ellipse: s-maj=7.3km s-min=5.0km az=96.6*

*IDC **18** 17:26:26.4±4.1,37.10N×71.72E,h105^{km}±37^{km},mb4.1/22, mb1 4.2/25,mb1mx4.2/27,mbtmp4.1/25,Error ellipse: s-maj=15.5km s-min=11.5km az=174.0*

*BJI **18** 17:26:28.1,37.42N×71.69E,h129^{km},mB4.8,mb4.6*

*NEIC **18** 17:26:28.7±0.3,37.24N×71.75E,mb4.6/21,Error ellipse: s-maj=5.9km s-min=4.9km az=157.0*

*NNC **18** 17:26:35.1±6.4,37.94N×71.46E,h221^{km}±95^{km},mb3.9, mpv4.9,Error ellipse: s-maj=77.0km s-min=32.7km az=8.0*

ISC 18 17:26:27.7±0.3**,3716N**±002×**7178E**±003**,h115^{km}**±3^{km}**, h126^{km}**±3.1^{km}**:pP-P,n216,**σ1§**17**/249**,mb4.5**/67**,14C-18D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	3.33	178	⇑P	Pn	17 27 20.5	+2.3
KBL	Kabul	3.43	221	*e*Pn	Pn	17 27 20.6	+1.1
KBL				*e*Sn	Sn	17 27 54.1	-5.4
CHCP	Chirah Chowk	3.70	160	P	Pn	17 27 26.4	+3.4
KSH	Kashi	4.05	53	*i* PR	Pn	17 27 31.0	+3.3
KSH				*e*XP		17 27 56.5	
KSH				*e*S	Sn	17 28 19.0	+4.7
KSH				AMB	AMB		
	comp=Z,2µm,1.6s						
KSH				Smax			
	comp=N,6µm,0.7s						
KSH				Smax			
	comp=E,7µm,1.0s						
THW	Thamme Wali	4.36	180	P	Pn	17 27 33.3	+1.4
SBDP	Sheikh Budin	4.91	190	P	Pn	17 27 40.1	+0.7
JMU	Jammu	5.12	149	*e*P	Pn	17 27 45.0	+2.9
JMU				*e*S	Sn	17 28 38.5	-1.6
AML	Almayashu	5.18	16	P	Pn	17 27 43.1	+0.2
	SNR=438						
AML	Almayashu	5.18	16	*e*Pn	Pn	17 27 43.3	+0.4
	comp=E,2µm,0.5s						
AML				*e*Sn	Sn	17 28 33.5	-7.9
UCH	Uchtor	5.48	22	P	Pn	17 27 47.7	+0.7
	SNR=235						
UCH	Uchtor	5.48	22	*e*Pn	Pn	17 27 47.5	+0.6
	comp=E,472nm,0.6s						
UCH				*e*Sn	Sn	17 28 46.2	-2.6
DRP	Derazinda	5.56	194	P	Pn	17 27 49.4	+1.3
DRP				S	Sn	17 28 47.0	-3.7
KZA	Kyzart	5.59	28	P	Pn	17 27 49.1	+0.6
	SNR=68						
EKS2	Erkin-Say	5.71	15	P	Pn	17 27 50.5	+0.5
	SNR=260						
EKS2	Erkin-Say	5.71	15	*e*Pn	Pn	17 27 50.4	+0.4
	comp=E,120nm,0.5s						
EKS2				Sn	Sn	17 28 39.3	-15
THN	Thein Dam	5.72	144	*e*P	Pn	17 27 51.5	+1.2
THN				*e*S	Sn	17 28 55.5	+0.9
DLH	Dalhousie	5.75	142	*e*P	Pn	17 27 52.0	+1.3
DLH				*e*S	Sn	17 28 53.0	-2.4
AAK	Ala-Archa	5.85	20	P	Pn	17 27 52.8	+0.9
	SNR=318						
AAK	Ala-Archa	5.85	20	*e*Pn	Pn	17 27 51.9	-0.1
	comp=E,176nm,0.5s						
AAK	Ala-Archa	5.85	20	*d i*PN	Pn	17 27 51.7	-0.2
AAK				pmax	pmax		
	comp=Z,175nm,0.8s						
KBK	Karagaybulak	6.01	23	P	Pn	17 27 55.0	+1.0
	SNR=44						
KK31	Karatay Array	6.02	351	P	Pn	17 27 52.9	-1.3
	comp=Z,77nm,0.4s,baz=176,slow=13,SNR=592						
KK31				⇑S	Sn	17 28 55.3	-6.3
	comp=Z,154nm,0.4s,baz=187,slow=19,SNR=21						
KK31	Karatay Array	6.02	351	*i* PN	Pn	17 27 52.9	-1.3
KK31				pmax	pmax		
	comp=Z,77nm,0.2s						
KKAR	Karatay Array	6.02	351	PN	Pn	17 27 52.9	-1.3
KKAR				pmax	pmax		
	comp=Z,15nm,0.2s						
FRU	Bishkek	6.07	20	⇓*i*PN	Pn	17 27 55.5	+0.6
FRU				pmax	pmax		
	comp=Z,171nm,1.8s						
ULHL	Ulahol	6.13	33	P	Pn	17 27 56.3	+0.6
	SNR=49						
CHMS	Chumysh	6.26	20	P	Pn	17 27 58.0	+0.5
	SNR=39						
USP	Ospenovka	6.45	18	P	Pn	17 27 59.7	-0.2
	SNR=212						
TKM2	Tokmak 2	6.46	26	P	Pn	17 28 00.8	+0.7
	SNR=340						
TKM2	Tokmak 2	6.46	26	⇑P	Pn	17 28 00.6	+0.5
	comp=Z,14nm,0.6s						
TKM2				⇑S	Sn	17 29 09.9	-2.4
	comp=Z,14nm,0.7s						
TKM2	Tokmak 2	6.46	26	*e*Pn	Pn	17 28 00.7	+0.5
	comp=Z,257nm,0.9s						
TKM2	Tokmak 2	6.46	26	PN	Pn	17 28 00.5	+0.4
TKM2				pmax	pmax		
	comp=Z,89nm,0.6s						
BHK	Bhakra	6.89	145	*e*x	Pn	17 27 55.0	-11
BHK				*e*x	x	17 33 05.0	
SDNR	Sundarnagar	7.09	141	*e*P	Pn	17 28 08.5	-0.3
SDNR				*e*S	Sn	17 29 24.5	-3.4
KNDC	Almaty	7.24	32	⇓Pn	Pn	17 28 11.3	+0.6
	comp=Z,262nm,0.6s						
KNDC				⇑Sn	Sn	17 29 50.2	+19
	comp=Z,96nm,0.6s						
AAA	Alma-Ata	7.27	31	PN	Pn	17 28 11.9	+0.7
AAA				*e*S	Sn	17 29 34.3	+2.2
DDI	Dehra Dun	8.59	141	*e*x	x	17 28 30.2	
DDI				*e*S	Sn	17 30 03.0	-1.2
NDI	New Delhi	9.61	150	*e*P	Pn	17 28 43.2	+0.3
NDI				AMb	AMB	17 28 45.3	
	comp=Z,154nm,0.8s						
NDI				*e*S	Sn	17 30 22.0	-6.9
LGTI	Lohaghat	10.45	135	*e*P	Pn	17 28 51.5	-2.8
LGTI				*e*x	x	17 30 46.0	
VAN	Vannovskaya	10.88	278	*e*P	Pn	17 28 54.7	-5.3
AJM	Ajmer	10.92	166	*e*P	Pn	17 28 59.8	-0.8
AJM				AMb	AMB	17 29 00.7	
	comp=Z,59nm,0.6s						
AJM				*i* S	Sn	17 30 55.0	-5.9
MK31	Makanchi Array	12.39	36	⇓P	Pn	17 29 18.7	-1.2
	comp=Z,24nm,0.7s						
MK31	Makanchi Array	12.39	36	*e*Pn	Pn	17 29 18.4	-1.5
MK31				*e*		17 29 27.9	
MK31	Makanchi Array	12.39	36	*e*P	Pn	17 29 18.4	-1.5
MKAR	Makanchi Array	12.39	36	P	Pn	17 29 18.9	-1.0
MKAR	Makanchi Array	12.39	36	P	Pn	17 29 18.7	-1.2
MKAR				pmax	pmax		
	comp=Z,18nm,0.7s						
MKAR	Makanchi Array	12.39	36	P	Pn	17 29 18.9	-1.0
	comp=Z,2.4nm,0.3s,baz=224,slow=13,SNR=246						
WMQ	Urumqi	13.81	56	P	Pn	17 29 37.6	-0.8
WMQ				XP		17 30 09.6	
WMQ				S	Sn	17 32 07.4	-3.1
WMQ				PCP	PcP	17 34 54.3	+1.7
WMQ				AMB	AMB		
	comp=Z,22nm,0.8s						
GKN	Gorkha	14.16	126	*e*P	Pn	17 29 40.5	-2.5
	comp=Z,373nm,0.5s						
GKN				*e*S	Sn	17 32 07.2	-12
KURK	Kurchatov	14.41	18	Pn	Pn	17 29 42.2	-3.8
	comp=Z,45nm,0.8s						
KURK				*e*P		17 29 48.9	
KURK	Kurchatov	14.41	18	P	Pn	17 29 42.2	-3.8
KURK				pmax	pmax		
	comp=Z,45nm,0.8s						
ALBI	Allahabad	14.59	141	*e*x	x	17 29 44.0	
BHPL	Bhopal	14.70	159	*e*P	Pn	17 29 48.5	-1.5
BHPL				AMb	AMB	17 29 56.4	
	comp=Z,163nm,0.8s						
BHPL				*e*x	x	17 32 19.6	
KKN	Kakani	14.72	126	*e*P	Pn	17 29 47.3	-2.9
	comp=Z,83nm,0.3s						
KKN				*e*S	Sn	17 32 21.1	-12
AB31	Akbulak array	14.83	328	⇓Pn	Pn	17 29 47.2	-4.2
	comp=Z,19nm,0.4s						
AB31				Sn	Sn	17 32 17.6	-17
	comp=Z,32nm,0.6s,baz=138,slow=23,SNR=9.9						
AB31	Akbulak array	14.83	328	P	Pn	17 29 47.1	-4.2
AB31				pmax	pmax		
	comp=Z,23nm,0.5s						
JIRN	Jiri	15.41	124	*e*P	Pn	17 29 57.2	-1.6
	comp=Z,206nm,0.3s						
JBP	Jabalpur	15.63	151	⇓*i*P	Pn	17 30 00.9	-0.7
JBP				*e*x	x	17 30 06.7	
	comp=Z,59nm,0.6s						
JBP				*i* x	x	17 32 44.7	
BRVK	Borovoye	15.93	357	*e*Pn	Pn	17 30 02.3	-2.8
	comp=Z,39nm,0.9s						
BRVK				*e*P		17 30 06.1	
BRVK	Borovoye	15.93	357	*e*P	Pn	17 30 02.3	-2.8
BRVK				pmax	pmax		
	comp=Z,39nm,0.9s						
AKTK	Aktyubinsk	16.54	328	P	Pn	17 30 10.3	-2.3
AKTK				S	S	17 33 02.3	-15
AKTO	Aktyubinsk	16.54	328	P	Pn	17 30 10.3	-2.2
	comp=Z,4.5nm,0.3s,baz=136,slow=14,SNR=58						
AKTO				S	S	17 33 02.3	-15
	comp=Z,2.8nm,0.3s,baz=304,slow=23,SNR=7.7						
TAPN	Taplejung	16.63	121	*e*P	Pn	17 30 11.3	-2.6
	comp=Z,186nm,0.6s						
TAPN				*e*S	S	17 33 10.2	-9.3
ODAN	Odare	16.73	123	*e*P	Pn	17 30 12.8	-2.4
	comp=Z,160nm,0.6s						
ODAN				*e*S	S	17 33 09.8	-12
AKL	Akola	17.02	163	*e*P	Pn	17 30 19.5	+0.8
AKL				AMb	AMB	17 30 20.9	
	comp=Z,35nm,0.6s						
NGP	Nagpur	17.16	156	*e*P	Pn	17 30 21.2	+0.8
NGP				AMb	AMB	17 30 23.6	
	comp=Z,45nm,0.9s						
BLSP	Bilaspur	17.45	146	*e*P	Pn	17 30 23.0	-0.9
BLSP				AMb	AMB	17 30 38.4	
	comp=Z,38nm,1.0s						
LSA	Lhasa	17.78	109	P	Pn	17 30 29.6	+1.8
LSA				AMB	AMB		
	comp=Z,30nm,0.8s						
LSA	Lhasa	17.78	109	*e*P	Pn	17 30 28.9	+1.0
	comp=Z,22nm,0.6s						
LSA	Lhasa	17.78	109	*e*P	Pn	17 30 28.9	+1.1
LSA				pmax	pmax		
	comp=Z,21nm,0.6s						
BOK	Bokaro	18.01	134	*e*P	P	17 30 30.3	+0.8
BOK				AMb	AMB	17 30 33.3	

	comp=Z,102nm,1.3s						
ZAL	Zalesovo	19.04	24	P	P	17 30 40.3	-0.2
ZALV	Zalesovo Beam	19.06	24	P	P	17 30 40.2	-0.5
	comp=Z,7.6nm,0.3s,baz=221,slow=10,SNR=208						
NVS	Novosibirsk	19.35	20	i P	P	17 30 43.2	-0.6
NVS				eS	S	17 34 06.8	-10
NVS				pmax	pmax		
	comp=N,34nm,0.6s						
NVS				pmax	pmax		
	comp=Z,38nm,0.6s						
NVS				pmax	pmax		
	comp=E,11nm,0.7s						
NVS				smax			
	comp=N,54nm,2.5s						
NVS				smax			
	comp=E,11nm,1.4s						
HYB	Hyderabad	20.55	161	eP	P	17 30 58.5	+1.3
HYB				e		17 31 02.5	
HYB	Hyderabad	20.55	161	i P	P	17 30 58.5	+1.3
HYB				e		17 31 02.5	
HYB				eS	S	17 34 39.0	-1.8
SHL	Shillong	20.65	118	eP	P	17 30 57.4	-0.8
SHL				i x	x	17 34 38.0	
DGRG	David-gareji	20.84	290	P	P	17 31 01.3	+1.1
SVE	Sverdlovsk	21.04	343	eP	P	17 31 01.0	-1.1
SVE				e		17 34 43.0	
ARU	Arti	21.22	339	eP	P	17 31 02.9	-1.1
	comp=E,40nm,1.2s,mb4.6						
ARU	Arti	21.22	339	d iP	P	17 31 03.1	-0.9
ARU				e		17 31 27.2	
ARU				ePPP		17 31 39.0	
ARU				eS	S	17 34 52.6	-0.6
ARU				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.5						
MTA	Mtatsminda	21.29	291	P	P	17 31 05.6	+0.7
UMR	Umm Al-Rimmam	21.45	256	eP	P	17 31 06.5	-0.2
UMR				AMb	AMB	17 31 11.8	
	comp=Z,46nm,0.4s,mb5.2						
MIB	Mutribah	21.63	257	eP	P	17 31 08.0	-0.6
MIB				AMb	AMB	17 31 14.6	
	comp=Z,43nm,1.0s,mb4.8						
KBD	Kabd	21.64	255	eP	P	17 31 08.2	-0.6
KBD				AML	AML	17 31 13.3	
	comp=Z,41nm,0.3s						
RDF	Al-Radifah	21.87	255	eP	P	17 31 10.3	-0.8
RDF				AMb	AMB	17 31 15.0	
	comp=Z,12nm,0.4s,mb4.6						
VIS	Vishakhapatnam	21.87	149	eP	P	17 31 13.0	+1.7
VIS				AMb	AMB	17 31 20.6	
	comp=Z,28nm,0.8s,mb4.6						
NAY	Al-Naaiem	21.95	256	eP	P	17 31 11.1	-1.0
NAY				AMb	AMB	17 31 14.2	
	comp=Z,12nm,0.4s,mb4.6						
ZEI	Tsey	22.04	293	eP	P	17 31 12.8	0.0
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.0						
GTA	Gaotai	22.09	76	eP	P	17 31 16.3	+2.9
GTA				AP		17 31 42.0	
GTA				XP	sP	17 31 57.0	+7.7
GTA				XS	sS	17 35 57.5	+11
GTA				LG1		17 37 50.8	
GTA				LG2		17 38 26.9	
GTA				AMB	AMB		
	comp=Z,31nm,0.9s,mb4.6						
GTA				AMB	AMB		
	comp=Z,160nm,5.7s						
GTA				LR	LR		
	comp=N,68nm,14.4s						
GTA				LR	LR		
	comp=E,119nm,14.8s						
GTA				LR	LR		
	comp=Z,74nm,15.2s						
IMP	Imphal	22.59	117	eP	P	17 31 21.0	+2.2
GOF	Gofitskoye	22.96	299	eP	P	17 31 26.0	+3.9
GOF				pmax	pmax		
	comp=Z,70nm,1.3s,mb4.8						
KIV	Kislovodsk	23.05	296	eP	P	17 31 25.3	+2.5
	comp=Z,37nm,0.6s,mb4.9						
KIV	Kislovodsk	23.05	296	eP	P	17 31 15.9	-6.9
KIV				eS	S	17 35 18.5	-6.2
KIV				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb3.9						
KIV				MLR	MLR		
	comp=Z,22nm,16.0s						
KRAR	Krasnoyarsk	23.61	30	⇑eP	P	17 31 29.2	+1.3
KRAR				pmax	pmax		
	comp=Z,42nm,1.2s,mb4.6						
SOC	Sochi	25.15	295	i P	P	17 31 49.0	+7.0
MOY	Mondy	25.20	46	eP	P	17 31 44.7	+2.4
MOY				pmax	pmax		
	comp=Z,25nm,1.8s,mb4.3						
LZH	Lanzhou	25.70	83	⇓P	P	17 31 50.0	+3.0
LZH				AP	pP	17 32 16.5	+4.7
LZH				XP	sP	17 32 31.4	+6.3
LZH				PP		17 32 35.6	
LZH				AMB	AMB		
	comp=Z,23nm,1.2s,mb4.5						
LZH				AMB	AMB		
	comp=Z,69nm,4.5s						
LZH				LR	LR		
	comp=N,498nm,12.1s						
LZH				LR	LR		
	comp=Z,895nm,15.7s						
LZH	Lanzhou	25.70	83	⇓P	P	17 31 50.0	+3.0
	comp=Z,23nm,1.2s,mb4.5						
LZH				pP	pP	17 32 16.5	+4.7
LZH				sP	sP	17 32 31.4	+6.3
LZH				PP		17 32 35.6	
LZH				LR	LR		
	comp=Z,900nm,15.7s						
LZH	Lanzhou	25.70	83	⇓P	P	17 31 50.0	+3.0
LZH				*PP	pP	17 32 16.5	+4.7
LZH				*SP	sP	17 32 31.4	+6.3
LZH						17 32 35.6	
LZH				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.5						
LZH				MLR	MLR		
	comp=Z,900nm,15.7s						
ZAK	Zakamensk	26.09	50	⇓iP	P	17 31 52.3	+1.9
ZAK				e		17 32 21.9	
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb3.9						
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb3.5						
ANN	Anapa	26.88	297	eP	P	17 31 53.4	-4.1
ANN				e*PP	pP	17 32 22.7	+0.3
ANN				eS	S	17 36 21.8	-3.8
ANN				pmax	pmax		
	comp=Z,80nm,1.7s,mb5.0						
VRSR	Storozhevoye	27.01	312	eP	P	17 31 58.2	-0.4
VRSR				e*PP	pP	17 32 23.1	-0.4
VRSR				e		17 35 18.3	
VRSR				pmax	pmax		
	comp=N,2.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,4.0nm,0.8s						
VRSR				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
CD2	Chengdu	27.14	94	eP	P	17 31 59.8	-0.3
CD2				AP	pP	17 32 25.8	+0.8
CD2				PP	PP	17 32 50.5	-13
CD2				S	S	17 36 27.3	-2.8
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.4						
CD2				AMB	AMB		
	comp=Z,40nm,4.9s						
SONM	Songino Array	27.45	56	P	P	17 32 04.6	+2.0
	comp=Z,4.2nm,0.8s,mb4.0,baz=262,slow=9.2,SNR=46						
ULN	Ulaanbaatar	27.89	56	eP	P	17 32 07.0	+0.5
	comp=Z,4.4nm,0.8s,mb4.0						
ULN	Ulaanbaatar	27.89	56	d iP	P	17 32 08.4	+1.9
KMI	Kunming	28.96	106	P	P	17 32 19.0	+2.7
	comp=Z,2.0nm,1.3s,mb3.6						
KMI				pP	pP	17 32 41.2	-0.1
KMI				S	S	17 36 58.9	+0.2
KMI				LR	LR		
	comp=Z,40nm,29.0s						
KMI	Kunming	28.96	106	P	P	17 32 19.0	+2.7
KMI				*PP	pP	17 32 41.2	-0.1
KMI				S	S	17 36 58.9	+0.2
KMI				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.6						
KMI				MLR	MLR		
	comp=Z,40nm,29.0s						
BRTR	Keskin Array B	29.84	287	P	P	17 32 24.4	+0.5
	comp=Z,2.0nm,0.6s,mb4.0,baz=104,slow=9.3,SNR=12						
OBN	Obninsk	29.85	318	⇑eP	P	17 32 22.8	-1.0
OBN				e	pP	17 32 50.7	+1.8
OBN				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.8						
XAN	Xi’an	30.24	85	P	P	17 32 29.3	+1.8
XAN				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.3						
HHC	Hu-ho-hao-te	30.95	71	eP	P	17 32 33.8	+0.1
HHC				PP	PP	17 33 39.5	-6.1
HHC				PCP	PcP	17 35 28.1	+0.9
HHC				S	S	17 37 28.3	-1.4
HHC				SCP	ScP	17 38 59.8	+0.4
HHC				PCS	PcS	17 39 11.3	0.0
HHC				SS	SS	17 39 19.1	-27
HHC				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.1						
HHC				AMB	AMB		
	comp=Z,106nm,5.0s						
HHC				LR	LR		
	comp=N,85nm,19.0s						
HHC				LR	LR		
	comp=E,107nm,17.8s						
HHC				LR	LR		
	comp=Z,90nm,17.8s						
GYA	Guiyang	31.35	100	P	P	17 32 38.5	+1.2
GYA				AP	pP	17 33 04.8	+2.3
GYA				XP	sP	17 33 19.0	+3.3
GYA				PP	PP	17 33 45.8	-4.4
GYA				PCP	PcP	17 35 30.3	+1.8
GYA				S	S	17 37 34.9	-1.3
GYA				SCP	ScP	17 39 01.0	0.0
GYA				PCS	PcS	17 39 13.3	+0.2
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
GYA				AMB	AMB		
	comp=Z,90nm,4.9s						
GYA				LR	LR		
	comp=N,490nm,16.4s						
GYA				LR	LR		
	comp=E,460nm,17.0s						
GYA				LR	LR		
	comp=Z,430nm,18.2s						
AKASG	Malin Array Be	33.03	308	P	P	17 32 51.0	-0.7
	comp=Z,4.9nm,0.6s,mb4.5,baz=80,slow=7.4,SNR=12						
BOD	Bodaibo	34.44	39	eP	P	17 33 04.1	+0.2
BOD				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.4						
PLOR	Plostina	34.50	299	⇑iP	P	17 33 06.1	+1.5
BJI	Beijing	34.55	71	P	P	17 33 03.8	-1.2
BJI				AMB	AMB		
	comp=Z,3.0nm,0.7s,mb4.2						
MLR	Muntele Rosu	35.01	298	⇑P	P	17 33 11.0	+2.1
MLR	Muntele Rosu	35.01	298	⇑iP	P	17 33 10.9	+2.0
BURAR	Bucovina Array	35.46	302	⇓P	P	17 33 13.2	+0.4
BURAR	Bucovina Array	35.46	302	⇓iP	P	17 33 13.2	+0.4
JOF	Joensuu	35.62	329	epkp	P	17 33 12.9	-1.0
WHN	Wuhan	35.74	88	eP	P	17 33 17.1	+1.8
DRGR		37.19	301	⇑P	P	17 33 28.7	+1.2
DRGR		37.19	301	⇑iP	P	17 33 28.7	+1.2
FINES	FINESS Array B	37.29	325	P	P	17 33 28.0	-0.1
	comp=Z,7.8nm,0.7s,mb4.8,baz=119,slow=9.6,SNR=8.9						
BZS	Buzias	38.04	299	⇓P	P	17 33 35.3	+0.7
BZS	Buzias	38.04	299	⇓iP	P	17 33 35.3	+0.7
NJ2	Nanjing	38.77	83	eP	P	17 33 41.9	+1.0
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
OJC	Ojcow	39.01	306	eP	P	17 33 42.7	0.0
KEV	Kevo	40.42	338	epkp	P	17 33 53.5	-0.7
KEV	Kevo	40.42	338	ePKP	P	17 33 53.5	-0.7
CN2	Changchun	40.75	63	eP	P	17 33 58.3	+1.1
ARCES	ARCESS Array B	40.78	337	P	P	17 33 57.2	+0.2
ARCES	ARCESS Array B	40.78	337	P	P	17 33 57.2	+0.2
	comp=Z,13nm,0.5s,mb5.0,baz=118,slow=9.6,SNR=75						
ARE0	ARCESS Array S	40.78	337	eP	P	17 33 57.0	0.0
KTK1	Kautokeino	41.27	336	eP	P	17 34 01.0	-0.1
KTK1				AMb	AMB	17 34 01.5	
	comp=Z,33nm,0.5s,mb5.4						
KTK1	Kautokeino	41.27	336	eP	P	17 34 01.0	-0.1
	comp=Z,33nm,0.5s,mb5.4,SNR=32						
BRG	Berggiesshubel	42.71	308	i	P	17 34 13.5	+0.4
	comp=Z,7.3nm,0.9s,mb4.4						
GERES	GERESS Array B	43.06	305	P	P	17 34 16.1	+0.2
	comp=Z,0.6nm,0.6s,mb3.5,baz=77,slow=8.0,SNR=8.4						
GERES				PcP	PcP	17 36 03.9	+0.1
	comp=Z,0.9nm,0.7s,baz=93,slow=2.7,SNR=5.8						
YAK	Yakutsk	43.07	36	eP	P	17 34 15.5	-0.2
	comp=Z,26nm,0.7s,mb5.1						
YAK	Yakutsk	43.07	36	d iP	P	17 34 15.8	+0.1
YAK				pmax	pmax		
	comp=Z,14nm,0.5s,mb5.0						
CLL	Collm	43.27	308	i P	P	17 34 17.7	+0.2
CLL				e*PP	pP	17 34 45.0	+1.2
CLL	Collm	43.27	308	i P	P	17 34 17.7	+0.2
CLL				epP	pP	17 34 45.0	+1.2
CLL				ePP	PP	17 36 05.0	+4.9
MOR8	Moi Rana	43.55	330	eP	P	17 34 18.8	-0.8
MOR8				AMb	AMB	17 34 19.4	
	comp=Z,43nm,0.8s,mb5.2						
MOR8	Moi Rana	43.55	330	eP	P	17 34 18.8	-0.8
	comp=Z,43nm,0.8s,mb5.2,SNR=31						
KSRS	Korea Array	44.08	72	P	P	17 34 25.1	+0.9
	comp=Z,1.9nm,0.9s,mb3.8,baz=282,slow=7.3,SNR=5.3						
NB2	NORSAR Subarra	44.23	323	P	P	17 34 24.5	-0.6
	comp=Z,15nm,0.6s,mb4.9,baz=92,slow=7.9						
NB2	NORSAR Subarra	44.23	323	P	P	17 34 24.5	-0.6
	baz=92,slow=7.7,SNR=30						
NOA	NORSAR Array B	44.23	323	P	P	17 34 24.5	-0.6
	comp=Z,14nm,0.6s,mb4.9,baz=94,slow=7.8,SNR=55						
NSS	Namsos	44.27	328	eP	P	17 34 24.1	-1.3
TIXI	Tiksi	44.93	22	eP	P	17 34 30.7	+0.2
	comp=Z,21nm,0.7s,mb5.0						
TIXI	Tiksi	44.93	22	eP	P	17 34 29.6	-0.9
TIXI				pmax	pmax		
	comp=Z,18nm,0.7s,mb4.9						
VLA	Vladivostok	45.48	63	i P	P	17 34 35.8	+0.5
VLA				pmax	pmax		
	comp=Z,30nm,1.5s,mb4.8						
DAVA	Damuels	45.83	303	⇑iP	P	17 34 37.8	-0.2
	comp=Z,9.2nm,0.5s,mb4.7						
HINF	Hinteralfeld	47.74	304	eP	P	17 34 51.9	-0.9
WLF	Walferdange	47.83	307	P	P	17 34 54.1	+0.7
LPG	La Plagne	48.34	301	eP	P	17 34 58.5	+1.1
LPL	La Plagne	48.34	301	eP	P	17 34 58.1	+0.6
	comp=Z,3.8nm,0.3s,mb4.3						
LPL	La Plagne	48.34	301	eP	P	17 34 58.1	+0.6
	comp=Z,1.9nm,0.3s,mb4.4						
LPL	La Plagne	48.34	301	eP	P	17 34 58.1	+0.6
LPL				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.4						
MBDF	Montbardon	48.52	300	eP	P	17 34 59.6	+0.8
	comp=Z,6.4nm,0.5s,mb4.5						
MBDF	Montbardon	48.52	300	eP	P	17 34 59.6	+0.8
	comp=Z,3.2nm,0.5s,mb4.5						
MBDF	Montbardon	48.52	300	eP	P	17 34 59.6	+0.8
MBDF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
CABF	La Chapelle	48.52	303	eP	P	17 34 59.3	+0.5
	comp=Z,8.2nm,0.6s,mb4.5						
CABF	La Chapelle	48.52	303	eP	P	17 34 59.3	+0.5
	comp=Z,4.1nm,0.6s,mb4.5						
CABF	La Chapelle	48.52	303	eP	P	17 34 59.3	+0.5
CABF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
MEZF	Maizieres J’vi	48.77	306	eP	P	17 35 00.5	-0.2
MEZF				epP	pP	17 35 29.4	+1.9
BAIF	Baives	48.98	308	eP	P	17 35 02.6	+0.3
	comp=Z,24nm,1.2s,mb4.7						
BAIF				epP	pP	17 35 31.1	+2.0
BAIF	Baives	48.98	308	eP	P	17 35 02.6	+0.3
	comp=Z,12nm,1.2s,mb4.7						
BAIF				epP	pP	17 35 31.1	+2.0
BAIF	Baives	48.98	308	eP	P	17 35 02.6	+0.3
BAIF				e*PP	pP	17 35 31.1	+2.0
BAIF				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
ORIF	Oris-en-Rattie	49.08	301	eP	P	17 35 03.0	-0.1
ORIF				eMLR	MLR		
	comp=Z,102nm,17.2s						
KEST	Kesra	49.42	288	P	P	17 35 06.4	+0.6
	comp=Z,1.1nm,0.5s,mb4.1,baz=321,slow=1.7,SNR=9.4						
KMBO	Kilima Mbogo	49.73	228	P	P	17 35 09.5	+1.1
KMBO	Kilima Mbogo	49.73	228	P	P	17 35 09.5	+1.1
	comp=Z,1.9nm,0.6s,mb4.2,baz=38,slow=16,SNR=6.9						
LOR	Lormes	49.84	304	eP	P	17 35 08.5	-0.3
LOR				epP	pP	17 35 40.2	+4.5
LOR				eMLR	MLR		
	comp=Z,76nm,18.0s						
LOR	Lormes	49.84	304	eP	P	17 35 08.5	-0.3
LOR				e*PP	pP	17 35 40.2	+4.5
LOR				MLR	MLR		
	comp=Z,80nm,18.0s						
VIVF	Saint-Julien-l	49.92	301	eP	P	17 35 09.4	-0.1
SMF	Signal de Mont	50.01	304	eP	P	17 35 09.0	-1.1
	comp=Z,25nm,1.0s,mb4.8						
SMF	Signal de Mont	50.01	304	eP	P	17 35 09.0	-1.1
	comp=Z,12nm,1.0s,mb4.8						
SMF	Signal de Mont	50.01	304	eP	P	17 35 09.0	-1.1
SMF				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
SSF	Saint Saulge	50.12	304	eP	P	17 35 10.6	-0.4
AVF	Avril sur Loir	50.30	304	eP	P	17 35 11.6	-0.7
	comp=Z,7.1nm,0.6s,mb4.5						
AVF	Avril sur Loir	50.30	304	eP	P	17 35 11.6	-0.7
	comp=Z,3.5nm,0.6s,mb4.5						
AVF	Avril sur Loir	50.30	304	eP	P	17 35 11.6	-0.7
AVF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
TCF	Toulx Ste Croi	51.19	303	eP	P	17 35 19.0	0.0
	comp=Z,32nm,1.2s,mb4.9						
TCF				epP	pP	17 35 47.8	+1.8
TCF	Toulx Ste Croi	51.19	303	eP	P	17 35 19.0	0.0
	comp=Z,16nm,1.2s,mb4.9						
TCF				epP	pP	17 35 47.8	+1.8
TCF	Toulx Ste Croi	51.19	303	eP	P	17 35 19.0	0.0
TCF				e*PP	pP	17 35 47.8	+1.8
TCF				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.9						
LDF	La Druitiere	52.08	307	eP	P	17 35 25.9	+0.3
	comp=Z,7.0nm,0.5s,mb4.6						
LDF	La Druitiere	52.08	307	eP	P	17 35 25.9	+0.3
	comp=Z,3.5nm,0.5s,mb4.7						
LDF	La Druitiere	52.08	307	eP	P	17 35 25.9	+0.3
LDF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
MJAR	Matsushiro Arr	52.13	69	P	P	17 35 27.0	+0.8
	comp=Z,2.6nm,0.9s,mb4.2,baz=294,slow=8.8,SNR=5.6						
GRR	Gorron	52.61	307	eP	P	17 35 28.6	-0.9
MA2	Magadan	53.46	38	eP	P	17 35 36.1	+0.6
MA2				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.3						
SEY	Seymchan	53.52	34	i P	P	17 35 36.4	+0.4
ESDC	Sonseca Array	57.70	298	P	P	17 36 06.1	-0.1
	comp=Z,3.8nm,0.7s,mb4.5,baz=57,slow=7.5,SNR=26						
BILL	Bilibino	57.74	26	d iP	P	17 36 06.9	+0.9
BILL				e		17 38 14.1	
BILL				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
TORD	Torodi Ar. Bea	66.36	269	P	P	17 37 03.0	-1.3
	comp=Z,2.8nm,0.5s,mb4.3,baz=50,slow=6.2,SNR=28						
LSZ	Lusaka	66.36	227	P	P	17 37 03.9	-0.4
	comp=Z,1.9nm,0.4s,mb4.2,baz=35,slow=7.1,SNR=7.1						
RES	Resolute Bay	68.09	356	eP	P	17 37 14.6	+0.2
	comp=Z,55nm,0.7s,mb5.5						
IMA2	Indian Mountai	71.30	18	eP	P	17 37 33.9	-0.3
INK	Inuvik	73.15	10	eP	P	17 37 45.5	+0.3
	comp=Z,181nm,0.5s						
INK				e	pP	17 38 18.0	+4.1
COLA	College	73.67	16	e	P	17 37 48.5	+0.2
COLA	College	73.67	16	c iP	P	17 37 48.8	+0.5
TSUM	Tsumeb	75.81	232	P	P	17 38 00.5	-0.7
	comp=Z,2.8nm,0.9s,mb4.0,baz=30,slow=8.1,SNR=3.6						
PMR	Palmer	76.14	19	eP	P	17 38 01.9	-0.7
	comp=Z,7.2nm,0.9s,mb4.4						
PMR	Palmer	76.14	19	eP	P	17 38 01.9	-0.6
PMR				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
KDAK	Kodiak Island	78.35	22	P	P	17 38 14.8	-0.1
KDAK	Kodiak Island	78.35	22	P	P	17 38 14.8	-0.1
	comp=Z,7.3nm,0.7s,mb4.5,baz=167,slow=20,SNR=6.6						
BOSA	Boshof	78.65	221	P	P	17 38 15.6	-1.3
	comp=Z,1.8nm,0.6s,mb4.1,baz=11,slow=6.4,SNR=4.5						
YKA	Yellowknife Ar	80.56	3	P	P	17 38 27.0	+0.2
	comp=Z,7.3nm,0.6s,mb4.7,baz=349,slow=5.4,SNR=173						
YKA				PP	PP	17 41 31.2	+0.4
	comp=Z,0.5nm,0.7s,baz=350,slow=7.8,SNR=4.4						
NWAO	Narrogin (SRO)	81.61	143	P	P	17 38 31.6	-1.0
	comp=Z,7.1nm,0.7s,mb4.6,baz=348,slow=9.3,SNR=4.2						
SCHQ	Schefferville	81.73	337	P	P	17 38 33.0	-0.1
	comp=Z,5.2nm,1.0s,mb4.3,baz=30,slow=9.0,SNR=6.7						
WRA	Warramunga Arr	81.81	122	P	P	17 38 33.3	-0.7
	comp=Z,0.7nm,0.5s,mb3.7,baz=329,slow=5.1,SNR=3.1						
ULM	Lac du Bonnet	92.29	352	P	P	17 39 24.1	-0.5
	comp=Z,1.2nm,0.4s,mb4.4,baz=336,slow=8.2,SNR=5.2						

IDC 18 17:29:26.2±4.7**,8.58S**×**115.83E,h92**^{km}±52^{km}**,mb3.3**/4**, mb1 3.5**/5**,mb1mx3.3**/18**,mbtmp3.4**/5**,ML3.7**/1**,Error ellipse: s-maj=96.8km s-min=13.4km az=48.0,Bali region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	13.43	136	P	Pn	17 32 32.5	-0.7
	0.3nm,0.3s,baz=324,slow=13,SNR=16						
FITZ				S	Sn	17 34 51.2	-10
	1.2nm,0.3s,baz=200,slow=20,SNR=9.9						
WRA	Warramunga Arr	21.17	124	P	P	17 34 04.9	+0.6
	1.7nm,0.5s,baz=299,slow=11,SNR=39						
WRA				S	S	17 37 55.4	+0.7
	0.3nm,0.6s,baz=307,slow=24,SNR=4.1						
ASAR	Alice Springs	22.90	133	P	P	17 34 22.5	0.0
	1.1nm,0.3s,baz=309,slow=9.0,SNR=48						
SONM	Songino Array	56.79	352	P	P	17 39 02.1	+1.4
	0.6nm,0.6s,baz=172,slow=8.5,SNR=8.7						
MKAR	Makanchi Array	62.70	335	P	P	17 39 39.9	-1.4
	0.2nm,0.4s,baz=152,slow=7.2,SNR=5.0						

ISCJB ***18*** *17:29:39.1±4.3, 20.19S±0.08×172.92E±0.04, h11^{km}±27^{km}, mb4.7/42, MS4.5/27, Error ellipse: s-maj=13.6km s-min=6.8km az=172.8*

BJI ***18*** *17:29:42.8, 19.76S×173.24E, h36^{km}, mB5.1, mb4.6, Ms4.9, Msz4.5*

MOS ***18*** *17:29:43.4±1.2, 19.98S×172.90E, h33^{km}, mb5.1/12, MS4.4/6, Error ellipse: s-maj=14.7km s-min=11.2km az=8.7*

GCMT ***18*** *17:29:44.7±0.2, 20.13S×173.10E, h15^{km}±1^{km}, MW5.2/86, Moment Tensor Solution. s49,c77; s86,c148; Duration: 0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.02±.02; $M_{\theta\theta}$-0.65±.01; $M_{\phi\phi}$0.67±.02; $M_{r\theta}$-0.00±.04; $M_{\theta\phi}$-0.26±.01; $M_{\phi r}$0.28±.04; Best double couple: $M_0$0.76200×10^{17} NP1:ϕ_s303.00000°,δ74.00000°,λ170.00000°. NP2: ϕ_s35.00000°,δ81.00000°,λ16.00000°. Principal axes: T 0.8170, Plg18.0000°, Azm260.0000°; N -0.1090, Plg71.0000°, Azm65.0000°; P -0.7080, Plg5.0000°, Azm168.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***18*** *17:29:44.7±1.0, 20.21S×173.01E, h44^{km}±9^{km}, mb4.9/21 Error ellipse: s-maj=10.4km s-min=6.1km az=168.0*

IDC ***18*** *17:29:45.4±3.3, 20.18S×172.99E, h46^{km}±32^{km}, mb4.4/12, mb1 4.6/15, mb1mx4.5/19, mbtmp4.5/15, ML3.4/3, MS4.4/17, Ms1 4.4/17, ms1mx4.3/20, Error ellipse: s-maj=28.2km s-min=17.0km az=162.0*

SZGRF ***18*** *17:29:46.9, 19.41S×171.86E, h33^{km}, Vanuatu Islands region*

ISC 18 17:29:42.9±3.3**,20.20S**±0.08×**172.95E**±0.04**,h25**^{km}±23^{km}**, h51**^{km}±4.9^{km}**:pP-P,n349,σ0^s.59**/217**,mb4.7**/41**,MS4.5**/27**, 75C-73D,Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	Mont Dzumac	6.36	252	eP	Pn	17 31 14.5	-0.5
DZM	Mont Dzumac	6.36	252	eP	Pn	17 31 14.5	-0.5
DZM				P		17 31 18.0	
DZM	Mont Dzumac	6.36	252	P	Pn	17 31 18.0	+3.0
	4.8nm,0.3s,baz=81,slow=19,SNR=41						
NOUC	Port Laguerre	6.49	252	eP	Pn	17 31 17.3	+0.4
AFI	Afiamalu	15.88	69	eP	Pn	17 33 23.7	-1.1
	60nm,1.0s						
AFI	Afiamalu	15.88	69	eP	Pn	17 33 23.7	-1.1
AFI				pmax	pmax		
	comp=Z,60nm,1.0s						
AFI	Afiamalu	15.88	69	P	Pn	17 33 23.8	-1.0
	comp=Z,0.3nm,0.3s,baz=230,slow=12,SNR=4.6						
AFI				LR	LR	17 38 34.3	
	comp=Z,537nm,19.5s,baz=248,slow=33						

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HNR   Honiara          16.50 309  eP     Pn     17 33 37.5 +4.7
      comp=Z,141nm,1.2s
HNR   Honiara          16.50 309  eP     Pn     17 33 37.5 +4.7
HNR                                pmax  pmax
      comp=Z,141nm,1.2s
URZ   Urewera          18.36 170   P     Pn     17 33 56.4 +0.7
      comp=Z,0.5nm,0.3s,baz=3.2,slow=7.7,SNR=15
EIDS  Eidsvold         20.80 252  eP     P      17 34 23.7 +1.2
SNZO  South Karori     21.10 176  eP     P      17 34 24.9  -0.6
      comp=Z,72nm,1.1s,mb4.9
RPZ   Rata Peaks       23.50 183   P     P      17 34 55.7 +4.8
      comp=Z,6.8nm,0.7s,mb4.2,baz=2.1,slow=13,SNR=4.0
CTA   Charters Tower   25.06 266  eP     P      17 35 06.5 +1.0
      comp=Z,16nm,0.8s,mb4.6
CTA   Charters Tower   25.06 266  eP     P      17 35 06.5 +1.0
CTA                                pmax  pmax
      comp=Z,16nm,0.8s
CTA   Charters Tower   25.06 266   P     P      17 35 06.6 +1.1
      comp=Z,16nm,0.7s,mb4.7,baz=88,slow=12,SNR=21
CTA                                LR    LR     17 43 51.3
      comp=Z,2µm,21.8s,MS4.5,baz=84,slow=34
CTAO  Charters Tower   25.06 266  eP     P      17 35 06.5 +1.0
      comp=Z,85nm,1.4s,mb5.1
CTAO  Charters Tower   25.06 266  eP     P      17 35 06.5 +1.0
CTAO                               pmax  pmax
      comp=Z,85nm,1.4s,mb5.1
RAR   Rarotonga        25.52  97   LR    LR     17 42 39.1
      comp=Z,979nm,21.8s,MS4.3,baz=242,slow=30
PMG   Port Moresby     27.11 290  eP     P      17 35 24.0  0.0
      comp=Z,33nm,1.3s,mb4.7
PMG   Port Moresby     27.11 290c iP     P      17 35 24.4 +0.4
PMG   Port Moresby     27.11 290   P     P      17 35 24.8 +0.8
      comp=Z,30nm,1.1s,mb4.7,baz=115,slow=7.2,SNR=6.6
PMG                                LR    LR     17 43 34.4
      comp=Z,1µm,19.5s,MS4.5,baz=280,slow=31
COEN  Coen             29.11 278  eP     P      17 35 42.4 +0.6
STKA  Stephens Creek   30.38 241⇓iP     P      17 35 53.6 +0.6
      comp=Z,8.9nm,1.6s,mb4.2
STKA  Stephens Creek   30.38 241   P     P      17 35 53.8 +0.8
      comp=Z,6.1nm,0.7s,mb4.4,baz=72,slow=8.1,SNR=9.3
STKA                               LR    LR     17 47 11.0
      comp=Z,2µm,20.2s,MS4.6,baz=67,slow=34
PPT   Papeete          35.50  92  eLQ           17 44 19.8
      comp=Z,1µm,23.5s
PPT                               eLR    LR     17 45 47.6
      comp=Z,2µm,26.5s
PPT   Papeete          35.50  92   LR    LR     17 47 16.6
      comp=Z,796nm,19.0s,MS4.5,baz=200,slow=30
WB2   Warramunga Arr   36.20 264  eP     P      17 36 42.2  -1.7
WRA   Warramunga Arr   36.22 264   P     P      17 36 43.0  -1.0
      comp=Z,6.6nm,0.8s,mb4.6,baz=95,slow=8.6,SNR=31
WRA                                LR    LR     17 50 46.1
      comp=Z,995nm,20.3s,MS4.6,baz=95,slow=35
ASAR  Alice Springs    36.31 257   P     P      17 36 44.4  -0.5
      comp=Z,18nm,0.7s,mb5.1,baz=90,slow=9.2,SNR=152
KAKA  Kakadu           39.48 274  eP     P      17 37 10.7  -0.9
      comp=Z,7.1nm,0.5s,mb4.7
FORT  Forrest          41.63 246  eP     P      17 37 29.0  -0.3
      comp=Z,25nm,0.8s,mb4.9
GUMO  Guam             43.48 318   LR    LR     17 52 31.8
      comp=Z,352nm,21.5s,MS4.2,baz=136,slow=31
FITZ  Fitzroy Crossi   44.63 264⇑iP     P      17 37 53.6  -0.1
      comp=Z,41nm,1.4s,mb5.1
FITZ  Fitzroy Crossi   44.63 264   P     P      17 37 54.1 +0.4
      comp=Z,17nm,0.9s,mb4.9,baz=110,slow=9.2,SNR=17
FITZ                               LR    LR     17 55 59.6
      comp=Z,599nm,20.5s,MS4.5,baz=98,slow=35
RKT   Rikitea          48.28 103  eS     S      17 45 06.5   -14
      comp=Z,237nm,27.5s
RKT                               eLQ           17 49 29.9
      comp=Z,491nm,28.2s
RKT                               eLR    LR     17 51 46.2
      comp=Z,875nm,29.8s
MBWA  Marble Bar       49.61 259  eP     P      17 38 32.2  -0.3
      comp=Z,35nm,1.2s,mb5.3
KLBR  Kellerberrin     50.48 245  eP     P      17 38 38.1  -0.9
      comp=Z,24nm,0.5s,mb5.5
NWAO  Narrogin (SRO)   50.91 244   P     P      17 38 42.0  -0.1
      comp=Z,17nm,0.6s,mb5.1,baz=99,slow=6.0,SNR=18
NWAO                               LR    LR     17 58 23.1
      comp=Z,1µm,22.0s,MS4.9,baz=97,slow=34
KSM   Kuching          65.00 282  eP     P      17 40 20.5  -0.8
MJAR  Matsushiro Arr   65.29 330   P     P      17 40 21.9  -0.7
      comp=Z,4.9nm,0.9s,mb4.5,baz=164,slow=7.2,SNR=7.8
MJAR                               LR    LR     18 04 24.1
      comp=Z,242nm,19.7s,MS4.4,baz=145,slow=32
MAT   Matsushiro       65.29 330   P     P      17 40 22.3  -0.4
KSRS  Korea Array      71.31 324   LR    LR     18 09 41.5
      comp=Z,109nm,18.3s,MS4.2,baz=327,slow=34
YSS   Yuzh-Sakhalins   72.18 339  eP     P      17 41 06.0 +0.6
YSS                                pmax  pmax
      comp=Z,20nm,1.0s,mb5.0
QIZ   Qiongzhong       73.11 298   P     P      17 41 11.8 +0.3
QIZ                                AP    pP     17 41 26.8 +7.2
QIZ                                XP    sP     17 41 32.6  +10
QIZ                                S     S      17 50 41.6 +3.7
QIZ                                AMB   AMB
      comp=Z,11nm,1.9s,mb4.5
QIZ                                AMB   AMB
      comp=Z,42nm,3.1s
QIZ                                LR    LR
      comp=N,186nm,11.0s
QIZ                                LR    LR
      comp=Z,179nm,24.0s
NJ2   Nanjing          73.36 314  eP     P      17 41 13.1 +0.4
NJ2                                AMB   AMB
      comp=Z,10.0nm,1.1s,mb4.7
WHN   Wuhan            75.61 311   P     P      17 41 26.3 +0.5
MDJ   Mudanjiang       75.67 330   P     P      17 41 27.0 +1.1
MDJ                                AP    pP     17 41 41.3 +7.3
MDJ                                PP    PP     17 44 17.5 +1.4
MDJ                                S     S      17 51 06.3 +0.6
MDJ                                SCS   ScS    17 51 36.6  -1.4
MDJ                                AMB   AMB
      comp=Z,5.0nm,1.3s,mb4.3
MDJ                                AMB   AMB
      comp=Z,51nm,5.5s
MDJ                                LR    LR
      comp=N,210nm,35.2s,MS4.3
MDJ                                LR    LR
      comp=E,216nm,35.2s,MS4.3
MDJ                                LR    LR
      comp=Z,159nm,37.3s,MS4.0
MAW   Mawson           78.85 202   LR    LR     18 11 37.3
      comp=Z,175nm,19.7s,MS4.4,baz=265,slow=32
GYA   Guiyang          79.25 303   P     P      17 41 48.0 +1.6
GYA                                PCP   PcP    17 41 56.0 +1.4
GYA                                PP    PP     17 44 50.9 +4.4
GYA                                PPP          17 46 41.8
GYA                                S     S      17 51 43.9  -1.4
GYA                                SKS          17 51 54.8
GYA                                SCS   ScS    17 52 03.6  -4.3
GYA                                PS           17 52 36.3
GYA                                SS    SS     17 56 55.4 +2.7
GYA                                AMB   AMB
      comp=Z,20nm,1.0s,mb5.0
GYA                                AMB   AMB
      comp=Z,120nm,5.8s
GYA                                LR    LR
      comp=N,420nm,19.8s,MS5.0
GYA                                LR    LR
      comp=E,590nm,20.4s,MS5.0
GYA                                LR    LR
      comp=Z,430nm,20.6s,MS4.8
BJT   Baijiatuau       79.91 319  eP     P      17 41 48.1  -1.4
      comp=Z,6.0nm,0.8s,mb4.6
BJT   Baijiatuau       79.91 319  eP     P      17 41 48.2  -1.4
BJT                                pmax  pmax
      comp=Z,6.0nm,0.8s
BJI   Beijing          79.91 319   P     P      17 41 49.5  -0.1
BJI                                S     S      17 51 49.1  -2.6
BJI                                AMB   AMB
      comp=Z,7.0nm,1.5s,mb4.4
BJI                                LR    LR
      comp=N,131nm,19.4s,MS4.5
BJI                                LR    LR
      comp=E,175nm,21.5s,MS4.5
BJI                                LR    LR
      comp=Z,191nm,38.2s
XAN   Xi'an            81.36 311   P     P      17 41 56.8  -0.7
XAN                                AP    pP     17 42 04.6  -1.1
XAN                                AMB   AMB
      comp=Z,9.0nm,1.6s,mb4.5
MA2   Magadan          81.53 349  i P    P      17 41 56.4  -1.4
MA2                                pmax  pmax
      comp=Z,10.0nm,1.4s,mb4.5
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MA2                                MLR   MLR
      comp=Z,200nm,16.0s,MS4.6
KMI   Kunming          81.76 300   P     P      17 42 00.8 +0.9
KMI                                AP    pP     17 42 16.9 +8.9
KMI                                PP    PP     17 45 11.6 +4.3
KMI                                PPP          17 47 04.8
KMI                                S     S      17 52 10.1  -1.5
KMI                                SS    SS     17 57 32.8 +2.6
KMI                                SSS          18 00 56.8
KMI                                AMB   AMB
      comp=Z,8.0nm,1.5s,mb4.4
KMI                                AMB   AMB
      comp=Z,51nm,3.1s
KMI                                LR    LR
      comp=N,99nm,16.9s,MS4.5
KMI                                LR    LR
      comp=E,129nm,17.2s,MS4.5
KMI                                LR    LR
      comp=Z,130nm,25.9s
KMI   Kunming          81.76 300   P     P      17 42 00.7 +0.8
      comp=Z,8.0nm,1.5s,mb4.4
KMI                                pP    pP     17 42 16.9 +8.9
KMI                                sP    sP     17 42 23.4  +12
KMI                                PP    PP     17 45 11.6 +4.3
KMI                                PPP          17 47 04.7
KMI                                S     S      17 52 10.1  -1.5
KMI                                sS    sS     17 52 37.4  +12
KMI                                SS    SS     17 57 32.7 +2.5
KMI                                SSS          18 00 56.8
KMI                                LR    LR
      comp=Z,130nm,25.9s,MS4.2
KMI   Kunming          81.76 300   P     P      17 42 00.7 +0.8
KMI                                *PP   pP     17 42 16.9 +8.9
KMI                                             17 45 11.6
KMI                                PPP          17 47 04.7
KMI                                S     S      17 52 10.1  -1.5
KMI                                SS    SS     17 57 32.7 +2.5
KMI                                SSS          18 00 56.8
KMI                                pmax  pmax
      comp=Z,8.0nm,1.5s,mb4.4
KMI                                MLR   MLR
      comp=Z,130nm,25.9s,MS4.2
CHTO  Chiang Mai       82.24 293  eP     P      17 42 01.8  -0.7
      comp=Z,8.3nm,0.9s,mb4.7
CHTO  Chiang Mai       82.24 293  eP     P      17 42 01.8  -0.7
CHTO                               pmax  pmax
      comp=Z,8.0nm,0.9s,mb4.7
HHC   Hu-ho-hao-te     83.25 318  eP     P      17 42 07.5 +0.3
HHC                                PP    PP     17 45 22.8 +3.6
HHC                                SKS          17 52 20.8
HHC                                S     S      17 52 23.8  -2.4
HHC                                PS           17 53 25.0
HHC                                SS    SS     17 57 54.4 +2.6
HHC                                AMB   AMB
      comp=Z,6.0nm,0.9s,mb4.6
HHC                                AMB   AMB
      comp=Z,143nm,5.1s
HHC                                LR    LR
      comp=N,140nm,30.9s,MS4.4
HHC                                LR    LR
      comp=E,224nm,29.7s,MS4.4
HHC                                LR    LR
      comp=Z,299nm,29.7s,MS4.5
CD2   Chengdu          83.61 306  eP     P      17 42 09.5 +0.1
CD2                                PP    PP     17 45 25.8 +3.4
CD2                                S     S      17 52 27.4  -2.9
CD2                                SS    SS     17 57 59.3 +1.8
CD2                                AMB   AMB
      comp=Z,20nm,0.8s,mb5.3
CD2                                AMB   AMB
      comp=Z,30nm,4.8s
CD2                                LR    LR
      comp=N,250nm,21.0s,MS4.7
CD2                                LR    LR
      comp=E,180nm,16.5s,MS4.7
CD2                                LR    LR
      comp=Z,210nm,18.4s,MS4.5
SEY   Seymchan         84.43 351⇑eP     P      17 42 12.8 +0.1
SYO   Syowa Base       84.96 195⇑ePcP   PcP    17 42 18.2  -0.7
VES   Vestal, Richgr   85.05  49 ⇓P     P      17 42 15.4  -1.2
      baz=85
T06C  Millerton Lake   85.18  48 ⇓P     P      17 42 16.6  -0.5
      baz=85
CMB   Columbia Colle   85.22  47  eP     P      17 42 16.3  -1.0
      comp=Z,5.2nm,1.0s,mb4.6
CMB   Columbia Colle   85.22  47  eP     P      17 42 16.3  -1.1
CMB                                pmax  pmax
      comp=Z,5.0nm,1.0s,mb4.6
CMB   Columbia Colle   85.22  47 ⇑P     P      17 42 16.6  -0.8
      baz=85
ORV   Oroville         85.24  45 ⇑P     P      17 42 17.3  -0.1
      baz=86
M02C  Callahan         85.32  43 ⇑P     P      17 42 18.0 +0.3
      baz=86
MURC  Murrieta         85.35  52 ⇑P     P      17 42 17.9  -0.2
      baz=86
EDW2  Edwards Air Fo   85.37  50   P     P      17 42 18.3 +0.1
      baz=86,SNR=5.0
ISA   Isabella         85.40  50   P     P      17 42 19.1 +0.8
      baz=86,SNR=9.1
HELL  Mitchell Peak,   85.50  48 ⇑P     P      17 42 18.5  -0.3
      baz=86
YBH   Yreka Blue Hor   85.59  43 ⇓P     P      17 42 19.1   0.0
      baz=86
KCC   Kaiser Creek     85.61  48 ⇑P     P      17 42 19.3   0.0
      baz=86
P05C  Yuba Gap, Truc   85.71  45 ⇓P     P      17 42 20.2 +0.4
      baz=86
M03C  McCloud          85.73  43 ⇓P     P      17 42 20.3 +0.5
      baz=86
R05C  Kirkwood Meado   85.77  46 ⇓P     P      17 42 20.2 +0.1
      baz=86
LRMC  Laurel Mountai   85.87  50 ⇓P     P      17 42 20.3  -0.4
      baz=86
HUMO  Hull Mountain    85.90  42 ⇑P     P      17 42 20.1  -0.5
      baz=86
O04C  Chester          85.91  44 ⇑P     P      17 42 21.2 +0.5
      baz=86
HATC  Hat Creek Radi   85.92  44 ⇓P     P      17 42 20.1  -0.6
      baz=86
LZH   Lanzhou          85.98 311 ⇓P     P      17 42 22.5 +1.3
LZH                                PP    PP     17 45 45.6 +3.9
LZH                                SKS          17 52 40.6
LZH                               eS     S      17 52 51.4  -2.3
LZH                                PS           17 53 59.8
LZH                                AMB   AMB
      comp=Z,41nm,1.5s,mb5.4
LZH                                AMB   AMB
      comp=Z,113nm,8.3s
LZH                                LR    LR
      comp=E,375nm,16.5s
LZH                                LR    LR
      comp=Z,498nm,19.2s,MS4.9
LZH   Lanzhou          85.98 311 ⇓P     P      17 42 22.5 +1.3
      comp=Z,41nm,1.5s,mb5.4
LZH                                pP    pP     17 42 39.6  +10
LZH                                sP    sP     17 42 46.2  +14
LZH                                PP    PP     17 45 45.6 +3.9
LZH                                SKS          17 52 40.6
LZH                               eS     S      17 52 51.4  -2.3
LZH                                sS    sS     17 53 20.5  +13
LZH                                PS           17 53 59.7
LZH                               eSS    SS     17 58 44.8  +12
LZH                                LR    LR
      comp=Z,500nm,19.2s,MS4.9
LZH   Lanzhou          85.98 311 ⇓P     P      17 42 22.5 +1.3
LZH                                *PP   pP     17 42 39.6  +10
LZH                                             17 45 45.6
LZH                                             17 52 40.6
LZH                               eS     S      17 52 51.4  -2.3
LZH                                PS           17 53 59.7
LZH                                pmax  pmax
      comp=Z,41nm,1.5s,mb5.4
LZH                                MLR   MLR
      comp=Z,500nm,19.2s,MS4.9
BEKR  Beckwourth       86.16  45 ⇑P     P      17 42 21.8  -0.1
      baz=86
R07C  Lee Vining       86.17  47 ⇓P     P      17 42 22.1   0.0
      baz=86
M04C  Macdoel          86.17  43 ⇓P     P      17 42 21.4  -0.6
      baz=86
WCN   Washoe City      86.28  46 ⇑P     P      17 42 23.3 +0.7
      baz=86
MPMC  Manual Prospec   86.29  50   P     P      17 42 22.9 +0.2
      baz=86,SNR=5.1
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M05C  Lookout          86.40  44 ⇑P     P      17 42 23.3 +0.2
      baz=87
BELC  Belle Mtn.       86.42  52 ⇑P     P      17 42 23.2  -0.2
      baz=87
GSC   Goldstone        86.43  50 ⇓P     P      17 42 23.8 +0.4
      baz=87
I03A  Eugene           86.43  40 ⇑P     P      17 42 23.3 +0.1
      baz=87
S08C  White Mtn Res    86.49  48 ⇑P     P      17 42 23.9 +0.3
      baz=87
HEC   Hector,Ludlow    86.56  51 ⇓P     P      17 42 24.4 +0.4
      baz=87
O06A  Flanigan         86.66  45 ⇑P     P      17 42 24.8 +0.4
      baz=87
BC3   Big Chuckw Mtn   86.67  52 ⇓P     P      17 42 25.0 +0.3
      baz=87
M06C  Likely Place G   86.76  44 ⇑P     P      17 42 25.0 +0.2
      baz=87
NVAR  Mina Array Bea   86.85  47   P     P      17 42 25.4   0.0
      comp=Z,2.4nm,1.0s,mb4.4,baz=218,slow=6.6,SNR=11
I04A  Tendick Farm,    86.86  41 ⇓P     P      17 42 26.2 +0.9
      baz=87
GLA   Glamis           86.87  53 ⇓P     P      17 42 25.9 +0.3
      baz=87
N06A  Buffalo Meadow   86.95  45 ⇑P     P      17 42 26.0 +0.1
      baz=87
L05A  Lakeview         86.95  43 ⇑P     P      17 42 26.0 +0.2
      baz=87
GMRC  Granite Mounta   87.03  51 ⇓P     P      17 42 25.9  -0.5
      baz=87
IRM   Iron Mountain    87.12  52 ⇑P     P      17 42 26.3  -0.5
      baz=87
TUQ   Turquoise Mtn.   87.13  51 ⇓P     P      17 42 26.9 +0.1
      baz=87
MOD   Modoc            87.22  43 ⇑P     P      17 42 27.3 +0.2
      baz=87
K05A  Summer Lake      87.26  42 ⇑P     P      17 42 27.5 +0.2
      baz=88
S09A  Goldfield        87.26  48 ⇑P     P      17 42 27.6 +0.2
      baz=87
O07A  Toulon           87.30  45 ⇑P     P      17 42 27.6 +0.1
      baz=88
Q08A  Gabbs            87.31  47 ⇑P     P      17 42 27.6   0.0
      baz=88
J05A  Fort Rock        87.33  42 ⇓P     P      17 42 28.1 +0.5
      baz=88
R09A  Tonopah          87.61  48 ⇑P     P      17 42 28.7  -0.3
      baz=88
V11A  Goodsprings      87.67  51 ⇓P     P      17 42 28.7  -0.8
      baz=88
M07A  Soldier Meadow   87.70  44 ⇑P     P      17 42 29.8 +0.4
      baz=88
K06A  Valley Falls     87.70  43 ⇑P     P      17 42 29.0  -0.4
      baz=88
S10A  Tonopah Range,   87.79  48   P     P      17 42 30.3 +0.3
      baz=88,SNR=7.9
L07A  Adell            87.90  44 ⇓P     P      17 42 30.5 +0.1
      baz=88
PDMCI Parker Dam,Lak   87.94  52 ⇓P     P      17 42 30.4  -0.3
      baz=88
Y13A  Salome           87.95  53 ⇓P     P      17 42 30.2  -0.6
      baz=88
F04A  Amboy            87.99  39 ⇓P     P      17 42 30.5  -0.2
      baz=88
J06A  Christmas Vall   87.99  42 ⇑P     P      17 42 30.4  -0.4
      baz=88
V12A  Nelson           88.04  51 ⇓P     P      17 42 30.7  -0.5
      baz=88
BILL  Bilibino         88.11 357  i P    P      17 42 30.5  -0.3
BILL                              e             17 42 44.0
BILL                               pmax  pmax
      comp=Z,12nm,1.9s,mb4.8
R10A  Warm Springs     88.17  48 ⇓P     P      17 42 31.1  -0.7
      baz=88
M08A  Happy Creek Ra   88.25  44 ⇑P     P      17 42 31.8  -0.2
      baz=88
K07A  Rock Creek Ran   88.29  43 ⇓P     P      17 42 32.1  -0.1
      baz=88
X13A  Yucca            88.29  52 ⇓P     P      17 42 32.1  -0.3
      baz=88
I06A  Prineville       88.31  42 ⇑P     P      17 42 31.9  -0.3
      baz=88
Q10A  Clear Creek Ra   88.35  48 ⇓P     P      17 42 32.8 +0.2
      baz=88
Z14A  Wintersburg      88.42  54 ⇑P     P      17 42 33.3 +0.2
      baz=89
CIT   Chita            88.53 328  eP     P      17 42 32.7  -0.4
H06A  Lindquist Farm   88.63  41 ⇓P     P      17 42 34.3 +0.5
      baz=89
L08A  Fields           88.63  44 ⇓P     P      17 42 33.6  -0.2
      baz=89
115A  Sonoran Desert   88.69  54 ⇑P     P      17 42 34.2  -0.1
      baz=89
VNA3  Neumayer Olymp   88.78 179  ePdiff P      17 42 33.3  -0.9
VNA3                              e             17 42 47.6
K08A  Mann Creek Ran   88.80  43 ⇓P     P      17 42 34.7 +0.1
      baz=89
I07A  Izee             88.82  42 ⇓P     P      17 42 34.3  -0.4
      baz=89
YAK   Yakutsk          88.87 341  i P    P      17 42 33.7  -0.7
YAK                                pmax  pmax
      comp=Z,13nm,1.5s,mb5.0
Q11A  Duckwater        88.87  48 ⇓P     P      17 42 35.0  -0.1
      baz=89
F06A  Goldendale       88.88  40 ⇓P     P      17 42 36.1 +1.2
      baz=89
D05A  Enumclaw         88.90  38 ⇓P     P      17 42 35.3 +0.4
      baz=89
X14A  Yava             88.94  53 ⇑P     P      17 42 36.0 +0.5
      baz=89
O10A  Cortez Mining,   88.96  46 ⇓P     P      17 42 36.5 +1.1
      baz=89
H07A  Lands Inn, Kim   89.03  41 ⇓P     P      17 42 36.2 +0.5
      baz=89
J08A  Circle Bar Ran   89.11  43 ⇑P     P      17 42 37.1 +1.0
      baz=89
W14A  Seligman         89.11  52 ⇑P     P      17 42 37.1 +0.8
      baz=89
VNA2  Neumayer--Watz   89.12 180  ePdiff P      17 42 36.2 +0.5
VNA2                              e             17 42 50.6
K09A  Rome             89.28  44   P     P      17 42 37.2 +0.3
      baz=90,SNR=7.5
T13A  Saint George     89.30  50 ⇓P     P      17 42 38.0 +0.9
      baz=90
A04A  Legoe Bay, Lum   89.30  37 ⇓P     P      17 42 37.2 +0.4
      baz=90
G07A  Ruggs Ranch, H   89.30  41 ⇓P     P      17 42 36.9   0.0
      baz=90
I08A  Drewsey          89.32  42 ⇓P     P      17 42 37.8 +0.8
      baz=90
R12A  Pony Springs,    89.37  49   P     P      17 42 38.0 +0.6
      baz=90,SNR=7.1
X15A  Humboldt         89.44  53 ⇑P     P      17 42 37.7  -0.1
      baz=90
O11A  Cowboy Ranch,    89.46  47   P     P      17 42 38.3 +0.5
      baz=90,SNR=6.8
M10A  I.L. Ranch, Tu   89.50  45   P     P      17 42 39.1 +1.2
      baz=90,SNR=7.8
Q12A  Willow Creek R   89.53  48 ⇓P     P      17 42 38.6 +0.5
      baz=90
H08A  Prairie City     89.55  42 ⇑P     P      17 42 38.0  -0.1
      baz=90
J09A  Fry Pan Ranch,   89.57  43   P     P      17 42 39.0 +0.9
      baz=90,SNR=9.9
P12A  McGill           89.67  47 ⇓P     P      17 42 38.1  -0.7
      baz=90
ULN   Ulaanbaatar      89.74 322  eP     P      17 42 38.6  -0.3
      comp=Z,14nm,1.7s,mb5.0
ULN   Ulaanbaatar      89.74 322  i P    P      17 42 38.7  -0.2
G08A  Pilot Rock       89.75  41   P     P      17 42 39.7 +0.7
      baz=90,SNR=7.5
L10A  Juniper Basin    89.80  45   P     P      17 42 39.5 +0.2
      baz=90,SNR=8.3
E07A  Sunnyside        89.84  40 ⇑P     P      17 42 39.4   0.0
      baz=90
K10A  MacKenzie Ranc   89.87  44 ⇑P     P      17 42 39.7 +0.1
      baz=90
T14A  Hurricane        89.91  50 ⇑P     P      17 42 40.0 +0.1
      baz=90
M11A  Holland Ranch,   89.96  45 ⇓P     P      17 42 40.7 +0.6
      baz=90
SONM  Songino Array    90.11 322   P     P      17 42 41.0 +0.4
      comp=Z,1.6nm,0.9s,mb4.3,baz=138,slow=4.5,SNR=9.0
SONM                               LR    LR     18 19 29.0
      comp=Z,92nm,21.1s,MS4.2,baz=1.2,slow=33
S14A  Cedar City       90.15  50 ⇓P     P      17 42 40.8  -0.2
      baz=90
A06A  Chilliwack       90.19  37 ⇑P     P      17 42 41.1 +0.1
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	baz=90						
N12A	Clover Valley,	90.20	46	P	P	17 42 41.2	0.0
	baz=90,SNR=6.2						
J10A	Berg Farm, Mel	90.24	43	⇓P	P	17 42 41.4	+0.1
	baz=90						
H09A	Durkee	90.25	42	⇓P	P	17 42 41.3	-0.1
	baz=90						
C07A	Waterville	90.28	38	⇑P	P	17 42 41.2	-0.2
	baz=90						
L11A	Cat Creek Ranc	90.32	45	P	P	17 42 40.5	-1.2
	baz=90,SNR=6.2						
GTA	Gaotai	90.34	312	*e*P	P	17 42 41.8	-0.1
GTA				PP	PP	17 46 21.9	+5.3
GTA				PPP		17 48 22.4	
GTA				SKS		17 53 06.8	
GTA				S	S	17 53 32.5	-2.4
GTA				PS	PS	17 54 53.5	+8.6
GTA				AMB	AMB		
	comp=Z,10.0nm,1.4s,mb5.0						
GTA				AMB	AMB		
	comp=Z,162nm,5.3s						
GTA				LR	LR		
	comp=N,59nm,16.0s,MS4.3						
GTA				LR	LR		
	comp=E,79nm,16.7s,MS4.3						
GTA				LR	LR		
	comp=Z,125nm,17.1s,MS4.4						
K11A	Parker Ranch,	90.41	44	⇓P	P	17 42 41.6	-0.5
	baz=91						
G09A	Cove	90.47	41	⇓P	P	17 42 42.3	-0.1
	baz=91						
WUAZ	Wupatki	90.51	52	*e*P	P	17 42 42.9	+0.1
	comp=Z,9.7nm,1.0s,mb5.1						
WUAZ	Wupatki	90.51	52	⇑P	P	17 42 43.0	+0.2
	baz=91						
M12A	Wells	90.54	46	P	P	17 42 43.7	+0.9
	baz=91,SNR=5.6						
B07A	Winthrop	90.64	38	⇑P	P	17 42 43.1	+0.1
	baz=91						
D08A	Wollman Farm,	90.64	39	⇑P	P	17 42 42.2	-0.9
	baz=91						
N13A	Wendover, West	90.77	46	⇓P	P	17 42 43.8	-0.1
	baz=91						
A07A	Ashnola River,	90.78	37	⇓P	P	17 42 43.0	-0.8
	baz=91						
H10A	Noah's Angus R	90.80	42	P	P	17 42 44.1	+0.2
	baz=91,SNR=6.0						
L12A	House Creek Ra	90.80	45	⇑P	P	17 42 44.0	0.0
	baz=91						
MFID	Camas Ranch	90.84	44	⇓P	P	17 42 44.2	+0.1
	baz=91						
I11A	Placerville	90.98	43	P	P	17 42 44.7	-0.1
	baz=91,SNR=5.2						
M13A	Montello	91.02	46	P	P	17 42 45.2	+0.2
	baz=91,SNR=11						
B08A	Colville Reser	91.04	38	⇑P	P	17 42 44.4	-0.5
	baz=91						
K12A	Draper Farm, C	91.09	45	⇑P	P	17 42 45.6	+0.3
	baz=91						
MSU	Marysvale	91.17	49	*e*P	P	17 42 46.3	+0.5
J12A	Stokes Ranch,	91.24	44	P	P	17 42 46.4	+0.4
	baz=91,SNR=6.5						
H11A	Donnelly	91.31	42	P	P	17 42 46.0	-0.2
	baz=92,SNR=7.2						
A08A	Turner Farm, O	91.37	38	⇑P	P	17 42 46.5	+0.1
	baz=92						
DUG	Dugway	91.44	48	⇓P	P	17 42 46.9	-0.1
	baz=92						
G11A	Walters Elk Ra	91.47	42	⇑P	P	17 42 47.2	+0.2
	baz=92						
L13A	Double Diamond	91.49	45	⇑P	P	17 42 47.7	+0.6
	baz=92						
M14A	Sheep Mountain	91.64	46	P	P	17 42 48.2	+0.4
	baz=92,SNR=7.9						
K13A	Stover Farm, H	91.64	45	⇑P	P	17 42 48.7	+0.9
	baz=92						
A09A	Danville	91.77	38	⇑P	P	17 42 47.8	-0.5
	baz=92						
HLID	Hailey	91.83	44	⇓P	P	17 42 48.2	-0.5
	baz=92						
J13A	Cove Ranch, Pi	91.91	44	⇓P	P	17 42 49.1	0.0
	baz=92						
H12A	Diamond D Ranc	91.98	43	⇑P	P	17 42 48.6	-0.8
	baz=92						
D11A	Klaveano Farm,	92.19	40	⇑P	P	17 42 49.4	-0.9
	baz=92						
K14A	Jones Ranch, D	92.20	45	⇓P	P	17 42 49.6	-0.9
	baz=92						
M15A	Larsen Ranch,	92.23	46	⇑P	P	17 42 50.3	-0.4
	baz=92						
F12A	Elk City	92.27	42	⇓P	P	17 42 50.8	+0.1
	baz=92						
SRU	San Rafael	92.60	49	*e*P	P	17 42 52.4	0.0
	comp=Z,5.3nm,0.8s,mb5.0						
SRU	San Rafael	92.60	49	*e*P	P	17 42 52.4	0.0
SRU				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb5.0						
G13A	Cobalt	92.62	43	⇑P	P	17 42 52.1	-0.2
	baz=93						
F13A	Darby	92.86	42	⇓P	P	17 42 53.0	-0.5
	baz=93						
A11A	Hall Mountain,	93.06	39	⇑P	P	17 42 54.5	+0.3
	baz=93						
ZAK	Zakamensk	93.14	323	*e*P	P	17 42 53.4	-1.2
ZAK				pmax	pmax		
	comp=Z,2.0nm,2.0s,mb4.2						
MNTX	Cornudas Mount	93.63	58	*e*P	P	17 42 56.4	-1.0
	comp=Z,2.2nm,0.8s,mb4.6						
ANMO	Albuquerque	93.99	54	*i* P	P	17 42 57.9	-1.0
TXAR	Lajitas Array	94.17	60	P	P	17 43 00.1	+0.2
	comp=Z,1.6nm,0.8s,mb4.5,baz=225,slow=5.2,SNR=14						
TXAR				LR	LR	18 17 52.6	
	comp=Z,508nm,18.2s,MS5.0,baz=190,slow=31						
PDAR	Pinedale Array	94.72	46	P	P	17 43 01.1	-1.0
	comp=Z,0.7nm,0.8s,mb4.1,baz=217,slow=3.7,SNR=4.9						
PDAR				LR	LR	18 16 45.8	
	comp=Z,87nm,20.0s,MS4.2,baz=263,slow=30						
YKA	Yellowknife Ar	99.93	27	P	Pdif	17 43 32.5	+7.0
YKA				LR	LR	18 26 40.2	
YKA	Yellowknife Ar	99.93	27	P	Pdif	17 43 32.5	+7.0
	comp=Z,0.3nm,0.7s,baz=248,slow=3.7,SNR=4.1						
YKA				LR	LR	18 26 40.2	
	comp=Z,108nm,18.6s,MS4.4,baz=0.0,slow=34						
WMQ	Urumqi	100.41	313	*e*P	Pdif	17 43 27.6	0.0
MKAR	Makanchi Array	104.88	315	Pdif	Pdif	17 43 48.9	+1.3
MKAR	Makanchi Array	104.88	315	Pdiff	Pdif	17 43 48.9	+1.3
	comp=Z,0.4nm,0.7s,baz=103,slow=4.6,SNR=5.5						
BSEG	Bad Segeberg	143.79	343	*e*PKPbc	PKPdf	17 49 13.2	-2.4
BSEG	Bad Segeberg	143.79	343	*e*PKIKP	PKPdf	17 49 13.2	-2.4
BSEG	Bad Segeberg	143.79	343	*e*PKPbc	PKPdf	17 49 13.2	-2.4
DRGR		144.06	324	⇑P	PKPdf	17 49 14.9	-1.3
DRGR		144.06	324	⇑PKIKP	PKPdf	17 49 15.0	-1.3
DRGR		144.06	324	⇑*i*P	PKPdf	17 49 14.9	-1.4
KECS	Kecovo	144.13	328	*e*PKP	PKPdf	17 49 15.7	-0.7
KECS	Kecovo	144.13	328	*e*PKIKP	PKPdf	17 49 15.7	-0.7
KECS	Kecovo	144.13	328	*e*PKP	PKPdf	17 49 15.7	-0.7
KSP	Ksiaz	144.31	334	*e*PKP	PKPdf	17 49 14.8	-1.8
KSP				*e*pPKP	pPKPdf	17 49 32.0	+6.9
KSP	Ksiaz	144.31	334	*e*PKIKP	PKPdf	17 49 14.8	-1.8
MORC	Moravsky Berou	144.59	332	⇑P	PKPdf	17 49 15.5	-1.6
MORC	Moravsky Berou	144.59	332	⇑PKIKP	PKPdf	17 49 15.5	-1.6
MORC	Moravsky Berou	144.59	332	⇑*i*P	PKPdf	17 49 15.5	-1.6
DPC	Dobruska-Polom	144.68	334	*e*PKP	PKPdf	17 49 15.6	-1.6
DPC	Dobruska-Polom	144.68	334	*e*PKIKP	PKPdf	17 49 15.6	-1.6
DPC	Dobruska-Polom	144.68	334	*e*PKP	PKPdf	17 49 15.6	-1.6
DPC				AMS	AMS	18 51 10.0	
UPC	Upice	144.68	334	*e*PKP	PKPdf	17 49 15.7	-1.5
UPC	Upice	144.68	334	*e*PKIKP	PKPdf	17 49 15.7	-1.5
UPC	Upice	144.68	334	*e*PKP	PKPdf	17 49 15.7	-1.5
GZR	Gura Zlata	144.86	322	⇓P	PKPdf	17 49 17.3	-0.4
GZR	Gura Zlata	144.86	322	⇓PKIKP	PKPdf	17 49 17.3	-0.4
GZR	Gura Zlata	144.86	322	⇓*i*P	PKPdf	17 49 17.3	-0.4
VYHS	Vyhne	144.92	330	*e*PKP	PKPdf	17 49 16.1	-1.6
VYHS	Vyhne	144.92	330	*e*PKIKP	PKPdf	17 49 16.1	-1.6
VYHS	Vyhne	144.92	330	*e*PKP	PKPdf	17 49 16.1	-1.6
CLL	Collm	145.19	338	⇓*i*PKP	PKPdf	17 49 16.4	-1.7
CLL				*i* PKP	PKPdf	17 49 21.1	+3.0
CLL				*e*SKKS	SKKSac	17 59 23.0	-4.6
CLL				LR	LR		
	comp=Z,100nm,27.5s,MS4.5						
CLL	Collm	145.19	338	⇓*i*PKIKP	PKPdf	17 49 16.4	-1.7
CLL				*i*		17 49 21.1	
CLL				MLR	MLR		
	comp=Z,100nm,27.5s,MS4.5						
CLL	Collm	145.19	338	*e*PKPbc	PKPbc	17 49 16.1	-1.6
CLL	Collm	145.19	338	⇓*i*PKPdf	PKPdf	17 49 16.4	-1.7
	comp=Z,58nm,1.8s						
CLL				*i* PKiKP	PKiKP	17 49 21.1	-0.9
	comp=Z,25nm,0.9s						
CLL				*e*SKKSac	SKKSac	17 59 23.0	-4.6
CLL				*e*SS	SS	18 12 06.0	+41
CLL				*e*SSS		18 17 18.0	
BRG	Berggiesshubel	145.20	337	*e*PKP	PKPdf	17 49 16.8	-1.4
BRG				*i*		17 49 21.3	
BRG				*i*		17 49 33.7	
BRG	Berggiesshubel	145.20	337	*e*PKIKP	PKPdf	17 49 16.8	-1.3
BRG				*i*		17 49 21.3	
BRG	Berggiesshubel	145.20	337	*e*PKPbc	PKPbc	17 49 16.1	-1.7
BRG	Berggiesshubel	145.20	337	*e*PKP	PKPdf	17 49 16.8	-1.4
	comp=Z,56nm,1.8s						
BRG				*i*		17 49 21.3	
	comp=Z,17nm,0.9s						
BRG				*i*		17 49 33.7	
	comp=Z,14nm,1.0s						
PVCC	Panska Ves	145.24	336	*e*PKP	PKPdf	17 49 17.2	-1.0
PVCC	Panska Ves	145.24	336	*e*PKIKP	PKPdf	17 49 17.2	-1.0
PVCC	Panska Ves	145.24	336	*e*PKP	PKPdf	17 49 17.2	-1.0
VRAC	Vranov	145.35	333	⇑P	PKPbc	17 49 19.1	+0.8
VRAC	Vranov	145.35	333	⇑PKIKP	PKPdf	17 49 19.1	+0.7
VRAC	Vranov	145.35	333	⇑*i*P	PKPbc	17 49 19.1	+0.8
BZS	Buzias	145.38	324	⇓P	PKPbc	17 49 19.1	+0.5
BZS	Buzias	145.38	324	⇓PKIKP	PKPdf	17 49 19.1	+0.5
BZS	Buzias	145.38	324	⇓*i*P	PKPbc	17 49 19.0	+0.5
CLZ	Clausthal	145.61	341	*e*PKPbc	PKPbc	17 49 18.8	-0.2
CLZ	Clausthal	145.61	341	*e*PKIKP	PKPdf	17 49 18.8	0.0
CLZ	Clausthal	145.61	341	*e*PKPbc	PKPbc	17 49 18.8	-0.2
PRU	Pruhonice	145.68	335	*e*PKP	PKPdf	17 49 18.8	-0.2
PRU	Pruhonice	145.68	335	*e*PKIKP	PKPdf	17 49 18.8	-0.2
PRU	Pruhonice	145.68	335	*e*PKP	PKPdf	17 49 18.8	-0.2
PRU				AMS	AMS	18 48 00.0	
IBBN	Ibbenburen	145.94	344	*e*PKPbc	PKPbc	17 49 19.9	-0.1
ZST	Bratislava	145.95	331	*e*PKP	PKPdf	17 49 19.4	-0.1
ZST				LR	LR		
	comp=Z,100nm,20.6s,MS4.6						
ZST	Bratislava	145.95	331	*e*PKP2	PKPab	17 49 19.4	-1.3
ZST				MLR	MLR		
	comp=Z,100nm,20.6s,MS4.6						
ZST	Bratislava	145.95	331	*e*PKP	PKPdf	17 49 19.4	-0.1
TANN	Tannenbergstha	146.12	337	*e*PKPbc	PKPbc	17 49 20.2	-0.4
VTS	Vitosha	146.16	318	⇓PKP2	PKPab	17 49 25.3	+3.6
VTS	Vitosha	146.16	318	⇓*i*P	PKPab	17 49 25.3	+3.6
MOX	Moxa	146.22	339	*e*PKP	PKPdf	17 49 21.7	+1.8
MOX	Moxa	146.22	339	*e*PKP	PKPdf	17 49 21.7	+1.8
MOX	Moxa	146.22	339	*e*PKP2	PKPab	17 49 21.7	0.0
NKC	Novy Kostel	146.28	337	*e*PKP	PKPdf	17 49 21.0	+1.0
NKC	Novy Kostel	146.28	337	*e*PKP2	PKPab	17 49 21.0	-0.9
NKC	Novy Kostel	146.28	337	*e*PKP	PKPdf	17 49 21.0	+1.0
NKC				AMS	AMS	18 54 30.0	
PKSM	Moragy	146.59	327	⇑P	PKPab	17 49 25.3	+2.1
PKSM	Moragy	146.59	327	⇑PKP2	PKPab	17 49 25.3	+2.1
PKSM	Moragy	146.59	327	⇑*i*P	PKPab	17 49 25.3	+2.1
KHC	Kasperske Hory	146.74	335	*e*PKP	PKPdf	17 49 22.2	+1.4
KHC				*e*		17 49 32.0	
KHC	Kasperske Hory	146.74	335	*e*PKP2	PKPab	17 49 22.2	-1.5
KHC	Kasperske Hory	146.74	335	*e*PKP	PKPdf	17 49 22.2	+1.4
KHC				*e*pPKP	pPKPdf	17 49 32.0	+2.7
KHC				AMS	AMS	18 55 10.0	
ROTZ	Rotzenmuhle	146.75	337	*e*PKPbc	PKPbc	17 49 22.2	-0.3
BUG	Bochum--Univer	146.86	344	*e*PKPbc	PKPbc	17 49 22.5	-0.3
GEC2	GERESS Array S	146.92	335	*e*PKPbc	PKPbc	17 49 22.4	-0.6
GEC2	GERESS Array S	146.92	335	*e*PKP2	PKPbc	17 49 22.4	-0.6
GEC2	GERESS Array S	146.92	335	*e*PKPbc	PKPbc	17 49 22.4	-0.6
GERES	GERESS Array B	146.92	335	PKPbc	PKPbc	17 49 22.5	-0.5
GERES	GERESS Array B	146.92	335	PKP2	PKPbc	17 49 22.5	-0.5
GERES	GERESS Array B	146.92	335	PKPbc	PKPbc	17 49 22.5	-0.6
	comp=Z,2.2nm,0.8s,baz=29,slow=3.0,SNR=12						
GRA1	Grafenberg Arr	147.16	338	*e*PKPbc	PKPbc	17 49 22.7	-1.0
GRF	Grafenberg Arr	147.16	338	*e*PKP	PKPdf	17 49 22.7	+1.2
GRF	Grafenberg Arr	147.16	338	*e*PKP2	PKPbc	17 49 22.7	-1.0
GRF	Grafenberg Arr	147.16	338	*e*PKP2	PKPbc	17 49 22.7	-1.0
GRF	Grafenberg Arr	147.16	338	*e*PKPbc	PKPbc	17 49 22.7	-1.0
TNS	Taunus Mts	147.61	341	*e*PKPbc	PKPbc	17 49 24.7	-0.2
TNS	Taunus Mts	147.61	341	*e*PKP2	PKPbc	17 49 24.7	-0.2
TNS	Taunus Mts	147.61	341	*e*PKPbc	PKPbc	17 49 24.7	-0.2
MEM	Membach	147.94	344	PKPab	PKPab	17 49 29.9	+1.5
KRUS	Krusevo	148.04	318	*e*PKP	PKPbc	17 49 25.5	-0.9
STU	Stuttgart	148.65	339	*e*PKPbc	PKPbc	17 49 28.6	+0.9
DOU	Dourbes	148.76	345	PKPab	PKPab	17 49 32.1	+0.5
WLF	Walferdange	148.77	343	*e*PKPbc	PKPbc	17 49 28.2	+0.2
WLF	Walferdange	148.77	343	*e*PKP2	PKPbc	17 49 28.2	+0.2
WLF	Walferdange	148.77	343	*e*PKPbc	PKPbc	17 49 28.1	+0.1
BAIF	Baives	148.89	346	*e*PKIKP	PKPbc	17 49 29.8	+1.5
BAIF	Baives	148.89	346	*e*PKPdf	PKPbc	17 49 29.8	+1.5
BAIF	Baives	148.89	346	*e*PKP2	PKPbc	17 49 29.8	+1.5
BFO	Black Forest	149.31	340	*e*PKPbc	PKPbc	17 49 28.8	-0.6
BFO	Black Forest	149.31	340	*e*PKP2	PKPbc	17 49 28.8	-0.6
BFO	Black Forest	149.31	340	*e*PKPbc	PKPbc	17 49 28.8	-0.6
FETA	Feichten	149.57	336	⇑*i*PKPbc	PKPbc	17 49 27.0	-3.1
	comp=Z,8.5nm,1.0s						
CDF	Champ du Feu	149.57	341	*e*PKIKP	PKPbc	17 49 29.7	-0.3
	comp=Z,17nm,1.0s						
CDF	Champ du Feu	149.57	341	*e*PKPdf	PKPbc	17 49 29.7	-0.3
CDF	Champ du Feu	149.57	341	*e*PKP2	PKPbc	17 49 29.7	-0.3
MEZF	Maizieres J'vi	150.13	344	*e*PKIKP	PKPbc	17 49 31.9	+0.5
MEZF	Maizieres J'vi	150.13	344	*e*PKPdf	PKPbc	17 49 31.9	+0.5
HAU	Haudompre	150.22	342	*e*PKIKP	PKPbc	17 49 31.8	+0.2
	comp=Z,9.3nm,0.8s						
HAU	Haudompre	150.22	342	*e*PKPdf	PKPbc	17 49 31.8	+0.2
HAU	Haudompre	150.22	342	*e*PKP2	PKPbc	17 49 31.8	+0.2
HINF	Hinteralfeld	150.23	341	*e*PKIKP	PKPbc	17 49 31.1	-0.6
	comp=Z,9.7nm,0.9s						
HINF	Hinteralfeld	150.23	341	*e*PKPdf	PKPbc	17 49 31.1	-0.6
HINF	Hinteralfeld	150.23	341	*e*PKIKP	PKPbc	17 49 31.1	-0.6
FLN	La Foliniere	151.02	351	*e*PKIKP	PKPbc	17 49 33.5	0.0
	comp=Z,21nm,1.0s						
FLN	La Foliniere	151.02	351	*e*PKPdf	PKPbc	17 49 33.5	0.0
FLN	La Foliniere	151.02	351	*e*PKIKP	PKPbc	17 49 33.5	0.0
LOR	Lormes	151.57	344	*e*PKIKP	PKPbc	17 49 34.3	-0.5
	comp=Z,12nm,1.0s						
LOR	Lormes	151.57	344	*e*PKPdf	PKPbc	17 49 34.3	-0.5
LOR	Lormes	151.57	344	*e*PKIKP	PKPbc	17 49 34.3	-0.5
SSF	Saint Saulge	151.85	345	*e*PKIKP	PKPbc	17 49 35.1	-0.4
SSF	Saint Saulge	151.85	345	*e*PKPdf	PKPbc	17 49 35.1	-0.4
SSF	Saint Saulge	151.85	345	*e*PKIKP	PKPbc	17 49 35.1	-0.4
TORD	Torodi Ar. Bea	169.08	231	PKP	PKPdf	17 49 47.6	-1.1
TORD				PKPab	PKPab	17 50 59.9	-0.4
TORD	Torodi Ar. Bea	169.08	231	PKP	PKPdf	17 49 47.6	-1.1
	comp=Z,1.4nm,1.1s,baz=270,slow=1.5,SNR=4.3						
TORD				PKPab	PKPab	17 50 59.9	-0.4
	comp=Z,1.0nm,0.9s,baz=105,slow=3.4,SNR=4.6						

IDC ***18*** *17:45:35.3±4.0, 4.16N×96.51E, h71^{km}±36^{km}, mb3.6/11, mb1 3.8/12, mb1mx3.7/22, mbtmp3.6/12, ML3.4/1, MS2.9/1, Ms1 2.9/1, ms1mx2.7/27, Error ellipse: s-maj=50.9km s-min=15.8km az=53.0*

ISCJB ***18*** *17:45:36.0±2.0, 4.3N±0.1×96.8E±0.1, h89^{km}±17^{km}, mb3.8/13, Error ellipse: s-maj=28.4km s-min=12.3km az=144.0*

NEIC ***18*** *17:45:36.4±1.6, 4.30N×96.72E, h77^{km}±14^{km}, mb4.0/1, Error ellipse: s-maj=22.7km s-min=9.3km az=52.0*

ISC 18 17:45:36.7±1.8**, 4.3N**±0.1×**96.7E**±0.1**, h80**^{km}±16^{km}**, n27, σ0^{s}86**/28**, mb3.8**/13**, 2C-2D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.66	124	P	Pn	17 46 18.6	+1.2
	5.8nm,0.3s,baz=308,slow=14,SNR=28						
PSI				S	Sn	17 46 56.1	+7.4
	21nm,0.3s,baz=292,slow=24,SNR=10						
PSI				LR	LR	17 47 30.7	
	comp=Z,201nm,19.0s,baz=293,slow=41						
KULM	Kulim	4.03	76	*e*P	Pn	17 46 35.0	-1.1
KULM	Kulim	4.03	76	⇑P	Pn	17 46 37.0	+0.9
IPM	Ipoh	4.29	88	⇓P	Pn	17 46 39.2	-0.4
FRIM	Kepong	5.00	102	⇑P	Pn	17 46 48.2	-1.2
KTGM	Kuala Trenggan	6.47	81	⇓P	Pn	17 47 09.7	+0.4
CHTO	Chiang Mai	14.58	8	*e*P	Pn	17 49 04.4	+5.4
	2.9nm,0.8s						
SHL	Shillong	21.65	348	*e*P	P	17 50 20.0	-0.7
HYB	Hyderabad	22.06	308	*e*P	P	17 50 25.5	+0.3
HYB	Hyderabad	22.06	308	*i* P	P	17 50 25.5	+0.3
LSA	Lhasa	25.80	349	*e*P	P	17 51 02.0	+1.6
	2.3nm,0.4s,mb4.0						
FITZ	Fitzroy Crossi	36.18	129	P	P	17 52 31.9	0.0
	2.9nm,0.9s,mb4.2,baz=315,slow=14,SNR=4.0						
KSRS	Korea Array	43.62	37	P	P	17 53 38.7	+5.5
	0.7nm,0.8s,mb3.4,baz=217,slow=9.7,SNR=3.3						
WRA	Warramunga Arr	44.12	124	P	P	17 53 37.8	+0.2
	5.1nm,0.6s,mb4.4,baz=302,slow=9.3,SNR=36						
WB2	Warramunga Arr	44.13	124	*e*P	P	17 53 37.5	-0.1
MK31	Makanchi Array	44.13	346	*e*P	P	17 53 35.9	-1.3
MKAR	Makanchi Array	44.13	346	P	P	17 53 35.9	-1.4
	0.2nm,0.4s,mb3.2,baz=160,slow=8.6,SNR=8.7						
SONM	Songino Array	44.16	9	P	P	17 53 38.5	+1.1
	0.7nm,0.7s,mb3.5,baz=192,slow=9.6,SNR=7.6						
ASAR	Alice Springs	45.67	129	P	P	17 53 49.5	-0.3
	0.3nm,0.5s,mb3.2,baz=299,slow=8.1,SNR=13						
ZALV	Zalesovo Beam	50.44	351	P	P	17 54 27.4	+1.3
	0.4nm,0.3s,mb3.8,baz=157,slow=7.8,SNR=3.6						
BRTR	Keskin Array B	66.70	312	P	P	17 56 18.2	-1.1
	1.1nm,0.6s,mb3.9,baz=117,slow=7.0,SNR=7.1						
AKASG	Malin Array Be	72.53	322	P	P	17 56 54.9	-0.1
AKASG	Malin Array Be	72.53	322	P	P	17 56 54.9	-0.1
	0.4nm,0.4s,mb3.6,baz=88,slow=5.8,SNR=3.6						
FINES	FINESS Array B	77.05	332	P	P	17 57 20.7	-0.2
	3.3nm,1.1s,mb4.0,baz=103,slow=4.1,SNR=4.4						
ARCES	ARCESS Array B	79.47	340	P	P	17 57 34.7	+0.6
ARCES	ARCESS Array B	79.47	340	P	P	17 57 34.7	+0.6
	7.9nm,1.1s,mb4.5,baz=99,slow=7.0,SNR=7.0						
GERES	GERESS Array B	82.18	319	P	P	17 57 49.2	+0.2
	0.4nm,0.7s,mb3.4,baz=91,slow=5.3,SNR=3.7						

NEIC ***18*** *17:56:38.3, 28.01S×69.39W, h118^{km}, MG3.8(GUC), After GUC.*

GUC 18 17:56:38.3±0.8**, 28.01S**×**69.39W, h118**^{km}±19^{km}**, ML3.8, 4C-4D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPCH	Copiapo	1.07	307	⇓*i*P	Pn	17 57 01.3	+0.4
CPCH				*i* S	Sn	17 57 18.3	+0.4
CPCH	Copiapo	1.07	307	⇓*i*P	Pn	17 57 01.3	+0.4
CPCH				*i* S	Sn	17 57 18.3	+0.4
CPCH				AML	AML	17 57 20.4	
	comp=E,5µm,0.2s						
VACH	Vallenar	1.33	245	⇓*i*P	Pn	17 57 03.7	+0.1
VACH				*i* S	Sn	17 57 23.7	+0.8
VACH	Vallenar	1.33	245	⇓*i*P	Pn	17 57 03.7	+0.1
VACH				*i* S	Sn	17 57 23.7	+0.8
VACH				AML	AML	17 57 25.5	
	comp=N,2µm,0.1s						
CDCH	Caldera	1.58	306	⇑*i*P	Pn	17 57 06.9	+0.4
CDCH				*i* S	Sn	17 57 28.1	+0.1
CDCH	Caldera	1.58	306	⇑*i*P	Pn	17 57 06.9	+0.4
CDCH				*i* S	Sn	17 57 28.1	+0.1
CDCH				AML	AML	17 57 29.7	
	comp=N,285nm,0.3s						
CMCH	Combarbala	3.45	204	⇑*i*P	Pn	17 57 28.5	-2.0
CMCH				*i* S	Sn	17 58 08.3	-2.5
CMCH	Combarbala	3.45	204	⇑*i*P	Pn	17 57 28.5	-2.0
CMCH				*i* S	Sn	17 58 08.3	-2.5
CMCH				AML	AML	17 58 14.0	
	comp=N,348nm,0.6s						

ISCJB ***18*** *18:19:34.9±0.3, 35.18N±0.03×29.32E±0.05, h33^{km}, Error ellipse: s-maj=6.0km s-min=3.7km az=165.9*

CSEM ***18*** *18:19:34.7±0.1, 35.18N×29.27E, h33^{km}±1^{km}, ML3.7, Error ellipse: s-maj=3.7km s-min=2.1km az=68.0*

NEIC ***18*** *18:19:35.0, 35.31N×29.36E, h10^{km}, ML3.4(ATH), After ATH.*

HLW ***18*** *18:19:37.7, 35.12N×29.40E, h33^{km}, Mb3.7*

ISC 18 18:19:36.7±0.3**, 35.23N**±0.03×**29.31E**±0.05**, h35**^{km}**, n48, σ0^{s}94**/54**, 9C-3D, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FETY	Fethiye	1.41	353	PN	Pn	18 19 59.4	-0.5
FETY				SN	Sn	18 20 15.9	-1.4
FETY	Fethiye	1.41	353	*e*Pn	Pn	18 19 59.4	-0.5
FETY				*e*Sn	Sn	18 20 15.9	-1.4
ELL	Elmali	1.59	18	*e*PN	Pn	18 20 02.4	0.0
ELL	Elmali	1.59	18	*e*Pn	Pn	18 20 02.4	0.0
DALT	Dalyan (Mudla)	1.63	341	*e*PN	Pn	18 20 01.9	-1.0
DALT				*e*SN	Sn	18 20 21.4	-1.2
DALT	Dalyan (Mudla)	1.63	341	*e*Pn	Pn	18 20 01.9	-1.0
DALT				*e*Sn	Sn	18 20 21.4	-1.2
ANTB	Antalya	1.99	33	*e*PN	Pn	18 20 07.8	-0.1
ANTB	Antalya	1.99	33	*e*Pn	Pn	18 20 07.8	-0.1
GOLH	Golhisar	2.01	6	⇑*i*P	Pn	18 20 09.3	+1.1
DAT	Datca	2.05	317	*e*PN	Pn	18 20 08.5	-0.2
DAT	Datca	2.05	317	*e*Pn	Pn	18 20 08.5	-0.2
YER	Yerkesik	2.07	337	*e*PN	Pn	18 20 09.5	+0.5
YER	Yerkesik	2.07	337	*e*Pn	Pn	18 20 09.5	+0.5
BDRM	Kayabasi	2.37	321	⇑*i*P	Pn	18 20 12.6	-0.5
MLSB	Milas	2.40	329	*e*PN	Pn	18 20 12.8	-0.7
MLSB	Milas	2.40	329	*e*Pn	Pn	18 20 12.8	-0.7
BODT	Bodrum	2.44	319	*e*PN	Pn	18 20 13.1	-0.9
BODT	Bodrum	2.44	319	*e*Pn	Pn	18 20 13.1	-0.9
DENT	Denizli	2.53	355	*e*PN	Pn	18 20 15.2	0.0
DENT	Denizli	2.53	355	*e*Pn	Pn	18 20 15.2	0.0
NPS	Neapolis	3.02	272	P	Pn	18 20 23.5	+1.5
KHL	Karahalli	3.09	3	*e*PN	Pn	18 20 23.4	+0.4
KHL	Karahalli	3.09	3	*e*Pn	Pn	18 20 23.4	+0.4
LAST	Lasithi	3.13	270	P	Pn	18 20 25.1	+1.5
ERMK	Ermenek	3.25	63	*e*P	Pn	18 20 22.5	-2.6
CSS	Prodhromos	3.31	93	P	Pn	18 20 26.5	+0.5
IZM	Izmir	3.56	333	*e*PN	Pn	18 20 29.2	-0.2
IZM	Izmir	3.56	333	*e*Pn	Pn	18 20 29.2	-0.2
IDI	Anoyia	3.61	272	P	Pn	18 20 32.0	+1.8
BLCB	Balcova	3.63	331	*e*PN	Pn	18 20 30.1	-0.4
BLCB	Balcova	3.63	331	*e*Pn	Pn	18 20 30.1	-0.4
KONT	Konya--Tatoy	3.66	41	*e*PN	Pn	18 20 32.3	+1.5
KONT	Konya--Tatoy	3.66	41	*e*Pn	Pn	18 20 32.3	+1.5
IKL	Isikli	3.70	73	*e*PN	Pn	18 20 31.6	+0.2
IKL	Isikli	3.70	73	*e*Pn	Pn	18 20 31.6	+0.2
KDHN	Kadinhani	3.98	34	⇓*i*P	Pn	18 20 36.0	+0.8
KIZT	Kizilcal	4.18	29	*e*P	Pn	18 20 39.7	+1.7
KIZT	Kizilcal	4.18	29	*e*Pn	Pn	18 20 39.7	+1.7
HMAT	Matruh	4.52	205	⇑P	Pn	18 20 43.0	+0.3
HMAT				S	Sn	18 21 31.2	-2.8
PRK	Paraskevi	4.68	330	P	Pn	18 20 45.1	+0.3
AMAG	Maghara	5.63	143	⇑P	Pn	18 20 57.0	-0.9
HNAT	Natroun	5.69	168	⇓P	Pn	18 20 58.9	+0.2
GLL	Jalalah	5.99	160	⇑P	Pn	18 21 02.7	-0.2
SUZ		6.14	150	⇑P	Pn	18 21 04.9	0.0
ZAF		6.54	154	⇑P	Pn	18 21 10.5	+0.2
ZNM		6.57	152	⇓P	Pn	18 21 10.9	+0.1
HNKL	Nakhl	6.59	142	⇑P	Pn	18 21 10.5	-0.6
HNKL				S	Sn	18 22 19.2	-5.9
HFRF	Wahat Farafira	8.10	186	⇑P	Pn	18 21 31.7	-0.2

IDC 18 18:19:41.8±28.0**, 19.15S**×**175.38W, h0**^{km}**, mb4.2**/4**, mb1 4.4**/4**, mb1mx4.0**/15**, mbtmp4.2**/4**, Error ellipse: s-maj=559.6km s-min=144.9km az=88.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	40.60	243	P	P	18 27 23.4	0.0
	2.0nm,0.5s,baz=97,slow=10,SNR=6.5						
ASAR	Alice Springs	47.24	255	P	P	18 28 16.8	-0.2
	6.6nm,0.8s,baz=96,slow=7.8,SNR=60						
WRA	Warramunga Arr	47.25	260	P	P	18 28 17.0	0.0
	1.2nm,0.4s,baz=98,slow=8.1,SNR=62						
FITZ	Fitzroy Crossi	55.67	261	P	P	18 29 20.2	0.0
	1.0nm,0.5s,baz=120,slow=8.1,SNR=11						

MEX 18 18:29:48.0±0.6**, 17.17N**×**99.18W, h16**^{km}±14^{km}**, MD3.6, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.77	247	*i* P	Pb	18 29 56.0	-7.0
ACX				*i* S	Sb	18 30 05.0	-8.2
MEIG	Mezcala	0.86	331	*i* P	Pb	18 30 01.7	-2.9
MEIG				*i* S	Sb	18 30 12.3	-3.6
UTMO	Huajuapan	1.46	63	*i* P	Pn	18 30 10.4	-3.3
UTMO				*i* S	Sn	18 30 27.7	-4.9

MAN 18 18:46:41, 14.02N×**119.97E, h47**^{km}**, mb3.7, ML2.5, MS2.0, 1C-1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	Lubang	0.39	137	*e*P	Pn	18 46 53.5	+2.7

TGY	Tagaytay City	0.94	85	⇓iP	Pn	18 47 02.3	+4.5
TGY				iS	Sn	18 47 14.6	+4.5
SCZP	Santa Cruz	1.75	358	eP	Pn	18 47 10.0	+1.1
PCPH	Palayan	1.88	35	⇑eP	Pn	18 47 11.1	+0.4
PCPH				iS	Sn	18 47 33.0	-0.2
BUSP	Coron	2.02	174	eP	Pn	18 47 14.6	+2.0
BUSP				eS	Sn	18 47 37.9	+1.3
POLP	Polilio Island	2.03	69	eP	Pn	18 47 14.9	+2.1
BALP	Baler	2.31	42	eP	Pn	18 47 17.9	+1.3
ENPP	El Nido	2.85	191	eP	Pn	18 47 26.4	+2.5
CUYO	Cuyo Island	3.31	162	eP	Pn	18 47 31.8	+1.4
CAUP	Cauayan	3.41	31	eP	Pn	18 47 33.9	+2.2

MAN 18 19:01:34, 1673N×12078E, h11^{km}, mb4.3, ML3.2, MS3.0, 2C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BCPH	Baguio City Da	0.39	209	⇑eP	Pg	19 01 43.1	+1.3
BCPH				iS	Sg	19 01 49.9	+2.9
BOLP	Bolinao	0.90	248	eP	Pg	19 01 53.6	+2.2
ABRA	Dolores	0.92	356	eP	Pg	19 01 51.5	-0.2
CAUP	Cauayan	1.02	78	eP	Pg	19 01 53.6	-0.1
APYP	Conner	1.21	21	eP	Pn	19 01 56.3	-0.6
BALP	Baler	1.25	142	eP	Pn	19 01 53.2	-4.2
BALP				eS	Sb	19 02 12.0	-1.6
SCZP	Santa Cruz	1.26	221	eP	Pn	19 01 57.2	-0.4
CVP	Callao Caves	1.39	46	⇑eP	Pn	19 01 59.1	-0.2
CVP				iS	Sn	19 02 18.4	+0.7
POLP	Polilio Island	2.28	150	eP	Pn	19 02 15.1	+3.5

*ISCJB **18** 19:26:32.9±1.3, 352N±02×257E±02, h80^{km}±10^{km}, Error ellipse: s-maj=35.5km s-min=12.8km az=39.0*
*HLW **18** 19:26:32.1, 3526N×2557E, h33^{km}, Mb3.6*
*CSEM **18** 19:26:33.1±0.2, 35.16N×2574E, h71^{km}±3^{km}, ML3.6, Error ellipse: s-maj=11.1km s-min=5.7km az=52.0*
*ATH **18** 19:26:33.6, 3520N×2563E, h75^{km}±10^{km}*
ISC 18 19:26:34.4±1.3**, 352N**±02×**257E**±02**, h72**^{km}±11^{km}**, n9, σ0^{s}35**/10**, 1C-1D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NPS	Neapolis	0.08	329	⇑iP	Pn	19 26 45.1	+0.2
NPS				eS	Sn	19 26 52.3	-0.2
XRY	Khrisi	0.32	175	eP	Pn	19 26 46.0	+0.1
VAM	Vamos	1.22	281	eP	Pn	19 26 56.1	+0.4
VLI	Veliai	2.69	305	eP	Pn	19 27 15.0	-0.3
HMAT	Matruh	4.26	163	P	Pn	19 27 36.4	-0.4
GLL	Jalalah	7.58	136	⇓P	Pn	19 28 22.4	+0.2
AMAG	Maghara	7.80	123	P	Pn	19 28 25.1	0.0
HFRF	Wahat Farafira	8.33	164	P	Pn	19 28 32.0	-0.5
HDK1	Dakhla	10.14	160	P	Pn	19 28 57.9	+0.6

*NIED **18** 19:56:00, 3400N×13720E, h340^{km}, Mw3.7 Best double couple: $M_0$4.51000×10^{14} NP1:ϕ_s140.00000°, δ3.00000°, λ-120.00000°. NP2:ϕ_s350.00000°, δ88.00000°, λ-89.00000°.*
*ISCJB **18** 19:56:03.7±0.6, 3398N±008×13722E±007, h356^{km}±4^{km}, mb3.1/7, Error ellipse: s-maj=13.3km s-min=8.2km az=157.4*
*JMA **18** 19:56:03.2±0.5, 3398N×137.19E, h365^{km}±4^{km}, M3.6*
*IDC **18** 19:56:03.7±1.1, 3388N×137.13E, h338^{km}±8^{km}, mb3.0/6, mb1 3.1/9, mb1mx2.9/25, mbtmp3.0/9, Error ellipse: s-maj=17.7km s-min=13.5km az=142.0*
*NEIC **18** 19:56:04.3±0.8, 3393N×137.19E, h348^{km}±6^{km}, mb3.5/1, Error ellipse: s-maj=17.3km s-min=14.1km az=142.0*
ISC 18 19:56:04.7±0.6**, 3400N**±008×**13722E**±007**, h350**^{km}±3^{km}**, n34, σ0^{s}83**/42**, mb3.1**/7**, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK02	Tokai 2	0.45	96	P	Pn	19 56 49.6	+0.8
JIE	Ise	0.58	313	P	Pn	19 56 49.5	+0.4
JIE				S	S	19 57 24.6	-0.1
TK03	Tokai 3	0.64	74	eS	S	19 57 27.7	+2.8
TK04	Tokai 4	0.67	54	P	Pn	19 56 50.4	+1.1
JWZ	Kozaga	1.34	250	P	Pn	19 56 51.5	-0.5
JWY	Kouya	1.37	280	P	Pn	19 56 52.4	+0.3
JGM	Miyama	1.75	346	P	Pn	19 56 54.9	+0.7
JYN	Shimob	1.85	36	P	Pn	19 56 56.6	+1.7
JWT	Wachi	1.98	311	P	Pn	19 56 55.8	+0.1
JWT				S	S	19 57 35.1	-1.7
JOD2	Odawara 2	1.99	50	P	Pn	19 56 56.3	+0.5
JAI	Aioi	2.31	266	P	Pn	19 56 58.0	-0.3
JKG	Kaga	2.39	342	P	Pn	19 56 58.9	+0.1
JRY	Ryogami san	2.44	34	P	Pn	19 56 59.8	+0.6
JRY				S	S	19 57 43.5	+0.4
MJAR	Matsushiro Arr	2.67	17	P	Pn	19 57 00.9	-0.1
	5.2nm,0.3s,baz=189,slow=9.2,SNR=90						
MJAR				S	S	19 57 45.8	-0.6
	baz=184,slow=15,SNR=4.9						
MAJO	Matsushiro	2.67	17	eP	Pn	19 57 01.1	0.0
MAT	Matsushiro	2.67	17	P	Pn	19 57 01.2	+0.2
MAT				S	S	19 57 45.4	-1.0
MAT	Matsushiro	2.67	17	P	Pn	19 57 01.2	+0.2
MAT				S	S	19 57 45.6	-0.8
JMN	Monobe	2.80	265	P	Pn	19 57 02.0	-0.2
JAG	Ashikaga	3.04	36	P	Pn	19 57 03.4	-0.8
BSO1	Boso 1	3.18	77	P	Pn	19 57 04.0	-1.6
BSO1				S	S	19 57 52.8	-1.8
JHS	Saijyo	3.54	288	P	Pn	19 57 09.1	+0.1
JTO	Tosashimizu	3.87	254	P	Pn	19 57 11.7	-0.6
JNU	Nakatsue	5.37	262	P	Pn	19 57 27.9	-0.4
	0.8nm,0.3s,baz=79,slow=9.7,SNR=9.3						
JNU				S	S	19 58 30.7	-5.4
	0.1nm,0.3s,baz=360,slow=19,SNR=1.9						
KSRS	Korea Array	8.31	297	P	Pn	19 58 03.0	+0.6
	0.2nm,0.3s,baz=110,slow=12,SNR=9.1						
SONM	Songino Array	26.88	310	P	P	20 01 15.3	+0.9
	0.9nm,0.7s,mb3.1,baz=120,slow=9.6,SNR=8.5						
ZALV	Zalesovo Beam	41.54	315	P	P	20 03 18.7	-0.2
	0.3nm,0.4s,mb2.8,baz=122,slow=5.4,SNR=3.1						
MK31	Makanchi Array	42.92	304	eP	P	20 03 29.8	-0.1
MKAR	Makanchi Array	42.92	304	P	P	20 03 30.1	+0.2
	1.1nm,0.5s,mb3.2,baz=85,slow=10,SNR=36						
KURK	Kurchatov	45.19	310	eP	P	20 03 46.6	-1.1
	2.6nm,0.8s,mb3.4						
WRA	Warramunga Arr	53.71	183	P	P	20 04 50.9	-0.8
	0.2nm,0.4s,mb2.8,baz=360,slow=7.6,SNR=9.5						
YKA	Yellowknife Ar	68.12	28	P	P	20 06 28.3	+1.0
YKA	Yellowknife Ar	68.12	28	P	P	20 06 28.3	+1.0
	0.1nm,0.5s,mb2.8,baz=300,slow=6.1,SNR=5.3						
FINES	FINESS Array B	69.88	331	P	P	20 06 38.1	+0.1
FINES	FINESS Array B	69.88	331	P	P	20 06 38.1	+0.1
	2.2nm,1.0s,mb3.8,baz=66,slow=6.7,SNR=5.6						

IDC 18 20:12:20.2±2.8**, 681S×14842E, h0**^{km}**, mb3.7**/3**, mb1 3.9**/4**, mb1mx3.6**/14**, mbtmp3.7**/4**, ML3.0**/2**, Error ellipse: s-maj=83.9km s-min=23.2km az=108.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	2.87	206	Pn	Pn	20 13 09.4	+2.2
	2.4nm,0.3s,baz=36,slow=11,SNR=9.5						
PMG				Sn	Sn	20 13 43.0	+0.6
	20nm,0.3s,baz=27,slow=21,SNR=20						
WRA	Warramunga Arr	18.90	225	P	Pn	20 16 42.6	-0.4
	0.2nm,0.3s,baz=52,slow=11,SNR=12						
ASAR	Alice Springs	21.80	218	P	P	20 17 13.3	-0.7
	1.4nm,0.6s,baz=57,slow=9.1,SNR=32						
FITZ	Fitzroy Crossi	24.88	241	P	P	20 17 44.3	-0.6
	3.0nm,0.4s,baz=59,slow=10,SNR=48						
MKAR	Makanchi Array	79.02	320	P	P	20 24 26.3	+0.1
	0.3nm,0.5s,baz=96,slow=8.8,SNR=11						
TORD	Torodi Ar. Bea	146.66	284	PKPbc	PKPbc	20 32 04.5	-0.5
	0.6nm,0.4s,baz=65,slow=3.1,SNR=24						

WEL 18 20:28:07.8±0.1**, 4088S×17456E, h45**^{km}±1^{km}**, ML3.5**/17**, 1D, Error ellipse: s-maj=1.0km s-min=0.8km az=90.0, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIW	Kapiti Island	0.26	85	P*	Pn	20 28 15.9	-0.2
KIW				S*	Sn	20 28 22.3	+0.4
MRW	Makara Radio	0.36	163	P*	Pn	20 28 17.0	-0.1
MRW				S*	Sn	20 28 24.3	+0.7
TCW	Tory Channel	0.39	213	P*	Pn	20 28 16.9	-0.6
TCW				S*	Sn	20 28 23.8	-0.5
WEL	Wellington	0.43	159	P*	Pn	20 28 17.9	0.0
WEL				S*	Sn	20 28 25.3	+0.3
SNZO	South Karori	0.44	166	P*	Pn	20 28 17.9	-0.1
SNZO				S*	Sn	20 28 25.4	+0.2
CAW	Cannon Point	0.44	121	P*	Pn	20 28 18.2	+0.2
DUWZ	D'Urville Isla	0.49	279	⇓P*	Pn	20 28 17.4	-1.2
DUWZ				S*	Sn	20 28 25.5	-0.9
BHW	Baring Head	0.57	156	P*	Pn	20 28 19.6	-0.1
TUWZ	Tuamarina	0.72	220	PN	Pn	20 28 21.0	-0.6
MSWZ	Moikau Station	0.74	136	PN	Pn	20 28 21.7	-0.2
MTW	Mount Morrison	0.76	111	PN	Pn	20 28 21.8	-0.3
MRZ	Mangatainoka R	0.80	74	PN	Pn	20 28 22.5	-0.2
PAWZ	Paruwai Farm	0.82	128	PN	Pn	20 28 22.6	-0.4
CMWZ	Cape Campbell	0.90	197	PN	Pn	20 28 24.9	+0.8
NNZ	Nelson	0.96	249	PN	Pn	20 28 24.0	-0.8
BSWZ	Blackbirch Sta	0.98	212	PN	Pn	20 28 25.1	0.0
TRWZ	Traveller	0.99	122	PN	Pn	20 28 24.6	-0.7
TIWZ	Tintock	1.01	84	PN	Pn	20 28 25.0	-0.5
WAZ	Wanganui	1.17	16	PN	Pn	20 28 27.9	+0.1
BFZ	Birch Farm	1.29	82	PN	Pn	20 28 28.3	-1.1
TSZ	Takapari Road	1.35	53	PN	Pn	20 28 28.4	-1.7
THZ	Tophouse	1.53	234	PN	Pn	20 28 32.1	-0.5
QRZ	Quartz Range	1.54	271	PN	Pn	20 28 32.0	-0.8
RAEZ	Rainy Point	1.60	355	PN	Pn	20 28 34.2	+0.6
MTVZ	Mangateitei	1.65	25	PN	Pn	20 28 34.9	+0.6
NWEZ	Newall Road	1.69	341	PN	Pn	20 28 34.9	0.0
KHZ	Kahutara	1.71	206	PN	Pn	20 28 34.4	-0.7
MOVZ	Moawhango	1.73	32	PN	Pn	20 28 35.6	+0.2
PKE	Pukeiti	1.74	345	PN	Pn	20 28 35.5	-0.1
WNVZ	Wahianoa	1.74	27	PN	Pn	20 28 36.1	+0.5
TRVZ	Turoa	1.75	26	PN	Pn	20 28 36.3	+0.6
VRZ	Vera Road	1.76	5	PN	Pn	20 28 36.0	+0.1
FWVZ	Far West T-bar	1.79	25	PN	Pn	20 28 36.8	+0.5
TUVZ	Tukino	1.82	28	PN	Pn	20 28 37.1	+0.5
WPVZ	Whakapapa	1.84	25	PN	Pn	20 28 37.4	+0.6
NGZ	Ngauruhoe	1.88	25	PN	Pn	20 28 38.3	+0.8
OTVZ	Oturere	1.91	27	PN	Pn	20 28 38.2	+0.3
TWVZ	Taurewa	1.93	21	PN	Pn	20 28 38.2	0.0
WTVZ	West Tongariro	1.93	24	PN	Pn	20 28 38.3	+0.1
KRVZ	Karewarewa	1.97	25	PN	Pn	20 28 39.2	+0.5
DSZ	Denniston Nort	2.25	247	PN	Pn	20 28 42.0	-0.5
HIZ	Hauiti	2.38	6	PN	Pn	20 28 44.4	+0.1
LTZ	Lake Taylor	2.56	221	PN	Pn	20 28 45.7	-1.0
FOZ	Fox Glacier	4.50	232	PN	Pn	20 29 10.8	-2.6

*NNC **18** 20:54:36.7±3.6, 40.03N×75.35E, h0^{km}, mb3.5, mpv3.1, Error ellipse: s-maj=39.3km s-min=24.2km az=154.0*
ISC 18 20:54:36.8±6.9**, 395N**±05×**755E**±02**, h35**^{km}**, n15, σ0^{s}80**/14**, 4C-4D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KZA	Kyzart	2.54	356	P	Pn	20 55 15.5	0.0
	SNR=43						
ULHL	Ulahol	2.77	12	P	Pn	20 55 18.1	-0.5
	SNR=89						
UCH	Uchtor	2.79	345	P	Pn	20 55 18.3	-0.5
	SNR=108						
AML	Almayashu	2.92	333	P	Pn	20 55 20.8	+0.1
	SNR=8.1						
KBK	Karagaybulak	3.14	353	P	Pn	20 55 25.6	+1.9
	SNR=127						
AAK	Ala-Archa	3.18	347	P	Pn	20 55 24.1	-0.1
	SNR=49						
EKS2	Erkin-Say	3.38	338	P	Pn	20 55 31.1	+4.1
	SNR=14						
TKM2	Tokmak 2	3.38	1	P	Pn	20 55 27.0	0.0
	SNR=49						
TKM2	Tokmak 2	3.38	1	⇑Pn	Pn	20 55 25.0	-2.0
	4.6nm,0.9s						
TKM2				⇑Lg		20 56 07.9	
	6.0nm,0.7s						
CHMS	Chumysh	3.50	351	P	Pn	20 55 28.1	-0.6
	SNR=24						
USP	Ospenovka	3.80	349	P	Pn	20 55 32.5	-0.3
	SNR=8.7						
KNDC	Almaty	3.84	16	⇓Pn	Pn	20 55 34.4	+1.1
	21nm,0.5s						
KNDC				⇓Lg		20 56 25.2	
	254nm,1.3s						
KK31	Karatay Array	5.17	315	⇑Pn	Pn	20 55 51.5	0.0
	0.4nm,0.3s,baz=124,slow=12						
KK31				⇓Lg		20 57 06.6	
	5.9nm,0.6s,baz=128,slow=31						
MK31	Makanchi Array	8.79	32	Pn	Pn	20 56 41.0	-0.3
	0.5nm,0.5s,baz=213,slow=11,SNR=17						
MK31				⇓Lg		20 59 00.8	
	1.2nm,0.7s,baz=229,slow=27,SNR=4.8						
KURK	Kurchatov	11.39	10	⇑Lg		21 00 24.3	
	3.5nm,1.1s						

*ISCJB **18** 21:04:56.0±0.7, 21.67N±0.02×120.51E±0.02, h16^{km}±5^{km}, mb5.0/130, MS5.1/63, Error ellipse: s-maj=3.4km s-min=2.5km az=22.7*
*IDC **18** 21:04:55.1±0.5, 21.70N×120.51E, h0^{km}, mb4.9/25, mb1 5.0/27, mb1mx4.9/29, mbtmp4.8/27, ML3.9/2, MS4.7/26, Ms1 4.7/26, ms1mx4.6/44, Error ellipse: s-maj=16.2km s-min=12.6km az=76.0*
*BJI **18** 21:04:57.5, 21.83N×120.35E, h20^{km}, mB5.2, mb4.8, ML4.8, Ms5.5, Msz5.4*
*MAN **18** 21:04:58, 21.38N×120.19E, h13^{km}, mb4.9, ML3.8, MS5.1*
*MOS **18** 21:04:59.8±0.8, 21.95N×120.43E, h33^{km}, mb5.3/60, MS5.2/26, Error ellipse: s-maj=8.3km s-min=4.3km az=119.0*
*GCMT **18** 21:05:00.4±0.1, 21.74N×120.39E, h12^{km}, MW5.3/82, Moment Tensor Solution. s72,c119; s82,c158; Duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.92±.01; $M_{\theta\theta}$0.55±.01; $M_{\phi\phi}$0.37±.02; $M_{r\theta}$0.11±.04; $M_{\theta\phi}$0.56±.01; $M_{\phi r}$0.14±.05; Best double couple: $M_0$0.99100×10^{17} NP1:ϕ_s52.00000°, δ40.00000°, λ-86.00000°. NP2:ϕ_s227.00000°, δ50.00000°, λ-93.00000°. Principal axes: T 1.0400, Plg5.0000°, Azm319.0000°; N -0.0980, Plg2.0000°, Azm229.0000°; P -0.9410, Plg84.0000°, Azm115.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **18** 21:05:00.4±0.1, 21.68N×120.48E, h35^{km}, mb5.1/64, MS5.1/6 Error ellipse: s-maj=3.7km s-min=3.3km az=97.0*
*JMA **18** 21:05:01.4±0.3, 21.67N×120.72E, h113^{km}, M5.1*
*SZGRF **18** 21:05:07.0, 23.06N×120.12E, h33^{km}, mb5.4, MS5.1, Taiwan*
ISC 18 21:04:58.9±0.7**, 2168N**±002×**12049E**±002**, h24**^{km}±5^{km}**, h27**^{km}±1.6^{km}**:pP-P, n473, σ0^{s}98**/496**, mb5.0**/130**, MS5.1**/63**, 42C-42D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NACB	Ninganchiao	2.68	22	ePn	Pn	21 05 39.8	-0.8
YHNB	Yeheng	3.08	15	ePn	Pn	21 05 45.9	-0.2
PIP	Pasuquin	3.34	178	⇓eP	Pn	21 05 47.7	-2.0
PIP				eS	Sn	21 06 25.6	-3.0
TATO	Taipei	3.40	15	ePn	Pn	21 05 51.7	+1.2
TATO	Taipei	3.40	15	⇑P	Pn	21 05 49.7	-0.8
	SNR=27						
YOJ	Yonaguni jima	3.61	40	P	Pn	21 05 55.0	+1.6
YOJ				S	Sn	21 06 35.2	-0.1
QZH	Quanzhou	3.69	332	P	Pn	21 05 53.3	-1.1
QZH				S	Sn	21 06 33.8	-3.3
QZH				Smax			
	comp=N,2µm,0.6s						
QZH				Smax			
	comp=E,3µm,0.8s						
SGCP	Mt. Cagua	3.72	157	eP	Pn	21 05 54.3	-0.6
HATJ	Hateruma jima	3.87	52	P	Pn	21 05 57.9	+1.0
HATJ				S	Sn	21 06 39.8	-1.7
APYP	Conner	3.87	169	eP	Pn	21 05 56.2	-0.6
APYP				eS	Sn	21 06 40.2	-1.4
IRIF	Iriomote-Funau	3.98	48	P	Pn	21 05 59.5	+1.0
IRIF				S	Sn	21 06 45.0	+0.5
ABRA	Dolores	4.02	177	eP	Pn	21 05 57.2	-1.7
JKRS	Kuro-shima	4.12	51	P	Pn	21 06 01.4	+1.0
JKRS				S	Sn	21 06 48.3	+0.4
CVP	Callao Caves	4.15	162	⇑eP	Pn	21 06 00.5	-0.4
CVP				iS	Sn	21 06 19.1	-30
JIJ	Ishigaki jima	4.29	51	P	Pn	21 06 03.4	+0.6
JIJ				S	Sn	21 06 51.2	-0.9
JTJ	Tarama	4.87	52	P	Pn	21 06 11.3	+0.6
JTJ				S	Sn	21 07 05.7	-0.6
CAUP	Cauayan	4.88	165	eP	Pn	21 06 12.2	+1.4
BCPH	Baguio City Da	5.27	179	⇑eP	Pn	21 06 14.8	-1.5
BOLP	Bolinao	5.30	186	eP	Pn	21 06 16.0	-0.7
JMJ	Miyako jima 2	5.41	54	P	Pn	21 06 19.2	+1.1
JMJ				S	Sn	21 07 19.1	-0.5
JOGS	Gusukube	5.46	55	P	Pn	21 06 19.1	+0.3
JOGS				S	Sn	21 07 21.8	+0.9
HKC	Hong Kong Obse	5.89	277	eP	Pn	21 06 24.0	-0.8
HKC	Hong Kong Obse	5.89	277	P	Pn	21 06 25.0	+0.2
SCZP	Santa Cruz	5.90	185	eP	Pn	21 06 25.3	+0.5
BALP	Baler	6.00	170	eP	Pn	21 06 26.1	-0.1
PCPH	Palayan	6.11	175	⇓eP	Pn	21 06 28.5	+0.7
GZH	Guangzhou	6.76	283	P	Pn	21 06 31.6	-5.1
GZH				Smax			
	comp=N,758nm,0.9s						
GZH				Smax			
	comp=E,494nm,1.0s						
POLP	Polilio Island	7.05	169	eP	Pn	21 06 40.9	+0.2
JKE	Kume jima 2	7.38	50	P	Pn	21 06 44.8	-0.4
JKE				eS	Sn	21 08 05.0	-3.2
LUBP	Lubang	7.91	182	eP	Pn	21 06 54.5	+2.1
JIH	Iheya	8.65	51	eS	Sn	21 08 36.8	-2.7
JOW	Kunigami	8.76	53	Pn	Pn	21 07 02.4	-1.7
JOW				Sn	Sn	21 08 44.2	+2.2
JOW	Kunigami	8.76	53	P	Pn	21 07 04.6	+0.5
JOW				eS	Sn	21 08 38.1	-4.0
JOW	Kunigami	8.76	53	Pn	Pn	21 07 02.4	-1.7
	comp=E,2.6nm,0.3s,baz=117,slow=12,SNR=12						
JOW				Sn	Sn	21 08 44.2	+2.2
	comp=E,2.0nm,0.3s,baz=279,slow=29,SNR=2.7						
SSE	Sheshan	9.40	4	P	Pn	21 07 12.5	-0.3
SSE				S	Sn	21 09 00.3	+2.6
SSE				AMB	AMB		
	comp=Z,18nm,0.6s						
SSE				AMB	AMB		
	comp=Z,273nm,7.1s						
SSE				LR	LR		
	comp=N,19µm,13.4s						
SSE				LR	LR		
	comp=E,10µm,13.4s						
SSE				LR	LR		
	comp=Z,28µm,13.4s						
BUSP	Coron	9.63	182	eP	Pn	21 07 15.3	-0.8
JTK	Tokunoshima	9.80	50	P	Pn	21 07 15.8	-2.6
JTK				eS	Sn	21 09 02.7	-4.9
QIZ	Qiongzhong	10.33	257	P	Pn	21 07 23.4	-2.3
QIZ				S	Sn	21 09 17.3	-3.4
QIZ				AMB	AMB		
	comp=Z,40nm,1.1s						
QIZ				LR	LR		
	comp=N,14µm,14.2s						
QIZ				LR	LR		
	comp=E,13µm,14.0s						
QIZ				LR	LR		
	comp=Z,22µm,14.5s						
QIZ	Qiongzhong	10.33	257	ePn	Pn	21 07 23.6	-2.0
	comp=Z,52nm,0.8s						
QIZ				eSn	Sn	21 09 13.7	-7.1
WHN	Wuhan	10.40	329	P	Pn	21 07 24.0	-2.6
WHN				S	Sn	21 09 12.0	-10
WHN				LR	LR		
	comp=Z,28µm,11.0s						
NJ2	Nanjing	10.43	352	eP	Pn	21 07 31.6	+4.6
NJ2				AP		21 07 34.9	
NJ2				XP		21 07 37.8	
NJ2				PP		21 07 40.0	
NJ2				S	Sn	21 09 26.9	+3.8
NJ2				XS		21 09 31.8	
NJ2				AMB	AMB		
	comp=Z,20nm,0.9s						
NJ2				AMB	AMB		
	comp=Z,250nm,5.4s						
NJ2				LR	LR		
	comp=N,46µm,12.7s						
NJ2				LR	LR		
	comp=E,31µm,13.2s						
NJ2				LR	LR		
	comp=Z,31µm,13.2s						
ENPP	El Nido	10.47	186	eP	Pn	21 07 25.7	-1.8
GUIM	Jordan	11.18	169	eP	Pn	21 07 38.5	+1.3
MSLP	Maasin	12.22	159	eP	Pn	21 07 54.1	+2.5
BATP	Bataraza	13.07	192	eP	Pn	21 08 02.3	-0.9
ENH	Enshi	13.07	313	ePn	Pn	21 08 03.4	+0.2
GYA	Guiyang	13.49	293	⇑iP	Pn	21 08 11.3	+2.4
GYA				AP		21 08 15.4	
GYA				XP		21 08 18.4	
GYA				PP		21 08 21.6	
GYA				S	Sn	21 10 42.6	+4.5
GYA				AMB	AMB		
	comp=Z,20nm,0.8s						
GYA				AMB	AMB		
	comp=Z,140nm,4.2s						
GYA				LR	LR		
	comp=N,3µm,15.4s						
GYA				LR	LR		
	comp=E,5µm,15.0s						
GYA				LR	LR		
	comp=Z,2µm,15.2s						
CGP	Cagayan de Oro	13.76	162	⇓eP	Pn	21 08 13.5	+0.9
BUKP	Musuan	14.41	162	eP	Pn	21 08 22.9	+1.3
JNU	Nakatsue	14.65	37	Pn	Pn	21 08 30.3	+5.6
JNU	Nakatsue	14.65	37	Pn	Pn	21 08 30.3	+5.6
	comp=Z,0.5nm,0.3s,baz=27,slow=3.3,SNR=3.4						
TIA	Tai'an	14.77	349	eP	Pn	21 08 27.9	+1.6
TIA				LR	LR		
	comp=N,985nm,5.0s						
TIA				LR	LR		
	comp=E,10µm,14.0s						
KDM	Kudat	15.10	194	⇑P	Pn	21 08 37.6	+6.8
XAN	Xi'an	15.99	323	P	Pn	21 08 39.9	-2.4
XAN				AP	pP	21 08 51.0	-1.1
XAN				AMB	AMB		
	comp=Z,11nm,1.1s						
XAN				LR	LR		
	comp=N,5µm,10.0s						
XAN				LR	LR		
	comp=E,10µm,11.2s						
XAN				LR	LR		
	comp=Z,11µm,12.5s						
KKM	Kota Kinabalu	16.09	196	⇓P	Pn	21 08 48.1	+4.4
SDKM	Sandakan	16.26	192	⇑P	Pn	21 08 47.4	+1.5
MYLDM	Lahad Datu	16.52	187	⇓P	Pn	21 08 52.2	+3.1
INCN	Inchon	16.62	17	ePn	Pn	21 08 51.1	+0.8
KMI	Kunming	16.65	285	P	Pn	21 08 49.3	-1.5
KMI				AP	pP	21 08 54.8	-4.8
KMI				XP	sP	21 08 56.5	-6.1
KMI				PP		21 09 04.8	
KMI				PPP		21 09 11.8	
KMI				S	Sn	21 11 56.4	+1.4
KMI				XS	sS	21 12 00.9	-15
KMI				SSS		21 12 29.3	
KMI				AMB	AMB		
	comp=Z,304nm,4.4s						
KMI				LR	LR		
	comp=N,6µm,11.2s						
KMI				LR	LR		
	comp=E,7µm,12.0s						
KMI				LR	LR		
	comp=Z,8µm,11.6s						
KMI	Kunming	16.65	285	P	Pn	21 08 49.2	-1.6
	comp=Z,0.3nm,4.4s						
KMI				pP	pP	21 08 54.7	-4.9
KMI				sP	sP	21 08 56.5	-6.1
KMI				PP		21 09 04.7	
KMI				PPP		21 09 11.8	
KMI				S	Sn	21 11 56.4	+1.4
KMI				sS	sS	21 12 00.9	-15
KMI				SS		21 12 16.7	
KMI				SSS		21 12 29.2	
KMI	Kunming	16.65	285	P	Pn	21 08 49.2	-1.6
KMI				S	Sn	21 11 56.4	+1.4
KSRS	Korea Array	16.98	21	Pn	Pn	21 08 54.3	-0.5
	comp=Z,0.5nm,0.3s,baz=199,slow=12,SNR=16						
KSRS				LR	LR	21 16 44.9	
	comp=Z,2µm,19.1s,baz=205,slow=42						
DL2	Dalian	17.20	3	⇑iP	Pn	21 08 58.6	+1.1
DL2				S	Sn	21 12 13.3	+5.2

DL2				AMB	AMB		
	comp=Z,30nm,1.1s						
DL2				AMB	AMB		
	comp=Z,220nm,5.1s						
DL2				LR	LR		
	comp=N,9µm,14.3s						
DL2				LR	LR		
	comp=E,5µm,13.9s						
DL2				LR	LR		
	comp=Z,10µm,14.0s						
TIY	**Taiyuan**	**17.43**	**338**	⇑*i*P	**Pn**	**21 09 01.1**	**+0.7**
TIY				AP	pP	21 09 08.6	+0.5
TIY				S	**Sn**	**21 12 10.8**	**-2.9**
TIY				XS	sS	21 12 24.8	-7.2
TIY				LR	LR		
	comp=N,12µm,11.4s						
TIY				LR	LR		
	comp=E,12µm,11.8s						
TSM	**Tawau**	**17.47**	**189**	⇑P	**Pn**	**21 09 02.5**	**+1.4**
CD2	**Chengdu**	**17.58**	**305**	⇑*i*P	**Pn**	**21 08 59.1**	**-3.2**
CD2				XP	sP	21 09 06.3	-6.6
CD2				PP		21 09 14.0	
CD2				S	**Sn**	**21 12 14.8**	**-2.6**
CD2				XS	sS	21 12 20.8	-14
CD2				SS		21 12 37.0	
CD2				AMB	AMB		
	comp=Z,140nm,1.0s						
CD2				AMB	AMB		
	comp=Z,1µm,7.2s						
CD2				LR	LR		
	comp=N,23µm,13.8s						
CD2				LR	LR		
	comp=E,15µm,12.0s						
CD2				LR	LR		
	comp=Z,15µm,11.4s						
BJT	**Baijiatuau**	**18.65**	**350**	*e*P	**Pn**	**21 09 16.2**	**+0.9**
	comp=Z,65nm,0.9s						
BJT	**Baijiatuau**	**18.65**	**350**	*e*P	**Pn**	**21 09 16.2**	**+0.9**
BJT				pmax	pmax		
	comp=Z,65nm,0.9s						
BJI	**Beijing**	**18.67**	**350**	P	**Pn**	**21 09 15.8**	**+0.2**
BJI				S	**Sn**	**21 12 45.0**	**+1.4**
BJI				AMB	AMB		
	comp=Z,20nm,0.9s						
BJI				AMB	AMB		
	comp=Z,1µm,5.5s						
BJI				LR	LR		
	comp=N,11µm,14.9s						
BJI				LR	LR		
	comp=E,8µm,15.6s						
BJI				LR	LR		
	comp=Z,7µm,15.2s						
BJI	**Beijing**	**18.67**	**350**	P	**Pn**	**21 09 15.7**	**+0.1**
BJI				pP	pP	21 09 34.5	+13
BJI				S	**Sn**	**21 12 45.0**	**+1.4**
BTM	**Bintulu**	**19.73**	**202**	⇓P	**Pn**	**21 09 27.5**	**-1.1**
SNY	**Shenyang**	**20.25**	**7**	⇑P	**P**	**21 09 32.3**	**-0.2**
SNY				AP		21 09 40.4	
SNY				XP	sP	21 09 45.5	+3.3
SNY				S	**S**	**21 13 16.4**	**-2.1**
SNY				AMB	AMB		
	comp=Z,10.0nm,1.0s						
SNY				LR	LR		
	comp=N,10µm,15.3s						
SNY				LR	LR		
	comp=Z,13µm,14.5s,MS5.4						
LZH	**Lanzhou**	**20.41**	**318**	⇓P	**P**	**21 09 35.5**	**+1.2**
LZH				AP		21 09 40.1	
LZH				XP	sP	21 09 42.5	-1.5
LZH				PP		21 09 56.4	
LZH				S	**S**	**21 13 19.5**	**-2.3**
LZH				XS	sS	21 13 25.4	-6.9
LZH				AMB	AMB		
	comp=Z,73nm,1.1s						
LZH				AMB	AMB		
	comp=Z,1µm,7.6s						
LZH				LR	LR		
	comp=E,7µm,10.5s						
LZH				LR	LR		
	comp=Z,9µm,13.4s,MS5.3						
LZH	**Lanzhou**	**20.41**	**318**	⇓P	**P**	**21 09 35.5**	**+1.2**
	comp=Z,73nm,1.1s						
LZH				pP		21 09 40.1	
LZH				sP	sP	21 09 42.5	-1.5
LZH				PP		21 09 56.4	
LZH				S	**S**	**21 13 19.5**	**-2.3**
LZH				sS	sS	21 13 25.4	-6.9
LZH				SS		21 13 49.7	
LZH				LR	LR		
	comp=Z,9µm,13.4s,MS5.3						
LZH	**Lanzhou**	**20.41**	**318**	⇓P	**P**	**21 09 35.5**	**+1.2**
LZH						21 09 56.4	
LZH				S	**S**	**21 13 19.5**	**-2.3**
LZH				SS		21 13 49.7	
LZH				pmax	pmax		
	comp=Z,73nm,1.1s						
LZH				MLR	MLR		
	comp=Z,9µm,13.4s,MS5.3						
CHTO	**Chiang Mai**	**20.41**	**266**	*e*P	**P**	**21 09 34.6**	**+0.2**
	comp=Z,39nm,1.0s						
CHTO	**Chiang Mai**	**20.41**	**266**	*e*P	**P**	**21 09 34.6**	**+0.2**
CHTO				pmax	pmax		
	comp=Z,39nm,1.0s						
CBIJ	**Chichi jima**	**20.47**	**70**	LR	LR	21 16 36.4	
	comp=Z,2µm,18.4s,MS4.5,baz=223,slow=34						
CM31	**Chiang Mai Arr**	**20.49**	**265**	*e*P	**P**	**21 09 35.7**	**+0.4**
JHJ	**Hachijo jima 2**	**20.54**	**52**	LR	LR	21 18 17.2	
	comp=Z,3µm,18.7s,MS4.6,baz=261,slow=39						
HHC	**Hu-ho-hao-te**	**20.55**	**340**	*e*P	**P**	**21 09 37.3**	**+1.6**
HHC				AP		21 09 41.3	
HHC				XP	sP	21 09 44.3	-1.1
HHC				PP		21 09 58.6	
HHC				S	**S**	**21 13 22.8**	**-1.7**
HHC				XS	sS	21 13 28.5	-6.5
HHC				PCP	PcP	21 13 47.8	+1.4
HHC				SS		21 13 52.8	
HHC				SCP	ScP	21 17 22.3	+0.7
HHC				PCS	PcS	21 17 24.6	+0.5
HHC				AMB	AMB		
	comp=Z,64nm,0.9s						
HHC				AMB	AMB		
	comp=Z,630nm,5.3s						
HHC				LR	LR		
	comp=N,7µm,12.4s,MS5.3						
HHC				LR	LR		
	comp=E,8µm,17.0s,MS5.3						
HHC				LR	LR		
	comp=Z,7µm,12.7s,MS5.2						
SBUM	**Sibu**	**20.74**	**204**	⇓P	**P**	**21 09 38.9**	**+0.9**
BTO	**Baotou**	**20.85**	**337**	*e*P	**P**	**21 09 38.8**	**-0.2**
MAJO	**Matsushiro**	**21.37**	**42**	*e*P	**P**	**21 09 45.5**	**+0.9**
	comp=Z,19nm,0.8s,mb4.5						
MAJO	**Matsushiro**	**21.37**	**42**	*e*P	**P**	**21 09 45.5**	**+0.9**
MAJO				pmax	pmax		
	comp=Z,19nm,0.8s,mb4.5						
MAT	**Matsushiro**	**21.37**	**42**	P	**P**	**21 09 45.1**	**+0.5**
MAT				S	**S**	**21 13 41.0**	**+0.3**
MJAR	**Matsushiro Arr**	**21.37**	**42**	P	**P**	**21 09 43.4**	**-1.2**
MJAR	**Matsushiro Arr**	**21.37**	**42**	P	**P**	**21 09 43.4**	**-1.2**
	comp=Z,4.6nm,0.6s,mb4.0,baz=233,slow=7.9,SNR=19						
KSM	**Kuching**	**22.40**	**208**	*e*P	**P**	**21 09 54.8**	**-1.0**
KSM				*e*S	**S**	**21 13 57.6**	**-3.5**
KSM	**Kuching**	**22.40**	**208**	⇓P	**P**	**21 09 54.8**	**-1.0**
CN2	**Changchun**	**22.44**	**9**	*e*P	**P**	**21 09 54.3**	**-1.7**
CN2				*e*XP	sP	21 10 00.8	-4.9
CN2				*e*PPP		21 10 31.8	
CN2				*e*S	**S**	**21 13 56.0**	**-5.4**
CN2				SS		21 14 37.4	
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.2						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,14µm,15.0s,MS5.6						
CN2				LR	LR		
	comp=E,8µm,15.0s,MS5.6						
CN2				LR	LR		
	comp=Z,16µm,16.0s,MS5.6						
KTGM	**Kuala Trenggan**	**23.39**	**228**	⇑P	**P**	**21 10 06.7**	**+0.4**
VLA	**Vladivostok**	**23.40**	**21**	*i* P	**P**	**21 10 06.4**	**+0.3**
VLA	**Vladivostok**	**23.40**	**21**	*e*P	**P**	**21 10 05.3**	**-0.8**
VLA				*e**SP	sP	21 10 12.7	-3.2
VLA				*i* S	**S**	**21 14 19.6**	**+2.1**
VLA				pmax	pmax		
	comp=Z,71nm,2.1s,mb4.7						
VLA				MLR	MLR		
	comp=Z,5µm,15.2s,MS5.1						
MDJ	**Mudanjiang**	**24.08**	**16**	P	**P**	**21 10 13.4**	**+1.0**
MDJ				AP		21 10 16.4	
MDJ				XP	sP	21 10 17.8	-4.6
MDJ				S	**S**	**21 14 32.1**	**+3.7**
MDJ				XS	sS	21 14 37.6	-2.5
MDJ				PCS	PcS	21 17 33.4	+0.4
MDJ				AMB	AMB		
	comp=Z,14nm,1.2s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,276nm,9.6s						
MDJ				LR	LR		
	comp=N,9µm,15.4s,MS5.5						
MDJ				LR	LR		
	comp=E,7µm,15.4s,MS5.5						
MDJ				LR	LR		
	comp=Z,14µm,13.2s,MS5.6						
MDJ	**Mudanjiang**	**24.08**	**16**	*e*P	**P**	**21 10 12.9**	**+0.5**
	comp=Z,22nm,1.0s,mb4.5						
MDJ				*e*		21 10 24.0	
MDJ				*e*PcP	PcP	21 13 53.5	0.0
GUMO	**Guam**	**24.56**	**105**	LR	LR	21 17 43.9	
	comp=Z,2µm,21.5s,MS4.5,baz=158,slow=31						
IMP	**Imphal**	**24.58**	**282**	*e*P	**P**	**21 10 17.0**	**-0.2**
GTA	**Gaotai**	**24.99**	**320**	⇓P	**P**	**21 10 20.5**	**-0.2**
GTA				AP		21 10 24.3	
GTA				XP	sP	21 10 25.8	-5.0
GTA				PP		21 10 59.3	
GTA				PPP		21 11 10.3	
GTA				PCP	PcP	21 13 55.1	-0.5
GTA				S	**S**	**21 14 43.3**	**+0.1**
GTA				XS	sS	21 14 50.4	-4.5
GTA				SCP	ScP	21 17 32.3	-0.9
GTA				PCS	PcS	21 17 33.8	-1.9
GTA				SCS	ScS	21 21 19.8	-1.6
GTA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.4						
GTA				AMB	AMB		
	comp=Z,375nm,4.2s						
GTA				LR	LR		
	comp=N,4µm,12.2s,MS5.3						
GTA				LR	LR		
	comp=E,6µm,14.4s,MS5.3						
GTA				LR	LR		
	comp=Z,8µm,13.3s,MS5.4						
KULM	**Kulim**	**25.20**	**233**	*e*P	**P**	**21 10 23.0**	**+0.1**
KULM				*e*		21 10 38.9	
KULM	**Kulim**	**25.20**	**233**	⇑P	**P**	**21 10 23.5**	**+0.6**
IPM	**Ipoh**	**25.47**	**231**	⇑P	**P**	**21 10 25.1**	**-0.3**
MYKOM	**Kota Tinggi**	**25.56**	**222**	⇓P	**P**	**21 10 27.0**	**+0.8**
KGM	**Kluang**	**25.72**	**223**	⇓P	**P**	**21 10 28.1**	**+0.5**
FRIM	**Kepong**	**25.93**	**228**	⇓P	**P**	**21 10 29.6**	**+0.2**
SHL	**Shillong**	**26.47**	**284**	*i* P	**P**	**21 10 34.0**	**-0.3**
SHL				*e*x	x	21 17 40.0	
HIA	**Hailar**	**27.53**	**359**	*e*P	**P**	**21 10 42.6**	**-1.0**
	comp=Z,43nm,1.3s,mb4.9						
HIA	**Hailar**	**27.53**	**359**	*e*P	**P**	**21 10 42.6**	**-1.0**
HIA				pmax	pmax		
	comp=Z,43nm,1.3s						
LSA	**Lhasa**	**27.56**	**293**	P	**P**	**21 10 45.5**	**+1.4**
LSA				S	**S**	**21 15 17.3**	**-6.9**
LSA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.8						
LSA				AMB	AMB		
	comp=Z,110nm,7.0s						
LSA				LR	LR		
	comp=N,1µm,12.0s,MS5.2						
LSA				LR	LR		
	comp=E,3µm,12.0s,MS5.2						
LSA				LR	LR		
	comp=Z,4µm,12.0s,MS5.2						
LSA	**Lhasa**	**27.56**	**293**	*e*P	**P**	**21 10 45.2**	**+1.1**
	comp=Z,17nm,0.8s,mb4.7						
LSA				*e*PcP	PcP	21 14 03.5	+1.7
LSA	**Lhasa**	**27.56**	**293**	*e*P	**P**	**21 10 45.2**	**+1.1**
LSA				*e*		21 14 03.5	
LSA				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.7						
PSI	**Prapat**	**28.14**	**231**	P	**P**	**21 10 49.4**	**0.0**
	comp=Z,33nm,0.9s,mb4.9,baz=29,slow=4.4,SNR=16						
PSI				LR	LR	21 22 14.0	
	comp=Z,1µm,18.3s,MS4.6,baz=47,slow=37						
ULN	**Ulaanbaatar**	**28.27**	**341**	*i* Pr	**P**	**21 10 50.5**	**+0.3**
ULN	**Ulaanbaatar**	**28.27**	**341**	*d i*P	**P**	**21 10 50.4**	**+0.2**
ULN	**Ulaanbaatar**	**28.27**	**341**	⇑P	**P**	**21 10 50.6**	**+0.4**
	SNR=10						
SONM	**Songino Array**	**28.45**	**340**	P	**P**	**21 10 51.4**	**-0.4**
	comp=Z,8.1nm,0.7s,mb4.5,baz=162,slow=10.0,SNR=62						
SONM				LR	LR	21 22 34.3	
	comp=Z,2µm,21.4s,MS4.6,baz=158,slow=37						
ASAJ	**Asahikawa**	**28.90**	**34**	P	**P**	**21 10 56.1**	**+0.3**
	comp=Z,12nm,0.6s,mb4.8,baz=247,slow=14,SNR=13						
ASAJ				LR	LR	21 22 30.3	
	comp=Z,3µm,21.5s,MS4.8,baz=239,slow=36						
KLR	**Kul’dur**	**28.91**	**15**	*e*P	**P**	**21 10 52.5**	**-3.4**
KLR				*e*		21 12 00.0	
KLR				*e*S	**S**	**21 15 50.5**	**+5.5**
KLR				*e*		21 17 09.0	
KLR				pmax	pmax		
	comp=Z,82nm,2.2s,mb5.1						
KLR				MLR	MLR		
	comp=E,5µm,14.0s						
KLR				MLR	MLR		
	comp=Z,20µm,14.0s,MS5.9						
HABR	**Khabarovsk**	**29.16**	**20**	*e*P	**P**	**21 10 56.6**	**-1.5**
HABR				*e*		21 11 48.4	
HABR				*e*S	**S**	**21 15 49.2**	**+0.3**
HABR				*e*SS	SS	21 17 15.9	-37
TAPN	**Taplejung**	**30.30**	**287**	*e*P	**P**	**21 11 08.3**	**-0.2**
	comp=Z,95nm,1.4s,mb5.3						
ODAN	**Odare**	**30.56**	**286**	*e*P	**P**	**21 11 10.7**	**-0.1**
	comp=Z,95nm,1.4s,mb5.4						
CIT	**Chita**	**30.76**	**352**	*e*	**P**	**21 11 10.7**	**-1.5**
YSS	**Yuzh-Sakhalins**	**30.99**	**30**	*i* P	**P**	**21 11 13.0**	**-1.4**
ZAK	**Zakamensk**	**31.68**	**339**	⇓*i*P	**P**	**21 11 19.8**	**-0.6**
ZAK				*e*		21 14 07.4	
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.3						
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.1						
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb3.9						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.8						
KKN	**Kakani**	**32.48**	**288**	*e*P	**P**	**21 11 27.5**	**-0.2**
	comp=Z,59nm,1.0s,mb5.4						
TLY	**Talaya**	**32.68**	**340**	P	**P**	**21 11 29.8**	**+0.7**
	comp=Z,61nm,0.7s,mb5.6,SNR=6.9						
TLY	**Talaya**	**32.68**	**340**	*i* Pr	**P**	**21 11 28.9**	**-0.2**
TLY	**Talaya**	**32.68**	**340**	*e*P	**P**	**21 11 29.0**	**-0.1**
TLY				*e*		21 12 42.2	
TLY				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
TLY				MLR	MLR		
	comp=Z,3µm,14.0s,MS5.2						
TLY	**Talaya**	**32.68**	**340**	⇑P	**P**	**21 11 29.4**	**+0.2**
	SNR=8.3						
IRK	**Irkutsk**	**32.98**	**342**	*e*P	**P**	**21 11 31.5**	**-0.3**
IRK				pmax	pmax		
	comp=Z,39nm,2.2s,mb5.0						
GKN	**Gorkha**	**33.05**	**288**	*e*P	**P**	**21 11 31.8**	**-0.9**
	comp=Z,67nm,1.1s,mb5.5						
MOY	**Mondy**	**33.55**	**338**	*e*P	**P**	**21 11 36.6**	**-0.1**
MOY				pmax	pmax		
	comp=Z,40nm,2.6s,mb4.9						
WMQ	**Urumqi**	**34.98**	**317**	P	**P**	**21 11 49.9**	**+0.7**
WMQ				AP	pP	21 11 54.3	-2.1
WMQ				XP	sP	21 11 56.9	-2.5
WMQ				PP	PP	21 13 08.3	-0.4
WMQ				PCP	PcP	21 14 22.3	+1.1
WMQ				S	**S**	**21 17 20.5**	**+0.8**
WMQ				SCP	ScP	21 18 06.0	+0.6
WMQ				SS	SS	21 19 35.3	-17
WMQ				SCS	ScS	21 22 08.3	-0.6
WMQ				AMB	AMB		
	comp=Z,16nm,1.0s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,57nm,10.0s						
WMQ				LR	LR		
	comp=N,1µm,17.2s,MS5.0						
WMQ				LR	LR		
	comp=E,2µm,15.0s,MS5.0						
WMQ				LR	LR		
	comp=Z,2µm,17.6s,MS4.8						
VIS	**Vishakhapatnam**	**35.15**	**270**	*i* P	**P**	**21 11 50.8**	**-0.2**
VIS				*e*x	x	21 12 01.4	
	comp=Z,36nm,1.2s						
VIS				*i* S	**S**	**21 17 23.8**	**+0.8**
VIS				*i* S	**S**	**21 17 25.7**	**+2.8**
KAKA	**Kakadu**	**36.14**	**160**	*e*P	**P**	**21 11 55.8**	**-3.6**
	comp=Z,52nm,0.7s,mb5.6						
BOD	**Bodaibo**	**36.40**	**354**	*e*P	**P**	**21 11 58.3**	**-2.9**
BOD				pmax	pmax		
	comp=Z,5.0nm,2.2s,mb4.1						
JBP	**Jabalpur**	**37.39**	**280**	⇓*i*P	**P**	**21 12 11.6**	**+1.4**
JBP				*e*x	x	21 12 24.8	
	comp=Z,46nm,1.4s						
JBP				*i* x	x	21 18 03.7	
MK31	**Makanchi Array**	**39.73**	**318**	*e*P	**P**	**21 12 29.4**	**0.0**
MK31				*e*PcP	PcP	21 14 35.8	+0.1
MKAR	**Makanchi Array**	**39.73**	**318**	P	**P**	**21 12 29.4**	**-0.1**
MKAR				PcP	PcP	21 14 36.0	+0.3
MKAR				LR	LR	21 30 57.1	
MKAR	**Makanchi Array**	**39.73**	**318**	P	**P**	**21 12 29.4**	**0.0**
MKAR						21 14 36.0	
MKAR	**Makanchi Array**	**39.73**	**318**	P	**P**	**21 12 29.4**	**-0.1**
	comp=Z,8.9nm,0.6s,mb4.7,baz=112,slow=9.5,SNR=144						
MKAR				PcP	PcP	21 14 36.0	+0.3
	comp=Z,3.0nm,0.6s,baz=87,slow=2.7,SNR=12						
MKAR				LR	LR	21 30 57.1	
	comp=Z,2µm,18.6s,MS5.0,baz=110,slow=39						
FITZ	**Fitzroy Crossi**	**39.86**	**172**	*e*P	**P**	**21 12 28.7**	**-2.1**
	comp=Z,15nm,0.9s,mb4.7						
KRAR	**Krasnoyarsk**	**39.94**	**336**	⇑*e*P	**P**	**21 12 31.3**	**+0.3**
KRAR				pmax	pmax		
	comp=Z,71nm,1.7s,mb5.1						
KRAR				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.1						
PMG	**Port Moresby**	**40.49**	**137**	*e*P	**P**	**21 12 36.7**	**+0.6**
PMG				*e*		21 12 47.8	
PMG	**Port Moresby**	**40.49**	**137**	LR	LR	21 28 05.5	
	comp=Z,463nm,20.9s,MS4.3,baz=204,slow=34						
YAK	**Yakutsk**	**40.82**	**7**	⇑*e*P	**P**	**21 12 37.8**	**-0.4**
PALK	**Pallekele**	**40.95**	**256**	*e*P	**P**	**21 12 41.3**	**+1.3**
KSH	**Kashi**	**41.77**	**306**	*e*P	**P**	**21 12 49.1**	**+2.7**
KSH				*e*AP	pP	21 12 53.1	-0.6
KSH				*e*XP	sP	21 12 56.1	-0.6
KSH				*e*PP	PP	21 14 29.1	+5.9
KSH				*e*PCP	PcP	21 14 45.3	+2.8
KSH				*e*PPP		21 14 59.1	
KSH				*e*SCP	ScP	21 18 34.3	+2.9
KSH				*e*PCS	PcS	21 18 36.0	+2.1
KSH				*e*S	**S**	**21 19 05.3**	**+2.8**
KSH				*e*XS	sS	21 19 13.1	-1.4
KSH				*e*SS	SS	21 22 06.5	-2.2
KSH				*e*SCS	ScS	21 22 49.1	+0.9
KSH				AMB	AMB		
	comp=Z,749nm,4.0s						
KSH				LR	LR		
	comp=N,6µm,14.2s,MS5.9						
KSH				LR	LR		
	comp=E,9µm,14.4s,MS5.9						
KSH				LR	LR		
	comp=Z,8µm,14.8s,MS5.8						
AJM	**Ajmer**	**41.96**	**286**	*i* P	**P**	**21 12 47.0**	**-1.2**
ZALV	**Zalesovo Beam**	**42.02**	**329**	P	**P**	**21 12 47.7**	**-0.5**
ZALV				PcP	PcP	21 14 42.7	-0.3
ZALV				LR	LR	21 31 07.1	
ZALV	**Zalesovo Beam**	**42.02**	**329**	P	**P**	**21 12 47.7**	**-0.5**
	comp=Z,19nm,0.8s,mb4.8,baz=116,slow=7.7,SNR=104						
ZALV				PcP	PcP	21 14 42.7	-0.3
	comp=Z,3.8nm,0.6s,baz=97,slow=4.7,SNR=5.8						
ZALV				LR	LR	21 31 07.1	
	comp=Z,1µm,21.1s,MS4.7,baz=128,slow=37						
ZAL	**Zalesovo**	**42.02**	**329**	P	**P**	**21 12 47.7**	**-0.6**
ZAL						21 14 42.7	
ULHL	**Ulahol**	**42.20**	**310**	P	**P**	**21 12 51.1**	**+1.2**
	SNR=8.0						
MBWA	**Marble Bar**	**42.59**	**181**	*e*P	**P**	**21 12 51.8**	**-1.3**
PET	**Petropavlovsk**	**42.74**	**33**	*e*P	**P**	**21 12 53.0**	**-1.1**
PET	**Petropavlovsk**	**42.74**	**33**	⇑*e*P	**P**	**21 12 53.3**	**-0.8**
PET				pmax	pmax		
	comp=Z,59nm,2.1s,mb5.0						
TKM2	**Tokmak 2**	**42.84**	**310**	P	**P**	**21 12 55.6**	**+0.5**
	SNR=13						
TKM2	**Tokmak 2**	**42.84**	**310**	*e*P	**P**	**21 12 56.2**	**+1.1**
	comp=Z,8.9nm,0.8s,mb4.5						
TKM2				*e*PcP	PcP	21 14 46.5	+0.6
TKM2	**Tokmak 2**	**42.84**	**310**	*e*P	**P**	**21 12 56.2**	**+1.1**
TKM2				*e*		21 14 46.6	
TKM2				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
KZA	**Kyzart**	**42.88**	**309**	P	**P**	**21 12 57.7**	**+2.3**
	SNR=14						
KBK	**Karagaybulak**	**43.24**	**310**	P	**P**	**21 12 59.9**	**+1.6**
	SNR=11						
NVS	**Novosibirsk**	**43.29**	**329**	*i* P	**P**	**21 12 57.8**	**-0.8**
NVS				*i* S	**S**	**21 19 24.0**	**-0.4**
NVS				pmax	pmax		
	comp=Z,38nm,1.3s,mb5.0						
NVS				pmax	pmax		
	comp=N,30nm,1.8s						
NVS				pmax	pmax		
	comp=E,21nm,1.3s						
NVS				smax			
	comp=N,32nm,2.2s						
NVS				smax			
	comp=E,19nm,1.6s						
UCH	**Uchtor**	**43.45**	**309**	P	**P**	**21 13 01.9**	**+1.9**
	SNR=16						
UCH	**Uchtor**	**43.45**	**309**	*e*P	**P**	**21 13 01.9**	**+1.9**
	comp=E,15nm,1.0s,mb4.7						
UCH				*e*		21 13 12.9	
WRA	**Warramunga Arr**	**43.53**	**161**	P	**P**	**21 12 59.8**	**-1.0**
	comp=E,69nm,0.7s,mb5.5,baz=344,slow=9.0,SNR=440						
WRA				LR	LR	21 34 08.3	
	comp=E,327nm,18.5s,MS4.3,baz=55,slow=40						
WB2	**Warramunga Arr**	**43.53**	**161**	*e*P	**P**	**21 12 59.6**	**-1.2**
WB2				*e*S	**S**	**21 19 24.6**	**-3.9**
MA2	**Magadan**	**43.53**	**22**	*i* Pr	**P**	**21 12 59.4**	**-1.0**
MA2	**Magadan**	**43.53**	**22**	*e*P	**P**	**21 12 59.0**	**-1.4**
MA2				*e*		21 14 48.0	
MA2				*e*S	**S**	**21 19 26.6**	**-1.2**
MA2				pmax	pmax		
	comp=Z,30nm,1.1s,mb4.9						
MA2				pmax	pmax		
	comp=N,10.0nm,1.0s						
MA2				MLR	MLR		
	comp=Z,3µm,18.7s,MS5.3						
AAK	**Ala-Archa**	**43.55**	**310**	P	**P**	**21 13 00.9**	**0.0**
	comp=Z,31nm,0.8s,mb5.1,SNR=5.7						
AAK	**Ala-Archa**	**43.55**	**310**	P	**P**	**21 13 01.4**	**+0.5**
	SNR=6.7						
AAK	**Ala-Archa**	**43.55**	**310**	*e*P	**P**	**21 13 00.7**	**-0.2**
AAK				*e*		21 14 48.9	
KURK	**Kurchatov**	**43.63**	**322**	*i* Pr	**P**	**21 13 00.0**	**-1.3**
KURK	**Kurchatov**	**43.63**	**322**	*d i*P	**P**	**21 13 00.9**	**-0.4**
KURK	**Kurchatov**	**43.63**	**322**	⇓P	**P**	**21 13 01.8**	**+0.5**
	SNR=11						
AML	**Almayashu**	**44.02**	**309**	P	**P**	**21 13 06.1**	**+1.5**
	SNR=12						
AML	**Almayashu**	**44.02**	**309**	*e*P	**P**	**21 13 05.7**	**+1.1**
	comp=Z,16nm,0.9s,mb4.8						
AML				*e*		21 13 18.9	
AML				*e*PcP	PcP	21 14 50.8	+0.8
EKS2	**Erkin-Say**	**44.08**	**309**	P	**P**	**21 13 06.4**	**+1.3**
	SNR=8.8						
EKS2	**Erkin-Say**	**44.08**	**309**	*e*P	**P**	**21 13 06.1**	**+1.0**
	comp=Z,7.6nm,1.1s,mb4.3						
EKS2				*e*PcP	PcP	21 14 51.1	+1.0
KKAR	**Karatay Array**	**46.52**	**309**	*i* P	**P**	**21 13 23.9**	**-0.5**
KKAR				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
SEY	**Seymchan**	**46.54**	**19**	⇓*e*P	**P**	**21 13 23.6**	**-0.6**
KBL	**Kabul**	**46.70**	**297**	*e*P	**P**	**21 13 26.3**	**+0.3**
KBL				*e*PcP	PcP	21 14 58.6	-0.8
KBL				*e*PP	PP	21 15 16.7	+0.9
ASAR	**Alice Springs**	**46.93**	**163**	P	**P**	**21 13 27.4**	**-0.3**
	comp=Z,11nm,0.7s,mb4.9,baz=337,slow=7.0,SNR=69						
ASAR				PcP	PcP	21 15 00.3	+0.2
	comp=Z,5.8nm,0.7s,baz=334,slow=2.7,SNR=7.0						
CTA	**Charters Tower**	**48.56**	**147**	*e*P	**P**	**21 13 38.8**	**-1.6**
	comp=Z,14nm,0.6s,mb5.2						
CTA				*e*S	**S**	**21 20 52.0**	**+11**
CTA	**Charters Tower**	**48.56**	**147**	*e*P	**P**	**21 13 38.8**	**-1.6**
CTA				*e*S	**S**	**21 20 52.0**	**+11**
CTA				pmax	pmax		
	comp=Z,14nm,0.6s						

CTA	**Charters Tower**	**48.56**	**147**	LR	LR	21 32 31.9	
	comp=Z,1µm,21.5s,MS4.8,baz=329,slow=34						
CTAO	**Charters Tower**	**48.56**	**147**	*e*P	**P**	**21 13 41.6**	**+1.1**
	comp=Z,14nm,0.6s,mb5.2						
CTAO	**Charters Tower**	**48.56**	**147**	*e*P	**P**	**21 13 41.6**	**+1.2**
CTAO				pmax	pmax		
	comp=Z,14nm,0.6s,mb5.2						
BRVK	**Borovoye**	**49.30**	**322**	P	**P**	**21 13 46.1**	**+0.3**
	comp=Z,139nm,0.7s,mb6.1,SNR=9.8						
BRVK	**Borovoye**	**49.30**	**322**	*i* Pr	**P**	**21 13 45.8**	**0.0**
BRVK	**Borovoye**	**49.30**	**322**	P	**P**	**21 13 45.4**	**-0.4**
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
BRVK	**Borovoye**	**49.30**	**322**	⇓P	**P**	**21 13 46.1**	**+0.3**
	SNR=7.6						
TIXI	**Tiksi**	**50.22**	**3**	*e*P	**P**	**21 13 51.3**	**-1.2**
	comp=Z,26nm,1.1s,mb5.2						
TIXI				*e*		21 14 04.4	
TIXI				*e*PP	PP	21 15 53.0	+5.2
TIXI	**Tiksi**	**50.22**	**3**	*e*P	**P**	**21 13 49.2**	**-3.3**
TIXI				*e*S	**S**	**21 21 01.4**	**-1.6**
TIXI				*e*SSS		21 26 00.6	
TIXI				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.2						
TIXI				MLR	MLR		
	comp=Z,4µm,14.0s,MS5.6						
FORT	**Forrest**	**52.66**	**172**	*e*P	**P**	**21 14 11.2**	**-0.1**
	comp=Z,55nm,0.8s,mb5.5						
KLBR	**Kellerberrin**	**53.03**	**183**	*e*P	**P**	**21 14 13.0**	**-1.0**
	comp=Z,41nm,1.0s,mb5.3						
MUN	**Mundaring**	**53.51**	**185**	*e*P	**P**	**21 14 17.0**	**-0.5**
MUN				*e*sP	sP	21 14 25.4	-2.4
MUN				*e*PCP	PcP	21 15 24.7	+0.5
BILL	**Bilibino**	**54.24**	**19**	⇑*e*P	**P**	**21 14 22.4**	**-0.1**
BILL	**Bilibino**	**54.24**	**19**	⇑*e*P	**P**	**21 14 22.3**	**-0.2**
BILL				*e*		21 14 31.5	
BILL				*e*		21 15 27.2	
BILL				*e*S	**S**	**21 22 00.9**	**+2.7**
BILL				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
BILL				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.4						
NWAO	**Narrogin (SRO)**	**54.39**	**183**	*e*P	**P**	**21 14 23.9**	**0.0**
	comp=Z,41nm,0.9s,mb5.4						
NWAO				*e*		21 14 37.6	
NWAO				*e*PcP	PcP	21 15 27.9	+0.4
NWAO	**Narrogin (SRO)**	**54.39**	**183**	*e*P	**P**	**21 14 23.9**	**0.0**
NWAO				*e*		21 14 37.6	
NWAO				*e*		21 15 27.9	
NWAO				pmax	pmax		
	comp=Z,41nm,0.9s						
AB31	**Akbulak array**	**54.75**	**316**	*i* P	**P**	**21 14 26.1**	**-0.3**
AB31				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
ABKT	**Ailbek**	**55.53**	**302**	P	**P**	**21 14 33.6**	**+1.3**
	comp=Z,168nm,0.8s,mb6.1,SNR=12						
SVE	**Sverdlovsk**	**55.69**	**325**	*e*P	**P**	**21 14 34.0**	**+0.9**
SVE				*e*S	**S**	**21 22 18.0**	**0.0**
SVE				pmax	pmax		
	comp=Z,130nm,2.1s,mb5.6						
SVE				MLR	MLR		
	comp=N,2µm,14.0s						
SVE				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.4						
ARU	**Arti**	**56.73**	**324**	P	**P**	**21 14 40.5**	**0.0**
	comp=Z,186nm,0.5s,mb6.4,SNR=12						
ARU	**Arti**	**56.73**	**324**	*i* Pr	**P**	**21 14 39.0**	**-1.5**
ARU	**Arti**	**56.73**	**324**	*d i*P	**P**	**21 14 40.0**	**-0.5**
ARU				*e*		21 15 34.5	
ARU				*e*PPP		21 17 59.6	
ARU				*e*S	**S**	**21 22 33.6**	**+1.9**
ARU				*e*SS	SS	21 26 16.4	-3.1
ARU				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.3						
STKA	**Stephens Creek**	**56.96**	**159**	*e*P	**P**	**21 14 42.4**	**0.0**
	comp=Z,22nm,0.6s,mb5.4						
STKA	**Stephens Creek**	**56.96**	**159**	P	**P**	**21 14 42.4**	**0.0**
	comp=Z,31nm,0.7s,mb5.4,baz=339,slow=6.8,SNR=66						
STKA				LR	LR	21 41 07.6	
	comp=Z,353nm,18.9s,MS4.5,baz=136,slow=38						
HOQ	**Hoqain**	**57.92**	**285**	⇓P	**P**	**21 14 49.9**	**+0.4**
	SNR=5.6						
SOKR	**Solikamsk**	**58.27**	**328**	*e*P	**P**	**21 14 51.3**	**0.0**
SOKR				S	**S**	**21 22 47.4**	**-4.4**
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
SOKR				MLR	MLR		
	comp=Z,4µm,17.0s,MS5.6						
ADE	**Adelaide**	**58.93**	**163**	⇑*i*P	**P**	**21 14 57.1**	**+0.9**
RBK	**Rabkut**	**62.18**	**279**	⇓P	**P**	**21 15 18.4**	**-0.3**
	SNR=5.5						
CNB	**Canberra Magne**	**62.95**	**154**	*e*P	**P**	**21 15 24.7**	**+1.2**
	comp=Z,107nm,1.8s,mb5.7						
ABTO	**Aybut**	**63.05**	**279**	⇓P	**P**	**21 15 24.0**	**-0.7**
	SNR=5.7						
MAK	**Makhachkala**	**63.31**	**308**	*e*P	**P**	**21 15 25.9**	**0.0**
MAK				*i*		21 17 41.9	
MAK				*i* PPP		21 19 17.3	
MAK				*e*S	**S**	**21 23 54.3**	**-2.4**
MAK				*e*		21 25 20.0	
MAK				pmax	pmax		
	comp=Z,21nm,0.5s,mb5.5						
MAK				MLR	MLR		
	comp=Z,2µm,13.0s,MS5.4						
TOO	**Toolangi**	**63.46**	**158**	*e*P	**P**	**21 15 28.0**	**+1.2**
	comp=Z,15nm,0.9s,mb5.1						
TOO				*e*sP	sP	21 15 36.2	-1.1
TOO	**Toolangi**	**63.46**	**158**	*e*P	**P**	**21 15 28.0**	**+1.2**
TOO				*e**SP	sP	21 15 36.2	-1.1
TOO				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.1						
PRGR	**Permogore**	**63.98**	**329**	⇑*i*P	**P**	**21 15 29.6**	**-0.4**
PRGR				*e*S	**S**	**21 24 09.5**	**+5.1**
PRGR				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.3						
UMR	**Umm Al-Rimmam**	**65.15**	**293**	*e*P	**P**	**21 15 37.0**	**-1.2**
UMR				AMb	AMB	21 15 38.6	
	comp=Z,30nm,0.8s,mb5.4						
KBD	**Kabd**	**65.25**	**293**	*e*P	**P**	**21 15 38.3**	**-0.6**
KBD				AMb	AMB	21 15 39.4	
	comp=Z,110nm,0.7s,mb6.0						
MIB	**Mutribah**	**65.42**	**294**	*e*P	**P**	**21 15 39.4**	**-0.6**
MIB				AMb	AMB	21 15 40.4	
	comp=Z,40nm,0.7s,mb5.6						
RDF	**Al-Radifah**	**65.42**	**293**	*e*P	**P**	**21 15 39.6**	**-0.5**
RDF				AMb	AMB	21 15 40.5	
	comp=Z,84nm,0.8s,mb5.8						
NAY	**Al-Naaiem**	**65.62**	**293**	*e*P	**P**	**21 15 40.6**	**-0.6**
NAY				AMb	AMB	21 15 41.5	
	comp=Z,32nm,0.7s,mb5.5						
ZEI	**Tsey**	**65.96**	**308**	*e*P	**P**	**21 15 43.1**	**-0.2**
ZEI				*e*		21 16 12.7	
ZEI				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.2						
VRHR	**Novokhopersk**	**66.53**	**318**	*e*P	**P**	**21 15 46.1**	**-0.6**
VRHR				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.5						
VRHR				pmax	pmax		
	comp=N,30nm,0.7s						
VRHR				pmax	pmax		
	comp=E,20nm,0.7s						
KIV	**Kislovodsk**	**66.67**	**310**	P	**P**	**21 15 48.3**	**+0.5**
	comp=E,331nm,0.8s,mb6.4,SNR=11						
KIV	**Kislovodsk**	**66.67**	**310**	*i* Pr	**P**	**21 15 48.4**	**+0.6**
KIV	**Kislovodsk**	**66.67**	**310**	*i* P	**P**	**21 15 48.4**	**+0.6**
SVW2	**Sparrevohn**	**68.36**	**31**	*e*P	**P**	**21 15 58.7**	**+0.6**
MOS	**Moscow**	**68.39**	**323**	*e*P	**P**	**21 15 54.0**	**-4.4**
MOS				*e*		21 16 19.2	
MOS				*e*S	S	21 25 00.3	+2.0
MOS				pmax	pmax		
	comp=Z,65nm,1.6s,mb5.4						
MOS				MLR	MLR		
	comp=Z,1µm,14.9s,MS5.2						
IMA2	**Indian Mountai**	**68.72**	**26**	*e*P	**P**	**21 16 01.0**	**+0.7**
SOC	**Sochi**	**68.86**	**310**	*e*P	**P**	**21 15 58.9**	**-2.7**
SOC				*e*		21 16 24.1	
SOC				*e*PPP		21 20 09.2	
SOC				*e*S	S	21 25 02.2	-2.1
SOC				*e*		21 25 56.4	
SOC				MLR	MLR		
	comp=Z,945nm,17.0s,MS5.1						
TAU	**Tasmania Unive**	**68.86**	**159**	*e*P	**P**	**21 16 03.3**	**+1.9**
TAU				*e*	pP	21 16 12.2	+3.1
APA	**Apatity**	**69.06**	**336**	*e*P	**P**	**21 16 00.0**	**-2.4**
APA				*i* S	S	21 25 06.0	+0.1
APA				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
APA				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.5						
OBN	**Obninsk**	**69.07**	**322**	*i* Pr	**P**	**21 16 01.8**	**-0.9**
OBN				LR	LR		
	comp=Z,600nm,14.0s,MS5.0						
OBN	**Obninsk**	**69.07**	**322**	*d i*P	**P**	**21 16 01.7**	**-1.0**
OBN				*e*		21 16 20.1	
OBN				*e*S	S	21 25 07.3	+0.9
OBN				*e*SS	SS	21 29 36.8	+4.8
OBN				pmax	pmax		
	comp=Z,67nm,1.8s,mb5.3						
OBN				MLR	MLR		
	comp=Z,600nm,14.0s,MS5.0						
ANN	**Anapa**	**70.25**	**311**	*e*P	**P**	**21 16 09.2**	**-0.9**
ANN				*e**PP	pP	21 16 19.3	+1.5
ANN				*e*S	S	21 25 23.0	+2.4
ANN				pmax	pmax		
	comp=Z,66nm,1.2s,mb5.4						
KDAK	**Kodiak Island**	**70.31**	**35**	P	**P**	**21 16 11.0**	**+0.7**
	comp=Z,238nm,0.6s,mb6.3,SNR=10						
KDAK	**Kodiak Island**	**70.31**	**35**	*e*P	**P**	**21 16 11.2**	**+1.0**
	comp=Z,23nm,0.8s,mb5.2						
KDAK				*e*		21 16 24.0	
JOF	**Joensuu**	**70.57**	**331**	*e*p	**P**	**21 16 10.3**	**-1.4**
	comp=Z,11nm,0.5s,mb5.0						
MALT	**Malatya**	**70.86**	**304**	*e*P	**P**	**21 16 15.4**	**+1.4**
	comp=Z,20nm,0.7s,mb5.2						
MALT				*e*PP	PP	21 18 53.1	+2.1
MALT	**Malatya**	**70.86**	**304**	*e*P	**P**	**21 16 15.4**	**+1.4**
MALT				*e*		21 18 53.1	
MALT				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.2						
SLKM	**Skilak Lake**	**71.04**	**32**	P	**P**	**21 16 14.7**	**0.0**
MCK	**McKinley**	**71.05**	**28**	*e*P	**P**	**21 16 14.6**	**-0.1**
	comp=Z,18nm,1.3s,mb4.8						
MCK	**McKinley**	**71.05**	**28**	*e*P	**P**	**21 16 14.6**	**0.0**
MCK				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.8						
KEV	**Kevo**	**71.05**	**338**	*e*p	**P**	**21 16 14.4**	**-0.2**
	comp=Z,7.1nm,0.8s,mb4.7						
KEV	**Kevo**	**71.05**	**338**	*e*P	**P**	**21 16 14.4**	**-0.2**
KEV				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
COLA	**College**	**71.30**	**27**	⇑*e*P	**P**	**21 16 16.2**	**+0.1**
PMR	**Palmer**	**71.36**	**30**	*e*P	**P**	**21 16 16.4**	**-0.2**
	comp=Z,20nm,1.0s,mb5.0						
PMR				LR	LR		
	comp=Z,500nm,18.0s,MS4.8						
PMR	**Palmer**	**71.36**	**30**	*e*P	**P**	**21 16 16.4**	**-0.2**
PMR				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
PMR				MLR	MLR		
	comp=Z,500nm,18.0s,MS4.8						
ARCES	**ARCESS Array B**	**71.61**	**338**	P	**P**	**21 16 17.7**	**-0.2**
	comp=Z,8.4nm,0.9s,mb4.7,baz=67,slow=9.3,SNR=13						
ARCES				LR	LR	21 51 28.1	
	comp=Z,1µm,18.3s,MS5.2,baz=65,slow=39						
SML	**Sawmill**	**71.69**	**30**	*e*P	**P**	**21 16 18.5**	**-0.1**
SML				*e*		21 16 31.6	
SPB4	**Spitsbergen Ar**	**71.79**	**348**	*e*P	**P**	**21 16 19.6**	**+0.7**
BJO	**Bjornoya**	**72.25**	**344**	AMS	AMS	21 56 11.7	
	comp=Z,1µm,14.8s,MS5.3						
KBS	**Kingsbay**	**72.35**	**349**	AMS	AMS	21 53 44.4	
	comp=Z,2µm,16.2s,MS5.5						
SIM	**Simferopol’**	**72.52**	**312**	*e*P	**P**	**21 16 23.8**	**0.0**
SIM				*e*S	S	21 25 46.0	-0.8
SIM				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.2						
SIM				MLR	MLR		
	comp=Z,400nm,17.5s,MS4.8						
KAF	**Kangasniemi**	**73.01**	**331**	*e*p	**P**	**21 16 24.6**	**-1.8**
	comp=Z,3.9nm,0.6s,mb4.5,baz=75,slow=5.6						
KAF	**Kangasniemi**	**73.01**	**331**	*e*P	**P**	**21 16 24.6**	**-1.8**
KAF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
FINES	**FINESS Array B**	**73.28**	**330**	P	**P**	**21 16 28.1**	**0.0**
	comp=Z,5.2nm,0.6s,mb4.6,baz=53,slow=5.7,SNR=25						
FINES				LR	LR	21 49 53.5	
	comp=Z,547nm,18.7s,MS4.9,baz=223,slow=37						
MENT	**Mentasta**	**73.52**	**28**	*e*P	**P**	**21 16 30.8**	**+1.4**
ASF	**Jabal al Asfar**	**73.58**	**299**	P	**P**	**21 16 31.4**	**+1.0**
	comp=Z,8.6nm,0.9s,mb4.7,baz=292,slow=3.2,SNR=16						
ASF				LR	LR	21 52 53.9	
	comp=Z,243nm,20.1s,MS4.5,baz=88,slow=39						
TRO	**Tromso**	**73.81**	**339**	*e*S	S	21 25 58.6	-2.1
TRO				*e*		21 26 06.2	
TRO				AMS	AMS	21 58 07.0	
	comp=Z,789nm,15.4s,MS5.1						
EGAK	**Eagle**	**74.10**	**26**	*e*P	**P**	**21 16 32.7**	**-0.1**
	comp=Z,20nm,0.9s,mb5.0						
BR131	**Keskin Array S**	**74.14**	**307**	*e*P	**P**	**21 16 33.4**	**-0.1**
	comp=Z,6.6nm,0.9s,mb4.6						
BR131				*e*		21 16 53.8	
BRTR	**Keskin Array B**	**74.14**	**307**	P	**P**	**21 16 33.9**	**+0.3**
	comp=Z,4.7nm,0.8s,mb4.5,baz=104,slow=6.1,SNR=25						
MNK	**Minsk**	**74.14**	**323**	*e*P	**P**	**21 16 31.0**	**-2.2**
AKASG	**Malin Array Be**	**74.31**	**319**	P	**P**	**21 16 33.2**	**-1.1**
AKASG				LR	LR	21 53 48.6	
AKASG	**Malin Array Be**	**74.31**	**319**	P	**P**	**21 16 33.2**	**-1.1**
	comp=Z,6.4nm,0.6s,mb4.7,baz=60,slow=6.0,SNR=34						
AKASG				LR	LR	21 53 48.6	
	comp=Z,537nm,18.3s,MS4.9,baz=65,slow=40						
AKBB	**Malin Array Si**	**74.31**	**319**	*e*P	**P**	**21 16 34.1**	**-0.1**
KIEV	**Kiev**	**74.32**	**319**	*e*P	**P**	**21 16 33.5**	**-0.8**
	comp=Z,7.3nm,0.8s,mb4.7						
KIEV	**Kiev**	**74.32**	**319**	*e*P	**P**	**21 16 33.5**	**-0.9**
KIEV				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
MMAI	**Mount Meron Ar**	**74.57**	**300**	P	**P**	**21 16 37.3**	**+1.2**
	comp=Z,4.4nm,0.7s,mb4.5,baz=80,slow=9.7,SNR=10						
ANTO	**Ankara**	**74.73**	**307**	*e*P	**P**	**21 16 37.0**	**+0.1**
	comp=Z,8.2nm,0.8s,mb4.7						
ANTO				*e*		21 16 51.1	
ANTO	**Ankara**	**74.73**	**307**	*e*P	**P**	**21 16 37.0**	**0.0**
ANTO				*e*		21 16 51.1	
ANTO				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
DAWY	**Dawson**	**75.05**	**27**	*e*P	**P**	**21 16 38.7**	**+0.4**
DAWY				*e*		21 16 49.5	
AFI	**Afiamalu**	**75.26**	**112**	LR	LR	21 46 43.5	
	comp=Z,175nm,21.6s,MS4.3,baz=286,slow=33						
CSS	**Prodhromos**	**75.68**	**302**	*e*P	**P**	**21 16 42.4**	**-0.1**
	comp=Z,17nm,0.6s,mb5.2						
INK	**Inuvik**	**75.78**	**22**	*e*P	**P**	**21 16 42.4**	**0.0**
	comp=Z,2µm,1.4s						
INK				*e*PcP	PcP	21 16 55.5	+0.5
INK				*e*PP	PP	21 19 27.2	-4.8
INK	**Inuvik**	**75.78**	**22**	LR	LR	21 50 10.4	
	comp=Z,421nm,21.5s,MS4.7,baz=148,slow=36						
EIL	**Elat**	**75.89**	**297**	P	**P**	**21 16 44.6**	**+0.8**
	comp=Z,5.8nm,0.9s,mb4.5,baz=134,slow=0.5,SNR=3.8						
EIL				LR	LR	21 52 07.1	
	comp=Z,419nm,21.3s,MS4.7,baz=64,slow=37						
ALE	**Alert**	**75.99**	**0**	P	**P**	**21 16 44.6**	**+1.1**
	comp=Z,83nm,1.0s,mb5.6,SNR=6.1						
SUW	**Suwalki**	**76.90**	**323**	*e*P	**P**	**21 16 48.7**	**-0.3**
ISP	**Isparta**	**77.02**	**306**	*e*P	**P**	**21 16 49.6**	**-0.5**
	comp=Z,6.5nm,0.8s,mb4.6						
ISP	**Isparta**	**77.02**	**306**	*e*P	**P**	**21 16 49.6**	**-0.5**
ISP				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
VRI	**Vrincioaia**	**77.28**	**314**	⇓P	**P**	**21 16 52.1**	**+0.8**
VRI	**Vrincioaia**	**77.28**	**314**	⇓*i*P	**P**	**21 16 52.2**	**+0.8**
BURAR	**Bucovina Array**	**77.72**	**316**	⇑P	**P**	**21 16 53.7**	**-0.1**
BURAR	**Bucovina Array**	**77.72**	**316**	⇑*i*P	**P**	**21 16 53.7**	**-0.1**
MLR	**Muntele Rosu**	**77.92**	**314**	⇑P	**P**	**21 16 55.0**	**0.0**
MLR	**Muntele Rosu**	**77.92**	**314**	P	**P**	**21 16 55.2**	**+0.2**
	comp=Z,9.7nm,0.6s,mb4.9,baz=346,slow=1.4,SNR=29						
MLR	**Muntele Rosu**	**77.92**	**314**	⇑*i*P	**P**	**21 16 55.0**	**0.0**
NSS	**Namsos**	**78.26**	**335**	AMS	AMS	21 56 16.3	
	comp=Z,1µm,11.9s,MS5.5						
SKAG	**Skagway**	**78.50**	**30**	*e*P	**P**	**21 17 01.7**	**+3.9**
	comp=Z,75nm,1.4s,mb5.4						
SKAG				LR	LR		
	comp=Z,500nm,18.0s,MS4.9						
KWP	**Kalwaria**	**78.63**	**319**	*e*P	**P**	**21 16 59.5**	**+0.8**
DAG	**Danmarks Havn**	**78.73**	**351**	⇓*i*P	**P**	**21 16 58.7**	**-0.2**
DAG				pmax	pmax		
	comp=Z,9.0nm,0.4s,mb5.0						
DAG	**Danmarks Havn**	**78.73**	**351**	⇓*i*P	**P**	**21 16 58.7**	**-0.2**
	comp=Z,8.5nm,0.4s,mb5.0						
KOLS	**Kolonicke sedl**	**79.14**	**318**	*e*P	**P**	**21 17 01.2**	**-0.4**
UZH	**Uzhgorod**	**79.23**	**318**	*e*P	**P**	**21 17 02.2**	**+0.1**
UZH				*e*		21 17 06.6	
UZH				*e*		21 17 16.6	
UZH				*e*S	S	21 27 00.0	-0.7
UZH				*e*		21 27 58.0	
UZH				*e*		21 32 00.0	
HFS	**Hagfors**	**79.43**	**331**	P	**P**	**21 17 02.7**	**-0.2**
	comp=Z,19nm,0.7s,mb5.1,baz=108,slow=4.8,SNR=28						
HFS				LR	LR	21 55 14.2	
	comp=Z,1µm,18.3s,MS5.3,baz=63,slow=38						
STHS	**Stebnicka Huta**	**79.60**	**319**	*e*P	**P**	**21 17 03.9**	**-0.2**
	comp=Z,6.3nm,0.7s,mb4.7						
STHS	**Stebnicka Huta**	**79.60**	**319**	*e*P	**P**	**21 17 03.9**	**-0.2**
STHS				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
DRGR		**79.61**	**316**	⇑P	**P**	**21 17 04.8**	**+0.6**
DRGR		**79.61**	**316**	⇑*i*P	**P**	**21 17 04.8**	**+0.6**
CRVS	**Cervenica-Dubn**	**79.65**	**319**	*e*P	**P**	**21 17 04.8**	**+0.4**
URZ	**Urewera**	**79.84**	**138**	LR	LR	21 48 25.6	
	comp=Z,452nm,20.9s,MS4.8,baz=277,slow=33						
RPZ	**Rata Peaks**	**79.89**	**145**	LR	LR	21 50 21.6	
	comp=Z,404nm,20.9s,MS4.8,baz=346,slow=34						
NB2	**NORSAR Subarra**	**80.13**	**332**	P	**P**	**21 17 06.0**	**-0.7**
	comp=Z,13nm,0.9s,mb4.9,baz=64,slow=5.3						
NOA	**NORSAR Array B**	**80.13**	**332**	P	**P**	**21 17 05.9**	**-0.8**
NOA						21 20 07.8	
NOA	**NORSAR Array B**	**80.13**	**332**	P	**P**	**21 17 05.9**	**-0.8**
	comp=Z,6.9nm,0.6s,mb4.8,baz=63,slow=5.3,SNR=38						
NOA				PP	PP	21 20 07.8	-0.8
	comp=Z,0.8nm,0.7s,baz=64,slow=8.7,SNR=3.5						
NOA				LR	LR	21 56 07.0	
	comp=Z,2µm,19.3s,MS5.4,baz=65,slow=38						
NIE	**Niedzica**	**80.16**	**319**	*e*P	**P**	**21 17 07.5**	**+0.4**
OJC	**Ojcow**	**80.17**	**320**	*e*P	**P**	**21 17 07.0**	**-0.2**
KECS	**Kecovo**	**80.40**	**318**	*e*P	**P**	**21 17 08.3**	**-0.2**
	comp=Z,5.9nm,1.2s,mb4.4						
KECS				*e*	pP	21 17 16.6	+0.4
KECS	**Kecovo**	**80.40**	**318**	*e*P	**P**	**21 17 08.3**	**-0.2**
KECS				*e*	pP	21 17 16.6	+0.4
KECS				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
GKP	**Gorka Klasztor**	**80.47**	**324**	*e*P	**P**	**21 17 09.0**	**+0.3**
BZS	**Buzias**	**80.74**	**315**	⇑P	**P**	**21 17 10.1**	**-0.2**
BZS	**Buzias**	**80.74**	**315**	⇑*i*P	**P**	**21 17 10.1**	**-0.2**
VTS	**Vitosha**	**80.76**	**312**	⇓P	**P**	**21 17 11.1**	**+0.6**
VTS	**Vitosha**	**80.76**	**312**	⇓*i*P	**P**	**21 17 11.1**	**+0.6**
BSD	**Bornholm Skovb**	**80.96**	**326**	*i* P	pP	21 17 21.4	+2.3
	comp=Z,54nm,1.3s						
BSD				*e*		21 19 30.2	
PSZ	**Piszkesteto**	**80.98**	**318**	*e*P	**P**	**21 17 10.9**	**-0.7**
PSZ	**Piszkesteto**	**80.98**	**318**	⇑*e*S	S	21 27 12.3	-6.9
LIKS	**Likavka**	**81.03**	**319**	*e*P	**P**	**21 17 07.3**	**-4.5**
JMIC	**Jan Mayen**	**81.07**	**345**	*e*SKSa		21 27 26.3	
JMIC				AMS	AMS	22 00 28.0	
	comp=Z,1µm,17.5s,MS5.3						
JMIC	**Jan Mayen**	**81.07**	**345**	LR	LR	21 54 33.0	
	comp=Z,929nm,19.7s,MS5.1,baz=196,slow=37						
RES	**Resolute Bay**	**81.22**	**9**	*e*P	**P**	**21 17 12.4**	**+0.1**
	comp=Z,791nm,0.9s						
RES				*e*PcP	PcP	21 17 20.1	+1.6
RES				*e*PP	PP	21 20 18.4	+1.0
OKC	**Ostrava-Krasne**	**81.30**	**320**	*e*P	**P**	**21 17 13.8**	**+0.6**
OKC				*e*pP	pP	21 17 22.6	+1.6
OKC	**Ostrava-Krasne**	**81.30**	**320**	*e*P	**P**	**21 17 13.8**	**+0.6**
OKC				*e*pP	pP	21 17 22.6	+1.6
OKC				AMS	AMS	22 00 20.0	
	comp=Z,800nm,14.1s						
VYHS	**Vyhne**	**81.42**	**319**	*e*P	**P**	**21 17 14.1**	**+0.2**
	comp=Z,10nm,1.2s,mb4.6						
VYHS				*e*	pP	21 17 20.6	-1.0
VYHS	**Vyhne**	**81.42**	**319**	*e*P	**P**	**21 17 14.1**	**+0.2**
VYHS				*e*	pP	21 17 20.6	-1.0
VYHS				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
DLBC	**Dease Lake**	**81.42**	**30**	*e*P	**P**	**21 17 14.2**	**+0.5**
DLBC				*e*		21 17 25.4	
VAY	**Valandovo**	**81.66**	**311**	*e*P	**P**	**21 17 14.4**	**-0.9**
MORC	**Moravsky Berou**	**81.69**	**320**	⇓*i*P	**P**	**21 17 15.9**	**+0.6**
BUD	**Budapest**	**81.69**	**318**	⇓*e*P	**P**	**21 17 15.8**	**+0.5**
KSP	**Ksiaz**	**81.98**	**322**	*e*P	**P**	**21 17 17.2**	**+0.4**
KSP	**Ksiaz**	**81.98**	**322**	⇓*e*P	**P**	**21 17 17.1**	**+0.3**
KSP				*e*	pP	21 17 22.4	-2.2
DPC	**Dobruska-Polom**	**82.17**	**321**	*e*P	**P**	**21 17 18.2**	**+0.4**
DPC				*e**PP	pP	21 17 27.3	+1.7
DPC				MLR	MLR		
	comp=Z,900nm,10.9s,MS5.4						
DPC	**Dobruska-Polom**	**82.17**	**321**	*e*P	**P**	**21 17 18.2**	**+0.4**
DPC				*e*pP	pP	21 17 27.3	+1.7
DPC				*e*x	x	21 27 45.1	
DPC				AMS	AMS	22 00 20.0	
	comp=Z,900nm,10.9s						
SKO	**Skopje**	**82.20**	**312**	*e*P	**P**	**21 17 18.8**	**+0.7**
UPC	**Upice**	**82.29**	**321**	*e*P	**P**	**21 17 19.1**	**+0.7**
PKSM	**Moragy**	**82.43**	**317**	⇑P	**P**	**21 17 19.4**	**+0.1**
PKSM	**Moragy**	**82.43**	**317**	⇑*i*P	**P**	**21 17 19.4**	**+0.1**
VRAC	**Vranov**	**82.44**	**320**	⇓P	**P**	**21 17 19.8**	**+0.5**
VRAC	**Vranov**	**82.44**	**320**	⇓*i*P	**P**	**21 17 19.8**	**+0.5**
KRUS	**Krusevo**	**82.56**	**311**	*e*P	**P**	**21 17 19.8**	**-0.2**
TREC	**Trest**	**83.11**	**320**	*e*P	**P**	**21 17 23.5**	**+0.8**
TREC				*e*pP	pP	21 17 32.5	+2.0
TREC				AMS	AMS	21 59 10.0	
	comp=Z,1µm,12.9s						
PVCC	**Panska Ves**	**83.11**	**322**	*e*P	**P**	**21 17 23.1**	**+0.4**
PVCC				*e*pP	pP	21 17 32.0	+1.5
PVCC				AMS	AMS	22 01 50.0	
	comp=Z,1µm,12.6s						
SOP	**Sopron**	**83.14**	**319**	*e*P	**P**	**21 17 22.5**	**-0.4**
MUD	**Monsted U’grnd**	**83.23**	**329**	*i* P	**P**	**21 17 24.6**	**+1.4**
MUD				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
MUD	**Monsted U’grnd**	**83.23**	**329**	*i* P	**P**	**21 17 24.6**	**+1.4**
	comp=Z,14nm,0.8s,mb5.0						
BRG	**Berggiesshubel**	**83.32**	**322**	*e*P	**P**	**21 17 23.9**	**+0.2**
	comp=Z,31nm,1.8s,mb5.0						
BRG				*i*	pP	21 17 32.7	+1.1
BRG				S	S	21 28 02.0	+19
BRG				SS	SS	21 33 45.0	+37
BRG				LR	LR		
	comp=Z,710nm,15.8s,MS5.1						
BRG	**Berggiesshubel**	**83.32**	**322**	*e*P	**P**	**21 17 23.9**	**+0.1**
BRG				*i*	pP	21 17 32.7	+1.1
BRG				pmax	pmax		
	comp=Z,31nm,1.8s,mb5.0						
BRG				pmax	pmax		
	comp=Z,22nm,1.7s,mb4.9						
BRG				MLR	MLR		
	comp=N,441nm,12.8s						
BRG				MLR	MLR		
	comp=E,417nm,18.1s						
BRG				MLR	MLR		
	comp=Z,708nm,15.8s,MS5.1						
BRG	**Berggiesshubel**	**83.32**	**322**	*e*P	**P**	**21 17 23.8**	**0.0**
	comp=Z,55nm,1.8s,mb5.3						
BRG	**Berggiesshubel**	**83.32**	**322**	*e*P	**P**	**21 17 23.9**	**+0.2**
	comp=Z,51nm,1.8s,mb5.2						
BRG				*i*	pP	21 17 32.7	+1.1
	comp=Z,37nm,1.7s						
BRG				S	S	21 28 02.0	+19
BRG				SS	SS	21 33 45.0	+37
BRG							
	comp=N,736nm,12.8s						
BRG							
	comp=E,696nm,18.1s						
BRG							
	comp=Z,1µm,15.8s						
PRU	**Pruhonice**	**83.36**	**321**	*e*P	**P**	**21 17 24.4**	**+0.4**
PRU				*e*pP	pP	21 17 33.6	+1.8
PRU				*e*S	S	21 27 40.0	-3.6
PRU				AMS	AMS	21 57 30.0	
	comp=Z,900nm,10.5s						
CONA	**Conrad Observa**	**83.46**	**319**	⇑*i*P	**P**	**21 17 25.4**	**+0.8**
	comp=Z,8.5nm,1.1s,mb4.7						
CLL	**Collm**	**83.66**	**323**	⇓*i*P	**P**	**21 17 25.3**	**-0.2**
	comp=Z,72nm,1.9s,mb5.5						
CLL				*i*	pP	21 17 31.6	-1.7
CLL				*e*		21 17 35.0	
CLL				*e*S	S	21 27 45.0	-1.5
CLL				LR	LR		
	comp=Z,2µm,16.0s,MS5.5						
CLL	**Collm**	**83.66**	**323**	⇓*i*P	**P**	**21 17 25.3**	**-0.2**
CLL				*e*		21 17 35.0	
CLL				*e*S	S	21 27 45.0	-1.5
CLL				pmax	pmax		
	comp=Z,72nm,1.9s,mb5.5						
CLL				MLR	MLR		

	comp=Z,2µm,16.0s,MS5.5						
CLL	Collm	83.66	323	*e*P	P	21 17 24.7	-0.8
	comp=Z,74nm,1.9s,mb5.5						
CLL	Collm	83.66	323	⇓*i*P	P	21 17 25.3	-0.2
	comp=Z,72nm,1.9s,mb5.5						
CLL				*i* x	x	21 17 31.6	
CLL				*e*pP	pP	21 17 35.0	+1.7
CLL				*e*PPP		21 22 26.0	
CLL				*e*S	S	21 27 45.0	-1.5
CLL				*e*SP		21 28 31.0	
CLL				*e*x	x	21 30 34.0	
CLL				*e*SS	SS	21 33 47.0	+35
CLL				*e*(SSS)		21 37 50.0	
CLL				LmH		21 56 00.0	
	comp=Z,900nm,18.2s						
BSEG	Bad Segeberg	83.88	326	*e*P	P	21 17 26.4	-0.2
BSEG				pmax	pmax		
	comp=Z,14nm,1.1s,mb5.0						
BSEG	Bad Segeberg	83.88	326	*e*P	P	21 17 26.4	-0.2
	comp=Z,14nm,1.1s,mb5.0						
KMBO	Kilima Mbogo	84.13	266	P	P	21 17 30.4	+1.8
	comp=Z,12nm,1.0s,mb5.0,baz=41,slow=8.1,SNR=27						
KHC	Kasperske Hory	84.31	321	*e*P	P	21 17 29.4	+0.6
KHC				*e*pP	pP	21 17 38.3	+1.7
KHC				*e*S	S	21 27 53.2	+0.1
KHC				AMS	AMS	22 00 00.0	
	comp=Z,1µm,11.9s						
GEC2	GERESS Array S	84.36	321	*e*P	P	21 17 28.8	-0.3
GEC2				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.1						
GEC2	GERESS Array S	84.36	321	*e*P	P	21 17 28.8	-0.3
	comp=Z,15nm,0.9s,mb5.1						
GERES	GERESS Array B	84.36	321	P	P	21 17 29.7	+0.6
	comp=Z,5.7nm,0.7s,mb4.8,baz=66,slow=4.6,SNR=60						
GERES				PKiKP	PKiKP	21 22 46.5	+3.3
	comp=Z,0.4nm,0.7s,baz=103,slow=5.9,SNR=3.9						
TANN	Tannenbergstha	84.37	322	*e*P	P	21 17 29.0	-0.1
NKC	Novy Kostel	84.46	322	*e*P	P	21 17 30.3	+0.7
NKC				*e*pP	pP	21 17 39.0	+1.6
NKC				*e*S	S	21 27 42.6	-12
NKC	Novy Kostel	84.46	322	*e*P	P	21 17 30.3	+0.7
NKC				*e*pP	pP	21 17 39.0	+1.6
NKC				*e*x	x	21 27 42.6	
NKC				AMS	AMS	21 58 10.0	
	comp=Z,1µm,14.9s						
MOA	Molln	84.47	319	⇑*i*P	P	21 17 30.5	+0.8
	comp=Z,28nm,1.6s,mb5.2,SNR=13						
MOA	Molln	84.47	319	⇑*i*P	P	21 17 30.5	+0.8
	comp=Z,28nm,1.5s,mb5.2						
MOA	Molln	84.47	319	⇑*i*PcP	PcP	21 17 30.5	-2.8
	comp=Z,28nm,1.6s,SNR=13						
PERS	Pernice	84.47	318	*i* P	P	21 17 29.8	0.0
WET	Wettzell	84.71	321	*e*P	P	21 17 31.3	+0.4
WET				pmax	pmax		
	comp=Z,22nm,1.4s,mb5.1						
WET	Wettzell	84.71	321	*e*P	P	21 17 31.3	+0.4
	comp=Z,22nm,1.4s,mb5.1						
MOX	Moxa	84.74	323	*e*P	P	21 17 31.3	+0.3
	comp=Z,31nm,1.6s,mb5.2						
MOX				*e*S	S	21 28 01.0	+3.6
MOX	Moxa	84.74	323	*e*P	P	21 17 31.3	+0.3
	comp=Z,31nm,1.6s,mb5.2						
MOX							
	comp=Z,1µm,17.0s						
MOX	Moxa	84.74	323	*e*P	P	21 17 31.3	+0.3
MOX				pmax	pmax		
	comp=Z,31nm,1.6s,mb5.2						
MOX				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.4						
MOX	Moxa	84.74	323	*e*P	P	21 17 30.9	-0.1
	comp=Z,37nm,1.8s,mb5.2						
MANZ	Manzenberg	84.77	322	*e*P	P	21 17 31.5	+0.3
ROTZ	Rotzenmuhle	84.81	322	*e*P	P	21 17 31.3	-0.1
CLZ	Clausthal	84.86	324	*e*P	P	21 17 31.5	-0.1
CLZ				pmax	pmax		
	comp=Z,74nm,1.8s,mb5.5						
CLZ	Clausthal	84.86	324	*e*P	P	21 17 31.5	-0.1
	comp=Z,74nm,1.8s,mb5.5						
BOJS	Bojanci	84.88	317	*i* P	P	21 17 32.1	+0.3
LJU	Ljubljana	85.10	318	*i* P	P	21 17 32.8	-0.1
KBA	Koelnbreinsper	85.37	319	*i* P	P	21 17 34.3	+0.1
	comp=Z,13nm,1.1s,mb4.9,SNR=10						
KBA	Koelnbreinsper	85.37	319	*i* P	P	21 17 34.4	+0.2
KBA				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.0						
GRA1	Grafenberg Arr	85.41	322	*e*P	P	21 17 34.0	-0.4
	comp=Z,78nm,1.9s,mb5.5						
GRA1				LR	LR		
	comp=Z,800nm,18.7s,MS5.1						
GRF	Grafenberg Arr	85.41	322	*e*P	P	21 17 34.0	-0.4
GRF				pmax	pmax		
	comp=Z,78nm,1.9s,mb5.5						
GRF				MLR	MLR		
	comp=Z,800nm,18.7s,MS5.1						
GRF	Grafenberg Arr	85.41	322	*e*P	P	21 17 34.0	-0.4
GRF				pmax	pmax		
	comp=Z,78nm,1.9s,mb5.5						
GRF				MLR	MLR		
	comp=Z,800nm,18.7s,MS5.1						
GRF	Grafenberg Arr	85.41	322	*e*P	P	21 17 34.0	-0.4
	comp=Z,78nm,1.9s,mb5.5						
GRF				*e*L		21 58 56.7	
	comp=Z,769nm,18.7s						
GRFO	Grafenberg	85.41	322	*e*P	P	21 17 35.0	+0.5
	comp=Z,38nm,1.4s,mb5.3						
GRFO				*e*PP	PP	21 20 57.5	+5.3
GRFO	Grafenberg	85.41	322	*e*P	P	21 17 35.0	+0.6
GRFO				*e*		21 20 57.6	
GRFO				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.3						
JAVS	Javornik	85.46	318	*i* P	P	21 17 34.3	-0.4
VOY	Vojsko	85.50	318	*e*P	P	21 17 34.9	0.0
VOY				*e*		21 17 44.2	
YKA	Yellowknife Ar	85.52	22	P	P	21 17 34.5	-0.2
YKA				PKKPbc	PKKPbc	21 35 36.5	-3.1
YKA	Yellowknife Ar	85.52	22	P	P	21 17 34.5	-0.2
	comp=Z,8.6nm,0.9s,mb5.0,baz=313,slow=4.6,SNR=96						
YKA				PKKPbc	PKKPbc	21 35 36.5	-3.1
	comp=Z,0.6nm,0.6s,baz=124,slow=2.5,SNR=11						
ABTA	Abfaltersbach	86.03	319	⇓*i*P	P	21 17 36.7	-0.8
	comp=Z,11nm,1.3s,mb5.0						
IBBN	Ibbenburen	86.03	325	*e*P	P	21 17 37.1	-0.3
FUR	Furstenfeldbru	86.11	321	*e*P	P	21 17 37.8	-0.1
FUR				pmax	pmax		
	comp=Z,143nm,1.9s,mb5.9						
FUR	Furstenfeldbru	86.11	321	*e*P	P	21 17 37.8	-0.1
	comp=Z,143nm,1.9s,mb5.9						
WTTA	Wattenberg	86.32	320	⇑*i*P	P	21 17 38.5	-0.5
	comp=Z,17nm,1.0s,mb5.3,SNR=10						
WTTA	Wattenberg	86.32	320	⇑*i*P	P	21 17 38.5	-0.4
WTTA				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.2						
SQTA	Sankt Quirin	86.59	320	⇑*i*P	P	21 17 40.4	+0.1
	comp=Z,10nm,1.2s,mb4.9,SNR=7.6						
SQTA	Sankt Quirin	86.59	320	⇑*i*PcP	PcP	21 17 40.4	-2.3
	comp=Z,10nm,1.2s,SNR=7.6						
SQTA	Sankt Quirin	86.59	320	⇑*i*P	P	21 17 40.4	+0.1
SQTA				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.9						
TNS	Taunus Mts	86.72	323	*e*P	P	21 17 41.0	+0.2
BUG	Bochum--Univer	86.73	325	*e*P	P	21 17 41.0	+0.1
WLF	Walferdange	88.27	324	*e*P	P	21 17 48.8	+0.5
CDF	Champ du Feu	88.30	322	*e*P	P	21 17 48.1	-0.4
RAR	Rarotonga	88.71	113	LR	LR	21 50 09.2	
	comp=Z,367nm,19.6s,MS4.8,baz=40,slow=31						
GIVF	Givet	88.76	325	*e*P	P	21 17 50.2	-0.4
HAU	Haudompre	89.04	322	*e*P	P	21 17 51.9	-0.1
	comp=Z,8.9nm,0.9s,mb4.8						
HAU				*e*MLR	MLR		
	comp=Z,1µm,18.0s,MS5.0						
HAU	Haudompre	89.04	322	*e*P	P	21 17 51.9	-0.1
	comp=Z,4.4nm,0.9s,mb4.8						
HAU				LR	LR		
	comp=Z,1µm,18.0s,MS5.3						
HAU	Haudompre	89.04	322	*e*P	P	21 17 51.9	-0.1
HAU				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.8						
HAU				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.3						
BAIF	Baives	89.12	325	*e*P	P	21 17 51.8	-0.5
MEZF	Maizieres J'vi	89.51	323	*e*P	P	21 17 53.8	-0.4
	comp=Z,8.6nm,0.8s,mb4.8						
MEZF	Maizieres J'vi	89.51	323	*e*P	P	21 17 53.8	-0.4
	comp=Z,8.6nm,0.8s,mb5.1						
LPG	La Plagne	90.13	320	*e*P	P	21 17 57.5	+0.4
	comp=Z,19nm,0.7s,mb5.2						
LPG	La Plagne	90.13	320	*e*P	P	21 17 57.5	+0.4
	comp=Z,9.4nm,0.7s,mb5.2						
LPG	La Plagne	90.13	320	*e*P	P	21 17 57.5	+0.4
LPG				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.2						
LPL	La Plagne	90.13	320	*e*P	P	21 17 57.4	+0.3
	comp=Z,21nm,0.9s,mb5.2						
LPL	La Plagne	90.13	320	*e*P	P	21 17 57.4	+0.3
	comp=Z,11nm,0.9s,mb5.2						
LPL	La Plagne	90.13	320	*e*P	P	21 17 57.4	+0.3
LPL				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.2						
PGF	Pioggiola	90.25	317	*e*P	P	21 17 57.9	+0.1
	comp=Z,26nm,0.7s,mb5.3						
PGF	Pioggiola	90.25	317	*e*P	P	21 17 57.9	+0.1
	comp=Z,13nm,0.7s,mb5.4						
PGF	Pioggiola	90.25	317	*e*P	P	21 17 57.9	+0.1
PGF				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.4						
MBDF	Montbardon	90.52	319	*e*P	P	21 17 59.1	+0.1
LOR	Lormes	90.86	322	*e*P	P	21 17 59.8	-0.7
	comp=Z,21nm,1.1s,mb5.1						
LOR				*e*MLR	MLR		
	comp=Z,1µm,17.8s,MS5.0						
LOR	Lormes	90.86	322	*e*P	P	21 17 59.8	-0.7
	comp=Z,10nm,1.1s,mb5.1						
LOR				LR	LR		
	comp=Z,1µm,17.8s,MS5.3						
LOR	Lormes	90.86	322	*e*P	P	21 17 59.8	-0.7
LOR				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb5.1						
LOR				MLR	MLR		
	comp=Z,1µm,17.8s,MS5.3						
SSF	Saint Saulge	91.17	322	*e*P	P	21 18 01.5	-0.5
	comp=Z,21nm,1.2s,mb5.0						
SSF	Saint Saulge	91.17	322	*e*P	P	21 18 01.5	-0.5
	comp=Z,11nm,1.2s,mb5.0						
SSF	Saint Saulge	91.17	322	*e*P	P	21 18 01.5	-0.5
SSF				pmax	pmax		
	comp=Z,11nm,1.2s,mb5.1						
SMF	Signal de Mont	91.21	322	*e*P	P	21 18 01.6	-0.6
AVF	Avril sur Loir	91.41	322	*e*P	P	21 18 02.5	-0.6
	comp=Z,36nm,1.3s,mb5.2						
AVF	Avril sur Loir	91.41	322	*e*P	P	21 18 02.5	-0.6
	comp=Z,18nm,1.3s,mb5.2						
AVF	Avril sur Loir	91.41	322	*e*P	P	21 18 02.5	-0.6
AVF				pmax	pmax		
	comp=Z,18nm,1.3s,mb5.2						
HYF	Humbligny	91.54	323	*e*P	P	21 18 03.8	+0.1
EDM	Edmonton	92.09	29	*e*P	P	21 18 07.1	+1.1
LDF	La Druitiere	92.28	325	*e*P	P	21 18 06.2	-0.8
TCF	Toulx Ste Croi	92.35	322	*e*P	P	21 18 07.1	-0.3
	comp=Z,14nm,1.1s,mb4.9						
TCF	Toulx Ste Croi	92.35	322	*e*P	P	21 18 07.1	-0.3
	comp=Z,7.2nm,1.1s,mb4.9						
TCF	Toulx Ste Croi	92.35	322	*e*P	P	21 18 07.1	-0.3
TCF				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.9						
FLN	La Foliniere	92.37	325	*e*P	P	21 18 06.8	-0.7
	comp=Z,17nm,1.0s,mb5.0						
FLN				*e*MLR	MLR		
	comp=Z,1µm,19.2s,MS5.1						
FLN	La Foliniere	92.37	325	*e*P	P	21 18 06.8	-0.7
	comp=Z,8.5nm,1.0s,mb5.0						
FLN				LR	LR		
	comp=Z,1µm,19.3s,MS5.4						
FLN	La Foliniere	92.37	325	*e*P	P	21 18 06.8	-0.7
FLN				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.0						
FLN				MLR	MLR		
	comp=Z,1µm,19.3s,MS5.4						
KEST	Kesra	93.41	311	P	P	21 18 12.6	0.0
	comp=Z,2.9nm,1.0s,mb4.7,baz=225,slow=20,SNR=5.1						
NEW	Newport	93.42	34	*e*P	P	21 18 12.6	+0.3
NEW				*e*		21 18 23.0	
WALA	Waterton Lakes	94.56	32	*e*P	P	21 18 18.1	+0.5
	comp=Z,24nm,1.4s,mb5.4						
WALA				*e*		21 18 28.4	
FCC	Fort Churchill	94.91	17	*e*P	P	21 18 18.2	-0.7
	comp=Z,5.9nm,0.8s,mb5.1						
FCC				*e*		21 18 27.8	
FCC	Fort Churchill	94.91	17	*e*P	P	21 18 18.3	-0.6
FCC				*e*		21 18 27.8	
FCC				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.1						
PPT	Papeete	96.27	106	*e*LR	LR	21 49 27.0	
	comp=Z,542nm,24.2s						
CMB	Columbia Colle	97.59	44	*e*P	P	21 18 31.1	-0.5
CMB				*e*		21 18 40.4	
HLID	Hailey	97.85	37	*e*P	P	21 18 32.9	+0.3
HLID				*e*		21 18 44.2	
MAW	Mawson	98.53	199	P	P	21 18 36.3	+1.4
	comp=Z,3.4nm,0.4s,mb5.3,baz=246,slow=16,SNR=4.2						
NVAR	Mina Array Bea	98.69	43	P	P	21 18 38.3	+1.8
	comp=Z,1.2nm,0.6s,mb4.6,baz=307,slow=5.3,SNR=12						
TAOE	Nuku Hiva Isla	101.87	95	*e*SS	SS	21 37 28.7	-7.5
	comp=Z,316nm,22.4s						
TAOE				*e*LR	LR	21 52 03.5	
	comp=Z,1µm,30.0s						
TORD	Torodi Ar. Bea	110.69	294	PKPdf	PKiKP	21 23 30.1	-0.5
TORD				PKKPbc	PKKPbc	21 34 28.7	+0.1
TORD				PKKPab	PKKPab	21 34 39.5	-1.0
TORD	Torodi Ar. Bea	110.69	294	PKiKP	PKiKP	21 23 30.1	-0.5
	comp=Z,0.5nm,0.8s,baz=18,slow=5.9,SNR=7.1						
TORD				PKKPbc	PKKPbc	21 34 28.7	+0.1
	comp=Z,0.6nm,0.7s,baz=128,slow=0.4,SNR=5.1						
TORD				PKKPab	PKKPab	21 34 39.5	-1.0
	comp=Z,1.2nm,0.6s,baz=256,slow=4.5,SNR=19						
RKT	Rikitea	111.00	107	*e*SS	SS	21 39 32.3	-8.1
	comp=Z,144nm,28.2s						
TXAR	Lajitas Array	113.81	42	PKPdf	PKiKP	21 23 36.2	0.0
TXAR	Lajitas Array	113.81	42	PKIKP	PKiKP	21 23 36.2	0.0
TXAR	Lajitas Array	113.81	42	PKiKP	PKiKP	21 23 36.2	0.0
	comp=Z,0.5nm,0.5s,baz=159,slow=0.4,SNR=10						
VNA2	Neumayer--Watz	122.32	198	*e*PKPdf	PKPdf	21 23 51.1	-0.1
	baz=79,slow=1.7						
VNA2				*e*		21 23 55.7	
VNA2				*e*		21 24 02.3	
VNA3	Neumayer Olymp	122.79	197	*e*PKPdf	PKPdf	21 23 51.5	-0.6
VNA3				*e*		21 23 56.7	
VNA3				*e*		21 24 03.0	
JTS	JuntasAbangare	139.59	41	*e*PKPdf	PKPdf	21 24 25.3	-0.2
JTS	JuntasAbangare	139.59	41	*e*PKIKP	PKPdf	21 24 25.3	-0.2
ROSC	El Rosal	149.89	31	PKPbc	PKPbc	21 24 49.9	+1.8
ROSC	El Rosal	149.89	31	PKPbc	PKPbc	21 24 49.9	+1.8
	comp=Z,14nm,0.9s,baz=316,slow=1.2,SNR=17						
LPAZ	La Paz	170.24	58	*e*PKPdf	PKPdf	21 25 06.9	+1.3
LPAZ				PKP	PKPdf	21 25 09.5	+3.9
LPAZ	La Paz	170.24	58	*e*PKIKP	PKPdf	21 25 06.9	+1.3
LPAZ	La Paz	170.24	58	PKP	PKPdf	21 25 09.5	+3.9
	comp=Z,1.5nm,0.9s,baz=246,slow=4.1,SNR=4.1						

NSSP ***18*** *21:17:42.3, 40.02N×42.57E, h10*^{km}*, ML3.6*

TIF ***18*** *21:17:44.4, 40.11N×42.60E, h12*^{km}*±3*^{km}

CSEM ***18*** *21:17:45.6±0.1, 40.07N×42.75E, h5*^{km}*, MD3.7, Error ellipse: s-maj=2.4km s-min=2.0km az=102.0*

DDA ***18*** *21:17:46.0, 40.07N×42.76E, h18*^{km}*±4*^{km}*, Md3.4*

ISCJB ***18*** *21:17:46.4±0.3, 40.08N±0.02×42.71E±0.02, h5*^{km}*, Error ellipse: s-maj=2.9km s-min=2.1km az=41.9*

ISK ***18*** *21:17:46.2, 40.06N×42.72E, h9*^{km}*, MD3.7*

ISC 18 21:17:46.9±0.4**, 40.08N**±0.02×**42.70E**±0.03**, h7**^{km}±4^{km}**, n51,** σ**1^{s}12**/81**, 5D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGRB	Hanur-Agry	0.55	156	*i* PG	Pg	21 17 56.2	-1.3
AGRB				*i* SG	Sg	21 18 05.5	+0.8
AGRB	Hanur-Agry	0.55	156	*i* Pg	Pg	21 17 56.2	-1.3
AGRB				*i* Sg	Sg	21 18 05.5	+0.8
KARS	Kars	0.61	29	*i* PG	Pg	21 17 58.2	-0.4
KARS				*i* SG	Sg	21 18 08.3	+1.8
DIGO	Kars	0.61	57	*i* P	Pg	21 17 58.4	-0.3
DIGO				*i* S	Sg	21 18 05.5	-1.2
TUTA	Tutak	0.68	173	*i* P	Pg	21 17 58.8	-1.2
TUTA				*i* S	Sg	21 18 08.9	0.0
VNNZ	Vanand	0.86	88	⇓P	Pg	21 18 02.9	-0.5
VNNZ				S	Sg	21 18 18.5	+4.0
AKSZ	Araks	0.91	83	P	Pg	21 18 03.7	-0.7
AKSZ				S	Sg	21 18 18.9	+2.6
DYDN	Diyadin	0.93	125	*i* P	Pg	21 18 02.7	-2.0
DYDN				*i* S	Sg	21 18 16.7	-0.1
ERZM	Erzurum	1.04	261	*i* P	Pg	21 18 06.4	-0.5
ERZM				*i* S	Sg	21 18 25.6	+5.2
EZM	Erzurum	1.05	261	PG	Pg	21 18 06.4	-0.6
ARUZ	Aruch	1.08	79	P	Pg	21 18 06.6	-1.1
ARUZ				S	Sg	21 18 23.3	+1.6
HARI	Harich	1.12	62	P	Pg	21 18 06.9	-1.5
HARI				S	Sg	21 18 22.6	-0.4
GYMZ	Gyumri	1.13	49	P	Pg	21 18 07.2	-1.3
GYMZ				S	Sg	21 18 24.9	+1.8
VRNZ	Vardanashen	1.14	91	⇓P	Pg	21 18 08.3	-0.5
VRNZ				S	Sg	21 18 25.0	+1.4
KAMZ	Kamo	1.21	52	⇓P	Pb	21 18 08.5	-1.6
KAMZ				S	Sg	21 18 25.2	-0.5
AMBZ	Amberd	1.23	75	⇓P	Pb	21 18 09.6	-0.9
AMBZ				S	Sb	21 18 25.1	-1.4
HNAZ	Hnaberd	1.23	63	P	Pb	21 18 07.5	-3.0
ARTV	Artvin	1.25	332	*i* P	Pn	21 18 10.5	-0.4
ARTV				*i* S	Sb	21 18 27.2	0.0
PAAR	P'arak'ar	1.29	86	⇓P	Pn	21 18 10.7	-0.6
PAAR				S	Sg	21 18 30.0	+1.7
CLDR	Caldiran	1.32	135	PN	Pn	21 18 10.8	-1.0
CLDR	Caldiran	1.32	135	*e*Pn	Pn	21 18 10.8	-1.0
ERE	Yerevan	1.36	86	P	Pn	21 18 12.0	-0.3
ERE				S	Sg	21 18 33.0	+2.5
KAPZ	Kaputan	1.55	80	P	Pn	21 18 13.9	-1.0
KAPZ				S	Sg	21 18 36.9	+0.3
STE	Stepanavan	1.57	54	P	Pn	21 18 15.0	-0.2
STE				S	Sg	21 18 39.0	+1.7
VANB	Van	1.58	160	PN	Pn	21 18 14.3	-1.0
VANB	Van	1.58	160	*e*Pn	Pn	21 18 14.3	-1.0
BCA	Borcka	1.59	329	PN	Pn	21 18 15.3	-0.2
BCA				SN	Sn	21 18 36.7	+0.4
BCA	Borcka	1.59	329	*e*Pn	Pn	21 18 15.3	-0.2
BCA				*e*Sn	Sn	21 18 36.7	+0.4
TVAN	Van	1.64	160	*i* P	Pn	21 18 15.8	-0.4
TVAN				*i* S	Sn	21 18 37.4	-0.2
TVAN	Van	1.64	160	*i* P	Pn	21 18 15.8	-0.4
TVAN				*i* S	Sn	21 18 37.3	-0.3
BNGL	BINGOL	1.65	227	*i* P	Pn	21 18 16.8	+0.5
BNGL				*i* S	Sg	21 18 41.9	+2.0
VANT	Van	1.72	162	PN	Pn	21 18 16.6	-0.6
VANT	Van	1.72	162	*e*Pn	Pn	21 18 16.6	-0.6
BTMT	Batman	2.11	207	PN	Pn	21 18 25.1	+2.5
GOR	Gori	2.18	29	P	Pn	21 18 24.4	+0.8
GOR				S	Sg	21 18 56.7	-0.2
EZC	Erzincan	2.25	262	*e*PN	Pn	21 18 30.5	+6.0
TBLG	Delisi	2.26	42	P	Pn	21 18 25.3	+0.6
TBLG				S	Sg	21 18 58.5	-0.9
MTA	Mtatsminda	2.26	44	P	Pn	21 18 25.3	+0.6
MTA				S	Sg	21 18 58.1	-1.3
DGRG	David-gareji	2.44	55	P	Pn	21 18 28.8	+1.5
DGRG				S	Sg	21 19 06.6	+1.2
GUMT	Gumushane	2.50	280	*e*PN	Pn	21 18 29.2	+1.3
GUMT	Gumushane	2.50	280	*e*Pn	Pn	21 18 29.2	+1.3
SIRT	Sirnak	2.58	185	*e*PN	Pn	21 18 29.9	+0.8
SIRT	Sirnak	2.58	185	*e*Pn	Pn	21 18 29.9	+0.8
HKR	Hakkari	2.63	162	*e*PN	Pn	21 18 29.7	0.0
HKR	Hakkari	2.63	162	*e*Pn	Pn	21 18 29.7	0.0
HAKT	HAKKARI	2.64	162	*i* P	Pn	21 18 31.7	+1.8
PTK	Pertek	2.83	246	*e*PN	Pn	21 18 32.5	+0.1
PTK	Pertek	2.83	246	*e*Pn	Pn	21 18 32.5	+0.1
CUKT	Cukurca	2.92	166	*e*PN	Pn	21 18 33.6	-0.1
CUKT	Cukurca	2.92	166	*e*Pn	Pn	21 18 33.6	-0.1
MARD	Mardin	3.15	209	*i* P	Pn	21 18 36.9	0.0
MARD				*i* S	Sn	21 19 18.6	+3.9

IDC ***18*** *21:37:37.6±0.4, 5.94N×82.63W, h0*^{km}*, mb5.2/18, mb1 5.4/21, mb1mx5.3/24, mbtmp5.2/21, ML4.4/3, MS4.8/27, Ms1 4.9/27, ms1mx4.7/32, Error ellipse: s-maj=9.9km s-min=8.1km az=69.0*

CASC ***18*** *21:37:39.7±1.7, 6.01N×82.62W, h20*^{km}*±24*^{km}*, MD4.7, ML4.7, mb5.5(NEIC)*

ISCJB ***18*** *21:37:43.0±0.2, 6.37N±0.03×82.71W±0.02, h24*^{km}*, mb5.4/227, MS5.0/184, Error ellipse: s-maj=4.1km s-min=2.2km az=17.5*

GCMT ***18*** *21:37:44.8±0.1, 5.92N×82.56W, h18*^{km}*, MW5.7/101, Moment Tensor Solution. s82,c152; s101,c261; Duration: 1*^{s}*6 Moment tensor: Scale 10*^{17}*Nm;* M_{rr}*-0.53±.04;* $M_{\theta\theta}$*0.15±.04;* $M_{\phi\phi}$*0.37±.05;* $M_{r\theta}$*0.74±.10;* $M_{\theta\phi}$*3.54±.04;* $M_{\phi r}$*-0.05±.11; Best double couple:* M_0*3.62400×10*^{17} *NP1:*ϕ_s*359.00000°, δ78.00000°, λ-176.00000°. NP2:*ϕ_s*269.00000°, δ87.00000°, λ-12.00000°. Principal axes: T 3.8580, Plg6.0000°, Azm315.0000°; N -0.4670, Plg77.0000°, Azm73.0000°; P -3.3900, Plg11.0000°, Azm223.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

MOS ***18*** *21:37:44.3±1.0, 6.45N×82.82W, h30*^{km}*, mb5.6/96, MS5.0/59 Error ellipse: s-maj=6.8km s-min=4.4km az=85.4*

BJI ***18*** *21:37:44.7, 6.30N×82.70W, h26*^{km}*, mB5.7, Ms5.5, Msz5.2*

NEIC ***18*** *21:37:44.8±1.9, 6.34N×82.71W, h26*^{km}*±11*^{km}*, mb5.5/184, MS5.0/155, MW5.7, Error ellipse: s-maj=9.9km s-min=3.8km az=192.0, Moment Tensor Solution. s25 Moment tensor: Scale 10*^{17}*Nm;* M_{rr}*0.71;* $M_{\theta\theta}$*1.45;* $M_{\phi\phi}$*-2.15;* $M_{r\theta}$*0.37;* $M_{\theta\phi}$*3.87;* $M_{\phi r}$*0.56; Best double couple:* M_0*4.30000×10*^{17} *NP1:*ϕ_s*103.00000°, δ80.00000°, λ5.00000°. NP2:*ϕ_s*12.00000°, δ85.00000°, λ170.00000°. Principal axes: T 4.0300, Plg10.0000°, Azm327.0000°; N 0.6100, Plg79.0000°, Azm164.0000°; P -4.6400, Plg3.0000°, Azm58.0000°;*

NEIC Felt at Bajo Boquete. Felt [II] at San Jose; felt at Alajuela and Curribadat, Costa Rica.

SZGRF ***18*** *21:37:52.8, 7.24N×81.69W, h33*^{km}*, mb5.4, MS5.1, Panama*

ISC 18 21:37:45.0±0.2**, 6.36N**±0.03×**82.66W**±0.02**, h25**^{km}**, h25**^{km}±2.8^{km}**:pP-P, n1062,** σ**0^{s}87**/954**, mb5.4**/227**, MS5.0**/184**, 211C-132D, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DVD	David	2.07	6	⇑*e*P	Pn	21 38 18.0	-0.2
BRU2	Volcan	2.42	359	⇑*i*P	Pn	21 38 23.0	0.0
BRU	Baru	2.43	2	⇑*i*P	Pn	21 38 23.4	+0.3
CTCR	Cotoan	2.52	358	⇑*i*P	Pn	21 38 24.5	+0.1
AZU	Azuero	2.76	59	⇓*e*P	Pn	21 38 24.9	-2.8
AZU	Azuero	2.76	59	⇓*i*P	Pn	21 38 24.8	-2.9
BAR1		2.94	347	⇓*e*P	Pn	21 38 29.7	-0.4
CNI	Changuinola	3.04	3	⇑*e*P	Pn	21 38 32.2	+0.7
BUS	Buena Vista	3.35	341	⇑*i*P	Pn	21 38 36.2	+0.4
LCR2	La Lucha 2	3.61	339	⇑*i*P	Pn	21 38 39.3	-0.1
URSC	Urasca	3.62	342	⇑*i*P	Pn	21 38 39.9	+0.4
LAJ	Bijagual	3.77	338	⇓*i*P	Pn	21 38 41.2	-0.3
ICR	Volcan Irazu	3.78	342	⇓*i*P	Pn	21 38 42.6	+1.0
SJS	Escuela Geolog	3.81	339	⇑*e*P	Pn	21 38 42.6	+0.5
BCIP	Isla Barro Col	3.95	45	*e*Pn	Pn	21 38 43.2	-0.8
BCIP				*e*Sn	Sn	21 39 29.6	0.0
BCIP	Isla Barro Col	3.95	45	⇓*i*P	Pn	21 38 43.3	-0.8
PRS1	Puriscal	3.95	336	⇑*i*P	Pn	21 38 42.6	-1.4
CGA2	Cerro Gallo 2	4.05	334	⇑*e*P	Pn	21 38 44.9	-0.4
UPIG		4.05	50	⇓*i*P	Pn	21 38 44.2	-1.3
UPIG				*e*S	Sn	21 39 33.2	+1.0
JCR	Jicaral	4.23	325	⇑*i*P	Pn	21 38 46.6	-1.3
TRTC	Tortuguero	4.32	346	⇓*e*P	Pn	21 38 50.0	+0.9
JTS	JuntasAbangare	4.51	330	⇑*i*Pn	Pn	21 38 49.9	-1.9
JTS				*e*Sn	Sn	21 39 46.1	+2.5
JTS	JuntasAbangare	4.51	330	Pn	Pn	21 38 49.9	-1.9
	2µm,0.3s,baz=144,slow=8.5,SNR=2612						
JTS				Sn	Sn	21 39 46.4	+2.9
	112nm,0.3s,baz=313,slow=18,SNR=2.1						
JTS				LR	LR	21 40 40.4	
	comp=Z,43µm,20.8s,baz=158,slow=37						
FORC	Fortuna	4.54	334	⇑*e*P	Pn	21 38 52.5	+0.3
VCR	Vista de Mar	4.76	322	*e*P	Pn	21 38 54.0	-1.2
2RIO	Dos Rios de Up	4.86	329	⇑*e*P	Pn	21 39 02.8	+6.2
CUI		4.95	330	⇓*e*P	Pn	21 38 57.5	-0.2
CUI				*e*S	Sn	21 39 58.7	+4.5
MADN	Villa Maderas	5.76	331	*e*P	Pn	21 39 09.8	+0.9
SSNN	San Juan del S	5.82	327	*e*P	Pn	21 39 10.6	+0.9
CONN	Concepcion	5.94	331	⇑*e*P	Pn	21 39 11.5	+0.1
APON	Apoyo	6.46	329	*e*P	Pn	21 39 19.5	+0.9
TICN	Ticuantepe	6.65	328	*e*P	Pn	21 39 23.0	+1.9
TICN				⇓*e*P		21 39 23.1	
BOAB	BOACO BROADBAN	6.74	334	⇑*e*P	Pn	21 39 21.1	-1.2
MGAN	Managua	6.75	329	*e*P	Pn	21 39 23.3	+0.8
MGAN				*i*		21 39 39.2	
	comp=N,832nm,0.4s						

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TISN  Laguna Tiscapa     6.76 328  eP     Pn     21 39 23.5 +0.8
XAVN  Gruta Xavier       6.79 328  eP     Pn     21 39 24.4 +1.2
HUEN                     6.88 330⇑ eP     Pn     21 39 25.1 +0.9
COPN  Copaltepe          6.96 326⇓ eP     Pn     21 39 25.9 +0.5
MOMJ  Momotombo          7.12 328  eP     Pn     21 39 29.0 +1.3
MOMN  Momotombo          7.12 328⇓ eP     Pn     21 39 29.1 +1.5
CNGN  Cerro Negro        7.29 327⇑ iP     Pn     21 39 28.9 -1.0
LEON  Leon               7.32 326⇑ eP     Pn     21 39 30.0 -0.4
TEL3  Telica 3           7.42 327  eP     Pn     21 39 32.9 +1.1
TELN  Telica             7.44 327⇓ eP     Pn     21 39 31.7 -0.3
CRIN  San Cristobal      7.64 326  eP     Pn     21 39 34.7 -0.1
ROSC  El Rosal           8.43 100⇑ iPn    Pn     21 39 43.6 -2.0
ROSC                               eSn    Sn     21 41 24.0 +4.1
ROSC  El Rosal           8.43 100   Pn    Pn     21 39 43.9 -1.7
      comp=N,15nm,0.3s,baz=308,slow=2.7,SNR=39
ROSC                                Sn    Sn     21 41 19.6 -0.3
      baz=230,slow=22,SNR=1.6
ROSC                                LR    LR     21 42 39.9
      comp=N,5µm,18.9s,baz=297,slow=36
CNCH  Conchagua          8.55 324  eP     x      21 39 46.7
TGUH  Tegucigalpa,Un     8.89 330⇑ ePn    Pn     21 39 52.0 +0.1
      comp=N,1µm,0.8s
TGUH                               e             21 39 57.8
TGUH                               eSn    Sn     21 41 42.2  +11
TGUH  Tegucigalpa,Un     8.89 330⇑ eP     Pn     21 39 50.5 -1.4
TGUH                               eP            21 39 52.2
VSM   San Miguel         8.94 322⇓ eP     x      21 39 52.6
CAHU  Cacacuatique       9.17 324  eP     x      21 39 55.9
SNVI  San Vicente        9.43 320  eP     x      21 39 59.8
SNET  Serv Nac Est T     9.74 319⇑ eP     x      21 40 06.2
BOQS  Boqueron           9.80 319  eP     x      21 40 33.9
BOQS                               eS     x      21 42 26.4
SBLS  San Blas          10.11 318  eP     x      21 40 12.5
PAYG  Puerto Ayora      10.33 228  ePn    Pn     21 40 04.4 -7.3
      comp=N,273nm,1.4s
PAYG  Puerto Ayora      10.33 228  eP     Pn     21 40 04.9 -6.8
MCJ   Malvern           12.48  22⇓ iP     Pn     21 40 41.0  0.0
CVJ   Coleyville        12.81  23⇓ iP     Pn     21 40 45.6  0.0
STH   Stony Hill        12.97  26⇓ eP     Pn     21 40 47.2 -0.6
GWJ   Greenwich         13.00  26⇓ iP     Pn     21 40 47.6 -0.6
CCIG  Comitan           13.54 318  i P    Pn     21 40 56.1 +0.5
ATAH  Atahualpa         13.94 162   Pn    Pn     21 40 55.7 -5.3
      comp=N,1.3nm,0.3s,baz=29,slow=22,SNR=8.9
ATAH                                Sn    Sn     21 43 33.6 -1.5
      comp=N,0.1nm,0.3s,baz=178,slow=21,SNR=1.7
ATAH                                LR    LR     21 45 39.6
      comp=N,11µm,20.5s,baz=107,slow=35
LMGC  Las Mercedes      14.69  21  eP     Pn     21 41 04.8 -6.4
TEIG  Tepich            14.82 339  ePn    Pn     21 41 14.4 +1.3
      comp=N,391nm,1.3s
TEIG                                Sn    Sn     21 43 58.9 +2.3
TEIG  Tepich            14.82 339   Pn    Pn     21 41 14.5 +1.4
      comp=N,2.3nm,0.3s,baz=154,slow=12,SNR=17
TEIG                                Sn    Sn     21 44 13.9  +17
      comp=N,0.6nm,0.3s,baz=328,slow=21,SNR=1.7
TEIG                                LR    LR     21 47 02.5
      comp=N,11µm,18.8s,baz=5.6,slow=37
TEIG  Tepich            14.82 339  eP     Pn     21 41 14.5 +1.4
RCC   Rio Carpintero    15.15  26  eP     Pn     21 41 18.7 +1.3
CCCC  Cccc              15.50  17  eP     Pn     21 41 25.3 +3.4
MGV   Manicaragua       15.87   9  eP     Pn     21 41 26.2 -0.6
MASC  Masc              15.99  30  eP     Pn     21 41 31.5 +3.2
      baz=209
MASC                               eS     Sn     21 44 42.7  +18
      comp=N,4.6nm,10.9s
MASC                               e
      comp=E,8.0nm,16.4s
HUIG  Huatulco          16.16 306  i P    Pn     21 41 34.8 +4.2
SOR   Soroa             16.34 359  eP     Pn     21 41 35.5 +2.7
SDDR  Presa de Saban    16.73  40  ePn    Pn     21 41 37.6 -0.2
      comp=E,1µm,1.3s
SDDR                               eSn    Sn     21 44 40.3 -2.8
VHO   Vista Hermosa     17.40 309  i P    Pn     21 41 45.7 -0.4
PCRV  Puerto La Cruz    18.23  77   P     Pn     21 41 53.0 -3.6
      comp=E,0.9nm,0.3s,baz=253,slow=3.8,SNR=17
PCRV                                S     Sn     21 45 19.2 -0.4
      comp=E,0.2nm,0.3s,baz=346,slow=7.5,SNR=3.0
NNA   Nana              19.12 162   P     Pn     21 41 59.4 -7.9
NNA                                 S     Sn     21 45 30.9  -10
NNA                                 LR    LR     21 48 30.6
NNA   Nana              19.12 162   P     Pn     21 41 59.4 -7.9
      comp=E,1.0nm,0.3s,baz=341,slow=9.8,SNR=27
NNA                                 S     Sn     21 45 30.9  -10
      comp=E,0.4nm,0.3s,baz=265,slow=16,SNR=1.8
NNA                                 LR    LR     21 48 30.6
      comp=E,2µm,20.0s,baz=320,slow=35
SJG   San Juan          19.90  53   P     Pn     21 42 14.8 -1.7
SJG                                 S     Sn     21 46 03.6 +4.0
SJG   San Juan          19.90  53   P     Pn     21 42 14.8 -1.7
      comp=E,628nm,1.1s,baz=244,slow=7.0,SNR=90
SJG                                 S     Sn     21 46 03.6 +3.9
      comp=E,1.9nm,0.3s,baz=270,slow=21,SNR=1.6
SJG                                 LR    LR     21 49 30.9
      comp=E,3µm,20.9s,baz=226,slow=35
CPD   Cerro la Pandu    20.04  53⇓ iP     P      21 42 15.8 -0.5
CPD                                eS     S      21 45 58.5 -2.1
CAIG  El Cayaco         20.23 303  i P    P      21 42 18.8 +0.4
YAIG  Yautepec          20.24 309⇑ iP     P      21 42 20.8 +2.3
PLIG  Platanillo        20.31 308⇑ iP     P      21 42 20.9 +1.6
MTP   Monte Pirata      20.36  54⇓ iP     P      21 42 19.2 -0.7
MTP                                eS     S      21 46 12.1 +5.1
GRGR  Grenville         21.50  73  eP     P      21 42 32.4 +0.2
DWPF  Disney            21.66   3  eP     P      21 42 37.3 +3.5
      comp=E,663nm,1.1s,mb6.0
DWPF                                LR    LR
      comp=Z,4µm,21.0s,MS4.7
MOIG  Morelia           22.35 308⇑ iP     P      21 42 41.6 +0.4
TBG   Guadaloupe-3      22.66  64  eP     P      21 42 43.8 -0.7
MDN   Morne-Daniel      22.69  65  e      P      21 42 47.9 +3.1
SCG   Saint Claude      22.69  63  eP     P      21 42 44.9  0.0
BPA   Boggy Peak        22.95  61  eP     P      21 42 45.0 -2.6
MGG   Marie-Galante     22.97  64  eP     P      21 42 44.4 -3.5
DEG   La Desirade       23.35  63  eP     P      21 42 51.0 -0.8
BBGH  Gun Hill          23.73  72  eP     P      21 42 46.6 -8.8
BBGH                               eS     S      21 47 15.1 +5.7
BBGH                                LR    LR
      comp=Z,6µm,20.0s,MS5.1
BRAL  Brewton           24.87 351  eP     P      21 43 08.0 +2.3
      comp=Z,1µm,1.3s,mb6.2
BRAL                                LR    LR
      comp=Z,2µm,20.0s,MS4.5
ARE   Arequipa          25.23 154  eP     P      21 43 05.0 -4.0
KVTX  Kingsville        25.56 327⇑ iP     P      21 43 13.0 +1.0
      comp=Z,929nm,1.4s,mb6.1
KVTX                                LR    LR
      comp=Z,4µm,20.0s,MS5.0
HKT   Hockley           26.54 334⇑ eP     P      21 43 20.5 -0.4
      comp=Z,160nm,1.5s,mb5.3
HKT                                 LR    LR
      comp=Z,2µm,20.0s,MS4.7
HKT   Hockley           26.54 334⇑ eP     P      21 43 20.5 -0.4
HKT                                 pmax  pmax
      comp=Z,160nm,1.5s,mb5.3
HKT                                 MLR   MLR
      comp=Z,2µm,20.0s,MS4.7
LPAZ  La Paz            26.70 148   P     P      21 43 15.6 -6.8
LPAZ                                S     S      21 47 51.4 -5.3
LPAZ  La Paz            26.70 148   P     P      21 43 15.6 -6.8
      comp=Z,3.9nm,0.7s,mb4.1,baz=322,slow=11,SNR=19
LPAZ                                S     S      21 47 51.4 -5.3
      comp=Z,1.5nm,0.9s,baz=5.1,slow=18,SNR=1.5
LPAZ                                LR    LR     21 54 43.6
      comp=Z,8µm,19.9s,MS5.2,baz=311,slow=39
NHSC  New Hope          26.71   5  eP     P      21 43 22.9 +0.5
      comp=Z,325nm,1.4s,mb5.7
NHSC                                LR    LR
      comp=Z,2µm,19.0s,MS4.6
LRAL  Lakeview Retre    26.85 352⇑ eP     P      21 43 23.6  0.0
      comp=Z,101nm,1.0s,mb5.3
LRAL                                LR    LR
      comp=Z,1µm,19.0s,MS4.5
GOGA  Godfrey           26.93 359⇑ eP     P      21 43 24.3  0.0
      comp=Z,193nm,1.4s,mb5.4
GOGA                                LR    LR
      comp=Z,2µm,20.0s,MS4.6
GOGA  Godfrey           26.93 359⇑ eP     P      21 43 24.3  0.0
GOGA                                pmax  pmax
      comp=Z,193nm,1.4s,mb5.4
GOGA                                MLR   MLR
      comp=Z,2µm,20.0s,MS4.6
COW   Cow Castle Cre    26.95   4  eP     P      21 43 25.0 +0.5
COW                                ePcP   PcP    21 46 49.1 +3.0
NATX  Nacogdoches       27.65 338⇓ iP     P      21 43 30.2 -0.6
      comp=Z,204nm,1.2s,mb5.6
NATX                               ePcP   PcP    21 46 45.0 -2.9
NATX                                LR    LR
      comp=Z,2µm,19.0s,MS4.7
JSC   Jenkinsville      27.82   2  eP     P      21 43 32.2 -0.1
MAIG  Mazatlaan         28.34 309  i P    P      21 43 37.9 +0.8
OXF   Oxford            28.70 348⇑ eP     P      21 43 38.8 -1.4
      comp=Z,182nm,1.2s,mb5.7
OXF                                 PP    PP     21 44 42.9 -2.4
OXF                                 LR    LR
      comp=Z,1µm,19.0s,MS4.5
OXF   Oxford            28.70 348⇑ eP     P      21 43 38.8 -1.3
OXF                                              21 44 42.9
OXF                                 pmax  pmax
      comp=Z,182nm,1.2s,mb5.7
OXF                                 MLR   MLR
      comp=Z,1µm,19.0s,MS4.5
SWET  Sewanee           28.88 354⇑ eP     P      21 43 40.8 -0.9
SWET                               e             21 44 36.2
SWET                               ePcP   PcP    21 46 47.7 -3.1
JCT   Junction City     28.90 328⇑ iP     P      21 43 41.9 -0.1
      comp=Z,347nm,1.7s,mb5.8
JCT                                ePP    PP     21 44 47.7 +0.2
JCT                                eS     S      21 48 37.4 +6.4
JCT                                 LR    LR
      comp=Z,3µm,20.0s,MS4.8
JCT   Junction City     28.90 328⇑ iP     P      21 43 41.9 -0.1
JCT                                e             21 44 47.7
JCT                                eS     S      21 48 37.4 +6.4
JCT                                 pmax  pmax
      comp=Z,347nm,1.7s,mb5.8
JCT                                 MLR   MLR
      comp=Z,3µm,20.0s,MS4.8
PLAL  Pickwick Lake     28.92 351⇑ iP     P      21 43 41.0 -1.0
      comp=Z,101nm,1.5s,mb5.3
PLAL                                PP    PP     21 44 51.3 +3.7
PLAL                                LR    LR
      comp=Z,1µm,19.0s,MS4.5
CPCT  Cooper Cave       29.00 357⇑ eP     P      21 43 42.9 +0.1
CPCT                               ePP    PP     21 44 49.8 +1.2
CNNC  Cliffs of the     29.07   8   PFAKE        21 44 00.0  +17
CNNC                                LR    LR
      comp=Z,2µm,19.0s,MS4.8
TKL   Tuckaleechee C    29.18 358   P     P      21 43 43.9 -0.5
      comp=Z,44nm,1.1s,mb5.1,baz=172,slow=9.2,SNR=13
TKL                                 LR    LR     21 55 57.7
      comp=Z,3µm,18.2s,MS4.9,baz=179,slow=37
UALR  University of     29.66 344⇑ iP     P      21 43 47.8 -0.9
      comp=Z,154nm,1.1s,mb5.7
UALR                               ePP    PP     21 45 00.9 +5.1
MIAR  Mount Ida         29.80 342⇑ eP     P      21 43 48.8 -1.1
      comp=Z,110nm,1.3s,mb5.4
MIAR                               ePP    PP     21 44 59.6 +2.1
MIAR                                LR    LR
      comp=Z,2µm,21.0s,MS4.6
MIAR  Mount Ida         29.80 342⇑ eP     P      21 43 48.8 -1.2
MIAR                               e             21 44 59.6
MIAR                                pmax  pmax
      comp=Z,110nm,1.3s,mb5.4
MIAR                                MLR   MLR
      comp=Z,2µm,21.0s,MS4.6
HBAR  Harrisburg        29.97 347  eP     P      21 43 50.8 -0.6
HBAR                               ePP    PP     21 44 59.1 -0.3
WVT   Waverly           30.01 352  eP     P      21 43 50.4 -1.3
      comp=Z,22nm,0.7s,mb5.0
WVT                                ePcP   PcP    21 46 55.9 +2.3
WVT   Waverly           30.01 352  eP     P      21 43 50.4 -1.3
WVT                                e             21 46 55.9
WVT                                 pmax  pmax
      comp=Z,22nm,0.7s,mb5.0
HALT  Halls             30.04 349  eP     P      21 43 51.3 -0.7
HALT                               ePP    PP     21 45 01.1 +0.9
HALT                               ePcP   PcP    21 46 52.1 -1.7
TZTN  Tazewell          30.05 359  eP     P      21 43 52.3 +0.2
      comp=Z,195nm,1.4s,mb5.6
TZTN                               ePP    PP     21 44 58.5 -1.7
TZTN                               ePcP   PcP    21 46 49.3 -4.5
TZTN                                LR    LR
      comp=Z,3µm,19.0s,MS5.0
GNAR  Gosnell           30.23 348  eP     P      21 43 53.2 -0.5
      comp=Z,3µm,1.2s
GNAR                               ePP    PP     21 44 58.1 -4.1
GNAR                               ePcP   PcP    21 46 52.4 -1.8
LTX   Lajitas           30.25 322⇑ iP     P      21 43 54.5 +0.5
      comp=Z,73nm,1.4s,mb5.2
LTX                                eS     S      21 48 53.7 +1.4
LTX                                 LR    LR
      comp=Z,2µm,21.0s,MS4.8
LTX   Lajitas           30.25 322⇑ iP     P      21 43 54.5 +0.5
LTX                                eS     S      21 48 53.7 +1.4
LTX                                 pmax  pmax
      comp=Z,73nm,1.4s,mb5.2
LTX                                 MLR   MLR
      comp=Z,2µm,21.0s,MS4.8
TXAR  Lajitas Array     30.25 322   P     P      21 43 54.4 +0.4
      comp=Z,27nm,1.1s,mb4.9,baz=141,slow=8.1,SNR=91
TXAR                                LR    LR     21 56 41.5
      comp=Z,2µm,19.2s,MS4.7,baz=5.0,slow=37
UTMT  University of     30.38 350  eP     P      21 43 53.7 -1.3
      comp=Z,364nm,1.3s,mb6.0
GLAT  Glass             30.38 349  eP     P      21 43 54.4 -0.6
ELN   Prospectdale      30.77   3  eP     P      21 43 59.0 +0.5
ELN                                ePcP   PcP    21 46 48.4 -7.2
BLA   Blacksburg        30.78   3  eP     P      21 43 59.0 +0.5
      comp=Z,52nm,0.8s,mb5.4
BLA                                ePcP   PcP    21 46 54.0 -1.7
BLA                                 LR    LR
      comp=Z,3µm,22.0s,MS4.9
BLA   Blacksburg        30.78   3  eP     P      21 43 59.0 +0.5
BLA                                e             21 46 54.0
BLA                                 pmax  pmax
      comp=Z,52nm,0.8s,mb5.4
BLA                                 MLR   MLR
      comp=Z,3µm,22.0s,MS4.9
BBSR  BB Station        30.83  31   P     P      21 43 57.1 -1.9
BBSR                                LR    LR
      comp=Z,2µm,21.0s,MS4.7
PARMO Parma             30.85 349  eP     P      21 43 58.3 -0.9
PARMO                              ePP    PP     21 45 07.8 -1.3
URVA  University of     31.42   8  eP     P      21 44 03.3 -0.8
URVA                               ePP    PP     21 45 15.2 -0.2
URVA                               ePcP   PcP    21 46 55.8 -1.6
SIUC  Southern Illin    31.78 350  eP     P      21 44 06.4 -0.9
      comp=Z,234nm,1.4s,mb5.8
SIUC                               ePP    PP     21 45 19.6 +0.2
SIUC                               ePcP   PcP    21 46 54.1 -4.2
USIN  University of     31.79 352⇑ eP     P      21 44 06.3 -1.1
      comp=Z,370nm,1.4s,mb6.0
USIN                               ePcP   PcP    21 46 55.3 -3.1
LPIG  La Paz            31.87 307   P     P      21 44 07.8 -0.5
      comp=Z,12nm,0.4s,mb5.1,baz=232,slow=1.3,SNR=16
WCI   Wyandotte Cave    31.89 355⇑ eP     P      21 44 07.4 -0.9
      comp=Z,327nm,1.4s,mb6.0
WCI                                ePP    PP     21 45 21.5 +0.8
WCI                                ePcP   PcP    21 46 57.0 -1.7
WCI                                 LR    LR
      comp=Z,1µm,19.0s,MS4.6
WCI   Wyandotte Cave    31.89 355⇑ eP     P      21 44 07.4 -0.9
WCI                                e             21 45 21.5
WCI                                e             21 46 57.0
WCI                                 pmax  pmax
      comp=Z,327nm,1.4s,mb6.0
WCI                                 MLR   MLR
      comp=Z,1µm,19.0s,MS4.6
WMOK  Wichita Mounta    31.92 334⇑ eP     P      21 44 07.2 -1.5
      comp=Z,62nm,1.0s,mb5.4
WMOK                                PcP   PcP    21 46 53.0 -5.7
WMOK                                LR    LR
      comp=Z,3µm,22.0s,MS4.9
WMOK  Wichita Mounta    31.92 334⇑ eP     P      21 44 07.2 -1.4
WMOK                                             21 46 53.0
WMOK                                pmax  pmax
      comp=Z,62nm,1.0s,mb5.4
WMOK                                MLR   MLR
      comp=Z,3µm,22.0s,MS4.9
CBN   Corbin            32.06   8⇑ eP     P      21 44 09.1 -0.7
      comp=Z,66nm,1.0s,mb5.4
CBN                                 LR    LR
      comp=Z,2µm,19.0s,MS4.9
FVM   French Village    32.26 348  eP     P      21 44 10.1 -1.5
      comp=Z,231nm,1.3s,mb5.8
FVM                                ePP    PP     21 45 25.8 +1.0
FVM                                ePcP   PcP    21 46 59.4 -0.3
FVM   French Village    32.26 348  eP     P      21 44 10.1 -1.5
FVM                                e             21 45 25.8
FVM                                e             21 46 59.4
FVM                                 pmax  pmax
      comp=Z,231nm,1.3s,mb5.8
BLO   Bloomington       32.85 354⇑ eP     P      21 44 15.5 -1.2
      comp=Z,82nm,1.1s,mb5.6
BLO                                ePP    PP     21 45 31.6 +0.3
BLO   Bloomington       32.85 354⇑ eP     P      21 44 15.5 -1.2
BLO                                e             21 45 31.6
BLO                                 pmax  pmax
      comp=Z,82nm,1.1s,mb5.6
SLM   Saint Louis       32.85 349⇑ eP     P      21 44 15.3 -1.4
      comp=Z,295nm,1.2s,mb6.1
SLM                                ePP    PP     21 45 31.0 -0.3
SLM                                ePcP   PcP    21 47 00.0 -1.3
SLM   Saint Louis       32.85 349⇑ eP     P      21 44 15.3 -1.5
SLM                                e             21 45 31.0
SLM                                e             21 47 00.0
SLM                                 pmax  pmax
      comp=Z,295nm,1.2s,mb6.1
MNTX  Cornudas Mount    32.96 323⇑ iP     P      21 44 17.8  0.0
      comp=Z,158nm,1.2s,mb5.8
MNTX                               ePP    PP     21 45 29.6 -3.0
MNTX                                PcP   PcP    21 47 02.1 +0.4
MNTX                                LR    LR
      comp=Z,1µm,19.0s,MS4.6
MCWV  Mont Chateau      33.25   4  eP     P      21 44 20.1 -0.1
      comp=Z,218nm,1.6s,mb5.8
MCWV                               ePP    PP     21 45 32.9 -2.7
MCWV                               ePcP   PcP    21 47 00.2 -2.2
MCWV                                LR    LR
      comp=Z,2µm,21.0s,MS4.9
SDMD  Soldier's Deli    33.32   8⇑ eP     P      21 44 20.7 -0.1
SDMD                               ePP    PP     21 45 39.3 +2.8
SDMD                               ePcP   PcP    21 47 04.5 +2.0
AMTX  Amarillo          33.37 331⇑ eP     P      21 44 21.3  0.0
      comp=Z,271nm,1.4s,mb6.0
AMTX                               ePP    PP     21 45 35.7 -1.4
AMTX                               e             21 46 52.6
AMTX                                LR    LR
      comp=Z,3µm,21.0s,MS4.9
ACSO  Alum Creek Sta    33.73 360  eP     P      21 44 23.5 -0.8
      comp=Z,237nm,1.0s,mb6.1
ACSO                               ePP    PP     21 45 39.8 -1.1
ACSO                               ePcP   PcP    21 47 01.5 -2.2
ACSO                                LR    LR
      comp=Z,3µm,19.0s,MS5.0
SSPA  Standing Stone    34.40   6  eP     P      21 44 30.4 +0.3
      comp=Z,52nm,0.9s,mb5.5
SSPA                               ePP    PP     21 45 52.1 +3.8
SSPA                               ePcP   PcP    21 47 07.2 +1.6
SSPA                                LR    LR
      comp=Z,2µm,20.0s,MS4.8
HDIL  Hopedale          34.56 351  eP     P      21 44 30.2 -1.4
      comp=Z,182nm,0.6s,mb6.2
HDIL                               ePP    PP     21 45 52.1 +1.8
HDIL                               ePcP   PcP    21 47 03.6 -2.5
HDIL                                LR    LR
      comp=Z,1µm,19.0s,MS4.6
BRNJ  Basking Ridge     34.94  11  eP     P      21 44 35.5 +0.6
KSU1  Kansas State U    34.95 341  eP     P      21 44 33.5 -1.4
      comp=Z,163nm,0.9s,mb6.0
KSU1                               ePP    PP     21 45 54.4 -0.1
KSU1                               eS     S      21 50 12.2 +7.0
KSU1                                LR    LR
      comp=Z,2µm,22.0s,MS4.7
ALLY  Alegheny Colle    35.21   3  eP     P      21 44 36.1 -1.1
AAM   Ann Arbor         35.80 359  eP     P      21 44 41.1 -1.1
      comp=Z,24nm,0.4s,mb5.5
AAM                                ePP    PP     21 46 04.3 +0.4
AAM                                ePcP   PcP    21 47 07.9 -1.8
AAM                                 LR    LR
      comp=Z,2µm,20.0s,MS5.0
AAM   Ann Arbor         35.80 359  eP     P      21 44 41.1 -1.1
AAM                                e             21 46 04.3
AAM                                e             21 47 07.9
AAM                                 pmax  pmax
      comp=Z,23nm,0.4s,mb5.5
AAM                                 MLR   MLR
      comp=Z,2µm,20.0s,MS5.0
CBKS  Cedar Bluff       35.81 337  eP     P      21 44 41.9 -0.5
      comp=Z,94nm,1.1s,mb5.6
CBKS                               ePP    PP     21 46 05.7 +1.7
CBKS                               ePcP   PcP    21 47 05.2 -4.5
CBKS                                LR    LR
      comp=Z,2µm,21.0s,MS4.8
CBKS  Cedar Bluff       35.81 337  eP     P      21 44 41.9 -0.5
CBKS                               e             21 46 05.7
CBKS                               e             21 47 05.2
CBKS                                pmax  pmax
      comp=Z,94nm,1.1s,mb5.6
CBKS                                MLR   MLR
      comp=Z,2µm,21.0s,MS4.8
ANMO  Albuquerque       35.92 326⇑ iP     P      21 44 44.3 +0.9
      comp=Z,260nm,1.4s,mb6.0
ANMO                               ePP    PP     21 46 07.0 +1.7
ANMO                               eS     S      21 50 16.5 -3.8
ANMO                                LR    LR
      comp=Z,2µm,19.0s,MS5.0
ANMO  Albuquerque       35.92 326⇑ iP     P      21 44 44.3 +0.9
ANMO                               e             21 46 07.0
ANMO                               eS     S      21 50 16.5 -3.8
ANMO                                pmax  pmax
      comp=Z,260nm,1.4s
ANMO                                MLR   MLR
      comp=Z,2µm,19.0s
BINY  Binghamton        36.18   8⇑ eP     P      21 44 45.3 -0.2
      comp=Z,58nm,0.9s,mb5.5
BINY                                LR    LR
      comp=Z,3µm,21.0s,MS5.0
SCIA  State Center      36.62 347⇑ eP     P      21 44 47.9 -1.3
      comp=Z,497nm,1.4s,mb6.2
SCIA                               ePP    PP     21 46 15.1 +2.2
SCIA                               ePcP   PcP    21 47 08.2 -3.8
SCIA                               eS     S      21 50 29.9 -0.9
SCIA                                LR    LR
      comp=Z,1µm,19.0s,MS4.7
TUC   Tucson            36.79 318⇑ eP     P      21 44 51.3 +0.4
      comp=Z,35nm,0.9s,mb5.2
TUC                                ePP    PP     21 46 16.2 +1.3
TUC                                ePcP   PcP    21 47 07.3 -5.5
TUC                                eS     S      21 50 38.0 +4.3
TUC                                 LR    LR
      comp=Z,4µm,20.0s,MS5.2
TUC   Tucson            36.79 318⇑ eP     P      21 44 51.3 +0.4
TUC                                e             21 46 16.2
TUC                                e             21 47 07.3
TUC                                eS     S      21 50 38.0 +4.4
TUC                                 pmax  pmax
      comp=Z,35nm,0.9s,mb5.2
TUC                                 MLR   MLR
      comp=Z,4µm,20.0s,MS5.2
LCO   Las Campanas      37.00 162   PFAKE        21 45 00.0 +7.3
LCO                                 LR    LR
      comp=Z,2µm,22.0s,MS4.8
JFWS  Jewell Farm       37.02 351⇑ iP     P      21 44 50.5 -2.1
      comp=Z,140nm,0.8s,mb5.8
JFWS                               ePP    PP     21 46 21.2 +3.9
JFWS                               ePcP   PcP    21 47 15.0 +1.8
JFWS                               eS     S      21 50 34.2 -2.6
JFWS                                LR    LR
      comp=Z,1µm,19.0s,MS4.7
JFWS  Jewell Farm       37.02 351⇑ iP     P      21 44 50.5 -2.1
JFWS                               e             21 46 21.2
JFWS                               e             21 47 15.0
JFWS                               eS     S      21 50 34.2 -2.6
JFWS                                pmax  pmax
      comp=Z,140nm,0.8s,mb5.8
JFWS                                MLR   MLR
      comp=Z,1µm,19.0s,MS4.7
WES   Weston            37.26  14   PFAKE        21 45 10.0  +15
WES                                 LR    LR
      comp=Z,1µm,20.0s,MS4.7
HRV   Harvard--Oak R    37.32  14   PFAKE        21 45 10.0  +15
HRV                                 LR    LR
      comp=Z,1µm,20.0s,MS4.6
SDCO  Great Sand Dun    37.51 330  eP     P      21 44 58.1 +1.2
      comp=Z,487nm,1.3s,mb6.1
SDCO                               ePP    PP     21 46 26.6 +3.8
SDCO                                LR    LR
      comp=Z,2µm,22.0s,MS4.9
116A  Eloy              37.56 318   P     P      21 44 58.2 +0.8
      baz=38,SNR=22
ACCN  Adirondack Com    37.72  11  eP     P      21 44 58.3 -0.2
ACCN                               ePP    PP     21 46 28.9 +3.9
ACCN                               ePcP   PcP    21 47 15.9 +0.5
115A  Sonoran Desert    37.99 317  ⇓P     P      21 45 01.8 +0.7
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	baz=38,SNR=20						
NCB	**Newcomb**	**38.19**	**10**	*e*P	**P**	**21 45 02.6**	**+0.1**
	comp=Z,100nm,1.6s,mb5.3						
NCB				*e*PP	PP	21 46 30.0	-0.1
NCB				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
HNH	**Hanover**	**38.30**	**12**	*e*P	**P**	**21 45 03.4**	**0.0**
	comp=Z,3.2nm,0.9s,mb4.0						
SADO	**Sadowa**	**38.38**	**4**	P	**P**	**21 45 02.8**	**-1.4**
	baz=197,slow=11						
MVCO	**Mesa Verde**	**38.70**	**326**	*e*P	**P**	**21 45 07.8**	**+0.9**
	comp=Z,126nm,0.8s,mb5.7						
MVCO				PP	PP	21 46 37.0	+1.2
MVCO				*e*PcP	PcP	21 47 12.5	-6.1
MVCO				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
MVCO	**Mesa Verde**	**38.70**	**326**	P	**P**	**21 45 08.1**	**+1.2**
	baz=39,SNR=101						
LONY	**Lake Ozonia**	**38.76**	**9**	*e*P	**P**	**21 45 08.9**	**+1.6**
	comp=Z,201nm,1.8s,mb5.5						
LONY				*e*PP	PP	21 46 34.9	-1.5
LONY				*e*PcP	PcP	21 47 13.6	-5.0
LONY				LR	LR		
	comp=Z,2µm,22.0s,MS4.9						
Z14A	**Wintersburg**	**38.87**	**318**	P	**P**	**21 45 09.4**	**+1.0**
	baz=39,SNR=11						
LBNH	**Lisbon**	**38.88**	**12**	*e*P	**P**	**21 45 09.5**	**+1.2**
	comp=Z,52nm,1.2s,mb5.1						
LBNH				*e*PP	PP	21 46 34.6	-3.1
LBNH				*e*PcP	PcP	21 47 16.8	-2.2
LBNH				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
LBNH	**Lisbon**	**38.88**	**12**	*e*P	**P**	**21 45 09.5**	**+1.1**
LBNH				*e*		21 46 34.6	
LBNH				*e*		21 47 16.8	
LBNH				pmax	pmax		
	comp=Z,52nm,1.2s,mb5.1						
LBNH				MLR	MLR		
	comp=Z,2µm,19.0s,MS4.9						
MSNY	**Massena**	**39.08**	**9**	*e*P	**P**	**21 45 09.9**	**-0.1**
MSNY				*e*PP	PP	21 46 37.9	-2.0
X15A	**Humboldt**	**39.10**	**320**	P	**P**	**21 45 11.4**	**+1.1**
	baz=39,SNR=50						
FRNY	**Flat Rock**	**39.13**	**10**	*e*P	**P**	**21 45 09.4**	**-1.0**
FRNY				*e*PP	PP	21 46 42.1	+1.7
FRNY				*e*PcP	PcP	21 47 18.5	-1.3
ISCO	**Idaho Springs**	**39.17**	**332**	*e*P	**P**	**21 45 11.9**	**+1.1**
	comp=Z,422nm,1.8s,mb5.9						
ISCO				*e*PP	PP	21 46 48.1	+7.1
ISCO				*e*PcP	PcP	21 47 19.3	-0.7
ISCO				LR	LR		
	comp=Z,1µm,20.0s,MS4.7						
ISCO	**Idaho Springs**	**39.17**	**332**	*e*P	**P**	**21 45 11.9**	**+1.1**
ISCO				*e*		21 46 48.1	
ISCO				*e*		21 47 19.3	
ISCO				pmax	pmax		
	comp=Z,422nm,1.8s,mb5.9						
ISCO				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.7						
ECSD	**EROS,Sioux Fal**	**39.19**	**344**	*e*P	**P**	**21 45 08.7**	**-2.3**
	comp=Z,125nm,1.2s,mb5.5						
ECSD				*e*PP	PP	21 46 42.1	+1.0
ECSD				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
WUAZ	**Wupatki**	**39.22**	**322**	⇑*i*P	**P**	**21 45 12.2**	**+0.9**
	comp=Z,163nm,1.1s,mb5.7						
WUAZ				*e*PP	PP	21 46 43.6	+2.2
WUAZ				*e*PcP	PcP	21 47 19.8	-0.4
WUAZ				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
WUAZ	**Wupatki**	**39.22**	**322**	P	**P**	**21 45 12.6**	**+1.3**
	baz=40,SNR=50						
Y14A	**Wickenburg**	**39.26**	**318**	P	**P**	**21 45 12.3**	**+0.6**
	baz=40,SNR=29						
SMCO	**Snowmass**	**39.35**	**330**	⇑*i*P	**P**	**21 45 13.3**	**+0.9**
	comp=Z,199nm,1.3s,mb5.7						
SMCO				*e*PP	PP	21 46 43.8	+0.9
SMCO				*e*PcP	PcP	21 47 21.0	+0.4
SMCO				*e*S	**S**	**21 51 24.5**	**+12**
X14A	**Yava**	**39.51**	**319**	P	**P**	**21 45 14.8**	**+1.0**
	baz=40,SNR=38						
W15A	**Williams**	**39.55**	**321**	⇑P	**P**	**21 45 15.4**	**+1.3**
	baz=40,SNR=9.0						
Y13A	**Salome**	**39.73**	**318**	P	**P**	**21 45 16.4**	**+0.7**
	baz=40,SNR=49						
GLA	**Glamis**	**39.97**	**316**	P	**P**	**21 45 18.3**	**+0.7**
	baz=40,SNR=31						
COWI	**Conover**	**39.98**	**353**	⇑*e*P	**P**	**21 45 15.5**	**-2.0**
	comp=Z,68nm,1.1s,mb5.3						
COWI				*e*PP	PP	21 46 49.4	-0.3
COWI				*e*PcP	PcP	21 47 23.9	+1.4
COWI				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
W14A	**Seligman**	**40.09**	**320**	P	**P**	**21 45 19.9**	**+1.2**
	baz=40,SNR=35						
Y12C	**Blythe**	**40.16**	**317**	P	**P**	**21 45 19.7**	**+0.5**
	baz=40,SNR=14						
CFAA	**Coronel Fontan**	**40.19**	**161**	P	**P**	**21 45 12.6**	**-6.8**
	comp=Z,0.6nm,0.8s,baz=336,slow=8.8,SNR=10.0						
X13A	**Yucca**	**40.20**	**319**	P	**P**	**21 45 19.9**	**+0.5**
	baz=40,SNR=27						
PDMCI	**Parker Dam,Lak**	**40.23**	**318**	⇓P	**P**	**21 45 20.2**	**+0.4**
	baz=41,SNR=14						
PHWY	**Pilot Hill**	**40.29**	**333**	*e*P	**P**	**21 45 20.6**	**+0.4**
PHWY				*e*PP	PP	21 46 57.0	+3.8
PHWY				*e*PcP	PcP	21 47 22.5	-1.1
PKME	**Peaks-Kenny Pk**	**40.46**	**15**	⇑*e*P	**P**	**21 45 21.8**	**+0.3**
	comp=Z,221nm,1.7s,mb5.6						
PKME				*e*PP	PP	21 46 54.6	-0.4
PKME				*e*		21 50 58.0	
PKME				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
W13A	**Hualapai Mount**	**40.54**	**319**	P	**P**	**21 45 23.6**	**+1.2**
	baz=41,SNR=74						
SWSC	**Sam W. Stewart**	**40.59**	**315**	⇓P	**P**	**21 45 23.1**	**+0.4**
	baz=41,SNR=10						
DVTC	**Desert V Tower**	**40.65**	**314**	⇑P	**P**	**21 45 23.8**	**+0.6**
	baz=41,SNR=8.0						
BC3	**Big Chuckw Mtn**	**40.74**	**316**	P	**P**	**21 45 24.5**	**+0.5**
	baz=41,SNR=24						
NEE2	**Needles Airpor**	**40.82**	**318**	⇑P	**P**	**21 45 24.8**	**+0.2**
	baz=41						
IRM	**Iron Mountain**	**40.83**	**317**	⇑P	**P**	**21 45 25.1**	**+0.4**
	baz=41,SNR=22						
MONP	**Monument Peak**	**41.00**	**315**	⇑P	**P**	**21 45 26.6**	**+0.5**
	baz=41,SNR=8.8						
SRU	**San Rafael**	**41.17**	**326**	⇑*e*P	**P**	**21 45 28.0**	**+0.5**
	comp=Z,202nm,0.9s,mb5.8						
SRU				*e*PP	PP	21 47 01.6	-1.1
SRU	**San Rafael**	**41.17**	**326**	⇑*e*P	**P**	**21 45 28.0**	**+0.6**
SRU				*e*		21 47 01.6	
SRU				pmax	pmax		
	comp=Z,202nm,0.9s,mb5.8						
T14A	**Hurricane**	**41.27**	**322**	P	**P**	**21 45 29.5**	**+1.2**
	baz=42,SNR=35						
W12A	**Cal Nev Ari**	**41.31**	**319**	⇑P	**P**	**21 45 29.2**	**+0.6**
	baz=42						
BELC	**Belle Mtn.**	**41.31**	**316**	P	**P**	**21 45 29.4**	**+0.7**
	baz=42,SNR=20						
RWWY	**Rawlins**	**41.40**	**332**	⇑*i*P	**P**	**21 45 30.3**	**+1.0**
	comp=Z,414nm,1.2s,mb5.9						
RWWY				*e*PP	PP	21 47 07.5	+2.3
PFO	**Pinyon Flat Ob**	**41.41**	**315**	⇑*e*P	**P**	**21 45 30.0**	**+0.4**
	comp=Z,50nm,1.1s,mb5.1						
PFO				*e*PP	PP	21 47 08.5	+3.1
PFO				*e*S	**S**	**21 51 55.9**	**+13**
PFO				LR	LR		
	comp=Z,2µm,19.0s,MS5.1						
PFO	**Pinyon Flat Ob**	**41.41**	**315**	⇑*e*P	**P**	**21 45 30.0**	**+0.5**
PFO				*e*		21 47 08.5	
PFO				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.1						
PFO				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.1						
PFO	**Pinyon Flat Ob**	**41.41**	**315**	⇑P	**P**	**21 45 30.0**	**+0.4**
	baz=42,SNR=5.2						
109C	**Camp Elliot, M**	**41.48**	**314**	⇓P	**P**	**21 45 30.1**	**0.0**
	baz=42,SNR=7.1						
GMRC	**Granite Mounta**	**41.53**	**317**	⇓P	**P**	**21 45 30.9**	**+0.4**
	baz=42,SNR=19						
V12A	**Nelson**	**41.55**	**319**	P	**P**	**21 45 31.4**	**+0.8**
	baz=42,SNR=47						
TMUT	**Trail Mountain**	**41.68**	**326**	*e*P	**P**	**21 45 32.2**	**+0.6**
TMUT				*e*PP	PP	21 47 09.7	+1.5
MSU	**Marysvale**	**41.69**	**324**	*e*P	**P**	**21 45 31.7**	**0.0**
MSU				*e*PP	PP	21 47 10.7	+2.3
MSU				*e*PcP	PcP	21 47 23.6	-4.6
T13A	**Saint George**	**41.75**	**321**	⇓P	**P**	**21 45 33.2**	**+1.0**
	baz=42,SNR=36						
CCUT	**Cedar City**	**41.75**	**322**	⇑*e*P	**P**	**21 45 33.3**	**+1.1**
CCUT				*e*PcP	PcP	21 47 21.6	-6.8
S14A	**Cedar City**	**41.77**	**323**	⇓P	**P**	**21 45 33.3**	**+0.9**
	baz=42,SNR=13						
U12A	**Valley of Fire**	**41.78**	**320**	⇓P	**P**	**21 45 33.2**	**+0.7**
	baz=42,SNR=8.1						
MURC	**Murrieta**	**41.93**	**315**	⇑P	**P**	**21 45 34.0**	**+0.2**
	baz=42,SNR=6.8						
ARUT	**Antelope Range**	**41.95**	**323**	*e*P	**P**	**21 45 34.8**	**+0.9**
ARUT				*e*PP	PP	21 47 13.4	+2.1
V11A	**Goodsprings**	**41.99**	**319**	⇑P	**P**	**21 45 34.7**	**+0.5**
	baz=42,SNR=20						
HEC	**Hector,Ludlow**	**42.01**	**317**	⇑P	**P**	**21 45 34.8**	**+0.4**
	baz=42,SNR=12						
RSSD	**Black Hills**	**42.02**	**337**	*e*P	**P**	**21 45 34.8**	**+0.5**
	comp=Z,187nm,1.4s,mb5.5						
RSSD				*e*PP	PP	21 47 15.3	+3.5
RSSD				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
RSSD	**Black Hills**	**42.02**	**337**	*e*P	**P**	**21 45 34.8**	**+0.5**
RSSD				*e*		21 47 15.3	
RSSD				pmax	pmax		
	comp=Z,187nm,1.4s,mb5.5						
RSSD				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.0						
T12A	**Moapa**	**42.07**	**320**	⇑P	**P**	**21 45 35.5**	**+0.6**
	baz=42						
TUQ	**Turquoise Mtn.**	**42.08**	**318**	⇑P	**P**	**21 45 35.2**	**+0.2**
	baz=42,SNR=11						
BBRC	**Big Bear Sol-O**	**42.09**	**316**	⇓P	**P**	**21 45 35.7**	**+0.6**
	baz=42						
EYMN	**Ely**	**42.12**	**351**	⇑*e*P	**P**	**21 45 32.5**	**-2.5**
	comp=Z,84nm,0.8s,mb5.4						
EYMN				*e*PP	PP	21 47 10.7	-2.1
EYMN				*e*S	S	21 52 15.3	+22
EYMN				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
RPN	**Rapa Nui**	**42.13**	**217**	PFAKE		21 45 50.0	+15
RPN				LR	LR		
	comp=Z,2µm,19.0s,MS5.1						
U11A	**Corn Creek**	**42.31**	**320**	⇑P	**P**	**21 45 37.3**	**+0.4**
	baz=43						
MPU	**Maple Canyon**	**42.41**	**327**	⇑*e*P	**P**	**21 45 37.9**	**+0.3**
	comp=Z,56nm,0.9s,mb5.2						
MPU				*e*PP	PP	21 47 16.8	+0.6
MPU				LR	LR		
	comp=Z,5µm,20.0s,MS5.4						
DAU	**Daniels Canyon**	**42.49**	**327**	*e*P	**P**	**21 45 38.5**	**+0.3**
DAU				*e*PcP	PcP	21 47 33.3	+2.5
RRX	**Edison Barstow**	**42.49**	**317**	⇑P	**P**	**21 45 38.6**	**+0.3**
	baz=43						
SCI	**San Clemente I**	**42.57**	**313**	⇑P	**P**	**21 45 38.9**	**-0.1**
	baz=43						
SHOC	**Shoshone**	**42.59**	**318**	⇑P	**P**	**21 45 39.3**	**+0.2**
	baz=43,SNR=12						
BFSC	**Mount Baldy St**	**42.59**	**315**	⇑P	**P**	**21 45 39.1**	**-0.1**
	baz=43,SNR=5.0						
GSC	**Goldstone**	**42.59**	**317**	P	**P**	**21 45 39.7**	**+0.5**
	baz=43,SNR=21						
NLU	**North Lily Min**	**42.62**	**326**	⇑*i*P	**P**	**21 45 39.8**	**+0.6**
NLU				*e*PP	PP	21 47 18.4	0.0
NLU				*e*PcP	PcP	21 47 30.4	-0.8
CIS	**Catalina Islan**	**42.68**	**314**	⇓P	**P**	**21 45 40.1**	**+0.2**
	baz=43						
JLU	**Jordanelle**	**42.73**	**327**	⇑*e*P	**P**	**21 45 40.8**	**+0.7**
JLU				*e*PcP	PcP	21 47 30.0	-1.6
FMP	**Fort Macarthur**	**42.76**	**314**	⇑P	**P**	**21 45 40.6**	**+0.1**
	baz=43						
U10A	**Ash Meadows, A**	**42.92**	**319**	⇓P	**P**	**21 45 42.6**	**+0.8**
	baz=43,SNR=17						
CTU	**Camp Tracy**	**42.95**	**327**	⇑*i*P	**P**	**21 45 42.2**	**+0.2**
	comp=Z,142nm,1.2s,mb5.6						
CTU				*e*PcP	PcP	21 47 32.5	+0.2
R12A	**Pony Springs,**	**43.01**	**322**	P	**P**	**21 45 43.7**	**+1.3**
	baz=43,SNR=38						
DECC	**Green Verdugo**	**43.07**	**315**	⇓P	**P**	**21 45 43.4**	**+0.4**
	baz=43						
NOQ	**North Oquirrh**	**43.12**	**327**	⇑*e*P	**P**	**21 45 43.6**	**+0.2**
	comp=Z,214nm,1.3s,mb5.7						
NOQ				*e*PP	PP	21 47 18.9	-5.0
EDW2	**Edwards Air Fo**	**43.17**	**316**	⇓P	**P**	**21 45 44.0**	**+0.2**
	baz=44,SNR=13						
DUG	**Dugway**	**43.19**	**326**	⇑*e*P	**P**	**21 45 44.1**	**+0.2**
	comp=Z,102nm,1.5s,mb5.3						
DUG				*e*PcP	PcP	21 47 31.4	-1.7
DUG				*e*S	**S**	**21 52 17.6**	**+8.4**
DUG				LR	LR		
	comp=Z,4µm,19.0s,MS5.3						
DUG	**Dugway**	**43.19**	**326**	⇑*e*P	**P**	**21 45 44.2**	**+0.3**
DUG				*e*		21 47 31.4	
DUG				pmax	pmax		
	comp=Z,102nm,1.5s,mb5.3						
DUG				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.3						
DUG	**Dugway**	**43.19**	**326**	P	**P**	**21 45 44.7**	**+0.8**
	baz=44,SNR=44						
AGMN	**Agassiz Refuge**	**43.27**	**347**	⇑*e*P	**P**	**21 45 42.4**	**-2.0**
	comp=Z,122nm,0.9s,mb5.6						
AGMN				*e*PcP	PcP	21 47 30.4	-2.8
AGMN				S	S	21 52 37.1	+27
AGMN				LR	LR		
	comp=Z,1µm,22.0s,MS4.8						
S11A	**Rachel**	**43.28**	**321**	P	**P**	**21 45 46.2**	**+1.5**
	baz=44,SNR=15						
LRMC	**Laurel Mountai**	**43.29**	**317**	⇑P	**P**	**21 45 45.2**	**+0.4**
	baz=44						
FURC	**Furnace Creek,**	**43.30**	**319**	P	**P**	**21 45 45.6**	**+0.8**
	baz=44,SNR=18						
PDAR	**Pinedale Array**	**43.35**	**331**	P	**P**	**21 45 45.1**	**0.0**
	comp=Z,37nm,1.0s,mb5.1,baz=139,slow=9.2,SNR=126						
PDAR				PP	PP	21 47 30.8	+4.6
	comp=Z,9.6nm,1.1s,baz=152,slow=4.1,SNR=2.9						
PDAR				LR	LR	22 05 49.9	
	comp=Z,2µm,19.9s,MS5.0,baz=325,slow=39						
BW06	**Boulder Array**	**43.35**	**331**	PFAKE		21 46 00.0	+15
BW06				LR	LR		
	comp=Z,3µm,21.0s,MS5.1						
SNCC	**San Nicolas Is**	**43.41**	**313**	⇓P	**P**	**21 45 45.7**	**-0.1**
	baz=44						
MPMC	**Manual Prospec**	**43.48**	**318**	P	**P**	**21 45 46.4**	**0.0**
	baz=44,SNR=18						
HWUT	**Hardware Ranch**	**43.50**	**328**	⇑*i*P	**P**	**21 45 46.4**	**0.0**
	comp=Z,132nm,0.9s,mb5.7						
HWUT				*e*PcP	PcP	21 47 33.4	-0.8
HWUT				*e*S	**S**	**21 52 16.1**	**+2.4**
HWUT				LR	LR		
	comp=Z,3µm,20.0s,MS5.2						
BLG	**Laguna Peak**	**43.52**	**314**	⇑P	**P**	**21 45 46.3**	**-0.4**
	baz=44						
Q12A	**Willow Creek R**	**43.59**	**323**	P	**P**	**21 45 48.0**	**+0.8**
	baz=44,SNR=23						
TRCR	**Troy Canyon**	**43.62**	**322**	*e*P	**P**	**21 45 48.1**	**+0.7**
TRCR				*e*PcP	PcP	21 47 33.6	-1.0
SPUT	**South Promonto**	**43.76**	**327**	⇑*i*P	**P**	**21 45 48.6**	**+0.1**
SPUT				*e*		21 47 25.5	
BGU	**Big Grassy Mou**	**43.81**	**326**	⇑*e*P	**P**	**21 45 49.1**	**+0.2**
BGU				*e*		21 47 37.8	
BSC	**Santa Cruz Isl**	**43.86**	**314**	⇑P	**P**	**21 45 49.0**	**-0.4**
	baz=44						
M15A	**Larsen Ranch,**	**43.87**	**327**	P	**P**	**21 45 49.6**	**+0.3**
	baz=44,SNR=93						
ARVC	**Arvin**	**43.88**	**316**	⇑P	**P**	**21 45 49.7**	**+0.1**
	baz=44,SNR=8.6						
P12A	**McGill**	**43.92**	**323**	P	**P**	**21 45 50.7**	**+1.0**
	baz=44,SNR=20						
ISA	**Isabella**	**43.93**	**317**	P	**P**	**21 45 50.3**	**+0.4**
	baz=44,SNR=13						
GRAC	**Grapevine Rang**	**43.94**	**319**	⇑P	**P**	**21 45 50.3**	**+0.3**
	baz=44						
Q11A	**Duckwater**	**43.97**	**322**	P	**P**	**21 45 50.9**	**+0.7**
	baz=44,SNR=42						
S10A	**Tonopah Range,**	**43.98**	**321**	P	**P**	**21 45 51.2**	**+0.9**
	baz=44,SNR=67						
R10A	**Warm Springs**	**44.02**	**321**	P	**P**	**21 45 51.9**	**+1.2**
	baz=44,SNR=44						
CWC	**Cottonwood Cre**	**44.09**	**318**	⇑P	**P**	**21 45 51.5**	**+0.3**
	baz=44						
AHID	**Auburn Hatcher**	**44.10**	**330**	⇑*i*P	**P**	**21 45 50.9**	**-0.3**
	comp=Z,59nm,1.1s,mb5.2						
AHID				*e*PcP	PcP	21 47 39.7	+3.6
AHID				*e*S	**S**	**21 52 32.5**	**+10**
AHID				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
SBC	**Santa Barbara**	**44.15**	**314**	⇓P	**P**	**21 45 51.6**	**-0.1**
	baz=44						
HVU	**Hansel Valley**	**44.27**	**327**	⇑*e*P	**P**	**21 45 52.5**	**0.0**
	comp=Z,91nm,1.3s,mb5.3						
HVU				*e*PcP	PcP	21 47 31.4	-5.3
HVU	**Hansel Valley**	**44.27**	**327**	⇑*e*P	**P**	**21 45 52.5**	**0.0**
HVU				*e*		21 47 31.4	
HVU				pmax	pmax		
	comp=Z,91nm,1.3s,mb5.3						
S09A	**Goldfield**	**44.27**	**320**	⇓P	**P**	**21 45 52.9**	**+0.3**
	baz=45,SNR=35						
M14A	**Sheep Mountain**	**44.38**	**327**	P	**P**	**21 45 53.7**	**+0.2**
	baz=45,SNR=43						
Q10A	**Clear Creek Ra**	**44.41**	**322**	⇑P	**P**	**21 45 54.8**	**+1.1**
	baz=45						
N13A	**Wendover, West**	**44.42**	**325**	⇑P	**P**	**21 45 54.5**	**+0.7**
	baz=45,SNR=10						
REDW	**Red Top Meadow**	**44.42**	**331**	⇑*e*P	**P**	**21 45 54.0**	**+0.3**
	comp=Z,426nm,1.4s,mb6.0						
REDW				*e*PcP	PcP	21 47 35.8	-1.4
REDW				*e*S	**S**	**21 52 41.3**	**+14**
VES	**Vestal, Richgr**	**44.44**	**316**	P	**P**	**21 45 54.6**	**+0.6**
	baz=45,SNR=11						
PKM	**Peak Mountain**	**44.45**	**315**	⇑P	**P**	**21 45 54.3**	**+0.1**
	baz=45,SNR=5.5						
P11A	**Circle Ranch,**	**44.47**	**323**	⇑P	**P**	**21 45 54.5**	**+0.3**
	baz=45						
R09A	**Tonopah**	**44.48**	**321**	P	**P**	**21 45 54.9**	**+0.7**
	baz=45,SNR=56						
LOHW	**Long Hollow**	**44.49**	**331**	⇑*i*P	**P**	**21 45 54.3**	**+0.1**
	comp=Z,80nm,1.1s,mb5.4						
LOHW				*e*PcP	PcP	21 47 36.8	-0.6
LOHW				*e*S	**S**	**21 52 41.2**	**+13**
TIN	**Tinemaha**	**44.53**	**318**	⇑P	**P**	**21 45 55.1**	**+0.3**
	baz=45						
TPAW	**Teton Pass**	**44.56**	**331**	⇑*e*P	**P**	**21 45 55.1**	**+0.3**
	comp=Z,193nm,1.2s,mb5.8						
TPAW				*e*PcP	PcP	21 47 40.7	+3.0
TPAW				*e*S	**S**	**21 52 38.1**	**+9.0**
MOOW	**Moose Ponds**	**44.66**	**331**	⇑*e*P	**P**	**21 45 55.5**	**-0.2**
	comp=Z,38nm,1.0s,mb5.2						
MOOW				*e*PcP	PcP	21 47 36.5	-1.5
MOOW				*e*S	**S**	**21 52 47.2**	**+17**
M13A	**Montello**	**44.74**	**326**	P	**P**	**21 45 56.3**	**0.0**
	baz=45,SNR=16						
S08C	**White Mtn Res**	**44.75**	**319**	P	**P**	**21 45 57.2**	**+0.8**
	baz=45,SNR=37						
DCID1	**Drake Creek**	**44.76**	**330**	*e*P	**P**	**21 45 57.1**	**+0.6**
DCID1				*e*PcP	PcP	21 47 37.2	-1.2
DCID1				*e*S	**S**	**21 52 40.5**	**+8.6**
O11A	**Cowboy Ranch,**	**44.78**	**324**	P	**P**	**21 45 57.4**	**+0.7**
	baz=45,SNR=18						
SMMC	**Simmler**	**44.80**	**315**	⇑P	**P**	**21 45 57.0**	**+0.1**
	baz=45						
RCTC	**Rector, Farmer**	**44.80**	**317**	⇓P	**P**	**21 45 56.4**	**-0.5**
	baz=45						
HELL	**Mitchell Peak,**	**44.85**	**317**	P	**P**	**21 45 57.5**	**+0.1**
	baz=45,SNR=22						
IMW	**Indian Meadow**	**44.86**	**331**	*e*P	**P**	**21 45 57.4**	**+0.1**
	comp=Z,70nm,1.0s,mb5.4						
IMW				*e*PcP	PcP	21 47 38.9	+0.1
IMW				*e*S	**S**	**21 52 41.9**	**+8.5**
N12A	**Clover Valley,**	**44.89**	**325**	P	**P**	**21 45 57.9**	**+0.3**
	baz=45,SNR=23						
Q09A	**Carvers**	**44.90**	**321**	⇑P	**P**	**21 45 58.2**	**+0.6**
	baz=45,SNR=7.0						
MTUM	**Tungsten Hills**	**44.92**	**319**	*e*P	**P**	**21 45 58.6**	**+0.7**
MTUM				*e*PP	PP	21 47 44.1	+1.0
ELK	**Elko**	**44.94**	**325**	*e*P	**P**	**21 45 58.5**	**+0.7**
	comp=Z,31nm,0.9s,mb5.1						
ELK				PcP	PcP	21 47 38.6	-0.4
ELK				*e*ScP	ScP	21 51 32.8	+2.7
ELK				*e*S	**S**	**21 52 44.7**	**+10**
ELK				LR	LR		
	comp=Z,3µm,22.0s,MS5.1						
ELK	**Elko**	**44.94**	**325**	*e*P	**P**	**21 45 58.6**	**+0.7**
ELK						21 47 38.6	
ELK				*e*S	**S**	**21 52 44.7**	**+10**
ELK				pmax	pmax		
	comp=Z,31nm,0.9s						
ELK				MLR	MLR		
	comp=Z,3µm,22.0s						
P10A	**Eureka**	**44.94**	**323**	P	**P**	**21 45 58.7**	**+0.8**
	baz=45,SNR=11						
LAO	**LASA Array**	**45.01**	**337**	⇑*e*P	**P**	**21 45 57.9**	**-0.4**
	comp=Z,206nm,1.2s,mb5.8						
LAO				*e*PP	PP	21 47 44.6	+0.7
LAO				*e*S	**S**	**21 52 44.2**	**+8.7**
LAO				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
K14A	**Jones Ranch, D**	**45.01**	**328**	P	**P**	**21 45 58.3**	**-0.2**
	baz=45,SNR=110						
V05C	**Boulder Hill,**	**45.02**	**316**	⇑P	**P**	**21 45 58.7**	**0.0**
	baz=45						
RLMT	**Red Lodge**	**45.02**	**333**	⇑*e*P	**P**	**21 45 58.4**	**0.0**
	comp=Z,290nm,1.4s,mb5.9						
RLMT				*e*PP	PP	21 47 46.8	+2.8
RLMT				*e*S	**S**	**21 52 50.4**	**+15**
RLMT				LR	LR		
	comp=Z,2µm,21.0s,MS5.1						
LKWY	**Lake**	**45.11**	**332**	⇑*e*P	**P**	**21 46 00.2**	**+1.0**
	comp=Z,55nm,1.2s,mb5.3						
LKWY				*e*PcP	PcP	21 47 49.0	+9.4
LKWY				*e*ScP	ScP	21 51 27.7	-3.0
LKWY				*e*S	S	21 52 58.6	+22
LKWY				LR	LR		
	comp=Z,4µm,19.0s,MS5.4						
LKWY	**Lake**	**45.11**	**332**	⇑*e*P	**P**	**21 46 00.2**	**+1.0**
LKWY				*e*		21 47 49.0	
LKWY				pmax	pmax		
	comp=Z,55nm,1.2s,mb5.3						
LKWY				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.4						
L13A	**Double Diamond**	**45.11**	**327**	⇑P	**P**	**21 45 59.1**	**-0.2**
	baz=46,SNR=18						
ULM	**Lac du Bonnet**	**45.12**	**348**	P	**P**	**21 45 56.9**	**-2.3**
ULM				LR	LR	22 07 13.1	
ULM	**Lac du Bonnet**	**45.12**	**348**	P	**P**	**21 45 56.9**	**-2.3**
	comp=Z,128nm,0.8s,mb5.8,baz=160,slow=8.0,SNR=314						
ULM				LR	LR	22 07 13.1	
	comp=Z,796nm,19.5s,MS4.7,baz=161,slow=39						
M12A	**Wells**	**45.19**	**326**	P	**P**	**21 45 59.9**	**-0.1**
	baz=46,SNR=17						
R08A	**Mina**	**45.20**	**320**	⇓P	**P**	**21 46 00.3**	**+0.3**
	baz=46,SNR=9.3						
YFT	**Old Faithful**	**45.23**	**332**	⇑*e*P	**P**	**21 46 01.8**	**+1.6**
YFT				*e*PcP	PcP	21 47 39.3	-0.7
MLAC	**Mammoth Lakes**	**45.26**	**319**	⇓P	**P**	**21 46 01.0**	**+0.5**
	baz=46						
N11A	**Elko Archery C**	**45.27**	**324**	⇑P	**P**	**21 46 00.8**	**+0.2**
	baz=46,SNR=11						
P09A	**Austin**	**45.31**	**322**	⇓P	**P**	**21 46 01.0**	**+0.1**
	baz=46						
YNR	**Norris Junctio**	**45.35**	**332**	⇑*e*P	**P**	**21 46 01.6**	**+0.5**
YNR				*e*PcP	PcP	21 47 32.4	-8.0
NVAR	**Mina Array Bea**	**45.37**	**320**	P	**P**	**21 46 01.9**	**+0.5**
NVAR	**Mina Array Bea**	**45.37**	**320**	P	**P**	**21 46 01.9**	**+0.5**
	comp=Z,23nm,1.0s,mb5.0,baz=118,slow=5.9,SNR=76						
O10A	**Cortez Mining,**	**45.38**	**323**	⇓P	**P**	**21 46 01.7**	**+0.3**
	baz=46,SNR=9.4						
Q08A	**Gabbs**	**45.39**	**321**	P	**P**	**21 46 01.8**	**+0.2**
	baz=46,SNR=28						
KCC	**Kaiser Creek**	**45.41**	**318**	⇑P	**P**	**21 46 01.2**	**-0.5**
	baz=46,SNR=5.7						
U05C	**Westside ANR,**	**45.41**	**316**	⇓P	**P**	**21 46 01.4**	**-0.4**
	baz=46						
YMR	**Madison River**	**45.45**	**332**	⇑*e*P	**P**	**21 46 01.6**	**-0.3**
	comp=Z,246nm,1.2s,mb5.9						
YMR				*e*PcP	PcP	21 47 40.1	-0.6
YMR				LR	LR		
	comp=Z,3µm,22.0s,MS5.1						
T06C	**Millerton Lake**	**45.49**	**317**	⇓P	**P**	**21 46 00.9**	**-1.5**
	baz=46,SNR=6.4						
PKD	**Parkfield**	**45.50**	**316**	⇓P	**P**	**21 46 01.7**	**-0.8**
	baz=46						
K13A	**Stover Farm, H**	**45.57**	**327**	⇑P	**P**	**21 46 02.4**	**-0.5**
	baz=46,SNR=17						
R07C	**Lee Vining**	**45.66**	**319**	⇓P	**P**	**21 46 04.1**	**+0.4**
	baz=46,SNR=14						
N10A	**Dunphy**	**45.66**	**324**	⇑P	**P**	**21 46 03.6**	**-0.1**
	baz=46						
M11A	**Holland Ranch,**	**45.70**	**325**	⇓P	**P**	**21 46 03.7**	**-0.2**
	baz=46,SNR=11						
GCMT	**Greycliff**	**45.72**	**334**	*e*P	**P**	**21 46 04.4**	**+0.5**
GCMT				*e*PcP	PcP	21 47 40.7	-0.9
GCMT				*e*PP	PP	21 47 52.2	+0.9

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O09A Fish Creek Ran   45.72 323 ⇑P     P     21 46 04.3 +0.2
     baz=46,SNR=15
L12A House Creek Ra   45.73 326  P     P     21 46 04.2  0.0
     baz=46,SNR=27
DGMT Dagmar           45.78 340 eP     P     21 46 03.6 -0.8
     comp=Z,153nm,1.0s,mb5.9
DGMT                            ePcP   PcP   21 47 39.9 -1.9
DGMT                            eS     S     21 52 49.2 +2.7
DGMT                             LR    LR
     comp=Z,1µm,19.0s,MS4.9
QLMT Earthquake Lak   45.79 331 eP     P     21 46 06.3 +1.7
QLMT                            ePP    PP    21 47 51.8 -0.4
U04C Hernandez Rese   45.88 316 ⇓P     P     21 46 04.5 -1.0
     baz=46
P08A Dixie Valley     45.98 322 ⇑P     P     21 46 06.3 +0.1
     baz=46
Q07A Schurz           45.99 320 ⇓P     P     21 46 06.7 +0.5
     baz=46
K12A Draper Farm, C   46.00 327  P     P     21 46 06.4 +0.1
     baz=46,SNR=31
V03C Hunter Liggett   46.02 315 ⇓P     P     21 46 06.7 +0.1
     baz=46
T05C Eagle Field, D   46.09 317 ⇓P     P     21 46 06.3 -0.8
     baz=46
S05C Merced           46.09 317 ⇓P     P     21 46 06.6 -0.6
     baz=46
J13A Cove Ranch, Pi   46.13 328  P     P     21 46 07.5 +0.1
     baz=46,SNR=27
L11A Cat Creek Ranc   46.16 326  P     P     21 46 07.5 -0.1
     baz=46,SNR=24
R06C Coleville        46.16 319 ⇑P     P     21 46 07.9 +0.2
     baz=46,SNR=19
M10A I.L. Ranch, Tu   46.19 325 ⇓P     P     21 46 07.5 -0.2
     baz=46,SNR=11
N09A Rock Creek Ran   46.34 323  P     P     21 46 08.9 -0.1
     baz=47,SNR=42
HLID Hailey           46.37 328 eP     P     21 46 08.9 -0.3
     comp=Z,23nm,0.8s,mb5.2
HLID                            ePcP   PcP   21 47 46.2 +2.2
HLID                            eS     S     21 53 10.9  +16
HLID                             LR    LR
     comp=Z,4µm,19.0s,MS5.4
HLID Hailey           46.37 328  P     P     21 46 09.5 +0.3
     baz=47,SNR=44
O08A Rochester Mine   46.38 322 ⇓P     P     21 46 09.3 -0.1
     baz=47
P07A Fallon           46.39 321 ⇓P     P     21 46 09.6 +0.2
     baz=47
HAST UC Hastings Re   46.43 316 ⇓P     P     21 46 09.4 -0.4
     baz=47
I13A Wildhorse Cree   46.46 329  P     P     21 46 10.4 +0.5
     baz=47,SNR=59
MCMT McKenzie Canyo   46.47 330 eP     P     21 46 11.7 +1.7
MCMT                            ePcP   PcP   21 47 43.0 -1.4
MCMT                            ePP    PP    21 48 02.9 +3.5
BOZ  Bozeman (W)      46.49 332 eP     P     21 46 10.4 +0.3
     comp=Z,220nm,1.3s,mb5.9
BOZ                             ePcP   PcP   21 47 42.6 -1.7
BOZ                             ePP    PP    21 48 03.1 +3.6
BOZ                             eScP   ScP   21 51 43.4 +7.0
BOZ                             eS     S     21 53 11.0  +14
BOZ                              LR    LR
     comp=Z,2µm,20.0s,MS5.1
BOZ  Bozeman (W)      46.49 332 eP     P     21 46 10.4 +0.3
BOZ                             e            21 47 42.7
BOZ                             e            21 48 03.1
BOZ                             eS     S     21 53 11.0  +14
BOZ                              pmax  pmax
     comp=Z,220nm,1.3s,mb5.9
BOZ                              MLR   MLR
     comp=Z,2µm,20.0s,MS5.1
BOZ  Bozeman (W)      46.49 332  P     P     21 46 10.4 +0.3
     baz=47,SNR=74
CMB  Columbia Colle   46.50 318 eP     P     21 46 09.9 -0.4
     comp=Z,33nm,1.4s,mb5.1
CMB                             ePcP   PcP   21 47 43.0 -1.6
CMB                             ePP    PP    21 48 03.3 +3.5
CMB                             eS     S     21 53 01.4 +4.1
CMB                              LR    LR
     comp=Z,2µm,19.0s,MS5.2
CMB  Columbia Colle   46.50 318 eP     P     21 46 09.9 -0.4
CMB                             e            21 47 43.0
CMB                             e            21 48 03.3
CMB                             eS     S     21 53 01.4 +4.1
CMB                              pmax  pmax
     comp=Z,33nm,1.4s,mb5.1
CMB                              MLR   MLR
     comp=Z,2µm,19.0s,MS5.2
CMB  Columbia Colle   46.50 318 ⇑P     P     21 46 09.9 -0.4
     baz=47
L10A Juniper Basin    46.50 325 ⇑P     P     21 46 10.2 -0.1
     baz=47,SNR=14
J12A Stokes Ranch,    46.52 327  P     P     21 46 10.4  0.0
     baz=47,SNR=53
G15A Dillon           46.55 331  P     P     21 46 11.1 +0.6
     baz=47,SNR=44
SAO  San Andreas Ge   46.55 316  PFAKE       21 46 20.0 +9.3
SAO                              LR    LR
     comp=Z,3µm,22.0s,MS5.2
PACP Pacheco Peak     46.56 317 ⇑P     P     21 46 10.6 -0.2
     baz=47
M09A Marrel Ranch,    46.65 324 ⇑P     P     21 46 11.5  0.0
     baz=47
R05C Kirkwood Meado   46.67 319 ⇑P     P     21 46 11.8 +0.2
     baz=47,SNR=14
K11A Parker Ranch,    46.71 326  P     P     21 46 11.8  0.0
     baz=47,SNR=19
DLMT Dillon           46.74 331 eP     P     21 46 13.1 +1.0
     comp=Z,141nm,1.4s,mb5.7
DLMT                            ePcP   PcP   21 47 44.5 -0.7
DLMT                            ePP    PP    21 48 04.0 +1.8
O07A Toulon           46.74 322  P     P     21 46 11.9 -0.3
     baz=47,SNR=17
WCN  Washoe City      46.80 320 ⇓P     P     21 46 12.9 +0.2
     baz=47
S04C Ingram Canyon,   46.85 317 ⇑P     P     21 46 12.4 -0.7
     baz=47
R04C Big Horse Ranc   46.99 318 ⇓P     P     21 46 14.2 +0.1
     baz=47,SNR=10
H13A Challis          46.99 329  P     P     21 46 14.1 +0.1
     baz=47,SNR=30
MFID Camas Ranch      47.03 327 ⇓P     P     21 46 14.2 -0.1
     baz=47,SNR=9.0
F15A Butte            47.04 332  P     P     21 46 14.7 +0.2
     baz=47,SNR=38
G14A Jackson          47.07 330  P     P     21 46 14.7  0.0
     baz=48,SNR=21
P06A Stead Airport,   47.10 320 ⇓P     P     21 46 15.4 +0.4
     baz=47
LAVA Lava Cap Winer   47.13 319 ⇑P     P     21 46 15.2 -0.1
     baz=48
L09A Wilkinson Ranc   47.15 324 ⇑P     P     21 46 14.9 -0.5
     baz=48
N07B Gerlach          47.17 322 ⇓P     P     21 46 14.4 -1.1
     baz=48,SNR=6.9
K10A MacKenzie Ranc   47.18 326  P     P     21 46 15.3 -0.2
     baz=48,SNR=22
WENL Wente Brothers   47.20 317 ⇓P     P     21 46 16.2 +0.4
     baz=48
M08A Happy Creek Ra   47.22 323 ⇓P     P     21 46 15.2 -0.7
     baz=48,SNR=19
BNLO Ben Lomond (Sa   47.23 316 ⇑P     P     21 46 14.9 -1.2
     baz=48
H12A Diamond D Ranc   47.29 329  P     P     21 46 16.4  0.0
     baz=48,SNR=26
O06A Flanigan         47.34 321 ⇑P     P     21 46 16.7 -0.2
     baz=48,SNR=15
P05C Yuba Gap, Truc   47.35 320 ⇑P     P     21 46 16.8 -0.1
     baz=48,SNR=12
G13A Cobalt           47.35 330 ⇑P     P     21 46 16.7 -0.1
     baz=48,SNR=16
I11A Placerville      47.43 327 ⇓P     P     21 46 17.1 -0.3
     baz=48,SNR=15
F14A Wisdom           47.44 331 ⇑P     P     21 46 17.2 -0.4
     baz=48,SNR=11
BDM  Black Diamond    47.45 317 ⇓P     P     21 46 18.2 +0.5
     baz=48
EGMT Eagleton         47.50 336 eP     P     21 46 17.6 -0.3
     comp=Z,164nm,1.3s,mb5.9
EGMT                            ePcP   PcP   21 47 43.4 -4.5
EGMT                            ePP    PP    21 48 10.7 +1.2
EGMT                            eS     S     21 53 12.7 +1.5
EGMT                             LR    LR
     comp=Z,1µm,21.0s,MS4.9
EGMT Eagleton         47.50 336  P     P     21 46 18.1 +0.2
     baz=48,SNR=36
BEKR Beckwourth       47.50 320 ⇓P     P     21 46 18.0 -0.1
     baz=48,SNR=6.4
E15A Deer Lodge       47.54 332  P     P     21 46 18.2 -0.1
     baz=48,SNR=62
J10A Berg Farm, Mel   47.55 326 ⇑P     P     21 46 17.9 -0.5
     baz=48
Q04C Lincoln          47.59 319 ⇓P     P     21 46 19.1 +0.2
     baz=48,SNR=8.0
K09A Rome             47.62 325  P     P     21 46 19.0 +0.1
     baz=48,SNR=79
L08A Fields           47.65 324  P     P     21 46 18.7 -0.5
     baz=48,SNR=33
M07A Soldier Meadow   47.66 323 ⇑P     P     21 46 18.4 -0.8
     baz=48,SNR=16
N06A Buffalo Meadow   47.68 322 ⇑P     P     21 46 18.9 -0.6
     baz=48,SNR=21
F13A Darby            47.89 330  P     P     21 46 20.5 -0.5
     baz=48,SNR=30
Q03C Winters          47.91 318 ⇑P     P     21 46 21.6 +0.3
     baz=48
O05C Quincy           47.91 320 ⇑P     P     21 46 21.2 -0.1
     baz=48,SNR=8.3
OHCM Honcut           47.93 319 eP     P     21 46 21.4  0.0
OHCM                            ePcP   PcP   21 47 47.6 -2.0
OHCM                            ePP    PP    21 48 14.6 +1.1
E14A Clinton          47.94 331  P     P     21 46 21.3 -0.1
     baz=48,SNR=25
D15A Lincoln          47.95 333 ⇑P     P     21 46 21.0 -0.4
     baz=48,SNR=26
WVOR Wild Horse Val   47.98 324 eP     P     21 46 21.7 -0.1
     comp=Z,216nm,1.3s,mb6.0
WVOR                             PcP   PcP   21 47 54.8 +5.1
WVOR                            ePP    PP    21 48 17.1 +3.1
WVOR                            eScP   ScP   21 51 48.1 +5.3
WVOR                            eS     S     21 53 32.4  +14
WVOR                             LR    LR
     comp=Z,2µm,21.0s,MS5.1
WVOR Wild Horse Val   47.98 324 eP     P     21 46 21.7  0.0
WVOR                                         21 47 54.8
WVOR                            e            21 48 17.1
WVOR                            eS     S     21 53 32.4  +14
WVOR                             pmax  pmax
     comp=Z,216nm,1.3s,mb6.0
WVOR                             MLR   MLR
     comp=Z,2µm,21.0s,MS5.1
H11A Donnelly         47.99 328  P     P     21 46 21.2 -0.6
     baz=48,SNR=29
I10A Payette          48.00 327 ⇓P     P     21 46 21.5 -0.4
     baz=48
J09A Fry Pan Ranch,   48.05 326  P     P     21 46 22.1 -0.2
     baz=48,SNR=40
CVS  Carmenet Viney   48.05 317 ⇓P     P     21 46 21.8 -0.6
     baz=48
ORV  Oroville         48.06 319  P     P     21 46 22.4  0.0
     baz=48,SNR=19
K08A Mann Creek Ran   48.07 325  P     P     21 46 22.3 -0.2
     baz=48,SNR=22
FARB Farallon Islan   48.09 316 ⇓P     P     21 46 22.5 -0.2
     baz=48
L07A Adell            48.13 323 ⇑P     P     21 46 22.2 -0.8
     baz=48,SNR=23
ELFS Eagle Lake Fie   48.16 321 ⇓P     P     21 46 23.4 +0.1
     baz=48
CHMT Chamberlain Mo   48.19 332  P     P     21 46 23.6 +0.3
RCBR Riachuelo        48.22 104 eP     P     21 46 18.2 -5.9
     comp=Z,22nm,1.3s,mb5.0
RCBR                             PcP   PcP   21 47 46.4 -4.8
RCBR                             S     S     21 53 24.4 +2.0
RCBR                             LR    LR
     comp=Z,2µm,22.0s,MS5.0
O04C Chester          48.22 320 ⇓P     P     21 46 23.1 -0.5
     baz=49,SNR=9.2
MCCM Marconi Confer   48.23 317  PFAKE       21 46 40.0  +16
MCCM                             LR    LR
     comp=Z,2µm,19.0s,MS5.2
MCCM Marconi Confer   48.23 317 ⇓P     P     21 46 23.2 -0.6
     baz=48
E13A Victor           48.29 331  P     P     21 46 23.9 -0.2
     baz=49,SNR=36
H10A Noah’s Angus R   48.30 328  P     P     21 46 22.8 -1.4
     baz=49,SNR=24
MNRC McLaughlin Nat   48.32 318 ⇓P     P     21 46 24.1 -0.4
     baz=49
F12A Elk City         48.33 330  P     P     21 46 24.1 -0.3
     baz=49,SNR=53
M06C Likely Place G   48.34 322 ⇓P     P     21 46 23.7 -0.9
     baz=49,SNR=5.2
D14A Greenough        48.43 332 ⇑P     P     21 46 24.4 -0.8
     baz=49,SNR=13
I09A Lost Marbles R   48.44 326 ⇑P     P     21 46 24.6 -0.7
     baz=49,SNR=10
MSO  Missoula         48.45 332 eP     P     21 46 24.5 -0.8
     comp=Z,81nm,1.3s,mb5.6
MSO                             ePcP   PcP   21 47 51.2 -0.1
MSO                             ePP    PP    21 48 18.7 +0.5
MSO                             eScP   ScP   21 51 58.7  +14
MSO                             eS     S     21 53 37.1  +12
MSO                              LR    LR
     comp=Z,2µm,19.0s,MS5.1
J08A Circle Bar Ran   48.46 325  P     P     21 46 25.3 -0.1
     baz=49,SNR=11
K07A Rock Creek Ran   48.49 324  P     P     21 46 25.2 -0.5
     baz=49,SNR=12
G11A Walters Elk Ra   48.60 329  P     P     21 46 25.6 -0.9
     baz=49,SNR=18
MOD  Modoc            48.64 323 eP     P     21 46 26.0 -0.9
     comp=Z,17nm,1.2s,mb5.0
MOD                              PcP   PcP   21 47 58.6 +6.5
MOD                              PP    PP    21 48 25.5 +5.4
MOD                             eScP   ScP   21 51 56.2  +11
MOD                             eS     S     21 53 28.7 +1.1
MOD                              LR    LR
     comp=Z,1µm,20.0s,MS5.0
MOD  Modoc            48.64 323 ⇓P     P     21 46 25.4 -1.5
     baz=49,SNR=6.2
O03C Acorn Hollow,    48.65 320 ⇓P     P     21 46 26.0 -0.9
     baz=49
LBCM Butte Creek Ri   48.67 321  P     P     21 46 26.9 -0.3
HATC Hat Creek Radi   48.73 321 ⇓P     P     21 46 27.5 -0.1
     baz=49
BMO  Blue Mountains   48.78 327 eP     P     21 46 26.5 -1.4
     comp=Z,14nm,0.8s,mb5.0
BMO                             ePcP   PcP   21 47 55.4 +2.9
BMO                             eS     S     21 53 35.2 +5.8
BMO                              LR    LR
     comp=Z,2µm,22.0s,MS5.1
HOPS Hopland          48.80 318  PFAKE       21 46 40.0  +12
HOPS                             LR    LR
     comp=Z,2µm,21.0s,MS5.1
HOPS Hopland          48.80 318 ⇑P     P     21 46 28.0 -0.2
     baz=49
M05C Lookout          48.84 322  P     P     21 46 28.5 +0.1
     baz=49,SNR=5.8
H09A Durkee           48.85 327  P     P     21 46 27.3 -1.1
     baz=49,SNR=8.8
I08A Drewsey          48.86 326 ⇓P     P     21 46 27.5 -1.0
     baz=49,SNR=7.2
F11A Grangeville      48.88 329  P     P     21 46 27.6 -1.1
     baz=49,SNR=15
D13A Huson            48.89 331 ⇑P     P     21 46 28.3 -0.4
     baz=49,SNR=24
GASB Alder Springs    48.91 319 ⇓P     P     21 46 28.4 -0.6
     baz=49
J07A Hines            48.94 325 ⇑P     P     21 46 28.1 -1.1
     baz=49
L05A Lakeview         49.05 322 ⇓P     P     21 46 29.2 -0.8
     baz=49
K06A Valley Falls     49.14 324 ⇑P     P     21 46 30.0 -0.7
     baz=50,SNR=5.7
P01C Double 8 Ranch   49.22 318 ⇑P     P     21 46 29.5 -1.9
     baz=50
E11A Bogner Ranch,    49.22 330  P     P     21 46 30.6 -0.6
     baz=50,SNR=12
O02C Red Bluff        49.23 319 ⇓P     P     21 46 30.3 -1.2
     baz=50
WDC  Whiskeytown Da   49.29 320  PFAKE       21 46 40.0 +8.1
WDC                              LR    LR
     comp=Z,1µm,20.0s,MS4.9
WDC  Whiskeytown Da   49.29 320 ⇑P     P     21 46 30.3 -1.6
     baz=50
H08A Prairie City     49.30 326  P     P     21 46 31.6 -0.3
     baz=50,SNR=5.9
G09A Cove             49.31 328 ⇑P     P     21 46 30.9 -1.0
     baz=50,SNR=11
J06A Christmas Vall   49.36 324  P     P     21 46 31.8 -0.6
     baz=50,SNR=8.9
C13A Hot Springs      49.36 332  P     P     21 46 32.2 -0.1
     baz=50,SNR=16
M03C McCloud          49.40 321 ⇑P     P     21 46 31.7 -1.1
     baz=50
K05A Summer Lake      49.48 323 ⇑P     P     21 46 33.2 -0.1
     baz=50
F10A Beach Ranch, E   49.48 329  P     P     21 46 32.6 -0.7
     baz=50,SNR=10
KIPM Iron Peak        49.49 319 eP     P     21 46 33.1 -0.4
KIPM                            ePcP   PcP   21 47 52.9 -2.3
I07A Izee             49.49 325 ⇓P     P     21 46 32.5 -0.8
     baz=50,SNR=15
M04C Macdoel          49.51 322 ⇑P     P     21 46 32.8 -0.7
     baz=50,SNR=8.5
BSMT Bassoo Peak      49.59 332  P     P     21 46 34.8 +0.7
F09A S2 Ranch, Elgi   49.66 328 ⇓P     P     21 46 34.4 -0.3
     baz=50
D11A Klaveano Farm,   49.76 330  P     P     21 46 34.8 -0.6
     baz=50,SNR=13
L04A Klamath Falls    49.77 322 ⇑P     P     21 46 34.7 -0.8
     baz=50,SNR=5.5
E10A Myers Farm, Un   49.77 329 ⇓P     P     21 46 34.0 -1.4
     baz=50
I06A Prineville       49.81 325 ⇓P     P     21 46 35.1 -0.6
     baz=50,SNR=10
B13A Whitefish        49.82 333 ⇑P     P     21 46 35.5 -0.2
     baz=50,SNR=32
H07A Lands Inn, Kim   49.84 326 ⇓P     P     21 46 35.1 -0.9
     baz=50,SNR=8.1
K04A Chilquin         49.92 323 ⇑P     P     21 46 35.9 -0.8
     baz=50
G08A Pilot Rock       49.95 327  P     P     21 46 36.9  0.0
     baz=50,SNR=13
SCHQ Schefferville    49.98  12  P     P     21 46 35.1 -1.8
     comp=Z,37nm,1.0s,mb5.4,baz=221,slow=5.8,SNR=30
SCHQ                             LR    LR    22 06 25.9
     comp=Z,1µm,21.8s,MS4.8,baz=202,slow=34
J05A Fort Rock        50.01 324 ⇑P     P     21 46 37.0 -0.3
     baz=50,SNR=6.9
YBH  Yreka Blue Hor   50.02 321 eP     P     21 46 36.6 -0.8
     comp=Z,14nm,1.1s,mb4.9
YBH                             ePcP   PcP   21 47 53.8 -3.4
YBH                             ePP    PP    21 48 31.8 -0.9
YBH                             eScP   ScP   21 52 27.6  +36
YBH                             eS     S     21 53 35.4  -12
YBH                              LR    LR
     comp=Z,2µm,20.0s,MS5.1
YBH  Yreka Blue Hor   50.02 321 eP     P     21 46 36.6 -0.9
YBH                             e            21 47 53.8
YBH                             e            21 48 31.8
YBH                             eS     S     21 53 35.4  -12
YBH                              pmax  pmax
     comp=Z,14nm,1.1s
YBH                              MLR   MLR
     comp=Z,2µm,20.0s
YBH  Yreka Blue Hor   50.02 321 ⇓P     P     21 46 36.6 -0.9
     baz=50
BUOR Burton Butte     50.04 322  P     P     21 46 38.2 +0.6
WALA Waterton Lakes   50.07 334 eP     P     21 46 38.0 +0.3
     comp=Z,94nm,1.2s,mb5.7
WALA                            e            21 46 47.9
WALA                            ePcP   PcP   21 47 55.9 -1.3
WALA                            ePP    PP    21 48 32.3 -0.6
F08A Pendleton        50.18 328 ⇑P     P     21 46 37.6 -0.9
     baz=50,SNR=6.0
D10A Wagner Farm, O   50.24 330 ⇑P     P     21 46 38.6 -0.4
     baz=51
E09A Wood Farm, Sta   50.32 329 ⇑P     P     21 46 38.7 -0.9
     baz=51,SNR=12
G07A Ruggs Ranch, H   50.33 326 ⇓P     P     21 46 39.6  0.0
     baz=51
H06A Lindquist Farm   50.36 326 ⇑P     P     21 46 39.7 -0.3
     baz=51,SNR=6.4
JCC  Jacoby Creek     50.37 319 ⇓P     P     21 46 39.6 -0.6
     baz=51
B12A Libby            50.41 332 ⇓P     P     21 46 40.4 +0.1
     baz=51,SNR=14
J04A Umpqua Nationa   50.51 323 ⇑P     P     21 46 40.6 -0.4
     baz=51,SNR=11
I05A Bend             50.55 324 ⇓P     P     21 46 41.1 -0.3
     baz=51,SNR=8.6
HUMO Hull Mountain    50.66 322  PFAKE       21 46 50.0 +7.7
HUMO                             LR    LR
     comp=Z,2µm,20.0s,MS5.2
FFC  Flin Flon        50.67 346 eP     P     21 46 40.8 -1.3
     comp=Z,55nm,1.1s,mb5.4
FFC                             ePcP   PcP   21 47 55.7 -3.5
FFC                             eScP   ScP   21 52 03.4 +9.4
FFC                             eS     S     21 54 06.5  +11
FFC                              LR    LR
     comp=Z,1µm,22.0s,MS4.9
FFC  Flin Flon        50.67 346 eP     P     21 46 40.8 -1.3
FFC                             e            21 47 55.7
FFC                             eS     S     21 54 06.5  +11
FFC                              pmax  pmax
     comp=Z,55nm,1.1s,mb5.4
FFC                              MLR   MLR
     comp=Z,1µm,22.0s,MS4.9
B11A Sandpoint        50.75 331  P     P     21 46 43.1 +0.3
     baz=51,SNR=17
D09A Jones Farm, Ri   50.77 329 ⇑P     P     21 46 42.3 -0.7
     baz=51
A12A Yaak River Ran   50.77 332 ⇑P     P     21 46 43.1 +0.2
     baz=51,SNR=7.2
H05A Madras           50.82 325 ⇓P     P     21 46 43.5 +0.1
     baz=51
G06A Carlson Farm,    50.84 326 ⇑P     P     21 46 43.8 +0.3
     baz=51,SNR=16
F07A Phinny Hill Vi   50.86 327 ⇑P     P     21 46 43.6 -0.1
     baz=51
H2OWA Water           50.91 328  P     P     21 46 43.7 -0.3
HAWA Hanford          50.97 328 eP     P     21 46 43.8 -0.7
     comp=Z,22nm,1.0s,mb5.0
HAWA                            ePcP   PcP   21 47 54.3 -6.3
HAWA                            ePP    PP    21 48 41.1  0.0
HAWA                            eScP   ScP   21 52 01.6 +6.1
HAWA                            eS     S     21 54 05.1 +5.2
HAWA                             LR    LR
     comp=Z,2µm,20.0s,MS5.1
M01C Crescent City    50.97 320 ⇓P     P     21 46 44.2 -0.4
     baz=51
HBO  Huckleberry Mo   50.98 324  P     P     21 46 44.4 -0.2
NEW  Newport          50.99 331 eP     P     21 46 43.4 -1.2
     comp=Z,43nm,1.4s,mb5.2
NEW                             ePP    PP    21 48 45.7 +4.4
NEW                              ScP   ScP   21 52 23.8  +28
NEW                             eS     S     21 54 14.4  +14
NEW                              LR    LR
     comp=Z,2µm,21.0s,MS5.2
NEW  Newport          50.99 331 eP     P     21 46 43.4 -1.2
NEW                             e            21 48 45.7
NEW                             eS     S     21 54 14.4  +14
NEW                              pmax  pmax
     comp=Z,43nm,1.4s
NEW                              MLR   MLR
     comp=Z,2µm,21.0s
I04A Tendick Farm,    51.00 323 ⇑P     P     21 46 44.5 -0.3
     baz=51
K02A Glendale         51.08 322 ⇓P     P     21 46 44.2 -1.2
     baz=51
D08A Wollman Farm,    51.08 329 ⇓P     P     21 46 44.9 -0.4
     baz=52
A11A Hall Mountain,   51.11 332 ⇓P     P     21 46 45.6  0.0
     baz=52,SNR=22
GBB  Gable Butte      51.16 328  P     P     21 46 45.8 -0.1
G05A Wamic            51.23 326 ⇓P     P     21 46 46.6 +0.1
     baz=52,SNR=8.4
C09A Chrisman Ranch   51.24 330 ⇓P     P     21 46 46.4 -0.1
     baz=52
E07A Sunnyside        51.24 328 ⇑P     P     21 46 46.3 -0.3
     baz=52,SNR=14
F06A Goldendale       51.25 326 ⇓P     P     21 46 46.5 -0.2
     baz=52,SNR=18
VFP  Flag Point       51.35 326  P     P     21 46 48.4 +1.0
H04A Detroit Lake     51.39 324 ⇑P     P     21 46 47.1 -0.6
     baz=52,SNR=6.6
J02A Umpqua           51.46 322 ⇓P     P     21 46 47.8 -0.4
     baz=52
C08A Higginbotham F   51.62 329 ⇓P     P     21 46 48.9 -0.5
     baz=52,SNR=5.0
I03A Eugene           51.62 323 ⇑P     P     21 46 48.6 -0.8
     baz=52
A10A Northport        51.69 331 ⇓P     P     21 46 49.3 -0.6
     baz=52,SNR=6.5
F05A White Salmon     51.70 326 ⇑P     P     21 46 49.7 -0.3
     baz=52,SNR=8.3
D07A Quincy           51.71 328 ⇑P     P     21 46 50.0 -0.1
     baz=52
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E06A	Yakima	51.84	327	⇓P	P	21 46 51.2	+0.2
	baz=52,SNR=8.1						
EBG	Ellensburg	51.85	328	P	P	21 46 51.7	+0.6
G04A	Mulino	51.86	325	⇓P	P	21 46 50.4	-0.8
	baz=52,SNR=6.5						
COR	Corvallis	51.98	324	PFAKE		21 47 00.0	+7.9
COR				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
H03A	Soap Creek Ran	52.03	324	⇓P	P	21 46 52.1	-0.3
	baz=52						
C07A	Waterville	52.08	329	⇓P	P	21 46 52.6	-0.2
	baz=52,SNR=7.3						
B08A	Colville Reser	52.14	330	P	P	21 46 53.0	-0.3
	baz=52,SNR=7.9						
D06A	Cle Elum	52.17	328	⇓P	P	21 46 53.2	-0.3
	baz=52						
A09A	Danville	52.19	331	P	P	21 46 53.1	-0.5
	baz=53,SNR=23						
WPW	White Pass	52.24	327	P	P	21 46 54.2	+0.2
F04A	Amboy	52.26	326	⇑P	P	21 46 53.6	-0.6
	baz=53						
E05A	Randle	52.27	327	⇑P	P	21 46 53.7	-0.5
	baz=53,SNR=5.7						
G03A	Yamhill	52.39	325	⇓P	P	21 46 54.5	-0.6
	baz=53						
H02A	Toledo	52.44	324	⇑P	P	21 46 55.1	-0.5
	baz=53						
NLW	Nelson Butte	52.47	329	P	P	21 46 55.6	-0.1
A08A	Turner Farm, O	52.51	330	P	P	21 46 55.7	-0.2
	baz=53,SNR=23						
B07A	Winthrop	52.61	329	⇓P	P	21 46 56.5	-0.2
	baz=53						
C06A	Tall Timber Ra	52.66	328	⇓P	P	21 46 57.0	-0.1
	baz=53						
D05A	Enumclaw	52.78	327	⇓P	P	21 46 57.5	-0.5
	baz=53,SNR=9.5						
E04A	Onalaska	52.82	326	⇑P	P	21 46 57.8	-0.6
	baz=53						
F03A	Seaside	52.90	325	⇑P	P	21 46 58.8	-0.2
	baz=53						
C05A	Tolt Reservoir	52.93	328	⇓P	P	21 46 58.1	-1.0
	baz=53						
EDM	Edmonton	52.99	337	eP	P	21 46 58.2	-1.2
EDM				ePcP	PcP	21 48 04.1	-3.9
FCC	Fort Churchill	53.01	353	eP	P	21 46 57.3	-2.2
	comp=Z,90nm,1.1s,mb5.6						
FCC				ePcP	PcP	21 48 08.2	+0.3
FCC				ePP	PP	21 48 57.7	-1.6
FCC	Fort Churchill	53.01	353	eP	P	21 46 57.3	-2.2
FCC				e		21 48 08.2	
FCC				e		21 48 57.7	
FCC				pmax	pmax		
	comp=Z,90nm,1.1s,mb5.6						
A07A	Ashnola River,	53.12	330	P	P	21 47 00.7	+0.2
	baz=54,SNR=20						
E03A	Lebam	53.26	326	⇓P	P	21 47 01.2	-0.4
	baz=54						
B06A	Marblemount	53.34	329	⇓P	P	21 47 01.5	-0.7
	baz=54						
B05A	Bryant	53.50	328	⇓P	P	21 47 02.8	-0.5
	baz=54						
C04A	Brinnon	53.63	327	⇓P	P	21 47 04.0	-0.3
	baz=54,SNR=8.6						
D03A	Wishkah Elem.	53.71	326	⇓P	P	21 47 04.7	-0.1
	baz=54						
NLWA	Neilton Lookou	53.93	326	eP	P	21 47 07.6	+1.1
	comp=Z,89nm,1.2s,mb5.6						
NLWA				ePcP	PcP	21 48 05.1	-6.5
NLWA				ePP	PP	21 49 07.1	-0.8
NLWA				eS	S	21 54 42.6	+2.1
NLWA				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
A05A	Maple Falls	53.95	329	⇑P	P	21 47 06.8	+0.2
	baz=54						
A04A	Legoe Bay, Lum	54.10	328	⇓P	P	21 47 07.3	-0.4
	baz=54						
B04A	Port Angeles	54.12	327	⇑P	P	21 47 07.5	-0.3
	baz=54						
RKT	Rikitea	58.90	238	eS	S	21 55 35.4	-12
	comp=Z,1µm,32.8s						
RKT				eLR	LR	22 05 04.5	
	comp=Z,3µm,28.2s,baz=61						
TAOE	Nuku Hiva Isla	59.26	256	eLQ		22 02 35.9	
	comp=Z,9µm,28.6s						
TAOE				eLR	LR	22 05 07.4	
	comp=Z,3µm,26.7s						
YKA	Yellowknife Ar	60.72	344	P	P	21 47 52.9	-1.3
YKA				PP	PP	21 50 11.3	+3.3
YKA				LR	LR	22 15 06.3	
YKA	Yellowknife Ar	60.72	344	P	P	21 47 52.9	-1.2
YKA						21 50 11.4	
YKA	Yellowknife Ar	60.72	344	P	P	21 47 52.8	-1.3
	comp=Z,48nm,0.9s,mb5.6,baz=140,slow=6.7,SNR=466						
YKA				PP	PP	21 50 11.3	+3.3
	comp=Z,4.8nm,1.0s,baz=143,slow=8.6,SNR=4.2						
YKA				LR	LR	22 15 06.3	
	comp=Z,589nm,19.8s,MS4.7,baz=175,slow=37						
EFI	East Falkland	61.53	163	P	P	21 47 55.3	-4.5
EFI				eS	S	21 56 14.7	-5.2
EFI				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
WRAK	Wrangell Islan	63.33	332	PFAKE		21 48 20.0	+8.2
WRAK				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
DLBC	Dease Lake	63.40	334	eP	P	21 48 12.0	-0.2
DLBC				ePP	PP	21 50 29.9	-1.9
SFJD	Kangerlussuaq	64.39	13	PFAKE		21 48 30.0	+11
SFJD				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
SFJD	Kangerlussuaq	64.39	13	i P	P	21 48 15.9	-2.6
SFJD				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.2						
SFJD				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.1						
SFJD	Kangerlussuaq	64.39	13	i P	P	21 48 15.9	-2.6
	comp=Z,24nm,0.9s,mb5.2						
SFJD							
	comp=Z,1µm,20.0s						
SIT	Sitka	65.07	331	PFAKE		21 48 30.0	+6.9
SIT				LR	LR		
	comp=Z,4µm,19.0s,MS5.6						
SKAG	Skagway	66.27	334	eS	S	21 57 28.1	+10
RES	Resolute Bay	68.64	357	eP	P	21 48 43.0	-2.6
	comp=Z,753nm,1.1s,mb6.5						
RES				ePcP	PcP	21 49 09.0	-1.4
RES				ePP	PP	21 51 17.1	-0.1
PPT	Papeete	70.20	249	eLR	LR	22 10 11.9	
	comp=Z,1µm,24.5s,baz=72						
PPT	Papeete	70.20	249	LR	LR	22 13 42.0	
	comp=Z,626nm,18.9s,MS4.9,baz=8.9,slow=31						
DAWY	Dawson	70.21	337	eP	P	21 48 53.9	-1.5
DAWY				ePP	PP	21 51 24.9	-6.0
INK	Inuvik	70.40	342	eP	P	21 48 56.1	-0.5
	comp=Z,4µm,0.9s						
INK	Inuvik	70.40	342	P	P	21 48 56.3	-0.3
	comp=Z,117nm,1.0s,mb5.8,baz=125,slow=7.1,SNR=186						
EGAK	Eagle	71.22	337	eP	P	21 49 00.4	-1.2
	comp=Z,43nm,1.0s,mb5.3						
EGAK				ePcP	PcP	21 49 22.5	+1.1
EGAK				ePP	PP	21 51 37.7	-1.9
EGAK				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
MENT	Mentasta	71.47	335	eP	P	21 49 02.6	-0.5
DIV	Divide	71.68	333	PFAKE		21 49 20.0	+16
DIV				LR	LR		
	comp=Z,4µm,22.0s,MS5.7						
BORG	Borgarnes	72.31	23	P	P	21 49 08.5	+0.3
	comp=Z,22nm,0.9s,mb5.1,baz=240,slow=8.1,SNR=3.4						
SML	Sawmill	73.06	333	eP	P	21 49 12.2	-0.6
SML				ePcP	PcP	21 49 28.7	-0.7
PMAFR	Mafra	73.11	51	eLQ		21 58 49.0	
PMAFR				A		22 15 35.5	
	comp=Z,908nm,19.0s						
PFVI	Vila Bisbo	73.31	53	eLQ		21 59 03.1	
PFVI				A		22 17 41.4	
	comp=Z,744nm,15.6s						
PMR	Palmer	73.36	333	eP	P	21 49 13.2	-1.3
	comp=Z,25nm,1.3s,mb5.0						
PMR				ePP	PP	21 51 56.8	-1.1
PMR				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
PMR	Palmer	73.36	333	eP	P	21 49 13.2	-1.2
PMR				e		21 51 56.8	
PMR				pmax	pmax		
	comp=Z,25nm,1.3s,mb5.0						
PMR				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.2						
PTEO	Sao Teotonio	73.42	53	eP	P	21 49 15.8	+0.5
	comp=Z,77nm,1.3s,mb5.5						
MORF	Marmelete	73.46	53	eP	P	21 49 16.6	+1.0
	comp=Z,56nm,1.0s,mb5.5						
MORF	Marmelete	73.46	53	eLQ		22 00 41.7	
MORF				eLR	LR	22 09 55.1	
	comp=Z,865nm,22.2s						
SLKM	Skilak Lake	73.54	332	eP	P	21 49 14.5	-1.0
SLKM				ePcP	PcP	21 49 30.9	-0.6
MOE	Montemor	73.80	52	eP	P	21 49 17.5	0.0
PTO	Porto	73.84	49	eP	P	21 49 19.1	+1.4
PTOM	Tomar	73.84	51	eP	P	21 49 18.6	+0.8
	comp=Z,47nm,1.4s,mb5.2						
COLA	College	73.88	336	⇓eP	P	21 49 16.8	-0.7
MCK	McKinley	73.95	335	eP	P	21 49 16.6	-1.3
	comp=Z,22nm,1.1s,mb5.0						
MCK				ePcP	PcP	21 49 31.6	-1.5
MCK				ePP	PP	21 52 01.3	-1.7
MCK				LR	LR		
	comp=Z,525nm,20.0s,MS4.8						
MCK	McKinley	73.95	335	eP	P	21 49 16.6	-1.3
MCK				e		21 49 31.6	
MCK				e		21 52 01.3	
MCK				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
MCK				MLR	MLR		
	comp=Z,525nm,20.0s,MS4.8						
KDAK	Kodiak Island	74.00	328	PFAKE		21 49 30.0	+12
KDAK				LR	LR		
	comp=Z,253nm,19.0s,MS4.5						
PBDV	Barranco-do-Ve	74.03	53	eP	P	21 49 19.8	+0.9
	comp=Z,44nm,0.9s,mb5.4						
PBDV	Barranco-do-Ve	74.03	53	eLR	LR	22 08 39.5	
	comp=Z,913nm,23.4s						
EVO	Evora	74.06	52	eP	P	21 49 19.5	+0.4
PBEJ	Beja	74.14	52	eP	P	21 49 20.5	+1.0
	comp=Z,22nm,1.5s,mb4.9						
PVAQ	Vaqueiros	74.21	53	eP	P	21 49 20.6	+0.7
	comp=Z,40nm,1.2s,mb5.2						
PVAQ				eLQ		21 59 12.8	
PVAQ				A		22 18 05.1	
	comp=Z,976nm,15.7s						
PVIS	Viseu	74.34	50	eP	P	21 49 20.1	-0.5
	comp=Z,39nm,1.2s,mb5.2						
EGRO	El Granado	74.40	53	P	P	21 49 22.3	+1.2
	comp=Z,27nm,1.0s,mb5.1						
PESTR	Estremoz	74.42	52	eP	P	21 49 20.5	-0.6
	comp=Z,75nm,1.1s,mb5.5						
PESTR				eLQ		21 59 00.5	
PESTR				A		22 15 28.3	
	comp=Z,770nm,11.6s						
PVRL	Vila Real	74.52	49	eP	P	21 49 22.7	+1.0
	comp=Z,47nm,1.5s,mb5.2						
MTE	Manteigas	74.58	50	eP	P	21 49 24.0	+2.0
	comp=Z,30nm,1.3s,mb5.1						
MTE				eLQ		21 59 07.9	
MTE				eLR	LR	22 07 34.7	
	comp=Z,933nm,20.7s						
EBAD	Badajoz	74.86	52	P	P	21 49 24.4	+0.7
	comp=Z,10nm,1.0s,mb4.7						
MVO	Moncorvo	75.03	49	eP	P	21 49 25.2	+0.6
	comp=Z,40nm,1.5s,mb5.1						
MVO	Moncorvo	75.03	49	eLQ		22 01 16.3	
MVO				eLR	LR	22 08 11.1	
	comp=Z,850nm,26.5s						
ERUA	La Rua	75.05	48	P	P	21 49 21.2	-3.5
	comp=Z,37nm,1.3s,mb5.2						
ERUA	La Rua	75.05	48	P	P	21 49 21.2	-3.5
ERUA				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.2						
EMIN	Mina Concepcio	75.06	53	P	P	21 49 26.1	+1.3
	comp=Z,13nm,0.9s,mb4.8						
PBRG	Braganca	75.30	49	eP	P	21 49 26.9	+0.8
	comp=Z,25nm,1.5s,mb4.9						
ECAL	Calabor	75.31	48	P	P	21 49 24.8	-1.5
	comp=Z,89nm,1.9s,mb5.4						
ESPR	Espera	75.66	54	P	P	21 49 30.1	+1.8
	comp=Z,28nm,1.0s,mb5.2						
EJIF	Jimena Fronter	75.95	54	P	P	21 49 31.5	+1.4
	comp=Z,21nm,1.0s,mb5.0						
EJIF	Jimena Fronter	75.95	54	P	P	21 49 31.5	+1.5
EJIF				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
DCN	Croghan	76.21	37	eP	P	21 49 31.0	-0.1
SVW2	Sparrevohn	76.23	331	eP	P	21 49 28.5	-2.6
EMIJ	Mijas	76.52	54	P	P	21 49 36.0	+2.7
	comp=Z,44nm,1.1s,mb5.3						
MDT	Midelt	76.55	58	LR	LR	22 20 08.4	
	comp=Z,807nm,20.1s,MS5.0,baz=300,slow=33						
IMA2	Indian Mountai	76.57	337	eP	P	21 49 31.6	-1.3
ALE	Alert	76.61	3	P	P	21 49 30.3	-2.7
	comp=Z,102nm,1.1s,mb5.7,SNR=6.8						
DLF	Lyons Farm	76.64	37	eP	P	21 49 33.0	-0.6
EADA	Adamuz	76.73	52	P	P	21 49 35.0	+0.6
	comp=Z,8.2nm,0.9s,mb4.7						
ELUQ	Luque	76.96	53	P	P	21 49 37.1	+1.4
	comp=Z,8.1nm,0.7s,mb4.8						
ELUQ	Luque	76.96	53	P	P	21 49 37.1	+1.4
ELUQ				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
PAB	San Pablo	76.97	51	eP	P	21 49 35.5	-0.3
	comp=Z,70nm,1.6s,mb5.3						
PAB				PP	PP	21 52 40.6	+12
PAB				eS	S	21 59 18.4	-4.3
PAB				LR	LR		
	comp=Z,931nm,21.0s,MS5.1						
PAB	San Pablo	76.97	51	eP	P	21 49 35.5	-0.2
PAB				eS	S	21 59 18.4	-4.3
PAB				pmax	pmax		
	comp=Z,70nm,1.6s,mb5.3						
PAB				MLR	MLR		
	comp=Z,931nm,21.0s,MS5.1						
ELOJ	Sierra Loja	77.03	53	P	P	21 49 37.7	+1.6
	comp=Z,34nm,1.0s,mb5.2						
ELOJ	Sierra Loja	77.03	53	P	P	21 49 37.7	+1.6
ELOJ				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.2						
TIC	Toumodi	77.06	85	eP	P	21 49 35.2	-1.5
	comp=Z,157nm,1.1s,mb5.8						
LIC	Lamto	77.09	85	eP	P	21 49 35.5	-1.4
	comp=Z,126nm,1.0s,mb5.8						
GUD	Guadarrama	77.17	50	P	P	21 49 36.9	+0.1
	comp=Z,14nm,0.8s,mb4.9						
GUD	Guadarrama	77.17	50	P	P	21 49 36.9	+0.1
GUD				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
ESDC	Sonseca Array	77.27	51	P	P	21 49 36.8	-0.6
	comp=Z,21nm,2.1s,mb4.7						
ESDC	Sonseca Array	77.27	51	P	P	21 49 36.1	-1.3
	comp=Z,13nm,0.9s,mb4.8,baz=275,slow=5.5,SNR=40						
ESDC				LR	LR	22 15 51.5	
	comp=Z,496nm,20.3s,MS4.8,baz=325,slow=30						
ESLA	Sonseca Array	77.27	51	eP	P	21 49 36.5	-1.0
	comp=Z,15nm,1.2s,mb4.8						
ESLA				ePcP	PcP	21 49 45.5	-2.5
ESLA				ePP	PP	21 52 56.9	+25
ESLA				eS	S	21 59 31.7	+5.7
ESLA				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
ERON	Agron	77.31	54	P	P	21 49 40.1	+2.4
	comp=Z,17nm,0.9s,mb5.0						
EBAN	Banos Encina	77.36	52	P	P	21 49 38.8	+0.8
	comp=Z,13nm,0.9s,mb4.9						
EBAN	Banos Encina	77.36	52	P	P	21 49 38.8	+0.9
EBAN				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
KIC	Kosan Boka	77.36	85	eP	P	21 49 37.2	-1.2
	comp=Z,215nm,1.0s,mb6.0						
ECOG	Cogollos-Vega	77.51	53	P	P	21 49 40.6	+1.8
	comp=Z,21nm,0.9s,mb5.1						
ECOG	Cogollos-Vega	77.51	53	P	P	21 49 40.6	+1.8
ECOG				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
EQES	Quesada	77.91	53	P	P	21 49 42.8	+1.8
	comp=Z,27nm,1.0s,mb5.1						
DAG	Danmarks Havn	78.03	12	⇑iP	P	21 49 38.1	-2.8
DAG				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
DAG	Danmarks Havn	78.03	12	⇑iP	P	21 49 38.1	-2.8
	comp=Z,11nm,0.6s,mb5.0						
EBER	Berja	78.04	54	P	P	21 49 44.1	+2.3
	comp=Z,61nm,2.2s,mb5.1						
ROSF	Rostrenen	78.22	42	eP	P	21 49 43.0	+0.5
	comp=Z,102nm,1.2s,mb5.3						
ROSF	Rostrenen	78.22	42	eP	P	21 49 43.0	+0.5
	comp=Z,51nm,1.3s,mb5.3						
ROSF	Rostrenen	78.22	42	eP	P	21 49 43.0	+0.5
ROSF				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.3						
QUIF	Quistinic	78.27	42	eP	P	21 49 43.3	+0.5
	comp=Z,58nm,0.9s,mb5.2						
QUIF	Quistinic	78.27	42	eP	P	21 49 43.3	+0.5
	comp=Z,29nm,0.9s,mb5.2						
QUIF	Quistinic	78.27	42	eP	P	21 49 43.3	+0.5
QUIF				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
EVIA	Vianos	78.38	52	P	P	21 49 43.3	-0.3
	comp=Z,22nm,1.2s,mb5.0						
EVIA	Vianos	78.38	52	P	P	21 49 43.3	-0.3
EVIA				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
ECRI	Cripan	78.48	48	P	P	21 49 42.6	-1.4
	comp=Z,38nm,1.9s,mb5.0						
ECRI	Cripan	78.48	48	P	P	21 49 42.6	-1.5
ECRI				pmax	pmax		
	comp=Z,38nm,1.9s,mb5.0						
ENIJ	Nijar	78.59	54	P	P	21 49 47.9	+3.1
	comp=Z,63nm,1.3s,mb5.4						
ENIJ	Nijar	78.59	54	P	P	21 49 47.9	+3.1
ENIJ				pmax	pmax		
	comp=Z,63nm,1.3s,mb5.4						
SGMF	Saint Gilles	78.70	42	eP	P	21 49 45.4	+0.2
	comp=Z,325nm,1.9s,mb5.6						
SGMF	Saint Gilles	78.70	42	eP	P	21 49 45.4	+0.2
	comp=Z,162nm,1.8s,mb5.7						
SGMF	Saint Gilles	78.70	42	eP	P	21 49 45.4	+0.2
SGMF				pmax	pmax		
	comp=Z,162nm,1.8s,mb5.7						
ETOR	Torete	78.77	50	P	P	21 49 45.7	0.0
	comp=Z,16nm,1.8s,mb4.6						
ETOR	Torete	78.77	50	P	P	21 49 45.7	0.0
ETOR				pmax	pmax		
	comp=Z,16nm,1.8s,mb4.7						
ESK	Eskdalemuir	78.80	35	eP	P	21 49 45.1	-0.4
	comp=Z,32nm,1.0s,mb5.2						
ESK				ePcP	PcP	21 49 51.7	-2.6
ESK				ePP	PP	21 52 38.5	-5.5
ESK				LR	LR		
	comp=Z,691nm,20.0s,MS5.0						
ESK	Eskdalemuir	78.80	35	eP	P	21 49 45.1	-0.5
ESK				e	pP	21 49 51.7	-1.9
ESK				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
ESK				MLR	MLR		
	comp=Z,691nm,20.0s,MS5.0						
JMIC	Jan Mayen	78.88	19	LR	LR	22 23 42.9	
	comp=Z,404nm,19.3s,MS4.8,baz=266,slow=35						
ETOB	Tobarra	79.13	52	P	P	21 49 49.7	+2.0
	comp=Z,15nm,0.8s,mb5.0						
SJPF	Ste Jean	79.44	47	eP	P	21 49 50.3	+1.0
	comp=Z,59nm,1.0s,mb5.2						
SJPF	Ste Jean	79.44	47	eP	P	21 49 50.3	+1.0
	comp=Z,30nm,1.0s,mb5.2						
SJPF	Ste Jean	79.44	47	eP	P	21 49 50.3	+1.0
SJPF				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
GRR	Gorron	79.83	42	eP	P	21 49 51.7	+0.3
	comp=Z,83nm,0.9s,mb5.3						
GRR	Gorron	79.83	42	eP	P	21 49 51.7	+0.3
	comp=Z,41nm,0.9s,mb5.4						
GRR	Gorron	79.83	42	eP	P	21 49 51.7	+0.3
GRR				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.4						
ETSF	Etsaut	79.92	48	eP	P	21 49 53.0	+1.0
	comp=Z,73nm,1.6s,mb5.1						
ETSF	Etsaut	79.92	48	eP	P	21 49 53.0	+1.0
	comp=Z,36nm,1.6s,mb5.1						
ETSF	Etsaut	79.92	48	eP	P	21 49 53.0	+1.0
ETSF				pmax	pmax		
	comp=Z,36nm,1.6s,mb5.0						
ESAC	San Caprasio	79.98	49	P	P	21 49 52.2	-0.1
	comp=Z,143nm,1.5s,mb5.7						
FLN	La Foliniere	80.10	42	eP	P	21 49 53.2	+0.4
	comp=Z,195nm,1.3s,mb5.6						
FLN				eMLR	MLR		
	comp=Z,1µm,21.2s,MS4.8						
FLN	La Foliniere	80.10	42	eP	P	21 49 53.2	+0.4
	comp=Z,98nm,1.3s,mb5.6						
FLN				LR	LR		
	comp=Z,1µm,21.3s,MS5.1						
FLN	La Foliniere	80.10	42	eP	P	21 49 53.2	+0.4
FLN				pmax	pmax		
	comp=Z,98nm,1.3s,mb5.6						
FLN				MLR	MLR		
	comp=Z,1µm,21.3s,MS5.1						
MFF	Saint Martin d	80.27	44	eP	P	21 49 54.1	+0.3
	comp=Z,57nm,0.9s,mb5.2						
MFF	Saint Martin d	80.27	44	eP	P	21 49 54.1	+0.3
	comp=Z,28nm,0.9s,mb5.2						
MFF	Saint Martin d	80.27	44	eP	P	21 49 54.1	+0.3
MFF				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
LDF	La Druitiere	80.33	42	eP	P	21 49 54.4	+0.4
	comp=Z,210nm,1.4s,mb5.6						
LDF	La Druitiere	80.33	42	eP	P	21 49 54.4	+0.4
	comp=Z,105nm,1.4s,mb5.6						
LDF	La Druitiere	80.33	42	eP	P	21 49 54.4	+0.4
LDF				pmax	pmax		
	comp=Z,105nm,1.4s,mb5.6						
EBIE	Bielsa	80.44	48	P	P	21 49 54.2	-0.5
	comp=Z,14nm,1.0s,mb4.8						
EPF	Esparros	80.58	48	eP	P	21 49 56.3	+0.8
	comp=Z,128nm,1.4s,mb5.3						
EPF	Esparros	80.58	48	eP	P	21 49 56.3	+0.8
	comp=Z,64nm,1.4s,mb5.4						
EPF	Esparros	80.58	48	eP	P	21 49 56.3	+0.8
EPF				pmax	pmax		
	comp=Z,64nm,1.4s,mb5.4						
LFF	La Frestale	80.88	46	eP	P	21 49 57.3	+0.2
	comp=Z,61nm,1.1s,mb5.1						
LFF	La Frestale	80.88	46	eP	P	21 49 57.3	+0.2
	comp=Z,31nm,1.1s,mb5.1						
LFF	La Frestale	80.88	46	eP	P	21 49 57.3	+0.2
LFF				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
UNV	Unalaska Valle	81.27	323	PFAKE		21 50 10.0	+11
UNV				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
RJF	Les Rejaudoux	81.42	45	eP	P	21 50 00.2	+0.2
	comp=Z,140nm,1.6s,mb5.3						
RJF				eMLR	MLR		
	comp=Z,976nm,20.0s,MS4.9						
RJF	Les Rejaudoux	81.42	45	eP	P	21 50 00.2	+0.2
	comp=Z,70nm,1.6s,mb5.3						
RJF				LR	LR		
	comp=Z,980nm,20.0s,MS5.2						
RJF	Les Rejaudoux	81.42	45	eP	P	21 50 00.2	+0.2
RJF				pmax	pmax		
	comp=Z,70nm,1.6s,mb5.3						
RJF				MLR	MLR		
	comp=Z,980nm,20.0s,MS5.2						
CAF	Calviac	81.82	46	eP	P	21 50 02.2	+0.2
	comp=Z,64nm,1.3s,mb5.1						
CAF	Calviac	81.82	46	eP	P	21 50 02.2	+0.2
	comp=Z,32nm,1.3s,mb5.1						
CAF	Calviac	81.82	46	eP	P	21 50 02.2	+0.2
CAF				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.1						
TCF	Toulx Ste Croi	81.90	44	eP	P	21 50 02.4	-0.1
	comp=Z,60nm,1.3s,mb5.1						
TCF	Toulx Ste Croi	81.90	44	eP	P	21 50 02.4	-0.1
	comp=Z,30nm,1.3s,mb5.1						
TCF	Toulx Ste Croi	81.90	44	eP	P	21 50 02.4	-0.1
TCF				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.1						
MTLF	Montolieu	81.95	47	eP	P	21 50 03.0	+0.2
	comp=Z,128nm,1.4s,mb5.4						
MTLF	Montolieu	81.95	47	eP	P	21 50 03.0	+0.2
	comp=Z,64nm,1.4s,mb5.4						
MTLF	Montolieu	81.95	47	eP	P	21 50 03.0	+0.2
MTLF				pmax	pmax		
	comp=Z,64nm,1.4s,mb5.4						
TNA	Tin City	82.29	335	eP	P	21 50 03.0	-1.0
	comp=Z,29nm,1.4s,mb5.0						
TNA				ePP	PP	21 53 13.2	+0.6
TNA				LR	LR		
	comp=Z,739nm,20.0s,MS5.0						
BGF	Bois d’Agland	82.34	44	eP	P	21 50 04.7	0.0
	comp=Z,109nm,1.4s,mb5.3						
BGF	Bois d’Agland	82.34	44	eP	P	21 50 04.7	0.0
	comp=Z,54nm,1.4s,mb5.3						
BGF	Bois d’Agland	82.34	44	eP	P	21 50 04.7	0.0

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BGF                                pmax     pmax
      comp=Z,54nm,1.4s,mb5.3
AVF   Avril sur Loir   82.68  44  eP       P        21 50 06.1 -0.4
      comp=Z,32nm,1.2s,mb4.9
AVF   Avril sur Loir   82.68  44  eP       P        21 50 06.1 -0.4
      comp=Z,16nm,1.2s,mb4.9
AVF   Avril sur Loir   82.68  44  eP       P        21 50 06.1 -0.4
AVF                                pmax     pmax
      comp=Z,16nm,1.2s,mb4.9
SSF   Saint Saulge     82.78  43  eP       P        21 50 06.5 -0.5
      comp=Z,49nm,1.3s,mb5.1
SSF   Saint Saulge     82.78  43  eP       P        21 50 06.5 -0.5
      comp=Z,25nm,1.3s,mb5.1
SSF   Saint Saulge     82.78  43  eP       P        21 50 06.5 -0.5
SSF                                pmax     pmax
      comp=Z,25nm,1.3s,mb5.1
LOR   Lormes           83.01  43  eP       P        21 50 07.9 -0.3
      comp=Z,27nm,0.9s,mb5.0
LOR                               eMLR     MLR
      comp=Z,827nm,21.5s,MS4.8
LOR   Lormes           83.01  43  eP       P        21 50 07.9 -0.3
      comp=Z,13nm,0.9s,mb5.0
LOR                                LR       LR
      comp=Z,830nm,21.5s,MS5.1
LOR   Lormes           83.01  43  eP       P        21 50 07.9 -0.3
LOR                                pmax     pmax
      comp=Z,13nm,0.9s,mb5.0
LOR                                MLR      MLR
      comp=Z,830nm,21.5s,MS5.1
SMF   Signal de Mont   83.02  44  eP       P        21 50 07.9 -0.4
      comp=Z,52nm,1.4s,mb5.1
SMF   Signal de Mont   83.02  44  eP       P        21 50 07.9 -0.4
      comp=Z,26nm,1.4s,mb5.1
SMF   Signal de Mont   83.02  44  eP       P        21 50 07.9 -0.4
SMF                                pmax     pmax
      comp=Z,26nm,1.4s,mb5.1
TOA0  Torodi Ar. Sit   83.10  78  eP       P        21 50 06.2 -3.2
TOA0                              eS       S        22 00 30.1 +1.9
TORD  Torodi Ar. Bea   83.10  78   P       P        21 50 05.3 -4.0
TORD                               PKKPbc   PKKPbc  22 08 33.7 +3.1
TORD                               LR       LR      22 26 37.9
TORD  Torodi Ar. Bea   83.10  78   P       P        21 50 05.3 -4.0
      comp=Z,16nm,1.1s,mb5.0,baz=290,slow=5.6,SNR=31
TORD                               PKKPbc   PKKPbc  22 08 33.7 +3.1
      comp=Z,0.3nm,0.7s,baz=32,slow=2.3,SNR=4.5
TORD                               LR       LR      22 26 37.9
      comp=Z,413nm,19.3s,MS4.8,baz=270,slow=35
BAIF  Baives           83.16  40  eP       P        21 50 08.8 -0.1
      comp=Z,38nm,1.4s,mb4.9
BAIF  Baives           83.16  40  eP       P        21 50 08.8 -0.1
      comp=Z,19nm,1.4s,mb4.9
BAIF  Baives           83.16  40  eP       P        21 50 08.8 -0.1
BAIF                               pmax     pmax
      comp=Z,19nm,1.4s,mb4.9
SNF   Seneffe          83.19  40   P       P        21 50 09.4 +0.3
      comp=Z,14nm,2.1s,mb4.6
UCC   Uccle            83.23  40   P       P        21 50 10.1 +0.8
DOU   Dourbes          83.41  40   P       P        21 50 10.2  0.0
GIVF  Givet            83.55  40  eP       P        21 50 11.1 +0.1
      comp=Z,61nm,1.1s,mb5.4
GIVF  Givet            83.55  40  eP       P        21 50 11.1 +0.1
      comp=Z,30nm,1.1s,mb5.3
GIVF  Givet            83.55  40  eP       P        21 50 11.1 +0.1
GIVF                               pmax     pmax
      comp=Z,30nm,1.1s,mb5.3
VIVF  Saint-Julien-l   83.67  46  eP       P        21 50 12.5 +0.8
      comp=Z,61nm,1.1s,mb5.3
VIVF  Saint-Julien-l   83.67  46  eP       P        21 50 12.5 +0.8
      comp=Z,31nm,1.1s,mb5.3
VIVF  Saint-Julien-l   83.67  46  eP       P        21 50 12.5 +0.8
VIVF                               pmax     pmax
      comp=Z,31nm,1.1s,mb5.3
MEZF  Maizieres J'vi   83.77  42  eP       P        21 50 12.1  0.0
      comp=Z,48nm,1.0s,mb5.3
MEZF  Maizieres J'vi   83.77  42  eP       P        21 50 12.1  0.0
      comp=Z,48nm,1.0s,mb5.6
BCLA  Clavier          83.85  40   P       P        21 50 12.9 +0.4
      comp=Z,11nm,1.5s,mb4.8
BEBN  Eben Emael       84.07  40   P       P        21 50 13.4 -0.2
      comp=Z,6.8nm,1.4s,mb4.6
HGN   Heimansgroeve    84.23  40  eP       P        21 50 14.3 -0.1
      comp=Z,27nm,1.4s,mb5.2
MEM   Membach          84.29  40   P       P        21 50 15.7 +1.0
      comp=Z,18nm,1.5s,mb5.0
SMRF  Simiane la Rot   84.36  46  eP       P        21 50 15.7 +0.5
      comp=Z,122nm,1.5s,mb5.5
SMRF  Simiane la Rot   84.36  46  eP       P        21 50 15.7 +0.5
      comp=Z,122nm,1.5s,mb5.8
THEF  They Montfort    84.41  42  eP       P        21 50 15.4 +0.1
WLF   Walferdange      84.43  41  eP       P        21 50 16.3 +0.8
      comp=Z,33nm,1.0s,mb5.4
WLF   Walferdange      84.43  41  eP       P        21 50 16.3 +0.8
WLF                                pmax     pmax
      comp=Z,33nm,1.0s,mb5.4
WLF   Walferdange      84.43  41   P       P        21 50 16.3 +0.9
      comp=Z,25nm,1.2s,mb5.2
WLF   Walferdange      84.43  41  eP       P        21 50 16.2 +0.7
ORIF  Oris-en-Rattie   84.53  46  eP       P        21 50 16.9 +0.9
      comp=Z,56nm,1.0s,mb5.3
ORIF                              eMLR     MLR
      comp=Z,472nm,22.8s,MS4.5
ORIF  Oris-en-Rattie   84.53  46  eP       P        21 50 16.9 +0.9
      comp=Z,28nm,1.0s,mb5.3
ORIF  Oris-en-Rattie   84.53  46  eP       P        21 50 16.9 +0.9
ORIF                               pmax     pmax
      comp=Z,28nm,1.0s,mb5.3
CABF  La Chapelle      84.57  44  eP       P        21 50 16.4 +0.2
      comp=Z,64nm,1.2s,mb5.3
CABF  La Chapelle      84.57  44  eP       P        21 50 16.4 +0.2
      comp=Z,32nm,1.2s,mb5.3
CABF  La Chapelle      84.57  44  eP       P        21 50 16.4 +0.2
CABF                               pmax     pmax
      comp=Z,32nm,1.2s,mb5.3
HAU   Haudompre        84.66  42  eP       P        21 50 16.6  0.0
      comp=Z,65nm,1.4s,mb5.3
HAU                               eMLR     MLR
      comp=Z,479nm,18.5s,MS4.6
HAU   Haudompre        84.66  42  eP       P        21 50 16.6  0.0
      comp=Z,32nm,1.4s,mb5.3
HAU                                LR       LR
      comp=Z,480nm,18.5s,MS4.9
HAU   Haudompre        84.66  42  eP       P        21 50 16.6  0.0
HAU                                pmax     pmax
      comp=Z,32nm,1.4s,mb5.3
HAU                                MLR      MLR
      comp=Z,480nm,18.5s,MS4.9
KBS   Kingsbay         84.69  11  i P      P        21 50 15.7 -0.5
KBS                                LR       LR
      comp=Z,1μm,20.0s,MS5.3
WTSB  Winterswijk      84.71  38  eP       P        21 50 16.2 -0.5
      comp=Z,81nm,1.2s,mb5.7
HINF  Hinteralfeld     85.01  43  eP       P        21 50 18.2 -0.2
      comp=Z,46nm,1.3s,mb5.2
HINF  Hinteralfeld     85.01  43  eP       P        21 50 18.2 -0.2
      comp=Z,23nm,1.3s,mb5.2
HINF  Hinteralfeld     85.01  43  eP       P        21 50 18.2 -0.2
HINF                               pmax     pmax
      comp=Z,23nm,1.3s,mb5.2
RUP   Ruppelstein      85.02  41  eP       P        21 50 19.7 +1.3
LOMF  Lomont           85.03  43  eP       P        21 50 17.4 -1.1
BUG   Bochum--Univer   85.03  39  eP       P        21 50 18.7 +0.3
BNI   Bardonecchia     85.08  45  eP       P        21 50 17.6 -1.3
      comp=Z,41nm,1.4s,mb5.4
BNI   Bardonecchia     85.08  45  eP       P        21 50 17.6 -1.2
BNI                                pmax     pmax
      comp=Z,41nm,1.4s,mb5.4
LMR   La Mourre        85.08  47  eP       P        21 50 19.0 +0.1
      comp=Z,61nm,1.2s,mb5.3
LMR   La Mourre        85.08  47  eP       P        21 50 19.0 +0.1
      comp=Z,30nm,1.2s,mb5.3
LMR   La Mourre        85.08  47  eP       P        21 50 19.0 +0.1
LMR                                pmax     pmax
      comp=Z,31nm,1.2s,mb5.3
LPL   La Plagne        85.09  45  eP       P        21 50 19.8 +0.9
      comp=Z,37nm,1.1s,mb5.1
LPL   La Plagne        85.09  45  eP       P        21 50 19.8 +0.9
      comp=Z,18nm,1.1s,mb5.1
LPL   La Plagne        85.09  45  eP       P        21 50 19.8 +0.9
LPL                                pmax     pmax
      comp=Z,18nm,1.1s,mb5.1
LPG   La Plagne        85.10  45  eP       P        21 50 20.2 +1.3
      comp=Z,53nm,1.2s,mb5.3
LPG   La Plagne        85.10  45  eP       P        21 50 20.2 +1.3
      comp=Z,26nm,1.2s,mb5.2
LPG   La Plagne        85.10  45  eP       P        21 50 20.2 +1.3
LPG                                pmax     pmax
      comp=Z,27nm,1.2s,mb5.2
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FRF   La Foret Royal   85.17  47  eP       P        21 50 19.4 +0.1
      comp=Z,55nm,1.1s,mb5.3
FRF   La Foret Royal   85.17  47  eP       P        21 50 19.4 +0.1
      comp=Z,27nm,1.1s,mb5.3
FRF   La Foret Royal   85.17  47  eP       P        21 50 19.4 +0.1
FRF                                pmax     pmax
      comp=Z,27nm,1.1s,mb5.3
MBDF  Montbardon       85.17  46  eP       P        21 50 20.1 +0.8
      comp=Z,64nm,1.0s,mb5.4
MBDF  Montbardon       85.17  46  eP       P        21 50 20.1 +0.8
      comp=Z,32nm,1.0s,mb5.4
MBDF  Montbardon       85.17  46  eP       P        21 50 20.1 +0.8
MBDF                               pmax     pmax
      comp=Z,32nm,1.0s,mb5.4
ECH   Echery           85.19  42  eP       P        21 50 19.5 +0.2
MOF   Molkenrain       85.20  43  eP       P        21 50 19.7 +0.4
CDF   Champ du Feu     85.25  42  eP       P        21 50 19.6  0.0
      comp=Z,65nm,1.3s,mb5.3
CDF   Champ du Feu     85.25  42  eP       P        21 50 19.6  0.0
      comp=Z,33nm,1.3s,mb5.3
CDF   Champ du Feu     85.25  42  eP       P        21 50 19.6  0.0
CDF                                pmax     pmax
      comp=Z,33nm,1.3s,mb5.3
IBBN  Ibbenburen       85.27  38  eP       P        21 50 20.0 +0.4
ABH   Alteburg         85.32  40  eP       P        21 50 21.3 +1.4
BBS   Basel-Blauen     85.48  43  eP       P        21 50 21.0 +0.2
LANF  Langenberg       85.56  41  eP       P        21 50 22.1 +1.0
SPB4  Spitsbergen Ar   85.67  12   P       P        21 50 19.3 -1.8
KONO  Kongsberg        85.70  31⇑eP      P        21 50 22.8 +1.2
KONO                               LR       LR
      comp=Z,646nm,20.0s,MS5.0
KONO  Kongsberg        85.70  31⇑eP      P        21 50 22.7 +1.1
MUD   Monsted U'grnd   85.77  34  i P      P        21 50 22.2 +0.2
MUD                                pmax     pmax
      comp=Z,61nm,1.2s,mb5.7
MUD                                MLR      MLR
      comp=Z,2μm,17.0s,MS5.6
MUD   Monsted U'grnd   85.77  34  i P      P        21 50 22.2 +0.2
      comp=Z,61nm,1.2s,mb5.7
MUD
      comp=Z,2μm,17.0s
FELD  Feldberg im Sc   85.78  42  eP       P        21 50 22.3 +0.1
TNS   Taunus Mts       85.87  40  eP       P        21 50 23.2 +0.5
TNS                                pmax     pmax
      comp=Z,60nm,1.5s,mb5.6
TNS   Taunus Mts       85.87  40  eP       P        21 50 23.2 +0.5
      comp=Z,60nm,1.5s,mb5.6
BFO   Black Forest     85.96  42  eP       P        21 50 23.0 -0.1
BFO                                pmax     pmax
      comp=Z,18nm,1.1s,mb5.2
BFO   Black Forest     85.96  42  eP       P        21 50 23.0 -0.1
      comp=Z,18nm,1.1s,mb5.2
TOD   Tromm            86.16  41  eP       P        21 50 24.5 +0.4
NAO01 NORSAR Array S   86.23  29  eP       P        21 50 22.2 -2.0
      comp=Z,60nm,1.3s,mb5.7
NOA   NORSAR Array B   86.36  29   P       P        21 50 23.2 -1.7
NOA                                LR       LR      22 25 20.3
NOA   NORSAR Array B   86.36  29   P       P        21 50 23.2 -1.7
      comp=Z,28nm,1.1s,mb5.4,baz=276,slow=4.6,SNR=29
NOA                                LR       LR      22 25 20.3
      comp=Z,288nm,21.3s,MS4.7,baz=280,slow=33
STU   Stuttgart        86.49  41  eP       P        21 50 26.1 +0.4
BSEG  Bad Segeberg     86.66  36  eP       P        21 50 27.0 +0.5
BSEG                               pmax     pmax
      comp=Z,44nm,1.3s,mb5.5
BSEG  Bad Segeberg     86.66  36  eP       P        21 50 27.0 +0.5
      comp=Z,44nm,1.3s,mb5.5
CLZ   Clausthal        86.92  38  eP       P        21 50 28.4 +0.6
CLZ                                pmax     pmax
      comp=Z,56nm,1.2s,mb5.7
CLZ   Clausthal        86.92  38  eP       P        21 50 28.4 +0.6
      comp=Z,56nm,1.2s,mb5.7
DAVA  Damuels          87.10  43  i P      P        21 50 30.1 +1.4
      comp=Z,40nm,1.1s,mb5.6,SNR=6.7
DAVA  Damuels          87.10  43  i PcP    PcP      21 50 30.1 -0.8
      comp=Z,40nm,1.1s,SNR=6.7
DAVOX Davos/Dischmat   87.16  43   LR       LR      22 22 00.5
      comp=Z,363nm,21.4s,MS4.8,baz=279,slow=30
RETA  Reutte           87.67  43  i PcP    PcP      21 50 32.6 -0.8
      comp=Z,17nm,1.2s,SNR=7.0
HFS   Hagfors          87.70  30   P       P        21 50 30.8 -0.5
      comp=Z,9.5nm,1.0s,mb5.0,baz=162,slow=0.5,SNR=6.8
HFS                                LR       LR      22 24 18.2
      comp=Z,458nm,21.4s,MS4.9,baz=270,slow=32
FETA  Feichten         87.71  43⇑iP      P        21 50 29.7 -2.0
      comp=Z,21nm,1.0s,mb5.3,SNR=5.9
GRA1  Grafenberg Arr   87.71  40  eP       P        21 50 32.0 +0.4
      comp=Z,32nm,1.2s,mb5.4
GRA1                               LR       LR
      comp=Z,800nm,21.0s,MS5.1
GRF   Grafenberg Arr   87.71  40  eP       P        21 50 32.0 +0.4
GRF                                pmax     pmax
      comp=Z,32nm,1.2s,mb5.4
GRF                                MLR      MLR
      comp=Z,800nm,21.0s,MS5.1
GRF   Grafenberg Arr   87.71  40  eP       P        21 50 32.0 +0.4
GRF                                pmax     pmax
      comp=Z,32nm,1.2s,mb5.4
GRF                                MLR      MLR
      comp=Z,800nm,21.0s,MS5.1
GRF   Grafenberg Arr   87.71  40  eP       P        21 50 32.0 +0.4
      comp=Z,32nm,1.2s,mb5.4
GRF                               eL                22 23 41.1
      comp=Z,779nm,21.0s
GRFO  Grafenberg       87.71  40  eP       P        21 50 30.6 -1.1
      comp=Z,64nm,1.5s,mb5.6
GRFO                               LR       LR
      comp=Z,960nm,22.0s,MS5.2
GRFO  Grafenberg       87.71  40  eP       P        21 50 30.6 -1.0
GRFO                               pmax     pmax
      comp=Z,64nm,1.5s,mb5.6
GRFO                               MLR      MLR
      comp=Z,960nm,22.0s,MS5.2
MOX   Moxa             87.84  39  eP       P        21 50 33.0 +0.8
      comp=Z,35nm,1.6s,mb5.3
MOX
      comp=Z,500nm,21.0s
MOX   Moxa             87.84  39  eP       P        21 50 33.0 +0.8
MOX                                pmax     pmax
      comp=Z,35nm,1.6s,mb5.3
MOX                                MLR      MLR
      comp=Z,500nm,21.0s,MS4.9
MOX   Moxa             87.84  39  eP       P        21 50 32.5 +0.3
      comp=Z,26nm,1.3s,mb5.3
FUR   Furstenfeldbru   87.94  42  eP       P        21 50 33.4 +0.7
FUR                                pmax     pmax
      comp=Z,74nm,1.8s,mb5.6
FUR   Furstenfeldbru   87.94  42  eP       P        21 50 33.4 +0.7
      comp=Z,74nm,1.8s,mb5.6
KEST  Kesra            87.96  54   LR       LR      22 21 15.3
      comp=Z,192nm,21.7s,MS4.5,baz=217,slow=30
MANZ  Manzenberg       88.24  40  eP       P        21 50 34.6 +0.4
WTTA  Wattenberg       88.29  43⇓iP      P        21 50 35.3 +0.8
      comp=Z,19nm,1.2s,mb5.2
WTTA  Wattenberg       88.29  43⇓iPcP    PcP      21 50 35.3 -0.9
      comp=Z,19nm,1.2s
WTTA  Wattenberg       88.29  43⇓iP      P        21 50 35.3 +0.8
WTTA                               pmax     pmax
      comp=Z,19nm,1.2s,mb5.2
ROTZ  Rotzenmuhle      88.33  40  eP       P        21 50 35.2 +0.6
TANN  Tannenbergstha   88.41  40  eP       P        21 50 35.9 +1.0
NKC   Novy Kostel      88.42  40  eP       P        21 50 36.0 +1.0
NKC                                AMS      AMS     22 22 00.0
      comp=Z,1μm,18.4s
CLL   Collm            88.62  39  eP       P        21 50 34.0 -1.9
      comp=Z,43nm,1.3s,mb5.6
CLL                               i                 21 50 36.6
CLL                               ePP      PP       21 54 07.0 +2.7
CLL                                LR       LR
      comp=Z,600nm,25.6s,MS4.9
CLL   Collm            88.62  39  eP       P        21 50 34.0 -1.9
CLL                               e                 21 54 07.0
CLL                                pmax     pmax
      comp=Z,43nm,1.3s,mb5.6
CLL                                MLR      MLR
      comp=Z,600nm,25.6s,MS4.9
CLL   Collm            88.62  39  eP       P        21 50 36.2 +0.3
      comp=Z,42nm,1.3s,mb5.6
CLL   Collm            88.62  39  eP       P        21 50 34.0 -1.9
      comp=Z,43nm,1.3s,mb5.6
CLL                               i P(2)            21 50 36.6
      comp=Z,43nm,1.3s
CLL                               i pP     pP       21 50 44.1  0.0
CLL                               ePP      PP       21 54 07.0 +2.7
WET   Wettzell         88.86  41  eP       P        21 50 37.7 +0.6
WET                                pmax     pmax
```

```
      comp=Z,36nm,1.2s,mb5.6
WET   Wettzell         88.86  41  eP       P        21 50 37.7 +0.6
      comp=Z,36nm,1.2s,mb5.6
ABTA  Abfaltersbach    88.95  43  i PcP    PcP      21 50 38.7 -0.4
      comp=Z,17nm,1.1s,SNR=7.2
BSD   Bornholm Skovb   89.15  35  eP       P        21 50 39.1 +0.8
BSD                                pmax     pmax
      comp=Z,33nm,1.1s,mb5.6
BSD                                MLR      MLR
      comp=Z,2μm,17.0s,MS5.5
BSD   Bornholm Skovb   89.15  35  i P      P        21 50 39.1 +0.8
      comp=Z,33nm,1.1s,mb5.6
BSD
      comp=Z,1μm,17.0s
BRG   Berggiesshubel   89.27  39  eP       P        21 50 39.9 +0.9
BRG                                pmax     pmax
      comp=Z,12nm,1.2s,mb5.1
BRG   Berggiesshubel   89.27  39  eP       P        21 50 39.5 +0.5
      comp=Z,20nm,1.2s,mb5.3
BRG   Berggiesshubel   89.27  39  eP       P        21 50 39.9 +0.9
      comp=Z,20nm,1.2s,mb5.3
KHC   Kasperske Hory   89.31  41  eP       P        21 50 39.5 +0.3
KHC                               epP      pP       21 50 42.5 -4.9
KHC                                AMS      AMS     22 22 10.0
      comp=Z,900nm,18.9s
GEC2  GERESS Array S   89.44  41   P       P        21 50 40.5 +0.7
GEC2  GERESS Array S   89.44  41  eP       P        21 50 40.2 +0.4
      comp=Z,12nm,1.1s,mb5.1
GERES GERESS Array B   89.44  41   P       P        21 50 38.6 -1.2
GERES                                               21 54 09.5
GERES GERESS Array B   89.44  41   P       P        21 50 38.6 -1.2
      comp=Z,4.1nm,0.9s,mb4.8,baz=216,slow=11,SNR=22
GERES                              PP       PP      21 54 09.5 -1.4
      comp=Z,1.7nm,1.1s,baz=274,slow=6.6,SNR=4.4
GERES                              LR       LR      22 23 43.7
      comp=Z,643nm,21.8s,MS5.0,baz=276,slow=31
PVCC  Panska Ves       89.72  39  eP       P        21 50 42.3 +1.2
PVCC                               AMS      AMS     22 25 10.0
      comp=Z,1μm,21.6s
PRU   Pruhonice        89.79  40  eP       P        21 50 42.3 +0.8
PRU                                AMS      AMS     22 24 30.0
      comp=Z,1μm,18.7s
ARCES ARCESS Array B   90.34  20   P       P        21 50 44.0 +0.4
      comp=Z,4.3nm,0.8s,mb4.8,baz=27,slow=5.6,SNR=4.2
ARCES                              LR       LR      22 31 28.9
      comp=Z,313nm,19.4s,MS4.8,baz=294,slow=36
TREC  Trest            90.52  40  eP       P        21 50 46.0 +1.1
TREC                               AMS      AMS     22 23 10.0
      comp=Z,1μm,30.2s
VNDS  Vrh nad Dolski   90.55  44  i P      P        21 50 46.4 +1.3
VNA3  Neumayer Olymp   90.58 162  eP       P        21 50 49.6 +5.0
VNA3                              e        pP       21 50 57.6 +4.8
UPC   Upice            90.63  39  eP       P        21 50 46.3 +0.9
PERS  Pernice          90.74  43  i P      P        21 50 46.1 +0.2
KSP   Ksiaz            90.75  39  eP       P        21 50 45.6 -0.3
DPC   Dobruska-Polom   90.86  39  eP       P        21 50 47.2 +0.8
DPC                                AMS      AMS     22 23 00.0
      comp=Z,900nm,29.9s
BOJS  Bojanci          91.03  44  i P      P        21 50 45.6 -1.7
VNA2  Neumayer--Watz   91.19 161  eP       P        21 50 52.1 +4.6
      baz=318,slow=7.0
VNA2                              e        pP       21 51 00.6 +5.0
VRAC  Vranov           91.23  40   LR       LR      22 25 02.0
      comp=Z,1μm,21.9s,MS5.2,baz=277,slow=31
VRAC  Vranov           91.23  40⇑iP      P        21 50 49.5 +1.3
MORC  Moravsky Berou   91.74  40  eP       P        21 50 50.2 -0.3
      comp=Z,18nm,1.5s,mb5.2
MORC                              ePP      PP       21 54 28.1 -1.0
MORC  Moravsky Berou   91.74  40  eP       P        21 50 50.2 -0.3
MORC                              e                 21 54 28.1
MORC                               pmax     pmax
      comp=Z,18nm,1.5s,mb5.2
MORC  Moravsky Berou   91.74  40⇓iP      P        21 50 51.6 +1.1
ZST   Bratislava       91.78  41  eP       P        21 50 51.8 +1.1
      comp=Z,18nm,1.2s,mb5.3
ZST   Bratislava       91.78  41  eP       P        21 50 51.8 +1.1
ZST                                pmax     pmax
      comp=Z,18nm,1.2s,mb5.3
BILL  Bilibino         91.86 339  eP       P        21 50 49.3 -1.4
      comp=Z,99nm,1.7s,mb5.9
BILL                              ePP      PP       21 54 29.2 -0.3
BILL                               LR       LR
      comp=Z,827nm,19.0s,MS5.2
BILL  Bilibino         91.86 339c iP      P        21 50 49.5 -1.2
BILL                              e                 21 54 29.3
BILL                              e                 22 01 23.0
BILL                              eSS      SS       22 08 02.5 +4.8
BILL                               pmax     pmax
      comp=Z,41nm,1.2s,mb5.6
BILL                               MLR      MLR
      comp=Z,800nm,21.0s,MS5.1
OKC   Ostrava-Krasne   92.11  40  eP       P        21 50 53.9 +1.7
OKC                                AMS      AMS     22 26 20.0
      comp=Z,800nm,19.4s
VYHS  Vyhne            92.84  41  eP       P        21 50 56.8 +1.1
      comp=Z,10nm,1.6s,mb5.0
VYHS                              e        pP       21 51 03.7 -0.1
VYHS                              ePP      PP       21 54 33.6 -4.3
VYHS  Vyhne            92.84  41  eP       P        21 50 56.8 +1.1
VYHS                              e        pP       21 51 03.7 -0.1
VYHS                              e                 21 54 33.6
VYHS                               pmax     pmax
      comp=Z,10.0nm,1.6s,mb5.0
OJC   Ojcow            93.06  39  eP       P        21 50 57.7 +1.1
PKSM  Moragy           93.22  43 ⇓P       P        21 50 57.7 +0.3
PKSM  Moragy           93.22  43⇓iP      P        21 50 57.7 +0.3
FINES FINESS Array B   93.26  27   LR       LR      22 27 18.2
      comp=Z,395nm,20.9s,MS4.8,baz=132,slow=32
NIE   Niedzica         93.58  40  eP       P        21 51 01.0 +2.0
KECS  Kecovo           93.92  40  eP       P        21 51 03.4 +2.8
      comp=Z,2.1nm,1.0s,mb4.5
KECS  Kecovo           93.92  40  eP       P        21 51 03.4 +2.8
KECS                               pmax     pmax
      comp=Z,2.0nm,1.0s,mb4.5
LVZ   Lovozero         94.06  20   PFAKE            21 51 10.0 +9.2
LVZ                                LR       LR
      comp=Z,432nm,21.0s,MS4.9
STHS  Stebnicka Huta   94.17  39  eP       P        21 51 03.3 +1.6
      comp=Z,4.8nm,1.6s,mb4.7
STHS  Stebnicka Huta   94.17  39  eP       P        21 51 03.3 +1.6
STHS                               pmax     pmax
      comp=Z,5.0nm,1.6s,mb4.7
UZH   Uzhgorod         95.04  40  eP       P        21 51 06.0 +0.3
UZH                               i                 21 51 21.4
BZS   Buzias           95.38  43 ⇓P       P        21 51 08.3 +0.9
BZS   Buzias           95.38  43⇓iP      P        21 51 08.3 +1.0
DRGR                   95.80  42⇓iP      P        21 51 10.4 +1.1
QSPA  South Pole Qui   96.37 180   PFAKE            21 51 20.0 +8.9
QSPA                               LR       LR
      comp=Z,1.0nm,21.0s
MLR   Muntele Rosu     98.33  42 ⇑P       P        21 51 21.8 +1.0
MLR   Muntele Rosu     98.33  42⇑iP      P        21 51 21.8 +1.1
KIEV  Kiev             98.66  37   PFAKE            21 51 30.0 +7.9
KIEV                               LR       LR
      comp=Z,551nm,21.0s,MS5.0
AKASG Malin Array Be   98.67  37   PP       PP      21 55 28.2 +5.4
      comp=Z,0.2nm,0.4s,baz=296,slow=6.9,SNR=5.6
AKASG                              LR       LR      22 33 43.1
      comp=Z,278nm,19.1s,MS4.8,baz=290,slow=34
FUNA  Funafuti         98.94 262   PFAKE            21 51 30.0 +5.9
FUNA                               LR       LR
      comp=Z,8μm,19.0s,MS6.2
SEY   Seymchan         99.36 338⇓eP      P        21 51 23.5 -1.4
TIXI  Tiksi            99.44 350  eP       P        21 51 23.0 -2.1
      comp=Z,9.0nm,1.1s,mb5.2
TIXI                               LR       LR
      comp=Z,548nm,19.0s,MS5.1
TIXI  Tiksi            99.44 350  eP       P        21 51 23.0 -2.1
TIXI                               pmax     pmax
      comp=Z,9.0nm,1.1s,mb5.2
TIXI                               MLR      MLR
      comp=Z,548nm,19.0s,MS5.1
KIS   Kishinev         99.72  40  eP       Pdif     21 51 30.0 +3.3
KIS   Kishinev         99.72  40  ePUNK             21 51 30.0
OBN   Obninsk         100.88  31   PFAKE            21 51 40.0 +8.2
OBN                                LR       LR
      comp=Z,459nm,21.0s,MS5.0
OBN   Obninsk         100.88  31  eP       Pdif     21 51 32.7 +0.9
OBN                               e                 21 55 40.6
OBN                               e                 22 02 08.9
OBN                                pmax     pmax
      comp=Z,5.0nm,1.0s
PRGR  Permogore       101.39  22  eP       Pdif     21 51 38.4 +4.3
VNDA  Vanda           101.56 192   PFAKE            21 51 50.0  +15
VNDA                               LR       LR
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	comp=Z,252nm,21.0s,MS4.7						
PET	**Petropavlovsk**	**101.57**	**327**	PFAKE		21 51 50.0	+15
PET				LR	LR		
	comp=Z,783nm,20.0s,MS5.2						
TSUM	**Tsumeb**	**101.72**	**108**	PFAKE		21 51 50.0	+14
TSUM				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
MA2	**Magadan**	**101.93**	**335**	*i* P	Pdif	21 51 35.4	-1.1
MA2				LR	LR		
	comp=Z,555nm,20.0s,MS5.1						
SNZO	**South Karori**	**103.66**	**229**	PFAKE		21 52 00.0	+16
SNZO				LR	LR		
	comp=Z,435nm,19.0s,MS5.0						
SUR	**Sutherland**	**104.75**	**122**	PFAKE		21 52 00.0	+11
SUR				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
ANTO	**Ankara**	**104.98**	**46**	PFAKE		21 56 20.0	+15
ANTO				LR	LR		
	comp=Z,298nm,22.0s,MS4.8						
YAK	**Yakutsk**	**107.39**	**345**	PFAKE		21 56 20.0	+11
YAK				LR	LR		
	comp=Z,510nm,21.0s,MS5.1						
BOSA	**Boshof**	**108.74**	**118**	PFAKE		21 56 20.0	+7.4
BOSA				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
LBTB	**Lobatse**	**109.20**	**114**	PFAKE		21 56 30.0	+16
LBTB				LR	LR		
	comp=Z,710nm,19.0s,MS5.3						
ARU	**Arti**	**109.81**	**22**	PFAKE		21 56 30.0	+16
ARU				LR	LR		
	comp=Z,451nm,19.0s,MS5.1						
KIV	**Kislovodsk**	**109.83**	**39**	PFAKE		21 56 30.0	+16
KIV				LR	LR		
	comp=Z,430nm,21.0s,MS5.0						
LSZ	**Lusaka**	**111.73**	**104**	PFAKE		21 56 30.0	+11
LSZ				LR	LR		
	comp=Z,870nm,21.0s,MS5.3						
YSS	**Yuzh-Sakhalins**	**113.44**	**328**	PFAKE		21 56 30.0	+9.0
YSS				LR	LR		
	comp=Z,486nm,19.0s,MS5.1						
BOD	**Bodaibo**	**114.62**	**350**	*e*PKIKP	PKiKP	21 56 29.9	+7.0
BOD				pmax	pmax		
	comp=Z,9.0nm,1.5s						
HABR	**Khabarovsk**	**116.17**	**333**	*i* PKIKP	PKPdf	21 56 23.3	-2.9
HABR				*e*SS	SS	22 13 33.2	+1.4
ERM	**Erimo**	**116.28**	**323**	PFAKE		21 56 40.0	+13
ERM				LR	LR		
	comp=Z,285nm,20.0s,MS4.9						
BRVK	**Borovoye**	**116.52**	**18**	*i* PKP	PKPdf	21 56 27.2	+0.5
BRVK				LR	LR		
	comp=Z,534nm,20.0s,MS5.2						
BRVK	**Borovoye**	**116.52**	**18**	*i* PKIKP	PKPdf	21 56 27.2	+0.5
BRVK				MLR	MLR		
	comp=Z,534nm,20.0s,MS5.2						
HNR	**Honiara**	**117.97**	**263**	PFAKE		21 56 40.0	+9.4
HNR				LR	LR		
	comp=Z,331nm,21.0s,MS4.9						
ZALV	**Zalesovo Beam**	**119.00**	**8**	PKP	PKPdf	21 56 29.8	-1.7
ZALV	**Zalesovo Beam**	**119.00**	**8**	PKP	PKPdf	21 56 29.8	-1.7
	comp=Z,1.0nm,0.5s,baz=336,slow=3.3,SNR=8.7						
ZAL	**Zalesovo**	**119.01**	**8**	PKIKP	PKPdf	21 56 29.8	-1.7
KMBO	**Kilima Mbogo**	**119.85**	**88**	PKPdf	PKPdf	21 56 31.5	-2.8
KMBO				LR	LR		
	comp=Z,423nm,19.0s,MS5.1						
KMBO	**Kilima Mbogo**	**119.85**	**88**	PKIKP	PKPdf	21 56 31.5	-2.8
KMBO				MLR	MLR		
	comp=Z,423nm,19.0s						
KURK	**Kurchatov**	**120.90**	**14**	*e*PKPdf	PKPdf	21 56 32.0	-3.2
KURK				LR	LR		
	comp=Z,570nm,19.0s,MS5.2						
KURK	**Kurchatov**	**120.90**	**14**	*e*PKIKP	PKPdf	21 56 32.0	-3.2
KURK				MLR	MLR		
	comp=Z,570nm,19.0s,MS5.2						
HIA	**Hailar**	**121.25**	**343**	PFAKE		21 56 50.0	+14
HIA				LR	LR		
	comp=Z,870nm,21.0s,MS5.4						
MDJ	**Mudanjiang**	**121.55**	**333**	PFAKE		21 56 50.0	+13
MDJ				LR	LR		
	comp=Z,386nm,20.0s,MS5.0						
TLY	**Talaya**	**121.94**	**355**	PFAKE		21 56 50.0	+13
TLY				LR	LR		
	comp=Z,448nm,21.0s,MS5.1						
MJAR	**Matsushiro Arr**	**122.69**	**321**	PKP	PKPdf	21 56 38.5	-0.7
MJAR	**Matsushiro Arr**	**122.69**	**321**	PKIKP	PKPdf	21 56 38.5	-0.6
MJAR	**Matsushiro Arr**	**122.69**	**321**	PKP	PKPdf	21 56 38.5	-0.7
	comp=Z,1.8nm,0.9s,baz=207,slow=0.3,SNR=4.3						
MAJO	**Matsushiro**	**122.69**	**321**	PFAKE		21 56 50.0	+11
MAJO				LR	LR		
	comp=Z,401nm,21.0s,MS5.0						
ZAK	**Zakamensk**	**123.26**	**355**	*e*PKIKP	PKPdf	21 56 36.4	-3.4
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s						
CN2	**Changchun**	**123.98**	**336**	PKP	PKPdf	21 56 40.8	-0.6
CN2				PP	PP	21 58 30.8	+6.6
CN2				SS	SS	22 15 17.5	+5.5
CN2				PP	PP		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,500nm,21.0s,MS5.3						
CN2				LR	LR		
	comp=E,600nm,21.0s,MS5.3						
CN2				LR	LR		
	comp=Z,500nm,22.0s,MS5.1						
ULN	**Ulaanbaatar**	**125.33**	**352**	PFAKE		21 57 00.0	+16
ULN				LR	LR		
	comp=Z,574nm,21.0s,MS5.2						
MK31	**Makanchi Array**	**125.42**	**13**	*e*PKPdf	PKPdf	21 56 40.8	-3.2
MK31	**Makanchi Array**	**125.42**	**13**	*e*PKIKP	PKPdf	21 56 40.8	-3.2
MKAR	**Makanchi Array**	**125.42**	**13**	PKP	PKPdf	21 56 39.4	-4.6
MKAR	**Makanchi Array**	**125.42**	**13**	PKIKP	PKPdf	21 56 39.4	-4.6
MKAR	**Makanchi Array**	**125.42**	**13**	PKP	PKPdf	21 56 39.4	-4.6
	comp=Z,1.4nm,0.8s,baz=5.9,slow=2.0,SNR=12						
SONM	**Songino Array**	**125.45**	**353**	PKP	PKPdf	21 56 40.5	-3.6
SONM				PP	PP	21 58 24.4	-9.3
SONM	**Songino Array**	**125.45**	**353**	PKIKP	PKPdf	21 56 40.5	-3.6
SONM	**Songino Array**	**125.45**	**353**	PKP	PKPdf	21 56 40.5	-3.6
	comp=Z,4.8nm,1.1s,baz=330,slow=1.4,SNR=14						
SONM				PP	PP	21 58 24.4	-9.3
	comp=Z,1.4nm,1.0s,baz=17,slow=11,SNR=3.6						
EKS2	**Erkin-Say**	**126.71**	**22**	*e*PKPdf	PKPdf	21 56 44.5	-2.2
EKS2				LR	LR		
	comp=Z,479nm,22.0s,MS5.1						
AAK	**Ala-Archa**	**126.99**	**21**	⇑*e*PKP	PKPdf	21 56 44.5	-2.7
AAK	**Ala-Archa**	**126.99**	**21**	⇑*e*PKIKP	PKPdf	21 56 44.5	-2.7
TKM2	**Tokmak 2**	**127.12**	**20**	*e*PKPdf	PKPdf	21 56 45.4	-2.1
TKM2				LR	LR		
	comp=Z,368nm,21.0s,MS5.0						
TKM2	**Tokmak 2**	**127.12**	**20**	*e*PKIKP	PKPdf	21 56 45.4	-2.0
TKM2				MLR	MLR		
	comp=Z,368nm,21.0s,MS5.0						
AML	**Almayashu**	**127.14**	**22**	*e*PKPdf	PKPdf	21 56 45.5	-1.9
AML				LR	LR		
	comp=Z,439nm,22.0s,MS5.1						
UCH	**Uchtor**	**127.35**	**21**	*e*PKPdf	PKPdf	21 56 45.9	-2.0
UCH				LR	LR		
	comp=Z,436nm,20.0s,MS5.1						
KSRS	**Korea Array**	**127.90**	**329**	PKP	PKPdf	21 56 45.5	-3.6
	comp=Z,5.2nm,0.9s,baz=357,slow=1.1,SNR=12						
INCN	**Inchon**	**128.53**	**330**	PFAKE		21 57 00.0	+10
INCN				LR	LR		
	comp=Z,445nm,22.0s,MS5.1						
WMQ	**Urumqi**	**129.30**	**9**	*e*PKP	PKPdf	21 56 49.6	-1.9
KSH	**Kashi**	**130.26**	**22**	*e*PKP	PKPdf	21 56 55.0	+1.5
KSH				*e*XPKP		21 57 09.1	
KSH				*e*PKS		22 00 29.0	
KSH				*e*PPP		22 02 28.3	
KSH				*e*SKS	SKSdf	22 04 00.0	-3.7
KSH				PP	PP		
	comp=Z,328nm,6.4s						
KSH				LR	LR		
	comp=Z,440nm,6.0s						
PMG	**Port Moresby**	**130.59**	**263**	PFAKE		21 57 10.0	+15
PMG				LR	LR		
	comp=Z,293nm,21.0s,MS5.0						
BJI	**Beijing**	**130.67**	**341**	PKP	PKPdf	21 56 50.9	-3.4
BJI				LR	LR		
	comp=N,308nm,23.2s,MS5.2						
BJI				LR	LR		
	comp=E,433nm,24.8s,MS5.2						
BJI				LR	LR		
	comp=Z,398nm,35.1s						
BJI	**Beijing**	**130.67**	**341**	PKP	PKPdf	21 56 50.9	-3.4
BJI				P		21 56 51.2	
BJI				PP	PP	21 59 04.4	-3.8
BJI				SS	SS	22 16 29.5	-5.5
BJI				LR	LR		
	comp=Z,400nm,35.1s,MS4.9						
BJI	**Beijing**	**130.67**	**341**	PKIKP	PKPdf	21 56 50.9	-3.4
BJI						21 59 04.4	
BJI				SS	SS	22 16 29.5	-5.5
BJI				MLR	MLR		
	comp=Z,400nm,35.1s,MS4.9						
BJT	**Baijiatuau**	**130.69**	**341**	PFAKE		21 57 10.0	+16
BJT				LR	LR		
	comp=Z,699nm,20.0s,MS5.4						
HHC	**Hu-ho-hao-te**	**131.24**	**346**	*e*PKP	PKPdf	21 56 54.0	-1.3
HHC				PP	PP	21 59 16.0	+4.2
HHC				PKS		22 00 29.8	
HHC				SKS	SKSdf	22 04 04.3	-1.1
HHC				SKKS	SKKSac	22 06 07.5	-0.6
HHC				SS	SS	22 16 45.4	+3.6
HHC				LR	LR		
	comp=N,259nm,23.8s,MS5.2						
HHC				LR	LR		
	comp=E,490nm,23.8s,MS5.2						
HHC				LR	LR		
	comp=Z,327nm,29.7s						
KBL	**Kabul**	**131.33**	**31**	*e*PKPdf	PKPdf	21 56 55.6	-0.1
STKA	**Stephens Creek**	**131.56**	**233**	PKP	PKPdf	21 56 52.2	-4.0
STKA	**Stephens Creek**	**131.56**	**233**	PKP	PKPdf	21 56 52.2	-4.0
	comp=Z,5.3nm,1.1s,baz=297,slow=4.7,SNR=4.5						
GTA	**Gaotai**	**134.40**	**357**	*e*PKP	PKPdf	21 57 00.4	-0.9
GTA				XPKP		21 57 14.8	
GTA				PKS		22 00 36.5	
GTA				PPP		22 02 03.1	
GTA				SKS	SKSdf	22 04 07.1	-4.0
GTA				PP	PP		
	comp=Z,236nm,9.1s						
GTA				LR	LR		
	comp=N,230nm,24.3s,MS5.0						
GTA				LR	LR		
	comp=E,264nm,24.3s,MS5.0						
GTA				LR	LR		
	comp=Z,379nm,25.1s,MS5.0						
NJ2	**Nanjing**	**136.64**	**333**	*e*PKP	PKPdf	21 56 59.5	-6.2
NJ2				XPKP		21 57 13.8	
NJ2				PP	PP	21 59 47.0	+0.5
NJ2				PKS		22 00 36.0	
NJ2				SKKS	SKKSac	22 06 34.0	-7.2
NJ2				SS	SS	22 17 47.0	-0.7
NJ2				PP	PP		
	comp=Z,260nm,10.1s						
NJ2				LR	LR		
	comp=N,390nm,26.8s						
NJ2				LR	LR		
	comp=E,350nm,31.9s						
NJ2				LR	LR		
	comp=Z,390nm,29.8s,MS5.0						
LZH	**Lanzhou**	**137.34**	**352**	*e*PKP	PKPdf	21 57 05.0	-1.9
LZH				PP	PP	21 59 54.3	+3.9
LZH				PKS		22 00 39.8	
LZH				SKS	SKSdf	22 04 13.0	-3.4
LZH				SKKS	SKKSac	22 06 43.5	-1.6
LZH				SS	SS	22 17 59.3	+4.2
LZH				PP	PP		
	comp=Z,512nm,8.5s						
LZH				LR	LR		
	comp=N,725nm,18.2s						
LZH				LR	LR		
	comp=Z,997nm,20.3s,MS5.5						
LZH	**Lanzhou**	**137.34**	**352**	*e*PKP	PKPdf	21 57 05.0	-1.9
LZH				pPKP	pPKPdf	21 57 08.3	-7.0
LZH				sPKP		21 57 09.5	
LZH				PP	PP	21 59 54.2	+3.8
LZH				PKS		22 00 39.8	
LZH				SKS	SKSdf	22 04 13.0	-3.4
LZH				SKKS	SKKSac	22 06 43.5	-1.6
LZH				SS	SS	22 17 59.3	+4.2
LZH				LR	LR		
	comp=Z,1µm,20.3s,MS5.5						
LZH	**Lanzhou**	**137.34**	**352**	*e*PKIKP	PKPdf	21 57 05.0	-1.9
LZH						21 57 09.5	
LZH						21 59 54.2	
LZH						22 04 13.0	
LZH				SS	SS	22 17 59.3	+4.2
LZH				MLR	MLR		
	comp=Z,1µm,20.3s,MS5.5						
WHN	**Wuhan**	**139.85**	**337**	PKP	PKPdf	21 57 08.0	-3.6
NDI	**New Delhi**	**140.13**	**28**	*e*P	PKPdf	21 57 09.3	-2.9
ASAR	**Alice Springs**	**140.88**	**240**	PKP		21 57 02.5	
ASAR				PKP	PKPdf	21 57 12.9	-0.7
ASAR	**Alice Springs**	**140.88**	**240**	PKHKP		21 57 02.6	
ASAR						21 57 13.0	
ASAR	**Alice Springs**	**140.88**	**240**	PKhKP		21 57 02.5	
	comp=Z,1.6nm,0.9s,baz=102,slow=3.0,SNR=10						
ASAR				PKP	PKPdf	21 57 12.9	-0.7
	comp=Z,4.0nm,0.8s,baz=115,slow=2.8,SNR=18						
WB2	**Warramunga Arr**	**141.62**	**246**	⇓*i*PKP	PKPdf	21 57 08.9	-6.2
WB2				*i* pPKP	pPKPdf	21 57 12.3	-11
WB2	**Warramunga Arr**	**141.62**	**246**	⇓*i*PKP	PKPdf	21 57 08.9	-6.2
WB2				*i* pPKP	pPKPdf	21 57 12.3	-11
WRA	**Warramunga Arr**	**141.63**	**246**	PKP	PKPdf	21 57 05.4	-10
WRA				PKP	PKPdf	21 57 13.8	-1.3
WRA	**Warramunga Arr**	**141.63**	**246**	PKHKP		21 57 05.4	
WRA						21 57 13.8	
WRA	**Warramunga Arr**	**141.63**	**246**	PKhKP		21 57 05.4	
	comp=Z,3.1nm,0.8s,baz=102,slow=3.1,SNR=17						
WRA				PKP	PKPdf	21 57 13.8	-1.3
	comp=Z,8.1nm,0.9s,baz=101,slow=2.8,SNR=16						
CD2	**Chengdu**	**142.44**	**351**	*e*PKP	PKPdf	21 57 12.8	-3.5
CD2				APKP		21 57 18.9	
CD2				XPKP		21 57 21.5	
CD2				PP	PP	22 00 24.8	+3.0
CD2				PKS		22 00 47.0	
CD2				SKS	SKSdf	22 04 17.3	-7.6
CD2				SKKS	SKKSac	22 07 10.6	-4.5
CD2				SS	SS	22 18 55.8	+0.8
CD2				PP	PP		
	comp=Z,280nm,10.8s						
CD2				LR	LR		
	comp=N,1µm,29.8s,MS5.6						
CD2				LR	LR		
	comp=E,820nm,26.4s,MS5.6						
CD2				LR	LR		
	comp=Z,280nm,22.8s,MS5.0						
LSA	**Lhasa**	**143.66**	**9**	*e*PKPdf	PKPdf	21 57 14.1	-4.3
LSA				LR	LR		
	comp=Z,441nm,22.0s,MS5.2						
LSA	**Lhasa**	**143.66**	**9**	*e*PKHKP		21 57 14.1	
LSA				MLR	MLR		
	comp=Z,441nm,22.0s,MS5.2						
GKN	**Gorkha**	**143.70**	**19**	*e*P	PKPdf	21 57 12.9	-5.7
	comp=Z,104nm,1.1s						
KKN	**Kakani**	**144.11**	**18**	*e*P	PKPdf	21 57 14.2	-5.1
	comp=Z,89nm,1.0s						
JIRN	**Jiri**	**144.50**	**17**	*e*P	PKPdf	21 57 16.1	-3.9
BHPL	**Bhopal**	**144.72**	**33**	*e*P	PKPdf	21 57 17.7	-2.8
KAKA	**Kakadu**	**144.84**	**257**	*e*PKP	PKPdf	21 57 15.4	-5.5
	comp=Z,17nm,0.8s						
KAKA				*e*pPKP	pPKPdf	21 57 19.4	-10
KAKA	**Kakadu**	**144.84**	**257**	*e*PKP	PKPdf	21 57 15.4	-5.5
KAKA				*e*pPKP	pPKPdf	21 57 19.4	-10
ALBI	**Allahabad**	**145.09**	**25**	*e*x	x	21 57 16.0	
TAPN	**Taplejung**	**145.22**	**15**	*e*P	PKPbc	21 57 17.8	-3.0
	comp=Z,252nm,1.0s						
ODAN	**Odare**	**145.60**	**16**	*e*P	PKPdf	21 57 18.6	-3.3
	comp=Z,347nm,1.4s						
POO	**Poona**	**146.11**	**43**	*e*P	PKPdf	21 57 22.8	-0.2
GYA	**Guiyang**	**146.15**	**345**	*i* PKP	PKPdf	21 57 19.4	-3.5
GYA				PKP2	PKPab	21 57 23.0	-1.4
GYA				PP	PP	22 00 46.8	+2.7
GYA				PKS		22 00 53.6	
GYA				PPP		22 04 03.8	
GYA				SKKS	SKKSac	22 07 34.8	-1.6
GYA				SS	SS	22 19 40.8	+3.0
GYA				PP	PP		
	comp=Z,2µm,9.8s						
AKL	**Akola**	**146.50**	**36**	*e*P	PKPdf	21 57 22.6	-1.0
KAD	**Karad**	**147.19**	**44**	*e*P	PKPdf	21 57 22.6	-2.3
KAD				AMb	AMB	21 57 42.6	
	comp=Z,69nm,1.5s						
NGP	**Nagpur**	**147.29**	**33**	*e*P	PKPdf	21 57 24.2	-0.7
NWAO	**Narrogin (SRO)**	**147.73**	**212**	PKPbc	PKPbc	21 57 23.0	-5.1
NWAO	**Narrogin (SRO)**	**147.73**	**212**	PKPbc	PKPbc	21 57 23.0	-5.1
	comp=Z,15nm,1.1s,baz=301,slow=4.4,SNR=3.8						
SHL	**Shillong**	**147.83**	**9**	*e*P	PKPdf	21 57 23.0	-2.7
BLSP	**Bilaspur**	**148.01**	**27**	*e*P	PKPdf	21 57 23.6	-2.5
BLSP				AMb	AMB	21 57 30.3	
	comp=Z,73nm,1.4s						
BOK	**Bokaro**	**148.01**	**20**	*e*P	PKPdf	21 57 24.2	-1.8
KMI	**Kunming**	**148.27**	**351**	PKP	PKPdf	21 57 23.3	-3.1
KMI	**Kunming**	**148.27**	**351**	PKP	PKPdf	21 57 23.3	-3.1
KMI				pPKP	pPKPdf	21 57 26.2	-8.6
KMI				sPKP		21 57 27.6	
KMI				PKP	PKPdf	21 57 31.8	+5.4
KMI				PP	PP	22 00 59.8	+3.3
KMI				SKKS	SKKSac	22 07 48.3	0.0
KMI				SS	SS	22 20 05.7	+4.1
KMI				SSS		22 25 40.7	
KMI				LR	LR		
	comp=Z,390nm,19.8s,MS5.2						
KMI	**Kunming**	**148.27**	**351**	PKHKP		21 57 23.3	
KMI						21 57 26.2	
KMI						21 57 31.8	
KMI						22 00 59.8	
KMI				SS	SS	22 20 05.7	+4.1
KMI				SSS		22 25 40.7	
KMI				MLR	MLR		
	comp=Z,390nm,19.8s,MS5.2						
KLBR	**Kellerberrin**	**148.46**	**215**	*e*PKP	PKPdf	21 57 18.6	-7.9
	comp=Z,32nm,0.9s						
KLBR	**Kellerberrin**	**148.46**	**215**	*e*PKP	PKPdf	21 57 18.6	-7.9
DAV	**Davao City (W)**	**148.82**	**295**	PFAKE		21 57 40.0	+12
DAV				LR	LR		
	comp=Z,489nm,21.0s,MS5.3						
IMP	**Imphal**	**148.87**	**6**	*e*P	PKPdf	21 57 27.0	-0.4
MUN	**Mundaring**	**149.01**	**212**	*e*PKP	PKPdf	21 57 25.4	-2.0
MUN				*e*pPKP	pPKPdf	21 57 30.2	-5.6
MUN	**Mundaring**	**149.01**	**212**	*e*PKP	PKPdf	21 57 25.4	-2.0
MUN				*e*pPKP	pPKPdf	21 57 30.2	-5.6
HYB	**Hyderabad**	**149.96**	**38**	*e*P	PKPdf	21 57 29.0	-0.3
HYB	**Hyderabad**	**149.96**	**38**	*i* PKP	PKPdf	21 57 29.0	-0.3
FITZ	**Fitzroy Crossi**	**150.03**	**245**	*e*PKP	PKPdf	21 57 28.8	-0.6
	comp=Z,4.8nm,0.6s						
FITZ				*i* pPKP	pPKPdf	21 57 33.1	-4.7
FITZ	**Fitzroy Crossi**	**150.03**	**245**	*e*PKP	PKPdf	21 57 28.8	-0.6
FITZ				*i* pPKP	pPKPdf	21 57 33.1	-4.7
FITZ	**Fitzroy Crossi**	**150.03**	**245**	PKPbc	PKPbc	21 57 28.8	-5.6
	comp=Z,11nm,0.9s,baz=189,slow=4.4,SNR=10						
FITZ				PKPab	PKPab	21 57 34.3	-5.9
	comp=Z,22nm,1.0s,baz=93,slow=1.4,SNR=25						
QIZ	**Qiongzhong**	**151.92**	**334**	PKP	PKPdf	21 57 34.0	+1.7
QIZ				PKP2	PKPab	21 57 49.5	+1.7
QIZ				PP	PP	22 01 19.0	+1.0
QIZ				PPP		22 04 48.1	
QIZ				PP	PP		
	comp=Z,291nm,8.5s						
QIZ				LR	LR		
	comp=E,300nm,25.8s						
QIZ				LR	LR		
	comp=Z,393nm,31.9s						
QIZ	**Qiongzhong**	**151.92**	**334**	PFAKE		21 57 40.0	+7.7
QIZ				LR	LR		
	comp=Z,293nm,21.0s,MS5.1						
VIS	**Vishakhapatnam**	**152.36**	**30**	*e*P	PKPdf	21 57 31.1	-1.9
MBWA	**Marble Bar**	**153.80**	**234**	PFAKE		21 57 50.0	+15
MBWA				LR	LR		
	comp=Z,441nm,19.0s,MS5.3						
KOD	**Kodaikanal**	**154.24**	**50**	*e*P	PKPdf	21 57 33.4	-2.5
CHTO	**Chiang Mai**	**154.94**	**356**	PFAKE		21 57 50.0	+13
CHTO				LR	LR		
	comp=Z,331nm,21.0s,MS5.1						
CM31	**Chiang Mai Arr**	**155.29**	**356**	PFAKE		21 57 50.0	+13
CM31				LR	LR		
	comp=Z,418nm,22.0s,MS5.2						
PALK	**Pallekele**	**158.58**	**51**	PFAKE		21 57 50.0	+8.5
PALK				LR	LR		
	comp=Z,322nm,22.0s,MS5.1						
PSI	**Prapat**	**170.76**	**350**	PKP	PKPdf	21 57 50.5	-1.7
PSI	**Prapat**	**170.76**	**350**	PKP	PKPdf	21 57 50.5	-1.7
	comp=Z,2.4nm,0.3s,baz=280,slow=5.6,SNR=3.7						

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*MOS **18** 21:45:32.8±0.6,5605N×16133E,h92^{km},mb4.2/1,Error ellipse: s-maj=50.1km s-min=12.3km az=79.3*

KRSC 18 21:45:33.0±0.2**,5599N×16133E,h96**^{km}±35^{km}**,ML4.1, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
ZLN	**Zelenaya**	**0.30**	**275**	*e*P	Pn	21 45 48.5	+1.5
ZLN				*i* S	Sn	21 46 00.3	+2.8
BZMR	**Bezymyannaya**	**0.48**	**264**	*i* P	Pn	21 45 49.2	+1.1
BZMR				*i* S	Sn	21 46 01.3	+1.9
KRSR	**Krestovskiy**	**0.48**	**298**	*e*P	Pn	21 45 48.8	+0.6
KRSR				*i* S	Sn	21 46 00.6	+1.1
KLY	**Klyuchi**	**0.50**	**311**	*e*P	Pn	21 45 48.1	-0.2
KLY				*i* S	Sn	21 45 59.3	-0.4
BDR	**Baidarnaya**	**0.58**	**353**	*i* P	Pn	21 45 49.3	+0.3
BDR				*i* S	Sn	21 46 00.1	-0.8
KPT	**Kopyto**	**0.62**	**268**	*e*P	Pn	21 45 50.1	+0.8
KPT				*i* S	Sn	21 46 02.8	+1.3
KMNR	**Kamenistaya**	**0.66**	**250**	*i* P	Pn	21 45 50.7	+1.1
KMNR				*i* S	Sn	21 46 04.0	+2.0
SRKR	**Sorokina**	**0.67**	**352**	*i* P	Pn	21 45 50.0	+0.3
SRKR				*i* S	Sn	21 46 02.4	+0.1
KOZR	**Kozyr**	**0.81**	**276**	PN	Pn	21 45 51.7	+0.7
KOZR				S	Sn	21 46 05.4	+0.8
KOZ	**Kozyrevsk**	**0.82**	**275**	*e*P	Pn	21 45 51.7	+0.6
KOZ				*i* S	Sn	21 46 05.4	+0.6
KBTR	**Krutoberegovo**	**0.86**	**75**	*i* P	Pn	21 45 52.1	+0.5
KBTR				*i* S	Sn	21 46 06.5	+1.0
SRDR	**Sredinnyy**	**0.96**	**291**	*i* P	Pn	21 45 52.6	0.0
SRDR				*i* S	Sn	21 46 07.5	+0.1
TUMR	**Tumrok**	**0.98**	**224**	*i* P	Pn	21 45 54.6	+1.8
TUMR				*i* S	Sn	21 46 10.5	+2.8
MKZ	**Mys Kozlova**	**1.46**	**171**	*i* P	Pn	21 45 59.5	+1.1
MKZ				*i* S	Sn	21 46 19.5	+1.8
KII	**Karymskiy**	**2.24**	**210**	*e*P	Pn	21 46 10.2	+1.7
KII				*i* S	Sn	21 46 38.2	+2.6
SPN	**Mys Shipunski**	**3.00**	**195**	*e*P	Pn	21 46 19.1	+0.6
SPN				*i* S	Sn	21 46 53.7	+0.1
GNL	**Ganaly**	**3.02**	**222**	*i* P	Pn	21 46 20.4	+1.6
GNL				*e*S	Sn	21 46 56.0	+1.8
NLC	**Nalytchevo**	**3.05**	**203**	*e*P	Pn	21 46 20.9	+1.6
NLC				*i* S	Sn	21 46 57.0	+2.1
AVH	**Avacha**	**3.12**	**210**	*e*P	Pn	21 46 22.8	+2.6
AVH				*i* S	Sn	21 46 59.5	+3.0
PET	**Petropavlovsk**	**3.36**	**209**	*e*PN	Pn	21 46 25.8	+2.4
PET				*e*S	Sn	21 47 07.0	+4.7
PET				pmax	pmax		
	comp=Z,51nm,0.7s						
PET				smax			
	comp=E,98nm,1.1s						
PET				smax			
	comp=N,95nm,1.0s						
PET	**Petropavlovsk**	**3.36**	**209**	P	Pn	21 46 26.0	+2.6
PET				*i* S	Sn	21 47 05.7	+3.4
RUS	**Russkaya**	**3.93**	**206**	*e*P	Pn	21 46 32.4	+1.3
RUS				*i* S	Sn	21 47 17.0	+0.9
GRL	**Gorelyy**	**3.94**	**210**	P	Pn	21 46 33.3	+2.1
MIPR	**Malaya Ipel'ka**	**4.59**	**218**	P	Pn	21 46 41.9	+1.9

IDC 18 21:51:49.2±1.2**,636N×7781W,h0**^{km}**,mb3.9**/2**,mb1 4.1**/2**, mb1mx3.5**/16**,mbtmp3.9**/2**,MS3.4**/1**,Ms1 3.4**/1**, ms1mx2.8**/26**,Error ellipse: s-maj=76.4km s-min=30.2km az=64.0,Near west coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
ROSC	**El Rosal**	**3.77**	**113**	Pn	Pn	21 52 40.8	-7.9
	10nm,0.3s,baz=287,slow=9.1,SNR=23						
ROSC				Pg	Pg	21 52 53.1	-8.5
	25nm,0.3s,baz=93,slow=9.3,SNR=39						
ROSC				LR	LR	21 54 28.5	
	comp=Z,528nm,19.6s,baz=16,slow=42						
SIV	**San Ignacio**	**27.71**	**143**	P	P	21 57 40.5	+1.1
	1.0nm,0.5s,baz=327,slow=14,SNR=5.0						
YKA	**Yellowknife Ar**	**62.16**	**342**	P	P	22 02 12.7	+0.8
	0.6nm,0.6s,baz=131,slow=6.8,SNR=15						
ASAR	**Alice Springs**	**145.00**	**237**	PKPbc	PKPbc	22 11 27.1	-1.5
	1.0nm,0.8s,baz=128,slow=3.6,SNR=6.7						
WRA	**Warramunga Arr**	**145.99**	**244**	PKPbc	PKPbc	22 11 30.0	-1.8
	0.3nm,0.6s,baz=100,slow=2.0,SNR=7.8						

CASC 18 22:00:23.4±2.2**,962N×8420W,h9**^{km}±5^{km}**,MD3.8,ML3.2, 7C-5D,Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LCR2	La Lucha 2	0.23	58⇑	iP	Pg	22 00 29.2	+1.0
LAJ	Bijagual	0.26	19⇓	iP	Pg	22 00 31.5	+2.9
SJS	Escuela Geolog	0.35	25⇑	eP	Pg	22 00 31.2	+0.9
SJS				eS	Sg	22 00 36.9	+1.9
PRS1	Puriscal	0.38	344⇓	iP	Pg	22 00 30.2	-0.6
BUS	Buena Vista	0.44	98⇑	iP	Pg	22 00 32.9	+0.8
CGA2	Cerro Gallo 2	0.47	327⇓	iP	Pg	22 00 32.9	+0.3
URSC	Urasca	0.47	63⇑	iP	Pg	22 00 33.2	+0.6
ICR	Volcan Irazu	0.51	46⇓	iP	Pg	22 00 34.1	+0.7
ICR				eS	Sg	22 00 41.2	+1.1
JCR	Jicaral	0.92	284⇑	eP	Pg	22 00 40.3	-0.9
JCR				eS	Sg	22 00 51.5	-1.8
BAR1		0.96	113⇓	iP	Pg	22 00 41.1	-0.8
FORC	Fortuna	0.96	332	eP	Pg	22 00 41.3	-0.6
FORC				eS	Sg	22 00 54.5	+0.1
CUI		1.41	317	i P	Pn	22 00 48.6	-0.6
CUI				i S	Sn	22 01 07.7	-0.3
CNI	Changuinola	1.68	97⇑	eP	Pn	22 00 52.7	-0.2
BRU	Baru	1.81	116⇑	eP	Pn	22 00 55.3	+0.6
BOAB	BOACO BROADBAN	3.16	333	eP	Pn	22 01 12.6	-0.7
PTP	Ponta Puerca	19.95	63	eP		22 00 56.9	

IDC ***18*** *22:02:54.4±3.5, 0.35N×99.58E, h0^{km}, mb3.6/4, mb1 3.6/5, mb1mx3.4/21, mbtmp3.5/5, ML3.1/1, Error ellipse: s-maj=142.0km s-min=22.3km az=59.0*

ISCJB ***18*** *22:02:56.8±1.3, 0.29N±0.08×99.5E±0.2, h33^{km}, mb3.6/4, Error ellipse: s-maj=28.2km s-min=11.2km az=169.5*

NEIC ***18*** *22:03:01.8±1.3, 0.78N×100.12E, h35^{km}, Error ellipse: s-maj=38.1km s-min=15.2km az=57.0*

ISC 18 22:02:58.8±1.3**, 0.27N**±0.09×**99.4E**±0.2**, h35^{km}, n7, σ0^{s}46**/10**, mb3.6**/4**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	2.55	350	Pn	Pn	22 03 36.7	-1.0
PSI				Sn	Sn	22 04 07.8	+0.2
PSI	Prapat	2.55	350	Pn	Pn	22 03 36.7	-1.0
	4.7nm,0.3s,baz=178,slow=9.2,SNR=13						
PSI				Sn	Sn	22 04 07.8	+0.2
	19nm,0.3s,baz=221,slow=13,SNR=12						
KULM	Kulim	5.14	14	ePn	Pn	22 04 07.3	-6.1
KULM				Sn	Sn	22 05 11.6	+0.1
WRA	Warramunga Arr	39.70	122	P	P	22 10 28.0	0.0
	0.3nm,0.8s,mb3.1,baz=304,slow=9.0,SNR=3.7						
SONM	Songino Array	47.76	6	P	P	22 11 32.2	-0.1
	0.5nm,0.7s,mb3.7,baz=188,slow=9.0,SNR=5.8						
MKAR	Makanchi Array	48.69	344	P	P	22 11 40.1	+0.6
	0.3nm,0.5s,mb3.5,baz=158,slow=8.4,SNR=8.4						
ZALV	Zalesovo Beam	54.83	350	P	P	22 12 25.5	+0.2
	1.0nm,0.6s,mb4.0,baz=165,slow=6.2,SNR=8.3						

IDC 18 22:38:32.4±3.0**, 6.82S**×**147.99E, h0^{km}, mb3.4**/2**, mb1 3.5**/4**, mb1mx3.3**/15**, mbtmp3.3**/4**, ML2.6**/2**, MS2.9**/1**, Ms1 2.9**/1**, ms1mx2.7**/15**, Error ellipse: s-maj=73.6km s-min=32.4km az=103.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	2.70	198	Pn	Pn	22 39 18.0	+0.8
	0.8nm,0.3s,baz=268,slow=20,SNR=2.4						
PMG				Sn	Sn	22 39 52.2	+1.6
	7.1nm,0.3s,baz=19,slow=22,SNR=11						
PMG				LR	LR	22 40 28.2	
	comp=Z,183nm,18.5s,baz=220,slow=43						
WRA	Warramunga Arr	18.60	224	P	Pn	22 42 50.9	-0.7
	0.1nm,0.3s,baz=50,slow=11,SNR=7.4						
ASAR	Alice Springs	21.54	217	P	P	22 43 22.8	-0.6
	0.4nm,0.5s,baz=57,slow=9.2,SNR=6.6						
FITZ	Fitzroy Crossi	24.50	241	P	P	22 43 54.1	+0.4
	1.0nm,0.4s,baz=51,slow=12,SNR=13						
TORD	Torodi Ar. Bea	146.24	283	PKPbc	PKPbc	22 58 15.1	-0.9
	0.8nm,1.2s,baz=82,slow=3.3,SNR=6.1						

IDC 18 23:01:37.0±6.1**, 7.44S**×**154.28E, h346^{km}**±103^{km}**, mb3.2**/5**, mb1 3.3**/6**, mb1mx3.2**/14**, mbtmp3.3**/6**, Error ellipse: s-maj=117.2km s-min=20.3km az=127.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	5.95	110	P	Pn	23 03 07.2	+0.1
	9.6nm,0.3s,baz=258,slow=7.0,SNR=6.7						
WRA	Warramunga Arr	22.98	235	P	P	23 06 13.3	+0.7
	0.4nm,0.4s,baz=59,slow=9.2,SNR=15						
ASAR	Alice Springs	25.35	228	P	P	23 06 32.9	-0.9
	0.3nm,0.7s,baz=58,slow=8.0,SNR=3.2						
SONM	Songino Array	69.33	328	P	P	23 12 08.0	+0.2
	1.6nm,0.9s,baz=135,slow=6.5,SNR=15						
MKAR	Makanchi Array	83.27	319	P	P	23 13 26.6	+1.0
	2.1nm,0.8s,baz=105,slow=5.8,SNR=26						
ZALV	Zalesovo Beam	84.15	326	P	P	23 13 28.9	-0.9
	2.8nm,0.8s,baz=113,slow=5.2,SNR=10						

IGIL ***18*** *23:09:39.8, 37.26N×14.02W, h10^{km}, ML3.7*

MDD ***18*** *23:09:41.6±1.4, 37.39N×13.69W, h0^{km}, mb4.2/20, Error ellipse: s-maj=12.6km s-min=9.8km az=58.0, PRXIMO*

INMG ***18*** *23:09:43.3±2.1, 37.24N×14.07W, h10^{km}±19^{km}, Mb4.2, ML3.2, Error ellipse: s-maj=6.1km s-min=5.7km az=128.0*

NEIC ***18*** *23:09:43.2, 37.51N×13.61W, h0^{km}, MG4.4(MDD), After MDD.*

LDG ***18*** *23:09:45.1±0.4, 37.44N×13.77W, h30^{km}, Ml3.6/3, Error ellipse: s-maj=8.3km s-min=4.9km az=62.0*

CSEM ***18*** *23:09:48.2±0.3, 37.65N×12.91W, h10^{km}, ML3.2, Error ellipse: s-maj=5.2km s-min=3.8km az=47.0*

ISC 18 23:09:47.1±0.6**, 37.64N**±0.03×**13.25W**±0.04**, h10^{km}, n175, σ1^{s}13**/298**, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMAFR	Mafra	3.39	66	ePn	Pn	23 10 41.1	+1.1
PMAFR				eSn	Sn	23 11 23.6	+3.4
PMAFR				A		23 11 31.0	
	123nm,0.2s						
PMAFR	Mafra	3.39	66	eP	Pn	23 10 41.1	+1.1
PMAFR				eSn	Sn	23 11 23.6	+3.4
	123nm,0.2s						
LIS	Lisbon	3.41	70	eS	Sn	23 11 24.0	+3.4
LIS				eS	Sn	23 11 24.1	+3.4
LIS				AML	AML	23 11 25.1	
	comp=N,243nm,0.2s						
LIS	Lisbon	3.41	70	eS	Sn	23 11 24.1	+3.4
LIS	Lisbon	3.41	70	S	Sn	23 11 24.1	+3.4
LIS	Lisbon	3.41	70	eSn	Sn	23 11 24.1	+3.4
INMG	Instituto de M	3.44	69	eSn	Sn	23 11 24.3	+2.8
INMG	Instituto de M	3.44	69	S	Sn	23 11 24.3	+2.8
INMG	Instituto de M	3.44	69	eSn	Sn	23 11 24.3	+2.8
PFVI	Vila Bisbo	3.56	97	ePn	Pn	23 10 41.4	-0.9
PFVI				eSn	Sn	23 11 24.0	-0.4
PFVI				A		23 11 27.9	
	comp=N,42nm,0.1s						
PFVI	Vila Bisbo	3.56	97	ePn	Pn	23 10 41.4	-0.9
PFVI				eSn	Sn	23 11 24.0	-0.4
PFVI	Vila Bisbo	3.56	97	ePn	Pn	23 10 41.4	-0.9
PFVI				eSn	Sn	23 11 24.0	-0.4
	comp=N,42nm,0.1s						
PTEO	Sao Teotonio	3.59	90	ePn	Pn	23 10 42.6	-0.2
PTEO				eSn	Sn	23 11 25.9	+0.6
PTEO				A		23 11 28.8	
	comp=N,50nm,0.1s						
PTEO	Sao Teotonio	3.59	90	ePn	Pn	23 10 42.6	-0.2
PTEO				eSn	Sn	23 11 25.9	+0.6
	comp=N,50nm,0.1s						
MORF	Marmelete	3.67	94	ePn	Pn	23 10 43.2	-0.7
MORF				eSn	Sn	23 11 27.8	+0.5
MORF				A		23 11 31.9	
	comp=N,57nm,0.2s						
MORF	Marmelete	3.67	94	ePn	Pn	23 10 43.3	-0.6
MORF				eSn	Sn	23 11 27.8	+0.5
MORF	Marmelete	3.67	94	P	Pn	23 10 43.2	-0.7
MORF				S	Sn	23 11 27.8	+0.5
	comp=N,57nm,0.2s						
MORF	Marmelete	3.67	94	ePn	Pn	23 10 43.3	-0.6
MORF				eSn	Sn	23 11 27.8	+0.5
	comp=N,57nm,0.2s						
MOE	Montemor	3.96	76	ePn	Pn	23 10 48.0	+0.1
MOE				eSn	Sn	23 11 35.8	+1.3
MOE	Montemor	3.96	76	ePn	Pn	23 10 48.0	+0.1
MOE				eSn	Sn	23 11 35.8	+1.3
MOE	Montemor	3.96	76	ePn	Pn	23 10 48.0	+0.1
MOE				eSn	Sn	23 11 35.8	+1.3
ALMR	Almeirim	3.97	66	eP	Pn	23 10 48.7	+0.7
ALMR				eS	Sn	23 11 38.1	+3.5
ALMR				eS	Sn	23 11 38.1	+3.5
ALMR				AML	AML	23 11 41.0	
	comp=N,165nm,0.3s						
ALMR	Almeirim	3.97	66	eP	Pn	23 10 48.7	+0.7
ALMR				eS	Sn	23 11 38.1	+3.5
EVO	Evora	4.23	76	ePn	Pn	23 10 52.2	+0.7
EVO				eSn	Sn	23 11 42.5	+1.6
EVO				A		23 11 48.3	
	comp=N,42nm,0.1s						
EVO	Evora	4.23	76	ePn	Pn	23 10 52.2	+0.7
EVO				eSn	Sn	23 11 42.5	+1.6
	comp=N,42nm,0.1s						
PBDV	Barranco-do-Ve	4.25	94	ePn	Pn	23 10 51.4	-0.4
PBDV				eSn	Sn	23 11 42.5	+1.0
PBDV				A		23 11 51.4	
	comp=N,28nm,0.4s						
PBDV	Barranco-do-Ve	4.25	94	ePn	Pn	23 10 51.4	-0.4
PBDV				eSn	Sn	23 11 42.5	+1.0
	comp=N,28nm,0.4s						
PTOM	Tomar	4.28	61	ePn	Pn	23 10 53.2	+1.0
PTOM				eSn	Sn	23 11 45.2	+3.1
PTOM				A		23 11 48.0	
	comp=N,40nm,0.3s						
PTOM	Tomar	4.28	61	ePn	Pn	23 10 53.2	+1.0
PTOM				eSn	Sn	23 11 45.2	+3.1
	comp=N,40nm,0.3s						
PBEJ	Beja	4.28	83	ePn	Pn	23 10 52.3	+0.1
PBEJ				eSn	Sn	23 11 43.4	+1.2
PBEJ				A		23 11 50.9	
	comp=N,24nm,0.2s						
PBEJ	Beja	4.28	83	ePn	Pn	23 10 52.3	+0.1
PBEJ				eSn	Sn	23 11 43.4	+1.2
	comp=N,24nm,0.2s						
PVAQ	Vaqueiros	4.40	91	ePn	Pn	23 10 53.5	-0.5
PVAQ				eSn	Sn	23 11 45.7	+0.4
PVAQ				A		23 11 51.2	
	comp=N,31nm,0.3s						
PVAQ	Vaqueiros	4.40	91	ePn	Pn	23 10 53.5	-0.5
PVAQ				eSn	Sn	23 11 45.7	+0.4
	comp=N,31nm,0.3s						
EGRO	El Granado	4.58	90	P	Pn	23 10 56.2	-0.2
EGRO				S	Sn	23 11 49.4	-0.3
EGRO	El Granado	4.58	90	P	Pn	23 10 56.2	-0.2
	comp=N,3.9nm,0.3s,SNR=23						
EGRO				S	Sn	23 11 50.3	+0.6
	comp=N,21nm,0.3s,SNR=5.2						
EGRO	El Granado	4.58	90	P	Pn	23 10 56.2	-0.2
	comp=N,3.9nm,0.3s,SNR=23						
EGRO				S	Sn	23 11 49.4	-0.2
	comp=N,21nm,0.3s,SNR=5.2						
PESTR	Estremoz	4.62	73	ePn	Pn	23 10 57.3	+0.4
PESTR				eSn	Sn	23 11 52.2	+1.6
PESTR				A		23 11 57.1	
	comp=N,18nm,0.1s						
PESTR	Estremoz	4.62	73	ePn	Pn	23 10 57.3	+0.4
PESTR				eSn	Sn	23 11 52.2	+1.6
	comp=N,18nm,0.1s						
PTO	Porto	5.02	44	ePn	Pn	23 11 02.5	+0.1
PTO	Porto	5.02	44	ePn	Pn	23 11 02.5	+0.1
EBAD	Badajoz	5.04	75	P	Pn	23 11 03.0	+0.3
EBAD				S	Sn	23 12 01.1	+0.2
EBAD	Badajoz	5.04	75	P	Pn	23 11 03.0	+0.3
	comp=N,2.2nm,0.3s,SNR=20						
EBAD				S	Sn	23 12 02.8	+1.9
	comp=N,10nm,0.3s,SNR=6.4						
EBAD	Badajoz	5.04	75	P	Pn	23 11 03.0	+0.3
	comp=N,2.2nm,0.3s,SNR=20						
EBAD				S	Sn	23 12 01.1	+0.2
	comp=N,10nm,0.3s,SNR=6.4						
PVIS	Viseu	5.17	52	ePn	Pn	23 11 05.5	+1.0
PVIS				eSn	Sn	23 12 07.4	+3.2
PVIS				A		23 12 08.8	
	comp=N,8.7nm,0.1s						
PVIS	Viseu	5.17	52	P	Pn	23 11 05.5	+1.0
PVIS				S	Sn	23 12 07.4	+3.2
	comp=N,4.3nm,0.1s						
EMIN	Mina Concepcio	5.22	87	P	Pn	23 11 05.5	+0.4
EMIN				S	Sn	23 12 04.8	-0.6
EMIN	Mina Concepcio	5.22	87	P	Pn	23 11 05.1	0.0
	comp=N,1.9nm,0.3s,SNR=23						
EMIN				S	Sn	23 12 05.3	0.0
	comp=N,10nm,0.3s						
EMIN	Mina Concepcio	5.22	87	P	Pn	23 11 05.5	+0.4
	comp=N,1.9nm,0.3s,SNR=23						
EMIN				S	Sn	23 12 04.8	-0.5
	comp=N,10nm,0.3s						
MTE	Manteigas	5.23	56	ePn	Pn	23 11 07.5	+2.2
MTE				eSn	Sn	23 12 08.8	+3.2
MTE				A		23 12 14.8	
	comp=N,22nm,0.3s						
MTE	Manteigas	5.23	56	ePn	Pn	23 11 07.0	+1.7
MTE				eSn	Sn	23 12 08.8	+3.2
MTE	Manteigas	5.23	56	P	Pn	23 11 07.5	+2.2
MTE				S	Sn	23 12 08.8	+3.2
	comp=N,11nm,0.3s						
PVRL	Vila Real	5.62	48	ePn	Pn	23 11 10.8	+0.2
PVRL				eSn	Sn	23 12 16.6	+1.5
PVRL				A		23 12 18.3	
	comp=N,14nm,0.1s						
PVRL	Vila Real	5.62	48	P	Pn	23 11 10.8	+0.2
PVRL				S	Sn	23 12 16.6	+1.5
	comp=N,7.2nm,0.1s						
EZAM	Zamans	5.71	36	P	Pn	23 11 11.4	-0.5
EZAM				S	Sn	23 12 16.0	-1.4
EZAM	Zamans	5.71	36	P	Pn	23 11 11.4	-0.5
	comp=N,6.3nm,0.2s,SNR=7.9						
EZAM				S	Sn	23 12 17.7	+0.4
	comp=N,3.9nm,0.1s,SNR=7.9						
PCAB	Cabril	5.72	43	ePn	Pn	23 11 12.0	-0.1
PCAB				eSn	Sn	23 12 18.9	+1.1
PCAB				A		23 12 25.6	
	comp=N,7.8nm,0.2s						
PCAB	Cabril	5.72	43	P	Pn	23 11 12.0	-0.1
PCAB				S	Sn	23 12 18.9	+1.1
	comp=N,3.9nm,0.2s						
ELOB	Lobios	5.82	42	P	Pn	23 11 13.2	-0.2
ELOB				S	Sn	23 12 20.7	+0.6
ELOB	Lobios	5.82	42	P	Pn	23 11 13.2	-0.2
	comp=N,4.9nm,0.3s,SNR=33						
ELOB				S	Sn	23 12 21.1	+1.1
	comp=N,5.0nm,0.3s						
ELOB	Lobios	5.82	42	P	Pn	23 11 13.2	-0.1
	comp=N,4.9nm,0.3s,SNR=33						
ELOB				S	Sn	23 12 20.7	+0.6
	comp=N,5.0nm,0.3s						
ESPR	Espera	5.95	95	P	Pn	23 11 15.2	0.0
ESPR				S	Sn	23 12 23.0	-0.3
ESPR	Espera	5.95	95	P	Pn	23 11 13.9	-1.2
	comp=N,4.1nm,0.3s,SNR=18						
ESPR				S	Sn	23 12 22.6	-0.8
	comp=N,32nm,0.3s						
ESPR	Espera	5.95	95	P	Pn	23 11 15.2	0.0
	comp=N,4.1nm,0.3s,SNR=18						
ESPR				S	Sn	23 12 23.0	-0.3
	comp=N,32nm,0.3s						
MVO	Moncorvo	5.97	52	ePn	Pn	23 11 15.9	+0.5
MVO				eSn	Sn	23 12 24.7	+0.9
MVO				A		23 12 28.1	
	comp=N,12nm,0.2s						
MVO	Moncorvo	5.97	52	ePn	Pn	23 11 15.7	+0.3
MVO				eSn	Sn	23 12 24.7	+0.9
MVO	Moncorvo	5.97	52	P	Pn	23 11 15.9	+0.5
MVO				S	Sn	23 12 24.7	+0.9
	comp=N,5.8nm,0.2s						
MVO	Moncorvo	5.97	52	ePn	Pn	23 11 15.7	+0.3
EMAZ	Mazaricos	6.23	30	P	Pn	23 11 18.4	-0.7
EMAZ				S	Sn	23 12 28.1	-2.2
EMAZ	Mazaricos	6.23	30	P	Pn	23 11 18.4	-0.7
	comp=N,10nm,0.3s,SNR=24						
EMAZ				S	Sn	23 12 28.5	-1.8
	comp=N,34nm,1.2s						
EMAZ	Mazaricos	6.23	30	P	Pn	23 11 18.4	-0.6
	comp=N,10nm,0.3s,SNR=24						
STS	Santiago	6.36	33	P	Pn	23 11 20.6	-0.1
STS				S	Sn	23 12 31.5	-1.8
STS	Santiago	6.36	33	P	Pn	23 11 20.6	-0.1
	comp=N,6.2nm,0.3s,SNR=11						
STS				S	Sn	23 12 33.9	+0.5
	comp=N,2.4nm,0.4s						
PBRG	Braganca	6.52	48	ePn	Pn	23 11 23.2	+0.2
PBRG				eSn	Sn	23 12 38.1	+0.7
PBRG				A		23 12 41.8	
	comp=N,4.2nm,0.1s						
PBRG	Braganca	6.52	48	P	Pn	23 11 23.2	+0.2
PBRG				S	Sn	23 12 38.1	+0.7
	comp=N,2.1nm,0.1s						
ECAL	Calabor	6.61	47	P	Pn	23 11 24.4	+0.2
ECAL				S	Sn	23 12 39.1	-0.4
ECAL	Calabor	6.61	47	P	Pn	23 11 24.4	+0.2
	comp=N,12nm,0.3s,SNR=39						
ECAL				S	Sn	23 12 40.7	+1.3
	comp=N,6.6nm,0.3s						
ECAL	Calabor	6.61	47	P	Pn	23 11 24.4	+0.2
	comp=N,12nm,0.3s,SNR=39						
ECAL				S	Sn	23 12 39.1	-0.4
	comp=N,6.6nm,0.3s						
ERUA	La Rua	6.67	43	P	Pn	23 11 26.3	+1.2
ERUA				S	Sn	23 12 41.1	0.0
ERUA	La Rua	6.67	43	P	Pn	23 11 25.0	-0.1
	comp=N,13nm,0.2s,SNR=9.2						
ERUA				S	Sn	23 12 41.6	+0.5
	comp=N,2.6nm,0.3s,SNR=4.0						
ERUA	La Rua	6.67	43	P	Pn	23 11 26.3	+1.2
	comp=N,13nm,0.2s,SNR=9.2						
ERUA				S	Sn	23 12 41.1	0.0
	comp=N,2.6nm,0.3s,SNR=4.0						
EMIJ	Mijas	6.86	96	P	Pn	23 11 26.8	-0.9
	comp=N,0.5nm,0.2s,SNR=7.9						
EMIJ				S	Sn	23 12 44.3	-1.5
	comp=N,9.9nm,0.7s,SNR=5.7						
EADA	Adamuz	6.88	83	P	Pn	23 11 28.4	+0.4
EADA				S	Sn	23 12 45.9	-0.4
EADA	Adamuz	6.88	83	P	Pn	23 11 27.9	0.0
	comp=N,2.7nm,0.1s,SNR=25						
EADA				S	Sn	23 12 45.8	-0.4
	comp=N,3.8nm,0.4s						
EADA	Adamuz	6.88	83	P	Pn	23 11 28.4	+0.5
	comp=N,2.7nm,0.1s,SNR=25						
EADA				S	Sn	23 12 45.8	-0.4
	comp=N,3.8nm,0.4s						
ELUQ	Luque	7.13	88	P	Pn	23 11 32.1	+0.7
ELUQ				S	Sn	23 12 50.1	-2.4
ELUQ	Luque	7.13	88	P	Pn	23 11 30.9	-0.5
	comp=N,0.5nm,0.1s,SNR=4.0						
ELUQ				S	Sn	23 12 51.7	-0.8
	comp=N,4.0nm,0.2s,SNR=7.9						
ELUQ	Luque	7.13	88	P	Pn	23 11 32.1	+0.7
	comp=N,0.5nm,0.1s,SNR=4.0						
ELUQ				S	Sn	23 12 50.1	-2.4
	comp=N,4.0nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	7.26	91	P	Pn	23 11 33.3	+0.2
ELOJ				S	Sn	23 12 54.4	-1.2
ELOJ	Sierra Loja	7.26	91	P	Pn	23 11 32.4	-0.8
	comp=N,0.4nm,0.1s,SNR=4.0						
ELOJ				S	Sn	23 12 54.4	-1.2
	comp=N,1.0nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	7.26	91	P	Pn	23 11 33.3	+0.1
	comp=N,0.4nm,0.1s,SNR=4.0						
ELOJ				S	Sn	23 12 54.4	-1.2
	comp=N,1.0nm,0.2s,SNR=7.9						
EPON	Pontenova	7.34	37	P	Pn	23 11 33.5	-0.7
EPON				S	Sn	23 12 55.5	-2.1
EPON	Pontenova	7.34	37	P	Pn	23 11 33.5	-0.7
	comp=N,0.7nm,0.1s,SNR=19						
EPON				S	Sn	23 12 56.9	-0.7
	comp=N,85nm,1.6s						
EPON	Pontenova	7.34	37	P	Pn	23 11 33.5	-0.8
	comp=N,0.7nm,0.1s,SNR=19						
EPON				S	Sn	23 12 55.5	-2.1
	comp=N,85nm,1.6s						
EBAN	Banos Encina	7.50	83	P	Pn	23 11 36.4	-0.1
EBAN				S	Sn	23 12 59.4	-2.2
EBAN	Banos Encina	7.50	83	P	Pn	23 11 36.4	-0.1
	comp=N,1.1nm,0.1s,SNR=7.9						
EBAN				S	Sn	23 13 00.6	-1.0
	comp=N,7.2nm,0.3s,SNR=6.9						
EBAN	Banos Encina	7.50	83	P	Pn	23 11 36.4	-0.1
	comp=N,1.1nm,0.1s,SNR=7.9						
EBAN				S	Sn	23 12 59.4	-2.2
	comp=N,7.2nm,0.3s,SNR=6.9						
ESDC	Sonseca Array	7.55	72	P	Pn	23 11 37.4	+0.3
	comp=N,1.8nm,0.1s,baz=254,slow=13,SNR=20						
ESDC				S	Sn	23 13 02.1	-0.6
	comp=N,2.0nm,0.3s,baz=258,slow=23,SNR=9.1						
ESDC	Sonseca Array	7.55	72	P	Pn	23 11 37.4	+0.3
	comp=N,1.8nm,0.1s,SNR=20						
ESDC				S	Sn	23 13 02.1	-0.6
	comp=N,2.0nm,0.3s,SNR=9.1						
GUD	Guadarrama	7.68	64	P	Pn	23 11 39.7	+0.7
GUD				S	Sn	23 13 05.5	-0.4
GUD	Guadarrama	7.68	64	P	Pn	23 11 39.7	+0.7
	comp=N,1.8nm,0.2s,SNR=7.9						
GUD				S	Sn	23 13 06.0	0.0
	comp=N,1.2nm,0.3s,SNR=7.9						
GUD	Guadarrama	7.68	64	P	Pn	23 11 39.7	+0.8
	comp=N,1.8nm,0.2s,SNR=7.9						
GUD				S	Sn	23 13 05.5	-0.4
	comp=N,1.2nm,0.3s,SNR=7.9						
EQES	Quesada	8.07	86	P	Pn	23 11 44.2	0.0
	comp=N,2.5nm,0.7s,SNR=7.0						
EQES				S	Sn	23 13 14.5	-1.0
	comp=N,16nm,1.1s						
EQES	Quesada	8.07	86	P	Pn	23 11 44.2	-0.1
	comp=N,2.5nm,0.7s,SNR=7.0						
EQES				S	Sn	23 13 14.5	-1.0
	comp=N,16nm,1.1s						
EARI	Arriondas	8.34	45	P	Pn	23 11 49.0	+1.1
EARI				S	Sn	23 13 20.4	-1.7
EARI	Arriondas	8.34	45	P	Pn	23 11 48.6	+0.7
	comp=N,2.4nm,0.3s,SNR=5.7						
EARI				S	Sn	23 13 21.1	-1.0
	comp=N,0.3nm,0.2s						
EARI	Arriondas	8.34	45	P	Pn	23 11 49.0	+1.1
	comp=N,2.4nm,0.3s,SNR=5.7						
EARI				S	Sn	23 13 20.4	-1.7
	comp=N,0.3nm,0.2s						
EVIA	Vianos	8.53	80	P	Pn	23 11 50.4	-0.1
	comp=N,0.6nm,0.1s,SNR=7.9						
EVIA				S	Sn	23 13 25.2	-1.6
	comp=N,1.2nm,0.1s,SNR=7.9						
ETOR	Torete	9.25	66	P	Pn	23 12 00.8	+0.4
ETOR				S	Sn	23 13 42.8	-1.7
ETOR	Torete	9.25	66	P	Pn	23 12 00.8	+0.4
	comp=N,5.3nm,0.3s,SNR=7.5						
ETOR				S	Sn	23 13 43.7	-0.8
	comp=N,5.7nm,0.2s,SNR=6.1						
ETOR	Torete	9.25	66	P	Pn	23 12 00.9	+0.4
	comp=N,5.3nm,0.3s,SNR=7.5						
ETOR				S	Sn	23 13 42.8	-1.7
	comp=N,5.7nm,0.2s,SNR=6.1						
ETOB	Tobarra	9.28	80	P	Pn	23 12 00.6	-0.3
	comp=N,4.0nm,1.0s,SNR=7.3						
ETOB				S	Sn	23 13 43.4	-1.8
	comp=N,1.0nm,0.1s,SNR=7.9						
ETOB	Tobarra	9.28	80	P	Pn	23 12 00.6	-0.2
	comp=N,4.0nm,1.0s,SNR=7.3						
ETOB				S	Sn	23 13 43.4	-1.8
	comp=N,1.0nm,0.1s,SNR=7.9						
ELAN	Lanestosa	9.34	50	P	Pn	23 12 03.0	+1.4
ELAN				S	Sn	23 13 46.4	-0.3
ELAN	Lanestosa	9.34	50	P	Pn	23 12 02.6	+1.0
	comp=N,7.5nm,0.9s,SNR=8.1						
ELAN				S	Sn	23 13 46.0	-0.7
	comp=N,0.6nm,0.2s,SNR=7.9						
ELAN	Lanestosa	9.34	50	P	Pn	23 12 03.0	+1.4
	comp=N,7.5nm,0.9s,SNR=8.1						
ELAN				S	Sn	23 13 46.4	-0.3
	comp=N,0.6nm,0.2s,SNR=7.9						
EMOS	Mosqueruela	10.31	71	P	Pn	23 12 17.1	+2.1
	comp=N,0.6nm,0.3s						
EMOS				S	Sn	23 14 07.2	-3.4
EMOS	Mosqueruela	10.31	71	P	Pn	23 12 15.5	+0.5
	comp=N,0.6nm,0.3s,SNR=7.9						
EMOS				S	Sn	23 14 08.3	-2.3
	comp=N,1.0nm,0.3s,SNR=7.9						
EMOS	Mosqueruela	10.31	71	S	Sn	23 14 07.2	-3.4
	comp=N,1.0nm,0.3s,SNR=7.9						
ELIZ	Elizondo	10.50	55	P	Pn	23 12 18.8	+1.2
	comp=N,3.7nm,0.7s						
ELIZ	Elizondo	10.50	55	P	Pn	23 12 17.9	+0.3
	comp=N,3.7nm,0.7s,SNR=6.1						
ELIZ				S	Sn	23 14 13.5	-1.8
	comp=N,0.0nm,0.4s,SNR=7.9						
ELIZ	Elizondo	10.50	55	P	Pn	23 12 18.8	+1.2
	comp=N,3.7nm,0.7s						
ESAC	San Caprasio	10.66	64	P	Pn	23 12 22.5	+2.7

	comp=N,2.9nm,0.3s						
ESAC				S	Sn	23 14 20.2	+1.1
ESAC	San Caprasio	10.66	64	P	Pn	23 12 20.2	+0.4
	comp=N,2.9nm,0.3s,SNR=4.0						
ESAC				S	Sn	23 14 17.3	-1.8
	comp=N,3.2nm,0.2s,SNR=7.9						
SJPF	Ste Jean	10.68	55	*e*Pn	Pn	23 12 21.7	+1.7
SJPF				*e*Sn	Sn	23 14 16.0	-3.5
	comp=N,1.2nm,0.3s						
SJPF	Ste Jean	10.68	55	*e*Pn	Pn	23 12 21.7	+1.7
SJPF				*e*Sn	Sn	23 14 16.0	-3.5
SJPF	Ste Jean	10.68	55	P	Pn	23 12 21.7	+1.7
SJPF				S	Sn	23 14 16.0	-3.5
	comp=N,0.6nm,0.3s						
SJPF	Ste Jean	10.68	55	*e*Pn	Pn	23 12 21.7	+1.7
ETSF	Etsaut	11.03	58	*e*Pn	Pn	23 12 26.1	+1.3
ETSF				*e*Sn	Sn	23 14 24.5	-3.6
	comp=N,2.5nm,0.4s						
ETSF	Etsaut	11.03	58	*e*Pn	Pn	23 12 26.1	+1.3
ETSF				*e*Sn	Sn	23 14 24.5	-3.6
ETSF	Etsaut	11.03	58	P	Pn	23 12 26.1	+1.3
ETSF				S	Sn	23 14 24.5	-3.6
	comp=N,1.2nm,0.4s						
ETSF	Etsaut	11.03	58	*e*Pn	Pn	23 12 26.1	+1.3
ERTA	Horta de San J	11.04	68	P	Pn	23 12 25.5	+0.6
	comp=N,0.3nm,0.3s,SNR=7.9						
ERTA				S	Sn	23 14 25.6	-2.8
	comp=N,0.0nm,0.3s,SNR=7.9						
EBIE	Bielsa	11.42	60	P	Pn	23 12 31.5	+1.3
	comp=N,0.6nm,0.4s						
EBIE				S	Sn	23 14 38.0	+0.3
EBIE	Bielsa	11.42	60	P	Pn	23 12 30.5	+0.4
	comp=N,0.6nm,0.4s,SNR=7.9						
EBIE				S	Sn	23 14 35.1	-2.6
	comp=N,0.4nm,0.2s,SNR=7.9						
EBIE	Bielsa	11.42	60	P	Pn	23 12 31.5	+1.4
	comp=N,0.6nm,0.4s						
EPF	Esparros	11.68	58	*e*Pn	Pn	23 12 34.8	+1.0
EPF				*e*Sn	Sn	23 14 40.2	-4.0
	comp=N,2.7nm,0.5s						
EPF	Esparros	11.68	58	*e*Pn	Pn	23 12 34.8	+1.0
EPF				*e*Sn	Sn	23 14 40.2	-4.0
EPF	Esparros	11.68	58	P	Pn	23 12 34.8	+1.0
EPF				S	Sn	23 14 40.2	-4.0
	comp=N,1.4nm,0.5s						
EPF	Esparros	11.68	58	*e*Pn	Pn	23 12 34.8	+1.0
QUIF	Quistinic	12.65	33	*e*Pn	Pn	23 12 44.9	-2.1
QUIF	Quistinic	12.65	33	*e*Pn	Pn	23 12 44.9	-2.1
QUIF	Quistinic	12.65	33	*e*Pn	Pn	23 12 44.9	-2.1
LFF	La Frestale	12.79	51	*e*Pn	Pn	23 12 48.4	-0.5
LFF	La Frestale	12.79	51	*e*Pn	Pn	23 12 48.4	-0.5
LFF	La Frestale	12.79	51	*e*Pn	Pn	23 12 48.4	-0.5
ROSF	Rostrenen	12.94	31	*e*Pn	Pn	23 12 48.4	-2.5
ROSF	Rostrenen	12.94	31	*e*Pn	Pn	23 12 48.4	-2.5
ROSF	Rostrenen	12.94	31	*e*Pn	Pn	23 12 48.4	-2.5
MFF	Saint Martin d	13.21	43	*e*Pn	Pn	23 12 53.1	-1.5
MFF	Saint Martin d	13.21	43	*e*Pn	Pn	23 12 53.1	-1.5
MFF	Saint Martin d	13.21	43	*e*Pn	Pn	23 12 53.1	-1.5
RJF	Les Rejaudoux	13.45	51	*e*Pn	Pn	23 12 57.9	0.0
RJF	Les Rejaudoux	13.45	51	*e*Pn	Pn	23 12 57.9	0.0
RJF	Les Rejaudoux	13.45	51	*e*Pn	Pn	23 12 57.9	0.0
CAF	Calviac	13.61	53	*e*Pn	Pn	23 12 59.1	-1.0
CAF	Calviac	13.61	53	*e*Pn	Pn	23 12 59.1	-1.0
CAF	Calviac	13.61	53	*e*Pn	Pn	23 12 59.1	-1.0
GRR	Gorron	14.04	36	*e*Pn	Pn	23 13 03.6	-2.3
GRR	Gorron	14.04	36	*e*Pn	Pn	23 13 03.6	-2.3
GRR	Gorron	14.04	36	*e*Pn	Pn	23 13 03.6	-2.3
TCF	Toulx Ste Croi	14.37	48	*e*Pn	Pn	23 13 09.9	-0.5
TCF	Toulx Ste Croi	14.37	48	*e*Pn	Pn	23 13 09.9	-0.5
TCF	Toulx Ste Croi	14.37	48	*e*Pn	Pn	23 13 09.9	-0.5
BGF	Bois d'Agland	14.88	48	*e*Pn	Pn	23 13 17.1	-0.3
BGF	Bois d'Agland	14.88	48	*e*Pn	Pn	23 13 17.1	-0.3
BGF	Bois d'Agland	14.88	48	*e*Pn	Pn	23 13 17.1	-0.3
AVF	Avril sur Loir	15.30	48	*e*Pn	Pn	23 13 22.6	-0.4
AVF	Avril sur Loir	15.30	48	*e*Pn	Pn	23 13 22.6	-0.4
AVF	Avril sur Loir	15.30	48	*e*Pn	Pn	23 13 22.6	-0.4
SSF	Saint Saulge	15.53	47	*e*Pn	Pn	23 13 25.0	-1.0
SSF	Saint Saulge	15.53	47	*e*Pn	Pn	23 13 25.0	-1.0
SSF	Saint Saulge	15.53	47	*e*Pn	Pn	23 13 25.0	-1.0
LOR	Lormes	15.85	47	*e*Pn	Pn	23 13 29.9	-0.2
LOR	Lormes	15.85	47	*e*Pn	Pn	23 13 29.9	-0.2
LOR	Lormes	15.85	47	*e*Pn	Pn	23 13 29.9	-0.2

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*ISCJB **18** 23:11:59.6±5.3, 46.8N±0.1×155.9E±0.2, h15^{km}±37^{km}, mb3.6/11, MS3.3/1, Error ellipse: s-maj=24.1km s-min=17.6km az=29.4*

*MOS **18** 23:12:02.0±1.8, 46.97N×155.67E, h33^{km}, mb4.2/4, Error ellipse: s-maj=32.7km s-min=20.1km az=76.2*

*IDC **18** 23:12:06.1±5.2, 46.77N×155.74E, h52^{km}±47^{km}, mb3.4/9, mb1 3.6/11, mb1mx3.5/24, mbtmp3.4/11, ML3.6/2, Error ellipse: s-maj=27.4km s-min=20.2km az=116.0*

ISC 18 23:12:05.3±2.7**, 46.9N**±0.1×**155.8E**±0.2**, h44**^{km}±25^{km}**, n16,** σ**0^{s}93**/17**, mb3.6**/11**, MS3.3**/1**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAJ	Asahikawa	9.66	258	P	Pn	23 14 20.8	-0.9
	0.7nm,0.3s,baz=59,slow=20,SNR=4.5						
MJAR	Matsushiro Arr	16.66	238	P	Pn	23 15 56.7	+1.2
	0.3nm,0.3s,baz=34,slow=12,SNR=5.3						
BILL	Bilibino	21.88	11	*i* P	P	23 16 53.7	-0.3
BILL				*e**PP		23 17 03.9	
BILL				*e*		23 17 17.5	
BILL				*e*S	S	23 20 51.9	-1.1
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.5						
BILL				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.3						
KSRS	Korea Array	22.59	255	P	P	23 17 02.1	+0.2
	comp=Z,1.7nm,0.9s,mb3.5,baz=56,slow=9.1,SNR=4.6						
SONM	Songino Array	33.01	290	P	P	23 18 35.8	-0.1
	comp=Z,0.2nm,0.6s,mb3.2,baz=56,slow=9.7,SNR=3.3						
ZALV	Zalesovo Beam	44.01	306	P	P	23 20 09.9	+1.9
	comp=Z,0.3nm,0.4s,mb3.3,baz=79,slow=7.5,SNR=2.4						
MKAR	Makanchi Array	48.49	298	P	P	23 20 42.6	-0.8
	comp=Z,0.3nm,0.6s,mb3.5,baz=67,slow=9.3,SNR=5.3						
YKA	Yellowknife Ar	49.71	37	P	P	23 20 52.8	+0.3
	comp=Z,0.1nm,0.4s,mb3.2,baz=290,slow=7.2,SNR=3.0						
FINES	FINESS Array B	64.68	336	P	P	23 22 38.6	+0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	FINESS Array B	64.68	336	P	P	23 22 38.6	+0.5
	comp=Z,0.8nm,0.7s,mb3.9,baz=38,slow=16,SNR=3.6						
OBN	Obninsk	66.22	327	*e*P	P	23 22 44.3	-3.8
OBN				*e*		23 23 13.9	
OBN				*e*		23 25 10.2	
OBN				*e*S	S	23 31 31.2	-2.4
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
WRA	Warramunga Arr	69.28	202	P	P	23 23 06.4	-1.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	69.28	202	P	P	23 23 06.4	-1.4
	comp=Z,1.3nm,0.7s,mb4.0,baz=21,slow=6.9,SNR=14						
ASAR	Alice Springs	72.95	201	P	P	23 23 29.5	-0.4
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	72.95	201	P	P	23 23 29.5	-0.4
	comp=Z,0.8nm,0.7s,mb3.8,baz=15,slow=5.4,SNR=10						
TXAR	Lajitas Array	75.82	62	P	P	23 23 47.7	+0.9
	comp=Z,0.4nm,0.4s,mb3.7,baz=310,slow=4.3,SNR=8.4						

IDC 18 23:16:41.8±60.0**, 0.14S**×**97.34E, h0**^{km}**, mb3.6**/3**, mb1 3.6**/3**, mb1mx3.3**/21**, mbtmp3.6**/3**, Error ellipse: s-maj=1166.0km s-min=156.6km az=175.0, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	48.43	8	P	P	23 25 25.9	+0.1
	0.1nm,0.4s,baz=191,slow=8.2,SNR=5.7						
MKAR	Makanchi Array	48.57	346	P	P	23 25 26.9	0.0
	0.5nm,0.5s,baz=162,slow=8.6,SNR=18						
ZALV	Zalesovo Beam	54.89	351	P	P	23 26 13.9	-0.1
	0.8nm,0.5s,baz=164,slow=6.1,SNR=5.0						

WEL 18 23:44:29.0±0.1**, 45.45S**×**167.05E, h76**^{km}±1^{km}**, ML3.7**/11**, Error ellipse: s-maj=1.5km s-min=0.7km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DCZ	Deep Cove	0.08	113	PN	Pn	23 44 39.8	-0.1
DCZ				SN	Sn	23 44 47.4	-0.5
WHZ	Wether Hill Ro	0.78	126	PN	Pn	23 44 45.0	-0.1
WHZ				SN	Sn	23 44 57.0	-0.1
MLZ	Mavora Lakes	0.80	83	PN	Pn	23 44 44.8	-0.6
MLZ				SN	Sn	23 44 56.6	-1.0
MSZ	Milford Sound	0.99	39	PN	Pn	23 44 47.6	-0.1
WKZ	Wanaka	1.53	67	PN	Pn	23 44 54.4	-0.1
APZ	The Paps	1.54	155	PN	Pn	23 44 54.5	-0.1
EAZ	Earnscleugh	1.61	83	PN	Pn	23 44 55.3	-0.2
SYZ	Scrubby Hill	1.82	128	PN	Pn	23 44 57.9	-0.5
JCZ	Jackson Bay	1.83	42	PN	Pn	23 44 57.9	-0.6
TUZ	Tuapeka	1.88	107	PN	Pn	23 44 58.6	-0.6
LBZ	Lake Benmore	2.47	66	PN	Pn	23 45 05.3	-1.8
HHSZ	Highcliff Hill	2.53	101	PN	Pn	23 45 07.1	-0.7
ODZ	Otahua Downs	2.57	82	PN	Pn	23 45 06.8	-1.7
FOZ	Fox Glacier	2.67	46	PN	Pn	23 45 09.3	-0.5
RPZ	Rata Peaks	3.35	60	PN	Pn	23 45 16.3	-2.6
LTZ	Lake Taylor	4.61	57	PN	Pn	23 45 32.9	-3.3
DSZ	Denniston Nort	5.06	45	PN	Pn	23 45 40.6	-1.7
THZ	Tophouse	5.62	51	PN	Pn	23 45 48.5	-1.5

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*LDG **19** 00:16:53.0±0.5, 15.24S×71.81W, h97^{km}, Mb4.9/19, Ms3.7/6, Error ellipse: s-maj=29.2km s-min=11.8km az=47.0*

*ISCJB **19** 00:16:56.0±0.3, 15.66S±0.05×71.89W±0.06, h139^{km}, mb4.6/49, Error ellipse: s-maj=9.1km s-min=5.4km az=146.7*

*NEIC **19** 00:16:57.4±0.3, 15.67S×71.75W, h135^{km}±3^{km}, mb4.7/34, Error ellipse: s-maj=8.1km s-min=4.9km az=65.0*

NEIC Felt [III] at Chuquibamba.

*GCMT **19** 00:16:57.3±0.5, 15.76S×72.15W, h150^{km}±5^{km}, MW4.9/45, Moment Tensor Solution. s13,c14; s45,c54; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.23±.15; $M_{\theta\theta}$-0.48±.16; $M_{\phi\phi}$0.70±.18; $M_{r\theta}$1.26±.09; $M_{\theta\phi}$0.04±.18; $M_{\phi r}$-2.12±.12; Best double couple: $M_0$2.54100×10^{16} NP1:ϕ_s224.00000°,δ13.00000°,λ-15.00000°. NP2: ϕ_s329.00000°,δ87.00000°,λ-102.00000°. Principal axes: T 2.6100, Plg40.0000°, Azm70.0000°; N -0.1380, Plg12.0000°, Azm330.0000°; P -2.4730, Plg47.0000°, Azm226.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **19** 00:16:57.5±0.5, 15.60S×71.90W, h133^{km}±3^{km}, mb4.1/16, mb1 4.3/18, mb1mx4.3/21, mbtmp4.1/18, MS3.6/1, Ms1 3.6/1, ms1mx2.7/25 Error ellipse: s-maj=14.7km s-min=9.7km az=39.0*

*BJI **19** 00:16:58.6, 15.09S×71.71W, h148^{km}, mB5.2*

ISC 19 00:16:58.0±0.3**, 15.68S**±0.05×**71.72W**±0.05**, h141**^{km}**, h141**^{km}±1.9^{km}**:pP-P, n164,** σ**0^{s}87**/116**, mb4.5**/48**, 5C-2D, Southern Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARE	Arequipa	0.81	164	⇓*i*P	Pn	00 17 18.2	-2.1
ARE				*i* S	Sn	00 17 34.6	-2.8
LPAZ	La Paz	3.51	100	⇑*i*Pn	Pn	00 17 55.7	+4.1
LPAZ				*e*Sn	Sn	00 18 40.6	+7.5
LPAZ	La Paz	3.51	100	P	Pn	00 17 54.1	+2.5
	12nm,0.3s,baz=290,slow=10.0,SNR=377						
LPAZ				S	Sn	00 18 38.4	+5.4
	7.8nm,0.3s,baz=194,slow=21,SNR=8.3						
NNA	Nana	6.18	306	*e*Pn	Pn	00 18 21.1	-6.0
NNA				*e*Sn	Sn	00 19 24.1	-13
NNA	Nana	6.18	306	P	Pn	00 18 21.2	-5.9
	27nm,0.3s,baz=129,slow=10,SNR=84						
SIV	San Ignacio	10.26	93	P	Pn	00 19 20.9	-0.7
	3.1nm,0.3s,baz=274,slow=13,SNR=83						
SIV				S	Sn	00 21 13.9	-1.1
	0.9nm,0.3s,baz=38,slow=13,SNR=5.2						
ATAH	Atahualpa	10.82	322	P	Pn	00 19 22.0	-7.1
	0.6nm,0.3s,baz=118,slow=23,SNR=3.1						
ATAH				S	Sn	00 21 19.3	-10
	2.7nm,0.3s,baz=61,slow=20,SNR=4.6						
LCO	Las Campanas	13.30	176	*e*Pn	Pn	00 20 00.5	-0.8
	22nm,0.8s						
CFAA	Coronel Fontan	16.16	169	P	Pn	00 20 37.1	-0.1
	0.2nm,0.3s,baz=344,slow=12,SNR=36						
OTAV	Otavalo	17.16	337	*e*P	Pn	00 20 50.5	+1.1
	16nm,0.8s						
ROSC	El Rosal	20.57	353	P	P	00 21 25.6	-0.2
	8.0nm,0.7s,baz=91,slow=15,SNR=9.5						
PCRV	Puerto La Cruz	26.63	16	P	P	00 22 23.6	0.0
	3.5nm,0.5s,mb4.3,baz=351,slow=19,SNR=2.3						
PCRV				LR	LR	00 34 57.7	
	comp=Z,136nm,20.5s,baz=245,slow=41						
SJG	San Juan	34.03	10	P	P	00 23 26.9	-1.7
	8.1nm,0.6s,mb4.7,baz=150,slow=3.4,SNR=3.9						
USHA	Ushuaia	39.15	177	P	P	00 24 11.9	+0.3
	13nm,1.1s,mb4.5,baz=328,slow=6.1,SNR=2.1						
PMSA	Palmer Station	49.32	176	P	P	00 25 31.4	-0.9
	24nm,1.0s,mb4.8,baz=345,slow=12,SNR=2.0						
MIAR	Mount Ida	54.10	338	*e*P	P	00 26 07.7	-0.6
MIAR				*e*pP	pP	00 26 39.5	-1.7
TXAR	Lajitas Array	54.35	325	P	P	00 26 09.1	-1.0
TXAR				pP	pP	00 26 38.9	-4.1
TXAR	Lajitas Array	54.35	325	P	P	00 26 09.1	-1.0
	1.1nm,0.8s,mb3.7,baz=148,slow=8.3,SNR=12						
TXAR				pP	pP	00 26 38.9	-4.1
	0.6nm,0.7s,baz=147,slow=7.0,SNR=3.1						
SIUC	Southern Illin	55.60	343	*e*P	P	00 26 17.9	-1.0
SIUC				*e*pP	pP	00 26 54.3	+2.3
FVM	French Village	56.20	342	*e*P	P	00 26 21.8	-1.4
	7.8nm,0.6s,mb4.7						
ACSO	Alum Creek Sta	56.60	350	*e*P	P	00 26 25.6	-0.4
	12nm,0.9s,mb4.7						
MNTX	Cornudas Mount	57.12	326	*e*P	P	00 26 28.7	-1.1
	4.1nm,0.9s,mb4.3						
ALLY	Alegheny Colle	57.57	353	*e*P	P	00 26 33.1	+0.3
ALLY				*e*pP	pP	00 27 06.6	+0.6
BINY	Binghamton	57.72	356	*e*P	P	00 26 34.4	+0.5
NCB	Newcomb	59.41	358	*e*P	P	00 26 45.6	+0.1
	8.3nm,0.5s,mb4.8						
LONY	Lake Ozonia	60.07	358	*e*P	P	00 26 50.5	+0.5
ANMO	Albuquerque	60.20	327	*e*P	P	00 26 50.7	-0.4
ANMO				*e*pP	pP	00 27 25.6	+1.0
CBKS	Cedar Bluff	60.22	335	*e*P	P	00 26 50.6	-0.6
FRNY	Flat Rock	60.25	358	*e*P	P	00 26 51.7	+0.5
MSNY	Massena	60.46	357	*e*P	P	00 26 52.9	+0.2
SDCO	Great Sand Dun	61.90	330	*e*P	P	00 27 00.5	-2.0
	16nm,1.0s,mb4.8						
SDCO				*e*pP	pP	00 27 36.6	+0.3
WUAZ	Wupatki	63.28	324	*e*P	P	00 27 11.3	-0.4
	7.6nm,1.0s,mb4.5						
WUAZ				*e*pP	pP	00 27 47.0	+1.4
ISCO	Idaho Springs	63.59	331	*e*pP	pP	00 27 47.8	+0.3
SMCO	Snowmass	63.74	330	*e*P	P	00 27 15.5	+0.8
	6.3nm,0.9s,mb4.5						
SMCO				*e*pP	pP	00 27 49.7	+1.1
PHWY	Pilot Hill	64.73	332	*e*pP	pP	00 27 51.8	-3.3
SRU	San Rafael	65.46	328	*e*P	P	00 27 26.2	+0.4
EYMN	Ely	65.76	346	*e*pP	pP	00 28 04.2	+2.6
MSU	Marysvale	65.89	326	*e*P	P	00 27 29.3	+0.7
MSU				*e*pP	pP	00 28 05.1	+2.4
SHPR	Sheep Range	66.14	323	*e*P	P	00 27 30.0	-0.3
SHPR				*e*pP	pP	00 28 05.8	+1.4
VNA3	Neumayer Olymp	66.41	162	*e*P	P	00 27 32.8	+1.4
VNA3				*e*		00 27 35.1	
VNA3				*e*		00 27 44.9	
VNA3				*e*		00 27 47.0	
VNA3				*e*		00 27 58.6	
VNA3				*e*		00 28 00.9	
VNA3				*e*	pP	00 28 05.3	-0.3
VNA2	Neumayer--Watz	66.99	161	*e*P	P	00 27 37.2	+2.1
	baz=282,slow=7.2						
VNA2				*e*		00 27 39.7	
VNA2				*e*		00 27 48.4	
VNA2				*e*		00 27 50.8	
VNA2				*e*		00 27 59.8	
VNA2				*e*		00 28 02.9	
VNA2				*e*	pP	00 28 08.6	-0.7
AGMN	Agassiz Refuge	67.23	343	*e*P	P	00 27 36.2	-0.7
	9.7nm,0.8s,mb4.7						
DUG	Dugway	67.45	327	*e*P	P	00 27 39.0	+0.5
	11nm,1.1s,mb4.6						
PDAR	Pinedale Array	67.76	331	P	P	00 27 40.9	+0.6
	1.0nm,0.8s,mb3.6,baz=140,slow=5.8,SNR=4.4						
PDAR				pP	pP	00 28 11.7	-2.9
	1.9nm,0.9s,baz=152,slow=6.7,SNR=4.9						
LOHW	Long Hollow	68.90	331	*e*pP	pP	00 28 22.4	+0.6
ULM	Lac du Bonnet	69.00	344	P	P	00 27 46.9	-1.0
ULM				pP	pP	00 28 18.9	-3.4
ULM	Lac du Bonnet	69.00	344	P	P	00 27 46.9	-1.0
	6.9nm,0.8s,mb4.4,baz=153,slow=5.2,SNR=18						
ULM				pP	pP	00 28 18.9	-3.4
	2.8nm,0.8s,baz=154,slow=7.0,SNR=2.7						
IMW	Indian Meadow	69.27	331	*e*P	P	00 27 50.4	+0.7
	5.7nm,0.8s,mb4.3						
IMW				*e*pP	pP	00 28 24.5	+0.4
NVAR	Mina Array Bea	69.28	322	P	P	00 27 48.9	-1.0
NVAR				PcP	PcP	00 28 13.3	+0.7
NVAR				pP	pP	00 28 23.1	-1.2
NVAR	Mina Array Bea	69.28	322	P	P	00 27 48.9	-1.0
	1.7nm,0.8s,mb3.8,baz=141,slow=7.8,SNR=10.0						
NVAR				PcP	PcP	00 28 13.3	+0.7
	1.3nm,0.8s,baz=140,slow=4.1,SNR=5.4						
NVAR				pP	pP	00 28 23.1	-1.2
	2.3nm,1.0s,baz=136,slow=7.3,SNR=4.2						
LIC	Lamto	69.52	77	⇑*i*P	P	00 27 51.6	-0.3
	52nm,0.9s,mb4.9						
LIC				*e*MLR	MLR		
	comp=Z,98nm,22.5s						
LIC	Lamto	69.52	77	*e*P	P	00 27 51.8	-0.1
	comp=Z,72nm,0.9s,mb5.4						
LIC	Lamto	69.52	77	⇑*i*P	P	00 27 51.6	-0.3
	comp=Z,26nm,0.9s,mb5.0						
LIC				LR	LR		
	comp=Z,50nm,22.5s						
TIC	Toumodi	69.66	77	*e*P	P	00 27 52.5	-0.3
	comp=Z,165nm,1.4s,mb5.6						
KIC	Kosan Boka	69.83	77	*e*P	P	00 27 53.8	0.0
	comp=Z,193nm,0.7s						
SCHQ	Schefferville	70.36	3	P	P	00 27 56.0	0.0
	comp=Z,11nm,0.7s,mb4.7,baz=204,slow=3.0,SNR=18						
HLID	Hailey	70.72	329	*e*P	P	00 27 59.3	+0.7
HLID				*e*pP	pP	00 28 34.0	+0.9
BOZ	Bozeman (W)	70.92	332	*e*pP	pP	00 28 34.7	+0.5
HRY	Holter Researc	71.82	332	*e*pP	pP	00 28 46.8	+7.1
EGMT	Eagleton	71.93	334	*e*P	P	00 28 06.4	+0.7
	comp=Z,17nm,1.1s,mb4.7						
MOD	Modoc	72.72	324	*e*P	P	00 28 11.6	+1.0
MOD				*e*pP	pP	00 28 46.0	+0.7
WALA	Waterton Lakes	74.50	333	*e*P	P	00 28 21.3	+0.5
FCC	Fort Churchill	76.41	348	*e*P	P	00 28 31.5	+0.1
	comp=Z,24nm,1.5s,mb4.6						
FCC				*e*pP	pP	00 29 08.5	+2.1
EDM	Edmonton	77.39	336	*e*P	P	00 28 36.5	-0.6
EDM				*e*pP	pP	00 29 11.0	-1.1
TOA0	Torodi Ar. Sit	78.05	73	⇑*i*P	P	00 28 41.7	+0.1
TORD	Torodi Ar. Bea	78.05	73	P	P	00 28 41.8	+0.2
	comp=Z,48nm,0.8s,mb5.2,baz=266,slow=5.9,SNR=379						
TORD				pP	pP	00 29 16.6	-0.2
	comp=Z,5.9nm,0.7s,baz=252,slow=5.2,SNR=3.0						
VNDA	Vanda	82.08	190	P	P	00 29 03.4	+1.3
	comp=Z,3.0nm,0.9s,mb3.9,baz=32,slow=0.9,SNR=4.2						
SYO	Syowa Base	82.85	160	⇓*e*P	P	00 29 05.4	-0.9
ESDC	Sonseca Array	83.65	46	P	P	00 29 12.5	+1.7
	comp=Z,4.6nm,0.8s,mb4.2,baz=257,slow=4.7,SNR=25						
TSUM	Tsumeb	84.33	108	*e*P	P	00 29 16.8	+2.1
	comp=Z,28nm,0.8s,mb5.0						
YKA	Yellowknife Ar	84.85	342	P	P	00 29 15.9	-0.4
YKA				pP	pP	00 29 49.7	-2.2
YKA	Yellowknife Ar	84.85	342	P	P	00 29 15.9	-0.4
	comp=Z,6.8nm,0.8s,mb4.5,baz=136,slow=5.0,SNR=122						
YKA				pP	pP	00 29 49.7	-2.2
	comp=Z,4.5nm,0.9s,baz=135,slow=5.1,SNR=5.0						
YKW3	Yellowknife Ar	84.90	342	*e*P	P	00 29 16.3	-0.2
YKW3				*e*pP	pP	00 29 50.4	-1.8
DLBC	Dease Lake	87.84	333	*e*P	P	00 29 32.6	+1.6
BOSA	Boshof	88.56	119	P	P	00 29 36.0	+0.8
	comp=Z,3.4nm,0.8s,mb4.3,baz=159,slow=15,SNR=6.7						
LFF	La Frestale	89.03	43	*e*P	P	00 29 37.1	+0.2
	comp=Z,26nm,0.8s,mb4.9						
LFF	La Frestale	89.03	43	*e*P	P	00 29 37.1	+0.2
	comp=Z,13nm,0.8s,mb4.9						
MFF	Saint Martin d	89.12	41	*e*P	P	00 29 37.3	0.0
	comp=Z,13nm,0.9s,mb4.6						
MFF	Saint Martin d	89.12	41	*e*P	P	00 29 37.3	0.0
	comp=Z,6.6nm,0.9s,mb4.6						
MTLF	Montolieu	89.39	45	*e*P	P	00 29 38.7	+0.1
	comp=Z,15nm,1.0s,mb4.6						
MTLF	Montolieu	89.39	45	*e*P	P	00 29 38.7	+0.1
	comp=Z,7.7nm,1.0s,mb4.6						
GRR	Gorron	89.42	39	*e*P	P	00 29 38.3	-0.3
	comp=Z,7.8nm,0.8s,mb4.4						
GRR	Gorron	89.42	39	*e*P	P	00 29 38.3	-0.3
	comp=Z,3.9nm,0.8s,mb4.4						
RJF	Les Rejaudoux	89.67	43	*e*P	P	00 29 39.8	-0.1
	comp=Z,7.4nm,0.8s,mb4.4						
RJF				*e*MLR	MLR		
	comp=Z,92nm,19.5s						
RJF	Les Rejaudoux	89.67	43	*e*P	P	00 29 39.8	-0.1
	comp=Z,3.7nm,0.8s,mb4.4						
RJF				LR	LR		
	comp=Z,90nm,19.5s						
FLN	La Foliniere	89.80	39	*e*P	P	00 29 40.3	-0.1
	comp=Z,18nm,1.1s,mb4.6						
FLN				*e*MLR	MLR		
	comp=Z,60nm,19.8s						
FLN	La Foliniere	89.80	39	*e*P	P	00 29 40.3	-0.1
	comp=Z,8.9nm,1.0s,mb4.7						
FLN				LR	LR		
	comp=Z,60nm,19.8s						
CAF	Calviac	89.89	43	*e*P	P	00 29 41.1	+0.2
	comp=Z,18nm,1.1s,mb4.6						
CAF	Calviac	89.89	43	*e*P	P	00 29 41.1	+0.2
	comp=Z,9.2nm,1.1s,mb4.6						
LBTB	Lobatse	89.91	116	*e*P	P	00 29 42.8	+1.2
	comp=Z,4.9nm,0.7s,mb4.5						
LDF	La Druitiere	89.95	39	*e*P	P	00 29 40.8	-0.3
	comp=Z,23nm,1.0s,mb4.7						
LDF	La Druitiere	89.95	39	*e*P	P	00 29 40.8	-0.3
	comp=Z,11nm,1.0s,mb4.8						
TCF	Toulx Ste Croi	90.50	42	*e*P	P	00 29 43.5	-0.2
	comp=Z,7.9nm,0.9s,mb4.3						
TCF	Toulx Ste Croi	90.50	42	*e*P	P	00 29 43.5	-0.2
	comp=Z,4.0nm,0.9s,mb4.3						
BGF	Bois d'Agland	91.01	42	*e*P	P	00 29 46.1	0.0
	comp=Z,14nm,0.7s,mb4.8						
BGF	Bois d'Agland	91.01	42	*e*P	P	00 29 46.1	0.0
	comp=Z,7.1nm,0.7s,mb4.8						
AVF	Avril sur Loir	91.42	42	*e*P	P	00 29 47.6	-0.4
	comp=Z,7.6nm,0.9s,mb4.4						
AVF	Avril sur Loir	91.42	42	*e*P	P	00 29 47.6	-0.4
	comp=Z,3.8nm,0.9s,mb4.4						
SMF	Signal de Mont	91.68	42	*e*P	P	00 29 49.1	-0.1
	comp=Z,38nm,1.3s,mb5.0						
SMF	Signal de Mont	91.68	42	*e*P	P	00 29 49.1	-0.1
	comp=Z,19nm,1.3s,mb5.0						
LOR	Lormes	91.91	41	*e*P	P	00 29 49.7	-0.6
LOR				*e*MLR	MLR		
	comp=Z,79nm,19.2s						
LOR	Lormes	91.91	41	*e*P	P	00 29 49.7	-0.6
LOR				LR	LR		
	comp=Z,80nm,19.3s						
ORIF	Oris-en-Rattie	92.41	44	*e*P	P	00 29 53.7	+1.0
	comp=Z,17nm,1.0s,mb4.7						
ORIF				*e*MLR	MLR		
	comp=Z,104nm,19.2s						
ORIF	Oris-en-Rattie	92.41	44	*e*P	P	00 29 53.7	+1.0
	comp=Z,8.4nm,1.0s,mb4.7						
BAIF	Baives	93.12	39	*e*P	P	00 29 55.5	-0.3
LPL	La Plagne	93.18	44	*e*P	P	00 29 57.4	+1.2
	comp=Z,5.6nm,0.7s,mb4.5						
LPL	La Plagne	93.18	44	*e*P	P	00 29 57.4	+1.2
	comp=Z,2.8nm,0.7s,mb4.5						
LPG	La Plagne	93.19	44	*e*P	P	00 29 57.6	+1.4
	comp=Z,11nm,1.0s,mb4.7						
LPG	La Plagne	93.19	44	*e*P	P	00 29 57.6	+1.4
	comp=Z,5.5nm,1.0s,mb4.6						
GIVF	Givet	93.51	39	*e*P	P	00 29 57.6	0.0
HINF	Hinteralfeld	94.01	41	*e*P	P	00 29 59.5	-0.4
CDF	Champ du Feu	94.47	41	*e*P	P	00 30 00.7	-1.3
INK	Inuvik	94.60	341	P	P	00 30 01.8	-0.3
INK				pP	pP	00 30 36.4	-1.8
INK	Inuvik	94.60	341	P	P	00 30 01.8	-0.3
	comp=Z,1.7nm,1.0s,mb4.2,baz=163,slow=8.2,SNR=3.6						
INK				pP	pP	00 30 36.4	-1.8
	comp=Z,5.3nm,1.2s,baz=146,slow=2.8,SNR=4.1						
GERES	GERESS Array B	98.68	42	P	P	00 30 21.8	+0.7
	comp=Z,0.7nm,0.7s,mb4.2,baz=242,slow=2.9,SNR=6.7						
CLL	Collm	98.83	39	*i* P	P	00 30 21.4	-0.3
	comp=Z,3.0nm,0.9s,mb4.7						
BRG	Berggiesshubel	99.31	40	*i* P	Pdif	00 30 24.2	+0.3
	comp=Z,4.5nm,1.1s						

STKA	Stephens Creek	122.93	214	*e*P	PKPdf	00 35 38.3	+0.3
	comp=Z,2.1nm,0.6s						
STKA	Stephens Creek	122.93	214	PKP	PKPdf	00 35 38.0	0.0
	comp=Z,2.3nm,0.7s,baz=309,slow=2.7,SNR=7.0						
CTA	Charters Tower	128.46	228	PKP	PKPdf	00 35 47.8	-1.1
CTA	Charters Tower	128.46	228	PKP	PKPdf	00 35 47.8	-1.1
	comp=Z,9.0nm,1.0s,baz=324,slow=8.7,SNR=2.6						
FORT	Forrest	130.04	202	*e*P	PKPdf	00 35 51.9	+0.2
	comp=Z,8.5nm,0.6s						
ASAR	Alice Springs	133.56	213	PKP	PKPdf	00 35 58.8	+0.3
ASAR	Alice Springs	133.56	213	PKP	PKPdf	00 35 58.8	+0.3
	comp=Z,2.1nm,0.7s,baz=133,slow=2.2,SNR=23						
WB2	Warramunga Arr	136.29	217	⇑*i*P	PKPdf	00 36 04.0	+0.3
WRA	Warramunga Arr	136.30	217	PKP		00 35 52.3	
WRA				PKP	PKPdf	00 36 04.3	+0.6
WRA				SKPbc	SKPbc	00 39 24.8	+1.9
WRA	Warramunga Arr	136.30	217	PKhKP		00 35 52.3	
	comp=Z,0.4nm,0.8s,baz=140,slow=3.3,SNR=6.4						
WRA				PKP	PKPdf	00 36 04.3	+0.6
	comp=Z,5.5nm,0.8s,baz=141,slow=1.9,SNR=46						
WRA				SKPbc	SKPbc	00 39 24.8	+1.9
	comp=Z,0.6nm,0.7s,baz=134,slow=2.9,SNR=5.2						
ZAA0	Zalesovo Array	137.65	20	*e*PKPdf	PKPdf	00 36 05.3	+0.2
ZALV	Zalesovo Beam	137.65	20	PKP		00 35 57.6	
ZALV				PKP	PKPdf	00 36 06.6	+1.5
ZALV				pPKP	pPKPdf	00 36 41.2	-1.5
ZALV				SKPbc	SKPbc	00 39 30.4	+4.6
ZALV	Zalesovo Beam	137.65	20	PKhKP		00 35 57.6	
	comp=Z,0.5nm,0.5s,baz=302,slow=4.4,SNR=3.8						
ZALV				PKP	PKPdf	00 36 06.6	+1.5
	comp=Z,5.5nm,0.7s,baz=287,slow=2.5,SNR=24						
ZALV				pPKP	pPKPdf	00 36 41.2	-1.5
	comp=Z,2.6nm,0.9s,baz=299,slow=2.4,SNR=2.6						
ZALV				SKPbc	SKPbc	00 39 30.4	+4.6
	comp=Z,0.3nm,0.3s,baz=287,slow=7.1,SNR=3.6						
EKS2	Erkin-Say	140.08	41	*e*PKPdf	PKPdf	00 36 10.9	+1.0
AAK	Ala-Archa	140.54	40	*e*PKPdf	PKPdf	00 36 12.5	+1.8
UCH	Uchtor	140.77	41	*e*PKPdf	PKPdf	00 36 13.6	+2.4
MK31	Makanchi Array	142.19	29	*e*PKPdf	PKPdf	00 36 09.3	-4.2
MKAR	Makanchi Array	142.19	29	PKP		00 36 09.4	
MKAR				PKP	PKPdf	00 36 13.9	+0.3
MKAR				SKPab		00 39 51.0	
MKAR	Makanchi Array	142.19	29	PKhKP		00 36 09.4	
	comp=Z,1.8nm,0.8s,baz=326,slow=3.8,SNR=13						
MKAR				PKP	PKPdf	00 36 13.9	+0.3
	comp=Z,3.3nm,1.0s,baz=334,slow=2.5,SNR=17						
MKAR				SKPab		00 39 51.0	
	comp=Z,0.6nm,0.8s,baz=321,slow=3.1,SNR=3.9						
FITZ	Fitzroy Crossi	142.32	208	*e*P	PKPdf	00 36 10.2	-4.5
	comp=Z,6.1nm,0.8s						
GUMO	Guam	144.56	271	PKP	PKPdf	00 36 17.7	-0.9
GUMO	Guam	144.56	271	PKP	PKPdf	00 36 17.7	-0.9
	comp=Z,44nm,0.6s,baz=185,slow=23,SNR=2.7						
HIA	Hailar	145.22	347	*e*PKPdf	PKPdf	00 36 18.9	+0.2
THN	Thein Dam	146.09	55	*e*P	PKPdf	00 36 23.3	+2.5
MAJO	Matsushiro	146.25	314	*e*PKPdf	PKPdf	00 36 22.3	+1.4
MAT	Matsushiro	146.25	314	PKP	PKPdf	00 36 20.0	-1.0
MJAR	Matsushiro Arr	146.25	314	PKPbc	PKPbc	00 36 21.9	-0.4
MJAR				pPKPbc	pPKPbc	00 36 58.4	-1.1
MJAR	Matsushiro Arr	146.25	314	PKPbc	PKPbc	00 36 21.9	-0.4
	comp=Z,27nm,0.9s,baz=79,slow=1.6,SNR=51						
MJAR				pPKPbc	pPKPbc	00 36 58.4	-1.1
	comp=Z,3.4nm,0.8s,baz=36,slow=1.5,SNR=2.2						
WMQ	Urumqi	146.94	28	*e*PKP	PKPdf	00 36 19.4	-2.5
ULN	Ulaanbaatar	147.89	2	*e*PKPdf	PKPdf	00 36 24.3	+1.0
ULN				*e*PKPbc	PKPbc	00 36 27.9	+1.5
ULN				*e*PKPab	PKPab	00 36 30.7	+1.4
SONM	Songino Array	147.90	2	PKPbc	PKPbc	00 36 27.8	+1.3
SONM				pPKPbc	pPKPbc	00 37 01.5	-2.3
SONM				SKPbc	SKPbc	00 39 52.6	+1.3
SONM	Songino Array	147.90	2	PKPbc	PKPbc	00 36 27.8	+1.3
	comp=Z,11nm,0.8s,baz=323,slow=1.6,SNR=82						
SONM				pPKPbc	pPKPbc	00 37 01.5	-2.3
	comp=Z,2.0nm,0.7s,baz=290,slow=0.5,SNR=2.6						
SONM				SKPbc	SKPbc	00 39 52.6	+1.3
	comp=Z,0.5nm,0.9s,baz=340,slow=3.8,SNR=3.5						
CN2	Changchun	148.39	336	*e*PKP	PKPdf	00 36 20.5	-3.8
CN2				APKP		00 37 02.8	
HYB	Hyderabad	151.47	82	*e*P	PKPbc	00 36 37.5	+1.4
HYB	Hyderabad	151.47	82	*i* PKP	PKPdf	00 36 28.0	-1.9
KSRS	Korea Array	152.20	325	PKP	PKPdf	00 36 32.1	+1.7
	comp=Z,1.9nm,0.8s,baz=63,slow=1.6,SNR=6.3						
KSRS				PKPbc	PKPbc	00 36 38.2	+1.0
	comp=Z,14nm,0.8s,baz=12,slow=1.6,SNR=40						
KSRS				PKPab	PKPab	00 36 47.0	-0.4
	comp=Z,3.0nm,0.8s,baz=50,slow=3.8,SNR=4.1						
KSRS				pPKPbc	pPKPbc	00 37 12.8	-1.9
	comp=Z,2.0nm,0.8s,baz=12,slow=3.0,SNR=2.1						
KS15	Wonju Array Si	152.23	325	*e*PKPdf	PKPbc	00 36 38.6	+1.3
BJI	Beijing	154.77	346	PKP	PKPdf	00 36 34.3	+0.3
BJI	Beijing	154.77	346	PKP	PKPdf	00 36 34.2	+0.2
GTA	Gaotai	155.23	16	PKP	PKPdf	00 36 34.8	+0.1
GTA				PKP2	PKPab	00 37 01.3	+1.2
GTA				PKS		00 40 07.6	
GTA				SKS	SKSdf	00 43 22.8	-5.3
GTA				PPP		00 44 18.8	
GTA				SKKS	SKKSac	00 47 12.8	-0.2
GTA				PP	PP		
	comp=Z,86nm,6.1s						
GTA				LR	LR		
	comp=N,51nm,15.2s						
GTA				LR	LR		
	comp=E,54nm,14.8s						
GTA				LR	LR		
	comp=Z,74nm,14.8s						
LSA	Lhasa	158.96	46	*e*PKPdf	PKPdf	00 36 42.3	+2.6
LZH	Lanzhou	159.30	10	*e*PKP	PKPdf	00 36 40.1	+0.2
LZH				APKP		00 37 17.8	
LZH				XPKP		00 37 32.8	
LZH				LR	LR		
	comp=E,157nm,18.3s						
LZH				LR	LR		
	comp=Z,235nm,20.0s						
LZH	Lanzhou	159.30	10	*e*PKP	PKPdf	00 36 40.1	+0.2
LZH				pPKP	pPKPdf	00 37 17.8	+0.1
CD2	Chengdu	164.29	14	*e*PKP	PKPdf	00 36 44.5	-0.7
GYA	Guiyang	169.17	8	*e*PKP	PKPdf	00 36 48.3	-0.7
GYA				APKP		00 37 25.8	
GYA				XPKP		00 37 40.3	
GYA				PKP2	PKPab	00 38 03.0	+1.6
GYA				PKS		00 40 19.3	
GYA				PP	PP	00 41 53.5	+3.8
GYA				SKS	SKSdf	00 43 35.9	-3.9
GYA				PP	PP		
	comp=Z,110nm,7.9s						
KMI	Kunming	169.27	28	PKP	PKPdf	00 36 48.3	-0.8
KMI	Kunming	169.27	28	P	PKPdf	00 36 48.2	-0.9

ISCJB ***19*** *00:18:49.6±0.4, 39.87N±0.02×16.32E±0.04, h19^{km}±4^{km}, Error ellipse: s-maj=4.8km s-min=3.3km az=178.3*

CSEM ***19*** *00:18:49.0±0.1, 39.87N×16.25E, h11^{km}, ML3.8/3, Error ellipse: s-maj=1.8km s-min=1.2km az=83.0*

ROM ***19*** *00:18:49.2±0.2, 39.87N×16.30E, h10^{km}±2^{km}, Md2.9/18, Ml2.9/19, Error ellipse: s-maj=2.2km s-min=2.1km az=10.0*

NEIC ***19*** *00:18:49.2, 39.87N×16.30E, h10^{km}, ML2.9(ROM), After ROM.*

ISC 19 00:18:49.5±0.4, **39.86N**±0.02×**16.30E**±0.03, **h14**^{km}±3^{km}, **n90, σ1^{s}08**/117, **9C-3D, Southern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TDS	Terranova Siba	0.20	171	Pg	Pg	00 18 54.2	+0.2
TDS	Terranova Siba	0.20	171	Pg	Pg	00 18 54.2	+0.2
TDS	Terranova Siba	0.20	171	Pg	Pg	00 18 54.2	+0.2
ORI	Oriolo Calabro	0.24	30	⇓*i*Pg	Pg	00 18 54.8	+0.2
ORI				Sg	Sg	00 18 58.7	+0.6
ORI	Oriolo Calabro	0.24	30	⇓*i*Pg	Pg	00 18 54.8	+0.2
ORI				Sg	Sg	00 18 58.7	+0.6
ORI	Oriolo Calabro	0.24	30	⇓*i*Pg	Pg	00 18 54.8	+0.2
ORI				Sg	Sg	00 18 58.7	+0.6
SCHR	S. Chirico Rap	0.38	334	⇑*i*Pg	Pg	00 18 56.7	-0.5
SCHR				Sg	Sg	00 19 02.3	-0.1
SCHR	S. Chirico Rap	0.38	334	⇑*i*Pg	Pg	00 18 56.7	-0.5
SCHR				Sg	Sg	00 19 02.3	-0.1
SIRI	Monte Sirino -	0.46	315	Pg	Pg	00 18 58.1	-0.6
	952nm,0.2s						
SIRI	Monte Sirino -	0.46	315	Pg	Pg	00 18 58.1	-0.6
	952nm,0.2s						
CRAC	Craco	0.52	12	⇑*i*Pg	Pg	00 19 00.0	+0.3
CRAC				Sg	Sg	00 19 09.2	+2.6
	987nm,0.2s						
CRAC	Craco	0.52	12	⇑*i*Pg	Pg	00 19 00.0	+0.3
CRAC				Sg	Sg	00 19 09.2	+2.6
	987nm,0.2s						
MTSN	Montesano sull	0.58	315	Pg	Pg	00 18 59.9	-1.1
MTSN				Sg	Sg	00 19 08.7	0.0
	920nm,0.5s						
MTSN	Montesano sull	0.58	315	Pg	Pg	00 18 59.9	-1.1
MTSN				Sg	Sg	00 19 08.7	0.0
	920nm,0.5s						
MCEL	Monticello	0.60	321	Pg	Pg	00 19 00.2	-1.1
MCEL				Sg	Sg	00 19 10.2	+0.9
	706nm,0.5s						
MCEL	Monticello	0.60	321	Pg	Pg	00 19 00.2	-1.1
MCEL				Sg	Sg	00 19 10.2	+0.9
	706nm,0.5s						
CARO	Carolei	0.60	186	Pg	Pg	00 19 01.1	-0.2
CARO				Sg	Sg	00 19 11.6	+2.3
	882nm,0.4s						
CARO	Carolei	0.60	186	Pg	Pg	00 19 01.1	-0.2
CARO				Sg	Sg	00 19 11.6	+2.3
	882nm,0.4s						
MGR	Morigerati	0.64	296	Pg	Pg	00 19 01.6	-0.3
MGR	Morigerati	0.64	296	Pg	Pg	00 19 01.6	-0.3
	1μm,0.3s						
MGR	Morigerati	0.64	296	Pg	Pg	00 19 01.6	-0.3
	1μm,0.3s						
BULG	Bulgheria - Ca	0.74	288	⇑Pg	Pg	00 19 03.9	0.0
	561nm,0.4s						
BULG	Bulgheria - Ca	0.74	288	⇑Pg	Pg	00 19 03.9	0.0
	561nm,0.4s						
MIGL	Miglionico	0.76	8	Pg	Pg	00 19 03.0	-1.2
MIGL				Sg	Sg	00 19 14.4	+0.3
MIGL	Miglionico	0.76	8	Pg	Pg	00 19 03.0	-1.2
MIGL				Sg	Sg	00 19 14.4	+0.3
TIP	Timpagrande	0.77	152	⇑Pg	Pg	00 19 03.7	-0.7
TIP	Timpagrande	0.77	152	⇑Pg	Pg	00 19 03.7	-0.7
	250nm,1.1s						
TIP	Timpagrande	0.77	152	⇑Pg	Pg	00 19 03.7	-0.7
	250nm,1.1s						
SERS	Sersale	0.88	160	Pn	Pn	00 19 05.6	-1.8
	376nm,0.9s						
SERS	Sersale	0.88	160	Pn	Pn	00 19 05.6	-1.8
	376nm,0.9s						
CMPR	Campora	0.89	301	Pg	Pg	00 19 05.8	-0.9
CMPR				Sg	Sg	00 19 19.9	+1.5
	296nm,0.6s						
CMPR	Campora	0.89	301	Pg	Pg	00 19 05.8	-0.9
CMPR				Sg	Sg	00 19 19.9	+1.5
	296nm,0.6s						
CDRU	Civita di Ruta	0.99	310	Pg	Pg	00 19 07.2	-1.4
	217nm,0.8s						
CDRU	Civita di Ruta	0.99	310	Pg	Pg	00 19 07.2	-1.4
	217nm,0.8s						
SG1	Sgolgore (BA)	1.02	16	*e*Pg	Pg	00 19 08.3	-1.0
SGO	Sicignano	1.03	313	Pn	Pn	00 19 08.6	-1.0
SGO	Sicignano	1.03	313	Pn	Pn	00 19 08.6	-1.0
	210nm,0.7s						
SGO	Sicignano	1.03	313	Pn	Pn	00 19 08.6	-1.0
	210nm,0.7s						
GRI	Girifalco	1.04	175	Pn	Pn	00 19 09.2	-0.5
GRI	Girifalco	1.04	175	Pn	Pn	00 19 09.2	-0.5
	259nm,0.5s						
GRI	Girifalco	1.04	175	Pn	Pn	00 19 09.2	-0.5
	259nm,0.5s						
AMUR	Altamura	1.07	13	Pn	Pn	00 19 09.1	-1.1
	193nm,0.4s						
AMUR	Altamura	1.07	13	Pn	Pn	00 19 09.1	-1.1
	193nm,0.4s						
MRLC	Muro Lucano	1.09	326	Pn	Pn	00 19 09.9	-0.5
MRLC	Muro Lucano	1.09	326	Pn	Pn	00 19 09.9	-0.5
MRLC	Muro Lucano	1.09	326	Pn	Pn	00 19 09.9	-0.5
NOCI	Noci	1.10	32	Pn	Pn	00 19 08.1	-2.4
NOCI				Sn	Sn	00 19 23.6	-1.9
	503nm,0.4s						
NOCI	Noci	1.10	32	Pn	Pn	00 19 08.1	-2.4
NOCI				Sn	Sn	00 19 23.6	-1.9
	503nm,0.4s						
PALZ	Palazzo San Ge	1.12	347	Pn	Pn	00 19 09.7	-1.0
	978nm,1.5s						
PALZ	Palazzo San Ge	1.12	347	Pn	Pn	00 19 09.7	-1.0
	978nm,1.5s						
CDT	Castel del Mon	1.22	359	*e*Pg	Pg	00 19 11.5	-1.6
MCRV	Calabrutti - M	1.26	317	Pn	Pn	00 19 14.0	+1.2
	136nm,0.4s						
MCRV	Calabrutti - M	1.26	317	Pn	Pn	00 19 14.0	+1.2
	136nm,0.4s						
PE1	Pezze di Greco	1.28	42	*e*Pg	Pg	00 19 13.0	-1.1
PE1				*e*Sg	Sg	00 19 32.3	+1.5
JOPP	Joppolo	1.29	194	Pn	Pn	00 19 12.9	-0.2
JOPP				Sn	Sn	00 19 29.2	-1.0
	159nm,0.6s						
JOPP	Joppolo	1.29	194	Pn	Pn	00 19 12.9	-0.2
JOPP				Sn	Sn	00 19 29.2	-1.0
	159nm,0.6s						
BAI	Bari	1.32	19	*e*Pg	Pg	00 19 13.7	-1.3
BAI				*e*Sg	Sg	00 19 33.8	+1.5
CSSN	Cassano Irpino	1.40	316	Pn	Pn	00 19 16.3	+1.7
CSSN	Cassano Irpino	1.40	316	Pn	Pn	00 19 16.3	+1.7
	48nm,0.4s						
PLAC	Placanica	1.41	175	Pn	Pn	00 19 16.2	+1.4
	87nm,0.8s						
PLAC	Placanica	1.41	175	Pn	Pn	00 19 16.2	+1.4
	87nm,0.8s						
LCI	Lecce	1.47	71	Pn	Pn	00 19 15.7	+0.1
LCI	Lecce	1.47	71	Pn	Pn	00 19 15.7	+0.1
	37nm,0.3s						
LCI	Lecce	1.47	71	Pn	Pn	00 19 15.7	+0.1
	37nm,0.3s						
FG5	Orsara di Pugl	1.62	332	Pn	Pn	00 19 19.1	+1.4
FG5	Orsara di Pugl	1.62	332	Pn	Pn	00 19 19.1	+1.4
	75nm,0.7s						
FG5	Orsara di Pugl	1.62	332	Pn	Pn	00 19 19.1	+1.4
	75nm,0.7s						
SCLL	Scilla	1.66	196	Pn	Pn	00 19 19.4	+1.2
SCLL	Scilla	1.66	196	Pn	Pn	00 19 19.4	+1.2
	28nm,0.4s						
SCLL	Scilla	1.66	196	Pn	Pn	00 19 19.4	+1.2
	28nm,0.4s						
SOI	Samo	1.79	186	Pn	Pn	00 19 20.6	+0.6
SOI	Samo	1.79	186	Pn	Pn	00 19 20.6	+0.6
	38nm,0.4s						
SOI	Samo	1.79	186	Pn	Pn	00 19 20.6	+0.6
	38nm,0.4s						
FGMS	Monte Sant'Ang	1.87	352	Pn	Pn	00 19 21.6	+0.5
FGMS	Monte Sant'Ang	1.87	352	Pn	Pn	00 19 21.6	+0.5
	35nm,0.4s						
FGMS	Monte Sant'Ang	1.87	352	Pn	Pn	00 19 21.6	+0.5
	35nm,0.4s						
RGNG	Rignano Grg	1.89	344	Pn	Pn	00 19 21.6	+0.2
RGNG	Rignano Grg	1.89	344	Pn	Pn	00 19 21.6	+0.2
RGNG	Rignano Grg	1.89	344	Pn	Pn	00 19 21.6	+0.2
MPAZ	Palizzi	1.92	187	Pn	Pn	00 19 22.0	+0.3
	149nm,1.2s						
MPAZ	Palizzi	1.92	187	Pn	Pn	00 19 22.0	+0.3
	149nm,1.2s						
FG2	Serracapriola	2.13	336	Pn	Pn	00 19 26.0	+1.3
FG2	Serracapriola	2.13	336	Pn	Pn	00 19 26.0	+1.3
	47nm,0.2s						
KRUS	Krusevo	4.06	67	*e*Pn	Pn	00 19 52.9	+1.7
KRUS				*e*Sn	Sn	00 20 38.7	+0.1
BOJS	Bojanci	5.70	353	*i* Pn	Pn	00 20 14.4	+0.8
BOJS				*i* Sn	Sn	00 21 19.4	+0.6
BOJS	Bojanci	5.70	353	*i* Pn	Pn	00 20 14.4	+0.8
BOJS				*i* Sn	Sn	00 21 19.4	+0.6
BOJS	Bojanci	5.70	353	*i* Pn	Pn	00 20 14.4	+0.7
BOJS				*i* Sn	Sn	00 21 19.4	+0.6
GCIS	Gornji Cirnik	6.03	356	*i* Pn	Pn	00 20 18.6	+0.4
GCIS	Gornji Cirnik	6.03	356	*i* Pn	Pn	00 20 18.6	+0.4
GCIS	Gornji Cirnik	6.03	356	*i* Pn	Pn	00 20 18.6	+0.4

NEIC ***19*** *00:19:24.0, 19.52N×63.87W, h50^{km}, MD3.6(RSPR), After RSPR.*

RSPR 19 00:19:24.0, 19.52N×63.87W, h50^{km}±13^{km}, **MD3.6**/7, **MD3.6**/7, **11C, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TBVI	Tortola	1.30	213	⇑*e*P	Pn	00 19 44.6	-1.2
TBVI				*e*S	Sn	00 20 01.0	-1.1
STVI	Saint Thomas	1.55	222	⇑*e*P	Pn	00 19 48.5	-0.6
STVI				*e*S	Sn	00 20 07.1	-1.0
MTP	Monte Pirata	2.13	229	⇑*e*P	Pn	00 19 56.5	-0.6
MTP				*e*S	Sn	00 20 21.7	-0.7
CBYP	Canovanas	2.25	237	⇑*e*P	Pn	00 19 58.0	-0.8
CBYP				*e*S	Sn	00 20 24.6	-0.7
HUMP	Col San Antoni	2.32	234	⇑*e*P	Pn	00 19 58.9	-0.8
HUMP				*e*S	Sn	00 20 26.1	-0.9
CPD	Cerro la Pandu	2.43	233	⇑*e*P	Pn	00 20 00.9	-0.4
CPD				*e*S	Sn	00 20 29.5	-0.4
SJG	San Juan	2.57	237	⇑*e*P	Pn	00 20 02.5	-0.7
SJG	San Juan	2.57	237	⇑*e*P	Pn	00 20 02.5	-0.7
SJG				*e*S	Sn	00 20 32.5	-0.8
CELP	Cerrillos	2.94	241	⇑*e*P	Pn	00 20 07.6	-0.6
AOPR	Arecibo Observ	2.97	247	⇑*e*P	Pn	00 20 07.9	-0.6
CRPR	Cabo Rojo, PR	3.42	244	⇑*e*P	Pn	00 20 14.2	-0.6
CRPR				*e*S	Sn	00 20 53.5	-0.5

IDC 19 00:21:16.1±30.0, **19.39S×167.84E, h227**^{km}±56^{km}, **mb3.4**/4, **mb1 3.5**/5, **mb1mx3.3**/14, **mbtmp3.3**/5, **MS2.9**/2, **Ms1 2.9**/2, **ms1mx2.4**/26, **Error ellipse: s-maj=550.6km s-min=87.8km az=76.0, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	2.97	206	P	Pn	00 22 06.9	0.0
	0.9nm,0.3s,baz=128,slow=20,SNR=7.4						
DZM				LR	LR	00 22 42.3	
	comp=Z,182nm,21.6s,baz=168,slow=29						
HNR	Honiara	12.51	321	LR	LR	00 27 57.6	
	comp=Z,55nm,18.2s,baz=0.5,slow=32						
STKA	Stephens Creek	26.66	237	P	P	00 26 34.7	+0.5
	1.7nm,0.7s,baz=43,slow=7.1,SNR=4.5						
WRA	Warramunga Arr	31.53	263	P	P	00 27 16.9	-0.5
	0.3nm,0.3s,baz=100,slow=8.5,SNR=20						
ASAR	Alice Springs	31.81	256	P	P	00 27 20.1	+0.3
	3.1nm,0.4s,baz=82,slow=8.9,SNR=42						
FITZ	Fitzroy Crossi	39.92	265	P	P	00 28 28.2	-0.3
	0.5nm,0.5s,baz=162,slow=13,SNR=2.0						

ISCJB ***19*** *00:47:10.7±0.7, 6.78N±0.07×72.90W±0.06, h176^{km}±7^{km}, mb3.6/2, Error ellipse: s-maj=12.9km s-min=7.2km az=137.4*

FUNV ***19*** *00:47:11.5, 6.72N×73.11W, h171^{km}, MW3.5*

IDC ***19*** *00:47:15.1±5.8, 6.79N×73.78W, h178^{km}±23^{km}, mb3.3/2, mb1 3.5/3, mb1mx3.0/18, mbtmp3.4/3, MS2.8/1, Ms1 2.8/1, ms1mx2.2/20, Error ellipse: s-maj=233.1km s-min=26.8km az=92.0*

ISC 19 00:47:11.7±0.7, **6.76N**±0.07×**72.89W**±0.06, **h168**^{km}±7^{km}, **n16, σ1^{s}17**/22, **mb3.6**/2, **2C-1D, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAPV	Capacho	1.24	27	⇓*i*P	Pn	00 47 41.2	+0.9
CAPV				*e*S	Sn	00 48 03.0	+0.7
ROSC	El Rosal	2.37	217	P	Pn	00 47 52.5	+0.3
	21nm,0.3s,baz=285,slow=11,SNR=45						
ROSC				S	Sn	00 48 21.9	-1.7
	13nm,0.3s,baz=97,slow=21,SNR=10						
SOCV	Socops	2.52	53	*e*P	Pn	00 47 55.9	+1.8
SOCV				*e*S	Sn	00 48 27.8	+0.9
VIGV	El Vigia	2.56	36	⇑*i*P	Pn	00 47 55.6	+1.0
VIGV				*e*S	Sn	00 48 27.8	0.0
VIRV	Villa del Rosa	3.75	7	⇑*e*P	Pn	00 48 08.1	-1.3
VIRV				*e*S	Sn	00 48 51.6	-2.7
SANV	Sanarito	4.30	50	*e*P	Pn	00 48 17.4	+1.1
SANV				*e*S	Sn	00 49 05.9	-0.9
CURV	Curarigua	4.34	42	*e*P	Pn	00 48 17.9	+1.0
CURV				*e*S	Sn	00 49 06.7	-1.2
TEPV	Terepaima	4.85	49	*e*P	Pn	00 48 24.8	+1.2
SIQV	Siquisique	4.92	38	*e*P	Pn	00 48 25.0	+0.5
BAUV	El Baul	5.27	65	*e*P	Pn	00 48 29.2	+0.1
BAUV				*e*S	Sn	00 49 27.9	-1.8
CAOV	Caicara del Or	6.54	85	*e*P	Pn	00 48 46.3	+0.5
CAOV				*e*S	Sn	00 49 57.0	-2.8
JTS	JuntasAbangare	12.44	287	LR	LR	00 54 21.6	
	comp=Z,47nm,18.7s,baz=175,slow=37						
ULM	Lac du Bonnet	47.42	340	P	P	00 55 28.7	-0.4
	0.9nm,0.5s,mb3.6,baz=154,slow=7.1,SNR=2.5						
YKA	Yellowknife Ar	63.40	340	P	P	00 57 23.3	+0.3
	0.5nm,0.6s,mb3.6,baz=130,slow=6.8,SNR=13						
ASAR	Alice Springs	149.26	234	PKPbc	PKPbc	01 06 41.3	0.0
	0.1nm,0.3s,baz=109,slow=3.5,SNR=4.4						
WRA	Warramunga Arr	150.51	241	PKPbc	PKPbc	01 06 44.5	0.0
	0.4nm,0.4s,baz=108,slow=2.7,SNR=20						

ISCJB ***19*** *01:01:40.5±0.7, 10.36N±0.03×62.34W±0.02, h8^{km}±5^{km}, Error ellipse: s-maj=6.1km s-min=3.7km az=158.7*

TRN ***19*** *01:01:41.9, 10.41N×62.25W, h5^{km}, MD3.3*

NEIC ***19*** *01:01:41.9, 10.41N×62.25W, h5^{km}, MD3.3(TRN), After TRN.*

FUNV ***19*** *01:01:42.1, 10.40N×62.34W, h5^{km}, MW2.9*

ISC 19 01:01:40.8±0.6, **10.37N**±0.04×**62.33W**±0.02, **h2**^{km}±5^{km}, **n21, σ0^{s}80**/31, **1C-3D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	Guiria	0.29	22	⇑*i*P	Pg	01 01 47.0	+0.5
GUIV				*e*S	Sg	01 01 51.9	+1.6
GUNV	Guanoco	0.63	251	⇓*i*P	Pg	01 01 53.6	+0.6
GUNV				*e*S	Sg	01 02 03.4	+2.1
TCE	Chacachacare	0.66	61	⇓*i*P	Pg	01 01 52.9	-0.6
TCE				*e*S	Sg	01 02 01.5	-0.5
TPP	Pointe-a-Pierr	0.87	94	*e*P	Pg	01 01 58.3	+0.7
TPP				*e*S	Sg	01 02 17.3	+8.4
CRUV	Carupano	0.94	289	⇓*e*P	Pg	01 01 58.1	-0.7
CRUV				*e*S	Sg	01 02 09.8	-1.2
TRN	Trinidad (W)	0.96	73	*e*P	Pg	01 01 57.9	-1.2
TRN				*e*S	Sg	01 02 11.2	-0.4
TBH	Brigand Hill	1.25	85	*e*P	Pg	01 02 05.1	+0.3
TBH				*e*S	Sg	01 02 28.6	+7.6
ITEV	Isla Los Testi	1.25	321	*e*P	Pg	01 02 04.3	-0.5
ITEV				*e*S	Sg	01 02 21.1	0.0
TPR	Prospect	1.73	62	*e*P	Pn	01 02 11.2	-0.8
TPR				*e*S	Sn	01 02 35.9	+1.3
GRW	Mount Saint Ca	1.90	20	*e*P	Pn	01 02 14.6	+0.4
GRW				*e*S	Sn	01 02 38.5	-0.2
PCRV	Puerto La Cruz	2.27	265	*e*P	Pn	01 02 19.8	+0.3
RIOV	Rio Grande	2.35	167	*e*P	Pn	01 02 21.0	+0.6
IBAV	Isla La Blanqu	2.63	303	*e*P	Pn	01 02 24.5	+0.2
GURV	El Guri	2.70	196	*e*P	Pn	01 02 25.8	+0.5
PRGV	PARIAGUAN	2.79	235	*e*P	Pn	01 02 27.0	+0.5
CUPV	Cœpira	3.41	265	*e*P	Pn	01 02 35.5	+0.4
BIRV	Birongo	3.87	272	*e*P	Pn	01 02 41.1	-0.3
LUEV	Luepa	4.58	169	*e*P	Pn	01 02 49.9	-1.3
CAOV	Caicara del Or	4.97	233	*e*P	Pn	01 02 55.8	-0.7
TURV	Turiamo	5.42	271	*e*P	Pn	01 03 01.8	-0.9
BAUV	El Baul	5.80	256	*e*P	Pn	01 03 07.6	-0.4

ISCJB ***19*** *01:16:00.7±1.8, 13.8S±0.4×71.6W±0.2, h67^{km}±32^{km}, mb3.4/3, Error ellipse: s-maj=74.3km s-min=8.4km az=25.3*

NEIC ***19*** *01:16:02.2±1.1, 13.87S×71.66W, h83^{km}±22^{km}, Error ellipse: s-maj=77.5km s-min=12.0km az=202.0*

IDC ***19*** *01:16:03.7±5.0, 14.25S×71.74W, h100^{km}±50^{km}, mb3.4/3, mb1 3.5/5, mb1mx3.3/17, mbtmp3.3/5, Error ellipse: s-maj=121.4km s-min=39.7km az=27.0*

ISC 19 01:16:02.7±1.2, **13.8S**±0.4×**71.6W**±0.2, **h71**^{km}±25^{km}, **n8, σ1^{s}34**/8, **mb3.4**/3, **Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	4.17	127	P	Pn	01 17 04.4	+0.5
	1.0nm,0.3s,baz=277,slow=8.1,SNR=14						
LPAZ				S	Sn	01 17 51.4	0.0
	0.6nm,0.3s,baz=70,slow=14,SNR=5.6						
NNA	Nana	5.42	289	*e*Pn	Pn	01 17 20.0	-1.0
	10nm,0.4s						
NNA				*e*Sn	Sn	01 18 22.8	+0.7
SIV	San Ignacio	10.40	103	P	Pn	01 18 29.0	-0.1
	0.2nm,0.3s,baz=288,slow=14,SNR=6.0						
TORD	Torodi Ar. Bea	77.37	73	P	P	01 27 49.1	-1.4
	1.2nm,0.7s,mb3.8,baz=267,slow=4.8,SNR=13						
ESDC	Sonseca Array	82.25	46	P	P	01 28 18.3	+2.0
	0.1nm,0.3s,mb3.1,baz=265,slow=5.2,SNR=4.4						
YKA	Yellowknife Ar	83.10	341	P	P	01 28 19.9	-0.3
	0.2nm,0.6s,mb3.2,baz=132,slow=5.5,SNR=6.8						
SONM	Songino Array	146.01	2	PKPbc	PKPbc	01 35 32.2	-2.2
SONM	Songino Array	146.01	2	PKPbc	PKPbc	01 35 32.2	-2.2
	0.4nm,0.8s,baz=14,slow=1.8,SNR=4.0						

ISCJB ***19*** *01:26:12.0±0.3, 41.82N±0.02×22.68E±0.03, h10^{km}, Error*

ellipse: s-maj=2.9km s-min=2.1km az=161.0

*CSEM **19** 01:26:12.8±0.1,4182N×2268E,h15km,MD2.6,Error ellipse: s-maj=1.6km s-min=1.2km az=81.0*

*SKO **19** 01:26:12.4,4178N×2267E,h23km,M2.0,ML2.3*

*NEIC **19** 01:26:13.4,4179N×2269E,h2km,ML2.9(THE),After THE.*

*SOF **19** 01:26:13.3,4186N×2280E,h15km,MD2.6*

*THE **19** 01:26:13.4,4179N×2269E,h1km,ML2.9*

*BEO **19** 01:26:16.4±1.2,4194N×2274E,h12km±5km,ML2.7/4*

ISC 19 01:26:13.0±0.3,**4181N**±001×**2269E**±003,**h10**km,**n65**, σ**0^{s}89**/115,**2C,Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KKB	Krupnik	0.30	78	Pg	Pg	01 26 19.2	+0.3
KKB	Krupnik	0.30	78	Pg	Pg	01 26 19.2	+0.3
KKB	Krupnik	0.30	78	Pg	Pg	01 26 19.2	+0.2
STIP	Stip	0.40	254	ePg	Pg	01 26 20.4	-0.4
STIP				eSg	Sg	01 26 26.2	+0.1
STIP	Stip	0.40	254	i Pg	Pg	01 26 20.3	-0.5
STIP				⇑iSg	Sg	01 26 26.2	+0.1
STIP				eLg		01 26 27.3	
	comp=E,109nm,0.3s						
STIP				eLg		01 26 27.5	
	comp=N,129nm,0.3s						
STIP	Stip	0.40	254	ePg	Pg	01 26 20.4	-0.4
STIP				⇑iSg	Sg	01 26 26.2	+0.1
VAY	Valandovo	0.49	191	P	Pg	01 26 22.4	-0.3
VAY				S	Sg	01 26 29.7	+0.6
VAY	Valandovo	0.49	191	ePg	Pg	01 26 22.4	-0.3
VAY				eSg	Sg	01 26 29.7	+0.6
VAY	Valandovo	0.49	191	i Pg	Pg	01 26 22.3	-0.3
VAY				eSg	Sg	01 26 29.4	+0.2
VAY				eLg		01 26 29.6	
	comp=N,401nm,0.6s						
VAY				eLg		01 26 29.7	
	comp=E,298nm,0.6s						
VAY	Valandovo	0.49	191	ePg	Pg	01 26 22.4	-0.2
VAY				eSg	Sg	01 26 29.3	+0.2
VAY				S	Sg	01 26 29.7	+0.6
KNT	Kendrikon	0.66	167	P	Pg	01 26 25.7	-0.1
KNT				S	Sg	01 26 34.9	+0.5
KNT	Kendrikon	0.66	167	ePg	Pg	01 26 25.7	-0.1
KNT				eSg	Sg	01 26 34.9	+0.5
KNT	Kendrikon	0.66	167	ePg	Pg	01 26 25.7	-0.1
KNT				eSg	Sg	01 26 34.9	+0.5
MMB	Musomiste	0.80	105	Pg	Pg	01 26 28.6	+0.1
MMB	Musomiste	0.80	105	Pg	Pg	01 26 28.6	+0.1
MMB	Musomiste	0.80	105	Pg	Pg	01 26 28.6	+0.1
VTS	Vitosha	0.87	26	P	Pg	01 26 30.0	+0.2
VTS				P		01 26 30.2	
VTS				S	Sg	01 26 43.0	+1.7
VTS	Vitosha	0.87	26	ePg	Pg	01 26 30.2	+0.3
VTS				eSg	Sg	01 26 43.0	+1.7
VTS	Vitosha	0.87	26	i Pg	Pg	01 26 30.2	+0.3
VTS				eSg	Sg	01 26 40.5	-0.7
VTS	Vitosha	0.87	26	P	Pg	01 26 30.0	+0.1
VTS	Vitosha	0.87	26	ePg	Pg	01 26 30.2	+0.3
VTS				eSg	Sg	01 26 43.0	+1.8
GRG	Griva	0.88	195	P	Pg	01 26 29.5	-0.4
GRG				S	Sg	01 26 42.0	+0.8
GRG	Griva	0.88	195	ePg	Pg	01 26 29.5	-0.4
GRG				eSg	Sg	01 26 42.0	+0.8
GRG	Griva	0.88	195	ePg	Pg	01 26 29.5	-0.4
GRG				eSg	Sg	01 26 42.0	+0.7
SRS	Serrai	0.96	135	P	Pg	01 26 31.1	-0.4
SRS				S	Sg	01 26 44.6	+0.5
SRS	Serrai	0.96	135	ePg	Pg	01 26 31.1	-0.4
SRS				eSg	Sg	01 26 44.6	+0.5
SRS	Serrai	0.96	135	ePg	Pg	01 26 31.1	-0.5
SRS				eSg	Sg	01 26 44.6	+0.5
SOH	Sokhos	1.10	153	P	Pb	01 26 34.1	0.0
SOH				S	Sg	01 26 48.9	+0.4
SOH	Sokhos	1.10	153	ePg	Pb	01 26 34.1	0.0
SOH				eSg	Sg	01 26 48.9	+0.4
SOH	Sokhos	1.10	153	ePg	Pg	01 26 34.1	-0.1
SOH				eSg	Sg	01 26 48.9	+0.4
KRUS	Krusevo	1.17	249	ePg	Pg	01 26 35.2	-0.3
KRUS				eSg	Sg	01 26 50.4	-0.3
KRUS	Krusevo	1.17	249	ePg	Pg	01 26 35.1	-0.4
KRUS				eSg	Sg	01 26 50.3	-0.3
THE	Thessaloniki	1.19	170	P	Pb	01 26 35.0	-0.6
THE				S	Sg	01 26 52.2	+0.9
THE	Thessaloniki	1.19	170	ePg	Pb	01 26 35.0	-0.6
THE				eSg	Sg	01 26 52.2	+0.9
THE	Thessaloniki	1.19	170	ePg	Pg	01 26 35.0	-0.9
THE				eSg	Sg	01 26 52.2	+0.9
BARS	Barje	1.20	328	ePg	Pg	01 26 35.7	-0.4
BARS				eSg	Sg	01 26 51.0	-0.7
BARS	Barje	1.20	328	Pg	Pg	01 26 35.8	-0.3
BARS				Sg	Sg	01 26 51.3	-0.4
HORT	Hortiatis	1.25	166	P	Pn	01 26 36.2	-0.2
HORT				S	Sg	01 26 53.1	+0.1
HORT	Hortiatis	1.25	166	ePg	Pn	01 26 36.2	-0.2
HORT				eSg	Sg	01 26 53.1	+0.1
HORT	Hortiatis	1.25	166	ePg	Pg	01 26 36.2	-0.7
HORT				eSg	Sg	01 26 53.1	0.0
BIA	Bitola	1.30	233	eSg	Sg	01 26 55.2	+0.5
BIA				eSg	Sg	01 26 59.2	+4.5
BIA	Bitola	1.30	233	ePg	Pg	01 26 36.6	-1.3
BIA				eSg	Sg	01 26 54.2	-0.5
BIA				eLg		01 26 54.5	
	comp=E,29nm,0.3s						
BIA				eLg		01 26 54.6	
	comp=N,42nm,0.5s						
BIA	Bitola	1.30	233	ePg	Pg	01 26 36.6	-1.3
BIA				eSg	Sg	01 26 55.2	+0.5
PGB	Panagyurishte	1.32	55	Pg	Pg	01 26 37.7	-0.8
PGB	Panagyurishte	1.32	55	Pg	Pg	01 26 37.7	-0.8
PGB	Panagyurishte	1.32	55	Pg	Pg	01 26 37.7	-0.7
RZN	Rozhen	1.52	94	P	Pn	01 26 40.7	+0.5
PLD	Plovdiv	1.53	78	P	Pg	01 26 41.4	-0.9
PLD				Pg	Pg	01 26 41.8	-0.6
PLD				S	Sg	01 27 02.3	+0.2
PLD	Plovdiv	1.53	78	ePg	Pg	01 26 41.4	-0.9
PLD				eSg	Sg	01 27 02.3	+0.2
PLD	Plovdiv	1.53	78	Pg	Pg	01 26 41.8	-0.6
PLD	Plovdiv	1.53	78	Pg	Pg	01 26 41.8	-0.5
PLD				eSg	Sg	01 27 02.3	+0.1
PLG	Polygyros	1.54	158	P	Pn	01 26 40.9	+0.4
PLG				S	Sg	01 27 02.7	+0.2
PLG	Polygyros	1.54	158	ePg	Pn	01 26 40.9	+0.4
PLG				eSg	Sg	01 27 02.7	+0.2
PLG	Polygyros	1.54	158	ePg	Pg	01 26 40.9	-1.6
PLG				eSg	Sg	01 27 02.7	+0.2
PAIG	Paliouri	2.02	158	P	Pn	01 26 47.5	+0.4
PAIG	Paliouri	2.02	158	ePn	Pn	01 26 47.5	+0.4
PAIG	Paliouri	2.02	158	ePn	Pn	01 26 47.5	+0.4
KDZ	Kurdzhali	2.04	93	Pg	Pg	01 26 49.4	-2.8
KDZ	Kurdzhali	2.04	93	Pg	Pg	01 26 49.4	-2.8
KDZ	Kurdzhali	2.04	93	Pg	Pg	01 26 49.4	-2.8
GRUS	Gruza	2.54	326	ePn	Pn	01 26 55.9	+1.6
GRUS				eSg	Sg	01 27 33.8	-0.8
SVIS	Svilajnac	2.71	337	ePn	Pn	01 26 59.1	+2.5
SVIS				eSg	Sg	01 27 38.9	-1.3
DIVS	Divcibare	3.03	320	ePn	Pn	01 27 03.4	+2.4
DIVS				eSn	Sn	01 27 37.7	+0.4
DIVS				eSg	Sg	01 27 50.8	+0.5
BZS	Buzias	3.89	349	ePn	Pn	01 27 13.3	+0.5
BZS				eSg	Sg	01 28 16.5	-1.4
FGSL	Fruska Gora	3.95	329	ePn	Pn	01 27 16.7	+3.0
FGSL				eSg	Sg	01 28 20.1	+0.2

WEL 19 01:29:08.6±0.1,**3784S**×**17681E,h5**km,**ML3.5**/9,**Error ellipse: s-maj=0.9km s-min=0.8km az=90.0,North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MARZ	Manawahe	0.18	216	PG	Pg	01 29 12.5	+0.4
MARZ				SG	Sg	01 29 15.3	+0.8
EDRZ	Edgecumbe	0.27	192	PG	Pg	01 29 14.3	+0.5
EDRZ				SG	Sg	01 29 18.1	+0.7
LIRZ	Lichensteins R	0.37	244	PG	Pg	01 29 16.4	+0.6
LIRZ				SG	Sg	01 29 21.9	+1.2
MKRZ	Makatiti	0.40	222	PG	Pg	01 29 17.2	+0.9
WIZ	White Island	0.44	44	PG	Pg	01 29 17.4	+0.4
TGRZ	Tauranga	0.45	285	PG	Pg	01 29 17.5	+0.3
TGRZ				eSG	Sg	01 29 23.3	+0.2
TAZ	Tarawera	0.45	211	PG	Pg	01 29 18.5	+1.2
KARZ	Kaharoa	0.48	248	PG	Pg	01 29 18.3	+0.5
URZ	Urewera	0.48	150	PG	Pg	01 29 17.9	0.0
URZ				SG	Sg	01 29 24.7	+0.6
PATZ	Paeroa	0.69	219	P*	Pb	01 29 22.9	-0.2
MYRZ	Mayor Island	0.72	321	P*	Pb	01 29 22.3	-1.3
MWZ	Matawai	0.75	131	P*	Pb	01 29 23.0	-1.2
MWZ				eS*	Sb	01 29 33.3	-1.4
TOZ	Tahuroa Road	1.04	276	P*	Pb	01 29 27.6	-1.5
PUZ	Puketiti	1.17	102	eP*	Pb	01 29 30.5	-0.8
MXZ	Matakaoa Point	1.22	77	eP*	Pb	01 29 31.0	-1.2
KNZ	Kokohu	1.36	150	ePN	Pn	01 29 35.2	+0.9
KUZ	Kuaotunu	1.40	321	ePN	Pn	01 29 32.7	-2.1
HIZ	Hauiti	1.68	246	ePN	Pn	01 29 36.8	-1.8
WTAZ	Waiatarua	2.00	296	PN	Pn	01 29 43.2	+0.1

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*IDC **19** 02:33:39.8±0.4,169N×3084E,h0km,mb5.1/30, mb1 5.1/33,mb1mx5.1/35,mbtmp5.1/33,ML4.2/3,MS5.1/35, Ms1 5.1/35,ms1mx5.1/36,Error ellipse: s-maj=14.1km s-min=8.4km az=88.0*

*ISCJB **19** 02:33:41.6±0.2,164N±003×3070E±002,h27km, mb5.5/280,MS5.3/241,Error ellipse: s-maj=4.8km s-min=3.3km az=24.2*

*BJI **19** 02:33:42.1,226N×3069E,h18km,mB5.6,mb5.2,Ms5.4, Msz5.1*

*CRAAG **19** 02:33:42.2,180N×3067E,Mb5.6*

*NEIC **19** 02:33:43.0±0.1,175N×3076E,h19km,mb5.6/142,ME5.6, MS5.4/173,MW5.5,Error ellipse: s-maj=4.3km s-min=3.2km az=66.0 Broadband fault plane solution: P waves. NP1:ϕ_s60.00000°,δ65.00000°,λ-25.00000°. NP2:ϕ_s161.00000°,δ67.00000°,λ-153.00000°. Principal axes: T Plg2.0000°, Azm290.0000°; N Plg0.0000°, Azm0.0000°; P Plg35.0000°, Azm21.0000°; Moment Tensor Solution. s22 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.71; $M_{\theta\theta}$-1.16; $M_{\phi\phi}$1.86; $M_{r\theta}$-1.11; $M_{\theta\phi}$1.50; $M_{\phi r}$0.46; Best double couple: $M_0$2.50000×10^{17} NP1:ϕ_s62.00000°, δ67.00000°,λ-25.00000°. NP2:ϕ_s162.00000°,δ67.00000°, λ-155.00000°. Principal axes: T 2.4800, Plg0.0000°, Azm292.0000°; N 0.0800, Plg57.0000°, Azm202.0000°; P -2.5600, Plg33.0000°, Azm22.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC Felt [IV] at Arua and [III] at Entebbe and Kampala; felt at Fort Portal, Gulu, Hoima, Kajansi, Kitgum, Lira, Masaka and Pakwach, Uganda.

*MOS **19** 02:33:43.2±0.9,180N×3073E,h33km,mb5.8/116, MS5.0/55 Error ellipse: s-maj=8.3km s-min=2.7km az=101.3*

*GCMT **19** 02:33:44.4±0.1,172N×3065E,h28km,MW5.6/100, Moment Tensor Solution. s85,c148; s100,c227; Duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.31±.03; $M_{\theta\theta}$-1.26±.03; $M_{\phi\phi}$2.57±.04; $M_{r\theta}$-1.85±.07; $M_{\theta\phi}$1.26±.03; $M_{\phi r}$-0.12±.06; Best double couple: $M_0$3.15500×10^{17} NP1:ϕ_s160.00000°,δ53.00000°, λ-153.00000°. NP2:ϕ_s54.00000°,δ69.00000°, λ-40.00000°. Principal axes: T 3.0590, Plg10.0000°, Azm110.0000°; N 0.1910, Plg46.0000°, Azm210.0000°; P -3.2500, Plg43.0000°, Azm11.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*SZGRF **19** 02:33:44.6,188N×3094E,h34km,mb5.7,MS4.8,Uganda*

*BGS **19** 02:33:47.4,184N×2979E,h33km,mb5.6*

ISC 19 02:33:43.9±0.2,**164N**±003×**3071E**±002,**h29**km, **h29**km±.8km**:pP-P,n983,**σ**0^{s}80**/851,**mb5.5**/280,**MS5.3**/241, **57C-241D,Uganda**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMBO	Kilima Mbogo	7.10	113	ePn	Pn	02 35 24.1	-1.9
KMBO	Kilima Mbogo	7.10	113	⇑P	Pn	02 35 25.0	-0.9
	SNR=246						
KMBO	Kilima Mbogo	7.10	113	⇑Pn	Pn	02 35 25.0	-0.9
	SNR=246						
KMBO	Kilima Mbogo	7.10	113	Pn	Pn	02 35 24.6	-1.3
	16nm,0.3s,baz=286,slow=15,SNR=103						
KMBO				Sn	Sn	02 36 44.2	-1.5
	41nm,0.3s,baz=254,slow=19,SNR=4.0						
KMBO				Lg		02 37 18.6	
	88nm,0.3s,baz=36,slow=24,SNR=5.4						
KMBO				LR	LR	02 38 24.4	
	comp=Z,38µm,18.3s,baz=281,slow=41						
FURI	Furi	10.71	47	i P	Pn	02 36 17.0	+1.4
FURI	Furi	10.71	47	i P	Pn	02 36 17.0	+1.4
DESE	Dese	12.93	43	eP	Pn	02 36 45.6	-0.2
ATD	Arta Tunnel	15.54	50	Pn	Pn	02 37 19.9	-1.3
ATD				Lg		02 41 47.4	
ATD	Arta Tunnel	15.54	50	Pn	Pn	02 37 19.9	-1.3
	0.4nm,0.3s,baz=260,slow=8.8,SNR=14						
ATD				Lg		02 41 47.4	
	1.0nm,0.3s,baz=196,slow=20,SNR=2.7						
LSZ	Lusaka	17.00	188	P	Pn	02 37 40.1	+0.4
LSZ				S	Sn	02 40 52.7	+4.8
LSZ				Lg		02 42 24.8	
LSZ				LR	LR	02 44 20.7	
LSZ	Lusaka	17.00	188	P	Pn	02 37 40.1	+0.4
LSZ				S	Sn	02 40 52.7	+4.8
LSZ	Lusaka	17.00	188	P	Pn	02 37 40.1	+0.4
	0.6nm,0.3s,baz=16,slow=12,SNR=18						
LSZ				S	Sn	02 40 52.7	+4.8
	4.8nm,0.3s,baz=92,slow=20,SNR=2.7						
LSZ				Lg		02 42 24.8	
	12nm,0.3s,baz=308,slow=12,SNR=4.0						
LSZ				LR	LR	02 44 20.7	
	comp=Z,11µm,19.6s,baz=13,slow=38						
MATP	Matopo	22.04	186	P	P	02 38 36.6	+0.2
MATP				S	S	02 42 41.8	+3.6
MATP				Lg		02 45 05.1	
MATP				LR	LR	02 47 26.1	
MATP	Matopo	22.04	186	P	P	02 38 36.6	+0.2
	18nm,0.8s,mb4.5,baz=11,slow=12,SNR=12						
MATP				S	S	02 42 41.8	+3.6
	25nm,0.9s,baz=332,slow=20,SNR=2.0						
MATP				Lg		02 45 05.1	
	455nm,1.2s,baz=85,slow=23,SNR=6.1						
MATP				LR	LR	02 47 26.1	
	comp=Z,13µm,18.8s,MS5.4,baz=9.2,slow=37						
TSUM	Tsumeb	24.40	211	eP	P	02 39 02.2	+2.2
	63nm,0.9s,mb5.0						
TSUM				Lg		02 46 23.2	
TSUM				LR	LR	02 49 16.2	
TSUM	Tsumeb	24.40	211	P	P	02 39 02.5	+2.5
	30nm,1.2s,mb4.6,baz=20,slow=8.5,SNR=10						
TSUM				S	S	02 43 31.7	+14
	34nm,1.0s,baz=238,slow=23,SNR=3.1						
TSUM				Lg		02 46 23.2	
	254nm,1.3s,baz=340,slow=3.4,SNR=4.8						
TSUM				LR	LR	02 49 16.2	
	comp=Z,9µm,18.4s,MS5.3,baz=24,slow=38						
OPO	Ambohidratompo	25.81	142	P	P	02 39 14.3	+1.5
	28nm,1.0s,mb4.8,baz=310,slow=8.6,SNR=18						
LBTB	Lobatse	26.96	190	eP	P	02 39 26.0	+2.9
	101nm,0.9s,mb5.3						
LBTB				LR	LR		
	comp=Z,8µm,21.0s,MS5.3						
LBTB	Lobatse	26.96	190	P	P	02 39 24.2	+1.1
	comp=Z,28nm,1.0s,mb4.7,baz=0.7,slow=10,SNR=5.6						
LBTB				Lg		02 47 37.5	
	comp=Z,104nm,1.1s,baz=241,slow=8.6,SNR=2.6						
LBTB				LR	LR	02 50 19.2	
	comp=Z,8µm,19.7s,MS5.3,baz=26,slow=37						
ABTO	Aybut	27.14	54	⇓P	P	02 39 26.0	+1.1
	SNR=46						
ABTO	Aybut	27.14	54	⇓P	P	02 39 26.0	+1.1
	SNR=46						
WHFO	Wadi Hawf	27.83	53	⇑P	P	02 39 31.8	+0.8
	SNR=35						
WHFO	Wadi Hawf	27.83	53	⇑P	P	02 39 31.8	+0.8
	SNR=35						
RBK	Rabkut	27.95	54	⇓P	P	02 39 33.1	+1.0
	SNR=15						
RBK	Rabkut	27.95	54	⇓P	P	02 39 33.1	+1.0
	SNR=15						
EIL	Elat	28.16	8	P	P	02 39 34.4	+0.5
	comp=Z,29nm,0.9s,mb4.9,baz=194,slow=6.6,SNR=24						
EIL				Lg		02 48 32.1	
	comp=Z,6.5nm,1.0s,baz=85,slow=12,SNR=2.6						
EIL				LR	LR	02 49 57.7	
	comp=Z,4µm,20.1s,MS5.0,baz=182,slow=35						
BOSA	Boshof	30.54	189	eP	P	02 39 56.0	+1.1
BOSA				Lg		02 49 31.4	
BOSA				LR	LR		
	comp=Z,10µm,21.0s,MS5.5						
BOSA	Boshof	30.54	189	P	P	02 39 56.2	+1.3
	comp=Z,3.9nm,1.0s,mb4.2,baz=26,slow=12,SNR=3.2						
BOSA				Lg		02 49 31.4	
	comp=Z,34nm,1.0s,baz=241,slow=13,SNR=2.3						
TOA0	Torodi Ar. Sit	30.91	293	eP	P	02 39 58.3	-0.2
TORD	Torodi Ar. Bea	30.91	293	P	P	02 39 58.1	-0.3
	comp=Z,7.5nm,0.7s,mb4.6,baz=110,slow=6.9,SNR=62						
TORD				Lg		02 49 51.5	
	comp=Z,65nm,1.0s,baz=118,slow=33,SNR=7.1						
TORD				LR	LR	02 52 45.2	
	comp=Z,6µm,19.2s,MS5.3,baz=135,slow=37						
ASF	Jabal al Asfar	30.92	10	P	P	02 39 59.5	+1.2
	comp=Z,49nm,1.1s,mb5.3,baz=69,slow=4.1,SNR=67						
ASF				LR	LR	02 51 41.3	
	comp=Z,1µm,19.8s,MS4.6,baz=237,slow=35						
MMAI	Mount Meron Ar	31.52	8	P	P	02 40 04.5	+1.0
	comp=Z,49nm,1.0s,mb5.3,baz=183,slow=9.9,SNR=46						
MMAI				LR	LR	02 52 53.0	
	comp=Z,3µm,19.0s,MS5.0,baz=195,slow=37						
RDF	Al-Radifah	31.53	29	eP	P	02 40 04.2	+0.5
RDF				AMb	AMB	02 40 06.0	
	comp=Z,167nm,1.4s,mb5.7						
QRN	Al-Qurain	31.56	30	eP	P	02 40 04.9	+0.9
QRN				AMb	AMB	02 40 08.4	
	comp=Z,271nm,1.4s,mb5.9						
NAY	Al-Naaiem	31.65	28	eP	P	02 40 05.2	+0.5
NAY				AMb	AMB	02 40 07.4	
	comp=Z,65nm,1.1s,mb5.3						
KBD	Kabd	31.80	29	eP	P	02 40 07.0	+0.9
KBD				AMb	AMB	02 40 10.2	
	comp=Z,402nm,1.2s,mb6.1						
RCY	Rachaya	32.03	8	eP	P	02 40 09.3	+1.2
UMR	Umm Al-Rimmam	32.13	29	eP	P	02 40 09.7	+0.8
UMR				AMb	AMB	02 40 11.7	
	comp=Z,164nm,1.1s,mb5.8						
MIB	Mutribah	32.16	28	eP	P	02 40 10.0	+0.8
MIB				AMb	AMB	02 40 11.9	
	comp=Z,210nm,0.9s,mb6.0						
BHL	Bhannes	32.42	8	eP	P	02 40 11.9	+0.4
HWQ	Hawqa	32.83	8	eP	P	02 40 15.9	+0.8
FKH	Fakeheh	32.86	9	eP	P	02 40 16.7	+1.4
ARQ	Araqi	33.04	47	P	P	02 40 18.3	+1.3
	SNR=11						
ARQ	Araqi	33.04	47	P	P	02 40 18.3	+1.3
	SNR=11						
BSY	Bisya	33.19	49	⇓P	P	02 40 19.0	+0.7
	SNR=23						
BSY	Bisya	33.19	49	⇓P	P	02 40 19.0	+0.7
	SNR=23						
CSS	Prodhromos	33.24	4	⇓iP	P	02 40 19.3	+0.7
	comp=Z,393nm,1.2s,mb6.2						
CSS	Prodhromos	33.24	4	eP	P	02 40 19.3	+0.7
ASHO	Ashiyiah	33.53	45	⇓P	P	02 40 22.0	+0.7
	SNR=45						
ASHO	Ashiyiah	33.53	45	⇓P	P	02 40 22.0	+0.7
	SNR=45						
ZKR	Zakros	33.56	353	eP	P	02 40 22.7	+1.3
GVD	Gavdhos	33.60	350	eP	P	02 40 22.2	+0.5
SIVA	Sivas	33.65	351	eP	P	02 40 22.9	+0.7
JMDO	Jabal Madar	33.67	50	⇑P	P	02 40 23.3	+0.8
	SNR=9.2						
JMDO	Jabal Madar	33.67	50	⇑P	P	02 40 23.3	+0.8
	SNR=9.2						
HATD	Hatta, Dubai	33.67	45	⇑P	P	02 40 23.3	+0.8
	SNR=36						
HATD	Hatta, Dubai	33.67	45	⇑P	P	02 40 23.3	+0.8
	SNR=36						
LAST	Lasithi	33.70	352	eP	P	02 40 23.7	+1.1
HOQ	Hoqain	33.76	48	⇓P	P	02 40 24.0	+0.7
	SNR=19						
HOQ	Hoqain	33.76	48	⇓P	P	02 40 24.0	+0.7
	SNR=19						
NPS	Neapolis	33.78	352	eP	P	02 40 24.0	+0.7
KARP	Karpathos	33.89	355	eP	P	02 40 25.5	+1.2
IDI	Anoyia	33.91	351	P	P	02 40 25.4	+1.0
	comp=Z,118nm,0.9s,mb5.8,baz=177,slow=11,SNR=27						
IDI				LR	LR	02 54 48.7	
	comp=Z,3µm,20.1s,MS5.0,baz=9.0,slow=37						
BHD	Baghdad	33.98	21	i P	x	02 40 25.0	
BHD				ePP	x	02 41 40.0	
BHD				eS	x	02 45 45.0	
SMDO	Samad	34.01	49	⇓P	P	02 40 26.0	+0.5
	SNR=22						
SMDO	Samad	34.01	49	⇓P	P	02 40 26.0	+0.5
	SNR=22						
VAM	Vamos	34.13	351	eP	P	02 40 27.0	+0.6
KARN	Karanos	34.17	350	eP	P	02 40 27.5	+0.8
BIDO	Bidbid	34.34	49	⇓P	P	02 40 29.8	+1.5
	SNR=11						
BIDO	Bidbid	34.34	49	⇓P	P	02 40 29.8	+1.5
	SNR=11						
ARG	Arkhangelos	34.48	356	eP	P	02 40 39.0	+10
BANOM	Banah	34.49	43	⇓P	P	02 40 30.3	+0.7
	SNR=44						
BANOM	Banah	34.49	43	⇓P	P	02 40 30.3	+0.7
	SNR=44						
SUR	Sutherland	35.11	195	eP	P	02 40 36.2	+1.4
	comp=Z,120nm,1.1s,mb5.7						
SUR				epP	pP	02 40 45.1	+1.6
SUR				esP	sP	02 40 48.9	+1.9
SUR				LR	LR		
	comp=Z,13µm,21.0s,MS5.7						
SUR	Sutherland	35.11	195	P	P	02 40 39.0	+4.1
	comp=Z,22nm,1.1s,mb5.0,baz=12,slow=9.3,SNR=2.3						
KYTH	Kithira	35.19	349	eP	P	02 40 36.5	+1.0
APE	Apeiranthos	35.57	353	eP	P	02 40 39.7	+0.9
APE	Apeiranthos	35.57	353	eP	P	02 40 31.0	-7.8
APE	Apeiranthos	35.57	353	⇑iP	P	02 40 39.6	+0.8
VLI	Veliai	35.63	349	eP	P	02 40 39.5	+0.2
KIC	Kosan Boka	35.66	279	eP	P	02 40 38.6	-1.3
	comp=Z,151nm,0.8s,mb6.0						
LIC	Lamto	35.93	278	eP	P	02 40 41.7	-0.5
	comp=Z,66nm,0.8s,mb5.3,baz=105						
LIC				eMLR	MLR		
	comp=Z,1µm,19.4s,MS4.3						
LIC	Lamto	35.93	278	eP	P	02 40 41.5	-0.7
	comp=Z,103nm,0.8s,mb5.8						
LIC	Lamto	35.93	278	eP	P	02 40 41.7	-0.5
	comp=Z,33nm,0.8s,mb5.3						
LIC				LR	LR		
	comp=Z,520nm,19.4s,MS4.3						
TIC	Toumodi	35.97	279	eP	P	02 40 42.3	-0.2
	comp=Z,336nm,0.9s,mb6.3						
ISP	Isparta	36.02	360	eP	P	02 40 44.1	+1.5
ISP	Isparta	36.02	360	eP	P	02 40 42.9	+0.3
ISP	Isparta	36.02	360	⇑iP	P	02 40 43.5	+0.9
PYL	PYLOS	36.04	348	eP	P	02 40 43.0	+0.2
SMG	Samos	36.06	355	eP	P	02 40 44.0	+1.0
ITM	Ithomi	36.28	348	eP	P	02 40 45.8	+1.0
DID	Didima	36.34	350	eP	P	02 40 45.1	-0.3
VLX	Vlachokerasia	36.37	349	eP	P	02 40 46.9	+1.3
NAIG	Nisos Aigina	36.55	350	eP	P	02 40 47.0	-0.1
KVR	Kavouri	36.57	351	eP	P	02 40 47.0	-0.3
BLCB	Balcova	36.72	355	eP	P	02 40 49.9	+1.3
CHOS	Chios island	36.81	354	eP	P	02 40 50.8	+1.4
LTK	Loutraki	36.89	350	eP	P	02 40 50.0	0.0
MALT	Malatya	37.17	10	eP	P	02 40 54.0	+1.5
	comp=Z,306nm,1.3s,mb6.0						
MALT	Malatya	37.17	10	⇑P	P	02 40 54.4	+2.0
MALT	Malatya	37.17	10	⇑iP	P	02 40 54.3	+1.9
VLS	Valsamata	37.52	347	eP	P	02 40 56.3	+0.9
EVR	Evrytania	37.98	349	eP	P	02 41 00.0	+0.8
AGG	Agios Georgios	37.98	349	eP	P	02 40 58.9	-0.4
BR131	Keskin Array S	38.00	4	eP	P	02 41 00.5	+1.1
	comp=Z,112nm,1.0s,mb5.5						
BR131				LR	LR		
	comp=Z,963nm,20.0s,MS4.6						
BRTR	Keskin Array B	38.00	4	P	P	02 41 00.1	+0.7
	comp=Z,86nm,0.9s,mb5.5,baz=179,slow=8.6,SNR=289						
BRTR				LR	LR	02 58 09.7	
	comp=Z,1µm,18.4s,MS4.7,baz=147,slow=39						
LKD	Levkas	38.02	347	eP	P	02 41 00.8	+1.2
ANTO	Ankara	38.09	3	P	P	02 41 01.3	+1.1
ANTO				LR	LR		
	comp=Z,1µm,22.0s,MS4.7						
ANTO	Ankara	38.09	3	P	P	02 41 01.0	+0.8
ANTO				pmax	pmax		
	comp=Z,62nm,1.2s,mb5.2						
ANTO	Ankara	38.09	3	⇑P	P	02 41 00.9	+0.8
	SNR=13						

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ANTO  Ankara             38.09   3 ⇑P      P      02 41 00.9 +0.8
      SNR=13
ANTO  Ankara             38.09   3⇓iP      P      02 41 01.0 +0.8
SOI   Samo               38.67 341  P      P      02 41 06.3 +1.2
VAE   Valguarnera        38.69 339  P      P      02 41 05.4 +0.1
      comp=Z,13nm,0.8s,mb4.7,baz=27,slow=14,SNR=2.0
VAE                                 LR     LR     02 58 43.5
      comp=Z,5µm,19.0s,MS5.3,baz=323,slow=39
IGT   Igoumenitsa        38.88 347 eP      P      02 41 07.5 +0.8
SCLL  Scilla             38.95 341  P      P      02 41 08.5 +1.1
OUR   Ouranopolis        38.99 352 eP      P      02 41 07.9 +0.2
LIT   Litokhoron         39.00 350 eP      P      02 41 07.7 -0.1
PLG   Polygyros          39.11 351 eP      P      02 41 08.6 -0.1
CSLB  Castelbuono        39.22 339  P      P      02 41 11.1 +1.4
SRN   Sarande            39.28 347 i PN    P      02 41 10.3 +0.1
KEST  Kesra              39.29 332  P      P      02 41 11.1 +0.8
      comp=Z,6.3nm,1.1s,mb4.3,baz=86,slow=1.8,SNR=9.0
KEST                                LR     LR     02 58 50.8
      comp=Z,1µm,19.0s,MS4.8,baz=272,slow=38
ALN   Alexandroupoli     39.30 354 eP      P      02 41 11.2 +0.9
HORT  Hortiatis          39.38 351 eP      P      02 41 12.1 +1.1
THE   Thessaloniki       39.44 351 eP      P      02 41 11.7 +0.3
TIP   Timpagrande        39.47 343 eP      P      02 41 12.0 +0.3
SOH   Sokhos             39.56 351 eP      P      02 41 12.9 +0.4
RDO   Rodhopi            39.60 354 eP      P      02 41 13.0 +0.2
SRS   Serrai             39.82 352 eP      P      02 41 14.5 -0.1
KBN   Korca              39.83 348 i PN    P      02 41 16.0 +1.3
GRG   Griva              39.85 350 eP      P      02 41 15.2 +0.4
FNA   Florina            39.87 349 eP      P      02 41 15.3 +0.3
KNT   Kendrikon          39.97 351 eP      P      02 41 16.3 +0.5
BIA   Bitola             40.10 349 eP      P      02 41 16.9 -0.1
BIA   Bitola             40.10 349 eP      P      02 41 16.8 -0.2
KDZ   Kurdzhali          40.11 354  P      P      02 41 17.5 +0.5
VAY   Valandovo          40.17 350 eP      P      02 41 17.8 +0.2
RZN   Rozhen             40.23 353  P      P      02 41 18.7 +0.7
MMB   Musomiste          40.26 352  P      P      02 41 17.5 -0.8
OHR   Ohrid              40.30 348 eP      P      02 41 18.4 -0.2
KRUS  Krusevo            40.46 349 eP      P      02 41 20.3 +0.4
STIP  Stip               40.60 350 eP      P      02 41 22.8 +1.7
STIP  Stip               40.60 350 eP      P      02 41 22.0 +0.9
KKB   Krupnik            40.63 351  P      P      02 41 21.1 -0.2
PLD   Plovdiv            40.64 353 eP      P      02 41 22.3 +0.9
TIR   Tirane             40.72 347 eP      P      02 41 23.2 +1.1
TIR   Tirane             40.72 347 i PN    P      02 41 23.0 +0.9
PHP   Peshkopia          40.92 348 i PN    P      02 41 24.2 +0.5
CMAH  Djebel Manchou     40.92 331  P      P      02 41 26.0 +2.1
SKO   Skopje             41.00 349 eP      P      02 41 25.3 +0.9
CKFL  Kef-Lekhel         41.09 330  P      P      02 41 27.0 +1.8
CASM  Ain Smara          41.10 330  P      P      02 41 28.0 +2.7
PGB   Panagyurishte      41.15 353  P      P      02 41 25.4 -0.2
SGO   Sicignano          41.18 342  P      P      02 41 25.9  0.0
VTS   Vitosha            41.32 352 ⇓P      P      02 41 27.7 +0.7
VTS   Vitosha            41.32 352  P      P      02 41 28.0 +1.0
VTS   Vitosha            41.32 352⇓iP      P      02 41 27.6 +0.6
CKHR  Kef el Ahmar       41.41 329  P      P      02 41 32.0 +4.1
PRD   Provadia           41.48 356  P      P      02 41 29.0 +0.7
SET   Setif              41.61 329  P      P      02 41 30.0 +0.5
SZH   Strazhica          41.66 355  P      P      02 41 30.0 +0.2
PVL   Pavlikeni          41.67 354  P      P      02 41 29.7 -0.1
DGRG  David-gareji       41.78  17  P      P      02 41 32.6 +1.8
MTA   Mtatsminda         41.84  16  P      P      02 41 32.6 +1.3
TBLG  Delisi             41.86  16  P      P      02 41 32.7 +1.3
PSN   Preselentsi        41.92 357  P      P      02 41 31.9  0.0
ZIMR                     42.10 354  P      P      02 41 33.9 +0.5
ZIMR                     42.10 354⇑iP      P      02 41 34.6 +1.2
FG2   Serracapriola      42.36 343  P      P      02 41 35.7 +0.2
      comp=Z,461nm,1.5s,mb5.9
SOC   Sochi              42.52  10 i P     P      02 41 37.5 +0.7
SOC   Sochi              42.52  10d iP     P      02 41 36.5 -0.3
SOC                                e*PP    pP     02 41 43.0 -2.5
SOC                                e*SP    sP     02 41 49.1 +0.1
SOC                                e              02 43 17.3
SOC                                ePPP           02 43 43.1
SOC                                eS      S      02 47 59.0 +1.7
SOC                                 pmax   pmax
      comp=Z,166nm,1.0s,mb5.7
SOC                                 MLR    MLR
      comp=Z,1µm,13.0s,MS5.0
ZEI   Tsey               42.61  14 eP      P      02 41 39.0 +1.4
ZEI                                e*PP    pP     02 41 44.4 -1.9
ZEI                                 pmax   pmax
      comp=Z,143nm,1.5s,mb5.5
TIRR  Tirgusor           42.68 358  P      P      02 41 38.5 +0.4
TIRR  Tirgusor           42.68 358⇓iP      P      02 41 38.0 -0.1
BUC1  Bucharest          42.72 355  P      P      02 41 39.3 +0.8
BUC1  Bucharest          42.72 355⇓iP      P      02 41 39.1 +0.7
CRAR  CRAIOVA            42.94 353  P      P      02 41 40.9 +0.7
SIM   Simferopol'        43.23   4d iP     P      02 41 42.2 -0.3
SIM                                e              02 43 22.0
SIM                                eS      S      02 48 13.0 +5.4
SIM                                 pmax   pmax
      comp=Z,175nm,1.1s,mb5.7
SIM                                 MLR    MLR
      comp=Z,800nm,15.0s,MS4.7
DIVS  Divcibare          43.33 349 eP      P      02 41 44.3 +0.9
ANN   Anapa              43.38   7c iP     P      02 41 42.7 -1.1
ANN                                e              02 43 24.8
ANN                                eS      S      02 48 09.6 -0.3
ANN                                eSS     SS     02 51 20.1 -4.4
ANN                                 pmax   pmax
      comp=Z,184nm,2.3s,mb5.4
ANN                                 MLR    MLR
      comp=Z,1µm,18.0s,MS4.8
AQU   L'Aquila           43.40 341 eP      P      02 41 44.1 +0.2
AQU   L'Aquila           43.40 341⇓iP      P      02 41 44.0  0.0
KIV   Kislovodsk         43.45  13 eP      P      02 41 44.8 +0.4
      comp=Z,219nm,1.4s,mb5.7
KIV                                 LR     LR
      comp=Z,2µm,20.0s,MS5.0
KIV   Kislovodsk         43.45  13d iP     P      02 41 44.7 +0.3
KIV                                e              02 43 29.1
KIV                                e              02 43 37.2
KIV                                eS      S      02 48 10.3 -0.7
KIV                                eSS     SS     02 51 21.5 -4.5
KIV                                 pmax   pmax
      comp=Z,99nm,1.1s,mb5.5
KIV                                 pmax   pmax
      comp=Z,199nm,3.8s
KIV                                 MLR    MLR
      comp=Z,2µm,16.0s,MS5.0
KIV   Kislovodsk         43.45  13  P      P      02 41 45.2 +0.8
      SNR=24
KIV   Kislovodsk         43.45  13  P      P      02 41 45.2 +0.8
      SNR=24
MAK   Makhachkala        43.79  18d iP     P      02 41 42.8 -4.3
MAK                                i              02 43 28.6
MAK                                ePPP           02 43 59.2
MAK                                eS      S      02 48 11.1 -4.8
MAK                                eSSS           02 52 07.4
MAK                                 pmax   pmax
      comp=Z,451nm,2.4s,mb5.8
MAK                                 pmax   pmax
      comp=N,252nm,1.5s
MAK                                 pmax   pmax
      comp=E,384nm,1.8s
MAK                                 MLR    MLR
      comp=Z,2µm,15.0s,MS5.2
MLR   Muntele Rosu       43.87 355  P      P      02 41 48.5 +0.9
MLR   Muntele Rosu       43.87 355  P      P      02 41 48.4 +0.8
      comp=Z,78nm,0.9s,mb5.4,baz=167,slow=4.4,SNR=150
MLR                                 PP     PP     02 43 32.4 +2.2
      comp=Z,16nm,0.9s,baz=173,slow=16,SNR=4.1
MLR                                 LR     LR     03 04 45.9
      comp=Z,1µm,18.5s,MS4.9,baz=333,slow=43
MLR   Muntele Rosu       43.87 355⇓iP      P      02 41 48.5 +0.9
VOIR                     43.90 354  P      P      02 41 48.1 +0.3
VOIR                     43.90 354⇑iP      P      02 41 47.7 -0.2
GZR   Gura Zlata         44.12 352  P      P      02 41 49.8 +0.1
GZR   Gura Zlata         44.12 352⇑iP      P      02 41 50.3 +0.6
PLOR  Plostina           44.17 356⇓iP      P      02 41 50.4 +0.3
VRI   Vrincioaia         44.18 356  P      P      02 41 50.7 +0.6
VRI   Vrincioaia         44.18 356⇑iP      P      02 41 51.0 +0.9
ASS   Assisi             44.28 341  P      P      02 41 50.3 -0.7
      comp=Z,4.8nm,1.2s,mb4.1
ASS   Assisi             44.28 341  P      P      02 41 50.3 -0.7
ASS                                 pmax   pmax
      comp=Z,5.0nm,1.2s,mb4.1
BZS   Buzias             44.52 351  P      P      02 41 53.0 +0.1
BZS   Buzias             44.52 351⇓iP      P      02 41 52.7 -0.1
CORF  Corte              44.86 337 eP      P      02 41 55.8 +0.2
NVLJ  Novalja            44.98 344  iP     P      02 41 56.3 -0.3
MNGI  Mangalore          45.09  73 ex      x      02 42 31.6
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PGF   Pioggiola          45.13 337⇓iP      P      02 41 57.6 -0.2
      comp=Z,303nm,1.4s,mb5.7
PGF   Pioggiola          45.13 337⇓iP      P      02 41 57.6 -0.2
      comp=Z,151nm,1.4s,mb5.6
PGF   Pioggiola          45.13 337⇓iP      P      02 41 57.6 -0.2
PGF                                 pmax   pmax
      comp=Z,151nm,1.4s,mb5.6
KIS   Kishinev           45.20 358⇓iP      P      02 41 56.0 -2.3
KIS                                e              02 43 50.0
KIS                                e              02 48 36.0
KIS                                 pmax   pmax
      comp=Z,700nm,1.2s,mb6.4
KIS                                 pmax   pmax
      comp=Z,2µm,2.0s,mb6.5
KIS                                 MLR    MLR
      comp=Z,1µm,15.0s,MS4.9
KIS                                 MLR    MLR
      comp=Z,800nm,16.0s
KIS   Kishinev           45.20 358⇓iP      P      02 41 56.0 -2.3
      comp=Z,700nm,1.2s,mb6.4
KIS   Kishinev           45.20 358 ePP     PP     02 43 50.0 +5.6
MDT   Midelt             45.40 317  P      P      02 42 01.4 +1.3
MDT                                 LR     LR     03 02 42.2
MDT   Midelt             45.40 317  P      P      02 42 01.4 +1.3
      comp=Z,17nm,1.0s,mb4.8,baz=117,slow=10.0,SNR=14
MDT                                 LR     LR     03 02 42.2
      comp=Z,6µm,20.6s,MS5.5,baz=130,slow=38
RHK3  Tenkes             45.40 348⇓iP      P      02 42 00.4 +0.5
SISC  Sisak              45.43 346  iP     P      02 41 60.0 -0.2
IAS   Iasi               45.45 357  P      P      02 42 00.4 +0.2
IAS   Iasi               45.45 357⇓iP      P      02 42 00.3  0.0
KAD   Karad              45.46  67 eP      P      02 42 00.6 -0.3
KAD                                 AMb    AMB    02 42 04.0
      comp=Z,77nm,1.3s,mb5.4
POO   Poona              45.49  65 eP      P      02 42 00.9 -0.2
DRGR                     45.50 352  P      P      02 42 01.4 +0.7
DRGR                     45.50 352⇓iP      P      02 42 01.2 +0.5
PKSM  Moragy             45.63 348  P      P      02 42 02.3 +0.6
PKSM  Moragy             45.63 348⇓iP      P      02 42 02.2 +0.5
BOJS  Bojanci            45.75 345 eP      P      02 42 02.8 +0.2
BOJS                               e              02 42 26.8
BOJS                               eS      S      02 48 44.1 -0.1
ASCN  Ascension          45.94 257  PFAKE         02 42 20.0  +15
ASCN                                LR     LR
      comp=Z,4µm,20.0s,MS5.3
CRES  Cresnjev           45.99 345 eP      P      02 42 05.0 +0.4
CRES                               eS      S      02 48 48.1 +0.3
VLC   Villacollemand     46.02 340 eP      P      02 42 03.5 -1.3
BURAR Bucovina Array     46.04 355 ⇓P      P      02 42 06.1 +1.2
BURAR Bucovina Array     46.04 355⇓iP      P      02 42 06.1 +1.2
PKSN  Nyarlorinc         46.05 350⇓eP      P      02 42 06.3 +1.3
GSCL  Gusciola           46.11 340  P      P      02 42 03.5 -2.1
      comp=Z,67nm,1.0s,mb5.5
SKDS  Skadanscina        46.12 344 eP      P      02 42 05.7 +0.1
ERBM  Eremo              46.23 340  P      P      02 42 05.1 -1.4
      comp=Z,49nm,1.0s,mb5.4
KOGS  Kog                46.38 346 eP      P      02 42 08.3 +0.7
LJU   Ljubljana          46.44 344 i P     P      02 42 08.3 +0.2
LJU                                eSS     SS     02 52 28.1 +7.7
ENIJ  Nijar              46.44 323  P      P      02 42 08.9 +0.6
      comp=Z,2.0nm,0.4s,mb4.4
ENIJ  Nijar              46.44 323  P      P      02 42 08.9 +0.6
ENIJ                                pmax   pmax
      comp=Z,2.0nm,0.4s,mb4.4
EMUR  La Murta           46.45 325  P      P      02 42 08.9 +0.6
      comp=Z,23nm,0.9s,mb5.1
VOY   Vojsko             46.60 344 eP      P      02 42 09.5 +0.2
VOY                                e       pP     02 42 17.2 -0.9
VOY                                e              02 42 27.8
VOY                                e              02 42 40.9
ZAVS  Zavodnje           46.67 345 i P     P      02 42 10.3 +0.4
BUD   Budapest           46.77 349⇓iP      P      02 42 11.3 +0.6
BUD   Budapest           46.77 349⇓i       P      02 42 11.3 +0.6
LMR   La Mourre          46.78 336⇓iP      P      02 42 10.4 -0.4
      comp=Z,237nm,1.3s,mb5.7
LMR   La Mourre          46.78 336⇓iP      P      02 42 10.4 -0.4
      comp=Z,119nm,1.3s,mb5.7
LMR   La Mourre          46.78 336⇓iP      P      02 42 10.4 -0.4
LMR                                 pmax   pmax
      comp=Z,119nm,1.3s,mb5.7
EBER  Berja              46.80 323  P      P      02 42 11.4 +0.3
      comp=Z,38nm,1.1s,mb5.2
CADS  Cadrg              46.82 344 eP      P      02 42 11.1  0.0
CADS                               ePP     PP     02 44 04.7 +3.2
PERS  Pernice            46.83 345 eP      P      02 42 11.8 +0.7
PERS                               e              02 43 45.0
PERS                               ePP     PP     02 44 03.3 +1.7
FIN   Finale Ligure      46.85 338  P      P      02 42 10.4 -0.9
      comp=Z,72nm,1.1s,mb5.5
FIN   Finale Ligure      46.85 338  P      P      02 42 10.4 -0.9
FIN                                 pmax   pmax
      comp=Z,72nm,1.1s,mb5.5
OBKA  Obir               46.86 345⇓iP      P      02 42 11.9 +0.5
      comp=Z,228nm,1.6s,mb5.8
SAOF  Saorge             46.91 337 eP      P      02 42 11.0 -0.8
FRF   La Foret Royal     46.91 336⇓iP      P      02 42 11.4 -0.4
      comp=Z,244nm,1.2s,mb5.7
FRF   La Foret Royal     46.91 336⇓iP      P      02 42 11.4 -0.4
      comp=Z,122nm,1.2s,mb5.7
FRF   La Foret Royal     46.91 336⇓iP      P      02 42 11.4 -0.4
FRF                                 pmax   pmax
      comp=Z,122nm,1.2s,mb5.7
CALN  Calern             46.98 336 eP      P      02 42 11.6 -0.7
MVIF  Mont Vial          46.99 337 eP      P      02 42 12.1 -0.3
PENC  Penc               47.02 349⇓iP      P      02 42 13.5 +0.9
PSZ   Piszkesteto        47.03 350 eP      P      02 42 13.2 +0.5
PSZ   Piszkesteto        47.03 350⇓i       P      02 42 13.2 +0.5
PSZ   Piszkesteto        47.03 350⇑iP      P      02 42 13.1 +0.4
TOUF  Mont Tournerai     47.05 337 eP      P      02 42 12.7 -0.2
PTCC  Patocco-Chiusa     47.09 344 i Pr    P      02 42 13.3 +0.1
      comp=Z,43nm,0.9s,mb5.4
EGUA  Guajares           47.18 322  P      P      02 42 14.1 +0.1
      comp=Z,2.5nm,1.2s
EGUA  Guajares           47.18 322  P      P      02 42 14.1 +0.1
EGUA                                pmax   pmax
      comp=Z,3.0nm,1.2s,mb4.1
ETOB  Tobarra            47.18 325  P      P      02 42 14.2 +0.2
      comp=Z,67nm,1.6s,mb5.3
MYKA  Terra Mystica      47.22 344⇓iP      P      02 42 14.5 +0.4
      comp=Z,4µm,3.0s
KOD   Kodaikanal         47.23  78 eP      P      02 42 12.8 -2.0
ARSA  Arzberg            47.31 346⇓iP      P      02 42 15.7 +0.9
      comp=Z,650nm,2.5s,mb6.1
UZH   Uzhgorod           47.36 352⇑iP      P      02 42 15.2 -0.1
UZH                                e       pP     02 42 24.5 +0.5
UZH                                i              02 42 29.0
UZH                                e              02 44 04.7
UZH                                i S     S      02 49 06.0 -1.3
UZH                                 MLR    MLR
      comp=Z,1µm,16.0s,MS4.9
ERON  Agron              47.44 322  P      P      02 42 17.3 +1.2
      comp=Z,53nm,1.1s,mb5.4
ECOG  Cogollos-Vega      47.46 322  P      P      02 42 16.9 +0.7
      comp=Z,44nm,1.0s,mb5.3
ECOG  Cogollos-Vega      47.46 322  P      P      02 42 16.9 +0.7
ECOG                                pmax   pmax
      comp=Z,44nm,1.0s,mb5.3
SOP   Sopron             47.47 347⇓iP      P      02 42 16.7 +0.6
SOP   Sopron             47.47 347⇓i       P      02 42 16.7 +0.6
KECS  Kecovo             47.48 351 eP      P      02 42 16.9 +0.7
      comp=Z,187nm,1.0s,mb6.0
KECS  Kecovo             47.48 351 eP      P      02 42 16.9 +0.7
KECS                                pmax   pmax
      comp=Z,187nm,1.0s,mb6.0
EQES  Quesada            47.50 323  P      P      02 42 17.5 +1.0
      comp=Z,42nm,1.0s,mb5.4
ECHE  Chera              47.51 327  P      P      02 42 17.1 +0.5
      comp=Z,12nm,0.8s,mb5.0
ECHE  Chera              47.51 327  P      P      02 42 17.1 +0.5
ECHE                                pmax   pmax
      comp=Z,12nm,0.8s,mb5.0
ABTA  Abfaltersbach      47.65 343⇑iP      P      02 42 17.8 +0.3
      comp=Z,301nm,2.5s,mb5.9
KOLS  Kolonicke sedl     47.66 352 eP      P      02 42 18.5 +0.9
SMRF  Simiane la Rot     47.70 336 eP      P      02 42 18.0 +0.1
      comp=Z,128nm,1.3s,mb5.5
SMRF  Simiane la Rot     47.70 336 eP      P      02 42 18.0 +0.1
      comp=Z,128nm,1.3s,mb5.8
EPOB  Poblet             47.71 330  P      P      02 42 17.9 -0.2
      comp=Z,38nm,1.2s,mb5.3
KBA   Koelnbreinsper     47.71 344⇑iP      P      02 42 18.6 +0.6
      comp=Z,248nm,1.4s,mb6.0
KBA   Koelnbreinsper     47.71 344⇑iP      P      02 42 18.6 +0.6
KBA                                 pmax   pmax
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      comp=Z,248nm,1.4s,mb6.0
EVIA  Vianos             47.73 325  P      P      02 42 18.3  0.0
      comp=Z,24nm,0.8s,mb5.3
EVIA  Vianos             47.73 325  P      P      02 42 18.3  0.0
EVIA                                pmax   pmax
      comp=Z,25nm,0.8s,mb5.3
SEST  Monte Rota         47.73 343  P      P      02 42 19.1 +0.9
ELOJ  Sierra Loja        47.74 322  P      P      02 42 18.3 -0.1
      comp=Z,52nm,1.0s,mb5.5
ELOJ  Sierra Loja        47.74 322  P      P      02 42 18.3 -0.1
ELOJ                                pmax   pmax
      comp=Z,52nm,1.0s,mb5.5
CRVS  Cervenica-Dubn     47.74 352 eP      P      02 42 19.1 +0.9
EMIJ  Mijas              47.76 321  P      P      02 42 18.4 -0.2
      comp=Z,19nm,1.1s,mb5.0
VYHS  Vyhne              47.78 349 i P     P      02 42 18.8 +0.3
      comp=Z,148nm,1.2s,mb5.9
VYHS                               ePP     PP     02 44 09.7 -0.8
VYHS  Vyhne              47.78 349 i P     P      02 42 18.8 +0.3
VYHS                                pmax   pmax
      comp=Z,148nm,1.2s,mb5.9
EMOS  Mosqueruela        47.79 328  P      P      02 42 18.9 +0.1
      comp=Z,146nm,1.4s,mb5.8
ERTA  Horta de San J     47.80 329  P      P      02 42 18.7 -0.1
      comp=Z,81nm,1.3s,mb5.6
MBDF  Montbardon         47.84 337⇓iP      P      02 42 19.3 +0.3
      comp=Z,233nm,1.1s,mb5.8
MBDF  Montbardon         47.84 337⇓iP      P      02 42 19.3 +0.3
      comp=Z,116nm,1.1s,mb5.8
MBDF  Montbardon         47.84 337⇓iP      P      02 42 19.3 +0.3
MBDF                                pmax   pmax
      comp=Z,116nm,1.1s,mb5.8
ZST   Bratislava         47.84 348 i P     P      02 42 19.2 +0.2
      comp=Z,263nm,1.8s,mb6.0
ZST                                ePP     PP     02 44 11.7 +0.7
ZST                                 LR     LR
      comp=Z,1µm,18.0s,MS5.0
ZST   Bratislava         47.84 348 i P     P      02 42 19.2 +0.2
ZST                                ePP     PP     02 44 11.7 +0.7
CONA  Conrad Observa     47.86 347⇓iP      P      02 42 19.7 +0.6
      comp=Z,80nm,1.1s,mb5.6
EMIR  Miracle            47.91 331  P      P      02 42 19.5 -0.1
      comp=Z,26nm,0.8s,mb5.3
ELUQ  Luque              48.07 322  P      P      02 42 21.0  0.0
      comp=Z,19nm,0.9s,mb5.1
ELUQ  Luque              48.07 322  P      P      02 42 21.0  0.0
ELUQ                                pmax   pmax
      comp=Z,19nm,0.9s,mb5.1
SMOL  Smolenice          48.07 348 eP      P      02 42 20.7 -0.1
EJIF  Jimena Fronter     48.13 320  P      P      02 42 21.5  0.0
      comp=Z,26nm,1.0s,mb5.2
EJIF  Jimena Fronter     48.13 320  P      P      02 42 21.5  0.0
EJIF                                pmax   pmax
      comp=Z,26nm,1.0s,mb5.2
BNI   Bardonecchia       48.14 337 eP      P      02 42 21.5 +0.1
      comp=Z,191nm,1.4s,mb5.9
BNI   Bardonecchia       48.14 337 eP      P      02 42 21.5 +0.1
BNI                                 pmax   pmax
      comp=Z,190nm,1.4s,mb5.9
EBAN  Banos Encina       48.17 323  P      P      02 42 21.8 +0.1
      comp=Z,67nm,1.1s,mb5.6
EBAN  Banos Encina       48.17 323  P      P      02 42 21.8 +0.1
EBAN                                pmax   pmax
      comp=Z,67nm,1.1s,mb5.6
MOA   Molln              48.18 345⇓iP      P      02 42 21.9 +0.3
      comp=Z,201nm,1.3s,mb6.0
LIKS  Likavka            48.27 350 eP      P      02 42 23.3 +1.1
      comp=Z,134nm,1.0s,mb5.9
LIKS  Likavka            48.27 350 eP      P      02 42 23.3 +1.1
LIKS                                pmax   pmax
      comp=Z,134nm,1.0s,mb5.9
STHS  Stebnicka Huta     48.28 352 i P     P      02 42 23.2 +0.9
      comp=Z,71nm,0.9s,mb5.7
STHS                               ePcP    PcP    02 43 44.1 -4.9
STHS  Stebnicka Huta     48.28 352 i P     P      02 42 23.2 +0.9
STHS                                pmax   pmax
      comp=Z,71nm,0.9s,mb5.7
KWP   Kalwaria           48.29 353 i Pd    P      02 42 23.2 +0.8
      comp=Z,700nm,1.2s,mb6.6
KWP                                epP     pP     02 42 30.6 -0.7
KWP                                eS      S      02 49 20.8 +0.4
KWP                                 LMZ           03 03 28.4
      comp=Z,2µm,23.6s
KWP   Kalwaria           48.29 353⇓iP      P      02 42 23.2 +0.7
KWP                                epP     pP     02 42 30.6 -0.6
KWP                                eS      S      02 49 20.8 +0.4
KWP   Kalwaria           48.29 353⇓iP      P      02 42 23.2 +0.7
KWP                                e*PP    pP     02 42 30.6 -0.6
KWP                                eS      S      02 49 20.8 +0.4
KWP                                 pmax   pmax
      comp=Z,700nm,1.2s,mb6.6
KWP                                 MLR    MLR
      comp=Z,2µm,23.6s,MS5.0
LVV   L'vov              48.33 354⇑iP      P      02 42 22.2 -0.5
LVV                                e              02 44 12.8
LVV                                eS      S      02 49 19.4 -1.6
LVV                                ePS            02 49 34.6
LVV                                eSS     SS     02 52 42.8 -8.1
LVV                                eSSS           02 54 06.4
LVV                                 MLR    MLR
      comp=E,400nm,17.0s,MS4.6
LVV                                 MLR    MLR
      comp=N,400nm,15.0s,MS4.6
LVV                                 MLR    MLR
      comp=Z,300nm,15.0s,MS4.4
ORIF  Oris-en-Rattie     48.35 336⇓iP      P      02 42 22.6 -0.4
      comp=Z,105nm,1.2s,mb5.4
ORIF                               eMLR    MLR
      comp=Z,2µm,19.0s,MS4.9
ORIF  Oris-en-Rattie     48.35 336⇓iP      P      02 42 22.6 -0.4
      comp=Z,53nm,1.2s,mb5.4
ORIF  Oris-en-Rattie     48.35 336⇓iP      P      02 42 22.6 -0.4
ORIF                                pmax   pmax
      comp=Z,53nm,1.2s,mb5.5
WTTA  Wattenberg         48.37 343⇑iP      P      02 42 23.3 +0.2
      comp=Z,241nm,1.9s,mb5.9
WTTA  Wattenberg         48.37 343⇑iP      P      02 42 23.3 +0.2
      comp=Z,241nm,1.9s,mb5.9
WTTA  Wattenberg         48.37 343⇑iP      P      02 42 23.3 +0.2
WTTA                                pmax   pmax
      comp=Z,241nm,1.9s,mb5.9
NIE   Niedzica           48.42 351 eP      P      02 42 24.3 +0.9
FETA  Feichten           48.43 342⇓iP      P      02 42 23.7 +0.1
      comp=Z,103nm,1.2s,mb5.7
KBL   Kabul              48.45  43⇓iP      P      02 42 23.3 -0.6
      comp=Z,33nm,1.3s,mb5.2
KBL                                ePcP    PcP    02 43 49.7 -0.2
WATA  Walderalm          48.45 343⇓iP      P      02 42 23.5 -0.2
      comp=Z,67nm,1.1s,mb5.6
WATA  Walderalm          48.45 343⇓iP      P      02 42 23.5 -0.2
WATA                                pmax   pmax
      comp=Z,67nm,1.1s,mb5.6
SQTA  Sankt Quirin       48.46 342⇓iP      P      02 42 23.7  0.0
      comp=Z,86nm,1.1s,mb5.7
SQTA  Sankt Quirin       48.46 342⇓iP      P      02 42 23.7 -0.1
SQTA                                pmax   pmax
      comp=Z,86nm,1.1s,mb5.7
DAVOX Davos/Dischmat     48.49 341  P      P      02 42 23.9 -0.1
      comp=Z,68nm,0.9s,mb5.7,baz=156,slow=6.8,SNR=73
DAVOX                               LR     LR     03 04 47.7
      comp=Z,2µm,18.5s,MS5.0,baz=144,slow=38
LPG   La Plagne          48.49 338⇓iP      P      02 42 23.5 -0.5
      comp=Z,180nm,1.1s,mb5.7
LPG   La Plagne          48.49 338⇓iP      P      02 42 23.5 -0.5
      comp=Z,90nm,1.1s,mb5.7
LPG   La Plagne          48.49 338⇓iP      P      02 42 23.5 -0.5
LPG                                 pmax   pmax
      comp=Z,90nm,1.1s,mb5.7
LASF  Ste Croix          48.51 334⇓iP      P      02 42 24.0 -0.2
      comp=Z,121nm,1.4s,mb5.4
LPL   La Plagne          48.51 338⇓iP      P      02 42 23.6 -0.6
      comp=Z,174nm,1.3s,mb5.6
LPL   La Plagne          48.51 338⇓iP      P      02 42 23.6 -0.6
      comp=Z,87nm,1.3s,mb5.6
DAVOS Davos              48.57 341  P      P      02 42 23.9 -0.7
MOTA  Moosalm            48.60 342⇓iP      P      02 42 24.3 -0.5
      comp=Z,65nm,1.0s,mb5.6
MOTA  Moosalm            48.60 342⇓iP      P      02 42 24.3 -0.6
MOTA                                pmax   pmax
      comp=Z,65nm,1.0s,mb5.6
ESPR  Espera             48.63 320  P      P      02 42 24.8 -0.6
      comp=Z,39nm,1.1s,mb5.3
EADA  Adamuz             48.65 323  P      P      02 42 24.7 -0.7
      comp=Z,16nm,0.9s,mb5.0
MTLF  Montolieu          48.66 332⇓iP      P      02 42 25.0 -0.4
      comp=Z,40nm,1.0s,mb5.1
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MTLF  Montolieu         48.66 332⇓iP     P      02 42 25.0 -0.4
      comp=Z,20nm,1.0s,mb5.1
MTLF  Montolieu         48.66 332⇓iP     P      02 42 25.0 -0.4
MTLF                               pmax   pmax
      comp=Z,20nm,1.0s,mb5.1
ESAC  San Caprasio      48.77 329  P     P      02 42 25.9 -0.3
      comp=Z,52nm,0.7s,mb5.7
VIVF  Saint-Julien-l    48.79 335⇓iP     P      02 42 26.2 -0.1
      comp=Z,199nm,1.3s,mb5.7
VIVF  Saint-Julien-l    48.79 335⇓iP     P      02 42 26.2 -0.1
      comp=Z,100nm,1.3s,mb5.7
VIVF  Saint-Julien-l    48.79 335⇓iP     P      02 42 26.2 -0.1
VIVF                               pmax   pmax
      comp=Z,100nm,1.3s,mb5.7
RETA  Reutte            48.84 342⇓iP     P      02 42 26.0 -0.6
      comp=Z,193nm,1.4s,mb6.0
AJM   Ajmer             48.87  56 eP     P      02 42 28.0 +0.7
KIEV  Kiev              48.89 359⇓iP     P      02 42 26.4 -0.6
      comp=Z,168nm,1.0s,mb6.0
KIEV                               LR     LR
      comp=Z,1µm,20.0s,MS4.8
KIEV  Kiev              48.89 359⇓iP     P      02 42 26.4 -0.6
KIEV                               pmax   pmax
      comp=Z,169nm,1.0s,mb6.0
KIEV                               MLR    MLR
      comp=Z,1µm,20.0s,MS4.8
AKASG Malin Array Be    48.89 359  P     P      02 42 26.4 -0.7
AKASG                                           02 44 23.5
AKASG Malin Array Be    48.89 359  P     P      02 42 26.4 -0.7
      comp=Z,89nm,0.8s,mb5.8,baz=182,slow=6.7,SNR=127
AKASG                              PP     PP    02 44 23.5 +2.9
      comp=Z,6.7nm,0.9s,baz=189,slow=8.3,SNR=5.8
AKASG                              LR     LR    03 05 35.1
      comp=Z,831nm,19.1s,MS4.7,baz=190,slow=39
AKBB  Malin Array Si    48.89 359⇓iP     P      02 42 26.5 -0.6
DAVA  Damuels           48.93 341⇓iP     P      02 42 26.8 -0.6
      comp=Z,339nm,1.2s,mb6.2
ETOR  Torete            48.97 327  P     P      02 42 27.9 +0.1
      comp=Z,12nm,1.0s,mb4.9
ETOR  Torete            48.97 327  P     P      02 42 27.9 +0.1
ETOR                               pmax   pmax
      comp=Z,12nm,1.0s,mb4.9
AKL   Akola             48.97  64 eP     P      02 42 28.1  0.0
VRAC  Vranov            49.00 348  P     P      02 42 27.5 -0.4
VRAC  Vranov            49.00 348  LR    LR     03 04 24.3
      comp=Z,2µm,21.5s,MS5.0,baz=182,slow=38
VRAC  Vranov            49.00 348⇓iP     P      02 42 28.6 +0.7
RESF  Ens               49.16 331 eP     P      02 42 29.5 +0.3
EBIE  Bielsa            49.16 330  P     P      02 42 29.3  0.0
      comp=Z,26nm,0.9s,mb5.3
OKC   Ostrava-Krasne    49.20 349⇓iP     P      02 42 29.4  0.0
OKC                               eS     S      02 49 34.1 +1.0
OKC   Ostrava-Krasne    49.20 349⇓iP     P      02 42 29.4  0.0
OKC                               eS     S      02 49 34.1 +1.0
OKC                                AMS    AMS   03 09 30.0
      comp=Z,1µm,10.1s
TREC  Trest             49.23 347⇓iP     P      02 42 29.2 -0.5
TREC                              eS     S      02 49 32.1 -1.5
TREC                               AMS    AMS   03 06 10.0
      comp=Z,3µm,19.6s
GEC2  GERESS Array S    49.24 345 eP     P      02 42 29.5 -0.2
GEC2                               pmax   pmax
      comp=Z,133nm,1.1s,mb5.9
GEC2  GERESS Array S    49.24 345 eP     P      02 42 29.5 -0.2
      comp=Z,133nm,1.1s,mb5.9
GERES GERESS Array B    49.24 345  P     P      02 42 29.7 -0.1
      comp=Z,54nm,0.8s,mb5.6,baz=157,slow=7.2,SNR=380
GERES                              LR     LR    03 04 44.9
      comp=Z,2µm,20.0s,MS5.0,baz=331,slow=38
MORC  Moravsky Berou    49.25 349 eP     P      02 42 29.2 -0.6
MORC  Moravsky Berou    49.25 349  P     P      02 42 29.2 -0.6
MORC                               pmax   pmax
      comp=Z,160nm,1.0s,mb6.0
MORC  Moravsky Berou    49.25 349⇓iP     P      02 42 29.9 +0.1
ESDC  Sonseca Array     49.26 325  P     P      02 42 30.2 +0.1
      comp=Z,20nm,0.9s,mb5.2
ESDC  Sonseca Array     49.26 325  P     P      02 42 30.1 +0.1
      comp=Z,21nm,0.9s,mb5.1,baz=132,slow=7.4,SNR=77
ESDC                               LR     LR    03 05 23.7
      comp=Z,4µm,21.1s,MS5.4,baz=135,slow=39
ESLA  Sonseca Array     49.26 325 eP     P      02 42 30.3 +0.2
ESLA                               LR     LR
      comp=Z,35µm,22.0s,MS6.3
OJC   Ojcow             49.28 351⇓iP     P      02 42 29.2 -0.8
OJC                               ePP    PP     02 44 24.4 +0.3
OJC                               eS     S      02 49 32.1 -2.2
OJC                                LR     LR
      comp=Z,1µm,21.4s,MS4.9
FUR   Furstenfeldbru    49.29 343 eP     P      02 42 29.0 -1.1
FUR                               e*PP   pP     02 42 39.0 +0.1
FUR                                pmax   pmax
      comp=Z,163nm,1.0s,mb6.0
FUR   Furstenfeldbru    49.29 343 eP     P      02 42 29.0 -1.1
      comp=Z,163nm,1.0s,mb6.0
FUR                               epP    pP     02 42 39.0 +0.1
EPF   Esparros          49.32 331⇓iP     P      02 42 30.4 -0.1
      comp=Z,109nm,1.3s,mb5.4
EPF   Esparros          49.32 331⇓iP     P      02 42 30.4 -0.1
      comp=Z,54nm,1.3s,mb5.4
EPF   Esparros          49.32 331⇓iP     P      02 42 30.4 -0.1
EPF                                pmax   pmax
      comp=Z,54nm,1.3s,mb5.4
PAB   San Pablo         49.40 324  PFAKE        02 42 40.0 +8.9
PAB                                LR     LR
      comp=Z,5µm,21.0s,MS5.5
RAC   Raciborz          49.42 349 eP     P      02 42 31.3 +0.2
RAC                                MLR    MLR
      comp=E,2µm,20.6s,MS5.2
RAC                                MLR    MLR
      comp=N,2µm,20.2s,MS5.2
RAC                                MLR    MLR
      comp=Z,1µm,19.6s,MS4.9
LABF  Labassere         49.47 331 eP     P      02 42 31.9 +0.3
KHC   Kasperske Hory    49.54 345⇓iP     P      02 42 31.7 -0.3
KHC                               e*PP   pP     02 42 40.8  0.0
KHC                               eS     S      02 49 36.6 -1.3
KHC                                MLR    MLR
      comp=Z,2µm,17.7s,MS5.2
KHC   Kasperske Hory    49.54 345⇓iP     P      02 42 31.7 -0.3
KHC                               epP    pP     02 42 40.8  0.0
KHC                               ex     x      02 42 55.5
KHC                               ePP    PP     02 44 18.5 -8.0
KHC                               eS     S      02 49 36.6 -1.3
KHC                                AMS    AMS   03 04 20.0
      comp=Z,2µm,17.7s
ETSF  Etsaut            49.67 330⇓iP     P      02 42 33.0 -0.1
      comp=Z,136nm,1.2s,mb5.6
ETSF  Etsaut            49.67 330⇓iP     P      02 42 33.0 -0.1
      comp=Z,68nm,1.2s,mb5.5
ETSF  Etsaut            49.67 330⇓iP     P      02 42 33.0 -0.1
ETSF                               pmax   pmax
      comp=Z,68nm,1.2s,mb5.5
CABF  La Chapelle       49.68 338⇓iP     P      02 42 31.9 -1.2
      comp=Z,92nm,1.0s,mb5.5
CABF  La Chapelle       49.68 338⇓iP     P      02 42 31.9 -1.2
      comp=Z,46nm,1.0s,mb5.5
CABF  La Chapelle       49.68 338⇓iP     P      02 42 31.9 -1.2
CABF                               pmax   pmax
      comp=Z,46nm,1.0s,mb5.5
VORD  Divnogorie        49.68   7 eP     P      02 42 32.3 -0.7
VORD                               pmax   pmax
      comp=Z,110nm,1.0s,mb5.8
VORD                               pmax   pmax
      comp=N,130nm,0.9s
VORD                               pmax   pmax
      comp=E,10.0nm,0.6s
LBL   Lubilhac          49.69 335 eP     P      02 42 33.2  0.0
EMIN  Mina Concepcio    49.69 321  P     P      02 42 33.5 +0.1
      comp=E,95nm,0.9s,mb5.8
REYF  Montagne du Re    49.71 330 eP     P      02 42 33.9 +0.4
WET   Wettzell          49.73 345 eP     P      02 42 32.7 -0.8
WET                               e*PP   pP     02 42 42.6 +0.3
WET                               e             02 43 53.6
WET                               e             02 44 28.0
WET                                pmax   pmax
      comp=Z,117nm,1.2s,mb5.8
WET   Wettzell          49.73 345 eP     P      02 42 32.7 -0.8
      comp=Z,117nm,1.2s,mb5.8
WET                               epP    pP     02 42 42.6 +0.3
WET                               ePcP   PcP    02 43 53.6 -0.6
WET                               ePP    PP     02 44 28.0 -0.3
BBS   Basel-Blauen      49.88 340 eP     P      02 42 34.1 -0.6
VRSR  Storozhevoye      49.91   7diP     P      02 42 34.1 -0.7
VRSR                              e*PP   pP     02 42 42.6 -1.0
VRSR                              e             02 43 55.1
VRSR                              eS     S      02 49 41.7 -1.4
VRSR                               pmax   pmax
      comp=Z,10.0nm,1.1s,mb4.8
VRSR                               pmax   pmax
      comp=N,20nm,1.0s
VRSR                               pmax   pmax
      comp=E,3.0nm,0.8s
VRSR                               smax
      comp=N,70nm,6.6s
VRSR                               smax
      comp=Z,20nm,4.0s
VRSR                               smax
      comp=E,60nm,6.0s
VRSR                               MLR    MLR
      comp=Z,170nm,21.0s
VRSR                               MLR    MLR
      comp=N,80nm,17.0s
VRSR                               MLR    MLR
      comp=E,110nm,27.0s
CAF   Calviac           49.96 334⇓iP     P      02 42 35.3  0.0
      comp=E,66nm,1.0s,mb5.3
CAF   Calviac           49.96 334⇓iP     P      02 42 35.3  0.0
      comp=E,33nm,1.0s,mb5.3
CAF   Calviac           49.96 334⇓iP     P      02 42 35.3  0.0
CAF                                pmax   pmax
      comp=Z,33nm,1.0s,mb5.3
SPAK  Spaichingen-Ko    50.00 341 eP     P      02 42 34.5 -1.1
GUD   Guadarrama        50.01 325  P     P      02 42 35.8 +0.1
      comp=Z,58nm,1.1s,mb5.5
GUD   Guadarrama        50.01 325  P     P      02 42 35.8  0.0
GUD                                pmax   pmax
      comp=Z,58nm,1.1s,mb5.5
LOMF  Lomont            50.03 339 eP     P      02 42 35.2 -0.6
DPC   Dobruska-Polom    50.05 348⇓iP     P      02 42 35.5 -0.3
DPC                               epP    pP     02 42 43.9 -0.8
DPC                               eS     S      02 49 42.1 -2.9
DPC                                AMS    AMS   03 08 00.0
      comp=Z,2µm,14.8s
FELD  Feldberg im Sc    50.07 340 eP     P      02 42 35.2 -0.9
EGRO  El Granado        50.07 320  P     P      02 42 36.1 -0.1
      comp=Z,31nm,1.1s,mb5.2
BHPL  Bhopal            50.09  61 eP     P      02 42 35.6 -1.1
PRU   Pruhonice         50.10 346⇓iP     P      02 42 35.1 -1.1
PRU                               epP    pP     02 42 41.2 -3.9
PRU                               eS     S      02 49 43.5 -2.2
PRU                                AMS    AMS   03 06 50.0
      comp=Z,1µm,19.2s
PLDF  La Plantade       50.12 336 eP     P      02 42 36.2 -0.3
PALK  Pallekele         50.13  82  PFAKE        02 42 50.0  +13
PALK                               LR     LR
      comp=Z,1µm,20.0s,MS4.9
VRHR  Novokhopersk      50.13   9 eP     P      02 42 35.7 -0.8
VRHR                              e*PP   pP     02 42 44.7 -0.6
VRHR                               pmax   pmax
      comp=Z,140nm,1.3s,mb5.8
VRHR                               pmax   pmax
      comp=N,170nm,1.8s
VRHR                               pmax   pmax
      comp=E,30nm,0.9s
VRHR                               MLR    MLR
      comp=Z,810nm,19.0s,MS4.8
VRHR                               MLR    MLR
      comp=N,1µm,15.0s,MS5.1
VRHR                               MLR    MLR
      comp=E,550nm,12.0s,MS5.1
PVAQ  Vaqueiros         50.14 320 eP     P      02 42 37.1 +0.3
      comp=E,32nm,1.0s,mb5.3
PVAQ                              eS     S      02 49 50.8 +4.0
PVAQ  Vaqueiros         50.14 320 eLR    LR     03 00 51.8
      comp=E,2µm,13.4s
SJPF  Ste Jean          50.16 330⇓iP     P      02 42 36.9  0.0
      comp=E,130nm,1.2s,mb5.5
SJPF  Ste Jean          50.16 330⇓iP     P      02 42 36.9  0.0
      comp=E,65nm,1.3s,mb5.5
SJPF  Ste Jean          50.16 330⇓iP     P      02 42 36.9  0.0
SJPF                               pmax   pmax
      comp=Z,65nm,1.3s,mb5.5
PBDV  Barranco-do-Ve    50.19 320 eP     P      02 42 37.7 +0.5
      comp=Z,50nm,1.1s,mb5.5
PBDV  Barranco-do-Ve    50.19 320 eLR    LR     03 01 15.0
      comp=Z,3µm,15.0s
PRA   Prague            50.20 346 ⇓P     P      02 42 36.0 -1.0
PYM   Petit Puy Mans    50.20 335 eP     P      02 42 37.1  0.0
UPC   Upice             50.26 348⇓iP     P      02 42 37.2 -0.3
MOF   Molkenrain        50.35 340 eP     P      02 42 37.4 -0.8
ELIZ  Elizondo          50.35 330  P     P      02 42 38.3  0.0
      comp=Z,68nm,1.4s,mb5.5
ELIZ  Elizondo          50.35 330  P     P      02 42 38.3  0.0
ELIZ                               pmax   pmax
      comp=Z,68nm,1.4s,mb5.5
BFO   Black Forest      50.35 341⇓iP     P      02 42 37.4 -0.8
      comp=Z,61nm,1.0s,mb5.6
BFO                                LR     LR
      comp=Z,1µm,19.0s,MS5.0
BFO   Black Forest      50.35 341 eP     P      02 42 37.4 -0.8
BFO                                pmax   pmax
      comp=Z,108nm,1.3s,mb5.7
BFO   Black Forest      50.35 341 eP     P      02 42 37.4 -0.8
      comp=Z,108nm,1.3s,mb5.7
AGO   Saint Agoulin     50.39 335 eP     P      02 42 38.2 -0.4
HINF  Hinteralfeld      50.41 339⇓iP     P      02 42 38.0 -0.7
      comp=Z,222nm,1.3s,mb5.7
HINF  Hinteralfeld      50.41 339⇓iP     P      02 42 38.0 -0.7
      comp=Z,111nm,1.3s,mb5.7
HINF  Hinteralfeld      50.41 339⇓iP     P      02 42 38.0 -0.7
HINF                               pmax   pmax
      comp=Z,111nm,1.3s,mb5.7
VOR   Voronezh          50.42   7 eP     P      02 42 38.0 -0.6
VOR                                pmax   pmax
      comp=Z,600nm,1.6s,mb6.4
ECRI  Cripan            50.46 328  P     P      02 42 39.1  0.0
      comp=Z,17nm,1.0s,mb5.0
ECRI  Cripan            50.46 328  P     P      02 42 39.1  0.0
ECRI                               pmax   pmax
      comp=Z,17nm,1.0s,mb5.0
STU   Stuttgart         50.46 342 eP     P      02 42 38.5 -0.5
      comp=Z,155nm,1.8s,mb5.7
STU                               epP    pP     02 42 47.8  0.0
STU                               ePP    PP     02 44 33.1 -1.8
ROTZ  Rotzenmuhle       50.48 345 eP     P      02 42 38.2 -0.9
      comp=Z,94nm,1.1s,mb5.7
ROTZ                              epP    pP     02 42 47.9 -0.1
RJF   Les Rejaudoux     50.50 334⇓iP     P      02 42 39.1 -0.3
      comp=Z,150nm,1.3s,mb5.5
RJF                               eMLR   MLR
      comp=Z,3µm,22.5s,MS5.0
RJF   Les Rejaudoux     50.50 334⇓iP     P      02 42 39.1 -0.3
      comp=Z,75nm,1.3s,mb5.5
RJF                                LR     LR
      comp=Z,3µm,22.5s,MS5.3
RJF   Les Rejaudoux     50.50 334⇓iP     P      02 42 39.1 -0.3
RJF                                pmax   pmax
      comp=Z,75nm,1.3s,mb5.5
RJF                                MLR    MLR
      comp=Z,3µm,22.5s,MS5.3
EBAD  Badajoz           50.51 322  P     P      02 42 39.5 -0.1
      comp=Z,27nm,0.9s,mb5.2
KSP   Ksiaz             50.52 348 ePd    P      02 42 39.1 -0.3
      comp=Z,800nm,2.5s,mb6.2
KSP                               epP    pP     02 42 46.7 -1.6
KSP                               eS     S      02 49 47.2 -4.4
KSP                                LMZ          03 05 05.1
      comp=Z,3µm,21.7s
KSP   Ksiaz             50.52 348 eP     P      02 42 38.4 -1.0
KSP                               e             02 44 39.0
KSP                               eS     S      02 49 51.5 -0.1
KSP                                MLR    MLR
      comp=Z,4µm,21.7s,MS5.3
LFF   La Frestale       50.57 333⇓iP     P      02 42 39.8 -0.1
      comp=Z,178nm,1.1s,mb5.6
LFF   La Frestale       50.57 333⇓iP     P      02 42 39.8 -0.1
      comp=Z,89nm,1.1s,mb5.6
LFF   La Frestale       50.57 333⇓iP     P      02 42 39.8 -0.1
LFF                                pmax   pmax
      comp=Z,89nm,1.1s,mb5.6
SMF   Signal de Mont    50.58 336⇓iP     P      02 42 39.4 -0.6
      comp=Z,199nm,1.1s,mb5.7
SMF   Signal de Mont    50.58 336⇓iP     P      02 42 39.4 -0.6
      comp=Z,99nm,1.1s,mb5.7
SMF   Signal de Mont    50.58 336⇓iP     P      02 42 39.4 -0.6
SMF                                pmax   pmax
      comp=Z,99nm,1.1s,mb5.7
PVCC  Panska Ves        50.59 347⇓iP     P      02 42 39.1 -0.9
PVCC                              epP    pP     02 42 45.7 -3.1
PVCC  Panska Ves        50.59 347⇓iP     P      02 42 39.1 -0.9
PVCC                              epP    pP     02 42 45.7 -3.1
PVCC                               AMS    AMS   03 07 10.0
      comp=Z,1µm,12.2s
PBEJ  Beja              50.61 320 eP     P      02 42 40.4 +0.1
      comp=Z,26nm,1.4s,mb5.0
ECH   Echery            50.65 340 eP     P      02 42 39.5 -1.0
GRA1  Grafenberg Arr    50.68 344 eP     P      02 42 39.8 -0.9
      comp=Z,114nm,1.1s,mb5.7
GRA1                              ePcP   PcP    02 43 57.7  0.0
GRA1                              ePP    PP     02 44 38.8 +1.9
GRA1                              eS     S      02 49 50.0 -3.8
GRA1                               LR     LR
      comp=Z,1µm,21.4s,MS4.8
GRF   Grafenberg Arr    50.68 344 eP     P      02 42 39.8 -0.9
GRF                               e             02 43 57.7
GRF                               e             02 44 38.8
GRF                               eS     S      02 49 50.0 -3.8
GRF                                pmax   pmax
      comp=Z,114nm,1.1s,mb5.7
GRF                                MLR    MLR
      comp=Z,1µm,21.4s,MS4.8
GRF   Grafenberg Arr    50.68 344 eP     P      02 42 39.8 -0.9
GRF                               e             02 43 57.7
GRF                               e             02 44 38.8
GRF                               eS     S      02 49 50.0 -3.8
GRF                                pmax   pmax
      comp=Z,114nm,1.1s,mb5.7
GRF                                MLR    MLR
      comp=Z,1µm,21.4s,MS4.8
GRF   Grafenberg Arr    50.68 344 eP     P      02 42 39.8 -0.9
      comp=Z,114nm,1.1s,mb5.7
GRF                               ePcP   PcP    02 43 57.7  0.0
GRF                               ePP    PP     02 44 38.8 +1.9
GRF                               eS     S      02 49 50.0 -3.8
GRF                               eL            03 04 20.0
      comp=Z,1µm,21.4s
GRFO  Grafenberg        50.68 344⇓iP     P      02 42 40.0 -0.6
      comp=Z,97nm,1.1s,mb5.7
GRFO                               LR     LR
      comp=Z,1µm,20.0s,MS4.9
GRFO  Grafenberg        50.68 344⇓iP     P      02 42 40.0 -0.6
GRFO                               pmax   pmax
      comp=Z,95nm,1.1s,mb5.6
GRFO                               MLR    MLR
      comp=Z,1µm,20.0s,MS4.9
MORF  Marmelete         50.69 319 eS     S      02 50 01.7 +7.2
MORF  Marmelete         50.69 319 eLR    LR     03 02 58.8
      comp=Z,3µm,16.6s
MANZ  Manzenberg        50.70 345 eP     P      02 42 40.0 -0.8
      comp=Z,152nm,1.1s,mb5.8
MANZ                              ePP    PP     02 44 35.2 -1.9
PFVI  Vila Bisbo        50.71 319 eS     S      02 50 01.7 +7.0
PFVI  Vila Bisbo        50.71 319 eLR    LR     03 02 02.9
      comp=Z,2µm,23.4s
HAU   Haudompre         50.76 339⇓iP     P      02 42 40.6 -0.7
      comp=Z,236nm,1.4s,mb5.6
HAU                               eMLR   MLR
      comp=Z,2µm,21.2s,MS4.9
HAU   Haudompre         50.76 339⇓iP     P      02 42 40.6 -0.7
      comp=Z,118nm,1.4s,mb5.6
HAU                                LR     LR
      comp=Z,2µm,21.3s,MS5.2
HAU   Haudompre         50.76 339⇓iP     P      02 42 40.6 -0.7
HAU                                pmax   pmax
      comp=Z,118nm,1.4s,mb5.6
HAU                                MLR    MLR
      comp=Z,2µm,21.3s,MS5.2
STR   Strasbourg        50.76 340 eP     P      02 42 40.8 -0.5
CDF   Champ du Feu      50.78 340⇓iP     P      02 42 40.6 -0.8
      comp=Z,226nm,1.2s,mb5.7
CDF   Champ du Feu      50.78 340⇓iP     P      02 42 40.6 -0.8
      comp=Z,113nm,1.2s,mb5.7
CDF   Champ du Feu      50.78 340⇓iP     P      02 42 40.6 -0.8
CDF                                pmax   pmax
      comp=Z,113nm,1.2s,mb5.7
NKC   Novy Kostel       50.84 345⇓iP     P      02 42 41.4 -0.5
NKC                               eS     S      02 49 54.3 -1.8
NKC   Novy Kostel       50.84 345⇓iP     P      02 42 41.4 -0.5
NKC                               eS     S      02 49 54.3 -1.8
NKC                                AMS    AMS   03 07 30.0
      comp=Z,2µm,16.1s
PTEO  Sao Teotonio      50.88 319 eP     P      02 42 43.2 +0.8
      comp=Z,72nm,1.2s,mb5.5
AVF   Avril sur Loir    50.90 336⇓iP     P      02 42 41.8 -0.5
      comp=Z,164nm,1.0s,mb5.6
AVF   Avril sur Loir    50.90 336⇓iP     P      02 42 41.8 -0.5
      comp=Z,82nm,1.0s,mb5.6
AVF   Avril sur Loir    50.90 336⇓iP     P      02 42 41.8 -0.5
AVF                                pmax   pmax
      comp=Z,82nm,1.0s,mb5.6
WERN  Wernitzgruen      50.91 345 eP     P      02 42 41.8 -0.6
      comp=Z,154nm,1.3s,mb5.8
WERN                              ePcP   PcP    02 43 58.1 -0.5
WERN                              ePP    PP     02 44 37.4 -1.6
BGF   Bois d'Agland     50.92 335⇓iP     P      02 42 42.1 -0.4
      comp=Z,82nm,1.1s,mb5.3
BGF   Bois d'Agland     50.92 335⇓iP     P      02 42 42.1 -0.4
      comp=Z,41nm,1.1s,mb5.3
BGF   Bois d'Agland     50.92 335⇓iP     P      02 42 42.1 -0.4
BGF                                pmax   pmax
      comp=Z,41nm,1.1s,mb5.3
NGP   Nagpur            50.92  64 eP     P      02 42 43.2 +0.3
PESTR Estremoz          50.93 321 eP     P      02 42 43.0 +0.2
      comp=Z,68nm,1.4s,mb5.4
PESTR                             eS     S      02 50 01.0 +3.2
PESTR                             eLQ           02 56 46.2
PESTR                             eLR    LR     03 00 47.6
      comp=Z,3µm,16.4s
TCF   Toulx Ste Croi    50.97 335⇓iP     P      02 42 43.1 +0.2
      comp=Z,325nm,1.2s,mb5.8
TCF   Toulx Ste Croi    50.97 335⇓iP     P      02 42 43.1 +0.2
      comp=Z,162nm,1.2s,mb5.8
TCF   Toulx Ste Croi    50.97 335⇓iP     P      02 42 43.1 +0.2
TCF                                pmax   pmax
      comp=Z,162nm,1.2s,mb5.8
GUNZ  Gunzen            50.99 345 eP     P      02 42 42.6 -0.4
      comp=Z,139nm,1.4s,mb5.7
GUNZ                              ePcP   PcP    02 43 59.7 +0.8
GUNZ                              ePP    PP     02 44 39.7  0.0
EVO   Evora             51.00 321 eP     P      02 42 43.5 +0.2
TANN  Tannenbergstha    51.00 345 eP     P      02 42 42.6 -0.5
      comp=Z,133nm,1.3s,mb5.7
TANN                              epP    pP     02 42 51.5 -0.4
SSF   Saint Saulge      51.05 336⇓iP     P      02 42 42.6 -0.9
      comp=Z,73nm,1.0s,mb5.2
SSF   Saint Saulge      51.05 336⇓iP     P      02 42 42.6 -0.9
      comp=Z,36nm,1.0s,mb5.3
SSF   Saint Saulge      51.05 336⇓iP     P      02 42 42.6 -0.9
SSF                                pmax   pmax
      comp=Z,37nm,1.0s,mb5.3
BRG   Berggiesshubel    51.06 346⇓iP     P      02 42 42.6 -0.9
      comp=Z,49nm,1.3s,mb5.3
BRG                                PP     PP    02 44 43.0 +2.6
BRG                                S      S     02 49 59.0 -0.1
BRG                                SS     SS    02 54 04.0  +29
BRG                                LR     LR
      comp=Z,1µm,14.7s,MS5.1
BRG   Berggiesshubel    51.06 346⇓iP     P      02 42 42.6 -0.9
BRG                                             02 44 43.0
BRG                                S      S     02 49 59.0 -0.1
BRG                                pmax   pmax
      comp=Z,49nm,1.3s,mb5.3
BRG                                MLR    MLR
      comp=N,1µm,15.8s,MS5.0
BRG                                MLR    MLR
      comp=E,585nm,16.1s,MS5.0
BRG                                MLR    MLR
      comp=Z,1µm,14.7s,MS5.1
BRG   Berggiesshubel    51.06 346 eP     P      02 42 42.4 -1.1
      comp=Z,82nm,1.3s,mb5.5
BRG                               epP    pP     02 42 51.0 -1.4
BRG                               ePcP   PcP    02 43 58.2 -0.9
BRG   Berggiesshubel    51.06 346⇓iP     P      02 42 42.6 -0.9
      comp=Z,82nm,1.3s,mb5.5
BRG                                PP     PP    02 44 43.0 +2.6
BRG                                S      S     02 49 59.0 -0.1
BRG                                SS     SS    02 54 04.0  +29
BRG
      comp=N,2µm,15.8s
BRG
      comp=E,977nm,16.1s
BRG
      comp=Z,2µm,14.7s
WAR   Warsaw            51.07 352 ePd    P      02 42 42.8 -0.7
      comp=Z,600nm,1.7s,mb6.2
WAR                               epP    pP     02 42 50.4 -2.0
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WAR				*e*sP	sP	02 42 54.8	-1.1
WAR				*e*S	**S**	**02 49 53.0**	**-6.2**
WAR				LMZ		03 07 13.7	
	comp=Z,1µm,20.9s						
WAR	**Warsaw**	**51.07**	**352**	⇓*e*P	**P**	**02 42 42.8**	**-0.7**
	comp=Z,0.6nm,1.7s						
WAR				*e*pP	pP	02 42 50.4	-2.0
WAR				*e*SP		02 42 54.8	
WAR				*e*S	**S**	**02 49 52.9**	**-6.3**
WAR				LR	LR		
	comp=Z,1µm,20.9s						
WAR	**Warsaw**	**51.07**	**352**	⇓*e*P	**P**	**02 42 42.8**	**-0.7**
WAR				*e**SP	sP	02 42 54.8	-1.0
WAR				*e*S	**S**	**02 49 52.9**	**-6.3**
WAR				pmax	pmax		
	comp=Z,600nm,1.7s,mb6.2						
WAR				MLR	MLR		
	comp=Z,1µm,20.9s,MS4.9						
THEF	**They Montfort**	**51.07**	**339**	*e*P	**P**	**02 42 43.0**	**-0.6**
WERD	**Werda**	**51.07**	**345**	*e*P	**P**	**02 42 43.1**	**-0.5**
	comp=Z,224nm,1.6s,mb5.8						
WERD				*e*pP	pP	02 42 52.3	-0.1
WERD				*e*PcP	PcP	02 43 58.6	-0.6
LOR	**Lormes**	**51.08**	**337**	⇓*i*P	**P**	**02 42 43.0**	**-0.7**
	comp=Z,129nm,1.2s,mb5.4						
LOR				*e*MLR	MLR		
	comp=Z,2µm,20.8s,MS4.8						
LOR	**Lormes**	**51.08**	**337**	⇓*i*P	**P**	**02 42 43.0**	**-0.7**
	comp=Z,64nm,1.2s,mb5.4						
LOR				LR	LR		
	comp=Z,2µm,20.8s,MS5.1						
LOR	**Lormes**	**51.08**	**337**	⇓*i*P	**P**	**02 42 43.0**	**-0.7**
LOR				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.4						
LOR				MLR	MLR		
	comp=Z,2µm,20.8s,MS5.1						
LANF	**Langenberg**	**51.09**	**341**	*e*P	**P**	**02 42 43.2**	**-0.6**
FBE	**Freiberg**	**51.25**	**346**	*e*P	**P**	**02 42 43.8**	**-1.1**
	comp=Z,69nm,1.1s,mb5.5						
FBE				*e*PcP	PcP	02 44 00.0	+0.2
FBE				*e*PP	PP	02 44 40.3	-1.7
KTD	**Kalmit**	**51.30**	**341**	*e*P	**P**	**02 42 45.1**	**-0.2**
TOD	**Tromm**	**51.32**	**342**	*e*P	**P**	**02 42 44.9**	**-0.5**
ELAN	**Lanestosa**	**51.38**	**328**	P	**P**	**02 42 46.5**	**+0.5**
	comp=Z,43nm,1.0s,mb5.3						
MOX	**Moxa**	**51.44**	**345**	*e*P	**P**	**02 42 45.6**	**-0.7**
	comp=Z,163nm,1.8s,mb5.7						
MOX				*e*pP	pP	02 42 55.9	+0.7
MOX				*e*PcP	PcP	02 44 00.9	+0.4
MOX				*e*PP	PP	02 44 48.0	+4.3
MOX				*e*S	**S**	**02 50 05.0**	**+0.7**
MOX				*e*SS	SS	02 54 02.0	+21
MOX				LR	LR		
	comp=Z,1µm,22.0s,MS4.9						
MOX	**Moxa**	**51.44**	**345**	*e*P	**P**	**02 42 45.6**	**-0.7**
	comp=Z,163nm,1.8s,mb5.7						
MOX				*e*	pP	02 42 55.9	+0.7
MOX							
	comp=Z,1µm,22.0s						
MOX	**Moxa**	**51.44**	**345**	*e*P	**P**	**02 42 45.6**	**-0.7**
MOX				*e*	pP	02 42 55.9	+0.7
MOX				pmax	pmax		
	comp=Z,163nm,1.8s,mb5.7						
MOX				MLR	MLR		
	comp=Z,1µm,22.0s,MS4.9						
MOX	**Moxa**	**51.44**	**345**	*e*P	**P**	**02 42 45.5**	**-0.8**
	comp=Z,70nm,1.1s,mb5.5						
MOX				*e*PcP	PcP	02 44 00.9	+0.4
HYF	**Humbligny**	**51.57**	**336**	⇓*i*P	**P**	**02 42 47.0**	**-0.4**
MEZF	**Maizieres J'vi**	**51.64**	**338**	⇓*i*P	**P**	**02 42 47.9**	**0.0**
	comp=Z,253nm,1.1s,mb5.8						
MEZF	**Maizieres J'vi**	**51.64**	**338**	⇓*i*P	**P**	**02 42 47.9**	**0.0**
	comp=Z,253nm,1.1s,mb6.1						
CLL	**Collm**	**51.69**	**346**	⇓*i*P	**P**	**02 42 47.3**	**-0.9**
	comp=Z,86nm,1.2s,mb5.6						
CLL				*i* PcP	PcP	02 44 02.1	+0.7
CLL				*e*PP	PP	02 44 46.0	0.0
CLL				*e*S	**S**	**02 50 07.0**	**-0.8**
CLL				LR	LR		
	comp=Z,2µm,19.7s,MS5.2						
CLL	**Collm**	**51.69**	**346**	⇓*i*P	**P**	**02 42 47.3**	**-0.9**
CLL				*i*		02 44 02.1	
CLL				*e*		02 44 46.0	
CLL				*e*S	**S**	**02 50 07.0**	**-0.8**
CLL				pmax	pmax		
	comp=Z,86nm,1.2s,mb5.6						
CLL				pmax	pmax		
	comp=Z,47nm,1.5s,mb5.2						
CLL				MLR	MLR		
	comp=Z,2µm,19.7s,MS5.2						
CLL	**Collm**	**51.69**	**346**	⇓*i*P	**P**	**02 42 47.2**	**-1.0**
	comp=Z,87nm,1.2s,mb5.6						
CLL				*e*PcP	PcP	02 44 02.3	+0.9
CLL				*e*PP	PP	02 44 52.5	+6.5
CLL				*e*PcS	PcS	02 48 02.1	+3.0
CLL				*e*S	**S**	**02 50 09.1**	**+1.3**
CLL				*e*SS	SS	02 53 46.5	+2.0
CLL				*e*L		03 08 20.7	
	comp=Z,2µm,20.0s						
CLL	**Collm**	**51.69**	**346**	⇓*i*P	**P**	**02 42 47.3**	**-0.9**
	comp=Z,86nm,1.2s,mb5.6						
CLL				*e*Plp		02 42 50.0	
	comp=Z,200nm,20.5s						
CLL				*i* x	x	02 43 02.1	
CLL				*i* PcP	PcP	02 44 02.1	+0.7
	comp=Z,47nm,1.5s						
CLL				*i* (sPcP)		02 44 11.9	
CLL				*e*PP	PP	02 44 46.0	0.0
CLL				*e*PPlp		02 44 49.0	
	comp=Z,300nm,20.2s						
CLL				*e*(PcS)		02 48 06.0	
CLL				*e*S	**S**	**02 50 07.0**	**-0.8**
CLL				*e*x	x	02 51 13.0	
CLL				*e*ScS	ScS	02 52 39.0	+2.7
CLL				*e*SS	SS	02 53 49.0	+4.5
CLL				*e*x	x	02 54 22.0	
CLL				*e*SSSS		02 55 54.0	
NDI	**New Delhi**	**51.82**	**54**	*e*P	**P**	**02 42 50.0**	**+0.4**
NDI				AMb	AMB	02 42 50.5	
	comp=Z,96nm,1.1s,mb5.6						
MTE	**Manteigas**	**51.84**	**323**	*e*P	**P**	**02 42 50.8**	**+1.3**
	comp=Z,46nm,1.2s,mb5.3						
MTE				*e*S	**S**	**02 50 14.6**	**+4.4**
MTE				*e*LQ		02 54 42.5	
MTE				*e*LR	LR	03 00 52.1	
	comp=Z,9µm,20.0s						
PTOM	**Tomar**	**51.89**	**322**	*e*P	**P**	**02 42 50.3**	**+0.3**
	comp=Z,50nm,1.5s,mb5.2						
ABH	**Alteburg**	**51.96**	**341**	*e*P	**P**	**02 42 49.5**	**-0.7**
RUP	**Ruppelstein**	**51.96**	**341**	*e*P	**P**	**02 42 49.3**	**-1.0**
TNS	**Taunus Mts**	**51.97**	**342**	*e*P	**P**	**02 42 49.6**	**-0.7**
TNS				pmax	pmax		
	comp=Z,151nm,1.1s,mb5.8						
TNS	**Taunus Mts**	**51.97**	**342**	*e*P	**P**	**02 42 49.6**	**-0.7**
	comp=Z,151nm,1.1s,mb5.8						
MVO	**Moncorvo**	**52.01**	**324**	*e*P	**P**	**02 42 51.1**	**+0.3**
	comp=Z,89nm,2.0s,mb5.3						
MVO				*e*S	**S**	**02 50 14.3**	**+1.8**
MVO				*e*LQ		02 54 41.9	
MVO				*e*LR	LR	03 00 46.5	
	comp=Z,6µm,17.3s						
PMAFR	**Mafra**	**52.05**	**321**	*e*P	**P**	**02 42 52.8**	**+1.7**
PMAFR				*e*S	**S**	**02 50 21.6**	**+8.4**
PMAFR	**Mafra**	**52.05**	**321**	*e*LR	LR	03 00 49.3	
	comp=Z,2µm,21.8s						
WLF	**Walferdange**	**52.23**	**340**	*e*P	**P**	**02 42 51.8**	**-0.4**
	comp=Z,69nm,1.1s,mb5.5						
WLF	**Walferdange**	**52.23**	**340**	P	**P**	**02 42 51.9**	**-0.4**
WLF				pmax	pmax		
	comp=Z,91nm,1.3s,mb5.5						
WLF	**Walferdange**	**52.23**	**340**	P	**P**	**02 42 51.7**	**-0.6**
	comp=Z,52nm,1.6s,mb5.2						
WLF				XP	sP	02 43 03.8	-0.8
WLF	**Walferdange**	**52.23**	**340**	*e*P	**P**	**02 42 51.6**	**-0.7**
	comp=Z,82nm,1.2s,mb5.5						
WLF				*e*pP	pP	02 43 00.3	-0.8
MFF	**Saint Martin d**	**52.24**	**333**	⇓*i*P	**P**	**02 42 52.0**	**-0.4**
	comp=Z,138nm,1.3s,mb5.4						
MFF	**Saint Martin d**	**52.24**	**333**	⇓*i*P	**P**	**02 42 52.0**	**-0.4**
	comp=Z,69nm,1.3s,mb5.4						
MFF	**Saint Martin d**	**52.24**	**333**	⇓*i*P	**P**	**02 42 52.0**	**-0.4**
MFF				pmax	pmax		
	comp=Z,69nm,1.3s,mb5.4						
PVIS	**Viseu**	**52.24**	**323**	*e*P	**P**	**02 42 52.5**	**0.0**
	comp=Z,42nm,1.9s,mb5.0						
PBRG	**Braganca**	**52.25**	**325**	*e*P	**P**	**02 42 52.5**	**-0.1**
	comp=Z,46nm,1.2s,mb5.3						
ECAL	**Calabor**	**52.33**	**325**	P	**P**	**02 42 53.1**	**-0.1**
	comp=Z,24nm,1.0s,mb5.1						
EARI	**Arriondas**	**52.38**	**327**	P	**P**	**02 42 53.4**	**-0.1**
	comp=Z,90nm,1.4s,mb5.5						
PVRL	**Vila Real**	**52.48**	**324**	*e*P	**P**	**02 42 54.8**	**+0.5**
	comp=Z,70nm,1.2s,mb5.5						
SUW	**Suwalki**	**52.56**	**354**	*e*Pd	**P**	**02 42 54.3**	**-0.3**
	comp=Z,2µm,1.2s						
SUW				*e*pP	pP	02 43 02.7	-0.8
SUW				*e*PcP	PcP	02 44 03.4	-1.2
SUW				*e*S	**S**	**02 50 18.8**	**-0.8**
SUW				LMZ		03 05 23.3	
	comp=Z,900nm,29.2s						
SUW	**Suwalki**	**52.56**	**354**	⇓*e*P	**P**	**02 42 54.3**	**-0.3**
SUW				*e*pP	pP	02 43 02.7	-0.8
SUW				*e*PcP	PcP	02 44 03.4	-1.2
SUW				*e*S	**S**	**02 50 18.8**	**-0.8**
SUW	**Suwalki**	**52.56**	**354**	⇓*e*P	**P**	**02 42 54.3**	**-0.3**
SUW				*e**PP	pP	02 43 02.7	-0.8
SUW				*e*		02 44 03.4	
SUW				*e*S	**S**	**02 50 18.8**	**-0.8**
SUW				pmax	pmax		
	comp=Z,2µm,1.2s						
SUW				MLR	MLR		
	comp=Z,900nm,29.2s						
RUE	**Ruedersdorf**	**52.60**	**347**	*e*P	**P**	**02 42 53.3**	**-1.6**
	comp=Z,191nm,1.1s,mb5.9						
RUE	**Ruedersdorf**	**52.60**	**347**	*e*P	**P**	**02 42 53.7**	**-1.2**
	comp=Z,200nm,1.1s,mb6.0						
RUE				*e*pP	pP	02 43 02.8	-1.0
GKP	**Gorka Klasztor**	**52.65**	**350**	*e*Pd	**P**	**02 42 55.0**	**-0.3**
	comp=Z,500nm,1.8s,mb6.1						
GKP				*e*S	**S**	**02 50 23.4**	**+2.6**
GKP				LMZ		03 08 30.3	
	comp=Z,2µm,20.5s						
GKP	**Gorka Klasztor**	**52.65**	**350**	⇓*e*P	**P**	**02 42 55.0**	**-0.3**
	comp=Z,0.5nm,1.8s						
GKP				*e*S	**S**	**02 50 23.4**	**+2.5**
GKP				LR	LR		
	comp=Z,2µm,20.5s						
GKP	**Gorka Klasztor**	**52.65**	**350**	⇓*e*P	**P**	**02 42 55.0**	**-0.3**
GKP				*e*S	**S**	**02 50 23.4**	**+2.5**
GKP				pmax	pmax		
	comp=Z,500nm,1.8s,mb6.1						
GKP				MLR	MLR		
	comp=Z,2µm,20.5s,MS5.1						
MNK	**Minsk**	**52.74**	**358**	⇓*i*P	**P**	**02 42 53.0**	**-2.9**
MNK				pmax	pmax		
	comp=Z,620nm,1.0s,mb6.5						
CLZ	**Clausthal**	**52.85**	**344**	*e*P	**P**	**02 42 56.2**	**-0.6**
CLZ				*e**PP	pP	02 43 06.7	+1.0
CLZ				*e*		02 44 56.6	
CLZ				pmax	pmax		
	comp=Z,71nm,1.3s,mb5.4						
CLZ	**Clausthal**	**52.85**	**344**	*e*P	**P**	**02 42 56.2**	**-0.6**
	comp=Z,71nm,1.3s,mb5.4						
CLZ				*e*pP	pP	02 43 06.7	+1.0
CLZ				*e*PP	PP	02 44 56.6	+0.1
ERUA	**La Rua**	**52.85**	**325**	P	**P**	**02 42 57.5**	**+0.4**
	comp=Z,30nm,1.1s,mb5.1						
ERUA	**La Rua**	**52.85**	**325**	P	**P**	**02 42 57.5**	**+0.5**
ERUA				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
PTO	**Porto**	**52.93**	**323**	*e*P	**P**	**02 42 58.1**	**+0.5**
	comp=Z,77nm,1.3s,mb5.5						
PCAB	**Cabril**	**52.94**	**324**	*e*P	**P**	**02 42 58.0**	**+0.3**
	comp=Z,61nm,1.7s,mb5.3						
ELOB	**Lobios**	**53.05**	**324**	P	**P**	**02 42 58.5**	**0.0**
	comp=Z,17nm,1.0s,mb4.9						
GIVF	**Givet**	**53.06**	**339**	⇓*i*P	**P**	**02 42 57.5**	**-0.9**
	comp=Z,253nm,1.0s,mb5.8						
GIVF	**Givet**	**53.06**	**339**	⇓*i*P	**P**	**02 42 57.5**	**-0.9**
	comp=Z,126nm,1.0s,mb5.8						
GIVF	**Givet**	**53.06**	**339**	⇓*i*P	**P**	**02 42 57.5**	**-0.9**
GIVF				pmax	pmax		
	comp=Z,126nm,1.0s,mb5.8						
MEM	**Membach**	**53.09**	**341**	P	**P**	**02 42 58.6**	**0.0**
	comp=Z,38nm,1.4s,mb5.1						
DOU	**Dourbes**	**53.14**	**339**	P	**P**	**02 42 58.2**	**-0.8**
	comp=Z,32nm,1.4s,mb5.1						
BCLA	**Clavier**	**53.16**	**340**	P	**P**	**02 42 58.7**	**-0.5**
	comp=Z,83nm,1.5s,mb5.4						
BCLA				XP	sP	02 43 10.3	-1.1
HGN	**Heimansgroeve**	**53.24**	**341**	⇓*e*P	**P**	**02 42 58.5**	**-1.3**
	comp=Z,96nm,1.7s,mb5.5						
HGN				*e*PP	PP	02 45 11.7	+12
HGN				*e*S	**S**	**02 50 30.0**	**+1.0**
HGN				*e*SS	SS	02 55 08.2	+59
BAIF	**Baives**	**53.25**	**339**	⇓*i*P	**P**	**02 42 58.8**	**-1.0**
	comp=Z,139nm,1.0s,mb5.5						
BAIF	**Baives**	**53.25**	**339**	⇓*i*P	**P**	**02 42 58.8**	**-1.0**
	comp=Z,70nm,1.0s,mb5.5						
BAIF	**Baives**	**53.25**	**339**	⇓*i*P	**P**	**02 42 58.8**	**-1.0**
BAIF				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
BEBN	**Eben Emael**	**53.36**	**340**	P	**P**	**02 43 00.3**	**-0.3**
BUG	**Bochum--Univer**	**53.40**	**342**	*e*P	**P**	**02 43 00.5**	**-0.4**
	comp=Z,131nm,1.1s,mb5.8						
EPON	**Pontenova**	**53.46**	**326**	P	**P**	**02 43 01.1**	**-0.4**
	comp=Z,22nm,1.0s,mb5.0						
OBN	**Obninsk**	**53.51**	**4**	*e*P	**P**	**02 43 01.5**	**-0.1**
	comp=Z,142nm,1.2s,mb5.8						
OBN				LR	LR		
	comp=Z,718nm,20.0s,MS4.7						
OBN	**Obninsk**	**53.51**	**4**	*d* *i*P	**P**	**02 43 01.0**	**-0.6**
SNF	**Seneffe**	**53.59**	**339**	P	**P**	**02 43 01.7**	**-0.6**
	comp=Z,36nm,1.5s,mb5.1						
EZAM	**Zamans**	**53.60**	**324**	P	**P**	**02 43 02.7**	**+0.1**
	comp=Z,35nm,1.2s,mb5.2						
EZAM	**Zamans**	**53.60**	**324**	P	**P**	**02 43 02.7**	**+0.2**
EZAM				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.2						
AB31	**Akbulak array**	**53.63**	**23**	*i* P	**P**	**02 43 02.3**	**-0.3**
AB31				pmax	pmax		
	comp=Z,122nm,1.5s,mb5.6						
LDF	**La Druitiere**	**53.76**	**335**	⇓*i*P	**P**	**02 43 02.8**	**-0.8**
	comp=Z,326nm,1.3s,mb5.8						
LDF	**La Druitiere**	**53.76**	**335**	⇓*i*P	**P**	**02 43 02.8**	**-0.8**
	comp=Z,163nm,1.3s,mb5.8						
LDF	**La Druitiere**	**53.76**	**335**	⇓*i*P	**P**	**02 43 02.8**	**-0.8**
LDF				pmax	pmax		
	comp=Z,163nm,1.3s,mb5.8						
UCC	**Uccle**	**53.81**	**340**	P	**P**	**02 43 03.4**	**-0.5**
	comp=Z,170nm,1.5s,mb5.8						
AKTK	**Aktyubinsk**	**53.85**	**21**	P	**P**	**02 43 04.2**	**0.0**
AKTK				LR	LR	03 08 13.9	
AKTO	**Aktyubinsk**	**53.85**	**21**	P	**P**	**02 43 04.2**	**0.0**
	comp=Z,77nm,1.0s,mb5.6,baz=217,slow=8.1,SNR=170						
AKTO				LR	LR	03 08 13.9	
	comp=Z,1µm,20.6s,MS4.9,baz=54,slow=39						
GRR	**Gorron**	**53.92**	**334**	⇓*i*P	**P**	**02 43 03.9**	**-0.8**
	comp=Z,98nm,1.0s,mb5.4						
GRR	**Gorron**	**53.92**	**334**	⇓*i*P	**P**	**02 43 03.9**	**-0.8**
	comp=Z,49nm,1.0s,mb5.4						
GRR	**Gorron**	**53.92**	**334**	⇓*i*P	**P**	**02 43 03.9**	**-0.8**
GRR				pmax	pmax		
	comp=Z,49nm,1.0s,mb5.4						
BLSP	**Bilaspur**	**53.94**	**64**	*e*P	**P**	**02 43 04.9**	**-0.5**
BLSP				AMb	AMB	02 43 14.7	
	comp=Z,45nm,0.6s,mb5.6						
STS	**Santiago**	**53.97**	**325**	P	**P**	**02 43 05.9**	**+0.7**
	comp=Z,46nm,1.2s,mb5.3						
STS	**Santiago**	**53.97**	**325**	P	**P**	**02 43 05.9**	**+0.7**
STS				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.3						
WTSB	**Winterswijk**	**54.00**	**342**	⇓*e*P	**P**	**02 43 05.4**	**+0.1**
	comp=Z,230nm,1.1s,mb6.0						
IBBN	**Ibbenburen**	**54.01**	**343**	*e*P	**P**	**02 43 05.2**	**-0.1**
	comp=Z,127nm,1.5s,mb5.6						
IBBN				*e*PcP	PcP	02 44 08.6	-1.6
FLN	**La Foliniere**	**54.04**	**335**	⇓*i*P	**P**	**02 43 04.6**	**-1.0**
	comp=Z,100nm,1.1s,mb5.3						
FLN				*e*MLR	MLR		
	comp=Z,4µm,18.5s,MS5.2						
FLN	**La Foliniere**	**54.04**	**335**	⇓*i*P	**P**	**02 43 04.6**	**-1.0**
	comp=Z,50nm,1.1s,mb5.4						
FLN				LR	LR		
	comp=Z,4µm,18.5s,MS5.5						
FLN	**La Foliniere**	**54.04**	**335**	⇓*i*P	**P**	**02 43 04.6**	**-1.0**
FLN				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.4						
FLN				MLR	MLR		
	comp=Z,4µm,18.5s,MS5.5						
VIS	**Vishakhapatnam**	**54.05**	**69**	*e*P	**P**	**02 43 06.2**	**0.0**
MOS	**Moscow**	**54.22**	**5**	*e*P	**P**	**02 43 02.9**	**-3.9**
MOS				*e*	pP	02 43 13.1	-2.6
MOS				*e*S	**S**	**02 50 37.2**	**-4.8**
MOS				pmax	pmax		
	comp=Z,1µm,2.1s,mb6.5						
MOS				pmax	pmax		
	comp=Z,482nm,1.7s,mb6.2						
MOS				MLR	MLR		
	comp=Z,900nm,20.0s,MS4.8						
MOS				MLR	MLR		
	comp=N,600nm,19.0s						
EMAZ	**Mazaricos**	**54.26**	**325**	P	**P**	**02 43 07.3**	**0.0**
	comp=N,146nm,1.4s,mb5.7						
PMAR	**Madeira**	**54.32**	**310**	*e*P	**P**	**02 43 10.3**	**+2.3**
KK31	**Karatay Array**	**54.42**	**35**	*i* P	**P**	**02 43 08.3**	**-0.2**
KKAR	**Karatay Array**	**54.42**	**35**	*i* P	**P**	**02 43 08.2**	**-0.3**
KKAR				pmax	pmax		
	comp=Z,129nm,1.2s,mb5.7						
SGMF	**Saint Gilles**	**54.56**	**333**	⇓*i*P	**P**	**02 43 08.5**	**-0.9**
	comp=Z,222nm,1.2s,mb5.8						
SGMF	**Saint Gilles**	**54.56**	**333**	⇓*i*P	**P**	**02 43 08.5**	**-0.9**
	comp=Z,111nm,1.2s,mb5.8						
SGMF	**Saint Gilles**	**54.56**	**333**	⇓*i*P	**P**	**02 43 08.5**	**-0.9**
SGMF				pmax	pmax		
	comp=Z,111nm,1.2s,mb5.8						
QUIF	**Quistinic**	**54.59**	**333**	⇓*i*P	**P**	**02 43 09.1**	**-0.6**
	comp=Z,175nm,1.2s,mb5.7						
QUIF	**Quistinic**	**54.59**	**333**	⇓*i*P	**P**	**02 43 09.1**	**-0.6**
	comp=Z,88nm,1.2s,mb5.7						
QUIF	**Quistinic**	**54.59**	**333**	⇓*i*P	**P**	**02 43 09.1**	**-0.6**
QUIF				pmax	pmax		
	comp=Z,88nm,1.2s,mb5.7						
RGN	**Rugen**	**54.62**	**348**	*e*P	**P**	**02 43 09.5**	**-0.3**
	comp=Z,136nm,1.0s,mb5.9						
RGN	**Rugen**	**54.62**	**348**	*e*P	**P**	**02 43 09.3**	**-0.5**
	comp=Z,176nm,1.1s,mb6.0						
RGN				*e*pP	pP	02 43 18.1	-0.6
BSEG	**Bad Segeberg**	**54.76**	**345**	*e*P	**P**	**02 43 10.1**	**-0.7**
BSEG				*e*		02 45 13.6	
BSEG				pmax	pmax		
	comp=Z,251nm,1.4s,mb6.0						
BSEG	**Bad Segeberg**	**54.76**	**345**	*e*P	**P**	**02 43 10.1**	**-0.7**
	comp=Z,251nm,1.4s,mb6.0						
BSEG				*e*PP	PP	02 45 13.6	-0.1
BSD	**Bornholm Skovb**	**54.83**	**349**	⇓*i*P	**P**	**02 43 10.4**	**-0.9**
BSD				pmax	pmax		
	comp=Z,170nm,1.0s,mb6.0						
BSD				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.0						
BSD	**Bornholm Skovb**	**54.83**	**349**	⇓*i*P	**P**	**02 43 10.4**	**-0.9**
	comp=Z,167nm,1.0s,mb6.0						
BSD				*e*		02 44 58.5	
BSD							
	comp=Z,1µm,17.0s						
ROSF	**Rostrenen**	**54.95**	**333**	⇓*i*P	**P**	**02 43 11.2**	**-1.0**
	comp=Z,89nm,1.2s,mb5.4						
ROSF	**Rostrenen**	**54.95**	**333**	⇓*i*P	**P**	**02 43 11.2**	**-1.0**
	comp=Z,44nm,1.2s,mb5.4						
ROSF	**Rostrenen**	**54.95**	**333**	⇓*i*P	**P**	**02 43 11.2**	**-1.0**
ROSF				pmax	pmax		
	comp=Z,44nm,1.2s,mb5.4						
TRIS	**Tristan da Cun**	**55.43**	**222**	PFAKE		02 43 30.0	+14
TRIS				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
AML	**Almayashu**	**55.74**	**38**	P	**P**	**02 43 18.8**	**+0.8**
	SNR=64						
AML	**Almayashu**	**55.74**	**38**	⇓*i*P	**P**	**02 43 18.7**	**+0.7**
	comp=Z,140nm,1.2s,mb5.9						
AML				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
KSH	**Kashi**	**55.79**	**42**	*i* PR	**P**	**02 43 19.0**	**+0.6**
KSH				*e*AP	pP	02 43 26.1	-1.3
KSH				*e*XP	sP	02 43 29.3	-1.5
KSH				*e*PCP	PcP	02 44 18.3	+1.0
KSH				*e*PP	PP	02 45 24.1	+0.9
KSH				*e*PPP		02 46 39.1	
KSH				*e*SCP	ScP	02 48 14.3	-0.3
KSH				*e*PCS	PcS	02 48 17.3	-0.2
KSH				*e*S	**S**	**02 50 59.5**	**-4.2**
KSH				*e*XS	sS	02 51 14.3	-4.1
KSH				*e*SCS	ScS	02 53 03.0	-2.8
KSH				*e*SS	SS	02 54 46.1	-3.5
KSH				LR	LR		
	comp=N,4µm,12.4s,MS5.8						
KSH				LR	LR		
	comp=E,5µm,15.2s,MS5.8						
KSH				LR	LR		
	comp=Z,8µm,15.5s,MS5.9						
COP	**Copenhagen**	**55.87**	**348**	⇓*i*P	**P**	**02 43 18.6**	**-0.1**
COP				*i* S	**S**	**02 51 07.5**	**+3.3**
COP				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.5						
COP				MLR	MLR		
	comp=Z,560nm,18.0s,MS4.7						
COP	**Copenhagen**	**55.87**	**348**	⇓*i*P	**P**	**02 43 18.6**	**-0.1**
	comp=Z,46nm,1.0s,mb5.5						
COP				*i* S	**S**	**02 51 07.5**	**+3.3**
COP							
	comp=Z,550nm,18.0s						
EKS2	**Erkin-Say**	**56.09**	**37**	P	**P**	**02 43 20.9**	**+0.3**
	SNR=43						
EKS2	**Erkin-Say**	**56.09**	**37**	*e*P	**P**	**02 43 20.8**	**+0.2**
	comp=Z,83nm,1.4s,mb5.6						
EKS2				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
UCH	**Uchtor**	**56.30**	**38**	P	**P**	**02 43 22.9**	**+0.8**
	SNR=124						
UCH	**Uchtor**	**56.30**	**38**	⇓*i*P	**P**	**02 43 22.8**	**+0.8**
	comp=Z,260nm,1.4s,mb6.1						
UCH				*e*pP	pP	02 43 31.4	+0.5
UCH				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
SKP1	**Kophill**	**56.47**	**337**	⇑*e*P	**P**	**02 43 22.3**	**-0.8**
AAK	**Ala-Archa**	**56.51**	**38**	P	**P**	**02 43 24.2**	**+0.7**
	SNR=64						
AAK	**Ala-Archa**	**56.51**	**38**	*e*P	**P**	**02 43 23.1**	**-0.5**
AAK				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
AAK	**Ala-Archa**	**56.51**	**38**	*d* *i*P	**P**	**02 43 23.1**	**-0.5**
AAK				pmax	pmax		
	comp=Z,170nm,2.0s,mb5.7						
AAK				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.2						
AAK	**Ala-Archa**	**56.51**	**38**	⇑P	**P**	**02 43 23.6**	**0.0**
	SNR=64						
AAK	**Ala-Archa**	**56.51**	**38**	⇑P	**P**	**02 43 23.6**	**0.0**
	SNR=64						
AWI1	**Witton**	**56.51**	**339**	*e*P	**P**	**02 43 23.2**	**-0.2**
KZA	**Kyzart**	**56.67**	**39**	P	**P**	**02 43 25.5**	**+0.8**
	SNR=81						
FRU	**Bishkek**	**56.70**	**38**	⇓*i*P	**P**	**02 43 25.0**	**+0.1**
FRU				pmax	pmax		
	comp=Z,370nm,2.0s,mb6.1						
FRU				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
SWN1	**Swindon**	**56.70**	**336**	⇑*e*P	**P**	**02 43 24.4**	**-0.3**
VSU	**Vasula**	**56.74**	**358**	*i* Pr	**P**	**02 43 24.2**	**-0.7**
KBK	**Karagaybulak**	**56.80**	**38**	P	**P**	**02 43 26.4**	**+0.8**
	SNR=63						
USP	**Ospenovka**	**56.87**	**37**	P	**P**	**02 43 26.1**	**0.0**
	SNR=76						
CHMS	**Chumysh**	**56.87**	**38**	P	**P**	**02 43 26.2**	**+0.1**
	SNR=38						
SSW	**Stow on the Wo**	**57.07**	**337**	⇑*e*P	**P**	**02 43 27.2**	**-0.1**
HGH	**Gray Hill**	**57.20**	**336**	*e*P	**P**	**02 43 27.3**	**-1.0**
MUD	**Monsted U'grnd**	**57.32**	**346**	⇓*i*P	**P**	**02 43 29.2**	**+0.2**
MUD				*i* S	**S**	**02 51 26.1**	**+2.7**
MUD				pmax	pmax		
	comp=Z,160nm,1.2s,mb5.9						
MUD				MLR	MLR		
	comp=Z,770nm,19.0s,MS4.8						
MUD	**Monsted U'grnd**	**57.32**	**346**	⇓*i*P	**P**	**02 43 29.2**	**+0.2**
	comp=Z,158nm,1.2s,mb5.9						
MUD				*i* S	**S**	**02 51 26.1**	**+2.7**
MUD							
	comp=Z,760nm,19.0s						
TKM2	**Tokmak 2**	**57.35**	**38**	P	**P**	**02 43 29.8**	**+0.3**
	SNR=40						
TKM2	**Tokmak 2**	**57.35**	**38**	*i* P	**P**	**02 43 28.2**	**-1.3**
TKM2				LR	LR		
	comp=Z,2µm,22.0s,MS5.1						
ULHL	**Ulahol**	**57.38**	**39**	P	**P**	**02 43 31.0**	**+1.2**
	SNR=14						
HTL	**Hartland**	**57.43**	**334**	*e*P	**P**	**02 43 29.1**	**-0.8**
HTL				AMb	AMB	02 43 39.6	
	comp=Z,123nm,1.6s,mb5.7						

MCH1	**Michaelchurch**	**57.55**	**336**	*e*P	**P**	**02 43 29.4**	**-1.4**
MCH1				⇑*e*P		02 43 30.3	
MCH1				AMb	AMB	02 43 32.3	
	comp=Z,234nm,1.3s,mb6.0						
MCH1	**Michaelchurch**	**57.55**	**336**	P	**P**	**02 43 30.3**	**-0.4**
MCH1				AMb	AMB	02 43 32.3	
	comp=Z,234nm,1.3s,mb6.0						
BOK	**Bokaro**	**57.70**	**63**	*e*P	**P**	**02 43 31.2**	**-1.2**
GKN	**Gorkha**	**57.74**	**58**	*e*P	**P**	**02 43 31.3**	**-1.3**
	comp=Z,256nm,1.3s,mb6.1						
HLM1	**Long Mynd**	**57.90**	**336**	⇑*e*P	**P**	**02 43 32.0**	**-1.2**
PUL	**Pulkovo**	**57.97**	**360**	⇑*e*P	**P**	**02 43 33.7**	**+0.2**
KKN	**Kakani**	**58.23**	**58**	*e*P	**P**	**02 43 34.9**	**-1.1**
	comp=Z,183nm,1.2s,mb6.0						
LHO	**Holmfirth**	**58.29**	**338**	⇑*e*P	**P**	**02 43 35.1**	**-0.8**
SBD1	**Bryn Du**	**58.34**	**337**	⇑*e*P	**P**	**02 43 35.9**	**-0.3**
HPK	**Haverah Park**	**58.52**	**338**	*e*P	**P**	**02 43 37.4**	**-0.2**
HPK				AMb	AMB	02 43 39.5	
	comp=Z,232nm,1.4s,mb6.0						
ARU	**Arti**	**59.02**	**18**	*e*P	**P**	**02 43 40.6**	**-0.4**
ARU				LR	LR		
	comp=Z,2μm,20.0s,MS5.2						
ARU	**Arti**	**59.02**	**18**	*d i*P	**P**	**02 43 40.7**	**-0.2**
ARU				*e*		02 44 27.6	
ARU				*e*S	**S**	**02 51 46.3**	**+0.7**
ARU				*e*SS	SS	02 55 37.6	-2.3
ARU				pmax	pmax		
	comp=Z,200nm,1.2s,mb6.0						
ARU				pmax	pmax		
	comp=N,69nm,1.4s						
ARU				pmax	pmax		
	comp=E,43nm,1.4s						
CKE	**Keswick**	**59.56**	**338**	⇑*e*P	**P**	**02 43 44.7**	**0.0**
FIA1	**FINESS Array S**	**59.75**	**357**	⇓*i*P	**P**	**02 43 45.4**	**-0.5**
FINES	**FINESS Array B**	**59.75**	**357**	P	**P**	**02 43 45.5**	**-0.4**
	comp=E,47nm,1.0s,mb5.5,baz=158,slow=6.2,SNR=70						
FINES				LR	LR	03 14 24.2	
	comp=E,812nm,18.2s,MS4.9,baz=336,slow=41						
ODAN	**Odare**	**59.78**	**60**	*e*P	**P**	**02 43 45.9**	**-0.9**
	comp=E,25nm,0.3s,mb5.7						
HFS	**Hagfors**	**59.80**	**350**	LR	LR	03 13 50.7	
	comp=E,780nm,18.6s,MS4.9,baz=174,slow=40						
DLF	**Lyons Farm**	**59.97**	**335**	*e*P	**P**	**02 43 46.4**	**-1.1**
SVE	**Sverdlovsk**	**60.00**	**18**	⇓*e*P	**P**	**02 43 47.0**	**-0.6**
SVE				*e*		02 46 00.0	
SVE				*e*S	S	02 52 20.0	+22
SVE				pmax	pmax		
	comp=Z,270nm,2.0s,mb5.9						
SVE				MLR	MLR		
	comp=N,2μm,16.0s,MS5.4						
SVE				MLR	MLR		
	comp=E,2μm,16.0s,MS5.4						
SVE				MLR	MLR		
	comp=Z,3μm,16.0s,MS5.6						
GCD	**Castle Douglas**	**60.09**	**338**	⇑*e*P	**P**	**02 43 48.0**	**-0.3**
KONO	**Kongsberg**	**60.12**	**348**	*e*P	**P**	**02 43 47.8**	**-0.7**
	comp=Z,98nm,1.1s,mb5.8						
KONO				LR	LR		
	comp=Z,1μm,19.0s,MS5.0						
ESK	**Eskdalemuir**	**60.16**	**338**	*e*P	**P**	**02 43 48.2**	**-0.6**
ESK				AMb	AMB	02 43 50.3	
	comp=Z,122nm,1.5s,mb5.7						
ESK	**Eskdalemuir**	**60.16**	**338**	*e*P	**P**	**02 43 49.0**	**+0.2**
	comp=Z,86nm,1.1s,mb5.7						
ESK				LR	LR		
	comp=Z,2μm,20.0s,MS5.2						
TAPN	**Taplejung**	**60.18**	**59**	*e*P	**P**	**02 43 48.6**	**-0.9**
	comp=Z,182nm,1.2s,mb6.0						
DCN	**Croghan**	**60.32**	**335**	*e*P	**P**	**02 43 48.6**	**-1.3**
GAL1	**Galloway**	**60.38**	**337**	*e*P	**P**	**02 43 50.2**	**-0.1**
GAL1				AMb	AMB	02 43 52.0	
	comp=Z,198nm,1.6s,mb5.9						
GMM	**Mts of Mourne**	**60.41**	**336**	*e*P	**P**	**02 43 49.9**	**-0.7**
KAF	**Kangasniemi**	**60.41**	**358**	*e*p	**P**	**02 43 48.4**	**-2.0**
	comp=Z,86nm,0.8s,mb5.8,baz=173,slow=6.6						
KAF	**Kangasniemi**	**60.41**	**358**	*e*P	**P**	**02 43 48.4**	**-2.0**
KAF				pmax	pmax		
	comp=Z,86nm,0.8s,mb5.8						
EDI	**Edinburgh**	**60.62**	**339**	*e*P	**P**	**02 43 51.5**	**-0.4**
EDI				AMb	AMB	02 43 53.7	
	comp=Z,269nm,1.3s,mb6.2						
BLS5	**Blasjo**	**60.63**	**346**	*e*P	**P**	**02 43 52.2**	**+0.3**
BLS5				AMb	AMB	02 43 53.7	
	comp=Z,45nm,1.1s,mb5.5						
BRVK	**Borovoye**	**60.80**	**26**	P	**P**	**02 43 52.6**	**-0.6**
	comp=Z,276nm,1.1s,mb6.3,SNR=26						
BRVK	**Borovoye**	**60.80**	**26**	*e*P	**P**	**02 43 52.2**	**-1.0**
	comp=Z,72nm,1.2s,mb5.7						
BRVK				*e*PP	PP	02 46 08.4	+1.0
BRVK				LR	LR		
	comp=Z,2μm,20.0s,MS5.3						
BRVK	**Borovoye**	**60.80**	**26**	P	**P**	**02 43 50.7**	**-2.5**
BRVK				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.3						
BRVK	**Borovoye**	**60.80**	**26**	⇓P	**P**	**02 43 52.6**	**-0.7**
	SNR=23						
BRVK	**Borovoye**	**60.80**	**26**	⇓P	**P**	**02 43 52.6**	**-0.7**
	SNR=23						
PRGR	**Permogore**	**60.90**	**8**	⇑*i*P	**P**	**02 43 52.9**	**-0.8**
PRGR				*e*S	**S**	**02 52 05.0**	**-4.6**
PRGR				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.3						
NAO01	**NORSAR Array S**	**60.97**	**349**	*e*P	**P**	**02 43 53.7**	**-0.5**
	comp=Z,90nm,0.9s,mb5.9						
NB2	**NORSAR Subarra**	**61.08**	**349**	P	**P**	**02 43 54.5**	**-0.5**
	comp=Z,5.6nm,0.8s,mb4.8,baz=155,slow=7.4						
NOA	**NORSAR Array B**	**61.08**	**349**	P	**P**	**02 43 54.3**	**-0.7**
	comp=Z,82nm,0.9s,mb5.8,baz=159,slow=6.9,SNR=182						
NOA				LR	LR	03 11 25.1	
	comp=Z,691nm,22.0s,MS4.8,baz=160,slow=37						
JOF	**Joensuu**	**61.13**	**0**	*e*p	**P**	**02 43 53.2**	**-2.1**
	comp=Z,52nm,0.9s,mb5.7						
JOF	**Joensuu**	**61.13**	**0**	*e*P	**P**	**02 43 53.2**	**-2.1**
JOF				pmax	pmax		
	comp=Z,52nm,0.9s,mb5.7						
SOKR	**Solikamsk**	**61.21**	**15**	*d i*P	**P**	**02 43 55.8**	**-0.1**
SOKR				PPP		02 47 35.1	
SOKR				S	**S**	**02 52 24.0**	**+10**
SOKR				pmax	pmax		
	comp=Z,120nm,1.1s,mb5.9						
SOKR				MLR	MLR		
	comp=Z,750nm,16.0s,MS4.9						
MME1	**Meikle Cairn**	**61.62**	**340**	*e*P	**P**	**02 43 58.0**	**-0.7**
BER	**Bergen**	**61.75**	**346**	AMS	AMS	03 14 24.5	
	comp=Z,840nm,20.5s,MS4.9						
MCD	**Coleburn Disti**	**61.93**	**340**	*e*P	**P**	**02 44 00.2**	**-0.6**
MDO	**Dochfour**	**62.20**	**339**	*e*P	**P**	**02 44 01.9**	**-0.7**
MVH1	**Achvaich**	**62.51**	**340**	⇑*e*P	**P**	**02 44 04.6**	**0.0**
KPL	**Plockton**	**62.58**	**339**	*e*P	**P**	**02 44 04.6**	**-0.5**
KPL				AMb	AMB	02 44 07.4	
	comp=Z,115nm,1.6s,mb5.8						
REB	**Eisghbrachaidh**	**63.04**	**340**	⇑*e*P	**P**	**02 44 08.4**	**+0.3**
RSC	**Scourie**	**63.17**	**340**	⇑*e*P	**P**	**02 44 09.4**	**+0.4**
KURK	**Kurchatov**	**63.39**	**32**	*e*P	**P**	**02 44 09.9**	**-0.8**
	comp=Z,110nm,1.4s,mb5.8						
KURK				*e*PP	PP	02 46 31.4	+1.2
KURK				LR	LR		
	comp=Z,2μm,20.0s,MS5.4						
KURK	**Kurchatov**	**63.39**	**32**	*e*P	**P**	**02 44 09.9**	**-0.7**
KURK				*e*		02 46 31.4	
KURK				pmax	pmax		
	comp=Z,110nm,1.4s,mb5.8						
KURK				MLR	MLR		
	comp=Z,2μm,20.0s,MS5.4						
KURK	**Kurchatov**	**63.39**	**32**	⇓P	**P**	**02 44 10.4**	**-0.3**
	SNR=36						
KURK	**Kurchatov**	**63.39**	**32**	⇓P	**P**	**02 44 10.4**	**-0.3**
	SNR=36						
MK31	**Makanchi Array**	**63.42**	**37**	*i* P	**P**	**02 44 08.9**	**-2.0**
MKAR	**Makanchi Array**	**63.42**	**37**	P	**P**	**02 44 10.5**	**-0.4**
MKAR				⇑*e*		03 13 16.2	
MKAR				LR	LR	03 14 28.7	
MKAR	**Makanchi Array**	**63.42**	**37**	P	**P**	**02 44 10.5**	**-0.4**
	comp=Z,7.3nm,0.6s,mb5.0,baz=236,slow=6.6,SNR=116						
MKAR				PKP2bc		03 13 16.2	
	comp=Z,0.1nm,0.2s,baz=64,slow=5.5,SNR=4.0						
MKAR				LR	LR	03 14 28.7	
	comp=Z,3μm,18.9s,MS5.4,baz=239,slow=39						
RTO	**Tolsta**	**63.56**	**339**	⇑*e*P	**P**	**02 44 12.0**	**+0.4**
LSA	**Lhasa**	**63.70**	**58**	P	**P**	**02 44 11.3**	**-1.8**
LSA				AP	pP	02 44 17.9	-4.3
LSA				XP	sP	02 44 26.9	+1.3
LSA				S	**S**	**02 52 44.8**	**-1.2**
LSA				LR	LR		
	comp=N,830nm,32.9s,MS4.8						
LSA				LR	LR		
	comp=E,700nm,32.9s,MS4.8						
LSA				LR	LR		
	comp=Z,830nm,19.7s						
LSA	**Lhasa**	**63.70**	**58**	*e*P	**P**	**02 44 13.4**	**+0.3**
	comp=Z,47nm,1.1s,mb5.4						
LSA				LR	LR		
	comp=Z,855nm,20.0s,MS4.9						
LSA	**Lhasa**	**63.70**	**58**	*e*P	**P**	**02 44 13.4**	**+0.3**
LSA				pmax	pmax		
	comp=Z,47nm,1.1s,mb5.4						
LSA				MLR	MLR		
	comp=Z,855nm,20.0s,MS4.9						
NSS	**Namsos**	**64.21**	**351**	*e*P	**P**	**02 44 14.9**	**-0.9**
WMQ	**Urumqi**	**65.55**	**42**	P	**P**	**02 44 26.8**	**+1.9**
WMQ				AP	pP	02 44 34.5	+0.5
WMQ				XP	sP	02 44 37.8	+0.4
WMQ				PCP	PcP	02 44 58.5	+2.0
WMQ				PP	PP	02 46 52.8	+3.4
WMQ				SCP		02 48 58.5	
WMQ				S	S	02 53 08.0	-0.4
WMQ				SCS	ScS	02 54 16.8	-1.9
WMQ				SS	SS	02 57 22.9	+0.3
WMQ				AMB	AMB		
	comp=Z,55nm,1.8s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,139nm,7.9s						
WMQ				LR	LR		
	comp=N,2μm,25.2s,MS5.3						
WMQ				LR	LR		
	comp=E,1μm,20.8s,MS5.3						
WMQ				LR	LR		
	comp=Z,2μm,28.0s						
APA	**Apatity**	**65.83**	**1**	⇑*i*P	**P**	**02 44 25.8**	**-0.4**
APA				*i*		02 45 00.0	
APA				*e*S	S	02 53 04.0	-6.9
APA				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.7						
LVZ	**Lovozero**	**66.19**	**2**	PFAKE		02 44 40.0	+11
LVZ				LR	LR		
	comp=Z,1μm,19.0s,MS5.1						
RCBR	**Riachuelo**	**66.92**	**263**	PFAKE		02 44 50.0	+16
RCBR				LR	LR		
	comp=Z,2μm,19.0s,MS5.3						
COCO	**West Island**	**67.07**	**104**	PFAKE		02 44 50.0	+15
COCO				LR	LR		
	comp=Z,1μm,20.0s,MS5.1						
ARCES	**ARCESS Array B**	**67.86**	**358**	P	**P**	**02 44 38.4**	**-0.8**
	comp=Z,32nm,1.0s,mb5.3,baz=163,slow=5.7,SNR=32						
ARCES				LR	LR	03 19 25.1	
	comp=Z,2μm,19.4s,MS5.3,baz=178,slow=40						
ARE0	**ARCESS Array S**	**67.86**	**358**	*e*P	**P**	**02 44 38.6**	**-0.6**
NVS	**Novosibirsk**	**67.97**	**30**	*i* P	**P**	**02 44 40.0**	**-0.1**
NVS				pmax	pmax		
	comp=N,95nm,1.7s						
NVS				pmax	pmax		
	comp=Z,405nm,1.7s,mb6.2						
NVS				pmax	pmax		
	comp=E,113nm,2.1s						
KEV	**Kevo**	**68.04**	**359**	*e*P	**P**	**02 44 37.8**	**-2.5**
	comp=E,48nm,0.9s,mb5.5						
KEV				LR	LR		
	comp=Z,2μm,19.0s,MS5.3						
PSI	**Prapat**	**68.17**	**88**	P	**P**	**02 44 40.9**	**-1.4**
	comp=Z,3.4nm,0.5s,mb4.6,baz=230,slow=15,SNR=4.0						
ZAL	**Zalesovo**	**68.31**	**31**	P	**P**	**02 44 41.4**	**-0.9**
ZAA0	**Zalesovo Array**	**68.32**	**31**	⇓*i*P	**P**	**02 44 41.3**	**-1.1**
ZAA0				*e*pP	pP	02 44 50.0	-1.4
ZALV	**Zalesovo Beam**	**68.32**	**31**	P	**P**	**02 44 41.4**	**-1.0**
	comp=Z,52nm,1.0s,mb5.5,baz=255,slow=5.7,SNR=162						
ZALV				LR	LR	03 18 16.0	
	comp=Z,1μm,19.4s,MS5.1,baz=229,slow=39						
TRO	**Tromso**	**68.33**	**356**	*e*P	**P**	**02 44 40.7**	**-1.4**
TRO				AMb	AMB	02 44 42.5	
	comp=Z,79nm,1.3s,mb5.6						
TRO				*e*S	S	02 53 41.0	+0.1
TRO				AMS	AMS	03 18 26.3	
	comp=Z,556nm,23.3s,MS4.7						
BDT	**Bhumibol Dam**	**68.80**	**72**	P	**P**	**02 44 40.0**	**-6.0**
CM31	**Chiang Mai Arr**	**68.85**	**71**	PFAKE		02 45 00.0	+14
CM31				LR	LR		
	comp=Z,802nm,21.0s,MS4.9						
CHG	**Chiang Mai**	**68.89**	**71**	⇓P	**P**	**02 44 46.1**	**-0.5**
	comp=Z,20nm,1.0s,mb5.0						
CHTO	**Chiang Mai**	**68.89**	**71**	*e*P	**P**	**02 44 45.9**	**-0.7**
	comp=Z,36nm,1.4s,mb5.1						
CHTO				LR	LR		
	comp=Z,844nm,21.0s,MS5.0						
CHTO	**Chiang Mai**	**68.89**	**71**	*e*P	**P**	**02 44 45.9**	**-0.7**
CHTO				pmax	pmax		
	comp=Z,36nm,1.4s,mb5.1						
CHTO				MLR	MLR		
	comp=Z,844nm,21.0s,MS5.0						
CHTO	**Chiang Mai**	**68.89**	**71**	⇓P	**P**	**02 44 46.6**	**0.0**
	SNR=12						
CHTO	**Chiang Mai**	**68.89**	**71**	⇓P	**P**	**02 44 46.6**	**0.0**
	SNR=12						
SYO	**Syowa Base**	**70.78**	**177**	⇓*e*P	**P**	**02 45 04.6**	**+7.4**
SYO	**Syowa Base**	**70.78**	**177**	⇑*e*P	**P**	**02 45 07.0**	**+10**
MAW	**Mawson**	**72.67**	**168**	⇑*e*P	**P**	**02 45 09.8**	**+1.2**
	comp=Z,54nm,1.3s,mb5.3						
MAW	**Mawson**	**72.67**	**168**	P	**P**	**02 45 10.1**	**+1.5**
MAW				pmax	pmax		
	comp=Z,65nm,1.1s						
MAW	**Mawson**	**72.67**	**168**	LR	LR	03 14 03.6	
	comp=Z,1μm,20.4s,MS5.2,baz=328,slow=33						
GTA	**Gaotai**	**72.89**	**49**	⇓P	**P**	**02 45 10.9**	**+0.4**
GTA				PCP	PcP	02 45 27.9	+0.4
GTA				PP	PP	02 47 56.9	+3.9
GTA				PPP		02 49 39.3	
GTA				AMB	AMB		
	comp=Z,50nm,1.6s,mb5.2						
GTA				AMB	AMB		
	comp=Z,441nm,8.0s						
GTA				LR	LR		
	comp=N,708nm,19.8s,MS5.0						
GTA				LR	LR		
	comp=E,545nm,19.8s,MS5.0						
GTA				LR	LR		
	comp=Z,587nm,20.5s,MS4.8						
KMI	**Kunming**	**73.05**	**64**	P	**P**	**02 45 11.8**	**0.0**
KMI				AP	pP	02 45 20.8	-0.1
KMI				XP	sP	02 45 24.0	-0.3
KMI				PCP	PcP	02 45 29.8	+1.3
KMI				PP	PP	02 47 55.9	+1.2
KMI				PPP		02 49 40.8	
KMI				S	S	02 54 36.6	-1.0
KMI				XS	sS	02 54 49.4	-3.3
KMI				PS		02 55 11.5	
KMI				SCS	ScS	02 55 15.8	-2.6
KMI				SS	SS	02 59 19.1	+0.1
KMI				AMB	AMB		
	comp=Z,16nm,1.2s,mb4.8						
KMI				AMB	AMB		
	comp=Z,201nm,4.1s						
KMI				LR	LR		
	comp=N,624nm,19.5s,MS5.0						
KMI				LR	LR		
	comp=E,518nm,18.2s,MS5.0						
KMI				LR	LR		
	comp=Z,737nm,20.1s,MS5.0						
KMI	**Kunming**	**73.05**	**64**	P	**P**	**02 45 11.8**	**0.0**
	comp=Z,16nm,1.2s,mb4.8						
KMI				pP	pP	02 45 20.8	-0.1
KMI				sP	sP	02 45 24.0	-0.3
KMI				PcP	PcP	02 45 29.8	+1.3
KMI				PP	PP	02 47 55.9	+1.2
KMI				PPP		02 49 40.7	
KMI				S	S	02 54 36.6	-1.0
KMI				sS	sS	02 54 49.4	-3.3
KMI				PS		02 55 11.5	
KMI				SKS		02 55 12.0	
KMI				ScS	ScS	02 55 15.7	-2.7
KMI				SS	SS	02 59 19.1	+0.1
KMI				SSS		03 02 29.3	
KMI				LR	LR		
	comp=Z,740nm,20.1s,MS5.0						
KMI	**Kunming**	**73.05**	**64**	P	**P**	**02 45 11.8**	**0.0**
KMI				*PP	pP	02 45 20.8	-0.1
KMI				*SP	sP	02 45 24.0	-0.3
KMI						02 45 29.8	
KMI						02 47 55.9	
KMI				PPP		02 49 40.7	
KMI				S	S	02 54 36.6	-1.0
KMI				PS		02 55 11.5	
KMI						02 55 12.0	
KMI						02 55 15.7	
KMI				SS	SS	02 59 19.1	+0.1
KMI				SSS		03 02 29.3	
KMI				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
KMI				MLR	MLR		
	comp=Z,740nm,20.1s,MS5.0						
JMIC	**Jan Mayen**	**73.70**	**348**	AMS	AMS	03 23 08.3	
	comp=Z,490nm,17.7s,MS4.8						
CD2	**Chengdu**	**74.63**	**59**	P	**P**	**02 45 21.1**	**+0.2**
CD2				AP	pP	02 45 29.8	-0.3
CD2				XP	sP	02 45 32.8	-0.7
CD2				PP	PP	02 48 10.9	+2.9
CD2				S	S	02 54 54.3	-0.9
CD2				XS	sS	02 55 06.8	-3.6
CD2				SCS	ScS	02 55 27.6	-3.2
CD2				SS	SS	02 59 42.6	-0.3
CD2				AMB	AMB		
	comp=Z,20nm,1.1s,mb5.0						
CD2				AMB	AMB		
	comp=Z,50nm,5.8s						
CD2				LR	LR		
	comp=N,900nm,18.6s,MS5.1						
CD2				LR	LR		
	comp=E,450nm,19.2s,MS5.1						
CD2				LR	LR		
	comp=Z,570nm,17.4s,MS4.9						
LZH	**Lanzhou**	**75.43**	**53**	⇓P	**P**	**02 45 25.8**	**+0.4**
LZH				AP	pP	02 45 35.6	+1.0
LZH				XP	sP	02 45 39.5	+1.5
LZH				AMB	AMB		
	comp=Z,84nm,1.0s,mb5.6						
LZH				AMB	AMB		
	comp=Z,465nm,7.2s						
LZH				LR	LR		
	comp=N,2μm,16.5s						
LZH				LR	LR		
	comp=Z,2μm,18.7s,MS5.5						
LZH	**Lanzhou**	**75.43**	**53**	⇓P	**P**	**02 45 25.7**	**+0.3**
LZH				*PP	pP	02 45 35.6	+1.0
LZH				*SP	sP	02 45 39.5	+1.5
LZH				S	S	02 55 00.8	-3.1
LZH				PS		02 55 41.5	
LZH				SS	SS	02 59 52.8	-1.9
LZH				pmax	pmax		
	comp=Z,84nm,1.0s,mb5.6						
LZH				MLR	MLR		
	comp=Z,2μm,18.7s,MS5.5						
MOY	**Mondy**	**76.57**	**37**	*e*P	**P**	**02 45 32.0**	**+0.4**
MOY				pmax	pmax		
	comp=Z,115nm,2.9s,mb5.3						
VNA2	**Neumayer--Watz**	**76.60**	**192**	*e*P	pP	02 45 41.8	+1.2
	baz=18,slow=6.9						
VNA2				*e*		02 45 44.1	
VNA2				*e*		02 45 45.7	
VNA2				*e*		02 45 49.5	
VNA2				*e*		02 45 58.5	
VNA2				*e*		02 46 02.9	
GYA	**Guiyang**	**76.70**	**63**	⇑*i*P	**P**	**02 45 33.6**	**+0.8**
GYA				AP	pP	02 45 41.8	-0.3
GYA				XP	sP	02 45 44.8	-0.7
GYA				PCP	PcP	02 45 47.9	+3.7
GYA				PP	PP	02 48 27.5	+1.9
GYA				PPP		02 50 15.3	
GYA				S	S	02 55 17.0	-1.2
GYA				XS	sS	02 55 29.8	-3.6
GYA				SKS		02 55 38.6	
GYA				SCS	ScS	02 55 45.0	-2.7
GYA				PS		02 55 58.6	
GYA				SS	SS	03 00 14.6	+0.2
GYA				AMB	AMB		
	comp=Z,130nm,1.0s,mb5.8						
GYA				AMB	AMB		
	comp=Z,1μm,7.6s						
GYA				LR	LR		
	comp=N,2μm,20.8s,MS5.8						
GYA				LR	LR		
	comp=E,4μm,20.3s,MS5.8						
GYA				LR	LR		
	comp=Z,4μm,21.9s,MS5.7						
VNA3	**Neumayer Olymp**	**77.33**	**192**	*e*P	pP	02 45 46.5	+1.8
VNA3				*e*		02 45 48.4	
VNA3				*e*		02 45 50.7	
VNA3				*e*		02 45 53.8	
VNA3				*e*		02 46 02.1	
VNA3				*e*		02 46 05.9	
ZAK	**Zakamensk**	**77.67**	**39**	⇑*i*P	**P**	**02 45 37.2**	**-0.6**
ZAK				pmax	pmax		
	comp=Z,14nm,1.6s,mb4.6						
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.2						
KBS	**Kingsbay**	**77.82**	**356**	PFAKE		02 45 50.0	+12
KBS				LR	LR		
	comp=Z,1μm,22.0s,MS5.2						
KBS	**Kingsbay**	**77.82**	**356**	*e*S	S	02 55 29.1	+0.5
KBS				AMS	AMS	03 23 32.9	
	comp=Z,428nm,19.5s,MS4.8						
TLY	**Talaya**	**78.17**	**37**	*e*P	**P**	**02 45 40.9**	**+0.3**
TLY				LR	LR		
	comp=Z,1μm,21.0s,MS5.2						
TLY	**Talaya**	**78.17**	**37**	*e*P	**P**	**02 45 40.9**	**+0.3**
TLY				*e*PPP		02 50 28.1	
TLY				*e*S	S	02 55 38.7	+5.5
TLY				*e*PS		02 56 22.3	
TLY				*e*SS	SS	03 00 39.3	+3.8
TLY				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.2						
TLY	**Talaya**	**78.17**	**37**	⇑P	**P**	**02 45 41.2**	**+0.6**
	SNR=17						
TLY	**Talaya**	**78.17**	**37**	⇑P	**P**	**02 45 41.2**	**+0.6**
	SNR=17						
IRK	**Irkutsk**	**78.67**	**37**	*e*P	**P**	**02 45 38.6**	**-4.7**
IRK				*e*		02 50 29.0	
IRK				pmax	pmax		
	comp=Z,145nm,1.9s,mb5.6						
SONM	**Songino Array**	**79.19**	**42**	P	**P**	**02 45 47.2**	**+0.9**
	comp=Z,11nm,1.1s,mb4.7,baz=240,slow=4.0,SNR=73						
SONM				LR	LR	03 24 55.4	
	comp=Z,1μm,20.8s,MS5.3,baz=260,slow=39						
QIZ	**Qiongzhong**	**79.19**	**71**	P	**P**	**02 45 46.8**	**-0.1**
QIZ				AP	pP	02 45 55.5	-0.6
QIZ				XP	sP	02 46 00.8	+1.3
QIZ				PPP		02 50 49.3	
QIZ				S	S	02 55 42.8	-2.6
QIZ				SS	SS	03 00 52.1	-0.2
QIZ				AMB	AMB		
	comp=Z,182nm,6.6s						
QIZ				LR	LR		
	comp=N,510nm,34.6s						
QIZ				LR	LR		
	comp=Z,457nm,22.1s						
QIZ	**Qiongzhong**	**79.19**	**71**	PFAKE		02 46 00.0	+13
QIZ				LR	LR		
	comp=Z,528nm,22.0s,MS4.8						
XAN	**Xi'an**	**79.31**	**56**	P	**P**	**02 45 46.9**	**-0.3**
XAN				AP	pP	02 45 55.8	-0.7
XAN				S	S	02 55 40.3	-5.8
XAN				AMB	AMB		
	comp=Z,15nm,1.7s,mb4.7						
XAN				AMB	AMB		
	comp=Z,181nm,6.0s						
XAN				LR	LR		
	comp=N,289nm,16.9s,MS5.0						
XAN				LR	LR		
	comp=E,683nm,21.1s,MS5.0						
XAN				LR	LR		
	comp=Z,729nm,21.1s,MS5.0						
ENH	**Enshi**	**79.48**	**60**	PFAKE		02 46 00.0	+12
ENH				LR	LR		
	comp=Z,4.0nm,20.0s						
KSM	**Kuching**	**79.57**	**89**	⇓*e*P	**P**	**02 45 48.8**	**-0.3**
KSM				*e*	pP	02 45 56.2	-2.0
ULN	**Ulaanbaatar**	**79.63**	**42**	*i* Pr	**P**	**02 45 49.3**	**+0.7**
ULN				LR	LR		
	comp=Z,1μm,20.0s,MS5.3						
ULN	**Ulaanbaatar**	**79.63**	**42**	⇑P	**P**	**02 45 49.7**	**+1.1**
ULN	**Ulaanbaatar**	**79.63**	**42**	⇑P	**P**	**02 45 49.7**	**+1.1**
DAG	**Danmarks Havn**	**79.77**	**350**	⇑*i*P	**P**	**02 45 49.2**	**+0.4**
DAG				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.3						
DAG	**Danmarks Havn**	**79.77**	**350**	⇑*i*P	**P**	**02 45 49.2**	**+0.4**
	comp=Z,43nm,1.1s,mb5.3						
BTO	**Baotou**	**80.82**	**49**	*e*P	**P**	**02 45 53.5**	**-1.7**

HHC	**Hu-ho-hao-te**	**82.01**	**49**	⇓P	**P**	**02 46 02.8**	**+1.3**
HHC				AP	pP	02 46 10.8	0.0
HHC				XP	sP	02 46 14.4	+0.2
HHC				PP	PP	02 49 12.0	+2.5
HHC				AMB	AMB		
	comp=Z,57nm,2.1s,mb5.1						
HHC				AMB	AMB		
	comp=Z,660nm,2.8s,mb6.1						
HHC				LR	LR		
	comp=N,618nm,21.4s,MS5.1						
HHC				LR	LR		
	comp=E,634nm,16.9s,MS5.1						
HHC				LR	LR		
	comp=Z,623nm,28.3s						
TIY	**Taiyuan**	**82.45**	**52**	*i* PR	**P**	**02 46 03.5**	**-0.4**
TIY				S	S	02 56 21.4	+2.7
TIY				AMB	AMB		
	comp=Z,549nm,4.0s						
TIY				LR	LR		
	comp=N,527nm,14.5s,MS5.1						
TIY				LR	LR		
	comp=E,263nm,12.7s,MS5.1						
GZH	**Guangzhou**	**82.58**	**67**	P	**P**	**02 46 05.5**	**+0.6**
GZH				S	S	02 56 22.9	+2.3
GZH				LR	LR		
	comp=N,360nm,20.7s,MS4.8						
GZH				LR	LR		
	comp=E,227nm,21.9s,MS4.8						
GZH				LR	LR		
	comp=Z,549nm,21.3s,MS4.9						
WHN	**Wuhan**	**83.69**	**60**	⇓P	**P**	**02 46 11.0**	**+0.5**
CIT	**Chita**	**84.30**	**38**	*e*P	**P**	**02 46 13.6**	**+0.5**
CIT				*e*		02 46 20.1	
CIT				pmax	pmax		
	comp=Z,172nm,2.2s,mb5.8						
BOD	**Bodaibo**	**85.04**	**32**	*e*P	**P**	**02 46 16.0**	**-0.7**
BOD				pmax	pmax		
	comp=Z,104nm,1.4s,mb5.8						
SFJD	**Kangerlussuaq**	**85.10**	**337**	⇓*i*P	**P**	**02 46 17.5**	**+0.7**
SFJD				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.5						
SFJD				MLR	MLR		
	comp=Z,770nm,18.0s,MS5.1						
SFJD	**Kangerlussuaq**	**85.10**	**337**	⇓*i*P	**P**	**02 46 17.5**	**+0.7**
	comp=Z,45nm,1.0s,mb5.6						
SFJD				*i* S	S	02 56 56.2	+12
SFJD							
	comp=Z,760nm,18.0s						
BJT	**Baijiatuau**	**85.47**	**50**	*e*P	**P**	**02 46 20.1**	**+0.8**
	comp=Z,27nm,1.2s,mb5.2						
BJT				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
BJT	**Baijiatuau**	**85.47**	**50**	*e*P	**P**	**02 46 20.1**	**+0.8**
BJT				pmax	pmax		
	comp=Z,27nm,1.2s						
BJT				MLR	MLR		
	comp=Z,1µm,20.0s						
BJI	**Beijing**	**85.47**	**50**	P	**P**	**02 46 19.1**	**-0.2**
BJI				AP	pP	02 46 26.1	-2.5
BJI				XP	sP	02 46 28.8	-3.2
BJI				PP	PP	02 49 36.6	-1.2
BJI				S	S	02 56 46.5	-2.5
BJI				XS	sS	02 57 00.5	-3.9
BJI				SS	SS	03 02 23.0	-1.7
BJI				AMB	AMB		
	comp=Z,21nm,1.9s,mb4.9						
BJI				AMB	AMB		
	comp=Z,593nm,5.0s						
BJI				LR	LR		
	comp=N,799nm,24.3s,MS5.2						
BJI				LR	LR		
	comp=E,654nm,22.1s,MS5.2						
BJI				LR	LR		
	comp=Z,605nm,24.5s,MS4.9						
BJI	**Beijing**	**85.47**	**50**	P	**P**	**02 46 19.1**	**-0.2**
BJI				pP	pP	02 46 26.1	-2.5
BJI				sP	sP	02 46 28.8	-3.2
BJI				PP	PP	02 49 36.6	-1.2
BJI				S	S	02 56 46.5	-2.5
BJI				sS	sS	02 57 00.5	-3.9
BJI				SS	SS	03 02 23.0	-1.7
BJI				LR	LR		
	comp=Z,610nm,24.5s,MS4.9						
CASY	**Casey**	**87.40**	**157**	PFAKE		02 46 40.0	+12
CASY				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
NWAO	**Narrogin (SRO)**	**87.97**	**123**	PFAKE		02 46 40.0	+8.4
NWAO				LR	LR		
	comp=Z,788nm,19.0s,MS5.2						
HIA	**Hailar**	**88.13**	**41**	⇓*e*P	**P**	**02 46 31.9**	**-0.2**
	comp=Z,87nm,1.9s,mb5.7						
HIA				LR	LR		
	comp=Z,790nm,21.0s,MS5.1						
HIA	**Hailar**	**88.13**	**41**	⇓*e*P	**P**	**02 46 31.9**	**-0.1**
HIA				pmax	pmax		
	comp=Z,87nm,1.9s						
HIA				MLR	MLR		
	comp=Z,790nm,21.0s						
SSE	**Sheshan**	**89.57**	**59**	P	**P**	**02 46 38.8**	**-0.4**
SSE				AP	pP	02 46 48.3	-0.3
SSE				PP	PP	02 50 10.5	-0.6
SSE				S	S	02 57 27.9	-0.8
SSE				XS	sS	02 57 44.3	+0.1
SSE				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb5.1						
SSE				AMB	AMB		
	comp=Z,162nm,10.2s						
SSE				LR	LR		
	comp=N,363nm,18.4s,MS5.0						
SSE				LR	LR		
	comp=E,368nm,18.4s,MS5.0						
SSE				LR	LR		
	comp=Z,523nm,19.4s,MS5.0						
MBWA	**Marble Bar**	**89.67**	**111**	PFAKE		02 46 50.0	+10
MBWA				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
DL2	**Dalian**	**89.70**	**51**	P	**P**	**02 46 36.6**	**-3.0**
DL2				S	S	02 57 22.0	-7.5
DL2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb5.2						
DL2				AMB	AMB		
	comp=Z,100nm,4.6s						
DL2				LR	LR		
	comp=N,220nm,18.2s,MS4.8						
DL2				LR	LR		
	comp=E,260nm,17.0s,MS4.8						
DL2				LR	LR		
	comp=Z,410nm,18.0s,MS4.9						
EFI	**East Falkland**	**90.51**	**219**	PFAKE		02 46 50.0	+6.9
EFI				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
TIXI	**Tiksi**	**91.03**	**18**	*e*P	**P**	**02 46 44.4**	**-0.7**
TIXI				LR	LR		
	comp=Z,879nm,19.0s,MS5.2						
TIXI	**Tiksi**	**91.03**	**18**	*e*P	**P**	**02 46 41.7**	**-3.4**
TIXI				*e*PPP		02 52 20.7	
TIXI				*e*S	S	02 57 13.6	-27
TIXI				*e*		02 57 31.4	
TIXI				*e*SP	SP	02 58 44.0	-3.8
TIXI				*e*PS	PS	02 58 51.1	-0.9
TIXI				pmax	pmax		
	comp=Z,22nm,1.3s,mb5.3						
SNY	**Shenyang**	**91.06**	**48**	⇓P	**P**	**02 46 45.5**	**-0.4**
SNY				AP	pP	02 46 55.8	+0.5
SNY				XP	sP	02 46 59.3	+0.7
SNY				SKS		02 57 17.9	
SNY				S	S	02 57 42.4	+0.5
SNY				XS	sS	02 57 54.3	-3.2
SNY				PS	PS	02 58 59.4	+5.9
SNY				SS	SS	03 03 41.5	-4.4
SNY				AMB	AMB		
	comp=Z,19nm,1.6s,mb5.2						
SNY				LR	LR		
	comp=N,380nm,21.0s,MS5.4						
SNY				LR	LR		
	comp=E,1µm,19.4s,MS5.4						
SNY				LR	LR		
	comp=Z,998nm,19.6s,MS5.3						
QSPA	**South Pole Qui**	**91.66**	**180**	PFAKE		02 47 00.0	+12
QSPA				LR	LR		
	comp=Z,1.0nm,20.0s						
CN2	**Changchun**	**92.30**	**46**	*e*P	**P**	**02 46 50.9**	**-0.7**
CN2				*e*AP	pP	02 46 58.9	-2.1
CN2				*e*PP	PP	02 50 33.5	+1.2
CN2				*e*S	S	02 57 49.4	-3.7
CN2				*e*SS	SS	03 04 02.3	-1.4
CN2				AMB	AMB		
	comp=Z,10.0nm,1.5s,mb4.9						
CN2				AMB	AMB		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,700nm,18.0s,MS5.2						
CN2				LR	LR		
	comp=E,500nm,18.0s,MS5.2						
CN2				LR	LR		
	comp=Z,900nm,21.0s,MS5.2						
YAK	**Yakutsk**	**92.77**	**28**	*i* Pr	**P**	**02 46 52.9**	**-0.5**
YAK				LR	LR		
	comp=Z,873nm,19.0s,MS5.2						
SCHQ	**Schefferville**	**93.02**	**325**	P	**P**	**02 46 55.0**	**+0.3**
	comp=Z,7.9nm,1.0s,mb5.1,baz=98,slow=7.0,SNR=6.2						
SCHQ				LR	LR	03 25 51.5	
	comp=Z,850nm,21.9s,MS5.2,baz=87,slow=34						
BBSR	**BB Station**	**93.70**	**302**	PFAKE		02 47 10.0	+12
BBSR				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
INCN	**Inchon**	**93.72**	**52**	PFAKE		02 47 10.0	+12
INCN				LR	LR		
	comp=Z,653nm,20.0s,MS5.1						
DAV	**Davao City (W)**	**94.63**	**83**	PFAKE		02 47 10.0	+7.0
DAV				LR	LR		
	comp=Z,522nm,20.0s,MS5.0						
KSRS	**Korea Array**	**94.74**	**52**	P	**P**	**02 47 01.4**	**-1.6**
	comp=Z,2.1nm,0.9s,mb4.6,baz=247,slow=2.6,SNR=9.1						
KSRS				LR	LR	03 34 54.7	
	comp=Z,575nm,21.3s,MS5.0,baz=97,slow=39						
MDJ	**Mudanjiang**	**95.18**	**45**	P	**P**	**02 47 03.9**	**-0.9**
MDJ				AP	pP	02 47 10.6	-3.6
MDJ				XP	sP	02 47 13.3	-4.3
MDJ				PP	PP	02 50 51.5	-3.3
MDJ				S	S	02 58 15.3	-3.1
MDJ				XS	sS	02 58 26.8	-7.2
MDJ				AMB	AMB		
	comp=Z,9.0nm,1.3s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,150nm,4.8s						
MDJ				LR	LR		
	comp=N,594nm,22.5s						
MDJ				LR	LR		
	comp=E,239nm,27.7s						
MDJ				LR	LR		
	comp=Z,814nm,19.8s,MS5.2						
MDJ	**Mudanjiang**	**95.18**	**45**	PFAKE		02 47 10.0	+5.2
MDJ				LR	LR		
	comp=Z,873nm,20.0s,MS5.2						
FITZ	**Fitzroy Crossi**	**95.19**	**108**	*e*P	**P**	**02 47 05.0**	**-0.4**
	comp=Z,22nm,1.1s,mb5.5						
FITZ	**Fitzroy Crossi**	**95.19**	**108**	LR	LR	03 29 31.3	
	comp=Z,556nm,18.6s,MS5.1,baz=258,slow=35						
PKME	**Peaks-Kenny Pk**	**95.88**	**316**	PFAKE		02 47 20.0	+12
PKME				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
KLR	**Kul’dur**	**95.97**	**40**	*e*P	**P**	**02 47 02.8**	**-5.5**
KLR				pmax	pmax		
	comp=Z,34nm,1.6s,mb5.5						
SJG	**San Juan**	**96.01**	**288**	PFAKE		02 47 20.0	+11
SJG				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
VLA	**Vladivostok**	**97.04**	**46**	*e*P	**P**	**02 47 09.8**	**-3.5**
VLA				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.7						
RES	**Resolute Bay**	**97.31**	**347**	*e*P	**P**	**02 47 13.7**	**-0.2**
	comp=Z,24nm,0.8s,mb5.7						
RES	**Resolute Bay**	**97.31**	**347**	*e*P	**P**	**02 47 13.7**	**-0.2**
RES				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.7						
JNU	**Nakatsue**	**97.62**	**56**	LR	LR	03 36 03.8	
	comp=Z,574nm,21.2s,MS5.0,baz=93,slow=38						
WES	**Weston**	**97.77**	**313**	PFAKE		02 47 30.0	+13
WES				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
LBNH	**Lisbon**	**97.89**	**315**	PFAKE		02 47 30.0	+13
LBNH				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
HRV	**Harvard--Oak R**	**97.92**	**313**	PFAKE		02 47 30.0	+13
HRV				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
LPAZ	**La Paz**	**98.94**	**254**	P	**P**	**02 47 24.7**	**+2.3**
LPAZ				LR	LR	03 31 14.5	
LPAZ	**La Paz**	**98.94**	**254**	P	**P**	**02 47 24.7**	**+2.3**
	comp=Z,0.5nm,0.6s,mb4.2,baz=312,slow=12,SNR=2.1						
LPAZ				LR	LR	03 31 14.5	
	comp=Z,789nm,19.1s,MS5.2,baz=97,slow=35						
NCB	**Newcomb**	**99.57**	**315**	PFAKE		02 47 40.0	+15
NCB				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
LONY	**Lake Ozonia**	**99.69**	**316**	PFAKE		02 47 40.0	+15
LONY				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
VNDA	**Vanda**	**99.84**	**170**	PFAKE		02 47 40.0	+14
VNDA				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
VNDA	**Vanda**	**99.84**	**170**	LR	LR	03 32 05.8	
	comp=Z,1µm,18.9s,MS5.4,baz=228,slow=35						
SBA	**Scott Base**	**100.39**	**171**	PFAKE		02 47 40.0	+12
SBA				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
LCO	**Las Campanas**	**100.77**	**241**	PFAKE		02 47 40.0	+10
LCO				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
SDDR	**Presa de Saban**	**100.80**	**290**	PFAKE		02 47 40.0	+10
SDDR				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
BINY	**Binghamton**	**101.20**	**313**	PFAKE		02 47 40.0	+8.4
BINY				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
ASAR	**Alice Springs**	**102.75**	**114**	Pdif	Pdif	02 47 39.8	+1.3
ASAR	**Alice Springs**	**102.75**	**114**	Pdiff	Pdif	02 47 39.8	+1.3
	comp=Z,0.3nm,0.7s,baz=281,slow=4.8,SNR=3.7						
ASAR				PKiKP	PKiKP	02 52 08.7	+8.6
	comp=Z,0.9nm,0.9s,baz=267,slow=2.9,SNR=5.6						
ASAR				PKKPbc	PKKPbc	03 03 39.1	+0.8
	comp=Z,0.6nm,0.8s,baz=76,slow=3.3,SNR=4.7						
SSPA	**Standing Stone**	**102.95**	**312**	PFAKE		02 47 50.0	+11
SSPA				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
MAJO	**Matsushiro**	**103.01**	**52**	PFAKE		02 47 50.0	+10
MAJO				LR	LR		
	comp=Z,556nm,19.0s,MS5.1						
CBN	**Corbin**	**103.11**	**310**	PFAKE		02 47 50.0	+10
CBN				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
MA2	**Magadan**	**103.31**	**27**	PFAKE		02 47 50.0	+9.0
MA2				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
WRA	**Warramunga Arr**	**103.37**	**110**	Pdif	Pdif	02 47 42.2	+0.9
WRA	**Warramunga Arr**	**103.37**	**110**	Pdiff	Pdif	02 47 42.2	+1.0
	comp=Z,1.6nm,1.1s,baz=274,slow=3.6,SNR=5.7						
WRA				PKiKP	PKiKP	02 52 11.3	+10
	comp=Z,1.0nm,1.0s,baz=268,slow=1.4,SNR=6.3						
YSS	**Yuzh-Sakhalins**	**103.67**	**41**	PFAKE		02 47 50.0	+7.4
YSS				LR	LR		
	comp=Z,745nm,19.0s,MS5.2						
BILL	**Bilibino**	**104.01**	**16**	PFAKE		02 47 50.0	+5.9
BILL				LR	LR		
	comp=Z,804nm,22.0s,MS5.2						
CNNC	**Cliffs of the**	**104.16**	**307**	PFAKE		02 48 00.0	+15
CNNC				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
MCWV	**Mont Chateau**	**104.64**	**312**	PFAKE		02 48 00.0	+13
MCWV				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
ERM	**Erimo**	**105.39**	**46**	PFAKE		02 52 10.0	+5.6
ERM				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
BLA	**Blacksburg**	**105.69**	**309**	PFAKE		02 52 20.0	+15
BLA				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
NHSC	**New Hope**	**106.48**	**305**	PFAKE		02 52 20.0	+13
NHSC				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
GLMI	**Grayling**	**106.52**	**318**	PFAKE		02 52 20.0	+14
GLMI				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
AAM	**Ann Arbor**	**106.67**	**315**	PFAKE		02 52 20.0	+13
AAM				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
ACSO	**Alum Creek Sta**	**106.81**	**313**	PFAKE		02 52 20.0	+13
ACSO				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
NNA	**Nana**	**107.51**	**258**	PFAKE		02 52 20.0	+11
NNA				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
TZTN	**Tazewell**	**108.29**	**309**	PFAKE		02 52 20.0	+10
TZTN				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
DWPF	**Disney**	**108.63**	**300**	PFAKE		02 52 20.0	+9.2
DWPF				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
COWI	**Conover**	**109.01**	**320**	PFAKE		02 52 20.0	+9.0
COWI				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
GOGA	**Godfrey**	**109.07**	**306**	PFAKE		02 52 20.0	+8.5
GOGA				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
OTAV	**Otavalo**	**109.14**	**271**	PFAKE		02 52 20.0	+7.8
OTAV				LR	LR		
	comp=Z,765nm,19.0s,MS5.3						
EYMN	**Ely**	**109.70**	**323**	PFAKE		02 52 20.0	+7.8
EYMN				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
WCI	**Wyandotte Cave**	**109.87**	**312**	PFAKE		02 52 20.0	+7.2
WCI				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
TAU	**Tasmania Unive**	**110.38**	**136**	PFAKE		02 52 20.0	+6.3
TAU				LR	LR		
	comp=Z,582nm,21.0s,MS5.1						
PET	**Petropavlovsk**	**110.40**	**31**	PFAKE		02 52 20.0	+6.6
PET				LR	LR		
	comp=Z,725nm,20.0s,MS5.2						
YKA	**Yellowknife Ar**	**110.88**	**344**	PP	PP	02 52 49.8	-1.5
	comp=Z,5.3nm,0.9s,baz=28,slow=6.8,SNR=24						
YKA				PKKPbc	PKKPbc	03 03 11.4	-2.9
	comp=Z,0.3nm,0.7s,baz=210,slow=3.3,SNR=6.0						
YKA				PKKPab	PKKPab	03 03 21.6	-1.6
	comp=Z,0.6nm,0.7s,baz=212,slow=2.8,SNR=8.7						
YKA				PKKP	PKKPbc	03 03 31.8	+18
	comp=Z,0.4nm,0.7s,baz=207,slow=4.8,SNR=3.7						
JFWS	**Jewell Farm**	**111.00**	**318**	PFAKE		02 52 30.0	+15
JFWS				LR	LR		
	comp=Z,941nm,20.0s,MS5.4						
ULM	**Lac du Bonnet**	**111.14**	**326**	PFAKE		02 52 30.0	+15
ULM				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
ULM	**Lac du Bonnet**	**111.14**	**326**	PP	PP	02 52 54.2	+0.6
	comp=Z,1.7nm,0.8s,baz=42,slow=5.6,SNR=4.1						
HDIL	**Hopedale**	**111.25**	**315**	PFAKE		02 52 30.0	+15
HDIL				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
TNA	**Tin City**	**111.60**	**8**	PFAKE		02 52 30.0	+15
TNA				LR	LR		
	comp=Z,351nm,20.0s,MS4.9						
WVT	**Waverly**	**111.71**	**310**	PFAKE		02 52 30.0	+14
WVT				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
FFC	**Flin Flon**	**111.71**	**333**	PFAKE		02 52 30.0	+14
FFC				LR	LR		
	comp=Z,855nm,20.0s,MS5.3						
LRAL	**Lakeview Retre**	**112.02**	**307**	PFAKE		02 52 30.0	+13
LRAL				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
AGMN	**Agassiz Refuge**	**112.11**	**325**	PFAKE		02 52 30.0	+13
AGMN				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
PLAL	**Pickwick Lake**	**112.27**	**309**	PFAKE		02 52 30.0	+13
PLAL				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
IMA2	**Indian Mountai**	**112.37**	**2**	*e*PP	PP	02 52 57.2	-4.6
BRAL	**Brewton**	**112.66**	**305**	PFAKE		02 52 30.0	+12
BRAL				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
SCIA	**State Center**	**113.42**	**318**	PFAKE		02 52 30.0	+11
SCIA				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
OXF	**Oxford**	**113.46**	**309**	PFAKE		02 52 30.0	+10
OXF				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
EGAK	**Eagle**	**113.47**	**356**	PFAKE		02 52 30.0	+11
EGAK				LR	LR		
	comp=Z,607nm,20.0s,MS5.2						
COLA	**College**	**113.63**	**359**	PFAKE		02 52 30.0	+11
COLA				LR	LR		
	comp=Z,467nm,21.0s,MS5.1						
CTAO	**Charters Tower**	**114.51**	**111**	PFAKE		02 52 30.0	+7.8
CTAO				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
MCK	**McKinley**	**114.79**	**360**	PFAKE		02 52 30.0	+8.6
MCK				LR	LR		
	comp=Z,248nm,20.0s,MS4.8						
ECSD	**EROS,Sioux Fal**	**114.81**	**321**	PFAKE		02 52 30.0	+7.9
ECSD				LR	LR		
	comp=Z,920nm,20.0s,MS5.4						
JTS	**JuntasAbangare**	**114.89**	**282**	PFAKE		02 52 30.0	+7.0
JTS				LR	LR		
	comp=Z,720nm,20.0s,MS5.3						
PMG	**Port Moresby**	**116.36**	**100**	PFAKE		02 52 40.0	+14
PMG				LR	LR		
	comp=Z,626nm,19.0s,MS5.2						
TEIG	**Tepich**	**116.43**	**293**	PFAKE		02 52 40.0	+14
TEIG				LR	LR		
	comp=Z,952nm,20.0s,MS5.4						
TGUH	**Tegucigalpa,Un**	**116.63**	**287**	PFAKE		02 52 40.0	+14
TGUH				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
DGMT	**Dagmar**	**116.64**	**328**	PFAKE		02 52 40.0	+15
DGMT				LR	LR		
	comp=Z,935nm,21.0s,MS5.4						
MIAR	**Mount Ida**	**116.66**	**310**	PFAKE		02 52 40.0	+14
MIAR				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
PMR	**Palmer**	**116.94**	**360**	PFAKE		02 52 40.0	+14
PMR				LR	LR		
	comp=Z,541nm,20.0s,MS5.2						
KSU1	**Kansas State U**	**116.98**	**316**	PFAKE		02 52 40.0	+14
KSU1				LR	LR		
	comp=Z,883nm,19.0s,MS5.4						
DIV	**Divide**	**117.34**	**358**	PFAKE		02 52 40.0	+14
DIV				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
EDM	**Edmonton**	**117.64**	**337**	*e*PKPdf	PKPdf	02 52 27.4	+0.1
EDM				*e*PP	PP	02 53 39.1	-0.2
EDM	**Edmonton**	**117.64**	**337**	*e*PKIKP	PKPdf	02 52 27.4	+0.2
EDM				*e*		02 53 39.1	
NATX	**Nacogdoches**	**118.55**	**308**	PFAKE		02 52 40.0	+10
NATX				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
LAO	**LASA Array**	**118.82**	**328**	PFAKE		02 52 40.0	+10
LAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
RSSD	**Black Hills**	**119.14**	**324**	PFAKE		02 52 40.0	+10
RSSD				LR	LR		
	comp=Z,846nm,21.0s,MS5.3						
CBKS	**Cedar Bluff**	**119.26**	**317**	PFAKE		02 52 40.0	+9.2
CBKS				LR	LR		
	comp=Z,837nm,20.0s,MS5.4						
EGMT	**Eagleton**	**119.76**	**331**	*e*PKPdf	PKPdf	02 52 32.9	+1.4
EGMT				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
HKT	**Hockley**	**120.16**	**306**	PFAKE		02 52 40.0	+7.2
HKT				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
SIT	**Sitka**	**120.41**	**351**	PFAKE		02 52 40.0	+7.6
SIT				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
WMOK	**Wichita Mounta**	**120.49**	**312**	*e*PKPdf	PKPdf	02 52 34.2	+1.0
WMOK				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
WMOK	**Wichita Mounta**	**120.49**	**312**	*e*PKIKP	PKPdf	02 52 34.3	+1.0
WMOK				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.6						
WRAK	**Wrangell Islan**	**120.51**	**349**	PFAKE		02 52 40.0	+7.3
WRAK				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
KDAK	**Kodiak Island**	**120.70**	**2**	PFAKE		02 52 40.0	+7.0
KDAK				LR	LR		
	comp=Z,195nm,20.0s,MS4.7						
PAYG	**Puerto Ayora**	**121.00**	**270**	PFAKE		02 52 50.0	+15
PAYG				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
RLMT	**Red Lodge**	**121.45**	**328**	PFAKE		02 52 50.0	+15
RLMT				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
CHMT	**Chamberlain Mo**	**122.23**	**332**	*e*PKPdf	PKPdf	02 52 37.9	+1.7
BSMT	**Bassoo Peak**	**122.26**	**333**	*e*PKPdf	PKPdf	02 52 37.9	+1.6
BOZ	**Bozeman (W)**	**122.33**	**330**	*e*PKPdf	PKPdf	02 52 38.1	+1.7
BOZ				LR	LR		

	comp=Z,968nm,22.0s,MS5.4						
BOZ	**Bozeman (W)**	**122.33**	**330**	*e*PKIKP	PKPdf	02 52 38.1	+1.6
BOZ				MLR	MLR		
	comp=Z,968nm,22.0s,MS5.4						
LKWY	**Lake**	**122.42**	**328**	*e*PKPdf	PKPdf	02 52 40.1	+3.4
LKWY				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
LKWY	**Lake**	**122.42**	**328**	*e*PKIKP	PKPdf	02 52 40.1	+3.4
LKWY				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.7						
ISCO	**Idaho Springs**	**122.60**	**321**	PFAKE		02 52 50.0	+13
ISCO				LR	LR		
	comp=Z,926nm,20.0s,MS5.4						
MSO	**Missoula**	**122.62**	**332**	*e*PKPdf	PKPdf	02 52 37.8	+0.8
MSO				*e*PP	PP	02 54 22.0	+8.4
MSO				LR	LR		
	comp=Z,938nm,21.0s,MS5.4						
YMR	**Madison River**	**122.65**	**328**	PFAKE		02 52 50.0	+13
YMR				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
KVTX	**Kingsville**	**122.73**	**304**	PFAKE		02 52 50.0	+12
KVTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
NEW	**Newport**	**122.97**	**335**	*e*PKPdf	PKPdf	02 52 38.4	+0.8
NEW				LR	LR		
	comp=Z,750nm,19.0s,MS5.4						
NEW	**Newport**	**122.97**	**335**	*e*PKIKP	PKPdf	02 52 38.4	+0.8
NEW				MLR	MLR		
	comp=Z,750nm,19.0s						
DLMT	**Dillon**	**123.01**	**330**	*e*PKPdf	PKPdf	02 52 39.4	+1.6
JCT	**Junction City**	**123.11**	**308**	PKPdf	PKPdf	02 52 38.9	+0.5
JCT				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
JCT	**Junction City**	**123.11**	**308**	PKIKP	PKPdf	02 52 38.9	+0.5
JCT				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.6						
BW06	**Boulder Array**	**123.15**	**326**	PFAKE		02 52 50.0	+12
BW06				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
PDAR	**Pinedale Array**	**123.15**	**326**	PKP	PKPdf	02 52 38.2	+0.1
PDAR	**Pinedale Array**	**123.15**	**326**	PKP	PKPdf	02 52 38.2	+0.1
	comp=Z,5.7nm,1.1s,baz=98,slow=3.0,SNR=19						
MOOW	**Moose Ponds**	**123.16**	**327**	*e*PKPdf	PKPdf	02 52 39.5	+1.4
IMW	**Indian Meadow**	**123.16**	**328**	*e*PKPdf	PKPdf	02 52 40.6	+2.5
LOHW	**Long Hollow**	**123.17**	**327**	*e*PKPdf	PKPdf	02 52 39.5	+1.4
TPAW	**Teton Pass**	**123.44**	**327**	*e*PKPdf	PKPdf	02 52 40.4	+1.7
REDW	**Red Top Meadow**	**123.47**	**327**	*e*PKPdf	PKPdf	02 52 40.1	+1.4
DCID1	**Drake Creek**	**123.50**	**327**	*e*PKPdf	PKPdf	02 52 40.8	+2.0
SDCO	**Great Sand Dun**	**123.69**	**319**	*e*PKPdf	PKPdf	02 52 40.5	+1.1
SDCO				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
SMCO	**Snowmass**	**123.82**	**321**	*e*PKPdf	PKPdf	02 52 41.5	+1.9
AHID	**Auburn Hatcher**	**124.00**	**327**	PFAKE		02 52 50.0	+10
AHID				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
HWUT	**Hardware Ranch**	**125.03**	**326**	*e*PKPdf	PKPdf	02 52 41.9	+0.1
HWUT				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
HLID	**Hailey**	**125.21**	**329**	*e*PKPdf	PKPdf	02 52 43.6	+1.5
HLID				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
RPZ	**Rata Peaks**	**125.29**	**145**	PKP	PKPdf	02 52 42.6	+0.4
RPZ	**Rata Peaks**	**125.29**	**145**	PKP	PKPdf	02 52 42.6	+0.4
	comp=Z,2.6nm,0.6s,baz=61,slow=13,SNR=2.2						
JLU	**Jordanelle**	**125.63**	**325**	*e*PKPdf	PKPdf	02 52 45.0	+2.1
BMO	**Blue Mountains**	**125.66**	**332**	*e*PKPdf	PKPdf	02 52 43.6	+0.7
BMO				LR	LR		
	comp=Z,977nm,20.0s,MS5.5						
BMO	**Blue Mountains**	**125.66**	**332**	*e*PKIKP	PKPdf	02 52 43.6	+0.7
BMO				MLR	MLR		
	comp=Z,977nm,20.0s,MS5.5						
ANMO	**Albuquerque**	**125.87**	**316**	*e*PKPdf	PKPdf	02 52 44.9	+1.3
ANMO				*e*PP	PP	02 54 35.5	-0.5
ANMO				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
ANMO	**Albuquerque**	**125.87**	**316**	*e*PKIKP	PKPdf	02 52 44.9	+1.3
ANMO				*e*		02 54 35.5	
ANMO				MLR	MLR		
	comp=Z,2µm,19.0s						
MVCO	**Mesa Verde**	**125.95**	**320**	PFAKE		02 52 50.0	+6.3
MVCO				LR	LR		
	comp=Z,913nm,19.0s,MS5.5						
SRU	**San Rafael**	**126.05**	**323**	*e*PKPdf	PKPdf	02 52 45.5	+1.6
SRU	**San Rafael**	**126.05**	**323**	*e*PKIKP	PKPdf	02 52 45.5	+1.7
MPU	**Maple Canyon**	**126.12**	**324**	PFAKE		02 52 50.0	+6.1
MPU				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
TMUT	**Trail Mountain**	**126.34**	**324**	*e*PKPdf	PKPdf	02 52 46.4	+2.0
BNM	**Barren Site**	**126.42**	**316**	*e*PKPdf	PKPdf	02 52 46.3	+1.6
NLU	**North Lily Min**	**126.42**	**325**	*e*PKPdf	PKPdf	02 52 46.5	+2.0
LTX	**Lajitas**	**126.62**	**309**	*e*PKPdf	PKPdf	02 52 46.0	+0.8
LTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
LTX	**Lajitas**	**126.62**	**309**	*e*PKIKP	PKPdf	02 52 46.0	+0.8
LTX				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.5						
TXAR	**Lajitas Array**	**126.62**	**309**	PKP	PKPdf	02 52 46.4	+1.1
TXAR	**Lajitas Array**	**126.62**	**309**	PKIKP	PKPdf	02 52 46.4	+1.2
TXAR	**Lajitas Array**	**126.62**	**309**	PKP	PKPdf	02 52 46.4	+1.1
	comp=Z,4.1nm,1.0s,baz=90,slow=2.5,SNR=18						
DUG	**Dugway**	**126.68**	**325**	*e*PKPdf	PKPdf	02 52 46.4	+1.4
DUG				*e*PP	PP	02 54 40.2	-0.8
DUG				LR	LR		
	comp=Z,990nm,19.0s,MS5.5						
DUG	**Dugway**	**126.68**	**325**	*e*PKIKP	PKPdf	02 52 46.4	+1.4
DUG				*e*		02 54 40.2	
DUG				MLR	MLR		
	comp=Z,990nm,19.0s,MS5.5						
MNTX	**Cornudas Mount**	**126.79**	**312**	*e*PKPdf	PKPdf	02 52 46.3	+0.8
MNTX				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
MSU	**Marysvale**	**127.42**	**323**	*e*PKPdf	PKPdf	02 52 49.4	+3.0
MSU	**Marysvale**	**127.42**	**323**	*e*PKIKP	PKPdf	02 52 49.4	+2.9
ELK	**Elko**	**127.64**	**328**	PFAKE		02 53 00.0	+13
ELK				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
WVOR	**Wild Horse Val**	**128.13**	**331**	PFAKE		02 53 00.0	+12
WVOR				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
WUAZ	**Wupatki**	**128.82**	**320**	*e*PKPdf	PKPdf	02 52 51.3	+2.1
WUAZ				LR	LR		
	comp=Z,988nm,21.0s,MS5.5						
SNZO	**South Karori**	**128.90**	**145**	PFAKE		02 53 00.0	+11
SNZO				LR	LR		
	comp=Z,846nm,21.0s,MS5.4						
HNR	**Honiara**	**128.94**	**101**	PFAKE		02 53 00.0	+10
HNR				LR	LR		
	comp=Z,658nm,20.0s,MS5.3						
MOD	**Modoc**	**129.33**	**332**	*e*PKPdf	PKPdf	02 52 51.8	+1.8
MOD				LR	LR		
	comp=Z,961nm,20.0s,MS5.5						
HUMO	**Hull Mountain**	**129.95**	**335**	PFAKE		02 53 00.0	+8.8
HUMO				LR	LR		
	comp=Z,985nm,21.0s,MS5.5						
TUC	**Tucson**	**130.33**	**316**	PFAKE		02 53 00.0	+7.8
TUC				LR	LR		
	comp=Z,841nm,21.0s,MS5.4						
SHPR	**Sheep Range**	**130.52**	**324**	*e*PKPdf	PKPdf	02 52 55.3	+2.8
YBH	**Yreka Blue Hor**	**130.56**	**334**	PFAKE		02 53 00.0	+7.7
YBH				LR	LR		
	comp=Z,862nm,19.0s,MS5.5						
NVAR	**Mina Array Bea**	**130.95**	**328**	PKP	PKPdf	02 52 55.5	+2.3
NVAR	**Mina Array Bea**	**130.95**	**328**	PKP	PKPdf	02 52 55.5	+2.3
	comp=Z,10nm,1.1s,baz=96,slow=2.8,SNR=32						
WDC	**Whiskeytown Da**	**131.41**	**333**	PFAKE		02 53 00.0	+6.0
WDC				LR	LR		
	comp=Z,968nm,21.0s,MS5.5						
WAKR	**Walker**	**131.49**	**329**	*e*PKPdf	PKPdf	02 52 57.7	+3.5
WAKR				*e*PP	PP	02 55 15.8	+3.4
MTUM	**Tungsten Hills**	**131.87**	**327**	*e*PKPdf	PKPdf	02 52 58.0	+3.0
CMB	**Columbia Colle**	**132.34**	**329**	PFAKE		02 53 10.0	+14
CMB				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
HOPS	**Hopland**	**132.92**	**332**	PFAKE		02 53 10.0	+13
HOPS				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
PFO	**Pinyon Flat Ob**	**133.25**	**322**	PFAKE		02 53 10.0	+12
PFO				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
MCCM	**Marconi Confer**	**133.50**	**331**	PFAKE		02 53 10.0	+12
MCCM				LR	LR		
	comp=Z,895nm,19.0s,MS5.5						
SAO	**San Andreas Ge**	**133.85**	**329**	PFAKE		02 53 10.0	+11
SAO				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
FUNA	**Funafuti**	**147.90**	**103**	PFAKE		02 53 40.0	+16
FUNA				LR	LR		
	comp=Z,8µm,20.0s,MS6.5						
RKT	**Rikitea**	**154.53**	**212**	*e*SS	SS	03 17 18.6	+8.6
	comp=Z,366nm,28.0s						
RKT				*e*LR	LR	03 45 22.2	
	comp=Z,551nm,34.2s						
RAR	**Rarotonga**	**158.03**	**153**	PFAKE		02 53 50.0	+11
RAR				LR	LR		
	comp=Z,2.0nm,20.0s						
PPT	**Papeete**	**164.17**	**179**	*e*PP	PP	02 58 20.0	-3.0
	comp=Z,95nm,23.8s						
PPT	**Papeete**	**164.17**	**179**	*e*SS	SS	03 18 58.1	+7.4
	comp=Z,586nm,23.0s						
PPT				*e*LR	LR	03 49 46.8	
	comp=Z,849nm,21.8s						

TEH ***19*** *02:44:23.4, 31.13N×5677E, h14^{km}, ML4.5*
BJI ***19*** *02:45:42.3, 3058N×5587E, h15^{km}, mB5.1, mb4.6, Ms4.8, Msz4.5*
ISCJB ***19*** *02:45:49.7±0.2, 3085N±003×5680E±003, h10^{km}, mb4.5/43, Error ellipse: s-maj=4.2km s-min=3.3km az=15.9*
IDC ***19*** *02:45:49.4±0.6, 3078N×5691E, h0^{km}, mb4.4/20, mb1 4.5/23, mb1mx4.4/31, mbtmp4.4/23, ML3.8/3, Error ellipse: s-maj=15.0km s-min=13.5km az=136.0*
CSEM ***19*** *02:45:50.2±0.1, 3093N×5675E, h15^{km}, mb4.4/30, Ms4.0, Error ellipse: s-maj=2.6km s-min=1.5km az=148.0*
MOS ***19*** *02:45:52.6±0.9, 3082N×5679E, h33^{km}, mb4.8/25, Error ellipse: s-maj=11.4km s-min=6.2km az=133.9*
CRAAG ***19*** *02:45:52.6, 3088N×5694E, Mb4.6*
NEIC ***19*** *02:45:58.1, 31.13N×5677E, h15^{km}, mb4.6/17, MN4.5(TEH), After TEH.*
ISC 19 02:45:51.5±0.2, **3088N**±003×**5684E**±003, **h10^{km}, n182,** σ**1§23**/200, **mb4.5**/43, **Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IBAF	**Bafgh**	**1.30**	**303**	Pg	**Pg**	**02 46 14.6**	**-1.9**
IBAF				Sg	**Sg**	**02 46 33.4**	**+0.1**
IBAF	**Bafgh**	**1.30**	**303**	*e*Sg	**Sg**	**02 46 33.5**	**+0.2**
IBAF				*e*		02 46 18.7	
	comp=Z,49µm,0.2s						
IBAF	**Bafgh**	**1.30**	**303**	Pg	**Pg**	**02 46 14.6**	**-1.9**
IBAF				Sg	**Sg**	**02 46 33.4**	**+0.1**
IMEH	**Mehriz**	**1.98**	**285**	Pn	**Pn**	**02 46 26.3**	**+1.3**
IMEH				Sn	**Sn**	**02 46 52.9**	**+3.1**
IMEH	**Mehriz**	**1.98**	**285**	*e*Sn	**Sn**	**02 46 52.9**	**+3.1**
IMEH				*e*		02 46 57.2	
	comp=Z,42µm,0.3s						
IMEH	**Mehriz**	**1.98**	**285**	Pn	**Pn**	**02 46 26.3**	**+1.3**
IKOO		**2.40**	**50**	*e*Pn	**Pn**	**02 46 30.9**	**0.0**
ICHK	**Chekchek**	**2.48**	**304**	Pn	**Pn**	**02 46 34.1**	**+2.1**
ICHK				Sn	**Sn**	**02 47 03.3**	**+1.0**
ICHK	**Chekchek**	**2.48**	**304**	*e*Pn	**Pn**	**02 46 34.1**	**+2.1**
ICHK				*e*Sn	**Sn**	**02 47 03.3**	**+1.0**
ICHK				*e*		02 47 11.9	
	comp=Z,23µm,0.3s						
ITEG		**2.58**	**38**	*e*Pn	**Pn**	**02 46 33.4**	**0.0**
ISAD	**Sadrabad**	**2.89**	**292**	*e*Sg	**Sg**	**02 47 23.9**	**-0.4**
IDAH		**3.18**	**54**	*e*Pn	**Pn**	**02 46 42.2**	**+0.7**
ISRV	**Sarvestan**	**3.56**	**246**	*e*Sn	**Sn**	**02 47 34.6**	**+5.8**
SHI	**Shiraz**	**3.94**	**253**	Pn	**Pg**	**02 47 03.2**	**-3.8**
SHI				Sn	**Sn**	**02 47 42.6**	**+4.3**
SHI	**Shiraz**	**3.94**	**253**	*e*Pn	**Pg**	**02 47 03.3**	**-3.7**
SHI				*e*Sn	**Sn**	**02 47 42.7**	**+4.4**
IZEF	**Zefreh**	**4.33**	**299**	Pn	**Pn**	**02 46 59.4**	**+2.0**
IZEF				Sn	**Sn**	**02 47 47.8**	**-0.1**
IZEF	**Zefreh**	**4.33**	**299**	*e*Pn	**Pn**	**02 46 59.5**	**+2.1**
IZEF				*e*Sn	**Sn**	**02 47 47.8**	**-0.1**
IZEF				*e*		02 48 13.1	
	comp=Z,5µm,0.4s						
BANOM	**Banah**	**4.96**	**186**	P	**Pn**	**02 47 07.0**	**+0.9**
	SNR=9.1						
IKLH	**Kalahroud**	**5.08**	**300**	Pn	**Pn**	**02 47 11.1**	**+3.4**
IKLH				Sn	**Sn**	**02 48 05.3**	**-1.2**
IKLH	**Kalahroud**	**5.08**	**300**	*e*Pn	**Pn**	**02 47 11.2**	**+3.5**
IKLH				*e*Sn	**Sn**	**02 48 05.4**	**-1.1**
IKLH				*e*		02 48 41.2	
	comp=Z,4µm,0.4s						
IKLH	**Kalahroud**	**5.08**	**300**	Sn	**Sn**	**02 48 05.3**	**-1.2**
ISFB	**Sefidab**	**5.20**	**313**	Pn	**Pn**	**02 47 12.0**	**+2.6**
ISFB				Sn	**Sn**	**02 48 06.9**	**-2.5**
ISFB	**Sefidab**	**5.20**	**313**	*e*Pn	**Pn**	**02 47 12.0**	**+2.6**
ISFB				*e*Sn	**Sn**	**02 48 06.9**	**-2.5**
ISFB				*e*		02 48 40.6	
	comp=Z,4µm,0.6s						
IPIR	**Pirpir**	**5.37**	**291**	Pn	**Pn**	**02 47 15.7**	**+4.0**
IPIR				Sn	**Sn**	**02 48 12.8**	**-0.9**
IPIR	**Pirpir**	**5.37**	**291**	*e*Pn	**Pn**	**02 47 15.8**	**+4.1**
IPIR				*e*Sn	**Sn**	**02 48 12.9**	**-0.8**
IPIR				*e*		02 48 55.2	
	comp=Z,2µm,0.4s						
IPIR	**Pirpir**	**5.37**	**291**	Sn	**Sn**	**02 48 12.8**	**-0.9**
ISHM	**Shahmirzad**	**5.74**	**330**	Pn	**Pn**	**02 47 12.0**	**-4.8**
ISHM	**Shahmirzad**	**5.74**	**330**	*e*Pn	**Pn**	**02 47 12.1**	**-4.7**
ISHM				*e*		02 49 14.3	
	comp=Z,6µm,0.5s						
IPAY	**Payeh**	**5.84**	**17**	Pn	**Pn**	**02 47 20.5**	**+2.4**
IPAY	**Payeh**	**5.84**	**17**	*e*Pn	**Pn**	**02 47 20.5**	**+2.4**
IPAY				*e*		02 49 17.9	
	comp=Z,2µm,0.4s						
IFIR	**Firoozkooh**	**5.85**	**325**	Pn	**Pn**	**02 47 20.5**	**+2.2**
IFIR	**Firoozkooh**	**5.85**	**325**	*e*Pn	**Pn**	**02 47 20.6**	**+2.3**
IFIR				*e*		02 49 06.8	
	comp=Z,617nm,0.2s						
IAKL	**Akhlamad**	**5.90**	**15**	Pn	**Pn**	**02 47 21.5**	**+2.6**
IAKL				Sn	**Sn**	**02 48 23.1**	**-3.4**
IAKL	**Akhlamad**	**5.90**	**15**	*e*Pn	**Pn**	**02 47 21.6**	**+2.7**
IAKL				*e*Sn	**Sn**	**02 48 23.1**	**-3.4**
IAKL				*e*		02 49 19.9	
	comp=Z,2µm,0.5s						
IAKL	**Akhlamad**	**5.90**	**15**	*e*Sn	**Sn**	**02 48 23.1**	**-3.4**
NAZ	**Nazwa, Dubai**	**5.96**	**190**	P	**Pn**	**02 47 20.5**	**+0.7**
HATD	**Hatta, Dubai**	**6.06**	**186**	P	**Pn**	**02 47 22.9**	**+1.7**
IGLO	**Galoogah**	**6.09**	**334**	Pn	**Pn**	**02 47 24.5**	**+2.9**
IGLO	**Galoogah**	**6.09**	**334**	*e*Pn	**Pn**	**02 47 24.5**	**+2.9**
IGLO				*e*		02 49 27.2	
	comp=Z,8µm,0.5s						
IMYA	**Miamay**	**6.09**	**26**	Pn	**Pn**	**02 47 23.6**	**+2.0**
IMYA	**Miamay**	**6.09**	**26**	*e*Pn	**Pn**	**02 47 23.6**	**+2.0**
IMYA				*e*		02 49 28.9	
	comp=Z,4µm,1.0s						
IMYA	**Miamay**	**6.09**	**26**	*e*Pn	**Pn**	**02 47 23.6**	**+2.0**
ASHO	**Ashiyiah**	**6.21**	**187**	P	**Pn**	**02 47 24.9**	**+1.6**
	SNR=10						
ISFR	**Esferayen**	**6.22**	**9**	Pn	**Pn**	**02 47 25.7**	**+2.3**
ISFR	**Esferayen**	**6.22**	**9**	*e*Pn	**Pn**	**02 47 25.7**	**+2.3**
ISFR				*e*		02 49 27.8	
	comp=Z,3µm,0.5s						
ASUD	**Al Ashush, Dub**	**6.37**	**192**	P	**Pn**	**02 47 26.9**	**+1.4**
	SNR=18						
IPRN	**Paran-Amol**	**6.58**	**326**	Pn	**Pn**	**02 47 30.3**	**+2.0**
IPRN	**Paran-Amol**	**6.58**	**326**	*e*Pn	**Pn**	**02 47 30.4**	**+2.1**
IPRN				*e*		02 49 28.1	
	comp=Z,3µm,0.4s						
ISHV	**Shirvan**	**6.67**	**6**	Pn	**Pn**	**02 47 31.7**	**+2.1**
ISHV	**Shirvan**	**6.67**	**6**	*e*Pn	**Pn**	**02 47 31.8**	**+2.2**
ISHV				*e*		02 49 40.6	
	comp=Z,6µm,0.6s						
UMR	**Umm Al-Rimmam**	**8.00**	**263**	*e*P	**Pn**	**02 47 47.7**	**-0.2**
UMR				AML	AML	02 49 00.4	
	comp=Z,24nm,0.6s						
QRN	**Al-Qurain**	**8.04**	**257**	*e*P	**Pn**	**02 47 48.6**	**+0.3**
MIB	**Mutribah**	**8.28**	**265**	*e*P	**Pn**	**02 47 51.7**	**+0.1**
MIB				AML	AML	02 49 09.9	
	comp=Z,7.0nm,0.7s						
RDF	**Al-Radifah**	**8.29**	**259**	*e*P	**Pn**	**02 47 52.2**	**+0.3**
RDF				AML	AML	02 49 06.2	
	comp=Z,12nm,0.5s						
NAY	**Al-Naaiem**	**8.47**	**261**	*e*P	**Pn**	**02 47 55.0**	**+0.7**
NAY				*i*		02 48 08.3	
NAY				AML	AML	02 49 11.3	
	comp=Z,3.6nm,0.7s						
MAK	**Makhachkala**	**14.17**	**331**	*e*P	**Pn**	**02 49 09.4**	**-2.8**
MALT	**Malatya**	**16.86**	**301**	*e*P	**Pn**	**02 49 49.5**	**+1.9**
ASF	**Jabal al Asfar**	**17.05**	**280**	P	**Pn**	**02 49 48.6**	**-1.5**
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF	**Jabal al Asfar**	**17.05**	**280**	P	**Pn**	**02 49 48.6**	**-1.5**
	comp=Z,0.5nm,0.3s,baz=335,slow=4.1,SNR=10						
KIV	**Kislovodsk**	**17.19**	**323**	*e*P	**Pn**	**02 49 56.4**	**+4.7**
KIV				pmax	pmax		
	comp=Z,9.0nm,0.8s						
MMAI	**Mount Meron Ar**	**18.32**	**282**	P	**Pn**	**02 50 06.7**	**+1.0**
	comp=Z,0.3nm,0.3s,baz=90,slow=13,SNR=7.8						
AAK	**Ala-Archa**	**18.34**	**45**	*i* P	**Pn**	**02 50 05.9**	**0.0**
AAK				MLR	MLR		
	comp=Z,300nm,18.0s						
AAK	**Ala-Archa**	**18.34**	**45**	*i* P	**Pn**	**02 50 05.9**	**0.0**
	comp=Z,300nm,18.0s						
AKTK	**Aktyubinsk**	**19.55**	**2**	P	**Pn**	**02 50 19.4**	**-1.2**
AKTK	**Aktyubinsk**	**19.55**	**2**	P	**Pn**	**02 50 19.4**	**-1.1**
AKTO	**Aktyubinsk**	**19.55**	**2**	P	**Pn**	**02 50 19.4**	**-1.2**
	comp=Z,0.2nm,0.3s,baz=196,slow=11,SNR=6.8						
ANN	**Anapa**	**20.62**	**318**	*e*P	**P**	**02 50 32.4**	**+1.5**
ANN				pmax	pmax		
	comp=Z,105nm,1.4s						
ANN	**Anapa**	**20.62**	**318**	*e*P	**P**	**02 50 32.4**	**+1.5**
	comp=Z,105nm,1.4s						
BRTR	**Keskin Array B**	**20.84**	**301**	P	**P**	**02 50 34.4**	**+1.0**
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
BRTR	**Keskin Array B**	**20.84**	**301**	P	**P**	**02 50 34.4**	**+1.0**
	comp=Z,3.4nm,0.7s,baz=134,slow=11,SNR=9.1						
ATD	**Arta Tunnel**	**23.21**	**217**	P	**P**	**02 50 58.7**	**-0.1**
ATD	**Arta Tunnel**	**23.21**	**217**	P	**P**	**02 50 58.7**	**-0.1**
	comp=Z,10nm,0.8s,mb4.3,baz=270,slow=8.3,SNR=4.3						
HYB	**Hyderabad**	**23.86**	**119**	*e*P	**P**	**02 51 05.5**	**+0.3**
	comp=Z,30nm,1.0s,mb4.7						
HYB				*e*S	**S**	**02 55 40.0**	**+19**
HYB	**Hyderabad**	**23.86**	**119**	*e*P	**P**	**02 51 05.5**	**+0.3**
HYB				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.7						
HYB	**Hyderabad**	**23.86**	**119**	*i* P	**P**	**02 51 05.5**	**+0.3**
	comp=Z,30nm,1.0s,mb4.7						
HYB				*e*S	**S**	**02 55 28.0**	**+6.7**
MKAR	**Makanchi Array**	**25.25**	**44**	P	**P**	**02 51 17.7**	**+0.1**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
MKAR	**Makanchi Array**	**25.25**	**44**	P	**P**	**02 51 17.6**	**0.0**
	comp=Z,2.1nm,0.5s,mb3.9,baz=226,slow=8.2,SNR=4.3						
MLR	**Muntele Rosu**	**28.12**	**310**	P	**P**	**02 51 45.8**	**+2.3**
MLR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
MLR	**Muntele Rosu**	**28.12**	**310**	P	**P**	**02 51 45.8**	**+2.3**
	comp=Z,4.6nm,0.9s,mb4.1,baz=71,slow=21,SNR=3.8						
OBN	**Obninsk**	**28.19**	**335**	*e*P	**P**	**02 51 45.7**	**+1.7**
OBN				*e*		02 52 47.8	
OBN				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.5						
OBN	**Obninsk**	**28.19**	**335**	*e*P	**P**	**02 51 45.7**	**+1.7**
	comp=Z,11nm,0.9s,mb4.5						
AKASG	**Malin Array Be**	**28.53**	**322**	P	**P**	**02 51 47.8**	**+0.7**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKASG	**Malin Array Be**	**28.53**	**322**	P	**P**	**02 51 47.8**	**+0.7**
	comp=Z,1.1nm,0.6s,mb3.8,baz=121,slow=8.1,SNR=6.4						
ZAL	**Zalesovo**	**30.59**	**33**	P	**P**	**02 52 05.5**	**+0.2**
ZAA0	**Zalesovo Array**	**30.60**	**33**	*e*P	**P**	**02 52 05.1**	**-0.3**
ZAA0	**Zalesovo Array**	**30.60**	**33**	*e*P	**P**	**02 52 05.1**	**-0.3**
ZALV	**Zalesovo Beam**	**30.60**	**33**	P	**P**	**02 52 05.5**	**+0.1**
	comp=Z,6.3nm,0.7s,mb4.6,baz=241,slow=9.0,SNR=6.9						
DPC	**Dobruska-Polom**	**35.82**	**315**	*e*P	**P**	**02 52 51.2**	**+0.2**
GTA	**Gaotai**	**35.88**	**64**	*e*P	**P**	**02 52 52.4**	**+0.8**
GTA				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.6						
UPC	**Upice**	**36.06**	**315**	*e*P	**P**	**02 52 47.4**	**-5.6**
GERES	**GERESS Array B**	**37.08**	**311**	P	**P**	**02 53 02.4**	**+0.7**
GERES						02 55 21.9	
GERES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
GERES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
GERES	**GERESS Array B**	**37.08**	**311**	P	**P**	**02 53 02.4**	**+0.7**
	comp=Z,2.3nm,0.7s,mb4.1,baz=106,slow=9.8,SNR=11						
GERES				PcP	PcP	02 55 21.9	-0.3
	comp=Z,0.8nm,0.8s,baz=120,slow=3.9,SNR=3.8						
GERES	**GERESS Array B**	**37.08**	**311**	PcP	PcP	02 55 21.9	-0.3
	comp=Z,1.0nm,0.8s						
KHC	**Kasperske Hory**	**37.22**	**312**	*e*P	**P**	**02 53 03.3**	**+0.4**
CLL	**Collm**	**38.11**	**315**	*e*P	**P**	**02 53 15.0**	**+4.6**
	comp=Z,7.0nm,1.0s,mb4.3						
CLL				*e*pP	pP	02 53 20.0	+6.5
GRA1	**Grafenberg Arr**	**38.84**	**312**	*e*P	**P**	**02 53 17.5**	**+0.9**
GRF	**Grafenberg Arr**	**38.84**	**312**	*e*P	**P**	**02 53 17.5**	**+0.9**
LZH	**Lanzhou**	**39.25**	**69**	*e*P	**P**	**02 53 20.5**	**+0.3**
LZH				AMB	AMB		
	comp=Z,17nm,1.3s,mb4.6						
LZH	**Lanzhou**	**39.25**	**69**	*e*P	**P**	**02 53 20.5**	**+0.3**
	comp=Z,17nm,1.3s,mb4.6						
LZH				pP	pP	02 53 25.1	+1.8
LZH				sP	sP	02 53 57.3	+33
LZH	**Lanzhou**	**39.25**	**69**	*e*P	**P**	**02 53 20.5**	**+0.3**
	comp=Z,17nm,1.3s,mb4.6						
LZH				pP	pP	02 53 25.1	+1.8
PGF	**Pioggiola**	**39.60**	**301**	*e*P	**P**	**02 53 23.1**	**+0.1**
	comp=Z,157nm,1.6s,mb5.2						
PGF	**Pioggiola**	**39.60**	**301**	*e*P	**P**	**02 53 23.1**	**+0.1**
PGF				pmax	pmax		
	comp=Z,78nm,1.6s,mb5.2						
PGF	**Pioggiola**	**39.60**	**301**	*e*P	**P**	**02 53 23.1**	**+0.1**
	comp=Z,78nm,1.6s,mb5.2						
SONM	**Songino Array**	**41.14**	**51**	P	**P**	**02 53 36.1**	**+0.4**
SONM				pmax	pmax		
	comp=Z,2.0nm,1.1s						
SONM	**Songino Array**	**41.14**	**51**	P	**P**	**02 53 36.1**	**+0.4**
	comp=Z,2.2nm,1.1s,mb3.7,baz=252,slow=9.9,SNR=4.1						
CDF	**Champ du Feu**	**41.20**	**310**	*e*P	**P**	**02 53 35.3**	**-0.9**
MBDF	**Montbardon**	**41.27**	**304**	*e*P	**P**	**02 53 35.6**	**-1.3**
	comp=Z,12nm,0.9s,mb4.2						
MBDF	**Montbardon**	**41.27**	**304**	*e*P	**P**	**02 53 35.6**	**-1.3**
MBDF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.2						
MBDF	**Montbardon**	**41.27**	**304**	*e*P	**P**	**02 53 35.6**	**-1.3**
	comp=Z,5.8nm,0.9s,mb4.2						
LPG	**La Plagne**	**41.32**	**305**	*e*P	**P**	**02 53 36.1**	**-1.2**
	comp=Z,12nm,0.9s,mb4.2						
LPG	**La Plagne**	**41.32**	**305**	*e*P	**P**	**02 53 36.1**	**-1.2**
LPG				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.2						
LPG	**La Plagne**	**41.32**	**305**	*e*P	**P**	**02 53 36.1**	**-1.2**
	comp=Z,5.8nm,0.9s,mb4.2						
LPL	**La Plagne**	**41.34**	**305**	*e*P	**P**	**02 53 36.1**	**-1.3**
	comp=Z,43nm,1.4s,mb4.6						
LPL	**La Plagne**	**41.34**	**305**	*e*P	**P**	**02 53 36.1**	**-1.3**
LPL				pmax	pmax		
	comp=Z,22nm,1.4s,mb4.6						
LPL	**La Plagne**	**41.34**	**305**	*e*P	**P**	**02 53 36.1**	**-1.3**
	comp=Z,22nm,1.4s,mb4.6						
FRF	**La Foret Royal**	**41.34**	**302**	*e*P	**P**	**02 53 35.7**	**-1.7**
	comp=Z,21nm,0.9s,mb4.5						
FRF	**La Foret Royal**	**41.34**	**302**	*e*P	**P**	**02 53 35.7**	**-1.7**
FRF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
FRF	**La Foret Royal**	**41.34**	**302**	*e*P	**P**	**02 53 35.7**	**-1.7**
	comp=Z,10nm,0.9s,mb4.5						
HINF	**Hinteralfeld**	**41.42**	**309**	*e*P	**P**	**02 53 37.4**	**-0.6**
HAU	**Haudompre**	**41.78**	**309**	*e*P	**P**	**02 53 40.5**	**-0.5**
CABF	**La Chapelle**	**41.85**	**307**	*e*P	**P**	**02 53 40.7**	**-0.8**
	comp=Z,46nm,1.3s,mb4.7						
CABF	**La Chapelle**	**41.85**	**307**	*e*P	**P**	**02 53 40.7**	**-0.8**
CABF				pmax	pmax		
	comp=Z,23nm,1.3s,mb4.7						
CABF	**La Chapelle**	**41.85**	**307**	*e*P	**P**	**02 53 40.7**	**-0.8**
	comp=Z,23nm,1.3s,mb4.7						
NB2	**NORSAR Subarra**	**42.37**	**329**	P	**P**	**02 53 46.0**	**+0.4**
	comp=Z,2.0nm,0.9s,mb3.8,baz=121,slow=7.4						
NOA	**NORSAR Array B**	**42.37**	**329**	P	**P**	**02 53 46.3**	**+0.7**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	**NORSAR Array B**	**42.37**	**329**	P	**P**	**02 53 46.3**	**+0.7**
	comp=Z,1.4nm,0.8s,mb3.7,baz=115,slow=8.0,SNR=5.5						
VIVF	**Saint-Julien-l**	**42.77**	**304**	*e*P	**P**	**02 53 47.7**	**-1.4**
	comp=Z,43nm,1.4s,mb4.7						
VIVF	**Saint-Julien-l**	**42.77**	**304**	*e*P	**P**	**02 53 47.7**	**-1.4**
VIVF				pmax	pmax		
	comp=Z,21nm,1.4s,mb4.7						
VIVF	**Saint-Julien-l**	**42.77**	**304**	*e*P	**P**	**02 53 47.7**	**-1.4**
	comp=Z,21nm,1.4s,mb4.7						
GIVF	**Givet**	**42.99**	**312**	*e*P	**P**	**02 53 50.6**	**-0.2**
	comp=Z,29nm,1.2s,mb4.6						
GIVF	**Givet**	**42.99**	**312**	*e*P	**P**	**02 53 50.6**	**-0.2**
GIVF				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.6						

GIVF	Givet	42.99	312	eP	P	02 53 50.6	-0.2
	comp=Z,15nm,1.2s,mb4.6						
BAIF	Baives	43.38	312	eP	P	02 53 53.4	-0.6
	comp=Z,31nm,1.2s,mb4.6						
BAIF	Baives	43.38	312	eP	P	02 53 53.4	-0.6
BAIF				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.6						
BAIF	Baives	43.38	312	eP	P	02 53 53.4	-0.6
	comp=Z,15nm,1.2s,mb4.6						
SMF	Signal de Mont	43.39	307	eP	P	02 53 53.1	-1.0
	comp=Z,24nm,1.1s,mb4.5						
SMF	Signal de Mont	43.39	307	eP	P	02 53 53.1	-1.0
SMF				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.5						
SMF	Signal de Mont	43.39	307	eP	P	02 53 53.1	-1.0
	comp=Z,12nm,1.1s,mb4.5						
LOR	Lormes	43.41	308	eP	P	02 53 53.0	-1.2
	comp=Z,4.9nm,0.8s,mb4.0						
LOR	Lormes	43.41	308	eP	P	02 53 53.0	-1.2
LOR				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
LOR	Lormes	43.41	308	eP	P	02 53 53.0	-1.2
	comp=Z,2.5nm,0.8s,mb4.0						
SSF	Saint Saulge	43.64	307	eP	P	02 53 55.2	-0.9
	comp=Z,22nm,1.1s,mb4.5						
SSF	Saint Saulge	43.64	307	eP	P	02 53 55.2	-0.9
SSF				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.5						
SSF	Saint Saulge	43.64	307	eP	P	02 53 55.2	-0.9
	comp=Z,11nm,1.1s,mb4.5						
AVF	Avril sur Loir	43.73	307	eP	P	02 53 55.8	-1.1
	comp=Z,20nm,1.2s,mb4.4						
AVF	Avril sur Loir	43.73	307	eP	P	02 53 55.8	-1.1
AVF				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.4						
AVF	Avril sur Loir	43.73	307	eP	P	02 53 55.8	-1.1
	comp=Z,10nm,1.2s,mb4.4						
BGF	Bois d'Agland	44.08	307	eP	P	02 53 58.6	-1.0
	comp=Z,13nm,0.9s,mb4.3						
BGF	Bois d'Agland	44.08	307	eP	P	02 53 58.6	-1.0
BGF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
BGF	Bois d'Agland	44.08	307	eP	P	02 53 58.6	-1.0
	comp=Z,6.3nm,0.9s,mb4.3						
HYF	Humbligny	44.24	308	eP	P	02 54 00.6	-0.3
TCF	Toulx Ste Croi	44.51	306	eP	P	02 54 02.2	-0.9
	comp=Z,19nm,1.1s,mb4.5						
TCF	Toulx Ste Croi	44.51	306	eP	P	02 54 02.2	-0.9
TCF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.5						
TCF	Toulx Ste Croi	44.51	306	eP	P	02 54 02.2	-0.9
	comp=Z,9.4nm,1.1s,mb4.5						
CAF	Calviac	44.62	304	eP	P	02 54 03.3	-0.7
HHC	Hu-ho-hao-te	44.81	61	eP	P	02 54 06.1	+0.5
HHC				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.4						
HHC				AMB	AMB		
	comp=Z,112nm,3.6s						
RJF	Les Rejaudoux	45.01	305	eP	P	02 54 06.2	-0.9
LFF	La Frestale	45.56	304	eP	P	02 54 10.6	-0.9
BOD	Bodaibo	47.09	38	eP	P	02 54 22.0	-1.3
ESDC	Sonseca Array	49.58	298	P	P	02 54 41.8	-1.0
	comp=Z,2.8nm,0.9s,mb4.3,baz=69,slow=7.3,SNR=14						
OPO	Ambohidratompo	50.03	192	P	P	02 54 46.0	-0.3
	comp=Z,5.0nm,0.9s,mb4.5,baz=315,slow=4.3,SNR=3.1						
MDT	Midelt	51.58	289	P	P	02 54 57.1	-0.9
	comp=Z,5.5nm,1.2s,mb4.4,baz=131,slow=9.3,SNR=2.6						
NJ2	Nanjing	52.24	72	eP	P	02 55 00.9	-2.1
NJ2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
TORD	Torodi Ar. Bea	53.55	264	P	P	02 55 12.2	-0.6
	comp=Z,12nm,0.7s,mb4.9,baz=62,slow=7.3,SNR=27						
MATP	Matopo	57.82	212	P	P	02 55 42.4	-0.9
	comp=Z,14nm,0.9s,mb5.0,baz=70,slow=12,SNR=6.2						
KLR	Kul'dur	57.83	48	eP	P	02 55 39.7	-3.4
KSRS	Korea Array	57.92	63	P	P	02 55 43.1	-0.8
	comp=Z,2.7nm,0.8s,mb4.3,baz=274,slow=6.8,SNR=8.9						
TSUM	Tsumeb	62.47	222	P	P	02 56 15.6	+0.4
	comp=Z,11nm,1.0s,mb5.0,baz=349,slow=10,SNR=2.8						
MA2	Magadan	65.82	34	P	P	02 56 36.3	-0.4
MA2				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
MA2	Magadan	65.82	34	P	P	02 56 36.3	-0.4
	comp=Z,8.0nm,0.9s,mb4.8						
BOSA	Boshof	66.38	210	P	P	02 56 39.9	-0.7
BOSA	Boshof	66.38	210	P	P	02 56 39.9	-0.7
BOSA				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
BOSA	Boshof	66.38	210	P	P	02 56 39.9	-0.7
	comp=Z,8.9nm,0.8s,mb4.8,baz=254,slow=19,SNR=8.2						
BILL	Bilibino	68.56	22	eP	P	02 56 53.8	-0.1
BILL				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.5						
BILL	Bilibino	68.56	22	eP	P	02 56 53.8	-0.1
	comp=Z,9.0nm,1.4s,mb4.5						
KAKA	Kakadu	84.44	108	eP	P	02 58 22.8	-1.9
YKA	Yellowknife Ar	86.70	356	P	P	02 58 35.4	+0.2
YKA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
YKA	Yellowknife Ar	86.70	356	P	P	02 58 35.4	+0.2
	comp=Z,3.7nm,1.0s,mb4.6,baz=359,slow=5.2,SNR=24						
WRA	Warramunga Arr	89.89	113	P	P	02 58 49.4	-1.7
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	89.89	113	P	P	02 58 49.4	-1.7
	comp=Z,1.1nm,0.8s,mb4.2,baz=315,slow=4.0,SNR=15						
ASAR	Alice Springs	91.57	117	P	P	02 58 57.2	-1.6
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ASAR	Alice Springs	91.57	117	P	P	02 58 57.1	-1.6
	comp=Z,1.9nm,0.8s,mb4.5,baz=305,slow=4.3,SNR=13						

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*NEIC **19** 02:50:33.3, 17.00N×100.23W, h6^{km}, MD3.9(MEX), After MEX.*

MEX 19 02:50:33.8±0.6**, 17.03N×100.26W, h7**^{km}±5^{km}**, MD3.9, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.02	333	i P	Pg	02 50 34.2	-1.0
CAIG				i S	Sg	02 50 35.3	-0.8
ACX	Acapulco	0.36	116	i P	Pg	02 50 39.0	-1.8
ACX				i S	Sg	02 50 45.0	-0.6
MEIG	Mezcala	1.08	34	i P	Pg	02 50 51.4	-3.2
MEIG				i S	Sg	02 51 04.9	-3.7
PLIG	Platanillo	1.54	28	i P	Pn	02 50 59.4	-2.2
PLIG				i S	Sn	02 51 17.9	-3.9
PLIG	Platanillo	1.54	28	i P	Pn	02 50 59.2	-2.4
PLIG				i S	Sn	02 51 17.9	-3.9
UTMO	Huajuapan	2.47	71	eP	Pn	02 51 11.1	-3.5
UTMO				i S	Sn	02 51 41.4	-3.6
PTVM	Pico Tres Padr	2.77	23	eP	Pn	02 51 14.0	-4.6
PTVM				i S	Sn	02 51 47.8	-4.6
PTVM	Pico Tres Padr	2.77	23	eP	Pn	02 51 14.4	-4.2
PTVM				i S	Sn	02 51 48.4	-4.0
MOIG	Morelia	2.78	342	eP	Pn	02 51 16.4	-2.4
MOIG				i S	Sn	02 51 48.6	-4.0
IIO	Organos	2.94	29	i P	Pn	02 51 18.8	-2.2
IIO				i S	Sn	02 51 53.3	-3.2
TPIG	Tehuac#an	3.09	63	i S	Sn	02 51 56.3	-3.8
VHO	Vista Hermosa	3.37	89	eP	Pn	02 51 23.0	-3.9
VHO				i S	Sn	02 52 03.9	-3.2
VHO	Vista Hermosa	3.37	89	eP	Pn	02 51 24.2	-2.6
VHO				i S	Sn	02 52 03.9	-3.2

IDC 19 02:55:22.9±6.6**, 16.93S×176.95W, h0**^{km}**, mb4.5**/2**, mb1 4.8**/2**, mb1mx3.8**/14**, mbtmp4.5**/2**, Error ellipse: s-maj=324.9km s-min=42.4km az=144.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	46.18	258	P	P	03 03 49.7	-0.1
	1.7nm,0.5s,baz=94,slow=7.2,SNR=39						
ASAR	Alice Springs	46.40	253	P	P	03 03 51.5	+0.1
	8.6nm,0.5s,baz=88,slow=8.5,SNR=133						
KAKA	Kakadu	49.00	268	eP	P	03 04 12.5	+0.7
	4.7nm,0.4s						
FITZ	Fitzroy Crossi	54.57	260	eP	P	03 04 52.1	-1.2
	1.7nm,0.7s						
BRTR	Keskin Array B	145.06	317	PKPbc	PKPbc	03 15 01.0	-0.9
	0.4nm,0.6s,baz=45,slow=2.9,SNR=4.2						
MMAI	Mount Meron Ar	146.75	305	PKPbc	PKPbc	03 15 05.2	-2.1
	0.7nm,0.5s,baz=23,slow=4.7,SNR=3.6						
GERES	GERESS Array B	147.00	347	PKPbc	PKPbc	03 15 08.0	+0.5
	0.4nm,0.5s,baz=18,slow=4.4,SNR=5.2						

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*BJI **19** 02:58:24.6, 20.76N×102.22E, h33^{km}, ML3.8*

*ISCJB **19** 02:58:32.2±0.7, 21.57N±0.07×101.77E±0.04, h10^{km}, Error ellipse: s-maj=10.2km s-min=3.7km az=155.7*

*PLV **19** 02:58:32.6±1.5, 21.69N×101.74E, h17^{km}±111^{km}, MD2.9*

ISC 19 02:58:34.3±0.8**, 21.54N**±0.06×**101.81E**±0.05**, h11**^{km}±13^{km}**, n9, σ1^{s}26**/15**, 1C, Myanmar-China border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBV	Dienbien	1.15	97	ePg	Pg	02 58 57.3	+1.0
DBV				eSG	Sg	02 59 12.8	+1.6
LCVN	Lai Chau	1.35	68	ePg	Pg	02 58 59.0	-1.3
LCVN				eSg	Sg	02 59 17.0	-0.8
SLVN	Son La	1.97	96	ePg	Pg	02 59 11.2	-0.9
SLVN				eSg	Sg	02 59 38.4	+0.8
CHRT	Chiangrai	2.52	229	⇑PN	Pn	02 59 15.5	+0.3
CHRT				PG	Pg	02 59 20.5	-2.1
CHRT				SG	Sg	02 59 58.0	+2.7
KMI	Kunming	3.67	13	PG	Pg	02 59 45.6	+1.0
KMI				Smax			
	comp=N,61nm,1.4s						
KMI				Smax			
	comp=E,68nm,1.4s						
CHG	Chiang Mai	3.82	225	PG	Pn	02 59 33.1	0.0
CHG				SG	Sg	03 00 37.8	+0.8
BDT	Bhumibol Dam	5.03	212	P	Pg	03 00 10.0	-0.6
	comp=E,13nm,0.9s						
KKTK	Khon Kaen	5.26	169	P	Pg	03 00 13.0	-2.2
NST	Nakhon Sawan	6.05	195	P	Sn	03 01 26.1	+13

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*SZGRF **19** 03:08:34.9, 21.43S×169.68E, h33^{km}, Southeast of Loyalty Islands*

*IDC **19** 03:08:35.6±0.6, 19.44S×168.94E, h0^{km}, mb4.3/13, mb1 4.5/14, mb1mx4.5/17, mbtmp4.3/14, ML4.0/1, Error ellipse: s-maj=19.2km s-min=16.8km az=121.0*

*LDG **19** 03:08:38.5±0.2, 19.04S×168.47E, h10^{km}, Mb4.6/2, Error ellipse: s-maj=22.3km s-min=4.6km az=112.0*

*MOS **19** 03:08:39.7±2.9, 18.45S×168.40E, h0^{km}, mb5.0/4, Error ellipse: s-maj=19.8km s-min=14.3km az=126.2*

*ISCJB **19** 03:08:39.7±0.4, 19.43S±0.06×168.74E±0.08, h33^{km}, mb4.5/25, Error ellipse: s-maj=12.8km s-min=6.1km az=32.9*

*NEIC **19** 03:08:40.9±0.4, 19.46S×168.91E, h35^{km}, mb4.8/8, Error ellipse: s-maj=11.8km s-min=9.5km az=140.0*

*BJI **19** 03:08:43.9, 18.85S×168.29E, h350^{km}, mB5.2, mb4.8, Ms5.1, Msz4.8*

ISC 19 03:08:41.3±0.4**, 19.46S**±0.06×**168.84E**±0.08**, h35**^{km}**, (h43**^{km}±.5^{km}**:pP-P), n270, σ1^{s}06**/44**, mb4.5**/25**, 92C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.43	220	eP	Pn	03 09 32.3	0.0
DZM				eS	Sn	03 10 10.2	-1.5
DZM	Mont Dzumac	3.43	220	Pn	Pn	03 09 32.4	+0.1
DZM				Sn	Sn	03 10 10.3	-1.5
DZM	Mont Dzumac	3.43	220	Pn	Pn	03 09 32.4	+0.1
	13nm,0.3s,baz=58,slow=18,SNR=93						
DZM				Sn	Sn	03 10 10.3	-1.5
	43nm,0.3s,baz=132,slow=23,SNR=8.9						
URZ	Urewera	20.07	161	P	P	03 13 08.6	-3.0
	14nm,0.7s,baz=341,slow=2.6,SNR=9.0						
PMG	Port Moresby	23.22	292	P	P	03 13 46.8	+1.2
	10nm,0.7s,mb4.4,baz=104,slow=7.0,SNR=4.4						
CNB	Canberra Magne	23.35	223	eP	P	03 13 48.8	+2.0
	35nm,0.7s,mb4.9						
RPZ	Rata Peaks	24.26	176	P	P	03 13 56.0	+1.0
	8.4nm,0.6s,mb4.3,baz=28,slow=2.2,SNR=9.1						
STKA	Stephens Creek	27.41	238	eP	P	03 14 24.9	+1.2
	3.7nm,0.6s,mb4.1						
STKA	Stephens Creek	27.41	238	P	P	03 14 25.1	+1.4
	4.3nm,0.6s,mb4.2,baz=63,slow=9.2,SNR=23						
STKA				PcP	PcP	03 17 41.5	-0.5
	1.3nm,0.6s,baz=12,slow=15,SNR=4.2						
WB2	Warramunga Arr	32.44	263	eP	P	03 15 07.7	-0.6
WRA	Warramunga Arr	32.45	263	P	P	03 15 07.4	-1.0
WRA						03 17 55.0	
WRA	Warramunga Arr	32.45	263	P	P	03 15 07.4	-1.1
	0.9nm,0.5s,mb3.9,baz=102,slow=7.8,SNR=19						
WRA				PcP	PcP	03 17 55.0	-0.2
	1.8nm,0.6s,baz=94,slow=3.0,SNR=14						
WRA				ScP	ScP	03 21 41.5	+5.0
	0.9nm,1.0s,baz=92,slow=3.5,SNR=5.1						
ASAR	Alice Springs	32.71	256	P	P	03 15 10.7	0.0
ASAR						03 17 54.8	
ASAR	Alice Springs	32.71	256	P	P	03 15 10.7	0.0
	7.0nm,0.6s,mb4.8,baz=86,slow=8.8,SNR=99						
ASAR				PcP	PcP	03 17 54.8	-1.1
	1.0nm,0.7s,baz=108,slow=1.7,SNR=5.3						
ASAR				ScP	ScP	03 21 43.1	+5.8
	0.8nm,0.9s,baz=94,slow=3.6,SNR=4.4						
KAKA	Kakadu	35.56	275	eP	P	03 15 35.7	+0.2
	6.8nm,1.1s,mb4.5						
FORT	Forrest	38.41	245	eP	P	03 15 59.9	+0.3
	15nm,0.7s,mb4.8						
FITZ	Fitzroy Crossi	40.84	265	eP	P	03 16 20.3	+0.3
	11nm,0.9s,mb4.5						
FITZ	Fitzroy Crossi	40.84	265	P	P	03 16 20.7	+0.8
	6.0nm,1.1s,mb4.1,baz=127,slow=8.3,SNR=11						
FITZ				PcP	PcP	03 18 19.2	-1.3
	0.8nm,0.6s,baz=165,slow=16,SNR=3.4						
KLBR	Kellerberrin	47.28	245	eP	P	03 17 10.9	-0.5
	23nm,0.9s,mb5.1						
VNDA	Vanda	58.20	182	P	P	03 18 31.5	+0.1
VNDA	Vanda	58.20	182	P	P	03 18 31.5	+0.1
	3.0nm,0.8s,mb4.4,baz=9.3,slow=6.2,SNR=11						
MJAR	Matsushiro Arr	62.77	333	P	P	03 19 02.9	-0.1
	3.0nm,0.9s,mb4.4,baz=170,slow=7.4,SNR=6.4						
NJ2	Nanjing	70.10	316	eP	P	03 19 49.3	-0.8
NJ2				AMB	AMB		
	comp=Z,30nm,1.1s,mb5.1						
YSS	Yuzh-Sakhalins	70.16	341	P	P	03 19 47.7	-2.4
CN2	Changchun	74.45	329	eP	P	03 20 16.3	+0.5
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,400nm,21.0s						
CN2				LR	LR		
	comp=E,600nm,21.0s						
CN2				LR	LR		
	comp=Z,900nm,21.0s						
KLR	Kul'dur	75.91	336	eP	P	03 20 21.8	-2.3
CD2	Chengdu	80.07	308	P	P	03 20 48.3	+0.7
CD2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.7						
MA2	Magadan	80.12	351	eP	P	03 20 47.0	-0.2
MA2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
GTA	Gaotai	87.00	314	eP	P	03 21 24.0	+1.0
GTA				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.7						
SONM	Songino Array	87.17	323	P	P	03 21 24.3	+0.7
	comp=Z,3.6nm,0.9s,mb4.6,baz=158,slow=5.5,SNR=27						
BILL	Bilibino	87.26	359c	iP	P	03 21 22.9	-0.7
BILL				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.9						
NVAR	Mina Array Bea	89.23	49	P	P	03 21 34.2	+0.6
	comp=Z,1.4nm,0.7s,mb4.4,baz=233,slow=11,SNR=11						
VNA3	Neumayer Olymp	89.53	180	eP	P	03 21 33.7	-0.9
VNA3				e		03 21 37.6	
VNA3				e	pP	03 21 46.2	+0.5
VNA3				e		03 21 52.5	
VNA2	Neumayer--Watz	89.82	181	eP	P	03 21 35.3	-0.6
	baz=190,slow=4.5						
VNA2				e		03 21 39.2	
VNA2				e	pP	03 21 47.6	+0.5
VNA2				e		03 21 54.1	
VNA1	Neumayer--Stat	90.11	181	eP	P	03 21 39.4	+2.1
VNA1				e		03 21 43.1	
VNA1				e	pP	03 21 52.2	+3.8
VNA1				e		03 21 58.0	
ZAK	Zakamensk	90.25	324	eP	P	03 21 31.3	-6.8
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.4						
EGAK	Eagle	92.25	19	eP	P	03 21 45.8	-1.3
	comp=Z,5.5nm,0.8s,mb4.9						
TUC	Tucson	92.44	57	eP	P	03 21 49.4	+0.6
	comp=Z,4.0nm,0.9s,mb4.8						
TUC	Tucson	92.44	57	eP	P	03 21 49.4	+0.7
TUC				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.8						
PDAR	Pinedale Array	97.04	47	P	P	03 22 09.7	+0.2
	comp=Z,0.3nm,0.8s,mb3.8,baz=315,slow=0.1,SNR=2.3						
TXAR	Lajitas Array	97.20	62	P	P	03 22 11.1	+0.5
	comp=Z,0.3nm,0.7s,mb3.8,baz=245,slow=5.4,SNR=4.7						
YKA	Yellowknife Ar	101.03	27	P	Pdif	03 22 26.9	-0.4
	comp=Z,1.0nm,0.8s,baz=255,slow=4.6,SNR=15						
MKAR	Makanchi Array	101.63	316	P	Pdif	03 22 30.8	+0.8
	comp=Z,0.5nm,0.5s,baz=90,slow=6.4,SNR=6.0						
MKAR				PP	PP	03 26 41.4	+0.7
	comp=Z,0.2nm,0.2s,baz=106,slow=9.2,SNR=2.5						
MATP	Matopo	124.50	227	PKP	PKPdf	03 27 36.8	-0.8
MATP	Matopo	124.50	227	PKP	PKPdf	03 27 36.8	-0.8
	comp=Z,5.5nm,1.2s,baz=246,slow=2.4,SNR=3.9						
ARCES	ARCESS Array B	125.18	345	PKP	PKPdf	03 27 36.6	-0.8
ARCES	ARCESS Array B	125.18	345	PKIKP	PKPdf	03 27 36.6	-0.8
ARCES	ARCESS Array B	125.18	345	PKP	PKPdf	03 27 36.6	-0.8
	comp=Z,4.8nm,0.8s,baz=72,slow=2.6,SNR=20						
FINES	FINESS Array B	130.64	337	PKP	PKPdf	03 27 46.5	-1.5
FINES	FINESS Array B	130.64	337	PKIKP	PKPdf	03 27 46.5	-1.5
FINES	FINESS Array B	130.64	337	PKP	PKPdf	03 27 46.5	-1.5
	comp=Z,1.5nm,1.0s,baz=35,slow=7.0,SNR=3.5						
AKASG	Malin Array Be	135.44	324	PKP	PKPdf	03 27 56.0	-1.4
AKASG	Malin Array Be	135.44	324	PKIKP	PKPdf	03 27 56.0	-1.4
AKASG	Malin Array Be	135.44	324	PKP	PKPdf	03 27 56.0	-1.4
	comp=Z,0.3nm,0.4s,baz=54,slow=2.2,SNR=4.5						
NB2	NORSAR Subarra	135.55	345	PKPd	PKPdf	03 27 56.5	-0.8
	comp=Z,9.0nm,1.7s,baz=31,slow=1.9						
NOA	NORSAR Array B	135.55	345	PKP	PKPdf	03 27 56.4	-0.8
NOA	NORSAR Array B	135.55	345	PKIKP	PKPdf	03 27 56.4	-0.9
NOA	NORSAR Array B	135.55	345	PKP	PKPdf	03 27 56.4	-0.8
	comp=Z,1.7nm,0.8s,baz=33,slow=2.0,SNR=6.5						
BRTR	Keskin Array B	136.65	308	PKP	PKPdf	03 28 00.4	+0.4
BRTR	Keskin Array B	136.65	308	PKIKP	PKPdf	03 28 00.4	+0.4
BRTR	Keskin Array B	136.65	308	PKP	PKPdf	03 28 00.4	+0.4
	comp=Z,0.8nm,0.8s,baz=87,slow=4.3,SNR=5.0						
KECS	Kecovo	141.41	326	ePKP	PKPdf	03 28 10.0	+1.6
KECS	Kecovo	141.41	326	ePKIKP	PKPdf	03 28 10.0	+1.6
KECS	Kecovo	141.41	326	ePKP	PKPdf	03 28 10.0	+1.6
DPC	Dobruska-Polom	142.23	331	ePKP	PKPdf	03 28 06.5	-3.3
DPC	Dobruska-Polom	142.23	331	ePKP	PKPdf	03 28 06.5	-3.3
VYHS	Vyhne	142.26	327	ePKP	PKPdf	03 28 09.7	-0.2
VYHS	Vyhne	142.26	327	ePKIKP	PKPdf	03 28 09.7	-0.2
VYHS	Vyhne	142.26	327	ePKP	PKPdf	03 28 09.7	-0.2
UPC	Upice	142.26	332	ePKP	PKPdf	03 28 06.1	-3.8
UPC	Upice	142.26	332	ePKP	PKPdf	03 28 06.1	-3.8
BRG	Berggiesshubel	142.90	334	PKHKP		03 28 08.3	
BRG				e		03 28 14.0	
BRG	Berggiesshubel	142.90	334	ePKPbc	PKPdf	03 28 07.8	-3.2
BRG	Berggiesshubel	142.90	334	e(P)	PKPdf	03 28 08.3	-2.7
	comp=Z,9.4nm,1.8s						
BRG				e		03 28 14.0	
	comp=Z,3.5nm,0.8s						
CLL	Collm	142.95	335	ePKHKP		03 28 07.0	
CLL	Collm	142.95	335	ePKPbc	PKPdf	03 28 07.0	-4.1
CLL	Collm	142.95	335	ePKPdf	PKPdf	03 28 07.0	-4.1
	comp=Z,3.0nm,0.8s						
FBE	Freiberg	143.10	334	ePKPbc	PKPdf	03 28 08.6	-2.7
TANN	Tannenbergstha	143.86	334	ePKPbc	PKPdf	03 28 10.5	-2.2
WERD	Werda	143.90	334	ePKPbc	PKPdf	03 28 10.4	-2.3
GUNZ	Gunzen	143.95	334	ePKPbc	PKPdf	03 28 11.0	-1.8
VAY	Valandovo	143.99	315	ePKP	PKPdf	03 28 09.7	-3.5
WERN	Wernitzgruen	143.99	334	ePKPbc	PKPdf	03 28 11.1	-1.8
NKC	Novy Kostel	144.00	334	ePKP	PKPdf	03 28 11.0	-1.9
NKC	Novy Kostel	144.00	334	ePKP	PKPdf	03 28 11.0	-1.9
MOX	Moxa	144.02	335	ePKP	PKPdf	03 28 10.9	-2.1
MOX	Moxa	144.02	335	ePKP	PKPdf	03 28 10.9	-2.1
	comp=Z,15nm,1.3s						
MOX	Moxa	144.02	335	ePKPbc	PKPdf	03 28 10.7	-2.3
IBBN	Ibbenburen	144.04	340	ePKPbc	PKPdf	03 28 10.7	-2.2
CONA	Conrad Observa	144.13	329	⇑iPKPdf	PKPdf	03 28 12.7	-0.5
	comp=Z,4.1nm,0.7s						
MANZ	Manzenberg	144.33	334	ePKPbc	PKPdf	03 28 12.0	-1.5
KHC	Kasperske Hory	144.35	332	ePKP	PKPdf	03 28 11.9	-1.7
KHC	Kasperske Hory	144.35	332	ePKP	PKPdf	03 28 11.9	-1.7
SKO	Skopje	144.43	316	ePKP	PKPdf	03 28 13.0	-1.0
ROTZ	Rotzenmuhle	144.46	334	ePKPbc	PKPdf	03 28 12.4	-1.4
GEC2	GERESS Array S	144.50	331	ePKPbc	PKPdf	03 28 12.2	-1.7
GEC2	GERESS Array S	144.50	331	ePKPbc	PKPdf	03 28 12.2	-1.7
GERES	GERESS Array B	144.50	331	PKP	PKPdf	03 28 12.5	-1.3
GERES	GERESS Array B	144.50	331	PKP	PKPdf	03 28 12.5	-1.3
	comp=Z,4.6nm,0.8s,baz=38,slow=2.7,SNR=39						
WET	Wettzell	144.65	332	ePKPbc	PKPdf	03 28 12.9	-1.2
WET	Wettzell	144.65	332	ePKPbc	PKPdf	03 28 12.9	-1.2
KRUS	Krusevo	144.84	316	ePKP	PKPdf	03 28 14.0	-0.7
KOGS	Kog	144.92	326	ePKPbc	PKPdf	03 28 13.7	-0.9
KOGS	Kog	144.92	326	ePKPbc	PKPdf	03 28 13.7	-0.9
GRA1	Grafenberg Arr	144.93	335	ePKPbc	PKPdf	03 28 14.2	-0.4
GRF	Grafenberg Arr	144.93	335	ePKP	PKPdf	03 28 14.2	-0.4
GRF	Grafenberg Arr	144.93	335	ePKIKP	PKPdf	03 28 14.2	-0.4
GRF	Grafenberg Arr	144.93	335	ePKIKP	PKPdf	03 28 14.2	-0.4
GRF	Grafenberg Arr	144.93	335	ePKPbc	PKPdf	03 28 14.2	-0.4
BUG	Bochum--Univer	144.94	340	ePKPbc	PKPdf	03 28 13.3	-1.2
MOA	Molln	144.96	330	i P	PKPdf	03 28 14.3	-0.4
	comp=Z,19nm,0.7s,SNR=21						
MOA	Molln	144.96	330	i PKPdf	PKPdf	03 28 14.3	-0.4
	comp=Z,19nm,0.7s,SNR=21						
OHR	Ohrid	145.26	315	ePKP	PKPdf	03 28 06.9	-8.6
PERS	Pernice	145.38	328	i PKPbc	PKPbc	03 28 15.5	+0.1
PERS	Pernice	145.38	328	i PKPbc	PKPbc	03 28 15.5	+0.1
TNS	Taunus Mts	145.56	338	ePKPbc	PKPbc	03 28 15.9	+0.1
TNS	Taunus Mts	145.56	338	ePKIKP	PKPdf	03 28 15.9	+0.3
TNS	Taunus Mts	145.56	338	ePKPbc	PKPbc	03 28 15.9	+0.1
GCIS	Gornji Cirnik	145.63	326	ePKPbc	PKPbc	03 28 16.3	+0.1
GCIS	Gornji Cirnik	145.63	326	ePKPbc	PKPbc	03 28 16.3	+0.1
CRES	Cresnjev	145.75	326	ePKPbc	PKPbc	03 28 16.6	0.0
CRES	Cresnjev	145.75	326	ePKPbc	PKPbc	03 28 16.6	0.0
TOD	Tromm	145.94	337	PKP	PKPdf	03 28 16.9	+0.6
TOD	Tromm	145.94	337	PKIKP	PKPdf	03 28 16.9	+0.6
BEBN	Eben Emael	146.00	341	PKP	PKPdf	03 28 18.1	+1.8
MEM	Membach	146.06	340	PKP	PKPdf	03 28 17.2	+0.7
MEM				APKP		03 28 32.4	
FUR	Furstenfeldbru	146.08	333	ePKPbc	PKPbc	03 28 17.7	+0.2
FUR	Furstenfeldbru	146.08	333	ePKIKP	PKPdf	03 28 17.7	+1.1
FUR	Furstenfeldbru	146.08	333	ePKPbc	PKPbc	03 28 17.7	+0.2
LJU	Ljubljana	146.08	327	ePKPbc	PKPbc	03 28 17.5	0.0
LJU	Ljubljana	146.08	327	ePKP2	PKPab	03 28 17.5	-0.7
LJU	Ljubljana	146.08	327	ePKPbc	PKPbc	03 28 17.5	0.0
ABH	Alteburg	146.16	338	PKP	PKPdf	03 28 17.6	+0.9
CEY	Cerknica	146.34	327	i PKPbc	PKPbc	03 28 18.3	-0.1
CEY	Cerknica	146.34	327	i PKPbc	PKPbc	03 28 18.3	-0.1
UCC	Uccle	146.39	342	PKPbc	PKPbc	03 28 18.1	-0.3
BCLA	Clavier	146.44	341	PKPbc	PKPbc	03 28 18.1	-0.4
STU	Stuttgart	146.46	335	ePKPbc	PKPbc	03 28 19.1	+0.5
RUP	Ruppelstein	146.49	338	PKP	PKPdf	03 28 18.9	+1.7
RUP	Ruppelstein	146.49	338	PKP2	PKPab	03 28 18.9	-0.7
SNF	Seneffe	146.67	342	PKPbc	PKPbc	03 28 19.2	+0.1
LANF	Langenberg	146.82	337	PKP	PKPbc	03 28 19.3	-0.3
LANF	Langenberg	146.82	337	PKP	PKPbc	03 28 19.3	-0.3
LANF	Langenberg	146.82	337	PKIKP	PKPbc	03 28 19.3	-0.3
WLF	Walferdange	146.83	339	ePKPbc	PKPbc	03 28 20.1	+0.4
WLF	Walferdange	146.83	339	ePKIKP	PKPbc	03 28 20.1	+0.5
WLF	Walferdange	146.83	339	PKPbc	PKPbc	03 28 20.2	+0.6
WLF				APKP		03 28 32.3	
WLF	Walferdange	146.83	339	ePKPbc	PKPbc	03 28 20.1	+0.5
SQTA	Sankt Quirin	146.83	332	⇑iP	PKPbc	03 28 19.7	0.0
	comp=Z,8.9nm,0.9s						
SQTA	Sankt Quirin	146.83	332	⇑iPKPab	PKPbc	03 28 19.7	0.0
	comp=Z,8.9nm,0.9s						
SQTA	Sankt Quirin	146.83	332	⇑iPKIKP	PKPbc	03 28 19.7	0.0
GIVF	Givet	146.87	341	⇑iPKP1	PKPbc	03 28 19.6	-0.1
	comp=Z,35nm,1.0s						
GIVF	Givet	146.87	341	⇑iPKP	PKPbc	03 28 19.6	-0.1
GIVF	Givet	146.87	341	⇑iPKIKP	PKPbc	03 28 19.6	-0.1
DOU	Dourbes	146.95	341	PKPbc	PKPbc	03 28 19.9	0.0
DOU				E		03 28 25.4	
BAIF	Baives	147.09	342	⇑iPKP1	PKPbc	03 28 20.3	-0.1
	comp=Z,30nm,0.8s						
BAIF	Baives	147.09	342	⇑iPKP	PKPbc	03 28 20.3	-0.1
BAIF	Baives	147.09	342	⇑iPKIKP	PKPbc	03 28 20.3	-0.1
BFO	Black Forest	147.16	336	ePKPbc	PKPbc	03 28 20.4	-0.2
BFO	Black Forest	147.16	336	ePKIKP	PKPbc	03 28 20.4	-0.2
BFO	Black Forest	147.16	336	ePKPbc	PKPbc	03 28 20.4	-0.2
SPAK	Spaichingen-Ko	147.16	335	PKP	PKPbc	03 28 20.6	0.0
FETA	Feichten	147.19	332	⇑iPKPab	PKPbc	03 28 20.8	+0.1
	comp=Z,14nm,0.9s,SNR=5.5						
DAVA	Damuels	147.36	333	⇑iP	PKPbc	03 28 21.2	0.0

	comp=Z,18nm,1.3s						
DAVA	**Damuels**	**147.36**	**333**	⇑*i*PKPab	PKPbc	03 28 21.2	0.0
	comp=Z,18nm,1.3s						
CDF	**Champ du Feu**	**147.49**	**337**	⇑*i*PKP1	PKPbc	03 28 21.4	-0.1
	comp=Z,43nm,0.8s						
CDF	**Champ du Feu**	**147.49**	**337**	⇑*i*PKP	PKPbc	03 28 21.4	-0.1
CDF	**Champ du Feu**	**147.49**	**337**	⇑*i*PKIKP	PKPbc	03 28 21.4	-0.1
FELD	**Feldberg im Sc**	**147.66**	**336**	PKP	PKPbc	03 28 20.6	-1.4
HINF	**Hinteralfeld**	**148.15**	**337**	⇑*i*PKP1	PKPbc	03 28 22.8	-0.5
	comp=Z,14nm,0.9s						
HINF	**Hinteralfeld**	**148.15**	**337**	⇑*i*PKP	PKPbc	03 28 22.8	-0.5
HINF	**Hinteralfeld**	**148.15**	**337**	⇑*i*PKIKP	PKPbc	03 28 22.8	-0.5
HAU	**Haudompre**	**148.17**	**337**	⇑*i*PKP1	PKPbc	03 28 23.1	-0.3
	comp=Z,30nm,0.8s						
HAU	**Haudompre**	**148.17**	**337**	⇑*i*PKP	PKPbc	03 28 23.1	-0.3
HAU	**Haudompre**	**148.17**	**337**	⇑*i*PKIKP	PKPbc	03 28 23.1	-0.3
MEZF	**Maizieres J'vi**	**148.20**	**339**	⇑*i*PKP1	PKPbc	03 28 23.7	+0.3
	comp=Z,48nm,0.8s						
MEZF	**Maizieres J'vi**	**148.20**	**339**	⇑*i*PKP	PKPbc	03 28 23.7	+0.3
LOMF	**Lomont**	**148.54**	**336**	PKP	PKPbc	03 28 25.0	+0.6
LOMF	**Lomont**	**148.54**	**336**	PKP	PKPbc	03 28 25.0	+0.6
LOMF	**Lomont**	**148.54**	**336**	PKP2	PKPbc	03 28 25.0	+0.6
CABF	**La Chapelle**	**149.44**	**336**	⇑*i*PKP1	PKPbc	03 28 26.9	+0.2
	comp=Z,47nm,0.9s						
CABF	**La Chapelle**	**149.44**	**336**	⇑*i*PKP	PKPbc	03 28 26.9	+0.2
CABF	**La Chapelle**	**149.44**	**336**	⇑*i*PKIKP	PKPbc	03 28 26.9	+0.2
FLN	**La Foliniere**	**149.52**	**346**	⇑*i*PKP1	PKPbc	03 28 26.1	-0.7
	comp=Z,32nm,0.9s						
FLN	**La Foliniere**	**149.52**	**346**	⇑*i*PKP	PKPbc	03 28 26.1	-0.7
FLN	**La Foliniere**	**149.52**	**346**	⇑*i*PKIKP	PKPbc	03 28 26.1	-0.7
LDF	**La Druitiere**	**149.59**	**345**	⇑*i*PKP1	PKPbc	03 28 26.3	-0.7
	comp=Z,20nm,0.8s						
LDF	**La Druitiere**	**149.59**	**345**	⇑*i*PKP	PKPbc	03 28 26.3	-0.7
LDF	**La Druitiere**	**149.59**	**345**	⇑*i*PKIKP	PKPbc	03 28 26.3	-0.7
LOR	**Lormes**	**149.67**	**340**	⇑*i*PKP1	PKPbc	03 28 27.0	-0.2
	comp=Z,31nm,0.8s						
LOR	**Lormes**	**149.67**	**340**	⇑*i*PKP	PKPbc	03 28 27.0	-0.2
LOR	**Lormes**	**149.67**	**340**	⇑*i*PKIKP	PKPbc	03 28 27.0	-0.2
GRR	**Gorron**	**149.96**	**346**	⇑*i*PKP1	PKPbc	03 28 27.4	-0.5
	comp=Z,32nm,0.9s						
GRR	**Gorron**	**149.96**	**346**	⇑*i*PKP	PKPbc	03 28 27.4	-0.5
GRR	**Gorron**	**149.96**	**346**	⇑*i*PKIKP	PKPbc	03 28 27.4	-0.5
SSF	**Saint Saulge**	**149.96**	**340**	⇑*i*PKP1	PKPbc	03 28 27.8	-0.1
	comp=Z,32nm,0.9s						
SSF	**Saint Saulge**	**149.96**	**340**	⇑*i*PKP	PKPbc	03 28 27.8	-0.1
SSF	**Saint Saulge**	**149.96**	**340**	⇑*i*PKIKP	PKPbc	03 28 27.8	-0.1
LPL	**La Plagne**	**150.09**	**334**	⇑*i*PKP1	PKPbc	03 28 28.7	+0.4
	comp=Z,20nm,0.8s						
LPL	**La Plagne**	**150.09**	**334**	⇑*i*PKP	PKPbc	03 28 28.7	+0.4
LPL	**La Plagne**	**150.09**	**334**	⇑*i*PKIKP	PKPbc	03 28 28.7	+0.4
LPG	**La Plagne**	**150.09**	**334**	⇑*i*PKP1	PKPbc	03 28 28.8	+0.5
	comp=Z,24nm,0.8s						
LPG	**La Plagne**	**150.09**	**334**	⇑*i*PKP	PKPbc	03 28 28.8	+0.5
LPG	**La Plagne**	**150.09**	**334**	⇑*i*PKIKP	PKPbc	03 28 28.8	+0.5
SMF	**Signal de Mont**	**150.22**	**339**	⇑*i*PKP1	PKPbc	03 28 28.1	-0.4
	comp=Z,37nm,1.2s						
SMF	**Signal de Mont**	**150.22**	**339**	⇑*i*PKP	PKPbc	03 28 28.1	-0.4
SMF	**Signal de Mont**	**150.22**	**339**	⇑*i*PKIKP	PKPbc	03 28 28.1	-0.4
AVF	**Avril sur Loir**	**150.25**	**340**	*e*PKP1	PKPbc	03 28 28.1	-0.5
	comp=Z,11nm,0.9s						
AVF	**Avril sur Loir**	**150.25**	**340**	*e*PKP	PKPbc	03 28 28.1	-0.5
AVF	**Avril sur Loir**	**150.25**	**340**	*e*PKIKP	PKPbc	03 28 28.1	-0.5
SGMF	**Saint Gilles**	**150.44**	**348**	⇑*i*PKP1	PKPbc	03 28 28.3	-0.7
	comp=Z,16nm,0.7s						
SGMF	**Saint Gilles**	**150.44**	**348**	⇑*i*PKP	PKPbc	03 28 28.3	-0.7
SGMF	**Saint Gilles**	**150.44**	**348**	⇑*i*PKHKP	PKPbc	03 28 28.3	-0.7
BNI	**Bardonecchia**	**150.49**	**334**	*e*PKPbc	PKPbc	03 28 29.2	-0.1
BNI	**Bardonecchia**	**150.49**	**334**	*e*PKHKP	PKPbc	03 28 29.2	0.0
ROSF	**Rostrenen**	**150.49**	**349**	*e*PKP1	PKPbc	03 28 28.3	-0.8
	comp=Z,24nm,0.9s						
ROSF	**Rostrenen**	**150.49**	**349**	*e*PKP	PKPbc	03 28 28.3	-0.8
ROSF	**Rostrenen**	**150.49**	**349**	*e*PKHKP	PKPbc	03 28 28.3	-0.8
BGF	**Bois d'Agland**	**150.62**	**340**	*e*PKP1	PKPbc	03 28 28.7	-0.8
	comp=Z,22nm,0.8s						
BGF	**Bois d'Agland**	**150.62**	**340**	*e*PKP	PKPbc	03 28 28.7	-0.8
BGF	**Bois d'Agland**	**150.62**	**340**	*e*PKHKP	PKPbc	03 28 28.7	-0.8
MBDF	**Montbardon**	**150.71**	**333**	⇑*i*PKP1	PKPbc	03 28 29.5	-0.3
	comp=Z,26nm,1.0s						
MBDF	**Montbardon**	**150.71**	**333**	⇑*i*PKP	PKPbc	03 28 29.5	-0.3
MBDF	**Montbardon**	**150.71**	**333**	⇑*i*PKHKP	PKPbc	03 28 29.5	-0.3
QUIF	**Quistinic**	**150.88**	**349**	⇑*i*PKP1	PKPbc	03 28 29.2	-0.9
	comp=Z,14nm,0.8s						
QUIF	**Quistinic**	**150.88**	**349**	⇑*i*PKP	PKPbc	03 28 29.2	-0.9
QUIF	**Quistinic**	**150.88**	**349**	⇑*i*PKHKP	PKPbc	03 28 29.2	-0.9
ORIF	**Oris-en-Rattie**	**150.92**	**335**	⇑*i*PKP1	PKPbc	03 28 30.2	-0.1
	comp=Z,36nm,0.8s						
ORIF	**Oris-en-Rattie**	**150.92**	**335**	⇑*i*PKP	PKPbc	03 28 30.2	-0.1
ORIF	**Oris-en-Rattie**	**150.92**	**335**	⇑*i*PKHKP	PKPbc	03 28 30.2	-0.1
TCF	**Toulx Ste Croi**	**151.06**	**341**	⇑*i*PKP1	PKPbc	03 28 30.3	-0.3
	comp=Z,12nm,0.8s						
TCF	**Toulx Ste Croi**	**151.06**	**341**	⇑*i*PKP	PKPbc	03 28 30.3	-0.3
TCF	**Toulx Ste Croi**	**151.06**	**341**	⇑*i*PKHKP	PKPbc	03 28 30.3	-0.3
PYM	**Petit Puy Mans**	**151.28**	**339**	PKP	PKPbc	03 28 31.3	+0.2
PYM	**Petit Puy Mans**	**151.28**	**339**	PKP	PKPbc	03 28 31.3	+0.2
PYM	**Petit Puy Mans**	**151.28**	**339**	PKIKP	PKPbc	03 28 31.3	+0.2
PGF	**Pioggiola**	**151.36**	**328**	⇑*i*PKP1	PKPbc	03 28 31.1	-0.3
	comp=Z,70nm,0.8s						
PGF	**Pioggiola**	**151.36**	**328**	⇑*i*PKP	PKPbc	03 28 31.1	-0.3
PGF	**Pioggiola**	**151.36**	**328**	⇑*i*PKIKP	PKPbc	03 28 31.1	-0.3
VIVF	**Saint-Julien-l**	**151.45**	**336**	⇑*i*PKP1	PKPbc	03 28 31.3	-0.2
	comp=Z,30nm,1.0s						
VIVF	**Saint-Julien-l**	**151.45**	**336**	⇑*i*PKP	PKPbc	03 28 31.3	-0.2
VIVF	**Saint-Julien-l**	**151.45**	**336**	⇑*i*PKIKP	PKPbc	03 28 31.3	-0.2
MFF	**Saint Martin d**	**151.45**	**344**	⇑*i*PKP1	PKPbc	03 28 30.9	-0.6
	comp=Z,14nm,0.8s						
MFF	**Saint Martin d**	**151.45**	**344**	⇑*i*PKP	PKPbc	03 28 30.9	-0.6
MFF	**Saint Martin d**	**151.45**	**344**	⇑*i*PKIKP	PKPbc	03 28 30.9	-0.6
LBL	**Lubilhac**	**151.65**	**338**	PKP	PKPbc	03 28 32.0	0.0
LBL	**Lubilhac**	**151.65**	**338**	PKP	PKPbc	03 28 32.0	0.0
LBL	**Lubilhac**	**151.65**	**338**	PKIKP	PKPbc	03 28 32.0	0.0
FRF	**La Foret Royal**	**151.70**	**332**	⇑*i*PKP1	PKPbc	03 28 31.6	-0.5
FRF	**La Foret Royal**	**151.70**	**332**	⇑*i*PKP	PKPbc	03 28 31.6	-0.5
FRF	**La Foret Royal**	**151.70**	**332**	⇑*i*PKIKP	PKPbc	03 28 31.6	-0.5
SMRF	**Simiane la Rot**	**151.82**	**334**	⇑*i*PKP1	PKPbc	03 28 32.5	+0.1
	comp=Z,30nm,1.0s						
SMRF	**Simiane la Rot**	**151.82**	**334**	⇑*i*PKP	PKPbc	03 28 32.5	+0.1
LMR	**La Mourre**	**151.94**	**332**	⇑*i*PKP1	PKPbc	03 28 32.1	-0.6
	comp=Z,27nm,1.0s						
LMR	**La Mourre**	**151.94**	**332**	⇑*i*PKP	PKPbc	03 28 32.1	-0.6
LMR	**La Mourre**	**151.94**	**332**	⇑*i*PKIKP	PKPbc	03 28 32.1	-0.6
RJF	**Les Rejaudoux**	**152.16**	**341**	⇑*i*PKP1	PKPbc	03 28 32.8	-0.3
RJF	**Les Rejaudoux**	**152.16**	**341**	⇑*i*PKP	PKPbc	03 28 32.8	-0.3
RJF	**Les Rejaudoux**	**152.16**	**341**	⇑*i*PKIKP	PKPbc	03 28 32.8	-0.3
CAF	**Calviac**	**152.32**	**340**	*e*PKP1	PKPbc	03 28 33.2	-0.3
	comp=Z,9.1nm,0.9s						
CAF	**Calviac**	**152.32**	**340**	*e*PKP	PKPbc	03 28 33.2	-0.3
CAF	**Calviac**	**152.32**	**340**	*e*PKIKP	PKPbc	03 28 33.2	-0.3
LASF	**Ste Croix**	**152.42**	**336**	⇑*i*PKP1	PKPbc	03 28 33.7	0.0
LASF	**Ste Croix**	**152.42**	**336**	⇑*i*PKP	PKPbc	03 28 33.7	0.0
LFF	**La Frestale**	**152.73**	**341**	⇑*i*PKP1	PKPbc	03 28 34.0	-0.4
	comp=Z,16nm,0.8s						
LFF	**La Frestale**	**152.73**	**341**	⇑*i*PKP	PKPbc	03 28 34.0	-0.4
LFF	**La Frestale**	**152.73**	**341**	⇑*i*PKIKP	PKPbc	03 28 34.0	-0.4
ESDC	**Sonseca Array**	**158.92**	**344**	PKPab	PKPab	03 29 11.7	0.0
	comp=Z,1.0nm,0.7s,baz=2.6,slow=4.4,SNR=6.6						
TORD	**Torodi Ar. Bea**	**166.16**	**245**	PKP	PKPdf	03 28 42.3	-1.2
TORD				PKPab	PKPab	03 29 43.1	-1.2
TORD	**Torodi Ar. Bea**	**166.16**	**245**	PKP	PKPdf	03 28 42.3	-1.2
	comp=Z,1.0nm,1.0s,baz=208,slow=0.1,SNR=4.7						
TORD				PKPab	PKPab	03 29 43.1	-1.2
	comp=Z,1.4nm,0.8s,baz=95,slow=3.0,SNR=7.4						

IDC 19 03:15:20.8±7.9**,5.89S**×**146.93E,h101**^{km}±74^{km}**,mb2.9**/2**, mb1 3.1**/4**,mb1mx2.9**/15**,mbtmp2.9**/4**,ML3.0**/2**,Error ellipse: s-maj=72.0km s-min=55.7km az=129.0,Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.50**	**176**	P	Pn	03 16 12.8	-0.5
	2.4nm,0.3s,baz=357,slow=11,SNR=6.1						
PMG				S	Sn	03 16 54.5	+0.7
	7.9nm,0.3s,baz=149,slow=21,SNR=7.4						
WRA	**Warramunga Arr**	**18.57**	**220**	P	P	03 19 29.1	-0.8
	0.1nm,0.3s,baz=46,slow=11,SNR=12						
ASAR	**Alice Springs**	**21.67**	**214**	P	P	03 20 03.6	+0.3
	0.2nm,0.3s,baz=35,slow=8.3,SNR=3.8						
FITZ	**Fitzroy Crossi**	**24.07**	**238**	P	P	03 20 25.7	-1.2
	1.0nm,0.6s,baz=55,slow=17,SNR=9.9						
TORD	**Torodi Ar. Bea**	**145.00**	**284**	PKPbc	PKPbc	03 34 47.7	+1.0
	0.2nm,0.4s,baz=69,slow=3.6,SNR=5.6						

NEIC ***19*** *03:15:45.8,17.02N×100.22W,h7*^{km}*,MD3.8(MEX),After MEX.*

MEX 19 03:15:46.1±0.5**,17.03N×100.24W,h8**^{km}±9^{km}**,MD3.8, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	**0.03**	**299**	*i* P	Pg	03 15 46.8	-0.8
CAIG				*i* S	Sg	03 15 47.7	-1.0
ACX	**Acapulco**	**0.35**	**118**	*i* P	Pg	03 15 51.5	-1.4
ACX				*i* S	Sg	03 15 57.0	-0.5
MEIG	**Mezcala**	**1.07**	**33**	*i* P	Pg	03 16 03.6	-3.0
MEIG				*i* S	Sg	03 16 17.4	-3.1
PLIG	**Platanillo**	**1.52**	**27**	*e*P	Pn	03 16 10.2	-3.5
PLIG				*i* S	Sn	03 16 27.1	-6.6
PLIG	**Platanillo**	**1.52**	**27**	*e*P	Pn	03 16 10.2	-3.5
PLIG				*i* S	Sn	03 16 27.9	-5.9
UTMO	**Huajuapan**	**2.45**	**71**	*e*P	Pn	03 16 23.9	-2.6
UTMO				*i* S	Sn	03 16 51.1	-5.6
PTVM	**Pico Tres Padr**	**2.76**	**23**	*e*P	Pn	03 16 28.0	-2.8
PTVM				*i* S	Sn	03 17 01.3	-3.0
MOIG	**Morelia**	**2.78**	**341**	*i* P	Pn	03 16 30.1	-0.9
MOIG				*i* S	Sn	03 17 00.2	-4.7
IIO	**Organos**	**2.92**	**29**	*e*P	Pn	03 16 30.4	-2.5
IIO				*i* S	Sn	03 17 05.5	-2.8

ISCJB ***19*** *03:27:23.4±0.9,26.4N±0.1×141.2E±0.3,h445*^{km}*±11*^{km}*, mb3.1/4,Error ellipse: s-maj=47.2km s-min=16.6km az=168.6*

IDC ***19*** *03:27:25.9±1.3,26.34N×140.83E,h447*^{km}*±24*^{km}*,mb2.9/4, mb1 2.9/6,mb1mx2.7/21,mbtmp2.7/6,Error ellipse: s-maj=72.6km s-min=17.7km az=74.0*

NEIC ***19*** *03:27:26.5±2.4,26.29N×140.57E,h448*^{km}*±36*^{km}*, MG4.0(JMA),Error ellipse: s-maj=83.4km s-min=22.1km az=76.0*

JMA ***19*** *03:27:27.0±0.1,26.85N×141.42E,h428*^{km}*,M4.0*

ISC 19 03:27:24.4±0.9**,26.4N**±0.1×**141.2E**±0.3**,h437**^{km}±11^{km}**,n13, σ1**^{s}**.00**/16**,mb3.1**/4**,Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHHJ	**Haha-jima-NKT**	**0.91**	**74**	P	**P**	**03 28 20.5**	**+1.5**
JHHJ				*e*S	**S**	**03 29 02.5**	**-0.8**
CBIJ	**Chichi jima**	**1.13**	**51**	P	**P**	**03 28 20.7**	**+1.0**
CBIJ				*e*S	**S**	**03 29 03.1**	**-1.5**
CBIJ	**Chichi jima**	**1.13**	**51**	P	**P**	**03 28 23.0**	**+3.3**
	15nm,0.3s,baz=283,slow=22,SNR=4.7						
CBIJ				S	**S**	**03 29 03.5**	**-1.0**
	32nm,0.3s,baz=260,slow=22,SNR=8.5						
BSO3	**Boso 3**	**8.41**	**356**	P	**P**	**03 29 23.8**	**-0.2**
JWZ	**Kozaga**	**8.56**	**328**	P	**P**	**03 29 26.1**	**+0.4**
JAG	**Ashikaga**	**10.12**	**352**	P	**P**	**03 29 41.7**	**-1.0**
JHO	**Hitachi**	**10.21**	**357**	P	**P**	**03 29 43.8**	**+0.1**
MJAR	**Matsushiro Arr**	**10.44**	**347**	P	**P**	**03 29 48.1**	**+1.8**
	0.6nm,0.3s,baz=184,slow=5.9,SNR=4.9						
KSRS	**Korea Array**	**15.76**	**318**	P	**P**	**03 30 44.4**	**+0.6**
	0.2nm,0.3s,baz=146,slow=8.9,SNR=9.6						
SONM	**Songino Array**	**34.63**	**317**	P	**P**	**03 33 33.7**	**-1.4**
	0.3nm,0.6s,mb2.8,baz=120,slow=9.8,SNR=3.5						
WRA	**Warramunga Arr**	**46.53**	**189**	P	**P**	**03 35 11.0**	**+0.1**
	0.4nm,0.4s,mb3.1,baz=5.0,slow=7.5,SNR=16						
MKAR	**Makanchi Array**	**50.26**	**310**	P	**P**	**03 35 37.7**	**-1.0**
	0.2nm,0.2s,mb3.0,baz=84,slow=6.4,SNR=2.6						
FINES	**FINESS Array B**	**78.19**	**334**	P	**P**	**03 38 37.2**	**+0.2**
	1.4nm,0.9s,mb3.6,baz=64,slow=4.4,SNR=4.5						

BJI ***19*** *03:58:35.3,37.58N×76.43E,h15*^{km}*,mB4.2,mb4.6,ML4.3, Ms3.7,Msz3.6*

ISCJB ***19*** *03:58:38.2±0.3,37.60N±0.02×76.00E±0.04,h118*^{km}*±5*^{km}*, mb4.0/19,Error ellipse: s-maj=5.7km s-min=3.1km az=175.6*

MOS ***19*** *03:58:39.1±1.1,37.70N×75.90E,h116*^{km}*,mb4.1/12,Error ellipse: s-maj=13.1km s-min=6.6km az=97.8*

NEIC ***19*** *03:58:39.6±0.8,37.66N×75.95E,h110*^{km}*±7*^{km}*,mb4.5/11, Error ellipse: s-maj=9.1km s-min=7.7km az=198.0*

IDC ***19*** *03:58:39.9±4.9,37.61N×75.97E,h114*^{km}*±43*^{km}*,mb3.7/11, mb1 3.8/14,mb1mx3.6/25,mbtmp3.7/14,Error ellipse: s-maj=26.1km s-min=15.1km az=16.0*

NNC ***19*** *03:58:45.9±6.1,38.52N×75.78E,h0*^{km}*,mb4.2,mpv3.7, Error ellipse: s-maj=59.0km s-min=29.1km az=174.0*

ISC 19 03:58:39.1±0.3**,37.61N**±0.02×**76.13E**±0.05**,h111**^{km}±4^{km}**, n112,σ1**^{s}**.23**/143**,mb4.0**/19**,8C-15D,Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	**1.91**	**356**	⇓*i*PG	**Pn**	**03 59 12.0**	**+1.0**
KSH				SG	**Sn**	**03 59 34.9**	**-0.4**
KSH				Smax			
	comp=N,10μm,1.0s						
KSH				Smax			
	comp=E,8μm,0.5s						
SRNI	**Srinagar**	**3.65**	**197**	*e*x	x	03 59 51.0	
KZA	**Kyzart**	**4.51**	**352**	P	**Pn**	**03 59 46.0**	**+0.7**
	SNR=106						
CHCP	**Chirah Chowk**	**4.58**	**211**	⇓P	**Pn**	**03 59 47.6**	**+1.3**
ULHL	**Ulahol**	**4.63**	**1**	P	**Pn**	**03 59 48.8**	**+1.9**
	SNR=31						
UCH	**Uchtor**	**4.78**	**345**	P	**Pn**	**03 59 49.5**	**+0.6**
	SNR=185						
UCH	**Uchtor**	**4.78**	**345**	⇓*i*Pn	**Pn**	**03 59 49.2**	**+0.4**
UCH				*e*Sn	**Sn**	**04 00 38.4**	**-4.7**
AML	**Almayashu**	**4.89**	**338**	P	**Pn**	**03 59 51.2**	**+0.8**
	SNR=44						
AML	**Almayashu**	**4.89**	**338**	⇓*i*Pn	**Pn**	**03 59 50.5**	**+0.2**
AML				*e*Sn	**Sn**	**04 00 40.5**	**-5.3**
DLH	**Dalhousie**	**5.06**	**182**	*e*P	**Pn**	**03 59 54.0**	**+1.3**
DLH				*e*x	x	04 00 48.0	
CEP	**Cherat**	**5.10**	**223**	⇑P	**Pn**	**03 59 53.3**	**0.0**
CEP				S	**Sn**	**04 00 52.0**	**+1.0**
KBK	**Karagaybulak**	**5.12**	**350**	P	**Pn**	**03 59 54.6**	**+1.1**
	SNR=41						
AAK	**Ala-Archa**	**5.17**	**347**	P	**Pn**	**03 59 55.9**	**+1.7**
	SNR=57						
AAK	**Ala-Archa**	**5.17**	**347**	⇓*i*Pn	**Pn**	**03 59 53.8**	**-0.4**
	comp=E,67nm,0.6s						
AAK				*e*Sn	**Sn**	**04 00 49.8**	**-2.8**
AAK	**Ala-Archa**	**5.17**	**347**	*d i*PN	**Pn**	**03 59 53.8**	**-0.4**
AAK				pmax	pmax		
	comp=Z,64nm,1.5s						
THN	**Thein Dam**	**5.17**	**184**	*e*P	**Pn**	**03 59 55.1**	**+0.8**
THN				*e*x	x	04 00 50.1	
TKM2	**Tokmak 2**	**5.32**	**356**	P	**Pn**	**03 59 57.5**	**+1.2**
	SNR=76						
TKM2	**Tokmak 2**	**5.32**	**356**	⇑P	**Pn**	**03 59 56.9**	**+0.7**
	comp=Z,2.5nm,0.5s						
TKM2				⇓S	**Sn**	**04 00 51.1**	**-5.2**
	comp=Z,12nm,0.7s						
TKM2	**Tokmak 2**	**5.32**	**356**	⇓*i*Pn	**Pn**	**03 59 57.3**	**+1.0**
	comp=Z,38nm,0.5s						
TKM2				*e*Sn	**Sn**	**04 00 43.2**	**-13**
TKM2	**Tokmak 2**	**5.32**	**356**	PN	**Pn**	**03 59 56.9**	**+0.7**
TKM2				pmax	pmax		
	comp=Z,16nm,0.5s						
FRU	**Bishkek**	**5.34**	**348**	*i* PN	**Pn**	**03 59 58.0**	**+1.5**
FRU				pmax	pmax		
	comp=Z,120nm,1.8s						
EKS2	**Erkin-Say**	**5.36**	**341**	P	**Pn**	**03 59 57.5**	**+0.8**
	SNR=98						
EKS2	**Erkin-Say**	**5.36**	**341**	⇓*e*Pn	**Pn**	**03 59 57.3**	**+0.6**
	comp=Z,78nm,0.6s						
EKS2				*e*Sn	**Sn**	**04 00 54.1**	**-3.0**
CHMS	**Chumysh**	**5.49**	**349**	P	**Pn**	**03 59 59.9**	**+1.5**
	SNR=26						
USP	**Ospenovka**	**5.79**	**348**	P	**Pn**	**04 00 03.3**	**+0.8**
	SNR=19						
THW	**Thamme Wali**	**5.99**	**218**	⇑P	**Pn**	**04 00 04.6**	**-0.8**
SDNR	**Sundarnagar**	**6.13**	**173**	*e*P	**Pn**	**04 00 07.5**	**+0.2**
SDNR				*e*S	**Sn**	**04 01 10.6**	**-5.5**
BHK	**Bhakra**	**6.18**	**178**	*e*P	**Pn**	**04 00 09.0**	**+1.1**
KLP	**Kalpa**	**6.31**	**163**	*e*P	**Pn**	**04 00 10.7**	**+1.0**
KLP				*e*S	**Sn**	**04 01 18.1**	**-2.3**
KLP				AML	AML	04 01 24.5	
	comp=N,382nm,0.4s						
KLP				AML	AML	04 01 28.8	
	comp=E,494nm,0.4s						
SARP	**Sargodha**	**6.34**	**208**	P	**Pn**	**04 00 09.2**	**-0.9**
KBL	**Kabul**	**6.50**	**244**	*e*Pn	**Pn**	**04 00 11.1**	**-1.1**
KBL				*e*Sn	**Sn**	**04 01 20.3**	**-4.6**
SMLA	**Simla**	**6.52**	**172**	*e*P	**Pn**	**04 00 13.5**	**+1.0**
SMLA				*e*S	**Sn**	**04 01 19.9**	**-5.6**
SMLA				AML	AML	04 01 25.3	
SBDP	**Sheikh Budin**	**6.86**	**221**	⇓P	**Pn**	**04 00 15.6**	**-1.6**
KK31	**Karatay Array**	**6.96**	**324**	⇑P	**Pn**	**04 00 17.5**	**-0.9**
	comp=E,5.9nm,0.2s,baz=131,slow=13,SNR=278						
KK31				⇓S	**Sn**	**04 01 29.9**	**-6.2**
	comp=E,16nm,0.3s,baz=132,slow=23,SNR=10						
KKAR	**Karatay Array**	**6.96**	**324**	PN	**Pn**	**04 00 17.9**	**-0.5**
KKAR				pmax	pmax		
	comp=Z,4.0nm,0.2s						
DDI	**Dehra Dun**	**7.44**	**167**	*e*P	**Pn**	**04 00 26.8**	**+1.8**
DDI				*e*x	x	04 01 37.0	
JOSI	**Joshimath**	**7.59**	**157**	*e*P	**Pn**	**04 00 29.2**	**+2.2**
JOSI				*e*S	**Sn**	**04 01 47.8**	**-3.6**
JOSI				AML	AML	04 02 00.0	
	comp=N,405nm,0.5s						
JOSI				AML	AML	04 02 00.2	
	comp=E,483nm,0.7s						
DRP	**Derazinda**	**7.62**	**222**	⇓P	**Pn**	**04 00 26.7**	**-0.7**
DRP				S	**Sn**	**04 01 45.0**	**-7.0**
NDI	**New Delhi**	**8.95**	**174**	*e*P	**Pn**	**04 00 45.0**	**-0.5**
NDI				*e*S	**Sn**	**04 02 16.7**	**-7.8**
NDI				AML	AML	04 03 58.7	
	comp=E,22nm,0.4s						
NDI				AML	AML	04 03 59.8	
	comp=N,21nm,0.2s						
SONA	**Sohna**	**9.37**	**175**	*e*P	**Pn**	**04 00 50.7**	**-0.4**
SONA				*e*S	**Sn**	**04 02 27.3**	**-7.3**
SONA				AML	AML	04 02 32.7	
	comp=N,576nm,0.3s						
SONA				AML	AML	04 02 33.7	
	comp=E,2μm,0.5s						
KUDL	**Kundal**	**9.44**	**178**	*e*P	**Pn**	**04 00 51.6**	**-0.6**
KUDL				*e*S	**Sn**	**04 02 28.2**	**-8.3**
KUDL				AML	AML	04 02 33.1	
	comp=E,134nm,0.3s						
KUDL				AML	AML	04 02 33.7	
	comp=N,105nm,0.7s						
KHET	**Khetri**	**9.51**	**182**	*e*P	**Pn**	**04 00 51.8**	**-1.3**
KHET				*e*S	**Sn**	**04 02 29.0**	**-9.1**
KHET				AML	AML	04 02 36.2	
	comp=N,263nm,0.6s						
KHET				AML	AML	04 02 36.8	
	comp=E,174nm,0.3s						
MK31	**Makanchi Array**	**10.25**	**24**	P	**Pn**	**04 01 02.6**	**-0.4**
	comp=E,0.6nm,0.3s,baz=201,slow=12,SNR=23						
MK31				S	**Sn**	**04 02 52.9**	**-2.9**
	comp=E,5.3nm,0.7s,baz=198,slow=22,SNR=7.5						
MK31	**Makanchi Array**	**10.25**	**24**	*e*Pn	**Pn**	**04 01 02.7**	**-0.3**
MK31				*e*Sn	**Sn**	**04 02 53.2**	**-2.6**
MK31	**Makanchi Array**	**10.25**	**24**	*e*P	**Pn**	**04 01 02.7**	**-0.3**
MK31				*e*		04 02 53.2	
MKAR	**Makanchi Array**	**10.25**	**24**	P	**Pn**	**04 01 03.1**	**+0.1**
MKAR				S	**Sn**	**04 02 52.4**	**-3.4**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MKAR				smax			
	comp=N,1.0nm,0.3s						
MKAR	**Makanchi Array**	**10.25**	**24**	P	**Pn**	**04 01 03.0**	**+0.1**
	comp=N,1.2nm,0.3s,baz=184,slow=13,SNR=26						
MKAR				S	**Sn**	**04 02 52.4**	**-3.4**
	comp=N,0.7nm,0.3s,baz=199,slow=22,SNR=6.9						
WMQ	**Urumqi**	**10.75**	**51**	P	**Pn**	**04 01 09.0**	**-0.7**
WMQ				AP		04 01 13.0	
WMQ				S	**Sn**	**04 03 01.9**	**-6.0**
WMQ				AMB	AMB		
	comp=Z,35nm,0.4s						
GKN	**Gorkha**	**11.95**	**141**	*e*P	**Pn**	**04 01 24.5**	**-1.3**
	comp=Z,50nm,0.3s						
KKN	**Kakani**	**12.45**	**139**	*e*P	**Pn**	**04 01 31.1**	**-1.3**
	comp=Z,47nm,0.5s						
JIRN	**Jiri**	**13.04**	**137**	*e*P	**Pn**	**04 01 39.6**	**-0.5**
	comp=Z,31nm,0.2s						
KURK	**Kurchatov**	**13.22**	**7**	⇑P	**Pn**	**04 01 42.7**	**+0.4**
	comp=Z,12nm,0.6s						
KURK	**Kurchatov**	**13.22**	**7**	*e*Pn	**Pn**	**04 01 40.1**	**-2.2**
	comp=Z,29nm,0.6s						
KURK				*e*P		04 01 48.5	
KURK	**Kurchatov**	**13.22**	**7**	*e*P	**Pn**	**04 01 40.1**	**-2.2**
KURK				pmax	pmax		
	comp=Z,29nm,0.6s						
TAPN	**Taplejung**	**14.14**	**133**	*e*P	**Pn**	**04 01 52.6**	**-1.7**
	comp=Z,22nm,0.4s						
ODAN	**Odare**	**14.33**	**135**	*e*P	**Pn**	**04 01 54.6**	**-2.2**
	comp=Z,27nm,0.4s						
BHPL	**Bhopal**	**14.36**	**175**	*e*P	**Pn**	**04 01 57.2**	**-0.1**
BHPL				*e*x	x	04 04 28.3	
JBP	**Jabalpur**	**14.77**	**166**	⇑*e*P	**Pn**	**04 02 02.3**	**-0.1**
JBP				*i* x	x	04 04 33.0	
LSA	**Lhasa**	**14.78**	**118**	P	**Pn**	**04 02 05.8**	**+3.3**
LSA	**Lhasa**	**14.78**	**118**	*e*Pn	**Pn**	**04 02 05.0**	**+2.6**
	comp=Z,7.8nm,0.4s						
LSA	**Lhasa**	**14.78**	**118**	*e*P	**Pn**	**04 02 05.0**	**+2.5**
LSA				pmax	pmax		
	comp=Z,8.0nm,0.4s						
BHJ	**Bhuj**	**15.35**	**203**	*e*x	x	04 02 10.5	
BRVK	**Borovoye**	**15.98**	**347**	*e*Pn	**Pn**	**04 02 15.8**	**-1.5**
	comp=Z,20nm,0.9s						
BRVK	**Borovoye**	**15.98**	**347**	*e*P	**Pn**	**04 02 15.8**	**-1.5**
BRVK				pmax	pmax		
	comp=Z,20nm,0.9s						
AB31	**Akbulak array**	**16.50**	**320**	P	**Pn**	**04 02 23.6**	**-0.2**
	comp=Z,1.8nm,0.4s,baz=126,slow=12,SNR=35						
AB31				⇓S	**S**	**04 05 17.7**	**-13**
	comp=Z,2.0nm,0.6s,baz=123,slow=26,SNR=5.9						
AB31	**Akbulak array**	**16.50**	**320**	*i* P	**Pn**	**04 02 23.6**	**-0.2**
AB31				S	**S**	**04 05 12.7**	**-18**
AB31				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AB31				smax			
	comp=N,1.0nm,0.6s						
AKL	**Akola**	**16.86**	**177**	*e*P	**Pn**	**04 02 31.9**	**+3.5**
AKL				*e*x	x	04 05 26.9	
ZAL	**Zalesovo**	**17.39**	**17**	P	**Pn**	**04 02 34.9**	**+0.3**
ZAL				S	**S**	**04 05 43.0**	**-5.3**
ZAA0	**Zalesovo Array**	**17.41**	**17**	*e*P	**Pn**	**04 02 35.0**	**+0.2**
ZALV	**Zalesovo Beam**	**17.41**	**17**	P	**Pn**	**04 02 34.9**	**+0.2**
ZALV				S	**S**	**04 05 43.0**	**-5.6**
ZALV	**Zalesovo Beam**	**17.41**	**17**	P	**Pn**	**04 02 34.9**	**+0.2**
	comp=N,5.8nm,0.3s,baz=210,slow=11,SNR=49						
ZALV				S	**S**	**04 05 43.0**	**-5.6**
	comp=N,1.4nm,0.3s,baz=200,slow=12,SNR=5.2						
NVS	**Novosibirsk**	**17.91**	**13**	*e*P	**Pn**	**04 02 40.1**	**-0.6**
NVS				*e*S	**S**	**04 05 56.7**	**-2.8**
NVS				pmax	pmax		
	comp=N,19nm,0.7s						
NVS				pmax	pmax		
	comp=Z,16nm,0.7s						
NVS				pmax	pmax		
	comp=E,8.0nm,0.5s						
NVS				smax			
	comp=N,18nm,1.6s						
NVS				smax			
	comp=E,6.0nm,1.1s						
SHL	**Shillong**	**17.98**	**127**	*e*P	**Pn**	**04 02 40.5**	**-1.4**
SHL				*e*x	x	04 05 45.5	
AKTK	**Aktyubinsk**	**18.21**	**321**	P	**P**	**04 02 43.3**	**0.0**
AKTK				S	**S**	**04 05 57.4**	**-8.4**
AKTO	**Aktyubinsk**	**18.21**	**321**	P	**P**	**04 02 43.3**	**+0.1**
AKTO				S	**S**	**04 05 57.4**	**-8.3**
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.3s						
AKTO	**Aktyubinsk**	**18.21**	**321**	P	**P**	**04 02 43.3**	**0.0**
	comp=Z,2.2nm,0.3s,baz=118,slow=10,SNR=42						
AKTO				S	**S**	**04 05 57.4**	**-8.4**
	comp=Z,0.2nm,0.3s,baz=343,slow=19,SNR=3.1						
GTA	**Gaotai**	**18.62**	**77**	⇑P	**P**	**04 02 52.0**	**+4.2**
GTA				PPP		04 05 21.8	
GTA				AMB	AMB		
	comp=Z,18nm,0.7s						
GTA				AMB	AMB		
	comp=Z,81nm,7.6s						
GTA				LR	LR		
	comp=N,85nm,16.7s						
GTA				LR	LR		
	comp=E,193nm,15.2s						
GTA				LR	LR		
	comp=Z,89nm,14.4s						
POO	**Poona**	**19.11**	**187**	*e*x	**P**	**04 03 00.7**	**+7.3**
POO				AMP		04 03 06.4	
ARU	**Arti**	**22.19**	**334**	*e*P	**P**	**04 03 26.2**	**+0.2**
	comp=Z,13nm,1.0s,mb4.2						
ARU	**Arti**	**22.19**	**334**	⇑*e*P	**P**	**04 03 31.9**	**+5.9**
ARU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.0						

LZH	**Lanzhou**	22.21	85	⇓P	P	04 03 30.5	+4.1
LZH				AMB	AMB		
	comp=Z,18nm,1.0s,mb4.4						
LZH	**Lanzhou**	22.21	85	⇓P	P	04 03 30.5	+4.1
	comp=Z,18nm,1.0s,mb4.4						
LZH				pP		04 03 35.0	
LZH				sP	sP	04 03 37.6	-24
ZAK	**Zakamensk**	23.19	48	*e*P	P	04 03 38.2	+2.4
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.5						
SONM	**Songino Array**	24.33	56	P	P	04 03 49.2	+2.9
SONM				pmax	pmax		
	comp=Z,3.0nm,0.5s						
SONM	**Songino Array**	24.33	56	P	P	04 03 49.2	+3.0
	comp=Z,3.1nm,0.5s,mb3.9,baz=252,slow=9.2,SNR=47						
ULN	**Ulaanbaatar**	24.77	56	*e*Pn	P	04 03 52.5	+2.3
	comp=Z,2.0nm,0.8s,mb3.6						
ULN	**Ulaanbaatar**	24.77	56	*e*P	P	04 03 52.6	+2.4
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.6						
BRTR	**Keskin Array B**	33.02	287	P	P	04 05 04.6	+1.0
	comp=Z,0.2nm,0.4s,mb3.3,baz=261,slow=18,SNR=4.6						
NJ2	**Nanjing**	35.28	86	*e*P	P	04 05 29.8	+6.6
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.9						
AKASG	**Malin Array Be**	35.51	307	P	P	04 05 23.9	-1.0
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	**Malin Array Be**	35.51	307	P	P	04 05 23.9	-1.0
	comp=Z,0.5nm,0.3s,mb3.9,baz=73,slow=7.4,SNR=7.1						
JOF	**Joensuu**	37.05	328	*e*p	P	04 05 37.7	-0.1
	comp=Z,1.8nm,0.4s,mb4.3						
JOF	**Joensuu**	37.05	328	*e*P	P	04 05 37.7	-0.1
JOF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
FINES	**FINESS Array B**	38.92	324	P	P	04 05 53.7	+0.1
FINES				pmax	pmax		
	comp=Z,2.0nm,0.3s						
FINES	**FINESS Array B**	38.92	324	P	P	04 05 53.7	+0.1
	comp=Z,1.8nm,0.3s,mb4.4,baz=114,slow=9.1,SNR=32						
KAF	**Kangasniemi**	38.99	325	*e*p	P	04 05 52.1	-2.0
	comp=Z,1.1nm,0.3s,mb4.2,baz=105,slow=8.4						
KAF	**Kangasniemi**	38.99	325	*e*P	P	04 05 52.1	-2.0
KAF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.1						
KEV	**Kevo**	41.36	337	*e*p	P	04 06 14.7	+1.1
	comp=Z,7.8nm,0.8s,mb4.6						
KEV	**Kevo**	41.36	337	*e*P	P	04 06 14.7	+1.1
KEV				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
ARCES	**ARCESS Array B**	41.75	336	P	P	04 06 17.1	+0.3
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES	**ARCESS Array B**	41.75	336	P	P	04 06 17.1	+0.3
	comp=Z,3.6nm,0.8s,mb4.1,baz=110,slow=9.4,SNR=10						
NB2	**NORSAR Subarra**	45.99	322	P	P	04 06 50.1	-0.7
	comp=Z,0.7nm,0.4s,mb3.7,baz=91,slow=7.9						
NOA	**NORSAR Array B**	45.99	322	P	P	04 06 50.5	-0.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
NOA	**NORSAR Array B**	45.99	322	P	P	04 06 50.5	-0.3
	comp=Z,0.6nm,0.4s,mb3.7,baz=91,slow=7.6,SNR=6.7						
TORD	**Torodi Ar. Bea**	69.82	271	P	P	04 09 37.3	-0.5
	comp=Z,0.7nm,0.4s,mb3.9,baz=47,slow=5.6,SNR=50						
KDAK	**Kodiak Island**	76.56	24	P	P	04 10 16.9	+0.1
	comp=Z,8.6nm,1.2s,mb4.4,baz=112,slow=5.4,SNR=2.0						
WRA	**Warramunga Arr**	79.19	126	P	P	04 10 32.9	+1.0
	comp=Z,0.2nm,0.4s,mb3.3,baz=328,slow=5.5,SNR=10.0						
YKA	**Yellowknife Ar**	79.87	5	P	P	04 10 35.2	+0.3
YKA	**Yellowknife Ar**	79.87	5	P	P	04 10 35.2	+0.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
YKA	**Yellowknife Ar**	79.87	5	P	P	04 10 35.2	+0.3
	comp=Z,0.8nm,0.4s,mb3.9,baz=344,slow=5.7,SNR=22						
ASAR	**Alice Springs**	81.62	128	P	P	04 10 45.9	+1.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	**Alice Springs**	81.62	128	P	P	04 10 45.9	+1.1
	comp=Z,0.6nm,0.7s,mb3.6,baz=321,slow=5.6,SNR=9.9						

WEL 19 04:03:08.3±0.8**, 3602S**×**17849E, h207**^{km}±8^{km}**, ML3.5**/6**, Error ellipse: s-maj=17.2km s-min=13.2km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	1.55	185	PN	Pn	04 03 42.8	-0.3
MXZ				SN	Sn	04 04 09.5	-0.8
PUZ	**Puketiti**	2.06	185	PN	Pn	04 03 48.6	+0.6
PUZ				SN	Sn	04 04 18.0	-1.1
MWZ	**Matawai**	2.44	198	PN	Pn	04 03 52.7	+0.8
MWZ				*e*SN	Sn	04 04 26.6	+0.4
URZ	**Urewera**	2.50	206	PN	Pn	04 03 52.7	+0.1
URZ				SN	Sn	04 04 27.9	+0.6
KNZ	**Kokohu**	3.07	192	PN	Pn	04 03 59.2	+0.1
BFZ	**Birch Farm**	4.98	200	PN	Pn	04 04 21.5	-1.1
MRZ	**Mangatainoka R**	5.17	205	PN	Pn	04 04 23.6	-1.4

*SZGRF **19** 04:21:51.6, 5130N×15572E, h33^{km}, mb4.7, Northwest of Kuril Islands, Russia*

*MOS **19** 04:21:52.3±0.9, 5004N×15544E, h98^{km}, mb4.6/42, Error ellipse: s-maj=9.9km s-min=5.7km az=95.3*

*BJI **19** 04:21:55.1, 5009N×15558E, h134^{km}, mB4.6, mb4.6*

*ISCJB **19** 04:21:55.1±0.5, 5001N±005×15554E±007, h128^{km}±3^{km}, mb4.5/96, Error ellipse: s-maj=10.0km s-min=4.7km az=143.8*

*KRSC **19** 04:21:55.9±1.2, 4997N×15681E, h5^{km}±5^{km}, ML4.6*

*IDC **19** 04:21:55.8±0.5, 50.10N×15538E, h120^{km}±4^{km}, mb3.9/22, mb1 4.0/24, mb1mx4.0/27, mbtmp3.9/24, Error ellipse: s-maj=14.8km s-min=9.1km az=138.0*

*NEIC **19** 04:21:56.9±0.8, 5007N×15547E, h128^{km}±7^{km}, mb4.6/40, Error ellipse: s-maj=7.5km s-min=4.5km az=148.0*

ISC 19 04:21:56.5±0.5**, 5004N**±005×**15552E**±007**, h126**^{km}±3^{km}**, h125**^{km}±2.5^{km}**:pP-P, n258,** σ**0**^{s}**88**/277**, mb4.5**/96**, 9C-16D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	0.75	31	*e*PN	Pn	04 22 15.2	-1.6
SKR				*i*		04 22 21.7	
SKR				pmax	pmax		
	comp=N,280nm,0.3s						
SKR				pmax	pmax		
	comp=E,170nm,0.3s						
SKR				pmax	pmax		
	comp=Z,560nm,0.3s						
SKR				pmax	pmax		
	comp=N,2µm,1.0s						
SKR				pmax	pmax		
	comp=E,2µm,1.0s						
SKR				pmax	pmax		
	comp=Z,2µm,1.0s						
SKR				smax			
	comp=N,8µm,2.0s						
SKR				smax			
	comp=E,12µm,2.0s						
SKR				smax			
	comp=N,4µm,0.5s						
ALID	**Alaid**	0.83	1	*i* P	Pn	04 22 18.4	+0.9
ALID				*i* S	Sn	04 22 34.5	+1.1
MIPR	**Malaya Ipel'ka**	2.37	19	*i* P	Pn	04 22 36.0	+1.2
MIPR				*i* S	Sn	04 23 05.6	+1.3
GRL	**Gorelyy**	2.98	32	*i* P	Pn	04 22 44.0	+1.3
GRL				*i* S	Sn	04 23 18.5	+0.2
RUS	**Russkaya**	3.05	37	PN	Pn	04 22 42.4	-1.1
RUS				S	Sn	04 23 16.6	-3.2
RUS	**Russkaya**	3.05	37	*e*P	Pn	04 22 42.4	-1.1
RUS				*i* S	Sn	04 23 16.6	-3.2
PET	**Petropavlovsk**	3.57	32	*e*Pn	Pn	04 22 50.3	-0.1
PET				*e*Sn	Sn	04 23 35.5	+3.4
PET	**Petropavlovsk**	3.57	32	*e*PN	Pn	04 22 50.7	+0.3
PET				pmax	pmax		
	comp=Z,63nm,0.8s						
PET				MLR	MLR		
	comp=Z,200nm,15.0s						
PET	**Petropavlovsk**	3.57	32	P	Pn	04 22 51.0	+0.6
PET				*i* S	Sn	04 23 30.8	-1.3
SDLR	**Sedlovina**	3.86	32	*i* P	Pn	04 22 54.7	+0.5
SDLR				*i* S	Sn	04 23 36.9	-2.1
NLC	**Nalytchevo**	3.94	36	PN	Pn	04 22 53.6	-1.7
NLC				S	Sn	04 23 35.5	-5.3
NLC	**Nalytchevo**	3.94	36	P	Pn	04 22 53.6	-1.7
NLC				*i* S	Sn	04 23 35.5	-5.3
GNL	**Ganaly**	3.96	21	*i* P	Pn	04 22 57.1	+1.6
GNL				*e*S	Sn	04 23 41.1	-0.2
SPN	**Mys Shipunski**	4.16	41	PN	Pn	04 22 57.0	-1.2
SPN				S	Sn	04 23 40.8	-5.2
SPN	**Mys Shipunski**	4.16	41	*e*P	Pn	04 22 57.0	-1.2
SPN				*i* S	Sn	04 23 40.8	-5.2
MKZ	**Mys Kozlova**	5.91	38	PN	Pn	04 23 19.7	-2.0
MKZ	**Mys Kozlova**	5.91	38	*e*P	Pn	04 23 19.7	-2.0
MKZ				*i* S	Sn	04 24 20.2	-7.9
TUMR	**Tumrok**	5.96	26	*i* P	Pn	04 23 23.1	+0.8
KMNR	**Kamenistaya**	6.40	25	P	Pn	04 23 29.2	+1.0
KBTR	**Krutoberegovo**	7.58	33	PN	Pn	04 23 42.7	-1.4
KBTR	**Krutoberegovo**	7.58	33	*e*P	Pn	04 23 42.7	-1.4
MA2	**Magadan**	9.94	346	*e*Pn	Pn	04 24 17.5	+1.7
MA2	**Magadan**	9.94	346	*e*PN	Pn	04 24 17.1	+1.3
MA2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
ASAJ	**Asahikawa**	10.61	241	PN	Pn	04 24 24.0	-1.0
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	**Asahikawa**	10.61	241	P	Pn	04 24 24.0	-1.0
	comp=Z,1.5nm,0.3s,baz=72,slow=14,SNR=7.3						
HABR	**Khabarovsk**	13.46	271	*e*PN	Pn	04 25 08.8	+6.6
MDJ	**Mudanjiang**	18.35	263	P	P	04 26 00.3	-0.7
MDJ				XP	sP	04 26 40.1	+0.7
MDJ				S	S	04 29 22.9	-1.1
MDJ				SCP	ScP	04 33 49.5	-0.7
MDJ				PCS	PcS	04 34 03.3	+0.1
MDJ				AMB	AMB		
	comp=Z,7.0nm,0.7s						
MDJ				AMB	AMB		
	comp=Z,54nm,3.8s						
MDJ				LR	LR		
	comp=N,20nm,35.4s						
MDJ				LR	LR		
	comp=E,26nm,29.2s						
MDJ				LR	LR		
	comp=Z,45nm,25.5s						
MDJ	**Mudanjiang**	18.35	263	*e*P	P	04 26 00.0	-1.0
	comp=Z,29nm,0.8s						
MAT	**Matsushiro**	18.40	229	P	P	04 26 01.5	-0.2
MJAR	**Matsushiro Arr**	18.40	229	P	P	04 26 01.6	-0.1
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	**Matsushiro Arr**	18.40	229	P	P	04 26 01.6	-0.1
	comp=Z,1.3nm,0.3s,baz=25,slow=10,SNR=16						
YAK	**Yakutsk**	18.62	320	*e*P	P	04 26 04.1	+0.3
YAK	**Yakutsk**	18.62	320	*e*P	P	04 26 03.4	-0.4
YAK				*e*		04 29 28.2	
YAK				pmax	pmax		
	comp=Z,64nm,0.8s						
YAK				pmax	pmax		
	comp=N,22nm,1.2s						
YAK				pmax	pmax		
	comp=E,45nm,1.2s						
YAK				pmax	pmax		
	comp=N,18nm,1.3s						
YAK				pmax	pmax		
	comp=E,10.0nm,1.1s						
BILL	**Bilibino**	18.83	13	*e*P	P	04 26 05.5	-0.6
	comp=E,10.0nm,0.7s						
BILL	**Bilibino**	18.83	13	*d i*P	P	04 26 06.3	+0.2
BILL				pmax	pmax		
	comp=Z,18nm,1.2s						
CLNS	**Chul'man**	19.35	302	*e*P	P	04 26 13.9	+2.1
CLNS				pmax	pmax		
	comp=Z,30nm,0.8s						
CLNS				pmax	pmax		
	comp=N,17nm,1.1s						
CLNS				pmax	pmax		
	comp=E,23nm,1.0s						
CN2	**Changchun**	21.37	265	*e*P	P	04 26 32.8	-0.8
CN2				*e*AP		04 26 59.3	
CN2				*e*PP		04 27 02.9	
CN2				*e*S	S	04 30 16.6	-6.9
CN2				PCP	PcP	04 30 33.6	+1.4
CN2				*e*SS		04 31 01.4	
CN2				SCS	ScS	04 37 39.3	-1.9
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.2						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,200nm,19.0s						
CN2				LR	LR		
	comp=E,200nm,19.0s						
HIA	**Hailar**	23.04	282	*e*P	P	04 26 48.9	-1.6
	comp=E,15nm,0.8s,mb4.4						
HIA	**Hailar**	23.04	282	*e*P	P	04 26 48.9	-1.6
HIA				pmax	pmax		
	comp=Z,15nm,0.8s						
KSRS	**Korea Array**	23.42	248	P	P	04 26 52.8	-1.3
	comp=Z,4.3nm,0.6s,mb3.9,baz=46,slow=10,SNR=28						
TNA	**Tin City**	24.42	37	*e*P	P	04 27 03.6	+0.8
TIXI	**Tiksi**	24.83	340	*e*P	P	04 27 05.2	-1.4
TIXI	**Tiksi**	24.83	340	*e*P	P	04 27 03.2	-3.4
TIXI				*e*		04 27 34.0	
TIXI				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.4						
JNU	**Nakatsue**	24.84	236	P	P	04 27 07.2	+0.2
	comp=Z,45nm,0.8s,mb4.9,baz=56,slow=12,SNR=22						
BOD	**Bodaibo**	25.30	304	*e*P	P	04 27 10.4	-0.5
BOD				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb3.9						
CIT	**Chita**	26.21	291	*e*P	P	04 27 18.8	-0.3
BJI	**Beijing**	29.23	265	P	P	04 27 45.5	-0.7
BJI				AP	pP	04 28 13.5	+0.1
BJI				XP	sP	04 28 28.6	+0.7
BJI				PCP	PcP	04 30 49.6	-0.4
BJI				S	S	04 32 27.5	-2.0
BJI				XS	sS	04 33 18.3	+1.2
BJI				SCS	ScS	04 38 13.5	-0.7
BJI				AMB	AMB		
	comp=Z,2.0nm,0.4s,mb4.1						
BJI				AMB	AMB		
	comp=Z,126nm,4.9s						
HHC	**Hu-ho-hao-te**	31.77	270	*e*P	P	04 28 08.9	+0.3
HHC				AP	pP	04 28 36.3	+0.4
HHC				XP	sP	04 28 51.0	+0.6
HHC				PP	PP	04 29 19.1	-3.5
HHC				PCP	PcP	04 30 56.9	+0.2
HHC				S	S	04 33 08.1	-1.1
HHC				XS	sS	04 33 56.0	-0.9
HHC				SCP	ScP	04 34 28.6	+0.5
HHC				PCS	PcS	04 34 41.1	-0.2
HHC				SS	SS	04 35 07.4	-23
HHC				SCS	ScS	04 38 25.8	-0.7
HHC				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.4						
HHC				AMB	AMB		
	comp=Z,70nm,5.4s						
HHC				LR	LR		
	comp=N,106nm,15.7s						
HHC				LR	LR		
	comp=E,92nm,10.2s						
HHC				LR	LR		
	comp=Z,132nm,15.9s						
SONM	**Songino Array**	31.88	285	P	P	04 28 09.4	-0.1
SONM						04 30 57.2	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.4s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	**Songino Array**	31.88	285	P	P	04 28 09.4	-0.1
	comp=Z,0.7nm,0.4s,mb3.7,baz=68,slow=7.7,SNR=10						
SONM				PcP	PcP	04 30 57.2	+0.3
	comp=Z,1.2nm,0.6s,baz=101,slow=2.3,SNR=6.9						
TLY	**Talaya**	32.22	293	*e*P	P	04 28 13.1	+0.7
NJ2	**Nanjing**	32.55	250	*e*P	P	04 28 17.1	+1.6
NJ2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.8						
COLA	**College**	32.58	41	*e*P	P	04 28 15.7	+0.3
	comp=Z,13nm,0.9s,mb4.8						
COLA	**College**	32.58	41	*e*P	P	04 28 15.7	+0.3
COLA				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.8						
ZAK	**Zakamensk**	32.86	291	⇑*i*P	P	04 28 18.7	+0.7
ZAK				*e*	pP	04 28 49.5	+4.1
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
EGAK	**Eagle**	35.45	41	*e*P	P	04 28 39.5	-0.6
	comp=Z,14nm,1.1s,mb4.7						
INK	**Inuvik**	38.02	35	*e*P	P	04 29 02.4	+0.5
	comp=Z,154nm,0.6s						
INK	**Inuvik**	38.02	35	P	P	04 29 01.7	-0.2
	comp=Z,5.9nm,0.8s,mb4.5,baz=276,slow=8.1,SNR=7.3						
LZH	**Lanzhou**	39.45	269	⇑P	P	04 29 15.0	+0.8
LZH				AP	pP	04 29 44.3	+2.0
LZH				XP	sP	04 29 58.5	+1.9
LZH				PP	PP	04 30 52.3	+5.2
LZH				AMB	AMB		
	comp=Z,21nm,1.2s,mb4.8						
LZH				AMB	AMB		
	comp=Z,52nm,5.3s						
LZH				LR	LR		
	comp=N,215nm,13.6s						
LZH				LR	LR		
	comp=Z,367nm,17.3s						
LZH	**Lanzhou**	39.45	269	⇑P	P	04 29 15.0	+0.8
	comp=Z,21nm,1.2s,mb4.8						
LZH				pP	pP	04 29 44.2	+1.9
LZH				sP	sP	04 29 58.5	+1.9
LZH				PP	PP	04 30 52.3	+5.2
LZH				LR	LR		
	comp=Z,370nm,17.3s						
GTA	**Gaotai**	40.11	277	⇑P	P	04 29 20.0	+0.4
GTA				AP	pP	04 29 48.3	+0.6
GTA				XP	sP	04 30 03.3	+1.3
GTA				PP	PP	04 30 58.3	+4.1
GTA				PCP	PcP	04 31 22.3	+0.7
GTA				PPP		04 31 28.8	
GTA				SCP	ScP	04 34 58.4	-0.3
GTA				PCS	PcS	04 35 11.3	-0.7
GTA				S	S	04 35 17.3	+1.0
GTA				XS	sS	04 36 06.6	+1.4
GTA				SS	SS	04 38 14.0	-4.6
GTA				SCS	ScS	04 39 11.3	-1.2
GTA				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.7						
GTA				LR	LR		
	comp=N,111nm,15.6s						
GTA				LR	LR		
	comp=E,66nm,16.3s						
GTA				LR	LR		
	comp=Z,94nm,17.5s						
ZALV	**Zalesovo Beam**	42.05	304	P	P	04 29 34.6	-0.6
	comp=Z,7.0nm,0.6s,mb4.6,baz=64,slow=7.3,SNR=36						
ZALV				PcP	PcP	04 31 27.4	-0.2
	comp=Z,3.4nm,0.7s,baz=46,slow=4.3,SNR=7.0						
ZAL	**Zalesovo**	42.07	304	P	P	04 29 34.7	-0.7
ZAL						04 31 27.5	
NVS	**Novosibirsk**	42.52	305	*e*P	P	04 29 38.2	-0.9
CD2	**Chengdu**	42.80	263	P	P	04 29 41.6	0.0
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
CD2				AMB	AMB		
	comp=Z,30nm,5.2s						
GYA	**Guiyang**	44.02	256	P	P	04 29 52.3	+0.8
GYA				AP	pP	04 30 22.6	+2.6
GYA				XP	sP	04 30 37.8	+3.6
GYA				PCP	PcP	04 31 36.4	+1.7
GYA				PP	PP	04 31 38.1	+1.7
GYA				SCP	ScP	04 35 14.8	+0.2
GYA				PCS	PcS	04 35 28.4	+0.3
GYA				S	S	04 36 13.6	-0.5
GYA				XS	sS	04 37 06.3	+2.8
GYA				SCS	ScS	04 39 34.8	-2.1
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
WMQ	**Urumqi**	45.29	289	*e*P	P	04 30 03.9	+2.6
WMQ				AP	pP	04 30 32.6	+2.6
WMQ				XP	sP	04 30 47.1	+3.0
WMQ				PP	PP	04 31 52.3	+2.9
WMQ				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.5						
MK31	**Makanchi Array**	46.91	296	*e*P	P	04 30 13.6	-0.3
MKAR	**Makanchi Array**	46.91	296	*i* P	P	04 30 13.7	-0.2
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
MKAR	**Makanchi Array**	46.91	296	P	P	04 30 13.4	-0.5
	comp=Z,14nm,0.8s,mb4.7,baz=60,slow=7.6,SNR=139						
KURK	**Kurchatov**	46.93	302	*e*P	P	04 30 13.8	-0.2
RES	**Resolute Bay**	47.20	20	*e*P	P	04 30 16.4	+0.6
YKW3	**Yellowknife Ar**	47.31	39	*e*P	P	04 30 17.5	+0.8
YKA	**Yellowknife Ar**	47.34	39	P	P	04 30 17.4	+0.4
YKA				pP	pP	04 30 43.5	-2.4
YKA	**Yellowknife Ar**	47.34	39	P	P	04 30 17.4	+0.3
YKA				*PP	pP	04 30 43.5	-2.5
YKA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
YKA	**Yellowknife Ar**	47.34	39	P	P	04 30 17.4	+0.4
	comp=Z,2.5nm,0.7s,mb4.0,baz=299,slow=7.5,SNR=35						
YKA				pP	pP	04 30 43.5	-2.4
	comp=Z,0.4nm,0.6s,baz=296,slow=7.5,SNR=2.5						
KMI	**Kunming**	47.45	258	P	P	04 30 19.8	+1.5
KMI				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.3						
KMI	**Kunming**	47.45	258	P	P	04 30 19.7	+1.4
	comp=Z,6.0nm,0.9s,mb4.3						
KMI	**Kunming**	47.45	258	P	P	04 30 19.7	+1.4
KMI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
BRVK	**Borovoye**	50.08	308	*e*P	P	04 30 38.2	+0.1
	comp=Z,15nm,0.8s,mb5.0						
BRVK	**Borovoye**	50.08	308	*e*P	P	04 30 38.2	+0.1
BRVK				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
LSA	**Lhasa**	51.72	272	P	P	04 30 52.3	+1.6
LSA	**Lhasa**	51.72	272	*e*P	P	04 30 52.6	+1.9
	comp=Z,3.1nm,0.8s,mb4.4						
LSA	**Lhasa**	51.72	272	*e*P	P	04 30 52.6	+1.9
LSA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
TKM2	**Tokmak 2**	53.02	295	*e*P	P	04 31 00.7	+0.6
	comp=Z,1.5nm,0.4s,mb4.4						
TKM2	**Tokmak 2**	53.02	295	*e*P	P	04 31 00.7	+0.6
TKM2				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
ARU	**Arti**	53.69	317	*e*P	P	04 31 03.3	-1.5
	comp=Z,15nm,0.8s,mb5.1						
ARU	**Arti**	53.69	317	⇑*e*P	P	04 31 04.0	-0.8
ARU				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
AAK	**Ala-Archa**	53.84	295	*e*P	P	04 31 04.7	-1.4
	comp=Z,2.2nm,0.4s,mb4.5						
AAK	**Ala-Archa**	53.84	295	*c i*P	P	04 31 05.3	-0.8
AAK				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.6						
SHL	**Shillong**	54.08	268	*e*P	P	04 31 08.5	+0.5
EKS2	**Erkin-Say**	54.24	296	*e*P	P	04 31 09.6	+0.6
	comp=Z,2.3nm,0.5s,mb4.5						
CHTO	**Chiang Mai**	54.45	256	*e*P	P	04 31 12.1	+1.3
	comp=Z,55nm,1.3s,mb5.4						
CHTO	**Chiang Mai**	54.45	256	*e*P	P	04 31 12.1	+1.3
CHTO				pmax	pmax		
	comp=Z,55nm,1.3s,mb5.4						
KEV	**Kevo**	54.77	341	*e*p	P	04 31 08.4	-4.0
APA	**Apatity**	54.95	337	*e*P	P	04 31 10.5	-3.2
ARCES	**ARCESS Array B**	55.27	341	P	P	04 31 14.3	-1.7
ARCES	**ARCESS Array B**	55.27	341	P	P	04 31 14.3	-1.7
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES	**ARCESS Array B**	55.27	341	P	P	04 31 14.3	-1.7
	comp=Z,3.8nm,0.8s,mb4.5,baz=37,slow=7.9,SNR=4.0						
FFC	**Flin Flon**	57.21	42	*e*P	P	04 31 30.1	+0.2
	comp=Z,6.0nm,1.1s,mb4.5						
FFC	**Flin Flon**	57.21	42	*e*P	P	04 31 30.1	+0.2
FFC				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
AB31	**Akbulak array**	57.56	309	*i* P	P	04 31 32.2	-0.3
AB31				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
FCC	**Fort Churchill**	57.64	35	*e*P	P	04 31 33.0	+0.1
	comp=Z,7.4nm,0.8s,mb4.8						
FCC	**Fort Churchill**	57.64	35	*e*P	P	04 31 33.1	+0.2
FCC				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
JOF	**Joensuu**	59.09	334	*e*p	P	04 31 41.5	-1.4
	comp=Z,2.7nm,0.7s,mb4.4						
JOF	**Joensuu**	59.09	334	*e*P	P	04 31 41.5	-1.4
JOF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
NVAR	**Mina Array Bea**	59.55	65	P	P	04 31 47.3	+0.8
NVAR				pP	pP	04 32 16.5	0.0
NVAR	**Mina Array Bea**	59.55	65	P	P	04 31 47.3	+0.8
	comp=Z,0.3nm,0.5s,mb3.6,baz=309,slow=5.7,SNR=3.6						
NVAR				pP	pP	04 32 16.5	0.0

	comp=Z,0.7nm,0.6s,baz=305,slow=7.2,SNR=5.6						
LOHW	Long Hollow	60.42	56	eP	P	04 31 49.4	-2.9
	comp=Z,4.2nm,1.0s,mb4.4						
KAF	Kangasniemi	61.12	335	ep	P	04 31 54.7	-2.1
	comp=Z,1.6nm,0.4s,mb4.4,baz=33,slow=6.4						
KAF	Kangasniemi	61.12	335	eP	P	04 31 54.7	-2.1
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
PDAR	Pinedale Array	61.55	57	P	P	04 32 00.8	+0.9
	comp=Z,1.3nm,0.9s,mb4.0,baz=302,slow=2.8,SNR=8.8						
PDAR				pP	pP	04 32 30.1	-0.2
	comp=Z,3.5nm,0.8s,baz=316,slow=2.6,SNR=17						
FINES	FINESS Array B	61.74	335	P	P	04 31 59.6	-1.3
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES	FINESS Array B	61.74	335	P	P	04 31 59.6	-1.4
	comp=Z,3.3nm,0.7s,mb4.5,baz=37,slow=6.3,SNR=14						
ULM	Lac du Bonnet	63.00	43	P	P	04 32 09.4	-0.1
	comp=Z,1.7nm,0.9s,mb4.0,baz=309,slow=8.3,SNR=3.8						
OBN	Obninsk	63.49	326	eP	P	04 32 11.5	-1.2
OBN				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
NB2	NORSAR Subarra	65.62	342	P	P	04 32 24.9	-1.5
	comp=Z,2.8nm,0.7s,mb4.2,baz=24,slow=6.9						
NOA	NORSAR Array B	65.62	342	P	P	04 32 25.2	-1.2
NOA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NOA	NORSAR Array B	65.62	342	P	P	04 32 25.1	-1.2
	comp=Z,2.7nm,0.8s,mb4.2,baz=24,slow=6.5,SNR=10.0						
SDCO	Great Sand Dun	67.29	58	eP	P	04 32 41.3	+3.9
	comp=Z,7.6nm,1.2s,mb4.4						
KIV	Kislovodsk	69.64	315	eP	P	04 32 52.2	+0.3
KIV				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
SCHQ	Schefferville	69.65	25	P	P	04 32 51.7	-0.1
SCHQ	Schefferville	69.65	25	P	P	04 32 51.7	-0.1
	comp=Z,2.8nm,0.5s,mb4.4,baz=346,slow=5.6,SNR=24						
AKASG	Malin Array Be	69.69	327	P	P	04 32 50.5	-1.6
AKASG	Malin Array Be	69.69	327	P	P	04 32 50.5	-1.6
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	Malin Array Be	69.69	327	P	P	04 32 50.5	-1.6
	comp=Z,2.4nm,0.5s,mb4.3,baz=32,slow=6.3,SNR=8.5						
ANN	Anapa	71.30	318	eP	P	04 33 06.7	+4.7
ANN				pmax	pmax		
	comp=Z,85nm,1.1s,mb5.5						
WRA	Warramunga Arr	72.15	201	P	P	04 33 06.6	-0.6
WRA				*PP	pP	04 33 36.1	-2.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	72.15	201	P	P	04 33 06.6	-0.6
	comp=Z,1.1nm,0.8s,mb3.8,baz=19,slow=6.3,SNR=15						
WRA				pP	pP	04 33 36.1	-2.2
	comp=Z,1.3nm,0.7s,baz=15,slow=6.2,SNR=6.3						
FITZ	Fitzroy Crossi	72.80	210	P	P	04 33 11.2	+0.1
	comp=Z,0.9nm,0.8s,mb3.7,baz=333,slow=9.2,SNR=5.2						
FITZ				pP	pP	04 33 41.4	-0.9
	comp=Z,0.9nm,0.6s,baz=31,slow=22,SNR=2.8						
STHS	Stebnicka Huta	73.45	331	eP	P	04 33 14.5	-0.1
	comp=Z,3.8nm,1.3s,mb4.1						
STHS	Stebnicka Huta	73.45	331	eP	P	04 33 14.5	-0.1
STHS				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.1						
BURAR	Bucovina Array	73.70	327	⇑P	P	04 33 16.1	0.0
BURAR	Bucovina Array	73.70	327	⇑iP	P	04 33 16.1	0.0
UPC	Upice	74.03	334	eP	P	04 33 18.6	+0.6
DPC	Dobruska-Polom	74.08	334	eP	P	04 33 19.0	+0.7
CLL	Collm	74.11	337	i P	P	04 33 18.1	-0.3
TRPA	Tarpa	74.16	329	⇓iP	P	04 33 19.4	+0.6
MORC	Moravsky Berou	74.25	333	⇓iP	P	04 33 19.9	+0.6
FBE	Freiberg	74.37	336	eP	P	04 33 19.8	-0.2
	comp=Z,79nm,3.1s						
TXAR	Lajitas Array	74.52	63	P	P	04 33 21.3	+0.1
TXAR				*PP	pP	04 33 51.6	-0.9
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
TXAR	Lajitas Array	74.52	63	P	P	04 33 21.2	0.0
	comp=Z,0.8nm,0.7s,mb3.5,baz=302,slow=4.3,SNR=10						
TXAR				pP	pP	04 33 51.6	-1.0
	comp=Z,2.0nm,0.7s,baz=298,slow=4.4,SNR=8.4						
PRU	Pruhonice	74.90	335	eP	P	04 33 23.7	+0.6
VYHS	Vyhne	75.01	332	eP	P	04 33 24.1	+0.4
MOX	Moxa	75.07	337	eP	P	04 33 24.2	+0.2
	comp=Z,11nm,1.7s,mb4.3						
WERD	Werda	75.07	337	eP	P	04 33 24.2	+0.2
	comp=Z,6.0nm,1.5s,mb4.1						
NKC	Novy Kostel	75.23	336	eP	P	04 33 27.8	+2.9
MLR	Muntele Rosu	75.27	326	⇓P	P	04 33 25.9	+0.6
MLR	Muntele Rosu	75.27	326	⇓iP	P	04 33 25.9	+0.7
DRGR		75.27	329	⇓P	P	04 33 25.5	+0.3
DRGR		75.27	329	⇓iP	P	04 33 25.5	+0.3
TREC	Trest	75.27	334	eP	P	04 33 26.7	+1.5
VOIR		75.63	326	⇑iP	P	04 33 28.1	+0.8
ROTZ	Rotzenmuhle	75.72	336	eP	P	04 33 27.5	-0.2
	comp=Z,8.0nm,1.6s,mb4.2						
ASAR	Alice Springs	75.84	200	P	P	04 33 29.0	+0.4
ASAR				*PP	pP	04 33 59.4	-0.6
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	75.84	200	P	P	04 33 28.9	+0.4
	comp=Z,0.7nm,0.6s,mb3.5,baz=16,slow=5.4,SNR=8.7						
ASAR				pP	pP	04 33 59.4	-0.6
	comp=Z,0.7nm,0.7s,baz=16,slow=4.9,SNR=4.5						
KHC	Kasperske Hory	75.94	335	eP	P	04 33 29.4	+0.4
GRA1	Grafenberg Arr	76.04	337	eP	P	04 33 30.2	+0.6
	comp=Z,11nm,0.9s,mb4.6						
GRF	Grafenberg Arr	76.04	337	eP	P	04 33 30.2	+0.6
GRF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
GRF	Grafenberg Arr	76.04	337	eP	P	04 33 30.2	+0.6
GRF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
GRF	Grafenberg Arr	76.04	337	eP	P	04 33 30.2	+0.6
	comp=Z,11nm,0.9s,mb4.6						
MALT	Malatya	76.06	314	⇓P	P	04 33 31.0	+1.2
MALT	Malatya	76.06	314	⇓iP	P	04 33 31.0	+1.1
GEC2	GERESS Array S	76.17	335	eP	P	04 33 30.5	+0.2
GEC2				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.1						
GEC2	GERESS Array S	76.17	335	eP	P	04 33 30.5	+0.2
	comp=Z,4.0nm,1.1s,mb4.1						
GERES	GERESS Array B	76.17	335	P	P	04 33 30.7	+0.4
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	76.17	335	P	P	04 33 30.7	+0.4
	comp=Z,1.2nm,0.6s,mb3.8,baz=31,slow=5.1,SNR=16						
TNS	Taunus Mts	76.22	339	eP	P	04 33 30.5	-0.1
TNS				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.5						
TNS	Taunus Mts	76.22	339	eP	P	04 33 30.5	-0.1
	comp=Z,13nm,1.4s,mb4.5						
MEM	Membach	76.40	341	P	P	04 33 32.3	+0.8
GZR	Gura Zlata	76.47	328	⇓P	P	04 33 32.2	+0.2
GZR	Gura Zlata	76.47	328	⇓iP	P	04 33 32.2	+0.2
BZS	Buzias	76.67	329	⇓P	P	04 33 33.0	-0.2
BZS	Buzias	76.67	329	⇓iP	P	04 33 33.0	-0.1
BCLA	Clavier	76.73	341	P	P	04 33 33.8	+0.3
BRTR	Keskin Array B	77.06	318	P	P	04 33 34.7	-0.8
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
BRTR	Keskin Array B	77.06	318	P	P	04 33 34.6	-0.8
	comp=Z,4.7nm,0.9s,mb4.2,baz=51,slow=3.4,SNR=20						
PKSM	Moragy	77.10	331	⇓iP	P	04 33 35.2	-0.4
BAIF	Baives	77.30	342	eP	P	04 33 36.4	-0.2
	comp=Z,15nm,1.0s,mb4.3						
BAIF	Baives	77.30	342	eP	P	04 33 36.4	-0.2
	comp=Z,7.3nm,1.0s,mb4.4						
BAIF	Baives	77.30	342	eP	P	04 33 36.4	-0.2
BAIF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.3						
PERS	Pernice	77.79	333	eP	P	04 33 39.8	+0.4
GROS	Grobnik	77.83	333	i P	P	04 33 40.1	+0.5
CDF	Champ du Feu	78.19	339	eP	P	04 33 41.4	-0.2
	comp=Z,26nm,1.1s,mb4.6						
CDF	Champ du Feu	78.19	339	eP	P	04 33 41.4	-0.2
	comp=Z,13nm,1.1s,mb4.6						
CDF	Champ du Feu	78.19	339	eP	P	04 33 41.4	-0.2
CDF				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.6						
UMR	Umm Al-Rimmam	78.27	302	eP	P	04 33 41.9	-0.4
UMR				AMb	AMB	04 33 43.0	
	comp=Z,31nm,0.5s,mb5.3						
MIB	Mutribah	78.28	303	eP	P	04 33 41.7	-0.7
MIB				AMb	AMB	04 33 43.4	
	comp=Z,60nm,0.6s,mb5.5						
GCIS	Gornji Cirnik	78.33	333	eP	P	04 33 42.4	0.0
CRES	Cresnjev	78.42	333	i P	P	04 33 42.9	0.0
KBD	Kabd	78.58	302	eP	P	04 33 43.4	-0.6
KBD				AMb	AMB	04 33 46.8	
	comp=Z,154nm,0.8s						
VTS	Vitosha	78.76	326	⇓P	P	04 33 45.2	+0.3
VTS	Vitosha	78.76	326	⇓iP	P	04 33 45.2	+0.4
NAY	Al-Naaiem	78.76	302	eP	P	04 33 43.8	-1.3
NAY				AMb	AMB	04 33 46.6	
	comp=Z,24nm,0.9s,mb5.0						
HAU	Haudompre	78.78	339	eP	P	04 33 44.6	-0.2
	comp=Z,13nm,0.9s,mb4.5						
HAU	Haudompre	78.78	339	eP	P	04 33 44.6	-0.2
	comp=Z,6.4nm,0.9s,mb4.5						
HAU	Haudompre	78.78	339	eP	P	04 33 44.6	-0.2
HAU				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.4						
QRN	Al-Qurain	78.79	301	eP	P	04 33 45.0	-0.2
QRN				AMb	AMB	04 33 50.4	
	comp=Z,102nm,1.3s,mb5.5						
HINF	Hinteralfeld	78.84	339	eP	P	04 33 44.6	-0.6
	comp=Z,6.4nm,0.9s,mb4.2						
HINF	Hinteralfeld	78.84	339	eP	P	04 33 44.6	-0.6
	comp=Z,3.2nm,0.9s,mb4.2						
HINF	Hinteralfeld	78.84	339	eP	P	04 33 44.6	-0.6
HINF				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.1						
FLN	La Foliniere	79.44	344	eP	P	04 33 48.0	-0.4
	comp=Z,38nm,0.9s,mb4.9						
FLN	La Foliniere	79.44	344	eP	P	04 33 48.0	-0.4
	comp=Z,19nm,0.9s,mb4.9						
FLN	La Foliniere	79.44	344	eP	P	04 33 48.0	-0.4
FLN				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.9						
LDF	La Druitiere	79.54	344	eP	P	04 33 48.6	-0.3
	comp=Z,12nm,0.6s,mb4.6						
LDF	La Druitiere	79.54	344	eP	P	04 33 48.6	-0.3
	comp=Z,6.1nm,0.6s,mb4.6						
LDF	La Druitiere	79.54	344	eP	P	04 33 48.6	-0.3
LDF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.6						
GRR	Gorron	79.86	344	eP	P	04 33 50.7	0.0
	comp=Z,58nm,0.8s,mb5.2						
GRR	Gorron	79.86	344	eP	P	04 33 50.7	0.0
	comp=Z,29nm,0.8s,mb5.2						
GRR	Gorron	79.86	344	eP	P	04 33 50.7	0.0
GRR				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.2						
LOR	Lormes	80.03	341	eP	P	04 33 51.2	-0.4
	comp=Z,38nm,1.2s,mb4.8						
LOR	Lormes	80.03	341	eP	P	04 33 51.2	-0.4
	comp=Z,19nm,1.2s,mb4.8						
LOR	Lormes	80.03	341	eP	P	04 33 51.2	-0.4
LOR				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.8						
CABF	La Chapelle	80.16	339	eP	P	04 33 52.4	+0.1
	comp=Z,35nm,1.2s,mb4.8						
HYF	Humbligny	80.28	342	eP	P	04 33 53.1	+0.2
SGMF	Saint Gilles	80.28	345	eP	P	04 33 53.0	+0.1
	comp=Z,54nm,0.7s,mb5.2						
SSF	Saint Saulge	80.30	341	eP	P	04 33 52.8	-0.2
	comp=Z,6.6nm,0.7s,mb4.3						
SSF	Saint Saulge	80.30	341	eP	P	04 33 52.8	-0.2
	comp=Z,3.3nm,0.7s,mb4.3						
SSF	Saint Saulge	80.30	341	eP	P	04 33 52.8	-0.2
SSF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.2						
ROSF	Rostrenen	80.32	346	eP	P	04 33 53.2	+0.1
	comp=Z,81nm,1.0s,mb5.2						
AVF	Avril sur Loir	80.59	341	eP	P	04 33 54.5	-0.1
	comp=Z,16nm,0.8s,mb4.6						
AVF	Avril sur Loir	80.59	341	eP	P	04 33 54.5	-0.1
	comp=Z,8.3nm,0.8s,mb4.6						
AVF	Avril sur Loir	80.59	341	eP	P	04 33 54.5	-0.1
AVF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
SMF	Signal de Mont	80.62	341	eP	P	04 33 54.5	-0.3
	comp=Z,43nm,1.2s,mb4.9						
QUIF	Quistinic	80.71	346	eP	P	04 33 55.1	-0.1
	comp=Z,19nm,0.9s,mb4.6						
BGF	Bois d'Agland	80.92	341	eP	P	04 33 56.4	+0.1
	comp=Z,10.0nm,0.6s,mb4.5						
BGF	Bois d'Agland	80.92	341	eP	P	04 33 56.4	+0.1
	comp=Z,5.0nm,0.6s,mb4.5						
BGF	Bois d'Agland	80.92	341	eP	P	04 33 56.4	+0.1
BGF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.5						
LPL	La Plagne	81.04	338	eP	P	04 33 58.0	+1.0
	comp=Z,25nm,0.6s,mb4.9						
LPG	La Plagne	81.05	338	eP	P	04 33 58.1	+1.0
	comp=Z,33nm,0.7s,mb5.0						
TCF	Toulx Ste Croi	81.30	342	eP	P	04 33 58.5	+0.1
	comp=Z,12nm,0.7s,mb4.5						
TCF	Toulx Ste Croi	81.30	342	eP	P	04 33 58.5	+0.1
	comp=Z,6.0nm,0.7s,mb4.5						
TCF	Toulx Ste Croi	81.30	342	eP	P	04 33 58.5	+0.1
TCF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.5						
MFF	Saint Martin d	81.46	343	eP	P	04 33 59.5	+0.3
	comp=Z,31nm,0.9s,mb4.9						
MFF	Saint Martin d	81.46	343	eP	P	04 33 59.5	+0.3
	comp=Z,16nm,0.9s,mb4.8						
MFF	Saint Martin d	81.46	343	eP	P	04 33 59.5	+0.3
MFF				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
MBDF	Montbardon	81.77	338	eP	P	04 34 01.0	+0.1
	comp=Z,4.6nm,0.5s,mb4.2						
ORIF	Oris-en-Rattie	81.80	339	eP	P	04 34 01.7	+0.6
	comp=Z,17nm,0.7s,mb4.7						
VIVF	Saint-Julien-l	82.14	340	eP	P	04 34 03.2	+0.4
	comp=Z,34nm,1.0s,mb4.8						
VIVF	Saint-Julien-l	82.14	340	eP	P	04 34 03.2	+0.4
	comp=Z,17nm,1.0s,mb4.8						
VIVF	Saint-Julien-l	82.14	340	eP	P	04 34 03.2	+0.4
VIVF				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.8						
RJF	Les Rejaudoux	82.39	342	eP	P	04 34 04.2	+0.1
CAF	Calviac	82.64	341	eP	P	04 34 06.0	+0.6
	comp=Z,15nm,0.7s,mb4.7						
CAF	Calviac	82.64	341	eP	P	04 34 06.0	+0.6
	comp=Z,7.6nm,0.7s,mb4.6						
CAF	Calviac	82.64	341	eP	P	04 34 06.0	+0.6
CAF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.7						
LFF	La Frestale	82.89	342	eP	P	04 34 07.1	+0.4
	comp=Z,42nm,0.9s,mb5.0						
LFF	La Frestale	82.89	342	eP	P	04 34 07.1	+0.4
	comp=Z,21nm,0.9s,mb5.0						
LFF	La Frestale	82.89	342	eP	P	04 34 07.1	+0.4
LFF				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.0						
FRF	La Foret Royal	82.90	338	eP	P	04 34 06.6	-0.2
	comp=Z,23nm,1.0s,mb4.7						
LMR	La Mourre	83.15	338	eP	P	04 34 08.0	-0.1
	comp=Z,50nm,1.1s,mb4.9						
PGF	Pioggiola	83.25	336	eP	P	04 34 08.3	-0.3
	comp=Z,22nm,0.8s,mb4.7						
MTLF	Montolieu	84.12	341	eP	P	04 34 13.4	+0.4
	comp=Z,18nm,1.0s,mb4.6						
MTLF	Montolieu	84.12	341	eP	P	04 34 13.4	+0.4
	comp=Z,8.8nm,1.0s,mb4.5						
MTLF	Montolieu	84.12	341	eP	P	04 34 13.4	+0.4
MTLF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
EPF	Esparros	84.80	342	eP	P	04 34 16.3	-0.2
	comp=Z,19nm,1.0s,mb4.7						
ETSF	Etsaut	85.11	343	eP	P	04 34 18.9	+0.9
	comp=Z,6.8nm,0.7s,mb4.4						
ESDC	Sonseca Array	88.86	344	P	P	04 34 35.2	-1.0
	comp=Z,1.0nm,0.7s,mb4.0,baz=6.6,slow=3.7,SNR=7.5						
TORD	Torodi Ar. Bea	113.01	332	PKiKP	PKiKP	04 40 18.1	-0.8
	comp=Z,0.2nm,0.6s,baz=15,slow=0.4,SNR=4.9						

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*NIED **19** 04:29:00, 24.60N×125.50E, h11^{km}, Mw3.6 Best double couple: M$_0$2.58000×10^{14} NP1:φ$_s$310.00000°, δ46.00000°, λ-152.00000°. NP2:φ$_s$199.00000°, δ70.00000°, λ-48.00000°.*

*IDC **19** 04:29:05.7±6.2, 24.79N×125.48E, h0^{km}, mb3.5/3, mb1 3.8/3, mb1mx3.4/20, mbtmp3.5/3, Error ellipse: s-maj=359.9km s-min=29.5km az=61.0*

*ISCJB **19** 04:29:06.3±1.5, 24.59N±0.06×125.48E±0.05, h5^{km}±8^{km}, mb3.4/3, Error ellipse: s-maj=11.9km s-min=5.0km az=142.5*

*JMA **19** 04:29:06.8, 24.61N×125.47E, h7^{km}±1^{km}, M4.0*

JMA Felt II J1.

ISC 19 04:29:07.2±1.5**, 24.60N**±0.06×**125.44E**±0.06**, h4**^{km}±7^{km}**, n12, σ0^{s}64**/19**, mb3.4**/3**, Southwestern Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOGS	Gusukube	0.16	349	P	Pg	04 29 10.3	-0.1
JOGS				S	Sg	04 29 12.7	+0.2
JMJ	Miyako jima 2	0.25	328	P	Pg	04 29 12.2	+0.2
JMJ				S	Sg	04 29 15.8	+0.5
JTJ	Tarama	0.67	274	P	Pg	04 29 20.2	+0.1
JTJ				S	Sg	04 29 29.4	+0.6
JIJ	Ishigaki jima	1.20	259	P	Pg	04 29 29.3	-1.0
JIJ				eS	Sg	04 29 45.0	-0.9
JKRS	Kuro-shima	1.35	255	P	Pn	04 29 32.7	-0.1
JKRS				eS	Sg	04 29 50.8	+0.2
IRIF	Iriomote-Funau	1.58	261	P	Pn	04 29 35.7	-0.3
IRIF				eS	Sn	04 29 56.7	-0.2
HATJ	Hateruma jima	1.59	250	P	Pn	04 29 36.8	+0.7
HATJ				eS	Sn	04 29 57.8	+0.8
JKE	Kume jima 2	2.11	35	eS	Sn	04 30 09.4	-0.5
JAGN	Aguni-jima	2.56	39	eS	Sn	04 30 21.5	+0.3
MKAR	Makanchi Array	40.79	314	P	P	04 36 47.7	-1.8
	0.2nm,0.5s,mb3.0,baz=107,slow=9.4,SNR=4.0						
WRA	Warramunga Arr	45.11	168	P	P	04 37 25.0	+0.2
	0.7nm,0.8s,mb3.5,baz=350,slow=8.8,SNR=6.7						
ASAR	Alice Springs	48.68	170	P	P	04 37 53.5	+0.8
	0.4nm,0.5s,mb3.7,baz=351,slow=6.7,SNR=5.4						

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*SZGRF **19** 04:55:25.1, 21.25S×173.00W, h49^{km}, Tonga Islands*

*ISCJB **19** 04:55:37.7±0.3, 15.40S±0.07×173.59W±0.06, h42^{km}, mb4.6/36, MS4.2/24, Error ellipse: s-maj=11.4km s-min=6.9km az=144.4*

*BJI **19** 04:55:38.2, 15.40S×173.60W, h35^{km}, mB5.0, mb4.8, Ms5.1, Msz4.5*

*NEIC **19** 04:55:38.3±0.2, 15.36S×173.62W, h35^{km}, mb4.7/16, Error ellipse: s-maj=10.7km s-min=6.7km az=143.0*

*GCMT **19** 04:55:38.3±0.2, 15.25S×173.11W, h78^{km}±2^{km}, MW5.1/76, Moment Tensor Solution. s46,c59; s76,c104; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.44±.18; M$_{\theta\theta}$-0.12±.20; M$_{\phi\phi}$-1.33±.20; M$_{r\theta}$-3.44±.10; M$_{\theta\phi}$1.63±.20; M$_{\phi r}$2.66±.10; Best double couple: M$_0$4.80500×10^{16} NP1:φ$_s$175.00000°, δ16.00000°, λ137.00000°. NP2: φ$_s$307.00000°, δ79.00000°, λ78.00000°. Principal axes: T 4.4340, Plg55.0000°, Azm203.0000°; N 0.7360, Plg12.0000°, Azm310.0000°; P -5.1750, Plg33.0000°, Azm47.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **19** 04:55:40.3±0.5, 15.34S×173.59W, h56^{km}±4^{km}, mb4.1/14, mb1 4.3/15, mb1mx4.3/18, mbtmp4.1/15, MS4.1/19, Ms1 4.1/19, ms1mx4.0/23 Error ellipse: s-maj=22.5km s-min=12.3km az=138.0*

ISC 19 04:55:39.5±0.3**, 15.40S**±0.07×**173.60W**±0.06**, h42**^{km}**, h42**^{km}±3.8^{km}**:pP-P, n194, σ0^{s}75**/127**, mb4.6**/36**, MS4.2**/24**, 36C-31D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.30	50	P	Pn	04 56 08.2	-6.8
	931nm,0.3s,baz=134,slow=0.9,SNR=530						
AFI				S	Sn	04 56 28.1	-14
	2μm,0.3s,baz=58,slow=23,SNR=24						
AFI				LR	LR	04 56 51.6	
	comp=Z,4μm,20.9s,baz=188,slow=32						
RAR	Rarotonga	14.34	116	P	Pn	04 58 58.8	-1.2
RAR				LR	LR	05 03 24.1	
RAR	Rarotonga	14.34	116	P	Pn	04 58 58.8	-1.2
	2.6nm,0.3s,baz=240,slow=3.8,SNR=3.5						
RAR				LR	LR	05 03 24.1	
	comp=Z,345nm,20.6s,baz=58,slow=32						
RAR				T		05 13 46.5	
	39nm,0.3s,baz=135,slow=13,SNR=6.6						
DZM	Mont Dzumac	20.02	248	P	P	05 00 14.4	+5.5
	11nm,0.8s,baz=22,slow=20,SNR=6.6						
DZM				LR	LR	05 05 16.1	
	comp=Z,236nm,18.5s,MS3.6,baz=181,slow=29						
PAE	Paea	23.13	99	eT		05 24 01.7	
	48nm,0.3s						
PPT	Papeete	23.13	99	eLR	LR	05 06 04.5	
	1μm,27.5s,baz=274						
PPT	Papeete	23.13	99	eT		05 24 01.7	
	11nm,0.4s						
TVO	Taravao	23.45	99	eT		05 24 25.8	
	19nm,0.4s						
URZ	Urewera	24.21	198	P	P	05 00 51.9	-0.2
	8.6nm,0.4s,mb4.5,baz=5.3,slow=4.1,SNR=15						
URZ				LR	LR	05 09 14.8	
	comp=Z,760nm,20.8s,MS4.2,baz=211,slow=34						
VAH	Vaihoa	25.05	93	eT		05 26 21.3	
	13nm,0.3s						
HNR	Honiara	26.49	280	LR	LR	05 09 47.0	
	comp=Z,224nm,18.7s,MS3.7,baz=177,slow=32						
RPZ	Rata Peaks	31.11	202	P	P	05 01 53.8	-0.1
	9.2nm,0.8s,mb4.7,baz=28,slow=7.3,SNR=5.7						
TAOE	Nuku Hiva Isla	33.31	83	eLR	LR	05 10 38.3	
	3μm,28.4s						
TAOE	Nuku Hiva Isla	33.31	83	eT		05 36 35.9	
	122nm,0.2s						
RKT	Rikitea	37.18	108	eLR	LR	05 12 38.7	
	548nm,27.8s,baz=290						
RKT	Rikitea	37.18	108	eT		05 41 39.9	
	11nm,0.4s						
STKA	Stephens Creek	43.87	240	eP	P	05 03 42.1	+0.2
	6.1nm,0.9s,mb4.3						
STKA				e		05 04 00.1	
STKA	Stephens Creek	43.87	240	P	P	05 03 41.9	-0.1
	7.6nm,0.8s,mb4.5,baz=72,slow=7.9,SNR=12						
STKA				LR	LR	05 19 23.3	
	comp=Z,394nm,21.5s,MS4.3,baz=34,slow=32						
WB2	Warramunga Arr	49.65	257	eP	P	05 04 26.3	-1.0
WB2				e		05 04 42.8	
WRA	Warramunga Arr	49.66	257	P	P	05 04 25.8	-1.6
	1.3nm,0.4s,mb4.3,baz=95,slow=6.5,SNR=61						
WRA				pP	pP	05 04 41.7	+2.3
	5.2nm,0.8s,baz=90,slow=7.2,SNR=14						
WRA				LR	LR	05 23 23.7	
	comp=Z,223nm,21.9s,MS4.1,baz=110,slow=34						
ASAR	Alice Springs	49.93	252	P	P	05 04 27.9	-1.4
	11nm,0.8s,mb4.9,baz=85,slow=8.6,SNR=94						
ASAR				pP	pP	05 04 43.2	+1.9
	6.1nm,0.8s,baz=82,slow=8.2,SNR=14						
GUMO	Guam	50.17	303	LR	LR	05 22 32.7	
	comp=Z,65nm,20.6s,MS3.6,baz=106,slow=32						
KAKA	Kakadu	52.31	266	eP	P	05 04 46.6	-0.7
	2.6nm,0.4s,mb4.5						
VNDA	Vanda	63.36	186	P	P	05 06 04.8	+0.9
	6.7nm,1.1s,mb4.7,baz=11,slow=6.0,SNR=4.6						
VNDA				LR	LR	05 26 56.4	
	comp=Z,126nm,20.4s,MS4.1,baz=339,slow=30						
MJAR	Matsushiro Arr	68.81	320	LR	LR	05 31 14.3	
	comp=Z,154nm,19.1s,MS4.3,baz=70,slow=31						
JNU	Nakatsue	71.66	313	LR	LR	05 31 09.2	
	comp=Z,73nm,21.6s,MS3.9,baz=135,slow=30						
NVAR	Mina Array Bea	74.45	42	P	P	05 07 11.6	-1.8
NVAR	Mina Array Bea	74.45	42	P	P	05 07 11.6	-1.8
	1.6nm,0.8s,mb4.0,baz=219,slow=7.3,SNR=9.8						
Q08A	Gabbs	74.94	42	⇑P	P	05 07 16.7	+0.5
	baz=75						
K05A	Summer Lake	75.39	37	⇑P	P	05 07 17.8	-0.9
	baz=76						
X13A	Yucca	75.43	47	⇑P	P	05 07 19.8	+0.7
	baz=76						
Z14A	Wintersburg	75.45	49	⇑P	P	05 07 19.8	+0.5
	baz=76						
SHPR	Sheep Range	75.49	45	eP	P	05 07 18.9	-0.5
J05A	Fort Rock	75.53	37	⇓P	P	05 07 20.0	+0.5
	baz=76						
M07A	Soldier Meadow	75.61	39	⇑P	P	05 07 20.4	+0.4
	baz=76						
R10A	Warm Springs	75.68	43	⇑P	P	05 07 21.5	+1.0
	baz=76						
Y14A	Wickenburg	75.69	48	⇑P	P	05 07 21.0	+0.4
	baz=76						
K06A	Valley Falls	75.81	38	⇑P	P	05 07 21.9	+0.8
	baz=76						
P09A	Austin	75.83	42	⇓P	P	05 07 22.0	+0.7
	baz=76						

U12A	**Valley of Fire**	**75.88**	**46**	⇓P	**P**	**05 07 22.7**	**+1.0**
	baz=76						
L07A	**Adell**	**75.88**	**39**	⇑P	**P**	**05 07 20.9**	**-0.6**
	baz=76						
N08A	**GE Springer Mi**	**75.90**	**40**	⇓P	**P**	**05 07 22.2**	**+0.5**
	baz=76						
KSRS	**Korea Array**	**76.02**	**316**	P	**P**	**05 07 23.0**	**+0.6**
	1.2nm,0.8s,mb3.9,baz=111,slow=4.4,SNR=6.8						
KSRS				LR	LR	05 33 39.3	
	comp=Z,65nm,21.8s,MS3.9,baz=2.1,slow=30						
O09A	**Fish Creek Ran**	**76.15**	**41**	⇓P	**P**	**05 07 23.8**	**+0.7**
	baz=76						
W14A	**Seligman**	**76.27**	**47**	⇓P	**P**	**05 07 24.5**	**+0.6**
	baz=76						
P10A	**Eureka**	**76.31**	**42**	⇑P	**P**	**05 07 24.8**	**+0.7**
	baz=76						
X15A	**Humboldt**	**76.52**	**48**	⇑P	**P**	**05 07 25.5**	**+0.2**
	baz=77,SNR=6.6						
I06A	**Prineville**	**76.52**	**37**	⇑P	**P**	**05 07 25.1**	**0.0**
	baz=77						
TUC	**Tucson**	**76.54**	**51**	*e*P	**P**	**05 07 24.0**	**-1.5**
	4.0nm,1.1s,mb4.3						
L08A	**Fields**	**76.58**	**39**	⇑P	**P**	**05 07 25.5**	**0.0**
	baz=77,SNR=5.8						
T13A	**Saint George**	**76.62**	**45**	⇓P	**P**	**05 07 25.7**	**-0.1**
	baz=77						
M09A	**Marrel Ranch,**	**76.69**	**40**	⇓P	**P**	**05 07 27.3**	**+1.1**
	baz=77						
R12A	**Pony Springs,**	**76.83**	**44**	⇓P	**P**	**05 07 27.7**	**+0.7**
	baz=77,SNR=5.1						
K09A	**Rome**	**77.25**	**39**	⇑P	**P**	**05 07 29.8**	**+0.5**
	baz=77,SNR=9.1						
M10A	**I.L. Ranch, Tu**	**77.31**	**40**	⇑P	**P**	**05 07 30.1**	**+0.4**
	baz=78,SNR=5.9						
J09A	**Fry Pan Ranch,**	**77.61**	**38**	⇑P	**P**	**05 07 30.7**	**-0.6**
	baz=78,SNR=7.8						
G07A	**Ruggs Ranch, H**	**77.63**	**36**	⇓P	**P**	**05 07 31.6**	**+0.3**
	baz=78						
L10A	**Juniper Basin**	**77.67**	**40**	⇑P	**P**	**05 07 31.4**	**-0.2**
	baz=78,SNR=10						
T15A	**Red Dirt Ranch**	**77.67**	**46**	⇓P	**P**	**05 07 32.6**	**+0.9**
	baz=78						
K10A	**MacKenzie Ranc**	**77.81**	**39**	P	**P**	**05 07 32.6**	**+0.2**
	baz=78,SNR=8.7						
N12A	**Clover Valley,**	**77.89**	**41**	⇓P	**P**	**05 07 33.5**	**+0.6**
	baz=78,SNR=5.1						
G08A	**Pilot Rock**	**78.04**	**36**	⇓P	**P**	**05 07 33.3**	**-0.3**
	baz=78						
L11A	**Cat Creek Ranc**	**78.16**	**40**	⇓P	**P**	**05 07 34.2**	**-0.1**
	baz=78						
M12A	**Wells**	**78.28**	**41**	⇑P	**P**	**05 07 35.1**	**+0.1**
	baz=78,SNR=6.8						
K11A	**Parker Ranch,**	**78.32**	**39**	⇑P	**P**	**05 07 34.7**	**-0.5**
	baz=78,SNR=5.6						
N13A	**Wendover, West**	**78.43**	**42**	⇑P	**P**	**05 07 36.6**	**+0.8**
	baz=79						
MSU	**Marysvale**	**78.56**	**45**	*e*P	**P**	**05 07 37.2**	**+0.6**
L12A	**House Creek Ra**	**78.61**	**40**	⇓P	**P**	**05 07 37.2**	**+0.4**
	baz=79						
BMO	**Blue Mountains**	**78.74**	**37**	*e*P	**P**	**05 07 37.1**	**-0.4**
MFID	**Camas Ranch**	**78.80**	**39**	⇓P	**P**	**05 07 37.5**	**-0.3**
	baz=79,SNR=5.0						
MDJ	**Mudanjiang**	**78.91**	**322**	P	**P**	**05 07 38.6**	**+0.2**
MDJ				AP	pP	05 07 48.1	-3.0
MDJ				XP	sP	05 07 52.0	-3.9
MDJ				PP	PP	05 10 37.0	-0.8
MDJ				S	S	05 17 34.6	+0.9
MDJ				XS	sS	05 17 50.8	-4.0
MDJ				SCS	ScS	05 17 56.6	-0.3
MDJ				AMB	AMB		
	comp=Z,4.0nm,2.1s,mb4.0						
MDJ				AMB	AMB		
	comp=Z,81nm,5.3s						
MDJ				LR	LR		
	comp=Z,138nm,32.7s,MS4.1						
H10A	**Noah's Angus R**	**78.91**	**38**	⇓P	**P**	**05 07 37.9**	**-0.5**
	baz=79,SNR=6.0						
K12A	**Draper Farm, C**	**78.94**	**40**	⇑P	**P**	**05 07 38.8**	**+0.1**
	baz=79						
DUG	**Dugway**	**78.99**	**43**	*e*P	**P**	**05 07 39.0**	**0.0**
	comp=Z,9.3nm,1.3s,mb4.5						
DUG	**Dugway**	**78.99**	**43**	⇓P	**P**	**05 07 39.1**	**+0.2**
	baz=79,SNR=5.8						
I11A	**Placerville**	**79.00**	**38**	⇑P	**P**	**05 07 38.8**	**-0.1**
	baz=79						
J12A	**Stokes Ranch,**	**79.16**	**39**	⇑P	**P**	**05 07 39.8**	**0.0**
	baz=79,SNR=5.4						
L13A	**Double Diamond**	**79.25**	**41**	⇑P	**P**	**05 07 40.6**	**+0.3**
	baz=79,SNR=5.5						
M14A	**Sheep Mountain**	**79.32**	**42**	⇓P	**P**	**05 07 40.8**	**0.0**
	baz=80,SNR=17						
H11A	**Donnelly**	**79.41**	**38**	⇑P	**P**	**05 07 40.6**	**-0.5**
	baz=80,SNR=6.2						
F10A	**Beach Ranch, E**	**79.43**	**36**	⇓P	**P**	**05 07 40.0**	**-1.2**
	baz=80						
K13A	**Stover Farm, H**	**79.46**	**40**	⇑P	**P**	**05 07 41.6**	**+0.1**
	baz=80						
TMUT	**Trail Mountain**	**79.60**	**44**	*e*P	**P**	**05 07 43.5**	**+1.2**
G11A	**Walters Elk Ra**	**79.65**	**37**	⇑P	**P**	**05 07 41.8**	**-0.6**
	baz=80,SNR=6.2						
HLID	**Hailey**	**79.75**	**39**	*e*P	**P**	**05 07 43.1**	**+0.1**
HLID	**Hailey**	**79.75**	**39**	⇑P	**P**	**05 07 43.4**	**+0.4**
	baz=80,SNR=11						
J13A	**Cove Ranch, Pi**	**79.80**	**40**	P	**P**	**05 07 43.5**	**+0.1**
	baz=80,SNR=9.3						
M15A	**Larsen Ranch,**	**79.88**	**42**	⇑P	**P**	**05 07 43.6**	**-0.2**
	baz=80,SNR=6.7						
K14A	**Jones Ranch, D**	**79.97**	**41**	⇑P	**P**	**05 07 44.4**	**+0.2**
	baz=80,SNR=6.8						
SRU	**San Rafael**	**79.98**	**45**	*e*P	**P**	**05 07 44.7**	**+0.4**
NJ2	**Nanjing**	**80.01**	**307**	*e*P	**P**	**05 07 46.1**	**+1.4**
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.2						
MNTX	**Cornudas Mount**	**80.38**	**53**	*e*P	**P**	**05 07 46.3**	**-0.4**
H13A	**Challis**	**80.38**	**39**	⇑P	**P**	**05 07 46.2**	**-0.2**
	baz=80,SNR=6.9						
F12A	**Elk City**	**80.44**	**37**	⇓P	**P**	**05 07 45.9**	**-0.8**
	baz=81,SNR=9.2						
G13A	**Cobalt**	**80.68**	**38**	⇑P	**P**	**05 07 47.7**	**-0.3**
	baz=81,SNR=5.3						
LTX	**Lajitas**	**80.77**	**56**	*e*P	**P**	**05 07 49.4**	**+0.5**
	comp=Z,15nm,1.3s,mb4.8						
TXAR	**Lajitas Array**	**80.77**	**56**	P	**P**	**05 07 48.5**	**-0.3**
	comp=Z,4.3nm,1.1s,mb4.3,baz=223,slow=5.1,SNR=23						
TXAR				pP	pP	05 08 05.4	+3.8
	comp=Z,3.4nm,1.1s,baz=226,slow=5.0,SNR=6.4						
TXAR				LR	LR	05 34 39.2	
	comp=Z,190nm,21.9s,MS4.4,baz=5.0,slow=29						
TNA	**Tin City**	**80.83**	**2**	*e*P	**P**	**05 07 48.9**	**+0.6**
	comp=Z,7.6nm,1.2s,mb4.5						
ANMO	**Albuquerque**	**80.94**	**50**	P	**P**	**05 07 49.2**	**-0.5**
ANMO	**Albuquerque**	**80.94**	**50**	P	**P**	**05 07 49.2**	**-0.4**
	comp=Z,2.6nm,1.0s,mb4.1,baz=234,slow=6.0,SNR=6.7						
CN2	**Changchun**	**80.96**	**320**	*e*P	**P**	**05 07 48.9**	**-0.6**
CN2				*e*XP	sP	05 08 03.9	-3.1
CN2				*e*PP	PP	05 10 55.4	+0.5
CN2				*e*S	S	05 17 54.4	-1.0
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
MCK	**McKinley**	**81.16**	**11**	*e*P	**P**	**05 07 49.1**	**-1.0**
	comp=Z,7.7nm,1.0s,mb4.6						
MCK				*e*pP	pP	05 08 03.0	+0.2
GDL2	**Guadalupe Moun**	**81.37**	**53**	*e*P	**P**	**05 07 52.2**	**+0.2**
E13A	**Victor**	**81.44**	**37**	⇓P	**P**	**05 07 51.1**	**-0.9**
	baz=82						
F14A	**Wisdom**	**81.58**	**38**	⇓P	**P**	**05 07 52.6**	**-0.2**
	baz=82						
D13A	**Huson**	**81.64**	**36**	⇑P	**P**	**05 07 52.0**	**-1.1**
	baz=82						
G15A	**Dillon**	**81.77**	**39**	⇑P	**P**	**05 07 53.3**	**-0.4**
	baz=82,SNR=7.6						
MSO	**Missoula**	**81.79**	**37**	*e*P	**P**	**05 07 53.1**	**-0.8**
E14A	**Clinton**	**81.83**	**37**	⇓P	**P**	**05 07 53.6**	**-0.4**
	baz=82,SNR=5.1						
REDW	**Red Top Meadow**	**81.86**	**41**	*e*P	**P**	**05 07 53.8**	**-0.5**
TPAW	**Teton Pass**	**81.86**	**41**	*e*P	**P**	**05 07 54.9**	**+0.6**
	comp=Z,5.5nm,0.8s,mb4.5						
IMW	**Indian Meadow**	**82.07**	**40**	*e*P	**P**	**05 07 55.9**	**+0.5**
MOOW	**Moose Ponds**	**82.12**	**41**	*e*P	**P**	**05 07 55.9**	**+0.3**
	comp=Z,11nm,1.5s,mb4.6						
LOHW	**Long Hollow**	**82.14**	**41**	*e*P	**P**	**05 07 52.3**	**-3.5**
	comp=Z,12nm,1.4s,mb4.6						
D14A	**Greenough**	**82.18**	**37**	⇑P	**P**	**05 07 54.7**	**-1.2**
	baz=82						
PDAR	**Pinedale Array**	**82.39**	**42**	P	**P**	**05 07 56.2**	**-0.9**
PDAR				LR	LR	05 37 39.9	
PDAR	**Pinedale Array**	**82.39**	**42**	P	**P**	**05 07 56.2**	**-0.9**
	comp=Z,2.7nm,0.9s,mb4.2,baz=210,slow=2.7,SNR=14						
PDAR				LR	LR	05 37 39.9	
	comp=Z,210nm,19.9s,MS4.5,baz=250,slow=31						
COLA	**College**	**82.39**	**11**	*e*P	**P**	**05 07 55.0**	**-1.6**
	comp=Z,13nm,0.9s,mb4.8						
BOZ	**Bozeman (W)**	**82.53**	**39**	*e*P	**P**	**05 07 57.7**	**-0.1**
	comp=Z,11nm,1.4s,mb4.7						
QIZ	**Qiongzhong**	**82.73**	**292**	P	**P**	**05 08 05.3**	**+5.9**
QIZ				S	S	05 18 11.6	-3.0
QIZ				LR	LR		
	comp=Z,67nm,23.8s,MS3.9						
D15A	**Lincoln**	**82.73**	**37**	⇓P	**P**	**05 07 58.5**	**-0.3**
	baz=83						
LKWY	**Lake**	**82.74**	**40**	*e*P	**P**	**05 08 00.6**	**+1.7**
	comp=Z,8.0nm,1.1s,mb4.7						
SDCO	**Great Sand Dun**	**82.85**	**48**	*e*P	**P**	**05 07 58.5**	**-1.1**
	comp=Z,23nm,1.8s,mb4.9						
HRY	**Holter Researc**	**82.96**	**38**	*e*pP	pP	05 08 11.8	-0.9
DAWY	**Dawson**	**83.47**	**14**	*e*P	**P**	**05 08 02.1**	**0.0**
BJI	**Beijing**	**85.33**	**314**	P	**P**	**05 08 13.3**	**+1.1**
BJI				AP	pP	05 08 22.8	-2.2
BJI				XP	sP	05 08 26.5	-3.2
BJI				PP	PP	05 11 30.3	-0.5
BJI				S	S	05 18 42.3	+2.5
BJI				XS	sS	05 18 58.6	-2.6
BJI				SS	SS	05 24 17.8	+2.2
BJI				AMB	AMB		
	comp=Z,3.0nm,1.0s,mb4.4						
BJI				AMB	AMB		
	comp=Z,118nm,7.1s						
BJI				LR	LR		
	comp=N,145nm,4.7s						
BJI				LR	LR		
	comp=E,189nm,4.7s						
BJI				LR	LR		
	comp=Z,72nm,31.6s,MS3.9						
BJI	**Beijing**	**85.33**	**314**	P	**P**	**05 08 13.2**	**+1.0**
BJI				pP	pP	05 08 22.8	-2.2
BJI				sP	sP	05 08 26.5	-3.2
BJI				PP	PP	05 11 30.3	-0.5
BJI				S	S	05 18 42.3	+2.5
BJI				sS	sS	05 18 58.6	-2.6
BJI				SS	SS	05 24 17.8	+2.2
BJI				LR	LR		
	comp=Z,70nm,31.6s,MS3.9						
MAW	**Mawson**	**87.73**	**199**	P	**P**	**05 08 23.8**	**+0.3**
	comp=Z,4.1nm,0.6s,mb4.8,baz=115,slow=18,SNR=4.1						
MAW				LR	LR	05 42 59.2	
	comp=Z,326nm,21.2s,MS4.7,baz=320,slow=32						
GYA	**Guiyang**	**87.87**	**298**	P	**P**	**05 08 26.0**	**+1.1**
GYA				AP	pP	05 08 37.4	-0.4
GYA				XP	sP	05 08 41.3	-1.3
GYA				PP	PP	05 11 54.6	+3.0
GYA				SKS		05 18 49.0	
GYA				S	S	05 19 04.8	-0.3
GYA				PS		05 20 12.8	
GYA				SS	SS	05 24 55.6	+2.1
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb5.0						
GYA				AMB	AMB		
	comp=Z,70nm,6.8s						
GYA				LR	LR		
	comp=N,390nm,20.4s,MS5.0						
GYA				LR	LR		
	comp=E,460nm,21.0s,MS5.0						
GYA				LR	LR		
	comp=Z,330nm,20.2s,MS4.7						
HHC	**Hu-ho-hao-te**	**88.89**	**313**	*e*P	**P**	**05 08 30.8**	**+1.4**
HHC				AP	pP	05 08 40.6	-1.6
HHC				XP	sP	05 08 44.8	-2.2
HHC				PP	PP	05 12 03.4	+4.0
HHC				SKS		05 18 55.8	
HHC				S	S	05 19 15.5	+1.4
HHC				PS		05 20 25.8	
HHC				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.9						
HHC				AMB	AMB		
	comp=Z,143nm,5.8s						
YKA	**Yellowknife Ar**	**90.17**	**23**	P	**P**	**05 08 32.7**	**-2.2**
YKA				pP	pP	05 08 48.0	+0.2
YKA				LR	LR	05 42 11.3	
YKA	**Yellowknife Ar**	**90.17**	**23**	P	**P**	**05 08 32.7**	**-2.2**
	comp=Z,0.5nm,0.8s,mb3.9,baz=234,slow=4.8,SNR=8.1						
YKA				pP	pP	05 08 48.0	+0.2
	comp=Z,1.6nm,0.9s,baz=236,slow=4.3,SNR=12						
YKA				LR	LR	05 42 11.3	
	comp=Z,156nm,18.9s,MS4.5,baz=205,slow=31						
KMI	**Kunming**	**90.85**	**296**	P	**P**	**05 08 38.8**	**-0.2**
KMI				AMB	AMB		
	comp=Z,7.0nm,1.3s,mb4.8						
KMI	**Kunming**	**90.85**	**296**	P	**P**	**05 08 38.7**	**-0.3**
	comp=Z,7.0nm,1.3s,mb4.8						
CD2	**Chengdu**	**91.65**	**301**	*e*P	**P**	**05 08 42.8**	**+0.3**
CD2				XP	sP	05 08 57.3	-2.8
CD2				PP	PP	05 12 27.8	+6.2
CD2				SKS		05 19 11.1	
CD2				S	S	05 19 38.6	-1.4
CD2				SS	SS	05 25 50.1	+2.1
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb5.2						
CD2				AMB	AMB		
	comp=Z,30nm,8.6s						
CD2				LR	LR		
	comp=N,130nm,21.4s						
CD2				LR	LR		
	comp=Z,120nm,15.8s						
VNA3	**Neumayer Olymp**	**92.88**	**175**	*e*P	**P**	**05 08 48.5**	**+1.0**
VNA3				*e*		05 08 53.0	
VNA3				*e*	pP	05 08 59.8	-0.5
VNA3				*e*		05 09 05.2	
VNA3				*e*		05 09 09.3	
VNA3				*e*		05 09 13.4	
LZH	**Lanzhou**	**93.07**	**306**	*e*P	**P**	**05 08 49.0**	**0.0**
LZH				AP	pP	05 09 00.5	-1.3
LZH				XP	sP	05 09 04.3	-2.3
LZH				PP	PP	05 12 35.0	+2.3
LZH				AMB	AMB		
	comp=Z,21nm,1.3s,mb5.4						
LZH				AMB	AMB		
	comp=Z,65nm,9.2s						
LZH				LR	LR		
	comp=N,315nm,16.5s						
LZH				LR	LR		
	comp=Z,543nm,18.7s,MS5.0						
LZH	**Lanzhou**	**93.07**	**306**	*e*P	**P**	**05 08 49.0**	**0.0**
	comp=Z,21nm,1.3s,mb5.4						
LZH				pP	pP	05 09 00.5	-1.3
LZH				sP	sP	05 09 04.2	-2.4
LZH				PP	PP	05 12 35.0	+2.3
LZH				LR	LR		
	comp=Z,540nm,18.7s,MS5.0						
VNA2	**Neumayer--Watz**	**93.37**	**175**	*e*P	**P**	**05 08 51.2**	**+1.5**
VNA2				*e*		05 08 56.1	
VNA2				*e*		05 08 59.7	
VNA2				*e*	pP	05 09 03.0	+0.4
VNA2				*e*		05 09 06.7	
VNA2				*e*		05 09 11.1	
VNA2				*e*		05 09 14.6	
ULM	**Lac du Bonnet**	**94.05**	**39**	LR	LR	05 46 00.4	
	comp=Z,266nm,19.2s,MS4.7,baz=263,slow=32						
SONM	**Songino Array**	**94.72**	**318**	P	**P**	**05 08 56.7**	**+0.5**
	comp=Z,0.3nm,0.7s,mb3.8,baz=121,slow=5.6,SNR=2.7						
SONM				LR	LR	05 44 59.9	
	comp=Z,70nm,21.1s,MS4.1,baz=65,slow=31						
TKL	**Tuckaleechee C**	**98.67**	**55**	LR	LR	05 49 55.1	
	comp=Z,136nm,19.4s,MS4.5,baz=33,slow=33						
DPC	**Dobruska-Polom**	**144.22**	**349**	*e*PKP	PKPdf	05 15 08.3	-2.4
DPC				*e*pPKP	pPKPdf	05 15 26.6	+2.6
OKC	**Ostrava-Krasne**	**144.35**	**347**	*e*PKP	PKPdf	05 15 08.7	-2.2
OKC				*e*x	x	05 15 27.3	
UCC	**Uccle**	**144.65**	**2**	PKP	PKPdf	05 15 10.4	-1.1
WERD	**Werda**	**144.72**	**353**	*e*PKPbc	PKPdf	05 15 10.3	-1.3
PRU	**Pruhonice**	**144.87**	**351**	*e*PKP	PKPdf	05 15 09.1	-2.7
PRU				*e*x	x	05 15 28.8	
NKC	**Novy Kostel**	**144.91**	**353**	*e*PKP	PKPdf	05 15 11.2	-0.7
NKC				*e*x	x	05 15 29.2	
SNF	**Seneffe**	**144.94**	**2**	PKP	PKPdf	05 15 10.7	-1.2
KECS	**Kecovo**	**145.03**	**344**	*e*PKP	PKPdf	05 15 10.7	-1.5
KECS				*e*		05 15 24.5	
BCLA	**Clavier**	**145.06**	**1**	PKP	PKPdf	05 15 11.4	-0.8
BCLA				APKP		05 15 23.7	
MANZ	**Manzenberg**	**145.19**	**354**	*e*PKPbc	PKPbc	05 15 11.9	-0.1
TNS	**Taunus Mts**	**145.23**	**358**	*e*PKPbc	PKPbc	05 15 12.1	0.0
DOU	**Dourbes**	**145.36**	**2**	PKP	PKPdf	05 15 14.4	+1.7
DOU				APKP		05 15 27.6	
BAIF	**Baives**	**145.38**	**2**	*e*PKP1	PKPbc	05 15 12.1	-0.5
	comp=Z,23nm,0.9s						
TREC	**Trest**	**145.39**	**350**	*e*PKP	PKPdf	05 15 11.7	-1.1
TREC				*e*x	x	05 15 30.1	
ROTZ	**Rotzenmuhle**	**145.40**	**353**	*e*PKPbc	PKPbc	05 15 12.6	-0.1
ROTZ				*e*pPKPbc	pPKPbc	05 15 27.5	+1.7
VYHS	**Vyhne**	**145.45**	**345**	*e*PKP	PKPdf	05 15 12.3	-0.6
VYHS				*e*		05 15 27.5	
TIRR	**Tirgusor**	**145.54**	**332**	⇓*i*P	PKPdf	05 15 12.7	-0.5
GRF	**Grafenberg Arr**	**145.57**	**354**	*e*PKPbc	PKPbc	05 15 12.7	-0.6
GRF				*e*pPKPbc	pPKPbc	05 15 28.4	+2.0
SMOL	**Smolenice**	**145.75**	**347**	*e*PKP	PKPdf	05 15 14.6	+1.2
SMOL				*e*		05 15 31.1	
MLR	**Muntele Rosu**	**145.79**	**335**	⇓*i*P	PKPdf	05 15 13.7	+0.1
WLF	**Walferdange**	**145.82**	**0**	PKP	PKPdf	05 15 14.3	+0.8
WLF				APKP		05 15 28.6	
WLF	**Walferdange**	**145.82**	**0**	*e*PKPbc	PKPbc	05 15 14.1	+0.1
KHC	**Kasperske Hory**	**145.85**	**352**	*e*PKP	PKPdf	05 15 13.4	-0.1
KHC				*e*pPKP	pPKPdf	05 15 28.2	+1.4
DRGR		**145.87**	**340**	⇓*i*P	PKPdf	05 15 13.3	-0.4
WET	**Wettzell**	**145.93**	**352**	*e*PKPbc	PKPbc	05 15 15.1	+0.7
WET				*e*pPKPbc	pPKPbc	05 15 28.7	+1.2
BRTR	**Keskin Array B**	**146.03**	**321**	PKPbc	PKPbc	05 15 14.1	-1.0
	comp=Z,4.4nm,0.8s,baz=92,slow=2.4,SNR=26						
BRTR				pPKPbc	pPKPbc	05 15 31.1	+2.9
	comp=Z,8.2nm,0.8s,baz=84,slow=3.0,SNR=14						
GEC2	**GERESS Array S**	**146.11**	**351**	*e*PKPbc	PKPbc	05 15 13.9	-1.0
GEC2				*e*pPKPbc	pPKPbc	05 15 27.3	-0.8
GERES	**GERESS Array B**	**146.11**	**351**	PKPbc	PKPbc	05 15 13.4	-1.5
	comp=Z,3.1nm,0.9s,baz=42,slow=2.2,SNR=17						
GERES				pPKPbc	pPKPbc	05 15 29.0	+0.9
	comp=Z,3.0nm,0.9s,baz=62,slow=3.2,SNR=6.6						
VOIR		**146.19**	**336**	⇓*i*P	PKPdf	05 15 15.8	+1.6
SGMF	**Saint Gilles**	**146.41**	**11**	*e*PKP1	PKPbc	05 15 16.3	+0.4
	comp=Z,41nm,1.2s						
GZR	**Gura Zlata**	**147.07**	**339**	⇑*i*P	PKPdf	05 15 17.6	+1.9
CDF	**Champ du Feu**	**147.07**	**359**	*e*PKP1	PKPbc	05 15 17.4	-0.3
	comp=Z,21nm,1.1s						
BFO	**Black Forest**	**147.12**	**358**	*e*PKPbc	PKPbc	05 15 16.0	-1.9
BFO				*e*pPKPbc	pPKPbc	05 15 32.1	+1.0
BZS	**Buzias**	**147.27**	**340**	⇓*i*P	PKPdf	05 15 17.0	+0.9
HAU	**Haudompre**	**147.49**	**0**	*e*PKP1	PKPbc	05 15 18.6	-0.3
HAU				*e*MLR	MLR		
	comp=Z,94nm,19.2s,MS4.3						
PKSM	**Moragy**	**147.61**	**344**	⇓*i*P	PKPdf	05 15 18.4	+1.8
HINF	**Hinteralfeld**	**147.67**	**359**	*e*PKP1	PKPbc	05 15 18.8	-0.6
PERS	**Pernice**	**148.02**	**349**	*e*PKPbc	PKPbc	05 15 19.8	-0.6
HYF	**Humbligny**	**148.07**	**5**	*e*PKP1	PKPbc	05 15 20.3	-0.2
LOR	**Lormes**	**148.15**	**3**	*e*PKP1	PKPbc	05 15 19.7	-1.0
	comp=Z,30nm,1.3s						
LOR				*e*MLR	MLR		
	comp=Z,217nm,21.5s,MS4.6						
SSF	**Saint Saulge**	**148.34**	**4**	*e*PKP1	PKPbc	05 15 20.1	-1.1
	comp=Z,27nm,1.3s						
AVF	**Avril sur Loir**	**148.60**	**4**	*e*PKP1	PKPbc	05 15 21.2	-0.7
	comp=Z,21nm,1.2s						
SMF	**Signal de Mont**	**148.77**	**3**	*e*PKP1	PKPbc	05 15 21.7	-0.7
	comp=Z,30nm,1.2s						
BGF	**Bois d'Agland**	**148.79**	**5**	*e*PKP1	PKPbc	05 15 22.0	-0.4
	comp=Z,14nm,1.0s						
CABF	**La Chapelle**	**148.88**	**0**	*e*PKP1	PKPbc	05 15 23.0	+0.4
JAVS	**Javornik**	**148.92**	**350**	*e*PKPbc	PKPbc	05 15 22.3	-0.5
TCF	**Toulx Ste Croi**	**149.00**	**6**	*e*PKP1	PKPbc	05 15 22.1	-0.9
CEY	**Cerknica**	**149.01**	**349**	*e*PKPbc	PKPbc	05 15 24.3	+1.3
BOJS	**Bojanci**	**149.08**	**348**	*e*PKPbc	PKPbc	05 15 22.8	-0.4
BOJS				*e*		05 15 38.1	
LPL	**La Plagne**	**149.97**	**360**	*e*PKP1	PKPbc	05 15 26.3	+0.9
	comp=Z,19nm,1.1s						
LPG	**La Plagne**	**149.99**	**360**	*e*PKP1	PKPbc	05 15 25.6	+0.2
TORD	**Torodi Ar. Bea**	**174.92**	**116**	PKP	PKPdf	05 15 43.2	-2.5
	comp=Z,0.7nm,0.9s,baz=340,slow=4.1,SNR=3.9						

IDC 19 05:04:45.1±5.8**, 30.46S×178.20W, h0km, mb4.3**/2**, mb1 4.5**/2**, mb1mx3.9**/12**, mbtmp4.3**/2**, MS4.1**/1**, Ms1 4.1**/1**, ms1mx3.0**/24**, Error ellipse: s-maj=232.0km s-min=54.1km az=155.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
RPZ	**Rata Peaks**	**15.75**	**210**	LR	LR	05 14 17.0	
	comp=Z,646nm,19.8s,baz=186,slow=36						
ASAR	**Alice Springs**	**42.93**	**267**	P	P	05 12 45.5	-0.3
	2.5nm,0.6s,baz=105,slow=7.4,SNR=27						
WRA	**Warramunga Arr**	**43.93**	**272**	P	P	05 12 53.9	0.0
	1.9nm,0.4s,baz=112,slow=8.0,SNR=49						
FINES	**FINESS Array B**	**145.14**	**340**	PKPbc	PKPbc	05 24 22.9	-0.5
	1.8nm,0.7s,baz=54,slow=3.6,SNR=9.1						

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*IDC **19** 05:07:19.1±0.7, 47.46N×156.29E, h0km, mb3.7/13, mb1 3.9/13, mb1mx3.8/23, mbtmp3.7/13, MS3.3/1, Ms1 3.3/1, ms1mx2.5/33, Error ellipse: s-maj=23.5km s-min=17.4km az=138.0*

*NEIC **19** 05:07:20.8±0.5, 47.47N×156.22E, h10km, Error ellipse: s-maj=14.0km s-min=11.6km az=167.0*

*ISCJB **19** 05:07:23.0±0.6, 47.69N±0.07×156.2E±0.1, h33km, mb3.7/14, MS3.3/2, Error ellipse: s-maj=14.3km s-min=9.6km az=11.8*

*MOS **19** 05:07:23.1±0.6, 47.68N×156.13E, h33km, mb4.0/5, Error ellipse: s-maj=36.5km s-min=19.1km az=89.0*

ISC 19 05:07:25.1±0.6**, 47.70N**±0.07×**156.2E**±0.1**, h35km, n26,** σ0.93/26**, mb3.7**/14**, MS3.3**/2**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**2.99**	**360**	*e*PN	**Pn**	**05 08 08.5**	**-1.5**
SKR				*e*S	**Sn**	**05 08 43.2**	**-1.3**
SKR				pmax	pmax		
	comp=Z,30nm,0.5s						
SKR				smax			
	comp=N,140nm,0.2s						
SKR				smax			
	comp=E,110nm,0.2s						
SKR				smax			
	comp=Z,50nm,0.2s						
BILL	**Bilibino**	**21.04**	**11**	*e*P	**P**	**05 12 05.9**	**+0.4**
BILL				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.3						
BILL				MLR	MLR		
	comp=Z,100nm,16.0s,MS3.3						
KSRS	**Korea Array**	**23.05**	**254**	P	**P**	**05 12 27.0**	**-0.2**
	comp=Z,0.6nm,0.8s,mb3.1,baz=50,slow=11,SNR=3.2						
INK	**Inuvik**	**39.73**	**33**	P	**P**	**05 14 54.0**	**+0.3**
INK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	**Inuvik**	**39.73**	**33**	P	**P**	**05 14 54.0**	**+0.3**
	comp=Z,0.8nm,0.7s,mb3.6,baz=294,slow=10.0,SNR=3.3						
ZALV	**Zalesovo Beam**	**43.73**	**306**	LR	LR	05 34 00.1	
	comp=Z,32nm,18.9s,MS3.2,baz=188,slow=36						
MK31	**Makanchi Array**	**48.34**	**298**	*e*P	**P**	**05 16 03.3**	**+0.4**
MKAR	**Makanchi Array**	**48.34**	**298**	P	**P**	**05 16 03.4**	**+0.5**
MKAR	**Makanchi Array**	**48.34**	**298**	P	**P**	**05 16 03.4**	**+0.5**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	**Makanchi Array**	**48.34**	**298**	P	**P**	**05 16 03.4**	**+0.5**
	comp=Z,0.9nm,0.5s,mb4.1,baz=68,slow=8.3,SNR=10						
YKA	**Yellowknife Ar**	**48.92**	**38**	P	**P**	**05 16 07.1**	**-0.1**
	comp=Z,0.2nm,0.6s,mb3.3,baz=291,slow=7.2,SNR=3.6						
ARCES	**ARCESS Array B**	**57.62**	**342**	P	**P**	**05 17 11.5**	**+0.5**
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ARCES	**ARCESS Array B**	**57.62**	**342**	P	**P**	**05 17 11.5**	**+0.5**
	comp=Z,4.5nm,0.9s,mb4.5,baz=30,slow=9.3,SNR=3.3						
NVAR	**Mina Array Bea**	**60.16**	**65**	P	**P**	**05 17 29.0**	**-0.1**
NVAR	**Mina Array Bea**	**60.16**	**65**	P	**P**	**05 17 29.0**	**-0.1**
	comp=Z,0.6nm,0.7s,mb3.7,baz=299,slow=5.7,SNR=4.6						
PDAR	**Pinedale Array**	**62.51**	**56**	P	**P**	**05 17 45.0**	**+0.1**
	comp=Z,0.5nm,0.8s,mb3.7,baz=348,slow=2.1,SNR=4.4						
ARUT	**Antelope Range**	**63.51**	**62**	*e*P	**P**	**05 17 52.4**	**+0.8**
FINES	**FINESS Array B**	**64.05**	**336**	P	**P**	**05 17 56.2**	**+1.5**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	**FINESS Array B**	**64.05**	**336**	P	**P**	**05 17 56.2**	**+1.4**
	comp=Z,1.1nm,0.8s,mb3.9,baz=39,slow=9.5,SNR=3.2						
NOA	**NORSAR Array B**	**67.98**	**342**	P	**P**	**05 18 21.7**	**+1.7**
	comp=Z,0.3nm,0.6s,mb3.5,baz=28,slow=6.5,SNR=3.1						
WRA	**Warramunga Arr**	**70.12**	**202**	P	**P**	**05 18 31.8**	**-1.9**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						

WRA	Warramunga Arr	70.12	202	P	P	05 18 31.8	-1.9
	comp=Z,0.7nm,0.7s,mb3.7,baz=20,slow=6.3,SNR=5.6						
ASAR	Alice Springs	73.80	201	P	P	05 18 54.3	-1.4
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	Alice Springs	73.80	201	P	P	05 18 54.2	-1.5
	comp=Z,0.9nm,0.8s,mb3.8,baz=17,slow=5.4,SNR=11						
TXAR	Lajitas Array	75.22	63	P	P	05 19 04.0	-0.1
	comp=Z,0.3nm,0.4s,mb3.6,baz=295,slow=4.7,SNR=8.6						
GERES	GERESS Array B	78.48	336	P	P	05 19 22.6	+0.4
	comp=Z,0.3nm,0.5s,mb3.5,baz=39,slow=6.3,SNR=4.2						

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*ISCJB **19** 05:08:28.7±0.6, 47.5N±0.1×156.3E±0.1, h10^{km}, mb3.9/15, Error ellipse: s-maj=17.4km s-min=9.3km az=158.8*

*IDC **19** 05:08:29.1±0.7, 47.49N×156.26E, h0^{km}, mb3.9/14, mb1 4.2/15, mb1mx4.0/24, mbtmp3.9/15, ML3.6/1, Error ellipse: s-maj=21.5km s-min=16.0km az=147.0*

*NEIC **19** 05:08:30.6±0.6, 47.51N×156.30E, h10^{km}, mb4.5/1, Error ellipse: s-maj=16.3km s-min=12.6km az=166.0*

*MOS **19** 05:08:32.7±1.2, 47.51N×156.22E, h40^{km}, mb4.3/9, Error ellipse: s-maj=18.2km s-min=16.1km az=60.8*

ISC 19 05:08:30.8±0.6, **47.5N**±0.1×**156.3E**±0.1, **h10**^{km}, **n35**, σ**0**^{s}**86**/35, **mb3.9**/15, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PET	Petropavlovsk	5.69	15	*e*Pn	Pn	05 09 45.6	-10
	18nm,0.5s						
PET	Petropavlovsk	5.69	15	*e*PN	Pn	05 09 45.6	-10
PET				pmax	pmax		
	comp=Z,18nm,0.5s						
KUR	Kuril'sk	6.27	251	PN	Pn	05 10 05.0	+1.7
ASAJ	Asahikawa	10.16	255	PN	Pn	05 10 56.1	-0.5
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	10.16	255	Pn	Pn	05 10 56.1	-0.5
	comp=Z,0.6nm,0.3s,baz=79,slow=18,SNR=2.7						
KLR	Kul'dur	16.38	285	*e*P	Pn	05 12 21.0	+0.4
KSRS	Korea Array	23.11	255	P	P	05 13 36.1	-0.6
	comp=Z,1.7nm,0.8s,mb3.5,baz=47,slow=11,SNR=4.6						
INK	Inuvik	39.81	33	P	P	05 16 03.6	0.0
INK				pmax	pmax		
	comp=Z,1.0nm,0.8s						
INK	Inuvik	39.81	33	P	P	05 16 03.6	+0.1
	comp=Z,0.8nm,0.8s,mb3.5,baz=334,slow=5.9,SNR=3.4						
ZALV	Zalesovo Beam	43.91	306	P	P	05 16 36.0	-1.2
	comp=Z,0.5nm,0.4s,mb3.6,baz=84,slow=5.2,SNR=2.7						
ZAL	Zalesovo	43.92	306	P	P	05 16 36.0	-1.3
MK31	Makanchi Array	48.50	298	*e*P	P	05 17 13.3	-0.2
MKAR	Makanchi Array	48.50	298	P	P	05 17 13.1	-0.3
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MKAR	Makanchi Array	48.50	298	P	P	05 17 13.1	-0.3
	comp=Z,2.3nm,0.6s,mb4.4,baz=67,slow=8.1,SNR=16						
YKA	Yellowknife Ar	48.98	38	P	P	05 17 16.0	-0.9
YKA	Yellowknife Ar	48.98	38	P	P	05 17 16.0	-0.9
	comp=Z,0.3nm,0.7s,mb3.5,baz=295,slow=7.5,SNR=5.5						
ARCES	ARCESS Array B	57.80	342	P	P	05 18 21.8	+0.1
ARCES	ARCESS Array B	57.80	342	P	P	05 18 21.8	+0.2
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ARCES	ARCESS Array B	57.80	342	P	P	05 18 21.8	+0.1
	comp=Z,5.0nm,0.9s,mb4.5,baz=44,slow=7.4,SNR=5.1						
NVAR	Mina Array Bea	60.14	65	P	P	05 18 39.0	+0.7
	comp=Z,1.2nm,0.7s,mb4.1,baz=285,slow=8.5,SNR=7.4						
LKWY	Lake	60.89	55	*e*P	P	05 18 42.2	-1.1
	comp=Z,1.1nm,0.3s,mb4.5						
LKWY	Lake	60.89	55	*e*P	P	05 18 42.2	-1.2
LKWY				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.4						
PDAR	Pinedale Array	62.51	56	P	P	05 18 54.9	+0.5
	comp=Z,0.8nm,0.7s,mb4.0,baz=295,slow=2.7,SNR=7.0						
FINES	FINESS Array B	64.23	336	P	P	05 19 05.4	+0.1
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	FINESS Array B	64.23	336	P	P	05 19 05.4	+0.1
	comp=Z,2.0nm,0.9s,mb4.1,baz=19,slow=6.5,SNR=5.0						
NB2	NORSAR Subarra	68.15	343	P	P	05 19 32.0	+1.5
	comp=Z,0.7nm,0.6s,mb3.9,baz=24,slow=6.5						
NOA	NORSAR Array B	68.15	343	P	P	05 19 31.7	+1.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	68.15	343	P	P	05 19 31.7	+1.2
	comp=Z,1.3nm,0.8s,mb4.0,baz=25,slow=6.4,SNR=5.0						
WRA	Warramunga Arr	70.02	202	P	P	05 19 41.7	-0.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	70.02	202	P	P	05 19 41.7	-0.8
	comp=Z,1.1nm,0.7s,mb3.9,baz=23,slow=6.6,SNR=9.3						
ASAR	Alice Springs	73.69	201	P	P	05 20 04.7	+0.2
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ASAR	Alice Springs	73.69	201	P	P	05 20 04.7	+0.2
	comp=Z,1.7nm,0.8s,mb4.0,baz=14,slow=5.7,SNR=14						
TXAR	Lajitas Array	75.20	63	P	P	05 20 13.9	+0.4
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	Lajitas Array	75.20	63	P	P	05 20 13.9	+0.4
	comp=Z,1.0nm,0.6s,mb3.9,baz=300,slow=4.8,SNR=12						
GERES	GERESS Array B	78.66	336	P	P	05 20 34.3	+1.7
	comp=Z,0.2nm,0.4s,mb3.4,baz=29,slow=6.1,SNR=4.8						

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*MOS **19** 05:11:50.9±2.1, 48.33N×154.72E, h33^{km}, mb4.2/1, Error ellipse: s-maj=95.5km s-min=46.5km az=64.1*

*ISCJB **19** 05:11:52.2±2.6, 48.3N±0.2×154.8E±0.3, h51^{km}±20^{km}, mb3.5/5, Error ellipse: s-maj=50.5km s-min=15.5km az=142.2*

*IDC **19** 05:11:55.9±5.7, 48.10N×154.85E, h78^{km}±61^{km}, mb3.2/5, mb1 3.4/6, mb1mx3.2/23, mbtmp3.3/6, ML3.5/1, Error ellipse: s-maj=64.6km s-min=28.4km az=167.0*

ISC 19 05:11:53.9±2.3, **48.3N**±0.2×**154.9E**±0.3, **h50**^{km}±18^{km}, **n9**, σ**0**^{s}**50**/9, **mb3.5**/5, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	2.48	19	*e*PN	Pn	05 12 31.5	-0.3
SKR				pmax	pmax		
	comp=Z,50nm,0.5s						
ASAJ	Asahikawa	9.49	248	PN	Pn	05 14 08.3	+0.5
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	9.49	248	P	Pn	05 14 08.3	+0.5
	comp=Z,0.5nm,0.3s,baz=87,slow=15,SNR=7.2						
KSRS	Korea Array	22.42	251	P	P	05 16 47.7	-0.5
	comp=Z,1.4nm,0.7s,mb3.5,baz=44,slow=11,SNR=5.9						
MKAR	Makanchi Array	47.27	297	P	P	05 20 21.3	-0.6
	comp=Z,0.4nm,0.4s,mb3.7,baz=68,slow=8.3,SNR=5.1						
YKA	Yellowknife Ar	48.94	38	P	P	05 20 35.0	+0.4
	comp=Z,0.1nm,0.4s,mb3.2,baz=296,slow=7.3,SNR=2.6						
FINES	FINESS Array B	63.10	335	P	P	05 22 16.4	+0.8
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	FINESS Array B	63.10	335	P	P	05 22 16.4	+0.8
	comp=Z,0.9nm,0.7s,mb4.0,baz=28,slow=6.3,SNR=3.8						
TXAR	Lajitas Array	75.69	62	P	P	05 23 33.6	-0.3
	comp=Z,0.2nm,0.6s,mb3.2,baz=303,slow=4.6,SNR=3.4						

IDC 19 05:46:50.4±2.4, **6.03S**×**130.37E**, **h0**^{km}, **mb3.5**/1, **mb1 3.5**/4, **mb1mx3.3**/14, **mbtmp3.3**/4, **ML3.0**/2, **MS3.5**/1, **Ms1 3.5**/1, **ms1mx2.6**/23, **Error ellipse: s-maj=95.8km s-min=29.8km az=77.0**, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	12.86	201	Pn	Pn	05 49 54.3	-0.3
	0.1nm,0.3s,baz=27,slow=16,SNR=9.5						
FITZ				Sn	Sn	05 52 02.4	-16
	0.1nm,0.3s,baz=41,slow=20,SNR=4.5						
WRA	Warramunga Arr	14.36	165	Pn	Pn	05 50 14.9	-0.2
	0.1nm,0.3s,baz=348,slow=13,SNR=5.2						
WRA				Sn	Sn	05 52 41.8	-13
	0.3nm,0.3s,baz=340,slow=22,SNR=9.2						
ASAR	Alice Springs	17.86	169	P	Pn	05 51 00.9	+0.4
	0.1nm,0.3s,baz=350,slow=10,SNR=7.7						
ASAR				S	Sn	05 54 07.7	-13
	0.1nm,0.3s,baz=348,slow=28,SNR=4.1						
PSI	Prapat	32.60	285	LR	LR	06 08 38.3	
	comp=Z,69nm,18.2s,baz=147,slow=40						
MKAR	Makanchi Array	67.62	326	P	P	05 57 49.2	+0.1
	0.2nm,0.4s,baz=115,slow=7.5,SNR=3.8						

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*ISCJB **19** 05:51:50.8±0.8, 58.8S±0.1×25.2W±0.3, h10^{km}, mb4.0/7, Error ellipse: s-maj=27.0km s-min=9.7km az=144.9*

*IDC **19** 05:51:51.6±0.7, 58.74S×25.46W, h0^{km}, mb4.0/7, mb1 4.2/8, mb1mx4.0/17, mbtmp4.1/8, ML4.2/1, MS3.2/1, Ms1 3.2/1, ms1mx3.0/21, Error ellipse: s-maj=27.9km s-min=21.6km az=49.0*

*NEIC **19** 05:51:52.8±0.4, 58.76S×25.35W, h10^{km}, mb3.8/1, Error ellipse: s-maj=19.7km s-min=11.6km az=54.0*

ISC 19 05:51:52.7±0.8, **58.8S**±0.1×**25.3W**±0.3, **h10**^{km}, **n32**, σ**0**^{s}**90**/16, **mb4.0**/7, **South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA1	Neumayer--Stat	13.85	156	*e*P	Pn	05 55 09.1	+0.3
VNA1				*e*		05 55 11.2	
VNA1				*e*		05 55 15.6	
VNA1				*e*		05 55 19.3	
VNA1				*e*		05 55 24.8	
VNA1				*e*		05 55 33.7	
VNA3	Neumayer Olymp	14.04	159	*e*P	Pn	05 55 11.1	-0.3
VNA3				*e*		05 55 12.9	
VNA3				*e*		05 55 15.7	
VNA3				*e*		05 55 21.1	
VNA3				*e*		05 55 25.5	
VNA3				*e*		05 55 34.9	
VNA3				*e*		05 57 36.1	
VNA3				*e*		05 57 38.8	
VNA3				*e*		05 57 42.9	
VNA3				*e*		11 31 47.6	
VNA3				*e*		11 31 51.7	
VNA3				*e*		12 01 15.3	
VNA2	Neumayer--Watz	14.25	156	*e*P	Pn	05 55 13.0	-1.2
	baz=319,slow=14						
VNA2				*e*		05 55 14.6	
VNA2				*e*		05 55 19.1	
VNA2				*e*		05 55 23.5	
VNA2				*e*		05 55 28.3	
VNA2				*e*		05 55 36.8	
VNA2				*e*		05 57 39.8	
VNA2				*e*		05 57 41.7	
VNA2				*e*		05 57 45.1	
VNA2				*e*		11 31 48.9	
VNA2				*e*		11 31 53.4	
VNA2				*e*		11 42 39.4	
VNA2				*e*		12 01 15.5	
SNAA	Sanae	15.80	154	Pn	Pn	05 55 34.8	-0.1
SNAA				Sn	Sn	05 58 16.5	-13
SNAA				LR	LR	06 00 14.8	
SNAA	Sanae	15.80	154	Pn	Pn	05 55 34.8	-0.2
	1.0nm,0.3s,baz=326,slow=14,SNR=102						
SNAA				Sn	Sn	05 58 16.5	-13
	0.1nm,0.3s,baz=311,slow=19,SNR=3.9						
SNAA				LR	LR	06 00 14.8	
	comp=Z,81nm,18.7s,baz=206,slow=32						
USHA	Ushuaia	23.61	261	P	P	05 57 04.5	+0.9
	4.3nm,0.6s,mb4.0,baz=100,slow=12,SNR=2.7						
CFAA	Coronel Fontan	39.60	294	P	P	05 59 23.7	-0.4
CFAA				PcP	PcP	06 01 30.6	-0.5
CFAA	Coronel Fontan	39.60	294	P	P	05 59 23.7	-0.4
	0.4nm,0.8s,mb3.2,baz=156,slow=7.4,SNR=11						
CFAA				PcP	PcP	06 01 30.6	-0.5
	baz=119,slow=2.6						
VNDA	Vanda	43.85	182	P	P	06 00 00.1	+1.8
	3.4nm,0.7s,mb4.2,baz=159,slow=4.3,SNR=8.3						
SIV	San Ignacio	50.21	313	P	P	06 00 47.7	-0.9
	0.6nm,0.5s,mb3.9,baz=162,slow=8.3,SNR=7.8						
LPAZ	La Paz	52.80	305	*e*P	P	06 01 07.0	-1.0
	0.7nm,0.6s,mb3.8						
LPAZ	La Paz	52.80	305	P	P	06 01 07.5	-0.5
	1.0nm,0.6s,mb3.9,baz=159,slow=6.8,SNR=4.7						
TORD	Torodi Ar. Bea	75.01	27	P	P	06 03 35.4	+1.3
	3.3nm,0.6s,mb4.4,baz=199,slow=6.3,SNR=30						
ASAR	Alice Springs	96.04	161	P	P	06 05 19.6	-0.5
	0.4nm,0.5s,mb4.1,baz=185,slow=4.0,SNR=4.8						
PDAR	Pinedale Array	122.64	300	PKP	PKPdf	06 10 47.6	+0.1
PDAR	Pinedale Array	122.64	300	PKP	PKPdf	06 10 47.6	+0.1
	0.4nm,0.6s,baz=131,slow=5.9,SNR=4.0						
ULM	Lac du Bonnet	122.92	314	PKP	PKPdf	06 10 46.5	-1.3
ULM	Lac du Bonnet	122.92	314	PKP	PKPdf	06 10 46.5	-1.3
	1.0nm,0.5s,baz=220,slow=1.4,SNR=3.9						
NVAR	Mina Array Bea	123.36	290	PKP	PKPdf	06 10 50.5	+1.5
NVAR	Mina Array Bea	123.36	290	PKP	PKPdf	06 10 50.5	+1.5
	0.7nm,0.7s,baz=130,slow=3.1,SNR=5.7						
FINES	FINESS Array B	126.36	28	PKP	PKPdf	06 10 54.4	+0.4
FINES	FINESS Array B	126.36	28	PKP	PKPdf	06 10 54.4	+0.4
	0.4nm,0.4s,baz=163,slow=7.0,SNR=5.9						
ARCES	ARCESS Array B	133.14	22	PKP	PKPdf	06 11 06.6	-0.1
ARCES	ARCESS Array B	133.14	22	PKP	PKPdf	06 11 06.6	-0.1
	2.9nm,0.9s,baz=150,slow=3.8,SNR=3.1						
YKA	Yellowknife Ar	138.88	315	PKP	PKPdf	06 11 18.1	+0.6
YKA	Yellowknife Ar	138.88	315	PKP	PKPdf	06 11 18.1	+0.6
	0.2nm,0.3s,baz=126,slow=2.3,SNR=4.9						
INK	Inuvik	148.56	317	*e*PKPbc	PKPbc	06 11 38.1	+0.1
INK	Inuvik	148.56	317	PKPbc	PKPbc	06 11 38.2	+0.2
	12nm,0.7s,baz=92,slow=2.5,SNR=37						
DAWY	Dawson	149.35	308	*e*PKPbc	PKPbc	06 11 40.0	-0.1
SONM	Songino Array	149.80	90	PKPbc	PKPbc	06 11 42.0	+0.3
SONM	Songino Array	149.80	90	PKPbc	PKPbc	06 11 42.0	+0.3
	1.9nm,0.9s,baz=225,slow=3.0,SNR=11						
MCK	McKinley	153.25	305	*e*PKPbc	PKPbc	06 11 49.5	+0.4

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*NEIC **19** 06:14:15.3, 32.77S×71.87W, h28^{km}, ML3.7(GUC), After GUC.*

GUC 19 06:14:15.3±0.8, **32.77S**×**71.87W**, **h28**^{km}±4^{km}, **MD3.8**, **ML3.7**, **1C-4D**, **Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IHA	Instituto Hidr	0.32	143	⇓*i*P	Pb	06 14 22.9	+0.1
IHA				*i* S	Sb	06 14 27.7	-0.3
CHNG	Los Chungos	0.94	20	*e*P	Pn	06 14 20.5	-12
CHNG				*i* S	Sb	06 14 33.0	-12
TACH	Talagante	1.18	139	⇑*i*P	Pn	06 14 35.9	-0.1
STL	Santa Lucia	1.23	123	*e*P	Pn	06 14 35.9	-0.8
STL				*i* S	Sn	06 14 51.5	-0.9
LNV	Longovilo	1.25	162	⇓*i*P	Pn	06 14 36.7	-0.2
DSCH	Colegio Aleman	1.26	120	*e*P	Pn	06 14 36.5	-0.6
DSCH				*i* S	Sn	06 14 53.4	+0.3
CLCH	Cerro Calan	1.29	120	*e*P	Pn	06 14 37.9	+0.5
CLCH				*i* S	Sn	06 14 54.9	+1.2
ANTU	Antumapu	1.31	128	⇓*i*P	Pn	06 14 38.2	+0.4
ANTU				*i* S	Sn	06 14 55.5	+1.2
PCH	Pirque	1.42	127	*e*P	Pn	06 14 40.1	+0.7
PCH				*i* S	Sn	06 14 58.8	+1.7
SJCH	San Jose de Ma	1.54	125	*e*P	Pn	06 14 41.1	+0.1
SJCH				*i* S	Sn	06 15 01.2	+1.1
CHCH	Chadas Angostu	1.55	139	⇓*i*P	Pn	06 14 42.3	+1.2
CMCH	Combarbala	1.75	25	*e*P	Pn	06 14 45.0	+1.1
CMCH				S	Sn	06 15 06.9	+1.6
CMCH	Combarbala	1.75	25	*e*P	Pn	06 14 45.0	+1.1
CMCH				*i* S	Sn	06 15 06.9	+1.6
CMCH				AML	AML	06 15 11.6	
	comp=E,1µm,0.8s						
CICH	Cipreses	1.97	142	*e*P	Pn	06 14 48.5	+1.7
CICH				*i* S	Sn	06 15 13.2	+2.7

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*ISCJB **19** 06:23:09.8±0.4, 49.51N±0.02×116.89W±0.03, h10^{km}, Error ellipse: s-maj=3.4km s-min=2.4km az=12.8*

*PGC **19** 06:23:11.6±0.1, 49.47N×116.86W, h5^{km}, ML2.6/6*

PGC 78km west of Cranbrook, Bc British Columbia Felt (I) in Nelson.

ISC 19 06:23:10.6±0.3, **49.50N**±0.02×**116.87W**±0.02, **h10**^{km}, **n42**, σ**1**^{s}**00**/63, **21C-24D**, **British Columbia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
A11A	Hall Mountain,	0.64	148	⇑P	Pg	06 23 22.7	-0.2
	baz=0.6,SNR=60						
A11A				⇑S	Sg	06 23 30.8	-0.4
	baz=0.6						
A10A	Northport	0.69	221	P	Pg	06 23 23.8	-0.1
	baz=0.7,SNR=39						
A10A				⇑S	Sg	06 23 32.5	-0.4
	baz=0.7						
A12A	Yaak River Ran	0.98	125	⇓P	Pg	06 23 29.3	-0.1
	baz=1.0,SNR=22						
A12A				⇓S	Sg	06 23 41.3	-0.8
	baz=1.0						
B11A	Sandpoint	1.11	163	⇓P	Pb	06 23 31.3	-0.6
	baz=1.1,SNR=120						
B10A	Chitwood Farm,	1.23	191	⇑P	Pn	06 23 33.8	+0.1
	baz=1.2,SNR=12						
B10A				⇓S	Sb	06 23 49.4	-0.3
	baz=1.2						
A09A	Danville	1.24	246	⇑P	Pn	06 23 34.0	0.0
	baz=1.2,SNR=102						
A09A				⇑S	Sb	06 23 50.5	+0.3
	baz=1.2						
B12A	Libby	1.33	140	⇓Pg	Pg	06 23 36.0	-0.1
	baz=1.3,SNR=6.0						
B09A	Rice	1.37	219	⇓Pn	Pn	06 23 35.9	+0.1
	baz=1.3						
B09A				⇓Sn	Sn	06 23 52.9	-1.0
	baz=1.3						
A08A	Turner Farm, O	1.67	252	⇑Pn	Pn	06 23 40.1	+0.3
	baz=1.6,SNR=119						
A08A				⇑Pg	Pg	06 23 42.0	-0.6
	baz=1.6						
A08A				⇓Sg	Sg	06 24 04.7	+0.5
	baz=1.6						
A13A	Flathead Natio	1.71	109	⇑Pn	Pn	06 23 41.3	+0.9
	baz=1.7						
A13A				⇓Pg	Pg	06 23 43.2	-0.1
	baz=1.7						
A13A				⇑Sn	Sn	06 24 03.3	+1.1
	baz=1.7						
C10A	Spilker Farm,	1.71	190	⇓Pn	Pn	06 23 41.2	+0.8
	baz=1.7						
C10A				⇓Pg	Pg	06 23 42.4	-0.9
	baz=1.7						
PNT	Penticton	1.81	265	Trac			
PNT	Penticton	1.81	265	Pn	Pn	06 23 42.0	+0.3
PNT				Pg	Pg	06 23 44.4	-0.8
PNT				Sg	Sg	06 24 08.4	-0.2
SLEB	Sale Mountain	1.85	335	Trac			
SLEB	Sale Mountain	1.85	335	Pn	Pn	06 23 45.4	+3.0
SLEB				Sn	Sn	06 24 08.5	+2.6
SLEB				Sg	Sg	06 24 10.8	+0.6
C09A	Chrisman Ranch	1.94	209	⇓Pg	Pg	06 23 46.8	-1.0
	baz=1.9						
C09A				⇓Sg	Sg	06 24 12.7	-0.2
	baz=1.9						
B13A	Whitefish	1.94	125	⇓Pn	Pn	06 23 44.6	+1.0
	baz=1.9						
B13A				⇑Pg	Pg	06 23 47.6	-0.2
	baz=1.9						
B13A				⇑Sn	Sn	06 24 08.6	+0.5
	baz=1.9						
B13A				⇓Sg	Sg	06 24 11.9	-1.2
	baz=1.9						
WALA	Waterton Lakes	1.99	102	Trac			
WALA	Waterton Lakes	1.99	102	Pn	Pn	06 23 45.3	+1.1
WALA				Pg	Pg	06 23 47.8	-0.9
WALA				Sg	Sg	06 24 13.3	-1.1
B08A	Colville Reser	1.99	236	⇑Pb	Pb	06 23 47.1	+0.3
	baz=2.0						
B08A				⇑Sg	Sg	06 24 13.9	-0.5
	baz=2.0						
C08A	Higginbotham F	2.24	221	⇑Sg	Sg	06 24 22.6	-0.1
	baz=2.2						
DOWB	Downie Slide	2.28	333	Trac			
DOWB	Downie Slide	2.28	333	Pn	Pn	06 23 49.0	+0.8
DOWB				Sg	Sg	06 24 22.9	-0.9
A07A	Ashnola River,	2.35	260	⇑Pn	Pn	06 23 49.8	+0.6
	baz=2.3						
A07A				⇓Pb	Pb	06 23 53.1	+0.1
	baz=2.3						
B07A	Winthrop	2.38	245	⇑Pn	Pn	06 23 49.8	+0.1
	baz=2.4,SNR=7.2						
B07A				⇓Pg	Pg	06 23 54.5	-1.8
	baz=2.4						
B07A				⇓Sb	Sb	06 24 25.3	+2.4
	baz=2.4						
D11A	Klaveano Farm,	2.48	172	⇑Pn	Pn	06 23 51.7	+0.6
	baz=2.4,SNR=19						
D11A				⇓Pg	Pg	06 23 56.1	-2.0
	baz=2.4						
C14A	Swan Lake	2.70	129	⇓Sn	Sn	06 24 26.5	-0.3
	baz=2.7						
MNB	Mounoet Dainar	2.87	341	Trac			
MNB	Mounoet Dainar	2.87	341	Sg	Sg	06 24 41.3	-1.4
E11A	Bogner Ranch,	3.18	172	⇑Pn	Pn	06 24 01.3	+0.7
	baz=3.1,SNR=17						
LLLB	Lillooet	3.42	291	Trac			
LLLB	Lillooet	3.42	291	Sg	Sg	06 24 56.6	-3.6
VDB	Vedder Mountai	3.46	264	Pg	Pg	06 24 14.0	-2.9
E13A	Victor	3.55	149	⇓Pn	Pn	06 24 06.8	+1.1
	baz=3.5						
F11A	Grangeville	3.65	172	⇓Pn	Pn	06 24 07.6	+0.5
	baz=3.6						
HNB	Haney	3.74	269	Pg	Pg	06 24 18.4	-3.8
F12A	Elk City	3.90	163	⇑P	Pn	06 24 11.7	+1.1
	baz=3.9						
WSLR	Whistler	3.97	281	Sg	Sg	06 25 13.8	-4.2
F13A	Darby	4.09	154	⇑Pn	Pn	06 24 14.2	+1.0
	baz=4.1						
G11A	Walters Elk Ra	4.12	174	⇓Pn	Pn	06 24 14.6	+1.0
	baz=4.1						
G09A	Cove	4.27	189	⇓Pn	Pn	06 24 17.5	+1.9
	baz=4.2						
EDM	Edmonton	4.33	29	Sg	Sg	06 25 26.9	-2.6

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*ATH **19** 06:23:12.1, 39.96N×22.45E, h24^{km}, MD3.7/19, ML3.6*

*NEIC **19** 06:23:12.1, 39.96N×22.45E, h24^{km}, MD3.2(SOF), ML3.6(ATH), After ATH.*

*ISCJB **19** 06:23:12.1±0.3, 39.97N±0.01×22.56E±0.02, h10^{km}±2^{km}, mb3.6/9, Error ellipse: s-maj=2.7km s-min=2.3km az=177.1*

*THE **19** 06:23:13.3, 39.99N×22.56E, h10^{km}, ML4.1*

*CSEM **19** 06:23:13.1±0.1, 39.98N×22.47E, h20^{km}, mb3.5/3, Error ellipse: s-maj=1.2km s-min=1.0km az=95.0*

*SOF **19** 06:23:13.1, 40.11N×22.72E, h2^{km}, MD3.2*

*MOS **19** 06:23:14.0±1.0, 39.99N×22.48E, h32^{km}, mb3.7/4, Error ellipse: s-maj=7.6km s-min=4.6km az=77.9*

*IDC **19** 06:23:15.9±1.8, 39.98N×22.36E, h39^{km}±17^{km}, mb3.5/9, mb1 3.6/13, mb1mx3.5/24, mbtmp3.5/13, ML3.6/4, Error ellipse: s-maj=17.4km s-min=16.0km az=64.0*

*NAO **19** 06:23:34.0, 41.94N×22.94E, h33^{km}, mb3.5*

ISC 19 06:23:12.4±0.3, **39.95N**±0.01×**22.54E**±0.02, **h5**^{km}±2^{km}, **n194**, σ**1**^{s}**18**/244, **mb3.6**/9, **7C-8D**, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LIT	Litokhoron	0.16	347	*e*Pg	Pg	06 23 15.8	+0.3
LIT				*e*Sg	Sg	06 23 18.8	+1.1
LIT	Litokhoron	0.16	347	*e*Pg	Pg	06 23 15.8	+0.3
THL	Klokotos Trika	0.56	227	*i* PN	Pg	06 23 22.6	-0.5
THL				*e*SN	Sg	06 23 30.4	+0.1
THL	Klokotos Trika	0.56	227	*i* Pn	Pg	06 23 22.6	-0.5
THL				*e*Sn	Sg	06 23 30.4	+0.1
KZN	Kozani	0.69	302	*e*Pn	Pg	06 23 24.7	-0.9
KZN				*e*Sn	Sg	06 23 33.9	-0.6
KZN	Kozani	0.69	302	*e*PN	Pg	06 23 24.7	-0.9
KZN				*e*SN	Sg	06 23 33.9	-0.6
KZN	Kozani	0.69	302	*e*Pn	Pg	06 23 24.7	-0.9
KZN				*e*Sn	Sg	06 23 33.9	-0.6
THE	Thessaloniki	0.76	26	*e*Pg	Pg	06 23 27.2	+0.2
THE				*e*Sg	Sg	06 23 37.4	+0.6
THE	Thessaloniki	0.76	26	P	Pg	06 23 27.0	+0.1
THE	Thessaloniki	0.76	26	*e*Pg	Pg	06 23 27.2	+0.3
THE				*e*Sg	Sg	06 23 37.4	+0.6
XOR	Xorichti	0.77	139	P	Pg	06 23 27.8	+0.6
XOR	Xorichti	0.77	139	*e*Pg	Pg	06 23 28.1	+0.9
XOR	Xorichti	0.77	139	*e*Pg	Pg	06 23 28.1	+0.9
HORT	Hortiatis	0.78	33	P	Pg	06 23 27.5	+0.1
HORT	Hortiatis	0.78	33	*e*Pg	Pg	06 23 27.6	+0.3
HORT				*e*Sg	Sg	06 23 37.3	-0.2
HORT	Hortiatis	0.78	33	*e*Pg	Pg	06 23 27.6	+0.3
HORT				*e*Sg	Sg	06 23 37.3	-0.2
PLG	Polygyros	0.82	58	*e*Pn	Pn	06 23 29.0	-1.5
PLG				*e*Sn	Sg	06 23 40.2	+1.6
PLG	Polygyros	0.82	58	*e*Pg	Pg	06 23 28.8	+0.8
PLG				*e*Sg	Sg	06 23 39.8	+1.1
PLG	Polygyros	0.82	58	*e*PN	Pn	06 23 29.0	-1.5
PLG				*e*SN	Sg	06 23 40.2	+1.6
PLG	Polygyros	0.82	58	*e*Pg	Pg	06 23 28.8	+0.8
PLG	Polygyros	0.82	58	*e*Pn	Pn	06 23 29.0	-1.5
PLG				*e*Sg	Sg	06 23 39.8	+1.2
PLG				*e*Sn	Sg	06 23 40.2	+1.6
NEO	Neokhori	0.83	140	*e*Pn	Pn	06 23 29.3	-1.4

NEO				eSn	Sg	06 23 41.6	+2.5
NEO	**Neokhori**	**0.83**	**140**	ePN	**Pn**	**06 23 29.3**	**-1.4**
NEO				eSN	Sg	06 23 41.6	+2.5
NEO	**Neokhori**	**0.83**	**140**	ePn	**Pn**	**06 23 29.3**	**-1.4**
NEO				eSn	Sg	06 23 41.6	+2.5
PAIG	**Paliouri**	**0.88**	**91**	ePg	**Pg**	**06 23 30.3**	**+1.1**
PAIG				eSg	Sg	06 23 42.5	+1.8
PAIG	**Paliouri**	**0.88**	**91**	P	**Pg**	**06 23 30.2**	**+0.9**
PAIG	**Paliouri**	**0.88**	**91**	ePg	**Pg**	**06 23 30.3**	**+1.0**
PAIG				eSg	Sg	06 23 42.5	+1.8
AGG	**Agios Georgios**	**0.94**	**190**	ePg	**Pg**	**06 23 30.8**	**+0.4**
AGG				eSg	Sg	06 23 45.8	+3.2
AGG	**Agios Georgios**	**0.94**	**190**	P	**Pg**	**06 23 30.4**	**0.0**
AGG	**Agios Georgios**	**0.94**	**190**	ePg	**Pg**	**06 23 30.8**	**+0.4**
AGG				eSg	Sg	06 23 45.8	+3.2
GRG	**Griva**	**1.01**	**354**	ePg	**Pg**	**06 23 30.9**	**-0.9**
GRG				eSg	Sg	06 23 45.5	+0.5
GRG	**Griva**	**1.01**	**354**	P	**Pg**	**06 23 30.7**	**-1.1**
GRG	**Griva**	**1.01**	**354**	ePg	**Pg**	**06 23 30.9**	**-0.9**
GRG				eSg	Sg	06 23 45.5	+0.6
SOH	**Sokhos**	**1.07**	**35**	ePg	**Pg**	**06 23 32.5**	**-0.4**
SOH				eSg	Sg	06 23 48.3	+1.4
SOH	**Sokhos**	**1.07**	**35**	P	**Pg**	**06 23 32.4**	**-0.6**
SOH	**Sokhos**	**1.07**	**35**	ePg	**Pg**	**06 23 32.5**	**-0.5**
SOH				eSg	Sg	06 23 48.3	+1.4
OUR	**Ouranopolis**	**1.17**	**70**	ePg	**Pg**	**06 23 34.6**	**-0.3**
OUR	**Ouranopolis**	**1.17**	**70**	ePg	**Pg**	**06 23 34.6**	**-0.3**
EVR	**Evrytania**	**1.18**	**209**	ePn	**Pn**	**06 23 34.5**	**-0.9**
EVR				eSn	Sn	06 23 50.8	-1.0
EVR	**Evrytania**	**1.18**	**209**	ePN	**Pn**	**06 23 34.5**	**-0.9**
EVR				eSN	Sn	06 23 50.8	-1.0
EVR	**Evrytania**	**1.18**	**209**	ePn	**Pn**	**06 23 34.5**	**-0.9**
EVR				eSn	Sn	06 23 50.8	-1.0
FNA	**Florina**	**1.22**	**314**	ePg	**Pg**	**06 23 35.4**	**-0.3**
FNA	**Florina**	**1.22**	**314**	P	**Pg**	**06 23 34.8**	**-0.9**
FNA	**Florina**	**1.22**	**314**	ePg	**Pg**	**06 23 35.4**	**-0.3**
KNT	**Kendrikon**	**1.24**	**13**	ePg	**Pg**	**06 23 35.5**	**-0.8**
KNT				eSg	Sg	06 23 51.9	-0.4
KNT	**Kendrikon**	**1.24**	**13**	P	**Pg**	**06 23 35.0**	**-1.2**
KNT	**Kendrikon**	**1.24**	**13**	ePg	**Pg**	**06 23 35.5**	**-0.7**
KNT				eSg	Sg	06 23 51.9	-0.4
AOS	**Alonnisos**	**1.30**	**126**	P	**Pn**	**06 23 35.6**	**-1.5**
AOS	**Alonnisos**	**1.30**	**126**	ePg	**Pg**	**06 23 36.1**	**-1.1**
AOS	**Alonnisos**	**1.30**	**126**	ePg	**Pg**	**06 23 36.1**	**-1.2**
JAN	**Janina**	**1.33**	**258**	ePn	**Pn**	**06 23 36.8**	**-0.8**
JAN	**Janina**	**1.33**	**258**	ePN	**Pn**	**06 23 36.8**	**-0.8**
JAN	**Janina**	**1.33**	**258**	ePn	**Pn**	**06 23 36.8**	**-0.8**
LKR	**Lokris**	**1.34**	**164**	ePn	**Pn**	**06 23 37.4**	**-0.4**
LKR	**Lokris**	**1.34**	**164**	ePN	**Pn**	**06 23 37.4**	**-0.4**
LKR	**Lokris**	**1.34**	**164**	ePn	**Pn**	**06 23 37.4**	**-0.4**
VAY	**Valandovo**	**1.37**	**1**	ePg	**Pg**	**06 23 36.6**	**-2.1**
VAY				eSg	Sg	06 23 55.7	-0.7
VAY	**Valandovo**	**1.37**	**1**	P	**Pn**	**06 23 37.1**	**-1.0**
VAY	**Valandovo**	**1.37**	**1**	ePn	**Pn**	**06 23 36.5**	**-1.7**
VAY				eSn	Sn	06 23 54.7	-2.0
VAY	**Valandovo**	**1.37**	**1**	ePg	**Pg**	**06 23 36.6**	**-2.1**
VAY	**Valandovo**	**1.37**	**1**	P	**Pn**	**06 23 37.0**	**-1.1**
BIA	**Bitola**	**1.41**	**320**	P	**Pn**	**06 23 37.7**	**-1.0**
BIA	**Bitola**	**1.41**	**320**	ePg	**Pg**	**06 23 38.6**	**-0.9**
BIA	**Bitola**	**1.41**	**320**	ePn	**Pn**	**06 23 37.9**	**-0.8**
BIA				eSn	Sn	06 23 57.4	-0.3
BIA	**Bitola**	**1.41**	**320**	P	**Pn**	**06 23 37.7**	**-1.0**
BIA	**Bitola**	**1.41**	**320**	ePg	**Pg**	**06 23 38.6**	**-0.9**
SRS	**Serrai**	**1.42**	**34**	ePg	**Pg**	**06 23 38.1**	**-1.5**
SRS	**Serrai**	**1.42**	**34**	ePg	**Pg**	**06 23 38.1**	**-1.5**
KBN	**Korca**	**1.50**	**297**	i PN	**Pn**	**06 23 40.5**	**+0.6**
KBN				i SN	Sn	06 24 01.1	+1.3
KBN	**Korca**	**1.50**	**297**	i Pn	**Pn**	**06 23 40.5**	**+0.6**
KBN				i Sn	Sn	06 24 01.1	+1.3
KRUS	**Krusevo**	**1.72**	**326**	ePn	**Pn**	**06 23 43.2**	**+0.2**
KRUS				eSn	Sn	06 24 10.7	+5.4
NVR	**Nevrokopi**	**1.73**	**35**	ePn	**Pn**	**06 23 43.4**	**+0.4**
NVR	**Nevrokopi**	**1.73**	**35**	ePN	**Pn**	**06 23 43.4**	**+0.4**
NVR	**Nevrokopi**	**1.73**	**35**	ePn	**Pn**	**06 23 43.4**	**+0.4**
IGT	**Igoumenitsa**	**1.75**	**257**	ePb	**Pb**	**06 23 44.6**	**-0.3**
IGT				eSb	Sb	06 24 06.5	-0.6
IGT	**Igoumenitsa**	**1.75**	**257**	P	**Pn**	**06 23 44.4**	**+1.1**
IGT	**Igoumenitsa**	**1.75**	**257**	ePb	**Pb**	**06 23 44.7**	**-0.2**
IGT				eSb	Sb	06 24 06.5	-0.7
OHR	**Ohrid**	**1.76**	**312**	ePn	**Pn**	**06 23 46.1**	**+2.6**
OHR				eSn	Sn	06 24 08.6	+2.3
STIP	**Stip**	**1.76**	**351**	ePn	**Pn**	**06 23 43.7**	**+0.1**
STIP				eSn	Sn	06 24 09.6	+3.2
MMB	**Musomiste**	**1.87**	**29**	P	**Pn**	**06 23 44.6**	**-0.4**
LKD	**Levkas**	**1.92**	**230**	P	**Pn**	**06 23 47.5**	**+1.9**
LKD	**Levkas**	**1.92**	**230**	ePb	**Pb**	**06 23 47.7**	**-0.1**
LKD				eSb	Sb	06 24 10.8	-1.2
LKD	**Levkas**	**1.92**	**230**	ePb	**Pb**	**06 23 47.7**	**-0.1**
LKD				eSb	Sb	06 24 10.8	-1.2
SRN	**Sarande**	**1.95**	**269**	i PN	**Pn**	**06 23 48.6**	**+2.5**
SRN				i SN	Sn	06 24 11.4	+0.5
SRN	**Sarande**	**1.95**	**269**	i Pn	**Pn**	**06 23 48.6**	**+2.5**
SRN				i Sn	Sn	06 24 11.4	+0.5
LTK	**Loutraki**	**1.95**	**170**	ePn	**Pn**	**06 23 45.8**	**-0.4**
LTK	**Loutraki**	**1.95**	**170**	ePn	**Pn**	**06 23 45.8**	**-0.3**
LOS	**Limnos**	**1.96**	**90**	P	**Pn**	**06 23 45.5**	**-0.6**
LOS	**Limnos**	**1.96**	**90**	ePb	**Pb**	**06 23 45.7**	**-2.8**
LOS	**Limnos**	**1.96**	**90**	ePb	**Pb**	**06 23 45.7**	**-2.8**
KKB	**Krupnik**	**1.96**	**12**	P	**Pn**	**06 23 46.4**	**+0.1**
KKB	**Krupnik**	**1.96**	**12**	P	**Pn**	**06 23 46.3**	**+0.1**
LIA	**Limnos Island**	**2.04**	**91**	ePb	**Pb**	**06 23 48.5**	**-1.3**
LIA	**Limnos Island**	**2.04**	**91**	ePB	**Pb**	**06 23 48.5**	**-1.3**
LIA	**Limnos Island**	**2.04**	**91**	ePb	**Pb**	**06 23 48.5**	**-1.3**
RLS	**Riolos of Patr**	**2.06**	**204**	P	**Pn**	**06 23 52.0**	**+4.4**
KEK	**Kerkira**	**2.12**	**264**	ePb	**Pb**	**06 23 47.4**	**-3.9**
KEK				P		06 23 51.5	
KEK	**Kerkira**	**2.12**	**264**	ePB	**Pb**	**06 23 47.4**	**-3.9**
KEK	**Kerkira**	**2.12**	**264**	ePb	**Pb**	**06 23 47.4**	**-3.9**
PTL	**Penteli**	**2.16**	**151**	ePb	**Pb**	**06 23 50.0**	**-1.9**
PTL	**Penteli**	**2.16**	**151**	ePB	**Pb**	**06 23 50.0**	**-1.9**
PTL	**Penteli**	**2.16**	**151**	ePb	**Pb**	**06 23 50.0**	**-1.9**
ATH	**Athens Observa**	**2.18**	**155**	ePn	**Pn**	**06 23 49.6**	**+0.4**
ATH	**Athens Observa**	**2.18**	**155**	ePN	**Pn**	**06 23 49.6**	**+0.4**
ATH	**Athens Observa**	**2.18**	**155**	ePn	**Pn**	**06 23 49.6**	**+0.4**
SKO	**Skopje**	**2.19**	**338**	ePn	**Pn**	**06 23 57.1**	**+7.8**
SKO				eSn	Sn	06 24 23.0	+6.3
NAIG	**Nisos Aigina**	**2.31**	**161**	ePn	**Pn**	**06 23 51.0**	**0.0**
NAIG	**Nisos Aigina**	**2.31**	**161**	ePN	**Pn**	**06 23 51.0**	**0.0**
NAIG	**Nisos Aigina**	**2.31**	**161**	ePN	**Pn**	**06 23 51.0**	**0.0**
NAIG	**Nisos Aigina**	**2.31**	**161**	ePn	**Pn**	**06 23 51.0**	**0.0**
KVR	**Kavouri**	**2.33**	**155**	ePN	**Pn**	**06 23 51.0**	**-0.3**
KVR	**Kavouri**	**2.33**	**155**	ePN	**Pn**	**06 23 51.0**	**-0.3**
KVR	**Kavouri**	**2.33**	**155**	ePn	**Pn**	**06 23 51.0**	**-0.3**
VLS	**Valsamata**	**2.33**	**221**	ePb	**Pb**	**06 23 51.2**	**-3.6**
VLS				P		06 23 55.0	
VLS	**Valsamata**	**2.33**	**221**	ePB	**Pb**	**06 23 51.2**	**-3.6**
VLS	**Valsamata**	**2.33**	**221**	ePb	**Pb**	**06 23 51.2**	**-3.6**
VLS	**Valsamata**	**2.33**	**221**	P	**Pn**	**06 23 55.0**	**+3.7**
PHP	**Peshkopia**	**2.35**	**318**	i PN	**Pn**	**06 23 51.5**	**-0.1**
PHP				i SN	Sn	06 24 24.3	+3.4
PHP	**Peshkopia**	**2.35**	**318**	i Pn	**Pn**	**06 23 51.5**	**-0.1**
RZN	**Rozhen**	**2.40**	**43**	P	**Pn**	**06 23 52.7**	**+0.4**
TIR	**Tirane**	**2.47**	**305**	i PN	**Pn**	**06 23 56.1**	**+2.9**
TIR				i SN	Sn	06 24 33.0	+9.3
TIR	**Tirane**	**2.47**	**305**	i Pn	**Pn**	**06 23 56.1**	**+2.9**
DID	**Didima**	**2.50**	**167**	ePn	**Pn**	**06 23 53.6**	**0.0**
DID	**Didima**	**2.50**	**167**	ePn	**Pn**	**06 23 53.6**	**0.0**
VLX	**Vlachokerasia**	**2.58**	**183**	ePn	**Pn**	**06 23 55.3**	**+0.6**
VLX	**Vlachokerasia**	**2.58**	**183**	ePn	**Pn**	**06 23 55.3**	**+0.6**
RDO	**Rodhopi**	**2.58**	**61**	ePn	**Pn**	**06 23 55.0**	**+0.2**
RDO	**Rodhopi**	**2.58**	**61**	ePN	**Pn**	**06 23 55.0**	**+0.2**
RDO	**Rodhopi**	**2.58**	**61**	ePn	**Pn**	**06 23 55.0**	**+0.2**
VTS	**Vitosha**	**2.69**	**11**	⇑iP	**Pn**	**06 23 56.7**	**+0.5**
VTS	**Vitosha**	**2.69**	**11**	P	**Pn**	**06 23 57.2**	**+1.0**
KDZ	**Kurdzhali**	**2.77**	**51**	Pg	**Pg**	**06 24 03.0**	**-2.4**
KDZ	**Kurdzhali**	**2.77**	**51**	Pg	**Pg**	**06 24 03.0**	**-2.4**
KDZ	**Kurdzhali**	**2.77**	**51**	Pg	**Pg**	**06 24 03.0**	**-2.4**
ALN	**Alexandroupoli**	**2.84**	**69**	ePn	**Pn**	**06 23 58.0**	**-0.4**
ALN	**Alexandroupoli**	**2.84**	**69**	P	**Pn**	**06 23 57.9**	**-0.4**
ALN	**Alexandroupoli**	**2.84**	**69**	ePn	**Pn**	**06 23 58.0**	**-0.3**
BARS	**Barje**	**2.92**	**350**	Pn	**Pn**	**06 23 59.6**	**+0.2**
PRK	**Paraskevi**	**2.97**	**102**	ePn	**Pn**	**06 24 01.4**	**+1.3**
PRK	**Paraskevi**	**2.97**	**102**	ePN	**Pn**	**06 24 01.4**	**+1.3**
PRK	**Paraskevi**	**2.97**	**102**	ePn	**Pn**	**06 24 01.4**	**+1.3**
DIM	**Dimitrovgrad**	**3.09**	**46**	eP	**Pn**	**06 24 10.4**	**+8.7**
VLI	**Veliai**	**3.24**	**174**	ePn	**Pn**	**06 24 03.8**	**0.0**
VLI	**Veliai**	**3.24**	**174**	ePN	**Pn**	**06 24 03.8**	**0.0**
VLI	**Veliai**	**3.24**	**174**	ePn	**Pn**	**06 24 03.8**	**0.0**
APE	**Apeiranthos**	**3.71**	**140**	⇓P	**Pn**	**06 24 10.5**	**+0.2**
APE	**Apeiranthos**	**3.71**	**140**	⇓iP	**Pn**	**06 24 10.5**	**+0.2**
SMG	**Samos**	**4.04**	**122**	P	**Pn**	**06 24 16.2**	**+1.4**
GRUS	**Gruza**	**4.17**	**342**	Pn	**Pn**	**06 24 15.8**	**-0.7**
SZH	**Strazhica**	**4.18**	**36**	P	**Pn**	**06 24 17.4**	**+0.6**
TIP	**Timpagrande**	**4.53**	**262**	P	**Pn**	**06 24 23.2**	**+1.6**
DIVS	**Divcibare**	**4.56**	**336**	Pn	**Pn**	**06 24 21.7**	**-0.2**
VAM	**Vamos**	**4.72**	**163**	P	**Pn**	**06 24 28.9**	**+4.7**
IDI	**Anoyia**	**5.01**	**157**	Pn	**Pn**	**06 24 29.1**	**+0.9**
IDI				Sn	**Sn**	**06 25 30.9**	**+4.3**
IDI	**Anoyia**	**5.01**	**157**	Pn	**Pn**	**06 24 29.1**	**+0.9**
	1.4nm,0.3s,baz=15,slow=14,SNR=9.1						
IDI				Sn	**Sn**	**06 25 30.9**	**+4.4**
	1.0nm,0.3s,baz=312,slow=19,SNR=2.0						
IDI	**Anoyia**	**5.01**	**157**	Pn	**Pn**	**06 24 29.1**	**+0.9**
MGR	**Morigerati**	**5.36**	**274**	Pn	**Pn**	**06 24 34.7**	**+1.7**
	51nm,0.5s						
MGR	**Morigerati**	**5.36**	**274**	Pn	**Pn**	**06 24 34.7**	**+1.7**
	51nm,0.5s						
GZR	**Gura Zlata**	**5.44**	**2**	⇑P	**Pn**	**06 24 34.1**	**0.0**
GZR	**Gura Zlata**	**5.44**	**2**	⇑iP	**Pn**	**06 24 34.1**	**0.0**
SGO	**Sicignano**	**5.56**	**279**	P	**Pn**	**06 24 37.9**	**+2.1**
SGO				pmax	pmax		
	comp=Z,15nm,0.3s						
SGO	**Sicignano**	**5.56**	**279**	P	**Pn**	**06 24 37.9**	**+2.1**
	comp=Z,15nm,0.3s						
BZS	**Buzias**	**5.71**	**353**	⇑P	**Pn**	**06 24 36.7**	**-1.0**
BZS	**Buzias**	**5.71**	**353**	⇑iP	**Pn**	**06 24 36.7**	**-1.0**
VOIR		**5.79**	**18**	⇓P	**Pn**	**06 24 39.8**	**+0.9**
VOIR		**5.79**	**18**	⇓iP	**Pn**	**06 24 39.8**	**+1.0**
MLR	**Muntele Rosu**	**6.08**	**23**	⇓P	**Pn**	**06 24 44.7**	**+1.9**
MLR	**Muntele Rosu**	**6.08**	**23**	P	**Pn**	**06 24 44.7**	**+1.9**
MLR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MLR	**Muntele Rosu**	**6.08**	**23**	Pn	**Pn**	**06 24 44.7**	**+1.8**
	comp=Z,1.9nm,0.3s,baz=210,slow=5.5,SNR=19						
MLR	**Muntele Rosu**	**6.08**	**23**	⇓iP	**Pn**	**06 24 44.7**	**+1.9**
PLOR	**Plostina**	**6.63**	**26**	⇑iP	**Pn**	**06 24 52.2**	**+1.9**
VRI	**Vrincioaia**	**6.67**	**26**	⇓P	**Pn**	**06 24 53.3**	**+2.4**
VRI	**Vrincioaia**	**6.67**	**26**	⇓iP	**Pn**	**06 24 53.3**	**+2.4**
PKSM	**Moragy**	**6.88**	**337**	⇑iP	**Pn**	**06 24 53.0**	**-0.8**
BRTR	**Keskin Array B**	**8.55**	**88**	Pn	**Pn**	**06 25 17.8**	**+1.1**
BRTR	**Keskin Array B**	**8.55**	**88**	P	**Pn**	**06 25 17.8**	**+1.1**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
BRTR	**Keskin Array B**	**8.55**	**88**	Pn	**Pn**	**06 25 17.8**	**+1.1**
	comp=Z,0.5nm,0.3s,baz=269,slow=9.9,SNR=16						
GERES	**GERESS Array B**	**10.90**	**328**	Pn	**Pn**	**06 25 48.8**	**-0.1**
	comp=Z,0.1nm,0.3s,baz=175,slow=13,SNR=3.2						
ANN	**Anapa**	**12.03**	**61**	eP	**Pn**	**06 26 12.6**	**+8.2**
ANN				pmax	pmax		
	comp=Z,85nm,1.2s						
KIV	**Kislovodsk**	**15.51**	**68**	eP	**Pn**	**06 26 59.5**	**+7.8**
KIV				pmax	pmax		
	comp=Z,4.0nm,0.6s						
FINES	**FINESS Array B**	**21.63**	**5**	P	**P**	**06 28 00.9**	**-2.2**
FINES				pmax	pmax		
	comp=Z,3.0nm,1.0s						
FINES	**FINESS Array B**	**21.63**	**5**	P	**P**	**06 28 00.8**	**-2.3**
	comp=Z,3.0nm,1.0s,mb3.7,baz=189,slow=8.2,SNR=3.3						
NB2	**NORSAR Subarra**	**22.25**	**345**	P	**P**	**06 28 07.9**	**-1.8**
	comp=Z,3.1nm,1.0s,mb3.7,baz=154,slow=11						
NOA	**NORSAR Array B**	**22.25**	**345**	P	**P**	**06 28 08.9**	**-0.8**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NOA	**NORSAR Array B**	**22.25**	**345**	P	**P**	**06 28 08.9**	**-0.8**
	comp=Z,1.2nm,0.9s,mb3.3,baz=164,slow=10,SNR=3.8						
EKA	**Eskdalemuir Ar**	**22.97**	**321**	P	**P**	**06 28 14.6**	**-2.9**
EKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
EKA	**Eskdalemuir Ar**	**22.97**	**321**	P	**P**	**06 28 14.6**	**-2.9**
	comp=Z,1.2nm,0.7s,mb3.4,baz=112,slow=9.1,SNR=3.5						
TORD	**Torodi Ar. Bea**	**32.39**	**220**	P	**P**	**06 29 41.4**	**-1.7**
	comp=Z,0.7nm,0.5s,mb3.8,baz=35,slow=8.9,SNR=9.4						
MKAR	**Makanchi Array**	**43.05**	**60**	P	**P**	**06 31 12.3**	**-0.6**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	**43.05**	**60**	P	**P**	**06 31 12.3**	**-0.6**
	comp=Z,0.7nm,0.6s,mb3.6,baz=281,slow=6.9,SNR=6.2						
ZALV	**Zalesovo Beam**	**43.35**	**50**	P	**P**	**06 31 14.7**	**-0.4**
	comp=Z,3.2nm,0.8s,mb4.1,baz=276,slow=9.4,SNR=6.4						
SONM	**Songino Array**	**58.13**	**52**	P	**P**	**06 33 06.6**	**-0.2**
	comp=Z,0.3nm,0.6s,mb3.5,baz=264,slow=7.1,SNR=2.7						
YKA	**Yellowknife Ar**	**72.25**	**341**	P	**P**	**06 34 36.9**	**-1.2**
	comp=Z,0.2nm,0.6s,mb3.2,baz=31,slow=5.6,SNR=4.9						
KSRS	**Korea Array**	**77.00**	**52**	P	**P**	**06 35 04.8**	**-1.3**
	comp=Z,1.1nm,0.6s,mb4.0,baz=310,slow=4.5,SNR=9.0						

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*ISCJB **19** 06:43:40.7±1.2, 17.7S±0.3×178.7W±0.2, h550^{km}±18^{km}, mb4.3/15, Error ellipse: s-maj=45.7km s-min=11.9km az=151.5*

*NEIC **19** 06:43:41.5±0.8, 17.45S×178.80W, h546^{km}±11^{km}, mb4.6/9, Error ellipse: s-maj=35.3km s-min=8.1km az=150.0*

*IDC **19** 06:43:41.6±2.0, 16.70S×179.23W, h528^{km}±27^{km}, mb3.8/7, mb1 4.0/10, mb1mx3.7/17, mbtmp3.8/10, Error ellipse: s-maj=49.4km s-min=12.3km az=157.0*

ISC 19 06:43:41.5±1.2**, 17.7S**±0.3×**178.7W**±0.2**, h544**^{km}±16^{km}**, n25, $\sigma 0^{s}.79$**/21**, mb4.3**/15**, 1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**7.63**	**62**	P	**P**	**06 45 34.9**	**-0.6**
	5.4nm,0.3s,baz=267,slow=8.8,SNR=5.7						
DZM	**Mont Dzumac**	**14.65**	**250**	P	**P**	**06 46 47.9**	**+0.5**
	1.5nm,0.3s,baz=97,slow=18,SNR=13						
RAR	**Rarotonga**	**18.18**	**104**	P	**P**	**06 47 30.5**	**+9.2**
	1.2nm,0.3s,baz=266,slow=7.3,SNR=3.0						
ARMA	**Armidale**	**29.83**	**239**	eP	**P**	**06 49 05.6**	**+0.8**
CTA	**Charters Tower**	**33.22**	**260**	eP	**P**	**06 49 34.0**	**+0.1**
	5.3nm,0.8s,mb4.1						
CNB	**Canberra Magne**	**33.36**	**232**	eP	**P**	**06 49 35.3**	**+0.5**
	13nm,0.5s,mb4.7						
PMG	**Port Moresby**	**34.16**	**279**	eP	**P**	**06 49 43.6**	**+1.8**
	16nm,0.8s,mb4.6						
TOO	**Toolangi**	**37.11**	**230**	eP	**P**	**06 50 06.4**	**+0.4**
	8.6nm,0.7s,mb4.4						
STKA	**Stephens Creek**	**38.51**	**241**	eP	**P**	**06 50 17.9**	**+0.4**
	9.2nm,0.6s,mb4.5						
STKA				eP		06 50 17.9	
STKA	**Stephens Creek**	**38.51**	**241**	P	**P**	**06 50 18.0**	**+0.5**
	11nm,0.5s,mb4.7,baz=93,slow=9.7,SNR=28						
WB2	**Warramunga Arr**	**44.40**	**259**	⇓iP	**P**	**06 51 03.3**	**-0.9**
WRA	**Warramunga Arr**	**44.41**	**259**	P	**P**	**06 51 03.4**	**-0.9**
	5.4nm,0.5s,mb4.4,baz=92,slow=7.0,SNR=90						
ASAR	**Alice Springs**	**44.60**	**254**	P	**P**	**06 51 05.5**	**-0.2**
	52nm,0.6s,mb5.3,baz=88,slow=8.3,SNR=647						
KAKA	**Kakadu**	**47.32**	**269**	eP	**P**	**06 51 26.2**	**-0.3**
	26nm,0.6s,mb4.9						
FORT	**Forrest**	**49.87**	**244**	eP	**P**	**06 51 44.2**	**-1.0**
	17nm,0.6s,mb4.7						
FITZ	**Fitzroy Crossi**	**52.80**	**260**	eP	**P**	**06 52 06.3**	**-0.3**
	3.0nm,0.3s,mb4.1						
KLBR	**Kellerberrin**	**58.70**	**243**	eP	**P**	**06 52 45.8**	**-1.4**
	8.2nm,0.6s,mb4.1						
NVAR	**Mina Array Bea**	**79.44**	**44**	P	**P**	**06 54 52.3**	**+0.8**
	2.3nm,0.7s,mb3.6,baz=215,slow=7.5,SNR=9.1						
TXAR	**Lajitas Array**	**86.09**	**58**	P	**P**	**06 55 26.1**	**+0.9**
	2.5nm,0.7s,mb4.0,baz=218,slow=6.2,SNR=36						
PDAR	**Pinedale Array**	**87.36**	**44**	P	**P**	**06 55 30.9**	**+0.1**
	1.7nm,0.5s,mb3.9,baz=214,slow=3.9,SNR=17						
YKA	**Yellowknife Ar**	**94.23**	**25**	P	**P**	**06 56 01.2**	**-0.8**
	0.7nm,0.8s,mb3.8,baz=240,slow=4.2,SNR=7.9						
BRTR	**Keskin Array B**	**144.43**	**315**	PKP	PKPdf	07 02 14.9	-1.2
BRTR	**Keskin Array B**	**144.43**	**315**	PKP	PKPdf	07 02 14.9	-1.2
	0.3nm,0.6s,baz=27,slow=4.1,SNR=3.6						
GERES	**GERESS Array B**	**147.31**	**345**	PKPbc	PKPbc	07 02 21.9	-2.0
GERES	**GERESS Array B**	**147.31**	**345**	PKPbc	PKPbc	07 02 21.9	-2.0
	0.8nm,0.5s,baz=29,slow=3.0,SNR=6.4						

IDC 19 06:51:42.8±32.0**, 18.33S**×**174.32W, h0**^{km}**, mb3.9**/4**, mb1 4.0**/4**, mb1mx3.7**/16**, mbtmp3.9**/4**, Error ellipse: s-maj=638.5km s-min=158.8km az=88.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**41.86**	**242**	P	P	06 59 34.9	0.0
	1.9nm,0.6s,baz=77,slow=11,SNR=6.9						
WRA	**Warramunga Arr**	**48.38**	**259**	P	P	07 00 26.3	-0.5
	0.2nm,0.4s,baz=97,slow=7.0,SNR=8.7						
ASAR	**Alice Springs**	**48.42**	**254**	P	P	07 00 27.2	+0.1
	2.5nm,0.6s,baz=92,slow=8.3,SNR=48						
FITZ	**Fitzroy Crossi**	**56.79**	**260**	P	P	07 01 29.5	+0.2
	0.5nm,0.6s,baz=115,slow=7.3,SNR=4.1						

IDC 19 07:00:24.6±1.3**, 2.72N**×**127.10E, h0**^{km}**, mb3.5**/6**, mb1 3.7**/6**, mb1mx3.6**/18**, mbtmp3.5**/6**, Error ellipse: s-maj=99.6km s-min=19.2km az=72.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**20.74**	**184**	eP	P	07 05 09.2	+2.3
	1.7nm,0.6s						
FITZ	**Fitzroy Crossi**	**20.74**	**184**	P	P	07 05 08.4	+1.5
	0.9nm,0.6s,baz=14,slow=17,SNR=7.6						
WRA	**Warramunga Arr**	**23.62**	**163**	P	P	07 05 35.6	-2.0
	1.5nm,0.5s,baz=340,slow=10,SNR=16						
WB2	**Warramunga Arr**	**23.62**	**163**	eP	P	07 05 39.0	+1.3
ASAR	**Alice Springs**	**27.05**	**166**	P	P	07 06 08.7	-0.1
	0.2nm,0.4s,baz=339,slow=7.4,SNR=6.0						
STKA	**Stephens Creek**	**37.06**	**159**	P	P	07 07 37.8	+1.3
	0.6nm,0.3s,baz=342,slow=13,SNR=3.4						
SONM	**Songino Array**	**48.36**	**341**	P	P	07 09 08.5	+0.4
	0.4nm,0.6s,baz=153,slow=9.5,SNR=4.5						
MKAR	**Makanchi Array**	**58.59**	**325**	P	P	07 10 22.9	-0.4
	0.1nm,0.4s,baz=123,slow=8.2,SNR=4.5						

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*ISCJB **19** 08:22:16.6±6.0, 21.85N±0.08×143.0E±0.1, h85^{km}±53^{km}, mb4.3/27, Error ellipse: s-maj=20.2km s-min=13.1km az=167.7*

*BJI **19** 08:22:20.3, 21.90N×143.00E, h125^{km}, mB4.9, mb4.6*

*IDC **19** 08:22:21.4±7.6, 21.91N×142.92E, h119^{km}±68^{km}, mb3.8/15, mb1 4.0/15, mb1mx3.9/21, mbtmp3.8/15, MS3.2/3, Ms1 3.2/3, ms1mx2.8/34, Error ellipse: s-maj=29.6km s-min=13.4km az=79.0*

*NEIC **19** 08:22:22.4±5.2, 21.87N×142.98E, h126^{km}±47^{km}, mb4.6/12, Error ellipse: s-maj=14.7km s-min=9.5km az=75.0*

ISC 19 08:22:19.9±5.3**, 21.87N**±0.08×**143.0E**±0.1**, h101**^{km}±48^{km}**, n38, $\sigma 0^{s}.85$**/34**, mb4.3**/27**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	**Matsushiro Arr**	**15.20**	**345**	LR	LR	08 31 11.1	
	comp=Z,171nm,18.9s,baz=170,slow=35						
JNU	**Nakatsue**	**15.52**	**319**	LR	LR	08 30 31.5	
	comp=Z,62nm,20.1s,baz=313,slow=32						
KSRS	**Korea Array**	**20.28**	**323**	P	**P**	**08 26 47.5**	**+0.1**
	4.1nm,0.9s,baz=139,slow=10,SNR=16						
KSRS				LR	LR	08 33 40.4	
	comp=Z,67nm,20.2s,baz=150,slow=34						
YSS	**Yuzh-Sakhalins**	**25.02**	**360**	eP	**P**	**08 27 33.9**	**-0.4**
	8.3nm,0.3s,mb4.6						
LZH	**Lanzhou**	**36.82**	**301**	eP	**P**	**08 29 19.5**	**+1.3**
LZH				AMB	AMB		
	comp=Z,18nm,1.4s,mb4.8						
LZH	**Lanzhou**	**36.82**	**301**	eP	**P**	**08 29 19.5**	**+1.3**
	comp=Z,18nm,1.4s,mb4.8						
LZH				pP	pP	08 29 25.6	-15
LZH				sP	sP	08 29 28.0	-25
ULN	**Ulaanbaatar**	**38.73**	**321**	eP	**P**	**08 29 33.7**	**-0.3**
	comp=Z,22nm,1.7s,mb4.7						
SONM	**Songino Array**	**39.10**	**320**	P	**P**	**08 29 35.8**	**-1.4**
	comp=Z,3.8nm,0.9s,mb4.2,baz=124,slow=7.2,SNR=22						
GTA	**Gaotai**	**40.64**	**305**	eP	**P**	**08 29 50.1**	**+0.1**
GTA				AMB	AMB		
	comp=Z,3.0nm,1.3s,mb4.0						
WB2	**Warramunga Arr**	**42.41**	**192**	eP	**P**	**08 30 04.3**	**-0.3**
WB2	**Warramunga Arr**	**42.41**	**192**	eP	**P**	**08 30 04.4**	**-0.2**
WRA	**Warramunga Arr**	**42.41**	**192**	P	**P**	**08 30 04.3**	**-0.3**
	comp=Z,4.0nm,0.9s,mb4.1,baz=14,slow=8.7,SNR=17						
ASAR	**Alice Springs**	**46.12**	**192**	P	**P**	**08 30 34.0**	**-0.1**
	comp=Z,1.8nm,1.0s,mb3.8,baz=20,slow=9.6,SNR=21						
STKA	**Stephens Creek**	**53.46**	**181**	P	**P**	**08 31 29.4**	**-0.2**
	comp=Z,2.1nm,0.8s,mb4.2,baz=332,slow=15,SNR=4.9						
ZALV	**Zalesovo Beam**	**53.97**	**322**	P	**P**	**08 31 32.5**	**-0.7**
	comp=Z,10nm,1.0s,mb4.8,baz=97,slow=7.6,SNR=17						
MKAR	**Makanchi Array**	**54.46**	**313**	P	**P**	**08 31 36.8**	**0.0**
	comp=Z,1.7nm,0.9s,mb4.1,baz=89,slow=13,SNR=3.7						
TKM2	**Tokmak 2**	**59.11**	**308**	eP	**P**	**08 32 10.8**	**+0.9**
	comp=Z,7.3nm,1.0s,mb4.7						
AAK	**Ala-Archa**	**59.93**	**307**	eP	**P**	**08 32 15.5**	**0.0**
UCH	**Uchtor**	**59.94**	**307**	eP	**P**	**08 32 17.5**	**+2.0**
	comp=Z,8.1nm,1.0s,mb4.7						
AML	**Almayashu**	**60.55**	**307**	eP	**P**	**08 32 21.5**	**+1.8**
	comp=Z,7.8nm,1.0s,mb4.7						
YKA	**Yellowknife Ar**	**76.38**	**28**	P	**P**	**08 33 56.9**	**-0.9**
YKA	**Yellowknife Ar**	**76.38**	**28**	P	**P**	**08 33 56.9**	**-0.9**
	comp=Z,1.1nm,0.5s,mb3.9,baz=292,slow=5.7,SNR=24						
ARCES	**ARCESS Array B**	**78.70**	**341**	P	**P**	**08 34 10.0**	**-0.7**
	comp=Z,8.8nm,1.1s,mb4.5,baz=61,slow=12,SNR=2.7						
NEW	**Newport**	**80.26**	**42**	eP	**P**	**08 34 19.6**	**0.0**
	comp=Z,4.6nm,1.0s,mb4.3						
CMB	**Columbia Colle**	**81.78**	**52**	eP	**P**	**08 34 28.3**	**+0.5**
	comp=Z,4.7nm,0.9s,mb4.3						
FINES	**FINESS Array B**	**82.95**	**334**	P	**P**	**08 34 32.0**	**-1.4**
	comp=Z,1.4nm,0.9s,mb3.8,baz=94,slow=5.7,SNR=4.1						
NVAR	**Mina Array Bea**	**83.16**	**51**	P	**P**	**08 34 35.5**	**+0.5**
	comp=Z,2.9nm,0.8s,mb4.1,baz=260,slow=9.1,SNR=12						
FFC	**Flin Flon**	**85.76**	**32**	eP	**P**	**08 34 47.9**	**+0.1**
	comp=Z,14nm,1.0s,mb4.9						
DUG	**Dugway**	**86.34**	**48**	eP	**P**	**08 34 50.9**	**0.0**
	comp=Z,8.4nm,1.2s,mb4.5						
HWUT	**Hardware Ranch**	**86.58**	**46**	eP	**P**	**08 34 52.3**	**+0.3**
	comp=Z,6.4nm,1.0s,mb4.5						
AKASG	**Malin Array Be**	**87.27**	**324**	P	**P**	**08 34 53.4**	**-1.8**
	comp=Z,1.9nm,0.8s,mb4.1,baz=49,slow=4.7,SNR=6.9						
PDAR	**Pinedale Array**	**87.38**	**45**	P	**P**	**08 34 56.0**	**+0.1**
	comp=Z,0.7nm,0.9s,mb3.6,baz=308,slow=6.6,SNR=5.1						
BRTR	**Keskin Array B**	**90.10**	**313**	P	**P**	**08 35 08.2**	**-0.6**
	comp=Z,2.8nm,0.9s,mb4.4,baz=107,slow=4.3,SNR=9.3						
SMCO	**Snowmass**	**90.81**	**47**	eP	**P**	**08 35 13.5**	**+1.4**
	comp=Z,3.6nm,0.9s,mb4.5						
ULM	**Lac du Bonnet**	**91.39**	**33**	P	**P**	**08 35 13.6**	**-0.9**
	comp=Z,1.2nm,0.8s,mb4.1,baz=292,slow=5.4,SNR=4.3						
ISCO	**Idaho Springs**	**91.42**	**46**	eP	**P**	**08 35 15.9**	**+1.0**
LPAZ	**La Paz**	**150.09**	**85**	ePKPdf	PKPdf	08 41 53.2	-1.3
LPAZ				PKPbc	PKPbc	08 42 00.1	+0.5
LPAZ				ePKPbc	PKPbc	08 42 01.0	+1.4
LPAZ				ePKPab	PKPab	08 42 06.3	+0.5
LPAZ	**La Paz**	**150.09**	**85**	PKPbc	PKPbc	08 42 00.1	+0.5
	comp=Z,5.4nm,1.0s,baz=311,slow=2.8,SNR=15						

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*IDC **19** 08:24:33.7±2.6, 39.33N×76.24E, h0^{km}, mb3.8/2, mb1 3.9/5, mb1mx3.5/24, mbtmp3.7/5, ML3.4/3, MS3.4/4, Ms1 3.4/4, ms1mx3.0/26, Error ellipse: s-maj=60.5km s-min=28.3km az=143.0*

*BJI **19** 08:24:39.8, 40.14N×75.93E, h12^{km}, mb3.7, ML3.7*

*ISCJB **19** 08:24:40.7±0.8, 39.69N±0.06×76.1E±0.1, h64^{km}±6^{km}, mb3.7/2, Error ellipse: s-maj=14.8km s-min=10.5km az=165.1*

*NNC **19** 08:24:41.5±4.1, 40.05N×75.79E, h0^{km}, mb3.8, mpv3.4, Error ellipse: s-maj=35.4km s-min=24.0km az=161.0*

*NEIC **19** 08:24:45.0±4.7, 39.95N×75.92E, h69^{km}±30^{km}, Error ellipse: s-maj=55.4km s-min=16.2km az=168.0*

ISC 19 08:24:42.0±0.8**, 39.67N**±0.07×**76.0E**±0.1**, h58**^{km}±6^{km}**, n29, $\sigma 0^{s}.90$**/34**, mb3.7**/2**, MS3.5**/2**, 5C-4D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	**0.15**	**191**	PG	**Pn**	**08 24 51.6**	**+0.7**
KSH				SG	**Sn**	**08 24 57.3**	**0.0**
KSH				Smax			
	comp=N,30µm,1.0s						
KSH				Smax			
	comp=E,15µm,0.5s						
KZA	**Kyzart**	**2.48**	**347**	P	**Pn**	**08 25 18.9**	**-1.1**
	SNR=504						
ULHL	**Ulahol**	**2.58**	**4**	P	**Pn**	**08 25 21.5**	**+0.1**
	SNR=146						
UCH	**Uchtor**	**2.80**	**337**	P	**Pn**	**08 25 23.6**	**-0.7**
	SNR=768						
UCH	**Uchtor**	**2.80**	**337**	ePn	**Pn**	**08 25 23.7**	**-0.6**
UCH				eSn	**Sn**	**08 25 58.7**	**+1.8**
AML	**Almayashu**	**3.02**	**325**	P	**Pn**	**08 25 27.2**	**-0.2**
	SNR=98						
KBK	**Karagaybulak**	**3.09**	**345**	P	**Pn**	**08 25 28.9**	**+0.6**
	SNR=8.8						
AAK	**Ala-Archa**	**3.18**	**339**	P	**Pn**	**08 25 29.4**	**-0.1**
	SNR=201						
AAK	**Ala-Archa**	**3.18**	**339**	ePn	**Pn**	**08 25 28.3**	**-1.2**
AAK				eSn	**Sn**	**08 26 06.4**	**+0.3**
TKM2	**Tokmak 2**	**3.27**	**355**	P	**Pn**	**08 25 30.9**	**+0.2**
	SNR=248						
TKM2	**Tokmak 2**	**3.27**	**355**	⇑Pn	**Pn**	**08 25 30.7**	**0.0**
	comp=E,4.0nm,0.6s						
TKM2				⇑Pg	**Pn**	**08 25 33.8**	**+3.1**

	comp=E,6.5nm,0.4s						
TKM2				⇑Lg		08 26 11.4	
	comp=E,70nm,0.6s						
TKM2	Tokmak 2	3.27	355	ePn	Pn	08 25 30.6	-0.1
TKM2				eSn	Sn	08 26 12.2	+3.9
EKS2	Erkin-Say	3.44	331	P	Pn	08 25 33.0	0.0
	SNR=35						
EKS2	Erkin-Say	3.44	331	ePn	Pn	08 25 33.1	+0.1
EKS2				eSn	Sn	08 26 17.7	+5.3
CHMS	Chumysh	3.46	345	P	Pn	08 25 33.1	-0.3
	SNR=24						
USP	Ospenovka	3.77	343	P	Pn	08 25 37.9	+0.3
	SNR=18						
KK31	Karatay Array	5.38	311	Pn	Pn	08 25 58.9	-0.6
	comp=E,2.2nm,0.8s,baz=127,slow=9.5,SNR=12						
KK31				⇓Pg	Pn	08 26 11.4	+12
	comp=E,20nm,0.8s						
KK31				⇓Lg		08 27 19.4	
	comp=E,51nm,0.7s,baz=137,slow=27,SNR=10.0						
MK31	Makanchi Array	8.47	31	⇓Pn	Pn	08 26 41.9	0.0
	comp=E,1.6nm,0.5s,baz=214,slow=15,SNR=74						
MK31				⇑Lg		08 28 57.3	
	comp=E,5.9nm,0.6s,baz=208,slow=29						
MKAR	Makanchi Array	8.47	31	Pn	Pn	08 26 42.2	+0.3
MKAR				Lg		08 29 00.3	
MKAR	Makanchi Array	8.47	31	Pn	Pn	08 26 42.2	+0.3
	comp=E,1.0nm,0.3s,baz=212,slow=16,SNR=50						
MKAR				Lg		08 29 00.3	
	comp=E,0.8nm,0.3s,baz=196,slow=30,SNR=4.1						
AB31	Akbulak array	14.92	315	⇑Pn	Pn	08 28 05.1	-4.3
	comp=E,1.6nm,0.8s,baz=129,slow=15,SNR=4.5						
AB31				⇓Lg		08 32 25.8	
	comp=E,5.3nm,1.1s,baz=89,slow=8.2,SNR=7.4						
ZALV	Zalesovo Beam	15.49	20	Pn	Pn	08 28 14.7	-1.9
ZALV				Lg		08 32 37.8	
ZALV	Zalesovo Beam	15.49	20	Pn	Pn	08 28 14.7	-1.9
	comp=E,0.3nm,0.3s,baz=204,slow=14,SNR=4.1						
ZALV				Lg		08 32 37.8	
	comp=E,0.3nm,0.3s,baz=196,slow=26,SNR=3.0						
ZALV				LR	LR	08 34 30.4	
	comp=E,71nm,19.0s,baz=207,slow=38						
AKTK	Aktyubinsk	16.62	316	Pn	Pn	08 28 29.8	-1.1
AKTO	Aktyubinsk	16.62	316	Pn	Pn	08 28 29.8	-1.1
	comp=E,0.0nm,0.3s,baz=106,slow=13,SNR=5.3						
AKTO				LR	LR	08 35 25.0	
	comp=E,98nm,18.3s,baz=171,slow=38						
FINES	FINESS Array B	37.22	323	LR	LR	08 47 36.9	
	comp=E,68nm,21.6s,MS3.4,baz=159,slow=37						
NOA	NORSAR Array B	44.33	321	LR	LR	08 51 45.7	
	comp=E,61nm,18.5s,MS3.5,baz=90,slow=36						
TORD	Torodi Ar. Bea	69.70	270	P	P	08 35 47.0	+1.1
	comp=E,0.7nm,0.8s,mb3.7,baz=53,slow=5.2,SNR=4.1						
YKA	Yellowknife Ar	77.83	5	P	P	08 36 34.1	+1.4
	comp=E,0.5nm,0.6s,mb3.7,baz=347,slow=5.3,SNR=12						

IDC 19 08:25:30.9±13.0, 21.84N×142.98E, h126^{km}±122^{km}, mb3.0/6, mb1 3.2/6, mb1mx3.1/21, mbtmp3.0/6, Error ellipse: s-maj=55.8km s-min=18.2km az=82.0, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSRS	Korea Array	20.29	323	P	P	08 29 57.2	+0.6
	0.9nm,0.6s,baz=144,slow=9.6,SNR=4.5						
SONM	Songino Array	39.11	320	P	P	08 32 45.1	-0.7
	0.4nm,0.5s,baz=135,slow=8.2,SNR=5.6						
WRA	Warramunga Arr	42.38	192	P	P	08 33 12.7	-0.1
	0.3nm,0.6s,baz=17,slow=9.3,SNR=4.2						
ASAR	Alice Springs	46.09	192	P	P	08 33 42.4	0.0
	0.3nm,0.6s,baz=14,slow=9.7,SNR=6.2						
MKAR	Makanchi Array	54.46	313	P	P	08 34 45.6	+0.4
	0.3nm,0.8s,baz=70,slow=8.7,SNR=3.1						
YKA	Yellowknife Ar	76.42	28	P	P	08 37 06.3	+0.1
	0.3nm,0.4s,baz=292,slow=5.9,SNR=5.2						

*ISCJB **19** 08:33:45.8±4.2, 8.8S±0.1×123.3E±0.2, h44^{km}±44^{km}, mb4.2/6, Error ellipse: s-maj=33.2km s-min=21.3km az=175.9*

*NEIC **19** 08:33:49.5±2.7, 8.85S×123.27E, h66^{km}±28^{km}, mb4.5/1, Error ellipse: s-maj=30.2km s-min=17.3km az=73.0*

*IDC **19** 08:33:49.7±5.1, 8.89S×123.01E, h65^{km}±50^{km}, mb3.9/5, mb1 3.9/7, mb1mx3.7/16, mbtmp3.9/7, ML4.1/2, MS2.8/1, Ms1 2.8/1, ms1mx2.6/23, Error ellipse: s-maj=58.6km s-min=21.5km az=72.0*

ISC 19 08:33:49.2±2.7, 8.8S±0.1×123.3E±0.2, h59^{km}±29^{km}, n17, $\sigma 1^{s}.11$/17, mb4.2/6, Flores region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	9.48	166	eP	Pn	08 36 03.2	+0.1
	4.4nm,0.2s						
FITZ				eS	Sn	08 37 40.3	-8.0
FITZ	Fitzroy Crossi	9.48	166	P	Pn	08 36 02.7	-0.4
	1.2nm,0.3s,baz=5.2,slow=12,SNR=23						
FITZ				S	Sn	08 37 40.9	-7.4
	5.1nm,0.3s,baz=292,slow=17,SNR=18						
FITZ				LR	LR	08 41 06.1	
	comp=Z,50nm,18.2s,baz=11,slow=46						
KAKA	Kakadu	9.77	114	eP	Pn	08 36 07.8	+0.7
	14nm,0.4s						
KAKA				eS	Sn	08 37 49.4	-5.9
WRA	Warramunga Arr	15.36	137	P	Pn	08 37 20.5	-1.9
	0.6nm,0.3s,baz=318,slow=14,SNR=29						
WRA				S	Sx	08 40 00.4	
	1.6nm,0.3s,baz=318,slow=23,SNR=11						
WB2	Warramunga Arr	15.37	137	eP	Pn	08 37 21.8	-0.7
WB2				eS	Sx	08 39 59.3	
ASAR	Alice Springs	17.90	147	P	Pn	08 37 56.2	+2.1
	0.7nm,0.3s,baz=326,slow=13,SNR=53						
ASAR				S	Sx	08 41 01.9	
	0.4nm,0.3s,baz=319,slow=24,SNR=9.2						
NWAO	Narrogin (SRO)	24.62	192	P	P	08 39 03.8	-0.3
	2.4nm,0.4s,mb4.1,baz=19,slow=9.3,SNR=5.6						
STKA	Stephens Creek	28.54	146	P	P	08 39 40.5	+1.1
STKA	Stephens Creek	28.54	146	P	P	08 39 40.5	+1.1
	1.2nm,0.8s,mb3.7,baz=337,slow=14,SNR=2.3						
LSA	Lhasa	49.25	322	eP	P	08 42 33.8	+1.7
	2.6nm,0.6s,mb4.4						
SONM	Songino Array	58.38	347	P	P	08 43 38.7	+0.3
	1.0nm,0.5s,mb4.2,baz=163,slow=9.0,SNR=9.4						
MKAR	Makanchi Array	66.33	331	P	P	08 44 31.4	-0.1
	1.7nm,0.5s,mb4.3,baz=136,slow=7.6,SNR=38						
ZAA0	Zalesovo Array	70.48	337	eP	P	08 44 56.3	-1.0
ZALV	Zalesovo Beam	70.48	337	P	P	08 44 56.2	-1.1
	3.7nm,0.5s,mb4.6,baz=135,slow=4.9,SNR=17						
BFO	Black Forest	113.09	319	ePdif	Pdif	08 48 24.9	-1.2
TORD	Torodi Ar. Bea	122.62	280	PKP	PKPdf	08 52 37.2	-2.0
TORD	Torodi Ar. Bea	122.62	280	PKP	PKPdf	08 52 37.2	-2.0
	0.4nm,0.6s,baz=67,slow=2.2,SNR=3.5						

*ISCJB **19** 08:35:41.6±0.4, 39.61N±0.03×38.42E±0.04, h10^{km}, Error ellipse: s-maj=3.9km s-min=3.7km az=176.5*

*CSEM **19** 08:35:41.1±0.1, 39.59N×38.42E, h10^{km}, MD3.2, Error ellipse: s-maj=2.4km s-min=1.6km az=176.0*

*ISK **19** 08:35:41.2, 39.61N×38.40E, h10^{km}, MD3.2*

*DDA **19** 08:35:42.2, 39.65N×38.41E, h11^{km}±3^{km}, Md3.5*

ISC 19 08:35:41.7±0.4, 39.63N±0.02×38.41E±0.03, h10^{km}, n32, $\sigma 1^{s}.12$/52, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KELT	Kelkit	0.83	51	i P	Pg	08 35 57.5	-0.1
KELT				i S	Sg	08 36 07.8	-0.6
PTK	Pertek	1.06	134	PG	Pg	08 36 01.4	-0.7
PTK				SG	Sg	08 36 17.6	+1.8
PTK	Pertek	1.06	134	ePg	Pg	08 36 01.4	-0.7
PTK				eSg	Sg	08 36 17.6	+1.8
EZC	Erzincan	1.09	84	i PG	Pg	08 35 55.8	-6.8
EZC				i SG	Sg	08 36 07.3	-9.4
SVSK	Karacayir	1.13	285	PN	Pn	08 36 02.5	-1.0
SVSK				SN	Sn	08 36 19.8	+0.8
SVSK	Karacayir	1.13	285	ePn	Pn	08 36 02.5	-1.0
SVSK				eSn	Sn	08 36 19.8	+0.8
GUMT	Gumushane	1.16	44	PN	Pn	08 36 03.6	-0.4
GUMT				SN	Sn	08 36 21.6	+1.7
GUMT	Gumushane	1.16	44	ePn	Pn	08 36 03.6	-0.4
GUMT				eSn	Sn	08 36 21.6	+1.7
ELZG	Elazig	1.22	158	i P	Pn	08 36 03.9	-0.9
ELZG				i S	Sb	08 36 20.1	-0.4
ELZG	Elazig	1.22	158	i P	Pn	08 36 03.8	-0.9
ELZG				i S	Sb	08 36 20.1	-0.4
GRSN	GIRESUNGRSN	1.29	355	i P	Pn	08 36 05.6	-0.1
GRSN				i S	Sb	08 36 21.0	-1.8
GRSN	GIRESUNGRSN	1.29	355	i S	Sb	08 36 21.0	-1.8
MYA	Malataya	1.31	180	PN	Pn	08 36 05.7	-0.2
MYA				SN	Sn	08 36 23.1	-0.3
MYA	Malataya	1.31	180	ePn	Pn	08 36 05.7	-0.2
MYA				eSn	Sn	08 36 23.1	-0.3
MALT	Malatya	1.32	180	PN	Pn	08 36 05.8	-0.3
MALT	Malatya	1.32	180	ePn	Pn	08 36 05.8	-0.3
BINT	Bingol	1.78	115	PN	Pn	08 36 13.8	+1.3
BINT	Bingol	1.78	115	ePn	Pn	08 36 13.8	+1.3
BNN	Bunyan	2.14	249	ePN	Pn	08 36 17.7	+0.3
BNN	Bunyan	2.14	249	ePn	Pn	08 36 17.7	+0.3
EZM	Erzurum	2.29	82	ePN	Pn	08 36 20.6	+1.1
GZT	Gaziantep	2.37	197	i P	Pn	08 36 20.3	-0.3
GZT				i S	Sg	08 36 56.2	-1.6
YOZ	Yozgat	2.39	271	ePN	Pn	08 36 22.2	+1.4
YOZ	Yozgat	2.39	271	ePn	Pn	08 36 22.2	+1.4
KMRS	Kahramanmaras	2.43	210	ePN	Pn	08 36 21.6	+0.2
KMRS	Kahramanmaras	2.43	210	ePn	Pn	08 36 21.6	+0.2
ANDN	Andirin	2.61	219	i P	Pn	08 36 28.6	+4.7
ANDN				i S	Sg	08 37 05.8	+0.2
AVNT	Avonos	2.89	254	i P	Pn	08 36 28.4	+0.6
AVNT				i S	Sg	08 37 13.7	-0.9
CTKT	Corum	2.95	291	i P	Pn	08 36 31.2	+2.7
CTKT				i S	Sn	08 37 08.1	+4.1
CTKT	Corum	2.95	291	i P	Pn	08 36 31.2	+2.7
CTKT				i S	Sn	08 37 08.1	+4.1
ARTV	Artvin	3.10	59	i P	Pn	08 36 37.5	+7.0
ARTV				i S	Sg	08 37 18.7	-2.4
CDAG	Cicekdag	3.12	271	i P	Pn	08 36 32.6	+1.7
CDAG				i S	Sg	08 37 20.4	-1.5

*IDC **19** 08:40:31.2±1.8, 46.68S×166.50E, h0^{km}, mb3.5/1, mb1 3.7/1, mb1mx3.4/9, mbtmp3.5/1, Error ellipse: s-maj=182.6km s-min=57.5km az=29.0*

*ISCJB **19** 08:40:32.4±0.8, 46.33S±0.05×166.04E±0.07, h10^{km}, mb3.5/1, Error ellipse: s-maj=7.9km s-min=6.8km az=11.2*

*WEL **19** 08:40:37.2±0.5, 46.32S×166.36E, h5^{km}, ML4.7/17, Error ellipse: s-maj=4.4km s-min=1.6km az=90.0*

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

*NEIC **19** 08:40:37.5, 46.48S×166.11E, h33^{km}, mb4.9/1, ML4.8(WEL), After WEL.*

NEIC Felt on Stewart Island.

ISC 19 08:40:35.8±1.7, 46.36S±0.06×166.27E±0.08, h10^{km}±14^{km}, n68, $\sigma 0^{s}.96$/72, mb3.5/1, 1C-1D, Off west coast of South Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	Deep Cove	1.08	35	⇓P*	Pb	08 40 56.2	-0.3
DCZ				eS*	Sb	08 41 09.6	-1.0
WHZ	Wether Hill Ro	1.26	69	⇑P*	Pb	08 40 59.9	+0.3
WHZ				eS*	Sb	08 41 15.5	-0.3
WHZ				eS*	Sb	08 41 16.0	+0.2
APZ	The Paps	1.28	112	P*	Pb	08 41 00.1	+0.2
APZ				eS*	Sb	08 41 15.9	-0.5
MLZ	Mavora Lakes	1.67	53	P	Pn	08 41 06.2	+1.1
MLZ				S	Sn	08 41 27.2	+0.6
MLZ	Mavora Lakes	1.67	53	PN	Pn	08 41 06.2	+1.1
SYZ	Scrubby Hill	1.99	96	PN	Pn	08 41 10.2	+0.7
MSZ	Milford Sound	2.05	35	P	Pn	08 41 10.6	+0.3
MSZ	Milford Sound	2.05	35	PN	Pn	08 41 10.6	+0.3
TUZ	Tuapeka	2.37	81	P	Pn	08 41 15.1	+0.4
TUZ	Tuapeka	2.37	81	PN	Pn	08 41 15.1	+0.3
EAZ	Earnscleugh	2.41	63	P	Pn	08 41 16.2	+1.0
EAZ				S	Sn	08 41 45.1	+0.4
EAZ	Earnscleugh	2.41	63	PN	Pn	08 41 16.2	+1.0
WKZ	Wanaka	2.46	53	P	Pn	08 41 18.0	+2.0
WKZ	Wanaka	2.46	53	PN	Pn	08 41 18.0	+2.0
JCZ	Jackson Bay	2.88	38	P	Pn	08 41 23.7	+1.9
JCZ				S	Sn	08 41 57.7	+1.2
JCZ	Jackson Bay	2.88	38	PN	Pn	08 41 23.7	+1.9
HHSZ	Highcliff Hill	3.05	83	PN	Pn	08 41 24.3	+0.3
ODZ	Otahua Downs	3.34	68	P	Pn	08 41 27.1	-0.9
ODZ	Otahua Downs	3.34	68	PN	Pn	08 41 27.1	-0.9
LBZ	Lake Benmore	3.39	56	P	Pn	08 41 28.2	-0.6
LBZ	Lake Benmore	3.39	56	PN	Pn	08 41 28.2	-0.6
FOZ	Fox Glacier	3.70	42	eP	Pn	08 41 35.0	+2.0
FOZ	Fox Glacier	3.70	42	PN	Pn	08 41 35.0	+2.0
RPZ	Rata Peaks	4.30	54	P	Pn	08 41 39.7	-1.5
RPZ	Rata Peaks	4.30	54	PN	Pn	08 41 39.7	-1.5
WVZ	Waitaha Valley	4.57	46	eP	Pn	08 41 45.7	+0.7
WVZ				S	Sn	08 42 36.6	-1.5
WVZ	Waitaha Valley	4.57	46	PN	Pn	08 41 45.7	+0.7
WVZ				SN	Sn	08 42 36.6	-1.6
MQZ	McQueen's Vall	5.24	62	eP	Pn	08 41 52.8	-1.4
LTZ	Lake Taylor	5.58	52	P	Pn	08 41 57.7	-1.1
LTZ	Lake Taylor	5.58	52	PN	Pn	08 41 57.7	-1.2
DSZ	Denniston Nort	6.09	43	eP	Pn	08 42 05.7	-0.2
DSZ	Denniston Nort	6.09	43	ePN	Pn	08 42 05.7	-0.3
KHZ	Kahutara	6.53	55	eP	Pn	08 42 10.7	-1.2
KHZ	Kahutara	6.53	55	ePN	Pn	08 42 10.7	-1.2
THZ	Tophouse	6.63	48	eP	Pn	08 42 12.0	-1.2
THZ	Tophouse	6.63	48	PN	Pn	08 42 12.0	-1.2
QRZ	Quartz Range	7.16	42	P	Pn	08 42 20.5	0.0
QRZ	Quartz Range	7.16	42	ePN	Pn	08 42 19.8	-0.7
NNZ	Nelson	7.27	48	eP	Pn	08 42 21.1	-0.9
NNZ	Nelson	7.27	48	ePN	Pn	08 42 21.1	-0.9
TUWZ	Tuamarina	7.41	51	PN	Pn	08 42 24.9	+0.9
TCW	Tory Channel	7.75	51	P	Pn	08 42 29.7	+1.2
TCW	Tory Channel	7.75	51	PN	Pn	08 42 29.7	+1.1
DUWZ	D'Urville Isla	7.85	48	PN	Pn	08 42 30.7	+0.7
SNZO	South Karori	7.91	53	P	Pn	08 42 30.9	0.0
SNZO	South Karori	7.91	53	PN	Pn	08 42 30.9	0.0
CAW	Cannon Point	8.25	54	P	Pn	08 42 35.3	-0.2
CAW	Cannon Point	8.25	54	PN	Pn	08 42 35.3	-0.2
KIW	Kapiti Island	8.33	52	P	Pn	08 42 36.4	-0.2
KIW	Kapiti Island	8.33	52	PN	Pn	08 42 36.4	-0.2
MTW	Mount Morrison	8.46	55	P	Pn	08 42 38.2	-0.2
MTW	Mount Morrison	8.46	55	PN	Pn	08 42 38.2	-0.2
MRZ	Mangatainoka R	8.84	53	eP	Pn	08 42 41.6	-1.9
MRZ	Mangatainoka R	8.84	53	PN	Pn	08 42 41.6	-2.0
PKE	Pukeiti	9.13	41	P	Pn	08 42 48.9	+1.3
PKE	Pukeiti	9.13	41	PN	Pn	08 42 48.9	+1.3
HIZ	Hauiti	10.08	42	eP	Pn	08 43 00.0	-0.6
WCZ	Waipu Caves	12.05	33	eP	Pn	08 43 27.6	+0.1
WCZ	Waipu Caves	12.05	33	PN	Pn	08 43 27.6	+0.1
OUZ	Omahuta	12.43	29	eP	Pn	08 43 32.5	-0.2
OUZ	Omahuta	12.43	29	PN	Pn	08 43 32.5	-0.2
ASAR	Alice Springs	34.48	300	P	P	08 47 23.4	-0.5
	0.4nm,0.6s,mb3.5,baz=134,slow=8.4,SNR=8.3						
WB2	Warramunga Arr	37.10	304	eP	P	08 47 42.3	-4.0
TORD	Torodi Ar. Bea	144.43	206	PKP	PKPdf	09 00 09.1	-3.4
TORD	Torodi Ar. Bea	144.43	206	PKP	PKPdf	09 00 09.1	-3.4
	0.4nm,0.5s,baz=135,slow=1.6,SNR=7.2						
ARCES	ARCESS Array B	149.76	334	PKPbc	PKPbc	09 00 22.9	-1.6
	3.7nm,0.8s,baz=80,slow=2.4,SNR=11						
AKASG	Malin Array Be	151.53	295	PKPbc	PKPbc	09 00 26.9	-2.3
	0.6nm,0.5s,baz=73,slow=2.3,SNR=5.5						
FINES	FINESS Array B	152.66	318	PKPbc	PKPbc	09 00 27.5	-3.9
	1.4nm,0.9s,baz=148,slow=4.3,SNR=3.4						

MAN 19 08:41:14, 8.18N×123.54E, h10^{km}, mb4.1, ML2.9, MS2.6, 2C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAGZ	Pagadian	0.37	206	eP	Pg	08 41 22.1	+0.8
PAGZ				eS	Sg	08 41 28.4	+2.3
DCPH	Dipolog City	0.44	335	⇑iP	Pg	08 41 23.2	+0.5
DCPH				i S	Sg	08 41 32.9	+4.3
CGP	Cagayan de Oro	1.17	76	⇑iP	Pb	08 41 31.6	-4.7
CGP				i S	Sb	08 41 45.5	-6.2
SNPH	Sibulan	1.19	345	⇓iP	Pb	08 41 35.0	-1.8
SNPH				i S	Sb	08 41 54.0	+1.7
BUKP	Musuan	1.54	101	eP	Pn	08 41 41.0	-0.4
GUIM	Jordan	2.61	339	eP	Pn	08 41 56.9	+0.7

*BJI **19** 08:42:48.1, 3.07S×150.47E, h89^{km}, mB5.2, mb4.7, Ms4.0, Msz3.8*

*ISCJB **19** 08:42:49.4±3.5, 3.4S±0.1×149.7E±0.2, h76^{km}±34^{km}, mb4.1/13, Error ellipse: s-maj=30.7km s-min=21.2km az=28.3*

*IDC **19** 08:42:49.1±5.7, 3.33S×149.79E, h59^{km}±53^{km}, mb3.7/7, mb1 4.0/8, mb1mx3.8/15, mbtmp3.8/8, ML3.1/1, MS4.1/17, Ms1 4.1/17, ms1mx4.0/21, Error ellipse: s-maj=59.4km s-min=28.4km az=113.0*

*GCMT **19** 08:42:51.5±0.2, 3.22S×150.34E, h12^{km}, MW4.9/67, Moment Tensor Solution. s29,c37; s67,c102; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.26±.09; M$_{\theta\theta}$2.74±.06; M$_{\phi\phi}$-2.49±.09; M$_{r\theta}$0.65±.21; M$_{\theta\phi}$1.21±.07; M$_{\phi r}$0.62±.25; Best double couple: M$_0$3.01300×10^{16} NP1:ϕ_s123.00000°,δ73.00000°,λ2.00000°. NP2: ϕ_s33.00000°,δ88.00000°,λ163.00000°. Principal axes: T 3.1820, Plg13.0000°, Azm347.0000°; N -0.3430, Plg73.0000°, Azm208.0000°; P -2.8440, Plg11.0000°, Azm79.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **19** 08:42:51.5±3.1, 3.46S×149.91E, h91^{km}±30^{km}, mb4.5/3 Error ellipse: s-maj=39.2km s-min=22.5km az=117.0*

ISC 19 08:42:52.1±2.9, 3.5S±0.1×149.8E±0.2, h87^{km}±28^{km}, n34, $\sigma 1^{s}.26$/21, mb4.1/13, Bismarck Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	6.45	204	P	Pn	08 44 24.5	+0.1
	2.3nm,0.3s,baz=39,slow=8.9,SNR=15						
PMG				LR	LR	08 46 57.4	
	comp=Z,1μm,20.5s,baz=46,slow=38						
CTA	Charters Tower	16.87	191	P	Pn	08 46 48.2	+5.3
	0.1nm,0.3s,baz=0.6,slow=15,SNR=2.5						
CTA				LR	LR	08 53 21.9	
	comp=Z,520nm,18.7s,baz=14,slow=37						
GUMO	Guam	17.63	344	LR	LR	08 52 02.5	
	comp=Z,459nm,21.4s,baz=97,slow=32						
KAKA	Kakadu	19.44	241	eP	Pn	08 47 14.0	+0.1
	11nm,0.6s						
WRA	Warramunga Arr	22.24	221	P	P	08 47 41.2	-0.7
	2.8nm,0.8s,mb3.6,baz=48,slow=9.9,SNR=20						
DZM	Mont Dzumac	24.57	140	LR	LR	08 56 30.4	
	comp=Z,692nm,20.0s,baz=33,slow=33						
ASAR	Alice Springs	25.27	216	P	P	08 48 10.4	+0.2
	2.7nm,0.9s,mb3.7,baz=52,slow=8.1,SNR=19						
FITZ	Fitzroy Crossi	27.75	237	P	P	08 48 35.0	+2.3
	3.6nm,0.6s,mb4.1,baz=73,slow=7.4,SNR=14						
FITZ				LR	LR	09 00 41.0	
	comp=Z,582nm,18.6s,baz=61,slow=38						
STKA	Stephens Creek	29.29	194	LR	LR	09 01 18.6	
	comp=Z,463nm,18.2s,baz=140,slow=38						
FORT	Forrest	34.03	215	eP	P	08 49 26.4	-1.4
	17nm,0.8s,mb4.9						
AFI	Afiamalu	39.34	108	LR	LR	09 04 20.6	
	comp=Z,360nm,19.8s,baz=198,slow=33						
JNU	Nakatsue	40.54	335	LR	LR	09 05 13.7	
	comp=Z,148nm,18.2s,baz=291,slow=33						
MJAR	Matsushiro Arr	41.24	346	LR	LR	09 07 05.8	
	comp=Z,160nm,18.6s,baz=180,slow=36						
KSRS	Korea Array	45.49	335	LR	LR	09 08 23.6	
	comp=Z,177nm,20.6s,baz=165,slow=34						
RAR	Rarotonga	52.08	114	LR	LR	09 10 16.5	
	comp=Z,35nm,18.3s,baz=90,slow=32						
XAN	Xi'an	53.59	318	P	P	08 52 03.0	-1.4
XAN				AMB	AMB		
	comp=Z,3.0nm,1.1s,mb4.2						
CD2	Chengdu	55.59	311	P	P	08 52 19.6	+0.7
LZH	Lanzhou	58.18	317	eP	P	08 52 35.6	-1.5
LZH				AMB	AMB		
	comp=Z,21nm,1.0s,mb5.1						
LZH	Lanzhou	58.18	317	eP	P	08 52 35.6	-1.5
	comp=Z,21nm,1.0s,mb5.1						
LZH				pP	pP	08 52 40.3	-19
LZH				sP	sP	08 52 42.7	-26
PPT	Papeete	61.01	108	LR	LR	09 14 37.2	
	comp=Z,216nm,20.6s,baz=359,slow=31						
GTA	Gaotai	62.64	318	eP	P	08 53 08.0	+0.5
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.2						
SONM	Songino Array	63.61	329	P	P	08 53 13.7	0.0
SONM	Songino Array	63.61	329	P	P	08 53 13.7	0.0
	comp=Z,0.3nm,0.6s,mb3.3,baz=142,slow=5.4,SNR=2.9						
SONM				LR	LR	09 20 35.9	
	comp=Z,176nm,20.2s,baz=3.3,slow=36						
LSA	Lhasa	65.00	305	P	P	08 53 25.0	+1.9
VNDA	Vanda	74.28	177	LR	LR	09 24 04.5	
	comp=Z,136nm,20.1s,baz=161,slow=33						
MKAR	Makanchi Array	77.34	319	P	P	08 54 37.5	+0.2
	comp=Z,0.8nm,0.9s,mb3.4,baz=111,slow=6.6,SNR=6.9						
ZALV	Zalesovo Beam	78.38	327	P	P	08 54 41.1	-1.8
	comp=Z,1.2nm,0.6s,mb3.8,baz=107,slow=5.1,SNR=4.6						
ZALV				LR	LR	09 28 22.2	
	comp=Z,72nm,18.6s,baz=67,slow=35						
IMA2	Indian Mountai	80.23	20	eP	P	08 54 55.4	+2.7
MCK	McKinley	80.82	23	eP	P	08 54 56.6	+0.7
	comp=Z,8.1nm,1.1s,mb4.5						
COLA	College	81.76	22	eP	P	08 54 58.4	-2.5
	comp=Z,6.4nm,0.8s,mb4.5						
MAW	Mawson	85.63	203	LR	LR	09 26 51.4	
	comp=Z,198nm,20.4s,baz=244,slow=31						
YKA	Yellowknife Ar	95.66	28	P	P	08 56 08.0	+0.3
	comp=Z,2.3nm,1.2s,mb4.5,baz=276,slow=4.8,SNR=9.8						
YKA				LR	LR	09 35 05.0	
	comp=Z,80nm,18.5s,baz=265,slow=33						
TORD	Torodi Ar. Bea	147.02	289	PKPbc	PKPbc	09 02 25.8	0.0
TORD	Torodi Ar. Bea	147.02	289	PKPbc	PKPbc	09 02 25.8	0.0
	comp=Z,1.1nm,1.0s,baz=96,slow=1.5,SNR=4.4						

*CSEM **19** 09:24:16.1, 39.71N×20.73E, h22^{km}, MD2.9/4, After ATH*

*NEIC **19** 09:24:16.1, 39.71N×20.73E, h22^{km}, MD2.9(ATH), After ATH.*

ATH 19 09:24:16.1, 39.71N×20.73E, h22^{km}±3^{km}, MD2.9/4, Greece-Albania border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAN	Janina	0.11	120	ePb	Pb	09 24 20.1	-0.3
JAN				eSb	Sb	09 24 23.4	+0.1
JAN	Janina	0.11	120	ePB	Pb	09 24 20.1	-0.3
JAN				eSB	Sb	09 24 23.4	+0.1
JAN	Janina	0.11	120	ePb	Pb	09 24 20.1	-0.3
JAN				eSb	Sb	09 24 23.4	+0.1
KEK	Kerkira	0.72	271	ePn	Pn	09 24 29.7	-1.2
KEK				eSn	Sn	09 24 40.7	-0.5
KEK	Kerkira	0.72	271	ePN	Pn	09 24 29.7	-1.2
KEK				eSN	Sn	09 24 40.7	-0.5
KEK	Kerkira	0.72	271	ePn	Pn	09 24 29.7	-1.2
KEK				eSn	Sn	09 24 40.7	-0.5
KZN	Kozani	1.00	53	ePn	Pn	09 24 35.4	+0.7
KZN	Kozani	1.00	53	ePN	Pn	09 24 35.4	+0.7
KZN	Kozani	1.00	53	ePn	Pn	09 24 35.4	+0.7
THL	Klokotos Trika	1.00	98	ePN	Pn	09 24 34.8	0.0
THL				eSN	Sn	09 24 49.4	+1.1
THL	Klokotos Trika	1.00	98	ePn	Pn	09 24 34.8	0.0
THL				eSn	Sn	09 24 49.4	+1.1
EVR	Evrytania	1.15	133	ePn	Pn	09 24 38.8	+1.9
EVR	Evrytania	1.15	133	ePN	Pn	09 24 38.8	+1.9
EVR	Evrytania	1.15	133	ePn	Pn	09 24 38.8	+1.9
KRUS	Krusevo	1.70	13	ePn	Pn	09 24 48.1	+3.7
KRUS				eSn	Sn	09 25 11.6	+6.0

*NEIC **19** 09:38:20.1, 16.14N×95.57W, h9^{km}, MD4.0(MEX), After MEX.*

MEX 19 09:38:20.1±0.9, 16.14N×95.57W, h10^{km}±17^{km}, MD4.0, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	Huatulco	0.64	234	i P	Pg	09 38 30.8	-1.7
HUIG				i S	Sg	09 38 40.1	-0.6
OXX	Oaxaca	1.45	310	i P	Pn	09 38 43.0	-3.3
OXX				i S	Sn	09 39 01.0	-4.4
VHO	Vista Hermosa	1.45	310	i P	Pn	09 38 43.2	-3.2
VHO				i S	Sn	09 39 00.2	-5.2
UTMO	Huajuapan	2.71	308	eP	Pn	09 39 00.9	-2.9
UTMO				i S	Sn	09 39 33.0	-3.7
TPIG	Tehuac#an	2.84	323	eP	Pn	09 39 04.2	-1.3
TPIG				i S	Sn	09 39 35.2	-4.5
SCX	San Cristobal	2.88	78	i P	Pn	09 39 05.0	-1.1
SCX				i S	Sn	09 39 40.0	-0.8
CCIG	Comitan	3.30	87	eP	Pn	09 39 10.3	-1.6
CCIG				i S	Sn	09 39 47.2	-4.0
MEIG	Mezcala	4.26	295	i S	Sn	09 40 09.9	-5.0
IIO	Organos	4.56	319	eP	Pn	09 39 27.2	-2.0
IIO				i S	Sn	09 40 19.4	-2.8

GUC 19 09:40:46.9±1.1**,2515S**×**7064W,h47**^{km}±4^{km}**,MD4.1, ML3.4,1D,Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CPN1	**Cerro Paranal**	**0.56**	**22**	*e*P	Pn	09 40 59.5	+0.7
CPN1				*i* S	Sn	09 41 08.9	+1.7
CPN1				AML	AML	09 41 10.5	
	comp=N,1µm,0.2s						
ANCH	**Antofagasta**	**1.48**	**8**	*e*P	Pn	09 41 12.4	+1.3
ANCH				*i* S	Sn	09 41 30.4	+1.2
ANCH				AML	AML	09 41 34.1	
	comp=N,482nm,0.5s						
CEN1	**Los Morros**	**1.80**	**13**	⇓*e*P	Pn	09 41 13.7	-1.8
CEN1				*i* S	Sn	09 41 33.4	-3.6
CDCH	**Caldera**	**1.92**	**185**	*e*P	Pn	09 41 18.1	+0.9
CDCH				*i* S	Sn	09 41 41.2	+1.1
CPCH	**Copiapo**	**2.21**	**173**	*e*P	Pn	09 41 24.1	+3.0
CPCH				*i* S	Sn	09 41 49.3	+2.0
CPCH				AML	AML	09 41 59.0	
	comp=E,1µm,0.2s						

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*CSEM **19** 10:03:58.8±0.1,4085N×3961E,h23^{km}±1^{km},MD2.8,Error ellipse: s-maj=6.9km s-min=2.6km az=128.0*
*ISK **19** 10:03:58.8,4085N×3963E,h22^{km},MD2.8*
*ISCJB **19** 10:03:59.2±1.0,4090N±008×396E±0.1,h24^{km}±6^{km},Error ellipse: s-maj=20.6km s-min=6.1km az=38.7*
ISC 19 10:03:59.6±0.9**,4088N**±008×**396E**±01**,h21**^{km}±6^{km}**,n12, σ0^{s}50**/19**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MACK	**Trabzon**	**0.13**	**60**	*i* P	**Pb**	**10 04 03.4**	**-0.6**
KTUT	**Trabzon**	**0.16**	**46**	PG	**Pb**	**10 04 04.4**	**+0.1**
KTUT				SG	**Sb**	**10 04 07.8**	**+0.3**
KTUT	**Trabzon**	**0.16**	**46**	*e*Pg	**Pb**	**10 04 04.4**	**+0.1**
KTUT				*e*Sg	**Sb**	**10 04 07.8**	**+0.3**
GUMT	**Gumushane**	**0.43**	**194**	PG	**Pb**	**10 04 08.2**	**-0.3**
GUMT				SG	**Sb**	**10 04 13.7**	**-0.8**
GUMT	**Gumushane**	**0.43**	**194**	*e*Pg	**Pb**	**10 04 08.2**	**-0.3**
GUMT				*e*Sg	**Sb**	**10 04 13.7**	**-0.8**
KELT	**Kelkit**	**0.78**	**201**	*i* P	**Pb**	**10 04 15.0**	**+0.5**
KELT				*i* S	**Sb**	**10 04 25.6**	**+1.0**
BCA	**Borcka**	**1.62**	**69**	*e*PN	**Pn**	**10 04 27.2**	**+0.3**
BCA				*e*SN	**Sn**	**10 04 47.1**	**0.0**
BCA	**Borcka**	**1.62**	**69**	*e*Pn	**Pn**	**10 04 27.2**	**+0.3**
BCA				*e*Sn	**Sn**	**10 04 47.1**	**0.0**
PTK	**Pertek**	**1.99**	**185**	*e*PN	**Pn**	**10 04 31.8**	**-0.2**
PTK	**Pertek**	**1.99**	**185**	*e*Pn	**Pn**	**10 04 31.8**	**-0.2**
SVSK	**Karacayir**	**2.22**	**245**	*e*PN	**Pn**	**10 04 34.9**	**-0.3**
SVSK	**Karacayir**	**2.22**	**245**	*e*Pn	**Pn**	**10 04 34.9**	**-0.3**

IDC 19 10:15:18.1±6.1**,772S**×**11912E,h53**^{km}±60^{km}**,mb3.7**/3**, mb1 3.8**/5**,mb1mx3.5**/18**,mbtmp3.6**/5**,ML3.6**/2**,Error ellipse: s-maj=169.2km s-min=28.5km az=54.0,Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**12.12**	**149**	P	Pn	10 18 08.2	+0.1
	0.1nm,0.3s,baz=341,slow=16,SNR=3.5						
FITZ				S	Sn	10 20 13.5	-8.3
	0.3nm,0.3s,baz=212,slow=18,SNR=6.2						
WRA	**Warramunga Arr**	**19.11**	**131**	P	Pn	10 19 36.3	-1.8
	0.4nm,0.3s,baz=302,slow=12,SNR=27						
WRA				S	S	10 22 60.0	-11
	0.1nm,0.3s,baz=309,slow=24,SNR=4.0						
WB2	**Warramunga Arr**	**19.12**	**131**	*e*P	Pn	10 19 36.3	-1.9
ASAR	**Alice Springs**	**21.27**	**140**	P	P	10 20 00.6	+0.4
	3.1nm,0.3s,baz=314,slow=8.8,SNR=44						
ASAR				S	S	10 23 50.8	-3.0
	0.5nm,0.8s,baz=318,slow=22,SNR=4.8						
ASAR				PcP	PcP	10 24 03.4	-0.2
	0.2nm,0.5s,baz=330,slow=2.2,SNR=4.1						
MKAR	**Makanchi Array**	**63.38**	**333**	P	P	10 25 42.4	+0.5
	0.9nm,0.7s,baz=154,slow=6.9,SNR=14						
ZALV	**Zalesovo Beam**	**67.89**	**339**	P	P	10 26 10.4	-0.5
	0.4nm,0.3s,baz=119,slow=5.3,SNR=4.3						

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*MOS **19** 10:51:45.8±1.9,4905N×14620E,h341^{km},mb3.6/1,Error ellipse: s-maj=59.5km s-min=25.2km az=77.9*
*IDC **19** 10:51:50.8±1.9,4786N×14646E,h452^{km}±24^{km},mb2.9/7, mb1 3.1/9,mb1mx2.9/23,mbtmp2.8/9,Error ellipse: s-maj=22.6km s-min=15.6km az=112.0*
*ISCJB **19** 10:51:51.4±0.7,4745N±010×1465E±02,h470^{km}±8^{km}, mb3.2/7,Error ellipse: s-maj=20.2km s-min=12.6km az=30.4*
ISC 19 10:51:52.1±0.6**,473N**±01×**1466E**±02**,h487**^{km}±10^{km}**,n29, σ1^{s}32**/37**,mb3.2**/7**,1C,Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YSS	**Yuzh-Sakhalins**	**2.61**	**264**	⇑*i*PN	**P**	**10 52 56.8**	**-2.6**
YSS				pmax	pmax		
	comp=Z,70nm,0.6s						
YUK	**Yuzh-Kuril'sk**	**3.27**	**189**	PN	**P**	**10 53 05.3**	**+1.3**
YUK				*e*S	**S**	**10 54 07.5**	**+5.0**
YUK				smax			
	comp=N,170nm,0.5s						
JRA	**Rausu**	**3.48**	**197**	P	**P**	**10 53 05.8**	**+0.2**
JSE	**Soyaes**	**3.60**	**231**	P	**P**	**10 53 06.6**	**+0.2**
JWK2	**Keihoku**	**3.77**	**241**	P	**P**	**10 53 08.1**	**+0.3**
JTKR	**Abashiri--Toko**	**3.78**	**210**	P	**P**	**10 53 08.9**	**+1.0**
NEM2	**Nemuro 2**	**3.94**	**189**	P	**P**	**10 53 08.0**	**-1.3**
NEM2				*e*S	**S**	**10 54 10.2**	**-1.8**
ASAJ	**Asahikawa**	**4.20**	**223**	PN	**P**	**10 53 12.1**	**+0.8**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**4.20**	**223**	P	**P**	**10 53 12.1**	**+0.8**
	comp=Z,1.1nm,0.3s,baz=49,slow=7.1,SNR=15						
JAR	**Ashorobuto**	**4.43**	**207**	P	**P**	**10 53 14.3**	**+1.0**
JAR				*e*S	**S**	**10 54 20.8**	**+1.3**
JAK	**Akkeshi**	**4.47**	**198**	P	**P**	**10 53 13.2**	**-0.5**
JAK				*e*S	**S**	**10 54 18.8**	**-1.3**
JHR	**Hokuryu**	**4.89**	**226**	P	**P**	**10 53 18.9**	**+1.5**
JFR	**Furan**	**4.96**	**216**	P	**P**	**10 53 19.6**	**+1.5**
JCH	**Churui**	**5.17**	**207**	P	**P**	**10 53 20.1**	**+0.1**
JCH				*e*S	**S**	**10 54 30.2**	**-1.5**
JNBK	**Urakawa-nobuka**	**5.67**	**210**	P	**P**	**10 53 24.8**	**+0.1**
JNBK				*e*S	**S**	**10 54 38.7**	**-1.6**
JEW	**Eniwo**	**5.71**	**221**	P	**P**	**10 53 26.6**	**+1.5**
JKB	**Kayabe**	**6.67**	**218**	P	**P**	**10 53 36.2**	**+1.7**
JKB				*e*S	**S**	**10 54 57.5**	**-0.8**
JOT	**Ohata**	**7.08**	**216**	P	**P**	**10 53 40.2**	**+1.5**
JOT				*e*S	**S**	**10 55 04.7**	**-1.4**
JANG	**Nango**	**7.79**	**210**	*e*S	**S**	**10 55 19.3**	**-0.2**
KSRS	**Korea Array**	**16.86**	**241**	P	**P**	**10 55 24.1**	**+2.1**
	comp=Z,0.1nm,0.3s,baz=43,slow=9.9,SNR=7.5						
MKAR	**Makanchi Array**	**42.67**	**294**	P	**P**	**10 59 03.1**	**-1.6**
	comp=Z,0.2nm,0.3s,mb3.0,baz=68,slow=6.0,SNR=4.1						
YKA	**Yellowknife Ar**	**53.14**	**35**	P	**P**	**11 00 20.3**	**-2.7**
YKA	**Yellowknife Ar**	**53.14**	**35**	P	**P**	**11 00 20.3**	**-2.6**
	comp=Z,0.4nm,0.6s,mb2.9,baz=303,slow=6.9,SNR=9.1						
ARCES	**ARCESS Array B**	**55.81**	**339**	P	**P**	**11 00 39.6**	**-2.1**
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ARCES	**ARCESS Array B**	**55.81**	**339**	P	**P**	**11 00 39.6**	**-2.1**
	comp=Z,0.6nm,0.3s,mb3.5,baz=154,slow=13,SNR=24						
WRA	**Warramunga Arr**	**67.80**	**192**	P	**P**	**11 02 05.4**	**+4.8**
	comp=Z,0.3nm,0.6s,mb3.1,baz=7.4,slow=6.6,SNR=7.4						
PDAR	**Pinedale Array**	**67.98**	**50**	P	**P**	**11 02 01.8**	**+0.2**
	comp=Z,0.5nm,0.5s,mb3.4,baz=335,slow=0.8,SNR=7.1						
ASAR	**Alice Springs**	**71.52**	**192**	P	**P**	**11 02 28.6**	**+5.8**
	comp=Z,0.3nm,0.6s,mb3.0,baz=2.0,slow=5.6,SNR=5.3						
TXAR	**Lajitas Array**	**81.05**	**56**	P	**P**	**11 03 16.7**	**+1.1**
	comp=Z,0.4nm,0.5s,mb3.2,baz=280,slow=3.4,SNR=12						

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*BJI **19** 11:12:54.7,475N×12671E,h29^{km},mB5.3,mb5.4,Ms4.8, Msz4.7*
*MAN **19** 11:12:58,515N×12665E,h24^{km},mb5.9,ML4.9,MS5.4*
MAN INTENSITY II - GENERAL SANTOS CITY.
*MOS **19** 11:13:02.7±0.9,561N×12617E,h33^{km},mb5.7/57, MS4.7/35,Error ellipse: s-maj=9.2km s-min=4.5km az=111.4*
*ISCJB **19** 11:13:02.0±0.1,550N±002×12646E±003,h33^{km}, mb5.4/119,MS4.8/129,Error ellipse: s-maj=4.2km s-min=2.7km az=154.6*
*NEIC **19** 11:13:03.5±0.1,556N×12624E,mb5.5/74,MS4.8/99, MW5.3,Error ellipse: s-maj=5.7km s-min=3.2km az=70.0, Moment Tensor Solution. s15 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.00; M$_{\theta\theta}$0.00; M$_{\phi\phi}$0.00; M$_{r\theta}$0.00; M$_{\theta\phi}$0.00; M$_{\phi r}$0.00; Best double couple: M$_0$1.10000×10^{17} NP1: φ$_s$137.00000°,δ44.00000°,λ54.00000°. NP2:φ$_s$2.00000°, δ55.00000°,λ120.00000°. Principal axes: T 1.0700, Plg65.0000°, Azm329.0000°; N 0.0000, Plg24.0000°, Azm164.0000°; P -1.0700, Plg6.0000°, Azm72.0000°;*
NEIC Felt [III PIVS] at General Santos. Felt at Davao. Felt [IV] in the Kepulauan Talaud and [III] at Tahuna, Kepulauan Sangihe, Indonesia.
*GCMT **19** 11:13:03.5±0.1,555N×12658E,h34^{km},MW5.4/84, Moment Tensor Solution. s79,c134; s84,c152; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.30±.03; M$_{\theta\theta}$0.22±.02; M$_{\phi\phi}$-1.52±.02; M$_{r\theta}$0.39±.02; M$_{\theta\phi}$-0.07±.02; M$_{\phi r}$0.66±.03; Best double couple: M$_0$1.61300×10^{17} NP1:φ$_s$167.00000°,δ34.00000°, λ65.00000°. NP2:φ$_s$16.00000°,δ59.00000°,λ106.00000°. Principal axes: T 1.5460, Plg71.0000°, Azm323.0000°; N 0.1320, Plg14.0000°, Azm188.0000°; P -1.6800, Plg13.0000°, Azm95.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*IDC **19** 11:13:04.7±1.5,557N×12621E,h36^{km}±11^{km},mb5.1/25, mb1 5.1/25,mb1mx5.1/26,mbtmp5.1/25,MS4.5/22, Ms1 4.5/22,ms1mx4.4/29 Error ellipse: s-maj=16.6km s-min=8.6km az=82.0*
ISC 19 11:13:04.0±0.1**,550N**±002×**12647E**±003**,h34**^{km}**, h34**^{km}±1.5^{km}**:pP-P,n593,**σ**1^{s}33**/457**,mb5.4**/119**,MS4.8**/129**, 60C-44D,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATI	**Mati**	**1.45**	**352**	*e*P	**Pn**	**11 13 28.6**	**+0.7**
MATI				*e*S	**Sn**	**11 13 51.4**	**+5.6**
GSPH	**General Santos**	**1.62**	**291**		**Pn**	**11 13 28.5**	**-1.6**
GSPH				*i* S	**Sn**	**11 13 46.5**	**-3.3**
DAV	**Davao City (W)**	**1.79**	**331**	*e*Pn	**Pn**	**11 13 34.5**	**+1.9**
DAV	**Davao City (W)**	**1.79**	**331**	⇓*e*P	**Pn**	**11 13 34.0**	**+1.5**
DMPH	**Davao City--Mi**	**1.84**	**329**	⇓*i*P	**Pn**	**11 13 34.6**	**+1.4**
DMPH				*i* S	**Sn**	**11 14 05.3**	**+10**
KCP	**Kidapawan**	**2.03**	**318**	⇑*e*P	**Pn**	**11 13 37.1**	**+1.3**
KCP				*e*S	**Sn**	**11 14 03.2**	**+3.2**
BIPH	**Bislig**	**2.67**	**358**	*e*P	**Pn**	**11 13 45.9**	**+1.3**
BIPH				*e*S	**Sn**	**11 14 20.1**	**+4.3**
BUKP	**Musuan**	**2.75**	**330**	*e*P	**Pn**	**11 13 47.7**	**+2.0**
CTBH	**Cotabato--PC H**	**2.79**	**308**	⇓*i*P	**Pn**	**11 13 47.6**	**+1.3**
CTBH				*i* S	**Sn**	**11 14 12.8**	**-6.0**
CGP	**Cagayan de Oro**	**3.42**	**329**	⇓*e*P	**Pn**	**11 13 57.4**	**+2.4**
CGP				*i* S	**Sn**	**11 14 45.4**	**+11**
PAGZ	**Pagadian**	**3.85**	**307**	*e*P	**Pn**	**11 14 02.4**	**+1.6**
DCPH	**Dipolog City**	**4.35**	**315**	⇑*e*P	**Pn**	**11 14 10.6**	**+2.8**
SCPH	**Surigao**	**4.37**	**347**	*e*P	**Pn**	**11 14 11.2**	**+3.3**
SCPH				*e*S	**Sn**	**11 15 03.7**	**+6.0**
MSLP	**Maasin**	**4.87**	**341**	*e*P	**Pn**	**11 14 16.8**	**+1.9**
TBP	**Tagbilaran**	**4.90**	**328**	*e*P	**Pn**	**11 14 16.7**	**+1.4**
SNPH	**Sibulan**	**4.99**	**320**	*e*P	**Pn**	**11 14 19.0**	**+2.5**
LLP	**Lapu-Lapu**	**5.39**	**333**	*e*P	**Pn**	**11 14 23.8**	**+1.7**
LLP				*e*S	**Sn**	**11 15 25.7**	**+2.7**
OCLP	**Ormoc**	**5.82**	**342**	*e*P	**Pn**	**11 14 30.7**	**+2.8**
PLP	**Palo**	**5.82**	**345**	*e*P	**Pn**	**11 14 31.1**	**+3.2**
GUIM	**Jordan**	**6.38**	**323**	*e*P	**Pn**	**11 14 37.6**	**+2.0**
RCP	**Roxas**	**7.06**	**329**	⇑*i*P	**Pn**	**11 14 47.9**	**+2.9**
CNP	**Catarman**	**7.19**	**346**	*e*P	**Pn**	**11 14 49.4**	**+2.6**
KALP	**Kalibo**	**7.37**	**327**	⇑*e*P	**Pn**	**11 14 54.5**	**+5.2**
CUYO	**Cuyo Island**	**7.57**	**315**	*e*P	**Pn**	**11 14 55.0**	**+3.0**
MYLDM	**Lahad Datu**	**7.94**	**268**	⇓P	**Pn**	**11 15 00.2**	**+3.2**
OTRP	**Odiongan**	**8.11**	**328**	*e*P	**Pn**	**11 15 02.0**	**+2.6**
PVCP	**Virac**	**8.36**	**344**	⇑*i*P	**Pn**	**11 15 07.5**	**+4.6**
PVCP	**Virac**	**8.36**	**344**	*e*P	**Pn**	**11 15 05.9**	**+3.0**
TSM	**Tawau**	**8.64**	**262**	⇓P	**Pn**	**11 15 08.8**	**+2.1**
PPR	**Puerto Princes**	**8.77**	**299**	⇑*i*P	**Pn**	**11 15 08.4**	**+0.1**
BUSP	**Coron**	**8.95**	**317**	*e*P	**Pn**	**11 15 13.1**	**+2.2**
BATP	**Bataraza**	**9.20**	**291**	*e*P	**Pn**	**11 15 17.1**	**+2.7**
SDKM	**Sandakan**	**9.23**	**271**	⇓P	**Pn**	**11 15 19.1**	**+4.3**
KDM	**Kudat**	**9.68**	**279**	⇓P	**Pn**	**11 15 25.9**	**+4.9**
TGY	**Tagaytay City**	**10.14**	**328**	⇓*e*P	**Pn**	**11 15 36.1**	**+8.9**
KKM	**Kota Kinabalu**	**10.21**	**274**	*e*Pn	**Pn**	**11 15 30.9**	**+2.6**
KKM	**Kota Kinabalu**	**10.21**	**274**	⇑P	**Pn**	**11 15 32.7**	**+4.5**
LUBP	**Lubang**	**10.22**	**324**	*e*P	**Pn**	**11 15 33.2**	**+4.8**
BALP	**Baler**	**11.26**	**335**	*e*P	**Pn**	**11 15 46.3**	**+3.8**
SCZP	**Santa Cruz**	**12.07**	**328**	*e*P	**Pn**	**11 15 56.3**	**+2.6**
CAUP	**Cauayan**	**12.25**	**339**	*e*P	**Pn**	**11 15 58.9**	**+2.8**
BCPH	**Baguio City Da**	**12.26**	**332**	⇑*e*P	**Pn**	**11 16 02.6**	**+6.4**
BOLP	**Bolinao**	**12.58**	**330**	*e*P	**Pn**	**11 16 11.3**	**+11**
CVP	**Callao Caves**	**12.95**	**340**	⇓*e*P	**Pn**	**11 16 11.0**	**+5.3**
APYP	**Conner**	**13.31**	**338**	*e*P	**Pn**	**11 16 13.8**	**+3.2**
ABRA	**Dolores**	**13.32**	**335**	*e*P	**Pn**	**11 16 17.6**	**+6.9**
BTM	**Bintulu**	**13.54**	**261**	⇓P	**Pn**	**11 16 17.3**	**+3.5**
SBUM	**Sibu**	**14.53**	**259**	⇑P	**Pn**	**11 16 31.6**	**+4.3**
KSM	**Kuching**	**16.61**	**257**	*e*P	**Pn**	**11 16 56.5**	**+2.0**
KSM	**Kuching**	**16.61**	**257**	⇑P	**Pn**	**11 16 57.4**	**+3.0**
KAKA	**Kakadu**	**19.04**	**162**	⇑*i*P	**Pn**	**11 17 23.7**	**-0.6**
	206nm,0.6s						
NACB	**Ninganchiao**	**19.15**	**346**	*e*P	**Pn**	**11 17 24.8**	**-0.8**
NACB				*e*		11 17 32.3	
YHNB	**Yeheng**	**19.68**	**346**	*e*P	**Pn**	**11 17 31.3**	**-0.6**
GUMO	**Guam**	**19.84**	**65**	P	**Pn**	**11 17 34.7**	**+0.9**
GUMO				pmax	pmax		
	comp=Z,161nm,1.1s						
GUMO	**Guam**	**19.84**	**65**	P	**Pn**	**11 17 34.7**	**+0.9**
	comp=Z,161nm,1.1s,baz=45,slow=15,SNR=3.2						
TATO	**Taipei**	**19.95**	**347**	*e*P	**Pn**	**11 17 34.7**	**-0.3**
	comp=Z,89nm,0.8s						
QZH	**Quanzhou**	**20.76**	**339**	P	**P**	**11 17 44.6**	**+2.6**
QZH				S	**S**	**11 21 41.3**	**+9.3**
QZH				AMB	AMB		
	comp=Z,440nm,0.7s						
QZH				LR	LR		
	comp=N,3µm,15.2s						
QZH				LR	LR		
	comp=Z,5µm,22.4s						
QIZ	**Qiongzhong**	**21.06**	**311**	P	**P**	**11 17 46.1**	**+0.8**
QIZ				XP	sP	11 17 57.5	-1.3
QIZ				PP		11 18 08.5	
QIZ				S	**S**	**11 21 31.3**	**-6.7**
QIZ				AMB	AMB		
	comp=Z,157nm,1.4s,mb5.2						
QIZ				LR	LR		
	comp=N,796nm,19.2s,MS4.5						
QIZ				LR	LR		
	comp=E,1µm,17.7s,MS4.5						
QIZ				LR	LR		
	comp=Z,2µm,23.5s						
QIZ	**Qiongzhong**	**21.06**	**311**	*e*P	**P**	**11 17 46.6**	**+1.3**
	comp=Z,252nm,1.3s,mb5.4						
QIZ				LR	LR		
	comp=Z,2µm,21.0s,MS4.5						
JOW	**Kunigami**	**21.29**	**4**	P	**P**	**11 17 46.8**	**-0.9**
	comp=Z,35nm,0.9s,mb4.7,baz=173,slow=13,SNR=5.1						
JOW				PcP	PcP	11 21 53.5	+1.8
	comp=Z,18nm,0.6s,baz=307,slow=3.6,SNR=4.7						
GZH	**Guangzhou**	**21.59**	**325**	P	**P**	**11 17 53.4**	**+2.4**
GZH				S	**S**	**11 21 51.8**	**+3.5**
GZH				LR	LR		
	comp=N,956nm,19.6s,MS4.3						
GZH				LR	LR		
	comp=E,965nm,20.8s,MS4.3						
GZH				LR	LR		
	comp=Z,2µm,17.7s,MS4.7						
MYKOM	**Kota Tinggi**	**22.86**	**262**	⇑P	**P**	**11 18 06.4**	**+1.7**
KTGM	**Kuala Trenggan**	**23.23**	**271**	⇑P	**P**	**11 18 10.3**	**+1.8**
KGM	**Kluang**	**23.35**	**262**	⇓P	**P**	**11 18 12.5**	**+2.7**
FITZ	**Fitzroy Crossi**	**23.46**	**182**	*e*P	**P**	**11 18 10.4**	**-0.3**
	comp=Z,271nm,0.9s,mb5.7						
FITZ				*e*S	**S**	**11 22 23.7**	**+1.9**
FITZ				*e*SCP	ScP	11 25 32.2	+0.3
FITZ	**Fitzroy Crossi**	**23.46**	**182**	P	**P**	**11 18 12.0**	**+1.2**
	comp=Z,37nm,0.5s,mb5.1,baz=4.7,slow=12,SNR=204						
FITZ				S	**S**	**11 22 22.7**	**+0.9**
	comp=Z,43nm,1.2s,baz=215,slow=23,SNR=2.0						
FRIM	**Kepong**	**24.87**	**266**	⇑P	**P**	**11 18 24.4**	**+0.6**
IPM	**Ipoh**	**25.36**	**269**	⇑P	**P**	**11 18 28.8**	**+0.6**
PMG	**Port Moresby**	**25.39**	**126**	*e*P	**P**	**11 18 30.1**	**+1.7**
	comp=Z,26nm,0.7s,mb4.9						
PMG	**Port Moresby**	**25.39**	**126**	*e*P	**P**	**11 18 30.9**	**+2.5**
PMG	**Port Moresby**	**25.39**	**126**	P	**P**	**11 18 28.6**	**+0.2**
	comp=Z,13nm,0.8s,mb4.5,baz=253,slow=6.9,SNR=5.4						
PMG				LR	LR	11 29 52.9	
	comp=Z,758nm,18.5s,baz=285,slow=39						
COEN	**Coen**	**25.47**	**140**	*e*P	**P**	**11 18 30.3**	**+1.2**
	comp=Z,70nm,1.0s,mb5.1						
KKTK	**Khon Kaen**	**25.56**	**297**	P	**P**	**11 18 30.5**	**+0.6**
KULM	**Kulim**	**25.70**	**271**	*e*P	**P**	**11 18 31.3**	**0.0**
KULM				*e*	pP	11 18 43.4	+2.3
KULM				*e*PcP	PcP	11 22 01.1	-0.1
KULM	**Kulim**	**25.70**	**271**	⇓P	**P**	**11 18 32.5**	**+1.2**
SNG	**Songkhla**	**25.74**	**275**	P	**P**	**11 18 32.0**	**+0.3**
	comp=Z,272nm,1.0s,mb5.7						
SSE	**Sheshan**	**25.94**	**350**	P	**P**	**11 18 34.1**	**+0.9**
SSE				S	**S**	**11 23 00.8**	**-0.6**
SSE				AMB	AMB		
	comp=Z,176nm,1.0s,mb5.5						
SSE				AMB	AMB		
	comp=Z,426nm,4.7s						
SSE				LR	LR		
	comp=N,274nm,24.9s						
SSE				LR	LR		
	comp=E,848nm,24.9s						
SSE				LR	LR		
	comp=Z,554nm,18.2s,MS4.1						
CBIJ	**Chichi jima**	**26.19**	**33**	P	**P**	**11 18 33.5**	**-2.0**
	comp=Z,161nm,0.6s,mb5.8,baz=205,slow=6.2,SNR=9.6						
CBIJ				LR	LR	11 27 48.4	
	comp=Z,672nm,19.3s,baz=142,slow=34						
WRA	**Warramunga Arr**	**26.44**	**163**	P	**P**	**11 18 39.1**	**+1.3**
WRA						11 22 03.3	
WRA				S	**S**	**11 23 09.3**	**-0.1**
WRA				pmax	pmax		
	comp=Z,107nm,0.7s						
WRA				pmax	pmax		
	comp=Z,16nm,0.8s						
WRA				smax			
	comp=N,7.0nm,1.0s						
WRA				pmax	pmax		
	comp=N,10.0nm,0.7s						
WRA	**Warramunga Arr**	**26.44**	**163**	P	**P**	**11 18 39.1**	**+1.3**
	comp=N,106nm,0.7s,mb5.5,baz=341,slow=10,SNR=166						
WRA				PcP	PcP	11 22 03.3	+0.5
	comp=N,16nm,0.8s,baz=343,slow=2.2,SNR=4.9						
WRA				S	**S**	**11 23 09.3**	**-0.1**
	comp=N,6.6nm,1.0s,baz=345,slow=19,SNR=3.0						
WRA				ScP	ScP	11 25 40.7	+0.4
	comp=N,9.9nm,0.7s,baz=342,slow=3.3,SNR=8.5						
WB2	**Warramunga Arr**	**26.44**	**163**	⇓*i*P	**P**	**11 18 38.1**	**+0.2**
WB2				*e*pP	pP	11 18 51.1	+3.4
WB2				*e*S	**S**	**11 23 09.5**	**+0.1**
WB2				*e*SCP	ScP	11 25 43.0	+2.7
WB2				*e*SCS	ScS	11 29 28.3	-2.4
MBWA	**Marble Bar**	**27.30**	**194**	*e*P	**P**	**11 18 46.2**	**+0.6**
	comp=N,271nm,1.2s,mb5.7						
MBWA				LR	LR		
	comp=Z,789nm,19.0s,MS4.3						
NNT	**Nongplab**	**27.30**	**287**	P	**P**	**11 18 49.6**	**+3.9**
NJ2	**Nanjing**	**27.36**	**346**	*e*P	**P**	**11 18 47.1**	**+1.1**
NJ2				AP	pP	11 18 56.6	+0.7
NJ2				XP	sP	11 19 00.6	+0.5
NJ2				PP		11 19 34.1	
NJ2				S	**S**	**11 23 24.0**	**+0.2**
NJ2				XS	sS	11 23 39.0	-1.1
NJ2				AMB	AMB		
	comp=Z,150nm,1.1s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,500nm,4.7s						
NJ2				LR	LR		
	comp=N,2µm,25.9s,MS4.7						
NJ2				LR	LR		
	comp=E,2µm,28.3s,MS4.7						
NJ2				LR	LR		
	comp=Z,2µm,27.6s,MS4.4						
WHN	**Wuhan**	**27.40**	**337**	⇓P	**P**	**11 18 48.0**	**+1.6**
WHN				S	**S**	**11 23 28.6**	**+4.2**
WHN				SCP	ScP	11 25 43.0	0.0
WHN				LR	LR		
	comp=Z,6µm,23.4s,MS5.1						
PSI	**Prapat**	**27.60**	**266**	P	**P**	**11 18 48.4**	**0.0**
PSI						11 22 05.1	
PSI				pmax	pmax		
	comp=Z,66nm,0.9s,mb5.3						
PSI				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.0						
PSI				pmax	pmax		
	comp=N,12nm,0.9s						
PSI				MLR	MLR		
	comp=Z,569nm,18.8s						
PSI	**Prapat**	**27.60**	**266**	P	**P**	**11 18 48.4**	**0.0**
	comp=Z,66nm,0.9s,mb5.3,baz=93,slow=3.3,SNR=35						
PSI				PcP	PcP	11 22 05.1	-0.6
	comp=Z,36nm,0.9s,baz=185,slow=9.8,SNR=5.8						
PSI				ScP	ScP	11 25 41.9	-2.0
	comp=Z,12nm,0.9s,baz=178,slow=3.8,SNR=6.4						
PSI				LR	LR	11 32 25.7	
	comp=Z,569nm,18.8s,baz=91,slow=42						
NST	**Nakhon Sawan**	**27.75**	**293**	P	**P**	**11 18 50.2**	**+0.5**
JNU	**Nakatsue**	**27.79**	**8**	P	**P**	**11 18 48.1**	**-1.7**
	comp=Z,24nm,1.1s,mb4.7,baz=185,slow=12,SNR=6.0						
JNU				PcP	PcP	11 22 06.5	+0.7
	comp=Z,12nm,0.7s,baz=70,slow=4.0,SNR=5.1						
JNU				LR	LR	11 28 59.5	
	comp=Z,805nm,21.9s,MS4.3,baz=307,slow=34						
GYA	**Guiyang**	**28.14**	**320**	⇑*i*P	**P**	**11 18 55.0**	**+1.9**
GYA				AP	pP	11 19 03.8	+0.8
GYA				XP	sP	11 19 07.6	+0.4
GYA				PP	PP	11 19 45.8	-11
GYA				S	**S**	**11 23 36.6**	**+0.4**
GYA				XS	sS	11 23 51.1	-1.5
GYA				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.1						
GYA				AMB	AMB		
	comp=Z,380nm,6.0s						
GYA				LR	LR		
	comp=N,2µm,15.4s,MS5.0						
GYA				LR	LR		
	comp=E,3µm,15.0s,MS5.0						
GYA				LR	LR		
	comp=Z,1µm,15.2s,MS4.7						
BDT	**Bhumibol Dam**	**29.29**	**296**	P	**P**	**11 19 04.0**	**+0.5**
CHRT	**Chiangrai**	**29.62**	**301**	⇓P	**P**	**11 19 06.5**	**+0.2**
	comp=Z,224nm,0.9s,mb5.9						
CM31	**Chiang Mai Arr**	**29.78**	**298**	*e*P	**P**	**11 19 07.8**	**0.0**
	comp=Z,23nm,0.9s,mb4.9						
CM31				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
ASAR	**Alice Springs**	**29.88**	**166**	P	**P**	**11 19 08.9**	**+0.4**
ASAR				PcP	PcP	11 22 11.9	+0.7
ASAR				S	**S**	**11 24 02.8**	**-0.7**
ASAR				ScP	ScP	11 25 51.1	+0.3
ASAR				*e*		11 51 07.7	
ASAR	**Alice Springs**	**29.88**	**166**	P	**P**	**11 19 09.0**	**+0.5**
ASAR						11 22 11.9	
ASAR				S	**S**	**11 24 02.8**	**-0.7**
ASAR						11 25 51.2	
ASAR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
ASAR				pmax	pmax		
	comp=Z,14nm,0.6s						
ASAR				smax			
	comp=N,1.0nm,0.6s						
ASAR				pmax	pmax		
	comp=N,7.0nm,0.7s						
ASAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ASAR	**Alice Springs**	**29.88**	**166**	P	**P**	**11 19 08.9**	**+0.4**
	comp=Z,5.5nm,0.7s,mb4.4,baz=341,slow=6.8,SNR=62						
ASAR				PcP	PcP	11 22 11.9	+0.7
	comp=Z,14nm,0.6s,baz=349,slow=2.2,SNR=6.6						
ASAR				S	**S**	**11 24 02.8**	**-0.7**
	comp=Z,1.2nm,0.6s,baz=322,slow=16,SNR=2.2						
ASAR				ScP	ScP	11 25 51.1	+0.3
	comp=Z,7.4nm,0.7s,baz=341,slow=2.9,SNR=7.8						
ASAR				P3KPbc		11 51 07.7	
	comp=Z,2.5nm,0.7s,baz=155,slow=3.4,SNR=7.4						
CHG	**Chiang Mai**	**29.92**	**299**	⇑P	**P**	**11 19 08.9**	**-0.1**
	comp=Z,34nm,0.7s,mb5.2						
CHTO	**Chiang Mai**	**29.92**	**299**	*e*P	**P**	**11 19 08.3**	**-0.7**
	comp=Z,17nm,0.7s,mb4.9						
CHTO				LR	LR		
	comp=Z,1µm,19.0s,MS4.5						
CHTO	**Chiang Mai**	**29.92**	**299**	P	**P**	**11 19 08.5**	**-0.5**
CHTO				pmax	pmax		
	comp=Z,17nm,0.7s,mb4.9						
KMI	**Kunming**	**29.97**	**313**	⇓P	**P**	**11 19 10.8**	**+1.5**
KMI				PP	PP	11 20 09.3	-8.1
KMI				PPP		11 20 25.8	

KMI				S	**S**	**11 24 02.0**	**-3.0**
KMI				SSS		11 26 02.9	
KMI				AMB	AMB		
	comp=Z,41nm,0.9s,mb5.2						
KMI				AMB	AMB		
	comp=Z,125nm,3.1s						
KMI				LR	LR		
	comp=N,925nm,16.8s,MS4.7						
KMI				LR	LR		
	comp=E,1µm,18.0s,MS4.7						
KMI				LR	LR		
	comp=Z,2µm,22.0s,MS4.7						
KMI	**Kunming**	**29.97**	**313**	⇓P	**P**	**11 19 10.8**	**+1.5**
	comp=Z,41nm,0.9s,mb5.2						
KMI				pP	pP	11 19 27.9	+8.6
KMI				sP	sP	11 19 33.9	+10
KMI				PP	PP	11 20 09.2	-8.2
KMI				PPP		11 20 25.8	
KMI				PcP	PcP	11 22 12.8	+1.4
KMI				S	**S**	**11 24 02.0**	**-3.0**
KMI				sS	sS	11 24 29.7	+8.3
KMI				SS	SS	11 25 42.4	-31
KMI				PcS	PcS	11 25 55.7	+0.8
KMI				SSS		11 26 02.9	
KMI				LR	LR		
	comp=Z,2µm,22.0s,MS4.7						
KMI	**Kunming**	**29.97**	**313**	⇓P	**P**	**11 19 10.8**	**+1.5**
KMI				*PP	pP	11 19 27.9	+8.6
KMI						11 20 09.2	
KMI						11 22 12.8	
KMI				S	**S**	**11 24 02.0**	**-3.0**
KMI				SS	SS	11 25 42.4	-31
KMI						11 25 55.7	
KMI				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.2						
KMI				MLR	MLR		
	comp=Z,2µm,22.0s,MS4.7						
JHJ	**Hachijo jima 2**	**30.15**	**23**	LR	LR	11 29 13.7	
	comp=Z,1µm,20.4s,MS4.6,baz=106,slow=32						
TIA	**Tai'an**	**31.75**	**346**	*e*P	**P**	**11 19 24.8**	**-0.1**
TIA				AMB	AMB		
	comp=Z,80nm,0.8s,mb5.6						
KS15	**Wonju Array Si**	**31.82**	**2**	*e*P	**P**	**11 19 27.0**	**+1.5**
KS15				*e*PcP	PcP	11 22 17.5	+1.4
KSRS	**Korea Array**	**31.84**	**2**	P	**P**	**11 19 24.6**	**-1.0**
	comp=Z,29nm,0.9s,mb5.1,baz=188,slow=9.6,SNR=72						
KSRS				PcP	PcP	11 22 17.1	+1.1
	comp=Z,21nm,0.7s,baz=179,slow=2.4,SNR=31						
KSRS				ScP	ScP	11 25 57.7	+0.6
	comp=Z,2.9nm,0.9s,baz=187,slow=2.7,SNR=7.5						
KSRS				LR	LR	11 34 11.2	
	comp=Z,762nm,18.4s,MS4.4,baz=201,slow=40						
INCN	**Inchon**	**31.84**	**0**	*e*P	**P**	**11 19 26.7**	**+1.0**
	comp=Z,35nm,0.8s,mb5.2						
INCN				*e*PcP	PcP	11 22 17.0	+0.9
INCN				LR	LR		
	comp=Z,892nm,19.0s,MS4.5						
CTA	**Charters Tower**	**32.02**	**143**	⇑*i*P	**P**	**11 19 29.8**	**+2.4**
	comp=Z,22nm,0.6s,mb5.2						
CTA				*e*PCP	PcP	11 22 18.8	+1.9
CTA				*e*S	**S**	**11 24 39.4**	**+2.3**
CTA				*e*SCP	ScP	11 25 59.5	+1.5
CTA	**Charters Tower**	**32.02**	**143**	⇑*i*P	**P**	**11 19 29.8**	**+2.4**
CTA				*e*		11 22 18.8	
CTA				*e*S	**S**	**11 24 39.4**	**+2.3**
CTA				pmax	pmax		
	comp=Z,22nm,0.6s						
CTA	**Charters Tower**	**32.02**	**143**	ScP	ScP	11 26 00.6	+2.5
	comp=Z,18nm,0.8s,baz=302,slow=4.8,SNR=5.8						
CTA				LR	LR	11 35 10.0	
	comp=Z,743nm,18.1s,MS4.4,baz=327,slow=41						
CTAO	**Charters Tower**	**32.02**	**143**	*e*P	**P**	**11 19 29.9**	**+2.5**
	comp=Z,27nm,0.7s,mb5.2						
CTAO				*e*ScP	ScP	11 25 57.5	-0.5
CTAO				LR	LR		
	comp=Z,664nm,20.0s,MS4.3						
MAJO	**Matsushiro**	**32.72**	**18**	*e*P	**P**	**11 19 33.5**	**+0.1**
	comp=Z,28nm,1.0s,mb5.1						
MAJO				*e*PcP	PcP	11 22 20.3	+1.8
MAJO				*e*ScP	ScP	11 26 00.4	+0.2
MAJO				LR	LR		
	comp=Z,1µm,22.0s,MS4.6						
MAJO	**Matsushiro**	**32.72**	**18**	*e*P	**P**	**11 19 33.5**	**+0.1**
MAJO				*e*		11 22 20.3	
MAT	**Matsushiro**	**32.72**	**18**	P	**P**	**11 19 31.9**	**-1.5**
MAT				S	**S**	**11 24 40.6**	**-7.1**
MJAR	**Matsushiro Arr**	**32.72**	**18**	P	**P**	**11 19 33.0**	**-0.4**
MJAR						11 22 19.5	
MJAR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
MJAR				pmax	pmax		
	comp=Z,11nm,0.8s						
MJAR				pmax	pmax		
	comp=N,13nm,1.0s						
MJAR	**Matsushiro Arr**	**32.72**	**18**	P	**P**	**11 19 33.0**	**-0.4**
	comp=N,9.4nm,0.8s,mb4.8,baz=195,slow=9.1,SNR=24						
MJAR				PcP	PcP	11 22 19.5	+0.9
	comp=N,11nm,0.8s,baz=185,slow=2.8,SNR=12						
MJAR				ScP	ScP	11 26 01.0	+0.8
	comp=N,12nm,1.0s,baz=199,slow=4.0,SNR=13						
MJAR				LR	LR	11 30 37.1	
	comp=N,1µm,21.5s,MS4.5,baz=220,slow=32						
XAN	**Xi'an**	**32.73**	**332**	P	**P**	**11 19 32.1**	**-1.5**
XAN				AP	pP	11 19 43.9	+0.4
XAN				PP	PP	11 20 44.4	-3.6
XAN				S	**S**	**11 24 50.0**	**+2.0**
XAN				AMB	AMB		
	comp=Z,22nm,0.8s,mb5.1						
XAN				AMB	AMB		
	comp=Z,157nm,4.2s						
XAN				LR	LR		
	comp=N,710nm,25.6s,MS4.5						
XAN				LR	LR		
	comp=E,995nm,21.6s,MS4.5						
XAN				LR	LR		
	comp=Z,2µm,26.7s						
CD2	**Chengdu**	**33.08**	**323**	P	**P**	**11 19 35.8**	**-0.8**
CD2				AP	pP	11 19 48.3	+1.7
CD2				PP	PP	11 20 49.1	-2.8
CD2				PCP	PcP	11 22 17.3	-2.4
CD2				S	**S**	**11 24 50.3**	**-3.2**
CD2				SCS	ScS	11 29 54.4	-7.5
CD2				AMB	AMB		
	comp=Z,100nm,0.8s,mb5.8						
CD2				AMB	AMB		
	comp=Z,270nm,6.3s						
CD2				LR	LR		
	comp=N,2µm,17.4s,MS4.9						
CD2				LR	LR		
	comp=E,1µm,19.2s,MS4.9						
CD2				LR	LR		
	comp=Z,2µm,16.8s,MS4.8						
DL2	**Dalian**	**33.55**	**353**	⇑*i*P	**P**	**11 19 41.5**	**+0.9**
DL2				PP	PP	11 20 57.9	+1.0
DL2				PCP	PcP	11 22 21.9	+1.1
DL2				S	**S**	**11 25 01.4**	**+0.9**
DL2				XS	sS	11 25 23.9	+7.0
DL2				PCS	PcS	11 26 05.1	-1.4
DL2				SS	SS	11 27 12.8	-13
DL2				SCS	ScS	11 30 03.9	-0.1
DL2				AMB	AMB		
	comp=Z,190nm,0.8s						
DL2				AMB	AMB		
	comp=Z,180nm,5.8s						
DL2				LR	LR		
	comp=N,300nm,17.0s						
DL2				LR	LR		
	comp=E,310nm,17.9s						
DL2				LR	LR		
	comp=Z,410nm,18.1s						
COCO	**West Island**	**34.30**	**239**	PFAKE		11 20 00.0	+13
COCO				LR	LR		
	comp=Z,741nm,19.0s,MS4.4						
TIY	**Taiyuan**	**34.52**	**340**	P	**P**	**11 19 48.6**	**-0.5**
TIY				PP	PP	11 21 12.1	+4.3
TIY				S	**S**	**11 25 16.9**	**+1.2**
TIY				LR	LR		
	comp=N,180nm,6.7s						
TIY				LR	LR		
	comp=E,727nm,15.9s						
BJT	**Baijiatuau**	**35.60**	**346**	*e*P	**P**	**11 19 58.6**	**+0.3**
	comp=E,307nm,0.8s						
BJT				*e*pP	pP	11 20 09.6	+1.2
BJT				*e*PcP	PcP	11 22 27.8	+1.1
BJT				*e*ScP	ScP	11 26 10.7	+0.4
BJT				LR	LR		
	comp=Z,1µm,21.0s,MS4.6						
BJT	**Baijiatuau**	**35.60**	**346**	*e*P	**P**	**11 19 58.7**	**+0.4**
BJT				*e**PP	pP	11 20 09.6	+1.3
BJT				*e*		11 22 27.8	
BJT				pmax	pmax		
	comp=Z,307nm,0.8s						
BJT				MLR	MLR		
	comp=Z,1µm,21.0s						
BJI	**Beijing**	**35.62**	**346**	P	**P**	**11 19 58.8**	**+0.3**
BJI				PP	PP	11 21 20.3	+0.5
BJI				PCP	PcP	11 22 26.8	0.0
BJI				S	**S**	**11 25 30.4**	**-2.0**
BJI				AMB	AMB		
	comp=Z,394nm,0.8s						
BJI				LR	LR		
	comp=N,670nm,21.5s,MS4.5						
BJI				LR	LR		
	comp=E,408nm,18.1s,MS4.5						
BJI				LR	LR		
	comp=Z,728nm,21.5s,MS4.4						
BJI	**Beijing**	**35.62**	**346**	P	**P**	**11 19 58.7**	**+0.2**
	comp=Z,0.4nm,0.8s						
BJI				pP	pP	11 20 13.6	+5.1
BJI				sP	sP	11 20 20.9	+8.2
BJI				PP	PP	11 21 20.2	+0.4
BJI				PcP	PcP	11 22 26.7	-0.1
BJI				S	**S**	**11 25 30.4**	**-2.0**
BJI				SS	SS	11 28 07.4	-1.0
BJI				LR	LR		
	comp=Z,730nm,21.5s						
BJI	**Beijing**	**35.62**	**346**	P	**P**	**11 19 58.7**	**+0.2**
BJI				*PP	pP	11 20 13.6	+5.1
BJI						11 21 20.2	
BJI						11 22 26.7	
BJI				S	**S**	**11 25 30.4**	**-2.0**
BJI				MLR	MLR		
	comp=Z,730nm,21.5s,MS4.4						
FORT	**Forrest**	**36.10**	**178**	⇓*i*P	**P**	**11 20 03.4**	**+0.7**
	comp=Z,135nm,0.7s						
FORT				*e*		11 21 33.7	
FORT				*e*PCP	PcP	11 22 29.3	+1.0
SNY	**Shenyang**	**36.27**	**356**	⇑P	**P**	**11 20 04.6**	**+0.6**
SNY				S	**S**	**11 25 41.3**	**-1.0**
SNY				AMB	AMB		
	comp=Z,321nm,0.8s						
SNY				LR	LR		
	comp=N,550nm,20.6s,MS4.5						
SNY				LR	LR		
	comp=E,550nm,17.2s,MS4.5						
SNY				LR	LR		
	comp=Z,593nm,18.2s,MS4.4						
HNR	**Honiara**	**36.51**	**114**	PFAKE		11 20 20.0	+13
HNR				LR	LR		
	comp=Z,680nm,20.0s,MS4.4						
HNR	**Honiara**	**36.51**	**114**	LR	LR	11 33 29.1	
	comp=Z,618nm,21.3s,MS4.4,baz=359,slow=33						
IMP	**Imphal**	**36.63**	**305**	*e*P	**P**	**11 20 07.0**	**-0.4**
LZH	**Lanzhou**	**36.86**	**329**	⇑P	**P**	**11 20 09.3**	**+0.1**
LZH				AP	pP	11 20 18.8	-0.4
LZH				XP	sP	11 20 23.1	-0.3
LZH				PP	PP	11 21 35.3	+1.7
LZH				PCP	PcP	11 22 31.5	+0.9
LZH				S	**S**	**11 25 51.3**	**-0.2**
LZH				XS	sS	11 26 07.1	-1.0
LZH				SCP	ScP	11 26 14.8	-0.2
LZH				PCS	PcS	11 26 17.5	-1.1
LZH				SCS	ScS	11 30 19.8	-2.3
LZH				AMB	AMB		
	comp=Z,158nm,1.3s,mb5.7						
LZH				AMB	AMB		
	comp=Z,446nm,4.7s						
LZH				LR	LR		
	comp=E,2µm,13.1s						
LZH				LR	LR		
	comp=Z,3µm,17.2s,MS5.2						
LZH	**Lanzhou**	**36.86**	**329**	⇑P	**P**	**11 20 09.2**	**0.0**
	comp=Z,158nm,1.3s,mb5.7						
LZH				pP	pP	11 20 18.8	-0.4
LZH				sP	sP	11 20 23.1	-0.3
LZH				PP	PP	11 21 35.2	+1.6
LZH				PcP	PcP	11 22 31.5	+0.9
LZH				S	**S**	**11 25 51.3**	**-0.2**
LZH				sS	sS	11 26 07.1	-1.0
LZH				ScP	ScP	11 26 14.7	-0.3
LZH				PcS	PcS	11 26 17.5	-1.1
LZH				SS	SS	11 28 20.3	-13
LZH				ScS	ScS	11 30 19.7	-2.4
LZH				LR	LR		
	comp=Z,3µm,17.2s,MS5.2						
LZH	**Lanzhou**	**36.86**	**329**	⇑P	**P**	**11 20 09.2**	**0.0**
LZH				*PP	pP	11 20 18.8	-0.4
LZH				*SP	sP	11 20 23.1	-0.3
LZH						11 21 35.2	
LZH						11 22 31.5	
LZH				S	**S**	**11 25 51.3**	**-0.2**
LZH				*SS	sS	11 26 07.1	-1.0
LZH				SS	SS	11 28 20.3	-13
LZH						11 30 19.7	
LZH				pmax	pmax		
	comp=Z,158nm,1.3s,mb5.7						
LZH				MLR	MLR		
	comp=Z,3µm,17.2s,MS5.2						
HHC	**Hu-ho-hao-te**	**37.65**	**341**	*e*P	**P**	**11 20 16.1**	**+0.3**
HHC				PP	PP	11 21 47.0	+4.8
HHC				S	**S**	**11 26 02.1**	**-1.3**
HHC				XS	sS	11 26 26.6	+6.6
HHC				SCS	ScS	11 30 19.3	-7.0
HHC				AMB	AMB		
	comp=Z,57nm,1.2s,mb5.2						
HHC				AMB	AMB		
	comp=Z,600nm,4.6s						
HHC				LR	LR		
	comp=N,750nm,23.2s,MS4.5						
HHC				LR	LR		
	comp=E,569nm,22.6s,MS4.5						
HHC				LR	LR		
	comp=Z,871nm,22.0s,MS4.5						
VLA	**Vladivostok**	**37.77**	**6**	*i* Pr	**P**	**11 20 17.4**	**+0.6**
VLA	**Vladivostok**	**37.77**	**6**	*e*P	**P**	**11 20 16.2**	**-0.6**
VLA				*e*		11 21 44.0	
VLA				*e*		11 22 33.0	
VLA				*e*S	**S**	**11 26 04.7**	**-0.5**
VLA				pmax	pmax		
	comp=Z,173nm,1.6s,mb5.5						
VLA				MLR	MLR		
	comp=Z,600nm,20.6s,MS4.4						
KLBR	**Kellerberrin**	**37.80**	**192**	*e*P	**P**	**11 20 17.3**	**+0.1**
	comp=Z,117nm,1.0s,mb5.6						
BTO	**Baotou**	**37.94**	**339**	*e*P	**P**	**11 20 18.5**	**+0.2**
CN2	**Changchun**	**38.16**	**359**	*e*P	**P**	**11 20 20.4**	**+0.4**
CN2				*e*PP	PP	11 21 52.3	+4.6
CN2				PCP	PcP	11 22 34.4	0.0
CN2				*e*S	**S**	**11 26 09.8**	**-1.2**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,600nm,16.0s,MS4.5						
CN2				LR	LR		
	comp=E,200nm,16.0s,MS4.5						
CN2				LR	LR		
	comp=Z,600nm,21.0s,MS4.4						
MUN	**Mundaring**	**38.53**	**194**	⇑*i*P	**P**	**11 20 23.5**	**+0.2**
EIDS	**Eidsvold**	**38.91**	**143**	*e*P	**P**	**11 20 27.4**	**+0.8**
	comp=Z,45nm,0.8s,mb5.2						
EIDS				*e*pP	pP	11 20 34.8	-1.9
MDJ	**Mudanjiang**	**39.06**	**4**	P	**P**	**11 20 28.5**	**+0.9**
MDJ				AP	pP	11 20 34.6	-3.1
MDJ				XP	sP	11 20 37.3	-4.5
MDJ				PP	PP	11 21 58.0	+0.4
MDJ				S	**S**	**11 26 26.8**	**+2.2**
MDJ				SS	SS	11 29 22.5	+4.7
MDJ				AMB	AMB		
	comp=Z,74nm,1.4s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,191nm,5.5s						
MDJ				LR	LR		
	comp=N,366nm,22.8s,MS4.3						
MDJ				LR	LR		
	comp=E,516nm,27.6s,MS4.3						
MDJ				LR	LR		
	comp=Z,556nm,26.7s,MS4.3						
MDJ	**Mudanjiang**	**39.06**	**4**	*e*P	**P**	**11 20 27.3**	**-0.3**
	comp=Z,130nm,1.0s,mb5.6						
MDJ				*e*		11 20 41.1	
MDJ				*e*PcP	PcP	11 22 37.8	+0.6
MDJ				LR	LR		
	comp=Z,590nm,21.0s,MS4.4						
NWAO	**Narrogin (SRO)**	**39.20**	**192**	*e*P	**P**	**11 20 30.0**	**+1.1**
	comp=Z,78nm,0.6s,mb5.6						
NWAO				*e*PcP	PcP	11 22 48.5	+11
NWAO				LR	LR		
	comp=Z,554nm,21.0s,MS4.4						
NWAO	**Narrogin (SRO)**	**39.20**	**192**	LR	LR	11 38 38.2	
	comp=Z,471nm,20.6s,MS4.3,baz=14,slow=39						
ERM	**Erimo**	**39.28**	**20**	*e*P	**P**	**11 20 29.9**	**+0.4**
ERM				LR	LR		
	comp=Z,843nm,19.0s,MS4.6						
STKA	**Stephens Creek**	**39.87**	**160**	*e*P	**P**	**11 20 36.1**	**+1.6**
	comp=Z,64nm,0.7s,mb5.5						
STKA				*e*PCP	PcP	11 22 40.8	+0.9
STKA				*e*S	**S**	**11 26 37.5**	**+0.5**
STKA	**Stephens Creek**	**39.87**	**160**	P	**P**	**11 20 36.2**	**+1.8**
	comp=Z,112nm,0.9s,mb5.6,baz=334,slow=8.2,SNR=140						
STKA				PcP	PcP	11 22 40.7	+0.7
	comp=Z,29nm,0.7s,baz=314,slow=10,SNR=2.9						
STKA				S	**S**	**11 26 37.7**	**+0.7**
	comp=Z,9.3nm,1.0s,baz=124,slow=18,SNR=2.9						
STKA				LR	LR	11 37 38.6	
	comp=Z,377nm,20.2s,baz=331,slow=37						
ASAJ	**Asahikawa**	**40.99**	**18**	P	**P**	**11 20 44.6**	**+0.9**
ASAJ						11 22 45.2	
ASAJ				pmax	pmax		
	comp=Z,85nm,0.6s						
ASAJ				pmax	pmax		
	comp=Z,18nm,0.8s						
ASAJ	**Asahikawa**	**40.99**	**18**	P	**P**	**11 20 44.6**	**+0.9**
	comp=Z,85nm,0.6s,mb5.5,baz=230,slow=12,SNR=104						
ASAJ				PcP	PcP	11 22 45.2	+1.8
	comp=Z,18nm,0.8s,baz=338,slow=19,SNR=2.5						
ASAJ				LR	LR	11 36 19.3	
	comp=Z,822nm,21.4s,MS4.6,baz=58,slow=34						
LSA	**Lhasa**	**41.09**	**310**	P	**P**	**11 20 45.4**	**+0.7**
LSA				AP	pP	11 20 55.8	+0.9
LSA				XP	sP	11 21 01.3	+2.3
LSA				LR	LR		
	comp=E,610nm,27.8s						
LSA				LR	LR		
	comp=Z,750nm,24.8s,MS4.5						
LSA	**Lhasa**	**41.09**	**310**	*e*P	**P**	**11 20 46.0**	**+1.2**
	comp=Z,116nm,1.3s,mb5.3						
LSA				*e*PcP	PcP	11 22 45.4	+1.4
LSA				LR	LR		
	comp=Z,739nm,21.0s,MS4.5						
LSA	**Lhasa**	**41.09**	**310**	*e*P	**P**	**11 20 46.0**	**+1.3**
LSA				*e*		11 22 45.4	
LSA				pmax	pmax		
	comp=Z,116nm,1.3s,mb5.3						
LSA				MLR	MLR		
	comp=Z,739nm,21.0s,MS4.5						
GTA	**Gaotai**	**41.46**	**328**	*e*P	**P**	**11 20 47.3**	**-0.3**
GTA				PP	PP	11 22 27.1	+3.3
GTA				PCP	PcP	11 22 45.0	0.0
GTA				PPP		11 22 58.3	
GTA				SCP	ScP	11 26 28.9	-3.8
GTA				PCS	PcS	11 26 35.0	-1.2
GTA				S	**S**	**11 26 58.3**	**-2.3**
GTA				XS	sS	11 27 23.3	+6.0
GTA				SCS	ScS	11 30 43.3	-5.5
GTA				AMB	AMB		
	comp=Z,30nm,1.8s,mb4.6						
GTA				AMB	AMB		
	comp=Z,281nm,8.7s						
GTA				LR	LR		
	comp=N,813nm,22.1s,MS4.7						
GTA				LR	LR		
	comp=E,820nm,22.0s,MS4.7						
GTA				LR	LR		
	comp=Z,1µm,23.6s,MS4.7						
ADE	**Adelaide**	**41.87**	**165**	⇓*i*P	**P**	**11 20 54.0**	**+3.1**
TAPN	**Taplejung**	**42.78**	**305**	*e*P	**P**	**11 20 58.0**	**-0.5**
	comp=Z,182nm,1.1s,mb5.7						
ODAN	**Odare**	**42.85**	**304**	*e*P	**P**	**11 20 59.2**	**+0.1**
	comp=Z,210nm,0.7s						
ARMA	**Armidale**	**43.08**	**147**	⇑*i*P	**P**	**11 21 02.9**	**+2.0**
ARMA				*e*PCP	PcP	11 22 53.2	+2.7
ARMA				*e*SCP	ScP	11 26 42.1	+2.8
ARMA				*e*S	**S**	**11 27 26.1**	**+1.4**
HABR	**Khabarovsk**	**43.44**	**8**	⇑*i*P	**P**	**11 21 04.6**	**+1.1**
HABR				*e**PP	pP	11 21 20.0	+6.3
HABR				*e*		11 22 44.6	
HABR				*e*S	**S**	**11 27 30.8**	**+1.3**
HABR				*e*		11 30 57.4	
HABR				pmax	pmax		
	comp=Z,183nm,1.7s,mb5.5						
YSS	**Yuzh-Sakhalins**	**43.62**	**16**	*e*P	**P**	**11 21 05.9**	**+0.8**
	comp=Z,65nm,0.7s,mb5.5						
YSS				*e*pP	pP	11 21 12.1	-3.2
YSS				LR	LR		
	comp=Z,562nm,20.0s,MS4.5						
YSS	**Yuzh-Sakhalins**	**43.62**	**16**	⇑*e*P	**P**	**11 21 04.8**	**-0.2**
YSS				*i* *PP	pP	11 21 22.8	+7.6
YSS				S	**S**	**11 27 29.0**	**-3.3**
YSS				pmax	pmax		
	comp=Z,90nm,0.9s,mb5.5						
YSS				MLR	MLR		
	comp=Z,500nm,19.0s,MS4.4						
YSS				MLR	MLR		
	comp=N,400nm,20.0s,MS4.6						
YSS				MLR	MLR		
	comp=E,500nm,17.0s,MS4.6						
KLR	**Kul'dur**	**43.81**	**5**	*e*P	**P**	**11 21 02.4**	**-4.1**
KLR				pmax	pmax		
	comp=E,28nm,1.6s						
KLR				pmax	pmax		
	comp=Z,100nm,1.6s,mb5.3						
KLR				MLR	MLR		
	comp=N,1µm,16.0s						
HIA	**Hailar**	**43.99**	**354**	*e*P	**P**	**11 21 08.3**	**+0.4**
	comp=N,353nm,1.6s,mb5.8						
HIA				*e*PcP	PcP	11 22 54.7	+1.5
HIA				*e*ScP	ScP	11 26 43.4	+0.8
HIA				LR	LR		
	comp=Z,794nm,20.0s,MS4.6						
HIA	**Hailar**	**43.99**	**354**	*e*P	**P**	**11 21 08.3**	**+0.4**
HIA				*e*		11 22 54.7	
HIA				pmax	pmax		
	comp=Z,353nm,1.6s						
HIA				MLR	MLR		
	comp=Z,794nm,20.0s						
JIRN	**Jiri**	**44.14**	**305**	*e*P	**P**	**11 21 09.8**	**+0.3**
	comp=Z,13nm,0.3s,mb5.1						
KKN	**Kakani**	**44.94**	**304**	*e*P	**P**	**11 21 15.6**	**-0.3**
	comp=Z,125nm,0.8s,mb5.8						
ULN	**Ulaanbaatar**	**45.37**	**342**	*e*P	**P**	**11 21 18.9**	**-0.1**
	comp=Z,38nm,0.8s,mb5.3						
ULN				*e*PcP	PcP	11 22 58.9	+0.9
ULN	**Ulaanbaatar**	**45.37**	**342**	*e*P	**P**	**11 21 18.9**	**0.0**
ULN				*e*		11 22 58.9	
ULN				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.3						
PALK	**Pallekele**	**45.50**	**275**	PFAKE		11 21 30.0	+9.4
PALK				LR	LR		
	comp=Z,492nm,21.0s,MS4.4						
GKN	**Gorkha**	**45.55**	**304**	*e*P	**P**	**11 21 20.2**	**-0.5**
	comp=Z,58nm,0.7s,mb5.6						
SONM	**Songino Array**	**45.55**	**341**	P	**P**	**11 21 19.9**	**-0.5**
SONM						11 22 59.3	
SONM	**Songino Array**	**45.55**	**341**	P	**P**	**11 21 19.8**	**-0.5**
	comp=Z,14nm,0.6s,mb5.0,baz=160,slow=4.5,SNR=109						
SONM				PcP	PcP	11 22 59.3	+0.7
	comp=Z,55nm,0.8s,baz=165,slow=3.9,SNR=25						
SONM				ScP	ScP	11 26 48.3	-0.8
	comp=Z,4.3nm,1.0s,baz=139,slow=3.7,SNR=4.0						
SONM				LR	LR	11 42 12.6	
	comp=Z,932nm,20.6s,MS4.7,baz=251,slow=38						
RIV	**Riverview**	**45.56**	**151**	*e*P	**P**	**11 21 23.7**	**+3.0**
CNB	**Canberra Magne**	**45.96**	**154**	*e*P	**P**	**11 21 26.1**	**+2.3**
	comp=Z,89nm,1.0s,mb5.7						
TOO	**Toolangi**	**46.37**	**159**	⇓*i*P	**P**	**11 21 30.0**	**+3.0**
	comp=Z,54nm,1.0s,mb5.4						
TOO				*e*SCP	ScP	11 26 58.6	+5.9
TOO				*e*S	**S**	**11 28 16.9**	**+4.7**
TOO	**Toolangi**	**46.37**	**159**	⇓*i*P	**P**	**11 21 30.0**	**+3.0**
TOO				*e*S	**S**	**11 28 16.9**	**+4.7**
TOO				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.4						

CIT	**Chita**	**47.59**	**349**	*e*P	**P**	**11 21 37.5**	**+1.2**
CIT				*e*	pP	11 21 44.9	-1.7
CIT				*e*		11 23 07.2	
CIT				*e*		11 23 22.1	
CIT				*e*		11 28 31.5	
CIT				pmax	pmax		
	comp=Z,469nm,1.3s						
NOUC	**Port Laguerre**	**47.68**	**127**	*e*P	**P**	**11 21 39.5**	**+2.1**
DZM	**Mont Dzumac**	**47.78**	**126**	*e*P	**P**	**11 21 39.7**	**+1.4**
DZM	**Mont Dzumac**	**47.78**	**126**	*e*P	**P**	**11 21 39.7**	**+1.4**
HYB	**Hyderabad**	**48.29**	**288**	*e*P	**P**	**11 21 41.0**	**-1.3**
	comp=Z,75nm,1.0s,mb5.7						
HYB	**Hyderabad**	**48.29**	**288**	*e*P	**P**	**11 21 41.0**	**-1.3**
HYB				pmax	pmax		
	comp=Z,75nm,1.0s,mb5.7						
HYB	**Hyderabad**	**48.29**	**288**	*i* P	**P**	**11 21 41.0**	**-1.3**
	comp=Z,75nm,1.0s,mb5.7						
ZAK	**Zakamensk**	**48.78**	**340**	*e*P	**P**	**11 21 44.7**	**-0.8**
ZAK				*e*		11 23 10.6	
ZAK				pmax	pmax		
	comp=Z,116nm,1.4s,mb5.7						
ZAK				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.5						
TLY	**Talaya**	**49.78**	**342**	P	**P**	**11 21 54.5**	**+1.4**
	comp=Z,277nm,0.7s,SNR=8.3						
TLY	**Talaya**	**49.78**	**342**	*e*P	**P**	**11 21 53.7**	**+0.6**
	comp=Z,23nm,0.6s,mb5.4						
TLY				*e*PcP	PcP	11 23 14.3	+0.7
TLY				LR	LR		
	comp=Z,573nm,20.0s,MS4.6						
TLY	**Talaya**	**49.78**	**342**	*e*P	**P**	**11 21 53.8**	**+0.7**
TLY				*e*		11 23 14.5	
TLY				*e*PPP		11 24 48.1	
TLY				*e*S	**S**	**11 29 05.8**	**+5.7**
TLY				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.5						
TLY				MLR	MLR		
	comp=Z,546nm,20.0s,MS4.5						
IRK	**Irkutsk**	**50.07**	**342**	*e*P	**P**	**11 21 55.8**	**+0.4**
IRK				pmax	pmax		
	comp=Z,130nm,2.0s,mb5.6						
MOY	**Mondy**	**50.64**	**340**	*e*P	**P**	**11 22 00.4**	**+0.7**
MOY				pmax	pmax		
	comp=Z,183nm,2.0s,mb5.7						
WMQ	**Urumqi**	**51.14**	**324**	P	**P**	**11 22 04.8**	**+1.2**
WMQ				PCP	PcP	11 23 20.3	+1.4
WMQ				PP	PP	11 24 02.8	+2.3
WMQ				S	**S**	**11 29 15.9**	**-3.4**
WMQ				SCS	ScS	11 31 46.5	-5.1
WMQ				AMB	AMB		
	comp=Z,41nm,0.9s,mb5.4						
WMQ				AMB	AMB		
	comp=Z,111nm,9.2s						
WMQ				LR	LR		
	comp=N,1µm,24.0s,MS5.0						
WMQ				LR	LR		
	comp=E,919nm,26.0s,MS5.0						
WMQ				LR	LR		
	comp=Z,1µm,28.0s,MS4.7						
CLNS	**Chul'man**	**51.21**	**359**	*e*P	**P**	**11 22 04.1**	**+0.2**
CLNS				*e**PP	pP	11 22 10.3	-3.9
CLNS				*e*		11 23 24.2	
CLNS				*e*S	**S**	**11 29 13.4**	**-6.5**
CLNS				pmax	pmax		
	comp=N,35nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,58nm,0.8s,mb5.6						
CLNS				pmax	pmax		
	comp=E,18nm,1.0s						
CLNS				pmax	pmax		
	comp=N,17nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
CLNS				pmax	pmax		
	comp=E,14nm,1.0s						
CLNS				smax			
	comp=N,203nm,13.1s						
CLNS				smax			
	comp=Z,64nm,11.8s						
CLNS				smax			
	comp=E,234nm,12.3s						
CLNS				MLR	MLR		
	comp=N,200nm,19.0s,MS4.4						
CLNS				MLR	MLR		
	comp=Z,500nm,19.0s,MS4.6						
CLNS				MLR	MLR		
	comp=E,200nm,14.0s,MS4.4						
TAU	**Tasmania Unive**	**51.76**	**161**	P	**P**	**11 22 10.0**	**+1.8**
	comp=E,469nm,1.0s,SNR=7.7						
TAU	**Tasmania Unive**	**51.76**	**161**	*e*P	**P**	**11 22 09.6**	**+1.4**
	comp=E,62nm,0.8s,mb5.6						
TAU	**Tasmania Unive**	**51.76**	**161**	*e*P	**P**	**11 22 10.3**	**+2.1**
NDI	**New Delhi**	**51.95**	**302**	*e*P	**P**	**11 22 06.0**	**-3.9**
	comp=E,11nm,0.6s,mb5.0						
KAD	**Karad**	**52.42**	**288**	*i* x	**P**	**11 22 12.2**	**-1.4**
SDNR	**Sundarnagar**	**53.00**	**306**	*e*P	**P**	**11 22 18.0**	**+0.3**
BOD	**Bodaibo**	**53.09**	**352**	⇑*i*P	**P**	**11 22 18.5**	**+0.7**
BOD				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
PET	**Petropavlovsk**	**54.22**	**23**	*e*P	**P**	**11 22 26.5**	**+0.3**
	comp=Z,68nm,1.1s,mb5.5						
PET				LR	LR		
	comp=Z,290nm,19.0s,MS4.4						
PET	**Petropavlovsk**	**54.22**	**23**	⇓*i*P	**P**	**11 22 27.2**	**+1.1**
PET				*e*S	**S**	**11 30 03.1**	**+2.1**
PET				pmax	pmax		
	comp=Z,36nm,0.7s,mb5.4						
PET				pmax	pmax		
	comp=Z,100nm,13.2s						
PET				MLR	MLR		
	comp=Z,200nm,17.0s						
MKAR	**Makanchi Array**	**55.97**	**325**	P	**P**	**11 22 38.1**	**-0.8**
MKAR				PcP	PcP	11 23 36.8	-0.3
MKAR				ScP	ScP	11 27 32.8	-1.1
MKAR				LR	LR	11 47 19.6	
MKAR	**Makanchi Array**	**55.97**	**325**	P	**P**	**11 22 38.2**	**-0.7**
MKAR						11 23 36.8	
MKAR				pmax	pmax		
	comp=Z,30nm,0.6s						
MKAR				pmax	pmax		
	comp=Z,25nm,0.6s						
MKAR				pmax	pmax		
	comp=N,4.0nm,0.9s						
MKAR				MLR	MLR		
	comp=Z,1µm,21.9s						
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	**Makanchi Array**	**55.97**	**325**	P	**P**	**11 22 38.1**	**-0.8**
	comp=Z,30nm,0.6s,mb5.5,baz=123,slow=8.2,SNR=388						
MKAR				PcP	PcP	11 23 36.8	-0.3
	comp=Z,25nm,0.6s,baz=111,slow=6.0,SNR=6.7						
MKAR				ScP	ScP	11 27 32.8	-1.1
	comp=Z,3.6nm,0.9s,baz=104,slow=6.1,SNR=4.0						
MKAR				LR	LR	11 47 19.6	
	comp=Z,1µm,21.9s,MS4.9,baz=116,slow=37						
MKAR				P4KPbc		11 59 52.7	
	comp=Z,1.0nm,0.7s,baz=113,slow=5.5,SNR=6.8						
YAK	**Yakutsk**	**56.46**	**2**	*e*P	**P**	**11 22 42.5**	**+0.3**
	comp=Z,260nm,0.8s						
YAK				*e*PcP	PcP	11 23 38.9	+0.2
YAK				LR	LR		
	comp=Z,409nm,20.0s,MS4.5						
YAK	**Yakutsk**	**56.46**	**2**	*c i*P	**P**	**11 22 42.4**	**+0.2**
YAK				*i*		11 23 39.3	
YAK				*e*S	**S**	**11 30 26.2**	**-4.5**
YAK				*i*		11 32 19.1	
YAK				pmax	pmax		
	comp=Z,297nm,0.9s						
YAK				pmax	pmax		
	comp=N,135nm,1.4s						
YAK				pmax	pmax		
	comp=E,54nm,1.2s						
YAK				smax			
	comp=N,211nm,18.5s						
YAK				smax			
	comp=Z,112nm,19.0s						
YAK				smax			
	comp=E,256nm,20.3s						
KSH	**Kashi**	**56.62**	**314**	⇑*i*P	**P**	**11 22 44.1**	**+0.4**
KSH				*e*PCP	PcP	11 23 40.0	+0.1
KSH				*e*PP	PP	11 24 51.1	+1.1
KSH				*e*PPP		11 26 09.0	
KSH				*e*SCP	ScP	11 27 32.0	-4.9
KSH				*e*PCS	PcS	11 27 39.1	-1.4
KSH				*e*S	**S**	**11 30 26.8**	**-6.8**
KSH				*e*XS	sS	11 30 55.1	+4.3
KSH				*e*SCS	ScS	11 32 28.1	-2.5
KSH				AMB	AMB		
	comp=Z,631nm,2.0s						
KSH				LR	LR		
	comp=N,784nm,6.2s						
KSH				LR	LR		
	comp=E,680nm,5.4s						
KSH				LR	LR		
	comp=Z,574nm,5.4s						
MA2	**Magadan**	**57.07**	**14**	*e*P	**P**	**11 22 47.3**	**+0.8**
	comp=Z,33nm,0.8s,mb5.4						
MA2				*e*pP	pP	11 22 53.4	-3.6
MA2				*e*PcP	PcP	11 23 41.6	+0.5
MA2				LR	LR		
	comp=Z,354nm,22.0s,MS4.4						
MA2	**Magadan**	**57.07**	**14**	*e*P	**P**	**11 22 46.9**	**+0.4**
MA2				*e*		11 23 41.8	
MA2				*e*S	**S**	**11 30 37.5**	**-1.3**
MA2				*e*SS	ScS	11 32 32.9	-0.1
MA2				pmax	pmax		
	comp=Z,60nm,0.7s,mb5.7						
KZA	**Kyzart**	**58.15**	**317**	P	**P**	**11 22 54.8**	**+0.4**
	SNR=37						
TKM2	**Tokmak 2**	**58.26**	**318**	P	**P**	**11 22 54.3**	**-0.9**
	SNR=23						
TKM2	**Tokmak 2**	**58.26**	**318**	*e*P	**P**	**11 22 54.4**	**-0.8**
	comp=Z,16nm,0.6s,mb5.2						
TKM2				*e*		11 23 16.4	
TKM2				*e*PcP	PcP	11 23 46.8	+0.5
TKM2				LR	LR		
	comp=Z,500nm,20.0s,MS4.6						
TKM2	**Tokmak 2**	**58.26**	**318**	*e*P	**P**	**11 22 54.4**	**-0.8**
TKM2				*e*		11 23 46.8	
TKM2				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.2						
TKM2				MLR	MLR		
	comp=Z,500nm,20.0s,MS4.6						
KBK	**Karagaybulak**	**58.59**	**317**	P	**P**	**11 22 57.5**	**-0.1**
	SNR=9.4						
UCH	**Uchtor**	**58.71**	**317**	P	**P**	**11 22 58.7**	**+0.3**
	SNR=58						
UCH	**Uchtor**	**58.71**	**317**	*e*P	**P**	**11 22 58.5**	**+0.1**
	comp=Z,57nm,1.0s,mb5.5						
UCH				*e*ScP	ScP	11 27 45.8	-0.3
UCH				LR	LR		
	comp=Z,778nm,20.0s,MS4.8						
CHMS	**Chumysh**	**58.86**	**318**	P	**P**	**11 22 58.2**	**-1.1**
	SNR=11						
FRU	**Bishkek**	**58.88**	**317**	*e*P	**P**	**11 22 59.0**	**-0.6**
FRU				*e*		11 23 14.0	
FRU				pmax	pmax		
	comp=Z,60nm,1.6s,mb5.4						
FRU				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.0						
AAK	**Ala-Archa**	**58.88**	**317**	P	**P**	**11 22 59.1**	**-0.4**
	SNR=21						
ZALV	**Zalesovo Beam**	**58.91**	**333**	P	**P**	**11 22 58.2**	**-1.3**
ZALV				PcP	PcP	11 23 47.4	-1.2
ZALV				LR	LR	11 49 56.7	
ZALV	**Zalesovo Beam**	**58.91**	**333**	P	**P**	**11 22 58.2**	**-1.3**
	comp=Z,23nm,0.5s,mb5.5,baz=128,slow=6.4,SNR=48						
ZALV				PcP	PcP	11 23 47.4	-1.2
	comp=Z,28nm,0.8s,baz=143,slow=3.7,SNR=4.8						
ZALV				LR	LR	11 49 56.7	
	comp=Z,275nm,21.0s,MS4.4,baz=317,slow=38						
USP	**Ospenovka**	**59.13**	**318**	P	**P**	**11 23 00.3**	**-1.0**
	SNR=49						
AML	**Almayashu**	**59.23**	**316**	P	**P**	**11 23 01.8**	**-0.2**
	SNR=36						
AML	**Almayashu**	**59.23**	**316**	*e*P	**P**	**11 23 01.5**	**-0.5**
	comp=Z,44nm,0.9s,mb5.5						
AML				LR	LR		
	comp=Z,980nm,22.0s,MS4.9						
EKS2	**Erkin-Say**	**59.38**	**317**	P	**P**	**11 23 02.8**	**-0.2**
	SNR=39						
EKS2	**Erkin-Say**	**59.38**	**317**	*e*P	**P**	**11 23 02.6**	**-0.4**
	comp=Z,31nm,0.9s,mb5.3						
EKS2				LR	LR		
	comp=Z,792nm,21.0s,MS4.8						
KURK	**Kurchatov**	**60.12**	**327**	P	**P**	**11 23 06.0**	**-1.9**
	comp=Z,667nm,0.6s,SNR=44						
KURK	**Kurchatov**	**60.12**	**327**	*e*P	**P**	**11 23 06.9**	**-1.0**
	comp=Z,60nm,0.6s,mb5.8						
KURK				*e*	pP	11 23 17.8	-0.7
KURK				LR	LR		
	comp=Z,515nm,22.0s,MS4.6						
NVS	**Novosibirsk**	**60.19**	**333**	⇑*i*P	**P**	**11 23 06.6**	**-1.7**
NVS				*i*	pP	11 23 15.7	-3.1
NVS				*e*S	**S**	**11 31 22.8**	**+3.3**
NVS				*i*		11 32 53.1	
NVS				pmax	pmax		
	comp=Z,103nm,1.5s,mb5.6						
NVS				pmax	pmax		
	comp=N,72nm,1.6s						
NVS				pmax	pmax		
	comp=E,72nm,1.6s						
NVS				smax			
	comp=N,66nm,2.9s						
KBL	**Kabul**	**60.25**	**307**	*e*P	**P**	**11 23 08.0**	**-1.2**
SEY	**Seymchan**	**60.38**	**13**	⇑*e*P	**P**	**11 23 10.8**	**+1.3**
KK31	**Karatay Array**	**61.77**	**316**	*i* P	**P**	**11 23 18.2**	**-1.1**
KKAR	**Karatay Array**	**61.77**	**316**	*i* P	**P**	**11 23 18.1**	**-1.2**
KKAR				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.5						
JCZ	**Jackson Bay**	**62.30**	**147**	*e*PN	**P**	**11 23 24.9**	**+2.1**
NNZ	**Nelson**	**63.22**	**142**	*e*PN	**P**	**11 23 29.5**	**+0.5**
THZ	**Tophouse**	**63.25**	**143**	*e*PN	**P**	**11 23 29.6**	**+0.5**
KHZ	**Kahutara**	**64.02**	**143**	*e*PN	**P**	**11 23 34.4**	**+0.2**
SNZO	**South Karori**	**64.09**	**141**	*e*P	**P**	**11 23 37.0**	**+2.3**
	comp=Z,76nm,1.1s,mb5.6						
SNZO				LR	LR		
	comp=Z,569nm,20.0s,MS4.8						
MRZ	**Mangatainoka R**	**64.28**	**140**	*e*PN	**P**	**11 23 36.3**	**+0.3**
MCQ	**Macquarie Isla**	**65.64**	**160**	*e*P	**P**	**11 23 47.0**	**+2.5**
BRVK	**Borovoye**	**65.78**	**327**	P	**P**	**11 23 44.2**	**-1.3**
	comp=Z,719nm,0.7s,SNR=44						
BRVK	**Borovoye**	**65.78**	**327**	*e*P	**P**	**11 23 44.2**	**-1.3**
	comp=Z,79nm,0.8s,mb5.8						
BRVK				LR	LR		
	comp=Z,646nm,21.0s,MS4.8						
BRVK	**Borovoye**	**65.78**	**327**	P	**P**	**11 23 43.8**	**-1.7**
BRVK				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
BRVK	**Borovoye**	**65.78**	**327**	*e*P	**P**	**11 23 44.2**	**-1.3**
BRVK				pmax	pmax		
	comp=Z,79nm,0.8s,mb5.8						
BRVK				MLR	MLR		
	comp=Z,646nm,21.0s,MS4.8						
TIXI	**Tiksi**	**66.09**	**1**	*e*P	**P**	**11 23 47.0**	**-0.2**
	comp=Z,149nm,1.0s						
TIXI				LR	LR		
	comp=Z,868nm,22.0s						
TIXI	**Tiksi**	**66.09**	**1**	*e*P	**P**	**11 23 46.4**	**-0.8**
TIXI				*e*S	S	11 32 30.8	-2.0
TIXI				pmax	pmax		
	comp=N,42nm,1.0s						
TIXI				pmax	pmax		
	comp=E,21nm,1.0s						
TIXI				pmax	pmax		
	comp=Z,161nm,1.0s						
TIXI				pmax	pmax		
	comp=Z,83nm,12.0s						
TIXI				MLR	MLR		
	comp=Z,247nm,12.0s,MS4.6						
BILL	**Bilibino**	**67.92**	**15**	*e*P	**P**	**11 23 58.8**	**-0.1**
	comp=Z,25nm,0.9s,mb5.2						
BILL				LR	LR		
	comp=Z,568nm,22.0s,MS4.8						
BILL	**Bilibino**	**67.92**	**15**	*d i*P	**P**	**11 23 59.5**	**+0.6**
BILL				*e*		11 24 22.5	
BILL				*e*S	S	11 33 03.1	+8.1
BILL				pmax	pmax		
	comp=Z,41nm,1.6s,mb5.2						
BILL				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.4						
ABKT	**Ailbek**	**69.59**	**308**	P	**P**	**11 24 09.9**	**0.0**
	comp=Z,284nm,1.0s,SNR=7.5						
AB31	**Akbulak array**	**70.63**	**320**	*i* P	**P**	**11 24 14.1**	**-1.9**
UNV	**Unalaska Valle**	**72.13**	**35**	PFAKE		11 24 40.0	+15
UNV				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
SVE	**Sverdlovsk**	**72.33**	**328**	⇑*e*P	**P**	**11 24 25.0**	**-1.1**
SVE				pmax	pmax		
	comp=Z,250nm,1.7s,mb5.9						
CASY	**Casey**	**72.53**	**187**	*e*P	**P**	**11 24 28.6**	**+1.6**
ARU	**Arti**	**73.31**	**327**	P	**P**	**11 24 30.8**	**-1.1**
	comp=Z,617nm,0.6s,SNR=25						
ARU	**Arti**	**73.31**	**327**	*e*P	**P**	**11 24 30.0**	**-1.9**
	comp=Z,56nm,0.6s,mb5.7						
ARU				LR	LR		
	comp=Z,412nm,19.0s,MS4.7						
ARU	**Arti**	**73.31**	**327**	*c i*P	**P**	**11 24 30.2**	**-1.8**
ARU				*e*		11 24 45.2	
ARU				*e*		11 27 08.7	
ARU				*e*PPP		11 28 55.3	
ARU				*e*S	S	11 33 54.8	-3.3
ARU				*e*SS	SS	11 38 31.4	-9.0
ARU				pmax	pmax		
	comp=Z,101nm,1.2s,mb5.6						
FALS	**False Pass**	**74.14**	**34**	*e*P	**P**	**11 24 36.7**	**-0.1**
SOKR	**Solikamsk**	**75.05**	**330**	*c i*P	**P**	**11 24 40.7**	**-1.3**
SOKR				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.4						
SOKR				MLR	MLR		
	comp=Z,600nm,24.0s,MS4.8						
TNA	**Tin City**	**75.08**	**23**	*e*P	**P**	**11 24 41.7**	**-0.4**
	comp=Z,4.9nm,0.9s,mb4.4						
TNA				LR	LR		
	comp=Z,214nm,20.0s,MS4.4						
QRN	**Al-Qurain**	**77.34**	**298**	*e*P	**P**	**11 24 53.5**	**-2.2**
QRN				AMb	AMB	11 24 55.8	
	comp=Z,128nm,0.9s,mb5.8						
KBD	**Kabd**	**77.55**	**299**	*e*P	**P**	**11 24 55.0**	**-1.9**
KBD				AMb	AMB	11 25 00.1	
	comp=Z,124nm,1.0s,mb5.8						
MIB	**Mutribah**	**77.86**	**299**	*e*P	**P**	**11 24 57.1**	**-1.5**
MIB				AMb	AMB	11 25 00.1	
	comp=Z,72nm,0.8s,mb5.6						
NAY	**Al-Naaiem**	**77.94**	**299**	*e*P	**P**	**11 24 57.0**	**-2.0**
NAY				AMb	AMB	11 25 00.0	
	comp=Z,44nm,0.9s,mb5.4						
RST	**Umm Al-Ruwaisa**	**78.16**	**299**	*e*P	**P**	**11 24 57.6**	**-2.7**
RST				AMb	AMB	11 24 59.5	
	comp=Z,76nm,0.8s,mb5.7						
MAK	**Makhachkala**	**78.20**	**313**	*e*P	**P**	**11 24 57.5**	**-2.7**
MAK				*e*PPP		11 29 47.3	
MAK				pmax	pmax		
	comp=Z,175nm,1.4s,mb5.8						
MAK				MLR	MLR		
	comp=Z,614nm,23.0s,MS4.9						
SVW2	**Sparrevohn**	**79.39**	**29**	*e*P	**P**	**11 25 07.6**	**+1.3**
DGRG	**David-gareji**	**79.71**	**311**	P	**P**	**11 25 08.3**	**-0.3**
MTA	**Mtatsminda**	**80.15**	**311**	P	**P**	**11 25 10.0**	**-0.9**
TBLG	**Delisi**	**80.19**	**311**	P	**P**	**11 25 11.0**	**-0.1**
TBLG	**Delisi**	**80.19**	**311**	P	**P**	**11 25 11.1**	**-0.1**
BHD	**Baghdad**	**80.40**	**303**	*e*P	x	11 25 10.5	
KDAK	**Kodiak Island**	**80.55**	**32**	P	**P**	**11 25 13.0**	**+0.3**
	comp=Z,505nm,0.6s,SNR=12						
KDAK	**Kodiak Island**	**80.55**	**32**	*e*P	**P**	**11 25 12.9**	**+0.2**
	comp=Z,62nm,0.8s,mb5.6						
KDAK	**Kodiak Island**	**80.55**	**32**	P	**P**	**11 25 13.4**	**+0.8**
	comp=Z,30nm,0.6s,mb5.4,baz=263,slow=3.3,SNR=20						
GOR	**Gori**	**80.67**	**312**	P	**P**	**11 25 13.7**	**+0.1**
PRGR	**Permogore**	**80.83**	**331**	⇓*i*P	**P**	**11 25 14.1**	**0.0**
PRGR				*e*S	S	11 35 18.3	-1.5
PRGR				pmax	pmax		
	comp=Z,203nm,0.7s						
ZEI	**Tsey**	**80.84**	**312**	*e*P	**P**	**11 25 12.8**	**-1.8**
ZEI				*e**PP	pP	11 25 29.0	+3.6
ZEI				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
IMA2	**Indian Mountai**	**80.88**	**24**	*e*P	**P**	**11 25 15.1**	**+0.8**
HAKT	**HAKKARI**	**80.94**	**307**	*e*P	**P**	**11 25 15.7**	**+0.4**
MSL	**Mosul**	**81.44**	**306**	*e*P	x	11 25 20.0	
TUTA	**Tutak**	**81.64**	**309**	⇓*i*P	**P**	**11 25 18.8**	**-0.1**
KIV	**Kislovodsk**	**81.74**	**313**	*e*P	**P**	**11 25 18.1**	**-1.2**
	comp=Z,26nm,0.7s,mb5.3						
KIV				*e*		11 25 25.2	
KIV				LR	LR		
	comp=Z,356nm,20.0s,MS4.7						
KIV	**Kislovodsk**	**81.74**	**313**	*e*P	**P**	**11 25 18.1**	**-1.2**
KIV				*e*		11 28 24.3	
KIV				*e*S	S	11 35 26.0	-3.9
KIV				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
ARTV	**Artvin**	**82.30**	**311**	⇓*i*P	**P**	**11 25 19.6**	**-2.7**
VRHR	**Novokhopersk**	**82.51**	**321**	*e*P	**P**	**11 25 21.7**	**-1.5**
VRHR				pmax	pmax		
	comp=Z,50nm,0.4s,mb5.9						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VRHR				pmax	pmax		
	comp=E,20nm,0.6s						
PMR	**Palmer**	**82.53**	**29**	*e*P	**P**	**11 25 23.5**	**+0.4**
	comp=E,35nm,0.8s,mb5.4						
PMR	**Palmer**	**82.53**	**29**	*e*P	**P**	**11 25 23.5**	**+0.4**
PMR				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.4						
MCK	**McKinley**	**82.71**	**27**	*e*P	**P**	**11 25 24.4**	**+0.4**
	comp=Z,38nm,0.9s,mb5.4						
MCK	**McKinley**	**82.71**	**27**	*e*P	**P**	**11 25 24.4**	**+0.4**
MCK				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.4						
ERZM	**Erzurum**	**82.75**	**309**	*i* P	**P**	**11 25 25.6**	**+0.9**
SML	**Sawmill**	**82.92**	**28**	*e*P	**P**	**11 25 25.7**	**+0.6**
COLA	**College**	**83.22**	**25**	*e*P	**P**	**11 25 26.3**	**-0.3**
COLA				*e*pP	pP	11 25 34.4	-3.1
COLA				LR	LR		
	comp=Z,240nm,20.0s,MS4.6						
VORD	**Divnogorie**	**83.99**	**321**	*e*P	**P**	**11 25 27.6**	**-3.2**
VORD				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.4						
VORD				pmax	pmax		
	comp=N,7.0nm,0.4s						
VORD				pmax	pmax		
	comp=E,20nm,0.6s						
VRSR	**Storozhevoye**	**84.05**	**321**	*e*P	**P**	**11 25 29.2**	**-1.9**
VRSR				pmax	pmax		
	comp=N,3.0nm,0.8s						
VRSR				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.9						
VRSR				pmax	pmax		
	comp=E,9.0nm,0.9s						
DIV	**Divide**	**84.14**	**29**	PFAKE		11 25 40.0	+8.6
DIV				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
KELT	**Kelkit**	**84.36**	**310**	*i* P	**P**	**11 25 32.5**	**-0.4**
ELZG	**Elazig**	**84.64**	**308**	*e*P	**P**	**11 25 34.7**	**+0.2**
MOS	**Moscow**	**84.84**	**325**	*e*P	**P**	**11 25 33.4**	**-1.6**
MOS				*e*	pP	11 25 41.2	-4.8
MOS				*e*		11 28 45.6	
MOS				*e*S	S	11 35 58.3	-2.6
MOS				pmax	pmax		
	comp=Z,180nm,0.9s						
MALT	**Malatya**	**85.09**	**308**	*e*P	**P**	**11 25 36.7**	**0.0**
	comp=Z,21nm,0.8s,mb5.3						
MALT	**Malatya**	**85.09**	**308**	⇓*i*P	**P**	**11 25 36.9**	**+0.2**
VNDA	**Vanda**	**85.20**	**173**	*e*P	**P**	**11 25 37.2**	**+0.8**
	comp=Z,50nm,1.1s,mb5.6						
VNDA				LR	LR		
	comp=Z,402nm,19.0s,MS4.8						
VNDA	**Vanda**	**85.20**	**173**	*e*P	**P**	**11 25 37.2**	**+0.8**
VNDA				pmax	pmax		
	comp=Z,50nm,1.1s						
VNDA				MLR	MLR		
	comp=Z,402nm,19.0s						
VNDA	**Vanda**	**85.20**	**173**	P	**P**	**11 25 37.3**	**+0.9**
	comp=Z,32nm,0.8s,mb5.5,baz=313,slow=6.5,SNR=40						
VNDA				LR	LR	12 03 38.3	
	comp=Z,402nm,19.9s,MS4.8,baz=336,slow=36						
MAW	**Mawson**	**85.31**	**200**	⇑*i*P	**P**	**11 25 37.6**	**+0.5**
	comp=Z,26nm,0.9s,mb5.4						
MAW	**Mawson**	**85.31**	**200**	⇑*i*P	**P**	**11 25 37.6**	**+0.5**
MAW				pmax	pmax		
	comp=Z,26nm,0.9s						
MAW	**Mawson**	**85.31**	**200**	P	**P**	**11 25 37.7**	**+0.6**
	comp=Z,21nm,0.9s,mb5.3,baz=68,slow=8.2,SNR=11						
MAW				LR	LR	11 59 20.1	
	comp=Z,292nm,19.2s,MS4.7,baz=198,slow=32						
OBN	**Obninsk**	**85.47**	**325**	P	**P**	**11 25 37.8**	**-0.4**
	comp=Z,739nm,1.2s,SNR=6.5						
OBN	**Obninsk**	**85.47**	**325**	*e*P	**P**	**11 25 36.9**	**-1.4**
	comp=Z,72nm,0.7s,mb5.9						
OBN				*e*pP	pP	11 25 47.4	-1.7
OBN				LR	LR		
	comp=Z,349nm,19.0s,MS4.8						
OBN	**Obninsk**	**85.47**	**325**	*c i*P	**P**	**11 25 36.8**	**-1.4**
OBN				*i*	pP	11 25 46.4	-2.7
OBN				pmax	pmax		
	comp=Z,186nm,1.2s						

OBN				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.7						
ANN	**Anapa**	**85.48**	**314**	*e*P	**P**	**11 25 36.3**	**-2.2**
ANN				*i* *PP	pP	11 25 48.1	-1.3
ANN				*e*S	S	11 35 55.2	-12
ANN				pmax	pmax		
	comp=Z,146nm,0.8s						
LVZ	**Lovozero**	**85.63**	**338**	P	**P**	**11 25 38.3**	**-0.4**
	comp=Z,369nm,0.7s,SNR=5.1						
LVZ	**Lovozero**	**85.63**	**338**	⇑*e*P	**P**	**11 25 39.0**	**+0.3**
GZT	**Gaziantep**	**85.83**	**307**	⇓*i*P	**P**	**11 25 39.7**	**-0.7**
PPT	**Papeete**	**85.91**	**108**	*e*S	S	11 36 11.2	-1.6
	comp=Z,722nm,26.2s						
PPT				*e*SS	SS	11 41 50.6	-0.4
	comp=Z,232nm,28.2s						
PPT				*e*LR	LR	11 52 51.6	
	comp=Z,706nm,25.2s,baz=288						
PPT	**Papeete**	**85.91**	**108**	LR	LR	11 59 00.7	
	comp=Z,167nm,18.6s,MS4.5,baz=270,slow=32						
EGAK	**Eagle**	**86.08**	**25**	*e*P	**P**	**11 25 42.2**	**+1.1**
	comp=Z,13nm,0.8s,mb5.2						
EGAK				LR	LR		
	comp=Z,250nm,19.0s,MS4.6						
APA	**Apatity**	**86.13**	**337**	⇑*i*P	**P**	**11 25 40.5**	**-0.7**
APA				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.8						
APA				MLR	MLR		
	comp=Z,1µm,26.0s,MS5.2						
DAWY	**Dawson**	**86.91**	**26**	*e*P	**P**	**11 25 45.9**	**+0.8**
COBT	**Iskenderun**	**86.94**	**306**	*i* P	**P**	**11 25 45.0**	**-0.8**
JOF	**Joensuu**	**87.50**	**333**	*e*p	**P**	**11 25 45.3**	**-2.7**
	comp=Z,63nm,0.6s						
JOF	**Joensuu**	**87.50**	**333**	*e*P	**P**	**11 25 45.3**	**-2.7**
JOF				pmax	pmax		
	comp=Z,63nm,0.6s						
BOYT	**Boyabat**	**87.58**	**311**	*i* P	**P**	**11 25 45.2**	**-3.7**
CTKT	**Corum**	**87.73**	**310**	⇓*i*P	**P**	**11 25 48.6**	**-1.1**
AVNT	**Avonos**	**87.85**	**309**	⇓*i*P	**P**	**11 25 48.7**	**-1.5**
GULE	**Gulek**	**88.05**	**307**	⇓*i*P	**P**	**11 25 49.8**	**-1.4**
KEV	**Kevo**	**88.15**	**340**	*e*p	**P**	**11 25 49.5**	**-1.5**
	comp=Z,5.7nm,0.5s,mb5.1						
KEV	**Kevo**	**88.15**	**340**	*e*P	**P**	**11 25 49.5**	**-1.5**
KEV				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb5.1						
PUL	**Pulkovo**	**88.39**	**330**	⇑*e*P	**P**	**11 25 50.5**	**-1.8**
INK	**Inuvik**	**88.63**	**21**	*e*P	**P**	**11 25 48.2**	**-5.0**
	comp=Z,566nm,0.9s						
INK	**Inuvik**	**88.63**	**21**	P	**P**	**11 25 53.9**	**+0.7**
INK				pmax	pmax		
	comp=Z,6.0nm,0.5s						
INK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
INK	**Inuvik**	**88.63**	**21**	P	**P**	**11 25 53.9**	**+0.7**
	comp=Z,5.9nm,0.5s,mb5.1,baz=279,slow=4.9,SNR=16						
INK				PKiKP	PKiKP	11 30 53.5	+0.1
	comp=Z,2.2nm,0.7s,baz=350,slow=3.3,SNR=3.5						
BR131	**Keskin Array S**	**88.70**	**310**	*e*P	**P**	**11 25 52.4**	**-1.8**
	comp=Z,17nm,0.9s,mb5.4						
BR131				LR	LR		
	comp=Z,308nm,19.0s,MS4.7						
BRTR	**Keskin Array B**	**88.70**	**310**	P	**P**	**11 25 52.7**	**-1.5**
BRTR				pmax	pmax		
	comp=Z,11nm,0.9s						
BRTR	**Keskin Array B**	**88.70**	**310**	P	**P**	**11 25 52.6**	**-1.6**
	comp=Z,11nm,0.9s,mb5.2,baz=109,slow=4.8,SNR=22						
BALT	**Daday**	**88.70**	**311**	*i* P	**P**	**11 25 53.0**	**-1.2**
ARCES	**ARCESS Array B**	**88.71**	**340**	P	**P**	**11 25 52.8**	**-0.8**
	comp=Z,35nm,0.6s,mb5.9,baz=83,slow=6.3,SNR=155						
ARCES				PKiKP	PKiKP	11 30 53.0	-0.5
	comp=Z,7.4nm,1.0s,baz=72,slow=4.0,SNR=3.6						
ARE0	**ARCESS Array S**	**88.71**	**340**	*e*P	**P**	**11 25 52.5**	**-1.1**
SPB4	**Spitsbergen Ar**	**88.71**	**349**	*e*P	**P**	**11 25 53.3**	**-0.2**
KBS	**Kingsbay**	**89.23**	**350**	⇑*e*P	**P**	**11 25 54.7**	**-1.2**
KBS				LR	LR		
	comp=Z,466nm,19.0s,MS4.9						
KMBO	**Kilima Mbogo**	**89.32**	**269**	*e*P	**P**	**11 25 57.5**	**-0.2**
	comp=Z,5.2nm,1.0s,mb4.8						
KMBO				*e*sP	sP	11 26 12.4	-0.2
KMBO				LR	LR		
	comp=Z,210nm,21.0s,MS4.5						
KMBO	**Kilima Mbogo**	**89.32**	**269**	*e*P	**P**	**11 25 57.5**	**-0.2**
KMBO				*e*		11 26 12.8	
KMBO				pmax	pmax		
	comp=Z,9.0nm,1.0s						
KMBO	**Kilima Mbogo**	**89.32**	**269**	P	**P**	**11 25 57.6**	**-0.1**
	comp=Z,1.3nm,0.5s,mb4.5,baz=47,slow=13,SNR=4.2						
KMBO				LR	LR	12 07 27.9	
	comp=Z,163nm,18.5s,MS4.5,baz=94,slow=37						
ANTO	**Ankara**	**89.33**	**310**	PFAKE		11 26 10.0	+13
ANTO				LR	LR		
	comp=Z,216nm,20.0s,MS4.6						
CSS	**Prodhromos**	**89.45**	**305**	*e*P	**P**	**11 25 57.2**	**-0.6**
	comp=Z,19nm,0.8s,mb5.5						
CSS				*e*pP	pP	11 26 05.8	-3.0
KAF	**Kangasniemi**	**89.92**	**332**	*e*p	**P**	**11 25 56.6**	**-2.8**
	comp=Z,41nm,0.5s,baz=75,slow=4.3						
KAF	**Kangasniemi**	**89.92**	**332**	*e*P	**P**	**11 25 56.6**	**-2.8**
KAF				pmax	pmax		
	comp=Z,41nm,0.5s						
KDHN	**Kadinhani**	**90.01**	**309**	⇓*i*P	**P**	**11 25 57.6**	**-2.8**
FIA1	**FINESS Array S**	**90.16**	**332**	*e*P	**P**	**11 25 58.9**	**-1.6**
FINES	**FINESS Array B**	**90.16**	**332**	P	**P**	**11 25 59.2**	**-1.4**
FINES				pmax	pmax		
	comp=Z,20nm,0.5s						
FINES				MLR	MLR		
	comp=Z,588nm,21.4s						
FINES	**FINESS Array B**	**90.16**	**332**	P	**P**	**11 25 59.1**	**-1.4**
	comp=Z,20nm,0.5s,mb5.7,baz=87,slow=4.6,SNR=153						
FINES				LR	LR	12 10 12.8	
	comp=Z,588nm,21.4s,MS5.0,baz=240,slow=38						
AKASG	**Malin Array Be**	**90.36**	**321**	P	**P**	**11 25 59.4**	**-2.3**
AKASG				LR	LR	12 11 32.5	
AKASG	**Malin Array Be**	**90.36**	**321**	P	**P**	**11 25 59.4**	**-2.3**
	comp=Z,11nm,0.7s,mb5.3,baz=67,slow=4.6,SNR=43						
AKASG				LR	LR	12 11 32.5	
	comp=Z,230nm,20.1s,MS4.6,baz=50,slow=39						
AKBB	**Malin Array Si**	**90.36**	**321**	*e*P	**P**	**11 25 59.6**	**-2.1**
AKBB				*e*pP	pP	11 26 10.3	-2.4
KIEV	**Kiev**	**90.38**	**321**	*e*P	**P**	**11 25 59.6**	**-2.2**
	comp=Z,48nm,1.2s,mb5.7						
KIEV				*e*pP	pP	11 26 10.2	-2.5
KIEV				LR	LR		
	comp=Z,353nm,20.0s,MS4.8						
VSU	**Vasula**	**90.43**	**329**	*e*P	**P**	**11 25 59.6**	**-2.3**
MNK	**Minsk**	**90.56**	**325**	*e*P	**P**	**11 26 01.0**	**-1.6**
ESKT	**Eskisehir**	**90.86**	**310**	⇓*i*P	**P**	**11 26 02.2**	**-2.1**
TIRR	**Tirgusor**	**91.92**	**315**	⇑P	**P**	**11 26 08.0**	**-1.1**
TIRR	**Tirgusor**	**91.92**	**315**	⇑*i*P	**P**	**11 26 08.0**	**-1.1**
ALE	**Alert**	**92.00**	**1**	P	**P**	**11 26 09.2**	**+0.4**
	comp=Z,76nm,1.3s,mb5.9,SNR=5.7						
ULDT	**Uludag**	**92.08**	**310**	⇓*i*P	**P**	**11 26 08.0**	**-1.9**
VRI	**Vrincioaia**	**92.84**	**316**	⇑P	**P**	**11 26 11.9**	**-1.4**
VRI	**Vrincioaia**	**92.84**	**316**	⇑*i*P	**P**	**11 26 11.9**	**-1.4**
PLOR	**Plostina**	**92.90**	**316**	⇑P	**P**	**11 26 14.7**	**+1.1**
PLOR	**Plostina**	**92.90**	**316**	⇑*i*P	**P**	**11 26 14.6**	**+1.0**
SUW	**Suwalki**	**93.34**	**325**	*e*P	**P**	**11 26 13.8**	**-1.6**
SUW				*e*		11 26 16.3	
MLR	**Muntele Rosu**	**93.45**	**316**	⇓P	**P**	**11 26 14.9**	**-1.3**
MLR	**Muntele Rosu**	**93.45**	**316**	⇓*i*P	**P**	**11 26 14.9**	**-1.3**
BURAR	**Bucovina Array**	**93.52**	**318**	⇓*i*P	**P**	**11 26 15.5**	**-0.9**
LVV	**L'vov**	**93.80**	**321**	*e*P	**P**	**11 26 08.4**	**-9.3**
SYO	**Syowa Base**	**93.97**	**201**	⇓*e*P	**P**	**11 26 17.8**	**-0.2**
SYO	**Syowa Base**	**93.97**	**201**	⇓*e*pP	pP	11 26 27.0	-1.9
KWP	**Kalwaria**	**94.68**	**321**	*e*P	**P**	**11 26 21.1**	**-0.7**
KOLS	**Kolonicke sedl**	**95.13**	**320**	*e*P	**P**	**11 26 22.5**	**-1.3**
TRPA	**Tarpa**	**95.16**	**319**	⇑*i*P	**P**	**11 26 22.3**	**-1.6**
UZH	**Uzhgorod**	**95.19**	**320**	*e*P	**P**	**11 26 22.6**	**-1.5**
UZH				*i*	pP	11 26 33.6	-1.5
DRGR		**95.36**	**318**	⇑P	**P**	**11 26 23.5**	**-1.4**
DRGR		**95.36**	**318**	⇑*i*P	**P**	**11 26 23.5**	**-1.4**
DAG	**Danmarks Havn**	**95.48**	**352**	⇓*i*P	**P**	**11 26 24.2**	**-0.6**
DAG				pmax	pmax		
	comp=Z,410nm,1.4s						
DAG	**Danmarks Havn**	**95.48**	**352**	⇓*i*P	**P**	**11 26 24.2**	**-0.6**
	comp=Z,409nm,1.4s						
GZR	**Gura Zlata**	**95.65**	**317**	⇓*i*P	**P**	**11 26 25.2**	**-1.0**
CRVS	**Cervenica-Dubn**	**95.66**	**320**	*e*P	**P**	**11 26 25.2**	**-1.0**
CRVS				*e*pP	pP	11 26 38.8	+1.6
STHS	**Stebnicka Huta**	**95.66**	**321**	*e*P	**P**	**11 26 26.2**	**0.0**
	comp=Z,8.0nm,0.9s,mb5.2						
STHS				*e*	pP	11 26 36.9	-0.3
STHS	**Stebnicka Huta**	**95.66**	**321**	*e*P	**P**	**11 26 26.2**	**0.0**
STHS				*e*	pP	11 26 36.9	-0.3
STHS				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.2						
RES	**Resolute Bay**	**96.13**	**10**	*e*P	**P**	**11 26 28.0**	**+0.1**
	comp=Z,2µm,1.6s						
RES				*e*PP	PP	11 30 17.5	-3.0
BZS	**Buzias**	**96.39**	**317**	⇑P	**P**	**11 26 28.0**	**-1.6**
BZS	**Buzias**	**96.39**	**317**	⇑*i*P	**P**	**11 26 28.0**	**-1.6**
KECS	**Kecovo**	**96.39**	**320**	*e*P	**P**	**11 26 28.2**	**-1.3**
	comp=Z,8.8nm,1.1s,mb5.1						
KECS				*e*	pP	11 26 39.4	-1.1
KECS	**Kecovo**	**96.39**	**320**	*e*P	**P**	**11 26 28.2**	**-1.3**
KECS				*e*	pP	11 26 39.4	-1.1
KECS				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.1						
KECS	**Kecovo**	**96.39**	**320**	*e*P	**P**	**11 26 28.1**	**-1.4**
KECS				*e*pP	pP	11 26 39.4	-1.1
VAY	**Valandovo**	**96.75**	**313**	*e*P	**P**	**11 26 28.2**	**-3.2**
PSZ	**Piszkesteto**	**96.92**	**319**	*e*P	**P**	**11 26 30.1**	**-1.9**
	comp=Z,4.6nm,0.8s,mb5.0						
PSZ				*e*pP	pP	11 26 40.9	-2.1
PSZ	**Piszkesteto**	**96.92**	**319**	*e*P	**P**	**11 26 30.1**	**-1.9**
PSZ				*e**PP	pP	11 26 40.9	-2.1
PSZ				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb5.0						
NOA	**NORSAR Array B**	**97.10**	**334**	P	**P**	**11 26 30.6**	**-1.9**
	comp=Z,17nm,0.7s,mb5.6,baz=66,slow=4.6,SNR=74						
NOA				LR	LR	12 14 42.2	
	comp=Z,451nm,21.2s,MS4.9,baz=65,slow=38						
NAO01	**NORSAR Array S**	**97.33**	**334**	*e*P	**P**	**11 26 31.5**	**-2.0**
	comp=Z,16nm,0.7s,mb5.6						
VYHS	**Vyhne**	**97.44**	**320**	*e*P	**P**	**11 26 33.2**	**-1.1**
OKC	**Ostrava-Krasne**	**97.47**	**322**	*e*P	pP	11 26 44.2	-1.2
OKC				MLR	MLR		
	comp=Z,400nm,20.4s,MS4.9						
OKC	**Ostrava-Krasne**	**97.47**	**322**	*e*pP	pP	11 26 44.2	-1.2
OKC				AMS	AMS	12 09 40.0	
	comp=Z,400nm,20.4s						
MORC	**Moravsky Berou**	**97.86**	**322**	*e*P	**P**	**11 26 34.8**	**-1.4**
	comp=Z,4.8nm,0.8s,mb5.1						
MORC	**Moravsky Berou**	**97.86**	**322**	⇑*i*P	**P**	**11 26 35.2**	**-1.0**
YKA	**Yellowknife Ar**	**98.01**	**24**	P	**P**	**11 26 36.2**	**-0.3**
YKA	**Yellowknife Ar**	**98.01**	**24**	P	**P**	**11 26 36.2**	**-0.3**
YKA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	**Yellowknife Ar**	**98.01**	**24**	P	**P**	**11 26 36.2**	**-0.3**
	comp=Z,3.6nm,0.8s,mb5.0,baz=300,slow=4.6,SNR=49						
YKA				PKiKP	PKiKP	11 31 09.9	+0.3
	comp=Z,1.1nm,0.9s,baz=317,slow=7.2,SNR=3.8						
YKA				PKKPbc	PKKPbc	11 43 08.8	-3.5
	comp=Z,1.0nm,0.5s,baz=119,slow=3.0,SNR=15						
PKSM	**Moragy**	**98.23**	**318**	⇑P	**P**	**11 26 36.2**	**-1.6**
PKSM	**Moragy**	**98.23**	**318**	⇑*i*P	**P**	**11 26 36.3**	**-1.6**
KSP	**Ksiaz**	**98.28**	**323**	*e*P	**P**	**11 26 37.2**	**-0.8**
KONO	**Kongsberg**	**98.42**	**333**	⇑*e*P	**P**	**11 26 38.0**	**-0.4**
KONO				LR	LR		
	comp=Z,790nm,21.0s,MS5.2						
DPC	**Dobruska-Polom**	**98.43**	**323**	*e*P	**P**	**11 26 38.0**	**-0.7**
DPC				*e*x	x	11 26 48.5	
DPC				AMS	AMS	12 12 10.0	
	comp=Z,400nm,21.4s						
UPC	**Upice**	**98.56**	**323**	*e*P	**P**	**11 26 38.7**	**-0.6**
TREC	**Trest**	**99.29**	**322**	AMS	AMS	12 10 40.0	
	comp=Z,500nm,19.7s						
LSZ	**Lusaka**	**99.39**	**255**	*e*P	**P**	**11 26 41.9**	**-1.8**
	comp=Z,2.4nm,0.9s,mb4.7						
LSZ				*e*pP	pP	11 26 52.3	-2.4
LSZ				LR	LR		
	comp=Z,312nm,19.0s,MS4.8						
LSZ	**Lusaka**	**99.39**	**255**	*e*P	**P**	**11 26 41.9**	**-1.8**
LSZ				*e**PP	pP	11 26 52.3	-2.4
LSZ				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.7						
LSZ				MLR	MLR		
	comp=Z,312nm,19.0s,MS4.8						
PVCC	**Panska Ves**	**99.42**	**323**	*e*Pdif	**P**	**11 26 42.5**	**-0.6**
PVCC				*e*	pP	11 26 53.5	-0.6
PVCC	**Panska Ves**	**99.42**	**323**	*e*P	**P**	**11 26 42.5**	**-0.6**
PVCC				*e*pP	pP	11 26 53.5	-0.6
PVCC				AMS	AMS	12 11 30.0	
PRU	**Pruhonice**	**99.63**	**323**	*e*P	Pdif	11 26 43.3	-0.6
PRU				*e*pP	pP	11 26 53.9	-1.2
PRU				AMS	AMS	12 11 40.0	
	comp=Z,400nm,22.0s						
BRG	**Berggiesshubel**	**99.67**	**324**	*e*P	Pdif	11 26 43.3	-0.8
BRG				*e*		11 26 53.4	
BRG				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.2						
BRG				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.2						
BRG	**Berggiesshubel**	**99.67**	**324**	*e*P	Pdif	11 26 43.3	-0.8
	comp=Z,13nm,0.9s						
BRG				*e*		11 26 53.4	
	comp=Z,16nm,0.9s						
RKT	**Rikitea**	**100.00**	**112**	*e*SS	SS	11 45 15.0	+2.2
	comp=Z,184nm,33.8s						
RKT				*e*LR	LR	11 59 23.6	
	comp=Z,416nm,25.0s						
CLL	**Collm**	**100.06**	**324**	*i* Pdif	Pdif	11 26 44.7	-1.1
	comp=Z,13nm,1.1s						
CLL				*e*SKKS	SKKSac	11 37 45.0	-11
CLL				LR	LR		
	comp=Z,300nm,20.9s,MS4.8						
CLL	**Collm**	**100.06**	**324**	*e*Pdiff	Pdif	11 26 44.8	-1.0
CLL	**Collm**	**100.06**	**324**	*i* Pdif	Pdif	11 26 44.7	-1.1
	comp=Z,13nm,1.1s						
CLL				*e*(SKKSac)		11 37 45.0	
CLL				*e*Sdif	Sdif	11 38 30.0	+12
CLL				*e*PS	PS	11 40 06.0	+15
CLL				*e*PPS		11 40 36.0	
CLL				*e*SS	SS	11 45 36.0	+24
CLL				*e*(SSS)		11 49 48.0	
CLL				Lm		12 16 00.0	
	comp=N,300nm,20.8s						
CLL				Lm		12 16 00.0	
	comp=E,200nm,20.9s						
CLL				Lm		12 16 00.0	
	comp=Z,300nm,20.9s						
KHC	**Kasperske Hory**	**100.52**	**322**	*e*Pdif	Pdif	11 26 47.3	-0.6
KHC				*e*		11 26 56.7	
KHC	**Kasperske Hory**	**100.52**	**322**	*e*P	Pdif	11 26 47.3	-0.6
KHC				*e*pP		11 26 56.7	
KHC				AMS	AMS	12 10 20.0	
BSEG	**Bad Segeberg**	**100.53**	**327**	*e*Pdif	Pdif	11 26 47.5	-0.4
BSEG	**Bad Segeberg**	**100.53**	**327**	*e*Pdiff	Pdif	11 26 47.5	-0.4
GEC2	**GERESS Array S**	**100.55**	**322**	*e*Pdif	Pdif	11 26 47.6	-0.4
GEC2	**GERESS Array S**	**100.55**	**322**	*e*P	Pdif	11 26 47.8	-0.2
GEC2	**GERESS Array S**	**100.55**	**322**	*e*Pdiff	Pdif	11 26 47.6	-0.4
GERES	**GERESS Array B**	**100.55**	**322**	P	Pdif	11 26 47.0	-1.0
GERES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	**GERESS Array B**	**100.55**	**322**	P	Pdif	11 26 47.0	-1.0
	comp=Z,3.8nm,0.8s,baz=57,slow=4.9,SNR=21						
GERES				PKiKP	PKiKP	11 31 15.0	+0.4
	comp=Z,0.8nm,0.7s,baz=46,slow=3.9,SNR=3.7						
GERES				PKKPbc	PKKPbc	11 43 04.1	-0.6
	comp=Z,0.6nm,0.7s,baz=231,slow=6.2,SNR=4.3						
MOA	**Molln**	**100.55**	**321**	⇑*i*P	Pdif	11 26 47.2	-0.7
	comp=Z,21nm,1.1s						
MOA	**Molln**	**100.55**	**321**	⇑*i*Pdiff	Pdif	11 26 47.2	-0.7
	comp=Z,21nm,1.1s						
TANN	**Tannenbergstha**	**100.72**	**324**	*e*Pdiff	Pdif	11 26 48.0	-0.7
NKC	**Novy Kostel**	**100.79**	**323**	AMS	AMS	12 15 50.0	
WET	**Wettzell**	**100.94**	**322**	*e*Pdif	Pdif	11 26 47.8	-1.9
WET	**Wettzell**	**100.94**	**322**	*e*Pdiff	Pdif	11 26 47.8	-1.9
ROTZ	**Rotzenmuhle**	**101.11**	**323**	*e*Pdiff	Pdif	11 26 50.0	-0.5
MOX	**Moxa**	**101.13**	**324**	*e*P	Pdif	11 26 49.8	-0.8
	comp=Z,15nm,1.5s						
MOX	**Moxa**	**101.13**	**324**	*e*P	Pdif	11 26 49.8	-0.8
MOX				pmax	pmax		
	comp=Z,15nm,1.5s						
MOX	**Moxa**	**101.13**	**324**	*e*Pdiff	Pdif	11 26 49.6	-1.0
NRDL	**Niedersach Rie**	**101.24**	**326**	*e*Pdiff	Pdif	11 26 46.6	-4.5
CLZ	**Clausthal**	**101.36**	**325**	*e*Pdif	Pdif	11 26 51.1	-0.5
CLZ	**Clausthal**	**101.36**	**325**	*e*Pdiff	Pdif	11 26 51.1	-0.5
GRA1	**Grafenberg Arr**	**101.73**	**323**	*e*Pdif	Pdif	11 26 52.8	-0.5
GRA1				LR	LR		
	comp=Z,400nm,21.3s,MS4.9						
GRF	**Grafenberg Arr**	**101.73**	**323**	*e*Pdif	Pdif	11 26 52.8	-0.5
GRF				LR	LR		
	comp=Z,400nm,21.3s,MS4.9						
GRF	**Grafenberg Arr**	**101.73**	**323**	*e*Pdiff	Pdif	11 26 52.8	-0.5
GRF				*e*L		12 16 48.4	
	comp=Z,356nm,21.3s						
GRFO	**Grafenberg**	**101.73**	**323**	PFAKE		11 27 00.0	+6.7
GRFO				LR	LR		
	comp=Z,455nm,21.0s,MS5.0						
BOSA	**Boshof**	**102.44**	**242**	PKiKP	PKiKP	11 31 18.4	-0.1
	comp=Z,1.9nm,0.7s,baz=102,slow=8.9,SNR=3.9						
NEW	**Newport**	**103.01**	**38**	*e*Pdif	Pdif	11 26 59.7	+0.8
NEW	**Newport**	**103.01**	**38**	P	Pdif	11 27 00.2	+1.3
NEW				pmax	pmax		
	comp=Z,3.0nm,1.0s						
NEW	**Newport**	**103.01**	**38**	Pdiff	Pdif	11 27 00.2	+1.3
	comp=Z,3.1nm,1.0s,baz=315,slow=5.7,SNR=3.8						
TNS	**Taunus Mts**	**103.15**	**324**	*e*Pdif	Pdif	11 26 59.0	-0.5
TNS	**Taunus Mts**	**103.15**	**324**	*e*Pdiff	Pdif	11 26 59.0	-0.5
BFO	**Black Forest**	**104.03**	**323**	PFAKE		11 27 10.0	+6.5
BFO				LR	LR		
	comp=Z,655nm,22.0s,MS5.1						
CMB	**Columbia Colle**	**104.52**	**49**	PFAKE		11 27 20.0	+14
CMB				LR	LR		
	comp=Z,417nm,20.0s,MS5.0						
CDF	**Champ du Feu**	**104.63**	**323**	*e*P	Pdif	11 27 05.3	-0.8
	comp=Z,36nm,1.5s						
CDF	**Champ du Feu**	**104.63**	**323**	*e*P	Pdif	11 27 05.3	-0.8
	comp=Z,18nm,1.5s						
CDF	**Champ du Feu**	**104.63**	**323**	*e*P	Pdif	11 27 05.3	-0.8
CDF				pmax	pmax		
	comp=Z,18nm,1.5s						
GIVF	**Givet**	**105.28**	**325**	*e*P	Pdif	11 27 08.5	-0.5
MSO	**Missoula**	**105.57**	**38**	PFAKE		11 31 40.0	+16
MSO				LR	LR		
	comp=Z,256nm,19.0s,MS4.8						
NVAR	**Mina Array Bea**	**105.92**	**48**	Pdif	Pdif	11 27 13.8	+1.9
NVAR				PKPdf	PKiKP	11 31 26.6	+1.9
NVAR				PKKPbc	PKKPbc	11 42 48.8	+0.4
NVAR				PKKPab	PKKPab	11 43 03.7	-1.2
NVAR	**Mina Array Bea**	**105.92**	**48**	Pdiff	Pdif	11 27 13.8	+1.9
	comp=Z,1.2nm,0.7s,baz=267,slow=5.8,SNR=7.7						
NVAR				PKiKP	PKiKP	11 31 26.6	+1.9
	comp=Z,1.0nm,0.6s,baz=225,slow=0.6,SNR=6.0						
NVAR				PKKPbc	PKKPbc	11 42 48.8	+0.4
	comp=Z,1.0nm,0.7s,baz=116,slow=4.5,SNR=5.0						
NVAR				PKKPab	PKKPab	11 43 03.7	-1.2
	comp=Z,1.9nm,0.8s,baz=120,slow=6.1,SNR=7.8						
PGF	**Pioggiola**	**105.97**	**317**	*e*P	Pdif	11 27 10.9	-1.2
	comp=Z,81nm,1.4s						
PGF	**Pioggiola**	**105.97**	**317**	*e*P	Pdif	11 27 10.9	-1.2
	comp=Z,40nm,1.4s						
PGF	**Pioggiola**	**105.97**	**317**	*e*P	Pdif	11 27 10.9	-1.2
PGF				pmax	pmax		
	comp=Z,40nm,1.4s						
SUR	**Sutherland**	**106.14**	**238**	PFAKE		11 31 40.0	+15
SUR				LR	LR		
	comp=Z,408nm,19.0s,MS5.0						
HLID	**Hailey**	**106.67**	**42**	*e*PKPdf	PKiKP	11 31 26.4	+0.5
ORIF	**Oris-en-Rattie**	**107.03**	**320**	*e*P	Pdif	11 27 16.0	-0.8
	comp=Z,17nm,1.1s						
ORIF	**Oris-en-Rattie**	**107.03**	**320**	*e*P	Pdif	11 27 16.0	-0.8
	comp=Z,8.7nm,1.1s						
ORIF	**Oris-en-Rattie**	**107.03**	**320**	*e*P	Pdif	11 27 16.0	-0.8
ORIF				pmax	pmax		
	comp=Z,9.0nm,1.1s						
LOR	**Lormes**	**107.20**	**323**	*e*P	Pdif	11 27 16.6	-0.9
SSF	**Saint Saulge**	**107.51**	**323**	*e*P	Pdif	11 27 17.9	-1.0
EGMT	**Eagleton**	**107.52**	**36**	*e*PKPdf	PKiKP	11 31 28.1	+0.7
EGMT				LR	LR		
	comp=Z,260nm,21.0s,MS4.8						
BOZ	**Bozeman (W)**	**107.53**	**39**	PFAKE		11 31 40.0	+13
BOZ				LR	LR		
	comp=Z,341nm,21.0s,MS4.9						
VIVF	**Saint-Julien-l**	**107.83**	**321**	*e*P	Pdif	11 27 19.9	-0.5
	comp=Z,98nm,1.7s						
VIVF	**Saint-Julien-l**	**107.83**	**321**	*e*P	Pdif	11 27 19.9	-0.5
	comp=Z,49nm,1.7s						
VIVF	**Saint-Julien-l**	**107.83**	**321**	*e*P	Pdif	11 27 19.9	-0.5
VIVF				pmax	pmax		
	comp=Z,49nm,1.7s						
FCC	**Fort Churchill**	**108.24**	**21**	*e*PKPdf	PKiKP	11 31 28.2	-0.2
YMR	**Madison River**	**108.40**	**39**	PFAKE		11 31 40.0	+11
YMR				LR	LR		
	comp=Z,804nm,21.0s,MS5.3						
LKWY	**Lake**	**108.81**	**39**	PFAKE		11 31 40.0	+10
LKWY				LR	LR		
	comp=Z,327nm,20.0s,MS4.9						
DUG	**Dugway**	**109.17**	**44**	*e*PKPdf	PKiKP	11 31 31.6	+0.9
DUG				LR	LR		
	comp=Z,250nm,21.0s,MS4.8						
AHID	**Auburn Hatcher**	**109.20**	**41**	PFAKE		11 31 40.0	+9.3
AHID				LR	LR		
	comp=Z,279nm,21.0s,MS4.8						
HWUT	**Hardware Ranch**	**109.41**	**42**	PFAKE		11 31 40.0	+8.9
HWUT				LR	LR		
	comp=Z,492nm,22.0s,MS5.0						
MPU	**Maple Canyon**	**110.06**	**44**	PFAKE		11 31 40.0	+7.6
MPU				LR	LR		
	comp=Z,854nm,19.0s,MS5.3						
PDAR	**Pinedale Array**	**110.20**	**41**	PKPdf	PKiKP	11 31 33.8	+1.2
PDAR				PKKPbc	PKKPbc	11 42 32.2	-2.9
PDAR				PKKPab	PKKPab	11 42 43.8	-2.2
PDAR	**Pinedale Array**	**110.20**	**41**	PKiKP	PKiKP	11 31 33.8	+1.2
	comp=Z,1.0nm,0.8s,baz=117,slow=1.2,SNR=6.7						
PDAR				PKKPbc	PKKPbc	11 42 32.2	-2.9
	comp=Z,0.6nm,0.9s,baz=122,slow=6.1,SNR=5.3						
PDAR				PKKPab	PKKPab	11 42 43.8	-2.2
	comp=Z,3.9nm,1.0s,baz=127,slow=6.8,SNR=14						
LAO	**LASA Array**	**110.27**	**36**	PFAKE		11 31 40.0	+7.4
LAO				LR	LR		
	comp=Z,377nm,20.0s,MS5.0						
SRU	**San Rafael**	**111.23**	**44**	*e*PKPdf	PKiKP	11 31 35.9	+1.2
SRU	**San Rafael**	**111.23**	**44**	*e*PKIKP	PKiKP	11 31 35.9	+1.3
WUAZ	**Wupatki**	**112.16**	**48**	PFAKE		11 31 50.0	+13
WUAZ				LR	LR		
	comp=Z,308nm,19.0s,MS4.9						
MVCO	**Mesa Verde**	**113.51**	**45**	*e*PKPdf	PKiKP	11 31 41.0	+2.0
MVCO				LR	LR		
	comp=Z,400nm,20.0s,MS5.0						
ULM	**Lac du Bonnet**	**113.54**	**28**	*e*PKPdf	PKiKP	11 31 38.5	-0.2
ULM				LR	LR		
	comp=Z,310nm,19.0s,MS4.9						
ULM	**Lac du Bonnet**	**113.54**	**28**	PKiKP	PKiKP	11 31 38.5	-0.2
	comp=Z,5.0nm,0.7s,baz=321,slow=3.3,SNR=15						
TUC	**Tucson**	**113.92**	**51**	PFAKE		11 31 50.0	+10
TUC				LR	LR		
	comp=Z,231nm,20.0s,MS4.8						
ISCO	**Idaho Springs**	**114.25**	**42**	*e*PKPdf	PKiKP	11 31 41.5	+1.1
ISCO				LR	LR		
	comp=Z,485nm,19.0s,MS5.1						
ISCO	**Idaho Springs**	**114.25**	**42**	*e*PKIKP	PKiKP	11 31 41.5	+1.1
ISCO				MLR	MLR		
	comp=Z,485nm,19.0s,MS5.1						
SDCO	**Great Sand Dun**	**115.35**	**44**	*e*PKPdf	PKPdf	11 31 43.9	+1.3
SDCO				LR	LR		
	comp=Z,507nm,22.0s,MS5.1						
ESDC	**Sonseca Array**	**115.96**	**319**	PKKPbc	PKKPbc	11 42 16.8	+1.1
	comp=Z,0.2nm,0.3s,baz=233,slow=3.2,SNR=4.8						
ESLA	**Sonseca Array**	**115.96**	**319**	PFAKE		11 32 00.0	+16
ESLA				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
ANMO	**Albuquerque**	**116.02**	**47**	*e*PKPdf	PKPdf	11 31 45.8	+1.9
ANMO				LR	LR		
	comp=Z,345nm,21.0s,MS4.9						
ANMO	**Albuquerque**	**116.02**	**47**	*e*PKIKP	PKPdf	11 31 45.8	+1.9
ANMO				MLR	MLR		
	comp=Z,345nm,21.0s						
LPM	**Los Pinos Moun**	**116.19**	**48**	*e*PKPdf	PKPdf	11 31 45.9	+1.6
BNM	**Barren Site**	**116.27**	**48**	*e*PKPdf	PKPdf	11 31 45.8	+1.4
EYMN	**Ely**	**117.21**	**28**	*e*PKPdf	PKPdf	11 31 45.9	+0.1
EYMN				LR	LR		
	comp=Z,238nm,20.0s,MS4.8						
ECSD	**EROS,Sioux Fal**	**117.48**	**34**	*e*PKPdf	PKPdf	11 31 46.4	-0.1
ECSD				LR	LR		
	comp=Z,230nm,20.0s,MS4.8						
MNTX	**Cornudas Mount**	**118.32**	**50**	*e*PKPdf	PKPdf	11 31 49.5	+1.0
MNTX				LR	LR		
	comp=Z,231nm,20.0s,MS4.8						
CBKS	**Cedar Bluff**	**118.61**	**40**	PFAKE		11 32 00.0	+11
CBKS				LR	LR		
	comp=Z,500nm,20.0s,MS5.1						
SCHQ	**Schefferville**	**118.87**	**9**	*e*PKPdf	PKPdf	11 31 49.3	+0.5
SCHQ				LR	LR		
	comp=Z,349nm,22.0s,MS5.0						
SCHQ	**Schefferville**	**118.87**	**9**	PKP	PKPdf	11 31 49.5	+0.6

	comp=Z,23nm,0.6s,baz=351,slow=1.9,SNR=87						
KSU1	**Kansas State U**	**120.40**	**38**	*e*PKPdf	PKPdf	11 31 52.6	+0.4
KSU1				LR	LR		
	comp=Z,255nm,19.0s,MS4.9						
LTX	**Lajitas**	**120.72**	**51**	PFAKE		11 32 10.0	+17
LTX				LR	LR		
	comp=Z,380nm,19.0s,MS5.1						
TXAR	**Lajitas Array**	**120.72**	**51**	PKP	PKPdf	11 31 54.1	+1.0
TXAR				PKKPbc	PKKPbc	11 41 57.4	-0.9
TXAR	**Lajitas Array**	**120.72**	**51**	PKIKP	PKPdf	11 31 54.1	+1.0
TXAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
TXAR	**Lajitas Array**	**120.72**	**51**	PKP	PKPdf	11 31 54.1	+1.0
	comp=Z,2.6nm,0.6s,baz=202,slow=0.9,SNR=24						
TXAR				PKKPbc	PKKPbc	11 41 57.4	-0.9
	comp=Z,2.0nm,0.7s,baz=131,slow=6.1,SNR=21						
JFWS	**Jewell Farm**	**121.45**	**31**	*e*PKPdf	PKPdf	11 31 53.9	-0.2
JFWS	**Jewell Farm**	**121.45**	**31**	*e*PKIKP	PKPdf	11 31 53.9	-0.2
WMOK	**Wichita Mounta**	**121.55**	**43**	*e*PKPdf	PKPdf	11 31 54.9	+0.3
WMOK				LR	LR		
	comp=Z,441nm,21.0s,MS5.1						
WMOK	**Wichita Mounta**	**121.55**	**43**	*e*PKIKP	PKPdf	11 31 54.9	+0.3
WMOK				MLR	MLR		
	comp=Z,441nm,21.0s,MS5.1						
TOA0	**Torodi Ar. Sit**	**122.11**	**289**	*e*PKPdf	PKPdf	11 31 55.1	-1.0
TORD	**Torodi Ar. Bea**	**122.11**	**289**	PKP	PKPdf	11 31 55.5	-0.6
TORD				PKKPbc	PKKPbc	11 41 54.2	+1.6
TORD				SKKP		11 45 59.2	
TORD	**Torodi Ar. Bea**	**122.11**	**289**	PKP	PKPdf	11 31 55.5	-0.6
	comp=Z,13nm,0.7s,baz=40,slow=2.0,SNR=74						
TORD				PKKPbc	PKKPbc	11 41 54.2	+1.6
	comp=Z,3.0nm,1.0s,baz=282,slow=2.5,SNR=8.0						
TORD				SKKP		11 45 59.2	
	comp=Z,2.2nm,1.1s,baz=276,slow=3.3,SNR=3.6						
GLMI	**Grayling**	**122.67**	**26**	PFAKE		11 32 10.0	+14
GLMI				LR	LR		
	comp=Z,308nm,19.0s,MS5.0						
JCT	**Junction City**	**123.10**	**48**	*e*PKPdf	PKPdf	11 31 58.3	+0.6
JCT				LR	LR		
	comp=Z,276nm,21.0s,MS4.9						
JCT	**Junction City**	**123.10**	**48**	*e*PKIKP	PKPdf	11 31 58.3	+0.6
JCT				MLR	MLR		
	comp=Z,276nm,21.0s,MS4.9						
HDIL	**Hopedale**	**123.63**	**32**	*e*PKPdf	PKPdf	11 31 58.5	+0.1
FVM	**French Village**	**124.81**	**35**	*e*PKPdf	PKPdf	11 32 01.0	+0.3
FVM	**French Village**	**124.81**	**35**	*e*PKIKP	PKPdf	11 32 01.0	+0.3
MIAR	**Mount Ida**	**125.13**	**40**	*e*PKPdf	PKPdf	11 32 02.5	+1.1
MIAR				LR	LR		
	comp=Z,473nm,21.0s,MS5.1						
MIAR	**Mount Ida**	**125.13**	**40**	*e*PKIKP	PKPdf	11 32 02.6	+1.2
MIAR				MLR	MLR		
	comp=Z,473nm,21.0s,MS5.1						
SIUC	**Southern Illin**	**125.68**	**35**	*e*PKPdf	PKPdf	11 32 03.3	+0.8
UALR	**University of**	**125.77**	**39**	*e*PKPdf	PKPdf	11 32 03.2	+0.5
NATX	**Nacogdoches**	**126.08**	**44**	*e*PKPdf	PKPdf	11 32 04.7	+1.3
NATX				LR	LR		
	comp=Z,268nm,21.0s,MS4.9						
BLO	**Bloomington**	**126.10**	**32**	*e*PKPdf	PKPdf	11 32 03.6	+0.4
BLO	**Bloomington**	**126.10**	**32**	*e*PKIKP	PKPdf	11 32 03.6	+0.4
PARMO	**Parma**	**126.10**	**36**	*e*PKPdf	PKPdf	11 32 04.0	+0.8
MSNY	**Massena**	**126.22**	**19**	*e*PKPdf	PKPdf	11 32 02.9	-0.3
HKT	**Hockley**	**126.28**	**46**	PFAKE		11 32 20.0	+16
HKT				LR	LR		
	comp=Z,288nm,20.0s,MS5.0						
USIN	**University of**	**126.37**	**33**	*e*PKPdf	PKPdf	11 32 04.3	+0.6
LONY	**Lake Ozonia**	**126.65**	**19**	*e*PKPdf	PKPdf	11 32 04.2	+0.2
LONY				LR	LR		
	comp=Z,303nm,19.0s,MS5.0						
WCI	**Wyandotte Cave**	**126.92**	**32**	*e*PKPdf	PKPdf	11 32 05.0	+0.3
WCI				LR	LR		
	comp=Z,270nm,20.0s,MS4.9						
WCI	**Wyandotte Cave**	**126.92**	**32**	*e*PKIKP	PKPdf	11 32 05.0	+0.2
WCI				MLR	MLR		
	comp=Z,270nm,20.0s,MS4.9						
ACSO	**Alum Creek Sta**	**127.04**	**28**	*e*PKPdf	PKPdf	11 32 05.0	0.0
ACSO				LR	LR		
	comp=Z,276nm,21.0s,MS4.9						
NCB	**Newcomb**	**127.34**	**19**	*e*PKPdf	PKPdf	11 32 05.4	0.0
NCB				LR	LR		
	comp=Z,380nm,19.0s,MS5.1						
WVT	**Waverly**	**127.58**	**35**	*e*PKPdf	PKPdf	11 32 06.5	+0.4
WVT	**Waverly**	**127.58**	**35**	*e*PKIKP	PKPdf	11 32 06.5	+0.4
OXF	**Oxford**	**127.77**	**38**	*e*PKPdf	PKPdf	11 32 06.0	-0.5
OXF	**Oxford**	**127.77**	**38**	*e*PKIKP	PKPdf	11 32 06.0	-0.5
PLAL	**Pickwick Lake**	**128.24**	**36**	*e*PKPdf	PKPdf	11 32 07.2	-0.2
BINY	**Binghamton**	**128.31**	**21**	*e*PKPdf	PKPdf	11 32 07.6	+0.3
MCWV	**Mont Chateau**	**128.93**	**26**	*e*PKPdf	PKPdf	11 32 09.6	+1.0
SSPA	**Standing Stone**	**128.94**	**24**	*e*PKPdf	PKPdf	11 32 08.2	-0.4
WES	**Weston**	**129.67**	**17**	PFAKE		11 32 20.0	+10
WES				LR	LR		
	comp=Z,922nm,21.0s,MS5.5						
KIC	**Kosan Boka**	**129.89**	**283**	*e*PKIKP	PKPdf	11 32 10.7	-0.4
	comp=Z,162nm,0.9s						
TIC	**Toumodi**	**130.10**	**283**	*e*PKIKP	PKPdf	11 32 11.0	-0.5
	comp=Z,114nm,1.0s						
LIC	**Lamto**	**130.20**	**283**	⇑*i*PKIKP	PKPdf	11 32 11.2	-0.5
	comp=Z,86nm,1.0s						
LIC	**Lamto**	**130.20**	**283**	*e*PKIKP	PKPdf	11 32 11.2	-0.5
	comp=Z,163nm,1.4s						
LIC	**Lamto**	**130.20**	**283**	⇑*i*PKPdf	PKPdf	11 32 11.2	-0.5
LRAL	**Lakeview Retre**	**130.24**	**37**	*e*PKPdf	PKPdf	11 32 11.4	+0.2
LRAL				*e*SKPbc	SKPbc	11 35 31.7	0.0
LRAL				LR	LR		
	comp=Z,370nm,19.0s,MS5.1						
ELN	**Prospectdale**	**130.49**	**29**	*e*PKPdf	PKPdf	11 32 12.6	+1.0
CBN	**Corbin**	**131.20**	**25**	*e*PKPdf	PKPdf	11 32 13.7	+0.8
BRAL	**Brewton**	**131.59**	**39**	*e*PKPdf	PKPdf	11 32 15.8	+2.0
BRAL				*e*SKPbc	SKPbc	11 35 37.5	+0.6
BRAL				LR	LR		
	comp=Z,385nm,20.0s,MS5.1						
JSC	**Jenkinsville**	**132.56**	**32**	*e*PKPdf	PKPdf	11 32 15.6	0.0
JSC	**Jenkinsville**	**132.56**	**32**	*e*PKIKP	PKPdf	11 32 15.6	0.0
TGUH	**Tegucigalpa,Un**	**141.29**	**60**	PFAKE		11 32 40.0	+7.8
TGUH				LR	LR		
	comp=Z,260nm,22.0s,MS4.9						
JTS	**JuntasAbangare**	**145.00**	**63**	*e*PKPdf	PKPdf	11 32 38.3	-0.5
JTS	**JuntasAbangare**	**145.00**	**63**	*e*PKIKP	PKPdf	11 32 38.3	-0.5
JTS	**JuntasAbangare**	**145.00**	**63**	PKPbc	PKPdf	11 32 38.4	-0.4
	comp=Z,64nm,0.7s,baz=300,slow=3.8,SNR=16						
MDZ	**Mendoza**	**149.24**	**154**	*e*P	PKPdf	11 32 46.8	+1.4
MDZ	**Mendoza**	**149.24**	**154**	*e*PKHKP		11 32 46.8	
BCIP	**Isla Barro Col**	**150.01**	**61**	*e*PKPbc	PKPbc	11 32 52.6	+0.5
SDDR	**Presa de Saban**	**150.04**	**35**	*e*PKPbc	PKPbc	11 32 52.5	+0.5
CFAA	**Coronel Fontan**	**150.60**	**154**	PKP	PKPdf	11 32 48.5	+0.9
CFAA				PKPbc	PKPbc	11 32 53.9	+0.9
CFAA	**Coronel Fontan**	**150.60**	**154**	PKP	PKPdf	11 32 48.5	+0.9
	comp=Z,10nm,0.9s,baz=248,slow=2.2,SNR=10						
CFAA				PKPbc	PKPbc	11 32 53.9	+0.9
	comp=Z,12nm,0.6s,baz=226,slow=2.4,SNR=83						
LCO	**Las Campanas**	**151.52**	**147**	*e*PKPdf	PKPdf	11 32 50.9	+1.8
LCO				*e*PKPbc	PKPbc	11 32 56.8	+1.6
SJG	**San Juan**	**153.44**	**28**	*e*PKPbc	PKPbc	11 33 00.7	+0.9
SJG				LR	LR		
	comp=Z,217nm,20.0s,MS5.0						
SJG	**San Juan**	**153.44**	**28**	*e*PKIKP	PKPbc	11 33 00.7	+0.9
SJG				MLR	MLR		
	comp=Z,217nm,20.0s						
CPD	**Cerro la Pandu**	**153.62**	**27**	*e*PKPdf	PKPdf	11 32 52.7	+0.3
CPD				*e*PKPbc	PKPbc	11 33 00.2	0.0
CPD	**Cerro la Pandu**	**153.62**	**27**	*e*PKIKP	PKPdf	11 32 52.7	+0.3
CPD				*e*		11 33 00.2	
MTP	**Monte Pirata**	**153.73**	**27**	*e*PKPdf	PKPdf	11 32 52.3	-0.3
MTP				*e*PKPbc	PKPbc	11 33 00.8	+0.4
OTAV	**Otavalo**	**154.48**	**78**	*e*PKPdf	PKPdf	11 32 55.9	+2.1
OTAV				LR	LR		
	comp=Z,225nm,21.0s,MS5.0						
ATAH	**Atahualpa**	**155.24**	**95**	PKP	PKPdf	11 32 57.8	+2.9
	comp=Z,9.9nm,0.9s,baz=257,slow=1.6,SNR=11						
ATAH				PKPab	PKPab	11 33 22.8	+2.9
	comp=Z,19nm,0.9s,baz=282,slow=1.7,SNR=5.8						
NNA	**Nana**	**156.09**	**107**	PKP	PKPdf	11 32 57.0	+1.1
NNA				LR	LR		
	comp=Z,243nm,20.0s,MS5.0						
NNA	**Nana**	**156.09**	**107**	PKP	PKPdf	11 32 57.0	+1.1
	comp=Z,4.4nm,0.3s,baz=298,slow=4.4,SNR=4.5						
ROSC	**El Rosal**	**156.83**	**64**	*e*PKPdf	PKPdf	11 32 58.5	+1.5
ROSC	**El Rosal**	**156.83**	**64**	PKP	PKPdf	11 32 58.4	+1.5
	comp=Z,45nm,1.2s,baz=89,slow=23,SNR=12						
PCRV	**Puerto La Cruz**	**160.90**	**35**	PKP	PKPdf	11 33 00.2	-1.5
PCRV				PKPab	PKPab	11 33 43.9	-0.2
PCRV	**Puerto La Cruz**	**160.90**	**35**	PKP	PKPdf	11 33 00.2	-1.5
	comp=Z,18nm,1.1s,baz=21,slow=8.8,SNR=3.2						
PCRV				PKPab	PKPab	11 33 43.9	-0.2
	comp=Z,8.3nm,0.8s,baz=156,slow=0.9,SNR=3.1						
LPAZ	**La Paz**	**162.12**	**128**	*e*PKPdf	PKPdf	11 33 04.9	+2.1
LPAZ				*e*PKPdif		11 33 17.8	
LPAZ				LR	LR		
	comp=Z,197nm,21.0s						
LPAZ	**La Paz**	**162.12**	**128**	*e*PKIKP	PKPdf	11 33 04.9	+2.0
LPAZ				*e*		11 33 17.8	
LPAZ				MLR	MLR		
	comp=Z,197nm,21.0s						
LPAZ	**La Paz**	**162.12**	**128**	PKP	PKPdf	11 33 05.2	+2.3
	comp=Z,17nm,1.0s,baz=317,slow=1.5,SNR=42						
LPAZ				PKPab	PKPab	11 33 52.2	+2.8
	comp=Z,7.1nm,0.8s,baz=222,slow=3.2,SNR=4.6						
RCBR	**Riachuelo**	**162.45**	**268**	PFAKE		11 33 10.0	+6.6
RCBR				LR	LR		
	comp=Z,390nm,21.0s						
SIV	**San Ignacio**	**167.22**	**145**	PKP	PKPdf	11 33 08.3	+0.9
SIV				PKPab	PKPab	11 34 13.2	+1.4
SIV	**San Ignacio**	**167.22**	**145**	PKP	PKPdf	11 33 08.3	+0.9
	comp=Z,20nm,1.0s,baz=203,slow=1.1,SNR=60						
SIV				PKPab	PKPab	11 34 13.2	+1.4
	comp=Z,10nm,0.8s,baz=214,slow=5.3,SNR=6.7						

IDC 19 11:25:06.6±1.1**,027N**×**12722E,h0**^{km}**,mb4.1**/5**,mb1 4.3**/6**, mb1mx3.9**/17**,mbtmp4.1**/6**,ML3.5**/1**,Error ellipse: s-maj=92.6km s-min=19.1km az=70.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**18.33**	**185**	P	Pn	11 29 22.1	-0.3
	0.1nm,0.3s,baz=13,slow=12,SNR=5.4						
WRA	**Warramunga Arr**	**21.27**	**161**	P	P	11 29 55.0	+0.3
	3.7nm,0.5s,baz=341,slow=12,SNR=49						
ASAR	**Alice Springs**	**24.67**	**165**	P	P	11 30 29.5	+0.3
	13nm,0.9s,baz=344,slow=10,SNR=40						
ASAR				PcP	PcP	11 34 05.3	-1.6
	0.4nm,0.6s,baz=1.3,slow=2.1,SNR=4.9						
STKA	**Stephens Creek**	**34.75**	**158**	P	P	11 31 59.0	+0.3
	8.0nm,0.8s,baz=328,slow=9.2,SNR=9.4						
SONM	**Songino Array**	**50.71**	**342**	P	P	11 34 09.1	+1.2
	0.3nm,0.7s,baz=155,slow=11,SNR=2.4						
MKAR	**Makanchi Array**	**60.67**	**326**	P	P	11 35 19.3	-0.3
	0.3nm,0.3s,baz=119,slow=7.5,SNR=7.8						
CFAA	**Coronel Fontan**	**145.57**	**156**	PKPbc	PKPbc	11 44 46.9	-0.7
	0.1nm,0.4s,baz=266,slow=4.5,SNR=3.9						

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*IDC **19** 11:28:40.3±0.9,2124N×12196E,h0^{km},mb3.7/7, mb1 3.8/8,mb1mx3.6/20,mbtmp3.7/8,ML3.1/1,Error ellipse: s-maj=57.2km s-min=17.0km az=71.0*

*ISCJB **19** 11:28:47.9±0.7,2107N±005×1216E±0.1,h75^{km}±9^{km}, mb3.6/7,Error ellipse: s-maj=19.1km s-min=5.1km az=21.0*

*JMA **19** 11:28:47.3±0.3,21.14N×12190E,h0^{km},M4.6*

ISC 19 11:28:49.3±0.7**,2107N**±005×**1216E**±01**,h71**^{km}±9^{km}**,n20,** $\sigma 0\overset{s}{.}$**75**/26**,mb3.6**/7**,1D,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PIP	**Pasuquin**	**2.87**	**198**	⇓*i*P	**Pn**	**11 29 31.0**	**-1.8**
APYP	**Conner**	**3.21**	**185**	*e*P	**Pn**	**11 29 36.8**	**-0.6**
HATJ	**Hateruma jima**	**3.62**	**35**	P	**Pn**	**11 29 43.0**	**0.0**
HATJ				S	**Sn**	**11 30 24.4**	**-0.2**
YOJ	**Yonaguni jima**	**3.63**	**21**	P	**Pn**	**11 29 44.1**	**+1.0**
YOJ				S	**Sn**	**11 30 25.4**	**+0.6**
IRIF	**Iriomote-Funau**	**3.82**	**31**	P	**Pn**	**11 29 45.8**	**+0.1**
IRIF				S	**Sn**	**11 30 29.3**	**0.0**
JKRS	**Kuro-shima**	**3.88**	**35**	P	**Pn**	**11 29 46.8**	**+0.3**
JKRS				S	**Sn**	**11 30 31.1**	**+0.2**
JIJ	**Ishigaki jima**	**4.05**	**36**	P	**Pn**	**11 29 48.5**	**-0.4**
JIJ				S	**Sn**	**11 30 33.8**	**-1.3**
CAUP	**Cauayan**	**4.11**	**176**	*e*P	**Pn**	**11 29 51.8**	**+2.0**
JTJ	**Tarama**	**4.58**	**39**	P	**Pn**	**11 29 56.4**	**+0.2**
JTJ				S	**Sn**	**11 30 47.9**	**-0.2**
BOLP	**Bolinao**	**4.92**	**199**	*e*P	**Pn**	**11 30 00.3**	**-0.5**
JOGS	**Gusukube**	**5.10**	**43**	P	**Pn**	**11 30 03.5**	**+0.2**
BALP	**Baler**	**5.30**	**180**	*e*P	**Pn**	**11 30 06.4**	**+0.4**
KSRS	**Korea Array**	**17.23**	**17**	Pn	**Pn**	**11 32 40.1**	**-5.2**
	0.1nm,0.3s,baz=198,slow=11,SNR=2.3						
SONM	**Songino Array**	**29.37**	**339**	P	**P**	**11 34 45.8**	**+0.2**
	0.7nm,0.6s,mb3.5,baz=158,slow=9.2,SNR=4.2						
MKAR	**Makanchi Array**	**40.84**	**318**	P	**P**	**11 36 24.6**	**+0.5**
	1.0nm,0.6s,mb3.8,baz=112,slow=9.3,SNR=5.4						
WRA	**Warramunga Arr**	**42.64**	**162**	P	**P**	**11 36 39.0**	**+0.1**
	0.3nm,0.4s,mb3.4,baz=344,slow=9.1,SNR=12						
ZALV	**Zalesovo Beam**	**43.06**	**329**	P	**P**	**11 36 41.9**	**-0.1**
	1.0nm,0.5s,mb3.8,baz=116,slow=6.9,SNR=5.4						
ASAR	**Alice Springs**	**46.06**	**164**	P	**P**	**11 37 07.0**	**+0.8**
	0.3nm,0.4s,mb3.4,baz=342,slow=7.1,SNR=7.8						
STKA	**Stephens Creek**	**56.04**	**159**	P	**P**	**11 38 20.9**	**0.0**
	1.3nm,0.7s,mb4.0,baz=330,slow=8.1,SNR=2.7						
YKA	**Yellowknife Ar**	**85.69**	**23**	P	**P**	**11 41 18.7**	**-1.5**
	0.2nm,0.6s,mb3.2,baz=313,slow=4.5,SNR=6.1						

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*IDC **19** 11:42:18.6±0.5,1253N×14166E,h0^{km},mb4.8/23, mb1 4.9/25,mb1mx4.9/29,mbtmp4.8/25,ML4.2/2,MS4.3/23, Ms1 4.3/23,ms1mx4.2/28,Error ellipse: s-maj=17.7km s-min=10.9km az=83.0*

*BJI **19** 11:42:20.7,1252N×14184E,h29^{km},mB5.3,mb5.0,Ms4.5, Msz4.4*

*ISCJB **19** 11:42:21.2±0.2,1248N±003×14161E±003,h24^{km}, mb5.2/112,MS4.4/43,Error ellipse: s-maj=4.7km s-min=3.5km az=6.7*

*MOS **19** 11:42:21.9±0.9,1254N×14170E,h33^{km},mb5.4/45, MS4.3/8,Error ellipse: s-maj=9.5km s-min=5.6km az=108.6*

*GCMT **19** 11:42:22.7±0.2,1248N×14152E,h12^{km},MW5.0/75, Moment Tensor Solution. s28,c32; s75,c125; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.51±.10; $M_{\theta\theta}$3.18±.07; $M_{\phi\phi}$0.33±.10; $M_{r\theta}$1.25±.28; $M_{\theta\phi}$1.16±.08; $M_{\phi r}$0.71±.36; Best double couple: $M_0$3.83100×10^{16} NP1:ϕ_s74.00000°,δ34.00000°,λ-84.00000°. NP2: ϕ_s247.00000°,δ56.00000°,λ-94.00000°. Principal axes: T 3.8650, Plg11.0000°, Azm340.0000°; N -0.0650, Plg4.0000°, Azm249.0000°; P -3.7970, Plg79.0000°, Azm141.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **19** 11:42:22.7±0.2,1252N×14169E,mb5.2/55 Error ellipse: s-maj=5.5km s-min=4.8km az=86.0*

ISC 19 11:42:23.0±0.2**,1248N**±003×**14166E**±003**,h26**^{km}**, h26**^{km}±.7^{km}**:pP-P,n374,** $\sigma 0\overset{s}{.}$**87**/379**,mb5.2**/112**,MS4.4**/43**, 61C-46D,South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**3.32**	**70**	*e*Pn	**Pn**	**11 43 12.4**	**-0.9**
GUMO				*e*		11 45 33.9	
GUMO	**Guam**	**3.32**	**70**	Pn	**Pn**	**11 43 11.9**	**-1.4**
	16nm,0.3s,baz=197,slow=10,SNR=20						
GUMO				Sn	**Sn**	**11 43 53.4**	**+1.5**
	23nm,0.3s,baz=12,slow=20,SNR=2.9						
GUMO				T		11 46 22.6	
	151nm,0.3s,baz=0.0,slow=20,SNR=5.8						
CBIJ	**Chichi jima**	**14.55**	**2**	Pn	**Pn**	**11 45 43.8**	**-3.5**
	4.7nm,0.3s,baz=253,slow=19,SNR=2.1						
CBIJ				LR	LR	11 50 40.0	
	comp=Z,552nm,21.2s,baz=202,slow=35						
JOW	**Kunigami**	**19.02**	**321**	P	**Pn**	**11 46 44.4**	**+0.4**
	0.9nm,0.3s,baz=145,slow=11,SNR=6.3						
JOW				LR	LR	11 52 17.3	
	comp=Z,974nm,20.0s,baz=153,slow=32						
JHJ	**Hachijo jima 2**	**20.62**	**356**	LR	LR	11 53 01.3	
	comp=Z,2µm,22.0s,MS4.4,baz=264,slow=31						
NACB	**Ninganchiao**	**22.28**	**304**	*e*P	**P**	**11 47 18.4**	**0.0**
PMG	**Port Moresby**	**22.42**	**166**	*e*P	**P**	**11 47 19.4**	**-0.5**
	117nm,1.1s,mb5.2						
PMG	**Port Moresby**	**22.42**	**166**	*e*P	**P**	**11 47 19.4**	**-0.5**
PMG				pmax	pmax		
	comp=Z,117nm,1.1s						
PMG	**Port Moresby**	**22.42**	**166**	P	**P**	**11 47 19.6**	**-0.3**
	comp=Z,32nm,0.8s,mb4.8,baz=17,slow=10,SNR=8.2						
PMG				LR	LR	11 56 11.5	
	comp=Z,639nm,18.6s,MS4.1,baz=10,slow=37						
YHNB	**Yeheng**	**22.69**	**305**	*e*P	**P**	**11 47 22.4**	**-0.4**
JNU	**Nakatsue**	**22.79**	**336**	P	**P**	**11 47 24.0**	**+0.3**
	comp=Z,89nm,1.1s,mb5.1,baz=142,slow=8.4,SNR=26						
JNU				LR	LR	11 55 24.7	
	comp=Z,583nm,18.1s,MS4.1,baz=182,slow=35						
MJAR	**Matsushiro Arr**	**24.16**	**353**	P	**P**	**11 47 34.6**	**-2.5**
MJAR						11 51 16.1	
MJAR	**Matsushiro Arr**	**24.16**	**353**	P	**P**	**11 47 34.6**	**-2.6**
	comp=Z,11nm,0.9s,mb4.3,baz=172,slow=8.4,SNR=15						
MJAR				PcP	PcP	11 51 16.1	-1.6
	comp=Z,1.2nm,0.5s,baz=157,slow=3.0,SNR=4.9						
MJAR				LR	LR	11 55 53.2	
	comp=Z,567nm,20.1s,MS4.0,baz=155,slow=34						
MAJO	**Matsushiro**	**24.16**	**353**	*e*P	**P**	**11 47 33.9**	**-3.3**
	comp=Z,36nm,0.9s,mb4.8						
MAJO	**Matsushiro**	**24.16**	**353**	*e*P	**P**	**11 47 33.9**	**-3.2**
MAJO				pmax	pmax		
	comp=Z,36nm,0.9s,mb4.8						
MAT	**Matsushiro**	**24.16**	**353**	P	**P**	**11 47 36.4**	**-0.7**
MAT				S	**S**	**11 51 53.0**	**-0.7**
KKM	**Kota Kinabalu**	**25.90**	**258**	*e*P	**P**	**11 47 51.8**	**-1.4**
COEN	**Coen**	**26.31**	**177**	*e*P	**P**	**11 47 57.1**	**+0.3**
SSE	**Sheshan**	**26.46**	**318**	P	**P**	**11 47 58.8**	**+0.7**
SSE				AP	pP	11 48 04.8	-0.9
SSE				XP	sP	11 48 07.4	-1.5
SSE				S	**S**	**11 52 33.3**	**+2.8**
SSE				XS	sS	11 52 43.6	+0.5
SSE				PCS	PcS	11 55 02.9	-1.3
SSE				AMB	AMB		
	comp=Z,28nm,1.1s,mb4.7						
SSE				AMB	AMB		
	comp=Z,186nm,5.0s						
SSE				LR	LR		
	comp=N,283nm,16.2s,MS4.2						
SSE				LR	LR		
	comp=E,420nm,16.2s,MS4.2						
SSE				LR	LR		
	comp=Z,575nm,22.6s						
KAKA	**Kakadu**	**26.64**	**200**	*e*P	**P**	**11 48 01.5**	**+1.7**
	comp=Z,26nm,0.9s,mb4.8						
KAKA				*e*	pP	11 48 08.7	+1.2
KSRS	**Korea Array**	**27.74**	**336**	P	**P**	**11 48 08.9**	**-0.7**
	comp=Z,3.5nm,0.7s,mb4.1,baz=155,slow=9.3,SNR=14						
KSRS				PcP	PcP	11 51 25.6	-0.2
	comp=Z,1.3nm,0.9s,baz=120,slow=3.1,SNR=3.7						
KSRS				LR	LR	11 57 22.3	
	comp=Z,586nm,19.6s,MS4.2,baz=162,slow=33						
KS15	**Wonju Array Si**	**27.75**	**336**	*e*P	**P**	**11 48 09.6**	**0.0**
INCN	**Inchon**	**28.30**	**334**	*e*P	**P**	**11 48 14.5**	**0.0**
	comp=Z,46nm,1.3s,mb5.0						
HNR	**Honiara**	**28.36**	**139**	LR	LR	11 57 31.6	
	comp=Z,343nm,21.4s,baz=360,slow=32						
NJ2	**Nanjing**	**28.61**	**317**	*e*P	**P**	**11 48 18.8**	**+1.5**
NJ2				AP	pP	11 48 22.9	-2.1
NJ2				XP	sP	11 48 25.6	-2.6
NJ2				PP	PP	11 49 11.8	-10
NJ2				S	**S**	**11 53 07.0**	**+2.7**
NJ2				XS	sS	11 53 22.0	+5.0
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
NJ2				AMB	AMB		
	comp=Z,160nm,4.9s						
NJ2				LR	LR		
	comp=N,1µm,17.7s,MS4.6						
NJ2				LR	LR		
	comp=E,620nm,14.9s,MS4.6						
NJ2				LR	LR		
	comp=Z,610nm,15.0s,MS4.3						
GZH	**Guangzhou**	**28.90**	**295**	P	**P**	**11 48 19.3**	**-0.7**
GZH				S	**S**	**11 53 10.3**	**+1.2**
GZH				LR	LR		
	comp=N,238nm,12.1s,MS4.2						
GZH				LR	LR		
	comp=E,303nm,14.6s,MS4.2						
GZH				LR	LR		
	comp=Z,524nm,15.9s,MS4.2						
WHN	**Wuhan**	**30.99**	**310**	⇑P	**P**	**11 48 39.0**	**+0.6**
QIZ	**Qiongzhong**	**31.27**	**286**	P	**P**	**11 48 41.1**	**0.0**
QIZ				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.8						
QIZ				AMB	AMB		
	comp=Z,148nm,5.1s						
QIZ				LR	LR		
	comp=E,329nm,21.9s						
QIZ				LR	LR		
	comp=Z,549nm,22.1s,MS4.2						
ASAJ	**Asahikawa**	**31.54**	**1**	P	**P**	**11 48 42.8**	**-0.3**
	comp=Z,7.2nm,0.9s,mb4.5,baz=330,slow=20,SNR=2.5						
VLA	**Vladivostok**	**31.68**	**346**	*e*P	**P**	**11 48 50.3**	**+6.0**
VLA				*e*		11 49 51.6	
VLA				pmax	pmax		
	comp=Z,382nm,2.0s,mb5.9						
DL2	**Dalian**	**31.76**	**329**	P	**P**	**11 48 48.1**	**+3.0**
DL2				AP	pP	11 48 52.9	+0.1
DL2				S	**S**	**11 53 58.8**	**+5.2**
DL2				XS	sS	11 54 05.9	-0.4
DL2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.7						
DL2				AMB	AMB		
	comp=Z,100nm,8.2s						
DL2				LR	LR		
	comp=N,170nm,15.7s,MS4.0						
DL2				LR	LR		
	comp=E,170nm,16.6s,MS4.0						
DL2				LR	LR		
	comp=Z,320nm,19.4s,MS4.0						
TIA	**Tai'an**	**32.34**	**321**	*e*P	**P**	**11 48 49.8**	**-0.5**
CTA	**Charters Tower**	**32.68**	**172**	*e*P	**P**	**11 48 55.4**	**+2.1**
	comp=Z,36nm,1.8s,mb5.0						
CTA				*e*pP	pP	11 49 03.0	+2.0
CTA	**Charters Tower**	**32.68**	**172**	*e*P	**P**	**11 48 55.4**	**+2.1**
CTA				*e**PP	pP	11 49 03.0	+2.0
CTA				pmax	pmax		
	comp=Z,37nm,1.8s						
CTA	**Charters Tower**	**32.68**	**172**	P	**P**	**11 48 53.8**	**+0.5**
	comp=Z,10nm,0.8s,mb4.8,baz=330,slow=8.1,SNR=4.5						
CTA				LR	LR	12 01 08.7	
	comp=Z,785nm,20.8s,MS4.4,baz=352,slow=34						
CTAO	**Charters Tower**	**32.68**	**172**	*e*P	**P**	**11 48 54.8**	**+1.5**
	comp=Z,39nm,1.0s,mb5.3						
CTAO	**Charters Tower**	**32.68**	**172**	*e*P	**P**	**11 48 54.8**	**+1.5**
CTAO				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.3						
WB2	**Warramunga Arr**	**33.01**	**193**	*e*P	**P**	**11 48 56.1**	**-0.1**
WB2				*e*pP	pP	11 49 04.3	+0.4
WRA	**Warramunga Arr**	**33.01**	**193**	P	**P**	**11 48 56.5**	**+0.2**
	comp=Z,35nm,0.8s,mb5.3,baz=12,slow=9.6,SNR=131						
WRA				LR	LR	12 01 46.4	
	comp=Z,858nm,21.8s,MS4.4,baz=25,slow=35						
SNY	**Shenyang**	**33.22**	**335**	⇓P	**P**	**11 48 56.6**	**-1.3**
SNY				PP	PP	11 50 05.9	-7.4
SNY				LR	LR		
	comp=N,423nm,14.3s,MS4.4						
SNY				LR	LR		
	comp=E,383nm,19.1s,MS4.4						
SNY				LR	LR		
	comp=Z,845nm,20.5s,MS4.4						
MDJ	**Mudanjiang**	**33.65**	**344**	P	**P**	**11 49 02.3**	**+0.7**
MDJ				AP	pP	11 49 05.4	-3.9
MDJ				PP	PP	11 50 18.0	0.0
MDJ				S	**S**	**11 54 26.5**	**+3.6**
MDJ				XS	sS	11 54 31.8	-3.9
MDJ				SCP	ScP	11 55 26.3	+1.9
MDJ				PCS	PcS	11 55 27.8	+0.8
MDJ				AMB	AMB		
	comp=Z,30nm,3.1s						
MDJ				LR	LR		
	comp=N,353nm,24.5s						
MDJ				LR	LR		
	comp=E,380nm,36.8s						
MDJ				LR	LR		
	comp=Z,505nm,20.7s,MS4.2						
CN2	**Changchun**	**34.19**	**339**	*e*P	**P**	**11 49 05.6**	**-0.7**
CN2				*e*PP	PP	11 50 20.8	-3.2
CN2				PCP	PcP	11 51 41.9	-1.0
CN2				*e*S	**S**	**11 54 31.5**	**+0.2**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.5s,mb4.5						
CN2				AMB	AMB		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,500nm,19.0s,MS4.4						
CN2				LR	LR		
	comp=E,400nm,19.0s,MS4.4						
CN2				LR	LR		
	comp=Z,500nm,21.0s,MS4.2						
FITZ	**Fitzroy Crossi**	**34.25**	**208**	*e*P	**P**	**11 49 05.8**	**-1.3**
	comp=Z,9.1nm,0.9s,mb4.7						
FITZ				*e*pP	pP	11 49 14.1	-0.7
FITZ	**Fitzroy Crossi**	**34.25**	**208**	P	**P**	**11 49 05.8**	**-1.3**

	comp=Z,5.4nm,0.9s,baz=26,slow=13,SNR=12						
FITZ				LR	LR	12 03 34.7	
	comp=Z,133nm,18.1s,baz=39,slow=37						
BJT	**Baijiatuau**	**35.46**	**325**	*e*P	**P**	**11 49 17.3**	**0.0**
	comp=Z,102nm,1.1s,mb5.7						
BJT				*e*	pP	11 49 24.9	-0.1
BJT	**Baijiatuau**	**35.46**	**325**	*e*P	**P**	**11 49 17.3**	**0.0**
BJT				*e*	pP	11 49 24.9	-0.1
BJT				pmax	pmax		
	comp=Z,102nm,1.1s						
BJI	**Beijing**	**35.47**	**325**	P	**P**	**11 49 17.4**	**0.0**
BJI				PCP	PcP	11 51 46.5	-0.1
BJI				S	**S**	**11 54 53.5**	**+2.5**
BJI				AMB	AMB		
	comp=Z,52nm,1.1s,mb5.4						
BJI				AMB	AMB		
	comp=Z,368nm,3.5s						
BJI				LR	LR		
	comp=N,621nm,20.7s,MS4.4						
BJI				LR	LR		
	comp=E,528nm,23.3s,MS4.4						
BJI				LR	LR		
	comp=Z,847nm,29.9s						
BJI	**Beijing**	**35.47**	**325**	P	**P**	**11 49 17.4**	**0.0**
	comp=Z,0.1nm,1.1s						
BJI				sP	sP	11 49 21.8	-6.5
BJI				PcP	PcP	11 51 46.5	-0.1
BJI				S	**S**	**11 54 53.5**	**+2.5**
BJI				sS	sS	11 54 58.7	-5.1
BJI				SS	SS	11 57 28.4	+2.5
BJI				LR	LR		
	comp=Z,850nm,29.9s						
GYA	**Guiyang**	**35.67**	**298**	⇑*i*P	**P**	**11 49 20.4**	**+1.1**
GYA				AP	pP	11 49 25.0	-2.1
GYA				XP	sP	11 49 27.4	-2.8
GYA				PP	PP	11 50 41.5	+0.9
GYA				PPP		11 51 00.4	
GYA				PCP	PcP	11 51 49.0	+1.5
GYA				S	**S**	**11 54 56.0**	**+1.5**
GYA				SCP	ScP	11 55 33.5	+1.5
GYA				SS	SS	11 57 15.4	-15
GYA				SSS		11 57 43.8	
GYA				SCS	ScS	11 59 37.0	-0.1
GYA				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.5						
GYA				AMB	AMB		
	comp=Z,290nm,5.4s						
GYA				LR	LR		
	comp=N,2µm,17.4s,MS5.1						
GYA				LR	LR		
	comp=E,1µm,16.0s,MS5.1						
GYA				LR	LR		
	comp=Z,3µm,17.2s,MS5.2						
HABR	**Khabarovsk**	**36.30**	**353**	⇓*i*P	**P**	**11 49 24.0**	**-0.4**
HABR				*e**PP	pP	11 49 32.5	+0.3
HABR				*e*SP		11 49 35.7	
HABR				*e*		11 50 44.2	
HABR				*e*		11 51 46.8	
HABR				*e*S	**S**	**11 55 03.8**	**+0.2**
HABR				*e*		11 55 18.1	
HABR				*e*		11 59 35.5	
HABR				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.2						
XAN	**Xi’an**	**36.70**	**311**	P	**P**	**11 49 27.6**	**-0.4**
XAN				AP	pP	11 49 34.8	-0.9
XAN				S	**S**	**11 55 07.3**	**-2.7**
XAN				AMB	AMB		
	comp=Z,12nm,1.1s,mb4.6						
XAN				LR	LR		
	comp=N,213nm,14.1s,MS4.3						
XAN				LR	LR		
	comp=E,406nm,19.0s,MS4.3						
XAN				LR	LR		
	comp=Z,5µm,18.6s,MS5.3						
ASAR	**Alice Springs**	**36.71**	**192**	P	**P**	**11 49 28.2**	**0.0**
	comp=Z,6.5nm,0.9s,mb4.5,baz=18,slow=12,SNR=43						
ASAR				PcP	PcP	11 51 51.2	+0.6
	comp=Z,1.2nm,0.7s,baz=15,slow=3.8,SNR=2.8						
KLR	**Kul’dur**	**37.55**	**349**	*e*P	**P**	**11 49 31.5**	**-3.5**
KLR				*e*	pP	11 49 39.7	-3.1
KLR				*e*		11 59 37.5	
KLR				pmax	pmax		
	comp=N,65nm,2.2s						
KLR				pmax	pmax		
	comp=Z,160nm,2.2s,mb5.4						
HHC	**Hu-ho-hao-te**	**38.66**	**322**	*e*P	**P**	**11 49 45.0**	**+0.5**
HHC				AP	pP	11 49 52.4	+0.1
HHC				XP	sP	11 49 55.4	0.0
HHC				PP	PP	11 51 18.6	+5.4
HHC				S	**S**	**11 55 41.5**	**+1.9**
HHC				XS	sS	11 55 53.4	+1.0
HHC				SS	SS	11 58 23.3	-7.0
HHC				SCS	ScS	11 59 48.8	-4.5
HHC				AMB	AMB		
	comp=Z,17nm,1.0s,mb4.7						
HHC				AMB	AMB		
	comp=Z,252nm,3.3s						
HHC				LR	LR		
	comp=N,332nm,20.8s,MS4.4						
HHC				LR	LR		
	comp=E,368nm,16.0s,MS4.4						
HHC				LR	LR		
	comp=Z,549nm,17.3s,MS4.4						
KMI	**Kunming**	**38.79**	**295**	P	**P**	**11 49 45.5**	**-0.3**
KMI				AP	pP	11 49 51.1	-2.5
KMI				PP	PP	11 51 17.8	+2.9
KMI				S	**S**	**11 55 43.0**	**+1.0**
KMI				SS	SS	11 58 23.8	-10
KMI				SSS		11 58 58.9	
KMI				AMB	AMB		
	comp=Z,27nm,1.1s,mb4.9						
KMI				AMB	AMB		
	comp=Z,144nm,4.3s						
KMI				LR	LR		
	comp=N,302nm,14.1s,MS4.3						
KMI				LR	LR		
	comp=E,221nm,18.6s,MS4.3						
KMI				LR	LR		
	comp=Z,355nm,19.5s,MS4.2						
KMI	**Kunming**	**38.79**	**295**	P	**P**	**11 49 45.5**	**-0.3**
	comp=Z,27nm,1.1s,mb4.9						
KMI				pP	pP	11 49 51.1	-2.5
KMI				sP	sP	11 49 52.9	-3.9
KMI				PP	PP	11 51 17.8	+2.9
KMI				S	**S**	**11 55 43.0**	**+1.0**
KMI				sS	sS	11 55 50.9	-3.9
KMI				SS	SS	11 58 23.7	-10
KMI				SSS		11 58 58.9	
KMI				LR	LR		
	comp=Z,360nm,19.5s,MS4.2						
KMI	**Kunming**	**38.79**	**295**	P	**P**	**11 49 45.5**	**-0.3**
KMI				*SP	sP	11 49 52.9	-3.9
KMI						11 51 17.8	
KMI				S	**S**	**11 55 43.0**	**+1.0**
KMI				SS	SS	11 58 23.7	-10
KMI				SSS		11 58 58.9	
KMI				pmax	pmax		
	comp=Z,27nm,1.1s,mb4.9						
KMI				MLR	MLR		
	comp=Z,360nm,19.5s,MS4.2						
BTO	**Baotou**	**39.44**	**321**	*e*P	**P**	**11 49 51.3**	**+0.3**
CD2	**Chengdu**	**39.45**	**304**	P	**P**	**11 49 51.6**	**+0.3**
CD2				AP	pP	11 49 59.1	0.0
CD2				XP	sP	11 50 02.6	+0.3
CD2				PP	PP	11 51 26.9	+4.8
CD2				PCP	PcP	11 51 59.0	0.0
CD2				S	**S**	**11 55 52.0**	**+0.1**
CD2				XS	sS	11 56 04.3	-0.4
CD2				SS	SS	11 58 38.5	-8.2
CD2				SCS	ScS	11 59 56.5	-1.9
CD2				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.2						
CD2				AMB	AMB		
	comp=Z,140nm,5.2s						
CD2				LR	LR		
	comp=N,310nm,14.4s,MS4.4						
CD2				LR	LR		
	comp=E,380nm,18.0s,MS4.4						
CD2				LR	LR		
	comp=Z,360nm,13.2s,MS4.4						
NST	**Nakhon Sawan**	**40.36**	**280**	P	**P**	**11 50 01.5**	**+2.5**
SNG	**Songkhla**	**40.75**	**267**	P	**P**	**11 50 03.0**	**+0.7**
CHRT	**Chiangrai**	**40.80**	**286**	⇓P	**P**	**11 50 04.5**	**+1.9**
HIA	**Hailar**	**40.91**	**338**	*e*P	**P**	**11 50 03.3**	**+0.2**
	comp=Z,21nm,0.9s,mb4.8						
HIA	**Hailar**	**40.91**	**338**	*e*P	**P**	**11 50 03.3**	**+0.2**
HIA				pmax	pmax		
	comp=Z,21nm,0.9s						
KULM	**Kulim**	**41.10**	**264**	*e*P	**P**	**11 50 05.8**	**+0.6**
LZH	**Lanzhou**	**41.33**	**311**	⇓P	**P**	**11 50 07.0**	**+0.2**
LZH				AP	pP	11 50 14.8	+0.2
LZH				XP	sP	11 50 18.3	+0.5
LZH				PP	PP	11 51 46.3	+3.8
LZH				*e*S	**S**	**11 56 19.5**	**-0.3**
LZH				XS	sS	11 56 32.1	-0.6
LZH				PS		11 59 18.4	
LZH				AMB	AMB		
	comp=Z,55nm,1.4s,mb5.0						
LZH				AMB	AMB		
	comp=Z,265nm,6.0s						
LZH				LR	LR		
	comp=N,1µm,14.5s						
LZH				LR	LR		
	comp=Z,2µm,17.8s,MS5.0						
LZH	**Lanzhou**	**41.33**	**311**	⇓P	**P**	**11 50 07.0**	**+0.2**
	comp=Z,55nm,1.4s,mb5.0						
LZH				pP	pP	11 50 14.8	+0.2
LZH				sP	sP	11 50 18.2	+0.4
LZH				PP	PP	11 51 46.2	+3.7
LZH				*e*S	**S**	**11 56 19.5**	**-0.3**
LZH				sS	sS	11 56 32.1	-0.6
LZH				PS		11 59 18.4	
LZH				SS	SS	11 59 52.8	+29
LZH				LR	LR		
	comp=Z,2µm,17.8s,MS5.0						
LZH	**Lanzhou**	**41.33**	**311**	⇓P	**P**	**11 50 07.0**	**+0.2**
LZH				*SP	sP	11 50 18.2	+0.4
LZH						11 51 46.2	
LZH				*e*S	**S**	**11 56 19.5**	**-0.3**
LZH				*SS	sS	11 56 32.1	-0.6
LZH				PS		11 59 18.4	
LZH				SS	SS	11 59 52.8	+29
LZH				pmax	pmax		
	comp=Z,55nm,1.4s,mb5.0						
LZH				MLR	MLR		
	comp=Z,2µm,17.8s,MS5.0						
CM31	**Chiang Mai Arr**	**41.52**	**284**	*e*P	**P**	**11 50 10.3**	**+1.8**
	comp=Z,60nm,1.0s,mb5.2						
CM31				*e*	pP	11 50 18.4	+2.0
CHG	**Chiang Mai**	**41.53**	**284**	⇓P	**P**	**11 50 08.6**	**-0.1**
	comp=Z,15nm,0.7s,mb4.7						
CHTO	**Chiang Mai**	**41.53**	**284**	*e*P	**P**	**11 50 09.5**	**+0.8**
	comp=Z,8.5nm,0.8s,mb4.4						
CHTO	**Chiang Mai**	**41.53**	**284**	*e*P	**P**	**11 50 09.5**	**+0.8**
CHTO				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
CHTO	**Chiang Mai**	**41.53**	**284**	P	**P**	**11 50 10.0**	**+1.4**
	SNR=11						
CHTO	**Chiang Mai**	**41.53**	**284**	P	**P**	**11 50 10.0**	**+1.4**
	SNR=11						
PET	**Petropavlovsk**	**42.67**	**15**	*e*P	**P**	**11 50 17.0**	**-0.4**
	comp=Z,11nm,0.8s,mb4.6						
PET	**Petropavlovsk**	**42.67**	**15**	*e*P	**P**	**11 50 17.1**	**-0.3**
PET				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.7						
PET				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.0						
PSI	**Prapat**	**43.37**	**261**	P	**P**	**11 50 23.9**	**+0.2**
	comp=Z,23nm,0.8s,mb5.0,baz=70,slow=3.9,SNR=24						
STKA	**Stephens Creek**	**44.10**	**180**	*e*P	**P**	**11 50 28.6**	**-0.6**
	comp=Z,5.1nm,0.9s,mb4.2						
STKA				*e*pP	pP	11 50 36.3	-0.8
STKA	**Stephens Creek**	**44.10**	**180**	P	**P**	**11 50 28.8**	**-0.4**
	comp=Z,4.7nm,0.7s,mb4.3,baz=357,slow=12,SNR=8.4						
STKA				LR	LR	12 08 38.3	
	comp=Z,599nm,18.7s,MS4.5,baz=278,slow=36						
FORT	**Forrest**	**44.95**	**197**	*e*P	**P**	**11 50 35.1**	**-0.9**
	comp=Z,29nm,1.0s,mb5.1						
FORT				*e*pP	pP	11 50 44.0	+0.1
CIT	**Chita**	**45.48**	**336**	*e*P	**P**	**11 50 40.5**	**+0.5**
CIT				*e*	pP	11 50 48.1	+0.2
CIT				*e*		11 52 19.3	
ULN	**Ulaanbaatar**	**45.57**	**328**	*e*P	**P**	**11 50 41.4**	**+0.6**
	comp=Z,64nm,1.0s,mb5.5						
ULN				*e*	pP	11 50 49.5	+0.8
ULN	**Ulaanbaatar**	**45.57**	**328**	*e*P	**P**	**11 50 41.4**	**+0.6**
ULN				*e*	pP	11 50 49.5	+0.8
ULN				pmax	pmax		
	comp=Z,64nm,1.0s,mb5.5						
GTA	**Gaotai**	**45.62**	**314**	⇓P	**P**	**11 50 42.0**	**+0.7**
GTA				AP	pP	11 50 46.8	-2.4
GTA				XP	sP	11 50 49.6	-2.7
GTA				PCP	PcP	11 52 19.5	+0.1
GTA				PP	PP	11 52 30.6	+2.2
GTA				PPP		11 53 13.9	
GTA				S	**S**	**11 57 26.0**	**+3.6**
GTA				XS	sS	11 57 33.6	-1.8
GTA				SCS	ScS	12 00 34.8	-1.3
GTA				SS	SS	12 00 43.0	-3.8
GTA				AMB	AMB		
	comp=Z,35nm,1.2s,mb5.2						
GTA				AMB	AMB		
	comp=Z,214nm,5.7s						
GTA				LR	LR		
	comp=N,328nm,19.8s,MS4.4						
GTA				LR	LR		
	comp=E,281nm,20.9s,MS4.4						
GTA				LR	LR		
	comp=Z,315nm,22.1s,MS4.2						
SONM	**Songino Array**	**45.90**	**327**	P	**P**	**11 50 44.1**	**+0.8**
SONM						11 52 20.0	
SONM	**Songino Array**	**45.90**	**327**	P	**P**	**11 50 44.1**	**+0.8**
	comp=Z,14nm,1.1s,mb4.8,baz=146,slow=7.4,SNR=79						
SONM				PcP	PcP	11 52 20.0	-0.1
	comp=Z,5.8nm,1.1s,baz=135,slow=4.0,SNR=3.1						
SONM				LR	LR	12 09 20.2	
	comp=Z,318nm,19.9s,MS4.3,baz=163,slow=35						
SONM				PKKP		12 13 51.2	
	comp=Z,0.1nm,0.4s,baz=11,slow=1.5,SNR=3.6						
CLNS	**Chul’man**	**46.10**	**347**	*e*P	**P**	**11 50 52.0**	**+7.2**
CLNS				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.5						
CLNS				pmax	pmax		
	comp=N,39nm,1.1s						
CLNS				pmax	pmax		
	comp=E,12nm,1.0s						
MA2	**Magadan**	**47.50**	**6**	*e*P	**P**	**11 50 55.0**	**-0.6**
	comp=E,25nm,0.8s,mb5.2						
MA2	**Magadan**	**47.50**	**6**	*e*P	**P**	**11 50 54.8**	**-0.9**
MA2				*e*S	**S**	**11 57 44.2**	**-4.5**
MA2				*e*SS	SS	12 01 09.5	-7.2
MA2				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.4						
ZAK	**Zakamensk**	**49.07**	**328**	*i* P	**P**	**11 51 08.2**	**+0.2**
ZAK				pmax	pmax		
	comp=Z,62nm,1.1s,mb5.5						
KLBR	**Kellerberrin**	**49.45**	**207**	*e*P	**P**	**11 51 10.8**	**-0.3**
	comp=Z,4.0nm,0.2s,mb5.1						
KLBR				*e*pP	pP	11 51 18.9	-0.2
TLY	**Talaya**	**49.68**	**330**	P	**P**	**11 51 13.9**	**+1.3**
	comp=Z,136nm,1.5s,mb5.8,SNR=6.6						
TLY	**Talaya**	**49.68**	**330**	*e*P	**P**	**11 51 13.4**	**+0.8**
	comp=Z,35nm,1.2s,mb5.3						
TLY	**Talaya**	**49.68**	**330**	*e*P	**P**	**11 51 13.3**	**+0.7**
TLY				*e*		11 53 08.9	
TLY				*e*S	**S**	**11 58 29.6**	**+10**
TLY				pmax	pmax		
	comp=Z,36nm,1.4s,mb5.2						
TLY				MLR	MLR		
	comp=Z,570nm,20.0s,MS4.6						
TLY	**Talaya**	**49.68**	**330**	P	**P**	**11 51 13.7**	**+1.1**
	SNR=15						
TLY	**Talaya**	**49.68**	**330**	P	**P**	**11 51 13.7**	**+1.1**
	SNR=15						
IRK	**Irkutsk**	**49.72**	**331**	*e*P	**P**	**11 51 12.2**	**-0.7**
IRK				pmax	pmax		
	comp=Z,75nm,1.3s,mb5.6						
LSA	**Lhasa**	**49.74**	**298**	P	**P**	**11 51 15.0**	**+1.5**
LSA	**Lhasa**	**49.74**	**298**	*e*P	**P**	**11 51 15.2**	**+1.8**
	comp=Z,23nm,0.9s,mb5.2						
LSA	**Lhasa**	**49.74**	**298**	*e*P	**P**	**11 51 15.3**	**+1.8**
LSA				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.2						
BOD	**Bodaibo**	**49.88**	**341**	*e*P	**P**	**11 51 13.2**	**-0.8**
BOD				*e*	pP	11 51 21.0	-1.0
BOD				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
BOD				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.3						
TOO	**Toolangi**	**49.91**	**176**	*e*P	**P**	**11 51 16.0**	**+1.5**
	comp=Z,23nm,0.9s,mb5.2						
TOO				*e*pP	pP	11 51 23.4	+0.9
TOO	**Toolangi**	**49.91**	**176**	*e*P	**P**	**11 51 16.0**	**+1.5**
TOO				*e**PP	pP	11 51 23.4	+0.9
TOO				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.2						
YAK	**Yakutsk**	**50.23**	**353**	*e*P	**P**	**11 51 16.2**	**-0.4**
	comp=Z,221nm,0.7s,mb6.3						
YAK				*e*	pP	11 51 23.9	-0.7
YAK	**Yakutsk**	**50.23**	**353**	*e*P	**P**	**11 51 16.1**	**-0.5**
YAK				pmax	pmax		
	comp=Z,114nm,1.1s,mb5.8						
YAK				pmax	pmax		
	comp=N,49nm,1.3s						
YAK				pmax	pmax		
	comp=E,12nm,1.1s						
YAK				pmax	pmax		
	comp=E,13nm,0.8s						
YAK				pmax	pmax		
	comp=N,2.0nm,0.4s						
YAK				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb5.0						
MUN	**Mundaring**	**50.48**	**208**	*e*P	**P**	**11 51 18.6**	**-0.3**
NWAO	**Narrogin (SRO)**	**50.82**	**207**	*e*P	**P**	**11 51 21.6**	**+0.2**
	comp=Z,82nm,1.5s,mb5.4						
NWAO	**Narrogin (SRO)**	**50.82**	**207**	*e*P	**P**	**11 51 21.6**	**+0.1**
NWAO				pmax	pmax		
	comp=Z,82nm,1.5s						
MOY	**Mondy**	**51.00**	**329**	*e*P	**P**	**11 51 23.1**	**+0.5**
MOY				pmax	pmax		
	comp=Z,101nm,2.0s,mb5.4						
TAPN	**Taplejung**	**52.46**	**295**	*e*P	**P**	**11 51 34.7**	**+0.8**
	comp=Z,131nm,1.3s,mb5.7						
ODAN	**Odare**	**52.70**	**294**	*e*P	**P**	**11 51 36.0**	**+0.3**
	comp=Z,200nm,1.6s,mb5.8						
KKN	**Kakani**	**54.64**	**295**	*e*P	**P**	**11 51 50.2**	**+0.3**
	comp=Z,92nm,1.1s,mb5.7						
GKN	**Gorkha**	**55.23**	**295**	*e*P	**P**	**11 51 54.1**	**-0.1**
	comp=Z,225nm,1.4s,mb6.0						
WMQ	**Urumqi**	**55.66**	**315**	P	**P**	**11 51 57.9**	**+0.9**
WMQ				AP	pP	11 52 05.5	+0.4
WMQ				XP	sP	11 52 08.8	+0.6
WMQ				PCP	PcP	11 52 57.3	+0.9
WMQ				PP	PP	11 54 03.6	+2.2
WMQ				AMB	AMB		
	comp=Z,99nm,1.2s,mb5.7						
WMQ				LR	LR		
	comp=N,143nm,20.6s,MS4.5						
WMQ				LR	LR		
	comp=E,393nm,22.4s,MS4.5						
WMQ				LR	LR		
	comp=Z,353nm,23.6s,MS4.4						
BILL	**Bilibino**	**57.80**	**11**	*e*P	**P**	**11 52 10.9**	**-0.9**
	comp=Z,8.2nm,0.3s,mb5.2						
BILL				*e*	pP	11 52 18.9	-0.9
BILL	**Bilibino**	**57.80**	**11**	*d i*P	**P**	**11 52 10.6**	**-1.2**
BILL				*i*	pP	11 52 18.9	-0.9
BILL				*e*		11 53 03.0	
BILL				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
BILL				MLR	MLR		
	comp=Z,100nm,15.0s,MS4.0						
TIXI	**Tiksi**	**59.65**	**355**	*e*P	**P**	**11 52 23.7**	**-0.9**
	comp=Z,28nm,1.0s,mb5.2						
TIXI	**Tiksi**	**59.65**	**355**	*e*P	**P**	**11 52 22.9**	**-1.7**
TIXI				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.3						
TIXI				MLR	MLR		
	comp=Z,183nm,16.0s,MS4.3						
MKAR	**Makanchi Array**	**60.14**	**317**	P	**P**	**11 52 29.4**	**+1.0**
MKAR				PcP	PcP	11 53 14.1	+0.1
MKAR				LR	LR	12 19 34.4	
MKAR				⇑*e*		12 22 02.8	
MKAR	**Makanchi Array**	**60.14**	**317**	P	**P**	**11 52 29.4**	**+1.0**
MKAR						11 53 14.1	
MKAR	**Makanchi Array**	**60.14**	**317**	P	**P**	**11 52 29.4**	**+1.0**
	comp=Z,30nm,0.9s,mb5.3,baz=96,slow=8.8,SNR=78						
MKAR				PcP	PcP	11 53 14.1	+0.1
	comp=Z,4.3nm,0.9s,baz=106,slow=5.2,SNR=1.8						
MKAR				LR	LR	12 19 34.4	
	comp=Z,275nm,18.3s,MS4.4,baz=99,slow=37						
MKAR				PKP2bc		12 22 02.8	
	comp=Z,0.2nm,0.3s,baz=286,slow=2.1,SNR=6.0						
ZALV	**Zalesovo Beam**	**60.73**	**325**	P	**P**	**11 52 32.1**	**-0.2**
ZALV				PcP	PcP	11 53 14.2	-1.9
ZALV				LR	LR	12 20 51.7	
ZALV				⇑*e*		12 22 01.0	
ZALV	**Zalesovo Beam**	**60.73**	**325**	P	**P**	**11 52 32.1**	**-0.2**
	comp=Z,9.5nm,0.8s,mb5.0,baz=104,slow=6.1,SNR=29						
ZALV				PcP	PcP	11 53 14.2	-1.9
	comp=Z,8.1nm,0.8s,baz=105,slow=3.0,SNR=4.7						
ZALV				LR	LR	12 20 51.7	
	comp=Z,226nm,18.2s,MS4.3,baz=241,slow=38						
ZALV				PKP2bc		12 22 01.0	
	comp=Z,0.7nm,0.6s,baz=300,slow=3.3,SNR=5.9						
ZAL	**Zalesovo**	**60.73**	**325**	P	**P**	**11 52 32.1**	**-0.2**
ZAL						11 53 14.2	
HYB	**Hyderabad**	**60.94**	**283**	*e*P	**P**	**11 52 35.0**	**+0.6**
HYB	**Hyderabad**	**60.94**	**283**	*i* P	**P**	**11 52 35.0**	**+0.6**
SDPT	**Sand Point**	**61.77**	**33**	*e*P	**P**	**11 52 38.7**	**-0.6**
	comp=Z,69nm,0.6s,mb6.0						
NVS	**Novosibirsk**	**61.90**	**326**	*e*P	**P**	**11 52 39.7**	**-0.5**
NVS				pmax	pmax		
	comp=Z,89nm,1.7s,mb5.6						
NVS				pmax	pmax		
	comp=N,43nm,1.6s						
NVS				pmax	pmax		
	comp=E,70nm,1.5s						
TNA	**Tin City**	**62.99**	**21**	*e*P	**P**	**11 52 46.8**	**-0.4**
	comp=E,15nm,1.0s,mb5.1						
KURK	**Kurchatov**	**63.43**	**321**	P	**P**	**11 52 50.5**	**0.0**
	comp=E,667nm,1.0s,SNR=20						
KURK	**Kurchatov**	**63.43**	**321**	*e*P	**P**	**11 52 50.8**	**+0.3**
	comp=E,153nm,1.1s,mb6.0						
KURK				*e*	pP	11 52 58.7	+0.1
KURK	**Kurchatov**	**63.43**	**321**	*e*P	**P**	**11 52 50.8**	**+0.3**
KURK				*e*	pP	11 52 58.7	0.0
KURK				pmax	pmax		
	comp=Z,153nm,1.1s,mb6.0						
KURK	**Kurchatov**	**63.43**	**321**	P	**P**	**11 52 50.9**	**+0.4**
	SNR=29						
KURK	**Kurchatov**	**63.43**	**321**	P	**P**	**11 52 50.9**	**+0.4**
	SNR=29						
KSH	**Kashi**	**63.44**	**308**	P	**P**	**11 52 52.0**	**+1.2**
KSH				*e*AP	pP	11 52 56.3	-2.6
KSH				*e*PCP	PcP	11 53 28.1	+0.6
KSH				*e*PP	PP	11 55 13.1	+2.7
KSH				*e*PPP		11 56 44.0	
KSH				*e*SCP	ScP	11 57 29.1	+0.7
KSH				*e*S	**S**	**12 01 21.8**	**-0.5**
KSH				*e*SS	SS	12 05 31.1	+1.7
KSH				AMB	AMB		
	comp=Z,556nm,3.6s						
KSH				LR	LR		
	comp=Z,641nm,4.9s						
TKM2	**Tokmak 2**	**64.10**	**312**	*e*P	**P**	**11 52 55.6**	**+0.6**
	comp=Z,19nm,0.9s,mb5.1						
TKM2				*e*	pP	11 53 04.0	+0.7
TKM2	**Tokmak 2**	**64.10**	**312**	*e*P	**P**	**11 52 55.6**	**+0.5**
TKM2				*e*	pP	11 53 04.0	+0.8
TKM2				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
KAD	**Karad**	**65.11**	**283**	*e*P	**P**	**11 53 02.0**	**-0.1**
POO	**Poona**	**65.30**	**285**	*e*P	**P**	**11 53 01.0**	**-2.3**
AML	**Almayashu**	**65.41**	**311**	*e*P	**P**	**11 53 04.4**	**+0.8**
	comp=Z,46nm,1.1s,mb5.4						
AML				*e*	pP	11 53 12.5	+0.7
SVW2	**Sparrevohn**	**66.12**	**28**	*e*P	**P**	**11 53 07.8**	**0.0**
KDAK	**Kodiak Island**	**66.67**	**32**	*e*P	**P**	**11 53 11.1**	**-0.3**
	comp=Z,37nm,1.0s,mb5.4						
SLKM	**Skilak Lake**	**68.49**	**30**	*e*P	**P**	**11 53 21.4**	**-1.4**
IMA2	**Indian Mountai**	**68.50**	**23**	*e*P	**P**	**11 53 22.6**	**-0.2**
KBL	**Kabul**	**68.77**	**302**	*e*P	**P**	**11 53 24.9**	**-0.2**
BRVK	**Borovoye**	**68.93**	**322**	P	**P**	**11 53 25.3**	**-0.5**
	comp=Z,505nm,0.6s,SNR=17						
BRVK	**Borovoye**	**68.93**	**322**	*e*P	**P**	**11 53 25.8**	**0.0**
BRVK				*e*	pP	11 53 34.0	0.0
BRVK	**Borovoye**	**68.93**	**322**	P	**P**	**11 53 26.4**	**+0.6**
	SNR=15						
BRVK	**Borovoye**	**68.93**	**322**	P	**P**	**11 53 26.4**	**+0.6**
	SNR=15						
PMR	**Palmer**	**69.25**	**29**	*e*P	**P**	**11 53 26.3**	**-1.2**
	comp=Z,66nm,1.3s,mb5.4						
PMR				*e*	pP	11 53 34.1	-1.7

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PMR   Palmer           69.25  29 eP      P       11 53 26.3 -1.2
PMR                              e       pP      11 53 34.1 -1.7
PMR                               pmax   pmax
      comp=Z,66nm,1.3s,mb5.4
SML   Sawmill          69.67  28 eP      P       11 53 29.7 -0.4
MCK   McKinley         69.81  26 eP      P       11 53 30.1 -0.8
      comp=Z,31nm,1.1s,mb5.2
MCK   McKinley         69.81  26 eP      P       11 53 30.1 -0.9
MCK                               pmax   pmax
      comp=Z,31nm,1.1s,mb5.2
COLA  College          70.53  25 eP      P       11 53 34.1 -1.3
      comp=Z,13nm,0.9s,mb4.8
COLA  College          70.53  25 eP      P       11 53 34.1 -1.2
COLA                              pmax   pmax
      comp=Z,13nm,0.9s,mb4.9
EYAK  Cordova Ski Ar   70.67  30 eP      P       11 53 35.9 -0.4
MENT  Mentasta         71.98  28 eP      P       11 53 44.2  0.0
EGAK  Eagle            73.33  26 eP      P       11 53 51.7 -0.5
      comp=Z,19nm,0.9s,mb5.0
DAWY  Dawson           74.03  27 eP      P       11 53 56.4 +0.1
PPT   Papeete          74.16 112 eP      P       11 53 56.4 -1.4
      comp=Z,47nm,1.3s,mb5.3
PPT   Papeete          74.16 112 eLR     LR      12 16 37.4
      comp=Z,418nm,30.0s
PPT   Papeete          74.16 112 eP      P       11 53 56.4 -1.4
PPT                               pmax   pmax
      comp=Z,47nm,1.3s
PPT   Papeete          74.16 112  LR     LR      12 21 57.7
      comp=Z,145nm,18.8s,MS4.3,baz=360,slow=32
PAE   Paea             74.18 113 eP      P       11 53 56.4 -1.6
      comp=Z,30nm,0.9s,mb5.2
PAE   Paea             74.18 113 eP      P       11 53 56.4 -1.6
PAE                               pmax   pmax
      comp=Z,30nm,0.9s,mb5.2
TVO   Taravao          74.52 113 eP      P       11 53 58.8 -1.1
      comp=Z,130nm,1.0s,mb5.8
TVO   Taravao          74.52 113 eP      P       11 53 58.8 -1.1
TVO                               pmax   pmax
      comp=Z,130nm,1.0s,mb5.8
SVE   Sverdlovsk       74.74 326 eP      P       11 54 01.0 +0.4
PMOR  Pomariorio Ree   74.89 109 eP      P       11 54 00.0 -2.2
      comp=Z,50nm,1.1s,mb5.4
VAH   Vaihoa           75.21 110 eP      P       11 54 02.2 -1.8
      comp=Z,23nm,0.7s,mb5.2
SKAG  Skagway          75.80  32 eP      P       11 54 07.1 +0.5
      comp=Z,60nm,1.4s,mb5.3
ARU   Arti             75.89 325  P      P       11 54 06.3 -0.9
      comp=Z,258nm,0.6s,mb6.3,SNR=9.0
ARU   Arti             75.89 325 eP      P       11 54 06.8 -0.3
      comp=Z,29nm,0.7s,mb5.3
ARU                              e       pP      11 54 14.8 -0.6
ARU   Arti             75.89 325d iP     P       11 54 06.7 -0.5
ARU                              i       pP      11 54 15.7 +0.2
ARU                              e               11 54 18.6
ARU                              e               11 56 56.5
ARU                              eS      S       12 03 46.7 -1.4
ARU                              eSS     SS      12 08 36.0 -4.3
ARU                               pmax   pmax
      comp=Z,75nm,1.2s,mb5.5
AKTK  Aktyubinsk       76.45 319  P      P       11 54 10.1 -0.4
AKTO  Aktyubinsk       76.45 319  P      P       11 54 10.1 -0.4
      comp=Z,9.9nm,0.6s,mb4.9,baz=98,slow=8.8,SNR=36
INK   Inuvik           76.58  22 eP      P       11 54 10.0 -0.9
      comp=Z,1µm,1.1s
INK                              e       pP      11 54 17.4 -1.8
SOKR  Solikamsk        76.75 329 eP      P       11 54 12.1 +0.1
SOKR                              pmax   pmax
      comp=Z,20nm,1.0s,mb5.0
SOKR                              MLR    MLR
      comp=Z,310nm,20.0s,MS4.6
DLBC  Dease Lake       78.60  32 eP      P       11 54 22.6 +0.3
DLBC                             e       pP      11 54 30.5 -0.1
BIDO  Bidbid           79.27 292  P      P       11 54 27.1 +0.4
      SNR=5.8
BIDO  Bidbid           79.27 292  P      P       11 54 27.1 +0.4
      SNR=5.8
HOQ   Hoqain           80.00 292  P      P       11 54 31.0 +0.3
      SNR=5.1
HOQ   Hoqain           80.00 292  P      P       11 54 31.0 +0.3
      SNR=5.1
ARQ   Araqi            80.75 292  P      P       11 54 35.2 +0.4
      SNR=5.2
ARQ   Araqi            80.75 292  P      P       11 54 35.2 +0.4
      SNR=5.2
HATD  Hatta, Dubai     80.86 293  P      P       11 54 35.7 +0.4
      SNR=5.3
HATD  Hatta, Dubai     80.86 293  P      P       11 54 35.7 +0.4
      SNR=5.3
PRGR  Permogore        81.97 331⇑iP      P       11 54 40.7 +0.3
PRGR                             eS      S       12 04 49.0 -3.7
RBK   Rabkut           83.94 287  P      P       11 54 51.7 +0.2
      SNR=5.8
RBK   Rabkut           83.94 287  P      P       11 54 51.7 +0.2
      SNR=5.8
WHFO  Wadi Hawf        84.27 287  P      P       11 54 52.4 -0.8
      SNR=5.1
WHFO  Wadi Hawf        84.27 287  P      P       11 54 52.4 -0.8
      SNR=5.1
ALE   Alert            84.51   3  P      P       11 54 53.0 -0.2
      comp=Z,113nm,1.1s,mb5.9,SNR=7.2
GNW   Green Mountain   84.58  43 eP      P       11 54 54.1 -0.1
ABTO  Aybut            84.82 287  P      P       11 54 55.9 -0.1
      SNR=13
ABTO  Aybut            84.82 287  P      P       11 54 55.9 -0.1
      SNR=13
JCW   Jim Creek        85.03  42  P      P       11 54 56.9 +0.5
YKW3  Yellowknife Ar   85.24  27 eP      P       11 54 57.0 -0.2
YKA   Yellowknife Ar   85.27  27  P      P       11 54 56.9 -0.4
YKA                               P'P'           12 21 15.2
YKA                               LR     LR      12 29 09.9
YKA   Yellowknife Ar   85.27  27  P      P       11 54 56.9 -0.4
      comp=Z,9.9nm,0.8s,mb5.0,baz=288,slow=5.2,SNR=28
YKA                               PKPPKP         12 21 15.2
      comp=Z,0.3nm,0.9s,baz=102,slow=3.8,SNR=3.7
YKA                               LR     LR      12 29 09.9
      comp=Z,129nm,19.6s,MS4.3,baz=265,slow=33
H04A  Detroit Lake     85.66  45 ⇓P      P       11 54 59.7  0.0
      baz=86
I04A  Tendick Farm,    85.70  46 ⇓P      P       11 54 60.0 +0.1
      baz=86
A07A  Ashnola River,   85.83  41 ⇑P      P       11 55 00.7 +0.3
      baz=86
F05A  White Salmon     85.88  44 ⇑P      P       11 55 01.0 +0.3
      baz=86
M02C  Callahan         85.92  49 ⇑P      P       11 55 01.1 +0.1
      baz=86
YBH   Yreka Blue Hor   85.95  48 ⇑P      P       11 55 01.3 +0.1
      baz=86
D06A  Cle Elum         85.98  43 ⇓P      P       11 55 01.7 +0.5
      baz=86,SNR=5.2
J04A  Umpqua Nationa   86.04  47 ⇑P      P       11 55 02.4 +0.9
      baz=86
E06A  Yakima           86.05  43 ⇑P      P       11 55 01.7 +0.1
      baz=86
NLW   Nelson Butte     86.10  42  P      P       11 55 01.9 +0.1
B07A  Winthrop         86.14  41 ⇓P      P       11 55 02.1 +0.2
      baz=86,SNR=7.3
TBM   Table Mountain   86.15  43  P      P       11 55 02.3 +0.3
EBG   Ellensburg       86.23  43  P      P       11 55 03.0 +0.5
H05A  Madras           86.33  45 ⇓P      P       11 55 03.4 +0.4
      baz=86
RES   Resolute Bay     86.33  13 eP      P       11 55 02.0 -0.4
      comp=Z,1µm,0.9s
RES                              e       pP      11 55 10.8  0.0
M03C  McCloud          86.48  49 ⇓P      P       11 55 04.6 +0.8
      baz=86,SNR=5.4
A08A  Turner Farm, O   86.56  41 ⇑P      P       11 55 04.0  0.0
      baz=86,SNR=9.1
M04C  Macdoel          86.57  48 ⇑P      P       11 55 04.4 +0.2
      baz=86
KEV   Kevo             86.59 342 ep      P       11 55 02.1 -1.6
      comp=Z,6.1nm,0.6s,mb5.0
KEV   Kevo             86.59 342 eP      P       11 55 02.1 -1.6
KEV                               pmax   pmax
      comp=Z,6.0nm,0.6s,mb5.0
VRHR  Novokhopersk     86.60 322 eP      P       11 55 02.3 -1.8
VRHR                              pmax   pmax
      comp=N,20nm,0.5s
VRHR                              pmax   pmax
      comp=E,10.0nm,0.5s
VRHR                              pmax   pmax
      comp=Z,20nm,0.5s,mb5.6
J05A  Fort Rock        86.65  47 ⇓P      P       11 55 04.8 +0.2
      baz=86,SNR=12
B08A  Colville Reser   86.68  41  P      P       11 55 04.7 +0.1
      baz=86,SNR=14
EPH   Ephrata          86.76  42  P      P       11 55 05.0 -0.1
VIPM  Ingram Point     86.78  45  P      P       11 55 06.0 +0.8
E07A  Sunnyside        86.79  43 ⇑P      P       11 55 05.5 +0.3
      baz=87
H06A  Lindquist Farm   86.93  45 ⇑P      P       11 55 06.1 +0.2
      baz=87,SNR=5.8
A09A  Danville         86.99  41 ⇓P      P       11 55 06.7 +0.6
      baz=87,SNR=6.7
C08A  Higginbotham F   87.01  42 ⇑P      P       11 55 06.2  0.0
      baz=87,SNR=15
K05A  Summer Lake      87.03  47 ⇑P      P       11 55 06.6 +0.2
      baz=87
HAWA  Hanford          87.05  43 eP      P       11 55 06.2 -0.3
ARCES ARCESS Array B   87.16 342  P      P       11 55 06.0 -0.5
      comp=Z,8.5nm,0.7s,mb5.1,baz=68,slow=7.4,SNR=32
ARCES                             LR     LR      12 34 18.3
      comp=Z,244nm,19.9s,MS4.6,baz=28,slow=36
M05C  Lookout          87.18  48 ⇑P      P       11 55 07.0 -0.2
      baz=87,SNR=5.8
I06A  Prineville       87.21  46 ⇑P      P       11 55 07.4 +0.1
      baz=87,SNR=5.3
L05A  Lakeview         87.24  48 ⇓P      P       11 55 08.2 +0.8
      baz=87
ZEI   Tsey             87.24 313 eP      P       11 55 05.7 -1.8
ZEI                              e*PP    pP      11 55 15.2 -0.7
ZEI                               pmax   pmax
      comp=Z,12nm,1.0s,mb5.1
G07A  Ruggs Ranch, H   87.25  44 ⇑P      P       11 55 07.7 +0.3
      baz=87
D08A  Wollman Farm,    87.28  42 ⇑P      P       11 55 07.7 +0.1
      baz=87,SNR=5.7
QRN   Al-Qurain        87.32 299 eP      P       11 55 06.8 -1.4
QRN                               AMb    AMB     11 55 09.1
      comp=Z,76nm,0.7s,mb6.0
E08A  Dider Farm, El   87.34  43 ⇑P      P       11 55 07.7 -0.1
      baz=87
ORV   Oroville         87.35  50 ⇓P      P       11 55 07.6 -0.4
      baz=87
B09A  Rice             87.42  41 ⇑P      P       11 55 08.2  0.0
      baz=87
J06A  Christmas Vall   87.42  46 ⇓P      P       11 55 08.0 -0.3
      baz=87,SNR=5.3
K06A  Valley Falls     87.47  47 ⇑P      P       11 55 08.8 +0.2
      baz=87,SNR=6.0
O04C  Chester          87.47  49 ⇓P      P       11 55 09.3 +0.7
      baz=87,SNR=7.3
H07A  Lands Inn, Kim   87.49  45 ⇑P      P       11 55 09.5 +0.9
      baz=87,SNR=5.3
MOS   Moscow           87.53 327 eP      P       11 55 06.4 -2.2
MOS                              e       pP      11 55 14.0 -3.0
MOS                               pmax   pmax
      comp=Z,74nm,1.3s,mb5.8
MOS                               MLR    MLR
      comp=Z,500nm,19.0s,MS4.9
MIB   Mutribah         87.58 300 eP      P       11 55 08.0 -1.3
MIB                               AMb    AMB     11 55 10.5
      comp=Z,133nm,0.8s,mb6.2
RDF   Al-Radifah       87.59 299 eP      P       11 55 08.8 -0.7
RDF                               AMb    AMB     11 55 10.5
      comp=Z,62nm,0.9s,mb5.8
A10A  Northport        87.64  40 ⇓P      P       11 55 09.4 +0.2
      baz=88,SNR=7.6
MOD   Modoc            87.66  48 eP      P       11 55 09.5  0.0
      comp=Z,13nm,1.4s,mb5.0
MOD   Modoc            87.66  48 ⇑P      P       11 55 09.5  0.0
      baz=88,SNR=8.1
I07A  Izee             87.67  45 ⇑P      P       11 55 09.3 -0.2
      baz=88
D09A  Jones Farm, Ri   87.69  42 ⇑P      P       11 55 10.1 +0.6
      baz=88
O05C  Quincy           87.69  50 ⇑P      P       11 55 09.7  0.0
      baz=88
F08A  Pendleton        87.72  44 ⇓P      P       11 55 10.6 +0.9
      baz=88,SNR=7.2
G08A  Pilot Rock       87.73  44 ⇓P      P       11 55 09.2 -0.6
      baz=88
NAY   Al-Naaiem        87.79 299 eP      P       11 55 09.2 -1.2
NAY                               AMb    AMB     11 55 11.9
      comp=Z,75nm,0.9s,mb5.9
KIV   Kislovodsk       87.79 314 eP      P       11 55 08.8 -1.3
KIV                              e               12 05 33.6
KIV                               pmax   pmax
      comp=Z,13nm,1.1s,mb5.1
KIV                               MLR    MLR
      comp=Z,137nm,18.0s,MS4.4
RST   Umm Al-Ruwaisa   87.94 300 eP      P       11 55 09.7 -1.4
RST                               AMb    AMB     11 55 11.9
      comp=Z,84nm,0.7s,mb6.1
JOF   Joensuu          87.97 335 ep      P       11 55 08.3 -2.2
      comp=Z,32nm,0.8s,mb5.6
JOF   Joensuu          87.97 335 eP      P       11 55 08.3 -2.2
JOF                               pmax   pmax
      comp=Z,32nm,0.8s,mb5.6
J07A  Hines            87.99  46 ⇑P      P       11 55 11.7 +0.7
      baz=88,SNR=7.2
VRSR  Storozhevoye     88.03 322 eP      P       11 55 09.1 -2.0
VRSR                              pmax   pmax
      comp=N,3.0nm,0.9s
VRSR                              pmax   pmax
      comp=E,5.0nm,0.9s
VRSR                              pmax   pmax
      comp=Z,9.0nm,0.9s,mb5.0
P05C  Yuba Gap, Truc   88.08  50 ⇓P      P       11 55 11.9 +0.4
      baz=88
NEW   Newport          88.12  41 eP      P       11 55 11.4 -0.1
      comp=Z,14nm,1.1s,mb5.1
NEW   Newport          88.12  41 eP      P       11 55 11.4 -0.2
NEW                               pmax   pmax
      comp=Z,14nm,1.1s
BEKR  Beckwourth       88.13  50 ⇑P      P       11 55 12.3 +0.5
      baz=88
H08A  Prairie City     88.13  45 ⇓P      P       11 55 11.5 -0.2
      baz=88
K07A  Rock Creek Ran   88.21  47 ⇑P      P       11 55 11.6 -0.6
      baz=88,SNR=8.7
N06A  Buffalo Meadow   88.29  49 ⇑P      P       11 55 12.6  0.0
      baz=88,SNR=5.7
OBN   Obninsk          88.30 326 eP      P       11 55 11.5 -0.7
OBN   Obninsk          88.30 326 eP      P       11 55 10.5 -1.8
OBN                              i       pP      11 55 18.7 -2.0
OBN                               pmax   pmax
      comp=Z,46nm,1.1s,mb5.6
OBN                               MLR    MLR
      comp=Z,100nm,18.0s,MS4.3
L07A  Adell            88.32  47 ⇑P      P       11 55 13.1 +0.4
      baz=88,SNR=8.8
I08A  Drewsey          88.36  45 ⇓P      P       11 55 13.2 +0.4
      baz=88,SNR=5.7
A11A  Hall Mountain,   88.40  40 ⇑P      P       11 55 13.8 +0.9
      baz=88
O06A  Flanigan         88.45  49 ⇓P      P       11 55 13.2 -0.1
      baz=88,SNR=9.7
G09A  Cove             88.53  44 ⇓P      P       11 55 14.1 +0.5
      baz=88
CMB   Columbia Colle   88.57  51 eP      P       11 55 13.4 -0.5
      comp=Z,3.9nm,1.0s,mb4.7
CMB   Columbia Colle   88.57  51 eP      P       11 55 13.5 -0.4
CMB                               pmax   pmax
      comp=Z,4.0nm,1.0s,mb4.7
CMB   Columbia Colle   88.57  51 ⇑P      P       11 55 13.7 -0.2
      baz=88
J08A  Circle Bar Ran   88.58  46 ⇑P      P       11 55 14.7 +0.8
      baz=88,SNR=11
M07A  Soldier Meadow   88.61  48 ⇓P      P       11 55 14.5 +0.4
      baz=88,SNR=7.5
E10A  Myers Farm, Un   88.64  43 ⇑P      P       11 55 14.4 +0.4
      baz=88
WVOR  Wild Horse Val   88.71  47 eP      P       11 55 13.9 -0.6
      comp=Z,18nm,1.0s,mb5.4
WVOR  Wild Horse Val   88.71  47 eP      P       11 55 13.9 -0.6
WVOR                              pmax   pmax
      comp=Z,18nm,1.0s,mb5.4
K08A  Mann Creek Ran   88.74  47  P      P       11 55 14.6  0.0
      baz=89,SNR=14
EDM   Edmonton         88.88  36 eP      P       11 55 14.6 -0.4
N07B  Gerlach          88.92  49 ⇑P      P       11 55 15.6 +0.1
      baz=89,SNR=12
I09A  Lost Marbles R   88.92  45 ⇓P      P       11 55 16.1 +0.7
      baz=89
BMO   Blue Mountains   88.97  44 eP      P       11 55 15.5 -0.2
      comp=Z,8.9nm,1.1s,mb5.0
BMO   Blue Mountains   88.97  44 eP      P       11 55 15.5 -0.2
BMO                               pmax   pmax
      comp=Z,9.0nm,1.1s,mb5.0
L08A  Fields           88.99  47 ⇑P      P       11 55 15.9 +0.1
      baz=89,SNR=15
J09A  Fry Pan Ranch,   89.09  46 ⇓P      P       11 55 16.8 +0.6
      baz=89,SNR=11
O07A  Toulon           89.15  49 ⇓P      P       11 55 16.8 +0.2
      baz=89
R06C  Coleville        89.15  51 ⇑P      P       11 55 17.1 +0.4
      baz=89
M08A  Happy Creek Ra   89.17  48  P      P       11 55 17.6 +1.0
      baz=89,SNR=6.1
K09A  Rome             89.29  46 ⇑P      P       11 55 16.9 -0.3
      baz=89,SNR=7.2
H10A  Noah's Angus R   89.43  44 ⇑P      P       11 55 17.6 -0.2
      baz=89,SNR=5.9
L09A  Wilkinson Ranc   89.52  47 ⇑P      P       11 55 19.2 +0.9
      baz=89
N08A  GE Springer Mi   89.53  48 ⇑P      P       11 55 19.2 +0.8
      baz=89,SNR=10
I10A  Payette          89.54  45 ⇑P      P       11 55 18.8 +0.5
      baz=89
A13A  Flathead Natio   89.64  40 ⇑P      P       11 55 18.4 -0.2
      baz=90
BSMT  Bassoo Peak      89.74  41 eP      P       11 55 20.5 +1.3
J10A  Berg Farm, Mel   89.75  46 ⇑P      P       11 55 20.2 +0.8
      baz=90
M09A  Marrel Ranch,    89.84  48 ⇓P      P       11 55 20.4 +0.6
      baz=90
K10A  MacKenzie Ranc   89.87  46 ⇑P      P       11 55 20.1 +0.2
      baz=90,SNR=9.3
H11A  Donnelly         89.90  44 ⇑P      P       11 55 20.0  0.0
      baz=90
N09A  Rock Creek Ran   89.95  48 ⇑P      P       11 55 21.2 +0.9
      baz=90,SNR=7.1
NVAR  Mina Array Bea   90.05  51  P      P       11 55 20.6 -0.3
      comp=Z,5.1nm,0.8s,mb4.9,baz=262,slow=4.2,SNR=24
I11A  Placerville      90.17  45 ⇑P      P       11 55 22.4 +1.1
      baz=90
Q08A  Gabbs            90.21  50 ⇓P      P       11 55 22.2 +0.6
      baz=90
L10A  Juniper Basin    90.36  47 ⇑P      P       11 55 23.0 +0.8
      baz=90,SNR=5.2
O09A  Fish Creek Ran   90.39  49 ⇓P      P       11 55 23.4 +1.0
      baz=90
S08C  White Mtn Res    90.40  52 ⇑P      P       11 55 23.1 +0.6
      baz=90
KAF   Kangasniemi      90.41 335 ep      P       11 55 18.9 -3.1
      comp=Z,37nm,0.9s,mb5.7,baz=58,slow=4.3
KAF   Kangasniemi      90.41 335 eP      P       11 55 18.9 -3.1
KAF                               pmax   pmax
      comp=Z,37nm,0.9s,mb5.7
MFID  Camas Ranch      90.41  45 ⇑P      P       11 55 23.1 +0.7
      baz=90,SNR=7.8
K11A  Parker Ranch,    90.46  46 ⇑P      P       11 55 23.5 +0.9
      baz=90,SNR=5.4
VNDA  Vanda            90.58 176  LR     LR      12 37 37.8
      comp=Z,223nm,19.9s,MS4.6,baz=332,slow=37
FIA1  FINESS Array S   90.82 334 eP      P       11 55 21.8 -2.1
FIA1                             e       pP      11 55 29.7 -2.7
FINES FINESS Array B   90.82 334  P      P       11 55 22.1 -1.8
      comp=Z,20nm,0.7s,mb5.6,baz=81,slow=6.0,SNR=71
FINES                             LR     LR      12 38 55.6
      comp=Z,204nm,18.1s,MS4.6,baz=2.2,slow=37
L11A  Cat Creek Ranc   90.84  47 ⇓P      P       11 55 25.3 +0.9
      baz=91
G13A  Cobalt           90.98  43 ⇓P      P       11 55 24.3 -0.7
      baz=91
R09A  Tonopah          91.03  51 ⇓P      P       11 55 25.4  0.0
      baz=91
S09A  Goldfield        91.06  51 ⇑P      P       11 55 25.7 +0.2
      baz=91
H13A  Challis          91.13  44 ⇑P      P       11 55 26.3 +0.6
      baz=91
HLID  Hailey           91.34  45 eP      P       11 55 27.0 +0.3
L12A  House Creek Ra   91.37  46 ⇑P      P       11 55 28.0 +1.1
      baz=91
I13A  Wildhorse Cree   91.44  44 ⇑P      P       11 55 28.1 +1.0
      baz=91
S10A  Tonopah Range,   91.48  51 ⇓P      P       11 55 27.4 -0.1
      baz=91
O11A  Cowboy Ranch,    91.52  48 ⇓P      P       11 55 28.3 +0.7
      baz=91
J13A  Cove Ranch, Pi   91.56  45 ⇑P      P       11 55 28.5 +0.8
      baz=91
E15A  Deer Lodge       91.59  42 ⇓P      P       11 55 27.2 -0.6
      baz=91
FURC  Furnace Creek,   91.70  52 ⇓P      P       11 55 29.2 +0.6
      baz=92
HRY   Holter Researc   92.02  41 eP      P       11 55 31.8 +2.0
MALT  Malatya          92.48 310 eP      P       11 55 31.4 -0.7
      comp=Z,6.6nm,0.8s,mb5.0
MALT  Malatya          92.48 310 eP      P       11 55 31.5 -0.6
MALT                              pmax   pmax
      comp=Z,7.0nm,0.8s,mb5.0
QLMT  Earthquake Lak   92.94  43 eP      P       11 55 34.2 +0.1
MNK   Minsk            93.19 328 eP      P       11 55 33.0 -2.1
YNR   Norris Junctio   93.48  43 eP      P       11 55 36.5 -0.1
DUG   Dugway           93.57  48  P      P       11 55 36.7 -0.5
IMW   Indian Meadow    93.60  44 eP      P       11 55 37.3 +0.1
      comp=Z,12nm,1.2s,mb5.2
IMW                              e       pP      11 55 45.5 -0.1
LKWY  Lake             93.72  43 eP      P       11 55 40.4 +2.7
      comp=Z,4.0nm,0.8s,mb4.9
LKWY  Lake             93.72  43 eP      P       11 55 40.4 +2.7
LKWY                              pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.9
MOOW  Moose Ponds      93.79  44 eP      P       11 55 38.2 +0.2
LOHW  Long Hollow      93.93  44 eP      P       11 55 38.6 -0.1
HWUT  Hardware Ranch   93.98  46 eP      P       11 55 38.9 -0.1
      comp=Z,6.5nm,1.1s,mb5.0
AKASG Malin Array Be   94.09 324 i P     P       11 55 37.4 -1.9
AKASG                             pmax   pmax
      comp=Z,4.0nm,0.9s
AKASG Malin Array Be   94.09 324  P      P       11 55 37.0 -2.3
      comp=Z,3.9nm,0.9s,mb4.8,baz=51,slow=4.1,SNR=13
AKASG                             LR     LR      12 39 12.9
      comp=Z,353nm,21.3s,MS4.8,baz=45,slow=36
FFC   Flin Flon        94.40  31 eP      P       11 55 39.6 -1.0
      comp=Z,10nm,1.1s,mb5.2
FFC   Flin Flon        94.40  31 eP      P       11 55 39.6 -1.0
FFC                               pmax   pmax
      comp=Z,10.0nm,1.1s,mb5.2
PDAR  Pinedale Array   94.95  44  P      P       11 55 43.0 -0.4
      comp=Z,0.3nm,0.6s,baz=292,slow=9.6,SNR=3.4
PDAR                              LR     LR      12 33 23.0
      comp=Z,90nm,20.7s,baz=167,slow=32
BRTR  Keskin Array B   95.53 313  P      P       11 55 44.9 -1.2
      comp=Z,1.9nm,0.8s,mb4.6,baz=59,slow=4.8,SNR=9.9
BRTR                              PP     PP      11 59 36.9  0.0
      comp=Z,4.0nm,1.2s,baz=97,slow=10,SNR=5.0
FCC   Fort Churchill   95.93  26 eP      P       11 55 46.2 -1.2
      comp=Z,4.3nm,0.8s,mb4.9
FCC   Fort Churchill   95.93  26 eP      P       11 55 46.2 -1.3
FCC                               pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.9
NB2   NORSAR Subarra   96.94 338  P      P       11 55 49.5 -2.5
      comp=Z,5.8nm,0.9s,mb5.0,baz=48,slow=4.4
NOA   NORSAR Array B   96.94 338  P      P       11 55 49.8 -2.2
      comp=Z,4.9nm,1.0s,mb4.9,baz=50,slow=4.9,SNR=7.3
NOA                               LR     LR      12 40 13.1
      comp=Z,138nm,20.8s,MS4.4,baz=85,slow=36
OJC   Ojcow            99.59 326 eP      Pdif    11 56 01.3 -2.7
BRG   Berggiesshubel  102.27 329 eP      Pdif    11 56 13.9 -2.0
BRG                               pmax   pmax
      comp=Z,5.0nm,1.3s
BRG   Berggiesshubel  102.27 329 eP      Pdif    11 56 13.9 -2.1
      comp=Z,8.5nm,1.3s
CLL   Collm           102.46 330 epPdif          11 56 25.0
CLL                              ex      x       11 56 33.0
CLL                              ePP     PP      12 00 31.0 +1.8
CLL                               LmV            12 45 00.0
      comp=Z,400nm,20.7s
GERES GERESS Array B  103.63 328  Pdif   Pdif    11 56 20.9 -1.1
GERES                             PKKPbc PKKPbc  12 12 21.1 +5.4
GERES GERESS Array B  103.63 328  Pdiff  Pdif    11 56 20.9 -1.1
      comp=Z,1.4nm,0.8s,baz=53,slow=5.3,SNR=7.1
GERES                             PKKPbc PKKPbc  12 12 21.1 +5.4
      comp=Z,0.2nm,0.3s,baz=249,slow=3.7,SNR=3.6
TXAR  Lajitas Array   104.56  55  PP     PP      12 00 48.6 +2.9
      comp=Z,0.3nm,0.8s,baz=290,slow=7.4,SNR=3.5
TXAR                              PKKPbc PKKPbc  12 12 15.1 +2.7
      comp=Z,0.4nm,0.9s,baz=187,slow=5.0,SNR=4.1
SYO   Syowa Base      105.89 201⇓ePKiKP  PKiKP   12 00 40.1 -3.8
SYO   Syowa Base      105.89 201⇓eX              12 00 50.4
TORD  Torodi Ar. Bea  132.84 301  PKP    PKPdf   12 01 35.6 -1.2
TORD  Torodi Ar. Bea  132.84 301  PKP    PKPdf   12 01 35.6 -1.3
      comp=Z,1.6nm,0.9s,baz=136,slow=2.6,SNR=6.3
LCO   Las Campanas    145.71 124 ePKPdf  PKPdf   12 02 00.3 +0.4
LCO                              e               12 02 08.1
LPAZ  La Paz          150.91 101 ePKPdf  PKPdf   12 02 09.6 +0.9
LPAZ                             ePKPbc  PKPbc   12 02 15.2 +0.9
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LPAZ				*e*PKPab	PKPab	12 02 22.1	+0.4
LPAZ	La Paz	150.91	101	*e*PKIKP	PKPdf	12 02 09.6	+0.9
LPAZ				*e*		12 02 15.3	
LPAZ				*e*		12 02 22.1	
LPAZ	La Paz	150.91	101	PKP	PKPdf	12 02 09.6	+0.9
	comp=Z,3.7nm,1.1s,baz=310,slow=4.2,SNR=6.5						
LPAZ				PKPbc	PKPbc	12 02 15.5	+1.1
	comp=Z,8.8nm,0.8s,baz=253,slow=3.1,SNR=22						
LPAZ				PKPab	PKPab	12 02 22.7	+1.0
	comp=Z,20nm,1.0s,baz=351,slow=8.0,SNR=17						

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*CSEM **19** 11:59:53.5±0.1, 3877N×4025E, h10^{km}, MD2.9, Error ellipse: s-maj=2.5km s-min=2.1km az=177.0*
*ISK **19** 11:59:53.8, 3879N×4025E, h11^{km}, MD2.9*
*ISCJB **19** 11:59:54.8±0.5, 3879N±003×4025E±004, h11^{km}, Error ellipse: s-maj=4.7km s-min=4.2km az=153.7*
*DDA **19** 11:59:54.2, 3877N×4024E, h6^{km}±7^{km}, Md2.8*
ISC 19 11:59:54.7±0.6, **3876N**±003×**4025E**±004, **h4**^{km}±5^{km}, **n18**, σ**1^{s}10**/29, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BINT	Bingol	0.22	59	*i* PG	Pg	11 59 58.5	-0.5
BINT				*i* SG	Sg	12 00 02.2	+0.3
BINT	Bingol	0.22	59	*i* Pg	Pg	11 59 58.5	-0.5
BINT				*i* Sg	Sg	12 00 02.2	+0.3
PTK	Pertek	0.68	281	PG	Pg	12 00 07.2	-0.6
PTK				SG	Sg	12 00 17.5	+0.8
PTK	Pertek	0.68	281	*e*Pg	Pg	12 00 07.2	-0.6
PTK				*e*Sg	Sg	12 00 17.5	+0.8
BNGL	BINGOL	0.73	75	*i* P	Pg	12 00 08.1	-0.6
BNGL				*i* S	Sg	12 00 19.9	+1.8
DIYA	Diyarbakir	0.84	187	*i* P	Pg	12 00 10.9	0.0
DIYA				*i* S	Sg	12 00 25.0	+3.1
DIY	Diyarbakir	0.87	181	PG	Pg	12 00 11.7	+0.3
DIY	Diyarbakir	0.87	181	*e*Pg	Pg	12 00 11.7	+0.3
ELZG	Elazig	1.03	255	*i* P	Pg	12 00 14.1	-0.3
ELZG				*i* S	Sg	12 00 35.9	+8.2
EZC	Erzincan	1.04	341	*e*PN	Pn	12 00 16.1	0.0
BTMT	Batman	1.13	120	*e*PG	Pg	12 00 14.1	-2.2
EZM	Erzurum	1.43	37	*e*PN	Pn	12 00 19.9	-1.5
ERZM	Erzurum	1.43	37	*i* P	Pn	12 00 20.9	-0.6
ERZM				*i* S	Sb	12 00 42.7	+2.2
MARD	Mardin	1.51	164	*i* P	Pn	12 00 21.8	-0.7
MARD				*i* S	Sn	12 00 42.9	+0.4
KELT	Kelkit	1.58	331	*i* P	Pn	12 00 22.6	-1.0
KELT				*i* S	Sn	12 00 46.2	+1.8
GUMT	Gumushane	1.80	341	*e*PN	Pn	12 00 25.5	-1.0
GUMT	Gumushane	1.80	341	*e*Pn	Pn	12 00 25.5	-1.0
GZT	Gaziantep	2.54	237	*i* P	Pn	12 00 36.9	+0.2
GZT				*i* S	Sn	12 01 15.5	+7.3

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*ISCJB **19** 12:18:07.0±1.5, 486N±01×1545E±02, h77^{km}±13^{km}, mb3.5/9, Error ellipse: s-maj=29.7km s-min=8.6km az=138.1*
*MOS **19** 12:18:07.6±1.0, 4863N×15443E, h87^{km}, mb3.8/4, Error ellipse: s-maj=31.9km s-min=15.5km az=62.3*
*IDC **19** 12:18:11.2±4.6, 4852N×15437E, h103^{km}±42^{km}, mb3.4/9, mb1 3.6/10, mb1mx3.4/22, mbtmp3.4/10, Error ellipse: s-maj=27.2km s-min=16.6km az=123.0*
ISC 19 12:18:08.6±1.4, **486N**±01×**1545E**±02, **h75**^{km}±12^{km}, **n19**, σ**0^{s}92**/20, **mb3.5**/9, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	2.29	26	*e*PN	Pn	12 18 43.3	-0.9
SKR				*e*S	Sn	12 19 10.5	-1.0
SKR				pmax	pmax		
	comp=N,70nm,0.5s						
SKR				pmax	pmax		
	comp=E,40nm,0.5s						
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=N,150nm,0.3s						
SKR				smax			
	comp=E,280nm,0.3s						
SKR				smax			
	comp=Z,110nm,0.5s						
PET	Petropavlovsk	5.11	29	*e*PN	Pn	12 19 24.4	+1.9
PET				*e*S	Sn	12 20 19.6	-0.5
PET				smax			
	comp=E,39nm,0.5s						
PET				smax			
	comp=N,72nm,0.5s						
YSS	Yuzh-Sakhalins	8.10	262	PN	Pn	12 20 04.0	+0.7
ASAJ	Asahikawa	9.40	246	PN	Pn	12 20 21.7	+0.7
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	9.40	246	P	Pn	12 20 21.6	+0.6
	comp=Z,1.1nm,0.3s,baz=80,slow=16,SNR=13						
KSRS	Korea Array	22.31	250	P	P	12 22 58.9	-0.8
	comp=Z,1.4nm,0.6s,mb3.5,baz=47,slow=11,SNR=7.7						
ZALV	Zalesovo Beam	42.30	305	PcP	PcP	12 27 46.7	0.0
	comp=Z,0.4nm,0.4s,baz=64,slow=3.4,SNR=3.9						
MKAR	Makanchi Array	46.93	296	P	P	12 26 31.2	-0.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	46.93	296	P	P	12 26 31.1	-0.2
	comp=Z,0.5nm,0.5s,mb3.5,baz=65,slow=8.3,SNR=8.3						
YKA	Yellowknife Ar	48.85	38	P	P	12 26 47.1	+1.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	48.85	38	P	P	12 26 47.1	+1.2
	comp=Z,0.6nm,0.8s,mb3.6,baz=297,slow=7.3,SNR=7.9						
FINES	FINESS Array B	62.73	335	P	P	12 28 24.7	-0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	FINESS Array B	62.73	335	P	P	12 28 24.7	-0.4
	comp=Z,1.0nm,0.7s,mb3.8,baz=46,slow=9.9,SNR=3.0						
PDAR	Pinedale Array	62.88	55	P	P	12 28 27.1	+0.7
	comp=Z,0.4nm,0.8s,mb3.4,baz=300,slow=2.9,SNR=3.6						
WRA	Warramunga Arr	70.61	200	P	P	12 29 14.1	-1.6
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	70.61	200	P	P	12 29 14.1	-1.6
	comp=Z,1.3nm,0.7s,mb3.8,baz=16,slow=6.3,SNR=18						
SCHQ	Schefferville	71.20	24	P	P	12 29 19.8	+0.9
	comp=Z,0.7nm,0.4s,mb3.8,baz=297,slow=9.0,SNR=6.7						
ASAR	Alice Springs	74.30	200	P	P	12 29 36.8	-0.8
	comp=Z,0.4nm,0.5s,mb3.4,baz=12,slow=5.4,SNR=10						
TXAR	Lajitas Array	75.75	62	P	P	12 29 46.4	+0.3
	comp=Z,0.1nm,0.5s,mb2.8,baz=293,slow=5.8,SNR=2.9						

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*NIED **19** 12:27:00, 4480N×14960E, h35^{km}, Mw3.8 Best double couple: $M_0$6.06000×10^{14} NP1:ϕ_s228.00000°, δ37.00000°, λ145.00000°. NP2:ϕ_s347.00000°, δ70.00000°, λ58.00000°.*
*IDC **19** 12:27:56.6±0.9, 4462N×14937E, h0^{km}, mb3.7/10, mb1 3.9/11, mb1mx3.8/21, mbtmp3.6/11, ML3.4/1, Error ellipse: s-maj=28.4km s-min=22.3km az=101.0*
*JMA **19** 12:27:58.8±0.7, 4478N×14964E, h30^{km}, M4.4*
*ISCJB **19** 12:28:00.0±1.1, 4439N±006×14954E±008, h43^{km}±10^{km}, mb3.6/10, Error ellipse: s-maj=11.7km s-min=8.7km az=144.8*
*MOS **19** 12:28:01.4±1.8, 4456N×14937E, h51^{km}, mb4.3/4, Error ellipse: s-maj=17.4km s-min=16.7km az=7.3*
ISC 19 12:28:01.5±1.1, **4448N**±007×**14956E**±008, **h35**^{km}±10^{km}, **n50**, σ**1^{s}20**/61, **mb3.6**/10, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	1.42	303	*i* PN	Pn	12 28 22.2	-2.6
KUR				*i* S	Sn	12 28 40.8	-1.4
KUR				pmax	pmax		
	comp=N,460nm,0.5s						
KUR				pmax	pmax		
	comp=E,420nm,0.5s						
KUR				pmax	pmax		
	comp=Z,610nm,0.5s						
KUR				smax			
	comp=N,910nm,0.5s						
KUR				smax			
	comp=E,650nm,0.5s						
YUK	Yuzh-Kuril'sk	2.69	262	*e*PN	Pn	12 28 41.9	-0.3
YUK				*e*S	Sn	12 29 13.8	+0.2
YUK				pmax	pmax		
	comp=Z,400nm,0.3s						
YUK				smax			
	comp=N,630nm,0.4s						
YUK				smax			
	comp=E,350nm,0.4s						
NEM2	Nemuro 2	2.97	249	P	Pn	12 28 45.1	-1.0
NEM2				*e*S	Sn	12 29 20.2	-0.3
JRA	Rausu	3.23	262	P	Pn	12 28 49.9	+0.2
JRA				*e*S	Sn	12 29 28.8	+1.9
JNK	Nakash	3.60	257	P	Pn	12 28 55.0	+0.3
JNK				*e*S	Sn	12 29 35.4	-0.6
JAK	Akkeshi	3.82	249	P	Pn	12 28 57.2	-0.5
JAK				*e*S	Sn	12 29 39.5	-1.9
JTKR	Abashiri--Toko	4.09	265	P	Pn	12 29 02.8	+1.3
JAR	Ashorobuto	4.35	256	P	Pn	12 29 05.9	+0.9
JAR				*e*S	Sn	12 29 56.0	+1.6
JOB	Onbets	4.44	251	P	Pn	12 29 06.7	+0.5
JOB				*e*S	Sn	12 29 58.5	+1.9
JMP	Maruseppu	4.48	266	P	Pn	12 29 08.5	+1.7
JCH	Churui	4.87	250	P	Pn	12 29 12.7	+0.5
JCH				*e*S	Sn	12 30 07.2	-0.1
JKK2	Kamakawa 2	4.94	265	P	Pn	12 29 15.9	+2.8
ASAJ	Asahikawa	5.01	268	P	Pn	12 29 17.8	+3.7
ASAJ	Asahikawa	5.01	268	PN	Pn	12 29 17.9	+3.8
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	5.01	268	Pn	Pn	12 29 17.9	+3.8
	comp=Z,1.7nm,0.3s,baz=76,slow=10,SNR=15						
JFR	Furan	5.21	258	P	Pn	12 29 19.0	+2.2
JEM	Erimo	5.28	244	P	Pn	12 29 19.2	+1.4
JNBK	Urakawa-nobuka	5.42	248	P	Pn	12 29 19.3	-0.5
JBT2	Biratori 2	5.49	254	P	Pn	12 29 21.1	+0.4
JBT2				*e*S	Sn	12 30 21.5	-1.0
JEW	Eniwo	6.10	257	P	Pn	12 29 30.7	+1.6
JNB	Noboribetsu	6.51	255	P	Pn	12 29 35.2	+0.5
JNB				*e*S	Sn	12 30 47.0	-0.8
JKB	Kayabe	6.75	250	P	Pn	12 29 37.7	-0.2
JKB				*e*S	Sn	12 30 49.2	-4.3
JYM2	Yakumo 2	7.11	254	P	Pn	12 29 43.1	+0.2
JANG	Nango	7.22	238	P	Pn	12 29 42.3	-2.2
JANG				*e*S	Sx	12 30 57.8	
JTM	Tenmabayashi	7.26	242	P	Pn	12 29 44.4	-0.6
JTM				*e*S	Sx	12 31 00.8	
JTH	Tanohata	7.29	234	P	Pn	12 29 43.0	-2.4
JTH				*e*S	Sx	12 30 59.5	
JSR	Shiriuchi	7.32	249	P	Pn	12 29 45.2	-0.6
JOSM	Okushiri--Mats	7.74	255	P	Pn	12 29 51.7	+0.2
OFUJ	Ofunato	7.99	230	P	Pn	12 29 53.4	-1.6
OFUJ				*e*S	Sx	12 31 15.2	
JRG	Rokugo	8.36	236	*e*S	Sn	12 31 26.9	-6.4
JIO	Ouri	8.61	228	P	Pn	12 30 02.2	-1.3
JIO				*e*S	Sx	12 31 29.6	
JFK	Kawauchi	9.67	226	*e*S	Sn	12 31 56.3	-9.1
MJAR	Matsushiro Arr	11.71	231	PN	Pn	12 30 44.5	-1.5
MJAR	Matsushiro Arr	11.71	231	Pn	Pn	12 30 44.5	-1.5
	comp=Z,0.2nm,0.3s,baz=26,slow=13,SNR=4.4						
SONM	Songino Array	29.80	292	P	P	12 34 04.7	-0.1
	comp=Z,0.4nm,0.7s,mb3.3,baz=83,slow=7.3,SNR=3.1						
ZALV	Zalesovo Beam	41.95	307	PcP	PcP	12 37 42.3	-1.0
	comp=Z,0.2nm,0.3s,baz=93,slow=3.2,SNR=2.7						
MKAR	Makanchi Array	45.78	298	P	P	12 36 18.7	-0.6
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	Makanchi Array	45.78	298	P	P	12 36 18.7	-0.6
	comp=Z,1.3nm,0.7s,mb4.0,baz=74,slow=8.3,SNR=13						
YKA	Yellowknife Ar	54.23	35	P	P	12 37 23.9	+0.7
	comp=Z,0.2nm,0.5s,mb3.3,baz=299,slow=7.0,SNR=4.2						
FINES	FINESS Array B	65.00	334	P	P	12 38 35.8	-1.6
FINES				pmax	pmax		
	comp=Z,2.0nm,1.0s						
FINES	FINESS Array B	65.00	334	P	P	12 38 35.8	-1.6
	comp=Z,1.9nm,1.0s,mb4.1,baz=29,slow=8.8,SNR=4.5						
WRA	Warramunga Arr	65.60	196	P	P	12 38 42.7	+1.1
	comp=Z,0.4nm,0.7s,mb3.5,baz=19,slow=6.9,SNR=4.1						
ASAR	Alice Springs	69.31	195	P	P	12 39 06.4	+1.4
	comp=Z,0.3nm,0.7s,mb3.3,baz=22,slow=6.5,SNR=4.7						
NB2	NORSAR Subarra	69.54	340	P	P	12 39 04.8	-1.3
	comp=Z,0.8nm,0.5s,mb3.9,baz=31,slow=6.5						
NOA	NORSAR Array B	69.54	340	P	P	12 39 04.9	-1.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
NOA	NORSAR Array B	69.54	340	P	P	12 39 04.8	-1.2
	comp=Z,0.9nm,0.4s,mb4.0,baz=30,slow=6.3,SNR=3.6						
AKASG	Malin Array Be	72.00	325	*i* P	P	12 39 20.3	-1.0
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	72.00	325	P	P	12 39 20.4	-0.9
	comp=Z,1.1nm,0.5s,mb4.0,baz=36,slow=6.2,SNR=6.6						
GERES	GERESS Array B	79.35	332	P	P	12 40 03.4	+0.1
	comp=Z,0.2nm,0.3s,mb3.6,baz=35,slow=5.1,SNR=4.5						
TXAR	Lajitas Array	80.80	58	P	P	12 40 12.8	+1.3
	comp=Z,0.1nm,0.5s,mb3.0,baz=302,slow=5.4,SNR=3.8						

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*NEIC **19** 12:58:53.4, 37.16S×17679E, h227^{km}, MG4.1(WEL), After WEL.*
WEL 19 12:58:53.2±0.3, **3721S**×**17679E**, **h231**^{km}±3^{km}, **ML4.0**/15, **Error ellipse: s-maj=3.6km s-min=3.4km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MARZ	Manawahe	0.78	187	P	Pn	12 59 25.5	+0.5
MARZ	Manawahe	0.78	187	PN	Pn	12 59 25.5	+0.5
KUZ	Kuaotunu	0.97	298	P	Pn	12 59 25.4	-0.7
KUZ	Kuaotunu	0.97	298	PN	Pn	12 59 25.4	-0.6
URZ	Urewera	1.08	167	P	Pn	12 59 26.4	-0.2
URZ	Urewera	1.08	167	PN	Pn	12 59 26.4	-0.3
URZ				SN	S	12 59 52.6	-0.4
PATZ	Paeroa	1.25	200	P	Pn	12 59 28.6	+0.9
PATZ	Paeroa	1.25	200	PN	Pn	12 59 28.6	+0.9
MXZ	Matakaoa Point	1.26	107	P	Pn	12 59 27.9	+0.1
MXZ	Matakaoa Point	1.26	107	PN	Pn	12 59 27.9	+0.1
MXZ				SN	S	12 59 55.0	+0.1
MWZ	Matawai	1.27	153	P	Pn	12 59 28.1	+0.2
MWZ				S	S	12 59 55.4	+0.2
MWZ	Matawai	1.27	153	PN	Pn	12 59 28.1	+0.2
MWZ				SN	S	12 59 55.2	0.0
PUZ	Puketiti	1.45	127	P	Pn	12 59 29.5	+0.3
PUZ	Puketiti	1.45	127	PN	Pn	12 59 29.5	+0.3
PUZ				SN	S	12 59 56.3	-1.3
KNZ	Kokohu	1.94	159	P	Pn	12 59 33.7	+0.3
KNZ	Kokohu	1.94	159	PN	Pn	12 59 33.7	+0.2
BKZ	Black Stump Fm	1.97	187	P	Pn	12 59 33.4	-0.3
BKZ	Black Stump Fm	1.97	187	PN	Pn	12 59 33.4	-0.3
BKZ				SN	S	13 00 04.8	-0.9
KRVZ	Karewarewa	2.09	205	*e*PN	Pn	12 59 35.0	+0.1
WTVZ	West Tongariro	2.13	206	P	Pn	12 59 35.6	+0.3
WTVZ	West Tongariro	2.13	206	*e*PN	Pn	12 59 35.3	+0.1
OTVZ	Oturere	2.15	204	*e*PN	Pn	12 59 35.7	+0.3
NGZ	Ngauruhoe	2.18	205	P	Pn	12 59 36.3	+0.6
NGZ	Ngauruhoe	2.18	205	PN	Pn	12 59 36.3	+0.5
WPVZ	Whakapapa	2.22	206	P	Pn	12 59 36.3	+0.1
WPVZ	Whakapapa	2.22	206	*e*PN	Pn	12 59 36.3	+0.1
TUVZ	Tukino	2.25	203	P	Pn	12 59 36.5	+0.1
TUVZ	Tukino	2.25	203	PN	Pn	12 59 36.5	+0.1
TRVZ	Turoa	2.31	205	PN	Pn	12 59 37.6	+0.5
WNVZ	Wahianoa	2.32	204	P	Pn	12 59 37.2	+0.1
WNVZ	Wahianoa	2.32	204	PN	Pn	12 59 37.2	0.0
MOVZ	Moawhango	2.34	200	P	Pn	12 59 37.0	-0.4
MOVZ	Moawhango	2.34	200	PN	Pn	12 59 37.0	-0.4
MTVZ	Mangateitei	2.41	205	PN	Pn	12 59 38.0	-0.1
VRZ	Vera Road	2.50	219	P	Pn	12 59 39.7	+0.7
VRZ	Vera Road	2.50	219	PN	Pn	12 59 39.7	+0.7
PXZ	Pawanui	2.82	179	PN	Pn	12 59 41.8	-0.7
WAZ	Wanganui	2.91	209	P	Pn	12 59 43.2	-0.3
WAZ	Wanganui	2.91	209	PN	Pn	12 59 43.2	-0.3
TSZ	Takapari Road	2.92	193	P	Pn	12 59 42.6	-1.0
TSZ	Takapari Road	2.92	193	PN	Pn	12 59 42.6	-1.0
BFZ	Birch Farm	3.50	187	P	Pn	12 59 48.6	-1.5
BFZ	Birch Farm	3.50	187	PN	Pn	12 59 48.6	-1.5
MRZ	Mangatainoka R	3.58	195	P	Pn	12 59 49.1	-1.9
MRZ	Mangatainoka R	3.58	195	PN	Pn	12 59 49.1	-1.9
TIWZ	Tintock	3.63	191	PN	Pn	12 59 50.3	-1.4
KIW	Kapiti Island	3.93	201	P	Pn	12 59 53.1	-2.2
KIW	Kapiti Island	3.93	201	PN	Pn	12 59 53.1	-2.2
MTW	Mount Morrison	4.07	194	P	Pn	12 59 54.5	-2.4
MTW	Mount Morrison	4.07	194	PN	Pn	12 59 54.5	-2.4
CAW	Cannon Point	4.12	198	P	Pn	12 59 55.2	-2.3
CAW	Cannon Point	4.12	198	PN	Pn	12 59 55.2	-2.3
DUWZ	D'Urville Isla	4.23	211	PN	Pn	12 59 56.5	-2.3
TRWZ	Traveller	4.27	191	PN	Pn	12 59 57.9	-1.4
PAWZ	Paruwai Farm	4.30	194	P	Pn	12 59 57.4	-2.3
PAWZ	Paruwai Farm	4.30	194	*e*PN	Pn	12 59 57.1	-2.6
MRW	Makara Radio	4.33	201	P	Pn	12 59 57.6	-2.5
MRW	Makara Radio	4.33	201	PN	Pn	12 59 57.6	-2.4
WEL	Wellington	4.37	200	P	Pn	12 59 58.1	-2.4
WEL	Wellington	4.37	200	PN	Pn	12 59 58.1	-2.3
MSWZ	Moikau Station	4.37	195	P	Pn	12 59 57.8	-2.7
MSWZ	Moikau Station	4.37	195	PN	Pn	12 59 57.8	-2.7
SNZO	South Karori	4.41	201	P	Pn	12 59 58.2	-2.8
SNZO	South Karori	4.41	201	PN	Pn	12 59 58.2	-2.8
BHW	Baring Head	4.45	199	P	Pn	12 59 59.0	-2.5
BHW	Baring Head	4.45	199	PN	Pn	12 59 59.0	-2.6
TCW	Tory Channel	4.45	205	P	Pn	12 59 59.0	-2.5
TCW	Tory Channel	4.45	205	PN	Pn	12 59 59.0	-2.5
TUWZ	Tuamarina	4.76	207	PN	Pn	13 00 02.5	-2.8
NNZ	Nelson	4.80	212	P	Pn	13 00 03.1	-2.7
NNZ	Nelson	4.80	212	PN	Pn	13 00 03.1	-2.7
QRZ	Quartz Range	4.91	221	*e*P	Pn	13 00 03.8	-3.4
QRZ	Quartz Range	4.91	221	PN	Pn	13 00 03.8	-3.3
BSWZ	Blackbirch Sta	5.04	206	P	Pn	13 00 06.5	-2.2
BSWZ	Blackbirch Sta	5.04	206	PN	Pn	13 00 06.5	-2.3
THZ	Tophouse	5.45	212	*e*P	Pn	13 00 10.8	-3.2
THZ	Tophouse	5.45	212	PN	Pn	13 00 10.8	-3.2
KHZ	Kahutara	5.77	205	P	Pn	13 00 15.2	-2.8
KHZ	Kahutara	5.77	205	PN	Pn	13 00 15.2	-2.8
DSZ	Denniston Nort	5.95	219	*e*P	Pn	13 00 16.5	-3.7
DSZ	Denniston Nort	5.95	219	*e*PN	Pn	13 00 15.8	-4.4
LTZ	Lake Taylor	6.56	211	*e*P	Pn	13 00 24.3	-3.6
CRLZ	Canterbury Las	7.11	205	*e*P	Pn	13 00 31.6	-3.4
CRLZ	Canterbury Las	7.11	205	*e*PN	Pn	13 00 30.7	-4.2
MQZ	McQueen's Vall	7.22	205	*e*P	Pn	13 00 32.4	-3.9
MQZ	McQueen's Vall	7.22	205	PN	Pn	13 00 32.4	-3.9

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*CASC **19** 13:20:25.5±2.2, 1035N×8642W, h0^{km}±9^{km}, MD4.1, mb4.2(NEIC)*
*ISCJB **19** 13:20:31.3±1.0, 1057N±009×861W±01, h67^{km}±7^{km}, mb4.0/13, Error ellipse: s-maj=22.9km s-min=5.6km az=140.3*
*NEIC **19** 13:20:31.9±1.4, 1070N×8589W, h52^{km}±12^{km}, mb4.2/4, Error ellipse: s-maj=24.7km s-min=10.2km az=52.0*
*IDC **19** 13:20:32.2±2.0, 1082N×8579W, h49^{km}±19^{km}, mb3.7/9, mb1 3.9/9, mb1mx3.7/18, mbtmp3.7/9, MS3.4/3, Ms1 3.4/3, ms1mx2.9/30, Error ellipse: s-maj=39.2km s-min=17.1km az=51.0*
ISC 19 13:20:32.5±1.0, **1061N**±009×**861W**±01, **h60**^{km}±7^{km}, **n56**, σ**1^{s}20**/47, **mb4.1**/13, **9C-2D**, **Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SSNN	San Juan del S	0.71	17	⇑*e*P	Pn	13 20 46.8	-0.1
2RIO	Dos Rios de Up	0.82	95	*i* P	Pn	13 20 46.8	-1.4
MADN	Villa Maderas	0.95	33	⇑*e*P	Pn	13 20 51.2	+1.3
CONN	Concepcion	1.04	24	⇑*e*P	Pn	13 20 52.0	+0.9
JTS	JuntasAbangare	1.14	106	*e*Pn	Pn	13 20 49.7	-2.6
JTS				S	Sn	13 21 06.6	-0.5
JTS	JuntasAbangare	1.14	106	P	Pn	13 20 49.9	-2.5
	20nm,0.3s,baz=278,slow=7.3,SNR=89						
JTS				S	Sn	13 21 06.6	-0.5
	55nm,0.3s,baz=322,slow=19,SNR=8.9						
JCR	Jicaral	1.20	129	*e*P	Pn	13 20 50.1	-3.0
APON	Apoyo	1.30	360	⇓*e*P	Pn	13 20 56.0	+1.4
TICN	Ticuantepe	1.43	353	⇑*e*P	Pn	13 20 56.2	-0.1
TISN	Laguna Tiscapa	1.54	352	⇑*e*P	Pn	13 20 57.6	-0.1
XAVN	Gruta Xavier	1.56	350	⇓*e*P	Pn	13 20 57.9	-0.1
COPN	Copaltepe	1.65	342	⇑*e*P	Pn	13 20 58.2	-0.9
CGA2	Cerro Gallo 2	1.68	110	*e*P	Pn	13 21 00.5	+0.9
HUEN		1.73	356	⇑*e*P	Pn	13 21 00.1	-0.1
PRS1	Puriscal	1.83	110	*e*P	Pn	13 21 00.8	-0.9
MOMJ	Momotombo	1.85	345	*e*P	Pn	13 21 03.5	+1.5
BOAB	BOACO BROADBAN	1.87	12	⇑*i*P	Pn	13 21 01.9	-0.3
BOAB				*e*S	Sn	13 21 30.7	+5.9
CNGN	Cerro Negro	1.98	342	⇑*e*P	Pn	13 21 01.6	-2.1
CNGN				*e*S	Sn	13 21 32.4	+4.9
LAJ	Bijagual	2.05	111	*e*P	Pn	13 20 58.4	-6.2
LCR2	La Lucha 2	2.20	113	*e*P	Pn	13 21 07.6	+0.9
QCR	Quepos	2.21	122	*e*P	Pn	13 21 07.6	+0.8
ICR	Volcan Irazu	2.28	106	*e*P	Pn	13 21 10.5	+2.7
URSC	Urasca	2.38	109	*e*P	Pn	13 21 10.1	+1.0
BAR1		3.03	116	*e*P	Pn	13 21 18.5	+0.5
TGUH	Tegucigalpa,Un	3.63	341	*e*Pn	Pn	13 21 24.9	-1.3
SNVI	San Vicente	4.04	318	*e*P	x	13 21 28.6	
LCBS	La Ceiba	4.16	317	*e*P	x	13 21 30.2	
SBLS	San Blas	4.74	313	*e*P	x	13 21 39.0	
TEIG	Tepich	9.80	348	LR	LR	13 27 07.0	
	comp=Z,309nm,18.2s,baz=262,slow=41						
ATAH	Atahualpa	19.08	156	LR	LR	13 31 54.2	
	comp=Z,124nm,18.8s,baz=193,slow=35						
JSC	Jenkinsville	23.97	10	*e*P	P	13 25 42.6	+1.3
SWET	Sewanee	24.50	0	P	P	13 25 43.6	-2.5
MIAR	Mount Ida	24.80	345	*e*P	P	13 25 48.9	0.0
	5.7nm,0.8s,mb4.2						
LTX	Lajitas	24.85	321	*e*P	P	13 25 49.5	0.0
	6.1nm,0.8s,mb4.2						
TXAR	Lajitas Array	24.85	321	P	P	13 25 49.4	0.0
TXAR				PcP	PcP	13 29 24.9	+0.6
TXAR	Lajitas Array	24.85	321	P	P	13 25 49.4	0.0
	3.2nm,0.7s,mb4.0,baz=138,slow=10,SNR=30						
TXAR				PcP	PcP	13 29 24.9	+0.6
	0.9nm,0.8s,baz=135,slow=3.4,SNR=7.7						
TKL	Tuckaleechee C	25.03	4	P	P	13 25 51.2	+0.3
TKL				LR	LR	13 37 59.2	
TKL	Tuckaleechee C	25.03	4	P	P	13 25 51.2	+0.3
	6.8nm,0.9s,mb4.2,baz=191,slow=9.7,SNR=4.4						
TKL				LR	LR	13 37 59.2	
	comp=Z,62nm,19.5s,baz=86,slow=42						
WMOK	Wichita Mounta	26.68	336	*e*P	P	13 26 07.5	+1.7
	7.5nm,0.9s,mb4.2						
ANMO	Albuquerque	30.54	326	P	P	13 26 42.1	+1.9
	0.8nm,0.6s,mb3.7,baz=106,slow=3.6,SNR=3.6						
SIV	San Ignacio	36.20	137	P	P	13 27 29.8	+0.2
	0.8nm,0.8s,mb3.7,baz=307,slow=10,SNR=4.5						
PDAR	Pinedale Array	38.03	332	P	P	13 27 44.5	-0.4
	0.6nm,0.8s,mb3.4,baz=132,slow=8.8,SNR=5.3						
PDAR				PcP	PcP	13 30 00.1	+0.9
	0.3nm,0.6s,baz=137,slow=3.9,SNR=3.6						
NVAR	Mina Array Bea	39.98	319	P	P	13 28 03.0	+1.8
	1.9nm,0.8s,mb3.9,baz=168,slow=6.2,SNR=11						
NVAR				PcP	PcP	13 30 08.3	+2.8
	1.8nm,0.7s,baz=126,slow=4.7,SNR=11						
ULM	Lac du Bonnet	40.35	350	PcP	PcP	13 30 07.5	+1.1
	1.2nm,0.6s,baz=210,slow=9.6,SNR=3.5						
SCHQ	Schefferville	46.67	15	*e*P	P	13 28 53.5	-1.3
	5.3nm,0.8s,mb4.5						
SCHQ				PcP	PcP	13 30 27.0	-0.7
SCHQ	Schefferville	46.67	15	P	P	13 28 53.5	-1.3
	3.3nm,0.7s,mb4.4,baz=214,slow=4.7,SNR=9.5						
SCHQ				PcP	PcP	13 30 27.0	-0.7
	0.7nm,0.6s,baz=256,slow=8.3,SNR=3.1						
YKA	Yellowknife Ar	55.74	344	P	P	13 30 01.2	-1.4
	0.4nm,0.7s,mb3.5,baz=138,slow=7.3,SNR=11						
YKA				PcP	PcP	13 31 02.0	+0.8
	0.5nm,0.6s,baz=140,slow=4.1,SNR=14						
RES	Resolute Bay	64.25	357	*e*P	P	13 30 59.6	-1.3
	41nm,0.7s,mb5.6						
TORD	Torodi Ar. Bea	85.48	78	P	P	13 33 03.6	-0.9
	1.2nm,1.1s,mb3.9,baz=316,slow=6.0,SNR=3.2						
SONM	Songino Array	120.78	350	PKP	PKPdf	13 39 18.9	+1.0
SONM	Songino Array	120.78	350	PKP	PKPdf	13 39 18.9	+1.0
	0.2nm,0.5s,baz=324,slow=2.1,SNR=2.1						
KSRS	Korea Array	122.55	328	PKP	PKPdf	13 39 22.9	+1.2
	1.5nm,0.8s,baz=30,slow=2.3,SNR=7.1						
ASAR	Alice Springs	139.81	246	PKP	PKPdf	13 39 55.1	+0.6
ASAR	Alice Springs	139.81	246	PKP	PKPdf	13 39 55.1	+0.6
	0.4nm,0.7s,baz=104,slow=2.1,SNR=5.9						
WRA	Warramunga Arr	140.03	252	PKP	PKPdf	13 39 55.8	+0.8
WRA	Warramunga Arr	140.03	252	PKP	PKPdf	13 39 55.8	+0.8
	0.5nm,0.6s,baz=86,slow=0.9,SNR=5.6						

IDC 19 13:23:02.1±7.2, **736N**×**7317W**, **h160**^{km}±40^{km}, **mb3.2**/1, **mb1 3.3**/2, **mb1mx2.9**/18, **mbtmp3.1**/2, **Error ellipse: s-maj=195.3km s-min=32.1km az=95.0, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	El Rosal	2.75	205	P	Pn	13 23 47.1	+0.3
	5.6nm,0.3s,baz=59,slow=21,SNR=9.5						
ROSC				S	Sn	13 24 22.7	+1.3
	4.2nm,0.3s,baz=90,slow=20,SNR=5.4						
YKA	Yellowknife Ar	62.74	340	P	P	13 33 10.0	+0.1
	0.4nm,0.5s,baz=132,slow=6.7,SNR=9.9						
ASAR	Alice Springs	149.39	235	PKPbc	PKPbc	13 42 32.9	-0.2
	0.2nm,0.8s,baz=116,slow=5.3,SNR=3.2						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	150.55	242	PKPbc	PKPbc	13 42 35.6	-0.4
	0.2nm,0.4s,baz=106,slow=2.7,SNR=11						

CSEM ***19*** *13:51:04.6±0.1, 59.77N×29.26W, h2^{km}, mb4.3/12, Ms3.2, Error ellipse: s-maj=4.6km s-min=1.9km az=85.0*

ISCJB ***19*** *13:51:05.1±2.0, 59.79N±0.04×29.46W±0.09, h8^{km}±13^{km}, mb4.0/25, MS3.2/13, Error ellipse: s-maj=7.6km s-min=6.2km az=1.7*

NEIC ***19*** *13:51:06.8±0.3, 59.52N×29.65W, h10^{km}, mb4.4/14, Error ellipse: s-maj=10.9km s-min=5.2km az=208.0*

IDC ***19*** *13:51:06.7±0.8, 59.84N×29.85W, h0^{km}, mb3.7/13, mb1 3.9/14, mb1mx3.8/25, mbtmp3.8/14, ML4.5/1, MS3.4/11, Ms1 3.4/11, ms1mx3.2/36, Error ellipse: s-maj=25.9km s-min=14.3km az=6.0*

REY ***19*** *13:51:11.9, 59.42N×26.73W, h10^{km}, ML3.3, ML4.0*

ISC 19 13:51:06.5±2.3, **59.73N**±0.04×**29.41W**±0.09, **h5**^{km}±15^{km}, **n92**, σ**1$\overset{s}{.}$08**/88, **mb4.0**/25, **MS3.3**/12, **Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGRV	Grindav??k	5.29	36	P	Pn	13 52 26.1	+0.1
IVOG	Vogar	5.39	35	P	Pn	13 52 28.9	+1.5
IVOG				S	Sn	13 53 28.1	-1.6
IVOS	Vogsosar	5.51	38	P	Pn	13 52 28.6	-0.5
IKAS	Kald??rsel	5.59	36	P	Pn	13 52 30.2	+0.1
IKAS				S	Sn	13 53 34.9	+0.3
IBJA	Bjarnastaoir	5.71	39	P	Pn	13 52 31.4	-0.3
IKUD	Kuludalsa	5.81	34	P	Pn	13 52 33.7	+0.6
ISOL	Solvholt	5.81	40	P	Pn	13 52 32.3	-0.8
ISOL				S	Sn	13 53 37.8	-2.2
IASM	Asmuli	5.86	42	P	Pn	13 52 33.1	-0.7
IKRO	Krokur	5.87	38	P	Pn	13 52 33.3	-0.7
IHEI	Heioarbar	5.91	37	P	Pn	13 52 34.2	-0.3
ISAU	Saurbar	6.02	41	P	Pn	13 52 35.6	-0.5
ISAU				S	Sn	13 53 38.8	-6.5
IGYG	Gygjarholskot	6.28	40	P	Pn	13 52 38.7	-1.0
BORG	Borgarnes	6.29	33	ePn	Pn	13 52 41.3	+1.7
BORG	Borgarnes	6.29	33	Pn	Pn	13 52 40.6	+1.0
	12nm,0.3s,baz=200,slow=5.9,SNR=30						
BORG	Borgarnes	6.29	33	ePn	Pn	13 52 41.3	+1.6
IASB	`sbjarnarst	6.29	33	P	Pn	13 52 40.4	+0.7
SFJD	Kangerlussuaq	11.93	317	Pn	Pn	13 53 57.6	+0.7
SFJD	Kangerlussuaq	11.93	317	Pn	Pn	13 53 57.6	+0.7
	0.3nm,0.3s,baz=89,slow=5.8,SNR=3.7						
SFJD				LR	LR	13 57 37.8	
	comp=Z,375nm,19.5s,baz=116,slow=33						
SFJD	Kangerlussuaq	11.93	317	Pn	Pn	13 53 57.6	+0.7
EKA	Eskdalemuir Ar	14.72	96	Pn	Pn	13 54 43.8	+8.8
EKA	Eskdalemuir Ar	14.72	96	Pn	Pn	13 54 43.8	+8.8
	0.3nm,0.3s,baz=303,slow=9.0,SNR=13						
EKA	Eskdalemuir Ar	14.72	96	Pn	Pn	13 54 43.8	+8.8
ROSF	Rostrenen	18.98	115	eP	Pn	13 55 28.0	-1.0
	136nm,1.4s						
ROSF	Rostrenen	18.98	115	eP	Pn	13 55 28.0	-1.0
	68nm,1.4s						
QUIF	Quistinic	19.33	116	eP	Pn	13 55 32.1	-1.2
NOA	NORSAR Array B	19.89	69	P	Pn	13 55 44.1	+4.2
	0.7nm,0.7s,baz=285,slow=10.0,SNR=3.4						
NOA				LR	LR	14 02 33.0	
	comp=Z,63nm,19.5s,baz=270,slow=34						
FLN	La Foliniere	19.98	110	eP	Pn	13 55 39.7	-1.3
FLN				eMLR	MLR		
	comp=Z,144nm,21.5s						
FLN	La Foliniere	19.98	110	eP	Pn	13 55 39.7	-1.3
FLN				LR	LR		
	comp=Z,140nm,21.5s						
GRR	Gorron	20.06	112	eP	P	13 55 40.4	+0.2
	comp=Z,54nm,1.0s						
GRR	Gorron	20.06	112	eP	P	13 55 40.4	+0.2
	comp=Z,27nm,1.0s						
LDF	La Druitiere	20.26	110	eP	P	13 55 44.9	+2.5
SCHQ	Schefferville	20.61	273	P	P	13 55 44.8	-1.4
	comp=Z,2.2nm,0.6s,baz=43,slow=8.1,SNR=6.2						
SCHQ				LR	LR	14 02 13.2	
	comp=Z,74nm,19.1s,MS3.1,baz=85,slow=33						
HFS	Hagfors	21.32	70	P	P	13 55 56.0	+2.2
	comp=Z,3.5nm,0.9s,mb3.7,baz=238,slow=8.5,SNR=4.2						
HFS				LR	LR	14 03 26.1	
	comp=Z,71nm,19.9s,MS3.1,baz=68,slow=34						
BAIF	Baives	21.39	102	eP	P	13 55 54.9	+0.3
	comp=Z,18nm,0.8s,mb4.2						
BAIF	Baives	21.39	102	eP	P	13 55 54.9	+0.3
	comp=Z,9.1nm,0.8s,mb4.2						
GIVF	Givet	21.67	101	eP	P	13 55 57.9	+0.3
MFF	Saint Martin d	21.69	114	eP	P	13 55 58.0	+0.1
TCF	Toulx Ste Croi	23.02	112	eP	P	13 56 11.4	-0.6
	comp=Z,28nm,1.1s,mb4.3						
TCF	Toulx Ste Croi	23.02	112	eP	P	13 56 11.4	-0.6
	comp=Z,14nm,1.1s,mb4.3						
SSF	Saint Saulge	23.08	109	eP	P	13 56 11.9	-0.7
	comp=Z,17nm,1.0s,mb4.1						
SSF	Saint Saulge	23.08	109	eP	P	13 56 11.9	-0.7
	comp=Z,8.5nm,1.0s,mb4.1						
LOR	Lormes	23.10	108	eP	P	13 56 11.1	-1.8
	comp=Z,16nm,1.0s,mb4.1						
LOR				eMLR	MLR		
	comp=Z,160nm,19.8s,MS3.2						
LOR	Lormes	23.10	108	eP	P	13 56 11.1	-1.8
	comp=Z,7.9nm,1.0s,mb4.1						
LOR				LR	LR		
	comp=Z,160nm,19.8s,MS3.5						
BGF	Bois d'Agland	23.12	110	eP	P	13 56 12.8	-0.3
	comp=Z,42nm,1.0s,mb4.5						
BGF	Bois d'Agland	23.12	110	eP	P	13 56 12.8	-0.3
	comp=Z,21nm,1.0s,mb4.5						
AVF	Avril sur Loir	23.20	109	eP	P	13 56 13.3	-0.6
	comp=Z,10nm,0.8s,mb4.0						
AVF	Avril sur Loir	23.20	109	eP	P	13 56 13.3	-0.6
	comp=Z,5.2nm,0.8s,mb4.0						
RJF	Les Rejaudoux	23.43	114	eP	P	13 56 15.3	-1.0
RJF				eMLR	MLR		
	comp=Z,171nm,19.8s,MS3.2						
RJF	Les Rejaudoux	23.43	114	eP	P	13 56 15.3	-1.0
RJF				LR	LR		
	comp=Z,170nm,19.8s,MS3.5						
SMF	Signal de Mont	23.54	109	eP	P	13 56 16.2	-1.2
	comp=Z,24nm,1.0s,mb4.3						
SMF	Signal de Mont	23.54	109	eP	P	13 56 16.2	-1.2
	comp=Z,12nm,1.0s,mb4.3						
SJPF	Ste Jean	23.92	121	eP	P	13 56 20.2	-0.8
ETSF	Etsaut	24.38	121	eP	P	13 56 24.7	-0.5
	comp=Z,20nm,1.3s,mb4.1						
ETSF	Etsaut	24.38	121	eP	P	13 56 24.7	-0.5
	comp=Z,9.8nm,1.3s,mb4.1						
EPF	Esparros	24.67	119	eP	P	13 56 27.5	-0.3
LASF	Ste Croix	25.45	113	eP	P	13 56 34.8	-0.1
	comp=Z,28nm,1.2s,mb4.3						
LASF	Ste Croix	25.45	113	eP	P	13 56 34.8	-0.1
	comp=Z,14nm,1.2s,mb4.3						
ESDC	Sonseca Array	25.67	130	P	P	13 56 42.0	+5.0
	comp=Z,1.4nm,0.6s,mb3.6,baz=327,slow=9.8,SNR=7.1						
ESDC				LR	LR	14 06 00.5	
	comp=Z,62nm,18.2s,MS3.2,baz=125,slow=34						
LPL	La Plagne	25.74	107	eP	P	13 56 37.9	+0.3
LPG	La Plagne	25.77	107	eP	P	13 56 38.1	+0.3
ORIF	Oris-en-Rattie	25.77	109	eP	P	13 56 38.1	+0.3
ORIF				eMLR	MLR		
	comp=Z,137nm,22.0s,MS3.1						
MBDF	Montbardon	26.34	109	eP	P	13 56 43.6	+0.6
	comp=Z,3.2nm,0.6s,mb3.7						
MBDF	Montbardon	26.34	109	eP	P	13 56 43.6	+0.6
	comp=Z,1.6nm,0.6s,mb3.7						
DAVOX	Davos/Dischmat	26.39	102	LR	LR	14 05 29.3	
	comp=Z,106nm,21.2s,MS3.4,baz=262,slow=32						
FINES	FINESS Array B	26.61	62	P	P	13 56 46.8	+1.5
	comp=Z,0.9nm,0.6s,mb3.5,baz=260,slow=21,SNR=4.9						
FINES				LR	LR	14 06 27.0	
	comp=Z,44nm,18.8s,MS3.0,baz=339,slow=34						
GERES	GERESS Array B	26.93	95	LR	LR	14 07 44.2	
	comp=Z,126nm,19.4s,MS3.5,baz=59,slow=37						
LMR	La Mourre	27.26	111	eP	P	13 56 52.0	+0.7
SBF	Sospel	27.30	109	eP	P	13 56 52.4	+0.7
RES	Resolute Bay	27.50	328	eP	P	13 56 54.2	+1.1
	comp=Z,39nm,0.6s,mb5.1						
RES	Resolute Bay	27.50	328	eP	P	13 56 54.2	+1.1
	comp=Z,39nm,0.6s,mb5.1						
VRAC	Vranov	28.09	91	LR	LR	14 07 30.7	
	comp=Z,117nm,19.1s,MS3.5,baz=306,slow=35						
PGF	Pioggiola	29.05	109	eP	P	13 57 07.9	+0.7
	comp=Z,26nm,1.2s,mb4.5						
PGF	Pioggiola	29.05	109	eP	P	13 57 07.9	+0.7
	comp=Z,13nm,1.2s,mb4.5						
AKASG	Malin Array Be	33.58	79	P	P	13 57 48.6	+1.5
	comp=Z,0.2nm,0.3s,mb3.5,baz=302,slow=8.5,SNR=5.3						
KEST	Kesra	34.64	116	LR	LR	14 10 18.2	
	comp=Z,46nm,21.9s,MS3.2,baz=232,slow=33						
YKA	Yellowknife Ar	38.44	312	P	P	13 58 27.1	-1.4
YKA				PcP	PcP	14 00 42.4	+1.0
YKA	Yellowknife Ar	38.44	312	P	P	13 58 27.0	-1.4
	comp=Z,1.4nm,0.8s,mb3.8,baz=54,slow=9.0,SNR=18						
YKA				PcP	PcP	14 00 42.3	+0.9
	comp=Z,0.1nm,0.6s,baz=82,slow=2.6,SNR=3.7						
YKA				LR	LR	14 13 29.4	
	comp=Z,62nm,18.3s,MS3.5,baz=125,slow=35						
YKA	Yellowknife Ar	38.44	312	P	P	13 58 27.0	-1.5
YKA	Yellowknife Ar	38.44	312	PcP	PcP	14 00 42.3	+0.9
ARU	Arti	43.37	54	eP	P	13 59 10.8	+1.6
	comp=Z,6.4nm,1.0s,mb4.3						
ARU	Arti	43.37	54	eP	P	13 59 10.8	+1.6
	comp=Z,6.4nm,1.0s,mb4.3						
BRTR	Keskin Array B	43.45	88	P	P	13 59 13.1	+3.0
	comp=Z,1.8nm,0.8s,mb3.9,baz=328,slow=4.5,SNR=8.6						
PDAR	Pinedale Array	49.68	288	P	P	13 59 57.6	-1.2
	comp=Z,0.6nm,0.7s,mb3.7,baz=53,slow=4.7,SNR=5.3						
TORD	Torodi Ar. Bea	51.87	140	P	P	14 00 16.7	+1.1
	comp=Z,0.8nm,0.7s,mb3.7,baz=347,slow=8.3,SNR=4.9						
NVAR	Mina Array Bea	57.23	291	P	P	14 00 53.8	-0.6
	comp=Z,0.3nm,0.5s,mb3.5,baz=209,slow=12,SNR=3.7						
TXAR	Lajitas Array	57.30	273	P	P	14 00 54.3	-0.6
TXAR	Lajitas Array	57.30	273	P	P	14 00 54.3	-0.6
	comp=Z,0.4nm,0.9s,mb3.4,baz=60,slow=4.6,SNR=2.6						
MKAR	Makanchi Array	60.15	47	P	P	14 01 16.9	+2.5
	comp=Z,0.7nm,0.9s,mb3.7,baz=350,slow=6.2,SNR=7.3						
SONM	Songino Array	66.89	31	P	P	14 02 01.6	+2.6
	comp=Z,0.1nm,0.6s,mb3.1,baz=331,slow=5.5,SNR=2.3						
ASAR	Alice Springs	142.09	25	PKP	PKPdf	14 10 35.4	-3.9
ASAR	Alice Springs	142.09	25	PKhKP		14 10 35.4	
	comp=Z,0.3nm,0.9s,baz=341,slow=2.4,SNR=3.3						
ASAR	Alice Springs	142.09	25	PKIKP	PKPdf	14 10 35.4	-3.8

ISCJB ***19*** *13:53:35.0±0.6, 38.33N±0.03×22.01E±0.05, h22^{km}±7^{km}, Error ellipse: s-maj=6.1km s-min=4.9km az=172.6*

NEIC ***19*** *13:53:34.7, 38.29N×22.06E, h20^{km}, MD3.0(ATH), After ATH.*

ATH ***19*** *13:53:34.7, 38.29N×22.06E, h20^{km}±2^{km}, MD3.0/4*

THE ***19*** *13:53:34.7, 38.32N×22.08E, h3^{km}*

CSEM ***19*** *13:53:35.3±0.1, 38.31N×22.07E, h12^{km}, MD3.0, Error ellipse: s-maj=2.1km s-min=2.0km az=52.0*

ISC 19 13:53:34.9±0.5, **38.31N**±0.03×**22.08E**±0.04, **h16**^{km}±5^{km}, **n30**, σ**0$\overset{s}{.}$98**/49, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RLS	Riolos of Patr	0.54	243	ePn	Pg	13 53 45.3	-0.3
RLS				eSn	Sg	13 53 53.4	+0.5
RLS	Riolos of Patr	0.54	243	ePN	Pg	13 53 45.3	-0.3
RLS				eSN	Sg	13 53 53.4	+0.5
RLS	Riolos of Patr	0.54	243	ePn	Pg	13 53 45.3	-0.3
RLS				eSn	Sg	13 53 53.4	+0.5
EVR	Evrytania	0.64	341	ePb	Pb	13 53 47.0	-0.8
EVR				eSn	Sg	13 53 56.8	+0.8
EVR	Evrytania	0.64	341	ePB	Pb	13 53 47.0	-0.8
EVR				eSN	Sg	13 53 56.8	+0.8
EVR	Evrytania	0.64	341	ePb	Pb	13 53 47.0	-0.8
EVR				eSn	Sg	13 53 56.8	+0.8
AGG	Agios Georgios	0.74	16	ePg	Pg	13 53 48.2	-1.2
AGG				eSg	Sg	13 53 59.4	+0.3
AGG	Agios Georgios	0.74	16	ePg	Pg	13 53 48.2	-1.1
AGG				eSg	Sg	13 53 59.4	+0.3
LTK	Loutraki	0.76	112	ePg	Pg	13 53 49.2	-0.5
LTK				eSg	Sg	13 54 00.1	+0.4
LTK	Loutraki	0.76	112	ePg	Pg	13 53 49.2	-0.5
LTK				eSg	Sg	13 54 00.1	+0.4
LKR	Lokris	0.80	65	ePn	Pn	13 53 50.7	-0.9
LKR				eSn	Sn	13 54 01.9	-1.3
LKR	Lokris	0.80	65	ePN	Pn	13 53 50.7	-0.9
LKR				eSN	Sn	13 54 01.9	-1.3
LKR	Lokris	0.80	65	ePn	Pn	13 53 50.7	-0.9
LKR				eSn	Sn	13 54 01.9	-1.3
VLX	Vlachokerasia	0.97	166	ePg	Pg	13 53 52.5	-1.2
VLX				eSg	Sg	13 54 07.6	+1.2
VLX	Vlachokerasia	0.97	166	ePg	Pg	13 53 52.5	-1.2
VLX				eSg	Sg	13 54 07.6	+1.3
ITM	Ithomi	1.14	186	ePn	Pn	13 53 55.7	-0.5
ITM	Ithomi	1.14	186	ePN	Pn	13 53 55.7	-0.5
ITM	Ithomi	1.14	186	ePn	Pn	13 53 55.7	-0.5
VLS	Valsamata	1.18	264	ePb	Pb	13 53 56.2	-0.7
VLS	Valsamata	1.18	264	ePB	Pb	13 53 56.2	-0.7
VLS	Valsamata	1.18	264	ePb	Pb	13 53 56.2	-0.7
DID	Didima	1.22	131	ePg	Pg	13 53 58.4	0.0
DID				eSg	Sg	13 54 15.4	+1.1
DID	Didima	1.22	131	ePg	Pg	13 53 58.4	0.0
DID				eSg	Sg	13 54 15.4	+1.1
THL	Klokotos Trika	1.25	358	ePN	Pn	13 53 58.7	+0.9
THL				eSN	Sn	13 54 16.8	+2.4
THL	Klokotos Trika	1.25	358	ePn	Pn	13 53 58.7	+0.9
THL				eSn	Sn	13 54 16.8	+2.4
PYL	PYLOS	1.44	191	ePg	Pg	13 54 01.5	-1.1
PYL	PYLOS	1.44	191	ePg	Pg	13 54 01.5	-1.1
VLI	Veliai	1.73	156	ePn	Pn	13 54 05.9	+1.5
VLI	Veliai	1.73	156	ePN	Pn	13 54 05.9	+1.5
VLI	Veliai	1.73	156	ePn	Pn	13 54 05.9	+1.5

ISCJB ***19*** *13:56:12.0±1.7, 2.88N±0.08×75.9W±0.1, h65^{km}±17^{km}, mb3.6/8, Error ellipse: s-maj=23.3km s-min=13.0km az=176.4*

IDC ***19*** *13:56:12.6±0.6, 2.88N×75.93W, h54^{km}±4^{km}, mb3.3/9, mb1 3.6/11, mb1mx3.6/20, mbtmp3.5/11, MS2.4/1, Ms1 2.4/1, ms1mx2.2/17, Error ellipse: s-maj=24.3km s-min=15.2km az=69.0*

ISC 19 13:56:13.8±1.4, **2.90N**±0.08×**75.9W**±0.1, **h63**^{km}±15^{km}, **h58**^{km}±1.7^{km}**:pP-P**, **n16**, σ**0$\overset{s}{.}$80**/11, **mb3.6**/8, **Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	El Rosal	2.47	38	P	Pn	13 56 51.8	+0.1
	21nm,0.3s,baz=263,slow=20,SNR=5.8						
ATAH	Atahualpa	10.16	194	P	Pn	13 58 36.9	0.0
	0.3nm,0.3s,baz=13,slow=8.2,SNR=10						
LPAZ	La Paz	20.53	158	P	P	14 00 46.4	-0.7
	0.7nm,0.7s,baz=186,slow=15,SNR=2.6						
SIV	San Ignacio	23.79	143	P	P	14 01 21.2	+0.4
	2.3nm,0.9s,mb3.6,baz=324,slow=11,SNR=7.8						
CFAA	Coronel Fontan	35.07	169	LR	LR	14 18 00.9	
	comp=Z,6.4nm,20.7s,baz=32,slow=37						
TXAR	Lajitas Array	37.27	318	P	P	14 03 19.4	-0.3
	0.7nm,0.9s,mb3.5,baz=152,slow=11,SNR=4.8						
PDAR	Pinedale Array	49.77	328	P	P	14 05 01.2	+1.2
	0.2nm,0.6s,mb3.3,baz=112,slow=6.9,SNR=2.6						
PDAR				sP	sP	14 05 19.9	-3.5
	0.8nm,1.0s,baz=108,slow=9.8,SNR=3.4						
ULM	Lac du Bonnet	50.14	343	P	P	14 05 01.9	-0.8
	0.6nm,0.4s,mb3.9,baz=158,slow=12,SNR=2.2						
ULM				pP	pP	14 05 15.9	-3.0
	2.7nm,0.9s,baz=158,slow=9.7,SNR=4.0						
SCHQ	Schefferville	52.29	7	P	P	14 05 17.9	-0.7
	2.5nm,0.8s,mb4.2,baz=185,slow=8.4,SNR=3.9						
NVAR	Mina Array Bea	52.42	318	P	P	14 05 21.1	+1.2
	1.3nm,0.8s,mb3.9,baz=122,slow=6.9,SNR=5.6						
NVAR				pP	pP	14 05 37.1	+0.8
	1.2nm,0.8s,baz=124,slow=7.5,SNR=4.6						
YKA	Yellowknife Ar	66.04	341	P	P	14 06 52.3	-1.3
	0.4nm,0.7s,mb3.6,baz=136,slow=6.2,SNR=5.8						
YKA				pP	pP	14 07 07.8	-2.7
	1.1nm,0.7s,baz=132,slow=6.8,SNR=7.0						
TORD	Torodi Ar. Bea	77.22	77	P	P	14 08 02.7	+0.9
	0.2nm,0.6s,mb3.2,baz=287,slow=7.0,SNR=2.3						
TORD				pP	pP	14 08 17.8	-1.2
	0.2nm,0.5s,baz=287,slow=7.0,SNR=1.9						
MKAR	Makanchi Array	126.90	19	PKP	PKPdf	14 15 11.3	+0.7
	0.1nm,0.3s,baz=8.0,slow=27,SNR=4.8						
MKAR				pPKP	pPKPdf	14 15 27.1	-1.9
	0.3nm,0.6s,baz=15,slow=3.0,SNR=4.0						
SONM	Songino Array	129.44	358	PKP	PKPdf	14 15 16.0	+0.5
	0.4nm,1.0s,baz=240,slow=2.8,SNR=3.4						
SONM				pPKP	pPKPdf	14 15 32.5	-1.3
	0.7nm,0.8s,baz=12,slow=0.7,SNR=5.2						
ASAR	Alice Springs	144.59	232	PKP	PKPdf	14 15 40.9	-3.2
	1.9nm,0.6s,baz=122,slow=3.7,SNR=11						
ASAR				pPKP	pPKPdf	14 15 59.1	-3.4
	2.7nm,0.5s,baz=119,slow=3.7,SNR=9.2						
WRA	Warramunga Arr	146.01	238	PKPbc	PKPbc	14 15 45.4	-2.0
	1.6nm,0.9s,baz=115,slow=3.4,SNR=3.7						
WRA				pPKPbc	pPKPbc	14 16 03.2	-2.4
	2.3nm,0.8s,baz=122,slow=2.6,SNR=7.4						

ISCJB ***19*** *14:11:26.0±0.5, 32.71N±0.04×116.01W±0.03, h10^{km}±4^{km}, Error ellipse: s-maj=6.2km s-min=3.8km az=7.0*

ECX ***19*** *14:11:26.9±0.8, 32.71N×116.02W, h2^{km}, MD2.3, ML2.5*

ISC 19 14:11:26.0±0.5, **32.71N**±0.04×**116.01W**±0.03, **h15**^{km}±4^{km}, **n16**, σ**0$\overset{s}{.}$57**/23, **10C-9D**, **California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVTC	Desert V Tower	0.09	237	P	Pg	14 11 28.7	-0.4
	baz=0.1,SNR=334						
YUH	Yuha Desert	0.10	128	⇓eP	Pg	14 11 28.4	-0.8
CRR	Carrizo Plain	0.18	12	⇓eP	Pg	14 11 30.1	-0.3
SGL	Mount Signal	0.25	103	⇑eP	Pg	14 11 31.5	+0.1
COK	Cook Ranch	0.28	60	⇑eP	Pg	14 11 32.3	+0.4
SWSC	Sam W. Stewart	0.30	38	⇓P	Pg	14 11 32.2	-0.1
	baz=0.3,SNR=19						
SWSC				⇓S	Sg	14 11 36.2	-0.3
	baz=0.3						
MONP	Monument Peak	0.39	298	P	Pg	14 11 34.1	+0.2
	baz=0.4,SNR=24						
MONP				⇑S	Sg	14 11 39.5	+0.3
	baz=0.4						
BAR	Barrett	0.56	267	⇑eP	Pg	14 11 37.1	+0.1
BAR				eS	Sg	14 11 44.7	+0.3
CPBX	Cerro Prieto	0.67	116	eP	Pg	14 11 39.5	+0.4
CPBX				eS	Sg	14 11 49.5	+1.6
CPBX				e		14 11 55.1	
	comp=N,589nm,0.3s						
CPBX				⇓e		14 12 00.8	
	comp=E,692nm,0.3s						
COA	Coachella	0.77	78	⇑eP	Pg	14 11 41.0	+0.1
109C	Camp Elliot, M	0.94	281	⇓P	Pb	14 11 43.6	-0.4
	baz=0.9						
109C				⇓S	Sb	14 11 55.6	-0.6
	baz=0.9						
PFO	Pinyon Flat Ob	0.97	338	⇑P	Pb	14 11 44.4	-0.2
	baz=1.0,SNR=21						
PFO				⇑S	Sb	14 11 57.7	+0.4
	baz=1.0						
BC3	Big Chuckw Mtn	1.05	26	⇑S	Sb	14 12 00.0	+0.4
	baz=1.1						
GLA	Glamis	1.05	71	⇑P	Pb	14 11 45.2	-0.8
	baz=1.1,SNR=32						
GLA				⇓S	Sb	14 11 58.5	-1.1
	baz=1.1						
BELC	Belle Mtn.	1.29	1	⇑S	Sb	14 12 06.9	+0.5
	baz=1.3						
MURC	Murrieta	1.34	312	⇓S	Sn	14 12 08.2	+0.6
	baz=1.3						

NIED ***19*** *14:11:00, 21.10N×121.60E, h53^{km}, Mw4.1 Best double couple: $M_0$1.49000×10^{15} NP1:ϕ_s87.00000°, δ44.00000°, λ-31.00000°. NP2:ϕ_s200.00000°, δ69.00000°, λ-130.00000°.*

ISCJB ***19*** *14:11:36.3±0.7, 20.96N±0.06×121.32E±0.08, h10^{km}, mb3.6/7, Error ellipse: s-maj=11.7km s-min=5.9km az=35.7*

IDC ***19*** *14:11:36.1±0.9, 20.87N×121.13E, h0^{km}, mb3.7/7, mb1 3.8/9, mb1mx3.8/21, mbtmp3.8/9, ML3.5/2, Error ellipse: s-maj=33.0km s-min=16.6km az=76.0*

NEIC ***19*** *14:11:37.5±0.7, 20.94N×121.16E, h10^{km}, Error ellipse: s-maj=20.1km s-min=11.3km az=87.0*

JMA ***19*** *14:11:39.6±0.3, 21.06N×121.63E, h0^{km}, M4.4*

BJI ***19*** *14:11:42.4, 21.25N×120.42E, h10^{km}, mB4.5, mb4.3*

ISC 19 14:11:38.1±0.7, **20.98N**±0.06×**121.29E**±0.08, **h10**^{km}, **n20**, σ**1$\overset{s}{.}$10**/26, **mb3.6**/7, **Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NACB	Ninganchiao	3.20	5	eP	Pn	14 12 26.1	-2.3
YHNB	Yeheng	3.68	1	eP	Pn	14 12 34.8	-0.3
YOJ	Yonaguni jima	3.82	24	P	Pn	14 12 38.6	+1.6
YOJ				eS	Sn	14 13 22.4	+0.4
HATJ	Hateruma jima	3.85	37	P	Pn	14 12 38.4	+0.9
HATJ				eS	Sn	14 13 22.0	-0.8
IRIF	Iriomote-Funau	4.03	34	P	Pn	14 12 41.1	+1.1
IRIF				eS	Sn	14 13 26.6	-0.7
JKRS	Kuro-shima	4.11	37	P	Pn	14 12 41.9	+0.9
JKRS				eS	Sn	14 13 27.8	-1.3
JIJ	Ishigaki jima	4.28	37	P	Pn	14 12 44.0	+0.6
JIJ				eS	Sn	14 13 31.4	-2.0
JTJ	Tarama	4.82	40	P	Pn	14 12 52.2	+1.4
JTJ				eS	Sn	14 13 45.8	-0.9
GZH	Guangzhou	7.66	287	P	Pn	14 13 24.1	-5.8
JOW	Kunigami	8.65	46	Pn	Pn	14 13 44.7	+1.3
JOW	Kunigami	8.65	46	Pn	Pn	14 13 44.7	+1.3
	1.1nm,0.3s,baz=302,slow=29,SNR=11						
KSRS	Korea Array	17.40	18	P	Pn	14 15 42.0	+1.0
	0.2nm,0.3s,baz=200,slow=11,SNR=12						
CD2	Chengdu	18.59	306	P	Pn	14 15 55.4	-0.3
CD2				AMB	AMB		
	comp=Z,10.0nm,0.7s						
MJAR	Matsushiro Arr	21.41	40	P	P	14 16 28.2	+2.0
	comp=Z,0.8nm,0.5s,mb3.3,baz=219,slow=7.3,SNR=3.8						
SONM	Songino Array	29.37	339	P	P	14 17 40.9	-0.3
	comp=Z,0.8nm,0.6s,mb3.6,baz=158,slow=10,SNR=12						
MKAR	Makanchi Array	40.75	319	P	P	14 19 19.0	-0.2
	comp=Z,0.4nm,0.5s,mb3.3,baz=113,slow=9.7,SNR=6.5						
MKAR				PcP	PcP	14 21 19.2	-1.2
	comp=Z,0.6nm,0.8s,baz=94,slow=4.6,SNR=4.1						
WRA	Warramunga Arr	42.62	162	P	P	14 19 33.2	-1.6
	comp=Z,1.0nm,0.6s,mb3.8,baz=344,slow=9.0,SNR=10						
ZALV	Zalesovo Beam	43.01	329	P	P	14 19 37.5	0.0
	comp=Z,1.2nm,0.5s,mb3.9,baz=130,slow=7.8,SNR=2.9						
ASAR	Alice Springs	46.04	164	P	P	14 20 01.7	-0.4
	comp=Z,0.4nm,0.5s,mb3.6,baz=353,slow=8.3,SNR=13						
STKA	Stephens Creek	56.04	159	P	P	14 21 16.6	-0.6
	comp=Z,1.4nm,0.8s,mb4.0,baz=339,slow=7.9,SNR=3.7						

BGS ***19*** *14:14:34.9, 48.43N×29.93W, h10^{km}, mb5.3, MS4.8*

BJI ***19*** *14:14:48.7, 49.20N×28.40W, h6^{km}, mB5.3, mb4.9, Ms5.4, Msz5.0*

ISCJB ***19*** *14:14:49.0±0.1, 49.18N±0.03×28.44W±0.02, h10^{km}, mb5.1/259, MS5.0/188, Error ellipse: s-maj=3.9km s-min=1.4km az=8.7*

MOS ***19*** *14:14:48.8±0.9, 49.15N×28.43W, h10^{km}, mb5.4/118, MS5.0/60, Error ellipse: s-maj=5.7km s-min=3.5km az=162.2*

CSEM ***19*** *14:14:48.7±0.0, 49.20N×28.49W, h11^{km}, mb5.3/99, Ms4.8, Mw5.3, Error ellipse: s-maj=2.2km s-min=0.9km az=11.0*

IDC ***19*** *14:14:49.2±0.5, 49.23N×28.48W, h0^{km}, mb4.8/31, mb1 4.9/33, mb1mx4.9/33, mbtmp4.8/33, ML4.8/2, MS4.8/34, Ms1 4.8/34, ms1mx4.7/39, Error ellipse: s-maj=14.9km s-min=9.7km az=2.0*

CRAAG ***19*** *14:14:49.0, 49.18N×23.39W, Mb5.2*

GCMT ***19*** *14:14:50.8±0.1, 49.20N×28.28W, h12^{km}, MW5.3/89, Moment Tensor Solution. s50,c83; s89,c163; Duration: 1$\overset{s}{.}$1 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.15±.02; $M_{\theta\theta}$0.05±.02; $M_{\phi\phi}$1.10±.02; $M_{r\theta}$0.08±.05; $M_{\theta\phi}$-0.02±.02; $M_{\phi r}$0.10±.04; Best double couple: $M_0$1.13300×10^{17} NP1:ϕ_s355.00000°, δ43.00000°, λ-96.00000°. NP2: ϕ_s183.00000°, δ48.00000°, λ-85.00000°. Principal axes: T 1.1050, Plg3.0000°, Azm269.0000°; N 0.0540, Plg4.0000°, Azm359.0000°; P -1.1600, Plg85.0000°, Azm147.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***19*** *14:14:50.8±0.1, 49.18N×28.41W, h10^{km}, mb5.2/206, MS5.0/138 Error ellipse: s-maj=4.2km s-min=1.6km az=10.0*

IGIL ***19*** *14:14:51.0, 49.15N×28.42W, h10^{km}, mb5.4*

SZGRF ***19*** *14:14:56.9, 49.32N×27.83W, h33^{km}, mb5.3, MS4.9, Northern Mid-Atlantic Ridge*

ISC 19 14:14:51.0±0.1, **49.19N**±0.03×**28.39W**±0.02, **h10**^{km}, **(h17**^{km}±1.8^{km}**:pP-P)**, **n1161**, σ**0$\overset{s}{.}$91**/1097, **mb5.1**/258, **MS5.0**/188, **248C-100D**, **Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PDA	Ponta Delgada	11.61	169	i LR	LR	14 20 24.0	
DCN	Croghan	13.84	65	⇑iP	Pn	14 18 07.7	+0.6
DLF	Lyons Farm	14.28	65	⇑iP	Pn	14 18 13.7	+0.7
EMAZ	Mazaricos	14.84	108	P	Pn	14 18 17.5	-3.1

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              64nm,0.5s
STS   Santiago          15.13 107   P        Pn      14 18 22.6  -2.1
              91nm,1.0s
STS   Santiago          15.13 107   P        Pn      14 18 22.6  -2.1
STS                                 pmax     pmax
              comp=Z,91nm,1.0s
STS   Santiago          15.13 107   P        Pn      14 18 22.6  -2.1
              comp=Z,91nm,1.0s
HTL   Hartland          15.44  74   AMS      AMS     14 23 44.0
              comp=Z,6µm,19.4s
HTL   Hartland          15.44  74   AMS      AMS     14 23 44.0
              comp=Z,6µm,19.4s
EZAM  Zamans            15.44 110 ⇑P         Pn      14 18 26.5  -2.3
              comp=Z,84nm,1.0s
EZAM  Zamans            15.44 110 ⇑P         Pn      14 18 26.5  -2.2
EZAM                                pmax     pmax
              comp=Z,84nm,1.0s
GAL1  Galloway          15.60  60   AMS      AMS     14 23 35.9
              comp=Z,5µm,19.0s
GAL1  Galloway          15.60  60   AMS      AMS     14 23 35.9
              comp=Z,5µm,19.0s
EPON  Pontenova         15.80 104 ⇑P         Pn      14 18 31.0  -2.3
              comp=Z,544nm,1.4s
EPON                                S        Sn      14 21 10.6   -18
KPL   Plockton          15.80  50  eP        Pn      14 18 33.9  +0.6
KPL                                 AMb      AMB     14 18 45.3
              comp=Z,174nm,2.0s
KPL                                 AMS      AMS     14 23 38.8
              comp=Z,3µm,19.4s
ELOB  Lobios            15.99 110   P        Pn      14 18 34.5  -1.3
              comp=Z,114nm,1.1s
ELOB  Lobios            15.99 110   P        Pn      14 18 34.5  -1.4
              comp=Z,114nm,1.1s
BORG  Borgarnes         16.04  11   LR       LR      14 23 00.7
              comp=Z,2µm,19.2s,baz=190,slow=31
PCAB  Cabril            16.10 110  eP        Pn      14 18 42.4  +5.1
              comp=Z,227nm,1.0s
SBD1  Bryn Du           16.20  67  eP        Pn      14 18 38.0  -0.5
BWH   Wardlaw           16.26  59⇑eP         Pn      14 18 39.0  -0.2
ERUA  La Rua            16.28 107   P        Pn      14 18 37.4  -2.1
              comp=Z,101nm,1.3s
ERUA  La Rua            16.28 107   P        Pn      14 18 37.4  -2.1
ERUA                                pmax     pmax
              comp=Z,101nm,1.3s
ERUA  La Rua            16.28 107   P        Pn      14 18 37.4  -2.1
              comp=Z,101nm,1.3s
MCH1  Michaelchurch     16.34  70⇑eP         Pn      14 18 39.5  -0.7
HLM1  Long Mynd         16.42  69  eP        Pn      14 18 40.6  -0.7
HGH   Gray Hill         16.46  72  eP        Pn      14 18 41.0  -0.9
MDO   Dochfour          16.49  51⇑eP         Pn      14 18 41.8  -0.3
BHH   Howats Hill       16.49  59⇑eP         Pn      14 18 42.9  +0.7
ESK   Eskdalemuir       16.54  59  eP        Pn      14 18 43.0  +0.2
ESK                                 AMb      AMB     14 18 51.2
              comp=Z,116nm,2.3s
ESK                                 AMS      AMS     14 24 13.6
              comp=Z,5µm,18.6s
ESK   Eskdalemuir       16.54  59   P        Pn      14 18 45.3  +2.5
ESK                                 pmax     pmax
              comp=Z,79nm,1.1s
ESK   Eskdalemuir       16.54  59   P        Pn      14 18 45.3  +2.5
              comp=Z,79nm,1.1s
PVRL  Vila Real         16.54 111  eP        Pn      14 18 46.1  +3.2
              comp=Z,184nm,1.2s
ECK   Cauldkaine Hil    16.56  59⇑eP         Pn      14 18 43.3  +0.2
ROSF  Rostrenen         16.57  83⇑iP         Pn      14 18 40.7  -2.5
              comp=Z,342nm,1.6s
ROSF  Rostrenen         16.57  83⇑iP         Pn      14 18 40.7  -2.5
              comp=Z,171nm,1.6s
ROSF  Rostrenen         16.57  83⇑iP         Pn      14 18 40.7  -2.5
ROSF                                pmax     pmax
              comp=Z,171nm,1.6s
EKA   Eskdalemuir Ar    16.57  59   Pn       Pn      14 18 43.0  -0.1
EKA   Eskdalemuir Ar    16.57  59   Pn       Pn      14 18 43.0  -0.1
              comp=Z,1.9nm,0.3s,baz=257,slow=10,SNR=18
EDI   Edinburgh         16.68  57  eP        Pn      14 18 45.3  +0.7
EDI                                 AMb      AMB     14 18 52.5
              comp=Z,333nm,1.6s
EDI                                 AMS      AMS     14 24 17.0
              comp=Z,4µm,18.7s
QUIF  Quistinic         16.73  85⇑iP         Pn      14 18 43.2  -2.1
              comp=Z,258nm,1.2s
QUIF  Quistinic         16.73  85⇑iP         Pn      14 18 43.2  -2.1
QUIF                                pmax     pmax
              comp=Z,129nm,1.2s
QUIF  Quistinic         16.73  85⇑iP         Pn      14 18 43.2  -2.1
              comp=Z,129nm,1.2s
ECAL  Calabor           16.77 107 ⇑P         Pn      14 18 44.3  -1.6
              comp=Z,180nm,1.8s
ECAL                                S        Sn      14 21 34.4   -18
ECAL  Calabor           16.77 107 ⇑P         Pn      14 18 44.3  -1.5
              comp=Z,180nm,1.8s
PBRG  Braganca          16.85 108  eP        Pn      14 18 47.8  +1.0
              comp=Z,75nm,1.3s
XAL   Allendale         17.02  61  eP        Pn      14 18 48.2  -0.7
MVO   Moncorvo          17.03 110  eP        Pn      14 18 50.4  +1.3
              comp=Z,66nm,1.4s
MVO   Moncorvo          17.03 110  eP        Pn      14 18 50.7  +1.6
              comp=Z,66nm,1.4s
MVO                                eLQ               14 22 30.9
MVO                                eLR       LR      14 22 56.5
              comp=Z,4µm,20.0s
SSW   Stow on the Wo    17.05  71⇑eP         Pn      14 18 48.8  -0.5
EARI  Arriondas         17.05 101 ⇑P         Pn      14 18 47.4  -1.9
              comp=Z,530nm,1.4s
EARI                                S        Sn      14 21 38.4   -20
EARI  Arriondas         17.05 101 ⇑P         Pn      14 18 47.4  -1.9
              comp=Z,530nm,1.4s
SGMF  Saint Gilles      17.05  83  eP        Pn      14 18 47.4  -1.9
              comp=Z,228nm,1.3s
SGMF  Saint Gilles      17.05  83  eP        Pn      14 18 47.4  -1.9
SGMF                                pmax     pmax
              comp=Z,114nm,1.3s
SGMF  Saint Gilles      17.05  83  eP        Pn      14 18 47.4  -1.9
              comp=Z,114nm,1.3s
PMAFR Mafra             17.08 120  eP        Pn      14 18 48.3  -1.4
PMAFR                              eLQ               14 22 12.2
PMAFR                              eLR       LR      14 22 54.8
              comp=Z,2µm,20.0s
LHO   Holmfirth         17.09  65⇑eP         Pn      14 18 49.7   0.0
MCD   Coleburn Disti    17.10  51⇑eP         Pn      14 18 49.8  -0.1
XSO   Sourhope Farm     17.11  58⇑eP         Pn      14 18 49.8  -0.2
MME1  Meikle Cairn      17.17  52⇑eP         Pn      14 18 50.2  -0.5
MTE   Manteigas         17.17 113  eP        Pn      14 18 51.3  +0.5
              comp=Z,133nm,1.1s
MTE                                eLR       LR      14 22 47.3
MTE   Manteigas         17.17 113  eP        Pn      14 18 50.1  -0.7
              comp=Z,84nm,1.1s
ORE   Reay              17.19  48⇑eP         Pn      14 18 50.2  -0.7
HPK   Haverah Park      17.26  64  eP        Pn      14 18 51.0  -0.8
HPK                                 AMb      AMB     14 19 03.7
              comp=Z,343nm,1.6s
HPK                                 AMS      AMS     14 24 47.1
              comp=Z,5µm,19.0s
LIS   Lisbon            17.32 120  eP        Pn      14 18 53.0  +0.3
LIS                                 AMb      AMB     14 19 03.8
              comp=Z,193nm,1.1s
LIS                                eS        Sn      14 22 09.0  +3.6
LIS                                eS        Sn      14 22 09.0  +3.6
LIS   Lisbon            17.32 120  eP        Pn      14 18 53.0  +0.3
              comp=Z,193nm,1.1s
LIS                                eS        Sn      14 22 09.0  +3.7
PCBR  Castelo Branco    17.56 114  eP        Pn      14 18 54.6  -1.0
              comp=Z,106nm,1.4s
SKP1  Kophill           17.70  71⇑eP         Pn      14 18 56.1  -1.3
EVO   Evora             18.10 118  eP        Pn      14 19 03.5  +1.2
PESTR Estremoz          18.12 117  eP        Pn      14 19 02.9  +0.3
              comp=Z,106nm,1.3s
PESTR Estremoz          18.12 117  eP        Pn      14 19 03.1  +0.5
              comp=Z,106nm,1.3s
PESTR                              eLQ               14 22 37.2
PESTR                              eLR       LR      14 23 33.7
              comp=Z,3µm,18.0s
PESTR Estremoz          18.12 117  eP        Pn      14 19 03.1  +0.5
              comp=Z,106nm,1.3s
GRR   Gorron            18.13  82  eP        Pn      14 19 02.1  -0.5
              comp=Z,200nm,1.1s
GRR   Gorron            18.13  82  eP        Pn      14 19 02.1  -0.5
GRR                                 pmax     pmax
              comp=Z,100nm,1.1s
GRR   Gorron            18.13  82  eP        Pn      14 19 02.1  -0.5
              comp=Z,100nm,1.1s
ELAN  Lanestosa         18.23 100 ⇑P         Pn      14 19 02.1  -1.9
              comp=Z,264nm,1.3s
ELAN                                S        Sn      14 22 07.9   -19
ELAN  Lanestosa         18.23 100 ⇑P         Pn      14 19 02.1  -1.8
              comp=Z,264nm,1.3s

FLN   La Foliniere      18.29  81⇑iP         Pn      14 19 05.0  +0.4
              comp=Z,229nm,1.2s
FLN                                eMLR      MLR
              comp=Z,8µm,18.8s
FLN   La Foliniere      18.29  81⇑iP         Pn      14 19 05.0  +0.4
FLN                                 pmax     pmax
              comp=Z,115nm,1.2s
FLN   La Foliniere      18.29  81⇑iP         Pn      14 19 05.0  +0.4
              comp=Z,115nm,1.2s
PBEJ  Beja              18.52 119  eP        Pn      14 19 07.5  -0.1
              comp=Z,131nm,1.3s
EBAD  Badajoz           18.53 116   P        Pn      14 19 05.5  -2.1
              comp=Z,116nm,1.3s
EBAD  Badajoz           18.53 116   P        Pn      14 19 05.5  -2.1
              comp=Z,116nm,1.3s
LDF   La Druitiere      18.56  81⇑iP         Pn      14 19 08.0  +0.1
              comp=Z,230nm,1.3s
LDF   La Druitiere      18.56  81⇑iP         Pn      14 19 08.0  +0.1
LDF                                 pmax     pmax
              comp=Z,115nm,1.3s
LDF   La Druitiere      18.56  81⇑iP         Pn      14 19 08.0  +0.1
              comp=Z,115nm,1.3s
MORF  Marmelete         18.59 122  eP        Pn      14 19 07.9  -0.5
              comp=Z,127nm,1.7s
MORF                               eLR       LR      14 23 38.3
PFVI  Vila Bisbo        18.62 123  eP        Pn      14 19 08.0  -0.7
              comp=Z,118nm,1.6s
PFVI  Vila Bisbo        18.62 123  eP        Pn      14 19 08.4  -0.3
              comp=Z,118nm,1.6s
PFVI                               eLQ               14 22 48.4
PFVI                               eLR       LR      14 23 41.3
              comp=Z,3µm,20.0s
PFVI  Vila Bisbo        18.62 123  eP        Pn      14 19 08.4  -0.3
              comp=Z,118nm,1.6s
PBDV  Barranco-do-Ve    19.04 121  eP        Pn      14 19 12.1  -1.7
              comp=Z,229nm,1.4s
PBDV  Barranco-do-Ve    19.04 121  eP        Pn      14 19 13.7  -0.1
              comp=Z,229nm,1.4s
PBDV                               eLQ               14 22 53.8
PBDV                               eLR       LR      14 23 52.8
              comp=Z,2µm,20.0s
PBDV  Barranco-do-Ve    19.04 121  eP        Pn      14 19 13.7  -0.1
              comp=Z,229nm,1.4s
PVAQ  Vaqueiros         19.04 120  eP        Pn      14 19 11.6  -2.3
              comp=Z,190nm,1.2s
PVAQ  Vaqueiros         19.04 120  eP        Pn      14 19 13.4  -0.5
              comp=Z,190nm,1.2s
PVAQ                               eLQ               14 22 50.1
PVAQ                               eLR       LR      14 23 46.7
              comp=Z,2µm,18.0s
PVAQ  Vaqueiros         19.04 120  eP        Pn      14 19 13.4  -0.5
              comp=Z,190nm,1.2s
MFF   Saint Martin d    19.07  87⇑iP         Pn      14 19 13.6  -0.5
              comp=Z,222nm,1.3s
MFF   Saint Martin d    19.07  87⇑iP         Pn      14 19 13.6  -0.5
MFF                                 pmax     pmax
              comp=Z,111nm,1.3s
MFF   Saint Martin d    19.07  87⇑iP         Pn      14 19 13.6  -0.5
              comp=Z,111nm,1.3s
EGRO  El Granado        19.09 120 ⇑P         Pn      14 19 12.4  -1.9
              comp=Z,460nm,2.1s
EGRO  El Granado        19.09 120 ⇑P         Pn      14 19 12.4  -2.0
              comp=Z,460nm,2.1s
GUD   Guadarrama        19.11 107 ⇑P         Pn      14 19 14.0  -0.7
              comp=Z,98nm,1.1s
GUD   Guadarrama        19.11 107 ⇑P         Pn      14 19 14.0  -0.7
GUD                                 pmax     pmax
              comp=Z,98nm,1.1s
GUD   Guadarrama        19.11 107   P        Pn      14 19 14.0  -0.7
              comp=Z,98nm,1.1s
ECRI  Cripan            19.12 100   P        Pn      14 19 13.3  -1.5
              comp=Z,156nm,1.3s
ECRI  Cripan            19.12 100   P        Pn      14 19 13.3  -1.5
ECRI                                pmax     pmax
              comp=Z,157nm,1.3s
ECRI  Cripan            19.12 100   P        Pn      14 19 13.3  -1.5
              comp=Z,157nm,1.3s
EMIN  Mina Concepcio    19.39 118 ⇑P         Pn      14 19 16.8  -1.2
              comp=Z,576nm,2.1s
EMIN  Mina Concepcio    19.39 118 ⇑P         Pn      14 19 16.8  -1.2
              comp=Z,576nm,2.1s
ELIZ  Elizondo          19.50  98   P        Pn      14 19 17.5  -1.8
              comp=Z,45nm,1.1s
ELIZ  Elizondo          19.50  98   P        Pn      14 19 17.5  -1.8
ELIZ                                pmax     pmax
              comp=Z,45nm,1.1s
ELIZ  Elizondo          19.50  98   P        Pn      14 19 17.5  -1.8
              comp=Z,45nm,1.1s
PAB   San Pablo         19.64 110  eP        Pn      14 19 19.8  -1.2
              comp=Z,103nm,1.2s
PAB   San Pablo         19.64 110  eP        Pn      14 19 19.8  -1.2
PAB                                 pmax     pmax
              comp=Z,103nm,1.2s
PAB   San Pablo         19.64 110  eP        Pn      14 19 19.8  -1.2
              comp=Z,103nm,1.2s
MENF  Mencas            19.67  74  eP        Pn      14 19 21.6  +0.3
SJPF  Ste Jean          19.72  98⇑iP         Pn      14 19 20.7  -1.2
              comp=Z,192nm,1.3s
SJPF  Ste Jean          19.72  98⇑iP         Pn      14 19 20.7  -1.2
SJPF                                pmax     pmax
              comp=Z,96nm,1.3s
SJPF  Ste Jean          19.72  98⇑iP         Pn      14 19 20.7  -1.2
              comp=Z,96nm,1.3s
ESDC  Sonseca Array     19.80 110 ⇑P         Pn      14 19 20.8  -2.0
              comp=Z,46nm,0.9s
ESDC  Sonseca Array     19.80 110   P        Pn      14 19 21.4  -1.4
              comp=Z,0.8nm,0.3s,baz=307,slow=9.0,SNR=58
ESDC                                LR       LR      14 25 19.9
              comp=Z,4µm,19.6s,baz=300,slow=32
ESDC  Sonseca Array     19.80 110 ⇑P         Pn      14 19 20.8  -2.1
              comp=Z,46nm,0.9s
ESLA  Sonseca Array     19.80 110  eP        Pn      14 19 21.1  -1.8
              comp=Z,32nm,1.3s
ESLA  Sonseca Array     19.80 110  eP        Pn      14 19 21.0  -1.9
              comp=Z,32nm,1.3s
LFF   La Frestale       20.23  91⇑iP         P       14 19 25.8  -0.2
              comp=Z,211nm,1.1s
LFF   La Frestale       20.23  91⇑iP         P       14 19 25.8  -0.2
LFF                                 pmax     pmax
              comp=Z,105nm,1.1s
LFF   La Frestale       20.23  91⇑iP         P       14 19 25.8  -0.2
              comp=Z,105nm,1.1s
ETSF  Etsaut            20.25  98⇑iP         P       14 19 26.9  +0.7
              comp=Z,566nm,1.4s
ETSF  Etsaut            20.25  98⇑iP         P       14 19 26.9  +0.7
ETSF                                pmax     pmax
              comp=Z,283nm,1.4s
ETSF  Etsaut            20.25  98⇑iP         P       14 19 26.9  +0.7
              comp=Z,283nm,1.4s
ETOR  Torete            20.34 104 ⇑P         P       14 19 27.1  -0.2
              comp=Z,126nm,1.1s
ETOR  Torete            20.34 104 ⇑P         P       14 19 27.1  -0.1
ETOR                                pmax     pmax
              comp=Z,126nm,1.1s
ETOR  Torete            20.34 104   P        P       14 19 27.1  -0.1
              comp=Z,126nm,1.1s
EADA  Adamuz            20.36 114 ⇑P         P       14 19 27.4  -0.1
              comp=Z,369nm,1.5s
EADA  Adamuz            20.36 114 ⇑P         P       14 19 27.4  -0.1
              comp=Z,369nm,1.5s
ESPR  Espera            20.48 119 ⇑P         P       14 19 29.8  +1.0
              comp=Z,585nm,1.3s
ESPR  Espera            20.48 119 ⇑P         P       14 19 29.8  +1.0
              comp=Z,585nm,1.3s
SFS   San Fernando      20.56 120  eP        P       14 19 31.6  +1.9
SFS   San Fernando      20.56 120  eP        P       14 19 31.6  +1.9
LABF  Labassere         20.59  97  eP        P       14 19 39.9   +10
RJF   Les Rejaudoux     20.60  90⇑iP         P       14 19 29.9  -0.2
              comp=Z,341nm,1.2s
RJF                                eMLR      MLR
              comp=Z,5µm,22.2s,MS4.5
RJF   Les Rejaudoux     20.60  90⇑iP         P       14 19 29.9  -0.2
              comp=Z,170nm,1.2s
RJF                                 LR       LR
              comp=Z,5µm,22.3s,MS4.8
RJF   Les Rejaudoux     20.60  90⇑iP         P       14 19 29.9  -0.2
RJF                                 pmax     pmax
              comp=Z,170nm,1.2s
RJF                                 MLR      MLR
              comp=Z,5µm,22.3s,MS4.8
VIEF  Viey              20.64  97  eP        P       14 19 31.3  +0.9
HYF   Humbligny         20.69  84⇑iP         P       14 19 30.9  -0.1
TCF   Toulx Ste Croi    20.72  86⇑iP         P       14 19 31.1  -0.2
              comp=Z,462nm,1.2s
TCF   Toulx Ste Croi    20.72  86⇑iP         P       14 19 31.1  -0.2
TCF                                 pmax     pmax
              comp=Z,231nm,1.2s

TCF   Toulx Ste Croi    20.72  86⇑iP         P       14 19 31.1  -0.2
              comp=Z,231nm,1.2s
EPF   Esparros          20.77  96  eP        P       14 19 32.2  +0.3
              comp=Z,187nm,1.2s
EPF   Esparros          20.77  96  eP        P       14 19 32.2  +0.3
EPF                                 pmax     pmax
              comp=Z,93nm,1.2s
EPF   Esparros          20.77  96  eP        P       14 19 32.2  +0.3
              comp=Z,93nm,1.2s
EBIE  Bielsa            20.81  97   P        P       14 19 33.0  +0.7
              comp=Z,775nm,2.6s
EBAN  Banos Encina      20.84 113 ⇑P         P       14 19 32.7   0.0
              comp=Z,67nm,1.0s
EBAN  Banos Encina      20.84 113 ⇑P         P       14 19 32.7   0.0
EBAN                                pmax     pmax
              comp=Z,67nm,1.0s
EBAN  Banos Encina      20.84 113   P        P       14 19 32.7   0.0
              comp=Z,67nm,1.0s
RESF  Ens               20.88  97  eP        P       14 19 34.1  +1.1
ESAC  San Caprasio      20.88 100 ⇑P         P       14 19 33.4  +0.3
              comp=Z,530nm,1.4s
ESAC  San Caprasio      20.88 100 ⇑P         P       14 19 33.4  +0.3
              comp=Z,530nm,1.4s
ELUQ  Luque             20.94 115   P        P       14 19 34.7  +0.9
ELUQ                                pmax     pmax
              comp=Z,161nm,1.2s
ELUQ  Luque             20.94 115   P        P       14 19 34.7  +0.9
              comp=Z,161nm,1.2s
EJIF  Jimena Fronter    20.99 119   P        P       14 19 35.4  +1.1
              comp=Z,297nm,1.2s
EJIF  Jimena Fronter    20.99 119   P        P       14 19 35.4  +1.1
EJIF                                pmax     pmax
              comp=Z,297nm,1.2s
EJIF  Jimena Fronter    20.99 119   P        P       14 19 35.4  +1.1
              comp=Z,297nm,1.2s
SNF   Seneffe           21.02  74   P        P       14 19 33.2  -1.3
              comp=Z,78nm,1.4s,mb4.8
UCC   Uccle             21.03  73   P        P       14 19 33.8  -0.8
              comp=Z,190nm,1.1s,mb5.3
BGF   Bois d'Agland     21.04  85⇑iP         P       14 19 34.5  -0.3
              comp=Z,1µm,1.3s,mb5.8
BGF   Bois d'Agland     21.04  85⇑iP         P       14 19 34.5  -0.3
BGF                                 pmax     pmax
              comp=Z,594nm,1.3s,mb5.8
BGF   Bois d'Agland     21.04  85⇑iP         P       14 19 34.5  -0.3
              comp=Z,594nm,1.3s,mb5.8
BAIF  Baives            21.05  75⇑iP         P       14 19 34.2  -0.7
              comp=Z,268nm,1.1s,mb5.2
BAIF  Baives            21.05  75⇑iP         P       14 19 34.2  -0.7
BAIF                                pmax     pmax
              comp=Z,134nm,1.1s,mb5.2
BAIF  Baives            21.05  75⇑iP         P       14 19 34.2  -0.7
              comp=Z,134nm,1.1s,mb5.2
CAF   Calviac           21.11  90⇑iP         P       14 19 34.9  -0.6
              comp=Z,652nm,1.4s,mb5.5
CAF   Calviac           21.11  90⇑iP         P       14 19 34.9  -0.6
CAF                                 pmax     pmax
              comp=Z,326nm,1.4s,mb5.5
CAF   Calviac           21.11  90⇑iP         P       14 19 34.9  -0.6
              comp=Z,326nm,1.4s,mb5.5
SFJD  Kangerlussuaq     21.14 336  eP        P       14 19 35.6  -0.1
SFJD                               e                 14 23 39.5
SFJD                                pmax     pmax
              comp=Z,130nm,1.1s,mb5.2
SFJD  Kangerlussuaq     21.14 336   P        P       14 19 35.8  +0.1
              comp=Z,61nm,1.1s,mb4.8,baz=124,slow=11,SNR=8.6
SFJD                                LR       LR      14 26 01.2
              comp=Z,2µm,20.9s,MS4.5,baz=120,slow=32
SFJD  Kangerlussuaq     21.14 336  i P       P       14 19 35.6  -0.1
              comp=Z,129nm,1.1s,mb5.2
SFJD                               e                 14 23 39.5
SFJD  Kangerlussuaq     21.14 336  eP        P       14 19 35.6  -0.1
              comp=Z,130nm,1.1s,mb5.2
SFJD  Kangerlussuaq     21.14 336  ePcP      PcP     14 23 39.5  -1.5
DOU   Dourbes           21.29  75   P        P       14 19 37.0  -0.4
              comp=Z,100nm,1.3s,mb5.0
MLS   Moulis            21.30  96  eP        P       14 19 40.1  +2.5
AVF   Avril sur Loir    21.30  84⇑iP         P       14 19 37.1  -0.5
              comp=Z,459nm,1.3s,mb5.4
AVF   Avril sur Loir    21.30  84⇑iP         P       14 19 37.1  -0.5
AVF                                 pmax     pmax
              comp=Z,230nm,1.3s,mb5.3
AVF   Avril sur Loir    21.30  84⇑iP         P       14 19 37.1  -0.5
              comp=Z,230nm,1.3s,mb5.4
EMIJ  Mijas             21.32 117 ⇑P         P       14 19 38.3  +0.5
              comp=Z,349nm,1.2s,mb5.6
EMIJ  Mijas             21.32 117 ⇑P         P       14 19 38.3  +0.5
              comp=Z,349nm,1.2s,mb5.6
SSF   Saint Saulge      21.32  84⇑iP         P       14 19 37.3  -0.5
              comp=Z,355nm,1.1s,mb5.3
SSF   Saint Saulge      21.32  84⇑iP         P       14 19 37.3  -0.5
SSF                                 pmax     pmax
              comp=Z,178nm,1.1s,mb5.3
SSF   Saint Saulge      21.32  84⇑iP         P       14 19 37.3  -0.5
              comp=Z,178nm,1.1s,mb5.3
EVIA  Vianos            21.33 110 ⇓P         P       14 19 38.0  +0.1
              comp=Z,154nm,1.4s,mb5.1
EVIA  Vianos            21.33 110 ⇓P         P       14 19 38.0  +0.1
EVIA                                pmax     pmax
              comp=Z,154nm,1.4s,mb5.1
EVIA  Vianos            21.33 110   P        P       14 19 38.0  +0.1
              comp=Z,154nm,1.4s,mb5.1
AGO   Saint Agoulin     21.40  86  eP        P       14 19 39.3  +0.7
GIVF  Givet             21.43  75⇑iP         P       14 19 38.2  -0.8
              comp=Z,432nm,1.1s,mb5.4
GIVF  Givet             21.43  75⇑iP         P       14 19 38.2  -0.8
GIVF                                pmax     pmax
              comp=Z,216nm,1.1s,mb5.4
GIVF  Givet             21.43  75⇑iP         P       14 19 38.2  -0.8
              comp=Z,216nm,1.1s,mb5.4
LOR   Lormes            21.49  83⇑iP         P       14 19 39.2  -0.4
              comp=Z,377nm,1.3s,mb5.3
LOR                                eMLR      MLR
              comp=Z,7µm,19.5s,MS4.8
LOR   Lormes            21.49  83⇑iP         P       14 19 39.2  -0.4
              comp=Z,189nm,1.3s,mb5.3
LOR                                 LR       LR
              comp=Z,7µm,19.5s,MS5.1
LOR   Lormes            21.49  83⇑iP         P       14 19 39.2  -0.4
LOR                                 pmax     pmax
              comp=Z,189nm,1.3s,mb5.3
LOR                                 MLR      MLR
              comp=Z,7µm,19.5s,MS5.1
EQES  Quesada           21.50 112 ⇑P         P       14 19 39.8  -0.1
              comp=Z,327nm,1.3s,mb5.6
EQES  Quesada           21.50 112 ⇑P         P       14 19 39.8   0.0
              comp=Z,327nm,1.3s,mb5.6
ECOG  Cogollos-Vega     21.55 114   P        P       14 19 41.3  +1.0
ECOG                                pmax     pmax
              comp=Z,111nm,1.5s,mb5.1
ECOG  Cogollos-Vega     21.55 114   P        P       14 19 41.3  +1.0
              comp=Z,111nm,1.5s,mb5.1
ERON  Agron             21.58 115   P        P       14 19 41.7  +1.0
              comp=Z,91nm,1.2s,mb5.1
ERON  Agron             21.58 115   P        P       14 19 41.7  +1.1
              comp=Z,91nm,1.2s,mb5.1
EMOS  Mosqueruela       21.60 104 ⇑P         P       14 19 40.4  -0.5
              comp=Z,333nm,1.8s,mb5.5
EMOS  Mosqueruela       21.60 104 ⇑P         P       14 19 40.3  -0.5
              comp=Z,333nm,1.8s,mb5.5
SMF   Signal de Mont    21.67  84⇑iP         P       14 19 41.1  -0.4
              comp=Z,686nm,1.3s,mb5.6
SMF   Signal de Mont    21.67  84⇑iP         P       14 19 41.1  -0.4
SMF                                 pmax     pmax
              comp=Z,343nm,1.3s,mb5.6
SMF   Signal de Mont    21.67  84⇑iP         P       14 19 41.1  -0.4
              comp=Z,343nm,1.3s,mb5.6
BCLA  Clavier           21.68  74   P        P       14 19 40.6  -1.0
              comp=Z,80nm,1.6s,mb4.9
ECHE  Chera             21.72 106   P        P       14 19 41.6  -0.5
ECHE                                pmax     pmax
              comp=Z,184nm,1.4s,mb5.3
ECHE  Chera             21.72 106   P        P       14 19 41.6  -0.5
              comp=Z,184nm,1.4s,mb5.3
PLDF  La Plantade       21.75  86  eP        P       14 19 42.3  -0.1
LBL   Lubilhac          21.77  88  eP        P       14 19 42.6   0.0
ERTA  Horta de San J    21.79 101 ⇑P         P       14 19 42.5  -0.5
              comp=Z,519nm,1.9s,mb5.6
ERTA  Horta de San J    21.79 101 ⇑P         P       14 19 42.5  -0.4
              comp=Z,519nm,1.9s,mb5.6
EGUA  Guajares          21.84 115   P        P       14 19 44.7  +1.2
              comp=Z,14nm,1.0s,mb4.3
EGUA  Guajares          21.84 115   P        P       14 19 44.7  +1.2
EGUA                                pmax     pmax
              comp=Z,14nm,1.0s,mb4.3
EGUA  Guajares          21.84 115   P        P       14 19 44.7  +1.2
              comp=Z,14nm,1.0s,mb4.3
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BEBN  Eben Emael       21.85  73   P       P       14 19 42.4  -1.1
            comp=Z,41nm,1.2s,mb4.7
MTLF  Montolieu        21.86  94⇑iP       P       14 19 43.3  -0.3
            comp=Z,323nm,1.4s,mb5.3
MTLF  Montolieu        21.86  94⇑iP       P       14 19 43.3  -0.3
MTLF                             pmax    pmax
            comp=Z,162nm,1.4s,mb5.3
MTLF  Montolieu        21.86  94⇑iP       P       14 19 43.3  -0.3
            comp=Z,162nm,1.4s,mb5.3
ETOB  Tobarra          21.91 109   P       P       14 19 44.4  +0.2
            comp=Z,222nm,1.4s,mb5.4
MEZF  Maizieres J'vi   21.92  79⇑iP       P       14 19 43.7  -0.6
            comp=Z,556nm,1.2s,mb5.5
MEZF  Maizieres J'vi   21.92  79⇑iP       P       14 19 43.7  -0.6
            comp=Z,278nm,1.2s,mb5.5
HGN   Heimansgroeve    22.02  73  eP       P       14 19 44.2  -1.0
            comp=Z,88nm,1.1s,mb5.1
STAV  Stavanger        22.02  51  eP       P       14 19 44.2  -1.0
STAV                             AMb     AMB     14 19 46.6
            comp=Z,266nm,1.2s,mb5.6
STAV  Stavanger        22.02  51  eP       P       14 19 44.2  -1.0
            comp=Z,266nm,1.2s,mb5.6,SNR=34
EPOB  Poblet           22.07 100 ⇑P        P       14 19 44.8  -1.1
            comp=Z,402nm,2.1s,mb5.5
EPOB  Poblet           22.07 100 ⇑P        P       14 19 44.8  -1.1
            comp=Z,402nm,2.1s,mb5.5
CARF  Carcanieres      22.07  95  eP       P       14 19 45.6  -0.3
EMIR  Miracle          22.08  98 ⇑P        P       14 19 45.5  -0.5
            comp=Z,399nm,1.7s,mb5.6
EMIR  Miracle          22.08  98 ⇑P        P       14 19 45.5  -0.4
            comp=Z,399nm,1.7s,mb5.6
MEM   Membach          22.09  73   P       P       14 19 45.1  -0.9
            comp=Z,88nm,1.2s,mb5.1
EBER  Berja            22.20 114 ⇓P        P       14 19 49.5  +2.1
            comp=Z,596nm,2.2s,mb5.6
EBER  Berja            22.20 114 ⇓P        P       14 19 49.5  +2.2
            comp=Z,596nm,2.2s,mb5.6
LRDF  Laroque-de-Fa    22.25  95  eP       P       14 19 47.4  -0.4
WLF   Walferdange      22.36  76  eP       P       14 19 47.7  -1.2
            comp=Z,158nm,1.4s,mb5.2
WLF   Walferdange      22.36  76  eP       P       14 19 47.7  -1.2
WLF                              pmax    pmax
            comp=Z,158nm,1.4s,mb5.2
WLF   Walferdange      22.36  76   P       P       14 19 48.5  -0.5
            comp=Z,62nm,1.3s,mb4.9
WLF   Walferdange      22.36  76  eP       P       14 19 48.4  -0.5
            comp=Z,122nm,1.2s,mb5.2
WLF   Walferdange      22.36  76  eP       P       14 19 47.7  -1.2
            comp=Z,158nm,1.4s,mb5.2
WTSB  Winterswijk      22.39  69  eP       P       14 19 48.2  -0.9
            comp=Z,226nm,1.6s,mb5.3
FILF  Fillols          22.44  95  eP       P       14 19 48.2  -1.6
BLS5  Blasjo           22.50  50  eP       P       14 19 50.4  +0.1
BLS5                            epP              14 19 53.6
BLS5                             AMb     AMB     14 19 59.5
            comp=Z,116nm,1.2s,mb5.2
BLS5  Blasjo           22.50  50  eP       P       14 19 50.4  +0.1
            SNR=34
BLS5                            epP              14 19 53.6
            SNR=146
ENIJ  Nijar            22.57 113 ⇑P        P       14 19 52.0  +0.8
            comp=Z,142nm,1.2s,mb5.3
ENIJ  Nijar            22.57 113 ⇑P        P       14 19 52.0  +0.8
ENIJ                             pmax    pmax
            comp=Z,142nm,1.2s,mb5.3
ENIJ  Nijar            22.57 113   P       P       14 19 52.0  +0.8
            comp=Z,142nm,1.2s,mb5.3
THEF  They Montfort    22.60  79  eP       P       14 19 50.7  -0.7
EMUR  La Murta         22.60 110   P       P       14 19 52.8  +1.2
            comp=Z,191nm,1.6s,mb5.3
EMUR  La Murta         22.60 110   P       P       14 19 52.8  +1.3
            comp=Z,191nm,1.6s,mb5.3
LASF  Ste Croix        22.62  91⇑iP       P       14 19 50.2  -1.5
            comp=Z,353nm,1.3s,mb5.3
LASF  Ste Croix        22.62  91⇑iP       P       14 19 50.2  -1.5
            comp=Z,177nm,1.3s,mb5.3
EBEN  Beniarda         22.70 107   P       P       14 19 52.9  +0.3
            comp=Z,359nm,1.6s,mb5.5
EBEN  Beniarda         22.70 107   P       P       14 19 52.9  +0.3
            comp=Z,359nm,1.6s,mb5.5
EJON  La Jonquera      22.71  95   P       P       14 19 52.5  -0.2
            comp=Z,181nm,1.6s,mb5.2
EJON  La Jonquera      22.71  95   P       P       14 19 52.5  -0.1
            comp=Z,181nm,1.6s,mb5.2
BUG   Bochum--Univer   22.75  71  eP       P       14 19 52.7  -0.3
            comp=Z,221nm,1.2s,mb5.5
VIVF  Saint-Julien-l   22.84  88⇑iP       P       14 19 54.0  -0.1
            comp=Z,274nm,1.2s,mb5.3
VIVF  Saint-Julien-l   22.84  88⇑iP       P       14 19 54.0  -0.1
VIVF                             pmax    pmax
            comp=Z,137nm,1.2s,mb5.3
VIVF  Saint-Julien-l   22.84  88⇑iP       P       14 19 54.0  -0.1
            comp=Z,137nm,1.2s,mb5.3
HAU   Haudompre        22.89  80⇑iP       P       14 19 53.5  -1.0
            comp=Z,247nm,1.1s,mb5.2
HAU                             eMLR     MLR
            comp=Z,6µm,19.5s,MS4.7
HAU   Haudompre        22.89  80⇑iP       P       14 19 53.5  -1.0
            comp=Z,124nm,1.1s,mb5.2
HAU                              LR      LR
            comp=Z,6µm,19.5s,MS5.0
HAU   Haudompre        22.89  80⇑iP       P       14 19 53.5  -1.0
HAU                              pmax    pmax
            comp=Z,124nm,1.1s,mb5.2
HAU                              MLR     MLR
            comp=Z,6µm,19.5s,MS5.0
RUP   Ruppelstein      22.93  75  eP       P       14 19 54.5  -0.4
IBBN  Ibbenburen       22.93  68  eP       P       14 19 55.0  +0.1
            comp=Z,73nm,1.0s,mb5.1
CABF  La Chapelle      23.14  83⇑iP       P       14 19 56.4  -0.8
            comp=Z,452nm,1.2s,mb5.5
CABF  La Chapelle      23.14  83⇑iP       P       14 19 56.4  -0.8
CABF                             pmax    pmax
            comp=Z,226nm,1.2s,mb5.5
CABF  La Chapelle      23.14  83⇑iP       P       14 19 56.4  -0.8
            comp=Z,226nm,1.2s,mb5.5
ABH   Alteburg         23.20  75  eP       P       14 19 57.9  +0.1
HINF  Hinteralfeld     23.27  80⇑iP       P       14 19 57.7  -0.8
            comp=Z,294nm,1.4s,mb5.2
HINF  Hinteralfeld     23.27  80⇑iP       P       14 19 57.7  -0.8
HINF                             pmax    pmax
            comp=Z,147nm,1.4s,mb5.2
HINF  Hinteralfeld     23.27  80⇑iP       P       14 19 57.7  -0.8
            comp=Z,147nm,1.4s,mb5.2
ECH   Echery           23.36  79  eP       P       14 19 58.8  -0.6
CDF   Champ du Feu     23.38  78⇑iP       P       14 19 58.9  -0.8
            comp=Z,409nm,1.7s,mb5.3
CDF   Champ du Feu     23.38  78⇑iP       P       14 19 58.9  -0.8
CDF                              pmax    pmax
            comp=Z,205nm,1.7s,mb5.3
CDF   Champ du Feu     23.38  78⇑iP       P       14 19 58.9  -0.8
            comp=Z,204nm,1.7s,mb5.3
MOF   Molkenrain       23.44  80  eP       P       14 19 59.6  -0.7
MUD   Monsted U'grnd   23.59  58  eP       P       14 20 01.2  -0.5
MUD                              pmax    pmax
            comp=Z,75nm,1.1s,mb5.0
MUD                              MLR     MLR
            comp=Z,2µm,17.0s,MS4.7
MUD   Monsted U'grnd   23.59  58  i P      P       14 20 01.2  -0.5
            comp=Z,75nm,1.1s,mb5.0
MUD                             i S      S       14 24 17.0  +1.5
MUD
            comp=Z,2µm,17.0s
MUD   Monsted U'grnd   23.59  58  eP       P       14 20 01.2  -0.5
            comp=Z,2µm,17.0s
ORIF  Oris-en-Rattie   23.61  87⇑iP       P       14 20 02.2  +0.1
            comp=Z,170nm,1.2s,mb5.0
ORIF                            eMLR     MLR
            comp=Z,4µm,22.5s,MS4.5
ORIF  Oris-en-Rattie   23.61  87⇑iP       P       14 20 02.2  +0.1
ORIF                             pmax    pmax
            comp=Z,85nm,1.2s,mb5.0
ORIF  Oris-en-Rattie   23.61  87⇑iP       P       14 20 02.2  +0.1
            comp=Z,85nm,1.2s,mb5.0
KTD   Kalmit           23.67  76  eP       P       14 20 02.2  -0.3
TNS   Taunus Mts       23.70  73  eP       P       14 20 02.1  -0.7
TNS                              pmax    pmax
            comp=Z,291nm,1.9s,mb5.4
TNS   Taunus Mts       23.70  73  eP       P       14 20 02.1  -0.7
            comp=Z,291nm,1.9s,mb5.4
JMIC  Jan Mayen        23.76  16   LR      LR      14 26 53.7
            comp=Z,1µm,18.5s,MS4.4,baz=84,slow=30
SMRF  Simiane la Rot   23.79  90  eP       P       14 20 02.8  -0.9
            comp=Z,179nm,1.3s,mb5.0
SMRF  Simiane la Rot   23.79  90  eP       P       14 20 02.8  -0.9
            comp=Z,89nm,1.3s,mb5.0
LPL   La Plagne        23.94  85⇑iP       P       14 20 05.1   0.0
            comp=Z,145nm,1.3s,mb4.9
LPL   La Plagne        23.94  85⇑iP       P       14 20 05.1   0.0
LPL                              pmax    pmax
            comp=Z,73nm,1.3s,mb5.0
LPL   La Plagne        23.94  85⇑iP       P       14 20 05.1   0.0
            comp=Z,73nm,1.3s,mb4.9
LPG   La Plagne        23.96  85⇑iP       P       14 20 05.3   0.0
            comp=Z,199nm,1.4s,mb5.0
LPG   La Plagne        23.96  85⇑iP       P       14 20 05.3   0.0
LPG                              pmax    pmax
            comp=Z,100nm,1.4s,mb5.0
LPG   La Plagne        23.96  85⇑iP       P       14 20 05.3   0.0
            comp=Z,100nm,1.4s,mb5.0
FELD  Feldberg im Sc   24.00  79  eP       P       14 20 05.1  -0.4
TOD   Tromm            24.06  75  eP       P       14 20 05.7  -0.4
BFO   Black Forest     24.08  78   P       P       14 20 06.4  +0.1
            comp=Z,154nm,1.0s,mb5.4,SNR=6.8
BFO   Black Forest     24.08  78  eP       P       14 20 05.7  -0.6
BFO                              pmax    pmax
            comp=Z,35nm,1.2s,mb4.7
BFO   Black Forest     24.08  78  eP       P       14 20 05.7  -0.6
            comp=Z,35nm,1.2s,mb4.7
BNI   Bardonecchia     24.08  87  eP       P       14 20 06.2  -0.2
BNI                              pmax    pmax
            comp=Z,53nm,1.3s,mb4.8
BNI   Bardonecchia     24.08  87  eP       P       14 20 06.2  -0.2
            comp=Z,53nm,1.3s,mb4.8
SCHQ  Schefferville    24.09 298  eP       P       14 20 05.0  -1.3
            comp=Z,35nm,1.0s,mb4.8
SCHQ                             LR      LR
            comp=Z,4µm,22.0s,MS4.8
SCHQ  Schefferville    24.09 298   P       P       14 20 05.2  -1.1
            comp=Z,5.7nm,0.7s,mb4.1,baz=98,slow=8.9,SNR=12
SCHQ                             LR      LR      14 27 59.6
            comp=Z,2µm,19.4s,MS4.6,baz=92,slow=33
SCHQ  Schefferville    24.09 298  eP       P       14 20 05.0  -1.4
            comp=Z,35nm,1.0s,mb4.8
KONO  Kongsberg        24.11  50  eP       P       14 20 05.1  -1.4
            comp=Z,92nm,1.3s,mb5.0
KONO                             LR      LR
            comp=Z,3µm,20.0s,MS4.7
KONO  Kongsberg        24.11  50  eP       P       14 20 05.1  -1.4
KONO                             pmax    pmax
            comp=Z,92nm,1.3s,mb5.0
KONO                             MLR     MLR
            comp=Z,3µm,20.0s,MS4.7
KONO  Kongsberg        24.11  50  eP       P       14 20 05.1  -1.4
            comp=Z,3µm,20.0s
MDT   Midelt           24.13 124   P       P       14 20 06.8  -0.1
            comp=Z,20nm,1.1s,mb4.5,baz=330,slow=11,SNR=9.4
MBDF  Montbardon       24.27  87⇑iP       P       14 20 08.1   0.0
            comp=Z,102nm,0.9s,mb4.9
MBDF  Montbardon       24.27  87⇑iP       P       14 20 08.1   0.0
MBDF                             pmax    pmax
            comp=Z,51nm,0.9s,mb5.0
MBDF  Montbardon       24.27  87⇑iP       P       14 20 08.1   0.0
            comp=Z,51nm,0.9s,mb4.9
BSEG  Bad Segeberg     24.31  64  eP       P       14 20 08.4  +0.1
BSEG  Bad Segeberg     24.31  64  eP       P       14 20 08.4  +0.1
BSEG                             pmax    pmax
            comp=Z,196nm,1.4s,mb5.3
BSEG  Bad Segeberg     24.31  64  eP       P       14 20 08.4  +0.1
            comp=Z,196nm,1.4s,mb5.3
RSP   Reno Superiore   24.42  86   P       P       14 20 10.9  +1.4
SPAK  Spaichingen-Ko   24.43  78  eP       P       14 20 10.2  +0.7
STU   Stuttgart        24.51  77  eP       P       14 20 10.4  +0.2
            comp=Z,131nm,1.2s,mb5.3
CLZ   Clausthal        24.59  69  eP       P       14 20 10.9  -0.1
CLZ                              pmax    pmax
            comp=Z,150nm,1.3s,mb5.4
CLZ   Clausthal        24.59  69  eP       P       14 20 10.9  -0.1
            comp=Z,150nm,1.3s,mb5.4
TRAV                   24.61  85   P       P       14 20 12.4  +1.3
FRF   La Foret Royal   24.67  90  eP       P       14 20 11.2  -0.5
            comp=Z,226nm,1.2s,mb5.3
FRF   La Foret Royal   24.67  90  eP       P       14 20 11.2  -0.5
FRF                              pmax    pmax
            comp=Z,113nm,1.2s,mb5.3
FRF   La Foret Royal   24.67  90  eP       P       14 20 11.2  -0.5
            comp=Z,113nm,1.2s,mb5.3
DOI   San Damiano      24.67  87   P       P       14 20 11.8  +0.1
LMR   La Mourre        24.68  90  eP       P       14 20 11.1  -0.7
            comp=Z,128nm,1.2s,mb5.0
LMR   La Mourre        24.68  90  eP       P       14 20 11.1  -0.7
LMR                              pmax    pmax
            comp=Z,64nm,1.2s,mb5.0
LMR   La Mourre        24.68  90  eP       P       14 20 11.1  -0.7
            comp=Z,64nm,1.2s,mb5.0
CALN  Calern           24.75  89  eP       P       14 20 13.4  +1.0
STV   Sta Anna Valdi   24.83  88   P       P       14 20 13.2  +0.1
MVIF  Mont Vial        24.86  89  eP       P       14 20 13.4   0.0
TOUF  Mont Tournerai   24.87  88  eP       P       14 20 13.6   0.0
NAO01 NORSAR Array S   24.94  47  eP       P       14 20 14.5  +0.5
            comp=Z,64nm,1.2s,mb5.0
NAO01                            LR      LR
            comp=Z,3µm,19.0s,MS4.8
NAO01 NORSAR Array S   24.94  47  eP       P       14 20 14.5  +0.5
            comp=Z,64nm,1.2s,mb5.0
LUCF  Luceram          24.99  89  eP       P       14 20 14.4  -0.2
AUTN  L'Aution         25.00  88  eP       P       14 20 15.9  +1.2
SBF   Sospel           25.06  89  eP       P       14 20 14.6  -0.6
            comp=Z,254nm,1.2s,mb5.3
SBF   Sospel           25.06  89  eP       P       14 20 14.6  -0.6
SBF                              pmax    pmax
            comp=Z,127nm,1.2s,mb5.3
SBF   Sospel           25.06  89  eP       P       14 20 14.6  -0.6
            comp=Z,127nm,1.2s,mb5.3
REVF  Revere           25.07  89  eP       P       14 20 16.0  +0.7
SAOF  Saorge           25.09  88  eP       P       14 20 15.4  -0.1
NB2   NORSAR Subarra   25.14  47   P       P       14 20 15.8   0.0
            comp=Z,65nm,1.2s,mb5.0,baz=259,slow=9.3
NOA   NORSAR Array B   25.14  47   P       P       14 20 16.0  +0.2
            comp=Z,46nm,1.2s,mb4.9,baz=260,slow=9.8,SNR=15
NOA                              LR      LR      14 29 18.7
            comp=Z,2µm,18.5s,MS4.7,baz=275,slow=35
VAI   Varese           25.14  83   P       P       14 20 16.9  +0.9
MONE  Monesi           25.18  88   P       P       14 20 16.0  -0.3
NEGI  Negi             25.24  88   P       P       14 20 16.6  -0.3
EANR  'Ain N'Sour      25.25 111   P       P       14 20 16.7  -0.4
ECHA  Ech Chlef        25.28 110   P       P       14 20 19.0  +1.6
EBNR  Beni Rached      25.30 109   P       P       14 20 19.4  +1.9
RORO                   25.37  88   P       P       14 20 18.2  +0.1
DAVA  Damuels          25.38  80⇑iP       P       14 20 18.7  +0.5
            comp=Z,152nm,1.5s,mb5.3,SNR=21
DAVA  Damuels          25.38  80⇑iP       P       14 20 18.6  +0.4
            comp=Z,152nm,1.5s,mb5.3
COP   Copenhagen       25.42  60  i P      P       14 20 19.9  +1.5
COP                              pmax    pmax
            comp=Z,72nm,1.4s,mb5.0
COP                              MLR     MLR
            comp=Z,870nm,20.0s,MS4.3
COP   Copenhagen       25.42  60  i P      P       14 20 19.9  +1.5
            comp=Z,72nm,1.4s,mb5.0
COP                             i S      S       14 24 55.8  +11
COP
            comp=Z,870nm,20.0s
QLNO  Quiliano         25.46  87   P       P       14 20 18.4  -0.5
DAVOS Davos            25.47  81   P       P       14 20 20.4  +1.4
PCP   Pian Castagno    25.51  86   P       P       14 20 19.6  +0.3
DAVOX Davos/Dischmat   25.55  81   P       P       14 20 20.4  +0.7
            comp=Z,43nm,1.1s,mb4.9,baz=282,slow=7.7,SNR=23
DAVOX                            LR      LR      14 29 51.4
            comp=Z,5µm,18.7s,MS5.0,baz=277,slow=35
GRFO  Grafenberg       25.56  74  eP       P       14 20 20.2  +0.4
            comp=Z,128nm,1.3s,mb5.3
GRFO                             LR      LR
            comp=Z,3µm,20.0s,MS4.9
GRFO  Grafenberg       25.56  74  eP       P       14 20 20.2  +0.4
GRFO                             pmax    pmax
            comp=Z,128nm,1.3s,mb5.3
GRFO                             MLR     MLR
            comp=Z,3µm,20.0s,MS4.9
GRFO  Grafenberg       25.56  74  eP       P       14 20 20.2  +0.4
            comp=Z,3µm,20.0s
GRA1  Grafenberg Arr   25.56  74  eP       P       14 20 20.2  +0.4
            comp=Z,183nm,1.5s,mb5.4
GRA1                             LR      LR
            comp=Z,4µm,20.5s,MS4.9
GRF   Grafenberg Arr   25.56  74  eP       P       14 20 20.2  +0.4
GRF                              pmax    pmax
            comp=Z,183nm,1.5s,mb5.4
GRF                              MLR     MLR
            comp=Z,4µm,20.5s,MS4.9
GRF   Grafenberg Arr   25.56  74  eP       P       14 20 20.2  +0.4
GRF                              pmax    pmax
            comp=Z,183nm,1.5s,mb5.4
GRF                              MLR     MLR
            comp=Z,4µm,20.5s,MS4.9
GRF   Grafenberg Arr   25.56  74  eP       P       14 20 20.2  +0.4
            comp=Z,183nm,1.5s,mb5.4
GRF                             eL               14 29 25.4
            comp=Z,4µm,20.5s
MOX   Moxa             25.59  71  eP       P       14 20 20.4  +0.4
            comp=Z,104nm,1.6s,mb5.1
MOX                             e                14 20 39.9
MOX
            comp=Z,3µm,20.0s
MOX   Moxa             25.59  71  eP       P       14 20 20.4  +0.4
MOX                              pmax    pmax
            comp=Z,104nm,1.6s,mb5.1
MOX                              MLR     MLR
            comp=Z,3µm,20.0s,MS4.8
MOX   Moxa             25.59  71  eP       P       14 20 19.8  -0.2
            comp=Z,72nm,1.3s,mb5.0
ETRT  Tiaret           25.74 111   P       P       14 20 22.3  +0.8
RETA  Reutte           25.89  79⇑iP       P       14 20 23.1  +0.3
            comp=Z,70nm,1.5s,mb5.0,SNR=13
FUR   Furstenfeldbru   26.01  77  eP       P       14 20 25.2  +1.3
FUR                              pmax    pmax
            comp=Z,126nm,1.1s,mb5.4
FUR   Furstenfeldbru   26.01  77  eP       P       14 20 25.2  +1.3
            comp=Z,126nm,1.1s,mb5.4
FETA  Feichten         26.02  80⇑iP       P       14 20 24.7  +0.8
            comp=Z,46nm,1.2s,mb4.9,SNR=18
MANZ  Manzenberg       26.05  73  eP       P       14 20 23.8  -0.4
            comp=Z,84nm,1.2s,mb5.2
MOTA  Moosalm          26.15  79⇑iP       P       14 20 25.8  +0.7
            comp=Z,77nm,1.3s,mb5.1,SNR=14
MOTA  Moosalm          26.15  79⇑iP       P       14 20 25.8  +0.6
MOTA                             pmax    pmax
            comp=Z,77nm,1.3s,mb5.1
ROTZ  Rotzenmuhle      26.16  73  eP       P       14 20 25.3  +0.1
            comp=Z,85nm,1.4s,mb5.1
TANN  Tannenbergstha   26.17  72  eP       P       14 20 25.5  +0.3
            comp=Z,32nm,1.2s,mb4.7
NKC   Novy Kostel      26.20  72  eP       P       14 20 25.7  +0.2
NKC                              AMS     AMS     14 29 40.0
            comp=Z,4µm,20.2s
NKC   Novy Kostel      26.20  72  eP       P       14 20 25.7  +0.2
            comp=Z,4µm,20.2s
HFS   Hagfors          26.22  49   P       P       14 20 25.9  +0.3
            comp=Z,20nm,1.0s,mb4.6,baz=258,slow=7.3,SNR=16
HFS                              LR      LR      14 30 20.5
            comp=Z,2µm,18.2s,MS4.8,baz=269,slow=36
EMHD  Djebel Mahouad   26.24 108   P       P       14 20 27.0  +1.0
SQTA  Sankt Quirin     26.26  79⇑iP       P       14 20 26.8  +0.7
            comp=Z,103nm,1.4s,mb5.2,SNR=12
SQTA  Sankt Quirin     26.26  79⇑iP       P       14 20 26.8  +0.7
SQTA                             pmax    pmax
            comp=Z,103nm,1.4s,mb5.2
CLL   Collm            26.31  69  i P      P       14 20 25.9  -0.6
            comp=Z,31nm,1.2s,mb4.7
CLL                             i        pP      14 20 30.2  +0.7
CLL                             i                14 20 35.3
CLL   Collm            26.31  69  i P      P       14 20 25.9  -0.6
CLL                             i        pP      14 20 30.2  +0.7
CLL                              pmax    pmax
            comp=Z,31nm,1.2s,mb4.7
CLL   Collm            26.31  69  eP       P       14 20 26.8  +0.3
CLL   Collm            26.31  69  i P      P       14 20 25.9  -0.6
            comp=Z,31nm,1.2s,mb4.7
CLL                             i (sP)   sP      14 20 30.2  -0.6
            comp=Z,55nm,1.3s
CLL                             i x      x       14 20 35.3
CLL                             ex       x       14 20 44.0
CLL                             ePPP             14 21 06.0
CLL                             eS       S       14 25 06.0  +7.0
CLL                             eSSS             14 26 06.0
CODM                   26.42  86   P       P       14 20 28.2  +0.6
WATA  Walderalm        26.46  79⇓iP       P       14 20 28.3  +0.4
            comp=Z,96nm,1.4s,mb5.1
WATA  Walderalm        26.46  79⇓iP       P       14 20 28.3  +0.4
WATA                             pmax    pmax
            comp=Z,96nm,1.4s,mb5.1
GRAM                   26.52  85   P       P       14 20 28.9  +0.4
WTTA  Wattenberg       26.52  79⇑iP       P       14 20 29.1  +0.6
            comp=Z,204nm,1.4s,mb5.5,SNR=20
WTTA  Wattenberg       26.52  79⇑iP       P       14 20 29.1  +0.6
WTTA                             pmax    pmax
            comp=Z,204nm,1.4s,mb5.5
APPI  Appiano          26.53  81   P       P       14 20 29.7  +1.2
RUE   Ruedersdorf      26.56  67   P       P       14 20 26.7  -2.1
RUE   Ruedersdorf      26.56  67   P       P       14 20 26.7  -2.1
BACM                   26.61  86   P       P       14 20 29.0  -0.3
PGF   Pioggiola        26.66  90⇑iP       P       14 20 29.4  -0.4
            comp=Z,343nm,1.9s,mb5.2
PGF   Pioggiola        26.66  90⇑iP       P       14 20 29.4  -0.4
PGF                              pmax    pmax
            comp=Z,172nm,1.9s,mb5.3
PGF   Pioggiola        26.66  90⇑iP       P       14 20 29.4  -0.4
            comp=Z,172nm,1.9s,mb5.2
VALM                   26.70  86   P       P       14 20 30.4  +0.3
WET   Wettzell         26.75  74  eP       P       14 20 30.1  -0.4
WET                              pmax    pmax
            comp=Z,56nm,1.5s,mb4.9
WET   Wettzell         26.75  74  eP       P       14 20 30.1  -0.4
            comp=Z,56nm,1.5s,mb4.9
SARO  Sassorosso       26.87  86   P       P       14 20 30.8  -0.8
BSD   Bornholm Skovb   26.87  61  eP       P       14 20 31.5  -0.1
BSD                              pmax    pmax
            comp=Z,45nm,1.1s,mb4.9
BSD                              MLR     MLR
            comp=Z,1µm,19.0s,MS4.4
BSD   Bornholm Skovb   26.87  61  i P      P       14 20 31.5  -0.1
            comp=Z,45nm,1.1s,mb4.9
BSD                             i S      S       14 25 21.8  +14
BSD
            comp=Z,1µm,19.0s
BRG   Berggiesshubel   26.98  70  eP       P       14 20 32.2  -0.3
            comp=Z,41nm,1.4s,mb4.8
BRG                             e                14 21 03.9
BRG                              PP              14 21 15.0
BRG                              S       S       14 25 15.0  +5.4
BRG                              LR      LR
            comp=Z,2µm,16.7s,MS4.8
BRG   Berggiesshubel   26.98  70  eP       P       14 20 32.2  -0.4
BRG                                              14 21 15.0
BRG                              S       S       14 25 15.0  +5.4
BRG                              pmax    pmax
            comp=Z,41nm,1.4s,mb4.8
BRG                              pmax    pmax
            comp=Z,24nm,1.4s,mb4.5
BRG                              MLR     MLR
            comp=N,1µm,17.2s,MS4.8
BRG                              MLR     MLR
            comp=E,2µm,16.7s,MS4.8
BRG                              MLR     MLR
            comp=Z,2µm,16.7s,MS4.8
BRG   Berggiesshubel   26.98  70  eP       P       14 20 32.3  -0.3
            comp=Z,176nm,2.1s,mb5.2
BRG   Berggiesshubel   26.98  70  eP       P       14 20 32.2  -0.3
            comp=Z,69nm,1.4s,mb5.0
BRG                             e                14 21 03.9
            comp=Z,40nm,1.4s
BRG                              PP              14 21 15.0
BRG                              S       S       14 25 15.0  +5.4
BRG
            comp=N,2µm,17.2s
BRG
            comp=E,3µm,16.7s
BRG
            comp=Z,4µm,16.7s
MAIM                   27.04  86   P       P       14 20 31.8  -1.4
SEST  Monte Rota       27.07  80   P       P       14 20 36.6  +3.2
KHC   Kasperske Hory   27.19  74  eP       P       14 20 34.7  +0.2
KHC                             ex       x       14 20 52.0
KHC                             ex       x       14 21 26.0
KHC                              AMS     AMS     14 30 50.0
            comp=Z,4µm,17.9s
GEC2  GERESS Array S   27.35  75  eP       P       14 20 35.1  -0.8
            comp=Z,57nm,1.4s,mb4.9
GEC2  GERESS Array S   27.35  75  eP       P       14 20 35.1  -0.8
GEC2                             pmax    pmax
            comp=Z,57nm,1.4s,mb4.9
GERES GERESS Array B   27.35  75   P       P       14 20 36.2  +0.2
            comp=Z,19nm,1.1s,mb4.5,baz=289,slow=8.3,SNR=46
GERES                            LR      LR      14 31 19.8
            comp=Z,4µm,18.1s,MS5.1,baz=269,slow=36
PVCC  Panska Ves       27.45  71  eP       P       14 20 37.4  +0.6
PVCC                             AMS     AMS     14 31 00.0
            comp=Z,4µm,17.9s
PRU   Pruhonice        27.57  72  eP       P       14 20 37.9  +0.1
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Code	Station	Dist	Azi	Phase	ISC	Time	Res
PRU				AMS	AMS	14 30 20.0	
	comp=Z,4µm,19.4s						
KBA	Koelnbreinsper	27.68	78	⇓iP	P	14 20 39.3	+0.4
	comp=Z,33nm,1.1s,mb4.9,SNR=5.7						
KBA	Koelnbreinsper	27.68	78	⇓iP	P	14 20 39.4	+0.5
KBA				pmax	pmax		
	comp=Z,33nm,1.1s,mb4.9						
KBA	Koelnbreinsper	27.68	78	⇓iP	P	14 20 39.3	+0.4
	comp=Z,33nm,1.1s,mb4.9						
PKME	Peaks-Kenny Pk	27.80	278	PFAKE		14 20 50.0	+10
PKME				LR	LR		
	comp=Z,4µm,20.0s,MS5.0						
DFRA	Djebel Bou Aff	27.87	104	P	P	14 20 40.0	-0.7
PTCC	Patocco-Chiusa	27.93	80	P	P	14 20 40.8	-0.3
MOA	Molln	28.02	76	⇑iP	P	14 20 41.5	-0.4
	comp=Z,34nm,1.5s,mb4.8						
MYKA	Terra Mystica	28.03	79	⇓iP	P	14 20 41.9	-0.1
	comp=Z,283nm,1.5s,mb5.7						
CADS	Cadrg	28.24	80	eP	P	14 20 43.5	-0.4
CAEH	’Ain El Ouahch	28.34	103	P	P	14 20 49.0	+4.1
UPC	Upice	28.34	70	eP	P	14 20 45.3	+0.5
TREC	Trest	28.35	73	eP	P	14 20 45.2	+0.4
TREC				AMS	AMS	14 30 40.0	
	comp=Z,3µm,20.0s						
VOY	Vojsko	28.41	80	eP	P	14 20 45.4	0.0
VOY				e		14 20 50.7	
KSP	Ksiaz	28.43	69	eP	P	14 20 44.8	-0.7
KSP				LMZ		14 31 56.0	
	comp=Z,6µm,17.5s						
KSP	Ksiaz	28.43	69	eP	P	14 20 44.7	-0.9
KSP				MLR	MLR		
	comp=Z,7µm,17.5s,MS5.3						
DPC	Dobruska-Polom	28.58	70	eP	P	14 20 46.9	0.0
DPC				AMS	AMS	14 31 40.0	
	comp=Z,4µm,17.5s						
OBKA	Obir	28.66	79	⇑iP	P	14 20 47.2	-0.5
	comp=Z,76nm,1.4s,mb5.2,SNR=9.3						
LJU	Ljubljana	28.82	80	eP	P	14 20 48.7	-0.3
PERS	Pernice	28.98	78	eP	P	14 20 49.5	-0.9
PERS	Pernice	28.98	78	eP	P	14 20 49.5	-1.0
CONA	Conrad Observa	29.01	75	⇓iP	P	14 20 51.3	+0.6
	comp=Z,19nm,1.4s,mb4.6						
ARSA	Arzberg	29.02	77	i P	P	14 20 51.0	+0.1
	comp=Z,46nm,1.4s,mb5.0,SNR=9.7						
VRAC	Vranov	29.04	72	⇓P	P	14 20 52.2	+1.3
VRAC	Vranov	29.04	72	P	P	14 20 50.7	-0.2
	comp=Z,5.7nm,0.8s,mb4.4,baz=344,slow=3.9,SNR=5.8						
VRAC				LR	LR	14 31 42.6	
	comp=Z,4µm,20.5s,MS5.0,baz=282,slow=35						
VRAC	Vranov	29.04	72	⇓iP	P	14 20 52.2	+1.3
VISS	Visnje	29.11	80	i P	P	14 20 51.6	0.0
MORC	Moravsky Berou	29.49	71	eP	P	14 20 54.3	-0.7
	comp=Z,31nm,1.3s,mb4.9						
MORC	Moravsky Berou	29.49	71	⇓iP	P	14 20 55.2	+0.2
MORC	Moravsky Berou	29.49	71	eP	P	14 20 54.3	-0.7
	comp=Z,31nm,1.3s,mb4.9						
BOJS	Bojanci	29.49	80	i P	P	14 20 55.1	0.0
SOP	Sopron	29.53	76	⇓eP	P	14 20 56.0	+0.6
ZST	Bratislava	29.70	74	eP	P	14 20 57.2	+0.3
	comp=Z,27nm,1.3s,mb4.8						
ZST				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
KOGS	Kog	29.77	78	i P	P	14 20 56.4	-1.1
SMOL	Smolenice	29.81	74	eP	P	14 20 57.7	-0.1
OKC	Ostrava-Krasne	29.85	71	AMS	AMS	14 32 40.0	
	comp=Z,3µm,17.7s						
LBNH	Lisbon	29.94	277	PFAKE		14 21 10.0	+11
LBNH				LR	LR		
	comp=Z,3µm,20.0s,MS4.9						
WES	Weston	30.37	274	PFAKE		14 21 10.0	+7.2
WES				LR	LR		
	comp=Z,2µm,22.0s,MS4.7						
HRV	Harvard--Oak R	30.47	274	PFAKE		14 21 20.0	+16
HRV				LR	LR		
	comp=Z,3µm,20.0s,MS5.0						
KEST	Kesra	30.58	102	P	P	14 21 04.3	-0.4
	comp=Z,26nm,1.1s,mb5.0,baz=242,slow=1.2,SNR=16						
KEST				LR	LR	14 31 19.1	
	comp=Z,750nm,21.2s,MS4.3,baz=333,slow=32						
VYHS	Vyhne	30.70	73	eP	P	14 21 05.6	-0.1
	comp=Z,31nm,1.9s,mb4.8						
VYHS				LR	LR		
	comp=Z,2µm,23.3s,MS4.6						
OJC	Ojcow	30.76	69	eP	P	14 21 05.8	-0.3
BUD	Budapest	31.16	75	⇓eP	P	14 21 10.4	+0.6
NIE	Niedzica	31.32	71	eP	P	14 21 12.5	+1.4
PKSM	Moragy	31.40	77	⇓P	P	14 21 11.3	-0.6
PKSM	Moragy	31.40	77	⇓iP	P	14 21 11.3	-0.5
ACCN	Adirondack Com	31.44	277	eP	P	14 21 13.3	+1.0
ACCN	Adirondack Com	31.44	277	eP	P	14 21 13.3	+1.0
LONY	Lake Ozonia	31.50	279	eP	P	14 21 12.5	-0.3
	comp=Z,30nm,0.9s,mb5.1						
LONY				LR	LR		
	comp=Z,4µm,19.0s,MS5.1						
LONY	Lake Ozonia	31.50	279	eP	P	14 21 12.5	-0.3
	comp=Z,30nm,0.9s,mb5.1						
MSNY	Massena	31.52	280	eP	P	14 21 13.1	+0.2
MSNY	Massena	31.52	280	eP	P	14 21 13.1	+0.1
NCB	Newcomb	31.55	278	PFAKE		14 21 30.0	+17
NCB				LR	LR		
	comp=Z,4µm,19.0s,MS5.1						
PSZ	Piszkesteto	31.56	74	ePd	P	14 21 14.5	+1.2
PSZ	Piszkesteto	31.56	74	⇑iP	P	14 21 13.8	+0.5
PSZ	Piszkesteto	31.56	74	eP	P	14 21 13.6	+0.3
	comp=Z,78nm,1.3s,mb5.4						
KECS	Kecovo	31.73	72	eP	P	14 21 14.7	-0.1
	comp=Z,7.2nm,1.0s,mb4.5						
KECS	Kecovo	31.73	72	eP	P	14 21 14.7	-0.1
KECS				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
SUW	Suwalki	31.80	61	eP	P	14 21 15.9	+0.6
SUW				LMZ		14 31 15.7	
	comp=Z,1µm,29.1s						
BBSR	BB Station	31.84	252	PFAKE		14 21 30.0	+14
BBSR				LR	LR		
	comp=Z,2µm,19.0s,MS4.8						
STHS	Stebnicka Huta	31.89	70	i P	P	14 21 16.6	+0.4
STHS				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
STHS	Stebnicka Huta	31.89	70	i P	P	14 21 16.6	+0.4
	comp=Z,17nm,1.2s,mb4.8						
CRVS	Cervenica-Dubn	32.20	71	eP	P	14 21 18.8	-0.1
FINES	FINESS Array B	32.32	47	P	P	14 21 20.0	+0.2
	comp=Z,30nm,1.0s,mb5.1,baz=264,slow=6.7,SNR=38						
FINES				LR	LR	14 33 32.2	
	comp=Z,2µm,18.0s,MS4.8,baz=270,slow=35						
FIA1	FINESS Array S	32.32	47	eP	P	14 21 19.9	+0.2
FIA1	FINESS Array S	32.32	47	eP	P	14 21 20.0	+0.2
KAF	Kangasniemi	32.40	46	ep	P	14 21 19.8	-0.7
	comp=Z,69nm,1.1s,mb5.4,baz=272,slow=8.7						
KAF	Kangasniemi	32.40	46	eP	P	14 21 19.8	-0.7
KAF				pmax	pmax		
	comp=Z,69nm,1.1s,mb5.4						
ARCES	ARCESS Array B	32.60	32	P	P	14 21 22.0	-0.2
	comp=Z,15nm,0.8s,mb5.0,baz=254,slow=6.5,SNR=23						
ARCES				LR	LR	14 33 53.9	
	comp=Z,655nm,18.4s,MS4.4,baz=249,slow=35						
KOLS	Kolonicke sedl	32.69	71	eP	P	14 21 23.2	0.0
KOLS				e		14 53 20.1	
KWP	Kalwaria	32.73	69	eP	P	14 21 24.0	+0.5
KWP				LMZ		14 32 02.2	
	comp=Z,2µm,29.2s						
UZH	Uzhgorod	32.81	71	⇓iP	P	14 21 24.8	+0.6
UZH				i		14 21 30.4	
UZH				eS	S	14 26 42.0	+1.0
UZH				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.9						
VAE	Valguarnera	32.84	95	LR	LR	14 34 10.4	
	comp=Z,1µm,18.5s,MS4.7,baz=123,slow=35						
TRPA	Tarpa	33.14	72	⇑iP	P	14 21 26.8	-0.3
KEV	Kevo	33.15	32	eP	P	14 21 25.9	-1.1
KEV				LR	LR		
	comp=Z,885nm,20.0s,MS4.5						
KBS	Kingsbay	33.16	13	PFAKE		14 21 40.0	+13
KBS				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
SPB4	Spitsbergen Ar	33.43	15	P	P	14 21 31.6	+2.2
SPB4	Spitsbergen Ar	33.43	15	P	P	14 21 31.5	+2.2
LVV	L’vov	33.47	69	eP	P	14 21 29.0	-1.0
LVV				eS	S	14 26 56.0	+4.7
LVV				smax			
	comp=Z,1µm,16.0s						
BINY	Binghamton	33.51	276	PFAKE		14 21 40.0	+10
BINY				LR	LR		
	comp=Z,5µm,19.0s,MS5.2						
BZS	Buzias	33.54	77	⇑P	P	14 21 31.0	+0.4
BZS	Buzias	33.54	77	⇑iP	P	14 21 31.0	+0.4
MNK	Minsk	34.33	59	⇑eP	P	14 21 34.0	-3.4
GZR	Gura Zlata	34.37	76	⇑P	P	14 21 38.7	+0.8
GZR	Gura Zlata	34.37	76	⇑iP	P	14 21 38.7	+0.8
JOF	Joensuu	34.66	44	ep	P	14 21 39.3	-0.9
ALE	Alert	34.95	353	P	P	14 21 44.0	+1.5
	comp=Z,93nm,1.2s,mb5.6,SNR=5.1						
BURAR	Bucovina Array	35.01	72	⇑P	P	14 21 44.2	+0.9
BURAR	Bucovina Array	35.01	72	⇑iP	P	14 21 44.2	+0.9
SKO	Skopje	35.07	83	eP	P	14 21 44.5	+0.6
KRUS	Krusevo	35.25	84	eP	P	14 21 45.6	+0.1
APA	Apatity	35.32	36	eP	P	14 21 47.0	+1.2
APA				i S	S	14 27 24.0	+4.5
APA				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.2						
APA				MLR	MLR		
	comp=Z,2µm,20.0s,MS4.8						
BIA	Bitola	35.47	84	eP	P	14 21 46.9	-0.5
SSPA	Standing Stone	35.52	275	eP	P	14 21 47.1	-0.8
	comp=Z,25nm,1.1s,mb5.1						
SSPA				LR	LR		
	comp=Z,2µm,19.0s,MS4.8						
SSPA	Standing Stone	35.52	275	eP	P	14 21 47.1	-0.7
	comp=Z,25nm,1.1s,mb5.1						
LVZ	Lovozero	35.79	35	PFAKE		14 22 00.0	+10
LVZ				LR	LR		
	comp=Z,1µm,21.0s,MS4.6						
VOIR		35.80	75	⇓P	P	14 21 50.6	+0.5
VOIR		35.80	75	⇓iP	P	14 21 50.6	+0.4
VAY	Valandovo	36.13	83	eP	P	14 21 52.7	-0.3
KIEV	Kiev	36.30	65	eP	P	14 21 53.4	-0.9
	comp=Z,55nm,1.1s,mb5.4						
KIEV				LR	LR		
	comp=Z,3µm,20.0s,MS5.1						
KIEV	Kiev	36.30	65	eP	P	14 21 53.4	-0.9
KIEV				pmax	pmax		
	comp=Z,55nm,1.1s,mb5.4						
KIEV				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.1						
KIEV	Kiev	36.30	65	eP	P	14 21 53.4	-0.9
	comp=Z,55nm,1.1s,mb5.4						
AKASG	Malin Array Be	36.30	65	P	P	14 21 53.4	-1.0
AKASG						14 23 17.2	
AKASG	Malin Array Be	36.30	65	P	P	14 21 53.4	-1.0
	comp=Z,34nm,1.1s,mb5.2,baz=285,slow=8.7,SNR=22						
AKASG				PP	PP	14 23 17.2	+0.4
	comp=Z,7.9nm,1.1s,baz=292,slow=12,SNR=4.0						
AKASG				LR	LR	14 37 16.0	
	comp=Z,3µm,18.8s,MS5.1,baz=285,slow=37						
AKASG	Malin Array Be	36.30	65	PP	PP	14 23 17.1	+0.3
AKBB	Malin Array Si	36.30	65	eP	P	14 21 53.8	-0.6
AKBB	Malin Array Si	36.30	65	eP	P	14 21 53.8	-0.6
MLR	Muntele Rosu	36.34	75	⇓P	P	14 21 54.4	-0.4
MLR	Muntele Rosu	36.34	75	P	P	14 21 55.1	+0.3
	comp=Z,34nm,1.2s,mb5.2,baz=312,slow=5.9,SNR=11						
MLR				LR	LR	14 38 33.5	
	comp=Z,2µm,18.1s,MS5.0,baz=148,slow=39						
MLR	Muntele Rosu	36.34	75	⇓iP	P	14 21 54.4	-0.4
ALLY	Alegheny Colle	36.48	278	eP	P	14 21 56.0	0.0
ALLY	Alegheny Colle	36.48	278	eP	P	14 21 56.0	0.0
CBN	Corbin	36.48	271	PFAKE		14 22 10.0	+14
CBN				LR	LR		
	comp=Z,3µm,22.0s,MS5.0						
VRI	Vrincioaia	36.67	74	⇓iP	P	14 21 57.9	+0.3
RES	Resolute Bay	37.15	336	eP	P	14 22 01.5	+0.2
	comp=Z,960nm,1.1s						
AGG	Agios Georgios	37.18	86	eP	P	14 22 02.6	+0.7
PLG	Polygyros	37.19	84	eP	P	14 22 02.5	+0.4
MCWV	Mont Chateau	37.31	275	PFAKE		14 22 10.0	+6.9
MCWV				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
VLX	Vlachokerasia	38.12	88	eP	P	14 22 11.5	+1.4
LTK	Loutraki	38.14	87	eP	P	14 22 10.4	+0.2
FCC	Fort Churchill	38.29	310	eP	P	14 22 11.2	0.0
	comp=Z,54nm,1.1s,mb5.2						
FCC	Fort Churchill	38.29	310	eP	P	14 22 11.2	0.0
FCC				pmax	pmax		
	comp=Z,54nm,1.1s,mb5.2						
FCC	Fort Churchill	38.29	310	eP	P	14 22 11.1	-0.1
	comp=Z,54nm,1.1s,mb5.2						
TIRR	Tirgusor	38.37	75	⇓iP	P	14 22 08.6	-3.4
AAM	Ann Arbor	38.43	281	P	P	14 22 12.6	+0.1
AAM				LR	LR		
	comp=Z,4µm,21.0s,MS5.2						
AAM	Ann Arbor	38.43	281	P	P	14 22 12.6	+0.1
LOS	Limnos	38.48	83	eP	P	14 22 14.2	+1.2
CNNC	Cliffs of the	38.53	268	PFAKE		14 22 20.0	+6.6
CNNC				LR	LR		
	comp=Z,2µm,20.0s,MS4.9						
ALN	Alexandroupoli	38.61	81	eP	P	14 22 15.2	+1.2
DID	Didima	38.61	88	eP	P	14 22 14.4	+0.3
OBN	Obninsk	38.99	56	eP	P	14 22 17.1	+0.1
	comp=Z,186nm,1.4s,mb5.6						
OBN				LR	LR		
	comp=Z,2µm,21.0s,MS4.8						
OBN	Obninsk	38.99	56	d iP	P	14 22 17.2	+0.1
OBN				e		14 24 27.3	
OBN				eS	S	14 28 10.5	-5.0
OBN				pmax	pmax		
	comp=Z,119nm,1.2s,mb5.5						
OBN				MLR	MLR		
	comp=Z,1µm,17.0s,MS4.9						
OBN	Obninsk	38.99	56	eP	P	14 22 17.1	0.0
	comp=Z,186nm,1.4s,mb5.6						
BLA	Blacksburg	39.04	272	PFAKE		14 22 30.0	+12
BLA				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
ACSO	Alum Creek Sta	39.05	278	eP	P	14 22 17.9	+0.1
	comp=Z,68nm,1.0s,mb5.3						
ACSO				LR	LR		
	comp=Z,4µm,20.0s,MS5.3						
ACSO	Alum Creek Sta	39.05	278	eP	P	14 22 17.9	+0.1
	comp=Z,68nm,1.0s,mb5.3						
MOS	Moscow	39.35	55	eP	P	14 22 20.1	0.0
MOS				e		14 22 25.1	
MOS				e		14 23 53.9	
MOS				MLR	MLR		
	comp=Z,1µm,16.0s,MS4.9						
SART	Tekirdag	39.45	81	i P	P	14 22 15.8	-5.3
CHOS	Chios island	39.96	85	eP	P	14 22 26.4	+1.0
COWI	Conover	40.08	289	PFAKE		14 22 40.0	+14
COWI				LR	LR		
	comp=Z,4µm,19.0s,MS5.2						
APE	Apeiranthos	40.36	87	eP	P	14 22 29.0	+0.3
APE	Apeiranthos	40.36	87	⇓iP	P	14 22 29.1	+0.4
EYMN	Ely	40.69	293	eP	P	14 22 30.8	-0.5
	comp=Z,37nm,1.0s,mb5.0						
EYMN				LR	LR		
	comp=Z,3µm,20.0s,MS5.1						
EYMN	Ely	40.69	293	eP	P	14 22 30.8	-0.5
	comp=Z,37nm,1.0s,mb5.0						
GVD	Gavdhos	40.73	90	eP	P	14 22 31.9	+0.2
	comp=Z,79nm,1.1s,mb5.2						
GVD	Gavdhos	40.73	90	eP	P	14 22 31.9	+0.2
	comp=Z,79nm,1.1s,mb5.2						
JSC	Jenkinsville	41.32	269	eP	P	14 22 37.8	+1.2
JSC	Jenkinsville	41.32	269	eP	P	14 22 37.8	+1.2
NHSC	New Hope	41.33	267	PFAKE		14 22 50.0	+13
NHSC				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
TZTN	Tazewell	41.47	274	eP	P	14 22 38.3	+0.5
	comp=Z,54nm,1.3s,mb5.0						
TZTN				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
TZTN	Tazewell	41.47	274	eP	P	14 22 38.3	+0.4
	comp=Z,54nm,1.3s,mb5.0						
GDZ	Gediz	41.80	81	i P	P	14 22 39.3	-1.3
VRSR	Storozhevoye	41.92	60	eP	P	14 22 41.4	+0.1
VRSR				pmax	pmax		
	comp=N,7.0nm,1.1s						
VRSR				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.4						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.2s						
VRSR				MLR	MLR		
	comp=N,160nm,16.0s,MS4.3						
VRSR				MLR	MLR		
	comp=Z,270nm,16.0s,MS4.2						
VRSR				MLR	MLR		
	comp=E,270nm,17.0s,MS4.3						
BLO	Bloomington	41.92	279	P	P	14 22 41.6	+0.1
BLO	Bloomington	41.92	279	P	P	14 22 41.6	+0.1
VORD	Divnogorie	42.08	61	eP	P	14 22 42.1	-0.6
VORD				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.1						
VORD				pmax	pmax		
	comp=N,30nm,0.8s						
VORD				pmax	pmax		
	comp=E,70nm,1.0s						
VORD	Divnogorie	42.08	61	eP	P	14 22 42.1	-0.6
	comp=E,30nm,0.8s,mb5.0						
ULM	Lac du Bonnet	42.27	298	eP	P	14 22 43.1	-1.1
	comp=E,14nm,0.8s,mb4.7						
ULM				LR	LR		
	comp=Z,2µm,21.0s,MS4.9						
ULM	Lac du Bonnet	42.27	298	P	P	14 22 42.7	-1.6
	comp=Z,5.7nm,0.6s,mb4.4,baz=59,slow=8.7,SNR=15						
ULM				LR	LR	14 38 17.9	
	comp=Z,971nm,21.4s,MS4.7,baz=67,slow=33						
ULM	Lac du Bonnet	42.27	298	eP	P	14 22 43.1	-1.1
	comp=Z,14nm,0.8s,mb4.7						
WCI	Wyandotte Cave	42.30	278	eP	P	14 22 45.1	+0.5
	comp=Z,33nm,1.0s,mb4.9						
WCI				LR	LR		
	comp=Z,4µm,19.0s,MS5.3						
WCI	Wyandotte Cave	42.30	278	eP	P	14 22 45.1	+0.5
WCI				pmax	pmax		
	comp=Z,33nm,1.0s,mb4.9						
WCI				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.3						
WCI	Wyandotte Cave	42.30	278	eP	P	14 22 45.1	+0.5
	comp=Z,4µm,19.0s						
JFWS	Jewell Farm	42.32	286	PFAKE		14 23 00.0	+15
JFWS				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
SGKT	Sivrigoynuk	42.66	78	i P	P	14 22 48.2	+0.7
CPCT	Cooper Cave	42.75	273	eP	P	14 22 48.4	+0.1
CPCT	Cooper Cave	42.75	273	eP	P	14 22 48.4	+0.1
HDIL	Hopedale	42.95	282	PFAKE		14 23 00.0	+10
HDIL				LR	LR		
	comp=Z,4µm,22.0s,MS5.2						
BALT	Daday	42.99	76	i P	P	14 22 51.1	+0.9
AGMN	Agassiz Refuge	43.14	296	eP	P	14 22 50.9	-0.4
	comp=Z,23nm,1.0s,mb4.9						
AGMN				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
AGMN	Agassiz Refuge	43.14	296	eP	P	14 22 50.9	-0.4
	comp=Z,23nm,1.0s,mb4.9						
GOGA	Godfrey	43.30	270	PFAKE		14 23 00.0	+7.2
GOGA				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
USIN	University of	43.34	278	P	P	14 22 51.1	-2.0
USIN	University of	43.34	278	P	P	14 22 51.1	-2.0
VRHR	Novokhopersk	43.35	60	eP	P	14 22 53.8	+0.8
VRHR				pmax	pmax		
	comp=Z,30nm,0.5s,mb5.3						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.4s						
VRHR	Novokhopersk	43.35	60	eP	P	14 22 53.8	+0.8
	comp=E,10.0nm,0.6s,mb4.7						
SJG	San Juan	43.41	238	PFAKE		14 23 10.0	+16
SJG				LR	LR		
	comp=Z,906nm,22.0s,MS4.6						
ANTO	Ankara	43.51	78	eP	P	14 22 55.3	+0.9
	comp=Z,51nm,1.3s,mb5.1						
ANTO				LR	LR		
	comp=Z,1µm,22.0s,MS4.8						
ANTO	Ankara	43.51	78	eP	P	14 22 55.3	+0.9
ANTO				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.1						
ANTO				MLR	MLR		
	comp=Z,1µm,22.0s,MS4.8						
ANTO	Ankara	43.51	78	eP	P	14 22 55.3	+0.9
	comp=Z,1µm,22.0s						
TOA0	Torodi Ar. Sit	43.65	135	eP	P	14 22 55.0	-0.7
TOA0	Torodi Ar. Sit	43.65	135	eP	P	14 22 55.0	-0.8
TORD	Torodi Ar. Bea	43.65	135	P	P	14 22 55.3	-0.5
	comp=Z,22nm,1.1s,mb4.8,baz=326,slow=5.2,SNR=47						
TORD				LR	LR	14 40 06.7	
	comp=Z,1µm,18.0s,MS4.9,baz=320,slow=35						
FFC	Flin Flon	43.75	306	P	P	14 22 56.5	+0.3
	comp=Z,119nm,1.0s,mb5.6,SNR=5.4						
FFC	Flin Flon	43.75	306	eP	P	14 22 55.7	-0.5
	comp=Z,25nm,1.1s,mb4.9						
FFC				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
FFC	Flin Flon	43.75	306	eP	P	14 22 55.7	-0.5
FFC				pmax	pmax		
	comp=Z,25nm,1.1s,mb4.9						
FFC				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.8						
FFC	Flin Flon	43.75	306	eP	P	14 22 55.7	-0.5
	comp=Z,1µm,20.0s						
ANN	Anapa	43.84	70	eP	P	14 22 55.9	-1.1
ANN				i *PP	pP	14 23 01.2	+1.1
ANN				eS	S	14 29 28.2	+0.5
ANN				pmax	pmax		
	comp=Z,111nm,1.4s,mb5.4						
ANN				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.2						
ANN	Anapa	43.84	70	eP	P	14 22 55.9	-1.1
	comp=Z,111nm,1.4s,mb5.4						
BOYT	Boyabat	44.02	75	i P	P	14 22 54.4	-4.1
BR131	Keskin Array S	44.13	78	eP	P	14 23 00.6	+1.1
	comp=Z,24nm,1.1s,mb4.8						
BR131				LR	LR		
	comp=Z,787nm,20.0s,MS4.6						
BR131	Keskin Array S	44.13	78	eP	P	14 23 00.6	+1.2
	comp=Z,24nm,1.1s,mb4.8						
BRTR	Keskin Array B	44.13	78	P	P	14 22 59.8	+0.4
BRTR						14 24 43.3	
BRTR	Keskin Array B	44.13	78	P	P	14 22 59.8	+0.4
	comp=Z,28nm,1.2s,mb4.9,baz=308,slow=6.1,SNR=42						
BRTR				PcP	PcP	14 24 43.3	-1.0
	comp=Z,4.1nm,1.1s,baz=27,slow=4.1,SNR=3.8						
BRTR				LR	LR	14 43 44.7	
	comp=Z,735nm,18.4s,MS4.6,baz=321,slow=39						
BRTR	Keskin Array B	44.13	78	PcP	PcP	14 24 43.3	-1.0
BBGH	Gun Hill	44.16	226	PFAKE		14 23 10.0	+10
BBGH				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
CTKT	Corum	44.38	76	i P	P	14 23 01.5	+0.1
SIUC	Southern Illin	44.49	279	eP	P	14 23 01.9	-0.4
	comp=Z,41nm,0.8s,mb5.2						
SIUC	Southern Illin	44.49	279	eP	P	14 23 01.9	-0.4
	comp=Z,41nm,0.8s,mb5.2						
WVT	Waverly	44.51	276	eP	P	14 23 02.0	-0.5
	comp=Z,19nm,1.0s,mb4.9						
WVT				LR	LR		
	comp=Z,4µm,19.0s,MS5.3						
WVT	Waverly	44.51	276	eP	P	14 23 02.0	-0.5
WVT				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.9						
WVT				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.3						
WVT	Waverly	44.51	276	eP	P	14 23 02.0	-0.5
	comp=Z,19nm,1.0s,mb4.9						
SLM	Saint Louis	44.62	281	eP	P	14 23 03.8	+0.5
SLM	Saint Louis	44.62	281	eP	P	14 23 03.8	+0.5
SCIA	State Center	44.72	286	PFAKE		14 23 20.0	+16
SCIA				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
FVM	French Village	45.12	280	eP	P	14 23 07.3	0.0
	comp=Z,48nm,0.9s,mb5.3						
FVM	French Village	45.12	280	eP	P	14 23 07.3	0.0
FVM				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.3						
FVM	French Village	45.12	280	eP	P	14 23 07.3	0.0
	comp=Z,48nm,0.9s,mb5.3						
PLAL	Pickwick Lake	45.36	275	eP	P	14 23 08.0	-1.2
	comp=Z,29nm,0.9s,mb5.1						
PLAL				LR	LR		
	comp=Z,368nm,22.0s,MS4.3						
PLAL	Pickwick Lake	45.36	275	eP	P	14 23 08.0	-1.2
	comp=Z,29nm,0.9s,mb5.1						
DWPF	Disney	45.40	262	PFAKE		14 23 20.0	+10
DWPF				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
AVNT	Avonos	45.45	78	i P	P	14 23 10.9	+1.0
SDDR	Presa de Saban	45.67	244	eP	P	14 23 14.1	+2.2
	comp=Z,37nm,1.1s,mb5.2						
SDDR				LR	LR		
	comp=Z,2µm,22.0s,MS4.9						
LRAL	Lakeview Retre	45.85	272	eP	P	14 23 13.0	-0.1
	comp=Z,27nm,1.0s,mb5.1						
LRAL				ePcP	PcP	14 24 50.7	+0.4
LRAL				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
LRAL	Lakeview Retre	45.85	272	eP	P	14 23 13.0	-0.1

	comp=Z,27nm,1.0s,mb5.1						
ECSD	EROS,Sioux Fal	45.87	290	eP	P	14 23 12.9	-0.2
	comp=Z,30nm,1.0s,mb5.2						
ECSD				LR	LR		
	comp=Z,5µm,19.0s,MS5.5						
SOC	Sochi	45.88	70	eP	P	14 23 18.2	+5.0
SOC				e*PP	pP	14 23 24.1	+7.7
SOC				e		14 24 45.1	
SOC				eS	S	14 29 57.4	+0.2
SOC				eSS	SS	14 33 09.3	-12
SOC				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
SOC				MLR	MLR		
	comp=Z,727nm,16.0s,MS4.7						
YKA	Yellowknife Ar	46.48	320	P	P	14 23 17.1	-0.6
YKA						14 24 49.7	
YKA	Yellowknife Ar	46.48	320	P	P	14 23 17.0	-0.7
	comp=Z,6.3nm,0.9s,mb4.5,baz=63,slow=8.0,SNR=50						
YKA				PcP	PcP	14 24 49.7	-2.3
	comp=Z,1.8nm,0.7s,baz=67,slow=3.9,SNR=6.5						
YKA				LR	LR	14 40 24.1	
	comp=Z,191nm,18.2s,MS4.1,baz=145,slow=33						
YKA	Yellowknife Ar	46.48	320	P	P	14 23 17.0	-0.7
YKA	Yellowknife Ar	46.48	320	PcP	PcP	14 24 49.7	-2.3
OXF	Oxford	46.52	275	PFAKE		14 23 30.0	+12
OXF				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
TIC	Toumodi	46.77	147	eP	P	14 23 21.4	+0.9
	comp=Z,331nm,1.4s,mb6.1						
KIC	Kosan Boka	47.13	147	eP	P	14 23 24.1	+0.8
	comp=Z,272nm,1.4s,mb6.0						
LIC	Lamto	47.16	147⇑	iP	P	14 23 24.3	+0.8
	comp=Z,120nm,1.4s,mb5.3						
LIC				eMLR	MLR		
	comp=Z,2µm,23.0s,MS4.7						
LIC	Lamto	47.16	147	eP	P	14 23 24.4	+0.9
	comp=Z,109nm,1.4s,mb5.6						
LIC	Lamto	47.16	147⇑	iP	P	14 23 24.3	+0.8
	comp=Z,60nm,1.4s,mb5.3						
LIC				LR	LR		
	comp=Z,1µm,23.0s,MS4.7						
BRAL	Brewton	47.17	270	PFAKE		14 23 40.0	+16
BRAL				LR	LR		
	comp=Z,2µm,22.0s,MS5.1						
SOKR	Solikamsk	47.34	44c	iP	P	14 23 25.9	+1.4
SOKR				S	S	14 30 24.3	+6.6
SOKR				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
SOKR				MLR	MLR		
	comp=Z,1µm,18.0s,MS4.9						
KELT	Kelkit	47.47	74	iP	P	14 23 22.3	-3.5
KIV	Kislovodsk	47.49	68	eP	P	14 23 23.9	-2.0
	comp=Z,20nm,0.9s,mb5.0						
KIV				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
KIV	Kislovodsk	47.49	68	eP	P	14 23 25.8	-0.1
KIV				e		14 25 15.5	
KIV				eS	S	14 30 20.0	-0.4
KIV				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
KIV				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.0						
KIV	Kislovodsk	47.49	68	eP	P	14 23 23.9	-2.0
	comp=Z,20nm,0.9s,mb5.0						
DGMT	Dagmar	47.90	300	PFAKE		14 23 40.0	+11
DGMT				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
MALT	Malatya	48.00	77	eP	P	14 23 29.7	-0.2
MALT				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.0						
MALT	Malatya	48.00	77	eP	P	14 23 29.7	-0.2
	comp=Z,20nm,1.2s,mb5.0						
GZT	Gaziantep	48.01	78	iP	P	14 23 29.8	-0.2
KSU1	Kansas State U	48.43	285	eP	P	14 23 31.3	-1.9
	comp=Z,39nm,0.9s,mb5.4						
KSU1				LR	LR		
	comp=Z,3µm,20.0s,MS5.2						
ARTV	Artvin	48.56	71	iP	P	14 23 35.6	+1.4
ZEI	Tsey	48.88	69	eP	P	14 23 38.7	+2.0
ZEI				i		14 23 44.1	
ZEI				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.3						
ZEI	Tsey	48.88	69	eP	P	14 23 38.7	+2.0
	comp=Z,34nm,1.1s,mb5.3						
ERZM	Erzurum	48.94	73	iP	P	14 23 37.7	+0.5
MIAR	Mount Ida	49.21	278	eP	P	14 23 37.2	-2.0
	comp=Z,61nm,1.4s,mb5.4						
MIAR				LR	LR		
	comp=Z,3µm,21.0s,MS5.3						
MIAR	Mount Ida	49.21	278	eP	P	14 23 37.2	-2.0
MIAR				pmax	pmax		
	comp=Z,61nm,1.4s,mb5.4						
MIAR				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.3						
MIAR	Mount Ida	49.21	278	eP	P	14 23 37.2	-2.0
	comp=Z,3µm,21.0s						
ARU	Arti	49.69	47	P	P	14 23 43.0	+0.4
	comp=Z,297nm,1.4s,mb6.1,SNR=14						
ARU	Arti	49.69	47	eP	P	14 23 43.1	+0.5
	comp=Z,82nm,1.2s,mb5.6						
ARU				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
ARU	Arti	49.69	47	eP	P	14 23 42.1	-0.5
ARU				e		14 25 02.0	
ARU				e		14 25 31.6	
ARU				eS	S	14 30 50.4	-0.6
ARU				eSS	SS	14 34 22.5	-0.2
ARU	Arti	49.69	47	eP	P	14 23 43.1	+0.5
	comp=Z,82nm,1.2s,mb5.6						
DIGO	Kars	49.90	71	iP	P	14 23 45.6	+1.1
LAO	LASA Array	50.01	299	eP	P	14 23 46.1	+0.9
	comp=Z,72nm,1.1s,mb5.6						
LAO				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
LAO	LASA Array	50.01	299	eP	P	14 23 46.1	+0.9
	comp=Z,72nm,1.1s,mb5.6						
TUTA	Tutak	50.14	73	iP	P	14 23 48.3	+2.0
RSSD	Black Hills	50.15	295	PFAKE		14 24 00.0	+14
RSSD				LR	LR		
	comp=Z,269nm,20.0s,MS4.2						
EDM	Edmonton	50.38	309	eP	P	14 23 47.2	-0.7
EDM	Edmonton	50.38	309	eP	P	14 23 47.2	-0.7
INK	Inuvik	50.43	332	eP	P	14 23 47.3	-0.8
	comp=Z,928nm,1.1s						
INK	Inuvik	50.43	332	LR	LR	14 43 09.5	
	comp=Z,1µm,21.6s,MS5.0,baz=52,slow=34						
INK	Inuvik	50.43	332	eP	P	14 23 47.3	-0.8
	comp=Z,928nm,1.1s						
SVE	Sverdlovsk	50.46	45⇑	eP	P	14 23 50.0	+1.5
SVE				eS	S	14 31 04.0	+2.2
SVE				pmax	pmax		
	comp=Z,100nm,1.5s,mb5.6						
SVE				MLR	MLR		
	comp=N,1µm,18.0s,MS5.1						
SVE				MLR	MLR		
	comp=E,1µm,18.0s,MS5.1						
SVE				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.2						
CBKS	Cedar Bluff	50.58	287	eP	P	14 23 49.1	-0.5
	comp=Z,34nm,1.1s,mb5.2						
CBKS				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
CBKS	Cedar Bluff	50.58	287	eP	P	14 23 49.1	-0.5
CBKS				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.2						
CBKS				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.2						
CBKS	Cedar Bluff	50.58	287	eP	P	14 23 49.1	-0.5
	comp=Z,34nm,1.1s,mb5.2						
MAK	Makhachkala	50.96	66	eP	P	14 23 52.6	+0.2
MAK				e		14 25 46.8	
MAK				iS	S	14 31 06.1	-2.9
MAK				eSS	SS	14 34 41.9	-1.5
MAK				pmax	pmax		
	comp=Z,142nm,1.1s,mb5.8						
MAK				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.3						
EGMT	Eagleton	51.28	302	eP	P	14 23 54.5	-0.3
	comp=Z,40nm,1.0s,mb5.3						
EGMT				LR	LR		
	comp=Z,946nm,22.0s,MS4.8						
EGMT	Eagleton	51.28	302	⇓P	P	14 23 53.5	-1.3
	baz=51,SNR=16						
EGMT	Eagleton	51.28	302	eP	P	14 23 54.5	-0.2
	comp=Z,40nm,1.0s,mb5.3						
NATX	Nacogdoches	51.67	276	PFAKE		14 24 10.0	+12
NATX				LR	LR		
	comp=Z,4µm,19.0s,MS5.5						
WMOK	Wichita Mounta	52.45	282	eP	P	14 24 02.3	-1.3
	comp=Z,17nm,1.2s,mb4.9						
WMOK				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
WMOK	Wichita Mounta	52.45	282	eP	P	14 24 02.3	-1.4
WMOK				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
WMOK				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.3						
WMOK	Wichita Mounta	52.45	282	eP	P	14 24 02.3	-1.4
	comp=Z,17nm,1.2s,mb4.9						
GCMT	Greycliff	52.49	299	P	P	14 24 03.7	-0.1
PHWY	Pilot Hill	52.63	292	eP	P	14 24 04.5	-0.4
PHWY	Pilot Hill	52.63	292	eP	P	14 24 04.5	-0.4
RLMT	Red Lodge	52.65	298	eP	P	14 24 04.8	-0.2
	comp=Z,57nm,1.5s,mb5.3						
RLMT				LR	LR		
	comp=Z,2µm,21.0s,MS5.1						
RLMT	Red Lodge	52.65	298	eP	P	14 24 04.8	-0.2
	comp=Z,57nm,1.5s,mb5.3						
AKTK	Aktyubinsk	52.66	53	P	P	14 24 05.1	+0.1
AKTK				LR	LR	14 47 11.8	
AKTK	Aktyubinsk	52.66	53	P	P	14 24 05.1	+0.1
AKTO	Aktyubinsk	52.66	53	P	P	14 24 05.1	+0.1
	comp=Z,38nm,1.1s,mb5.2,baz=304,slow=8.3,SNR=54						
AKTO				LR	LR	14 47 11.8	
	comp=Z,916nm,18.1s,MS4.9,baz=314,slow=37						
WALA	Waterton Lakes	52.97	305	eP	P	14 24 06.5	-0.9
	comp=Z,30nm,0.9s,mb5.2						
WALA	Waterton Lakes	52.97	305	eP	P	14 24 06.5	-0.8
	comp=Z,30nm,0.9s,mb5.2						
A13A	Flathead Natio	53.32	305	⇑P	P	14 24 08.8	-1.0
	baz=53						
D15A	Lincoln	53.38	302	⇑P	P	14 24 09.2	-1.2
	baz=53,SNR=33						
RWWY	Rawlins	53.46	294	eP	P	14 24 11.0	0.0
	comp=Z,60nm,1.0s,mb5.5						
RWWY	Rawlins	53.46	294	eP	P	14 24 11.0	0.0
	comp=Z,60nm,1.0s,mb5.5						
HKT	Hockley	53.61	275	eP	P	14 24 12.6	+0.3
	comp=Z,12nm,1.1s,mb4.7						
HKT				LR	LR		
	comp=Z,2µm,21.0s,MS5.1						
HKT	Hockley	53.61	275	eP	P	14 24 12.6	+0.3
HKT				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
HKT				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.1						
HKT	Hockley	53.61	275	eP	P	14 24 12.6	+0.3
	comp=Z,12nm,1.1s,mb4.7						
LKWY	Lake	53.63	298	PFAKE		14 24 20.0	+7.8
LKWY				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
C14A	Swan Lake	53.63	303	⇑P	P	14 24 11.1	-1.1
	baz=53						
ISCO	Idaho Springs	53.63	291	eP	P	14 24 11.6	-0.7
	comp=Z,11nm,1.1s,mb4.7						
ISCO				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
ISCO	Idaho Springs	53.63	291	eP	P	14 24 11.6	-0.7
ISCO				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
ISCO				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.3						
ISCO	Idaho Springs	53.63	291	eP	P	14 24 11.6	-0.7
	comp=Z,11nm,1.1s,mb4.7						
B13A	Whitefish	53.67	304	⇑P	P	14 24 11.2	-1.3
	baz=54						
BOZ	Bozeman (W)	53.70	300	eP	P	14 24 12.5	-0.1
	comp=Z,16nm,0.9s,mb4.9						
BOZ				LR	LR		
	comp=Z,584nm,20.0s,MS4.6						
BOZ	Bozeman (W)	53.70	300	eP	P	14 24 12.5	-0.2
BOZ				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
BOZ				MLR	MLR		
	comp=Z,584nm,20.0s,MS4.6						
BOZ	Bozeman (W)	53.70	300	⇑P	P	14 24 11.6	-1.1
	baz=54						
BOZ	Bozeman (W)	53.70	300	eP	P	14 24 12.5	-0.2
	comp=Z,16nm,0.9s,mb4.9						
E15A	Deer Lodge	53.81	301	⇓P	P	14 24 12.0	-1.5
	baz=54						
CHMT	Chamberlain Mo	53.86	302	eP	P	14 24 13.6	-0.3
CHMT	Chamberlain Mo	53.86	302	eP	P	14 24 13.6	-0.3
YMR	Madison River	53.89	299	eP	P	14 24 14.2	0.0
	comp=Z,12nm,1.0s,mb4.8						
YMR				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
YMR	Madison River	53.89	299	eP	P	14 24 14.1	-0.1
	comp=Z,12nm,1.0s,mb4.8						
D14A	Greenough	53.90	303	⇑P	P	14 24 13.3	-0.9
	baz=54						
YFT	Old Faithful	53.95	299	eP	P	14 24 15.3	+0.7
YFT	Old Faithful	53.95	299	eP	P	14 24 15.3	+0.7
QLMT	Earthquake Lak	54.06	299	P	P	14 24 14.7	-0.7
QLMT	Earthquake Lak	54.06	299	P	P	14 24 14.7	-0.7
F15A	Butte	54.07	301	⇑P	P	14 24 14.3	-1.1
	baz=54						
C13A	Hot Springs	54.14	304	⇑P	P	14 24 14.6	-1.3
	baz=54,SNR=12						
PDAR	Pinedale Array	54.21	296	P	P	14 24 15.3	-1.2
	comp=Z,9.3nm,1.0s,mb4.7,baz=70,slow=5.8,SNR=41						
PDAR				LR	LR	14 45 51.9	
	comp=Z,822nm,18.4s,MS4.8,baz=65,slow=34						
E14A	Clinton	54.29	302	⇑P	P	14 24 17.1	+0.1
	baz=54,SNR=9.3						
MSO	Missoula	54.29	303	eP	P	14 24 15.9	-1.1
	comp=Z,6.7nm,1.0s,mb4.5						
MSO				LR	LR		
	comp=Z,981nm,21.0s,MS4.8						
MSO	Missoula	54.29	303	eP	P	14 24 15.9	-1.1
	comp=Z,6.7nm,1.0s,mb4.5						
LOHW	Long Hollow	54.31	298	eP	P	14 24 17.1	-0.1
	comp=Z,23nm,1.0s,mb5.1						
LOHW	Long Hollow	54.31	298	eP	P	14 24 17.1	-0.1
	comp=Z,23nm,1.0s,mb5.1						
MOOW	Moose Ponds	54.31	298	eP	P	14 24 16.7	-0.6
	comp=Z,23nm,1.1s,mb5.0						
MOOW	Moose Ponds	54.31	298	eP	P	14 24 16.7	-0.5
	comp=Z,23nm,1.1s,mb5.0						
IMW	Indian Meadow	54.34	298	eP	P	14 24 17.3	-0.1
	comp=Z,17nm,0.9s,mb5.0						
IMW	Indian Meadow	54.34	298	eP	P	14 24 17.3	-0.1
	comp=Z,17nm,0.9s,mb5.0						
A11A	Hall Mountain,	54.34	306	⇑P	P	14 24 17.2	-0.2
	baz=54,SNR=8.6						
AB31	Akbulak array	54.36	54	iP	P	14 24 18.2	+0.7
AB31				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.2						
DLMT	Dillon	54.41	300	P	P	14 24 16.0	-1.9
	comp=Z,24nm,1.2s,mb5.0						
DLMT	Dillon	54.41	300	P	P	14 24 16.0	-1.9
	comp=Z,24nm,1.2s,mb5.0						
D13A	Huson	54.42	303	⇑P	P	14 24 17.2	-0.7
	baz=54						
G15A	Dillon	54.47	300	⇑P	P	14 24 17.5	-0.9
	baz=54,SNR=10						
TPAW	Teton Pass	54.59	298	eP	P	14 24 18.9	-0.3
	comp=Z,20nm,0.9s,mb5.2						
TPAW	Teton Pass	54.59	298	eP	P	14 24 18.9	-0.3
	comp=Z,20nm,0.9s,mb5.2						
REDW	Red Top Meadow	54.61	298	eP	P	14 24 19.1	-0.2
	comp=Z,67nm,1.4s,mb5.5						
REDW	Red Top Meadow	54.61	298	eP	P	14 24 19.1	-0.3
	comp=Z,67nm,1.4s,mb5.5						
E13A	Victor	54.66	302	⇓P	P	14 24 18.2	-1.5
	baz=54						
DCID1	Drake Creek	54.66	298	eP	P	14 24 19.8	+0.1
DCID1	Drake Creek	54.66	298	eP	P	14 24 19.8	0.0
SDCO	Great Sand Dun	54.82	289	PFAKE		14 24 30.0	+9.0
SDCO				LR	LR		
	comp=Z,5µm,20.0s,MS5.6						
SMCO	Snowmass	54.84	291	eP	P	14 24 22.3	+1.1
	comp=Z,17nm,1.3s,mb4.9						
SMCO	Snowmass	54.84	291	eP	P	14 24 22.3	+1.1
	comp=Z,17nm,1.3s,mb4.9						
MCMT	McKenzie Canyo	54.88	300	eP	P	14 24 21.5	+0.2
MCMT	McKenzie Canyo	54.88	300	eP	P	14 24 21.5	+0.2
D12A	Red Ives Fores	54.93	303	⇓P	P	14 24 20.3	-1.4
	baz=55						
DAWY	Dawson	54.94	330	eP	P	14 24 22.0	+0.6
DAWY	Dawson	54.94	330	eP	P	14 24 22.0	+0.6
G14A	Jackson	54.97	301	⇑P	P	14 24 21.6	-0.3
	baz=55						
EGAK	Eagle	55.03	331	eP	P	14 24 22.1	0.0
	comp=Z,29nm,1.1s,mb5.2						
EGAK				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
EGAK	Eagle	55.03	331	eP	P	14 24 22.1	0.0
	comp=Z,29nm,1.1s,mb5.2						
AHID	Auburn Hatcher	55.12	297	eP	P	14 24 22.4	-0.6
	comp=Z,16nm,0.9s,mb5.1						
AHID				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
AHID	Auburn Hatcher	55.12	297	eP	P	14 24 22.4	-0.7
	comp=Z,16nm,0.9s,mb5.1						
F13A	Darby	55.13	302	⇑P	P	14 24 21.8	-1.3
	baz=55						
NEW	Newport	55.16	306	eP	P	14 24 22.2	-1.1
	comp=Z,22nm,1.2s,mb5.0						
NEW				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
NEW	Newport	55.16	306	eP	P	14 24 22.3	-1.0
NEW				pmax	pmax		
	comp=Z,21nm,1.2s						
NEW				MLR	MLR		
	comp=Z,1µm,20.0s						
NEW	Newport	55.16	306	eP	P	14 24 22.2	-1.1
	comp=Z,22nm,1.2s,mb5.0						
RCBR	Riachuelo	55.18	189	PFAKE		14 24 40.0	+16
RCBR				LR	LR		
	comp=Z,654nm,19.0s,MS4.7						
TEIG	Tepich	55.35	261	PFAKE		14 24 40.0	+15
TEIG				LR	LR		
	comp=Z,1µm,22.0s,MS4.9						
D11A	Klaveano Farm,	55.47	304	⇓P	P	14 24 24.2	-1.4
	baz=55						
G13A	Cobalt	55.50	301	⇑P	P	14 24 25.2	-0.6
	baz=55,SNR=11						
B09A	Rice	55.61	306	⇓P	P	14 24 25.9	-0.7
	baz=55,SNR=12						
F12A	Elk City	55.66	302	⇑P	P	14 24 26.5	-0.5
	baz=55,SNR=8.5						
E11A	Bogner Ranch,	55.83	303	⇑P	P	14 24 27.4	-0.7
	baz=56,SNR=11						
H13A	Challis	55.83	300	⇓P	P	14 24 28.0	-0.2
	baz=56,SNR=8.1						
JCT	Junction City	55.84	279	P	P	14 24 26.1	-2.3
	comp=Z,12nm,0.9s,mb4.9						
JCT				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
JCT	Junction City	55.84	279	P	P	14 24 26.1	-2.4
JCT				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
JCT				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.4						
JCT	Junction City	55.84	279	P	P	14 24 26.1	-2.4
	comp=Z,12nm,0.9s,mb4.9						
F11A	Grangeville	56.08	303	⇓P	P	14 24 28.9	-1.1
	baz=56,SNR=9.8						
HWUT	Hardware Ranch	56.10	296	eP	P	14 24 29.6	-0.6
	comp=Z,42nm,0.9s,mb5.5						
HWUT				LR	LR		
	comp=Z,954nm,20.0s,MS4.9						
HWUT	Hardware Ranch	56.10	296	eP	P	14 24 29.6	-0.6
	comp=Z,42nm,0.9s,mb5.5						
I13A	Wildhorse Cree	56.15	300	P	P	14 24 31.3	+0.8
	baz=56,SNR=9.3						
H12A	Diamond D Ranc	56.18	301	P	P	14 24 30.9	+0.2
	baz=56,SNR=10						
B08A	Colville Reser	56.28	307	⇑P	P	14 24 30.4	-0.9
	baz=56						
A07A	Ashnola River,	56.40	308	⇓P	P	14 24 32.3	+0.1
	baz=56						
G11A	Walters Elk Ra	56.45	302	P	P	14 24 31.6	-1.0
	baz=56,SNR=11						
K14A	Jones Ranch, D	56.46	298	⇑P	P	14 24 32.8	+0.1
	baz=56,SNR=12						
C08A	Higginbotham F	56.48	306	⇑P	P	14 24 32.5	-0.3
	baz=56						
J13A	Cove Ranch, Pi	56.50	299	⇓P	P	14 24 33.5	+0.4
	baz=56,SNR=9.9						
D09A	Jones Farm, Ri	56.53	305	⇑P	P	14 24 33.4	+0.2
	baz=56						
HLID	Hailey	56.54	300	eP	P	14 24 33.9	+0.6
	comp=Z,22nm,1.1s,mb5.1						
HLID				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
HLID	Hailey	56.54	300	⇓P	P	14 24 34.1	+0.9
	baz=56,SNR=8.8						
HLID	Hailey	56.54	300	eP	P	14 24 33.9	+0.6
	comp=Z,22nm,1.1s,mb5.1						
KVTX	Kingsville	56.55	275	PFAKE		14 24 50.0	+16
KVTX				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
B07A	Winthrop	56.63	307	⇑P	P	14 24 32.7	-1.1
	baz=56						
M15A	Larsen Ranch,	56.71	297	⇑P	P	14 24 34.4	-0.1
	baz=56						
H11A	Donnelly	56.73	302	⇑P	P	14 24 34.1	-0.5
	baz=56,SNR=11						
E09A	Wood Farm, Sta	56.78	304	⇑P	P	14 24 33.6	-1.4
	baz=57						
K13A	Stover Farm, H	56.92	299	⇑P	P	14 24 34.8	-1.2
	baz=57						
COLA	College	56.99	334	eP	P	14 24 36.1	-0.1
	comp=Z,26nm,1.3s,mb5.1						
COLA				LR	LR		
	comp=Z,822nm,22.0s,MS4.8						
COLA	College	56.99	334	eP	P	14 24 36.1	-0.1
COLA				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.1						
COLA				MLR	MLR		
	comp=Z,822nm,22.0s,MS4.8						
COLA	College	56.99	334	eP	P	14 24 36.1	-0.1
	comp=Z,26nm,1.3s,mb5.1						
MVCO	Mesa Verde	57.01	290	eP	P	14 24 35.4	-1.3
	comp=Z,22nm,1.1s,mb5.1						
MVCO				LR	LR		
	comp=Z,5µm,19.0s,MS5.6						
MVCO	Mesa Verde	57.01	290	⇓P	P	14 24 36.3	-0.4
	baz=57						
MVCO	Mesa Verde	57.01	290	eP	P	14 24 35.4	-1.3
	comp=Z,22nm,1.1s,mb5.1						
WTV	Waterville	57.01	306	P	P	14 24 35.3	-1.2
WTV	Waterville	57.01	306	P	P	14 24 35.3	-1.3
SRU	San Rafael	57.04	293	eP	P	14 24 36.4	-0.5
	comp=Z,15nm,0.9s,mb5.0						
SRU	San Rafael	57.04	293	eP	P	14 24 36.4	-0.5
SRU				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
SRU	San Rafael	57.04	293	eP	P	14 24 36.4	-0.5
	comp=Z,15nm,0.9s,mb5.0						
C07A	Waterville	57.08	306	⇓P	P	14 24 35.8	-1.2
	baz=57,SNR=10						
J12A	Stokes Ranch,	57.12	300	⇓P	P	14 24 38.1	+0.7
	baz=57,SNR=12						
MENT	Mentasta	57.12	331	eP	P	14 24 39.1	+2.0
MPU	Maple Canyon	57.13	295	eP	P	14 24 36.0	-1.6
	comp=Z,20nm,1.0s,mb5.1						
MPU				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
MPU	Maple Canyon	57.13	295	eP	P	14 24 36.0	-1.5
	comp=Z,20nm,1.0s,mb5.1						
F09A	S2 Ranch, Elgi	57.16	303	⇓P	P	14 24 37.9	+0.3
	baz=57,SNR=12						
BRVK	Borovoye	57.18	45	P	P	14 24 38.5	+0.9
	comp=Z,292nm,0.9s,mb6.3,SNR=20						
BRVK	Borovoye	57.18	45	eP	P	14 24 37.9	+0.2
	comp=Z,63nm,1.1s,mb5.6						
BRVK				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
BRVK	Borovoye	57.18	45	eP	P	14 24 37.9	+0.3
BRVK				pmax	pmax		
	comp=Z,63nm,1.1s,mb5.6						
BRVK				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
BRVK	Borovoye	57.18	45	P	P	14 24 39.2	+1.5
	SNR=23						
BRVK	Borovoye	57.18	45	eP	P	14 24 37.9	+0.3
	comp=Z,63nm,1.1s,mb5.6						
ANMO	Albuquerque	57.19	287	eP	P	14 24 38.8	+0.8
	comp=Z,29nm,1.8s,mb5.0						
ANMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
ANMO	Albuquerque	57.19	287⇑	eP	P	14 24 38.6	+0.6
ANMO	Albuquerque	57.19	287	LR	LR	14 48 28.1	
	comp=Z,1µm,19.7s,MS5.1,baz=61,slow=35						
ANMO	Albuquerque	57.19	287	eP	P	14 24 38.8	+0.8
	comp=Z,29nm,1.8s,mb5.0						
I11A	Placerville	57.20	301	⇓P	P	14 24 37.9	0.0
	baz=57						

M14A	Sheep Mountain	57.21	297	⇑P	P	14 24 38.2	+0.1
	baz=57						
H10A	Noah's Angus R	57.22	302	⇑P	P	14 24 38.6	+0.5
	baz=57						
ETW	Entiat	57.27	306	P	P	14 24 38.5	+0.1
TMUT	Trail Mountain	57.33	294	*e*P	P	14 24 39.2	+0.2
TMUT	Trail Mountain	57.33	294	*e*P	P	14 24 39.2	+0.2
G09A	Cove	57.35	303	⇑P	P	14 24 38.0	-1.0
	baz=57						
BMO	Blue Mountains	57.36	302	*e*P	P	14 24 37.2	-1.9
	comp=Z,11nm,1.0s,mb4.8						
BMO				LR	LR		
	comp=Z,932nm,19.0s,MS4.9						
BGU	Big Grassy Mou	57.39	296	*e*P	P	14 24 38.0	-1.3
BGU	Big Grassy Mou	57.39	296	*e*P	P	14 24 38.0	-1.3
K12A	Draper Farm, C	57.40	299	⇓P	P	14 24 39.3	-0.1
	baz=57,SNR=7.3						
MFID	Camas Ranch	57.43	300	⇓P	P	14 24 38.3	-1.3
	baz=57						
NLU	North Lily Min	57.44	295	*e*P	P	14 24 39.4	-0.2
NLU	North Lily Min	57.44	295	*e*P	P	14 24 39.4	-0.3
HAWA	Hanford	57.61	305	PFAKE		14 24 50.0	+9.2
HAWA				LR	LR		
	comp=Z,956nm,20.0s,MS4.9						
E07A	Sunnyside	57.68	305	⇑P	P	14 24 40.9	-0.3
	baz=57						
H09A	Durkee	57.68	302	⇑P	P	14 24 40.4	-0.9
	baz=58						
TBM	Table Mountain	57.69	306	P	P	14 24 40.6	-0.7
TBM	Table Mountain	57.69	306	P	P	14 24 40.6	-0.7
IMA2	Indian Mountai	57.69	337	*e*P	P	14 24 41.9	+0.8
LPM	Los Pinos Moun	57.71	287	P	P	14 24 42.5	+0.8
LPM	Los Pinos Moun	57.71	287	P	P	14 24 42.5	+0.8
DUG	Dugway	57.72	296	*e*P	P	14 24 41.6	0.0
	comp=Z,40nm,1.0s,mb5.4						
DUG				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
DUG	Dugway	57.72	296	*e*P	P	14 24 41.6	-0.1
DUG				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
DUG				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.0						
DUG	Dugway	57.72	296	⇓P	P	14 24 42.0	+0.4
	baz=58,SNR=33						
DUG	Dugway	57.72	296	*e*P	P	14 24 41.6	-0.1
	comp=Z,40nm,1.0s,mb5.4						
L12A	House Creek Ra	57.77	299	⇓P	P	14 24 43.5	+1.5
	baz=58						
BNM	Barren Site	57.81	286	*e*P	P	14 24 43.1	+0.7
BNM	Barren Site	57.81	286	*e*P	P	14 24 43.1	+0.7
EBG	Ellensburg	57.84	306	P	P	14 24 41.7	-0.7
EBG	Ellensburg	57.84	306	P	P	14 24 41.7	-0.7
K11A	Parker Ranch,	57.96	300	⇓P	P	14 24 41.1	-2.2
	baz=58						
LAZ	Ladron	57.97	287	P	P	14 24 43.4	-0.1
LAZ	Ladron	57.97	287	P	P	14 24 43.4	-0.1
G08A	Pilot Rock	57.99	304	⇑P	P	14 24 42.0	-1.6
	baz=58						
LENM	Lemitar	58.02	287	*e*P	P	14 24 45.9	+2.0
LENM	Lemitar	58.02	287	*e*P	P	14 24 45.9	+2.0
MCK	McKinley	58.16	333	*e*P	P	14 24 44.5	+0.2
	comp=Z,21nm,1.2s,mb5.0						
MCK				LR	LR		
	comp=Z,456nm,22.0s,MS4.5						
MCK	McKinley	58.16	333	*e*P	P	14 24 44.5	+0.1
MCK				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.0						
MCK				MLR	MLR		
	comp=Z,456nm,22.0s,MS4.5						
MCK	McKinley	58.16	333	*e*P	P	14 24 44.5	+0.1
	comp=Z,21nm,1.2s,mb5.0						
M12A	Wells	58.18	298	⇓P	P	14 24 44.3	-0.5
	baz=58						
L11A	Cat Creek Ranc	58.18	299	⇑P	P	14 24 45.6	+0.7
	baz=58,SNR=9.3						
BBB	Bella Bella	58.23	314	LR	LR	14 48 15.6	
	comp=Z,773nm,18.8s,MS4.8,baz=5.1,slow=34						
TIXI	Tiksi	58.38	8	*e*P	P	14 24 46.5	+0.6
	comp=Z,20nm,1.1s,mb5.0						
TIXI				LR	LR		
	comp=Z,164nm,21.0s,MS4.1						
TIXI	Tiksi	58.38	8	*e*P	P	14 24 46.4	+0.6
TIXI				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.1						
TIXI	Tiksi	58.38	8	*e*P	P	14 24 46.5	+0.7
	comp=Z,20nm,1.1s,mb5.0						
G07A	Ruggs Ranch, H	58.40	304	⇑P	P	14 24 45.4	-0.9
	baz=58						
MSU	Marysvale	58.42	294	*e*P	P	14 24 47.1	+0.5
MSU	Marysvale	58.42	294	*e*P	P	14 24 47.1	+0.5
K10A	MacKenzie Ranc	58.43	300	⇓P	P	14 24 46.6	0.0
	baz=58						
J09A	Fry Pan Ranch,	58.56	301	⇑P	P	14 24 48.1	+0.6
	baz=58						
N12A	Clover Valley,	58.61	297	⇓P	P	14 24 49.1	+1.3
	baz=58,SNR=6.6						
MNTX	Cornudas Mount	58.63	283	PFAKE		14 25 00.0	+12
MNTX				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
L10A	Juniper Basin	58.65	299	⇑P	P	14 24 48.2	0.0
	baz=58						
I08A	Drewsey	58.66	302	⇓P	P	14 24 48.7	+0.5
	baz=58						
M11A	Holland Ranch,	58.67	298	⇓P	P	14 24 49.6	+1.3
	baz=58,SNR=8.3						
H07A	Lands Inn, Kim	58.77	303	⇓P	P	14 24 48.8	-0.1
	baz=58						
ELK	Elko	58.79	298	*e*P	P	14 24 50.1	+0.9
	comp=Z,11nm,0.9s,mb4.9						
ELK				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
ELK	Elko	58.79	298	*e*P	P	14 24 50.1	+0.9
ELK				pmax	pmax		
	comp=Z,11nm,0.9s						
ELK				MLR	MLR		
	comp=Z,1µm,19.0s						
ELK	Elko	58.79	298	*e*P	P	14 24 50.1	+0.9
	comp=Z,11nm,0.9s,mb4.9						
ROSC	El Rosal	58.80	237	P	P	14 24 50.5	+1.1
	comp=Z,6.1nm,0.5s,mb4.9,baz=297,slow=21,SNR=3.6						
ROSC				LR	LR	14 45 55.1	
	comp=Z,633nm,21.3s,MS4.7,baz=15,slow=32						
O12A	Currie	58.81	297	⇓P	P	14 24 50.4	+1.1
	baz=59						
J08A	Circle Bar Ran	58.96	302	⇑P	P	14 24 50.0	-0.2
	baz=59						
K09A	Rome	58.96	301	⇑P	P	14 24 51.2	+0.9
	baz=59,SNR=9.2						
M10A	I.L. Ranch, Tu	59.05	299	⇓P	P	14 24 51.0	+0.1
	baz=59,SNR=5.0						
RST	Umm Al-Ruwaisa	59.07	80	*e*P	P	14 24 51.2	-0.1
RST				AMb	AMB	14 24 54.0	
	comp=Z,75nm,1.2s,mb5.6						
RST	Umm Al-Ruwaisa	59.07	80	*e*P	P	14 24 51.2	0.0
	comp=Z,75nm,1.2s,mb5.6						
MIB	Mutribah	59.09	79	*e*P	P	14 24 51.3	0.0
MIB				AMb	AMB	14 24 54.4	
	comp=Z,94nm,1.1s,mb5.7						
MIB	Mutribah	59.09	79	*e*P	P	14 24 51.3	-0.1
	comp=Z,94nm,1.1s,mb5.7						
H06A	Lindquist Farm	59.10	304	⇓P	P	14 24 50.5	-0.7
	baz=59						
DIV	Divide	59.10	330	PFAKE		14 25 00.0	+9.0
DIV				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
LTX	Lajitas	59.10	280	*e*P	P	14 24 51.4	-0.1
	comp=Z,55nm,1.9s,mb5.3						
LTX				LR	LR		
	comp=Z,3µm,21.0s,MS5.4						
LTX	Lajitas	59.10	280	*e*P	P	14 24 51.4	-0.1
LTX				pmax	pmax		
	comp=Z,55nm,1.9s,mb5.3						
LTX				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.4						
LTX	Lajitas	59.10	280	*e*P	P	14 24 51.4	-0.1
	comp=Z,55nm,1.9s,mb5.3						
TXAR	Lajitas Array	59.10	280	P	P	14 24 51.2	-0.3
TXAR				PcP	PcP	14 25 41.0	+0.9
TXAR				LR	LR	14 49 27.5	
TXAR	Lajitas Array	59.10	280	P	P	14 24 51.2	-0.3
TXAR						14 25 41.0	
TXAR	Lajitas Array	59.10	280	P	P	14 24 51.2	-0.3
	comp=Z,4.7nm,0.9s,mb4.5,baz=67,slow=7.2,SNR=14						
TXAR				PcP	PcP	14 25 41.0	+0.9
	comp=Z,3.8nm,0.9s,baz=60,slow=4.6,SNR=5.1						
TXAR				LR	LR	14 49 27.5	
	comp=Z,2µm,21.6s,MS5.3,baz=5.0,slow=35						
TGUH	Tegucigalpa,Un	59.26	255	PFAKE		14 25 00.0	+7.3
TGUH				LR	LR		
	comp=Z,937nm,22.0s,MS4.9						
L09A	Wilkinson Ranc	59.37	300	⇑P	P	14 24 54.4	+1.3
	baz=59						
K08A	Mann Creek Ran	59.37	301	⇓P	P	14 24 52.8	-0.3
	baz=59						
NAY	Al-Naaiem	59.40	80	*e*P	P	14 24 53.0	-0.5
NAY				AMb	AMB	14 24 56.3	
	comp=Z,23nm,1.4s,mb5.0						
NAY	Al-Naaiem	59.40	80	*e*P	P	14 24 53.0	-0.5
	comp=Z,23nm,1.4s,mb5.0						
P12A	McGill	59.42	296	⇑P	P	14 24 54.0	+0.4
	baz=59,SNR=10						
O11A	Cowboy Ranch,	59.43	297	⇓P	P	14 24 54.4	+0.8
	baz=59,SNR=8.3						
S14A	Cedar City	59.50	294	⇑P	P	14 24 54.7	+0.6
	baz=59,SNR=8.8						
T15A	Red Dirt Ranch	59.51	293	⇑P	P	14 24 53.1	-1.0
	baz=59						
I06A	Prineville	59.54	303	⇓P	P	14 24 54.0	-0.3
	baz=59						
M09A	Marrel Ranch,	59.63	299	⇑P	P	14 24 56.2	+1.3
	baz=59						
L08A	Fields	59.64	301	⇓P	P	14 24 55.8	+0.8
	baz=59,SNR=12						
ARUT	Antelope Range	59.64	294	*e*P	P	14 24 55.4	+0.3
ARUT	Antelope Range	59.64	294	*e*P	P	14 24 55.4	+0.3
WVOR	Wild Horse Val	59.65	301	*e*P	P	14 24 55.2	+0.1
	comp=Z,39nm,1.0s,mb5.4						
WVOR				LR	LR		
	comp=Z,899nm,19.0s,MS4.9						
WVOR	Wild Horse Val	59.65	301	*e*P	P	14 24 55.2	+0.1
WVOR				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.4						
WVOR				MLR	MLR		
	comp=Z,899nm,19.0s,MS4.9						
Q12A	Willow Creek R	59.66	296	⇑P	P	14 24 56.5	+1.3
	baz=60						
KBD	Kabd	59.74	79	*e*P	P	14 24 55.8	-0.1
KBD				AMb	AMB	14 25 03.9	
	comp=Z,290nm,1.1s,mb6.2						
KBD	Kabd	59.74	79	*e*P	P	14 24 55.8	0.0
	comp=Z,290nm,1.1s,mb6.2						
CCUT	Cedar City	59.75	294	*e*P	P	14 24 56.2	+0.4
CCUT	Cedar City	59.75	294	*e*P	P	14 24 56.2	+0.4
RDF	Al-Radifah	59.81	80	*e*P	P	14 24 55.4	-0.9
RDF				AML	AML	14 24 59.0	
	comp=Z,5.0nm,0.5s						
O10A	Cortez Mining,	59.82	298	⇑P	P	14 24 56.6	+0.4
	baz=60						
K07A	Rock Creek Ran	59.82	301	⇓P	P	14 24 55.6	-0.6
	baz=60						
PMR	Palmer	59.84	332	*e*P	P	14 24 56.7	+0.7
	comp=Z,60nm,1.2s,mb5.5						
PMR				LR	LR		
	comp=Z,840nm,21.0s,MS4.8						
PMR	Palmer	59.84	332	*e*P	P	14 24 56.7	+0.7
PMR				pmax	pmax		
	comp=Z,61nm,1.2s,mb5.5						
PMR				MLR	MLR		
	comp=Z,840nm,21.0s,MS4.8						
P11A	Circle Ranch,	59.87	297	⇑P	P	14 24 58.2	+1.6
	baz=60						
WUAZ	Wupatki	59.87	291	*e*P	P	14 24 57.3	+0.6
	comp=Z,22nm,1.1s,mb5.1						
WUAZ				LR	LR		
	comp=Z,3µm,21.0s,MS5.4						
WUAZ	Wupatki	59.87	291	⇑P	P	14 24 56.6	-0.2
	baz=60						
WUAZ	Wupatki	59.87	291	*e*P	P	14 24 57.3	+0.6
	comp=Z,22nm,1.1s,mb5.1						
T14A	Hurricane	59.90	293	⇑P	P	14 24 56.6	-0.3
	baz=60						
J06A	Christmas Vall	59.96	302	⇓P	P	14 24 56.7	-0.5
	baz=60						
R12A	Pony Springs,	59.99	295	⇓P	P	14 24 57.7	+0.2
	baz=60,SNR=5.5						
S13A	Holt Ranch, En	60.03	294	⇑P	P	14 24 57.9	+0.2
	baz=60						
N09A	Rock Creek Ran	60.05	299	⇑P	P	14 24 58.3	+0.5
	baz=60,SNR=8.1						
M08A	Happy Creek Ra	60.14	300	⇑P	P	14 24 58.8	+0.4
	baz=60						
P10A	Eureka	60.24	297	⇑P	P	14 24 58.7	-0.5
	baz=60						
Q11A	Duckwater	60.27	296	⇑P	P	14 24 59.9	+0.5
	baz=60						
O09A	Fish Creek Ran	60.30	298	⇑P	P	14 24 59.1	-0.4
	baz=60						
L07A	Adell	60.31	301	⇑P	P	14 24 60.0	+0.3
	baz=60						
U14A	Mt Trumbull	60.38	292	⇑P	P	14 25 00.6	+0.4
	baz=60						
ABKT	Ailbek	60.42	65	P	P	14 25 02.7	+2.2
	comp=Z,125nm,1.1s,mb5.8,SNR=5.3						
T13A	Saint George	60.43	293	⇓P	P	14 25 01.0	+0.5
	baz=60						
N08A	GE Springer Mi	60.44	299	⇓P	P	14 25 01.1	+0.6
	baz=60,SNR=5.1						
J05A	Fort Rock	60.54	303	⇓P	P	14 25 02.2	+1.1
	baz=60,SNR=12						
TRCR	Troy Canyon	60.55	296	*e*P	P	14 25 02.3	+1.0
TRCR	Troy Canyon	60.55	296	*e*P	P	14 25 02.3	+1.0
S12A	Delamar Landin	60.60	295	⇓P	P	14 25 02.9	+1.2
	baz=60						
M07A	Soldier Meadow	60.63	300	P	P	14 25 02.3	+0.5
	baz=60,SNR=7.2						
JTS	JuntasAbangare	60.68	250	PFAKE		14 25 10.0	+7.6
JTS				LR	LR		
	comp=Z,432nm,20.0s,MS4.6						
K05A	Summer Lake	60.72	302	⇓P	P	14 25 02.2	-0.2
	baz=60						
Q10A	Clear Creek Ra	60.72	296	⇓P	P	14 25 01.9	-0.5
	baz=60,SNR=9.6						
U13A	Pakoon Wash	60.86	293	⇓P	P	14 25 03.5	0.0
	baz=61						
N07B	Gerlach	60.92	300	⇓P	P	14 25 04.3	+0.5
	baz=61						
MOD	Modoc	60.93	301	*e*P	P	14 25 03.3	-0.5
	comp=Z,18nm,1.1s,mb5.1						
MOD				LR	LR		
	comp=Z,511nm,22.0s,MS4.6						
MOD	Modoc	60.93	301	⇑P	P	14 25 04.0	+0.1
	baz=61,SNR=12						
MOD	Modoc	60.93	301	*e*P	P	14 25 03.3	-0.5
	comp=Z,18nm,1.1s,mb5.1						
R10A	Warm Springs	61.02	296	⇓P	P	14 25 05.4	+0.9
	baz=61,SNR=5.9						
T11A	Corn Creek, Al	61.07	294	⇓P	P	14 25 05.4	+0.5
	baz=61						
X15A	Humboldt	61.09	290	⇑P	P	14 25 05.9	+0.9
	baz=61						
S11A	Rachel	61.12	295	⇓P	P	14 25 06.4	+1.2
	baz=61						
W14A	Seligman	61.12	291	⇓P	P	14 25 06.8	+1.5
	baz=61,SNR=12						
L05A	Lakeview	61.13	302	⇑P	P	14 25 06.4	+1.2
	baz=61						
U12A	Valley of Fire	61.20	293	⇑P	P	14 25 05.3	-0.4
	baz=61						
O07A	Toulon	61.28	299	⇑P	P	14 25 05.9	-0.3
	baz=61						
TNA	Tin City	61.40	342	*e*P	P	14 25 06.5	-0.1
	comp=Z,21nm,1.1s,mb5.2						
TNA				LR	LR		
	comp=Z,371nm,22.0s,MS4.5						
N06A	Buffalo Meadow	61.43	300	⇓P	P	14 25 07.7	+0.4
	baz=61,SNR=11						
S10A	Tonopah Range,	61.43	296	⇑P	P	14 25 07.3	0.0
	baz=61						
M06C	Likely Place G	61.49	301	⇑P	P	14 25 07.9	+0.3
	baz=61						
X14A	Yava	61.50	291	⇓P	P	14 25 08.0	+0.2
	baz=61						
R09A	Tonopah	61.50	296	⇑P	P	14 25 08.0	+0.2
	baz=61,SNR=8.4						
NVS	Novosibirsk	61.59	38	*e*P	P	14 25 08.6	+0.5
NVS				pmax	pmax		
	comp=Z,84nm,1.2s,mb5.8						
NVS				pmax	pmax		
	comp=N,25nm,1.4s						
Q08A	Gabbs	61.59	297	⇓P	P	14 25 08.0	-0.4
	baz=61,SNR=7.9						
L04A	Klamath Falls	61.63	303	⇓P	P	14 25 07.3	-1.3
	baz=61						
TUC	Tucson	61.64	287	P	P	14 25 07.1	-1.7
	comp=N,7.8nm,1.2s,mb4.7						
TUC				LR	LR		
	comp=Z,2µm,21.0s,MS5.1						
TUC	Tucson	61.64	287	P	P	14 25 07.1	-1.7
TUC				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.7						
TUC				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.1						
TUC	Tucson	61.64	287	P	P	14 25 07.1	-1.7
	comp=Z,7.8nm,1.2s,mb4.7						
W13A	Hualapai Mount	61.69	292	⇓P	P	14 25 09.1	+0.1
	baz=62						
M05C	Lookout	61.76	301	⇓P	P	14 25 10.1	+0.6
	baz=62						
O06A	Flanigan	61.82	300	⇑P	P	14 25 10.2	+0.4
	baz=62						
V12A	Nelson	61.85	293	⇑P	P	14 25 10.2	0.0
	baz=62						
M04C	Macdoel	61.87	302	⇓P	P	14 25 09.6	-0.6
	baz=62						
S09A	Goldfield	61.94	296	⇓P	P	14 25 10.6	-0.1
	baz=62,SNR=8.1						
X13A	Yucca	61.99	291	⇑P	P	14 25 11.7	+0.6
	baz=62						
NVAR	Mina Array Bea	62.10	297	P	P	14 25 11.2	-0.6
	comp=Z,2.1nm,0.7s,mb4.3,baz=39,slow=4.3,SNR=7.6						
V11A	Goodsprings	62.13	293	⇑P	P	14 25 12.2	+0.2
	baz=62						
HATC	Hat Creek Radi	62.30	301	⇑P	P	14 25 13.7	+0.6
	baz=62						
WCN	Washoe City	62.35	299	⇓P	P	14 25 13.6	+0.1
	baz=62						
PDMCI	Parker Dam,Lak	62.38	291	⇑P	P	14 25 14.1	+0.3
	baz=62						
YBH	Yreka Blue Hor	62.38	303	PFAKE		14 25 30.0	+16
YBH				LR	LR		
	comp=Z,989nm,19.0s,MS5.0						
O04C	Chester	62.43	301	⇓P	P	14 25 13.9	-0.1
	baz=62						
GRAC	Grapevine Rang	62.51	296	⇑P	P	14 25 15.4	+0.8
	baz=62						
FURC	Furnace Creek,	62.56	295	⇑P	P	14 25 16.0	+1.1
	baz=62						
O05C	Quincy	62.57	300	⇓P	P	14 25 14.7	-0.2
	baz=62						
BILL	Bilibino	62.58	354	*e*P	P	14 25 14.4	-0.1
	comp=Z,9.3nm,1.0s,mb4.9						
BILL				LR	LR		
	comp=Z,397nm,20.0s,MS4.6						
BILL	Bilibino	62.58	354	*e*P	P	14 25 14.1	-0.4
BILL				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.8						
BILL				MLR	MLR		
	comp=Z,200nm,14.0s,MS4.4						
BILL	Bilibino	62.58	354	*e*P	P	14 25 14.4	-0.1
	comp=Z,9.3nm,1.0s,mb4.9						
KURK	Kurchatov	62.58	43	P	P	14 25 14.3	-0.5
	comp=Z,230nm,0.8s,mb6.4,SNR=11						
KURK	Kurchatov	62.58	43	*e*P	P	14 25 14.0	-0.8
	comp=Z,32nm,0.9s,mb5.5						
KURK				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
KURK	Kurchatov	62.58	43	*e*P	P	14 25 14.0	-0.8
KURK				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.5						
KURK				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.2						
KURK	Kurchatov	62.58	43	P	P	14 25 16.2	+1.4
	SNR=17						
KURK	Kurchatov	62.58	43	*e*P	P	14 25 14.0	-0.8
	comp=Z,32nm,0.9s,mb5.5						
ZAL	Zalesovo	62.88	38	P	P	14 25 17.0	+0.3
ZALV	Zalesovo Beam	62.88	38	P	P	14 25 16.9	+0.2
	comp=Z,11nm,0.9s,mb5.0,baz=330,slow=8.6,SNR=26						
ZALV				LR	LR	14 53 58.4	
	comp=Z,605nm,18.1s,MS4.8,baz=221,slow=37						
GMRC	Granite Mounta	62.98	293	⇓P	P	14 25 17.9	+0.2
	baz=63						
WDC	Whiskeytown Da	63.07	302	PFAKE		14 25 30.0	+12
WDC				LR	LR		
	comp=Z,841nm,22.0s,MS4.9						
IRM	Iron Mountain	63.09	292	⇓P	P	14 25 18.9	+0.4
	baz=63						
O03C	Acorn Hollow,	63.18	301	⇓P	P	14 25 18.7	-0.3
	baz=63						
MPMC	Manual Prospec	63.21	295	⇓P	P	14 25 20.0	+0.7
	baz=63,SNR=16						
GSC	Goldstone	63.32	294	P	P	14 25 20.8	+0.9
	baz=63,SNR=8.8						
OHCM	Honcut	63.32	300	*e*P	P	14 25 19.6	-0.3
OHCM	Honcut	63.32	300	*e*P	P	14 25 19.6	-0.3
HEC	Hector,Ludlow	63.35	293	⇓P	P	14 25 21.3	+1.1
	baz=63,SNR=7.0						
S06C	San Francisco	63.37	298	⇓P	P	14 25 21.3	+1.1
	baz=63,SNR=12						
CMB	Columbia Colle	63.57	298	PFAKE		14 25 30.0	+8.4
CMB				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
HELL	Mitchell Peak,	63.70	296	⇓P	P	14 25 22.8	+0.4
	baz=64,SNR=9.0						
LRMC	Laurel Mountai	63.73	294	⇓P	P	14 25 23.2	+0.5
	baz=64,SNR=5.6						
T06C	Millerton Lake	63.88	297	⇑P	P	14 25 24.3	+0.7
	baz=64						
KDAK	Kodiak Island	63.91	330	LR	LR	14 49 57.7	
	comp=Z,445nm,20.7s,MS4.6,baz=54,slow=33						
KKAR	Karatay Array	63.93	54	P	P	14 25 23.5	-0.4
KKAR				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.1						
ISA	Isabella	64.07	295	⇑P	P	14 25 26.4	+1.5
	baz=64						
PFO	Pinyon Flat Ob	64.26	292	P	P	14 25 27.7	+1.5
	comp=Z,17nm,1.3s,mb4.9						
PFO				LR	LR		
	comp=Z,802nm,19.0s,MS4.9						
PFO	Pinyon Flat Ob	64.26	292	P	P	14 25 27.7	+1.5
PFO				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.9						
PFO				MLR	MLR		
	comp=Z,802nm,19.0s,MS4.9						
PFO	Pinyon Flat Ob	64.26	292	LR	LR	14 51 20.7	
	comp=Z,430nm,19.2s,MS4.7,baz=130,slow=34						
PFO	Pinyon Flat Ob	64.26	292	P	P	14 25 27.7	+1.5
	comp=Z,802nm,19.0s						
HOPS	Hopland	64.45	301	PFAKE		14 25 40.0	+13
HOPS				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
OTAV	Otavalo	64.89	238	*e*P	P	14 25 31.0	+0.5
	comp=Z,37nm,1.4s,mb5.2						
OTAV	Otavalo	64.89	238	*e*P	P	14 25 31.0	+0.5
	comp=Z,37nm,1.4s,mb5.2						
MCCM	Marconi Confer	64.93	300	PFAKE		14 25 40.0	+10
MCCM				LR	LR		
	comp=Z,591nm,22.0s,MS4.7						
SAO	San Andreas Ge	65.06	298	PFAKE		14 25 40.0	+8.6
SAO				LR	LR		
	comp=Z,599nm,21.0s,MS4.8						
EKS2	Erkin-Say	65.95	52	P	P	14 25 40.2	+3.2
	SNR=42						
EKS2	Erkin-Say	65.95	52	*e*P	P	14 25 38.4	+1.4
	comp=Z,73nm,1.2s,mb5.6						
EKS2				LR	LR		
	comp=Z,907nm,20.0s,MS5.0						
EKS2	Erkin-Say	65.95	52	*e*P	P	14 25 38.4	+1.4
	comp=Z,73nm,1.2s,mb5.6						
CHMS	Chumysh	66.21	51	P	P	14 25 41.2	+2.6
	SNR=9.5						
FRU	Bishkek	66.26	52	*e*P	P	14 25 41.0	+2.0
FRU				*e*		14 25 47.0	
FRU				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.4						
FRU	Bishkek	66.26	52	*e*P	P	14 25 41.0	+2.0
	comp=Z,60nm,1.4s,mb5.4						
AML	Almayashu	66.28	53	P	P	14 25 42.6	+3.5
	SNR=21						
AML	Almayashu	66.28	53	*e*P	P	14 25 40.6	+1.5
	comp=Z,47nm,1.1s,mb5.4						
AML				LR	LR		
	comp=Z,906nm,21.0s,MS5.0						
AML	Almayashu	66.28	53	*e*P	P	14 25 40.6	+1.4
	comp=Z,47nm,1.1s,mb5.4						
AAK	Ala-Archa	66.34	52	P	P	14 25 42.2	+2.6
	SNR=16						
KBK	Karagaybulak	66.56	51	P	P	14 25 44.0	+3.0
	SNR=5.7						
UCH	Uchtor	66.64	52	P	P	14 25 44.4	+3.0
	SNR=30						
UCH	Uchtor	66.64	52	*e*P	P	14 25 44.5	+3.1

	comp=Z,70nm,1.2s,mb5.6						
UCH				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
UCH	**Uchtor**	**66.64**	**52**	*e*P	**P**	**14 25 44.5**	**+3.0**
	comp=Z,70nm,1.2s,mb5.6						
TKM2	**Tokmak 2**	**66.70**	**51**	P	**P**	**14 25 43.2**	**+1.4**
	SNR=24						
TKM2	**Tokmak 2**	**66.70**	**51**	*e*P	**P**	**14 25 42.6**	**+0.8**
	comp=Z,46nm,1.3s,mb5.3						
TKM2				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
TKM2	**Tokmak 2**	**66.70**	**51**	*e*P	**P**	**14 25 42.6**	**+0.8**
TKM2				pmax	pmax		
	comp=Z,46nm,1.3s,mb5.3						
TKM2				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.1						
TKM2	**Tokmak 2**	**66.70**	**51**	*e*P	**P**	**14 25 42.6**	**+0.8**
	comp=Z,1µm,20.0s						
MKAR	**Makanchi Array**	**67.10**	**44**	P	**P**	**14 25 44.4**	**+0.1**
MKAR				LR	LR	14 54 26.9	
MKAR	**Makanchi Array**	**67.10**	**44**	P	**P**	**14 25 44.4**	**+0.1**
	comp=Z,35nm,1.0s,mb5.4,baz=326,slow=4.5,SNR=141						
MKAR				LR	LR	14 54 26.8	
	comp=Z,1µm,20.8s,MS5.0,baz=323,slow=35						
YAK	**Yakutsk**	**67.75**	**11**	*e*P	**P**	**14 25 47.5**	**-0.6**
	comp=Z,22nm,0.9s,mb5.2						
YAK				LR	LR		
	comp=Z,543nm,19.0s,MS4.8						
YAK	**Yakutsk**	**67.75**	**11**	*e*P	**P**	**14 25 48.4**	**+0.2**
YAK				pmax	pmax		
	comp=N,16nm,1.2s						
YAK				pmax	pmax		
	comp=E,10.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.2						
YAK	**Yakutsk**	**67.75**	**11**	*e*P	**P**	**14 25 47.5**	**-0.7**
	comp=Z,22nm,0.9s,mb5.2						
HATD	**Hatta, Dubai**	**68.16**	**77**	P	**P**	**14 25 52.8**	**+1.5**
	SNR=8.9						
BOD	**Bodaibo**	**68.94**	**20**	*e*P	**P**	**14 25 55.2**	**-0.5**
BOD				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.7						
KBL	**Kabul**	**69.15**	**61**	*e*P	**P**	**14 25 59.4**	**+2.0**
KBL	**Kabul**	**69.15**	**61**	*e*P	**P**	**14 25 59.4**	**+2.0**
KSH	**Kashi**	**69.36**	**53**	*e*P	**P**	**14 26 00.9**	**+2.3**
KSH				*e*AP	pP	14 26 04.8	+2.9
KSH				*e*XP	sP	14 26 07.8	+4.7
KSH				*e*PCP	PcP	14 26 24.1	+2.0
KSH				*e*PP	PP	14 28 36.3	+4.9
KSH				*e*PPP		14 30 14.9	
KSH				*e*SCP		14 30 25.8	
KSH				*e*PCS		14 30 28.1	
KSH				*e*S	S	14 35 05.6	+0.3
KSH				*e*XS	sS	14 35 14.0	+3.3
KSH				*e*SCS	ScS	14 35 58.5	-1.2
KSH				*e*SS	SS	14 39 35.0	+3.6
KSH				LR	LR		
	comp=N,1µm,7.4s						
KSH				LR	LR		
	comp=E,1µm,7.2s						
KSH				LR	LR		
	comp=Z,2µm,18.6s,MS5.4						
ARQ	**Araqi**	**69.47**	**78**	P	**P**	**14 26 00.5**	**+1.0**
	SNR=9.3						
MOY	**Mondy**	**70.66**	**31**	*e*P	**P**	**14 26 07.9**	**+1.5**
MOY				pmax	pmax		
	comp=Z,54nm,2.0s,mb5.1						
IRK	**Irkutsk**	**71.23**	**29**	*e*P	**P**	**14 26 09.3**	**-0.5**
IRK				*e*		14 30 38.0	
IRK				pmax	pmax		
	comp=Z,51nm,2.0s,mb5.1						
TLY	**Talaya**	**71.51**	**29**	*e*P	**P**	**14 26 13.2**	**+1.6**
	comp=Z,11nm,1.3s,mb4.6						
TLY				LR	LR		
	comp=Z,576nm,20.0s,MS4.8						
TLY	**Talaya**	**71.51**	**29**	*e*P	**P**	**14 26 12.4**	**+0.9**
TLY				*e*		14 26 28.7	
TLY				*e*S	S	14 35 37.5	+7.5
TLY				*e*SS	SS	14 40 02.8	-0.9
TLY				*e*SSS		14 43 18.9	
TLY				pmax	pmax		
	comp=Z,16nm,1.9s,mb4.6						
TLY				MLR	MLR		
	comp=Z,527nm,19.0s,MS4.8						
TLY	**Talaya**	**71.51**	**29**	*e*P	**P**	**14 26 13.2**	**+1.7**
	comp=Z,11nm,1.3s,mb4.6						
MA2	**Magadan**	**71.59**	**0**	PFAKE		14 26 20.0	+8.1
MA2				LR	LR		
	comp=Z,584nm,21.0s,MS4.8						
MA2	**Magadan**	**71.59**	**0**	*e*P	**P**	**14 26 10.7**	**-1.2**
MA2				*e*S	S	14 35 26.9	-3.7
MA2				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.0						
ABTO	**Aybut**	**71.68**	**85**	P	**P**	**14 26 14.1**	**+1.0**
	SNR=7.9						
WMQ	**Urumqi**	**71.82**	**43**	P	**P**	**14 26 14.5**	**+0.9**
WMQ				AP	pP	14 26 19.3	+2.5
WMQ				XP	sP	14 26 21.5	+3.5
WMQ				PCP	PcP	14 26 33.5	+1.1
WMQ				PP	PP	14 28 56.1	+3.7
WMQ				S	S	14 35 33.8	0.0
WMQ				SKS		14 36 13.3	
WMQ				SCS	ScS	14 36 16.1	-2.9
WMQ				SS	SS	14 40 11.5	+2.6
WMQ				AMB	AMB		
	comp=Z,38nm,1.1s,mb5.2						
WMQ				AMB	AMB		
	comp=Z,35nm,6.7s						
WMQ				LR	LR		
	comp=N,942nm,21.4s,MS5.1						
WMQ				LR	LR		
	comp=E,706nm,21.4s,MS5.1						
WMQ				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
ZAK	**Zakamensk**	**72.51**	**30**	*e*P	**P**	**14 26 17.9**	**+0.4**
ZAK				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.4						
PAYG	**Puerto Ayora**	**72.53**	**248**	PFAKE		14 26 30.0	+12
PAYG				LR	LR		
	comp=Z,638nm,21.0s,MS4.9						
CIT	**Chita**	**74.09**	**23**	*e*P	**P**	**14 26 25.9**	**-0.9**
CIT				*e*		14 26 33.7	
CIT				*e*		14 26 41.7	
LPAZ	**La Paz**	**74.09**	**220**	*e*P	**P**	**14 26 27.1**	**-0.1**
	comp=Z,21nm,1.2s,mb4.9						
LPAZ				LR	LR		
	comp=Z,624nm,21.0s,MS4.9						
LPAZ	**La Paz**	**74.09**	**220**	*e*P	**P**	**14 26 27.1**	**-0.1**
LPAZ				pmax	pmax		
	comp=Z,21nm,1.2s						
LPAZ				MLR	MLR		
	comp=Z,624nm,21.0s						
LPAZ	**La Paz**	**74.09**	**220**	P	**P**	**14 26 27.7**	**+0.5**
	comp=Z,4.1nm,1.0s,mb4.3,baz=20,slow=6.9,SNR=8.4						
LPAZ				LR	LR	14 55 19.6	
	comp=Z,515nm,21.0s,MS4.8,baz=248,slow=33						
LPAZ	**La Paz**	**74.09**	**220**	*e*P	**P**	**14 26 27.1**	**-0.1**
	comp=Z,21nm,1.2s,mb4.9						
NNA	**Nana**	**74.33**	**230**	PFAKE		14 26 40.0	+11
NNA				LR	LR		
	comp=Z,558nm,21.0s,MS4.8						
KMBO	**Kilima Mbogo**	**75.18**	**110**	*e*P	**P**	**14 26 36.4**	**+2.7**
	comp=Z,16nm,1.3s,mb4.8						
KMBO				LR	LR		
	comp=Z,455nm,21.0s,MS4.8						
KMBO	**Kilima Mbogo**	**75.18**	**110**	*e*P	**P**	**14 26 36.4**	**+2.7**
KMBO				pmax	pmax		
	comp=Z,16nm,1.3s						
KMBO				MLR	MLR		
	comp=Z,455nm,21.0s						
KMBO	**Kilima Mbogo**	**75.18**	**110**	P	**P**	**14 26 36.2**	**+2.5**
	comp=Z,6.2nm,1.0s,mb4.5,baz=318,slow=5.2,SNR=7.9						
KMBO				LR	LR	15 01 21.5	
	comp=Z,467nm,18.0s,MS4.8,baz=95,slow=37						
SONM	**Songino Array**	**75.74**	**30**	P	**P**	**14 26 37.1**	**+0.7**
	comp=Z,9.1nm,0.9s,mb4.7,baz=325,slow=4.0,SNR=55						
ULN	**Ulaanbaatar**	**75.92**	**29**	*e*P	**P**	**14 26 38.5**	**+1.0**
	comp=Z,51nm,1.4s,mb5.3						
ULN				LR	LR		
	comp=Z,502nm,22.0s,MS4.8						
ULN	**Ulaanbaatar**	**75.92**	**29**	*e*P	**P**	**14 26 38.5**	**+1.0**
ULN				pmax	pmax		
	comp=Z,51nm,1.4s,mb5.3						
ULN				MLR	MLR		
	comp=Z,502nm,22.0s,MS4.8						
ULN	**Ulaanbaatar**	**75.92**	**29**	P	**P**	**14 26 39.3**	**+1.8**
	SNR=18						
ULN	**Ulaanbaatar**	**75.92**	**29**	*e*P	**P**	**14 26 38.5**	**+1.0**
	comp=Z,51nm,1.4s,mb5.3						
PET	**Petropavlovsk**	**77.98**	**356**	*e*P	**P**	**14 26 48.9**	**-0.1**
PET				*e*S	S	14 36 55.7	+14
PET				pmax	pmax		
	comp=Z,35nm,1.3s,mb5.1						
PET				pmax	pmax		
	comp=Z,100nm,9.7s						
PET				pmax	pmax		
	comp=Z,16nm,1.8s,mb4.7						
PET				pmax	pmax		
	comp=Z,100nm,10.3s						
TSUM	**Tsumeb**	**79.39**	**136**	*e*P	**P**	**14 26 58.1**	**+1.1**
	comp=Z,4.8nm,1.0s,mb4.4						
TSUM	**Tsumeb**	**79.39**	**136**	*e*P	**P**	**14 26 58.1**	**+1.0**
	comp=Z,4.8nm,1.0s,mb4.4						
KLR	**Kul’dur**	**80.48**	**13**	*e*P	**P**	**14 27 00.0**	**-2.7**
GTA	**Gaotai**	**80.62**	**38**	⇓P	**P**	**14 27 03.6**	**-0.1**
GTA				AP	pP	14 27 07.5	+0.5
GTA				PP	PP	14 30 09.9	+3.3
GTA				PPP		14 32 01.3	
GTA				AMB	AMB		
	comp=Z,13nm,1.4s,mb4.7						
GTA				AMB	AMB		
	comp=Z,205nm,11.0s						
GTA				LR	LR		
	comp=N,491nm,19.8s,MS5.0						
GTA				LR	LR		
	comp=E,578nm,19.4s,MS5.0						
GTA				LR	LR		
	comp=Z,756nm,20.2s,MS5.0						
HABR	**Khabarovsk**	**81.67**	**11**	*e*P	**P**	**14 27 07.9**	**-1.2**
HABR				*e*		14 27 13.0	
HABR				*e*S	S	14 37 22.4	+1.2
HABR				*e*SS	SS	14 42 38.1	+1.2
GKN	**Gorkha**	**82.79**	**55**	*e*P	**P**	**14 27 15.8**	**+0.5**
	comp=Z,117nm,1.2s,mb5.8						
KKN	**Kakani**	**83.30**	**55**	*e*P	**P**	**14 27 19.7**	**+1.8**
	comp=Z,136nm,1.2s,mb5.8						
BTO	**Baotou**	**83.36**	**31**	*e*P	**P**	**14 27 18.8**	**+0.8**
HHC	**Hu-ho-hao-te**	**83.64**	**29**	*e*P	**P**	**14 27 19.5**	**0.0**
HHC				XP	sP	14 27 26.6	+2.6
HHC				PP	PP	14 30 34.5	+3.2
HHC				S	S	14 37 39.1	-2.5
HHC				PS		14 38 32.6	
HHC				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb5.1						
HHC				AMB	AMB		
	comp=Z,152nm,6.1s						
HHC				LR	LR		
	comp=N,124nm,16.6s,MS4.6						
HHC				LR	LR		
	comp=E,163nm,15.5s,MS4.6						
HHC				LR	LR		
	comp=Z,312nm,14.3s,MS4.8						
YSS	**Yuzh-Sakhalins**	**83.93**	**6**	*e*P	**P**	**14 27 22.8**	**+1.9**
	comp=Z,44nm,1.2s,mb5.5						
YSS				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
YSS	**Yuzh-Sakhalins**	**83.93**	**6**	*e*P	**P**	**14 27 21.0**	**+0.2**
YSS				*e*		14 27 27.0	
YSS				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.5						
CN2	**Changchun**	**84.59**	**19**	*e*P	**P**	**14 27 23.3**	**-1.0**
CN2				*e*XP	sP	14 27 30.3	+1.5
CN2				*e*PP	PP	14 30 39.8	+0.9
CN2				*e*S	S	14 37 46.9	-4.2
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.9						
CN2				AMB	AMB		
	comp=Z,200nm,6.0s						
MDJ	**Mudanjiang**	**84.61**	**16**	P	**P**	**14 27 21.4**	**-2.9**
MDJ				S	S	14 37 46.0	-5.2
MDJ				SCS	ScS	14 37 57.8	-4.9
MDJ				AMB	AMB		
	comp=Z,5.0nm,2.8s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,87nm,3.7s						
MDJ				LR	LR		
	comp=N,262nm,15.6s,MS5.3						
MDJ				LR	LR		
	comp=E,939nm,15.6s,MS5.3						
MDJ				LR	LR		
	comp=Z,385nm,16.2s,MS4.9						
MDJ	**Mudanjiang**	**84.61**	**16**	*e*P	**P**	**14 27 24.2**	**-0.1**
	comp=Z,15nm,1.3s,mb5.0						
MDJ				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
MDJ	**Mudanjiang**	**84.61**	**16**	*e*P	**P**	**14 27 24.2**	**-0.1**
	comp=Z,15nm,1.3s,mb5.0						
LSA	**Lhasa**	**84.80**	**49**	P	**P**	**14 27 27.9**	**+2.3**
LSA	**Lhasa**	**84.80**	**49**	P	**P**	**14 27 27.2**	**+1.7**
	comp=Z,14nm,1.5s,mb4.9						
LSA				LR	LR		
	comp=Z,941nm,19.0s,MS5.2						
LSA	**Lhasa**	**84.80**	**49**	P	**P**	**14 27 27.3**	**+1.7**
LSA				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.9						
LSA				MLR	MLR		
	comp=Z,941nm,19.0s,MS5.2						
LSA	**Lhasa**	**84.80**	**49**	P	**P**	**14 27 27.2**	**+1.6**
	comp=Z,14nm,1.5s,mb4.9						
TAPN	**Taplejung**	**84.94**	**53**	*e*P	**P**	**14 27 28.8**	**+2.5**
	comp=Z,86nm,1.2s,mb5.8						
LZH	**Lanzhou**	**85.10**	**37**	⇓P	**P**	**14 27 26.5**	**-0.5**
LZH				AP	pP	14 27 34.6	+4.3
LZH				XP	sP	14 27 37.8	+6.3
LZH				PP	PP	14 30 44.5	+1.2
LZH				SKS		14 37 45.6	
LZH				*e*S	S	14 37 51.4	-5.0
LZH				XS	sS	14 38 05.3	+3.4
LZH				PS		14 38 50.6	
LZH				AMB	AMB		
	comp=Z,39nm,1.5s,mb5.3						
LZH				AMB	AMB		
	comp=Z,118nm,8.3s						
LZH				LR	LR		
	comp=E,415nm,17.5s						
LZH				LR	LR		
	comp=Z,623nm,19.2s,MS5.0						
LZH	**Lanzhou**	**85.10**	**37**	⇓P	**P**	**14 27 26.5**	**-0.5**
	comp=Z,39nm,1.5s,mb5.3						
LZH				pP	pP	14 27 34.6	+4.3
LZH				sP	sP	14 27 37.8	+6.3
LZH				PP	PP	14 30 44.5	+1.2
LZH				SKS		14 37 45.6	
LZH				*e*S	S	14 37 51.4	-5.0
LZH				sS	sS	14 38 05.2	+3.3
LZH				PS		14 38 50.6	
LZH				*e*SS	SS	14 43 26.7	-1.7
LZH				LR	LR		
	comp=Z,620nm,19.2s,MS5.0						
LZH	**Lanzhou**	**85.10**	**37**	⇓P	**P**	**14 27 26.5**	**-0.5**
LZH				*PP	pP	14 27 34.6	+4.3
LZH						14 30 44.5	
LZH						14 37 45.6	
LZH				*e*S	S	14 37 51.4	-5.0
LZH				PS		14 38 50.6	
LZH				*e*SS	SS	14 43 26.7	-1.7
LZH				pmax	pmax		
	comp=Z,39nm,1.5s,mb5.3						
LZH				MLR	MLR		
	comp=Z,620nm,19.2s,MS5.0						
ODAN	**Odare**	**85.17**	**54**	*e*P	**P**	**14 27 29.6**	**+2.2**
	comp=Z,72nm,1.3s,mb5.6						
BJI	**Beijing**	**85.80**	**27**	P	**P**	**14 27 29.1**	**-1.3**
BJI				S	S	14 38 01.0	-2.1
BJI				AMB	AMB		
	comp=Z,10.0nm,1.3s,mb4.9						
BJI				LR	LR		
	comp=N,231nm,6.0s						
BJI				LR	LR		
	comp=E,205nm,6.9s						
BJI				LR	LR		
	comp=Z,109nm,13.8s,MS4.4						
BJI	**Beijing**	**85.80**	**27**	P	**P**	**14 27 29.1**	**-1.3**
BJI				pP	pP	14 27 32.4	-1.3
BJI				sP	sP	14 27 33.7	-1.2
BJI				PP	PP	14 30 46.9	-1.9
BJI				S	S	14 38 01.0	-2.1
BJI				sS	sS	14 38 06.7	-1.9
BJI				SS	SS	14 43 36.8	-1.6
BJI				LR	LR		
	comp=Z,110nm,13.8s,MS4.4						
BJI	**Beijing**	**85.80**	**27**	P	**P**	**14 27 29.1**	**-1.3**
BJI				*PP	pP	14 27 32.4	-1.3
BJI				*SP	sP	14 27 33.7	-1.2
BJI						14 30 46.9	
BJI				S	S	14 38 01.0	-2.1
BJI				SS	SS	14 43 36.8	-1.6
BJI				MLR	MLR		
	comp=Z,110nm,13.8s,MS4.4						
BJT	**Baijiatuau**	**85.82**	**27**	*e*P	**P**	**14 27 29.9**	**-0.6**
	comp=Z,39nm,1.1s,mb5.5						
BJT				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
BJT	**Baijiatuau**	**85.82**	**27**	*e*P	**P**	**14 27 29.9**	**-0.6**
BJT				pmax	pmax		
	comp=Z,39nm,1.1s						
BJT				MLR	MLR		
	comp=Z,2µm,19.0s						
BJT	**Baijiatuau**	**85.82**	**27**	*e*P	**P**	**14 27 29.9**	**-0.6**
	comp=Z,39nm,1.1s,mb5.5						
SNY	**Shenyang**	**86.06**	**21**	⇓P	**P**	**14 27 30.4**	**-1.2**
SNY				S	S	14 38 07.6	+1.9
SNY				XS	sS	14 38 12.4	+1.2
SNY				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb5.0						
SNY				LR	LR		
	comp=N,582nm,19.4s,MS5.2						
SNY				LR	LR		
	comp=E,622nm,19.6s,MS5.2						
SNY				LR	LR		
	comp=Z,393nm,41.0s						
LCO	**Las Campanas**	**86.51**	**216**	*e*P	**P**	**14 27 34.7**	**+1.0**
	comp=Z,48nm,1.0s,mb5.7						
LCO				LR	LR		
	comp=Z,955nm,19.0s,MS5.2						
LCO	**Las Campanas**	**86.51**	**216**	*e*P	**P**	**14 27 34.7**	**+0.9**
	comp=Z,48nm,1.0s,mb5.7						
ASAJ	**Asahikawa**	**86.74**	**6**	P	**P**	**14 27 36.2**	**+1.3**
	comp=Z,13nm,1.0s,mb5.1,baz=322,slow=12,SNR=5.4						
LBTB	**Lobatse**	**88.13**	**133**	PFAKE		14 27 50.0	+8.3
LBTB				LR	LR		
	comp=Z,430nm,20.0s,MS4.9						
LBTB	**Lobatse**	**88.13**	**133**	LR	LR	15 08 03.8	
	comp=Z,386nm,18.1s,MS4.9,baz=338,slow=36						
DL2	**Dalian**	**88.36**	**23**	*e*P	**P**	**14 27 41.8**	**-1.0**
DL2				S	S	14 38 26.3	-1.6
DL2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb5.0						
DL2				LR	LR		
	comp=N,360nm,23.5s,MS4.9						
DL2				LR	LR		
	comp=E,430nm,21.6s,MS4.9						
DL2				LR	LR		
	comp=Z,900nm,25.8s,MS5.1						
SHL	**Shillong**	**88.56**	**51**	*e*P	**P**	**14 27 45.5**	**+1.5**
XAN	**Xi’an**	**88.85**	**34**	P	**P**	**14 27 45.9**	**+0.7**
XAN				AP	pP	14 27 52.8	+4.2
XAN				AMB	AMB		
	comp=Z,2.0nm,0.8s,mb4.5						
CD2	**Chengdu**	**89.58**	**40**	P	**P**	**14 27 48.4**	**-0.3**
CD2				AP	pP	14 27 53.3	+1.3
CD2				XP	sP	14 27 55.8	+2.6
CD2				PP	PP	14 31 21.9	+2.4
CD2				SKS		14 38 15.9	
CD2				S	S	14 38 35.9	-3.7
CD2				SS	SS	14 44 34.3	+0.3
CD2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.4						
CD2				AMB	AMB		
	comp=Z,60nm,9.8s						
CD2				LR	LR		
	comp=N,750nm,18.0s,MS5.4						
CD2				LR	LR		
	comp=E,1µm,18.0s,MS5.4						
CD2				LR	LR		
	comp=Z,590nm,19.2s,MS5.0						
BOSA	**Boshof**	**91.01**	**135**	P	**P**	**14 27 55.8**	**+0.7**
	comp=Z,4.5nm,1.1s,mb4.7,baz=288,slow=3.2,SNR=3.5						
KSRS	**Korea Array**	**91.21**	**19**	P	**P**	**14 27 54.7**	**-1.5**
	comp=Z,4.7nm,1.0s,mb4.8,baz=343,slow=5.3,SNR=11						
SUR	**Sutherland**	**92.27**	**140**	PFAKE		14 28 10.0	+9.2
SUR				LR	LR		
	comp=Z,545nm,21.0s,MS5.0						
MJAR	**Matsushiro Arr**	**93.81**	**11**	P	**P**	**14 28 07.4**	**-0.8**
	comp=Z,2.9nm,1.0s,mb4.7,baz=349,slow=4.8,SNR=5.2						
NJ2	**Nanjing**	**94.01**	**27**	*e*P	**P**	**14 28 09.9**	**+0.7**
NJ2				AP	pP	14 28 14.8	+2.3
NJ2				XP	sP	14 28 16.9	+3.2
NJ2				PP	PP	14 31 59.6	+5.3
NJ2				SKS		14 38 43.0	
NJ2				S	S	14 39 19.0	-0.6
NJ2				XS	sS	14 39 27.0	+1.9
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,220nm,7.2s						
NJ2				LR	LR		
	comp=N,1µm,28.2s						
NJ2				LR	LR		
	comp=E,1µm,23.0s						
NJ2				LR	LR		
	comp=Z,1µm,23.0s						
KMI	**Kunming**	**94.16**	**43**	P	**P**	**14 28 12.8**	**+2.8**
KMI				AMB	AMB		
	comp=Z,2.0nm,1.0s,mb4.5						
KMI	**Kunming**	**94.16**	**43**	P	**P**	**14 28 12.8**	**+2.8**
	comp=Z,2.0nm,1.0s,mb4.5						
GYA	**Guiyang**	**94.69**	**39**	P	**P**	**14 28 12.3**	**-0.1**
GYA				AP	pP	14 28 16.8	+1.0
GYA				XP	sP	14 28 19.4	+2.5
GYA				PP	PP	14 32 02.5	+2.7
GYA				SKS		14 38 46.5	
GYA				S	S	14 39 21.9	-3.8
GYA				PS	PS	14 40 41.9	+0.2
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.5						
GYA				AMB	AMB		
	comp=Z,140nm,7.2s						
GYA				LR	LR		
	comp=N,690nm,20.4s,MS5.3						
GYA				LR	LR		
	comp=E,760nm,21.0s,MS5.3						
GYA				LR	LR		
	comp=Z,530nm,20.2s,MS5.0						
QIZ	**Qiongzhong**	**102.61**	**40**	PFAKE		14 29 00.0	+12
QIZ				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
EFI	**East Falkland**	**103.63**	**198**	PFAKE		14 29 00.0	+7.5
EFI				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
RPN	**Rapa Nui**	**104.49**	**245**	PFAKE		14 29 10.0	+14
RPN				LR	LR		
	comp=Z,669nm,20.0s,MS5.2						
PMSA	**Palmer Station**	**116.97**	**196**	PFAKE		14 33 50.0	+16
PMSA				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
SYO	**Syowa Base**	**127.98**	**155**	⇑*e*PKPdf	PKPdf	14 33 54.2	-1.3
WRA	**Warramunga Arr**	**147.70**	**32**	PKPbc	PKPbc	14 34 35.1	-0.7
WRA	**Warramunga Arr**	**147.70**	**32**	PKP2	PKPab	14 34 35.1	-2.9
WRA	**Warramunga Arr**	**147.70**	**32**	PKPbc	PKPbc	14 34 35.1	-0.7
	comp=Z,11nm,1.1s,baz=340,slow=3.2,SNR=15						
WRA	**Warramunga Arr**	**147.70**	**32**	PKPbc	PKPbc	14 34 35.1	-0.7
WB2	**Warramunga Arr**	**147.70**	**31**	*e*PKP	PKPdf	14 34 36.3	+3.3
WB2	**Warramunga Arr**	**147.70**	**31**	*e*PKP	PKPdf	14 34 36.3	+3.3
ASAR	**Alice Springs**	**150.96**	**35**	PKPbc	PKPbc	14 34 42.9	-1.0
ASAR	**Alice Springs**	**150.96**	**35**	PKIKP	PKPdf	14 34 42.9	+4.8
ASAR	**Alice Springs**	**150.96**	**35**	PKPbc	PKPbc	14 34 42.9	-1.0
	comp=Z,8.4nm,0.7s,baz=345,slow=1.9,SNR=26						
ASAR	**Alice Springs**	**150.96**	**35**	PKPbc	PKPbc	14 34 42.9	-0.9
VNDA	**Vanda**	**151.29**	**185**	PKPbc	PKPbc	14 34 44.1	+1.1
VNDA				*e*PKPab	PKPab	14 34 49.9	-1.3
VNDA				LR	LR		
	comp=Z,628nm,19.0s,MS5.4						
VNDA	**Vanda**	**151.29**	**185**	PKIKP	PKPdf	14 34 44.2	+7.2
VNDA				*e*		14 34 49.9	
VNDA				MLR	MLR		
	comp=Z,628nm,19.0s						
VNDA	**Vanda**	**151.29**	**185**	PKPbc	PKPbc	14 34 44.1	+1.1
	comp=Z,30nm,1.0s,baz=333,slow=3.6,SNR=6.1						
URZ	**Urewera**	**158.68**	**291**	PKP	PKPdf	14 34 48.1	-0.1
URZ	**Urewera**	**158.68**	**291**	PKP	PKPdf	14 34 48.1	-0.1
	comp=Z,11nm,1.0s,baz=333,slow=2.3,SNR=3.8						
URZ	**Urewera**	**158.68**	**291**	PKIKP	PKPdf	14 34 48.1	-0.2

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*BJI **19** 14:26:53.1, 072N×12800E, h95km, mb4.7*

NEIC ***19*** *14:27:02.5±2.9, 1.55N×127.22E, h95^{km}±27^{km}, mb4.5/5, Error ellipse: s-maj=18.9km s-min=8.2km az=54.0*

ISCJB ***19*** *14:27:04.3±1.2, 1.48N±0.07×127.1E±0.1, h127^{km}±12^{km}, mb4.3/16, Error ellipse: s-maj=23.8km s-min=7.8km az=157.1*

IDC ***19*** *14:27:07.1±2.1, 1.49N×127.19E, h140^{km}±18^{km}, mb4.0/12, mb1 4.0/13, mb1mx3.9/21, mbtmp3.9/13, Error ellipse: s-maj=28.4km s-min=10.4km az=70.0*

ISC 19 14:27:05.1±1.0**, 1.47N**±0.07×**127.2E**±0.1**, h118**^{km}±11^{km}**, n32,** σ**0^{s}71**/32**, mb4.3**/16**, 2C, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	**Mati**	**5.51**	**351**	*e*P	**Pn**	**14 28 26.1**	**+1.0**
BUKP	**Musuan**	**6.70**	**342**	*e*P	**Pn**	**14 28 41.2**	**+0.1**
PAGZ	**Pagadian**	**7.37**	**329**	*e*P	**Pn**	**14 28 49.4**	**-0.8**
KAKA	**Kakadu**	**15.03**	**160**	*e*P	**Pn**	**14 30 30.3**	**-1.2**
	16nm,0.4s						
FITZ	**Fitzroy Crossi**	**19.50**	**184**	*e*P	**P**	**14 31 23.4**	**+0.2**
	11nm,0.4s						
FITZ	**Fitzroy Crossi**	**19.50**	**184**	P	**P**	**14 31 23.5**	**+0.3**
	1.3nm,0.3s,baz=16,slow=9.7,SNR=46						
WRA	**Warramunga Arr**	**22.41**	**162**	P	**P**	**14 31 53.8**	**-0.4**
	18nm,0.5s,mb4.7,baz=339,slow=10,SNR=291						
WRA				ScP	ScP	14 39 07.8	-3.8
	0.7nm,1.0s,baz=346,slow=3.0,SNR=4.6						
WB2	**Warramunga Arr**	**22.42**	**162**	⇑*i*P	**P**	**14 31 53.8**	**-0.5**
ASAR	**Alice Springs**	**25.83**	**166**	P	**P**	**14 32 25.4**	**-0.1**
	4.5nm,0.5s,mb4.2,baz=345,slow=8.1,SNR=174						
ASAR				ScP	ScP	14 39 18.0	-2.9
	0.4nm,0.5s,baz=340,slow=2.5,SNR=4.6						
PSI	**Prapat**	**28.25**	**273**	P	**P**	**14 32 47.6**	**+0.2**
	5.2nm,0.7s,mb4.2,baz=94,slow=6.6,SNR=7.4						
NWAO	**Narrogin (SRO)**	**35.47**	**194**	*e*P	**P**	**14 33 50.8**	**+0.5**
NWAO	**Narrogin (SRO)**	**35.47**	**194**	P	**P**	**14 33 50.7**	**+0.4**
	8.0nm,0.9s,mb4.5,baz=30,slow=8.5,SNR=5.0						
KSRS	**Korea Array**	**35.81**	**1**	P	**P**	**14 33 52.8**	**-0.3**
	0.6nm,0.5s,mb3.8,baz=177,slow=9.4,SNR=5.7						
STKA	**Stephens Creek**	**35.88**	**159**	⇑*i*P	**P**	**14 33 53.9**	**+0.2**
	4.4nm,0.9s,mb4.4						
STKA	**Stephens Creek**	**35.88**	**159**	P	**P**	**14 33 54.0**	**+0.3**
	6.1nm,0.6s,mb4.7,baz=338,slow=9.2,SNR=26						
XAN	**Xi'an**	**36.62**	**334**	P	**P**	**14 34 00.5**	**+0.5**
XAN				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.7						
ARMA	**Armidale**	**39.36**	**146**	*e*P	**P**	**14 34 23.9**	**+0.8**
CNB	**Canberra Magne**	**42.07**	**153**	*e*P	**P**	**14 34 46.7**	**+1.4**
DZM	**Mont Dzumac**	**44.91**	**124**	*e*P	**P**	**14 35 08.5**	**+0.3**
GTA	**Gaotai**	**45.25**	**330**	*e*P	**P**	**14 35 11.5**	**+0.8**
GTA				AMB	AMB		
	comp=Z,3.0nm,1.2s,mb3.9						
SONM	**Songino Array**	**49.56**	**342**	P	**P**	**14 35 44.2**	**+0.3**
	comp=Z,0.9nm,0.7s,mb3.8,baz=156,slow=8.4,SNR=8.8						
HYB	**Hyderabad**	**50.31**	**291**	*e*P	**P**	**14 35 51.0**	**+0.9**
HYB	**Hyderabad**	**50.31**	**291**	*i* P	**P**	**14 35 51.0**	**+0.9**
MKAR	**Makanchi Array**	**59.65**	**326**	P	**P**	**14 36 57.3**	**+0.5**
MKAR				ScP	ScP	14 41 29.4	-3.4
MKAR	**Makanchi Array**	**59.65**	**326**	P	**P**	**14 36 57.3**	**+0.4**
	comp=Z,2.7nm,0.5s,mb4.5,baz=117,slow=8.2,SNR=36						
MKAR				ScP	ScP	14 41 29.4	-3.4
	comp=Z,0.4nm,0.7s,baz=117,slow=4.9,SNR=5.7						
RPZ	**Rata Peaks**	**59.68**	**144**	P	**P**	**14 36 56.8**	**-0.3**
	comp=Z,8.5nm,0.8s,mb4.8,baz=308,slow=4.6,SNR=9.6						
ZALV	**Zalesovo Beam**	**62.79**	**333**	P	**P**	**14 37 15.7**	**-2.1**
	comp=Z,0.5nm,0.4s,mb3.8,baz=125,slow=10,SNR=2.7						
KURK	**Kurchatov**	**63.87**	**328**	*e*P	**P**	**14 37 25.1**	**0.0**
	comp=Z,3.1nm,0.5s,mb4.4						
BRVK	**Borovoye**	**69.51**	**327**	*e*P	**P**	**14 38 00.4**	**-0.4**
	comp=Z,3.3nm,1.1s,mb4.1						
AKTK	**Aktyubinsk**	**75.69**	**322**	P	**P**	**14 38 36.7**	**-0.7**
AKTO	**Aktyubinsk**	**75.69**	**322**	P	**P**	**14 38 36.7**	**-0.7**
	comp=Z,1.3nm,0.6s,mb3.9,baz=120,slow=9.3,SNR=5.6						
VNDA	**Vanda**	**81.14**	**173**	P	**P**	**14 39 06.7**	**-0.3**
	comp=Z,2.6nm,0.7s,mb4.2,baz=321,slow=5.8,SNR=4.0						

BJI ***19*** *14:33:32.9, 19.69S×172.89E, h4^{km}, mB5.5, mb5.1, Ms5.5, Msz5.3*

SZGRF ***19*** *14:33:33.7, 20.13S×172.74E, h10^{km}, Vanuatu Islands region*

NEIC ***19*** *14:33:34.6±2.7, 20.21S×173.09E, h21^{km}±18^{km}, mb5.2/47, MS5.5/167, MW5.8, Error ellipse: s-maj=8.7km s-min=5.8km az=163.0, Moment Tensor Solution. s8 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.07; M$_{\theta\theta}$-2.86; M$_{\phi\phi}$2.78; M$_{r\theta}$-1.57; M$_{\theta\phi}$-4.42; M$_{\phi r}$0.56; Best double couple: M$_0$5.50000×10^{17} NP1:ϕ$_s$16.00000°, δ72.00000°, λ1.00000°. NP2:ϕ$_s$286.00000°, δ89.00000°, λ162.00000°. Principal axes: T 5.4900, Plg13.0000°, Azm240.0000°; N 0.0100, Plg72.0000°, Azm103.0000°; P -5.5100, Plg12.0000°, Azm333.0000°;*

GCMT ***19*** *14:33:34.6±0.1, 20.18S×173.05E, h16^{km}, MW5.8/102, Moment Tensor Solution. s89,c184; s102,c300; Duration: 2^{s}0 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.79±.06; M$_{\theta\theta}$-4.81±.06; M$_{\phi\phi}$5.60±.07; M$_{r\theta}$0.42±.15; M$_{\theta\phi}$-4.07±.06; M$_{\phi r}$0.31±.15; Best double couple: M$_0$6.63200×10^{17} NP1:ϕ$_s$296.00000°, δ85.00000°, λ-177.00000°. NP2:ϕ$_s$206.00000°, δ87.00000°, λ-5.00000°. Principal axes: T 7.0050, Plg1.0000°, Azm251.0000°; N -0.7430, Plg85.0000°, Azm353.0000°; P -6.2580, Plg5.0000°, Azm161.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

ISCJB ***19*** *14:33:35.3±3.0, 20.22S±0.05×172.96E±0.03, h32^{km}±21^{km}, mb5.1/77, MS5.5/200 Error ellipse: s-maj=8.2km s-min=5.1km az=6.8*

MOS ***19*** *14:33:36.2±1.5, 20.02S×172.91E, h33^{km}, mb5.4/31, MS5.5/33, Error ellipse: s-maj=10.7km s-min=9.3km az=30.7*

IDC ***19*** *14:33:39.2±3.9, 20.25S×172.95E, h57^{km}±34^{km}, mb4.7/18, mb1 4.9/21, mb1mx4.8/24, mbtmp4.8/21, ML4.3/3, MS5.3/18, Ms1 5.3/18, ms1mx5.2/21, Error ellipse: s-maj=18.4km s-min=17.6km az=166.0*

ISC 19 14:33:36.4±2.2**, 20.20S**±0.04×**173.02E**±0.03**, h28**^{km}±15^{km}**, h17**^{km}±2.9^{km}**:pP-P, n691,** σ**0^{s}70**/382**, mb5.1**/76**, MS5.5**/200**, 124C-117D, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**6.41**	**252**	P	**Pn**	**14 35 10.2**	**+1.3**
	2.9nm,0.3s,baz=81,slow=17,SNR=36						
AFI	**Afiamalu**	**15.82**	**69**	*e*P	**Pn**	**14 37 14.0**	**-3.3**
	169nm,1.2s						
AFI	**Afiamalu**	**15.82**	**69**	*e*P	**Pn**	**14 37 14.0**	**-3.3**
AFI				pmax	pmax		
	comp=Z,169nm,1.2s						
AFI	**Afiamalu**	**15.82**	**69**	P	**Pn**	**14 37 14.1**	**-3.2**
	comp=Z,2.4nm,0.3s,baz=90,slow=18,SNR=5.1						
AFI				LR	LR	14 42 30.6	
	comp=Z,4μm,19.4s,baz=270,slow=33						
HNR	**Honiara**	**16.55**	**308**	*e*P	**Pn**	**14 37 27.4**	**+0.8**
	comp=Z,298nm,1.1s						
HNR	**Honiara**	**16.55**	**308**	*e*P	**Pn**	**14 37 27.4**	**+0.8**
HNR				pmax	pmax		
	comp=Z,298nm,1.1s						
HNR	**Honiara**	**16.55**	**308**	P	**Pn**	**14 37 26.9**	**+0.4**
	comp=Z,2.0nm,0.3s,baz=255,slow=3.3,SNR=13						
HNR				LR	LR	14 42 54.0	
	comp=Z,7μm,19.2s,baz=177,slow=34						
KUZ	**Kuaotunu**	**16.66**	**172**	*e*PN	**Pn**	**14 37 28.3**	**+0.5**
HIZ	**Hauiti**	**18.32**	**175**	PN	**Pn**	**14 37 49.4**	**+1.0**
URZ	**Urewera**	**18.34**	**170**	P	**Pn**	**14 37 49.7**	**+1.0**
	comp=Z,0.9nm,0.3s,baz=14,slow=6.8,SNR=66						
URZ				LR	LR	14 43 19.7	
	comp=Z,13μm,19.6s,baz=355,slow=32						
MWZ	**Matawai**	**18.49**	**169**	*e*PN	**Pn**	**14 37 50.7**	**+0.2**
MRZ	**Mangatainoka R**	**20.51**	**174**	*e*PN	**P**	**14 38 11.8**	**-0.5**
QRZ	**Quartz Range**	**20.57**	**181**	*e*PN	**P**	**14 38 14.2**	**+1.3**
BFZ	**Birch Farm**	**20.60**	**173**	*e*PN	**P**	**14 38 12.2**	**-1.0**
EIDS	**Eidsvold**	**20.86**	**252**	*e*P	**P**	**14 38 17.4**	**+1.2**
	comp=Z,166nm,1.5s						
SNZO	**South Karori**	**21.09**	**176**	*e*P	**P**	**14 38 17.0**	**-1.5**
	comp=Z,220nm,1.1s,mb5.4						
SNZO				LR	LR		
	comp=Z,18μm,21.0s,MS5.4						
THZ	**Tophouse**	**21.50**	**180**	*e*PN	**P**	**14 38 23.0**	**+0.1**
ARMA	**Armidale**	**21.81**	**238**	⇑*i*P	**P**	**14 38 27.8**	**+1.4**
ARMA				*i* S	**S**	**14 42 34.4**	**+8.2**
KHZ	**Kahutara**	**22.16**	**179**	*e*PN	**P**	**14 38 30.0**	**+0.1**
LTZ	**Lake Taylor**	**22.52**	**181**	*e*PN	**P**	**14 38 34.0**	**+0.1**
WVZ	**Waitaha Valley**	**22.89**	**184**	*e*PN	**P**	**14 38 37.4**	**-0.3**
RPZ	**Rata Peaks**	**23.50**	**184**	P	**P**	**14 38 42.9**	**-1.2**
	comp=Z,22nm,1.1s,mb4.5,baz=356,slow=4.3,SNR=10						
RPZ				LR	LR	14 46 46.1	
	comp=Z,13μm,20.8s,MS5.4,baz=359,slow=34						
RIV	**Riverview**	**23.67**	**231**	*e*P	**P**	**14 38 43.6**	**-2.1**
CTA	**Charters Tower**	**25.12**	**266**	*e*P	**P**	**14 38 59.2**	**+0.1**
	comp=Z,34nm,0.9s,mb4.9						
CTA				*e*S	**S**	**14 43 22.3**	**0.0**
CTA	**Charters Tower**	**25.12**	**266**	*e*P	**P**	**14 38 59.2**	**+0.1**
CTA				*e*S	**S**	**14 43 22.3**	**0.0**
CTA				pmax	pmax		
	comp=Z,34nm,0.9s						
CTA	**Charters Tower**	**25.12**	**266**	P	**P**	**14 38 58.1**	**-1.0**
	comp=Z,57nm,1.0s,mb5.0,baz=97,slow=11,SNR=20						
CTA				LR	LR	14 47 44.3	
	comp=Z,14μm,21.9s,MS5.4,baz=87,slow=34						
CTAO	**Charters Tower**	**25.12**	**266**	*e*P	**P**	**14 38 59.0**	**-0.1**
	comp=Z,159nm,1.3s,mb5.4						
CTAO				LR	LR		
	comp=Z,11μm,20.0s,MS5.4						
CTAO	**Charters Tower**	**25.12**	**266**	*e*P	**P**	**14 38 59.0**	**-0.1**
CTAO				pmax	pmax		
	comp=Z,159nm,1.3s,mb5.4						
CTAO				MLR	MLR		
	comp=Z,11μm,20.0s,MS5.4						
RAR	**Rarotonga**	**25.46**	**97**	LR	LR	14 46 46.5	
	comp=Z,4μm,21.0s,MS5.0,baz=264,slow=31						
CNB	**Canberra Magne**	**25.69**	**229**	⇑*i*P	**P**	**14 39 04.7**	**+0.6**
	comp=Z,114nm,1.6s,mb5.2						
PMG	**Port Moresby**	**27.16**	**289**	*e*P	**P**	**14 39 18.1**	**+0.5**
	comp=Z,141nm,1.1s,mb5.4						
PMG				LR	LR		
	comp=Z,9μm,19.0s,MS5.4						
PMG	**Port Moresby**	**27.16**	**289**	*e*P	**P**	**14 39 18.1**	**+0.5**
PMG				pmax	pmax		
	comp=Z,141nm,1.1s						
PMG				MLR	MLR		
	comp=Z,9μm,19.0s						
PMG	**Port Moresby**	**27.16**	**289**	P	**P**	**14 39 16.8**	**-0.8**
	comp=Z,99nm,1.0s,mb5.3,baz=125,slow=5.0,SNR=19						
PMG				LR	LR	14 47 28.1	
	comp=Z,9μm,19.1s,MS5.4,baz=59,slow=31						
COEN	**Coen**	**29.16**	**278**	*e*P	**P**	**14 39 34.8**	**-0.7**
	comp=Z,28nm,1.1s,mb4.9						
TOO	**Toolangi**	**29.51**	**228**	⇑*i*P	**P**	**14 39 38.8**	**+0.5**
	comp=Z,17nm,1.2s,mb4.7						
TOO				*i* S	**S**	**14 44 36.1**	**+4.8**
TOO	**Toolangi**	**29.51**	**228**	⇑*i*P	**P**	**14 39 38.8**	**+0.5**
TOO				*i* S	**S**	**14 44 36.1**	**+4.8**
TOO				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.7						
STKA	**Stephens Creek**	**30.42**	**241**	⇑*i*P	**P**	**14 39 46.5**	**0.0**
	comp=Z,28nm,1.0s,mb5.0						
STKA				*i* S	**S**	**14 44 49.4**	**+3.7**
STKA	**Stephens Creek**	**30.42**	**241**	P	**P**	**14 39 46.4**	**-0.1**
	comp=Z,31nm,1.0s,mb5.0,baz=70,slow=8.4,SNR=30						
STKA				LR	LR	14 51 12.9	
	comp=Z,19μm,18.9s,MS5.8,baz=72,slow=35						
TAU	**Tasmania Unive**	**31.27**	**218**	PFAKE		14 40 10.0	+16
TAU				LR	LR		
	comp=Z,7μm,19.0s,MS5.4						
PPT	**Papeete**	**35.45**	**92**	*e*P	**P**	**14 40 26.8**	**-3.7**
	comp=Z,60nm,1.3s,mb5.4						
PPT				*e*S	**S**	**14 45 55.3**	**-8.7**
	comp=Z,2μm,25.2s						
PPT				*e*LQ		14 48 04.6	
	comp=Z,13μm,30.2s						
PPT				*e*LR	LR	14 49 49.4	
	comp=Z,14μm,26.8s,baz=254						
PPT	**Papeete**	**35.45**	**92**	*e*P	**P**	**14 40 26.8**	**-3.7**
	comp=Z,60nm,1.3s,mb5.4						
PPT				*e*S	**S**	**14 45 55.3**	**-8.7**
PPT				*e*LQ		14 48 04.6	
PPT	**Papeete**	**35.45**	**92**	LR	LR	14 51 12.7	
	comp=Z,4μm,21.9s,MS5.1,baz=218,slow=30						
WB2	**Warramunga Arr**	**36.26**	**264**	⇑*i*P	**P**	**14 40 35.9**	**-1.6**
WB2				*e*S	**S**	**14 46 08.7**	**-7.8**
WRA	**Warramunga Arr**	**36.27**	**264**	P	**P**	**14 40 36.2**	**-1.4**
WRA						14 42 02.6	
WRA	**Warramunga Arr**	**36.27**	**264**	P	**P**	**14 40 36.2**	**-1.4**
	comp=Z,26nm,0.9s,mb5.2,baz=94,slow=8.7,SNR=66						
WRA				PP	PP	14 42 02.6	+2.2
	comp=Z,14nm,1.3s,baz=95,slow=11,SNR=5.3						
WRA				LR	LR	14 54 29.6	
	comp=Z,9μm,21.4s,MS5.5,baz=90,slow=34						
ASAR	**Alice Springs**	**36.37**	**257**	P	**P**	**14 40 37.6**	**-0.7**
	comp=Z,53nm,0.8s,mb5.5,baz=83,slow=8.8,SNR=284						
KAKA	**Kakadu**	**39.54**	**274**	⇑*i*P	**P**	**14 41 04.4**	**-0.8**
	comp=Z,31nm,1.0s,mb5.0						
FORT	**Forrest**	**41.69**	**246**	*e*P	**P**	**14 41 21.9**	**-0.9**
	comp=Z,64nm,0.9s,mb5.2						
GUMO	**Guam**	**43.52**	**318**	PFAKE		14 41 50.0	+12
GUMO				LR	LR		
	comp=Z,4μm,22.0s,MS5.2						
GUMO	**Guam**	**43.52**	**318**	LR	LR	14 56 46.6	
	comp=Z,2μm,20.1s,MS5.1,baz=137,slow=32						
FITZ	**Fitzroy Crossi**	**44.69**	**264**	⇑*i*P	**P**	**14 41 47.0**	**-0.2**
	comp=Z,116nm,0.9s,mb5.7						
FITZ				*i* S	**S**	**14 48 24.6**	**+2.4**
FITZ				*i* SS	SS	14 51 52.2	+9.1
FITZ	**Fitzroy Crossi**	**44.69**	**264**	P	**P**	**14 41 46.8**	**-0.4**
	comp=Z,62nm,0.9s,mb5.4,baz=130,slow=9.3,SNR=86						
FITZ				LR	LR	14 59 53.3	
	comp=Z,5μm,20.1s,MS5.5,baz=263,slow=35						
TAOE	**Nuku Hiva Isla**	**46.57**	**83**	*e*S	**S**	**14 48 44.4**	**-5.1**
	comp=Z,3μm,25.9s						
TAOE				*e*LR	LR	14 54 57.4	
	comp=Z,29μm,30.7s,baz=258						
RKT	**Rikitea**	**48.22**	**103**	*e*S	**S**	**14 49 06.1**	**-6.7**
	comp=Z,2μm,27.0s						
RKT				*e*LQ		14 53 26.2	
	comp=Z,6μm,29.8s						
RKT				*e*LR	LR	14 55 44.0	
	comp=Z,6μm,30.0s,baz=261						
MBWA	**Marble Bar**	**49.66**	**259**	*e*P	**P**	**14 42 25.6**	**-0.4**
	comp=Z,345nm,1.6s,mb6.1						
MBWA				LR	LR		
	comp=Z,14μm,20.0s,MS6.0						
POHA	**Pohakuloa**	**50.26**	**40**	PFAKE		14 42 40.0	+10
POHA				LR	LR		
	comp=Z,2μm,20.0s,MS5.1						
KLBR	**Kellerberrin**	**50.53**	**245**	⇑*i*P	**P**	**14 42 31.6**	**-0.8**
	comp=Z,134nm,1.0s,mb5.8						
NWAO	**Narrogin (SRO)**	**50.96**	**244**	*e*P	**P**	**14 42 34.9**	**-0.7**
	comp=Z,48nm,0.8s,mb5.5						
NWAO				LR	LR		
	comp=Z,11μm,19.0s,MS5.9						
NWAO	**Narrogin (SRO)**	**50.96**	**244**	*e*P	**P**	**14 42 34.9**	**-0.7**
NWAO				pmax	pmax		
	comp=Z,48nm,0.8s						
NWAO				MLR	MLR		
	comp=Z,11μm,19.0s						
NWAO	**Narrogin (SRO)**	**50.96**	**244**	P	**P**	**14 42 35.1**	**-0.5**
	comp=Z,58nm,0.8s,mb5.5,baz=92,slow=8.4,SNR=28						
MUN	**Mundaring**	**51.84**	**245**	*e*P	**P**	**14 42 41.7**	**-0.5**
MUN				*e*S	**S**	**14 49 51.5**	**-12**
DAV	**Davao City (W)**	**53.94**	**295**	PFAKE		14 43 10.0	+12
DAV				LR	LR		
	comp=Z,2μm,20.0s,MS5.1						
VNDA	**Vanda**	**57.62**	**183**	PFAKE		14 43 40.0	+17
VNDA				LR	LR		
	comp=Z,4μm,20.0s,MS5.6						
VNDA	**Vanda**	**57.62**	**183**	LR	LR	15 04 04.0	
	comp=Z,4μm,20.6s,MS5.5,baz=13,slow=32						
SBA	**Scott Base**	**57.78**	**182**	PFAKE		14 43 40.0	+15
SBA				LR	LR		
	comp=Z,4μm,20.0s,MS5.5						
MYLDM	**Lahad Datu**	**59.19**	**289**	⇓P	**P**	**14 43 36.3**	**+1.0**
TSM	**Tawau**	**59.35**	**288**	⇓P	**P**	**14 43 37.1**	**+0.6**
SDKM	**Sandakan**	**60.55**	**289**	⇓P	**P**	**14 43 45.7**	**+1.0**
CASY	**Casey**	**60.69**	**204**	PFAKE		14 44 00.0	+15
CASY				LR	LR		
	comp=Z,1μm,20.0s,MS5.1						
KDM	**Kudat**	**61.45**	**290**	⇑P	**P**	**14 43 51.6**	**+0.8**
KKM	**Kota Kinabalu**	**61.60**	**289**	*e*P	**P**	**14 43 50.3**	**-1.6**
KKM	**Kota Kinabalu**	**61.60**	**289**	⇑P	**P**	**14 43 53.1**	**+1.2**
BTM	**Bintulu**	**63.20**	**285**	⇓P	**P**	**14 44 03.6**	**+1.0**
SBUM	**Sibu**	**63.69**	**283**	⇓P	**P**	**14 44 06.8**	**+1.1**
KSM	**Kuching**	**65.05**	**282**	*e*P	**P**	**14 44 14.1**	**-0.7**
KSM	**Kuching**	**65.05**	**282**	⇑P	**P**	**14 44 15.6**	**+0.9**
MJAR	**Matsushiro Arr**	**65.32**	**330**	P	**P**	**14 44 15.5**	**-0.4**
	comp=Z,16nm,0.9s,mb5.0,baz=162,slow=6.6,SNR=28						
MAJO	**Matsushiro**	**65.32**	**330**	*e*P	**P**	**14 44 13.3**	**-2.6**
	comp=Z,21nm,0.9s,mb5.2						
MAJO				LR	LR		
	comp=Z,3μm,22.0s,MS5.4						
MAJO	**Matsushiro**	**65.32**	**330**	*e*P	**P**	**14 44 13.3**	**-2.6**
MAJO				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.2						
MAJO				MLR	MLR		
	comp=Z,3μm,22.0s,MS5.4						
MAT	**Matsushiro**	**65.32**	**330**	P	**P**	**14 44 15.3**	**-0.6**
MAT				S	S	14 53 02.0	+4.0
NACB	**Ninganchiao**	**66.72**	**309**	*e*P	**P**	**14 44 24.4**	**-0.9**
YHNB	**Yeheng**	**67.18**	**309**	*e*P	**P**	**14 44 27.9**	**-0.2**
TATO	**Taipei**	**67.28**	**310**	PFAKE		14 44 40.0	+11
TATO				LR	LR		
	comp=Z,2μm,22.0s,MS5.2						
ERM	**Erimo**	**67.78**	**336**	PFAKE		14 44 40.0	+8.5
ERM				LR	LR		
	comp=Z,5μm,21.0s,MS5.7						
ASAJ	**Asahikawa**	**69.80**	**337**	P	**P**	**14 44 44.6**	**+0.6**
	comp=Z,21nm,1.0s,mb5.0,baz=242,slow=9.2,SNR=7.8						
RPN	**Rapa Nui**	**70.44**	**112**	PFAKE		14 45 00.0	+11
RPN				LR	LR		
	comp=Z,669nm,20.0s,MS4.9						
MYKOM	**Kota Tinggi**	**71.14**	**279**	⇑P	**P**	**14 44 53.6**	**+0.6**
SSE	**Sheshan**	**71.24**	**315**	P	**P**	**14 44 52.9**	**-0.3**
SSE				XP	sP	14 44 57.5	-7.9
SSE				S	S	14 54 12.5	+3.6
SSE				XS	sS	14 54 18.0	-5.6
SSE				SS	SS	14 58 45.6	+1.9
SSE				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.7						
SSE				AMB	AMB		
	comp=Z,191nm,7.5s						
SSE				LR	LR		
	comp=N,737nm,22.8s,MS5.1						
SSE				LR	LR		
	comp=E,814nm,22.8s,MS5.1						
SSE				LR	LR		
	comp=Z,1μm,20.6s,MS5.2						
KSRS	**Korea Array**	**71.35**	**323**	P	**P**	**14 44 53.2**	**-0.4**
	comp=Z,4.4nm,1.1s,mb4.3,baz=145,slow=6.2,SNR=9.3						
KSRS				LR	LR	15 13 36.8	
	comp=Z,1μm,20.4s,MS5.1,baz=141,slow=34						
KGM	**Kluang**	**71.72**	**279**	⇓P	**P**	**14 44 57.2**	**+0.7**
INCN	**Inchon**	**72.09**	**323**	P	**P**	**14 44 58.1**	**0.0**
	comp=Z,68nm,1.4s,mb5.4						
INCN				LR	LR		
	comp=Z,950nm,21.0s,MS5.0						
YSS	**Yuzh-Sakhalins**	**72.20**	**339**	*e*P	**P**	**14 45 00.1**	**+1.5**
	comp=Z,34nm,0.9s,mb5.3						
YSS				LR	LR		
	comp=Z,4μm,20.0s,MS5.7						
YSS	**Yuzh-Sakhalins**	**72.20**	**339**	κ *i*P	**P**	**14 45 00.0**	**+1.5**
YSS				*e**SP	sP	14 45 07.0	-3.8
YSS				*e*		14 45 15.0	
YSS				*e*		14 47 38.0	
YSS				*e*PPP		14 49 23.0	
YSS				*e*S	S	14 54 25.0	+5.8
YSS				*e*PS		14 54 44.0	
YSS				*e*PPS		14 55 03.0	
YSS				pmax	pmax		
	comp=Z,110nm,1.3s,mb5.6						
YSS				pmax	pmax		
	comp=Z,400nm,4.0s						
YSS				smax			
	comp=E,800nm,8.0s						
YSS				MLR	MLR		
	comp=Z,2μm,17.0s,MS5.5						
YSS				MLR	MLR		
	comp=N,1μm,19.0s,MS5.3						
YSS				MLR	MLR		
	comp=E,900nm,19.0s,MS5.3						
GZH	**Guangzhou**	**72.37**	**303**	P	**P**	**14 44 58.0**	**-2.1**
GZH				S	S	14 54 18.5	-3.6
GZH				LR	LR		
	comp=N,514nm,19.6s,MS5.0						
GZH				LR	LR		
	comp=E,674nm,19.6s,MS5.0						
GZH				LR	LR		
	comp=Z,2μm,19.9s,MS5.3						
COCO	**West Island**	**73.06**	**263**	PFAKE		14 45 20.0	+16
COCO				LR	LR		
	comp=Z,4μm,19.0s,MS5.7						
KTGM	**Kuala Trenggan**	**73.14**	**282**	⇓P	**P**	**14 45 05.6**	**+0.6**
QIZ	**Qiongzhong**	**73.16**	**298**	P	**P**	**14 45 05.3**	**+0.4**
QIZ				PP	PP	14 47 48.9	+0.7
QIZ				S	S	14 54 29.8	-1.4
QIZ				LR	LR		
	comp=N,809nm,24.6s						
QIZ	**Qiongzhong**	**73.16**	**298**	PFAKE		14 45 20.0	+15
QIZ				LR	LR		
	comp=Z,1μm,22.0s,MS5.2						
NJ2	**Nanjing**	**73.40**	**314**	*e*P	**P**	**14 45 06.4**	**+0.4**
NJ2				AP	pP	14 45 11.0	-4.0
NJ2				XP	sP	14 45 13.5	-4.8
NJ2				PP	PP	14 47 52.0	+1.9
NJ2				S	S	14 54 33.0	-0.5
NJ2				XS	sS	14 54 42.0	-6.3
NJ2				SKS		14 55 07.0	
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,310nm,4.9s						
NJ2				LR	LR		
	comp=N,2μm,19.8s,MS5.5						
NJ2				LR	LR		
	comp=E,2μm,22.2s,MS5.5						
NJ2				LR	LR		
	comp=Z,2μm,22.3s,MS5.4						
VLA	**Vladivostok**	**73.48**	**330**	*c i*P	**P**	**14 45 06.4**	**+0.1**
VLA				pmax	pmax		
	comp=Z,74nm,2.9s,mb5.1						
FRIM	**Kepong**	**73.74**	**280**	⇓P	**P**	**14 45 08.7**	**+0.2**
PET	**Petropavlovsk**	**73.97**	**351**	PFAKE		14 45 20.0	+11
PET				LR	LR		
	comp=Z,2μm,21.0s,MS5.4						
PET	**Petropavlovsk**	**73.97**	**351**	*e*P	**P**	**14 45 17.2**	**+8.3**
PET				pmax	pmax		
	comp=Z,100nm,11.9s						
PET				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.0						
PET				MLR	MLR		
	comp=Z,2μm,18.0s,MS5.4						
IPM	**Ipoh**	**74.76**	**281**	⇓P	**P**	**14 45 14.9**	**+0.5**
KULM	**Kulim**	**75.41**	**281**	⇓P	**P**	**14 45 18.8**	**+0.6**
WHN	**Wuhan**	**75.65**	**310**	P	**P**	**14 45 19.0**	**-0.1**
WHN				S	S	14 55 01.8	+3.0
WHN				AMB	AMB		
	comp=Z,49nm,1.0s,mb5.4						
WHN				LR	LR		
	comp=Z,3μm,20.4s,MS5.6						
MDJ	**Mudanjiang**	**75.70**	**330**	P	**P**	**14 45 19.4**	**+0.3**
MDJ				AP	pP	14 45 22.8	-5.3
MDJ				XP	sP	14 45 23.9	-7.5
MDJ				PP	PP	14 48 09.5	+0.1
MDJ				S	S	14 55 02.1	+3.3
MDJ				XS	sS	14 55 07.8	-5.8
MDJ				SCS	ScS	14 55 33.3	+2.3
MDJ				AMB	AMB		
	comp=Z,11nm,1.2s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,147nm,4.1s						
MDJ				LR	LR		
	comp=N,1μm,37.8s,MS5.0						
MDJ				LR	LR		
	comp=E,1μm,35.8s,MS5.0						
MDJ				LR	LR		
	comp=Z,2μm,39.1s,MS5.0						
MDJ	**Mudanjiang**	**75.70**	**330**	*e*P	**P**	**14 45 18.9**	**-0.2**
	comp=Z,14nm,1.0s,mb4.8						
MDJ				LR	LR		
	comp=Z,1μm,21.0s,MS5.2						
UNV	**Unalaska Valle**	**75.83**	**12**	PFAKE		14 45 30.0	+10
UNV				LR	LR		
	comp=Z,7μm,20.0s,MS5.9						
DL2	**Dalian**	**75.96**	**321**	⇑P	**P**	**14 45 20.9**	**+0.2**
DL2				S	S	14 55 05.8	+4.0
DL2				PS		14 55 42.8	
DL2				SS	SS	14 59 56.3	+1.0
DL2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
DL2				AMB	AMB		
	comp=Z,110nm,5.1s						
DL2				LR	LR		
	comp=N,380nm,16.8s,MS4.9						
DL2				LR	LR		
	comp=E,300nm,15.4s,MS4.9						
DL2				LR	LR		

	comp=Z,520nm,17.4s,MS4.9						
PSI	**Prapat**	**76.08**	**278**	P	**P**	**14 45 19.9**	**-2.1**
	comp=Z,13nm,0.9s,mb4.9,baz=203,slow=3.1,SNR=12						
HABR	**Khabarovsk**	**76.32**	**335**	⇓*e*P	**P**	**14 45 21.2**	**-1.3**
HABR				*e*		14 45 32.3	
HABR				*e*		14 48 11.9	
HABR				*e*S	S	14 55 05.0	-0.3
HABR				*e*		14 55 20.3	
HABR				*e*		14 55 33.8	
HABR				*e*SS	SS	14 59 55.8	-4.6
HABR				pmax	pmax		
	comp=Z,72nm,2.7s,mb5.1						
TIA	**Tai'an**	**77.05**	**317**	*e*P	**P**	**14 45 27.3**	**+0.3**
CN2	**Changchun**	**77.17**	**327**	*e*P	**P**	**14 45 27.0**	**-0.4**
CN2				*e*XP	sP	14 45 33.9	-5.8
CN2				*e*PP	PP	14 48 22.8	+1.0
CN2				*e*S	S	14 55 15.6	+0.7
CN2				AMB	AMB		
	comp=Z,20nm,1.8s,mb4.8						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,900nm,22.0s,MS5.2						
CN2				LR	LR		
	comp=E,700nm,22.0s,MS5.2						
CN2				LR	LR		
	comp=Z,2µm,23.0s,MS5.3						
KLR	**Kul'dur**	**78.25**	**334**	*e*P	**P**	**14 45 31.0**	**-2.3**
KLR				*e*S	S	14 55 26.5	+0.2
KLR				smax			
	comp=N,500nm,13.0s						
KLR				smax			
	comp=E,800nm,13.0s						
MAW	**Mawson**	**78.87**	**202**	P	**P**	**14 45 34.0**	**-2.6**
	comp=E,75nm,1.5s,mb5.4						
MAW	**Mawson**	**78.87**	**202**	P	**P**	**14 45 34.0**	**-2.6**
MAW				pmax	pmax		
	comp=Z,75nm,1.5s						
GYA	**Guiyang**	**79.30**	**303**	⇑*i*P	**P**	**14 45 41.3**	**+1.6**
GYA				AP	pP	14 45 45.6	-3.1
GYA				XP	sP	14 45 48.8	-3.2
GYA				PCP	PcP	14 45 50.3	+2.5
GYA				PP	PP	14 48 43.8	+3.8
GYA				PPP		14 50 34.3	
GYA				S	S	14 55 42.0	+3.4
GYA				XS	sS	14 55 47.0	-6.4
GYA				SKS		14 55 53.3	
GYA				SCS	ScS	14 56 02.0	+1.0
GYA				PS		14 56 27.3	
GYA				AMB	AMB		
	comp=Z,90nm,1.0s,mb5.7						
GYA				AMB	AMB		
	comp=Z,2µm,7.9s						
GYA				LR	LR		
	comp=N,2µm,21.0s,MS5.8						
GYA				LR	LR		
	comp=E,4µm,20.8s,MS5.8						
GYA				LR	LR		
	comp=Z,5µm,21.2s,MS5.8						
BJT	**Baijiatuau**	**79.94**	**319**	*e*P	**P**	**14 45 42.8**	**0.0**
	comp=Z,25nm,1.0s,mb5.1						
BJT				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
BJT	**Baijiatuau**	**79.94**	**319**	*e*P	**P**	**14 45 42.8**	**0.0**
BJT				pmax	pmax		
	comp=Z,25nm,1.0s						
BJT				MLR	MLR		
	comp=Z,2µm,19.0s						
BJI	**Beijing**	**79.95**	**319**	P	**P**	**14 45 43.0**	**+0.1**
BJI				AP	pP	14 45 46.3	-5.6
BJI				XP	sP	14 45 47.6	-7.6
BJI				PCP	PcP	14 45 50.1	-0.2
BJI				PP	PP	14 48 44.3	-0.8
BJI				S	S	14 55 47.9	+3.0
BJI				AMB	AMB		
	comp=Z,17nm,0.9s,mb5.0						
BJI				AMB	AMB		
	comp=Z,384nm,3.7s						
BJI				LR	LR		
	comp=N,1µm,18.8s,MS5.3						
BJI				LR	LR		
	comp=E,941nm,23.5s,MS5.3						
BJI				LR	LR		
	comp=Z,2µm,39.7s						
BJI	**Beijing**	**79.95**	**319**	P	**P**	**14 45 43.0**	**+0.1**
BJI				pP	pP	14 45 46.3	-5.6
BJI				sP	sP	14 45 47.6	-7.6
BJI				PcP	PcP	14 45 50.1	-0.2
BJI				PP	PP	14 48 44.2	-0.9
BJI				S	S	14 55 47.9	+3.0
BJI				SS	SS	15 00 58.8	+3.3
BJI				LR	LR		
	comp=Z,2µm,39.7s,MS5.2						
TIY	**Taiyuan**	**80.98**	**316**	P	**P**	**14 45 52.6**	**+4.1**
TIY				S	S	14 56 03.3	+7.6
TIY				LR	LR		
	comp=N,258nm,7.8s						
TIY				LR	LR		
	comp=E,986nm,17.6s						
XAN	**Xi'an**	**81.40**	**311**	P	**P**	**14 45 51.3**	**+0.5**
XAN				S	S	14 56 02.8	+2.5
XAN				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.9						
XAN				AMB	AMB		
	comp=Z,175nm,4.2s						
XAN				LR	LR		
	comp=N,404nm,20.0s,MS5.1						
XAN				LR	LR		
	comp=E,738nm,21.6s,MS5.1						
XAN				LR	LR		
	comp=Z,1µm,21.2s,MS5.3						
MA2	**Magadan**	**81.55**	**349**	*e*P	**P**	**14 45 49.6**	**-1.3**
	comp=Z,8.8nm,0.9s,mb4.7						
MA2				LR	LR		
	comp=Z,3µm,22.0s,MS5.5						
MA2	**Magadan**	**81.55**	**349**	*e*P	**P**	**14 45 48.7**	**-2.2**
MA2				*e*S	S	14 55 54.5	-6.2
MA2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
BDT	**Bhumibol Dam**	**81.60**	**292**	P	**P**	**14 45 53.0**	**+0.8**
KMI	**Kunming**	**81.81**	**300**	⇑P	**P**	**14 45 54.3**	**+1.1**
KMI				AP	pP	14 45 57.8	-4.4
KMI				XP	sP	14 45 59.3	-6.2
KMI				PP	PP	14 49 03.4	+2.6
KMI				PPP		14 50 57.3	
KMI				S	S	14 56 07.9	+3.0
KMI				SKS		14 56 10.9	
KMI				XS	sS	14 56 13.1	-6.7
KMI				PS		14 56 58.9	
KMI				SSS		15 04 52.6	
KMI				AMB	AMB		
	comp=Z,15nm,1.3s,mb4.8						
KMI				AMB	AMB		
	comp=Z,292nm,3.2s						
KMI				LR	LR		
	comp=N,685nm,15.4s,MS5.2						
KMI				LR	LR		
	comp=E,738nm,19.0s,MS5.2						
KMI				LR	LR		
	comp=Z,763nm,22.2s,MS5.0						
KMI	**Kunming**	**81.81**	**300**	⇑P	**P**	**14 45 54.2**	**+1.0**
	comp=Z,15nm,1.3s,mb4.8						
KMI				pP	pP	14 45 57.8	-4.4
KMI				sP	sP	14 45 59.2	-6.3
KMI				PP	PP	14 49 03.4	+2.6
KMI				PPP		14 50 57.3	
KMI				S	S	14 56 07.9	+3.0
KMI				SKS		14 56 10.9	
KMI				sS	sS	14 56 13.1	-6.7
KMI				PS		14 56 58.9	
KMI				SS	SS	15 01 31.5	+7.7
KMI				SSS		15 04 52.6	
KMI				LR	LR		
	comp=Z,760nm,22.2s,MS5.0						
KMI	**Kunming**	**81.81**	**300**	⇑P	**P**	**14 45 54.2**	**+1.0**
KMI				*SP	sP	14 45 59.2	-6.3
KMI						14 49 03.4	
KMI				PPP		14 50 57.3	
KMI				S	S	14 56 07.9	+3.0
KMI						14 56 10.9	
KMI				PS		14 56 58.9	
KMI				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.8						
KMI				MLR	MLR		
	comp=Z,760nm,22.2s,MS5.0						
CHRT	**Chiangrai**	**82.01**	**294**	⇑P	**P**	**14 45 55.0**	**+0.7**
	comp=Z,250nm,1.0s,mb6.1						
CM31	**Chiang Mai Arr**	**82.15**	**293**	PFAKE		14 46 10.0	+15
CM31				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
CHTO	**Chiang Mai**	**82.29**	**293**	*e*P	**P**	**14 45 56.4**	**+0.6**
	comp=Z,36nm,1.0s,mb5.3						
CHTO				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
CHTO	**Chiang Mai**	**82.29**	**293**	*e*P	**P**	**14 45 56.4**	**+0.6**
CHTO				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
CHTO				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.4						
KDAK	**Kodiak Island**	**82.80**	**18**	PFAKE		14 46 10.0	+12
KDAK				LR	LR		
	comp=Z,665nm,22.0s,MS5.0						
HHC	**Hu-ho-hao-te**	**83.29**	**318**	*e*P	**P**	**14 46 01.5**	**+1.0**
HHC				XP	sP	14 46 07.9	-4.9
HHC				PP	PP	14 49 16.4	+3.8
HHC				S	S	14 56 24.6	+5.3
HHC				XS	sS	14 56 29.3	-5.0
HHC				PS		14 57 14.5	
HHC				AMB	AMB		
	comp=Z,18nm,1.1s,mb5.0						
HHC				AMB	AMB		
	comp=Z,177nm,7.0s						
HHC				LR	LR		
	comp=N,806nm,24.4s,MS5.2						
HHC				LR	LR		
	comp=E,1µm,29.1s,MS5.2						
HHC				LR	LR		
	comp=Z,3µm,28.5s,MS5.5						
MCCM	**Marconi Confer**	**83.55**	**46**	PFAKE		14 46 10.0	+8.1
MCCM				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
CD2	**Chengdu**	**83.66**	**306**	P	**P**	**14 46 02.6**	**0.0**
CD2				XP	sP	14 46 07.8	-7.2
CD2				SKS		14 56 21.5	
CD2				S	S	14 56 29.8	+6.3
CD2				AMB	AMB		
	comp=Z,20nm,1.4s,mb5.0						
CD2				LR	LR		
	comp=N,2µm,15.6s						
CD2				LR	LR		
	comp=Z,2µm,16.8s,MS5.6						
HIA	**Hailar**	**83.77**	**328**	P	**P**	**14 46 00.0**	**-2.7**
	comp=Z,8.6nm,1.0s,mb4.8						
HIA				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
HIA	**Hailar**	**83.77**	**328**	P	**P**	**14 46 00.0**	**-2.7**
HIA				pmax	pmax		
	comp=Z,9.0nm,1.0s						
HIA				MLR	MLR		
	comp=Z,1µm,21.0s						
SAO	**San Andreas Ge**	**83.81**	**47**	PFAKE		14 46 10.0	+6.7
SAO				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
HOPS	**Hopland**	**83.87**	**45**	PFAKE		14 46 10.0	+6.5
HOPS				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
BTO	**Baotou**	**84.14**	**317**	*e*P	**P**	**14 46 05.3**	**+0.5**
PMSA	**Palmer Station**	**84.76**	**159**	PFAKE		14 46 20.0	+12
PMSA				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
SYO	**Syowa Base**	**84.98**	**195**	⇓*e*P	**P**	**14 46 08.0**	**-0.7**
SYO	**Syowa Base**	**84.98**	**195**	⇓*e*sP	sP	14 46 12.8	-8.3
WDC	**Whiskeytown Da**	**85.06**	**44**	PFAKE		14 46 20.0	+11
WDC				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
O03C	**Acorn Hollow,**	**85.08**	**44**	⇑P	**P**	**14 46 10.2**	**+0.5**
	baz=85						
T06C	**Millerton Lake**	**85.14**	**48**	⇓P	**P**	**14 46 10.1**	**+0.1**
	baz=85,SNR=13						
CMB	**Columbia Colle**	**85.18**	**47**	*e*P	**P**	**14 46 09.5**	**-0.7**
	comp=Z,16nm,1.1s,mb5.1						
CMB				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
CMB	**Columbia Colle**	**85.18**	**47**	*e*P	**P**	**14 46 09.5**	**-0.7**
CMB				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.1						
CMB				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.6						
CMB	**Columbia Colle**	**85.18**	**47**	⇑P	**P**	**14 46 10.3**	**+0.2**
	baz=85,SNR=7.7						
ORV	**Oroville**	**85.20**	**45**	⇓P	**P**	**14 46 10.2**	**0.0**
	baz=85,SNR=6.8						
BFSC	**Mount Baldy St**	**85.27**	**51**	⇑P	**P**	**14 46 10.2**	**-0.5**
	baz=85						
M02C	**Callahan**	**85.28**	**43**	⇑P	**P**	**14 46 10.5**	**-0.1**
	baz=85						
LAVA	**Lava Cap Winer**	**85.31**	**46**	⇓P	**P**	**14 46 11.2**	**+0.4**
	baz=85						
EDW2	**Edwards Air Fo**	**85.33**	**50**	⇓P	**P**	**14 46 11.1**	**+0.1**
	baz=85,SNR=6.3						
ISA	**Isabella**	**85.36**	**49**	⇑P	**P**	**14 46 11.0**	**-0.1**
	baz=86,SNR=15						
HELL	**Mitchell Peak,**	**85.46**	**48**	⇑P	**P**	**14 46 11.6**	**0.0**
	baz=86,SNR=8.9						
S06C	**San Francisco**	**85.47**	**47**	⇓P	**P**	**14 46 11.8**	**+0.1**
	baz=86,SNR=6.3						
YBH	**Yreka Blue Hor**	**85.55**	**43**	PFAKE		14 46 20.0	+8.1
YBH				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
YBH	**Yreka Blue Hor**	**85.55**	**43**	⇑P	**P**	**14 46 11.9**	**0.0**
	baz=86						
KCC	**Kaiser Creek**	**85.57**	**48**	⇓P	**P**	**14 46 12.2**	**+0.1**
	baz=86,SNR=6.5						
P05C	**Yuba Gap, Truc**	**85.67**	**45**	⇑P	**P**	**14 46 12.7**	**+0.1**
	baz=86,SNR=6.0						
M03C	**McCloud**	**85.69**	**43**	⇑P	**P**	**14 46 13.0**	**+0.4**
	baz=86,SNR=5.5						
DVTC	**Desert V Tower**	**85.69**	**53**	⇑P	**P**	**14 46 13.5**	**+0.7**
	baz=86,SNR=5.5						
R05C	**Kirkwood Meado**	**85.73**	**46**	⇑P	**P**	**14 46 12.3**	**-0.6**
	baz=86						
O05C	**Quincy**	**85.80**	**45**	⇓P	**P**	**14 46 13.4**	**+0.2**
	baz=86						
LRMC	**Laurel Mountai**	**85.83**	**50**	⇑P	**P**	**14 46 13.6**	**+0.1**
	baz=86						
HUMO	**Hull Mountain**	**85.86**	**42**	PFAKE		14 46 20.0	+6.5
HUMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
HUMO	**Hull Mountain**	**85.86**	**42**	⇓P	**P**	**14 46 14.1**	**+0.7**
	baz=86,SNR=5.1						
PFO	**Pinyon Flat Ob**	**85.86**	**52**	PFAKE		14 46 20.0	+6.3
PFO				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
O04C	**Chester**	**85.87**	**44**	⇓P	**P**	**14 46 14.2**	**+0.6**
	baz=86,SNR=6.5						
LZH	**Lanzhou**	**86.03**	**311**	⇑P	**P**	**14 46 15.6**	**+1.1**
LZH				AP	pP	14 46 25.8	+2.3
LZH				PP	PP	14 49 38.4	+3.3
LZH				S	S	14 56 46.8	0.0
LZH				PS		14 57 51.6	
LZH				AMB	AMB		
	comp=Z,81nm,1.5s,mb5.7						
LZH				AMB	AMB		
	comp=Z,395nm,8.2s						
LZH				LR	LR		
	comp=E,2µm,17.2s						
LZH				LR	LR		
	comp=Z,3µm,19.5s,MS5.8						
LZH	**Lanzhou**	**86.03**	**311**	⇑P	**P**	**14 46 15.6**	**+1.1**
	comp=Z,81nm,1.5s,mb5.7						
LZH				pP	pP	14 46 25.7	+2.2
LZH				sP	sP	14 46 29.5	+2.7
LZH				PP	PP	14 49 38.4	+3.3
LZH				SKS		14 56 26.5	
LZH				S	S	14 56 46.7	-0.1
LZH				sS	sS	14 57 04.5	+2.6
LZH				PS		14 57 51.6	
LZH				SS	SS	15 02 30.2	+4.4
LZH				LR	LR		
	comp=Z,3µm,19.5s,MS5.8						
LZH	**Lanzhou**	**86.03**	**311**	⇑P	**P**	**14 46 15.6**	**+1.1**
LZH				*PP	pP	14 46 25.7	+2.2
LZH				*SP	sP	14 46 29.5	+2.7
LZH						14 49 38.4	
LZH						14 56 26.5	
LZH				S	S	14 56 46.7	-0.1
LZH				PS		14 57 51.6	
LZH				SS	SS	15 02 30.2	+4.4
LZH				pmax	pmax		
	comp=Z,81nm,1.5s,mb5.7						
LZH				MLR	MLR		
	comp=Z,3µm,19.5s,MS5.8						
R06C	**Coleville**	**86.06**	**47**	⇑P	**P**	**14 46 14.5**	**-0.1**
	baz=86,SNR=7.2						
BEKR	**Beckwourth**	**86.12**	**45**	⇑P	**P**	**14 46 15.1**	**+0.3**
	baz=86,SNR=8.5						
MPMC	**Manual Prospec**	**86.25**	**50**	P	**P**	**14 46 15.0**	**-0.5**
	baz=86,SNR=8.3						
P06A	**Stead Airport,**	**86.33**	**45**	⇓P	**P**	**14 46 16.1**	**+0.2**
	baz=86						
M05C	**Lookout**	**86.36**	**43**	P	**P**	**14 46 16.3**	**+0.4**
	baz=86,SNR=6.5						
BELC	**Belle Mtn.**	**86.38**	**52**	⇑P	**P**	**14 46 15.8**	**-0.4**
	baz=86,SNR=9.3						
GSC	**Goldstone**	**86.39**	**50**	⇑P	**P**	**14 46 16.1**	**-0.1**
	baz=86						
S08C	**White Mtn Res**	**86.45**	**48**	P	**P**	**14 46 17.3**	**+0.8**
	baz=87,SNR=8.6						
HEC	**Hector,Ludlow**	**86.51**	**51**	⇑P	**P**	**14 46 16.9**	**0.0**
	baz=87,SNR=9.3						
O06A	**Flanigan**	**86.62**	**45**	⇓P	**P**	**14 46 17.8**	**+0.5**
	baz=87,SNR=8.5						
BC3	**Big Chuckw Mtn**	**86.63**	**52**	⇑P	**P**	**14 46 17.1**	**-0.3**
	baz=87						
K04A	**Chilquin**	**86.64**	**42**	⇓P	**P**	**14 46 17.5**	**+0.2**
	baz=87						
CLNS	**Chul'man**	**86.69**	**336**	*e*P	**P**	**14 46 16.9**	**-0.2**
CLNS				*e**PP	pP	14 46 23.7	-2.5
CLNS				*e*S	S	14 56 50.9	-1.4
CLNS				*e*PS		14 57 49.0	
CLNS				*e*PPS		14 58 08.7	
CLNS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.5						
CLNS				pmax	pmax		
	comp=N,15nm,1.2s						
CLNS				pmax	pmax		
	comp=E,5.0nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.5						
CLNS				pmax	pmax		
	comp=N,5.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.8s						
CLNS				smax			
	comp=E,476nm,12.0s						
CLNS				smax			
	comp=Z,172nm,12.4s						
CLNS				smax			
	comp=N,133nm,11.9s						
CLNS				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.3						
CLNS				MLR	MLR		
	comp=N,400nm,17.0s,MS5.5						
CLNS				MLR	MLR		
	comp=E,2µm,22.0s,MS5.5						
COR	**Corvallis**	**86.71**	**40**	PFAKE		14 46 30.0	+12
COR				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
M06C	**Likely Place G**	**86.72**	**44**	P	**P**	**14 46 18.1**	**+0.4**
	baz=87,SNR=6.2						
TNA	**Tin City**	**86.72**	**8**	*e*P	**P**	**14 46 16.3**	**-0.8**
	comp=Z,27nm,1.6s,mb5.2						
TNA				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
J04A	**Umpqua Nationa**	**86.72**	**42**	⇓P	**P**	**14 46 18.3**	**+0.6**
	baz=87						
GRAC	**Grapevine Rang**	**86.78**	**49**	⇑P	**P**	**14 46 18.4**	**+0.3**
	baz=87						
NVAR	**Mina Array Bea**	**86.81**	**47**	P	**P**	**14 46 18.0**	**-0.2**
	comp=Z,6.8nm,1.0s,mb4.8,baz=214,slow=5.9,SNR=23						
GLA	**Glamis**	**86.83**	**53**	⇓P	**P**	**14 46 18.9**	**+0.4**
	baz=87						
I04A	**Tendick Farm,**	**86.83**	**41**	⇑P	**P**	**14 46 18.5**	**+0.3**
	baz=87						
FURC	**Furnace Creek,**	**86.89**	**49**	⇑P	**P**	**14 46 18.7**	**+0.1**
	baz=87						
R08A	**Mina**	**86.90**	**47**	⇑P	**P**	**14 46 19.1**	**+0.4**
	baz=87						
N06A	**Buffalo Meadow**	**86.91**	**45**	⇓P	**P**	**14 46 18.5**	**-0.2**
	baz=87,SNR=9.3						
L05A	**Lakeview**	**86.92**	**43**	⇓P	**P**	**14 46 18.1**	**-0.5**
	baz=87						
PMR	**Palmer**	**86.95**	**17**	PFAKE		14 46 30.0	+12
PMR				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
GMRC	**Granite Mounta**	**86.98**	**51**	⇓P	**P**	**14 46 19.0**	**-0.1**
	baz=87,SNR=5.2						
SHOC	**Shoshone**	**87.04**	**50**	⇓P	**P**	**14 46 19.4**	**-0.1**
	baz=87						
IRM	**Iron Mountain**	**87.08**	**52**	⇓P	**P**	**14 46 20.0**	**+0.4**
	baz=87,SNR=7.8						
TUQ	**Turquoise Mtn.**	**87.09**	**51**	⇑P	**P**	**14 46 19.7**	**+0.1**
	baz=87,SNR=5.0						
MOD	**Modoc**	**87.18**	**43**	*e*P	**P**	**14 46 19.5**	**-0.4**
	comp=Z,8.7nm,1.0s,mb4.9						
MOD				LR	LR		
	comp=Z,866nm,19.0s,MS5.2						
MOD	**Modoc**	**87.18**	**43**	⇑P	**P**	**14 46 19.9**	**0.0**
	baz=87,SNR=12						
S09A	**Goldfield**	**87.22**	**48**	⇑P	**P**	**14 46 19.9**	**-0.3**
	baz=87,SNR=5.8						
K05A	**Summer Lake**	**87.22**	**42**	⇑P	**P**	**14 46 20.7**	**+0.5**
	baz=87,SNR=5.8						
U10A	**Ash Meadows, A**	**87.25**	**50**	⇓P	**P**	**14 46 20.6**	**+0.2**
	baz=87						
O07A	**Toulon**	**87.25**	**45**	⇑P	**P**	**14 46 20.7**	**+0.3**
	baz=87,SNR=6.8						
Q08A	**Gabbs**	**87.27**	**47**	⇓P	**P**	**14 46 20.4**	**0.0**
	baz=87,SNR=7.9						
J05A	**Fort Rock**	**87.29**	**42**	⇑P	**P**	**14 46 21.2**	**+0.8**
	baz=87,SNR=16						
Y12C	**Blythe**	**87.36**	**53**	⇓P	**P**	**14 46 21.1**	**+0.1**
	baz=88						
H04A	**Detroit Lake**	**87.44**	**40**	⇓P	**P**	**14 46 21.0**	**-0.1**
	baz=88						
N07B	**Gerlach**	**87.50**	**45**	⇓P	**P**	**14 46 21.5**	**0.0**
	baz=88						
DIV	**Divide**	**87.55**	**19**	PFAKE		14 46 30.0	+8.8
DIV				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
R09A	**Tonopah**	**87.57**	**48**	⇑P	**P**	**14 46 21.9**	**-0.1**
	baz=88						
M07A	**Soldier Meadow**	**87.66**	**44**	⇑P	**P**	**14 46 22.6**	**+0.4**
	baz=88,SNR=10						
K06A	**Valley Falls**	**87.67**	**43**	⇑P	**P**	**14 46 22.8**	**+0.5**
	baz=88,SNR=5.6						
S10A	**Tonopah Range,**	**87.75**	**48**	⇑P	**P**	**14 46 22.3**	**-0.5**
	baz=88						
L07A	**Adell**	**87.86**	**44**	⇓P	**P**	**14 46 23.6**	**+0.4**
	baz=88,SNR=8.1						
PDMCI	**Parker Dam,Lak**	**87.89**	**52**	⇑P	**P**	**14 46 24.1**	**+0.6**
	baz=88						
Y13A	**Salome**	**87.91**	**53**	⇑P	**P**	**14 46 24.2**	**+0.5**
	baz=88,SNR=6.5						
J06A	**Christmas Vall**	**87.96**	**42**	⇑P	**P**	**14 46 23.6**	**-0.1**
	baz=88						
V12A	**Nelson**	**88.00**	**51**	⇓P	**P**	**14 46 24.1**	**+0.1**
	baz=88						
N08A	**GE Springer Mi**	**88.05**	**45**	P	**P**	**14 46 24.6**	**+0.4**
	baz=88,SNR=11						
BILL	**Bilibino**	**88.12**	**357**	*e*P	**P**	**14 46 22.3**	**-1.5**
	comp=Z,16nm,1.1s,mb5.2						
BILL				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
BILL	**Bilibino**	**88.12**	**357**	⇑*i*P	**P**	**14 46 22.9**	**-0.9**
BILL				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.1						
R10A	**Warm Springs**	**88.13**	**48**	⇑P	**P**	**14 46 24.9**	**+0.3**
	baz=88,SNR=6.6						
M08A	**Happy Creek Ra**	**88.21**	**44**	⇑P	**P**	**14 46 25.2**	**+0.3**
	baz=88,SNR=6.5						
SIT	**Sitka**	**88.23**	**25**	PFAKE		14 46 40.0	+15
SIT				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
X13A	**Yucca**	**88.25**	**52**	⇑P	**P**	**14 46 25.2**	**0.0**
	baz=88						
K07A	**Rock Creek Ran**	**88.25**	**43**	⇑P	**P**	**14 46 24.4**	**-0.6**
	baz=88,SNR=10						
I06A	**Prineville**	**88.27**	**42**	⇓P	**P**	**14 46 25.9**	**+0.8**
	baz=88,SNR=5.2						
Q10A	**Clear Creek Ra**	**88.31**	**47**	⇑P	**P**	**14 46 25.3**	**-0.1**
	baz=88,SNR=5.9						
MAIT	**Maitri**	**88.33**	**186**	*e*P	**P**	**14 46 21.3**	**-3.7**
O09A	**Fish Creek Ran**	**88.39**	**46**	⇑P	**P**	**14 46 25.8**	**0.0**
	baz=88,SNR=6.4						
T11A	**Corn Creek, Al**	**88.41**	**49**	⇓P	**P**	**14 46 25.8**	**-0.1**
	baz=88						
W13A	**Hualapai Mount**	**88.43**	**52**	⇓P	**P**	**14 46 25.2**	**-0.9**

	baz=88						
N09A	**Rock Creek Ran**	88.49	45	⇑P	P	14 46 26.4	+0.2
	baz=89,SNR=5.5						
WVOR	**Wild Horse Val**	88.52	43	*e*P	P	14 46 25.6	-0.7
	comp=Z,131nm,2.2s,mb5.9						
WVOR				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
WVOR	**Wild Horse Val**	88.52	43	*e*P	P	14 46 25.6	-0.7
WVOR				pmax	pmax		
	comp=Z,131nm,2.2s,mb5.9						
WVOR				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
U12A	**Valley of Fire**	88.54	50	⇓P	P	14 46 26.7	+0.1
	baz=89						
J07A	**Hines**	88.55	42	⇓P	P	14 46 26.5	+0.1
	baz=89						
CIT	**Chita**	88.57	328	*e*P	P	14 46 26.6	+0.3
CIT				*e*		14 46 37.7	
Y14A	**Wickenburg**	88.58	53	⇓P	P	14 46 26.4	-0.4
	baz=89						
H06A	**Lindquist Farm**	88.59	41	⇓P	P	14 46 26.8	+0.2
	baz=89,SNR=9.8						
L08A	**Fields**	88.59	44	⇓P	P	14 46 27.0	+0.3
	baz=89,SNR=11						
P10A	**Eureka**	88.63	47	⇓P	P	14 46 27.3	+0.4
	baz=89						
E05A	**Randle**	88.67	39	⇑P	P	14 46 27.1	+0.1
	baz=89						
MCK	**McKinley**	88.76	16	PFAKE		14 46 40.0	+13
MCK				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
K08A	**Mann Creek Ran**	88.76	43	⇓P	P	14 46 27.6	+0.2
	baz=89,SNR=8.5						
I07A	**Izee**	88.78	42	⇑P	P	14 46 27.8	+0.3
	baz=89,SNR=6.3						
VNA3	**Neumayer Olymp**	88.78	179	*e*P	P	14 46 27.6	+0.4
VNA3				*e*		14 46 29.5	
VNA3				*e*	pP	14 46 34.2	-2.1
VNA3				*e*		14 46 45.4	
VNA3				*e*		14 47 10.3	
M09A	**Marrel Ranch,**	88.81	45	⇑P	P	14 46 28.2	+0.4
	baz=89,SNR=8.3						
Q11A	**Duckwater**	88.83	48	⇓P	P	14 46 27.7	-0.2
	baz=89						
S12A	**Delamar Landin**	88.84	49	⇑P	P	14 46 28.5	+0.5
	baz=89						
F06A	**Goldendale**	88.84	40	⇓P	P	14 46 28.3	+0.5
	baz=89,SNR=5.0						
D05A	**Enumclaw**	88.87	38	⇓P	P	14 46 28.4	+0.6
	baz=89						
WPW	**White Pass**	88.87	39	P	P	14 46 28.1	+0.2
YAK	**Yakutsk**	88.89	341	PFAKE		14 46 40.0	+12
YAK				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
YAK	**Yakutsk**	88.89	341	*e*P	P	14 46 26.2	-1.4
YAK				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb5.0						
YAK				pmax	pmax		
	comp=N,5.0nm,1.6s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.3s						
YAK				pmax	pmax		
	comp=N,429nm,20.0s						
YAK				pmax	pmax		
	comp=E,266nm,17.2s						
X14A	**Yava**	88.89	53	⇑P	P	14 46 29.0	+0.7
	baz=89,SNR=5.9						
O10A	**Cortez Mining,**	88.92	46	⇑P	P	14 46 28.5	+0.2
	baz=89,SNR=9.2						
U13A	**Pakoon Wash**	88.95	50	⇓P	P	14 46 28.4	-0.1
	baz=89						
H07A	**Lands Inn, Kim**	89.00	41	⇑P	P	14 46 28.4	-0.1
	baz=89						
WRAK	**Wrangell Islan**	89.04	27	PFAKE		14 46 40.0	+12
WRAK				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
W14A	**Seligman**	89.07	52	⇓P	P	14 46 29.7	+0.6
	baz=89,SNR=8.6						
J08A	**Circle Bar Ran**	89.08	43	⇑P	P	14 46 29.3	+0.4
	baz=89						
P11A	**Circle Ranch,**	89.09	47	⇑P	P	14 46 29.7	+0.6
	baz=89						
N10A	**Dunphy**	89.11	46	⇑P	P	14 46 29.4	+0.3
	baz=89						
VNA2	**Neumayer--Watz**	89.12	180	*e*P	P	14 46 28.6	-0.2
	baz=193,slow=2.9						
VNA2				*e*		14 46 30.6	
VNA2				*e*	pP	14 46 36.1	-1.8
VNA2				*e*		14 46 46.3	
VNA2				*e*		14 47 12.0	
E06A	**Yakima**	89.12	39	⇓P	P	14 46 29.4	+0.3
	baz=89						
K09A	**Rome**	89.24	44	P	P	14 46 30.0	+0.3
	baz=89,SNR=21						
G07A	**Ruggs Ranch, H**	89.27	41	⇑P	P	14 46 29.8	0.0
	baz=89,SNR=7.0						
I08A	**Drewsey**	89.28	42	⇓P	P	14 46 30.1	+0.2
	baz=89,SNR=8.0						
C05A	**Tolt Reservoir**	89.31	38	⇓P	P	14 46 30.0	+0.1
	baz=90,SNR=5.9						
R12A	**Pony Springs,**	89.33	49	⇓P	P	14 46 30.5	+0.3
	baz=90,SNR=13						
B05A	**Bryant**	89.37	37	⇓P	P	14 46 30.0	-0.2
	baz=90						
X15A	**Humboldt**	89.39	53	⇑P	P	14 46 30.5	-0.2
	baz=90,SNR=7.4						
O11A	**Cowboy Ranch,**	89.42	47	⇑P	P	14 46 30.7	+0.1
	baz=90,SNR=18						
F07A	**Phinny Hill Vi**	89.42	40	⇑P	P	14 46 31.2	+0.7
	baz=90						
M10A	**I.L. Ranch, Tu**	89.46	45	⇑P	P	14 46 31.7	+0.9
	baz=90,SNR=22						
Q12A	**Willow Creek R**	89.49	48	⇓P	P	14 46 31.3	+0.3
	baz=90,SNR=11						
H08A	**Prairie City**	89.52	42	⇓P	P	14 46 30.8	-0.2
	baz=90						
U14A	**Mt Trumbull**	89.52	51	⇓P	P	14 46 31.3	+0.1
	baz=90						
J09A	**Fry Pan Ranch,**	89.53	43	⇓P	P	14 46 31.0	-0.1
	baz=90,SNR=26						
S13A	**Holt Ranch, En**	89.53	49	⇑P	P	14 46 31.4	+0.2
	baz=90						
D06A	**Cle Elum**	89.54	39	⇑P	P	14 46 31.2	+0.2
	baz=90						
TUC	**Tucson**	89.59	55	*e*P	P	14 46 28.8	-2.8
	comp=Z,18nm,1.4s,mb5.2						
TUC				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
TUC	**Tucson**	89.59	55	*e*P	P	14 46 28.8	-2.8
TUC				pmax	pmax		
	comp=Z,18nm,1.4s,mb5.2						
TUC				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.6						
P12A	**McGill**	89.63	47	⇑P	P	14 46 32.0	+0.4
	baz=90,SNR=8.6						
N11A	**Elko Archery C**	89.68	46	⇑P	P	14 46 32.0	+0.2
	baz=90						
G08A	**Pilot Rock**	89.72	41	⇓P	P	14 46 32.3	+0.5
	baz=90,SNR=16						
L10A	**Juniper Basin**	89.77	45	⇓P	P	14 46 32.2	0.0
	baz=90,SNR=19						
ULN	**Ulaanbaatar**	89.78	322	PFAKE		14 46 40.0	+7.9
ULN				LR	LR		
	comp=Z,987nm,21.0s,MS5.2						
E07A	**Sunnyside**	89.80	39	⇑P	P	14 46 32.7	+0.5
	baz=90,SNR=7.6						
K10A	**MacKenzie Ranc**	89.83	44	⇑P	P	14 46 32.8	+0.4
	baz=90						
I09A	**Lost Marbles R**	89.84	42	⇓P	P	14 46 32.6	+0.2
	baz=90						
T14A	**Hurricane**	89.86	50	⇓P	P	14 46 33.8	+1.0
	baz=90,SNR=9.1						
CCUT	**Cedar City**	89.88	50	*e*P	P	14 46 33.2	+0.4
C06A	**Tall Timber Ra**	89.88	38	⇓P	P	14 46 32.5	-0.1
	baz=90						
HAWA	**Hanford**	89.91	40	*e*P	P	14 46 32.9	+0.2
	comp=Z,41nm,1.2s,mb5.6						
HAWA				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
M11A	**Holland Ranch,**	89.92	45	⇑P	P	14 46 33.9	+1.0
	baz=90,SNR=16						
ARUT	**Antelope Range**	89.92	49	P	P	14 46 33.1	0.0
COLA	**College**	89.96	16	*e*P	P	14 46 29.9	-2.7
	comp=Z,4.9nm,0.9s,mb4.8						
COLA				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
COLA	**College**	89.96	16	*e*P	P	14 46 29.9	-2.6
COLA				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.8						
COLA				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.4						
ELK	**Elko**	89.98	46	*e*P	P	14 46 33.3	+0.1
	comp=Z,13nm,0.9s,mb5.3						
ELK				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
ELK	**Elko**	89.98	46	*e*P	P	14 46 33.3	+0.1
ELK				pmax	pmax		
	comp=Z,13nm,0.9s						
ELK				MLR	MLR		
	comp=Z,2µm,19.0s						
H2OWA	**Water**	89.98	40	P	P	14 46 33.5	+0.4
F08A	**Pendleton**	90.08	41	⇑P	P	14 46 33.5	0.0
	baz=90,SNR=5.9						
O12A	**Currie**	90.10	47	⇓P	P	14 46 34.1	+0.3
	baz=90						
S14A	**Cedar City**	90.10	50	⇑P	P	14 46 34.1	+0.2
	baz=90						
SONM	**Songino Array**	90.14	322	P	P	14 46 33.9	+0.1
	comp=Z,4.4nm,1.0s,mb4.8,baz=122,slow=3.7,SNR=23						
SONM				LR	LR	15 21 39.0	
	comp=Z,705nm,21.7s,MS5.1,baz=147,slow=32						
A06A	**Chilliwack**	90.16	37	⇓P	P	14 46 34.1	+0.3
	baz=90						
N12A	**Clover Valley,**	90.16	46	⇑P	P	14 46 34.8	+0.7
	baz=90,SNR=20						
J10A	**Berg Farm, Mel**	90.20	43	⇑P	P	14 46 34.6	+0.4
	baz=90						
H09A	**Durkee**	90.22	42	⇑P	P	14 46 34.0	-0.2
	baz=90,SNR=8.8						
E08A	**Dider Farm, El**	90.25	40	⇓P	P	14 46 34.2	-0.1
	baz=90,SNR=11						
C07A	**Waterville**	90.25	38	⇓P	P	14 46 33.9	-0.4
	baz=90,SNR=5.5						
L11A	**Cat Creek Ranc**	90.28	45	⇓P	P	14 46 35.1	+0.5
	baz=90,SNR=21						
NLW	**Nelson Butte**	90.28	38	P	P	14 46 34.4	0.0
EPH	**Ephrata**	90.35	39	P	P	14 46 34.8	0.0
T15A	**Red Dirt Ranch**	90.35	51	⇓P	P	14 46 35.1	0.0
	baz=90						
K11A	**Parker Ranch,**	90.38	44	⇑P	P	14 46 35.4	+0.4
	baz=90,SNR=15						
GTA	**Gaotai**	90.39	312	⇑P	P	14 46 35.9	+0.7
GTA				AP	pP	14 46 40.8	-3.5
GTA				XP	sP	14 46 43.3	-4.2
GTA				PPP		14 52 15.3	
GTA				SKS		14 57 05.4	
GTA				S	S	14 57 31.3	+3.2
GTA				XS	sS	14 57 39.8	-3.4
GTA				PS	PS	14 58 45.1	+6.6
GTA				AMB	AMB		
	comp=Z,25nm,1.2s,mb5.4						
GTA				AMB	AMB		
	comp=Z,215nm,5.7s						
GTA				LR	LR		
	comp=N,616nm,19.8s,MS5.2						
GTA				LR	LR		
	comp=E,638nm,21.3s,MS5.2						
GTA				LR	LR		
	comp=Z,1µm,21.7s,MS5.2						
G09A	**Cove**	90.44	41	⇑P	P	14 46 35.0	-0.3
	baz=91						
WUAZ	**Wupatki**	90.46	52	*e*P	P	14 46 35.2	-0.4
	comp=Z,42nm,1.1s,mb5.7						
WUAZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
WUAZ	**Wupatki**	90.46	52	⇑P	P	14 46 35.4	-0.2
	baz=91						
I10A	**Payette**	90.49	43	⇓P	P	14 46 36.2	+0.7
	baz=91						
M12A	**Wells**	90.50	46	⇓P	P	14 46 35.7	+0.1
	baz=91,SNR=12						
BMO	**Blue Mountains**	90.53	42	PFAKE		14 46 50.0	+14
BMO				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
F09A	**S2 Ranch, Elgi**	90.56	41	⇓P	P	14 46 36.0	+0.2
	baz=91						
B07A	**Winthrop**	90.60	38	⇑P	P	14 46 36.0	+0.1
	baz=91,SNR=6.9						
D08A	**Wollman Farm,**	90.61	39	⇑P	P	14 46 35.9	-0.1
	baz=91,SNR=7.6						
N13A	**Wendover, West**	90.73	46	⇓P	P	14 46 37.0	+0.3
	baz=91,SNR=11						
A07A	**Ashnola River,**	90.75	37	⇑P	P	14 46 36.9	+0.3
	baz=91						
H10A	**Noah's Angus R**	90.76	42	⇓P	P	14 46 36.5	-0.3
	baz=91,SNR=13						
L12A	**House Creek Ra**	90.76	45	⇑P	P	14 46 37.4	+0.6
	baz=91,SNR=15						
MFID	**Camas Ranch**	90.80	44	⇑P	P	14 46 37.4	+0.4
	baz=91,SNR=11						
E09A	**Wood Farm, Sta**	90.81	40	⇑P	P	14 46 36.8	-0.1
	baz=91						
C08A	**Higginbotham F**	90.89	39	⇓P	P	14 46 37.1	-0.2
	baz=91,SNR=7.2						
OD2	**Odessa Site #2**	90.89	39	P	P	14 46 37.3	0.0
I11A	**Placerville**	90.95	43	⇓P	P	14 46 37.9	+0.3
	baz=91,SNR=8.8						
SHL	**Shillong**	90.95	297	*e*P	P	14 46 39.0	+0.9
D09A	**Jones Farm, Ri**	90.97	40	⇑P	P	14 46 38.0	+0.3
	baz=91,SNR=9.4						
M13A	**Montello**	90.98	46	⇓P	P	14 46 38.2	+0.3
	baz=91,SNR=25						
B08A	**Colville Reser**	91.01	38	⇓P	P	14 46 37.1	-0.7
	baz=91,SNR=7.0						
K12A	**Draper Farm, C**	91.06	45	⇓P	P	14 46 38.4	+0.2
	baz=91,SNR=8.5						
MSU	**Marysvale**	91.13	49	*e*P	P	14 46 39.4	+0.7
J12A	**Stokes Ranch,**	91.20	44	⇓P	P	14 46 38.9	0.0
	baz=91,SNR=19						
H11A	**Donnelly**	91.28	42	⇑P	P	14 46 38.4	-0.7
	baz=91,SNR=14						
A08A	**Turner Farm, O**	91.33	38	⇓P	P	14 46 39.4	+0.1
	baz=92,SNR=7.4						
DUG	**Dugway**	91.40	47	*e*P	P	14 46 39.5	-0.3
	comp=Z,14nm,1.3s,mb5.2						
DUG				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
DUG	**Dugway**	91.40	47	*e*P	P	14 46 39.5	-0.3
DUG				pmax	pmax		
	comp=Z,14nm,1.3s,mb5.1						
DUG				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.7						
DUG	**Dugway**	91.40	47	⇓P	P	14 46 39.8	0.0
	baz=92						
G11A	**Walters Elk Ra**	91.44	42	⇓P	P	14 46 38.8	-1.0
	baz=92,SNR=19						
SFJM	**Santa Fe**	91.52	69	*e*P	P	14 46 40.0	-0.9
M14A	**Sheep Mountain**	91.60	46	⇓P	P	14 46 41.1	+0.4
	baz=92,SNR=7.3						
K13A	**Stover Farm, H**	91.60	45	⇓P	P	14 46 41.5	+0.8
	baz=92						
EGAK	**Eagle**	91.70	18	*e*P	P	14 46 39.0	-1.6
	comp=Z,17nm,1.3s,mb5.2						
EGAK				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
DAWY	**Dawson**	91.70	19	*e*P	P	14 46 39.0	-1.7
B09A	**Rice**	91.73	38	⇓P	P	14 46 40.8	-0.3
	baz=92,SNR=6.1						
A09A	**Danville**	91.74	38	⇓P	P	14 46 41.4	+0.2
	baz=92						
BOD	**Bodaibo**	91.79	333	*e*P	P	14 46 39.7	-1.5
BOD				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.8						
HLID	**Hailey**	91.79	44	PFAKE		14 46 50.0	+8.4
HLID				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
HLID	**Hailey**	91.79	44	⇓P	P	14 46 41.4	-0.2
	baz=92,SNR=5.3						
J13A	**Cove Ranch, Pi**	91.87	44	⇑P	P	14 46 41.9	-0.1
	baz=92,SNR=6.0						
H12A	**Diamond D Ranc**	91.94	43	⇓P	P	14 46 42.0	-0.2
	baz=92,SNR=12						
I13A	**Wildhorse Cree**	92.14	44	⇑P	P	14 46 43.3	+0.2
	baz=92,SNR=6.1						
MPU	**Maple Canyon**	92.14	48	PFAKE		14 46 50.0	+6.7
MPU				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
D11A	**Klaveano Farm,**	92.16	40	⇓P	P	14 46 42.6	-0.6
	baz=92						
K14A	**Jones Ranch, D**	92.16	45	⇑P	P	14 46 43.4	+0.1
	baz=92,SNR=5.3						
F12A	**Elk City**	92.23	42	⇑P	P	14 46 43.2	-0.4
	baz=92,SNR=11						
NEW	**Newport**	92.25	39	PFAKE		14 46 50.0	+6.4
NEW				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
H13A	**Challis**	92.33	43	⇑P	P	14 46 43.7	-0.4
	baz=92,SNR=6.0						
SRU	**San Rafael**	92.56	49	*e*P	P	14 46 43.1	-2.1
	comp=Z,13nm,1.0s,mb5.3						
SRU	**San Rafael**	92.56	49	*e*P	P	14 46 43.1	-2.1
SRU				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.3						
G13A	**Cobalt**	92.58	43	⇓P	P	14 46 44.8	-0.4
	baz=93						
D12A	**Red Ives Fores**	92.76	41	⇓P	P	14 46 45.4	-0.6
	baz=93						
F13A	**Darby**	92.83	42	⇑P	P	14 46 45.5	-0.8
	baz=93						
HWUT	**Hardware Ranch**	92.85	47	*e*P	P	14 46 45.9	-0.6
	comp=Z,4.5nm,0.8s,mb5.0						
HWUT				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
A11A	**Hall Mountain,**	93.02	39	⇓P	P	14 46 46.9	-0.2
	baz=93						
LSA	**Lhasa**	93.07	300	P	P	14 46 48.6	+0.8
LSA	**Lhasa**	93.07	300	*e*P	P	14 46 47.9	+0.1
	comp=Z,5.7nm,1.0s,mb5.0						
LSA				LR	LR		
	comp=Z,739nm,20.0s,MS5.1						
LSA	**Lhasa**	93.07	300	*e*P	P	14 46 47.9	+0.1
LSA				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb5.0						
LSA				MLR	MLR		
	comp=Z,739nm,20.0s,MS5.1						
G14A	**Jackson**	93.14	43	⇓P	P	14 46 47.6	-0.1
	baz=93						
ZAK	**Zakamensk**	93.18	323	*e*P	P	14 46 46.2	-1.6
ZAK				*e*		14 50 30.9	
ZAK				pmax	pmax		
	comp=Z,5.0nm,2.0s,mb4.6						
LENM	**Lemitar**	93.25	55	*e*P	P	14 46 48.1	-0.5
MVCO	**Mesa Verde**	93.27	52	P	P	14 46 48.9	+0.4
	comp=Z,12nm,1.3s,mb5.2						
MVCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
D13A	**Huson**	93.32	41	⇑P	P	14 46 48.2	-0.3
	baz=94						
MCMT	**McKenzie Canyo**	93.35	43	*e*P	P	14 46 48.7	0.0
A12A	**Yaak River Ran**	93.43	39	⇓P	P	14 46 48.9	-0.1
	baz=94						
F14A	**Wisdom**	93.44	42	⇓P	P	14 46 48.9	-0.3
	baz=94						
BNM	**Barren Site**	93.52	55	*e*P	P	14 46 48.4	-1.4
IRK	**Irkutsk**	93.52	325	*e*P	P	14 46 57.6	+8.3
IRK				pmax	pmax		
	comp=Z,32nm,2.3s,mb5.3						
MSO	**Missoula**	93.52	41	PFAKE		14 47 00.0	+11
MSO				LR	LR		
	comp=Z,981nm,21.0s,MS5.2						
LPM	**Los Pinos Moun**	93.57	55	*e*P	P	14 46 50.0	-0.1
MNTX	**Cornudas Mount**	93.59	58	*e*P	P	14 46 49.7	-0.5
	comp=Z,9.2nm,1.2s,mb5.1						
MNTX				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
TLY	**Talaya**	93.59	324	PFAKE		14 47 00.0	+10
TLY				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
TLY	**Talaya**	93.59	324	*e*P	P	14 46 48.8	-0.9
TLY				*e*SSS		15 07 46.5	
TLY				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.9						
TLY				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.3						
AHID	**Auburn Hatcher**	93.64	46	PFAKE		14 47 00.0	+10
AHID				LR	LR		
	comp=Z,923nm,19.0s,MS5.3						
ANMO	**Albuquerque**	93.94	54	P	P	14 46 51.1	-0.6
ANMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
ANMO	**Albuquerque**	93.94	54	⇑*e*P	P	14 46 51.5	-0.2
ANMO	**Albuquerque**	93.94	54	P	P	14 46 51.1	-0.6
	comp=Z,3.9nm,0.9s,mb4.8,baz=208,slow=4.8,SNR=7.0						
F15A	**Butte**	94.01	42	⇑P	P	14 46 51.0	-0.8
	baz=94						
LTX	**Lajitas**	94.12	60	PFAKE		14 47 00.0	+7.3
LTX				LR	LR		
	comp=Z,6µm,20.0s,MS6.0						
TXAR	**Lajitas Array**	94.12	60	P	P	14 46 53.1	+0.4
	comp=Z,2.9nm,0.8s,mb4.8,baz=223,slow=5.6,SNR=27						
TXAR				LR	LR	15 21 58.3	
	comp=Z,4µm,18.7s,MS6.0,baz=280,slow=31						
QLMT	**Earthquake Lak**	94.27	44	*e*P	P	14 46 53.3	+0.3
BOZ	**Bozeman (W)**	94.48	43	PFAKE		14 47 00.0	+6.1
BOZ				LR	LR		
	comp=Z,721nm,19.0s,MS5.2						
BOZ	**Bozeman (W)**	94.48	43	⇑P	P	14 46 53.7	-0.2
	baz=95						
D15A	**Lincoln**	94.50	41	⇓P	P	14 46 53.3	-0.6
	baz=95						
YMR	**Madison River**	94.51	44	PFAKE		14 47 00.0	+5.9
YMR				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
PALK	**Pallekele**	94.63	276	PFAKE		14 47 10.0	+15
PALK				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
PDAR	**Pinedale Array**	94.68	46	P	P	14 46 54.4	-0.5
	comp=Z,2.5nm,1.0s,mb4.6,baz=202,slow=1.8,SNR=11						
PDAR				PP	PP	14 50 39.0	-4.7
	comp=Z,1.3nm,1.2s,baz=255,slow=4.5,SNR=4.6						
PDAR				LR	LR	15 21 52.3	
	comp=Z,890nm,20.7s,MS5.2,baz=243,slow=30						
LKWY	**Lake**	94.83	44	PFAKE		14 47 10.0	+14
LKWY				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
EFI	**East Falkland**	95.67	151	PFAKE		14 47 10.0	+11
EFI				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
SDCO	**Great Sand Dun**	95.68	52	PFAKE		14 47 10.0	+10
SDCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
RLMT	**Red Lodge**	95.79	44	PFAKE		14 47 10.0	+10
RLMT				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
PAYG	**Puerto Ayora**	96.06	93	PFAKE		14 47 10.0	+8.0
PAYG				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
ISCO	**Idaho Springs**	96.33	50	PFAKE		14 47 10.0	+7.5
ISCO				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
TIXI	**Tiksi**	96.44	347	P	P	14 47 01.8	-0.5
	comp=Z,4.4nm,1.3s,mb4.7						
TIXI				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
TIXI	**Tiksi**	96.44	347	*e*P	P	14 47 00.0	-2.3
TIXI				*e*S	SKSac	14 57 34.0	-2.4
TIXI				*e*SS	SS	15 04 48.9	-5.5
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.7						
EGMT	**Eagleton**	96.61	41	PFAKE		14 47 10.0	+6.4
EGMT				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
JCT	**Junction City**	97.67	60	PFAKE		14 47 20.0	+11
JCT				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
KVTX	**Kingsville**	98.32	64	PFAKE		14 47 20.0	+8.2
KVTX				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
LAO	**LASA Array**	98.35	43	PFAKE		14 47 20.0	+8.6
LAO				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
RSSD	**Black Hills**	98.92	46	PFAKE		14 47 20.0	+5.9
RSSD				LR	LR		
	comp=Z,351nm,21.0s,MS4.8						
WMOK	**Wichita Mounta**	99.81	57	PFAKE		14 47 30.0	+12
WMOK				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
YKA	**Yellowknife Ar**	99.90	27	P	Pdif	14 47 16.5	-1.9
	comp=Z,0.6nm,0.9s,baz=256,slow=4.0,SNR=6.6						
YKA				LR	LR	15 28 20.8	
	comp=Z,585nm,18.3s,MS5.1,baz=245,slow=33						
DGMT	**Dagmar**	100.24	42	PFAKE		14 47 30.0	+10
DGMT				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
CBKS	**Cedar Bluff**	100.31	52	PFAKE		14 47 30.0	+10
CBKS				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
WMQ	**Urumqi**	100.45	313	*e*P	Pdif	14 47 20.3	-0.6
WMQ				AP		14 47 25.1	
WMQ				AMB	AMB		

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      comp=Z,7.0nm,0.9s
WMQ                               LR       LR
      comp=N,361nm,20.8s,MS5.2
WMQ                               LR       LR
      comp=E,783nm,22.0s,MS5.2
WMQ                               LR       LR
      comp=Z,668nm,22.0s,MS5.1
HKT   Hockley          100.77  62 PFAKE             14 47 30.0 +7.7
HKT                               LR       LR
      comp=Z,4µm,20.0s,MS6.0
LCO   Las Campanas     101.46 127 PFAKE             14 47 40.0 +15
LCO                               LR       LR
      comp=Z,955nm,19.0s,MS5.3
NATX  Nacogdoches      102.25  61 PFAKE             14 47 40.0 +11
NATX                              LR       LR
      comp=Z,5µm,20.0s,MS6.0
KSU1  Kansas State U   102.73  53 PFAKE             14 47 40.0 +9.0
KSU1                              LR       LR
      comp=Z,2µm,19.0s,MS5.7
FFC   Flin Flon        103.42  36 PFAKE             14 47 40.0 +5.9
FFC                               LR       LR
      comp=Z,1µm,19.0s,MS5.4
TGUH  Tegucigalpa,Un   103.69  80 PFAKE             14 47 50.0 +15
TGUH                              LR       LR
      comp=Z,882nm,19.0s,MS5.3
MIAR  Mount Ida        103.88  58 PFAKE             14 47 50.0 +14
MIAR                              LR       LR
      comp=Z,3µm,19.0s,MS5.9
ECSD  EROS,Sioux Fal   103.94  48 PFAKE             14 47 50.0 +14
ECSD                              LR       LR
      comp=Z,3µm,20.0s,MS5.8
NNA   Nana             104.22 109 PFAKE             14 47 50.0 +12
NNA                               LR       LR
      comp=Z,679nm,20.0s,MS5.2
TEIG  Tepich           104.57  74 PFAKE             14 47 50.0 +11
TEIG                              LR       LR
      comp=Z,2µm,21.0s,MS5.6
JTS   JuntasAbangare   104.69  84 PFAKE             14 47 50.0 +10
JTS                               LR       LR
      comp=Z,1µm,21.0s,MS5.5
MKAR  Makanchi Array   104.93 315 Pdif     Pdif     14 47 42.6 +1.8
MKAR                              PP       PP       14 51 57.1 -4.4
MKAR  Makanchi Array   104.93 315 Pdiff    Pdif     14 47 42.6 +1.8
      comp=Z,0.9nm,0.7s,baz=92,slow=6.7,SNR=14
MKAR                              PP       PP       14 51 57.1 -4.4
      comp=Z,0.6nm,0.9s,baz=93,slow=13,SNR=3.8
AGMN  Agassiz Refuge   105.53  44 PFAKE             14 52 10.0 +13
AGMN                              LR       LR
      comp=Z,1µm,19.0s,MS5.4
SCIA  State Center     105.93  51 PFAKE             14 52 10.0 +12
SCIA                              LR       LR
      comp=Z,1µm,21.0s,MS5.5
ULM   Lac du Bonnet    105.95  42 PFAKE             14 52 10.0 +13
ULM                               LR       LR
      comp=Z,1µm,20.0s,MS5.5
OXF   Oxford           107.21  59 PFAKE             14 52 10.0 +10
OXF                               LR       LR
      comp=Z,4µm,20.0s,MS6.0
KURK  Kurchatov        108.10 318 PFAKE             14 52 10.0 +8.6
KURK                              LR       LR
      comp=Z,1µm,22.0s,MS5.4
JFWS  Jewell Farm      108.29  50 PFAKE             14 52 10.0 +8.0
JFWS                              LR       LR
      comp=Z,2µm,20.0s,MS5.7
EYMN  Ely              108.33  45 PFAKE             14 52 10.0 +8.1
EYMN                              LR       LR
      comp=Z,2µm,21.0s,MS5.6
BRAL  Brewton          108.36  63 PFAKE             14 52 10.0 +7.5
BRAL                              LR       LR
      comp=Z,2µm,20.0s,MS5.7
PLAL  Pickwick Lake    108.38  59 PFAKE             14 52 10.0 +7.6
PLAL                              LR       LR
      comp=Z,5µm,20.0s,MS6.1
HDIL  Hopedale         108.55  53 PFAKE             14 52 10.0 +7.4
HDIL                              LR       LR
      comp=Z,2µm,20.0s,MS5.6
TKM2  Tokmak 2         108.78 310 PFAKE             14 52 10.0 +7.1
TKM2                              LR       LR
      comp=Z,916nm,19.0s,MS5.4
WVT   Waverly          108.81  58 PFAKE             14 52 10.0 +6.8
WVT                               LR       LR
      comp=Z,3µm,22.0s,MS5.8
LRAL  Lakeview Retre   108.85  61 PFAKE             14 52 10.0 +6.6
LRAL                              LR       LR
      comp=Z,4µm,21.0s,MS5.9
UCH   Uchtor           109.45 309 PFAKE             14 52 20.0 +16
UCH                               LR       LR
      comp=Z,10µm,22.0s,MS6.3
AAK   Ala-Archa        109.53 309 PFAKE             14 52 20.0 +16
AAK                               LR       LR
      comp=Z,715nm,20.0s,MS5.2
COWI  Conover          109.62  47 PFAKE             14 52 20.0 +16
COWI                              LR       LR
      comp=Z,2µm,20.0s,MS5.7
LPAZ  La Paz           109.85 117 PFAKE             14 52 20.0 +14
LPAZ                              LR       LR
      comp=Z,580nm,22.0s,MS5.1
AML   Almayashu        110.03 309 PFAKE             14 52 20.0 +15
AML                               LR       LR
      comp=Z,802nm,20.0s,MS5.3
EKS2  Erkin-Say        110.06 309 PFAKE             14 52 20.0 +15
EKS2                              LR       LR
      comp=Z,690nm,19.0s,MS5.2
WCI   Wyandotte Cave   110.41  56 PFAKE             14 52 20.0 +14
WCI                               LR       LR
      comp=Z,2µm,20.0s,MS5.8
GOGA  Godfrey          111.82  61 PFAKE             14 52 20.0 +11
GOGA                              LR       LR
      comp=Z,5µm,22.0s,MS6.0
TZTN  Tazewell         112.29  58 PFAKE             14 52 20.0 +10
TZTN                              LR       LR
      comp=Z,4µm,21.0s,MS6.0
DWPF  Disney           112.54  67 PFAKE             14 52 20.0 +9.5
DWPF                              LR       LR
      comp=Z,1µm,19.0s,MS5.5
GLMI  Grayling         112.60  49 PFAKE             14 52 20.0 +10
GLMI                              LR       LR
      comp=Z,1µm,19.0s,MS5.4
AAM   Ann Arbor        113.00  52 PFAKE             14 52 20.0 +9.1
AAM                               LR       LR
      comp=Z,2µm,21.0s,MS5.7
ACSO  Alum Creek Sta   113.25  54 PFAKE             14 52 20.0 +8.5
ACSO                              LR       LR
      comp=Z,3µm,21.0s,MS5.8
BRVK  Borovoye         113.49 320 PFAKE             14 52 20.0 +8.5
BRVK                              LR       LR
      comp=Z,979nm,19.0s,MS5.4
NHSC  New Hope         114.49  62 PFAKE             14 52 30.0 +16
NHSC                              LR       LR
      comp=Z,3µm,21.0s,MS5.8
BLA   Blacksburg       114.86  58 PFAKE             14 52 30.0 +15
BLA                               LR       LR
      comp=Z,3µm,20.0s,MS5.9
MCWV  Mont Chateau     115.59  55 PFAKE             14 52 30.0 +14
MCWV                              LR       LR
      comp=Z,3µm,19.0s,MS6.0
CNNC  Cliffs of the    116.66  60 PFAKE             14 52 30.0 +12
CNNC                              LR       LR
      comp=Z,5µm,20.0s,MS6.1
SSPA  Standing Stone   117.16  54 PFAKE             14 52 30.0 +11
SSPA                              LR       LR
      comp=Z,3µm,20.0s,MS5.8
CBN   Corbin           117.37  57 PFAKE             14 52 30.0 +11
CBN                               LR       LR
      comp=Z,3µm,21.0s,MS6.0
BINY  Binghamton       118.67  52 PFAKE             14 52 30.0 +8.2
BINY                              LR       LR
      comp=Z,3µm,19.0s,MS5.9
LONY  Lake Ozonia      119.73  49 PFAKE             14 52 30.0 +6.2
LONY                              LR       LR
      comp=Z,2µm,20.0s,MS5.8
SDDR  Presa de Saban   119.76  79 PFAKE             14 52 40.0 +15
SDDR                              LR       LR
      comp=Z,1µm,21.0s,MS5.5
NCB   Newcomb          119.99  50 PFAKE             14 52 40.0 +16
NCB                               LR       LR
      comp=Z,2µm,20.0s,MS5.7
ARU   Arti             120.09 324 PFAKE             14 52 40.0 +16
ARU                               LR       LR
      comp=Z,2µm,20.0s,MS5.6
ARU   Arti             120.09 324 i PKIKP  PKPdf    14 52 33.4 +9.3
KBS   Kingsbay         120.57 356 PFAKE             14 52 40.0 +15
KBS                               LR       LR
      comp=Z,1µm,21.0s,MS5.4
AKTK  Aktyubinsk       121.18 317 PKP      PKPdf    14 52 24.3 -2.1
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AKTO  Aktyubinsk       121.18 317 PKIKP    PKPdf    14 52 24.3 -2.1
AKTO  Aktyubinsk       121.18 317 PKP      PKPdf    14 52 24.3 -2.1
      comp=Z,1.2nm,0.8s,baz=74,slow=5.0,SNR=3.7
SUR   Sutherland       121.34 208 PFAKE             14 52 40.0 +13
SUR                               LR       LR
      comp=Z,2µm,21.0s,MS5.8
LBNH  Lisbon           121.64  50 PFAKE             14 52 40.0 +13
LBNH                              LR       LR
      comp=Z,2µm,19.0s,MS5.8
HRV   Harvard--Oak R   121.96  52 PFAKE             14 52 40.0 +12
HRV                               LR       LR
      comp=Z,3µm,20.0s,MS5.9
WES   Weston           122.13  52 PFAKE             14 52 40.0 +12
WES                               LR       LR
      comp=Z,3µm,22.0s,MS5.8
BOSA  Boshof           122.34 214 PKP      PKPdf    14 52 31.7 +2.3
BOSA                              LR       LR
      comp=Z,1µm,19.0s,MS5.6
BOSA  Boshof           122.34 214 PKIKP    PKPdf    14 52 31.7 +2.3
BOSA                              MLR      MLR
      comp=Z,1µm,19.0s,MS5.6
BOSA  Boshof           122.34 214 PKP      PKPdf    14 52 31.7 +2.3
      comp=Z,2.0nm,0.9s,baz=198,slow=13,SNR=2.9
PKME  Peaks-Kenny Pk   123.45  49 PFAKE             14 52 40.0 +9.1
PKME                              LR       LR
      comp=Z,3µm,21.0s,MS5.9
SCHQ  Schefferville    123.57  37 PFAKE             14 52 40.0 +9.2
SCHQ                              LR       LR
      comp=Z,2µm,20.0s,MS5.9
SJG   San Juan         124.33  81 PFAKE             14 52 40.0 +6.6
SJG                               LR       LR
      comp=Z,703nm,21.0s,MS5.3
LBTB  Lobatse          125.01 217 PFAKE             14 52 50.0 +15
LBTB                              LR       LR
      comp=Z,2µm,21.0s,MS5.7
LVZ   Lovozero         125.69 342 PFAKE             14 52 50.0 +15
LVZ                               LR       LR
      comp=Z,2µm,21.0s,MS5.7
APA   Apatity          126.27 342 i PKHKP           14 52 13.0
KEV   Kevo             126.36 346 PFAKE             14 52 50.0 +14
KEV                               LR       LR
      comp=Z,2µm,21.0s,MS5.8
BBSR  BB Station       127.41  64 PFAKE             14 52 50.0 +11
BBSR                              LR       LR
      comp=Z,2µm,20.0s,MS5.7
BBGH  Gun Hill         129.32  89 PFAKE             14 52 50.0 +7.0
BBGH                              LR       LR
      comp=Z,2µm,22.0s,MS5.6
LSZ   Lusaka           130.62 227 PFAKE             14 53 00.0 +14
LSZ                               LR       LR
      comp=Z,2µm,20.0s,MS5.8
KMBO  Kilima Mbogo     131.77 249 PKP      PKPdf    14 52 48.9 +1.1
KMBO                              LR       LR
      comp=Z,2µm,21.0s,MS5.8
KMBO  Kilima Mbogo     131.77 249 PKIKP    PKPdf    14 52 48.9 +1.1
KMBO                              MLR      MLR
      comp=Z,2µm,21.0s
KMBO  Kilima Mbogo     131.77 249 PKP      PKPdf    14 52 48.9 +1.1
      comp=Z,1.2nm,0.7s,baz=69,slow=14,SNR=4.2
OBN   Obninsk          132.22 328 PFAKE             14 53 00.0 +13
OBN                               LR       LR
      comp=Z,1µm,20.0s,MS5.5
OBN   Obninsk          132.22 328 ePKIKP   PKPdf    14 52 47.5 +0.2
OBN                               pmax     pmax
      comp=Z,5.0nm,1.2s
KIV   Kislovodsk       132.56 312 PFAKE             14 53 00.0 +12
KIV                               LR       LR
      comp=Z,556nm,20.0s,MS5.3
FINES FINESS Array B   132.79 339 PKP      PKPdf    14 52 46.1 -2.1
FINES FINESS Array B   132.79 339 PKIKP    PKPdf    14 52 46.2 -2.0
FINES FINESS Array B   132.79 339 PKP      PKPdf    14 52 46.1 -2.1
      comp=Z,1.7nm,0.9s,baz=197,slow=6.0,SNR=4.0
TSUM  Tsumeb           134.03 213 PFAKE             14 53 00.0 +8.1
TSUM                              LR       LR
      comp=Z,2µm,21.0s,MS5.7
NAO01 NORSAR Array S   137.48 347 PFAKE             14 53 10.0 +13
NAO01                             LR       LR
      comp=Z,2µm,22.0s,MS5.7
AKASG Malin Array Be   138.32 326 PKP      PKPdf    14 52 50.6 -8.2
AKASG Malin Array Be   138.32 326 PKHKP             14 52 50.7
AKASG Malin Array Be   138.32 326 PKhKP             14 52 50.6
      comp=Z,0.1nm,0.2s,baz=33,slow=2.2,SNR=2.4
KIEV  Kiev             138.33 326 PFAKE             14 53 10.0 +11
KIEV                              LR       LR
      comp=Z,1µm,21.0s,MS5.5
KONO  Kongsberg        138.84 347 PFAKE             14 53 10.0 +10
KONO                              LR       LR
      comp=Z,1µm,20.0s,MS5.7
BR131 Keskin Array S   140.20 308 PFAKE             14 53 10.0 +7.3
BR131                             LR       LR
      comp=Z,683nm,20.0s,MS5.4
BRTR  Keskin Array B   140.20 308 PKP      PKPdf    14 53 01.2 -1.5
BRTR  Keskin Array B   140.20 308 PKIKP    PKPdf    14 53 01.2 -1.5
BRTR  Keskin Array B   140.20 308 PKP      PKPdf    14 53 01.2 -1.5
      comp=Z,1.0nm,1.0s,baz=357,slow=4.9,SNR=4.7
ANTO  Ankara           140.78 309 PFAKE             14 53 20.0 +16
ANTO                              LR       LR
      comp=Z,558nm,19.0s,MS5.3
RCBR  Riachuelo        141.57 129 PFAKE             14 53 20.0 +14
RCBR                              LR       LR
      comp=Z,1µm,21.0s,MS5.6
MLR   Muntele Rosu     142.99 321 ⇑P       PKPdf    14 53 05.6 -1.9
MLR   Muntele Rosu     142.99 321 ⇑PKIKP   PKPdf    14 53 05.6 -1.9
MLR   Muntele Rosu     142.99 321 ⇑iP      PKPdf    14 53 05.6 -1.9
UZH   Uzhgorod         143.16 327 ePKHKP            14 52 59.4
UZH                               i                 14 53 04.0
STHS  Stebnicka Huta   143.17 329 ePKP     PKPdf    14 53 07.7 +0.1
STHS  Stebnicka Huta   143.17 329 ePKIKP   PKPdf    14 53 07.7 +0.1
STHS  Stebnicka Huta   143.17 329 ePKP     PKPdf    14 53 07.7 +0.1
BSEG  Bad Segeberg     143.81 343 ePKIKP   PKPdf    14 53 05.5 -3.1
BSEG  Bad Segeberg     143.81 343 ePKPbc   PKPdf    14 53 05.5 -3.1
DRGR                   144.10 325 P        PKPdf    14 53 07.8 -1.6
DRGR                   144.10 325 PKIKP    PKPdf    14 53 07.8 -1.6
DRGR                   144.10 325 ⇓iP      PKPdf    14 53 07.6 -1.8
KECS  Kecovo           144.17 328 ePKP     PKPdf    14 53 08.0 -1.4
KECS                              e                 14 53 27.0
KECS  Kecovo           144.17 328 ePKIKP   PKPdf    14 53 08.0 -1.4
KECS  Kecovo           144.17 328 ePKP     PKPdf    14 53 08.0 -1.4
KECS                              e                 14 53 27.0
OKC   Ostrava-Krasne   144.31 332 ePKP     PKPdf    14 53 07.5 -2.1
OKC                               e                 15 20 52.2
OKC   Ostrava-Krasne   144.31 332 ePKIKP   PKPdf    14 53 07.5 -2.1
OKC                               MLR      MLR
      comp=Z,2µm,23.8s,MS5.7
OKC   Ostrava-Krasne   144.31 332 ePKP     PKPdf    14 53 07.5 -2.1
OKC                               ex       x        15 20 52.2
OKC                               AMS      AMS      15 54 20.0
      comp=Z,2µm,23.8s
KSP   Ksiaz            144.34 335 ePKP     PKPdf    14 53 08.1 -1.6
KSP   Ksiaz            144.34 335 ePKP     PKPdf    14 53 07.7 -1.9
KSP                               epPKP    pPKPdf   14 53 14.8 -4.2
KSP                               eSS      SS       15 15 18.0 +10
KSP                               eSSS              15 20 35.0
KSP                               LR       LR
      comp=Z,3µm,23.0s,MS6.0
KSP   Ksiaz            144.34 335 ePKIKP   PKPdf    14 53 07.7 -1.9
KSP                               e                 14 53 14.8
KSP                               eSSS              15 20 35.0
KSP                               MLR      MLR
      comp=Z,3µm,23.0s,MS6.0
SART  Tekirdag         144.48 313 i P      PKPdf    14 53 08.3 -1.9
MORC  Moravsky Berou   144.62 332 ePKPdf   PKPdf    14 53 08.2 -2.0
MORC  Moravsky Berou   144.62 332 ⇑PKIKP   PKPdf    14 53 09.1 -1.1
MORC  Moravsky Berou   144.62 332 ⇑iP      PKPdf    14 53 09.1 -1.1
DPC   Dobruska-Polom   144.71 334 ePKP     PKPdf    14 53 09.3 -1.0
DPC                               e                 14 53 27.1
DPC                               e                 15 20 53.0
DPC                               LR       LR
      comp=Z,2µm,20.0s,MS5.8
DPC   Dobruska-Polom   144.71 334 ePKIKP   PKPdf    14 53 09.3 -1.0
DPC                               MLR      MLR
      comp=Z,2µm,20.0s,MS5.8
DPC   Dobruska-Polom   144.71 334 ePKP     PKPdf    14 53 09.3 -1.0
DPC                               epPKP    pPKPdf   14 53 27.1 +7.4
DPC                               ex       x        15 20 53.0
DPC                               AMS      AMS      15 55 20.0
      comp=Z,2µm,20.0s
UPC   Upice            144.71 334 ePKP     PKPdf    14 53 09.0 -1.3
UPC   Upice            144.71 334 ePKIKP   PKPdf    14 53 09.0 -1.3
UPC   Upice            144.71 334 ePKP     PKPdf    14 53 09.0 -1.3
PSZ   Piszkesteto      144.84 328 ePKPdf   PKPdf    14 53 09.0 -1.7
PSZ   Piszkesteto      144.84 328 PKIKP    PKPdf    14 53 10.1 -0.5
PSZ   Piszkesteto      144.84 328 ⇓ePKP/p  PKPdf    14 53 09.8 -0.8
PSZ   Piszkesteto      144.84 328 ⇑iP      PKPdf    14 53 09.0 -1.6
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GZR   Gura Zlata       144.89 323 P        PKPdf    14 53 10.0 -0.8
GZR   Gura Zlata       144.89 323 ⇓PKIKP   PKPdf    14 53 09.9 -0.9
GZR   Gura Zlata       144.89 323 ⇓iP      PKPdf    14 53 09.9 -0.9
VYHS  Vyhne            144.96 330 i PKP    PKPdf    14 53 09.7 -1.1
VYHS  Vyhne            144.96 330 i PKIKP  PKPdf    14 53 09.7 -1.1
VYHS  Vyhne            144.96 330 i PKP    PKPdf    14 53 09.7 -1.1
KOLL  Kolacno          145.10 330 ePKP     PKPdf    14 53 10.3 -0.7
KOLL  Kolacno          145.10 330 ePKIKP   PKPdf    14 53 10.3 -0.7
KOLL  Kolacno          145.10 330 ePKP     PKPdf    14 53 10.3 -0.7
CLL   Collm            145.21 338 i PKP    PKPdf    14 53 10.1 -1.0
CLL                               i                 14 53 21.3
CLL                               LR       LR
      comp=Z,1µm,21.7s,MS5.6
CLL   Collm            145.21 338 i PKIKP  PKPdf    14 53 10.1 -1.0
CLL                               i                 14 53 21.3
CLL                               pmax     pmax
      comp=Z,52nm,1.0s
CLL                               MLR      MLR
      comp=Z,1µm,21.7s,MS5.6
CLL   Collm            145.21 338 ePKPbc   PKPbc    14 53 10.1 -0.7
CLL   Collm            145.21 338 i PKPdf  PKPdf    14 53 10.1 -1.0
      comp=Z,52nm,1.0s
CLL                               i pPKiKP          14 53 21.3
CLL                               i x      x        14 53 28.6
CLL                               epSKSP            15 06 52.0
CLL                               ex       x        15 10 30.0
CLL                               ex       x        15 11 19.0
CLL                               eSS      SS       15 15 24.0 +5.8
CLL                               ex       x        15 17 06.0
CLL                               eSSS              15 20 53.0
CLL                               e(SSSS)           15 25 00.0
CLL                               LmV               15 58 00.0
      comp=Z,1µm,21.7s
BRG   Berggiesshubel   145.23 337 i PKP    PKPdf    14 53 10.4 -0.7
BRG                               i                 14 53 18.4
BRG   Berggiesshubel   145.23 337 i PKIKP  PKPdf    14 53 10.4 -0.8
BRG                               i                 14 53 18.4
BRG                               pmax     pmax
      comp=Z,30nm,1.1s
BRG                               pmax     pmax
      comp=Z,25nm,1.3s
BRG   Berggiesshubel   145.23 337 ePKPbc   PKPbc    14 53 10.0 -0.9
BRG   Berggiesshubel   145.23 337 i PKP    PKPdf    14 53 10.4 -0.7
      comp=Z,49nm,1.1s
BRG                               i                 14 53 18.4
      comp=Z,42nm,1.3s
BRG                               e                 15 55 43.0
PVCC  Panska Ves       145.27 336 ePKP     PKPdf    14 53 11.1 -0.2
PVCC  Panska Ves       145.27 336 ePKIKP   PKPdf    14 53 11.1 -0.2
PVCC                              MLR      MLR
      comp=Z,2µm,22.1s,MS5.8
PVCC  Panska Ves       145.27 336 ePKP     PKPdf    14 53 11.1 -0.2
PVCC                              AMS      AMS      15 51 00.0
      comp=Z,2µm,22.1s
KDAG  Bornova          145.32 309 i P      PKPbc    14 53 10.8 -0.8
VRAC  Vranov           145.38 333 P        PKPbc    14 53 11.3 -0.1
VRAC  Vranov           145.38 333 ⇑PKIKP   PKPdf    14 53 10.4 -1.1
VRAC  Vranov           145.38 333 ⇑iP      PKPbc    14 53 10.4 -1.0
BZS   Buzias           145.41 324 P        PKPbc    14 53 11.4 -0.3
BZS   Buzias           145.41 324 ⇓PKIKP   PKPdf    14 53 10.8 -0.9
BZS   Buzias           145.41 324 ⇓iP      PKPbc    14 53 10.8 -0.9
BUD   Budapest         145.57 328 ⇓ePKP/p  PKPdf    14 53 12.1 +0.2
SMOL  Smolenice        145.60 331 ePKP     PKPdf    14 53 12.0 +0.1
SMOL  Smolenice        145.60 331 ePKIKP   PKPdf    14 53 12.0 +0.1
SMOL  Smolenice        145.60 331 ePKP     PKPdf    14 53 12.0 +0.1
BOZC  Bozcaada         145.62 312 i P      PKPdf    14 53 09.0 -3.2
CLZ   Clausthal        145.63 341 ePKPbc   PKPbc    14 53 11.3 -0.8
CLZ   Clausthal        145.63 341 ePKIKP   PKPdf    14 53 11.3 -0.5
CLZ   Clausthal        145.63 341 ePKPbc   PKPbc    14 53 11.3 -0.8
BDRM  Kayabasi         145.66 307 i P      PKPdf    14 53 05.9 -6.5
PRU   Pruhonice        145.71 335 ePKP     PKPdf    14 53 11.9 -0.1
PRU                               e                 14 53 29.8
PRU                               e                 15 21 25.0
PRU                               LR       LR
      comp=Z,1µm,21.2s,MS5.7
PRU   Pruhonice        145.71 335 ePKP2    PKPab    14 53 11.9 -0.9
PRU                               MLR      MLR
      comp=Z,1µm,21.2s,MS5.7
PRU   Pruhonice        145.71 335 ePKP     PKPdf    14 53 11.9 -0.1
PRU                               ex       x        14 53 29.8
PRU                               ex       x        15 21 25.0
PRU                               AMS      AMS      15 51 40.0
      comp=Z,1µm,21.2s
TREC  Trest            145.86 334 ePKP2    PKPab    14 53 12.8 -0.6
TREC                              MLR      MLR
      comp=Z,2µm,24.5s,MS5.8
TREC  Trest            145.86 334 ePKP     PKPdf    14 53 12.8 +0.5
TREC                              AMS      AMS      15 56 50.0
      comp=Z,2µm,24.5s
IBBN  Ibbenburen       145.96 344 ePKPbc   PKPbc    14 53 13.2 +0.1
ZST   Bratislava       145.98 331 ePKP     PKPdf    14 53 13.6 +1.0
ZST                               e                 14 53 21.4
ZST                               LR       LR
      comp=Z,1µm,22.5s,MS5.7
ZST   Bratislava       145.98 331 ePKP2    PKPab    14 53 13.6 -0.2
ZST                               MLR      MLR
      comp=Z,1µm,22.5s,MS5.7
ZST   Bratislava       145.98 331 ePKP     PKPdf    14 53 13.5 +0.9
ZST                               e                 14 53 21.4
TANN  Tannenbergstha   146.14 338 ePKPbc   PKPbc    14 53 12.7 -1.0
MOX   Moxa             146.25 339 ePKP     PKPdf    14 53 13.6 +0.7
MOX   Moxa             146.25 339 ePKP     PKPdf    14 53 13.6 +0.7
      comp=Z,38nm,1.8s
MOX   Moxa             146.25 339 ePKP2    PKPab    14 53 13.6 -1.2
MOX                               pmax     pmax
      comp=Z,38nm,1.8s
MOX   Moxa             146.25 339 ePKPbc   PKPbc    14 53 13.1 -0.9
NKC   Novy Kostel      146.30 337 ePKP     PKPdf    14 53 13.6 +0.6
NKC   Novy Kostel      146.30 337 ePKP2    PKPab    14 53 13.6 -1.4
NKC                               MLR      MLR
      comp=Z,1µm,20.9s,MS5.7
NKC   Novy Kostel      146.30 337 ePKP     PKPdf    14 53 13.6 +0.6
NKC                               AMS      AMS      15 59 40.0
      comp=Z,1µm,20.9s
SOP   Sopron           146.60 331 ⇓ePKP/p  PKPdf    14 53 15.3 +1.7
PKSM  Moragy           146.62 327 ⇑PKP2    PKPab    14 53 15.2 -1.2
PKSM  Moragy           146.62 327 ⇑iP      PKPdf    14 53 15.2 +1.5
MANZ  Manzenberg       146.63 337 ePKPbc   PKPbc    14 53 14.3 -0.9
CONA  Conrad Observa   146.74 332 ⇓iPKPab  PKPab    14 53 15.8 -1.0
      comp=Z,18nm,1.5s
KHC   Kasperske Hory   146.77 335 ePKP     PKPdf    14 53 15.3 +1.4
KHC                               e                 14 53 33.8
KHC                               e                 15 21 40.9
KHC                               LR       LR
      comp=Z,2µm,30.1s,MS5.7
KHC   Kasperske Hory   146.77 335 ePKP2    PKPab    14 53 15.3 -1.5
KHC                               MLR      MLR
      comp=Z,2µm,30.1s,MS5.7
KHC   Kasperske Hory   146.77 335 ePKP     PKPdf    14 53 15.3 +1.4
KHC                               ex       x        14 53 33.8
KHC                               ex       x        15 21 40.9
KHC                               AMS      AMS      15 51 20.0
      comp=Z,2µm,30.1s
ROTZ  Rotzenmuhle      146.77 337 ePKPbc   PKPbc    14 53 14.3 -1.3
GEC2  GERESS Array S   146.95 335 ePKPbc   PKPbc    14 53 15.4 -0.8
GEC2  GERESS Array S   146.95 335 ePKP2    PKPbc    14 53 15.3 -0.8
GEC2  GERESS Array S   146.95 335 ePKPbc   PKPbc    14 53 15.3 -0.8
GERES GERESS Array B   146.95 335 PKPbc    PKPbc    14 53 15.3 -0.9
GERES GERESS Array B   146.95 335 PKP2     PKPbc    14 53 15.3 -0.8
GERES GERESS Array B   146.95 335 PKPbc    PKPbc    14 53 15.3 -0.9
      comp=Z,7.2nm,0.9s,baz=42,slow=1.6,SNR=23
GRF   Grafenberg Arr   147.19 338 ePKP     PKPdf    14 53 15.9 +1.3
GRF   Grafenberg Arr   147.19 338 ePKP2    PKPbc    14 53 15.9 -0.9
GRF   Grafenberg Arr   147.19 338 ePKP2    PKPbc    14 53 15.9 -0.9
GRF   Grafenberg Arr   147.19 338 ePKPbc   PKPbc    14 53 15.9 -0.9
GRFO  Grafenberg       147.19 338 PFAKE             14 53 30.0 +15
GRFO                              LR       LR
      comp=Z,1µm,22.0s,MS5.6
VAY   Valandovo        147.27 317 ePKP     PKPdf    14 53 15.0 +0.1
TNS   Taunus Mts       147.63 341 ePKPbc   PKPbc    14 53 16.8 -1.2
TNS                               ePKPab   PKPab    14 53 19.9 -0.3
TNS   Taunus Mts       147.63 341 ePKP2    PKPbc    14 53 16.8 -1.2
TNS   Taunus Mts       147.63 341 ePKPbc   PKPbc    14 53 16.8 -1.2
TNS                               ePKPab   PKPab    14 53 19.9 -0.3
SKO   Skopje           147.64 318 ePKP     PKPbc    14 53 18.8 +0.5
MEM   Membach          147.96 344 PKPab    PKPab    14 53 21.6 +0.1
MEM                               E                 14 53 28.8
KRUS  Krusevo          148.09 318 ePKP     PKPbc    14 53 18.5 -1.0
BCLA  Clavier          148.31 345 PKPab    PKPab    14 53 22.2 -0.7
SNF   Seneffe          148.47 346 PKPab    PKPab    14 53 23.2 -0.3
OHR   Ohrid            148.51 318 ePKP     PKPbc    14 53 20.3 -0.3
DOU   Dourbes          148.78 346 PKPbc    PKPbc    14 53 20.9 -0.1
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DOU				PKPab	PKPab	14 53 23.2	-1.6
WLF	Walferdange	148.79	343	PKPbc	PKPbc	14 53 20.7	-0.4
WLF				*e*PKPab	PKPab	14 53 24.8	0.0
WLF	Walferdange	148.79	343	PKP2	PKPbc	14 53 20.7	-0.4
WLF	Walferdange	148.79	343	PKPbc	PKPbc	14 53 21.3	+0.3
WLF				APKPbc		14 53 25.8	
WLF	Walferdange	148.79	343	*e*PKPbc	PKPbc	14 53 21.2	+0.1
WLF				*e*PKPab	PKPab	14 53 25.4	+0.6
WTTA	Wattenberg	149.04	335	⇓*i*P	PKPbc	14 53 21.4	-0.4
	comp=Z,28nm,1.2s						
WTTA	Wattenberg	149.04	335	⇓*i*PKPbc	PKPbc	14 53 21.4	-0.4
	comp=Z,28nm,1.2s						
WTTA	Wattenberg	149.04	335	⇓*i*PKP2	PKPbc	14 53 21.4	-0.4
BFO	Black Forest	149.34	340	*e*PKPbc	PKPbc	14 53 21.3	-1.2
BFO				*e*PKPab	PKPab	14 53 27.0	-0.1
BFO	Black Forest	149.34	340	*e*PKP2	PKPbc	14 53 21.3	-1.2
BFO	Black Forest	149.34	340	*e*PKPbc	PKPbc	14 53 21.3	-1.2
BFO				*e*PKPab	PKPab	14 53 27.0	-0.1
CDF	Champ du Feu	149.60	341	*e*PKP1	PKPbc	14 53 22.1	-1.0
	comp=Z,48nm,1.1s						
CDF	Champ du Feu	149.60	341	*e*PKP	PKPbc	14 53 22.1	-1.0
CDF	Champ du Feu	149.60	341	*e*PKP2	PKPbc	14 53 22.1	-1.0
FETA	Feichten	149.60	336	⇓*i*PKiKP	PKiKP	14 53 22.7	-1.5
	comp=Z,18nm,1.0s						
MEZF	Maizieres J'vi	150.15	344	*e*PKP1	PKPbc	14 53 24.0	-0.5
MEZF	Maizieres J'vi	150.15	344	*e*PKP	PKPbc	14 53 24.0	-0.5
HAU	Haudompre	150.24	342	*e*PKP1	PKPbc	14 53 23.6	-1.1
	comp=Z,37nm,0.9s						
HAU	Haudompre	150.24	342	*e*PKP	PKPbc	14 53 23.6	-1.1
HAU	Haudompre	150.24	342	*e*PKIKP	PKPbc	14 53 23.6	-1.1
HINF	Hinteralfeld	150.25	341	*e*PKP1	PKPbc	14 53 23.4	-1.3
HINF	Hinteralfeld	150.25	341	*e*PKP	PKPbc	14 53 23.4	-1.3
HINF	Hinteralfeld	150.25	341	*e*PKIKP	PKPbc	14 53 23.4	-1.3
CABF	La Chapelle	151.57	341	*e*PKP1	PKPbc	14 53 27.2	-0.7
CABF	La Chapelle	151.57	341	*e*PKP	PKPbc	14 53 27.2	-0.7
CABF	La Chapelle	151.57	341	*e*PKIKP	PKPbc	14 53 27.2	-0.7
LOR	Lormes	151.59	344	*e*PKP1	PKPbc	14 53 26.7	-1.2
LOR	Lormes	151.59	344	*e*PKP	PKPbc	14 53 26.7	-1.2
LOR	Lormes	151.59	344	*e*PKIKP	PKPbc	14 53 26.7	-1.2
SSF	Saint Saulge	151.87	345	*e*PKP1	PKPbc	14 53 27.4	-1.1
	comp=Z,19nm,0.9s						
SSF	Saint Saulge	151.87	345	*e*PKP	PKPbc	14 53 27.4	-1.1
SSF	Saint Saulge	151.87	345	*e*PKIKP	PKPbc	14 53 27.4	-1.1
LPL	La Plagne	152.33	339	*e*PKP1	PKPbc	14 53 29.0	-0.6
	comp=Z,44nm,1.2s						
LPL	La Plagne	152.33	339	*e*PKP	PKPbc	14 53 29.0	-0.6
LPL	La Plagne	152.33	339	*e*PKIKP	PKPbc	14 53 29.0	-0.6
LPG	La Plagne	152.34	339	*e*PKP1	PKPbc	14 53 29.2	-0.5
	comp=Z,27nm,1.0s						
LPG	La Plagne	152.34	339	*e*PKP	PKPbc	14 53 29.2	-0.5
LPG	La Plagne	152.34	339	*e*PKIKP	PKPbc	14 53 29.2	-0.5
ESDC	Sonseca Array	160.42	353	PKPab	PKPab	14 54 13.9	-0.5
	comp=Z,0.6nm,0.4s,baz=357,slow=4.5,SNR=8.3						
ESLA	Sonseca Array	160.42	353	PFAKE		14 53 40.0	+6.4
ESLA				LR	LR		
	comp=Z,10µm,21.0s						
PAB	San Pablo	160.59	354	PFAKE		14 53 40.0	+6.3
PAB				LR	LR		
	comp=Z,2µm,20.0s						
TORD	Torodi Ar. Bea	169.12	231	PKP	PKPdf	14 53 40.1	-1.7
TORD				PKPab	PKPab	14 54 51.7	-1.8
TORD	Torodi Ar. Bea	169.12	231	PKP	PKPdf	14 53 40.1	-1.7
	comp=Z,4.3nm,1.1s,baz=23,slow=0.5,SNR=12						
TORD				PKPab	PKPab	14 54 51.7	-1.8
	comp=Z,2.6nm,1.0s,baz=115,slow=3.9,SNR=4.5						

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*NEIC **19** 14:37:48.8, 17.01N×100.28W, h13^{km}, MD4.0(MEX), After MEX.*

MEX 19 14:37:49.5±0.7**, 17.04N×100.27W, h12**^{km}±5^{km}**, MD4.0, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	0.01	345	*i* P	Pg	14 37 50.4	-1.1
CAIG				*i* S	Sg	14 37 51.5	-1.4
ACX	Acapulco	0.38	118	*i* P	Pg	14 37 55.0	-2.0
ACX				*i* S	Sg	14 38 01.0	-1.1
MEIG	Mezcala	1.07	35	*i* P	Pb	14 38 07.6	-2.5
MEIG				*i* S	Sb	14 38 18.3	-5.7
PLIG	Platanillo	1.53	28	*e*P	Pn	14 38 13.4	-3.2
PLIG				*i* S	Sn	14 38 33.0	-3.5
PLIG	Platanillo	1.53	28	*e*P	Pn	14 38 13.4	-3.2
PLIG				*i* S	Sn	14 38 32.0	-4.5
YAIG	Yautepec	2.14	32	*e*P	Pn	14 38 20.9	-4.2
YAIG				*i* S	Sn	14 38 46.3	-5.3
YAIG	Yautepec	2.14	32	*e*P	Pn	14 38 22.3	-2.8
YAIG				*i* S	Sn	14 38 46.3	-5.3
PNIG	Pinotepa	2.15	107	*e*P	Pn	14 38 22.2	-3.0
PNIG				*i* S	Sn	14 38 47.4	-4.5
SZVM	Salazar	2.42	20	*i* P	Pn	14 38 25.8	-3.1
SZVM				*i* S	Sn	14 38 55.0	-3.5
UTMO	Huajuapan	2.48	71	*e*P	Pn	14 38 26.4	-3.4
UTMO				*i* S	Sn	14 38 55.1	-4.9
PPM	Popocatepetl	2.55	38	*e*P	Pn	14 38 29.1	-1.6
PPM				*i* S	Sn	14 38 59.4	-2.2
MOIG	Morelia	2.76	342	*e*P	Pn	14 38 31.0	-2.7
MOIG				*i* S	Sn	14 39 00.9	-6.1
MOIG	Morelia	2.76	342	*e*P	Pn	14 38 31.4	-2.3
MOIG				*i* S	Sn	14 39 02.0	-5.0
PTVM	Pico Tres Padr	2.76	23	*i* P	Pn	14 38 31.0	-2.6
PTVM				*i* S	Sn	14 39 01.1	-5.9
IIO	Organos	2.93	30	*i* P	Pn	14 38 33.9	-2.0
IIO				*i* S	Sn	14 39 08.2	-2.9
TPIG	Tehuac#an	3.09	63	*i* S	Sn	14 39 09.4	-5.6
VHO	Vista Hermosa	3.38	89	*e*P	Pn	14 38 39.8	-2.3
VHO				*i* S	Sn	14 39 18.2	-4.0

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*MOS **19** 15:13:18.5±0.9, 4.31S×102.98E, h33^{km}, mb5.7/63, MS4.9/12, Error ellipse: s-maj=9.0km s-min=4.8km az=115.8*

*ISCJB **19** 15:13:20.0±0.2, 4.47S±0.03×102.80E±0.03, h46^{km}, mb5.4/147, MS4.8/42, Error ellipse: s-maj=4.3km s-min=3.4km az=26.8*

*BJI **19** 15:13:22.3, 4.40S×103.00E, h44^{km}, mB5.4, mb5.4, Ms5.0, Msz4.8*

*GCMT **19** 15:13:22.3±0.2, 4.81S×102.84E, h79^{km}±1^{km}, MW5.4/73, Moment Tensor Solution. s56,c87; s73,c120; Duration: 1.2 Moment tensor: Scale 10^{17}Nm; M_{rr}1.05±.04; $M_{\theta\theta}$-0.96±.04; $M_{\phi\phi}$-0.09±.05; $M_{r\theta}$0.55±.03; $M_{\theta\phi}$0.87±.03; $M_{\phi r}$-0.57±.03; Best double couple: $M_0$1.51000×10^{17} NP1:ϕ_s287.00000°,δ31.00000°,λ67.00000°. NP2: ϕ_s133.00000°,δ62.00000°,λ103.00000°. Principal axes: T 1.3050, Plg70.0000°, Azm71.0000°; N 0.4080, Plg12.0000°, Azm306.0000°; P -1.7150, Plg16.0000°, Azm213.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **19** 15:13:22.3±0.1, 4.39S×102.98E, mb5.4/75 Error ellipse: s-maj=6.2km s-min=3.6km az=47.0*

NEIC Felt [IV] at Bengkulu and Krui; [III] at Kapahiang.

*IDC **19** 15:13:24.6±1.2, 4.46S×102.99E, h75^{km}±9^{km}, mb4.9/21, mb1 5.0/22, mb1mx5.0/22, mbtmp4.9/22, MS4.7/13, Ms1 4.7/13, ms1mx4.5/31, Error ellipse: s-maj=14.5km s-min=7.6km az=54.0*

ISC 19 15:13:21.9±0.2**, 4.49S**±0.03×**102.79E**±0.02**, h48**^{km}**, h48**^{km}±4.0^{km}**:pP-P, n747, σ1.03**/511**, mb5.4**/147**, MS4.8**/42**, 121C-128D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSI	Kapahiang	0.85	346	P	Pn	15 13 40.4	+2.7
	61µm,0.8s						
SBJI	Serang	3.70	116	P	Pn	15 14 19.7	+3.1
	1µm,1.0s						
TNG	Tangerang	4.18	114	P	Pn	15 14 26.5	+3.2
	5µm,0.9s						
PPI	Padang Panjang	4.66	329	P	Pn	15 14 32.7	+2.8
	745nm,1.3s						
TPI	Tanjungpandan	5.14	71	P	Pn	15 14 38.7	+2.2
	459nm,1.2s						
LEM	Lembang	5.33	116	P	Pn	15 14 42.6	+3.5
	754nm,0.8s						
MYKOM	Kota Tinggi	6.32	10	⇑P	Pn	15 14 58.0	+5.4
KGM	Kluang	6.48	5	⇓P	Pn	15 15 00.0	+5.2
XMIS	Christmas Isla	6.60	155	*e*Pn	Pn	15 14 50.1	-6.3
XMIS				*e*Sn	Sn	15 15 54.5	-16
BJII	Banjamegara	7.44	113	P	Pn	15 15 10.2	+2.3
	102nm,1.9s						
FRIM	Kepong	7.76	351	⇑P	Pn	15 15 18.0	+5.7
PSI	Prapat	8.21	332	P	Pn	15 15 19.1	+0.6
	4.7nm,0.3s,baz=154,slow=7.4,SNR=14						
IPM	Ipoh	9.08	349	⇑P	Pn	15 15 35.9	+5.4
KSM	Kuching	9.56	52	*e*Pn	Pn	15 15 38.7	+1.7
KSM	Kuching	9.56	52	⇑P	Pn	15 15 41.1	+4.0
COCO	West Island	9.66	217	Pn	Pn	15 15 37.5	-0.9
	20µm,0.5s,SNR=40						
COCO	West Island	9.66	217	*e*Pn	Pn	15 15 36.1	-2.3
	2µm,0.5s						
COCO				*e*Sn	Sn	15 17 13.3	-12
COCO	West Island	9.66	217	Pn	Pn	15 15 37.6	-0.8
	SNR=11						
COCO	West Island	9.66	217	P	Pn	15 15 37.6	-0.8
	SNR=11						
KTGM	Kuala Trenggan	9.75	2	⇓P	Pn	15 15 46.5	+6.8
KULM	Kulim	9.94	348	*e*Pn	Pn	15 15 44.7	+2.4
KULM	Kulim	9.94	348	⇓P	Pn	15 15 46.1	+3.8
KRKI	Karangkates	10.27	111	P	Pn	15 15 52.4	+5.7
	376nm,0.5s						
KMMI	Kalianget	11.40	103	P	Pn	15 16 05.0	+2.7
	212nm,1.1s						
SBUM	Sibu	11.67	54	⇑P	Pn	15 16 13.1	+7.2
SNG	Songkhla	11.79	349	P	Pn	15 16 13.0	+5.5
	342nm,1.0s						
BSI	Banda Aceh	12.43	323	P	Pn	15 16 14.6	-1.6
	123nm,1.0s						
BTM	Bintulu	12.80	54	⇓P	Pn	15 16 25.8	+4.3
DNP	Denpasar	13.02	109	P	Pn	15 16 26.5	+2.2
	526nm,0.7s						
KKM	Kota Kinabalu	17.00	52	*e*P	Pn	15 17 17.9	+1.5
KKM	Kota Kinabalu	17.00	52	⇑P	Pn	15 17 20.2	+3.7
NNT	Nongplab	17.23	350	P	Pn	15 17 22.2	+2.9
PCI	Palu	17.39	79	P	Pn	15 17 23.4	+2.1
	644nm,1.4s						
TSM	Tawau	17.41	60	⇑P	Pn	15 17 25.2	+3.7
SDKM	Sandakan	17.55	55	⇓P	Pn	15 17 26.5	+3.3
KDM	Kudat	18.02	51	⇑P	Pn	15 17 32.3	+3.3
MYLDM	Lahad Datu	18.39	59	⇑P	Pn	15 17 37.5	+3.9
BATP	Bataraza	19.95	49	*e*P	Pn	15 17 52.2	0.0
BATP						02 06 39.0	
NST	Nakhon Sawan	20.20	353	⇓P	P	15 17 52.5	-0.3
	92nm,1.0s						
KKTK	Khon Kaen	20.69	0	P	P	15 18 00.0	+1.9
BDT	Bhumibol Dam	21.91	350	P	P	15 18 10.5	-0.7
	22nm,1.0s,mb4.5						
CM31	Chiang Mai Arr	23.11	351	*e*P	P	15 18 23.4	-0.5
	14nm,0.6s,mb4.6						
MBWA	Marble Bar	23.35	137	*e*P	P	15 18 25.1	-1.2
	48nm,0.8s,mb5.0						
MBWA				*e*S	S	15 22 36.0	+0.5
CHG	Chiang Mai	23.46	351	⇑P	P	15 18 26.8	-0.5
	108nm,1.0s,mb5.2						
CHTO	Chiang Mai	23.46	351	*e*P	P	15 18 26.0	-1.3
	112nm,1.1s,mb5.2						
CHTO				*e*PcP	PcP	15 22 12.1	-0.3
CHTO	Chiang Mai	23.46	351	*e*P	P	15 18 26.0	-1.3
CHTO				*e*		15 22 12.1	
CHTO				pmax	pmax		
	comp=Z,112nm,1.1s,mb5.2						
CHTO	Chiang Mai	23.46	351	P	P	15 18 26.6	-0.7
	SNR=53						
CHTO	Chiang Mai	23.46	351	P	P	15 18 26.6	-0.7
	SNR=53						
CUYO	Cuyo Island	23.69	50	*e*P	P	15 18 30.0	+0.5
BUSP	Coron	23.83	46	*e*P	P	15 18 30.1	-0.7
PAGZ	Pagadian	23.92	59	*e*P	P	15 18 32.6	+1.0
QIZ	Qiongzhong	24.38	16	P	P	15 18 37.4	+1.7
QIZ				AP		15 18 44.4	
QIZ				PP		15 19 12.5	
QIZ				S	S	15 22 40.0	-12
QIZ				AMB	AMB		
	comp=Z,42nm,1.4s,mb4.7						
QIZ				AMB	AMB		
	comp=Z,563nm,5.2s						
QIZ				LR	LR		
	comp=N,838nm,25.3s,MS4.2						
QIZ				LR	LR		
	comp=E,426nm,23.8s,MS4.2						
QIZ				LR	LR		
	comp=Z,2µm,35.0s						
QIZ	Qiongzhong	24.38	16	*e*P	P	15 18 36.7	+1.0
	comp=Z,295nm,1.8s,mb5.4						
GUIM	Jordan	24.77	53	*e*P	P	15 18 39.2	-0.2
PALK	Pallekele	24.95	298	P	P	15 18 44.5	+3.5
	comp=Z,309nm,1.6s,mb5.6,SNR=7.9						
PALK	Pallekele	24.95	298	*e*P	P	15 18 44.0	+2.9
	comp=Z,91nm,1.2s,mb5.2						
PALK	Pallekele	24.95	298	⇓P	P	15 18 45.2	+4.1
	SNR=5.2						
PALK	Pallekele	24.95	298	⇓P	P	15 18 45.2	+4.1
	SNR=5.2						
LUBP	Lubang	25.05	43	*e*P	P	15 18 42.4	+0.4
AAI	Ambon	25.35	89	P	P	15 18 45.8	+1.1
	comp=Z,65nm,1.0s,mb5.1						
BUKP	Musuan	25.38	61	*e*P	P	15 18 45.7	+0.7
OTRP	Odiongan	25.41	49	*e*P	P	15 18 45.9	+0.8
RCP	Roxas	25.46	51	⇑*e*P	P	15 18 46.7	+1.1
DAV	Davao City (W)	25.47	63	P	P	15 18 47.6	+1.8
	SNR=14						
DAV	Davao City (W)	25.47	63	P	P	15 18 47.6	+1.8
	SNR=14						
LLP	Lapu-Lapu	25.71	55	*e*P	P	15 18 47.7	-0.2
MATI	Mati	26.03	64	*e*P	P	15 18 49.7	-1.2
FITZ	Fitzroy Crossi	26.12	123	*e*P	P	15 18 50.6	-1.0
	comp=Z,65nm,0.6s,mb5.3						
FITZ	Fitzroy Crossi	26.12	123	P	P	15 18 50.9	-0.7
	comp=Z,30nm,0.5s,mb5.1,baz=298,slow=6.6,SNR=57						
FITZ				LR	LR	15 27 08.6	
	comp=Z,876nm,21.3s,MS4.3,baz=138,slow=32						
SCZP	Santa Cruz	26.31	40	*e*P	pP	15 19 04.0	-1.8
BOLP	Bolinao	26.77	39	*e*P	P	15 18 47.5	-10
BALP	Baler	27.38	42	*e*P	P	15 19 02.7	-0.2
PVCP	Virac	27.79	49	*e*P	P	15 19 06.0	-0.6
CAUP	Cauayan	28.41	41	*e*P	P	15 19 11.8	-0.3
GZH	Guangzhou	29.28	20	P	P	15 19 24.8	+5.0
GZH				S	S	15 24 11.1	+1.5
GZH				LR	LR		
	comp=N,1µm,17.4s,MS4.7						
GZH				LR	LR		
	comp=E,1µm,19.3s,MS4.7						
GZH				LR	LR		
	comp=Z,2µm,23.9s,MS4.6						
KMI	Kunming	29.43	360	P	P	15 19 23.3	+2.2
KMI				AP	pP	15 19 33.0	-0.7
KMI				PP	PP	15 20 20.8	-7.5
KMI				PPP		15 20 34.5	
KMI				S	S	15 24 13.3	+1.4
KMI				XS	sS	15 24 30.5	-2.7
KMI				SS	SS	15 25 49.6	-29
KMI				SSS		15 26 10.1	
KMI				AMB	AMB		
	comp=Z,41nm,1.0s,mb5.1						
KMI				AMB	AMB		
	comp=Z,218nm,5.9s						
KMI				LR	LR		
	comp=N,2µm,15.1s,MS4.9						
KMI				LR	LR		
	comp=E,1µm,17.1s,MS4.9						
KMI				LR	LR		
	comp=Z,2µm,14.6s,MS4.9						
KMI	Kunming	29.43	360	P	P	15 19 23.2	+2.1
	comp=Z,41nm,1.0s,mb5.1						
KMI				pP	pP	15 19 33.0	-0.7
KMI				sP	sP	15 19 36.3	-3.2
KMI				PP	PP	15 20 20.7	-7.6
KMI				PPP		15 20 34.5	
KMI				S	S	15 24 13.2	+1.3
KMI				sS	sS	15 24 30.5	-2.7
KMI				SS	SS	15 25 49.6	-29
KMI				SSS		15 26 10.1	
KMI				LR	LR		
	comp=Z,2µm,14.6s,MS4.9						
KMI	Kunming	29.43	360	P	P	15 19 23.2	+2.1
KMI				*PP	pP	15 19 33.0	-0.7
KMI				*SP	sP	15 19 36.3	-3.2
KMI						15 20 20.7	
KMI				PPP		15 20 34.5	
KMI				S	S	15 24 13.2	+1.3
KMI				*SS	sS	15 24 30.5	-2.7
KMI				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.1						
KMI				MLR	MLR		
	comp=Z,2µm,14.6s,MS4.9						
TLE	Tual	29.85	93	P	P	15 19 21.6	-3.4
	comp=Z,3µm,0.9s						
MUN	Mundaring	30.11	157	*e*P	P	15 19 27.9	+0.9
KAKA	Kakadu	30.40	107	*e*P	P	15 19 26.5	-3.4
	comp=Z,27nm,0.5s,mb5.2						
GYA	Guiyang	30.99	7	⇓*i*P	P	15 19 36.8	+2.0
GYA				AP	pP	15 19 45.5	-2.0
GYA				PP	PP	15 20 39.8	-5.8
GYA				PPP		15 20 54.9	
GYA				PCP	PcP	15 22 31.9	+1.7
GYA				S	S	15 24 39.3	+3.0
GYA				SCP	ScP	15 26 11.3	+2.0
GYA				SS	SS	15 26 25.3	-25
GYA				SSS		15 26 47.5	
GYA				SCS	ScS	15 30 07.0	+0.7
GYA				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.4						
GYA				AMB	AMB		
	comp=Z,290nm,6.0s						
GYA				LR	LR		
	comp=N,2µm,17.0s,MS5.0						
GYA				LR	LR		
	comp=E,2µm,17.5s,MS5.0						
GYA				LR	LR		
	comp=Z,4µm,17.8s,MS5.1						
NWAO	Narrogin (SRO)	31.35	156	*e*P	P	15 19 38.3	+0.3
	comp=Z,53nm,1.1s,mb5.3						
NWAO	Narrogin (SRO)	31.35	156	*e*P	P	15 19 38.3	+0.3
NWAO				pmax	pmax		
	comp=Z,53nm,1.1s						
NWAO	Narrogin (SRO)	31.35	156	P	P	15 19 38.0	0.0
	comp=Z,7.8nm,0.8s,mb4.6,baz=342,slow=9.6,SNR=4.3						
NWAO				LR	LR	15 30 19.8	
	comp=Z,2µm,21.9s,MS4.7,baz=331,slow=32						
HYB	Hyderabad	32.35	313	*e*P	P	15 19 47.5	+0.6
HYB	Hyderabad	32.35	313	*i* P	P	15 19 47.5	+0.6
NACB	Ninganchiao	33.86	32	*e*P	P	15 19 58.7	-1.4
WRA	Warramunga Arr	34.34	119	P	P	15 20 03.3	-1.1
WRA				S	S	15 25 22.5	-6.3
WRA				LR	LR	15 33 42.4	
WRA				*e*		15 51 06.2	
WRA	Warramunga Arr	34.34	119	P	P	15 20 03.3	-1.1
WRA				S	S	15 25 22.5	-6.3
WRA	Warramunga Arr	34.34	119	P	P	15 20 03.3	-1.1
	comp=Z,40nm,0.7s,mb5.5,baz=300,slow=8.8,SNR=293						
WRA				S	S	15 25 22.5	-6.3
	comp=Z,4.4nm,0.9s,baz=293,slow=14,SNR=5.5						
WRA				LR	LR	15 33 42.4	
	comp=Z,774nm,18.1s,MS4.5,baz=285,slow=36						
WRA				P3KPbc		15 51 06.2	
	comp=Z,1.9nm,0.7s,baz=104,slow=4.3,SNR=26						
WB2	Warramunga Arr	34.35	119	*e*P	P	15 20 03.0	-1.4
ODAN	Odare	34.54	335	*e*P	P	15 20 06.2	+0.3
	comp=Z,135nm,0.7s,mb6.0						
ODAN	Odare	34.54	335	*e*P	P	15 20 05.8	-0.1
	comp=Z,123nm,0.8s,mb5.9						
TAPN	Taplejung	34.84	336	*e*P	P	15 20 09.1	+0.6
	comp=Z,260nm,0.9s,mb6.2						
TAPN	Taplejung	34.84	336	*e*P	P	15 20 09.0	+0.5
	comp=Z,260nm,0.9s,mb6.2						
CD2	Chengdu	35.21	1	P	P	15 20 11.1	-0.5
CD2				PP	PP	15 21 31.6	-0.7
CD2				PCP	PcP	15 22 42.0	+0.1
CD2				S	S	15 25 42.9	+1.2
CD2				XS	sS	15 25 58.8	-4.4
CD2				SS	SS	15 28 01.6	-15
CD2				SCS	ScS	15 30 26.5	-1.5
CD2				AMB	AMB		
	comp=Z,130nm,1.0s,mb5.8						
CD2				AMB	AMB		
	comp=Z,370nm,12.0s						
CD2				LR	LR		
	comp=N,2µm,15.8s						
CD2				LR	LR		
	comp=E,3µm,21.6s						
CD2				LR	LR		
	comp=Z,2µm,17.0s,MS4.9						
FORT	Forrest	35.36	141	*e*P	P	15 20 14.1	+1.1
	comp=Z,25nm,0.4s,mb5.5						
ASAR	Alice Springs	35.55	125	P	P	15 20 14.1	-0.6
ASAR				PcP	PcP	15 22 42.9	-0.2
ASAR				S	S	15 25 41.8	-5.4
ASAR				ScP	ScP	15 26 22.5	-2.8
ASAR				ScS	ScS	15 30 27.4	-2.8
ASAR				*e*		15 50 59.6	
ASAR	Alice Springs	35.55	125	P	P	15 20 14.1	-0.6
ASAR						15 22 42.9	
ASAR				S	S	15 25 41.8	-5.4
ASAR						15 30 27.4	
ASAR	Alice Springs	35.55	125	P	P	15 20 14.1	-0.6
	comp=Z,17nm,0.3s,mb5.5,baz=296,slow=7.6,SNR=443						
ASAR				PcP	PcP	15 22 42.9	-0.2
	comp=Z,11nm,0.8s,baz=310,slow=3.0,SNR=5.7						
ASAR				S	S	15 25 41.8	-5.4
	comp=Z,9.4nm,1.1s,baz=302,slow=15,SNR=12						
ASAR				ScP	ScP	15 26 22.5	-2.8
	comp=Z,11nm,1.1s,baz=292,slow=4.7,SNR=6.5						
ASAR				ScS	ScS	15 30 27.4	-2.8
	comp=Z,1.7nm,1.0s,baz=281,slow=5.3,SNR=4.7						
ASAR				P3KPbc		15 50 59.6	
	comp=Z,0.4nm,0.7s,baz=124,slow=4.3,SNR=6.9						
JIRN	Jiri	35.75	334	*e*P	P	15 20 17.3	+1.0
	comp=Z,51nm,0.2s,mb6.1						
JIRN	Jiri	35.75	334	*e*P	P	15 20 17.3	+1.0
	comp=Z,51nm,0.2s,mb6.1						
LSA	Lhasa	35.78	343	P	P	15 20 17.0	+0.5
LSA				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.3						
LSA				LR	LR		
	comp=N,540nm,30.1s						
LSA				LR	LR		
	comp=E,740nm,36.3s						
LSA				LR	LR		
	comp=Z,1µm,28.5s,MS4.4						
LSA	Lhasa	35.78	343	*e*P	P	15 20 16.9	+0.4
	comp=Z,66nm,1.0s,mb5.5						
LSA	Lhasa	35.78	343	*e*P	P	15 20 16.9	+0.4
LSA				pmax	pmax		
	comp=Z,66nm,1.0s,mb5.5						
KKN	Kakani	36.26	333	*e*P	P	15 20 21.0	+0.3
	comp=Z,480nm,1.2s,mb6.3						
KKN	Kakani	36.26	333	*e*P	P	15 20 21.1	+0.4
	comp=Z,480nm,1.2s,mb6.3						
WHN	Wuhan	36.54	17	⇓P	P	15 20 23.8	+0.8
WHN				PCP	PcP	15 22 45.5	-0.4
WHN				S	S	15 26 08.5	+6.3
WHN				AMB	AMB		
	comp=Z,77nm,1.4s,mb5.3						
WHN				LR	LR		
	comp=Z,3µm,25.6s,MS5.0						
GKN	Gorkha	36.74	333	*e*P	P	15 20 25.1	+0.3
	comp=Z,735nm,1.2s,mb6.4						
GKN	Gorkha	36.74	333	*e*P	P	15 20 25.0	+0.2
	comp=Z,735nm,1.2s,mb6.4						
XAN	Xi'an	38.75	8	P	P	15 20 42.0	+0.3
XAN				S	S	15 26 30.8	-4.8
XAN				AMB	AMB		
	comp=Z,77nm,0.9s,mb5.4						
XAN				LR	LR		
	comp=N,759nm,16.8s,MS4.7						
XAN				LR	LR		
	comp=E,476nm,16.4s,MS4.7						
XAN				LR	LR		
	comp=Z,1µm,13.1s,MS4.9						
NJ2	Nanjing	39.42	22	*e*P	P	15 20 46.4	-0.9
NJ2				AP	pP	15 20 56.3	-3.9
NJ2				PP	PP	15 22 20.0	+1.5
NJ2				S	S	15 26 43.0	-2.7
NJ2				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
NJ2				AMB	AMB		
	comp=Z,580nm,4.7s						
NJ2				LR	LR		
	comp=N,2µm,23.8s,MS5.1						
NJ2				LR	LR		
	comp=E,2µm,23.6s,MS5.1						
NJ2				LR	LR		
	comp=Z,2µm,23.6s,MS4.8						
SSE	Sheshan	39.50	25	P	P	15 20 48.4	+0.4
SSE				PCP	PcP	15 22 55.5	+0.5
SSE				S	S	15 26 49.3	+2.4
SSE				AMB	AMB		
	comp=Z,37nm,1.0s,mb5.1						
SSE				AMB	AMB		
	comp=Z,341nm,12.0s						

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SSE                              LR     LR
      comp=N,472nm,25.0s,MS4.4
SSE                              LR     LR
      comp=E,514nm,25.0s,MS4.4
SSE                              LR     LR
      comp=Z,721nm,20.3s,MS4.5
AGRA  Agra             39.63 324 eP     P      15 20 49.2 +0.1
AGRA                             AMb    AMB    15 20 53.1
      comp=Z,88nm,0.4s,mb5.8
LZH   Lanzhou          40.37   1 ⇑P     P      15 20 55.0 -0.1
LZH                              PCP    PcP    15 22 55.3 -2.4
LZH                              PCS    PcS    15 26 47.0 -1.2
LZH                              SS     SS     15 29 51.8 -8.6
LZH                              AMB    AMB
      comp=Z,173nm,1.3s,mb5.6
LZH                              AMB    AMB
      comp=Z,406nm,5.8s
LZH                              LR     LR
      comp=N,1µm,14.2s
LZH                              LR     LR
      comp=Z,1µm,17.8s,MS4.8
LZH   Lanzhou          40.37   1 ⇑P     P      15 20 55.0 -0.1
      comp=Z,173nm,1.3s,mb5.6
LZH                              pP     pP     15 21 30.1  +22
LZH                              sP     sP     15 21 49.0  +35
LZH                              PP     PP     15 22 44.2  +15
LZH                              PcP    PcP    15 22 55.3 -2.4
LZH                              ScP    ScP    15 26 27.5  -16
LZH                              PcS    PcS    15 26 47.0 -1.2
LZH                              eS     S      15 26 50.0  -10
LZH                              sS     sS     15 27 52.3  +31
LZH                              SS     SS     15 29 51.7 -8.7
LZH                              ScS    ScS    15 30 50.0 -7.2
LZH                              LR     LR
      comp=Z,1µm,17.8s,MS4.9
LZH   Lanzhou          40.37   1 ⇑P     P      15 20 55.0 -0.1
LZH                                            15 22 55.3
LZH                              eS     S      15 26 50.0  -10
LZH                              SS     SS     15 29 51.7 -8.7
LZH                                            15 30 50.0
LZH                              pmax   pmax
      comp=Z,173nm,1.3s,mb5.6
LZH                              MLR    MLR
      comp=Z,1µm,17.8s,MS4.9
COEN  Coen             40.89 106 eP     P      15 20 57.5 -2.2
      comp=Z,20nm,1.0s,mb4.7
SONA  Sohna            40.90 324 eP     P      15 20 59.8 +0.2
SONA                             AMb    AMB    15 21 02.6
      comp=Z,158nm,1.3s,mb5.5
AYAN  Aya Nagar        41.05 325 eP     P      15 21 00.8  0.0
AYAN                             AMb    AMB    15 21 02.3
      comp=Z,158nm,1.1s,mb5.6
AJM   Ajmer            41.11 320 i P    P      15 21 02.0 +0.6
NDI   New Delhi        41.14 325 eP     P      15 21 00.0 -1.6
NDI                              eS     S      15 27 08.0 -3.6
KUDL  Kundal           41.17 324 eP     P      15 21 01.9  0.0
KUDL                             AMb    AMB    15 21 04.9
      comp=Z,166nm,1.2s,mb5.5
JOSI  Joshimath        41.33 329 eP     P      15 21 03.2 +0.2
KHET  Khetri           41.52 323 eP     P      15 21 04.6 -0.2
KHET                             AMb    AMB    15 21 05.6
      comp=Z,78nm,1.0s,mb5.3
KKR   Kurukshetra      42.34 326 eP     P      15 21 11.7 +0.3
KKR                              AMb    AMB    15 21 13.1
      comp=Z,443nm,1.3s,mb5.9
TIA   Tai’an           42.65  17 P      P      15 21 12.8 -1.0
TIA                              AMB    AMB
      comp=Z,21nm,1.0s,mb4.8
SDNR  Sundarnagar      43.43 327 eP     P      15 21 21.2 +1.0
GTA   Gaotai           43.76 357 ⇑P     P      15 21 23.3 +0.6
GTA                              AP     pP     15 21 41.4 +5.6
GTA                              PP     PP     15 23 05.3 -0.1
GTA                              PCP    PcP    15 23 09.3 +0.5
GTA                              PPP           15 23 39.6
GTA                              SCP    ScP    15 26 53.8 -2.9
GTA                              PCS    PcS    15 27 01.0 -0.7
GTA                              S      S      15 27 44.4 -5.4
GTA                              SCS    ScS    15 31 12.3 -5.5
GTA                              AMB    AMB
      comp=Z,64nm,1.3s,mb5.2
GTA                              AMB    AMB
      comp=Z,347nm,8.4s
GTA                              LR     LR
      comp=N,2µm,17.5s,MS5.0
GTA                              LR     LR
      comp=E,681nm,18.2s,MS5.0
GTA                              LR     LR
      comp=Z,2µm,17.5s,MS5.1
PMG   Port Moresby     44.28  99 eP     P      15 21 25.9 -1.4
      comp=Z,103nm,1.1s,mb5.5
PMG   Port Moresby     44.28  99 eP     P      15 21 25.9 -1.5
PMG                              pmax   pmax
      comp=Z,103nm,1.1s
DLH   Dalhousie        44.78 327 eP     P      15 21 31.0  0.0
THN   Thein Dam        44.83 327 eP     P      15 21 30.7 -0.7
THN                              eS     S      15 28 03.2 -2.4
ADE   Adelaide         44.97 137⇑iP     P      15 21 33.0 +0.5
CTA   Charters Tower   45.03 114 eP     P      15 21 32.7 -0.5
      comp=Z,132nm,1.0s,mb5.7
CTA   Charters Tower   45.03 114 eP     P      15 21 32.7 -0.5
CTA                              pmax   pmax
      comp=Z,132nm,1.0s
CTA   Charters Tower   45.03 114 PcP    PcP    15 23 13.2 -0.4
      comp=Z,4.5nm,0.3s,baz=286,slow=2.8,SNR=3.3
CTA                              S      S      15 28 04.7 -4.2
      comp=Z,14nm,1.2s,baz=48,slow=21,SNR=3.3
CTA                              LR     LR     15 42 57.8
      comp=Z,582nm,18.4s,MS4.5,baz=288,slow=40
CTAO  Charters Tower   45.03 114 P      P      15 21 32.8 -0.5
CTAO  Charters Tower   45.03 114 eP     P      15 21 32.5 -0.7
      comp=Z,284nm,1.1s,mb6.0
CTAO  Charters Tower   45.03 114 eP     P      15 21 32.5 -0.7
CTAO                             pmax   pmax
      comp=Z,284nm,1.1s,mb6.0
BTO   Baotou           45.36   8 eP     P      15 21 35.5 +0.1
STKA  Stephens Creek   45.42 132 eP     P      15 21 36.0 -0.2
      comp=Z,84nm,0.8s,mb5.6
STKA  Stephens Creek   45.42 132 P      P      15 21 36.1  0.0
      comp=Z,96nm,0.7s,mb5.8,baz=305,slow=7.5,SNR=224
STKA                             S      S      15 28 10.1 -4.2
      comp=Z,3.7nm,0.9s,baz=191,slow=18,SNR=3.3
STKA                             LR     LR     15 42 23.8
      comp=Z,663nm,18.2s,MS4.6,baz=288,slow=38
GUMO  Guam             45.46  66 eP     P      15 21 33.4 -3.2
      comp=Z,81nm,0.6s,mb5.7
GUMO  Guam             45.46  66 eP     P      15 21 33.4 -3.3
GUMO                             pmax   pmax
      comp=Z,81nm,0.6s,mb5.7
HHC   Hu-ho-hao-te     45.82   9 eP     P      15 21 40.0 +0.9
HHC                              AP     pP     15 21 49.8 -2.4
HHC                              PP     PP     15 23 28.4 +1.1
HHC                              PCS    PcS    15 27 10.0 -0.1
HHC                              S      S      15 28 22.8 +3.2
HHC                              XS     sS     15 28 40.4 -1.2
HHC                              SCS    ScS    15 31 30.6 -0.3
HHC                              AMB    AMB
      comp=Z,80nm,1.1s,mb5.6
HHC                              LR     LR
      comp=N,1µm,18.4s,MS4.9
HHC                              LR     LR
      comp=E,411nm,15.5s,MS4.9
HHC                              LR     LR
      comp=Z,1µm,19.0s,MS4.8
BJT   Baijiatuau       45.96  14 eP     P      15 21 39.9 -0.4
      comp=Z,119nm,1.1s,mb5.7
BJT   Baijiatuau       45.96  14 eP     P      15 21 39.9 -0.3
BJT                              pmax   pmax
      comp=Z,119nm,1.1s
BJI   Beijing          45.98  14 P      P      15 21 40.6 +0.2
BJI                              AP     pP     15 21 49.6 -3.9
BJI                              PCP    PcP    15 23 16.1 -0.4
BJI                              S      S      15 28 24.9 +2.9
BJI                              AMB    AMB
      comp=Z,87nm,1.0s,mb5.6
BJI                              LR     LR
      comp=N,1µm,21.5s
BJI                              LR     LR
      comp=E,900nm,16.2s
BJI                              LR     LR
      comp=Z,1µm,22.8s,MS4.9
BJI   Beijing          45.98  14 P      P      15 21 40.6 +0.2
      comp=Z,0.1nm,1.0s
BJI                              pP     pP     15 21 49.6 -3.9
BJI                              sP     sP     15 21 53.3 -5.8
BJI                              PcP    PcP    15 23 16.1 -0.4
BJI                              S      S      15 28 24.9 +2.9
BJI                              SS     SS     15 31 52.0 +4.4
BJI                              LR     LR
      comp=Z,1µm,22.8s
BJI   Beijing          45.98  14 P      P      15 21 40.6 +0.2
BJI                              *PP    pP     15 21 49.6 -3.9
BJI                              *SP    sP     15 21 53.3 -5.8
BJI                                            15 23 16.1
BJI                              S      S      15 28 24.9 +2.9
BJI                              MLR    MLR
      comp=Z,1µm,22.8s,MS4.9
DL2   Dalian           46.56  20 P      P      15 21 44.5 -0.4
DL2                              S      S      15 28 27.1 -3.1
DL2                              AMB    AMB
      comp=Z,20nm,0.8s,mb5.1
DL2                              AMB    AMB
      comp=Z,370nm,9.6s
DL2                              LR     LR
      comp=N,350nm,18.9s,MS4.5
DL2                              LR     LR
      comp=E,260nm,16.7s,MS4.5
DL2                              LR     LR
      comp=Z,510nm,19.1s,MS4.5
KSRS  Korea Array      47.83  27 P      P      15 21 54.5 -0.4
      comp=Z,39nm,1.1s,mb5.4,baz=229,slow=7.5,SNR=56
KSRS                             PcP    PcP    15 23 22.4 -0.7
      comp=Z,10.0nm,0.9s,baz=200,slow=3.8,SNR=7.7
KSRS                             LR     LR     15 43 42.5
      comp=Z,421nm,20.6s,MS4.4,baz=215,slow=38
SNY   Shenyang         49.83  20 ⇑P     P      15 22 08.3 -1.8
SNY                              S      S      15 29 09.8 -6.6
SNY                              AMB    AMB
      comp=Z,23nm,1.3s,mb5.0
SNY                              LR     LR
      comp=N,433nm,23.5s
SNY                              LR     LR
      comp=E,975nm,17.3s
SNY                              LR     LR
      comp=Z,860nm,21.8s,MS4.7
WMQ   Urumqi           49.97 346 P      P      15 22 11.3 +0.1
WMQ                              PP     PP     15 24 06.8 +0.2
WMQ                              AMB    AMB
      comp=Z,237nm,1.0s,mb6.2
KBL   Kabul            50.17 323 eP     P      15 22 12.1 -0.8
KSH   Kashi            50.28 333⇑iP     P      15 22 13.9 +0.3
KSH                              ePCP   PcP    15 23 32.6 +0.6
KSH                              ePP    PP     15 24 09.5  0.0
KSH                              ePPP          15 25 06.6
KSH                              eSCP   ScP    15 27 24.1  0.0
KSH                              ePCS   PcS    15 27 28.3 -0.7
KSH                              eS     S      15 29 21.5 -1.3
KSH                              eSCS   ScS    15 31 58.6 -2.1
KSH                              LR     LR
      comp=N,658nm,5.8s
KSH                              LR     LR
      comp=E,866nm,5.6s
KSH                              LR     LR
      comp=Z,1µm,15.4s,MS5.1
EIDS  Eidsvold         50.71 119 eP     P      15 22 16.4 -0.7
      comp=Z,21nm,1.0s,mb5.0
TOO   Toolangi         51.00 136 eP     P      15 22 20.6 +1.5
      comp=Z,16nm,1.2s,mb4.8
TOO   Toolangi         51.00 136 eP     P      15 22 20.6 +1.5
TOO                              pmax   pmax
      comp=Z,16nm,1.2s,mb4.8
BIDO  Bidbid           51.68 305 P      P      15 22 26.8 +2.3
      SNR=6.5
BIDO  Bidbid           51.68 305 P      P      15 22 26.8 +2.3
      SNR=6.5
BSY   Bisya            52.11 303 P      P      15 22 29.7 +2.0
      SNR=7.8
BSY   Bisya            52.11 303 P      P      15 22 29.7 +2.0
      SNR=7.8
SONM  Songino Array    52.19   3 P      P      15 22 28.3 +0.6
SONM                             PcP    PcP    15 23 38.5 -0.4
SONM                             S      S      15 29 49.2 +0.4
SONM                             LR     LR     15 46 40.2
SONM                            ⇑e             15 53 19.9
SONM  Songino Array    52.19   3 P      P      15 22 28.3 +0.5
SONM                                           15 23 38.5
SONM                             S      S      15 29 49.2 +0.3
SONM  Songino Array    52.19   3 P      P      15 22 28.3 +0.6
      comp=Z,80nm,0.6s,mb5.8,baz=182,slow=8.4,SNR=1090
SONM                             PcP    PcP    15 23 38.5 -0.4
      comp=Z,24nm,0.8s,baz=187,slow=3.9,SNR=8.3
SONM                             S      S      15 29 49.2 +0.4
      comp=Z,0.5nm,0.9s,baz=198,slow=9.1,SNR=2.8
SONM                             LR     LR     15 46 40.2
      comp=Z,921nm,19.1s,MS4.8,baz=187,slow=38
SONM                             PKP2bc        15 53 19.9
      comp=Z,0.1nm,0.4s,baz=28,slow=10,SNR=5.5
CN2   Changchun        52.22  21 eP     P      15 22 26.8 -1.2
CN2                              ePP    PP     15 24 26.9 -0.1
CN2                              eS     S      15 29 48.5 -0.9
CN2                              eSS    SS     15 33 23.8 -3.8
CN2                              AMB    AMB
      comp=Z,10.0nm,0.9s,mb4.8
CN2                              AMB    AMB
      comp=Z,200nm,4.0s
CN2                              LR     LR
      comp=N,500nm,18.0s,MS4.8
CN2                              LR     LR
      comp=E,600nm,18.0s,MS4.8
CN2                              LR     LR
      comp=Z,800nm,22.0s,MS4.7
ULN   Ulaanbaatar      52.26   4 eP     P      15 22 28.6 +0.3
      comp=Z,88nm,0.9s,mb5.7
ULN   Ulaanbaatar      52.26   4 eP     P      15 22 28.6 +0.3
ULN                              pmax   pmax
      comp=Z,89nm,0.9s,mb5.7
HOQ   Hoqain           52.38 304 P      P      15 22 32.0 +2.4
      SNR=6.1
HOQ   Hoqain           52.38 304 P      P      15 22 32.0 +2.4
      SNR=6.1
ULHL  Ulahol           52.40 335 P      P      15 22 30.0 +0.6
      SNR=10
MAJO  Matsushiro       52.53  36 eP     P      15 22 27.9 -2.6
      comp=Z,52nm,1.0s,mb5.4
MAJO  Matsushiro       52.53  36 eP     P      15 22 27.9 -2.6
MAJO                             pmax   pmax
      comp=Z,52nm,1.0s,mb5.4
MAT   Matsushiro       52.53  36 P      P      15 22 28.5 -2.0
MJAR  Matsushiro Arr   52.53  36 P      P      15 22 28.7 -1.8
MJAR                             LR     LR     15 43 50.5
MJAR  Matsushiro Arr   52.53  36 P      P      15 22 28.7 -1.8
      comp=Z,44nm,0.9s,mb5.4,baz=216,slow=7.4,SNR=85
MJAR                             LR     LR     15 43 50.5
      comp=Z,356nm,20.5s,MS4.4,baz=70,slow=35
KZA   Kyzart           52.68 334 P      P      15 22 32.1 +0.6
      SNR=49
RBK   Rabkut           52.69 296 P      P      15 22 34.5 +2.4
      SNR=7.8
RBK   Rabkut           52.69 296 P      P      15 22 34.5 +2.4
      SNR=7.8
ARMA  Armidale         52.70 125 eP     P      15 22 33.0 +1.1
ARMA                             epP    pP     15 22 41.6 -3.6
ARMA                             ePCP   PcP    15 23 42.6 +1.4
CNB   Canberra Magne   52.75 132 eP     P      15 22 32.5 +0.3
      comp=Z,43nm,1.5s,mb5.2
UCH   Uchtor           53.12 334 P      P      15 22 35.3 +0.6
      SNR=40
WHFO  Wadi Hawf        53.22 296 P      P      15 22 37.1 +1.1
      SNR=12
WHFO  Wadi Hawf        53.22 296 P      P      15 22 37.1 +1.1
      SNR=12
TKM2  Tokmak 2         53.22 335 P      P      15 22 35.5 +0.1
      SNR=71
TKM2  Tokmak 2         53.22 335 eP     P      15 22 35.2 -0.3
      comp=Z,95nm,0.8s,mb5.8
TKM2  Tokmak 2         53.22 335 eP     P      15 22 35.2 -0.3
TKM2                             pmax   pmax
      comp=Z,95nm,0.8s,mb5.8
KBK   Karagaybulak     53.28 335 P      P      15 22 36.5 +0.6
      SNR=47
AML   Almayashu        53.41 333 P      P      15 22 37.4 +0.5
      SNR=35
AML   Almayashu        53.41 333 eP     P      15 22 36.9 +0.1
      comp=Z,45nm,0.8s,mb5.5
AAK   Ala-Archa        53.46 334 P      P      15 22 36.5 -0.7
      comp=Z,218nm,1.4s,mb5.9,SNR=14
AAK   Ala-Archa        53.46 334 eP     P      15 22 36.2 -1.1
      comp=Z,50nm,1.1s,mb5.3
AAK   Ala-Archa        53.46 334c iP    P      15 22 36.0 -1.2
AAK                              pmax   pmax
      comp=Z,108nm,2.5s,mb5.3
AAK   Ala-Archa        53.46 334 P      P      15 22 37.0 -0.2
      SNR=12
AAK   Ala-Archa        53.46 334 P      P      15 22 37.0 -0.2
      SNR=12
ABTO  Aybut            53.46 295 P      P      15 22 39.4 +1.8
      SNR=20
ABTO  Aybut            53.46 295 P      P      15 22 39.4 +1.8
      SNR=20
CHMS  Chumysh          53.65 335 P      P      15 22 38.1 -0.5
      SNR=27
EKS2  Erkin-Say        53.80 334 P      P      15 22 40.0 +0.3
      SNR=46
EKS2  Erkin-Say        53.80 334 eP     P      15 22 39.9 +0.2
      comp=Z,91nm,0.9s,mb5.7
HATD  Hatta, Dubai     53.89 305 P      P      15 22 42.4 +1.6
      SNR=5.0
HATD  Hatta, Dubai     53.89 305 P      P      15 22 42.4 +1.6
      SNR=5.0
USP   Ospenovka        53.97 335 P      P      15 22 40.7 -0.2
      SNR=20
MKAR  Makanchi Array   54.19 343 P      P      15 22 41.9 -0.5
      comp=Z,94nm,0.8s,mb5.8,baz=148,slow=7.9,SNR=794
MKAR                             S      S      15 30 13.4 -2.6
      comp=Z,3.0nm,1.0s,baz=170,slow=15,SNR=6.1
MDJ   Mudanjiang       54.47  23 P      P      15 22 43.6 -0.9
MDJ                              PP     PP     15 24 46.1 -1.1
MDJ                              SCP    ScP    15 27 42.4 +0.3
MDJ                              PCS    PcS    15 27 46.4 -0.6
MDJ                              S      S      15 30 21.3 +1.5
MDJ                              AMB    AMB
      comp=Z,19nm,1.1s,mb4.9
MDJ                              AMB    AMB
      comp=Z,272nm,9.7s
MDJ                              LR     LR
      comp=N,290nm,16.0s,MS4.6
MDJ                              LR     LR
      comp=E,282nm,15.4s,MS4.6
MDJ                              LR     LR
      comp=Z,628nm,20.2s,MS4.7
MDJ   Mudanjiang       54.47  23 eP     P      15 22 43.2 -1.3
      comp=Z,24nm,1.0s,mb5.1
ZAK   Zakamensk        54.65   0⇓iP     P      15 22 45.2 -0.5
ZAK                              e             15 23 48.2
ZAK                              pmax   pmax
      comp=Z,26nm,1.0s,mb5.2
ZAK                              pmax   pmax
      comp=Z,9.0nm,1.1s,mb4.7
HIA   Hailar           55.53  13 eP     P      15 22 50.8 -1.3
      comp=Z,60nm,0.9s,mb5.6
HIA   Hailar           55.53  13 eP     P      15 22 50.8 -1.3
HIA                              pmax   pmax
      comp=Z,60nm,0.9s
KKAR  Karatay Array    55.64 332 i P    P      15 22 51.2 -1.8
KKAR                             pmax   pmax
      comp=Z,1.0nm,0.4s,mb4.2
TLY   Talaya           55.95   1 P      P      15 22 55.0 -0.1
      comp=Z,398nm,1.1s,mb6.4,SNR=21
TLY   Talaya           55.95   1 eP     P      15 22 55.2 +0.1
      comp=Z,60nm,0.9s,mb5.6
TLY   Talaya           55.95   1⇑iP     P      15 22 55.6 +0.5
TLY                              pmax   pmax
      comp=Z,90nm,1.1s,mb5.7
TLY                              MLR    MLR
      comp=Z,520nm,18.0s,MS4.7
TLY   Talaya           55.95   1 P      P      15 22 56.1 +1.0
      SNR=44
TLY   Talaya           55.95   1 P      P      15 22 56.1 +1.0
      SNR=44
MOY   Mondy            55.95 359 eP     P      15 22 55.3 +0.2
MOY                              pmax   pmax
      comp=Z,34nm,1.9s,mb5.0
IRK   Irkutsk          56.52   1⇑iP     P      15 22 59.1 -0.1
IRK                              pmax   pmax
      comp=Z,123nm,2.1s,mb5.6
HNR   Honiara          56.89  98 eP     P      15 23 00.1 -2.4
      comp=Z,100nm,1.0s,mb5.8
HNR   Honiara          56.89  98 P      P      15 23 00.7 -1.8
HNR                              pmax   pmax
      comp=Z,100nm,1.0s,mb5.8
CIT   Chita            57.03   8 eP     P      15 23 02.8 +0.1
CIT                              pmax   pmax
      comp=Z,166nm,1.4s,mb5.9
KURK  Kurchatov        58.78 342 P      P      15 23 14.0 -1.1
      comp=Z,1µm,1.0s,mb6.8,SNR=56
KURK  Kurchatov        58.78 342 eP     P      15 23 14.2 -0.9
      comp=Z,209nm,1.0s,mb6.1
KURK  Kurchatov        58.78 342 eP     P      15 23 14.2 -0.9
KURK                             pmax   pmax
      comp=Z,209nm,1.0s,mb6.1
KURK  Kurchatov        58.78 342 P      P      15 23 14.8 -0.3
      SNR=51
KURK  Kurchatov        58.78 342 P      P      15 23 14.8 -0.3
      SNR=51
ERM   Erimo            59.05  34 eP     P      15 23 15.3 -1.8
KLR   Kul’dur          59.12  22⇓iP     P      15 23 13.4 -4.0
KLR                              pmax   pmax
      comp=N,35nm,1.8s
KLR                              pmax   pmax
      comp=E,78nm,1.8s
KLR                              pmax   pmax
      comp=Z,180nm,1.8s,mb5.8
ABKT  Ailbek           59.13 320 P      P      15 23 17.2 -0.6
      comp=Z,254nm,1.0s,mb6.2,SNR=11
HABR  Khabarovsk       59.80  24⇑iP     P      15 23 20.7 -1.4
HABR                             eS     S      15 31 29.5 -0.4
HABR                             e             15 33 09.2
HABR                             eSS    SS     15 35 27.3 +0.5
HABR                             pmax   pmax
      comp=Z,98nm,1.9s,mb5.5
ZAL   Zalesovo         60.13 348 P      P      15 23 23.5 -0.8
ZALV  Zalesovo Beam    60.14 348 P      P      15 23 23.5 -0.8
ZALV                             LR     LR     15 52 35.3
ZALV  Zalesovo Beam    60.14 348 P      P      15 23 23.5 -0.8
      comp=Z,116nm,0.4s,mb6.3,baz=158,slow=4.8,SNR=283
ZALV                             LR     LR     15 52 35.3
      comp=Z,645nm,20.6s,MS4.8,baz=254,slow=39
NVS   Novosibirsk      61.31 347⇑iP     P      15 23 30.8 -1.5
NVS                              i S    S      15 31 44.0 -5.0
NVS                              pmax   pmax
      comp=Z,160nm,1.4s,mb6.0
NVS                              pmax   pmax
      comp=N,133nm,1.5s
NVS                              pmax   pmax
      comp=E,67nm,1.3s
NVS                              smax
      comp=E,79nm,2.1s
NVS                              smax
      comp=N,64nm,2.0s
YSS   Yuzh-Sakhalins   62.17  30 eP     P      15 23 37.1 -1.1
      comp=N,138nm,1.1s,mb6.0
YSS   Yuzh-Sakhalins   62.17  30⇑iP     P      15 23 36.8 -1.4
YSS                              e      pP     15 23 52.8 +0.9
YSS                              pmax   pmax
      comp=Z,230nm,1.2s,mb6.2
QRN   Al-Qurain        62.19 306 eP     P      15 23 38.8  0.0
QRN                              AMb    AMB    15 23 41.2
      comp=Z,252nm,1.2s,mb6.2
KBD   Kabd             62.54 306 eP     P      15 23 40.8 -0.3
KBD                              AMb    AMB    15 23 42.6
      comp=Z,292nm,0.8s,mb6.4
RDF   Al-Radifah       62.56 306 eP     P      15 23 41.6 +0.4
RDF                              AMb    AMB    15 23 43.6
      comp=Z,274nm,1.1s,mb6.3
UMR   Umm Al-Rimmam    62.67 306 eP     P      15 23 42.0 +0.1
UMR                              AMb    AMB    15 23 44.3
      comp=Z,220nm,0.9s,mb6.3
BOD   Bodaibo          62.76   7 eP     P      15 23 40.8 -1.1
BOD                              pmax   pmax
      comp=Z,78nm,1.1s,mb5.8
NAY   Al-Naaiem        62.93 306 eP     P      15 23 43.7  0.0
NAY                              AMb    AMB    15 23 45.3
      comp=Z,93nm,0.7s,mb6.0
MIB   Mutribah         63.07 307 eP     P      15 23 44.7 +0.1
MIB                              AMb    AMB    15 23 47.0
      comp=Z,222nm,1.0s,mb6.2
BRVK  Borovoye         63.54 339 P      P      15 23 46.2 -1.0
      comp=Z,417nm,0.5s,mb6.7,SNR=50
BRVK  Borovoye         63.54 339 eP     P      15 23 45.9 -1.3
      comp=Z,46nm,0.7s,mb5.6
BRVK  Borovoye         63.54 339 P      P      15 23 46.1 -1.1
BRVK                             pmax   pmax
      comp=Z,46nm,0.7s,mb5.6
BRVK  Borovoye         63.54 339 P      P      15 23 46.5 -0.8
      SNR=22
BRVK  Borovoye         63.54 339 P      P      15 23 46.5 -0.8
      SNR=22
CLNS  Chul’man         63.72  13 eP     P      15 23 47.2 -1.1
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CLNS				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.7						
CLNS				pmax	pmax		
	comp=N,32nm,0.9s						
CLNS				pmax	pmax		
	comp=E,25nm,0.9s						
CLNS				MLR	MLR		
	comp=Z,800nm,17.0s,MS5.0						
CLNS				MLR	MLR		
	comp=N,300nm,18.0s,MS4.7						
CLNS				MLR	MLR		
	comp=E,300nm,15.0s,MS4.7						
AB31	Akbulak array	65.15	331	P	P	15 23 55.8	-2.1
AB31				pmax	pmax		
	comp=Z,19nm,0.7s,mb5.2						
KMBO	Kilima Mbogo	65.53	271	eP	P	15 24 01.7	+0.6
	comp=Z,8.4nm,0.8s,mb4.8						
KMBO				epP	pP	15 24 17.3	+2.5
KMBO	Kilima Mbogo	65.53	271	eP	P	15 24 01.7	+0.6
KMBO				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KMBO	Kilima Mbogo	65.53	271	P	P	15 24 02.2	+1.1
	comp=Z,7.1nm,0.8s,mb4.8,baz=72,slow=8.9,SNR=25						
MAW	Mawson	68.61	195	eP	P	15 24 21.0	+1.4
	comp=Z,11nm,0.9s,mb4.8						
MAW	Mawson	68.61	195	eP	P	15 24 21.0	+1.4
MAW				pmax	pmax		
	comp=Z,11nm,0.9s						
MAW	Mawson	68.61	195	P	P	15 24 21.5	+1.9
	comp=Z,5.2nm,0.7s,mb4.6,baz=38,slow=12,SNR=3.1						
MAW				LR	LR	15 47 32.5	
	comp=Z,1000nm,20.0s,MS5.0,baz=63,slow=30						
MAK	Makhachkala	68.65	320	eP	P	15 24 13.7	-6.6
MAK				e		15 24 38.3	
MAK				e		15 26 59.0	
MAK				ePPP		15 28 36.4	
MAK				eS	S	15 33 14.7	-5.0
MAK				pmax	pmax		
	comp=Z,213nm,1.5s,mb5.8						
MAK				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.1						
HAKT	HAKKARI	68.91	313	i P	P	15 24 21.5	-0.5
DGRG	David-gareji	69.37	317	P	P	15 24 26.1	+1.3
YAK	Yakutsk	69.47	13	eP	P	15 24 22.9	-2.0
	comp=Z,201nm,1.1s,mb6.0						
YAK	Yakutsk	69.47	13	c iP	P	15 24 23.2	-1.7
YAK				i		15 24 46.4	
YAK				e		15 26 57.5	
YAK				i PPP		15 28 34.3	
YAK				eS	S	15 33 23.2	-5.4
YAK				i *SS	sS	15 33 54.5	+2.8
YAK				i		15 34 11.1	
YAK				i SSS		15 41 03.3	
YAK				pmax	pmax		
	comp=N,67nm,1.2s						
YAK				pmax	pmax		
	comp=E,49nm,1.2s						
YAK				pmax	pmax		
	comp=Z,166nm,1.2s,mb5.8						
YAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
YAK				pmax	pmax		
	comp=N,65nm,3.7s						
YAK				pmax	pmax		
	comp=E,23nm,1.4s						
YAK				smax			
	comp=E,11nm,0.8s						
YAK				smax			
	comp=N,42nm,2.0s						
DYDN	Diyadin	69.72	315	i P	P	15 24 27.8	+0.8
MTA	Mtatsminda	69.87	317	P	P	15 24 28.0	+0.2
TBLG	Delisi	69.92	317	P	P	15 24 28.5	+0.4
SVE	Sverdlovsk	70.04	337	⇑eP	P	15 24 28.0	-0.5
SVE				pmax	pmax		
	comp=Z,250nm,1.7s,mb5.9						
TUTA	Tutak	70.28	315	i P	P	15 24 31.1	+0.7
DIGO	Kars	70.30	316	i P	P	15 24 30.7	+0.2
ARU	Arti	70.59	336	P	P	15 24 30.3	-1.6
	comp=Z,385nm,0.8s,mb6.4,SNR=27						
ARU	Arti	70.59	336	eP	P	15 24 30.3	-1.6
	comp=Z,104nm,1.2s,mb5.6						
ARU				epP	pP	15 24 46.8	+1.0
ARU	Arti	70.59	336	eP	P	15 24 30.3	-1.6
ARU				e*PP	pP	15 24 46.8	+1.0
ARU				pmax	pmax		
	comp=Z,104nm,1.2s,mb5.6						
ZEI	Tsey	70.93	318	eP	P	15 24 34.8	+0.5
ZEI				i		15 24 43.1	
ZEI				e		15 27 15.5	
ZEI				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
MARD	Mardin	70.97	312	i P	P	15 24 35.0	+0.4
ERZM	Erzurum	71.51	315	i P	P	15 24 38.0	+0.2
ARTV	Artvin	71.61	316	i P	P	15 24 38.3	-0.2
DIYA	Diyarbakir	71.67	312	i P	P	15 24 38.4	-0.5
KIV	Kislovodsk	72.23	319	P	P	15 24 42.2	+0.1
	comp=Z,218nm,1.0s,mb6.0,SNR=6.6						
KIV	Kislovodsk	72.23	319	eP	P	15 24 41.9	-0.2
	comp=Z,30nm,0.8s,mb5.3						
KIV	Kislovodsk	72.23	319	eP	P	15 24 41.4	-0.7
KIV				e		15 25 00.9	
KIV				e		15 27 20.5	
KIV				eS	S	15 33 59.7	-1.7
KIV				pmax	pmax		
	comp=Z,49nm,1.2s,mb5.3						
KIV				pmax	pmax		
	comp=Z,98nm,4.4s						
KIV				MLR	MLR		
	comp=Z,486nm,19.0s,MS4.8						
KIV	Kislovodsk	72.23	319	P	P	15 24 42.6	+0.5
KIV				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.2						
KIV	Kislovodsk	72.23	319	P	P	15 24 42.6	+0.4
	SNR=8.8						
KIV	Kislovodsk	72.23	319	P	P	15 24 42.6	+0.4
	SNR=8.8						
ELZG	Elazig	72.72	312	i P	P	15 24 45.3	+0.2
MALT	Malatya	73.06	312	eP	P	15 24 47.6	+0.4
	comp=Z,46nm,1.3s,mb5.2						
MALT	Malatya	73.06	312	⇑iP	P	15 24 47.7	+0.5
KELT	Kelkit	73.10	314	i P	P	15 24 47.1	-0.3
GZT	Gaziantep	73.39	311	i P	P	15 24 49.6	+0.5
SOKR	Solikamsk	73.40	338	c iP	P	15 24 48.4	-0.3
SOKR				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.6						
SNZO	South Karori	73.48	132	eP	P	15 24 46.6	-3.0
	comp=Z,42nm,1.1s,mb5.3						
PET	Petropavlovsk	73.97	31	eP	P	15 24 50.3	-1.9
	comp=Z,26nm,0.5s,mb5.4						
PET	Petropavlovsk	73.97	31	eP	P	15 24 51.0	-1.2
PET				pmax	pmax		
	comp=Z,68nm,1.5s,mb5.4						
LSZ	Lusaka	73.99	255	eP	P	15 24 53.6	+0.5
	comp=Z,18nm,1.0s,mb4.9						
LSZ	Lusaka	73.99	255	eP	P	15 24 53.6	+0.5
LSZ				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
SOC	Sochi	74.06	318	i P	P	15 24 52.8	-0.1
SOC	Sochi	74.06	318	c iP	P	15 24 52.2	-0.7
SOC				e*PP	pP	15 25 00.6	-6.2
SOC				e		15 25 12.1	
SOC				eS	S	15 34 15.5	-6.6
SOC				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.4						
SOC				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.1						
YAYL	Yayladag	74.08	309	i P	P	15 24 52.6	-0.6
GRSN	GIRESUNGRSN	74.08	315	i P	P	15 24 48.8	-4.3
COBT	Iskenderun	74.11	310	i P	P	15 24 54.5	+1.1
MA2	Magadan	74.17	23	eP	P	15 24 51.8	-1.4
	comp=Z,168nm,1.6s,mb5.7						
MA2	Magadan	74.17	23	eP	P	15 24 51.9	-1.3
MA2				pmax	pmax		
	comp=Z,100nm,1.6s,mb5.5						
URZ	Urewera	74.93	128	LR	LR	15 53 59.0	
	comp=Z,630nm,21.8s,MS4.9,baz=187,slow=33						
GULE	Gulek	75.47	310	i P	P	15 25 02.0	+0.8
CSS	Prodhromos	75.94	308	eP	P	15 25 04.3	+0.3
	comp=Z,174nm,1.4s,mb5.8						
VRHR	Novokhopersk	75.94	325	eP	P	15 25 02.9	-0.7
VRHR				pmax	pmax		
	comp=Z,90nm,0.7s,mb5.8						
VRHR				pmax	pmax		
	comp=N,40nm,1.2s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.6s						
ANN	Anapa	76.03	318	eP	P	15 25 07.0	+2.7
ANN				eS	S	15 34 54.9	+11
ANN				pmax	pmax		
	comp=Z,79nm,1.1s,mb5.6						
ANN				MLR	MLR		
	comp=Z,574nm,19.0s,MS4.9						
SYO	Syowa Base	76.44	199	⇑eP	P	15 25 05.3	-0.8
SYO	Syowa Base	76.44	199	⇓epP	pP	15 25 22.4	+2.3
CDAG	Cicekdag	76.48	312	i P	P	15 25 06.6	-0.3
LBTB	Lobatse	76.52	245	eP	P	15 25 08.2	+0.8
	comp=Z,18nm,0.9s,mb5.0						
LBTB	Lobatse	76.52	245	eP	P	15 25 08.3	+0.8
LBTB				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
BOYT	Boyabat	76.64	314	i P	P	15 25 07.9	+0.1
SEY	Seymchan	76.90	21	eP	P	15 25 07.5	-1.3
BOSA	Boshof	76.93	242	eP	P	15 25 10.4	+0.6
	comp=Z,31nm,1.0s,mb5.2						
BOSA				e	pP	15 25 27.3	+3.6
BOSA	Boshof	76.93	242	eP	P	15 25 10.4	+0.7
BOSA				e	pP	15 25 27.3	+3.6
BOSA				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
BOSA	Boshof	76.93	242	P	P	15 25 10.3	+0.6
	comp=Z,12nm,0.8s,mb4.9,baz=85,slow=5.8,SNR=18						
BOSA				LR	LR	15 53 12.7	
	comp=Z,1µm,18.6s,MS5.2,baz=158,slow=31						
BR131	Keskin Array S	77.05	312	eP	P	15 25 09.7	-0.4
	comp=Z,24nm,0.8s,mb5.2						
BRTR	Keskin Array B	77.05	312	P	P	15 25 09.4	-0.7
	comp=Z,29nm,0.9s,mb5.2,baz=117,slow=7.1,SNR=124						
VORD	Divnogorie	77.23	325	eP	P	15 25 09.4	-1.4
VORD				pmax	pmax		
	comp=Z,50nm,1.5s,mb5.2						
VORD				pmax	pmax		
	comp=N,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=E,60nm,1.5s						
VRSR	Storozhevoye	77.39	325	c iP	P	15 25 10.6	-1.1
VRSR				pmax	pmax		
	comp=Z,100nm,18.1s						
VRSR				pmax	pmax		
	comp=N,7.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.0s						
VRSR				smax			
	comp=N,10.0nm,1.0s						
VRSR				smax			
	comp=E,8.0nm,1.0s						
VRSR				smax			
	comp=Z,2.0nm,1.0s						
VRSR				MLR	MLR		
	comp=Z,100nm,18.0s,MS4.2						
VRSR				MLR	MLR		
	comp=N,20nm,11.0s						
VRSR				MLR	MLR		
	comp=E,80nm,17.0s						
ELDT	Eldivan	77.43	313	i P	P	15 25 11.6	-0.6
ANTO	Ankara	77.71	312	eP	P	15 25 13.5	-0.3
	comp=E,69nm,1.3s,mb5.4						
ANTO	Ankara	77.71	312	P	P	15 25 13.8	0.0
ANTO				pmax	pmax		
	comp=Z,69nm,1.3s,mb5.4						
ANTO	Ankara	77.71	312	P	P	15 25 13.8	0.0
	SNR=9.3						
ANTO	Ankara	77.71	312	⇓iP	P	15 25 13.6	-0.2
BALT	Daday	77.76	314	i P	P	15 25 13.6	-0.5
TIXI	Tiksi	77.88	8	eP	P	15 25 11.4	-2.6
	comp=Z,80nm,1.4s,mb5.5						
TIXI	Tiksi	77.88	8	eP	P	15 25 08.5	-5.6
TIXI				e	pP	15 25 17.7	-10
TIXI				pmax	pmax		
	comp=Z,68nm,1.6s,mb5.3						
TIXI				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.1						
SGKT	Sivrigoynuk	78.45	313	i P	P	15 25 17.1	-0.8
PRGR	Permogore	79.05	336	⇓iP	P	15 25 20.5	-0.2
PRGR				eS	S	15 35 13.2	-2.8
ESKT	Eskisehir	79.06	311	i P	P	15 25 21.1	-0.2
VNDA	Vanda	79.20	169	P	P	15 25 21.5	+0.1
	comp=Z,16nm,1.2s,mb4.8,baz=314,slow=5.7,SNR=6.6						
VNDA				LR	LR	15 54 07.5	
	comp=Z,540nm,19.5s,MS4.9,baz=301,slow=31						
HENT	Hendek	79.37	313	i P	P	15 25 21.1	-1.8
BORA	Eskisehir	79.45	312	i P	P	15 25 23.1	-0.2
GOLH	Golhisar	79.47	309	i P	P	15 25 22.5	-1.1
GDZ	Gediz	79.98	311	i P	P	15 25 25.9	-0.4
MOS	Moscow	80.05	329	eP	P	15 25 25.5	-0.8
MOS				e		15 28 24.8	
MOS				eS	S	15 35 23.6	-3.2
MOS				pmax	pmax		
	comp=Z,104nm,1.2s,mb5.6						
OBN	Obninsk	80.37	328	eP	P	15 25 27.6	-0.4
	comp=Z,26nm,0.7s,mb5.3						
OBN	Obninsk	80.37	328	c iP	P	15 25 27.6	-0.4
OBN				i		15 25 32.9	
OBN				i	pP	15 25 43.7	+1.6
OBN				pmax	pmax		
	comp=Z,129nm,1.6s,mb5.6						
ULDT	Uludag	80.49	312	i P	P	15 25 28.6	-0.4
SUR	Sutherland	80.85	238	eP	P	15 25 32.0	+0.9
	comp=Z,24nm,0.8s,mb5.2						
KDAG	Bornova	81.51	310	i P	P	15 25 34.2	-0.3
TIRR	Tirgusor	82.07	316	P	P	15 25 37.6	+0.4
TIRR	Tirgusor	82.07	316	⇑iP	P	15 25 37.2	-0.1
SART	Tekirdag	82.07	312	i P	P	15 25 36.9	-0.5
KIS	Kishinev	82.43	318	c iP	P	15 25 38.0	-1.1
KIS				pmax	pmax		
	comp=Z,500nm,2.0s,mb6.1						
KIS	Kishinev	82.43	318	⇑iP	P	15 25 38.0	-1.1
	comp=Z,500nm,2.0s,mb6.1						
KIS				LRM		15 56 50.0	
	comp=Z,1µm,19.0s						
CHOS	Chios island	82.43	309	eP	P	15 25 40.1	+0.7
APE	Apeiranthos	82.58	308	eP	P	15 25 39.7	-0.4
APE	Apeiranthos	82.58	308	⇓iP	P	15 25 39.4	-0.7
BOZC	Bozcaada	82.73	311	i P	P	15 25 40.5	-0.4
JMB	Yambol	82.90	314	eP	P	15 25 42.7	+1.0
ALN	Alexandroupoli	82.96	312	eP	P	15 25 41.9	-0.1
AKASG	Malin Array Be	83.14	322	i P	P	15 25 41.7	-1.0
AKASG				pmax	pmax		
	comp=Z,23nm,1.0s						
AKASG	Malin Array Be	83.14	322	P	P	15 25 41.7	-1.0
	comp=Z,22nm,0.9s,mb5.2,baz=84,slow=5.1,SNR=72						
AKBB	Malin Array Si	83.14	322	eP	P	15 25 40.5	-2.2
AKBB	Malin Array Si	83.14	322	P	P	15 25 42.3	-0.4
KIEV	Kiev	83.15	322	eP	P	15 25 41.6	-1.2
	comp=Z,10nm,0.7s,mb5.0						
KIEV	Kiev	83.15	322	eP	P	15 25 41.6	-1.2
KIEV				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
GVD	Gavdhos	83.31	306	eP	P	15 25 44.0	0.0
	comp=Z,29nm,0.6s,mb5.5						
VRI	Vrincioaia	83.56	317	P	P	15 25 45.9	+0.9
VRI	Vrincioaia	83.56	317	⇑iP	P	15 25 45.7	+0.7
PLOR	Plostina	83.61	317	P	P	15 25 46.5	+1.3
MLR	Muntele Rosu	84.01	316	P	P	15 25 48.0	+0.6
MLR	Muntele Rosu	84.01	316	⇑iP	P	15 25 47.7	+0.4
TSUM	Tsumeb	84.03	251	eP	P	15 25 48.8	+0.8
	comp=Z,17nm,0.9s,mb5.2						
TSUM				e	pP	15 26 03.8	+1.7
PLD	Plovdiv	84.19	313	eP	P	15 25 48.4	+0.1
OUR	Ouranopolis	84.39	311	eP	P	15 25 49.0	-0.3
DID	Didima	84.46	308	eP	P	15 25 48.7	-1.1
BILL	Bilibino	84.52	20	eP	P	15 25 47.0	-2.4
BILL	Bilibino	84.52	20	eP	P	15 25 47.9	-1.5
BILL				pmax	pmax		
	comp=Z,44nm,2.5s,mb5.2						
PAIG	Paliouri	84.54	311	eP	P	15 25 49.7	-0.5
VOIR		84.61	316	⇑iP	P	15 25 49.9	-0.5
PLG	Polygyros	84.80	311	eP	P	15 25 51.3	-0.2
SOH	Sokhos	84.95	311	eP	P	15 25 52.0	-0.1
BURAR	Bucovina Array	84.96	318	⇑P	P	15 25 53.0	+0.9
BURAR	Bucovina Array	84.96	318	⇑iP	P	15 25 53.0	+1.0
MNK	Minsk	84.96	326	⇓eP	P	15 25 50.0	-1.9
HORT	Hortiatis	85.10	311	eP	P	15 25 52.5	-0.5
VLX	Vlachokerasia	85.11	308	eP	P	15 25 53.2	+0.2
KNT	Kendrikon	85.35	312	eP	P	15 25 53.7	-0.5
LIT	Litokhoron	85.47	311	eP	P	15 25 54.3	-0.5
VAY	Valandovo	85.62	312	eP	P	15 25 54.5	-1.0
VAY	Valandovo	85.62	312	eP	P	15 25 54.5	-1.0
JOF	Joensuu	85.65	334	ep	P	15 25 53.8	-1.3
	comp=Z,6.6nm,0.4s,mb5.2						
JOF	Joensuu	85.65	334	eP	P	15 25 53.8	-1.3
JOF				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb5.2						
GRG	Griva	85.68	312	eP	P	15 25 55.4	-0.4
LVZ	Lovozero	86.07	339	eP	P	15 25 56.6	-0.5
MAIT	Maitri	86.15	199	eP	P	15 25 57.7	+0.2
MAIT				epP	pP	15 26 12.2	+0.5
GZR	Gura Zlata	86.18	316	P	P	15 25 59.1	+1.0
LVV	L'vov	86.18	320	eP	P	15 25 57.8	-0.3
LVV				eS	S	15 36 16.2	-13
DRGR		86.47	317	P	P	15 26 00.7	+1.1
KRUS	Krusevo	86.61	312	eP	P	15 26 00.1	-0.3
TRPA	Tarpa	86.83	319	⇓iP	P	15 26 01.5	+0.2
KWP	Kalwaria	86.98	320	eP	P	15 26 02.8	+0.8
KWP				LMZ		15 53 16.9	
	comp=Z,2µm,26.3s						
BZS	Buzias	87.02	316	P	P	15 26 02.8	+0.5
BZS	Buzias	87.02	316	⇑iP	P	15 26 02.5	+0.2
IGT	Igoumenitsa	87.03	310	eP	P	15 26 02.6	+0.2
UZH	Uzhgorod	87.08	319	⇓iP	P	15 26 02.2	-0.3
UZH				i		15 26 10.2	
UZH				i	pP	15 26 17.4	+0.7
KOLS	Kolonicke sedl	87.14	319	eP	P	15 26 03.4	+0.6
SUW	Suwalki	87.51	324	eP	P	15 26 04.4	-0.1
SUW				LMZ		15 52 24.0	
	comp=Z,2µm,22.4s						
FIA1	FINESS Array S	87.59	332	eP	P	15 26 04.2	-0.5
FINES	FINESS Array B	87.60	332	P	P	15 26 04.4	-0.3
	comp=Z,5.6nm,0.3s,mb5.2,baz=115,slow=5.0,SNR=60						
KAF	Kangasniemi	87.65	333	ep	P	15 26 04.0	-0.9
	comp=Z,9.4nm,0.4s,mb5.4,baz=98,slow=4.4						
KAF	Kangasniemi	87.65	333	eP	P	15 26 04.0	-0.9
KAF				pmax	pmax		
	comp=Z,9.0nm,0.4s,mb5.3						
CRVS	Cervenica-Dubn	87.66	319	eP	P	15 26 05.7	+0.4
STHS	Stebnicka Huta	87.89	320	i P	P	15 26 07.0	+0.6
	comp=Z,22nm,0.9s,mb5.4						
STHS				e	pP	15 26 20.5	-0.1
STHS	Stebnicka Huta	87.89	320	i P	P	15 26 07.0	+0.6
STHS				e	pP	15 26 20.5	-0.1
STHS				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.4						
KECS	Kecovo	88.24	319	i P	P	15 26 08.0	0.0
	comp=Z,11nm,1.0s,mb5.0						
KECS				e	pP	15 26 23.6	+1.3
KECS	Kecovo	88.24	319	i P	P	15 26 08.0	0.0
KECS				e	pP	15 26 23.6	+1.3
KECS				pmax	pmax		
	comp=Z,11nm,1.0s,mb5.0						
PSZ	Piszkesteto	88.54	318	eP	P	15 26 09.4	-0.1
	comp=Z,61nm,1.6s,mb5.7						
PSZ	Piszkesteto	88.54	318	P	P	15 26 09.9	+0.4
PSZ				pmax	pmax		
	comp=Z,61nm,1.6s,mb5.7						
PSZ	Piszkesteto	88.54	318	⇑eP	P	15 26 10.0	+0.5
PSZ	Piszkesteto	88.54	318	⇑iP	P	15 26 09.7	+0.2
OJC	Ojcow	88.94	320	eP	P	15 26 10.8	-0.5
PKSM	Moragy	89.16	316	⇓P	P	15 26 12.4	-0.1
PKSM	Moragy	89.16	316	⇓iP	P	15 26 12.4	-0.1
KEV	Kevo	89.29	340	ep	P	15 26 11.7	-0.8
	comp=Z,2.9nm,0.4s,mb5.0						
KEV	Kevo	89.29	340	eP	P	15 26 11.7	-0.8
KEV				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb5.0						
VYHS	Vyhne	89.32	319	i P	P	15 26 13.2	0.0
	comp=Z,21nm,1.4s,mb5.3						
VYHS				ePP	PP	15 29 31.3	-13
VYHS	Vyhne	89.32	319	i P	P	15 26 13.2	0.0
VYHS				pmax	pmax		
	comp=Z,21nm,1.4s,mb5.3						
TIP	Timpagrande	89.73	309	eP	P	15 26 16.3	+1.0
ARCES	ARCESS Array B	89.75	340	P	P	15 26 14.4	-0.3
	comp=Z,4.5nm,0.4s,mb5.2,baz=102,slow=5.6,SNR=97						
OKC	Ostrava-Krasne	89.94	320	eP	P	15 26 16.9	+0.9
MORC	Moravsky Berou	90.32	320	eP	P	15 26 17.9	+0.1
	comp=Z,68nm,1.6s,mb5.7						
MORC	Moravsky Berou	90.32	320	⇑iP	P	15 26 18.4	+0.6
ZST	Bratislava	90.44	318	eP	P	15 26 19.0	+0.6
	comp=Z,21nm,1.0s,mb5.4						
ZST	Bratislava	90.44	318	eP	P	15 26 19.0	+0.6
ZST				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.4						
KOGS	Kog	90.83	316	i P	P	15 26 20.8	+0.5
DPC	Dobruska-Polom	91.17	320	eP	P	15 26 22.4	+0.7
GOLS	Golise	91.23	316	i P	P	15 26 22.8	+0.7
KSP	Ksiaz	91.23	321	eP	P	15 26 23.2	+1.2
KSP				LMZ		15 55 00.3	
	comp=Z,3µm,23.0s						
KSP	Ksiaz	91.23	321	⇑eP	P	15 26 22.7	+0.7
CONA	Conrad Observa	91.24	318	⇑iP	P	15 26 22.2	+0.1
	comp=Z,9.8nm,1.3s,mb5.0						
UPC	Upice	91.38	320	eP	P	15 26 23.5	+0.8
ARSA	Arzberg	91.41	317	⇑iP	P	15 26 23.3	+0.4
	comp=Z,19nm,1.3s,mb5.3						
ARSA	Arzberg	91.41	317	⇑iPcP	PcP	15 26 23.3	-0.5
	comp=Z,19nm,1.3s						
BOJS	Bojanci	91.44	315	i P	P	15 26 23.4	+0.2
TREC	Trest	91.61	319	eP	P	15 26 24.6	+0.8
PERS	Pernice	91.63	316	i P	P	15 26 24.3	+0.3
LJU	Ljubljana	91.99	316	i P	P	15 26 26.2	+0.6
PRU	Pruhonice	92.28	320	eP	P	15 26 27.0	+0.1
PVCC	Panska Ves	92.30	320	eP	P	15 26 27.8	+0.9
MOA	Molln	92.30	318	⇑iP	P	15 26 27.2	+0.1
	comp=Z,6.3nm,1.2s,mb4.8						
MOA	Molln	92.30	318	⇑iPcP	PcP	15 26 27.2	-0.6
	comp=Z,6.3nm,1.2s						
VOY	Vojsko	92.43	316	eP	P	15 26 27.2	-0.5
VOY				e		15 26 48.7	
BRG	Berggiesshubel	92.72	321	eP	P	15 26 28.6	-0.3
BRG				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb5.0						
BRG	Berggiesshubel	92.72	321	eP	P	15 26 28.8	-0.1
	comp=Z,11nm,1.0s,mb5.2						
BRG	Berggiesshubel	92.72	321	eP	P	15 26 28.6	-0.3
	comp=Z,10nm,1.0s,mb5.2						
GEC2	GERESS Array S	92.75	319	eP	P	15 26 29.2	+0.2
GEC2				pmax	pmax		
	comp=Z,56nm,1.9s,mb5.7						
GEC2	GERESS Array S	92.75	319	eP	P	15 26 29.2	+0.2
	comp=Z,56nm,1.9s,mb5.7						
GERES	GERESS Array B	92.75	319	P	P	15 26 29.2	+0.2
	comp=Z,3.1nm,0.8s,mb4.8,baz=103,slow=3.0,SNR=25						
GERES				PP	PP	15 30 16.6	+5.1
	comp=Z,1.2nm,0.9s,baz=79,slow=6.9,SNR=3.5						
KHC	Kasperske Hory	92.84	319	eP	P	15 26 28.1	-1.4
WET	Wettzell	93.30	319	eP	P	15 26 32.0	+0.4
WET				pmax	pmax		
	comp=Z,35nm,1.6s,mb5.5						
WET	Wettzell	93.30	319	eP	P	15 26 32.0	+0.4
	comp=Z,35nm,1.6s,mb5.5						
CLL	Collm	93.34	321	eP	P	15 26 32.0	+0.3
CLL				eSKS		15 48 57.0	
CLL				LR	LR		
	comp=Z,400nm,23.0s,MS4.8						
TANN	Tannenbergstha	93.64	320	eP	P	15 26 33.2	+0.1
	comp=Z,14nm,1.5s,mb5.2						
NKC	Novy Kostel	93.64	320	eP	P	15 26 33.8	+0.7
ROTZ	Rotzenmuhle	93.77	319	eP	P	15 26 34.0	+0.2
	comp=Z,13nm,1.1s,mb5.3						
MANZ	Manzenberg	93.84	320	eP	P	15 26 34.7	+0.6
	comp=Z,16nm,1.1s,mb5.4						
MOX	Moxa	94.18	320	eP	P	15 26 35.6	0.0
	comp=Z,19nm,1.6s,mb5.3						
MOX							
	comp=Z,600nm,21.0s						
MOX	Moxa	94.18	320	eP	P	15 26 35.6	0.0
MOX				pmax	pmax		
	comp=Z,19nm,1.6s,mb5.3						
MOX				MLR	MLR		
	comp=Z,600nm,21.0s,MS5.0						
MOX	Moxa	94.18	320	eP	P	15 26 35.5	-0.1
	comp=Z,13nm,1.3s,mb5.2						
GRA1	Grafenberg Arr	94.41	319	eP	P	15 26 37.0	+0.3
	comp=Z,13nm,1.2s,mb5.2						
GRF	Grafenberg Arr	94.41	319	eP	P	15 26 37.0	+0.3
GRF				pmax	pmax		
	comp=Z,13nm,1.2s,mb5.2						
GRF	Grafenberg Arr	94.41	319	eP	P	15 26 37.0	+0.3
GRF				pmax	pmax		
	comp=Z,13nm,1.2s,mb5.2						
GRF	Grafenberg Arr	94.41	319	eP	P	15 26 37.0	+0.3
	comp=Z,13nm,1.2s,mb5.2						
FETA	Feichten	94.66	317	⇑iPcP	PcP	15 26 37.9	-0.4
	comp=Z,7.9nm,1.1s						
NB2	NORSAR Subarra	94.66	331	P	P	15 26 36.3	-1.3

	comp=Z,7.7nm,1.0s,mb5.1,baz=95,slow=5.3						
NOA	**NORSAR Array B**	**94.66**	**331**	P	**P**	**15 26 36.5**	**-1.1**
	comp=Z,3.7nm,1.0s,mb4.8,baz=94,slow=4.9,SNR=7.8						
NOA				PP	PP	15 30 27.0	+0.9
	comp=Z,1.4nm,0.8s,baz=100,slow=6.9,SNR=4.1						
CLZ	**Clausthal**	**94.99**	**322**	*e*P	**P**	**15 26 36.3**	**-3.0**
CLZ				pmax	pmax		
	comp=Z,25nm,1.8s,mb5.3						
CLZ	**Clausthal**	**94.99**	**322**	*e*P	**P**	**15 26 36.3**	**-3.0**
	comp=Z,25nm,1.8s,mb5.3						
DAVA	**Damuels**	**95.24**	**317**	⇑*i*P	**P**	**15 26 40.9**	**+0.4**
	comp=Z,16nm,1.4s,mb5.3						
DAVA	**Damuels**	**95.24**	**317**	⇑*i*PcP	PcP	15 26 40.9	+0.1
	comp=Z,16nm,1.4s						
KEST	**Kesra**	**95.39**	**305**	P	**P**	**15 26 42.9**	**+1.3**
	comp=Z,1.1nm,0.6s,mb4.5,baz=112,slow=1.2,SNR=4.3						
TNS	**Taunus Mts**	**96.20**	**320**	*e*P	**P**	**15 26 43.3**	**-1.6**
TNS				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.2						
TNS	**Taunus Mts**	**96.20**	**320**	*e*P	**P**	**15 26 43.3**	**-1.6**
	comp=Z,8.0nm,0.9s,mb5.2						
TORD	**Torodi Ar. Bea**	**101.80**	**282**	P	Pdif	15 27 11.1	+1.3
	comp=Z,1.3nm,0.9s,baz=85,slow=4.7,SNR=6.5						
TORD				PP	PP	15 31 28.4	+6.3
	comp=Z,1.1nm,1.0s,baz=94,slow=9.5,SNR=3.8						
TORD				PKKPbc	PKKPbc	15 43 16.6	+0.3
	comp=Z,0.6nm,0.8s,baz=303,slow=3.2,SNR=5.2						
YKA	**Yellowknife Ar**	**115.88**	**18**	PKP	PKPdf	15 31 57.1	-1.9
YKA				PP	PP	15 33 02.0	-0.7
YKA				SKP		15 35 26.2	
YKA				PKKPbc	PKKPbc	15 42 32.2	-0.6
YKA	**Yellowknife Ar**	**115.88**	**18**	PKIKP	PKPdf	15 31 57.1	-1.9
YKA						15 33 02.0	
YKA						15 35 26.2	
YKA						15 42 32.2	
YKA	**Yellowknife Ar**	**115.88**	**18**	PKP	PKPdf	15 31 57.1	-1.9
	comp=Z,2.5nm,0.9s,baz=314,slow=1.8,SNR=22						
YKA				PP	PP	15 33 02.0	-0.7
	comp=Z,0.8nm,0.8s,baz=323,slow=6.9,SNR=7.3						
YKA				SKP		15 35 26.2	
	comp=Z,0.9nm,1.0s,baz=316,slow=2.2,SNR=3.8						
YKA				PKKPbc	PKKPbc	15 42 32.2	-0.6
	comp=Z,0.3nm,0.8s,baz=125,slow=3.3,SNR=4.6						
A06A	**Chilliwack**	**121.85**	**33**	⇓PKIKP	PKPdf	15 32 12.2	+1.4
	baz=122						
B05A	**Bryant**	**121.99**	**34**	⇓PKIKP	PKPdf	15 32 10.8	-0.3
	baz=122						
E03A	**Lebam**	**122.08**	**36**	⇓PKIKP	PKPdf	15 32 12.2	+0.8
	baz=122						
A07A	**Ashnola River,**	**122.47**	**32**	⇓PKIKP	PKPdf	15 32 11.6	-0.5
	baz=122						
C05A	**Tolt Reservoir**	**122.53**	**34**	⇓PKIKP	PKPdf	15 32 11.9	-0.4
	baz=122						
B07A	**Winthrop**	**122.96**	**33**	⇓PKIKP	PKPdf	15 32 12.7	-0.3
	baz=123						
F04A	**Amboy**	**123.08**	**36**	⇑PKIKP	PKPdf	15 32 12.4	-0.9
	baz=123						
A08A	**Turner Farm, O**	**123.11**	**32**	⇓PKIKP	PKPdf	15 32 12.9	-0.3
	baz=123						
E05A	**Randle**	**123.12**	**35**	⇓PKIKP	PKPdf	15 32 12.8	-0.6
	baz=123						
H03A	**Soap Creek Ran**	**123.21**	**38**	⇑PKIKP	PKPdf	15 32 13.6	0.0
	baz=123						
B08A	**Colville Reser**	**123.44**	**32**	⇑PKIKP	PKPdf	15 32 13.4	-0.5
	baz=123						
C07A	**Waterville**	**123.44**	**33**	⇑PKIKP	PKPdf	15 32 13.0	-1.0
	baz=123						
A09A	**Danville**	**123.46**	**31**	⇑PKIKP	PKPdf	15 32 13.5	-0.5
	baz=123						
E06A	**Yakima**	**123.58**	**35**	⇓PKIKP	PKPdf	15 32 14.0	-0.3
	baz=123						
J02A	**Umpqua**	**123.70**	**39**	⇑PKIKP	PKPdf	15 32 14.8	+0.3
	baz=123						
D07A	**Quincy**	**123.78**	**34**	⇓PKIKP	PKPdf	15 32 15.0	+0.4
	baz=124						
H04A	**Detroit Lake**	**123.88**	**37**	⇓PKIKP	PKPdf	15 32 14.7	-0.2
	baz=124						
C08A	**Higginbotham F**	**123.94**	**33**	⇓PKIKP	PKPdf	15 32 14.2	-0.7
	baz=124						
B09A	**Rice**	**124.03**	**32**	⇓PKIKP	PKPdf	15 32 15.0	-0.1
	baz=124						
K02A	**Glendale**	**124.05**	**40**	⇑PKIKP	PKPdf	15 32 14.8	-0.5
	baz=124						
J03A	**Ideyld Park**	**124.08**	**39**	⇑PKIKP	PKPdf	15 32 15.7	+0.4
	baz=124						
F06A	**Goldendale**	**124.13**	**36**	⇓PKIKP	PKPdf	15 32 15.6	+0.3
	baz=124						
E07A	**Sunnyside**	**124.21**	**34**	⇓PKIKP	PKPdf	15 32 15.4	0.0
	baz=124						
I04A	**Tendick Farm,**	**124.21**	**38**	⇑PKIKP	PKPdf	15 32 15.0	-0.5
	baz=124						
C09A	**Chrisman Ranch**	**124.34**	**32**	⇓PKIKP	PKPdf	15 32 14.7	-0.9
	baz=124						
D08A	**Wollman Farm,**	**124.44**	**33**	⇓PKIKP	PKPdf	15 32 15.9	0.0
	baz=124						
HUMO	**Hull Mountain**	**124.47**	**40**	⇓PKIKP	PKPdf	15 32 15.7	-0.4
	baz=124						
G06A	**Carlson Farm,**	**124.51**	**36**	⇓PKIKP	PKPdf	15 32 15.9	-0.2
	baz=124						
A11A	**Hall Mountain,**	**124.61**	**30**	⇓PKIKP	PKPdf	15 32 16.6	+0.4
	baz=124						
J04A	**Umpqua Nationa**	**124.69**	**39**	⇓PKIKP	PKPdf	15 32 16.8	+0.3
	baz=124						
E08A	**Dider Farm, El**	**124.70**	**34**	⇓PKIKP	PKPdf	15 32 15.7	-0.7
	baz=124						
D09A	**Jones Farm, Ri**	**124.77**	**33**	⇓PKIKP	PKPdf	15 32 16.0	-0.6
	baz=124						
B11A	**Sandpoint**	**124.94**	**31**	⇓PKIKP	PKPdf	15 32 16.6	-0.2
	baz=125						
H06A	**Lindquist Farm**	**124.97**	**36**	⇑PKIKP	PKPdf	15 32 17.0	0.0
	baz=125						
A12A	**Yaak River Ran**	**124.98**	**30**	⇑PKIKP	PKPdf	15 32 16.3	-0.5
	baz=125						
G07A	**Ruggs Ranch, H**	**125.06**	**36**	⇓PKIKP	PKPdf	15 32 17.0	-0.1
	baz=125						
J05A	**Fort Rock**	**125.21**	**38**	⇓PKIKP	PKPdf	15 32 17.8	+0.3
	baz=125						
B12A	**Libby**	**125.32**	**30**	⇑PKIKP	PKPdf	15 32 17.1	-0.5
	baz=125						
D10A	**Wagner Farm, O**	**125.33**	**33**	⇑PKIKP	PKPdf	15 32 17.5	-0.1
	baz=125						
G08A	**Pilot Rock**	**125.45**	**35**	⇓PKIKP	PKPdf	15 32 18.0	+0.1
	baz=125						
I06A	**Prineville**	**125.48**	**37**	⇑PKIKP	PKPdf	15 32 17.9	-0.1
	baz=125						
H07A	**Lands Inn, Kim**	**125.50**	**36**	⇓PKIKP	PKPdf	15 32 18.1	+0.1
	baz=125						
A13A	**Flathead Natio**	**125.59**	**29**	⇑PKIKP	PKPdf	15 32 18.1	0.0
	baz=125						
M04C	**Macdoel**	**125.60**	**40**	⇓PKIKP	PKPdf	15 32 18.3	0.0
	baz=125						
K05A	**Summer Lake**	**125.72**	**39**	⇓PKIKP	PKPdf	15 32 19.1	+0.6
	baz=126						
O02C	**Red Bluff**	**125.77**	**42**	⇓PKIKP	PKPdf	15 32 19.2	+0.6
	baz=126						
E10A	**Myers Farm, Un**	**125.78**	**33**	⇓PKIKP	PKPdf	15 32 18.3	-0.1
	baz=126						
F09A	**S2 Ranch, Elgi**	**125.81**	**34**	⇓PKIKP	PKPdf	15 32 18.4	-0.2
	baz=126						
I07A	**Izee**	**125.82**	**37**	⇓PKIKP	PKPdf	15 32 18.9	+0.3
	baz=126						
D11A	**Klaveano Farm,**	**125.84**	**32**	⇑PKIKP	PKPdf	15 32 17.8	-0.8
	baz=126						
J06A	**Christmas Vall**	**125.89**	**38**	⇓PKIKP	PKPdf	15 32 19.0	+0.2
	baz=126						
B13A	**Whitefish**	**125.94**	**30**	⇓PKIKP	PKPdf	15 32 18.2	-0.5
	baz=126						
F10A	**Beach Ranch, E**	**126.03**	**34**	⇑PKIKP	PKPdf	15 32 19.0	+0.1
	baz=126						
FFC	**Flin Flon**	**126.04**	**17**	*e*PKPdf	PKPdf	15 32 17.7	-1.0
FFC	**Flin Flon**	**126.04**	**17**	*e*PKIKP	PKPdf	15 32 17.7	-1.0
GASB	**Alder Springs**	**126.07**	**43**	⇑PKIKP	PKPdf	15 32 19.8	+0.6
	baz=126						
K06A	**Valley Falls**	**126.08**	**38**	⇑PKIKP	PKPdf	15 32 19.4	+0.2
	baz=126						
L05A	**Lakeview**	**126.11**	**40**	⇓PKIKP	PKPdf	15 32 19.8	+0.6
	baz=126						
G09A	**Cove**	**126.14**	**35**	⇑PKIKP	PKPdf	15 32 18.7	-0.5
	baz=126						
M05C	**Lookout**	**126.27**	**40**	⇑PKIKP	PKPdf	15 32 19.0	-0.6
	baz=126						
J07A	**Hines**	**126.34**	**37**	⇑PKIKP	PKPdf	15 32 20.5	+0.9
	baz=126						
HATC	**Hat Creek Radi**	**126.34**	**41**	⇑PKIKP	PKPdf	15 32 20.4	+0.6
	baz=126						
E11A	**Bogner Ranch,**	**126.34**	**33**	⇑PKIKP	PKPdf	15 32 18.1	-1.5
	baz=126						
C13A	**Hot Springs**	**126.35**	**31**	⇓PKIKP	PKPdf	15 32 18.2	-1.4
	baz=126						
D12A	**Red Ives Fores**	**126.36**	**32**	⇓PKIKP	PKPdf	15 32 18.0	-1.6
	baz=126						
I08A	**Drewsey**	**126.48**	**36**	⇑PKIKP	PKPdf	15 32 20.1	+0.2
	baz=126						
MOD	**Modoc**	**126.52**	**39**	⇓PKIKP	PKPdf	15 32 20.1	+0.1
	baz=126						
MNRC	**McLaughlin Nat**	**126.62**	**44**	⇑PKIKP	PKPdf	15 32 20.2	-0.1
	baz=126						
F11A	**Grangeville**	**126.67**	**33**	⇑PKIKP	PKPdf	15 32 19.5	-0.7
	baz=126						
C14A	**Swan Lake**	**126.71**	**30**	⇓PKIKP	PKPdf	15 32 19.4	-0.8
	baz=126						
K07A	**Rock Creek Ran**	**126.75**	**38**	⇑PKIKP	PKPdf	15 32 20.9	+0.4
	baz=126						
D13A	**Huson**	**126.79**	**31**	⇓PKIKP	PKPdf	15 32 19.2	-1.2
	baz=126						
O04C	**Chester**	**126.83**	**41**	⇓PKIKP	PKPdf	15 32 20.9	+0.2
	baz=127						
J08A	**Circle Bar Ran**	**126.85**	**37**	⇓PKIKP	PKPdf	15 32 20.9	+0.3
	baz=127						
G11A	**Walters Elk Ra**	**126.91**	**34**	⇑PKIKP	PKPdf	15 32 20.0	-0.7
	baz=127						
I09A	**Lost Marbles R**	**126.93**	**36**	⇓PKIKP	PKPdf	15 32 21.0	+0.2
	baz=127						
ORV	**Oroville**	**126.94**	**42**	⇑PKIKP	PKPdf	15 32 20.4	-0.5
	baz=127						
OHCM	**Honcut**	**127.06**	**43**	*e*PKPdf	PKPdf	15 32 20.3	-0.9
L07A	**Adell**	**127.07**	**39**	⇓PKIKP	PKPdf	15 32 21.7	+0.6
	baz=127						
H10A	**Noah's Angus R**	**127.14**	**35**	⇑PKIKP	PKPdf	15 32 20.2	-0.9
	baz=127						
K08A	**Mann Creek Ran**	**127.20**	**38**	⇑PKIKP	PKPdf	15 32 21.8	+0.5
	baz=127						
J09A	**Fry Pan Ranch,**	**127.28**	**37**	⇓PKIKP	PKPdf	15 32 21.5	+0.1
	baz=127						
E13A	**Victor**	**127.36**	**32**	⇑PKIKP	PKPdf	15 32 20.9	-0.6
	baz=127						
N06A	**Buffalo Meadow**	**127.43**	**40**	⇓PKIKP	PKPdf	15 32 22.0	+0.2
	baz=127						
H11A	**Donnelly**	**127.48**	**34**	⇑PKIKP	PKPdf	15 32 21.7	-0.1
	baz=127						
M07A	**Soldier Meadow**	**127.51**	**39**	⇓PKIKP	PKPdf	15 32 22.5	+0.5
	baz=127						
CHMT	**Chamberlain Mo**	**127.53**	**31**	*e*PKPdf	PKPdf	15 32 20.6	-1.2
BEKR	**Beckwourth**	**127.55**	**42**	⇓PKIKP	PKPdf	15 32 22.5	+0.5
	baz=127						
L08A	**Fields**	**127.59**	**38**	⇓PKIKP	PKPdf	15 32 22.0	-0.1
	baz=127						
P05C	**Yuba Gap, Truc**	**127.66**	**42**	⇓PKIKP	PKPdf	15 32 22.5	+0.2
	baz=127						
K09A	**Rome**	**127.68**	**37**	⇓PKIKP	PKPdf	15 32 22.3	+0.1
	baz=127						
F13A	**Darby**	**127.71**	**32**	⇓PKIKP	PKPdf	15 32 20.8	-1.4
	baz=127						
E14A	**Clinton**	**127.74**	**31**	⇑PKIKP	PKPdf	15 32 21.8	-0.5
	baz=128						
O06A	**Flanigan**	**127.74**	**41**	⇓PKIKP	PKPdf	15 32 22.6	+0.2
	baz=128						
D15A	**Lincoln**	**127.81**	**30**	⇑PKIKP	PKPdf	15 32 21.6	-0.7
	baz=128						
J10A	**Berg Farm, Mel**	**127.82**	**36**	⇑PKIKP	PKPdf	15 32 23.3	+0.8
	baz=128						
LAVA	**Lava Cap Winer**	**127.85**	**43**	⇓PKIKP	PKPdf	15 32 23.0	+0.3
	baz=128						
N07B	**Gerlach**	**127.97**	**40**	⇓PKIKP	PKPdf	15 32 23.7	+0.8
	baz=128						
M08A	**Happy Creek Ra**	**127.98**	**39**	⇓PKIKP	PKPdf	15 32 23.6	+0.8
	baz=128						
I11A	**Placerville**	**128.00**	**35**	⇓PKIKP	PKPdf	15 32 23.1	+0.2
	baz=128						
L09A	**Wilkinson Ranc**	**128.10**	**38**	⇓PKIKP	PKPdf	15 32 24.3	+1.2
	baz=128						
K10A	**MacKenzie Ranc**	**128.14**	**37**	⇑PKIKP	PKPdf	15 32 23.5	+0.4
	baz=128						
E15A	**Deer Lodge**	**128.17**	**31**	⇓PKIKP	PKPdf	15 32 22.9	-0.2
	baz=128						
F14A	**Wisdom**	**128.21**	**32**	⇑PKIKP	PKPdf	15 32 23.5	+0.4
	baz=128						
G13A	**Cobalt**	**128.22**	**33**	⇑PKIKP	PKPdf	15 32 22.7	-0.4
	baz=128						
H12A	**Diamond D Ranc**	**128.22**	**34**	⇓PKIKP	PKPdf	15 32 23.0	-0.2
	baz=128						
O07A	**Toulon**	**128.36**	**41**	⇓PKIKP	PKPdf	15 32 24.4	+0.8
	baz=128						
MFID	**Camas Ranch**	**128.38**	**35**	⇑PKIKP	PKPdf	15 32 23.9	+0.3
	baz=128						
HAST	**UC Hastings Re**	**128.40**	**46**	⇓PKIKP	PKPdf	15 32 24.2	+0.4
	baz=128						
CMB	**Columbia Colle**	**128.44**	**44**	⇑PKIKP	PKPdf	15 32 24.1	+0.3
	baz=128						
EGMT	**Eagleton**	**128.44**	**27**	*e*PKPdf	PKPdf	15 32 23.3	-0.2
EGMT	**Eagleton**	**128.44**	**27**	⇑PKIKP	PKPdf	15 32 23.8	+0.3
	baz=128						
N08A	**GE Springer Mi**	**128.50**	**39**	⇑PKIKP	PKPdf	15 32 24.6	+0.8
	baz=128						
G14A	**Jackson**	**128.53**	**32**	⇓PKIKP	PKPdf	15 32 24.1	+0.3
	baz=128						
H13A	**Challis**	**128.54**	**33**	⇑PKIKP	PKPdf	15 32 23.3	-0.5
	baz=128						
M09A	**Marrel Ranch,**	**128.57**	**38**	⇑PKIKP	PKPdf	15 32 24.5	+0.5
	baz=128						
F15A	**Butte**	**128.64**	**31**	⇓PKIKP	PKPdf	15 32 23.7	-0.3
	baz=128						
L10A	**Juniper Basin**	**128.79**	**37**	⇓PKIKP	PKPdf	15 32 23.7	-0.6
	baz=128						
V03C	**Hunter Liggett**	**128.80**	**46**	⇓PKIKP	PKPdf	15 32 24.8	+0.2
	baz=128						
S05C	**Merced**	**128.82**	**44**	⇓PKIKP	PKPdf	15 32 24.7	+0.1
	baz=129						
N09A	**Rock Creek Ran**	**128.85**	**39**	⇓PKIKP	PKPdf	15 32 25.7	+1.2
	baz=129						
S06C	**San Francisco**	**128.89**	**44**	⇓PKIKP	PKPdf	15 32 24.8	+0.1
	baz=129						
J12A	**Stokes Ranch,**	**128.90**	**35**	⇓PKIKP	PKPdf	15 32 25.1	+0.5
	baz=129						
DLMT	**Dillon**	**128.91**	**32**	*e*PKPdf	PKPdf	15 32 24.2	-0.3
I13A	**Wildhorse Cree**	**129.03**	**34**	⇓PKIKP	PKPdf	15 32 25.0	+0.3
	baz=129						
HLID	**Hailey**	**129.09**	**34**	⇓PKIKP	PKPdf	15 32 25.4	+0.5
	baz=129						
G15A	**Dillon**	**129.10**	**32**	⇑PKIKP	PKPdf	15 32 25.1	+0.3
	baz=129						
SCHQ	**Schefferville**	**129.11**	**352**	PKP	PKPdf	15 32 23.6	-1.0
SCHQ	**Schefferville**	**129.11**	**352**	PKP	PKPdf	15 32 23.6	-1.0
	comp=Z,7.8nm,0.9s,baz=20,slow=4.6,SNR=12						
MCMT	**McKenzie Canyo**	**129.13**	**32**	*e*PKPdf	PKPdf	15 32 25.1	+0.2
L11A	**Cat Creek Ranc**	**129.17**	**37**	⇓PKIKP	PKPdf	15 32 26.1	+1.0
	baz=129						
BOZ	**Bozeman (W)**	**129.22**	**31**	⇓PKIKP	PKPdf	15 32 25.1	+0.1
	baz=129						
T06C	**Millerton Lake**	**129.42**	**44**	⇑PKIKP	PKPdf	15 32 25.7	-0.1
	baz=129						
M11A	**Holland Ranch,**	**129.59**	**37**	⇑PKIKP	PKPdf	15 32 27.6	+1.7
	baz=129						
L12A	**House Creek Ra**	**129.62**	**36**	⇓PKIKP	PKPdf	15 32 26.9	+1.0
	baz=129						
NVAR	**Mina Array Bea**	**129.66**	**42**	PKP	PKPdf	15 32 26.4	+0.3
NVAR				SKPbc		15 35 41.6	
NVAR	**Mina Array Bea**	**129.66**	**42**	PKP	PKPdf	15 32 26.4	+0.3
	comp=Z,2.0nm,0.5s,baz=331,slow=1.4,SNR=15						
NVAR				SKPbc		15 35 41.6	
	comp=Z,1.1nm,0.6s,baz=261,slow=5.6,SNR=4.5						
Q08A	**Gabbs**	**129.68**	**41**	⇑PKIKP	PKPdf	15 32 26.8	+0.7
	baz=129						
O10A	**Cortez Mining,**	**129.81**	**39**	⇑PKIKP	PKPdf	15 32 27.7	+1.4
	baz=130						
P09A	**Austin**	**129.82**	**40**	⇓PKIKP	PKPdf	15 32 26.8	+0.4
	baz=130						
R08A	**Mina**	**129.83**	**42**	⇓PKIKP	PKPdf	15 32 26.8	+0.4
	baz=130						
K13A	**Stover Farm, H**	**129.85**	**35**	⇑PKIKP	PKPdf	15 32 26.9	+0.6
	baz=130						
QLMT	**Earthquake Lak**	**129.88**	**31**	*e*PKPdf	PKPdf	15 32 27.4	+1.0
HELL	**Mitchell Peak,**	**130.06**	**44**	⇓PKIKP	PKPdf	15 32 26.5	-0.5
	baz=130						
M12A	**Wells**	**130.12**	**37**	⇓PKIKP	PKPdf	15 32 27.6	+0.7
	baz=130						
P10A	**Eureka**	**130.21**	**40**	⇓PKIKP	PKPdf	15 32 28.4	+1.2
	baz=130						
S08C	**White Mtn Res**	**130.23**	**43**	⇑PKIKP	PKPdf	15 32 28.4	+1.1
	baz=130						
YMR	**Madison River**	**130.23**	**31**	*e*PKPdf	PKPdf	15 32 27.1	+0.1
N12A	**Clover Valley,**	**130.39**	**38**	⇑PKIKP	PKPdf	15 32 28.3	+0.8
	baz=130						
O11A	**Cowboy Ranch,**	**130.43**	**39**	⇓PKIKP	PKPdf	15 32 27.9	+0.3
	baz=130						
R09A	**Tonopah**	**130.58**	**42**	⇓PKIKP	PKPdf	15 32 28.5	+0.6
	baz=130						
M13A	**Montello**	**130.60**	**37**	⇓PKIKP	PKPdf	15 32 28.2	+0.3
	baz=130						
Q10A	**Clear Creek Ra**	**130.70**	**41**	⇓PKIKP	PKPdf	15 32 28.4	+0.3
	baz=130						
P11A	**Circle Ranch,**	**130.70**	**39**	⇓PKIKP	PKPdf	15 32 28.6	+0.5
	baz=130						
S09A	**Goldfield**	**130.75**	**42**	⇑PKIKP	PKPdf	15 32 29.0	+0.7
	baz=130						
O12A	**Currie**	**130.91**	**38**	⇓PKIKP	PKPdf	15 32 28.9	+0.4
	baz=131						
M14A	**Sheep Mountain**	**131.00**	**36**	⇓PKIKP	PKPdf	15 32 30.1	+1.5
	baz=131						
GRAC	**Grapevine Rang**	**131.03**	**43**	⇓PKIKP	PKPdf	15 32 28.1	-0.7
	baz=131						
S10A	**Tonopah Range,**	**131.06**	**42**	⇓PKIKP	PKPdf	15 32 29.4	+0.5
	baz=131						
Q11A	**Duckwater**	**131.17**	**40**	⇓PKIKP	PKPdf	15 32 29.3	+0.3
	baz=131						
REDW	**Red Top Meadow**	**131.18**	**32**	*e*PKPdf	PKPdf	15 32 28.5	-0.4
P12A	**McGill**	**131.28**	**39**	⇑PKIKP	PKPdf	15 32 29.5	+0.4
	baz=131						
MPMC	**Manual Prospec**	**131.44**	**44**	⇓PKIKP	PKPdf	15 32 28.9	-0.6
	baz=131						
AHID	**Auburn Hatcher**	**131.45**	**33**	*e*PKPdf	PKPdf	15 32 29.3	-0.1
TRCR	**Troy Canyon**	**131.49**	**41**	*e*PKPdf	PKPdf	15 32 30.4	+0.8
M15A	**Larsen Ranch,**	**131.55**	**35**	⇓PKIKP	PKPdf	15 32 30.4	+0.8
	baz=131						
EDW2	**Edwards Air Fo**	**131.67**	**46**	⇑PKIKP	PKPdf	15 32 30.7	+0.7
	baz=131						
ULM	**Lac du Bonnet**	**131.75**	**16**	PKP	PKPdf	15 32 28.0	-1.7
ULM				SKPbc	SKPbc	15 35 47.2	-4.4
ULM	**Lac du Bonnet**	**131.75**	**16**	PKP	PKPdf	15 32 28.0	-1.7
	comp=Z,3.4nm,0.6s,baz=287,slow=2.8,SNR=8.3						
ULM				SKPbc	SKPbc	15 35 47.2	-4.4
	comp=Z,7.8nm,1.1s,baz=330,slow=5.0,SNR=6.6						
HWUT	**Hardware Ranch**	**131.96**	**35**	*e*PKPdf	PKPdf	15 32 30.3	-0.1
HWUT				*e*SKPbc	SKPbc	15 35 49.8	-2.9
DUG	**Dugway**	**132.13**	**37**	⇑PKIKP	PKPdf	15 32 32.3	+1.5
	baz=132						
PDAR	**Pinedale Array**	**132.28**	**32**	PKP	PKPdf	15 32 23.6	-7.3
PDAR				PKP	PKPdf	15 32 30.1	-0.9
PDAR				SKPbc	SKPbc	15 35 50.4	-3.4
PDAR	**Pinedale Array**	**132.28**	**32**	PKhKP		15 32 23.6	
	comp=Z,0.8nm,0.8s,baz=110,slow=4.1,SNR=5.3						
PDAR				PKP	PKPdf	15 32 30.1	-0.9
	comp=Z,2.2nm,0.6s,baz=124,slow=1.1,SNR=16						
PDAR				SKPbc	SKPbc	15 35 50.4	-3.4
	comp=Z,2.8nm,0.7s,baz=48,slow=1.1,SNR=9.1						
GSC	**Goldstone**	**132.30**	**45**	⇑PKIKP	PKPdf	15 32 31.2	0.0
	baz=132						
T11A	**Corn Creek, Al**	**132.35**	**42**	⇓PKIKP	PKPdf	15 32 32.3	+1.0
	baz=132						
TUQ	**Turquoise Mtn.**	**132.85**	**44**	⇓PKIKP	PKPdf	15 32 33.5	+1.3
	baz=133						
DAU	**Daniels Canyon**	**132.91**	**36**	*e*PKPdf	PKPdf	15 32 32.9	+0.6
DAU				*e*SKPbc	SKPbc	15 35 51.9	-4.2
DAU	**Daniels Canyon**	**132.91**	**36**	*e*PKIKP	PKPdf	15 32 32.9	+0.7
S13A	**Holt Ranch, En**	**133.05**	**40**	⇓PKIKP	PKPdf	15 32 33.5	+0.9
	baz=133						
GMRC	**Granite Mounta**	**133.38**	**45**	⇑PKIKP	PKPdf	15 32 34.0	+0.7
	baz=133						
S14A	**Cedar City**	**133.39**	**40**	⇓PKIKP	PKPdf	15 32 34.6	+1.4
	baz=133						
V12A	**Nelson**	**133.43**	**43**	⇓PKIKP	PKPdf	15 32 34.1	+0.7
	baz=133						
BELC	**Belle Mtn.**	**133.54**	**46**	⇑PKIKP	PKPdf	15 32 34.0	+0.4
	baz=133						
MSU	**Marysvale**	**133.56**	**38**	*e*PKPdf	PKPdf	15 32 34.1	+0.6
MSU				*e*SKPbc	SKPbc	15 35 56.1	-2.2
MSU	**Marysvale**	**133.56**	**38**	*e*PKIKP	PKPdf	15 32 34.1	+0.6
T14A	**Hurricane**	**133.85**	**41**	⇑PKIKP	PKPdf	15 32 35.4	+1.3
	baz=134						
IRM	**Iron Mountain**	**134.06**	**45**	⇓PKIKP	PKPdf	15 32 35.5	+0.9
	baz=134						
BC3	**Big Chuckw Mtn**	**134.10**	**46**	⇓PKIKP	PKPdf	15 32 36.1	+1.4
	baz=134						
U14A	**Mt Trumbull**	**134.16**	**41**	⇓PKIKP	PKPdf	15 32 35.6	+0.9
	baz=134						
SRU	**San Rafael**	**134.18**	**37**	*e*PKPdf	PKPdf	15 32 34.4	-0.3
SRU				*e*SKPbc	SKPbc	15 35 57.3	-3.0
SRU	**San Rafael**	**134.18**	**37**	*e*PKIKP	PKPdf	15 32 34.4	-0.3
T15A	**Red Dirt Ranch**	**134.33**	**40**	⇓PKIKP	PKPdf	15 32 35.5	+0.5
	baz=134						
W13A	**Hualapai Mount**	**134.43**	**43**	⇑PKIKP	PKPdf	15 32 35.7	+0.4
	baz=134						
Y12C	**Blythe**	**134.72**	**45**	⇑PKIKP	PKPdf	15 32 36.9	+1.1
	baz=134						
X13A	**Yucca**	**134.75**	**44**	⇓PKIKP	PKPdf	15 32 36.5	+0.6
	baz=134						
GLA	**Glamis**	**134.86**	**46**	⇑PKIKP	PKPdf	15 32 37.0	+0.9
	baz=135						
W14A	**Seligman**	**134.92**	**43**	⇑PKIKP	PKPdf	15 32 37.1	+1.0
	baz=135						
Y13A	**Salome**	**135.17**	**45**	⇓PKIKP	PKPdf	15 32 37.0	+0.3
	baz=135						
X14A	**Yava**	**135.46**	**43**	⇓PKIKP	PKPdf	15 32 37.5	+0.3
	baz=135						
W15A	**Williams**	**135.49**	**42**	⇓PKIKP	PKPdf	15 32 38.5	+1.3
	baz=135						
WUAZ	**Wupatki**	**135.88**	**41**	⇑PKIKP	PKPdf	15 32 38.8	+0.9
	baz=136						
X15A	**Humboldt**	**135.90**	**43**	⇑PKIKP	PKPdf	15 32 38.9	+0.9
	baz=136						
ECSD	**EROS,Sioux Fal**	**137.32**	**21**	*e*PKPpre		15 32 28.9	
ECSD				*e*SKPbc	SKPbc	15 36 06.2	-3.7
LENM	**Lemitar**	**139.55**	**39**	*e*PKPdf	PKPdf	15 32 45.2	+0.4
LPM	**Los Pinos Moun**	**139.67**	**39**	PKPdf	PKPdf	15 32 45.1	+0.1
LPM				*e*SKP		15 36 14.0	
BNM	**Barren Site**	**139.78**	**39**	*e*PKPdf	PKPdf	15 32 45.0	-0.2
BNM				*e*SKP		15 36 15.2	
KSU1	**Kansas State U**	**141.31**	**24**	*e*PKPdf	PKPdf	15 32 46.2	-1.6
MNTX	**Cornudas Mount**	**142.16**	**41**	*e*PKPpre		15 32 44.0	
MNTX				*e*SKPdf	SKPdf	15 36 20.6	+0.2
WMOK	**Wichita Mounta**	**143.86**	**31**	*e*PKPpre		15 32 48.5	
WMOK	**Wichita Mounta**	**143.86**	**31**	*e*PKIKP	PKPdf	15 32 48.5	-4.0
ACSO	**Alum Creek Sta**	**144.03**	**8**	*e*PKPpre		15 32 48.1	
BLO	**Bloomington**	**144.45**	**12**	*e*PKP	PKPdf	15 32 50.5	-2.8
BLO	**Bloomington**	**144.45**	**12**	*e*PKIKP	PKPdf	15 32 50.5	-2.9
FVM	**French Village**	**144.54**	**18**	*e*PKPpre		15 32 50.1	
FVM	**French Village**	**144.54**	**18**	PKIKP	PKPdf	15 32 49.9	-3.6
MVL	**Millersville**	**144.64**	**359**	*e*PKP	PKPdf	15 32 51.1	-2.5
LTX	**Lajitas**	**144.81**	**42**	*e*PKP	PKPdf	15 32 52.9	-1.3
LTX	**Lajitas**	**144.81**	**42**	*e*PKIKP	PKPdf	15 32 52.9	-1.4
TXAR	**Lajitas Array**	**144.81**	**42**	PKP	PKPdf	15 32 53.5	-0.8
TXAR				SKPbc	SKPbc	15 36 27.7	-2.1
TXAR	**Lajitas Array**	**144.81**	**42**	PKIKP	PKPdf	15 32 53.5	-0.8
TXAR	**Lajitas Array**	**144.81**	**42**	PKP	PKPdf	15 32 53.5	-0.8
	comp=Z,45nm,0.8s,baz=280,slow=0.7,SNR=366						
TXAR				SKPbc	SKPbc	15 36 27.7	-2.1
	comp=Z,2.2nm,0.8s,baz=219,slow=1.2,SNR=5.4						
MCWV	**Mont Chateau**	**144.91**	**4**	*e*PKP	PKPdf	15 32 51.5	-2.6
SIUC	**Southern Illin**	**145.15**	**17**	*e*PKP	PKPdf	15 32 52.8	-1.8
SDMD	**Soldier's Deli**	**145.23**	**360**	*e*PKP	PKPdf	15 32 52.7	-2.0
USIN	**University of**	**145.34**	**15**	*e*PKP	PKPdf	15 32 53.3	-1.6
WCI	**Wyandotte Cave**	**145.41**	**13**	*e*PKP	PKPdf	15 32 53.5	-1.5
WCI	**Wyandotte Cave**	**145.41**	**13**	*e*PKIKP	PKPdf	15 32 53.5	-1.5
PARMO	**Parma**	**145.96**	**18**	*e*PKP	PKPdf	15 32 55.6	-0.5
LCO	**Las Campanas**	**146.12**	**190**	*e*PKPdf	PKPdf	15 32 57.1	+0.5
MAIG	**Mazatlaan**	**146.21**	**54**	*i* P	PKPdf	15 32 57.5	+0.7
MIAR	**Mount Ida**	**146.46**	**25**	*e*PKPdf	PKPdf	15 32 55.8	-1.1
MIAR	**Mount Ida**	**146.46**	**25**	PKP2	PKPab	15 32 56.6	-2.6
GLAT	**Glass**	**146.47**	**18**	*e*PKPbc	PKPbc	15 32 57.5	-0.8
JCT	**Junction City**	**146.49**	**37**	*e*PKPdf	PKPdf	15 32 56.5	-0.6
JCT	**Junction City**	**146.49**	**37**	*e*PKP2	PKPab	15 32 56.5	-3.0
GNAR	**Gosnell**	**146.52**	**19**	*e*PKPbc	PKPbc	15 32 57.6	-0.8
HBAR	**Harrisburg**	**146.68**	**20**	*e*PKPbc	PKPbc	15 32 58.3	-0.6
UALR	**University of**	**146.75**	**23**	*e*PKPdf	PKPdf	15 32 57.1	-0.4
HALT	**Halls**	**146.79**	**18**	*e*PKPbc	PKPbc	15 32 58.3	-0.9
WVT	**Waverly**	**147.02**	**16**	*e*PKPdf	PKPdf	15 32 56.6	-1.2
WVT				*e*PKPbc	PKPbc	15 32 58.7	-1.2
WVT	**Waverly**	**147.02**	**16**	*e*PKIKP	PKPdf	15 32 56.6	-1.2
WVT				*e*		15 32 58.7	
BLA	**Blacksburg**	**147.30**	**5**	*e*PKPdf	PKPdf	15 32 57.0	-1.3
BLA	**Blacksburg**	**147.30**	**5**	*e*PKIKP	PKPdf	15 32 57.0	-1.3
TZTN	**Tazewell**	**147.57**	**10**	*e*PKPbc	PKPbc	15 32 59.8	-1.6
PLAL	**Pickwick Lake**	**148.03**	**17**	*e*PKPdf	PKPdf	15 32 57.7	-1.8
OXF	**Oxford**	**148.05**	**19**	*e*PKPbc	PKPbc	15 33 01.1	-1.6
OXF	**Oxford**	**148.05**	**19**	*e*PKP2	PKPbc	15 33 01.1	-1.6
NATX	**Nacogdoches**	**148.31**	**29**	*e*PKPbc	PKPbc	15 33 03.0	-0.5
SWET	**Sewanee**	**148.37**	**14**	*e*PKPdf	PKPdf	15 32 59.0	-1.1
SWET				*e*PKPbc	PKPbc	15 33 01.7	-1.9
CJM	**Chamela**	**149.03**	**59**	*i* P	PKPdf	15 33 05.4	+3.8
HKT	**Hockley**	**149.15**	**33**	*e*PKPdf	PKPdf	15 33 00.4	-1.1

HKT				*e*PKPbc	PKPbc	15 33 05.6	-0.1
HKT	Hockley	149.15	33	*e*PKIKP	PKPdf	15 33 00.4	-1.1
HKT				*e*		15 33 05.6	
LHS	Liberty Hill	149.97	6	*e*PKPbc	PKPbc	15 33 06.3	-1.3
LHS	Liberty Hill	149.97	6	PKP2	PKPbc	15 33 06.7	-0.9
JSC	Jenkinsville	150.12	7	*e*PKPdf	PKPdf	15 33 01.8	-1.2
JSC	Jenkinsville	150.12	7	*e*PKHKP		15 33 01.8	
LRAL	Lakeview Retre	150.16	17	*e*PKPdf	PKPdf	15 33 02.4	-0.6
LRAL				*e*PKPbc	PKPbc	15 33 06.9	-1.2
SFJM	Santa Fe	150.26	55	*i* P	PKPdf	15 33 02.0	-1.5
GOGA	Godfrey	150.63	11	*e*PKPdf	PKPdf	15 33 03.1	-0.6
GOGA				*e*PKPbc	PKPbc	15 33 07.9	-1.3
GOGA				*e*		15 33 14.5	
GOGA	Godfrey	150.63	11	*e*PKIKP	PKPdf	15 33 03.1	-0.7
GOGA				*e*		15 33 07.9	
GOGA				*e*		15 33 14.5	
LPAZ	La Paz	157.49	203	*e*PKPdf	PKPdf	15 33 14.3	+0.5
LPAZ	La Paz	157.49	203	*e*PKIKP	PKPdf	15 33 14.3	+0.5
LPAZ	La Paz	157.49	203	PKP	PKPdf	15 33 14.3	+0.5
	comp=Z,4.2nm,1.1s,baz=59,slow=4.3,SNR=10						
LPAZ				PKPab	PKPab	15 33 46.1	+0.7
	comp=Z,4.1nm,0.7s,baz=138,slow=3.1,SNR=5.9						
OTAV	Otavalo	175.60	164	*e*PKPdf	PKPdf	15 33 27.6	-0.2
ROSC	El Rosal	177.11	277	PKP	PKPdf	15 33 27.1	-1.0
ROSC	El Rosal	177.11	277	PKP	PKPdf	15 33 27.1	-1.0
	comp=Z,4.2nm,0.4s,baz=279,slow=23,SNR=6.7						

IDC 19 15:53:20.1±12.0**, 21.77S**×**179.33W, h457**^{km}±128^{km}**, mb3.2**/3**, mb1 3.4**/4**, mb1mx3.2**/14**, mbtmp3.3**/4**, Error ellipse: s-maj=108.6km s-min=39.4km az=21.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	16.73	190	P	P	15 56 49.2	+0.1
	1.2nm,0.3s,baz=64,slow=9.8,SNR=11						
CTA	Charters Tower	32.16	267	P	P	15 59 09.8	+1.0
STKA	Stephens Creek	36.13	245	P	P	15 59 42.1	-0.2
	3.1nm,0.8s,baz=87,slow=9.1,SNR=7.8						
ASAR	Alice Springs	43.04	258	P	P	16 00 38.2	-0.1
	2.7nm,0.8s,baz=97,slow=7.7,SNR=25						
WRA	Warramunga Arr	43.22	264	P	P	16 00 39.0	-0.8
	1.0nm,0.6s,baz=97,slow=7.7,SNR=38						
AKASG	Malin Array Be	143.49	329	PKP	PKPdf	16 12 00.3	-1.2
	0.8nm,0.4s,baz=44,slow=4.2,SNR=10.0						
BRTR	Keskin Array B	146.74	310	PKPbc	PKPbc	16 12 10.2	+0.2
	0.6nm,0.6s,baz=133,slow=5.2,SNR=3.6						

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*JMA **19** 16:00:51.1±0.8, 46.75N×152.96E, h30^{km}, M4.2*

*ISCJB **19** 16:00:52.9±1.2, 46.6N±0.1×152.8E±0.2, h73^{km}±11^{km}, mb3.6/8, Error ellipse: s-maj=26.0km s-min=9.2km az=141.9*

*MOS **19** 16:00:55.7±1.6, 46.97N×152.53E, h82^{km}, mb3.9/5, Error ellipse: s-maj=24.6km s-min=13.7km az=53.2*

*IDC **19** 16:00:56.0±5.6, 46.99N×152.88E, h72^{km}±47^{km}, mb3.4/9, mb1 3.6/11, mb1mx3.4/24, mbtmp3.5/11, ML3.7/2, Error ellipse: s-maj=36.7km s-min=20.2km az=85.0*

ISC 19 16:00:52.7±1.1**, 46.8N**±0.1×**152.8E**±0.1**, h42**^{km}±9^{km}**, n44,** σ**1**^{s}**40**/49**, mb3.7**/8**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	3.81	247	*e*PN	Pn	16 01 51.0	+2.2
KUR				*e*S	Sn	16 02 32.0	-0.3
KUR				pmax	pmax		
	comp=Z,90nm,0.7s						
KUR				smax			
	comp=N,170nm,0.7s						
KUR				smax			
	comp=E,260nm,0.7s						
SKR	Severo-Kuril's	4.42	28	*e*PN	Pn	16 02 02.2	+5.1
SKR				*e*S	Sn	16 02 47.1	-0.2
SKR				pmax	pmax		
	comp=Z,30nm,0.5s						
SKR				smax			
	comp=N,40nm,0.5s						
SKR				smax			
	comp=E,60nm,0.5s						
SKR				smax			
	comp=Z,30nm,0.5s						
YUK	Yuzh-Kuril'sk	5.65	243	*e*PN	Pn	16 02 15.0	+1.0
YUK				*e*S	Sn	16 03 21.4	+3.9
YUK				smax			
	comp=N,140nm,0.4s						
YUK				smax			
	comp=E,250nm,0.5s						
NEM2	Nemuro 2	6.10	238	P	Pn	16 02 18.9	-1.3
NEM2				*e*S	Sn	16 03 23.4	-5.2
JRA	Rausu	6.15	245	P	Pn	16 02 22.5	+1.6
JNK	Nakash	6.58	243	P	Pn	16 02 27.6	+0.7
JNK				*e*S	Sn	16 03 39.5	-1.1
JTKR	Abashiri--Toko	6.90	249	P	Pn	16 02 33.0	+1.8
JAK	Akkeshi	6.93	239	P	Pn	16 02 30.1	-1.5
JAK				*e*S	Sn	16 03 43.2	-5.9
JMP	Maruseppu	7.24	250	P	Pn	16 02 38.2	+2.4
JAR	Ashorobuto	7.32	244	P	Pn	16 02 37.9	+0.9
JAR				*e*S	Sn	16 03 58.8	0.0
JOB	Onbets	7.50	242	P	Pn	16 02 39.3	-0.1
JOB				*e*S	Sx	16 03 58.9	
ASAJ	Asahikawa	7.69	253	PN	Pn	16 02 45.1	+3.1
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	7.69	253	P	Pn	16 02 45.1	+3.1
	comp=Z,1.1nm,0.3s,baz=85,slow=18,SNR=14						
JKK2	Kamakawa 2	7.69	251	P	Pn	16 02 44.4	+2.3
JCH	Churui	7.95	241	P	Pn	16 02 45.0	-0.6
JCH				*e*S	Sx	16 04 08.4	
JBT2	Biratori 2	8.47	245	P	Pn	16 02 52.5	-0.2
JNBK	Urakawa-nobuka	8.51	241	P	Pn	16 02 51.7	-1.6
JNBK				*e*S	Sx	16 04 22.2	
JNB	Noboribetsu	9.47	247	P	Pn	16 03 06.4	0.0
JNB				*e*S	Sx	16 04 47.9	
JKB	Kayabe	9.79	244	P	Pn	16 03 09.2	-1.5
JKB				*e*S	Sx	16 04 51.1	
JSH	Shimam	10.01	250	P	Pn	16 03 14.6	+0.8
JYM2	Yakumo 2	10.07	247	P	Pn	16 03 13.8	-0.9
JSR	Shiriuchi	10.37	244	P	Pn	16 03 16.6	-2.1
JTM	Tenmabayashi	10.43	239	P	Pn	16 03 16.4	-3.1
JTM				*e*S	Sx	16 05 03.9	
JANG	Nango	10.44	236	P	Pn	16 03 15.6	-4.0
JANG				*e*S	Sx	16 05 02.9	
JTH	Tanohata	10.54	233	*e*S	Sx	16 05 04.0	
JOSM	Okushiri--Mats	10.66	248	P	Pn	16 03 21.6	-1.1
OFUJ	Ofunato	11.26	230	*e*S	Sx	16 05 22.8	
JRG	Rokugo	11.60	234	P	Pn	16 03 32.5	-3.0
MJAR	Matsushiro Arr	14.98	232	P	Pn	16 04 25.2	+3.9
	comp=Z,0.3nm,0.3s,baz=39,slow=9.5,SNR=5.8						
KSRS	Korea Array	20.64	252	P	P	16 05 32.0	+3.6
	comp=Z,1.0nm,0.6s,baz=56,slow=9.6,SNR=6.4						
SONM	Songino Array	31.12	289	P	P	16 07 09.0	+2.2
	comp=Z,0.4nm,0.8s,mb3.3,baz=90,slow=8.6,SNR=2.8						
MKAR	Makanchi Array	46.73	297	P	P	16 09 16.1	-1.1
	comp=Z,0.4nm,0.6s,mb3.5,baz=68,slow=7.3,SNR=5.0						
MKAR				PcP	PcP	16 10 49.2	-0.9
	comp=Z,0.2nm,0.5s,baz=72,slow=1.4,SNR=3.7						
FINES	FINESS Array B	63.88	335	P	P	16 11 19.6	-0.8
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	63.88	335	P	P	16 11 19.6	-0.8
	comp=Z,1.1nm,0.4s,mb4.2,baz=40,slow=7.5,SNR=15						
NB2	NORSAR Subarra	68.08	341	P	P	16 11 46.9	-0.5
	comp=Z,1.0nm,0.6s,mb4.0,baz=27,slow=6.5						
NOA	NORSAR Array B	68.08	341	P	P	16 11 47.1	-0.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	NORSAR Array B	68.08	341	P	P	16 11 47.0	-0.3
	comp=Z,1.2nm,0.5s,mb4.2,baz=27,slow=6.4,SNR=5.8						
WRA	Warramunga Arr	68.53	199	P	P	16 11 52.8	+2.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	68.53	199	P	P	16 11 52.8	+2.1
	comp=Z,0.6nm,0.8s,mb3.6,baz=16,slow=6.8,SNR=5.4						
AKASG	Malin Array Be	71.36	326	P	P	16 12 06.6	-1.2
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	71.36	326	P	P	16 12 06.6	-1.2
	comp=Z,0.8nm,0.3s,mb4.1,baz=33,slow=6.0,SNR=7.2						
ASAR	Alice Springs	72.23	198	P	P	16 12 13.1	0.0
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	72.23	198	P	P	16 12 13.1	0.0
	comp=Z,0.6nm,0.6s,mb3.7,baz=12,slow=5.5,SNR=11						
TXAR	Lajitas Array	77.62	60	P	P	16 12 44.6	+0.2
	comp=Z,0.2nm,0.6s,mb3.3,baz=310,slow=5.8,SNR=2.2						

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*IDC **19** 16:05:07.5±0.8, 13.33N×125.93E, h0^{km}, mb3.8/10, mb1 3.9/10, mb1mx3.8/20, mbtmp3.8/10, Error ellipse: s-maj=57.5km s-min=15.6km az=75.0*

*NEIC **19** 16:05:08.9±0.5, 13.35N×126.05E, h10^{km}, mb4.4/2, Error ellipse: s-maj=31.6km s-min=8.5km az=69.0*

*ISCJB **19** 16:05:11.2±0.5, 13.39N±0.04×125.79E±0.04, h33^{km}, mb3.9/12, Error ellipse: s-maj=6.3km s-min=5.2km az=163.6*

ISC 19 16:05:13.1±0.5**, 13.35N**±0.04×**125.77E**±0.05**, h35**^{km}**, n37,** σ**1**^{s}**00**/42**, mb3.9**/12**, 3C, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNP	Catarman	1.36	232	*e*P	Pn	16 05 34.9	-0.7
CNP				*e*S	Sn	16 05 53.5	+1.0
PVCP	Virac	1.59	279 ⇑	*e*P	Sn	16 05 56.7	-1.4
PVCP	Virac	1.59	279	*e*P	Pn	16 05 37.6	-1.1
PVCP				*e*S	Sn	16 05 57.2	-0.9
BESP	Borongan	1.77	191	*e*P	Pn	16 05 39.9	-1.3
PLP	Palo	2.30	200	*e*P	Pn	16 05 48.5	-0.1
PLP				*e*S	Sn	16 06 13.4	-2.3
GQP	Guinayangan	3.28	280 ⇑	*e*P	Pn	16 06 01.9	-0.1
GQP				*i* S	Sn	16 06 40.0	+0.3
MSLP	Maasin	3.32	196	*e*P	Pn	16 06 03.5	+1.0
RCP	Roxas	3.44	239 ⇑	*e*P	Pn	16 06 05.3	+1.0
SCPH	Surigao	3.55	184	*e*P	Pn	16 06 07.1	+1.2
SCPH				*e*S	Sn	16 06 41.5	-5.1
OTRP	Odiongan	3.78	255	*e*P	Pn	16 06 09.4	+0.4
POLP	Polilio Island	3.96	291	*e*P	Pn	16 06 11.5	+0.1
GUIM	Jordan	4.12	229	*e*P	Pn	16 06 13.2	-0.4
BALP	Baler	4.70	301	*e*P	Pn	16 06 18.6	-3.0
CAUP	Cauayan	5.22	314	*e*P	Pn	16 06 27.8	-1.0
BUKP	Musuan	5.48	187	*e*P	Pn	16 06 36.9	+4.6
BUSP	Coron	5.60	257	*e*P	Pn	16 06 34.8	+0.8
PAGZ	Pagadian	5.95	203	*e*P	Pn	16 06 41.1	+2.4
APYP	Conner	6.26	316	*e*P	Pn	16 06 42.7	-0.3
BOLP	Bolinao	6.41	299	*e*P	Pn	16 06 44.2	-0.9
ABRA	Dolores	6.48	312	*e*P	Pn	16 06 46.7	+0.6
ENPP	El Nido	6.55	252	*e*P	Pn	16 06 47.5	+0.5
KSRS	Korea Array	24.08	4	P	P	16 10 24.6	-0.6
	2.4nm,1.0s,mb3.6,baz=182,slow=9.7,SNR=8.0						
FITZ	Fitzroy Crossi	31.25	180	P	P	16 11 28.8	-0.8
	0.5nm,0.3s,mb3.8,baz=9.3,slow=11,SNR=11						
LSA	Lhasa	35.90	303	*e*P	P	16 12 12.8	+2.6
	3.6nm,1.1s,mb4.2						
ASAR	Alice Springs	37.64	168	P	P	16 12 24.0	-0.9
	0.4nm,0.5s,mb3.4,baz=350,slow=7.0,SNR=12						
SONM	Songino Array	37.98	339	P	P	16 12 28.2	+0.6
	1.4nm,0.9s,mb3.7,baz=149,slow=8.4,SNR=12						
STKA	Stephens Creek	47.46	162	*e*P	P	16 13 44.1	-0.4
STKA	Stephens Creek	47.46	162	P	P	16 13 44.0	-0.5
	2.0nm,0.7s,mb4.1,baz=354,slow=14,SNR=5.8						
MKAR	Makanchi Array	49.31	321	P	P	16 13 59.7	+1.0
MKAR				PcP	PcP	16 15 21.4	+0.3
MKAR	Makanchi Array	49.31	321	P	P	16 13 59.7	+1.0
	2.2nm,0.8s,mb4.3,baz=112,slow=8.7,SNR=28						
MKAR				PcP	PcP	16 15 21.4	+0.3
	0.7nm,0.9s,baz=106,slow=5.2,SNR=3.6						
ZALV	Zalesovo Beam	51.71	330	P	P	16 14 17.0	+0.3
ZALV	Zalesovo Beam	51.71	330	P	P	16 14 17.0	+0.3
	0.7nm,0.4s,mb4.0,baz=117,slow=8.5,SNR=3.7						
KURK	Kurchatov	53.28	324	*e*P	P	16 14 29.4	+1.1
	7.4nm,1.0s,mb4.6						
BRVK	Borovoye	58.95	325	*e*P	P	16 15 09.0	+0.1
FINES	FINESS Array B	82.97	331	P	P	16 17 33.8	-0.6
	1.3nm,0.8s,mb4.0,baz=76,slow=8.0,SNR=5.2						
AKASG	Malin Array Be	83.89	321	P	P	16 17 39.5	+0.2
	0.1nm,0.2s,mb3.5,baz=66,slow=4.9,SNR=4.9						
YKA	Yellowknife Ar	91.16	24	P	P	16 18 13.9	-0.3
	0.1nm,0.6s,mb3.3,baz=297,slow=4.5,SNR=3.3						

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*ISCJB **19** 16:22:01.4±1.7, 14.7S±0.3×177.6W±0.2, h327^{km}±22^{km}, mb3.7/14, Error ellipse: s-maj=47.7km s-min=14.6km az=151.4*

*NEIC **19** 16:22:02.8±1.2, 14.74S×177.48W, h334^{km}±15^{km}, mb4.4/3, Error ellipse: s-maj=34.2km s-min=8.9km az=152.0*

*IDC **19** 16:22:03.0±2.1, 14.70S×177.48W, h335^{km}±23^{km}, mb3.2/11, mb1 3.5/12, mb1mx3.5/16, mbtmp3.3/12, Error ellipse: s-maj=38.9km s-min=12.7km az=152.0*

ISC 19 16:22:02.4±1.7**, 14.7S**±0.3×**177.5W**±0.2**, h325**^{km}±22^{km}**, n32,** σ**0**^{s}**57**/19**, mb3.7**/14**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	5.64	83	P	Pn	16 23 28.2	-0.1
	14nm,0.3s,baz=252,slow=3.2,SNR=29						
CTA	Charters Tower	34.92	256	P	P	16 28 25.5	+1.0
CTA	Charters Tower	34.92	256	P	P	16 28 25.5	+1.0
	4.4nm,0.4s,mb4.0,baz=63,slow=9.0,SNR=4.8						
CTAO	Charters Tower	34.92	256	*e*P	P	16 28 25.6	+1.1
	5.6nm,0.6s,mb4.0						
STKA	Stephens Creek	40.97	238	*e*P	P	16 29 14.0	-0.6
STKA	Stephens Creek	40.97	238	P	P	16 29 14.4	-0.2
	0.7nm,0.4s,mb3.2,baz=88,slow=9.4,SNR=8.5						
WRA	Warramunga Arr	46.12	256	P	P	16 29 54.7	-0.8
	0.6nm,0.3s,mb3.2,baz=84,slow=5.7,SNR=51						
WRA				PcP	PcP	16 31 25.3	-0.3
	0.9nm,0.8s,baz=91,slow=3.8,SNR=5.7						
ASAR	Alice Springs	46.54	251	P	P	16 29 58.7	0.0
	9.4nm,0.4s,mb4.4,baz=84,slow=8.5,SNR=249						
ASAR				PcP	PcP	16 31 26.4	-0.8
	0.7nm,0.5s,baz=99,slow=4.1,SNR=4.8						
FITZ	Fitzroy Crossi	54.44	258	P	P	16 30 57.8	+0.4
	1.3nm,0.8s,mb3.3,baz=88,slow=11,SNR=7.1						
MJAR	Matsushiro Arr	65.86	322	P	P	16 32 13.4	-0.5
	1.4nm,0.7s,mb3.8,baz=158,slow=6.3,SNR=4.3						
KSRS	Korea Array	72.88	317	P	P	16 32 57.2	+0.5
	0.6nm,0.7s,mb3.4,baz=135,slow=5.3,SNR=3.3						
NVAR	Mina Array Bea	76.53	44	P	P	16 33 17.9	+0.5
	0.5nm,0.7s,mb3.4,baz=234,slow=10,SNR=3.5						
TNA	Tin City	80.33	4	*e*P	P	16 33 38.3	+0.9
	5.7nm,0.8s,mb4.3						
COLA	College	82.46	12	*e*P	P	16 33 48.1	-0.4
	4.7nm,0.6s,mb4.5						
TXAR	Lajitas Array	83.57	58	P	P	16 33 55.5	+0.5
TXAR	Lajitas Array	83.57	58	P	P	16 33 55.5	+0.5
	0.7nm,0.6s,mb3.6,baz=223,slow=6.2,SNR=7.4						
PDAR	Pinedale Array	84.44	43	P	P	16 33 58.8	-0.3
	0.7nm,0.6s,mb3.7,baz=211,slow=2.6,SNR=6.7						
YKA	Yellowknife Ar	91.06	24	P	P	16 34 29.2	-0.8
	0.2nm,0.4s,mb3.4,baz=237,slow=4.4,SNR=5.1						
SONM	Songino Array	91.67	319	P	P	16 34 32.6	-0.6
	0.2nm,0.6s,mb3.2,baz=145,slow=5.5,SNR=2.5						
ARCES	ARCESS Array B	123.30	351	PKP	PKPdf	16 40 18.3	-2.0
ARCES	ARCESS Array B	123.30	351	PKP	PKPdf	16 40 18.3	-2.0
	5.0nm,1.1s,baz=329,slow=2.1,SNR=6.1						
DPC	Dobruska-Polom	142.69	345	*e*P	PKPdf	16 40 53.8	-3.3
BRTR	Keskin Array B	143.02	318	PKP	PKPdf	16 40 55.5	-2.5
BRTR	Keskin Array B	143.02	318	PKP	PKPdf	16 40 55.5	-2.5
	2.2nm,0.7s,baz=48,slow=1.8,SNR=14						
PRU	Pruhonice	143.44	347	*e*P	PKPdf	16 40 56.5	-1.9
GRA1	Grafenberg Arr	144.36	350	*e*PKPbc	PKPdf	16 40 59.2	-0.8
GRF	Grafenberg Arr	144.36	350	*e*PKP	PKPdf	16 40 59.2	-0.8
GRFO	Grafenberg	144.36	350	*e*PKPbc	PKPdf	16 40 59.2	-0.8
KHC	Kasperske Hory	144.45	347	*e*P	PKPdf	16 40 59.6	-0.6
GEC2	GERESS Array S	144.70	347	*e*PKPbc	PKPdf	16 40 59.6	-1.0
GERES	GERESS Array B	144.70	347	PKP	PKPdf	16 40 59.7	-0.9
GERES	GERESS Array B	144.70	347	PKP	PKPdf	16 40 59.7	-0.9
	1.6nm,0.6s,baz=29,slow=3.9,SNR=17						

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*NEIC **19** 16:28:24.0±1.6, 6.04S×147.85E, h10^{km}, mb4.5/2, Error ellipse: s-maj=31.8km s-min=18.3km az=167.0*

*ISCJB **19** 16:28:29.7±3.9, 6.4S±0.2×148.1E±0.2, h72^{km}±33^{km}, mb4.2/3, Error ellipse: s-maj=45.1km s-min=16.8km az=151.5*

*IDC **19** 16:28:33.5±4.5, 6.55S×148.19E, h88^{km}±38^{km}, mb4.1/3, mb1 4.1/6, mb1mx3.7/16, mbtmp4.1/6, MS3.9/1, Ms1 3.9/1, ms1mx3.0/20, Error ellipse: s-maj=49.1km s-min=25.0km az=148.0*

ISC 19 16:28:30.6±3.3**, 6.3S**±0.2×**148.0E**±0.2**, h64**^{km}±33^{km}**, n11,** σ**0**^{s}**80**/10**, mb4.3**/3**, 1D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.17	195	P	Pn	16 29 17.4	-0.6
	19nm,0.3s,baz=19,slow=7.3,SNR=106						
PMG				S	Sn	16 29 55.4	+0.7
	26nm,0.3s,baz=351,slow=19,SNR=9.9						
HNR	Honiara	12.23	105	P	Pn	16 31 22.4	+0.3
	1.2nm,0.3s,baz=272,slow=9.3,SNR=4.7						
HNR				LR	LR	16 35 04.0	
	comp=Z,630nm,19.9s,baz=0.6,slow=33						
WB2	Warramunga Arr	18.94	223 ⇓	*i*P	Pn	16 32 47.2	-0.7
WRA	Warramunga Arr	18.95	223	P	Pn	16 32 47.3	-0.6
	0.8nm,0.3s,baz=51,slow=11,SNR=31						
ASAR	Alice Springs	21.93	217	P	P	16 33 19.2	+0.4
	6.8nm,0.5s,mb4.3,baz=54,slow=9.2,SNR=98						
FITZ	Fitzroy Crossi	24.75	240	*e*P	P	16 33 47.9	+1.5
	23nm,0.4s,mb5.1						
FITZ	Fitzroy Crossi	24.75	240	P	P	16 33 48.0	+1.6
	17nm,0.6s,mb4.8,baz=66,slow=8.4,SNR=103						
STKA	Stephens Creek	26.11	192	*e*P	P	16 33 57.7	-0.9
	2.9nm,1.1s,mb3.7						
STKA	Stephens Creek	26.11	192	P	P	16 33 57.6	-1.0
	0.9nm,0.4s,mb3.7,baz=21,slow=8.9,SNR=4.9						
TORD	Torodi Ar. Bea	146.13	284	PKPbc	PKPbc	16 48 04.0	-0.7
TORD	Torodi Ar. Bea	146.13	284	PKPbc	PKPbc	16 48 04.0	-0.7
	0.6nm,0.8s,baz=89,slow=4.2,SNR=3.6						

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*ISCJB **19** 16:28:49.0±0.9, 4.0S±0.1×152.4E±0.2, h10^{km}, mb4.2/11, MS3.8/2, Error ellipse: s-maj=29.7km s-min=14.7km az=17.1*

*BJI **19** 16:28:48.4, 3.90S×152.10E, h10^{km}, mB5.2, mb4.6*

*IDC **19** 16:28:50.0±2.1, 3.81S×151.92E, h0^{km}, mb4.0/6, mb1 4.2/6, mb1mx4.0/14, mbtmp4.0/6, MS3.7/3, Ms1 3.7/3, ms1mx3.2/24, Error ellipse: s-maj=76.8km s-min=25.7km az=111.0*

*NEIC **19** 16:28:50.5±0.9, 3.89S×152.13E, h10^{km}, mb4.6/4, Error ellipse: s-maj=34.1km s-min=15.9km az=107.0*

ISC 19 16:28:50.5±0.9**, 3.9S**±0.1×**152.2E**±0.2**, h10**^{km}**, n23,** σ**1**^{s}**31**/18**, mb4.2**/11**, MS3.8**/2**, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	17.08	199	LR	LR	16 38 38.4	
	comp=Z,140nm,20.6s,baz=20,slow=34						
WB2	Warramunga Arr	23.57	226	*e*P	P	16 34 00.7	-1.0
WRA	Warramunga Arr	23.58	226	P	P	16 34 00.4	-1.4
	8.5nm,1.1s,mb4.1,baz=48,slow=10.0,SNR=9.4						
ASAR	Alice Springs	26.40	220	P	P	16 34 28.7	+1.3
	5.7nm,1.1s,mb4.0,baz=44,slow=9.5,SNR=6.5						
STKA	Stephens Creek	29.54	198	LR	LR	16 45 05.1	
	comp=Z,208nm,19.3s,MS3.8,baz=23,slow=33						
FITZ	Fitzroy Crossi	29.55	240	LR	LR	16 46 55.6	
	comp=Z,194nm,19.1s,MS3.8,baz=63,slow=37						
HIA	Hailar	59.98	336	*e*P	P	16 38 55.2	-1.9
	5.8nm,1.1s,mb4.5						
LZH	Lanzhou	60.17	316	*e*P	P	16 39 02.5	+3.8
LZH				AMB	AMB		
	comp=Z,17nm,1.4s,mb4.9						
LZH	Lanzhou	60.17	316	*e*P	P	16 39 02.5	+3.8
	comp=Z,17nm,1.4s,mb4.9						
LZH				pP	pP	16 39 12.6	+11
LZH				sP	sP	16 39 15.5	+12
GTA	Gaotai	64.59	317	*e*P	P	16 39 31.9	+3.6
GTA				AMB	AMB		
	comp=Z,3.0nm,1.1s,mb4.2						
SONM	Songino Array	65.25	328	P	P	16 39 31.5	-0.9
	comp=Z,0.7nm,0.7s,mb3.8,baz=147,slow=7.2,SNR=5.8						
SHL	Shillong	65.33	300	*e*P	P	16 39 37.5	+4.1
LSA	Lhasa	67.23	304	P	P	16 39 40.9	-4.6
LSA	Lhasa	67.23	304	*e*P	P	16 39 46.6	+1.1
	comp=Z,3.0nm,0.9s,mb4.3						
SBA	Scott Base	74.28	177	*e*P	P	16 40 27.9	+0.4
MKAR	Makanchi Array	79.26	319	P	P	16 40 58.0	+1.8
	comp=Z,1.0nm,0.9s,mb3.8,baz=97,slow=7.4,SNR=6.3						
ZALV	Zalesovo Beam	80.08	326	P	P	16 40 59.3	-1.2
	comp=Z,0.6nm,0.4s,mb3.9,baz=104,slow=4.6,SNR=3.2						
MCK	McKinley	80.29	23	*e*P	P	16 40 59.9	-1.5
	comp=Z,9.5nm,1.4s,mb4.5						
KURK	Kurchatov	82.70	322	*e*P	P	16 41 14.5	0.0
BRVK	Borovoye	88.24	323	*e*P	P	16 41 42.9	+0.9
YKA	Yellowknife Ar	94.94	28	P	P	16 42 14.0	+1.1
	comp=Z,0.1nm,0.3s,mb3.7,baz=271,slow=4.6,SNR=4.1						
TORD	Torodi Ar. Bea	149.44	289	PKPbc	PKPbc	16 48 40.6	-0.5
TORD	Torodi Ar. Bea	149.44	289	PKPbc	PKPbc	16 48 40.6	-0.5
	comp=Z,0.6nm,0.8s,baz=76,slow=3.1,SNR=2.8						

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*ISCJB **19** 16:45:04.7±1.2, 5.46S±0.07×147.27E±0.08, h183^{km}±12^{km}, mb4.3/9, Error ellipse: s-maj=14.9km s-min=10.1km az=39.2*

*NEIC **19** 16:45:07.7±1.4, 5.50S×147.25E, h199^{km}±14^{km}, mb4.7/9, Error ellipse: s-maj=13.8km s-min=11.5km az=129.0*

*IDC **19** 16:45:07.2±1.3, 5.63S×147.23E, h195^{km}±12^{km}, mb4.0/6, mb1 4.2/9, mb1mx4.0/16, mbtmp4.1/9, Error ellipse: s-maj=23.7km s-min=10.3km az=107.0*

ISC 19 16:45:07.5±1.1**, 5.61S**±0.07×**147.12E**±0.08**, h187**^{km}±11^{km}**, n27,** σ**1**^{s}**11**/28**, mb4.3**/9**, 2D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.77	179	P	Pn	16 46 06.7	+0.6
	15nm,0.3s,baz=2.7,slow=4.7,SNR=120						
PMG				S	Sn	16 46 50.5	-1.5
	33nm,0.3s,baz=10,slow=24,SNR=19						
HNR	Honiara	13.27	107	P	Pn	16 48 07.2	-1.7
	20nm,0.3s,baz=330,slow=0.2,SNR=13						
CTA	Charters Tower	14.42	183	*e*P	Pn	16 48 25.9	+2.7
	8.9nm,0.4s						
CTA	Charters Tower	14.42	183	P	Pn	16 48 25.5	+2.3
	2.2nm,0.3s,baz=4.4,slow=12,SNR=20						
CTAO	Charters Tower	14.42	183	*e*P	Pn	16 48 25.6	+2.4
	31nm,0.9s						
KAKA	Kakadu	16.11	243	*e*P	Pn	16 48 44.4	+0.4
	54nm,0.7s						
KAKA				*e*S	S	16 51 41.1	-1.7
WB2	Warramunga Arr	18.90	220 ⇓	*i*P	P	16 49 15.2	+1.1
WB2				*e*S	S	16 52 38.9	-0.1
WRA	Warramunga Arr	18.91	220	P	P	16 49 15.9	+1.7
	11nm,0.3s,baz=48,slow=12,SNR=538						
WRA				S	S	16 52 37.8	-1.4
	baz=42,slow=19,SNR=9.7						
WRA				ScP	ScP	16 56 47.2	-3.1
	0.0nm,0.3s,baz=32,slow=2.8,SNR=4.7						
ASAR	Alice Springs	22.01	214	P	P	16 49 48.2	+1.2
	24nm,0.5s,mb4.9,baz=49,slow=8.6,SNR=426						
ASAR				S	S	16 53 36.2	-0.1
	1.0nm,0.8s,baz=32,slow=16,SNR=4.2						
ASAR				ScP	ScP	16 56 55.2	-2.5
	1.0nm,0.9s,baz=46,slow=2.7,SNR=5.3						
FITZ	Fitzroy Crossi	24.38	238 ⇓	*i*P	P	16 50 09.0	+0.3
	68nm,0.5s,mb5.4						
FITZ	Fitzroy Crossi	24.38	238	P	P	16 50 09.2	+0.5
	35nm,0.5s,mb5.2,baz=49,slow=11,SNR=127						
ARMA	Armidale	25.04	171	*e*P	P	16 50 15.2	+0.7
STKA	Stephens Creek	26.64	191	*e*P	P	16 50 28.3	-0.6
	2.4nm,0.4s,mb4.2						
STKA	Stephens Creek	26.64	191	P	P	16 50 28.7	-0.2
	2.9nm,0.4s,mb4.3,baz=360,slow=9.0,SNR=36						
CNB	Canberra Magne	29.64	176	*e*P	P	16 50 55.6	+0.2
	3.1nm,0.5s,mb4.3						
MBWA	Marble Bar	30.72	237	*e*P	P	16 51 05.5	+0.3
	8.3nm,0.6s,mb4.6						
KMBL	Kambalda	34.88	220	*e*P	P	16 51 41.4	+0.2
	74nm,0.5s						
NWAO	Narrogin (SRO)	38.90	222	*e*P	P	16 52 14.9	-0.2
	17nm,1.2s,mb4.5						
MUN	Mundaring	39.03	224	*e*P	P	16 52 16.3	+0.1
ENH	Enshi	50.71	317	P	P	16 53 49.9	+1.6
	0.6nm,0.7s						
SONM	Songino Array	64.12	331	P	P	16 55 21.3	-0.4
	0.6nm,0.4s,mb3.7,baz=130,slow=5.1,SNR=13						
MKAR	Makanchi Array	77.27	320	P	P	16 56 40.1	-1.1
	0.4nm,0.4s,mb3.4,baz=106,slow=6.6,SNR=7.4						
ZALV	Zalesovo Beam	78.75	328	P	P	16 56 46.9	-2.2
	1.4nm,0.4s,mb3.9,baz=104,slow=7.2,SNR=6.6						
GERES	GERESS Array B	121.65	326	PKP	PKPdf	17 03 37.4	-1.7
GERES	GERESS Array B	121.65	326	PKP	PKPdf	17 03 37.4	-1.7
	0.4nm,0.5s,baz=48,slow=2.0,SNR=5.7						
TORD	Torodi Ar. Bea	145.11	285	PKPbc	PKPbc	17 04 21.9	-1.7
TORD	Torodi Ar. Bea	145.11	285	PKPbc	PKPbc	17 04 21.9	-1.7
	1.3nm,0.6s,baz=74,slow=3.2,SNR=18						

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*IDC **19** 16:47:05.4±0.8, 46.72N×155.49E, h0^{km}, mb3.7/10, mb1 3.9/12, mb1mx3.8/24, mbtmp3.7/12, ML3.5/2, Error ellipse: s-maj=25.8km s-min=19.6km az=146.0*

*NEIC **19** 16:47:07.0±0.6, 46.67N×155.47E, h10^{km}, mb4.2/1, Error ellipse: s-maj=16.3km s-min=12.4km az=133.0*
*MOS **19** 16:47:07.8±1.7, 46.83N×155.44E, h33^{km}, mb4.2/7, Error ellipse: s-maj=20.9km s-min=12.7km az=72.1*
*ISCJB **19** 16:47:08.7±0.7, 46.7N±0.1×155.3E±0.1, h33^{km}, mb3.7/11, Error ellipse: s-maj=19.5km s-min=11.4km az=145.0*
ISC 19 16:47:10.9±0.7, **46.7N**±0.1×**155.4E**±0.1, **h35**^{km}, **n24, σ0^{s}71**/24, **mb3.7**/11, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	4.06	7	*e*PN	Pn	16 48 05.5	-4.9
SKR				pmax	pmax		
	comp=Z,30nm,0.5s						
PET	**Petropavlovsk**	6.71	17	*e*PN	Pn	16 48 41.8	-5.0
YUK	**Yuzh-Kuril'sk**	7.20	252	PN	Pn	16 48 52.5	-1.1
ASAJ	**Asahikawa**	9.35	259	PN	Pn	16 49 22.7	-0.3
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	9.35	259	Pn	Pn	16 49 22.7	-0.3
	comp=Z,0.7nm,0.3s,baz=110,slow=13,SNR=6.8						
MJAR	**Matsushiro Arr**	16.31	238	Pn	Pn	16 50 56.5	-0.5
MJAR	**Matsushiro Arr**	16.31	238	Pn	Pn	16 50 56.5	-0.5
	comp=Z,0.1nm,0.3s,baz=46,slow=13,SNR=3.1						
KSRS	**Korea Array**	22.27	256	P	P	16 52 06.0	+1.3
	comp=Z,1.1nm,0.8s,mb3.4,baz=58,slow=9.7,SNR=5.9						
SONM	**Songino Array**	32.83	290	P	P	16 53 41.1	+0.3
	comp=Z,0.2nm,0.5s,mb3.3,baz=65,slow=8.0,SNR=4.2						
BRVK	**Borovoye**	52.16	310	*e*P	P	16 56 19.0	+1.6
	comp=Z,1.9nm,0.6s,mb4.2						
BRVK	**Borovoye**	52.16	310	*e*P	P	16 56 19.0	+1.5
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
NVAR	**Mina Array Bea**	61.09	64	P	P	16 57 21.0	-0.1
NVAR	**Mina Array Bea**	61.09	64	P	P	16 57 21.0	-0.1
	comp=Z,0.6nm,0.7s,mb3.9,baz=303,slow=5.2,SNR=4.3						
FINES	**FINESS Array B**	64.78	336	P	P	16 57 45.1	-0.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	**FINESS Array B**	64.78	336	P	P	16 57 45.1	-0.2
	comp=Z,0.8nm,0.5s,mb4.0,baz=38,slow=9.6,SNR=8.1						
NOA	**NORSAR Array B**	68.81	342	P	P	16 58 10.7	-0.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	**NORSAR Array B**	68.81	342	P	P	16 58 10.7	-0.3
	comp=Z,0.7nm,0.7s,mb3.7,baz=24,slow=6.3,SNR=2.8						
WRA	**Warramunga Arr**	68.96	201	P	P	16 58 12.0	-0.3
	comp=Z,0.4nm,0.6s,mb3.5,baz=20,slow=7.1,SNR=4.0						
AKASG	**Malin Array Be**	72.48	327	P	P	16 58 32.8	-0.6
	comp=Z,0.3nm,0.4s,mb3.6,baz=32,slow=5.4,SNR=2.4						
ASAR	**Alice Springs**	72.64	201	P	P	16 58 35.5	+0.9
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ASAR	**Alice Springs**	72.64	201	P	P	16 58 35.5	+0.9
	comp=Z,0.6nm,0.9s,mb3.5,baz=20,slow=5.8,SNR=5.8						
TXAR	**Lajitas Array**	76.17	62	P	P	16 58 55.2	-0.1
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	**Lajitas Array**	76.17	62	P	P	16 58 55.1	-0.2
	comp=Z,1.4nm,0.7s,mb4.0,baz=298,slow=4.1,SNR=14						
GERES	**GERESS Array B**	79.21	335	P	P	16 59 11.7	-0.2
	comp=Z,0.4nm,0.6s,mb3.6,baz=39,slow=8.6,SNR=4.2						

*KRSC **19** 16:48:09.2±2.2, 51.75N×154.64E, h504^{km}±53^{km}, ML4.6*
*MOS **19** 16:48:10.6±0.7, 52.57N×153.23E, h440^{km}, mb3.6/7, Error ellipse: s-maj=20.2km s-min=17.2km az=66.5*
*ISCJB **19** 16:48:11.2±0.6, 52.5N±0.1×153.4E±0.2, h447^{km}±8^{km}, mb3.3/12, Error ellipse: s-maj=19.9km s-min=16.6km az=150.8*
*NEIC **19** 16:48:16.5±5.1, 52.60N×153.28E, h494^{km}±61^{km}, mb3.9/1, Error ellipse: s-maj=19.4km s-min=14.5km az=169.0*
*IDC **19** 16:48:17.2±7.1, 52.61N×153.27E, h502^{km}±84^{km}, mb2.9/11, mb1 3.1/11, mb1mx2.9/23, mbtmp2.9/11, Error ellipse: s-maj=22.2km s-min=16.8km az=167.0*
ISC 19 16:48:12.1±0.6, **52.5N**±0.1×**153.4E**±0.2, **h442**^{km}±9^{km}, **n39, σ1^{s}16**/51, **mb3.3**/12, **1C, Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MIPR	**Malaya Ipel'ka**	2.07	95	*e*P	P	16 49 12.9	+0.8
ALID	**Alaid**	2.10	140	P	P	16 49 08.7	-3.7
GNL	**Ganaly**	3.00	64	P	P	16 49 21.0	+2.8
RUS	**Russkaya**	3.13	89	PN	P	16 49 19.4	+0.1
RUS				S	S	16 50 11.0	-3.1
RUS	**Russkaya**	3.13	89	*e*P	P	16 49 19.4	+0.1
RUS				*i* S	S	16 50 11.0	-3.1
PET	**Petropavlovsk**	3.24	78	⇑*i*PN	P	16 49 21.1	+1.0
PET				*e*S	S	16 50 16.6	+1.0
PET				pmax	pmax		
	comp=Z,70nm,0.9s						
PET				smax			
	comp=N,34nm,0.8s						
PET				smax			
	comp=E,51nm,0.7s						
PET	**Petropavlovsk**	3.24	78	P	P	16 49 20.9	+0.8
PET				*i* S	S	16 50 13.3	-2.3
KOK	**Koryaka**	3.28	74	*e*P	P	16 49 22.0	+1.6
SDLR	**Sedlovina**	3.42	74	*e*P	P	16 49 22.6	+1.0
SDLR				*e*S	S	16 50 16.6	-1.6
NLC	**Nalytchevo**	3.67	77	PN	P	16 49 24.2	+0.5
NLC				S	S	16 50 18.3	-3.8
NLC	**Nalytchevo**	3.67	77	*e*P	P	16 49 24.2	+0.5
NLC				*i* S	S	16 50 18.3	-3.8
SPN	**Mys Shipunski**	4.07	79	PN	P	16 49 26.2	-0.9
SPN				S	S	16 50 22.5	-5.9
SPN	**Mys Shipunski**	4.07	79	*e*P	P	16 49 26.2	-0.9
SPN				*i* S	S	16 50 22.5	-5.9
TUMR	**Tumrok**	4.88	52	P	P	16 49 36.5	+1.9
SRDR	**Sredinnyy**	5.32	41	P	P	16 49 41.0	+2.0
MKZ	**Mys Kozlova**	5.39	64	PN	P	16 49 39.2	-0.4
MKZ				S	S	16 50 43.9	-7.3
MKZ	**Mys Kozlova**	5.39	64	*e*P	P	16 49 39.2	-0.4
MKZ				*i* S	S	16 50 43.9	-7.3
KBTR	**Krutoberegovo**	6.65	52	PN	P	16 49 51.8	-0.8
KBTR	**Krutoberegovo**	6.65	52	P	P	16 49 51.8	-0.8
KBTR				*i* S	S	16 51 07.0	-8.0
INK	**Inuvik**	36.81	36	P	P	16 54 40.5	+0.3
INK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
INK	**Inuvik**	36.81	36	P	P	16 54 40.5	+0.3
	comp=Z,1.1nm,0.3s,mb3.6,baz=303,slow=7.3,SNR=5.9						
ZALV	**Zalesovo Beam**	39.62	300	P	P	16 55 03.2	-0.2
ZALV	**Zalesovo Beam**	39.62	300	P	P	16 55 03.2	-0.2
	comp=Z,0.5nm,0.4s,mb3.2,baz=62,slow=7.2,SNR=3.3						
ZAL	**Zalesovo**	39.64	300	P	P	16 55 03.2	-0.4
MKAR	**Makanchi Array**	44.69	292	P	P	16 55 43.9	+0.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	**Makanchi Array**	44.69	292	P	P	16 55 43.9	+0.2
	comp=Z,0.5nm,0.4s,mb3.2,baz=66,slow=7.6,SNR=9.5						
YKA	**Yellowknife Ar**	46.30	40	P	P	16 55 56.3	+0.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	**Yellowknife Ar**	46.30	40	P	P	16 55 56.3	+0.5
	comp=Z,0.9nm,0.6s,mb3.3,baz=302,slow=7.3,SNR=16						
BRVK	**Borovoye**	47.54	306	*e*P	P	16 56 05.2	-0.2
	comp=Z,3.7nm,0.8s,mb3.8						
BRVK	**Borovoye**	47.54	306	*e*P	P	16 56 05.2	-0.2
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.8						
FINES	**FINESS Array B**	58.95	334	P	P	16 57 26.4	-0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	**FINESS Array B**	58.95	334	P	P	16 57 26.4	-0.6
	comp=Z,1.1nm,0.5s,mb3.4,baz=34,slow=6.3,SNR=10						
PDAR	**Pinedale Array**	61.31	56	P	P	16 57 43.6	+0.7
	comp=Z,0.6nm,0.7s,mb3.2,baz=347,slow=3.0,SNR=4.7						
AKASG	**Malin Array Be**	66.91	325	P	P	16 58 16.7	-2.0
	comp=Z,0.1nm,0.3s,mb3.0,baz=79,slow=4.5,SNR=2.3						
GERES	**GERESS Array B**	73.39	334	P	P	16 58 56.4	-1.0
	comp=Z,0.2nm,0.4s,mb3.0,baz=57,slow=6.1,SNR=2.3						
WRA	**Warramunga Arr**	74.01	199	P	P	16 59 00.7	-0.5
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	**Warramunga Arr**	74.01	199	P	P	16 59 00.7	-0.5
	comp=Z,0.5nm,0.8s,mb3.2,baz=12,slow=5.7,SNR=4.2						
BRTR	**Keskin Array B**	74.36	316	P	P	16 59 03.2	+0.1
	comp=Z,0.4nm,0.5s,mb3.3,baz=24,slow=3.0,SNR=2.6						
ASAR	**Alice Springs**	77.72	198	P	P	16 59 22.8	+1.0
	comp=Z,0.4nm,0.5s,mb3.3,baz=12,slow=5.0,SNR=7.8						

*SSNC **19** 16:59:22.1, 19.18N×70.02W, h20^{km}, MD3.4, ML2.7*
*NEIC **19** 16:59:29.6, 19.55N×70.50W, h27^{km}, MD4.2(RSPR), After RSPR.*
RSPR 19 16:59:29.6, 19.55N×70.50W, h27^{km}±45^{km}, **MD4.2**/9, **MD4.2**/9, **12C-1D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDDR	**Presa de Saban**	0.93	233	⇓*i*P	Pn	16 59 44.4	-2.5
SDDR				*e*S	Sb	16 59 57.6	-1.5
STDO	**Santo Domingo**	1.22	153	⇑*e*P	Pn	16 59 48.3	-2.6
STDO				*e*S	Sn	17 00 03.6	-2.9
LSP	**Las Mesas**	3.51	112	⇑*e*P	Pn	17 00 22.0	-0.4
LSP				*e*S	Sn	17 01 02.1	-1.0
CRPR	**Cabo Rojo, PR**	3.56	115	⇑*e*P	Pn	17 00 22.9	-0.2
CRPR				*e*S	Sn	17 01 02.4	-2.0
MASC	**Masc**	3.56	281	*e*P	Pn	17 00 22.0	-1.1
	baz=103,slow=18						
MASC				*e*S	Sn	17 01 06.3	+1.9
	comp=N,5.1nm,0.4s						
MASC				*e*			
	comp=E,5.8nm,0.4s						
LRS	**Lares**	3.68	109	⇑*e*P	Pn	17 00 24.1	-0.6
LRS				*e*S	Sn	17 01 05.0	-2.3
AOPR	**Arecibo Observ**	3.74	108	⇑*e*P	Pn	17 00 24.9	-0.7
AOPR				*e*S	Sn	17 01 06.8	-2.0
GBPR	**Guanica, Bosqu**	3.77	114	*e*S	Sn	17 01 08.0	-1.5
OBIP	**Obispado Ponce**	3.98	111	*e*S	Sn	17 01 12.6	-2.1
CELP	**Cerrillos**	4.00	111	⇑*e*P	Pn	17 00 28.9	-0.1
CELP				*e*S	Sn	17 01 14.1	-0.9
ICM	**Isla Caja Muer**	4.12	113	⇑*e*P	Pn	17 00 30.7	0.0
ICM				*e*S	Sn	17 01 17.1	-0.9
SJG	**San Juan**	4.36	108	⇑*e*P	Pn	17 00 32.5	-1.6
SJG				*e*S	Sn	17 01 20.4	-3.7
SJG	**San Juan**	4.36	108	⇑*e*P	Pn	17 00 31.9	-2.2
SJG				*e*S	Sn	17 01 20.7	-3.4
CBYP	**Canovanas**	4.58	105	⇑*e*P	Pn	17 00 35.6	-1.5
CBYP				*e*S	Sn	17 01 26.4	-3.0
CPD	**Cerro la Pandu**	4.60	108	*e*S	Sn	17 01 29.7	-0.2
CPD	**Cerro la Pandu**	4.60	108	*e*Pn	Pn	17 00 35.4	-1.9
HUMP	**Col San Antoni**	4.62	107	⇑*e*P	Pn	17 00 36.5	-1.2
HUMP				*e*S	Sn	17 01 27.8	-2.7
MTP	**Monte Pirata**	4.91	106	⇑*e*P	Pn	17 00 40.1	-1.5
MTP				*e*S	Sn	17 01 33.5	-3.9

*ISCJB **19** 17:12:10.7±0.9, 1.8N±0.2×127.2E±0.5, h33^{km}, mb3.9/7, Error ellipse: s-maj=72.0km s-min=11.9km az=161.0*
*IDC **19** 17:12:16.2±8.9, 1.81N×127.49E, h69^{km}±85^{km}, mb3.6/5, mb1 3.7/6, mb1mx3.5/17, mbtmp3.6/6, ML3.6/1, Error ellipse: s-maj=99.9km s-min=22.1km az=70.0*
*NEIC **19** 17:12:17.8±5.0, 1.79N×127.44E, h86^{km}±48^{km}, mb4.0/2, Error ellipse: s-maj=50.5km s-min=13.5km az=68.0*
ISC 19 17:12:13.0±0.9, **1.7N**±0.2×**127.2E**±0.4, **h35**^{km}, **n13, σ0^{s}36**/11, **mb3.9**/7, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	19.78	184	P	Pn	17 16 41.9	-0.1
	0.1nm,0.3s,baz=14,slow=12,SNR=5.5						
WRA	**Warramunga Arr**	22.67	162	P	P	17 17 11.7	+0.3
	3.7nm,0.8s,mb3.9,baz=340,slow=11,SNR=24						
WB2	**Warramunga Arr**	22.67	162	*e*P	P	17 17 11.8	+0.4
ASAR	**Alice Springs**	26.09	166	P	P	17 17 43.9	+0.3
	0.6nm,0.6s,mb3.3,baz=349,slow=7.2,SNR=16						
STKA	**Stephens Creek**	36.13	159	P	P	17 19 11.1	-0.8
STKA	**Stephens Creek**	36.13	159	P	P	17 19 11.1	-0.8
	2.7nm,0.8s,mb4.2,baz=328,slow=15,SNR=4.0						
SONM	**Songino Array**	49.31	342	P	P	17 20 58.6	+0.1
	0.4nm,0.6s,mb3.6,baz=158,slow=8.1,SNR=6.6						
MKAR	**Makanchi Array**	59.43	326	P	P	17 22 12.6	+0.4
MKAR	**Makanchi Array**	59.43	326	P	P	17 22 12.6	+0.4
	2.3nm,0.7s,mb4.3,baz=120,slow=8.6,SNR=25						
KURK	**Kurchatov**	63.65	328	*e*P	P	17 22 40.5	-0.1
	1.9nm,0.6s,mb4.3						
BRVK	**Borovoye**	69.29	327	P	P	17 23 16.3	-0.3
	0.9nm,0.6s,mb3.9						
TORD	**Torodi Ar. Bea**	123.94	287	PKP	PKPdf	17 31 07.8	-0.7
TORD	**Torodi Ar. Bea**	123.94	287	PKP	PKPdf	17 31 07.8	-0.7
	0.5nm,0.8s,baz=96,slow=1.9,SNR=2.5						

IDC 19 17:29:00.7±2.9, **15.84S×176.72W, h0**^{km}, **mb3.8**/4, **mb1 4.2**/4, **mb1mx3.9**/14, **mbtmp3.8**/4, **MS3.8**/4, **Ms1 3.8**/4, **ms1mx3.2**/29, **Error ellipse: s-maj=301.8km s-min=26.2km az=155.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	23.63	283	LR	LR	17 42 31.2	
	comp=Z,106nm,18.8s,baz=180,slow=34						
PPT	**Papeete**	26.05	98	LR	LR	17 42 12.0	
	comp=Z,238nm,18.7s,baz=264,slow=30						
WRA	**Warramunga Arr**	46.63	257	P	P	17 37 30.6	-0.5
	0.6nm,0.9s,baz=103,slow=7.1,SNR=3.2						
ASAR	**Alice Springs**	46.94	252	P	P	17 37 34.0	+0.5
	2.5nm,1.0s,baz=84,slow=8.5,SNR=17						
NEW	**Newport**	82.89	36	LR	LR	18 10 55.2	
	comp=Z,58nm,20.5s,baz=135,slow=30						
TXAR	**Lajitas Array**	83.52	57	P	P	17 41 31.6	+0.7
	1.8nm,1.1s,baz=227,slow=5.0,SNR=7.1						
TXAR				LR	LR	18 09 14.8	
	comp=Z,57nm,20.8s,baz=45,slow=29						
PDAR	**Pinedale Array**	84.74	43	P	P	17 41 36.6	-0.1
	0.4nm,0.7s,baz=222,slow=2.4,SNR=4.4						
BRTR	**Keskin Array B**	144.41	318	PKP	PKPdf	17 48 37.8	-1.4
	0.2nm,0.4s,baz=64,slow=3.4,SNR=4.5						

*NEIC **19** 17:58:35.1, 19.53N×67.76W, h35^{km}, MD3.5(RSPR), After RSPR.*
RSPR 19 17:58:35.1, 19.53N×67.76W, h35^{km}±22^{km}, **MD3.5**/3, **MD3.5**/3, **6C, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSP	**Las Mesas**	1.49	155	⇑*e*P	Pn	17 58 58.2	-1.2
LSP				*e*S	Sn	17 59 16.5	-1.1
LRS	**Lares**	1.50	145	⇑*e*P	Pn	17 58 58.1	-1.5
LRS				*e*S	Sn	17 59 16.4	-1.6
AOPR	**Arecibo Observ**	1.51	141	*e*S	Sn	17 59 16.7	-1.4
CRPR	**Cabo Rojo, PR**	1.64	158	⇑*e*P	Pn	17 58 59.8	-1.6
CRPR				*e*S	Sn	17 59 20.6	-0.6
CELP	**Cerrillos**	1.83	142	*e*S	Sn	17 59 24.7	-1.2
OBIP	**Obispado Ponce**	1.84	143	⇑*e*P	Pn	17 59 03.2	-1.0
OBIP				*e*S	Sn	17 59 24.6	-1.6
ICM	**Isla Caja Muer**	2.01	144	⇑*e*P	Pn	17 59 05.8	-0.7
ICM				*e*S	Sn	17 59 29.2	-1.2
CBYP	**Canovanas**	2.19	125	*e*S	Sn	17 59 33.8	-1.2
HUMP	**Col San Antoni**	2.27	127	*e*S	Sn	17 59 35.9	-1.1
MTP	**Monte Pirata**	2.53	124	⇑*e*P	Pn	17 59 13.3	-0.4
MTP				*e*S	Sn	17 59 42.5	-0.8

KRSC 19 18:52:20.9±0.6, **51.39N×158.02E, h91**^{km}±81^{km}, **ML3.5, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUS	**Russkaya**	1.09	16	*i* P	Pn	18 52 43.9	+2.3
RUS				*i* S	Sn	18 53 00.9	+3.7
GRL	**Gorelyy**	1.16	2	P	Pn	18 52 45.1	+2.6
GRL				*i* S	Sn	18 53 03.2	+4.4
MIPR	**Malaya Ipel'ka**	1.18	319	P	Pn	18 52 42.7	0.0
ALID	**Alaid**	1.64	252	*i* P	Pn	18 52 46.7	-1.7
PET	**Petropavlovsk**	1.68	13	*e*P	Pn	18 52 50.9	+2.0
PET				*i* S	Sn	18 53 13.3	+3.1
AVH	**Avacha**	1.93	13	*e*P	Pn	18 52 55.1	+3.0
AVH				*i* S	Sn	18 53 20.2	+4.3
NLC	**Nalytchevo**	1.96	24	*i* P	Pn	18 52 53.9	+1.4
NLC				*i* S	Sn	18 53 17.5	+0.8
SPN	**Mys Shipunski**	2.11	35	*e*P	Pn	18 52 57.0	+2.5
SPN				*i* S	Sn	18 53 23.2	+3.1
GNL	**Ganaly**	2.31	359	*e*P	Pn	18 52 58.4	+1.3
GNL				*e*S	Sn	18 53 26.0	+1.1
MKZ	**Mys Kozlova**	3.88	34	*i* P	Pn	18 53 19.6	+1.3
MKZ				*i* S	Sn	18 54 02.2	-0.5
KBTR	**Krutoberegovo**	5.60	29	*e*P	Pn	18 53 42.6	+1.1

*NEIC **19** 18:57:23.3, 16.99N×100.24W, h8^{km}, MD3.8(MEX), After MEX.*
MEX 19 18:57:24.0±0.5, **17.03N×100.26W, h10**^{km}±1^{km}, **MD3.8, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	0.02	339	*i* P	Pg	18 57 24.7	-1.0
CAIG				*i* S	Sg	18 57 25.7	-1.2
ACX	**Acapulco**	0.36	116	*i* P	Pg	18 57 29.0	-2.2
ACX				*i* S	Sg	18 57 35.0	-1.0
MEIG	**Mezcala**	1.08	34	*i* P	Pg	18 57 41.9	-2.9
MEIG				*i* S	Sg	18 57 55.4	-3.6
ZIIG	**Zihuatanejo**	1.29	297	*i* P	Pn	18 57 44.7	-3.4
ZIIG				*i* S	Sb	18 58 00.1	-4.9
PLIG	**Platanillo**	1.54	28	*e*P	Pn	18 57 47.8	-3.7
PLIG				*i* S	Sn	18 58 06.9	-4.7
YAIG	**Yautepec**	2.15	32	*i* S	Sn	18 58 24.5	-2.2
YAIG	**Yautepec**	2.15	32	*i* S	Sn	18 58 24.5	-2.2
UTMO	**Huajuapan**	2.48	71	*e*P	Pn	18 58 00.8	-3.7
UTMO				*i* S	Sn	18 58 29.5	-5.3
MOIG	**Morelia**	2.78	342	*i* P	Pn	18 58 05.8	-2.9
MOIG				*i* S	Sn	18 58 37.7	-4.6
IIO	**Organos**	2.94	30	*e*P	Pn	18 58 09.4	-1.4
IIO				*i* S	Sn	18 58 42.9	-3.3
TPIG	**Tehuac#an**	3.09	63	*i* S	Sn	18 58 45.1	-4.8

WEL 19 19:04:35.7±0.3, **36.66S×177.44E, h169**^{km}±5^{km}, **ML3.5**/3, **Error ellipse: s-maj=5.5km s-min=5.4km az=0.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	1.13	143	PN	Pn	19 05 03.4	+0.1
PUZ	**Puketiti**	1.55	156	PN	Pn	19 05 07.2	0.0
URZ	**Urewera**	1.62	189	PN	Pn	19 05 08.1	+0.2
URZ				SN	Sn	19 05 33.1	+0.3
MWZ	**Matawai**	1.67	178	PN	Pn	19 05 08.7	+0.3
MWZ				SN	Sn	19 05 33.7	-0.1

NEIC 19 19:06:17.0, 33.29S×68.59W, h3^{km}, **ML4.1**(GUC), **3C-3D, After GUC., Mendoza Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FCH	**Farellones**	1.43	268	⇓*i*P	Pn	19 06 44.0	+0.2
FCH				*i* S	Sb	19 07 02.7	-0.1
CLCH	**Cerro Calan**	1.64	266	*e*P	Pn	19 06 48.1	+1.5
CLCH				*i* S	Sn	19 07 10.9	+2.8
PCH	**Pirque**	1.65	258	*e*P	Pn	19 06 47.4	+0.7
PCH				*i* S	Sn	19 07 10.2	+1.8
ANTU	**Antumapu**	1.73	260	⇓*e*P	Pn	19 06 48.7	+0.7
ANTU				*i* S	Sn	19 07 13.1	+2.5
ANTU	**Antumapu**	1.73	260	⇓*e*P	Pn	19 06 48.7	+0.7
ANTU				*i* S	Sn	19 07 13.1	+2.5
ANTU				AML	AML	19 07 15.3	
	comp=E,2μm,0.3s						
CHCH	**Chadas Angostu**	1.84	249	⇑*e*P	Pn	19 06 50.6	+1.2
CHCH				*i* S	Sn	19 07 15.6	+2.4
CICH	**Cipreses**	1.84	236	⇑*e*P	Pn	19 06 50.7	+1.2
CICH				*i* S	Sn	19 07 16.1	+2.9
TACH	**Talagante**	2.00	259	⇑*i*P	Pn	19 06 52.8	+1.2
TACH				*i* S	Sn	19 07 20.1	+3.0
SFDO	**San Fernando**	2.41	236	*e*P	Pn	19 06 59.0	+1.7
SFDO				*i* S	Sn	19 07 31.0	+3.7
LNV	**Longovilo**	2.45	253	*e*P	Pn	19 07 00.3	+2.5
CMCH	**Combarbala**	2.94	315	*e*P	Pn	19 07 06.7	+2.1
CMCH				*e*S	Sn	19 07 44.3	+3.9
CMCH	**Combarbala**	2.94	315	*e*P	Pn	19 07 06.7	+2.1
CMCH				*e*S	Sn	19 07 44.3	+3.9
CMCH				AML	AML	19 07 53.6	
	comp=N,2μm,0.5s						

*IDC **19** 19:24:09.3±0.4, 23.02S×70.57W, h0^{km}, mb5.2/19, mb1 5.3/22, mb1mx5.3/23, mbtmp5.2/22, ML4.9/3, MS4.8/15, Ms1 4.7/15, ms1mx4.6/19, Error ellipse: s-maj=17.5km s-min=11.3km az=85.0*
*GCMT **19** 19:24:10.6±0.2, 23.03S×70.99W, h18^{km}, MW5.5/72, Moment Tensor Solution. s65,c101; s72,c120; Duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}0.90±.03; $M_{\theta\theta}$0.19±.02; $M_{\phi\phi}$-1.09±.03; $M_{r\theta}$0.03±.04; $M_{\theta\phi}$-0.11±.01; $M_{\phi r}$-1.61±.10; Best double couple: $M_0$1.89600×10^{17} NP1:ϕ_s13.00000°, δ16.00000°, λ103.00000°. NP2:ϕ_s180.00000°, δ74.00000°, λ86.00000°. Principal axes: T 1.8000, Plg61.0000°, Azm84.0000°; N 0.1880, Plg4.0000°, Azm181.0000°; P -1.9920, Plg29.0000°, Azm273.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **19** 19:24:10.6±0.1, 23.05S×70.47W, h10^{km}, mb5.5/139, MS4.8/19, ML5.2(GUC) Error ellipse: s-maj=5.7km s-min=4.2km az=69.0*
NEIC Felt [IV] at Antofagasta and Mejillones; [III] at Baquedano and Maria Elena; [II] at Tocopilla; [I] at Iquique. Felt [III] at Mendoza, Argentina.
*ISCJB **19** 19:24:10.9±1.1, 23.02S±0.03×70.46W±0.03, h18^{km}±7^{km}, mb5.5/167, MS4.8/41, Error ellipse: s-maj=5.3km s-min=4.3km az=140.1*
*GUC **19** 19:24:12.4±0.9, 23.13S×70.67W, h43^{km}±9^{km}, ML5.2*
*LDG **19** 19:24:12.2±0.9, 21.79S×70.54W, h10^{km}, Mb5.5/29, Ms4.8/9, Error ellipse: s-maj=71.0km s-min=51.9km az=99.0*
*BJI **19** 19:24:12.6, 23.00S×70.50W, h10^{km}, mB5.5, Ms5.3, Msz5.3*
*MOS **19** 19:24:14.1±1.2, 22.64S×70.47W, h33^{km}, mb5.7/68, MS4.7/14, Error ellipse: s-maj=10.7km s-min=6.4km az=90.8*
ISC 19 19:24:13.2±1.0, **23.07S**±0.03×**70.42W**±0.03, **h22**^{km}±7^{km}, **n708, σ0^{s}93**/563, **mb5.5**/167, **MS4.8**/41, **119C-99D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEN1	**Los Morros**	0.38	147	⇑*i*P	Pb	19 24 23.9	+2.6
CEN1				*i* S	Sb	19 24 32.5	+5.7
CEN1				AML	AML	19 24 37.1	
	comp=E,171μm,0.8s						
ANCH	**Antofagasta**	0.61	179	⇓*i*P	Pb	19 24 24.7	-0.5
ANCH				*i* S	Sb	19 24 33.5	+0.2
ANCH	**Antofagasta**	0.61	179	⇓*i*P	Pb	19 24 24.7	-0.5
ANCH				*i* S	Sb	19 24 33.5	+0.2
ANCH				AML	AML	19 24 37.7	
	comp=E,181μm,0.5s						
CPN1	**Cerro Paranal**	1.55	179	⇑*i*P	Pn	19 24 38.7	-0.7
CPN1				*i* S	Sn	19 24 58.8	0.0
CPN1				AML	AML	19 25 05.9	
	comp=N,87μm,0.8s						
CDCH	**Caldera**	4.00	185	*e*P	Pn	19 25 09.1	-4.1
CDCH				*i* S	Sn	19 25 54.0	-5.4
CPCH	**Copiapo**	4.27	179	⇓*e*P	Pn	19 25 14.4	-2.4
CPCH				*i* S	Sn	19 26 03.5	-2.4
LCO	**Las Campanas**	5.92	182	*e*Pn	Pn	19 25 36.1	-3.4
	comp=N,975nm,0.9s						
LCO				Sn	Sn	19 26 37.0	-10
ARE	**Arequipa**	6.65	351	⇑*i*P	Pn	19 25 46.6	-3.1
ARE				*e*S	Sn	19 26 56.0	-8.8
LPAZ	**La Paz**	7.09	18	*e*Pn	Pn	19 25 57.9	+2.3
	comp=N,399nm,1.0s						
LPAZ				*e*		19 26 05.6	
LPAZ	**La Paz**	7.09	18	*e*P	Pn	19 25 57.9	+2.3
LPAZ				pmax	pmax		
	comp=Z,400nm,1.0s						
LPAZ	**La Paz**	7.09	18	Pn	Pn	19 25 56.4	+0.7
	comp=Z,9.7nm,0.3s,baz=207,slow=8.3,SNR=40						
LPAZ				Sn	Sn	19 27 17.9	+2.4
	comp=Z,2.7nm,0.3s,baz=142,slow=4.9,SNR=1.9						
CFAA	**Coronel Fontan**	8.72	168	Pn	Pn	19 26 17.3	-0.6
CFAA				Sn	Sn	19 28 06.8	+11
CFAA				LR	LR	19 29 05.8	
CFAA	**Coronel Fontan**	8.72	168	Pn	Pn	19 26 17.3	-0.6
	comp=Z,0.6nm,0.3s,baz=341,slow=13,SNR=56						
CFAA				Sn	Sn	19 28 06.8	+11
	comp=Z,1.5nm,0.3s,baz=252,slow=20,SNR=2.7						
CFAA				LR	LR	19 29 05.8	
	comp=Z,135nm,19.5s,baz=335,slow=34						
MDZ	**Mendoza**	9.87	172	*e*P	Pn	19 26 43.2	+9.4
MDZ				*e*		19 28 43.2	
MDZ				*i* S	Sn	19 29 04.0	+40
MDZ	**Mendoza**	9.87	172	*e*P	Pn	19 26 43.2	+9.4
MDZ				*e*		19 28 43.2	

SIV	San Ignacio	11.28	53	Pn	Pn	19 26 52.9	-0.2
SIV				Sn	Sn	19 29 03.8	+5.2
SIV	San Ignacio	11.28	53	Pn	Pn	19 26 52.9	-0.2
	comp=Z,6.8nm,0.3s,baz=244,slow=13,SNR=133						
SIV				Sn	Sn	19 29 03.8	+5.2
	baz=252,slow=20,SNR=3.6						
NNA	Nana	12.61	330	ePn	Pn	19 27 05.2	-6.1
	comp=Z,43nm,0.8s						
NNA	Nana	12.61	330	Pn	Pn	19 27 06.8	-4.5
	comp=Z,3.7nm,0.3s,baz=223,slow=16,SNR=11						
NNA				Sn	Sn	19 29 20.8	-10
	comp=Z,5.6nm,0.3s,baz=210,slow=18,SNR=5.4						
NNA				LR	LR	19 31 16.6	
	comp=Z,4µm,21.8s,baz=161,slow=34						
LPA	La Plata	16.06	140	ceP	Pn	19 28 01.0	+3.4
LPA				eS	Sn	19 30 54.0	-1.1
LPA				ePCP	PcP	19 32 52.0	-1.5
ROSC	El Rosal	28.02	352	eP	P	19 30 03.3	+0.5
ROSC	El Rosal	28.02	352	P	P	19 30 02.7	0.0
	comp=Z,5.4nm,0.3s,mb4.6,baz=286,slow=20,SNR=9.2						
ROSC				LR	LR	19 40 29.6	
	comp=Z,1µm,18.2s,MS4.6,baz=189,slow=35						
PAYG	Puerto Ayora	29.46	316	eP	P	19 30 15.5	-0.2
	comp=Z,32nm,0.8s,mb5.1						
USHA	Ushuaia	31.75	178	P	P	19 30 34.8	-0.6
	comp=Z,51nm,1.1s,mb5.3,baz=2.4,slow=9.1,SNR=4.8						
RPN	Rapa Nui	35.37	255	P	P	19 31 06.4	-1.0
	comp=Z,131nm,0.8s,mb5.9,baz=110,slow=4.3,SNR=9.3						
RCBR	Riachuelo	37.42	68	eP	P	19 31 25.8	+0.9
	comp=Z,370nm,0.9s,mb6.2						
RCBR				LR	LR		
	comp=Z,1µm,19.0s,MS4.7						
TGUH	Tegucigalpa,Un	40.42	334	eP	P	19 31 49.3	-0.6
	comp=Z,44nm,0.8s,mb5.2						
SJG	San Juan	41.15	6	eP	P	19 31 52.9	-3.0
	comp=Z,122nm,0.9s,mb5.5						
SJG				LR	LR		
	comp=Z,921nm,19.0s,MS4.7						
SJG	San Juan	41.15	6	P	P	19 31 53.3	-2.6
	comp=Z,115nm,0.9s,mb5.5,baz=227,slow=3.0,SNR=23						
MTP	Monte Pirata	41.19	7	eP	P	19 31 53.1	-3.2
PMSA	Palmer Station	41.90	176	eP	P	19 32 01.8	+0.2
	comp=Z,142nm,1.3s,mb5.4						
PMSA	Palmer Station	41.90	176	P	P	19 32 01.1	-0.5
	comp=Z,65nm,0.9s,mb5.2,baz=339,slow=5.7,SNR=5.8						
TEIG	Tepich	46.43	337	eP	P	19 32 36.7	-1.7
	comp=Z,29nm,0.9s,mb5.2						
TEIG				LR	LR		
	comp=Z,584nm,21.0s,MS4.5						
IIO	Organos	50.61	325	iP	P	19 33 11.1	+0.5
TRIS	Tristan da Cun	51.46	120	eP	P	19 33 18.6	+1.6
	comp=Z,267nm,1.0s,mb6.1						
SFJM	Santa Fe	53.72	321	iP	P	19 33 28.0	-5.8
COW	Cow Castle Cre	56.99	350	eP	P	19 33 56.1	-0.9
JSC	Jenkinsville	57.96	349	eP	P	19 34 02.6	-1.2
LRAL	Lakeview Retre	57.99	344	eP	P	19 34 02.1	-2.0
	comp=Z,42nm,1.2s,mb5.3						
LRAL				LR	LR		
	comp=Z,722nm,22.0s,MS4.7						
HKT	Hockley	58.10	334	eP	P	19 34 03.5	-1.5
	comp=Z,28nm,1.3s,mb5.1						
HKT				LR	LR		
	comp=Z,280nm,19.0s,MS4.4						
HKT	Hockley	58.10	334	eP	P	19 34 03.5	-1.5
HKT				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.1						
HKT				MLR	MLR		
	comp=Z,280nm,19.0s,MS4.4						
RKT	Rikitea	58.90	256	eS	S	19 42 15.0	-0.9
	comp=Z,2µm,27.2s						
RKT				eSS	SS	19 46 01.9	-7.7
	comp=Z,256nm,34.0s						
RKT				eLR	LR	19 51 22.3	
	comp=Z,3µm,26.8s,baz=111						
RKT	Rikitea	58.90	256	eP	P	19 34 10.6	-0.3
	comp=Z,53nm,0.9s,mb5.6						
RKT				eS	S	19 42 15.0	-0.9
RKT				eSS	SS	19 46 01.9	-7.7
RKT	Rikitea	58.90	256	eP	P	19 34 10.6	-0.3
RKT				eS	S	19 42 15.0	-0.9
RKT				pmax	pmax		
	comp=Z,53nm,0.9s,mb5.6						
VNA3	Neumayer Olymp	59.05	161	⇑iP	P	19 34 12.0	+0.9
VNA3				e		19 34 21.7	
NATX	Nacogdoches	59.25	336	eP	P	19 34 12.1	-0.9
	comp=Z,41nm,0.7s,mb5.6						
VNA1	Neumayer--Stat	59.29	160	⇑iP	P	19 34 13.9	+1.2
VNA1				e	pP	19 34 22.3	+2.5
VNA2	Neumayer--Watz	59.65	160	⇑iP	P	19 34 16.0	+0.8
	baz=292,slow=8.1						
VNA2				e		19 34 25.5	
CPCT	Cooper Cave	59.72	347	eP	P	19 34 14.4	-1.6
SWET	Sewanee	59.81	345	eP	P	19 34 15.0	-1.7
PLAL	Pickwick Lake	60.12	343	eP	P	19 34 16.5	-2.4
	comp=Z,39nm,0.9s,mb5.4						
JCT	Junction City	60.25	331	eP	P	19 34 18.6	-1.3
	comp=Z,52nm,0.8s,mb5.6						
JCT	Junction City	60.25	331	eP	P	19 34 18.6	-1.3
JCT				pmax	pmax		
	comp=Z,52nm,0.8s,mb5.6						
TZTN	Tazewell	60.58	348	eP	P	19 34 19.9	-2.1
	comp=Z,30nm,1.1s,mb5.3						
TZTN				LR	LR		
	comp=Z,910nm,19.0s,MS4.9						
BLA	Blacksburg	60.70	351	eP	P	19 34 21.7	-1.0
	comp=Z,28nm,0.9s,mb5.4						
BLA	Blacksburg	60.70	351	eP	P	19 34 21.7	-1.0
BLA				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.4						
ELN	Prospectdale	60.76	351	eP	P	19 34 22.6	-0.6
WVT	Waverly	61.14	344	eP	P	19 34 23.6	-2.2
	comp=Z,62nm,0.9s,mb5.7						
WVT	Waverly	61.14	344	eP	P	19 34 23.6	-2.2
WVT				pmax	pmax		
	comp=Z,62nm,0.9s,mb5.7						
LTX	Lajitas	61.14	327	eP	P	19 34 23.3	-2.7
	comp=Z,12nm,0.9s,mb5.0						
LTX	Lajitas	61.14	327	eP	P	19 34 23.3	-2.7
LTX				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.0						
TXAR	Lajitas Array	61.14	327	P	P	19 34 25.0	-1.0
	comp=Z,6.1nm,0.8s,mb4.8,baz=147,slow=8.5,SNR=30						
TXAR				LR	LR	19 57 23.5	
	comp=Z,583nm,19.8s,MS4.7,baz=175,slow=33						
UALR	University of	61.18	339	eP	P	19 34 24.5	-1.6
	comp=Z,62nm,1.3s,mb5.6						
SNAA	Sanae	61.27	161	P	P	19 34 26.7	+0.5
	comp=Z,34nm,0.8s,mb5.5,baz=284,slow=6.3,SNR=115						
MIAR	Mount Ida	61.38	338	eP	P	19 34 26.0	-1.4
	comp=Z,67nm,1.1s,mb5.7						
MIAR	Mount Ida	61.38	338	eP	P	19 34 26.0	-1.4
MIAR				pmax	pmax		
	comp=Z,67nm,1.1s,mb5.7						
WCI	Wyandotte Cave	62.77	346	eP	P	19 34 34.4	-2.4
	comp=Z,46nm,0.8s,mb5.7						
WCI				LR	LR		
	comp=Z,336nm,19.0s,MS4.5						
WCI	Wyandotte Cave	62.77	346	eP	P	19 34 34.4	-2.3
WCI				pmax	pmax		
	comp=Z,46nm,0.8s,mb5.7						
WCI				MLR	MLR		
	comp=Z,336nm,19.0s,MS4.5						
SIUC	Southern Illin	63.00	343	eP	P	19 34 36.4	-1.8
	comp=Z,107nm,1.0s,mb5.9						
FVM	French Village	63.58	342	eP	P	19 34 40.1	-2.0
	comp=Z,70nm,0.9s,mb5.7						
FVM	French Village	63.58	342	eP	P	19 34 40.1	-2.0
FVM				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.7						
MNTX	Cornudas Mount	63.92	327	eP	P	19 34 42.7	-1.8
	comp=Z,32nm,1.1s,mb5.3						
MNTX				LR	LR		
	comp=Z,576nm,20.0s,MS4.8						
ACSO	Alum Creek Sta	64.06	349	eP	P	19 34 43.5	-1.7
	comp=Z,66nm,1.0s,mb5.6						
SLM	Saint Louis	64.13	343	P	P	19 34 43.5	-2.2
MAIT	Maitri	65.84	159	eP	P	19 34 54.8	-1.7
NVL	N'lazarevskaya	65.87	159	⇓iP	P	19 34 58.4	+1.7
NVL				pmax	pmax		
	comp=Z,173nm,1.1s,mb6.0						
NVL				pmax	pmax		
	comp=N,8.0nm,0.6s						
NVL				pmax	pmax		
	comp=E,71nm,1.1s						
NVL				MLR	MLR		
	comp=Z,450nm,13.0s,MS4.9						
NVL				MLR	MLR		
	comp=N,141nm,13.0s,MS4.7						
NVL				MLR	MLR		
	comp=E,253nm,13.0s,MS4.7						
NVL				pmax	pmax		
	comp=Z,451nm,12.8s						
KSU1	Kansas State U	66.53	338	eP	P	19 34 59.4	-1.8
	comp=Z,9.9nm,0.4s,mb5.2						
ANMO	Albuquerque	67.07	328	eP	P	19 35 04.0	-0.8
	comp=Z,59nm,1.4s,mb5.4						
ANMO				LR	LR		
	comp=Z,619nm,20.0s,MS4.8						
ANMO	Albuquerque	67.07	328	eP	P	19 35 04.0	-0.8
ANMO				pmax	pmax		
	comp=Z,59nm,1.4s						
ANMO				MLR	MLR		
	comp=Z,619nm,20.0s						
TUC	Tucson	67.23	324	eP	P	19 35 05.9	0.0
	comp=Z,21nm,1.2s,mb5.0						
TUC				LR	LR		
	comp=Z,526nm,19.0s,MS4.8						
TUC	Tucson	67.23	324	eP	P	19 35 05.9	0.0
TUC				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.0						
TUC				MLR	MLR		
	comp=Z,526nm,19.0s,MS4.8						
CBKS	Cedar Bluff	67.41	336	eP	P	19 35 06.2	-0.7
	comp=Z,95nm,1.0s,mb5.8						
CBKS	Cedar Bluff	67.41	336	eP	P	19 35 06.2	-0.7
CBKS				pmax	pmax		
	comp=Z,95nm,1.0s,mb5.8						
FRNY	Flat Rock	67.64	358	eP	P	19 35 07.1	-1.0
MSNY	Massena	67.86	357	eP	P	19 35 08.4	-1.2
116A	Eloy	67.93	323	⇑P	P	19 35 10.0	-0.3
	baz=68						
TAOE	Nuku Hiva Isla	67.98	270	eS	S	19 44 06.9	-2.4
	comp=Z,647nm,25.5s						
TAOE				eLR	LR	19 55 36.2	
	comp=Z,4µm,26.0s						
SCIA	State Center	68.01	342	eP	P	19 35 08.9	-1.6
	comp=Z,57nm,1.0s,mb5.6						
SCIA				LR	LR		
	comp=Z,551nm,20.0s,MS4.8						
JFWS	Jewell Farm	68.15	344	eP	P	19 35 08.8	-2.6
	comp=Z,25nm,0.8s,mb5.3						
JFWS	Jewell Farm	68.15	344	eP	P	19 35 08.8	-2.6
JFWS				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.3						
115A	Sonoran Desert	68.33	323	⇑P	P	19 35 12.9	+0.1
	baz=68						
SDCO	Great Sand Dun	68.90	331	eP	P	19 35 16.1	-0.1
	comp=Z,115nm,1.2s,mb5.7						
X15A	Humboldt	69.67	324	⇑P	P	19 35 21.1	0.0
	baz=70,SNR=11						
Y14A	Wickenburg	69.68	323	⇓P	P	19 35 21.0	-0.2
	baz=70,SNR=6.1						
MVCO	Mesa Verde	69.87	328	eP	P	19 35 21.8	-0.4
	comp=Z,62nm,1.2s,mb5.4						
MVCO	Mesa Verde	69.87	328	⇓P	P	19 35 22.2	0.0
	baz=70,SNR=14						
WUAZ	Wupatki	70.00	325	eP	P	19 35 23.0	0.0
	comp=Z,80nm,1.2s,mb5.5						
WUAZ	Wupatki	70.00	325	⇑P	P	19 35 23.1	0.0
	baz=70						
X14A	Yava	70.02	324	⇑P	P	19 35 23.4	+0.2
	baz=70,SNR=8.7						
GLA	Glamis	70.06	321	⇑P	P	19 35 23.8	+0.3
	baz=70						
LIC	Lamto	70.17	74	⇑iP	P	19 35 24.6	0.0
	comp=Z,97nm,1.0s,mb5.4,baz=242						
LIC				eMLR	MLR		
	comp=Z,2µm,19.8s,MS5.0						
LIC	Lamto	70.17	74	eP	P	19 35 23.7	-0.9
	comp=Z,128nm,1.0s,mb5.8						
LIC	Lamto	70.17	74	⇑iP	P	19 35 24.6	0.0
	comp=Z,49nm,1.0s,mb5.4						
LIC				LR	LR		
	comp=Z,850nm,19.8s,MS5.0						
W15A	Williams	70.21	324	⇓P	P	19 35 25.5	+1.1
	baz=70,SNR=10.0						
TIC	Toumodi	70.37	74	eP	P	19 35 24.5	-1.3
	comp=Z,481nm,1.2s,mb6.3						
KIC	Kosan Boka	70.48	74	eP	P	19 35 26.7	+0.1
	comp=Z,464nm,0.9s,mb6.4						
ISCO	Idaho Springs	70.65	332	eP	P	19 35 26.8	-0.1
	comp=Z,23nm,1.1s,mb5.0						
ISCO	Idaho Springs	70.65	332	eP	P	19 35 26.8	-0.1
ISCO				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
W14A	Seligman	70.68	324	P	P	19 35 28.2	+1.0
	baz=71,SNR=9.8						
ECSD	EROS,Sioux Fal	70.69	340	eP	P	19 35 25.4	-1.7
	comp=Z,62nm,1.2s,mb5.4						
SMCO	Snowmass	70.74	331	eP	P	19 35 27.7	+0.2
	comp=Z,69nm,1.2s,mb5.5						
IRM	Iron Mountain	71.05	322	⇓P	P	19 35 29.5	0.0
	baz=71,SNR=12						
BELC	Belle Mtn.	71.42	321	⇓P	P	19 35 31.8	0.0
	baz=72						
U14A	Mt Trumbull	71.63	325	⇓P	P	19 35 33.9	+0.9
	baz=72						
T15A	Red Dirt Ranch	71.67	326	⇑P	P	19 35 34.2	+1.0
	baz=72						
W12A	Cal Nev Ari	71.72	323	⇑P	P	19 35 34.0	+0.5
	baz=72						
GMRC	Granite Mounta	71.79	322	⇑P	P	19 35 34.7	+0.7
	baz=72,SNR=10						
PHWY	Pilot Hill	71.82	333	eP	P	19 35 34.0	0.0
MURC	Murrieta	71.83	320	⇓P	P	19 35 34.1	-0.2
	baz=72						
V12A	Nelson	72.02	323	⇑P	P	19 35 36.0	+0.7
	baz=72,SNR=7.2						
U13A	Pakoon Wash	72.05	324	⇓P	P	19 35 36.1	+0.6
	baz=72						
T14A	Hurricane	72.07	325	⇑P	P	19 35 35.8	+0.2
	baz=72						
HEC	Hector,Ludlow	72.20	322	⇑P	P	19 35 37.1	+0.7
	baz=72,SNR=7.5						
EGOM	La Gomera	72.30	48	P	P	19 35 37.1	-0.1
	comp=Z,148nm,0.9s,mb5.9						
SRU	San Rafael	72.35	328	eP	P	19 35 37.2	-0.1
	comp=Z,61nm,1.0s,mb5.5						
SRU	San Rafael	72.35	328	eP	P	19 35 37.2	0.0
SRU				pmax	pmax		
	comp=Z,61nm,1.0s,mb5.5						
U12A	Valley of Fire	72.37	324	⇓P	P	19 35 38.0	+0.6
	baz=73,SNR=8.3						
TUQ	Turquoise Mtn.	72.41	322	⇓P	P	19 35 38.1	+0.4
	baz=73,SNR=8.3						
V11A	Goodsprings	72.43	323	⇑P	P	19 35 38.4	+0.7
	baz=73						
T13A	Saint George	72.47	325	⇑P	P	19 35 39.0	+1.0
	baz=73						
BFSC	Mount Baldy St	72.55	320	⇑P	P	19 35 38.8	+0.3
	baz=73						
CCUT	Cedar City	72.58	325	eP	P	19 35 39.7	+1.0
CCUT				ePcP	PcP	19 35 57.1	+0.9
VAH	Vaihoa	72.62	261	eP	P	19 35 39.1	-0.4
	comp=Z,82nm,1.0s,mb5.6						
S14A	Cedar City	72.64	326	⇑P	P	19 35 40.4	+1.4
	baz=73						
MSU	Marysvale	72.70	327	eP	P	19 35 39.7	+0.3
MSU	Marysvale	72.70	327	P	P	19 35 39.5	+0.2
CCAN	Las Canadas	72.75	48	P	P	19 35 40.0	+0.1
	comp=Z,32nm,0.8s,mb5.3						
ARUT	Antelope Range	72.80	326	eP	P	19 35 41.0	+1.0
ARUT	Antelope Range	72.80	326	P	P	19 35 31.4	-8.5
ARUT				e		19 35 59.2	
GSC	Goldstone	72.81	322	⇓P	P	19 35 40.6	+0.5
	baz=73						
TMUT	Trail Mountain	72.82	328	eP	P	19 35 40.4	+0.4
S13A	Holt Ranch, En	72.86	325	⇓P	P	19 35 41.4	+1.1
	baz=73						
RWWY	Rawlins	72.89	332	eP	P	19 35 40.5	+0.2
	comp=Z,72nm,1.4s,mb5.4						
PMOR	Pomariorio Ree	72.94	261	eP	P	19 35 41.1	-0.3
	comp=Z,40nm,0.9s,mb5.4						
DECC	Green Verdugo	72.96	320	⇓P	P	19 35 41.8	+0.8
	baz=73						
EYMN	Ely	73.18	345	eP	P	19 35 40.1	-1.9
	comp=Z,30nm,0.9s,mb5.2						
EDW2	Edwards Air Fo	73.20	321	⇑P	P	19 35 42.3	-0.1
	baz=73						
T11A	Corn Creek, Al	73.34	324	⇑P	P	19 35 44.1	+0.9
	baz=74						
U10A	Ash Meadows, A	73.35	323	⇑P	P	19 35 44.3	+1.1
	baz=74						
EOSO	Osorio	73.39	49	P	P	19 35 43.9	+0.2
	comp=Z,53nm,0.9s,mb5.5						
S12A	Delamar Landin	73.41	325	⇓P	P	19 35 44.4	+0.8
	baz=74						
LRMC	Laurel Mountai	73.44	321	⇓P	P	19 35 44.1	+0.2
	baz=74						
PAE	Paea	73.58	257	eP	P	19 35 44.9	-0.2
	comp=Z,66nm,0.9s,mb5.6						
PAE	Paea	73.58	257	eP	P	19 35 44.9	-0.2
PAE				pmax	pmax		
	comp=Z,67nm,0.9s,mb5.6						
MPU	Maple Canyon	73.59	328	eP	P	19 35 44.3	-0.2
	comp=Z,52nm,1.2s,mb5.3						
PPT	Papeete	73.61	258	eS	S	19 45 13.0	-1.7
	comp=Z,2µm,26.8s						
PPT				eLR	LR	19 58 11.3	
	comp=Z,2µm,26.2s,baz=104						
PPT	Papeete	73.61	258	LR	LR	19 59 57.7	
	comp=Z,822nm,18.5s,MS5.0,baz=180,slow=29						
FURC	Furnace Creek,	73.68	323	⇑P	P	19 35 45.7	+0.5
	baz=74,SNR=5.8						
DAU	Daniels Canyon	73.71	329	eP	P	19 35 46.0	+0.8
MPMC	Manual Prospec	73.74	322	⇑P	P	19 35 45.8	+0.3
	baz=74,SNR=5.6						
NLU	North Lily Min	73.76	328	eP	P	19 35 46.0	+0.4
R12A	Pony Springs,	73.81	325	⇓P	P	19 35 47.0	+1.0
	baz=74,SNR=18						
S11A	Rachel	73.92	324	⇑P	P	19 35 47.5	+1.0
	baz=74						
JLU	Jordanelle	73.95	329	eP	P	19 35 47.2	+0.5
ISA	Isabella	74.03	321	⇓P	P	19 35 47.8	+0.5
	baz=74,SNR=7.4						
PKM	Peak Mountain	74.29	320	⇑P	P	19 35 49.3	+0.5
	baz=74						
DUG	Dugway	74.30	328	eP	P	19 35 49.2	+0.5
	comp=Z,66nm,1.3s,mb5.4						
DUG				LR	LR		
	comp=Z,384nm,19.0s,MS4.7						
DUG	Dugway	74.30	328	eP	P	19 35 49.2	+0.5
DUG				pmax	pmax		
	comp=Z,66nm,1.3s,mb5.4						
DUG				MLR	MLR		
	comp=Z,384nm,19.0s,MS4.7						
DUG	Dugway	74.30	328	⇓P	P	19 35 49.4	+0.7
	baz=74,SNR=13						
TRCR	Troy Canyon	74.35	325	P	P	19 35 48.8	-0.3
CWC	Cottonwood Cre	74.35	322	⇓P	P	19 35 49.7	+0.6
	baz=74						
Q12A	Willow Creek R	74.46	326	⇓P	P	19 35 50.1	+0.5
	baz=75,SNR=8.7						
VES	Vestal, Richgr	74.50	321	⇑P	P	19 35 50.4	+0.4
	baz=75						
S10A	Tonopah Range,	74.58	324	⇓P	P	19 35 50.7	+0.3
	baz=75,SNR=15						
AGMN	Agassiz Refuge	74.62	343	eP	P	19 35 49.0	-1.3
	comp=Z,35nm,0.9s,mb5.3						
CFTV	Fuerteventura	74.62	50	P	P	19 35 51.3	+0.4
	comp=Z,39nm,1.0s,mb5.3						
SMMC	Simmler	74.68	320	⇑P	P	19 35 51.4	+0.4
	baz=75						
R10A	Warm Springs	74.69	324	⇓P	P	19 35 52.1	+1.1
	baz=75,SNR=12						
Q11A	Duckwater	74.75	325	⇓P	P	19 35 52.1	+0.7
	baz=75,SNR=11						
PDAR	Pinedale Array	74.79	331	P	P	19 35 50.8	-0.7
	comp=Z,3.1nm,0.9s,mb4.3,baz=157,slow=6.5,SNR=17						
PDAR				LR	LR	20 10 01.6	
	comp=Z,204nm,19.2s,MS4.4,baz=32,slow=37						
HWUT	Hardware Ranch	74.79	329	eP	P	19 35 51.0	-0.5
	comp=Z,22nm,0.8s,mb5.1						
P12A	McGill	74.82	326	⇓P	P	19 35 52.3	+0.6
	baz=75						
BGU	Big Grassy Mou	74.97	328	eP	P	19 35 52.1	-0.5
SPUT	South Promonto	74.98	329	eP	P	19 35 52.5	-0.2
HELL	Mitchell Peak,	75.06	321	⇑P	P	19 35 52.7	-0.5
	baz=75,SNR=9.4						
VNDA	Vanda	75.06	190	P	P	19 35 54.4	+1.6
	comp=Z,22nm,1.2s,mb5.0,baz=114,slow=10.0,SNR=2.7						
VNDA				LR	LR	20 09 39.8	
	comp=Z,447nm,19.0s,MS4.8,baz=137,slow=36						
R09A	Tonopah	75.07	324	⇓P	P	19 35 53.4	+0.2
	baz=75,SNR=6.4						
M15A	Larsen Ranch,	75.10	329	P	P	19 35 53.1	-0.2
	baz=75,SNR=18						
Q10A	Clear Creek Ra	75.13	324	⇑P	P	19 35 54.0	+0.4
	baz=75,SNR=6.6						
S08C	White Mtn Res	75.15	322	⇓P	P	19 35 54.3	+0.6
	baz=75						
MTUM	Tungsten Hills	75.27	322	eP	P	19 35 54.8	+0.4
O12A	Currie	75.33	326	⇑P	P	19 35 54.9	+0.2
	baz=76						
AHID	Auburn Hatcher	75.48	330	eP	P	19 35 54.8	-0.6
	comp=Z,30nm,0.9s,mb5.2						
N13A	Wendover, West	75.50	327	⇓P	P	19 35 55.9	+0.3
	baz=76						
HVU	Hansel Valley	75.50	329	eP	P	19 35 55.2	-0.4
	comp=Z,16nm,0.9s,mb5.0						
HVU	Hansel Valley	75.50	329	eP	P	19 35 55.2	-0.4
HVU				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
SYO	Syowa Base	75.53	160	⇓iP	P	19 35 55.6	+0.1
SYO	Syowa Base	75.53	160	⇓iP	P	19 36 04.0	+8.5
M14A	Sheep Mountain	75.56	328	⇓P	P	19 35 56.1	+0.1
	baz=76,SNR=20						
KCC	Kaiser Creek	75.67	322	⇑P	P	19 35 56.7	0.0
	baz=76						
O11A	Cowboy Ranch,	75.69	326	P	P	19 35 57.1	+0.4
	baz=76,SNR=8.6						
P10A	Eureka	75.74	325	⇓P	P	19 35 57.8	+0.7
	baz=76,SNR=5.5						
REDW	Red Top Meadow	75.84	331	eP	P	19 35 57.5	-0.1
	comp=Z,40nm,1.1s,mb5.3						
M13A	Montello	75.86	328	⇓P	P	19 35 57.8	+0.1
	baz=76						
NVAR	Mina Array Bea	75.88	323	P	P	19 35 58.1	+0.2
	comp=Z,7.7nm,0.8s,mb4.7,baz=143,slow=6.9,SNR=41						
N12A	Clover Valley,	75.91	327	⇓P	P	19 35 58.0	0.0
	baz=76						
LOHW	Long Hollow	75.92	331	eP	P	19 35 57.9	-0.1
	comp=Z,21nm,1.0s,mb5.0						
ELK	Elko	75.94	326	P	P	19 35 58.1	0.0
	comp=Z,11nm,0.9s,mb4.8						
ELK	Elko	75.94	326	P	P	19 35 59.0	+0.9
ELK				e		19 36 07.8	
ELK				e		19 36 16.4	
ELK				pmax	pmax		
	comp=Z,20nm,1.0s						
TPAW	Teton Pass	75.98	331	eP	P	19 35 58.3	0.0
	comp=Z,26nm,0.9s,mb5.2						
Q08A	Gabbs	75.98	324	⇓P	P	19 35 58.3	-0.1
	baz=76,SNR=7.8						
MOOW	Moose Ponds	76.09	331	eP	P	19 35 58.3	-0.7
	comp=Z,10.0nm,0.9s,mb4.8						
DCID1	Drake Creek	76.17	331	eP	P	19 36 00.3	+0.9
M12A	Wells	76.27	327	⇓P	P	19 35 60.0	0.0
	baz=76,SNR=6.6						
S05C	Merced	76.27	321	⇑P	P	19 36 01.2	+1.0
	baz=76,SNR=8.2						
IMW	Indian Meadow	76.30	331	eP	P	19 36 00.3	+0.2
	comp=Z,34nm,1.2s,mb5.2						
L13A	Double Diamond	76.30	328	P	P	19 36 00.5	+0.4
	baz=76,SNR=17						
S06C	San Francisco	76.36	322	P	P	19 36 00.8	+0.2
	baz=77,SNR=14						
ULM	Lac du Bonnet	76.40	344	eP	P	19 35 59.0	-1.6
	comp=Z,35nm,1.1s,mb5.2						
ULM	Lac du Bonnet	76.40	344	P	P	19 35 59.2	-1.3
	comp=Z,10nm,0.7s,mb4.9,baz=149,slow=5.5,SNR=25						
ULM				LR	LR	20 12 04.5	
	comp=Z,312nm,19.2s,MS4.6,baz=150,slow=38						
O09A	Fish Creek Ran	76.53	325	⇓P	P	19 36 02.5	+1.0
	baz=77						
RLMT	Red Lodge	76.55	333	eP	P	19 36 01.6	+0.1
	comp=Z,24nm,0.9s,mb5.1						
R06C	Coleville	76.59	322	⇓P	P	19 36 03.1	+1.2
	baz=77						
LAO	LASA Array	76.61	336	eP	P	19 36 01.3	-0.5
	comp=Z,71nm,1.2s,mb5.5						
P08A	Dixie Valley	76.66	324	⇑P	P	19 36 03.3	+1.1
	baz=77						
YFT	Old Faithful	76.69	332	eP	P	19 36 04.0	+1.7
M11A	Holland Ranch,	76.72	327	P	P	19 36 03.1	+0.5
	baz=77,SNR=12						
CMB	Columbia Colle	76.78	322	eP	P	19 36 02.4	-0.6
	comp=Z,36nm,1.4s,mb5.1						
CMB	Columbia Colle	76.78	322	eP	P	19 36 02.4	-0.6
CMB				pmax	pmax		

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      comp=Z,36nm,1.3s,mb5.1
CMB   Columbia Colle    76.78 322 ⇑P    P     19 36 02.7 -0.3
      baz=77
K13A  Stover Farm, H    76.79 328 ⇓P    P     19 36 04.0 +1.1
      baz=77
L12A  House Creek Ra    76.87 328  P    P     19 36 04.1 +0.7
      baz=77,SNR=12
YMR   Madison River     76.92 332 eP    P     19 36 04.5 +0.9
      comp=Z,114nm,1.4s,mb5.6
R05C  Kirkwood Meado    77.06 322 ⇑P    P     19 36 05.4 +0.8
      baz=77
M10A  I.L. Ranch, Tu    77.17 326 ⇑P    P     19 36 05.9 +0.8
      baz=77
K12A  Draper Farm, C    77.18 328 ⇑P    P     19 36 05.8 +0.7
      baz=77,SNR=16
N09A  Rock Creek Ran    77.19 325 ⇓P    P     19 36 04.8 -0.5
      baz=77
L11A  Cat Creek Ranc    77.25 327  P    P     19 36 06.1 +0.6
      baz=78,SNR=8.7
QLMT  Earthquake Lak    77.25 331 eP    P     19 36 06.0 +0.5
WCN   Washoe City       77.30 323 ⇑P    P     19 36 06.4 +0.5
      baz=78
DGMT  Dagmar            77.37 338 eP    P     19 36 06.2 +0.1
      comp=Z,69nm,0.9s,mb5.6
J13A  Cove Ranch, Pi    77.40 329 ⇓P    P     19 36 06.8 +0.4
      baz=78,SNR=14
O07A  Toulon            77.42 324 ⇓P    P     19 36 06.6 +0.1
      baz=78,SNR=13
LAVA  Lava Cap Winer    77.47 322 ⇓P    P     19 36 06.9  0.0
      baz=78
L10A  Juniper Basin     77.54 327  P    P     19 36 07.5 +0.3
      baz=78,SNR=30
M09A  Marrel Ranch,     77.57 326 ⇓P    P     19 36 08.0 +0.7
      baz=78
HLID  Hailey            77.64 329 eP    P     19 36 08.1 +0.4
      comp=Z,52nm,1.2s,mb5.3
HLID                              LR    LR
      comp=Z,279nm,19.0s,MS4.6
HLID  Hailey            77.64 329 ⇑P    P     19 36 08.5 +0.8
      baz=78,SNR=37
SCHQ  Schefferville     77.64   2  P    P     19 36 06.5 -1.0
SCHQ  Schefferville     77.64   2  P    P     19 36 06.5 -1.0
      comp=Z,11nm,1.0s,mb4.7,baz=183,slow=7.4,SNR=7.6
J12A  Stokes Ranch,     77.73 328 ⇑P    P     19 36 08.4 +0.2
      baz=78,SNR=19
I13A  Wildhorse Cree    77.77 329  P    P     19 36 09.1 +0.8
      baz=78,SNR=27
P05C  Yuba Gap, Truc    77.78 322 ⇓P    P     19 36 09.1 +0.6
      baz=78,SNR=7.4
K11A  Parker Ranch,     77.83 327 ⇑P    P     19 36 09.2 +0.4
      baz=78
MCMT  McKenzie Canyo    77.88 331 eP    P     19 36 09.6 +0.7
N07B  Gerlach           77.91 324 ⇓P    P     19 36 09.4 +0.2
      baz=78,SNR=15
O06A  Flanigan          77.94 323 ⇑P    P     19 36 10.0 +0.5
      baz=78
BOZ   Bozeman (W)       77.98 332 eP    P     19 36 08.8 -0.7
      comp=Z,25nm,1.3s,mb5.0
BOZ   Bozeman (W)       77.98 332 eP    P     19 36 08.8 -0.7
BOZ                               pmax  pmax
      comp=Z,25nm,1.3s,mb5.0
BOZ   Bozeman (W)       77.98 332 ⇓P    P     19 36 09.4 -0.1
      baz=78,SNR=13
G15A  Dillon            77.98 331 ⇓P    P     19 36 10.0 +0.5
      baz=78,SNR=12
BEKR  Beckwourth        78.03 323 ⇓P    P     19 36 10.2 +0.2
      baz=78,SNR=6.5
DLMT  Dillon            78.18 331 eP    P     19 36 10.7  0.0
      comp=Z,49nm,1.2s,mb5.3
MFID  Camas Ranch       78.21 328 ⇑P    P     19 36 11.1 +0.2
      baz=78,SNR=9.6
K10A  MacKenzie Ranc    78.26 327 ⇓P    P     19 36 11.3 +0.1
      baz=78,SNR=11
H13A  Challis           78.32 330 ⇑P    P     19 36 12.2 +0.7
      baz=78,SNR=30
N06A  Buffalo Meadow    78.35 324 ⇑P    P     19 36 11.7 -0.1
      baz=79,SNR=16
NSHM  Saint Helena R    78.39 321 eP    P     19 36 11.1 -0.8
O05C  Quincy            78.40 323  P    P     19 36 12.2 +0.2
      baz=79,SNR=5.6
M07A  Soldier Meadow    78.45 325 ⇓P    P     19 36 12.0 -0.2
      baz=79,SNR=13
ORV   Oroville          78.45 322 ⇑P    P     19 36 12.6 +0.3
      baz=79,SNR=15
F15A  Butte             78.50 331 ⇑P    P     19 36 12.4  0.0
      baz=79,SNR=19
L08A  Fields            78.58 326 ⇑P    P     19 36 13.0  0.0
      baz=79,SNR=11
H12A  Diamond D Ranc    78.59 329 ⇓P    P     19 36 13.0  0.0
      baz=79,SNR=14
K09A  Rome              78.63 326 ⇑P    P     19 36 13.2  0.0
      baz=79,SNR=9.7
G13A  Cobalt            78.71 330 ⇑P    P     19 36 14.5 +0.9
      baz=79,SNR=86
O04C  Chester           78.74 323  P    P     19 36 14.2 +0.3
      baz=79,SNR=6.1
ELFS  Eagle Lake Fie    78.75 323 ⇑P    P     19 36 14.3 +0.4
      baz=79,SNR=15
F14A  Wisdom            78.87 331 ⇑P    P     19 36 15.2 +0.7
      baz=79,SNR=20
L07A  Adell             78.98 325 ⇓P    P     19 36 15.8 +0.6
      baz=79,SNR=8.7
SUR   Sutherland        79.00 120  P    P     19 36 17.3 +1.6
      comp=Z,617nm,0.8s,mb6.6,SNR=15
SUR   Sutherland        79.00 120 eP    P     19 36 17.6 +1.9
      comp=Z,71nm,0.8s,mb5.7
SUR                               LR    LR
      comp=Z,1μm,20.0s,MS5.2
M06C  Likely Place G    79.02 324 ⇑P    P     19 36 15.4  0.0
      baz=79,SNR=8.7
E15A  Deer Lodge        79.02 332  P    P     19 36 15.6 +0.3
      baz=79,SNR=13
K08A  Mann Creek Ran    79.04 326 ⇓P    P     19 36 15.4 -0.1
      baz=79
EGMT  Eagleton          79.08 334 eP    P     19 36 15.1 -0.5
      comp=Z,58nm,1.3s,mb5.3
EGMT  Eagleton          79.08 334 ⇓P    P     19 36 15.2 -0.3
      baz=79,SNR=6.4
J09A  Fry Pan Ranch,    79.11 327 ⇑P    P     19 36 16.0 +0.1
      baz=79
TOA0  Torodi Ar. Sit    79.20  71 eP    P     19 36 16.9 -0.1
TORD  Torodi Ar. Bea    79.20  71  P    P     19 36 17.0  0.0
      comp=Z,112nm,0.9s,mb5.8,baz=254,slow=5.0,SNR=385
TORD                              LR    LR    20 12 12.4
      comp=Z,747nm,18.2s,MS5.1,baz=245,slow=36
GASB  Alder Springs     79.21 322 ⇓P    P     19 36 17.6 +1.1
      baz=79,SNR=6.0
LBCM  Butte Creek Ri    79.24 323  P    P     19 36 16.2 -0.4
H11A  Donnelly          79.26 329 ⇑P    P     19 36 16.7 +0.1
      baz=80
F13A  Darby             79.29 330 ⇓P    P     19 36 17.1 +0.3
      baz=80
HATC  Hat Creek Radi    79.29 323 ⇓P    P     19 36 16.9  0.0
      baz=80,SNR=7.1
E14A  Clinton           79.39 331  P    P     19 36 18.1 +0.8
      baz=80,SNR=13
K07A  Rock Creek Ran    79.41 326 ⇓P    P     19 36 17.7 +0.3
      baz=80,SNR=8.1
MOD   Modoc             79.41 324 eP    P     19 36 17.4 -0.1
      comp=Z,18nm,1.0s,mb5.0
MOD   Modoc             79.41 324 ⇑P    P     19 36 17.5  0.0
      baz=80,SNR=15
D15A  Lincoln           79.45 332 ⇓P    P     19 36 18.0 +0.4
      baz=80,SNR=9.6
J08A  Circle Bar Ran    79.49 327 ⇓P    P     19 36 18.0 +0.1
      baz=80
M05C  Lookout           79.49 324  P    P     19 36 17.9 -0.1
      baz=80,SNR=6.4
H10A  Noah’s Angus R    79.53 328 ⇓P    P     19 36 17.9 -0.2
      baz=80,SNR=12
I09A  Lost Marbles R    79.56 327 ⇑P    P     19 36 18.5 +0.2
      baz=80
CHMT  Chamberlain Mo    79.67 332 eP    P     19 36 18.9 +0.1
F12A  Elk City          79.69 330 ⇑P    P     19 36 19.0 +0.1
      baz=80,SNR=12
E13A  Victor            79.72 331 ⇑P    P     19 36 19.8 +0.7
      baz=80,SNR=15
WDC   Whiskeytown Da    79.73 322 eP    P     19 36 17.3 -2.0
      comp=Z,12nm,0.8s,mb4.9
WDC   Whiskeytown Da    79.73 322 eP    P     19 36 17.3 -2.0
WDC                               pmax  pmax
      comp=Z,12nm,0.8s,mb4.9
WDC   Whiskeytown Da    79.73 322 ⇑P    P     19 36 17.8 -1.5
      baz=80
L05A  Lakeview          79.80 324 ⇓P    P     19 36 20.3 +0.7
      baz=80,SNR=7.5
G11A  Walters Elk Ra    79.89 329  P    P     19 36 20.2 +0.1
      baz=80,SNR=46
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D14A  Greenough         79.91 332 ⇓P    P     19 36 20.1  0.0
      baz=80,SNR=8.9
J07A  Hines             79.92 326 ⇓P    P     19 36 20.5 +0.3
      baz=80,SNR=8.0
I08A  Drewsey           79.93 327 ⇓P    P     19 36 21.1 +0.8
      baz=80,SNR=12
M03C  McCloud           79.97 323 ⇑P    P     19 36 20.0 -0.5
      baz=80,SNR=6.2
BMO   Blue Mountains    79.99 328 eP    P     19 36 20.1 -0.4
      comp=Z,45nm,1.3s,mb5.2
K06A  Valley Falls      80.01 325 ⇑P    P     19 36 21.2 +0.5
      baz=80,SNR=11
H09A  Durkee            80.03 328 ⇑P    P     19 36 20.7  0.0
      baz=80
M04C  Macdoel           80.16 324 ⇑P    P     19 36 21.4 -0.2
      baz=80,SNR=11
O01C  Eel River Cons    80.17 321 ⇑P    P     19 36 21.4 -0.3
      baz=80
F11A  Grangeville       80.20 329  P    P     19 36 21.6 -0.1
      baz=80,SNR=18
J06A  Christmas Vall    80.28 326 ⇓P    P     19 36 22.3 +0.2
      baz=80,SNR=14
K05A  Summer Lake       80.30 325 ⇓P    P     19 36 22.9 +0.6
      baz=80,SNR=7.1
D13A  Huson             80.34 331 ⇑P    P     19 36 22.8 +0.4
      baz=81,SNR=32
M02C  Callahan          80.45 323 ⇑P    P     19 36 22.9 -0.3
      baz=81
I07A  Izee              80.53 326 ⇑P    P     19 36 23.9 +0.4
      baz=81,SNR=12
G09A  Cove              80.53 328 ⇓P    P     19 36 23.8 +0.3
      baz=81
C14A  Swan Lake         80.54 332 ⇑P    P     19 36 23.9 +0.4
      baz=81
E11A  Bogner Ranch,     80.58 330 ⇓P    P     19 36 23.3 -0.3
      baz=81,SNR=11
YBH   Yreka Blue Hor    80.60 323 eP    P     19 36 22.3 -1.7
      comp=Z,11nm,1.0s,mb4.8
YBH   Yreka Blue Hor    80.60 323 eP    P     19 36 22.3 -1.7
YBH                               pmax  pmax
      comp=Z,11nm,1.0s
YBH   Yreka Blue Hor    80.60 323 ⇑P    P     19 36 22.9 -1.1
      baz=81
D12A  Red Ives Fores    80.71 331 ⇑P    P     19 36 24.5 +0.1
      baz=81
F10A  Beach Ranch, E    80.77 329 ⇑P    P     19 36 25.4 +0.7
      baz=81
I06A  Prineville        80.79 326 ⇑P    P     19 36 25.1 +0.2
      baz=81,SNR=9.4
C13A  Hot Springs       80.83 332 ⇓P    P     19 36 25.4 +0.4
      baz=81,SNR=16
J05A  Fort Rock         80.87 325 ⇑P    P     19 36 25.6 +0.3
      baz=81,SNR=8.1
F09A  S2 Ranch, Elgi    80.90 328 ⇓P    P     19 36 25.2 -0.2
      baz=81
H07A  Lands Inn, Kim    80.92 327 ⇓P    P     19 36 25.9 +0.4
      baz=81
TSUM  Tsumeb            80.93 107 eP    P     19 36 27.6 +1.2
      comp=Z,101nm,1.0s,mb5.7
BSMT  Bassoo Peak       81.06 332  P    P     19 36 26.7 +0.4
KTRM  Thompson Ridge    81.09 323  P    P     19 36 26.7 +0.1
E10A  Myers Farm, Un    81.09 329 ⇓P    P     19 36 26.5 +0.1
      baz=81,SNR=19
G08A  Pilot Rock        81.11 328  P    P     19 36 26.6  0.0
      baz=81,SNR=8.0
B13A  Whitefish         81.32 332  P    P     19 36 27.8 +0.2
      baz=82,SNR=14
L02A  Cave Junction     81.38 323 ⇑P    P     19 36 27.6 -0.5
      baz=82
F08A  Pendleton         81.39 328 ⇓P    P     19 36 27.6 -0.4
      baz=82,SNR=5.5
VIPM  Ingram Point      81.39 326  P    P     19 36 28.6 +0.5
H06A  Lindquist Farm    81.41 327 ⇓P    P     19 36 28.8 +0.6
      baz=82,SNR=6.9
G07A  Ruggs Ranch, H    81.45 327 ⇓P    P     19 36 29.0 +0.6
      baz=82,SNR=10
I05A  Bend              81.49 326 ⇓P    P     19 36 29.3 +0.6
      baz=82
D10A  Wagner Farm, O    81.59 330 ⇓P    P     19 36 28.6 -0.4
      baz=82,SNR=11
E09A  Wood Farm, Sta    81.60 329 ⇓P    P     19 36 28.8 -0.3
      baz=82
WALA  Waterton Lakes    81.60 333 eP    P     19 36 29.1  0.0
      comp=Z,40nm,0.8s,mb5.4
A13A  Flathead Natio    81.72 332 ⇑P    P     19 36 30.1 +0.4
      baz=82,SNR=84
K02A  Glendale          81.73 324 ⇓P    P     19 36 29.9 -0.1
      baz=82
B12A  Libby             81.88 332 ⇑P    P     19 36 31.2 +0.7
      baz=82
G06A  Carlson Farm,     81.91 327 ⇑P    P     19 36 31.1 +0.3
      baz=82
CROR  Criterion Ridg    81.92 326  P    P     19 36 31.4 +0.5
D09A  Jones Farm, Ri    82.08 329 ⇓P    P     19 36 31.5 -0.1
      baz=82,SNR=9.4
FFC   Flin Flon         82.08 342  P    P     19 36 30.8 -0.6
      comp=Z,131nm,1.1s,mb5.8,SNR=11
FFC   Flin Flon         82.08 342 eP    P     19 36 30.3 -1.1
      comp=Z,39nm,1.3s,mb5.2
FFC   Flin Flon         82.08 342 eP    P     19 36 30.3 -1.1
FFC                               pmax  pmax
      comp=Z,39nm,1.3s,mb5.2
J02A  Umpqua            82.17 324 ⇑P    P     19 36 32.4 +0.2
      baz=82
HAWA  Hanford           82.18 328 eP    P     19 36 32.0 -0.2
      comp=Z,54nm,1.0s,mb5.4
B11A  Sandpoint         82.20 331  P    P     19 36 31.9 -0.4
      baz=82,SNR=5.7
A12A  Yaak River Ran    82.25 332 ⇓P    P     19 36 32.6 +0.1
      baz=82,SNR=14
G05A  Wamic             82.26 326 ⇓P    P     19 36 33.0 +0.3
      baz=82
GBL   Gable Mountain    82.29 328  P    P     19 36 32.9 +0.1
D08A  Wollman Farm,     82.36 329 ⇓P    P     19 36 33.0 -0.1
      baz=83,SNR=6.7
E07A  Sunnyside         82.46 328 ⇑P    P     19 36 34.0 +0.4
      baz=83
OD2   Odessa Site #2    82.50 329  P    P     19 36 33.9 +0.1
A11A  Hall Mountain,    82.58 331 ⇓P    P     19 36 34.1 -0.1
      baz=83,SNR=26
C09A  Chrisman Ranch    82.59 330 ⇓P    P     19 36 34.3 -0.1
      baz=83
H03A  Soap Creek Ran    82.90 325 ⇑P    P     19 36 36.6 +0.6
      baz=83
C08A  Higginbotham F    82.94 329 ⇓P    P     19 36 37.3 +1.2
      baz=83
D07A  Quincy            82.96 328 ⇑P    P     19 36 36.4 +0.1
      baz=83
B09A  Rice              82.99 330 ⇓P    P     19 36 35.8 -0.6
      baz=83,SNR=11
E06A  Yakima            83.00 328 ⇓P    P     19 36 36.3 -0.2
      baz=83
MAW   Mawson            83.23 164 eP    P     19 36 36.5 -1.0
      comp=Z,62nm,0.9s,mb5.6
MAW   Mawson            83.23 164 eP    P     19 36 36.5 -1.0
MAW                               pmax  pmax
      comp=Z,62nm,0.9s
MAW   Mawson            83.23 164  P    P     19 36 38.1 +0.6
      comp=Z,76nm,0.9s,mb5.7,baz=233,slow=6.8,SNR=34
MAW                               LR    LR    20 14 00.5
      comp=Z,548nm,19.4s,MS4.9,baz=236,slow=36
F04A  Amboy             83.30 326 ⇑P    P     19 36 37.7 -0.3
      baz=84,SNR=5.7
G03A  Yamhill           83.33 326 ⇓P    P     19 36 38.5 +0.3
      baz=84
C07A  Waterville        83.36 329  P    P     19 36 38.1 -0.2
      baz=84,SNR=14
D06A  Cle Elum          83.39 328 ⇑P    P     19 36 38.6 +0.1
      baz=84
B08A  Colville Reser    83.49 330 ⇓P    P     19 36 38.4 -0.6
      baz=84
MORF  Marmelete         83.56  45 eP    P     19 36 42.5 +2.9
      comp=Z,108nm,1.7s,mb5.7
A09A  Danville          83.59 330 ⇑P    P     19 36 38.8 -0.6
      baz=84,SNR=9.3
PTEO  Sao Teotonio      83.65  45 eP    P     19 36 42.6 +2.5
      comp=Z,195nm,1.7s,mb6.0
MDT   Midelt            83.82  51  P    P     19 36 42.8 +1.8
      comp=Z,42nm,0.9s,mb5.6,baz=239,slow=5.1,SNR=68
FCC   Fort Churchill    83.86 348 eP    P     19 36 39.5 -1.1
      comp=Z,39nm,1.0s,mb5.5
FCC   Fort Churchill    83.86 348 eP    P     19 36 39.5 -1.1
FCC                               pmax  pmax
      comp=Z,39nm,1.0s,mb5.5
A08A  Turner Farm, O    83.89 330 ⇑P    P     19 36 40.6 -0.3
      baz=84,SNR=17
B07A  Winthrop          83.93 329 ⇓P    P     19 36 40.5 -0.7
      baz=84,SNR=10
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BOSA  Boshof            83.94 118 eP    P     19 36 42.1 +0.1
      comp=Z,76nm,0.9s,mb5.8
BOSA  Boshof            83.94 118 eP    P     19 36 42.1 +0.2
BOSA                              pmax  pmax
      comp=Z,76nm,0.9s,mb5.8
BOSA  Boshof            83.94 118  P    P     19 36 42.4 +0.5
      comp=Z,48nm,0.7s,mb5.7,baz=257,slow=4.2,SNR=66
BOSA                              LR    LR    20 10 59.4
      comp=Z,900nm,18.2s,MS5.2,baz=243,slow=33
D05A  Enumclaw          83.94 328 ⇓P    P     19 36 41.1 -0.2
      baz=84
PBDV  Barranco-do-Ve    84.00  45 eP    P     19 36 43.4 +1.6
      comp=Z,194nm,1.2s,mb6.1
PMAFR Mafra             84.11  43 eP    P     19 36 44.5 +2.1
PVAQ  Vaqueiros         84.23  45 eP    P     19 36 44.6 +1.6
      comp=Z,155nm,1.5s,mb5.9
EGRO  El Granado        84.45  45 ⇑P    P     19 36 45.1 +1.0
      comp=Z,336nm,1.4s,mb6.3
MOE   Montemor          84.45  44 eP    P     19 36 45.3 +1.2
A07A  Ashnola River,    84.47 330 ⇓P    P     19 36 43.8 -0.2
      baz=85,SNR=9.1
PBEJ  Beja              84.48  45 eP    P     19 36 46.2 +1.9
      comp=Z,106nm,1.3s,mb5.8
EDM   Edmonton          84.60 336 eP    P     19 36 41.0 -3.5
EVO   Evora             84.68  44 eP    P     19 36 46.1 +0.8
PTOM  Tomar             85.05  43 eP    P     19 36 48.5 +1.4
      comp=Z,189nm,1.1s,mb6.1
EMIN  Mina Concepcio    85.12  46 ⇑P    P     19 36 48.7 +1.2
      comp=Z,188nm,1.0s,mb6.2
PESTR Estremoz          85.14  44 eP    P     19 36 48.3 +0.7
      comp=Z,139nm,1.6s,mb5.8
ESPR  Espera            85.16  47 ⇑P    P     19 36 49.1 +1.3
      comp=Z,356nm,1.2s,mb6.4
EJIF  Jimena Fronter    85.19  47 ⇑P    P     19 36 49.5 +1.6
      comp=Z,146nm,1.0s,mb6.1
EJIF  Jimena Fronter    85.19  47 ⇑P    P     19 36 49.5 +1.6
EJIF                              pmax  pmax
      comp=Z,146nm,1.0s,mb6.1
EBAD  Badajoz           85.45  45  P    P     19 36 50.1 +1.0
      comp=Z,100nm,1.0s,mb5.9
LBTB  Lobatse           85.63 115 eP    P     19 36 50.6 +0.1
      comp=Z,55nm,1.3s,mb5.6
LBTB                              LR    LR
      comp=Z,593nm,20.0s,MS5.0
EMIJ  Mijas             85.72  47 ⇑P    P     19 36 51.2 +0.7
      comp=Z,161nm,1.1s,mb6.2
PCBR  Castelo Branco    85.77  43 eP    P     19 36 51.6 +0.9
      comp=Z,59nm,1.1s,mb5.7
PVIS  Viseu             86.00  43 eP    P     19 36 52.6 +0.8
MTE   Manteigas         86.04  43 eP    P     19 36 54.2 +2.2
      comp=Z,92nm,1.3s,mb5.8
PVRL  Vila Real         86.43  42 eP    P     19 36 54.5 +0.6
ELOJ  Sierra Loja       86.46  47 ⇑P    P     19 36 55.4 +1.2
      comp=Z,88nm,1.0s,mb5.9
ELOJ  Sierra Loja       86.46  47 ⇑P    P     19 36 55.4 +1.3
ELOJ                              pmax  pmax
      comp=Z,88nm,1.0s,mb5.9
PCAB  Cabril            86.49  42 eP    P     19 36 54.9 +0.7
EALB  Alboran           86.58  49  P    P     19 36 56.4 +1.6
      comp=Z,178nm,1.3s,mb6.1
ELUQ  Luque             86.60  47 ⇑P    P     19 36 56.3 +1.5
      comp=Z,220nm,1.2s,mb6.3
ELUQ  Luque             86.60  47 ⇑P    P     19 36 56.3 +1.5
ELUQ                              pmax  pmax
      comp=Z,220nm,1.2s,mb6.3
ERON  Agron             86.62  47  P    P     19 36 55.3 +0.3
      comp=Z,11nm,1.2s,mb5.0
EMAZ  Mazaricos         86.64  40  P    P     19 36 54.2 -0.7
      comp=Z,403nm,2.0s,mb6.3
EADA  Adamuz            86.72  46  P    P     19 36 56.2 +0.8
      comp=Z,136nm,1.5s,mb6.0
MVO   Moncorvo          86.80  43 eP    P     19 36 55.9 +0.2
      comp=Z,42nm,1.1s,mb5.6
STS   Santiago          86.85  40  P    P     19 36 56.3 +0.3
      comp=Z,45nm,1.0s,mb5.7
STS   Santiago          86.85  40  P    P     19 36 56.3 +0.3
STS                               pmax  pmax
      comp=Z,45nm,1.0s,mb5.7
ECOG  Cogollos-Vega     86.92  47  P    P     19 36 56.2 -0.3
      comp=Z,40nm,1.3s,mb5.5
ECOG  Cogollos-Vega     86.92  47  P    P     19 36 56.2 -0.2
ECOG                              pmax  pmax
      comp=Z,40nm,1.3s,mb5.5
EBER  Berja             87.18  48  P    P     19 36 57.7  0.0
      comp=Z,171nm,2.0s,mb5.9
EBAN  Banos Encina      87.24  46  P    P     19 36 58.5 +0.5
      comp=Z,133nm,1.6s,mb5.9
EBAN  Banos Encina      87.24  46  P    P     19 36 58.5 +0.5
EBAN                              pmax  pmax
      comp=Z,133nm,1.6s,mb5.9
PBRG  Braganca          87.34  42 eP    P     19 36 59.3 +1.0
      comp=Z,40nm,1.7s,mb5.4
ECAL  Calabor           87.42  42  P    P     19 36 58.8 +0.1
      comp=Z,125nm,1.4s,mb6.0
ERUA  La Rua            87.42  41  P    P     19 36 59.5 +0.8
      comp=Z,32nm,0.8s,mb5.6
ERUA  La Rua            87.42  41  P    P     19 36 59.5 +0.8
ERUA                              pmax  pmax
      comp=Z,32nm,0.8s,mb5.6
EQES  Quesada           87.53  47  P    P     19 36 58.9 -0.5
      comp=Z,62nm,1.3s,mb5.7
ENIJ  Nijar             87.69  48  P    P     19 37 00.1  0.0
      comp=Z,18nm,1.0s,mb5.3
ENIJ  Nijar             87.69  48  P    P     19 37 00.1  0.0
ENIJ                              pmax  pmax
      comp=Z,19nm,1.0s,mb5.3
ESDC  Sonseca Array     87.93  45  P    P     19 37 01.7 +0.5
      comp=Z,10nm,1.4s,mb4.9
ESDC  Sonseca Array     87.93  45  P    P     19 37 00.7 -0.5
      comp=Z,5.4nm,0.9s,mb4.8,baz=252,slow=4.2,SNR=14
ESDC                              LR    LR    20 18 44.0
      comp=Z,245nm,18.3s,MS4.7,baz=225,slow=37
EVIA  Vianos            88.35  47  P    P     19 37 03.4 +0.1
      comp=Z,7.9nm,0.6s,mb5.1
EVIA  Vianos            88.35  47  P    P     19 37 03.4 +0.2
EVIA                              pmax  pmax
      comp=Z,8.0nm,0.6s,mb5.1
ETOB  Tobarra           88.99  47  P    P     19 37 06.5 +0.2
      comp=Z,79nm,1.7s,mb5.8
EARI  Arriondas         89.11  42  P    P     19 37 06.8 +0.1
      comp=Z,70nm,1.3s,mb5.8
ETOR  Torete            89.78  45  P    P     19 37 08.7 -1.2
      comp=Z,22nm,1.8s,mb5.2
ETOR  Torete            89.78  45  P    P     19 37 08.7 -1.2
ETOR                              pmax  pmax
      comp=Z,22nm,1.8s,mb5.2
ECHE  Chera             89.86  46  P    P     19 37 11.2 +0.9
      comp=Z,26nm,1.4s,mb5.4
ECHE  Chera             89.86  46  P    P     19 37 11.2 +0.9
ECHE                              pmax  pmax
      comp=Z,26nm,1.4s,mb5.4
ELAN  Lanestosa         90.16  42  P    P     19 37 10.2 -1.5
      comp=Z,253nm,2.7s,mb6.1
ECRI  Cripan            90.41  43  P    P     19 37 13.5 +0.7
      comp=Z,4.1nm,0.7s,mb4.9
ECRI  Cripan            90.41  43  P    P     19 37 13.5 +0.7
ECRI                              pmax  pmax
      comp=Z,4.0nm,0.7s,mb4.9
ERTA  Horta de San J    91.41  46  P    P     19 37 17.6 +0.1
      comp=Z,63nm,1.7s,mb5.7
SJPF  Ste Jean          91.48  43 eP    P     19 37 16.4 -1.4
      comp=Z,22nm,0.9s,mb5.2
SJPF  Ste Jean          91.48  43 eP    P     19 37 16.4 -1.4
      comp=Z,11nm,0.9s,mb5.2
SJPF  Ste Jean          91.48  43 eP    P     19 37 16.4 -1.4
SJPF                              pmax  pmax
      comp=Z,11nm,0.9s,mb5.2
LSZ   Lusaka            91.78 107 eP    P     19 37 21.4 +1.5
      comp=Z,11nm,0.9s,mb5.2
LSZ   Lusaka            91.78 107 eP    P     19 37 21.4 +1.5
LSZ                               pmax  pmax
      comp=Z,11nm,0.9s,mb5.2
ETSF  Etsaut            91.80  44 eP    P     19 37 17.7 -1.5
URZ   Urewera           92.11 227 LR    LR    20 09 58.5
      comp=Z,782nm,19.3s,MS5.2,baz=188,slow=30
EBIE  Bielsa            92.14  44  P    P     19 37 20.5 -0.3
      comp=Z,34nm,1.8s,mb5.4
YKA   Yellowknife Ar    92.20 341  P    P     19 37 19.6 -1.0
      comp=Z,9.5nm,0.8s,mb5.2,baz=136,slow=4.5,SNR=167
YKA                               LR    LR    20 20 04.2
      comp=Z,213nm,18.1s,MS4.6,baz=160,slow=36
EPF   Esparros          92.43  44 eP    P     19 37 21.1 -1.1
      comp=Z,29nm,1.3s,mb5.2
EPF   Esparros          92.43  44 eP    P     19 37 21.1 -1.1
      comp=Z,15nm,1.3s,mb5.2
EPF   Esparros          92.43  44 eP    P     19 37 21.1 -1.1
EPF                               pmax  pmax
```

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              comp=Z,15nm,1.3s,mb5.2
ETOS  Mallorca          92.50  48   P        P        19 37 22.9 +0.3
              comp=Z,66nm,1.2s,mb5.8
QUIF  Quistinic         92.80  38  eP        P        19 37 21.9 -1.8
              comp=Z,429nm,1.9s,mb6.3
QUIF  Quistinic         92.80  38  eP        P        19 37 21.9 -1.8
              comp=Z,215nm,1.9s,mb6.2
QUIF  Quistinic         92.80  38  eP        P        19 37 21.9 -1.8
QUIF                                 pmax     pmax
              comp=Z,215nm,1.9s,mb6.2
ROSF  Rostrenen         92.96  38  eP        P        19 37 23.5 -1.0
              comp=Z,160nm,1.4s,mb6.0
ROSF  Rostrenen         92.96  38  eP        P        19 37 23.5 -1.0
              comp=Z,80nm,1.4s,mb6.0
ROSF  Rostrenen         92.96  38  eP        P        19 37 23.5 -1.0
ROSF                                 pmax     pmax
              comp=Z,80nm,1.4s,mb6.0
SGMF  Saint Gilles      93.32  38  eP        P        19 37 23.2 -3.0
              comp=Z,246nm,1.6s,mb6.1
SGMF  Saint Gilles      93.32  38  eP        P        19 37 23.2 -3.0
              comp=Z,123nm,1.6s,mb6.1
SGMF  Saint Gilles      93.32  38  eP        P        19 37 23.2 -3.0
SGMF                                 pmax     pmax
              comp=Z,123nm,1.6s,mb6.1
LFF   La Frestale       93.62  42  eP        P        19 37 25.4 -2.2
              comp=Z,60nm,1.0s,mb5.7
LFF   La Frestale       93.62  42  eP        P        19 37 25.4 -2.2
              comp=Z,30nm,1.0s,mb5.7
LFF   La Frestale       93.62  42  eP        P        19 37 25.4 -2.2
LFF                                  pmax     pmax
              comp=Z,30nm,1.0s,mb5.7
MTLF  Montolieu         93.79  44  eP        P        19 37 26.8 -1.6
MFF   Saint Martin d    93.90  41  eP        P        19 37 26.8 -2.0
              comp=Z,74nm,1.3s,mb5.7
MFF   Saint Martin d    93.90  41  eP        P        19 37 26.8 -2.0
              comp=Z,37nm,1.3s,mb5.7
MFF   Saint Martin d    93.90  41  eP        P        19 37 26.8 -2.0
MFF                                  pmax     pmax
              comp=Z,37nm,1.3s,mb5.7
RJF   Les Rejaudoux     94.28  42  eP        P        19 37 29.9 -0.7
              comp=Z,70nm,1.3s,mb5.6
RJF                                eMLR      MLR
              comp=Z,566nm,19.5s,MS4.7
RJF   Les Rejaudoux     94.28  42  eP        P        19 37 29.9 -0.7
              comp=Z,35nm,1.3s,mb5.6
RJF                                  LR       LR
              comp=Z,570nm,19.5s,MS5.0
RJF   Les Rejaudoux     94.28  42  eP        P        19 37 29.9 -0.7
RJF                                  pmax     pmax
              comp=Z,35nm,1.3s,mb5.6
RJF                                  MLR      MLR
              comp=Z,570nm,19.5s,MS5.0
CAF   Calviac           94.44  43  eP        P        19 37 29.9 -1.5
              comp=Z,21nm,1.1s,mb5.2
CAF   Calviac           94.44  43  eP        P        19 37 29.9 -1.5
              comp=Z,10nm,1.1s,mb5.2
CAF   Calviac           94.44  43  eP        P        19 37 29.9 -1.5
CAF                                  pmax     pmax
              comp=Z,10.0nm,1.1s,mb5.2
AFI   Afiamalu          94.76 253    LR       LR      20 11 12.6
              comp=Z,408nm,18.1s,MS4.9,baz=325,slow=30
FLN   La Foliniere      94.77  39  eP        P        19 37 31.8 -1.0
              comp=Z,40nm,1.1s,mb5.5
FLN                                eMLR      MLR
              comp=Z,353nm,18.0s,MS4.6
FLN   La Foliniere      94.77  39  eP        P        19 37 31.8 -1.0
              comp=Z,20nm,1.1s,mb5.5
FLN                                  LR       LR
              comp=Z,350nm,18.0s,MS4.9
FLN   La Foliniere      94.77  39  eP        P        19 37 31.8 -1.0
FLN                                  pmax     pmax
              comp=Z,20nm,1.1s,mb5.5
FLN                                  MLR      MLR
              comp=Z,350nm,18.0s,MS4.9
LDF   La Druitiere      94.89  39  eP        P        19 37 30.6 -2.8
TCF   Toulx Ste Croi    95.17  42  eP        P        19 37 33.2 -1.5
              comp=Z,13nm,0.9s,mb5.0
TCF   Toulx Ste Croi    95.17  42  eP        P        19 37 33.2 -1.5
              comp=Z,6.6nm,0.9s,mb5.1
TCF   Toulx Ste Croi    95.17  42  eP        P        19 37 33.2 -1.5
TCF                                  pmax     pmax
              comp=Z,7.0nm,0.9s,mb5.1
KEST  Kesra             95.36  54   P        P        19 37 37.9 +2.0
              comp=Z,4.5nm,0.8s,mb5.0,baz=266,slow=7.8,SNR=5.6
KEST                                 LR       LR      20 25 10.8
              comp=Z,530nm,18.0s,MS5.0,baz=182,slow=38
BGF   Bois d’Agland     95.69  42  eP        P        19 37 36.2 -0.8
              comp=Z,60nm,1.2s,mb5.6
BGF   Bois d’Agland     95.69  42  eP        P        19 37 36.2 -0.8
              comp=Z,30nm,1.2s,mb5.6
BGF   Bois d’Agland     95.69  42  eP        P        19 37 36.2 -0.8
BGF                                  pmax     pmax
              comp=Z,30nm,1.2s,mb5.6
VIVF  Saint-Julien-l    96.05  44  eP        P        19 37 36.7 -2.1
              comp=Z,70nm,1.7s,mb5.5
VIVF  Saint-Julien-l    96.05  44  eP        P        19 37 36.7 -2.1
              comp=Z,35nm,1.7s,mb5.5
VIVF  Saint-Julien-l    96.05  44  eP        P        19 37 36.7 -2.1
VIVF                                 pmax     pmax
              comp=Z,35nm,1.7s,mb5.5
AVF   Avril sur Loir    96.10  42  eP        P        19 37 36.9 -2.0
              comp=Z,23nm,1.2s,mb5.2
AVF   Avril sur Loir    96.10  42  eP        P        19 37 36.9 -2.0
              comp=Z,11nm,1.2s,mb5.2
AVF   Avril sur Loir    96.10  42  eP        P        19 37 36.9 -2.0
AVF                                  pmax     pmax
              comp=Z,11nm,1.2s,mb5.2
SSF   Saint Saulge      96.32  41⇑iP        P        19 37 38.7 -1.2
              comp=Z,40nm,1.2s,mb5.4
SSF   Saint Saulge      96.32  41⇑iP        P        19 37 38.7 -1.2
              comp=Z,20nm,1.2s,mb5.4
SSF   Saint Saulge      96.32  41⇑iP        P        19 37 38.7 -1.2
SSF                                  pmax     pmax
              comp=Z,20nm,1.2s,mb5.4
SMF   Signal de Mont    96.34  42⇑iP        P        19 37 39.4 -0.6
              comp=Z,57nm,1.2s,mb5.6
SMF   Signal de Mont    96.34  42⇑iP        P        19 37 39.4 -0.6
              comp=Z,29nm,1.2s,mb5.6
SMF   Signal de Mont    96.34  42⇑iP        P        19 37 39.4 -0.6
SMF                                  pmax     pmax
              comp=Z,29nm,1.2s,mb5.6
LMR   La Mourre         96.58  46⇑iP        P        19 37 41.1 -0.1
              comp=Z,45nm,1.2s,mb5.5
LMR   La Mourre         96.58  46⇑iP        P        19 37 41.1 -0.1
              comp=Z,22nm,1.2s,mb5.5
LMR   La Mourre         96.58  46⇑iP        P        19 37 41.1 -0.1
LMR                                  pmax     pmax
              comp=Z,23nm,1.2s,mb5.5
LOR   Lormes            96.63  41  eP        P        19 37 38.2 -3.1
              comp=Z,18nm,1.0s,mb5.2
LOR                                eMLR      MLR
              comp=Z,360nm,19.8s,MS4.5
LOR   Lormes            96.63  41  eP        P        19 37 38.2 -3.1
              comp=Z,9.3nm,1.0s,mb5.2
LOR                                  LR       LR
              comp=Z,360nm,19.8s,MS4.8
LOR   Lormes            96.63  41  eP        P        19 37 38.2 -3.1
LOR                                  pmax     pmax
              comp=Z,9.0nm,1.0s,mb5.2
LOR                                  MLR      MLR
              comp=Z,360nm,19.8s,MS4.8
FRF   La Foret Royal    96.76  46  eP        P        19 37 40.0 -2.0
              comp=Z,84nm,1.6s,mb5.6
FRF   La Foret Royal    96.76  46  eP        P        19 37 40.0 -2.0
              comp=Z,42nm,1.6s,mb5.6
FRF   La Foret Royal    96.76  46  eP        P        19 37 40.0 -2.0
FRF                                  pmax     pmax
              comp=Z,42nm,1.6s,mb5.6
ORIF  Oris-en-Rattie    96.85  44  eP        P        19 37 40.1 -2.3
              comp=Z,19nm,1.0s,mb5.2
ORIF                               eMLR      MLR
              comp=Z,505nm,18.8s,MS4.7
ORIF  Oris-en-Rattie    96.85  44  eP        P        19 37 40.1 -2.3
              comp=Z,9.3nm,1.0s,mb5.2
ORIF  Oris-en-Rattie    96.85  44  eP        P        19 37 40.1 -2.3
ORIF                                 pmax     pmax
              comp=Z,9.0nm,1.0s,mb5.2
SBF   Sospel            97.41  45  eP        P        19 37 43.7 -1.2
              comp=Z,68nm,1.3s,mb5.6
SBF   Sospel            97.41  45  eP        P        19 37 43.7 -1.2
              comp=Z,34nm,1.3s,mb5.6
SBF   Sospel            97.41  45  eP        P        19 37 43.7 -1.2
SBF                                  pmax     pmax
              comp=Z,34nm,1.3s,mb5.6
LPL   La Plagne         97.65  44  eP        P        19 37 43.7 -2.3
              comp=Z,20nm,1.2s,mb5.2
LPL   La Plagne         97.65  44  eP        P        19 37 43.7 -2.3
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              comp=Z,10nm,1.2s,mb5.2
LPL   La Plagne         97.65  44  eP        P        19 37 43.7 -2.3
LPL                                  pmax     pmax
              comp=Z,10.0nm,1.2s,mb5.2
CABF  La Chapelle       97.71  43  eP        P        19 37 44.9 -1.3
MEZF  Maizieres J’vi    97.90  41  eP        P        19 37 44.8 -2.2
BAIF  Baives            98.08  39  eP        P        19 37 46.8 -1.0
              comp=Z,30nm,1.3s,mb5.3
BAIF  Baives            98.08  39  eP        P        19 37 46.8 -1.0
              comp=Z,15nm,1.3s,mb5.4
BAIF  Baives            98.08  39  eP        P        19 37 46.8 -1.0
BAIF                                 pmax     pmax
              comp=Z,15nm,1.3s,mb5.4
GIVF  Givet             98.46  39  eP        P        19 37 47.7 -1.8
              comp=Z,44nm,1.1s,mb5.6
GIVF  Givet             98.46  39  eP        P        19 37 47.7 -1.8
              comp=Z,22nm,1.1s,mb5.6
GIVF  Givet             98.46  39  eP        P        19 37 47.7 -1.8
GIVF                                 pmax     pmax
              comp=Z,22nm,1.1s,mb5.6
HAU   Haudompre         98.47  41  eP        P        19 37 48.5 -1.1
HAU                                eMLR      MLR
              comp=Z,362nm,17.5s,MS4.6
HAU   Haudompre         98.47  41  eP        P        19 37 48.5 -1.1
HAU                                  MLR      MLR
              comp=Z,360nm,17.5s,MS4.9
WLF   Walferdange       99.05  40   P        P        19 37 52.1 -0.1
              comp=Z,20nm,1.5s,mb5.4
CDF   Champ du Feu      99.20  41  eP        P        19 37 52.1 -0.7
              comp=Z,19nm,1.2s,mb5.2
CDF   Champ du Feu      99.20  41  eP        P        19 37 52.1 -0.7
              comp=Z,9.7nm,1.2s,mb5.2
CDF   Champ du Feu      99.20  41  eP        P        19 37 52.1 -0.7
CDF                                  pmax     pmax
              comp=Z,10.0nm,1.2s,mb5.2
GERES GERESS Array B   103.31  42    Pdif     Pdif    19 38 11.4 +0.2
GERES                                PP       PP      19 42 29.1 +2.0
GERES GERESS Array B   103.31  42    Pdiff    Pdif    19 38 11.4 +0.1
              comp=Z,1.0nm,0.8s,baz=235,slow=4.7,SNR=7.2
GERES                                PP       PP      19 42 29.1 +2.0
              comp=Z,0.5nm,0.8s,baz=197,slow=4.2,SNR=3.9
CLL   Collm            103.72  40  ePP       PP       19 42 29.5 -0.5
CLL                                eSKSac    SKSac    19 48 55.3 +4.0
CLL                                eSdiff    Sdif     19 50 03.7 +2.8
CLL                                ePS       PS       19 51 46.1 +5.5
CLL                                ePPS               19 52 35.1
CLL                                eSS       SS       19 57 19.9 +4.9
CLL                                eSSS               20 01 10.6
CLL                                eL                 20 20 15.8
              comp=Z,453nm,22.0s
CLL   Collm            103.72  40  ePP       PP       19 42 30.0  0.0
CLL                                eSKSac    SKSac    19 48 57.0 +5.7
CLL                                eSdif     Sdif     19 50 03.0 +2.1
CLL                                ePS       PS       19 51 48.0 +7.5
CLL                                ePPS               19 52 33.0
CLL                                ex        x        19 53 01.0
CLL                                eSS       SS       19 57 12.0 -3.0
CLL                                eSSS               20 01 12.0
CLL                                ex        x        20 07 06.0
FINES FINESS Array B   113.07  31    PKPdf    PKiKP   19 42 47.8 -0.3
FINES FINESS Array B   113.07  31    PKIKP    PKiKP   19 42 47.8 -0.3
FINES FINESS Array B   113.07  31    PKiKP    PKiKP   19 42 47.8 -0.3
              comp=Z,2.0nm,0.9s,baz=29,slow=4.4,SNR=3.9
AKASG Malin Array Be   113.51  43    PKPdf    PKiKP   19 42 48.0 -1.3
AKASG                                PP       PP      19 43 39.9 -1.4
AKASG Malin Array Be   113.51  43    PKIKP    PKiKP   19 42 48.0 -1.3
AKASG                                                 19 43 39.9
AKASG Malin Array Be   113.51  43    PKiKP    PKiKP   19 42 48.0 -1.3
              comp=Z,0.2nm,0.3s,baz=266,slow=3.0,SNR=7.3
AKASG                                PP       PP      19 43 39.9 -1.4
              comp=Z,0.2nm,0.2s,baz=257,slow=6.5,SNR=4.3
BRTR  Keskin Array B   114.88  56    PKP      PKiKP   19 42 50.9 -1.4
BRTR  Keskin Array B   114.88  56    PKIKP    PKiKP   19 42 50.9 -1.4
BRTR  Keskin Array B   114.88  56    PKP      PKiKP   19 42 50.9 -1.4
              comp=Z,3.0nm,0.9s,baz=184,slow=2.4,SNR=16
OBN   Obninsk          118.27  39  i PKIKP    PKPdf   19 42 57.7 -0.6
OBN                                e                  19 44 15.1
OBN                                i PS       PS      19 54 00.6 -0.2
OBN                                  pmax     pmax
              comp=Z,37nm,1.6s
OBN                                  MLR      MLR
              comp=Z,200nm,18.0s,MS4.8
MALT  Malatya          118.34  58  ePKPdf    PKPdf    19 42 59.0 +0.1
MALT  Malatya          118.34  58  ePKIKP    PKPdf    19 42 59.0  0.0
SOC   Sochi            119.88  52c iPKIKP    PKPdf    19 43 01.6 -0.2
SOC                                e                  19 44 31.0
SOC                                ePPP               19 47 05.1
SOC                                e                  19 49 48.5
SOC                                ePS       PS       19 54 14.8 -0.9
SOC                                eSS       SS       20 00 59.1 +8.6
SOC                                eSSS               20 05 13.9
SOC                                  pmax     pmax
              comp=Z,26nm,1.0s
KIV   Kislovodsk       122.05  52  ePKPdf    PKPdf    19 43 05.7 -0.2
KIV   Kislovodsk       122.05  52  i PKIKP   PKPdf    19 43 05.9  0.0
KIV                                e                  19 44 39.5
KIV                                e                  19 50 02.8
KIV                                eSS       SS       20 01 20.2 +1.9
KIV                                  pmax     pmax
              comp=Z,17nm,1.1s
PRGR  Permogore        122.38  31  ePKIKP    PKPdf    19 43 05.6 -0.4
ZEI   Tsey             122.89  53  ePKIKP    PKPdf    19 43 08.3 +0.7
BILL  Bilibino         123.45 338  ePKIKP    PKPdf    19 43 07.4 -0.5
BILL                                 pmax     pmax
              comp=Z,8.0nm,1.3s
ASAR  Alice Springs    127.87 209    PKP      PKPdf   19 43 16.9 -1.0
ASAR  Alice Springs    127.87 209    PKIKP    PKPdf   19 43 16.9 -0.9
ASAR  Alice Springs    127.87 209    PKP      PKPdf   19 43 16.9 -1.0
              comp=Z,9.0nm,0.8s,baz=148,slow=2.4,SNR=60
TIXI  Tiksi            130.16 352  ePKPdf    PKPdf    19 43 19.3 -1.3
TIXI  Tiksi            130.16 352  i PKIKP   PKPdf    19 43 18.1 -2.5
TIXI                                 pmax     pmax
              comp=Z,14nm,1.1s
TIXI                                 MLR      MLR
              comp=Z,232nm,21.0s,MS4.8
ARU   Arti             130.23  34  ePKPdf    PKPdf    19 43 21.4 +0.3
ARU   Arti             130.23  34  i PKIKP   PKPdf    19 43 21.9 +0.7
ARU                                e                  19 45 35.3
ARU                                eSS       SS       20 02 56.6 -3.0
WB2   Warramunga Arr   130.88 211  ePKP      PKPdf    19 43 22.5 -1.1
WB2   Warramunga Arr   130.88 211  ePKP      PKPdf    19 43 22.5 -1.1
WRA   Warramunga Arr   130.89 211    PKP      PKPdf   19 43 23.0 -0.6
WRA                                  SKPbc    SKPbc   19 46 45.8 -0.8
WRA   Warramunga Arr   130.89 211    PKIKP    PKPdf   19 43 23.0 -0.6
WRA   Warramunga Arr   130.89 211    PKP      PKPdf   19 43 23.0 -0.6
              comp=Z,11nm,1.0s,baz=161,slow=1.3,SNR=37
WRA                                  SKPbc    SKPbc   19 46 45.8 -0.8
              comp=Z,3.3nm,1.0s,baz=146,slow=4.0,SNR=7.0
PMG   Port Moresby     131.06 233    PKP      PKPdf   19 43 23.4 -0.7
PMG   Port Moresby     131.06 233    PKIKP    PKPdf   19 43 23.4 -0.7
PMG   Port Moresby     131.06 233    PKP      PKPdf   19 43 23.4 -0.7
              comp=Z,8.8nm,0.9s,baz=34,slow=1.8,SNR=3.7
AB31  Akbulak array    133.25  43    PKIKP    PKPdf   19 43 27.4 +0.3
AB31                                 pmax     pmax
              comp=Z,22nm,1.1s
MA2   Magadan          133.48 332  ePKPdf    PKPdf    19 43 26.6 -0.6
MA2   Magadan          133.48 332  i PKIKP   PKPdf    19 43 26.7 -0.5
MA2                                eSS       SS       20 03 31.4 -7.4
MA2                                eSSS               20 08 33.4
MA2                                  pmax     pmax
              comp=Z,10.0nm,1.1s
FITZ  Fitzroy Crossi   136.17 202  ePKP      PKPdf    19 43 33.6  0.0
              comp=Z,8.6nm,0.8s
FITZ  Fitzroy Crossi   136.17 202  ePKP      PKPdf    19 43 33.6  0.0
FITZ  Fitzroy Crossi   136.17 202    PKP      PKPdf   19 43 33.8 +0.2
              comp=Z,4.0nm,0.7s,baz=189,slow=6.6,SNR=9.2
BRVK  Borovoye         137.81  35  ePKPdf    PKPdf    19 43 35.8 +0.3
BRVK  Borovoye         137.81  35    PKIKP    PKPdf   19 43 33.5 -2.0
BRVK                                 pmax     pmax
              comp=Z,3.0nm,1.0s
KAKA  Kakadu           137.98 214  ePKPdf    PKPdf    19 43 36.8 -0.2
YAK   Yakutsk          138.71 346  ePKPpre            19 43 26.2
YAK   Yakutsk          138.71 346  ePKIKP    PKPdf    19 43 36.3 -0.6
YAK                                  pmax     pmax
              comp=Z,22nm,1.1s
YAK                                  pmax     pmax
              comp=N,4.0nm,1.3s
YAK                                  pmax     pmax
              comp=E,7.0nm,1.3s
YAK                                  pmax     pmax
              comp=E,8.0nm,1.3s
YAK                                  pmax     pmax
              comp=N,12nm,1.4s
NVS   Novosibirsk      142.68  25  i PKIKP   PKPdf    19 43 39.8 -4.5
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NVS                                  pmax     pmax
              comp=E,16nm,1.7s
NVS                                  pmax     pmax
              comp=Z,69nm,1.7s
KBL   Kabul            142.92  63  ePKPpre            19 43 42.6
KURK  Kurchatov        143.41  33  ePKPpre            19 43 42.8
KURK  Kurchatov        143.41  33  ePKIKP    PKPdf    19 43 42.8 -2.9
ZALV  Zalesovo Beam    143.97  25    PKP      PKPdf   19 43 44.4 -2.2
ZALV  Zalesovo Beam    143.97  25    PKP      PKPdf   19 43 44.4 -2.2
              comp=Z,21nm,0.8s,baz=322,slow=4.5,SNR=32
ZAL   Zalesovo         143.97  25    PKIKP    PKPdf   19 43 44.4 -2.1
YSS   Yuzh-Sakhalins   144.28 320  ePKP      PKPdf    19 43 45.4 -1.9
YSS   Yuzh-Sakhalins   144.28 320    PKHKP            19 43 41.2
CLNS  Chul’man         144.46 346  ePKIKP    PKPdf    19 43 45.1 -2.2
CLNS                                 pmax     pmax
              comp=Z,41nm,0.8s
CLNS                                 pmax     pmax
              comp=N,15nm,1.0s
CLNS                                 pmax     pmax
              comp=E,14nm,0.9s
EKS2  Erkin-Say        144.50  48    P        PKPdf   19 43 47.8  0.0
              SNR=32
EKS2  Erkin-Say        144.50  48  ePKP      PKPdf    19 43 47.4 -0.5
AML   Almayashu        144.64  49    P        PKPdf   19 43 48.5 +0.4
              SNR=85
AML   Almayashu        144.64  49  ePKP      PKPdf    19 43 47.9 -0.2
USP   Ospenovka        144.75  47    P        PKPdf   19 43 48.0 -0.2
              SNR=39
AAK   Ala-Archa        145.00  48  ePKP      PKPdf    19 43 48.4 -0.3
AAK   Ala-Archa        145.00  48  ePKIKP    PKPdf    19 43 48.4 -0.3
FRU   Bishkek          145.00  47⇑iPKIKP    PKPdf    19 43 49.0 +0.3
FRU                                i                  19 44 00.0
FRU                                  pmax     pmax
              comp=Z,440nm,1.4s
CHMS  Chumysh          145.03  47    P        PKPbc   19 43 49.3 +1.1
              SNR=48
BOD   Bodaibo          145.14 356  ePKIKP    PKPdf    19 43 46.6 -1.9
BOD                                  pmax     pmax
              comp=Z,135nm,0.9s
UCH   Uchtor           145.17  48    P        PKPbc   19 43 50.7 +2.1
              SNR=159
UCH   Uchtor           145.17  48  ePKP      PKPdf    19 43 50.2 +1.2
GUMO  Guam             145.28 260    PKPbc    PKPbc   19 43 48.1 -1.7
GUMO  Guam             145.28 260    PKP2     PKPbc   19 43 48.1 -1.6
GUMO  Guam             145.28 260    PKPbc    PKPbc   19 43 48.1 -1.7
              comp=Z,234nm,1.1s,baz=97,slow=7.7,SNR=5.2
KBK   Karagaybulak     145.30  47    P        PKPbc   19 43 50.6 +1.6
              SNR=87
TKM2  Tokmak 2         145.63  47    P        PKPdf   19 43 51.7 +1.9
              SNR=38
TKM2  Tokmak 2         145.63  47  ePKPdf    PKPdf    19 43 50.1 +0.3
TKM2  Tokmak 2         145.63  47  ePKIKP    PKPdf    19 43 50.1 +0.3
KZA   Kyzart           145.73  48    P        PKPbc   19 43 52.7 +2.3
              SNR=25
ASAJ  Asahikawa        145.74 316    PKPbc    PKPbc   19 43 50.8 +0.4
              comp=Z,83nm,1.1s,baz=239,slow=4.5,SNR=9.5
ERM   Erimo            146.26 312  ePKPbc    PKPbc    19 43 52.6 +0.6
ERM   Erimo            146.26 312  ePKP2     PKPab    19 43 52.7 -0.1
ULHL  Ulahol           146.34  47    P        PKPbc   19 43 53.2 +0.9
              SNR=12
KAD   Karad            146.35  93  i P       PKPdf    19 43 52.2 +0.5
POO   Poona            146.35  91⇑ix        x        19 43 57.0
              comp=Z,130nm,1.0s
KSH   Kashi            147.17  52    PKP      PKPdf   19 43 54.1 +1.6
KSH                                ePP       PP       19 47 25.6 +5.6
KSH                                ePKS               19 47 27.1
KSH                                eSKS      SKSdf    19 50 56.3 -3.6
KSH                                ePPP               19 51 06.0
KSH                                  PP       PP
              comp=Z,723nm,5.5s
KSH                                  LR       LR
              comp=Z,712nm,5.1s
HABR  Khabarovsk       147.58 328⇑ePKIKP    PKPdf    19 43 52.0 -0.9
HABR                               i                  19 43 55.7
HABR                               e                  19 47 19.4
HABR                               ePPP               19 50 36.8
HABR                               e                  19 50 57.2
HABR                               eSS       SS       20 06 17.7 -6.1
HABR                               eSSS               20 11 52.4
MKAR  Makanchi Array   147.72  36    PKP      PKPdf   19 43 53.2  0.0
MKAR                                 PKPbc    PKPbc   19 43 56.2 +0.2
MKAR  Makanchi Array   147.72  36    PKIKP    PKPdf   19 43 53.2  0.0
MKAR                                                  19 43 56.2
MKAR  Makanchi Array   147.72  36    PKP      PKPdf   19 43 53.2  0.0
              comp=Z,35nm,0.8s,baz=305,slow=2.0,SNR=71
MKAR                                 PKPbc    PKPbc   19 43 56.2 +0.2
              comp=Z,35nm,0.8s,baz=330,slow=2.9,SNR=76
PALK  Pallekele        148.11 115    PKPbc    PKPbc   19 43 56.0 -2.0
AJM   Ajmer            148.16  77  i P       PKPdf    19 43 55.0 +0.4
KLR   Kul’dur          148.58 332  ePKHKP             19 43 49.8
THN   Thein Dam        148.73  65  eP        PKPdf    19 43 55.5 +0.2
KHET  Khetri           149.20  74  eP        PKPdf    19 43 56.0 -0.2
RTK   Rohtak           149.69  72  eP        PKPdf    19 43 56.9  0.0
SONA  Sohna            150.32  73  eP        PKPdf    19 43 58.3 +0.3
AYAN  Aya Nagar        150.34  73  eP        PKPdf    19 43 58.5 +0.5
HYB   Hyderabad        150.39  95  eP        PKPdf    19 43 59.0 +0.7
HYB   Hyderabad        150.39  95  ePKIKP    PKPdf    19 43 59.0 +0.7
HYB   Hyderabad        150.39  95  i PKP     PKPdf    19 43 59.0 +0.7
              comp=Z,125nm,1.0s
IRK   Irkutsk          150.59   7  ePKIKP    PKPdf    19 43 58.2 +0.6
IRK                                  pmax     pmax
              comp=Z,125nm,2.1s
MOY   Mondy            150.69  11  ePKIKP    PKPdf    19 43 58.7 +0.9
MOY                                  pmax     pmax
              comp=Z,97nm,2.0s
CIT   Chita            150.94 355  ePKIKP    PKPdf    19 43 59.1 +0.9
CIT                                e                  19 44 04.1
CIT                                e                  19 44 08.7
CIT                                  pmax     pmax
              comp=Z,111nm,1.3s
TLY   Talaya           151.08   8  ePKPdf    PKPdf    19 43 57.9 -0.5
TLY                                ePKPbc    PKPbc    19 44 04.2  0.0
TLY                                ePKPab    PKPab    19 44 12.5 +0.7
TLY   Talaya           151.08   8  i PKIKP   PKPdf    19 43 58.8 +0.4
TLY                                e                  19 44 13.1
TLY                                e                  19 47 45.7
TLY                                eSS       SS       20 07 02.3 +0.5
TLY                                  pmax     pmax
              comp=Z,15nm,1.6s
TLY                                  MLR      MLR
              comp=Z,193nm,18.0s,MS5.0
MJAR  Matsushiro Arr   151.88 305    PKPbc    PKPbc   19 44 06.0 -0.5
MJAR  Matsushiro Arr   151.88 305    PKIKP    PKPbc   19 44 06.0 -0.6
MJAR  Matsushiro Arr   151.88 305    PKPbc    PKPbc   19 44 06.0 -0.5
              comp=Z,23nm,0.8s,baz=97,slow=1.4,SNR=64
MAJO  Matsushiro       151.88 305  ePKPbc    PKPbc    19 44 05.6 -1.0
MAJO  Matsushiro       151.88 305  ePKIKP    PKPbc    19 44 05.6 -1.0
MAT   Matsushiro       151.88 305    PKP      PKPbc   19 44 06.0 -0.6
JOSI  Joshimath        152.25  68  eP        PKPdf    19 44 02.1 +1.3
ZAK   Zakamensk        152.30   9  ePKIKP    PKPdf    19 44 00.1 -0.2
ZAK                                e                  19 47 45.9
ZAK                                  pmax     pmax
              comp=Z,15nm,1.1s
ZAK                                  pmax     pmax
              comp=Z,4.0nm,1.5s
WMQ   Urumqi           152.56  36    PKP      PKPdf   19 44 02.3 +1.4
WMQ                                  PKS              19 47 35.3
WMQ                                  PP       PP      19 47 55.6 +5.1
WMQ                                  SKS      SKSdf   19 51 08.0 +1.2
WMQ                                  SKKS     SKKSac  19 54 43.6 +3.7
WMQ                                  SS       SS      20 07 24.6 +5.2
WMQ                                  PP       PP
              comp=Z,43nm,7.8s
WMQ                                  LR       LR
              comp=N,203nm,23.4s,MS5.0
WMQ                                  LR       LR
              comp=E,195nm,24.0s,MS5.0
WMQ                                  LR       LR
              comp=Z,247nm,25.0s,MS4.9
HIA   Hailar           152.65 345  ePKPdf    PKPdf    19 44 00.9 +0.1
HIA                                ePKPbc    PKPbc    19 44 07.2 -0.7
HIA   Hailar           152.65 345  ePKIKP    PKPdf    19 44 00.9 +0.1
HIA                                e                  19 44 07.2
MDJ   Mudanjiang       152.97 327    PKP      PKPdf   19 44 00.8 -0.6
MDJ                                  PP       PP
              comp=Z,82nm,4.8s
MDJ   Mudanjiang       152.97 327  ePKPdf    PKPdf    19 44 00.4 -1.1
SONM  Songino Array    155.16   5    PKP      PKPdf   19 44 04.8 +0.3
SONM                                 PKPab    PKPab   19 44 28.9 -0.2
SONM                                 PP       PP      19 48 03.5 -1.0
SONM  Songino Array    155.16   5    PKIKP    PKPdf   19 44 04.8 +0.4
SONM                                                  19 48 03.5
SONM  Songino Array    155.16   5    PKP      PKPdf   19 44 04.8 +0.3
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	comp=Z,4.4nm,0.9s,baz=308,slow=1.0,SNR=35						
SONM				PKPab	PKPab	19 44 28.9	-0.2
	comp=Z,5.5nm,0.9s,baz=339,slow=3.7,SNR=7.5						
SONM				PP	PP	19 48 03.5	-1.0
	comp=Z,2.0nm,1.0s,baz=323,slow=3.6,SNR=4.2						
CN2	**Changchun**	**155.53**	**331**	*e*PKP	PKPdf	19 44 02.9	-2.2
CN2				SKS	SKSdf	19 51 08.1	-2.1
CN2				SKKS	SKKSac	19 54 56.0	+0.1
CN2				*e*SS	SS	20 07 52.3	+0.9
CN2				PP	PP		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,200nm,20.0s,MS5.1						
CN2				LR	LR		
	comp=E,200nm,20.0s,MS5.1						
CN2				LR	LR		
	comp=Z,400nm,21.0s,MS5.2						
GKN	**Gorkha**	**156.99**	**72**	*e*P	PKPdf	19 44 07.3	-0.2
	comp=Z,68nm,1.0s						
PSI	**Prapat**	**157.36**	**151**	PKP	PKPdf	19 44 08.5	+0.1
PSI				PKPab	PKPab	19 44 40.0	+0.5
PSI	**Prapat**	**157.36**	**151**	PKIKP	PKPdf	19 44 08.5	+0.1
PSI						19 44 40.0	
PSI	**Prapat**	**157.36**	**151**	PKP	PKPdf	19 44 08.5	+0.1
	comp=Z,4.4nm,0.9s,baz=264,slow=7.2,SNR=7.0						
PSI				PKPab	PKPab	19 44 40.0	+0.5
	comp=Z,22nm,0.9s,baz=211,slow=3.5,SNR=13						
KKN	**Kakani**	**157.57**	**73**	*e*P	PKPdf	19 44 07.9	-0.3
	comp=Z,96nm,1.1s						
KSRS	**Korea Array**	**158.69**	**316**	PKP	PKPdf	19 44 09.4	+0.2
	comp=Z,5.1nm,0.9s,baz=107,slow=0.8,SNR=20						
KSRS				PKPab	PKPab	19 44 44.0	-0.8
	comp=Z,3.1nm,0.9s,baz=66,slow=4.2,SNR=4.9						
ODAN	**Odare**	**159.54**	**75**	*e*P	PKPdf	19 44 10.6	0.0
	comp=Z,34nm,0.9s						
TAPN	**Taplejung**	**159.77**	**73**	*e*P	PKPdf	19 44 10.0	-0.9
	comp=Z,64nm,1.3s						
GTA	**Gaotai**	**161.72**	**25**	PKP	PKPdf	19 44 13.4	+0.8
GTA				PKP2	PKPab	19 44 58.4	+0.6
GTA				PKS		19 47 45.8	
GTA				PPP		19 52 37.3	
GTA				SKKS	SKKSac	19 55 30.9	+2.5
GTA				SS	SS	20 09 03.0	+6.1
GTA				PP	PP		
	comp=Z,96nm,6.5s						
GTA				LR	LR		
	comp=N,145nm,16.4s						
GTA				LR	LR		
	comp=E,145nm,15.2s						
GTA				LR	LR		
	comp=Z,153nm,16.0s						
BJI	**Beijing**	**162.19**	**343**	PKP	PKPdf	19 44 12.1	-1.0
BJI				PP	PP	19 48 43.0	0.0
BJI				SS	SS	20 09 02.0	+0.6
BJI				LR	LR		
	comp=N,134nm,34.8s						
BJI				LR	LR		
	comp=E,149nm,31.5s						
BJI				LR	LR		
	comp=Z,249nm,26.8s						
BJI	**Beijing**	**162.19**	**343**	PKP	PKPdf	19 44 12.1	-1.0
BJI				PP	PP	19 48 43.0	0.0
BJI				SS	SS	20 09 02.0	+0.6
BJI				LR	LR		
	comp=Z,250nm,26.8s						
BJI	**Beijing**	**162.19**	**343**	PKIKP	PKPdf	19 44 12.1	-1.0
BJI						19 48 43.0	
BJI				SS	SS	20 09 02.0	+0.6
BJI				MLR	MLR		
	comp=Z,250nm,26.8s						
HHC	**Hu-ho-hao-te**	**162.20**	**355**	*e*PKP	PKPdf	19 44 14.1	+1.1
HHC				PKS		19 47 46.8	
HHC				PP	PP	19 48 48.1	+5.2
HHC				SKS	SKSdf	19 51 17.3	+0.7
HHC				SKKS	SKKSac	19 55 34.9	+4.2
HHC				PP	PP		
	comp=Z,164nm,13.7s						
HHC				LR	LR		
	comp=N,158nm,20.8s						
HHC				LR	LR		
	comp=E,171nm,18.4s						
HHC				LR	LR		
	comp=Z,310nm,22.0s						
BJT	**Baijiatuau**	**162.21**	**343**	*e*PKPdf	PKPdf	19 44 13.1	0.0
BJT	**Baijiatuau**	**162.21**	**343**	*e*PKIKP	PKPdf	19 44 13.1	0.0
LSA	**Lhasa**	**162.23**	**64**	PKP	PKPdf	19 44 14.9	+1.5
LSA	**Lhasa**	**162.23**	**64**	*e*PKPdf	PKPdf	19 44 14.2	+0.8
LSA				*e*PKPab	PKPab	19 45 01.4	+0.9
LSA				*e*PP	PP	19 48 44.9	0.0
LSA	**Lhasa**	**162.23**	**64**	*e*PKIKP	PKPdf	19 44 14.2	+0.8
LSA				*e*		19 45 01.4	
LSA				*e*		19 48 44.9	
SHL	**Shillong**	**163.68**	**78**	*e*P	PKPdf	19 44 16.0	+1.0
SHL				*e*x	x	19 45 18.0	
TIA	**Tai'an**	**165.36**	**335**	*e*PKP	PKPdf	19 44 16.4	+0.3
LZH	**Lanzhou**	**166.11**	**20**	⇑PKP	PKPdf	19 44 18.0	+1.3
LZH				APKP		19 44 23.1	
LZH				PKS		19 47 49.3	
LZH				PP	PP	19 49 08.5	+4.9
LZH				SKS	SKSdf	19 51 17.8	-1.8
LZH				SKKS	SKKSac	19 55 52.1	+1.3
LZH				PP	PP		
	comp=Z,345nm,9.2s						
LZH				LR	LR		
	comp=N,735nm,18.1s						
LZH				LR	LR		
	comp=Z,897nm,20.3s						
LZH	**Lanzhou**	**166.11**	**20**	⇑PKP	PKPdf	19 44 18.0	+1.3
LZH				pPKP	pPKPdf	19 44 23.1	-1.2
LZH				sPKP		19 44 27.0	
LZH	**Lanzhou**	**166.11**	**20**	⇑PKIKP	PKPdf	19 44 18.0	+1.3
LZH						19 44 27.0	
SSE	**Sheshan**	**166.94**	**310**	PKP	PKPdf	19 44 18.0	+0.5
SSE				PP	PP	19 49 12.9	+3.9
SSE				PP	PP		
	comp=Z,141nm,5.8s						
SSE				LR	LR		
	comp=N,77nm,17.0s						
SSE				LR	LR		
	comp=E,247nm,17.0s						
SSE				LR	LR		
	comp=Z,357nm,15.4s						
NJ2	**Nanjing**	**167.85**	**319**	*e*PKP	PKPdf	19 44 18.3	+0.1
XAN	**Xi'an**	**169.06**	**3**	PKP	PKPdf	19 44 18.6	-0.3
CHTO	**Chiang Mai**	**169.20**	**111**	*e*PKPdf	PKPdf	19 44 18.7	-0.7
CHTO				*e*PKPab	PKPab	19 45 31.4	-0.1
CHTO				*e*PP	PP	19 49 18.9	-2.3
CHTO	**Chiang Mai**	**169.20**	**111**	*e*PKIKP	PKPdf	19 44 18.7	-0.7
CHTO				*e*		19 45 31.4	
CHTO				*e*		19 49 18.9	
CD2	**Chengdu**	**170.63**	**32**	*e*PKP	PKPdf	19 44 18.4	-1.5
CD2				APKP		19 44 24.6	
CD2				PKP2	PKPab	19 45 38.8	+1.5
CD2				PP	PP	19 49 30.1	+3.1
CD2				SKS	SKSdf	19 51 16.4	-5.8
CD2				SKKS	SKKSac	19 56 12.0	-1.4
CD2				PP	PP		
	comp=Z,120nm,9.8s						
CD2				LR	LR		
	comp=N,180nm,19.2s						
CD2				LR	LR		
	comp=E,210nm,21.6s						
CD2				LR	LR		
	comp=Z,320nm,15.6s						
WHN	**Wuhan**	**171.43**	**331**	⇓PKP	PKPdf	19 44 22.5	+2.2
WHN				PP	PP	19 49 31.0	+0.1
WHN				LR	LR		
	comp=Z,685nm,28.0s						
KMI	**Kunming**	**173.43**	**71**	PKP	PKPdf	19 44 21.5	+0.1
KMI	**Kunming**	**173.43**	**71**	PKP	PKPdf	19 44 21.5	+0.1
KMI				sPKP		19 44 24.7	
KMI	**Kunming**	**173.43**	**71**	PKIKP	PKPdf	19 44 21.5	+0.1
GYA	**Guiyang**	**175.72**	**38**	PKP	PKPdf	19 44 20.8	-1.2
GYA				PKP2	PKPab	19 46 01.3	+1.3
GYA				PKS		19 47 51.8	
GYA				PP	PP	19 49 54.6	+2.5
GYA				SKS	SKSdf	19 51 21.4	-2.6
GYA				PPP		19 54 12.0	
GYA				SKKS	SKKSac	19 56 38.9	+1.0
GYA				PP	PP		
	comp=Z,1μm,9.2s						
GYA				LR	LR		
	comp=N,2μm,23.8s						
GYA				LR	LR		
	comp=E,2μm,21.3s						
GYA				LR	LR		
	comp=Z,2μm,22.9s						
QIZ	**Qiongzhong**	**175.97**	**184**	PKP	PKPdf	19 44 19.8	-2.5
QIZ				PKP2	PKPab	19 46 03.1	+2.0
QIZ				PP	PP	19 49 52.9	+0.5
QIZ				LR	LR		
	comp=N,204nm,21.2s						
QIZ				LR	LR		
	comp=Z,325nm,19.4s						

IDC 19 19:32:25.0±16.0**, 23.05S**×**179.23E, h650**^{km}±156^{km}**, mb3.3**/7**, mb1 3.4**/7**, mb1mx3.2**/16**, mbtmp3.3**/7**, Error ellipse: s-maj=157.7km s-min=44.5km az=104.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**30.77**	**269**	P	P	19 37 51.6	+0.7
	9.4nm,0.5s,baz=89,slow=9.9,SNR=18						
PMG	**Port Moresby**	**33.55**	**289**	P	P	19 38 14.8	+0.6
	7.8nm,0.9s,baz=145,slow=7.0,SNR=3.6						
STKA	**Stephens Creek**	**34.39**	**247**	P	P	19 38 20.4	-0.5
	1.1nm,0.6s,baz=86,slow=12,SNR=4.6						
ASAR	**Alice Springs**	**41.48**	**260**	P	P	19 39 17.8	-0.4
	3.5nm,0.8s,baz=94,slow=7.0,SNR=40						
WRA	**Warramunga Arr**	**41.76**	**265**	P	P	19 39 20.3	-0.1
	1.7nm,0.3s,baz=92,slow=8.4,SNR=51						
FITZ	**Fitzroy Crossi**	**50.19**	**265**	P	P	19 40 24.6	+0.8
	1.2nm,0.4s,baz=97,slow=8.1,SNR=7.3						
MJAR	**Matsushiro Arr**	**70.80**	**326**	P	P	19 42 38.2	0.0
	1.2nm,0.7s,baz=157,slow=7.6,SNR=4.8						

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*ISCJB **19** 19:38:53.4±1.3, 17.8S±0.3×178.4W±0.2, h500^{km}, mb3.8/7, Error ellipse: s-maj=47.5km s-min=18.5km az=146.2*

*NEIC **19** 19:38:55.9±6.2, 17.93S×178.32W, h521^{km}±66^{km}, mb3.9/2, Error ellipse: s-maj=42.2km s-min=30.4km az=141.0*

*IDC **19** 19:38:58.0±9.9, 17.83S×178.40W, h541^{km}±112^{km}, mb3.3/6, mb1 3.6/6, mb1mx3.4/13, mbtmp3.3/6, Error ellipse: s-maj=57.0km s-min=42.7km az=154.0*

ISC 19 19:38:54.2±1.3**, 17.9S**±0.3×**178.3W**±0.2**, h500**^{km}**, n17, σ0**^{s}**.69**/10**, mb3.8**/7**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**38.73**	**241**	*e*P	**P**	**19 45 36.1**	**+1.2**
	3.5nm,0.7s,mb3.9						
STKA	**Stephens Creek**	**38.73**	**241**	P	**P**	**19 45 36.0**	**+1.1**
	5.9nm,0.9s,mb4.0,baz=76,slow=9.3,SNR=11						
WB2	**Warramunga Arr**	**44.73**	**260**	*e*P	**P**	**19 46 21.6**	**-1.1**
WRA	**Warramunga Arr**	**44.74**	**260**	P	**P**	**19 46 22.2**	**-0.6**
	1.8nm,0.8s,mb3.6,baz=96,slow=7.3,SNR=21						
ASAR	**Alice Springs**	**44.90**	**254**	P	**P**	**19 46 23.9**	**0.0**
	7.1nm,0.7s,mb4.2,baz=87,slow=8.7,SNR=66						
MJAR	**Matsushiro Arr**	**67.97**	**323**	P	**P**	**19 49 03.0**	**+0.1**
	1.2nm,0.6s,mb3.7,baz=156,slow=6.1,SNR=3.1						
MDJ	**Mudanjiang**	**78.25**	**325**	P	**P**	**19 50 02.6**	**+0.9**
	3.9nm,1.0s,mb3.8						
TXAR	**Lajitas Array**	**85.90**	**58**	P	**P**	**19 50 41.1**	**0.0**
	1.3nm,0.8s,mb3.6,baz=188,slow=3.8,SNR=4.7						
YKA	**Yellowknife Ar**	**94.28**	**25**	P	**P**	**19 51 18.6**	**-0.5**
YKA	**Yellowknife Ar**	**94.28**	**25**	P	**P**	**19 51 18.6**	**-0.5**
	0.2nm,0.5s,mb3.4,baz=241,slow=4.1,SNR=3.8						
BRTR	**Keskin Array B**	**144.86**	**315**	PKP	PKPdf	19 57 33.2	-0.9
BRTR	**Keskin Array B**	**144.86**	**315**	PKP	PKPdf	19 57 33.2	-0.9
	0.5nm,0.6s,baz=132,slow=2.5,SNR=3.8						
CLL	**Collm**	**145.49**	**347**	*i* P	PKPdf	19 57 34.9	+0.1
CLL	**Collm**	**145.49**	**347**	*i* PKPbc	PKPbc	19 57 34.9	-1.1
	comp=Z,6.0nm,0.8s						
BRG	**Berggiesshubel**	**145.69**	**346**	*i* P	PKPdf	19 57 35.7	+0.5
	comp=Z,4.8nm,0.9s						
GERES	**GERESS Array B**	**147.64**	**345**	PKPbc	PKPbc	19 57 40.9	-1.0
GERES	**GERESS Array B**	**147.64**	**345**	PKPbc	PKPbc	19 57 40.9	-1.0
	comp=Z,1.1nm,0.6s,baz=29,slow=3.0,SNR=12						

IDC 19 19:38:57.7±3.6**, 26.22N**×**141.72E, h54**^{km}±26^{km}**, mb3.3**/3**, mb1 3.6**/3**, mb1mx3.3**/18**, mbtmp3.3**/3**, MS3.8**/1**, Ms1 3.8**/1**, ms1mx2.7**/17**, Error ellipse: s-maj=257.0km s-min=23.7km az=109.0, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**0.97**	**25**	P	Pn	19 39 16.5	+1.4
	85nm,0.3s,baz=300,slow=19,SNR=38						
CBIJ				S	Sn	19 39 28.2	+0.2
	68nm,0.3s,baz=229,slow=23,SNR=6.9						
CTA	**Charters Tower**	**46.24**	**174**	LR	LR	20 04 14.2	
	comp=Z,97nm,19.7s,baz=302,slow=33						
WRA	**Warramunga Arr**	**46.44**	**190**	P	P	19 47 19.2	-0.1
	2.1nm,0.6s,baz=8.0,slow=8.6,SNR=11						
ASAR	**Alice Springs**	**50.16**	**189**	P	P	19 47 47.5	-0.5
	0.2nm,0.7s,baz=8.1,slow=6.3,SNR=2.8						
YKA	**Yellowknife Ar**	**73.11**	**28**	P	P	19 50 22.4	+0.4
	0.2nm,0.6s,baz=296,slow=6.2,SNR=4.9						

WEL 19 19:44:37.8±0.5**, 37.15S**×**177.52E, h154**^{km}±5^{km}**, ML3.9**/6**, 2C-1D, Error ellipse: s-maj=8.2km s-min=6.3km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**0.75**	**123**	⇑PN	Pn	19 45 00.8	-0.1
MXZ				SN	Sn	19 45 19.1	+0.4
PUZ	**Puketiti**	**1.09**	**148**	⇑PN	Pn	19 45 03.8	+0.2
PUZ				*e*SN	Sn	19 45 21.8	-1.7
URZ	**Urewera**	**1.15**	**196**	⇓PN	Pn	19 45 04.0	-0.2
URZ				SN	Sn	19 45 24.5	+0.1
MWZ	**Matawai**	**1.18**	**180**	PN	Pn	19 45 04.7	+0.3
MWZ				SN	Sn	19 45 25.4	+0.4
KNZ	**Kokohu**	**1.87**	**176**	PN	Pn	19 45 11.2	-0.4
BKZ	**Black Stump Fm**	**2.17**	**202**	PN	Pn	19 45 14.0	-1.0
BKZ				SN	Sn	19 45 43.1	-0.7
PXZ	**Pawanui**	**2.92**	**190**	PN	Pn	19 45 21.9	-2.3
MRZ	**Mangatainoka R**	**3.82**	**203**	PN	Pn	19 45 32.6	-3.0
MRZ				SN	Sn	19 46 16.7	-4.0
TIWZ	**Tintock**	**3.84**	**199**	*e*PN	Pn	19 45 32.7	-3.2
KIW	**Kapiti Island**	**4.23**	**208**	PN	Pn	19 45 37.5	-3.4
KIW				SN	Sn	19 46 25.5	-4.7
MTW	**Mount Morrison**	**4.30**	**201**	*e*PN	Pn	19 45 38.1	-3.8
TCW	**Tory Channel**	**4.77**	**211**	PN	Pn	19 45 44.0	-4.2
TUWZ	**Tuamarina**	**5.09**	**212**	PN	Pn	19 45 48.2	-4.2
QRZ	**Quartz Range**	**5.34**	**225**	PN	Pn	19 45 51.1	-4.6
THZ	**Tophouse**	**5.83**	**216**	*e*PN	Pn	19 45 57.8	-4.3
KHZ	**Kahutara**	**6.09**	**209**	PN	Pn	19 46 01.1	-4.4

IDC 19 19:52:12.3±7.7**, 5.82S**×**145.30E, h75**^{km}±55^{km}**, mb3.0**/3**, mb1 3.2**/5**, mb1mx3.0**/15**, mbtmp3.1**/5**, ML2.7**/1**, MS3.1**/1**, Ms1 3.1**/1**, ms1mx2.8**/8**, Error ellipse: s-maj=84.2km s-min=38.9km az=34.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**4.01**	**153**	P	Pn	19 53 11.4	0.0
	3.4nm,0.3s,baz=329,slow=10,SNR=20						
PMG				S	Sn	19 53 57.2	+0.1
	4.4nm,0.3s,baz=144,slow=21,SNR=10						
WRA	**Warramunga Arr**	**17.62**	**216**	P	Pn	19 56 12.5	-0.5
	0.1nm,0.3s,baz=40,slow=11,SNR=8.2						
ASAR	**Alice Springs**	**20.86**	**211**	P	P	19 56 48.6	+0.4
	0.2nm,0.3s,baz=40,slow=7.7,SNR=16						
FITZ	**Fitzroy Crossi**	**22.75**	**236**	P	P	19 57 07.5	-0.9
	0.8nm,0.6s,baz=45,slow=11,SNR=2.6						
FITZ				LR	LR	20 05 32.1	
	comp=Z,46nm,19.3s,baz=272,slow=35						
STKA	**Stephens Creek**	**26.15**	**187**	P	P	19 57 40.7	+1.1
	1.3nm,0.8s,baz=18,slow=13,SNR=3.7						

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*CSEM **19** 20:01:19.9±0.2, 38.50N×39.04E, h21^{km}±1^{km}, MD2.7, Error ellipse: s-maj=8.7km s-min=2.5km az=139.0*

*ISK **19** 20:01:20.3, 38.69N×38.86E, h5^{km}, MD2.7*

*ISCJB **19** 20:01:21.9±0.7, 38.61N±0.05×38.95E±0.06, h5^{km}, Error ellipse: s-maj=8.3km s-min=4.4km az=138.6*

*DDA **19** 20:01:21.8, 38.56N×39.06E, h3^{km}±5^{km}, Md3.0*

ISC 19 20:01:21.1±0.7**, 38.49N**±0.06×**39.05E**±0.06**, h16**^{km}±6^{km}**, n11, σ0**^{s}**.64**/20**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.05**	**274**	*i* P	**Pg**	**20 01 23.8**	**-0.2**
ELZG				*i* S	**Sg**	**20 01 25.3**	**-0.6**
PTK	**Pertek**	**0.48**	**34**	PG	**Pg**	**20 01 30.5**	**-0.2**
PTK				SG	**Sg**	**20 01 38.1**	**+1.0**
PTK	**Pertek**	**0.48**	**34**	*e*Pg	**Pg**	**20 01 30.5**	**-0.2**
PTK				*e*Sg	**Sg**	**20 01 38.1**	**+1.0**
MYA	**Malataya**	**0.52**	**251**	PG	**Pg**	**20 01 31.1**	**-0.3**
MYA				SG	**Sg**	**20 01 39.3**	**+0.9**
MYA	**Malataya**	**0.52**	**251**	*e*Pg	**Pg**	**20 01 31.1**	**-0.3**
MYA				*e*Sg	**Sg**	**20 01 39.3**	**+0.9**
MALT	**Malatya**	**0.52**	**250**	PG	**Pg**	**20 01 31.0**	**-0.5**
MALT				SG	**Sg**	**20 01 39.3**	**+0.8**
MALT	**Malatya**	**0.52**	**250**	*e*Pg	**Pg**	**20 01 31.0**	**-0.5**
MALT				*e*Sg	**Sg**	**20 01 39.3**	**+0.8**
GZT	**Gaziantep**	**1.64**	**226**	*i* P	**Pn**	**20 01 53.5**	**+4.2**
GZT				*i* S	**Sn**	**20 02 15.4**	**+5.4**
MARD	**Mardin**	**1.80**	**130**	*i* P	**Pn**	**20 01 51.5**	**0.0**
MARD				*i* S	**Sn**	**20 02 14.2**	**+0.1**
SVSK	**Karacayir**	**2.14**	**312**	*e*PN	**Pn**	**20 01 55.2**	**-1.0**
SVSK	**Karacayir**	**2.14**	**312**	*e*Pn	**Pn**	**20 01 55.2**	**-1.0**

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*IDC **19** 20:05:30.5±7.0, 15.36S×167.04E, h75^{km}±70^{km}, mb3.8/7, mb1 4.0/8, mb1mx3.8/18, mbtmp3.9/8, ML4.3/1, Error ellipse: s-maj=52.2km s-min=42.1km az=136.0*

*ISCJB **19** 20:05:33.4±3.8, 15.6S±0.2×167.0E±0.3, h119^{km}±42^{km}, mb3.9/6, Error ellipse: s-maj=42.6km s-min=29.4km az=16.7*

*NEIC **19** 20:05:33.5±5.3, 15.55S×167.12E, h112^{km}±59^{km}, mb4.7/1, Error ellipse: s-maj=66.2km s-min=33.5km az=154.0*

ISC 19 20:05:34.3±3.3**, 15.6S**±0.2×**167.1E**±0.3**, h119**^{km}±37^{km}**, n13, σ1**^{s}**.13**/16**, mb3.9**/6**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**6.45**	**186**	*e*P	**Pn**	**20 07 06.6**	**-0.3**
DZM				*e*S	**Sn**	**20 08 17.6**	**-1.6**
DZM	**Mont Dzumac**	**6.45**	**186**	P	**Pn**	**20 07 06.7**	**-0.2**
	5.9nm,0.3s,baz=306,slow=22,SNR=54						
DZM				S	**Sn**	**20 08 20.8**	**+1.6**
	2.9nm,0.3s,baz=135,slow=23,SNR=6.1						
NOUC	**Port Laguerre**	**6.50**	**187**	*e*P	**Pn**	**20 07 07.7**	**+0.2**
NOUC				*e*S	**Sn**	**20 08 20.1**	**-0.2**
CTA	**Charters Tower**	**20.36**	**254**	P	**P**	**20 10 02.8**	**+1.2**
	2.4nm,0.6s,baz=92,slow=14,SNR=5.7						
STKA	**Stephens Creek**	**28.33**	**231**	*e*P	**P**	**20 11 18.5**	**+1.5**
STKA	**Stephens Creek**	**28.33**	**231**	P	**P**	**20 11 19.1**	**+2.1**
	1.5nm,0.5s,mb3.7,baz=56,slow=9.0,SNR=11						
WB2	**Warramunga Arr**	**31.48**	**257**	*e*P	**P**	**20 11 43.2**	**-1.8**
WRA	**Warramunga Arr**	**31.50**	**257**	P	**P**	**20 11 44.3**	**-0.7**
	1.4nm,0.6s,mb3.9,baz=85,slow=8.7,SNR=30						
ASAR	**Alice Springs**	**32.25**	**250**	P	**P**	**20 11 51.4**	**-0.2**
	2.1nm,0.4s,mb4.2,baz=75,slow=9.0,SNR=42						
FITZ	**Fitzroy Crossi**	**39.73**	**260**	*e*P	**P**	**20 12 55.1**	**-0.4**
	5.8nm,0.4s,mb4.8						
FITZ	**Fitzroy Crossi**	**39.73**	**260**	P	**P**	**20 12 55.6**	**+0.1**
	3.1nm,0.5s,mb4.4,baz=87,slow=7.8,SNR=30						
SONM	**Songino Array**	**83.13**	**324**	P	**P**	**20 17 48.4**	**+1.6**
	0.2nm,0.5s,mb3.2,baz=135,slow=4.7,SNR=3.3						
MKAR	**Makanchi Array**	**97.75**	**316**	P	**P**	**20 18 54.5**	**-1.4**
	0.3nm,0.8s,mb3.9,baz=116,slow=3.4,SNR=2.9						

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*ISCJB **19** 20:08:32.5±0.5, 37.86N±0.02×22.19E±0.03, h11^{km}±3^{km}, Error ellipse: s-maj=4.1km s-min=3.3km az=173.1*

*CSEM **19** 20:08:33.3±0.1, 37.84N×22.21E, h8^{km}, ML3.1, Error ellipse: s-maj=2.2km s-min=1.7km az=90.0*

*NEIC **19** 20:08:33.0, 37.83N×22.19E, h22^{km}, ML3.1(ATH), After ATH.*

*ATH **19** 20:08:33.0, 37.82N×22.19E, h23^{km}±1^{km}, MD3.5/15, ML3.1*

*THE **19** 20:08:33.7, 37.85N×22.22E, h13^{km}*

ISC 19 20:08:33.3±0.4**, 37.87N**±0.02×**22.22E**±0.03**, h9**^{km}±3^{km}**, n75, σ0**^{s}**.93**/113**, 6C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLX	**Vlachokerasia**	**0.51**	**165**	*e*Pg	**Pg**	**20 08 42.5**	**-0.7**
VLX				*e*Sg	**Sg**	**20 08 50.3**	**+0.3**
VLX	**Vlachokerasia**	**0.51**	**165**	*e*Pg	**Pg**	**20 08 42.5**	**-0.7**
VLX				*e*Sg	**Sg**	**20 08 50.3**	**+0.3**
LTK	**Loutraki**	**0.61**	**75**	*e*Pg	**Pg**	**20 08 45.2**	**0.0**
LTK				*e*Sg	**Sg**	**20 08 54.1**	**+1.0**
LTK	**Loutraki**	**0.61**	**75**	*e*Pg	**Pg**	**20 08 45.2**	**+0.1**
LTK				*e*Sg	**Sg**	**20 08 54.1**	**+0.9**
RLS	**Riolos of Patr**	**0.62**	**288**	⇑*i*Pb	**Pg**	**20 08 45.0**	**-0.4**
RLS				*e*Sn	**Sg**	**20 08 55.0**	**+1.5**
RLS	**Riolos of Patr**	**0.62**	**288**	⇑*i*PN	**Pg**	**20 08 45.0**	**-0.4**
RLS				*e*SN	**Sg**	**20 08 55.0**	**+1.5**
RLS	**Riolos of Patr**	**0.62**	**288**	⇑*i*Pb	**Pg**	**20 08 45.0**	**-0.4**
RLS				*e*Sn	**Sg**	**20 08 55.0**	**+1.5**
ITM	**Ithomi**	**0.72**	**199**	*e*Pn	**Pn**	**20 08 46.3**	**-3.4**
ITM				*e*Sn	**Sg**	**20 08 55.8**	**-0.9**
ITM	**Ithomi**	**0.72**	**199**	*e*PN	**Pn**	**20 08 46.3**	**-3.4**
ITM				*e*SN	**Sg**	**20 08 55.8**	**-0.9**
ITM	**Ithomi**	**0.72**	**199**	*e*Pn	**Pn**	**20 08 46.3**	**-3.4**
ITM				*e*Sn	**Sg**	**20 08 55.8**	**-0.9**
DID	**Didima**	**0.89**	**114**	*e*Pg	**Pg**	**20 08 50.1**	**-0.3**
DID				*e*Sg	**Sg**	**20 09 04.1**	**+2.3**
DID	**Didima**	**0.89**	**114**	*e*Pg	**Pg**	**20 08 50.1**	**-0.2**
LKR	**Lokris**	**0.99**	**38**	*e*Pn	**Pn**	**20 08 52.5**	**-0.9**
LKR				*e*Sn	**Sn**	**20 09 07.9**	**+0.3**
LKR	**Lokris**	**0.99**	**38**	*e*PN	**Pn**	**20 08 52.5**	**-0.9**
LKR				*e*SN	**Sn**	**20 09 07.9**	**+0.3**
LKR	**Lokris**	**0.99**	**38**	*e*Pn	**Pn**	**20 08 52.5**	**-0.9**
LKR				*e*Sn	**Sn**	**20 09 07.9**	**+0.3**
NAIG	**Nisos Aigina**	**1.01**	**96**	*e*Pn	**Pn**	**20 08 53.2**	**-0.4**
NAIG	**Nisos Aigina**	**1.01**	**96**	*e*PN	**Pn**	**20 08 53.2**	**-0.4**
NAIG	**Nisos Aigina**	**1.01**	**96**	*e*Pn	**Pn**	**20 08 53.2**	**-0.4**
PYL	**PYLOS**	**1.04**	**202**	*e*Pg	**Pg**	**20 08 51.7**	**-1.6**
PYL				*e*Sg	**Sg**	**20 09 07.2**	**+0.3**
PYL	**PYLOS**	**1.04**	**202**	*e*Pg	**Pg**	**20 08 51.7**	**-1.6**
PYL				*e*Sg	**Sg**	**20 09 07.2**	**+0.4**
EVR	**Evrytania**	**1.10**	**343**	*e*Pn	**Pn**	**20 08 54.3**	**-0.5**
EVR	**Evrytania**	**1.10**	**343**	*e*PN	**Pn**	**20 08 54.3**	**-0.5**
EVR	**Evrytania**	**1.10**	**343**	*e*Pn	**Pn**	**20 08 54.3**	**-0.5**
AGG	**Agios Georgios**	**1.16**	**4**	*e*Pg	**Pg**	**20 08 54.7**	**-0.8**
AGG				*e*Sg	**Sg**	**20 09 11.7**	**+1.1**
AGG	**Agios Georgios**	**1.16**	**4**	*e*Pg	**Pg**	**20 08 54.7**	**-0.8**
AGG				*e*Sg	**Sg**	**20 09 11.7**	**+1.1**
ATH	**Athens Observa**	**1.19**	**84**	*e*Pn	**Pn**	**20 08 56.1**	**0.0**
ATH				*e*Sn	**Sn**	**20 09 12.2**	**-0.1**
ATH	**Athens Observa**	**1.19**	**84**	*e*PN	**Pn**	**20 08 56.1**	**0.0**
ATH				*e*SN	**Sn**	**20 09 12.2**	**-0.1**
ATH	**Athens Observa**	**1.19**	**84**	*e*Pn	**Pn**	**20 08 56.1**	**0.0**
ATH				*e*Sn	**Sn**	**20 09 12.2**	**-0.1**
KVR	**Kavouri**	**1.23**	**91**	*e*PN	**Pn**	**20 08 57.2**	**+0.6**
KVR				*e*SN	**Sn**	**20 09 14.5**	**+1.2**
KVR	**Kavouri**	**1.23**	**91**	*e*Pn	**Pn**	**20 08 57.2**	**+0.6**
KVR				*e*Sn	**Sn**	**20 09 14.5**	**+1.2**
VLI	**Veliai**	**1.28**	**153**	*e*Pn	**Pn**	**20 08 57.1**	**-0.2**
VLI	**Veliai**	**1.28**	**153**	*e*PN	**Pn**	**20 08 57.1**	**-0.2**
VLI	**Veliai**	**1.28**	**153**	*e*Pn	**Pn**	**20 08 57.1**	**-0.2**
VLS	**Valsamata**	**1.32**	**284**	*e*Pn	**Pn**	**20 08 57.7**	**-0.2**
VLS				*e*Sn	**Sn**	**20 09 17.0**	**+1.4**
VLS	**Valsamata**	**1.32**	**284**	*e*PN	**Pn**	**20 08 57.7**	**-0.2**
VLS				*e*SN	**Sn**	**20 09 17.0**	**+1.4**
VLS	**Valsamata**	**1.32**	**284**	*e*Pn	**Pn**	**20 08 57.7**	**-0.2**
VLS				*e*Sn	**Sn**	**20 09 17.0**	**+1.4**
NEO	**Neokhori**	**1.64**	**28**	⇑*i*Pb	**Pb**	**20 09 02.4**	**-1.3**
NEO	**Neokhori**	**1.64**	**28**	⇑*i*PB	**Pb**	**20 09 02.4**	**-1.3**
NEO	**Neokhori**	**1.64**	**28**	⇑*i*Pb	**Pb**	**20 09 02.4**	**-1.3**
XOR	**Xorichti**	**1.68**	**27**	*e*Pb	**Pb**	**20 09 02.8**	**-1.6**
XOR	**Xorichti**	**1.68**	**27**	*e*Pb	**Pb**	**20 09 02.8**	**-1.6**
THL	**Klokotos Trika**	**1.70**	**355**	*e*PN	**Pn**	**20 09 04.2**	**+1.1**
THL	**Klokotos Trika**	**1.70**	**355**	*e*Pn	**Pn**	**20 09 04.2**	**+1.1**
KYTH	**Kithira**	**1.71**	**157**	*e*Pn	**Pn**	**20 09 05.0**	**+1.7**
KYTH	**Kithira**	**1.71**	**157**	*e*PN	**Pn**	**20 09 03.5**	**+0.2**
KYTH	**Kithira**	**1.71**	**157**	*e*Pn	**Pn**	**20 09 05.0**	**+1.7**
AOS	**Alonnisos**	**1.84**	**45**	*e*Pb	**Pb**	**20 09 04.6**	**-2.6**
LIT	**Litokhoron**	**2.24**	**5**	*e*Pn	**Pn**	**20 09 10.7**	**+0.1**
LIT				*e*Sn	**Sn**	**20 09 38.3**	**0.0**
LIT	**Litokhoron**	**2.24**	**5**	*e*Pn	**Pn**	**20 09 10.7**	**+0.2**
LIT				*e*Sn	**Sn**	**20 09 38.3**	**0.0**
PAIG	**Paliouri**	**2.35**	**29**	*e*Pn	**Pn**	**20 09 11.5**	**-0.6**
PAIG				*e*Sn	**Sn**	**20 09 41.1**	**+0.1**
PAIG	**Paliouri**	**2.35**	**29**	*e*Pn	**Pn**	**20 09 11.5**	**-0.6**
PAIG				*e*Sn	**Sn**	**20 09 41.2**	**+0.2**
PLG	**Polygyros**	**2.68**	**20**	*e*Pn	**Pn**	**20 09 16.8**	**+0.2**
PLG	**Polygyros**	**2.68**	**20**	*e*Pn	**Pn**	**20 09 16.4**	**-0.2**
PLG				*e*Sn	**Sn**	**20 09 49.0**	**-0.1**

PLG	**Polygyros**	**2.68**	**20**	*e*PN	**Pn**	**20 09 16.8**	**+0.2**
PLG	**Polygyros**	**2.68**	**20**	*e*Pn	**Pn**	**20 09 16.8**	**+0.2**
PLG				*e*Sn	**Sn**	**20 09 49.0**	**-0.1**
APE	**Apeiranthos**	**2.75**	**106**	*e*Pn	**Pn**	**20 09 17.7**	**+0.1**
APE	**Apeiranthos**	**2.75**	**106**	*e*Pn	**Pn**	**20 09 17.5**	**0.0**
APE				*e*Sn	**Sn**	**20 09 49.4**	**-1.5**
APE	**Apeiranthos**	**2.75**	**106**	*e*PN	**Pn**	**20 09 17.7**	**+0.1**
APE	**Apeiranthos**	**2.75**	**106**	*e*Pn	**Pn**	**20 09 17.7**	**+0.1**
APE				*e*Sn	**Sn**	**20 09 49.4**	**-1.5**
KARN	**Karanos**	**2.81**	**150**	*e*Pn	**Pn**	**20 09 18.8**	**+0.4**
KARN				*e*Sn	**Sn**	**20 09 53.1**	**+0.7**
KARN	**Karanos**	**2.81**	**150**	*e*Pn	**Pn**	**20 09 18.8**	**+0.4**
KARN				*e*Sn	**Sn**	**20 09 53.1**	**+0.7**
OUR	**Ouranopolis**	**2.82**	**29**	*e*Pn	**Pn**	**20 09 17.8**	**-0.7**
OUR	**Ouranopolis**	**2.82**	**29**	*e*Pn	**Pn**	**20 09 17.8**	**-0.7**
VAM	**Vamos**	**2.93**	**146**	*e*Pn	**Pn**	**20 09 19.9**	**-0.1**
VAM	**Vamos**	**2.93**	**146**	*e*PN	**Pn**	**20 09 19.9**	**-0.1**
VAM	**Vamos**	**2.93**	**146**	*e*Pn	**Pn**	**20 09 19.9**	**-0.1**
CHOS	**Chios island**	**3.07**	**79**	*e*Pn	**Pn**	**20 09 22.0**	**0.0**
CHOS	**Chios island**	**3.07**	**79**	*e*Pn	**Pn**	**20 09 22.0**	**+0.1**
GRG	**Griva**	**3.09**	**3**	*e*Pn	**Pn**	**20 09 23.0**	**+0.8**
GRG	**Griva**	**3.09**	**3**	*e*Pn	**Pn**	**20 09 23.0**	**+0.8**
LAST	**Lasithi**	**3.77**	**135**	*e*Pn	**Pn**	**20 09 31.9**	**+0.4**
LAST				*e*Sn	**Sn**	**20 10 15.2**	**-0.7**
LAST	**Lasithi**	**3.77**	**135**	*e*Pn	**Pn**	**20 09 31.9**	**+0.4**
LAST				*e*Sn	**Sn**	**20 10 15.2**	**-0.7**
NPS	**Neapolis**	**3.77**	**133**	*e*Pn	**Pn**	**20 09 33.2**	**+1.6**
NPS	**Neapolis**	**3.77**	**133**	*e*PN	**Pn**	**20 09 33.2**	**+1.6**
NPS	**Neapolis**	**3.77**	**133**	*e*Pn	**Pn**	**20 09 33.2**	**+1.6**

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*ISCJB **19** 20:28:40.2±1.1, 36.89N±0.08×26.85E±0.05, h12^{km}±10^{km}, Error ellipse: s-maj=14.3km s-min=6.5km az=10.7*

*CSEM **19** 20:28:42.9, 36.78N×26.83E, h36^{km}, MD3.2/6, After ATH*

*ATH **19** 20:28:42.9, 36.78N×26.83E, h36^{km}±5^{km}, MD3.1/6*

*NEIC **19** 20:28:42.9, 36.78N×26.83E, h36^{km}, MD3.1(ATH), After ATH.*

ISC 19 20:28:41.4±1.2, **36.86N**±0.09×**26.87E**±0.05, **h14**^{km}±10^{km}, **n23**, σ1^{s}**04**/35, **3C-3D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DAT	**Datca**	**0.58**	**102**	PG	**Sg**	**20 29 00.2**	**-0.2**
YER	**Yerkesik**	**1.16**	**76**	PG	**Pg**	**20 29 05.3**	**+1.5**
ARG	**Arkhangelos**	**1.20**	**122**	⇑*i*Pn	**Pn**	**20 29 05.1**	**+1.4**
ARG				*e*Sn	**Sn**	**20 29 20.8**	**+1.1**
ARG	**Arkhangelos**	**1.20**	**122**	⇑*i*PN	**Pn**	**20 29 05.1**	**+1.4**
ARG				*e*SN	**Sn**	**20 29 20.8**	**+1.1**
ARG	**Arkhangelos**	**1.20**	**122**	⇑*i*Pn	**Pn**	**20 29 05.1**	**+1.4**
ARG				*e*Sn	**Sn**	**20 29 20.8**	**+1.1**
KARP	**Karpathos**	**1.33**	**170**	*e*Pn	**Pn**	**20 29 06.1**	**+0.6**
KARP				*e*Sn	**Sn**	**20 29 22.6**	**-0.4**
KARP	**Karpathos**	**1.33**	**170**	*e*PN	**Pn**	**20 29 06.1**	**+0.6**
KARP				*e*SN	**Sn**	**20 29 22.6**	**-0.4**
KARP	**Karpathos**	**1.33**	**170**	*e*Pn	**Pn**	**20 29 06.1**	**+0.6**
KARP				*e*Sn	**Sn**	**20 29 22.6**	**-0.4**
DALT	**Dalyan (Mudla)**	**1.42**	**93**	PG	**Pg**	**20 29 07.3**	**-1.4**
FETY	**Fethiye**	**1.79**	**96**	*e*PG	**Pn**	**20 29 10.7**	**-1.2**
NPS	**Neapolis**	**1.89**	**213**	⇓*i*Pn	**Pn**	**20 29 13.3**	**+0.1**
NPS	**Neapolis**	**1.89**	**213**	⇓*i*PN	**Pn**	**20 29 13.3**	**+0.1**
NPS	**Neapolis**	**1.89**	**213**	⇓*i*Pn	**Pn**	**20 29 13.3**	**+0.1**
XRY	**Khrisi**	**2.20**	**206**	*e*Pn	**Pn**	**20 29 17.0**	**-0.4**
XRY	**Khrisi**	**2.20**	**206**	*e*PN	**Pn**	**20 29 17.0**	**-0.4**
XRY	**Khrisi**	**2.20**	**206**	*e*Pn	**Pn**	**20 29 17.0**	**-0.4**
ELL	**Elmali**	**2.44**	**92**	*e*PN	**Pn**	**20 29 18.2**	**-2.6**
VAM	**Vamos**	**2.60**	**237**	*e*Pn	**Pn**	**20 29 23.2**	**+0.2**
VAM				*e*Sn	**Sn**	**20 29 53.8**	**-0.6**
VAM	**Vamos**	**2.60**	**237**	*e*PN	**Pn**	**20 29 23.2**	**+0.2**
VAM				*e*SN	**Sn**	**20 29 53.8**	**-0.6**
VAM	**Vamos**	**2.60**	**237**	*e*Pn	**Pn**	**20 29 23.2**	**+0.2**
VAM				*e*Sn	**Sn**	**20 29 53.8**	**-0.6**
VLI	**Veliai**	**3.16**	**269**	*e*Pn	**Pn**	**20 29 32.0**	**+1.3**
VLI				*e*Sn	**Sn**	**20 30 07.9**	**-0.3**
VLI	**Veliai**	**3.16**	**269**	*e*PN	**Pn**	**20 29 32.0**	**+1.3**
VLI				*e*SN	**Sn**	**20 30 07.9**	**-0.3**
VLI	**Veliai**	**3.16**	**269**	*e*Pn	**Pn**	**20 29 32.0**	**+1.3**
VLI				*e*Sn	**Sn**	**20 30 07.9**	**-0.3**

IDC 19 20:31:05.2±4.7, **29.38N**×**141.78E, h0**^{km}**, mb3.3**/3, **mb1 3.4**/4, **mb1mx3.3**/20, **mbtmp3.2**/4, **ML3.3**/1, **MS3.6**/1, **Ms1 3.6**/1, **ms1mx3.2**/11, **Error ellipse: s-maj=171.0km s-min=28.9km az=73.0, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MJAR	**Matsushiro Arr**	**7.75**	**338**	Pn	Pn	20 32 58.3	-0.9
	0.4nm,0.3s,baz=158,slow=11,SNR=4.5						
GUMO	**Guam**	**15.97**	**169**	LR	LR	20 40 40.1	
	comp=Z,221nm,19.0s,baz=231,slow=36						
SONM	**Songino Array**	**32.85**	**314**	P	P	20 37 41.4	+0.9
	0.4nm,0.7s,baz=98,slow=10,SNR=4.0						
MKAR	**Makanchi Array**	**48.77**	**308**	P	P	20 39 51.4	-0.4
	0.1nm,0.5s,baz=77,slow=9.6,SNR=5.1						
WRA	**Warramunga Arr**	**49.56**	**189**	P	P	20 39 57.8	-0.1
	0.3nm,0.7s,baz=7.1,slow=7.8,SNR=4.8						

IDC 19 20:39:50.4±1.9, **1.08N**×**125.92E, h0**^{km}**, mb3.3**/3, **mb1 3.6**/3, **mb1mx3.3**/17, **mbtmp3.4**/3, **Error ellipse: s-maj=190.4km s-min=23.8km az=65.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**22.47**	**159**	P	P	20 44 50.9	-0.5
	0.5nm,0.4s,baz=337,slow=11,SNR=20						
ASAR	**Alice Springs**	**25.80**	**163**	P	P	20 45 23.9	+0.6
	0.4nm,0.6s,baz=345,slow=11,SNR=5.9						
MKAR	**Makanchi Array**	**59.28**	**327**	P	P	20 49 53.9	0.0
	0.3nm,0.5s,baz=120,slow=7.5,SNR=13						

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*ISCJB **19** 21:20:47.9±0.3, 46.21N±0.01×122.20W±0.02, h2^{km}±3^{km}, Error ellipse: s-maj=2.9km s-min=2.3km az=175.4*

*PNSN **19** 21:20:48.0, 46.20N×122.19W, h1^{km}, MD2.9, Fault plane solution: NP1:ϕ_s267.00000°, δ51.00000°, NP2: ϕ_s5.00000°, δ80.00000°, Principal axes: T Plg35.0000°, Azm234.0000°; P Plg19.0000°, Azm130.0000°;*

*NEIC **19** 21:20:48.0, 46.20N×122.19W, h1^{km}, MD2.9(SEA), After SEA.*

ISC 19 21:20:48.3±0.3, **46.20N**±0.01×**122.21W**±0.02, **h4**^{km}±2^{km}, **n45**, σ0^{s}**82**/66, **30C-32D, Washington**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YEL	**Yellow Rock**	**0.02**	**55**	⇓P	**Pg**	**21 20 48.3**	**-0.7**
SHW	**Mount Saint He**	**0.02**	**250**	⇓P	**Pg**	**21 20 48.9**	**-0.2**
HSR	**South Ridge**	**0.03**	**148**	⇓P	**Pg**	**21 20 48.8**	**-0.4**
STD	**Studebaker Rid**	**0.04**	**344**	⇑P	**Pg**	**21 20 49.2**	**-0.1**
ESD	**East Dome**	**0.04**	**94**	⇓P	**Pg**	**21 20 48.8**	**-0.5**
JLK	**June Lake**	**0.07**	**144**	P	**Pg**	**21 20 49.4**	**-0.3**
FL2	**Flat Top 2**	**0.10**	**268**	⇑P	**Pg**	**21 20 50.6**	**+0.4**
CDFW	**Cedar Flats**	**0.14**	**127**	⇑P	**Pg**	**21 20 51.0**	**0.0**
ERK	**Elk Rock**	**0.14**	**319**	⇓P	**Pg**	**21 20 51.2**	**+0.1**
TDL	**Tradedollar La**	**0.15**	**358**	⇓P	**Pg**	**21 20 51.3**	**+0.1**
MTMW	**Mount Mitchell**	**0.17**	**181**	P	**Pg**	**21 20 51.8**	**+0.1**
F04A	**Amboy**	**0.30**	**209**	⇑P	**Pg**	**21 20 54.5**	**+0.4**
	baz=0.3,SNR=14						
F04A				⇑S	**Sg**	**21 20 59.2**	**+1.0**
	baz=0.3						
RVW	**Rose Valley**	**0.38**	**262**	⇑P	**Pg**	**21 20 55.9**	**+0.4**
LMW	**Ladd Mountain**	**0.47**	**353**	P	**Pg**	**21 20 57.8**	**+0.5**
E05A	**Randle**	**0.47**	**40**	⇑P	**Pg**	**21 20 56.8**	**-0.6**
	baz=0.5,SNR=16						
E05A				⇓S	**Sg**	**21 21 03.8**	**+0.2**
	baz=0.5						
E04A	**Onalaska**	**0.53**	**318**	⇑P	**Pg**	**21 20 57.2**	**-1.2**
	baz=0.5						
E04A				⇑S	**Sg**	**21 21 07.9**	**+2.5**
	baz=0.5						
GLK	**Glacier Lake**	**0.55**	**48**	P	**Pg**	**21 20 58.5**	**-0.4**
F05A	**White Salmon**	**0.61**	**121**	⇓P	**Pg**	**21 20 58.9**	**-1.1**
	baz=0.6						
F05A				⇓S	**Sg**	**21 21 08.0**	**+0.1**
	baz=0.6						
LON	**Longmire**	**0.61**	**26**	⇓P	**Pg**	**21 20 59.9**	**-0.2**
E06A	**Yakima**	**0.92**	**68**	⇓P	**Pg**	**21 21 05.4**	**-0.4**
	baz=0.9,SNR=18						
E06A				⇑S	**Sg**	**21 21 18.3**	**+0.5**
	baz=0.9						
F03A	**Seaside**	**0.98**	**255**	⇑S	**Sg**	**21 21 19.1**	**-0.6**
	baz=1.0						
D04A	**Dobbs Creek Ra**	**1.00**	**336**	⇑S	**Sg**	**21 21 19.7**	**-0.7**
	baz=1.0						
D05A	**Enumclaw**	**1.00**	**9**	⇓P	**Pg**	**21 21 06.8**	**-0.7**
	baz=1.0						
D05A				⇓S	**Sg**	**21 21 21.4**	**+1.0**
	baz=1.0						
E03A	**Lebam**	**1.00**	**291**	⇓P	**Pg**	**21 21 07.1**	**-0.3**
	baz=1.0						
E03A				⇑S	**Sg**	**21 21 21.4**	**+1.0**
	baz=1.0						
F06A	**Goldendale**	**1.08**	**113**	⇑P	**Pg**	**21 21 08.5**	**-0.5**
	baz=1.1,SNR=7.5						
F06A				⇑S	**Sg**	**21 21 23.8**	**+0.7**
	baz=1.1						
G05A	**Wamic**	**1.14**	**147**	⇓P	**Pg**	**21 21 10.7**	**+0.5**
	baz=1.1						
G03A	**Yamhill**	**1.16**	**221**	⇑P	**Pg**	**21 21 10.0**	**-0.5**
	baz=1.2						
G03A				⇑S	**Sg**	**21 21 26.6**	**+1.0**
	baz=1.2						
D06A	**Cle Elum**	**1.37**	**43**	⇑P	**Pn**	**21 21 15.0**	**+0.9**
	baz=1.4						
D06A				⇑S	**Sg**	**21 21 32.9**	**+0.8**
	baz=1.4						
G06A	**Carlson Farm,**	**1.46**	**131**	⇓P	**Pn**	**21 21 15.0**	**-0.4**
	baz=1.4,SNR=12						
G06A				⇑S	**Sb**	**21 21 35.8**	**+0.8**
	baz=1.4						
H04A	**Detroit Lake**	**1.52**	**179**	⇓P	**Pn**	**21 21 15.5**	**-0.6**
	baz=1.5						
H04A				⇑S	**Sn**	**21 21 36.2**	**0.0**
	baz=1.5						
H04A				⇑S	**Sn**	**21 21 36.8**	**+0.6**
	baz=1.5						
C05A	**Tolt Reservoir**	**1.54**	**13**	⇓P	**Pn**	**21 21 16.4**	**0.0**
	baz=1.5						
C05A				⇓S	**Sn**	**21 21 36.4**	**-0.4**
	baz=1.5						
C04A	**Brinnon**	**1.61**	**341**	⇓P	**Pn**	**21 21 16.5**	**-0.9**
	baz=1.6						
C04A				⇓S	**Sn**	**21 21 37.7**	**-0.8**
	baz=1.6						
F07A	**Phinny Hill Vi**	**1.62**	**100**	⇓P	**Pn**	**21 21 17.4**	**-0.2**
	baz=1.6						
E07A	**Sunnyside**	**1.67**	**77**	⇑P	**Pn**	**21 21 18.2**	**0.0**
	baz=1.6						
H05A	**Madras**	**1.70**	**156**	⇓P	**Pn**	**21 21 19.0**	**+0.4**
	baz=1.7						
H05A				⇓Sg	**Sg**	**21 21 44.0**	**+1.1**
	baz=1.7						
H03A	**Soap Creek Ran**	**1.70**	**207**	⇓Sb	**Sb**	**21 21 42.3**	**+0.4**
	baz=1.7						
C06A	**Tall Timber Ra**	**1.94**	**27**	⇓Pb	**Pb**	**21 21 23.5**	**-0.7**
	baz=1.9						
C06A				⇑Sg	**Sg**	**21 21 52.2**	**+1.6**
	baz=1.9						
H06A	**Lindquist Farm**	**1.97**	**137**	⇑Pb	**Pb**	**21 21 23.3**	**-1.4**
	baz=2.0,SNR=6.3						
H06A				⇑Sb	**Sb**	**21 21 50.7**	**+1.2**
	baz=2.0						
G07A	**Ruggs Ranch, H**	**2.01**	**117**	⇓Pb	**Pb**	**21 21 24.3**	**-1.0**
	baz=2.0						
G07A				⇓Sn	**Sn**	**21 21 50.1**	**+1.7**
	baz=2.0						
B04A	**Port Angeles**	**2.06**	**335**	⇓Sg	**Sg**	**21 21 55.7**	**+1.3**
	baz=2.1						
B05A	**Bryant**	**2.07**	**2**	⇓Pb	**Pb**	**21 21 25.5**	**-0.8**
	baz=2.1						
B05A				⇑Sb	**Sb**	**21 21 52.8**	**+0.5**
	baz=2.1						
C07A	**Waterville**	**2.09**	**44**	⇑Pb	**Pb**	**21 21 25.8**	**-1.0**
	baz=2.1						
C07A				⇓Sg	**Sg**	**21 21 57.2**	**+1.6**
	baz=2.1						
H07A	**Lands Inn, Kim**	**2.46**	**130**	⇑Pb	**Pb**	**21 21 31.6**	**-1.4**
	baz=2.4						
I02A	**Mapleton**	**2.48**	**208**	⇑Pb	**Pb**	**21 21 32.0**	**-1.3**
	baz=2.5						
B07A	**Winthrop**	**2.67**	**31**	⇓Pg	**Pg**	**21 21 38.0**	**-1.4**
	baz=2.7						

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*ISCJB **19** 21:23:59.8±0.6, 40.42N±0.05×142.08E±0.09, h76^{km}±5^{km}, mb3.7/7, Error ellipse: s-maj=11.5km s-min=7.6km az=8.2*

*NIED **19** 21:24:00, 40.40N×142.10E, h65^{km}, Mw3.8 Best double couple: $M_0$6.31000×10^{14} NP1:ϕ_s353.00000°, δ30.00000°, λ95.00000°. NP2:ϕ_s167.00000°, δ61.00000°, λ87.00000°.*

*JMA **19** 21:24:00.9±0.1, 40.41N×142.09E, h66^{km}±1^{km}, M3.8 Broadband fault plane solution: P waves. NP1: ϕ_s29.00000°, δ24.00000°, λ127.00000°. NP2: ϕ_s169.00000°, δ71.00000°, λ75.00000°. Principal axes: T Plg61.0000°, Azm57.0000°; N Plg14.0000°, Azm174.0000°; P Plg25.0000°, Azm271.0000°;*

JMA Felt II J1.

*NEIC **19** 21:24:01.6±1.1, 40.43N×142.06E, h80^{km}±11^{km}, mb4.4/1 Error ellipse: s-maj=18.4km s-min=11.1km az=118.0*

*IDC **19** 21:24:02.2±2.5, 40.41N×142.11E, h88^{km}±23^{km}, mb3.4/6, mb1 3.4/9, mb1mx3.3/24, mbtmp3.3/9, Error ellipse: s-maj=27.1km s-min=18.5km az=91.0*

ISC 19 21:24:00.9±0.6, **40.43N**±0.05×**142.06E**±0.09, **h69**^{km}±5^{km}, **n23**, σ0^{s}**69**/29, **mb3.7**/7, **6C-2D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JANG	**Nango**	**0.42**	**263**	⇑P	**Pn**	**21 24 12.8**	**-0.1**
JANG				S	**Sn**	**21 24 21.3**	**-0.4**
JTH	**Tanohata**	**0.51**	**197**	⇑P	**Pn**	**21 24 13.5**	**-0.3**
JTH				S	**Sn**	**21 24 22.5**	**-0.7**
JKZ	**Kuzumaki**	**0.71**	**232**	⇑P	**Pn**	**21 24 16.0**	**+0.1**
JKZ				S	**Sn**	**21 24 26.6**	**-0.3**
JTM	**Tenmabayashi**	**0.83**	**296**	⇑P	**Pn**	**21 24 17.1**	**-0.2**
JTM				S	**Sn**	**21 24 29.1**	**-0.4**
JAH	**Hinai**	**1.11**	**258**	⇓P	**Pn**	**21 24 20.9**	**+0.1**
JAH				S	**Sn**	**21 24 36.0**	**+0.4**
JOM	**Ohasama**	**1.12**	**212**	⇑P	**Pn**	**21 24 20.9**	**0.0**
JOM				S	**Sn**	**21 24 35.5**	**-0.2**
JOT	**Ohata**	**1.22**	**322**	⇓P	**Pn**	**21 24 21.8**	**-0.4**
JIW	**Iwasaki**	**1.57**	**277**	P	**Pn**	**21 24 27.3**	**+0.5**
JMK	**Ichinoseki**	**1.61**	**204**	⇑P	**Pn**	**21 24 27.3**	**0.0**
ERM	**Erimo**	**1.79**	**27**	*e*P	**Pn**	**21 24 29.8**	**+0.1**
ASAJ	**Asahikawa**	**3.71**	**6**	P	**Pn**	**21 24 56.2**	**+0.5**
	2.5nm,0.3s,baz=182,slow=12,SNR=11						
MAT	**Matsushiro**	**4.92**	**219**	P	**Pn**	**21 25 13.8**	**+1.6**
MJAR	**Matsushiro Arr**	**4.92**	**219**	P	**Pn**	**21 25 14.1**	**+1.9**
	0.5nm,0.3s,baz=33,slow=12,SNR=9.1						
KSRS	**Korea Array**	**11.40**	**259**	P	**Pn**	**21 26 44.8**	**+4.0**
	0.1nm,0.3s,baz=59,slow=14,SNR=2.9						
SONM	**Songino Array**	**26.46**	**298**	P	**P**	**21 29 30.6**	**-0.6**
	0.7nm,0.6s,mb3.3,baz=93,slow=8.4,SNR=8.0						
ZALV	**Zalesovo Beam**	**40.08**	**309**	P	**P**	**21 31 28.4**	**-0.8**
	1.6nm,0.6s,mb4.0,baz=91,slow=7.5,SNR=5.7						
MKAR	**Makanchi Array**	**42.83**	**299**	P	**P**	**21 31 51.9**	**+0.1**
	2.4nm,0.8s,mb4.0,baz=83,slow=9.2,SNR=27						
IMA2	**Indian Mountai**	**43.53**	**32**	*e*P	**P**	**21 31 58.3**	**+1.1**
KURK	**Kurchatov**	**44.30**	**306**	*e*P	**P**	**21 32 03.3**	**-0.3**
	4.2nm,0.6s,mb4.3						
WRA	**Warramunga Arr**	**60.48**	**188**	P	**P**	**21 34 02.3**	**-1.2**
	0.5nm,0.6s,mb3.7,baz=7.1,slow=6.9,SNR=6.3						
YKA	**Yellowknife Ar**	**60.64**	**31**	P	**P**	**21 34 04.3**	**+0.2**
YKA	**Yellowknife Ar**	**60.64**	**31**	P	**P**	**21 34 04.3**	**+0.2**
	0.1nm,0.3s,mb3.3,baz=306,slow=6.7,SNR=3.6						
ASAR	**Alice Springs**	**64.21**	**188**	P	**P**	**21 34 27.4**	**-0.9**
	0.2nm,0.5s,mb3.2,baz=19,slow=6.1,SNR=3.5						

IDC 19 21:28:13.6±2.4, **3.98S**×**128.58E, h0**^{km}**, mb3.5**/2, **mb1 3.7**/3, **mb1mx3.4**/17, **mbtmp3.5**/3, **ML2.9**/1, **Error ellipse: s-maj=193.0km s-min=28.9km az=68.0, Seram**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**16.83**	**161**	Pn	Pn	21 32 08.9	-1.9
	0.1nm,0.3s,baz=343,slow=13,SNR=3.3						
ASAR	**Alice Springs**	**20.23**	**166**	P	P	21 32 51.4	+0.9
	1.8nm,0.7s,baz=344,slow=9.7,SNR=18						
MKAR	**Makanchi Array**	**64.94**	**327**	P	P	21 38 55.1	+0.1
	0.4nm,0.7s,baz=116,slow=7.9,SNR=5.4						

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*ISCJB **19** 21:34:03.8±0.3, 41.09N±0.02×24.93E±0.02, h2^{km}, Error ellipse: s-maj=3.1km s-min=2.2km az=170.8*

*ATH **19** 21:34:04.4, 41.22N×25.00E, h24^{km}±5^{km}, MD3.4/5*

*NEIC **19** 21:34:04.4, 41.22N×25.00E, h24^{km}, MD3.4(ATH), MD2.9(SOF), After ATH.*

*SOF **19** 21:34:04.4, 41.10N×24.99E, h10^{km}, MD2.9*

*CSEM **19** 21:34:04.3±0.1, 41.15N×24.96E, h2^{km}, MD3.4, Error ellipse: s-maj=1.8km s-min=1.4km az=165.0*

*THE **19** 21:34:05.0, 41.09N×24.95E, h2^{km}, ML3.1*

ISC 19 21:34:04.6±0.4, **41.09N**±0.02×**24.94E**±0.02, **h0**^{km}±3^{km}, **n93**, σ1^{s}**17**/130, **7C-1D, Greece-Bulgaria border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RDO	**Rodhopi**	**0.45**	**83**	⇑*i*Pb	**Pg**	**21 34 13.5**	**+0.2**
RDO				*e*Sb	**Sg**	**21 34 19.4**	**+0.3**
RDO	**Rodhopi**	**0.45**	**83**	⇑*i*PB	**Pg**	**21 34 13.5**	**+0.2**
RDO				*e*SB	**Sg**	**21 34 19.4**	**+0.3**
RDO	**Rodhopi**	**0.45**	**83**	⇑*i*Pb	**Pg**	**21 34 13.5**	**+0.2**
RDO				*e*Sb	**Sg**	**21 34 19.4**	**+0.3**
RZN	**Rozhen**	**0.62**	**344**	P	**Pg**	**21 34 16.5**	**0.0**
RZN				*i* Pg	**Pg**	**21 34 17.0**	**+0.5**
RZN	**Rozhen**	**0.62**	**344**	*i* Pg	**Pg**	**21 34 17.0**	**+0.5**
RZN	**Rozhen**	**0.62**	**344**	*i* Pg	**Pg**	**21 34 17.0**	**+0.5**
KDZ	**Kurdzhali**	**0.66**	**32**	P	**Pg**	**21 34 16.0**	**-1.3**
KDZ				*i* Pg	**Pg**	**21 34 16.2**	**-1.1**
KDZ	**Kurdzhali**	**0.66**	**32**	*i* Pg	**Pg**	**21 34 16.2**	**-1.1**
KDZ	**Kurdzhali**	**0.66**	**32**	P	**Pg**	**21 34 16.0**	**-1.3**
KDZ	**Kurdzhali**	**0.66**	**32**	*i* Pg	**Pg**	**21 34 16.2**	**-1.1**
NVR	**Nevrokopi**	**0.85**	**288**	*e*Pn	**Pn**	**21 34 21.0**	**-2.8**
NVR				*e*Sn	**Sg**	**21 34 33.6**	**+1.5**
NVR	**Nevrokopi**	**0.85**	**288**	*e*PN	**Pn**	**21 34 21.0**	**-2.8**
NVR				*e*SN	**Sg**	**21 34 33.6**	**+1.5**
NVR	**Nevrokopi**	**0.85**	**288**	*e*Pn	**Pn**	**21 34 21.0**	**-2.8**
NVR				*e*Sn	**Sg**	**21 34 33.6**	**+1.5**
ALN	**Alexandroupoli**	**0.86**	**103**	*e*Pg	**Pg**	**21 34 21.2**	**+0.2**
ALN				*e*Sg	**Sg**	**21 34 32.9**	**+0.8**
ALN	**Alexandroupoli**	**0.86**	**103**	*e*Pg	**Pg**	**21 34 21.2**	**+0.2**
ALN				*e*Sg	**Sg**	**21 34 32.9**	**+0.8**
ENEZ	**Enez**	**0.98**	**111**	PG	**Pg**	**21 34 24.7**	**+1.3**
ENEZ	**Enez**	**0.98**	**111**	*e*Pg	**Pg**	**21 34 24.7**	**+1.3**
SRS	**Serrai**	**1.02**	**272**	*e*Pg	**Pg**	**21 34 24.4**	**+0.2**
SRS	**Serrai**	**1.02**	**272**	*e*Pg	**Pg**	**21 34 24.4**	**+0.2**
PLD	**Plovdiv**	**1.03**	**350**	P	**Pg**	**21 34 24.6**	**+0.3**
PLD				*i* P		21 34 25.1	
PLD	**Plovdiv**	**1.03**	**350**	*e*Pg	**Pg**	**21 34 24.6**	**+0.2**
PLD				*e*Sg	**Sg**	**21 34 39.2**	**+1.5**
PLD	**Plovdiv**	**1.03**	**350**	*i* P	**Pg**	**21 34 25.1**	**+0.8**
PLD	**Plovdiv**	**1.03**	**350**	*e*Pg	**Pg**	**21 34 24.5**	**+0.2**
PLD				*e*Sg	**Sg**	**21 34 39.2**	**+1.5**
MMB	**Musomiste**	**1.04**	**299**	*e*P	**Pg**	**21 34 24.3**	**-0.3**
MMB				*i* Pg	**Pg**	**21 34 25.3**	**+0.7**
MMB	**Musomiste**	**1.04**	**299**	*i* Pg	**Pg**	**21 34 25.3**	**+0.7**
MMB	**Musomiste**	**1.04**	**299**	*i* Pg	**Pg**	**21 34 25.3**	**+0.7**
OUR	**Ouranopolis**	**1.05**	**224**	*e*Pg	**Pg**	**21 34 24.5**	**-0.2**
OUR	**Ouranopolis**	**1.05**	**224**	*e*Pg	**Pg**	**21 34 24.5**	**-0.2**
DIM	**Dimitrovgrad**	**1.06**	**25**	P	**Pg**	**21 34 24.4**	**-0.4**
DIM				*i* P		21 34 25.1	
DIM	**Dimitrovgrad**	**1.06**	**25**	*i* P	**Pg**	**21 34 25.1**	**+0.3**
GADA	**Gvkgeada**	**1.16**	**141**	PN	**Pn**	**21 34 27.1**	**-0.8**
GADA	**Gvkgeada**	**1.16**	**141**	*e*Pn	**Pn**	**21 34 27.1**	**-0.8**
LOS	**Limnos**	**1.16**	**175**	*e*Pg	**Pg**	**21 34 26.3**	**-0.5**
LOS	**Limnos**	**1.16**	**175**	*e*Pg	**Pg**	**21 34 26.3**	**-0.5**
LIA	**Limnos Island**	**1.21**	**171**	*e*Pn	**Pg**	**21 34 30.1**	**+2.4**
LIA	**Limnos Island**	**1.21**	**171**	*e*PN	**Pg**	**21 34 30.1**	**+2.4**
LIA	**Limnos Island**	**1.21**	**171**	*e*Pn	**Pg**	**21 34 30.1**	**+2.4**
SOH	**Sokhos**	**1.23**	**258**	*e*Pg	**Pg**	**21 34 28.1**	**-0.1**
SOH				*e*Sg	**Sg**	**21 34 45.4**	**+1.2**
SOH	**Sokhos**	**1.23**	**258**	*e*Pg	**Pg**	**21 34 28.1**	**-0.1**
SOH				*e*Sg	**Sg**	**21 34 45.4**	**+1.2**
PLG	**Polygyros**	**1.34**	**238**	*e*Pn	**Pn**	**21 34 30.8**	**+0.3**
PLG				*e*Sn	**Sn**	**21 34 49.5**	**+0.5**
PLG	**Polygyros**	**1.34**	**238**	*e*Pg	**Pg**	**21 34 30.8**	**+0.4**
PLG				*e*Sg	**Sg**	**21 34 49.4**	**+1.7**
PLG	**Polygyros**	**1.34**	**238**	*e*PN	**Pn**	**21 34 30.8**	**+0.3**
PLG				*e*SN	**Sn**	**21 34 49.5**	**+0.5**
PLG	**Polygyros**	**1.34**	**238**	*e*Pg	**Pn**	**21 34 30.8**	**+0.3**
PLG				*e*Sg	**Sg**	**21 34 49.4**	**+1.6**
HORT	**Hortiatis**	**1.48**	**251**	*e*Pg	**Pg**	**21 34 31.4**	**-1.6**
HORT				*e*Sg	**Sg**	**21 34 52.2**	**0.0**
HORT	**Hortiatis**	**1.48**	**251**	*e*Pg	**Pg**	**21 34 31.4**	**-1.6**
HORT				*e*Sg	**Sg**	**21 34 52.2**	**0.0**
PAIG	**Paliouri**	**1.51**	**220**	*e*Pg	**Pg**	**21 34 31.4**	**-2.1**
PAIG	**Paliouri**	**1.51**	**220**	*e*Pg	**Pg**	**21 34 31.4**	**-2.1**
KNT	**Kendrikon**	**1.55**	**273**	*e*Pg	**Pg**	**21 34 32.9**	**-1.3**
KNT				*e*Sg	**Sg**	**21 34 54.2**	**0.0**
KNT	**Kendrikon**	**1.55**	**273**	*e*Pg	**Pg**	**21 34 32.9**	**-1.3**
KNT				*e*Sg	**Sg**	**21 34 54.2**	**-0.1**
EDRB	**Edirne**	**1.55**	**60**	PN	**Pn**	**21 34 32.9**	**-0.5**
EDRB	**Edirne**	**1.55**	**60**	*e*Pn	**Pn**	**21 34 32.9**	**-0.5**
PGB	**Panagyurishte**	**1.57**	**339**	P	**Pn**	**21 34 33.6**	**0.0**
PGB	**Panagyurishte**	**1.57**	**339**	*i* P	**Pn**	**21 34 33.6**	**-0.1**
PGB	**Panagyurishte**	**1.57**	**339**	*i* P	**Pn**	**21 34 33.6**	**-0.1**
KKB	**Krupnik**	**1.60**	**300**	P	**Pn**	**21 34 34.2**	**+0.1**
KKB	**Krupnik**	**1.60**	**300**	*i* Pg	**Pg**	**21 34 34.2**	**-1.0**
KKB	**Krupnik**	**1.60**	**300**	*i* Pg	**Pg**	**21 34 34.2**	**-1.0**
VAY	**Valandovo**	**1.81**	**278**	*e*Pb	**Pb**	**21 34 36.4**	**-2.1**
VAY				*e*Sb	**Sb**	**21 35 00.3**	**-1.3**
VAY	**Valandovo**	**1.81**	**278**	*e*Pn	**Pn**	**21 34 36.2**	**-0.6**
VAY				*e*Sn	**Sg**	**21 35 03.2**	**+0.7**
JMB	**Yambol**	**1.84**	**41**	P	**Pn**	**21 34 37.4**	**0.0**
JMB				*i* P		21 34 37.9	
JMB				Pg	**Pg**	**21 34 38.4**	**-1.5**
JMB	**Yambol**	**1.84**	**41**	*e*Pb	**Pb**	**21 34 37.2**	**-1.9**
JMB				*e*Sb	**Sb**	**21 35 01.2**	**-1.5**
JMB	**Yambol**	**1.84**	**41**	*i* P	**Pn**	**21 34 37.9**	**+0.5**
JMB	**Yambol**	**1.84**	**41**	Pg	**Pg**	**21 34 38.4**	**-1.5**
GRG	**Griva**	**1.93**	**267**	*e*Pb	**Pb**	**21 34 39.1**	**-1.5**
GRG				*e*Sb	**Sb**	**21 35 04.4**	**-0.7**
GRG	**Griva**	**1.93**	**267**	*e*Pb	**Pb**	**21 34 39.1**	**-1.4**
GRG				*e*Sb	**Sb**	**21 35 04.4**	**-0.7**
VTS	**Vitosha**	**1.98**	**320**	*e*Sn	**Sn**	**21 35 05.0**	**+0.2**
VTS	**Vitosha**	**1.98**	**320**	*e*P	**Pn**	**21 34 41.8**	**+2.5**
VTS				*e*Pg	**Pg**	**21 34 43.6**	**+1.0**
VTS	**Vitosha**	**1.98**	**320**	⇑*i*P	**Pn**	**21 34 41.6**	**+2.3**
VTS	**Vitosha**	**1.98**	**320**	*e*Pg	**Pg**	**21 34 43.6**	**+1.0**
VTS				*e*Sn	**Sn**	**21 35 05.0**	**+0.2**
PRK	**Paraskevi**	**2.10**	**151**	*e*Pn	**Pn**	**21 34 41.0**	**0.0**
PRK	**Paraskevi**	**2.10**	**151**	*e*PN	**Pn**	**21 34 41.0**	**0.0**
PRK	**Paraskevi**	**2.10**	**151**	*e*Pn	**Pn**	**21 34 41.0**	**0.0**
PVL	**Pavlikeni**	**2.15**	**8**	P	**Pn**	**21 34 40.5**	**-1.1**
PVL				Pg	**Pg**	**21 34 43.3**	**-2.4**
PVL	**Pavlikeni**	**2.15**	**8**	Pg	**Pg**	**21 34 43.3**	**-2.4**
STIP	**Stip**	**2.16**	**287**	*e*Pn	**Pg**	**21 34 44.6**	**-1.4**
STIP				*e*Sn	**Sg**	**21 35 11.1**	**-2.8**
SZH	**Strazhica**	**2.30**	**18**	*i* P	**Pn**	**21 34 44.1**	**+0.5**
SZH				Pg	**Pg**	**21 34 48.5**	**-0.1**
SZH	**Strazhica**	**2.30**	**18**	P	**Pn**	**21 34 44.1**	**+0.5**
SZH				Pg	**Pg**	**21 34 48.5**	**-0.1**
SZH	**Strazhica**	**2.30**	**18**	Pg	**Pg**	**21 34 48.5**	**-0.1**
BNT	**Bandirma**	**2.38**	**107**	*e*PN	**Pn**	**21 34 45.0**	**+0.2**
KZN	**Kozani**	**2.54**	**253**	*e*Pn	**Pn**	**21 34 48.2**	**+1.3**
KZN	**Kozani**	**2.54**	**253**	*e*PN	**Pn**	**21 34 48.2**	**+1.3**
KZN	**Kozani**	**2.54**	**253**	*e*Pn	**Pn**	**21 34 48.2**	**+1.3**
CTT	**Catalca**	**2.63**	**88**	*e*PN	**Pn**	**21 34 49.2**	**+0.9**
CTT	**Catalca**	**2.63**	**88**	*e*Pn	**Pn**	**21 34 49.2**	**+0.9**
KRUS	**Krusevo**	**2.80**	**277**	*e*Pn	**Pn**	**21 34 49.7**	**-0.9**
CHOS	**Chios island**	**2.83**	**162**	*e*Pn	**Pn**	**21 34 50.7**	**-0.3**
CHOS	**Chios island**	**2.83**	**162**	*e*Pn	**Pn**	**21 34 50.7**	**-0.3**
BARS	**Barje**	**2.90**	**308**	Pn	**Pn**	**21 34 54.4**	**+2.5**
BARS				Sg	**Sg**	**21 35 39.9**	**+2.2**
MLR	**Muntele Rosu**	**4.46**	**9**	⇑*i*P	**Pn**	**21 35 15.3**	**+1.9**
GZR	**Gura Zlata**	**4.58**	**341**	⇑*i*P	**Pn**	**21 35 15.2**	**+0.1**
DIVS	**Divcibare**	**4.73**	**311**	Pn	**Pn**	**21 35 18.4**	**+1.3**
DIVS				Sg	**Sg**	**21 36 36.6**	**+0.1**
VRI	**Vrincioaia**	**4.95**	**15**	⇓*i*P	**Pn**	**21 35 22.3**	**+2.2**
BZS	**Buzias**	**5.13**	**333**	⇑*i*P	**Pn**	**21 35 22.4**	**-0.2**

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*NEIC **19** 21:34:35.5, 37.49S×176.05E, h264^{km}, MG3.9(WEL), After WEL.*

WEL 19 21:34:35.1±0.3, **37.51S**×**176.12E, h268**^{km}±3^{km}, **ML3.9**/18, **Error ellipse: s-maj=5.5km s-min=5.0km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**1.09**	**134**	P	Pn	21 35 12.4	-0.1
URZ	**Urewera**	**1.09**	**134**	PN	Pn	21 35 12.4	0.0
URZ				SN	S	21 35 41.7	-0.3
MWZ	**Matawai**	**1.39**	**127**	P	Pn	21 35 15.1	+0.8

MWZ				S	S	21 35 45.3	0.0
MWZ	Matawai	1.39	127	PN	Pn	21 35 15.1	+0.8
MWZ				SN	S	21 35 45.2	-0.1
TWVZ	Taurewa	1.65	199	P	Pn	21 35 16.7	+0.5
TWVZ	Taurewa	1.65	199	PN	Pn	21 35 16.7	+0.5
WTVZ	West Tongariro	1.66	194	P	Pn	21 35 16.7	+0.5
WTVZ	West Tongariro	1.66	194	PN	Pn	21 35 16.7	+0.5
BKZ	Black Stump Fm	1.68	170	P	Pn	21 35 16.6	+0.2
BKZ	Black Stump Fm	1.68	170	PN	Pn	21 35 16.6	+0.2
NGZ	Ngauruhoe	1.71	194	P	Pn	21 35 17.2	+0.5
NGZ	Ngauruhoe	1.71	194	*e*PN	Pn	21 35 17.2	+0.5
MXZ	Matakaoa Point	1.74	92	PN	Pn	21 35 17.5	+0.6
WPVZ	Whakapapa	1.75	195	P	Pn	21 35 17.4	+0.4
WPVZ	Whakapapa	1.75	195	PN	Pn	21 35 17.4	+0.4
PUZ	Puketiti	1.79	109	*e*P	Pn	21 35 17.5	+0.2
PUZ				S	S	21 35 49.4	-1.2
PUZ	Puketiti	1.79	109	PN	Pn	21 35 17.5	+0.2
PUZ				SN	S	21 35 49.4	-1.2
TUVZ	Tukino	1.79	192	P	Pn	21 35 17.7	+0.4
TUVZ	Tukino	1.79	192	PN	Pn	21 35 17.7	+0.4
FWVZ	Far West T-bar	1.80	194	PN	Pn	21 35 17.8	+0.4
WNVZ	Wahianoa	1.86	193	P	Pn	21 35 18.1	+0.3
WNVZ	Wahianoa	1.86	193	PN	Pn	21 35 18.1	+0.3
PKVZ	Pokaka	1.88	199	PN	Pn	21 35 18.1	+0.1
MOVZ	Moawhango	1.92	188	P	Pn	21 35 18.0	-0.3
MOVZ	Moawhango	1.92	188	PN	Pn	21 35 18.0	-0.3
MTVZ	Mangateitei	1.94	195	PN	Pn	21 35 18.6	+0.1
KNZ	Kokohu	1.94	141	P	Pn	21 35 18.7	+0.2
KNZ	Kokohu	1.94	141	PN	Pn	21 35 18.7	+0.2
WAZ	Wanganui	2.41	201	P	Pn	21 35 22.4	-0.4
WAZ	Wanganui	2.41	201	PN	Pn	21 35 22.4	-0.3
TSZ	Takapari Road	2.55	183	P	Pn	21 35 23.1	-1.0
TSZ	Takapari Road	2.55	183	PN	Pn	21 35 23.1	-1.0
BFZ	Birch Farm	3.17	178	P	Pn	21 35 28.9	-1.5
BFZ	Birch Farm	3.17	178	PN	Pn	21 35 28.9	-1.5
MRZ	Mangatainoka R	3.18	187	P	Pn	21 35 28.5	-2.0
MRZ				S	S	21 36 10.8	-3.8
MRZ	Mangatainoka R	3.18	187	PN	Pn	21 35 28.5	-2.0
MRZ				SN	S	21 36 10.8	-3.7
TIWZ	Tintock	3.27	183	PN	Pn	21 35 29.8	-1.7
KIW	Kapiti Island	3.48	195	P	Pn	21 35 31.5	-2.3
KIW	Kapiti Island	3.48	195	PN	Pn	21 35 31.5	-2.2
MTW	Mount Morrison	3.68	187	P	Pn	21 35 33.3	-2.7
MTW	Mount Morrison	3.68	187	PN	Pn	21 35 33.3	-2.7
DUWZ	D’Urville Isla	3.71	207	PN	Pn	21 35 33.9	-2.4
MRW	Makara Radio	3.88	196	P	Pn	21 35 35.9	-2.3
MRW	Makara Radio	3.88	196	PN	Pn	21 35 35.9	-2.3
TRWZ	Traveller	3.90	185	PN	Pn	21 35 36.0	-2.5
SNZO	South Karori	3.95	196	P	Pn	21 35 36.4	-2.7
SNZO	South Karori	3.95	196	PN	Pn	21 35 36.4	-2.7
MSWZ	Moikau Station	3.96	189	P	Pn	21 35 36.6	-2.6
MSWZ	Moikau Station	3.96	189	PN	Pn	21 35 36.6	-2.6
TCW	Tory Channel	3.96	201	P	Pn	21 35 36.7	-2.5
TCW	Tory Channel	3.96	201	PN	Pn	21 35 36.7	-2.5
BHW	Baring Head	4.01	194	P	Pn	21 35 37.4	-2.4
BHW	Baring Head	4.01	194	PN	Pn	21 35 37.4	-2.4
TUWZ	Tuamarina	4.26	203	PN	Pn	21 35 39.9	-2.8
NNZ	Nelson	4.27	209	P	Pn	21 35 39.7	-3.0
NNZ	Nelson	4.27	209	PN	Pn	21 35 39.7	-3.0
QRZ	Quartz Range	4.33	219	P	Pn	21 35 40.0	-3.5
QRZ	Quartz Range	4.33	219	PN	Pn	21 35 40.0	-3.4
BSWZ	Blackbirch Sta	4.54	202	P	Pn	21 35 43.5	-2.4
BSWZ	Blackbirch Sta	4.54	202	PN	Pn	21 35 43.5	-2.5
THZ	Tophouse	4.92	209	*e*P	Pn	21 35 47.4	-3.0
THZ	Tophouse	4.92	209	PN	Pn	21 35 47.4	-3.0
THZ				SN	S	21 36 45.3	-5.3
KHZ	Kahutara	5.29	201	P	Pn	21 35 51.5	-3.3
KHZ	Kahutara	5.29	201	PN	Pn	21 35 51.5	-3.3
DSZ	Denniston Nort	5.39	217	PN	Pn	21 35 51.7	-4.3
LTZ	Lake Taylor	6.04	208	*e*PN	Pn	21 35 59.9	-4.0
MQZ	McQueen’s Vall	6.73	202	*e*PN	Pn	21 36 07.3	-5.2
ODZ	Otahua Downs	8.58	207	*e*PN	Pn	21 36 31.6	-4.0
JCZ	Jackson Bay	8.61	218	*e*PN	Pn	21 36 31.5	-4.5

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*IDC **19** 21:44:27.2±3.6, 44.26N×81.02E, h0^{km}, mb1 3.5/3, mb1mx3.2/24, mbtmp3.5/3, ML3.6/2, Error ellipse: s-maj=48.9km s-min=26.6km az=94.0*
*BJI **19** 21:44:30.6, 44.27N×81.29E, h16^{km}, ML3.4*
*ISCJB **19** 21:44:31.9±0.7, 44.49N±0.06×81.43E±0.08, h10^{km}, Error ellipse: s-maj=10.5km s-min=5.0km az=139.9*
*NNC **19** 21:44:31.5±4.2, 44.40N×81.51E, h0^{km}, mb3.7, mpv3.3, Error ellipse: s-maj=58.0km s-min=16.4km az=127.0*
ISC 19 21:44:32.1±0.6, **44.40N**±0.05×**81.48E**±0.05, **h10**^{km}, **n14**, σ**1**^{s}**16**/22, **11C-3D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MK31	Makanchi Array	2.46	13	⇑Pn	Pn	21 45 13.0	+0.8
	1.4nm,0.2s						
MK31				⇑Pg	Pg	21 45 19.3	+0.1
	15nm,0.4s						
MK31				⇑Lg		21 45 51.7	
	39nm,0.5s						
MKAR	Makanchi Array	2.46	13	Pn	Pn	21 45 13.0	+0.8
	4.5nm,0.3s,baz=196,slow=14,SNR=154						
MKAR				Pg	Pg	21 45 18.1	-1.1
	21nm,0.3s,baz=198,slow=17,SNR=82						
MKAR				Sn	Sn	21 45 46.5	+4.2
	22nm,0.3s,baz=200,slow=24,SNR=9.2						
MKAR				Lg		21 45 51.8	
	33nm,0.3s,baz=189,slow=30,SNR=13						
KNDC	Almaty	3.47	252	⇓Pn	Pn	21 45 29.9	+3.7
	53nm,0.5s						
KNDC				⇓Sn	Sn	21 46 08.4	+1.0
	217nm,0.6s						
TKM2	Tokmak 2	4.52	253	P	Pb	21 45 51.8	+0.4
	SNR=9.1						
TKM2	Tokmak 2	4.52	253	⇑Pn	Pn	21 45 40.6	+0.1
	0.2nm,0.3s						
TKM2				⇑Pg	Pg	21 45 51.4	-7.2
	3.2nm,0.7s						
TKM2				⇑Sn	Sn	21 46 38.8	+5.7
	7.2nm,0.7s						
WMQ	Urumqi	4.52	95	*e*P	Pn	21 45 41.8	+1.3
WMQ				SG	Sg	21 46 55.6	-1.5
WMQ				Smax			
	comp=N,47nm,0.5s						
WMQ				Smax			
	comp=E,68nm,0.8s						
KBK	Karagaybulak	5.06	252	P	Pb	21 45 59.0	-1.7
	SNR=8.0						
CHMS	Chumysh	5.07	256	P	Pb	21 46 00.7	-0.3
	SNR=6.3						
AAK	Ala-Archa	5.38	253	P	Pb	21 46 06.7	+0.6
	SNR=6.9						
UCH	Uchtor	5.53	249	P	Pb	21 46 06.3	-2.3
	SNR=7.5						
KURK	Kurchatov	6.60	344	⇑Pn	Pn	21 46 13.7	+4.5
	comp=E,4.5nm,1.6s						
KURK				⇑Sn	Sn	21 47 24.3	-0.2
	comp=E,2.5nm,0.5s						
KURK				⇑Lg		21 47 57.7	
	comp=E,29nm,1.2s						
KK31	Karatay Array	8.04	265	⇑Pn	Pn	21 46 35.3	+6.4
	comp=E,0.3nm,0.3s,baz=71,slow=14,SNR=6.5						
KK31				⇓Pg	Pn	21 46 55.0	+26
	comp=E,2.6nm,0.7s,baz=74,slow=16,SNR=7.0						
KK31				⇑Lg		21 48 36.5	
	comp=E,4.2nm,0.5s,baz=78,slow=27,SNR=9.9						
ZALV	Zalesovo Beam	9.80	12	Pn	Pn	21 46 51.8	-1.2
	comp=E,0.6nm,0.3s,baz=194,slow=14,SNR=4.8						
ZALV				Lg		21 49 47.4	
	comp=E,0.6nm,0.3s,baz=213,slow=26,SNR=5.7						
SONM	Songino Array	17.59	70	P	Pn	21 48 39.1	+1.9
	comp=E,0.2nm,0.3s,baz=266,slow=12,SNR=6.6						

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*BJI **19** 21:58:08.3, 46.71N×153.38E, h28^{km}, mB4.7, mb4.2, Ms4.5, Msz4.2*
*NEIC **19** 21:58:08.1±0.6, 46.46N×153.00E, h10^{km}, mb4.6/10, Error ellipse: s-maj=14.6km s-min=10.5km az=141.0*
*ISCJB **19** 21:58:09.7±0.5, 46.28N±0.07×152.78E±0.09, h33^{km}, mb4.1/27, MS3.4/3, Error ellipse: s-maj=13.1km s-min=3.9km az=140.7*
*JMA **19** 21:58:10.5±0.8, 46.47N×152.95E, h30^{km}, M4.5*
*MOS **19** 21:58:10.7±1.4, 46.45N×152.93E, h40^{km}, mb4.5/16, Error ellipse: s-maj=12.2km s-min=8.4km az=100.0*
*SZGRF **19** 21:58:12.2, 46.21N×153.38E, h33^{km}, mb4.4, Kuril Islands, Russia*
*IDC **19** 21:58:13.7±3.9, 46.40N×152.95E, h54^{km}±36^{km}, mb3.6/16, mb1 3.8/18, mb1mx3.8/24, mbtmp3.6/18, ML3.8/2, MS3.5/2, Ms1 3.5/2, ms1mx2.8/30, Error ellipse: s-maj=21.0km s-min=17.1km az=161.0*
ISC 19 21:58:14.5±1.1, **46.1N**±0.1×**152.79E**±0.10, **h66**^{km}±11^{km}, **n105**, σ**1**^{s}**32**/116, **mb4.0**/27, **14C-7D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril’sk	3.57	257	*i* PN	Pn	21 59 08.6	+1.3
KUR				*i* S	Sn	21 59 51.6	+3.5
KUR				pmax	pmax		
	comp=N,230nm,0.6s						
KUR				pmax	pmax		
	comp=E,80nm,0.6s						
KUR				pmax	pmax		
	comp=Z,610nm,0.6s						
KUR				smax			
	comp=N,430nm,0.8s						
KUR				smax			
	comp=E,320nm,0.8s						
YUK	Yuzh-Kuril’sk	5.34	249	*e*PN	Pn	21 59 31.8	+0.3
YUK				pmax	pmax		
	comp=Z,230nm,0.3s						
NEM2	Nemuro 2	5.73	244	P	Pn	21 59 36.0	-0.9
NEM2				*e*S	Sn	22 00 39.7	-1.6
JRA	Rausu	5.86	251	P	Pn	21 59 39.8	+1.2
JNK	Nakash	6.28	249	P	Pn	21 59 45.3	+1.0
JNK				*e*S	Sn	22 00 56.1	+1.5
JAK	Akkeshi	6.58	244	P	Pn	21 59 47.6	-0.9
JAK				*e*S	Sn	22 00 59.6	-2.4
JTKR	Abashiri--Toko	6.65	254	P	Pn	21 59 51.1	+1.6
YSS	Yuzh-Sakhalins	6.97	280	PN	Pn	22 00 00.0	+6.3
JAR	Ashorobuto	7.03	249	P	Pn	21 59 55.6	+1.0
JAR				*e*S	Sn	22 01 14.9	+2.0
JOB	Onbets	7.17	246	P	Pn	21 59 56.8	+0.3
JOB				*e*S	Sn	22 01 15.8	-0.7
JKK2	Kamakawa 2	7.47	256	P	Pn	22 00 02.9	+2.3
ASAJ	Asahikawa	7.49	258	P	Pn	22 00 04.0	+3.1
ASAJ	Asahikawa	7.49	258	PN	Pn	22 00 02.7	+1.8
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	7.49	258	P	Pn	22 00 02.7	+1.8
	comp=Z,2.0nm,0.3s,baz=91,slow=21,SNR=11						
JCH	Churui	7.62	246	P	Pn	22 00 02.6	0.0
JCH				*e*S	Sn	22 01 25.1	-2.3
JEM	Erimo	8.06	243	P	Pn	22 00 09.6	+0.8
JNBK	Urakawa-nobuka	8.18	245	P	Pn	22 00 09.6	-0.7
JNBK				*e*S	Sn	22 01 37.9	-3.2
JBT2	Biratori 2	8.18	249	P	Pn	22 00 11.2	+0.9
JNB	Noboribetsu	9.19	251	P	Pn	22 00 24.3	+0.2
JNB				*e*S	Sn	22 02 03.8	-2.1
JKB	Kayabe	9.47	248	P	Pn	22 00 27.4	-0.6
JKB				*e*S	Sn	22 02 08.8	-4.1
JANG	Nango	10.04	239	P	Pn	22 00 32.6	-3.1
JANG				*e*S	Sn	22 02 19.5	-7.2
JTM	Tenmabayashi	10.06	242	P	Pn	22 00 34.3	-1.7
JTM				*e*S	Sn	22 02 20.0	-7.1
JTH	Tanohata	10.11	236	*e*S	Sn	22 02 20.1	-8.4
OFUJ	Ofunato	10.81	233	P	Pn	22 00 43.9	-2.3
OFUJ				*e*S	Sn	22 02 37.7	-7.8
JIO	Ouri	11.43	232	*e*S	Sn	22 02 51.0	-10
MA2	Magadan	13.51	356	*e*PN	Pn	22 01 18.1	-4.7
MA2				pmax	pmax		
	comp=Z,1.0nm,1.0s						
MJAR	Matsushiro Arr	14.54	234	P	Pn	22 01 38.3	+1.8
	comp=Z,0.2nm,0.3s,baz=29,slow=13,SNR=4.0						
KSRS	Korea Array	20.40	254	P	P	22 02 49.8	+4.0
	comp=Z,0.4nm,0.4s,baz=60,slow=9.6,SNR=3.3						
BILL	Bilibino	23.03	13	*e*P	P	22 03 07.1	-6.5
	comp=Z,4.1nm,0.5s,mb4.0						
BILL	Bilibino	23.03	13	*e*P	P	22 03 07.2	-6.4
BILL				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb3.9						
SONM	Songino Array	31.33	290	P	P	22 04 28.0	-0.2
	comp=Z,0.3nm,0.7s,mb3.1,baz=82,slow=8.0,SNR=3.9						
TLY	Talaya	32.26	298	*e*P	P	22 04 36.5	+0.1
TLY				*e*		22 14 59.3	
TLY				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.7						
TLY				MLR	MLR		
	comp=Z,62nm,18.0s						
GTA	Gaotai	38.84	280	*e*P	P	22 05 36.1	+3.2
GTA				AP	pP	22 05 40.3	-8.9
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.1						
INK	Inuvik	42.29	32	P	P	22 05 59.9	-1.0
INK	Inuvik	42.29	32	P	P	22 05 59.9	-1.0
INK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
INK	Inuvik	42.29	32	P	P	22 05 59.9	-1.0
	comp=Z,2.0nm,0.6s,mb4.0,baz=304,slow=7.2,SNR=7.8						
ZALV	Zalesovo Beam	42.78	306	P	P	22 06 03.9	-1.3
	comp=Z,0.6nm,0.4s,mb3.7,baz=77,slow=6.2,SNR=2.8						
ZAL	Zalesovo	42.80	306	P	P	22 06 03.9	-1.4
MK31	Makanchi Array	47.02	298	*e*P	P	22 06 38.5	-0.3
MKAR	Makanchi Array	47.02	298	P	P	22 06 38.9	0.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR				MLR	MLR		
	comp=Z,52nm,18.3s						
MKAR	Makanchi Array	47.02	298	P	P	22 06 38.9	0.0
	comp=Z,1.4nm,0.6s,mb3.9,baz=65,slow=7.2,SNR=29						
MKAR				LR	LR	22 27 36.0	
	comp=Z,52nm,18.3s,baz=354,slow=38						
KURK	Kurchatov	47.51	304	*e*P	P	22 06 41.6	-1.1
	comp=Z,4.2nm,0.8s,mb4.3						
KURK	Kurchatov	47.51	304	*e*P	P	22 06 41.6	-1.0
KURK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
LSA	Lhasa	50.08	273	*e*P	P	22 07 06.2	+3.6
	comp=Z,3.6nm,0.6s,mb4.5						
LSA	Lhasa	50.08	273	*e*P	P	22 07 06.2	+3.6
LSA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
BRVK	Borovoye	51.11	310	*e*P	P	22 07 08.9	-1.1
YKA	Yellowknife Ar	51.55	36	P	P	22 07 10.4	-2.7
YKA	Yellowknife Ar	51.55	36	P	P	22 07 10.4	-2.7
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	51.55	36	P	P	22 07 10.4	-2.7
	comp=Z,0.7nm,0.7s,mb3.8,baz=299,slow=7.5,SNR=8.2						
AAK	Ala-Archa	53.90	297	⇑*e*P	P	22 07 32.1	+1.3
KEV	Kevo	57.84	341	*e*p	P	22 07 56.2	-2.3
ARCES	ARCESS Array B	58.35	341	P	P	22 08 00.9	-1.2
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES	ARCESS Array B	58.35	341	P	P	22 08 00.9	-1.2
	comp=Z,2.2nm,0.7s,mb4.3,baz=28,slow=6.9,SNR=14						
JOF	Joensuu	61.78	334	*e*p	P	22 08 24.3	-1.3
NVAR	Mina Array Bea	62.92	62	P	P	22 08 33.3	-0.3
	comp=Z,0.6nm,0.6s,mb3.7,baz=304,slow=6.4,SNR=3.6						
KAF	Kangasniemi	63.90	335	*e*p	P	22 08 38.2	-1.5
	comp=Z,1.1nm,0.3s,mb4.2,baz=38,slow=6.2						
KAF	Kangasniemi	63.90	335	*e*P	P	22 08 38.2	-1.5
KAF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.1						
FINES	FINESS Array B	64.49	335	P	P	22 08 42.9	-0.7
FINES				pmax	pmax		
	comp=Z,3.0nm,0.4s						
FINES	FINESS Array B	64.49	335	P	P	22 08 42.9	-0.8
	comp=Z,2.6nm,0.4s,mb4.4,baz=42,slow=6.4,SNR=55						
PDAR	Pinedale Array	65.29	53	P	P	22 08 48.2	-0.9
	comp=Z,0.5nm,0.9s,mb3.4,baz=158,slow=1.6,SNR=4.4						
WRA	Warramunga Arr	67.86	199	P	P	22 09 06.6	+1.0
	comp=Z,0.4nm,0.8s,mb3.3,baz=20,slow=6.8,SNR=3.2						
NB2	NORSAR Subarra	68.73	341	P	P	22 09 09.8	-0.8
	comp=Z,1.7nm,0.6s,mb4.0,baz=28,slow=6.5						
NOA	NORSAR Array B	68.73	341	P	P	22 09 10.0	-0.6
NOA				LR	LR	22 43 40.7	
NOA	NORSAR Array B	68.73	341	P	P	22 09 10.0	-0.6
NOA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NOA				MLR	MLR		
	comp=Z,24nm,18.4s						
NOA	NORSAR Array B	68.73	341	P	P	22 09 10.0	-0.6
	comp=Z,2.3nm,0.5s,mb4.2,baz=28,slow=6.4,SNR=11						
NOA				LR	LR	22 43 40.7	
	comp=Z,24nm,18.4s,baz=340,slow=40						
ASAR	Alice Springs	71.56	198	P	P	22 09 31.8	+3.6
	comp=Z,0.1nm,0.3s,mb3.1,baz=13,slow=5.7,SNR=2.9						
AKASG	Malin Array Be	71.92	326	*i* P	P	22 09 29.7	-0.6
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.4s						
AKASG	Malin Array Be	71.92	326	P	P	22 09 29.8	-0.5
	comp=Z,6.4nm,0.4s,mb4.8,baz=33,slow=6.1,SNR=30						
KWP	Kalwaria	75.23	329	*e*P	P	22 09 50.4	+0.7
KWP	Kalwaria	75.23	329	⇑*i*P	P	22 09 49.9	+0.2
BURAR	Bucovina Array	75.97	326	⇑P	P	22 09 54.3	+0.4
BURAR	Bucovina Array	75.97	326	⇑*i*P	P	22 09 54.3	+0.4
TRPA	Tarpa	76.55	328	⇓*i*P	P	22 09 58.0	+0.8
MORC	Moravsky Berou	76.87	332	⇑P	P	22 09 59.2	+0.2
MORC	Moravsky Berou	76.87	332	⇑*i*P	P	22 09 59.2	+0.2
CLL	Collm	76.92	335	*i* P	P	22 09 58.9	-0.4
	comp=Z,5.0nm,0.6s,mb4.4						
CLL	Collm	76.92	335	*i* P	P	22 09 58.9	-0.4
CLL				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
MALT	Malatya	77.40	313	⇑P	P	22 10 04.6	+2.5
MALT	Malatya	77.40	313	⇑*i*P	P	22 10 04.6	+2.4
PRU	Pruhonice	77.63	334	*e*P	P	22 10 03.7	+0.4
TXAR	Lajitas Array	77.99	60	P	P	22 10 04.9	-0.7
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	77.99	60	P	P	22 10 04.9	-0.7
	comp=Z,0.7nm,0.5s,mb3.7,baz=303,slow=3.8,SNR=8.4						
BRTR	Keskin Array B	78.68	317	P	P	22 10 10.8	+1.6
BRTR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
BRTR	Keskin Array B	78.68	317	P	P	22 10 10.8	+1.5
	comp=Z,1.6nm,1.0s,mb3.8,baz=46,slow=3.6,SNR=6.7						
KHC	Kasperske Hory	78.69	334	*e*P	P	22 10 09.3	+0.2
GZR	Gura Zlata	78.75	327	⇑*i*P	P	22 10 09.4	-0.1
GRA1	Grafenberg Arr	78.88	336	*e*P	P	22 10 11.3	+1.2
	comp=Z,3.0nm,0.8s,mb4.2						
GRF	Grafenberg Arr	78.88	336	*e*P	P	22 10 11.3	+1.2
GRF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
GRF	Grafenberg Arr	78.88	336	*e*P	P	22 10 11.3	+1.2
GRF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
GRF	Grafenberg Arr	78.88	336	*e*P	P	22 10 11.3	+1.2
	comp=Z,3.0nm,0.8s,mb4.2						
GERES	GERESS Array B	78.90	334	P	P	22 10 10.4	+0.1
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GERES	GERESS Array B	78.90	334	P	P	22 10 10.4	+0.2
	comp=Z,1.0nm,0.5s,mb3.9,baz=41,slow=5.9,SNR=12						
BZS	Buzias	79.00	327	⇑P	P	22 10 11.4	+0.5
BZS	Buzias	79.00	327	⇑*i*P	P	22 10 11.4	+0.5
KBA	Koelnbreinsper	80.58	333	⇑*i*P	P	22 10 20.8	+1.4
	comp=Z,9.0nm,0.8s,mb4.6						
KBA	Koelnbreinsper	80.58	333	⇑*i*pP	P	22 10 20.8	+1.4
	comp=Z,9.0nm,0.8s,mb4.6						
KBA	Koelnbreinsper	80.58	333	⇑*i*P	P	22 10 20.8	+1.4
KBA				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.7						
WTTA	Wattenberg	80.94	334	⇓*i*P	P	22 10 23.6	+2.3
	comp=Z,8.4nm,0.5s,mb4.8						
WTTA	Wattenberg	80.94	334	⇓*i*pP	P	22 10 23.6	+2.3
	comp=Z,8.4nm,0.5s,mb4.8						
WTTA	Wattenberg	80.94	334	⇓*i*P	P	22 10 23.6	+2.3
WTTA				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.8						
MOTA	Moosalm	81.03	335	⇓*i*P	P	22 10 23.7	+1.9
	comp=Z,3.2nm,0.5s,mb4.4						
MOTA	Moosalm	81.03	335	⇓*i*pP	P	22 10 23.7	+1.9
	comp=Z,3.2nm,0.5s,mb4.4						
MOTA	Moosalm	81.03	335	⇓*i*P	P	22 10 23.7	+1.9
MOTA				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.4						
TORD	Torodi Ar. Bea	115.50	329	PKP	PKPdf	22 16 48.6	-0.4
TORD	Torodi Ar. Bea	115.50	329	PKP	PKPdf	22 16 48.6	-0.4
	comp=Z,0.1nm,0.4s,baz=24,slow=2.4,SNR=8.3						

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*ISCJB **19** 22:18:28.6±1.7, 35.41N±0.07×27.44E±0.05, h9^{km}±14^{km}, Error ellipse: s-maj=12.3km s-min=6.6km az=176.0*
*CSEM **19** 22:18:28.7±0.2, 35.44N×27.46E, h8^{km}, MD3.4, Error ellipse: s-maj=6.1km s-min=2.6km az=145.0*
*NEIC **19** 22:18:28.8, 35.41N×27.38E, h19^{km}, MD3.6(ISK), MD3.4(ATH), After ATH.*
*ATH **19** 22:18:28.8, 35.41N×27.38E, h19^{km}±2^{km}, MD3.4/8*
ISC 19 22:18:29.1±1.4, **35.45N**±0.07×**27.43E**±0.05, **h4**^{km}±11^{km}, **n47**, σ**0**^{s}**69**/54, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	Karpathos	0.24	294	*e*Pb	Pg	22 18 33.9	+0.2
KARP	Karpathos	0.24	294	*e*PB	Pg	22 18 33.9	+0.2
KARP	Karpathos	0.24	294	*e*Pb	Pg	22 18 33.9	+0.2
ARG	Arkhangelos	0.95	37	*e*Pn	Pn	22 18 47.8	-1.4
ARG				*e*Sn	Sn	22 19 02.5	-0.7
ARG	Arkhangelos	0.95	37	*e*PN	Pn	22 18 47.8	-1.4
ARG				*e*SN	Sn	22 19 02.5	-0.7
ARG	Arkhangelos	0.95	37	*e*Pn	Pn	22 18 47.8	-1.4
ARG				*e*Sn	Sn	22 19 02.5	-0.7
NISR	Nisiros	1.18	348	*e*Pn	Pn	22 18 52.0	-0.4
NISR	Nisiros	1.18	348	*e*PN	Pn	22 18 52.0	-0.4
NISR	Nisiros	1.18	348	*e*Pn	Pn	22 18 52.0	-0.4
DAT	Datca	1.28	5	PN	Pn	22 18 53.5	-0.2
DAT	Datca	1.28	5	*e*Pn	Pn	22 18 53.5	-0.2
NPS	Neapolis	1.49	263	*e*Pn	Pn	22 18 56.0	-0.7
NPS	Neapolis	1.49	263	*e*PN	Pn	22 18 56.0	-0.7
NPS	Neapolis	1.49	263	*e*Pn	Pn	22 18 56.0	-0.7
XRY	Khrisi	1.53	248	*e*Pn	Pn	22 18 57.0	-0.2
XRY	Khrisi	1.53	248	*e*PN	Pn	22 18 57.0	-0.2
XRY	Khrisi	1.53	248	*e*Pn	Pn	22 18 57.0	-0.2
BODT	Bodrum	1.61	357	*e*PN	Pn	22 18 57.5	-0.7
BODT	Bodrum	1.61	357	Pn	Pn	22 18 57.5	-0.7
BODT	Bodrum	1.61	357	Pn	Pn	22 18 57.5	-0.7
BDRM	Kayabasi	1.61	1	*i* P	Pn	22 18 57.6	-0.6
BDRM	Kayabasi	1.61	1	*i* P	Pn	22 18 57.6	-0.6
BDRM				*i* S	Sn	22 19 19.5	+0.1
DALT	Dalyan (Mudla)	1.64	36	*e*PN	Pn	22 18 59.3	+0.6
DALT	Dalyan (Mudla)	1.64	36	Pn	Pn	22 18 59.4	+0.7
DALT	Dalyan (Mudla)	1.64	36	Pn	Pn	22 18 59.3	+0.6
FETY	Fethiye	1.79	48	*e*PN	Pn	22 19 01.6	+0.9
FETY	Fethiye	1.79	48	Pn	Pn	22 19 01.7	+1.0
FETY	Fethiye	1.79	48	Pn	Pn	22 19 01.7	+1.0
YER	Yerkesik	1.81	22	*e*PN	Pn	22 19 01.6	+0.5
YER	Yerkesik	1.81	22	Pn	Pn	22 19 01.7	+0.6
YER	Yerkesik	1.81	22	Pn	Pn	22 19 01.7	+0.6
MLSB	Milas	1.86	9	*e*PN	Pn	22 19 01.6	-0.1
MLSB	Milas	1.86	9	Pn	Pn	22 19 01.7	0.0
MLSB	Milas	1.86	9	Pn	Pn	22 19 01.7	0.0
APE	Apeiranthos	2.22	317	*e*Pb	Pb	22 19 06.2	-3.6
APE				*e*Sn	Sn	22 19 35.6	+1.0
APE	Apeiranthos	2.22	317	*e*PB	Pb	22 19 06.2	-3.6
APE				*e*SN	Sn	22 19 35.6	+1.0
APE	Apeiranthos	2.22	317	*e*Pb	Pb	22 19 06.2	-3.6
SMG	Samos	2.30	348	*e*Pn	Pn	22 19 07.6	-0.2
SMG	Samos	2.30	348	*e*PN	Pn	22 19 07.6	-0.2
SMG	Samos	2.30	348	*e*Pn	Pn	22 19 07.6	-0.2
GOLH	Golhisar	2.48	43	*i* P	Pn	22 19 11.1	+0.9
VLI	Veliai	3.85	290	*e*Pn	Pn	22 19 29.6	+0.6
VLI	Veliai	3.85	290	*e*PN	Pn	22 19 29.6	+0.6
VLI	Veliai	3.85	290	*e*Pn	Pn	22 19 29.6	+0.6
ERMK	Ermenek	4.60	73	*e*P	Pn	22 19 39.3	-0.1
ERMK	Ermenek	4.60	73	*e*P	Pn	22 19 39.3	-0.1
ERMK				*i* S	Sn	22 20 33.1	-0.1
KDHN	Kadinhani	4.84	49	*i* P	Pn	22 19 43.6	+0.8

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*NIED **19** 22:18:00, 30.20N×137.10E, h520^{km}, Mw4.3 Best double couple: $M_0$3.36000×10^{15} NP1:ϕ_s53.00000°, δ56.00000°, λ-177.00000°. NP2:ϕ_s321.00000°, δ87.00000°, λ-34.00000°.*
*BJI **19** 22:18:51.2, 29.92N×137.25E, h509^{km}, mB5.0, mb4.7*
*JMA **19** 22:18:53.8±0.3, 30.21N×137.08E, h536^{km}, M4.1*
*ISCJB **19** 22:18:55.8±0.3, 30.32N±0.04×136.96E±0.05, h513^{km}±4^{km}, mb4.1/38, Error ellipse: s-maj=6.8km s-min=6.5km az=13.1*
*MOS **19** 22:18:56.2±0.9, 30.35N×136.81E, h513^{km}, mb4.0/18, Error ellipse: s-maj=13.8km s-min=7.6km az=104.9*
*IDC **19** 22:18:56.3±0.7, 30.28N×136.84E, h501^{km}±8^{km}, mb3.5/13, mb1 3.5/19, mb1mx3.4/28, mbtmp3.5/19, Error ellipse: s-maj=13.4km s-min=8.8km az=67.0*
*NEIC **19** 22:18:57.0±0.4, 30.33N×136.87E, h509^{km}±5^{km}, mb4.2/19, Error ellipse: s-maj=6.2km s-min=4.9km az=94.0*
ISC 19 22:18:57.0±0.4, **30.35N**±0.05×**136.91E**±0.05, **h509**^{km}±4^{km}, **n107**, σ**0**^{s}**84**/117, **mb4.1**/38, **3C-1D, Southeast of Shikoku**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

JWZ	Kozaga	3.33	342	P	P	22 20 11.5	+0.7
JHJ	Hachijo jima 2	3.69	41	P	P	22 20 14.9	+1.5
	17nm,0.3s,baz=258,slow=20,SNR=11						
JHJ				S	S	22 21 16.9	+1.0
	46nm,0.3s,baz=70,slow=22,SNR=6.9						
JHJ2	Mitsune	3.70	41	P	P	22 20 15.0	+1.5
JAI	Aioi	4.01	329	P	P	22 20 17.0	+1.0
JIE	Ise	4.03	358	P	P	22 20 17.5	+1.4
JIE				*e*S	S	22 21 22.3	+1.6
JOD2	Odawara 2	5.23	20	P	P	22 20 26.0	-0.3
JOD2				S	S	22 21 38.4	-1.1
BSO1	Boso 1	5.49	38	P	P	22 20 26.8	-2.0
BSO1				*e*S	S	22 21 40.0	-3.9
JHS	Saijyo	5.63	326	P	P	22 20 30.9	+0.8
CBIJ	Chichi jima	5.65	124	P	P	22 20 27.5	-3.0
CBIJ	Chichi jima	5.65	124	P	P	22 20 27.9	-2.6
	29nm,0.3s,baz=284,slow=19,SNR=11						
CBIJ				S	S	22 21 42.4	-4.4
	50nm,0.3s,baz=289,slow=22,SNR=14						
JNU	Nakatsue	5.83	300	P	P	22 20 32.5	+0.4
	1.9nm,0.3s,baz=86,slow=7.0,SNR=14						
JNU				S	S	22 21 48.9	-0.9
	0.1nm,0.3s,baz=272,slow=29,SNR=3.4						
JRY	Ryogami san	5.89	16	P	P	22 20 32.2	-0.3
JRY				S	S	22 21 49.2	-1.5
MAJO	Matsushiro	6.27	10	*e*P	P	22 20 35.9	-0.2
	170nm,0.5s						
MAJO	Matsushiro	6.27	10	*e*P	P	22 20 35.9	-0.2
MAJO				pmax	pmax		
	comp=Z,170nm,0.5s						
MAT	Matsushiro	6.27	10	P	P	22 20 35.9	-0.2
MAT				S	S	22 21 54.5	-2.8
MAT	Matsushiro	6.27	10	P	P	22 20 36.1	0.0
MAT				S	S	22 21 54.8	-2.5
MJAR	Matsushiro Arr	6.27	10	P	P	22 20 35.8	-0.3
MJAR				S	S	22 21 56.5	-0.8
MJAR				pmax	pmax		
	comp=Z,17nm,0.3s						
MJAR	Matsushiro Arr	6.27	10	P	P	22 20 35.8	-0.3
	comp=Z,17nm,0.3s,baz=182,slow=9.4,SNR=273						
MJAR				S	S	22 21 56.5	-0.8
	comp=Z,0.4nm,0.3s,baz=173,slow=33,SNR=4.8						
JSJ	Shimokoshiki	6.32	284	P	P	22 20 36.7	0.0
JMK	Ichinoseki	9.28	21	P	P	22 21 06.3	-0.4
JMK				*e*S	S	22 22 48.9	-4.5
KSRS	Korea Array	10.29	316	P	P	22 21 17.4	0.0
	comp=Z,0.4nm,0.3s,baz=151,slow=10,SNR=7.2						
ASAJ	Asahikawa	14.46	17	P	P	22 22 02.5	+1.3
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ	Asahikawa	14.46	17	P	P	22 22 02.5	+1.3
	comp=Z,2.9nm,0.3s,baz=255,slow=16,SNR=8.6						
NACB	Ninganchiao	14.94	249	*e*P	P	22 22 06.7	+0.1
MDJ	Mudanjiang	15.37	340	*e*P	P	22 22 09.7	-0.9
	comp=Z,2.3nm,0.5s						
YSS	Yuzh-Sakhalins	17.18	14	*e*P	P	22 22 29.6	+0.5
	comp=Z,14nm,0.3s						
YSS	Yuzh-Sakhalins	17.18	14	*e*P	P	22 22 29.7	+0.5
YSS				pmax	pmax		
	comp=Z,14nm,0.3s						
GUMO	Guam	18.23	155	P	P	22 22 39.7	+0.5
WHN	Wuhan	19.45	276	⇓P	P	22 22 50.5	+0.3
BJT	Baijiatuau	19.47	305	*e*P	P	22 22 49.3	-0.9
	comp=Z,6.4nm,0.9s						
BJT	Baijiatuau	19.47	305	*e*P	P	22 22 49.3	-0.9
BJT				pmax	pmax		
	comp=Z,6.0nm,0.9s						
HIA	Hailar	22.94	330	*e*P	P	22 23 21.7	+0.3
XAN	Xi'an	23.94	286	P	P	22 23 30.0	-0.6
XAN				AMB	AMB		
	comp=Z,14nm,0.6s,mb4.8						
PET	Petropavlovsk	27.66	29	*e*P	P	22 24 03.9	+0.8
LZH	Lanzhou	28.16	291	⇑P	P	22 24 07.6	-0.2
LZH				AMB	AMB		
	comp=Z,21nm,1.0s,mb4.7						
LZH	Lanzhou	28.16	291	⇑P	P	22 24 07.6	-0.2
	comp=Z,21nm,1.0s,mb4.7						
LZH				pP		22 24 24.5	
LZH				sP		22 24 34.1	
ULN	Ulaanbaatar	28.78	316	*e*P	P	22 24 13.4	+0.4
	comp=Z,1.0nm,0.6s,mb3.6						
ULN	Ulaanbaatar	28.78	316	*e*P	P	22 24 13.4	+0.4
ULN				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.6						
SONM	Songino Array	29.16	315	P	P	22 24 16.4	+0.1
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	29.16	315	P	P	22 24 16.4	+0.1
	comp=Z,1.0nm,0.5s,mb3.7,baz=130,slow=8.9,SNR=16						
MA2	Magadan	30.69	14	*e*P	P	22 24 30.1	+0.7
	comp=Z,16nm,0.9s,mb4.5						
MA2	Magadan	30.69	14	*e*P	P	22 24 30.7	+1.3
MA2				pmax	pmax		
	comp=Z,20nm,0.7s,mb4.8						
MA2				pmax	pmax		
	comp=N,10.0nm,0.6s						
GTA	Gaotai	31.56	297	*e*P	P	22 24 36.5	-0.7
GTA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.5						
YAK	Yakutsk	32.04	354	*e*P	P	22 24 40.9	+0.1
ZAK	Zakamensk	32.11	318	*e*P	P	22 24 37.6	-4.1
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.1s,mb3.3						
CHTO	Chiang Mai	36.23	260	*e*P	P	22 25 16.1	-0.7
	comp=Z,14nm,0.9s,mb4.5						
CHTO	Chiang Mai	36.23	260	*e*P	P	22 25 16.1	-0.6
CHTO				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.5						
LSA	Lhasa	39.42	281	*e*P	P	22 25 43.6	+0.9
	comp=Z,1.9nm,0.8s,mb3.7						
LSA	Lhasa	39.42	281	*e*P	P	22 25 43.6	+0.9
LSA				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
BILL	Bilibino	41.47	16	*e*P	P	22 25 59.8	+1.3
	comp=Z,9.5nm,0.6s,mb4.5						
BILL	Bilibino	41.47	16	*e*P	P	22 25 59.8	+1.3
BILL				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.5						
TIXI	Tiksi	41.58	356	*e*P	P	22 25 58.4	-0.9
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.9						
TAPN	Taplejung	42.93	279	*e*P	P	22 26 10.7	0.0
	comp=Z,10.0nm,0.4s,mb4.7						
KAKA	Kakadu	43.03	186	*e*P	P	22 26 10.3	-1.2
	comp=Z,1.9nm,0.2s,mb4.3						
ODAN	Odare	43.34	278	*e*P	P	22 26 13.8	-0.1
	comp=Z,20nm,0.4s,mb5.1						
ZALV	Zalesovo Beam	43.99	318	P	P	22 26 17.5	-0.9
ZALV	Zalesovo Beam	43.99	318	P	P	22 26 17.5	-0.9
	comp=Z,3.3nm,0.3s,mb4.3,baz=100,slow=8.3,SNR=5.8						
ZAL	Zalesovo	44.00	318	P	P	22 26 17.5	-1.0
JIRN	Jiri	44.15	280	*e*P	P	22 26 20.7	+0.6
	comp=Z,15nm,0.2s,mb5.2						
MKAR	Makanchi Array	44.83	307	P	P	22 26 25.0	-0.1
MKAR	Makanchi Array	44.83	307	P	P	22 26 25.0	-0.1
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MKAR	Makanchi Array	44.83	307	P	P	22 26 25.0	-0.1
	comp=Z,4.8nm,0.7s,mb4.2,baz=93,slow=9.4,SNR=48						
KKN	Kakani	44.88	280	*e*P	P	22 26 25.8	0.0
	comp=Z,23nm,0.7s,mb4.8						
GKN	Gorkha	45.37	281	*e*P	P	22 26 29.5	-0.1
	comp=Z,8.9nm,0.3s,mb4.7						
KURK	Kurchatov	47.40	313	*e*P	P	22 26 44.7	+0.1
	comp=Z,3.8nm,0.6s,mb4.1						
KURK	Kurchatov	47.40	313	*e*P	P	22 26 44.7	+0.2
KURK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.1						
FITZ	Fitzroy Crossi	49.38	194	*e*P	P	22 26 59.7	0.0
	comp=Z,2.2nm,0.6s,mb3.9						
TKM2	Tokmak 2	49.76	302	*e*P	P	22 27 02.8	+0.4
WB2	Warramunga Arr	50.06	183	⇑*i*P	P	22 27 04.2	-0.5
WRA	Warramunga Arr	50.06	183	P	P	22 27 04.3	-0.4
WRA				pmax	pmax		
	comp=Z,3.0nm,0.3s						
WRA	Warramunga Arr	50.06	183	P	P	22 27 04.3	-0.4
	comp=Z,2.5nm,0.3s,mb4.1,baz=0.5,slow=7.8,SNR=102						
AAK	Ala-Archa	50.60	302	*e*P	P	22 27 08.2	-0.2
	comp=Z,3.9nm,0.4s,mb4.1						
AAK	Ala-Archa	50.60	302	*e*P	P	22 27 08.2	-0.3
AAK				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.1						
UCH	Uchtor	50.65	302	*e*P	P	22 27 10.3	+1.5
	comp=Z,3.6nm,0.7s,mb3.8						
EKS2	Erkin-Say	51.13	302	*e*P	P	22 27 12.6	+0.3
AML	Almayashu	51.26	302	*e*P	P	22 27 14.4	+1.2
	comp=Z,6.8nm,0.5s,mb4.2						
AML				*e*PcP	PcP	22 28 20.2	+0.6
BRVK	Borovoye	52.57	316	*e*P	P	22 27 22.6	+0.1
	comp=Z,4.0nm,0.6s,mb3.9						
BRVK				*e*PcP	PcP	22 28 24.3	-0.1
BRVK	Borovoye	52.57	316	*e*P	P	22 27 22.6	+0.1
BRVK				*e*		22 28 24.3	
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb3.9						
ASAR	Alice Springs	53.79	183	P	P	22 27 31.3	-0.2
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ASAR	Alice Springs	53.79	183	P	P	22 27 31.3	-0.2
	comp=Z,1.1nm,0.5s,mb3.4,baz=14,slow=13,SNR=20						
KDAK	Kodiak Island	54.61	38	P	P	22 27 38.3	+1.4
	comp=Z,2.8nm,0.3s,mb3.9,baz=296,slow=6.5,SNR=12						
COLA	College	56.72	30	P	P	22 27 51.6	+0.1
ARU	Arti	59.00	321	*e*P	P	22 28 06.7	-0.4
	comp=Z,4.6nm,0.3s,mb4.2						
ARU	Arti	59.00	321	*e*P	P	22 28 06.7	-0.4
ARU				pmax	pmax		
	comp=Z,5.0nm,0.3s,mb4.2						
INK	Inuvik	62.02	25	*e*P	P	22 28 26.5	-0.4
STKA	Stephens Creek	62.05	175	P	P	22 28 27.7	+0.2
	comp=Z,1.6nm,0.6s,mb3.6,baz=353,slow=0.7,SNR=4.3						
ARCES	ARCESS Array B	68.92	339	P	P	22 29 10.4	+0.3
ARCES				pmax	pmax		
	comp=Z,8.0nm,1.0s						
ARCES	ARCESS Array B	68.92	339	P	P	22 29 10.4	+0.3
	comp=Z,7.6nm,1.0s,mb4.2,baz=63,slow=8.1,SNR=14						
JOF	Joensuu	70.08	332	*e*p	P	22 29 16.4	-0.8
YKA	Yellowknife Ar	71.45	28	P	P	22 29 26.4	+1.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
YKA	Yellowknife Ar	71.45	28	P	P	22 29 26.4	+1.1
	comp=Z,0.5nm,0.4s,mb3.4,baz=300,slow=6.1,SNR=8.1						
KIV	Kislovodsk	72.44	311	*e*P	P	22 29 31.7	+0.3
	comp=Z,5.0nm,0.6s,mb4.1						
KIV	Kislovodsk	72.44	311	*e*P	P	22 29 31.7	+0.3
KIV				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.1						
KAF	Kangasniemi	72.50	333	*e*p	P	22 29 30.4	-1.0
FINES	FINESS Array B	72.95	332	P	P	22 29 33.8	-0.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	72.95	332	P	P	22 29 33.8	-0.2
	comp=Z,1.3nm,0.3s,mb3.8,baz=64,slow=5.2,SNR=20						
AKASG	Malin Array Be	77.23	322	P	P	22 29 57.5	-0.7
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.3s						
AKASG	Malin Array Be	77.23	322	P	P	22 29 57.5	-0.7
	comp=Z,1.6nm,0.3s,mb3.9,baz=53,slow=5.3,SNR=13						
NB2	NORSAR Subarra	78.83	336	P	P	22 30 06.1	-0.5
	comp=Z,0.9nm,0.4s,mb3.5,baz=51,slow=4.8						
NOA	NORSAR Array B	78.83	336	P	P	22 30 06.2	-0.3
NOA	NORSAR Array B	78.83	336	P	P	22 30 06.2	-0.4
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	NORSAR Array B	78.83	336	P	P	22 30 06.2	-0.3
	comp=Z,1.2nm,0.5s,mb3.5,baz=47,slow=5.0,SNR=6.1						
BRTR	Keskin Array B	80.39	310	P	P	22 30 15.6	+0.4
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BRTR	Keskin Array B	80.39	310	P	P	22 30 15.6	+0.3
	comp=Z,1.7nm,0.6s,mb3.5,baz=95,slow=3.7,SNR=13						
SMCO	Snowmass	88.82	44	*e*P	P	22 30 56.3	-0.3
	comp=Z,5.6nm,0.8s,mb4.5						
TORD	Torodi Ar. Bea	118.95	308	PKP	PKPdf	22 36 47.6	-0.6
TORD	Torodi Ar. Bea	118.95	308	PKP	PKPdf	22 36 47.6	-0.6
	comp=Z,0.2nm,0.4s,baz=29,slow=1.9,SNR=8.0						

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*ISCJB **19** 23:17:17.0±0.5, 3587N±003×2727E±004, h10^{km}, Error ellipse: s-maj=5.5km s-min=3.8km az=142.0*

*ATH **19** 23:17:17.1, 3582N×2730E, h26^{km}±1^{km}, MD3.5/8*

*CSEM **19** 23:17:18.1±0.1, 3584N×2731E, h22^{km}±1^{km}, MD4.1, Error ellipse: s-maj=4.6km s-min=2.5km az=121.0*

*NEIC **19** 23:17:18.0, 3583N×2740E, h10^{km}, ML3.0(ATH), After ATH.*

ISC 19 23:17:17.8±0.7, 3589N±003×2723E±004, h8^{km}±5^{km}, n33, σ1^{s}10/50, 3C, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	Karpathos	0.35	189	*e*Pb	Pg	23 17 24.6	0.0
KARP				*e*Sb	Sg	23 17 29.0	-0.2
KARP	Karpathos	0.35	189	*e*PB	Pg	23 17 24.6	0.0
KARP				*e*SB	Sg	23 17 29.0	-0.2
KARP	Karpathos	0.35	189	*e*Pb	Pg	23 17 24.6	0.0
KARP				*e*Sb	Sg	23 17 29.0	-0.2
NISR	Nisiros	0.72	354	*e*Pn	Pn	23 17 33.5	-0.9
NISR				*e*Sn	Sg	23 17 44.0	+2.7
NISR	Nisiros	0.72	354	*e*PN	Pn	23 17 33.5	-0.9
NISR				*e*SN	Sg	23 17 44.0	+2.7
NISR	Nisiros	0.72	354	*e*Pn	Pn	23 17 33.5	-0.9
NISR				*e*Sn	Sg	23 17 44.0	+2.7
ARG	Arkhangelos	0.80	66	⇑*i*Pn	Pn	23 17 32.7	-2.7
ARG				*e*Sn	Sg	23 17 43.4	-0.2
ARG	Arkhangelos	0.80	66	⇑*i*PN	Pn	23 17 32.7	-2.7
ARG				*e*SN	Sg	23 17 43.4	-0.2
ARG	Arkhangelos	0.80	66	⇑*i*Pn	Pn	23 17 32.7	-2.7
ARG				*e*Sn	Sg	23 17 43.4	-0.2
BDRM	Kayabasi	1.19	8	*i* P	Pb	23 17 40.0	-0.6
BDRM	Kayabasi	1.19	8	*i* P	Pb	23 17 40.0	-0.6
BDRM				*i* S	Sg	23 17 55.9	-0.1
NPS	Neapolis	1.46	245	*e*Pn	Pn	23 17 44.4	0.0
NPS				*e*Sn	Sn	23 18 03.3	-0.4
NPS	Neapolis	1.46	245	*e*PN	Pn	23 17 44.4	0.0
NPS				*e*SN	Sn	23 18 03.3	-0.4
NPS	Neapolis	1.46	245	*e*Pn	Pn	23 17 44.4	0.0
NPS				*e*Sn	Sn	23 18 03.3	-0.4
APE	Apeiranthos	1.80	311	*e*Pb	Pb	23 17 49.6	-1.5
APE	Apeiranthos	1.80	311	*e*PB	Pb	23 17 49.6	-1.5
APE	Apeiranthos	1.80	311	*e*Pb	Pb	23 17 49.6	-1.5
SMG	Samos	1.84	350	*e*Pb	Pb	23 17 49.7	-2.1
SMG	Samos	1.84	350	*e*PB	Pb	23 17 49.7	-2.1
SMG	Samos	1.84	350	*e*Pb	Pb	23 17 49.7	-2.1
IDI	Anoyia	2.00	253	P	Pn	23 17 52.2	+0.3
GOLH	Golhisar	2.31	54	*i* P	Pn	23 17 57.4	+1.2
GOLH	Golhisar	2.31	54	*i* P	Pn	23 17 57.4	+1.2
GOLH				*i* S	Sn	23 18 24.4	-0.4
VAM	Vamos	2.51	260	*e*Pn	Pn	23 17 58.9	-0.1
VAM	Vamos	2.51	260	*e*PN	Pn	23 17 58.9	-0.1
VAM	Vamos	2.51	260	*e*Pn	Pn	23 17 58.9	-0.1
VLI	Veliai	3.56	285	*e*Pn	Pn	23 18 14.8	+1.4
VLI	Veliai	3.56	285	*e*PN	Pn	23 18 14.8	+1.4
VLI				*e*SN	Sn	23 18 56.4	+0.7
VLI	Veliai	3.56	285	*e*Pn	Pn	23 18 14.8	+1.4
ITM	Ithomi	4.46	288	P	Pn	23 18 30.2	+4.5
ERMK	Ermenek	4.66	79	*i* P	Pn	23 18 30.4	+2.0
ERMK				*i* S	Sn	23 19 22.6	0.0
ERMK	Ermenek	4.66	79	*i* P	Pn	23 18 30.4	+2.0
ERMK				*i* S	Sn	23 19 22.6	0.0
KDHN	Kadinhani	4.70	55	*i* P	Pn	23 18 29.8	+0.7

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*PRU **19** 23:55:30.7, 5030N×1881E, h0^{km}*

WAR 19 23:55:30.0, 5024N×1890E, ML2.6, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKC	Ostrava-Krasne	0.63	231	*e*PG	Pg	23 55 42.1	0.0
OKC				*e*SG	Sg	23 55 51.3	+1.0
	25nm,0.5s						
DPC	Dobruska-Polom	1.66	275	*e*PG	Pg	23 55 59.1	-2.7
DPC				*e*SG	Sg	23 56 21.7	-1.6
	28nm,0.6s						
KOLL	Kolacno	1.70	191	*e*PN	Pn	23 56 03.0	+2.2
KOLL				*e*SN	Sn	23 56 24.3	+1.1
STHS	Stebnicka Huta	1.73	118	*e*PN	Pn	23 56 02.7	+1.5
STHS				*e*SN	Sn	23 56 27.1	+3.2
VYHS	Vyhne	1.75	181	*e*PN	Pn	23 56 00.6	-1.0
VYHS				*e*SN	Sn	23 56 25.1	+0.6
KSP	Ksiaz	1.77	291	*e*Pn	Pn	23 56 02.8	+1.0
KSP				*e*Sg	Sg	23 56 26.0	-0.9
KECS	Kecovo	2.04	149	*e*PN	Pn	23 56 06.6	+1.0
KECS				*e*		23 56 29.9	
CRVS	Cervenica-Dubn	2.14	128	*e*PN	Pn	23 56 09.7	+2.8
CRVS				*e*SN	Sn	23 56 38.9	+4.8
KWP	Kalwaria	2.53	103	*e*Pn	Pn	23 56 19.6	+7.3
KOLS	Kolonicke sedl	2.55	120	*e*PG	Pg	23 56 18.8	-0.1
PRU	Pruhonice	2.82	267	*e*PG	Pg	23 56 19.0	-5.0
PRU				*e*SG	Sg	23 56 57.9	-2.6
	5.4nm,0.4s						
KHC	Kasperske Hory	3.63	254	*e*PG	Pg	23 56 34.4	-5.2
KHC				*e*SG	Sg	23 57 23.9	-2.7
	9.6nm,0.6s						
CLL	Collm	3.90	288	*e*Sg	Sg	23 57 35.0	0.0
	comp=Z,14nm,1.4s						
NKC	Novy Kostel	4.14	272	*e*SG	Sg	23 57 38.9	-4.2

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*IDC **20** 00:10:52.0±0.8, 4761N×15624E, h0^{km}, mb3.7/15, mb1 4.0/15, mb1mx3.9/22, mbtmp3.7/15, Error ellipse: s-maj=21.8km s-min=19.0km az=156.0*

*MOS **20** 00:10:53.4±1.1, 4760N×156.14E, h21^{km}, mb4.2/7, Error ellipse: s-maj=37.2km s-min=18.9km az=101.9*

*ISCJB **20** 00:10:55.4±0.7, 476N±01×1563E±02, h33^{km}, mb3.7/15, Error ellipse: s-maj=19.1km s-min=15.4km az=153.9*

ISC 20 00:10:57.5±0.7, 476N±01×1562E±02, h35^{km}, n23, σ0^{s}61/23, mb3.7/15, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSRS	Korea Array	23.06	254	P	P	00 15 60.0	+0.2
	1.6nm,0.8s,mb3.5,baz=54,slow=9.4,SNR=6.6						
SONM	Songino Array	33.04	289	P	P	00 17 29.1	-0.2
	0.1nm,0.3s,mb3.2,baz=78,slow=10.0,SNR=2.6						
ZALV	Zalesovo Beam	43.82	306	P	P	00 18 59.0	-0.6
	0.7nm,0.5s,mb3.7,baz=63,slow=9.9,SNR=2.7						
MKAR	Makanchi Array	48.41	298	P	P	00 19 35.9	0.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	Makanchi Array	48.41	298	P	P	00 19 35.9	0.0
	comp=Z,1.4nm,0.5s,mb4.2,baz=69,slow=8.4,SNR=33						
YKA	Yellowknife Ar	48.96	38	P	P	00 19 39.4	-0.5
	comp=Z,0.3nm,0.6s,mb3.5,baz=295,slow=7.2,SNR=4.9						
ARCES	ARCESS Array B	57.72	342	P	P	00 20 44.3	+0.2
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ARCES	ARCESS Array B	57.72	342	P	P	00 20 44.3	+0.2
	comp=Z,2.8nm,0.8s,mb4.3,baz=37,slow=7.9,SNR=3.4						
NVAR	Mina Array Bea	60.16	65	P	P	00 21 01.4	-0.1
	comp=Z,0.8nm,0.6s,mb3.9,baz=291,slow=7.5,SNR=2.7						
FINES	FINESS Array B	64.14	336	P	P	00 21 27.8	0.0
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	FINESS Array B	64.14	336	P	P	00 21 27.8	0.0
	comp=Z,1.4nm,0.7s,mb4.1,baz=35,slow=7.0,SNR=6.8						
NOA	NORSAR Array B	68.07	342	P	P	00 21 53.0	0.0
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	68.07	342	P	P	00 21 53.0	0.0
	comp=Z,1.2nm,0.8s,mb4.0,baz=25,slow=6.4,SNR=3.9						
WRA	Warramunga Arr	70.05	202	P	P	00 22 04.9	-0.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	Warramunga Arr	70.05	202	P	P	00 22 04.9	-0.7
	comp=Z,0.5nm,0.9s,mb3.5,baz=21,slow=6.6,SNR=5.4						
AKASG	Malin Array Be	71.98	328	P	P	00 22 15.8	-1.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	71.98	328	P	P	00 22 15.8	-1.4
	comp=Z,0.6nm,0.4s,mb3.8,baz=2.7,slow=21,SNR=3.7						
ASAR	Alice Springs	73.73	201	P	P	00 22 28.3	+0.6
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	73.73	201	P	P	00 22 28.3	+0.6
	comp=Z,0.5nm,0.7s,mb3.5,baz=14,slow=5.4,SNR=6.4						
TXAR	Lajitas Array	75.23	63	P	P	00 22 36.8	+0.2
	comp=Z,0.4nm,0.6s,mb3.5,baz=299,slow=3.3,SNR=4.7						
CLL	Collm	76.53	337	*e*P	P	00 22 45.0	+1.4
GERES	GERESS Array B	78.58	336	P	P	00 22 55.5	+0.4
	comp=Z,0.4nm,0.5s,mb3.6,baz=38,slow=6.8,SNR=4.7						
BRTR	Keskin Array B	79.18	319	P	P	00 22 59.2	+0.6
	comp=Z,0.4nm,0.6s,mb3.5,baz=60,slow=3.5,SNR=3.5						

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*ISCJB **20** 00:18:03.8±0.5, 093N±009×1260E±01, h10^{km}, mb4.0/11, Error ellipse: s-maj=17.7km s-min=9.0km az=140.8*

*IDC **20** 00:18:04.2±1.0, 093N×12609E, h0^{km}, mb3.9/7, mb1 4.0/8, mb1mx3.9/19, mbtmp3.9/8, ML3.7/1, Error ellipse: s-maj=50.8km s-min=16.0km az=67.0*

*NEIC **20** 00:18:05.6±0.3, 093N×12607E, h10^{km}, mb4.3/4, Error ellipse: s-maj=13.3km s-min=5.9km az=53.0*

ISC 20 00:18:04.5±8.5, 09N±01×1261E±01, h3^{km}±55^{km}, n19, σ0^{s}77/17, mb4.0/11, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KKM	Kota Kinabalu	11.07	298	P	Pn	00 20 43.8	-0.2
FITZ	Fitzroy Crossi	18.91	181	P	Pn	00 22 27.0	-0.1
	0.2nm,0.3s,baz=6.2,slow=12,SNR=6.9						
WRA	Warramunga Arr	22.26	159	P	P	00 23 03.0	+0.1
	5.0nm,0.6s,mb4.2,baz=336,slow=11,SNR=40						
PMG	Port Moresby	23.37	117	*e*P	P	00 23 14.8	0.0
	2.8nm,0.3s,mb4.2						
ASAR	Alice Springs	25.60	163	P	P	00 23 35.6	+0.3
	1.7nm,0.3s,mb4.0,baz=352,slow=15,SNR=19						
KULM	Kulim	25.75	280	*e*P	P	00 23 36.3	-0.4
PSI	Prapat	27.20	274	P	P	00 23 50.4	+0.5
	1.7nm,0.5s,mb3.9,baz=120,slow=8.3,SNR=4.2						
HNR	Honiara	35.27	108	*e*P	P	00 25 01.4	+0.4
STKA	Stephens Creek	35.78	157	P	P	00 25 04.7	-0.5
	1.0nm,0.4s,mb4.1,baz=329,slow=5.9,SNR=3.4						
LSA	Lhasa	43.85	314	P	P	00 26 13.5	+1.2
	1.3nm,0.3s,mb4.1						
SONM	Songino Array	49.75	343	P	P	00 26 58.6	+0.4
	0.1nm,0.3s,mb3.3,baz=167,slow=6.8,SNR=6.7						
MK31	Makanchi Array	59.49	327	*e*P	P	00 28 07.5	-1.5
MKAR	Makanchi Array	59.49	327	P	P	00 28 07.5	-1.5
	0.5nm,0.3s,mb4.1,baz=120,slow=7.8,SNR=32						
ZALV	Zalesovo Beam	62.79	334	P	P	00 28 32.9	+1.6
	0.6nm,0.3s,mb4.2,baz=130,slow=8.1,SNR=2.8						
KURK	Kurchatov	63.76	329	*e*P	P	00 28 37.9	+0.1
	2.9nm,0.6s,mb4.5						
BRVK	Borovoye	69.39	328	*e*P	P	00 29 14.2	+0.5
	1.3nm,0.6s,mb4.0						
PMR	Palmer	86.71	28	P	P	00 30 49.0	-0.8
TORD	Torodi Ar. Bea	123.12	286	PKP	PKPdf	00 37 04.1	+0.3
TORD	Torodi Ar. Bea	123.12	286	PKP	PKPdf	00 37 04.1	+0.3
	0.7nm,1.1s,baz=5.7,slow=1.4,SNR=4.2						

NEIC 20 00:23:23.0, 4533S×7302W, h8^{km}, mb4.1/5, ML4.8(GUC), After GUC., Southern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EFI	East Falkland	11.77	128	*e*Pn	Pn	00 26 11.2	+0.2
PMSA	Palmer Station	20.11	169	P	P	00 27 56.7	-0.2
LPAZ	La Paz	29.24	10	*e*P	P	00 29 24.5	-0.9
	0.4nm,0.4s						
NNA	Nana	33.39	353	P	P	00 30 02.1	+0.2
	1.9nm,0.4s						
OTAV	Otavalo	45.63	352	*e*P	P	00 31 43.7	-0.2
	1.2nm,0.7s						
PAYG	Puerto Ayora	47.01	336	P	P	00 31 54.2	-0.5
VNDA	Vanda	52.88	193	P	P	00 32 39.5	+0.9
JTS	JuntasAbangare	56.40	346	*e*P	P	00 33 03.8	-1.0
	9.4nm,0.8s						
TEIG	Tepich	66.70	344	P	P	00 34 13.8	-0.5
SWET	Sewanee	81.02	349	P	P	00 35 36.7	-1.2
MIAR	Mount Ida	81.65	343	P	P	00 35 42.4	+1.1
WMOK	Wichita Mounta	83.04	339	P	P	00 35 48.6	0.0
	0.3nm,0.4s						
SIUC	Southern Illin	83.94	347	P	P	00 35 53.1	0.0
ANMO	Albuquerque	85.45	333	*e*P	P	00 35 59.7	-1.1
BRNJ	Basking Ridge	85.64	359	P	P	00 36 01.5	-0.1
HWUT	Hardware Ranch	93.16	332	P	P	00 36 36.3	-0.8

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*IDC **20** 00:23:23.5±1.1, 4552N×15393E, h0^{km}, mb3.7/10, mb1 3.9/10, mb1mx3.7/21, mbtmp3.7/10, Error ellipse: s-maj=31.0km s-min=22.9km az=176.0*

*NEIC **20** 00:23:25.2±0.6, 4553N×15385E, h10^{km}, mb4.2/7, Error ellipse: s-maj=13.4km s-min=9.1km az=120.0*

*ISCJB **20** 00:23:26.8±0.6, 4551N±009×1538E±01, h33^{km}, mb3.9/17, Error ellipse: s-maj=14.9km s-min=10.9km az=36.0*

*MOS **20** 00:23:26.8±1.1, 4550N×15372E, h33^{km}, mb4.3/11, Error ellipse: s-maj=21.0km s-min=13.6km az=103.8*

ISC 20 00:23:29.0±0.6, 4553N±009×1538E±01, h35^{km}, n36, σ0^{s}83/36, mb3.9/17, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAJO	**Matsushiro**	14.77	238	Pn	Pn	00 26 54.5	-0.7
YAK	**Yakutsk**	21.60	328	*e*P	P	00 28 15.5	0.0
	11nm,0.5s,mb4.5						
YAK	**Yakutsk**	21.60	328	*e*P	P	00 28 15.5	0.0
YAK				pmax	pmax		
	comp=Z,11nm,0.5s,mb4.5						
INCN	**Inchon**	21.79	258	P	P	00 28 17.4	-0.4
BILL	**Bilibino**	23.48	12	*e*P	P	00 28 36.1	+0.8
	comp=Z,2.1nm,0.4s,mb3.9						
BILL	**Bilibino**	23.48	12	*e*P	P	00 28 36.1	+0.8
BILL				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb3.9						
SONM	**Songino Array**	32.20	291	P	P	00 29 54.2	+0.8
	comp=Z,0.2nm,0.6s,mb3.1,baz=75,slow=7.3,SNR=3.0						
NACB	**Ninganchiao**	33.59	242	P	P	00 30 05.9	+0.1
INK	**Inuvik**	42.44	32	P	P	00 31 14.6	-5.3
	comp=Z,24nm,0.5s,mb5.1						
MK31	**Makanchi Array**	47.93	299	*e*P	P	00 32 03.4	-0.3
MKAR	**Makanchi Array**	47.93	299	P	P	00 32 03.2	-0.5
MKAR	**Makanchi Array**	47.93	299	P	P	00 32 03.2	-0.5
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	**Makanchi Array**	47.93	299	P	P	00 32 03.2	-0.4
	comp=Z,0.5nm,0.5s,mb3.8,baz=66,slow=6.9,SNR=17						
KURK	**Kurchatov**	48.44	305	*e*P	P	00 32 06.7	-0.9
	comp=Z,0.9nm,0.4s,mb4.2						
KURK	**Kurchatov**	48.44	305	*e*P	P	00 32 06.7	-0.9
KURK				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
LSA	**Lhasa**	50.82	275	*e*P	P	00 32 27.5	+1.5
	comp=Z,0.9nm,0.3s,mb4.2						
LSA	**Lhasa**	50.82	275	*e*P	P	00 32 27.5	+1.5
LSA				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
YKA	**Yellowknife Ar**	51.63	36	P	P	00 32 31.2	-0.4
YKA	**Yellowknife Ar**	51.63	36	P	P	00 32 31.2	-0.4
	comp=Z,0.4nm,0.9s,mb3.4,baz=295,slow=7.6,SNR=3.8						
BRVK	**Borovoye**	52.04	310	*e*P	P	00 32 34.5	-0.3
	comp=Z,1.0nm,0.6s,mb3.9						
BRVK	**Borovoye**	52.04	310	*e*P	P	00 32 34.5	-0.3
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
ARU	**Arti**	56.23	318	*e*P	P	00 33 04.3	-0.9
	comp=Z,1.2nm,0.4s,mb4.3						
ARU	**Arti**	56.23	318	*e*P	P	00 33 04.3	-1.0
ARU				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
ARCES	**ARCESS Array B**	59.16	341	P	P	00 33 27.6	+2.0
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ARCES	**ARCESS Array B**	59.16	341	P	P	00 33 27.6	+2.0
	comp=Z,4.5nm,0.9s,mb4.5,baz=30,slow=7.3,SNR=3.8						
PDAR	**Pinedale Array**	65.09	54	P	P	00 34 04.4	-1.4
	comp=Z,0.4nm,0.8s,mb3.5,baz=325,slow=4.5,SNR=2.8						
FINES	**FINESS Array B**	65.34	335	P	P	00 34 07.1	0.0
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	**FINESS Array B**	65.34	335	P	P	00 34 07.1	-0.1
	comp=Z,1.0nm,0.5s,mb4.1,baz=46,slow=6.2,SNR=7.7						
CTAO	**Charters Tower**	65.66	188	P	P	00 34 08.6	-0.9
WB2	**Warramunga Arr**	67.51	200	P	P	00 34 22.9	+1.5
NOA	**NORSAR Array B**	69.53	342	P	P	00 34 33.5	-0.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	**NORSAR Array B**	69.53	342	P	P	00 34 33.5	-0.1
	comp=Z,1.1nm,0.8s,mb3.9,baz=27,slow=6.1,SNR=3.8						
ASAR	**Alice Springs**	71.20	199	P	P	00 34 44.8	+0.6
	comp=Z,0.1nm,0.3s,mb3.2,baz=12,slow=6.1,SNR=4.3						
AKASG	**Malin Array Be**	72.82	327	P	P	00 34 53.6	-0.1
	comp=Z,0.3nm,0.4s,mb3.5,baz=30,slow=5.3,SNR=4.0						
TXAR	**Lajitas Array**	77.69	61	P	P	00 35 22.4	+0.3
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	**Lajitas Array**	77.69	61	P	P	00 35 22.4	+0.3
	comp=Z,0.5nm,0.7s,mb3.5,baz=297,slow=4.0,SNR=5.0						

IDC 20 00:24:04.4±30.0, 1900S×17528W, h0^{km}, mb4.1/4, mb1 4.3/4, mb1mx3.9/14, mbtmp4.1/4, Error ellipse: s-maj=593.8km s-min=163.3km az=88.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	40.75	243	P	P	00 31 47.2	-0.1
	1.0nm,0.5s,baz=100,slow=11,SNR=2.9						
WRA	**Warramunga Arr**	47.37	260	P	P	00 32 40.7	+0.1
	0.8nm,0.3s,baz=97,slow=7.3,SNR=35						
ASAR	**Alice Springs**	47.37	255	P	P	00 32 40.4	-0.2
	3.2nm,0.5s,baz=95,slow=7.6,SNR=55						
FITZ	**Fitzroy Crossi**	55.78	261	P	P	00 33 43.6	-0.1
	1.4nm,0.9s,baz=104,slow=4.2,SNR=6.3						

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*ISCJB **20** 01:00:00.4±1.4, 24.19S±0.06×67.1W±0.2, h226^{km}±13^{km}, mb3.8/2, Error ellipse: s-maj=24.5km s-min=9.2km az=5.4*

*NEIC **20** 01:00:00.5±1.6, 24.15S×67.02W, h209^{km}±14^{km}, mb3.8/4, Error ellipse: s-maj=30.7km s-min=10.5km az=84.0*

*GUC **20** 01:00:02.9±0.5, 24.29S×67.43W, h230^{km}, MD3.8, ML4.2*

ISC 20 01:00:00.8±1.4, 2415S±006×670W±02, h211^{km}±13^{km}, n14, $\sigma 0\overset{s}{.}99$/20, mb3.8/2, 2C-1D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEN1	**Los Morros**	3.02	284	⇓*i*P	Pn	01 00 53.4	+2.2
CEN1				*i*S	S	01 01 31.3	+0.7
CEN1				AML	AML	01 01 33.4	
	comp=N,288nm,0.5s						
CPN1	**Cerro Paranal**	3.13	261	⇑*i*P	Pn	01 00 53.6	+1.2
CPN1				*i*S	S	01 01 32.3	-0.6
CPN1				AML	AML	01 01 38.9	
	comp=E,229nm,0.4s						
ANCH	**Antofagasta**	3.14	278	*e*P	Pn	01 00 53.7	+1.1
ANCH				*i*S	S	01 01 32.5	-0.8
ANCH	**Antofagasta**	3.14	278	*e*P	Pn	01 00 53.7	+1.1
ANCH				*i*S	S	01 01 32.5	-0.8
ANCH				AML	AML	01 01 35.2	
	comp=N,831nm,0.2s						
CDCH	**Caldera**	4.51	229	⇑*i*P	Pn	01 01 08.4	-0.9
CDCH				*i*S	S	01 01 59.6	-3.8
LPAZ	**La Paz**	7.89	352	*e*Pn	Pn	01 01 52.8	+0.1
	comp=N,3.0nm,0.8s						
LPAZ				*e*S	S	01 03 20.6	-1.4
NNA	**Nana**	15.27	321	*e*P	Pn	01 03 24.1	-1.9
	comp=N,5.9nm,0.8s						
OTAV	**Otavalo**	26.66	334	*e*P	P	01 05 20.9	+0.5
	comp=N,0.4nm,0.4s,mb3.4						
EFI	**East Falkland**	28.33	168	P	P	01 05 34.8	-0.1
JTS	**JuntasAbangare**	38.45	331	*e*P	P	01 07 02.6	+0.1
PMSA	**Palmer Station**	40.67	178	P	P	01 07 19.4	-0.8
MIAR	**Mount Ida**	63.58	336	*e*P	P	01 10 09.2	+0.1
	comp=N,7.8nm,1.2s,mb4.2						
BRNJ	**Basking Ridge**	64.88	354	P	P	01 10 18.1	+0.8
WMOK	**Wichita Mounta**	65.86	332	P	P	01 10 24.2	+0.4

IDC 20 01:01:10.4±4.9, 1860S×13853E, h0^{km}, mb1 3.2/3, mb1mx3.1/11, mbtmp3.0/3, ML2.8/3, Error ellipse: s-maj=36.9km s-min=28.7km az=38.0, Queensland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	4.18	251	Pn	Pn	01 02 16.6	+1.1
	0.2nm,0.3s,baz=72,slow=12,SNR=8.6						
WRA				Sn	Sn	01 03 05.3	+0.2
	0.3nm,0.3s,baz=68,slow=21,SNR=4.8						
WRA				Lg		01 03 23.2	
	0.6nm,0.3s,baz=74,slow=27,SNR=7.0						
ASAR	**Alice Springs**	6.64	220	Pn	Pn	01 02 50.2	+1.0
	0.1nm,0.3s,baz=42,slow=15,SNR=6.0						
ASAR				Sn	Sn	01 04 04.8	-0.9
	0.2nm,0.3s,baz=44,slow=23,SNR=4.7						
ASAR				Lg		01 04 41.5	
	0.2nm,0.3s,baz=37,slow=29,SNR=4.0						
STKA	**Stephens Creek**	13.51	169	Pn	Pn	01 04 21.5	-1.9
	0.1nm,0.3s,baz=332,slow=17,SNR=3.0						

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*ISCJB **20** 01:32:52.2±1.8, 24.01S±0.07×179.84W±0.10, h456^{km}±22^{km}, mb4.0/18, Error ellipse: s-maj=14.4km s-min=10.7km az=21.7*

*BJI **20** 01:32:52.0, 23.90S×179.01W, h484^{km}, mB4.9, mb4.4*

*NEIC **20** 01:32:54.3±1.0, 24.06S×179.77W, h476^{km}±11^{km}, mb4.5/6, Error ellipse: s-maj=11.2km s-min=8.5km az=138.0*

*IDC **20** 01:32:58.8±1.5, 24.14S×179.95W, h522^{km}±15^{km}, mb3.5/14, mb1 3.7/15, mb1mx3.6/18, mbtmp3.5/15, Error ellipse: s-maj=18.9km s-min=11.7km az=158.0*

ISC 20 01:32:53.3±1.4, 2408S±008×17980W±010, h459^{km}±17^{km}, n78, $\sigma 0\overset{s}{.}74$/38, mb4.0/17, 7C-2D, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	12.64	38	*e*P	P	01 35 39.6	+0.5
AFI				S	S	01 37 47.0	-8.9
AFI	**Afiamalu**	12.64	38	P	P	01 35 38.8	-0.3
	5.1nm,0.3s,baz=28,slow=15,SNR=5.2						
AFI				S	S	01 37 47.0	-8.9
	3.5nm,0.3s,baz=105,slow=16,SNR=2.8						
DZM	**Mont Dzumac**	12.82	276	P	P	01 35 45.4	+4.4
	0.8nm,0.3s,baz=87,slow=16,SNR=8.6						
URZ	**Urewera**	14.38	190	P	P	01 35 56.8	-0.7
	1.2nm,0.3s,baz=39,slow=6.5,SNR=6.4						
URZ				S	S	01 38 28.2	-1.4
	0.6nm,0.3s,baz=54,slow=19,SNR=6.5						
SNZO	**South Karori**	17.79	194	*e*P	P	01 36 33.4	+0.1
	13nm,0.5s						
RPZ	**Rata Peaks**	20.98	199	P	P	01 37 04.4	+1.5
	8.3nm,0.5s,baz=26,slow=13,SNR=6.5						
CTA	**Charters Tower**	31.66	270	P	P	01 38 38.6	+1.0
	14nm,0.5s,mb4.7,baz=96,slow=11,SNR=14						
CTAO	**Charters Tower**	31.66	270	*e*P	P	01 38 39.0	+1.3
	14nm,0.5s,mb4.6						
TAU	**Tasmania Unive**	32.95	227	*e*P	P	01 38 48.9	+0.6
PMG	**Port Moresby**	34.73	289	*e*P	P	01 39 04.6	+0.8
	13nm,0.8s,mb4.4						
PMG	**Port Moresby**	34.73	289	P	P	01 39 04.4	+0.6
	12nm,0.8s,mb4.4,baz=232,slow=6.5						
STKA	**Stephens Creek**	34.83	248	P	P	01 39 05.1	+0.7
	2.6nm,0.5s,mb3.9,baz=91,slow=7.2,SNR=10						
ASAR	**Alice Springs**	42.19	261	P	P	01 40 04.5	-0.2
	1.5nm,0.5s,mb3.7,baz=99,slow=8.3,SNR=23						
ASAR				S	S	01 45 45.9	-4.9
	0.8nm,0.7s,baz=96,slow=14,SNR=7.4						
WRA	**Warramunga Arr**	42.58	266	P	P	01 40 07.2	-0.6
	3.7nm,0.7s,mb3.9,baz=102,slow=8.1,SNR=13						
WRA				S	S	01 45 50.3	-6.1
	1.1nm,0.8s,baz=103,slow=14,SNR=6.1						
KAKA	**Kakadu**	46.51	275	*e*P	P	01 40 37.3	-1.1
FITZ	**Fitzroy Crossi**	51.00	266	P	P	01 41 12.2	+0.3
	1.7nm,0.6s,mb3.6,baz=161,slow=7.3,SNR=7.6						
JOW	**Kunigami**	71.25	312	P	P	01 43 25.3	0.0
	3.3nm,0.4s,mb4.2,baz=172,slow=5.2,SNR=4.3						
MJAR	**Matsushiro Arr**	72.15	326	P	P	01 43 29.3	-1.0
	6.2nm,0.9s,mb4.2,baz=161,slow=5.5,SNR=12						
MAJO	**Matsushiro**	72.15	326	*e*P	P	01 43 29.7	-0.7
KSRS	**Korea Array**	78.50	320	P	P	01 44 06.6	+0.7
	3.1nm,0.7s,mb4.0,baz=124,slow=5.3,SNR=17						
PMSA	**Palmer Station**	78.67	157	P	P	01 44 07.8	+1.3
COCO	**West Island**	79.15	261	*e*P	P	01 44 09.6	-0.4
MDJ	**Mudanjiang**	82.52	326	*e*P	P	01 44 27.4	+0.7
	7.6nm,0.7s,mb4.3						
CN2	**Changchun**	84.14	324	*e*P	P	01 44 34.4	-0.5
CN2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.3						
NVAR	**Mina Array Bea**	84.75	44	P	P	01 44 38.4	+0.3
	comp=Z,0.8nm,0.8s,mb3.4,baz=242,slow=7.0,SNR=4.1						
MA2	**Magadan**	86.80	345	*e*P	P	01 44 46.8	-0.5
	comp=Z,6.6nm,1.1s,mb4.3						
BJT	**Baijiatuau**	87.28	316	P	P	01 44 49.3	-0.9
PMR	**Palmer**	88.87	14	P	P	01 44 56.1	-0.9
XAN	**Xi'an**	89.00	308	P	P	01 44 58.6	+0.3
XAN				AMB	AMB		
	comp=Z,6.0nm,0.7s,mb4.5						
TXAR	**Lajitas Array**	90.37	58	P	P	01 45 05.5	+0.8
	comp=Z,0.6nm,0.8s,mb3.5,baz=214,slow=6.2,SNR=6.7						
HWUT	**Hardware Ranch**	90.81	44	*e*P	P	01 45 06.5	0.0
PDAR	**Pinedale Array**	92.69	44	P	P	01 45 14.6	-0.5
	comp=Z,0.5nm,0.7s,mb3.6,baz=226,slow=3.8,SNR=4.8						
SONM	**Songino Array**	97.36	319	P	P	01 45 36.4	+0.2
	comp=Z,0.2nm,0.6s,mb3.5,baz=134,slow=3.4,SNR=2.5						
MKAR	**Makanchi Array**	112.41	313	PKPdf	PKiKP	01 50 33.1	-3.0
MKAR	**Makanchi Array**	112.41	313	PKiKP	PKiKP	01 50 33.1	-3.0
	comp=Z,0.4nm,0.6s,baz=100,slow=1.7,SNR=6.1						
KURK	**Kurchatov**	115.46	316	PKPdf	PKPdf	01 50 41.0	-0.8
BRVK	**Borovoye**	120.76	319	*e*PKPdf	PKPdf	01 50 51.9	0.0
ARU	**Arti**	127.14	324	*e*PKPdf	PKPdf	01 51 02.9	-1.2
ARCES	**ARCESS Array B**	132.10	348	PKP	PKPdf	01 51 11.2	-1.9
ARCES	**ARCESS Array B**	132.10	348	PKP	PKPdf	01 51 11.2	-1.9
	comp=Z,3.0nm,0.8s,baz=34,slow=2.0,SNR=9.0						
FINES	**FINESS Array B**	138.68	341	PKP		01 51 16.5	
FINES				PKP	PKPdf	01 51 23.4	-2.2
FINES				SKPbc	SKPbc	01 54 10.9	-5.6
FINES	**FINESS Array B**	138.68	341	PKhKP		01 51 16.5	
	comp=Z,0.3nm,0.3s,baz=52,slow=4.9,SNR=2.5						
FINES				PKP	PKPdf	01 51 23.4	-2.2
	comp=Z,1.1nm,0.7s,baz=35,slow=2.1,SNR=2.5						
FINES				SKPbc	SKPbc	01 54 10.9	-5.6
	comp=Z,1.8nm,0.9s,baz=35,slow=5.1,SNR=3.4						
NOA	**NORSAR Array B**	142.29	351	PKP		01 51 26.9	
NOA	**NORSAR Array B**	142.29	351	PKhKP		01 51 26.9	
	comp=Z,2.4nm,0.8s,baz=7.6,slow=2.3,SNR=7.0						
MALT	**Malatya**	144.62	303	*e*PKPdf	PKPdf	01 51 35.5	-1.4
AKASG	**Malin Array Be**	145.22	327	PKPbc	PKPbc	01 51 36.0	-2.4
AKASG				SKPbc	SKPbc	01 54 28.3	-4.9
AKASG	**Malin Array Be**	145.22	327	PKPbc	PKPbc	01 51 36.0	-2.4
	comp=Z,3.1nm,0.5s,baz=45,slow=4.2,SNR=21						
AKASG				SKPbc	SKPbc	01 54 28.3	-4.9
	comp=Z,0.7nm,0.5s,baz=50,slow=3.5,SNR=4.6						
AKBB	**Malin Array Si**	145.22	327	*e*PKPdf	PKPdf	01 51 35.5	-2.0
KIEV	**Kiev**	145.24	327	*e*PKPdf	PKPdf	01 51 36.5	-1.1
BRTR	**Keskin Array B**	147.84	307	PKPbc	PKPbc	01 51 44.3	-1.6
BRTR	**Keskin Array B**	147.84	307	PKPbc	PKPbc	01 51 44.3	-1.6
	comp=Z,2.2nm,0.8s,baz=94,slow=3.7,SNR=13						
ANTO	**Ankara**	148.40	308	⇑P	PKPbc	01 51 46.2	-1.1
KWP	**Kalwaria**	149.01	331	⇑P	PKPbc	01 51 47.1	-1.3
CSS	**Prodhromos**	149.33	298	*e*PKPbc	PKPdf	01 51 44.5	-0.3
KOLS	**Kolonicke sedl**	149.72	331	*e*P	PKPbc	01 51 49.0	-1.2
MLR	**Muntele Rosu**	150.17	322	PKPbc	PKPbc	01 51 50.5	-0.9
MLR	**Muntele Rosu**	150.17	322	PKPbc	PKPbc	01 51 50.5	-0.9
	comp=Z,2.3nm,0.6s,baz=291,slow=3.8,SNR=3.9						
KSP	**Ksiaz**	150.52	339	*e*P	PKPbc	01 51 50.7	-1.3
OKC	**Ostrava-Krasne**	150.72	336	*e*P	PKPbc	01 51 50.8	-1.7
OKC	**Ostrava-Krasne**	150.72	336	*e*PKPbc	PKPbc	01 51 50.8	-1.7
MTUR	**Matau**	150.82	322	⇓P	PKPbc	01 51 50.9	-2.0
UPC	**Upice**	150.90	339	*e*PKPbc	PKPbc	01 51 51.6	-1.3
DPC	**Dobruska-Polom**	150.93	339	*e*PKPbc	PKPbc	01 51 51.6	-1.4
DPC				*e*PKPab	PKPab	01 52 01.7	-0.7
DRGR		151.04	327	⇑P	PKPbc	01 51 52.1	-1.2
CLL	**Collm**	151.08	343	⇓*i*PKP	PKPbc	01 51 51.8	-1.5
CLL				*i*PKP	PKPab	01 52 01.5	-1.5
BRG	**Berggiesshubel**	151.21	342	*i*PKP	PKPbc	01 51 52.2	-1.4
PVCC	**Panska Ves**	151.34	341	*e*PKPbc	PKPbc	01 51 52.5	-1.4
PSZ	**Piszkesteto**	151.53	332	⇑P	PKPbc	01 51 53.8	-0.6
VRAC	**Vranov**	151.72	337	PKPbc	PKPbc	01 51 54.2	-0.6
VRAC				⇑P		01 52 05.3	
VRAC				PKPab	PKPab	01 52 05.5	-0.2
VRAC	**Vranov**	151.72	337	PKPbc	PKPbc	01 51 54.2	-0.6
	comp=Z,1.1nm,0.7s,baz=52,slow=19,SNR=2.1						
VRAC				PKPab	PKPab	01 52 05.5	-0.2
	comp=Z,2.8nm,0.6s,baz=54,slow=5.9,SNR=4.5						
PRU	**Pruhonice**	151.82	340	*e*P	PKPbc	01 51 53.4	-1.6
PRU				*e*		01 52 05.6	
PRU	**Pruhonice**	151.82	340	*e*PKPbc	PKPbc	01 51 53.4	-1.6
PRU				*e*PKPab	PKPab	01 52 05.6	-0.5
BZS	**Buzias**	152.40	326	⇑P	PKPbc	01 51 54.4	-2.0
KHC	**Kasperske Hory**	152.87	341	*e*PKPbc	PKPbc	01 51 55.6	-1.7
KHC				*e*PKPab	PKPab	01 52 10.3	-0.3
GERES	**GERESS Array B**	153.09	340	PKPbc	PKPbc	01 51 55.9	-1.9
	comp=Z,0.6nm,0.6s,baz=72,slow=0.3,SNR=4.6						
GERES				PKPab	PKPab	01 52 10.9	-0.6
	comp=Z,2.0nm,1.1s,baz=35,slow=4.9,SNR=4.2						
VTS	**Vitosha**	153.49	320	⇑P	PKPab	01 52 14.1	+0.6
TORD	**Torodi Ar. Bea**	169.04	188	PKP	PKPdf	01 52 05.0	-2.6
TORD				PKPab	PKPab	01 53 20.4	-1.6
TORD	**Torodi Ar. Bea**	169.04	188	PKP	PKPdf	01 52 05.0	-2.6
	comp=Z,0.4nm,1.1s,baz=234,slow=2.4,SNR=3.8						
TORD				PKPab	PKPab	01 53 20.4	-1.6
	comp=Z,0.8nm,1.1s,baz=182,slow=5.4,SNR=3.5						

IDC 20 01:39:13.2±11.0, 413N×12376E, h110^{km}±116^{km}, mb3.6/7, mb1 3.7/7, mb1mx3.5/20, mbtmp3.6/7, Error ellipse: s-maj=93.2km s-min=22.3km az=67.0, Celebes Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	22.16	175	P	P	01 44 01.0	+0.6
	2.6nm,1.1s,baz=3.7,slow=14,SNR=6.8						
WRA	**Warramunga Arr**	26.08	157	P	P	01 44 36.7	0.0
	1.0nm,0.3s,baz=332,slow=10,SNR=7.9						
ASAR	**Alice Springs**	29.34	161	P	P	01 45 06.0	+0.2
	0.6nm,0.3s,baz=338,slow=7.1,SNR=8.8						
STKA	**Stephens Creek**	39.62	156	P	P	01 46 33.2	-0.9
	1.7nm,0.5s,baz=345,slow=12,SNR=3.0						
SONM	**Songino Array**	46.04	344	P	P	01 47 27.1	+1.4
	0.1nm,0.4s,baz=158,slow=9.8,SNR=4.0						
MKAR	**Makanchi Array**	55.57	327	P	P	01 48 36.3	-0.9
	0.9nm,0.4s,baz=123,slow=7.6,SNR=40						
BRTR	**Keskin Array B**	87.49	309	P	P	01 51 49.6	+0.7
	3.1nm,0.8s,baz=82,slow=3.8,SNR=12						

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*IPEC **20** 01:47:22.7±0.1, 50.26N×18.84E, h0^{km}, ML2.0/3, Error ellipse: s-maj=2.3km s-min=0.8km az=169.0*

*NEIC **20** 01:47:22.6±1.4, 50.37N×18.75E, h5^{km}, MG2.7(WAR), Error ellipse: s-maj=19.8km s-min=8.4km az=192.0*

*PRU **20** 01:47:23.4, 50.31N×18.76E, h0^{km}*

*CSEM **20** 01:47:25.6±0.2, 50.33N×18.65E, h1^{km}, ML2.8/7, Error ellipse: s-maj=3.0km s-min=1.8km az=21.0*

WAR 20 01:47:22.9, 5024N×1891E, ML2.7, 2C-2D, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAC	**Raciborz**	0.49	251	*e*Pg	Pg	01 47 33.0	+0.8
RAC				*e*Sg	Sg	01 47 40.0	+1.5
RAC	**Raciborz**	0.49	251	*e*Pg	Pg	01 47 33.0	+0.8
RAC				*e*Sg	Sg	01 47 40.0	+1.5
OJC	**Ojcow**	0.57	92	*e*Pg	Pg	01 47 34.3	+0.5
OJC				*e*Sg	Sg	01 47 42.5	+1.3
OJC	**Ojcow**	0.57	92	*e*Pg	Pg	01 47 34.1	+0.3
OJC				*e*Sg	Sg	01 47 42.5	+1.3
OKC	**Ostrava-Krasne**	0.64	231	*e*Pg	Pg	01 47 35.1	0.0
OKC				*e*Sg	Sg	01 47 44.7	+1.4
OKC	**Ostrava-Krasne**	0.64	231	*e*PG	Pg	01 47 35.1	0.0
OKC				*e*SG	Sg	01 47 44.7	+1.4
	54nm,0.9s						
OKC	**Ostrava-Krasne**	0.64	231	*e*Pg	Pg	01 47 35.1	0.0
OKC				*e*Sg	Sg	01 47 44.7	+1.4
MORC	**Moravsky Berou**	1.00	243	*e*Pg	Pg	01 47 41.1	-0.9
MORC				*e*Sg	Sg	01 47 53.6	-1.3
	24nm,0.3s						
LIKS	**Likavka**	1.20	174	*e*Pn	Pn	01 47 48.0	+1.1
LIKS				*e*Sn	Sn	01 48 02.2	-1.6
LIKS	**Likavka**	1.20	174	*e*PN	Pn	01 47 48.0	+1.1
LIKS				*e*SN	Sn	01 48 02.2	-1.6
LIKS	**Likavka**	1.20	174	*e*Pn	Pn	01 47 48.0	+1.1
LIKS				*e*Sn	Sn	01 48 02.2	-1.6
NIE	**Niedzica**	1.23	132	*e*Pg	Pg	01 47 46.8	+0.4
NIE				*e*Sg	Sg	01 48 03.9	+1.7
NIE	**Niedzica**	1.23	132	*e*Pg	Pg	01 47 46.8	+0.4
NIE				*e*Sg	Sg	01 48 03.9	+1.7
DPC	**Dobruska-Polom**	1.66	275	*e*Pg	Pg	01 47 51.3	-3.5
DPC				*e*Sg	Sg	01 48 13.7	-2.6
DPC	**Dobruska-Polom**	1.66	275	*e*PG	Pg	01 47 51.3	-3.5
DPC				*e*SG	Sg	01 48 13.7	-2.6
	26nm,0.6s						
DPC	**Dobruska-Polom**	1.66	275	*e*Pg	Pg	01 47 51.3	-3.5
DPC	**Dobruska-Polom**	1.66	275	*e*Pn	Pn	01 47 52.1	-1.2
DPC				*e*Sg	Sg	01 48 13.4	-2.9
KOLL	**Kolacno**	1.70	191	*e*Pn	Pn	01 47 55.6	+1.9
KOLL				*e*Sn	Sn	01 48 17.6	+1.5
KOLL	**Kolacno**	1.70	191	*e*PN	Pn	01 47 55.6	+1.9
KOLL				*e*SN	Sn	01 48 17.6	+1.5
KOLL	**Kolacno**	1.70	191	*e*Pn	Pn	01 47 55.6	+1.9
KOLL				*e*Sn	Sn	01 48 17.6	+1.5
STHS	**Stebnicka Huta**	1.72	118	*e*Pn	Pn	01 47 56.1	+2.0
STHS				*e*Sn	Sn	01 48 20.4	+3.7
STHS				*e*		01 51 48.9	
STHS	**Stebnicka Huta**	1.72	118	*e*PN	Pn	01 47 56.1	+2.0
STHS				*e*SN	Sn	01 48 20.4	+3.7
STHS	**Stebnicka Huta**	1.72	118	*e*Pn	Pn	01 47 56.1	+2.0
STHS				*e*Sn	Sn	01 48 20.4	+3.7
VYHS	**Vyhne**	1.75	182	*e*Pn	Pn	01 47 53.3	-1.1
VYHS				*e*Sn	Sn	01 48 17.8	+0.4
VYHS	**Vyhne**	1.75	182	*e*PN	Pn	01 47 53.3	-1.1
VYHS				*e*SN	Sn	01 48 17.8	+0.4
VYHS	**Vyhne**	1.75	182	*e*Pn	Pn	01 47 53.3	-1.1
VYHS				*e*Sn	Sn	01 48 17.8	+0.4
VRAC	**Vranov**	1.77	239	*e*Pn	Pn	01 47 54.3	-0.4
VRAC				*e*Sg	Sg	01 48 16.9	-2.7
	9.5nm,0.3s						
KSP	**Ksiaz**	1.77	291	*e*Pg	Pg	01 47 55.7	-1.2
KSP				*e*Sg	Sg	01 48 18.6	-1.3
KSP	**Ksiaz**	1.77	291	*e*Pg	Pg	01 47 55.7	-1.2
KSP				*e*Sg	Sg	01 48 18.6	-1.3
UPC	**Upice**	1.88	279	*e*SG	Sg	01 48 18.9	-4.2
UPC	**Upice**	1.88	279	*e*Sg	Sg	01 48 18.9	-4.2
KRUC	**Moravsky**	2.02	235	*e*Pn	Pn	01 47 57.9	-0.2
KRUC				*e*Sg	Sg	01 48 24.2	-3.4
	10nm,0.5s						
KECS	**Kecovo**	2.04	149	*e*Pn	Pn	01 48 01.3	+2.9
KECS				*e*Sn	Sn	01 48 26.7	+2.2
KECS	**Kecovo**	2.04	149	*e*PN	Pn	01 48 01.3	+2.9
KECS				*e*SN	Sn	01 48 26.7	+2.2
CRVS	**Cervenica-Dubn**	2.13	128	*e*Pn	Pn	01 48 03.9	+4.2
CRVS				*e*Sn	Sn	01 48 31.1	+4.2
CRVS	**Cervenica-Dubn**	2.13	128	*e*PN	Pn	01 48 03.9	+4.2
CRVS				*e*SN	Sn	01 48 31.1	+4.2
CRVS	**Cervenica-Dubn**	2.13	128	*e*Pn	Pn	01 48 03.9	+4.2
CRVS				*e*Sn	Sn	01 48 31.1	+4.2
PVCC	**Panska Ves**	2.79	278	*e*SG	Sg	01 48 48.2	-4.4
	20nm,0.4s						
PVCC	**Panska Ves**	2.79	278	*e*Sg	Sg	01 48 48.2	-4.4
	20nm,0.4s						
PRU	**Pruhonice**	2.82	267	*e*Pg	Pg	01 48 12.4	-4.6
PRU				*e*Sg	Sg	01 48 48.8	-4.7
PRU	**Pruhonice**	2.82	267	*e*PG	Pg	01 48 12.4	-4.6
PRU				*e*SG	Sg	01 48 48.8	-4.7
	11nm,0.9s						
PRU	**Pruhonice**	2.82	267	*e*Pg	Pg	01 48 12.4	-4.6
PRU				*e*Sg	Sg	01 48 48.8	-4.7
CONA	**Conrad Observa**	3.06	222	⇓*i*Pn	Pn	01 48 11.8	-0.6
CONA				⇓*i*Sg	Sg	01 49 02.6	+1.4
	2.5nm,0.6s						
CONA	**Conrad Observa**	3.06	222	Pn	Pn	01 48 11.8	-0.7
CONA				Sg	Sg	01 49 02.6	+1.4
	2.5nm,0.6s						
KHC	**Kasperske Hory**	3.64	254	*e*PG	Pg	01 48 27.3	-5.2
KHC				*e*SG	Sg	01 49 16.9	-2.7
	11nm,0.6s						
KHC	**Kasperske Hory**	3.64	254	*e*Pg	Pg	01 48 27.3	-5.2
KHC				*e*Sg	Sg	01 49 16.9	-2.7
	11nm,0.6s						
MOA	**Molln**	3.88	234	⇑*i*Sg	Sg	01 49 27.8	+0.3
	comp=Z,2.4nm,0.6s						
MOA	**Molln**	3.88	234	⇑*i*Sg	Sg	01 49 27.8	+0.3
	2.4nm,0.6s						
MOA	**Molln**	3.88	234	Sg	Sg	01 49 27.8	+0.3
	2.4nm,0.6s						
CLL	**Collm**	3.90	288	*e*Sg	Sg	01 49 27.0	-1.1
	comp=Z,8.0nm,1.2s						

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*NEIC **20** 02:22:16.8, 25.37S×70.00W, h80^{km}, MD3.7(GUC), After GUC.*

GUC 20 02:22:16.8±0.8, 2537S×7000W, h80^{km}, MD3.7, ML3.1, 1D, Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPN1	**Cerro Paranal**	0.83	334	*e*P	Pn	02 22 35.1	+1.2
CPN1				*i*S	Sn	02 22 48.9	+2.3
CPN1				AML	AML	02 22 50.6	
	comp=E,864nm,0.3s						
ANCH	**Antofagasta**	1.72	347	*e*P	Pn	02 22 46.0	+0.9
ANCH				*i*S	Sn	02 23 07.3	+0.9
CDCH	**Caldera**	1.85	204	*e*P	Pn	02 22 47.4	+0.6
CDCH				*i*S	Sn	02 23 10.2	+0.8
CEN1	**Los Morros**	1.98	355	⇓*e*P	Pn	02 22 46.6	-1.8
CEN1				*i*S	Sn	02 23 09.4	-3.2
CPCH	**Copiapo**	2.00	189	*e*P	Pn	02 22 48.3	-0.4
CPCH				*i*S	Sn	02 23 14.6	+1.6
LPAZ	**La Paz**	9.21	11	*e*Pn	Pn	02 24 26.0	-0.8
	comp=E,1.5nm,0.3s						

KRSC 20 02:22:59.3±0.4, 5370N×16072E, h21^{km}±21^{km}, ML3.6, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SPN	**Mys Shipunski**	**0.73**	**215**	*i* P	Pb	02 23 13.8	+0.5
SPN				*i* S	Sb	02 23 23.5	+0.6
KII	**Karymskiy**	**0.82**	**295**	*e*P	Pb	02 23 15.7	+0.8
KII				*i* S	Sb	02 23 27.0	+1.4
NLC	**Nalytchevo**	**0.98**	**238**	*i* P	Pb	02 23 17.4	-0.1
NLC				*i* S	Sb	02 23 30.4	+0.4
MKZ	**Mys Kozlova**	**1.04**	**34**	*e*P	Pb	02 23 17.5	-1.1
MKZ				*i* S	Sb	02 23 30.6	-1.3
AVH	**Avacha**	**1.26**	**251**	*i* P	Pn	02 23 22.4	+0.7
AVH				*i* S	Sn	02 23 38.5	+0.6
PET	**Petropavlovsk**	**1.41**	**242**	*i* P	Pn	02 23 23.9	+0.2
PET				*i* S	Sn	02 23 41.1	-0.5
TUMR	**Tumrok**	**1.62**	**348**	*e*P	Pn	02 23 27.1	+0.5
TUMR				*i* S	Sn	02 23 46.9	+0.1
GNL	**Ganaly**	**1.65**	**271**	*e*P	Pn	02 23 28.0	+1.0
GNL				*i* S	Sn	02 23 48.4	+0.8
RUS	**Russkaya**	**1.84**	**227**	P	Pn	02 23 29.1	-0.5
RUS				*i* S	Sn	02 23 51.4	-0.8
GRL	**Gorelyy**	**1.97**	**235**	P	Pn	02 23 32.6	+1.3
GRL				*i* S	Sn	02 23 56.5	+1.2
KMNR	**Kamenistaya**	**2.08**	**352**	P	Pn	02 23 34.1	+1.2
KMNR				*i* S	Sn	02 23 59.0	+0.9
KPT	**Kopyto**	**2.29**	**353**	P	Pn	02 23 36.9	+1.1
KPT				*i* S	Sn	02 24 03.9	+0.6
ZLN	**Zelenaya**	**2.32**	**1**	*e*P	Pn	02 23 38.1	+1.9
ZLN				*i* S	Sn	02 24 06.1	+2.0
KRSR	**Krestovskiy**	**2.52**	**358**	P	Pn	02 23 40.5	+1.5
KRSR				*i* S	Sn	02 24 10.7	+1.6
KLY	**Klyuchi**	**2.62**	**359**	P	Pn	02 23 41.4	+1.1
KLY				*i* S	Sn	02 24 11.2	-0.2
SRDR	**Sredinnyy**	**2.69**	**348**	P	Pn	02 23 42.8	+1.6
KBTR	**Krutoberegovo**	**2.79**	**25**	P	Pn	02 23 43.3	+0.7
KBTR				*i* S	Sn	02 24 16.0	+0.4
SRKR	**Sorokina**	**2.97**	**5**	P	Pn	02 23 47.1	+2.0
SRKR				*i* S	Sn	02 24 21.3	+1.2

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*NEIC **20** 02:39:32.0,3168S×6830W,h120^{km},MD3.6(GUC),After GUC.*

GUC 20 02:39:32.0±0.7**,3168S×6830W,h120^{km},MD3.6,ML3.9, 1C-5D,San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDZ	**Mendoza**	**1.29**	**201**	*e*P	Pn	02 39 56.0	-1.0
MDZ				S	Sn	02 40 13.0	-3.0
FCH	**Farellones**	**2.35**	**225**	⇑*e*P	Pn	02 40 10.8	+0.9
FCH				*i* S	Sn	02 40 40.7	+1.8
FCH				AML	AML	02 40 47.0	
	comp=E,147nm,0.1s						
CMCH	**Combarbala**	**2.37**	**282**	⇓*e*P	Pn	02 40 10.8	+0.8
CMCH				*i* S	Sn	02 40 40.2	+1.0
CMCH	**Combarbala**	**2.37**	**282**	⇓*e*P	Pn	02 40 10.8	+0.8
CMCH				*i* S	Sn	02 40 40.2	+1.0
CMCH				AML	AML	02 40 44.0	
	comp=E,2µm,0.7s						
OVCH	**Ovalle**	**2.71**	**292**	P	Pn	02 40 15.7	+1.2
OVCH				*i* S	Sn	02 40 47.8	+0.6
OVCH	**Ovalle**	**2.71**	**292**	*e*P	Pn	02 40 15.7	+1.2
OVCH				*i* S	Sn	02 40 47.8	+0.6
OVCH				AML	AML	02 40 50.9	
	comp=N,380nm,0.3s						
CHNG	**Los Chungos**	**2.73**	**265**	*e*P	Pn	02 40 02.2	-13
CHNG				*i* S	Sn	02 40 34.8	-13
CHCH	**Chadas Angostu**	**3.00**	**221**	⇓*i*P	Pn	02 40 18.5	+0.3
CHCH				*i* S	Sn	02 40 54.6	+0.7
LSCH	**La Serena**	**3.09**	**304**	⇓*i*P	Pn	02 40 20.2	+0.8
LSCH				*i* S	Sn	02 40 56.1	+0.1
CICH	**Cipreses**	**3.18**	**214**	⇓*i*P	Pn	02 40 21.7	+1.1
LCO	**Las Campanas**	**3.38**	**321**	*e*Pn	Pn	02 40 24.0	+0.8
LCO				*e*Sn	Sn	02 41 04.2	+1.4
LNV	**Longovilo**	**3.47**	**228**	*e*P	Pn	02 40 22.3	-2.1
VACH	**Vallenar**	**3.76**	**325**	*i* S	Sn	02 41 11.9	0.0

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*ISCJB **20** 02:45:13.0±0.9,107N±02×947E±02,h10^{km},mb3.8/10, Error ellipse: s-maj=42.4km s-min=11.4km az=143.0*

*IDC **20** 02:45:13.6±1.1,1068N×9460E,h0^{km},mb3.8/8,mb1 3.9/8, mb1mx3.7/21,mbtmp3.8/8,MS3.3/1,Ms1 3.3/1, ms1mx2.8/22,Error ellipse: s-maj=48.5km s-min=19.4km az=54.0*

*NEIC **20** 02:45:14.9±0.7,1069N×9465E,h10^{km},mb4.4/2,Error ellipse: s-maj=33.9km s-min=9.6km az=53.0*

ISC 20 02:45:17.6±6.8**,107N**±02×**948E**±03**,h28^{km}**±49^{km}**,n13, σ0^{s}96**/13**,mb3.8**/10**,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KULM	**Kulim**	**7.89**	**133**	*e*Pn	**Pn**	**02 47 10.8**	**+0.2**
KULM				*e*Sn	**Sn**	**02 48 37.9**	**-1.3**
PSI	**Prapat**	**8.86**	**152**	LR	LR	02 50 43.2	
	comp=Z,205nm,21.9s,baz=312,slow=37						
MKAR	**Makanchi Array**	**37.49**	**346**	P	**P**	**02 52 28.3**	**-0.6**
MKAR	**Makanchi Array**	**37.49**	**346**	P	**P**	**02 52 28.3**	**-0.6**
	1.3nm,0.8s,mb3.8,baz=160,slow=7.5,SNR=14						
SONM	**Songino Array**	**38.24**	**13**	P	**P**	**02 52 37.5**	**+2.2**
	0.6nm,0.9s,mb3.3,baz=195,slow=10,SNR=4.0						
KURK	**Kurchatov**	**42.04**	**345**	*e*P	**P**	**02 53 05.9**	**-0.8**
	6.8nm,1.3s,mb4.1						
KURK				*e*	pP	02 53 13.3	-1.7
ZALV	**Zalesovo Beam**	**43.84**	**351**	P	**P**	**02 53 20.4**	**-0.8**
	0.7nm,0.3s,mb3.8,baz=168,slow=7.4,SNR=3.4						
BRVK	**Borovoye**	**46.61**	**340**	*e*P	**P**	**02 53 42.3**	**-0.8**
	8.0nm,1.1s,mb4.6						
BRVK				*e*	pP	02 53 49.6	-1.9
WRA	**Warramunga Arr**	**49.41**	**128**	P	**P**	**02 54 06.6**	**+1.3**
	1.3nm,0.7s,mb4.1,baz=306,slow=8.3,SNR=8.5						
ASAR	**Alice Springs**	**51.26**	**132**	P	**P**	**02 54 20.3**	**+1.0**
	0.9nm,0.7s,mb3.8,baz=310,slow=6.4,SNR=8.1						
BRTR	**Keskin Array B**	**61.12**	**309**	P	**P**	**02 55 29.3**	**-0.3**
	0.6nm,0.8s,mb3.8,baz=110,slow=7.8,SNR=4.9						
GERES	**GERESS Array B**	**76.18**	**318**	P	**P**	**02 57 03.9**	**+0.6**
	0.7nm,0.7s,mb3.7,baz=88,slow=4.4,SNR=7.0						
NOA	**NORSAR Array B**	**77.60**	**330**	P	**P**	**02 57 11.0**	**-0.1**
	0.5nm,0.8s,mb3.5,baz=106,slow=7.4,SNR=2.8						

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*DDA **20** 02:47:12.9,4059N×2897E,h7^{km}±4^{km},Md2.5*

*CSEM **20** 02:47:13.3±0.1,4057N×2899E,h10^{km},MD2.8,Error ellipse: s-maj=1.8km s-min=1.5km az=9.0*

ISK 20 02:47:13.4,4059N×2899E,h14^{km},MD2.8,1C,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GEMT	**Gemlik**	**0.21**	**135**	PG	Pg	02 47 18.9	+0.8
GEMT				SG	Sg	02 47 21.9	+0.5
GEMT	**Gemlik**	**0.21**	**135**	*e*Pg	Pg	02 47 18.9	+0.8
GEMT				*e*Sg	Sg	02 47 21.9	+0.5
YLV	**Yalova**	**0.29**	**94**	*i* PG	Pg	02 47 19.6	+0.1
YLV				*i* SG	Sg	02 47 24.1	+0.6
YLV	**Yalova**	**0.29**	**94**	*i* Pg	Pg	02 47 19.6	+0.1
YLV				*i* Sg	Sg	02 47 24.1	+0.6
IZI	**Iznik**	**0.44**	**124**	*i* PG	Pg	02 47 22.9	+0.7
IZI				*i* SG	Sg	02 47 29.2	+1.0
IZI	**Iznik**	**0.44**	**124**	*i* Pg	Pg	02 47 22.9	+0.7
IZI				*i* Sg	Sg	02 47 29.2	+1.0
ULDT	**Uludag**	**0.46**	**166**	⇑*i*P	Pg	02 47 23.3	+0.8
ULDT				*i* S	Sg	02 47 28.9	+0.2
ISK	**Istanbul-Kandi**	**0.48**	**6**	*i* PG	Pg	02 47 23.7	+0.8
ISK				*i* SG	Sg	02 47 30.2	+0.9
ISK	**Istanbul-Kandi**	**0.48**	**6**	*i* Pg	Pg	02 47 23.7	+0.8
ISK				*i* Sg	Sg	02 47 30.2	+0.9
HRT	**Hereke**	**0.56**	**65**	*e*PG	Pg	02 47 25.0	+0.5
HRT				*e*SG	Sg	02 47 32.6	+0.6
HRT	**Hereke**	**0.56**	**65**	*e*Pg	Pg	02 47 25.0	+0.5
HRT				*e*Sg	Sg	02 47 32.6	+0.6
KCT	**Karacabey**	**0.58**	**237**	*e*PG	Pg	02 47 25.3	+0.5
KCT	**Karacabey**	**0.58**	**237**	*e*Pg	Pg	02 47 25.3	+0.5
ADVT	**Abdulvahap**	**0.59**	**105**	*e*PG	Pg	02 47 25.7	+0.8
ADVT				*e*SG	Sg	02 47 33.6	+0.8
ADVT	**Abdulvahap**	**0.59**	**105**	*e*Pg	Pg	02 47 25.7	+0.8
ADVT				*e*Sg	Sg	02 47 33.6	+0.8
KLYT	**Kilyos**	**0.67**	**3**	*e*PG	Pg	02 47 27.2	+0.8
KLYT				*e*SG	Sg	02 47 36.8	+1.6
KLYT	**Kilyos**	**0.67**	**3**	*e*Pg	Pg	02 47 27.2	+0.8
KLYT				*e*Sg	Sg	02 47 36.8	+1.6
CTT	**Catalca**	**0.70**	**323**	*e*PG	Pg	02 47 28.0	+0.9
CTT	**Catalca**	**0.70**	**323**	*e*Pg	Pg	02 47 28.0	+0.9
BNT	**Bandirma**	**0.85**	**255**	*e*PG	Pg	02 47 30.0	+0.1
EDC	**Edincik**	**0.89**	**255**	PG	Pg	02 47 30.5	-0.2
EDC	**Edincik**	**0.89**	**255**	*e*Pg	Pg	02 47 30.5	-0.2
GPA	**Golpazari**	**1.05**	**106**	*e*PG	Pg	02 47 34.9	+1.3
GULT	**Gulveren**	**1.17**	**97**	*e*PN	Pn	02 47 35.3	0.0
GULT	**Gulveren**	**1.17**	**97**	*e*Pn	Pn	02 47 35.3	0.0
BALB	**Balikesir**	**1.27**	**222**	*e*PN	Pn	02 47 37.2	+0.5
BALB	**Balikesir**	**1.27**	**222**	*e*Pn	Pn	02 47 37.2	+0.5
BORA	**Eskisehir**	**1.32**	**122**	*e*P	Pn	02 47 37.9	+0.5
BORA				*i* S	Sb	02 47 57.6	+2.8
GDZ	**Gediz**	**1.54**	**166**	*i* P	Pn	02 47 44.4	+4.0

IDC 20 02:56:43.5±2.6**,705S×12810E,h0^{km},mb4.0**/1**,mb1 4.1**/3**, mb1mx3.7**/14**,mbtmp3.9**/3**,ML3.8**/2**,Error ellipse: s-maj=324.2km s-min=31.1km az=65.0,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**14.18**	**155**	Pn	Pn	03 00 04.4	-1.2
	0.4nm,0.3s,baz=331,slow=13,SNR=6.5						
WRA				Sn	Sn	03 02 31.6	-12
	1.0nm,0.3s,baz=331,slow=22,SNR=9.1						
ASAR	**Alice Springs**	**17.44**	**162**	P	Pn	03 00 49.2	+1.0
	0.6nm,0.3s,baz=344,slow=9.2,SNR=50						
ASAR				S	Sn	03 03 54.6	-8.4
	0.3nm,0.3s,baz=345,slow=25,SNR=4.8						
MKAR	**Makanchi Array**	**67.25**	**328**	P	P	03 07 39.8	+0.1
	0.6nm,0.3s,baz=118,slow=8.1,SNR=3.9						

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*IDC **20** 03:01:44.6±1.0,4384N×8601E,h0^{km},mb3.5/6,mb1 3.6/9, mb1mx3.5/24,mbtmp3.4/9,ML3.3/3,Error ellipse: s-maj=34.0km s-min=14.8km az=47.0*

*NNC **20** 03:01:45.4±4.7,4407N×8620E,h0^{km},mb3.4,mpv3.0, Error ellipse: s-maj=50.2km s-min=33.3km az=86.0*

*BJI **20** 03:01:48.5,4392N×8587E,h18^{km},mb4.0,ML3.4*

*NEIC **20** 03:01:49.9±0.6,4396N×8611E,h35^{km},Error ellipse: s-maj=13.3km s-min=10.5km az=221.0*

*ISCJB **20** 03:01:52.2±0.9,4422N±008×861E±01,h72^{km}±10^{km}, mb3.3/6,Error ellipse: s-maj=16.6km s-min=7.1km az=43.9*

ISC 20 03:01:52.1±0.9**,4406N**±007×**8601E**±009**,h54^{km}**±10^{km}**, n18,σ1^{s}09**/27**,mb3.4**/6**,4C-4D,Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WMQ	**Urumqi**	**1.24**	**101**	PG	**Pn**	**03 02 13.4**	**+0.3**
WMQ				SG	**Sn**	**03 02 32.0**	**+3.2**
WMQ				Smax			
	comp=N,341nm,0.2s						
WMQ				Smax			
	comp=E,362nm,0.2s						
MK31	**Makanchi Array**	**3.79**	**318**	⇓Pn	**Pn**	**03 02 48.5**	**+0.6**
	comp=E,0.8nm,0.5s,baz=135,slow=14,SNR=454						
MK31				⇑Pg	**Pn**	**03 02 58.4**	**+10**
	comp=E,17nm,0.6s,baz=129,slow=16,SNR=8.5						
MK31				⇓Lg		03 03 49.6	
	comp=E,56nm,0.7s,baz=138,slow=31,SNR=15						
MKAR	**Makanchi Array**	**3.79**	**318**	Pn	**Pn**	**03 02 48.3**	**+0.4**
MKAR				Pg	**Pn**	**03 02 58.1**	**+10**
MKAR				Sn	**Sn**	**03 03 33.9**	**+2.7**
MKAR				Lg		03 03 49.3	
MKAR	**Makanchi Array**	**3.79**	**318**	Pn	**Pn**	**03 02 48.3**	**+0.4**
	comp=E,0.8nm,0.3s,baz=132,slow=14,SNR=60						
MKAR				Pg	**Pn**	**03 02 58.1**	**+10**
	comp=E,6.0nm,0.3s,baz=127,slow=16,SNR=74						
MKAR				Sn	**Sn**	**03 03 33.9**	**+2.7**
	comp=E,4.6nm,0.3s,baz=130,slow=26,SNR=5.5						
MKAR				Lg		03 03 49.3	
	comp=E,11nm,0.3s,baz=134,slow=30,SNR=8.3						
TKM2	**Tokmak 2**	**7.66**	**265**	⇑Pn	**Pn**	**03 03 40.2**	**-0.8**
	comp=E,0.1nm,0.6s						
TKM2				⇓Lg		03 05 51.1	
	comp=E,0.7nm,0.7s						
KURK	**Kurchatov**	**8.33**	**326**	⇓Pn	**Pn**	**03 03 49.6**	**-0.5**
	comp=E,1.2nm,0.8s						
KURK				⇑Sn	**Sn**	**03 05 21.4**	**-1.3**
	comp=E,2.3nm,0.5s						
KURK				⇑Lg		03 06 12.0	
	comp=E,21nm,0.9s						
ZAA0	**Zalesovo Array**	**9.93**	**356**	*e*Pn	**Pn**	**03 04 10.7**	**-1.2**
ZALV	**Zalesovo Beam**	**9.93**	**356**	Pn	**Pn**	**03 04 11.6**	**-0.3**
ZALV				Sn	**Sn**	**03 06 02.3**	**+0.5**
ZALV	**Zalesovo Beam**	**9.93**	**356**	Pn	**Pn**	**03 04 11.6**	**-0.3**
	comp=E,0.9nm,0.3s,baz=181,slow=13,SNR=16						
ZALV				Sn	**Sn**	**03 06 02.3**	**+0.5**
	comp=E,2.5nm,0.3s,baz=166,slow=25,SNR=11						
SONM	**Songino Array**	**14.67**	**68**	Pn	**Pn**	**03 05 14.2**	**-2.0**
SONM	**Songino Array**	**14.67**	**68**	Pn	**Pn**	**03 05 14.2**	**-2.0**
	comp=E,0.1nm,0.3s,baz=249,slow=13,SNR=3.9						
BRTR	**Keskin Array B**	**38.69**	**282**	P	**P**	**03 09 11.2**	**+0.7**
	comp=E,0.2nm,0.4s,mb3.2,baz=69,slow=9.4,SNR=3.6						
NOA	**NORSAR Array B**	**45.78**	**319**	P	**P**	**03 10 08.7**	**+0.9**
	comp=E,1.1nm,0.7s,mb3.9,baz=76,slow=7.8,SNR=4.2						
YKA	**Yellowknife Ar**	**72.52**	**10**	P	**P**	**03 13 13.8**	**+1.2**
YKA	**Yellowknife Ar**	**72.52**	**10**	P	**P**	**03 13 13.8**	**+1.2**
	comp=E,0.1nm,0.4s,mb3.1,baz=340,slow=6.3,SNR=2.8						
TORD	**Torodi Ar. Bea**	**76.93**	**276**	P	**P**	**03 13 38.4**	**-0.5**
	comp=E,0.4nm,0.7s,mb3.5,baz=43,slow=5.0,SNR=6.4						
WRA	**Warramunga Arr**	**77.53**	**134**	P	**P**	**03 13 41.8**	**-0.2**
	comp=E,0.6nm,0.7s,mb3.6,baz=334,slow=5.7,SNR=3.2						
ASAR	**Alice Springs**	**80.41**	**136**	P	**P**	**03 13 57.2**	**-0.5**
	comp=E,0.1nm,0.3s,mb3.2,baz=330,slow=5.4,SNR=3.0						

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*HLW **20** 03:38:23.3,3516N×3301E,h33^{km},Mb2.9*

*CSEM **20** 03:38:28.7±0.2,3447N×3211E,h20^{km},Mw3.1,Error ellipse: s-maj=7.7km s-min=3.1km az=108.0*

*ISCJB **20** 03:38:29.3±1.1,3447N±006×321E±01,h25^{km},Error ellipse: s-maj=14.9km s-min=5.9km az=27.3*

*NIC **20** 03:38:29.6±0.4,3446N×3199E,h25^{km},ML3.2,MW3.1*

*NEIC **20** 03:38:29.6,3446N×3199E,h25^{km},ML3.2(NIC),After NIC.*

ISC 20 03:38:29.9±1.4**,3450N**±006×**321E**±01**,h18^{km}**±9^{km}**,n10, σ1^{s}04**/14**,1C-2D,Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKMC	**Akamas**	**0.56**	**21**	P	**Pg**	**03 38 41.3**	**+0.2**
SZAC	**Souni-Zanaja**	**0.71**	**69**	P	**Pg**	**03 38 42.9**	**-0.9**
	20nm,0.2s						
SZAC				S	**Sg**	**03 38 53.9**	**+0.7**
ALFC	**Alevga**	**0.78**	**33**	P	**Pb**	**03 38 44.4**	**-0.5**
	14nm,0.2s						
ALFC				S	**Sb**	**03 38 55.7**	**+0.6**
CSS	**Prodhromos**	**1.13**	**66**	P	**Pn**	**03 38 49.8**	**-0.9**
CSS				S	**Sb**	**03 39 05.1**	**0.0**
MAMC	**Mammari**	**1.15**	**54**	P	**Pn**	**03 38 49.9**	**-1.1**
PHNC	**Paralimni**	**1.68**	**72**	P	**Pn**	**03 39 00.3**	**+1.9**
PHNC				S	**Sn**	**03 39 26.0**	**+6.5**
AMAG	**Maghara**	**3.97**	**166**	⇓P	**Pn**	**03 39 29.2**	**-0.6**
HHAG	**Hagoal**	**4.54**	**180**	⇑P	**Pn**	**03 39 39.9**	**+2.3**
HNKL	**Nakhl**	**4.84**	**160**	⇓P	**Pn**	**03 39 40.3**	**-1.4**
ZNM		**5.16**	**172**	P	**Pn**	**03 39 46.6**	**+0.4**

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*NEIC **20** 03:39:56.6,1499N×9427W,h74^{km},MD3.9(MEX),After MEX.*

MEX 20 03:39:57.0±0.3**,1498N×9425W,h27^{km}**±27^{km}**,MD3.9,Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	**Huatulco**	**1.95**	**294**	*i* P	Pn	03 40 26.4	-2.0
HUIG				*i* S	Sn	03 40 49.2	-2.9
SCX	**San Cristobal**	**2.34**	**42**	*i* P	Pn	03 40 32.0	-1.7
SCX				*i* S	Sn	03 41 00.0	-1.6
CCIG	**Comitan**	**2.42**	**57**	*i* P	Pn	03 40 32.9	-1.9
CCIG				*i* S	Sn	03 41 01.1	-2.4
CCIG	**Comitan**	**2.42**	**57**	*i* P	Pn	03 40 32.7	-2.1
CCIG				*i* S	Sn	03 41 01.1	-2.4
VHO	**Vista Hermosa**	**3.17**	**311**	*e*P	Pn	03 40 43.3	-1.8
VHO				*i* S	Sn	03 41 18.4	-3.6
VHO	**Vista Hermosa**	**3.17**	**311**	*e*P	Pn	03 40 43.3	-1.8
VHO				*i* S	Sn	03 41 19.8	-2.3
TEIG	**Tepich**	**7.72**	**47**	*i* P	Pn	03 41 44.5	-3.3
TEIG				*i* S	Sn	03 43 08.7	-5.8
TEIG	**Tepich**	**7.72**	**47**	*i* P	Pn	03 41 43.5	-4.2
TEIG				*i* S	Sn	03 43 08.7	-5.8

GUC 20 03:41:14.3±0.7**,3391S×7240W,h32^{km}**±4^{km}**,MD3.6, ML2.4,3C-2D,Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LNV	**Longovilo**	**0.82**	**93**	⇓*i*P	Pn	03 41 29.4	-0.3
LNV				*i* S	Sn	03 41 40.4	-0.4
TACH	**Talagante**	**1.24**	**79**	⇑*i*P	Pn	03 41 36.3	+0.9
TACH				*i* S	Sn	03 41 52.9	+1.7
CHCH	**Chadas Angostu**	**1.45**	**91**	⇑*i*P	Pn	03 41 39.6	+1.2
CACH	**El Canelo**	**1.51**	**98**	*e*P	Pn	03 41 40.7	+1.6
PCH	**Pirque**	**1.60**	**80**	⇓*i*P	Pn	03 41 42.0	+1.7
CICH	**Cipreses**	**1.69**	**105**	*i* P	Pn	03 41 43.0	+1.3
CICH				*i* S	Sn	03 42 05.9	+3.7
FCH	**Farellones**	**1.85**	**72**	⇑*i*P	Pn	03 41 46.0	+2.1
FCH				*i* S	Sn	03 42 09.8	+3.6
FCH				AML	AML	03 42 16.5	
	comp=E,50nm,0.0s						

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*BJI **20** 04:20:29.2,570N×9045E,h10^{km},mB5.0,mb4.7*

*ISCJB **20** 04:20:35.6±0.5,645N±008×9062E±007,h10^{km},mb4.3/21, MS3.7/9,Error ellipse: s-maj=14.4km s-min=7.4km az=38.1*

*IDC **20** 04:20:36.0±0.9,644N×9058E,h0^{km},mb4.2/12, mb1 4.3/13,mb1mx4.1/24,mbtmp4.2/13,ML4.2/1,MS3.7/9, Ms1 3.7/9,ms1mx3.4/32,Error ellipse: s-maj=42.7km s-min=14.3km az=50.0*

*NEIC **20** 04:20:37.7±0.3,651N×9067E,h10^{km},mb4.7/5,Error ellipse: s-maj=10.1km s-min=4.9km az=220.0*

ISC 20 04:20:39.3±3.5**,648N**±009×**9064E**±008**,h20^{km}**±26^{km}**, h19^{km}**±2.0^{km}**:pP-P,n38,σ0^{s}65**/37**,mb4.3**/21**,MS3.7**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	**9.03**	**114**	Pn	**Pn**	**04 22 48.5**	**-0.1**
PSI				Sn	**Sn**	**04 24 26.0**	**-3.7**
PSI	**Prapat**	**9.03**	**114**	Pn	**Pn**	**04 22 48.5**	**-0.1**
	2.3nm,0.3s,baz=294,slow=10.0,SNR=3.8						
PSI				Sn	**Sn**	**04 24 26.0**	**-3.7**
	1.7nm,0.3s,baz=68,slow=15,SNR=3.1						
PALK	**Pallekele**	**9.90**	**275**	*e*Pn	**Pn**	**04 23 01.1**	**+0.5**
	19nm,0.7s						
PALK				*e*Sn	**Sn**	**04 24 41.1**	**-10**
HYB	**Hyderabad**	**16.05**	**314**	*e*P	**Pn**	**04 24 23.0**	**-1.0**
HYB				*e*S	**Sn**	**04 27 19.5**	**-2.0**
HYB	**Hyderabad**	**16.05**	**314**	*i* P	**Pn**	**04 24 23.0**	**-1.0**
HYB				*e*S	**Sn**	**04 27 27.0**	**+5.5**
KSM	**Kuching**	**20.23**	**103**	*e*P	**P**	**04 25 13.0**	**-0.4**
LSA	**Lhasa**	**23.10**	**1**	P	**P**	**04 25 44.8**	**+0.8**
LSA	**Lhasa**	**23.10**	**1**	*e*P	**P**	**04 25 43.8**	**-0.1**
	21nm,0.8s,mb4.6						
CD2	**Chengdu**	**27.24**	**25**	P	**P**	**04 26 22.1**	**0.0**
CD2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.7						
LZH	**Lanzhou**	**31.85**	**21**	*e*P	**P**	**04 27 03.4**	**+0.4**
LZH				AP	pP	04 27 08.0	-1.2
LZH				XP	sP	04 27 11.5	-0.2
LZH				AMB	AMB		
	comp=Z,18nm,1.0s,mb4.9						
LZH	**Lanzhou**	**31.85**	**21**	*e*P	**P**	**04 27 03.4**	**+0.4**
	comp=Z,18nm,1.0s,mb4.9						
LZH				pP	pP	04 27 08.0	-1.2
LZH				sP	sP	04 27 11.5	-0.2
XAN	**Xi’an**	**32.22**	**29**	P	**P**	**04 27 04.8**	**-1.4**
XAN				AP	pP	04 27 11.3	-1.1
XAN				AMB	AMB		
	comp=Z,5.0nm,0.8s,mb4.4						
GTA	**Gaotai**	**33.81**	**13**	*e*P	**P**	**04 27 21.1**	**+1.0**
GTA				AP	pP	04 27 26.3	0.0
GTA				XP	sP	04 27 29.6	+0.8
GTA				AMB	AMB		
	comp=Z,3.0nm,1.1s,mb4.1						
UCH	**Uchtor**	**38.36**	**341**	*e*P	**P**	**04 27 58.9**	**-0.1**
	comp=Z,2.6nm,0.8s,mb4.0						
AML	**Almayashu**	**38.55**	**340**	*e*P	**P**	**04 28 01.5**	**+0.9**
	comp=Z,5.8nm,0.7s,mb4.4						
HHC	**Hu-ho-hao-te**	**38.99**	**25**	*e*P	**P**	**04 28 05.1**	**+0.8**
HHC				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.7						
HHC				AMB	AMB		
	comp=Z,118nm,4.5s						
MKAR	**Makanchi Array**	**40.80**	**351**	P	**P**	**04 28 19.5**	**+0.2**
	comp=Z,2.0nm,0.5s,mb4.0,baz=168,slow=9.3,SNR=38						
MKAR				LR	LR	04 46 34.2	
	comp=Z,69nm,18.6s,MS3.5,baz=171,slow=38						
FITZ	**Fitzroy Crossi**	**42.30**	**126**	P	**P**	**04 28 32.0**	**0.0**
	comp=Z,3.0nm,0.8s,mb4.0,baz=318,slow=6.9,SNR=6.0						
SONM	**Songino Array**	**43.34**	**15**	P	**P**	**04 28 40.7**	**+0.7**
	comp=Z,4.2nm,0.7s,mb4.3,baz=197,slow=9.0,SNR=48						
KSRS	**Korea Array**	**45.80**	**42**	LR	LR	04 48 10.7	
	comp=Z,42nm,18.1s,MS3.4,baz=213,slow=36						
ZAA0	**Zalesovo Array**	**47.56**	**355**	*e*P	**P**	**04 29 13.0**	**-0.3**
ZALV	**Zalesovo Beam**	**47.56**	**355**	P	**P**	**04 29 13.2**	**0.0**
	comp=Z,5.9nm,0.5s,mb4.9,baz=174,slow=6.8,SNR=21						
ZALV				LR	LR	04 50 42.8	
	comp=Z,83nm,21.4s,MS3.7,baz=41,slow=38						
WRA	**Warramunga Arr**	**50.37**	**122**	P	**P**	**04 29 35.1**	**-0.3**
	comp=Z,1.6nm,1.0s,mb4.0,baz=300,slow=8.5,SNR=4.6						
AKTK	**Aktyubinsk**	**51.58**	**334**	P	**P**	**04 29 44.2**	**+0.2**
AKTO	**Aktyubinsk**	**51.58**	**334**	P	**P**	**04 29 44.2**	**+0.2**
	comp=Z,1.1nm,0.5s,mb4.1,baz=121,slow=18,SNR=6.7						
ASAR	**Alice Springs**	**51.78**	**127**	P	**P**	**04 29 46.1**	**+0.2**
	comp=Z,1.1nm,0.8s,mb3.8,baz=295,slow=7.0,SNR=6.9						
MJAR	**Matsushiro Arr**	**52.67**	**48**	LR	LR	04 53 42.3	
	comp=Z,77nm,19.2s,MS3.8,baz=25,slow=38						
BRTR	**Keskin Array B**	**60.74**	**312**	P	**P**	**04 30 50.0**	**+0.3**
	comp=Z,0.9nm,0.7s,mb4.0,baz=113,slow=8.2,SNR=8.3						
STKA	**Stephens Creek**	**61.73**	**131**	P	**P**	**04 30 56.9**	**+0.4**
STKA	**Stephens Creek**	**61.73**	**131**	P	**P**	**04 30 56.9**	**+0.4**
	comp=Z,2.6nm,0.7s,mb4.5,baz=320,slow=7.9,SNR=4.3						
MLR	**Muntele Rosu**	**67.76**	**317**	LR	LR	05 04 28.3	
	comp=Z,63nm,20.2s,MS3.8,baz=283,slow=39						
TIXI	**Tiksi**	**69.29**	**12**	*e*P	**P**	**04 31 44.1**	**-0.6**
	comp=Z,13nm,0.8s,mb4.9						
FINES	**FINESS Array B**	**72.34**	**333**	P	**P**	**04 32 02.9**	**-0.6**
	comp=Z,2.0nm,0.6s,mb4.2,baz=109,slow=6.8,SNR=13						
FINES				LR	LR	05 06 34.1	
	comp=Z,60nm,18.2s,MS3.9,baz=152,slow=38						
ARCES	**ARCESS Array B**	**75.41**	**341**	P	**P**	**04 32 20.6**	**-0.7**
	comp=Z,3.5nm,0.8s,mb4.3,baz=58,slow=7.7,SNR=5.3						
GERES	**GERESS Array B**	**76.55**	**319**	P	**P**	**04 32 28.5**	**+0.3**
	comp=Z,1.6nm,0.7s,mb4.1,baz=101,slow=5.6,SNR=16						
NOA	**NORSAR Array B**	**79.24**	**331**	LR	LR	05 13 09.2	
	comp=Z,32nm,18.8s,MS3.7,baz=25,slow=40						
JMIC	**Jan Mayen**	**86.90**	**341**	LR	LR	05 14 33.0	
	comp=Z,20nm,21.7s,MS3.5,baz=94,slow=37						
VNDA	**Vanda**	**92.28**	**168**	LR	LR	05 09 42.6	
	comp=Z,127nm,19.7s,MS4.4,baz=299,slow=32						

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*IDC **20** 04:21:06.0±5.0,2225S×17119E,h79^{km}±37^{km},mb4.0/6, mb1 4.2/8,mb1mx4.0/17,mbtmp4.1/8,Error ellipse: s-maj=46.7km s-min=21.5km az=38.0*

*NEIC **20** 04:21:06.4±3.2,2224S×17125E,h87^{km}±23^{km},Error ellipse: s-maj=39.4km s-min=14.7km az=225.0*

*ISCJB **20** 04:21:07.5±3.6,224S±02×1710E±02,h101^{km}±25^{km}, mb4.2/6,Error ellipse: s-maj=49.7km s-min=15.5km az=38.7*

ISC 20 04:21:07.8±3.5**,224S**±02×**1711E**±02**,h89^{km}**±24^{km}**,n11, σ0^{s}85**/11**,mb4.2**/6**,1C,Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**4.32**	**273**	⇑*i*P	**Pn**	**04 22 11.4**	**+0.2**
DZM				*e*S	**Sn**	**04 22 59.7**	**-0.7**
DZM	**Mont Dzumac**	**4.32**	**273**	P	**Pn**	**04 22 11.3**	**+0.2**
	34nm,0.3s,baz=63,slow=17,SNR=752						
DZM				S	**Sn**	**04 23 00.4**	**0.0**
	61nm,0.3s,baz=162,slow=22,SNR=10						
URZ	**Urewera**	**16.68**	**163**	P	**Pn**	**04 24 56.2**	**+0.3**
	0.2nm,0.3s,baz=343,slow=3.8,SNR=4.5						
RPZ	**Rata Peaks**	**21.31**	**180**	P	**P**	**04 25 46.6**	**-0.5**
	4.8nm,0.6s,mb4.0,baz=1.2,slow=8.4,SNR=5.5						
CTA	**Charters Tower**	**23.27**	**271**	P	**P**	**04 26 09.7**	**+2.1**
	5.3nm,0.6s,mb4.1,baz=106,slow=10,SNR=7.8						
ASAR	**Alice Springs**	**34.20**	**260**	P	**P**	**04 27 44.5**	**-0.4**
	7.5nm,0.7s,mb4.6,baz=86,slow=9.0,SNR=75						
WRA	**Warramunga Arr**	**34.32**	**267**	P	**P**	**04 27 45.0**	**-0.9**
	2.3nm,0.3s,mb4.4,baz=97,slow=8.5,SNR=16						
FITZ	**Fitzroy Crossi**	**42.75**	**267**	P	**P**	**04 28 57.2**	**+0.7**
	6.7nm,0.7s,mb4.5,baz=129,slow=9.7,SNR=19						
SONM	**Songino Array**	**90.74**	**322**	P	**P**	**04 33 59.8**	**-0.7**
	0.5nm,0.8s,mb3.7,baz=151,slow=3.4,SNR=3.6						

GERES	GERESS Array B	148.04	331	PKPbc	PKPbc	04 40 41.3	-1.5
GERES	GERESS Array B	148.04	331	PKPbc	PKPbc	04 40 41.3	-1.5
	0.9nm,0.7s,baz=29,slow=3.0,SNR=9.3						

IDC 20 04:58:33.4±4.9, 4202N×14974E, h0km, mb3.7/6, mb1 3.9/6, mb1mx3.5/22, mbtmp3.7/6, Error ellipse: s-maj=140.4km s-min=39.5km az=7.0, Off southeast coast of Hokkaido

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YKA	Yellowknife Ar	56.18	34	P	P	05 08 15.5	+1.0
	0.3nm,0.6s,baz=298,slow=7.1,SNR=4.8						
AKTO	Aktyubinsk	60.11	312	P	P	05 08 43.4	+1.2
	0.6nm,0.5s,baz=90,slow=9.1,SNR=4.4						
FINES	FINESS Array B	67.27	334	P	P	05 09 29.9	+0.6
	0.3nm,0.3s,baz=37,slow=7.9,SNR=3.9						
NOA	NORSAR Array B	71.89	340	P	P	05 09 56.5	-1.4
	0.8nm,0.8s,baz=33,slow=8.1,SNR=2.8						
HFS	Hagfors	72.01	339	P	P	05 09 58.4	-0.2
	0.5nm,0.3s,baz=48,slow=8.6,SNR=6.2						
TXAR	Lajitas Array	81.99	58	P	P	05 10 55.2	-0.2
	0.2nm,0.4s,baz=307,slow=4.7,SNR=4.0						

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*ISCJB **20** 04:59:22.7±0.3, 5146N±002×1608E±002, h0km, mb3.5/2, Error ellipse: s-maj=2.4km s-min=1.7km az=10.3*

*LDG **20** 04:59:22.6±0.3, 5155N×1605E, h1km, Ml3.8/4, Error ellipse: s-maj=7.9km s-min=4.0km az=15.0, Suspected Mining induced.*

*NEIC **20** 04:59:23.8±0.4, 5157N×1604E, h5km, ML3.1(PRU), Error ellipse: s-maj=5.4km s-min=4.0km az=21.0*

*IPEC **20** 04:59:24.9±0.3, 5149N×1652E, h0km, ML3.0/4, Error ellipse: s-maj=3.5km s-min=2.0km az=87.0*

*IDC **20** 04:59:25.0±0.6, 5152N×1587E, h0km, mb3.4/2, mb1 3.6/10, mb1mx3.4/23, mbtmp3.5/10, ML3.1/8, Error ellipse: s-maj=10.6km s-min=6.1km az=109.0*

*PRU **20** 04:59:25.3, 5148N×1608E, h0km*

*CSEM **20** 04:59:25.4±0.1, 5149N×1604E, h1km, ML3.7/10, Error ellipse: s-maj=2.4km s-min=1.1km az=16.0*

*BGR **20** 04:59:25.2±0.4, 5145N×1608E, h1km, ML3.3/16, Error ellipse: s-maj=4.4km s-min=2.2km az=15.0*

*WAR **20** 04:59:25.1, 5153N×1608E, ML3.0, Mining Induced*

*VIE **20** 04:59:26.5±0.5, 5132N×1608E, h0km, mb3.0/6, ML3.1/6, Error ellipse: s-maj=3.5km s-min=2.3km az=14.0, Suspected Mining induced.*

ISC 20 04:59:23.4±0.3, 5156N±002×1609E±002, h0km, n210, σ1§04/354, mb3.5/2, 13C-19D, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.72	169	ePg	Pg	04 59 38.0	+0.7
KSP				eSg	Sg	04 59 47.4	+0.7
KSP	Ksiaz	0.72	169	ePg	Pg	04 59 37.9	+0.7
KSP				eSg	Sg	04 59 44.2	-2.4
KSP	Ksiaz	0.72	169	⇓iPg	Pg	04 59 37.9	+0.6
KSP				eSg	Sg	04 59 47.1	+0.4
KSP				e		04 59 52.0	
KSP	Ksiaz	0.72	169	Pg	Pg	04 59 37.9	+0.6
KSP				eSg	Sg	04 59 47.1	+0.4
UPC	Upice	1.05	183	P	Pg	04 59 43.8	+0.3
UPC				ePg	Pg	04 59 43.9	+0.4
UPC	Upice	1.05	183	ePG	Pg	04 59 43.9	+0.4
UPC	Upice	1.05	183	ePg	Pg	04 59 43.9	+0.4
DPC	Dobruska-Polom	1.22	173	ePg	Pg	04 59 46.7	0.0
DPC				eSg	Sg	05 00 02.4	0.0
DPC	Dobruska-Polom	1.22	173	ePg	Pg	04 59 46.7	0.0
DPC				eSg	Sg	05 00 01.7	-0.7
DPC	Dobruska-Polom	1.22	173	ePG	Pg	04 59 46.7	0.0
DPC				eSG	Sg	05 00 01.7	-0.7
	186nm,0.8s						
DPC	Dobruska-Polom	1.22	173	Pg	Pg	04 59 46.7	0.0
DPC				Sg	Sg	05 00 02.4	0.0
PVCC	Panska Ves	1.40	224	ePg	Pg	04 59 50.4	+0.1
PVCC				eSg	Sg	05 00 09.4	+0.9
PVCC	Panska Ves	1.40	224	ePG	Pg	04 59 50.4	+0.1
PVCC				eSG	Sg	05 00 09.4	+0.9
PVCC	Panska Ves	1.40	224	ePg	Pg	04 59 50.4	+0.1
PVCC				eSg	Sg	05 00 09.4	+0.9
BRG	Berggiesshubel	1.51	244	ePn	Pn	04 59 51.3	-0.4
BRG				eSg	Sg	05 00 13.0	+1.1
BRG	Berggiesshubel	1.51	244	Pn	Pn	04 59 51.2	-0.4
BRG				Pg	Pg	04 59 53.0	+0.6
BRG				Sg	Sg	05 00 12.9	+1.0
BRG	Berggiesshubel	1.51	244	Pn	Pn	04 59 51.2	-0.5
BRG	Berggiesshubel	1.51	244	Pg	Pg	04 59 53.0	+0.7
BRG				Sg	Sg	05 00 13.0	+1.1
BRG	Berggiesshubel	1.51	244	PN	Pn	04 59 51.2	-0.4
BRG				PG	Pg	04 59 53.0	+0.6
BRG				SG	Sg	05 00 12.9	+1.0
	177nm,0.5s						
RUE	Ruedersdorf	1.70	304	ePn	Pn	04 59 54.1	-0.2
RUE				eS	Sn	05 00 16.8	+0.1
RUE	Ruedersdorf	1.70	304	ePn	Pn	04 59 54.1	-0.2
RUE				eS	Sn	05 00 16.8	+0.1
PRA	Prague	1.82	216	PN	Pn	04 59 55.0	-0.9
PRA				SG	Sg	05 00 22.0	+0.2
FBE	Freiberg	1.83	251	ePn	Pn	04 59 55.8	-0.2
FBE				eSg	Sg	05 00 23.0	+0.8
FBE	Freiberg	1.83	251	Pn	Pn	04 59 55.8	-0.3
FBE				Sg	Sg	05 00 23.0	+0.8
PRU	Pruhonice	1.85	213	ePn	Pn	04 59 56.1	-0.2
PRU				ePg	Pg	04 59 58.0	-0.8
PRU				eSg	Sg	05 00 21.8	-1.0
PRU	Pruhonice	1.85	213	ePN	Pn	04 59 56.1	-0.2
PRU				ePG	Pg	04 59 58.0	-0.8
PRU				eSG	Sg	05 00 21.8	-1.0
	62nm,0.4s						
PRU	Pruhonice	1.85	213	ePn	Pn	04 59 56.1	-0.2
GKP	Gorka Klasztor	1.86	22	ePn	Pg	05 00 04.3	+5.3
GKP				eSn	Sg	05 00 28.3	+5.3
GKP	Gorka Klasztor	1.86	22	ePn	Pg	05 00 04.3	+5.3
GKP				eSn	Sg	05 00 28.3	+5.3
GKP	Gorka Klasztor	1.86	22	ePn	Pg	05 00 04.3	+5.3
GKP				eSn	Sg	05 00 28.3	+5.3
CLL	Collm	1.94	264	ePn	Pn	04 59 57.4	-0.3
CLL				eSg	Sg	05 00 26.8	+1.0
CLL	Collm	1.94	264	iPn	Pn	04 59 57.3	-0.3
CLL				ePg	Pg	05 00 00.0	-0.7
CLL				iSg	Sg	05 00 26.6	+0.7
CLL	Collm	1.94	264	iPn	Pn	04 59 57.3	-0.3
CLL				ePg	Pg	05 00 00.0	-0.7
CLL				ix	x	05 00 04.3	
CLL				iSg	Sg	05 00 26.6	+0.7
	comp=Z,116nm,0.7s						
CLL	Collm	1.94	264	Pn	Pn	04 59 57.3	-0.3
CLL	Collm	1.94	264	ePg	Pg	05 00 00.0	-0.7
CLL				Sg	Sg	05 00 26.8	+0.9
RAC	Raciborz	1.99	137	ePg	Pg	05 00 01.6	+0.1
RAC				eSg	Sg	05 00 27.8	+0.5
RAC	Raciborz	1.99	137	ePg	Pg	05 00 01.6	+0.1
RAC				eSg	Sg	05 00 27.8	+0.5
MORC	Moravsky Berou	2.01	152	ePn	Pn	04 59 58.2	-0.3
MORC				eSg	Sg	05 00 26.9	-0.9
MORC	Moravsky Berou	2.01	152	⇑P	Pn	04 59 58.8	+0.3
MORC				S	Sn	05 00 26.6	+2.4
MORC	Moravsky Berou	2.01	152	⇑iP	Pn	04 59 58.8	+0.3
MORC	Moravsky Berou	2.01	152	S	Sn	05 00 26.6	+2.3
MORC	Moravsky Berou	2.01	152	ePn	Pn	04 59 58.1	-0.4
MORC				Sg	Sg	05 00 26.9	-0.9
OKC	Ostrava-Krasne	2.16	142	ePg	Pg	05 00 04.3	-0.5
OKC				eSg	Sg	05 00 33.0	+0.2
OKC	Ostrava-Krasne	2.16	142	ePG	Pg	05 00 04.3	-0.5
OKC				eSG	Sg	05 00 33.0	+0.2
	comp=Z,280nm,0.9s						
OKC	Ostrava-Krasne	2.16	142	ePg	Pg	05 00 04.3	-0.5
OKC				eSg	Sg	05 00 33.0	+0.2
	comp=Z,280nm,0.9s						
VRAC	Vranov	2.27	172	⇓P	Pn	05 00 03.0	+0.8
VRAC				S	Sn	05 00 34.9	+4.1
VRAC	Vranov	2.27	172	Pn	Pn	05 00 02.9	+0.7
	comp=Z,3.1nm,0.3s,baz=331,slow=14,SNR=16						
VRAC				Lg		05 00 35.1	
	comp=Z,7.2nm,0.3s,baz=69,slow=15,SNR=9.1						
VRAC	Vranov	2.27	172	⇓iP	Pn	05 00 03.0	+0.9
VRAC	Vranov	2.27	172	S	Sn	05 00 34.9	+4.1
VRAC	Vranov	2.27	172	ePn	Pn	05 00 02.4	+0.3
VRAC				eSg	Sg	05 00 32.8	-3.6
	comp=Z,98nm,0.7s						
VRAC				S	Sn	05 00 34.9	+4.1
TREC	Trest	2.29	190	ePN	Pn	05 00 03.1	+0.7
TREC				ePG	Pg	05 00 06.5	-0.9
TREC	Trest	2.29	190	ePg	Pg	05 00 06.5	-0.9
KRUC	Moravsky	2.50	175	P	Pn	05 00 06.0	+0.7
KRUC	Moravsky	2.50	175	eSg	Sg	05 00 41.8	-2.0
	comp=Z,69nm,0.7s						
TANN	Tannenbergstha	2.56	245	ePn	Pn	05 00 06.4	+0.4
TANN				eSg	Sg	05 00 44.5	-1.0
TANN	Tannenbergstha	2.56	245	Pn	Pn	05 00 06.4	+0.3
TANN				Sg	Sg	05 00 44.5	-1.0
WERD	Werda	2.63	247	ePn	Pn	05 00 07.3	+0.2
WERD				eSg	Sg	05 00 46.8	-1.1
WERD	Werda	2.63	247	Pn	Pn	05 00 07.3	+0.2
WERD				Sg	Sg	05 00 46.8	-1.1
NKC	Novy Kostel	2.66	242	ePn	Pn	05 00 08.0	+0.6
NKC				ePg	Pg	05 00 14.2	-0.1
NKC				eSg	Sg	05 00 51.1	+2.4
NKC	Novy Kostel	2.66	242	ePN	Pn	05 00 08.0	+0.6
NKC				ePG	Pg	05 00 14.2	-0.1
NKC				eSG	Sg	05 00 51.1	+2.4
	comp=Z,151nm,0.5s						
NKC	Novy Kostel	2.66	242	ePn	Pn	05 00 08.0	+0.6
OJC	Ojcow	2.71	118	ePn	Pn	05 00 07.9	-0.2
OJC				eSg	Sg	05 00 50.4	+0.1
OJC	Ojcow	2.71	118	ePg	Pg	05 00 15.1	-0.1
OJC				eSg	Sg	05 00 50.7	+0.4
OJC	Ojcow	2.71	118	Pn	Pn	05 00 07.9	-0.2
OJC	Ojcow	2.71	118	ePg	Pg	05 00 15.1	-0.1
OJC				Sg	Sg	05 00 50.4	+0.1
JAVC	Velka Javorina	2.88	159	P	Pn	05 00 11.9	+1.4
JAVC	Velka Javorina	2.88	159	eSg	Sg	05 00 55.3	-0.7
	comp=Z,69nm,0.7s						
KHC	Kasperske Hory	2.91	214	ePn	Pn	05 00 11.0	+0.1
KHC				ePg	Pg	05 00 17.3	-1.8
KHC				eSn	Sn	05 00 47.2	+0.7
KHC				eSg	Sg	05 00 56.8	0.0
KHC	Kasperske Hory	2.91	214	ePN	Pn	05 00 11.0	+0.1
KHC				ePG	Pg	05 00 17.3	-1.8
KHC				eSN	Sn	05 00 47.2	+0.7
KHC				eSG	Sg	05 00 56.8	0.0
	comp=Z,33nm,0.7s						
KHC	Kasperske Hory	2.91	214	ePn	Pn	05 00 11.0	+0.1
MOX	Moxa	2.96	254	ePn	Pn	05 00 11.7	+0.1
MOX				eSg	Sg	05 00 58.9	+0.4
MOX	Moxa	2.96	254	ePn	Pn	05 00 12.7	+1.1
MOX				ePg	Pg	05 00 20.2	+0.1
MOX				eSg	Sg	05 00 59.8	+1.3
MOX	Moxa	2.96	254	ePN	Pn	05 00 12.7	+1.1
MOX				ePG	Pg	05 00 20.2	+0.1
MOX				eSG	Sg	05 00 59.8	+1.3
MOX	Moxa	2.96	254	Pn	Pn	05 00 11.7	+0.1
MOX	Moxa	2.96	254	ePg	Pg	05 00 20.2	+0.1
MOX				Sg	Sg	05 00 58.9	+0.4
MANZ	Manzenberg	2.97	240	ePn	Pn	05 00 12.4	+0.6
MANZ				eSg	Sg	05 00 57.6	-1.3
MANZ	Manzenberg	2.97	240	Pn	Pn	05 00 12.4	+0.6
MANZ				Sg	Sg	05 00 57.6	-1.3
ROTZ	Rotzenmuhle	3.05	236	ePn	Pn	05 00 13.1	+0.3
ROTZ				eSg	Sg	05 00 59.9	-1.3
ROTZ	Rotzenmuhle	3.05	236	Pn	Pn	05 00 13.1	+0.3
ROTZ				Sg	Sg	05 00 59.9	-1.4
GEC2	GERESS Array S	3.12	210	ePn	Pn	05 00 14.4	+0.7
GEC2				eSg	Sg	05 01 02.2	-1.3
GEC2	GERESS Array S	3.12	210	ePn	Pn	05 00 13.8	+0.1
GEC2				eSg	Sg	05 01 03.3	-0.1
GEC2	GERESS Array S	3.12	210	ePn	Pn	05 00 13.8	+0.1
GEC2				Sg	Sg	05 01 02.2	-1.2
GERES	GERESS Array B	3.12	210	Pn	Pn	05 00 13.9	+0.2
GERES				Pg	Pg	05 00 20.9	-2.1
GERES				Sn	Sn	05 00 51.1	-0.5
GERES				Lg		05 01 00.3	
GERES	GERESS Array B	3.12	210	Pn	Pn	05 00 13.9	+0.2
	comp=Z,3.3nm,0.3s,baz=31,slow=12,SNR=114						
GERES				Pg	Pg	05 00 20.9	-2.1
	comp=Z,4.8nm,0.3s,baz=33,slow=18,SNR=40						
GERES				Sn	Sn	05 00 51.1	-0.5
	comp=Z,3.2nm,0.3s,baz=21,slow=26,SNR=6.0						
GERES				Lg		05 01 00.3	
	comp=Z,7.6nm,0.3s,baz=27,slow=28,SNR=12						
GERES	GERESS Array B	3.12	210	Pn	Pn	05 00 13.9	+0.2
GERES	GERESS Array B	3.12	210	Pg	Pg	05 00 20.9	-2.2
SMOL	Smolenice	3.17	164	ePg	Pg	05 00 23.4	-0.6
SMOL				eSg	Sg	05 01 06.1	+1.1
SMOL	Smolenice	3.17	164	ePG	Pg	05 00 23.4	-0.6
SMOL				eSG	Sg	05 01 06.1	+1.1
SMOL	Smolenice	3.17	164	ePg	Pg	05 00 23.4	-0.6
SMOL				eSg	Sg	05 01 06.1	+1.1
WET	Wettzell	3.17	222	ePn	Pn	05 00 14.8	+0.3
WET				eSg	Sg	05 01 03.9	-1.3
WET	Wettzell	3.17	222	ePn	Pn	05 00 14.8	+0.3
WET				eSg	Sg	05 01 03.9	-1.2
WET	Wettzell	3.17	222	Pn	Pn	05 00 14.8	+0.3
WET				Sg	Sg	05 01 03.9	-1.2
KOLL	Kolacno	3.33	152	ePn	Pn	05 00 17.7	+1.0
KOLL				ePg	Pg	05 00 26.8	-0.4
KOLL				eSg	Sg	05 01 10.7	+0.3
KOLL	Kolacno	3.33	152	ePN	Pn	05 00 17.7	+1.0
KOLL				ePG	Pg	05 00 26.8	-0.4
KOLL				eSG	Sg	05 01 10.7	+0.3
KOLL	Kolacno	3.33	152	ePn	Pn	05 00 17.7	+1.0
KOLL	Kolacno	3.33	152	ePg	Pg	05 00 26.8	-0.4
KOLL				eSg	Sg	05 01 10.7	+0.3
ZST	Bratislava	3.43	169	ePg	Pg	05 00 28.7	-0.3
ZST				eSg	Sg	05 01 13.9	+0.5
ZST	Bratislava	3.43	169	ePG	Pg	05 00 28.7	-0.3
ZST				eSG	Sg	05 01 13.9	+0.5
ZST	Bratislava	3.43	169	ePg	Pg	05 00 28.7	-0.3
ZST				eSg	Sg	05 01 13.9	+0.5
NIE	Niedzica	3.44	127	ePg	Pg	05 00 28.9	-0.5
NIE				eSg	Sg	05 01 15.0	+1.0
NIE	Niedzica	3.44	127	ePg	Pg	05 00 28.9	-0.5
NIE				eSg	Sg	05 01 15.0	+1.0
VYHS	Vyhne	3.54	149	ePn	Pn	05 00 19.5	-0.1
VYHS				ePg	Pg	05 00 27.3	-3.9
VYHS				eSg	Sg	05 01 15.5	-1.6
VYHS	Vyhne	3.54	149	ePN	Pn	05 00 19.5	-0.1
VYHS				ePG	Pg	05 00 27.3	-3.9
VYHS				eSG	Sg	05 01 15.5	-1.6
VYHS	Vyhne	3.54	149	ePn	Pn	05 00 19.5	-0.1
VYHS	Vyhne	3.54	149	ePg	Pg	05 00 27.3	-3.9
VYHS				eSg	Sg	05 01 15.5	-1.6
CLZ	Clausthal	3.57	277	ePn	Pn	05 00 20.9	+1.0
CLZ	Clausthal	3.57	277	ePn	Pn	05 00 20.9	+1.0
CLZ	Clausthal	3.57	277	Pn	Pn	05 00 20.9	+1.0
GRA1	Grafenberg Arr	3.62	241	ePn	Pn	05 00 21.3	+0.7
GRA1				eSg	Sg	05 01 19.5	0.0
GRA1	Grafenberg Arr	3.62	241	Pn	Pn	05 00 21.3	+0.7
GRA1				Sg	Sg	05 01 19.5	0.0
GRF	Grafenberg Arr	3.62	241	ePn	Pn	05 00 21.3	+0.7
GRF				eSg	Sg	05 01 19.5	0.0
GRF	Grafenberg Arr	3.62	241	ePn	Pn	05 00 21.3	+0.7
GRF				eSg	Sg	05 01 19.5	0.0
GRF	Grafenberg Arr	3.62	241	ePn	Pn	05 00 21.3	+0.7
GRF				eSg	Sg	05 01 19.5	0.0
GRFO	Grafenberg	3.62	241	ePn	Pn	05 00 20.9	+0.3
GRFO				ePg	Pg	05 00 34.6	+2.0
GRFO				eSg	Sg	05 01 20.9	+1.4
GRFO	Grafenberg	3.62	241	ePn	Pn	05 00 20.9	+0.3
GRFO	Grafenberg	3.62	241	ePg	Pg	05 00 34.6	+1.9
CONA	Conrad Observa	3.63	182	⇑iPn	Pn	05 00 21.0	+0.1
	SNR=8.1						
CONA				⇑iSg	Sg	05 01 19.2	-0.9
	comp=Z,50nm,0.7s						
CONA	Conrad Observa	3.63	182	Pn	Pn	05 00 21.0	+0.2
	SNR=8.1						
CONA				Sg	Sg	05 01 19.2	-0.9
	comp=Z,50nm,0.7s						
BSD	Bornholm Skovb	3.63	349	iP	Pn	05 00 20.7	-0.1
BSD				iS	Sn	05 01 02.2	-2.2
HROE	Hohe Rhon--Fla	3.88	257	⇑iPn	Pn	05 00 24.1	-0.1
HROE	Hohe Rhon--Fla	3.88	257	⇑iPn	Pn	05 00 24.1	-0.1
MOA	Molln	3.89	198	iPn	Pn	05 00 25.0	+0.6
	SNR=20						
MOA	Molln	3.89	198	⇓iSg	Sg	05 01 28.9	+0.5
	comp=Z,31nm,0.6s						
MOA	Molln	3.89	198	iPn	Pn	05 00 25.0	+0.6
MOA				iSg	Sg	05 01 28.9	+0.5
MOA	Molln	3.89	198	iPn	Pn	05 00 25.0	+0.6
	SNR=20						
MOA				⇓iSg	Sg	05 01 28.9	+0.5
	comp=Z,31nm,0.6s						
MOA	Molln	3.89	198	Pn	Pn	05 00 25.0	+0.6
	comp=Z,20nm,4.0s						
MOA				Sg	Sg	05 01 28.9	+0.5
	comp=Z,31nm,0.6s						
STHS	Stebnicka Huta	3.93	121	ePn	Pn	05 00 27.2	+2.3
STHS				ePg	Pg	05 00 38.1	-0.6
STHS				eSg	Sg	05 01 32.2	+2.7
STHS	Stebnicka Huta	3.93	121	ePN	Pn	05 00 27.2	+2.3
STHS				ePG	Pg	05 00 38.1	-0.6
STHS				eSG	Sg	05 01 32.2	+2.7
STHS	Stebnicka Huta	3.93	121	ePn	Pn	05 00 27.2	+2.3
STHS	Stebnicka Huta	3.93	121	ePg	Pg	05 00 38.1	-0.6
STHS				eSg	Sg	05 01 32.2	+2.7
KECS	Kecovo	4.18	136	ePn	Pn	05 00 27.9	-0.5
KECS				ePg	Pg	05 00 43.7	+0.2
KECS				eSg	Sg	05 01 37.1	-0.6
KECS	Kecovo	4.18	136	ePN	Pn	05 00 27.9	-0.5
KECS				ePG	Pg	05 00 43.7	+0.2
KECS				eSG	Sg	05 01 37.1	-0.6
ARSA	Arzberg	4.32	185	⇓iPn	Pn	05 00 30.8	+0.5
ARSA	Arzberg	4.32	185	⇑iSg	Sg	05 01 40.6	-1.6
	comp=Z,38nm,0.7s						
ARSA	Arzberg	4.32	185	⇓iPn	Pn	05 00 30.8	+0.5
ARSA				iSg	Sg	05 01 40.6	-1.6
ARSA	Arzberg	4.32	185	⇓iPn	Pn	05 00 30.8	+0.5
ARSA				⇑iSg	Sg	05 01 40.6	-1.6
	comp=Z,38nm,0.7s						
ARSA	Arzberg	4.32	185	Pn	Pn	05 00 30.8	+0.5
ARSA				Sg	Sg	05 01 40.6	-1.6
	comp=Z,38nm,0.7s						
CRVS	Cervenica-Dubn	4.36	125	ePn	Pn	05 00 31.8	+1.0
CRVS				ePg	Pg	05 00 45.7	-1.1
CRVS				eSg	Sg	05 01 43.0	-0.2
CRVS	Cervenica-Dubn	4.36	125	ePN	Pn	05 00 31.8	+1.0
CRVS				ePG	Pg	05 00 45.7	-1.1
CRVS				eSG	Sg	05 01 43.0	-0.2
CRVS	Cervenica-Dubn	4.36	125	ePn	Pn	05 00 31.8	+1.0
CRVS	Cervenica-Dubn	4.36	125	ePg	Pg	05 00 45.7	-1.1
CRVS				eSg	Sg	05 01 43.0	-0.2
PSZ	Piszkesteto	4.40	144	⇓P	Pn	05 00 32.4	+1.0
PSZ	Piszkesteto	4.40	144	⇓iP	Pn	05 00 32.4	+1.0
KWP	Kalwaria	4.64	112	ePn	Pg	05 00 49.8	-2.4
KWP	Kalwaria	4.64	112	⇓P	Pn	05 00 34.2	-0.4
KWP	Kalwaria	4.64	112	⇓iP	Pn	05 00 34.2	-0.4
KOLS	Kolonicke sedl	4.76	121	ePn	Pn	05 00 36.5	+0.2
KOLS				ePg	Pg	05 00 53.2	-1.4
KOLS	Kolonicke sedl	4.76	121	ePN	Pn	05 00 36.5	+0.2
KOLS				ePG	Pg	05 00 53.2	-1.4
KOLS	Kolonicke sedl	4.76	121	ePn	Pn	05 00 36.5	+0.2
KOLS	Kolonicke sedl	4.76	121	ePg	Pg	05 00 53.2	-1.4
KBA	Koelnbreinsper	4.83	203	⇑iPn	Pn	05 00 38.2	+0.9
KBA	Koelnbreinsper	4.83	203	⇓iSg	Sg	05 01 57.8	-0.5
	comp=Z,19nm,0.6s						
KBA	Koelnbreinsper	4.83	203	⇑iPn	Pn	05 00 38.2	+0.9
KBA				iSg	Sg	05 01 57.8	-0.5
KBA	Koelnbreinsper	4.83	203	⇑iPn	Pn	05 00 38.2	+0.9
KBA				⇓iSg	Sg	05 01 57.8	-0.5
	comp=Z,19nm,0.6s						
KBA	Koelnbreinsper	4.83	203	Pn	Pn	05 00 38.2	+1.0
KBA				Sg	Sg	05 01 57.8	-0.5
	comp=Z,19nm,0.6s						
GROS	Grobnik	5.11	185	iPn	Pn	05 00 42.7	+1.5
GROS	Grobnik	5.11	185	iPn	Pn	05 00 42.7	+1.5
GROS	Grobnik	5.11	185	iPn	Pn	05 00 42.7	+1.5
TRPA	Tarpa	5.40	127	⇓iP	Pn	05 00 44.8	-0.3
CADS	Cadrg	5.55	197	ePn	Pg	05 01 11.7	+1.9
CADS	Cadrg	5.55	197	ePn	Pg	05 01 11.7	+1.9
PKSM	Moragy	5.61	162	⇓P	Pn	05 00 48.9	+0.9
PKSM	Moragy	5.61	162	⇓iP	Pn	05 00 48.8	+0.8
BOJS	Bojanci	6.08	186	iPn	Pn	05 00 55.8	+1.3
BOJS	Bojanci	6.08	186	iPn	Pn	05 00 55.8	+1.3
BOJS	Bojanci	6.08	186	iPn	Pn	05 00 55.8	+1.3
DAVOX	Davos/Dischmat	6.27	223	Pn	Pn	05 00 57.2	+0.1
DAVOX				Lg		05 02 40.7	
DAVOX	Davos/Dischmat	6.27	223	Pn	Pn	05 00 57.2	+0.1
	comp=Z,0.2nm,0.3s,baz=323,slow=20,SNR=3.4						
DAVOX				Lg		05 02 40.7	
	comp=Z,0.4nm,0.3s,baz=299,slow=21,SNR=3.2						
DAVOX	Davos/Dischmat	6.27	223	Pn	Pn	05 00 57.2	+0.1
CDF	Champ du Feu	6.49	244	ePn	Pn	05 00 56.9	-3.2
CDF	Champ du Feu	6.49	244	eP	Pn	05 01 00.7	+0.6
CDF				eSg	Sg	05 02 44.4	-7.4
	comp=Z,27nm,0.8s						
CDF	Champ du Feu	6.49	244	ePn	Pn	05 00 56.9	-3.2
CDF	Champ du Feu	6.49	244	ePn	Pn	05 00 56.9	-3.2
CDF	Champ du Feu	6.49	244	eP	Pn	05 01 00.7	+0.6
WLF	Walferdange	6.60	257	Pn	Pn	05 01 10.1	+8.5
	comp=Z,14nm,0.8s						
WLF				eSn	Sg	05 02 51.2	-4.0
BZS	Buzias	6.98	146	⇓P	Pn	05 01 07.9	+1.0
BZS	Buzias	6.98	146	⇓iP	Pn	05 01 07.9	+1.1
HINF	Hinteralfeld	7.06	242	eSg	Sg	05 03 03.8	-6.2
	comp=Z,32nm,0.9s						
HINF	Hinteralfeld	7.06	242	eSg	Sg	05 03 03.8	-6.2
	comp=Z,16nm,0.9s						
BURAR	Bucovina Array	7.12	120	⇑P	Pn	05 01 09.0	+0.2
BURAR	Bucovina Array	7.12	120	⇑iP	Pn	05 01 09.0	+0.2
HAU	Haudompre	7.24	244	eSg	Sg	05 03 07.9	-7.7
	comp=Z,40nm,1.0s						
HAU	Haudompre	7.24	244	eSg	Sg	05 03 07.9	-7.7
	comp=Z,20nm,1.0s						
SFTF	Sexfontaines	7.88	249	ePn	Pn	05 01 16.3	-2.9
	baz=73						
SFTF	Sexfontaines	7.88	249	ePn	Pn	05 01 16.3	-2.9
SFTF	Sexfontaines	7.88	249	ePn	Pn	05 01 16.3	-2.9
AKASG	Malin Array Be	8.31	91	Pn	Pn	05 01 25.9	+0.8
AKASG				Sn	Sn	05 02 55.9	-3.7
AKASG				Lg		05 04 03.0	
AKASG	Malin Array Be	8.31	91	Pn	Pn	05 01 25.9	+0.8
	comp=Z,1.5nm,0.3s,baz=280,slow=12,SNR=10						
AKASG				Sn	Sn	05 02 55.9	-3.7
	comp=Z,0.6nm,0.3s,baz=278,slow=23,SNR=3.3						
AKASG				Lg		05 04 03.0	
	comp=Z,0.3nm,0.3s,baz=275,slow=28,SNR=4.4						
AKASG	Malin Array Be	8.31	91	Pn	Pn	05 01 25.9	+0.8
HFS	Hagfors	8.70	352	Pn	Pn	05 01 29.7	-0.7
HFS	Hagfors	8.70	352	Pn	Pn	05 01 29.7	-0.7
	comp=Z,0.1nm,0.3s,baz=153,slow=13,SNR=4.3						
HFS	Hagfors	8.70	352	Pn	Pn	05 01 29.7	-0.7
LOR	Lormes	9.05	246	ePn	Pn	05 01 32.0	-3.2
	baz=64						
LOR	Lormes	9.05	246	ePn	Pn	05 01 32.0	-3.2
LOR	Lormes	9.05	246	ePn	Pn	05 01 32.0	-3.2
SSF	Saint Saulge	9.36	246	ePn	Pn	05 01 36.0	-3.5
SSF	Saint Saulge	9.36	246	ePn	Pn	05 01 36.0	-3.5
SSF	Saint Saulge	9.36	246	ePn	Pn	05 01 36.0	-3.5
SBF	Sospel	9.65	220	ePn	Pn	05 01 40.1	-3.3
SBF	Sospel	9.65	220	ePn	Pn	05 01 40.1	-3.3
NOA	NORSAR Array B	9.88	346	Pn	Pn	05 01 44.8	-1.7
NOA				Lg		05 04 38.7	
NOA	NORSAR Array B	9.88	346	Pn	Pn	05 01 44.8	-1.7
	comp=Z,0.1nm,0.3s,baz=175,slow=13,SNR=3.0						
NOA				Lg		05 04 38.7	
	comp=Z,0.2nm,0.3s,baz=162,slow=12,SNR=3.3						
NOA	NORSAR Array B	9.88	346	Pn	Pn	05 01 44.8	-1.7
FINES	FINESS Array B	11.33	25	Pn	Pn	05 02 04.8	-1.5
FINES				Sn	Sn	05 04 09.8	-3.7
FINES	FINESS Array B	11.33	25	Pn	Pn	05 02 04.8	-1.5
	comp=Z,0.2nm,0.3s,baz=208,slow=12,SNR=8.7						
FINES				Sn	Sn	05 04 09.8	-3.7
	comp=Z,0.1nm,0.3s,baz=209,slow=20,SNR=5.0						
ARCES	ARCESS Array B	18.58	10	Pn	Pn	05 03 38.1	-3.6
ARCES	ARCESS Array B	18.58	10	Pn	Pn	05 03 38.1	-3.6
	comp=Z,0.2nm,0.3s,baz=191,slow=14,SNR=7.1						
SONM	Songino Array	54.90	55	P	P	05 08 56.9	+1.5
	comp=Z,0.2nm,0.5s,mb3.4,baz=295,slow=7.8,SNR=2.4						
YKA	Yellowknife Ar	59.81	336	P	P	05 09 31.1	+1.3
YKA	Yellowknife Ar	59.81	336	P	P	05 09 31.1	+1.3
	comp=Z,0.4nm,0.7s,mb3.6,baz=29,slow=6.8,SNR=8.2						

WEL 20 05:06:42.7±0.3, 3690S×17761E, h154km±2km, ML3.5/11, Error ellipse: s-maj=4.2km s-min=2.6km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	0.86	140	PN	Pn	05 07 06.7	+0.1
MXZ				SN	Sn	05 07 24.6	-0.4
PUZ	Puketiti	1.28	156	PN	Pn	05 07 10.4	+0.2
PUZ				SN	Sn	05 07 31.0	-0.5

URZ	**Urewera**	**1.41**	**196**	PN	Pn	05 07 11.8	+0.2
URZ				SN	Sn	05 07 34.1	+0.3
MWZ	**Matawai**	**1.43**	**183**	PN	Pn	05 07 12.1	+0.3
KNZ	**Kokohu**	**2.12**	**179**	PN	Pn	05 07 19.3	0.0
PXZ	**Pawanui**	**3.18**	**190**	PN	Pn	05 07 31.3	-1.1
PXZ				SN	Sn	05 08 08.0	-3.0
BFZ	**Birch Farm**	**3.92**	**195**	PN	Pn	05 07 39.9	-2.1
MRZ	**Mangatainoka R**	**4.08**	**202**	PN	Pn	05 07 41.7	-2.2
MTW	**Mount Morrison**	**4.56**	**200**	PN	Pn	05 07 47.2	-3.0

JMA 20 05:27:20.2±0.2, 25.71N×140.29E, h134km, M3.7, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHHJ	**Haha-jima-NKT**	**1.93**	**61**	P	Pn	05 27 53.8	+0.3
JHHJ				*e*S	Sn	05 28 19.2	+0.2
CBIJ	**Chichi jima**	**2.19**	**51**	P	Pn	05 27 57.0	+0.3
CBIJ				*e*S	Sn	05 28 25.4	+0.7
JKO	**Kozu shima**	**8.51**	**354**	*e*S	Sn	05 30 56.9	+2.2
BSO1	**Boso 1**	**8.93**	**4**	P	Pn	05 29 22.6	-3.5

IDC 20 05:33:30.3±39.0, 7.45S×157.33E, h0km, mb4.0/3, mb1 4.2/3, mb1mx3.7/13, mbtmp4.0/3, Error ellipse: s-maj=652.1km s-min=97.9km az=45.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**25.51**	**239**	P	P	05 39 00.2	-0.4
	1.5nm,0.9s,baz=65,slow=9.4,SNR=6.5						
ASAR	**Alice Springs**	**27.66**	**232**	P	P	05 39 20.4	+0.5
	1.8nm,0.9s,baz=62,slow=9.4,SNR=16						
STKA	**Stephens Creek**	**28.38**	**209**	P	P	05 39 26.4	0.0
	2.4nm,0.8s,baz=40,slow=14,SNR=4.3						

CSEM ***20*** *06:43:22.6, 36.70N×31.40E, h32km, MD3.0, After ISK*

ISK 20 06:43:22.6, 36.70N×31.40E, h32km, MD3.0, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BCK	**Bucak**	**1.00**	**320**	PG	Pn	06 43 40.7	+0.3
BCK	**Bucak**	**1.00**	**320**	*e*Pg	Pn	06 43 40.7	+0.3
ELL	**Elmali**	**1.20**	**273**	PN	Pn	06 43 44.5	+1.4
ELL	**Elmali**	**1.20**	**273**	*e*Pn	Pn	06 43 44.5	+1.4
ERMK	**Ermenek**	**1.22**	**92**	*i* P	Pn	06 43 46.0	+2.6
ISP	**Isparta**	**1.35**	**328**	PN	Pn	06 43 45.1	0.0
ISP				SN	Sn	06 44 01.6	-0.3
KONT	**Konya--Tatoy**	**1.46**	**31**	PN	Pn	06 43 47.4	+0.7
KONT				SN	Sn	06 44 06.0	+1.2
KONT	**Konya--Tatoy**	**1.46**	**31**	*e*Pn	Pn	06 43 47.4	+0.7
KONT				*e*Sn	Sn	06 44 06.0	+1.2
GOLH	**Golhisar**	**1.57**	**291**	*i* P	Pn	06 43 50.7	+2.5
FETY	**Fethiye**	**1.86**	**269**	PN	Pn	06 43 53.1	+0.9
FETY				SN	Sn	06 44 15.1	+0.4
FETY	**Fethiye**	**1.86**	**269**	*e*Pn	Pn	06 43 53.1	+0.9
FETY				*e*Sn	Sn	06 44 15.1	+0.4
IKL	**Isikli**	**1.90**	**103**	*e*PN	Pn	06 43 53.3	+0.6
IKL				*e*SN	Sn	06 44 15.6	0.0
IKL	**Isikli**	**1.90**	**103**	*e*Pn	Pn	06 43 53.3	+0.6
IKL				*e*Sn	Sn	06 44 15.6	0.0
KDHN	**Kadinhani**	**1.91**	**17**	*i* P	Pn	06 43 52.7	-0.2
KIZT	**Kizilcal**	**2.21**	**10**	*e*PN	Pn	06 43 56.7	-0.3
KIZT	**Kizilcal**	**2.21**	**10**	*e*Pn	Pn	06 43 56.7	-0.3

GUC 20 06:58:46.6±0.5, 31.19S×71.72W, h27km±11km, MD3.6, ML2.6, 2C-2D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	**Combarbala**	**0.62**	**89**	⇑*i*P	Pb	06 58 58.6	-0.2
CMCH				*i* S	Sb	06 59 07.7	+0.5
CMCH				AML	AML	06 59 08.1	
	comp=E,2µm,0.2s						
CMCH				AML	AML	06 59 08.2	
	comp=N,2µm,0.4s						
CHNG	**Los Chungos**	**0.72**	**165**	⇓*i*P	Pb	06 58 47.7	-13
CHNG				*i* S	Sb	06 58 57.7	-12
CHNG				AML	AML	06 58 59.6	
	comp=N,278nm,0.3s						
CHNG				AML	AML	06 59 00.2	
	comp=E,283nm,0.3s						
OVCH	**Ovalle**	**0.73**	**38**	⇑*i*P	Pb	06 59 00.1	-0.6
OVCH				*i* S	Sb	06 59 10.2	-0.1
OVCH				AML	AML	06 59 12.5	
	comp=N,670nm,0.2s						
LSCH	**La Serena**	**1.34**	**18**	*e*P	Pn	06 59 09.7	+0.1
LSCH				*i* S	Sn	06 59 27.3	+0.9
LSCH				AML	AML	06 59 31.4	
	comp=E,58nm,0.2s						
LSCH				AML	AML	06 59 35.2	
	comp=N,70nm,0.6s						
FCH	**Farellones**	**2.46**	**151**	⇓*i*P	Pn	06 59 26.9	+2.0
FCH				AML	AML	07 00 06.1	
	comp=E,57nm,0.5s						
FCH				AML	AML	07 00 13.1	
	comp=N,51nm,0.3s						

IDC 20 07:28:35.8±1.0, 46.47N×155.75E, h0km, mb3.6/6, mb1 3.8/7, mb1mx3.6/22, mbtmp3.6/7, Error ellipse: s-maj=32.8km s-min=24.1km az=145.0, East of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	**Matsushiro Arr**	**16.43**	**239**	Pn	Pn	07 32 27.2	-0.4
	baz=39,slow=8.7,SNR=2.7						
SONM	**Songino Array**	**33.14**	**291**	P	P	07 35 13.0	-0.5
	0.4nm,0.8s,baz=96,slow=9.1,SNR=3.7						
MKAR	**Makanchi Array**	**48.68**	**299**	P	P	07 37 22.0	+0.5
	0.7nm,0.7s,baz=66,slow=7.1,SNR=7.5						
YKA	**Yellowknife Ar**	**50.06**	**37**	P	P	07 37 31.4	-0.3
	0.3nm,0.6s,baz=293,slow=7.2,SNR=5.2						
WRA	**Warramunga Arr**	**68.88**	**202**	P	P	07 39 41.5	-0.6
	0.9nm,0.8s,baz=21,slow=7.0,SNR=4.1						
ASAR	**Alice Springs**	**72.55**	**201**	P	P	07 40 05.3	+0.9
	0.2nm,0.6s,baz=33,slow=6.2,SNR=4.8						
TXAR	**Lajitas Array**	**76.03**	**62**	P	P	07 40 25.1	+0.2
	0.6nm,0.6s,baz=304,slow=3.9,SNR=8.1						

ISCJB ***20*** *07:40:44.1±0.6, 49.3S±0.1×8.0W±0.2, h10km, mb4.0/10, MS3.9/4, Error ellipse: s-maj=18.3km s-min=13.9km az=160.8*

IDC ***20*** *07:40:44.4±0.8, 49.30S×7.96W, h0km, mb4.0/10, mb1 4.1/10, mb1mx4.0/19, mbtmp4.0/10, MS3.9/4, Ms1 3.9/4, ms1mx3.6/29, Error ellipse: s-maj=23.8km s-min=17.3km az=169.0*

NEIC ***20*** *07:40:45.6±0.5, 49.30S×7.97W, h10km, Error ellipse: s-maj=16.4km s-min=12.8km az=159.0*

ISC 20 07:40:46.0±0.6, 49.3S±0.1×7.9W±0.2, h10km, n18, σ$0^{s}61$/11, mb4.0/10, MS3.9/4, Southern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNAA	**Sanae**	**22.56**	**176**	P	**P**	**07 45 45.8**	**0.0**
	1.6nm,0.9s,mb3.4,baz=332,slow=12,SNR=4.0						
SUR	**Sutherland**	**27.32**	**62**	P	**P**	**07 46 31.7**	**+0.9**
	5.4nm,1.0s,mb4.0,baz=188,slow=7.1,SNR=2.2						
SUR				LR	LR	07 54 36.0	
	comp=Z,346nm,20.3s,MS3.9,baz=350,slow=30						
BOSA	**Boshof**	**32.68**	**63**	P	**P**	**07 47 17.5**	**-0.8**
	5.3nm,1.0s,mb4.4,baz=235,slow=7.6,SNR=3.4						
BOSA				LR	LR	07 57 38.5	
	comp=Z,337nm,20.2s,MS4.0,baz=185,slow=31						
LBTB	**Lobatse**	**35.62**	**59**	P	**P**	**07 47 43.9**	**0.0**
	4.7nm,0.9s,mb4.4,baz=220,slow=11,SNR=4.6						
USHA	**Ushuaia**	**36.56**	**238**	LR	LR	07 58 03.3	
	comp=Z,84nm,18.0s,MS3.6,baz=133,slow=28						
MAW	**Mawson**	**38.67**	**145**	P	**P**	**07 48 09.6**	**+0.4**
	4.0nm,1.0s,mb4.1,baz=246,slow=12,SNR=2.7						
MAW				LR	LR	07 59 36.5	
	comp=Z,181nm,21.0s,MS3.9,baz=246,slow=29						
MATP	**Matopo**	**40.88**	**58**	P	**P**	**07 48 27.2**	**-1.0**
MATP	**Matopo**	**40.88**	**58**	P	**P**	**07 48 27.2**	**-1.0**
	4.1nm,0.8s,mb4.1,baz=202,slow=9.4,SNR=7.3						
CFAA	**Coronel Fontan**	**47.85**	**268**	P	**P**	**07 49 23.1**	**-0.7**
	0.3nm,0.6s,mb3.5,baz=121,slow=8.0,SNR=6.1						
SIV	**San Ignacio**	**54.22**	**288**	P	**P**	**07 50 12.0**	**+0.1**
	3.2nm,0.9s,mb4.2,baz=127,slow=7.2,SNR=14						
LPAZ	**La Paz**	**58.45**	**282**	P	**P**	**07 50 42.4**	**+0.3**
	1.3nm,0.8s,mb4.0,baz=76,slow=4.9,SNR=4.9						
TORD	**Torodi Ar. Bea**	**62.76**	**11**	P	**P**	**07 51 12.0**	**+0.7**
	1.3nm,0.8s,mb4.1,baz=138,slow=1.3,SNR=5.2						
SONM	**Songino Array**	**137.77**	**66**	PKP	PKPdf	08 00 10.8	+1.2
SONM	**Songino Array**	**137.77**	**66**	PKP	PKPdf	08 00 10.8	+1.2
	0.4nm,0.6s,baz=239,slow=3.2,SNR=3.5						
YKA	**Yellowknife Ar**	**139.18**	**317**	PKP	PKPdf	08 00 10.9	-0.8
YKA	**Yellowknife Ar**	**139.18**	**317**	PKP	PKPdf	08 00 10.9	-0.8
	0.4nm,0.8s,baz=109,slow=2.4,SNR=5.5						
KSRS	**Korea Array**	**146.27**	**94**	PKPbc	PKPbc	08 00 25.2	-1.0
	1.8nm,0.8s,baz=259,slow=5.1,SNR=9.0						
HIA	**Hailar**	**146.45**	**70**	*e*PKPdf	PKPdf	08 00 22.4	-2.6
HIA				*e*pPKPdf	pPKPdf	08 00 34.3	+5.9

IDC 20 08:00:24.6±5.4, 8.33S×156.10E, h0km, mb4.3/3, mb1 4.5/3, mb1mx3.8/13, mbtmp4.3/3, MS3.4/1, Ms1 3.4/1, ms1mx3.4/24, Error ellipse: s-maj=93.9km s-min=72.6km az=4.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**8.90**	**262**	LR	LR	08 05 43.4	
	comp=Z,263nm,19.8s,baz=94,slow=36						
WRA	**Warramunga Arr**	**24.02**	**239**	P	P	08 05 41.4	0.0
	4.6nm,0.8s,baz=65,slow=9.5,SNR=14						
ASAR	**Alice Springs**	**26.16**	**232**	P	P	08 06 01.3	+0.4
	4.8nm,0.8s,baz=64,slow=9.3,SNR=35						
STKA	**Stephens Creek**	**27.04**	**208**	P	P	08 06 08.5	-0.2
	3.5nm,0.7s,baz=29,slow=13,SNR=11						

BJI ***20*** *08:04:15.8, 1.81S×127.67E, h11km, mB6.9, mb6.2, Ms6.5, Msz6.3*

ISCJB ***20*** *08:04:25.5±0.1, 1.00S±0.02×127.08E±0.02, h26km, mb6.2/169, MS6.6/231, Error ellipse: s-maj=3.4km s-min=2.4km az=159.9*

GCMT ***20*** *08:04:25.1±0.1, 0.91S×127.17E, h12km, MW6.7/97, Moment Tensor Solution. s96,c237; s97,c430; Duration: $5^{s}6$ Moment tensor: Scale 10^{19}Nm; M_{rr}-0.35±.01; $M_{\theta\theta}$0.71±.01; $M_{\phi\phi}$-0.35±.01; $M_{r\theta}$0.32±.02; $M_{\theta\phi}$0.80±.01; $M_{\phi r}$-1.15±.04; Best double couple: $M_0$1.48900×10^{19} NP1:ϕ_s276.00000°, δ49.00000°, λ-20.00000°. NP2:ϕ_s19.00000°, δ75.00000°, λ-138.00000°. Principal axes: T 1.2170, Plg16.0000°, Azm142.0000°; N 0.5440, Plg46.0000°, Azm35.0000°; P -1.7620, Plg40.0000°, Azm246.0000°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface/mantle waves, cutoff=50s.*

NEIC ***20*** *08:04:25.3±0.1, 1.03S×126.98E, h12km, mb6.2/88, ME6.6, MS6.6/181, MW6.5 Error ellipse: s-maj=5.4km s-min=3.5km az=63.0 Broadband fault plane solution: P waves. NP1:ϕ_s25.00000°, δ60.00000°, λ-110.00000°. NP2:ϕ_s241.00000°, δ36.00000°, λ-59.00000°. Principal axes: T Plg13.0000°, Azm129.0000°; N Plg0.0000°, Azm0.0000°; P Plg68.0000°, Azm254.0000°; Moment Tensor Solution. s36 Moment tensor: Scale 10^{18} Nm; M_{rr}-5.69; $M_{\theta\theta}$3.37; $M_{\phi\phi}$2.32; $M_{r\theta}$-0.68; $M_{\theta\phi}$4.07; $M_{\phi r}$-4.64; Best double couple: $M_0$7.90000×10^{18} NP1:ϕ_s252.00000°, δ35.00000°, λ-50.00000°. NP2:ϕ_s26.00000°, δ64.00000°, λ-114.00000°. Principal axes: T 7.9500, Plg16.0000°, Azm133.0000°; N -0.0300, Plg22.0000°, Azm37.0000°; P -7.9200, Plg63.0000°, Azm257.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC Felt [IV] at Labuha and Sanana; [III] on Ternate; [II] on Ambon and at Bitung.

CRAAG ***20*** *08:04:26.3, 0.99S×127.11E, Mb6.5*

MOS ***20*** *08:04:27.1±1.3, 0.94S×126.97E, h33km, mb6.5/56, MS6.4/62, Error ellipse: s-maj=8.3km s-min=4.4km az=115.0*

IDC ***20*** *08:04:28.1±1.1, 0.95S×127.09E, h31km±6km, mb5.7/32, mb1 5.6/33, mb1mx5.6/33, mbtmp5.7/33, ML5.3/1, MS6.3/15, Ms1 6.3/15, ms1mx6.1/31, Error ellipse: s-maj=11.6km s-min=6.7km az=71.0*

SZGRF ***20*** *08:04:33.4, 0.42S×126.99E, h31km, mb6.7, Southern Molucca Sea*

ISC 20 08:04:27.5±0.1, 1.03S±0.02×127.07E±0.02, h28km, h28km±1.5km:pP-P, n936, σ$1^{s}21$/596, mb6.2/169, MS6.6/231, 36C-54D, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	**Ambon**	**2.87**	**157**	P	**Pn**	**08 05 11.0**	**-0.4**
	23µm,0.8s						
PCI	**Palu**	**7.24**	**271**	P	**Pn**	**08 06 11.4**	**-0.1**
	9µm,0.8s						
MATI	**Mati**	**7.96**	**354**	*e*P	**Pn**	**08 06 23.2**	**+1.8**
DAV	**Davao City (W)**	**8.18**	**350**	*e*Pn	**Pn**	**08 06 24.7**	**+0.3**
DAV				*e*Sn	**Sn**	**08 08 09.5**	**+13**
DAV	**Davao City (W)**	**8.18**	**350**	⇑*i*P	**Pn**	**08 06 24.0**	**-0.5**
BUKP	**Musuan**	**9.07**	**347**	*e*P	**Pn**	**08 06 38.2**	**+1.5**
PAGZ	**Pagadian**	**9.56**	**337**	*e*P	**Pn**	**08 06 44.1**	**+0.8**
TARAI	**Tarakan**	**10.44**	**295**	P	**Pn**	**08 06 54.9**	**-0.5**
	4µm,0.7s						
MYLDM	**Lahad Datu**	**10.55**	**306**	⇓P	**Pn**	**08 07 02.7**	**+5.7**
TSM	**Tawau**	**10.61**	**300**	⇓P	**Pn**	**08 06 59.1**	**+1.4**
WSI	**Waingapu**	**10.91**	**218**	P	**Pn**	**08 07 05.2**	**+3.3**
	9µm,1.3s						
MSLP	**Maasin**	**11.31**	**349**	*e*P	**Pn**	**08 07 07.2**	**-0.1**
SDKM	**Sandakan**	**11.88**	**304**	⇑P	**Pn**	**08 07 19.1**	**+3.9**
OCLP	**Ormoc**	**12.25**	**349**	*i* P	**Pn**	**08 07 20.3**	**+0.1**
GUIM	**Jordan**	**12.41**	**339**	*e*P	**Pn**	**08 07 23.0**	**+0.6**
KAKA	**Kakadu**	**12.77**	**156**	*e*P	**Pn**	**08 07 24.0**	**-3.3**
	748nm,0.4s						
KDM	**Kudat**	**12.91**	**308**	⇑P	**Pn**	**08 07 34.3**	**+5.0**
KKM	**Kota Kinabalu**	**12.92**	**303**	*e*Pn	**Pn**	**08 07 30.4**	**+1.1**
KKM				*e*Sn	**Sn**	**08 10 05.2**	**+13**
KKM	**Kota Kinabalu**	**12.92**	**303**	⇑P	**Pn**	**08 07 32.1**	**+2.7**
CUYO	**Cuyo Island**	**13.25**	**333**	*e*P	**Pn**	**08 07 35.6**	**+1.7**
BATP	**Bataraza**	**13.44**	**317**	*i* P	**Pn**	**08 07 36.1**	**-0.3**
CNP	**Catarman**	**13.66**	**350**	*e*P	**Pn**	**08 07 38.0**	**-1.5**
JAY	**Jayapura**	**13.70**	**96**	P	**Pn**	**08 07 41.1**	**+1.0**
	653nm,2.0s						
DNP	**Denpasar**	**14.04**	**237**	P	**Pn**	**08 07 48.8**	**+4.1**
	2µm,1.1s						
OTRP	**Odiongan**	**14.22**	**339**	*e*P	**Pn**	**08 07 47.2**	**+0.1**
ENPP	**El Nido**	**14.34**	**328**	*i* P	**Pn**	**08 07 49.5**	**+0.8**
KMMI	**Kalianget**	**14.37**	**245**	P	**Pn**	**08 07 51.1**	**+1.9**
	2µm,1.1s						
NBBI	**Negara**	**14.39**	**239**	P	**Pn**	**08 07 51.0**	**+1.6**
	7µm,1.1s						
BTM	**Bintulu**	**14.60**	**287**	⇑P	**Pn**	**08 07 54.2**	**+1.8**
BUSP	**Coron**	**14.64**	**332**	*e*P	**Pn**	**08 07 53.6**	**+0.8**
PVCP	**Virac**	**14.82**	**349**	*e*P	**Pn**	**08 07 53.7**	**-1.5**
MMPI	**Merauke**	**15.18**	**120**	P	**Pn**	**08 08 02.4**	**+2.4**
	3µm,2.2s						
SBUM	**Sibu**	**15.25**	**283**	⇑P	**Pn**	**08 08 02.6**	**+1.6**
BOAC	**Boac**	**15.30**	**340**	*e*P	**Pn**	**08 08 03.8**	**+2.2**
LUBP	**Lubang**	**16.15**	**335**	*e*P	**Pn**	**08 08 11.8**	**-0.9**
POLP	**Polilio Island**	**16.46**	**342**	*e*P	**Pn**	**08 08 16.2**	**-0.4**
KSM	**Kuching**	**16.95**	**278**	*e*Pn	**Pn**	**08 08 21.7**	**-1.1**
KSM				*e*S	**Sn**	**08 11 40.8**	**+10**
KSM				*e*ScP	ScP	08 16 43.2	+1.3
KSM	**Kuching**	**16.95**	**278**	⇑P	**Pn**	**08 08 24.2**	**+1.4**
FITZ	**Fitzroy Crossi**	**17.02**	**185**	*e*P	**Pn**	**08 08 21.1**	**-2.6**
	1µm,0.9s						
FITZ				*e*S	**Sn**	**08 11 23.1**	**-9.1**
FITZ	**Fitzroy Crossi**	**17.02**	**185**	P	**Pn**	**08 08 23.7**	**0.0**
	8.9nm,0.3s,baz=18,slow=13,SNR=82						
FITZ				S	**Sn**	**08 11 29.6**	**-2.7**
	2.1nm,0.3s,baz=143,slow=20,SNR=1.6						
FITZ				LR	LR	08 16 15.3	
	comp=Z,91µm,18.3s,baz=179,slow=41						
BALP	**Baler**	**17.53**	**342**	*e*P	**Pn**	**08 08 29.0**	**-1.0**
SCZP	**Santa Cruz**	**18.14**	**337**	*e*P	**Pn**	**08 08 37.2**	**-0.3**
BJII	**Banjamegara**	**18.41**	**250**	P	**Pn**	**08 08 42.4**	**+1.6**
	7µm,1.7s						
PALP	**Palanan**	**18.55**	**346**	*e*P	**Pn**	**08 08 43.4**	**+0.9**
CAUP	**Cauayan**	**18.59**	**344**	*e*P	**Pn**	**08 08 43.4**	**+0.4**
BOLP	**Bolinao**	**18.69**	**338**	*e*P	**Pn**	**08 08 42.8**	**-1.4**
TPI	**Tanjungpandan**	**19.48**	**265**	P	**Pn**	**08 08 53.3**	**-0.6**
	3µm,1.0s						
JCJI	**Jatiwangi**	**19.52**	**253**	P	**Pn**	**08 08 55.3**	**+1.0**
	6µm,1.3s						
ABRA	**Dolores**	**19.59**	**342**	*e*P	**Pn**	**08 08 54.3**	**-0.7**
APYP	**Conner**	**19.63**	**343**	*e*P	**Pn**	**08 08 54.4**	**-1.1**
SGCP	**Mt. Cagua**	**19.78**	**346**	*i* P	**Pn**	**08 08 57.4**	**+0.1**
WRA	**Warramunga Arr**	**20.10**	**160**	P	**P**	**08 08 56.4**	**-2.7**
WRA				S	**S**	**08 12 41.6**	**-2.0**
WRA	**Warramunga Arr**	**20.10**	**160**	P	**P**	**08 08 56.4**	**-2.7**
WRA				S	**S**	**08 12 41.6**	**-2.0**
WRA				pmax	pmax		
	comp=Z,291nm,0.8s						
WRA				smax			
	comp=N,62nm,0.9s						
WRA	**Warramunga Arr**	**20.10**	**160**	P	**P**	**08 08 56.4**	**-2.7**
	comp=N,291nm,0.8s,baz=339,slow=11,SNR=149						
WRA				S	**S**	**08 12 41.6**	**-2.0**
	comp=N,62nm,0.9s,baz=334,slow=22,SNR=4.3						
WB2	**Warramunga Arr**	**20.10**	**160**	⇑*i*P	**P**	**08 08 56.5**	**-2.6**
WB2				*e*S	**S**	**08 12 30.8**	**-13**
WB2				*e*SCS	ScS	08 20 29.8	-1.7
LEM	**Lembang**	**20.24**	**253**	P	**P**	**08 09 02.2**	**+1.5**
	comp=N,4µm,1.5s						
COEN	**Coen**	**20.46**	**130**	*e*P	**P**	**08 09 02.6**	**-0.5**
	comp=N,54nm,0.9s						
COEN				*e*S	**S**	**08 12 49.9**	**-1.1**
TNG	**Tangerang**	**21.01**	**255**	P	**P**	**08 09 10.6**	**+1.5**
	comp=N,11µm,1.5s,mb7.0						
MBWA	**Marble Bar**	**21.25**	**199**	*e*P	**P**	**08 09 11.3**	**-0.3**
MBWA				*e*S	**S**	**08 13 06.6**	**+0.2**
MBWA				LR	LR		
	comp=Z,102µm,21.0s,MS6.2						
SBJI	**Serang**	**21.50**	**256**	P	**P**	**08 09 15.4**	**+1.0**
	comp=Z,7µm,1.5s,mb6.8						
PMG	**Port Moresby**	**21.65**	**113**	*e*P	**P**	**08 09 16.7**	**+0.8**
	comp=Z,2µm,1.1s,mb6.4						
PMG				*e*ScP	ScP	08 16 55.2	+2.7
PMG				LR	LR		
	comp=Z,175µm,22.0s,MS6.4						
PMG	**Port Moresby**	**21.65**	**113**	*e*P	**P**	**08 09 16.7**	**+0.8**
PMG				pmax	pmax		
	comp=Z,2µm,1.1s						
PMG				MLR	MLR		
	comp=Z,175µm,22.0s						
PMG	**Port Moresby**	**21.65**	**113**	P	**P**	**08 09 15.8**	**-0.2**
	comp=Z,178nm,0.8s,mb5.5,baz=300,slow=5.6,SNR=32						
PMG				ScP	ScP	08 16 52.7	+0.1
	comp=Z,31nm,1.1s,baz=288,slow=16,SNR=2.2						
GUMO	**Guam**	**22.85**	**50**	*e*P	**P**	**08 09 29.5**	**+0.8**
	comp=Z,536nm,0.9s,mb6.0						
GUMO				LR	LR		
	comp=Z,76µm,20.0s,MS6.1						
GUMO	**Guam**	**22.85**	**50**	P	**P**	**08 09 27.7**	**-1.0**
	comp=Z,412nm,1.1s,mb5.8,baz=184,slow=5.6,SNR=8.0						
XMIS	**Christmas Isla**	**23.27**	**245**	*e*P	**P**	**08 09 32.5**	**-0.7**
MYKOM	**Kota Tinggi**	**23.39**	**277**	⇑P	**P**	**08 09 36.6**	**+2.1**
ASAR	**Alice Springs**	**23.46**	**164**	P	**P**	**08 09 34.1**	**-0.9**
ASAR				S	**S**	**08 13 45.2**	**-1.3**
ASAR				pmax	pmax		
	comp=Z,308nm,0.8s						
ASAR				smax			
	comp=N,80nm,1.1s						
ASAR	**Alice Springs**	**23.46**	**164**	P	**P**	**08 09 34.1**	**-0.9**
	comp=N,308nm,0.8s,mb5.8,baz=343,slow=9.8,SNR=928						
ASAR				S	**S**	**08 13 45.2**	**-1.4**
	comp=N,80nm,1.1s,baz=347,slow=24,SNR=6.3						
KGM	**Kluang**	**23.94**	**277**	⇓P	**P**	**08 09 41.8**	**+2.2**
KSI	**Kapahiang**	**24.60**	**264**	P	**P**	**08 09 46.1**	**+0.5**
	comp=N,6µm,0.8s,mb7.2						
KTGM	**Kuala Trenggan**	**24.73**	**285**	⇑P	**P**	**08 09 48.4**	**+1.6**
NACB	**Ninganchiao**	**25.61**	**348**	*e*P	**P**	**08 09 53.8**	**-0.8**
	comp=N,837nm,1.0s,mb6.2						
NACB				*e*S	**S**	**08 14 23.5**	**+2.3**
FRIM	**Kepong**	**25.79**	**280**	⇓P	**P**	**08 09 58.9**	**+2.5**
YHNB	**Yeheng**	**26.14**	**348**	*e*P	**P**	**08 09 59.2**	**-0.2**
	comp=N,3µm,1.0s,mb6.8						
YHNB				*e*S	**S**	**08 14 30.2**	**+0.8**
QIZ	**Qiongzhong**	**26.15**	**321**	P	**P**	**08 10 00.0**	**+0.4**
QIZ				AP	pP	08 10 06.9	-0.8
QIZ				XP	sP	08 10 10.4	-0.7
QIZ				SCS	ScS	08 20 55.3	+0.6
QIZ				AMB	AMB		
	comp=Z,471nm,1.4s,mb5.8						
QIZ				AMB	AMB		
	comp=Z,32µm,13.4s						
QIZ	**Qiongzhong**	**26.15**	**321**	*e*P	**P**	**08 09 59.9**	**+0.3**
	comp=Z,295nm,0.9s,mb5.8						
QIZ				LR	LR		
	comp=Z,68µm,21.0s,MS6.2						
HKC	**Hong Kong Obse**	**26.38**	**332**	⇓*i*P	**P**	**08 10 02.0**	**+0.4**
HKC				*i* S	**S**	**08 14 30.0**	**-3.4**
TATO	**Taipei**	**26.41**	**349**	*e*P	**P**	**08 10 01.9**	**+0.1**
	comp=Z,2µm,1.1s,mb6.6						
TATO				LR	LR		
	comp=Z,86µm,22.0s,MS6.2						
IPM	**Ipoh**	**26.59**	**282**	⇑P	**P**	**08 10 03.9**	**+0.2**
IPM	**Ipoh**	**26.59**	**282**	⇑P	**P**	**08 10 05.4**	**+1.7**
CTA	**Charters Tower**	**26.66**	**137**	*e*P	**P**	**08 10 05.0**	**+0.8**
	comp=Z,522nm,1.1s,mb6.0						
CTA				*e*S	**S**	**08 14 43.8**	**+5.9**
CTA	**Charters Tower**	**26.66**	**137**	P	**P**	**08 10 03.6**	**-0.6**
CTA				S	**S**	**08 14 38.9**	**+1.0**
CTA				pmax	pmax		
	comp=Z,209nm,1.0s						
CTA				smax			
	comp=N,43nm,0.9s						
CTA	**Charters Tower**	**26.66**	**137**	P	**P**	**08 10 03.6**	**-0.6**
	comp=N,209nm,1.0s,mb5.6,baz=316,slow=11,SNR=44						
CTA				S	**S**	**08 14 38.9**	**+1.0**
	comp=N,43nm,0.9s,baz=57,slow=20,SNR=2.1						
CTA				ScP	ScP	08 17 06.5	+0.3
	comp=N,40nm,0.8s,baz=255,slow=20,SNR=2.3						
CTAO	**Charters Tower**	**26.66**	**137**	*e*P	**P**	**08 10 05.1**	**+0.9**
	comp=N,1µm,1.4s,mb6.3						
CTAO				LR	LR		
	comp=Z,145µm,20.0s,MS6.5						
PPI	**Padang Panjang**	**26.68**	**271**	P	**P**	**08 10 04.3**	**-0.2**
	comp=Z,2µm,1.4s,mb6.4						
QZH	**Quanzhou**	**27.09**	**343**	⇓*i*P	**P**	**08 10 10.0**	**+2.0**
QZH				S	**S**	**08 14 46.3**	**+1.7**
QZH				AMB	AMB		
	comp=Z,3µm,1.3s,mb6.7						
QZH				LR	LR		
	comp=N,32µm,12.4s,MS6.2						
QZH				LR	LR		
	comp=E,33µm,13.2s,MS6.2						
QZH				LR	LR		
	comp=Z,239µm,33.5s						
KULM	**Kulim**	**27.13**	**284**	*e*P	**P**	**08 10 08.7**	**+0.2**
KULM				*e*ScP	ScP	08 17 09.0	+1.3
KULM	**Kulim**	**27.13**	**284**	⇓P	**P**	**08 10 09.9**	**+1.4**
GZH	**Guangzhou**	**27.45**	**332**	P	**P**	**08 10 14.3**	**+3.1**
GZH				S	**S**	**08 14 55.1**	**+4.9**
GZH				AMB	AMB		
	comp=Z,483nm,1.4s,mb5.8						
GZH				LR	LR		
	comp=N,37µm,15.5s						
GZH				LR	LR		
	comp=E,56µm,22.4s						
GZH				LR	LR		
	comp=Z,96µm,20.2s,MS6.4						
JOW	**Kunigami**	**27.72**	**2**	P	**P**	**08 10 13.3**	**-0.3**
	comp=Z,694nm,0.9s,mb6.3,baz=187,slow=8.5,SNR=52						
JOW				S	**S**	**08 14 51.0**	**-3.4**
	comp=Z,26nm,1.0s,baz=109,slow=5.1,SNR=2.9						
JOW				ScP	ScP	08 17 09.7	+0.5
	comp=Z,45nm,1.0s,baz=184,slow=8.9,SNR=4.1						
PSI	**Prapat**	**28.40**	**278**	P	**P**	**08 10 19.9**	**0.0**
PSI				S	**S**	**08 15 00.4**	**-5.1**
PSI				pmax	pmax		
	comp=Z,427nm,0.8s,mb6.1						
PSI				smax			
	comp=N,17nm,1.0s						
PSI	**Prapat**	**28.40**	**278**	P	**P**	**08 10 19.9**	**0.0**
	comp=N,427nm,0.8s,mb6.1,baz=102,slow=5.8,SNR=160						
PSI				S	**S**	**08 15 00.4**	**-5.0**
	comp=N,17nm,1.0s,baz=230,slow=13,SNR=1.3						
PSI				ScP	ScP	08 17 12.2	+0.6
	comp=N,99nm,1.0s,baz=209,slow=7.1,SNR=11						
FORT	**Forrest**	**29.60**	**178**	⇓*i*P	**P**	**08 10 29.9**	**-0.4**
	comp=N,485nm,0.7s,mb6.3						
FORT				*e*S	**S**	**08 15 22.1**	**-1.8**
CBIJ	**Chichi jima**	**31.52**	**26**	P	**P**	**08 10 45.3**	**-2.0**
	comp=N,372nm,0.7s,mb6.3,baz=222,slow=3.7,SNR=12						
CBIJ				S	**S**	**08 15 42.4**	**-12**
	comp=N,37nm,0.6s,baz=271,slow=23,SNR=3.1						
KLBR	**Kellerberrin**	**31.65**	**195**	*e*P	**P**	**08 10 48.1**	**-0.3**
	comp=N,472nm,1.2s,mb6.2						
COCO	**West Island**	**31.97**	**248**	*e*P	**P**	**08 10 51.0**	**-0.5**

	comp=N,812nm,1.3s,mb6.4						
COCO				LR	LR		
	comp=Z,58µm,21.0s,MS6.2						
BSI	**Banda Aceh**	**32.39**	**282**	P	**P**	**08 10 53.5**	**-1.7**
	comp=Z,369nm,1.4s,mb6.0						
SSE	**Sheshan**	**32.43**	**351**	P	**P**	**08 10 55.9**	**+0.6**
SSE				AP	pP	08 11 04.9	+1.4
SSE				XP	sP	08 11 08.5	+1.6
SSE				S	**S**	**08 16 09.3**	**+1.0**
SSE				XS	sS	08 16 25.0	+3.2
SSE				AMB	AMB		
	comp=Z,225nm,1.2s,mb5.9						
SSE				AMB	AMB		
	comp=Z,8µm,10.7s						
SSE				LR	LR		
	comp=N,21µm,18.6s,MS6.1						
SSE				LR	LR		
	comp=E,31µm,18.5s,MS6.1						
SSE				LR	LR		
	comp=Z,39µm,15.0s,MS6.2						
MUN	**Mundaring**	**32.45**	**197**	*e*P	**P**	**08 10 55.0**	**-0.4**
MUN				*e*S	**S**	**08 16 06.6**	**-1.9**
NWAO	**Narrogin (SRO)**	**33.05**	**195**	*e*P	**P**	**08 11 00.6**	**-0.1**
	comp=Z,113nm,0.9s,mb5.8						
NWAO				LR	LR		
	comp=Z,60µm,20.0s,MS6.3						
NWAO	**Narrogin (SRO)**	**33.05**	**195**	LR	LR	08 26 17.9	
	comp=Z,68µm,20.6s,MS6.3,baz=15,slow=40						
EIDS	**Eidsvold**	**33.50**	**138**	*e*P	**P**	**08 11 04.3**	**-0.4**
	comp=Z,29µm,1.3s						
STKA	**Stephens Creek**	**33.61**	**157**	⇑*i*P	**P**	**08 11 05.0**	**-0.5**
	comp=Z,1µm,0.9s,mb6.8						
STKA				*e*S	**S**	**08 16 25.6**	**-0.9**
STKA	**Stephens Creek**	**33.61**	**157**	P	**P**	**08 11 05.1**	**-0.4**
	comp=Z,540nm,0.9s,mb6.5,baz=328,slow=8.7,SNR=349						
STKA				S	**S**	**08 16 17.0**	**-10**
	comp=Z,48nm,1.2s,baz=104,slow=22,SNR=1.1						
STKA				LR	LR	08 26 24.8	
	comp=Z,96µm,19.1s,MS6.5,baz=235,slow=39						
WHN	**Wuhan**	**33.66**	**340**	P	**P**	**08 11 07.6**	**+1.6**
WHN				S	**S**	**08 16 28.9**	**+1.6**
WHN				LR	LR		
	comp=Z,149µm,25.0s,MS6.6						
GYA	**Guiyang**	**33.68**	**326**	⇓*i*P	**P**	**08 11 09.6**	**+3.3**
GYA				AP	pP	08 11 16.4	+1.9
GYA				XP	sP	08 11 19.0	+1.1
GYA				PP	PP	08 12 23.4	+0.6
GYA				PPP		08 12 40.8	
GYA				S	**S**	**08 16 31.5**	**+3.7**
GYA				XS	sS	08 16 42.6	+1.3
GYA				SCP	ScP	08 17 31.0	+2.1
GYA				SSS		08 19 03.4	
GYA				SCS	ScS	08 21 30.9	+0.6
GYA				AMB	AMB		
	comp=Z,2µm,1.0s,mb7.0						
GYA				LR	LR		
	comp=N,40µm,17.0s,MS6.5						
GYA				LR	LR		
	comp=E,75µm,17.5s,MS6.5						
GYA				LR	LR		
	comp=Z,66µm,17.8s,MS6.4						
HNR	**Honiara**	**33.75**	**105**	*e*P	**P**	**08 11 05.5**	**-1.6**
	comp=Z,890nm,0.8s,mb6.8						
HNR				LR	LR		
	comp=Z,74µm,22.0s,MS6.4						
HNR	**Honiara**	**33.75**	**105**	P	**P**	**08 11 06.6**	**-0.5**
HNR				pmax	pmax		
	comp=Z,599nm,0.8s,mb6.6						
HNR	**Honiara**	**33.75**	**105**	P	**P**	**08 11 06.6**	**-0.4**
	comp=Z,599nm,0.8s,mb6.6,baz=246,slow=2.2,SNR=22						
CM31	**Chiang Mai Arr**	**33.77**	**306**	*e*P	**P**	**08 11 07.5**	**+0.4**
	comp=Z,219nm,1.3s,mb5.9						
CM31				*e*PcP	PcP	08 13 49.3	+3.0
CM31				LR	LR		
	comp=Z,31µm,20.0s,MS6.0						
NJ2	**Nanjing**	**33.81**	**347**	*e*P	**P**	**08 11 08.6**	**+1.3**
NJ2				AP	pP	08 11 14.5	-1.0
NJ2				XP	sP	08 11 17.5	-1.4
NJ2				PP	PP	08 12 21.9	-2.3
NJ2				S	**S**	**08 16 29.0**	**-0.6**
NJ2				AMB	AMB		
	comp=Z,2µm,1.1s,mb7.0						
NJ2				AMB	AMB		
	comp=Z,23µm,8.7s						
NJ2				LR	LR		
	comp=N,78µm,22.2s,MS6.5						
NJ2				LR	LR		
	comp=E,57µm,22.8s,MS6.5						
NJ2				LR	LR		
	comp=Z,57µm,22.8s,MS6.2						
CHTO	**Chiang Mai**	**33.95**	**307**	*e*P	**P**	**08 11 08.6**	**-0.1**
	comp=Z,151nm,0.7s,mb6.0						
CHTO				LR	LR		
	comp=Z,32µm,20.0s,MS6.0						
CHTO	**Chiang Mai**	**33.95**	**307**	*e*P	**P**	**08 11 08.9**	**+0.2**
JNU	**Nakatsue**	**34.16**	**6**	P	**P**	**08 11 09.7**	**-0.6**
	comp=Z,218nm,1.1s,mb6.0,baz=165,slow=9.2,SNR=26						
JNU				S	**S**	**08 16 29.2**	**-5.8**
	comp=Z,28nm,1.2s,baz=51,slow=8.3,SNR=2.4						
JNU				ScP	ScP	08 17 29.7	-0.7
	comp=Z,21nm,0.9s,baz=142,slow=5.8,SNR=3.0						
JNU				LR	LR	08 23 08.3	
	comp=Z,78µm,21.8s,MS6.4,baz=181,slow=33						
KMI	**Kunming**	**35.09**	**319**	PR	**P**	**08 11 20.0**	**+1.5**
KMI				AP	pP	08 11 25.1	-1.6
KMI				PP	PP	08 12 37.4	-1.0
KMI				PPP		08 12 55.0	
KMI				S	**S**	**08 16 49.3**	**-0.2**
KMI				SSS		08 19 29.8	
KMI				SCS	ScS	08 21 39.1	+1.2
KMI				AMB	AMB		
	comp=Z,432nm,1.3s,mb6.2						
KMI				AMB	AMB		
	comp=Z,17µm,7.8s						
KMI				LR	LR		
	comp=N,25µm,18.9s,MS6.3						
KMI				LR	LR		
	comp=E,38µm,17.6s,MS6.3						
KMI				LR	LR		
	comp=Z,46µm,25.8s						
KMI	**Kunming**	**35.09**	**319**	Pr	**P**	**08 11 20.0**	**+1.5**
	comp=Z,432nm,1.3s,mb6.2						
KMI				pP	pP	08 11 25.1	-1.6
KMI				PP	PP	08 12 37.4	-1.0
KMI				PPP		08 12 55.0	
KMI				PcP	PcP	08 13 53.2	+3.2
KMI				S	**S**	**08 16 49.3**	**-0.2**
KMI				sS	sS	08 16 59.5	-3.6
KMI				ScP	ScP	08 17 36.4	+2.5
KMI				SS	SS	08 19 02.7	-20
KMI				SSS		08 19 29.8	
KMI				ScS	ScS	08 21 39.1	+1.2
KMI				LR	LR		
	comp=Z,46µm,25.8s,MS6.1						
KMI	**Kunming**	**35.09**	**319**	P	**P**	**08 11 20.0**	**+1.5**
KMI				*PP	pP	08 11 25.1	-1.6
KMI						08 12 37.4	
KMI				PPP		08 12 55.0	
KMI						08 13 53.2	
KMI				S	**S**	**08 16 49.3**	**-0.2**
KMI				SS	SS	08 19 02.7	-20
KMI				SSS		08 19 29.8	
KMI						08 21 39.1	
KMI				pmax	pmax		
	comp=Z,432nm,1.3s,mb6.2						
KMI				MLR	MLR		
	comp=Z,46µm,25.8s,MS6.1						
ADE	**Adelaide**	**35.47**	**163**	*e*P	**P**	**08 11 22.8**	**+1.2**
JHJ	**Hachijo jima 2**	**36.02**	**18**	P	**P**	**08 11 26.3**	**-0.1**
	comp=Z,147nm,0.5s,mb6.1,baz=96,slow=17,SNR=2.3						
PBA	**Port Blair**	**36.36**	**291**	*e*P	**P**	**08 11 30.6**	**+1.0**
PBA				AMb	AMB	08 11 45.4	
	comp=Z,390nm,1.5s,mb6.1						
ARMA	**Armidale**	**37.38**	**144**	⇑*i*P	**P**	**08 11 38.3**	**+0.2**
ARMA				*e*S	**S**	**08 17 22.0**	**-2.6**
TIA	**Tai’an**	**38.19**	**347**	⇓P	**P**	**08 11 44.4**	**-0.4**
TIA				PP	PP	08 13 20.0	+7.6
TIA				S	**S**	**08 17 37.5**	**+0.9**
TIA				AMB	AMB		
	comp=Z,320nm,0.7s,mb6.2						
TIA				AMB	AMB		
	comp=Z,5µm,9.0s						
TIA				LR	LR		
	comp=E,15µm,14.0s						
KS15	**Wonju Array Si**	**38.29**	**1**	*e*P	**P**	**08 11 46.1**	**+0.6**
KSRS	**Korea Array**	**38.30**	**1**	P	**P**	**08 11 44.6**	**-1.1**
	comp=E,144nm,0.7s,mb5.8,baz=176,slow=9.4,SNR=115						
KSRS				PcP	PcP	08 14 01.2	+1.9
	comp=E,23nm,0.9s,baz=173,slow=5.5,SNR=4.7						
KSRS				S	**S**	**08 17 35.4**	**-2.8**
	comp=E,2.1nm,0.8s,baz=263,slow=7.4,SNR=2.3						
KSRS				ScP	ScP	08 17 46.6	+1.1
	comp=E,27nm,0.9s,baz=186,slow=3.7,SNR=8.8						
KSRS				LR	LR	08 25 51.6	
	comp=E,43µm,20.1s,MS6.3,baz=183,slow=34						
INCN	**Inchon**	**38.32**	**359**	*e*P	**P**	**08 11 46.5**	**+0.7**
	comp=E,320nm,1.0s,mb6.0						
INCN				LR	LR		
	comp=Z,63µm,21.0s,MS6.4						
CD2	**Chengdu**	**38.73**	**327**	P	**P**	**08 11 49.8**	**+0.4**
CD2				AP	pP	08 11 59.0	+1.3
CD2				PP	PP	08 13 22.3	+3.8
CD2				PCP	PcP	08 14 02.3	+1.4
CD2				AMB	AMB		
	comp=Z,940nm,1.2s,mb6.4						
CD2				AMB	AMB		
	comp=Z,27µm,7.3s						
CD2				LR	LR		
	comp=N,101µm,19.2s,MS6.8						
CD2				LR	LR		
	comp=E,89µm,19.2s,MS6.8						
CD2				LR	LR		
	comp=Z,48µm,25.2s						
MAJO	**Matsushiro**	**38.79**	**14**	*e*P	**P**	**08 11 48.1**	**-1.7**
MAJO				LR	LR		
	comp=Z,81µm,20.0s,MS6.5						
MAJO	**Matsushiro**	**38.79**	**14**	*e*P	**P**	**08 11 49.1**	**-0.7**
MAT	**Matsushiro**	**38.79**	**14**	P	**P**	**08 11 48.1**	**-1.7**
MAT				S	**S**	**08 17 44.0**	**-1.6**
MJAR	**Matsushiro Arr**	**38.79**	**14**	P	**P**	**08 11 47.4**	**-2.4**
MJAR						08 14 02.6	
MJAR						08 17 47.6	
MJAR				pmax	pmax		
	comp=Z,47nm,0.5s						
MJAR	**Matsushiro Arr**	**38.79**	**14**	P	**P**	**08 11 47.4**	**-2.4**
	comp=Z,46nm,0.5s,mb5.5,baz=187,slow=8.7,SNR=51						
MJAR				PcP	PcP	08 14 02.6	+1.7
	comp=Z,30nm,1.0s,baz=198,slow=3.8,SNR=2.4						
MJAR				ScP	ScP	08 17 47.6	+0.2
	comp=Z,39nm,1.0s,baz=201,slow=3.9,SNR=11						
XAN	**Xi’an**	**38.83**	**336**	P	**P**	**08 11 50.5**	**+0.3**
XAN				AMB	AMB		
	comp=Z,753nm,0.7s,mb6.5						
XAN				AMB	AMB		
	comp=Z,17µm,10.2s						
XAN				LR	LR		
	comp=N,20µm,18.2s,MS6.2						
XAN				LR	LR		
	comp=E,27µm,20.7s,MS6.2						
XAN				LR	LR		
	comp=Z,30µm,18.9s,MS6.1						
CNB	**Canberra Magne**	**39.93**	**151**	⇑*i*P	**P**	**08 11 59.7**	**+0.4**
	comp=Z,806nm,1.7s,mb6.2						
DL2	**Dalian**	**40.05**	**353**	*i* PR	**P**	**08 12 00.3**	**0.0**
DL2				AP	pP	08 12 08.0	-0.6
DL2				PP	PP	08 13 41.8	+9.0
DL2				SCP	ScP	08 17 53.3	+1.0
DL2				S	**S**	**08 18 02.1**	**-2.5**
DL2				SCS	ScS	08 22 04.9	-0.6
DL2				AMB	AMB		
	comp=Z,320nm,0.9s,mb6.0						
DL2				AMB	AMB		
	comp=Z,6µm,9.7s						
DL2				LR	LR		
	comp=N,17µm,19.4s,MS6.2						
DL2				LR	LR		
	comp=E,27µm,19.8s,MS6.2						
DL2				LR	LR		
	comp=Z,30µm,17.8s,MS6.2						
TOO	**Toolangi**	**40.13**	**157**	*e*P	**P**	**08 12 02.2**	**+1.2**
	comp=Z,604nm,1.2s,mb6.2						
TOO				*e*S	**S**	**08 18 09.3**	**+3.5**
TOO	**Toolangi**	**40.13**	**157**	*e*P	**P**	**08 12 02.2**	**+1.2**
TOO				*e*S	**S**	**08 18 09.3**	**+3.5**
TOO				pmax	pmax		
	comp=Z,604nm,1.2s,mb6.2						
TIY	**Taiyuan**	**40.86**	**342**	*i* PR	**P**	**08 12 07.3**	**+0.3**
TIY				S	**S**	**08 18 17.3**	**+0.7**
TIY				AMB	AMB		
	comp=Z,16µm,6.7s						
TIY				LR	LR		
	comp=N,11µm,10.2s,MS6.2						
TIY				LR	LR		
	comp=E,16µm,10.4s,MS6.2						
IMP	**Imphal**	**41.10**	**311**	*e*x	x	08 14 10.0	
BJT	**Baijiatuau**	**42.05**	**347**	*e*P	**P**	**08 12 16.3**	**-0.4**
	comp=E,1µm,0.9s,mb6.5						
BJT				*e*ScP	ScP	08 18 00.7	+0.6
BJT				LR	LR		
	comp=Z,32µm,22.0s,MS6.2						
BJT	**Baijiatuau**	**42.05**	**347**	*e*P	**P**	**08 12 16.3**	**-0.4**
BJT				pmax	pmax		
	comp=Z,1µm,0.9s						
BJT				MLR	MLR		
	comp=Z,32µm,22.0s						
BJI	**Beijing**	**42.07**	**347**	P	**P**	**08 12 17.1**	**+0.2**
BJI				AP	pP	08 12 24.5	-0.7
BJI				XP	sP	08 12 27.8	-0.8
BJI				PP	PP	08 13 57.4	+2.8
BJI				PCP	PcP	08 14 12.3	+0.9
BJI				S	**S**	**08 18 31.8**	**-2.7**
BJI				XS	sS	08 18 49.9	+1.6
BJI				SS	SS	08 21 46.9	+4.2
BJI				SCS	ScS	08 22 19.3	+1.7
BJI				AMB	AMB		
	comp=Z,891nm,0.7s,mb6.5						
BJI				AMB	AMB		
	comp=Z,19µm,7.3s						
BJI				LR	LR		
	comp=N,21µm,23.8s,MS6.1						
BJI				LR	LR		
	comp=E,22µm,20.1s,MS6.1						
BJI				LR	LR		
	comp=Z,54µm,23.8s,MS6.3						
BJI	**Beijing**	**42.07**	**347**	P	**P**	**08 12 17.1**	**+0.2**
	comp=Z,0.9nm,0.7s						
BJI				pP	pP	08 12 24.5	-0.7
BJI				sP	sP	08 12 27.7	-0.9
BJI				PP	PP	08 13 57.4	+2.8
BJI				PcP	PcP	08 14 12.3	+0.9
BJI				S	**S**	**08 18 31.7**	**-2.8**
BJI				sS	sS	08 18 49.9	+1.6
BJI				SS	SS	08 21 46.9	+4.2
BJI				ScS	ScS	08 22 19.3	+1.7
BJI				LR	LR		
	comp=Z,54µm,23.8s						
BJI	**Beijing**	**42.07**	**347**	P	**P**	**08 12 17.1**	**+0.2**
BJI				*SP	sP	08 12 27.7	-0.9
BJI						08 13 57.4	
BJI						08 14 12.3	
BJI				S	**S**	**08 18 31.7**	**-2.8**
BJI				*SS	sS	08 18 49.9	+1.6
BJI						08 22 19.3	
BJI				MLR	MLR		
	comp=Z,54µm,23.8s,MS6.3						
AGT	**Agartala**	**42.70**	**308**	*i* P	**P**	**08 12 21.0**	**-1.3**
AGT				*i* x	x	08 13 30.0	
SNY	**Shenyang**	**42.78**	**356**	⇓P	**P**	**08 12 21.8**	**-0.8**
SNY				AP	pP	08 12 26.8	-4.1
SNY				XP	sP	08 12 29.3	-5.0
SNY				S	**S**	**08 18 42.3**	**-2.6**
SNY				AMB	AMB		
	comp=Z,182nm,1.1s,mb5.7						
SNY				LR	LR		
	comp=E,65µm,17.6s						
SNY				LR	LR		
	comp=Z,43µm,21.6s,MS6.3						
LZH	**Lanzhou**	**42.80**	**332**	⇑*i*P	**P**	**08 12 24.6**	**+1.7**
LZH				AP	pP	08 12 34.3	+3.1
LZH				PP	PP	08 14 06.5	+4.0
LZH				PCP	PcP	08 14 15.3	+1.4
LZH				SCP	ScP	08 18 03.0	-0.2
LZH				S	**S**	**08 18 48.5**	**+3.1**
LZH				XS	sS	08 19 03.8	+4.7
LZH				SCS	ScS	08 22 20.3	-2.0
LZH				AMB	AMB		
	comp=Z,2µm,1.2s,mb6.7						
LZH				AMB	AMB		
	comp=Z,15µm,7.5s						
LZH				LR	LR		
	comp=N,42µm,14.3s						
LZH				LR	LR		
	comp=Z,64µm,18.3s,MS6.5						
LZH	**Lanzhou**	**42.80**	**332**	⇑*i*P	**P**	**08 12 24.6**	**+1.7**
	comp=Z,2µm,1.2s,mb6.7						
LZH				pP	pP	08 12 34.2	+3.0
LZH				sP	sP	08 12 38.5	+3.9
LZH				PP	PP	08 14 06.5	+4.0
LZH				PcP	PcP	08 14 15.2	+1.3
LZH				ScP	ScP	08 18 03.0	-0.2
LZH				PcS	PcS	08 18 07.4	+1.3
LZH				S	**S**	**08 18 48.5**	**+3.1**
LZH				sS	sS	08 19 03.7	+4.6
LZH				SS	SS	08 21 52.8	-4.3
LZH				ScS	ScS	08 22 20.3	-2.0
LZH				LR	LR		
	comp=Z,64µm,18.3s,MS6.5						
LZH	**Lanzhou**	**42.80**	**332**	⇑*i*P	**P**	**08 12 24.6**	**+1.7**
LZH				*PP	pP	08 12 34.2	+3.0
LZH				*SP	sP	08 12 38.5	+3.9
LZH						08 14 06.5	
LZH						08 14 15.2	
LZH				S	**S**	**08 18 48.5**	**+3.1**
LZH				*SS	sS	08 19 03.7	+4.6
LZH				SS	SS	08 21 52.8	-4.3
LZH						08 22 20.3	
LZH				pmax	pmax		
	comp=Z,2µm,1.2s,mb6.7						
LZH				MLR	MLR		
	comp=Z,64µm,18.3s,MS6.5						
SHL	**Shillong**	**43.08**	**310**	*i* P	**P**	**08 12 26.0**	**+0.6**
SHL				*e*PCS	PcS	08 18 07.0	-0.7
SHL				*e*S	**S**	**08 18 52.0**	**+2.1**
DZM	**Mont Dzumac**	**43.64**	**122**	*e*P	**P**	**08 12 31.3**	**+1.3**
HHC	**Hu-ho-hao-te**	**44.01**	**343**	*e*P	**P**	**08 12 33.0**	**+0.4**
HHC				AP	pP	08 12 40.3	-0.6
HHC				XP	sP	08 12 43.8	-0.5
HHC				PP	PP	08 14 17.1	+1.7
HHC				S	**S**	**08 19 03.0**	**+0.1**
HHC				XS	sS	08 19 16.1	-0.6
HHC				SCS	ScS	08 22 26.4	-3.2
HHC				AMB	AMB		
	comp=Z,237nm,1.3s,mb5.8						
HHC				AMB	AMB		
	comp=Z,20µm,9.4s						
HHC				LR	LR		
	comp=N,27µm,29.7s						
HHC				LR	LR		
	comp=E,26µm,23.8s						
HHC				LR	LR		
	comp=Z,52µm,25.6s,MS6.3						
VLA	**Vladivostok**	**44.16**	**5**	⇑*i*P	**P**	**08 12 33.8**	**+0.1**
VLA	**Vladivostok**	**44.16**	**5**	*c i*P	**P**	**08 12 33.9**	**+0.2**
VLA				*i* S	**S**	**08 19 01.5**	**-3.6**
VLA				*e*SS	SS	08 22 21.5	-2.1
VLA				*i* SSS		08 23 02.0	
VLA				pmax	pmax		
	comp=Z,652nm,1.9s,mb6.0						
VLA				MLR	MLR		
	comp=Z,37µm,16.7s,MS6.4						
BTO	**Baotou**	**44.26**	**341**	*e*P	**P**	**08 12 35.1**	**+0.5**
CN2	**Changchun**	**44.66**	**358**	*e*P	**P**	**08 12 36.1**	**-1.6**
CN2				*e*XP	sP	08 12 49.9	+0.5
CN2				PP	PP	08 14 21.9	-0.4
CN2				PCS	PcS	08 18 10.6	-2.8
CN2				*e*S	**S**	**08 19 11.3**	**-1.0**
CN2				XS	sS	08 19 27.6	+1.5
CN2				AMB	AMB		
	comp=Z,60nm,1.2s,mb5.3						
CN2				LR	LR		
	comp=N,24µm,20.0s,MS6.2						
CN2				LR	LR		
	comp=E,20µm,20.0s,MS6.2						
CN2				LR	LR		
	comp=Z,32µm,21.0s,MS6.2						
ERM	**Erimo**	**45.25**	**17**	*e*P	**P**	**08 12 43.4**	**+1.0**
	comp=Z,176nm,0.9s,mb5.9						
ERM				LR	LR		
	comp=Z,54µm,20.0s,MS6.5						
ERM	**Erimo**	**45.25**	**17**	*e*P	**P**	**08 12 43.4**	**+1.0**
ERM				pmax	pmax		
	comp=Z,176nm,0.9s,mb5.9						
ERM				MLR	MLR		
	comp=Z,54µm,20.0s,MS6.5						
TAU	**Tasmania Unive**	**45.47**	**159**	*e*P	**P**	**08 12 45.6**	**+1.4**
	comp=Z,488nm,1.3s,mb6.2						
TAU				LR	LR		
	comp=Z,85µm,21.0s,MS6.7						
MDJ	**Mudanjiang**	**45.50**	**3**	P	**P**	**08 12 43.9**	**-0.5**
MDJ				AP	pP	08 12 50.6	-2.2
MDJ				XP	sP	08 12 52.8	-3.3
MDJ				PCP	PcP	08 14 22.6	-0.3
MDJ				PP	PP	08 14 30.3	-1.0
MDJ				SCP	ScP	08 18 14.3	+0.2
MDJ				PCS	PcS	08 18 16.8	0.0
MDJ				S	**S**	**08 19 24.4**	**-0.1**
MDJ				AMB	AMB		
	comp=Z,386nm,1.1s,mb6.2						
MDJ				AMB	AMB		
	comp=Z,7µm,6.3s						
MDJ				LR	LR		
	comp=N,37µm,21.4s,MS6.3						
MDJ				LR	LR		
	comp=E,16µm,25.5s,MS6.3						
MDJ				LR	LR		
	comp=Z,48µm,23.5s,MS6.4						
MDJ	**Mudanjiang**	**45.50**	**3**	*e*P	**P**	**08 12 43.9**	**-0.5**
	comp=Z,524nm,0.9s,mb6.5						
MDJ				*e*ScP	ScP	08 18 12.4	-1.7
MDJ				LR	LR		
	comp=Z,43µm,20.0s,MS6.4						
BWNR	**Bhubaneshwar**	**45.63**	**300**	*e*x	x	08 12 17.0	
LSA	**Lhasa**	**45.92**	**315**	P	**P**	**08 12 49.3**	**+1.3**
LSA				AP	pP	08 12 58.4	+2.0
LSA				XP	sP	08 13 02.1	+2.4
LSA				PCP	PcP	08 14 25.8	+1.0
LSA				PP	PP	08 14 37.6	+1.6
LSA				SCP	ScP	08 18 16.4	+0.2
LSA				PCS	PcS	08 18 20.1	+0.9
LSA				S	**S**	**08 19 29.0**	**-2.0**
LSA				XS	sS	08 19 48.3	+3.4
LSA				SCS	ScS	08 22 42.9	+0.6
LSA				SS	SS	08 22 59.4	+3.2
LSA				AMB	AMB		
	comp=Z,680nm,0.6s,mb6.8						
LSA				AMB	AMB		
	comp=Z,18µm,10.7s						
LSA				LR	LR		
	comp=N,27µm,28.9s,MS6.3						
LSA				LR	LR		
	comp=E,42µm,30.7s,MS6.3						
LSA				LR	LR		
	comp=Z,60µm,44.4s						
LSA	**Lhasa**	**45.92**	**315**	*e*P	**P**	**08 12 50.1**	**+2.1**
	comp=Z,477nm,0.6s,mb6.6						
LSA				*e*ScP	ScP	08 18 18.2	+2.0
LSA				*e*S	**S**	**08 19 34.9**	**+3.9**
LSA				LR	LR		
	comp=Z,25µm,21.0s,MS6.1						
LSA	**Lhasa**	**45.92**	**315**	*e*P	**P**	**08 12 50.1**	**+2.1**
LSA				*e*S	**S**	**08 19 34.9**	**+3.9**
LSA				pmax	pmax		
	comp=Z,477nm,0.6s,mb6.6						
LSA				MLR	MLR		
	comp=Z,25µm,21.0s,MS6.1						
GTK	**Gangtok**	**46.50**	**310**	*e*P	**P**	**08 12 54.0**	**+1.4**
VIS	**Vishakhapatnam**	**46.92**	**296**	*i* P	**P**	**08 12 57.7**	**+1.8**
VIS				*e*x	x	08 13 00.7	
	comp=Z,1µm,1.6s						
VIS				*i* S	**S**	**08 19 45.7**	**+0.1**
PALK	**Pallekele**	**46.99**	**281**	*e*P	**P**	**08 12 56.9**	**+0.3**
	comp=Z,676nm,1.2s,mb6.5						
PALK				LR	LR		
	comp=Z,54µm,22.0s,MS6.5						
BOK	**Bokaro**	**46.99**	**304**	*e*P	**P**	**08 12 57.1**	**+0.6**
BOK				AMb	AMB	08 13 04.7	
	comp=Z,297nm,1.2s,mb6.1						
ASAJ	**Asahikawa**	**47.04**	**15**	P	**P**	**08 12 56.4**	**-0.1**
ASAJ				S	**S**	**08 19 45.7**	**-0.9**
ASAJ				pmax	pmax		
	comp=Z,281nm,0.8s						
ASAJ				pmax	pmax		
	comp=N,55nm,0.9s						
ASAJ				smax			

	comp=N,12nm,1.0s						
ASAJ				MLR	MLR		
	comp=Z,69µm,20.0s						
ASAJ	**Asahikawa**	**47.04**	**15**	P	**P**	**08 12 56.4**	**-0.1**
	comp=Z,280nm,0.8s,mb6.2,baz=225,slow=9.6,SNR=42						
ASAJ				ScP	ScP	08 18 20.9	+0.3
	comp=Z,55nm,0.9s,baz=257,slow=19,SNR=8.5						
ASAJ				S	**S**	**08 19 45.7**	**-0.9**
	comp=Z,12nm,1.0s,baz=30,slow=27,SNR=3.4						
ASAJ				LR	LR	08 33 13.9	
	comp=Z,69µm,20.0s,MS6.6,baz=19,slow=37						
GTA	**Gaotai**	**47.37**	**331**	⇓*i*P	**P**	**08 13 00.3**	**+1.1**
GTA				AP	pP	08 13 05.1	-2.5
GTA				XP	sP	08 13 07.4	-3.5
GTA				PP	PP	08 14 50.8	+0.2
GTA				PPP		08 15 39.1	
GTA				SCP	ScP	08 18 23.9	+1.9
GTA				S	**S**	**08 19 53.1**	**+1.7**
GTA				SCS	ScS	08 22 50.5	-0.9
GTA				AMB	AMB		
	comp=Z,121nm,0.9s,mb5.8						
GTA				AMB	AMB		
	comp=Z,20µm,7.6s						
GTA				LR	LR		
	comp=N,46µm,21.7s,MS6.5						
GTA				LR	LR		
	comp=E,35µm,20.9s,MS6.5						
GTA				LR	LR		
	comp=Z,40µm,21.3s,MS6.3						
YUK	**Yuzh-Kuril'sk**	**47.91**	**18**	*e*P	**P**	**08 12 59.0**	**-4.2**
YUK				*e*		08 14 35.0	
YUK				S	**S**	**08 20 00.5**	**+1.6**
YUK				*e*SS	ScS	08 22 48.0	-6.7
YUK				pmax	pmax		
	comp=N,4µm,12.0s						
YUK				pmax	pmax		
	comp=Z,5µm,12.0s						
YUK				smax			
	comp=E,23µm,10.0s						
YUK				smax			
	comp=N,8µm,11.0s						
MDRS	**Chennai**	**48.50**	**288**	⇓*i*P	**P**	**08 13 08.5**	**+0.2**
MDRS				*e*P		08 13 09.0	
MDRS				*i* S	**S**	**08 20 06.5**	**-1.7**
BLSP	**Bilaspur**	**49.49**	**301**	*e*P	**P**	**08 13 16.7**	**+0.9**
YSS	**Yuzh-Sakhalins**	**49.73**	**14**	*e*P	**P**	**08 13 17.5**	**+0.3**
	comp=N,269nm,0.8s,mb6.3						
YSS				LR	LR		
	comp=Z,50µm,22.0s,MS6.5						
YSS	**Yuzh-Sakhalins**	**49.73**	**14**	*be*P	**P**	**08 13 16.4**	**-0.8**
YSS				*e**SP	sP	08 13 29.2	+0.2
YSS				*e*S	**S**	**08 20 20.0**	**-4.4**
YSS				pmax	pmax		
	comp=N,150nm,0.8s						
YSS				pmax	pmax		
	comp=Z,280nm,0.8s,mb6.3						
YSS				pmax	pmax		
	comp=E,110nm,1.1s						
YSS				pmax	pmax		
	comp=N,3µm,12.0s						
YSS				pmax	pmax		
	comp=E,2µm,12.0s						
YSS				pmax	pmax		
	comp=Z,5µm,12.0s						
YSS				smax			
	comp=E,17µm,20.0s						
YSS				MLR	MLR		
	comp=N,33µm,18.0s,MS6.4						
YSS				MLR	MLR		
	comp=E,10µm,18.0s,MS6.4						
YSS				MLR	MLR		
	comp=Z,39µm,18.0s,MS6.5						
HABR	**Khabarovsk**	**49.79**	**7**	⇓*i*P	**P**	**08 13 18.8**	**+1.2**
HABR				*e*SP		08 13 30.1	
HABR				*e*		08 14 37.7	
HABR				*e*		08 15 10.4	
HABR				*e*S	**S**	**08 20 26.2**	**+0.9**
HABR				*e*		08 20 40.7	
HABR				*e*		08 23 07.9	
HABR				*e*SS	SS	08 23 56.7	-1.5
HABR				pmax	pmax		
	comp=Z,632nm,1.0s,mb6.6						
HABR				MLR	MLR		
	comp=Z,29µm,19.8s,MS6.3						
KLR	**Kul'dur**	**50.22**	**4**	*e*P	**P**	**08 13 17.0**	**-3.9**
KLR				pmax	pmax		
	comp=N,80nm,1.6s						
KLR				pmax	pmax		
	comp=E,110nm,1.6s						
KLR				pmax	pmax		
	comp=Z,400nm,1.6s,mb6.2						
KLR				pmax	pmax		
	comp=Z,10µm,9.5s						
KLR				MLR	MLR		
	comp=Z,24µm,17.0s,MS6.3						
HIA	**Hailar**	**50.50**	**354**	*e*P	**P**	**08 13 23.1**	**+0.1**
	comp=Z,509nm,1.1s,mb6.5						
HIA				LR	LR		
	comp=Z,49µm,22.0s,MS6.5						
HIA	**Hailar**	**50.50**	**354**	*d* *i*P	**P**	**08 13 22.7**	**-0.3**
KOD	**Kodaikanal**	**50.61**	**284**	*e*P	**P**	**08 13 25.6**	**+1.1**
KOD				AMb	AMB	08 13 28.3	
	comp=Z,839nm,1.3s,mb6.5						
TRD	**Trivandrum**	**50.84**	**282**	⇓*i*P	**P**	**08 13 26.0**	**-0.2**
TRD				*e*P		08 13 26.5	
TRD				AMb	AMB	08 13 29.8	
	comp=Z,2µm,1.0s,mb6.9						
ALBI	**Allahabad**	**51.00**	**304**	*i* P	**P**	**08 13 26.0**	**-1.2**
HYB	**Hyderabad**	**51.17**	**293**	⇓*e*P	**P**	**08 13 29.0**	**+0.4**
	comp=Z,1µm,1.0s,mb6.8						
HYB				*e*S	**S**	**08 20 40.0**	**-5.5**
HYB	**Hyderabad**	**51.17**	**293**	⇓*e*P	**P**	**08 13 29.0**	**+0.4**
HYB				*e*S	**S**	**08 20 40.0**	**-5.5**
HYB				pmax	pmax		
	comp=Z,1µm,1.0s,mb6.8						
HYB	**Hyderabad**	**51.17**	**293**	⇓*i*P	**P**	**08 13 29.0**	**+0.4**
	comp=Z,1µm,1.0s,mb6.8						
HYB				*e*PP	PP	08 15 28.0	+2.3
HYB				*e*S	**S**	**08 20 40.0**	**-5.5**
HYB				LR	LR	08 29 00.0	
	comp=Z,39nm,20.0s						
JBP	**Jabalpur**	**51.72**	**301**	⇓*i*P	**P**	**08 13 32.8**	**+0.2**
JBP				*i* S	**S**	**08 20 54.1**	**+1.2**
ULN	**Ulaanbaatar**	**51.73**	**343**	*e*P	**P**	**08 13 32.7**	**+0.4**
	comp=Z,967nm,1.1s,mb6.6						
ULN				*e*ScP	ScP	08 18 41.0	+0.6
ULN				LR	LR		
	comp=Z,24µm,21.0s,MS6.2						
ULN	**Ulaanbaatar**	**51.73**	**343**	*e*P	**P**	**08 13 32.7**	**+0.5**
ULN				pmax	pmax		
	comp=Z,967nm,1.1s,mb6.6						
ULN				MLR	MLR		
	comp=Z,24µm,21.0s,MS6.2						
NGP	**Nagpur**	**51.84**	**298**	*e*P	**P**	**08 13 31.7**	**-1.9**
NGP				AMb	AMB	08 13 33.8	
	comp=Z,1µm,1.4s,mb6.7						
SONM	**Songino Array**	**51.90**	**342**	P	**P**	**08 13 33.7**	**+0.2**
	comp=Z,246nm,0.7s,mb6.2,baz=158,slow=4.6,SNR=351						
SONM				ScP	ScP	08 18 40.1	-1.1
	comp=Z,58nm,0.9s,baz=162,slow=4.7,SNR=7.4						
SONM				LR	LR	08 39 16.5	
	comp=Z,29µm,20.3s,MS6.3,baz=155,slow=40						
SONM				PKPPKP		08 44 05.0	
	comp=Z,1.6nm,1.0s,baz=305,slow=1.4,SNR=6.2						
FUNA	**Funafuti**	**52.42**	**100**	*e*P	**P**	**08 13 39.5**	**+1.4**
	comp=Z,277nm,0.9s,mb6.2						
FUNA				LR	LR		
	comp=Z,46µm,22.0s,MS6.5						
LATR	**Latur**	**53.27**	**294**	*e*P	**P**	**08 13 41.5**	**-2.7**
MNGI	**Mangalore**	**53.65**	**287**	*i* P	**P**	**08 13 47.3**	**+0.3**
MNGI				*i* S	**S**	**08 21 17.7**	**-1.7**
LGTI	**Lohaghat**	**53.99**	**308**	*e*P	**P**	**08 13 48.5**	**-0.8**
PTH	**Pithoragarh**	**54.06**	**308**	*e*P	**P**	**08 13 50.3**	**+0.5**
PTH				*e*x	x	08 18 49.1	
CIT	**Chita**	**54.08**	**350**	*e*P	**P**	**08 13 49.7**	**+0.2**
CIT				*e*		08 14 06.9	
CIT				*e*S	**S**	**08 21 20.2**	**-3.9**
CIT				*e*		08 23 30.7	
CIT				pmax	pmax		
	comp=Z,2µm,1.4s,mb6.9						
OUZ	**Omahuta**	**55.00**	**134**	*e*P	**P**	**08 13 57.7**	**+1.1**
OUZ	**Omahuta**	**55.00**	**134**	*e*P*	**P**	**08 13 57.7**	**+1.1**
ZAK	**Zakamensk**	**55.11**	**342**	*i* P	**P**	**08 13 57.7**	**+0.7**
ZAK				*e*		08 15 03.9	
ZAK				pmax	pmax		
	comp=Z,190nm,1.0s,mb6.1						
KAD	**Karad**	**55.18**	**292**	*e*P	**P**	**08 13 57.5**	**-0.6**
KAD				*i* P		08 13 57.6	
KAD				AMb	AMB	08 13 59.8	
	comp=Z,698nm,1.0s,mb6.7						
POO	**Poona**	**55.78**	**293**	*e*P	**P**	**08 14 01.6**	**-0.9**
POO				AMb	AMB	08 14 05.2	
	comp=Z,676nm,1.6s,mb6.4						
DDI	**Dehra Dun**	**56.08**	**308**	*e*x	x	08 14 58.0	
NDI	**New Delhi**	**56.09**	**306**	*e*P	**P**	**08 14 04.1**	**-0.5**
NDI				AMb	AMB	08 14 06.6	
	comp=Z,627nm,2.2s,mb6.2						
NDI				*e*x	x	08 21 46.0	
TLY	**Talaya**	**56.14**	**343**	P	**P**	**08 14 04.5**	**+0.1**
	comp=Z,4µm,1.4s,mb7.2,SNR=91						
TLY	**Talaya**	**56.14**	**343**	*e*P	**P**	**08 14 04.6**	**+0.3**
	comp=Z,675nm,1.0s,mb6.6						
TLY				*e*PP	PP	08 16 11.0	+1.3
TLY				*e*ScP	ScP	08 19 00.7	+1.1
TLY				LR	LR		
	comp=Z,19µm,19.0s,MS6.2						
TLY	**Talaya**	**56.14**	**343**	*d* *i*P	**P**	**08 14 04.5**	**+0.1**
TLY				*e*		08 16 17.5	
TLY				*e*PPP		08 17 34.5	
TLY				*e*S	**S**	**08 21 51.4**	**-0.3**
TLY				*e*		08 23 51.9	
TLY				*e*SS	SS	08 25 41.6	+3.1
TLY				pmax	pmax		
	comp=Z,1µm,1.4s,mb6.7						
TLY				MLR	MLR		
	comp=Z,19µm,22.0s,MS6.1						
IRK	**Irkutsk**	**56.45**	**343**	*e*P	**P**	**08 14 06.9**	**+0.3**
IRK				*e*		08 16 13.3	
IRK				*e*		08 22 07.0	
IRK				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.7						
JCZ	**Jackson Bay**	**56.59**	**145**	*e*P	**P**	**08 14 09.3**	**+1.5**
JCZ	**Jackson Bay**	**56.59**	**145**	*e*P*	**P**	**08 14 09.3**	**+1.4**
BOM	**Bombay**	**56.83**	**293**	*i* P	**P**	**08 14 07.8**	**-2.1**
BOM				*e*x	x	08 14 28.5	
	comp=Z,684nm,1.9s						
BOM				*e*x	x	08 21 57.2	
WMQ	**Urumqi**	**56.83**	**327**	P	**P**	**08 14 11.1**	**+1.6**
WMQ				AP	pP	08 14 21.3	+3.2
WMQ				PCP	PcP	08 15 06.3	+1.3
WMQ				PP	PP	08 16 19.1	+3.0
WMQ				SCP	ScP	08 19 01.1	-1.8
WMQ				S	**S**	**08 22 00.8**	**-0.4**
WMQ				PS		08 22 18.3	
WMQ				SCS	ScS	08 23 54.1	-2.9
WMQ				AMB	AMB		
	comp=Z,1µm,1.2s,mb6.7						
WMQ				AMB	AMB		
	comp=Z,6µm,8.8s						
WMQ				LR	LR		
	comp=N,29µm,22.0s,MS6.4						
WMQ				LR	LR		
	comp=E,20µm,23.4s,MS6.4						
WMQ				LR	LR		
	comp=Z,25µm,20.5s,MS6.3						
MOY	**Mondy**	**56.95**	**341**	*e*P	**P**	**08 14 10.3**	**+0.1**
MOY				*e*		08 22 03.2	
MOY				pmax	pmax		
	comp=Z,2µm,1.5s,mb6.8						
SKR	**Severo-Kuril's**	**57.16**	**22**	*e*P	**P**	**08 14 12.2**	**+0.5**
SKR				pmax	pmax		
	comp=Z,870nm,1.2s,mb6.7						
SDNR	**Sundarnagar**	**57.42**	**309**	*e*P	**P**	**08 14 15.6**	**+1.7**
SDNR				*e*S	**S**	**08 22 12.4**	**+3.0**
AJM	**Ajmer**	**57.42**	**303**	*i* P	**P**	**08 14 13.0**	**-1.0**
AJM				*e*P		08 14 13.2	
AJM				AMb	AMB	08 14 17.6	
	comp=Z,467nm,1.1s,mb6.4						
NRGR	**Nerungri**	**57.53**	**358**	*e*P	**P**	**08 14 16.2**	**+2.0**
NRGR				S	**S**	**08 22 12.5**	**+2.5**
NRGR				smax			
	comp=N,346nm,1.5s						
LBZ	**Lake Benmore**	**57.60**	**145**	*e*P	**P**	**08 14 15.0**	**0.0**
LBZ	**Lake Benmore**	**57.60**	**145**	*e*P*	**P**	**08 14 15.0**	**+0.1**
CLNS	**Chul'man**	**57.71**	**359**	*e*P	**P**	**08 14 15.0**	**-0.4**
CLNS				*e**PP	pP	08 14 21.7	-2.3
CLNS				*e*		08 15 04.4	
CLNS				*e*		08 16 19.1	
CLNS				*e*S	**S**	**08 22 07.5**	**-4.8**
CLNS				*e*PS		08 22 28.0	
CLNS				pmax	pmax		
	comp=Z,224nm,0.9s,mb6.2						
CLNS				pmax	pmax		
	comp=N,65nm,0.8s						
CLNS				pmax	pmax		
	comp=E,41nm,1.0s						
CLNS				pmax	pmax		
	comp=N,67nm,1.0s						
CLNS				pmax	pmax		
	comp=E,119nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,56nm,1.0s,mb5.5						
CLNS				smax			
	comp=N,2µm,10.3s						
CLNS				smax			
	comp=Z,3µm,10.1s						
CLNS				smax			
	comp=E,13µm,12.3s						
THZ	**Tophouse**	**57.79**	**141**	*e*P	**P**	**08 14 15.6**	**-0.7**
THZ	**Tophouse**	**57.79**	**141**	*e*P*	**P**	**08 14 15.6**	**-0.7**
BHV	**Bhavnagar**	**58.16**	**296**	*e*P	**P**	**08 14 19.0**	**-0.3**
TUZ	**Tuapeka**	**58.23**	**146**	*e*P	**P**	**08 14 23.0**	**+3.7**
TUZ	**Tuapeka**	**58.23**	**146**	*e*P*	**P**	**08 14 23.0**	**+3.7**
PONG	**Pong**	**58.40**	**309**	*e*P	**P**	**08 14 22.5**	**+1.7**
PONG				*e*x	x	08 16 25.5	
KHZ	**Kahutara**	**58.54**	**141**	*e*P	**P**	**08 14 21.2**	**-0.3**
KHZ	**Kahutara**	**58.54**	**141**	*e*P*	**P**	**08 14 21.2**	**-0.4**
DLH	**Dalhousie**	**58.62**	**310**	*e*P	**P**	**08 14 22.0**	**-0.3**
DLH				*e*x	x	08 15 47.0	
SNZO	**South Karori**	**58.71**	**139**	*e*P	**P**	**08 14 23.8**	**+1.0**
	comp=E,352nm,1.0s,mb6.3						
SNZO				LR	LR		
	comp=Z,59µm,21.0s,MS6.7						
THN	**Thein Dam**	**58.77**	**309**	*e*P	**P**	**08 14 22.6**	**-0.8**
THN				*e*x	x	08 22 21.8	
MWZ	**Matawai**	**59.23**	**135**	*e*P	**P**	**08 14 26.4**	**0.0**
MWZ	**Matawai**	**59.23**	**135**	*e*P*	**P**	**08 14 26.4**	**0.0**
MCQ	**Macquarie Isla**	**59.35**	**159**	*e*P	**P**	**08 14 28.6**	**+1.6**
MCQ				*e*S	**S**	**08 22 40.2**	**+6.4**
BFZ	**Birch Farm**	**59.42**	**138**	*e*P	**P**	**08 14 29.8**	**+2.1**
BFZ	**Birch Farm**	**59.42**	**138**	P*	**P**	**08 14 29.8**	**+2.0**
MXZ	**Matakaoa Point**	**59.45**	**134**	*e*P	**P**	**08 14 29.4**	**+1.4**
MXZ	**Matakaoa Point**	**59.45**	**134**	*e*P*	**P**	**08 14 29.4**	**+1.5**
BOD	**Bodaibo**	**59.59**	**352**	*e*P	**P**	**08 14 28.1**	**-0.4**
BOD				pmax	pmax		
	comp=Z,378nm,1.4s,mb6.2						
PUZ	**Puketiti**	**59.63**	**135**	*e*P	**P**	**08 14 29.0**	**-0.2**
PUZ	**Puketiti**	**59.63**	**135**	*e*P*	**P**	**08 14 29.0**	**-0.2**
PET	**Petropavlovsk**	**59.98**	**21**	*e*P	**P**	**08 14 31.7**	**+0.5**
	comp=Z,2µm,1.6s,mb6.8						
PET				LR	LR		
	comp=Z,24µm,22.0s,MS6.3						
PET	**Petropavlovsk**	**59.98**	**21**	*e*P	**P**	**08 14 32.1**	**+0.8**
PET				*e*S	**S**	**08 22 38.8**	**-3.1**
PET				pmax	pmax		
	comp=Z,8µm,8.9s						
PET				pmax	pmax		
	comp=Z,6µm,9.2s						
PET				pmax	pmax		
	comp=Z,444nm,1.3s,mb6.3						
PET				MLR	MLR		
	comp=Z,21µm,18.0s,MS6.3						
PET				MLR	MLR		
	comp=Z,27µm,20.0s						
BHJ	**Bhuj**	**60.78**	**297**	⇑*e*P	**P**	**08 14 37.0**	**-0.3**
BHJ				*e*P		08 14 38.4	
BHJ				AMb	AMB	08 14 40.3	
	comp=Z,271nm,0.9s,mb6.4						
BHJ				*e*x	x	08 22 48.5	
MK31	**Makanchi Array**	**61.66**	**327**	*e*P	**P**	**08 14 43.0**	**+0.1**
MK31				*e*ScP	ScP	08 19 25.5	+1.2
MK31	**Makanchi Array**	**61.66**	**327**	*i* P	**P**	**08 14 42.7**	**-0.2**
MK31				pmax	pmax		
	comp=Z,139nm,0.4s,mb6.4						
MKAR	**Makanchi Array**	**61.66**	**327**	P	**P**	**08 14 42.6**	**-0.3**
MKAR				ScP	ScP	08 19 23.8	-0.5
MKAR				S	**S**	**08 23 04.6**	**+0.9**
MKAR				P'P'		08 43 49.0	
MKAR				⇑*e*		08 43 59.9	
MKAR				LR	LR	08 45 02.0	
MKAR	**Makanchi Array**	**61.66**	**327**	P	**P**	**08 14 42.6**	**-0.3**
MKAR				S	**S**	**08 23 04.6**	**+1.0**
MKAR						08 24 35.9	
MKAR				pmax	pmax		
	comp=Z,251nm,0.5s						
MKAR				pmax	pmax		
	comp=N,62nm,1.0s						
MKAR				smax			
	comp=N,27nm,1.0s						
MKAR				MLR	MLR		
	comp=Z,23µm,19.6s						
MKAR	**Makanchi Array**	**61.66**	**327**	P	**P**	**08 14 42.6**	**-0.3**
	comp=Z,251nm,0.5s,mb6.6,baz=119,slow=6.8,SNR=653						
MKAR				ScP	ScP	08 19 23.8	-0.5
	comp=Z,62nm,1.0s,baz=127,slow=7.8,SNR=5.3						
MKAR				S	**S**	**08 23 04.6**	**+0.9**
	comp=Z,27nm,1.0s,baz=134,slow=14,SNR=7.4						
MKAR				PKPPKP		08 43 49.0	
	comp=Z,2.2nm,0.9s,baz=298,slow=2.6,SNR=6.3						
MKAR				PKP2bc		08 43 59.9	
	comp=Z,4.1nm,0.9s,baz=298,slow=2.6,SNR=8.3						
MKAR				LR	LR	08 45 02.0	
	comp=Z,23µm,19.6s,MS6.3,baz=115,slow=40						
KSH	**Kashi**	**61.68**	**317**	*i* PR	**P**	**08 14 44.8**	**+1.6**
KSH				*e*AP	pP	08 14 54.5	+2.7
KSH				*e*PCP	PcP	08 15 24.1	-0.3
KSH				*e*PP	PP	08 17 02.8	+3.6
KSH				*e*SCP	ScP	08 19 22.8	-1.7
KSH				*e*PCS	PcS	08 19 26.5	-0.9
KSH				*e*S	**S**	**08 23 02.8**	**-1.3**
KSH				XS	sS	08 23 20.8	+2.4
KSH				*e*SCS	ScS	08 24 29.5	-3.6
KSH				AMB	AMB		
	comp=Z,49µm,7.8s						
KSH				LR	LR		
	comp=N,47µm,16.2s,MS6.9						
KSH				LR	LR		
	comp=E,31µm,11.7s,MS6.9						
KSH				LR	LR		
	comp=Z,43µm,19.7s						
AFI	**Afiamalu**	**61.79**	**105**	*e*P	**P**	**08 14 46.5**	**+2.2**
	comp=Z,226nm,1.0s,mb6.2						
AFI				LR	LR		
	comp=Z,29µm,21.0s,MS6.4						
AFI	**Afiamalu**	**61.79**	**105**	*e*P	**P**	**08 14 46.5**	**+2.2**
AFI				pmax	pmax		
	comp=Z,226nm,1.0s,mb6.2						
AFI				MLR	MLR		
	comp=Z,29µm,21.0s,MS6.4						
AFI	**Afiamalu**	**61.79**	**105**	P	**P**	**08 14 45.1**	**+0.8**
	comp=Z,93nm,1.0s,mb5.9,baz=293,slow=9.3,SNR=6.2						
ULHL	**Ulahol**	**62.81**	**320**	P	**P**	**08 14 54.1**	**+3.5**
	SNR=16						
AAA	**Alma-Ata**	**62.87**	**321**	*i* P	**P**	**08 14 53.7**	**+2.7**
AAA				*i* S	**S**	**08 23 25.4**	**+6.4**
AAA				pmax	pmax		
	comp=Z,21µm,5.9s						
AAA				smax			
	comp=N,51µm,11.1s						
AAA				MLR	MLR		
	comp=Z,18µm,26.0s,MS6.1						
YAK	**Yakutsk**	**62.92**	**1**	*e*P	**P**	**08 14 51.7**	**+0.7**
	comp=Z,1µm,0.7s,mb7.1						
YAK				LR	LR		
	comp=Z,42µm,21.0s,MS6.6						
YAK	**Yakutsk**	**62.92**	**1**	*e*P	**P**	**08 14 51.5**	**+0.5**
YAK				*e*		08 15 34.3	
YAK				*e*		08 17 05.5	
YAK				*e*S	**S**	**08 23 10.1**	**-8.8**
YAK				*e*		08 24 40.4	
YAK				pmax	pmax		
	comp=Z,977nm,0.7s,mb7.0						
YAK				pmax	pmax		
	comp=N,441nm,1.2s						
YAK				pmax	pmax		
	comp=E,151nm,1.3s						
YAK				pmax	pmax		
	comp=Z,5µm,9.7s						
YAK				pmax	pmax		
	comp=E,132nm,1.4s						
YAK				smax			
	comp=N,8µm,8.5s						
YAK				smax			
	comp=Z,8µm,15.2s						
YAK				smax			
	comp=E,28µm,10.6s						
YAK				MLR	MLR		
	comp=Z,41µm,20.0s,MS6.6						
YAK				MLR	MLR		
	comp=N,33µm,18.0s,MS6.6						
YAK				MLR	MLR		
	comp=E,18µm,21.0s,MS6.6						
MA2	**Magadan**	**63.22**	**13**	*e*P	**P**	**08 14 53.2**	**+0.2**
	comp=E,359nm,0.7s,mb6.6						
MA2				LR	LR		
	comp=Z,24µm,20.0s,MS6.4						
MA2	**Magadan**	**63.22**	**13**	*e*P	**P**	**08 14 53.1**	**+0.1**
KZA	**Kyzart**	**63.37**	**319**	P	**P**	**08 14 56.1**	**+1.7**
	SNR=130						
TKM2	**Tokmak 2**	**63.55**	**320**	P	**P**	**08 14 56.4**	**+0.8**
	SNR=95						
TKM2	**Tokmak 2**	**63.55**	**320**	*e*P	**P**	**08 14 56.3**	**+0.7**
	comp=Z,5.1nm,1.5s						
TKM2				LR	LR		
	comp=Z,34µm,22.0s,MS6.5						
KBK	**Karagaybulak**	**63.85**	**320**	P	**P**	**08 14 58.5**	**+1.0**
	SNR=29						
UCH	**Uchtor**	**63.93**	**319**	P	**P**	**08 14 59.4**	**+1.4**
	SNR=166						
UCH	**Uchtor**	**63.93**	**319**	*e*P	**P**	**08 14 58.8**	**+0.7**
	comp=Z,10.0nm,1.3s						
UCH				*e*S	**S**	**08 23 33.8**	**+1.6**
UCH				LR	LR		
	comp=Z,19µm,21.0s,MS6.2						
AAK	**Ala-Archa**	**64.13**	**319**	P	**P**	**08 14 59.4**	**0.0**
	comp=Z,1µm,1.5s,mb6.7,SNR=44						
AAK	**Ala-Archa**	**64.13**	**319**	P	**P**	**08 15 00.3**	**+0.9**
	SNR=60						
AAK	**Ala-Archa**	**64.13**	**319**	*e*P	**P**	**08 14 59.2**	**-0.2**
	comp=Z,346nm,1.2s,mb6.3						
AAK				*e*S	**S**	**08 23 39.7**	**+5.0**
AAK				LR	LR		
	comp=Z,26µm,21.0s,MS6.4						
AAK	**Ala-Archa**	**64.13**	**319**	*d* *i*P	**P**	**08 14 59.2**	**-0.2**
AAK				pmax	pmax		
	comp=Z,319nm,1.3s,mb6.2						
AAK				MLR	MLR		
	comp=Z,22µm,22.0s,MS6.3						
CHMS	**Chumysh**	**64.14**	**320**	P	**P**	**08 14 59.6**	**+0.2**
	SNR=29						
FRU	**Bishkek**	**64.14**	**320**	*i* P	**P**	**08 15 00.0**	**+0.5**
FRU				*i*		08 15 30.0	
FRU				*e*		08 17 18.0	
FRU				*i* S	**S**	**08 23 35.0**	**+0.1**
FRU				*e*		08 27 37.0	
FRU				pmax	pmax		
	comp=Z,16µm,12.3s						
FRU				pmax	pmax		
	comp=Z,530nm,1.9s,mb6.2						
FRU				smax			
	comp=N,46µm,12.5s						
FRU				MLR	MLR		
	comp=E,34µm,22.0s						
FRU				MLR	MLR		
	comp=Z,33µm,22.0s,MS6.5						
AML	**Almayashu**	**64.42**	**319**	P	**P**	**08 15 02.3**	**+1.0**
	SNR=134						
AML	**Almayashu**	**64.42**	**319**	*e*P	**P**	**08 15 02.2**	**+0.9**
	comp=Z,38nm,0.6s,mb5.6						
AML				LR	LR		
	comp=Z,21µm,22.0s,MS6.3						
USP	**Ospenovka**	**64.43**	**320**	P	**P**	**08 15 01.6**	**+0.3**
	SNR=105						
EKS2	**Erkin-Say**	**64.61**	**319**	P	**P**	**08 15 03.6**	**+1.0**
	SNR=84						
EKS2	**Erkin-Say**	**64.61**	**319**	*e*P	**P**	**08 15 03.5**	**+0.9**
	comp=Z,200nm,1.7s,mb5.9						
EKS2				LR	LR		
	comp=Z,21µm,21.0s,MS6.3						
ZAA0	**Zalesovo Array**	**64.97**	**334**	*e*PKPdf	**S**	**08 23 31.4**	**-13**
ZALV	**Zalesovo Beam**	**64.97**	**334**	P	**P**	**08 15 03.3**	**-1.3**
ZALV				S	**S**	**08 23 42.7**	**-2.0**
ZALV				P'P'		08 43 42.1	
ZALV				⇑*e*		08 43 53.3	
ZALV	**Zalesovo Beam**	**64.97**	**334**	P	**P**	**08 15 03.3**	**-1.3**

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      comp=Z,168nm,0.8s,mb6.1,baz=115,slow=6.8,SNR=129
ZALV                             S        S        08 23 42.7 -2.0
      comp=Z,14nm,0.9s,baz=104,slow=6.3,SNR=7.0
ZALV                             PKPPKP            08 43 42.1
      comp=Z,0.6nm,0.4s,baz=336,slow=3.3,SNR=3.6
ZALV                             PKP2bc            08 43 53.3
      comp=Z,15nm,0.9s,baz=328,slow=5.3,SNR=6.2
ZAL   Zalesovo         64.97 334 P        P        08 15 03.3 -1.4
ZAL                              S        S        08 23 42.7 -2.0
KURK  Kurchatov        65.93 329 P        P        08 15 10.7 -0.2
      comp=Z,6µm,0.9s,mb7.6
KURK  Kurchatov        65.93 329 eP       P        08 15 10.6 -0.3
      comp=Z,788nm,0.8s,mb6.8
KURK                             ePP      PP       08 17 36.0 -0.3
KURK                             eS       S        08 23 56.1 -0.5
KURK                             LR       LR
      comp=Z,22µm,20.0s,MS6.4
DRV   Dumont d’Urvil   66.14 174 P        P        08 15 17.0 +5.1
DRV                              S        S        08 24 01.0 +2.5
DRV                              SS       SS       08 28 10.0 -4.6
DRV                              L                 08 31 00.0
DRV                              R                 08 36 00.0
CASY  Casey            66.17 187 eP       P        08 15 13.5 +1.4
CASY                             eS       S        08 23 54.6 -4.3
NVS   Novosibirsk      66.26 334⇓iP       P        08 15 11.5 -1.4
NVS                              i S      S        08 23 57.5 -2.8
NVS                              pmax     pmax
      comp=Z,895nm,1.4s,mb6.6
NVS                              pmax     pmax
      comp=N,578nm,1.3s
NVS                              pmax     pmax
      comp=E,610nm,1.3s
NVS                              smax
      comp=E,911nm,1.8s
NVS                              smax
      comp=N,913nm,2.0s
SMY   Shemya           66.40  29 eP       P        08 15 15.0 +1.1
      comp=N,870nm,1.2s,mb6.7
SMY                              LR       LR
      comp=Z,20µm,22.0s,MS6.3
SEY   Seymchan         66.57  12⇓iP       P        08 15 15.0 +0.2
KK31  Karatay Array    66.96 318 i P      P        08 15 17.3 -0.4
KK31                             pmax     pmax
      comp=Z,442nm,1.1s,mb6.4
KKAR  Karatay Array    66.96 318 i P      P        08 15 17.3 -0.4
KKAR                             pmax     pmax
      comp=Z,487nm,1.1s,mb6.5
AMKA  Amchitka         68.29  32 eP       P        08 15 27.1 +1.2
MIR   Mirnyy           69.64 194c iP      P        08 15 36.0 +2.0
MIR                              e                 08 18 08.0
MIR                              ePS               08 24 38.0
MIR                              e                 08 25 34.0
MIR                              pmax     pmax
      comp=Z,4µm,1.5s,mb7.1
BRVK  Borovoye         71.56 328 eP       P        08 15 45.4 -0.6
      comp=Z,475nm,1.0s,mb6.4
BRVK                             eS       S        08 25 02.1 -1.2
BRVK                             LR       LR
      comp=Z,12µm,22.0s,MS6.1
TIXI  Tiksi            72.56   1 eP       P        08 15 50.6 -1.0
      comp=Z,479nm,1.0s,mb6.4
TIXI                             eS       S        08 25 11.6 -2.5
TIXI                             LR       LR
      comp=Z,39µm,20.0s,MS6.7
TIXI  Tiksi            72.56   1 eP       P        08 15 49.6 -2.0
TIXI                             e                 08 18 30.5
TIXI                             ePPP              08 20 19.4
TIXI                             eS       S        08 25 07.2 -6.9
TIXI                             eSS      SS       08 29 48.5 -5.0
TIXI                             eSSS              08 33 05.1
TIXI                             pmax     pmax
      comp=Z,587nm,1.0s,mb6.5
TIXI                             pmax     pmax
      comp=N,274nm,1.2s
TIXI                             pmax     pmax
      comp=E,38nm,0.6s
TIXI                             smax
      comp=N,8µm,14.9s
TIXI                             smax
      comp=E,14µm,12.0s
TIXI                             MLR      MLR
      comp=Z,38µm,19.0s,MS6.7
TIXI                             MLR      MLR
      comp=N,32µm,20.0s,MS6.7
TIXI                             MLR      MLR
      comp=E,18µm,20.0s,MS6.7
ASH   Ashkhabad        73.98 310 P        P        08 16 00.0 -0.7
ASH                              S        S        08 25 35.0 +3.5
BILL  Bilibino         74.04  14 eP       P        08 16 00.2 -0.2
      comp=E,166nm,1.1s,mb5.9
BILL                             LR       LR
      comp=Z,31µm,21.0s,MS6.6
BILL  Bilibino         74.04  14⇓iP       P        08 16 00.5 +0.1
BILL                             i                 08 16 13.7
BILL                             e                 08 18 48.8
BILL                             i S      S        08 25 29.1 -1.9
BILL                             i PS              08 26 08.4
BILL                             i SS     SS       08 30 23.2 +7.0
BILL                             pmax     pmax
      comp=Z,94nm,1.4s,mb5.5
BILL                             pmax     pmax
      comp=Z,1µm,3.6s
ABKT  Ailbek           74.16 310 P        P        08 16 02.3 +0.6
      comp=Z,1µm,0.9s,mb6.8,SNR=32
AB31  Akbulak array    76.05 322 i P      P        08 16 11.3 -1.0
KIP   Kipapa           76.35  68 eP       P        08 16 20.2 +5.6
KIP                              LR       LR
      comp=Z,74µm,22.0s,MS7.0
KIP   Kipapa           76.35  68 eP       P        08 16 16.6 +1.9
HON   Honolulu         76.35  68 eP       P        08 16 22.2 +7.5
UNV   Unalaska Valle   77.14  34 P        P        08 16 20.6 +2.2
      comp=Z,652nm,1.3s,mb6.4
AKTK  Aktyubinsk       77.59 322 P        P        08 16 20.4 -0.6
AKTK                             S        S        08 26 12.3 +1.5
AKTO  Aktyubinsk       77.59 322 P        P        08 16 20.4 -0.6
AKTO                             S        S        08 26 12.3 +1.5
AKTO                             pmax     pmax
      comp=Z,275nm,0.9s,mb6.2
AKTO                             smax
      comp=N,2.0nm,0.8s
AKTO  Aktyubinsk       77.59 322 P        P        08 16 20.4 -0.6
      comp=N,275nm,0.9s,mb6.2,baz=103,slow=6.3,SNR=199
AKTO                             S        S        08 26 12.3 +1.5
      comp=N,1.8nm,0.8s,baz=171,slow=23,SNR=22
AKUT  Akutan           77.64  34 eP       P        08 16 22.2 +1.0
      comp=N,2µm,1.4s,mb6.7
SVE   Sverdlovsk       78.18 329⇓eP       P        08 16 24.0 -0.2
SVE                              e                 08 19 17.0
SVE                              eS       S        08 26 12.0 -4.9
SVE                              pmax     pmax
      comp=Z,1µm,2.2s,mb6.4
SVE                              smax
      comp=N,13µm,12.0s
SVE                              smax
      comp=E,8µm,12.0s
POHA  Pohakuloa        78.49  70 eP       P        08 16 27.9 +1.3
      comp=E,388nm,1.0s,mb6.3
POHA                             LR       LR
      comp=Z,45µm,20.0s,MS6.8
GAMB  Gambell          78.59  23 eP       P        08 16 26.6 +0.4
VNDA  Vanda            78.69 173 P        P        08 16 27.3 +0.6
VNDA                             LR       LR
      comp=Z,31µm,19.0s,MS6.7
VNDA  Vanda            78.69 173 eP       P        08 16 27.6 +0.9
VNDA  Vanda            78.69 173 P        P        08 16 27.3 +0.6
      comp=Z,15nm,0.7s,baz=312,slow=6.1,SNR=16
ARU   Arti             79.13 328 P        P        08 16 28.8 -0.6
      comp=Z,1µm,0.7s,mb7.0,SNR=28
ARU   Arti             79.13 328 eP       P        08 16 28.0 -1.4
      comp=Z,183nm,0.8s,mb6.1
ARU                              LR       LR
      comp=Z,20µm,20.0s,MS6.5
ARU   Arti             79.13 328d iP      P        08 16 28.3 -1.1
ARU                              e        pP       08 16 36.5 -1.8
ARU                              e                 08 19 25.2
ARU                              ePPP              08 21 17.1
ARU                              eS       S        08 26 23.4 -3.6
ARU                              e                 08 26 39.4
ARU                              eSSS              08 34 51.8
ARU                              pmax     pmax
      comp=Z,285nm,1.0s,mb6.2
FALS  False Pass       79.18  33 eP       P        08 16 30.8 +1.1
      comp=Z,374nm,0.8s,mb6.4
MAW   Mawson           79.44 201 eP       P        08 16 31.6 +0.7
      comp=Z,95nm,1.2s,mb5.6
MAW                              eS       S        08 26 29.9 -0.1
MAW   Mawson           79.44 201 eP       P        08 16 31.6 +0.7
MAW                              eS       S        08 26 29.9 -0.1
MAW                              pmax     pmax
      comp=Z,95nm,1.2s
MAW   Mawson           79.44 201 P        P        08 16 31.7 +0.8
      comp=Z,35nm,0.8s,mb5.3,baz=58,slow=5.9,SNR=30
MAW                              LR       LR       08 52 33.4
      comp=Z,10µm,18.2s,MS6.2,baz=56,slow=36
SBA   Scott Base       79.61 172 eP       P        08 16 39.1 +7.5
SBA                              LR       LR
      comp=Z,25µm,20.0s,MS6.6
TNA   Tin City         80.82  22 eP       P        08 16 38.2 -0.1
      comp=Z,6.9nm,0.4s
TNA                              LR       LR
      comp=Z,13µm,22.0s
SDPT  Sand Point       80.94  33 eP       P        08 16 39.1 -0.1
      comp=Z,962nm,0.6s,mb6.9
QRN   Al-Qurain        80.99 299 eP       P        08 16 39.1 -1.0
QRN                              AMb      AMB      08 16 54.4
      comp=Z,810nm,1.1s,mb6.6
SOKR  Solikamsk        81.00 331d iP      P        08 16 38.2 -1.3
SOKR                                               08 19 44.0
SOKR                             S        S        08 26 42.8 -3.9
SOKR                             SS       SS       08 32 02.2 +0.8
SOKR                             pmax     pmax
      comp=Z,240nm,1.0s,mb6.1
SOKR                             MLR      MLR
      comp=Z,17µm,24.0s,MS6.3
KBD   Kabd             81.23 300 eP       P        08 16 40.7 -0.6
KBD                              AMb      AMB      08 16 51.4
      comp=Z,1µm,0.9s,mb6.8
UMR   Umm Al-Rimmam    81.25 300 eP       P        08 16 40.2 -1.2
UMR                              AMb      AMB      08 16 57.2
      comp=Z,432nm,1.1s,mb6.3
RDF   Al-Radifah       81.33 299 eP       P        08 16 41.2 -0.7
RDF                              AMb      AMB      08 16 54.4
      comp=Z,472nm,0.8s,mb6.5
MIB   Mutribah         81.60 300 eP       P        08 16 42.9 -0.4
MIB                              AMb      AMB      08 16 50.0
      comp=Z,610nm,1.1s,mb6.5
NAY   Al-Naaiem        81.63 300 eP       P        08 16 42.6 -0.9
NAY                              AMb      AMB      08 16 55.0
      comp=Z,272nm,1.1s,mb6.1
RST   Umm Al-Ruwaisa   81.87 300 eP       P        08 16 43.8 -0.9
RST                              AMb      AMB      08 16 56.0
      comp=Z,799nm,1.2s,mb6.5
MAK   Makhachkala      83.06 313 eP       P        08 16 48.0 -2.7
MAK                              e                 08 19 59.4
MAK                              ePPP              08 21 49.7
MAK                              i S      S        08 27 03.9 -4.7
MAK                              pmax     pmax
      comp=Z,1µm,2.8s,mb6.5
MAK                              pmax     pmax
      comp=N,361nm,0.8s
MAK                              pmax     pmax
      comp=E,525nm,0.9s
PAE   Paea             83.35 108 eP       P        08 16 55.0 +2.4
      comp=E,135nm,1.1s,mb5.9
PAE   Paea             83.35 108 eP       P        08 16 55.0 +2.4
PAE                              pmax     pmax
      comp=Z,135nm,1.1s,mb5.9
PPT   Papeete          83.35 107 eS       S        08 27 13.8 +1.4
      comp=Z,32µm,31.0s
PPT                              eSS      SS       08 32 39.7 +1.6
      comp=Z,25µm,29.0s
PPT                              eLQ               08 39 44.8
      comp=Z,68µm,31.5s
PPT                              eLR      LR       08 43 11.2
      comp=Z,60µm,31.2s
PPT   Papeete          83.35 107 eP       P        08 16 55.3 +2.6
      comp=Z,178nm,1.5s,mb5.9
PPT                              eS       S        08 27 13.8 +1.4
PPT                              eSS      SS       08 32 39.7 +1.6
PPT                              eLQ               08 39 44.8
PPT   Papeete          83.35 107 eP       P        08 16 55.3 +2.6
PPT                              eS       S        08 27 13.8 +1.4
PPT                              eSS      SS       08 32 39.7 +1.6
PPT                              pmax     pmax
      comp=Z,178nm,1.5s
PPT   Papeete          83.35 107 LR       LR       08 50 27.7
      comp=Z,12µm,21.0s,MS6.2,baz=270,slow=33
TVO   Taravao          83.66 108 eP       P        08 16 57.1 +2.8
      comp=Z,335nm,1.2s,mb6.3
TVO   Taravao          83.66 108 eP       P        08 16 57.1 +2.8
TVO                              pmax     pmax
      comp=Z,335nm,1.2s,mb6.3
DGRG  David-gareji     84.45 312 P        P        08 16 58.4 +0.6
SVW2  Sparrevohn       84.79  28 eP       P        08 17 00.2 +1.1
MTA   Mtatsminda       84.91 312 P        P        08 16 59.4 -0.7
MTA                              S        S        08 27 19.4 -7.7
PMOR  Pomariorio Ree   84.94 105 eP       P        08 17 03.1 +2.3
      comp=Z,141nm,1.1s,mb6.0
TBLG  Delisi           84.95 312 eP       P        08 17 00.6 +0.3
TBLG                             eS       S        08 27 19.4 -8.2
TBLG  Delisi           84.95 312 P        P        08 17 00.6 +0.3
TBLG                             S        S        08 27 19.4 -8.2
VAH   Vaihoa           85.19 105 eP       P        08 17 04.1 +2.0
      comp=Z,99nm,1.1s,mb5.9
CLDR  Caldiran         85.33 309 eP       P        08 17 03.2 +0.9
HKR   Hakkari          85.33 308 eP       P        08 17 02.7 +0.3
CUKT  Cukurca          85.41 307 eP       P        08 17 01.5 -1.2
ZEI   Tsey             85.67 313 eP       P        08 17 04.1 +0.2
ZEI                              e*PP     pP       08 17 13.0 +0.1
ZEI                              e                 08 20 27.5
ZEI                              eS       S        08 27 28.4 -6.3
ZEI                              pmax     pmax
      comp=Z,191nm,0.9s,mb6.3
ZEI                              smax
      comp=N,253nm,1.9s
VANB  Van              85.69 309 eP       P        08 17 02.4 -1.7
KDAK  Kodiak Island    85.71  32 PFAKE             08 17 10.0 +6.3
KDAK                             LR       LR
      comp=Z,9µm,22.0s,MS6.1
KDAK  Kodiak Island    85.71  32 P        P        08 17 04.8 +1.0
      comp=Z,78nm,0.9s,mb5.9,baz=202,slow=2.1,SNR=16
AGRB  Hanur-Agry       86.08 310 eP       P        08 17 06.0  0.0
KARS  Kars             86.09 311 eP       P        08 17 06.0  0.0
SIRT  Sirnak           86.36 307 eP       P        08 17 09.2 +1.8
IMA2  Indian Mountai   86.57  24 eP       P        08 17 08.5 +0.7
KIV   Kislovodsk       86.66 314 P        P        08 17 09.2 +0.5
      comp=Z,517nm,0.8s,mb6.8,SNR=13
KIV   Kislovodsk       86.66 314 eP       P        08 17 09.2 +0.5
      comp=Z,355nm,1.4s,mb6.4
KIV                              LR       LR
      comp=Z,8µm,19.0s,MS6.1
KIV   Kislovodsk       86.66 314 eP       P        08 17 07.8 -0.9
KIV                              e                 08 20 30.5
KIV                              e                 08 27 31.2
KIV                              eSS      SS       08 33 22.8 -2.9
KIV                              pmax     pmax
      comp=Z,3µm,6.8s
KIV                              pmax     pmax
      comp=Z,74nm,1.0s,mb5.9
KIV                              MLR      MLR
      comp=Z,7µm,20.0s,MS6.1
PRGR  Permogore        86.83 332⇑iP       P        08 17 09.6 +0.5
PRGR                             eS       S        08 27 39.3 -5.8
BTMT  Batman           87.15 308 eP       P        08 17 12.2 +0.9
BCA   Borcka           87.26 311 eP       P        08 17 10.6 -1.1
SLKM  Skilak Lake      87.29  29 eP       P        08 17 10.9 -0.5
EZM   Erzurum          87.36 310 eP       P        08 17 13.7 +1.4
DESE  Dese             87.68 281 eP       P        08 17 16.5 +2.1
DESE                             S        S        08 27 48.8 -6.4
VRHR  Novokhopersk     87.93 321 eP       P        08 17 13.8 -0.9
VRHR                             e*PP     pP       08 17 23.2 -0.5
VRHR                             eS       S        08 27 51.9 -4.2
VRHR                             pmax     pmax
      comp=E,80nm,0.8s
VRHR                             pmax     pmax
      comp=Z,220nm,0.8s,mb6.4
VRHR                             pmax     pmax
      comp=N,40nm,0.9s
PMR   Palmer           87.94  28 eP       P        08 17 14.5  0.0
      comp=N,61nm,1.2s,mb5.7
PMR   Palmer           87.94  28 P        P        08 17 09.3 -5.2
PMR                              pmax     pmax
      comp=Z,51nm,1.0s,mb5.7
SYO   Syowa Base       88.14 201⇓eP       P        08 17 15.0 -0.3
SYO   Syowa Base       88.14 201⇓ipP      pP       08 17 19.2 -5.1
MCK   McKinley         88.25  26 eP       P        08 17 15.7 -0.3
      comp=Z,598nm,0.8s,mb6.9
MCK                              LR       LR
      comp=Z,11µm,21.0s,MS6.2
MCK   McKinley         88.25  26 eP       P        08 17 15.7 -0.2
MCK                              pmax     pmax
      comp=Z,293nm,0.8s,mb6.6
MCK                              MLR      MLR
      comp=Z,11µm,21.0s,MS6.2
SML   Sawmill          88.34  28 eP       P        08 17 16.8 +0.4
KTUT  Trabzon          88.63 311 eP       P        08 17 17.3 -0.9
SOC   Sochi            88.78 313d iP      P        08 17 17.2 -1.7
SOC                              e*PP     pP       08 17 27.6 -0.3
SOC                              e*SP     sP       08 17 31.1  0.0
SOC                              e                 08 20 43.9
SOC                              ePPP              08 22 41.0
SOC                              i S      S        08 27 43.5  -21
SOC                              e*SS     sS       08 28 01.3  -18
SOC                              eSP               08 29 08.1
SOC                              eSS      SS       08 33 49.2 -7.6
SOC                              eSSS              08 37 29.1
SOC                              pmax     pmax
      comp=Z,33nm,0.8s,mb5.7
SOC                              pmax     pmax
      comp=Z,3µm,7.1s
COLA  College          88.83  25 eP       P        08 17 18.2 -0.5
      comp=Z,23nm,0.8s,mb5.5
COLA                             LR       LR
      comp=Z,22µm,21.0s,MS6.5
COLA  College          88.83  25 i P      P        08 17 20.2 +1.6
GUMT  Gumushane        88.83 310 eP       P        08 17 15.1 -4.1
PTK   Pertek           88.83 309 eP       P        08 17 18.1 -1.2
VORD  Divnogorie       89.39 321 eP       P        08 17 18.6 -3.0
VORD                             eS       S        08 27 46.8  -23
VORD                             pmax     pmax
      comp=Z,70nm,0.6s,mb6.2
VORD                             pmax     pmax
      comp=N,400nm,0.8s
VORD                             pmax     pmax
      comp=E,470nm,0.8s
VRSR  Storozhevoye     89.46 321 eP       P        08 17 19.7 -2.2
VRSR                             e                 08 20 56.1
VRSR                             e                 08 27 46.0
VRSR                             eS       S        08 28 05.0 -5.6
VRSR                             pmax     pmax
      comp=Z,10.0nm,1.0s,mb5.1
VRSR                             pmax     pmax
      comp=N,2.0nm,0.9s
VRSR                             pmax     pmax
      comp=E,10.0nm,0.9s
VRSR                             smax
      comp=N,1µm,7.1s
VRSR                             smax
      comp=Z,200nm,5.0s
VRSR                             smax
      comp=E,900nm,6.2s
VRSR                             MLR      MLR
      comp=Z,2µm,19.0s,MS5.5
VOR   Voronezh         89.48 322 eP       P        08 17 21.5 -0.5
VOR                              pmax     pmax
      comp=Z,240nm,1.6s,mb6.3
DIV   Divide           89.51  29 PFAKE             08 17 30.0 +8.1
DIV                              LR       LR
      comp=Z,95µm,22.0s,MS7.2
MALT  Malatya          89.57 308 eP       P        08 17 23.1 +0.4
MALT  Malatya          89.57 308 eP       P        08 17 22.6 -0.1
      comp=Z,115nm,1.2s,mb6.1
MALT                             ePP      PP       08 20 56.4 +1.9
MALT  Malatya          89.57 308 eP       P        08 17 22.6 -0.1
MALT                             e                 08 20 56.4
MALT                             pmax     pmax
      comp=Z,115nm,1.2s,mb6.1
MALT  Malatya          89.57 308⇓iP       P        08 17 23.0 +0.3
MYA   Malataya         89.57 308 eP       P        08 17 23.0 +0.3
KMBO  Kilima Mbogo     89.80 269 eP       P        08 17 25.3 +0.9
      comp=Z,190nm,1.3s,mb6.3
KMBO                             LR       LR
      comp=Z,18µm,22.0s,MS6.5
KMBO  Kilima Mbogo     89.80 269 eP       P        08 17 25.3 +0.9
KMBO                             pmax     pmax
      comp=Z,190nm,1.3s
KMBO                             MLR      MLR
      comp=Z,18µm,22.0s
KMBO  Kilima Mbogo     89.80 269 P        P        08 17 25.5 +1.1
      comp=Z,89nm,1.1s,mb6.0,baz=56,slow=5.6,SNR=77
ANN   Anapa            90.46 315 eP       P        08 17 23.6 -3.2
ANN                              e                 08 21 07.3
ANN                              ePPP              08 23 00.8
ANN                              e                 08 27 50.3
ANN                              eS       S        08 28 15.8 -4.4
ANN                              eSP      SP       08 29 27.1 +0.5
ANN                              pmax     pmax
      comp=Z,137nm,1.2s,mb6.2
GAZ   Gaziantep        90.50 307 eP       P        08 17 27.0 -0.2
MOS   Moscow           90.53 326 eP       P        08 17 25.6 -1.2
MOS   Moscow           90.53 326 eP       P        08 17 25.8 -1.0
MOS                              i                 08 21 05.4
MOS                              i PPP             08 23 03.2
MOS                              eS       S        08 28 17.1 -3.2
MOS                              i PS     PS       08 29 33.2 +2.4
MOS                              i SS     SS       08 34 25.1 +3.7
MOS                              pmax     pmax
      comp=Z,600nm,2.1s,mb6.6
MOS                              pmax     pmax
      comp=Z,190nm,1.1s,mb6.3
MOS                              MLR      MLR
      comp=N,19µm,22.0s,MS6.5
MOS                              MLR      MLR
      comp=E,10µm,22.0s,MS6.5
MOS                              MLR      MLR
      comp=Z,15µm,22.0s,MS6.4
MENT  Mentasta         90.55  27 eP       P        08 17 27.4 +0.7
ASF   Jabal al Asfar   90.69 302 P        P        08 17 28.2 +0.1
      comp=Z,24nm,0.8s,mb5.6,baz=300,slow=1.9,SNR=33
SVSK  Karacayir        90.71 310 eP       P        08 17 28.4 +0.3
KMRS  Kahramanmaras    90.76 307 eP       P        08 17 26.9 -1.4
OBN   Obninsk          91.13 325 P        P        08 17 29.4 -0.2
      comp=Z,911nm,0.5s,mb7.4,SNR=7.5
OBN   Obninsk          91.13 325 eP       P        08 17 28.1 -1.5
      comp=Z,80nm,0.6s,mb6.2
OBN                              LR       LR
      comp=Z,17µm,20.0s,MS6.5
OBN   Obninsk          91.13 325c iP      P        08 17 28.1 -1.5
OBN                              i                 08 21 09.9
OBN                              i PPP             08 23 09.3
OBN                              i                 08 27 58.9
OBN                              i S      S        08 28 22.7 -3.1
OBN                              i PS     PS       08 29 37.6 +0.2
OBN                              i SS     SS       08 34 28.9 -1.2
OBN                              pmax     pmax
      comp=Z,250µm,1.3s
OBN                              pmax     pmax
      comp=Z,187µm,1.5s
OBN                              MLR      MLR
      comp=Z,12µm,21.0s
KVT   Kavak            91.45 311 eP       P        08 17 30.7 -0.7
HWQ   Hawqa            91.51 304 eP       P        08 17 31.2 -0.7
BNN   Bunyan           91.60 309 eP       P        08 17 30.1 -2.1
RCY   Rachaya          91.61 303 eP       P        08 17 33.2 +0.8
KOZT  Kozan            91.61 307 eP       P        08 17 30.5 -1.7
CEYT  Ceyhan           91.67 307 eP       P        08 17 31.8 -0.8
EGAK  Eagle            91.68  25 eP       P        08 17 32.6 +0.6
      comp=Z,41nm,0.8s,mb5.8
EGAK                             LR       LR
      comp=Z,19µm,20.0s,MS6.5
BHL   Bhannes          91.75 304 eP       P        08 17 32.5 -0.5
LVZ   Lovozero         91.86 338 eP       P        08 17 32.6 -0.1
LVZ                              MLR      MLR
      comp=Z,18µm,20.0s,MS6.5
MMAI  Mount Meron Ar   91.96 303 P        P        08 17 33.5 -0.5
      comp=Z,43nm,1.1s,mb5.7,baz=76,slow=7.6,SNR=5.3
KRTS  Karatas          91.97 306 eP       P        08 17 32.8 -1.2
DIKM  Dikmen           92.04 311 eP       P        08 17 34.7 +0.6
KARA  Karaisali        92.23 307 eP       P        08 17 28.3 -6.8
EIL   Elat             92.35 299 P        P        08 17 34.8 -1.0
      comp=Z,8.8nm,0.6s,mb5.2,baz=83,slow=4.0
APA   Apatity          92.35 337⇑iP       P        08 17 32.8 -2.2
APA                              i        pP       08 17 43.0 -1.0
APA                              i                 08 28 08.0
APA                              eS       S        08 28 34.0 -2.4
APA                              ePS      PS       08 29 44.0 -6.6
APA                              i SS     SS       08 34 45.0 -2.0
APA                              pmax     pmax
      comp=Z,48nm,1.1s,mb5.7
DAWY  Dawson           92.47  26 eP       P        08 17 36.5 +0.9
CORM  Corum            92.53 310 eP       P        08 17 33.7 -2.8
TAOE  Nuku Hiva Isla   92.59  99 eSKSac   SKSac    08 28 08.1 -1.6
      comp=Z,37µm,24.3s
TAOE                             eSP      SP       08 29 46.9 -4.7
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	comp=Z,16μm,28.6s						
TAOE				*e*SS	SS	08 34 58.2	+5.0
	comp=Z,24μm,25.9s						
TAOE				*e*LQ		08 43 35.1	
	comp=Z,71μm,33.5s						
TAOE				*e*LR	LR	08 47 35.7	
	comp=Z,94μm,23.0s						
MERS	**Mersin**	**92.66**	**307**	*e*P	**P**	**08 17 35.9**	**-1.2**
SIM	**Simferopol’**	**92.82**	**315**	*e*P	**P**	**08 17 36.6**	**-1.1**
SIM	**Simferopol’**	**92.82**	**315**	d*e*P	**P**	**08 17 36.9**	**-0.8**
SIM				*e*S	S	08 28 40.0	-1.5
SIM				*e*SS	SS	08 35 01.0	+6.0
SIM				pmax	pmax		
	comp=Z,58nm,0.8s,mb6.1						
SIM				pmax	pmax		
	comp=Z,2μm,12.0s						
KAMT	**Kaman**	**93.25**	**309**	*e*P	**P**	**08 17 39.0**	**-0.8**
CANT	**Cankiri**	**93.29**	**310**	*e*P	**P**	**08 17 40.0**	**0.0**
BR131	**Keskin Array S**	**93.30**	**310**	*e*P	**P**	**08 17 39.0**	**-1.0**
	comp=Z,18nm,0.7s,mb5.6						
BR131				*e*PP	PP	08 21 25.8	+1.7
BR131				LR	LR		
	comp=Z,6μm,20.0s,MS6.0						
BRTR	**Keskin Array B**	**93.30**	**310**	P	**P**	**08 17 38.6**	**-1.4**
BRTR						08 21 25.7	
BRTR	**Keskin Array B**	**93.30**	**310**	P	**P**	**08 17 38.5**	**-1.5**
	comp=Z,13nm,0.8s,mb5.4,baz=101,slow=5.2,SNR=25						
BRTR				PP	PP	08 21 25.6	+1.6
	comp=Z,15nm,0.8s,baz=120,slow=4.4,SNR=7.1						
BRTR				PKKPbc	PKKPbc	08 34 48.3	-0.4
	comp=Z,1.9nm,0.9s,baz=183,slow=2.2,SNR=5.1						
BRTR				PKPPKP		08 43 05.1	
	comp=Z,1.0nm,0.8s,baz=199,slow=10,SNR=4.4						
IKL	**Isikli**	**93.34**	**306**	*e*P	**P**	**08 17 37.5**	**-2.8**
JOF	**Joensuu**	**93.54**	**333**	*e*p	**P**	**08 17 38.7**	**-1.9**
	comp=Z,42nm,0.7s,mb6.0						
JOF	**Joensuu**	**93.54**	**333**	*e*P	**P**	**08 17 38.7**	**-1.9**
JOF				pmax	pmax		
	comp=Z,42nm,0.7s,mb6.0						
CSS	**Prodhromos**	**93.66**	**305**	*e*P	**P**	**08 17 40.9**	**-0.9**
	comp=Z,76nm,0.9s,mb6.1						
ANTO	**Ankara**	**93.95**	**310**	*e*P	**P**	**08 17 40.5**	**-2.5**
ANTO	**Ankara**	**93.95**	**310**	*e*P	**P**	**08 17 42.6**	**-0.4**
	comp=Z,15nm,0.8s,mb5.5						
ANTO				LR	LR		
	comp=Z,7μm,22.0s,MS6.1						
ANTO	**Ankara**	**93.95**	**310**	*e*P	**P**	**08 17 42.6**	**-0.4**
ANTO				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.5						
ANTO				MLR	MLR		
	comp=Z,7μm,22.0s,MS6.1						
LOD	**Lodumlu**	**93.97**	**310**	*e*P	**P**	**08 17 45.7**	**+2.6**
KONT	**Konya--Tatoy**	**94.35**	**308**	*e*P	**P**	**08 17 40.8**	**-4.1**
INK	**Inuvik**	**94.44**	**22**	*e*P	**P**	**08 17 43.0**	**-1.6**
	comp=Z,0.3nm,1.3s						
INK	**Inuvik**	**94.44**	**22**	PKKPbc	PKKPbc	08 34 43.6	-3.1
	comp=Z,5.6nm,0.9s,baz=132,slow=4.7,SNR=6.1						
INK				PKPPKP		08 42 57.4	
	comp=Z,2.2nm,1.1s,baz=143,slow=6.6,SNR=5.2						
INK				LR	LR	08 58 54.5	
	comp=Z,14μm,20.4s,MS6.4,baz=280,slow=35						
KEV	**Kevo**	**94.45**	**340**	*e*p	**P**	**08 17 43.2**	**-1.4**
	comp=Z,34nm,1.0s,mb5.7						
KEV	**Kevo**	**94.45**	**340**	*e*P	**P**	**08 17 43.2**	**-1.4**
KEV				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.7						
KIZT	**Kizilcal**	**94.69**	**309**	*e*P	**P**	**08 17 43.8**	**-2.6**
SKAG	**Skagway**	**94.75**	**31**	*e*P	**P**	**08 17 47.6**	**+1.4**
	comp=Z,66nm,1.2s,mb5.9						
KDZE	**Karadeniz Ereo**	**94.91**	**311**	*e*P	**P**	**08 17 42.7**	**-4.7**
SIT	**Sitka**	**95.00**	**33**	PFAKE		08 18 00.0	+13
SIT				LR	LR		
	comp=Z,29μm,22.0s,MS6.7						
ARCES	**ARCESS Array B**	**95.00**	**340**	P	**P**	**08 17 44.9**	**-2.3**
ARCES						08 21 43.7	
ARCES	**ARCESS Array B**	**95.00**	**340**	P	**P**	**08 17 44.9**	**-2.3**
	comp=Z,29nm,0.7s,mb5.8,baz=86,slow=4.6,SNR=55						
ARCES				PP	PP	08 21 43.7	+7.3
	comp=Z,64nm,1.2s,baz=70,slow=8.9,SNR=6.5						
ARCES				PKKPbc	PKKPbc	08 34 44.8	-0.5
	comp=Z,2.7nm,0.7s,baz=246,slow=3.6,SNR=7.0						
ARCES				LR	LR	09 09 32.2	
	comp=Z,16μm,18.7s,MS6.5,baz=69,slow=41						
ARE0	**ARCESS Array S**	**95.00**	**340**	*e*P	**P**	**08 17 47.0**	**-0.2**
SPB4	**Spitsbergen Ar**	**95.19**	**349**	*e*P	**P**	**08 17 47.8**	**-0.1**
KBS	**Kingsbay**	**95.72**	**350**	PFAKE		08 18 00.0	+10
KBS				LR	LR		
	comp=Z,17μm,22.0s,MS6.5						
KBS	**Kingsbay**	**95.72**	**350**	*e*P	**P**	**08 17 52.0**	**+1.7**
KBS				*e*PP	PP	08 21 41.9	+0.2
KBS				*e*SKSa		08 28 26.2	
KBS				AMS	AMS	09 07 35.6	
	comp=Z,9μm,23.3s,MS6.2						
SHUT	**Suhut-Afyon**	**95.75**	**308**	*e*P	**P**	**08 17 50.2**	**-1.0**
AKASG	**Malin Array Be**	**95.77**	**321**	P	**P**	**08 17 49.0**	**-2.1**
AKASG				PP	PP	08 21 40.0	-3.0
AKASG				LR	LR	09 07 27.4	
AKASG	**Malin Array Be**	**95.77**	**321**	P	**P**	**08 17 49.0**	**-2.1**
AKASG						08 21 40.0	
AKASG	**Malin Array Be**	**95.77**	**321**	P	**P**	**08 17 49.0**	**-2.1**
	comp=Z,4.1nm,0.6s,baz=68,slow=4.7,SNR=22						
AKASG				PP	PP	08 21 40.0	-3.0
	comp=Z,14nm,1.0s,baz=71,slow=7.7,SNR=4.3						
AKASG				LR	LR	09 07 27.4	
	comp=Z,14μm,21.8s,MS6.4,baz=75,slow=40						
AKBB	**Malin Array Si**	**95.77**	**321**	*e*P	**P**	**08 17 50.5**	**-0.6**
AKBB				*e*PP	PP	08 21 39.1	-3.8
KIEV	**Kiev**	**95.78**	**321**	*e*P	**P**	**08 17 50.4**	**-0.7**
	comp=Z,21nm,0.9s,mb5.6						
KIEV				*e*PP	PP	08 21 39.1	-3.9
KIEV				LR	LR		
	comp=Z,16μm,22.0s,MS6.4						
KIEV	**Kiev**	**95.78**	**321**	*e*P	**P**	**08 17 50.4**	**-0.7**
KIEV				*e*		08 21 39.1	
KIEV				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.6						
KIEV				MLR	MLR		
	comp=Z,16μm,22.0s,MS6.4						
ISP	**Isparta**	**95.82**	**308**	*e*P	**P**	**08 17 50.6**	**-1.0**
ISP	**Isparta**	**95.82**	**308**	*e*P	**P**	**08 17 50.8**	**-0.8**
ISP	**Isparta**	**95.82**	**308**	*e*P	**P**	**08 17 50.7**	**-0.9**
KTK1	**Kautokeino**	**95.90**	**339**	*e*P	**P**	**08 17 50.1**	**-1.2**
	comp=Z,78nm,1.0s,mb6.1						
KTK1	**Kautokeino**	**95.90**	**339**	*e*P	**P**	**08 17 50.1**	**-1.2**
KTK1				AMb	AMB	08 18 00.4	
	comp=Z,78nm,1.0s,mb6.1						
KAF	**Kangasniemi**	**95.94**	**332**	*e*p	**P**	**08 17 49.9**	**-1.7**
	comp=Z,14nm,0.5s,mb5.6,baz=76,slow=4.1						
KAF	**Kangasniemi**	**95.94**	**332**	*e*P	**P**	**08 17 49.9**	**-1.7**
KAF				pmax	pmax		
	comp=Z,14nm,0.5s,mb5.7						
FIA1	**FINESS Array S**	**96.16**	**332**	*e*P	**P**	**08 17 51.9**	**-0.7**
FINES	**FINESS Array B**	**96.16**	**332**	P	**P**	**08 17 52.0**	**-0.6**
FINES						08 21 44.1	
FINES				S	SKSac	08 28 25.7	-1.4
FINES	**FINESS Array B**	**96.16**	**332**	P	**P**	**08 17 52.0**	**-0.6**
	comp=Z,11nm,0.8s,mb5.4,baz=77,slow=5.0,SNR=36						
FINES				PP	PP	08 21 44.1	-1.4
	comp=Z,11nm,0.8s,baz=93,slow=12,SNR=3.8						
FINES				S	SKSac	08 28 25.7	-1.4
	comp=Z,3.9nm,0.9s,baz=122,slow=2.5,SNR=4.2						
FINES				LR	LR	09 08 10.2	
	comp=Z,10μm,18.4s,MS6.3,baz=243,slow=40						
MNK	**Minsk**	**96.21**	**325**	d*e*P	**P**	**08 17 50.0**	**-3.0**
MNK				*e*		08 21 54.0	
MNK				*e*PPP		08 23 50.0	
MNK				*e*		08 28 26.0	
MNK				*e*S	S	08 29 02.0	-8.6
MNK				*e*PS	PS	08 30 32.0	-1.5
MNK				*e*SS	SS	08 35 36.0	-6.6
MNK				pmax	pmax		
	comp=Z,230nm,1.0s,mb6.6						
MNK				MLR	MLR		
	comp=N,20μm,18.0s,MS6.7						
MNK				MLR	MLR		
	comp=Z,28μm,20.0s,MS6.7						
MNK				MLR	MLR		
	comp=E,17μm,20.0s,MS6.7						
ADVT	**Abdulvahap**	**96.26**	**310**	*e*P	**P**	**08 17 52.1**	**-1.4**
VSU	**Vasula**	**96.29**	**329**	*e*P	**P**	**08 17 53.9**	**+0.7**
ELL	**Elmali**	**96.36**	**307**	*e*P	**P**	**08 17 52.0**	**-2.1**
YLV	**Yalova**	**96.53**	**311**	*e*P	**P**	**08 17 53.5**	**-1.2**
GEMT	**Gemlik**	**96.67**	**310**	*e*P	**P**	**08 17 52.6**	**-2.9**
WRAK	**Wrangell Islan**	**96.71**	**33**	*e*P	**P**	**08 17 56.0**	**+0.8**
	comp=E,38nm,0.8s,mb5.9						
WRAK				LR	LR		
	comp=Z,17μm,21.0s,MS6.5						
KLYT	**Kilyos**	**96.72**	**311**	*e*P	**P**	**08 17 53.4**	**-2.2**
ISK	**Istanbul-Kandi**	**96.72**	**311**	*e*P	**P**	**08 17 53.7**	**-1.9**
TIRR	**Tirgusor**	**96.91**	**315**	⇑*i*P	**P**	**08 17 56.0**	**-0.4**
RKT	**Rikitea**	**96.92**	**113**	*e*LQ		08 45 23.7	
	comp=Z,32μm,36.5s						
RKT	**Rikitea**	**96.92**	**113**	*e*PP	PP	08 21 43.9	-8.7
	comp=Z,2μm,28.2s						
RKT	**Rikitea**	**96.92**	**113**	*e*PS	PS	08 30 48.8	+6.3
	comp=Z,16μm,28.5s						
RKT	**Rikitea**	**96.92**	**113**	*e*SKSac	SKSac	08 28 33.0	+0.3
	comp=Z,13μm,27.5s						
RKT				*e*SS	SS	08 36 00.9	+6.5
	comp=Z,12μm,30.5s						
RKT				*e*LR	LR	08 49 32.0	
	comp=Z,30μm,25.0s						
FETY	**Fethiye**	**97.03**	**307**	*e*P	**P**	**08 17 54.7**	**-2.5**
NVL	**N’lazarevskaya**	**97.15**	**198**	*i* P	**P**	**08 18 02.4**	**+5.5**
NVL				*i* S	SKSac	08 28 37.1	+5.2
NVL				pmax	pmax		
	comp=N,15nm,1.8s						
NVL				pmax	pmax		
	comp=E,20nm,1.8s						
NVL				pmax	pmax		
	comp=Z,38nm,1.8s,mb5.5						
NVL				MLR	MLR		
	comp=N,6μm,18.0s,MS6.6						
NVL				MLR	MLR		
	comp=E,18μm,18.0s,MS6.6						
NVL				MLR	MLR		
	comp=Z,26μm,18.0s,MS6.8						
MAIT	**Maitri**	**97.17**	**198**	*e*P	**P**	**08 17 55.9**	**-1.1**
TRO	**Tromso**	**97.22**	**340**	*e*P	**P**	**08 17 56.7**	**-0.6**
	comp=Z,77nm,1.3s,mb6.0						
TRO	**Tromso**	**97.22**	**340**	*e*P	**P**	**08 17 58.4**	**+1.1**
TRO				AMb	AMB	08 18 01.0	
	comp=Z,77nm,1.3s,mb6.0						
TRO				*e*PP	PP	08 21 48.8	-4.8
TRO				*e*SKSa		08 28 34.6	
TRO				*e*SS	SS	08 35 57.4	+1.2
TRO				AMS	AMS	09 09 27.4	
	comp=Z,12μm,25.7s,MS6.3						
TRO	**Tromso**	**97.22**	**340**	*e*P	**P**	**08 17 56.7**	**-0.6**
TRO				pmax	pmax		
	comp=Z,77nm,1.3s,mb6.0						
DALT	**Dalyan (Mudla)**	**97.38**	**307**	*e*P	**P**	**08 17 55.8**	**-2.9**
YER	**Yerkesik**	**97.63**	**307**	*e*P	**P**	**08 17 56.9**	**-2.9**
BALB	**Balikesir**	**97.74**	**310**	*e*P	**P**	**08 17 59.0**	**-1.2**
VRI	**Vrincioaia**	**97.95**	**316**	P	**P**	**08 18 00.6**	**-0.5**
VRI	**Vrincioaia**	**97.95**	**316**	⇑P	**P**	**08 18 01.2**	**+0.2**
VRI	**Vrincioaia**	**97.95**	**316**	⇑*i*P	**P**	**08 18 01.1**	**+0.1**
PLOR	**Plostina**	**98.00**	**316**	⇓*i*P	**P**	**08 18 00.9**	**-0.4**
MLSB	**Milas**	**98.02**	**307**	*e*P	**P**	**08 18 03.2**	**+1.6**
RKY	**Sarkoy-Tekirda**	**98.18**	**311**	*e*P	**P**	**08 18 00.7**	**-1.5**
DAT	**Datca**	**98.23**	**307**	*e*P	**P**	**08 18 04.1**	**+1.5**
LSZ	**Lusaka**	**98.30**	**254**	*e*P	**P**	**08 18 02.7**	**-0.6**
	comp=Z,128nm,1.4s,mb6.3						
LSZ				LR	LR		
	comp=Z,28μm,22.0s,MS6.7						
LSZ	**Lusaka**	**98.30**	**254**	*e*P	**P**	**08 18 02.7**	**-0.6**
LSZ				pmax	pmax		
	comp=Z,128nm,1.4s,mb6.3						
LSZ				MLR	MLR		
	comp=Z,28μm,22.0s,MS6.7						
EDRB	**Edirne**	**98.38**	**312**	*e*P	**P**	**08 18 03.8**	**+0.7**
BODT	**Bodrum**	**98.42**	**307**	*e*P	**P**	**08 18 01.7**	**-1.6**
BLCB	**Balcova**	**98.51**	**309**	*e*P	**P**	**08 18 02.3**	**-1.5**
MLR	**Muntele Rosu**	**98.54**	**316**	P	**P**	**08 18 03.1**	**-0.6**
MLR	**Muntele Rosu**	**98.54**	**316**	P	**P**	**08 18 03.0**	**-0.7**
MLR						08 22 11.2	
MLR				S	SKSac	08 28 37.8	-2.2
MLR				pmax	pmax		
	comp=Z,13nm,0.6s						
MLR				pmax	pmax		
	comp=Z,137nm,0.9s						
MLR	**Muntele Rosu**	**98.54**	**316**	P	**P**	**08 18 03.0**	**-0.7**
	comp=Z,13nm,0.6s,mb5.6,baz=302,slow=3.9,SNR=14						
MLR				PP	PP	08 22 11.2	+6.9
	comp=Z,137nm,0.9s,baz=55,slow=3.9,SNR=11						
MLR				S	SKSac	08 28 37.8	-2.2
	comp=Z,11nm,1.0s,baz=165,slow=20,SNR=10						
MLR				PKKP	PKKPbc	08 34 36.7	+1.9
	comp=Z,4.8nm,1.0s,baz=196,slow=4.3,SNR=3.3						
MLR	**Muntele Rosu**	**98.54**	**316**	⇓*i*P	**P**	**08 18 03.4**	**-0.3**
BURAR	**Bucovina Array**	**98.75**	**318**	⇓P	**P**	**08 18 04.7**	**0.0**
BURAR	**Bucovina Array**	**98.75**	**318**	⇓*i*P	**P**	**08 18 04.7**	**+0.1**
SZH	**Strazhica**	**98.82**	**314**	*e*P	**P**	**08 18 03.5**	**-1.5**
SUW	**Suwalki**	**98.98**	**325**	*e*P	**P**	**08 18 04.3**	**-1.2**
SUW				*e*PP	PP	08 22 16.1	+8.6
SUW				*e*SKS		08 28 41.5	
SUW				LMZ		09 02 37.1	
	comp=Z,11μm,26.1s						
SUW	**Suwalki**	**98.98**	**325**	*e*P	**P**	**08 18 04.3**	**-1.2**
SUW				*e*PP	PP	08 22 16.1	+8.7
SUW				*e*SKS		08 28 41.5	
VOIR		**99.17**	**316**	⇓P	**P**	**08 18 07.9**	**+1.4**
VOIR		**99.17**	**316**	⇓*i*P	**P**	**08 18 07.9**	**+1.4**
LVV	**L’vov**	**99.19**	**320**	*e*P	**P**	**08 18 06.7**	**+0.2**
LVV				*e*		08 22 12.5	
LVV				*i* PPP		08 24 24.9	
LVV				*e*S	S	08 29 34.3	-2.0
LVV				*e*PS	PS	08 31 07.3	+1.2
LVV				*e*SS	SS	08 36 23.5	-1.4
GADA	**Gvkgeada**	**99.20**	**310**	*e*P	**P**	**08 18 02.3**	**-4.5**
PVL	**Pavlikeni**	**99.26**	**314**	*e*P	**P**	**08 18 08.6**	**+1.6**
APE	**Apeiranthos**	**99.83**	**307**	*e*P	Pdif	08 18 09.1	-0.1
BOSA	**Boshof**	**99.88**	**241**	*e*Pdif	Pdif	08 18 10.7	+1.2
	comp=Z,33nm,1.2s						
BOSA				LR	LR		
	comp=Z,14μm,20.0s,MS6.5						
BOSA	**Boshof**	**99.88**	**241**	P	Pdif	08 18 09.6	+0.1
BOSA						08 22 14.9	
BOSA				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.3						
BOSA				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.4						
BOSA				MLR	MLR		
	comp=Z,13μm,20.0s,MS6.4						
BOSA	**Boshof**	**99.88**	**241**	P	Pdif	08 18 09.6	+0.1
	comp=Z,11nm,0.9s,baz=86,slow=4.0,SNR=11						
BOSA				PP	PP	08 22 14.9	-0.2
	comp=Z,16nm,1.1s,baz=81,slow=6.7,SNR=4.4						
BOSA				PKKP	PKKPbc	08 34 34.0	+3.5
	comp=Z,5.1nm,1.1s,baz=45,slow=2.4,SNR=3.7						
BOSA				LR	LR	09 02 06.6	
	comp=Z,13μm,20.0s,MS6.4,baz=99,slow=35						
MOR8	**Moi Rana**	**99.94**	**338**	*e*P	Pdif	08 18 05.9	-3.8
	comp=Z,66nm,2.5s						
MOR8	**Moi Rana**	**99.94**	**338**	*e*P	Pdif	08 18 05.9	-3.8
MOR8				AMb	AMB	08 18 24.6	
	comp=Z,66nm,2.5s,mb5.6						
LBTB	**Lobatse**	**99.96**	**245**	*e*Pdif	Pdif	08 18 10.9	+1.0
	comp=Z,13nm,0.9s						
LBTB				LR	LR		
	comp=Z,13μm,21.0s,MS6.4						
LBTB	**Lobatse**	**99.96**	**245**	*e*P	Pdif	08 18 10.9	+1.1
LBTB				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.4						
LBTB				MLR	MLR		
	comp=Z,13μm,21.0s,MS6.4						
KWP	**Kalwaria**	**100.07**	**320**	*e*P	Pdif	08 18 11.4	+1.1
KWP				*e*PP	PP	08 22 24.0	+8.1
KWP				*e*SKS		08 28 46.0	
KWP				*e*SP	SP	08 31 17.2	+5.6
KWP				*e*SS	SS	08 36 29.4	-7.7
KWP				LMZ		09 08 13.3	
	comp=Z,16μm,24.6s						
KWP	**Kalwaria**	**100.07**	**320**	*e*P	Pdif	08 18 11.4	+1.1
KWP				*e*		08 22 24.0	
KWP				*e*		08 28 46.0	
KWP				*e*SP	SP	08 31 17.2	+5.6
KWP				*e*SS	SS	08 36 29.4	-7.7
TRPA	**Tarpa**	**100.45**	**319**	⇓*i*P	Pdif	08 18 11.8	-0.2
KOLS	**Kolonicke sedl**	**100.48**	**320**	*e*P	Pdif	08 18 12.8	+0.7
KOLS				*e*PP	PP	08 22 29.2	+10
KOLS				*e*		08 28 49.5	
KOLS				*e*S	Sdif	08 29 45.8	-1.0
KOLS				*e*		08 31 16.5	
KOLS				*e*SS	SS	08 36 42.2	-0.6
KOLS	**Kolonicke sedl**	**100.48**	**320**	PDIF	Pdif	08 18 12.8	+0.7
KOLS				*e*PP	PP	08 22 29.2	+10
UZH	**Uzhgorod**	**100.52**	**319**	*e*P	Pdif	08 18 13.0	+0.7
UZH				*i*		08 22 25.0	
UZH				*e*		08 24 25.0	
UZH				*i*		08 28 53.0	
UZH				*e*S	Sdif	08 29 44.0	-3.1
UZH				*i*		08 31 22.0	
UZH				*i*		08 32 15.0	
UZH				*e*		08 36 43.0	
IDI	**Anoyia**	**100.54**	**306**	P	Pdif	08 18 12.2	-0.2
	comp=Z,3.7nm,0.6s,baz=294,slow=11,SNR=3.1						
IDI				S	SKSac	08 28 47.8	-2.6
	comp=Z,8.6nm,0.8s,baz=73,slow=23,SNR=11						
DRGR		**100.57**	**317**	P	Pdif	08 18 14.1	+1.6
DRGR		**100.57**	**317**	⇓*i*P	Pdif	08 18 12.8	+0.3
MMB	**Musomiste**	**100.66**	**312**	*e*P	Pdif	08 18 11.0	-1.9
GZR	**Gura Zlata**	**100.76**	**316**	P	Pdif	08 18 13.1	-0.3
VTS	**Vitosha**	**100.89**	**313**	*e*P	Pdif	08 18 14.0	0.0
VTS	**Vitosha**	**100.89**	**313**	⇓*i*P	Pdif	08 18 16.1	+2.1
CRVS	**Cervenica-Dubn**	**101.01**	**320**	*e*P	Pdif	08 18 14.6	+0.1
CRVS				*e*PP	PP	08 22 34.5	+12
CRVS				*e*		08 28 56.3	
CRVS				*e*S	Sdif	08 29 54.2	+3.0
CRVS				*e*SS	SS	08 36 51.1	+0.9
CRVS	**Cervenica-Dubn**	**101.01**	**320**	PDIF	Pdif	08 18 14.5	0.0
CRVS				*e*PP	PP	08 22 34.5	+12
STHS	**Stebnicka Huta**	**101.05**	**320**	*e*P	Pdif	08 18 16.3	+1.6
STHS				*e*		08 28 53.1	
STHS	**Stebnicka Huta**	**101.05**	**320**	PDIF	Pdif	08 18 16.2	+1.5
KKB	**Krupnik**	**101.09**	**312**	*e*P	Pdif	08 18 15.3	+0.4
PTCN	**Pitcairn Islan**	**101.18**	**116**	PFAKE		08 18 30.0	+15
PTCN				LR	LR		
	comp=Z,9μm,19.0s,MS6.3						
NSS	**Namsos**	**101.51**	**336**	*e*P	Pdif	08 18 15.4	-1.3
NSS				*e*PP	PP	08 22 26.2	0.0
NSS				*e*SKSa		08 28 54.7	
NSS				*e*SS	SS	08 36 57.2	+1.0
NSS				AMS	AMS	09 14 31.1	
	comp=Z,19μm,22.3s,MS6.6						
VAY	**Valandovo**	**101.56**	**312**	⇓*e*Pdi		08 18 14.0	
VAY				*e*PP	PP	08 22 19.5	-7.9
NIE	**Niedzica**	**101.64**	**320**	*e*P	Pdif	08 18 18.3	+1.0
KECS	**Kecovo**	**101.73**	**319**	*e*P	Pdif	08 18 17.9	+0.2
KECS				*e*		08 28 55.0	
KECS	**Kecovo**	**101.73**	**319**	PDIF	Pdif	08 18 17.9	+0.2
OJC	**Ojcow**	**101.80**	**321**	*e*P	Pdif	08 18 18.3	+0.3
OJC				*e*PP	PP	08 22 29.3	+0.4
OJC				*e*SKSac	SKSac	08 28 57.9	+2.1
OJC				*e*S	Sdif	08 29 54.9	-2.9
OJC				*e*SP	SP	08 31 30.7	+0.8
OJC				*e*SS	SS	08 36 55.5	-5.5
OJC				LR	LR		
	comp=Z,15μm,21.7s,MS6.5						
OJC	**Ojcow**	**101.80**	**321**	*e*P	Pdif	08 18 18.3	+0.3
OJC				*e*		08 22 29.3	
OJC				*e*		08 28 57.9	
OJC				*e*S	Sdif	08 29 54.9	-2.9
OJC				*e*SP	SP	08 31 30.7	+0.8
OJC				*e*SS	SS	08 36 55.5	-5.5
DAG	**Danmarks Havn**	**101.98**	**352**	⇓*i*P	Pdif	08 18 17.9	-0.9
DAG				pmax	pmax		
	comp=Z,10.0nm,0.7s						
DAG	**Danmarks Havn**	**101.98**	**352**	⇓*i*P	Pdif	08 18 17.9	-0.9
	comp=Z,10nm,0.7s						
PSZ	**Piszkesteto**	**102.23**	**319**	*e*Pdif	Pdif	08 18 20.5	+0.6
	comp=Z,63nm,1.5s						
PSZ	**Piszkesteto**	**102.23**	**319**	*e*P	Pdif	08 18 20.5	+0.6
PSZ				pmax	pmax		
	comp=Z,63nm,1.5s						
PSZ	**Piszkesteto**	**102.23**	**319**	*e*P	Pdif	08 18 21.7	+1.8
HFS	**Hagfors**	**102.36**	**332**	P	Pdif	08 18 18.9	-1.6
HFS				S	SKSac	08 28 56.7	-1.3
HFS	**Hagfors**	**102.36**	**332**	P	Pdif	08 18 18.9	-1.6
	comp=Z,18nm,0.9s,baz=114,slow=4.7,SNR=13						
HFS				PP	PP	08 22 18.0	-15
	comp=Z,22nm,0.9s,baz=81,slow=9.2,SNR=3.8						
HFS				S	SKSac	08 28 56.7	-1.3
	comp=Z,5.8nm,0.9s,baz=168,slow=7.6,SNR=3.7						
HFS				PKKPbc	PKKPbc	08 34 25.3	+0.9
	comp=Z,0.9nm,0.7s,baz=217,slow=7.2,SNR=4.0						
RES	**Resolute Bay**	**102.40**	**10**	*e*Pdif	Pdif	08 18 19.7	-1.0
	comp=Z,1μm,1.3s						
RES	**Resolute Bay**	**102.40**	**10**	*e*P	Pdif	08 18 19.7	-1.0
RES				pmax	pmax		
	comp=Z,1μm,1.3s						
KRUS	**Krusevo**	**102.53**	**312**	⇓*e*Pdi	Pdif	08 18 20.2	-1.0
KRUS				*e*PP	PP	08 22 30.5	-4.2
GKP	**Gorka Klasztor**	**102.59**	**325**	*e*P	Pdif	08 18 22.8	+1.3
GKP				*e*PP	PP	08 22 44.3	+10
GKP				*e*SKS		08 28 59.3	
GKP				*e*SP	SP	08 31 41.5	+3.3
GKP				LMZ		08 59 07.0	
	comp=Z,20μm,36.3s						
GKP	**Gorka Klasztor**	**102.59**	**325**	*e*P	Pdif	08 18 22.8	+1.3
GKP				*e*PP	PP	08 22 44.3	+10
GKP				*e*SKS		08 28 59.3	
GKP				*e*SP	SP	08 31 41.5	+3.3
GKP				LR	LR		
	comp=Z,20μm,36.3s,MS6.4						
GKP	**Gorka Klasztor**	**102.59**	**325**	*e*P	Pdif	08 18 22.8	+1.3
GKP				*e*		08 22 44.3	
GKP				*e*		08 28 59.3	
GKP				*e*SP	SP	08 31 41.5	+3.3
VYHS	**Vyhne**	**102.80**	**320**	*e*P	Pdif	08 18 22.2	-0.2
VYHS				*e*PP	PP	08 22 42.1	+5.7
VYHS				*e*		08 29 03.7	
VYHS				*e*S	Sdif	08 29 59.8	-6.3
VYHS				*e*		08 31 42.7	
VYHS				*e*SS	SS	08 37 17.5	+2.5
VYHS	**Vyhne**	**102.80**	**320**	PDIF	Pdif	08 18 22.2	-0.2
VYHS				*e*PP	PP	08 22 42.1	+5.7
RAC	**Raciborz**	**102.83**	**321**	*e*P	Pdif	08 18 25.6	+3.0
RAC				*e*SKSac	SKSac	08 29 06.1	+5.4
RAC				*e*S	Sdif	08 30 06.5	+0.1
RAC				LR	LR		
	comp=Z,18μm,19.0s,MS6.6						
RAC	**Raciborz**	**102.83**	**321**	*e*P	Pdif	08 18 25.6	+3.0
RAC				*e*S	Sdif	08 30 06.5	+0.1
BUD	**Budapest**	**102.90**	**319**	⇓*e*P	Pdif	08 18 21.8	-1.1
OHR	**Ohrid**	**102.91**	**312**	⇓*e*Pdi	Pdif	08 18 21.9	-1.1
OHR				*e*PP	PP	08 22 24.7	-13
OKC	**Ostrava-Krasne**	**102.92**	**321**	*e*Pdif	Pdif	08 18 24.0	+1.0
OKC				*e*PP	PP	08 22 37.4	+0.1
OKC				*e*SKS		08 29 07.1	
OKC				*e*		08 31 49.1	
OKC	**Ostrava-Krasne**	**102.92**	**321**	*e*P	Pdif	08 18 24.0	+1.0
OKC				*e*		08 22 37.4	
OKC				*e*		08 31 49.1	
OKC				MLR	MLR		
	comp=Z,10μm,17.9s,MS6.4						
OKC	**Ostrava-Krasne**	**102.92**	**321**	*e*PDIF	Pdif	08 18 24.0	+1.0
OKC				*e*PP	PP	08 22 37.4	+0.1
OKC				*e*SKS		08 29 07.1	
OKC				*e*PS	PS	08 31 49.1	+3.3
OKC				AMS	AMS	09 18 50.0	
	comp=Z,10μm,17.9s						
SUR	**Sutherland**	**103.14**	**237**	PFAKE		08 18 30.0	+6.0
SUR				LR	LR		
	comp=Z,41μm,21.0s,MS6.9						
NB2	**NORSAR Subarra**	**103.17**	**333**	P	Pdif	08 18 21.9	-2.2
	comp=Z,20nm,0.9s,baz=69,slow=4.4						
NOA	**NORSAR Array B**	**103.17**	**333**	Pdif	Pdif	08 18 21.4	-2.7
NOA				PP	PP	08 22 39.1	+0.4
NOA				PKKPbc	PKKPbc	08 34 23.3	+1.3
NOA	**NORSAR Array B**	**103.17**	**333**	P	Pdif	08 18 21.4	-2.7
NOA						08 22 39.2	
NOA	**NORSAR Array B**	**103.17**	**333**	Pdiff	Pdif	08 18 21.4	-2.7
	comp=Z,10nm,0.8s,baz=68,slow=4.5,SNR=24						
NOA				PP	PP	08 22 39.1	+0.4
	comp=Z,32nm,1.1s,baz=64,slow=6.5,SNR=4.5						
NOA				PKKPbc	PKKPbc	08 34 23.3	+1.3
	comp=Z,2.9nm,0.9s,baz=68,slow=3.2,SNR=6.3						
MORC	**Moravsky Berou**	**103.31**	**321**	*e*Pdif	Pdif	08 18 25.6	+0.9
	comp=Z,12nm,1.1s						
MORC	**Moravsky Berou**	**103.31**	**321**	⇑*i*P	Pdif	08 18 25.4	+0.7
NAO01	**NORSAR Array S**	**103.39**	**333**	*e*Pdif	Pdif	08 18 24.8	-0.3
	comp=Z,17nm,0.8s						
NAO01				LR	LR		
	comp=Z,24μm,21.0s,MS6.7						
PKSM	**Moragy**	**103.44**	**317**	⇓*e*P	Pdif	08 18 26.5	+1.2
YKA	**Yellowknife Ar**	**103.65**	**25**	Pdif	Pdif	08 18 25.6	-0.6
YKA	**Yellowknife Ar**	**103.65**	**25**	P	Pdif	08 18 25.6	-0.6
YKA						08 22 44.7	
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						

YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	**Yellowknife Ar**	**103.65**	**25**	Pdiff	Pdif	08 18 25.6	-0.6
	comp=Z,2.0nm,0.8s,baz=299,slow=4.6,SNR=22						
YKA				PKiKP	PKiKP	08 22 44.7	+0.4
	comp=Z,1.1nm,0.6s,baz=294,slow=1.8,SNR=7.9						
YKA				PKKPbc	PKKPbc	08 34 17.8	-2.8
	comp=Z,5.2nm,0.9s,baz=112,slow=2.6,SNR=11						
KSP	**Ksiaz**	**103.81**	**322**	*e*P	Pdif	08 18 26.0	-0.9
KSP				*e*PP	PP	08 23 01.3	+17
KSP				*e*SKS		08 29 05.6	
KSP				*e*PS	PS	08 31 51.9	-3.3
KSP				*e*SP	SP	08 31 54.3	+3.2
KSP				LMZ		09 03 21.4	
	comp=Z,25µm,25.6s						
KSP	**Ksiaz**	**103.81**	**322**	*e*Pdif	Pdif	08 18 25.0	-1.9
KSP				*e*PP	PP	08 22 45.5	+1.6
KSP				*e*SKS		08 29 03.5	
KSP				*e*Sdif	Sdif	08 30 13.0	-1.6
KSP				*e*SP	SP	08 31 50.5	-0.6
KSP				LR	LR		
	comp=Z,29µm,25.6s,MS6.7						
KSP	**Ksiaz**	**103.81**	**322**	*e*P	Pdif	08 18 25.0	-1.9
KSP				*e*		08 22 45.5	
KSP				*e*		08 29 03.5	
KSP				*e*S	Sdif	08 30 13.0	-1.6
KSP				*e*SP	SP	08 31 50.5	-0.6
KSP				MLR	MLR		
	comp=Z,29µm,25.6s,MS6.7						
DPC	**Dobruska-Polom**	**103.92**	**322**	*e*Pdif	Pdif	08 18 28.5	+1.1
DPC				*e*PP	PP	08 22 44.7	-0.1
DPC				*e*SKS		08 29 11.9	
DPC				*e*		08 32 02.9	
DPC				LR	LR		
	comp=Z,12µm,19.6s,MS6.4						
DPC	**Dobruska-Polom**	**103.92**	**322**	*e*P	Pdif	08 18 28.5	+1.1
DPC				*e*		08 22 44.7	
DPC				MLR	MLR		
	comp=Z,12µm,19.6s,MS6.4						
DPC	**Dobruska-Polom**	**103.92**	**322**	*e*PDIF	Pdif	08 18 28.5	+1.1
DPC				*e*PP	PP	08 22 44.7	-0.1
DPC				*e*SKS		08 29 11.9	
DPC				*e*PS	PS	08 32 02.9	+6.5
DPC				AMS	AMS	09 17 00.0	
	comp=Z,12µm,19.6s						
VRAC	**Vranov**	**104.03**	**321**	Pdif	Pdif	08 18 28.4	+0.5
VRAC	**Vranov**	**104.03**	**321**	Pdiff	Pdif	08 18 28.4	+0.5
	comp=Z,2.4nm,0.4s,baz=189,slow=7.8,SNR=3.8						
UPC	**Upice**	**104.07**	**322**	*e*Pdif	Pdif	08 18 28.9	+0.8
UPC				*e*PP	PP	08 22 48.5	+2.6
UPC	**Upice**	**104.07**	**322**	*e*PDIF	Pdif	08 18 28.9	+0.8
UPC				*e*PP	PP	08 22 48.5	+2.6
KONO	**Kongsberg**	**104.46**	**332**	PFAKE		08 18 40.0	+10
KONO				LR	LR		
	comp=Z,16µm,21.0s,MS6.5						
KONO	**Kongsberg**	**104.46**	**332**	*e*P	Pdif	08 18 36.6	+6.8
KONO				*e*PP	PP	08 22 47.6	-0.8
KONO				*e*SKSa		08 29 09.5	
KONO				*e*SS	SS	08 37 39.6	+2.6
COP	**Copenhagen**	**104.53**	**328**	*i* P	Pdif	08 18 31.4	+1.3
COP				*i*		08 22 55.2	
COP				*i*		08 32 02.3	
COP				*i*		08 37 48.2	
COP				MLR	MLR		
	comp=Z,6µm,19.0s,MS6.2						
COP	**Copenhagen**	**104.53**	**328**	*i* P	Pdif	08 18 31.4	+1.3
COP				*e*		08 22 03.3	
COP				*i*		08 22 55.2	
COP				*i* S	Sdif	08 29 16.9	-64
COP				*i*		08 32 02.3	
COP				*i*		08 37 48.2	
COP							
	comp=Z,6µm,19.0s						
JMIC	**Jan Mayen**	**104.53**	**346**	*e*PP	PP	08 22 46.5	-2.1
JMIC				*e*SKSa		08 29 09.5	
COR	**Corvallis**	**104.62**	**44**	PFAKE		08 18 40.0	+9.5
COR				LR	LR		
	comp=Z,20µm,20.0s,MS6.7						
TREC	**Trest**	**104.73**	**321**	*e*PP	PP	08 22 52.6	+1.8
TREC				AMS	AMS	09 21 40.0	
	comp=Z,17µm,18.0s						
CONA	**Conrad Observa**	**104.86**	**320**	⇓*i*pPdiff	Pdif	08 18 35.2	+3.6
	comp=Z,6.4nm,1.0s						
PVCC	**Panska Ves**	**104.95**	**322**	*e*Pdif	Pdif	08 18 30.5	-1.5
PVCC				*e*PP	PP	08 22 53.9	+1.5
PVCC				*e*SKS		08 29 10.8	
PVCC				*e*		08 32 06.8	
PVCC	**Panska Ves**	**104.95**	**322**	*e*P	Pdif	08 18 30.5	-1.5
PVCC				*e*		08 22 53.9	
PVCC				*e*		08 29 10.8	
PVCC				*e*		08 32 06.8	
PVCC				MLR	MLR		
	comp=Z,18µm,21.8s,MS6.6						
PVCC	**Panska Ves**	**104.95**	**322**	*e*PDIF	Pdif	08 18 30.5	-1.5
PVCC				*e*PP	PP	08 22 53.9	+1.5
PVCC				*e*SKS		08 29 10.8	
PVCC				*e*PS	PS	08 32 06.8	-0.3
PVCC				AMS	AMS	09 14 10.0	
	comp=Z,18µm,21.8s						
PRU	**Pruhonice**	**105.13**	**322**	*e*P	Pdif	08 18 40.7	+7.9
PRU				*e*		08 22 56.9	
PRU				*e*		08 29 13.6	
PRU				*e*		08 32 07.4	
PRU				MLR	MLR		
	comp=Z,10µm,18.6s,MS6.4						
PRU	**Pruhonice**	**105.13**	**322**	*e*PDIF	Pdif	08 18 40.7	+7.9
PRU				*e*PP	PP	08 22 56.9	+3.2
PRU				*e*SKS	SKSac	08 29 13.6	+2.4
PRU				*e*PS	PS	08 32 07.4	-1.5
PRU				AMS	AMS	09 09 50.0	
	comp=Z,10µm,18.6s						
PRA	**Prague**	**105.17**	**322**	PP	PP	08 22 59.0	+5.0
BRG	**Berggiesshubel**	**105.23**	**323**	*e*Pdif	Pdif	08 18 33.9	+0.7
	comp=Z,17nm,1.8s						
BRG				*i* PKP	PKiKP	08 22 49.2	+1.7
BRG				*i*		08 23 05.5	
BRG				SKS	SKSac	08 29 17.0	+5.4
BRG				S	Sdif	08 30 28.0	+1.6
BRG				*e*PKKP	PKKPbc	08 34 16.1	+0.6
BRG				SS	SS	08 37 50.0	+1.9
BRG				LR	LR		
	comp=Z,8µm,21.9s,MS6.2						
BRG	**Berggiesshubel**	**105.23**	**323**	*e*Pdiff	Pdif	08 18 36.5	+3.3
BRG				*e*PP	PP	08 22 57.5	+3.1
BRG	**Berggiesshubel**	**105.23**	**323**	*e*PDIF	Pdif	08 18 33.9	+0.7
	comp=Z,29nm,1.8s						
HUMO	**Hull Mountain**	**105.32**	**46**	PFAKE		08 23 00.0	+12
HUMO				LR	LR		
	comp=Z,28µm,20.0s,MS6.8						
CLL	**Collm**	**105.66**	**323**	*e*Pdif	Pdif	08 18 36.0	+0.9
CLL				*e*PKP	PKiKP	08 22 49.0	+0.7
CLL				*e*PP	PP	08 23 04.0	+6.4
CLL				*i* SKS	SKSac	08 29 13.5	-0.1
CLL				*e*Sdif	Sdif	08 30 29.0	-1.0
CLL				*e*PKKP	PKKPbc	08 34 34.0	+20
CLL				LR	LR		
	comp=Z,12µm,23.8s,MS6.4						
CLL	**Collm**	**105.66**	**323**	*e*P	Pdif	08 18 36.0	+0.9
CLL				*e*		08 23 04.0	
CLL				*i*		08 29 13.5	
CLL				*e*S	Sdif	08 30 29.0	-1.0
CLL				pmax	pmax		
	comp=Z,25nm,1.0s						
CLL				pmax	pmax		
	comp=Z,105nm,1.3s						
CLL				MLR	MLR		
	comp=Z,12µm,23.8s,MS6.4						
CLL	**Collm**	**105.66**	**323**	*e*Pdiff	Pdif	08 18 35.4	+0.3
	comp=Z,14nm,1.4s						
CLL				*e*PKiKP	PKiKP	08 22 49.3	+1.0
CLL				*e*PP	PP	08 23 04.5	+6.9
CLL				*e*PPP		08 25 04.2	
CLL				*e*SKSac	SKSac	08 29 12.5	-1.1
CLL				*e*Sdiff	Sdif	08 30 30.5	+0.5
CLL				*e*PS	PS	08 32 12.7	-1.7
CLL				*e*PPS		08 33 07.5	
CLL				*e*PKKPdf	PKKPdf	08 34 22.8	-2.2
CLL				*e*PKKPab	PKKPab	08 34 35.5	+5.6
CLL				*e*SS	SS	08 38 01.0	+7.1
CLL				*e*SSS		08 41 38.5	
CLL				*e*LR	LR	08 54 47.3	
CLL				*e*L		09 11 46.3	
	comp=Z,13µm,20.0s						
CLL	**Collm**	**105.66**	**323**	*e*Pdif	Pdif	08 18 36.0	+0.9
CLL				*i* x	x	08 19 28.1	
CLL				*e*PKiKP	PKiKP	08 22 49.0	+0.7
	comp=Z,25nm,1.0s						
CLL				*e*PP	PP	08 23 04.0	+6.4
	comp=Z,105nm,1.3s						
CLL				*i* x	x	08 23 11.8	
CLL				*e*x	x	08 23 19.0	
CLL				*e*PPP		08 25 23.0	
CLL				*i* SKSac	SKSac	08 29 13.5	-0.1
CLL				*e*Sdif	Sdif	08 30 29.0	-1.0
CLL				*e*PS	PS	08 32 13.0	-1.4
CLL				*e*PPS		08 33 12.0	
CLL				*e*pPKKPdf		08 34 34.0	
CLL				*e*x	x	08 34 49.0	
CLL				*e*SS	SS	08 38 03.0	+9.1
CLL				*e*SSS		08 41 48.0	
CLL				*e*x	x	08 44 06.0	
CLL				*e*x	x	08 47 54.0	
YBH	**Yreka Blue Hor**	**105.69**	**47**	PFAKE		08 23 00.0	+11
YBH				LR	LR		
	comp=Z,25µm,20.0s,MS6.8						
BOJS	**Bojanci**	**105.91**	**317**	*i* Pdif	Pdif	08 18 38.7	+2.5
BOJS	**Bojanci**	**105.91**	**317**	*i* Pdiff	Pdif	08 18 38.7	+2.5
BOJS				*e*PKiKP	PKiKP	08 22 58.3	+9.4
BOJS				*e*PP	PP	08 23 08.9	+9.3
BOJS				*e*SKSac	SKSac	08 29 15.1	+0.2
BOJS				*e*PS	PS	08 32 38.6	+21
BOJS				*e*SS	SS	08 37 53.3	-4.4
BOJS				*e*		08 47 56.0	
MOA	**Molln**	**105.92**	**320**	⇑*i*P	Pdif	08 18 38.3	+2.0
	comp=Z,18nm,1.8s						
MOA				*i*		08 22 54.9	
MOA	**Molln**	**105.92**	**320**	⇑*i*pPdiff	Pdif	08 18 38.3	+2.0
	comp=Z,18nm,1.8s						
PDKS	**Podkum**	**105.93**	**318**	*e*P	Pdif	08 18 40.6	+4.3
PDKS	**Podkum**	**105.93**	**318**	*e*Pdiff	Pdif	08 18 40.6	+4.3
MUD	**Monsted U’grnd**	**105.94**	**329**	*e*P	Pdif	08 18 36.8	+0.4
MUD				*i*		08 23 04.3	
MUD				*i* S	SKSac	08 29 20.3	+5.7
MUD				*i*		08 32 15.7	
MUD				*i*		08 38 09.5	
MUD				MLR	MLR		
	comp=Z,16µm,18.0s,MS6.6						
MUD	**Monsted U’grnd**	**105.94**	**329**	*i* P	Pdif	08 18 36.8	+0.4
MUD				*i*		08 23 04.3	
MUD				*i* S		08 29 20.3	
MUD				*i*		08 32 15.7	
MUD				*i*		08 38 09.5	
MUD							
	comp=Z,16µm,18.0s						
KHC	**Kasperske Hory**	**105.98**	**321**	*e*Pdif	Pdif	08 18 40.1	+3.5
KHC				*e*		08 18 48.5	
KHC				*e*		08 22 00.0	
KHC				*e*		08 22 14.5	
KHC				*e*PP	PP	08 22 59.4	-0.6
KHC				*e*SKS	SKSac	08 29 21.0	+5.9
KHC				LR	LR		
	comp=Z,14µm,21.2s,MS6.5						
KHC	**Kasperske Hory**	**105.98**	**321**	*e*P	Pdif	08 18 40.1	+3.5
KHC				*e*		08 22 59.4	
KHC				MLR	MLR		
	comp=Z,14µm,21.2s,MS6.5						
KHC	**Kasperske Hory**	**105.98**	**321**	*e*PDIF	Pdif	08 18 40.1	+3.5
KHC				*e*pP		08 18 48.5	
KHC				*e*x	x	08 22 00.0	
KHC				*e*x	x	08 22 14.5	
KHC				*e*PP	PP	08 22 59.4	-0.6
KHC				*e*SKS	SKSac	08 29 21.0	+5.9
KHC				AMS	AMS	09 09 20.0	
	comp=Z,14µm,21.2s						
GEC2	**GERESS Array S**	**105.99**	**321**	*e*Pdif	Pdif	08 18 39.9	+3.3
GEC2				*e*PP	PP	08 23 02.7	+2.6
GEC2	**GERESS Array S**	**105.99**	**321**	*e*Pdiff	Pdif	08 18 39.9	+3.3
GEC2				*e*PP	PP	08 23 02.7	+2.6
GERES	**GERESS Array B**	**105.99**	**321**	Pdif	Pdif	08 18 37.4	+0.8
GERES				PKPdf	PKiKP	08 22 49.4	+0.5
GERES				PKKPbc	PKKPbc	08 34 14.0	+0.9
GERES	**GERESS Array B**	**105.99**	**321**	Pdiff	Pdif	08 18 37.4	+0.8
	comp=Z,2.0nm,0.8s,baz=63,slow=6.1,SNR=7.7						
GERES				PKiKP	PKiKP	08 22 49.4	+0.5
	comp=Z,3.5nm,0.7s,baz=94,slow=1.7,SNR=6.5						
GERES				PKKPbc	PKKPbc	08 34 14.0	+0.9
	comp=Z,2.5nm,0.8s,baz=242,slow=2.3,SNR=7.1						
HOPS	**Hopland**	**106.01**	**50**	PFAKE		08 23 00.0	+11
HOPS				LR	LR		
	comp=Z,24µm,22.0s,MS6.7						
BER	**Bergen**	**106.07**	**334**	*e*P	Pdif	08 18 43.5	+6.5
BER				*e*PP	PP	08 23 02.2	+2.0
BER				*e*SKSa	SKSac	08 29 24.8	+10
BER				*e*SS	SS	08 38 00.4	+1.5
WDC	**Whiskeytown Da**	**106.07**	**48**	PFAKE		08 23 00.0	+11
WDC				LR	LR		
	comp=Z,39µm,22.0s,MS6.9						
LJU	**Ljubljana**	**106.25**	**318**	*i* Pdif	Pdif	08 18 38.8	+1.0
LJU	**Ljubljana**	**106.25**	**318**	*i* Pdiff	Pdif	08 18 38.8	+1.0
LJU				*e*PKiKP	PKiKP	08 22 57.5	+7.9
LJU				*e*PP	PP	08 23 11.4	+9.2
LJU				*e*SKSac	SKSac	08 29 17.7	+1.2
LJU				*e*		08 33 25.6	
LJU				*e*SS	SS	08 37 59.2	-3.2
TANN	**Tannenbergstha**	**106.27**	**323**	*e*Pdiff	Pdif	08 18 42.0	+4.1
TANN				*e*PP	PP	08 23 04.5	+2.4
BSEG	**Bad Segeberg**	**106.29**	**327**	*e*Pdif	Pdif	08 18 41.3	+3.3
BSEG				*e*PP	PP	08 23 05.0	+2.9
BSEG	**Bad Segeberg**	**106.29**	**327**	*e*Pdiff	Pdif	08 18 41.3	+3.3
BSEG				*e*PP	PP	08 23 05.0	+2.9
MCCM	**Marconi Confer**	**106.33**	**51**	PFAKE		08 23 00.0	+10
MCCM				LR	LR		
	comp=Z,22µm,20.0s,MS6.7						
NKC	**Novy Kostel**	**106.33**	**323**	*e*Pdif	Pdif	08 18 39.2	+1.0
NKC				*e*PP	PP	08 23 06.1	+3.5
NKC				*e*SKS	SKSac	08 29 22.6	+6.0
NKC				*e*		08 32 19.7	
NKC	**Novy Kostel**	**106.33**	**323**	*e*P	Pdif	08 18 39.2	+1.0
NKC				*e*		08 23 06.1	
NKC				*e*		08 32 19.7	
NKC				MLR	MLR		
	comp=Z,18µm,20.3s,MS6.6						
NKC	**Novy Kostel**	**106.33**	**323**	*e*PDIF	Pdif	08 18 39.2	+1.0
NKC				*e*PP	PP	08 23 06.1	+3.5
NKC				*e*SKS	SKSac	08 29 22.6	+6.0
NKC				*e*PS	PS	08 32 19.7	-1.8
NKC				AMS	AMS	09 11 40.0	
	comp=Z,18µm,20.3s						
WET	**Wettzell**	**106.41**	**321**	*e*Pdif	Pdif	08 18 41.9	+3.4
WET				*e*PP	PP	08 23 06.2	+3.0
WET	**Wettzell**	**106.41**	**321**	*e*Pdiff	Pdif	08 18 41.9	+3.4
WET				*e*PP	PP	08 23 06.2	+3.0
MANZ	**Manzenberg**	**106.62**	**322**	*e*Pdiff	Pdif	08 18 43.2	+3.8
MANZ				*e*PP	PP	08 23 07.3	+2.6
ROTZ	**Rotzenmuhle**	**106.63**	**322**	*e*Pdiff	Pdif	08 18 43.4	+3.9
ROTZ				*e*PP	PP	08 23 07.3	+2.5
VOY	**Vojsko**	**106.68**	**318**	*e*P	Pdif	08 18 44.3	+4.6
VOY				*e*		08 23 15.5	
VOY	**Vojsko**	**106.68**	**318**	*e*Pdiff	Pdif	08 18 44.3	+4.6
VOY				*e*		08 23 15.5	
MOX	**Moxa**	**106.70**	**323**	*e*P	Pdif	08 18 40.7	+0.9
MOX				*e*		08 22 49.0	
MOX				*e*		08 23 13.8	
	comp=Z,426nm,2.3s						
MOX							
	comp=Z,12µm,22.0s						
MOX	**Moxa**	**106.70**	**323**	*e*P	Pdif	08 18 40.7	+0.9
MOX				*e*		08 23 13.8	
MOX				pmax	pmax		
	comp=Z,426nm,2.3s						
MOX				MLR	MLR		
	comp=Z,12µm,22.0s,MS6.4						
MOX	**Moxa**	**106.70**	**323**	*e*Pdiff	Pdif	08 18 43.2	+3.4
MOX				*e*PP	PP	08 23 07.8	+2.5
HAWA	**Hanford**	**106.72**	**42**	PFAKE		08 23 00.0	+10
HAWA				LR	LR		
	comp=Z,25µm,22.0s,MS6.7						
CADS	**Cadrg**	**106.73**	**318**	*e*P	Pdif	08 18 40.6	+0.7
CADS	**Cadrg**	**106.73**	**318**	*e*Pdiff	Pdif	08 18 40.6	+0.7
CLZ	**Clausthal**	**107.02**	**325**	*e*Pdif	Pdif	08 18 44.6	+3.4
CLZ				*e*PP	PP	08 23 09.8	+2.2
CLZ	**Clausthal**	**107.02**	**325**	*e*Pdiff	Pdif	08 18 44.6	+3.4
CLZ				*e*PP	PP	08 23 09.8	+2.2
OHCM	**Honcut**	**107.14**	**49**	*e*PKPdf	PKiKP	08 22 54.1	+2.7
GRA1	**Grafenberg Arr**	**107.26**	**322**	*e*Pdif	Pdif	08 18 45.8	+3.5
GRA1				*e*PP	PP	08 23 11.7	+2.3
GRA1				*e*SKSac	SKSac	08 29 22.7	+2.0
GRA1				*e*Sdif	Sdif	08 30 44.2	+0.8
GRA1				LR	LR		
	comp=Z,20µm,19.6s,MS6.7						
GRF	**Grafenberg Arr**	**107.26**	**322**	*e*Pdif	Pdif	08 18 45.8	+3.5
GRF				*e*PP	PP	08 23 11.7	+2.3
GRF				*e*SKS	SKSac	08 29 22.7	+2.0
GRF				Sdif	Sdif	08 30 44.2	+0.8
GRF				LR	LR		
	comp=Z,20µm,19.6s,MS6.7						
GRF	**Grafenberg Arr**	**107.26**	**322**	*e*P	Pdif	08 18 45.8	+3.5
GRF				*e*		08 23 11.7	
GRF	**Grafenberg Arr**	**107.26**	**322**	*e*P	Pdif	08 18 45.8	+3.5
GRF				*e*		08 23 11.7	
GRF				*e*		08 29 22.7	
GRF				MLR	MLR		
	comp=Z,20µm,19.6s,MS6.7						
GRF	**Grafenberg Arr**	**107.26**	**322**	*e*Pdiff	Pdif	08 18 45.8	+3.5
GRF				*e*PP	PP	08 23 11.7	+2.3
GRF				*e*SKSac	SKSac	08 29 22.7	+2.0
GRF				*e*Sdiff	Sdif	08 30 44.2	+0.8
GRF				*e*L		09 12 38.8	
	comp=Z,19µm,19.6s						
GRFO	**Grafenberg**	**107.26**	**322**	PFAKE		08 23 00.0	+8.7
GRFO				LR	LR		
	comp=Z,18µm,20.0s,MS6.6						
MOD	**Modoc**	**107.40**	**46**	*e*Pdif	Pdif	08 18 45.6	+2.7
	comp=Z,12nm,1.1s						
MOD				LR	LR		
	comp=Z,21µm,21.0s,MS6.7						
UBBA	**Unterbreizbach**	**107.61**	**324**	*e*Pdiff	Pdif	08 18 46.7	+2.9
UBBA				*e*PP	PP	08 23 13.1	+1.2
NEW	**Newport**	**107.70**	**39**	PFAKE		08 23 00.0	+7.8
NEW				LR	LR		
	comp=Z,23µm,21.0s,MS6.7						
FUR	**Furstenfeldbru**	**107.73**	**321**	*e*Pdif	Pdif	08 18 47.5	+3.1
FUR				*e*PP	PP	08 23 13.8	+0.9
FUR	**Furstenfeldbru**	**107.73**	**321**	*e*Pdiff	Pdif	08 18 47.5	+3.1
FUR				*e*PP	PP	08 23 13.8	+0.9
SAO	**San Andreas Ge**	**107.74**	**52**	PFAKE		08 23 00.0	+7.4
SAO				LR	LR		
	comp=Z,24µm,20.0s,MS6.8						
WTTA	**Wattenberg**	**107.79**	**320**	⇑*i*P	Pdif	08 18 46.3	+1.6
	comp=Z,21nm,1.5s						
WTTA				⇑*i*		08 22 51.9	
	comp=Z,18nm,0.6s						
TSUM	**Tsumeb**	**108.02**	**250**	PFAKE		08 23 00.0	+6.4
TSUM				LR	LR		
	comp=Z,18µm,21.0s,MS6.6						
EDM	**Edmonton**	**108.12**	**33**	*e*Pdif	Pdif	08 18 45.9	-0.2
EDM				*e*PKPdf	PKiKP	08 22 43.2	-10
CMB	**Columbia Colle**	**108.28**	**50**	PFAKE		08 23 00.0	+6.4
CMB				LR	LR		
	comp=Z,24µm,20.0s,MS6.8						
IBBN	**Ibbenburen**	**108.34**	**326**	*e*Pdiff	Pdif	08 18 51.9	+4.8
IBBN				*e*PP	PP	08 23 18.5	+1.3
WVOR	**Wild Horse Val**	**108.45**	**45**	*e*Pdif	Pdif	08 18 49.5	+2.0
	comp=Z,3.5nm,1.0s						
WVOR				LR	LR		
	comp=Z,19µm,20.0s,MS6.7						
WVOR	**Wild Horse Val**	**108.45**	**45**	*e*P	Pdif	08 18 49.5	+1.9
WVOR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
WVOR				MLR	MLR		
	comp=Z,19µm,20.0s,MS6.7						
BMO	**Blue Mountains**	**108.67**	**43**	PFAKE		08 23 00.0	+5.9
BMO				LR	LR		
	comp=Z,31µm,21.0s,MS6.8						
TNS	**Taunus Mts**	**108.75**	**323**	*e*Pdif	Pdif	08 18 53.1	+4.2
TNS				*e*PP	PP	08 23 21.1	+0.9
TNS	**Taunus Mts**	**108.75**	**323**	*e*Pdiff	Pdif	08 18 53.1	+4.2
TNS				*e*PP	PP	08 23 21.1	+0.9
STU	**Stuttgart**	**108.83**	**322**	*e*Pdiff	Pdif	08 18 52.6	+3.4
STU				*e*PP	PP	08 23 21.5	+0.7
BUG	**Bochum--Univer**	**108.96**	**325**	*e*Pdiff	Pdif	08 18 52.1	+2.3
BUG				*e*PP	PP	08 23 22.8	+1.1
DAVOX	**Davos/Dischmat**	**109.09**	**320**	Pdif	Pdif	08 18 48.9	-1.5
DAVOX				PKPdf	PKiKP	08 22 53.5	-1.3
DAVOX				PP	PP	08 23 19.3	-3.5
DAVOX	**Davos/Dischmat**	**109.09**	**320**	Pdiff	Pdif	08 18 48.9	-1.5
	comp=Z,2.1nm,0.8s,baz=331,slow=19,SNR=2.4						
DAVOX				PKiKP	PKiKP	08 22 53.5	-1.3
	comp=Z,16nm,1.2s,baz=355,slow=13,SNR=3.4						
DAVOX				PP	PP	08 23 19.3	-3.5
	comp=Z,14nm,0.8s,baz=32,slow=8.4,SNR=3.7						
DAVOS	**Davos**	**109.12**	**320**	P	Pdif	08 18 48.9	-1.6
DAVOS						08 23 19.3	
BFO	**Black Forest**	**109.52**	**322**	*e*Pdif	Pdif	08 18 55.4	+3.1
BFO				*e*PP	PP	08 23 27.0	+1.1
BFO				LR	LR		
	comp=Z,13µm,21.0s,MS6.5						
BFO	**Black Forest**	**109.52**	**322**	*e*Pdiff	Pdif	08 18 55.4	+3.1
BFO				*e*PP	PP	08 23 27.0	+1.1
CDF	**Champ du Feu**	**110.14**	**322**	*e*P	Pdif	08 18 55.7	+0.6
	comp=Z,18nm,1.1s						
MSO	**Missoula**	**110.22**	**40**	PFAKE		08 23 10.0	+13
MSO				LR	LR		
	comp=Z,21µm,21.0s,MS6.7						
WLF	**Walferdange**	**110.33**	**324**	*e*PP	PP	08 23 31.9	+0.2
CHMT	**Chamberlain Mo**	**110.63**	**40**	*e*PKPdf	PKiKP	08 22 58.9	+1.2
HLID	**Hailey**	**111.05**	**43**	*e*PKPdf	PKiKP	08 22 59.8	+1.2
HLID				LR	LR		
	comp=Z,20µm,21.0s,MS6.7						
ELK	**Elko**	**111.38**	**46**	*e*PKPdf	PKiKP	08 22 59.0	-0.3
ELK				LR	LR		
	comp=Z,19µm,20.0s,MS6.7						
ELK	**Elko**	**111.38**	**46**	*e*PKIKP	PKiKP	08 22 59.0	-0.3
ELK				MLR	MLR		
	comp=Z,19µm,20.0s						
LPG	**La Plagne**	**111.58**	**319**	*e*P	Pdif	08 19 01.4	-0.1
	comp=Z,25nm,1.1s						
LPL	**La Plagne**	**111.58**	**319**	*e*P	Pdif	08 19 02.5	+1.0
MCMT	**McKenzie Canyo**	**111.66**	**41**	*e*PKPdf	PKiKP	08 23 01.1	+1.4
BOZ	**Bozeman (W)**	**112.15**	**40**	PFAKE		08 23 10.0	+9.4
BOZ				LR	LR		
	comp=Z,28µm,21.0s,MS6.8						
EGMT	**Eagleton**	**112.36**	**37**	PFAKE		08 23 10.0	+9.0
EGMT				LR	LR		
	comp=Z,20µm,22.0s,MS6.7						
ORIF	**Oris-en-Rattie**	**112.36**	**319**	*e*P	Pdif	08 19 06.2	+1.2
	comp=Z,17nm,1.0s						
BORG	**Borgarnes**	**112.42**	**346**	PFAKE		08 23 10.0	+9.4
BORG				LR	LR		
	comp=Z,14µm,20.0s,MS6.5						
PFO	**Pinyon Flat Ob**	**112.44**	**54**	PKPdf	PKiKP	08 23 03.1	+1.6
PFO				LR	LR		
	comp=Z,28µm,20.0s,MS6.8						
PFO	**Pinyon Flat Ob**	**112.44**	**54**	PKIKP	PKiKP	08 23 03.2	+1.6
PFO				MLR	MLR		
	comp=Z,28µm,20.0s,MS6.8						
PFO	**Pinyon Flat Ob**	**112.44**	**54**	PKiKP	PKiKP	08 23 03.1	+1.6
	comp=Z,4.3nm,0.8s,baz=274,slow=4.4,SNR=5.2						
EKA	**Eskdalemuir Ar**	**112.56**	**332**	PKPdf	PKiKP	08 23 01.8	+0.7
EKA				PP	PP	08 23 44.9	-2.5
EKA				PKKPbc	PKKPbc	08 33 53.9	+1.6
EKA	**Eskdalemuir Ar**	**112.56**	**332**	PKIKP	PKiKP	08 23 01.8	+0.7
EKA						08 23 44.9	
EKA	**Eskdalemuir Ar**	**112.56**	**332**	PKiKP	PKiKP	08 23 01.8	+0.7
	comp=Z,4.3nm,0.9s,baz=97,slow=7.6,SNR=3.9						
EKA				PP	PP	08 23 44.9	-2.5
	comp=Z,6.9nm,1.0s,baz=81,slow=5.2,SNR=5.7						
EKA				PKKPbc	PKKPbc	08 33 53.9	+1.6
	comp=Z,1.8nm,0.8s,baz=241,slow=3.5,SNR=4.8						
ESK	**Eskdalemuir**	**112.59**	**332**	PFAKE		08 23 10.0	+8.8
ESK				LR	LR		
	comp=Z,15µm,20.0s,MS6.6						
HVU	**Hansel Valley**	**112.80**	**45**	*e*PKPdf	PKiKP	08 23 04.0	+2.1
HVU	**Hansel Valley**	**112.80**	**45**	*e*PKIKP	PKiKP	08 23 04.1	+2.1
KEST	**Kesra**	**112.88**	**309**	PKiKP	PKiKP	08 23 04.5	+2.2
	comp=Z,3.4nm,0.8s,baz=282,slow=4.1,SNR=4.4						
KEST				PP	PP	08 23 51.8	+1.2
	comp=Z,17nm,0.9s,baz=316,slow=4.8,SNR=7.5						
YMR	**Madison River**	**112.96**	**41**	PFAKE		08 23 10.0	+7.8
YMR				LR	LR		
	comp=Z,41µm,20.0s,MS7.0						
DCID1	**Drake Creek**	**113.23**	**42**	*e*PKPdf	PKiKP	08 23 05.7	+2.9
FFC	**Flin Flon**	**113.25**	**28**	PFAKE		08 23 10.0	+7.6
FFC				LR	LR		
	comp=Z,15µm,21.0s,MS6.5						
IMW	**Indian Meadow**	**113.28**	**42**	*e*PKPdf	PKiKP	08 23 04.6	+1.8
DUG	**Dugway**	**113.31**	**46**	*e*Pdif	Pdif	08 19 11.0	+1.8
DUG				*e*PKPdf	PKiKP	08 23 04.8	+1.7
DUG				LR	LR		

	comp=Z,16µm,19.0s,MS6.6						
GCMT	**Greycliff**	**113.35**	**40**	*e*PKPdf	PKiKP	08 23 04.0	+1.0
LKWY	**Lake**	**113.38**	**41**	PFAKE		08 23 10.0	+7.0
LKWY				LR	LR		
	comp=Z,50µm,22.0s,MS7.1						
TPAW	**Teton Pass**	**113.43**	**42**	*e*PKPdf	PKiKP	08 23 05.4	+2.3
REDW	**Red Top Meadow**	**113.54**	**42**	*e*PKPdf	PKiKP	08 23 04.1	+0.8
AHID	**Auburn Hatcher**	**113.60**	**43**	PFAKE		08 23 10.0	+6.5
AHID				LR	LR		
	comp=Z,19µm,21.0s,MS6.7						
LOHW	**Long Hollow**	**113.61**	**42**	*e*PKPdf	PKiKP	08 23 05.2	+1.7
HWUT	**Hardware Ranch**	**113.70**	**44**	*e*PKPdf	PKiKP	08 23 03.5	-0.2
HWUT				LR	LR		
	comp=Z,16µm,21.0s,MS6.6						
PMSA	**Palmer Station**	**113.85**	**175**	PFAKE		08 23 10.0	+6.7
PMSA				LR	LR		
	comp=Z,18µm,22.0s,MS6.6						
RLMT	**Red Lodge**	**113.89**	**40**	*e*PKPdf	PKiKP	08 23 05.5	+1.5
RLMT				LR	LR		
	comp=Z,31µm,21.0s,MS6.9						
CTU	**Camp Tracy**	**113.90**	**45**	*e*PKPdf	PKiKP	08 23 05.3	+1.2
FCC	**Fort Churchill**	**114.05**	**22**	*e*PKPdf	PKiKP	08 23 04.3	+0.4
FCC	**Fort Churchill**	**114.05**	**22**	*e*PKIKP	PKiKP	08 23 04.3	+0.4
CMAH	**Djebel Manchou**	**114.11**	**310**	P	PP	08 24 00.0	+0.7
SFJD	**Kangerlussuaq**	**114.15**	**359**	PFAKE		08 23 10.0	+6.2
SFJD				LR	LR		
	comp=Z,18µm,22.0s,MS6.6						
JLU	**Jordanelle**	**114.15**	**45**	*e*PKPdf	PKiKP	08 23 06.9	+2.3
MPU	**Maple Canyon**	**114.22**	**46**	PFAKE		08 23 20.0	+15
MPU				LR	LR		
	comp=Z,20µm,19.0s,MS6.7						
MSU	**Marysvale**	**114.34**	**48**	*e*PKPdf	PKiKP	08 23 08.2	+3.2
MSU	**Marysvale**	**114.34**	**48**	*e*PKIKP	PKiKP	08 23 08.2	+3.2
DAU	**Daniels Canyon**	**114.35**	**46**	*e*PKPdf	PKiKP	08 23 07.6	+2.6
DAU	**Daniels Canyon**	**114.35**	**46**	*e*PKIKP	PKiKP	08 23 07.6	+2.6
CAEH	**’Ain El Ouahch**	**114.50**	**310**	P	PP	08 24 06.5	+4.5
BW06	**Boulder Array**	**114.65**	**43**	PFAKE		08 23 20.0	+15
BW06				LR	LR		
	comp=Z,16µm,20.0s,MS6.6						
PDAR	**Pinedale Array**	**114.65**	**43**	PKPdf	PKiKP	08 23 07.0	+1.6
PDAR				PP	PP	08 24 02.1	-0.6
PDAR				PKKPbc	PKKPbc	08 33 43.7	-1.1
PDAR	**Pinedale Array**	**114.65**	**43**	PKiKP	PKiKP	08 23 07.0	+1.6
	comp=Z,2.6nm,0.7s,baz=204,slow=2.1,SNR=8.8						
PDAR				PP	PP	08 24 02.1	-0.6
	comp=Z,5.4nm,0.9s,baz=253,slow=1.5,SNR=4.3						
PDAR				PKKPbc	PKKPbc	08 33 43.7	-1.1
	comp=Z,5.6nm,0.8s,baz=112,slow=4.5,SNR=15						
CKFL	**Kef-Lekhel**	**114.72**	**310**	P	PP	08 24 07.5	+4.0
TMUT	**Trail Mountain**	**114.78**	**47**	*e*PKPdf	PKiKP	08 23 07.1	+1.3
CASM	**Ain Smara**	**114.94**	**310**	P	PP	08 24 10.0	+4.9
CTEI	**Djebel Teioual**	**115.07**	**310**	P	PP	08 24 07.0	+1.0
LAO	**LASA Array**	**115.11**	**38**	*e*PKPdf	PKiKP	08 23 07.2	+0.9
LAO				LR	LR		
	comp=Z,22µm,21.0s,MS6.8						
DFRA	**Djebel Bou Aff**	**115.32**	**310**	P	PP	08 24 08.0	+0.3
DGMT	**Dagmar**	**115.44**	**35**	PFAKE		08 23 20.0	+13
DGMT				LR	LR		
	comp=Z,19µm,21.0s,MS6.7						
CMER	**Merouana**	**115.60**	**309**	P	PP	08 24 14.0	+4.3
SET	**Setif**	**115.79**	**310**	P	PP	08 24 13.0	+1.9
WUAZ	**Wupatki**	**115.92**	**51**	*e*PKPdf	PKPdf	08 23 08.5	+0.4
WUAZ				LR	LR		
	comp=Z,28µm,21.0s,MS6.8						
TUC	**Tucson**	**117.38**	**54**	PFAKE		08 23 20.0	+8.9
TUC				LR	LR		
	comp=Z,30µm,20.0s,MS6.9						
MVCO	**Mesa Verde**	**117.52**	**48**	*e*PKPdf	PKPdf	08 23 13.9	+2.7
MVCO				LR	LR		
	comp=Z,19µm,20.0s,MS6.7						
RSSD	**Black Hills**	**117.68**	**39**	PFAKE		08 23 20.0	+8.7
RSSD				LR	LR		
	comp=Z,10µm,21.0s,MS6.4						
SMCO	**Snowmass**	**117.87**	**45**	*e*PKPdf	PKPdf	08 23 13.7	+1.9
PHWY	**Pilot Hill**	**118.03**	**43**	*e*PKPdf	PKPdf	08 23 12.9	+0.9
ISCO	**Idaho Springs**	**118.57**	**44**	*e*PKPdf	PKPdf	08 23 13.7	+0.5
ISCO				LR	LR		
	comp=Z,18µm,21.0s,MS6.7						
ISCO	**Idaho Springs**	**118.57**	**44**	*e*PKIKP	PKPdf	08 23 13.7	+0.5
ISCO				MLR	MLR		
	comp=Z,18µm,21.0s,MS6.7						
ULM	**Lac du Bonnet**	**118.92**	**30**	*e*PKPdf	PKPdf	08 23 13.2	-0.3
ULM				LR	LR		
	comp=Z,23µm,21.0s,MS6.8						
ULM	**Lac du Bonnet**	**118.92**	**30**	PKiKP	PKiKP	08 23 14.1	+0.6
	comp=Z,7.1nm,0.6s,baz=291,slow=1.8,SNR=14						
ULM				PKKPab	PKKPab	08 33 30.5	-0.6
	comp=Z,3.4nm,0.9s,baz=148,slow=7.0,SNR=4.8						
RPN	**Rapa Nui**	**119.01**	**122**	PFAKE		08 23 20.0	+5.6
RPN				LR	LR		
	comp=Z,10µm,19.0s,MS6.5						
SDCO	**Great Sand Dun**	**119.51**	**46**	*e*PKPdf	PKPdf	08 23 17.4	+2.4
SDCO				LR	LR		
	comp=Z,26µm,21.0s,MS6.8						
LAZ	**Ladron**	**119.57**	**50**	*e*PKPdf	PKPdf	08 23 16.8	+1.6
ANMO	**Albuquerque**	**119.89**	**50**	*e*PKPdf	PKPdf	08 23 17.7	+1.8
ANMO				*e*SKPdf	SKPdf	08 26 52.2	+2.5
ANMO				LR	LR		
	comp=Z,22µm,21.0s,MS6.8						
ANMO	**Albuquerque**	**119.89**	**50**	*e*PKIKP	PKPdf	08 23 17.7	+1.9
ANMO				MLR	MLR		
	comp=Z,22µm,21.0s						
LPM	**Los Pinos Moun**	**119.99**	**50**	*e*PKPdf	PKPdf	08 23 17.2	+1.1
BNM	**Barren Site**	**120.06**	**51**	*e*PKPdf	PKPdf	08 23 17.2	+1.0
AGMN	**Agassiz Refuge**	**120.14**	**32**	PFAKE		08 23 30.0	+14
AGMN				LR	LR		
	comp=Z,22µm,22.0s,MS6.8						
ESDC	**Sonseca Array**	**121.20**	**317**	PKP	PKPdf	08 23 19.3	+1.1
ESDC				PP	PP	08 24 50.4	+2.2
ESDC				PKKPab	PKKPab	08 33 28.2	+6.8
ESDC	**Sonseca Array**	**121.20**	**317**	PKP	PKPdf	08 23 19.3	+1.1
	comp=Z,1.3nm,0.5s,baz=13,slow=4.5,SNR=5.6						
ESDC				PP	PP	08 24 50.4	+2.2
	comp=Z,7.8nm,0.8s,baz=46,slow=6.9,SNR=6.3						
ESDC				PKKPab	PKKPab	08 33 28.2	+6.8
	comp=Z,2.1nm,0.8s,baz=275,slow=3.7,SNR=4.6						
ESLA	**Sonseca Array**	**121.20**	**317**	PFAKE		08 23 30.0	+12
ESLA				LR	LR		
	comp=Z,60µm,22.0s,MS7.2						
PAB	**San Pablo**	**121.52**	**317**	*e*PKPdf	PKPdf	08 23 20.5	+1.7
PAB				LR	LR		
	comp=Z,12µm,21.0s,MS6.5						
PAB	**San Pablo**	**121.52**	**317**	*e*PKIKP	PKPdf	08 23 20.5	+1.7
PAB				MLR	MLR		
	comp=Z,12µm,21.0s,MS6.5						
MNTX	**Cornudas Mount**	**121.92**	**53**	*e*PKPdf	PKPdf	08 23 20.1	+0.3
MNTX				LR	LR		
	comp=Z,28µm,21.0s,MS6.9						
ECSD	**EROS,Sioux Fal**	**122.44**	**36**	*e*PKPdf	PKPdf	08 23 20.9	+0.4
ECSD				LR	LR		
	comp=Z,25µm,22.0s,MS6.8						
MVO	**Moncorvo**	**122.48**	**320**	*e*PKP	PKPdf	08 23 23.7	+3.1
MVO	**Moncorvo**	**122.48**	**320**	*i* -	SS	08 41 45.8	+10
MVO	**Moncorvo**	**122.48**	**320**	*e*LR	LR	09 04 53.9	
	comp=Z,11µm,22.5s						
EYMN	**Ely**	**122.60**	**30**	*e*PKPdf	PKPdf	08 23 21.3	+0.7
EYMN				LR	LR		
	comp=Z,27µm,22.0s,MS6.9						
PCAB	**Cabril**	**122.83**	**321**	*e*PKP	PKPdf	08 23 23.7	+2.4
PVRL	**Vila Real**	**122.86**	**320**	*e*PKP	PKPdf	08 23 23.8	+2.4
CBKS	**Cedar Bluff**	**123.08**	**43**	*e*PKPdf	PKPdf	08 23 22.9	+1.1
CBKS				LR	LR		
	comp=Z,17µm,20.0s,MS6.7						
CBKS	**Cedar Bluff**	**123.08**	**43**	*e*PKIKP	PKPdf	08 23 22.9	+1.1
CBKS				MLR	MLR		
	comp=Z,17µm,20.0s,MS6.7						
MTE	**Manteigas**	**123.22**	**319**	*e*PKP	PKPdf	08 23 25.1	+3.0
MTE	**Manteigas**	**123.22**	**319**	*e*PP	PP	08 25 11.3	+9.5
MTE	**Manteigas**	**123.22**	**319**	*i* -	SS	08 41 55.4	+10
MTE	**Manteigas**	**123.22**	**319**	*e*LR	LR	09 04 46.2	
	comp=Z,11µm,20.5s						
PVIS	**Viseu**	**123.28**	**320**	*e*PKP	PKPdf	08 23 24.4	+2.2
PCBR	**Castelo Branco**	**123.47**	**319**	*e*PKP	PKPdf	08 23 24.6	+2.0
PCBR	**Castelo Branco**	**123.47**	**319**	*e*PP	PP	08 25 15.2	+12
AMTX	**Amarillo**	**123.51**	**48**	PFAKE		08 23 30.0	+7.2
AMTX				LR	LR		
	comp=Z,24µm,20.0s,MS6.9						
MAIG	**Mazatlaan**	**123.66**	**63**	*e*P	PKPdf	08 23 23.9	+0.5
PESTR	**Estremoz**	**124.04**	**318**	*e*PKP	PKPdf	08 23 25.8	+2.1
PESTR	**Estremoz**	**124.04**	**318**	*e*PP	PP	08 25 13.6	+6.1
PESTR				A		08 25 31.3	
	comp=Z,115nm,1.6s						
PESTR	**Estremoz**	**124.04**	**318**	*i* -	SS	08 42 01.5	+5.5
PESTR	**Estremoz**	**124.04**	**318**	*e*LR	LR	09 05 13.3	
	comp=Z,13µm,25.3s						
LTX	**Lajitas**	**124.14**	**55**	*e*PKPdf	PKPdf	08 23 26.4	+2.2
LTX				LR	LR		
	comp=Z,45µm,20.0s,MS7.1						
LTX	**Lajitas**	**124.14**	**55**	*e*PKIKP	PKPdf	08 23 26.4	+2.2
LTX				MLR	MLR		
	comp=Z,45µm,20.0s,MS7.1						
TXAR	**Lajitas Array**	**124.14**	**55**	PKP	PKPdf	08 23 23.9	-0.3
TXAR				PKKPab	PKKPab	08 33 11.5	+2.6
TXAR	**Lajitas Array**	**124.14**	**55**	PKIKP	PKPdf	08 23 23.9	-0.3
TXAR	**Lajitas Array**	**124.14**	**55**	PKP	PKPdf	08 23 23.9	-0.3
	comp=Z,4.3nm,0.8s,baz=240,slow=1.1,SNR=20						
TXAR				PKKPab	PKKPab	08 33 11.5	+2.6
	comp=Z,2.4nm,0.8s,baz=120,slow=7.0,SNR=6.9						
PTOM	**Tomar**	**124.20**	**319**	*e*PKP	PKPdf	08 23 26.0	+2.0
EVO	**Evora**	**124.50**	**318**	*e*PKP	PKPdf	08 23 26.9	+2.3
EVO	**Evora**	**124.50**	**318**	*e*PP	PP	08 25 17.7	+7.2
TOA0	**Torodi Ar. Sit**	**124.61**	**285**	*e*PKPdf	PKPdf	08 23 25.1	-0.3
TORD	**Torodi Ar. Bea**	**124.61**	**285**	PKP	PKPdf	08 23 24.8	-0.6
TORD				PP	PP	08 25 23.8	+11
TORD				PKKPbc		08 33 10.3	
TORD	**Torodi Ar. Bea**	**124.61**	**285**	PKP	PKPdf	08 23 24.8	-0.6
	comp=Z,47nm,0.9s,baz=54,slow=1.7,SNR=42						
TORD				PP	PP	08 25 23.8	+11
	comp=Z,30nm,1.0s,baz=62,slow=5.8,SNR=6.0						
TORD				PKKPbc		08 33 10.3	
	comp=Z,2.5nm,0.7s,baz=274,slow=2.0,SNR=5.8						
PBEJ	**Beja**	**124.66**	**317**	*e*PKP	PKPdf	08 23 27.3	+2.4
PBEJ	**Beja**	**124.66**	**317**	*e*PP	PP	08 25 16.9	+5.3
MOE	**Montemor**	**124.73**	**318**	*e*PKP	PKPdf	08 23 28.6	+3.6
PVAQ	**Vaqueiros**	**124.87**	**316**	*e*PKP	PKPdf	08 23 27.7	+2.4
PVAQ	**Vaqueiros**	**124.87**	**316**	*e*PP	PP	08 25 15.7	+2.6
PVAQ	**Vaqueiros**	**124.87**	**316**	*i* -	SS	08 42 02.9	-3.6
PVAQ	**Vaqueiros**	**124.87**	**316**	*e*LR	LR	09 05 23.7	
	comp=Z,9µm,20.5s						
KSU1	**Kansas State U**	**125.02**	**41**	*e*PKPdf	PKPdf	08 23 26.8	+1.2
KSU1				LR	LR		
	comp=Z,28µm,21.0s,MS6.9						
COWI	**Conover**	**125.04**	**30**	*e*PKPdf	PKPdf	08 23 26.3	+1.0
COWI				LR	LR		
	comp=Z,19µm,21.0s,MS6.7						
PBDV	**Barranco-do-Ve**	**125.10**	**316**	*e*PKP	PKPdf	08 23 28.6	+2.8
PBDV	**Barranco-do-Ve**	**125.10**	**316**	*e*PP	PP	08 25 19.8	+5.2
PBDV	**Barranco-do-Ve**	**125.10**	**316**	*i* -	SS	08 41 55.7	-14
PBDV	**Barranco-do-Ve**	**125.10**	**316**	*e*LR	LR	09 05 30.9	
	comp=Z,10µm,22.9s						
PMAFR	**Mafra**	**125.12**	**319**	*e*PP	PP	08 25 21.1	+6.5
PMAFR	**Mafra**	**125.12**	**319**	*i* -	SS	08 42 17.9	+8.4
PMAFR	**Mafra**	**125.12**	**319**	*e*LR	LR	09 04 26.1	
	comp=Z,11µm,18.9s						
SCHQ	**Schefferville**	**125.17**	**10**	*e*PKPdf	PKPdf	08 23 25.9	+0.5
SCHQ				LR	LR		
	comp=Z,15µm,21.0s,MS6.6						
SCHQ	**Schefferville**	**125.17**	**10**	PKP	PKPdf	08 23 26.7	+1.4
	comp=Z,9.3nm,0.9s,baz=54,slow=3.6,SNR=20						
SCIA	**State Center**	**125.53**	**36**	*e*PKPdf	PKPdf	08 23 27.5	+1.0
SCIA				LR	LR		
	comp=Z,22µm,22.0s,MS6.8						
MORF	**Marmelete**	**125.56**	**317**	*e*PKP	PKPdf	08 23 28.9	+2.2
MORF	**Marmelete**	**125.56**	**317**	*e*PP	PP	08 25 21.2	+3.5
MORF	**Marmelete**	**125.56**	**317**	*i* -	SS	08 42 21.4	+6.2
MORF	**Marmelete**	**125.56**	**317**	A		09 24 50.8	
	comp=Z,9µm,21.7s						
WMOK	**Wichita Mounta**	**125.71**	**47**	*e*PKPdf	PKPdf	08 23 28.3	+1.3
WMOK				LR	LR		
	comp=Z,22µm,22.0s,MS6.8						
WMOK	**Wichita Mounta**	**125.71**	**47**	*e*PKIKP	PKPdf	08 23 28.3	+1.3
WMOK				MLR	MLR		
	comp=Z,22µm,22.0s,MS6.8						
JFWS	**Jewell Farm**	**126.60**	**34**	*e*PKPdf	PKPdf	08 23 28.9	+0.4
JFWS				LR	LR		
	comp=Z,20µm,20.0s,MS6.8						
JFWS	**Jewell Farm**	**126.60**	**34**	*e*PKIKP	PKPdf	08 23 28.9	+0.4
JFWS				MLR	MLR		
	comp=Z,20µm,20.0s,MS6.8						
TRIS	**Tristan da Cun**	**126.61**	**220**	PFAKE		08 23 40.0	+11
TRIS				LR	LR		
	comp=Z,7µm,22.0s,MS6.3						
JCT	**Junction City**	**126.80**	**52**	*e*PKPdf	PKPdf	08 23 30.7	+1.5
JCT				*e*SKPdf	SKPdf	08 27 05.5	+2.6
JCT				LR	LR		
	comp=Z,31µm,21.0s,MS7.0						
JCT	**Junction City**	**126.80**	**52**	*e*PKIKP	PKPdf	08 23 30.7	+1.5
JCT				MLR	MLR		
	comp=Z,31µm,21.0s,MS7.0						
ZAIG	**Zacatecas**	**127.19**	**62**	*i* P	PKPdf	08 23 32.2	+2.0
EFI	**East Falkland**	**127.31**	**176**	PFAKE		08 23 40.0	+10
EFI				LR	LR		
	comp=Z,12µm,21.0s,MS6.5						
SFJM	**Santa Fe**	**127.40**	**65**	*i* P	PKPdf	08 23 32.0	+1.4
GLMI	**Grayling**	**128.17**	**28**	*e*PKPdf	PKPdf	08 23 32.4	+1.0
GLMI				LR	LR		
	comp=Z,22µm,21.0s,MS6.8						
HDIL	**Hopedale**	**128.68**	**35**	*e*PKPdf	PKPdf	08 23 33.5	+0.9
HDIL				LR	LR		
	comp=Z,21µm,21.0s,MS6.8						
MIAR	**Mount Ida**	**129.51**	**44**	*e*PKPdf	PKPdf	08 23 36.1	+1.9
MIAR				LR	LR		
	comp=Z,28µm,21.0s,MS6.9						
MIAR	**Mount Ida**	**129.51**	**44**	*e*PKIKP	PKPdf	08 23 36.1	+1.8
MIAR				MLR	MLR		
	comp=Z,28µm,21.0s,MS6.9						
KVTX	**Kingsville**	**129.52**	**54**	PFAKE		08 23 50.0	+16
KVTX				LR	LR		
	comp=Z,25µm,20.0s,MS6.9						
FVM	**French Village**	**129.62**	**39**	*e*PKPdf	PKPdf	08 23 36.0	+1.6
FVM	**French Village**	**129.62**	**39**	*e*PKIKP	PKPdf	08 23 36.0	+1.6
HKT	**Hockley**	**130.13**	**51**	*e*PKPdf	PKPdf	08 23 37.7	+2.1
HKT				LR	LR		
	comp=Z,25µm,21.0s,MS6.9						
HKT	**Hockley**	**130.13**	**51**	*e*PKIKP	PKPdf	08 23 37.7	+2.1
HKT				MLR	MLR		
	comp=Z,25µm,21.0s,MS6.9						
NATX	**Nacogdoches**	**130.16**	**48**	PFAKE		08 23 50.0	+14
NATX				LR	LR		
	comp=Z,19µm,21.0s,MS6.8						
AAM	**Ann Arbor**	**130.51**	**30**	PFAKE		08 23 50.0	+14
AAM				LR	LR		
	comp=Z,27µm,20.0s,MS6.9						
PARMO	**Parma**	**130.85**	**40**	*e*PKPdf	PKPdf	08 23 36.5	-0.3
BLO	**Bloomington**	**131.19**	**35**	*e*PKPdf	PKPdf	08 23 39.2	+1.8
BLO	**Bloomington**	**131.19**	**35**	*e*PKIKP	PKPdf	08 23 39.2	+1.9
USIN	**University of**	**131.32**	**37**	*e*PKPdf	PKPdf	08 23 39.4	+1.7
LIC	**Lamto**	**131.94**	**277**	*e*PKPdf	PKPdf	08 23 39.5	0.0
WCI	**Wyandotte Cave**	**131.96**	**36**	*e*PKPdf	PKPdf	08 23 32.3	-6.5
WCI				LR	LR		
	comp=Z,22µm,22.0s,MS6.8						
WCI	**Wyandotte Cave**	**131.96**	**36**	*e*PKIKP	PKPdf	08 23 32.3	-6.5
WCI				MLR	MLR		
	comp=Z,22µm,22.0s,MS6.8						
OXF	**Oxford**	**132.37**	**42**	*e*PKPdf	PKPdf	08 23 35.0	-4.8
OXF				LR	LR		
	comp=Z,33µm,21.0s,MS7.0						
OXF	**Oxford**	**132.37**	**42**	*e*PKIKP	PKPdf	08 23 35.0	-4.7
OXF				MLR	MLR		
	comp=Z,33µm,21.0s,MS7.0						
ACSO	**Alum Creek Sta**	**132.38**	**31**	*e*PKPdf	PKPdf	08 23 38.2	-1.3
ACSO				LR	LR		
	comp=Z,19µm,21.0s,MS6.8						
WVT	**Waverly**	**132.40**	**39**	*e*PKPdf	PKPdf	08 23 34.1	-5.6
WVT				LR	LR		
	comp=Z,22µm,22.0s,MS6.8						
WVT	**Waverly**	**132.40**	**39**	*e*PKIKP	PKPdf	08 23 34.1	-5.6
WVT				MLR	MLR		
	comp=Z,22µm,22.0s,MS6.8						
LONY	**Lake Ozonia**	**132.54**	**21**	*e*PKPdf	PKPdf	08 23 40.9	+1.2
LONY				LR	LR		
	comp=Z,10µm,22.0s,MS6.5						
PLAL	**Pickwick Lake**	**132.96**	**40**	*e*PKPdf	PKPdf	08 23 34.6	-6.2
PLAL				LR	LR		
	comp=Z,27µm,21.0s,MS6.9						
NCB	**Newcomb**	**133.23**	**21**	*e*PKPdf	PKPdf	08 23 42.3	+1.3
NCB				LR	LR		
	comp=Z,16µm,20.0s,MS6.7						
PKME	**Peaks-Kenny Pk**	**133.64**	**16**	PFAKE		08 23 50.0	+8.2
PKME				LR	LR		
	comp=Z,16µm,22.0s,MS6.7						
PMAR	**Madeira**	**133.74**	**317**	*e*PKP	PKPdf	08 23 47.3	+5.0
PMAR				*i* -		08 27 11.0	
LBNH	**Lisbon**	**133.78**	**19**	*e*PKPdf	PKPdf	08 23 43.7	+1.7
LBNH				LR	LR		
	comp=Z,14µm,21.0s,MS6.6						
LBNH	**Lisbon**	**133.78**	**19**	*e*PKIKP	PKPdf	08 23 43.7	+1.6
LBNH				MLR	MLR		
	comp=Z,14µm,21.0s,MS6.6						
BINY	**Binghamton**	**134.07**	**24**	*e*PKPdf	PKPdf	08 23 44.5	+1.8
BINY				LR	LR		
	comp=Z,16µm,21.0s,MS6.7						
HNH	**Hanover**	**134.14**	**20**	*e*PKPdf	PKPdf	08 23 43.8	+1.0
HNH				*e*pPKPdf	pPKPdf	08 23 51.1	-0.9
HNH				*e*sPKPdf		08 23 54.5	
HNH				*e*SKPbc	SKPbc	08 27 10.0	-0.4
MCWV	**Mont Chateau**	**134.39**	**29**	PFAKE		08 23 50.0	+6.7
MCWV				LR	LR		
	comp=Z,32µm,20.0s,MS7.0						
SSPA	**Standing Stone**	**134.54**	**27**	*e*PKPdf	PKPdf	08 23 42.6	-1.0
SSPA				LR	LR		
	comp=Z,18µm,22.0s,MS6.7						
TZTN	**Tazewell**	**134.71**	**35**	PFAKE		08 23 50.0	+6.0
TZTN				LR	LR		
	comp=Z,29µm,20.0s,MS7.0						
LRAL	**Lakeview Retre**	**134.86**	**42**	PFAKE		08 23 50.0	+5.6
LRAL				LR	LR		
	comp=Z,41µm,21.0s,MS7.1						
CPCT	**Cooper Cave**	**134.88**	**37**	*e*PKPdf	PKPdf	08 23 38.5	-5.9
TKL	**Tuckaleechee C**	**135.19**	**36**	PKP	PKPdf	08 23 46.5	+1.5
TKL	**Tuckaleechee C**	**135.19**	**36**	PKP	PKPdf	08 23 46.5	+1.5
	comp=Z,18nm,0.9s,baz=114,slow=1.4						
HRV	**Harvard--Oak R**	**135.45**	**20**	PFAKE		08 24 00.0	+15
HRV				LR	LR		
	comp=Z,17µm,22.0s,MS6.7						
WES	**Weston**	**135.64**	**20**	PFAKE		08 24 00.0	+14
WES				LR	LR		
	comp=Z,9µm,21.0s,MS6.5						
PDA	**Ponta Delgada**	**135.68**	**329**	*i* PP	PP	08 26 27.0	+4.2
MVL	**Millersville**	**135.74**	**26**	*e*PKPdf	PKPdf	08 23 44.1	-1.7
ELN	**Prospectdale**	**135.77**	**32**	*e*PKPdf	PKPdf	08 23 42.5	-3.5
BLA	**Blacksburg**	**135.96**	**32**	*e*PKPdf	PKPdf	08 23 40.0	-6.3
BLA				LR	LR		
	comp=Z,21µm,22.0s,MS6.8						
BLA	**Blacksburg**	**135.96**	**32**	*e*PKIKP	PKPdf	08 23 40.1	-6.2
BLA				MLR	MLR		
	comp=Z,21µm,22.0s,MS6.8						
BRAL	**Brewton**	**136.03**	**44**	PFAKE		08 24 00.0	+13
BRAL				LR	LR		
	comp=Z,20µm,21.0s,MS6.8						
CBN	**Corbin**	**136.72**	**28**	*e*PKPdf	PKPdf	08 23 44.9	-2.9
CBN				LR	LR		
	comp=Z,22µm,22.0s,MS6.8						
GOGA	**Godfrey**	**136.89**	**38**	*e*PKPdf	PKPdf	08 23 41.2	-7.0
GOGA				LR	LR		
	comp=Z,29µm,21.0s,MS7.0						
GOGA	**Godfrey**	**136.89**	**38**	*e*PKIKP	PKPdf	08 23 41.2	-7.0
GOGA				MLR	MLR		
	comp=Z,29µm,21.0s,MS7.0						
URVA	**University of**	**137.15**	**29**	*e*PKPdf	PKPdf	08 23 47.5	-1.1
JSC	**Jenkinsville**	**137.62**	**36**	*e*PKPdf	PKPdf	08 23 47.3	-2.3
CNNC	**Cliffs of the**	**138.78**	**32**	PFAKE		08 24 00.0	+8.4
CNNC				LR	LR		
	comp=Z,18µm,21.0s,MS6.8						
NHSC	**New Hope**	**139.09**	**36**	PFAKE		08 24 00.0	+7.7
NHSC				LR	LR		
	comp=Z,24µm,20.0s,MS6.9						
ASCN	**Ascension**	**140.53**	**256**	*e*PKPdf	PKPdf	08 23 52.1	-3.3
ASCN				LR	LR		
	comp=Z,8µm,22.0s,MS6.4						
TEIG	**Tepich**	**140.53**	**59**	*e*PKPdf	PKPdf	08 23 50.0	-5.2
TEIG				PKP	PKPdf	08 23 56.0	+0.8
TEIG				LR	LR		
	comp=Z,21µm,22.0s,MS6.8						
TEIG	**Tepich**	**140.53**	**59**	PKhKP		08 23 49.4	
	comp=Z,39nm,1.4s,baz=304,slow=13,SNR=4.7						
TEIG				PKP	PKPdf	08 23 56.0	+0.8
	comp=Z,16nm,0.9s,baz=282,slow=8.8,SNR=4.9						
DWPF	**Disney**	**141.68**	**43**	PFAKE		08 24 10.0	+13
DWPF				LR	LR		
	comp=Z,21µm,22.0s,MS6.9						
FCH	**Farellones**	**142.11**	**156**	*e*P	PKPdf	08 23 54.2	-3.6
PAYG	**Puerto Ayora**	**142.60**	**92**	PFAKE		08 24 10.0	+11
PAYG				LR	LR		
	comp=Z,15µm,19.0s,MS6.8						
MDZ	**Mendoza**	**143.07**	**157**	PKP	PKPdf	08 24 00.0	+0.6
TGUH	**Tegucigalpa,Un**	**143.65**	**67**	*e*PKPdf	PKPdf	08 23 59.8	-1.1
TGUH				LR	LR		
	comp=Z,14µm,22.0s,MS6.7						
CMCH	**Combarbala**	**143.66**	**153**	⇓*i*P	PKPdf	08 23 58.5	-2.0
CFAA	**Coronel Fontan**	**144.44**	**157**	PKP	PKPdf	08 24 00.5	-1.4
CFAA	**Coronel Fontan**	**144.44**	**157**	PKP	PKPdf	08 24 00.5	-1.4
	comp=Z,23nm,0.8s,baz=215,slow=2.8,SNR=108						
LCO	**Las Campanas**	**145.62**	**152**	*e*PKPdf	PKPdf	08 24 05.2	+1.2
LCO				LR	LR		
	comp=Z,13µm,22.0s,MS6.7						
JTS	**JuntasAbangare**	**146.87**	**73**	*e*PKPdf	PKPdf	08 24 07.1	+0.6
JTS				LR	LR		
	comp=Z,19µm,20.0s,MS6.9						
JTS	**JuntasAbangare**	**146.87**	**73**	PKPbc	PKPbc	08 24 08.4	+0.1
	comp=Z,96nm,0.8s,baz=352,slow=7.4,SNR=14						
BBSR	**BB Station**	**146.91**	**18**	*e*PKPdf	PKPdf	08 24 06.5	+0.4
BBSR				LR	LR		
	comp=Z,12µm,20.0s,MS6.7						
CEN1	**Los Morros**	**150.48**	**146**	⇓*i*P	PKPdf	08 24 15.4	+3.3
BCIP	**Isla Barro Col**	**152.03**	**72**	*e*PKPbc	PKPbc	08 24 22.7	+1.4
NNA	**Nana**	**152.95**	**119**	*e*PKPdf	PKPdf	08 24 18.8	+2.7
NNA				*e*PKPbc	PKPbc	08 24 26.8	+3.5
NNA				LR	LR		
	comp=Z,21µm,22.0s,MS6.9						
NNA	**Nana**	**152.95**	**119**	PKP	PKPdf	08 24 17.6	+1.5
	comp=Z,24nm,1.0s,baz=21,slow=2.3,SNR=5.3						
NNA				PKPbc	PKPbc	08 24 25.6	+2.3
	comp=Z,85nm,0.9s,baz=262,slow=6.4,SNR=16						
ATAH	**Atahualpa**	**153.36**	**108**	PKP	PKPdf	08 24 18.4	+1.7
	comp=Z,31nm,0.9s,baz=200,slow=0.8,SNR=21						
ATAH				PKPbc	PKPbc	08 24 25.2	+1.0
	comp=Z,72nm,0.9s,baz=206,slow=3.6,SNR=12						
ATAH				PKPab	PKPab	08 24 37.5	+1.2
	comp=Z,56nm,0.9s,baz=18,slow=1.0,SNR=8.3						
OTAV	**Otavalo**	**154.47**	**92**	*e*PKPdf	PKPdf	08 24 20.9	+2.6
OTAV				*e*PKPab	PKPab	08 24 45.3	+4.3
OTAV				LR	LR		
	comp=Z,12µm,20.0s,MS6.7						
SDDR	**Presa de Saban**	**154.65**	**44**	*e*PKPdf	PKPdf	08 24 17.9	-0.5
SDDR				*e*PKPab	PKPab	08 24 44.0	+2.5
SDDR				LR	LR		
	comp=Z,17µm,22.0s,MS6.8						
ARE	**Arequipa**	**154.75**	**134**	*e*P	PKPdf	08 24 23.0	+4.5
LPAZ	**La Paz**	**157.17**	**140**	PKPdf	PKPdf	08 24 23.8	+2.1
LPAZ				SKKSac	SKKSac	08 35 22.7	+3.7
LPAZ	**La Paz**	**157.17**	**140**	*e*PKPdf	PKPdf	08 24 24.1	+2.3
LPAZ				LR	LR		
	comp=Z,8µm,22.0s,MS6.5						
LPAZ	**La Paz**	**157.17**	**140**	PKP	PKPdf	08 24 23.5	+1.8
	comp=Z,14nm,1.0s,baz=40,slow=2.9,SNR=30						
ROSC	**El Rosal**	**158.29**	**79**	*e*PKPdf	PKPdf	08 24 25.7	+2.5
ROSC				*e*PKPab	PKPab	08 25 01.2	+3.7
ROSC	**El Rosal**	**158.29**	**79**	PKP	PKPdf	08 24 24.9	+1.6
	comp=Z,9.7nm,0.9s,baz=100,slow=9.5,SNR=8.0						
ROSC				PKPab	PKPab	08 24 57.5	0.0
	comp=Z,44nm,0.9s,baz=103,slow=8.9,SNR=4.3						
SJG	**San Juan**	**158.62**	**37**	PKP	PKPdf	08 24 23.1	-0.4
SJG				PKPab	PKPab	08 24 56.8	-1.7
SJG				LR	LR		
	comp=Z,11µm,20.0s,MS6.7						
SJG	**San Juan**	**158.62**	**37**	PKP	PKPdf	08 24 23.1	-0.4
	comp=Z,5.7nm,0.4s,baz=288,slow=20,SNR=2.9						
SJG				PKPab	PKPab	08 24 56.8	-1.7
	comp=Z,32nm,0.7s,baz=73,slow=5.4,SNR=4.0						
CPD	**Cerro la Pandu**	**158.82**	**36**	*e*PKPdf	PKPdf	08 24 26.6	+2.8
SIV	**San Ignacio**	**161.27**	**155**	PKP	PKPdf	08 24 27.3	+0.7
SIV				PKPab	PKPab	08 25 09.7	-0.3
SIV	**San Ignacio**	**161.27**	**155**	PKP	PKPdf	08 24 27.3	+0.7
	comp=Z,16nm,0.9s,baz=211,slow=2.1,SNR=24						
SIV				PKPab	PKPab	08 25 09.7	-0.3
	comp=Z,15nm,0.7s,baz=184,slow=5.0,SNR=6.0						
RCBR	**Riachuelo**	**161.69**	**248**	PFAKE		08 24 40.0	+13
RCBR				LR	LR		
	comp=Z,12µm,22.0s						
PCRV	**Puerto La Cruz**	**165.23**	**52**	PKP	PKPdf	08 24 31.1	+0.7
PCRV				PKPab	PKPab	08 25 27.6	-0.1
PCRV	**Puerto La Cruz**	**165.23**	**52**	PKP	PKPdf	08 24 31.1	+0.7
	comp=Z,24nm,1.2s,baz=292,slow=5.4,SNR=2.1						
PCRV				PKPab	PKPab	08 25 27.6	-0.1
	comp=Z,6.9nm,0.8s,baz=98,slow=4.9,SNR=2.6						
BBGH	**Gun Hill**	**166.29**	**28**	PFAKE		08 24 40.0	+8.8
BBGH				LR	LR		
	comp=Z,16µm,22.0s						
TRN	**Trinidad (W)**	**167.26**	**41**	*e*P	PKPdf	08 24 31.2	-0.8

IDC 20 08:19:00.9±1.4**,117S×12711E,h0^{km},mb4.1**/3**,mb1 4.2**/4**, mb1mx3.9**/17**,mbtmp4.0**/4**,Error ellipse: s-maj=126.4km s-min=21.6km az=69.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**19.95**	**160**	P	Pn	08 23 34.9	-1.4
	0.4nm,0.3s,baz=340,slow=11,SNR=8.2						
ASAR	**Alice Springs**	**23.31**	**164**	P	P	08 24 10.7	0.0
	4.4nm,0.8s,baz=342,slow=9.4,SNR=7.7						
SONM	**Songino Array**	**52.05**	**342**	P	P	08 28 13.4	+1.1
	1.4nm,0.9s,baz=159,slow=14,SNR=3.0						
MKAR	**Makanchi Array**	**61.80**	**327**	P	P	08 29 20.9	-0.6
	1.2nm,0.3s,baz=115,slow=8.1,SNR=19						

BJI ***20*** *08:24:14.9,199S×12735E,h10^{km},mb4.7*
ISCJB ***20*** *08:24:22.0±6.6,111S±008×1271E±01,h16^{km}±50^{km}, mb4.6/23,Error ellipse: s-maj=17.8km s-min=12.7km az=159.5*
IDC ***20*** *08:24:21.2±0.6,108S×12700E,h0^{km},mb4.5/15, mb1 4.5/16,mb1mx4.4/25,mbtmp4.5/16,ML3.9/1,Error ellipse: s-maj=25.4km s-min=12.5km az=70.0*
NEIC ***20*** *08:24:23.1±0.4,109S×12701E,h10^{km},mb4.7/11,Error ellipse: s-maj=14.7km s-min=6.5km az=69.0*
ISC 20 08:24:25.8±6.5**,112S**±008×**1271E**±01**,h28^{km}**±50^{km}**,n34, σ0^{s}95**/32**,mb4.6**/23**,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**12.69**	**155**	*e*Pn	**Pn**	**08 27 24.0**	**-0.5**
	24nm,0.2s						
FITZ	**Fitzroy Crossi**	**16.93**	**185**	Pn	**Pn**	**08 28 20.9**	**+0.1**
	0.3nm,0.3s,baz=16,slow=13,SNR=5.8						
WRA	**Warramunga Arr**	**20.02**	**160**	P	**P**	**08 28 55.4**	**-1.0**
	6.7nm,0.5s,baz=341,slow=11,SNR=27						
COEN	**Coen**	**20.42**	**129**	*e*P	**P**	**08 29 02.3**	**+1.5**
	31nm,0.9s						
MBWA	**Marble Bar**	**21.16**	**199**	*e*P	**P**	**08 29 09.5**	**+0.7**
	56nm,1.4s,mb4.7						
PMG	**Port Moresby**	**21.63**	**113**	P	**P**	**08 29 12.6**	**-1.4**
	11nm,0.8s,mb4.3,baz=294,slow=19,SNR=2.4						
ASAR	**Alice Springs**	**23.38**	**164**	P	**P**	**08 29 31.9**	**-0.5**
	12nm,0.8s,mb4.4,baz=343,slow=10,SNR=40						
CTA	**Charters Tower**	**26.61**	**136**	P	**P**	**08 30 04.2**	**+2.2**
	10nm,1.1s,mb4.3,baz=307,slow=15,SNR=2.9						
CTAO	**Charters Tower**	**26.61**	**136**	*e*P	**P**	**08 30 04.6**	**+2.7**
	28nm,1.2s,mb4.7						
JOW	**Kunigami**	**27.82**	**2**	P	**P**	**08 30 12.4**	**-0.3**
	26nm,0.8s,mb4.9,baz=187,slow=6.8,SNR=12						
PSI	**Prapat**	**28.39**	**278**	P	**P**	**08 30 16.9**	**-1.1**
	8.1nm,0.9s,mb4.4,baz=78,slow=1.8,SNR=5.2						
STKA	**Stephens Creek**	**33.53**	**157**	P	**P**	**08 31 03.5**	**+0.4**
	16nm,0.8s,mb5.0,baz=330,slow=8.7,SNR=21						
KSRS	**Korea Array**	**38.39**	**1**	P	**P**	**08 31 44.0**	**-0.6**
	3.3nm,0.5s,mb4.3,baz=179,slow=9.9,SNR=13						
MJAR	**Matsushiro Arr**	**38.88**	**14**	P	**P**	**08 31 47.6**	**-1.2**
	2.0nm,0.4s,mb4.2,baz=187,slow=8.6,SNR=10.0						
DL2	**Dalian**	**40.14**	**353**	P	**P**	**08 32 01.0**	**+1.8**
DL2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.0						
BJT	**Baijiatuau**	**42.14**	**348**	*e*P	**P**	**08 32 15.3**	**-0.3**
	comp=Z,16nm,1.0s,mb4.6						
LZH	**Lanzhou**	**42.87**	**332**	*e*P	**P**	**08 32 24.0**	**+2.3**
LZH				AP	pP	08 32 33.8	+3.6
LZH				PP	PP	08 34 06.3	+4.8
LZH				AMB	AMB		
	comp=Z,25nm,1.2s,mb4.8						
LZH	**Lanzhou**	**42.87**	**332**	*e*P	**P**	**08 32 24.0**	**+2.3**
	comp=Z,25nm,1.2s,mb4.8						
LZH				pP	pP	08 32 33.7	+3.5
LZH				sP	sP	08 32 37.8	+4.2
LZH				PP	PP	08 34 06.3	+4.8
MDJ	**Mudanjiang**	**45.59**	**3**	*e*P	**P**	**08 32 44.0**	**+0.6**
	comp=Z,23nm,1.4s,mb4.9						
LSA	**Lhasa**	**45.97**	**315**	*e*P	**P**	**08 32 46.7**	**+0.1**
	comp=Z,5.3nm,0.7s,mb4.6						
ASAJ	**Asahikawa**	**47.13**	**15**	P	**P**	**08 32 55.4**	**0.0**
	comp=Z,4.1nm,0.4s,mb4.7,baz=270,slow=17,SNR=1.8						
GTA	**Gaotai**	**47.44**	**331**	*e*P	**P**	**08 32 58.9**	**+1.0**
GTA				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.7						
HIA	**Hailar**	**50.59**	**354**	*e*P	**P**	**08 33 22.6**	**+0.8**
SONM	**Songino Array**	**51.98**	**342**	P	**P**	**08 33 31.9**	**-0.4**
	comp=Z,1.7nm,0.6s,mb4.2,baz=151,slow=6.2,SNR=9.7						
MK31	**Makanchi Array**	**61.73**	**327**	*e*P	**P**	**08 34 40.9**	**-0.6**
MKAR	**Makanchi Array**	**61.73**	**327**	P	**P**	**08 34 40.8**	**-0.8**
	comp=Z,1.4nm,0.4s,mb4.5,baz=117,slow=7.6,SNR=21						
MKAR				PKiKP	PKiKP	08 41 35.4	-1.5
	comp=Z,0.2nm,0.3s,baz=321,slow=3.1,SNR=3.9						
MA2	**Magadan**	**63.31**	**13**	*e*P	**P**	**08 34 52.1**	**+0.3**
	comp=Z,8.5nm,0.8s,mb4.9						
ZALV	**Zalesovo Beam**	**65.05**	**334**	P	**P**	**08 35 03.3**	**-0.1**
	comp=Z,0.6nm,0.3s,mb4.1,baz=157,slow=4.1,SNR=3.3						
TIXI	**Tiksi**	**72.66**	**1**	*e*P	**P**	**08 35 46.1**	**-4.2**
	comp=Z,8.6nm,0.3s,mb5.2						
AKTK	**Aktyubinsk**	**77.65**	**322**	P	**P**	**08 36 19.4**	**-0.2**
AKTO	**Aktyubinsk**	**77.65**	**322**	P	**P**	**08 36 19.4**	**-0.2**
	comp=Z,1.0nm,0.4s,mb4.1,baz=63,slow=6.8,SNR=3.1						
INK	**Inuvik**	**94.53**	**22**	P	**P**	**08 37 41.9**	**-1.3**
	comp=Z,1.0nm,0.6s,mb4.4,baz=224,slow=7.8,SNR=4.0						
TORD	**Torodi Ar. Bea**	**124.61**	**285**	PKP	PKPdf	08 43 23.5	-0.1
TORD	**Torodi Ar. Bea**	**124.61**	**285**	PKP	PKPdf	08 43 23.5	-0.1
	comp=Z,0.4nm,0.6s,baz=56,slow=1.9,SNR=3.5						

ISCJB ***20*** *08:34:07.3±1.2,7722N±006×84E±06,h10^{km},mb3.4/2, Error ellipse: s-maj=18.0km s-min=8.7km az=179.4*
IDC ***20*** *08:34:07.1±1.6,7650N×484E,h0^{km},mb3.5/2,mb1 3.6/4, mb1mx3.4/20,mbtmp3.5/4,ML2.6/2,Error ellipse: s-maj=55.5km s-min=21.2km az=43.0*
CSEM ***20*** *08:34:07.2±0.2,7732N×742E,h10^{km},ML2.4,Error ellipse: s-maj=5.1km s-min=1.6km az=93.0*
NAO ***20*** *08:34:09.4±2.3,7728N×828E,ML2.4*
BER ***20*** *08:34:11.0±1.6,7720N×844E,h7^{km}±8^{km},MD2.9,ML3.7, ML2.4(NAO)*
ISC 20 08:34:09.8±1.1**,7732N**±005×**83E**±05**,h10^{km},n16, σ0^{s}99**/22**,mb3.4**/2**,Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBS	**Kingsbay**	**1.78**	**23**	Pg	**Pg**	**08 34 41.9**	**-2.0**
KBS				Lg		08 35 03.6	
KBS	**Kingsbay**	**1.78**	**23**	*e*P	**Pn**	**08 34 42.0**	**+1.4**
KBS				*e*S	**Sn**	**08 35 04.0**	**+0.8**
KBS	**Kingsbay**	**1.78**	**23**	Pg	**Pg**	**08 34 41.9**	**-2.0**
KBS				*e*S	**Sn**	**08 35 04.0**	**+0.8**
	SNR=50						
SPA0	**Spitsbergen Ar**	**1.92**	**59**	Pg	**Pg**	**08 34 46.2**	**-0.2**
	baz=240,slow=16						
SPA0				Lg		08 35 11.0	
	baz=244,slow=18						
SPA0	**Spitsbergen Ar**	**1.92**	**59**	Pg	**Pg**	**08 34 46.2**	**-0.2**
	baz=240,slow=16						
SPA0				Lg		08 35 11.0	
	baz=244,slow=18						
SPA0	**Spitsbergen Ar**	**1.92**	**59**	Pg	**Pg**	**08 34 46.2**	**-0.3**
	SNR=9.4						
ARA0	**ARCESS Array S**	**9.17**	**139**	Pn	**Pn**	**08 36 21.2**	**-0.6**
	baz=334,slow=14						
ARA0				Sn	**Sn**	**08 37 56.5**	**-8.3**
	baz=333,slow=22						
ARA0	**ARCESS Array S**	**9.17**	**139**	Pn	**Pn**	**08 36 21.2**	**-0.6**
	baz=334,slow=14						
ARA0				Sn	**Sn**	**08 37 56.5**	**-8.3**
	baz=333,slow=22						
ARA0	**ARCESS Array S**	**9.17**	**139**	Pn	**Pn**	**08 36 21.2**	**-0.6**
	SNR=4.3						
ARA0				Sn	**Sn**	**08 37 56.5**	**-8.3**
	SNR=9.5						
ARCES	**ARCESS Array B**	**9.17**	**139**	Pn	**Pn**	**08 36 21.4**	**-0.3**
	0.3nm,0.3s,baz=328,slow=11,SNR=10.0						
ARCES				Sn	**Sn**	**08 37 54.9**	**-10**
	0.7nm,0.3s,baz=331,slow=20,SNR=7.3						
NOA	**NORSAR Array B**	**16.38**	**175**	Pn	**Pn**	**08 37 51.1**	**-8.2**
	0.0nm,0.3s,baz=346,slow=17,SNR=3.3						
FIA0	**FINESS Array S**	**16.97**	**150**	P	**Pn**	**08 38 07.8**	**+1.0**
	baz=333,slow=14						
FIA0	**FINESS Array S**	**16.97**	**150**	Pn	**Pn**	**08 38 07.8**	**+1.0**
	baz=333,slow=14						
FIA0	**FINESS Array S**	**16.97**	**150**	Pn	**Pn**	**08 38 07.8**	**+1.0**
	SNR=50						
YKA	**Yellowknife Ar**	**36.10**	**319**	P	**P**	**08 41 10.6**	**-0.4**
	0.3nm,0.6s,mb3.4,baz=13,slow=8.3,SNR=6.3						
MKAR	**Makanchi Array**	**41.36**	**92**	P	**P**	**08 42 00.5**	**+5.2**
	0.3nm,0.3s,mb3.4,baz=344,slow=7.1,SNR=5.8						

IDC 20 08:43:09.4±1.2**,095S×12735E,h0^{km},mb4.0**/6**,mb1 4.1**/6**, mb1mx3.9**/17**,mbtmp4.0**/6**,Error ellipse: s-maj=120.6km s-min=18.4km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**20.08**	**161**	P	P	08 47 44.9	+0.3
	1.1nm,0.4s,baz=340,slow=12,SNR=4.3						
ASAR	**Alice Springs**	**23.46**	**165**	P	P	08 48 20.9	0.0
	1.1nm,0.3s,baz=345,slow=10,SNR=20						
STKA	**Stephens Creek**	**33.58**	**158**	P	P	08 49 51.2	-0.1
	2.1nm,0.7s,baz=338,slow=9.9,SNR=3.7						
SONM	**Songino Array**	**51.90**	**342**	P	P	08 52 20.7	+0.9
	1.5nm,0.8s,baz=148,slow=9.2,SNR=6.2						
MKAR	**Makanchi Array**	**61.75**	**326**	P	P	08 53 29.9	+0.1
	1.3nm,0.3s,baz=115,slow=7.8,SNR=25						
AKTO	**Aktyubinsk**	**77.70**	**322**	P	P	08 55 07.2	-0.9
	1.6nm,0.7s,baz=97,slow=4.8,SNR=4.1						

IDC 20 08:49:51.6±2.2**,097S×12751E,h0^{km},mb3.2**/3**,mb1 3.4**/3**, mb1mx3.3**/16**,mbtmp3.3**/3**,Error ellipse: s-maj=174.4km s-min=28.0km az=66.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**20.00**	**161**	P	P	08 54 26.0	+0.1
	0.3nm,0.4s,baz=340,slow=12,SNR=2.8						
ASAR	**Alice Springs**	**23.40**	**165**	P	P	08 55 02.4	0.0
	0.4nm,0.5s,baz=347,slow=12,SNR=4.1						
MKAR	**Makanchi Array**	**61.85**	**326**	P	P	09 00 12.7	0.0
	0.2nm,0.4s,baz=123,slow=6.9,SNR=4.1						

IDC 20 08:59:07.8±2.5**,121S×12797E,h0^{km},mb3.2**/2**,mb1 3.2**/3**, mb1mx3.2**/16**,mbtmp3.1**/3**,Error ellipse: s-maj=223.8km s-min=26.1km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**19.64**	**162**	P	Pn	09 03 39.0	-0.5
	0.1nm,0.3s,baz=341,slow=11,SNR=9.0						
ASAR	**Alice Springs**	**23.06**	**166**	P	P	09 04 14.4	-0.5
	0.1nm,0.5s,baz=342,slow=11,SNR=3.4						
MKAR	**Makanchi Array**	**62.30**	**326**	P	P	09 09 31.9	+0.1
	0.4nm,0.5s,baz=117,slow=8.3,SNR=6.2						

IDC 20 09:11:30.3±1.2**,088S×12746E,h0^{km},mb3.5**/5**,mb1 3.7**/5**, mb1mx3.6**/16**,mbtmp3.6**/5**,Error ellipse: s-maj=126.5km s-min=19.8km az=69.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**20.10**	**161**	P	P	09 16 04.7	-1.0
	0.5nm,0.3s,baz=341,slow=11,SNR=14						
ASAR	**Alice Springs**	**23.50**	**165**	P	P	09 16 41.7	-0.4
	1.0nm,0.6s,baz=346,slow=11,SNR=15						
STKA	**Stephens Creek**	**33.60**	**158**	P	P	09 18 13.7	+1.3
	1.8nm,0.6s,baz=346,slow=8.2,SNR=4.3						
SONM	**Songino Array**	**51.88**	**342**	P	P	09 20 41.1	+0.6
	0.5nm,0.8s,baz=141,slow=7.4,SNR=3.4						
MKAR	**Makanchi Array**	**61.76**	**326**	P	P	09 21 50.0	-0.6
	0.2nm,0.4s,baz=143,slow=5.0,SNR=4.6						

IDC 20 09:19:12.6±1.9**,4694N×15344E,h0^{km},mb3.6**/5**, mb1 3.7**/7**,mb1mx3.5**/23**,mbtmp3.6**/7**,ML3.2**/2**,Error ellipse: s-maj=47.4km s-min=28.4km az=111.0,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAJ	**Asahikawa**	**8.12**	**254**	Pn	Pn	09 21 12.1	+0.4
	0.3nm,0.3s,baz=78,slow=16,SNR=3.6						
MJAR	**Matsushiro Arr**	**15.38**	**233**	Pn	Pn	09 22 51.1	+0.3
	0.1nm,0.3s,baz=341,slow=17,SNR=3.8						
KSRS	**Korea Array**	**21.07**	**252**	P	P	09 23 59.2	+1.0
	0.6nm,0.5s,baz=60,slow=10,SNR=5.0						
MKAR	**Makanchi Array**	**47.05**	**297**	P	P	09 27 44.4	-1.2
	0.2nm,0.2s,baz=64,slow=8.3,SNR=2.1						
FINES	**FINESS Array B**	**63.96**	**335**	P	P	09 29 47.1	+0.1
	0.5nm,0.4s,baz=45,slow=8.9,SNR=5.8						
NOA	**NORSAR Array B**	**68.12**	**341**	P	P	09 30 14.5	+0.7
	1.1nm,0.7s,baz=29,slow=6.4,SNR=3.6						
ASAR	**Alice Springs**	**72.46**	**199**	P	P	09 30 40.6	-0.1
	0.2nm,0.5s,baz=14,slow=5.8,SNR=4.8						

CASC 20 09:22:09.4±2.9**,1210N×8864W,h20^{km}**±19^{km}**,MD3.9, ML3.7,5C-8D,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BLLM	**Bellamira**	**1.40**	**16**	*e*P	x	09 22 46.8	
BLLM				*e*S	x	09 23 04.5	
CNCH	**Conchagua**	**1.41**	**34⇓**	*e*P	x	09 22 44.8	
CNCH				*e*S	x	09 23 04.8	
SNVI	**San Vicente**	**1.52**	**353⇑**	*e*P	x	09 22 47.5	
SNVI				*e*S	x	09 23 07.4	
LCBS	**La Ceiba**	**1.59**	**348**	*e*P	x	09 22 47.3	
LCBS				*e*S	x	09 23 07.9	
LBRS	**Las Brisas**	**1.68**	**346**	*e*P	x	09 22 48.8	
LBRS				*e*S	x	09 23 08.5	
SNET	**Serv Nac Est T**	**1.69**	**340**	*e*P	x	09 22 38.7	
SNET				*e*S	x	09 23 00.4	
LFU	**La Fuente**	**1.71**	**344⇓**	*e*P	x	09 22 49.3	
LFU				*e*S	x	09 23 10.5	
BOQS	**Boqueron**	**1.75**	**339**	*e*P	x	09 22 49.8	
BOQS				*e*S	x	09 23 12.1	
TEL3	**Telica 3**	**1.81**	**75**	*e*P	Pn	09 22 39.9	+0.4
SBLS	**San Blas**	**1.98**	**331⇑**	*e*P	x	09 22 53.0	
SBLS				*e*S	x	09 23 18.5	
COPN	**Copaltepe**	**2.00**	**87⇓**	*e*P	Pn	09 22 42.1	+0.1
COPN				*e*S	Sn	09 23 06.9	+0.4
RTR	**El Retiro**	**2.04**	**331⇑**	*e*P	x	09 22 54.0	
RTR				*e*S	x	09 23 19.7	
MOMJ	**Momotombo**	**2.07**	**81⇓**	*e*P	Pn	09 22 43.2	+0.1
MOMJ				*e*S	Sn	09 23 09.8	+1.4
RBDL	**Robledal**	**2.25**	**333**	*e*P	x	09 22 57.2	
RBDL				*e*S	x	09 23 24.7	
XAVN	**Gruta Xavier**	**2.26**	**88⇓**	*e*P	Pn	09 22 45.6	0.0
XAVN				*e*S	Sn	09 23 16.0	+3.1
TISN	**Laguna Tiscapa**	**2.31**	**89⇓**	*e*P	Pn	09 22 46.4	0.0
MGAN	**Managua**	**2.34**	**88⇑**	*e*P	Pn	09 22 46.6	-0.1
MGAN				*e*S	Sn	09 23 14.7	-0.1
MGAN				*i*		09 23 16.4	
	comp=N,681nm,0.3s						
TICN	**Ticuantepe**	**2.35**	**91**	*e*P	Pn	09 22 47.1	+0.2
MTO2	**Montecristo 2**	**2.40**	**343**	*e*P	x	09 22 58.8	
MTO2				*e*S	x	09 23 29.6	
HUEN		**2.42**	**84⇓**	*e*P	Pn	09 22 48.1	+0.3
HUEN				*e*S	Sn	09 23 18.8	+1.9
APON	**Apoyo**	**2.52**	**94⇓**	*e*P	Pn	09 22 48.9	-0.3
SSNN	**San Juan del S**	**2.84**	**106**	*e*P	Pn	09 22 53.0	-0.7
CONN	**Concepcion**	**2.99**	**100**	*e*P	Pn	09 22 54.7	-1.1
CONN				*e*S	Sn	09 23 29.8	-1.3
JCR	**Jicaral**	**4.12**	**122**	*e*P	Pn	09 23 10.8	-0.4
CGA2	**Cerro Gallo 2**	**4.59**	**116**	*e*P	Pn	09 23 18.8	+1.1
PRS1	**Puriscal**	**4.74**	**116**	*e*P	Pn	09 23 20.9	+1.2
LAJ	**Bijagual**	**4.96**	**116**	*e*P	Pn	09 23 18.8	-4.0
LAJ				*e*S	Sn	09 24 11.8	-7.7
LCR2	**La Lucha 2**	**5.12**	**117**	*e*P	Pn	09 23 26.2	+1.2
LCR2				*e*S	Sn	09 24 24.3	+0.9
URSC	**Urasca**	**5.27**	**115**	*e*P	Pn	09 23 28.5	+1.4
BAR1		**5.95**	**118⇑**	*e*P	Pn	09 23 37.6	+1.1

TEH ***20*** *09:22:21.5,2737N×5640E,h20^{km},ML4.7*
BJI ***20*** *09:23:10.2,2758N×5568E,h22^{km},mB5.4,mb4.7,Ms5.2, Msz4.9*
CSEM ***20*** *09:23:16.6±0.0,2774N×5659E,h20^{km},mb5.0/99,Error ellipse: s-maj=1.6km s-min=1.4km az=88.0*
ISCJB ***20*** *09:23:16.7±0.2,2765N±002×5655E±002,h22^{km}, mb4.9/185,MS4.8/6,Error ellipse: s-maj=3.2km s-min=2.7km az=174.6*
MOS ***20*** *09:23:18.2±0.8,2768N×5657E,h33^{km},mb5.2/82,Error ellipse: s-maj=6.3km s-min=3.1km az=128.3*
NEIC ***20*** *09:23:18.0±0.2,2756N×5657E,mb5.0/129,MN4.9(TEH), Error ellipse: s-maj=4.4km s-min=3.6km az=173.0*
IDC ***20*** *09:23:22.6±3.5,2770N×5658E,h56^{km}±31^{km},mb4.4/27, mb1 4.6/29,mb1mx4.5/32,mbtmp4.5/29,ML4.7/2,Error ellipse: s-maj=13.1km s-min=11.3km az=129.0*
SZGRF ***20*** *09:23:29.1,2783N×5491E,h33^{km},mb4.7,Southern Iran*
ISC 20 09:23:18.6±0.2**,2762N**±002×**5655E**±002**,h22^{km},n643, σ0^{s}98**/650**,mb4.9**/185**,MS4.8**/6**,95C-10D,Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IBND		**0.17**	**182**	*e*Pg	**Pb**	**09 23 23.0**	**-0.5**
BANOM	**Banah**	**1.70**	**188**	P	**Pn**	**09 23 47.5**	**+0.6**
	SNR=361						
BANOM				S	**Sn**	**09 24 09.6**	**+1.6**
NAZ	**Nazwa, Dubai**	**2.74**	**197**	P	**Pn**	**09 24 02.9**	**+1.8**
	SNR=44						
HATD	**Hatta, Dubai**	**2.81**	**188**	P	**Pn**	**09 24 03.2**	**+1.1**
	SNR=21						
ASHO	**Ashiyiah**	**2.95**	**189**	P	**Pn**	**09 24 05.5**	**+1.4**
	SNR=18						
FAQ	**Al Faqa, Dubai**	**2.99**	**197**	P	**Pn**	**09 24 06.0**	**+1.4**
	SNR=99						
ASUD	**Al Ashush, Dub**	**3.17**	**200**	P	**Pn**	**09 24 09.2**	**+2.1**
	SNR=476						
IBAF	**Bafgh**	**4.05**	**348**	Pn	**Pn**	**09 24 20.6**	**+1.4**
IBAF				Sn	**Sn**	**09 25 09.3**	**+3.4**
IBAF	**Bafgh**	**4.05**	**348**	*e*Pn	**Pn**	**09 24 20.7**	**+1.5**
IBAF				*e*		09 24 36.7	
	comp=Z,8µm,0.3s						
IBAF				*e*Sn	**Sn**	**09 25 09.3**	**+3.4**
IBAF	**Bafgh**	**4.05**	**348**	Pn	**Pn**	**09 24 20.6**	**+1.4**
IMEH	**Mehriz**	**4.12**	**336**	Pn	**Pn**	**09 24 22.4**	**+2.2**
ISAD	**Sadrabad**	**4.95**	**331**	*e*Sn	**Sn**	**09 25 29.4**	**+1.2**
ICHK	**Chekchek**	**4.97**	**339**	Pn	**Pn**	**09 24 33.5**	**+1.7**
ICHK	**Chekchek**	**4.97**	**339**	*e*Pn	**Pn**	**09 24 33.5**	**+1.7**
ICHK				*e*		09 24 55.2	
	comp=Z,8µm,0.4s						
IDAH		**5.86**	**29**	*e*Pn	**Pn**	**09 24 43.7**	**-0.3**
IGAR	**Garneh**	**5.96**	**322**	*e*Pn	**Pn**	**09 24 50.3**	**+4.9**
IGAR				*e*		09 26 03.7	
	comp=E,11µm,0.2s						
SLWS		**6.00**	**243**	P	**Pn**	**09 24 46.9**	**+0.9**
BTHS		**6.25**	**237**	P	**Pn**	**09 24 48.8**	**-0.6**
BTHS				S	**Sn**	**09 25 58.0**	**-2.1**
BTHS		**6.25**	**237**	S	**Sn**	**09 25 58.0**	**-2.1**
BTHS		**6.25**	**237**	P	**Pn**	**09 24 48.8**	**-0.6**
IPIR	**Pirpir**	**7.03**	**317**	Pn	**Pn**	**09 25 02.1**	**+1.9**
IPIR	**Pirpir**	**7.03**	**317**	*e*Pn	**Pn**	**09 25 02.2**	**+2.0**
IPIR				*e*		09 26 22.4	
	comp=Z,6µm,0.3s						
IKLH	**Kalahroud**	**7.12**	**324**	Pn	**Pn**	**09 25 02.8**	**+1.5**
IKLH	**Kalahroud**	**7.12**	**324**	*e*Pn	**Pn**	**09 25 02.8**	**+1.5**
IKLH				*e*		09 26 32.9	
	comp=Z,2µm,0.3s						
IKLH	**Kalahroud**	**7.12**	**324**	*e*Pn	**Pn**	**09 25 02.8**	**+1.5**
KFJS		**7.64**	**276**	P	**Pn**	**09 25 07.6**	**-0.9**
ISFB	**Sefidab**	**7.67**	**332**	Pn	**Pn**	**09 25 10.9**	**+2.0**
ISFB	**Sefidab**	**7.67**	**332**	*e*Pn	**Pn**	**09 25 10.9**	**+2.0**
ISFB				*e*		09 25 49.1	
	comp=Z,1µm,0.4s						
QRN	**Al-Qurain**	**7.70**	**280**	*e*P	**Pn**	**09 25 08.8**	**-0.5**
QRN				*e*S	**Sn**	**09 26 34.3**	**-1.5**
QRN				AML	AML	09 26 36.4	
	comp=Z,376nm,0.4s						
KBD	**Kabd**	**7.95**	**283**	*e*P	**Pn**	**09 25 12.6**	**-0.2**
KBD				*e*S	**Sn**	**09 26 40.9**	**-1.1**
KBD				AML	AML	09 26 43.8	
	comp=Z,686nm,0.5s						
UMR	**Umm Al-Rimmam**	**8.00**	**286**	*e*P	**Pn**	**09 25 13.6**	**+0.2**
UMR				*e*S	**Sn**	**09 26 41.9**	**-1.4**
UMR				AML	AML	09 26 42.0	
	comp=Z,192nm,0.7s						
RDF	**Al-Radifah**	**8.04**	**281**	*e*P	**Pn**	**09 25 13.6**	**-0.4**
RDF				*e*S	**Sn**	**09 26 42.9**	**-1.3**
RDF				AML	AML	09 26 44.0	
	comp=Z,285nm,0.4s						
NAY	**Al-Naaiem**	**8.35**	**283**	*e*P	**Pn**	**09 25 18.6**	**+0.3**
NAY				*e*S	**Sn**	**09 26 50.7**	**-1.2**
NAY				AML	AML	09 26 54.0	
	comp=Z,157nm,0.6s						
MIB	**Mutribah**	**8.37**	**287**	*e*P	**Pn**	**09 25 18.9**	**+0.3**
MIB				*e*S	**Sn**	**09 26 51.1**	**-1.4**
MIB				AML	AML	09 26 54.0	
	comp=Z,441nm,0.6s						
IVRN	**Varamin**	**8.43**	**332**	Pn	**Pn**	**09 25 21.2**	**+1.9**
IMOG	**Moghan**	**8.79**	**15**	Pn	**Pn**	**09 25 27.2**	**+2.9**
IMOG	**Moghan**	**8.79**	**15**	*e*Pn	**Pn**	**09 25 27.2**	**+2.9**
IMOG				*e*		09 28 31.0	
	comp=Z,705nm,0.7s						
IDMV	**Damavand**	**8.82**	**335**	Pn	**Pn**	**09 25 26.3**	**+1.6**
IDMV	**Damavand**	**8.82**	**335**	*e*Pn	**Pn**	**09 25 26.3**	**+1.6**
IDMV				*e*		09 28 39.8	
	comp=Z,1µm,0.7s						
IPAY	**Payeh**	**9.05**	**13**	Pn	**Pn**	**09 25 31.5**	**+3.7**
IPAY	**Payeh**	**9.05**	**13**	*e*	**Pn**	**09 25 37.7**	**+10**
	comp=Z,434nm,0.5s						
IAKL	**Akhlamad**	**9.12**	**11**	Pn	**Pn**	**09 25 31.8**	**+3.0**
IAKL	**Akhlamad**	**9.12**	**11**	*e*Pn	**Pn**	**09 25 31.8**	**+3.0**
IAKL				*e*		09 25 43.5	
	comp=Z,1µm,0.5s						
IMYA	**Miamay**	**9.21**	**18**	Pn	**Pn**	**09 25 33.0**	**+3.0**
IMYA	**Miamay**	**9.21**	**18**	*e*Pn	**Pn**	**09 25 33.1**	**+3.1**
IMYA				*e*		09 28 51.9	
	comp=Z,896nm,0.8s						
IKRD	**Kardeh**	**9.28**	**10**	Pn	**Pn**	**09 25 37.0**	**+6.0**
IKRD	**Kardeh**	**9.28**	**10**	*e*Pn	**Pn**	**09 25 37.0**	**+6.0**
IKRD				*e*		09 25 52.3	
	comp=Z,389nm,0.5s						
ISFR	**Esferayen**	**9.48**	**7**	Pn	**Pn**	**09 25 36.7**	**+3.0**
IRAZ	**Razeghan**	**9.60**	**326**	Pn	**Pn**	**09 25 35.7**	**+0.4**
IRAZ	**Razeghan**	**9.60**	**326**	*e*Pn	**Pn**	**09 25 35.8**	**+0.5**
IRAZ				*e*		09 27 59.5	
	comp=Z,1µm,0.3s						
IRAZ	**Razeghan**	**9.60**	**326**	*e*Pn	**Pn**	**09 25 35.8**	**+0.5**
ISHV	**Shirvan**	**9.94**	**5**	Pn	**Pn**	**09 25 42.7**	**+2.7**
IKOM	**Komasi**	**10.14**	**312**	Pn	**Pn**	**09 25 43.3**	**+0.5**
IKOM	**Komasi**	**10.14**	**312**	*e*Pn	**Pn**	**09 25 43.4**	**+0.6**
IKOM				*e*		09 27 38.4	
	comp=N,7µm,0.3s						
IKOM	**Komasi**	**10.14**	**312**	*e*Pn	**Pn**	**09 25 43.4**	**+0.6**
IVIS	**Veys**	**10.79**	**312**	Pn	**Pn**	**09 25 51.6**	**-0.1**
IVIS	**Veys**	**10.79**	**312**	Pn	**Pn**	**09 25 51.6**	**-0.1**
ASYS		**10.83**	**272**	P	**Pn**	**09 25 49.5**	**-2.8**
ASYS				S	**Sn**	**09 27 45.3**	**-7.6**
ASYS		**10.83**	**272**	P	**Pn**	**09 25 49.5**	**-2.8**
BHD	**Baghdad**	**11.91**	**301**	*e*Pn	**Pn**	**09 26 05.0**	**-2.0**
SBDP	**Sheikh Budin**	**13.21**	**66**	P	**Pn**	**09 26 25.6**	**+0.8**
THW	**Thamme Wali**	**14.11**	**65**	P	**Pn**	**09 26 38.5**	**+1.4**
CUKT	**Cukurca**	**14.53**	**315**	*e*P	**Pn**	**09 26 40.0**	**-2.8**
HKR	**Hakkari**	**14.65**	**316**	*e*P	**Pn**	**09 26 41.1**	**-3.3**
CLDR	**Caldiran**	**15.58**	**321**	*e*P	**Pn**	**09 26 59.3**	**+2.5**
CHCP	**Chirah Chowk**	**15.59**	**63**	P	**Pn**	**09 27 00.0**	**+3.1**
AGRB	**Hanur-Agry**	**16.40**	**320**	*e*P	**Pn**	**09 27 10.1**	**+2.8**
EZM	**Erzurum**	**17.57**	**318**	*e*P	**Pn**	**09 27 24.4**	**+2.5**
ASF	**Jabal al Asfar**	**17.63**	**290**	P	**Pn**	**09 27 20.6**	**-2.2**
	comp=N,2.5nm,0.3s,baz=305,slow=10,SNR=18						
PTK	**Pertek**	**18.20**	**313**	*e*P	**Pn**	**09 27 30.6**	**+0.9**
NDI	**New Delhi**	**18.26**	**82**	*e*P	**Pn**	**09 27 26.0**	**-4.6**
ZEI	**Tsey**	**18.28**	**329**	*e*P	**Pn**	**09 27 33.3**	**+2.6**
MALT	**Malatya**	**18.54**	**310**	*e*P	**Pn**	**09 27 34.8**	**+0.9**
	comp=N,46nm,0.7s						
MALT	**Malatya**	**18.54**	**310⇑**	*i*P	**Pn**	**09 27 35.7**	**+1.8**
MALT	**Malatya**	**18.54**	**310**	*e*P	**Pn**	**09 27 34.8**	**+0.9**
	comp=N,46nm,0.7s						
MYA	**Malataya**	**18.55**	**310**	*e*P	**Pn**	**09 27 34.5**	**+0.5**
HMDT	**Nahal Hemdat**	**18.79**	**289**	P	**Pn**	**09 27 37.5**	**+0.6**
MZDA	**Masada**	**18.81**	**286**	P	**Pn**	**09 27 37.9**	**+0.7**
KSDI	**Kefar Szold**	**18.84**	**292**	P	**Pn**	**09 27 37.8**	**+0.2**
GAZ	**Gaziantep**	**18.88**	**305**	*e*P	**Pn**	**09 27 38.7**	**+0.7**
ZFRI	**Zfri**	**18.90**	**284**	P	**Pn**	**09 27 38.9**	**+0.6**
MMLI	**Mount Malkishu**	**18.91**	**290**	P	**Pn**	**09 27 38.6**	**+0.2**
MMAI	**Mount Meron Ar**	**19.02**	**292**	P	**Pn**	**09 27 39.6**	**-0.1**
	comp=N,3.8nm,0.3s,baz=98,slow=18,SNR=28						
YTIR	**Yattir**	**19.02**	**286**	P	**Pn**	**09 27 41.0**	**+1.2**
GUMT	**Gumushane**	**19.04**	**317**	*e*P	**Pn**	**09 27 41.5**	**+1.6**
PRNI	**Paran**	**19.04**	**283**	P	**Pn**	**09 27 41.0**	**+1.0**
EIL	**Elat**	**19.06**	**281**	P	**Pn**	**09 27 40.5**	**+0.2**
	comp=N,1.7nm,0.3s,baz=91,slow=3.6,SNR=20						
EIL	**Elat**	**19.06**	**281**	P	**Pn**	**09 27 40.4**	**+0.1**
KK31	**Karatay Array**	**19.15**	**33**	*i* P	**Pn**	**09 27 39.5**	**-1.7**
KK31				pmax	pmax		
	comp=Z,9.0nm,0.5s						
KK31	**Karatay Array**	**19.15**	**33**	*i* P	**Pn**	**09 27 39.5**	**-1.7**
	comp=Z,9.0nm,0.5s						

KKAR	**Karatay Array**	19.15	33	*i* P	Pn	09 27 39.5	-1.7
KKAR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
KKAR	**Karatay Array**	19.15	33	*i* P	Pn	09 27 39.5	-1.7
	comp=Z,4.0nm,0.5s						
HTY	**Hatay**	19.27	301	*e*P	Pn	09 27 43.5	+0.8
OFRI	**‘Ofer**	19.30	290	P	Pn	09 27 43.4	+0.3
KZIT	**Kziot**	19.60	285	P	Pn	09 27 46.4	-0.3
KIV	**Kislovodsk**	19.76	329	*e*P	Pn	09 27 48.5	+0.1
	comp=Z,39nm,0.8s						
KIV	**Kislovodsk**	19.76	329	*e*P	Pn	09 27 48.2	-0.3
KIV				pmax	pmax		
	comp=Z,52nm,1.0s						
KIV	**Kislovodsk**	19.76	329	*e*P	Pn	09 27 48.2	-0.3
	comp=Z,52nm,1.0s						
AML	**Almayashu**	20.13	40	P	P	09 27 51.0	0.0
	SNR=24						
AML	**Almayashu**	20.13	40	*e*P	P	09 27 50.5	-0.4
	comp=Z,29nm,0.7s						
AML	**Almayashu**	20.13	40	*e*P	P	09 27 50.5	-0.5
	comp=Z,29nm,0.7s						
SVSK	**Karacayir**	20.31	312	*e*P	P	09 27 55.2	+2.2
ATD	**Arta Tunnel**	20.53	221	P	P	09 27 57.2	+1.7
	comp=Z,12nm,0.5s,baz=312,slow=22,SNR=5.8						
EKS2	**Erkin-Say**	20.53	39	P	P	09 27 55.8	+0.5
	SNR=28						
EKS2	**Erkin-Say**	20.53	39	*e*P	P	09 27 55.3	0.0
	comp=Z,44nm,0.8s						
EKS2	**Erkin-Say**	20.53	39	*e*P	P	09 27 55.3	0.0
	comp=Z,44nm,0.8s						
UCH	**Uchtor**	20.66	40	P	P	09 27 56.8	+0.1
	SNR=14						
UCH	**Uchtor**	20.66	40	*e*P	P	09 27 56.4	-0.3
	comp=Z,22nm,1.2s						
AAK	**Ala-Archa**	20.91	40	P	P	09 28 00.0	+0.6
	SNR=16						
AAK	**Ala-Archa**	20.91	40	*e*P	P	09 27 58.6	-0.8
	comp=Z,16nm,0.7s						
AAK	**Ala-Archa**	20.91	40*c*	*i*P	P	09 27 58.5	-0.9
AAK				pmax	pmax		
	comp=Z,21nm,1.0s						
AAK	**Ala-Archa**	20.91	40	*i* P	P	09 27 58.5	-0.9
	comp=Z,21nm,1.0s						
SOC	**Sochi**	20.94	324	*e*P	P	09 27 59.4	-0.3
SOC				*e*S	S	09 31 48.3	-3.7
SOC				*e*SS		09 32 12.9	
SOC				pmax	pmax		
	comp=Z,41nm,0.7s						
SOC	**Sochi**	20.94	324	*e*P	P	09 27 59.4	-0.3
	comp=Z,41nm,0.7s						
SOC				*e*S	S	09 31 48.3	-3.7
KZA	**Kyzart**	21.00	42	P	P	09 28 02.1	+1.7
	SNR=23						
FRU	**Bishkek**	21.11	39	*e*P	P	09 28 07.0	+5.5
NIG	**Nigde**	21.14	305	*e*P	P	09 28 04.3	+2.4
NIG	**Nigde**	21.14	305	*e*P	P	09 28 04.3	+2.3
USP	**Ospenovka**	21.32	38	P	P	09 28 02.6	-1.3
	SNR=9.1						
TKM2	**Tokmak 2**	21.72	40	P	P	09 28 08.1	-0.1
	SNR=7.0						
TKM2	**Tokmak 2**	21.72	40	*e*P	P	09 28 07.5	-0.6
	comp=Z,15nm,0.8s,mb4.5						
TKM2	**Tokmak 2**	21.72	40	*e*P	P	09 28 07.5	-0.6
TKM2				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.5						
TKM2	**Tokmak 2**	21.72	40	*e*P	P	09 28 07.5	-0.6
	comp=Z,15nm,0.8s,mb4.5						
AB31	**Akbulak array**	21.76	6	P	P	09 28 08.3	-0.2
AB31				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb4.5						
AB31	**Akbulak array**	21.76	6	P	P	09 28 08.3	-0.2
	comp=Z,8.0nm,0.4s,mb4.5						
KAMT	**Kaman**	22.30	308	*e*P	P	09 28 14.9	+0.6
BR131	**Keskin Array S**	22.50	308	*e*P	P	09 28 17.2	+0.8
	comp=Z,25nm,0.5s,mb4.9						
BR131				*e*pP		09 28 22.8	
BR131	**Keskin Array S**	22.50	308	*e*P	P	09 28 17.2	+0.7
	comp=Z,25nm,0.5s,mb4.9						
BR131				*e*pP		09 28 22.8	
BRTR	**Keskin Array B**	22.50	308	P	P	09 28 17.1	+0.7
	comp=Z,27nm,0.8s,mb4.8,baz=126,slow=12,SNR=83						
BRTR	**Keskin Array B**	22.50	308	P	P	09 28 17.1	+0.6
AKTK	**Aktyubinsk**	22.81	2	P	P	09 28 19.8	+0.1
AKTK	**Aktyubinsk**	22.81	2	P	P	09 28 19.8	+0.1
AKTO	**Aktyubinsk**	22.81	2	P	P	09 28 19.8	+0.1
	comp=Z,86nm,0.7s,mb5.3,baz=182,slow=9.7,SNR=155						
TOS	**Tosya**	22.84	312	*e*P	P	09 28 20.9	+0.9
ANN	**Anapa**	22.97	323	*e*P	P	09 28 21.8	+0.4
ANN				*e**PP		09 28 36.8	
ANN				*e*S	S	09 32 30.2	-0.2
ANN				pmax	pmax		
	comp=Z,111nm,1.3s,mb5.1						
ANN	**Anapa**	22.97	323	*e*P	P	09 28 21.8	+0.4
	comp=Z,111nm,1.3s,mb5.1						
ANTO	**Ankara**	23.15	308	*e*P	P	09 28 24.0	+0.6
	comp=Z,59nm,0.6s,mb5.2						
ANTO				*e*pP		09 28 30.9	
ANTO	**Ankara**	23.15	308	*e*P	P	09 28 24.0	+0.7
ANTO				*e**PP		09 28 30.9	
ANTO				pmax	pmax		
	comp=Z,59nm,0.6s,mb5.2						
ANTO	**Ankara**	23.15	308	⇑*i*P	P	09 28 24.1	+0.8
ANTO	**Ankara**	23.15	308	*e*P	P	09 28 24.0	+0.7
	comp=Z,59nm,0.6s,mb5.2						
KIZT	**Kizilcal**	23.42	305	*e*P	P	09 28 26.5	+0.4
ISP	**Isparta**	24.09	302	*e*P	P	09 28 32.8	+0.4
	comp=Z,34nm,0.6s,mb5.0						
ISP	**Isparta**	24.09	302	*i* P	P	09 28 32.3	-0.1
MDU	**Mudurnu**	24.50	308	*e*P	P	09 28 36.8	+0.7
SIM	**Simferopol’**	24.89	320	P	P	09 28 39.6	0.0
SIM				pmax	pmax		
	comp=Z,26nm,0.8s,mb4.8						
SIM	**Simferopol’**	24.89	320	P	P	09 28 39.6	0.0
	comp=Z,26nm,0.8s,mb4.8						
GULT	**Gulveren**	24.97	307	*e*P	P	09 28 41.7	+1.2
ARG	**Arkhangelos**	25.53	297	P	P	09 28 45.8	+0.2
IZI	**Iznik**	25.68	307	*e*P	P	09 28 48.3	+1.5
BNT	**Bandirma**	26.80	306	*e*P	P	09 28 57.4	+0.5
BLCB	**Balcova**	26.87	301	P	P	09 28 59.4	+1.8
BRVK	**Borovoye**	27.39	18	*e*P	P	09 29 01.8	-0.4
	comp=Z,12nm,0.8s,mb4.5						
BRVK				*e*pP	pP	09 29 14.5	+5.7
BRVK	**Borovoye**	27.39	18	*e*P	P	09 29 01.8	-0.3
BRVK				*e**PP	pP	09 29 14.5	+5.7
BRVK				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.5						
BRVK	**Borovoye**	27.39	18	*e*P	P	09 29 01.8	-0.3
	comp=Z,12nm,0.8s,mb4.5						
LAST	**Lasithi**	27.49	294	P	P	09 29 04.9	+1.7
APE	**Apeiranthos**	27.75	298	⇑P	P	09 29 05.8	+0.3
APE	**Apeiranthos**	27.75	298	⇑*i*P	P	09 29 05.8	+0.3
MK31	**Makanchi Array**	27.85	40	*e*P	P	09 29 06.2	-0.2
MK31	**Makanchi Array**	27.85	40	*e*P	P	09 29 06.2	-0.1
MKAR	**Makanchi Array**	27.85	40	P	P	09 29 06.1	-0.2
	comp=Z,2.2nm,0.6s,mb4.0,baz=226,slow=7.9,SNR=28						
MKAR				PcP	PcP	09 32 21.1	-0.7
	comp=Z,1.4nm,0.7s,baz=235,slow=1.4,SNR=3.9						
IDI	**Anoyia**	27.98	294	P	P	09 29 08.8	+1.1
	comp=Z,25nm,0.7s,mb5.0,baz=99,slow=7.6,SNR=19						
KURK	**Kurchatov**	28.51	30*c*	*i*P	P	09 29 12.0	-0.2
KURK	**Kurchatov**	28.51	30	*e*P	P	09 29 11.6	-0.6
	comp=Z,18nm,0.9s,mb4.8						
ARU	**Arti**	28.83	2	P	P	09 29 14.3	-0.6
	comp=Z,11nm,0.3s,mb5.1						
ARU	**Arti**	28.83	2*d*	*i*P	P	09 29 15.5	+0.6
ARU				*e*		09 30 04.9	
ARU				S	S	09 34 00.4	-3.1
ARU				*e*SS	SS	09 35 25.5	-40
ARU				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.3						
ARU	**Arti**	28.83	2	P	P	09 29 14.4	-0.5
	comp=Z,11nm,0.3s,mb5.1						
ARU				S	S	09 34 00.4	-3.1
AOS	**Alonnisos**	29.45	301	P	P	09 29 21.8	+1.1
WMQ	**Urumqi**	29.79	49	P	P	09 29 25.1	+1.5
WMQ				PP	PP	09 30 24.1	-6.9
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.5						
XOR	**Xorichti**	30.02	302	P	P	09 29 26.6	+0.9
MLR	**Muntele Rosu**	30.12	314	P	P	09 29 27.0	+0.5
	comp=Z,5.1nm,0.7s,mb4.4,baz=5.9,slow=7.9,SNR=12						
MLR	**Muntele Rosu**	30.12	314	⇑*i*P	P	09 29 28.1	+1.6
SRS	**Serrai**	30.16	305	P	P	09 29 28.0	+1.1
SOH	**Sokhos**	30.25	304	P	P	09 29 28.9	+1.1
LSA	**Lhasa**	30.37	78	*e*P	P	09 29 29.1	+0.2
HORT	**Hortiatis**	30.38	304	P	P	09 29 30.2	+1.3
ITM	**Ithomi**	30.61	297	P	P	09 29 31.0	+0.1
VOIR		30.67	314	⇑P	P	09 29 32.3	+1.0
VOIR		30.67	314	⇑*i*P	P	09 29 32.3	+1.0
LIT	**Litokhoron**	30.71	303	P	P	09 29 32.3	+0.5
VTS	**Vitosha**	30.87	308	⇑P	P	09 29 34.4	+1.3
VTS	**Vitosha**	30.87	308	⇑*i*P	P	09 29 34.4	+1.2
GRG	**Griva**	30.99	304	P	P	09 29 34.9	+0.7
AKASG	**Malin Array Be**	31.00	325	P	P	09 29 33.7	-0.5
AKASG				PcP	PcP	09 32 28.5	-1.3
AKASG	**Malin Array Be**	31.00	325	P	P	09 29 33.7	-0.5
	comp=Z,26nm,0.6s,mb5.2,baz=132,slow=8.4,SNR=141						
AKASG				PcP	PcP	09 32 28.5	-1.3
	comp=Z,1.8nm,0.6s,baz=88,slow=2.2,SNR=6.7						
AKASG	**Malin Array Be**	31.00	325	PcP	PcP	09 32 28.5	-1.3
AKBB	**Malin Array Si**	31.00	325	*e*P	P	09 29 33.6	-0.6
AKBB	**Malin Array Si**	31.00	325	*e*P	P	09 29 33.6	-0.6
KIEV	**Kiev**	31.00	325	*e*P	P	09 29 33.6	-0.6
	comp=Z,57nm,0.7s,mb5.5						
KIEV	**Kiev**	31.00	325	*e*P	P	09 29 33.6	-0.6
KIEV				pmax	pmax		
	comp=Z,57nm,0.7s,mb5.5						
KIEV	**Kiev**	31.00	325	*e*P	P	09 29 33.6	-0.6
	comp=Z,57nm,0.7s,mb5.5						
OBN	**Obninsk**	31.07	338	*e*P	P	09 29 34.9	+0.1
	comp=Z,14nm,0.4s,mb5.2						
OBN				*e*pP	pP	09 29 41.1	-0.3
OBN	**Obninsk**	31.07	338	⇓*i*P	P	09 29 35.1	+0.3
OBN				*i*	pP	09 29 41.2	-0.3
OBN				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.2						
OBN	**Obninsk**	31.07	338	*e*P	P	09 29 34.9	+0.1
	comp=Z,14nm,0.4s,mb5.2						
OBN				*e*pP	pP	09 29 41.1	-0.4
KMPD	**K-Podol’skiy**	31.27	320	P	P	09 29 36.0	-0.6
BURAR	**Bucovina Array**	31.53	318	⇑P	P	09 29 39.3	+0.3
BURAR	**Bucovina Array**	31.53	318	⇑*i*P	P	09 29 39.3	+0.4
FNA	**Florina**	31.70	304	P	P	09 29 41.2	+0.7
LKD	**Levkas**	31.84	300	P	P	09 29 42.1	+0.4
KRUS	**Krusevo**	31.93	305	*e*P	P	09 29 43.9	+1.4
GZR	**Gura Zlata**	32.12	313	⇑*i*P	P	09 29 44.5	+0.4
OHR	**Ohrid**	32.20	304	*e*P	P	09 29 44.6	-0.3
OHR	**Ohrid**	32.20	304	P	P	09 29 44.7	-0.2
DRGR		32.71	315	P	P	09 29 49.5	+0.2
BZS	**Buzias**	32.96	312	⇓P	P	09 29 52.0	+0.5
BZS	**Buzias**	32.96	312	⇓*i*P	P	09 29 52.0	+0.5
NVS	**Novosibirsk**	33.41	28	⇓*i*P	P	09 29 55.1	-0.2
NVS				*i* S	S	09 35 15.1	0.0
NVS				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.2						
NVS				pmax	pmax		
	comp=N,18nm,0.9s						
NVS				pmax	pmax		
	comp=E,9.0nm,0.8s						
NVS				smax			
	comp=N,33nm,1.5s						
NVS	**Novosibirsk**	33.41	28	*i* P	P	09 29 55.1	-0.2
	comp=N,18nm,0.9s,mb5.0						
NVS				*i* S	S	09 35 15.1	0.0
	comp=N,33nm,1.5s						
ZAL	**Zalesovo**	33.48	30	P	P	09 29 55.5	-0.5
ZAL						09 32 35.5	
ZAL	**Zalesovo**	33.48	30	PcP	PcP	09 32 35.5	-1.1
ZALV	**Zalesovo Beam**	33.50	30	P	P	09 29 55.5	-0.6
	comp=N,19nm,0.3s,mb5.4,baz=244,slow=9.2,SNR=160						
ZALV				PcP	PcP	09 32 35.4	-1.2
	comp=N,1.6nm,0.5s,baz=234,slow=3.3,SNR=3.5						
KOLS	**Kolonicke sedl**	33.88	318	*i* P	P	09 30 00.8	+1.3
KOLS				*i*		14 49 52.1	
KWP	**Kalwaria**	33.95	320	*e*P	P	09 30 00.5	+0.5
KMBO	**Kilima Mbogo**	34.07	216	*e*P	P	09 30 03.3	+1.8
	comp=N,12nm,1.0s,mb4.8						
KMBO	**Kilima Mbogo**	34.07	216	P	P	09 30 03.8	+2.3
KMBO						09 32 39.9	
KMBO				pmax	pmax		
	comp=Z,12nm,1.0s						
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.2s						
KMBO	**Kilima Mbogo**	34.07	216	P	P	09 30 03.8	+2.3
	comp=Z,12nm,1.0s,mb4.8,baz=35,slow=12,SNR=22						
KMBO				PcP	PcP	09 32 39.9	+1.0
	comp=Z,0.8nm,0.2s,baz=228,slow=23,SNR=3.9						
KMBO	**Kilima Mbogo**	34.07	216	*e*P	P	09 30 03.3	+1.8
	comp=Z,12nm,1.0s,mb4.8						
KECS	**Kecovo**	34.77	317	*i* P	P	09 30 09.3	+2.2
	comp=Z,2.3nm,0.7s,mb4.2						
KECS				*i* PP	PP	09 31 25.8	-0.2
KECS	**Kecovo**	34.77	317	*i* P	P	09 30 09.3	+2.2
KECS				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
PRGR	**Permogore**	34.79	351	*e*P	P	09 30 05.6	-1.6
PRGR				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
PRGR	**Permogore**	34.79	351	*e*P	P	09 30 05.6	-1.6
	comp=Z,6.0nm,0.7s,mb4.6						
TIP	**Timpagrande**	34.91	300	*e*P	P	09 30 08.7	+0.2
TIP	**Timpagrande**	34.91	300	*e*P	P	09 30 08.7	+0.2
PSZ	**Piszkesteto**	34.91	315	*e*P	P	09 30 08.4	0.0
	comp=Z,5.6nm,0.7s,mb4.6						
PSZ	**Piszkesteto**	34.91	315	⇓*i*P	P	09 30 08.8	+0.4
PSZ	**Piszkesteto**	34.91	315	*e*P	P	09 30 08.4	0.0
	comp=Z,5.6nm,0.7s,mb4.6						
PKSM	**Moragy**	35.12	312	⇑P	P	09 30 10.4	+0.2
PKSM	**Moragy**	35.12	312	⇑*i*P	P	09 30 10.4	+0.2
VYHS	**Vyhne**	35.78	316	*i* P	P	09 30 16.3	+0.4
VYHS				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
VYHS	**Vyhne**	35.78	316	*i* P	P	09 30 16.3	+0.4
	comp=Z,1.8nm,0.8s,mb4.0						
OJC	**Ojcow**	35.89	319	*e*P	P	09 30 16.8	0.0
SUW	**Suwalki**	35.94	326	*e*P	P	09 30 17.4	+0.2
KOLL	**Kolacno**	36.08	316	*i* P	P	09 30 19.3	+0.8
JAVC	**Velka Javorina**	36.63	316	P	P	09 30 24.6	+1.4
OKC	**Ostrava-Krasne**	36.71	318	*e*P	P	09 30 23.4	-0.4
ZST	**Bratislava**	36.76	315	*e*P	P	09 30 24.9	+0.7
ZST				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.9						
ZST	**Bratislava**	36.76	315	*e*P	P	09 30 24.9	+0.7
	comp=Z,11nm,0.6s,mb4.9						
KOGS	**Kog**	36.77	312	*i* P	P	09 30 24.5	+0.1
SOP	**Sopron**	36.94	314	P	P	09 30 25.0	-0.8
MORC	**Moravsky Berou**	37.05	317	*e*P	P	09 30 26.3	-0.4
	comp=Z,6.5nm,0.8s,mb4.5						
MORC	**Moravsky Berou**	37.05	317	⇑*i*P	P	09 30 26.4	-0.3
MORC	**Moravsky Berou**	37.05	317	*e*P	P	09 30 26.3	-0.4
	comp=Z,6.5nm,0.8s,mb4.5						
GOLS	**Golise**	37.06	311	*i* P	P	09 30 26.4	-0.4
VSU	**Vasula**	37.16	334	P	P	09 30 28.6	+1.1
BOJS	**Bojanci**	37.19	310	*i* P	P	09 30 28.1	+0.1
VRAC	**Vranov**	37.46	316	P	P	09 30 30.6	+0.5
	comp=Z,12nm,0.8s,mb4.8,baz=126,slow=6.7,SNR=9.0						
VRAC	**Vranov**	37.46	316	⇑*i*P	P	09 30 30.3	+0.1
CONA	**Conrad Observa**	37.46	314	⇑*i*P	P	09 30 30.1	-0.1
	comp=Z,15nm,1.1s,mb4.7						
ARSA	**Arzberg**	37.48	313	⇓*i*P	P	09 30 30.7	+0.3
	comp=Z,13nm,0.7s,mb4.9						
KRUC	**Moravsky**	37.49	316	P	P	09 30 30.1	-0.4
GTA	**Gaotai**	37.62	60	⇑P	P	09 30 31.3	-0.3
GTA				PP	PP	09 32 01.3	+3.7
GTA				PPP		09 32 23.8	
GTA				S	S	09 36 15.3	-4.8
GTA				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.5						
GTA				AMB	AMB		
	comp=Z,328nm,6.5s						
GTA				LR	LR		
	comp=N,1µm,19.8s,MS4.9						
GTA				LR	LR		
	comp=E,1µm,19.8s,MS4.9						
GTA				LR	LR		
	comp=Z,1µm,20.2s,MS4.7						
CEY	**Cerknica**	37.81	310	P	P	09 30 34.2	+1.0
AQU	**L’Aquila**	37.87	304	*e*P	P	09 30 33.6	-0.1
	comp=Z,35nm,0.8s,mb5.1						
AQU	**L’Aquila**	37.87	304	⇓*i*P	P	09 30 34.6	+0.8
AQU	**L’Aquila**	37.87	304	*e*P	P	09 30 33.7	-0.1
	comp=Z,35nm,0.8s,mb5.1						
OBKA	**Obir**	37.91	311	P	P	09 30 37.8	+3.7
DPC	**Dobruska-Polom**	37.99	318	*e*P	P	09 30 34.5	-0.2
JAVS	**Javornik**	38.09	310	*i* P	P	09 30 35.4	-0.1
TREC	**Trest**	38.13	316	*e*P	P	09 30 36.1	+0.2
NRCA	**Norcia**	38.15	305	P	P	09 30 37.0	+0.9
UPC	**Upice**	38.23	318	*e*P	P	09 30 36.7	0.0
VOY	**Vojsko**	38.24	310	*e*P	P	09 30 36.8	0.0
CADS	**Cadrg**	38.39	311	*i* P	P	09 30 37.7	-0.4
MOA	**Molln**	38.46	313	⇑*i*P	P	09 30 38.8	+0.1
	comp=Z,36nm,0.8s,mb5.1						
MYKA	**Terra Mystica**	38.55	311	⇑*i*P	P	09 30 39.7	+0.2
	comp=Z,12nm,0.7s,mb4.7						
PTCC	**Patocco-Chiusa**	38.69	311	P	P	09 30 40.4	-0.2
	comp=Z,30nm,0.6s,mb5.2						
KBA	**Koelnbreinsper**	38.86	312	⇑*i*P	P	09 30 42.3	+0.3
	comp=Z,35nm,0.8s,mb5.1						
KBA	**Koelnbreinsper**	38.86	312	⇑*i*P	P	09 30 42.3	+0.3
KBA				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.1						
PRU	**Pruhonice**	38.94	317	*e*P	P	09 30 41.4	-1.3
JOF	**Joensuu**	38.98	342	*e*p	P	09 30 41.7	-1.1
	comp=Z,4.2nm,0.3s,mb4.7						
JOF	**Joensuu**	38.98	342	*e*P	P	09 30 41.7	-1.1
JOF				pmax	pmax		
	comp=Z,4.0nm,0.3s,mb4.6						
GEC2	**GERESS Array S**	39.11	315	*e*P	P	09 30 43.7	-0.4
GEC2				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
GEC2	**GERESS Array S**	39.11	315	*e*P	P	09 30 43.7	-0.4
	comp=Z,16nm,0.9s,mb4.8						
GERES	**GERESS Array B**	39.11	315	P	P	09 30 43.6	-0.5
	comp=Z,9.9nm,0.7s,mb4.6,baz=115,slow=9.0,SNR=64						
GERES				PcP	PcP	09 32 53.7	+0.2
	comp=Z,2.9nm,0.8s,baz=113,slow=3.5,SNR=5.0						
GERES	**GERESS Array B**	39.11	315	PcP	PcP	09 32 53.7	+0.2
KHC	**Kasperske Hory**	39.27	315	*e*P	P	09 30 45.1	-0.3
KHC				*e*pP	pP	09 30 48.5	-3.7
ABTA	**Abfaltersbach**	39.34	311	⇑*i*P	P	09 30 45.9	-0.1
	comp=Z,22nm,0.7s,mb5.0						
VMG	**Vicchio**	39.46	307	P	P	09 30 48.8	+1.7
	comp=Z,84nm,0.8s,mb5.5						
FIA1	**FINESS Array S**	39.48	337	*e*P	P	09 30 46.6	-0.3
FIA1	**FINESS Array S**	39.48	337	*e*P	P	09 30 46.6	-0.4
FINES	**FINESS Array B**	39.48	337	P	P	09 30 47.0	0.0
FINES	**FINESS Array B**	39.48	337	P	P	09 30 47.0	0.0
	comp=Z,6.9nm,0.4s,mb4.7,baz=139,slow=9.5,SNR=85						
SEST	**Monte Rota**	39.53	311	P	P	09 30 47.8	+0.1
	comp=Z,49nm,0.7s,mb5.3						
BRG	**Berggiesshubel**	39.60	318	*e*P	P	09 30 47.7	-0.4
BRG				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
BRG	**Berggiesshubel**	39.60	318	*e*P	P	09 30 48.1	0.0
	comp=Z,8.0nm,0.8s,mb4.5						
BRG	**Berggiesshubel**	39.60	318	*e*P	P	09 30 47.7	-0.4
	comp=Z,8.3nm,0.8s,mb4.5						
WET	**Wettzell**	39.71	315	*e*P	P	09 30 48.6	-0.5
WET				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.7						
WET	**Wettzell**	39.71	315	*e*P	P	09 30 48.6	-0.5
	comp=Z,12nm,0.7s,mb4.7						
KAF	**Kangasniemi**	39.88	338	*e*p	P	09 30 48.4	-1.9
	comp=Z,4.6nm,0.4s,mb4.6						
KAF	**Kangasniemi**	39.88	338	*e*P	P	09 30 48.4	-1.9
KAF				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.6						
WTTA	**Wattenberg**	40.04	312	⇑*i*P	P	09 30 51.6	-0.3
	comp=Z,52nm,0.6s,mb5.5						
WTTA	**Wattenberg**	40.04	312	⇑*i*P	P	09 30 51.6	-0.2
WTTA				pmax	pmax		
	comp=Z,52nm,0.6s,mb5.4						
WATA	**Walderalm**	40.09	312	⇑*i*P	P	09 30 51.7	-0.6
	comp=Z,19nm,0.9s,mb4.8						
WATA	**Walderalm**	40.09	312	⇑*i*P	P	09 30 51.7	-0.6
WATA				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.8						
NKC	**Novy Kostel**	40.30	316	*e*P	P	09 30 53.0	-1.0
CLL	**Collm**	40.30	318	*i* P	P	09 30 53.4	-0.5
	comp=Z,10.0nm,0.9s,mb4.5						
CLL				*e*pP	pP	09 31 12.0	+11
CLL	**Collm**	40.30	318	*i* P	P	09 30 53.4	-0.5
CLL				*e**PP	pP	09 31 12.0	+11
CLL				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
CLL	**Collm**	40.30	318	*e*P	P	09 30 54.2	+0.3
	comp=Z,10.0nm,0.9s,mb4.5						
ROTZ	**Rotzenmuhle**	40.31	316	*e*P	P	09 30 53.7	-0.4
	comp=Z,12nm,0.8s,mb4.7						
SQTA	**Sankt Quirin**	40.31	311	⇑*i*P	P	09 30 53.4	-0.7
	comp=Z,24nm,0.7s,mb5.1						
SQTA	**Sankt Quirin**	40.31	311	⇑*i*P	P	09 30 53.4	-0.7
SQTA				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.0						
MOTA	**Moosalm**	40.41	312	⇑*i*P	P	09 30 54.0	-0.9
	comp=Z,22nm,0.8s,mb4.9						
MOTA	**Moosalm**	40.41	312	⇑*i*P	P	09 30 54.0	-0.9
MOTA				pmax	pmax		
	comp=Z,22nm,0.8s,mb4.9						
MANZ	**Manzenberg**	40.44	316	*e*P	P	09 30 55.5	+0.4
	comp=Z,4.0nm,0.6s,mb4.3						
FUR	**Furstenfeldbru**	40.48	313	*e*P	P	09 30 55.1	-0.4
FUR				pmax	pmax		
	comp=Z,35nm,0.5s,mb5.3						
FUR	**Furstenfeldbru**	40.48	313	*e*P	P	09 30 55.1	-0.4
	comp=Z,35nm,0.5s,mb5.3						
FETA	**Feichten**	40.59	311	⇑*i*P	P	09 30 56.2	-0.2
	comp=Z,75nm,0.9s,mb5.3						
VSL	**Villasalto**	40.63	299	*e*P	P	09 30 57.8	+0.9
	comp=Z,32nm,0.8s,mb5.0						
VSL	**Villasalto**	40.63	299	*e*P	P	09 30 57.8	+0.9
	comp=Z,32nm,0.8s,mb5.0						
KEST	**Kesra**	40.66	294	P	P	09 30 57.9	+0.7
	comp=Z,5.2nm,0.7s,mb4.2,baz=327,slow=1.5,SNR=11						
RETA	**Reutte**	40.66	312	⇑*i*P	P	09 30 56.1	-0.9
	comp=Z,28nm,0.8s,mb5.0						
BSD	**Bornholm Skovb**	40.67	324	*i* P	P	09 30 55.7	-1.3
BSD				pmax	pmax		
	comp=Z,74nm,0.7s,mb5.4						
BSD	**Bornholm Skovb**	40.67	324	*i* P	P	09 30 55.7	-1.3
	comp=Z,74nm,0.7s,mb5.4						
BRMO	**Bormio**	40.72	310	P	P	09 30 57.8	+0.3
	comp=Z,8.8nm,0.6s,mb4.6						
LZH	**Lanzhou**	40.72	66	*e*P	P	09 30 59.3	+1.6
LZH				PP	PP	09 32 37.5	+5.9
LZH				AMB	AMB		
	comp=Z,23nm,1.5s,mb4.6						
LZH				AMB	AMB		
	comp=Z,83nm,5.7s						
LZH				LR	LR		
	comp=N,405nm,14.5s						
LZH				LR	LR		
	comp=Z,698nm,17.9s,MS4.6						
LZH	**Lanzhou**	40.72	66	*e*P	P	09 30 59.2	+1.5
	comp=Z,23nm,1.5s,mb4.6						
LZH				pP	pP	09 31 19.2	+15
LZH				sP	sP	09 31 28.5	+21
LZH				PP	PP	09 32 37.5	+5.9
LZH				LR	LR		
	comp=Z,700nm,17.9s,MS4.6						
LZH	**Lanzhou**	40.72	66	*e*P	P	09 30 59.2	+1.5
LZH						09 32 37.5	
LZH				pmax	pmax		
	comp=Z,23nm,1.5s,mb4.6						
LZH				MLR	MLR		
	comp=Z,700nm,17.9s,MS4.6						
GRA1	**Grafenberg Arr**	40.91	315	*e*P	P	09 30 58.9	-0.1
	comp=Z,46nm,0.8s,mb5.2						
GRF	**Grafenberg Arr**	40.91	315	*e*P	P	09 30 58.9	-0.1
GRF				pmax	pmax		
	comp=Z,46nm,0.8s,mb5.2						
GRF	**Grafenberg Arr**	40.91	315	*e*P	P	09 30 58.9	-0.1
GRF				pmax	pmax		
	comp=Z,46nm,0.8s,mb5.2						
GRF	**Grafenberg Arr**	40.91	315	*e*P	P	09 30 58.9	-0.1
	comp=Z,46nm,0.8s,mb5.2						
GRFO	**Grafenberg**	40.91	315	*e*P	P	09 30 59.0	0.0
	comp=Z,37nm,0.8s,mb5.1						
GRFO	**Grafenberg**	40.91	315	*e*P	P	09 30 59.0	0.0
GRFO				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.1						
GRFO	**Grafenberg**	40.91	315	*e*P	P	09 30 59.0	0.0
	comp=Z,37nm,0.8s,mb5.1						
MOX	**Moxa**	40.93	317	*e*P	P	09 30 58.7	-0.5
	comp=Z,7.0nm,1.0s,mb4.2						
MOX	**Moxa**	40.93	317	*e*P	P	09 30 59.2	+0.1
MOY	**Mondy**	40.95	42	*e*P	P	09 31 00.3	+1.0
CD2	**Chengdu**	41.08	74	*e*P	P	09 31 00.5	-0.2
CD2				PP	PP	09 32 39.3	+3.7
CD2				S	S	09 37 07.0	-5.4
CD2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.5						
CD2				AMB	AMB		
	comp=Z,180nm,5.8s						
CD2				LR	LR		

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      comp=N,2µm,15.6s
CD2                                LR      LR
      comp=Z,2µm,12.0s,MS5.1
PGF   Pioggiola         41.13 304⇑iP      P       09 30 58.5 -2.4
      comp=Z,17nm,0.6s,mb4.5
PGF   Pioggiola         41.13 304⇑iP      P       09 30 58.5 -2.4
PGF                                pmax    pmax
      comp=Z,9.0nm,0.6s,mb4.6
PGF   Pioggiola         41.13 304⇑iP      P       09 30 58.5 -2.4
      comp=Z,8.5nm,0.6s,mb4.5
DAVA  Damuels           41.21 311⇑iP      P       09 31 01.0 -0.5
      comp=Z,109nm,0.5s,mb5.7
KMI   Kunming           41.28  83  P      P       09 31 02.5 +0.1
KMI                                AMB     AMB
      comp=Z,9.0nm,1.3s,mb4.2
KMI   Kunming           41.28  83  P      P       09 31 02.5 +0.1
      comp=Z,9.0nm,1.3s,mb4.2
TUE   Stuetta           41.41 310  P      P       09 31 02.7 -0.5
VAI   Varese            41.71 309  P      P       09 31 04.5 -1.2
ZAK   Zakamensk         41.96  44⇑iP      P       09 31 07.7 +0.1
ZAK                                pmax    pmax
      comp=Z,2.0nm,1.4s
ZAK   Zakamensk         41.96  44 i P     P       09 31 07.7 +0.1
      comp=Z,2.0nm,1.4s
CLZ   Clausthal         42.02 318 eP      P       09 31 08.7 +0.6
CLZ                                pmax    pmax
      comp=Z,19nm,0.9s,mb4.7
CLZ   Clausthal         42.02 318 eP      P       09 31 08.7 +0.6
      comp=Z,19nm,0.9s,mb4.7
COP   Copenhagen        42.20 324 i P     P       09 31 10.7 +1.2
APA   Apatity           42.36 347⇑iP      P       09 31 10.8 +0.2
APA                                pmax    pmax
      comp=Z,18nm,1.0s,mb4.7
APA                                MLR     MLR
      comp=Z,2µm,17.0s,MS5.0
APA   Apatity           42.36 347 i P     P       09 31 10.8 +0.2
      comp=Z,2µm,17.0s
NRDL  Niedersach Rie    42.38 319 eP      P       09 31 11.5 +0.5
      comp=Z,21nm,1.1s,mb4.7
SBF   Sospel            42.39 306⇑iP      P       09 31 10.5 -0.8
      comp=Z,74nm,0.7s,mb5.1
SBF   Sospel            42.39 306⇑iP      P       09 31 10.5 -0.8
SBF                                pmax    pmax
      comp=Z,37nm,0.7s,mb5.1
SBF   Sospel            42.39 306⇑iP      P       09 31 10.5 -0.8
      comp=Z,37nm,0.7s,mb5.1
BFO   Black Forest      42.44 312 eP      P       09 31 10.7 -0.9
BFO                                pmax    pmax
      comp=Z,38nm,2.0s,mb4.7
BFO   Black Forest      42.44 312 eP      P       09 31 10.7 -0.9
      comp=Z,38nm,2.0s,mb4.7
TLY   Talaya            42.53  42 eP      P       09 31 11.3 -0.9
      comp=Z,3.2nm,0.3s,mb4.5
TLY   Talaya            42.53  42 eP      P       09 31 11.3 -0.9
TLY                                pmax    pmax
      comp=Z,3.0nm,0.3s,mb4.5
TLY   Talaya            42.53  42 eP      P       09 31 11.3 -0.9
      comp=Z,3.0nm,0.3s,mb4.5
DOI   San Damiano       42.59 307  P      P       09 31 10.9 -2.0
BSEG  Bad Segeberg      42.71 321 eP      P       09 31 14.0 +0.3
BSEG                               pmax    pmax
      comp=Z,15nm,1.0s,mb4.7
BSEG  Bad Segeberg      42.71 321 eP      P       09 31 14.0 +0.3
      comp=Z,15nm,1.0s,mb4.7
TNS   Taunus Mts        42.77 315 eP      P       09 31 14.4 +0.2
TNS                                pmax    pmax
      comp=Z,28nm,1.3s,mb4.8
TNS   Taunus Mts        42.77 315 eP      P       09 31 14.4 +0.2
      comp=Z,28nm,1.3s,mb4.8
FRF   La Foret Royal    42.94 305 eP      P       09 31 14.6 -1.1
      comp=Z,5.9nm,0.6s,mb4.2
FRF   La Foret Royal    42.94 305 eP      P       09 31 14.6 -1.1
FRF                                pmax    pmax
      comp=Z,3.0nm,0.6s,mb4.2
FRF   La Foret Royal    42.94 305 eP      P       09 31 14.6 -1.1
      comp=Z,3.0nm,0.6s,mb4.2
MBDF  Montbardon        42.96 307⇑iP      P       09 31 14.8 -1.0
      comp=Z,29nm,0.7s,mb4.8
MBDF  Montbardon        42.96 307⇑iP      P       09 31 14.8 -1.0
MBDF                               pmax    pmax
      comp=Z,14nm,0.7s,mb4.8
MBDF  Montbardon        42.96 307⇑iP      P       09 31 14.8 -1.0
      comp=Z,14nm,0.7s,mb4.8
LMR   La Mourre         43.02 305 eP      P       09 31 15.1 -1.2
BNI   Bardonecchia      43.06 307 eP      P       09 31 15.7 -1.0
      comp=Z,15nm,0.7s,mb4.8
BNI   Bardonecchia      43.06 307 eP      P       09 31 15.7 -0.9
BNI                                pmax    pmax
      comp=Z,15nm,0.7s,mb4.8
BNI   Bardonecchia      43.06 307 eP      P       09 31 15.7 -0.9
      comp=Z,15nm,0.7s,mb4.8
LPG   La Plagne         43.06 308 eP      P       09 31 15.7 -0.9
      comp=Z,33nm,0.6s,mb4.9
LPG   La Plagne         43.06 308 eP      P       09 31 15.7 -0.9
LPG                                pmax    pmax
      comp=Z,17nm,0.6s,mb5.0
LPG   La Plagne         43.06 308 eP      P       09 31 15.7 -0.9
      comp=Z,17nm,0.6s,mb4.9
LPL   La Plagne         43.08 308 eP      P       09 31 15.8 -1.0
      comp=Z,32nm,0.6s,mb4.9
LPL   La Plagne         43.08 308 eP      P       09 31 15.8 -1.0
LPL                                pmax    pmax
      comp=Z,16nm,0.6s,mb4.9
LPL   La Plagne         43.08 308 eP      P       09 31 15.8 -1.0
      comp=Z,16nm,0.6s,mb4.9
CDF   Champ du Feu      43.15 312 eP      P       09 31 15.9 -1.4
      comp=Z,26nm,0.9s,mb4.7
CDF   Champ du Feu      43.15 312 eP      P       09 31 15.9 -1.4
CDF                                pmax    pmax
      comp=Z,13nm,0.9s,mb4.7
CDF   Champ du Feu      43.15 312 eP      P       09 31 15.9 -1.4
      comp=Z,13nm,0.9s,mb4.7
HINF  Hinteralfeld      43.32 311⇑iP      P       09 31 17.4 -1.3
      comp=Z,18nm,0.8s,mb4.6
HINF  Hinteralfeld      43.32 311⇑iP      P       09 31 17.4 -1.3
HINF                               pmax    pmax
      comp=Z,9.0nm,0.8s,mb4.5
HINF  Hinteralfeld      43.32 311⇑iP      P       09 31 17.4 -1.3
      comp=Z,8.8nm,0.8s,mb4.6
SONM  Songino Array     43.43  49  P      P       09 31 19.8 +0.2
      comp=Z,2.6nm,0.8s,mb4.0,baz=259,slow=8.4,SNR=24
HFA0  Hagfors New Ar    43.56 330  P      P       09 31 19.7 -0.7
ORIF  Oris-en-Rattie    43.61 307 eP      P       09 31 20.2 -0.9
      comp=Z,26nm,0.9s,mb4.7
ORIF  Oris-en-Rattie    43.61 307 eP      P       09 31 20.2 -0.9
ORIF                               pmax    pmax
      comp=Z,13nm,0.9s,mb4.7
ORIF  Oris-en-Rattie    43.61 307 eP      P       09 31 20.2 -0.9
      comp=Z,13nm,0.9s,mb4.6
CABF  La Chapelle       43.66 310⇑iP      P       09 31 21.0 -0.5
      comp=Z,44nm,0.7s,mb5.0
CABF  La Chapelle       43.66 310⇑iP      P       09 31 21.0 -0.5
CABF                               pmax    pmax
      comp=Z,22nm,0.7s,mb5.0
CABF  La Chapelle       43.66 310⇑iP      P       09 31 21.0 -0.5
      comp=Z,22nm,0.7s,mb5.0
HAU   Haudompre         43.69 312 eP      P       09 31 20.3 -1.4
      comp=Z,28nm,0.6s,mb4.8
HAU   Haudompre         43.69 312 eP      P       09 31 20.3 -1.4
HAU                                pmax    pmax
      comp=Z,14nm,0.6s,mb4.9
HAU   Haudompre         43.69 312 eP      P       09 31 20.3 -1.4
      comp=Z,14nm,0.6s,mb4.8
SMRF  Simiane la Rot    43.74 306 eP      P       09 31 21.5 -0.7
      comp=Z,5.3nm,0.6s,mb4.1
SMRF  Simiane la Rot    43.74 306 eP      P       09 31 21.5 -0.7
      comp=Z,2.7nm,0.6s,mb4.1
BUG   Bochum--Univer    43.78 317 eP      P       09 31 23.0 +0.6
      comp=Z,34nm,1.2s,mb5.0
ULN   Ulaanbaatar       43.87  49 eP      P       09 31 22.9 -0.2
      comp=Z,3.7nm,0.8s,mb4.2
ULN   Ulaanbaatar       43.87  49 eP      P       09 31 23.0 -0.1
ULN                                pmax    pmax
      comp=Z,4.0nm,0.8s,mb4.2
ULN   Ulaanbaatar       43.87  49 eP      P       09 31 23.0 -0.1
      comp=Z,4.0nm,0.8s,mb4.2
WLF   Walferdange       44.10 314 eP      P       09 31 24.8 -0.2
      comp=Z,14nm,0.7s,mb4.8
WLF   Walferdange       44.10 314 eP      P       09 31 24.8 -0.2
WLF                                pmax    pmax
      comp=Z,14nm,0.7s,mb4.8
WLF   Walferdange       44.10 314  P      P       09 31 25.0  0.0
      comp=Z,10nm,0.9s,mb4.6
WLF   Walferdange       44.10 314 eP      P       09 31 24.9 -0.1
      comp=Z,25nm,0.9s,mb4.9
WLF   Walferdange       44.10 314 eP      P       09 31 24.8 -0.2
      comp=Z,14nm,0.7s,mb4.8
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MUD   Monsted U'grnd    44.18 324 i P     P       09 31 26.1 +0.6
MUD                                pmax    pmax
      comp=Z,24nm,0.8s,mb5.0
MUD   Monsted U'grnd    44.18 324 i P     P       09 31 26.1 +0.6
      comp=Z,24nm,0.8s,mb5.0
MEM   Membach           44.38 315  P      P       09 31 28.0 +0.9
GYA   Guiyang           44.41  79  P      P       09 31 28.0 +0.3
GYA                                PCP     PcP     09 33 11.8 +0.4
GYA                                PPP             09 33 55.9
GYA                                SCP     ScP     09 36 55.9 -6.3
GYA                                PCS     PcS     09 37 03.8 -1.0
GYA                                S       S       09 37 56.0 -5.4
GYA                                SCS     ScS     09 41 16.8 -8.2
GYA                                AMB     AMB
      comp=Z,20nm,0.8s,mb4.9
GYA                                AMB     AMB
      comp=Z,160nm,5.0s
GYA                                LR      LR
      comp=N,420nm,19.8s,MS4.6
GYA                                LR      LR
      comp=E,590nm,20.4s,MS4.6
GYA                                LR      LR
      comp=Z,430nm,20.6s,MS4.3
VIVF  Saint-Julien-l    44.46 307⇑iP      P       09 31 26.6 -1.3
      comp=Z,24nm,0.9s,mb4.6
VIVF  Saint-Julien-l    44.46 307⇑iP      P       09 31 26.6 -1.3
VIVF                               pmax    pmax
      comp=Z,12nm,0.9s,mb4.6
VIVF  Saint-Julien-l    44.46 307⇑iP      P       09 31 26.6 -1.3
      comp=Z,12nm,0.9s,mb4.6
SSB   Saint Sauveur     44.59 308  P      P       09 31 26.0 -2.9
MEZF  Maizieres J'vi    44.62 312 eP      P       09 31 28.9 -0.2
BCLA  Clavier           44.78 315  P      P       09 31 31.3 +0.9
GIVF  Givet             45.03 314⇑iP      P       09 31 32.7 +0.3
      comp=Z,70nm,0.9s,mb5.2
GIVF  Givet             45.03 314⇑iP      P       09 31 32.7 +0.3
GIVF                               pmax    pmax
      comp=Z,35nm,0.9s,mb5.2
GIVF  Givet             45.03 314⇑iP      P       09 31 32.7 +0.3
      comp=Z,35nm,0.9s,mb5.2
NB2   NORSAR Subarra    45.06 331  P      P       09 31 31.5 -0.9
      comp=Z,12nm,0.6s,mb4.9,baz=113,slow=7.9
NOA   NORSAR Array B    45.06 331  P      P       09 31 31.5 -0.9
      comp=Z,14nm,0.8s,mb4.8,baz=116,slow=7.9,SNR=37
NAO01 NORSAR Array S    45.11 330 eP      P       09 31 32.3 -0.6
      comp=Z,5.9nm,0.6s,mb4.6
NAO01 NORSAR Array S    45.11 330 eP      P       09 31 32.3 -0.6
      comp=Z,5.8nm,0.6s,mb4.6
DOU   Dourbes           45.17 314  P      P       09 31 34.0 +0.5
      comp=Z,7.1nm,0.8s,mb4.5
DOU   Dourbes           45.17 314  P      P       09 31 33.9 +0.4
      comp=Z,7.1nm,0.8s,mb4.5
KONO  Kongsberg         45.18 328 eP      P       09 31 32.6 -0.9
      comp=Z,19nm,0.9s,mb4.9
KONO  Kongsberg         45.18 328 eP      P       09 31 32.6 -0.8
KONO                               pmax    pmax
      comp=Z,19nm,0.9s,mb4.9
KONO  Kongsberg         45.18 328 eP      P       09 31 32.6 -0.8
      comp=Z,19nm,0.9s,mb4.9
SMF   Signal de Mont    45.20 309⇑iP      P       09 31 32.9 -0.9
      comp=Z,100nm,0.9s,mb5.3
SMF   Signal de Mont    45.20 309⇑iP      P       09 31 32.9 -0.9
SMF                                pmax    pmax
      comp=Z,50nm,0.9s,mb5.3
SMF   Signal de Mont    45.20 309⇑iP      P       09 31 32.9 -0.9
      comp=Z,50nm,0.9s,mb5.3
LOR   Lormes            45.26 310⇑iP      P       09 31 33.2 -1.0
      comp=Z,39nm,0.7s,mb5.0
LOR   Lormes            45.26 310⇑iP      P       09 31 33.2 -1.0
LOR                                pmax    pmax
      comp=Z,19nm,0.7s,mb5.0
LOR   Lormes            45.26 310⇑iP      P       09 31 33.2 -1.0
      comp=Z,19nm,0.7s,mb5.0
BAIF  Baives            45.41 314 eP      P       09 31 35.8 +0.4
      comp=Z,101nm,1.1s,mb5.3
BAIF  Baives            45.41 314 eP      P       09 31 35.8 +0.4
BAIF                               pmax    pmax
      comp=Z,51nm,1.1s,mb5.3
BAIF  Baives            45.41 314 eP      P       09 31 35.8 +0.4
      comp=Z,51nm,1.1s,mb5.3
SNF   Seneffe           45.44 315  P      P       09 31 36.9 +1.2
SNF   Seneffe           45.44 315  P      P       09 31 36.8 +1.2
SSF   Saint Saulge      45.47 310⇑iP      P       09 31 35.0 -0.9
      comp=Z,78nm,0.8s,mb5.3
SSF   Saint Saulge      45.47 310⇑iP      P       09 31 35.0 -0.9
SSF                                pmax    pmax
      comp=Z,39nm,0.8s,mb5.3
SSF   Saint Saulge      45.47 310⇑iP      P       09 31 35.0 -0.9
      comp=Z,39nm,0.8s,mb5.3
AVF   Avril sur Loir    45.55 310⇑iP      P       09 31 35.4 -1.1
      comp=Z,28nm,0.7s,mb5.0
AVF   Avril sur Loir    45.55 310⇑iP      P       09 31 35.4 -1.1
AVF                                pmax    pmax
      comp=Z,14nm,0.7s,mb5.0
AVF   Avril sur Loir    45.55 310⇑iP      P       09 31 35.4 -1.1
      comp=Z,14nm,0.7s,mb5.0
ARCES ARCESS Array B    45.65 345  P      P       09 31 36.9 -0.2
      comp=Z,6.3nm,0.8s,mb4.6,baz=133,slow=7.9,SNR=27
ARCES ARCESS Array B    45.65 345  P      P       09 31 36.8 -0.2
ARE0  ARCESS Array S    45.65 345 eP      P       09 31 36.2 -0.8
ARE0  ARCESS Array S    45.65 345 eP      P       09 31 36.2 -0.8
ETOS  Mallorca          45.70 300  P      P       09 31 37.5 -0.4
      comp=Z,116nm,1.3s,mb5.7
ETOS  Mallorca          45.70 300  P      P       09 31 37.5 -0.4
      comp=Z,116nm,1.3s,mb5.7
BGF   Bois d'Agland     45.88 309⇑iP      P       09 31 38.3 -0.8
      comp=Z,56nm,0.7s,mb5.3
BGF   Bois d'Agland     45.88 309⇑iP      P       09 31 38.3 -0.8
BGF                                pmax    pmax
      comp=Z,28nm,0.7s,mb5.3
BGF   Bois d'Agland     45.88 309⇑iP      P       09 31 38.3 -0.8
      comp=Z,28nm,0.7s,mb5.3
HYF   Humbligny         46.08 310 eP      P       09 31 40.6 -0.1
MTLF  Montolieu         46.14 305⇑iP      P       09 31 41.1 -0.2
      comp=Z,38nm,0.8s,mb5.1
MTLF  Montolieu         46.14 305⇑iP      P       09 31 41.1 -0.2
MTLF                               pmax    pmax
      comp=Z,19nm,0.8s,mb5.1
MTLF  Montolieu         46.14 305⇑iP      P       09 31 41.1 -0.2
      comp=Z,19nm,0.8s,mb5.1
TCF   Toulx Ste Croi    46.29 309⇑iP      P       09 31 41.8 -0.6
      comp=Z,38nm,0.6s,mb5.2
TCF   Toulx Ste Croi    46.29 309⇑iP      P       09 31 41.8 -0.6
TCF                                pmax    pmax
      comp=Z,19nm,0.6s,mb5.2
TCF   Toulx Ste Croi    46.29 309⇑iP      P       09 31 41.8 -0.6
      comp=Z,19nm,0.6s,mb5.2
CAF   Calviac           46.31 307 eP      P       09 31 42.1 -0.5
      comp=Z,36nm,0.7s,mb5.1
CAF   Calviac           46.31 307 eP      P       09 31 42.1 -0.5
CAF                                pmax    pmax
      comp=Z,18nm,0.7s,mb5.1
CAF   Calviac           46.31 307 eP      P       09 31 42.1 -0.5
      comp=Z,18nm,0.7s,mb5.1
EMIR  Miracle           46.64 303  P      P       09 31 45.4 +0.2
      comp=Z,54nm,0.8s,mb5.5
EMIR  Miracle           46.64 303  P      P       09 31 45.4 +0.2
      comp=Z,54nm,0.8s,mb5.5
HHC   Hu-ho-hao-te      46.66  59 eP      P       09 31 45.1 -0.3
HHC                                PP      PP      09 33 37.0 +2.0
HHC                                S       S       09 38 27.6 -5.9
HHC                                SCS     ScS     09 41 30.0 -9.0
HHC                                AMB     AMB
      comp=Z,8.0nm,0.5s,mb4.9
HHC                                AMB     AMB
      comp=Z,810nm,9.8s
RJF   Les Rejaudoux     46.72 307⇑iP      P       09 31 45.5 -0.3
      comp=Z,51nm,0.8s,mb5.2
RJF   Les Rejaudoux     46.72 307⇑iP      P       09 31 45.5 -0.3
RJF                                pmax    pmax
      comp=Z,26nm,0.8s,mb5.2
RJF   Les Rejaudoux     46.72 307⇑iP      P       09 31 45.5 -0.3
      comp=Z,26nm,0.8s,mb5.2
OPO   Ambohidratompo    46.80 192  P      P       09 31 47.6 +1.0
      comp=Z,4.1nm,0.7s,mb4.5,baz=5.8,slow=8.9,SNR=5.7
EPOB  Poblet            46.99 302  P      P       09 31 48.0 +0.1
      comp=Z,62nm,1.0s,mb5.5
EPOB  Poblet            46.99 302  P      P       09 31 48.0 +0.1
      comp=Z,62nm,1.0s,mb5.5
LFF   La Frestale       47.25 307 eP      P       09 31 49.5 -0.5
      comp=Z,67nm,0.8s,mb5.3
LFF   La Frestale       47.25 307 eP      P       09 31 49.5 -0.5
LFF                                pmax    pmax
      comp=Z,33nm,0.8s,mb5.3
LFF   La Frestale       47.25 307 eP      P       09 31 49.5 -0.5
      comp=Z,34nm,0.8s,mb5.3
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EPF   Esparros          47.51 304 eP      P       09 31 50.4 -1.6
ERTA  Horta de San J    47.56 301  P      P       09 31 52.4  0.0
      comp=Z,45nm,1.4s,mb5.3
ERTA  Horta de San J    47.56 301  P      P       09 31 52.4  0.0
      comp=Z,45nm,1.4s,mb5.3
EBIE  Bielsa            47.66 304  P      P       09 31 52.9 -0.2
      comp=Z,3.0nm,0.6s,mb4.5
EBIE  Bielsa            47.66 304  P      P       09 31 52.9 -0.3
      comp=Z,3.0nm,0.6s,mb4.5
MFF   Saint Martin d    47.94 309 eP      P       09 31 54.1 -1.1
      comp=Z,36nm,1.0s,mb5.0
MFF   Saint Martin d    47.94 309 eP      P       09 31 54.1 -1.1
MFF                                pmax    pmax
      comp=Z,18nm,1.0s,mb5.1
MFF   Saint Martin d    47.94 309 eP      P       09 31 54.1 -1.1
      comp=Z,18nm,1.0s,mb5.0
LDF   La Druitiere      48.05 312⇑iP      P       09 31 54.9 -1.2
      comp=Z,46nm,0.6s,mb5.4
LDF   La Druitiere      48.05 312⇑iP      P       09 31 54.9 -1.2
LDF                                pmax    pmax
      comp=Z,23nm,0.6s,mb5.4
LDF   La Druitiere      48.05 312⇑iP      P       09 31 54.9 -1.2
      comp=Z,23nm,0.6s,mb5.4
ESAC  San Caprasio      48.14 303  P      P       09 31 57.0 +0.1
      comp=Z,53nm,0.5s,mb5.8
ESAC  San Caprasio      48.14 303  P      P       09 31 57.0 +0.1
      comp=Z,53nm,0.5s,mb5.8
ETSF  Etsaut            48.17 304 eP      P       09 31 57.0 -0.1
      comp=Z,45nm,0.8s,mb5.2
ETSF  Etsaut            48.17 304 eP      P       09 31 57.0 -0.1
ETSF                               pmax    pmax
      comp=Z,23nm,0.8s,mb5.3
ETSF  Etsaut            48.17 304 eP      P       09 31 57.0 -0.1
      comp=Z,23nm,0.8s,mb5.2
EMOS  Mosqueruela       48.20 301  P      P       09 31 58.0 +0.6
      comp=Z,44nm,0.9s,mb5.5
EMOS  Mosqueruela       48.20 301  P      P       09 31 58.0 +0.6
      comp=Z,44nm,0.9s,mb5.5
FLN   La Foliniere      48.30 312⇑iP      P       09 31 57.0 -1.0
      comp=Z,74nm,0.8s,mb5.4
FLN   La Foliniere      48.30 312⇑iP      P       09 31 57.0 -1.0
FLN                                pmax    pmax
      comp=Z,37nm,0.8s,mb5.5
FLN   La Foliniere      48.30 312⇑iP      P       09 31 57.0 -1.0
      comp=Z,37nm,0.8s,mb5.4
GRR   Gorron            48.52 311 eP      P       09 31 58.9 -0.8
CIT   Chita             48.61  44 eP      P       09 31 59.7 -0.7
ECHE  Chera             48.63 300  P      P       09 32 01.0 +0.3
      comp=Z,5.6nm,0.6s,mb4.8
ECHE  Chera             48.63 300  P      P       09 32 01.0 +0.3
ECHE                               pmax    pmax
      comp=Z,6.0nm,0.6s,mb4.8
ECHE  Chera             48.63 300  P      P       09 32 01.0 +0.3
      comp=Z,6.0nm,0.6s,mb4.8
SJPF  Ste Jean          48.66 304 eP      P       09 32 00.7 -0.2
      comp=Z,35nm,0.7s,mb5.2
SJPF  Ste Jean          48.66 304 eP      P       09 32 00.7 -0.2
SJPF                               pmax    pmax
      comp=Z,18nm,0.7s,mb5.2
SJPF  Ste Jean          48.66 304 eP      P       09 32 00.7 -0.2
      comp=Z,18nm,0.7s,mb5.2
ETOB  Tobarra           49.16 299  P      P       09 32 05.1 +0.4
      comp=Z,20nm,0.9s,mb5.2
ETOB  Tobarra           49.16 299  P      P       09 32 05.1 +0.3
      comp=Z,20nm,0.9s,mb5.2
ETOR  Torete            49.38 301  P      P       09 32 06.0 -0.4
      comp=Z,8.7nm,0.6s,mb5.0
ETOR  Torete            49.38 301  P      P       09 32 06.0 -0.4
ETOR                               pmax    pmax
      comp=Z,9.0nm,0.6s,mb5.0
ETOR  Torete            49.38 301  P      P       09 32 06.0 -0.4
      comp=Z,9.0nm,0.6s,mb5.0
SGMF  Saint Gilles      49.65 311⇑iP      P       09 32 07.6 -0.7
      comp=Z,36nm,0.7s,mb5.2
SGMF  Saint Gilles      49.65 311⇑iP      P       09 32 07.6 -0.7
SGMF                               pmax    pmax
      comp=Z,18nm,0.7s,mb5.2
SGMF  Saint Gilles      49.65 311⇑iP      P       09 32 07.6 -0.7
      comp=Z,18nm,0.7s,mb5.2
BOD   Bodaibo           49.84  36 eP      P       09 32 07.9 -1.7
BOD                                pmax    pmax
      comp=Z,14nm,1.0s,mb5.0
BOD   Bodaibo           49.84  36 eP      P       09 32 07.9 -1.7
      comp=Z,14nm,1.0s,mb5.0
EVIA  Vianos            49.90 299  P      P       09 32 10.6 +0.2
      comp=Z,21nm,0.6s,mb5.3
EVIA  Vianos            49.90 299  P      P       09 32 10.6 +0.2
EVIA                               pmax    pmax
      comp=Z,21nm,0.6s,mb5.3
EVIA  Vianos            49.90 299  P      P       09 32 10.6 +0.2
      comp=Z,21nm,0.6s,mb5.3
QUIF  Quistinic         50.04 311⇑iP      P       09 32 10.3 -1.1
      comp=Z,86nm,1.0s,mb5.4
QUIF  Quistinic         50.04 311⇑iP      P       09 32 10.3 -1.1
QUIF                               pmax    pmax
      comp=Z,43nm,1.0s,mb5.4
QUIF  Quistinic         50.04 311⇑iP      P       09 32 10.3 -1.1
      comp=Z,43nm,1.0s,mb5.4
ROSF  Rostrenen         50.13 311 eP      P       09 32 11.1 -0.9
      comp=Z,68nm,1.1s,mb5.3
ROSF  Rostrenen         50.13 311 eP      P       09 32 11.1 -0.9
ROSF                               pmax    pmax
      comp=Z,34nm,1.1s,mb5.3
ROSF  Rostrenen         50.13 311 eP      P       09 32 11.1 -0.9
      comp=Z,34nm,1.1s,mb5.3
BJI   Beijing           50.22  60  P      P       09 32 11.3 -1.5
BJI                                S       S       09 39 17.8 -5.9
BJI                                AMB     AMB
      comp=Z,2.0nm,0.4s,mb4.5
BJI                                LR      LR
      comp=N,1µm,21.7s,MS5.0
BJI                                LR      LR
      comp=E,855nm,18.0s,MS5.0
BJI                                LR      LR
      comp=Z,2µm,23.6s
ELAN  Lanestosa         50.27 305  P      P       09 32 12.6 -0.5
      comp=Z,47nm,1.0s,mb5.5
ELAN  Lanestosa         50.27 305  P      P       09 32 12.6 -0.6
      comp=Z,47nm,1.0s,mb5.5
EBER  Berja             50.41 296  P      P       09 32 14.3  0.0
      comp=Z,35nm,0.8s,mb5.4
EBER  Berja             50.41 296  P      P       09 32 14.3  0.0
      comp=Z,35nm,0.8s,mb5.4
EQES  Quesada           50.44 298  P      P       09 32 14.1 -0.5
      comp=Z,18nm,0.7s,mb5.2
EQES  Quesada           50.44 298  P      P       09 32 14.1 -0.4
      comp=Z,18nm,0.7s,mb5.2
ESK   Eskdalemuir       50.66 320 eP      P       09 32 15.4 -0.6
      comp=Z,28nm,1.3s,mb5.0
ESK   Eskdalemuir       50.66 320 eP      P       09 32 15.4 -0.5
ESK                                pmax    pmax
      comp=Z,28nm,1.3s,mb5.0
ESK   Eskdalemuir       50.66 320 eP      P       09 32 15.4 -0.5
      comp=Z,28nm,1.3s,mb5.0
ECOG  Cogollos-Vega     50.89 297  P      P       09 32 17.4 -0.6
      comp=Z,7.0nm,0.5s,mb4.8
ECOG  Cogollos-Vega     50.89 297  P      P       09 32 17.4 -0.6
ECOG                               pmax    pmax
      comp=Z,7.0nm,0.5s,mb4.8
ECOG  Cogollos-Vega     50.89 297  P      P       09 32 17.4 -0.6
      comp=Z,7.0nm,0.5s,mb4.8
ESDC  Sonseca Array     50.92 300  P      P       09 32 17.7 -0.5
      comp=Z,11nm,0.7s,mb4.9
ESDC  Sonseca Array     50.92 300  P      P       09 32 18.0 -0.2
      comp=Z,9.1nm,0.7s,mb4.8,baz=60,slow=7.8,SNR=21
ESDC                               PcP     PcP     09 33 34.2 -0.2
      comp=Z,0.7nm,0.4s,baz=47,slow=3.4,SNR=5.4
ESDC  Sonseca Array     50.92 300  P      P       09 32 17.7 -0.5
      comp=Z,11nm,0.7s,mb4.9
ESLA  Sonseca Array     50.92 300 eP      P       09 32 18.1 -0.1
      comp=Z,1.6nm,0.8s,mb4.0
EGUA  Guajares          50.95 296  P      P       09 32 17.9 -0.5
EGUA                               pmax    pmax
      comp=Z,4.0nm,0.7s,mb4.5
EGUA  Guajares          50.95 296  P      P       09 32 17.9 -0.5
      comp=Z,4.0nm,0.7s,mb4.5
EBAN  Banos Encina      50.95 298  P      P       09 32 18.3 -0.1
      comp=Z,29nm,0.6s,mb5.4
EBAN  Banos Encina      50.95 298  P      P       09 32 18.3 -0.1
EBAN                               pmax    pmax
      comp=Z,29nm,0.6s,mb5.4
EBAN  Banos Encina      50.95 298  P      P       09 32 18.3 -0.1
      comp=Z,29nm,0.6s,mb5.4
GUD   Guadarrama        50.98 301  P      P       09 32 18.7 +0.1
      comp=Z,8.1nm,0.7s,mb4.8
GUD   Guadarrama        50.98 301  P      P       09 32 18.7 +0.1
GUD                                pmax    pmax
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	comp=Z,8.0nm,0.7s,mb4.8						
GUD	**Guadarrama**	**50.98**	**301**	P	**P**	**09 32 18.7**	**+0.1**
	comp=Z,8.0nm,0.7s,mb4.8						
ERON	**Agron**	**51.12**	**297**	P	**P**	**09 32 19.1**	**-0.6**
	comp=Z,13nm,0.5s,mb5.1						
ERON	**Agron**	**51.12**	**297**	P	**P**	**09 32 19.1**	**-0.6**
	comp=Z,13nm,0.5s,mb5.1						
ELOJ	**Sierra Loja**	**51.37**	**297**	P	**P**	**09 32 20.9**	**-0.7**
	comp=Z,10nm,0.6s,mb4.9						
ELOJ	**Sierra Loja**	**51.37**	**297**	P	**P**	**09 32 20.9**	**-0.7**
ELOJ				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
ELOJ	**Sierra Loja**	**51.37**	**297**	P	**P**	**09 32 20.9**	**-0.7**
	comp=Z,10.0nm,0.6s,mb4.9						
EADA	**Adamuz**	**51.57**	**298**	P	**P**	**09 32 22.5**	**-0.6**
	comp=Z,45nm,1.1s,mb5.3						
EADA	**Adamuz**	**51.57**	**298**	P	**P**	**09 32 22.5**	**-0.6**
	comp=Z,45nm,1.1s,mb5.3						
EMIJ	**Mijas**	**51.95**	**296**	P	**P**	**09 32 24.0**	**-1.9**
	comp=Z,20nm,0.6s,mb5.2						
EMIJ	**Mijas**	**51.95**	**296**	P	**P**	**09 32 24.0**	**-1.9**
	comp=Z,20nm,0.6s,mb5.2						
ESPR	**Espera**	**52.76**	**297**	P	**P**	**09 32 29.6**	**-2.4**
	comp=Z,19nm,0.6s,mb5.2						
PBRG	**Braganca**	**52.81**	**303**	*e*P	**P**	**09 32 32.5**	**+0.3**
	comp=Z,25nm,0.9s,mb5.1						
TOA0	**Torodi Ar. Sit**	**53.00**	**266**	*e*P	**P**	**09 32 33.0**	**-1.0**
TOA0	**Torodi Ar. Sit**	**53.00**	**266**	*e*P	**P**	**09 32 33.0**	**-0.9**
TORD	**Torodi Ar. Bea**	**53.00**	**266**	P	**P**	**09 32 33.0**	**-0.9**
	comp=Z,13nm,0.5s,mb5.1,baz=63,slow=7.3,SNR=228						
ERUA	**La Rua**	**53.05**	**304**	P	**P**	**09 32 34.0**	**0.0**
	comp=Z,21nm,1.0s,mb5.0						
ERUA	**La Rua**	**53.05**	**304**	P	**P**	**09 32 34.0**	**0.0**
ERUA				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
ERUA	**La Rua**	**53.05**	**304**	P	**P**	**09 32 34.0**	**0.0**
	comp=Z,21nm,1.0s,mb5.0						
MVO	**Moncorvo**	**53.09**	**302**	*e*P	**P**	**09 32 34.6**	**+0.3**
	comp=Z,48nm,1.0s,mb5.4						
EBAD	**Badajoz**	**53.39**	**299**	P	**P**	**09 32 36.1**	**-0.4**
	comp=Z,19nm,0.8s,mb5.1						
NJ2	**Nanjing**	**53.58**	**69**	*e*P	**P**	**09 32 38.0**	**0.0**
NJ2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.7						
PCBR	**Castelo Branco**	**53.60**	**301**	*e*P	**P**	**09 32 38.5**	**+0.5**
	comp=Z,24nm,1.0s,mb5.1						
PVRL	**Vila Real**	**53.60**	**302**	*e*P	**P**	**09 32 38.5**	**+0.5**
	comp=Z,17nm,0.7s,mb5.1						
PCAB	**Cabril**	**53.78**	**303**	*e*P	**P**	**09 32 40.0**	**+0.7**
	comp=Z,55nm,1.3s,mb5.3						
PVIS	**Viseu**	**53.80**	**302**	*e*P	**P**	**09 32 39.6**	**+0.1**
	comp=Z,89nm,1.6s,mb5.5						
PESTR	**Estremoz**	**53.82**	**300**	*e*P	**P**	**09 32 39.3**	**-0.4**
	comp=Z,17nm,0.8s,mb5.0						
EGRO	**El Granado**	**53.94**	**298**	P	**P**	**09 32 42.5**	**+1.9**
	comp=Z,52nm,1.3s,mb5.3						
EGRO	**El Granado**	**53.94**	**298**	P	**P**	**09 32 42.5**	**+1.9**
	comp=Z,52nm,1.3s,mb5.3						
PBEJ	**Beja**	**54.16**	**299**	*e*P	**P**	**09 32 42.0**	**-0.2**
	comp=Z,32nm,2.1s,mb4.9						
EVO	**Evora**	**54.20**	**299**	*e*P	**P**	**09 32 42.2**	**-0.2**
PTOM	**Tomar**	**54.34**	**301**	*e*P	**P**	**09 32 44.1**	**+0.6**
	comp=Z,75nm,1.0s,mb5.6						
CN2	**Changchun**	**56.68**	**54**	*e*P	**P**	**09 32 59.8**	**-0.4**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.3s,mb4.7						
YAK	**Yakutsk**	**58.13**	**32**	*e*P	**P**	**09 33 08.3**	**-1.8**
YAK				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.8						
YAK	**Yakutsk**	**58.13**	**32**	*e*P	**P**	**09 33 08.3**	**-1.8**
	comp=Z,15nm,1.4s,mb4.8						
TIXI	**Tiksi**	**58.48**	**21**	*e*P	**P**	**09 33 10.3**	**-2.2**
TIXI				*e*		09 34 00.4	
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
TIXI	**Tiksi**	**58.48**	**21**	*e*P	**P**	**09 33 10.3**	**-2.2**
	comp=Z,3.0nm,0.8s,mb4.4						
TIXI	**Tiksi**	**58.48**	**21**	*e*PcP	PcP	09 34 00.4	-2.4
KSRS	**Korea Array**	**59.69**	**61**	P	**P**	**09 33 19.9**	**-1.5**
	comp=Z,2.9nm,0.8s,mb4.4,baz=279,slow=6.4,SNR=10.0						
TSUM	**Tsumeb**	**59.91**	**223**	*e*P	**P**	**09 33 23.5**	**+0.5**
	comp=Z,21nm,1.1s,mb5.1						
TSUM	**Tsumeb**	**59.91**	**223**	*e*P	**P**	**09 33 23.5**	**+0.5**
	comp=Z,21nm,1.1s,mb5.1						
KLR	**Kul'dur**	**60.21**	**47**	*e*P	**P**	**09 33 20.2**	**-4.6**
LBTB	**Lobatse**	**60.23**	**213**	*e*P	**P**	**09 33 25.6**	**+0.5**
	comp=Z,11nm,0.7s,mb5.0						
LBTB	**Lobatse**	**60.23**	**213**	*e*P	**P**	**09 33 25.6**	**+0.5**
LBTB				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.0						
LBTB	**Lobatse**	**60.23**	**213**	*e*P	**P**	**09 33 25.6**	**+0.5**
	comp=Z,11nm,0.7s,mb5.0						
LIC	**Lamto**	**61.99**	**262**	*e*P	**P**	**09 33 36.3**	**-1.1**
	comp=Z,14nm,0.7s,mb4.9						
LIC	**Lamto**	**61.99**	**262**	*e*P	**P**	**09 33 36.3**	**-1.1**
	comp=Z,7.2nm,0.7s,mb4.9						
BOSA	**Boshof**	**63.45**	**211**	*e*P	**P**	**09 33 46.9**	**+0.2**
BOSA				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb5.0						
BOSA	**Boshof**	**63.45**	**211**	P	**P**	**09 33 46.7**	**0.0**
	comp=Z,5.0nm,0.4s,mb5.0,baz=24,slow=6.3,SNR=22						
BOSA	**Boshof**	**63.45**	**211**	*e*P	**P**	**09 33 46.9**	**+0.2**
	comp=Z,5.0nm,0.4s,mb5.0						
YSS	**Yuzh-Sakhalins**	**67.91**	**48**	*e*P	**P**	**09 34 14.3**	**-1.0**
	comp=Z,24nm,0.8s,mb5.3						
YSS	**Yuzh-Sakhalins**	**67.91**	**48**	⇓*i*P	**P**	**09 34 14.0**	**-1.4**
YSS				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
YSS	**Yuzh-Sakhalins**	**67.91**	**48**	*i* P	**P**	**09 34 14.0**	**-1.4**
	comp=Z,30nm,0.9s,mb5.3						
SEY	**Seymchan**	**68.36**	**29**	*i* P	**P**	**09 34 16.9**	**-1.0**
SUR	**Sutherland**	**68.67**	**212**	*e*P	**P**	**09 34 21.2**	**+1.0**
	comp=Z,10nm,1.0s,mb4.7						
SUR	**Sutherland**	**68.67**	**212**	*e*P	**P**	**09 34 21.2**	**+1.0**
	comp=Z,10nm,1.0s,mb4.7						
MA2	**Magadan**	**68.67**	**33**	*e*P	**P**	**09 34 19.1**	**-0.8**
	comp=Z,8.2nm,0.9s,mb4.7						
MA2	**Magadan**	**68.67**	**33**	*e*P	**P**	**09 34 18.9**	**-1.0**
MA2				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
MA2	**Magadan**	**68.67**	**33**	*e*P	**P**	**09 34 18.9**	**-1.0**
	comp=Z,8.0nm,1.0s,mb4.6						
BILL	**Bilibino**	**71.66**	**22**	*e*P	**P**	**09 34 36.7**	**-1.4**
BILL				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
BILL	**Bilibino**	**71.66**	**22**	*e*P	**P**	**09 34 36.7**	**-1.4**
	comp=Z,4.0nm,1.1s,mb4.3						
RES	**Resolute Bay**	**76.27**	**352**	*e*P	**P**	**09 35 04.3**	**-0.6**
	comp=Z,56nm,0.7s,mb5.6						
RES	**Resolute Bay**	**76.27**	**352**	*e*P	**P**	**09 35 04.3**	**-0.6**
FITZ	**Fitzroy Crossi**	**80.86**	**116**	P	**P**	**09 35 31.1**	**-0.1**
	comp=Z,2.3nm,0.7s,mb4.2,baz=343,slow=4.4,SNR=5.4						
FITZ	**Fitzroy Crossi**	**80.86**	**116**	*e*P	**P**	**09 35 30.9**	**-0.2**
	comp=Z,5.8nm,0.9s,mb4.5						
NWAO	**Narrogin (SRO)**	**83.34**	**132**	*e*P	**P**	**09 35 43.1**	**-0.8**
	comp=Z,6.2nm,0.8s,mb4.7						
NWAO	**Narrogin (SRO)**	**83.34**	**132**	*e*P	**P**	**09 35 43.1**	**-0.7**
NWAO				pmax	pmax		
	comp=Z,6.0nm,0.8s						
NWAO	**Narrogin (SRO)**	**83.34**	**132**	*e*P	**P**	**09 35 43.1**	**-0.7**
	comp=Z,6.0nm,0.8s,mb4.7						
KAKA	**Kakadu**	**83.67**	**108**	*e*P	**P**	**09 35 45.8**	**-0.1**
	comp=Z,7.7nm,0.6s,mb5.0						
IMA2	**Indian Mountai**	**83.78**	**12**	*e*P	**P**	**09 35 45.1**	**-0.6**
IMA2	**Indian Mountai**	**83.78**	**12**	*e*P	**P**	**09 35 45.1**	**-0.6**
INK	**Inuvik**	**84.08**	**4**	*e*P	**P**	**09 35 46.4**	**-0.7**
	comp=Z,128nm,0.9s,mb6.0						
INK	**Inuvik**	**84.08**	**4**	P	**P**	**09 35 45.8**	**-1.3**
	comp=Z,3.0nm,1.0s,mb4.4,baz=4.5,slow=8.9,SNR=6.1						
SCHQ	**Schefferville**	**84.63**	**331**	*e*P	**P**	**09 35 50.2**	**0.0**
SCHQ	**Schefferville**	**84.63**	**331**	P	**P**	**09 35 49.4**	**-0.8**
	comp=Z,4.3nm,0.8s,mb4.7,baz=35,slow=4.8,SNR=14						
SCHQ	**Schefferville**	**84.63**	**331**	*e*P	**P**	**09 35 50.2**	**0.0**
COLA	**College**	**85.88**	**10**	*e*P	**P**	**09 35 54.8**	**-1.4**
MCK	**McKinley**	**86.76**	**11**	*e*P	**P**	**09 35 59.8**	**-0.8**
	comp=Z,10nm,1.3s,mb4.9						
MCK	**McKinley**	**86.76**	**11**	*e*P	**P**	**09 35 59.8**	**-0.8**
MCK				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.9						
MCK	**McKinley**	**86.76**	**11**	*e*P	**P**	**09 35 59.8**	**-0.8**
	comp=Z,10.0nm,1.3s,mb4.9						
DAWY	**Dawson**	**87.77**	**7**	*e*P	**P**	**09 36 05.2**	**-0.2**
DAWY	**Dawson**	**87.77**	**7**	*e*P	**P**	**09 36 05.2**	**-0.3**
WRA	**Warramunga Arr**	**88.84**	**113**	P	**P**	**09 36 11.2**	**-0.1**
	comp=Z,5.0nm,0.9s,mb4.8,baz=310,slow=4.0,SNR=29						
WB2	**Warramunga Arr**	**88.85**	**113**	⇓*i*P	**P**	**09 36 11.1**	**-0.2**
YKA	**Yellowknife Ar**	**89.93**	**356**	P	**P**	**09 36 15.7**	**0.0**
YKA	**Yellowknife Ar**	**89.93**	**356**	P	**P**	**09 36 15.7**	**+0.1**
	comp=Z,4.8nm,0.8s,mb4.9,baz=2.0,slow=5.1,SNR=123						
ASAR	**Alice Springs**	**90.34**	**117**	P	**P**	**09 36 17.9**	**-0.3**
	comp=Z,1.1nm,0.7s,mb4.3,baz=304,slow=4.4,SNR=12						
FCC	**Fort Churchill**	**90.54**	**345**	*e*P	**P**	**09 36 18.1**	**-0.5**
	comp=Z,14nm,1.6s,mb5.1						
FCC	**Fort Churchill**	**90.54**	**345**	*e*P	**P**	**09 36 18.1**	**-0.5**
FCC				pmax	pmax		
	comp=Z,14nm,1.6s,mb5.0						
FCC	**Fort Churchill**	**90.54**	**345**	*e*P	**P**	**09 36 18.1**	**-0.5**
	comp=Z,14nm,1.6s,mb5.0						
TXAR	**Lajitas Array**	**120.29**	**340**	PKP	PKPdf	09 42 07.8	-0.6
TXAR	**Lajitas Array**	**120.29**	**340**	PKIKP	PKPdf	09 42 07.8	-0.6
TXAR	**Lajitas Array**	**120.29**	**340**	PKP	PKPdf	09 42 07.8	-0.6
	comp=Z,0.5nm,0.7s,baz=200,slow=2.5,SNR=5.4						
SIV	**San Ignacio**	**121.46**	**267**	PKP	PKPdf	09 42 10.6	-0.2
SIV	**San Ignacio**	**121.46**	**267**	PKP	PKPdf	09 42 10.6	-0.2
	comp=Z,0.9nm,0.6s,baz=137,slow=4.1,SNR=3.8						
CMIG	**Matias Romero**	**127.64**	**325**	PKP	PKPdf	09 42 20.1	-2.6
CMIG	**Matias Romero**	**127.64**	**325**	PKP	PKPdf	09 42 20.1	-2.6
	comp=Z,2.4nm,0.9s,baz=140,slow=7.9,SNR=3.3						
LPAZ	**La Paz**	**127.83**	**270**	PKP	PKPdf	09 42 23.4	+0.3
LPAZ	**La Paz**	**127.83**	**270**	PKIKP	PKPdf	09 42 23.4	+0.4
LPAZ	**La Paz**	**127.83**	**270**	PKP	PKPdf	09 42 23.4	+0.3
	comp=Z,1.3nm,0.8s,baz=248,slow=6.7,SNR=4.8						
CFAA	**Coronel Fontan**	**132.25**	**251**	PKP	PKPdf	09 42 31.0	-0.1
CFAA	**Coronel Fontan**	**132.25**	**251**	PKP	PKPdf	09 42 31.0	-0.1
	comp=Z,0.3nm,0.6s,baz=68,slow=3.8,SNR=5.4						

IDC 20 09:25:56.9±1.4,110S×12725E,h0^{km},mb3.7/3,mb1 3.8/5, mb1mx3.6/18,mbtmp3.7/5,ML3.5/2,Error ellipse: s-maj=102.7km s-min=20.5km az=72.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**16.97**	**185**	Pn	Pn	09 29 54.9	-0.9
	0.1nm,0.3s,baz=308,slow=12,SNR=1.9						
WRA	**Warramunga Arr**	**19.98**	**160**	P	Pn	09 30 30.4	-2.2
	0.2nm,0.3s,baz=339,slow=11,SNR=8.1						
ASAR	**Alice Springs**	**23.35**	**164**	P	P	09 31 07.8	+0.7
	1.6nm,0.7s,baz=346,slow=11,SNR=13						
SONM	**Songino Array**	**52.01**	**342**	P	P	09 35 08.1	0.0
	0.5nm,0.6s,baz=145,slow=9.2,SNR=4.2						
MKAR	**Makanchi Array**	**61.81**	**327**	P	P	09 36 17.7	+0.1
	0.7nm,0.3s,baz=114,slow=8.0,SNR=12						

IDC 20 09:26:14.1±2.7,2744N×5659E,h0^{km},mb4.1/6,mb1 4.2/8, mb1mx3.8/25,mbtmp4.1/8,ML4.2/2,Error ellipse: s-maj=57.6km s-min=27.4km az=155.0,Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASF	**Jabal al Asfar**	**17.73**	**290**	P	Pn	09 30 21.0	-1.3
	0.6nm,0.3s,baz=307,slow=17,SNR=3.1						
MMAI	**Mount Meron Ar**	**19.12**	**292**	P	Pn	09 30 38.0	-1.4
	0.9nm,0.3s,baz=101,slow=15,SNR=2.7						
BRTR	**Keskin Array B**	**22.64**	**309**	P	P	09 31 18.2	+1.6
	1.5nm,0.4s,baz=126,slow=12,SNR=4.2						
AKTO	**Aktyubinsk**	**22.99**	**2**	P	P	09 31 20.6	+0.4
	6.5nm,0.6s,baz=157,slow=11,SNR=5.3						
ZALV	**Zalesovo Beam**	**33.64**	**30**	P	P	09 32 56.0	-0.2
	2.4nm,0.4s,baz=235,slow=9.5,SNR=4.7						
FINES	**FINESS Array B**	**39.66**	**338**	P	P	09 33 47.0	-0.4
	1.1nm,0.4s,baz=138,slow=9.1,SNR=4.6						
TORD	**Torodi Ar. Bea**	**53.02**	**266**	P	P	09 35 33.5	+0.3
	0.9nm,0.6s,baz=60,slow=7.1,SNR=4.3						
YKA	**Yellowknife Ar**	**90.11**	**356**	P	P	09 39 15.6	-0.1
	0.4nm,0.8s,baz=6.2,slow=6.1,SNR=4.7						

IDC 20 09:26:48.6±1.9,101S×12730E,h0^{km},mb3.5/4,mb1 3.7/5, mb1mx3.5/17,mbtmp3.6/5,ML3.2/1,Error ellipse: s-maj=114.5km s-min=25.6km az=68.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**17.06**	**185**	P	Pn	09 30 46.9	-1.8
	0.1nm,0.3s,baz=195,slow=18,SNR=1.7						
WRA	**Warramunga Arr**	**20.04**	**160**	P	P	09 31 23.8	+0.5
	0.6nm,0.7s,baz=345,slow=12,SNR=2.4						
ASAR	**Alice Springs**	**23.41**	**165**	P	P	09 31 59.9	+0.4
	0.7nm,0.6s,baz=345,slow=12,SNR=4.2						
STKA	**Stephens Creek**	**33.54**	**158**	P	P	09 33 30.1	0.0
	1.6nm,0.8s,baz=350,slow=11,SNR=2.9						
MKAR	**Makanchi Array**	**61.77**	**327**	P	P	09 37 09.1	0.0
	0.5nm,0.5s,baz=116,slow=8.2,SNR=3.9						

IDC 20 09:33:52.0±4.2,1656S×6955W,h111^{km}±27^{km},mb3.1/2, mb1 3.3/3,mb1mx3.2/16,mbtmp3.2/3,Error ellipse: s-maj=73.2km s-min=45.1km az=34.0,Peru-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	**La Paz**	**1.39**	**79**	P	Pn	09 34 18.2	+0.6
	23nm,0.3s,baz=257,slow=13,SNR=687						
LPAZ				S	Sn	09 34 47.4	+10
	7.2nm,0.3s,baz=319,slow=20,SNR=2.1						
SIV	**San Ignacio**	**8.16**	**87**	P	Pn	09 35 47.4	-0.4
	0.6nm,0.3s,baz=274,slow=11,SNR=16						
TORD	**Torodi Ar. Bea**	**76.33**	**72**	P	P	09 45 28.6	-0.8
	0.3nm,0.7s,baz=250,slow=7.5,SNR=2.6						
YKA	**Yellowknife Ar**	**86.34**	**341**	P	P	09 46 19.9	-1.3
	0.2nm,0.7s,baz=135,slow=4.8,SNR=3.6						
SONM	**Songino Array**	**148.63**	**5**	PKPbc	PKPbc	09 53 27.3	+1.3
	0.3nm,0.6s,baz=356,slow=0.3,SNR=2.3						

IDC 20 09:37:13.2±1.4,095S×12764E,h0^{km},mb3.4/3,mb1 3.5/4, mb1mx3.4/16,mbtmp3.4/4,ML3.4/1,Error ellipse: s-maj=132.3km s-min=22.4km az=70.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.98**	**161**	P	Pn	09 41 47.4	-1.6
	0.1nm,0.3s,baz=340,slow=11,SNR=8.6						
ASAR	**Alice Springs**	**23.39**	**165**	P	P	09 42 23.8	0.0
	0.5nm,0.6s,baz=346,slow=11,SNR=7.6						
SONM	**Songino Array**	**51.99**	**342**	P	P	09 46 24.2	0.0
	0.3nm,0.6s,baz=146,slow=8.7,SNR=3.9						
MKAR	**Makanchi Array**	**61.91**	**326**	P	P	09 47 34.8	+0.2
	0.5nm,0.5s,baz=123,slow=7.7,SNR=4.5						

IDC 20 09:39:20.2±2.3,264S×12857E,h0^{km},mb3.3/2,mb1 3.5/3, mb1mx3.3/16,mbtmp3.4/3,MS4.4/1,Ms1 4.4/1, ms1mx3.9/16,Error ellipse: s-maj=148.0km s-min=28.2km az=68.0,Ceram Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**15.63**	**190**	LR	LR	09 49 36.7	
	comp=Z,1μm,21.4s,baz=184,slow=39						
WRA	**Warramunga Arr**	**18.09**	**162**	P	Pn	09 43 33.7	+0.5
	0.1nm,0.3s,baz=341,slow=11,SNR=5.0						
ASAR	**Alice Springs**	**21.53**	**167**	P	P	09 44 10.1	-1.0
	0.5nm,0.6s,baz=349,slow=13,SNR=4.8						
MKAR	**Makanchi Array**	**63.83**	**326**	P	P	09 49 55.0	+0.6
	0.4nm,0.6s,baz=114,slow=9.4,SNR=3.6						

IDC 20 09:45:24.8±1.4,1023S×6637E,h0^{km},mb3.8/6,mb1 3.8/6, mb1mx3.7/22,mbtmp3.8/6,Error ellipse: s-maj=44.2km s-min=29.3km az=27.0,Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**58.52**	**13**	P	P	09 55 22.7	-0.2
	0.3nm,0.4s,baz=210,slow=7.6,SNR=5.7						
AKTO	**Aktyubinsk**	**60.84**	**354**	P	P	09 55 38.1	-0.7
	0.6nm,0.7s,baz=170,slow=5.6,SNR=3.7						
WRA	**Warramunga Arr**	**65.97**	**107**	P	P	09 56 13.3	-0.2
	0.4nm,0.6s,baz=274,slow=5.4,SNR=8.5						
SONM	**Songino Array**	**67.82**	**28**	P	P	09 56 26.0	+1.3
	0.7nm,0.9s,baz=217,slow=6.1,SNR=5.1						
TORD	**Torodi Ar. Bea**	**68.27**	**289**	P	P	09 56 28.5	+0.4
	0.8nm,0.9s,baz=134,slow=10,SNR=3.3						
AKASG	**Malin Array Be**	**68.73**	**336**	P	P	09 56 29.9	-0.3
	0.2nm,0.3s,baz=143,slow=5.1,SNR=4.5						

IDC 20 09:51:41.1±2.1,063S×12811E,h0^{km},mb3.3/3,mb1 3.6/3, mb1mx3.4/16,mbtmp3.4/3,Error ellipse: s-maj=160.3km s-min=25.6km az=67.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**20.14**	**163**	P	P	09 56 18.5	+1.5
	0.8nm,0.7s,baz=342,slow=12,SNR=8.4						
ASAR	**Alice Springs**	**23.58**	**167**	P	P	09 56 52.6	-1.2
	0.4nm,0.5s,baz=352,slow=12,SNR=3.7						
MKAR	**Makanchi Array**	**61.91**	**326**	P	P	10 02 02.6	+0.1
	0.6nm,0.6s,baz=132,slow=7.4,SNR=7.9						

IDC 20 09:56:30.6±1.3,094S×12756E,h0^{km},mb3.7/5,mb1 3.9/5, mb1mx3.7/16,mbtmp3.8/5,Error ellipse: s-maj=143.5km s-min=19.2km az=68.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**20.02**	**161**	P	P	10 01 04.1	-1.1
	1.5nm,0.5s,baz=343,slow=13,SNR=21						
ASAR	**Alice Springs**	**23.41**	**165**	P	P	10 01 40.8	-0.8
	1.7nm,0.7s,baz=344,slow=11,SNR=15						
STKA	**Stephens Creek**	**33.51**	**158**	P	P	10 03 13.2	+1.3
	1.2nm,0.5s,baz=341,slow=12,SNR=4.6						
SONM	**Songino Array**	**51.96**	**342**	P	P	10 05 40.8	-0.6
	0.4nm,0.7s,baz=151,slow=9.0,SNR=4.1						
MKAR	**Makanchi Array**	**61.86**	**326**	P	P	10 06 52.1	+0.4
	1.1nm,0.5s,baz=126,slow=8.5,SNR=14						

IDC 20 10:10:37.4±2.2,109S×12738E,h0^{km},mb3.3/2,mb1 3.4/3, mb1mx3.2/16,mbtmp3.2/3,Error ellipse: s-maj=195.7km s-min=25.8km az=66.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.94**	**160**	P	Pn	10 15 10.6	-2.0
	0.1nm,0.3s,baz=343,slow=12,SNR=6.3						
ASAR	**Alice Springs**	**23.32**	**165**	P	P	10 15 47.6	+0.3
	0.3nm,0.4s,baz=342,slow=11,SNR=6.3						
MKAR	**Makanchi Array**	**61.88**	**327**	P	P	10 20 58.6	+0.1
	0.2nm,0.4s,baz=122,slow=7.7,SNR=3.1						

IDC ***20*** *10:11:20.9±1.5,101S×12764E,h0^{km},mb3.7/3,mb1 3.8/4, mb1mx3.6/16,mbtmp3.6/4,Error ellipse: s-maj=135.0km s-min=21.7km az=69.0*

NEIC 20 10:11:22.8±1.0,117S×12728E,h10^{km},Error ellipse: s-maj=148.0km s-min=12.6km az=68.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.90**	**160**	P	Pn	10 15 54.6	-1.6
	0.2nm,0.3s,baz=341,slow=12,SNR=12						
ASAR	**Alice Springs**	**23.27**	**164**	P	P	10 16 30.9	+0.2
	1.7nm,0.6s,baz=346,slow=11,SNR=23						
SONM	**Songino Array**	**52.09**	**342**	P	P	10 20 33.2	+0.3
	0.7nm,0.7s,baz=155,slow=8.7,SNR=3.9						
MK31	**Makanchi Array**	**61.89**	**327**	*e*P	P	10 21 42.8	+0.3
MKAR	**Makanchi Array**	**61.89**	**327**	P	P	10 21 42.3	-0.1
	0.7nm,0.4s,baz=118,slow=8.2,SNR=11						

IDC 20 10:16:52.3±2.1,110S×12709E,h0^{km},mb3.1/3,mb1 3.3/3, mb1mx3.2/17,mbtmp3.2/3,Error ellipse: s-maj=167.4km s-min=27.6km az=66.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**20.03**	**160**	P	P	10 21 27.0	+0.1
	0.3nm,0.6s,baz=338,slow=11,SNR=4.4						
ASAR	**Alice Springs**	**23.39**	**164**	P	P	10 22 03.0	0.0
	0.4nm,0.6s,baz=345,slow=12,SNR=7.2						
MKAR	**Makanchi Array**	**61.73**	**327**	P	P	10 27 12.4	0.0
	0.3nm,0.5s,baz=114,slow=8.6,SNR=3.8						

IDC 20 10:32:08.9±2.1,097S×12769E,h0^{km},mb3.2/2,mb1 3.3/3, mb1mx3.1/16,mbtmp3.1/3,ML3.1/1,Error ellipse: s-maj=155.7km s-min=27.4km az=67.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.95**	**161**	P	Pn	10 36 43.1	-1.1
	0.1nm,0.3s,baz=340,slow=11,SNR=6.2						
ASAR	**Alice Springs**	**23.35**	**165**	P	P	10 37 18.9	-0.3
	0.3nm,0.6s,baz=345,slow=11,SNR=3.7						
MKAR	**Makanchi Array**	**61.95**	**326**	P	P	10 42 30.6	+0.1
	0.2nm,0.4s,baz=114,slow=7.4,SNR=4.3						

IDC 20 10:45:29.6±1.4,108S×12740E,h0^{km},mb3.4/3,mb1 3.5/4, mb1mx3.4/16,mbtmp3.4/4,ML3.3/1,Error ellipse: s-maj=129.9km s-min=22.3km az=70.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.94**	**161**	P	Pn	10 50 03.4	-1.4
	0.1nm,0.3s,baz=340,slow=11,SNR=9.6						
ASAR	**Alice Springs**	**23.32**	**165**	P	P	10 50 39.5	0.0
	0.7nm,0.8s,baz=344,slow=11,SNR=5.9						
SONM	**Songino Array**	**52.05**	**342**	P	P	10 54 41.7	+0.7
	0.2nm,0.6s,baz=167,slow=10,SNR=2.5						
MKAR	**Makanchi Array**	**61.89**	**327**	P	P	10 55 50.4	-0.5
	0.4nm,0.4s,baz=112,slow=7.3,SNR=6.7						

IDC 20 10:56:41.4±1.2,009S×12526E,h0^{km},mb3.4/4,mb1 3.6/4, mb1mx3.4/17,mbtmp3.4/4,Error ellipse: s-maj=138.7km s-min=21.1km az=67.0,Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**21.64**	**156**	P	P	11 01 31.8	-1.7
	0.7nm,0.5s,baz=335,slow=11,SNR=9.5						
ASAR	**Alice Springs**	**24.89**	**161**	P	P	11 02 07.5	+1.4
	0.7nm,0.4s,baz=344,slow=12,SNR=10						
SONM	**Songino Array**	**50.47**	**344**	P	P	11 05 41.6	+0.7
	0.2nm,0.6s,baz=155,slow=6.6,SNR=2.1						
MKAR	**Makanchi Array**	**59.89**	**327**	P	P	11 06 48.5	-0.5
	0.5nm,0.7s,baz=136,slow=7.4,SNR=3.6						

IDC ***20*** *10:57:12.8±1.5,102S×12737E,h0^{km},mb3.7/4,mb1 3.9/4, mb1mx3.7/16,mbtmp3.8/4,Error ellipse: s-maj=152.8km s-min=22.2km az=69.0*

NEIC 20 10:57:14.3±1.1,106S×12734E,h10^{km},Error ellipse: s-maj=148.0km s-min=12.5km az=69.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.98**	**160**	P	Pn	11 01 47.0	-1.7
	1.4nm,0.6s,baz=343,slow=13,SNR=13						
ASAR	**Alice Springs**	**23.36**	**165**	P	P	11 02 23.4	+0.2
	2.5nm,0.7s,baz=336,slow=9.8,SNR=6.5						
SONM	**Songino Array**	**52.01**	**342**	P	P	11 06 24.1	+0.3
	0.7nm,0.7s,baz=148,slow=8.8,SNR=4.1						
MK31	**Makanchi Array**	**61.84**	**327**	*e*P	P	11 07 33.9	+0.2
MKAR	**Makanchi Array**	**61.84**	**327**	P	P	11 07 33.5	-0.1
	1.2nm,0.6s,baz=124,slow=8.3,SNR=11						

IDC 20 11:04:04.2±1.3,193S×12553E,h0^{km},mb3.5/3,mb1 3.6/4, mb1mx3.4/17,mbtmp3.4/4,ML3.4/1,MS4.3/1,Ms1 4.3/1, ms1mx3.7/24,Error ellipse: s-maj=131.5km s-min=21.6km az=67.0,Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.86**	**155**	P	Pn	11 08 37.5	-1.1
	0.1nm,0.3s,baz=334,slow=10,SNR=6.8						
ASAR	**Alice Springs**	**23.08**	**160**	P	P	11 09 11.5	-0.1
	0.8nm,0.7s,baz=346,slow=12,SNR=10						
HNR	**Honiara**	**35.02**	**104**	LR	LR	11 24 31.2	
	comp=Z,488nm,21.7s,baz=359,slow=35						
SONM	**Songino Array**	**52.31**	**344**	P	P	11 13 18.6	+1.0
	0.3nm,0.6s,baz=161,slow=9.0,SNR=2.7						
MKAR	**Makanchi Array**	**61.58**	**328**	P	P	11 14 22.9	-0.6
	0.5nm,0.4s,baz=116,slow=8.1,SNR=11						

IDC 20 11:09:08.1±2.3,112S×12707E,h0^{km},mb3.1/3,mb1 3.4/3, mb1mx3.2/17,mbtmp3.2/3,Error ellipse: s-maj=199.0km s-min=27.2km az=66.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**20.02**	**160**	P	P	11 13 43.2	+0.6

	0.1nm,0.3s,baz=342,slow=12,SNR=5.8						
ASAR	**Alice Springs**	**23.38**	**164**	P	P	11 14 18.2	-0.4
	0.4nm,0.6s,baz=343,slow=11,SNR=7.4						
MKAR	**Makanchi Array**	**61.73**	**327**	P	P	11 19 28.4	+0.1
	0.3nm,0.6s,baz=112,slow=6.3,SNR=4.4						

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*IDC **20** 11:15:02.9±0.5, 46.98N×156.13E, h0^{km}, mb4.7/21, mb1 4.8/23, mb1mx4.7/27, mbtmp4.7/23, ML4.1/2, MS4.4/6, Ms1 4.4/6, ms1mx3.9/35, Error ellipse: s-maj=17.0km s-min=11.5km az=141.0*

*ISCJB **20** 11:15:03.2±0.2, 46.93N±0.04×155.94E±0.03, h16^{km}, mb4.8/112, MS4.4/21, Error ellipse: s-maj=5.8km s-min=2.6km az=155.3*

*NEIC **20** 11:15:04.8±0.3, 47.12N×156.02E, h10^{km}, mb4.9/55, MS4.6/3, Error ellipse: s-maj=10.8km s-min=5.7km az=158.0*

*BJI **20** 11:15:06.6, 47.25N×155.38E, h5^{km}, mB5.2, mb4.9, Ms4.7, Msz4.4*

*SKHL **20** 11:15:06.0±2.1, 47.01N×156.09E, h40^{km}±5^{km}, mb5.4/4, Ms4.3/1*

*MOS **20** 11:15:08.3±1.3, 47.28N×155.98E, h42^{km}, mb5.1/54, MS4.3/11, Error ellipse: s-maj=8.6km s-min=4.9km az=107.4*

*SZGRF **20** 11:15:10.0, 47.40N×157.13E, h33^{km}, mb4.5, East of Kuril Islands, Russia*

ISC 20 11:15:05.4±0.2**, 46.95N**±0.04×**155.98E**±0.04**, h17**^{km}**,** **h17**^{km}±1.9^{km}**:pP-P, n316,** σ1^{s}**38**/343**, mb4.8**/112**, MS4.4**/21**,** **17C-22D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril’s**	**3.74**	**1**	PN	**Pn**	**11 16 01.2**	**-1.1**
SKR				*e*S	**Sn**	**11 16 39.5**	**-6.4**
SKR				pmax	pmax		
	comp=N,110nm,0.5s						
SKR				pmax	pmax		
	comp=Z,200nm,0.5s						
SKR				smax			
	comp=N,2μm,0.5s						
SKR				smax			
	comp=E,1μm,0.5s						
SKR	**Severo-Kuril’s**	**3.74**	**1**	*e*P	**Pn**	**11 16 01.2**	**-1.1**
SKR				AMB	AMB	11 16 02.0	
	comp=E,110nm,0.5s						
SKR				AMB	AMB	11 16 02.0	
	comp=E,200nm,0.5s						
SKR				*e*S	**Sn**	**11 16 39.5**	**-6.4**
SKR				A		11 16 44.0	
	comp=E,2μm,0.5s						
SKR				A		11 16 44.0	
	comp=E,1μm,0.5s						
KUR	**Kuril’sk**	**5.90**	**256**	⇑*i*PN	**Pn**	**11 16 32.5**	**+0.5**
KUR				pmax	pmax		
	comp=N,140nm,0.5s						
KUR				pmax	pmax		
	comp=E,80nm,0.5s						
KUR				pmax	pmax		
	comp=Z,420nm,0.5s						
KUR	**Kuril’sk**	**5.90**	**256**	*i* P	**Pn**	**11 16 32.5**	**+0.5**
KUR				AMB	AMB	11 16 33.0	
	comp=Z,140nm,0.5s						
KUR				AMB	AMB	11 16 33.0	
	comp=Z,80nm,0.5s						
KUR				AMB	AMB	11 16 33.0	
	comp=Z,420nm,0.5s						
KUR				*i* S	**Sn**	**11 17 37.5**	**-1.7**
KUR				A		11 17 46.2	
	comp=Z,760nm,0.6s						
KUR				A		11 17 46.2	
	comp=Z,530nm,0.6s						
PET	**Petropavlovsk**	**6.32**	**15**	*e*Pn	**Pn**	**11 16 34.3**	**-3.4**
PET				*e*Sn	**Sn**	**11 17 40.4**	**-9.0**
PET	**Petropavlovsk**	**6.32**	**15**	*e*PN	**Pn**	**11 16 34.5**	**-3.2**
PET				pmax	pmax		
	comp=Z,130nm,0.8s						
PET				MLR	MLR		
	comp=Z,2μm,17.0s						
PET	**Petropavlovsk**	**6.32**	**15**	*e*P	**Pn**	**11 16 35.2**	**-2.5**
YUK	**Yuzh-Kuril’sk**	**7.69**	**251**	*i* P	**Pn**	**11 16 56.3**	**-0.3**
YUK				AMB	AMB	11 17 01.8	
	comp=Z,340nm,0.4s						
YUK				*e*S	**Sn**	**11 18 19.5**	**-3.7**
YUK				A		11 18 24.1	
	comp=Z,2μm,0.6s						
YUK				A		11 18 24.3	
	comp=Z,440nm,0.5s						
YUK				A		11 18 24.3	
	comp=Z,600nm,0.5s						
NEM2	**Nemuro 2**	**8.08**	**247**	P	**Pn**	**11 17 00.4**	**-1.5**
NEM2				*e*S	**Sn**	**11 18 26.2**	**-6.6**
JRA	**Rausu**	**8.21**	**252**	P	**Pn**	**11 17 04.4**	**+0.7**
JRA				*e*S	**Sn**	**11 18 34.8**	**-1.3**
JNK	**Nakash**	**8.63**	**251**	P	**Pn**	**11 17 09.5**	**+0.1**
JNK				*e*S	**Sn**	**11 18 41.5**	**-4.8**
JAK	**Akkeshi**	**8.92**	**248**	P	**Pn**	**11 17 12.1**	**-1.4**
JAK				*e*S	**Sn**	**11 18 46.6**	**-7.0**
JTKR	**Abashiri--Toko**	**8.99**	**255**	P	**Pn**	**11 17 15.1**	**+0.6**
YSS	**Yuzh-Sakhalins**	**9.05**	**275**	*e*Pn	**Pn**	**11 17 18.4**	**+3.2**
YSS				*e*Sn	**Sn**	**11 18 58.6**	**+1.9**
YSS	**Yuzh-Sakhalins**	**9.05**	**275**	⇑*i*PN	**Pn**	**11 17 19.0**	**+3.8**
YSS				pmax	pmax		
	comp=Z,110nm,1.0s						
YSS				MLR	MLR		
	comp=E,1μm,14.0s						
YSS				MLR	MLR		
	comp=Z,2μm,14.0s						
YSS	**Yuzh-Sakhalins**	**9.05**	**275**	*i* P	**Pn**	**11 17 19.0**	**+3.8**
YSS				AMB	AMB	11 17 20.0	
	comp=Z,110nm,1.0s						
YSS				*e*S	**Sn**	**11 18 59.0**	**+2.3**
YSS				AMS	AMS	11 22 00.0	
	comp=Z,1μm,14.0s						
YSS				AMS	AMS	11 22 00.0	
	comp=Z,2μm,14.0s						
JMP	**Maruseppu**	**9.35**	**256**	P	**Pn**	**11 17 20.3**	**+1.0**
JAR	**Ashorobuto**	**9.38**	**251**	P	**Pn**	**11 17 19.7**	**0.0**
JAR				*e*S	**Sn**	**11 19 00.9**	**-3.8**
JOB	**Onbets**	**9.52**	**249**	P	**Pn**	**11 17 20.6**	**-1.1**
JOB				*e*S	**Sn**	**11 19 02.8**	**-5.4**
JKK2	**Kamakawa 2**	**9.80**	**257**	P	**Pn**	**11 17 26.5**	**+0.9**
ASAJ	**Asahikawa**	**9.81**	**258**	P	**Pn**	**11 17 27.8**	**+2.1**
ASAJ	**Asahikawa**	**9.81**	**258**	PN	**Pn**	**11 17 27.4**	**+1.7**
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ	**Asahikawa**	**9.81**	**258**	Pn	**Pn**	**11 17 27.4**	**+1.7**
	comp=Z,3.0nm,0.3s,baz=91,slow=16,SNR=17						
JCH	**Churui**	**9.96**	**249**	P	**Pn**	**11 17 26.8**	**-1.0**
JCH				*e*S	**Sn**	**11 19 10.6**	**-8.5**
JFR	**Furan**	**10.20**	**253**	P	**Pn**	**11 17 31.9**	**+0.9**
JEM	**Erimo**	**10.40**	**246**	P	**Pn**	**11 17 34.4**	**+0.6**
JEM				*e*S	**Sn**	**11 19 24.9**	**-5.0**
ERM	**Erimo**	**10.41**	**246**	*e*Pn	**Pn**	**11 17 36.0**	**+2.1**
	comp=Z,50nm,0.6s						
ERM	**Erimo**	**10.41**	**246**	⇓*i*PN	**Pn**	**11 17 33.7**	**-0.1**
JNBK	**Urakawa-nobuka**	**10.52**	**248**	P	**Pn**	**11 17 33.6**	**-1.8**
JBT2	**Biratori 2**	**10.53**	**252**	P	**Pn**	**11 17 34.9**	**-0.6**
OKH	**Okha**	**10.64**	**313**	*e*PN	**Pn**	**11 17 37.2**	**+0.2**
JNB	**Noboribetsu**	**11.54**	**253**	P	**Pn**	**11 17 48.4**	**-0.9**
JNB				*e*S	**Sn**	**11 19 50.7**	**-7.0**
JKB	**Kayabe**	**11.82**	**250**	P	**Pn**	**11 17 51.3**	**-1.9**
JKB				*e*S	**Sn**	**11 19 55.3**	**-9.4**
JYM2	**Yakumo 2**	**12.14**	**252**	P	**Pn**	**11 17 55.8**	**-1.7**
JANG	**Nango**	**12.36**	**243**	P	**Pn**	**11 17 57.0**	**-3.5**
JANG				*e*S	**Sn**	**11 20 05.3**	**-13**
JTM	**Tenmabayashi**	**12.39**	**246**	P	**Pn**	**11 17 58.2**	**-2.8**
JTM				*e*S	**Sn**	**11 20 07.3**	**-11**
JTH	**Tanohata**	**12.42**	**241**	P	**Pn**	**11 17 57.0**	**-4.3**
JOSM	**Okushiri--Mats**	**12.74**	**254**	P	**Pn**	**11 18 03.8**	**-2.0**
MA2	**Magadan**	**13.02**	**348**	*e*Pn	**Pn**	**11 18 07.9**	**-1.6**
MA2	**Magadan**	**13.02**	**348**	⇑*e*PN	**Pn**	**11 18 08.4**	**-1.0**
MA2				pmax	pmax		
	comp=Z,9.0nm,0.6s						
OFUJ	**Ofunato**	**13.09**	**238**	P	**Pn**	**11 18 07.6**	**-2.9**
JRG	**Rokugo**	**13.49**	**242**	P	**Pn**	**11 18 13.7**	**-2.3**
JIO	**Ouri**	**13.69**	**237**	P	**Pn**	**11 18 15.8**	**-2.9**
JIO				*e*S	**Sn**	**11 20 36.5**	**-14**
HABR	**Khabarovsk**	**14.17**	**284**	*e*P	**Pn**	**11 18 25.8**	**+0.6**
HABR				*e*S	**Sn**	**11 21 02.3**	**+0.3**
JFK	**Kawauchi**	**14.72**	**235**	P	**Pn**	**11 18 30.3**	**-2.4**
JFK				*e*S	**Sn**	**11 21 01.2**	**-14**
JFY	**Yanaizu**	**15.36**	**237**	P	**Pn**	**11 18 39.1**	**-2.1**
SEY	**Seymchan**	**16.15**	**354**	⇑*e*P	**Pn**	**11 18 50.1**	**-1.2**
KLR	**Kul’dur**	**16.34**	**287**	*e*P	**Pn**	**11 18 52.2**	**-1.6**
KLR				MLR	MLR		
	comp=E,900nm,13.0s						
KLR				MLR	MLR		
	comp=Z,1μm,13.0s						
MAJO	**Matsushiro**	**16.82**	**238**	*e*P	**Pn**	**11 18 59.4**	**-0.7**
MAT	**Matsushiro**	**16.82**	**238**	P	**Pn**	**11 18 59.8**	**-0.2**
MJAR	**Matsushiro Arr**	**16.82**	**238**	Pn	**Pn**	**11 18 58.9**	**-1.1**
MJAR	**Matsushiro Arr**	**16.82**	**238**	Pn	**Pn**	**11 18 58.9**	**-1.2**
	comp=Z,0.4nm,0.3s,baz=29,slow=12,SNR=12						
VLA	**Vladivostok**	**17.43**	**266**	⇑*e*P	**Pn**	**11 19 07.1**	**-0.6**
VLA				pmax	pmax		
	comp=Z,88nm,1.7s						
MDJ	**Mudanjiang**	**18.53**	**272**	P	**Pn**	**11 19 19.8**	**-1.3**
MDJ				AMB	AMB		
	comp=Z,24nm,0.9s						
MDJ				AMB	AMB		
	comp=Z,125nm,4.8s						
MDJ	**Mudanjiang**	**18.53**	**272**	*e*P	**Pn**	**11 19 20.1**	**-1.0**
	comp=Z,18nm,0.8s						
YAK	**Yakutsk**	**21.25**	**325**	*e*P	**P**	**11 19 49.4**	**-1.1**
YAK	**Yakutsk**	**21.25**	**325**	*e*P	**P**	**11 19 49.4**	**-1.1**
YAK				*e**PP		11 20 08.8	
YAK				*e*S	**S**	**11 23 38.3**	**-7.5**
YAK				*e*		11 23 49.4	
YAK				*e**SS	sS	11 24 09.9	+17
YAK				*e*		11 31 03.3	
YAK				pmax	pmax		
	comp=Z,82nm,0.7s,mb5.2						
YAK				pmax	pmax		
	comp=N,52nm,1.5s						
YAK				pmax	pmax		
	comp=E,82nm,1.4s						
YAK				smax			
	comp=E,145nm,1.8s						
YAK				smax			
	comp=N,411nm,5.2s						
CLNS	**Chul’man**	**21.41**	**309**	*e*P	**P**	**11 19 51.2**	**-0.9**
CLNS				*e*		11 20 04.9	
CLNS				*e*PPP		11 20 16.7	
CLNS				*e*S	**S**	**11 23 44.3**	**-4.5**
CLNS				*e*		11 23 59.6	
CLNS				*e*SS		11 24 15.1	
CLNS				pmax	pmax		
	comp=N,18nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,67nm,0.9s,mb5.0						
CLNS				pmax	pmax		
	comp=E,33nm,1.0s						
CLNS				smax			
	comp=N,17nm,1.0s						
CLNS				smax			
	comp=Z,4.0nm,0.8s						
CLNS				smax			
	comp=E,12nm,0.9s						
CLNS				MLR	MLR		
	comp=N,300nm,13.0s,MS4.1						
CLNS				MLR	MLR		
	comp=E,400nm,14.0s,MS4.1						
CLNS				MLR	MLR		
	comp=Z,900nm,14.0s,MS4.3						
NRGR	**Nerungri**	**21.45**	**308**	*e*P	**P**	**11 19 54.6**	**+2.0**
NRGR				S	**S**	**11 23 44.4**	**-5.3**
NRGR				smax			
	comp=E,54nm,0.6s						
CN2	**Changchun**	**21.61**	**273**	*e*P	**P**	**11 19 53.4**	**-1.1**
CN2				*e*XP	sP	11 19 59.4	-2.0
CN2				*e*PP		11 20 17.5	
CN2				*e*S	**S**	**11 23 46.9**	**-6.2**
CN2				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.7						
CN2				LR	LR		
	comp=N,400nm,16.0s,MS4.2						
CN2				LR	LR		
	comp=E,700nm,16.0s,MS4.2						
CN2				LR	LR		
	comp=Z,800nm,21.0s,MS4.1						
BILL	**Bilibino**	**21.80**	**10**	*e*P	**P**	**11 19 56.3**	**+0.1**
	comp=Z,74nm,0.9s,mb5.1						
BILL	**Bilibino**	**21.80**	**10**	*d* *i*P	**P**	**11 19 56.4**	**+0.2**
BILL				*i* S	**S**	**11 23 57.2**	**+1.0**
BILL				pmax	pmax		
	comp=Z,94nm,1.2s,mb5.1						
BILL				MLR	MLR		
	comp=Z,500nm,19.0s,MS3.9						
KSRS	**Korea Array**	**22.75**	**256**	P	**P**	**11 20 09.4**	**+2.8**
	comp=Z,16nm,0.8s,mb4.5,baz=54,slow=10,SNR=76						
KSRS				PcP	PcP	11 23 59.4	+1.3
	comp=Z,2.9nm,0.8s,baz=52,slow=0.9,SNR=8.6						
KS15	**Wonju Array Si**	**22.78**	**256**	*e*P	**P**	**11 20 09.6**	**+2.6**
JNU	**Nakatsue**	**23.54**	**243**	P	**P**	**11 20 16.9**	**+2.0**
	comp=Z,29nm,1.0s,mb4.7,baz=44,slow=14,SNR=14						
INCN	**Inchon**	**23.59**	**257**	*e*P	**P**	**11 20 18.4**	**+3.1**
SNY	**Shenyang**	**23.61**	**269**	⇓P	**P**	**11 20 15.4**	**-0.1**
SNY				AMB	AMB		
	comp=Z,20nm,0.4s,mb4.9						
HIA	**Hailar**	**24.17**	**289**	*e*P	**P**	**11 20 19.7**	**-0.9**
	comp=Z,12nm,0.7s,mb4.4						
HIA	**Hailar**	**24.17**	**289**	⇑*e*P	**P**	**11 20 20.6**	**+0.1**
GAMB	**Gambell**	**24.52**	**35**	*e*P	**P**	**11 20 22.9**	**-0.7**
DL2	**Dalian**	**26.24**	**265**	P	**P**	**11 20 43.8**	**+4.3**
DL2				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.9						
TNA	**Tin City**	**26.78**	**33**	*e*P	**P**	**11 20 43.4**	**-0.6**
	comp=Z,4.4nm,0.6s,mb4.2						
BOD	**Bodaibo**	**27.39**	**309**	*e*P	**P**	**11 20 48.1**	**-1.5**
BOD				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.2						
CIT	**Chita**	**27.72**	**296**	*e*P	**P**	**11 20 53.4**	**+0.7**
CIT				*e*		11 21 10.7	
CIT				pmax	pmax		
	comp=Z,30nm,2.1s,mb4.5						
TIXI	**Tiksi**	**27.86**	**342**	*e*P	**P**	**11 20 53.9**	**+0.2**
TIXI	**Tiksi**	**27.86**	**342**	*e*P	**P**	**11 20 52.6**	**-1.1**
TIXI				pmax	pmax		
	comp=Z,38nm,1.5s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,382nm,11.0s,MS4.2						
BJI	**Beijing**	**29.45**	**271**	P	**P**	**11 21 09.9**	**+1.8**
BJI				AP	pP	11 21 12.9	-0.3
BJI				XP	sP	11 21 14.3	-1.0
BJI				S	**S**	**11 26 04.0**	**+2.6**
BJI				XS	sS	11 26 10.3	+0.5
BJI				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.3						
BJI				LR	LR		
	comp=N,416nm,8.8s						
BJI				LR	LR		
	comp=E,496nm,14.1s						
BJI				LR	LR		
	comp=Z,531nm,19.7s						
BJI	**Beijing**	**29.45**	**271**	P	**P**	**11 21 09.9**	**+1.8**
BJI				pP	pP	11 21 12.9	-0.3
BJI				sP	sP	11 21 14.3	-1.0
BJI				S	**S**	**11 26 04.0**	**+2.6**
BJI				sS	sS	11 26 10.3	+0.5
BJI				LR	LR		
	comp=Z,530nm,19.7s,MS4.2						
BJT	**Baijiatuau**	**29.46**	**271**	*e*P	**P**	**11 21 14.2**	**+6.0**
	comp=Z,10nm,0.6s,mb4.7						
BJT	**Baijiatuau**	**29.46**	**271**	*e*P	**P**	**11 21 14.2**	**+5.9**
BJT				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NJ2	**Nanjing**	**31.95**	**256**	*e*P	**P**	**11 21 33.0**	**+2.7**
NJ2				AMB	AMB		
	comp=Z,30nm,1.1s,mb5.0						
HHC	**Hu-ho-hao-te**	**32.24**	**276**	*e*P	**P**	**11 21 35.8**	**+3.0**
HHC				PP	PP	11 22 43.3	-2.2
HHC				S	**S**	**11 26 45.3**	**+0.2**
HHC				PCS	PcS	11 28 07.8	+2.2
HHC				AMB	AMB		
	comp=Z,42nm,1.3s,mb5.1						
HHC				AMB	AMB		
	comp=Z,348nm,13.3s						
HHC				LR	LR		
	comp=N,393nm,18.4s,MS4.3						
HHC				LR	LR		
	comp=E,390nm,19.0s,MS4.3						
HHC				LR	LR		
	comp=Z,527nm,20.8s,MS4.2						
KDAK	**Kodiak Island**	**32.44**	**51**	P	**P**	**11 21 32.8**	**-1.5**
	comp=Z,15nm,0.4s,mb5.1,baz=272,slow=6.3,SNR=32						
IMA2	**Indian Mountai**	**32.49**	**36**	*e*P	**P**	**11 21 34.4**	**-0.3**
ULN	**Ulaanbaatar**	**32.69**	**290**	*e*P	**P**	**11 21 37.8**	**+1.2**
	comp=Z,9.6nm,0.9s,mb4.7						
ULN	**Ulaanbaatar**	**32.69**	**290**	⇑*e*P	**P**	**11 21 37.3**	**+0.7**
SONM	**Songino Array**	**33.12**	**290**	P	**P**	**11 21 41.3**	**+0.9**
	comp=Z,4.1nm,0.7s,mb4.5,baz=66,slow=8.0,SNR=41						
SONM				PcP	PcP	11 24 23.6	+0.4
	comp=Z,3.2nm,0.9s,baz=91,slow=2.9,SNR=6.7						
TLY	**Talaya**	**33.83**	**298**	*e*P	**P**	**11 21 48.1**	**+1.5**
TLY	**Talaya**	**33.83**	**298**	*d* *i*P	**P**	**11 21 47.5**	**+0.9**
TLY				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
PMR	**Palmer**	**34.08**	**44**	*e*P	**P**	**11 21 47.4**	**-1.2**
	comp=Z,18nm,1.2s,mb4.9						
PMR	**Palmer**	**34.08**	**44**	*e*P	**P**	**11 21 47.4**	**-1.2**
PMR				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
MCK	**McKinley**	**34.22**	**40**	*e*P	**P**	**11 21 49.8**	**0.0**
ZAK	**Zakamensk**	**34.37**	**296**	⇓*i*P	**P**	**11 21 52.5**	**+1.2**
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
SML	**Sawmill**	**34.46**	**44**	*e*P	**P**	**11 21 51.0**	**-0.8**
COLA	**College**	**34.76**	**38**	*e*P	**P**	**11 21 54.3**	**-0.1**
WHN	**Wuhan**	**35.89**	**258**	*e*P	**P**	**11 22 06.3**	**+1.7**
WHN				PCP	PcP	11 24 32.8	+1.3
XAN	**Xi’an**	**37.49**	**267**	P	**P**	**11 22 19.8**	**+1.6**
XAN				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.7						
EGAK	**Eagle**	**37.62**	**39**	*e*P	**P**	**11 22 18.1**	**-0.8**
	comp=Z,30nm,1.1s,mb4.9						
DAWY	**Dawson**	**38.43**	**40**	*e*P	**P**	**11 22 25.8**	**+0.1**
LZH	**Lanzhou**	**39.85**	**274**	⇓P	**P**	**11 22 40.5**	**+2.6**
LZH				AP	pP	11 22 45.0	+1.9
LZH				XP	sP	11 22 47.5	+2.4
LZH				PP	PP	11 24 16.6	+7.2
LZH				*e*S	**S**	**11 28 44.3**	**+2.7**
LZH				XS	sS	11 28 51.5	+1.4
LZH				AMB	AMB		
	comp=Z,35nm,1.3s,mb4.9						
LZH				AMB	AMB		
	comp=Z,176nm,5.4s						
LZH				LR	LR		
	comp=N,849nm,13.7s						
LZH				LR	LR		
	comp=Z,1μm,17.8s,MS4.8						
LZH	**Lanzhou**	**39.85**	**274**	⇓P	**P**	**11 22 40.5**	**+2.6**
	comp=Z,35nm,1.3s,mb4.9						
LZH				pP	pP	11 22 45.0	+1.9
LZH				sP	sP	11 22 47.5	+2.4
LZH				PP	PP	11 24 16.6	+7.2
LZH				*e*S	**S**	**11 28 44.3**	**+2.7**
LZH				sS	sS	11 28 51.5	+1.4
LZH				SS	SS	11 31 33.2	-4.6
LZH				LR	LR		
	comp=Z,1μm,17.8s,MS4.8						
LZH	**Lanzhou**	**39.85**	**274**	⇓P	**P**	**11 22 40.5**	**+2.6**
LZH				*SP	sP	11 22 47.5	+2.4
LZH						11 24 16.6	
LZH				*e*S	**S**	**11 28 44.3**	**+2.7**
LZH				SS	SS	11 31 33.2	-4.6
LZH				pmax	pmax		
	comp=Z,35nm,1.3s,mb4.9						
LZH				MLR	MLR		
	comp=Z,1μm,17.8s,MS4.8						
INK	**Inuvik**	**40.42**	**33**	*e*P	**P**	**11 22 42.6**	**+0.4**
	comp=Z,748nm,0.6s						
INK	**Inuvik**	**40.42**	**33**	P	**P**	**11 22 42.6**	**+0.4**
	comp=Z,22nm,0.5s,mb5.1,baz=292,slow=6.4,SNR=94						
GTA	**Gaotai**	**40.88**	**280**	⇓P	**P**	**11 22 48.9**	**+2.5**
GTA				AP	pP	11 22 53.5	+1.9
GTA				XP	sP	11 22 56.0	+2.4
GTA				PP	PP	11 24 27.3	+6.8
GTA				PCP	PcP	11 24 48.4	+1.6
GTA				PPP		11 24 57.3	
GTA				S	**S**	**11 29 01.4**	**+4.5**
GTA				XS	sS	11 29 09.0	+3.5
GTA				AMB	AMB		
	comp=Z,31nm,1.3s,mb4.8						
GTA				AMB	AMB		
	comp=Z,296nm,6.5s						
GTA				LR	LR		
	comp=N,478nm,15.6s,MS4.6						
GTA				LR	LR		
	comp=E,388nm,16.0s,MS4.6						
GTA				LR	LR		
	comp=Z,366nm,16.0s,MS4.3						
CD2	**Chengdu**	**42.86**	**267**	P	**P**	**11 23 04.8**	**+2.1**
CD2				AP	pP	11 23 09.3	+1.4
CD2				XP	sP	11 23 11.8	+1.9
CD2				PP	PP	11 24 46.8	+4.7
CD2				S	**S**	**11 29 28.1**	**+1.7**
CD2				XS	sS	11 29 35.5	+0.5
CD2				SS	SS	11 32 32.8	-4.8
CD2				AMB	AMB		
	comp=Z,30nm,1.3s,mb4.9						
CD2				AMB	AMB		
	comp=Z,120nm,5.8s						
CD2				LR	LR		
	comp=N,400nm,19.2s,MS4.5						
CD2				LR	LR		
	comp=E,440nm,19.2s,MS4.5						
CD2				LR	LR		
	comp=Z,540nm,20.4s,MS4.4						
GYA	**Guiyang**	**43.69**	**260**	P	**P**	**11 23 13.0**	**+3.6**
GYA				AP	pP	11 23 17.5	+2.9
GYA				XP	sP	11 23 20.6	+3.9
GYA				PP	PP	11 24 57.0	+6.0
GYA				PCP	PcP	11 25 00.4	+4.1
GYA				PPP		11 25 33.6	
GYA				SCP	ScP	11 28 51.0	+4.0
GYA				S	**S**	**11 29 43.3**	**+4.7**
GYA				SCS	ScS	11 33 10.3	+2.2
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
GYA				AMB	AMB		
	comp=Z,160nm,5.4s						
GYA				LR	LR		
	comp=N,420nm,19.8s,MS4.6						
GYA				LR	LR		
	comp=E,530nm,19.4s,MS4.6						
GYA				LR	LR		
	comp=Z,430nm,18.6s,MS4.4						
DLBC	**Dease Lake**	**44.03**	**47**	*e*P	**P**	**11 23 13.3**	**+1.5**
ZALV	**Zalesovo Beam**	**44.08**	**306**	P	**P**	**11 23 12.2**	**-0.1**
ZALV				PcP	PcP	11 24 56.9	-0.3
ZALV				LR	LR	11 42 27.7	
ZALV	**Zalesovo Beam**	**44.08**	**306**	P	**P**	**11 23 12.2**	**-0.1**
	comp=Z,5.8nm,0.5s,mb4.6,baz=66,slow=7.6,SNR=26						
ZALV				PcP	PcP	11 24 56.9	-0.3
	comp=Z,2.6nm,0.7s,baz=56,slow=3.7,SNR=4.4						
ZALV				LR	LR	11 42 27.7	
	comp=Z,304nm,19.7s,MS4.2,baz=314,slow=37						
ZAL	**Zalesovo**	**44.10**	**306**	P	**P**	**11 23 12.2**	**-0.2**
ZAL						11 24 56.9	
NVS	**Novosibirsk**	**44.62**	**308**	*e*P	**P**	**11 23 16.6**	**0.0**
NVS				*e*		11 24 58.5	
NVS				*e*S	**S**	**11 29 48.6**	**-3.0**
NVS				pmax	pmax		
	comp=N,22nm,1.7s						
NVS				pmax	pmax		
	comp=E,38nm,1.7s						
NVS				pmax	pmax		
	comp=Z,45nm,1.7s,mb5.0						
NVS				smax			
	comp=N,17nm,1.8s						
NVS				smax			
	comp=E,13nm,1.8s						
WMQ	**Urumqi**	**46.68**	**292**	P	**P**	**11 23 35.1**	**+2.1**
WMQ				AP	pP	11 23 39.6	+1.4
WMQ				XP	sP	11 23 42.1	+1.8
WMQ				PCP	PcP	11 25 09.1	+2.7
WMQ				PP	PP	11 25 24.8	+2.3
WMQ				AMB	AMB		
	comp=Z,17nm,0.8s,mb5.0						
KMI	**Kunming**	**47.22**	**262**	P	**P**	**11 23 38.8**	**+1.4**
KMI				AMB	AMB		
	comp=Z,17nm,1.5s,mb4.8						
KMI	**Kunming**	**47.22**	**262**	P	**P**	**11 23 38.8**	**+1.4**
	comp=Z,17nm,1.5s,mb4.8						
MK31	**Makanchi Array**	**48.59**	**298**	*e*P	**P**	**11 23 48.8**	**+1.0**
MKAR	**Makanchi Array**	**48.59**	**298**	P	**P**	**11 23 49.0**	**+1.3**
	comp=Z,12nm,0.7s,mb5.1,baz=68,slow=8.0,SNR=119						
MKAR				PcP	PcP	11 25 14.3	+1.2
	comp=Z,1.4nm,0.6s,baz=77,slow=3.9,SNR=3.3						
KURK	**Kurchatov**	**48.88**	**305**	*e*P	**P**	**11 23 50.8**	**+0.8**

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KURK  Kurchatov          48.88 305d iP     P       11 23 50.6 +0.6
YKW3  Yellowknife Ar     49.54  38  eP     P       11 23 54.6 -0.2
YKA   Yellowknife Ar     49.58  38  P      P       11 23 55.2 +0.1
      comp=Z,6.2nm,0.5s,mb4.9,baz=294,slow=7.1,SNR=138
YKA                                 PcP    PcP     11 25 16.7 +0.3
      comp=Z,1.1nm,0.5s,baz=301,slow=3.9,SNR=7.6
RES   Resolute Bay       50.01  19  eP     P       11 23 59.2 +0.9
      comp=Z,525nm,1.1s
LSA   Lhasa              52.23 275  eP     P       11 24 19.2 +3.8
      comp=Z,9.5nm,0.6s,mb4.9
LSA   Lhasa              52.23 275  eP     P       11 24 19.3 +3.8
LSA                                 pmax   pmax
      comp=Z,10.0nm,0.6s,mb4.9
BRVK  Borovoye           52.28 310  eP     P       11 24 16.7 +1.2
      comp=Z,33nm,0.8s,mb5.3
BRVK  Borovoye           52.28 310  eP     P       11 24 16.7 +1.1
BRVK                                pmax   pmax
      comp=Z,33nm,0.8s,mb5.3
CHTO  Chiang Mai         54.09 259  eP     P       11 24 31.6 +2.3
      comp=Z,11nm,0.8s,mb4.8
CHTO  Chiang Mai         54.09 259  eP     P       11 24 31.6 +2.3
CHTO                                pmax   pmax
      comp=Z,11nm,0.8s,mb4.8
CM31  Chiang Mai Arr     54.34 259  eP     P       11 24 33.7 +2.6
TKM2  Tokmak 2           54.67 297  eP     P       11 24 35.5 +2.2
      comp=Z,23nm,0.9s,mb5.2
TKM2  Tokmak 2           54.67 297  eP     P       11 24 35.5 +2.3
TKM2                                pmax   pmax
      comp=Z,23nm,0.9s,mb5.2
SVE   Sverdlovsk         55.01 318  eP     P       11 24 37.0 +1.5
FRU   Bishkek            55.31 298⇓iP     P       11 24 39.5 +1.6
FRU                                 pmax   pmax
      comp=Z,80nm,1.7s,mb5.5
AAK   Ala-Archa          55.50 298  eP     P       11 24 40.4 +1.1
AAK   Ala-Archa          55.50 298d iP     P       11 24 40.1 +0.9
AAK                                 pmax   pmax
      comp=Z,28nm,0.9s,mb5.3
UCH   Uchtor             55.72 297  eP     P       11 24 43.7 +2.8
      comp=Z,18nm,1.5s,mb4.9
EKS2  Erkin-Say          55.92 298  eP     P       11 24 44.8 +2.5
      comp=Z,123nm,1.8s,mb5.6
ARU   Arti               56.18 318  eP     P       11 24 44.6 +0.7
ARU   Arti               56.18 318d iP     P       11 24 44.5 +0.6
ARU                                 pmax   pmax
      comp=Z,36nm,0.8s,mb5.5
AML   Almayashu          56.27 298  eP     P       11 24 47.5 +2.7
      comp=Z,12nm,0.8s,mb5.0
KSH   Kashi              56.39 294  eP     P       11 24 48.6 +3.0
KSH                                 eAP    pP      11 24 53.3 +2.3
KSH                                 eXP    sP      11 24 55.6 +2.6
KSH                                 ePCP   PcP     11 25 45.1 +2.5
KSH                                 ePP    PP      11 26 55.8 +4.9
KSH                                 ePPP           11 28 12.6
KSH                                 ePCS   PcS     11 29 43.5 +0.3
KSH                                 eS     S       11 32 37.1 +1.7
KSH                                 eXS    sS      11 32 44.8 +0.6
KSH                                 ePS            11 32 50.8
KSH                                 eSCS   ScS     11 34 33.8 -0.2
KSH                                 eSS    SS      11 36 24.6 +2.7
KSH                                 LR     LR
      comp=Z,899nm,6.0s
DAG   Danmarks Havn      56.51 359⇑eP     P       11 24 46.0  0.0
DAG                                 pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.7
DAG   Danmarks Havn      56.51 359⇑iP     P       11 24 46.0  0.0
      comp=Z,6.0nm,0.8s,mb4.7
BMO   Blue Mountains     57.32  58  eP     P       11 24 52.7 +0.5
KK31  Karatay Array      57.62 300  i P    P       11 24 55.5 +1.2
KK31                                pmax   pmax
      comp=Z,2.0nm,0.4s,mb4.5
KKAR  Karatay Array      57.62 300  i P    P       11 24 55.5 +1.2
KKAR                                pmax   pmax
      comp=Z,1.0nm,0.4s,mb4.2
APA   Apatity            57.92 338⇓eP     P       11 24 56.3 +0.2
APA                                 i              11 25 07.4
APA                                 pmax   pmax
      comp=Z,13nm,1.0s,mb4.9
PRGR  Permogore          58.25 328⇑iP     P       11 24 58.9 +0.5
PRGR                                eS     S       11 32 54.9 -4.4
PRGR                                pmax   pmax
      comp=Z,24nm,0.6s,mb5.4
ARCES ARCESS Array B     58.30 342  P      P       11 24 59.0 +0.3
      comp=Z,8.5nm,0.8s,mb4.8,baz=34,slow=7.3,SNR=31
ARCES                               LR     LR      11 52 26.1
      comp=Z,426nm,20.9s,MS4.5,baz=31,slow=38
FFC   Flin Flon          59.30  41  eP     P       11 25 06.2 +0.3
      comp=Z,15nm,1.1s,mb4.9
FFC   Flin Flon          59.30  41  eP     P       11 25 06.2 +0.3
FFC                                 pmax   pmax
      comp=Z,15nm,1.1s,mb4.9
AB31  Akbulak array      59.80 311  P      P       11 25 09.9 +0.5
AB31                                pmax   pmax
      comp=Z,7.0nm,0.6s,mb4.9
FCC   Fort Churchill     60.00  34  eP     P       11 25 10.2 -0.4
BOZ   Bozeman (W)        60.06  54  eP     P       11 25 12.1 +0.9
      comp=Z,8.1nm,0.6s,mb4.9
BOZ   Bozeman (W)        60.06  54  eP     P       11 25 12.1 +0.9
BOZ                                 pmax   pmax
      comp=Z,8.0nm,0.6s,mb4.9
MOOW  Moose Ponds        61.73  55  eP     P       11 25 24.2 +1.6
      comp=Z,8.1nm,1.3s,mb4.7
LOHW  Long Hollow        61.90  55  eP     P       11 25 25.1 +1.4
      comp=Z,13nm,1.2s,mb4.9
REDW  Red Top Meadow     61.91  56  eP     P       11 25 24.6 +0.7
      comp=Z,17nm,1.2s,mb5.0
JOF   Joensuu            62.01 335  ep     P       11 25 23.7 -0.5
      comp=Z,4.6nm,0.4s,mb5.0
JOF   Joensuu            62.01 335  eP     P       11 25 23.7 -0.5
JOF                                 pmax   pmax
      comp=Z,5.0nm,0.4s,mb5.0
DGMT  Dagmar             62.23  48  eP     P       11 25 26.2 +0.3
      comp=Z,14nm,0.8s,mb5.2
HWUT  Hardware Ranch     62.62  58  eP     P       11 25 29.0 +0.4
DUG   Dugway             62.79  59  eP     P       11 25 30.3 +0.6
DUG                                 eP             11 25 30.5
BW06  Boulder Array      63.02  55  eP     P       11 25 32.3 +1.0
BW06                                eP             11 25 32.4
PDAR  Pinedale Array     63.02  55  P      P       11 25 31.3  0.0
      comp=Z,4.4nm,1.0s,mb4.5,baz=293,slow=2.1,SNR=15
NLU   North Lily Min     63.38  59  eP     pP      11 25 43.1 +4.0
KBL   Kabul              63.81 293  eP     P       11 25 37.4 +0.7
FINES FINESS Array B     64.68 336  P      P       11 25 41.9  0.0
FINES FINESS Array B     64.68 336  P      P       11 25 41.9  0.0
      comp=Z,3.0nm,0.4s,mb4.6,baz=40,slow=7.5,SNR=26
SRU   San Rafael         64.84  59  eP     P       11 25 43.6 +0.4
ULM   Lac du Bonnet      65.06  42  P      P       11 25 44.1 -0.5
      comp=Z,3.0nm,0.5s,mb4.6,baz=319,slow=6.4,SNR=17
OBN   Obninsk            66.24 327⇑eP     P       11 25 51.5 -0.6
OBN                                 pmax   pmax
      comp=Z,33nm,1.6s,mb5.1
OBN                                 MLR    MLR
      comp=Z,200nm,19.0s,MS4.3
SMCO  Snowmass           66.86  57  eP     P       11 25 57.2 +0.9
      comp=Z,6.2nm,1.1s,mb4.5
ISCO  Idaho Springs      67.21  56  eP     P       11 25 59.8 +1.3
      comp=Z,9.6nm,1.3s,mb4.7
ISCO  Idaho Springs      67.21  56  eP     P       11 25 59.8 +1.3
ISCO                                pmax   pmax
      comp=Z,10.0nm,1.3s,mb4.7
NB2   NORSAR Subarra     68.65 342  P      P       11 26 07.5 +0.3
      comp=Z,3.3nm,0.5s,mb4.5,baz=28,slow=6.2
NOA   NORSAR Array B     68.65 342  P      P       11 26 07.5 +0.3
      comp=Z,2.5nm,0.9s,mb4.2,baz=25,slow=6.2,SNR=4.1
NOA                                 LR     LR      11 59 18.7
      comp=Z,156nm,18.4s,MS4.3,baz=30,slow=39
SDCO  Great Sand Dun     68.68  57  eP     P       11 26 08.7 +0.9
EYMN  Ely                68.72  42  eP     P       11 26 07.4 -0.5
HYB   Hyderabad          68.96 273  eP     P       11 26 11.5 +1.7
HYB   Hyderabad          68.96 273  i P    P       11 26 11.5 +1.7
ECSD  EROS,Sioux Fal     69.31  48  eP     P       11 26 10.7 -0.9
      comp=Z,5.7nm,0.8s,mb4.5
WB2   Warramunga Arr     69.38 202  eP     P       11 26 14.2 +2.1
WRA   Warramunga Arr     69.39 202  P      P       11 26 12.1 -0.1
      comp=Z,9.7nm,0.8s,mb4.8,baz=20,slow=6.6,SNR=39
ANMO  Albuquerque        70.04  60  eP     P       11 26 17.1 +0.9
ANMO  Albuquerque        70.04  60⇓iP     P       11 26 16.0 -0.3
FITZ  Fitzroy Crossi     70.28 211  eP     P       11 26 19.0 +1.2
      comp=Z,9.2nm,0.9s,mb4.7
FITZ  Fitzroy Crossi     70.28 211  P      P       11 26 18.8 +1.1
      comp=Z,6.0nm,0.9s,mb4.5,baz=359,slow=6.5,SNR=10
KIV   Kislovodsk         72.05 316  eP     P       11 26 32.8 +4.5
KIV   Kislovodsk         72.05 316ceP     P       11 26 30.8 +2.5
KIV                                 pmax   pmax
      comp=Z,54nm,1.7s,mb5.2
KIV                                 MLR    MLR
      comp=Z,300nm,20.0s,MS4.6
SCHQ  Schefferville      72.34  24  P      P       11 26 29.4 -0.4
SCHQ  Schefferville      72.34  24  P      P       11 26 29.4 -0.4
      comp=Z,4.3nm,0.9s,mb4.4,baz=33,slow=8.9,SNR=5.4
ZEI   Tsey               72.35 314  eP     P       11 26 30.5 +0.4
ZEI                                 e              11 26 48.4
ZEI                                 pmax   pmax
      comp=Z,10.0nm,0.9s,mb4.8
SCIA  State Center       72.35  47  eP     P       11 26 29.7 -0.4
      comp=Z,12nm,0.4s,mb5.2
AKASG Malin Array Be     72.45 328  i P    P       11 26 22.0 -8.6
AKASG Malin Array Be     72.45 328  P      P       11 26 30.0 -0.6
      comp=Z,4.7nm,0.5s,mb4.7,baz=34,slow=6.7,SNR=7.1
AKASG                               LR     LR      12 02 17.5
      comp=Z,259nm,19.6s,MS4.5,baz=15,slow=39
AKBB  Malin Array Si     72.45 328  eP     P       11 26 30.2 -0.3
KIEV  Kiev               72.47 328  eP     P       11 26 29.2 -1.5
      comp=Z,4.2nm,0.6s,mb4.5
KIEV  Kiev               72.47 328  eP     P       11 26 29.2 -1.5
KIEV                                pmax   pmax
      comp=Z,4.0nm,0.6s,mb4.5
MNTX  Cornudas Mount     72.95  62  eP     P       11 26 34.3 +0.4
      comp=Z,9.8nm,1.4s,mb4.5
ASAR  Alice Springs      73.06 201  P      P       11 26 35.0 +0.7
      comp=Z,6.3nm,0.8s,mb4.6,baz=16,slow=5.4,SNR=32
SOC   Sochi              73.73 317c iP     P       11 26 39.0 +0.7
SOC                                 e*PP   pP      11 26 47.7 +3.9
SOC                                 e*SP   sP      11 26 50.8 +5.0
SOC                                 e              11 29 28.1
SOC                                 eS     S       11 36 07.2 -1.1
SOC                                 e              11 36 43.1
SOC                                 eSS    SS      11 40 49.1 -1.8
SOC                                 eSSS           11 44 07.0
SOC                                 pmax   pmax
      comp=Z,36nm,1.0s,mb5.3
ANN   Anapa              73.83 319  eP     P       11 26 37.6 -1.3
ANN                                 pmax   pmax
      comp=Z,39nm,1.0s,mb5.3
WMOK  Wichita Mounta     74.64  55  eP     P       11 26 43.7 -0.1
      comp=Z,13nm,1.3s,mb4.7
WMOK  Wichita Mounta     74.64  55  eP     P       11 26 43.7  0.0
WMOK                                pmax   pmax
      comp=Z,13nm,1.3s,mb4.7
HDIL  Hopedale           75.32  46  eP     P       11 26 47.0 -0.5
      comp=Z,73nm,1.0s,mb5.6
KWP   Kalwaria           75.64 331  eP     P       11 26 50.0 +0.8
LTX   Lajitas            75.67  62  eP     P       11 26 50.5 +0.8
      comp=Z,8.9nm,0.6s,mb4.9
LTX   Lajitas            75.67  62  eP     P       11 26 50.5 +0.8
LTX                                 pmax   pmax
      comp=Z,9.0nm,0.6s,mb4.9
TXAR  Lajitas Array      75.67  62  P      P       11 26 50.0 +0.2
TXAR  Lajitas Array      75.67  62  P      P       11 26 50.0 +0.2
      comp=Z,5.1nm,0.4s,mb4.8,baz=305,slow=5.0,SNR=207
BURAR Bucovina Array     76.48 328 ⇑P      P       11 26 54.6 +0.6
BURAR Bucovina Array     76.48 328⇑iP     P       11 26 54.6 +0.5
FVM   French Village     76.71  48  eP     P       11 26 55.0 -0.6
      comp=Z,5.8nm,0.8s,mb4.6
FVM   French Village     76.71  48  eP     P       11 26 55.0 -0.6
FVM                                 pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.6
TRPA  Tarpa              76.98 330⇓iP     P       11 26 57.4 +0.5
CLL   Collm              77.07 337  eP     P       11 26 58.0 +0.7
CLL                                 ePcP   PcP     11 27 07.0 -1.2
JCT   Junction City      77.15  59  eP     P       11 26 58.0 -0.1
      comp=Z,20nm,1.2s,mb4.9
JCT   Junction City      77.15  59  eP     P       11 26 58.0 -0.1
JCT                                 pmax   pmax
      comp=Z,20nm,1.2s,mb4.9
MORC  Moravsky Berou     77.16 334 ⇓P      pP      11 27 08.8 +5.5
MORC  Moravsky Berou     77.16 334⇓iP     pP      11 27 08.8 +5.5
MIAR  Mount Ida          77.66  52  eP     P       11 27 00.7 -0.3
BLO   Bloomington        77.74  45  P      P       11 27 03.1 +1.8
MLR   Muntele Rosu       78.01 327 ⇓P      P       11 27 03.6 +1.0
MLR   Muntele Rosu       78.01 327⇓iP     P       11 27 03.6 +0.9
MOX   Moxa               78.04 338  eP     P       11 27 03.0 +0.3
DRGR                     78.08 329 ⇓P      P       11 27 03.4 +0.3
DRGR                     78.08 329⇓iP     P       11 27 03.4 +0.4
VOIR                     78.39 327⇑iP     P       11 27 05.8 +1.0
KHC   Kasperske Hory     78.89 336⇑eP     P       11 27 08.6 +1.1
GRA1  Grafenberg Arr     79.02 338  eP     P       11 27 08.5 +0.4
      comp=Z,6.0nm,1.1s,mb4.4
GRF   Grafenberg Arr     79.02 338  eP     P       11 27 08.5 +0.4
      comp=Z,6.0nm,1.1s,mb4.4
GRF   Grafenberg Arr     79.02 338  eP     P       11 27 08.5 +0.4
GRF                                 pmax   pmax
      comp=Z,6.0nm,1.1s,mb4.4
GRF   Grafenberg Arr     79.02 338  eP     P       11 27 08.5 +0.4
GRF                                 pmax   pmax
      comp=Z,6.0nm,1.1s,mb4.4
GERES GERESS Array B     79.11 336  P      P       11 27 09.2 +0.5
GERES                                              11 30 09.7
GERES GERESS Array B     79.11 336  P      P       11 27 09.2 +0.5
      comp=Z,1.1nm,0.4s,mb4.1,baz=38,slow=6.3,SNR=12
GERES                               PP     PP      11 30 09.7 +2.5
      comp=Z,0.5nm,0.6s,baz=22,slow=7.4,SNR=3.8
GERES                               LR     LR      12 05 24.9
      comp=Z,336nm,19.0s,MS4.7,baz=54,slow=38
BRTR  Keskin Array B     79.57 319  P      P       11 27 11.8 +0.4
      comp=Z,2.3nm,0.9s,mb4.1,baz=64,slow=2.9,SNR=7.4
BRTR                                PP     PP      11 30 13.4 +2.1
      comp=Z,1.6nm,0.8s,baz=52,slow=7.0,SNR=4.6
MIB   Mutribah           80.22 303  eP     P       11 27 15.8 +0.7
MIB                                 AMb    AMB     11 27 20.7
      comp=Z,68nm,0.6s,mb5.7
PLAL  Pickwick Lake      80.23  49  eP     P       11 27 14.4 -0.6
BAIF  Baives             80.33 342  eP     P       11 27 12.8 -2.5
      comp=Z,47nm,1.4s,mb4.9
BAIF  Baives             80.33 342  eP     P       11 27 12.8 -2.5
      comp=Z,24nm,1.4s,mb4.9
BAIF  Baives             80.33 342  eP     P       11 27 12.8 -2.5
BAIF                                pmax   pmax
      comp=Z,24nm,1.4s,mb4.9
KBD   Kabd               80.49 303  eP     P       11 27 17.1 +0.6
KBD                                 AMb    AMB     11 27 20.6
      comp=Z,189nm,1.2s,mb5.9
RST   Umm Al-Ruwaisa     80.64 303  eP     P       11 27 17.7 +0.4
RST                                 AMb    AMB     11 27 23.5
      comp=Z,41nm,0.9s,mb5.4
NAY   Al-Naaiem          80.69 303  eP     P       11 27 18.1 +0.5
NAY                                 AMb    AMB     11 27 20.7
      comp=Z,25nm,1.1s,mb5.1
RDF   Al-Radifah         80.76 303  eP     P       11 27 18.9 +0.9
RDF                                 AMb    AMB     11 27 21.4
      comp=Z,96nm,1.2s,mb5.6
SWET  Sewanee            81.14  47  eP     P       11 27 19.4 -0.5
CDF   Champ du Feu       81.19 340  eP     P       11 27 17.6 -2.3
      comp=Z,14nm,0.9s,mb4.6
CDF   Champ du Feu       81.19 340  eP     P       11 27 17.6 -2.3
      comp=Z,6.9nm,0.9s,mb4.6
CDF   Champ du Feu       81.19 340  eP     P       11 27 17.6 -2.3
CDF                                 pmax   pmax
      comp=Z,7.0nm,0.9s,mb4.6
GRR   Gorron             82.92 345  eP     P       11 27 26.1 -2.9
      comp=Z,29nm,1.0s,mb5.0
GRR   Gorron             82.92 345  eP     P       11 27 26.1 -2.9
      comp=Z,14nm,1.0s,mb5.0
GRR   Gorron             82.92 345  eP     P       11 27 26.1 -2.9
GRR                                 pmax   pmax
      comp=Z,14nm,1.0s,mb5.0
LOR   Lormes             83.05 341  eP     P       11 27 26.8 -2.9
      comp=Z,12nm,0.8s,mb4.7
LOR                                 eMLR   MLR
      comp=Z,305nm,21.8s,MS4.3
LOR   Lormes             83.05 341  eP     P       11 27 26.8 -2.9
      comp=Z,5.8nm,0.8s,mb4.7
LOR                                 LR     LR
      comp=Z,300nm,21.8s,MS4.6
LOR   Lormes             83.05 341  eP     P       11 27 26.8 -2.9
LOR                                 pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.7
LOR                                 MLR    MLR
      comp=Z,300nm,21.8s,MS4.6
CABF  La Chapelle        83.16 340  eP     P       11 27 27.7 -2.6
      comp=Z,9.3nm,0.8s,mb4.6
CABF  La Chapelle        83.16 340  eP     P       11 27 27.7 -2.6
      comp=Z,4.7nm,0.8s,mb4.6
CABF  La Chapelle        83.16 340  eP     P       11 27 27.7 -2.6
CABF                                pmax   pmax
      comp=Z,5.0nm,0.8s,mb4.6
SSF   Saint Saulge       83.32 341  eP     P       11 27 28.3 -2.8
      comp=Z,5.7nm,0.7s,mb4.4
SSF   Saint Saulge       83.32 341  eP     P       11 27 28.3 -2.8
      comp=Z,2.8nm,0.7s,mb4.4
SSF   Saint Saulge       83.32 341  eP     P       11 27 28.3 -2.8
SSF                                 pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.4
AVF   Avril sur Loir     83.61 341  eP     P       11 27 29.3 -3.3
      comp=Z,17nm,1.1s,mb4.8
AVF   Avril sur Loir     83.61 341  eP     P       11 27 29.3 -3.3
      comp=Z,8.4nm,1.1s,mb4.8
AVF   Avril sur Loir     83.61 341  eP     P       11 27 29.3 -3.3
AVF                                 pmax   pmax
      comp=Z,8.0nm,1.1s,mb4.8
SMF   Signal de Mont     83.64 341  eP     P       11 27 29.6 -3.2
      comp=Z,17nm,0.9s,mb4.8
SMF   Signal de Mont     83.64 341  eP     P       11 27 29.6 -3.2
      comp=Z,8.6nm,0.9s,mb4.9
SMF   Signal de Mont     83.64 341  eP     P       11 27 29.6 -3.2
SMF                                 pmax   pmax
      comp=Z,9.0nm,0.9s,mb4.9
BGF   Bois d'Agland      83.94 342  eP     P       11 27 31.5 -2.8
LPL   La Plagne          84.03 339  eP     P       11 27 32.3 -2.4
      comp=Z,24nm,1.0s,mb5.0
LPL   La Plagne          84.03 339  eP     P       11 27 32.3 -2.4
      comp=Z,12nm,1.0s,mb5.0
LPL   La Plagne          84.03 339  eP     P       11 27 32.3 -2.4
LPL                                 pmax   pmax
      comp=Z,12nm,1.0s,mb5.0
LPG   La Plagne          84.04 339  eP     P       11 27 32.5 -2.3
      comp=Z,17nm,0.9s,mb4.9
LPG   La Plagne          84.04 339  eP     P       11 27 32.5 -2.3
      comp=Z,8.6nm,0.9s,mb4.9
LPG   La Plagne          84.04 339  eP     P       11 27 32.5 -2.3
LPG                                 pmax   pmax
      comp=Z,9.0nm,0.9s,mb4.9
TCF   Toulx Ste Croi     84.34 342  eP     P       11 27 33.5 -2.8
      comp=Z,23nm,1.2s,mb4.9
TCF   Toulx Ste Croi     84.34 342  eP     P       11 27 33.5 -2.8
      comp=Z,11nm,1.2s,mb4.9
TCF   Toulx Ste Croi     84.34 342  eP     P       11 27 33.5 -2.8
TCF                                 pmax   pmax
      comp=Z,11nm,1.2s,mb4.9
MFF   Saint Martin d     84.51 344  eP     P       11 27 33.9 -3.3
MBDF  Montbardon         84.76 339  eP     P       11 27 35.9 -2.6
      comp=Z,7.6nm,0.8s,mb4.6
MBDF  Montbardon         84.76 339  eP     P       11 27 35.9 -2.6
      comp=Z,3.8nm,0.8s,mb4.6
MBDF  Montbardon         84.76 339  eP     P       11 27 35.9 -2.6
MBDF                                pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.6
ORIF  Oris-en-Rattie     84.80 339  eP     P       11 27 35.9 -2.8
      comp=Z,14nm,0.7s,mb4.9
ORIF                                eMLR   MLR
      comp=Z,157nm,22.0s,MS4.0
ORIF  Oris-en-Rattie     84.80 339  eP     P       11 27 35.9 -2.8
      comp=Z,7.2nm,0.7s,mb4.9
ORIF  Oris-en-Rattie     84.80 339  eP     P       11 27 35.9 -2.8
ORIF                                pmax   pmax
      comp=Z,7.0nm,0.7s,mb4.9
VIVF  Saint-Julien-l     85.15 340  eP     P       11 27 37.6 -2.8
      comp=Z,7.1nm,0.6s,mb4.6
VIVF  Saint-Julien-l     85.15 340  eP     P       11 27 37.6 -2.8
      comp=Z,3.5nm,0.6s,mb4.7
VIVF  Saint-Julien-l     85.15 340  eP     P       11 27 37.6 -2.8
VIVF                                pmax   pmax
      comp=Z,4.0nm,0.6s,mb4.7
SBF   Sospel             85.39 338  eP     P       11 27 36.9 -4.8
RJF   Les Rejaudoux      85.42 342  eP     P       11 27 39.0 -2.8
RJF                                 eMLR   MLR
      comp=Z,298nm,20.5s,MS4.4
RJF   Les Rejaudoux      85.42 342  eP     P       11 27 39.0 -2.8
RJF                                 MLR    MLR
      comp=Z,300nm,20.5s,MS4.7
SMRF  Simiane la Rot     85.76 339  eP     P       11 27 40.1 -3.4
LFF   La Frestale        85.93 343  eP     P       11 27 41.1 -3.2
LMR   La Mourre          86.13 338  eP     P       11 27 42.3 -3.0
      comp=Z,18nm,1.0s,mb5.0
LMR   La Mourre          86.13 338  eP     P       11 27 42.3 -3.0
      comp=Z,9.1nm,1.0s,mb5.0
LMR   La Mourre          86.13 338  eP     P       11 27 42.3 -3.0
LMR                                 pmax   pmax
      comp=Z,9.0nm,1.0s,mb5.0
PGF   Pioggiola          86.20 336  eP     P       11 27 42.5 -3.2
      comp=Z,62nm,1.2s,mb5.4
PGF   Pioggiola          86.20 336  eP     P       11 27 42.5 -3.2
      comp=Z,31nm,1.2s,mb5.4
PGF   Pioggiola          86.20 336  eP     P       11 27 42.5 -3.2
PGF                                 pmax   pmax
      comp=Z,31nm,1.2s,mb5.4
MTLF  Montolieu          87.14 341  eP     P       11 27 47.3 -3.0
EPF   Esparros           87.84 342  eP     P       11 27 50.9 -2.8
      comp=Z,5.2nm,0.7s,mb4.6
EPF   Esparros           87.84 342  eP     P       11 27 50.9 -2.8
      comp=Z,2.6nm,0.7s,mb4.6
EPF   Esparros           87.84 342  eP     P       11 27 50.9 -2.8
EPF                                 pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.6
SJPF  Ste Jean           88.08 344  eP     P       11 27 51.8 -3.0
ETSF  Etsaut             88.15 343  eP     P       11 27 52.1 -3.0
      comp=Z,8.8nm,0.7s,mb4.8
ETSF  Etsaut             88.15 343  eP     P       11 27 52.1 -3.0
      comp=Z,4.4nm,0.6s,mb4.9
ETSF  Etsaut             88.15 343  eP     P       11 27 52.1 -3.0
ETSF                                pmax   pmax
      comp=Z,4.0nm,0.6s,mb4.8
ESDC  Sonseca Array      91.92 345  LR     LR      12 13 55.2
      comp=Z,182nm,18.2s,MS4.6,baz=335,slow=38
TORD  Torodi Ar. Bea    115.89 332  PKP    PKPdf   11 33 46.3 -1.2
TORD  Torodi Ar. Bea    115.89 332  PKP    PKPdf   11 33 46.3 -1.2
      comp=Z,0.6nm,0.7s,baz=28,slow=2.3,SNR=3.3
LPAZ  La Paz            132.49  65  PKP    PKPdf   11 34 20.6 +1.5
LPAZ  La Paz            132.49  65  PKIKP  PKPdf   11 34 20.6 +1.5
LPAZ  La Paz            132.49  65  PKP    PKPdf   11 34 20.6 +1.5
      comp=Z,1.4nm,0.6s,baz=356,slow=5.9,SNR=5.9
SNAA  Sanae             153.27 195  PKPbc  PKPbc   11 35 00.6 -0.3
SNAA  Sanae             153.27 195  PKIKP  PKPbc   11 35 00.6 -0.4
SNAA  Sanae             153.27 195  PKPbc  PKPbc   11 35 00.6 -0.3
      comp=Z,1.9nm,0.9s,baz=107,slow=4.4,SNR=15
```

IDC 20 11:27:02.2±2.3**,0.37S**×**128.79E,h0**km**,mb3.1**/3**,mb1 3.4**/3**,**
mb1mx3.2/16**,mbtmp3.2**/3**,Error ellipse:**
s-maj=166.5km s-min=26.0km az=68.0,Halmahera

```
Code  Station Name        Δ°   AZ°    Phase ID       Time      Res
                                  Op     ISC      h  m  s     ISC
WRA   Warramunga Arr     20.19 165  P      P       11 31 37.3 -1.3
      0.3nm,0.6s,baz=344,slow=12,SNR=5.2
ASAR  Alice Springs      23.68 168  P      P       11 32 16.9 +1.1
      0.2nm,0.3s,baz=347,slow=12,SNR=4.8
MKAR  Makanchi Array     62.08 326  P      P       11 37 24.8  0.0
      0.4nm,0.4s,baz=110,slow=8.7,SNR=8.4
```

ISCJB ***20*** *11:30:54.4±0.9,20.23N±0.04×145.45E±0.05,h88km±8km,*
mb4.4/43,Error ellipse: s-maj=8.6km s-min=5.8km
az=161.2
IDC ***20*** *11:30:55.5±2.2,20.20N×145.51E,h90km±20km,mb4.1/18,*
mb1 4.2/22,mb1mx4.1/28,mbtmp4.1/22,Error ellipse:
s-maj=19.1km s-min=9.8km az=84.0
MOS ***20*** *11:30:56.3±0.9,20.20N×145.30E,h112km,mb4.7/15,Error*
ellipse: s-maj=14.8km s-min=7.7km az=98.8
BJI ***20*** *11:30:56.5,20.18N×145.80E,h128km,mB5.0,mb4.6*
NEIC ***20*** *11:30:57.6±1.2,20.17N×145.52E,h107km±11km,mb4.6/15,*
Error ellipse: s-maj=7.8km s-min=5.9km az=62.0
ISC 20 11:30:56.2±0.8**,20.25N**±0.04×**145.48E**±0.05**,h90**km±7km**,**
h125km±2.6km**:pP-P,n118,**σ**1.01**/122**,mb4.4**/43**,2C,**
Mariana Islands

```
Code  Station Name        Δ°   AZ°    Phase ID       Time      Res
                                  Op     ISC      h  m  s     ISC
GUMO  Guam                6.64 185  eP     Pn      11 32 31.6 +0.4
GUMO                                eS     Sn      11 33 47.6 +2.1
GUMO  Guam                6.64 185  P      Pn      11 32 30.4 -0.9
      24nm,0.3s,baz=94,slow=4.1,SNR=15
GUMO                                S      Sn      11 33 44.8 -0.7
      8.1nm,0.3s,baz=180,slow=20,SNR=3.2
JHHJ  Haha-jima-NKT       7.04 335  P      Pn      11 32 36.9 +0.4
JHHJ                                eS     Sn      11 33 53.2 -1.8
CBIJ  Chichi jima         7.46 337  P      Pn      11 32 41.8 -0.4
CBIJ                                eS     Sn      11 34 02.9 -2.3
CBIJ  Chichi jima         7.46 337  P      Pn      11 32 41.5 -0.8
      12nm,0.3s,baz=286,slow=22,SNR=7.0
CBIJ                                S      Sn      11 34 00.9 -4.3
      19nm,0.3s,baz=301,slow=19,SNR=6.8
JOW   Kunigami           17.07 296  P      Pn      11 34 51.9 +2.7
JOW   Kunigami           17.07 296  P      Pn      11 34 52.6 +3.4
      0.9nm,0.3s,baz=92,slow=18,SNR=5.4
JWT   Wachi              17.41 331  P      Pn      11 34 53.8 +0.5
```

MJAR	**Matsushiro Arr**	**17.44**	**340**	P	**Pn**	**11 34 52.9**	**-0.7**
	0.6nm,0.3s,baz=154,slow=10,SNR=4.7						
MAJO	**Matsushiro**	**17.44**	**340**	*e*P	**Pn**	**11 34 55.1**	**+1.5**
JFK	**Kawauchi**	**17.52**	**348**	*e*S	**S**	**11 37 56.4**	**-14**
JAD	**Aida**	**17.72**	**328**	P	**Pn**	**11 34 58.1**	**+1.1**
JNU	**Nakatsue**	**18.27**	**318**	P	**Pn**	**11 35 03.0**	**-0.6**
JNU	**Nakatsue**	**18.27**	**318**	P	**Pn**	**11 35 03.1**	**-0.5**
	0.2nm,0.3s,baz=172,slow=7.1,SNR=2.9						
JHS	**Saijyo**	**18.30**	**326**	P	**Pn**	**11 35 03.7**	**-0.3**
KSRS	**Korea Array**	**22.96**	**322**	P	**P**	**11 35 53.0**	**0.0**
	6.1nm,0.6s,mb4.1,baz=151,slow=9.1,SNR=37						
KS15	**Wonju Array Si**	**22.98**	**322**	*e*P	**P**	**11 35 53.1**	**0.0**
ASAJ	**Asahikawa**	**23.92**	**355**	P	**P**	**11 36 02.6**	**+1.0**
	8.5nm,0.6s,mb4.3,baz=217,slow=9.1,SNR=8.0						
NJ2	**Nanjing**	**26.56**	**302**	*e*P	**P**	**11 36 27.1**	**+1.4**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.5						
KLR	**Kul'dur**	**30.94**	**342**	*e*P	**P**	**11 37 01.8**	**-2.6**
BJI	**Beijing**	**31.89**	**315**	P	**P**	**11 37 14.0**	**+1.1**
BJI				AP	pP	11 37 39.9	+6.4
BJI				XP	sP	11 37 53.6	+10
BJI				S	**S**	**11 42 16.8**	**-0.4**
BJI				XS	sS	11 43 04.3	+11
BJI				AMB	AMB		
	comp=Z,2.0nm,0.5s,mb4.1						
BJI				AMB	AMB		
	comp=Z,96nm,5.7s						
BJI	**Beijing**	**31.89**	**315**	P	**P**	**11 37 14.0**	**+1.1**
BJI				*PP	pP	11 37 39.9	+6.4
BJI				*SP	sP	11 37 53.6	+10
BJI				S	**S**	**11 42 16.8**	**-0.4**
BJI				*SS	sS	11 43 04.2	+11
GYA	**Guiyang**	**36.07**	**287**	⇑*i*P	**P**	**11 37 50.3**	**+1.1**
GYA				AP	pP	11 38 18.8	+8.7
GYA				XP	sP	11 38 32.8	+12
GYA				PP	PP	11 39 17.4	+4.5
GYA				PCP	PcP	11 40 14.6	+0.9
GYA				S	**S**	**11 43 20.8**	**-1.2**
GYA				SCP	ScP	11 43 48.5	-3.5
GYA				PCS	PcS	11 44 01.3	-0.1
GYA				SCS	ScS	11 47 53.0	-4.9
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
CD2	**Chengdu**	**38.90**	**294**	*e*P	**P**	**11 38 14.1**	**+1.0**
CD2				PP	PP	11 39 50.4	+6.5
CD2				S	**S**	**11 44 03.3**	**-1.6**
CD2				SS	SS	11 46 53.6	-6.2
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
CD2				LR	LR		
	comp=E,310nm,12.0s						
CD2				LR	LR		
	comp=Z,230nm,13.2s						
MA2	**Magadan**	**39.47**	**4**	*e*P	**P**	**11 38 17.9**	**+0.5**
MA2				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
LZH	**Lanzhou**	**39.63**	**302**	*e*P	**P**	**11 38 21.5**	**+2.4**
LZH				AP	pP	11 38 49.8	+10
LZH				XP	sP	11 39 04.3	+14
LZH				PP	PP	11 39 59.3	+7.6
LZH				AMB	AMB		
	comp=Z,21nm,1.2s,mb4.8						
LZH				AMB	AMB		
	comp=Z,64nm,6.1s						
LZH				LR	LR		
	comp=N,315nm,13.9s						
LZH				LR	LR		
	comp=Z,463nm,18.2s						
LZH	**Lanzhou**	**39.63**	**302**	*e*P	**P**	**11 38 21.5**	**+2.4**
	comp=Z,21nm,1.2s,mb4.8						
LZH				pP	pP	11 38 49.7	+9.5
LZH				sP	sP	11 39 04.3	+14
LZH				PP	PP	11 39 59.2	+7.5
LZH				LR	LR		
	comp=Z,460nm,18.2s						
LZH	**Lanzhou**	**39.63**	**302**	*e*P	**P**	**11 38 21.5**	**+2.4**
LZH				*PP	pP	11 38 49.7	+9.5
LZH				*SP	sP	11 39 04.3	+14
LZH						11 39 59.2	
LZH				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.8						
LZH				MLR	MLR		
	comp=Z,460nm,18.2s						
WB2	**Warramunga Arr**	**41.40**	**196**	*e*P	**P**	**11 38 33.3**	**-0.4**
WRA	**Warramunga Arr**	**41.40**	**196**	*i* P	**P**	**11 38 33.2**	**-0.6**
WRA				pmax	pmax		
	comp=Z,2.0nm,0.4s						
WRA	**Warramunga Arr**	**41.40**	**196**	P	**P**	**11 38 32.8**	**-1.0**
	comp=Z,2.4nm,0.4s,mb4.3,baz=23,slow=8.7,SNR=26						
ULN	**Ulaanbaatar**	**41.44**	**321**	*e*P	**P**	**11 38 33.1**	**-0.7**
SONM	**Songino Array**	**41.82**	**320**	P	**P**	**11 38 37.0**	**+0.1**
	comp=Z,1.1nm,0.4s,mb4.0,baz=132,slow=8.3,SNR=23						
SONM				PcP	PcP	11 40 31.8	+0.4
	comp=Z,1.4nm,0.6s,baz=134,slow=3.3,SNR=8.2						
FITZ	**Fitzroy Crossi**	**42.79**	**208**	*e*P	**P**	**11 38 44.3**	**-0.8**
	comp=Z,7.7nm,0.8s,mb4.5						
FITZ	**Fitzroy Crossi**	**42.79**	**208**	P	**P**	**11 38 44.3**	**-0.8**
	comp=Z,6.2nm,0.8s,mb4.4,baz=52,slow=8.7,SNR=16						
YAK	**Yakutsk**	**43.17**	**349**	*e*P	**P**	**11 38 47.6**	**0.0**
YAK				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.7						
ZAK	**Zakamensk**	**44.80**	**322**	*e*P	**P**	**11 39 00.6**	**-0.2**
ZAK				pmax	pmax		
	comp=Z,1.0nm,2.0s						
ASAR	**Alice Springs**	**45.08**	**195**	P	**P**	**11 39 02.0**	**-1.3**
	comp=Z,1.3nm,0.8s,mb3.7,baz=17,slow=8.3,SNR=15						
DZM	**Mont Dzumac**	**46.78**	**153**	P	**P**	**11 39 15.3**	**-1.4**
	comp=Z,9.9nm,1.0s,mb4.5,baz=307,slow=20,SNR=4.1						
BILL	**Bilibino**	**49.54**	**10**	*e*P	**P**	**11 39 38.0**	**+0.6**
	comp=Z,5.6nm,0.8s,mb4.5						
BILL	**Bilibino**	**49.54**	**10**	*e*P	**P**	**11 39 37.6**	**+0.2**
BILL				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
LSA	**Lhasa**	**49.76**	**292**	*e*P	**P**	**11 39 42.4**	**+2.6**
STKA	**Stephens Creek**	**51.96**	**184**	P	**P**	**11 39 54.7**	**-1.3**
STKA	**Stephens Creek**	**51.96**	**184**	P	**P**	**11 39 54.7**	**-1.3**
	comp=Z,2.5nm,1.1s,mb4.2,baz=326,slow=11,SNR=2.9						
TIXI	**Tiksi**	**52.32**	**353**	*e*P	**P**	**11 39 58.2**	**+0.1**
	comp=Z,2.7nm,0.6s,mb4.5						
TIXI	**Tiksi**	**52.32**	**353**	*e*P	**P**	**11 39 56.3**	**-1.9**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
WMQ	**Urumqi**	**53.15**	**310**	P	**P**	**11 40 07.1**	**+2.3**
WMQ				AP	pP	11 40 36.6	+10
WMQ				XP	sP	11 40 50.8	+14
WMQ				PP	PP	11 42 10.6	+5.1
WMQ				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.7						
ZALV	**Zalesovo Beam**	**56.67**	**322**	P	**P**	**11 40 29.1**	**-0.9**
	comp=Z,1.6nm,0.5s,mb4.3,baz=108,slow=8.4,SNR=9.8						
ZALV				PcP	PcP	11 41 24.1	-1.1
	comp=Z,2.4nm,0.5s,baz=117,slow=4.0,SNR=7.1						
ZAL	**Zalesovo**	**56.68**	**322**	P	**P**	**11 40 29.1**	**-0.9**
ZAL						11 41 24.1	
MK31	**Makanchi Array**	**57.25**	**313**	*e*P	**P**	**11 40 34.5**	**+0.3**
MKAR	**Makanchi Array**	**57.25**	**313**	P	**P**	**11 40 34.5**	**+0.3**
MKAR	**Makanchi Array**	**57.25**	**313**	P	**P**	**11 40 34.5**	**+0.3**
	comp=Z,0.8nm,0.4s,mb4.1,baz=91,slow=8.3,SNR=15						
KDAK	**Kodiak Island**	**58.19**	**34**	P	**P**	**11 40 40.0**	**-0.6**
	comp=Z,14nm,0.9s,mb5.0,baz=142,slow=16,SNR=5.7						
KURK	**Kurchatov**	**59.99**	**318**	*e*P	**P**	**11 40 52.7**	**-0.4**
	comp=Z,3.6nm,0.8s,mb4.5						
KURK	**Kurchatov**	**59.99**	**318**	*e*P	**P**	**11 40 52.4**	**-0.7**
MCK	**McKinley**	**61.27**	**28**	*e*P	**P**	**11 41 01.0**	**-0.5**
TKM2	**Tokmak 2**	**61.92**	**309**	*e*P	**P**	**11 41 07.7**	**+1.3**
	comp=Z,1.2nm,0.4s,mb4.3						
TKM2	**Tokmak 2**	**61.92**	**309**	*e*P	**P**	**11 41 07.7**	**+1.3**
TKM2				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
COLA	**College**	**61.98**	**26**	*e*P	**P**	**11 41 06.8**	**+0.5**
AAK	**Ala-Archa**	**62.75**	**308**	*e*P	**P**	**11 41 09.4**	**-2.5**
AAK				pmax	pmax		
	comp=Z,5.0nm,1.8s,mb4.1						
UCH	**Uchtor**	**62.76**	**308**	*e*P	**P**	**11 41 13.7**	**+1.7**
	comp=Z,2.3nm,0.6s,mb4.3						
AML	**Almayashu**	**63.37**	**308**	*e*P	**P**	**11 41 17.6**	**+1.6**
BRVK	**Borovoye**	**65.22**	**320**	*e*P	**P**	**11 41 27.6**	**-0.3**
BRVK				*e*P		11 41 28.1	
DAWY	**Dawson**	**65.49**	**28**	*e*P	**P**	**11 41 29.7**	**+0.3**
KBL	**Kabul**	**67.92**	**300**	*e*P	**P**	**11 41 46.2**	**+0.8**
INK	**Inuvik**	**68.04**	**23**	*e*P	**P**	**11 41 45.2**	**-0.4**
	comp=Z,302nm,0.8s						
INK	**Inuvik**	**68.04**	**23**	P	**P**	**11 41 44.9**	**-0.7**
	comp=Z,7.8nm,0.7s,mb4.6,baz=279,slow=5.3,SNR=24						
DLBC	**Dease Lake**	**70.13**	**34**	*e*P	**P**	**11 41 59.3**	**+0.7**
ARU	**Arti**	**71.69**	**324**	*e*P	**P**	**11 42 07.8**	**-0.4**
ARU	**Arti**	**71.69**	**324**	*c i*P	**P**	**11 42 06.3**	**-1.8**
ARU				*e*		11 44 45.0	
ARU				*e*S	S	11 51 14.0	-6.7
ARU				pmax	pmax		
	comp=Z,12nm,2.5s,mb4.3						
YKW3	**Yellowknife Ar**	**76.70**	**28**	*e*P	**P**	**11 42 36.6**	**-0.6**
YKA	**Yellowknife Ar**	**76.73**	**28**	P	**P**	**11 42 36.7**	**-0.6**
YKA	**Yellowknife Ar**	**76.73**	**28**	P	**P**	**11 42 36.7**	**-0.6**
	comp=Z,7.9nm,0.6s,mb4.6,baz=289,slow=5.6,SNR=133						
RES	**Resolute Bay**	**77.98**	**14**	*e*P	**P**	**11 42 44.2**	**+0.1**
	comp=Z,162nm,0.7s						
RES				*e*P		11 42 44.4	
NEW	**Newport**	**79.91**	**42**	*e*P	**P**	**11 42 55.1**	**0.0**
BMO	**Blue Mountains**	**80.92**	**46**	*e*P	**P**	**11 43 00.5**	**-0.1**
	comp=Z,5.2nm,0.8s,mb4.4						
BMO	**Blue Mountains**	**80.92**	**46**	*e*P	**P**	**11 43 00.5**	**-0.1**
BMO				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
CMB	**Columbia Colle**	**80.93**	**53**	*e*P	**P**	**11 43 00.9**	**+0.1**
	comp=Z,8.0nm,0.9s,mb4.5						
CMB	**Columbia Colle**	**80.93**	**53**	*e*P	**P**	**11 43 00.9**	**+0.1**
CMB				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
ARCES	**ARCESS Array B**	**80.97**	**342**	P	**P**	**11 42 59.9**	**-0.4**
	comp=Z,3.3nm,0.6s,mb4.3,baz=51,slow=9.6,SNR=15						
WALA	**Waterton Lakes**	**81.64**	**41**	*e*P	**P**	**11 43 05.1**	**+0.7**
WALA				*e*P		11 43 05.2	
JOF	**Joensuu**	**82.53**	**335**	*e*p	**P**	**11 43 06.3**	**-2.4**
	comp=Z,1.4nm,0.4s,mb4.1						
HLID	**Hailey**	**83.31**	**46**	*e*P	**P**	**11 43 13.4**	**+0.2**
ELK	**Elko**	**83.77**	**49**	*e*P	**P**	**11 43 16.1**	**+0.5**
LRM	**Limekiln Ridge**	**83.77**	**43**	*e*P	**P**	**11 43 08.5**	**-6.9**
KAF	**Kangasniemi**	**84.93**	**336**	*e*p	**P**	**11 43 18.8**	**-2.1**
	baz=54,slow=4.7						
FINES	**FINESS Array B**	**85.40**	**335**	*i* P	**P**	**11 43 21.7**	**-1.6**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
FINES	**FINESS Array B**	**85.40**	**335**	P	**P**	**11 43 21.8**	**-1.5**
	comp=Z,2.2nm,0.5s,mb4.4,baz=78,slow=5.2,SNR=19						
DCID1	**Drake Creek**	**85.47**	**45**	*e*P	**P**	**11 43 25.4**	**+1.3**
IMW	**Indian Meadow**	**85.51**	**45**	*e*P	**P**	**11 43 25.4**	**+1.1**
DUG	**Dugway**	**85.69**	**49**	*e*P	**P**	**11 43 25.2**	**0.0**
	comp=Z,5.2nm,0.7s,mb4.6						
DUG	**Dugway**	**85.69**	**49**	*e*P	**P**	**11 43 25.2**	**0.0**
DUG				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
MOOW	**Moose Ponds**	**85.70**	**45**	*e*P	**P**	**11 43 25.8**	**+0.6**
FFC	**Flin Flon**	**85.91**	**32**	*e*P	**P**	**11 43 25.8**	**-0.1**
HWUT	**Hardware Ranch**	**86.00**	**47**	*e*P	**P**	**11 43 27.0**	**+0.3**
JLU	**Jordanelle**	**86.49**	**48**	*e*P	**P**	**11 43 29.1**	**0.0**
DAU	**Daniels Canyon**	**86.70**	**48**	*e*P	**P**	**11 43 30.4**	**+0.2**
PDAR	**Pinedale Array**	**86.89**	**45**	P	**P**	**11 43 30.6**	**-0.5**
	comp=Z,1.1nm,0.6s,mb4.0,baz=193,slow=1.2,SNR=15						
FCC	**Fort Churchill**	**87.38**	**27**	*e*P	**P**	**11 43 32.5**	**-0.6**
	comp=Z,8.0nm,0.9s,mb4.7						
FCC				*e*P		11 43 32.6	
FCC	**Fort Churchill**	**87.38**	**27**	*e*P	**P**	**11 43 32.5**	**-0.6**
FCC				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
SRU	**San Rafael**	**87.74**	**49**	*e*P	**P**	**11 43 35.0**	**-0.2**
	comp=Z,8.1nm,0.7s,mb4.9						
SRU	**San Rafael**	**87.74**	**49**	*e*P	**P**	**11 43 35.0**	**-0.2**
SRU				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
WUAZ	**Wupatki**	**88.58**	**53**	*e*P	**P**	**11 43 40.0**	**+0.7**
SMCO	**Snowmass**	**90.21**	**48**	*e*P	**P**	**11 43 47.5**	**+0.7**
	comp=Z,3.8nm,0.8s,mb4.6						
ISCO	**Idaho Springs**	**90.87**	**47**	*e*P	**P**	**11 43 50.7**	**+0.8**
	comp=Z,8.6nm,1.3s,mb4.7						
ISCO	**Idaho Springs**	**90.87**	**47**	*e*P	**P**	**11 43 50.7**	**+0.8**
ISCO				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.7						
ULM	**Lac du Bonnet**	**91.45**	**34**	P	**P**	**11 43 51.5**	**-0.9**
	comp=Z,3.7nm,0.8s,mb4.6,baz=286,slow=2.6,SNR=11						
SDCO	**Great Sand Dun**	**91.89**	**49**	*e*P	**P**	**11 43 54.8**	**+0.2**
	comp=Z,2.9nm,0.8s,mb4.6						
ANMO	**Albuquerque**	**92.46**	**51**	*e*P	**P**	**11 43 57.8**	**+0.5**
ANMO	**Albuquerque**	**92.46**	**51**	*e*P	**P**	**11 43 57.9**	**+0.5**
MNTX	**Cornudas Mount**	**94.74**	**54**	*e*P	**P**	**11 44 08.0**	**+0.1**
	comp=Z,2.1nm,0.8s,mb4.6						
TXAR	**Lajitas Array**	**97.14**	**55**	P	**P**	**11 44 18.7**	**-0.2**
TXAR	**Lajitas Array**	**97.14**	**55**	P	**P**	**11 44 18.7**	**-0.2**
	comp=Z,0.4nm,0.7s,mb4.0,baz=268,slow=3.3,SNR=7.5						
TORD	**Torodi Ar. Bea**	**131.31**	**310**	PKP	PKPdf	11 49 57.6	-1.2
TORD	**Torodi Ar. Bea**	**131.31**	**310**	PKP	PKPdf	11 49 57.6	-1.2
	comp=Z,1.0nm,0.5s,baz=34,slow=1.0,SNR=18						
LPAZ	**La Paz**	**147.88**	**89**	*e*PKPbc	PKPbc	11 50 31.9	+0.3
LPAZ				PKPbc	PKPbc	11 50 32.2	+0.6
LPAZ				*e*PKPab	PKPab	11 50 35.3	+0.9
LPAZ	**La Paz**	**147.88**	**89**	*e*PKP2	PKPab	11 50 31.9	-2.5
LPAZ	**La Paz**	**147.88**	**89**	PKPbc	PKPbc	11 50 32.2	+0.6
	comp=Z,1.1nm,0.5s,baz=322,slow=3.0,SNR=4.3						

IDC 20 11:43:17.9±1.0**,0.08S×125.48E,h0^{km},mb3.5**/5**,mb1 3.7**/5**, mb1mx3.6**/17**,mbtmp3.6**/5**,Error ellipse: s-maj=132.2km s-min=19.2km az=68.0,Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**21.57**	**157**	P	P	11 48 08.1	-1.1
	0.9nm,0.5s,baz=336,slow=11,SNR=19						
ASAR	**Alice Springs**	**24.84**	**161**	P	P	11 48 43.3	+1.3
	0.8nm,0.5s,baz=346,slow=13,SNR=13						
ASAR				PcP	PcP	11 52 17.6	-1.0
	0.3nm,0.5s,baz=353,slow=1.9,SNR=5.1						
SONM	**Songino Array**	**50.52**	**343**	P	P	11 52 18.4	+0.5
	0.3nm,0.8s,baz=148,slow=8.5,SNR=3.4						
MKAR	**Makanchi Array**	**60.00**	**327**	P	P	11 53 24.7	-1.6
	0.4nm,0.5s,baz=120,slow=8.6,SNR=7.0						
ZALV	**Zalesovo Beam**	**63.43**	**334**	P	P	11 53 50.6	+1.3
	0.4nm,0.4s,baz=126,slow=7.5,SNR=3.3						

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*CSEM **20** 11:44:16.6,39.16N×41.51E,h2^{km},MD3.1,After ISK*

ISK 20 11:44:16.6,39.16N×41.51E,h2^{km},MD3.1,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZM	**Erzurum**	**0.76**	**351**	PG	Pg	11 44 31.8	+0.7
EZM				SG	Sg	11 44 42.7	+1.7
BINT	**Bingol**	**0.84**	**251**	PG	Pg	11 44 33.8	+1.0
BINT				SG	Sg	11 44 46.5	+2.8
BINT	**Bingol**	**0.84**	**251**	*e*Pg	Pg	11 44 33.8	+1.0
BINT				*e*Sg	Sg	11 44 46.5	+2.8
BTMT	**Batman**	**0.96**	**181**	PG	Pg	11 44 37.1	+2.1
BTMT				SG	Sg	11 44 52.2	+4.7
AGRB	**Hanur-Agry**	**1.22**	**69**	PN	Pn	11 44 40.7	0.0
AGRB				SN	Sn	11 44 59.1	+1.3
AGRB	**Hanur-Agry**	**1.22**	**69**	*e*Pn	Pn	11 44 40.7	0.0
AGRB				*e*Sn	Sn	11 44 59.1	+1.3
PTK	**Pertek**	**1.67**	**262**	PN	Pn	11 44 48.1	+1.2
PTK	**Pertek**	**1.67**	**262**	*e*Pn	Pn	11 44 48.1	+1.2
SIRT	**Sirnak**	**1.81**	**156**	*e*PN	Pn	11 44 50.5	+1.8
SIRT	**Sirnak**	**1.81**	**156**	*e*Pn	Pn	11 44 50.5	+1.8
GUMT	**Gumushane**	**2.04**	**310**	PN	Pn	11 44 54.0	+2.1
GUMT	**Gumushane**	**2.04**	**310**	*e*Pn	Pn	11 44 54.0	+2.1
BCA	**Borcka**	**2.29**	**2**	*e*PN	Pn	11 44 56.2	+0.8
BCA	**Borcka**	**2.29**	**2**	*e*Pn	Pn	11 44 56.2	+0.8

IDC 20 11:52:30.8±2.1**,0.89S×127.66E,h0^{km},mb3.3**/3**,mb1 3.6**/3**, mb1mx3.3**/16**,mbtmp3.4**/3**,Error ellipse: s-maj=155.6km s-min=26.0km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**20.03**	**161**	P	P	11 57 05.9	+0.4
	0.4nm,0.5s,baz=340,slow=12,SNR=12						
ASAR	**Alice Springs**	**23.43**	**165**	P	P	11 57 41.7	-0.3
	0.7nm,0.5s,baz=345,slow=12,SNR=8.1						
MKAR	**Makanchi Array**	**61.87**	**326**	P	P	12 02 52.0	+0.1
	0.2nm,0.3s,baz=115,slow=8.0,SNR=6.1						

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*BJI **20** 11:54:33.9,46.70N×153.19E,h37^{km},mB4.7,mb4.2*

*NEIC **20** 11:54:33.7±0.7,46.86N×152.70E,h10^{km},mb4.6/2,Error ellipse: s-maj=18.1km s-min=13.4km az=141.0*

*SKHL **20** 11:54:36.3±1.4,46.20N×153.40E,h87^{km}±11^{km},mb5.1/3, msha5.9/2*

*JMA **20** 11:54:36.0±0.7,46.68N×153.00E,h30^{km},M4.6*

*MOS **20** 11:54:40.2±1.1,46.67N×152.59E,h81^{km},mb4.2/1,Error ellipse: s-maj=14.7km s-min=10.4km az=69.0*

*ISCJB **20** 11:54:41.8±1.0,46.01N±0.09×152.7E±0.1,h132^{km}±9^{km}, mb3.7/17,Error ellipse: s-maj=17.6km s-min=7.6km az=140.7*

*IDC **20** 11:54:43.2±3.8,46.79N×152.59E,h89^{km}±33^{km},mb3.6/16, mb1 3.7/17,mb1mx3.7/23,mbtmp3.6/17,Error ellipse: s-maj=20.6km s-min=15.2km az=113.0*

ISC 20 11:54:41.3±1.0**,46.31N**±0.10×**152.7E**±0.1**,h96^{km}**±10^{km}**,n64, σ1^{s}26**/81**,mb3.9**/17**,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**3.56**	**254**	*e*PN	**Pn**	**11 55 33.8**	**-0.6**
KUR				*e*S	**Sn**	**11 56 16.0**	**+0.5**
KUR				pmax	pmax		
	comp=Z,120nm,0.3s						
KUR				smax			
	comp=N,150nm,0.5s						
KUR				smax			
	comp=E,470nm,0.5s						
KUR	**Kuril'sk**	**3.56**	**254**	*e*P	**Pn**	**11 55 33.8**	**-0.6**
KUR				AMB	AMB	11 55 34.0	
	comp=E,120nm,0.3s						
KUR				*e*S	**Sn**	**11 56 16.0**	**+0.5**
KUR				A		11 56 34.0	
	comp=E,150nm,0.5s						
KUR				A		11 56 34.0	
	comp=E,470nm,0.5s						
YUK	**Yuzh-Kuril'sk**	**5.36**	**247**	*e*PN	**Pn**	**11 55 59.5**	**+0.8**
YUK				*e*S	**Sn**	**11 57 02.3**	**+3.3**
YUK				pmax	pmax		
	comp=Z,210nm,0.4s						
YUK				smax			
	comp=N,5µm,1.0s						
YUK				smax			
	comp=E,1µm,0.8s						
YUK				smax			
	comp=N,700nm,0.7s						
YUK				smax			
	comp=E,500nm,0.6s						
YUK	**Yuzh-Kuril'sk**	**5.36**	**247**	*e*P	**Pn**	**11 55 59.5**	**+0.8**
YUK				AMB	AMB	11 56 02.5	
	comp=E,210nm,0.4s						
YUK				*e*S	**Sn**	**11 57 02.3**	**+3.3**
YUK				A		11 57 23.0	
	comp=E,5µm,1.0s						
YUK				A		11 57 23.0	
	comp=E,1µm,1.0s						
YUK				A		11 57 25.6	
	comp=E,700nm,0.7s						
YUK				A		11 57 25.6	
	comp=E,500nm,0.7s						
NEM2	**Nemuro 2**	**5.77**	**242**	P	**Pn**	**11 56 03.2**	**-1.1**
NEM2				*e*S	**Sn**	**11 57 07.9**	**-1.2**
JRA	**Rausu**	**5.88**	**249**	P	**Pn**	**11 56 07.4**	**+1.7**
JNK	**Nakash**	**6.30**	**247**	P	**Pn**	**11 56 12.1**	**+0.6**
JNK				*e*S	**Sn**	**11 57 24.6**	**+2.7**
JAK	**Akkeshi**	**6.61**	**243**	P	**Pn**	**11 56 14.8**	**-1.0**
JAK				*e*S	**Sn**	**11 57 28.2**	**-1.4**
JTKR	**Abashiri--Toko**	**6.66**	**253**	P	**Pn**	**11 56 17.6**	**+1.2**
YSS	**Yuzh-Sakhalins**	**6.89**	**279**	*e*P	**Pn**	**11 56 19.9**	**+0.4**
YSS				AMB	AMB	11 56 22.8	
	comp=E,30nm,1.0s						
JMP	**Maruseppu**	**7.01**	**254**	P	**Pn**	**11 56 23.0**	**+1.9**
JAR	**Ashorobuto**	**7.04**	**248**	P	**Pn**	**11 56 22.6**	**+1.0**
JAR				*e*S	**Sn**	**11 57 42.6**	**+2.5**
JOB	**Onbets**	**7.20**	**245**	P	**Pn**	**11 56 24.1**	**+0.4**
JOB				*e*S	**Sn**	**11 57 43.9**	**0.0**
JKK2	**Kamakawa 2**	**7.47**	**254**	P	**Pn**	**11 56 29.2**	**+1.8**
ASAJ	**Asahikawa**	**7.48**	**257**	P	**Pn**	**11 56 30.4**	**+2.9**
ASAJ	**Asahikawa**	**7.48**	**257**	PN	**Pn**	**11 56 30.0**	**+2.5**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**7.48**	**257**	P	**Pn**	**11 56 30.0**	**+2.5**
	comp=Z,1.1nm,0.3s,baz=90,slow=15,SNR=14						
JCH	**Churui**	**7.65**	**244**	P	**Pn**	**11 56 29.5**	**-0.3**
JCH				*e*S	**Sn**	**11 57 52.8**	**-2.0**
JEM	**Erimo**	**8.10**	**241**	P	**Pn**	**11 56 36.9**	**+0.8**
ERM	**Erimo**	**8.11**	**241**	*e*PN	**Pn**	**11 56 36.8**	**+0.7**
JBT2	**Biratori 2**	**8.20**	**248**	P	**Pn**	**11 56 37.3**	**0.0**
JNBK	**Urakawa-nobuka**	**8.21**	**244**	P	**Pn**	**11 56 36.3**	**-1.1**
JNBK				*e*S	**Sn**	**11 58 04.6**	**-3.8**
JNB	**Noboribetsu**	**9.20**	**249**	P	**Pn**	**11 56 51.6**	**+0.6**
JNB				*e*S	**Sn**	**11 58 32.2**	**-0.5**
JKB	**Kayabe**	**9.50**	**246**	P	**Pn**	**11 56 54.2**	**-0.8**
JKB				*e*S	**Sn**	**11 58 36.5**	**-3.4**
JYM2	**Yakumo 2**	**9.81**	**249**	P	**Pn**	**11 56 58.8**	**-0.4**
JANG	**Nango**	**10.09**	**238**	P	**Pn**	**11 57 00.3**	**-2.7**
JANG				*e*S	**Sn**	**11 58 46.8**	**-7.4**
JTM	**Tenmabayashi**	**10.10**	**241**	P	**Pn**	**11 57 00.6**	**-2.6**
JTM				*e*S	**Sn**	**11 58 48.6**	**-5.9**
JTH	**Tanohata**	**10.17**	**235**	*e*S	**Sn**	**11 58 48.9**	**-7.4**
JOSM	**Okushiri--Mats**	**10.41**	**251**	P	**Pn**	**11 57 06.8**	**-0.6**
OFUJ	**Ofunato**	**10.87**	**232**	P	**Pn**	**11 57 11.7**	**-2.0**
OFUJ				*e*S	**Sn**	**11 59 07.9**	**-5.5**
JRG	**Rokugo**	**11.24**	**236**	P	**Pn**	**11 57 17.3**	**-1.4**
JRG				*e*S	**Sn**	**11 59 18.2**	**-4.0**
JIO	**Ouri**	**11.50**	**231**	*e*S	**Sn**	**11 59 23.6**	**-4.9**
MA2	**Magadan**	**13.34**	**356**	*e*PN	**Pn**	**11 57 41.3**	**-5.1**
MA2				pmax	pmax		
	comp=Z,1.0nm,0.4s						
KLR	**Kul'dur**	**14.39**	**289**	*e*P	**Pn**	**11 58 05.2**	**+5.0**
MJAR	**Matsushiro Arr**	**14.60**	**233**	P	**Pn**	**11 58 11.4**	**+8.4**
	comp=Z,0.5nm,0.3s,baz=36,slow=8.7,SNR=8.7						
SEY	**Seymchan**	**16.66**	**359**	*e*P	**Pn**	**11 58 27.3**	**-1.2**
CN2	**Changchun**	**19.39**	**272**	*e*P	**Pn**	**11 59 00.8**	**-0.7**
KSRS	**Korea Array**	**20.41**	**253**	P	**P**	**11 59 14.4**	**+3.9**
	comp=Z,2.7nm,0.7s,baz=62,slow=9.1,SNR=13						
YAK	**Yakutsk**	**20.55**	**328**	*e*P	**P**	**11 59 13.8**	**+2.1**
YAK				pmax	pmax		
	comp=Z,13nm,0.8s						
JNU	**Nakatsue**	**21.26**	**239**	P	**P**	**11 59 24.4**	**+4.7**
	comp=Z,7.7nm,1.0s,mb4.0,baz=78,slow=14,SNR=4.3						
BILL	**Bilibino**	**22.88**	**13**	*e*P	**P**	**11 59 34.2**	**-2.1**
SONM	**Songino Array**	**31.22**	**290**	P	**P**	**12 00 52.8**	**+1.4**
	comp=Z,0.2nm,0.4s,mb3.2,baz=69,slow=7.7,SNR=3.8						
SONM				PcP	PcP	12 03 45.6	+2.0
	comp=Z,0.1nm,0.4s,baz=150,slow=2.5,SNR=3.5						
INK	**Inuvik**	**42.17**	**32**	P	**P**	**12 02 24.2**	**+0.4**
INK	**Inuvik**	**42.17**	**32**	P	**P**	**12 02 24.2**	**+0.4**
	comp=Z,1.9nm,0.9s,mb3.8,baz=288,slow=8.4,SNR=3.8						
ZALV	**Zalesovo Beam**	**42.65**	**306**	P	**P**	**12 02 26.9**	**-0.9**
	comp=Z,0.8nm,0.4s,mb3.8,baz=61,slow=7.7,SNR=5.9						
ZALV				PcP	PcP	12 04 20.6	+2.6
	comp=Z,0.5nm,0.3s,baz=88,slow=3.6,SNR=6.3						
ZAL	**Zalesovo**	**42.66**	**306**	P	**P**	**12 02 27.0**	**-1.0**
MK31	**Makanchi Array**	**46.90**	**298**	*e*P	**P**	**12 03 01.9**	**+0.2**
MKAR	**Makanchi Array**	**46.90**	**298**	P	**P**	**12 03 01.5**	**-0.2**
MKAR				PcP	PcP	12 04 35.5	+2.6
MKAR	**Makanchi Array**	**46.90**	**298**	P	**P**	**12 03 01.5**	**-0.2**
	comp=Z,0.5nm,0.5s,mb3.5,baz=68,slow=7.1,SNR=6.7						
MKAR				PcP	PcP	12 04 35.5	+2.6
	comp=Z,0.4nm,0.3s,baz=55,slow=3.7,SNR=5.7						
KURK	**Kurchatov**	**47.38**	**304**	*e*P	**P**	**12 03 05.1**	**-0.3**
LSA	**Lhasa**	**50.03**	**273**	*e*P	**P**	**12 03 30.6**	**+4.7**
	comp=Z,7.0nm,0.6s,mb4.8						
YKA	**Yellowknife Ar**	**51.44**	**36**	P	**P**	**12 03 36.4**	**+0.3**
	comp=Z,0.4nm,0.7s,mb3.6,baz=294,slow=7.0,SNR=6.5						
ARCES	**ARCESS Array B**	**58.17**	**341**	P	**P**	**12 04 23.3**	**-1.2**
	comp=Z,3.0nm,0.8s,mb4.4,baz=32,slow=12,SNR=4.4						
FINES	**FINESS Array B**	**64.32**	**335**	P	**P**	**12 05 05.2**	**-0.8**
FINES	**FINESS Array B**	**64.32**	**335**	P	**P**	**12 05 05.2**	**-0.8**
	comp=Z,2.1nm,0.4s,mb4.3,baz=39,slow=7.7,SNR=22						
ULM	**Lac du Bonnet**	**67.03**	**40**	P	**P**	**12 05 24.1**	**+0.4**
	comp=Z,1.0nm,0.7s,mb3.8,baz=173,slow=20,SNR=3.2						
WRA	**Warramunga Arr**	**68.01**	**199**	P	**P**	**12 05 34.5**	**+4.4**
	comp=Z,0.5nm,0.8s,mb3.4,baz=24,slow=7.5,SNR=3.9						
NB2	**NORSAR Subarra**	**68.55**	**341**	P	**P**	**12 05 33.1**	**+0.1**
	comp=Z,3.8nm,0.6s,mb4.4,baz=30,slow=6.5						
NOA	**NORSAR Array B**	**68.55**	**341**	P	**P**	**12 05 33.3**	**+0.3**
	comp=Z,2.5nm,0.6s,mb4.2,baz=28,slow=6.3,SNR=8.6						
ASAR	**Alice Springs**	**71.71**	**198**	P	**P**	**12 05 58.2**	**+5.6**
	comp=Z,0.8nm,0.6s,mb3.7,baz=12,slow=5.4,SNR=16						
AKASG	**Malin Array Be**	**71.76**	**326**	P	**P**	**12 05 53.0**	**+0.2**
	comp=Z,2.0nm,0.4s,mb4.3,baz=33,slow=6.1,SNR=10						
TXAR	**Lajitas Array**	**77.94**	**60**	P	**P**	**12 06 30.7**	**+1.9**
	comp=Z,0.3nm,0.7s,mb3.1,baz=296,slow=3.4,SNR=3.7						
BRTR	**Keskin Array B**	**78.52**	**317**	P	**P**	**12 06 32.7**	**+0.9**
	comp=Z,0.9nm,0.7s,mb3.7,baz=108,slow=4.0,SNR=4.4						
GERES	**GERESS Array B**	**78.73**	**334**	P	**P**	**12 06 32.1**	**-0.7**
	comp=Z,0.8nm,0.5s,mb3.8,baz=35,slow=4.9,SNR=6.8						

*CSEM **20** 12:10:05.5±0.3, 29.77N×36.12E, h2^{km}, ML1.7, Error ellipse: s-maj=6.6km s-min=2.7km az=87.0, Mining explosion.*
*GII **20** 12:10:05.1±0.8, 29.88N×36.18E, h0^{km}, ML1.7/1*
*SGS **20** 12:10:06.7, 29.93N×36.08E, h7^{km}*
*HLW **20** 12:10:08.7, 29.63N×36.17E, h15^{km}, Mb3.1*
ISC 20 12:10:03.7±1.2, **29.82N**±0.04×**36.32E**±0.09, **h0**^{km}, **n32**, σ**0^{s}.64**/37, **Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AQBJ	Aqaba	1.10	265	Pg	Pg	12 10 25.1	+0.2
HRFI	Mount Harif	1.13	281	Pg	Pg	12 10 24.8	-0.6
HRFI	Mount Harif	1.13	281	Pg	Pg	12 10 24.8	-0.6
EIL	Elat	1.20	263	Pg	Pg	12 10 26.6	0.0
EIL	Elat	1.20	263	Pg	Pg	12 10 26.6	-0.1
HQLS		1.21	245	P	Pg	12 10 26.3	-0.6
ZFRI	Zfri	1.22	307	Pg	Pg	12 10 26.8	-0.4
ZFRI	Zfri	1.22	307	Pg	Pg	12 10 26.8	-0.4
PRNI	Paran	1.25	295	Pg	Pg	12 10 26.8	-1.0
PRNI				Sg	Sg	12 10 44.4	+0.4
PRNI	Paran	1.25	295	Pg	Pg	12 10 26.8	-0.9
PRNI				Sg	Sg	12 10 44.4	+0.4
JLOS		1.30	214	P	Pg	12 10 29.3	+0.6
JLOS				S	Sg	12 10 46.1	+0.5
JLOS		1.30	214	P	Pg	12 10 29.3	+0.6
KRMI	Paran Flat	1.41	282	Pg	Pg	12 10 30.1	-0.7
KRMI	Paran Flat	1.41	282	Pg	Pg	12 10 30.1	-0.7
HBST	Basata	1.51	247	P	Pn	12 10 31.9	-0.1
MZDA	Masada	1.69	331	Pn	Pn	12 10 34.4	-0.2
MZDA				Sn	Sn	12 10 56.6	-0.3
MZDA	Masada	1.69	331	Pn	Pn	12 10 34.4	-0.2
MZDA				Sn	Sn	12 10 56.7	-0.3
MASH	Mash‘abbe Sade	1.76	312	Pn	Pn	12 10 36.1	+0.5
MASH	Mash‘abbe Sade	1.76	312	Pn	Pn	12 10 36.1	+0.6
SVTA	Shivta	1.83	307	Pn	Pn	12 10 36.4	0.0
SVTA	Shivta	1.83	307	Pn	Pn	12 10 36.4	-0.1
HDHB	Dhahab	1.84	234	P	Pn	12 10 36.0	-0.6
YTIR	Yattir	1.85	326	Pn	Pn	12 10 37.1	+0.4
YTIR	Yattir	1.85	326	Pn	Pn	12 10 37.1	+0.4
RSHS		2.02	222	P	Pn	12 10 38.5	-0.5
HNKL	Nakhl	2.03	274	P	Pn	12 10 40.0	+0.8
HKAT	Jabal Katrina	2.41	238	P	Pn	12 10 44.2	-0.2
SHRM		2.71	225	P	Pn	12 10 48.0	-0.6
TR1		2.75	229	P	Pn	12 10 48.6	-0.5
AMAG	Maghara	2.81	288	P	Pn	12 10 52.0	+2.1
HRDS	Abu Rudays	2.86	248	P	Pn	12 10 50.8	+0.2
SUZ		3.03	271	P	Pn	12 10 53.8	+0.9

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*IDC **20** 12:20:13.9±0.8, 1.03S×127.11E, h0^{km}, mb4.1/8, mb1 4.2/9, mb1mx4.1/18, mbtmp4.1/9, ML3.6/1, MS3.4/1, Ms1 3.4/1, ms1mx2.8/27, Error ellipse: s-maj=58.9km s-min=15.2km az=75.0*
*BJI **20** 12:20:14.2, 1.10S×127.72E, h22^{km}, mb4.3*
*NEIC **20** 12:20:15.5±0.4, 0.97S×127.39E, h10^{km}, mb4.6/5, Error ellipse: s-maj=29.3km s-min=6.9km az=72.0*
*ISCJB **20** 12:20:16.9±0.5, 1.02S±0.08×127.4E±0.2, h33^{km}, mb4.2/12, Error ellipse: s-maj=31.7km s-min=7.9km az=162.6*
ISC 20 12:20:19.0±0.5, **1.05S**±0.08×**127.4E**±0.2, **h35**^{km}, **n18**, σ**1^{s}.12**/19, **mb4.2**/12, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	12.60	157	eP	Pn	12 23 17.4	+1.6
	6.5nm,0.6s						
KAKA				ePn	Pn	12 23 17.6	+1.7
FITZ	Fitzroy Crossi	17.03	186	P	Pn	12 24 15.3	+0.7
	0.2nm,0.3s,baz=2.4,slow=15,SNR=6.3						
FITZ				LR	LR	12 30 57.2	
	comp=Z,107nm,18.1s,baz=51,slow=38						
WRA	Warramunga Arr	19.95	161	P	Pn	12 24 48.3	-1.7
	2.7nm,0.4s,baz=340,slow=11,SNR=60						
WB2	Warramunga Arr	19.95	161	eP	Pn	12 24 48.2	-1.9
WB2				eP		12 24 48.4	
ASAR	Alice Springs	23.34	165	P	P	12 25 24.2	-0.2
	7.4nm,0.9s,mb4.1,baz=344,slow=12,SNR=47						
STKA	Stephens Creek	33.45	158	P	P	12 26 57.1	+2.4
	9.7nm,0.9s,mb4.7,baz=335,slow=8.2,SNR=10						
KSRS	Korea Array	38.32	1	P	P	12 27 37.3	+0.9
	0.6nm,0.7s,mb3.4,baz=170,slow=9.6,SNR=4.5						
MJAR	Matsushiro Arr	38.72	14	P	P	12 27 39.5	-0.3
	0.6nm,0.4s,mb3.6,baz=184,slow=10,SNR=4.4						
LZH	Lanzhou	42.99	332	eP	P	12 28 15.8	+0.8
LZH				AP	pP	12 28 20.3	-5.0
LZH				XP	sP	12 28 22.9	-6.6
LZH				AMB	AMB		
	comp=Z,19nm,1.3s,mb4.7						
LZH	Lanzhou	42.99	332	eP	P	12 28 15.7	+0.7
	comp=Z,19nm,1.3s,mb4.7						
LZH				pP	pP	12 28 20.3	-5.0
LZH				sP	sP	12 28 22.9	-6.6
LSA	Lhasa	46.20	314	eP	P	12 28 41.4	+0.7
	comp=Z,3.4nm,0.7s,mb4.4						
GTA	Gaotai	47.57	331	eP	P	12 28 52.4	+1.2
GTA				AP	pP	12 28 55.8	-5.9
GTA				AMB	AMB		
	comp=Z,4.0nm,0.9s,mb4.5						
ULN	Ulaanbaatar	51.86	343	eP	P	12 29 24.1	+0.3
	comp=Z,4.6nm,1.0s,mb4.4						
SONM	Songino Array	52.03	342	P	P	12 29 25.0	-0.1
	comp=Z,1.3nm,0.6s,mb4.0,baz=158,slow=8.5,SNR=18						
SONM				ScP	ScP	12 34 32.7	+1.3
	comp=Z,0.4nm,0.7s,baz=164,slow=4.0,SNR=4.6						
MK31	Makanchi Array	61.89	326	eP	P	12 30 34.2	-0.7
MKAR	Makanchi Array	61.89	326	P	P	12 30 34.0	-0.9
	comp=Z,1.5nm,0.4s,mb4.5,baz=116,slow=7.9,SNR=42						
ZALV	Zalesovo Beam	65.16	334	P	P	12 30 54.8	-1.6
	comp=Z,0.8nm,0.5s,mb4.0,baz=122,slow=5.3,SNR=6.2						
KURK	Kurchatov	66.14	328	eP	P	12 31 01.9	-0.9
	comp=Z,5.0nm,0.8s,mb4.6						

IDC 20 12:21:59.7±2.1, **1.26S**×**126.89E**, **h0**^{km}, **mb3.8**/2, **mb1 3.9**/3, **mb1mx3.5**/17, **mbtmp3.7**/3, **ML3.3**/1, **MS3.7**/1, **Ms1 3.7**/1, **ms1mx2.9**/26, **Error ellipse: s-maj=171.6km s-min=26.7km az=66.0, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.94	159	P	Pn	12 26 33.2	-1.8
	0.1nm,0.3s,baz=338,slow=11,SNR=3.3						
ASAR	Alice Springs	23.28	164	P	P	12 27 09.4	+0.2
	1.8nm,0.8s,baz=346,slow=12,SNR=3.5						
PSI	Prapat	28.25	278	LR	LR	12 41 08.2	
	comp=Z,140nm,18.1s,baz=165,slow=41						
MKAR	Makanchi Array	61.76	327	P	P	12 32 20.1	0.0
	0.8nm,0.5s,baz=110,slow=8.5,SNR=5.0						

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*ISCJB **20** 12:29:20.1±2.4, 18.4S±0.1×166.2E±0.3, h10^{km}, mb3.6/4, Error ellipse: s-maj=50.1km s-min=9.9km az=161.9*
*IDC **20** 12:29:21.5±2.6, 18.66S×166.12E, h0^{km}, mb3.7/4, mb1 4.1/6, mb1mx3.9/16, mbtmp4.1/6, ML4.7/2, Error ellipse: s-maj=53.7km s-min=31.0km az=78.0*
*NEIC **20** 12:29:22.2±1.9, 18.62S×166.19E, h10^{km}, Error ellipse: s-maj=42.3km s-min=15.9km az=72.0*
ISC 20 12:29:28.1±1.9, **18.5S**±0.1×**165.9E**±0.3, **h35**^{km}, **n9**, σ**0^{s}.80**/12, **mb3.5**/4, **Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.59	172	eP	Pn	12 30 15.2	-6.1
DZM				eS	Sn	12 31 02.3	-0.2
DZM	Mont Dzumac	3.59	172	eP	Pn	12 30 15.2	-6.1
DZM				eS	Sn	12 31 02.3	-0.2
DZM	Mont Dzumac	3.59	172	Pn	Pn	12 30 14.9	-6.4
	38nm,0.3s,baz=269,slow=23,SNR=242						
DZM				Sn	Sn	12 31 01.5	-1.0
	54nm,0.3s,baz=130,slow=24,SNR=19						
HNR	Honiara	10.70	327	Pn	Pn	12 31 57.7	-1.2
HNR	Honiara	10.70	327	Pn	Pn	12 31 57.7	-1.2
	12nm,0.3s,baz=263,slow=1.3,SNR=8.9						
WRA	Warramunga Arr	29.80	262	P	P	12 35 31.7	-0.2
	0.2nm,0.8s,mb2.9,baz=90,slow=9.3,SNR=2.6						
ASAR	Alice Springs	30.24	255	P	P	12 35 36.6	+0.8
	1.2nm,0.8s,mb3.7,baz=80,slow=9.0,SNR=12						
FITZ	Fitzroy Crossi	38.16	264	P	P	12 36 44.3	-0.1
	1.4nm,0.7s,mb3.8,baz=107,slow=12,SNR=7.1						
SONM	Songino Array	84.75	324	P	P	12 41 59.6	+1.2
	0.7nm,0.9s,mb3.8,baz=131,slow=4.0,SNR=5.4						

MEX 20 12:35:52.2±0.5, **17.01N**×**100.31W**, **h14**^{km}±3^{km}, **MD3.7**, **Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.06	43	i P	Pg	12 35 54.3	-0.5
CAIG				i S	Sg	12 35 55.3	-1.4
ACX	Acapulco	0.40	110	i P	Pg	12 35 59.0	-1.2
ACX				i S	Sg	12 36 05.0	-0.6
MEIG	Mezcala	1.12	36	eP	Pb	12 36 09.8	-3.6
MEIG				i S	Sb	12 36 23.9	-4.2

IDC 20 12:37:21.1±2.3, **0.97S**×**127.41E**, **h0**^{km}, **mb2.9**/3, **mb1 3.1**/3, **mb1mx3.0**/16, **mbtmp3.0**/3, **Error ellipse: s-maj=206.0km s-min=25.5km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.04	161	P	P	12 41 54.9	-0.9
	0.1nm,0.4s,baz=342,slow=12,SNR=3.6						
ASAR	Alice Springs	23.42	165	P	P	12 42 32.7	+0.6
	0.2nm,0.5s,baz=345,slow=12,SNR=3.7						
MKAR	Makanchi Array	61.80	326	P	P	12 47 41.8	+0.1
	0.3nm,0.7s,baz=113,slow=8.2,SNR=3.1						

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*CSEM **20** 12:49:05.7±0.2, 34.47N×31.72E, h5^{km}, Mw3.4, Error ellipse: s-maj=5.4km s-min=2.9km az=100.0*
*IDC **20** 12:49:08.7±1.7, 34.54N×32.07E, h0^{km}, mb3.8/1, mb1 3.5/7, mb1mx3.3/22, mbtmp3.4/7, ML3.6/5, Error ellipse: s-maj=33.7km s-min=18.4km az=55.0*
*ISCJB **20** 12:49:09.4±0.7, 34.43N±0.03×31.94E±0.03, h27^{km}±6^{km}, mb3.4/1, Error ellipse: s-maj=5.0km s-min=4.2km az=152.7*
*NEIC **20** 12:49:10.9, 34.43N×31.97E, h25^{km}, ML3.4(NIC), After NIC.*
*NIC **20** 12:49:10.9±0.2, 34.43N×31.97E, h25^{km}, ML3.4, MW3.4*
*GII **20** 12:49:10.8±0.0, 34.49N×32.07E, h15^{km}±1^{km}, ML2.9/4*
*HLW **20** 12:49:28.0, 33.21N×31.96E, h32^{km}, Mb3.3*
ISC 20 12:49:09.8±0.8, **34.45N**±0.03×**31.99E**±0.03, **h13**^{km}±5^{km}, **n59**, σ**1^{s}.00**/87, **mb3.4**/1, **3C, Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKMC	Akamas	0.64	25	P	Pg	12 49 22.9	+0.5
SZAC	Souni-Zanaja	0.80	67	P	Pg	12 49 24.8	-0.5
	47nm,0.1s						
SZAC				S	Sg	12 49 36.1	+0.4
ALFC	Alevga	0.87	35	⇑P	Pg	12 49 26.0	-0.6
	54nm,0.2s						
ALFC				S	Sg	12 49 38.0	0.0
ALFC	Alevga	0.87	35	⇑eP	Pg	12 49 26.0	-0.6
ALFC				S	Sg	12 49 38.0	0.0
ALFC	Alevga	0.87	35	⇑eP	Pg	12 49 26.0	-0.6
	54nm,0.2s						
CSS	Prodhromos	1.22	65	P	Pn	12 49 31.1	-1.5
	14nm,0.3s						
CSS				S	Sb	12 49 46.6	-1.7
MAMC	Mammari	1.24	54	P	Pn	12 49 31.7	-1.2
PHNC	Paralimni	1.77	71	P	Pn	12 49 41.0	+0.8
PHNC				S	Sn	12 50 06.4	+3.9
ERMK	Ermenek	2.32	19	i P	Pn	12 49 50.6	+2.9
MMC7	Mount Meron ar	3.17	116	Pn	Pn	12 49 59.2	-0.2
MMC7				Sn	Sn	12 50 36.9	-0.2
MMC7	Mount Meron ar	3.17	116	Pn	Pn	12 49 59.2	-0.2
MMC7				Sn	Sn	12 50 36.9	-0.2
MMC6	Mount Meron ar	3.17	116	Pn	Pn	12 49 59.0	-0.4
MMC6				Sn	Sn	12 50 36.6	-0.5
MMC6	Mount Meron ar	3.17	116	Pn	Pn	12 49 59.0	-0.5
MMC6				Sn	Sn	12 50 36.7	-0.5
MMAI	Mount Meron Ar	3.18	116	Pn	Pn	12 49 59.1	-0.4
	8.7nm,0.3s,baz=304,slow=13,SNR=14						
MMAI				Sn	Sn	12 50 36.6	-0.7
	29nm,0.3s,baz=304,slow=28,SNR=9.7						
HWQ	Hawqa	3.27	92	ePn	Pn	12 50 01.8	+0.9
HWQ				Sn	Sn	12 50 36.5	-3.1
HWQ	Hawqa	3.27	92	ePn	Pn	12 50 01.8	+0.9
HWQ				Sn	Sn	12 50 36.5	-3.2
RCY	Rachaya	3.32	106	ePn	Pn	12 50 00.9	-0.6
RCY				Sn	Sn	12 50 36.0	-4.8
RCY	Rachaya	3.32	106	ePn	Pn	12 50 00.9	-0.6
SLTI	Sal’it	3.37	130	Sn	Sn	12 50 41.9	-0.1
SLTI	Sal’it	3.37	130	Sn	Sn	12 50 41.9	-0.1
MMLI	Mount Malkishu	3.50	124	Sn	Sn	12 50 44.2	-0.9
MMLI	Mount Malkishu	3.50	124	Sn	Sn	12 50 44.2	-1.0
GULE	Gulek	3.62	38	i P	Pn	12 50 08.8	+3.2
HMDT	Nahal Hemdat	3.68	126	Sn	Sn	12 50 49.7	+0.1
HMDT	Nahal Hemdat	3.68	126	Sn	Sn	12 50 49.7	+0.1
YAYL	Yayladag	3.72	64	i P	Pn	12 50 06.8	-0.2
AMAG	Maghara	3.93	165	P	Pn	12 50 09.8	0.0
DRGI	Dragot	4.03	134	Sn	Sn	12 51 00.2	+1.9
DRGI	Dragot	4.03	134	Sn	Sn	12 51 00.2	+1.9
COBT	Iskenderun	4.05	58	i P	Pn	12 50 13.0	+1.5
KZIT	Kziot	4.07	149	Pn	Pn	12 50 12.2	+0.4
KZIT				Sn	Sn	12 50 59.4	+0.1
KZIT	Kziot	4.07	149	Pn	Pn	12 50 12.2	+0.4
KZIT				Sn	Sn	12 50 59.4	+0.1
SVTA	Shivta	4.15	147	Sn	Sn	12 51 02.0	+0.8
SVTA	Shivta	4.15	147	Sn	Sn	12 51 02.0	+0.8
MZDA	Masada	4.22	137	Pn	Pn	12 50 14.1	+0.3
MZDA				Sn	Sn	12 51 03.3	+0.3
MZDA	Masada	4.22	137	Pn	Pn	12 50 14.1	+0.2
MZDA				Sn	Sn	12 51 03.3	+0.3
HHAG	Hagoal	4.48	179	P	Pn	12 50 16.3	-1.2
SUZ		4.65	171	P	Pn	12 50 19.0	-0.7
ASF	Jabal al Asfar	4.69	118	Pn	Pn	12 50 22.7	+2.4
ASF				Sn	Sn	12 51 15.9	+1.3
ASF	Jabal al Asfar	4.69	118	Pn	Pn	12 50 22.7	+2.4
	1.9nm,0.3s,baz=171,slow=6.9,SNR=7.6						
ASF				Sn	Sn	12 51 15.9	+1.3
	baz=343,slow=20,SNR=2.1						
HNKL	Nakhl	4.81	159	P	Pn	12 50 22.4	+0.5
GLL	Jalalah	4.86	183	P	Pn	12 50 21.7	-1.0
ZAF		5.17	175	P	Pn	12 50 25.9	-1.0
EIL	Elat	5.38	151	Pn	Pn	12 50 30.7	+0.9
EIL				Sn	Sn	12 51 30.8	-0.9
EIL	Elat	5.38	151	Pn	Pn	12 50 30.7	+0.9
	2.1nm,0.3s,baz=344,slow=12,SNR=20						
EIL				Sn	Sn	12 51 30.8	-0.9
	2.0nm,0.3s,baz=40,slow=14,SNR=6.4						
EIL	Elat	5.38	151	Pn	Pn	12 50 30.8	+0.9
EIL				Sn	Sn	12 51 32.1	+0.5
EIL	Elat	5.38	151	Pn	Pn	12 50 30.7	+0.9
EIL				Sn	Sn	12 51 30.8	-0.9
BRTR	Keskin Array B	5.43	14	Pn	Pn	12 50 30.4	-0.1
BRTR				Sn	Sn	12 51 33.8	+0.9
BRTR	Keskin Array B	5.43	14	Pn	Pn	12 50 30.4	-0.1
	0.0nm,0.3s,baz=191,slow=18,SNR=2.7						
BRTR				Sn	Sn	12 51 33.8	+0.9
	0.5nm,0.3s,baz=274,slow=15,SNR=9.7						
BRTR	Keskin Array B	5.43	14	Pn	Pn	12 50 30.4	-0.1
BRTR				Sn	Sn	12 51 33.8	+0.9
HBST	Basata	5.71	155	P	Pn	12 50 35.2	+0.8
IDI	Anoyia	5.90	280	Pn	Pn	12 50 38.7	+1.8
IDI				Sn	Sn	12 51 43.7	-0.7
IDI	Anoyia	5.90	280	Pn	Pn	12 50 38.7	+1.8
	0.7nm,0.3s,baz=59,slow=12,SNR=3.7						
IDI				Sn	Sn	12 51 43.7	-0.7
	3.6nm,0.3s,baz=314,slow=13,SNR=11						
HDHB	Dhahab	6.13	158	P	Pn	12 50 40.5	+0.4
HKAT	Jabal Katrina	6.14	163	P	Pn	12 50 39.8	-0.5
HFRF	Wahat Farafira	7.93	205	P	Pn	12 51 04.8	-0.1
AKASG	Malin Array Be	16.37	354	Pn	Pn	12 52 58.5	-0.7
AKASG	Malin Array Be	16.37	354	Pn	Pn	12 52 58.5	-0.7
	0.7nm,0.3s,baz=177,slow=9.8,SNR=4.9						
FINES	FINESS Array B	27.28	354	P	P	12 54 52.2	-1.5
	0.6nm,0.5s,mb3.4,baz=162,slow=10,SNR=3.7						

TRN 20 12:49:41.1, **15.06N**×**61.14W**, **h25**^{km}, **MD2.7**, **M2.1**(FDF), **1D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DSHT	Scott’s Head	0.27	303	eP	Pb	12 49 48.9	+1.2
DSHT				eS	Sb	12 49 51.9	-0.3
FDF	Fort de France	0.33	182	⇓eP	Pb	12 49 50.7	+2.2
FDF				eS	Sb	12 49 56.0	+2.5
MDN	Morne-Daniel	0.35	316	eP	Pb	12 49 50.5	+1.6
MDN				eS	Sb	12 49 55.2	+1.0
BIM	Bigot	0.55	173	eP	Pb	12 49 54.6	+2.5
BIM				eS	Sb	12 50 03.0	+3.4
MVM	Montagne Vaucl	0.56	155	eP	Pb	12 49 55.0	+2.7
MVM				eS	Sb	12 50 03.6	+3.8
MGG	Marie-Galante	0.87	348	eP	Pb	12 49 59.0	+1.4
TBG	Guadaloupe-3	0.93	328	eP	Pb	12 50 00.7	+2.2
SCG	Saint Claude	1.09	331	eP	Pn	12 50 02.5	+1.6
DEG	La Desirade	1.25	3	eP	Pn	12 50 03.9	+0.8
DEG				eS	Sn	12 50 19.6	+0.6

IDC 20 12:52:34.1±4.3, **47.12N**×**152.62E**, **h124**^{km}±39^{km}, **mb3.2**/8, **mb1 3.4**/10, **mb1mx3.2**/24, **mbtmp3.3**/10, **Error ellipse: s-maj=29.2km s-min=18.4km az=108.0, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAJ	Asahikawa	7.64	251	P	Pn	12 54 22.5	-0.1
	0.7nm,0.3s,baz=90,slow=10,SNR=7.1						
MJAR	Matsushiro Arr	15.04	231	P	Pn	12 56 01.6	+1.5
	0.3nm,0.3s,baz=33,slow=8.5,SNR=5.3						
KSRS	Korea Array	20.59	251	P	P	12 57 02.9	-0.2
	0.6nm,0.5s,baz=54,slow=10,SNR=2.6						
YKA	Yellowknife Ar	50.84	37	P	P	13 01 21.2	-0.3
	0.1nm,0.4s,baz=294,slow=6.8,SNR=3.3						
FINES	FINESS Array B	63.56	334	P	P	13 02 51.1	+0.2
	1.0nm,0.6s,baz=45,slow=5.7,SNR=5.5						
HFS	Hagfors	68.00	339	P	P	13 03 20.0	+0.6
	0.9nm,0.5s,baz=49,slow=6.5,SNR=5.6						
WRA	Warramunga Arr	68.75	198	P	P	13 03 24.1	-0.3
	0.2nm,0.4s,baz=17,slow=6.7,SNR=3.5						
AKASG	Malin Array Be	71.05	326	P	P	13 03 37.9	-0.4
	0.7nm,0.4s,baz=31,slow=5.2,SNR=2.8						
ASAR	Alice Springs	72.45	198	P	P	13 03 47.5	+0.7
	0.5nm,0.8s,baz=12,slow=5.6,SNR=6.0						
TXAR	Lajitas Array	77.61	60	P	P	13 04 16.8	+0.2
	0.2nm,0.4s,baz=292,slow=4.9,SNR=7.3						

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*ISCJB **20** 13:08:47.7±1.0, 1.1S±0.2×127.3E±0.4, h10^{km}, mb3.8/4, Error ellipse: s-maj=62.5km s-min=13.4km az=163.2*
*IDC **20** 13:08:47.9±1.2, 0.95S×127.69E, h0^{km}, mb3.8/4, mb1 3.8/6, mb1mx3.7/17, mbtmp3.7/6, ML3.5/2, Error ellipse: s-maj=86.9km s-min=18.3km az=71.0*
*NEIC **20** 13:08:49.8±0.8, 1.11S×127.30E, h10^{km}, Error ellipse: s-maj=54.5km s-min=11.5km az=73.0*
ISC 20 13:08:49.7±1.0, **1.1S**±0.2×**127.4E**±0.4, **h10**^{km}, **n9**, σ**1^{s}.05**/9, **mb3.8**/4, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	16.97	186	Pn	Pn	13 12 47.4	+0.1
FITZ	Fitzroy Crossi	16.97	186	Pn	Pn	13 12 47.4	+0.1
	0.1nm,0.3s,baz=0.0,slow=20,SNR=2.7						
WRA	Warramunga Arr	19.91	160	P	Pn	13 13 20.9	-2.3
	0.3nm,0.3s,baz=343,slow=12,SNR=15						
ASAR	Alice Springs	23.29	165	P	P	13 13 58.0	+0.2
	1.3nm,0.6s,mb3.6,baz=346,slow=11,SNR=20						
STKA	Stephens Creek	33.41	158	P	P	13 15 30.5	+1.9
	1.7nm,0.7s,mb4.1,baz=325,slow=14,SNR=3.6						
SONM	Songino Array	52.08	342	P	P	13 17 59.5	-0.2
	0.4nm,0.8s,mb3.4,baz=164,slow=7.9,SNR=3.6						
MK31	Makanchi Array	61.91	327	eP	P	13 19 09.6	+0.1
MKAR	Makanchi Array	61.91	327	P	P	13 19 09.3	-0.2
MKAR	Makanchi Array	61.91	327	P	P	13 19 09.3	-0.2
	0.7nm,0.4s,mb4.2,baz=114,slow=8.0,SNR=16						

IDC 20 13:12:38.8±1.4, **0.91S**×**127.63E**, **h0**^{km}, **mb3.2**/4, **mb1 3.5**/5, **mb1mx3.4**/17, **mbtmp3.3**/5, **ML3.0**/1, **Error ellipse: s-maj=102.4km s-min=20.5km az=73.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.19	186	P	Pn	13 16 41.4	+0.8
	0.0nm,0.3s,baz=36,slow=19,SNR=3.8						
WRA	Warramunga Arr	20.02	161	P	P	13 17 14.1	+0.8
	0.4nm,0.5s,baz=341,slow=12,SNR=6.2						
ASAR	Alice Springs	23.42	165	P	P	13 17 49.2	-0.7
	0.4nm,0.6s,baz=347,slow=12,SNR=9.8						
SONM	Songino Array	51.96	342	P	P	13 21 50.8	+1.2
	0.2nm,0.7s,baz=151,slow=6.5,SNR=2.1						
MKAR	Makanchi Array	61.87	326	P	P	13 22 59.1	-0.9
	0.4nm,0.4s,baz=115,slow=8.0,SNR=8.0						

IDC 20 13:13:02.0±1.3, **0.97S**×**127.33E**, **h0**^{km}, **mb3.7**/5, **mb1 3.9**/6, **mb1mx3.7**/17, **mbtmp3.7**/6, **ML3.1**/1, **MS3.7**/1, **Ms1 3.7**/1, **ms1mx3.1**/22, **Error ellipse: s-maj=97.0km s-min=20.5km az=71.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.11	185	P	Pn	13 17 02.8	+0.1
	0.1nm,0.3s,baz=29,slow=10,SNR=3.6						
WRA	Warramunga Arr	20.07	160	P	P	13 17 36.5	-0.6
	1.0nm,0.3s,baz=341,slow=11,SNR=14						
ASAR	Alice Springs	23.45	165	P	P	13 18 12.5	-0.8
	1.7nm,0.6s,baz=344,slow=11,SNR=11						
CBIJ	Chichi jima	31.35	26	LR	LR	13 30 07.7	
	comp=Z,144nm,20.1s,baz=207,slow=33						
STKA	Stephens Creek	33.57	158	P	P	13 19 45.2	+1.3
	1.9nm,0.6s,baz=340,slow=8.3,SNR=4.2						
SONM	Songino Array	51.92	342	P	P	13 22 13.5	+1.0
	0.6nm,0.9s,baz=157,slow=7.8,SNR=3.6						
MKAR	Makanchi Array	61.76	327	P	P	13 23 21.4	-1.0
	0.3nm,0.5s,baz=111,slow=7.8,SNR=3.1						

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*ISCJB **20** 13:14:35.9±1.4, 1.12S±0.04×127.34E±0.05, h12^{km}±8^{km}, mb4.9/54, MS3.9/17, Error ellipse: s-maj=8.6km s-min=5.1km az=154.8*
*IDC **20** 13:14:35.9±0.6, 1.08S×127.18E, h0^{km}, mb4.8/15, mb1 4.8/16, mb1mx4.7/23, mbtmp4.8/16, ML4.3/1, MS3.7/9, Ms1 3.7/9, ms1mx3.6/25, Error ellipse: s-maj=24.5km s-min=12.0km az=71.0*
*BJI **20** 13:14:36.4, 1.58S×127.48E, h41^{km}, mB5.2, mb4.9, Ms4.7, Msz4.2*
*NEIC **20** 13:14:38.5±4.8, 1.13S×127.20E, h15^{km}±30^{km}, mb5.0/22, Error ellipse: s-maj=13.0km s-min=6.4km az=62.0*
NEIC Felt [III] at Labuha.
*MOS **20** 13:14:39.7±1.1, 0.97S×127.20E, h33^{km}, mb5.1/21, Error ellipse: s-maj=16.4km s-min=7.0km az=117.5*
ISC 20 13:14:39.6±1.5, **1.18S**±0.04×**127.33E**±0.05, **h26**^{km}±10^{km}, **h31**^{km}±1.6^{km}**:pP-P, n152**, σ**1^{s}.10**/156, **mb4.9**/54, **MS3.9**/17, **14C-8D, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCI	Palu	7.50	272	P	Pn	13 16 27.0	-0.5
	565nm,0.9s						
MYLDM	Lahad Datu	10.85	306	⇑P	Pn	13 17 14.4	+1.0
TSM	Tawau	10.90	300	⇑P	Pn	13 17 12.2	-2.0
SDKM	Sandakan	12.18	304	⇓P	Pn	13 17 31.8	+0.1
KAKA	Kakadu	12.53	156	eP	Pn	13 17 36.4	0.0
	103nm,0.5s						
KAKA				eS	Sn	13 19 54.4	-0.8
KDM	Kudat	13.21	308	⇓P	Pn	13 17 46.1	+0.4
KKM	Kota Kinabalu	13.22	303	ePn	Pn	13 17 44.9	-0.9
KKM	Kota Kinabalu	13.22	303	⇑P	Pn	13 17 45.0	-0.8
SBUM	Sibu	15.53	283	⇑P	Pn	13 18 17.4	+0.3
FITZ	Fitzroy Crossi	16.90	186	eP	Pn	13 18 33.1	-1.4
	24nm,1.1s						
FITZ	Fitzroy Crossi	16.90	186	Pn	Pn	13 18 34.9	+0.3
	0.9nm,0.3s,baz=9.7,slow=9.4,SNR=26						
FITZ				LR	LR	13 25 21.5	
	comp=Z,264nm,20.6s,baz=194,slow=38						
KSM	Kuching	17.23	279	ePn	Pn	13 18 37.0	-1.7
KSM	Kuching	17.23	279	⇓P	Pn	13 18 37.4	-1.3
BJII	Banjamegara	18.60	250	P	Pn	13 18 59.8	+4.2
	98nm,1.9s						
TPI	Tanjungpandan	19.73	265	P	Pn	13 19 08.5	-0.7
	183nm,1.0s						
WRA	Warramunga Arr	19.87	160	P	Pn	13 19 08.9	-1.9
WRA				S	Sn	13 22 49.7	-3.8
WRA				LR	LR	13 27 44.0	
WRA	Warramunga Arr	19.87	160	P	Pn	13 19 08.9	-1.8
WRA				S	Sn	13 22 49.7	-3.8
WRA	Warramunga Arr	19.87	160	P	Pn	13 19 08.9	-1.9
	30nm,0.5s,baz=342,slow=12,SNR=60						
WRA				S	Sn	13 22 49.7	-3.8
	4.8nm,0.7s,baz=336,slow=22,SNR=5.3						
WRA				LR	LR	13 27 44.0	

	comp=Z,254nm,19.1s,baz=340,slow=39						
WB2	Warramunga Arr	19.87	160	eP	Pn	13 19 09.3	-1.5
COEN	Coen	20.17	130	eP	P	13 19 14.8	+2.4
LEM	Lembang	20.45	254	P	P	13 19 21.5	+6.1
	124nm,1.1s						
MBWA	Marble Bar	21.20	200	eP	P	13 19 24.7	+1.2
	42nm,0.9s,mb4.8						
PMG	Port Moresby	21.35	113	eP	P	13 19 30.7	+5.5
	54nm,0.9s,mb4.9						
PMG	Port Moresby	21.35	113	eP	P	13 19 30.2	+5.0
PMG	Port Moresby	21.35	113	P	P	13 19 27.7	+2.6
	66nm,1.0s,mb4.9,baz=289,slow=18,SNR=3.9						
GUMO	Guam	22.75	49	LR	LR	13 26 03.0	
	comp=Z,220nm,20.2s,MS3.6,baz=238,slow=30						
ASAR	Alice Springs	23.25	165	P	P	13 19 45.1	-0.1
	50nm,0.7s,mb5.1,baz=344,slow=10,SNR=69						
MYKOM	Kota Tinggi	23.66	277	⇑P	P	13 19 50.2	+0.7
KGM	Kluang	24.22	278	⇑P	P	13 19 55.4	+0.8
KSI	Kapahiang	24.84	264	P	P	13 20 01.8	+1.6
	230nm,0.8s,mb5.8						
KTGM	Kuala Trenggan	25.02	285	⇑P	P	13 20 02.1	+0.3
FRIM	Kepong	26.07	280	⇓P	P	13 20 12.3	+0.9
YHNB	Yeheng	26.33	348	eP	P	13 20 13.2	-0.4
CTA	Charters Tower	26.38	137	eP	P	13 20 17.7	+3.6
	25nm,1.1s,mb4.7						
CTA	Charters Tower	26.38	137	eP	P	13 20 17.7	+3.6
CTA				pmax	pmax		
	comp=Z,25nm,1.1s						
CTA	Charters Tower	26.38	137	P	P	13 20 17.1	+3.1
	comp=Z,32nm,0.9s,mb4.9,baz=318,slow=12,SNR=19						
CTAO	Charters Tower	26.38	137	eP	P	13 20 18.2	+4.1
	comp=Z,52nm,1.1s,mb5.0						
CTAO	Charters Tower	26.38	137	eP	P	13 20 18.2	+4.2
CTAO				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.0						
QIZ	Qiongzhong	26.43	320	P	P	13 20 10.5	-4.0
QIZ				S	S	13 24 42.3	-4.5
QIZ				AMB	AMB		
	comp=Z,23nm,1.6s,mb4.5						
QIZ				AMB	AMB		
	comp=Z,92nm,5.0s						
IPM	Ipoh	26.88	282	⇓P	P	13 20 19.0	+0.3
PPI	Padang Panjang	26.94	271	P	P	13 20 20.0	+0.7
	comp=Z,106nm,1.0s,mb5.3						
KULM	Kulim	27.42	284	eP	P	13 20 23.0	-0.6
KULM	Kulim	27.42	284	⇓P	P	13 20 23.9	+0.4
GZH	Guangzhou	27.70	331	P	P	13 20 28.3	+2.4
GZH				S	S	13 25 12.1	+5.3
GZH				LR	LR		
	comp=N,156nm,6.3s						
GZH				LR	LR		
	comp=E,137nm,6.5s						
GZH				LR	LR		
	comp=Z,294nm,21.1s,MS3.8						
JOW	Kunigami	27.86	2	P	P	13 20 27.2	-0.1
	comp=Z,10nm,0.8s,mb4.5,baz=178,slow=5.1,SNR=3.9						
PSI	Prapat	28.68	278	P	P	13 20 34.4	-0.4
PSI	Prapat	28.68	278	P	P	13 20 34.4	-0.4
	comp=Z,39nm,0.8s,mb5.2,baz=116,slow=5.0,SNR=34						
FORT	Forrest	29.45	179	eP	P	13 20 39.8	-1.6
	comp=Z,45nm,0.5s,mb5.5						
FORT				eP		13 20 43.3	
KLBR	Kellerberrin	31.58	196	eP	P	13 20 59.0	-1.2
	comp=Z,54nm,1.4s,mb5.2						
NWAO	Narrogin (SRO)	32.98	196	P	P	13 21 13.3	+0.8
NWAO				LR	LR	13 35 59.0	
NWAO	Narrogin (SRO)	32.98	196	P	P	13 21 13.3	+0.8
	comp=Z,3.6nm,0.6s,mb4.5,baz=29,slow=13,SNR=4.1						
NWAO				LR	LR	13 35 59.0	
	comp=Z,200nm,18.1s,MS3.9,baz=19,slow=39						
STKA	Stephens Creek	33.37	158	eP	P	13 21 17.7	+1.7
	comp=Z,32nm,0.9s,mb5.2						
STKA	Stephens Creek	33.37	158	P	P	13 21 18.0	+2.1
	comp=Z,40nm,0.9s,mb5.3,baz=327,slow=7.3,SNR=24						
STKA				LR	LR	13 35 58.1	
	comp=Z,70nm,18.2s,MS3.4,baz=333,slow=38						
WHN	Wuhan	33.88	340	⇑P	P	13 21 21.0	+0.6
WHN				LR	LR		
	comp=Z,569nm,35.7s,MS4.0						
NJ2	Nanjing	34.01	347	eP	P	13 21 23.1	+1.6
NJ2				AP	pP	13 21 32.9	+3.8
NJ2				PP	PP	13 22 39.8	+1.0
NJ2				S	S	13 26 45.0	-0.3
NJ2				XS	sS	13 27 01.0	+3.0
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,280nm,5.4s						
NJ2				LR	LR		
	comp=N,480nm,16.2s						
NJ2				LR	LR		
	comp=E,360nm,22.4s						
NJ2				LR	LR		
	comp=Z,270nm,18.5s,MS4.0						
CHTO	Chiang Mai	34.25	307	eP	P	13 21 23.2	-0.5
	comp=Z,20nm,1.1s,mb5.0						
CHTO	Chiang Mai	34.25	307	eP	P	13 21 23.2	-0.5
CHTO				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
KMI	Kunming	35.37	319	P	P	13 21 34.1	+0.8
KMI				AMB	AMB		
	comp=Z,22nm,1.4s,mb4.9						
KMI	Kunming	35.37	319	P	P	13 21 34.1	+0.8
	comp=Z,22nm,1.4s,mb4.9						
ARMA	Armidale	37.11	144	eP	P	13 21 51.3	+3.1
KS15	Wonju Array Si	38.43	1	eP	P	13 22 01.4	+2.3
KSRS	Korea Array	38.44	1	P	P	13 21 58.9	-0.4
	comp=Z,4.6nm,0.7s,mb4.3,baz=175,slow=9.7,SNR=17						
KSRS				PcP	PcP	13 24 14.1	+1.8
	comp=Z,0.7nm,0.7s,baz=174,slow=2.4,SNR=4.3						
MAT	Matsushiro	38.87	14	P	P	13 22 03.5	+0.6
MJAR	Matsushiro Arr	38.87	14	P	P	13 22 01.5	-1.4
	comp=Z,2.2nm,0.6s,mb4.0,baz=184,slow=9.1,SNR=6.2						
CD2	Chengdu	39.00	327	P	P	13 22 03.5	-0.6
CD2				AP	pP	13 22 14.3	+2.5
CD2				XP	sP	13 22 18.5	+3.5
CD2				PP	PP	13 23 38.6	+4.8
CD2				PCP	PcP	13 24 14.5	+0.3
CD2				S	S	13 28 01.1	-0.5
CD2				XS	sS	13 28 17.3	+3.0
CD2				AMB	AMB		
	comp=Z,50nm,1.1s,mb5.2						
CD2				AMB	AMB		
	comp=Z,130nm,5.8s						
CD2				LR	LR		
	comp=N,200nm,14.4s						
CD2				LR	LR		
	comp=Z,190nm,16.8s,MS4.0						
XAN	Xi’an	39.07	335	P	P	13 22 03.8	-0.8
XAN				AMB	AMB		
	comp=Z,18nm,0.6s,mb5.0						
TOO	Toolangi	39.89	157	eP	P	13 22 15.5	+4.0
	comp=Z,8.9nm,0.6s,mb4.7						
TOO	Toolangi	39.89	157	eP	P	13 22 15.5	+4.0
TOO				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.7						
BJT	Baijiatuau	42.25	347	eP	P	13 22 30.1	-0.7
	comp=Z,15nm,0.6s,mb4.8						
BJT	Baijiatuau	42.25	347	eP	P	13 22 30.1	-0.7
BJT				pmax	pmax		
	comp=Z,15nm,0.6s						
BJI	Beijing	42.27	347	P	P	13 22 29.6	-1.4
BJI				AP	pP	13 22 38.5	-0.2
BJI				XP	sP	13 22 42.4	+0.5
BJI				S	S	13 28 45.4	-4.7
BJI				AMB	AMB		
	comp=Z,8.0nm,0.7s,mb4.5						
BJI				AMB	AMB		
	comp=Z,117nm,5.4s						
BJI				LR	LR		
	comp=N,257nm,6.6s						
BJI				LR	LR		
	comp=E,233nm,5.7s						
BJI				LR	LR		
	comp=Z,127nm,35.2s,MS3.6						
SNY	Shenyang	42.94	356	⇑P	P	13 22 36.6	+0.2
SNY				AP	pP	13 22 42.8	-1.4
SNY				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.6						
SNY				AMB	AMB		
	comp=Z,231nm,4.9s						
SNY				LR	LR		
	comp=N,285nm,14.0s						
SNY				LR	LR		
	comp=Z,226nm,20.7s						
LZH	Lanzhou	43.05	332	⇑P	P	13 22 38.3	+0.9
LZH				AP	pP	13 22 48.1	+2.9
LZH				XP	sP	13 22 52.0	+3.7
LZH				PP	PP	13 24 20.8	+3.1
LZH				eS	S	13 29 00.8	-0.9
LZH				XS	sS	13 29 17.5	+3.0
LZH				SS	SS	13 32 07.3	-7.3
LZH				AMB	AMB		
	comp=Z,53nm,1.3s,mb5.1						
LZH				AMB	AMB		
	comp=Z,332nm,6.2s						
LZH				LR	LR		
	comp=N,1µm,14.1s						
LZH				LR	LR		
	comp=Z,2µm,17.8s,MS5.1						
LZH	Lanzhou	43.05	332	⇑P	P	13 22 38.2	+0.8
	comp=Z,53nm,1.3s,mb5.1						
LZH				pP	pP	13 22 48.1	+2.9
LZH				sP	sP	13 22 52.0	+3.7
LZH				PP	PP	13 24 20.7	+3.0
LZH				eS	S	13 29 00.8	-0.9
LZH				sS	sS	13 29 17.5	+3.0
LZH				SS	SS	13 32 07.3	-7.3
LZH				LR	LR		
	comp=Z,2µm,17.8s,MS5.1						
LZH	Lanzhou	43.05	332	⇑P	P	13 22 38.2	+0.8
LZH				*PP	pP	13 22 48.1	+2.9
LZH				*SP	sP	13 22 52.0	+3.7
LZH						13 24 20.7	
LZH				eS	S	13 29 00.8	-0.9
LZH				*SS	sS	13 29 17.5	+3.0
LZH				SS	SS	13 32 07.3	-7.3
LZH				pmax	pmax		
	comp=Z,53nm,1.3s,mb5.1						
LZH				MLR	MLR		
	comp=Z,2µm,17.8s,MS5.1						
SHL	Shillong	43.38	310	i P	P	13 22 41.0	+0.8
HHC	Hu-ho-hao-te	44.23	343	eP	P	13 22 47.1	+0.4
HHC				AP	pP	13 22 55.6	+1.0
HHC				XP	sP	13 23 00.3	+2.6
HHC				PP	PP	13 24 31.9	+1.7
HHC				PCS	PcS	13 28 23.8	-0.4
HHC				S	S	13 29 18.5	-0.2
HHC				SCS	ScS	13 32 40.8	-2.9
HHC				AMB	AMB		
	comp=Z,12nm,1.1s,mb4.5						
HHC				AMB	AMB		
	comp=Z,151nm,7.1s						
HHC				LR	LR		
	comp=N,191nm,16.6s,MS4.3						
HHC				LR	LR		
	comp=E,234nm,16.6s,MS4.3						
HHC				LR	LR		
	comp=Z,161nm,16.0s,MS4.0						
CN2	Changchun	44.81	358	eP	P	13 22 54.1	+2.7
CN2				eAP	pP	13 23 03.3	+4.1
MDJ	Mudanjiang	45.64	2	P	P	13 22 57.5	-0.4
MDJ				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,140nm,4.2s						
MDJ	Mudanjiang	45.64	2	eP	P	13 22 58.0	+0.1
LSA	Lhasa	46.21	315	P	P	13 23 04.3	+1.6
LSA				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.5						
LSA	Lhasa	46.21	315	eP	P	13 23 04.2	+1.5
	comp=Z,24nm,0.6s,mb5.3						
LSA	Lhasa	46.21	315	eP	P	13 23 04.2	+1.5
LSA				pmax	pmax		
	comp=Z,24nm,0.6s,mb5.3						
GTA	Gaotai	47.62	331	P	P	13 23 14.1	+0.5
GTA				AP	pP	13 23 21.8	+0.3
GTA				XP	sP	13 23 25.0	+0.4
GTA				PCP	PcP	13 24 43.5	+0.5
GTA				PP	PP	13 25 05.5	+0.1
GTA				PPP		13 25 55.8	
GTA				SCP	ScP	13 28 35.0	-0.8
GTA				PCS	PcS	13 28 37.3	-1.1
GTA				S	S	13 30 09.0	+1.3
GTA				SCS	ScS	13 33 03.6	-2.2
GTA				SS	SS	13 33 32.1	-4.1
GTA				AMB	AMB		
	comp=Z,29nm,1.2s,mb5.2						
GTA				AMB	AMB		
	comp=Z,124nm,4.9s						
GTA				LR	LR		
	comp=N,141nm,16.7s,MS4.1						
GTA				LR	LR		
	comp=E,90nm,16.7s,MS4.1						
GTA				LR	LR		
	comp=Z,136nm,16.7s,MS4.0						
KLR	Kul’dur	50.35	4	eP	P	13 23 30.8	-3.5
HIA	Hailar	50.67	354	P	P	13 23 35.9	-0.8
HYB	Hyderabad	51.47	293	eP	P	13 23 44.0	+0.7
	comp=Z,90nm,1.0s,mb5.7						
HYB	Hyderabad	51.47	293	eP	P	13 23 44.0	+0.7
HYB				pmax	pmax		
	comp=Z,90nm,1.0s,mb5.7						
HYB	Hyderabad	51.47	293	i P	P	13 23 44.0	+0.7
	comp=Z,90nm,1.0s,mb5.7						
HYB				e		13 23 54.0	
ULN	Ulaanbaatar	51.95	343	eP	P	13 23 46.5	+0.1
	comp=Z,24nm,0.8s,mb5.2						
ULN	Ulaanbaatar	51.95	343	c iP	P	13 23 46.0	-0.3
SONM	Songino Array	52.12	342	P	P	13 23 47.5	-0.1
SONM						13 24 59.3	
SONM	Songino Array	52.12	342	P	P	13 23 47.5	-0.1
	comp=Z,5.8nm,0.7s,mb4.6,baz=156,slow=7.5,SNR=48						
SONM				PcP	PcP	13 24 59.3	0.0
	comp=Z,2.0nm,0.7s,baz=165,slow=2.4,SNR=2.1						
SONM				LR	LR	13 47 43.4	
	comp=Z,75nm,18.4s,MS3.8,baz=1.4,slow=38						
CIT	Chita	54.27	350	eP	P	13 24 03.1	-0.3
CIT				e	pP	13 24 10.2	-1.1
CIT				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.0						
ZAK	Zakamensk	55.33	342	eP	P	13 24 10.8	-0.3
ZAK				e		13 25 11.3	
ZAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
TLY	Talaya	56.35	343	eP	P	13 24 19.5	+1.1
	comp=Z,12nm,0.6s,mb5.1						
TLY	Talaya	56.35	343	eP	P	13 24 18.9	+0.5
TLY				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
TLY				MLR	MLR		
	comp=Z,108nm,17.0s,MS4.0						
IRK	Irkutsk	56.66	343	eP	P	13 24 17.2	-3.4
IRK				pmax	pmax		
	comp=Z,30nm,1.8s,mb5.0						
WMQ	Urumqi	57.10	327	P	P	13 24 25.1	+1.3
WMQ				AP	pP	13 24 35.3	+3.4
WMQ				XP	sP	13 24 39.1	+4.2
WMQ				PCP	PcP	13 25 19.8	+1.3
WMQ				PP	PP	13 26 33.3	+2.4
WMQ				AMB	AMB		
	comp=Z,39nm,0.8s,mb5.5						
WMQ				LR	LR		
	comp=N,259nm,25.8s,MS4.3						
WMQ				LR	LR		
	comp=E,79nm,22.0s,MS4.3						
WMQ				LR	LR		
	comp=Z,98nm,24.0s,MS3.8						
MOY	Mondy	57.18	341	eP	P	13 24 24.4	+0.2
BOD	Bodaibo	59.77	352	eP	P	13 24 37.2	-5.0
BOD				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
MK31	Makanchi Array	61.93	327	eP	P	13 24 56.9	-0.2
MKAR	Makanchi Array	61.93	327	i P	P	13 24 56.7	-0.4
MKAR				pmax	pmax		
	comp=Z,20nm,0.5s						
MKAR	Makanchi Array	61.93	327	P	P	13 24 56.8	-0.3
	comp=Z,20nm,0.5s,mb5.5,baz=118,slow=8.7,SNR=138						
MKAR				LR	LR	13 55 27.5	
	comp=Z,62nm,19.3s,MS3.8,baz=158,slow=40						
KSH	Kashi	61.97	317	eP	P	13 24 57.0	-0.5
KSH				eAP	pP	13 25 07.3	+1.7
KSH				eXP	sP	13 25 11.1	+2.4
KSH				ePCP	PcP	13 25 38.3	+0.2
KSH				ePP	PP	13 27 14.1	-0.1
KSH				ePPP		13 28 44.3	
KSH				eSCP	ScP	13 29 35.0	-3.5
KSH				ePCS	PcS	13 29 39.4	-1.7
KSH				eS	S	13 33 13.3	-7.1
KSH				eSCS	ScS	13 34 42.1	-5.9
KSH				AMB	AMB		
	comp=Z,387nm,3.7s						
YAK	Yakutsk	63.06	1	eP	P	13 25 04.1	-0.3
YAK	Yakutsk	63.06	1	eP	P	13 25 04.4	0.0
YAK				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.2						
YAK				pmax	pmax		
	comp=N,9.0nm,1.3s						
MA2	Magadan	63.30	13	eP	P	13 25 07.2	+1.1
	comp=N,12nm,0.8s,mb5.1						
MA2	Magadan	63.30	13	eP	P	13 25 06.7	+0.7
MA2				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.1						
KZA	Kyzart	63.66	319	P	P	13 25 09.9	+1.1
	SNR=23						
TKM2	Tokmak 2	63.83	320	P	P	13 25 10.2	+0.3
	SNR=14						
KBK	Karagaybulak	64.13	319	P	P	13 25 16.4	+4.6
	SNR=6.2						
UCH	Uchtor	64.21	319	P	P	13 25 13.5	+1.1
	SNR=19						
AAK	Ala-Archa	64.41	319	P	P	13 25 13.1	-0.6
	comp=Z,67nm,1.1s,mb5.6,SNR=6.7						
AAK	Ala-Archa	64.41	319	eP	P	13 25 13.1	-0.6
	comp=Z,15nm,1.1s,mb4.9						
AAK	Ala-Archa	64.41	319	eP	P	13 25 13.0	-0.7
AAK				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
AML	Almayashu	64.70	319	P	P	13 25 16.4	+0.8
	SNR=12						
USP	Ospenovka	64.70	320	P	P	13 25 15.1	-0.5
	SNR=14						
EKS2	Erkin-Say	64.89	319	P	P	13 25 17.4	+0.6
	SNR=14						
ZALV	Zalesovo Beam	65.22	334	P	P	13 25 17.4	-1.3
	comp=Z,3.2nm,0.6s,mb4.5,baz=106,slow=5.3,SNR=29						
ZALV				LR	LR	13 53 46.0	
	comp=Z,41nm,18.2s,MS3.7,baz=131,slow=36						
ZAL	Zalesovo	65.22	334	P	P	13 25 17.4	-1.3
KURK	Kurchatov	66.19	329	P	P	13 25 24.9	-0.2
	comp=Z,301nm,1.1s,mb6.2,SNR=30						
KURK	Kurchatov	66.19	329	eP	P	13 25 24.3	-0.8
KURK	Kurchatov	66.19	329	P	P	13 25 24.1	-1.0
KURK				pmax	pmax		
	comp=Z,72nm,1.6s,mb5.5						
NVS	Novosibirsk	66.50	334	⇑iP	P	13 25 25.2	-1.8
NVS				eS	S	13 34 05.2	-11
NVS				e		13 35 15.6	
NVS				pmax	pmax		
	comp=N,7.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,7.0nm,0.7s						
NVS				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.1						
NVS				smax			
	comp=N,8.0nm,1.8s						
NVS				smax			
	comp=E,11nm,1.8s						
SEY	Seymchan	66.66	12	eP	P	13 25 28.5	+0.7
KKAR	Karatay Array	67.24	318	i P	P	13 25 31.3	-0.6
KKAR				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
BRVK	Borovoye	71.82	328	eP	P	13 25 59.0	-1.0
	comp=Z,12nm,0.8s,mb4.9						
BRVK	Borovoye	71.82	328	P	P	13 25 58.9	-1.1
BRVK				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.5						
TIXI	Tiksi	72.71	1	eP	P	13 26 04.0	-0.9
TIXI	Tiksi	72.71	1	eP	P	13 26 02.9	-2.1
TIXI				pmax	pmax		
	comp=Z,12nm,1.8s,mb4.5						
AB31	Akbulak array	76.32	322	P	P	13 26 25.2	-1.2
AB31				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
ARU	Arti	79.39	328	eP	P	13 26 42.8	-0.5
	comp=Z,7.3nm,0.6s,mb4.8						
ARU	Arti	79.39	328	d iP	P	13 26 42.4	-0.9
ARU				e		13 29 41.2	
ARU				eS	S	13 36 39.4	-3.1
ARU				eSS	SS	13 41 43.2	-6.8
ARU				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
PPT	Papeete	83.06	107	LR	LR	13 57 13.3	
	comp=Z,51nm,21.6s,MS3.9,baz=83,slow=31						
ZEI	Tsey	85.97	313	eP	P	13 27 18.0	+0.2
ZEI				e*PP	pP	13 27 25.4	-0.8
ZEI				e		13 30 37.6	
SYO	Syowa Base	88.10	201	⇓eP	P	13 27 28.5	+0.9
SOC	Sochi	89.07	313	eP	P	13 27 30.6	-2.2
SOC				eS	SKSac	13 37 56.3	-4.8
SOC				e	ScS	13 38 22.2	-2.8
SOC				eSS	SS	13 44 10.2	-3.4
SOC				pmax	pmax		
	comp=Z,69nm,1.1s,mb5.9						
KMBO	Kilima Mbogo	90.06	269	eP	P	13 27 40.4	+2.3
	comp=Z,5.5nm,1.1s,mb4.8						
KMBO	Kilima Mbogo	90.06	269	eP	P	13 27 40.4	+2.3
KMBO				pmax	pmax		
	comp=Z,6.0nm,1.1s						
ARCES	ARCESS Array B	95.23	340	P	P	13 27 58.4	-2.3
ARCES	ARCESS Array B	95.23	340	P	P	13 27 58.4	-2.3
	comp=Z,1.5nm,0.8s,mb4.5,baz=52,slow=5.9,SNR=3.1						
FINES	FINESS Array B	96.41	332	P	P	13 28 05.4	-0.8
	comp=Z,1.2nm,0.8s,mb4.3,baz=198,slow=30,SNR=2.7						
YKA	Yellowknife Ar	103.68	25	PKiKP	PKiKP	13 32 54.3	-2.4
	comp=Z,0.1nm,0.5s,baz=330,slow=2.5,SNR=2.9						
BOZ	Bozeman (W)	112.09	40	ePdif	Pdif	13 29 23.6	+7.4
PAB	San Pablo	121.80	317	ePdif	Pdif	13 30 00.4	+1.0
TXAR	Lajitas Array	124.01	55	PKP	PKPdf	13 33 35.9	-0.5
TXAR	Lajitas Array	124.01	55	PKIKP	PKPdf	13 33 35.9	-0.5
TXAR	Lajitas Array	124.01	55	PKP	PKPdf	13 33 35.9	-0.5
	comp=Z,0.2nm,0.7s,baz=137,slow=9.9,SNR=3.2						
TORD	Torodi Ar. Bea	124.90	285	PKP	PKPdf	13 33 37.8	-0.7
TORD	Torodi Ar. Bea	124.90	285	PKP	PKPdf	13 33 37.8	-0.7
	comp=Z,1.1nm,0.8s,baz=102,slow=1.9,SNR=5.0						
LCO	Las Campanas	145.37	151	ePKPdf	PKPdf	13 34 18.8	+2.8

ISCJB **20** *13:28:35.9±0.5, 1.05S±0.08×127.3E±0.2, h10^{km}, mb4.0/9, Error ellipse: s-maj=35.2km s-min=9.0km az=168.3*

IDC **20** *13:28:36.2±0.8, 1.04S×127.09E, h0^{km}, mb4.0/9, mb1 4.1/10, mb1mx4.0/19, mbtmp4.0/10, ML3.6/1, Error ellipse: s-maj=50.9km s-min=14.6km az=77.0*

NEIC **20** *13:28:37.7±0.4, 1.09S×127.09E, h10^{km}, mb4.1/2, Error ellipse: s-maj=29.7km s-min=7.4km az=76.0*

BJI **20** *13:28:38.6, 1.10S×127.10E, h10^{km}, mB4.9, mb3.9*

ISC 20 13:28:37.7±0.5**, 1.07S**±0.08×**127.4E**±0.2**, h10**^{km}**, n17, σ0.92**/15**, mb4.0**/9**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.01	186	P	Pn	13 32 36.0	+0.1
	0.2nm,0.3s,baz=37,slow=12,SNR=8.6						
WRA	Warramunga Arr	19.95	161	P	Pn	13 33 10.7	-1.0
	3.9nm,0.7s,baz=339,slow=12,SNR=26						
WB2	Warramunga Arr	19.95	160	eP	Pn	13 33 11.0	-0.7
ASAR	Alice Springs	23.33	165	P	P	13 33 46.5	+0.2
	6.3nm,0.8s,mb4.1,baz=343,slow=9.9,SNR=51						
JOW	Kunigami	27.75	2	P	P	13 34 27.8	+1.1
	6.4nm,0.7s,mb4.4,baz=204,slow=6.8,SNR=4.5						
STKA	Stephens Creek	33.45	158	P	P	13 35 19.5	+2.6
	7.4nm,0.7s,mb4.7,baz=326,slow=7.6,SNR=12						
KSRS	Korea Array	38.34	1	P	P	13 35 58.4	-0.4
	1.6nm,0.7s,mb3.9,baz=181,slow=9.6,SNR=12						
MJAR	Matsushiro Arr	38.75	14	P	P	13 36 01.7	-0.6
	0.5nm,0.4s,mb3.6,baz=176,slow=13,SNR=2.5						
GTA	Gaotai	47.56	331	eP	P	13 37 14.5	+1.0
GTA				AP	pP	13 37 20.8	+4.1
GTA				XP	sP	13 37 23.6	+5.7
GTA				AMB	AMB		
	comp=Z,2.0nm,1.0s,mb4.1						
SONM	Songino Array	52.04	342	P	P	13 37 47.2	-0.2
	comp=Z,0.4nm,0.5s,mb3.6,baz=156,slow=6.9,SNR=5.3						
MK31	Makanchi Array	61.88	327	eP	P	13 38 57.8	+0.5
MKAR	Makanchi Array	61.88	327	P	P	13 38 55.6	-1.6
	comp=Z,0.6nm,0.4s,mb4.1,baz=127,slow=7.7,SNR=15						
ZALV	Zalesovo Beam	65.15	334	P	P	13 39 18.4	-0.3
ZALV	Zalesovo Beam	65.15	334	P	P	13 39 18.4	-0.3
	comp=Z,0.2nm,0.3s,mb3.6,baz=5.0,slow=35,SNR=2.8						
TIXI	Tiksi	72.61	0	eP	P	13 40 04.8	-0.1
TORD	Torodi Ar. Bea	124.93	285	PKP	PKPdf	13 47 38.2	-0.9
TORD	Torodi Ar. Bea	124.93	285	PKP	PKPdf	13 47 38.2	-0.9
	comp=Z,0.3nm,0.7s,baz=17,slow=1.5,SNR=2.9						

IDC 20 13:37:53.8±2.1**, 084S**×**12745E, h0^{km}, mb3.3**/3**, mb1 3.6**/3**, mb1mx3.3**/16**, mbtmp3.4**/3**, Error ellipse: s-maj=147.3km s-min=27.0km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.15	161	P	P	13 42 29.8	0.0
	0.8nm,0.6s,baz=340,slow=12,SNR=8.6						
ASAR	Alice Springs	23.54	165	P	P	13 43 05.9	-0.2
	0.3nm,0.6s,baz=350,slow=15,SNR=8.4						
MKAR	Makanchi Array	61.71	326	P	P	13 48 14.1	+0.2
	0.4nm,0.8s,baz=125,slow=8.2,SNR=4.4						

IDC ***20*** *13:45:07.9±1.2, 1126N×8656W, h0^{km}, mb4.1/10, mb1 4.3/10, mb1mx4.1/18, mbtmp4.1/10, MS3.3/3, Ms1 3.3/3, ms1mx3.0/26, Error ellipse: s-maj=44.9km s-min=14.9km az=49.0*
ISCJB ***20*** *13:45:13.6±0.8, 1102N±004×8667W±007, h55^{km}±7^{km}, mb4.1/14, MS3.5/2, Error ellipse: s-maj=12.5km s-min=4.4km az=152.0*
NEIC ***20*** *13:45:13.7±0.8, 1132N×8627W, h35^{km}, mb4.2/4, Error ellipse: s-maj=27.5km s-min=10.4km az=48.0*
CASC ***20*** *13:45:14.1±2.7, 1105N×8660W, h29^{km}±8^{km}, MD4.0, ML4.2, mb4.2(NEIC)*
ISC 20 13:45:14.9±0.7**, 1105N**±004×**8662W**±007**, h53^{km}**±7^{km}**, n64, σ1^{s}14**/64**, mb4.1**/14**, MS3.5**/2**, 9C-11D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SSNN	San Juan del S	0.79	72	⇓iP	Pn	13 45 27.8	-2.1
SSNN				eS	Sn	13 45 41.0	+0.1
CRUN	El Crucero	0.98	18	⇓iP	Pn	13 45 32.3	-0.1
CRUN				eS	Sn	13 45 47.5	+2.1
APON	Apoyo	1.02	32	⇓iP	Pn	13 45 31.9	-1.1
MASN	Masaya	1.04	26	⇓eP	Pn	13 45 31.1	-2.1
TICN	Ticuantepe	1.05	21	⇓eP	Pn	13 45 32.8	-0.5
TICN				eS	Sn	13 45 48.6	+1.6
CONN	Concepcion	1.10	62	⇓iP	Pn	13 45 32.6	-1.5
MADN	Villa Maderas	1.12	71	⇓eP	Pn	13 45 33.2	-1.1
COPN	Copaltepe	1.12	1	⇑eP	Pn	13 45 33.9	-0.5
COPN				eS	Sn	13 45 49.7	+0.8
XAVN	Gruta Xavier	1.13	15	⇓eP	Pn	13 45 34.0	-0.5
XAVN				eS	Sn	13 45 49.4	+0.4
TISN	Laguna Tiscapa	1.14	17	⇑eP	Pn	13 45 34.1	-0.5
TISN				eS	Sn	13 45 50.1	+0.9
MGAN	Managua	1.15	18	⇓eP	Pn	13 45 34.2	-0.5
MGAN				eS	Sn	13 45 50.0	+0.6
	comp=N,6μm,0.3s						
VCR	Vista de Mar	1.33	133	eP	Pn	13 45 37.2	0.0
HUEN		1.35	19	⇑eP	Pn	13 45 36.9	-0.5
HUEN				eS	Sn	13 45 54.4	0.0
MOMJ	Momotombo	1.35	3	⇑eP	Pn	13 45 36.8	-0.7
MOMJ				eS	Sn	13 45 54.8	+0.4
2RIO	Dos Rios de Up	1.45	111	⇓eP	Pn	13 45 33.7	-5.1
2RIO				eS	Sn	13 45 50.9	-6.0
TEL3	Telica 3	1.53	352	⇑eP	Pn	13 45 39.8	-0.1
TEL3				eS	Sn	13 45 58.4	-0.3
TELN	Telica	1.56	352	⇑eP	Pn	13 45 40.1	-0.2
TELN				eS	Sn	13 45 59.7	+0.3
JTS	JuntasAbangare	1.80	115	ePn	Pn	13 45 40.1	-3.4
JTS				Pn	Pn	13 45 41.1	-2.4
JTS				Sn	Sn	13 46 07.7	+2.4
JTS				eSg	Sn	13 46 08.5	+3.2
JTS				LR	LR	13 46 41.3	
JTS	JuntasAbangare	1.80	115	Pn	Pn	13 45 41.1	-2.5
	comp=N,35nm,0.3s,baz=324,slow=14,SNR=78						
JTS				Sn	Sn	13 46 07.7	+2.4
	comp=N,172nm,0.3s,baz=310,slow=20,SNR=14						
JTS				LR	LR	13 46 41.3	
	comp=N,356nm,18.6s,baz=5.5,slow=51						
JCR	Jicaral	1.90	129	eP	Pn	13 45 43.7	-1.2
CGA2	Cerro Gallo 2	2.35	116	eP	Pn	13 45 51.9	+0.8
PRS1	Puriscal	2.50	115	eP	Pn	13 45 53.5	+0.4
LAJ	Bijagual	2.72	115	eP	Pn	13 45 51.7	-4.5
BLLM	Bellamira	2.86	326	⇑eP	x	13 46 09.1	
BLLM				eS	x	13 46 42.6	
VSM	San Miguel	2.87	326	eP	x	13 46 08.9	
VSM				eS	x	13 46 45.2	
LCR2	La Lucha 2	2.88	117	eP	Pn	13 45 59.8	+1.4
ICR	Volcan Irazu	2.94	111	eP	Pn	13 46 02.7	+3.5
URSC	Urasca	3.04	113	eP	Pn	13 46 01.8	+1.3
TGUH	Tegucigalpa,Un	3.06	348	ePn	Pn	13 45 55.5	-5.3
CAHU	Cacacuatique	3.12	330	⇓eP	x	13 46 12.8	
CAHU				eS	x	13 46 50.6	
SNVI	San Vicente	3.35	320	eP	x	13 46 16.1	
SNVI				eS	x	13 46 55.5	
LCBS	La Ceiba	3.47	319	⇑eP	x	13 46 17.4	
LCBS				eS	x	13 46 56.0	
LFRS	El Faro	3.50	317	eP	x	13 46 18.3	
LFRS				eS	x	13 46 57.2	
SNET	Serv Nac Est T	3.66	316	eP	x	13 46 09.9	
SNET				eS	x	13 46 52.7	
BAR1		3.72	119	eP	Pn	13 46 10.9	+1.0
BOQS	Boqueron	3.73	316	⇑eP	x	13 46 18.6	
BOQS				eS	x	13 47 03.3	
RBDL	Robledal	4.27	316	eP	x	13 46 28.8	
RBDL				eS	x	13 47 16.9	
TEIG	Tepich	9.26	350	LR	LR	13 50 45.9	
	comp=N,86nm,19.7s,baz=261,slow=37						
CMIG	Matias Romero	10.02	308	Pn	Pn	13 47 37.2	+0.9
CMIG	Matias Romero	10.02	308	Pn	Pn	13 47 37.2	+0.9
	comp=N,0.7nm,0.3s,baz=112,slow=7.0,SNR=5.6						
SJG	San Juan	21.00	68	LR	LR	13 56 34.9	
	comp=N,68nm,20.8s,MS3.0,baz=212,slow=33						
SWET	Sewanee	24.07	1	eP	P	13 50 24.4	-0.8
TXAR	Lajitas Array	24.17	321	P	P	13 50 25.4	-0.9
	comp=N,4.2nm,0.7s,mb4.0,baz=135,slow=9.9,SNR=55						
MIAR	Mount Ida	24.23	346	eP	P	13 50 26.1	-0.7
	comp=N,5.5nm,0.7s,mb4.1						
TKL	Tuckaleechee C	24.63	6	P	P	13 50 29.8	-0.6
	comp=N,4.2nm,0.7s,mb4.1,baz=163,slow=13,SNR=3.3						
ANMO	Albuquerque	29.87	326	P	P	13 51 18.1	+0.6
ANMO				eP		13 51 19.5	
ANMO	Albuquerque	29.87	326	P	P	13 51 18.1	+0.6
	comp=N,0.8nm,0.6s,mb3.7,baz=162,slow=5.9,SNR=4.6						
SDCO	Great Sand Dun	31.53	331	eP	P	13 51 33.6	+1.6
	comp=N,9.4nm,1.4s,mb4.4						
SIV	San Ignacio	36.89	136	P	P	13 52 19.8	+1.1
	comp=N,1.8nm,0.7s,mb4.0,baz=336,slow=8.7,SNR=12						
PDAR	Pinedale Array	37.38	332	P	P	13 52 22.4	-0.1
	comp=N,1.3nm,0.6s,mb4.0,baz=130,slow=10,SNR=13						
HWUT	Hardware Ranch	37.49	329	eP	P	13 52 24.7	+1.2
	comp=N,2.8nm,0.7s,mb4.2						
ULM	Lac du Bonnet	39.82	351	P	P	13 52 39.8	-3.1
	comp=N,1.9nm,0.5s,mb4.1,baz=165,slow=7.9,SNR=9.0						
HLID	Hailey	40.35	328	eP	P	13 52 48.9	+1.4
	comp=N,1.5nm,0.6s,mb3.9						
MCMT	McKenzie Canyo	40.50	331	eP	P	13 52 50.5	+1.8
SCHQ	Schefferville	46.39	16	P	P	13 53 33.3	-2.6
	comp=N,1.3nm,0.5s,mb4.1,baz=54,slow=12,SNR=6.1						
YKA	Yellowknife Ar	55.17	345	P	P	13 54 40.0	-1.8
YKA	Yellowknife Ar	55.17	345	P	P	13 54 40.0	-1.8
	comp=N,0.8nm,0.7s,mb3.9,baz=142,slow=7.0,SNR=16						
MDT	Midelt	77.42	59	LR	LR	14 28 23.5	
	comp=N,53nm,18.8s,MS3.9,baz=155,slow=34						
KEST	Kesra	88.41	54	P	P	13 58 02.4	+0.8
	comp=N,1.4nm,0.5s,mb4.5,baz=352,slow=2.6,SNR=5.2						
FINES	FINESS Array B	90.86	26	P	P	13 58 12.3	-0.3
	comp=N,0.2nm,0.3s,mb3.9,baz=335,slow=37,SNR=2.4						
SONM	Songino Array	120.25	350	PKP	PKPdf	14 03 59.9	-0.4
SONM	Songino Array	120.25	350	PKP	PKPdf	14 03 59.9	-0.4
	comp=N,0.3nm,0.5s,baz=2.7,slow=0.1,SNR=6.7						
MKAR	Makanchi Array	121.57	9	PKP	PKPdf	14 04 01.6	-1.2
MKAR	Makanchi Array	121.57	9	PKP	PKPdf	14 04 01.6	-1.2
	comp=N,0.2nm,0.4s,baz=330,slow=2.8,SNR=7.8						

ISCJB ***20*** *13:54:51.4±0.8, 09S±01×1275E±04, h10^{km}, mb4.0/6, MS3.3/1, Error ellipse: s-maj=58.4km s-min=11.3km az=162.4*
IDC ***20*** *13:54:52.1±1.1, 099S×12727E, h0^{km}, mb3.9/7, mb1 4.1/8, mb1mx3.9/18, mbtmp4.0/8, ML3.7/1, MS3.4/1, Ms1 3.4/1, ms1mx2.8/19, Error ellipse: s-maj=113.0km s-min=16.2km az=69.0*
NEIC ***20*** *13:54:53.9±0.6, 099S×12732E, h10^{km}, Error ellipse: s-maj=45.0km s-min=9.7km az=73.0*
ISC 20 13:54:53.6±0.8**, 10S**±01×**1274E**±04**, h10^{km}, n15, σ0^{s}69**/12**, mb4.0**/6**, MS3.3**/1**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.13	186	Pn	Pn	13 58 53.8	+0.5
FITZ	Fitzroy Crossi	17.13	186	Pn	Pn	13 58 53.8	+0.5
	0.2nm,0.3s,baz=25,slow=16,SNR=10.0						
WRA	Warramunga Arr	20.06	161	P	P	13 59 26.7	-0.5
	2.6nm,0.6s,baz=340,slow=11,SNR=32						
ASAR	Alice Springs	23.44	165	P	P	14 00 03.0	-0.4
	3.3nm,0.6s,mb3.9,baz=345,slow=11,SNR=51						
STKA	Stephens Creek	33.55	158	P	P	14 01 34.4	+0.6
	4.3nm,0.8s,mb4.5,baz=329,slow=10,SNR=6.9						
JNU	Nakatsue	34.05	5	LR	LR	14 13 30.9	
	comp=Z,60nm,21.7s,MS3.3,baz=166,slow=33						
SONM	Songino Array	51.92	342	P	P	14 04 03.7	+1.2
SONM	Songino Array	51.92	342	P	P	14 04 03.7	+1.2
	0.7nm,0.6s,mb3.8,baz=164,slow=6.9,SNR=7.6						
MK31	Makanchi Array	61.78	326	eP	P	14 05 13.1	+0.5
MKAR	Makanchi Array	61.78	326	P	P	14 05 12.9	+0.4
	1.1nm,0.5s,mb4.3,baz=114,slow=7.8,SNR=38						
ZALV	Zalesovo Beam	65.05	334	P	P	14 05 33.2	-0.8
	0.3nm,0.4s,mb3.7,baz=27,slow=30,SNR=2.8						
AKTK	Aktyubinsk	77.74	322	P	P	14 06 50.0	-0.8
AKTO	Aktyubinsk	77.74	322	P	P	14 06 50.0	-0.8
	0.7nm,0.7s,mb3.7,baz=215,slow=11,SNR=4.3						
FFD	Franklin Falls	134.37	19	ePdif	Pdif	14 11 14.1	+2.3
TZTN	Tazewell	134.45	35	ePKPdf	PKPdf	14 14 14.2	+1.6

ISCJB ***20*** *13:57:13.4±0.3, 103S±005×12739E±008, h10^{km}, mb4.7/39, MS3.8/2, Error ellipse: s-maj=12.5km s-min=6.3km az=160.4*
BJI ***20*** *13:57:13.8, 147S×12750E, h35^{km}, mB5.1, mb4.9, Ms4.5, Msz4.3*
IDC ***20*** *13:57:13.5±0.7, 102S×12731E, h0^{km}, mb4.5/12, mb1 4.5/13, mb1mx4.4/21, mbtmp4.5/13, ML3.9/1, MS3.8/1, Ms1 3.7/1, ms1mx3.0/22, Error ellipse: s-maj=30.4km s-min=14.0km az=78.0*
NEIC ***20*** *13:57:15.8±0.4, 105S×127.16E, h10^{km}, mb4.9/15, Error ellipse: s-maj=13.2km s-min=6.8km az=63.0*
MOS ***20*** *13:57:17.7±1.3, 091S×12721E, h33^{km}, mb5.0/14, Error ellipse: s-maj=19.9km s-min=8.2km az=118.1*
ISC 20 13:57:15.6±0.3**, 103S**±005×**12732E**±008**, h10^{km}, (h18^{km}**±4.3^{km}**:pP-P), n82, σ1^{s}15**/81**, mb4.7**/39**, MS3.8**/2**, 4D, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	12.67	157	eP	Pn	14 00 15.8	-0.2
	27nm,0.6s						
KKM	Kota Kinabalu	13.12	302	ePn	Pn	14 00 19.4	-2.9
FITZ	Fitzroy Crossi	17.05	185	eP	Pn	14 01 15.6	+1.4
	13nm,1.0s						
FITZ	Fitzroy Crossi	17.05	185	P	Pn	14 01 15.0	+0.8
	0.3nm,0.3s,baz=19,slow=14,SNR=8.6						
KSM	Kuching	17.19	278	eP	Pn	14 01 15.4	-0.7
WRA	Warramunga Arr	20.01	160	P	P	14 01 47.3	-1.3
	4.3nm,0.6s,baz=341,slow=12,SNR=30						
COEN	Coen	20.28	130	eP	P	14 01 53.0	+1.5
	25nm,1.0s						
PMG	Port Moresby	21.42	114	P	P	14 02 08.2	+4.2
	9.2nm,0.9s,mb4.1,baz=256,slow=21,SNR=2.9						
ASAR	Alice Springs	23.39	165	P	P	14 02 24.0	-0.9
	15nm,0.8s,mb4.5,baz=345,slow=10,SNR=23						
YHNB	Yeheng	26.19	348	eP	P	14 02 50.4	-0.1
CTA	Charters Tower	26.49	137	eP	P	14 03 00.1	+6.7
	11nm,1.0s,mb4.3						
CTA	Charters Tower	26.49	137	P	P	14 02 57.1	+3.7
CTA				eP	pP	14 03 00.1	+3.7
CTA	Charters Tower	26.49	137	P	P	14 02 57.1	+3.7
	14nm,1.0s,mb4.5,baz=355,slow=4.7,SNR=4.6						
JOW	Kunigami	27.71	2	P	P	14 03 02.9	-1.4
	8.3nm,0.8s,mb4.4,baz=179,slow=14,SNR=4.8						
PSI	Prapat	28.64	278	P	P	14 03 12.3	-0.4
	15nm,0.8s,mb4.8,baz=108,slow=6.3,SNR=14						
FORT	Forrest	29.59	179	eP	P	14 03 20.1	-0.9
	19nm,0.7s,mb4.9						
STKA	Stephens Creek	33.51	158	eP	P	14 03 56.2	+0.8
	6.7nm,0.7s,mb4.7						
STKA	Stephens Creek	33.51	158	P	P	14 03 55.5	+0.1
STKA				eP	pP	14 03 56.4	-2.2
STKA				LR	LR	14 18 19.2	
STKA	Stephens Creek	33.51	158	P	P	14 03 55.5	+0.1
	8.4nm,0.7s,mb4.8,baz=325,slow=10,SNR=14						
STKA				LR	LR	14 18 19.2	
	comp=Z,131nm,18.2s,MS3.7,baz=17,slow=38						
NJ2	Nanjing	33.86	347	eP	P	14 03 56.5	-2.0
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
JNU	Nakatsue	34.13	5	P	P	14 04 01.1	+0.3
	comp=Z,2.3nm,0.7s,mb4.2,baz=211,slow=12,SNR=3.7						
KMI	Kunming	35.24	319	P	P	14 04 12.0	+1.5
KMI				AMB	AMB		
	comp=Z,14nm,1.2s,mb4.8						
KMI	Kunming	35.24	319	P	P	14 04 12.0	+1.5
	comp=Z,14nm,1.2s,mb4.8						
KSRS	Korea Array	38.30	1	P	P	14 04 35.8	-0.6
	comp=Z,1.1nm,0.5s,mb3.9,baz=178,slow=9.4,SNR=9.5						
MJAR	Matsushiro Arr	38.73	14	P	P	14 04 39.0	-1.0
MJAR	Matsushiro Arr	38.73	14	P	P	14 04 39.0	-1.0
	comp=Z,1.1nm,0.4s,mb4.0,baz=186,slow=9.2,SNR=7.1						
CD2	Chengdu	38.87	327	P	P	14 04 41.3	0.0
CD2				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
XAN	Xi’an	38.93	335	P	P	14 04 41.0	-0.8
XAN				AP	pP	14 04 49.0	+4.1
XAN				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.5						
BJT	Baijiatuau	42.10	347	eP	P	14 05 07.8	-0.1
	comp=Z,18nm,0.5s,mb5.0						
BJT	Baijiatuau	42.10	347	eP	P	14 05 07.8	-0.1
BJT				pmax	pmax		
	comp=Z,18nm,0.5s						
LZH	Lanzhou	42.91	332	⇓P	P	14 05 16.0	+1.4
LZH				AP	pP	14 05 21.3	+3.6
LZH				AMB	AMB		
	comp=Z,31nm,1.4s,mb4.8						
LZH				AMB	AMB		
	comp=Z,149nm,4.6s						
LZH	Lanzhou	42.91	332	⇓P	P	14 05 16.0	+1.4
	comp=Z,31nm,1.4s,mb4.8						
LZH				pP	pP	14 05 21.3	+3.6
LZH				sP	sP	14 05 23.5	+4.6
SHL	Shillong	43.27	310	eP	P	14 05 19.0	+1.4
MDJ	Mudanjiang	45.49	2	P	P	14 05 35.3	+0.2
MDJ				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.4						
MDJ				AMB	AMB		
	comp=Z,136nm,4.9s						
MDJ	Mudanjiang	45.49	2	eP	P	14 05 37.0	+1.9
LSA	Lhasa	46.09	315	P	P	14 05 41.8	+1.7
LSA				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
LSA	Lhasa	46.09	315	eP	P	14 05 42.2	+2.1
	comp=Z,20nm,0.8s,mb5.1						
LSA	Lhasa	46.09	315	eP	P	14 05 42.2	+2.1
LSA				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
GTA	Gaotai	47.49	331	⇓P	P	14 05 52.3	+1.4
GTA				AP	pP	14 05 57.0	+3.0
GTA				PCP	PcP	14 07 22.3	+1.2
GTA				PP	PP	14 07 42.3	-0.1
GTA				PPP		14 08 31.4	
GTA				S	S	14 12 46.1	+0.5
GTA				SS	SS	14 16 08.4	-5.3
GTA				AMB	AMB		
	comp=Z,18nm,1.1s,mb4.9						
GTA				AMB	AMB		
	comp=Z,178nm,6.1s						
GTA				LR	LR		
	comp=N,92nm,16.7s,MS4.1						
GTA				LR	LR		
	comp=E,122nm,15.2s,MS4.1						
GTA				LR	LR		
	comp=Z,100nm,16.7s,MS3.9						
HYB	Hyderabad	51.40	293	eP	P	14 06 21.5	+0.4
HYB	Hyderabad	51.40	293	i P	P	14 06 21.5	+0.4
	comp=Z,50nm,1.0s,mb5.4						
ULN	Ulaanbaatar	51.80	343	eP	P	14 06 24.3	+0.7
	comp=Z,16nm,1.0s,mb4.9						
ULN	Ulaanbaatar	51.80	343	eP	P	14 06 24.3	+0.7
ULN				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
SONM	Songino Array	51.97	342	P	P	14 06 25.2	+0.3
	comp=Z,6.9nm,0.8s,mb4.6,baz=153,slow=8.4,SNR=36						
ZAK	Zakamensk	55.19	341	eP	P	14 06 48.5	+0.1
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
TLY	Talaya	56.21	342	eP	P	14 06 57.2	+1.5
	comp=Z,9.5nm,0.9s,mb4.8						
TLY	Talaya	56.21	342	eP	P	14 06 57.6	+1.9
TLY				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
WMQ	Urumqi	56.97	327	eP	P	14 07 02.4	+1.1
WMQ				AP	pP	14 07 12.4	+7.9
WMQ				XP	sP	14 07 16.4	+11
WMQ				AMB	AMB		
	comp=Z,16nm,1.0s,mb5.0						
MOY	Mondy	57.03	341	eP	P	14 07 03.5	+1.9
BOD	Bodaibo	59.63	352	eP	P	14 07 17.5	-2.1
BOD				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb4.3						
MK31	Makanchi Array	61.80	327	eP	P	14 07 34.4	-0.3
MKAR	Makanchi Array	61.80	327	P	P	14 07 34.3	-0.4
	comp=Z,16nm,0.7s,mb5.3,baz=119,slow=8.1,SNR=58						
MKAR				ScP	ScP	14 12 16.9	-1.0
	comp=Z,1.1nm,0.9s,baz=110,slow=6.6,SNR=5.7						
YAK	Yakutsk	62.92	1	eP	P	14 07 42.1	+0.3
	comp=Z,18nm,0.6s,mb5.4						
YAK	Yakutsk	62.92	1	eP	P	14 07 41.4	-0.4
YAK				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.2						
MA2	Magadan	63.16	13	eP	P	14 07 45.0	+1.5
	comp=Z,6.3nm,0.7s,mb4.8						
MA2	Magadan	63.16	13	eP	P	14 07 44.2	+0.7
MA2				pmax	pmax		
	comp=Z,32nm,2.6s,mb5.0						
KZA	Kyzart	63.53	319	P	P	14 07 48.0	+1.7
	SNR=16						
TKM2	Tokmak 2	63.71	320	P	P	14 07 51.1	+3.6
	SNR=5.2						
UCH	Uchtor	64.09	319	P	P	14 07 51.6	+1.6
	SNR=16						
AAK	Ala-Archa	64.29	319	eP	P	14 07 51.2	-0.1
	comp=Z,5.2nm,0.9s,mb4.6						
AAK	Ala-Archa	64.29	319	eP	P	14 07 51.1	-0.2
AAK				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.6						
USP	Ospenovka	64.58	320	P	P	14 07 53.8	+0.6
	SNR=9.8						
AML	Almayashu	64.58	318	P	P	14 07 54.7	+1.4
	SNR=18						
EKS2	Erkin-Say	64.77	319	P	P	14 07 55.6	+1.1
	SNR=18						
ZALV	Zalesovo Beam	65.08	334	P	P	14 07 55.1	-1.1
	comp=Z,2.5nm,0.6s,mb4.4,baz=117,slow=5.5,SNR=19						
ZAL	Zalesovo	65.08	334	P	P	14 07 55.2	-1.0
KURK	Kurchatov	66.06	328	eP	P	14 08 02.0	-0.7
	comp=Z,32nm,0.8s,mb5.4						
KURK	Kurchatov	66.06	328	eP	P	14 08 02.0	-0.6
KURK				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.4						
NVS	Novosibirsk	66.37	334	eP	P	14 08 02.4	-2.1
NVS				eS	S	14 16 46.9	-7.4
NVS				pmax	pmax		
	comp=N,11nm,1.2s						
NVS				pmax	pmax		
	comp=E,9.0nm,1.2s						
NVS				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.9						
NVS				smax			
	comp=N,16nm,2.3s						
NVS				smax			
	comp=E,11nm,2.3s						
SEY	Seymchan	66.52	12	eP	P	14 08 05.4	+0.1
KKAR	Karatay Array	67.12	318	i P	P	14 08 09.2	-0.4
KKAR				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
BRVK	Borovoye	71.69	328	eP	P	14 08 37.0	-0.6
	comp=Z,9.1nm,0.8s,mb4.8						
BRVK	Borovoye	71.69	328	eP	P	14 08 37.0	-0.6
BRVK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
TIXI	Tiksi	72.56	1	eP	P	14 08 41.4	-1.1
	comp=Z,3.5nm,0.4s,mb4.6						
TIXI	Tiksi	72.56	1	eP	P	14 08 41.1	-1.4
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
AB31	Akbulak array	76.20	321	P	P	14 09 02.5	-1.6
AB31				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
AKTK	Aktyubinsk	77.74	322	P	P	14 09 12.1	-0.8
AKTO	Aktyubinsk	77.74	322	P	P	14 09 12.1	-0.8
	comp=Z,5.5nm,0.9s,mb4.5,baz=107,slow=6.3,SNR=18						
ARU	Arti	79.25	328	eP	P	14 09 19.5	-1.5
	comp=Z,4.1nm,0.8s,mb4.4						
ARU	Arti	79.25	328	d iP	P	14 09 19.2	-1.8
ARU				e		14 12 18.4	
ARU				eS	S	14 19 16.8	-4.4
ARU				eSS	SS	14 24 20.1	-7.7
ARU				pmax	pmax		
	comp=Z,17nm,2.5s,mb4.5						
TORD	Torodi Ar. Bea	124.84	285	PKP	PKPdf	14 16 16.0	-0.9
TORD	Torodi Ar. Bea	124.84	285	PKP	PKPdf	14 16 16.0	-0.9
	comp=Z,0.6nm,0.8s,baz=53,slow=2.6,SNR=3.0						

IDC 20 14:23:55.1±2.1**, 112S**×**12749E, h0^{km}, mb3.1**/2**, mb1 3.3**/3**, mb1mx3.1**/16**, mbtmp3.1**/3**, ML2.9**/1**, Error ellipse: s-maj=155.5km s-min=27.6km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.87	161	P	Pn	14 28 28.2	-1.4
	0.0nm,0.3s,baz=340,slow=11,SNR=5.3						
ASAR	Alice Springs	23.26	165	P	P	14 29 04.4	0.0
	0.4nm,0.7s,baz=344,slow=11,SNR=7.5						
MKAR	Makanchi Array	61.97	326	P	P	14 34 16.9	+0.1
	0.1nm,0.3s,baz=113,slow=6.4,SNR=4.1						

BJI ***20*** *14:25:24.4, 154S×12735E, h40^{km}, mB6.3, mb6.0, Ms5.5, Msz5.3*
IDC ***20*** *14:25:24.3±0.4, 085S×12676E, h0^{km}, mb5.6/24, mb1 5.5/24, mb1mx5.5/25, mbtmp5.6/24, MS5.3/21, Ms1 5.3/21, ms1mx5.2/37, Error ellipse: s-maj=13.7km s-min=9.7km az=69.0*
ISCJB ***20*** *14:25:25.3±0.6, 103S±002×12702E±003, h16^{km}±3^{km}, mb5.9/143, MS5.6/211, Error ellipse: s-maj=4.4km s-min=3.3km az=163.3*
GCMT ***20*** *14:25:26.3±0.1, 095S×127.10E, h12^{km}, MW6.0/89, Moment Tensor Solution. s86,c156; s89,c260; Duration: 2^{s}4 Moment tensor: Scale 10^{18}Nm; M_{rr}-0.28±.01; $M_{\theta\theta}$0.43±.01; $M_{\phi\phi}$-0.14±.01; $M_{r\theta}$0.17±.02; $M_{\theta\phi}$0.59±.01; $M_{\phi r}$-0.92±.02; Best double couple: $M_0$1.13200×10^{18} NP1:ϕ_s271.00000°, δ40.00000°, λ-16.00000°. NP2:ϕ_s13.00000°, δ80.00000°, λ-129.00000°. Principal axes: T 0.9630, Plg24.0000°, Azm132.0000°; N 0.3380, Plg38.0000°, Azm21.0000°; P -1.3010, Plg42.0000°, Azm246.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*
CRAAG ***20*** *14:25:26.0, 101S×12699E, Mb5.9*
NEIC ***20*** *14:25:26.3±0.1, 103S×12698E, h11^{km}, mb5.9/61, ME6.0, MS5.8/163, MW5.9, Error ellipse: s-maj=6.2km s-min=4.0km az=67.0 Broadband fault plane solution: P waves. NP1:ϕ_s240.00000°, δ35.00000°, λ-60.00000°. NP2:ϕ_s25.00000°, δ60.00000°, λ-109.00000°. Principal axes: T Plg13.0000°, Azm129.0000°; N Plg0.0000°, Azm0.0000°; P Plg69.0000°, Azm255.0000°; Moment Tensor Solution. s23 Moment tensor: Scale 10^{17} Nm; M_{rr}-6.48; $M_{\theta\theta}$2.51; $M_{\phi\phi}$3.98; $M_{r\theta}$-0.50; $M_{\theta\phi}$4.27; $M_{\phi r}$-4.84; Best double couple: $M_0$8.60000×10^{17} NP1:ϕ_s240.00000°, δ33.00000°, λ-56.00000°. NP2:ϕ_s21.00000°, δ63.00000°, λ-110.00000°. Principal axes: T 8.7000, Plg16.0000°, Azm126.0000°; N -0.2000, Plg18.0000°, Azm30.0000°; P -8.5000, Plg66.0000°, Azm254.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*
NEIC Felt [IV] at Labuha and [III] on Ternate.
MOS ***20*** *14:25:29.0±1.6, 082S×12699E, h33^{km}, mb6.1/48, MS5.4/36 Error ellipse: s-maj=9.4km s-min=4.8km az=114.1*

ISC 20 14:25:29.1±0.6,**105S**±002×**12701E**±003,**h30**^{km}±3^{km}, **h25**^{km}±2.5^{km}**:pP-P,n747,**σ**1**^{s}**16**/488,**mb5.9**/141,**MS5.6**/211, **21C-60D,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	Ambon	2.87	156	P	Pn	14 26 13.0	+0.2
	11µm,0.7s						
PCI	Palu	7.18	271	P	Pn	14 27 10.8	-1.3
	4µm,0.8s						
MATI	Mati	7.98	355	*e*P	Pn	14 27 27.6	+4.5
DAV	Davao City (W)	8.19	350	*e*P	Pn	14 27 27.3	+1.3
	1µm,0.7s						
BUKP	Musuan	9.08	348	*e*P	Pn	14 27 40.1	+1.9
PAGZ	Pagadian	9.55	338	*e*P	Pn	14 27 45.6	+0.9
TARAI	Tarakan	10.39	295	P	Pn	14 27 55.1	-1.1
	2µm,1.3s						
MYLDM	Lahad Datu	10.52	306	⇓P	Pn	14 27 59.5	+1.6
TSM	Tawau	10.56	300	⇓P	Pn	14 27 57.8	-0.8
WSI	Waingapu	10.86	218	P	Pn	14 28 05.4	+2.8
	1µm,1.2s						
MSLP	Maasin	11.32	349	*e*P	Pn	14 28 08.5	-0.3
SDKM	Sandakan	11.85	304	⇑P	Pn	14 28 18.3	+2.2
OCLP	Ormoc	12.26	349	*e*P	Pn	14 28 21.5	-0.2
GUIM	Jordan	12.41	339	*e*P	Pn	14 28 24.8	+1.1
KAKA	Kakadu	12.77	155	*e*P	Pn	14 28 26.4	-2.3
	219nm,0.4s						
KDM	Kudat	12.88	308	⇑P	Pn	14 28 32.6	+2.4
KKM	Kota Kinabalu	12.88	303	*e*P	Pn	14 28 30.7	+0.5
KKM	Kota Kinabalu	12.88	303	⇑P	Pn	14 28 31.3	+1.0
CUYO	Cuyo Island	13.24	333	*e*P	Pn	14 28 37.6	+2.4
BATP	Bataraza	13.42	317	*e*P	Pn	14 28 36.4	-1.1
CNP	Catarman	13.67	350	*e*P	Pn	14 28 41.1	+0.1
JAY	Jayapura	13.76	96	P	Pn	14 28 45.5	+3.2
	318nm,2.4s						
OTRP	Odiongan	14.22	340	*e*P	Pn	14 28 49.3	+0.8
KMMI	Kalianget	14.31	245	P	Pn	14 28 51.3	+1.5
	1µm,1.5s						
ENPP	El Nido	14.32	328	*e*P	Pn	14 28 49.5	-0.5
BTM	Bintulu	14.55	287	⇓P	Pn	14 28 51.8	-1.3
BUSP	Coron	14.63	333	*e*P	Pn	14 28 53.5	-0.6
PVCP	Virac	14.82	349	*e*P	Pn	14 28 56.2	-0.5
SBUM	Sibu	15.19	283	⇑P	Pn	14 28 59.9	-1.8
MMPI	Merauke	15.22	119	P	Pn	14 29 04.1	+2.2
	840nm,2.0s						
KRKI	Karangkates	16.13	244	P	Pn	14 29 15.6	+1.8
	2µm,2.1s						
LUBP	Lubang	16.15	336	*e*P	Pn	14 29 13.8	-0.2
POLP	Polilio Island	16.46	342	*e*P	Pn	14 29 16.7	-1.2
KSM	Kuching	16.89	279	*e*P	Pn	14 29 21.6	-1.9
KSM	Kuching	16.89	279	⇓P	Pn	14 29 22.1	-1.4
FITZ	Fitzroy Crossi	17.00	184	*e*P	Pn	14 29 21.3	-3.4
	272nm,1.6s						
FITZ				*e*S	Sn	14 32 24.1	-8.8
FITZ	Fitzroy Crossi	17.00	184	P	Pn	14 29 23.0	-1.7
	0.4nm,0.3s,baz=17,slow=15,SNR=32						
FITZ				S	Sn	14 32 37.2	+4.3
	0.5nm,0.3s,baz=55,slow=13,SNR=2.7						
FITZ				LR	LR	14 36 19.4	
	comp=Z,8µm,18.2s,baz=22,slow=38						
BALP	Baler	17.53	342	*e*P	Pn	14 29 30.6	-0.8
SCZP	Santa Cruz	18.13	338	*e*P	Pn	14 29 36.0	-2.8
BJII	Banjamegara	18.34	250	P	Pn	14 29 42.4	+1.0
	6µm,1.9s						
CAUP	Cauayan	18.60	344	*e*P	Pn	14 29 44.1	-0.4
BOLP	Bolinao	18.68	338	*e*P	Pn	14 29 44.8	-0.7
TPI	Tanjungpandan	19.42	265	P	Pn	14 29 51.4	-3.1
	1µm,1.1s						
ABRA	Dolores	19.59	342	*e*P	Pn	14 29 54.2	-2.1
APYP	Conner	19.63	343	*e*P	Pn	14 29 55.0	-1.8
SGCP	Mt. Cagua	19.78	346	*e*P	Pn	14 30 02.7	+4.0
WRA	Warramunga Arr	20.10	160	P	P	14 29 58.8	-1.6
	158nm,0.8s,baz=342,slow=12,SNR=360						
WRA				S	S	14 33 36.7	-8.1
	7.9nm,0.9s,baz=346,slow=26,SNR=3.0						
LEM	Lembang	20.18	253	P	P	14 30 02.5	+1.1
	2µm,1.8s						
COEN	Coen	20.50	129	*e*P	P	14 30 05.3	+0.5
	558nm,1.0s						
MBWA	Marble Bar	21.21	199	P	P	14 30 12.1	-0.4
MBWA				S	S	14 34 03.1	-3.8
MBWA				ScS	ScS	14 41 36.5	+0.3
MBWA	Marble Bar	21.21	199	*e*P	P	14 30 11.7	-0.8
	570nm,1.2s,mb5.8						
MBWA				LR	LR		
	comp=Z,8µm,22.0s,MS5.1						
SBJI	Serang	21.44	256	P	P	14 30 15.7	+0.7
	comp=Z,5µm,2.0s,mb6.5						
PMG	Port Moresby	21.69	113	*e*P	P	14 30 17.1	-0.6
	comp=Z,439nm,1.0s,mb5.8						
PMG				LR	LR		
	comp=Z,20µm,22.0s,MS5.5						
PMG	Port Moresby	21.69	113*c*	*i*P	P	14 30 17.9	+0.1
PMG	Port Moresby	21.69	113	P	P	14 30 17.5	-0.2
	comp=Z,229nm,0.9s,mb5.6,baz=304,slow=5.8,SNR=61						
GUMO	Guam	22.91	50	*e*P	P	14 30 30.3	-0.4
	comp=Z,349nm,1.1s,mb5.7						
GUMO				LR	LR		
	comp=Z,10µm,22.0s,MS5.2						
GUMO	Guam	22.91	50	P	P	14 30 30.0	-0.7
	comp=Z,114nm,0.8s,mb5.4,baz=181,slow=5.5,SNR=7.7						
GUMO				LR	LR	14 38 50.7	
	comp=Z,10µm,18.3s,MS5.3,baz=26,slow=35						
XMIS	Christmas Isla	23.20	245	*e*P	P	14 30 31.7	-2.2
MYKOM	Kota Tinggi	23.33	277	⇑P	P	14 30 34.2	-1.0
ASAR	Alice Springs	23.45	164	P	P	14 30 34.7	-1.6
	comp=Z,361nm,1.0s,mb5.7,baz=342,slow=11,SNR=456						
ASAR				ScP	ScP	14 37 59.2	+1.3
	comp=Z,10.0nm,0.8s,baz=344,slow=2.0,SNR=6.3						
KGM	Kluang	23.89	277	⇓P	P	14 30 40.2	-0.2
KSI	Kapahiang	24.54	264	P	P	14 30 46.2	-0.1
	comp=Z,2µm,1.3s,mb6.6						
KTGM	Kuala Trenggan	24.68	285	⇑P	P	14 30 48.2	+0.6
NACB	Ninganchiao	25.62	348	*e*P	P	14 30 54.5	-1.5
FRIM	Kepong	25.73	280	⇑P	P	14 30 57.8	+0.6
QIZ	Qiongzhong	26.13	321	P	P	14 31 00.1	-0.6
QIZ				PP		14 31 41.3	
QIZ				S	S	14 35 27.3	-3.2
QIZ				AMB	AMB		
	comp=Z,178nm,1.4s,mb5.4						
QIZ				AMB	AMB		
	comp=Z,4µm,8.5s						
QIZ	Qiongzhong	26.13	321	*e*P	P	14 31 01.2	+0.5
	comp=Z,353nm,1.2s,mb5.8						
QIZ				LR	LR		
	comp=Z,5µm,20.0s,MS5.1						
YHNB	Yeheng	26.14	348	*e*P	P	14 31 00.1	-0.7
HKC	Hong Kong Obse	26.37	332	*i* P	P	14 31 02.0	-0.9
HKC				*i* S	S	14 35 40.0	+5.7
TATO	Taipei	26.42	349	*e*P	P	14 31 02.2	-1.0
	comp=Z,369nm,0.8s,mb6.0						
TATO				LR	LR		
	comp=Z,7µm,20.0s,MS5.2						
IPM	Ipoh	26.54	282	⇑P	P	14 31 04.6	+0.1
PPI	Padang Panjang	26.62	271	P	P	14 31 04.7	-0.6
	comp=Z,1µm,1.8s,mb6.1						
CTA	Charters Tower	26.69	136	*e*P	P	14 31 07.1	+1.4
	comp=Z,151nm,1.1s,mb5.4						
CTA				*e*S	S	14 35 38.0	-1.3
CTA	Charters Tower	26.69	136	*e*P	P	14 31 07.1	+1.4
CTA				*e*S	S	14 35 38.0	-1.3
CTA				pmax	pmax		
	comp=Z,151nm,1.1s						
CTA	Charters Tower	26.69	136	P	P	14 31 07.2	+1.4
	comp=Z,264nm,1.1s,mb5.7,baz=320,slow=12,SNR=22						
CTA				S	S	14 35 43.5	+4.1
	comp=Z,8.5nm,0.7s,baz=3.5,slow=23,SNR=1.9						
CTAO	Charters Tower	26.69	136	*e*P	P	14 31 06.6	+0.9
	comp=Z,327nm,1.1s,mb5.8						
CTAO				LR	LR		
	comp=Z,18µm,19.0s,MS5.7						
KULM	Kulim	27.08	284	*e*P	P	14 31 08.9	-0.5
KULM	Kulim	27.08	284	⇓P	P	14 31 09.2	-0.1
QZH	Quanzhou	27.10	343	⇓*i*P	P	14 31 11.9	+2.6
QZH				S	S	14 35 45.3	-0.4
QZH				AMB	AMB		
	comp=Z,3µm,1.8s,mb6.5						
QZH				AMB	AMB		
	comp=Z,6µm,3.8s						
QZH				LR	LR		
	comp=N,7µm,9.7s						
QZH				LR	LR		
	comp=E,5µm,10.7s						
QZH				LR	LR		
	comp=Z,19µm,25.7s						
GZH	Guangzhou	27.44	332	P	P	14 31 14.6	+2.2
GZH				S	S	14 35 58.3	+7.2
GZH				AMB	AMB		
	comp=Z,195nm,1.7s,mb5.4						
GZH				LR	LR		
	comp=N,6µm,20.0s,MS5.2						
GZH				LR	LR		
	comp=E,3µm,23.1s,MS5.2						
GZH				LR	LR		
	comp=Z,8µm,18.7s,MS5.3						
SNG	Songkhla	27.58	288	P	P	14 31 13.5	-0.3
	comp=Z,400nm,0.9s,mb6.0						
JOW	Kunigami	27.75	2	P	P	14 31 14.9	-0.2
	comp=Z,504nm,0.9s,mb6.1,baz=187,slow=7.9,SNR=81						
JOW				S	S	14 35 55.2	-0.6
	comp=Z,7.6nm,0.9s,baz=51,slow=29,SNR=5.8						
JOW				LR	LR	14 41 21.9	
	comp=Z,6µm,21.6s,MS5.1,baz=176,slow=35						
PSI	Prapat	28.34	278	P	P	14 31 19.6	-1.1
PSI				S	S	14 36 04.5	-1.1
PSI				ScP	ScP	14 38 14.3	+1.9
PSI	Prapat	28.34	278	P	P	14 31 19.6	-1.1
PSI				S	S	14 36 04.6	-1.1
PSI	Prapat	28.34	278	P	P	14 31 19.6	-1.1
	comp=Z,364nm,0.8s,mb6.0,baz=104,slow=4.7,SNR=130						
PSI				S	S	14 36 04.5	-1.1
	comp=Z,3.2nm,0.4s,baz=236,slow=5.6,SNR=3.0						
PSI				ScP	ScP	14 38 14.3	+1.9
	comp=Z,37nm,1.0s,baz=182,slow=3.4,SNR=10						
KKTK	Khon Kaen	29.47	307	P	P	14 31 31.0	+0.3
	comp=Z,1µm,0.5s,mb6.9						
FORT	Forrest	29.58	178	*e*P	P	14 31 31.3	-0.1
	comp=Z,90nm,0.6s,mb5.7						
FORT				*e*S	S	14 36 18.9	-5.8
NNT	Nongplab	30.28	297	P	P	14 31 37.7	-0.1
NST	Nakhon Sawan	31.33	303	P	P	14 31 47.0	-0.1
	comp=Z,133nm,2.0s,mb5.4						
CBIJ	Chichi jima	31.57	26	P	P	14 31 48.2	-0.8
	comp=Z,121nm,0.7s,mb5.8,baz=266,slow=5.6,SNR=6.1						
CBIJ				LR	LR	14 43 14.1	
	comp=Z,3µm,18.2s,MS5.0,baz=208,slow=34						
KLBR	Kellerberrin	31.61	195	*e*P	P	14 31 49.3	-0.1
	comp=Z,77nm,0.8s,mb5.6						
COCO	West Island	31.91	248	PFAKE		14 32 00.0	+7.8
COCO				LR	LR		
	comp=Z,7µm,21.0s,MS5.3						
BSI	Banda Aceh	32.34	282	P	P	14 31 54.0	-2.0
	comp=Z,182nm,2.0s,mb5.6						
MUN	Mundaring	32.41	197	*e*P	P	14 31 54.9	-1.5
MUN				*e*S	S	14 37 07.0	-2.0
SSE	Sheshan	32.45	351	P	P	14 31 57.3	+0.6
SSE				S	S	14 37 11.6	+2.1
SSE				AMB	AMB		
	comp=Z,116nm,1.0s,mb5.7						
SSE				AMB	AMB		
	comp=Z,2µm,6.9s						
SSE				LR	LR		
	comp=N,2µm,19.5s,MS5.1						
SSE				LR	LR		
	comp=E,3µm,19.5s,MS5.1						
SSE				LR	LR		
	comp=Z,4µm,18.7s,MS5.1						
NWAO	Narrogin (SRO)	33.02	195	*e*P	P	14 32 02.1	+0.4
	comp=Z,43nm,0.8s,mb5.4						
NWAO				LR	LR		
	comp=Z,6µm,19.0s,MS5.3						
NWAO	Narrogin (SRO)	33.02	195	P	P	14 32 02.1	+0.4
	comp=Z,20nm,0.8s,mb5.1,baz=27,slow=9.6						
NWAO				S	S	14 37 14.3	-4.0
	comp=Z,15nm,1.1s,baz=312,slow=20,SNR=1.8						
NWAO				LR	LR	14 47 14.9	
	comp=Z,7µm,20.5s,MS5.3,baz=18,slow=40						
BDT	Bhumibol Dam	33.05	305	P	P	14 32 00.0	-2.2
	comp=Z,40nm,1.0s,mb5.3						
EIDS	Eidsvold	33.52	138	*e*P	P	14 32 05.4	-0.8
	comp=Z,63nm,1.4s,mb5.3						
STKA	Stephens Creek	33.61	157	*e*P	P	14 32 07.3	+0.4
	comp=Z,318nm,0.9s,mb6.2						
STKA				*e*S	S	14 37 22.9	-4.7
STKA	Stephens Creek	33.61	157	P	P	14 32 07.5	+0.6
	comp=Z,289nm,0.9s,mb6.2,baz=329,slow=8.7,SNR=139						
STKA				S	S	14 37 24.9	-2.8
	comp=Z,6.5nm,0.9s,baz=95,slow=14,SNR=1.5						
STKA				LR	LR	14 47 13.2	
	comp=Z,8µm,18.3s,MS5.5,baz=336,slow=39						
WHN	Wuhan	33.65	340	⇓*i*P	P	14 32 09.3	+2.0
WHN				S	S	14 37 28.3	0.0
WHN				LR	LR		
	comp=Z,8µm,18.5s,MS5.5						
GYA	Guiyang	33.66	326	⇓*i*P	P	14 32 10.0	+2.6
GYA				AP	pP	14 32 14.8	-1.5
GYA				PP	PP	14 33 23.5	-0.5
GYA				PPP		14 33 40.8	
GYA				PCP	PcP	14 34 49.4	+2.3
GYA				S	S	14 37 33.0	+4.4
GYA				SS	SS	14 39 38.3	-17
GYA				SSS		14 40 03.6	
GYA				AMB	AMB		
	comp=Z,840nm,1.0s,mb6.6						
GYA				AMB	AMB		
	comp=Z,12µm,10.2s						
GYA				LR	LR		
	comp=N,10µm,17.0s,MS6.0						
GYA				LR	LR		
	comp=E,25µm,17.5s,MS6.0						
GYA				LR	LR		
	comp=Z,16µm,17.8s,MS5.8						
HNR	Honiara	33.80	105	*e*P	P	14 32 09.2	+0.3
	comp=Z,465nm,1.1s,mb6.3						
HNR				LR	LR		
	comp=Z,8µm,20.0s,MS5.5						
HNR	Honiara	33.80	105	P	P	14 32 09.3	+0.5
	comp=Z,238nm,0.8s,mb6.2,baz=259,slow=3.3,SNR=22						
NJ2	Nanjing	33.82	347	*e*P	P	14 32 10.1	+1.5
NJ2				PP	PP	14 33 23.3	-2.3
NJ2				S	S	14 37 31.0	+0.2
NJ2				AMB	AMB		
	comp=Z,400nm,1.0s,mb6.3						
NJ2				AMB	AMB		
	comp=Z,3µm,8.5s						
NJ2				LR	LR		
	comp=N,8µm,21.6s,MS5.5						
NJ2				LR	LR		
	comp=E,5µm,20.8s,MS5.5						
NJ2				LR	LR		
	comp=Z,5µm,20.8s,MS5.2						
CHTO	Chiang Mai	33.92	307	*e*P	P	14 32 09.7	-0.1
	comp=Z,62nm,0.8s,mb5.6						
CHTO				LR	LR		
	comp=Z,4µm,21.0s,MS5.1						
CHTO	Chiang Mai	33.92	307	*e*P	P	14 32 09.7	0.0
CHTO				pmax	pmax		
	comp=Z,62nm,0.8s,mb5.6						
CHTO				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.1						
JNU	Nakatsue	34.18	6	P	P	14 32 11.2	-0.6
	comp=Z,53nm,0.9s,mb5.5,baz=165,slow=8.3,SNR=22						
JNU				LR	LR	14 44 07.9	
	comp=Z,7µm,21.0s,MS5.4,baz=290,slow=33						
KMI	Kunming	35.06	320	P	P	14 32 20.9	+1.4
KMI				PP	PP	14 33 37.6	-1.9
KMI				PPP		14 33 56.5	
KMI				S	S	14 37 48.8	-1.4
KMI				SSS		14 40 28.4	
KMI				AMB	AMB		
	comp=Z,207nm,1.6s,mb5.8						
KMI				AMB	AMB		
	comp=Z,3µm,6.9s						
KMI				LR	LR		
	comp=N,3µm,18.5s,MS5.3						
KMI				LR	LR		
	comp=E,4µm,20.9s,MS5.3						
KMI				LR	LR		
	comp=Z,4µm,24.3s,MS5.1						
KMI	Kunming	35.06	320	P	P	14 32 20.9	+1.4
	comp=Z,207nm,1.6s,mb5.8						
KMI				sP	sP	14 32 31.3	-0.9
KMI				PP	PP	14 33 37.6	-1.9
KMI				PPP		14 33 56.5	
KMI				PcP	PcP	14 34 54.7	+3.6
KMI				S	S	14 37 48.8	-1.4
KMI				sS	sS	14 38 00.2	-4.8
KMI				ScP	ScP	14 38 37.1	+2.3
KMI				PcS	PcS	14 38 40.6	+2.5
KMI				SS	SS	14 40 01.5	-22
KMI				SSS		14 40 28.4	
KMI				ScS	ScS	14 42 39.2	+0.5
KMI				LR	LR		
	comp=Z,4µm,24.3s,MS5.1						
KMI	Kunming	35.06	320	P	P	14 32 20.9	+1.4
KMI				*SP	sP	14 32 31.3	-0.9
KMI						14 33 37.6	
KMI				PPP		14 33 56.5	
KMI						14 34 54.7	
KMI				S	S	14 37 48.8	-1.4
KMI				*SS	sS	14 38 00.2	-4.8
KMI				SS	SS	14 40 01.5	-22
KMI				SSS		14 40 28.4	
KMI						14 42 39.2	
KMI				pmax	pmax		
	comp=Z,207nm,1.6s,mb5.8						
KMI				MLR	MLR		
	comp=Z,4µm,24.3s,MS5.1						
ADE	Adelaide	35.46	163	*e*P	P	14 32 23.9	+1.1
PBA	Port Blair	36.31	291	*e*P	P	14 32 30.0	-0.5
PBA				AMb	AMB	14 32 41.5	
	comp=Z,252nm,1.7s,mb5.9						
ARMA	Armidale	37.40	144	*e*P	P	14 32 40.9	+1.4
ARMA				*e*S	S	14 38 24.0	-1.9
TIA	Tai’an	38.20	347	⇓P	P	14 32 46.4	+0.3
TIA				S	S	14 38 37.5	-0.3
TIA				AMB	AMB		
	comp=Z,90nm,0.8s,mb5.5						
TIA				AMB	AMB		
	comp=Z,2µm,6.0s						
TIA				LR	LR		
	comp=E,2µm,9.0s						
KSRS	Korea Array	38.32	1	P	P	14 32 46.1	-1.0
	comp=E,101nm,0.7s,mb5.6,baz=178,slow=9.8,SNR=260						
KSRS				PcP	PcP	14 35 02.1	+1.5
	comp=E,33nm,1.1s,baz=190,slow=2.4,SNR=6.2						
KSRS				S	S	14 38 39.2	-0.3
	comp=E,1.2nm,0.9s,baz=180,slow=16,SNR=3.3						
KSRS				ScP	ScP	14 38 46.7	+0.1
	comp=E,8.8nm,0.8s,baz=183,slow=3.8,SNR=8.4						
KSRS				LR	LR	14 49 36.0	
	comp=E,3µm,18.7s,MS5.1,baz=185,slow=38						
INCN	Inchon	38.34	360	*e*P	P	14 32 47.7	+0.4
	comp=E,80nm,0.7s,mb5.6						
INCN				LR	LR		
	comp=Z,6µm,20.0s,MS5.4						
CD2	Chengdu	38.72	327	⇓*i*P	P	14 32 50.6	0.0
CD2				PCP	PcP	14 35 00.9	-1.2
CD2				S	S	14 38 41.8	-4.0
CD2				SCS	ScS	14 42 58.3	-0.7
CD2				AMB	AMB		
	comp=Z,380nm,1.4s,mb5.9						
CD2				AMB	AMB		
	comp=Z,5µm,5.9s						
CD2				LR	LR		
	comp=N,10µm,18.0s,MS5.7						
CD2				LR	LR		
	comp=E,8µm,20.4s,MS5.7						
CD2				LR	LR		
	comp=Z,5µm,22.8s,MS5.3						
MJAR	Matsushiro Arr	38.82	14	P	P	14 32 50.0	-1.3
MJAR						14 38 48.6	
MJAR	Matsushiro Arr	38.82	14	P	P	14 32 50.0	-1.4
	comp=Z,31nm,0.6s,mb5.2,baz=186,slow=8.6,SNR=59						
MJAR				ScP	ScP	14 38 48.5	0.0
	comp=Z,48nm,1.2s,baz=202,slow=3.9,SNR=14						
MJAR				LR	LR	14 47 48.0	
	comp=Z,7µm,19.1s,MS5.5,baz=200,slow=35						
MAJO	Matsushiro	38.82	14	*e*P	P	14 32 50.0	-1.4
	comp=Z,74nm,0.8s,mb5.5						
MAJO				LR	LR		
	comp=Z,9µm,20.0s,MS5.6						
MAJO	Matsushiro	38.82	14	*e*P	P	14 32 50.0	-1.4
MAJO				pmax	pmax		
	comp=Z,74nm,0.8s,mb5.5						
MAJO				MLR	MLR		
	comp=Z,9µm,20.0s,MS5.6						
MAT	Matsushiro	38.82	14	P	P	14 32 49.8	-1.6
MAT				S	S	14 38 43.6	-3.6
XAN	Xi’an	38.83	336	P	P	14 32 51.9	+0.5
XAN				S	S	14 38 45.8	-1.5
XAN				AMB	AMB		
	comp=Z,345nm,1.4s,mb5.9						
XAN				AMB	AMB		
	comp=Z,3µm,6.6s						
XAN				LR	LR		
	comp=N,2µm,13.1s,MS5.2						
XAN				LR	LR		
	comp=E,2µm,16.5s,MS5.2						
XAN				LR	LR		
	comp=Z,3µm,14.8s,MS5.2						
RIV	Riverview	39.68	148	*e*P	P	14 33 02.4	+3.8
CNB	Canberra Magne	39.94	151	*e*P	P	14 33 02.3	+1.6
	comp=Z,88nm,1.1s,mb5.4						
DL2	Dalian	40.07	353	*i* PR	P	14 33 02.1	+0.4
DL2				PP	PP	14 34 38.8	+4.5
DL2				PCP	PcP	14 35 07.8	+1.6
DL2				S	S	14 39 06.1	+0.3
DL2				AMB	AMB		
	comp=Z,110nm,0.8s,mb5.6						
DL2				AMB	AMB		
	comp=Z,890nm,5.8s						
DL2				LR	LR		
	comp=N,1µm,15.7s,MS5.2						
DL2				LR	LR		
	comp=E,3µm,17.5s,MS5.2						
DL2				LR	LR		
	comp=Z,2µm,18.6s,MS5.1						
TOO	Toolangi	40.13	157	*e*P	P	14 33 04.6	+2.3
	comp=Z,121nm,1.2s,mb5.5						
TOO				*e*S	S	14 39 11.0	+4.1
TOO	Toolangi	40.13	157	*e*P	P	14 33 04.6	+2.3
TOO				*e*S	S	14 39 11.0	+4.1
TOO				pmax	pmax		
	comp=Z,121nm,1.2s,mb5.5						
TIY	Taiyuan	40.86	342	*i* PR	P	14 33 09.1	+0.8
TIY				XP	sP	14 33 24.3	+3.3
TIY				PPP		14 35 37.3	
TIY				PCS	PcS	14 38 53.3	-6.3
TIY				S	S	14 39 20.5	+2.8
TIY				SCS	ScS	14 43 05.5	-5.8
TIY				AMB	AMB		
	comp=Z,3µm,5.2s						
TIY				LR	LR		
	comp=N,1µm,8.9s						
TIY				LR	LR		
	comp=E,2µm,8.6s						
IMP	Imphal	41.07	311	*e*P	P	14 33 10.0	-0.2
IMP				*e*x	x	14 38 59.0	
BJT	Baijiatuau	42.06	348	*e*P	P	14 33 18.1	0.0
	comp=E,543nm,1.1s,mb6.1						
BJT				LR	LR		
	comp=Z,4µm,20.0s,MS5.3						
BJT	Baijiatuau	42.06	348	*e*P	P	14 33 18.1	0.0
BJT				pmax	pmax		
	comp=Z,543nm,1.1s						
BJT				MLR	MLR		
	comp=Z,4µm,20.0s						
BJI	Beijing	42.08	348	P	P	14 33 18.3	+0.1
BJI				PCP	PcP	14 35 12.6	-0.1
BJI				S	S	14 39 34.5	-1.2
BJI				SS	SS	14 42 46.4	+2.5
BJI				AMB	AMB		
	comp=Z,283nm,1.6s,mb5.7						
BJI				LR	LR		
	comp=N,2µm,19.9s,MS5.2						
BJI				LR	LR		
	comp=E,2µm,15.4s,MS5.2						
BJI				LR	LR		
	comp=Z,5µm,29.8s						
BJI	Beijing	42.08	348	P	P	14 33 18.3	+0.1
	comp=Z,0.3nm,1.6s						
BJI				pP	pP	14 33 21.4	-5.9
BJI				sP	sP	14 33 22.7	-8.3
BJI				PcP	PcP	14 35 12.6	-0.1
BJI				ScP	ScP	14 39 02.8	+1.6
BJI				S	S	14 39 34.5	-1.2
BJI				SS	SS	14 42 46.4	+2.5
BJI				LR	LR		
	comp=Z,5µm,29.8s						
AGT	Agartala	42.67	308	*i* P	P	14 33 22.0	-1.3
AGT				*i* x	x	14 34 23.0	
LZH	Lanzhou	42.79	332	⇓*i*P	P	14 33 25.5	+1.4
LZH				PP	PP	14 35 07.6	+3.8
LZH				PCP	PcP	14 35 15.6	+0.5
LZH				PCS	PcS	14 39 07.6	+0.3

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LZH                                S        S       14 39 49.3 +3.0
LZH                                SS       SS      14 42 55.6 -2.5
LZH                                SCS      ScS     14 43 23.5 +0.3
LZH                                AMB      AMB
     comp=Z,472nm,1.2s,mb6.1
LZH                                AMB      AMB
     comp=Z,3µm,9.1s
LZH                                LR       LR
     comp=E,3µm,14.2s
LZH                                LR       LR
     comp=Z,6µm,17.7s,MS5.5
LZH  Lanzhou           42.79 332⇓iP         P       14 33 25.5 +1.4
     comp=Z,472nm,1.2s,mb6.1
LZH                                pP       pP      14 33 29.3 -3.9
LZH                                sP       sP      14 33 32.5 -4.3
LZH                                PP       PP      14 35 07.6 +3.8
LZH                                PcP      PcP     14 35 15.6 +0.5
LZH                                ScP      ScP     14 39 05.8 +1.6
LZH                                PcS      PcS     14 39 07.6 +0.3
LZH                                S        S       14 39 49.3 +3.0
LZH                                sS       sS      14 39 57.2 -4.0
LZH                                SS       SS      14 42 55.6 -2.5
LZH                                ScS      ScS     14 43 23.5 +0.3
LZH                                LR       LR
     comp=Z,6µm,17.7s,MS5.5
LZH  Lanzhou           42.79 332⇓iP         P       14 33 25.5 +1.4
LZH                                *SP      sP      14 33 32.5 -4.3
LZH                                                 14 35 07.6
LZH                                                 14 35 15.6
LZH                                S        S       14 39 49.3 +3.0
LZH                                                 14 43 23.5
LZH                                pmax     pmax
     comp=Z,472nm,1.2s,mb6.1
LZH                                MLR      MLR
     comp=Z,6µm,17.7s,MS5.5
SNY  Shenyang          42.79 356 ⇓P         P       14 33 24.0  0.0
SNY                                AP       pP      14 33 30.4 -2.7
SNY                                S        S       14 39 46.0 -0.2
SNY                                SS       SS      14 43 01.1 +3.1
SNY                                AMB      AMB
     comp=Z,260nm,0.6s,mb6.1
SNY                                LR       LR
     comp=N,3µm,19.6s
SNY                                LR       LR
     comp=Z,4µm,19.2s,MS5.4
SHL  Shillong          43.05 310 i P        P       14 33 28.0 +1.6
     comp=Z,230nm,0.0s
SHL                              ex         x       14 39 29.0
SHL                              eSCS       ScS     14 43 26.0 +0.8
DZM  Mont Dzumac       43.68 121 eP         P       14 33 32.9 +1.3
DZM  Mont Dzumac       43.68 121 eP         P       14 33 32.9 +1.3
HHC  Hu-ho-hao-te      44.01 343 eP         P       14 33 34.8 +0.9
HHC                                PP       PP      14 35 15.1 -1.7
HHC                                S        S       14 40 07.8 +3.8
HHC                                SS       SS      14 43 16.9 -4.9
HHC                                SCS      ScS     14 43 31.1 +0.5
HHC                                AMB      AMB
     comp=Z,195nm,1.4s,mb5.6
HHC                                AMB      AMB
     comp=Z,3µm,6.7s
HHC                                LR       LR
     comp=N,3µm,27.4s,MS5.2
HHC                                LR       LR
     comp=E,3µm,22.6s,MS5.2
HHC                                LR       LR
     comp=Z,6µm,26.2s,MS5.4
VLA  Vladivostok       44.19   5⇑iP         P       14 33 35.5 +0.3
VLA  Vladivostok       44.19   5c iP        P       14 33 35.2  0.0
VLA                              e                  14 35 20.3
VLA                              eS         S       14 40 06.1 -0.4
VLA                              eSS        SS      14 43 23.0 -2.2
VLA                                pmax     pmax
     comp=Z,273nm,1.5s,mb5.8
VLA                                MLR      MLR
     comp=Z,6µm,19.0s,MS5.5
BTO  Baotou            44.26 341 eP         P       14 33 36.0 +0.2
CN2  Changchun         44.67 358 eP         P       14 33 37.9 -1.2
CN2                                PP       PP      14 35 23.6 -0.2
CN2                                PCS      PcS     14 39 12.4 -2.3
CN2                              eS         S       14 40 14.6 +1.0
CN2                                SS       SS      14 43 26.3 -8.3
CN2                                AMB      AMB
     comp=Z,60nm,1.6s,mb5.2
CN2                                LR       LR
     comp=N,1µm,18.0s,MS5.3
CN2                                LR       LR
     comp=E,3µm,18.0s,MS5.3
CN2                                LR       LR
     comp=Z,3µm,21.0s,MS5.2
ERM  Erimo             45.29  17 eP         P       14 33 44.6 +0.6
     comp=Z,163nm,1.1s,mb5.8
ERM                                LR       LR
     comp=Z,7µm,19.0s,MS5.6
ERM  Erimo             45.29  17 eP         P       14 33 44.1 +0.1
TAU  Tasmania Unive    45.47 159 eP         P       14 33 46.4 +1.0
     comp=Z,169nm,1.4s,mb5.7
TAU                                LR       LR
     comp=Z,10µm,20.0s,MS5.8
TAU  Tasmania Unive    45.47 159 eP         P       14 33 46.4 +0.9
TAU                                pmax     pmax
     comp=Z,169nm,1.4s,mb5.7
TAU                                MLR      MLR
     comp=Z,10µm,20.0s,MS5.8
MDJ  Mudanjiang        45.52   3   P        P       14 33 46.0 +0.1
MDJ                                PP       PP      14 35 32.4 -0.4
MDJ                                PCS      PcS     14 39 18.5 +0.3
MDJ                                S        S       14 40 26.3 +0.4
MDJ                                AMB      AMB
     comp=Z,291nm,0.8s,mb6.3
MDJ                                AMB      AMB
     comp=Z,844nm,4.7s
MDJ                                LR       LR
     comp=N,3µm,16.4s,MS5.4
MDJ                                LR       LR
     comp=E,595nm,16.4s,MS5.4
MDJ                                LR       LR
     comp=Z,4µm,23.0s
MDJ  Mudanjiang        45.52   3 eP         P       14 33 46.0 +0.2
     comp=Z,228nm,0.8s,mb6.2
MDJ                                LR       LR
     comp=Z,4µm,19.0s,MS5.4
LSA  Lhasa             45.89 315   P        P       14 33 50.8 +1.8
LSA                                AP       pP      14 33 59.1 +0.9
LSA                                XP       sP      14 34 03.8 +2.0
LSA                                PCP      PcP     14 35 28.9 +3.0
LSA                                PP       PP      14 35 37.3 +0.3
LSA                                S        S       14 40 27.9 -3.8
LSA                                SS       SS      14 43 56.3 -0.5
LSA                                AMB      AMB
     comp=Z,310nm,1.9s,mb5.9
LSA                                LR       LR
     comp=E,4µm,44.4s
LSA                                LR       LR
     comp=Z,6µm,44.3s,MS5.2
LSA  Lhasa             45.89 315 eP         P       14 33 50.8 +1.7
     comp=Z,2µm,2.0s,mb6.7
LSA                                LR       LR
     comp=Z,2µm,20.0s,MS5.2
LSA  Lhasa             45.89 315 eP         P       14 33 50.8 +1.8
LSA                                pmax     pmax
     comp=Z,2µm,2.0s,mb6.7
LSA                                MLR      MLR
     comp=Z,2µm,20.0s,MS5.2
VIS  Vishakhapatnam    46.87 296 i P        P       14 33 58.4 +1.5
VIS                              ex         x       14 34 02.0
     comp=Z,791nm,1.9s
VIS                              i x        x       14 40 44.3
PALK Pallekele         46.93 281 eP         P       14 33 57.3 -0.2
     comp=Z,1µm,1.5s,mb6.6
PALK                               LR       LR
     comp=Z,5µm,21.0s,MS5.5
BOK  Bokaro            46.96 304 eP         P       14 33 57.9 +0.4
BOK                                AMb      AMB     14 34 02.2
     comp=Z,284nm,1.2s,mb6.1
ASAJ Asahikawa         47.07  15   S        S       14 40 47.0 -1.1
     comp=Z,14nm,1.0s,baz=350,slow=22,SNR=2.1
ASAJ                               LR       LR      14 54 32.2
     comp=Z,7µm,18.8s,MS5.6,baz=209,slow=37
TAPN Taplejung         47.17 310 eP         P       14 33 59.9 +0.8
     comp=Z,2µm,1.7s,mb6.7
ODAN Odare             47.17 309 eP         P       14 33 59.8 +0.7
     comp=Z,2µm,1.8s,mb6.8
GTA  Gaotai            47.36 331 ⇓P         P       14 34 01.8 +1.4
GTA                                PCP      PcP     14 35 32.0 +1.1
GTA                                PP       PP      14 35 51.8  0.0
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GTA                                PPP              14 36 40.1
GTA                                PCS      PcS     14 39 26.4 +0.3
GTA                                S        S       14 40 54.1 +1.8
GTA                                SCS      ScS     14 43 51.9 -0.4
GTA                                SS       SS      14 44 15.6 -4.8
GTA                                AMB      AMB
     comp=Z,286nm,1.7s,mb5.9
GTA                                AMB      AMB
     comp=Z,5µm,6.1s
GTA                                LR       LR
     comp=N,2µm,20.5s,MS5.5
GTA                                LR       LR
     comp=E,4µm,18.2s,MS5.5
GTA                                LR       LR
     comp=Z,4µm,21.3s,MS5.3
YUK  Yuzh-Kuril'sk     47.94  18 eP         P       14 34 04.0 -0.8
YUK                              e                  14 35 48.3
YUK                              ePPP               14 36 51.5
YUK                              eS         S       14 41 04.0 +3.5
YUK                                pmax     pmax
     comp=Z,2µm,1.6s
YUK                                pmax     pmax
     comp=Z,1.0nm,1.1s
YUK                                smax
     comp=E,5µm,4.5s
YUK                                smax
     comp=N,2µm,2.0s
MDRS Chennai           48.45 288 eP         P       14 34 08.9 -0.4
MDRS                             eS         S       14 41 09.5 +0.9
JIRN Jiri              48.49 309 eP         P       14 34 09.9 +0.5
     comp=N,164nm,0.8s,mb6.1
KKN  Kakani            49.26 309 eP         P       14 34 15.9 +0.6
     comp=N,3µm,1.5s
BLSP Bilaspur          49.45 301 eP         P       14 34 17.4 +0.6
YSS  Yuzh-Sakhalins    49.76  14 eP         P       14 34 18.5 -0.2
     comp=N,128nm,0.9s,mb6.0
YSS                                LR       LR
     comp=Z,6µm,22.0s,MS5.5
YSS  Yuzh-Sakhalins    49.76  14κeP         P       14 34 18.3 -0.4
YSS                              e*SP       sP      14 34 24.7 -6.8
YSS                              e                  14 35 45.0
YSS                              i S        S       14 41 24.0 -2.0
YSS                                pmax     pmax
     comp=E,50nm,0.8s
YSS                                pmax     pmax
     comp=Z,100nm,0.8s,mb5.9
YSS                                MLR      MLR
     comp=N,4µm,18.0s
YSS                                MLR      MLR
     comp=Z,4µm,18.0s,MS5.5
HABR Khabarovsk        49.82   7⇓iP         P       14 34 19.7 +0.6
HABR                             e*PP       pP      14 34 27.7 -0.6
HABR                             e                  14 35 38.9
HABR                             e                  14 36 12.4
HABR                             eS         S       14 41 27.6 +0.9
HABR                             e                  14 41 43.0
HABR                             e                  14 44 07.2
HABR                               pmax     pmax
     comp=Z,374nm,1.4s,mb6.2
HABR                               MLR      MLR
     comp=Z,3µm,18.8s,MS5.4
GKN  Gorkha            49.87 309 eP         P       14 34 20.2 +0.3
     comp=Z,3µm,1.5s
KLR  Kul'dur           50.25   4⇑iP         P       14 34 19.2 -3.2
KLR                              e                  14 36 20.0
KLR                              eS         S       14 41 26.0 -6.7
KLR                              e                  14 44 06.7
KLR                                pmax     pmax
     comp=N,64nm,1.8s
KLR                                pmax     pmax
     comp=E,100nm,1.8s
KLR                                pmax     pmax
     comp=Z,340nm,1.8s,mb6.1
KLR                                pmax     pmax
     comp=Z,1µm,6.5s
KLR                                smax
     comp=N,280nm,2.0s
KLR                                smax
     comp=E,560nm,2.0s
KLR                                smax
     comp=N,3µm,10.5s
KLR                                smax
     comp=E,4µm,10.5s
KLR                                MLR      MLR
     comp=Z,4µm,16.0s,MS5.5
HIA  Hailar            50.51 354 eP         P       14 34 24.3 -0.1
     comp=Z,387nm,1.5s,mb6.1
HIA                                LR       LR
     comp=Z,5µm,20.0s,MS5.5
HIA  Hailar            50.51 354 eP         P       14 34 24.3  0.0
HIA                                pmax     pmax
     comp=Z,387nm,1.5s
HIA                                MLR      MLR
     comp=Z,5µm,20.0s
KOD  Kodaikanal        50.56 284 eP         P       14 34 26.4 +1.1
KOD                                AMb      AMB     14 34 28.6
     comp=Z,798nm,2.0s,mb6.3
TRD  Trivandrum        50.78 282 eP         P       14 34 27.1 +0.1
ALBI Allahabad         50.96 304 eP         P       14 34 26.5 -1.7
HYB  Hyderabad         51.13 293⇓eP         P       14 34 30.0 +0.4
     comp=Z,905nm,1.0s,mb6.7
HYB                              eS         S       14 41 40.0 -5.9
HYB  Hyderabad         51.13 293⇓eP         P       14 34 30.0 +0.4
HYB                              eS         S       14 41 40.0 -5.9
HYB                                pmax     pmax
     comp=Z,905nm,1.0s,mb6.7
HYB  Hyderabad         51.13 293⇓iP         P       14 34 30.0 +0.4
     comp=Z,905nm,1.0s,mb6.7
HYB                              ePP        PP      14 36 24.0 -2.5
HYB                              eS         S       14 41 46.0 +0.1
HYB                              eScS       ScS     14 44 18.0 -0.6
JBP  Jabalpur          51.68 301⇓iP         P       14 34 35.6 +2.0
JBP                              i S        S       14 41 54.4 +1.0
ULN  Ulaanbaatar       51.73 343 eP         P       14 34 34.3 +0.7
     comp=Z,75nm,0.7s,mb5.7
ULN                                LR       LR
     comp=Z,2µm,20.0s,MS5.2
ULN  Ulaanbaatar       51.73 343 eP         P       14 34 34.3 +0.8
ULN                                pmax     pmax
     comp=Z,75nm,0.7s,mb5.7
ULN                                MLR      MLR
     comp=Z,2µm,20.0s,MS5.2
NGP  Nagpur            51.80 298 eP         P       14 34 31.9 -2.7
NGP                                AMb      AMB     14 34 33.6
     comp=Z,1µm,3.4s
SONM Songino Array     51.90 342   P        P       14 34 33.6 -1.2
     comp=Z,171nm,1.1s,mb5.9,baz=156,slow=5.2,SNR=324
SONM                               ScP      ScP     14 39 42.9 +0.8
     comp=Z,14nm,0.9s,baz=167,slow=4.2,SNR=6.3
SONM                               LR       LR      15 00 16.0
     comp=Z,4µm,20.5s,MS5.4,baz=154,slow=40
FUNA Funafuti          52.48 100 eP         P       14 34 40.7 +1.0
     comp=Z,193nm,1.0s,mb6.0
FUNA                               LR       LR
     comp=Z,7µm,19.0s,MS5.7
LATR Latur             53.23 294 eP         P       14 34 42.2 -2.9
MNGI Mangalore         53.59 287 i P        P       14 34 47.9  0.0
MNGI                               AMb      AMB     14 34 50.3
     comp=Z,658nm,1.9s,mb6.2
MNGI                             i S        S       14 42 20.9 +1.1
LGTI Lohaghat          53.96 308 eP         P       14 34 49.5 -0.8
CIT  Chita             54.09 350 eP         P       14 34 51.6 +0.8
CIT                              e          pP      14 35 01.0 +0.9
CIT                              eS         S       14 42 25.4 +0.2
CIT                              e                  14 44 38.6
CIT                                pmax     pmax
     comp=Z,629nm,1.7s,mb6.3
ZAK  Zakamensk         55.11 342 eP         P       14 34 58.1 -0.2
ZAK                                pmax     pmax
     comp=Z,76nm,1.4s,mb5.5
POO  Poona             55.74 293 eP         P       14 35 03.1 -0.3
POO                                AMb      AMB     14 35 05.0
     comp=Z,837nm,1.8s,mb6.5
POO                              i PP       PP      14 37 08.0 -0.1
POO                              ePCS       PcS     14 40 03.0  0.0
DDI  Dehra Dun         56.05 308 eP         P       14 35 06.0 +0.5
NDI  New Delhi         56.06 306 eP         P       14 35 04.9 -0.6
NDI                                AMb      AMB     14 35 07.2
     comp=Z,1µm,2.3s,mb6.5
TLY  Talaya            56.14 343   P        P       14 35 06.6 +0.9
     comp=Z,811nm,1.1s,mb6.7,SNR=45
TLY  Talaya            56.14 343 eP         P       14 35 06.4 +0.7
     comp=Z,160nm,1.0s,mb6.0
TLY                                LR       LR
     comp=Z,2µm,21.0s,MS5.2
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TLY  Talaya            56.14 343d iP        P       14 35 06.2 +0.5
TLY                              e                  14 36 05.7
TLY                              e                  14 37 09.6
TLY                              ePPP               14 38 32.3
TLY                              eS         S       14 42 53.8 +1.1
TLY                              ePS                14 43 01.2
TLY                              e                  14 44 53.5
TLY                              eSS        SS      14 46 36.7 -2.9
TLY                              eSSS               14 48 49.1
TLY                                pmax     pmax
     comp=Z,182nm,1.8s,mb5.8
TLY                                MLR      MLR
     comp=Z,3µm,21.0s,MS5.3
IRK  Irkutsk           56.45 343⇑iP         P       14 35 07.9  0.0
IRK                              eS         S       14 42 58.6 +1.7
IRK                              e                  14 44 45.6
IRK                                pmax     pmax
     comp=Z,431nm,1.8s,mb6.2
BOM  Bombay            56.78 293 eP         P       14 35 10.9  0.0
BOM                              eS         S       14 43 03.0 +0.7
WMQ  Urumqi            56.82 327   P        P       14 35 12.1 +1.4
WMQ                                PCP      PcP     14 36 07.6 +1.4
WMQ                                PP       PP      14 37 19.9 +2.6
WMQ                                S        S       14 43 03.0 +1.0
WMQ                                PS               14 43 16.8
WMQ                                SCS      ScS     14 44 57.3 -0.6
WMQ                                SS       SS      14 46 52.0 +1.4
WMQ                                AMB      AMB
     comp=Z,534nm,1.2s,mb6.5
WMQ                                AMB      AMB
     comp=Z,654nm,8.0s
WMQ                                LR       LR
     comp=N,11µm,25.8s,MS5.9
WMQ                                LR       LR
     comp=E,3µm,20.8s,MS5.9
WMQ                                LR       LR
     comp=Z,4µm,24.8s,MS5.4
MOY  Mondy             56.95 341 eP         P       14 35 12.4 +0.9
MOY                                pmax     pmax
     comp=Z,766nm,2.1s,mb6.4
AJM  Ajmer             57.38 303 eP         P       14 35 15.0  0.0
AJM                                AMb      AMB     14 35 16.7
     comp=Z,835nm,2.6s,mb6.3
SDNR Sundarnagar       57.38 309 eP         P       14 35 16.6 +1.7
SDNR                             eS         S       14 43 12.8 +2.8
NRGR Nerungri          57.55 359 i P        P       14 35 16.7 +1.1
NRGR                               S        S       14 43 13.1 +1.9
NRGR                               smax
     comp=N,596nm,2.3s
CLNS Chul'man          57.73 359⇓iP         P       14 35 16.4 -0.4
CLNS                             e*PP       pP      14 35 23.0 -3.2
CLNS                             eS         S       14 43 07.2 -6.3
CLNS                               pmax     pmax
     comp=Z,88nm,1.0s,mb5.7
CLNS                               pmax     pmax
     comp=N,77nm,1.3s
CLNS                               pmax     pmax
     comp=E,13nm,0.8s
CLNS                               pmax     pmax
     comp=Z,19nm,1.0s,mb5.1
CLNS                               pmax     pmax
     comp=N,50nm,1.1s
CLNS                               pmax     pmax
     comp=E,40nm,1.3s
CLNS                               smax
     comp=E,2µm,11.4s
CLNS                               smax
     comp=Z,522nm,9.7s
CLNS                               smax
     comp=N,345nm,11.5s
CLNS                               MLR      MLR
     comp=Z,2µm,15.0s,MS5.3
CLNS                               MLR      MLR
     comp=N,600nm,16.0s,MS5.2
CLNS                               MLR      MLR
     comp=E,1µm,14.0s,MS5.2
BHV  Bhavnagar         58.12 296 eP         P       14 35 19.5 -0.8
DLH  Dalhousie         58.59 310 eP         P       14 35 24.0 +0.6
DLH                              ex         x       14 35 47.0
SNZO South Karori      58.73 139 eP         P       14 35 24.6 +0.4
     comp=E,149nm,1.0s,mb6.0
SNZO                               LR       LR
     comp=Z,8µm,19.0s,MS5.9
THN  Thein Dam         58.74 309 eP         P       14 35 24.2 -0.2
THN                              eS         S       14 43 28.6 +1.0
BOD  Bodaibo           59.60 352⇑iP         P       14 35 29.5 -0.4
BOD                              e                  14 43 37.4
BOD                                pmax     pmax
     comp=Z,159nm,1.5s,mb5.8
PET  Petropavlovsk     60.02  21 eP         P       14 35 33.3 +0.5
     comp=Z,355nm,1.3s,mb6.2
PET                                LR       LR
     comp=Z,3µm,19.0s,MS5.5
PET  Petropavlovsk     60.02  21 eP         P       14 35 33.8 +1.0
PET                              eS         S       14 43 45.5 +2.1
PET                                pmax     pmax
     comp=Z,256nm,1.2s,mb6.1
PET                                MLR      MLR
     comp=Z,4µm,19.0s,MS5.6
BHJ  Bhuj              60.74 297⇓eP         P       14 35 38.3  0.0
BHJ                                AMb      AMB     14 35 40.4
     comp=Z,522nm,1.8s,mb6.4
BHJ                              eS         S       14 43 56.5 +2.8
MK31 Makanchi Array    61.65 327 i P        P       14 35 44.4 +0.3
MKAR Makanchi Array    61.65 327   P        P       14 35 43.4 -0.7
MKAR                               ScP      ScP     14 40 26.3 +1.1
MKAR                               S        S       14 44 01.8 -2.6
MKAR                               P'P'             15 04 51.3
MKAR                               LR       LR      15 06 20.4
MKAR Makanchi Array    61.65 327   P        P       14 35 43.4 -0.7
MKAR                               S        S       14 44 01.8 -2.7
MKAR Makanchi Array    61.65 327   P        P       14 35 43.4 -0.7
     comp=Z,220nm,1.0s,mb6.3,baz=126,slow=6.2,SNR=154
MKAR                               ScP      ScP     14 40 26.3 +1.1
     comp=Z,30nm,0.9s,baz=121,slow=4.7,SNR=9.1
MKAR                               S        S       14 44 01.8 -2.6
     comp=Z,0.9nm,0.9s,baz=180,slow=30,SNR=3.2
MKAR                               PKPPKP           15 04 51.3
     comp=Z,0.4nm,0.7s,baz=325,slow=1.9,SNR=4.9
MKAR                               LR       LR      15 06 20.4
     comp=Z,3µm,19.3s,MS5.4,baz=117,slow=40
KSH  Kashi             61.66 317 i PR       P       14 35 46.0 +1.7
KSH                                PCP      PcP     14 36 26.0 +0.4
KSH                                PP       PP      14 38 04.1 +3.8
KSH                                PPP              14 39 33.0
KSH                                PCS      PcS     14 40 28.3 -0.2
KSH                                S        S       14 44 07.0 +2.2
KSH                                SCS      ScS     14 45 33.5 -0.4
KSH                                SS       SS      14 48 10.3 +3.5
KSH                                AMB      AMB
     comp=Z,10µm,4.1s
KSH                                LR       LR
     comp=N,4µm,13.7s,MS5.9
KSH                                LR       LR
     comp=E,3µm,11.0s,MS5.9
KSH                                LR       LR
     comp=Z,6µm,18.3s
AFI  Afiamalu          61.84 105   PFAKE            14 36 00.0  +14
AFI                                LR       LR
     comp=Z,6µm,21.0s,MS5.7
ULHL Ulahol            62.79 320   P        P       14 35 53.2 +1.4
     SNR=32
AAA  Alma-Ata          62.85 321 i P        P       14 35 51.4 -0.8
AAA                              i S        S       14 44 18.9 -0.8
AAA                                pmax     pmax
     comp=Z,5µm,6.1s
AAA                                smax
     comp=N,8µm,6.1s
AAA                                MLR      MLR
     comp=Z,2µm,22.2s,MS5.2
YAK  Yakutsk           62.95   1 eP         P       14 35 52.5 +0.1
     comp=Z,618nm,0.6s,mb6.9
YAK                                LR       LR
     comp=Z,4µm,20.0s,MS5.5
YAK  Yakutsk           62.95   1d iP        P       14 35 52.5 +0.1
YAK                              e*PP       pP      14 36 11.1 +9.2
YAK                              e                  14 36 26.2
YAK                              e                  14 38 11.1
YAK                              ePPP               14 39 41.4
YAK                              eS         S       14 44 17.1 -3.1
YAK                              e                  14 45 35.3
YAK                              eSS        SS      14 48 23.2 -2.9
YAK                                pmax     pmax
     comp=Z,599nm,0.6s,mb6.9
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YAK                              pmax     pmax
      comp=N,371nm,1.4s
YAK                              pmax     pmax
      comp=E,83nm,0.6s
YAK                              pmax     pmax
      comp=Z,486nm,3.7s
YAK                              pmax     pmax
      comp=N,442nm,3.2s
YAK                              pmax     pmax
      comp=E,546nm,7.7s
YAK                              smax
      comp=N,2µm,3.7s
YAK                              smax
      comp=Z,866nm,3.8s
YAK                              smax
      comp=E,6µm,8.1s
MA2   Magadan          63.25  13 eP       P       14 35 55.5 +1.0
      comp=E,212nm,0.8s,mb6.3
MA2                              LR       LR
      comp=Z,3µm,21.0s,MS5.5
MA2   Magadan          63.25  13d iP       P       14 35 55.2 +0.7
MA2                              pmax     pmax
      comp=Z,215nm,0.8s,mb6.3
KZA   Kyzart           63.35 319 P        P       14 35 57.5 +2.0
      SNR=291
TKM2  Tokmak 2         63.53 320 P        P       14 35 57.8 +1.1
      SNR=151
TKM2  Tokmak 2         63.53 320 PFAKE            14 36 10.0  +13
TKM2                             LR       LR
      comp=Z,3µm,21.0s,MS5.5
KBK   Karagaybulak     63.82 320 P        P       14 35 60.0 +1.3
      SNR=124
UCH   Uchtor           63.90 319 P        P       14 36 01.0 +1.8
      SNR=235
UCH   Uchtor           63.90 319 PFAKE            14 36 10.0  +11
UCH                              LR       LR
      comp=Z,2µm,22.0s,MS5.2
AAK   Ala-Archa        64.11 319 P        P       14 36 00.4 -0.1
      comp=Z,960nm,1.4s,mb6.6
AAK   Ala-Archa        64.11 319 P        P       14 36 01.8 +1.3
      SNR=140
AAK   Ala-Archa        64.11 319 eP       P       14 36 00.6 +0.1
      comp=Z,304nm,1.3s,mb6.2
AAK                              LR       LR
      comp=Z,2µm,19.0s,MS5.4
AAK   Ala-Archa        64.11 319d iP      P       14 35 59.2 -1.3
AAK                              pmax     pmax
      comp=Z,480nm,1.8s,mb6.2
AAK                              MLR      MLR
      comp=Z,2µm,21.0s,MS5.2
CHMS  Chumysh          64.11 320 P        P       14 36 01.0 +0.4
      SNR=47
FRU   Bishkek          64.12 320⇓iP       P       14 36 00.0 -0.6
FRU                              iS       S       14 44 38.0 +2.4
FRU                              e                14 45 47.0
FRU                              pmax     pmax
      comp=Z,460nm,2.0s,mb6.2
FRU                              smax
      comp=N,8µm,11.0s
FRU                              MLR      MLR
      comp=Z,3µm,21.0s,MS5.4
AML   Almayashu        64.40 319 P        P       14 36 04.0 +1.6
      SNR=193
AML   Almayashu        64.40 319 PFAKE            14 36 20.0  +18
AML                              LR       LR
      comp=Z,3µm,21.0s,MS5.4
USP   Ospenovka        64.40 320 P        P       14 36 03.1 +0.7
      SNR=164
EKS2  Erkin-Say        64.59 319 P        P       14 36 05.1 +1.5
      SNR=202
EKS2  Erkin-Say        64.59 319 PFAKE            14 36 20.0  +16
EKS2                             LR       LR
      comp=Z,2µm,22.0s,MS5.3
ZALV  Zalesovo Beam    64.97 334 P        P       14 36 04.9 -0.9
ZALV                             S        S       14 44 42.0 -3.6
ZALV                             P'P'             15 04 48.2
ZALV  Zalesovo Beam    64.97 334 P        P       14 36 04.9 -0.9
      comp=Z,40nm,1.1s,mb5.4,baz=114,slow=3.6,SNR=126
ZALV                             S        S       14 44 42.0 -3.6
      comp=Z,1.8nm,0.9s,baz=108,slow=4.8,SNR=3.3
ZALV                             PKPPKP           15 04 48.2
      comp=Z,0.3nm,0.4s,baz=309,slow=4.7,SNR=2.8
ZAL   Zalesovo         64.97 334 P        P       14 36 04.9 -1.0
ZAL                              S        S       14 44 42.0 -3.6
KURK  Kurchatov        65.92 329 P        P       14 36 12.1  0.0
      comp=Z,2µm,0.7s
KURK  Kurchatov        65.92 329 eP       P       14 36 12.1  0.0
      comp=Z,410nm,1.0s,mb6.4
KURK                             LR       LR
      comp=Z,2µm,21.0s,MS5.3
KURK  Kurchatov        65.92 329 eP       P       14 36 12.1  0.0
KURK                             pmax     pmax
      comp=Z,410nm,1.0s,mb6.4
KURK                             MLR      MLR
      comp=Z,2µm,21.0s,MS5.3
DRV   Dumont d'Urvil   66.12 174 P        P       14 36 16.0 +2.9
DRV                              S        S       14 45 01.0 +1.7
DRV                              SS       SS      14 49 18.0 +2.6
DRV                              L                14 52 00.0
DRV                              R                14 57 00.0
CASY  Casey            66.14 187 eP       P       14 36 13.8 +0.6
CASY                             eS       S       14 45 01.6 +2.1
NVS   Novosibirsk      66.25 334⇓iP       P       14 36 13.1 -1.1
NVS                              iS       S       14 44 57.6 -3.7
NVS                              pmax     pmax
      comp=N,255nm,1.8s
NVS                              pmax     pmax
      comp=E,227nm,1.8s
NVS                              pmax     pmax
      comp=Z,369nm,1.8s,mb6.1
NVS                              smax
      comp=N,431nm,2.4s
NVS                              smax
      comp=E,406nm,2.4s
SMY   Shemya           66.45  29 PFAKE            14 36 30.0  +15
SMY                              LR       LR
      comp=Z,3µm,20.0s,MS5.5
SEY   Seymchan         66.60  12 iP       P       14 36 17.4 +1.2
KK31  Karatay Array    66.94 318 iP       P       14 36 18.8  0.0
KKAR  Karatay Array    66.94 318 iP       P       14 36 18.8  0.0
KKAR                             pmax     pmax
      comp=Z,346nm,1.2s,mb6.3
BRVK  Borovoye         71.55 328 eP       P       14 36 46.8 -0.3
      comp=Z,196nm,1.0s,mb6.0
BRVK                             LR       LR
      comp=Z,2µm,21.0s,MS5.2
BRVK  Borovoye         71.55 328 eP       P       14 36 46.8 -0.3
BRVK                             pmax     pmax
      comp=Z,196nm,1.0s,mb6.0
BRVK                             MLR      MLR
      comp=Z,2µm,21.0s,MS5.2
TIXI  Tiksi            72.59   1 eP       P       14 36 51.7 -1.3
      comp=Z,150nm,0.8s,mb6.0
TIXI                             LR       LR
      comp=Z,4µm,19.0s,MS5.7
TIXI  Tiksi            72.59   1 eP       P       14 36 52.0 -1.0
TIXI                             e                14 39 33.5
TIXI                             eS       S       14 46 11.4 -4.0
TIXI                             e                14 46 53.7
TIXI                             eSS      SS      14 50 57.7 +2.8
TIXI                             pmax     pmax
      comp=Z,457nm,13.3s
TIXI                             pmax     pmax
      comp=Z,476nm,1.8s,mb6.1
TIXI                             pmax     pmax
      comp=N,107nm,1.7s
TIXI                             pmax     pmax
      comp=E,37nm,0.8s
TIXI                             smax
      comp=N,1µm,11.6s
TIXI                             smax
      comp=E,2µm,11.6s
TIXI                             MLR      MLR
      comp=Z,4µm,18.0s,MS5.8
BILL  Bilibino         74.08  14 eP       P       14 37 01.0 -0.9
      comp=Z,99nm,1.5s,mb5.5
BILL                             LR       LR
      comp=Z,3µm,21.0s,MS5.6
BILL  Bilibino         74.08  14d iP      P       14 37 01.3 -0.6
BILL                             i                14 37 13.2
BILL                             i                14 39 47.0
BILL                             iS       S       14 46 31.9 -0.5
BILL                             pmax     pmax
      comp=Z,69nm,1.7s,mb5.3
BILL                             MLR      MLR
      comp=Z,3µm,19.0s,MS5.6
ABKT  Ailbek           74.12 310 P        P       14 37 03.4 +0.6
      comp=Z,666nm,1.3s,mb6.4,SNR=42
AB31  Akbulak array    76.03 322 iP       P       14 37 12.7 -0.8
KIP   Kipapa           76.41  68 PFAKE            14 37 30.0  +14
KIP                              LR       LR
      comp=Z,9µm,20.0s,MS6.1
UNV   Unalaska Valle   77.19  34 P        P       14 37 21.2 +1.3
      comp=Z,1µm,1.5s,mb6.6
UNV                              LR       LR
      comp=Z,9µm,22.0s,MS6.1
AKTK  Aktyubinsk       77.58 322 P        P       14 37 22.0 -0.2
AKTK                             S        S       14 47 08.3 -3.3
AKTO  Aktyubinsk       77.58 322 P        P       14 37 22.0 -0.2
      comp=Z,90nm,1.1s,mb5.6,baz=104,slow=6.1,SNR=104
AKTO                             S        S       14 47 08.3 -3.3
      comp=Z,1.7nm,0.6s,baz=222,slow=21,SNR=12
SVE   Sverdlovsk       78.17 329⇓iP       P       14 37 25.0 -0.3
SVE                              eS       S       14 47 14.0 -3.8
SVE                              pmax     pmax
      comp=Z,640nm,2.0s,mb6.2
POHA  Pohakuloa        78.55  70 PFAKE            14 37 40.0  +12
POHA                             LR       LR
      comp=Z,6µm,19.0s,MS6.0
MUKL  Al Mukalla       78.63 285⇓eP       P       14 37 29.5 +0.7
MUKL                             AMb      AMB     14 37 30.1
      comp=Z,43nm,0.6s,mb5.5
GAMB  Gambell          78.63  23 eP       P       14 37 28.0 +0.2
VNDA  Vanda            78.68 173 P        P       14 37 28.9 +1.1
VNDA                             LR       LR      15 14 51.7
VNDA  Vanda            78.68 173 P        P       14 37 28.9 +1.1
      comp=Z,8.4nm,0.9s,baz=344,slow=4.5,SNR=7.4
VNDA                             LR       LR      15 14 51.7
      comp=Z,2µm,18.3s,baz=330,slow=38
ARU   Arti             79.11 328 P        P       14 37 29.1 -1.5
      comp=Z,406nm,1.8s,mb6.0,SNR=22
ARU   Arti             79.11 328 eP       P       14 37 29.5 -1.1
      comp=Z,221nm,1.5s,mb5.9
ARU                              LR       LR
      comp=Z,2µm,20.0s,MS5.4
ARU   Arti             79.11 328d iP      P       14 37 29.4 -1.2
ARU                              pmax     pmax
      comp=Z,158nm,1.4s,mb5.8
MAW   Mawson           79.40 201 eP       P       14 37 32.6 +0.7
      comp=Z,18nm,0.8s,mb5.0
MAW                              eS       S       14 47 30.8 +0.2
MAW   Mawson           79.40 201 eP       P       14 37 32.6 +0.7
MAW                              eS       S       14 47 30.8 +0.2
MAW                              pmax     pmax
      comp=Z,18nm,0.8s
MAW   Mawson           79.40 201 P        P       14 37 32.3 +0.3
      comp=Z,28nm,1.1s,mb5.1,baz=58,slow=8.3,SNR=10
SBA   Scott Base       79.59 172 PFAKE            14 37 40.0 +7.2
SBA                              LR       LR
      comp=Z,3µm,20.0s,MS5.6
TNA   Tin City         80.86  22 eP       P       14 37 40.6 +0.8
      comp=Z,19nm,1.0s,mb5.0
TNA                              LR       LR
      comp=Z,1µm,20.0s,MS5.3
SDPT  Sand Point       80.98  33 eP       P       14 37 40.8 +0.1
      comp=Z,334nm,0.8s,mb6.3
SOKR  Solikamsk        80.99 331d iP      P       14 37 39.0 -1.7
SOKR                                              14 40 44.1
SOKR                             S        S       14 47 42.3 -5.3
SOKR                             SS       SS      14 52 58.3 -4.0
SOKR                             pmax     pmax
      comp=Z,130nm,1.2s,mb5.7
SOKR                             MLR      MLR
      comp=Z,1µm,19.0s,MS5.3
KBD   Kabd             81.19 300 eP       P       14 37 41.9 -0.5
KBD                              AMb      AMB     14 37 45.4
      comp=Z,860nm,1.5s,mb6.5
UMR   Umm Al-Rimmam    81.21 300 eP       P       14 37 42.1 -0.4
UMR                              AMb      AMB     14 37 48.2
      comp=Z,305nm,1.1s,mb6.1
RDF   Al-Radifah       81.29 299 eP       P       14 37 42.3 -0.6
RDF                              AMb      AMB     14 37 52.3
      comp=Z,273nm,1.3s,mb6.0
MIB   Mutribah         81.56 300 eP       P       14 37 43.8 -0.5
MIB                              AMb      AMB     14 37 50.5
      comp=Z,340nm,0.9s,mb6.3
NAY   Al-Naaiem        81.59 300 eP       P       14 37 43.8 -0.8
NAY                              AMb      AMB     14 37 50.2
      comp=Z,189nm,1.0s,mb6.0
LBOS                   82.26 284 eP       P       14 37 49.5 +1.2
MAK   Makhachkala      83.03 313 eP       P       14 37 50.2 -1.6
MAK                              e                14 40 57.5
MAK                              eS       S       14 48 06.1 -3.2
MAK                              pmax     pmax
      comp=Z,492nm,2.1s,mb6.2
MAK                              pmax     pmax
      comp=N,243nm,1.2s
MAK                              pmax     pmax
      comp=E,545nm,2.0s
MAK                              pmax     pmax
      comp=Z,3202µm,3.5s
MAK                              smax
      comp=N,2606µm,3.0s
MAK                              smax
      comp=E,2338µm,3.2s
MAK                              MLR      MLR
      comp=N,2µm,20.0s,MS5.6
MAK                              MLR      MLR
      comp=E,2µm,23.0s,MS5.6
DHBB  Dhamar BB        83.12 285⇓eP       P       14 37 53.9 +1.1
DHBB                             AMb      AMB     14 37 55.6
      comp=Z,221nm,1.1s,mb6.1
TRBA  At Turbah        83.33 283 eP       P       14 37 54.8 +1.0
PPT   Papeete          83.40 107 eS       S       14 48 10.9 -3.0
      comp=Z,3µm,31.0s
PPT                              eSS      SS      14 53 40.0 +0.1
      comp=Z,2µm,28.2s
PPT                              eLR      LR      15 03 59.5
      comp=Z,3µm,23.2s
PPT   Papeete          83.40 107 LR       LR      15 11 39.6
      comp=Z,2µm,20.0s,MS5.4,baz=270,slow=33
HAJJ  Hajjah           83.94 286 eP       P       14 37 58.0 +1.0
DGRG  David-gareji     84.42 312 P        P       14 37 59.5 +0.6
DGRG                             S        S       14 48 00.1  -23
SVW2  Sparrevohn       84.84  28 eP       P       14 38 02.3 +1.8
MTA   Mtatsminda       84.88 312 P        P       14 38 01.9 +0.7
TBLG  Delisi           84.92 312 iP       P       14 38 02.0 +0.6
TBLG                             eS       S       14 48 23.5 -4.8
TBLG  Delisi           84.92 312 P        P       14 38 02.1 +0.6
TBLG                             S        S       14 48 23.5 -4.8
CLDR  Caldiran         85.30 309 P        P       14 38 04.7 +1.3
HKR   Hakkari          85.30 308 P        P       14 38 03.6 +0.2
HAKT  HAKKARI          85.32 308⇓iP       P       14 38 03.7 +0.2
CUKT  Cukurca          85.38 307 P        P       14 38 04.1 +0.3
GOR   Gori             85.42 312 P        P       14 38 05.0 +1.1
DYDN  Diyadin          85.51 310⇓iP       P       14 38 05.5 +1.1
TVAN  Van              85.64 309 iP       P       14 38 05.0 -0.1
ZEI   Tsey             85.64 313 eP       P       14 38 05.4 +0.4
ZEI                              e*PP     pP      14 38 15.3 +0.5
ZEI                              e                14 41 21.1
ZEI                              eS       S       14 48 25.7  -10
ZEI                              pmax     pmax
      comp=Z,121nm,1.0s,mb6.1
ZEI                              smax
      comp=E,143nm,2.2s
VANB  Van              85.66 309 P        P       14 38 05.9 +0.7
KDAK  Kodiak Island    85.76  32 eP       P       14 38 04.8 -0.4
      comp=E,75nm,0.8s,mb6.0
KDAK                             LR       LR
      comp=Z,917nm,20.0s,MS5.2
DIGO  Kars             85.83 310⇓iP       P       14 38 06.6 +0.6
ONI   Oni              85.96 313 P        P       14 38 07.0 +0.4
ONI                              S        S       14 48 28.9  -10
AGRB  Hanur-Agry       86.05 310 P        P       14 38 08.4 +1.3
KARS  Kars             86.06 311 eP       P       14 38 07.8 +0.7
TUTA  Tutak            86.17 309⇓iP       P       14 38 08.6 +0.8
SIRT  Sirnak           86.32 307 eP       P       14 38 09.4 +0.9
IMA2  Indian Mountai   86.61  24 eP       P       14 38 09.6 +0.3
KIV   Kislovodsk       86.63 314 P        P       14 38 09.1 -0.8
      comp=Z,248nm,1.9s,mb6.1,SNR=10
KIV   Kislovodsk       86.63 314 eP       P       14 38 09.6 -0.2
      comp=Z,169nm,1.4s,mb6.1
KIV                              LR       LR
      comp=Z,910nm,21.0s,MS5.2
KIV   Kislovodsk       86.63 314d iP      P       14 38 09.5 -0.3
KIV                              e                14 41 29.1
KIV                              e                14 48 32.7
KIV                              eSS      SS      14 54 26.0 -0.4
KIV                              pmax     pmax
      comp=Z,41nm,1.1s,mb5.6
KIV                              pmax     pmax
      comp=Z,458nm,4.7s
KIV                              MLR      MLR
      comp=Z,985nm,23.0s,MS5.2
PRGR  Permogore        86.82 332⇑iP       P       14 38 12.1 +1.7
PRGR                             eS       S       14 48 33.4  -13
PRGR                             pmax     pmax
      comp=Z,44nm,0.7s,mb5.8
ARTV  Artvin           86.98 311⇓iP       P       14 38 12.2 +0.5
BCA   Borcka           87.23 311 eP       P       14 38 13.2 +0.4
ERZM  Erzurum          87.32 310 iP       P       14 38 14.3 +1.0
EZM   Erzurum          87.33 310 eP       P       14 38 14.7 +1.3
SLKM  Skilak Lake      87.33  29 eP       P       14 38 12.2 -0.7
BNGL  BINGOL           87.43 309⇓iP       P       14 38 15.1 +1.3
DESE  Dese             87.63 281 eP       P       14 38 17.9 +2.6
DESE                             S        tx      14 41 26.2
MARD  Mardin           87.63 307⇓iP       P       14 38 15.0 +0.1
VRHR  Novokhopersk     87.91 321 eP       P       14 38 14.7 -1.1
VRHR                             pmax     pmax
      comp=N,10.0nm,0.8s
VRHR                             pmax     pmax
      comp=Z,60nm,0.8s,mb5.9
VRHR                             pmax     pmax
      comp=E,10.0nm,0.4s
PMR   Palmer           87.98  28 eP       P       14 38 09.1 -6.9
      comp=E,14nm,0.8s,mb5.3
PMR                              LR       LR
      comp=Z,2µm,21.0s,MS5.5
PMR   Palmer           87.98  28 eP       P       14 38 09.1 -6.9
PMR                              pmax     pmax
      comp=Z,14nm,0.8s,mb5.2
PMR                              MLR      MLR
      comp=Z,2µm,21.0s,MS5.5
SYO   Syowa Base       88.10 201⇓eP       P       14 38 15.8 -0.6
SYO   Syowa Base       88.10 201⇓ePP      PP      14 41 41.8 -1.4
MCK   McKinley         88.29  26 eP       P       14 38 14.0 -3.4
      comp=Z,30nm,1.2s,mb5.4
MCK                              LR       LR
      comp=Z,1µm,20.0s,MS5.3
MCK   McKinley         88.29  26 eP       P       14 38 14.0 -3.4
MCK                              pmax     pmax
      comp=Z,30nm,1.2s,mb5.4
MCK                              MLR      MLR
      comp=Z,1µm,20.0s,MS5.3
SML   Sawmill          88.38  28 eP       P       14 38 15.9 -2.0
EZC   Erzincan         88.50 310 eP       P       14 38 21.3 +2.3
FURI  Furi             88.52 279 iP       P       14 38 22.2 +2.7
FURI                             iS       S       14 48 55.8 -8.4
MACK  Trabzon          88.60 311⇓iP       P       14 38 19.4 +0.1
KTUT  Trabzon          88.60 311 eP       P       14 38 19.4  0.0
SOC   Sochi            88.75 313d iP      P       14 38 18.2 -1.8
SOC                              e*PP     pP      14 38 28.0 -1.8
SOC                              e*SP     sP      14 38 34.2 +0.9
SOC                              e        PP      14 41 51.9 +2.7
SOC                              ePPP             14 43 56.0
SOC                              iS       SKSac   14 48 44.3 -3.1
SOC                              e*SS             14 49 02.3
SOC                              eSS      SS      14 54 52.6 -4.8
SOC                              eSSS             14 58 31.9
SOC                              pmax     pmax
      comp=Z,25nm,1.0s,mb5.5
GUMT  Gumushane        88.79 310 eP       P       14 38 21.2 +0.9
PTK   Pertek           88.80 309 P        P       14 38 21.3 +0.9
COLA  College          88.87  25 eP       P       14 38 15.8 -4.3
      comp=Z,8.5nm,0.8s,mb5.1
COLA                             LR       LR
      comp=Z,2µm,21.0s,MS5.6
COLA  College          88.87  25 eP       P       14 38 15.8 -4.3
COLA                             pmax     pmax
      comp=Z,8.0nm,0.8s,mb5.1
COLA                             MLR      MLR
      comp=Z,2µm,21.0s,MS5.6
ELZG  Elazig           89.10 308⇓iP       P       14 38 22.6 +0.8
URFA  Urfa             89.19 307 P        P       14 38 22.2 -0.1
VORD  Divnogorie       89.37 321 eP       P       14 38 20.9 -1.8
VORD                             pmax     pmax
      comp=Z,40nm,1.0s,mb5.7
VORD                             pmax     pmax
      comp=N,10.0nm,0.6s
VORD                             pmax     pmax
      comp=E,20nm,1.1s
VRSR  Storozhevoye     89.44 321 eP       P       14 38 21.4 -1.7
VRSR                             e                14 41 50.4
VRSR                             eS       S       14 49 08.4 -3.0
VRSR                             pmax     pmax
      comp=Z,10.0nm,1.6s,mb4.9
VRSR                             pmax     pmax
      comp=N,1.0nm,0.7s
VRSR                             pmax     pmax
      comp=E,7.0nm,1.0s
VRSR                             smax
      comp=N,20nm,1.1s
VRSR                             smax
      comp=E,6.0nm,1.0s
VRSR                             smax
      comp=Z,2.0nm,1.0s
VOR   Voronezh         89.46 322 eP       P       14 38 21.5 -1.6
VOR                              pmax     pmax
      comp=Z,260nm,1.6s,mb6.3
MALT  Malatya          89.53 308 P        P       14 38 24.1 +0.3
MALT  Malatya          89.53 308 eP       P       14 38 23.8  0.0
      comp=Z,18nm,0.9s,mb5.4
MALT  Malatya          89.53 308 eP       P       14 38 23.8  0.0
MALT                             pmax     pmax
      comp=Z,18nm,0.9s,mb5.4
MALT  Malatya          89.53 308⇓iP       P       14 38 24.1 +0.3
DIV   Divide           89.56  29 PFAKE            14 38 40.0  +17
DIV                              LR       LR
      comp=Z,10µm,21.0s,MS6.2
ATAB  Bozova           89.61 307⇓iP       P       14 38 24.5 +0.3
GRSN  GIRESUNGRSN      89.73 311 iP       P       14 38 23.4 -1.3
KMBO  Kilima Mbogo     89.74 269 eP       P       14 38 26.5 +1.2
      comp=Z,665nm,2.1s,mb6.6
KMBO                             LR       LR
      comp=Z,2µm,22.0s,MS5.5
KMBO  Kilima Mbogo     89.74 269 P        P       14 38 26.8 +1.5
KMBO                             pmax     pmax
      comp=Z,670nm,2.1s
KMBO  Kilima Mbogo     89.74 269 P        P       14 38 25.6 +0.2
      comp=Z,25nm,0.9s,mb5.5,baz=66,slow=5.8,SNR=69
GZT   Gaziantep        90.19 307⇓iP       P       14 38 26.8 -0.1
ANN   Anapa            90.44 315 eP       P       14 38 26.9 -1.0
ANN                              e                14 42 06.1
ANN                              e                14 48 55.1
ANN                              eS       S       14 49 18.7 -2.2
ANN                              eSP      SP      14 50 29.0 +1.7
ANN                              pmax     pmax
      comp=Z,75nm,1.3s,mb5.9
MOS   Moscow           90.52 326κiP       P       14 38 26.6 -1.4
MOS                              i                14 42 02.1
MOS                              iS       S       14 49 15.8 -5.3
MOS                              ePS      PS      14 50 32.1 +0.2
MOS                              eSS      SS      14 55 27.8 +5.6
MOS                              pmax     pmax
      comp=Z,300nm,2.1s,mb6.2
MOS                              pmax     pmax
      comp=Z,140nm,1.6s,mb6.0
MOS                              MLR      MLR
      comp=Z,2µm,25.0s,MS5.4
SVSK  Karacayir        90.68 310 P        P       14 38 28.9 -0.2
KMRS  Kahramanmaras    90.72 307 eP       P       14 38 29.0 -0.4
OBN   Obninsk          91.11 325 eP       P       14 38 29.1 -1.7
      comp=Z,81nm,1.0s,mb6.0
OBN                              LR       LR
      comp=Z,1µm,19.0s,MS5.5
OBN   Obninsk          91.11 325d iP      P       14 38 29.1 -1.7
OBN                              i                14 38 35.8
OBN                              e                14 42 11.7
OBN                              ePPP             14 44 08.1
OBN                              iS       S       14 48 59.8  -27
OBN                              iPS      PS      14 50 34.2 -4.4
OBN                              iSS      SS      14 55 34.3 +3.4
OBN                              pmax     pmax
      comp=Z,149nm,1.9s,mb6.0
COBT  Iskenderun       91.23 306 iP       P       14 38 31.6 -0.1
HWQ   Hawqa            91.47 304 eP       P       14 38 31.9 -1.0
BNN   Bunyan           91.56 309 eP       P       14 38 32.1 -1.1
KOZT  Kozan            91.58 307 eP       P       14 38 29.9 -3.4
CEYT  Ceyhan           91.64 307 eP       P       14 38 33.4 -0.3
BHL   Bhannes          91.71 304 eP       P       14 38 33.0 -1.1
EGAK  Eagle            91.73  25 PFAKE            14 38 40.0 +6.6
EGAK                             LR       LR
      comp=Z,2µm,20.0s,MS5.5
LVZ   Lovozero         91.86 338 PFAKE            14 38 50.0  +16
LVZ                              LR       LR
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       comp=Z,2µm,20.0s,MS5.6
BOYT   Boyabat            92.28 311  i P     P        14 38 35.1 -1.4
APA    Apatity            92.35 337⇑iP      P        14 38 36.0 -0.2
APA                                  i                14 49 07.0
APA                                  eS      S        14 49 39.0 +1.7
APA                                  eSP     SP       14 50 45.0 -2.5
APA                                  eSPP             14 51 22.0
APA                                  i SS    SS       14 55 50.0 +2.0
APA                                   pmax   pmax
       comp=Z,59nm,1.4s,mb5.7
CTKT   Corum              92.37 310  i P     P        14 38 35.7 -1.2
CORM   Corum              92.50 310  eP      P        14 38 33.5 -4.1
DAWY   Dawson             92.52  26  eP      P        14 38 37.0 -0.1
NIG    Nigde              92.54 308  eP      P        14 38 38.0 +0.2
MERS   Mersin             92.62 307  eP      P        14 38 37.5 -0.7
TAOE   Nuku Hiva Isla     92.64  99  eSKSac  SKSac    14 49 05.4 -5.6
       comp=Z,4µm,24.1s
TAOE                                 eSP     SP       14 50 48.1 -5.1
       comp=Z,2µm,28.4s
TAOE                                 eSS     SS       14 55 45.8 -9.2
       comp=Z,2µm,31.3s
TAOE                                 eLQ              15 04 42.1
       comp=Z,7µm,33.7s
TAOE                                 eLR     LR       15 08 29.3
       comp=Z,10µm,22.7s
CDAG   Cicekdag           92.70 309  i P     P        14 38 37.5 -1.0
SIM    Simferopol'        92.79 315  eP      P        14 38 37.4 -1.4
SIM                                  e                14 42 22.0
SIM                                  e                14 49 13.0
SIM                                  eS      S        14 49 41.0 -1.2
SIM                                  ePS     PS       14 50 52.0 -5.7
SIM                                   pmax   pmax
       comp=Z,22nm,1.0s,mb5.5
SIM                                   pmax   pmax
       comp=Z,130nm,7.0s
KAMT   Kaman              93.22 309  eP      P        14 38 38.8 -2.1
BRTR   Keskin Array B     93.27 310   P      P        14 38 39.8 -1.3
BRTR                                                  14 42 19.4
BRTR   Keskin Array B     93.27 310   P      P        14 38 39.8 -1.4
       comp=Z,5.8nm,0.8s,mb5.1,baz=110,slow=4.9,SNR=25
BRTR                                  PP     PP       14 42 19.4 -5.6
       comp=Z,6.6nm,1.0s,baz=100,slow=6.8,SNR=4.6
BRTR                                  LR     LR       15 27 00.2
       comp=Z,559nm,20.5s,MS5.0,baz=317,slow=40
IKL    Isikli             93.31 306  eP      P        14 38 40.2 -1.2
BALT   Daday              93.41 311  i P     P        14 38 41.1 -0.7
JOF    Joensuu            93.53 333  ep      P        14 38 39.2 -2.6
       comp=Z,8.1nm,0.5s,mb5.4
JOF    Joensuu            93.53 333  eP      P        14 38 39.2 -2.6
JOF                                   pmax   pmax
       comp=Z,8.0nm,0.5s,mb5.4
ANTO   Ankara             93.91 310   PFAKE           14 39 00.0  +16
ANTO                                  LR     LR
       comp=Z,880nm,22.0s,MS5.2
KEV    Kevo               94.45 340   PFAKE           14 39 00.0  +14
KEV                                   LR     LR
       comp=Z,2µm,20.0s,MS5.5
INK    Inuvik             94.47  22  eP      P        14 38 45.0 -1.0
       comp=Z,3µm,1.5s
INK    Inuvik             94.47  22   LR     LR       15 19 44.7
       comp=Z,1µm,19.9s,MS5.4,baz=148,slow=34
SKAG   Skagway            94.80  31  eP      P        14 38 48.5 +0.8
       comp=Z,114nm,1.5s,mb6.1
ARCES  ARCESS Array B     95.00 340   P      P        14 38 46.8 -1.6
       comp=Z,14nm,0.8s,mb5.5,baz=79,slow=4.9,SNR=18
ARCES                                 LR     LR       15 30 32.1
       comp=Z,2µm,19.8s,MS5.5,baz=68,slow=41
SIT    Sitka              95.05  33   PFAKE           14 39 00.0  +11
SIT                                   LR     LR
       comp=Z,3µm,21.0s,MS5.8
KBS    Kingsbay           95.73 350   PFAKE           14 39 00.0 +8.4
KBS                                   LR     LR
       comp=Z,2µm,20.0s,MS5.5
AKASG  Malin Array Be     95.75 321   P      P        14 38 50.3 -1.9
       comp=Z,1.5nm,0.6s,baz=73,slow=4.2,SNR=25
AKASG                                 PP     PP       14 42 43.5 -0.5
       comp=Z,6.5nm,1.0s,baz=66,slow=6.8,SNR=7.1
KIEV   Kiev               95.76 321  eP      P        14 38 50.5 -1.8
       comp=Z,9.8nm,0.9s,mb5.2
KIEV                                  LR     LR
       comp=Z,1µm,19.0s,MS5.4
KIEV   Kiev               95.76 321   P      P        14 38 50.8 -1.5
KIEV                                  pmax   pmax
       comp=Z,10.0nm,1.0s,mb5.2
ISP    Isparta            95.78 308  eP      P        14 38 50.5 -2.3
ISP    Isparta            95.78 308   P      P        14 38 51.0 -1.7
KAF    Kangasniemi        95.94 332  ep      P        14 38 50.0 -2.8
       comp=Z,7.1nm,0.6s,mb5.3
KAF    Kangasniemi        95.94 332  eP      P        14 38 50.0 -2.8
KAF                                   pmax   pmax
       comp=Z,7.0nm,0.6s,mb5.3
FINES  FINESS Array B     96.15 332   P      P        14 38 51.8 -2.0
FINES                                                 14 42 45.9
FINES  FINESS Array B     96.15 332   P      P        14 38 51.8 -2.1
       comp=Z,4.2nm,0.8s,mb4.9,baz=150,slow=1.5,SNR=11
FINES                                 PP     PP       14 42 45.9 -0.9
       comp=Z,6.9nm,1.0s,baz=141,slow=1.2,SNR=4.2
FINES                                 LR     LR       15 26 49.6
       comp=Z,966nm,20.1s,MS5.3,baz=252,slow=38
MNK    Minsk              96.19 325⇑eP      P        14 38 52.0 -2.1
KLYT   Kilyos             96.69 311  eP      P        14 38 54.5 -2.2
ULDT   Uludag             96.70 310  i P     P        14 38 54.5 -2.3
TIRR   Tirgusor           96.88 315   P      P        14 38 56.2 -1.3
TIRR   Tirgusor           96.88 315⇓iP      P        14 38 56.3 -1.2
RKT    Rikitea            96.96 113  eLQ              15 06 19.1
       comp=Z,3µm,36.0s
RKT    Rikitea            96.96 113  ePP     PP       14 42 53.5 -0.7
       comp=Z,234nm,29.5s
RKT    Rikitea            96.96 113  eSKSac  SKSac    14 49 26.8 -7.1
       comp=Z,1µm,27.8s
RKT                                  eSP     SP       14 51 36.0 -4.3
       comp=Z,695nm,27.8s
RKT                                  eSS     SS       14 56 58.5 +2.4
       comp=Z,1µm,28.8s
RKT                                  eLR     LR       15 10 32.3
       comp=Z,3µm,24.2s
VRI    Vrincioaia         97.92 316   P      P        14 39 02.2  0.0
VRI    Vrincioaia         97.92 316⇓iP      P        14 39 01.6 -0.6
LSZ    Lusaka             98.24 254  eP      P        14 39 04.5 +0.3
       comp=Z,165nm,1.6s,mb6.3
LSZ                                   LR     LR
       comp=Z,3µm,21.0s,MS5.7
LSZ    Lusaka             98.24 254  eP      P        14 39 04.6 +0.3
LSZ                                   pmax   pmax
       comp=Z,165nm,1.6s,mb6.3
LSZ                                   MLR    MLR
       comp=Z,3µm,21.0s,MS5.7
MLR    Muntele Rosu       98.51 316   P      P        14 39 04.5 -0.4
MLR    Muntele Rosu       98.51 316   P      P        14 39 03.1 -1.7
       comp=Z,9.5nm,0.9s,mb5.3,baz=309,slow=2.0,SNR=17
MLR                                   LR     LR       15 28 03.6
       comp=Z,1µm,21.9s,MS5.4,baz=62,slow=38
MLR    Muntele Rosu       98.51 316⇑iP      P        14 39 04.1 -0.7
BUC1   Bucharest          98.59 315   P      P        14 39 11.8 +6.6
BURAR  Bucovina Array     98.73 318⇓iP      P        14 39 05.5 -0.3
SUW    Suwalki            98.96 325  eP      P        14 39 06.1 -0.5
SUW                                  eSKS             14 49 44.2
SUW                                   LMZ             15 23 54.2
       comp=Z,2µm,24.3s
SUW    Suwalki            98.96 325  eP      P        14 39 06.1 -0.6
SUW                                  eSKS             14 49 44.2
LVV    L'vov              99.17 320  eP      P        14 39 05.5 -2.2
LVV                                  e                14 43 11.5
LVV                                  ePPP             14 45 25.7
LVV                                  e                14 49 44.7
LVV                                  eS      S        14 50 32.1 -5.0
LVV                                  eSS     SS       14 57 21.9 -3.7
LVV                                  eSSS             15 01 19.3
BOSA   Boshof             99.81 241   P      Pdif     14 39 11.3 +0.9
       comp=Z,5.6nm,1.0s,baz=86,slow=4.0,SNR=4.2
BOSA                                  LR     LR       15 22 34.7
       comp=Z,2µm,19.5s,MS5.5,baz=101,slow=34
LBTB   Lobatse            99.90 245   P      Pdif     14 39 11.8 +1.0
LBTB   Lobatse            99.90 245   P      Pdif     14 39 11.8 +1.0
       comp=Z,3.8nm,0.8s,baz=153,slow=6.6,SNR=4.9
BBB    Bella Bella        99.92  37   LR     LR       15 20 58.8
       comp=Z,2µm,21.3s,MS5.7,baz=285,slow=33
KWP    Kalwaria          100.05 320  eP      Pdif     14 39 11.1 -0.4
KWP                                  ePP     PP       14 43 22.0 +5.0
KWP                                  eSKS             14 49 49.4
KWP                                   LMZ             15 23 52.9
       comp=Z,1µm,30.9s
KWP    Kalwaria          100.05 320  eP      Pdif     14 39 11.1 -0.4
KWP                                  ePP     PP       14 43 22.0 +5.0
KWP                                  eSKS             14 49 49.4
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KOLS   Kolonicke sedl    100.45 320  ePdif   Pdif     14 39 15.0 +1.7
KOLS                                 ePP     PP       14 43 25.4 +5.3
KOLS                                 e       SKSac    14 49 52.1 +1.8
KOLS                                 eSdif   Sdif     14 50 48.3 +0.7
KOLS   Kolonicke sedl    100.45 320  eP      Pdif     14 39 15.0 +1.7
KOLS                                 e                14 43 25.4
KOLS                                 eS      Sdif     14 50 48.3 +0.7
KOLS   Kolonicke sedl    100.45 320   PDIF   Pdif     14 39 15.1 +1.8
KOLS                                 ePP     PP       14 43 25.4 +5.3
KOLS                                  SDIF   Sdif     14 50 46.0 -1.6
UZH    Uzhgorod          100.50 319c iP      Pdif     14 39 13.0 -0.5
UZH                                  e                14 43 26.0
UZH                                  e                14 49 50.0
UZH                                  eS      Sdif     14 50 44.0 -3.9
UZH                                  ePS     PS       14 52 12.0 -9.5
UZH                                  eSSS             15 01 35.0
DRGR                     100.54 317   P      Pdif     14 39 14.1 +0.5
CRVS   Cervenica-Dubn    100.99 320  ePdif   Pdif     14 39 15.1 -0.5
CRVS                                 ePP     PP       14 43 29.3 +5.2
CRVS                                 e                14 49 53.4
CRVS                                 eSdif   Sdif     14 50 48.0 -4.0
CRVS   Cervenica-Dubn    100.99 320  eP      Pdif     14 39 15.1 -0.5
CRVS                                 e                14 43 29.3
CRVS                                 eS      Sdif     14 50 48.0 -4.0
CRVS   Cervenica-Dubn    100.99 320   PDIF   Pdif     14 39 15.5 -0.1
CRVS                                 ePP     PP       14 43 29.3 +5.2
CRVS                                  SDIF   Sdif     14 50 47.5 -4.5
STHS   Stebnicka Huta    101.03 320  ePdif   Pdif     14 39 17.4 +1.6
STHS                                 e                14 49 55.2
STHS   Stebnicka Huta    101.03 320   PDIF   Pdif     14 39 17.3 +1.5
PTCN   Pitcairn Islan    101.22 116   PFAKE           14 39 30.0  +13
PTCN                                  LR     LR
       comp=Z,2µm,19.0s,MS5.6
KECS   Kecovo            101.70 319  ePdif   Pdif     14 39 18.6 -0.2
KECS                                 ePP     PP       14 43 32.8 +3.3
KECS   Kecovo            101.70 319   PDIF   Pdif     14 39 18.5 -0.3
KECS                                 ePP     PP       14 43 32.8 +3.3
OJC    Ojcow             101.77 321  ePdif   Pdif     14 39 18.7 -0.4
OJC                                  ePP     PP       14 43 29.2 -0.8
OJC                                  eSKSac  SKSac    14 49 58.2 +1.6
OJC                                   LR     LR
       comp=Z,1µm,21.6s,MS5.3
OJC    Ojcow             101.77 321  eP      Pdif     14 39 18.7 -0.4
OJC                                  e                14 43 29.2
OJC                                  e                14 49 58.2
KRUS   Krusevo           102.50 312  ePP     PP       14 43 21.2  -15
VYHS   Vyhne             102.77 320  i Pdif  Pdif     14 39 23.6  0.0
VYHS                                 ePP     PP       14 43 39.3 +1.8
VYHS                                 e                14 50 02.8
VYHS                                 eSdif   Sdif     14 51 09.2 +2.3
VYHS   Vyhne             102.77 320   PDIF   Pdif     14 39 22.2 -1.4
VYHS                                 ePP     PP       14 43 39.2 +1.7
VYHS                                  SDIF   Sdif     14 51 06.2 -0.7
OKC    Ostrava-Krasne    102.90 321  ePP     PP       14 43 41.1 +2.7
OKC                                   AMS    AMS      15 39 50.0
       comp=Z,2µm,18.1s
SUR    Sutherland        103.08 237   PFAKE           14 39 40.0  +15
SUR                                   LR     LR
       comp=Z,2µm,19.0s,MS5.8
NOA    NORSAR Array B    103.16 333   P      Pdif     14 39 22.8 -2.5
       comp=Z,3.6nm,0.8s,baz=69,slow=4.6,SNR=9.5
NOA                                   PP     PP       14 43 37.3 -2.7
       comp=Z,3.8nm,0.8s,baz=65,slow=7.0,SNR=5.4
YKA    Yellowknife Ar    103.70  25   Pdif   Pdif     14 39 26.8 -0.9
YKA                                   PP     PP       14 43 39.5 -4.4
YKA                                   PKKPbc PKKPbc   14 55 18.3 -3.4
YKA    Yellowknife Ar    103.70  25   P      Pdif     14 39 26.8 -0.9
YKA                                                   14 43 39.5
YKA    Yellowknife Ar    103.70  25   Pdiff  Pdif     14 39 26.8 -0.9
       comp=Z,0.7nm,0.7s,baz=299,slow=4.6,SNR=13
YKA                                   PP     PP       14 43 39.5 -4.4
       comp=Z,1.9nm,0.9s,baz=303,slow=5.9,SNR=5.2
YKA                                   PKKPbc PKKPbc   14 55 18.3 -3.4
       comp=Z,0.8nm,0.6s,baz=112,slow=2.7,SNR=10
KSP    Ksiaz             103.79 322  ePdif   Pdif     14 39 29.0 +0.9
KSP                                  ePP     PP       14 43 45.4 +0.4
KSP                                  eSKS             14 50 07.0
KSP                                  eSP     SP       14 52 54.0 +2.1
KSP                                   LR     LR
       comp=Z,2µm,23.2s,MS5.6
KSP    Ksiaz             103.79 322  eP      Pdif     14 39 29.0 +0.9
KSP                                  e                14 43 45.4
KSP                                  e                14 50 07.0
KSP                                  eSP     SP       14 52 54.0 +2.1
DPC    Dobruska-Polom    103.91 322  ePP     PP       14 43 44.8 -1.1
DPC                                   AMS    AMS      15 40 20.0
       comp=Z,2µm,19.8s
ZST    Bratislava        103.97 320  ePP     PP       14 43 50.8 +4.4
ZST                                  e                14 51 40.4
UPC    Upice             104.05 322  ePP     PP       14 43 39.5 -7.5
UPC                                  ex      x        14 43 51.0
KONO   Kongsberg         104.45 332   PFAKE           14 39 40.0 +9.0
KONO                                  LR     LR
       comp=Z,2µm,20.0s,MS5.7
COR    Corvallis         104.68  44   PFAKE           14 39 40.0 +8.0
COR                                   LR     LR
       comp=Z,3µm,22.0s,MS5.8
TREC   Trest             104.71 321  ePP     PP       14 43 48.6 -3.3
TREC                                 eSKS             14 50 11.0
PVCC   Panska Ves        104.93 322  ePP     PP       14 43 51.8 -1.7
PVCC                                 eSKS             14 50 13.6
PVCC                                  AMS    AMS      15 35 20.0
       comp=Z,2µm,19.8s
PRU    Pruhonice         105.11 322  ePP     PP       14 43 55.3 +0.5
PRU                                  eSKS    SKSac    14 50 09.5 -2.6
PRU                                  ePS     PS       14 53 15.2 +5.1
PRU                                   AMS    AMS      15 35 10.0
       comp=Z,2µm,19.6s
PRA    Prague            105.15 322   PP     PP       14 44 00.0 +4.9
BRG    Berggiesshubel    105.21 323  ePdif   Pdif     14 39 35.1 +0.7
       comp=Z,3.7nm,1.0s
BRG                                  ePKP    PKiKP    14 43 49.9 +1.2
BRG                                  i                14 43 54.9
BRG                                   SKS    SKSac    14 50 13.0 +0.5
BRG                                   Sdif   Sdif     14 51 27.0 -0.2
BRG                                  e                14 53 09.0
BRG                                  e                14 58 57.0
BRG                                  e                15 02 54.0
BRG                                   LR     LR
       comp=Z,880nm,34.7s,MS5.1
BRG    Berggiesshubel    105.21 323  ePDIF   Pdif     14 39 35.1 +0.7
       comp=Z,6.2nm,1.1s
HUMO   Hull Mountain     105.37  46   PFAKE           14 44 00.0  +11
HUMO                                  LR     LR
       comp=Z,4µm,20.0s,MS6.0
CLL    Collm             105.64 323  ePdif   Pdif     14 39 35.0 -1.3
       comp=Z,215nm,2.0s
CLL                                  ePP     PP       14 44 00.0 +1.3
CLL                                  eSKS    SKSac    14 50 16.0 +1.6
CLL                                  eSdif   Sdif     14 51 34.0 +3.2
CLL                                   LR     LR
       comp=Z,1µm,21.5s,MS5.5
CLL    Collm             105.64 323  eP      Pdif     14 39 35.0 -1.3
CLL                                  e                14 44 00.0
CLL                                  e                14 50 16.0
CLL                                  eS      Sdif     14 51 34.0 +3.2
CLL                                   pmax   pmax
       comp=Z,215nm,2.0s
CLL                                   MLR    MLR
       comp=Z,1µm,21.5s,MS5.5
CLL    Collm             105.64 323  ePdiff  Pdif     14 39 35.5 -0.8
CLL                                  ePKiKP  PKiKP    14 43 51.3 +1.8
CLL                                  ePP     PP       14 44 02.2 +3.5
CLL                                  ePPP             14 46 16.3
CLL                                  eSKSac  SKSac    14 50 13.9 -0.5
CLL                                  eSdiff  Sdif     14 51 37.0 +6.2
CLL                                  ePS     PS       14 53 23.7 +8.2
CLL                                  ePPS             14 54 08.1
CLL                                  eSS     SS       14 59 01.0 +6.3
CLL                                  eLR     LR       15 15 58.6
CLL                                  eL               15 32 35.0
       comp=Z,1µm,22.0s
CLL    Collm             105.64 323  ePdif   Pdif     14 39 35.0 -1.3
CLL                                  ePP     PP       14 44 00.0 +1.3
       comp=Z,215nm,2.0s
CLL                                  i x     x        14 44 20.8
CLL                                  ePPP             14 46 10.0
CLL                                  eSKSac  SKSac    14 50 16.0 +1.6
CLL                                  eSdif   Sdif     14 51 34.0 +3.2
CLL                                  ePS     PS       14 53 14.0 -1.5
CLL                                  ePPS             14 54 02.0
CLL                                  ex      x        14 55 42.0
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CLL                                  ex      x        14 57 15.0
CLL                                  eSS     SS       14 59 05.0  +10
CLL                                  eSSS             15 02 42.0
CLL                                  ex      x        15 04 30.0
CLL                                  ex      x        15 08 54.0
CLL                                   LmV             15 36 00.0
       comp=Z,1µm,21.5s
PERS   Pernice           105.67 318  ePP     PP       14 44 02.2 +3.0
YBH    Yreka Blue Hor    105.75  47   PFAKE           14 44 00.0  +10
YBH                                   LR     LR
       comp=Z,3µm,20.0s,MS5.9
BOJS   Bojanci           105.88 317  ePP     PP       14 44 04.6 +3.9
MOA    Molln             105.89 320⇑iP      Pdif     14 39 37.7 +0.3
       comp=Z,9.8nm,1.5s
MOA                                ⇓i                14 44 03.4
       comp=Z,50nm,1.4s
KHC    Kasperske Hory    105.96 321   AMS    AMS      15 41 20.0
       comp=Z,2µm,17.3s
GERES  GERESS Array B    105.97 321   Pdif   Pdif     14 39 38.6 +0.9
GERES                                 PKPdf  PKiKP    14 43 52.4 +2.3
GERES                                 PKKPbc PKKPbc   14 55 15.3 +0.9
GERES  GERESS Array B    105.97 321   Pdiff  Pdif     14 39 38.6 +0.9
       comp=Z,0.4nm,0.5s,baz=75,slow=7.3,SNR=3.6
GERES                                 PKiKP  PKiKP    14 43 52.4 +2.3
       comp=Z,1.3nm,0.5s,baz=60,slow=2.3,SNR=6.8
GERES                                 PKKPbc PKKPbc   14 55 15.3 +0.9
       comp=Z,0.5nm,0.8s,baz=293,slow=5.1,SNR=3.0
HOPS   Hopland           106.07  50   PFAKE           14 44 00.0 +9.3
HOPS                                  LR     LR
       comp=Z,2µm,19.0s,MS5.7
WDC    Whiskeytown Da    106.13  48   PFAKE           14 44 00.0 +9.3
WDC                                   LR     LR
       comp=Z,5µm,21.0s,MS6.0
NKC    Novy Kostel       106.31 323  ePKP    PKiKP    14 43 55.0 +4.2
NKC                                  ePP     PP       14 44 07.6 +3.9
NKC                                  ex      x        14 53 30.0
MCCM   Marconi Confer    106.39  51   PFAKE           14 44 00.0 +8.7
MCCM                                  LR     LR
       comp=Z,3µm,20.0s,MS5.8
JAVS   Javornik          106.58 318  ePP     PP       14 44 12.0 +6.1
MOX    Moxa              106.68 323  eP      Pdif     14 39 40.9 -0.1
MOX                                  ePP     PP       14 44 09.9 +3.5
MOX    Moxa              106.68 323  eP      Pdif     14 39 40.9 -0.1
MOX                                  ePP     PP       14 44 09.9 +3.5
MOX
       comp=Z,900nm,20.0s
HAWA   Hanford           106.77  42   PFAKE           14 44 00.0 +8.3
HAWA                                  LR     LR
       comp=Z,3µm,20.0s,MS5.9
GRF    Grafenberg Arr    107.24 322  ePP     PP       14 44 07.3 -3.2
GRF                                  eL               15 33 43.3
       comp=Z,1µm,20.9s
GRFO   Grafenberg        107.24 322   PFAKE           14 44 00.0 +7.5
GRFO                                  LR     LR
       comp=Z,1µm,19.0s,MS5.6
MOD    Modoc             107.45  46   PFAKE           14 44 10.0  +17
MOD                                   LR     LR
       comp=Z,2µm,22.0s,MS5.6
NEW    Newport           107.76  39   PFAKE           14 44 10.0  +16
NEW                                   LR     LR
       comp=Z,3µm,20.0s,MS5.9
SAO    San Andreas Ge    107.80  52   PFAKE           14 44 10.0  +16
SAO                                   LR     LR
       comp=Z,4µm,19.0s,MS6.0
TSUM   Tsumeb            107.96 250   PFAKE           14 44 10.0  +15
TSUM                                  LR     LR
       comp=Z,2µm,19.0s,MS5.8
CMB    Columbia Colle    108.33  50   PFAKE           14 44 10.0  +15
CMB                                   LR     LR
       comp=Z,3µm,20.0s,MS5.9
WVOR   Wild Horse Val    108.51  45   PFAKE           14 44 10.0  +15
WVOR                                  LR     LR
       comp=Z,3µm,19.0s,MS5.9
BMO    Blue Mountains    108.72  43   PFAKE           14 44 10.0  +15
BMO                                   LR     LR
       comp=Z,4µm,21.0s,MS5.9
BFO    Black Forest      109.50 322   PFAKE           14 44 10.0  +13
BFO                                   LR     LR
       comp=Z,2µm,20.0s,MS5.6
CDF    Champ du Feu      110.12 322  ePKIKP  PKiKP    14 43 59.4 +1.5
CDF    Champ du Feu      110.12 322  ePKPdf  PKiKP    14 43 59.4 +1.5
MSO    Missoula          110.28  40   PFAKE           14 44 10.0  +12
MSO                                   LR     LR
       comp=Z,2µm,20.0s,MS5.7
HINF   Hinteralfeld      110.61 321  ePKIKP  PKiKP    14 44 00.1 +1.2
HINF   Hinteralfeld      110.61 321  ePKPdf  PKiKP    14 44 00.1 +1.2
HINF   Hinteralfeld      110.61 321  ePKIKP  PKiKP    14 44 00.1 +1.2
HAU    Haudompre         110.85 322  ePKIKP  PKiKP    14 44 00.3 +1.0
HAU                                  eMLR    MLR
       comp=Z,2µm,22.5s,MS5.3
HAU    Haudompre         110.85 322  ePKPdf  PKiKP    14 44 00.3 +1.0
HAU                                   LR     LR
       comp=Z,2µm,22.5s,MS5.6
HAU    Haudompre         110.85 322  ePKIKP  PKiKP    14 44 00.3 +1.0
HAU                                   MLR    MLR
       comp=Z,2µm,22.5s,MS5.6
PGF    Pioggiola         111.06 316  ePKIKP  PKiKP    14 44 01.4 +1.5
PGF    Pioggiola         111.06 316  ePKPdf  PKiKP    14 44 01.4 +1.5
PGF    Pioggiola         111.06 316  ePKIKP  PKiKP    14 44 01.4 +1.5
HLID   Hailey            111.11  43  ePKiKP  PKiKP    14 44 00.8 +0.8
HLID                                  LR     LR
       comp=Z,3µm,20.0s,MS5.9
ELK    Elko              111.44  46   PFAKE           14 44 10.0 +9.3
ELK                                   LR     LR
       comp=Z,3µm,21.0s,MS5.8
LPG    La Plagne         111.55 319  ePKIKP  PKiKP    14 44 02.7 +2.0
       comp=Z,22nm,0.8s
LPG    La Plagne         111.55 319  ePKPdf  PKiKP    14 44 02.7 +2.0
LPG    La Plagne         111.55 319  ePKIKP  PKiKP    14 44 02.7 +2.0
LPL    La Plagne         111.56 319  ePKIKP  PKiKP    14 44 02.7 +2.0
LPL    La Plagne         111.56 319  ePKPdf  PKiKP    14 44 02.7 +2.0
LPL    La Plagne         111.56 319  ePKIKP  PKiKP    14 44 02.7 +2.0
CABF   La Chapelle       111.56 321  ePKIKP  PKiKP    14 44 02.3 +1.6
       comp=Z,16nm,0.7s
CABF   La Chapelle       111.56 321  ePKPdf  PKiKP    14 44 02.3 +1.6
CABF   La Chapelle       111.56 321  ePKIKP  PKiKP    14 44 02.3 +1.6
SBF    Sospel            111.69 317  ePKIKP  PKiKP    14 44 02.6 +1.5
SBF    Sospel            111.69 317  ePKPdf  PKiKP    14 44 02.6 +1.5
SBF    Sospel            111.69 317  ePKIKP  PKiKP    14 44 02.6 +1.5
MBDF   Montbardon        111.82 318  ePKIKP  PKiKP    14 44 03.1 +1.8
       comp=Z,15nm,0.8s
MBDF   Montbardon        111.82 318  ePKPdf  PKiKP    14 44 03.1 +1.8
MBDF   Montbardon        111.82 318  ePKIKP  PKiKP    14 44 03.1 +1.8
BOZ    Bozeman (W)       112.21  40   PFAKE           14 44 10.0 +8.0
BOZ                                   LR     LR
       comp=Z,3µm,21.0s,MS5.9
FRF    La Foret Royal    112.33 317  ePKIKP  PKiKP    14 44 03.7 +1.4
FRF    La Foret Royal    112.33 317  ePKPdf  PKiKP    14 44 03.7 +1.4
FRF    La Foret Royal    112.33 317  ePKIKP  PKiKP    14 44 03.7 +1.4
ORIF   Oris-en-Rattie    112.34 319  ePKIKP  PKiKP    14 44 03.9 +1.6
       comp=Z,14nm,0.9s
ORIF                                 eMLR    MLR
       comp=Z,1µm,19.2s,MS5.3
ORIF   Oris-en-Rattie    112.34 319  ePKPdf  PKiKP    14 44 03.9 +1.6
ORIF   Oris-en-Rattie    112.34 319  ePKIKP  PKiKP    14 44 03.9 +1.6
EGMT   Eagleton          112.42  37   PFAKE           14 44 10.0 +7.7
EGMT                                  LR     LR
       comp=Z,3µm,20.0s,MS5.9
PFO    Pinyon Flat Ob    112.50  54   PFAKE           14 44 20.0  +17
PFO                                   LR     LR
       comp=Z,3µm,21.0s,MS5.9
LMR    La Mourre         112.51 317  ePKIKP  PKiKP    14 44 04.0 +1.4
LMR    La Mourre         112.51 317  ePKPdf  PKiKP    14 44 04.0 +1.4
LMR    La Mourre         112.51 317  ePKIKP  PKiKP    14 44 04.0 +1.4
LOR    Lormes            112.69 322  ePKIKP  PKiKP    14 44 04.8 +2.0
LOR                                  eMLR    MLR
       comp=Z,2µm,19.0s,MS5.3
LOR    Lormes            112.69 322  ePKPdf  PKiKP    14 44 04.8 +2.0
LOR                                   LR     LR
       comp=Z,2µm,19.0s,MS5.6
LOR    Lormes            112.69 322  ePKIKP  PKiKP    14 44 04.8 +2.0
LOR                                   MLR    MLR
       comp=Z,2µm,19.0s,MS5.6
TAVF   Tavernes          112.71 318  eP      PP       14 44 55.5 +5.3
SMRF   Simiane la Rot    112.90 318  ePKIKP  PKiKP    14 44 05.1 +1.7
SMRF   Simiane la Rot    112.90 318  ePKPdf  PKiKP    14 44 05.1 +1.7
SMF    Signal de Mont    112.96 321  ePKIKP  PKiKP    14 44 05.2 +1.8
SMF    Signal de Mont    112.96 321  ePKPdf  PKiKP    14 44 05.2 +1.8
SMF    Signal de Mont    112.96 321  ePKIKP  PKiKP    14 44 05.2 +1.8
SSF    Saint Saulge      113.00 322  ePKIKP  PKiKP    14 44 04.8 +1.4
       comp=Z,32nm,1.2s
SSF    Saint Saulge      113.00 322  ePKPdf  PKiKP    14 44 04.8 +1.4
SSF    Saint Saulge      113.00 322  ePKIKP  PKiKP    14 44 04.8 +1.4
YMR    Madison River     113.02  41   PFAKE           14 44 20.0  +16
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YMR				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
VIVF	**Saint-Julien-l**	**113.16**	**319**	*e*PKIKP	PKiKP	14 44 05.2	+1.4
VIVF	**Saint-Julien-l**	**113.16**	**319**	*e*PKPdf	PKiKP	14 44 05.2	+1.4
VIVF	**Saint-Julien-l**	**113.16**	**319**	*e*PKIKP	PKiKP	14 44 05.2	+1.4
AVF	**Avril sur Loir**	**113.20**	**322**	*e*PKIKP	PKiKP	14 44 05.6	+1.8
AVF	**Avril sur Loir**	**113.20**	**322**	*e*PKPdf	PKiKP	14 44 05.6	+1.8
AVF	**Avril sur Loir**	**113.20**	**322**	*e*PKIKP	PKiKP	14 44 05.6	+1.8
GELF	**Grande-Etoile**	**113.22**	**317**	*e*P	PP	14 44 59.4	+5.5
PRAF	**Pradon**	**113.24**	**318**	*e*P	PP	14 44 57.6	+3.6
FFC	**Flin Flon**	**113.29**	**28**	PFAKE		14 44 20.0	+16
FFC				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
DUG	**Dugway**	**113.37**	**46**	PFAKE		14 44 20.0	+16
DUG				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
PLDF	**La Plantade**	**113.38**	**321**	*e*P	PP	14 44 59.3	+4.4
LKWY	**Lake**	**113.43**	**41**	PFAKE		14 44 20.0	+16
LKWY				LR	LR		
	comp=Z,5µm,22.0s,MS6.0						
BGF	**Bois d'Agland**	**113.62**	**321**	*e*PKIKP	PKiKP	14 44 06.3	+1.7
BGF	**Bois d'Agland**	**113.62**	**321**	*e*PKPdf	PKiKP	14 44 06.3	+1.7
BGF	**Bois d'Agland**	**113.62**	**321**	*e*PKIKP	PKiKP	14 44 06.3	+1.7
AHID	**Auburn Hatcher**	**113.66**	**43**	PFAKE		14 44 20.0	+15
AHID				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
AGO	**Saint Agoulin**	**113.66**	**321**	*e*P	PP	14 45 01.8	+4.9
HWUT	**Hardware Ranch**	**113.76**	**44**	PFAKE		14 44 20.0	+15
HWUT				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
PMSA	**Palmer Station**	**113.83**	**175**	PFAKE		14 44 20.0	+15
PMSA				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
LBL	**Lubilhac**	**113.93**	**320**	*e*P	PP	14 45 03.9	+5.1
RLMT	**Red Lodge**	**113.94**	**40**	PFAKE		14 44 20.0	+15
RLMT				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
CMAH	**Djebel Manchou**	**114.08**	**310**	P	PP	14 45 02.0	+1.7
TCF	**Toulx Ste Croi**	**114.13**	**321**	*e*PKIKP	PKiKP	14 44 07.5	+1.9
	comp=Z,11nm,0.7s						
TCF	**Toulx Ste Croi**	**114.13**	**321**	*e*PKPdf	PKiKP	14 44 07.5	+1.9
TCF	**Toulx Ste Croi**	**114.13**	**321**	*e*PKIKP	PKiKP	14 44 07.5	+1.9
CGMA	**Guelma**	**114.14**	**310**	P	PP	14 45 03.0	+2.3
MPU	**Maple Canyon**	**114.28**	**46**	PFAKE		14 44 20.0	+14
MPU				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
LDF	**La Druitiere**	**114.48**	**324**	*e*PKIKP	PKiKP	14 44 08.1	+1.9
LDF	**La Druitiere**	**114.48**	**324**	*e*PKPdf	PKiKP	14 44 08.1	+1.9
LDF	**La Druitiere**	**114.48**	**324**	*e*PKIKP	PKiKP	14 44 08.1	+1.9
FLN	**La Foliniere**	**114.61**	**325**	*e*PKIKP	PKiKP	14 44 08.4	+1.9
FLN				*e*MLR	MLR		
	comp=Z,2µm,21.0s,MS5.4						
FLN	**La Foliniere**	**114.61**	**325**	*e*PKPdf	PKiKP	14 44 08.4	+1.9
FLN				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
FLN	**La Foliniere**	**114.61**	**325**	*e*PKIKP	PKiKP	14 44 08.4	+1.9
FLN				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.7						
CKFL	**Kef-Lekhel**	**114.69**	**310**	P	PP	14 45 05.0	+0.4
BW06	**Boulder Array**	**114.70**	**43**	PFAKE		14 44 20.0	+13
BW06				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
PDAR	**Pinedale Array**	**114.70**	**43**	PKP	PKiKP	14 44 07.4	+0.6
PDAR				PKKPbc	PKKPbc	14 54 44.3	-1.6
PDAR	**Pinedale Array**	**114.70**	**43**	PKP	PKiKP	14 44 07.4	+0.6
	comp=Z,0.6nm,0.8s,baz=172,slow=1.8,SNR=3.6						
PDAR				PKKPbc	PKKPbc	14 54 44.3	-1.6
	comp=Z,2.0nm,0.8s,baz=114,slow=5.1,SNR=9.9						
CAF	**Calviac**	**114.82**	**320**	*e*PKIKP	PKiKP	14 44 09.0	+2.0
CAF	**Calviac**	**114.82**	**320**	*e*PKPdf	PKiKP	14 44 09.0	+2.0
CAF	**Calviac**	**114.82**	**320**	*e*PKIKP	PKiKP	14 44 09.0	+2.0
LAO	**LASA Array**	**115.16**	**38**	PFAKE		14 44 20.0	+12
LAO				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
LRDF	**Laroque-de-Fa**	**115.34**	**318**	*e*P	PP	14 45 13.2	+4.3
MTLF	**Montolieu**	**115.39**	**318**	*e*PKIKP	PKPdf	14 44 09.4	+1.3
MTLF	**Montolieu**	**115.39**	**318**	*e*PKPdf	PKPdf	14 44 09.4	+1.3
MTLF	**Montolieu**	**115.39**	**318**	*e*PKIKP	PKPdf	14 44 09.4	+1.3
SRU	**San Rafael**	**115.40**	**47**	*e*PKPdf	PKPdf	14 44 10.3	+2.0
SRU	**San Rafael**	**115.40**	**47**	*e*PKIKP	PKPdf	14 44 10.3	+2.0
MFF	**Saint Martin d**	**115.44**	**323**	*e*PKIKP	PKPdf	14 44 10.2	+2.1
	comp=Z,65nm,1.3s						
MFF	**Saint Martin d**	**115.44**	**323**	*e*PKPdf	PKPdf	14 44 10.2	+2.1
MFF	**Saint Martin d**	**115.44**	**323**	*e*PKIKP	PKPdf	14 44 10.2	+2.1
FILF	**Fillols**	**115.48**	**318**	*e*P	PP	14 45 14.1	+4.2
DGMT	**Dagmar**	**115.50**	**35**	PFAKE		14 44 20.0	+12
DGMT				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
CMER	**Merouana**	**115.56**	**309**	P	PP	14 45 08.0	-2.8
SET	**Setif**	**115.76**	**310**	P	PP	14 45 11.0	-1.2
VALF	**Valcebollere**	**115.91**	**318**	*e*P	PP	14 45 16.9	+4.0
WUAZ	**Wupatki**	**115.98**	**51**	PFAKE		14 44 20.0	+10
WUAZ				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
SGMF	**Saint Gilles**	**116.05**	**325**	*e*PKIKP	PKPdf	14 44 11.1	+1.8
	comp=Z,40nm,1.0s						
SGMF	**Saint Gilles**	**116.05**	**325**	*e*PKPdf	PKPdf	14 44 11.1	+1.8
SGMF	**Saint Gilles**	**116.05**	**325**	*e*PKIKP	PKPdf	14 44 11.1	+1.8
MLS	**Moulis**	**116.29**	**318**	*e*P	PP	14 45 18.7	+3.2
QUIF	**Quistinic**	**116.58**	**325**	*e*PKIKP	PKPdf	14 44 11.8	+1.5
QUIF	**Quistinic**	**116.58**	**325**	*e*PKPdf	PKPdf	14 44 11.8	+1.5
QUIF	**Quistinic**	**116.58**	**325**	*e*PKIKP	PKPdf	14 44 11.8	+1.5
EPF	**Esparros**	**116.76**	**319**	*e*PKIKP	PKPdf	14 44 12.6	+1.8
EPF	**Esparros**	**116.76**	**319**	*e*PKPdf	PKPdf	14 44 12.6	+1.8
EPF	**Esparros**	**116.76**	**319**	*e*PKIKP	PKPdf	14 44 12.6	+1.8
RESF	**Ens**	**116.86**	**319**	*e*P	PP	14 45 23.6	+4.1
VIEF	**Viey**	**117.03**	**319**	*e*P	PP	14 45 24.9	+4.2
ETSF	**Etsaut**	**117.41**	**319**	*e*PKIKP	PKPdf	14 44 13.8	+1.7
	comp=Z,25nm,0.9s						
ETSF	**Etsaut**	**117.41**	**319**	*e*PKPdf	PKPdf	14 44 13.8	+1.7
ETSF	**Etsaut**	**117.41**	**319**	*e*PKIKP	PKPdf	14 44 13.8	+1.7
ATE	**Arette**	**117.42**	**319**	*e*P	PP	14 45 27.1	+3.7
TUC	**Tucson**	**117.44**	**54**	PFAKE		14 44 20.0	+7.6
TUC				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
MVCO	**Mesa Verde**	**117.58**	**48**	PFAKE		14 44 20.0	+7.4
MVCO				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
EMHD	**Djebel Mahouad**	**117.62**	**311**	P	PP	14 45 23.2	-1.9
RSSD	**Black Hills**	**117.73**	**39**	PFAKE		14 44 20.0	+7.4
RSSD				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
SJPF	**Ste Jean**	**117.75**	**319**	*e*PKIKP	PKPdf	14 44 14.3	+1.6
	comp=Z,11nm,0.8s						
SJPF	**Ste Jean**	**117.75**	**319**	*e*PKPdf	PKPdf	14 44 14.3	+1.6
SJPF	**Ste Jean**	**117.75**	**319**	*e*PKIKP	PKPdf	14 44 14.3	+1.6
ISCO	**Idaho Springs**	**118.63**	**44**	PFAKE		14 44 30.0	+15
ISCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
EBNR	**Beni Rached**	**118.66**	**311**	P	PP	14 45 28.1	-4.2
ECHA	**Ech Chlef**	**118.84**	**311**	P	PP	14 45 30.0	-3.5
ULM	**Lac du Bonnet**	**118.96**	**30**	PKP	PKPdf	14 44 14.6	-0.2
ULM				PKKPbc	PKKPbc	14 54 30.0	-1.0
ULM	**Lac du Bonnet**	**118.96**	**30**	PKP	PKPdf	14 44 14.6	-0.2
	comp=Z,3.7nm,0.6s,baz=280,slow=1.5,SNR=9.8						
ULM				PKKPbc	PKKPbc	14 54 30.0	-1.0
	comp=Z,0.6nm,0.5s,baz=90,slow=1.0,SNR=2.4						
RPN	**Rapa Nui**	**119.05**	**122**	PFAKE		14 44 30.0	+14
RPN				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
EANR	**'Ain N'Sour**	**119.11**	**311**	P	PP	14 45 33.0	-2.4
ETRT	**Tiaret**	**119.17**	**311**	P	PP	14 45 35.3	-0.5
OKGL	**Djebel Kef Gue**	**119.42**	**311**	P	PP	14 45 37.0	-0.6
OJGS	**Djebel Guires**	**119.54**	**311**	P	PP	14 45 38.0	-0.4
SDCO	**Great Sand Dun**	**119.57**	**46**	PFAKE		14 44 30.0	+14
SDCO				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
OJBR	**Djebel Berber**	**119.82**	**311**	P	PP	14 45 40.0	-0.3
ANMO	**Albuquerque**	**119.95**	**50**	PFAKE		14 44 30.0	+13
ANMO				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
ANMO	**Albuquerque**	**119.95**	**50**	*e*PKIKP	PKPdf	14 44 22.7	+5.5
LPM	**Los Pinos Moun**	**120.05**	**50**	*e*PKPdf	PKPdf	14 44 19.7	+2.3
BNM	**Barren Site**	**120.11**	**51**	PKPdf	PKPdf	14 44 16.9	-0.6
AGMN	**Agassiz Refuge**	**120.19**	**32**	PFAKE		14 44 30.0	+13
AGMN				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
ODJA	**Bouhanifia**	**120.29**	**311**	P	PP	14 45 45.0	+1.5
ESDC	**Sonseca Array**	**121.17**	**317**	PKP	PKPdf	14 44 19.2	-0.2
ESDC				PP	PP	14 45 51.6	+2.3
ESDC	**Sonseca Array**	**121.17**	**317**	PKP	PKPdf	14 44 19.2	-0.2
	comp=Z,0.8nm,0.5s,baz=29,slow=3.1,SNR=6.8						
ESDC				PP	PP	14 45 51.6	+2.3
	comp=Z,27nm,1.2s,baz=63,slow=5.4,SNR=17						
PAB	**San Pablo**	**121.50**	**317**	PFAKE		14 44 30.0	+10
PAB				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
MNTX	**Cornudas Mount**	**121.98**	**53**	PFAKE		14 44 30.0	+8.8
MNTX				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
ECSD	**EROS,Sioux Fal**	**122.49**	**36**	*e*PKPdf	PKPdf	14 44 21.1	-0.7
ECSD				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
EYMN	**Ely**	**122.65**	**30**	PFAKE		14 44 30.0	+8.0
EYMN				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
CBKS	**Cedar Bluff**	**123.13**	**43**	PFAKE		14 44 40.0	+17
CBKS				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
PCBR	**Castelo Branco**	**123.44**	**319**	*e*PP	PP	14 46 16.3	+12
LTX	**Lajitas**	**124.20**	**55**	*e*PKPdf	PKPdf	14 44 25.7	+0.2
LTX				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
LTX	**Lajitas**	**124.20**	**55**	*e*PKIKP	PKPdf	14 44 25.7	+0.2
LTX				MLR	MLR		
	comp=Z,6µm,20.0s,MS6.2						
TXAR	**Lajitas Array**	**124.20**	**55**	PKP	PKPdf	14 44 25.8	+0.2
TXAR				PKKPbc	PKKPbc	14 54 09.8	-0.6
TXAR	**Lajitas Array**	**124.20**	**55**	PKIKP	PKPdf	14 44 25.8	+0.3
TXAR	**Lajitas Array**	**124.20**	**55**	PKP	PKPdf	14 44 25.8	+0.2
	comp=Z,1.3nm,0.9s,baz=180,slow=0.3,SNR=8.8						
TXAR				PKKPbc	PKKPbc	14 54 09.8	-0.6
	comp=Z,0.3nm,0.7s,baz=134,slow=3.6,SNR=3.2						
EVO	**Evora**	**124.47**	**318**	*e*PP	PP	14 46 19.6	+8.0
TORD	**Torodi Ar. Bea**	**124.56**	**285**	PKP	PKPdf	14 44 26.4	-0.1
TORD				PP	PP	14 46 09.5	-3.9
TORD				PKKPbc		14 54 11.0	
TORD	**Torodi Ar. Bea**	**124.56**	**285**	PKP	PKPdf	14 44 26.4	-0.1
	comp=Z,14nm,0.7s,baz=58,slow=1.9,SNR=39						
TORD				PP	PP	14 46 09.5	-3.9
	comp=Z,15nm,1.0s,baz=62,slow=5.1,SNR=6.8						
TORD				PKKPbc		14 54 11.0	
	comp=Z,1.1nm,0.7s,baz=286,slow=3.8,SNR=3.7						
PVAQ	**Vaqueiros**	**124.85**	**316**	*e*PP	PP	14 46 21.6	+7.4
KSU1	**Kansas State U**	**125.07**	**41**	PKPdf	PKPdf	14 44 26.1	-0.9
KSU1				LR	LR		
	comp=Z,4µm,22.0s,MS6.0						
COWI	**Conover**	**125.09**	**30**	PFAKE		14 44 40.0	+13
COWI				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
SCHQ	**Schefferville**	**125.21**	**10**	PKP	PKPdf	14 44 26.3	-0.4
SCHQ	**Schefferville**	**125.21**	**10**	PKP	PKPdf	14 44 26.3	-0.4
	comp=Z,5.7nm,0.6s,baz=320,slow=3.7,SNR=15						
SCIA	**State Center**	**125.59**	**36**	PFAKE		14 44 40.0	+12
SCIA				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
WMOK	**Wichita Mounta**	**125.76**	**47**	PFAKE		14 44 40.0	+12
WMOK				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
JFWS	**Jewell Farm**	**126.65**	**34**	*e*PKPdf	PKPdf	14 44 29.9	+0.1
JFWS				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
JFWS	**Jewell Farm**	**126.65**	**34**	*e*PKIKP	PKPdf	14 44 29.9	+0.1
JFWS				MLR	MLR		
	comp=Z,3µm,21.0s,MS6.0						
JCT	**Junction City**	**126.86**	**52**	*e*PKPdf	PKPdf	14 44 29.7	-0.9
JCT				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
JCT	**Junction City**	**126.86**	**52**	*e*PKIKP	PKPdf	14 44 29.7	-0.9
JCT				MLR	MLR		
	comp=Z,4µm,20.0s,MS6.1						
EFI	**East Falkland**	**127.29**	**176**	PFAKE		14 44 40.0	+9.2
EFI				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
GLMI	**Grayling**	**128.22**	**28**	PFAKE		14 44 40.0	+7.3
GLMI				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
HDIL	**Hopedale**	**128.73**	**35**	PFAKE		14 44 50.0	+16
HDIL				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
MIAR	**Mount Ida**	**129.57**	**44**	*e*PKPdf	PKPdf	14 44 36.8	+1.1
MIAR				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
MIAR	**Mount Ida**	**129.57**	**44**	*e*PKIKP	PKPdf	14 44 36.8	+1.2
MIAR				MLR	MLR		
	comp=Z,3µm,21.0s,MS6.0						
KVTX	**Kingsville**	**129.58**	**54**	PFAKE		14 44 50.0	+14
KVTX				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
HKT	**Hockley**	**130.19**	**51**	PFAKE		14 44 50.0	+13
HKT				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
NATX	**Nacogdoches**	**130.22**	**48**	PFAKE		14 44 50.0	+13
NATX				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
AAM	**Ann Arbor**	**130.56**	**30**	PFAKE		14 44 50.0	+13
AAM				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
KIC	**Kosan Boka**	**131.59**	**278**	*e*PKP1	PKPdf	14 44 41.2	+1.2
	comp=Z,116nm,1.2s						
TIC	**Toumodi**	**131.84**	**278**	*e*PKP1	PKPdf	14 44 40.3	-0.2
	comp=Z,13nm,0.2s						
LIC	**Lamto**	**131.88**	**277**	*e*PKIKP	PKPdf	14 44 40.9	+0.3
	comp=Z,75nm,1.2s						
LIC				*e*MLR	MLR		
	comp=Z,1µm,22.8s,MS5.2						
LIC	**Lamto**	**131.88**	**277**	*e*PKP1	PKPdf	14 44 40.9	+0.3
	comp=Z,83nm,1.2s						
LIC	**Lamto**	**131.88**	**277**	*e*PKPdf	PKPdf	14 44 40.9	+0.3
LIC				LR	LR		
	comp=Z,590nm,22.8s,MS5.2						
WCI	**Wyandotte Cave**	**132.01**	**36**	PFAKE		14 44 50.0	+10
WCI				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
OXF	**Oxford**	**132.43**	**42**	PFAKE		14 44 50.0	+9.0
OXF				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
ACSO	**Alum Creek Sta**	**132.43**	**31**	PFAKE		14 44 50.0	+9.1
ACSO				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
WVT	**Waverly**	**132.45**	**39**	*e*PKPdf	PKPdf	14 44 41.3	+0.3
WVT				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
WVT	**Waverly**	**132.45**	**39**	*e*PKIKP	PKPdf	14 44 41.3	+0.3
WVT				MLR	MLR		
	comp=Z,3µm,19.0s,MS6.0						
LONY	**Lake Ozonia**	**132.58**	**21**	PFAKE		14 44 50.0	+9.0
LONY				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
PLAL	**Pickwick Lake**	**133.01**	**40**	*e*PKPdf	PKPdf	14 44 42.4	+0.3
PLAL				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
NCB	**Newcomb**	**133.27**	**21**	PFAKE		14 44 50.0	+7.7
NCB				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
PKME	**Peaks-Kenny Pk**	**133.68**	**16**	PFAKE		14 45 00.0	+17
PKME				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
LBNH	**Lisbon**	**133.82**	**19**	PFAKE		14 45 00.0	+17
LBNH				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
BINY	**Binghamton**	**134.11**	**24**	PFAKE		14 45 00.0	+16
BINY				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
MCWV	**Mont Chateau**	**134.44**	**29**	PFAKE		14 45 00.0	+15
MCWV				LR	LR		
	comp=Z,4µm,21.0s,MS6.1						
SSPA	**Standing Stone**	**134.59**	**27**	PFAKE		14 45 00.0	+15
SSPA				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
TZTN	**Tazewell**	**134.76**	**35**	PFAKE		14 45 00.0	+15
TZTN				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
LRAL	**Lakeview Retre**	**134.92**	**42**	*e*PKPdf	PKPdf	14 44 47.0	+1.2
LRAL				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
HRV	**Harvard--Oak R**	**135.49**	**20**	PFAKE		14 45 00.0	+13
HRV				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
WES	**Weston**	**135.68**	**19**	PFAKE		14 45 00.0	+13
WES				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
BLA	**Blacksburg**	**136.01**	**32**	PFAKE		14 45 00.0	+12
BLA				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
BRAL	**Brewton**	**136.09**	**44**	PFAKE		14 45 00.0	+12
BRAL				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
CBN	**Corbin**	**136.77**	**28**	PFAKE		14 45 00.0	+11
CBN				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
GOGA	**Godfrey**	**136.94**	**38**	PFAKE		14 45 00.0	+10
GOGA				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
CNNC	**Cliffs of the**	**138.83**	**32**	PFAKE		14 45 10.0	+17
CNNC				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
NHSC	**New Hope**	**139.14**	**36**	PFAKE		14 45 10.0	+16
NHSC				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
ASCN	**Ascension**	**140.47**	**256**	PFAKE		14 45 10.0	+13
ASCN				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
TEIG	**Tepich**	**140.59**	**59**	PFAKE		14 45 10.0	+13
TEIG				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
DWPF	**Disney**	**141.73**	**43**	PFAKE		14 45 10.0	+12
DWPF				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
PAYG	**Puerto Ayora**	**142.66**	**92**	PFAKE		14 45 10.0	+10
PAYG				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
SOR	**Soroa**	**143.70**	**51**	*e*P	PKPdf	14 45 00.4	-1.6
TGUH	**Tegucigalpa,Un**	**143.71**	**67**	PFAKE		14 45 10.0	+7.8
TGUH				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
LPA	**La Plata**	**143.93**	**173**	*ce*PKP	PKPdf	14 45 00.0	-2.1
CFAA	**Coronel Fontan**	**144.45**	**157**	PKP	PKPdf	14 45 02.5	-0.7
CFAA	**Coronel Fontan**	**144.45**	**157**	PKP	PKPdf	14 45 02.5	-0.6
	comp=Z,4.9nm,0.8s,baz=221,slow=2.9,SNR=28						
LCO	**Las Campanas**	**145.63**	**152**	*e*PKP	PKPdf	14 45 06.8	+1.6
LCO				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
JTS	**JuntasAbangare**	**146.93**	**73**	*e*PKPbc	PKPbc	14 45 10.7	+0.9
JTS				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
JTS	**JuntasAbangare**	**146.93**	**73**	PKP2	PKPab	14 45 10.2	-0.9
JTS				pmax	pmax		
	comp=Z,18nm,0.8s						
JTS	**JuntasAbangare**	**146.93**	**73**	PKPbc	PKPbc	14 45 10.2	+0.5
	comp=Z,18nm,0.8s,baz=310,slow=5.3,SNR=9.8						
NNA	**Nana**	**153.00**	**119**	PKP	PKPdf	14 45 17.4	0.0
NNA				PKPbc	PKPbc	14 45 26.8	+2.1
NNA				LR	LR		
	comp=Z,2µm,20.0s,MS6.0						
NNA	**Nana**	**153.00**	**119**	PKP	PKPdf	14 45 17.4	0.0
	comp=Z,4.7nm,0.5s,baz=207,slow=4.8						
NNA				PKPbc	PKPbc	14 45 26.8	+2.1
	baz=231,slow=6.5						
ATAH	**Atahualpa**	**153.41**	**108**	PKP	PKPdf	14 45 19.4	+1.5
	comp=Z,3.9nm,0.7s,baz=110,slow=11,SNR=4.6						
ATAH				PKPbc	PKPbc	14 45 26.9	+1.3
	comp=Z,6.4nm,0.8s,baz=111,slow=14,SNR=6.3						
OTAV	**Otavalo**	**154.52**	**92**	PFAKE		14 45 30.0	+10
OTAV				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
SDDR	**Presa de Saban**	**154.71**	**44**	PFAKE		14 45 30.0	+10
SDDR				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
LPAZ	**La Paz**	**157.19**	**140**	PKP	PKPdf	14 45 24.6	+1.6
LPAZ	**La Paz**	**157.19**	**140**	PKIKP	PKPdf	14 45 24.6	+1.6
LPAZ	**La Paz**	**157.19**	**140**	PKP	PKPdf	14 45 24.6	+1.6
	comp=Z,3.4nm,1.1s,baz=360,slow=3.4,SNR=7.4						
SJG	**San Juan**	**158.68**	**37**	PFAKE		14 45 40.0	+15
SJG				LR	LR		
	comp=Z,1µm,20.0s,MS5.8						
SIV	**San Ignacio**	**161.28**	**155**	PKP	PKPdf	14 45 27.9	+0.1
SIV	**San Ignacio**	**161.28**	**155**	PKP	PKPdf	14 45 27.9	+0.1
	comp=Z,2.7nm,0.8s,baz=242,slow=1.5,SNR=9.0						
RCBR	**Riachuelo**	**161.62**	**248**	PFAKE		14 45 40.0	+12
RCBR				LR	LR		
	comp=Z,1µm,19.0s						
BBGH	**Gun Hill**	**166.33**	**28**	PFAKE		14 45 40.0	+7.5
BBGH				LR	LR		
	comp=Z,3µm,22.0s						

MAN 20 14:32:59, 1595N×12121E, h1^{km}, mb4.4, ML3.3, MS3.1, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
BOLP	**Bolinao**	**1.32**	**289**	*e*P	Pg	14 33 24.8	+0.5
ABRA	**Dolores**	**1.76**	**344**	*e*P	Pn	14 33 31.8	+1.2
APYP	**Conner**	**1.90**	**1**	*e*P	Pn	14 33 33.8	+1.2

IDC ***20*** *14:43:06.3±1.4, 47.12N×15393E, h0^{km}, mb3.5/5, mb1 3.7/6, mb1mx3.5/22, mbtmp3.6/6, ML3.5/1, Error ellipse: s-maj=37.7km s-min=25.6km az=131.0*

ISCJB ***20*** *14:43:09.4±1.2, 47.1N±02×1538E±02, h33^{km}, mb3.5/5, Error ellipse: s-maj=33.8km s-min=15.2km az=143.2*

MOS ***20*** *14:43:20.6±0.7, 4722N×15373E, h133^{km}, mb3.8/2, Error ellipse: s-maj=65.1km s-min=43.8km az=56.9*

ISC 20 14:43:11.8±1.2, **471N**±02×**1538E**±02, **h35^{km}, n11, σ1^{s}10**/12, **mb3.5**/5, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**4.53**	**248**	PN	**Pn**	**14 44 28.5**	**+11**
KUR				*e*S	**Sn**	**14 45 18.5**	**+9.4**
KUR				smax			
	comp=N,170nm,0.5s						
KUR				smax			
	comp=E,80nm,0.5s						
YUK	**Yuzh-Kuril'sk**	**6.36**	**244**	*e*PN	**Pn**	**14 44 41.6**	**-1.3**
ASAJ	**Asahikawa**	**8.41**	**254**	PN	**Pn**	**14 45 12.2**	**+1.2**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**8.41**	**254**	Pn	**Pn**	**14 45 12.2**	**+1.2**
	comp=Z,0.6nm,0.3s,baz=91,slow=17,SNR=6.4						
KSRS	**Korea Array**	**21.36**	**253**	P	**P**	**14 47 55.2**	**-0.6**
	comp=Z,0.5nm,0.7s,mb3.0,baz=46,slow=12,SNR=3.2						
MKAR	**Makanchi Array**	**47.23**	**297**	P	**P**	**14 51 42.5**	**+1.5**
	comp=Z,0.2nm,0.7s,mb3.2,baz=69,slow=7.9,SNR=2.5						
YKA	**Yellowknife Ar**	**50.38**	**37**	P	**P**	**14 52 05.1**	**+0.2**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	**Yellowknife Ar**	**50.38**	**37**	P	**P**	**14 52 05.1**	**+0.3**
	comp=Z,0.7nm,0.7s,mb3.8,baz=291,slow=6.7,SNR=4.6						
FINES	**FINESS Array B**	**63.96**	**335**	P	**P**	**14 53 39.2**	**-1.6**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	**FINESS Array B**	**63.96**	**335**	P	**P**	**14 53 39.2**	**-1.6**
	comp=Z,0.7nm,0.3s,mb4.1,baz=41,slow=6.7,SNR=12						
ASAR	**Alice Springs**	**72.67**	**199**	P	**P**	**14 54 36.0**	**+0.4**
	comp=Z,0.3nm,0.6s,mb3.4,baz=11,slow=5.5,SNR=6.4						

IDC 20 14:45:24.1±1.2, **090S×12739E, h0^{km}, mb3.9**/5, **mb1 4.1**/5, **mb1mx3.8**/16, **mbtmp4.0**/5, **Error ellipse: s-maj=121.5km s-min=18.7km az=68.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**20.11**	**161**	P	P	14 49 59.0	-0.6
	2.3nm,0.6s,baz=341,slow=12,SNR=17						
ASAR	**Alice Springs**	**23.50**	**165**	P	P	14 50 35.3	-0.6
	2.8nm,0.7s,baz=345,slow=12,SNR=20						
STKA	**Stephens Creek**	**33.61**	**158**	P	P	14 52 07.2	+1.0
	3.1nm,0.7s,baz=324,slow=8.7,SNR=7.8						
SONM	**Songino Array**	**51.87**	**342**	P	P	14 54 34.7	+0.6
	0.7nm,0.6s,baz=145,slow=7.5,SNR=7.2						
MKAR	**Makanchi Array**	**61.73**	**326**	P	P	14 55 44.0	-0.3
	0.7nm,0.3s,baz=125,slow=7.9,SNR=15						

NEIC ***20*** *14:58:39.0±1.8, 762S×15139E, h10^{km}, Error ellipse: s-maj=54.6km s-min=20.1km az=128.0*

IDC ***20*** *14:58:38.3±2.5, 754S×15123E, h0^{km}, mb4.0/4, mb1 4.2/5, mb1mx3.9/14, mbtmp4.1/5, ML2.9/1, Error ellipse: s-maj=72.7km s-min=29.6km az=126.0*

ISC 20 14:58:43.0±7.5, **76S**±03×**1513E**±02, **h34^{km}**±57^{km}, **n8, σ0^{s}63**/8, **mb3.9**/3, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**4.46**	**247**	Pn	**Pn**	**14 59 48.2**	**+0.1**
PMG				Sn	**Sn**	**15 00 39.0**	**+0.1**
PMG	**Port Moresby**	**4.46**	**247**	Pn	**Pn**	**14 59 48.2**	**+0.1**
	4.2nm,0.3s,baz=58,slow=9.4,SNR=18						
PMG				Sn	**Sn**	**15 00 38.9**	**+0.1**
	6.8nm,0.3s,baz=86,slow=20,SNR=6.1						

WRA	Warramunga Arr	20.49	232	P	P	15 03 17.5	-0.6
	3.0nm,0.5s,baz=58,slow=11,SNR=42						
ASAR	Alice Springs	23.07	224	P	P	15 03 46.5	+0.7
	1.9nm,0.4s,mb3.9,baz=54,slow=9.1,SNR=76						
FITZ	Fitzroy Crossi	27.05	245	P	P	15 04 21.9	-0.5
	5.2nm,0.6s,mb4.2,baz=68,slow=8.9,SNR=28						
MKAR	Makanchi Array	81.49	320	P	P	15 10 57.0	+0.2
	0.4nm,0.8s,mb3.4,baz=101,slow=6.3,SNR=4.7						
TORD	Torodi Ar. Bea	149.63	283	PKPbc	PKPbc	15 18 30.6	+0.5
TORD	Torodi Ar. Bea	149.63	283	PKPbc	PKPbc	15 18 30.6	+0.5
	0.4nm,0.5s,baz=69,slow=2.4,SNR=4.1						

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*BJI **20** 15:12:35.2,1.10S×126.90E,h10^{km},mb4.4*
*NEIC **20** 15:12:37.2±0.4,1.06S×126.87E,h10^{km},mb4.7/6,Error ellipse: s-maj=14.1km s-min=7.2km az=61.0*
*IDC **20** 15:12:39.7±3.1,1.10S×126.76E,h26^{km}±21^{km},mb4.1/13, mb1 4.2/14,mb1mx4.1/23,mbtmp4.1/14,ML3.8/1,Error ellipse: s-maj=26.5km s-min=12.5km az=67.0*
*ISCJB **20** 15:12:42.1±3.6,1.10S±0.09×126.83E±0.10,h67^{km}±36^{km}, mb4.2/17,Error ellipse: s-maj=20.0km s-min=10.7km az=138.2*
ISC 20 15:12:43.2±3.0,**1.12S**±0.09×**126.83E**±0.09,**h59**^{km}±32^{km}, **n29,σ0^{s}86**/29,**mb4.3**/17,**Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSM	Kuching	16.72	279	*e*P	Pn	15 16 33.1	-0.5
FITZ	Fitzroy Crossi	16.92	184	Pn	Pn	15 16 36.5	+0.4
	0.2nm,0.3s,baz=23,slow=9.7,SNR=12						
WRA	Warramunga Arr	20.10	159	P	P	15 17 10.2	-1.9
	3.5nm,0.4s,baz=341,slow=11,SNR=89						
COEN	Coen	20.60	129	*e*P	P	15 17 17.0	-0.6
PMG	Port Moresby	21.84	113	P	P	15 17 32.4	+1.5
	12nm,0.8s,mb4.4,baz=264,slow=14,SNR=4.5						
ASAR	Alice Springs	23.44	164	P	P	15 17 46.0	-1.3
	10nm,0.8s,mb4.3,baz=344,slow=9.4,SNR=109						
ASAR				ScP	ScP	15 25 09.6	+4.1
	0.4nm,0.9s,baz=0.5,slow=3.4,SNR=4.1						
CTA	Charters Tower	26.77	136	P	P	15 18 19.3	+1.7
	7.1nm,1.0s,mb4.2,baz=292,slow=5.4,SNR=3.4						
JOW	Kunigami	27.82	3	P	P	15 18 26.6	-0.4
	6.7nm,0.8s,mb4.3,baz=188,slow=14,SNR=8.2						
PSI	Prapat	28.16	278	P	P	15 18 30.9	+0.7
PSI	Prapat	28.16	278	P	P	15 18 30.9	+0.7
	3.9nm,0.8s,mb4.1,baz=94,slow=5.4,SNR=8.5						
STKA	Stephens Creek	33.62	157	P	P	15 19 18.7	+0.6
	11nm,0.7s,mb4.9,baz=331,slow=7.4,SNR=19						
KSRS	Korea Array	38.39	1	P	P	15 19 58.2	-0.6
	2.2nm,0.6s,mb4.0,baz=177,slow=9.6,SNR=16						
MJAR	Matsushiro Arr	38.93	15	P	P	15 20 03.6	+0.2
	0.9nm,0.7s,mb3.6,baz=168,slow=13,SNR=4.5						
BJT	Baijiatuau	42.08	348	*e*P	P	15 20 28.8	-0.5
LZH	Lanzhou	42.76	332	*e*P	P	15 20 36.3	+1.5
LZH				AP	pP	15 20 40.5	-9.5
LZH				XP	sP	15 20 43.1	-14
LZH				AMB	AMB		
	comp=Z,19nm,1.4s,mb4.6						
LZH	Lanzhou	42.76	332	*e*P	P	15 20 36.2	+1.4
	comp=Z,19nm,1.4s,mb4.6						
LZH				pP	pP	15 20 40.5	-9.5
LZH				sP	sP	15 20 43.1	-14
LSA	Lhasa	45.80	315	*e*P	P	15 21 00.3	+1.0
GTA	Gaotai	47.33	331	*e*P	P	15 21 15.8	+4.7
GTA				AP	pP	15 21 19.3	-7.1
GTA				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.4						
HYB	Hyderabad	50.98	293	*e*P	P	15 21 40.0	+0.6
HYB	Hyderabad	50.98	293	*i*P	P	15 21 40.0	+0.6
SONM	Songino Array	51.91	343	P	P	15 21 45.9	+0.2
	comp=Z,0.7nm,0.5s,mb3.8,baz=158,slow=6.8						
MKAR	Makanchi Array	61.60	327	P	P	15 22 54.8	+0.2
MKAR				ScP	ScP	15 27 36.2	+3.7
MKAR	Makanchi Array	61.60	327	P	P	15 22 54.8	+0.2
	comp=Z,1.5nm,0.5s,mb4.3,baz=117,slow=7.9,SNR=43						
MKAR				ScP	ScP	15 27 36.2	+3.7
	comp=Z,0.3nm,0.6s,baz=136,slow=5.3,SNR=4.0						
YAK	Yakutsk	63.02	2	*e*P	P	15 23 03.3	-0.4
	comp=Z,18nm,0.7s,mb5.3						
ZALV	Zalesovo Beam	64.94	334	P	P	15 23 16.5	0.0
	comp=Z,0.7nm,0.6s,mb3.9,baz=108,slow=8.0,SNR=4.1						
KURK	Kurchatov	65.88	329	*e*P	P	15 23 22.0	-0.6
	comp=Z,2.7nm,0.6s,mb4.5						
TIXI	Tiksi	72.65	1	*e*P	P	15 24 02.9	-1.2
	comp=Z,4.7nm,0.8s,mb4.5						
AKTK	Aktyubinsk	77.51	322	P	P	15 24 32.2	-0.3
AKTO	Aktyubinsk	77.51	322	P	P	15 24 32.2	-0.3
	comp=Z,0.5nm,0.4s,mb3.8,baz=103,slow=9.4,SNR=3.2						

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*SZGRF **20** 15:21:06.3,50.08N×166.01W,h33^{km},mb4.4,South of Aleutian Islands*
*ISCJB **20** 15:21:17.6±0.5,53.37N±0.06×163.59W±0.06,h10^{km}, mb4.4/37,MS5.1/1,Error ellipse: s-maj=8.9km s-min=5.3km az=174.4*
*BJI **20** 15:21:18.3,53.85N×163.73W,h9^{km},mb4.7,Ms4.8,Msz4.5*
*IDC **20** 15:21:19.6±1.1,53.74N×163.75W,h0^{km},mb4.1/19, mb1 4.3/20,mb1mx4.2/28,mbtmp4.2/20,ML4.3/1,MS4.6/2, Ms1 4.6/2,ms1mx3.6/43,Error ellipse: s-maj=31.1km s-min=14.8km az=177.0*
*NEIC **20** 15:21:21.6,53.48N×163.72W,h0^{km},mb4.6/11, ML4.0(AEIC),After AEIC.*
*MOS **20** 15:21:21.3±1.0,53.75N×163.85W,h23^{km},mb4.7/14,Error ellipse: s-maj=18.7km s-min=8.1km az=94.1*
ISC 20 15:21:22.2±2.2,**53.42N**±0.07×**163.66W**±0.06,**h26**^{km}±14^{km}, **n76,σ1^{s}04**/79,**mb4.4**/37,**MS5.1**/1,**1D,Unimak Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FALS	False Pass	1.44	6	P	Pn	15 21 46.1	-0.4
FALS				S	Sn	15 22 06.4	+1.8
AKUT	Akutan	1.45	300	P	Pn	15 21 46.1	-0.5
AKLV	Akutan Long Va	1.55	299	P	Pn	15 21 47.5	-0.6
AKLV				S	Sn	15 22 08.1	+0.8
UNV	Unalaska Valle	1.75	285	P	Pn	15 21 49.9	-0.8
UNV				S	Sn	15 22 11.9	-0.2
SDPT	Sand Point	2.68	43	P	Pn	15 22 03.7	+0.2
SPIA	Saint Paul Isl	5.32	318	P	Pn	15 22 41.0	+1.2
KDAK	Kodiak Island	7.64	51	P	Pn	15 23 09.4	-2.2
KDAK	Kodiak Island	7.64	51	Pn	Pn	15 23 10.0	-1.6
	5.0nm,0.3s,baz=228,slow=7.0,SNR=25						
KDAK				Sn	Sn	15 24 30.8	-6.4
	1.3nm,0.3s,baz=168,slow=20,SNR=7.4						
KDAK				LR	LR	15 25 44.1	
	comp=Z,1µm,18.5s,baz=236,slow=35						
GAMB	Gambell	11.19	341	*e*P	Pn	15 24 01.3	+1.2
TNA	Tin City	12.36	352	*e*P	Pn	15 24 17.1	+0.9
	7.9nm,1.0s						
MCK	McKinley	12.83	31	*e*P	Pn	15 24 23.3	+0.7
	6.4nm,1.0s						
MCK	McKinley	12.83	31	*e*P	Pn	15 24 23.3	+0.7
MCK				pmax	pmax		
	comp=Z,6.0nm,1.0s						
IMA2	Indian Mountai	13.62	17	*e*P	Pn	15 24 34.0	+0.8
COLA	College	14.00	29	*i*P	Pn	15 24 38.8	+0.3
DAWY	Dawson	16.37	40	*e*P	Pn	15 25 14.0	+4.2
BILL	Bilibino	20.43	327	*e*P	P	15 25 56.2	-0.8
BILL				*e*		15 26 11.7	
BILL				pmax	pmax		
	comp=Z,18nm,1.5s						
INK	Inuvik	20.59	32	P	P	15 25 56.9	-1.8
INK	Inuvik	20.59	32	P	P	15 25 56.9	-1.8
	comp=Z,1.9nm,0.3s,baz=207,slow=10,SNR=12						
YKA	Yellowknife Ar	26.92	51	P	P	15 27 01.4	+0.7
	comp=Z,2.8nm,0.6s,mb4.0,baz=270,slow=8.3,SNR=54						
TIXI	Tiksi	33.65	328	*e*P	P	15 27 58.4	-1.7
TIXI				pmax	pmax		
	comp=Z,10.0nm,3.0s						
RES	Resolute Bay	33.91	26	*e*P	P	15 28 01.2	-1.1
	comp=Z,66nm,0.5s						
YAK	Yakutsk	35.09	311	*e*P	P	15 28 11.0	-1.6
YAK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
PDAR	Pinedale Array	36.83	84	P	P	15 28 29.6	+1.9
	comp=Z,0.4nm,0.6s,baz=311,slow=4.4,SNR=4.1						
ULM	Lac du Bonnet	40.58	66	P	P	15 28 58.9	-0.2
	comp=Z,1.1nm,0.6s,mb3.7,baz=313,slow=10,SNR=4.4						
MAJO	Matsushiro	43.17	271	*e*P	P	15 29 21.6	+1.2
	comp=Z,15nm,0.9s,mb4.7						
MAJO	Matsushiro	43.17	271	*e*P	P	15 29 21.6	+1.2
MAJO				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.7						
MJAR	Matsushiro Arr	43.17	271	P	P	15 29 22.5	+2.1
	comp=Z,0.4nm,0.4s,mb3.5,baz=68,slow=15,SNR=3.8						
BOD	Bodaibo	43.99	310	*e*P	P	15 29 24.3	-2.5
BOD				pmax	pmax		
	comp=Z,3.0nm,1.9s,mb3.7						
CN2	Changchun	46.02	288	*e*P	P	15 29 43.5	+0.4
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
KSRS	Korea Array	48.68	280	P	P	15 30 04.2	+0.4
	comp=Z,1.3nm,0.7s,mb4.1,baz=51,slow=7.2,SNR=7.6						
TXAR	Lajitas Array	49.32	94	P	P	15 30 10.2	+1.3
	comp=Z,0.5nm,0.6s,mb3.8,baz=302,slow=5.7,SNR=7.9						
HDIL	Hopedale	50.08	73	*e*P	P	15 30 13.6	-0.9
	comp=Z,15nm,0.6s,mb5.2						
TLY	Talaya	52.46	308	*e*P	P	15 30 32.2	0.0
TLY				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
ULN	Ulaanbaatar	53.33	303	*e*P	P	15 30 37.4	-1.2
	comp=Z,4.1nm,0.7s,mb4.5						
ULN	Ulaanbaatar	53.33	303	*e*P	P	15 30 37.4	-1.2
ULN				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
SONM	Songino Array	53.68	303	P	P	15 30 40.6	-0.6
	comp=Z,1.4nm,0.6s,mb4.1,baz=46,slow=7.5,SNR=17						
ARCES	ARCESS Array B	57.17	356	P	P	15 31 05.1	-0.9
	comp=Z,5.6nm,0.9s,mb4.6,baz=13,slow=8.0,SNR=19						
NJ2	Nanjing	57.78	282	*e*P	P	15 31 12.1	+1.2
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb5.0						
ZALV	Zalesovo Beam	58.91	320	P	P	15 31 17.0	-1.4
ZALV	Zalesovo Beam	58.91	320	P	P	15 31 17.0	-1.4
	comp=Z,0.9nm,0.3s,mb4.3,baz=43,slow=6.7,SNR=7.4						
ZAL	Zalesovo	58.93	320	P	P	15 31 17.0	-1.5
GTA	Gaotai	63.01	300	*e*P	P	15 31 46.8	+0.3
GTA				AP	pP	15 31 50.5	-4.2
GTA				AMB	AMB		
	comp=Z,3.0nm,1.0s,mb4.4						
KURK	Kurchatov	63.81	321	*i*P	P	15 31 51.4	-0.2
BRVK	Borovoye	64.78	327	*e*P	P	15 31 57.3	-0.6
	comp=Z,5.1nm,0.9s,mb4.5						
BRVK	Borovoye	64.78	327	*e*P	P	15 31 57.3	-0.6
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
ARU	Arti	65.17	336	*d i*P	P	15 32 00.3	-0.1
ARU				*e*S	S	15 40 37.8	-3.4
ARU				*e*SS	SS	15 44 51.7	-1.1
ARU				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
FINES	FINESS Array B	65.22	355	P	P	15 31 59.0	-1.6
	comp=Z,1.8nm,0.5s,mb4.3,baz=360,slow=6.0,SNR=16						
MKAR	Makanchi Array	65.51	316	P	P	15 32 02.3	-0.5
	comp=Z,1.1nm,0.7s,mb4.0,baz=48,slow=5.9,SNR=11						
NB2	NORSAR Subarra	65.81	3	P	P	15 32 04.5	0.0
	comp=Z,1.3nm,0.7s,mb4.1,baz=357,slow=6.2						
NOA	NORSAR Array B	65.81	3	P	P	15 32 04.6	+0.2
	comp=Z,3.6nm,0.9s,mb4.4,baz=357,slow=6.5,SNR=5.6						
HFS	Hagfors	66.78	1	P	P	15 32 10.4	-0.3
	comp=Z,2.5nm,0.4s,mb4.6,baz=20,slow=4.7,SNR=15						
CD2	Chengdu	67.28	291	P	P	15 32 15.0	+0.7
GYA	Guiyang	69.02	286	P	P	15 32 25.5	+0.2
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
EKA	Eskdalemuir Ar	70.42	12	P	P	15 32 34.2	+0.8
	comp=Z,2.4nm,0.7s,mb4.2,baz=342,slow=4.7,SNR=7.6						
OBN	Obninsk	70.55	348	*e*P	P	15 32 33.2	-1.0
OBN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
AKTK	Aktyubinsk	70.73	333	P	P	15 32 35.6	+0.2
AKTO	Aktyubinsk	70.73	333	P	P	15 32 35.6	+0.2
	comp=Z,8.6nm,0.8s,mb4.7,baz=35,slow=7.0,SNR=24						
AAK	Ala-Archa	72.09	319	*e*P	P	15 32 43.3	-0.5
	comp=Z,5.2nm,1.0s,mb4.4						
AAK	Ala-Archa	72.09	319	*e*P	P	15 32 43.3	-0.5
AAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
EKS2	Erkin-Say	72.35	319	*e*P	P	15 32 47.0	+1.7
	comp=Z,3.7nm,0.7s,mb4.4						
AML	Almayashu	72.83	319	*e*P	P	15 32 49.7	+1.5
	comp=Z,4.9nm,0.8s,mb4.5						
LSA	Lhasa	75.02	300	*e*P	P	15 33 02.8	+1.6
	comp=Z,6.4nm,0.9s,mb4.5						
LSA	Lhasa	75.02	300	*e*P	P	15 33 02.8	+1.6
LSA				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
AKASG	Malin Array Be	75.69	352	P	P	15 33 04.3	-0.4
	comp=Z,1.1nm,0.3s,mb4.2,baz=11,slow=5.7,SNR=11						
KIEV	Kiev	75.69	352	*e*P	P	15 33 03.7	-1.0
	comp=Z,4.9nm,0.8s,mb4.5						
KIEV	Kiev	75.69	352	*e*P	P	15 33 03.7	-1.0
KIEV				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
GRA1	Grafenberg Arr	77.17	3	*e*P	P	15 33 13.8	+0.7
	comp=Z,4.0nm,0.9s,mb4.3						
GRF	Grafenberg Arr	77.17	3	*e*P	P	15 33 13.8	+0.7
GRF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
GRF	Grafenberg Arr	77.17	3	*e*P	P	15 33 13.8	+0.7
GRF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
GRF	Grafenberg Arr	77.17	3	*e*P	P	15 33 13.8	+0.7
	comp=Z,4.0nm,0.9s,mb4.3						
GERES	GERESS Array B	78.08	2	P	P	15 33 18.8	+0.6
	comp=Z,0.8nm,0.8s,mb3.7,baz=328,slow=2.0,SNR=6.7						
KIV	Kislovodsk	80.40	341	*e*P	P	15 33 29.6	-1.3
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
ROSC	El Rosal	85.73	88	LR	LR	16 14 30.2	
	comp=Z,846nm,20.3s,MS5.1,baz=282,slow=37						
BRTR	Keskin Array B	86.03	347	P	P	15 34 01.0	+1.0
	comp=Z,1.5nm,0.7s,mb4.3,baz=29,slow=2.8,SNR=8.0						
HYB	Hyderabad	91.61	302	*e*P	P	15 34 27.5	+0.7
HYB	Hyderabad	91.61	302	*i*P	P	15 34 27.5	+0.7

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*ISK **20** 15:23:47.8,39.42N×33.17E,h5^{km},MD3.3*
*CSEM **20** 15:23:47.2±0.1,39.41N×33.16E,h2^{km},MD3.3,Error ellipse: s-maj=3.7km s-min=3.0km az=18.0*
*ISCJB **20** 15:23:48.6±0.4,39.40N±0.03×33.15E±0.03,h5^{km},Error ellipse: s-maj=4.2km s-min=3.4km az=13.0*
*DDA **20** 15:23:48.7,39.39N×33.14E,h5^{km}±3^{km},Md3.1*
ISC 20 15:23:48.8±0.4,**39.39N**±0.03×**33.15E**±0.03,**h5**^{km}**,n35, σ0^{s}95**/51,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAMT	Kaman	0.44	93	*i*PG	Pg	15 23 56.8	-0.5
KAMT				*i*SG	Sg	15 24 02.7	-0.3
KAMT	Kaman	0.44	93	*i*Pg	Pg	15 23 56.8	-0.5
KAMT				*i*Sg	Sg	15 24 02.7	-0.3
LOD	Lodumlu	0.58	329	PG	Pg	15 23 58.9	-1.1
LOD				SG	Sg	15 24 07.4	-0.1
LOD	Lodumlu	0.58	329	*e*Pg	Pg	15 23 58.9	-1.1
LOD				*e*Sg	Sg	15 24 07.4	-0.1
CDAG	Cicekdag	0.97	76	*i*P	Pg	15 24 06.3	-1.3
CDAG				*i*S	Sg	15 24 20.3	+0.1
ELDT	Eldivan	1.12	11	*i*P	Pg	15 24 08.9	-1.3
ELDT				*i*S	Sg	15 24 25.3	+0.5
ELDT	Eldivan	1.12	11	*i*P	Pg	15 24 08.9	-1.4
ELDT				*i*S	Sg	15 24 25.3	+0.5
KDHN	Kadinhani	1.19	223	*i*P	Pg	15 24 10.9	-0.7
KDHN				*i*S	Sg	15 24 27.1	+0.2
CANT	Cankiri	1.27	16	PN	Pn	15 24 11.2	-2.0
SGKT	Sivrigoynuk	1.45	325	*i*P	Pn	15 24 15.2	-0.5
SGKT				*i*S	Sb	15 24 36.0	+1.0
SGKT	Sivrigoynuk	1.45	325	*i*P	Pn	15 24 15.1	-0.6
SGKT				*i*S	Sb	15 24 36.0	+1.0
AVNT	Avonos	1.46	114	*i*P	Pn	15 24 16.4	+0.5
AVNT				*i*S	Sn	15 24 36.2	+0.8
KONT	Konya--Tatoy	1.57	203	PN	Pn	15 24 17.7	+0.3
KONT	Konya--Tatoy	1.57	203	*e*Pn	Pn	15 24 17.7	+0.3
YOZ	Yozgat	1.70	81	PN	Pn	15 24 19.2	+0.1
YOZ	Yozgat	1.70	81	*e*Pn	Pn	15 24 19.2	+0.1
NIG	Nigde	1.72	138	PN	Pn	15 24 19.1	-0.3
NIG	Nigde	1.72	138	*e*Pn	Pn	15 24 19.1	-0.3
CTKT	Corum	1.76	45	*i*P	Pn	15 24 20.0	0.0
CTKT				*i*S	Sn	15 24 44.2	+1.4
TOS	Tosya	1.77	22	PN	Pn	15 24 19.6	-0.6
TOS	Tosya	1.77	22	*e*Pn	Pn	15 24 19.6	-0.6
ESKT	Eskisehir	1.78	275	PN	Pn	15 24 19.6	-0.7
ESKT	Eskisehir	1.78	275	*i*P	Pn	15 24 19.7	-0.6
ESKT				*i*S	Sn	15 24 44.6	+1.2
ESKT	Eskisehir	1.78	275	*e*Pn	Pn	15 24 19.6	-0.7
SEYT	Eskypehyr	1.78	275	*i*P	Pn	15 24 19.7	-0.6
SEYT				*i*S	Sn	15 24 44.6	+1.3
MDU	Mudurnu	1.83	306	*e*PN	Pn	15 24 21.3	+0.3
MDU	Mudurnu	1.83	306	*e*Pn	Pn	15 24 21.3	+0.3
SAFT	Safranbolu	1.88	349	*e*PN	Pn	15 24 20.5	-1.1
SAFT	Safranbolu	1.88	349	*e*Pn	Pn	15 24 20.5	-1.1
BALT	Daday	2.15	5	*i*P	Pn	15 24 28.3	+3.0
BALT				*i*S	Sn	15 24 56.8	+4.5
BOYT	Boyabat	2.43	33	*i*P	Pn	15 24 32.1	+2.9
BOYT				*i*S	Sn	15 25 04.7	+5.4
DIKM	Dikmen	2.77	35	*e*PN	Pn	15 24 33.9	+0.1
DIKM	Dikmen	2.77	35	*e*Pn	Pn	15 24 33.9	+0.1
SVSK	Karacayir	3.02	79	*e*PN	Pn	15 24 38.0	+0.7
SVSK	Karacayir	3.02	79	*e*Pn	Pn	15 24 38.0	+0.7

IDC 20 15:28:11.4±2.3,**0.66S**×**128.00E,h0**^{km}**,mb3.2**/3,**mb1 3.5**/3, **mb1mx3.3**/16,**mbtmp3.3**/3,**Error ellipse: s-maj=192.5km s-min=25.7km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.15	162	P	P	15 32 48.5	+1.2
	0.5nm,0.9s,baz=346,slow=13,SNR=5.2						
ASAR	Alice Springs	23.58	166	P	P	15 33 23.1	-0.9
	0.5nm,0.7s,baz=347,slow=11,SNR=6.5						
MKAR	Makanchi Array	61.87	326	P	P	15 38 32.6	+0.1
	0.3nm,0.4s,baz=111,slow=8.2,SNR=9.0						

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*NEIC **20** 15:41:25.6,26.81S×71.05W,h30^{km},ML3.9(GUC),After GUC.*
GUC 20 15:41:25.6±1.0,**26.81S**×**71.05W,h30**^{km}±6^{km}**,ML3.9,6D, Off coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDCH	Caldera	0.33	143	⇓*i*P	Pb	15 41 33.6	+0.1
CDCH				*i*S	Sb	15 41 38.5	-0.3
CDCH	Caldera	0.33	143	⇓*i*P	Pb	15 41 33.6	+0.1
CDCH				*i*S	Sb	15 41 38.5	-0.3
CDCH				AML	AML	15 41 38.9	
	comp=N,8µm,0.4s						
CPCH	Copiapo	0.83	131	⇓*i*P	Pn	15 41 41.1	-0.1
CPCH				*i*S	Sb	15 41 52.4	+0.1
CPCH	Copiapo	0.83	131	⇓*i*P	Pn	15 41 41.1	-0.1
CPCH				*i*S	Sb	15 41 52.4	+0.1
CPCH				AML	AML	15 41 54.4	
	comp=N,19µm,0.1s						
VACH	Vallenar	1.78	172	*e*P	Pn	15 41 56.1	+1.8
VACH				*i*S	Sn	15 42 18.2	+2.3
VACH	Vallenar	1.78	172	*e*P	Pn	15 41 56.1	+1.8
VACH				*i*S	Sn	15 42 18.2	+2.3
VACH				AML	AML	15 42 24.3	
	comp=E,3µm,0.5s						
LCO	Las Campanas	2.21	172	*e*Pn	Pn	15 42 01.8	+1.5
LCO				*e*S	Sn	15 42 27.8	+1.2
CPN1	Cerro Paranal	2.25	15	⇓*i*P	Pn	15 42 02.8	+2.0
CPN1				AML	AML	15 42 45.5	
	comp=E,870nm,0.7s						
CEN1	Los Morros	3.49	13	⇓*i*P	Pn	15 42 16.1	-1.8

IDC 20 15:47:11.4±1.4,**0.78S**×**127.27E,h0**^{km}**,mb3.2**/4,**mb1 3.4**/4, **mb1mx3.3**/16,**mbtmp3.3**/4,**Error ellipse: s-maj=146.5km s-min=23.1km az=70.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.26	160	P	P	15 51 48.1	-0.5
	0.3nm,0.4s,baz=340,slow=12,SNR=4.9						
ASAR	Alice Springs	23.64	165	P	P	15 52 25.1	+0.4
	0.6nm,0.8s,baz=344,slow=8.8,SNR=4.4						
SONM	Songino Array	51.72	342	P	P	15 56 21.2	+0.8
	0.3nm,0.7s,baz=164,slow=6.9,SNR=3.1						
MKAR	Makanchi Array	61.57	326	P	P	15 57 29.9	-0.6
	0.2nm,0.4s,baz=114,slow=7.9,SNR=5.5						

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*IDC **20** 15:49:58.6±10.0,6.56S×130.28E,h75^{km}±96^{km},mb3.8/2, mb1 3.9/5,mb1mx3.5/15,mbtmp3.8/5,ML4.0/3,MS4.1/1, Ms1 4.1/1,ms1mx3.1/26,Error ellipse: s-maj=113.2km s-min=29.1km az=55.0*
*ISCJB **20** 15:50:06.6±2.4,7.0S±0.1×130.0E±0.1,h167^{km}±24^{km}, mb3.8/2,Error ellipse: s-maj=22.5km s-min=18.6km az=170.7*
ISC 20 15:50:08.0±1.9,**7.1S**±0.1×**129.9E**±0.1,**h160**^{km}±16^{km}**,n7, σ1^{s}08**/10,**mb3.8**/2,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.11	156	*e*P	Pn	15 51 36.5	+0.2
	9.8nm,0.1s						
KAKA				*e*S	Sn	15 52 44.9	-0.7
FITZ	Fitzroy Crossi	11.67	200	P	Pn	15 52 50.4	+0.6
	0.5nm,0.3s,baz=37,slow=14,SNR=25						
FITZ				S	Sn	15 54 58.9	-0.2
	1.5nm,0.3s,baz=53,slow=21,SNR=8.3						
WRA	Warramunga Arr	13.47	162	P	Pn	15 53 12.0	-0.9
	0.6nm,0.3s,baz=348,slow=13,SNR=17						
WRA				S	Sn	15 55 38.2	-4.1
	2.3nm,0.3s,baz=345,slow=22,SNR=8.2						
ASAR	Alice Springs	16.91	167	P	Pn	15 53 57.2	+1.9
	0.9nm,0.3s,baz=342,slow=9.2,SNR=57						
ASAR				S	S	15 57 02.2	-0.7
	0.4nm,0.3s,baz=352,slow=27,SNR=5.0						
STKA	Stephens Creek	26.96	158	P	P	15 55 36.3	+1.7
	1.1nm,0.3s,mb3.9,baz=335,slow=6.7,SNR=14						
RPZ	Rata Peaks	51.22	142	LR	LR	16 20 39.6	
	comp=Z,188nm,18.6s,baz=33,slow=36						
MKAR	Makanchi Array	68.25	327	P	P	16 00 50.0	-1.4
	0.9nm,0.6s,mb3.7,baz=114,slow=8.6,SNR=13						

IDC 20 15:57:53.6±61.0,**22.46S**×**178.19W,h0**^{km}**,mb4.0**/3, **mb1 4.2**/3,**mb1mx3.9**/12,**mbtmp4.0**/3,**MS3.3**/1,**Ms1 3.3**/1, **ms1mx3.0**/26,**Error ellipse: s-maj=1115.0km s-min=159.3km az=86.0,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	10.46	37	LR	LR	16 03 15.4	
	comp=Z,159nm,21.0s,baz=342,slow=31						
STKA	Stephens Creek	36.81	246	P	P	16 05 03.7	+0.3
	3.7nm,1.1s,baz=91,slow=11,SNR=5.5						
ASAR	Alice Springs	43.93	259	P	P	16 06 02.3	-0.2
	0.9nm,0.5s,baz=95,slow=7.2,SNR=27						
WRA	Warramunga Arr	44.19	264	P	P	16 06 04.5	-0.1
	0.7nm,0.3s,baz=102,slow=8.4,SNR=106						

IDC 20 15:58:53.8±2.2,**0.85S**×**127.83E,h0**^{km}**,mb3.1**/3,**mb1 3.3**/3, **mb1mx3.2**/16,**mbtmp3.2**/3,**MS3.5**/1,**Ms1 3.5**/1, **ms1mx3.1**/10,**Error ellipse: s-maj=191.7km s-min=25.5km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.02	162	P	P	16 03 28.3	+0.1
	0.2nm,0.5s,baz=340,slow=12,SNR=3.7						
ASAR	Alice Springs	23.43	166	P	P	16 04 04.8	0.0
	0.4nm,0.9s,baz=351,slow=10,SNR=4.6						
HNR	Honiara	33.08	106	LR	LR	16 17 00.3	
	comp=Z,76nm,19.9s,baz=0.3,slow=33						
MKAR	Makanchi Array	61.93	326	P	P	16 09 15.4	+0.1
	0.3nm,0.5s,baz=114,slow=7.9,SNR=10						

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*ISCJB **20** 16:04:51.0±1.7,22.03S±0.10×69.1W±0.2,h93^{km}±16^{km}, mb3.7/5,Error ellipse: s-maj=27.3km s-min=15.8km az=4.1*
*NEIC **20** 16:04:52.8±0.5,21.99S×69.02W,mb4.0/1,Error ellipse: s-maj=16.4km s-min=10.3km az=98.0*
*IDC **20** 16:04:53.2±0.8,21.93S×69.12W,h92^{km}±5^{km},mb3.6/5, mb1 3.8/8,mb1mx3.8/16,mbtmp3.7/8,MS3.2/1,Ms1 3.3/1, ms1mx3.0/24,Error ellipse: s-maj=25.5km s-min=21.9km az=77.0*
ISC 20 16:04:52.7±1.4,**22.02S**±0.10×**69.0W**±0.2,**h92**^{km}±14^{km}**,n22, σ0^{s}66**/13,**mb3.7**/5,**Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	5.77	9	*e*Pn	Pn	16 06 16.8	+1.0
LPAZ				LR	LR	16 08 20.6	
LPAZ	La Paz	5.77	9	P	Pn	16 06 16.9	+1.1

	5.0nm,0.3s,baz=199,slow=7.3,SNR=19						
LPAZ				LR	LR	16 08 20.6	
	comp=Z,204nm,19.0s,baz=235,slow=36						
CFAA	Coronel Fontan	9.57	176	P	Pn	16 07 07.5	0.0
	0.1nm,0.3s,baz=354,slow=12,SNR=15						
SIV	San Ignacio	9.62	53	P	Pn	16 07 07.2	-1.1
	4.6nm,0.3s,baz=245,slow=12,SNR=125						
TXAR	Lajitas Array	60.99	325	P	P	16 14 56.2	-0.3
	0.2nm,0.6s,mb3.4,baz=128,slow=10,SNR=2.9						
PDAR	Pinedale Array	74.50	330	P	P	16 16 21.0	-0.1
	0.3nm,0.7s,mb3.2,baz=141,slow=5.8,SNR=2.3						
ULM	Lac du Bonnet	75.78	343	*e*P	P	16 16 27.8	-0.4
	1.8nm,0.8s,mb3.9						
ULM	Lac du Bonnet	75.78	343	P	P	16 16 27.3	-0.9
	2.3nm,1.1s,mb3.8,baz=157,slow=4.1,SNR=3.5						
TOA0	Torodi Ar. Sit	77.64	70	*e*P	P	16 16 40.2	+0.6
TORD	Torodi Ar. Bea	77.64	70	P	P	16 16 40.2	+0.7
TORD				pP	pP	16 17 04.4	+1.0
TORD	Torodi Ar. Bea	77.64	70	P	P	16 16 40.2	+0.7
	3.1nm,0.7s,mb4.2,baz=252,slow=5.7,SNR=24						
TORD				pP	pP	16 17 04.4	+1.0
	4.8nm,0.7s,baz=251,slow=5.4,SNR=9.6						
YKA	Yellowknife Ar	91.64	341	P	P	16 17 48.9	-0.1
YKA				pP	pP	16 18 12.5	-1.0
YKA	Yellowknife Ar	91.64	341	P	P	16 17 48.8	-0.2
	0.9nm,0.6s,mb4.2,baz=134,slow=4.5,SNR=24						
YKA				pP	pP	16 18 12.5	-1.0
	0.6nm,0.6s,baz=135,slow=4.4,SNR=4.9						
ASAR	Alice Springs	129.40	208	PKP	PKPdf	16 23 52.0	+0.7
ASAR				pPKP	pPKPdf	16 24 17.0	+0.2
ASAR	Alice Springs	129.40	208	PKP	PKPdf	16 23 52.0	+0.7
	0.4nm,0.7s,baz=113,slow=2.9,SNR=4.6						
ASAR				pPKP	pPKPdf	16 24 17.0	+0.2
	0.7nm,0.8s,baz=142,slow=2.0,SNR=3.7						
WRA	Warramunga Arr	132.45	210	PKP	PKPdf	16 23 58.3	+1.2
WRA				pPKP	pPKPdf	16 24 23.7	+1.1
WRA	Warramunga Arr	132.45	210	PKP	PKPdf	16 23 58.3	+1.2
	0.4nm,0.6s,baz=149,slow=1.8,SNR=16						
WRA				pPKP	pPKPdf	16 24 23.7	+1.1
	0.2nm,0.6s,baz=160,slow=1.9,SNR=1.8						
ZALV	Zalesovo Beam	142.47	25	PKP	PKPdf	16 24 16.3	+1.8
ZALV	Zalesovo Beam	142.47	25	PKP	PKPdf	16 24 16.3	+1.8
	0.4nm,0.5s,baz=352,slow=5.8,SNR=2.9						
MKAR	Makanchi Array	146.12	36	PKPbc	PKPbc	16 24 23.0	+0.8
MKAR				pPKPbc	pPKPbc	16 24 47.5	+0.2
MKAR	Makanchi Array	146.12	36	PKPbc	PKPbc	16 24 23.0	+0.8
	0.4nm,0.8s,baz=28,slow=2.9,SNR=4.9						
MKAR				pPKPbc	pPKPbc	16 24 47.5	+0.2
	1.4nm,0.7s,baz=319,slow=3.2,SNR=10						
SONM	Songino Array	153.99	7	pPKPbc	pPKPbc	16 25 07.5	+0.7
	0.3nm,0.4s,baz=307,slow=1.5,SNR=4.3						

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*ISCJB **20** 16:12:23.8±1.1, 3.15N±0.07×79.32W±0.06, h39^{km}±11^{km}, mb4.0/10, Error ellipse: s-maj=13.6km s-min=8.8km az=35.1*

*NEIC **20** 16:12:25.9±1.1, 3.01N×79.40W, h48^{km}±11^{km}, mb4.2/4, Error ellipse: s-maj=19.0km s-min=9.8km az=54.0*

*IDC **20** 16:12:26.6±2.6, 3.23N×79.27W, h48^{km}±24^{km}, mb3.6/9, mb1 3.9/12, mb1mx3.8/21, mbtmp3.8/12, ML4.1/1, Error ellipse: s-maj=25.5km s-min=14.1km az=41.0*

ISC 20 16:12:26.1±1.0, **3.09N**±0.08×**79.32W**±0.06, **h44**^{km}±10^{km}, **n34, σ1^{s}12**/31, **mb4.0**/10, **South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OTAV	Otavalo	2.97	163	*e*Pn	Pn	16 13 09.6	-1.1
OTAV				*e*Sn	Sn	16 13 34.1	-11
AZU	Azuero	4.76	349	*e*P	Pn	16 13 31.1	-4.3
ROSC	El Rosal	5.28	70	*e*Pn	Pn	16 13 44.3	+1.8
ROSC				S	Sn	16 14 41.9	-0.2
ROSC	El Rosal	5.28	70	P	Pn	16 13 41.7	-0.7
	2.5nm,0.3s,baz=90,slow=4.0,SNR=3.9						
ROSC				S	Sn	16 14 41.9	-0.2
	3.1nm,0.3s,baz=74,slow=19,SNR=4.3						
BCIP	Isla Barro Col	6.05	355	*e*Pn	Pn	16 13 54.6	+1.5
BAR1		7.28	327	*e*P	Pn	16 14 09.8	-0.2
URSC	Urasca	8.03	327	*e*P	Pn	16 14 20.9	+0.7
JTS	JuntasAbangare	9.07	322	*e*P	Pn	16 14 33.7	-0.9
JTS				S	Sn	16 16 08.0	-7.4
JTS	JuntasAbangare	9.07	322	P	Pn	16 14 33.3	-1.2
	1.8nm,0.3s,baz=110,slow=15,SNR=7.6						
JTS				S	Sn	16 16 08.0	-7.4
	0.7nm,0.3s,baz=180,slow=20,SNR=4.5						
TEIG	Tepich	19.14	334	*e*P	Pn	16 16 46.0	-0.8
	5.3nm,0.5s						
TEIG	Tepich	19.14	334	P	Pn	16 16 45.5	-1.3
	1.6nm,0.3s,baz=123,slow=18,SNR=8.3						
CMIG	Matias Romero	20.66	313	P	P	16 17 02.5	+0.1
	2.2nm,0.8s,baz=72,slow=8.4,SNR=3.8						
LPAZ	La Paz	22.21	150	P	P	16 17 24.0	+5.1
	4.2nm,0.9s,mb3.9						
LPAZ	La Paz	22.21	150	P	P	16 17 20.7	+1.8
	0.9nm,0.6s,mb3.4,baz=328,slow=16,SNR=4.9						
SIV	San Ignacio	26.18	137	P	P	16 17 57.7	+1.0
	2.7nm,0.5s,mb4.0,baz=316,slow=11,SNR=13						
TXAR	Lajitas Array	34.86	321	P	P	16 19 12.8	-0.5
	0.3nm,0.6s,mb3.4,baz=128,slow=9.6,SNR=4.2						
ANMO	Albuquerque	40.49	325	*e*P	P	16 20 02.8	+2.1
	4.8nm,0.9s,mb4.2						
SDCO	Great Sand Dun	42.01	328	*e*P	P	16 20 14.7	+1.5
	11nm,1.1s,mb4.4						
PDAR	Pinedale Array	47.81	330	P	P	16 21 00.1	+0.8
	0.5nm,0.6s,mb3.7,baz=110,slow=11,SNR=3.8						
ULM	Lac du Bonnet	49.03	346	P	P	16 21 06.7	-1.8
ULM	Lac du Bonnet	49.03	346	P	P	16 21 06.7	-1.8
	3.0nm,0.5s,mb4.5,baz=143,slow=6.7,SNR=11						
SCHQ	Schefferville	52.57	9	P	P	16 21 34.0	-1.1
SCHQ	Schefferville	52.57	9	P	P	16 21 34.0	-1.1
	2.1nm,0.8s,mb4.2,baz=241,slow=19,SNR=3.8						
YKA	Yellowknife Ar	64.79	343	P	P	16 22 59.0	-0.9
YKA	Yellowknife Ar	64.79	343	P	P	16 22 59.0	-0.9
	1.0nm,0.7s,mb4.0,baz=138,slow=6.0,SNR=13						
TORD	Torodi Ar. Bea	80.56	77	P	P	16 24 33.9	-0.7
	0.6nm,0.8s,mb3.6,baz=290,slow=7.1,SNR=3.5						
MKAR	Makanchi Array	127.74	16	PKP	PKPdf	16 31 26.9	0.0
MKAR	Makanchi Array	127.74	16	PKP	PKPdf	16 31 26.9	0.0
	0.1nm,0.6s,baz=336,slow=4.4,SNR=3.4						
SONM	Songino Array	129.04	355	PKP	PKPdf	16 31 30.3	+0.9
SONM	Songino Array	129.04	355	PKP	PKPdf	16 31 30.3	+0.9
	0.4nm,0.9s,baz=20,slow=1.7,SNR=2.5						
ASAR	Alice Springs	141.93	235	PKP	PKPdf	16 31 49.0	-5.0
ASAR				PKP	PKPdf	16 31 53.6	-0.4
ASAR	Alice Springs	141.93	235	PKhKP		16 31 49.0	
	0.4nm,0.3s,baz=117,slow=3.6,SNR=7.8						
ASAR				PKP	PKPdf	16 31 53.6	-0.4
	0.3nm,0.6s,baz=116,slow=2.9,SNR=4.0						
WRA	Warramunga Arr	143.14	240	PKP	PKPdf	16 31 53.8	-2.5
WRA	Warramunga Arr	143.14	240	PKP	PKPdf	16 31 53.8	-2.5
	3.1nm,0.7s,baz=112,slow=2.9,SNR=36						

IDC 20 16:29:24.4±2.5, **0.56S**×**128.18E, h0**^{km}**, mb3.0**/3**, mb1 3.3**/3**, mb1mx3.2**/16**, mbtmp3.1**/3**, Error ellipse: s-maj=193.5km s-min=27.1km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.19	163	P	P	16 34 00.0	-0.7
	0.3nm,0.7s,baz=342,slow=11,SNR=3.7						
ASAR	Alice Springs	23.63	167	P	P	16 34 38.0	+0.5
	0.3nm,0.5s,baz=346,slow=12,SNR=4.7						
MKAR	Makanchi Array	61.89	326	P	P	16 39 45.8	0.0
	0.1nm,0.5s,baz=118,slow=8.1,SNR=4.7						

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*IDC **20** 16:34:52.9±0.9, 0.06N×129.25E, h0^{km}, mb4.1/8, mb1 4.2/9, mb1mx4.1/18, mbtmp4.1/9, ML4.0/1, MS3.3/1, Ms1 3.3/1, ms1mx2.8/22, Error ellipse: s-maj=70.0km s-min=14.9km az=77.0*

*BJI **20** 16:34:53.7, 0.36N×129.57E, h10^{km}, mB5.1, mb4.6*

*NEIC **20** 16:34:54.2±0.5, 0.13N×129.58E, h10^{km}, mb4.5/9, Error ellipse: s-maj=18.6km s-min=7.8km az=75.0*

*ISCJB **20** 16:34:55.4±0.6, 0.09N±0.07×129.5E±0.1, h33^{km}, mb4.3/15, Error ellipse: s-maj=21.5km s-min=9.1km az=167.4*

ISC 20 16:34:57.7±0.6, **0.08N**±0.07×**129.5E**±0.1**, h35**^{km}**, n21, σ0^{s}77**/21**, mb4.3**/15**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	18.46	192	P	Pn	16 39 09.8	-1.1
	0.4nm,0.3s,baz=46,slow=14,SNR=12						
FITZ				LR	LR	16 46 38.4	
	comp=Z,83nm,18.2s,baz=246,slow=38						
KSM	Kuching	19.23	274	*e*P	Pn	16 39 20.3	+0.1
WRA	Warramunga Arr	20.46	167	P	P	16 39 32.7	+0.3
	6.6nm,0.6s,baz=345,slow=11,SNR=63						
ASAR	Alice Springs	23.99	170	P	P	16 40 09.9	+0.8
	12nm,0.8s,mb4.3,baz=352,slow=9.2,SNR=115						
JOW	Kunigami	26.62	358	P	P	16 40 34.4	+1.3
	4.8nm,0.8s,mb4.1,baz=167,slow=12,SNR=3.9						
STKA	Stephens Creek	33.78	161	P	P	16 41 36.5	+0.1
	3.1nm,0.6s,mb4.4,baz=331,slow=9.4,SNR=10						
CHTO	Chiang Mai	35.29	304	*e*P	P	16 41 50.4	+0.8
	6.1nm,1.1s,mb4.4						
KSRS	Korea Array	37.22	358	P	P	16 42 05.5	-0.3
	0.9nm,0.7s,mb3.7,baz=179,slow=11,SNR=5.7						
XAN	Xi'an	38.90	332	P	P	16 42 18.4	-1.7
XAN				AP	pP	16 42 25.4	-4.9
XAN				AMB	AMB		
	comp=Z,3.0nm,0.9s,mb4.0						
CD2	Chengdu	39.20	324	P	P	16 42 23.0	+0.4
BJT	Baijiatuau	41.57	345	*e*P	P	16 42 41.5	-0.6
	comp=Z,2.8nm,0.6s,mb4.1						
LZH	Lanzhou	43.03	329	*e*P	P	16 42 54.3	+0.3
LZH				AP	pP	16 43 02.0	-2.4
LZH				XP	sP	16 43 05.9	-2.6
LZH				AMB	AMB		
	comp=Z,26nm,1.5s,mb4.7						
LZH	Lanzhou	43.03	329	*e*P	P	16 42 54.2	+0.2
	comp=Z,26nm,1.5s,mb4.7						
LZH				pP	pP	16 43 02.0	-2.4
LZH				sP	sP	16 43 05.9	-2.6
LSA	Lhasa	46.91	312	P	P	16 43 26.1	+1.0
LSA	Lhasa	46.91	312	*e*P	P	16 43 27.2	+2.1
	comp=Z,4.6nm,0.8s,mb4.5						
ULN	Ulaanbaatar	51.44	341	*e*P	P	16 43 59.3	0.0
	comp=Z,6.7nm,1.1s,mb4.5						
SONM	Songino Array	51.63	340	P	P	16 44 01.0	+0.2
	comp=Z,0.7nm,0.5s,mb3.8,baz=153,slow=7.2,SNR=9.6						
YAK	Yakutsk	61.79	0	*e*P	P	16 45 12.6	-0.1
	comp=Z,8.5nm,0.6s,mb5.0						
MKAR	Makanchi Array	62.10	325	P	P	16 45 14.7	-0.4
	comp=Z,0.7nm,0.5s,mb4.0,baz=115,slow=8.5,SNR=16						
ZALV	Zalesovo Beam	65.07	333	P	P	16 45 34.1	-0.4
	comp=Z,0.3nm,0.4s,mb3.7,baz=115,slow=9.7,SNR=2.6						
KURK	Kurchatov	66.28	327	*e*P	P	16 45 41.5	-1.0
	comp=Z,9.4nm,0.8s,mb4.9						

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*ISCJB **20** 16:46:10.9±0.6, 35.70N±0.02×121.49W±0.03, h13^{km}±3^{km}, Error ellipse: s-maj=4.9km s-min=2.7km az=148.4*

*NEIC **20** 16:46:13.2, 35.78N×121.38W, h7^{km}, MW3.7(BRK), After NCEDC.*

NEIC Felt [III] at Cambria and San Simeon. Felt at Alviso, Big Sur, Carmel, Cayucos, Long Beach, Nipomo, San Luis Obispo, Santa Cruz, Santa Margarita, Seaside and Turlock.

ISC 20 16:46:11.6±0.6, **35.72N**±0.02×**121.47W**±0.03, **h10**^{km}±3^{km}**, n76, σ0^{s}80**/104**, 51C-31D, Central California**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
V03C	Hunter Liggett	0.35	32	P	Pg	16 46 18.7	+0.1
	baz=0.3,SNR=1000						
V03C				⇑S	Sg	16 46 23.1	-0.3
	baz=0.3						
HAST	UC Hastings Re	0.67	354	P	Pg	16 46 24.8	+0.3
	baz=0.6,SNR=1000						
HAST				⇑S	Sg	16 46 33.3	-0.1
	baz=0.6						
PKD	Parkfield	0.79	73	⇑P	Pg	16 46 26.4	-0.4
	baz=0.7,SNR=1000						
PKD				⇑S	Sg	16 46 36.4	-0.6
	baz=0.7						
U04C	Hernandez Rese	0.85	41	P	Pg	16 46 27.9	-0.1
	baz=0.8,SNR=1000						
U04C				⇓S	Sg	16 46 39.0	0.0
	baz=0.8						
PTRM	Twissleman Ran	1.03	93	*e*Pg	Pg	16 46 31.2	-0.2
SAO	San Andreas Ge	1.04	1	*e*Pg	Pg	16 46 31.3	-0.3
SAO				*e*Sg	Sg	16 46 44.3	-0.9
U05C	Westside ANR,	1.25	60	⇑P	Pn	16 46 35.2	+0.1
	baz=1.2,SNR=11						
U05C				⇓S	Sb	16 46 51.4	-0.1
	baz=1.2						
SMMC	Simmler	1.27	108	⇑P	Pn	16 46 34.9	-0.4
	baz=1.2,SNR=42						
SMMC				⇑S	Sb	16 46 51.9	+0.1
	baz=1.2						
V05C	Boulder Hill,	1.28	83	⇑P	Pn	16 46 35.6	+0.1
	baz=1.2,SNR=54						
PACP	Pacheco Peak	1.29	6	P	Pn	16 46 35.7	0.0
	baz=1.2,SNR=61						
PACP				⇑S	Sb	16 46 52.9	+0.3
	baz=1.2						
T05C	Eagle Field, D	1.34	28	⇑P	Pn	16 46 36.5	+0.2
	baz=1.2,SNR=73						
T05C				⇑S	Sb	16 46 55.3	+1.4
	baz=1.2						
BNLO	Ben Lomond (Sa	1.52	338	P	Pn	16 46 38.1	-0.7
	baz=1.5,SNR=134						
BNLO				⇓S	Sn	16 46 59.1	+0.5
	baz=1.5						
PKM	Peak Mountain	1.58	121	⇑P	Pn	16 46 39.6	0.0
	baz=1.6,SNR=469						
S04C	Ingram Canyon,	1.79	4	⇑P	Pn	16 46 42.7	+0.2
	baz=1.7,SNR=79						
JRSC	Jasper Ridge	1.79	340	⇑P	Pn	16 46 42.2	-0.4
	baz=1.8,SNR=15						
JRSC				⇓S	Sn	16 47 05.1	-0.3
	baz=1.8						
S05C	Merced	1.86	29	P	Pn	16 46 43.3	-0.3
	baz=1.8,SNR=49						
S05C				⇓S	Sn	16 47 05.1	-2.0
	baz=1.8						
RCTC	Rector, Farmer	1.90	71	⇓P	Pn	16 46 43.7	-0.3
	baz=1.8						
WENL	Wente Brothers	1.91	353	⇓P	Pn	16 46 44.2	0.0
	baz=1.9						
T06C	Millerton Lake	1.91	47	P	Pn	16 46 43.9	-0.4
	baz=1.8,SNR=172						
T06C				⇓S	Sn	16 47 06.3	-2.0
	baz=1.8						
VES	Vestal, Richgr	1.95	86	P	Pn	16 46 43.9	-0.7
	baz=1.9,SNR=26						
VES				⇓S	Sn	16 47 07.9	-1.3
	baz=1.9						
HELL	Mitchell Peak,	2.20	63	⇑P	Pn	16 46 47.5	-0.7
	baz=2.1,SNR=39						
HELL				⇑S	Sn	16 47 14.9	-0.5
	baz=2.1						
ARVC	Arvin	2.23	105	⇑P	Pn	16 46 48.0	-0.6
	baz=2.2						
BDM	Black Diamond	2.25	352	⇑P	Pn	16 46 48.8	-0.1
	baz=2.2						
BSC	Santa Cruz Isl	2.29	138	⇓P	Pn	16 46 48.8	-0.6
	baz=2.3,SNR=11						
BSC				⇑S	Sn	16 47 18.2	+0.6
	baz=2.3						
FARB	Farallon Islan	2.33	328	⇓P	Pn	16 46 49.9	0.0
	baz=2.3						
FARB				⇓S	Sn	16 47 19.5	+0.9
	baz=2.3						
KCC	Kaiser Creek	2.36	47	⇑P	Pn	16 46 50.6	+0.3
	baz=2.3,SNR=46						
KCC				⇓S	Sn	16 47 18.2	-1.1
	baz=2.3						
ISA	Isabella	2.44	90	⇑P	Pn	16 46 51.4	0.0
	baz=2.4,SNR=70						
CMB	Columbia Colle	2.47	20	*e*Pn	Pn	16 46 51.6	-0.2
CMB				*e*Sn	Sn	16 47 17.9	-4.1
CMB	Columbia Colle	2.47	20	⇑P	Pn	16 46 51.9	+0.1
	baz=2.4,SNR=29						
CMB				⇓S	Sn	16 47 20.6	-1.4
	baz=2.4						
S06C	San Francisco	2.52	31	⇓P	Pn	16 46 53.2	+0.7
	baz=2.4,SNR=128						
S06C				⇑S	Sn	16 47 22.2	-1.0
	baz=2.4						
BLG	Laguna Peak	2.55	128	⇓P	Pn	16 46 52.5	-0.4
	baz=2.5,SNR=22						
R04C	Big Horse Ranc	2.57	9	⇓P	Pn	16 46 52.9	-0.3
	baz=2.5,SNR=12						
R04C				⇑S	Sn	16 47 22.6	-1.9
	baz=2.5						
MCCM	Marconi Confer	2.67	335	*e*Pn	Pn	16 46 53.5	-1.2
MCCM	Marconi Confer	2.67	335	P	Pn	16 46 53.7	-0.9
	baz=2.6,SNR=11						
CVS	Carmenet Viney	2.74	343	⇑P	Pn	16 46 54.8	-0.7
	baz=2.7,SNR=16						
CVS				⇑S	Sn	16 47 27.8	-0.9
	baz=2.7						
CWC	Cottonwood Cre	2.84	74	⇓P	Pn	16 46 57.8	+0.9
	baz=2.7,SNR=22						
MLAC	Mammoth Lakes	2.85	47	⇑P	Pn	16 46 58.5	+1.5
	baz=2.8						
MLAC				⇑S	Sn	16 47 32.4	+1.0
	baz=2.8						
MTUM	Tungsten Hills	2.85	54	*e*Pn	Pn	16 46 58.5	+1.4
TIN	Tinemaha	2.93	62	⇓P	Pn	16 46 59.6	+1.3
	baz=2.8						
NSHM	Saint Helena R	2.94	342	*e*Pn	Pn	16 46 56.4	-2.0
SNCC	San Nicolas Is	2.94	146	⇑S	Sn	16 47 33.0	-0.7
	baz=3.0						
DECC	Green Verdugo	2.96	119	⇑P	Pn	16 46 58.9	+0.2
	baz=2.9,SNR=5.3						
EDW2	Edwards Air Fo	2.97	105	⇑P	Pn	16 46 58.4	-0.3
	baz=2.9,SNR=38						
R07C	Lee Vining	3.06	39	⇑P	Pn	16 47 01.8	+1.8
	baz=3.0						
Q04C	Lincoln	3.11	1	⇑P	Pn	16 47 00.9	+0.2
	baz=3.1						
Q04C				⇑S	Sn	16 47 37.1	-0.9
	baz=3.1						
R05C	Kirkwood Meado	3.18	20	⇓P	Pn	16 47 02.5	+0.9
	baz=3.1,SNR=22						
R05C				⇓S	Sn	16 47 39.4	-0.1
	baz=3.1						
S08C	White Mtn Res	3.19	55	⇑P	Pn	16 47 02.9	+1.1
	baz=3.1,SNR=83						
S08C				⇑S	Sn	16 47 41.4	+1.5
	baz=3.1						
R06C	Coleville	3.23	29	⇑P	Pn	16 47 04.2	+1.9
	baz=3.1						
R06C				⇓S	Sn	16 47 42.1	+1.4
	baz=3.1						
MPMC	Manual Prospec	3.25	83	⇓P	Pn	16 47 03.1	+0.6
	baz=3.2						
CIS	Catalina Islan	3.42	132	P	Pn	16 47 04.2	-0.7
	baz=3.4,SNR=16						
BFSC	Mount Baldy St	3.46	114	⇑P	Pn	16 47 05.7	+0.2
	baz=3.4,SNR=17						
HOPS	Hopland	3.51	339	*e*Pn	Pn	16 47 05.6	-0.5
GRAC	Grapevine Rang	3.55	68	⇓P	Pn	16 47 07.7	+1.1
	baz=3.5						
P05C	Yuba Gap, Truc	3.64	11	⇓P	Pn	16 47 09.3	+1.4
	baz=3.6						
WCN	Washoe City	3.83	20	⇓P	Pn	16 47 11.3	+0.8
	baz=3.7						
ORV	Oroville	3.83	360	⇑P	Pn	16 47 11.3	+0.8
	baz=3.8						
P06A	Stead Airport,	4.14	17	⇑Pb	Pb	16 47 24.6	+0.1
	baz=4.1						
Q08A	Gabbs	4.22	41	⇓Pb	Pb	16 47 25.9	+0.1
	baz=4.1						
SHOC	Shoshone	4.22	86	⇑P	Pn	16 47 15.6	-0.3
	baz=4.1						
U10A	Ash Meadows, A	4.22	79	⇑Pb	Pb	16 47 25.5	-0.4
	baz=4.1						
BEKR	Beckwourth	4.23	12	⇑P	Pn	16 47 16.9	+0.8
	baz=4.2						
O05C	Quincy	4.26	6	⇑P	Pn	16 47 17.5	+1.0
	baz=4.2						
R09A	Tonopah	4.33	53	⇓P	Pn	16 47 18.3	+0.9
	baz=4.2						
S10A	Tonopah Range,	4.49	59	⇑P	Pn	16 47 20.2	+0.6
	baz=4.4						
TUQ	Turquoise Mtn.	4.53	92	P	Pn	16 47 20.2	0.0
	baz=4.4,SNR=9.6						
PFO	Pinyon Flat Ob	4.64	116	*e*P	Pn	16 47 21.5	-0.1
PFO	Pinyon Flat Ob	4.64	116	⇑P	Pn	16 47 21.5	-0.2
	baz=4.6						
BELC	Belle Mtn.	4.81	109	⇑P	Pn	16 47 24.0	-0.1
	baz=4.8,SNR=23						
GMRC	Granite Mounta	4.84	99	⇑P	Pn	16 47 24.7	+0.2
	baz=4.8						
R10A	Warm Springs	4.87	57	⇓Pb	Pb	16 47 36.2	-0.6
	baz=4.8						
O07A	Toulon	4.88	24	⇑P	Pn	16 47 26.2	+1.2
	baz=4.8						
MONP	Monument Peak	5.04	123	⇓P	Pn	16 47 27.1	-0.1
	baz=5.0,SNR=16						
N06A	Buffalo Meadow	5.18	14	⇓Pb	Pb	16 47 41.3	-1.0
	baz=5.1						
BC3	Big Chuckw Mtn	5.37	111	⇑P	Pn	16 47 31.2	-0.5
	baz=5.3,SNR=7.7						
IRM	Iron Mountain	5.42	105	⇑P	Pn	16 47 32.2	-0.2
	baz=5.4						
DAU	Daniels Canyon	9.31	57	*e*Pn	Pn	16 48 31.9	+6.0

IDC 20 16:59:08.8±2.2, **1.11S**×**127.18E, h0**^{km}**, mb3.1**/2**, mb1 3.2**/3**, mb1mx3.1**/17**, mbtmp3.0**/3**, ML3.0**/1**, Error ellipse: s-maj=194.8km s-min=27.2km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.98	160	P	Pn	17 03 43.2	-1.4
	0.0nm,0.3s,baz=342,slow=12,SNR=5.7						
ASAR	Alice Springs	23.35	164	P	P	17 04 18.9	-0.1
	0.2nm,0.5s,baz=342,slow=12,SNR=4.1						
MKAR	Makanchi Array	61.79	327	P	P	17 09 29.5	+0.1
	0.1nm,0.3s,baz=122,slow=7.9,SNR=5.4						

IDC 20 17:04:04.0±1.3, **0.96S**×**127.51E, h0**^{km}**, mb3.6**/6**, mb1 3.8**/6**, mb1mx3.6**/16**, mbtmp3.7**/6**, Error ellipse: s-maj=209.3km s-min=17.9km az=68.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.02	161	P	P	17 08 38.0	-0.5
	1.0nm,0.6s,baz=340,slow=11,SNR=13						
ASAR	Alice Springs	23.41	165	P	P	17 09 14.2	-0.7
	1.1nm,0.7s,baz=343,slow=12,SNR=15						
STKA	Stephens Creek	33.51	158	P	P	17 10 46.4	+1.1
	2.7nm,0.9s,baz=329,slow=12,SNR=3.7						
SONM	Songino Array	51.96	342	P	P	17 13 13.9	-0.9
	0.6nm,0.9s,baz=148,slow=8.9,SNR=5.2						
MKAR	Makanchi Array	61.84	326	P	P	17 14 24.9	0.0
	0.2nm,0.3s,baz=116,slow=7.9,SNR=15						
ZALV	Zalesovo Beam	65.10	334	P	P	17 14 47.1	+0.8
	0.2nm,0.3s,baz=112,slow=6.9,SNR=2.5						

IDC 20 17:06:34.6±1.4, **1.15S**×**127.41E, h0**^{km}**, mb3.5**/3**, mb1 3.7**/4**, mb1mx3.5**/16**, mbtmp3.5**/4**, ML3.4**/1**, Error ellipse: s-maj=129.8km s-min=22.5km az=70.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.87	160	P	Pn	17 11 07.9	-1.1
	0.1nm,0.3s,baz=340,slow=11,SNR=6.2						
ASAR	Alice Springs	23.25	165	P	P	17 11 43.7	-0.1
	1.0nm,0.7s,baz=349,slow=11,SNR=5.8						
SONM	Songino Array	52.11	342	P	P	17 15 47.2	+0.7
	0.4nm,0.8s,baz=145,slow=7.1,SNR=3.9						
MKAR	Makanchi Array	61.95	327	P	P	17 16 55.8	-0.5
	0.4nm,0.5s,baz=113,slow=8.4,SNR=6.8						

MAN 20 17:20:15, 10.37N×121.43E, h23^{km}**, mb3.5, ML2.2, MS1.7, Panay**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CUYO	Cuyo Island	0.62	320	*e*P	Pb	17 20 28.9	+1.7
CUYO				*e*S	Sb	17 20 38.6	+3.1
GUIM	Jordan	1.17	77	*e*P	Pn	17 20 35.9	0.0
BUSP	Coron	2.02	323	*e*P	Pn	17 20 54.1	+6.5
BUSP				*e*S	Sn	17 21 23.7	+11
OTRP	Odiongan	2.06	16	*e*P	Pn	17 20 54.9	+6.6
ENPP	El Nido	2.13	293	*e*P	Pn	17 20 50.3	+1.0
PAGZ	Pagadian	3.17	142	*e*P	Pn	17 21 05.7	+2.2
PAGZ				*e*S	Pb	17 21 16.5	+5.9
BUKP	Musuan	4.36	124	*e*P	Sn	17 22 09.8	-0.2

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*IDC **20** 17:25:08.1±0.5, 26.82S×70.85W, h0^{km}, mb4.5/9, mb1 4.6/11, mb1mx4.5/16, mbtmp4.5/11, ML4.5/2, MS4.3/8, Ms1 4.3/8, ms1mx4.1/15, Error ellipse: s-maj=28.4km s-min=17.9km az=72.0*

*ISCJB **20** 17:25:10.0±0.9, 26.77S±0.03×70.97W±0.08, h24^{km}±6^{km}, mb4.6/17, MS4.4/7, Error ellipse: s-maj=12.2km s-min=5.1km az=176.0*

GUC ***20*** *17:25:11.4±0.8, 2690S×7105W, h25^{km}±5^{km}, ML5.1*

NEIC ***20*** *17:25:11.4, 2690S×7105W, h25^{km}, mb4.8/8, ML5.1(GUC), After GUC.*

NEIC Felt [III] at Chanaral and Copiapo; [II] at Caldera and Tierra Amarilla.

BJI ***20*** *17:25:14.4, 2690S×7100W, h25^{km}, mB5.2, Ms5.2, Msz5.0*

ISC 20 17:25:10.9±0.9**, 2678S**±003×**7093W**±007**, h17**^{km}±5^{km}**, n85, σ1^{s}08**/57**, mb4.6**/17**, MS4.4**/7**, 6D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CDCH	Caldera	0.30	163	⇓*i*P	Pg	17 25 17.6	+0.1
CDCH				*i* S	Sg	17 25 22.5	+0.7
CPCH	Copiapo	0.77	138	⇓*i*P	Pb	17 25 24.9	-0.8
CPCH				*i* S	Sb	17 25 36.3	+0.4
CPCH	Copiapo	0.77	138	⇓*i*P	Pb	17 25 24.9	-0.8
CPCH				*i* S	Sb	17 25 36.3	+0.4
CPCH				AML	AML	17 25 37.6	
	comp=N,168μm,0.6s						
VACH	Vallenar	1.79	175	⇓*e*P	Pn	17 25 40.3	-0.7
VACH				*i* S	Sn	17 26 01.6	-1.7
VACH	Vallenar	1.79	175	⇓*e*P	Pn	17 25 40.3	-0.7
VACH				*i* S	Sn	17 26 01.6	-1.7
VACH				AML	AML	17 26 11.0	
	comp=E,25μm,0.5s						
CPN1	Cerro Paranal	2.20	13	*e*P	Pn	17 25 46.8	+0.2
CPN1				*i* S	Sn	17 26 20.7	+7.3
LCO	Las Campanas	2.23	175	*e*Pn	Pn	17 25 46.1	-0.9
LCO				*e*Sn	Sn	17 26 13.7	-0.3
ANCH	Antofagasta	3.12	9	*e*P	Pn	17 25 58.8	-0.6
ANCH				AML	AML	17 26 59.3	
	comp=E,4μm,0.6s						
LSCH	La Serena	3.12	185	*e*P	Pn	17 25 56.5	-2.8
LSCH				*i* S	Sn	17 26 32.1	-4.1
CEN1	Los Morros	3.44	11	⇓*i*P	Pn	17 25 59.8	-3.9
CEN1				*i* S	Sn	17 26 39.7	-4.4
CEN1				AML	AML	17 27 00.8	
	comp=E,3μm,0.6s						
CFAA	Coronel Fontan	5.35	155	Pn	Pn	17 26 32.1	+2.3
CFAA				Sn	Sn	17 27 33.6	+2.5
CFAA	Coronel Fontan	5.35	155	Pn	Pn	17 26 32.1	+2.3
	comp=E,0.7nm,0.3s,baz=337,slow=11,SNR=27						
CFAA				Sn	Sn	17 27 33.6	+2.5
	comp=E,5.4nm,0.3s,baz=304,slow=13,SNR=5.2						
MDZ	Mendoza	6.34	164	*e*P	Pn	17 26 49.2	+5.7
MDZ				*e*		17 27 31.8	
MDZ				*e*		17 28 33.0	
FCH	Farellones	6.54	175	*e*P	Pn	17 26 46.6	+0.3
ARE	Arequipa	10.29	357	*e*P	Pn	17 27 36.0	-1.7
ARE				*e*S	Sn	17 29 28.0	-4.6
LPAZ	La Paz	10.76	15	Pn	Pn	17 27 44.4	+0.1
LPAZ	La Paz	10.76	15	Pn	Pn	17 27 44.4	+0.1
	comp=E,1.1nm,0.3s,baz=198,slow=7.0,SNR=30						
SIV	San Ignacio	14.12	42	Pn	Pn	17 28 27.8	-2.3
SIV				Sn	Sn	17 31 06.3	-0.1
SIV	San Ignacio	14.12	42	Pn	Pn	17 28 27.8	-2.3
	comp=E,1.3nm,0.3s,baz=245,slow=13,SNR=21						
SIV				Sn	Sn	17 31 06.3	-0.1
	comp=E,0.4nm,0.3s,baz=292,slow=19,SNR=2.4						
NNA	Nana	15.74	338	LR	LR	17 33 42.0	
	comp=E,505nm,18.8s,baz=144,slow=32						
ATAH	Atahualpa	20.92	339	LR	LR	17 36 32.1	
	comp=E,305nm,19.4s,MS3.7,baz=164,slow=33						
USHA	Ushuaia	28.08	177	LR	LR	17 42 56.0	
	comp=E,1μm,18.2s,MS4.5,baz=210,slow=38						
ROSC	El Rosal	31.62	354	LR	LR	17 44 46.3	
	comp=E,241nm,19.3s,MS3.9,baz=180,slow=37						
RKT	Rikitea	57.64	259	*e*S	S	17 42 53.2	-5.0
	comp=E,138nm,28.5s						
RKT				*e*LR	LR	17 51 53.7	
	comp=E,208nm,28.0s						
SNAA	Sanae	57.95	160	P	P	17 35 01.7	-0.1
	comp=E,2.4nm,0.7s,mb4.4,baz=290,slow=7.1,SNR=16						
MAIT	Maitri	62.57	158	*e*P	P	17 35 31.2	-2.2
JCT	Junction City	63.28	332	*e*P	P	17 35 39.3	+0.6
	comp=E,19nm,0.8s,mb5.3						
TXAR	Lajitas Array	64.02	328	P	P	17 35 44.3	+0.8
	comp=E,1.8nm,0.7s,mb4.2,baz=146,slow=8.6,SNR=10						
TAOE	Nuku Hiva Isla	67.55	271	*e*LR	LR	17 56 28.0	
	comp=E,929nm,25.1s						
MSNY	Massena	71.52	357	*e*P	P	17 36 31.1	+0.7
SDCO	Great Sand Dun	71.92	332	*e*P	P	17 36 34.8	+1.7
	comp=E,6.2nm,1.1s,mb4.5						
PPT	Papeete	72.40	259	*e*S	S	17 45 55.0	-4.8
	comp=E,189nm,26.8s						
PPT				*e*LR	LR	17 58 45.0	
	comp=E,118nm,23.2s						
PPT	Papeete	72.40	259	LR	LR	18 01 43.1	
	comp=E,296nm,21.8s,MS4.5,baz=100,slow=30						
ECSD	EROS,Sioux Fal	74.03	341	*e*P	P	17 36 45.5	+0.1
	comp=E,8.4nm,0.8s,mb4.7						
PDAR	Pinedale Array	77.82	332	P	P	17 37 08.1	+1.1
	comp=E,1.4nm,0.8s,mb3.9,baz=126,slow=6.3,SNR=8.2						
AGMN	Agassiz Refuge	78.02	343	*e*P	P	17 37 08.2	+0.2
	comp=E,5.5nm,0.7s,mb4.6						
TPAW	Teton Pass	79.00	332	*e*P	P	17 37 14.8	+1.2
	comp=E,16nm,1.3s,mb4.8						
MAW	Mawson	79.81	164	P	P	17 37 17.7	-0.1
MAW				LR	LR	18 15 48.5	
MAW	Mawson	79.81	164	P	P	17 37 17.7	-0.1
	comp=E,7.7nm,0.8s,mb4.7,baz=215,slow=5.5,SNR=5.3						
MAW				LR	LR	18 15 48.5	
	comp=E,273nm,18.1s,MS4.6,baz=346,slow=38						
ULM	Lac du Bonnet	79.82	344	P	P	17 37 17.8	-0.1
	comp=E,2.6nm,0.7s,mb4.2,baz=145,slow=5.9,SNR=12						
TSUM	Tsumeb	80.30	107	*e*P	P	17 37 21.8	+0.5
	comp=E,8.5nm,0.8s,mb4.7						
DGMT	Dagmar	80.63	338	*e*P	P	17 37 23.2	+0.9
	comp=E,13nm,0.7s,mb5.0						
TORD	Torodi Ar. Bea	80.86	70	P	P	17 37 24.3	-0.1
TORD				LR	LR	18 12 04.2	
TORD	Torodi Ar. Bea	80.86	70	P	P	17 37 24.3	-0.1
	comp=E,24nm,0.7s,mb5.2,baz=256,slow=5.0,SNR=103						
TORD				LR	LR	18 12 04.2	
	comp=E,353nm,18.6s,MS4.8,baz=245,slow=35						
SCHQ	Schefferville	81.36	2	P	P	17 37 25.9	-0.1
	comp=E,1.4nm,0.6s,mb4.0,baz=156,slow=10.0,SNR=3.2						
BOSA	Boshof	82.60	118	P	P	17 37 33.4	0.0
	comp=E,7.3nm,0.9s,mb4.7,baz=227,slow=6.3,SNR=9.4						
BOSA				LR	LR	18 08 24.7	
	comp=E,227nm,19.4s,MS4.5,baz=235,slow=32						
EDM	Edmonton	87.78	336	*e*P	P	17 37 56.8	-1.7
LSZ	Lusaka	91.11	108	*e*P	P	17 38 16.3	+1.2
	comp=E,3.4nm,1.0s,mb4.6						
YKA	Yellowknife Ar	95.55	341	P	P	17 38 34.3	-0.1
YKA	Yellowknife Ar	95.55	341	P	P	17 38 34.3	-0.1
	comp=E,1.1nm,0.8s,mb4.3,baz=138,slow=4.4,SNR=25						
AKASG	Malin Array Be	116.49	44	PKP	PKPdf	17 43 52.5	-0.9
AKASG	Malin Array Be	116.49	44	PKP	PKPdf	17 43 52.5	-0.9
	comp=E,1.1nm,0.7s,baz=264,slow=2.6,SNR=10.0						
BRTR	Keskin Array B	117.30	57	PKP	PKPdf	17 43 55.5	+0.2
BRTR	Keskin Array B	117.30	57	PKP	PKPdf	17 43 55.5	+0.2
	comp=E,0.4nm,0.7s,baz=176,slow=3.7,SNR=3.6						
ASAR	Alice Springs	124.40	208	PKP	PKPdf	17 44 08.6	-1.0
ASAR	Alice Springs	124.40	208	PKP	PKPdf	17 44 08.6	-1.0
	comp=E,0.9nm,0.8s,baz=142,slow=1.9,SNR=8.6						
WRA	Warramunga Arr	127.48	210	PKP	PKPdf	17 44 14.6	-0.9
WRA	Warramunga Arr	127.48	210	PKP	PKPdf	17 44 14.6	-0.9
	comp=E,1.9nm,0.7s,baz=164,slow=1.7,SNR=19						
AKTK	Aktyubinsk	134.74	44	PKP	PKPdf	17 44 28.6	+0.4
AKTO	Aktyubinsk	134.74	44	PKP	PKPdf	17 44 28.6	+0.3
	comp=E,1.2nm,0.8s,baz=315,slow=1.4,SNR=5.5						
KURK	Kurchatov	146.71	36	*e*PKP	PKPdf	17 44 50.5	+0.8
EKS2	Erkin-Say	147.23	52	*e*PKPdf	PKPdf	17 44 52.1	+1.2
AML	Almayashu	147.32	53	*e*PKPbc	PKPbc	17 44 53.0	-0.4
ZALV	Zalesovo Beam	147.49	27	PKP	PKPdf	17 44 51.1	+0.2
ZALV				PKPbc	PKPbc	17 44 53.6	+0.1
ZALV	Zalesovo Beam	147.49	27	PKP	PKPdf	17 44 51.1	+0.2
	comp=E,28nm,0.8s,baz=305,slow=3.7,SNR=64						
ZALV				PKPbc	PKPbc	17 44 53.6	+0.1
	comp=E,28nm,0.8s,baz=302,slow=2.8,SNR=84						
AAK	Ala-Archa	147.74	52	*e*PKPdf	PKPdf	17 44 51.8	+0.1
UCH	Uchtor	147.88	52	*e*PKPbc	PKPbc	17 44 53.9	-1.0
HYB	Hyderabad	150.29	102	*e*P	PKPdf	17 45 01.5	+4.9
HYB	Hyderabad	150.29	102	*i* PKP	PKPdf	17 45 01.5	+4.9
MKAR	Makanchi Array	150.92	40	PKP	PKPdf	17 44 57.6	+1.0
MKAR				PKPbc	PKPbc	17 45 02.6	+0.2
MKAR	Makanchi Array	150.92	40	PKP	PKPdf	17 44 57.6	+1.0
	comp=E,19nm,0.7s,baz=340,slow=2.1,SNR=9.9						
MKAR				PKPbc	PKPbc	17 45 02.6	+0.2
	comp=E,19nm,0.7s,baz=328,slow=2.1,SNR=186						
MJAR	Matsushiro Arr	153.45	299	PKPab	PKPab	17 45 21.2	+0.5
MJAR	Matsushiro Arr	153.45	299	PKPab	PKPab	17 45 21.2	+0.5
	comp=E,1.1nm,0.8s,baz=136,slow=2.2,SNR=4.2						
WMQ	Urumqi	155.75	40	*e*PKP	PKPdf	17 45 03.1	-0.6
SONM	Songino Array	158.88	5	PKP	PKPdf	17 45 07.7	+0.2
SONM				PKPab	PKPab	17 45 45.0	+1.5
SONM	Songino Array	158.88	5	PKP	PKPdf	17 45 07.7	+0.2
	comp=E,1.6nm,0.8s,baz=258,slow=0.5,SNR=16						
SONM				PKPab	PKPab	17 45 45.0	+1.5
	comp=E,1.1nm,0.8s,baz=324,slow=5.8,SNR=5.7						
KSRS	Korea Array	160.85	308	PKP	PKPdf	17 45 10.2	+0.1
	comp=E,0.9nm,0.9s,baz=45,slow=0.3,SNR=3.8						
KSRS				PKPab	PKPab	17 45 53.2	+0.7
	comp=E,0.8nm,0.8s,baz=50,slow=3.9,SNR=4.4						
BJI	Beijing	165.52	338	PKP	PKPdf	17 45 14.3	-0.2
BJI	Beijing	165.52	338	PKP	PKPdf	17 45 14.3	-0.2
HHC	Hu-ho-hao-te	165.82	352	*e*PKP	PKPdf	17 45 13.5	-1.2
HHC				PP	PP		
	comp=Z,156nm,7.4s						
LZH	Lanzhou	169.71	24	*e*PKP	PKPdf	17 45 15.0	-2.6
LZH				LR	LR		
	comp=E,148nm,18.3s						
LZH				LR	LR		
	comp=Z,193nm,20.2s						
LZH	Lanzhou	169.71	24	*e*PKP	PKPdf	17 45 15.0	-2.6
LZH				pPKP	pPKPdf	17 45 18.3	-5.3
LZH				sPKP		17 45 19.5	
NJ2	Nanjing	169.99	304	*e*PKP	PKPdf	17 45 14.0	-3.9
CD2	Chengdu	173.79	47	*e*PKP	PKPdf	17 45 17.8	-1.9
CD2				XPKP		17 45 27.3	
CD2				PKP2	PKPab	17 46 50.0	+0.2
CD2				PP	PP	17 50 43.1	+1.5
CD2				SKS	SKSdf	17 52 15.6	-6.6
CD2				SKKS	SKKSac	17 57 24.3	-3.3
CD2				SS	SS	18 11 54.1	-4.5
CD2				PP	PP		
	comp=Z,180nm,10.8s						
CD2				LR	LR		
	comp=N,340nm,15.6s						
CD2				LR	LR		
	comp=Z,740nm,15.5s						
GYA	Guiyang	177.82	98	*e*PKP	PKPdf	17 45 20.0	-0.8
GYA				PKP2	PKPab	17 47 09.4	+1.4
GYA				PKS		17 48 51.3	
GYA				PP	PP	17 51 03.4	+1.6
GYA				SKS	SKSdf	17 52 20.6	-2.5
GYA				SKKS	SKKSac	17 57 47.5	+0.4
GYA				PP	PP		
	comp=Z,110nm,7.9s						
GYA				LR	LR		
	comp=N,220nm,20.8s						
GYA				LR	LR		
	comp=E,130nm,21.4s						
GYA				LR	LR		
	comp=Z,230nm,22.6s						

ISCJB ***20*** *17:27:25.7±1.6, 978S±005×12534E±006, h87^{km}±17^{km}, mb3.9/8, Error ellipse: s-maj=10.7km s-min=8.6km az=156.3*

IDC ***20*** *17:27:26.8±7.4, 974S×12528E, h75^{km}±86^{km}, mb3.7/6, mb1 4.0/9, mb1mx3.9/16, mbtmp3.9/9, ML4.3/3, Error ellipse: s-maj=61.8km s-min=38.3km az=122.0*

NEIC ***20*** *17:27:27.3±1.3, 969S×12528E, h77^{km}±17^{km}, mb3.8/1, Error ellipse: s-maj=14.2km s-min=11.4km az=211.0*

ISC 20 17:27:26.6±1.4**, 974S**±007×**12529E**±007**, h73**^{km}±18^{km}**, n20, σ0^{s}90**/25**, mb3.9**/8**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	7.61	113	*e*P	Pn	17 29 16.0	+1.2
	7.2nm,0.3s						
KAKA				*e*S	Sn	17 30 38.3	-1.4
FITZ	Fitzroy Crossi	8.32	178	*e*P	Pn	17 29 26.1	+1.6
	64nm,0.6s						
FITZ				*e*S	Sn	17 30 57.1	+0.2
FITZ	Fitzroy Crossi	8.32	178	P	Pn	17 29 25.8	+1.3
	5.2nm,0.3s,baz=14,slow=11,SNR=85						
FITZ				S	Sn	17 30 57.3	+0.4
	7.6nm,0.3s,baz=165,slow=14,SNR=11						
MBWA	Marble Bar	12.55	205	*e*Pn	Pn	17 30 23.1	+0.9
MBWA				*e*Sn	Sn	17 32 38.5	-1.8
WRA	Warramunga Arr	13.39	140	P	Pn	17 30 32.3	-1.2
	1.2nm,0.3s,baz=322,slow=14,SNR=40						
WRA				S	Sn	17 32 56.6	-4.1
	1.9nm,0.3s,baz=318,slow=26,SNR=9.3						
ASAR	Alice Springs	16.11	150	P	Pn	17 31 09.9	+1.3
	1.7nm,0.3s,baz=319,slow=11,SNR=122						
ASAR				S	S	17 34 03.4	-13
	0.7nm,0.3s,baz=323,slow=22,SNR=11						
KKM	Kota Kinabalu	18.10	330	P	Pn	17 31 32.4	-0.8
KSM	Kuching	18.62	306	*e*P	Pn	17 31 38.9	-0.5
STKA	Stephens Creek	26.72	148	P	P	17 33 05.1	+5.9
STKA	Stephens Creek	26.72	148	P	P	17 33 05.1	+5.9
	3.2nm,0.7s,mb4.0,baz=297,slow=7.0,SNR=5.7						
KSRS	Korea Array	47.01	3	P	P	17 35 50.2	-0.3
	0.5nm,0.5s,mb3.5,baz=177,slow=9.0,SNR=5.5						
ASAJ	Asahikawa	55.85	15	P	P	17 36 57.0	+0.6
	4.9nm,0.7s,mb4.6,baz=188,slow=7.1,SNR=4.0						
ULN	Ulaanbaatar	59.59	346	*e*P	P	17 37 22.6	0.0
	0.5nm,0.6s,mb3.7						
SONM	Songino Array	59.72	345	P	P	17 37 23.3	-0.2
	0.4nm,0.5s,mb3.7,baz=158,slow=9.4,SNR=6.2						
MK31	Makanchi Array	68.08	330	*e*P	P	17 38 18.7	+0.3
MKAR	Makanchi Array	68.08	330	P	P	17 38 19.0	+0.5
	2.9nm,0.8s,mb4.2,baz=132,slow=7.2,SNR=8.5						
ZALV	Zalesovo Beam	72.08	336	P	P	17 38 41.9	-0.8
	2.1nm,0.7s,mb4.1,baz=136,slow=4.3,SNR=9.5						
AKTK	Aktyubinsk	83.43	324	P	P	17 39 46.4	+0.4
AKTO	Aktyubinsk	83.43	324	P	P	17 39 46.4	+0.4
	0.5nm,0.5s,mb3.6,baz=131,slow=11,SNR=3.4						
PDAR	Pinedale Array	122.12	45	PKP	PKPdf	17 46 18.2	+5.1
	0.7nm,0.8s,baz=255,slow=1.1,SNR=4.5						

ISCJB ***20*** *17:28:38.6±0.3, 5149N±002×696E±003, h0^{km}, Error ellipse: s-maj=2.9km s-min=2.1km az=149.6*

LDG ***20*** *17:28:39.7±0.1, 5163N×689E, h1^{km}, Ml3.0/13, Error ellipse: s-maj=1.9km s-min=1.2km az=36.0, Suspected Mining induced.*

NEIC ***20*** *17:28:39.7, 5163N×689E, h1^{km}, ML3.0(LDG), After LDG.*

BUG ***20*** *17:28:39.1, 5154N×680E, h1^{km}, ML1.9*

CSEM ***20*** *17:28:39.8±0.1, 5162N×690E, h1^{km}, ML3.0/12, Error ellipse: s-maj=2.1km s-min=1.1km az=88.0*

BGR ***20*** *17:28:41.3±0.5, 5149N×694E, h1^{km}, ML2.4/3, Error ellipse: s-maj=5.6km s-min=3.3km az=119.0*

BNS ***20*** *17:28:41.2±0.6, 5155N×686E, h1^{km}, ML2.3*

ISC 20 17:28:39.7±0.3**, 5156N**±002×**685E**±003**, h0**^{km}**, n100, σ1^{s}21**/176**, 1D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BZER	Hlnxe	0.07	12	Pg	Pg	17 28 40.6	-0.3
BZER				Sg	Sg	17 28 42.1	+0.3
BZER	Hlnxe	0.07	12	Pg	Pg	17 28 40.6	-0.3
BZER				Sg	Sg	17 28 42.1	+0.3
BUG	Bochum--Univer	0.29	113	⇓*e*Pg	Pg	17 28 45.9	+0.7
BUG				Sg	Sg	17 28 50.9	+2.0
WTSB	Winterswijk	0.41	356	*e*Pg	Pg	17 28 47.7	+0.1
	104nm,0.3s						
WTSB	Winterswijk	0.41	356	*e*Pg	Pg	17 28 47.7	+0.1
	104nm,0.3s						
RODG	Roetgen-Dahlhe	0.59	226	*e*Sg	Sg	17 29 00.7	+2.3
	348nm,0.3s						
BNS	Bensberg	0.63	161	*e*Pg	Pg	17 28 53.1	+1.4
HOBG	Hohbusch	0.65	152	*e*Pg	Pg	17 28 53.2	+1.1
IBBN	Ibbenburen	0.94	36	*e*Pg	Pg	17 28 58.5	+0.8
	SNR=6.3						
IBBN				*e*Sg	Sg	17 29 12.0	+2.1
	SNR=2.2						
STB	Steinbach	0.96	180	*e*Pg	Pg	17 28 59.2	+1.1
STB				*e*Sg	Sg	17 29 12.7	+2.1
	84nm,0.5s						
KLL	Kalltalsperre	0.97	201	*e*Pg	Pg	17 28 59.5	+1.2
DREG	Dreilaegerbach	0.97	204	*e*Pg	Pg	17 28 59.5	+1.2
HGN	Heimansgroeve	0.98	216	*e*Pg	Pg	17 28 59.1	+0.7
	23nm,0.2s						
HGN				*e*Sg	Sg	17 29 12.6	+1.5
MEM	Membach	1.09	210	Pg	Pg	17 29 01.0	+0.5
MEM	Membach	1.09	210	Pn	Pn	17 29 03.1	+1.0
MEM				Sg	Sg	17 29 15.8	+1.3
MEM				Sn	Sn	17 29 17.4	-0.4
HILG	Hillesheim	1.27	185	*e*Pg	Pg	17 29 04.7	+0.7
BGG	Burgeitz	1.39	167	*e*Pg	Pg	17 29 05.9	-0.3
BCLA	Clavier	1.50	221	PN	Pn	17 29 08.7	+0.9
BCLA				PG	Pg	17 29 09.8	+1.5
BCLA				SN	Sn	17 29 31.1	+3.2
	comp=E,23nm,0.0s						
BCLA	Clavier	1.50	221	Pn	Pn	17 29 08.6	+0.8
BCLA	Clavier	1.50	221	Pg	Pg	17 29 09.8	+1.4
BCLA				Sn	Sn	17 29 31.1	+3.1
TNS	Taunus Mts	1.68	142	*e*Pg	Pg	17 29 10.7	-1.0
	SNR=6.8						
TNS				*e*Sg	Sg	17 29 32.1	-1.4
	SNR=3.8						
SNF	Seneffe	1.93	238	PN	Pn	17 29 14.3	+0.6
SNF				PG	Pg	17 29 17.9	+1.3
SNF	Seneffe	1.93	238	Pn	Pn	17 29 14.3	+0.6
SNF	Seneffe	1.93	238	Pg	Pg	17 29 17.9	+1.3
GIVF	Givet	1.94	222	*e*Pn	Pn	17 29 13.1	-0.7
GIVF	Givet	1.94	222	*e*Pg	Pg	17 29 16.8	0.0
GIVF				*e*Sn	Sn	17 29 37.5	-1.4
	comp=E,64nm,0.4s						
GIVF	Givet	1.94	222	*e*Pn	Pn	17 29 13.1	-0.7
GIVF				*e*Pg	Pg	17 29 16.8	0.0
GIVF				*e*Sn	Sn	17 29 37.5	-1.4
GIVF	Givet	1.94	222	*e*Pn	Pn	17 29 13.1	-0.7
GIVF	Givet	1.94	222	*e*Pg	Pg	17 29 16.8	0.0
GIVF				*e*Sn	Sn	17 29 37.5	-1.4
	comp=E,32nm,0.4s						
WLF	Walferdange	1.94	193	*e*Pg	Pg	17 29 16.9	0.0
	SNR=2.8						
WLF				*e*Sg	Sg	17 29 41.0	-1.1
	SNR=3.2						
WLF	Walferdange	1.94	193	*e*Pn	Pn	17 29 15.8	+1.9
WLF				*e*Sn	Sn	17 29 40.4	+1.5
WLF	Walferdange	1.94	193	PN	Pn	17 29 15.7	+1.8
WLF				PG	Pg	17 29 19.7	+2.8
WLF				SN	Sn	17 29 42.4	+3.4
	comp=E,16nm,0.0s						
WLF				SG	Sg	17 29 46.4	+4.3
WLF	Walferdange	1.94	193	*e*Pn	Pn	17 29 15.8	+1.9
WLF	Walferdange	1.94	193	Pg	Pg	17 29 19.6	+2.7
WLF				*e*Sn	Sn	17 29 40.4	+1.4
WLF				Sg	Sg	17 29 46.4	+4.3
DOU	Dourbes	2.04	225	PN	Pn	17 29 15.0	-0.3
DOU				PG	Pg	17 29 19.6	+0.8
DOU				SN	Sn	17 29 43.4	+1.9
	comp=E,13nm,0.0s						
DOU				SG	Sg	17 29 50.1	+4.8
DOU	Dourbes	2.04	225	Pn	Pn	17 29 15.0	-0.3
DOU	Dourbes	2.04	225	Pg	Pg	17 29 19.5	+0.7
DOU				Sn	Sn	17 29 43.3	+1.9
DOU				Sg	Sg	17 29 50.1	+4.8
UBBA	Unterbreizbach	2.12	109	*e*Sg	Sg	17 29 46.0	-1.7
	SNR=1.9						
CLZ	Clausthal	2.21	81	*e*Sg	Sg	17 29 49.4	-1.3
	SNR=2.7						
BAIF	Baives	2.25	229	*e*Pn	Pn	17 29 17.1	-0.9
BAIF	Baives	2.25	229	*e*Pg	Pg	17 29 22.9	+0.2
BAIF				*e*Sn	Sn	17 29 44.6	-1.8
	comp=E,12nm,0.2s						
BAIF	Baives	2.25	229	*e*Pn	Pn	17 29 17.1	-0.9
BAIF				*e*Pg	Pg	17 29 22.9	+0.2
BAIF				*e*Sn	Sn	17 29 44.6	-1.8
BAIF	Baives	2.25	229	*e*Pn	Pn	17 29 17.1	-0.9
BAIF	Baives	2.25	229	*e*Pg	Pg	17 29 22.9	+0.2
BAIF				*e*Sn	Sn	17 29 44.6	-1.8
	comp=E,5.8nm,0.2s						
RFYF	Reffroy	3.06	197	*e*Pn	Pn	17 29 28.3	-0.9
RFYF	Reffroy	3.06	197	*e*Pg	Pg	17 29 38.0	-0.3
RFYF				*e*Sg	Sg	17 30 18.4	+0.5
	comp=E,11nm,0.2s						
RFYF	Reffroy	3.06	197	*e*Pn	Pn	17 29 28.3	-0.9
RFYF				*e*Pg	Pg	17 29 38.0	-0.3
RFYF				*e*Sg	Sg	17 30 18.4	+0.5
RFYF	Reffroy	3.06	197	*e*Pn	Pn	17 29 28.3	-0.9
RFYF	Reffroy	3.06	197	*e*Pg	Pg	17 29 38.0	-0.3
RFYF				*e*Sg	Sg	17 30 18.4	+0.5
	comp=E,5.3nm,0.2s						
MOX	Moxa	3.14	105	*e*Sg	Sg	17 30 18.5	-2.0
	SNR=3.5						
MOX	Moxa	3.14	105	*e*SG	Sg	17 30 21.1	+0.6
CDF	Champ du Feu	3.16	175	*e*Pn	Pn	17 29 29.7	-0.9
CDF	Champ du Feu	3.16	175	*e*Pg	Pg	17 29 39.5	-0.7
CDF				*e*Sn	Sn	17 30 06.6	-2.3
CDF				*e*Sg	Sg	17 30 20.7	-0.4
	comp=E,6.2nm,0.4s						
CDF	Champ du Feu	3.16	175	*e*Pn	Pn	17 29 29.7	-0.9
CDF				*e*Pg	Pg	17 29 39.5	-0.7
CDF				*e*Sn	Sn	17 30 06.6	-2.3
CDF				*e*Sg	Sg	17 30 20.7	-0.4
CDF	Champ du Feu	3.16	175	*e*Pn	Pn	17 29 29.7	-0.9
CDF	Champ du Feu	3.16	175	*e*Pg	Pg	17 29 39.5	-0.7
CDF				*e*Sn	Sn	17 30 06.6	-2.3
CDF				*e*Sg	Sg	17 30 20.7	-0.4
	comp=E,3.1nm,0.4s						
MEZF	Maizieres J'vi	3.27	201	*e*Pn	Pn	17 29 31.1	-1.0
MEZF				*e*Sg	Sg	17 30 25.0	+0.4
	comp=E,13nm,0.4s						
MEZF	Maizieres J'vi	3.27	201	*e*Pn	Pn	17 29 31.1	-1.0
MEZF				*e*Sg	Sg	17 30 25.0	+0.4
MEZF	Maizieres J'vi	3.27	201	*e*Pn	Pn	17 29 31.1	-1.0
MEZF				*e*Sg	Sg	17 30 25.0	+0.4
	comp=E,6.7nm,0.4s						
BFO	Black Forest	3.37	163	*e*Pn	Pn	17 29 33.3	-0.2
	SNR=2.3						
BFO				*e*Sn	Sn	17 30 10.6	-3.5
	SNR=1.8						
SFTF	Sexfontaines	3.55	200	*e*Pn	Pn	17 29 35.2	-0.8
SFTF				*e*Sg	Sg	17 30 34.1	+0.4
	comp=E,9.1nm,0.3s						
SFTF	Sexfontaines	3.55	200	*e*Pn	Pn	17 29 35.2	-0.8
SFTF				*e*Sg	Sg	17 30 34.1	+0.4
SFTF	Sexfontaines	3.55	200	*e*Pn	Pn	17 29 35.2	-0.8
SFTF				*e*Sg	Sg	17 30 34.1	+0.4
	comp=E,4.6nm,0.3s						
HAU	Haudompre	3.57	185	*e*Sg	Sg	17 30 33.9	-0.4
	comp=E,6.4nm,0.4s						
HAU	Haudompre	3.57	185	*e*Sg	Sg	17 30 33.9	-0.4
	comp=E,3.2nm,0.4s						
WERD	Werda	3.62	106	*e*Pn	Pn	17 29 36.8	-0.2
	SNR=1.6						
GUNZ	Gunzen	3.67	107	*e*Pn	Pn	17 29 37.4	-0.2
	SNR=1.2						
GUNZ				*e*Sg	Sg	17 30 37.6	+0.2
	SNR=1.3						
TANN	Tannenbergstha	3.73	106	*e*Pn	Pn	17 29 37.7	-0.7
	SNR=2.5						
TANN				*e*Sg	Sg	17 30 39.2	-0.2
	SNR=1.6						
HINF	Hinteralfeld	3.74	180	*e*Pn	Pn	17 29 37.7	-0.9
HINF				*e*Sg	Sg	17 30 39.7	-0.2
	comp=E,4.0nm,0.4s						
HINF	Hinteralfeld	3.74	180	*e*Pn	Pn	17 29 37.7	-0.9
HINF				*e*Sg	Sg	17 30 39.7	-0.2
HINF	Hinteralfeld	3.74	180	*e*Pn	Pn	17 29 37.7	-0.9
HINF				*e*Sg	Sg	17 30 39.7	-0.2
	comp=E,2.0nm,0.4s						
CLL	Collm	3.86	91	*e*Pg	Pg	17 29 52.5	-1.1
	SNR=1.5						
CLL				*e*Sn	Sn	17 30 18.0	-8.2
CLL	Collm	3.86	91	*e*Sg	Sg	17 30 46.0	+2.4
CLL				*i* x	x	17 30 51.5	
BRG	Berggiesshubel	4.51	96	SG	Sg	17 31 06.9	+2.3
	comp=E,1.8nm,1.0s						
LOR	Lormes	4.71	206	*e*Pn	Pn	17 29 50.9	-1.1
LOR	Lormes	4.71	206	*e*Pg	Pg	17 30 08.5	-1.5
LOR				*e*Sn	Sn	17 30 43.7	-3.6
LOR				*e*Sg	Sg	17 31 09.7	-1.3
	comp=E,4.7nm,0.3s						
LOR	Lormes	4.71	206	*e*Pn	Pn	17 29 50.9	-1.1
LOR				*e*Pg	Pg	17 30 08.5	-1.5
LOR				*e*Sn	Sn	17 30 43.7	-3.6
LOR				*e*Sg	Sg	17 31 09.7	-1.3
LOR	Lormes	4.71	206	*e*Pn	Pn	17 29 50.9	-1.1
LOR	Lormes	4.71	206	*e*Pg	Pg	17 30 08.5	-1.5
LOR				*e*Sn	Sn	17 30 43.7	-3.6
LOR				*e*Sg	Sg	17 31 09.7	-1.3
	comp=E,2.3nm,0.3s						
SSF	Saint Saulge	5.00	207	*e*Pn	Pn	17 29 54.7	-1.2
SSF				*e*Sn	Sn	17 30 49.8	-4.5
SSF	Saint Saulge	5.00	207	*e*Pn	Pn	17 29 54.7	-1.2
SSF				*e*Sn	Sn	17 30 49.8	-4.5
SSF	Saint Saulge	5.00	207	*e*Pn	Pn	17 29 54.7	-1.2
SSF				*e*Sn	Sn	17 30 49.8	-4.5
AVF	Avril sur Loir	5.29	207	*e*Pn	Pn	17 29 58.6	-1.3
AVF	Avril sur Loir	5.29	207	*e*Pn	Pn	17 29 58.6	-1.3

AVF	Avril sur Loir	5.29	207	*e*Pn	Pn	17 29 58.6	-1.3
SMF	Signal de Mont	5.30	203	*e*Pn	Pn	17 29 58.5	-1.4
SMF	Signal de Mont	5.30	203	*e*Pn	Pn	17 29 58.5	-1.4
SMF	Signal de Mont	5.30	203	*e*Pn	Pn	17 29 58.5	-1.4
LDF	La Druitiere	5.38	239	*e*Pn	Pn	17 30 00.0	-1.1
LDF				*e*Sn	Sn	17 30 59.3	-4.3
	comp=E,2.0nm,0.3s						
LDF	La Druitiere	5.38	239	*e*Pn	Pn	17 30 00.0	-1.1
LDF				*e*Sn	Sn	17 30 59.3	-4.3
LDF	La Druitiere	5.38	239	*e*Pn	Pn	17 30 00.0	-1.1
LDF				*e*Sn	Sn	17 30 59.3	-4.3
	comp=E,1.0nm,0.3s						
FLN	La Foliniere	5.48	242	*e*Pn	Pn	17 30 01.4	-1.0
FLN				*e*Sn	Sn	17 31 01.6	-4.5
	comp=E,2.7nm,0.2s						
FLN	La Foliniere	5.48	242	*e*Pn	Pn	17 30 01.4	-1.0
FLN				*e*Sn	Sn	17 31 01.6	-4.5
FLN	La Foliniere	5.48	242	*e*Pn	Pn	17 30 01.4	-1.0
FLN				*e*Sn	Sn	17 31 01.6	-4.5
	comp=E,1.4nm,0.2s						
GRR	Gorron	5.89	240	*e*Pn	Pn	17 30 06.8	-1.4
GRR				*e*Sn	Sn	17 31 11.1	-5.3
	comp=E,6.2nm,0.2s						
GRR	Gorron	5.89	240	*e*Pn	Pn	17 30 06.8	-1.4
GRR				*e*Sn	Sn	17 31 11.1	-5.3
GRR	Gorron	5.89	240	*e*Pn	Pn	17 30 06.8	-1.4
GRR				*e*Sn	Sn	17 31 11.1	-5.3
	comp=E,3.1nm,0.2s						
SGMF	Saint Gilles	6.91	245	*e*Pn	Pn	17 30 20.1	-2.0
SGMF	Saint Gilles	6.91	245	*e*Pn	Pn	17 30 20.1	-2.0
SGMF	Saint Gilles	6.91	245	*e*Pn	Pn	17 30 20.1	-2.0

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*BJI **20** 17:33:02.4, 40.60N×77.58E, h21^{km}, ML3.2*
*NNC **20** 17:33:11.3±3.3, 41.03N×78.22E, h0^{km}, mb3.6, mpv3.2, Error ellipse: s-maj=33.6km s-min=17.5km az=170.0*
ISC 20 17:32:40.1±4.7, **38.6N**±0.4×**78.7E**±0.1, **h2**^{km}±18^{km}, **n16, σ1ˢ.48**/18, **7C-2D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSH	Kashi	2.30	295	PG	Pg	17 33 31.8	+7.7
KSH				SG	Sg	17 33 53.8	0.0
KSH				Smax			
	comp=N,742nm,0.7s						
KSH				Smax			
	comp=E,949nm,0.4s						
ULHL	Ulahol	4.10	334	P	Pn	17 33 39.6	-4.1
	SNR=14						
KZA	Kyzart	4.36	324	P	Pn	17 33 44.8	-2.4
	SNR=110						
KNDC	Almaty	4.81	345	⇓Pn	Pn	17 33 53.5	+0.1
	comp=E,70nm,0.6s						
KNDC				⇑Lg		17 34 29.7	
	comp=E,332nm,0.4s						
UCH	Uchtor	4.83	320	P	Pn	17 33 51.4	-2.3
	SNR=6.6						
TKM2	Tokmak 2	4.92	333	P	Pn	17 33 57.3	+2.4
	SNR=16						
TKM2	Tokmak 2	4.92	333	⇑Pn	Pn	17 33 54.3	-0.6
	comp=E,1.1nm,0.3s						
TKM2				⇑Lg		17 34 32.2	
	comp=E,6.0nm,0.6s						
KBK	Karagaybulak	4.96	326	P	Pn	17 33 55.6	+0.2
	SNR=20						
AAK	Ala-Archa	5.14	323	P	Pn	17 33 59.3	+1.3
	SNR=14						
AML	Almayashu	5.20	315	P	Pn	17 33 59.1	+0.4
	SNR=15						
CHMS	Chumysh	5.32	327	P	Pn	17 34 01.7	+1.3
	SNR=16						
EKS2	Erkin-Say	5.52	319	P	Pn	17 34 02.2	-0.9
	SNR=5.4						
USP	Ospenovka	5.64	327	P	Pn	17 34 07.3	+2.4
	SNR=34						
KK31	Karatay Array	7.66	309	⇑Pn	Pb	17 34 46.4	-7.0
	comp=E,0.6nm,0.4s,baz=120,slow=16,SNR=12						
KK31				⇑Sn	Sn	17 35 59.7	0.0
	comp=E,1.7nm,0.4s,baz=115,slow=28,SNR=7.1						
MK31	Makanchi Array	8.63	17	Pn	Pn	17 34 49.3	+3.5
	comp=E,0.7nm,0.5s,baz=200,slow=12,SNR=15						
MK31				⇓Lg		17 36 36.6	
	comp=E,4.7nm,0.9s,baz=215,slow=27,SNR=3.6						
KURK	Kurchatov	12.13	360	⇑Pn	Pn	17 35 31.0	-2.7
	comp=E,6.7nm,2.9s						
KURK				⇑Lg		17 38 22.6	
	comp=E,4.4nm,0.8s						

IDC 20 17:33:18.4±3.1, **8.87S**×**70.51W, h0**^{km}**, mb4.3**/1**, mb1 3.9**/2**, mb1mx3.5**/15**, mbtmp3.9**/2**, ML3.4**/1**, MS4.3**/6**, Ms1 4.3**/6**, ms1mx3.8**/22**, Error ellipse: s-maj=120.3km s-min=52.5km az=41.0, Western Brazil**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SIV	San Ignacio	11.62	128	Pn	Pn	17 36 05.7	+0.1
	0.1nm,0.3s,baz=255,slow=12,SNR=2.3						
TORD	Torodi Ar. Bea	74.95	74	P	P	17 45 02.1	+0.1
	1.9nm,0.7s,baz=256,slow=4.8,SNR=8.7						
ESDC	Sonseca Array	78.10	46	LR	LR	18 18 25.0	
	comp=Z,157nm,18.0s,baz=325,slow=35						
DAVOX	Davos/Dischmat	89.87	43	LR	LR	18 23 57.9	
	comp=Z,248nm,19.0s,baz=255,slow=34						
GERES	GERESS Array B	92.81	41	LR	LR	18 26 57.8	
	comp=Z,93nm,18.1s,baz=86,slow=35						
NOA	NORSAR Array B	93.70	29	LR	LR	18 25 00.1	
	comp=Z,133nm,18.1s,baz=255,slow=33						
HFS	Hagfors	94.74	30	LR	LR	18 23 37.7	
	comp=Z,124nm,19.1s,baz=72,slow=32						
VRAC	Vranov	94.76	41	LR	LR	18 25 09.9	
	comp=Z,90nm,18.1s,baz=288,slow=33						
ZALV	Zalesovo Beam	130.87	19	PKP	PKPdf	17 52 31.7	-0.1
	1.5nm,0.7s,baz=302,slow=3.1,SNR=9.3						
MKAR	Makanchi Array	135.65	27	PKP	PKPdf	17 52 40.2	-0.8
	1.1nm,0.7s,baz=327,slow=2.6,SNR=16						

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*ISCJB **20** 17:33:57.9±1.1, 31.59N±0.07×142.0E±0.2, h55^{km}±12^{km}, mb3.6/6, Error ellipse: s-maj=34.8km s-min=10.9km az=169.3*
*IDC **20** 17:34:01.5±3.0, 31.40N×141.14E, h47^{km}±21^{km}, mb3.3/6, mb1 3.4/9, mb1mx3.3/22, mbtmp3.4/9, ML3.4/3, MS3.5/1, Ms1 3.5/1, ms1mx2.8/11, Error ellipse: s-maj=123.3km s-min=16.6km az=71.0*
*NEIC **20** 17:34:03.0±1.9, 31.32N×140.84E, h52^{km}±16^{km}, MG3.3(JMA), Error ellipse: s-maj=29.3km s-min=15.4km az=75.0*
*JMA **20** 17:34:06.3±0.5, 32.19N×141.97E, h85^{km}, M3.3*
ISC 20 17:34:00.1±1.0, **31.60N**±0.08×**142.0E**±0.3, **h56**^{km}±11^{km}, **n19, σ0ˢ.89**/24, **mb3.6**/6, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	2.41	310	P	Pn	17 34 32.8	-4.3
	10nm,0.3s,baz=86,slow=19,SNR=6.6						
JHJ				LR	LR	17 35 04.7	
	comp=Z,1µm,21.2s,baz=121,slow=31						
BSO1	Boso 1	3.17	345	P	Pn	17 34 47.2	-0.2
JOD2	Odawara 2	4.39	327	P	Pn	17 35 05.5	+1.3
CBIJ	Chichi jima	4.49	178	P	Pn	17 35 05.0	-0.5
	7.5nm,0.3s,baz=274,slow=19,SNR=5.4						
CBIJ				S	Sn	17 35 52.1	-4.3
	5.2nm,0.3s,baz=287,slow=19,SNR=3.7						
JRY	Ryogami san	5.11	331	P	Pn	17 35 15.4	+1.4
JHO	Hitachi	5.14	347	P	Pn	17 35 13.3	-1.2
JHO				*e*S	Sn	17 36 08.5	-3.9
MJAR	Matsushiro Arr	5.85	329	P	Pn	17 35 24.2	0.0
MJAR	Matsushiro Arr	5.85	329	P	Pn	17 35 24.2	0.0
	0.7nm,0.3s,baz=155,slow=11,SNR=7.1						
MAJO	Matsushiro	5.85	329	*e*Pn	Pn	17 35 24.5	+0.4
JMM	Marumori	6.33	351	P	Pn	17 35 30.1	-0.7
JMM				*e*S	Sn	17 36 35.6	-6.1
JMK	Ichinoseki	7.37	355	P	Pn	17 35 45.4	+0.5
JMK				*e*S	Sn	17 37 02.2	-4.9
JOM	Ohasama	7.88	356	P	Pn	17 35 52.5	+0.5
JOM				*e*S	Sn	17 37 14.0	-5.7
SONM	Songino Array	31.49	311	P	P	17 40 16.0	-0.4
	0.6nm,0.9s,mb3.4,baz=108,slow=8.3,SNR=3.8						
MKAR	Makanchi Array	47.58	307	P	P	17 42 28.2	-1.9
MKAR	Makanchi Array	47.58	307	P	P	17 42 28.2	-1.9
	0.5nm,0.8s,mb3.6,baz=88,slow=8.0,SNR=4.1						
WRA	Warramunga Arr	51.77	189	P	P	17 43 01.9	-0.2
	0.4nm,0.5s,mb3.6,baz=4.5,slow=7.5,SNR=14						
ASAR	Alice Springs	55.49	189	P	P	17 43 30.1	+0.8
	0.4nm,0.7s,mb3.6,baz=20,slow=12,SNR=5.3						
AKASG	Malin Array Be	78.91	323	P	P	17 45 58.0	+0.7
	0.3nm,0.5s,mb3.5,baz=49,slow=5.8,SNR=3.4						
BRTR	Keskin Array B	82.84	312	P	P	17 46 19.1	+0.6
	0.6nm,0.7s,mb3.7,baz=88,slow=4.3,SNR=3.7						

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*IDC **20** 17:57:33.6±2.2, 31.19N×140.68E, h0^{km}, mb3.5/4, mb1 3.6/7, mb1mx3.4/22, mbtmp3.5/7, ML3.2/3, MS3.6/1, Ms1 3.6/1, ms1mx2.6/27, Error ellipse: s-maj=94.1km s-min=17.7km az=72.0*
*ISCJB **20** 17:57:37.6±1.5, 31.76N±0.07×141.5E±0.1, h73^{km}±15^{km}, mb3.4/4, Error ellipse: s-maj=20.7km s-min=11.2km az=175.6*
*JMA **20** 17:57:39.8±0.3, 32.06N×141.28E, h0^{km}, M3.4*
ISC 20 17:57:36.2±1.1, **31.60N**±0.06×**141.5E**±0.1, **h38**^{km}±15^{km}, **n17, σ1ˢ.30**/26, **mb3.5**/4, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHJ2	Mitsune	2.06	317	P	Pn	17 58 09.9	+1.5
JHJ2				*e*S	Sn	17 58 31.2	-1.7
JHJ	Hachijo jima 2	2.09	317	Pn	Pn	17 58 09.1	+0.3
	17nm,0.3s,baz=90,slow=19,SNR=5.1						
JHJ				LR	LR	17 58 36.7	
	comp=Z,2µm,20.1s,baz=346,slow=31						
BSO3	Boso 3	3.30	346	P	Pn	17 58 26.7	+1.4
BSO3				*e*S	Sn	17 59 01.8	-1.4
BSO4	Boso 4	3.51	344	*e*S	Sn	17 59 08.3	-0.3
JIM2	Oshima 3	3.55	332	*e*S	Sn	17 59 09.8	+0.2
CBIJ	Chichi jima	4.53	172	Pn	Pn	17 58 39.5	-2.9
	2.4nm,0.3s,baz=282,slow=20,SNR=1.9						
CBIJ				Sn	Sn	17 59 28.7	-5.0
	5.4nm,0.3s,baz=287,slow=19,SNR=3.5						
JHU	Hanno	4.62	337	P	Pn	17 58 47.7	+4.2
JHU				*e*S	Sn	17 59 35.1	-0.8
JYT	Yasato	4.74	347	P	Pn	17 58 47.7	+2.6
JYT				*e*S	Sn	17 59 39.0	+0.2
JRY	Ryogami san	4.90	335	P	Pn	17 58 51.7	+4.3
JRY				*e*S	Sn	17 59 41.7	-1.1
JHO	Hitachi	5.05	352	P	Pn	17 58 50.2	+0.7
JHO				*e*S	Sn	17 59 45.6	-1.0
JAG	Ashikaga	5.10	341	P	Pn	17 58 52.4	+2.3
JAG				*e*S	Sn	17 59 47.6	-0.1
MJAR	Matsushiro Arr	5.63	332	Pn	Pn	17 58 59.4	+2.0
	0.7nm,0.3s,baz=160,slow=13,SNR=5.9						
JFK	Kawauchi	5.77	355	P	Pn	17 58 58.6	-0.8
JFK				*e*S	Sn	18 00 00.8	-3.5
SONM	Songino Array	31.16	312	P	P	18 03 52.9	+1.5
	0.3nm,0.8s,mb3.2,baz=123,slow=9.3,SNR=3.7						
MKAR	Makanchi Array	47.23	306	P	P	18 06 05.5	+0.2
	0.5nm,0.8s,mb3.5,baz=95,slow=9.4,SNR=6.5						
WRA	Warramunga Arr	51.70	189	P	P	18 06 38.6	-1.0
	0.6nm,0.5s,mb3.8,baz=5.3,slow=7.6,SNR=22						
ASAR	Alice Springs	55.43	188	P	P	18 07 06.7	-0.2
	0.3nm,0.6s,mb3.5,baz=15,slow=14,SNR=7.3						

IGQ 20 18:05:58.5, 2.94S×78.80W, h16^{km}±4^{km}**, Mb4.0, Ms3.8, 9C-2D, Error ellipse: s-maj=8.0km s-min=4.9km az=24.7, Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IGUA	Igualata	1.45	6	P	Pn	18 06 26.6	+2.5
ARRY	Arrayan	1.47	13	⇑P	Pn	18 06 26.4	+2.1
ARRY	Arrayan	1.47	13	⇑S	Sn	18 06 44.0	+0.8
PATA	Patacocha	1.47	14	⇑P	Pn	18 06 27.3	+2.8
PATA	Patacocha	1.47	14	⇑S	Sn	18 06 46.3	+2.9
RETU	Refugio	1.52	13	⇑P	Pn	18 06 27.4	+2.4
RETU	Refugio	1.52	13	⇑S	Sn	18 06 45.8	+1.3
ULBA	Ulba	1.53	15	⇓P	Pn	18 06 27.7	+2.4
JUIV	Juive	1.54	12	P	Pn	18 06 27.5	+2.1
JUIV	Juive	1.54	12	S	Sn	18 06 49.4	+4.3
RUN5	Runtun	1.56	14	⇑P	Pn	18 06 28.1	+2.5
VC1	Cotopaxi 1	2.32	10	P	Pn	18 06 37.9	+1.9
ANTI	Antisana	2.56	14	⇓P	Pn	18 06 41.3	+2.0
CHIS	Cerro-Chispas-	2.69	314	P	Pn	18 06 43.0	+1.8
CHIS	Cerro-Chispas-	2.69	314	S	Sn	18 07 14.2	+0.7
JUA2	San Juan 2	2.72	4	P	Pn	18 06 47.3	+5.8
JUA2	San Juan 2	2.72	4	S	Sn	18 07 18.8	+4.7
GGP	Refugio Guagua	2.76	4	⇑P	Pn	18 06 43.3	+1.2
GGP	Refugio Guagua	2.76	4	⇑S	Sn	18 07 17.9	+2.8
TERV	Terraza Guagua	2.76	4	P	Pn	18 06 46.4	+4.3
TERV	Terraza Guagua	2.76	4	S	Sn	18 07 21.4	+6.3
PINO	Pino	2.77	4	P	Pn	18 06 44.5	+2.2
YANA	Yana	2.81	5	P	Pn	18 06 47.0	+4.2
YANA	Yana	2.81	5	S	Sn	18 07 18.0	+1.5
CAYR	Refugio Cayamb	3.04	15	P	Pn	18 06 49.8	+3.8
CAYA	Cayambe	3.10	15	P	Pn	18 06 49.0	+2.2

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*ISK **20** 18:07:09.1, 36.03N×27.34E, h6^{km}, MD3.3*
*ATH **20** 18:07:10.5, 36.09N×27.36E, h32^{km}±2^{km}, MD3.6/10*
*NEIC **20** 18:07:10.0, 36.05N×27.58E, h10^{km}, MD3.6(ATH), After ATH.*
*CSEM **20** 18:07:11.4±0.1, 36.08N×27.37E, h20^{km}, MD3.6, Error ellipse: s-maj=3.2km s-min=1.6km az=141.0*
*ISCJB **20** 18:07:11.4±0.3, 35.99N±0.03×27.41E±0.04, h33^{km}, mb3.8/4, Error ellipse: s-maj=4.7km s-min=3.7km az=143.2*
*IDC **20** 18:07:13.5±5.8, 36.05N×27.33E, h30^{km}±48^{km}, mb3.6/4, mb1 3.5/8, mb1mx3.4/21, mbtmp3.4/8, ML3.3/4, Error ellipse: s-maj=30.9km s-min=17.2km az=154.0*
*HLW **20** 18:07:35.6, 34.53N×28.76E, h33^{km}, ML3.5*
ISC 20 18:07:10.8±0.7, **36.03N**±0.03×**27.38E**±0.04, **h14**^{km}±5^{km}, **n74, σ1ˢ.27**/90, **mb3.8**/4, **Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KARP	Karpathos	0.52	200	*e*Pn	Pg	18 07 22.1	+1.2
KARP				*e*Sn	Sg	18 07 31.3	+3.5
KARP	Karpathos	0.52	200	*e*PN	Pg	18 07 22.1	+1.2
KARP				*e*SN	Sg	18 07 31.3	+3.5
KARP	Karpathos	0.52	200	*e*Pn	Pg	18 07 22.1	+1.2
KARP				*e*Sn	Sg	18 07 31.3	+3.5
NISR	Nisiros	0.61	341	*e*Pn	Pn	18 07 22.5	-2.6
NISR	Nisiros	0.61	341	*e*PN	Pn	18 07 22.5	-2.6
NISR	Nisiros	0.61	341	*e*Pn	Pn	18 07 22.5	-2.6
ARG	Arkhangelos	0.63	73	*e*Pb	Pb	18 07 22.9	-0.7
ARG				*e*Sn	Sg	18 07 34.8	+3.2
ARG	Arkhangelos	0.63	73	*e*PN	Pb	18 07 22.9	-0.7
ARG				*e*SN	Sg	18 07 34.0	+2.4
ARG	Arkhangelos	0.63	73	*e*Pb	Pb	18 07 22.9	-0.7
DAT	Datca	0.71	13	PG	Pg	18 07 23.1	-1.6
DAT				SG	Sg	18 07 34.6	+0.5
DAT	Datca	0.71	13	*e*Pg	Pg	18 07 23.1	-1.6
DAT				*e*Sg	Sg	18 07 34.6	+0.5
BODT	Bodrum	1.03	357	PG	Pg	18 07 29.4	-1.3
BODT				SG	Sg	18 07 43.3	-0.8
BODT	Bodrum	1.03	357	*e*Pg	Pg	18 07 29.4	-1.3
BODT				*e*Sg	Sg	18 07 43.3	-0.8
DALT	Dalyan (Mudla)	1.25	54	PN	Pn	18 07 33.9	0.0
DALT				SN	Sn	18 07 52.0	+1.5
DALT	Dalyan (Mudla)	1.25	54	*e*Pn	Pn	18 07 33.9	0.0
DALT				*e*Sn	Sn	18 07 52.0	+1.5
MLSB	Milas	1.30	14	PN	Pn	18 07 34.9	+0.4
MLSB	Milas	1.30	14	*e*Pn	Pn	18 07 34.9	+0.4
YER	Yerkesik	1.32	33	PN	Pn	18 07 34.7	-0.1
YER	Yerkesik	1.32	33	*e*Pn	Pn	18 07 34.7	-0.1
FETY	Fethiye	1.50	66	PN	Pn	18 07 37.6	+0.3
FETY	Fethiye	1.50	66	*e*Pn	Pn	18 07 37.6	+0.3
NPS	Neapolis	1.63	242	*e*Pb	Pb	18 07 39.5	-1.1
NPS	Neapolis	1.63	242	*e*PB	Pb	18 07 39.5	-1.1
NPS	Neapolis	1.63	242	*e*Pb	Pb	18 07 39.5	-1.1
SMG	Samos	1.73	346	*e*Pb	Pb	18 07 38.9	-3.4
SMG	Samos	1.73	346	*e*PB	Pb	18 07 38.9	-3.4
SMG	Samos	1.73	346	*e*Pb	Pb	18 07 38.9	-3.4
XRY	Khrisi	1.79	230	*e*Pb	Pb	18 07 44.0	+0.6
XRY	Khrisi	1.79	230	*e*PB	Pb	18 07 42.0	-1.4
XRY	Khrisi	1.79	230	*e*Pb	Pb	18 07 44.0	+0.6
APE	Apeiranthos	1.81	305	*e*Pb	Pn	18 07 40.7	-0.8
APE	Apeiranthos	1.81	305	*e*PN	Pn	18 07 40.7	-0.8
APE	Apeiranthos	1.81	305	*e*Pb	Pn	18 07 40.7	-0.8
IDI	Anoyia	2.16	251	Pn	Pn	18 07 46.8	+0.5
IDI				Sn	Sn	18 08 12.1	-0.7
IDI	Anoyia	2.16	251	Pn	Pn	18 07 46.8	+0.5
	3.4nm,0.3s,baz=67,slow=18,SNR=41						
IDI				Sn	Sn	18 08 12.1	-0.7
	13nm,0.3s,baz=8.7,slow=17,SNR=7.8						
IDI	Anoyia	2.16	251	Pn	Pn	18 07 46.8	+0.5
IDI				Sn	Sn	18 08 12.1	-0.7
ELL	Elmali	2.16	70	*e*PN	Pn	18 07 47.7	+1.3
ELL	Elmali	2.16	70	*e*Pn	Pn	18 07 47.7	+1.3
VAM	Vamos	2.66	257	*e*Pn	Pn	18 07 53.5	+0.3
VAM	Vamos	2.66	257	*e*PN	Pn	18 07 53.5	+0.3
VAM	Vamos	2.66	257	*e*Pn	Pn	18 07 53.5	+0.3
KULA	Kula-Manisa	2.68	22	*e*PN	Pn	18 07 54.6	+1.1
KULA	Kula-Manisa	2.68	22	*e*Pn	Pn	18 07 54.6	+1.1
VLI	Veliai	3.65	282	*e*Pn	Pn	18 08 07.4	+0.6
VLI	Veliai	3.65	282	*e*PN	Pn	18 08 07.4	+0.6
VLI	Veliai	3.65	282	*e*Pn	Pn	18 08 07.4	+0.6
ITM	Ithomi	4.53	286	P	Pn	18 08 23.5	+4.6
NEO	Neokhori	4.64	316	P	Pn	18 08 21.2	+0.8
CSS	Prodhromos	4.97	101	*e*Pn	Pn	18 08 24.8	-0.2
CSS				*e*Sn	Sn	18 09 15.9	-6.3
CSS	Prodhromos	4.97	101	*e*Pn	Pn	18 08 24.8	-0.2
CSS	Prodhromos	4.97	101	*e*Sn	Sn	18 09 15.9	-6.4
EVR	Evrytania	5.28	305	P	Pn	18 08 32.7	+3.5
RDO	Rodhopi	5.31	345	*e*Pn	Pn	18 08 29.5	-0.1
RDO	Rodhopi	5.31	345	*e*PN	Pn	18 08 29.5	-0.1
RDO	Rodhopi	5.31	345	*e*Pn	Pn	18 08 29.5	-0.1
BRTR	Keskin Array B	6.17	51	Pn	Pn	18 08 44.6	+3.2
BRTR	Keskin Array B	6.17	51	Pn	Pn	18 08 44.6	+3.2
	0.2nm,0.3s,baz=247,slow=16,SNR=6.0						
BRTR	Keskin Array B	6.17	51	Pn	Pn	18 08 44.7	+3.2
HHAG	Hagoal	7.24	145	P	Pn	18 08 53.2	-3.0
AMAG	Maghara	7.26	136	P	Pn	18 08 52.9	-3.5
MMAI	Mount Meron Ar	7.27	112	Pn	Pn	18 08 56.5	-0.1
	1.3nm,0.3s,baz=308,slow=13,SNR=9.0						
MMAI				Sn	Sn	18 10 17.0	-2.0
	2.8nm,0.3s,baz=310,slow=24,SNR=7.8						
SUZ		7.69	142	P	Pn	18 08 58.5	-3.8
HNKL	Nakhl	8.23	136	P	Pn	18 09 06.1	-3.7
HFRF	Wahat Farafira	8.89	175	P	Pn	18 09 19.6	+0.7
EIL	Elat	8.99	133	Sn	Sn	18 10 55.2	-5.9
	0.4nm,0.3s,baz=41,slow=11,SNR=3.0						
TR1		9.75	143	P	Pn	18 09 26.4	-4.3
GERES	GERESS Array B	16.27	326	Pn	Pn	18 11 00.8	+2.1
GERES	GERESS Array B	16.27	326	Pn	Pn	18 11 00.8	+2.1
	0.1nm,0.3s,baz=152,slow=11,SNR=4.2						
GERES	GERESS Array B	16.27	326	Pn	Pn	18 11 00.8	+2.1
TORD	Torodi Ar. Bea	32.44	232	P	P	18 13 41.3	+0.7
	1.5nm,0.6s,mb4.0,baz=32,slow=9.1,SNR=6.1						
ARCES	ARCESS Array B	33.58	359	P	P	18 13 48.9	-1.1
	2.6nm,0.9s,mb4.2,baz=165,slow=7.5,SNR=4.1						
MKAR	Makanchi Array	41.78	58	P	P	18 14 59.9	+0.3
MKAR	Makanchi Array	41.78	58	P	P	18 14 59.9	+0.3
	0.4nm,0.6s,mb3.2,baz=275,slow=6.4,SNR=4.9						
SONM	Songino Array	57.53	52	P	P	18 17 00.6	+1.1
	0.2nm,0.3s,mb3.6,baz=303,slow=7.9,SNR=3.1						

JMA 20 18:07:21.1±0.3**, 44.07N×147.77E, h19**^{km}**, M3.9, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NEM2	Nemuro 2	1.63	245	P	Pn	18 07 49.5	+0.8
NEM2				*e*S	Sn	18 08 10.2	+1.0
JRA	Rausu	1.92	267	P	Pn	18 07 53.2	+0.5
JRA				*e*S	Sn	18 08 17.3	+1.1
JNK	Nakash	2.26	259	P	Pn	18 07 58.6	+1.2
JNK				*e*S	Sn	18 08 25.8	+1.1
JAK	Akkeshi	2.48	245	P	Pn	18 08 01.1	+0.7
JAK				*e*S	Sn	18 08 30.9	+0.8
JTKR	Abashiri--Toko	2.79	269	P	Pn	18 08 06.1	+1.4
JAR	Ashorobuto	3.00	256	P	Pn	18 08 09.4	+1.8
JAR				*e*S	Sn	18 08 44.7	+1.6
JOB	Onbets	3.09	249	P	Pn	18 08 10.7	+1.9
JOB				*e*S	Sn	18 08 47.4	+2.1
JMP	Maruseppu	3.18	270	P	Pn	18 08 11.3	+1.2
JCH	Churui	3.53	247	P	Pn	18 08 16.5	+1.7
JSE	Soyaes	3.81	285	P	Pn	18 08 18.8	0.0
JFR	Furan	3.87	258	P	Pn	18 08 22.8	+3.3
JNBK	Urakawa-nobuka	4.08	246	P	Pn	18 08 24.2	+1.7

MAN 20 18:21:34, 17.93N×120.20E, h17^{km}**, mb4.3, ML3.1, MS2.9, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ABRA	Dolores	0.56	119	*e*P	Pg	18 21 46.3	+1.1
ABRA				*e*S	Sg	18 21 55.0	+2.3
APYP	Conner	0.99	94	*e*P	Pb	18 21 51.9	-0.9
APYP				*e*S	Sb	18 22 05.1	-0.5
BOLP	Bolinao	1.56	190	*e*P	Pn	18 22 00.8	-0.2
CAUP	Cauayan	1.83	122	*e*P	Pn	18 22 06.4	+1.7
BALP	Baler	2.54	149	*e*P	Pn	18 22 15.9	+1.4

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*IDC **20** 18:27:11.9±1.2, 1.06S×127.30E, h0^{km}, mb3.6/4, mb1 3.8/6, mb1mx3.6/17, mbtmp3.6/6, ML3.6/2, Error ellipse: s-maj=93.5km s-min=18.3km az=70.0*
*NEIC **20** 18:27:12.6±0.9, 1.06S×127.49E, h10^{km}, mb4.3/3, Error ellipse: s-maj=50.3km s-min=11.2km az=74.0*
*ISCJB **20** 18:27:19.1±6.5, 1.2S±0.2×127.2E±0.4, h78^{km}±60^{km}, mb4.0/8, Error ellipse: s-maj=63.7km s-min=18.4km az=157.2*
ISC 20 18:27:18.6±5.3, **1.2S**±0.2×**127.5E**±0.3, **h59**^{km}±51^{km}, **n11, σ1ˢ.03**/11, **mb4.1**/8, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	16.93	186	P	Pn	18 31 11.4	-0.2
	0.1nm,0.3s,baz=45,slow=5.7,SNR=3.8						
WRA	Warramunga Arr	19.83	161	P	Pn	18 31 45.5	-1.2
	0.3nm,0.3s,baz=339,slow=11,SNR=41						
ASAR	Alice Springs	23.22	165	P	P	18 32 22.1	+1.3
	0.8nm,0.6s,mb3.3,baz=344,slow=12,SNR=16						
NWAO	Narrogin (SRO)	33.04	196	P	P	18 33 48.2	-0.2
	6.4nm,0.9s,mb4.5						
STKA	Stephens Creek	33.33	158	P	P	18 33 54.1	+3.2
	1.7nm,0.8s,mb4.0,baz=354,slow=10,SNR=3.1						
LSA	Lhasa	46.31	315	*e*P	P	18 35 40.3	+1.6
	1.4nm,0.7s,mb4.0						
SONM	Songino Array	52.15	342	P	P	18 36 23.0	0.0
	0.3nm,0.7s,mb3.4,baz=153,slow=7.7,SNR=2.4						
MK31	Makanchi Array	62.01	326	*e*P	P	18 37 31.7	-0.9
MKAR	Makanchi Array	62.01	326	P	P	18 37 32.7	0.0
	0.5nm,0.4s,mb4.0,baz=116,slow=8.0,SNR=19						
KURK	Kurchatov	66.27	328	*e*P	P	18 38 00.0	-0.5
	1.6nm,0.7s,mb4.2						
VNDA	Vanda	78.51	173	*e*P	P	18 39 11.9	-1.1
	24nm,0.6s,mb5.3						

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*IDC **20** 18:31:16.6±2.9, 31.23N×140.68E, h0^{km}, mb3.3/4, mb1 3.4/6, mb1mx3.3/21, mbtmp3.3/6, ML3.0/2, MS3.5/1, Ms1 3.5/1, ms1mx2.6/12, Error ellipse: s-maj=113.3km s-min=19.5km az=74.0*
*ISCJB **20** 18:31:19.8±2.3, 32.0N±0.1×142.5E±0.4, h100^{km}±21^{km}, mb3.3/4, Error ellipse: s-maj=50.1km s-min=20.2km az=171.7*
*JMA **20** 18:31:26.3±0.7, 32.22N×141.95E, h95^{km}, M2.9*
ISC 20 18:31:21.4±2.2, **31.9N**±0.1×**142.4E**±0.3, **h92**^{km}±20^{km}, **n12, σ0ˢ.56**/13, **mb3.3**/4, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	2.53	298	Pn	Pn	18 31 50.9	-10
	13nm,0.3s,baz=252,slow=20,SNR=3.5						
JHJ				LR	LR	18 32 20.3	
	comp=Z,1µm,21.0s,baz=268,slow=31						
JOD2	Odawara 2	4.33	321	P	Pn	18 32 24.8	-0.1
JHU	Hanno	4.70	327	P	Pn	18 32 30.3	+0.4
JHO	Hitachi	4.91	342	P	Pn	18 32 33.1	+0.4
JRY	Ryogami san	5.01	325	P	Pn	18 32 34.2	0.0
JAG	Ashikaga	5.11	332	P	Pn	18 32 35.9	+0.4
JFK	Kawauchi	5.56	347	P	Pn	18 32 42.3	+0.7
JFK				*e*S	Sn	18 33 43.3	-0.9
MJAR	Matsushiro Arr	5.77	324	Pn	Pn	18 32 43.6	-0.9
	0.4nm,0.3s,baz=157,slow=11,SNR=4.8						
SONM	Songino Array	31.55	311	P	P	18 37 35.2	+0.5
	0.2nm,0.6s,mb3.0,baz=90,slow=12,SNR=2.2						
MKAR	Makanchi Array	47.68	306	P	P	18 39 48.7	+0.3
	0.2nm,0.5s,mb3.2,baz=88,slow=10,SNR=3.6						
WRA	Warramunga Arr	52.17	190	P	P	18 40 21.6	-1.0
	0.2nm,0.4s,mb3.5,baz=4.3,slow=7.5,SNR=6.7						
ASAR	Alice Springs	55.89	189	P	P	18 40 49.9	+0.3
	0.2nm,0.7s,mb3.3,baz=22,slow=9.7,SNR=5.1						

IDC 20 18:33:02.8±8.1**,2146S**×**6809W,h117**^{km}±54^{km}**,mb3.7**/2**, mb1 3.9**/4**,mb1mx3.6**/15**,mbtmp3.7**/4**,Error ellipse: s-maj=79.7km s-min=32.3km az=38.0,Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	5.15	360	P	Pn	18 34 19.1	+1.4
	2.2nm,0.3s,baz=190,slow=6.5,SNR=61						
LPAZ				S	Sn	18 35 17.5	+1.5
	0.1nm,0.3s,baz=270,slow=14,SNR=1.9						
SIV	San Ignacio	8.59	52	P	Pn	18 35 03.4	-0.9
	3.9nm,0.3s,baz=246,slow=12,SNR=88						
TORD	Torodi Ar. Bea	76.62	70	P	P	18 44 41.0	0.0
	0.6nm,0.3s,baz=256,slow=5.5,SNR=22						
YKA	Yellowknife Ar	91.41	340	P	P	18 45 54.1	-0.9
	0.5nm,0.5s,baz=134,slow=4.1,SNR=10						
MKAR	Makanchi Array	145.15	36	PKPbc	PKPbc	18 52 26.6	+0.5
	0.3nm,0.8s,baz=321,slow=3.1,SNR=4.2						

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*NIED **20** 19:07:00,25.10N×12370E,h5^{km},Mw4.2 Best double couple: $M_0$2.28000×10^{15} NP1:ϕ_s265.00000°,δ21.00000°, λ-73.00000°. NP2:ϕ_s67.00000°,δ70.00000°,λ-96.00000°.*
*JMA **20** 19:07:52.8±0.3,25.11N×12371E,h30^{km}±5^{km},M4.3*
*NEIC **20** 19:07:52.4±0.5,25.12N×12366E,h10^{km},mb4.3/11,Error ellipse: s-maj=10.5km s-min=7.3km az=160.0*
*BJI **20** 19:07:53.0,25.19N×12354E,h12^{km},mB4.7,mb4.1*
*ISCJB **20** 19:07:53.4±0.8,2506N±004×12371E±004,h31^{km}±7^{km}, mb4.0/18,MS3.5/5,Error ellipse: s-maj=6.5km s-min=5.3km az=168.0*
*IDC **20** 19:07:57.7±4.7,2522N×12380E,h52^{km}±46^{km},mb3.5/7, mb1 3.6/9,mb1mx3.5/22,mbtmp3.5/9,ML2.7/2,MS3.3/8, Ms1 3.3/8,ms1mx3.1/31,Error ellipse: s-maj=39.1km s-min=16.6km az=64.0*
ISC 20 19:07:53.3±1.3**,2504N**±004×**12370E**±004**,h18**^{km}±9^{km}**, n50,**σ**0**^{s}**90**/49**,mb4.0**/18**,MS3.5**/5**,Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IRIF	Iriomote-Funau	0.70	178	P	Pg	19 08 06.8	-0.3
JIJ	Ishigaki jima	0.78	149	P	Pb	19 08 07.8	-0.6
JIJ				S	Sg	19 08 19.4	+0.4
JKRS	Kuro-shima	0.85	161	P	Pb	19 08 09.4	-0.1
YOJ	Yonaguni jima	0.85	228	P	Pb	19 08 09.2	-0.4
YOJ				S	Sb	19 08 21.1	+0.4
HATJ	Hateruma jima	0.98	174	P	Pb	19 08 11.8	0.0
HATJ				S	Sb	19 08 25.1	+0.6
JTJ	Tarama	0.99	113	P	Pb	19 08 11.2	-0.8
JMJ	Miyako jima 2	1.46	98	P	Pn	19 08 17.3	-1.6
JOGS	Gusukube	1.57	100	P	Pn	19 08 19.8	-0.6
TATO	Taipei	2.01	269	*e*Pn	Pn	19 08 25.9	-0.4
NACB	Ninganchiao	2.10	246	*e*Pn	Pn	19 08 28.2	+0.5
YHNB	Yeheng	2.15	261	*e*Pn	Pn	19 08 27.5	-0.7
JKE	Kume jima 2	3.06	65	P	Pn	19 08 41.8	+0.9
JAGN	Aguni-jima	3.54	63	P	Pn	19 08 47.0	-0.5
JIH	Iheya	4.32	62	P	Pn	19 08 58.7	+0.5
JOW	Kunigami	4.49	66	P	Pn	19 09 00.7	+0.2
	0.6nm,0.3s,baz=263,slow=12,SNR=6.4						
JTK	Tokunoshima	5.44	59	P	Pn	19 09 13.6	0.0
JAM	Amami Oshima	6.26	56	P	Pn	19 09 25.7	+0.9
JNU	Nakatsue	10.21	36	LR	LR	19 14 02.7	
	comp=Z,94nm,21.5s,baz=22,slow=36						
KSRS	Korea Array	12.89	15	P	Pn	19 10 59.1	+3.5
	0.1nm,0.3s,baz=190,slow=14,SNR=3.5						
KSRS				LR	LR	19 15 52.6	
	comp=Z,74nm,20.7s,baz=171,slow=38						
MJAR	Matsushiro Arr	16.91	44	P	Pn	19 11 50.3	+1.2
	0.1nm,0.3s,baz=230,slow=9.0,SNR=4.2						
MJAR				LR	LR	19 18 45.4	
	comp=Z,53nm,21.6s,baz=55,slow=39						
CD2	Chengdu	18.55	293	P	Pn	19 12 09.0	-0.4
CD2				AMB	AMB		
	comp=Z,10.0nm,1.3s						
HHC	Hu-ho-hao-te	18.74	330	*e*P	Pn	19 12 12.4	+0.8
HHC				AMB	AMB		
	comp=Z,4.0nm,1.0s						
HHC				AMB	AMB		
	comp=Z,104nm,4.9s						
CN2	Changchun	18.77	4	*e*P	Pn	19 12 15.1	+3.1
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s						
LZH	Lanzhou	20.30	308	*e*P	P	19 12 30.0	+1.8
LZH				AP		19 12 39.3	
LZH				XP	sP	19 12 42.5	+6.9
LZH				AMB	AMB		
	comp=Z,21nm,1.3s						
LZH	Lanzhou	20.30	308	*e*P	P	19 12 30.0	+1.8
	comp=Z,21nm,1.3s						
LZH				pP		19 12 39.2	
LZH				sP	sP	19 12 42.5	+6.9
ASAJ	Asahikawa	24.48	34	LR	LR	19 23 24.8	
	comp=Z,95nm,18.7s,MS3.3,baz=282,slow=38						
GTA	Gaotai	24.68	311	*e*P	P	19 13 13.8	+0.6
GTA				AP		19 13 24.4	
GTA				AMB	AMB		
	comp=Z,3.0nm,1.0s,mb3.8						
ULN	Ulaanbaatar	26.31	334	*e*P	P	19 13 28.3	+0.4
	comp=Z,5.3nm,1.0s,mb4.0						
ULN				*e*		19 13 41.0	
SONM	Songino Array	26.55	333	P	P	19 13 29.7	-0.4
	comp=Z,0.6nm,0.6s,mb3.3,baz=157,slow=7.9,SNR=4.8						
SONM				LR	LR	19 25 12.1	
	comp=Z,94nm,19.0s,MS3.4,baz=155,slow=39						
LSA	Lhasa	29.22	286	P	P	19 13 54.9	+0.7
	comp=Z,1.5nm,0.7s,mb3.8						
PSI	Prapat	32.53	231	LR	LR	19 26 48.5	
	comp=Z,51nm,19.2s,MS3.2,baz=27,slow=34						
PET	Petropavlovsk	38.32	34	P	P	19 15 13.2	+0.3
	comp=Z,214nm,1.6s						
MK31	Makanchi Array	39.35	314	*e*P	P	19 15 21.2	-0.4
MKAR	Makanchi Array	39.35	314	P	P	19 15 21.6	0.0
	comp=Z,4.4nm,0.9s,mb4.2,baz=105,slow=10,SNR=41						
ZALV	Zalesovo Beam	40.81	325	P	P	19 15 32.7	-0.9
ZALV				LR	LR	19 32 52.3	
ZALV	Zalesovo Beam	40.81	325	P	P	19 15 32.7	-0.9
	comp=Z,2.9nm,0.7s,mb4.0,baz=107,slow=8.0,SNR=16						
ZALV				LR	LR	19 32 52.3	
	comp=Z,40nm,19.0s,MS3.3,baz=262,slow=37						
KURK	Kurchatov	42.94	319	*e*P	P	19 15 50.5	-0.5
	comp=Z,12nm,1.5s,mb4.4						
KURK				*e*	pP	19 15 56.6	0.0
UCH	Uchtor	43.77	306	*e*P	P	19 15 59.6	+1.8
	comp=Z,3.8nm,1.0s,mb4.1						
AAK	Ala-Archa	43.83	306	*e*P	P	19 15 57.9	-0.4
	comp=Z,4.7nm,1.2s,mb4.1						
AML	Almayashu	44.36	305	P	P	19 16 02.3	-0.3
	comp=Z,4.2nm,0.9s,mb4.2						
EKS2	Erkin-Say	44.36	306	P	P	19 16 02.2	-0.4
	comp=Z,1.4nm,0.8s,mb3.7						
WRA	Warramunga Arr	45.89	166	P	P	19 16 16.0	+1.1
	comp=Z,1.4nm,0.7s,mb4.0,baz=348,slow=8.7,SNR=10						
TIXI	Tiksi	46.73	2	*e*P	P	19 16 19.0	-2.0
	comp=Z,11nm,1.4s,mb4.6						
BRVK	Borovoye	48.56	320	*e*P	P	19 16 34.6	-0.8
	comp=Z,2.4nm,0.7s,mb4.3						
BRVK				*e*		19 16 42.4	
ASAR	Alice Springs	49.42	168	P	P	19 16 43.6	+1.4
	comp=Z,0.4nm,0.8s,mb3.5,baz=348,slow=6.6,SNR=6.2						
ASAR				PcP	PcP	19 18 05.2	+0.7
	comp=Z,0.4nm,0.7s,baz=346,slow=3.4,SNR=4.9						
ARU	Arti	55.82	322	*e*P	P	19 17 28.1	-1.2
	comp=Z,5.1nm,0.9s,mb4.5						
FINES	FINESS Array B	71.86	330	LR	LR	19 51 02.2	
	comp=Z,86nm,19.4s,MS4.0,baz=355,slow=36						
YKA	Yellowknife Ar	81.29	24	P	P	19 20 06.7	-1.5
YKA	Yellowknife Ar	81.29	24	P	P	19 20 06.7	-1.5
	comp=Z,0.3nm,0.7s,mb3.3,baz=307,slow=5.0,SNR=6.2						
GERES	GERESS Array B	83.63	321	P	P	19 20 19.9	-0.8
	comp=Z,0.4nm,0.6s,mb3.7,baz=46,slow=8.4,SNR=2.6						

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*ISCJB **20** 19:20:01.8±1.4,25.13N±007×12370E±005,h20^{km}±12^{km}, mb3.3/5,MS3.4/1,Error ellipse: s-maj=12.2km s-min=8.0km az=170.0*
*JMA **20** 19:20:02.4±0.3,25.11N×12372E,h27^{km},M3.0*
*IDC **20** 19:20:11.7±4.1,2540N×124.10E,h101^{km}±41^{km},mb3.1/5, mb1 3.2/6,mb1mx3.1/21,mbtmp3.1/6,MS3.4/1,Ms1 3.4/1, ms1mx2.6/11,Error ellipse: s-maj=39.9km s-min=18.9km az=67.0*
ISC 20 19:20:01.2±1.5**,2513N**±007×**12370E**±005**,h2**^{km}±11^{km}**, n13,**σ**0**^{s}**54**/18**,mb3.3**/5**,MS3.4**/1**,Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IRIF	Iriomote-Funau	0.79	178	P	Pg	19 20 16.5	+0.1
IRIF				*e*S	Sg	19 20 26.4	-0.3
JIJ	Ishigaki jima	0.86	152	P	Pg	19 20 17.4	-0.3
JIJ				*e*S	Sg	19 20 28.8	-0.1
YOJ	Yonaguni jima	0.91	223	P	Pg	19 20 19.0	+0.3
YOJ				*e*S	Sg	19 20 31.1	+0.5
JKRS	Kuro-shima	0.93	162	P	Pg	19 20 19.0	-0.1
JKRS				*e*S	Sg	19 20 31.3	+0.1
JTJ	Tarama	1.03	118	P	Pg	19 20 20.7	-0.3
JTJ				*e*S	Sg	19 20 34.4	0.0
HATJ	Hateruma jima	1.07	175	P	Pg	19 20 21.4	-0.4
HATJ				*e*S	Sg	19 20 35.8	+0.1
JOW	Kunigami	4.45	67	P	Pn	19 21 11.2	+1.5
	0.5nm,0.3s,baz=338,slow=5.4,SNR=3.8						
MKAR	Makanchi Array	39.29	314	P	P	19 27 31.1	-0.3
	1.1nm,0.9s,mb3.6,baz=94,slow=9.3,SNR=10						
ZALV	Zalesovo Beam	40.73	325	P	P	19 27 42.2	-1.0
	0.2nm,0.4s,mb3.1,baz=97,slow=12,SNR=4.1						
PMG	Port Moresby	41.24	143	LR	LR	19 41 42.0	
	comp=Z,54nm,20.0s,MS3.4,baz=148,slow=31						
WRA	Warramunga Arr	45.98	166	P	P	19 28 25.6	-0.4
	0.5nm,0.8s,mb3.5,baz=347,slow=8.7,SNR=3.7						
ASAR	Alice Springs	49.51	168	P	P	19 28 54.0	+0.7
	0.2nm,0.7s,mb3.2,baz=348,slow=8.0,SNR=5.5						
YKA	Yellowknife Ar	81.20	24	P	P	19 32 13.8	-4.4
	0.1nm,0.4s,mb3.1,baz=309,slow=4.0,SNR=2.9						

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*ISCJB **20** 19:22:45.8±2.6,114S±0.1×1668E±0.1,h77^{km}±21^{km}, mb4.2/13,Error ellipse: s-maj=24.3km s-min=16.3km az=165.4*
*BJI **20** 19:22:46.5,1083S×167.16E,h70^{km},mB5.3,mb4.7*
*NEIC **20** 19:22:47.7±1.6,1136S×16675E,h77^{km}±14^{km},mb4.5/4, Error ellipse: s-maj=17.8km s-min=12.6km az=82.0*
*IDC **20** 19:22:48.0±3.7,1144S×16684E,h80^{km}±29^{km},mb3.8/9, mb1 3.9/11,mb1mx3.8/17,mbtmp3.8/11,MS3.7/9, Ms1 3.7/9,ms1mx3.4/21,Error ellipse: s-maj=28.0km s-min=21.8km az=84.0*
ISC 20 19:22:48.0±2.0**,114S**±01×**1668E**±01**,h80**^{km}±17^{km}**,n28,** σ**0**^{s}**81**/22**,mb4.2**/13**,Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	6.99	285	*e*Pn	Pn	19 24 27.1	-0.7
HNR				P		19 24 27.7	
HNR				S	Sn	19 25 49.6	+3.7
HNR				*e*Sn	Sn	19 25 51.3	+5.5
HNR	Honiara	6.99	285	P	Pn	19 24 27.7	-0.1
	12nm,0.3s,baz=94,slow=2.1,SNR=9.6						
HNR				S	Sn	19 25 49.6	+3.7
	2.7nm,0.3s,baz=276,slow=19,SNR=1.5						
DZM	Mont Dzumac	10.63	182	P	Pn	19 25 17.8	+0.3
	0.3nm,0.3s,baz=311,slow=20,SNR=3.1						
DZM				LR	LR	19 28 56.4	
	comp=Z,146nm,20.2s,baz=350,slow=35						
PMG	Port Moresby	19.39	274	P	Pn	19 27 03.3	-6.3
	21nm,1.0s						
AFI	Afiamalu	21.08	99	LR	LR	19 33 26.9	
	comp=Z,219nm,20.2s,baz=277,slow=30						
STKA	Stephens Creek	30.90	225	P	P	19 28 57.1	0.0
	1.5nm,0.7s,mb3.8,baz=54,slow=7.7,SNR=3.3						
WRA	Warramunga Arr	32.32	251	P	P	19 29 10.1	+0.4
	1.9nm,0.8s,mb3.9,baz=84,slow=8.8,SNR=13						
WRA				LR	LR	19 42 02.9	
	comp=Z,103nm,18.6s,baz=90,slow=36						
GUMO	Guam	32.98	318	LR	LR	19 41 28.1	
	comp=Z,49nm,20.7s,baz=90,slow=34						
RAR	Rarotonga	33.50	111	LR	LR	19 40 09.6	
	comp=Z,187nm,19.2s,baz=133,slow=31						
ASAR	Alice Springs	33.55	244	P	P	19 29 20.7	+0.3
	1.0nm,0.7s,mb3.7,baz=70,slow=9.7,SNR=15						
ASAR				PcP	PcP	19 31 58.5	-1.0
	0.4nm,0.7s,baz=55,slow=1.8,SNR=5.0						
FITZ	Fitzroy Crossi	40.27	255	P	P	19 30 16.9	-0.6
	3.2nm,0.9s,mb4.1,baz=106,slow=11,SNR=6.8						
FITZ				LR	LR	19 46 19.8	
	comp=Z,83nm,19.5s,baz=144,slow=35						
PPT	Papeete	42.63	104	*e*S	S	19 37 02.2	+7.9
	56nm,24.8s						
PPT				*e*LR	LR	19 42 20.9	
	104nm,26.0s						
PPT	Papeete	42.63	104	LR	LR	19 44 04.2	
	comp=Z,82nm,19.1s,baz=336,slow=30						
MBWA	Marble Bar	46.05	252	*e*P	P	19 31 02.6	-1.4
	39nm,1.7s,mb4.9						
MJAR	Matsushiro Arr	54.74	332	P	P	19 32 08.9	-0.4
	2.2nm,0.8s,mb4.3,baz=164,slow=9.1,SNR=5.8						
MAJO	Matsushiro	54.74	332	P	P	19 32 08.7	-0.6
	3.6nm,0.7s,mb4.5						
RKT	Rikitea	56.52	110	*e*LR	LR	19 48 44.1	
	115nm,26.8s						
MDJ	Mudanjiang	65.12	332	*e*P	P	19 33 20.0	-0.2
	5.7nm,1.0s,mb4.4						
CN2	Changchun	66.55	329	*e*P	P	19 33 30.3	+0.8
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
SONM	Songino Array	79.53	323	P	P	19 34 48.0	+1.9
	comp=Z,1.0nm,0.9s,mb3.6,baz=131,slow=4.5,SNR=4.8						
SONM				LR	LR	20 07 48.4	
	comp=Z,78nm,21.4s,baz=326,slow=34						
LPIG	La Paz	88.23	65	LR	LR	20 03 57.6	
	comp=Z,71nm,20.8s,baz=151,slow=28						
ZALV	Zalesovo Beam	94.42	324	P	P	19 35 58.7	-0.1
	comp=Z,0.2nm,0.3s,mb3.9,baz=120,slow=8.5,SNR=3.3						
MKAR	Makanchi Array	94.46	317	P	P	19 36 00.0	+0.8
	comp=Z,1.5nm,0.8s,mb4.4,baz=95,slow=6.4,SNR=19						
YKA	Yellowknife Ar	94.81	27	P	P	19 35 59.5	-1.0
YKA	Yellowknife Ar	94.81	27	P	P	19 35 59.5	-1.0
	comp=Z,0.2nm,0.7s,mb3.7,baz=262,slow=4.9,SNR=4.2						
GERES	GERESS Array B	136.45	334	PKP	PKPdf	19 42 01.5	+0.9
GERES	GERESS Array B	136.45	334	PKP	PKPdf	19 42 01.5	+0.9
	comp=Z,0.3nm,0.8s,baz=114,slow=1.6,SNR=3.5						
KEST	Kesra	148.29	324	PKPbc	PKPbc	19 42 26.3	+0.9
	comp=Z,1.6nm,0.8s,baz=76,slow=6.6,SNR=3.6						

IDC 20 19:27:18.4±2.2**,092S**×**12772E,h0**^{km}**,mb3.4**/2**,mb1 3.6**/3**, mb1mx3.4**/16**,mbtmp3.4**/3**,Error ellipse: s-maj=197.7km s-min=24.3km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.99	161	P	Pn	19 31 52.6	-1.7
	0.1nm,0.3s,baz=344,slow=13,SNR=9.2						
ASAR	Alice Springs	23.40	166	P	P	19 32 29.1	0.0
	0.7nm,0.6s,baz=346,slow=12,SNR=16						
MKAR	Makanchi Array	61.93	326	P	P	19 37 40.0	+0.1
	0.3nm,0.4s,baz=116,slow=7.9,SNR=12						

IDC 20 19:36:30.4±14.0**,3028N**×**6908E,h0**^{km}**,mb3.6**/2**, mb1 3.7**/3**,mb1mx3.3**/23**,mbtmp3.5**/3**,Error ellipse: s-maj=616.7km s-min=76.5km az=134.0,Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	19.42	28	P	Pn	19 40 58.9	-0.3
	0.1nm,0.3s,baz=214,slow=11,SNR=7.5						
ZALV	Zalesovo Beam	26.26	21	P	P	19 42 06.7	-0.4
	0.4nm,0.4s,baz=213,slow=12,SNR=4.5						
YKA	Yellowknife Ar	87.51	2	P	P	19 49 19.7	0.0
	0.4nm,0.7s,baz=349,slow=5.2,SNR=9.0						

IDC 20 19:38:42.3±52.0**,1715S**×**17278W,h0**^{km}**,mb3.9**/3**, mb1 4.1**/3**,mb1mx3.8**/16**,mbtmp3.9**/3**,Error ellipse: s-maj=1011.0km s-min=178.8km az=81.0,Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	43.71	242	P	P	19 46 49.4	+0.1
	2.1nm,1.0s,baz=68,slow=4.7,SNR=5.3						
WRA	Warramunga Arr	50.05	258	P	P	19 47 38.6	-0.5
	0.3nm,0.5s,baz=97,slow=7.0,SNR=19						
ASAR	Alice Springs	50.16	253	P	P	19 47 40.2	+0.3
	2.5nm,0.4s,baz=90,slow=8.8,SNR=86						

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*IDC **20** 19:43:32.4±17.0,2770N×6148E,h0^{km},mb3.9/3, mb1 3.9/3,mb1mx3.3/23,mbtmp3.9/3,Error ellipse: s-maj=423.2km s-min=45.8km az=119.0*
*ISCJB **20** 19:43:46.7±2.4,288N±02×59.1E±05,h10^{km},mb3.9/3, Error ellipse: s-maj=62.4km s-min=10.8km az=21.8*
ISC 20 19:43:49.1±2.4**,289N**±02×**590E**±05**,h10**^{km}**,n8,**σ**1**^{s}**44**/9**, mb3.9**/3**,Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BANOM	Banah	3.80	220	P	Pn	19 44 51.4	+3.7
	SNR=40						
BANOM				S	Sn	19 45 31.5	-0.9
HATD	Hatta, Dubai	4.78	213	P	Pn	19 44 59.9	-1.3
ASHO	Ashiyiah	4.93	213	P	Pn	19 45 02.1	-1.2
	SNR=29						
FAQ	Al Faqa, Dubai	5.12	217	P	Pn	19 45 08.5	+2.6
	SNR=50						
ASUD	Al Ashush, Dub	5.36	219	P	Pn	19 45 12.9	+3.8
	SNR=76						
FINES	FINESS Array B	39.20	336	P	P	19 51 18.0	+0.9
	0.6nm,0.3s,mb3.8,baz=138,slow=8.6,SNR=12						
ARCES	ARCESS Array B	45.02	344	P	P	19 52 03.0	-1.5
	2.6nm,1.0s,mb4.0,baz=134,slow=8.2,SNR=5.9						
TORD	Torodi Ar. Bea	55.26	266	P	P	19 53 22.9	0.0
	0.3nm,0.3s,mb3.8,baz=63,slow=6.9,SNR=6.6						

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*ISCJB **20** 19:53:11.3±0.6,3820N±002×2487E±003,h5^{km}±4^{km}, Error ellipse: s-maj=4.2km s-min=3.3km az=169.7*
*ATH **20** 19:53:12.9,38.18N×2491E,h35^{km}±3^{km},MD3.6/11,ML3.3*
*CSEM **20** 19:53:13.9±0.1,38.18N×2490E,h22^{km}±1^{km},ML3.3,Error ellipse: s-maj=2.6km s-min=1.7km az=148.0*
*NEIC **20** 19:53:13.1,38.17N×2492E,h36^{km},MD3.6(ATH),After ATH.*
*THE **20** 19:53:15.7,3821N×2493E,h29^{km},ML3.8*
ISC 20 19:53:12.1±0.5**,3821N**±003×**2487E**±003**,h8**^{km}±4^{km}**,n61,** σ**0**^{s}**99**/87**,1C,Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTL	Penteli	0.81	259	*e*Pb	Pb	19 53 28.5	+0.2
PTL				*e*Sn	Sn	19 53 41.5	-0.3
PTL	Penteli	0.81	259	*e*PB	Pb	19 53 28.5	+0.2
PTL				*e*SN	Sn	19 53 40.5	-1.3
PTL	Penteli	0.81	259	*e*Pb	Pb	19 53 28.5	+0.2
PTL				*e*Sn	Sn	19 53 41.5	-0.3
ATH	Athens Observa	0.94	256	*e*Pn	Pn	19 53 32.4	+0.9
ATH				*e*Sn	Sn	19 53 44.5	-0.6
ATH	Athens Observa	0.94	256	*e*PN	Pn	19 53 31.4	-0.1
ATH				*e*SN	Sn	19 53 44.5	-0.6
ATH	Athens Observa	0.94	256	*e*Pn	Pn	19 53 32.4	+0.9
ATH				*e*Sn	Sn	19 53 44.5	-0.6
KVR	Kavouri	0.95	247	*e*PN	Pb	19 53 31.0	+0.3
KVR				*e*SN	Sn	19 53 45.0	-0.3
KVR	Kavouri	0.95	247	*e*Pb	Pb	19 53 31.0	+0.3
KVR				*e*Sn	Sn	19 53 45.0	-0.3
CHOS	Chios island	0.95	79	*e*Pg	Pg	19 53 31.2	+0.8
CHOS				*e*Sg	Sg	19 53 44.3	+1.5
CHOS	Chios island	0.95	79	*e*Pg	Pg	19 53 31.2	+0.8
CHOS				*e*Sg	Sg	19 53 44.3	+1.6
NAIG	Nisos Aigina	1.18	248	*e*Pn	Pn	19 53 35.5	+0.7
NAIG	Nisos Aigina	1.18	248	*e*PN	Pn	19 53 35.5	+0.7
NAIG	Nisos Aigina	1.18	248	*e*Pn	Pn	19 53 35.5	+0.7
AOS	Alonnisos	1.23	321	*e*Pg	Pg	19 53 36.5	+0.8
AOS	Alonnisos	1.23	321	*e*Pg	Pg	19 53 36.5	+0.8
APE	Apeiranthos	1.25	155	*e*Pn	Pn	19 53 35.7	-0.1
APE				*e*Sn	Sn	19 53 51.5	-1.4
APE	Apeiranthos	1.25	155	*e*Pg	Pg	19 53 35.8	-0.4
APE				*e*Sg	Sg	19 53 51.9	-0.6
APE	Apeiranthos	1.25	155	*e*PN	Pn	19 53 35.7	-0.1
APE				*e*SN	Sn	19 53 51.5	-1.4
APE	Apeiranthos	1.25	155	*e*Pn	Pn	19 53 35.7	-0.1
APE				*e*Sn	Sn	19 53 51.5	-1.4
DID	Didima	1.47	242	*e*Pg	Pg	19 53 40.2	0.0
DID				*e*Sg	Sg	19 53 59.2	-0.1
DID	Didima	1.47	242	*e*Pg	Pg	19 53 40.2	-0.1
DID				*e*Sg	Sg	19 53 59.2	-0.1
LTK	Loutraki	1.51	264	*e*Pg	Pg	19 53 40.4	-0.6
LTK				*e*Sg	Sg	19 54 00.4	-0.2
LTK	Loutraki	1.51	264	*e*Pg	Pg	19 53 40.4	-0.6
LTK				*e*Sg	Sg	19 54 00.4	-0.2
PRK	Paraskevi	1.51	46	*e*Pb	Pn	19 53 39.4	0.0
PRK	Paraskevi	1.51	46	*e*PN	Pn	19 53 39.4	0.0
PRK	Paraskevi	1.51	46	*e*Pb	Pn	19 53 39.4	0.0
SMG	Samos	1.64	107	*e*Pn	Pn	19 53 40.3	-0.8
SMG	Samos	1.64	107	*e*PN	Pn	19 53 40.3	-0.8
SMG	Samos	1.64	107	*e*Pn	Pn	19 53 40.3	-0.8
NEO	Neokhori	1.69	311	*e*Pn	Pn	19 53 42.0	+0.2
NEO	Neokhori	1.69	311	*e*PN	Pn	19 53 42.0	+0.2
NEO	Neokhori	1.69	311	*e*Pn	Pn	19 53 42.0	+0.2
LIA	Limnos Island	1.70	8	*e*Pb	Pb	19 53 43.9	+0.3
LIA	Limnos Island	1.70	8	*e*PB	Pb	19 53 43.0	-0.6
LIA	Limnos Island	1.70	8	*e*Pb	Pb	19 53 43.9	+0.3
BLCB	Balcova	1.72	83	*e*Pb	Pb	19 53 43.1	-0.8
LOS	Limnos	1.73	5	*e*Pb	Pb	19 53 42.3	-1.8
LOS	Limnos	1.73	5	*e*Pb	Pb	19 53 42.3	-1.8
XOR	Xorichti	1.75	312	*e*Pb	Pb	19 53 44.4	+0.1
XOR	Xorichti	1.75	312	*e*Pb	Pb	19 53 44.4	+0.1
BOZC	Bozcaada	1.87	29	⇑*i*P	Pn	19 53 44.0	-0.4
PAIG	Paliouri	1.95	332	*e*Pb	Pb	19 53 45.8	-2.0
PAIG				*e*Sb	Sb	19 54 10.2	-2.0
PAIG	Paliouri	1.95	332	*e*Pb	Pb	19 53 45.8	-2.0
PAIG				*e*Sb	Sb	19 54 10.2	-2.0
VLI	Veliai	2.14	226	*e*Pn	Pn	19 53 48.5	+0.5
VLI	Veliai	2.14	226	*e*PN	Pn	19 53 48.5	+0.5
VLI	Veliai	2.14	226	*e*Pn	Pn	19 53 48.5	+0.5
VLX	Vlachokerasia	2.14	248	*e*Pn	Pn	19 53 49.3	+1.3
VLX				*e*Sn	Sn	19 54 15.7	+1.0
VLX	Vlachokerasia	2.14	248	*e*Pn	Pn	19 53 49.3	+1.3
VLX				*e*Sn	Sn	19 54 15.7	+0.9
AGG	Agios Georgios	2.15	293	*e*Pn	Pn	19 53 50.0	+1.8
AGG				*e*Sn	Sn	19 54 16.4	+1.5
BDRM	Kayabasi	2.34	118	*e*P	Pn	19 53 54.2	+3.4
BDRM	Kayabasi	2.34	118	*e*P	Pn	19 53 54.2	+3.4
BDRM				*i* S	Sn	19 54 20.2	+0.5
PLG	Polygyros	2.43	333	*e*Pn	Pn	19 53 55.0	+3.1
PLG	Polygyros	2.43	333	*e*Pn	Pn	19 53 55.0	+3.0
ITM	Ithomi	2.55	247	*e*Pb	Pb	19 53 56.4	-1.6
ITM	Ithomi	2.55	247	*e*PB	Pb	19 53 56.4	-1.6
ITM	Ithomi	2.55	247	*e*Pb	Pb	19 53 56.4	-1.6
ALN	Alexandroupoli	2.83	18	*e*Pn	Pn	19 53 57.5	-0.1
ALN				*e*Sn	Sn	19 54 31.3	-0.6
ALN	Alexandroupoli	2.83	18	*e*Pn	Pn	19 53 57.5	-0.1
ALN				*e*Sn	Sn	19 54 31.3	-0.6
RDO	Rodhopi	2.98	10	*e*Pn	Pn	19 54 00.3	+0.7
RDO	Rodhopi	2.98	10	*e*PN	Pn	19 54 00.3	+0.7
RDO	Rodhopi	2.98	10	*e*Pn	Pn	19 54 00.3	+0.7

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*NEIC **20** 19:59:38.4,2697S×7108W,h13^{km},ML3.8(GUC),After GUC.*
GUC 20 19:59:38.4±0.7**,2697S**×**7108W,h13**^{km}±3^{km}**,ML3.8,4C, Off coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDCH	Caldera	0.24	114	⇑*i*P	Pg	19 59 43.5	-0.1
CDCH				*i* S	Sg	19 59 48.2	+1.1
CDCH	Caldera	0.24	114	⇑*i*P	Pg	19 59 43.5	-0.1
CDCH				*i* S	Sg	19 59 48.2	+1.1
CDCH				AML	AML	19 59 48.5	
	comp=E,6µm,0.3s						
CDCH				AML	AML	19 59 48.6	
	comp=N,6µm,0.2s						
CPCH	Copiapo	0.75	121	⇑*i*P	Pg	19 59 52.2	-0.8
CPCH				*i* S	Sg	20 00 02.9	+0.1
CPCH	Copiapo	0.75	121	⇑*i*P	Pg	19 59 52.2	-0.8
CPCH				*i* S	Sg	20 00 02.9	+0.1
CPCH				AML	AML	20 00 05.0	
	comp=E,22µm,0.1s						
CPCH				AML	AML	20 00 05.7	
	comp=N,15µm,0.2s						
VACH	Vallenar	1.62	170	*e*P	Pn	20 00 06.6	-0.1
VACH				*i* S	Sn	20 00 27.1	-0.3
VACH	Vallenar	1.62	170	*e*P	Pn	20 00 06.6	-0.1
VACH				*i* S	Sn	20 00 27.1	-0.3
VACH				AML	AML	20 00 33.4	
	comp=E,4µm,0.4s						
VACH				AML	AML	20 00 37.6	
	comp=N,2µm,0.4s						
LCO	Las Campanas	2.06	171	*e*Pn	Pn	20 00 11.6	-1.1
LCO				*e*Sn	Sn	20 00 35.6	-2.6

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
CEN1	**Los Morros**	**3.66**	**13**	*i* S	Sn	20 01 14.1	-3.6

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*NEIC **20** 20:00:45.0±1.1, 3.30N×96.25E, h30^{km}, mb3.9/2, Error ellipse: s-maj=27.8km s-min=13.4km az=39.0*
*IDC **20** 20:00:51.7±3.1, 3.65N×96.89E, h77^{km}±28^{km}, mb3.6/8, mb1 3.7/9, mb1mx3.5/23, mbtmp3.6/9, Error ellipse: s-maj=33.1km s-min=18.0km az=59.0*
*ISCJB **20** 20:00:52.2±2.2, 3.6N±0.1×96.9E±0.2, h99^{km}±19^{km}, mb3.8/10, Error ellipse: s-maj=30.3km s-min=16.9km az=158.0*
ISC 20 20:00:54.4±1.9, **3.67N**±0.10×**97.0E**±0.1, **h101**^{km}±18^{km}, **n15**, σ**1.00**/17, **mb3.8**/10, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.11**	**114**	P	**Pn**	**20 01 28.8**	**+0.3**
	10nm,0.3s,baz=304,slow=8.8,SNR=57						
PSI				S	**Sn**	**20 01 53.9**	**-0.6**
	25nm,0.3s,baz=306,slow=13,SNR=8.6						
KULM	**Kulim**	**3.98**	**66**	*e*Pn	**Pn**	**20 01 55.0**	**+1.6**
KULM				*e*Sn	**Sn**	**20 02 36.6**	**-2.6**
KSM	**Kuching**	**13.48**	**99**	*e*P	**Pn**	**20 04 07.7**	**+6.0**
LSA	**Lhasa**	**26.48**	**349**	P	**P**	**20 06 23.5**	**+1.3**
	1.0nm,0.6s,mb3.4						
BJT	**Baijiatuau**	**40.13**	**23**	*e*P	**P**	**20 08 21.5**	**+1.1**
	5.7nm,1.2s,mb4.3						
WRA	**Warramunga Arr**	**43.54**	**124**	P	**P**	**20 08 49.3**	**+0.8**
	1.1nm,0.5s,mb3.9,baz=304,slow=9.4,SNR=14						
KSRS	**Korea Array**	**43.97**	**36**	P	**P**	**20 08 52.0**	**+0.4**
	0.6nm,0.4s,mb3.7,baz=227,slow=7.5,SNR=4.6						
MKAR	**Makanchi Array**	**44.82**	**346**	P	**P**	**20 08 58.1**	**-0.1**
	0.3nm,0.3s,mb3.5,baz=158,slow=8.8,SNR=16						
ASAR	**Alice Springs**	**45.06**	**129**	P	**P**	**20 09 00.7**	**+0.1**
	0.3nm,0.5s,mb3.2,baz=302,slow=7.3,SNR=5.5						
ZALV	**Zalesovo Beam**	**51.11**	**351**	P	**P**	**20 09 46.6**	**0.0**
	1.1nm,0.4s,mb4.2,baz=181,slow=7.7,SNR=7.2						
AKTK	**Aktyubinsk**	**56.98**	**331**	P	**P**	**20 10 28.6**	**-0.7**
AKTO	**Aktyubinsk**	**56.98**	**331**	P	**P**	**20 10 28.6**	**-0.7**
	0.3nm,0.3s,mb3.9,baz=117,slow=4.5,SNR=3.8						
BOSA	**Boshof**	**75.84**	**239**	P	**P**	**20 12 29.7**	**-0.3**
	3.3nm,1.0s,mb4.0,baz=43,slow=6.7,SNR=3.9						
ARCES	**ARCESS Array B**	**80.16**	**340**	P	**P**	**20 12 51.5**	**-1.7**
ARCES	**ARCESS Array B**	**80.16**	**340**	P	**P**	**20 12 51.5**	**-1.7**
	2.8nm,0.9s,mb4.1,baz=74,slow=4.3,SNR=4.8						

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*IDC **20** 20:10:45.8±0.9, 1.15S×127.18E, h0^{km}, mb4.2/8, mb1 4.2/10, mb1mx4.0/20, mbtmp4.1/10, ML2.8/1, MS3.3/2, Ms1 3.3/2, ms1mx2.9/24, Error ellipse: s-maj=42.8km s-min=15.5km az=70.0*
*NEIC **20** 20:10:47.5±0.5, 1.11S×127.34E, h10^{km}, mb4.6/13, Error ellipse: s-maj=19.9km s-min=7.8km az=68.0*
*ISCJB **20** 20:10:48.8±0.4, 1.14S±0.06×127.4E±0.1, h33^{km}, mb4.5/35, MS3.2/2, Error ellipse: s-maj=15.3km s-min=7.0km az=162.4*
*MOS **20** 20:10:48.5±1.4, 1.19S×127.38E, h33^{km}, mb4.8/10, Error ellipse: s-maj=25.9km s-min=9.1km az=117.7*
*BJI **20** 20:10:48.3, 0.49S×127.93E, h10^{km}, mb4.3*
ISC 20 20:10:51.0±0.4, **1.16S**±0.06×**127.4E**±0.1, **h35**^{km}, **(h15**^{km}±15.2^{km}**:pP-P)**, **n60**, σ**1.21**/62, **mb4.5**/35, **MS3.2**/2, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**12.52**	**157**	*e*Pn	**Pn**	**20 13 47.6**	**+1.0**
	26nm,0.6s						
FITZ	**Fitzroy Crossi**	**16.92**	**186**	Pn	**Pn**	**20 14 44.1**	**-1.1**
FITZ				*e*P		20 14 50.9	
FITZ				Sn	**Sn**	**20 17 42.3**	**-10**
FITZ	**Fitzroy Crossi**	**16.92**	**186**	Pn	**Pn**	**20 14 44.1**	**-1.1**
	0.0nm,0.3s,baz=358,slow=12,SNR=2.1						
FITZ				Sn	**Sn**	**20 17 42.3**	**-10**
	0.1nm,0.3s,baz=182,slow=20,SNR=7.5						
KSM	**Kuching**	**17.29**	**279**	P	**Pn**	**20 14 48.5**	**-1.3**
WRA	**Warramunga Arr**	**19.86**	**160**	P	**Pn**	**20 15 18.7**	**-2.2**
	0.5nm,0.3s,baz=345,slow=13,SNR=30						
MBWA	**Marble Bar**	**21.24**	**200**	*e*P	**P**	**20 15 35.2**	**+1.1**
	13nm,0.9s,mb4.2						
ASAR	**Alice Springs**	**23.24**	**165**	P	**P**	**20 15 54.5**	**-0.8**
	4.7nm,0.9s,mb3.9,baz=342,slow=9.5,SNR=17						
PSI	**Prapat**	**28.74**	**278**	P	**P**	**20 16 43.6**	**-1.8**
	3.6nm,0.4s,mb4.5,baz=249,slow=3.9,SNR=6.4						
STKA	**Stephens Creek**	**33.36**	**158**	P	**P**	**20 17 28.3**	**+2.4**
	6.3nm,0.8s,mb4.6,baz=322,slow=7.7,SNR=12						
STKA				LR	LR	20 29 46.2	
	comp=Z,75nm,20.0s,MS3.4,baz=202,slow=34						
NJ2	**Nanjing**	**34.01**	**347**	*e*P	**P**	**20 17 29.9**	**-1.7**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
KSRS	**Korea Array**	**38.42**	**1**	P	**P**	**20 18 08.6**	**-0.6**
	comp=Z,1.2nm,0.7s,mb3.7,baz=186,slow=10,SNR=5.1						
KSRS				LR	LR	20 36 41.0	
	comp=Z,27nm,18.1s,MS3.1,baz=150,slow=40						
CD2	**Chengdu**	**39.02**	**327**	P	**P**	**20 18 13.6**	**-0.8**
CD2				AMB	AMB		
	comp=Z,10.0nm,1.3s,mb4.4						
XAN	**Xi’an**	**39.09**	**335**	P	**P**	**20 18 15.5**	**+0.7**
XAN				AP	pP	20 18 19.3	-5.8
XAN				AMB	AMB		
	comp=Z,3.0nm,0.6s,mb4.2						
BJT	**Baijiatuau**	**42.25**	**347**	P	**P**	**20 18 39.1**	**-1.8**
	comp=Z,3.7nm,0.7s,mb4.1						
BJT	**Baijiatuau**	**42.25**	**347**	P	**P**	**20 18 39.1**	**-1.8**
BJT				pmax	pmax		
	comp=Z,4.0nm,0.7s						
LZH	**Lanzhou**	**43.07**	**332**	*e*P	**P**	**20 18 48.5**	**+0.9**
LZH				AP	pP	20 18 58.1	+0.2
LZH				AMB	AMB		
	comp=Z,23nm,1.2s,mb4.8						
LZH	**Lanzhou**	**43.07**	**332**	*e*P	**P**	**20 18 48.5**	**+0.9**
	comp=Z,23nm,1.2s,mb4.8						
LZH				pP	pP	20 18 58.1	+0.2
LZH				sP	sP	20 19 02.3	+0.2
LZH	**Lanzhou**	**43.07**	**332**	*e*P	**P**	**20 18 48.5**	**+0.9**
LZH				*PP	pP	20 18 58.1	+0.2
LZH				*SP	sP	20 19 02.3	+0.2
LZH				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.8						
LSA	**Lhasa**	**46.24**	**315**	*e*P	**P**	**20 19 13.7**	**+0.7**
	comp=Z,4.4nm,0.8s,mb4.4						
LSA	**Lhasa**	**46.24**	**315**	*e*P	**P**	**20 19 13.7**	**+0.7**
LSA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
TAPN	**Taplejung**	**47.54**	**310**	*e*P	**P**	**20 19 23.2**	**0.0**
	comp=Z,20nm,1.0s,mb5.1						
ODAN	**Odare**	**47.54**	**309**	*e*P	**P**	**20 19 23.2**	**0.0**
	comp=Z,15nm,0.8s,mb5.1						
GTA	**Gaotai**	**47.64**	**331**	*e*P	**P**	**20 19 24.3**	**+0.5**
GTA				AP	pP	20 19 28.8	-5.4
GTA				XP	sP	20 19 31.5	-6.9
GTA				AMB	AMB		
	comp=Z,3.0nm,0.9s,mb4.3						
KKN	**Kakani**	**49.63**	**309**	*e*P	**P**	**20 19 39.3**	**0.0**
	comp=Z,16nm,0.9s,mb5.1						
GKN	**Gorkha**	**50.24**	**309**	*e*P	**P**	**20 19 43.9**	**0.0**
	comp=Z,20nm,0.9s,mb5.2						
HYB	**Hyderabad**	**51.53**	**293**	*e*P	**P**	**20 19 54.0**	**+0.2**
HYB	**Hyderabad**	**51.53**	**293**	*i* P	**P**	**20 19 54.0**	**+0.2**
ULN	**Ulaanbaatar**	**51.95**	**343**	*e*P	**P**	**20 19 56.7**	**+0.3**
SONM	**Songino Array**	**52.12**	**342**	P	**P**	**20 19 58.6**	**+0.9**
	comp=Z,3.0nm,0.9s,mb4.2,baz=149,slow=9.8,SNR=4.3						
ZAK	**Zakamensk**	**55.34**	**341**	*e*P	**P**	**20 20 20.5**	**-0.7**
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.8						
TLY	**Talaya**	**56.36**	**342**	*e*P	**P**	**20 20 28.3**	**-0.2**
MK31	**Makanchi Array**	**61.95**	**327**	*e*P	**P**	**20 21 06.5**	**-0.8**
MKAR	**Makanchi Array**	**61.95**	**327**	P	**P**	**20 21 06.7**	**-0.6**
MKAR	**Makanchi Array**	**61.95**	**327**	P	**P**	**20 21 06.7**	**-0.6**
	comp=Z,2.4nm,0.7s,mb4.4,baz=115,slow=7.7,SNR=58						
YAK	**Yakutsk**	**63.05**	**1**	*e*P	**P**	**20 21 13.8**	**-0.5**
YAK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
MA2	**Magadan**	**63.27**	**13**	*e*P	**P**	**20 21 19.0**	**+3.2**
	comp=Z,5.9nm,0.9s,mb4.7						
MA2	**Magadan**	**63.27**	**13**	*e*P	**P**	**20 21 19.0**	**+3.2**
MA2				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
TKM2	**Tokmak 2**	**63.87**	**320**	*e*P	**P**	**20 21 22.6**	**+2.4**
	comp=Z,9.6nm,0.6s,mb5.0						
TKM2	**Tokmak 2**	**63.87**	**320**	*e*P	**P**	**20 21 22.6**	**+2.5**
TKM2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
UCH	**Uchtor**	**64.24**	**319**	P	**P**	**20 21 25.9**	**+3.3**
	comp=Z,7.3nm,1.3s,mb4.5						
AAK	**Ala-Archa**	**64.44**	**319**	*e*P	**P**	**20 21 26.6**	**+2.7**
	comp=Z,2.3nm,1.1s,mb4.1						
AAK	**Ala-Archa**	**64.44**	**319**	*e*P	**P**	**20 21 24.0**	**+0.1**
AAK				pmax	pmax		
	comp=Z,9.0nm,2.3s,mb4.4						
AML	**Almayashu**	**64.74**	**318**	*e*P	**P**	**20 21 26.8**	**+1.0**
	comp=Z,3.6nm,0.9s,mb4.4						
EKS2	**Erkin-Say**	**64.92**	**319**	*e*P	**P**	**20 21 27.5**	**+0.4**
	comp=Z,4.1nm,1.1s,mb4.4						
KBL	**Kabul**	**65.06**	**309**	P	**P**	**20 21 30.0**	**+1.8**
ZALV	**Zalesovo Beam**	**65.23**	**334**	P	**P**	**20 21 27.3**	**-1.5**
ZALV	**Zalesovo Beam**	**65.23**	**334**	P	**P**	**20 21 27.3**	**-1.5**
	comp=Z,0.9nm,0.8s,mb3.9,baz=122,slow=5.4,SNR=5.0						
ZAL	**Zalesovo**	**65.23**	**334**	P	**P**	**20 21 27.3**	**-1.5**
KURK	**Kurchatov**	**66.22**	**328**	*e*P	**P**	**20 21 33.7**	**-1.5**
	comp=Z,5.8nm,0.8s,mb4.7						
KURK	**Kurchatov**	**66.22**	**328**	*e*P	**P**	**20 21 33.7**	**-1.5**
KURK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
KK31	**Karatay Array**	**67.28**	**318**	*i* P	**P**	**20 21 44.3**	**+2.2**
KK31				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
KKAR	**Karatay Array**	**67.28**	**318**	P	**P**	**20 21 44.3**	**+2.2**
KKAR				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
BRVK	**Borovoye**	**71.84**	**328**	*e*P	**P**	**20 22 11.2**	**+1.1**
	comp=Z,3.0nm,0.7s,mb4.3						
BRVK	**Borovoye**	**71.84**	**328**	*e*P	**P**	**20 22 11.2**	**+1.1**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
TIXI	**Tiksi**	**72.69**	**0**	*e*P	**P**	**20 22 13.7**	**-1.1**
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb3.8						
AB31	**Akbulak array**	**76.35**	**321**	P	**P**	**20 22 36.4**	**-0.1**
AB31				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.2						
AKTK	**Aktyubinsk**	**77.90**	**322**	P	**P**	**20 22 44.9**	**-0.3**
AKTO	**Aktyubinsk**	**77.90**	**322**	P	**P**	**20 22 44.9**	**-0.3**
	comp=Z,2.7nm,0.7s,mb4.3,baz=117,slow=4.3,SNR=4.4						
MAW	**Mawson**	**79.44**	**201**	P	**P**	**20 22 58.5**	**+5.2**
	comp=Z,88nm,1.6s,mb5.4						
MAW	**Mawson**	**79.44**	**201**	P	**P**	**20 22 58.5**	**+5.2**
MAW				pmax	pmax		
	comp=Z,88nm,1.6s						

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*BJI **20** 20:32:47.9, 1.49S×127.49E, h35^{km}, mB5.0, mb4.7, Ms4.8, Msz4.7*
*ISCJB **20** 20:32:50.1±1.6, 1.00S±0.05×127.04E±0.06, h21^{km}±12^{km}, mb4.6/43, MS3.0/2, Error ellipse: s-maj=9.9km s-min=7.3km az=151.6*
*NEIC **20** 20:32:50.2±0.3, 1.00S×127.00E, h10^{km}, mb4.6/23, Error ellipse: s-maj=10.7km s-min=5.8km az=70.0*
*MOS **20** 20:32:51.7±1.2, 1.02S×126.91E, h33^{km}, mb4.7/12, Error ellipse: s-maj=18.6km s-min=8.5km az=115.1*
*IDC **20** 20:32:55.4±2.4, 1.10S×126.98E, h52^{km}±21^{km}, mb4.2/12, mb1 4.2/13, mb1mx4.1/21, mbtmp4.2/13, ML3.8/1, MS3.2/2, Ms1 3.2/2, ms1mx2.8/26, Error ellipse: s-maj=25.7km s-min=10.7km az=71.0*
ISC 20 20:32:49.8±3.7, **1.00S**±0.06×**127.05E**±0.06, **h6**^{km}±24^{km}, **n89**, σ**0.92**/89, **mb4.6**/43, **MS3.0**/2, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCI	**Palu**	**7.21**	**271**	P	**Pn**	**20 34 35.3**	**-0.6**
	114nm,0.7s						
TLE	**Tual**	**7.31**	**129**	P	**Pb**	**20 34 56.7**	**-0.5**
	7μm,1.5s						
KAKA	**Kakadu**	**12.80**	**156**	*e*P	**Pn**	**20 35 52.2**	**-0.4**
	20nm,0.6s						
KAKA	**Kakadu**	**12.80**	**156**	*e*Pn	**Pn**	**20 35 52.2**	**-0.4**
	47nm,0.6s						
KAKA				*e*Sn	**Sn**	**20 38 07.8**	**-7.8**
KSM	**Kuching**	**16.92**	**278**	*e*Pn	**Pn**	**20 36 46.6**	**-0.9**
FITZ	**Fitzroy Crossi**	**17.05**	**185**	*e*P	**Pn**	**20 36 51.3**	**+2.2**
	8.3nm,0.8s						
FITZ	**Fitzroy Crossi**	**17.05**	**185**	*e*P	**Pn**	**20 36 50.3**	**+1.2**
	9.6nm,0.8s						
FITZ	**Fitzroy Crossi**	**17.05**	**185**	P	**Pn**	**20 36 49.4**	**+0.3**
	0.3nm,0.3s,baz=351,slow=10.0,SNR=8.0						
BJII	**Banjamegara**	**18.40**	**250**	P	**Pn**	**20 37 07.5**	**+1.7**
	68nm,1.5s						
WRA	**Warramunga Arr**	**20.13**	**160**	P	**P**	**20 37 23.9**	**-0.9**
	3.4nm,0.5s,baz=340,slow=11,SNR=38						
WB2	**Warramunga Arr**	**20.14**	**160**	*e*P	**P**	**20 37 23.8**	**-1.0**
MBWA	**Marble Bar**	**21.27**	**199**	*e*P	**P**	**20 37 37.6**	**+0.4**
	18nm,1.0s,mb4.3						
PMG	**Port Moresby**	**21.68**	**113**	P	**P**	**20 37 45.0**	**+3.3**
	14nm,0.9s,mb4.4						
PMG	**Port Moresby**	**21.68**	**113**	P	**P**	**20 37 45.0**	**+3.4**
PMG				pmax	pmax		
	comp=Z,14nm,0.9s						
PMG	**Port Moresby**	**21.68**	**113**	P	**P**	**20 37 44.0**	**+2.4**
	comp=Z,8.7nm,0.7s,mb4.3,baz=332,slow=15,SNR=3.0						
GUMO	**Guam**	**22.84**	**50**	LR	LR	20 46 14.4	
	comp=Z,68nm,18.7s,MS3.1,baz=81,slow=35						
ASAR	**Alice Springs**	**23.49**	**164**	P	**P**	**20 37 60.0**	**-0.8**
ASAR				S	**S**	**20 42 09.1**	**-5.7**
ASAR	**Alice Springs**	**23.49**	**164**	P	**P**	**20 37 60.0**	**-0.8**
	comp=Z,8.6nm,0.8s,mb4.2,baz=342,slow=9.8,SNR=71						
ASAR				S	**S**	**20 42 09.1**	**-5.7**
	comp=Z,0.9nm,0.9s,baz=350,slow=20,SNR=4.2						
KSI	**Kapahiang**	**24.58**	**263**	P	**P**	**20 38 11.5**	**+0.6**
	comp=Z,80nm,0.7s,mb5.4						
KULM	**Kulim**	**27.10**	**284**	*e*P	**P**	**20 38 32.6**	**-1.2**
JOW	**Kunigami**	**27.69**	**2**	P	**P**	**20 38 39.4**	**+0.5**
	comp=Z,12nm,0.8s,mb4.6,baz=175,slow=7.1,SNR=7.2						
PSI	**Prapat**	**28.37**	**278**	P	**P**	**20 38 44.6**	**-0.6**
	comp=Z,9.3nm,0.9s,mb4.4,baz=83,slow=5.1,SNR=14						
STKA	**Stephens Creek**	**33.65**	**157**	*e*P	**P**	**20 39 32.6**	**+1.1**
	comp=Z,10nm,0.9s,mb4.8						
STKA	**Stephens Creek**	**33.65**	**157**	*e*P	**P**	**20 39 32.3**	**+0.9**
	comp=Z,17nm,0.9s,mb5.0						
STKA	**Stephens Creek**	**33.65**	**157**	P	**P**	**20 39 31.6**	**+0.2**
	comp=Z,10nm,0.7s,mb4.8,baz=329,slow=8.8,SNR=28						
NJ2	**Nanjing**	**33.77**	**347**	*e*P	**P**	**20 39 32.3**	**-0.2**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
HNR	**Honiara**	**33.78**	**105**	P	**P**	**20 39 35.0**	**+2.1**
	comp=Z,64nm,1.0s,mb5.5						
HNR	**Honiara**	**33.78**	**105**	P	**P**	**20 39 35.0**	**+2.1**
HNR				pmax	pmax		
	comp=Z,64nm,1.0s,mb5.5						
KSRS	**Korea Array**	**38.27**	**1**	P	**P**	**20 40 11.4**	**+0.5**
	comp=Z,4.2nm,0.7s,mb4.3,baz=178,slow=9.8,SNR=30						
KSRS				LR	LR	20 57 44.6	
	comp=Z,21nm,18.8s,MS3.0,baz=185,slow=39						
MJAR	**Matsushiro Arr**	**38.76**	**14**	P	**P**	**20 40 14.2**	**-1.0**
	comp=Z,1.0nm,0.5s,mb3.8,baz=180,slow=9.0,SNR=4.9						
XAN	**Xi’an**	**38.79**	**336**	P	**P**	**20 40 15.5**	**0.0**
XAN				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.5						
BJT	**Baijiatuau**	**42.02**	**347**	*e*P	**P**	**20 40 41.8**	**-0.3**
	comp=Z,9.6nm,0.9s,mb4.4						
BJT	**Baijiatuau**	**42.02**	**347**	*e*P	**P**	**20 40 41.8**	**-0.2**
BJT				pmax	pmax		
	comp=Z,10.0nm,0.9s						
LZH	**Lanzhou**	**42.76**	**332**	*e*P	**P**	**20 40 49.8**	**+1.6**
LZH				AP	pP	20 40 59.5	+10
LZH				XP	sP	20 41 03.3	+13
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.7						
LZH	**Lanzhou**	**42.76**	**332**	*e*P	**P**	**20 40 49.8**	**+1.6**
	comp=Z,15nm,1.0s,mb4.7						
LZH				pP	pP	20 40 59.5	+10
LZH				sP	sP	20 41 03.2	+13
LZH	**Lanzhou**	**42.76**	**332**	*e*P	**P**	**20 40 49.8**	**+1.6**
LZH				*PP	pP	20 40 59.5	+10
LZH				*SP	sP	20 41 03.2	+13
LZH				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.7						
CN2	**Changchun**	**44.62**	**358**	*e*P	**P**	**20 41 02.9**	**-0.2**
MDJ	**Mudanjiang**	**45.47**	**3**	P	**P**	**20 41 09.9**	**+0.1**
MDJ				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,93nm,4.1s						
MDJ	**Mudanjiang**	**45.47**	**3**	*e*P	**P**	**20 41 10.0**	**+0.2**
	comp=Z,4.9nm,0.7s,mb4.5						
LSA	**Lhasa**	**45.88**	**315**	*e*P	**P**	**20 41 14.5**	**+1.2**
	comp=Z,4.4nm,0.6s,mb4.6						
LSA	**Lhasa**	**45.88**	**315**	*e*P	**P**	**20 41 14.5**	**+1.2**
LSA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
PALK	**Pallekele**	**46.96**	**281**	*e*P	**P**	**20 41 21.8**	**-0.3**
	comp=Z,7.0nm,0.7s,mb4.7						
TAPN	**Taplejung**	**47.16**	**310**	*e*P	**P**	**20 41 23.2**	**-0.3**
	comp=Z,4.7nm,0.4s,mb4.7						
ODAN	**Odare**	**47.17**	**309**	*e*P	**P**	**20 41 24.8**	**+1.3**
	comp=Z,16nm,0.8s,mb5.0						
GTA	**Gaotai**	**47.33**	**331**	*e*P	**P**	**20 41 26.0**	**+1.5**
GTA				AMB	AMB		
	comp=Z,4.0nm,0.9s,mb4.3						
JIRN	**Jiri**	**48.49**	**309**	*e*P	**P**	**20 41 34.1**	**+0.4**
	comp=Z,3.4nm,0.2s,mb5.0						
KKN	**Kakani**	**49.26**	**309**	*e*P	**P**	**20 41 39.9**	**+0.2**
	comp=Z,14nm,0.8s,mb5.1						
GKN	**Gorkha**	**49.86**	**309**	*e*P	**P**	**20 41 44.9**	**+0.7**
	comp=Z,16nm,0.7s,mb5.2						
HIA	**Hailar**	**50.46**	**354**	P	**P**	**20 41 48.1**	**-0.3**
	comp=Z,3.5nm,1.0s,mb4.3						
HIA	**Hailar**	**50.46**	**354**	P	**P**	**20 41 48.1**	**-0.3**
HIA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
HYB	**Hyderabad**	**51.14**	**293**	*e*P	**P**	**20 41 54.0**	**-0.1**
HYB	**Hyderabad**	**51.14**	**293**	*i* P	**P**	**20 41 54.0**	**-0.1**
ULN	**Ulaanbaatar**	**51.69**	**343**	*e*P	**P**	**20 41 58.1**	**+0.5**
	comp=Z,7.8nm,1.0s,mb4.6						
ULN	**Ulaanbaatar**	**51.69**	**343**	*e*P	**P**	**20 41 58.3**	**+0.6**
SONM	**Songino Array**	**51.86**	**342**	P	**P**	**20 41 59.0**	**+0.1**
	comp=Z,1.6nm,0.6s,mb4.2,baz=147,slow=8.5,SNR=4.9						
CIT	**Chita**	**54.04**	**350**	*e*P	**P**	**20 42 14.8**	**-0.1**
ZAK	**Zakamensk**	**55.07**	**342**	*e*P	**P**	**20 42 23.0**	**+0.5**
ZAK				*e*		20 43 24.4	
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.2s,mb3.7						
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.8						
TLY	**Talaya**	**56.10**	**343**	P	**P**	**20 42 29.9**	**+0.1**
	comp=Z,6.1nm,1.1s,mb4.5						
TLY	**Talaya**	**56.10**	**343**	*e*P	**P**	**20 42 35.4**	**+5.6**
TLY				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
WMQ	**Urumqi**	**56.79**	**327**	*e*P	**P**	**20 42 36.0**	**+1.0**
BOD	**Bodaibo**	**59.56**	**352**	*e*P	**P**	**20 42 52.7**	**-1.3**
BOD				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.2						
MK31	**Makanchi Array**	**61.63**	**327**	*e*P	**P**	**20 43 08.1**	**-0.3**
MKAR	**Makanchi Array**	**61.63**	**327**	P	**P**	**20 43 08.3**	**-0.1**
MKAR				ScP	ScP	20 47 48.8	-3.7
MKAR	**Makanchi Array**	**61.63**	**327**	P	**P**	**20 43 08.3**	**-0.1**
	comp=Z,3.6nm,0.5s,mb4.7,baz=115,slow=8.1,SNR=56						
MKAR				ScP	ScP	20 47 48.8	-3.7
	comp=Z,0.5nm,0.6s,baz=114,slow=5.0,SNR=5.6						
YAK	**Yakutsk**	**62.89**	**1**	*e*P	**P**	**20 43 15.8**	**-0.7**
	comp=Z,21nm,0.7s,mb5.4						
YAK	**Yakutsk**	**62.89**	**1**	*e*P	**P**	**20 43 17.1**	**+0.5**
YAK				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.2						
MA2	**Magadan**	**63.19**	**13**	*e*P	**P**	**20 43 19.9**	**+1.3**
	comp=Z,4.8nm,0.7s,mb4.7						
MA2	**Magadan**	**63.19**	**13**	*e*P	**P**	**20 43 19.9**	**+1.3**
MA2				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
UCH	**Uchtor**	**63.89**	**319**	*e*P	**P**	**20 43 24.2**	**+0.6**
	comp=Z,3.3nm,0.8s,mb4.4						
AAK	**Ala-Archa**	**64.09**	**319**	*e*P	**P**	**20 43 25.4**	**+0.5**
	comp=Z,3.2nm,1.1s,mb4.3						
AAK	**Ala-Archa**	**64.09**	**319**	*e*P	**P**	**20 43 25.4**	**+0.5**
AAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
AML	**Almayashu**	**64.39**	**319**	P	**P**	**20 43 27.6**	**+0.8**
	comp=Z,3.8nm,0.8s,mb4.5						
EKS2	**Erkin-Say**	**64.57**	**319**	*e*P	**P**	**20 43 27.8**	**-0.3**
	comp=Z,2.2nm,0.7s,mb4.3						
KBL	**Kabul**	**64.69**	**309**	*e*P	**P**	**20 43 28.5**	**-0.5**
ZALV	**Zalesovo Beam**	**64.93**	**334**	P	**P**	**20 43 29.3**	**-0.9**
	comp=Z,0.6nm,0.3s,mb4.1,baz=131,slow=3.9,SNR=4.7						
ZAL	**Zalesovo**	**64.94**	**334**	P	**P**	**20 43 29.3**	**-0.9**
KURK	**Kurchatov**	**65.89**	**329**	*e*P	**P**	**20 43 35.6**	**-0.9**
	comp=Z,6.6nm,0.8s,mb4.7						
KURK	**Kurchatov**	**65.89**	**329**	*e*P	**P**	**20 43 35.7**	**-0.8**
NVS	**Novosibirsk**	**66.22**	**334**	*e*P	**P**	**20 43 38.2**	**-0.3**
NVS				pmax	pmax		
	comp=N,5.0nm,1.7s						
NVS				pmax	pmax		
	comp=E,6.0nm,1.7s						
NVS				pmax	pmax		
	comp=Z,10.0nm,1.7s,mb4.6						
SEY	**Seymchan**	**66.54**	**12**	*e*P	**P**	**20 43 40.2**	**-0.2**
BRVK	**Borovoye**	**71.52**	**328**	P	**P**	**20 44 08.3**	**-3.2**
	comp=Z,3.5nm,0.7s,mb4.4						
BRVK	**Borovoye**	**71.52**	**328**	P	**P**	**20 44 08.3**	**-3.2**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
TIXI	**Tiksi**	**72.53**	**1**	*e*P	**P**	**20 44 16.5**	**-0.8**
	comp=Z,4.7nm,0.6s,mb4.6						
TIXI	**Tiksi**	**72.53**	**1**	*e*P	**P**	**20 44 16.4**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
ARU	**Arti**	**79.09**	**328**	*e*P	**P**	**20 44 53.1**	**-1.9**
	comp=Z,3.7nm,0.9s,mb4.3						
ARU	**Arti**	**79.09**	**328**	*e*P	**P**	**20 44 53.1**	**-1.9**
ARU				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
ARCES	**ARCESS Array B**	**94.97**	**340**	P	**P**	**20 46 10.8**	**-2.1**
	comp=Z,2.1nm,0.7s,mb4.7,baz=59,slow=10.0,SNR=3.7						
TORD	**Torodi Ar. Bea**	**124.58**	**285**	PKP	PKPdf	20 51 50.4	-0.9
TORD	**Torodi Ar. Bea**	**124.58**	**285**	PKP	PKPdf	20 51 50.4	-0.9
	comp=Z,0.5nm,0.7s,baz=68,slow=2.2,SNR=3.8						

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*BJI **20** 20:55:01.8, 1.17S×127.27E, h13^{km}, mb4.3*
*NEIC **20** 20:55:02.5±0.4, 1.03S×127.47E, h10^{km}, mb4.5/10, Error ellipse: s-maj=14.2km s-min=6.5km az=64.0*
*ISCJB **20** 20:55:04.3±0.4, 1.06S±0.05×127.38E±0.08, h33^{km}, mb4.5/27, Error ellipse: s-maj=12.7km s-min=6.1km az=154.9*
*IDC **20** 20:55:09.4±3.2, 1.09S×127.42E, h69^{km}±29^{km}, mb3.9/8, mb1 3.9/10, mb1mx3.8/18, mbtmp3.8/10, MS3.3/3, Ms1 3.3/3, ms1mx3.0/20, Error ellipse: s-maj=34.0km s-min=11.5km az=74.0*
ISC 20 20:55:06.3±0.4, **1.10S**±0.05×**127.41E**±0.08, **h35**^{km}, **n50**, σ**1.18**/51, **mb4.5**/27, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	**Ambon**	**2.69**	**163**	P	**Pn**	**20 55 48.9**	**+1.9**
	395nm,0.7s						
PCI	**Palu**	**7.58**	**271**	P	**Pn**	**20 56 52.4**	**-1.9**
	87nm,0.8s						
KAKA	**Kakadu**	**12.57**	**157**	*e*P	**Pn**	**20 58 05.1**	**+2.4**
	14nm,0.6s						
KAKA	**Kakadu**	**12.57**	**157**	*e*Pn	**Pn**	**20 58 01.8**	**-0.9**
	21nm,0.6s						
KAKA				*e*P		20 58 05.1	
KAKA				*e*Sn	**Sn**	**21 00 20.5**	**-1.0**
KKM	**Kota Kinabalu**	**13.24**	**303**	*e*Pn	**Pn**	**20 58 12.3**	**+0.4**
FITZ	**Fitzroy Crossi**	**16.98**	**186**	*e*P	**Pn**	**20 59 03.9**	**+2.7**
	7.1nm,1.1s						
FITZ	**Fitzroy Crossi**	**16.98**	**186**	P	**Pn**	**20 59 02.6**	**+1.3**
	0.3nm,0.3s,baz=22,slow=9.2,SNR=7.7						
FITZ				LR	LR	21 05 08.5	
	comp=Z,50nm,18.9s,baz=180,slow=35						
KSM	**Kuching**	**17.29**	**278**	*e*P	**Pn**	**20 59 04.2**	**-0.9**
WRA	**Warramunga Arr**	**19.91**	**161**	P	**Pn**	**20 59 35.1**	**-1.8**
WRA				LR	LR	21 07 02.9	
WRA	**Warramunga Arr**	**19.91**	**161**	P	**Pn**	**20 59 35.1**	**-1.8**
	0.5nm,0.3s,baz=340,slow=11,SNR=32						
WRA				LR	LR	21 07 02.9	
	comp=Z,79nm,20.6s,baz=160,slow=36						
WB2	**Warramunga Arr**	**19.92**	**161**	*e*P	**Pn**	**20 59 34.1**	**-2.8**
WB2				*e*S	**S**	**21 03 18.8**	**+1.3**
MBWA	**Marble Bar**	**21.30**	**200**	P	**P**	**20 59 43.9**	**-6.2**
	22nm,1.2s,mb4.4						
ASAR	**Alice Springs**	**23.30**	**165**	P	**P**	**21 00 11.2**	**0.0**
	2.9nm,0.6s,mb3.9,baz=344,slow=12,SNR=25						
ASAR				S	**S**	**21 04 19.1**	**-2.1**
	0.2nm,0.3s,baz=358,slow=25,SNR=3.5						
KSI	**Kapahiang**	**24.92**	**264**	P	**P**	**21 00 29.4**	**+3.0**
	55nm,1.2s,mb5.0						
KULM	**Kulim**	**27.47**	**284**	P	**P**	**21 00 49.1**	**-0.4**
PSI	**Prapat**	**28.74**	**278**	P	**P**	**21 01 00.3**	**-0.5**
	2.9nm,0.5s,mb4.2,baz=354,slow=19,SNR=3.8						
STKA	**Stephens Creek**	**33.41**	**158**	*e*P	**P**	**21 01 43.3**	**+1.6**
	4.7nm,0.8s,mb4.5						
STKA	**Stephens Creek**	**33.41**	**158**	P	**P**	**21 01 42.8**	**+1.1**

	6.3nm,0.8s,mb4.6,baz=318,slow=9.7,SNR=8.5						
STKA				LR	LR	21 14 58.6	
	comp=Z,102nm,19.7s,baz=27,slow=36						
WHN	**Wuhan**	**33.84**	**340**	eP	**P**	**21 01 46.5**	**+1.1**
KSRS	**Korea Array**	**38.36**	**1**	P	**P**	**21 02 23.1**	**-0.9**
	1.1nm,0.7s,mb3.7,baz=176,slow=9.3,SNR=5.7						
MJAR	**Matsushiro Arr**	**38.77**	**14**	P	**P**	**21 02 26.6**	**-0.8**
	0.6nm,0.4s,mb3.7,baz=185,slow=9.0,SNR=3.6						
CD2	**Chengdu**	**38.98**	**327**	P	**P**	**21 02 29.0**	**-0.3**
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
XAN	**Xi'an**	**39.03**	**335**	P	**P**	**21 02 30.0**	**+0.3**
XAN				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.3						
LZH	**Lanzhou**	**43.02**	**332**	eP	**P**	**21 03 04.0**	**+1.5**
LZH				AP	pP	21 03 07.6	-5.2
LZH				XP	sP	21 03 09.5	-7.5
LZH				AMB	AMB		
	comp=Z,16nm,1.2s,mb4.6						
LZH	**Lanzhou**	**43.02**	**332**	eP	**P**	**21 03 04.0**	**+1.5**
	comp=Z,16nm,1.2s,mb4.6						
LZH				pP	pP	21 03 07.6	-5.2
LZH				sP	sP	21 03 09.5	-7.5
MDJ	**Mudanjiang**	**45.56**	**2**	eP	**P**	**21 03 23.4**	**+0.7**
	comp=Z,4.0nm,0.8s,mb4.4						
LSA	**Lhasa**	**46.21**	**315**	eP	**P**	**21 03 29.0**	**+0.9**
	comp=Z,3.3nm,0.6s,mb4.4						
TAPN	**Taplejung**	**47.51**	**310**	eP	**P**	**21 03 38.0**	**-0.3**
	comp=Z,15nm,1.0s,mb5.0						
ODAN	**Odare**	**47.51**	**309**	eP	**P**	**21 03 38.6**	**+0.3**
	comp=Z,14nm,0.8s,mb5.0						
GTA	**Gaotai**	**47.59**	**331**	eP	**P**	**21 03 40.3**	**+1.6**
GTA				AP	pP	21 03 43.5	-5.7
GTA				XP	sP	21 03 45.3	-8.0
GTA				AMB	AMB		
	comp=Z,3.0nm,0.8s,mb4.4						
JIRN	**Jiri**	**48.83**	**309**	eP	**P**	**21 03 48.9**	**+0.4**
	comp=Z,4.4nm,0.2s,mb5.1						
KKN	**Kakani**	**49.60**	**309**	eP	**P**	**21 03 54.6**	**+0.2**
	comp=Z,21nm,0.9s,mb5.2						
GKN	**Gorkha**	**50.21**	**309**	eP	**P**	**21 03 59.0**	**0.0**
	comp=Z,14nm,0.6s,mb5.2						
HYB	**Hyderabad**	**51.51**	**293**	eP	**P**	**21 04 10.0**	**+1.0**
HYB	**Hyderabad**	**51.51**	**293**	i P	**P**	**21 04 10.0**	**+1.0**
ULN	**Ulaanbaatar**	**51.90**	**343**	eP	**P**	**21 04 10.6**	**-0.7**
	comp=Z,4.9nm,1.0s,mb4.4						
SONM	**Songino Array**	**52.07**	**342**	P	**P**	**21 04 13.3**	**+0.7**
	comp=Z,1.8nm,0.7s,mb4.1,baz=156,slow=8.6,SNR=4.8						
MK31	**Makanchi Array**	**61.91**	**327**	eP	**P**	**21 05 21.1**	**-1.2**
MKAR	**Makanchi Array**	**61.91**	**327**	P	**P**	**21 05 21.5**	**-0.8**
MKAR	**Makanchi Array**	**61.91**	**327**	P	**P**	**21 05 21.5**	**-0.8**
	comp=Z,2.8nm,0.4s,mb4.7,baz=116,slow=8.0,SNR=114						
UCH	**Uchtor**	**64.20**	**319**	eP	**P**	**21 05 39.5**	**+1.8**
	comp=Z,4.9nm,0.9s,mb4.5						
AAK	**Ala-Archa**	**64.40**	**319**	eP	**P**	**21 05 39.2**	**+0.3**
	comp=Z,1.8nm,1.0s,mb4.1						
EKS2	**Erkin-Say**	**64.89**	**319**	eP	**P**	**21 05 43.1**	**+1.0**
	comp=Z,3.4nm,0.9s,mb4.4						
KBL	**Kabul**	**65.03**	**309**	eP	**P**	**21 05 43.3**	**+0.1**
ZALV	**Zalesovo Beam**	**65.18**	**334**	P	**P**	**21 05 42.9**	**-0.9**
	comp=Z,0.5nm,0.4s,mb3.9,baz=114,slow=3.7,SNR=6.3						
KURK	**Kurchatov**	**66.17**	**328**	eP	**P**	**21 05 48.8**	**-1.4**
	comp=Z,10nm,0.9s,mb4.8						
BRVK	**Borovoye**	**71.80**	**328**	eP	**P**	**21 06 23.1**	**-2.1**
ARU	**Arti**	**79.36**	**328**	P	**P**	**21 07 07.1**	**-1.3**
	comp=Z,2.6nm,0.9s,mb4.2						
TORD	**Torodi Ar. Bea**	**124.95**	**285**	PKP	PKPdf	21 14 03.9	+0.2
TORD	**Torodi Ar. Bea**	**124.95**	**285**	PKP	PKPdf	21 14 03.9	+0.2
	comp=Z,0.4nm,0.7s,baz=58,slow=1.2,SNR=2.9						

MAN 20 20:56:14,1317N×12288E,h1^{km},mb4.0,ML2.8,MS2.4, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OTRP	**Odiongan**	**1.16**	**226**	eP	Pg	20 56 37.0	+0.8
OTRP				eS	Sg	20 56 52.7	+1.4
PVCP	**Virac**	**1.31**	**71**	eP	Pg	20 56 39.5	+0.3
PVCP				eS	Sg	20 56 58.2	+2.0
POLP	**Polilio Island**	**1.80**	**330**	eP	Pn	20 56 47.1	+0.9
POLP				eS	Sn	20 57 10.9	+1.2
CNP	**Catarman**	**1.86**	**110**	eP	Pn	20 56 47.9	+0.9
LUBP	**Lubang**	**2.62**	**283**	eP	Pn	20 56 59.0	+1.5
BALP	**Baler**	**2.85**	**334**	eP	Pn	20 57 01.8	+1.1
ENPP	**El Nido**	**3.90**	**240**	eP	Pn	20 57 16.1	+1.0

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*IDC **20** 21:20:47.0±2.2,4359N×10535W,h0^{km},mb1 3.4/3, mb1mx3.2/21,mbtmp3.1/3,ML2.9/3,Error ellipse: s-maj=50.8km s-min=9.9km az=153.0*

*ISCJB **20** 21:20:48.2±0.6,4377N±004×10531W±005,h0^{km},Error ellipse: s-maj=6.6km s-min=5.3km az=155.9*

*NEIC **20** 21:20:48.5±0.6,4374N×10522W,h0^{km},ML2.9,Error ellipse: s-maj=11.1km s-min=7.6km az=132.0,Suspected Mining explosion.*

NEIC 65 km [40 miles] SSE of Gillette.

ISC 20 21:20:48.9±0.5,4375N±004×10523W±005,h0^{km},n15, σ0^{s}90/18,Wyoming

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RSSD	**Black Hills**	**0.94**	**67**	ePg	**Pg**	**21 21 07.3**	**+0.4**
RSSD				eSn	**Sn**	**21 21 24.2**	**+0.8**
PHWY	**Pilot Hill**	**2.46**	**184**	ePn	**Pn**	**21 21 29.3**	**-0.9**
RWWY	**Rawlins**	**2.52**	**216**	ePn	**Pn**	**21 21 30.3**	**-0.8**
RWWY				eSn	**Sn**	**21 22 03.0**	**+0.4**
RLMT	**Red Lodge**	**3.20**	**297**	ePn	**Pn**	**21 21 41.0**	**+0.6**
RLMT				eSg	**Sg**	**21 22 32.8**	**+1.1**
PDAR	**Pinedale Array**	**3.31**	**254**	Pn	**Pn**	**21 21 41.4**	**-0.6**
PDAR				Lg		21 22 27.1	
PDAR	**Pinedale Array**	**3.31**	**254**	Pn	**Pn**	**21 21 41.4**	**-0.6**
	0.9nm,0.3s,baz=77,slow=16,SNR=28						
PDAR				Lg		21 22 27.1	
	8.7nm,0.3s,baz=76,slow=30,SNR=24						
LOHW	**Long Hollow**	**3.90**	**270**	ePn	**Pn**	**21 21 42.8**	**-7.2**
ISCO	**Idaho Springs**	**3.96**	**184**	ePn	**Pn**	**21 21 51.2**	**+0.4**
SMCO	**Snowmass**	**4.75**	**197**	ePg	**Pb**	**21 22 13.7**	**+0.6**
DGMT	**Dagmar**	**4.77**	**8**	ePg	**Pb**	**21 22 13.5**	**+0.1**
ECSD	**EROS,Sioux Fal**	**6.24**	**87**	ePg	**Pb**	**21 22 39.5**	**+1.1**
	2.8nm,0.4s						
ULM	**Lac du Bonnet**	**9.11**	**41**	Pn	**Pn**	**21 23 00.1**	**-1.5**
ULM	**Lac du Bonnet**	**9.11**	**41**	Pn	**Pn**	**21 23 00.1**	**-1.5**
	0.5nm,0.3s,baz=235,slow=13,SNR=7.0						
YKA	**Yellowknife Ar**	**19.56**	**347**	P	**Pn**	**21 25 17.2**	**-1.9**
YKA	**Yellowknife Ar**	**19.56**	**347**	P	**Pn**	**21 25 17.2**	**-1.9**
	0.0nm,0.3s,baz=160,slow=13,SNR=4.2						

IDC 20 21:40:41.1±6.2,2089S×6685W,h219^{km}±42^{km},mb3.6/3, mb1 3.7/5,mb1mx3.4/17,mbtmp3.5/5,Error ellipse: s-maj=68.8km s-min=22.5km az=13.0,Southern Bolivia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	**La Paz**	**4.73**	**345**	P	Pn	21 41 53.5	+0.8
	1.3nm,0.3s,baz=169,slow=8.0,SNR=20						
LPAZ				S	S	21 42 50.7	+1.3
	0.1nm,0.3s,baz=255,slow=20,SNR=5.6						
SIV	**San Ignacio**	**7.33**	**49**	P	Pn	21 42 26.0	+0.2
	4.3nm,0.3s,baz=239,slow=11,SNR=84						
SIV				S	S	21 43 49.9	+0.4
	1.2nm,0.3s,baz=320,slow=19,SNR=7.8						
TORD	**Torodi Ar. Bea**	**75.34**	**70**	P	P	21 52 00.8	-0.1
	2.7nm,0.5s,baz=257,slow=5.6,SNR=57						
ESDC	**Sonseca Array**	**84.06**	**44**	P	P	21 52 48.1	+0.9
	1.5nm,0.9s,baz=254,slow=8.8,SNR=4.1						
YKA	**Yellowknife Ar**	**91.26**	**340**	P	P	21 53 21.2	+0.1
	0.3nm,0.4s,baz=131,slow=4.6,SNR=7.5						
MKAR	**Makanchi Array**	**144.00**	**37**	PKP	PKPdf	21 59 49.5	-0.9
	1.2nm,0.6s,baz=314,slow=3.5,SNR=17						

IDC 20 21:42:06.7±2.3,099S×12737E,h0^{km},mb3.1/3,mb1 3.4/3, mb1mx3.2/16,mbtmp3.2/3,Error ellipse: s-maj=198.7km s-min=27.0km az=66.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**20.03**	**161**	P	P	21 46 41.1	-0.3
	0.3nm,0.4s,baz=343,slow=12,SNR=5.2						
ASAR	**Alice Springs**	**23.41**	**165**	P	P	21 47 17.9	+0.2
	0.3nm,0.3s,baz=344,slow=12,SNR=6.6						
MKAR	**Makanchi Array**	**61.80**	**326**	P	P	21 52 27.4	0.0
	0.3nm,0.5s,baz=134,slow=8.5,SNR=5.2						

CASC 20 21:52:08.7±3.8,1258N×8839W,h49^{km}±373^{km},MD3.6, ML3.3,1C-3D,Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSM	**San Miguel**	**0.85**	**8**	eP	x	21 52 39.2	
VSM				eS	x	21 52 51.2	
BLLM	**Bellamira**	**0.87**	**10**	eP	x	21 52 38.9	
BLLM				eS	x	21 52 49.8	
CNCH	**Conchagua**	**0.88**	**38**	eP	x	21 52 38.7	
CNCH				eS	x	21 52 50.4	
SNVI	**San Vicente**	**1.12**	**337**	eP	x	21 52 43.1	
SNVI				eS	x	21 52 57.3	
CAHU	**Cacacuatique**	**1.20**	**8**	eP	x	21 52 43.6	
CAHU				eS	x	21 52 59.8	
LCBS	**La Ceiba**	**1.22**	**332**	eP	x	21 52 44.2	
LCBS				eS	x	21 52 58.9	
LFRS	**El Faro**	**1.23**	**328**	eP	x	21 52 44.4	
LFRS				⇓eS	x	21 52 59.7	
LBRS	**Las Brisas**	**1.32**	**331**	eP	x	21 52 46.2	
LBRS				eS	x	21 53 02.2	
BOQS	**Boqueron**	**1.44**	**323**	eP	x	21 52 47.9	
BOQS				eS	x	21 53 05.4	
TEL3	**Telica 3**	**1.51**	**90**	⇓eP	Pn	21 52 33.7	+0.4
TELN	**Telica**	**1.52**	**89**	⇓eP	Pn	21 52 33.8	+0.3
SBLS	**San Blas**	**1.74**	**316**	eP	x	21 52 52.3	
SBLS				eS	x	21 53 13.2	
SNJE	**San Jose**	**1.75**	**317**	eP	x	21 52 52.3	
SNJE				eS	x	21 53 14.2	
RTR	**El Retiro**	**1.79**	**317**	eP	x	21 52 52.8	
RTR				eS	x	21 53 14.6	
COPN	**Copaltepe**	**1.80**	**102**	eP	Pn	21 52 37.4	+0.1
COPN				eS	Sn	21 52 58.4	-0.6
MOMJ	**Momotombo**	**1.81**	**95**	⇑eP	Pn	21 52 37.9	+0.4
RBDL	**Robledal**	**1.98**	**321**	eP	x	21 52 55.7	
MTO2	**Montecristo 2**	**2.04**	**333**	eP	x	21 52 56.0	
XAVN	**Gruta Xavier**	**2.06**	**102**	eP	Pn	21 52 41.5	+0.6
TICN	**Ticuantepe**	**2.18**	**104**	eP	Pn	21 52 43.0	+0.5
TICN				eS	Sn	21 53 07.8	-0.5
TICN				i		21 53 09.3	
	comp=Z,446nm,0.2s						
HUEN		**2.18**	**96**	eP	Pn	21 52 42.8	+0.3
HUEN				eS	Sn	21 53 07.1	-1.2

IDC 20 21:58:39.8±1.5,811S×12631E,h0^{km},mb3.8/2,mb1 3.7/5, mb1mx3.5/15,mbtmp3.6/5,ML3.5/3,Error ellipse: s-maj=100.0km s-min=24.5km az=70.0,Timor region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**9.95**	**184**	Pn	Pn	22 01 04.4	+0.3
	0.4nm,0.3s,baz=9.6,slow=12,SNR=12						
FITZ				Sn	Sn	22 02 51.2	-5.5
	0.7nm,0.3s,baz=91,slow=18,SNR=4.9						
WRA	**Warramunga Arr**	**14.10**	**147**	Pn	Pn	22 02 00.9	-0.1
	0.2nm,0.3s,baz=321,slow=14,SNR=14						
WRA				Sn	Sn	22 04 32.7	-5.7
	0.3nm,0.3s,baz=298,slow=23,SNR=6.0						
ASAR	**Alice Springs**	**17.10**	**156**	P	Pn	22 02 40.2	-0.1
	0.1nm,0.3s,baz=323,slow=10,SNR=6.4						
ASAR				S	Sn	22 05 44.7	-6.5
	0.1nm,0.3s,baz=326,slow=16,SNR=2.5						
MKAR	**Makanchi Array**	**67.21**	**329**	P	P	22 09 36.2	+0.4
	1.0nm,0.6s,baz=130,slow=8.2,SNR=17						
ZALV	**Zalesovo Beam**	**71.01**	**336**	P	P	22 09 59.0	-0.3
	0.3nm,0.4s,baz=134,slow=6.2,SNR=2.3						

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*ISCJB **20** 22:08:52.0±0.5,3609N±003×1011W±004,h10^{km},Error ellipse: s-maj=4.5km s-min=3.6km az=151.8*

*NEIC **20** 22:08:53.4,3603N×1047W,h23^{km},ML3.4(LIS), MN3.5(MDD),After MDD.*

*MDD **20** 22:08:53.8±0.9,3598N×1046W,h29^{km}±13^{km},mbLg3.6/46, Error ellipse: s-maj=10.2km s-min=5.3km az=73.0, PRXIMO*

*CNRM **20** 22:08:54.8,3591N×1035W,h30^{km},MD3.8*

*LDG **20** 22:08:54.9±0.2,3600N×1039W,h20^{km},Ml3.9/3,Error ellipse: s-maj=4.5km s-min=2.3km az=33.0*

*CSEM **20** 22:08:55.1±0.2,3586N×992W,h20^{km},ML3.3,Error ellipse: s-maj=5.3km s-min=2.8km az=77.0*

*IGIL **20** 22:08:56.0,3601N×1034W,h29^{km},ML3.7*

*INMG **20** 22:08:56.1±1.6,3607N×1034W,h22^{km}±20^{km},Mb4.3, ML3.3,Error ellipse: s-maj=19.0km s-min=3.2km az=52.0*

ISC 20 22:08:55.6±0.6,3619N±003×1005W±004,h10^{km},n181, σ1^{s}15/332,9C,Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFVI	**Vila Bisbo**	**1.36**	**46**	i P	**Pn**	**22 09 21.7**	**+1.1**
PFVI				eS	**Sn**	**22 09 40.6**	**+1.8**
PFVI				A		22 09 41.7	
	270nm,0.1s						
PFVI	**Vila Bisbo**	**1.36**	**46**	eP	**Pn**	**22 09 21.7**	**+1.1**
PFVI				eS	**Sn**	**22 09 40.4**	**+1.6**
PFVI	**Vila Bisbo**	**1.36**	**46**	⇑P	**Pn**	**22 09 21.7**	**+1.1**
PFVI				S	**Sn**	**22 09 40.6**	**+1.8**
	135nm,0.1s						
PFVI	**Vila Bisbo**	**1.36**	**46**	eP	**Pn**	**22 09 21.7**	**+1.1**
PFVI				eS	**Sn**	**22 09 40.4**	**+1.6**
MORF	**Marmelete**	**1.58**	**45**	i Pn	**Pn**	**22 09 24.8**	**+1.1**
MORF				eSn	**Sn**	**22 09 45.9**	**+1.7**
MORF				A		22 09 47.5	
	309nm,0.2s						
MORF	**Marmelete**	**1.58**	**45**	ePn	**Pn**	**22 09 24.8**	**+1.1**
MORF				eSn	**Sn**	**22 09 45.9**	**+1.6**
MORF	**Marmelete**	**1.58**	**45**	⇑P	**Pn**	**22 09 24.8**	**+1.1**
MORF				S	**Sn**	**22 09 45.9**	**+1.7**
	309nm,0.2s						
MORF	**Marmelete**	**1.58**	**45**	ePn	**Pn**	**22 09 24.8**	**+1.1**
MORF				eSn	**Sn**	**22 09 45.9**	**+1.7**
PTEO	**Sao Teotonio**	**1.72**	**38**	i Pn	**Pn**	**22 09 26.6**	**+1.0**
PTEO				eSn	**Sn**	**22 09 49.5**	**+1.9**
PTEO				A		22 09 51.2	
	228nm,0.1s						
PTEO	**Sao Teotonio**	**1.72**	**38**	ePn	**Pn**	**22 09 26.6**	**+1.0**
PTEO	**Sao Teotonio**	**1.72**	**38**	⇑P	**Pn**	**22 09 26.6**	**+1.0**
PTEO				S	**Sn**	**22 09 49.5**	**+1.9**
	114nm,0.1s						
PTEO	**Sao Teotonio**	**1.72**	**38**	ePn	**Pn**	**22 09 26.6**	**+1.0**
PTEO				eSn	**Sn**	**22 09 49.5**	**+1.9**
PBDV	**Barranco-do-Ve**	**2.00**	**58**	i Pn	**Pn**	**22 09 30.6**	**+1.2**
PBDV				eSn	**Sn**	**22 09 56.0**	**+1.5**
PBDV				A		22 09 59.7	
	81nm,0.1s						
PBDV	**Barranco-do-Ve**	**2.00**	**58**	⇑P	**Pn**	**22 09 30.6**	**+1.2**
PBDV				S	**Sn**	**22 09 56.0**	**+1.5**
	40nm,0.1s						
PVAQ	**Vaqueiros**	**2.23**	**56**	ePn	**Pn**	**22 09 33.6**	**+1.0**
PVAQ				eSn	**Sn**	**22 10 01.4**	**+1.2**
PVAQ				A		22 10 03.9	
	184nm,0.1s						
PVAQ	**Vaqueiros**	**2.23**	**56**	P	**Pn**	**22 09 33.6**	**+1.0**
PVAQ				S	**Sn**	**22 10 01.4**	**+1.2**
	92nm,0.1s						
PVAQ	**Vaqueiros**	**2.23**	**56**	ePn	**Pn**	**22 09 33.6**	**+1.0**
PVAQ				eSn	**Sn**	**22 10 01.4**	**+1.2**
EGRO	**El Granado**	**2.46**	**56**	⇑P	**Pn**	**22 09 36.7**	**+1.0**
	21nm,0.1s,SNR=18						
EGRO				S	**Sn**	**22 10 07.5**	**+1.7**
	41nm,0.1s,SNR=5.0						
EGRO	**El Granado**	**2.46**	**56**	P	**Pn**	**22 09 36.7**	**+1.0**
	21nm,0.1s,SNR=18						
EGRO				S	**Sn**	**22 10 07.5**	**+1.7**
	41nm,0.1s,SNR=5.0						
PBEJ	**Beja**	**2.53**	**43**	i Pn	**Pn**	**22 09 37.5**	**+0.8**
PBEJ				eSn	**Sn**	**22 10 09.0**	**+1.4**
PBEJ				A		22 10 10.9	
	80nm,0.1s						
PBEJ	**Beja**	**2.53**	**43**	ePn	**Pn**	**22 09 37.5**	**+0.8**
PBEJ				eSn	**Sn**	**22 10 09.0**	**+1.4**
PBEJ	**Beja**	**2.53**	**43**	⇑P	**Pn**	**22 09 37.5**	**+0.8**
PBEJ				S	**Sn**	**22 10 09.0**	**+1.4**
	40nm,0.1s						
PBEJ	**Beja**	**2.53**	**43**	ePn	**Pn**	**22 09 37.5**	**+0.8**
PBEJ				eSn	**Sn**	**22 10 09.0**	**+1.4**
ERIP	**Rio Piedras**	**2.54**	**61**	⇑P	**Pn**	**22 09 37.8**	**+1.1**
ERIP				S	**Sn**	**22 10 08.7**	**+1.0**
ERIP	**Rio Piedras**	**2.54**	**61**	⇑P	**Pn**	**22 09 37.8**	**+1.0**
	25nm,0.1s,SNR=18						
ERIP				S	**Sn**	**22 10 09.3**	**+1.6**
	77nm,0.1s,SNR=7.9						
ERIP	**Rio Piedras**	**2.54**	**61**	P	**Pn**	**22 09 37.8**	**+1.0**
	25nm,0.1s,SNR=18						
ERIP				S	**Sn**	**22 10 08.7**	**+1.0**
	77nm,0.1s,SNR=7.9						
LIS	**Lisbon**	**2.62**	**16**	eS	**Sn**	**22 10 09.4**	**-0.5**
LIS				eS	**Sn**	**22 10 09.4**	**-0.5**
LIS				AML	AML	22 10 12.7	
	comp=E,487nm,0.2s						
LIS	**Lisbon**	**2.62**	**16**	eS	**Sn**	**22 10 09.4**	**-0.5**
LIS	**Lisbon**	**2.62**	**16**	S	**Sn**	**22 10 09.4**	**-0.5**
MOE	**Montemor**	**2.70**	**30**	ePn	**Pn**	**22 09 39.3**	**+0.3**
MOE				eSn	**Sn**	**22 10 12.0**	**+0.3**
MOE	**Montemor**	**2.70**	**30**	ePn	**Pn**	**22 09 39.1**	**+0.1**
MOE				eSn	**Sn**	**22 10 11.8**	**+0.2**
MOE	**Montemor**	**2.70**	**30**	ePn	**Pn**	**22 09 39.3**	**+0.3**
MOE				eSn	**Sn**	**22 10 12.0**	**+0.3**
PMAFR	**Mafra**	**2.83**	**12**	ePn	**Pn**	**22 09 40.4**	**-0.4**
PMAFR				eSn	**Sn**	**22 10 14.5**	**-0.5**
PMAFR				A		22 10 17.6	
	comp=E,203nm,0.2s						
PMAFR	**Mafra**	**2.83**	**12**	P	**Pn**	**22 09 40.4**	**-0.4**
PMAFR				S	**Sn**	**22 10 14.5**	**-0.5**
	comp=E,101nm,0.2s						
PMAFR	**Mafra**	**2.83**	**12**	ePn	**Pn**	**22 09 40.4**	**-0.4**
PMAFR				eSn	**Sn**	**22 10 14.5**	**-0.5**
EVO	**Evora**	**2.85**	**34**	ePn	**Pn**	**22 09 41.8**	**+0.7**
EVO				eSn	**Sn**	**22 10 16.1**	**+0.7**
EVO				A		22 10 16.8	
	comp=E,199nm,0.1s						
EVO	**Evora**	**2.85**	**34**	ePn	**Pn**	**22 09 41.8**	**+0.7**
EVO				eSn	**Sn**	**22 10 16.0**	**+0.6**
EVO	**Evora**	**2.85**	**34**	P	**Pn**	**22 09 41.8**	**+0.7**
EVO				S	**Sn**	**22 10 16.1**	**+0.7**
	comp=E,100nm,0.1s						
EVO	**Evora**	**2.85**	**34**	ePn	**Pn**	**22 09 41.8**	**+0.7**
EVO				eSn	**Sn**	**22 10 16.0**	**+0.6**
EMIN	**Mina Concepcio**	**3.13**	**59**	P	**Pn**	**22 09 45.5**	**+0.6**
	comp=E,17nm,0.1s,SNR=184						
EMIN				S	**Sn**	**22 10 23.3**	**+1.0**
	comp=E,19nm,0.1s,SNR=6.2						
EMIN	**Mina Concepcio**	**3.13**	**59**	P	**Pn**	**22 09 45.5**	**+0.6**
	comp=E,17nm,0.1s,SNR=184						
EMIN				S	**Sn**	**22 10 23.3**	**+1.0**
	comp=E,19nm,0.1s,SNR=6.2						
ALMR	**Almeirim**	**3.19**	**21**	eP	**Pn**	**22 09 46.3**	**+0.6**
ALMR				eS	**Sn**	**22 10 23.4**	**-0.3**
ALMR				eS	**Sn**	**22 10 23.4**	**-0.3**
ALMR				AML	AML	22 10 25.4	
	comp=N,125nm,0.1s						
ALMR	**Almeirim**	**3.19**	**21**	eP	**Pn**	**22 09 46.3**	**+0.6**
ALMR				eS	**Sn**	**22 10 23.4**	**-0.3**
PESTR	**Estremoz**	**3.31**	**35**	ePn	**Pn**	**22 09 47.9**	**+0.4**
PESTR				eSn	**Sn**	**22 10 27.5**	**+0.6**
PESTR				A		22 10 28.8	
	comp=N,50nm,0.2s						
PESTR	**Estremoz**	**3.31**	**35**	ePn	**Pn**	**22 09 47.9**	**+0.4**
PESTR				eSn	**Sn**	**22 10 27.5**	**+0.6**
ESPR	**Espera**	**3.44**	**77**	⇑P	**Pn**	**22 09 49.7**	**+0.5**
	comp=N,68nm,0.3s,SNR=18						
ESPR				S	**Sn**	**22 10 30.4**	**+0.3**
	comp=N,100nm,0.5s,SNR=7.9						
ESPR	**Espera**	**3.44**	**77**	P	**Pn**	**22 09 49.7**	**+0.4**
	comp=N,68nm,0.3s,SNR=18						
ESPR				S	**Sn**	**22 10 30.4**	**+0.3**
	SNR=7.9						
EBAD	**Badajoz**	**3.52**	**42**	P	**Pn**	**22 09 50.8**	**+0.4**
	comp=N,5.4nm,0.1s,SNR=57						
EBAD				S	**Sn**	**22 10 32.4**	**+0.3**
	comp=N,41nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	**3.52**	**42**	P	**Pn**	**22 09 50.8**	**+0.5**
	comp=N,5.4nm,0.1s,SNR=57						
EBAD				S	**Sn**	**22 10 32.4**	**+0.4**
	comp=N,41nm,0.1s,SNR=7.9						
AVE	**Averroes**	**3.60**	**142**	P	**Pn**	**22 09 46.0**	**-5.5**
PTOM	**Tomar**	**3.66**	**20**	ePn	**Pn**	**22 09 52.3**	**0.0**
PTOM				eSn	**Sn**	**22 10 34.3**	**-1.2**
PTOM				A		22 10 39.5	
	comp=N,71nm,0.1s						
PTOM	**Tomar**	**3.66**	**20**	ePn	**Pn**	**22 09 52.3**	**0.0**
PTOM				eSn	**Sn**	**22 10 34.4**	**-1.1**
PTOM	**Tomar**	**3.66**	**20**	P	**Pn**	**22 09 52.3**	**0.0**
PTOM				S	**Sn**	**22 10 34.3**	**-1.2**
	comp=N,36nm,0.1s						
PTOM	**Tomar**	**3.66**	**20**	ePn	**Pn**	**22 09 52.3**	**0.0**
PTOM				eSn	**Sn**	**22 10 34.4**	**-1.1**
EJIF	**Jimena Fronter**	**3.71**	**85**	P	**Pn**	**22 09 53.5**	**+0.6**
	comp=N,9.2nm,0.2s,SNR=7.9						
EJIF				S	**Sn**	**22 10 36.9**	**+0.3**
	comp=N,2.7nm,0.1s,SNR=7.9						
PCBR	**Castelo Branco**	**4.17**	**28**	ePn	**Pn**	**22 09 59.8**	**+0.5**
PCBR				eSn	**Sn**	**22 10 47.1**	**-1.0**
PCBR				A		22 10 50.6	
	comp=N,24nm,0.1s						
PCBR	**Castelo Branco**	**4.17**	**28**	ePn	**Pn**	**22 09 59.8**	**+0.5**
PCBR				eSn	**Sn**	**22 10 47.1**	**-1.0**
PCBR	**Castelo Branco**	**4.17**	**28**	P	**Pn**	**22 09 59.8**	**+0.5**
PCBR				S	**Sn**	**22 10 47.1**	**-1.0**
	comp=N,12nm,0.1s						
PCBR	**Castelo Branco**	**4.17**	**28**	ePn	**Pn**	**22 09 59.8**	**+0.5**
PCBR				eSn	**Sn**	**22 10 47.1**	**-1.0**
EMIJ	**Mijas**	**4.27**	**83**	P	**Pn**	**22 10 00.0**	**-0.6**
EMIJ				S	**Sn**	**22 10 50.0**	**-0.5**
EMIJ	**Mijas**	**4.27**	**83**	P	**Pn**	**22 10 00.2**	**-0.5**
	comp=N,7.3nm,0.4s,SNR=21						
EMIJ				S	**Sn**	**22 10 50.0**	**-0.5**
	comp=N,4.6nm,0.1s,SNR=7.9						
EMIJ	**Mijas**	**4.27**	**83**	P	**Pn**	**22 10 00.0**	**-0.7**
	comp=N,7.3nm,0.4s,SNR=21						
EMIJ				S	**Sn**	**22 10 50.0**	**-0.5**
	comp=N,4.6nm,0.1s,SNR=7.9						
MTE	**Manteigas**	**4.64**	**24**	ePn	**Pn**	**22 10 07.9**	**+2.1**
MTE				eSn	**Sn**	**22 10 59.4**	**-0.3**
MTE				A		22 11 04.4	
	comp=N,22nm,0.1s						
MTE	**Manteigas**	**4.64**	**24**	P	**Pn**	**22 10 07.9**	**+2.1**
MTE				S	**Sn**	**22 10 59.4**	**-0.3**
	comp=N,11nm,0.1s						
CIA	**Chichaoua**	**4.73**	**167**	i P	**Pn**	**22 10 00.5**	**-6.5**
CIA				i S	**Sn**	**22 10 49.0**	**-13**
EADA	**Adamuz**	**4.79**	**64**	P	**Pn**	**22 10 08.3**	**+0.5**
EADA				S	**Sn**	**22 11 01.8**	**-1.6**
EADA	**Adamuz**	**4.79**	**64**	P	**Pn**	**22 10 08.3**	**+0.5**
	comp=N,29nm,0.2s,SNR=115						
EADA				S	**Sn**	**22 11 03.5**	**+0.1**
	comp=N,116nm,1.0s,SNR=7.9						
EADA	**Adamuz**	**4.79**	**64**	P	**Pn**	**22 10 08.3**	**+0.5**
	comp=N,29nm,0.2s,SNR=115						
EADA				S	**Sn**	**22 11 01.8**	**-1.6**
	SNR=7.9						
PVIS	**Viseu**	**4.83**	**20**	ePn	**Pn**	**22 10 08.2**	**-0.1**
PVIS				eSn	**Sn**	**22 11 02.1**	**-2.1**
PVIS				A		22 11 06.5	
	comp=N,44nm,0.1s						
PVIS	**Viseu**	**4.83**	**20**	ePn	**Pn**	**22 10 08.2**	**-0.1**
PVIS				eSn	**Sn**	**22 11 01.9**	**-2.3**
PVIS	**Viseu**	**4.83**	**20**	P	**Pn**	**22 10 08.2**	**-0.1**
PVIS				S	**Sn**	**22 11 02.1**	**-2.1**
	comp=N,22nm,0.1s						
PVIS	**Viseu**	**4.83**	**20**	ePn	**Pn**	**22 10 08.2**	**-0.1**
PVIS				eSn	**Sn**	**22 11 02.0**	**-2.2**
ELUQ	**Luque**	**4.83**	**72**	P	**Pn**	**22 10 08.7**	**+0.4**
	comp=N,14nm,0.2s,SNR=29						
ELUQ				S	**Sn**	**22 11 05.0**	**+0.6**
	comp=N,11nm,0.2s,SNR=7.9						
ELOJ	**Sierra Loja**	**4.83**	**77**	P	**Pn**	**22 10 09.3**	**+1.0**
ELOJ				S	**Sn**	**22 11 05.2**	**+0.8**
ELOJ	**Sierra Loja**	**4.83**	**77**	P	**Pn**	**22 10 09.3**	**+1.0**
	comp=N,2.0nm,0.1s,SNR=7.9						
ELOJ				S	**Sn**	**22 11 04.5**	**+0.1**
	comp=N,3.3nm,0.2s,SNR=7.9						
ELOJ	**Sierra Loja**	**4.83**	**77**	P	**Pn**	**22 10 09.3**	**+0.9**
	comp=N,2.0nm,0.1s,SNR=7.9						
ELOJ				S	**Sn**	**22 11 05.2**	**+0.8**
	comp=N,3.3nm,0.2s,SNR=7.9						
KIB	**El Ksiba**	**4.89**	**136**	i P	**Pn**	**22 10 05.5**	**-3.7**
KIB				i S	**Sn**	**22 10 58.0**	**-7.9**
TZC	**Tazercounte**	**4.99**	**143**	i P	**Pn**	**22 10 07.0**	**-3.5**
TZC				i S	**Sn**	**22 11 01.0**	**-7.3**
ERON	**Agron**	**5.09**	**79**	P	**Pn**	**22 10 12.9**	**+1.0**
	comp=N,4.4nm,0.2s,SNR=13						
ERON				S	**Sn**	**22 11 10.6**	**-0.1**
	comp=N,1.7nm,0.1s,SNR=7.9						
CZD	**Col de Zad**	**5.19**	**126**	i P	**Pn**	**22 10 11.0**	**-2.2**

CZD				iS	Sn	22 11 06.0	-7.1
EGUA	Guajares	5.26	81	P	Pn	22 10 15.3	+1.0
EGUA				S	Sn	22 11 13.8	-1.1
EGUA	Guajares	5.26	81	P	Pn	22 10 15.3	+1.0
	comp=N,2.5nm,0.2s,SNR=7.9						
EGUA				S	Sn	22 11 13.8	-1.1
	comp=N,1.6nm,0.2s,SNR=7.9						
ECOG	Cogollos-Vega	5.32	76	P	Pn	22 10 16.0	+1.0
ECOG				S	Sn	22 11 17.4	+1.1
ECOG	Cogollos-Vega	5.32	76	P	Pn	22 10 16.0	+1.0
	comp=N,12nm,0.2s,SNR=7.9						
ECOG				S	Sn	22 11 15.8	-0.5
	comp=N,25nm,1.1s,SNR=7.9						
ECOG	Cogollos-Vega	5.32	76	P	Pn	22 10 16.0	+1.0
	comp=N,12nm,0.2s,SNR=7.9						
ECOG				S	Sn	22 11 17.4	+1.1
	comp=N,4.2nm,0.2s,SNR=7.9						
EBAN	Banos Encina	5.38	67	P	Pn	22 10 16.0	+0.2
	comp=N,17nm,0.2s,SNR=37						
EBAN				S	Sn	22 11 16.6	-1.1
	comp=N,28nm,0.1s,SNR=7.9						
PVRL	Vila Real	5.40	19	ePn	Pn	22 10 15.9	-0.2
PVRL				eSn	Sn	22 11 14.9	-3.4
PVRL				A		22 11 21.0	
	comp=N,60nm,0.1s						
PVRL	Vila Real	5.40	19	ePn	Pn	22 10 15.8	-0.3
PVRL				eSn	Sn	22 11 14.9	-3.4
PVRL	Vila Real	5.40	19	P	Pn	22 10 15.9	-0.2
PVRL				S	Sn	22 11 14.9	-3.4
	comp=N,30nm,0.1s						
PVRL	Vila Real	5.40	19	ePn	Pn	22 10 15.8	-0.3
PVRL				eSn	Sn	22 11 14.9	-3.4
EQUE	Quentar	5.41	77	P	Pn	22 10 17.0	+0.8
	comp=N,2.1nm,0.1s,SNR=38						
EQUE				S	Sn	22 11 18.4	-0.1
	comp=N,1.5nm,0.1s,SNR=7.9						
MVO	Moncorvo	5.50	24	ePn	Pn	22 10 17.4	-0.2
MVO				eSn	Sn	22 11 18.9	-2.0
MVO				A		22 11 23.2	
	comp=N,22nm,0.1s						
MVO	Moncorvo	5.50	24	ePn	Pn	22 10 17.4	-0.1
MVO				eSn	Sn	22 11 18.9	-1.9
MVO	Moncorvo	5.50	24	P	Pn	22 10 17.4	-0.2
MVO				S	Sn	22 11 18.9	-2.0
	comp=N,11nm,0.1s						
MVO	Moncorvo	5.50	24	ePn	Pn	22 10 17.4	-0.2
MVO				eSn	Sn	22 11 18.9	-2.0
EALB	Alboran	5.69	90	P	Pn	22 10 19.5	-0.5
EALB				S	Sn	22 11 21.4	-4.0
EALB	Alboran	5.69	90	P	Pn	22 10 19.5	-0.5
	comp=N,2.0nm,0.2s,SNR=7.9						
EALB				S	Sn	22 11 23.6	-1.8
	comp=N,20nm,0.3s,SNR=7.9						
EALB	Alboran	5.69	90	P	Pn	22 10 19.5	-0.6
	comp=N,2.0nm,0.2s,SNR=7.9						
EALB				S	Sn	22 11 21.4	-4.0
	comp=N,20nm,0.3s,SNR=7.9						
PCAB	Cabril	5.74	15	ePn	Pn	22 10 20.4	-0.4
PCAB				eSn	Sn	22 11 23.2	-3.4
PCAB				A		22 11 28.1	
	comp=N,17nm,0.1s						
PCAB	Cabril	5.74	15	P	Pn	22 10 20.4	-0.4
PCAB				S	Sn	22 11 23.2	-3.4
	comp=N,8.5nm,0.1s						
EBER	Berja	5.80	81	P	Pn	22 10 22.0	+0.3
EBER				S	Sn	22 11 28.2	-0.1
EBER	Berja	5.80	81	P	Pn	22 10 22.0	+0.3
	comp=N,0.6nm,0.1s,SNR=7.9						
EBER				S	Sn	22 11 27.4	-0.9
	comp=N,2.6nm,0.2s,SNR=7.9						
EBER	Berja	5.80	81	P	Pn	22 10 22.0	+0.3
	comp=N,0.6nm,0.1s,SNR=7.9						
EBER				S	Sn	22 11 28.2	-0.1
	comp=N,2.6nm,0.2s,SNR=7.9						
EQES	Quesada	5.81	72	P	Pn	22 10 21.8	0.0
	comp=N,6.1nm,0.3s,SNR=55						
EQES				S	Sn	22 11 27.9	-0.6
	comp=N,1.5nm,0.1s,SNR=7.9						
EQES	Quesada	5.81	72	P	Pn	22 10 21.8	0.0
	comp=N,6.1nm,0.3s,SNR=55						
EQES				S	Sn	22 11 27.9	-0.6
	comp=N,1.5nm,0.1s,SNR=7.9						
ELOB	Lobios	5.88	15	P	Pn	22 10 22.1	-0.6
	comp=N,0.5nm,0.1s,SNR=8.7						
ELOB				S	Sn	22 11 26.5	-3.7
	comp=N,6.0nm,0.1s,SNR=7.9						
ESDC	Sonseca Array	5.94	52	P	Pn	22 10 23.3	-0.2
ESDC				S	Sn	22 11 31.5	-0.1
ESDC	Sonseca Array	5.94	52	P	Pn	22 10 24.4	+0.8
	comp=N,12nm,0.2s,baz=239,slow=13,SNR=266						
ESDC				S	Sn	22 11 30.8	-0.7
	comp=N,20nm,0.6s,baz=240,slow=23,SNR=7.9						
ESDC	Sonseca Array	5.94	52	P	Pn	22 10 23.3	-0.2
	comp=N,12nm,0.2s,SNR=266						
ESDC				S	Sn	22 11 31.5	-0.1
	comp=N,20nm,0.6s,SNR=7.9						
EZAM	Zamans	6.05	10	P	Pn	22 10 23.7	-1.3
	comp=N,1.1nm,0.1s,SNR=7.9						
EZAM				S	Sn	22 11 30.1	-4.2
	comp=N,3.8nm,0.1s,SNR=7.9						
PBRG	Braganca	6.17	24	ePn	Pn	22 10 27.2	+0.4
PBRG				eSn	Sn	22 11 34.2	-3.2
PBRG				A		22 11 39.8	
	comp=N,16nm,0.1s						
PBRG	Braganca	6.17	24	P	Pn	22 10 27.2	+0.4
PBRG				S	Sn	22 11 34.2	-3.2
	comp=N,8.1nm,0.1s						
ZFT	Errachidia	6.28	130	iP	Pn	22 10 25.0	-3.3
ZFT				iS	Sn	22 11 32.0	-8.1
ECAL	Calabor	6.30	23	P	Pn	22 10 29.0	+0.6
	comp=N,4.2nm,0.1s,SNR=13						
ECAL				S	Sn	22 11 38.2	-2.2
	comp=N,14nm,0.2s,SNR=7.9						
ECAL	Calabor	6.30	23	P	Pn	22 10 29.0	+0.5
	comp=N,4.2nm,0.1s,SNR=13						
GUD	Guadarrama	6.42	44	P	Pn	22 10 30.5	+0.3
GUD				S	Sn	22 11 42.8	-0.6
GUD	Guadarrama	6.42	44	P	Pn	22 10 30.5	+0.3
	comp=N,3.9nm,0.2s,SNR=7.9						
GUD				S	Sn	22 11 42.0	-1.4
	comp=N,6.9nm,0.2s,SNR=7.9						
EVIA	Vianos	6.48	66	P	Pn	22 10 31.0	0.0
EVIA				S	Sn	22 11 41.5	-3.5
EVIA	Vianos	6.48	66	P	Pn	22 10 31.0	0.0
	comp=N,4.8nm,0.3s,SNR=24						
EVIA				S	Sn	22 11 43.7	-1.3
	comp=N,11nm,0.2s,SNR=7.9						
ERUA	La Rua	6.59	19	S	Sn	22 11 43.8	-3.9
	comp=N,8.1nm,0.1s,SNR=7.9						
STS	Santiago	6.79	9	P	Pn	22 10 34.5	-0.7
	comp=N,2.9nm,0.1s,SNR=7.9						
STS				S	Sn	22 11 47.1	-5.5
	comp=N,4.3nm,0.1s,SNR=7.9						
EMAZ	Mazaricos	6.80	7	P	Pn	22 10 33.9	-1.5
EMAZ				S	Sn	22 11 45.5	-7.5
EMAZ	Mazaricos	6.80	7	P	Pn	22 10 33.9	-1.5
	comp=N,1.9nm,0.1s,SNR=13						
EMAZ				S	Sn	22 11 47.0	-5.9
	comp=N,9.1nm,0.1s,SNR=7.9						
ETOB	Tobarra	7.19	68	P	Pn	22 10 40.5	-0.3
	comp=N,7.3nm,0.3s,SNR=40						
ETOB				S	Sn	22 12 00.2	-2.3
	comp=N,4.3nm,0.1s,SNR=7.9						
ETOB	Tobarra	7.19	68	P	Pn	22 10 40.5	-0.3
	comp=N,7.3nm,0.3s,SNR=40						
EMUR	La Murta	7.24	74	P	Pn	22 10 41.6	+0.2
EMUR				S	Sn	22 12 02.2	-1.4
EMUR	La Murta	7.24	74	P	Pn	22 10 41.6	+0.2
	comp=N,3.8nm,0.4s,SNR=7.9						
EMUR				S	Sn	22 12 01.9	-1.7
	comp=N,1.4nm,0.2s,SNR=7.9						
EMUR	La Murta	7.24	74	P	Pn	22 10 41.6	+0.2
	SNR=7.9						
EMUR				S	Sn	22 12 02.2	-1.4
	comp=N,1.4nm,0.2s,SNR=7.9						
EPON	Pontenova	7.47	16	P	Pn	22 10 43.7	-0.9
	comp=N,1.2nm,0.5s,SNR=7.9						
EPON				S	Sn	22 12 04.1	-5.3
	comp=N,42nm,1.3s,SNR=7.9						
ETOR	Torete	7.79	51	P	Pn	22 10 49.4	+0.5
	comp=N,22nm,0.2s,SNR=57						
ETOR				S	Sn	22 12 14.1	-3.0
	comp=N,18nm,0.3s,SNR=7.9						
ECHE	Chera	7.94	62	P	Pn	22 10 51.8	+0.7
	comp=N,1.6nm,0.2s,SNR=7.9						
ECHE				S	Sn	22 12 18.1	-2.9
	comp=N,1.7nm,0.8s,SNR=7.9						
EARI	Arriondas	8.02	26	P	Pn	22 10 53.2	+1.1
EARI				S	Sn	22 12 20.1	-2.8
EARI	Arriondas	8.02	26	P	Pn	22 10 52.3	+0.2
	comp=N,0.3nm,0.3s,SNR=7.9						
EARI				S	Sn	22 12 19.5	-3.4
	comp=N,4.1nm,0.7s,SNR=7.9						
EARI	Arriondas	8.02	26	P	Pn	22 10 53.2	+1.1
	SNR=7.9						
CFUE	Fuerteventura	8.20	205	S	Sn	22 12 06.0	-21
	comp=N,13nm,0.3s,SNR=7.9						
EBEN	Beniarda	8.21	69	P	Pn	22 10 54.3	-0.4
EBEN				S	Sn	22 12 24.9	-2.6
EBEN	Beniarda	8.21	69	P	Pn	22 10 55.4	+0.7
	comp=N,3.0nm,0.3s,SNR=7.3						
EBEN				S	Sn	22 12 24.9	-2.6
	comp=N,0.8nm,0.2s,SNR=7.9						
EBEN	Beniarda	8.21	69	P	Pn	22 10 54.3	-0.4
	comp=N,3.0nm,0.3s,SNR=7.3						
EMOS	Mosqueruela	8.61	58	P	Pn	22 11 01.5	+1.3
EMOS				S	Sn	22 12 34.2	-3.0
EMOS	Mosqueruela	8.61	58	P	Pn	22 11 01.1	+1.0
	comp=N,0.5nm,0.5s,SNR=7.9						
EMOS				S	Sn	22 12 34.2	-3.0
	comp=N,0.6nm,0.3s,SNR=7.9						
EMOS	Mosqueruela	8.61	58	P	Pn	22 11 01.5	+1.3
	comp=N,0.5nm,0.5s,SNR=7.9						
ECRI	Cripan	8.67	40	P	Pn	22 11 01.4	+0.4
ECRI				S	Sn	22 12 36.1	-2.7
ECRI	Cripan	8.67	40	P	Pn	22 11 01.4	+0.4
	comp=N,1.7nm,0.1s,SNR=7.9						
ECRI				S	Sn	22 12 34.8	-4.0
	comp=N,1.5nm,0.1s,SNR=7.9						
ELAN	Lanestosa	8.69	34	P	Pn	22 11 01.3	+0.1
	comp=N,0.5nm,0.2s,SNR=7.9						
ELAN				S	Sn	22 12 35.2	-4.0
	comp=N,2.1nm,0.2s,SNR=7.9						
ELAN	Lanestosa	8.69	34	P	Pn	22 11 01.3	+0.1
	comp=N,0.5nm,0.2s,SNR=7.9						
ESAC	San Caprasio	9.28	51	P	Pn	22 11 10.5	+1.1
ESAC				S	Sn	22 12 51.0	-2.8
ESAC	San Caprasio	9.28	51	P	Pn	22 11 10.5	+1.1
	comp=N,5.9nm,0.3s,SNR=7.9						
ESAC				S	Sn	22 12 50.7	-3.2
	comp=N,5.4nm,0.2s,SNR=7.9						
ESAC	San Caprasio	9.28	51	P	Pn	22 11 10.5	+1.1
	comp=N,5.9nm,0.3s,SNR=7.9						
ERTA	Horta de San J	9.42	56	P	Pn	22 11 12.5	+1.2
ERTA				S	Sn	22 12 53.8	-3.4
ERTA	Horta de San J	9.42	56	P	Pn	22 11 11.9	+0.6
	comp=N,1.8nm,0.4s,SNR=7.9						
ERTA				S	Sn	22 12 53.8	-3.4
	comp=N,84nm,1.6s,SNR=7.9						
ERTA	Horta de San J	9.42	56	P	Pn	22 11 12.5	+1.2
	SNR=7.9						
EIBI	Ibiza	9.47	69	P	Pn	22 11 11.9	-0.1
	comp=N,7.8nm,0.6s,SNR=7.9						
EIBI				S	Sn	22 12 54.3	-4.3
	comp=N,2.5nm,2.2s,SNR=7.9						
EIBI	Ibiza	9.47	69	P	Pn	22 11 11.9	-0.1
	SNR=7.9						
ELIZ	Elizondo	9.57	41	P	Pn	22 11 14.0	+0.7
	comp=N,5.3nm,0.4s,SNR=7.9						
ELIZ				S	Sn	22 12 56.8	-4.2
	comp=N,67nm,1.8s,SNR=7.9						
SJPF	Ste Jean	9.70	42	ePn	Pn	22 11 15.7	+0.6
SJPF				eSn	Sn	22 13 00.7	-3.3
	comp=N,5.6nm,0.3s						
SJPF	Ste Jean	9.70	42	ePn	Pn	22 11 15.7	+0.6
SJPF				eSn	Sn	22 13 00.7	-3.3
SJPF	Ste Jean	9.70	42	ePn	Pn	22 11 15.7	+0.6
SJPF				eSn	Sn	22 13 00.7	-3.3
	comp=N,2.8nm,0.3s						
ETSF	Etsaut	9.93	45	ePn	Pn	22 11 18.9	+0.7
ETSF				eSn	Sn	22 13 06.5	-3.1
	comp=N,3.7nm,0.3s						
ETSF	Etsaut	9.93	45	ePn	Pn	22 11 18.9	+0.7
ETSF				eSn	Sn	22 13 06.5	-3.1
ETSF	Etsaut	9.93	45	ePn	Pn	22 11 18.9	+0.7
ETSF				eSn	Sn	22 13 06.5	-3.1
	comp=N,1.9nm,0.3s						
EBIE	Bielsa	10.21	47	P	Pn	22 11 22.8	+0.7
	comp=N,1.4nm,0.2s						
EBIE				S	Sn	22 13 13.3	-3.2
EBIE	Bielsa	10.21	47	P	Pn	22 11 22.8	+0.7
	comp=N,1.4nm,0.2s,SNR=7.9						
EBIE				S	Sn	22 13 12.2	-4.3
	comp=N,3.0nm,0.3s,SNR=7.9						
EBIE	Bielsa	10.21	47	P	Pn	22 11 22.8	+0.7
	comp=N,1.4nm,0.2s						
EPF	Esparros	10.53	46	ePn	Pn	22 11 27.1	+0.6
EPF				eSn	Sn	22 13 20.8	-3.6
	comp=N,4.8nm,0.4s						
EPF	Esparros	10.53	46	ePn	Pn	22 11 27.1	+0.6
EPF				eSn	Sn	22 13 20.8	-3.6
EPF	Esparros	10.53	46	ePn	Pn	22 11 27.1	+0.6
EPF				eSn	Sn	22 13 20.8	-3.6
	comp=N,2.4nm,0.4s						
RJF	Les Rejaudoux	12.63	40	ePn	Pn	22 11 54.0	-1.2
RJF	Les Rejaudoux	12.63	40	ePn	Pn	22 11 54.0	-1.2
RJF	Les Rejaudoux	12.63	40	ePn	Pn	22 11 54.0	-1.2
CAF	Calviac	12.68	43	ePn	Pn	22 11 55.7	-0.2
CAF	Calviac	12.68	43	ePn	Pn	22 11 55.7	-0.2
CAF	Calviac	12.68	43	ePn	Pn	22 11 55.7	-0.2
MFF	Saint Martin d	12.78	32	ePn	Pn	22 11 56.5	-0.7
MFF	Saint Martin d	12.78	32	ePn	Pn	22 11 56.5	-0.7
MFF	Saint Martin d	12.78	32	ePn	Pn	22 11 56.5	-0.7
ROSF	Rostrenen	13.13	20	ePn	Pn	22 12 00.9	-1.1
ROSF	Rostrenen	13.13	20	ePn	Pn	22 12 00.9	-1.1
ROSF	Rostrenen	13.13	20	ePn	Pn	22 12 00.9	-1.1
TCF	Toulx Ste Croi	13.65	39	ePn	Pn	22 12 08.9	-0.3
TCF	Toulx Ste Croi	13.65	39	ePn	Pn	22 12 08.9	-0.3
TCF	Toulx Ste Croi	13.65	39	ePn	Pn	22 12 08.9	-0.3

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*NEIC **20** 22:16:43.1, 10.65N×61.75W, h43^{km}, MD3.0(TRN), After TRN.*

TRN 20 22:16:43.1, 10.65N×61.75W, h44^{km}, MD3.0, 3C, Trinidad

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TCE	Chacachacare	0.05	353	⇑iP	Pn	22 16 50.4	+0.3
TCE				eS	Sn	22 16 55.6	+0.7
TRN	Trinidad (W)	0.34	90	⇑iP	Pn	22 16 52.3	+0.2
TRN				eS	Sn	22 16 58.0	-0.4
TPP	Pointe-a-Pierr	0.44	139	⇑iP	Pn	22 16 53.4	+0.1
TPP				eS	Sn	22 17 00.3	-0.2
TBH	Brigand Hill	0.69	104	eP	Pn	22 16 56.7	+0.2
TBH				eS	Sn	22 17 07.5	+1.4
GRW	Mount Saint Ca	1.50	3	eP	Pn	22 17 07.5	-0.1
GRW				eS	Sn	22 17 29.1	+3.0

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*IDC **20** 22:24:38.9±1.5, 5.04S×77.31W, h0^{km}, mb3.8/3, mb1 3.9/5, mb1mx3.7/17, mbtmp3.8/5, ML2.9/2, MS3.4/2, Ms1 3.5/2, ms1mx2.9/26, Error ellipse: s-maj=57.1km s-min=32.8km az=59.0*

*ISCJB **20** 22:24:40.9±3.4, 5.26S±0.06×77.4W±0.1, h33^{km}±28^{km}, mb3.7/3, MS3.8/1, Error ellipse: s-maj=25.7km s-min=7.9km az=165.2*

*NEIC **20** 22:24:43.4±0.6, 5.14S×77.28W, h35^{km}, mb4.1/1, Error ellipse: s-maj=24.6km s-min=9.8km az=78.0*

ISC 20 22:24:42.4±3.3, **5.21S**±0.06×**77.4W**±0.1, **h31**^{km}±27^{km}, **n20**, σ0^{s}**94**/13, **mb3.7**/3, **MS3.8**/1, **Northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OTAV	Otavalo	5.52	349	ePn	Pn	22 26 03.2	+0.7
	23nm,0.9s						
NNA	Nana	6.75	176	ePn	Pn	22 26 19.1	-0.4
	59nm,0.7s						
NNA				eSn	Sn	22 27 34.8	-0.6
ROSC	El Rosal	10.44	17	Pn	Pn	22 27 08.4	-1.7
ROSC	El Rosal	10.44	17	Pn	Pn	22 27 08.4	-1.7
	0.5nm,0.3s,baz=287,slow=19,SNR=2.4						
LPAZ	La Paz	14.25	141	ePn	Pn	22 28 03.8	+1.6
LPAZ				eSn	Sn	22 30 38.9	-0.4
LPAZ				LR	LR	22 34 51.4	
LPAZ	La Paz	14.25	141	Pn	Pn	22 28 04.3	+2.1
	0.1nm,0.3s,baz=308,slow=9.9,SNR=3.5						
LPAZ				LR	LR	22 34 51.4	
	comp=Z,85nm,19.2s,baz=264,slow=43						
JTS	JuntasAbangare	17.16	334	Pn	Pn	22 28 40.0	0.0
	16nm,1.0s						
SJG	San Juan	25.67	25	P	P	22 30 09.5	-0.2
ULM	Lac du Bonnet	57.51	346	P	P	22 34 27.7	-0.9
	1.4nm,0.6s,mb4.2,baz=145,slow=10,SNR=3.3						
YKA	Yellowknife Ar	73.25	343	P	P	22 36 11.4	+1.1
	0.1nm,0.3s,mb3.2,baz=130,slow=6.0,SNR=5.1						
TORD	Torodi Ar. Bea	80.57	76	P	P	22 36 53.4	+0.8
	0.4nm,0.4s,mb3.7,baz=273,slow=5.2,SNR=21						
RAR	Rarotonga	81.08	249	LR	LR	23 01 18.2	
	comp=Z,43nm,21.9s,MS3.8,baz=75,slow=27						
ZALV	Zalesovo Beam	129.28	14	PKP	PKPdf	22 43 49.6	+1.9
ZALV	Zalesovo Beam	129.28	14	PKP	PKPdf	22 43 49.6	+1.9
	0.3nm,0.3s,baz=332,slow=2.1,SNR=4.5						
MKAR	Makanchi Array	135.00	20	PKP	PKPdf	22 43 59.2	+0.5
MKAR	Makanchi Array	135.00	20	PKP	PKPdf	22 43 59.2	+0.5
	0.2nm,0.2s,baz=349,slow=1.5,SNR=2.4						
ASAR	Alice Springs	138.12	225	PKP	PKPdf	22 44 05.4	+0.2
ASAR	Alice Springs	138.12	225	PKP	PKPdf	22 44 05.4	+0.2
	0.4nm,0.6s,baz=113,slow=2.3,SNR=3.5						
WRA	Warramunga Arr	140.05	230	PKP	PKPdf	22 44 11.1	+2.2
WRA	Warramunga Arr	140.05	230	PKP	PKPdf	22 44 11.1	+2.2
	0.4nm,0.5s,baz=123,slow=2.1,SNR=4.9						

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*IDC **20** 22:27:23.6±0.9, 19.12N×121.57E, h0^{km}, mb3.8/7, mb1 4.0/9, mb1mx3.9/22, mbtmp3.9/9, ML4.2/2, MS3.1/4, Ms1 3.1/4, ms1mx2.9/32, Error ellipse: s-maj=32.5km s-min=17.4km az=79.0*

*NEIC **20** 22:27:28.9±0.6, 19.17N×121.49E, h35^{km}, mb4.0/5, Error ellipse: s-maj=12.3km s-min=9.4km az=87.0*

*ISCJB **20** 22:27:29.2±0.5, 19.29N±0.03×121.52E±0.09, h49^{km}±7^{km}, mb3.8/12, MS3.1/2, Error ellipse: s-maj=13.7km s-min=5.3km az=0.1*

*MAN **20** 22:27:29, 19.18N×121.34E, h14^{km}, mb4.5, ML3.4, MS3.3*

ISC 20 22:27:30.4±0.5, **19.25N**±0.03×**121.57E**±0.09, **h46**^{km}±7^{km}, **n37**, σ1^{s}**16**/39, **mb3.8**/12, **MS3.1**/2, **Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGCP	Mt. Cagua	1.10	155	eP	Pn	22 27 50.0	+0.6
SGCP				eS	Sn	22 28 07.0	+3.6
APYP	Conner	1.41	193	eP	Pn	22 27 52.1	-1.5
APYP				eS	Sn	22 28 11.1	+0.1
ABRA	Dolores	1.78	207	eP	Pn	22 27 57.2	-1.6
CAUP	Cauayan	2.30	174	eP	Pn	22 28 08.3	+2.4
BOLP	Bolinao	3.25	209	eP	Pn	22 28 18.4	-0.6
BALP	Baler	3.49	180	eP	Pn	22 28 22.9	+0.7
SCZP	Santa Cruz	3.79	205	eP	Pn	22 28 27.6	+1.2
NACB	Ninganchiao	4.90	0	ePn	Pn	22 28 39.4	-2.2
NACB				eSn	Sn	22 29 38.6	+1.5
YHNB	Yeheng	5.40	358	ePn	Pn	22 28 47.8	-0.7
YHNB				eSn	Sn	22 29 51.2	+1.8
TATO	Taipei	5.70	359	Pn	Pn	22 28 51.5	-1.1
JOW	Kunigami	9.75	38	Pn	Pn	22 29 47.0	-1.1
JOW	Kunigami	9.75	38	Pn	Pn	22 29 47.0	-1.1
	5.5nm,0.3s,baz=232,slow=11,SNR=24						
QIZ	Qiongzhong	11.08	271	ePn	Pn	22 30 01.2	-5.2
QIZ				eSn	Sn	22 31 58.4	-11
ENH	Enshi	15.51	317	Pn	Pn	22 31 05.9	-0.1
JNU	Nakatsue	16.14	29	LR	LR	22 36 53.1	
	comp=Z,80nm,21.7s,baz=204,slow=35						
KSRS	Korea Array	18.97	16	P	Pn	22 31 47.1	-1.9
	0.4nm,0.3s,baz=200,slow=12,SNR=8.1						
KSRS				LR	LR	22 40 07.5	
	comp=Z,35nm,19.0s,baz=200,slow=40						
CBIJ	Chichi jima	20.48	64	LR	LR	22 39 48.0	
	comp=Z,57nm,19.4s,MS2.9,baz=316,slow=36						
BJT	Baijiatuau	21.22	348	eP	P	22 32 12.3	0.0
	5.8nm,0.8s,mb4.0						
MJAR	Matsushiro Arr	22.59	37	P	P	22 32 27.9	+0.8
	0.6nm,0.5s,mb3.3,baz=250,slow=8.1,SNR=3.9						
GUMO	Guam	23.04	101	LR	LR	22 39 58.4	
	comp=Z,89nm,18.8s,MS3.2,baz=157,slow=33						
HIA	Hailar	29.98	358	P	P	22 33 34.6	+0.1
	1.4nm,0.6s,mb3.9						
ULN	Ulaanbaatar	30.89	341	eP	P	22 33 43.6	+1.1
	1.0nm,0.7s,mb3.8						
SONM	Songino Array	31.07	340	P	P	22 33 43.1	-1.0
	0.2nm,0.3s,mb3.4,baz=142,slow=7.3,SNR=4.9						
WRA	Warramunga Arr	40.91	161	P	P	22 35 07.2	-1.2
	1.0nm,0.5s,mb3.7,baz=343,slow=9.1,SNR=12						
WB2	Warramunga Arr	40.91	161	eP	P	22 35 08.8	+0.4
MK31	Makanchi Array	42.22	320	eP	P	22 35 19.2	+0.3
MKAR	Makanchi Array	42.22	320	P	P	22 35 18.9	0.0
MKAR	Makanchi Array	42.22	320	P	P	22 35 18.9	0.0
	1.1nm,0.7s,mb3.6,baz=113,slow=9.4,SNR=13						
ASAR	Alice Springs	44.32	164	P	P	22 35 34.1	-1.9
	0.8nm,0.3s,mb3.9,baz=348,slow=7.0,SNR=11						
ZALV	Zalesovo Beam	44.62	330	P	P	22 35 40.1	+2.0
	0.7nm,0.5s,mb3.8,baz=113,slow=7.3,SNR=6.8						
UCH	Uchtor	45.77	311	eP	P	22 35 48.4	+0.8
KURK	Kurchatov	46.16	323	eP	P	22 35 49.8	-0.7
	1.6nm,0.9s,mb4.0						
AML	Almayashu	46.34	310	P	P	22 35 52.3	+0.3
TIXI	Tiksi	52.58	3	eP	P	22 36 39.9	+0.8
	2.3nm,0.6s,mb4.3						
ARU	Arti	59.29	325	P	P	22 37 27.6	+0.3
INK	Inuvik	77.66	22	eP	P	22 39 18.4	-3.4
	44nm,0.6s						
YKA	Yellowknife Ar	87.36	23	P	P	22 40 12.3	-0.1
	1.5nm,0.7s,mb4.4,baz=309,slow=4.5,SNR=22						

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*BJI **20** 22:41:18.6, 26.20S×177.30W, h60^{km}, mB5.1, mb4.6*

*ISCJB **20** 22:41:19.2±0.4, 26.43S±0.04×177.38W±0.09, h60^{km}, mb4.5/17, Error ellipse: s-maj=11.9km s-min=4.5km az=17.0*

*IDC **20** 22:41:19.7±3.0, 26.19S×177.31W, h49^{km}±27^{km}, mb4.1/11, mb1 4.3/14, mb1mx4.3/17, mbtmp4.2/14, ML3.6/3, Error ellipse: s-maj=21.6km s-min=16.3km az=129.0*

*NEIC **20** 22:41:20.7±1.3, 26.24S×177.31W, h60^{km}±11^{km}, mb4.8/13, Error ellipse: s-maj=11.7km s-min=7.9km az=131.0*

ISC 20 22:41:19.4±1.3, **26.33S**±0.06×**177.31W**±0.09, **h47**^{km}±12^{km}, **n80**, σ1^{s}**05**/63, **mb4.5**/17, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	11.81	197	SN	Sn	22 46 16.5	+1.1
PUZ	Puketiti	12.30	197	ePN	Pn	22 44 13.4	+1.6
PUZ				SN	Sn	22 46 24.3	-3.1
MWZ	Matawai	12.74	199	ePN	Pn	22 44 18.0	+0.1
MWZ				SN	Sn	22 46 38.4	+0.2
URZ	Urewera	12.80	200	P	Pn	22 44 19.8	+1.2
	0.4nm,0.3s,baz=90,slow=1.0,SNR=4.2						
URZ				S	Sn	22 46 37.8	-1.8
	8.1nm,0.3s,baz=139,slow=20,SNR=25						
URZ	Urewera	12.80	200	SN	Sn	22 46 38.5	-1.1
AFI	Afiamalu	13.39	24	ePn	Pn	22 44 27.0	+0.1
AFI				S	Sn	22 46 41.2	-13
AFI	Afiamalu	13.39	24	P	Pn	22 44 25.9	-1.0
	11nm,0.3s,baz=61,slow=2.4,SNR=17						
AFI				S	Sn	22 46 41.2	-13
	5.0nm,0.3s,baz=66,slow=20,SNR=4.9						
PXZ	Pawanui	14.51	198	SN	Sn	22 47 12.8	-8.5
DZM	Mont Dzumac	15.42	282	P	Pn	22 45 03.5	+10
	0.3nm,0.3s,baz=90,slow=21,SNR=3.7						
MRZ	Mangatainoka R	15.47	201	SN	Sn	22 47 31.4	-13
MRZ				SN	Sn	22 47 32.3	-12
MTW	Mount Morrison	15.95	200	SN	Sn	22 47 45.9	-10
PAWZ	Paruwai Farm	16.18	200	SN	Sn	22 47 52.4	-9.3
SNZO	South Karori	16.34	202	ePn	Pn	22 45 06.5	+1.0
	87nm,1.2s						
TCW	Tory Channel	16.40	203	SN	Sn	22 47 57.9	-9.3
NNZ	Nelson	16.73	205	SN	Sn	22 48 06.9	-8.4
QRZ	Quartz Range	16.74	208	SN	Sn	22 48 10.4	-5.1
THZ	Tophouse	17.39	205	ePN	Pn	22 45 19.6	+1.1
THZ				SN	Sn	22 48 22.3	-8.7
KHZ	Kahutara	17.72	203	SN	Sn	22 48 27.6	-12
DSZ	Denniston Nort	17.81	208	SN	Sn	22 48 30.8	-10
LTZ	Lake Taylor	18.50	205	SN	Sn	22 48 44.2	-14
MQZ	McQueen's Vall	19.17	203	SN	Sn	22 48 56.8	-17
RPZ	Rata Peaks	19.76	206	P	Pn	22 45 47.3	+0.1
	0.2nm,0.3s,baz=204,slow=20,SNR=2.1						
RPZ				S	S	22 49 11.0	-14
	1.5nm,0.3s,baz=342,slow=20,SNR=9.4						
HNR	Honiara	27.32	304	eP	P	22 46 59.0	-1.0
	22nm,0.4s,mb5.0						
TAU	Tasmania Unive	33.19	231	P	P	22 47 53.4	+1.8
CTA	Charters Tower	33.98	273	P	P	22 48 00.2	+1.5
CTA	Charters Tower	33.98	273	P	P	22 48 00.2	+1.5
	5.3nm,0.8s,mb4.5,baz=91,slow=12,SNR=5.5						
CTAO	Charters Tower	33.98	273	eP	P	22 48 01.4	+2.7

	4.9nm,0.6s,mb4.6						
STKA	Stephens Creek	36.18	251	P	P	22 48 18.1	+0.6
	2.5nm,0.7s,mb4.2,baz=126,slow=14,SNR=3.9						
STKA				PcP	PcP	22 50 43.3	+0.9
	2.2nm,0.7s,baz=34,slow=2.2,SNR=4.9						
PMG	Port Moresby	37.60	290	P	P	22 48 30.3	+0.4
ASAR	Alice Springs	44.10	262	P	P	22 49 23.4	+0.2
	2.7nm,0.5s,mb4.3,baz=106,slow=7.6,SNR=21						
ASAR				PcP	PcP	22 51 08.2	+0.4
	0.5nm,0.3s,baz=115,slow=3.4,SNR=4.2						
WB2	Warramunga Arr	44.71	268	eP	P	22 49 27.9	-0.2
WRA	Warramunga Arr	44.72	268	P	P	22 49 28.2	-0.1
	1.2nm,0.4s,mb4.1,baz=104,slow=6.4,SNR=22						
WRA				PcP	PcP	22 51 09.7	-0.3
	1.3nm,0.6s,baz=104,slow=3.2,SNR=6.2						
FITZ	Fitzroy Crossi	53.10	266	P	P	22 50 32.2	-0.3
	4.2nm,1.0s,mb4.3,baz=135,slow=10,SNR=11						
NWAO	Narrogin (SRO)	56.49	247	P	P	22 50 57.6	+0.7
QSPA	South Pole Qui	63.77	180	eP	P	22 51 47.9	+2.0
	7.9nm,1.0s,mb4.7						
MJAR	Matsushiro Arr	75.28	324	P	P	22 52 57.0	-0.4
	0.7nm,0.3s,mb4.0,baz=166,slow=5.0,SNR=6.5						
MAJO	Matsushiro	75.28	324	eP	P	22 52 57.7	+0.3
MAW	Mawson	76.33	200	eP	P	22 53 05.3	+2.2
	14nm,0.5s,mb5.2						
MAW	Mawson	76.33	200	P	P	22 53 04.7	+1.6
	13nm,0.5s,mb5.1,baz=122,slow=6.1,SNR=24						
YSS	Yuzh-Sakhalins	81.37	334	P	P	22 53 30.8	0.0
KSRS	Korea Array	81.67	319	P	P	22 53 32.0	-0.7
	1.3nm,0.5s,mb4.1,baz=132,slow=5.2,SNR=8.1						
CMB	Columbia Colle	83.33	42	eP	P	22 53 40.5	-0.8
	2.3nm,0.5s,mb4.5						
NVAR	Mina Array Bea	84.84	43	P	P	22 53 50.2	+1.2
	3.5nm,0.7s,mb4.6,baz=228,slow=10,SNR=23						
MDJ	Mudanjiang	85.64	325	P	P	22 53 52.0	-0.8
MDJ				AMB	AMB		
	comp=Z,5.0nm,0.8s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,106nm,5.4s						
MDJ	Mudanjiang	85.64	325	eP	P	22 53 50.8	-1.9
	comp=Z,2.4nm,0.5s,mb4.7						
TUC	Tucson	86.09	51	eP	P	22 53 56.7	+1.3
	comp=Z,2.0nm,0.8s,mb4.4						
MA2	Magadan	89.54	344	eP	P	22 54 10.8	-0.4
TXAR	Lajitas Array	89.67	57	P	P	22 54 12.9	+0.3
	comp=Z,0.4nm,0.9s,mb3.8,baz=229,slow=11,SNR=3.7						
ENH	Enshi	89.82	304	P	P	22 54 11.7	-1.5
BJT	Baijiatuau	90.46	315	eP	P	22 54 15.7	-0.3
SDCO	Great Sand Dun	92.68	49	P	P	22 54 27.4	+1.1
PDAR	Pinedale Array	92.76	43	P	P	22 54 25.1	-1.4
	comp=Z,1.7nm,0.7s,mb4.6,baz=196,slow=2.1,SNR=13						
COLA	College	93.74	12	eP	P	22 54 30.0	-0.6
	comp=Z,1.7nm,0.4s,mb4.8						
WALA	Waterton Lakes	93.89	36	eP	P	22 54 31.4	-0.2
JTS	JuntasAbangare	96.58	82	P	P	22 54 43.2	-1.6
SONM	Songino Array	100.53	318	P	Pdif	22 55 00.2	-1.6
	comp=Z,0.1nm,0.5s,baz=131,slow=5.9,SNR=2.6						
MKAR	Makanchi Array	115.58	311	PKP	PKPdf	22 59 54.6	-1.5
MKAR	Makanchi Array	115.58	311	PKP	PKPdf	22 59 54.6	-1.5
	comp=Z,0.2nm,0.2s,baz=64,slow=3.4,SNR=3.4						
KURK	Kurchatov	118.63	315	PKPdf	PKPdf	23 00 02.1	+0.3
BOSA	Boshof	121.24	203	PKP	PKPdf	23 00 07.6	-0.1
BOSA	Boshof	121.24	203	PKP	PKPdf	23 00 07.6	-0.1
	comp=Z,1.8nm,0.8s,baz=220,slow=7.9,SNR=4.1						
ARU	Arti	130.28	323	ePKPdf	PKPdf	23 00 23.9	-0.1
ARCES	ARCESS Array B	134.74	349	PKP	PKPdf	23 00 31.0	-1.0
ARCES	ARCESS Array B	134.74	349	PKP	PKPdf	23 00 31.0	-1.0
	comp=Z,1.7nm,0.8s,baz=30,slow=2.9,SNR=7.9						
FINES	FINESS Array B	141.50	342	PKP	PKPdf	23 00 36.6	-8.1
FINES	FINESS Array B	141.50	342	PKhKP		23 00 36.6	
	comp=Z,0.9nm,0.7s,baz=48,slow=5.7,SNR=5.0						
NB2	NORSAR Subarra	144.81	353	PKPa	PKPdf	23 00 48.4	-2.1
	comp=Z,3.9nm,0.6s,baz=10,slow=3.5						
NOA	NORSAR Array B	144.81	353	PKP	PKPdf	23 00 48.6	-1.9
NOA	NORSAR Array B	144.81	353	PKP	PKPdf	23 00 48.6	-1.9
	comp=Z,7.5nm,0.8s,baz=18,slow=2.4,SNR=20						
MALT	Malatya	147.72	301	PKPdf	PKPdf	23 00 55.5	-0.6
AKASG	Malin Array Be	148.32	327	PKPbc	PKPbc	23 00 58.8	-1.5
AKASG	Malin Array Be	148.32	327	PKPbc	PKPbc	23 00 58.8	-1.5
	comp=Z,1.2nm,0.4s,baz=43,slow=4.5,SNR=13						
BR131	Keskin Array S	150.97	305	ePKPdf	PKPdf	23 01 00.9	-0.4
BR131				ePKPab	PKPab	23 01 14.7	0.0
BRTR	Keskin Array B	150.97	305	PKPbc	PKPbc	23 01 06.2	-0.9
BRTR	Keskin Array B	150.97	305	PKPbc	PKPbc	23 01 06.2	-0.9
	comp=Z,0.5nm,0.5s,baz=134,slow=4.7,SNR=4.4						
KHC	Kasperske Hory	155.71	342	ePKPab	PKPab	23 01 33.5	-0.8
GERES	GERESS Array B	155.94	342	PKPab	PKPab	23 01 33.8	-1.5
GERES	GERESS Array B	155.94	342	PKPab	PKPab	23 01 33.8	-1.4
	comp=Z,0.6nm,0.7s,baz=35,slow=4.9,SNR=6.6						
TORD	Torodi Ar. Bea	166.86	176	PKP	PKPdf	23 01 19.4	-1.2
TORD				PKPab	PKPab	23 02 24.3	+0.6
TORD	Torodi Ar. Bea	166.86	176	PKP	PKPdf	23 01 19.4	-1.2
	comp=Z,0.4nm,0.8s,baz=191,slow=0.3,SNR=6.2						
TORD				PKPab	PKPab	23 02 24.3	+0.6
	comp=Z,2.8nm,0.8s,baz=184,slow=3.6,SNR=17						

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*NEIC **20** 22:42:28.9, 5.33N×82.72W, h25^{km}, MD4.1(CASC), After CASC.*

CASC 20 22:42:30.6±1.5**, 5.51N×82.63W, h23^{km}**±74^{km}**, MD4.1, 2C-4D, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AZU	Azuero	3.26	46	eP	Pn	22 43 21.3	+1.0
AZU	Azuero	3.26	46	eP	Pn	22 43 20.4	+0.2
TBS2		3.26	359	⇓eP	Pn	22 43 28.5	+8.1
BRU2	Volcan	3.27	359	⇑iP	Pn	22 43 20.5	+0.1
BRU	Baru	3.28	1	eP	Pn	22 43 21.4	+0.7
CTCR	Cotoan	3.37	358	⇓eP	Pn	22 43 22.3	+0.4
CTCR				eS	Sn	22 44 02.6	+1.5
BAR1		3.77	350	⇑eP	Pn	22 43 27.6	+0.2
CNI	Changuinola	3.88	2	eP	Pn	22 43 30.8	+1.8
BUS	Buena Vista	4.17	344	eP	Pn	22 43 34.3	+1.3
BUS	Buena Vista	4.17	344	eP	Pn	22 43 34.5	+1.5
QCR	Quepos	4.18	339	eP	Pn	22 43 32.9	-0.2
QCR	Quepos	4.18	339	eP	Pn	22 43 32.8	-0.2
LCR2	La Lucha 2	4.42	342	eP	Pn	22 43 37.5	+1.1
LCR2	La Lucha 2	4.42	342	⇓eP	Pn	22 43 36.8	+0.4
URSC	Urasca	4.45	345	eP	Pn	22 43 37.8	+1.1
URSC	Urasca	4.45	345	⇓eP	Pn	22 43 37.7	+1.0
URSC				eS	Sn	22 44 28.8	+1.0
LAJ	Bijagual	4.57	341	eP	Pn	22 43 38.6	+0.2
LAJ	Bijagual	4.57	341	eP	Pn	22 43 38.8	+0.4
LAJ				eS	Sn	22 44 32.4	+1.5
PRS1	Puriscal	4.75	340	eP	Pn	22 43 40.5	-0.4
PRS1	Puriscal	4.75	340	eP	Pn	22 43 40.0	-0.8
CGA2	Cerro Gallo 2	4.84	338	eP	Pn	22 43 43.1	+1.1
CGA2	Cerro Gallo 2	4.84	338	eP	Pn	22 43 44.1	+2.0
JCR	Jicaral	4.97	330	eP	Pn	22 43 44.3	+0.5
JCR	Jicaral	4.97	330	eP	Pn	22 43 44.0	+0.2
TRTC	Tortuguero	5.15	348	eP	Pn	22 43 48.2	+1.9
JTS	JuntasAbangare	5.28	334	ePn	Pn	22 43 48.0	-0.2
	30nm,0.6s						
JTS				eSn	Sn	22 44 49.0	+0.7
OTAV	Otavalo	6.69	141	ePn	Pn	22 44 06.0	-1.6
OTAV				eSn	Sn	22 45 20.3	-2.8
NNA	Nana	18.31	162	ePn	Pn	22 46 40.2	-3.0
SDCO	Great Sand Dun	38.26	330	eP	P	22 49 48.1	-1.1

IDC 20 23:04:50.2±2.2**, 1.05S×127.55E, h0^{km}, mb3.3**/2**, mb1 3.3**/3**, mb1mx3.2**/16**, mbtmp3.2**/3**, ML2.9**/1**, Error ellipse: s-maj=181.0km s-min=25.9km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.92	161	P	Pn	23 09 24.8	-0.4
	0.0nm,0.3s,baz=340,slow=12,SNR=2.8						
ASAR	Alice Springs	23.31	165	P	P	23 09 59.2	-0.8
	0.2nm,0.3s,baz=341,slow=11,SNR=3.3						
MKAR	Makanchi Array	61.94	326	P	P	23 15 11.9	+0.1
	0.4nm,0.6s,baz=120,slow=8.2,SNR=6.7						

IDC 20 23:07:44.4±2.0**, 0.95S×127.73E, h0^{km}, mb3.4**/2**, mb1 3.6**/3**, mb1mx3.4**/16**, mbtmp3.4**/3**, ML3.5**/1**, Error ellipse: s-maj=157.2km s-min=25.8km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.95	162	P	Pn	23 12 18.3	-1.5
	0.2nm,0.3s,baz=340,slow=11,SNR=5.8						
ASAR	Alice Springs	23.36	166	P	P	23 12 54.8	0.0
	0.3nm,0.3s,baz=347,slow=12,SNR=6.9						
MKAR	Makanchi Array	61.96	326	P	P	23 18 06.2	+0.1
	0.2nm,0.4s,baz=124,slow=7.9,SNR=7.1						

NEIC 20 23:08:07.6, 63.42N×151.32W, h13^{km}, ML3.7(PMR)**, ML3.2**(AEIC)**, After AEIC., Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTH	Kantishna Hill	0.23	52	P	Pg	23 08 12.2	-0.2
KTH				S	Sg	23 08 16.0	+0.2
GHO	Glory Hole Cre	1.99	145	P	Pn	23 08 40.9	0.0
PMR	Palmer	2.10	150	P	Pn	23 08 41.8	-0.5
COLA	College	2.11	45	P	Pn	23 08 41.7	-0.8
SML	Sawmill	2.12	138	ePn	Pn	23 08 42.6	-0.1
SML				eSn	Sn	23 09 06.0	-2.9
FIB	Fire Island	2.32	166	P	Pn	23 08 45.7	+0.3
IL1	Eielson Array	2.38	53	P	Pn	23 08 45.4	-0.8
RC01	Rabbit Creek A	2.45	162	P	Pn	23 08 47.4	+0.2
PAX	Paxson	2.69	97	P	Pn	23 08 51.1	+0.6
IM3	Indian Mountai	2.78	339	P	Pn	23 08 52.0	+0.3
IMA2	Indian Mountai	2.85	340	P	Pn	23 08 53.0	+0.4
IMA2				eSn	Sn	23 09 27.2	+0.5
SLKM	Skilak Lake	2.97	169	P	Pn	23 08 54.3	+0.1
SVW2	Sparrevohn	3.06	222	P	Pn	23 08 55.8	+0.1
SVW2				eSn	Sn	23 09 32.8	+0.8
SEW	Seward	3.44	164	P	Pn	23 09 01.9	+1.1
MENT	Mentasta	3.48	95	eP	Pn	23 09 03.8	+2.5
COLD	Coldfoot	3.86	6	P	Pn	23 09 07.0	+0.6
BMRM	Bremner River	3.99	125	P	Pn	23 09 08.6	+0.3
BCA3	Beaver Creek A	4.33	90	P	Pn	23 09 14.1	+1.1
EGAK	Eagle	4.66	68	ePn	Pn	23 09 17.4	-0.1
EGAK				eSn	Sn	23 10 15.3	+3.9
BM3	Burnt Mountain	4.90	32	P	Pn	23 09 21.1	+0.4
DAWY	Dawson	5.34	78	ePn	Pn	23 09 27.9	+1.1
DAWY				eSn	Sn	23 10 28.6	+0.5
TNA	Tin City	7.48	294	P	Pn	23 09 56.3	+0.2

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*IDC **20** 23:11:19.7±0.8, 31.22S×72.00W, h0^{km}, mb4.5/7, mb1 4.4/10, mb1mx4.3/19, mbtmp4.4/10, ML4.0/3, MS3.5/2, Ms1 3.5/2, ms1mx3.0/27, Error ellipse: s-maj=23.2km s-min=16.9km az=40.0*

*ISCJB **20** 23:11:22.8±1.4, 31.15S±0.03×71.92W±0.09, h20^{km}±10^{km}, mb4.3/9, MS3.4/2, Error ellipse: s-maj=13.4km s-min=4.5km az=4.8*

*NEIC **20** 23:11:24.3, 31.22S×71.76W, h15^{km}, mb4.6/3, ML4.4(GUC), After GUC.*

*GUC **20** 23:11:24.3±0.9, 31.22S×71.76W, h15^{km}±7^{km}, MD4.2, ML4.4*

ISC 20 23:11:22.5±1.5**, 31.15S**±0.03×**71.89W**±0.08**, h6^{km}**±8^{km}**, n54,** $\sigma1^{s}$**02**/55**, mb4.3**/9**, MS3.4**/2**, 8C-7D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	Combarbala	0.76	92	⇑iP	Pg	23 11 36.7	-0.4
CMCH				i S	Sg	23 11 45.9	-1.1
CMCH	Combarbala	0.76	92	⇑iP	Pg	23 11 36.7	-0.4
CMCH				i S	Sg	23 11 45.9	-1.1
CMCH				AML	AML	23 11 46.2	
	comp=N,61μm,0.4s						
OVCH	Ovalle	0.80	48	⇓iP	Pg	23 11 38.3	+0.4
OVCH				i S	Sg	23 11 48.8	+0.5
OVCH	Ovalle	0.80	48	⇓iP	Pg	23 11 38.3	+0.4
OVCH				i S	Sg	23 11 48.8	+0.5
OVCH				AML	AML	23 11 51.0	
	comp=N,13μm,0.2s						
LSCH	La Serena	1.36	24	⇑iP	Pn	23 11 47.9	0.0
LSCH				i S	Sb	23 12 06.3	+0.5
LSCH	La Serena	1.36	24	⇑iP	Pn	23 11 47.9	0.0
LSCH				i S	Sb	23 12 06.3	+0.5
LSCH				AML	AML	23 12 13.7	
	comp=N,2μm,0.5s						
IHA	Instituto Hidr	1.88	174	⇓iP	Pn	23 11 54.5	-0.7
ROCH	El Roble	1.96	158	⇓iP	Pn	23 11 56.3	+0.1
LCO	Las Campanas	2.37	26	ePn	Pn	23 12 01.9	+0.1
LCO				eSn	Sn	23 12 31.1	0.0
DSCH	Colegio Aleman	2.50	154	AML	AML	23 12 42.3	
	comp=E,932nm,0.4s						
SAN	Santiago	2.52	156	AML	AML	23 12 52.4	
	comp=N,3μm,0.7s						
FCH	Farellones	2.56	148	⇑iP	Pn	23 12 05.0	+0.6
FCH				i S	Sn	23 12 38.2	+2.4
FCH				AML	AML	23 12 45.3	
	comp=E,2μm,0.7s						
FSR	Penalolen	2.59	154	eP	Pn	23 12 05.0	+0.1
FSR				AML	AML	23 12 46.4	
	comp=E,3μm,0.9s						
TACH	Talagante	2.62	162	⇑iP	Pn	23 12 05.3	0.0
ANTU	Antumapu	2.63	157	AML	AML	23 12 49.2	
	comp=N,3μm,0.5s						
PCH	Pirque	2.72	155	⇑iP	Pn	23 12 07.2	+0.5
VACH	Vallenar	2.75	21	eP	Pn	23 12 06.7	-0.3
VACH				i S	Sn	23 12 41.2	+0.7
VACH	Vallenar	2.75	21	eP	Pn	23 12 06.7	-0.3
VACH				i S	Sn	23 12 41.2	+0.7
VACH				AML	AML	23 12 52.6	
	comp=N,5μm,0.4s						
SJCH	San Jose de Ma	2.80	153	AML	AML	23 12 54.6	
	comp=N,2μm,0.6s						
MDZ	Mendoza	3.10	125	eP	Pn	23 12 16.6	+4.6
MDZ				e		23 12 20.7	
MDZ				eS	Sn	23 12 44.5	-4.8
CACH	El Canelo	3.15	160	⇓iP	Pn	23 12 13.6	+1.0
CFAA	Coronel Fontan	3.15	99	Pn	Pn	23 12 13.9	+1.3
CFAA				Sn	Sn	23 12 56.2	+5.7
CFAA				Lg		23 13 04.3	
CFAA	Coronel Fontan	3.15	99	Pn	Pn	23 12 13.9	+1.3
	comp=N,6.0nm,0.3s,baz=270,slow=10,SNR=92						
CFAA				Sn	Sn	23 12 56.2	+5.7
	comp=N,19nm,0.3s,baz=88,slow=20,SNR=8.9						
CFAA				Lg		23 13 04.3	
	comp=N,42nm,0.3s,baz=136,slow=6.8,SNR=39						
CICH	Cipreses	3.39	159	⇑iP	Pn	23 12 16.8	+0.9
SFDO	San Fernando	3.53	168	⇓iP	Pn	23 12 18.9	+1.0
SFDO	San Fernando	3.53	168	eP	Pn	23 12 18.6	+0.7
SFDO				⇓iP		23 12 18.9	
SFDO				e		23 13 46.1	
CDCH	Caldera	4.17	13	AML	AML	23 13 39.3	
	comp=E,375nm,0.3s						
LPAZ	La Paz	15.19	14	ePn	Pn	23 14 58.4	+0.8
LPAZ	La Paz	15.19	14	Pn	Pn	23 14 58.0	+0.5
	comp=E,0.3nm,0.3s,baz=194,slow=7.8,SNR=16						
SIV	San Ignacio	18.03	36	P	Pn	23 15 32.1	-1.7
	comp=E,0.5nm,0.3s,baz=214,slow=11,SNR=16						
NNA	Nana	19.61	345	P	Pn	23 15 52.6	-0.3
EFI	East Falkland	22.90	158	P	P	23 16 26.0	-0.8
USHA	Ushuaia	23.80	175	P	P	23 16 34.8	-1.0
	comp=E,20nm,0.9s,mb4.5,baz=331,slow=7.7,SNR=3.6						
USHA				LR	LR	23 25 50.7	
	comp=E,210nm,18.7s,MS3.6,baz=206,slow=37						
ATAH	Atahualpa	24.79	344	LR	LR	23 25 09.9	
	comp=E,66nm,18.6s,MS3.2,baz=126,slow=34						
OTAV	Otavalo	31.83	347	eP	P	23 17 48.7	+0.6
TEIG	Tepich	53.45	341	eP	P	23 20 43.2	-0.2
	comp=E,13nm,0.5s,mb5.1						
TEIG	Tepich	53.45	341	P	P	23 20 43.1	-0.3
	comp=E,13nm,0.5s,mb5.1,baz=269,slow=2.2,SNR=9.4						
SNAA	Sanae	54.18	159	P	P	23 20 46.6	-1.5
	comp=E,1.0nm,0.6s,mb3.9,baz=289,slow=8.2,SNR=7.6						
QSPA	South Pole Qui	59.08	180	eP	P	23 21 22.7	-0.2
	comp=E,1.8nm,0.5s,mb4.4						
TXAR	Lajitas Array	67.32	330	P	P	23 22 18.2	+0.1
	comp=E,0.7nm,0.6s,mb3.9,baz=154,slow=9.2,SNR=6.9						
SIUC	Southern Illin	70.40	345	P	P	23 22 38.7	+1.6
BRNJ	Basking Ridge	71.51	358	eP	P	23 22 45.8	+2.0
SDCO	Great Sand Dun	75.39	333	eP	P	23 23 07.5	+0.7
	comp=E,1.7nm,0.7s,mb4.1						
BOSA	Boshof	81.29	118	P	P	23 23 38.1	-1.7
	comp=E,5.2nm,1.2s,mb4.3,baz=286,slow=2.1,SNR=3.9						
TOA0	Torodi Ar. Sit	83.12	70	eP	P	23 23 47.5	-2.0
TOA0				ePcP	PcP	23 23 56.0	+1.9
TORD	Torodi Ar. Bea	83.12	70	P	P	23 23 47.4	-2.1
TORD	Torodi Ar. Bea	83.12	70	P	P	23 23 47.4	-2.1
	comp=E,7.0nm,0.9s,mb4.7,baz=282,slow=5.9,SNR=34						
ULM	Lac du Bonnet	83.79	345	P	P	23 23 50.6	-1.5
	comp=E,0.6nm,0.5s,mb4.0,baz=192,slow=7.0,SNR=3.2						
WRA	Warramunga Arr	123.30	210	PKP	PKPdf	23 30 17.7	-3.2
WRA	Warramunga Arr	123.30	210	PKP	PKPdf	23 30 17.7	-3.2
	comp=E,0.5nm,0.3s,baz=157,slow=1.8,SNR=8.2						
ZALV	Zalesovo Beam	151.72	30	PKP	PKPdf	23 31 07.9	-3.1
ZALV				PKPbc	PKPbc	23 31 15.3	-2.0
ZALV	Zalesovo Beam	151.72	30	PKP	PKPdf	23 31 07.9	-3.1
	comp=E,0.4nm,0.3s,baz=327,slow=4.0,SNR=3.2						
ZALV				PKPbc	PKPbc	23 31 15.3	-2.0
	comp=E,8.1nm,0.8s,baz=264,slow=1.5,SNR=4.1						
MKAR	Makanchi Array	154.72	44	PKP	PKPdf	23 31 11.8	-3.8
MKAR				PKPbc	PKPbc	23 31 22.3	-1.9
MKAR	Makanchi Array	154.72	44	PKP	PKPdf	23 31 11.8	-3.8
	comp=E,0.5nm,0.8s,baz=346,slow=0.5,SNR=3.8						
MKAR				PKPbc	PKPbc	23 31 22.3	-1.9
	comp=E,0.8nm,0.8s,baz=318,slow=3.3,SNR=7.8						

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*BJI **20** 23:12:24.2, 12.05S×118.86E, h40^{km}, mB5.2, mb5.0, Ms4.7, Msz4.5*

*IDC **20** 23:12:26.3±0.4, 11.16S×118.96E, h0^{km}, mb4.9/21, mb1 4.9/22, mb1mx4.8/24, mbtmp4.9/22, ML4.9/1, MS4.4/17, Ms1 4.4/17, ms1mx4.1/26, Error ellipse: s-maj=17.2km s-min=11.9km az=57.0*

*ISCJB **20** 23:12:29.0±0.2, 11.28S±0.04×118.98E±0.05, h32^{km}, mb5.1/79, MS4.4/31, Error ellipse: s-maj=7.4km s-min=4.8km az=141.6*

*MOS **20** 23:12:30.7±1.2, 10.96S×119.02E, h33^{km}, mb5.2/25, MS4.2/4, Error ellipse: s-maj=14.1km s-min=6.8km az=110.5*

*GCMT **20** 23:12:32.6±0.2, 11.38S×119.02E, h12^{km}, MW5.2/79, Moment Tensor Solution. s44,c59; s79,c136; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-5.56±.14; $M_{\theta\theta}$5.23±.09; $M_{\phi\phi}$0.32±.14; $M_{r\theta}$0.17±.36; $M_{\theta\phi}$1.92±.11; $M_{\phi r}$-4.78±.47; Best double couple: $M_0$7.22100×10^{16} NP1:ϕ_s274.00000°,δ43.00000°,λ-46.00000°. NP2: ϕ_s41.00000°,δ60.00000°,λ-123.00000°. Principal axes: T 6.1250, Plg9.0000°, Azm154.0000°; N 2.1900, Plg28.0000°, Azm59.0000°; P -8.3180, Plg60.0000°, Azm261.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **20** 23:12:32.6±0.2, 11.23S×118.93E, h40^{km}, mb5.1/25, MS5.0/1 Error ellipse: s-maj=9.7km s-min=5.8km az=61.0*

ISC 20 23:12:31.2±0.2**, 11.29S**±0.04×**118.99E**±0.05**, h35^{km}, h35^{km}**±1.5^{km}**:pP-P, n253,** $\sigma1^{s}$**14**/209**, mb5.1**/79**, MS4.4**/31**, 10C-11D, South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DNP	Denpasar	4.54	305	P	Pn	23 13 36.2	-1.3
	792nm,0.8s						
KMMI	Kalianget	6.50	310	P	Pn	23 14 05.3	+0.8
	173nm,1.2s						
KRKI	Karangkates	7.15	295	P	Pn	23 14 11.5	-1.9
	584nm,0.9s						
FITZ	Fitzroy Crossi	9.34	137	eP	Pn	23 14 40.2	-3.3
	86nm,0.6s						
FITZ				eS	Sn	23 16 17.8	-10
FITZ	Fitzroy Crossi	9.34	137	Pn	Pn	23 14 40.5	-3.0
	6.4nm,0.3s,baz=331,slow=9.2,SNR=133						
FITZ				Sn	Sn	23 16 19.7	-7.7
	25nm,0.3s,baz=168,slow=18,SNR=14						
FITZ				LR	LR	23 18 34.9	
	comp=Z,2μm,18.2s,baz=320,slow=39						
MBWA	Marble Bar	9.84	176	ePn	Pn	23 14 46.5	-3.8
	54nm,0.3s						
MBWA				eSn	Sn	23 16 24.3	-15
PCI	Palu	10.35	5	P	Pn	23 15 01.6	+4.2
	205nm,1.2s						
LEM	Lembang	12.07	291	P	Pn	23 15 21.8	+0.9
	128nm,0.9s						
SBUM	Sibu	15.22	333	⇑P	Pn	23 16 05.0	+1.3
KSM	Kuching	15.34	325	ePn	Pn	23 16 06.2	+0.9
KSM	Kuching	15.34	325	⇓P	Pn	23 16 05.7	+0.4
TSM	Tawau	15.52	356	⇑P	Pn	23 16 11.7	+4.1
BTM	Bintulu	15.55	337	⇓P	Pn	23 16 11.2	+3.3
MYLDM	Lahad Datu	16.37	358	⇑P	Pn	23 16 23.1	+4.6
SDKM	Sandakan	16.91	354	⇓P	Pn	23 16 29.3	+3.9
WRA	Warramunga Arr	17.10	122	Pn	Pn	23 16 24.3	-3.3
WRA				Sn	Sn	23 19 23.6	-13
WRA				LR	LR	23 23 11.6	
WRA	Warramunga Arr	17.10	122	Pn	Pn	23 16 24.3	-3.3
	2.2nm,0.3s,baz=293,slow=12,SNR=63						
WRA				Sn	Sn	23 19 23.6	-13
	2.9nm,0.3s,baz=295,slow=24,SNR=8.3						
WRA				LR	LR	23 23 11.6	
	comp=Z,1μm,18.9s,baz=295,slow=38						
KKM	Kota Kinabalu	17.44	351	eP	Pn	23 16 31.9	-0.1
KKM	Kota Kinabalu	17.44	351	⇓P	Pn	23 16 33.5	+1.5
KSI	Kapahiang	17.93	294	P	Pn	23 16 33.5	-4.5
	248nm,0.9s						
KDM	Kudat	18.21	353	⇓P	Pn	23 16 45.8	+4.3
ASAR	Alice Springs	18.79	133	P	Pn	23 16 47.2	-1.2
	4.1nm,0.3s,baz=304,slow=11,SNR=260						
ASAR				S	Sn	23 20 05.1	-13
	1.8nm,0.3s,baz=312,slow=25,SNR=17						
MYKOM	Kota Tinggi	19.88	310	⇓P	Pn	23 17 02.0	+0.4
KGM	Kluang	20.43	309	⇑P	P	23 17 08.1	+2.3
PPI	Padang Panjang	21.37	299	P	P	23 17 15.2	-0.7
	180nm,1.0s,mb5.3						
NWAO	Narrogin (SRO)	21.59	184	P	P	23 17 18.0	-0.1
NWAO				S	S	23 21 00.5	-15
NWAO				LR	LR	23 25 45.0	
NWAO	Narrogin (SRO)	21.59	184	P	P	23 17 18.0	-0.1
	68nm,0.8s,mb5.1,baz=7.8,slow=13,SNR=37						
NWAO				S	S	23 21 00.5	-15
	40nm,0.4s,baz=269,slow=17,SNR=9.5						
NWAO				LR	LR	23 25 45.0	
	comp=Z,904nm,18.1s,MS4.2,baz=360,slow=37						
ENPP	El Nido	22.35	1	eP	P	23 17 28.3	+2.0
FRIM	Kepong	22.51	309	⇓P	P	23 17 29.1	+1.1
KTGM	Kuala Trenggan	22.83	316	⇓P	P	23 17 33.0	+1.5
COEN	Coen	23.75	99	eP	P	23 17 40.9	+0.2
	38nm,1.1s,mb4.7						
IPM	Ipoh	23.77	310	⇓P	P	23 17 40.9	+0.1
PSI	Prapat	24.38	304	P	P	23 17 45.8	-0.6
	73nm,0.8s,mb5.2,baz=141,slow=7.0,SNR=32						
PSI				LR	LR	23 28 55.9	
	comp=Z,1μm,20.1s,MS4.5,baz=332,slow=41						
KULM	Kulim	24.58	311	eP	P	23 17 47.5	-0.7
KULM	Kulim	24.58	311	⇑P	P	23 17 48.8	+0.5
CTA	Charters Tower	27.64	112	eP	P	23 18 17.0	+1.2
CTA				e		23 21 35.4	
CTA				eS	S	23 23 00.9	+5.3
CTA				pmax	pmax		
	comp=Z,12nm,0.9s						
CTA	Charters Tower	27.64	112	P	P	23 18 16.6	+0.7
	comp=Z,12nm,0.9s,mb4.5,baz=295,slow=12,SNR=5.9						
CTAO	Charters Tower	27.64	112	eP	P	23 18 17.2	+1.4
	comp=Z,13nm,0.8s,mb4.6						
CTAO	Charters Tower	27.64	112	eP	P	23 18 17.2	+1.4
CTAO				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.6						
STKA	Stephens Creek	29.24	138	P	P	23 18 30.4	+0.4
	comp=Z,9.3nm,0.9s,mb4.5,baz=320,slow=8.3,SNR=15						
STKA				LR	LR	23 30 44.3	
	comp=Z,832nm,21.2s,MS4.3,baz=299,slow=37						
QIZ	Qiongzhong	31.45	343	P	P	23 18 48.8	-0.8
QIZ				AP	pP	23 18 59.4	-0.2
QIZ				XP	sP	23 19 02.8	-0.9
QIZ				PP	PP	23 19 58.5	-2.6
QIZ				S	S	23 23 51.8	-3.5
QIZ				XS	sS	23 24 14.3	+2.5
QIZ				AMB	AMB		
	comp=Z,23nm,1.7s,mb4.7						
QIZ				AMB	AMB		
	comp=Z,202nm,7.6s						
QIZ				LR	LR		
	comp=N,510nm,22.0s,MS4.2						
QIZ				LR	LR		
	comp=E,306nm,23.9s,MS4.2						
QIZ				LR	LR		
	comp=Z,895nm,24.7s,MS4.3						
GZH	Guangzhou	34.61	351	P	P	23 19 21.1	+4.0
GZH				S	S	23 24 51.3	+7.0
GZH				LR	LR		
	comp=N,416nm,20.7s,MS4.2						
GZH				LR	LR		
	comp=E,222nm,18.0s,MS4.2						
GZH				LR	LR		
	comp=Z,610nm,22.7s,MS4.3						
NACB	Ninganchiao	35.34	4	eP	P	23 19 23.8	+0.4
YHNB	Yeheng	35.82	4	eP	P	23 19 31.1	+3.6
CHTO	Chiang Mai	35.85	326	eP	P	23 19 28.6	+0.6
	comp=Z,14nm,1.0s,mb4.8						
CHTO	Chiang Mai	35.85	326	eP	P	23 19 28.6	+0.7

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CHTO                           pmax   pmax
      comp=Z,14nm,1.0s,mb4.8
JOW   Kunigami          38.95  13 P      P      23 19 52.8 -1.3
      comp=Z,13nm,0.9s,mb4.7,baz=220,slow=12,SNR=4.8
JOW                               LR     LR     23 35 27.0
      comp=Z,630nm,21.2s,MS4.4,baz=36,slow=36
GYA   Guiyang           39.39 342⇓iP     P      23 20 01.6 +3.9
GYA                               AP     pP     23 20 11.4 +3.5
GYA                               XP     sP     23 20 16.0 +4.0
GYA                               PP     PP     23 21 36.5 +7.9
GYA                               XS     sS     23 26 18.3 +4.5
GYA                               SS     SS     23 28 49.4 -2.7
GYA                               AMB    AMB
      comp=Z,30nm,0.8s,mb5.1
GYA                               AMB    AMB
      comp=Z,160nm,5.8s
GYA                               LR     LR
      comp=N,720nm,17.9s,MS4.7
GYA                               LR     LR
      comp=E,520nm,17.0s,MS4.7
GYA                               LR     LR
      comp=Z,460nm,17.6s,MS4.4
KMI   Kunming           39.51 337 P      P      23 19 59.5 +0.8
KMI                               AP     pP     23 20 07.3 -1.6
KMI                               XP     sP     23 20 10.3 -2.7
KMI                               PP     PP     23 21 31.4 +1.5
KMI                               S      S      23 26 01.4 +2.5
KMI                               SS     SS     23 28 50.3 -4.2
KMI                               SSS           23 29 25.6
KMI                               AMB    AMB
      comp=Z,17nm,1.1s,mb4.7
KMI                               LR     LR
      comp=N,355nm,27.6s
KMI                               LR     LR
      comp=E,278nm,19.8s
KMI                               LR     LR
      comp=Z,697nm,32.1s,MS4.3
KMI   Kunming           39.51 337 P      P      23 19 59.5 +0.8
      comp=Z,17nm,1.1s,mb4.7
KMI                               pP     pP     23 20 07.2 -1.7
KMI                               sP     sP     23 20 10.2 -2.8
KMI                               PP     PP     23 21 31.4 +1.5
KMI                               S      S      23 26 01.4 +2.5
KMI                               sS     sS     23 26 14.2 -1.4
KMI                               SS     SS     23 28 50.2 -4.3
KMI                               SSS           23 29 25.6
KMI                               LR     LR
      comp=Z,700nm,32.1s,MS4.3
KMI   Kunming           39.51 337 P      P      23 19 59.5 +0.8
KMI                               *SP    sP     23 20 10.2 -2.8
KMI                                             23 21 31.4
KMI                               S      S      23 26 01.4 +2.5
KMI                               *SS    sS     23 26 14.2 -1.4
KMI                               pmax   pmax
      comp=Z,17nm,1.1s,mb4.7
KMI                               MLR    MLR
      comp=Z,700nm,32.1s,MS4.3
TAU   Tasmania Unive    39.98 147 P      P      23 20 04.3 +1.8
HNR   Honiara           40.31  91 P      P      23 20 06.0 +0.3
      comp=Z,95nm,0.4s,mb5.8,baz=51,slow=0.6,SNR=6.9
WHN   Wuhan             41.83 354 ⇑P     P      23 20 18.0 +0.2
WHN                               LR     LR
      comp=Z,2µm,21.0s,MS4.9
SSE   Sheshan           42.20   3 P      P      23 20 25.0 +4.2
SSE                               XP     sP     23 20 41.6 +6.5
SSE                               S      S      23 26 44.3 +5.6
SSE                               XS     sS     23 27 04.1 +8.6
SSE                               AMB    AMB
      comp=Z,9.0nm,1.1s,mb4.3
SSE                               AMB    AMB
      comp=Z,170nm,7.3s
SSE                               LR     LR
      comp=N,144nm,20.0s,MS4.1
SSE                               LR     LR
      comp=E,204nm,20.0s,MS4.1
SSE                               LR     LR
      comp=Z,284nm,19.7s,MS4.2
PALK  Pallekele         42.32 294 eP     P      23 20 22.1  0.0
      comp=Z,15nm,0.8s,mb4.7
NJ2   Nanjing           43.09 360 eP     P      23 20 31.4 +3.3
NJ2                               AP     pP     23 20 41.4 +3.1
NJ2                               XP     sP     23 20 45.3 +2.8
NJ2                               PP     PP     23 22 13.8 +5.1
NJ2                               S      S      23 26 53.0 +1.1
NJ2                               AMB    AMB
      comp=Z,40nm,0.8s,mb5.2
NJ2                               AMB    AMB
      comp=Z,250nm,7.8s
NJ2                               LR     LR
      comp=N,210nm,25.2s,MS4.1
NJ2                               LR     LR
      comp=E,260nm,26.6s,MS4.1
NJ2                               LR     LR
      comp=Z,260nm,26.4s,MS4.0
CD2   Chengdu           44.44 341 P      P      23 20 37.5 -1.4
CD2                               AP     pP     23 20 47.4 -1.8
CD2                               XP     sP     23 20 51.5 -1.8
CD2                               PP     PP     23 22 22.8 -0.3
CD2                               S      S      23 27 10.6 -0.9
CD2                               AMB    AMB
      comp=Z,100nm,0.9s,mb5.5
CD2                               AMB    AMB
      comp=Z,190nm,9.6s
CD2                               LR     LR
      comp=N,570nm,24.4s,MS4.5
CD2                               LR     LR
      comp=E,350nm,24.0s,MS4.5
CD2                               LR     LR
      comp=Z,610nm,21.6s,MS4.5
XAN   Xi’an             46.08 348 P      P      23 20 48.8 -3.1
XAN                               AP     pP     23 21 03.4 +1.2
XAN                               S      S      23 27 32.0 -3.3
XAN                               SS     SS     23 30 57.6 -3.4
XAN                               AMB    AMB
      comp=Z,14nm,1.2s,mb4.8
XAN                               LR     LR
      comp=N,400nm,20.3s,MS4.5
XAN                               LR     LR
      comp=E,274nm,17.3s,MS4.5
XAN                               LR     LR
      comp=Z,907nm,22.5s
DZM   Mont Dzumac       46.54 110 P      P      23 20 57.0 +1.2
      comp=Z,7.6nm,1.0s,mb4.6,baz=288,slow=20,SNR=1.8
ODAN  Odare             48.78 322 eP     P      23 21 12.5 -0.5
      comp=Z,93nm,1.0s,mb5.8
LSA   Lhasa             48.79 327 P      P      23 21 13.0 -0.1
LSA                               eS     S      23 28 08.6 -5.4
LSA                               AMB    AMB
      comp=Z,60nm,1.1s,mb5.5
LSA   Lhasa             48.79 327 eP     P      23 21 13.4 +0.3
      comp=Z,67nm,1.1s,mb5.6
LSA   Lhasa             48.79 327 eP     P      23 21 13.4 +0.3
LSA                               pmax   pmax
      comp=Z,67nm,1.1s,mb5.6
TAPN  Taplejung         48.94 322 eP     P      23 21 13.6 -0.7
      comp=Z,164nm,1.0s,mb6.0
HYB   Hyderabad         49.08 305 eP     P      23 21 14.5 -1.0
HYB   Hyderabad         49.08 305 i P    P      23 21 14.5 -1.0
KS15  Wonju Array Si    49.19   9 eP     P      23 21 19.3 +3.3
KSRS  Korea Array       49.21   9 P      P      23 21 15.8 -0.2
      comp=Z,22nm,0.8s,mb5.3,baz=185,slow=8.5,SNR=51
KSRS                              LR     LR     23 42 24.2
      comp=Z,236nm,20.2s,MS4.2,baz=190,slow=37
LZH   Lanzhou           49.24 344 ⇑P     P      23 21 16.5 +0.1
LZH                               AP     pP     23 21 27.0 +0.2
LZH                               XP     sP     23 21 31.3 +0.4
LZH                               PP     PP     23 23 11.3 +0.7
LZH                               eS     S      23 28 20.5 +0.5
LZH                               SS     SS     23 31 47.8 -4.3
LZH                               AMB    AMB
      comp=Z,39nm,1.3s,mb5.3
LZH                               AMB    AMB
      comp=Z,167nm,7.2s
LZH                               LR     LR
      comp=N,975nm,14.3s
LZH                               LR     LR
      comp=Z,1µm,18.2s,MS5.0
LZH   Lanzhou           49.24 344 ⇑P     P      23 21 16.5 +0.1
      comp=Z,39nm,1.3s,mb5.3
LZH                               pP     pP     23 21 27.0 +0.2
LZH                               sP     sP     23 21 31.2 +0.3
LZH                               PP     PP     23 23 11.3 +0.7
LZH                               eS     S      23 28 20.5 +0.5
LZH                               sS     sS     23 28 36.6 -0.5
LZH                               SS     SS     23 31 47.8 -4.3
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LZH                               LR     LR
      comp=Z,1µm,18.2s,MS5.0
LZH   Lanzhou           49.24 344 ⇑P     P      23 21 16.5 +0.1
LZH                               *PP    pP     23 21 27.0 +0.2
LZH                               *SP    sP     23 21 31.2 +0.3
LZH                                             23 23 11.3
LZH                               eS     S      23 28 20.5 +0.5
LZH                               *SS    sS     23 28 36.6 -0.5
LZH                               SS     SS     23 31 47.8 -4.3
LZH                               pmax   pmax
      comp=Z,39nm,1.3s,mb5.3
LZH                               MLR    MLR
      comp=Z,1µm,18.2s,MS5.0
JIRN  Jiri              50.09 321 eP     P      23 21 22.2 -0.8
KKN   Kakani            50.75 321 eP     P      23 21 27.2 -0.8
      comp=Z,86nm,1.0s,mb5.6
MAJO  Matsushiro        50.91  20 eP     P      23 21 29.3 +0.2
      comp=Z,18nm,0.8s,mb5.0
MAJO  Matsushiro        50.91  20 eP     P      23 21 29.3 +0.3
MAJO                              pmax   pmax
      comp=Z,18nm,0.8s,mb5.0
MJAR  Matsushiro Arr    50.91  20 P      P      23 21 27.9 -1.1
MJAR                              LR     LR     23 41 16.4
MJAR  Matsushiro Arr    50.91  20 P      P      23 21 27.9 -1.1
      comp=Z,11nm,0.9s,mb4.8,baz=189,slow=6.9,SNR=18
MJAR                              LR     LR     23 41 16.5
      comp=Z,212nm,20.5s,MS4.2,baz=135,slow=34
BJT   Baijiatuau        51.11 357 eP     P      23 21 29.4 -1.1
      comp=Z,23nm,0.8s,mb5.2
BJT   Baijiatuau        51.11 357 eP     P      23 21 29.4 -1.1
BJT                               pmax   pmax
      comp=Z,23nm,0.8s
BJI   Beijing           51.13 357 P      P      23 21 29.1 -1.6
BJI                               AP     pP     23 21 38.3 -2.8
BJI                               XP     sP     23 21 42.0 -3.2
BJI                               PCP    PcP    23 22 45.8 -0.1
BJI                               S      S      23 28 43.6 -2.7
BJI                               SS     SS     23 32 19.6 -2.6
BJI                               AMB    AMB
      comp=Z,9.0nm,1.2s,mb4.6
BJI                               AMB    AMB
      comp=Z,126nm,3.6s
BJI                               LR     LR
      comp=N,251nm,6.1s
BJI                               LR     LR
      comp=E,245nm,6.0s
BJI                               LR     LR
      comp=Z,282nm,35.7s,MS4.0
BJI   Beijing           51.13 357 P      P      23 21 29.1 -1.6
BJI                               *PP    pP     23 21 38.2 -2.9
BJI                               *SP    sP     23 21 42.0 -3.2
BJI                                             23 22 45.8
BJI                               S      S      23 28 43.6 -2.7
BJI                               SS     SS     23 32 19.6 -2.6
BJI                               MLR    MLR
      comp=Z,280nm,35.7s,MS4.0
GKN   Gorkha            51.30 320 eP     P      23 21 30.8 -1.4
      comp=Z,119nm,1.1s,mb5.7
HHC   Hu-ho-hao-te      52.33 353 eP     P      23 21 45.1 +5.5
HHC                               AP     pP     23 21 55.3 +5.3
HHC                               XP     sP     23 21 59.0 +4.9
HHC                               PP     PP     23 23 45.5 +6.9
HHC                               S      S      23 29 07.8 +5.1
HHC                               PS            23 29 20.8
HHC                               XS     sS     23 29 23.6 +3.7
HHC                               SS     SS     23 32 43.9 +2.8
HHC                               AMB    AMB
      comp=Z,14nm,0.7s,mb5.0
HHC                               AMB    AMB
      comp=Z,155nm,5.1s
HHC                               LR     LR
      comp=N,156nm,21.4s,MS4.3
HHC                               LR     LR
      comp=E,257nm,20.2s,MS4.3
HHC                               LR     LR
      comp=Z,340nm,33.3s
GTA   Gaotai            53.50 342 P      P      23 21 48.3  0.0
GTA                               AP     pP     23 21 57.9 -0.8
GTA                               XP     sP     23 22 01.8 -1.0
GTA                               PCP    PcP    23 22 54.0 -0.9
GTA                               PP     PP     23 23 51.3 +2.1
GTA                               PPP           23 24 59.3
GTA                               SCP    ScP    23 26 47.6 -2.6
GTA                               PCS    PcS    23 26 52.0 -1.8
GTA                               S      S      23 29 19.0 +0.2
GTA                               PS            23 29 33.5
GTA                               XS     sS     23 29 35.3 -0.7
GTA                               SS     SS     23 32 59.9 +0.2
GTA                               AMB    AMB
      comp=Z,14nm,1.5s,mb4.7
GTA                               AMB    AMB
      comp=Z,280nm,6.1s
GTA                               LR     LR
      comp=N,331nm,19.8s,MS4.5
GTA                               LR     LR
      comp=E,297nm,19.8s,MS4.5
GTA                               LR     LR
      comp=Z,305nm,20.2s,MS4.3
CN2   Changchun         55.14   6 eP     P      23 21 59.9 -0.2
CN2                               eXP    sP     23 22 14.5 -0.2
CN2                               ePP    PP     23 24 04.9 +1.0
CN2                               eS     S      23 29 40.4 -0.3
CN2                               eSS    SS     23 33 25.3 -0.1
CN2                               AMB    AMB
      comp=Z,10.0nm,0.9s,mb4.8
CN2                               AMB    AMB
      comp=Z,200nm,6.0s
CN2                               LR     LR
      comp=N,200nm,20.0s,MS4.3
CN2                               LR     LR
      comp=E,200nm,20.0s,MS4.3
CN2                               LR     LR
      comp=Z,300nm,21.0s,MS4.3
RPZ   Rata Peaks        55.17 136 P      P      23 22 00.7 +0.3
      comp=Z,7.4nm,0.9s,mb4.7,baz=59,slow=7.8,SNR=5.4
CASY  Casey             55.22 184 P      P      23 22 02.9 +2.5
MDJ   Mudanjiang        56.47   9 P      P      23 22 09.0 -0.6
MDJ                               AMB    AMB
      comp=Z,25nm,0.9s,mb5.2
MDJ                               AMB    AMB
      comp=Z,137nm,4.9s
MDJ   Mudanjiang        56.47   9 eP     P      23 22 08.5 -1.1
      comp=Z,32nm,0.8s,mb5.4
NDI   New Delhi         56.64 316 eP     P      23 22 06.0 -5.1
URZ   Urewera           58.15 128 LR     LR     23 47 29.5
      comp=Z,602nm,18.6s,MS4.7,baz=237,slow=36
ULN   Ulaanbaatar       59.84 351 eP     P      23 22 32.7 -0.5
SONM  Songino Array     59.92 350 P      P      23 22 33.0 -0.6
      comp=Z,12nm,0.9s,mb4.9,baz=167,slow=8.3,SNR=38
SONM                              LR     LR     23 49 29.8
      comp=Z,286nm,21.1s,MS4.4,baz=187,slow=37
HIA   Hailar            60.30   1 eP     P      23 22 36.2  0.0
      comp=Z,9.7nm,1.0s,mb4.8
HIA   Hailar            60.30   1 eP     P      23 22 36.2  0.0
HIA                               pmax   pmax
      comp=Z,10.0nm,1.0s
HABR  Khabarovsk        61.18  12 P      P      23 22 39.9 -2.3
HABR                              e             23 23 25.6
HABR                              eS     S      23 30 54.4 -5.0
HABR                              e             23 31 08.2
HABR                              e             23 32 28.7
YSS   Yuzh-Sakhalins    61.76  18 P      P      23 22 47.3 +1.1
YSS   Yuzh-Sakhalins    61.76  18 eP     P      23 22 46.2  0.0
WMQ   Urumqi            61.80 335 P      P      23 22 49.1 +2.5
ZAK   Zakamensk         62.93 349 eP     P      23 22 52.6 -1.3
ZAK                               pmax   pmax
      comp=Z,5.0nm,1.0s,mb4.6
CIT   Chita             63.23 356 eP     P      23 22 55.4 -0.5
CIT                               e      pP     23 23 04.4 -2.1
CIT                               pmax   pmax
      comp=Z,35nm,1.3s,mb5.3
TLY   Talaya            64.10 349 eP     P      23 23 01.9 +0.2
TLY   Talaya            64.10 349 eP     P      23 23 02.3 +0.6
TLY                               pmax   pmax
      comp=Z,5.0nm,1.0s,mb4.5
TLY                               MLR    MLR
      comp=Z,287nm,19.0s,MS4.5
KSH   Kashi             64.44 324 eP     P      23 23 04.8 +0.7
KSH                               ePP    PP     23 25 26.3  0.0
KSH                               ePPP          23 26 56.3
KSH                               ePCS          23 27 42.5
KSH                               eS     S      23 31 35.9 -4.7
KSH                               eSCS   ScS    23 32 53.8 -2.1
KSH                               LR     LR
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      comp=Z,1µm,8.3s
MOY   Mondy             64.61 348 eP     P      23 23 04.9 -0.1
KBL   Kabul             65.71 316 eP     P      23 23 11.4 -1.1
KBL                               e             23 23 25.9
MK31  Makanchi Array    66.48 333 eP     P      23 23 16.7 -0.5
MKAR  Makanchi Array    66.48 333 P      P      23 23 16.5 -0.7
MKAR                              LR     LR     23 54 36.7
MKAR  Makanchi Array    66.48 333 P      P      23 23 16.5 -0.7
      comp=Z,21nm,0.9s,mb5.2,baz=151,slow=5.9,SNR=97
MKAR                              LR     LR     23 54 36.7
      comp=Z,178nm,22.0s,MS4.2,baz=151,slow=38
KZA   Kyzart            66.56 326 P      P      23 23 18.3 +0.5
      SNR=48
TKM2  Tokmak 2          66.94 327 eP     P      23 23 20.3  0.0
      comp=Z,53nm,1.4s,mb5.4
TKM2  Tokmak 2          66.94 327 eP     P      23 23 20.3 +0.1
TKM2                              pmax   pmax
      comp=Z,53nm,1.4s,mb5.4
UCH   Uchtor            67.07 326 P      P      23 23 21.4 +0.3
      SNR=16
UCH   Uchtor            67.07 326 eP     P      23 23 22.5 +1.4
      comp=Z,16nm,0.9s,mb5.1
UCH                               e      pP     23 23 31.2 -0.6
MAW   Mawson            67.09 200 LR     LR     23 45 28.4
      comp=Z,337nm,21.4s,MS4.5,baz=75,slow=30
KBK   Karagaybulak      67.12 326 P      P      23 23 21.5 +0.2
      SNR=28
AAK   Ala-Archa         67.35 326 P      P      23 23 21.6 -1.2
      comp=Z,144nm,1.0s,mb6.0,SNR=27
AAK   Ala-Archa         67.35 326 P      P      23 23 22.9 +0.1
      SNR=27
AAK   Ala-Archa         67.35 326 eP     P      23 23 21.5 -1.3
FRU   Bishkek           67.42 326 eP     P      23 23 23.5 +0.3
AML   Almayashu         67.46 325 P      P      23 23 23.9 +0.4
      SNR=38
AML   Almayashu         67.46 325 eP     P      23 23 23.9 +0.4
      comp=Z,62nm,1.0s,mb5.6
AML                               e      pP     23 23 34.6 +0.3
EKS2  Erkin-Say         67.76 326 P      P      23 23 25.6 +0.2
      SNR=31
EKS2  Erkin-Say         67.76 326 eP     P      23 23 25.8 +0.4
      comp=Z,40nm,0.6s,mb5.6
EKS2                              e      pP     23 23 38.1 +1.9
USP   Ospenovka         67.77 326 P      P      23 23 25.0 -0.5
      SNR=22
BOD   Bodaibo           68.98 357 eP     P      23 23 31.9 -0.8
BOD                               pmax   pmax
      comp=Z,25nm,1.2s,mb5.0
OPO   Ambohidratompo    69.38 254 P      P      23 23 36.8 +0.7
      comp=Z,6.2nm,0.9s,mb4.5,baz=108,slow=13,SNR=2.8
VNDA  Vanda             69.74 171 P      P      23 23 38.7 +1.4
      comp=Z,8.1nm,1.1s,mb4.6,baz=304,slow=13,SNR=3.6
VNDA                              LR     LR     23 53 12.7
      comp=Z,345nm,18.2s,MS4.6,baz=334,slow=35
KK31  Karatay Array     69.89 324 i P    P      23 23 37.6 -1.1
KK31                              pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.6
KKAR  Karatay Array     69.89 324 i P    P      23 23 37.6 -1.1
KKAR                              pmax   pmax
      comp=Z,5.0nm,0.8s,mb4.5
KURK  Kurchatov         71.04 334 P      P      23 23 45.3 -0.2
      comp=Z,141nm,1.1s,mb5.8,SNR=12
KURK  Kurchatov         71.04 334 eP     P      23 23 44.8 -0.7
      comp=Z,28nm,1.0s,mb5.1
KURK  Kurchatov         71.04 334 eP     P      23 23 44.8 -0.7
KURK                              pmax   pmax
      comp=Z,28nm,1.0s,mb5.2
ZAL   Zalesovo          71.16 339 P      P      23 23 44.7 -1.5
ZALV  Zalesovo Beam     71.17 339 P      P      23 23 44.7 -1.5
ZALV                              LR     LR     23 57 49.8
ZALV  Zalesovo Beam     71.17 339 P      P      23 23 44.7 -1.5
      comp=Z,27nm,0.9s,mb5.2,baz=140,slow=4.7,SNR=60
ZALV                              LR     LR     23 57 49.8
      comp=Z,196nm,20.7s,MS4.3,baz=284,slow=38
NVS   Novosibirsk       72.43 339 eP     P      23 23 51.8 -2.0
NVS                               pmax   pmax
      comp=N,11nm,1.0s
NVS                               pmax   pmax
      comp=E,11nm,1.0s
NVS                               pmax   pmax
      comp=Z,22nm,1.0s,mb5.0
PET   Petropavlovsk     72.48  24 eP     P      23 23 55.5 +1.4
PET                               pmax   pmax
      comp=Z,43nm,1.2s,mb5.2
YAK   Yakutsk           73.57   5 eP     P      23 24 01.7 +1.3
      comp=Z,14nm,0.4s,mb5.3
YAK   Yakutsk           73.57   5 eP     P      23 24 01.1 +0.7
YAK                               pmax   pmax
      comp=Z,20nm,1.3s,mb4.9
YAK                               pmax   pmax
      comp=N,9.0nm,1.5s
MA2   Magadan           75.11  16 eP     P      23 24 10.1 +0.6
MA2   Magadan           75.11  16 i P    P      23 24 10.3 +0.9
MA2                               pmax   pmax
      comp=Z,45nm,1.2s,mb5.3
BRVK  Borovoye          76.37 332 eP     P      23 24 16.7 -0.1
SEY   Seymchan          78.37  15 i P    P      23 24 28.6 +0.9
QSPA  South Pole Qui    78.72 180 eP     P      23 24 30.8 +1.3
      comp=Z,6.6nm,0.9s,mb4.6
QRN   Al-Qurain         79.26 302 eP     P      23 24 32.4 -1.1
QRN                               AMb    AMB    23 24 37.5
      comp=Z,67nm,1.1s,mb5.5
AB31  Akbulak array     79.42 325 P      P      23 24 33.2 -0.6
AB31                              pmax   pmax
      comp=Z,13nm,0.9s,mb4.9
RDF   Al-Radifah        79.62 302 eP     P      23 24 34.1 -1.3
RDF                               AMb    AMB    23 24 38.0
      comp=Z,92nm,1.1s,mb5.6
UMR   Umm Al-Rimmam     79.69 303 eP     P      23 24 34.4 -1.4
UMR                               AMb    AMB    23 24 38.8
      comp=Z,57nm,1.2s,mb5.4
NAY   Al-Naaiem         79.98 303 eP     P      23 24 36.8 -0.5
NAY                               AMb    AMB    23 24 40.8
      comp=Z,32nm,1.0s,mb5.2
MIB   Mutribah          80.08 303 eP     P      23 24 37.1 -0.7
MIB                               AMb    AMB    23 24 41.9
      comp=Z,71nm,0.8s,mb5.7
AKTK  Aktyubinsk        81.09 326 P      P      23 24 42.8  0.0
AKTO  Aktyubinsk        81.09 326 P      P      23 24 42.8  0.0
      comp=Z,19nm,0.9s,mb5.0,baz=96,slow=4.9,SNR=36
KMBO  Kilima Mbogo      81.67 271 eP     P      23 24 48.1 +1.4
KMBO  Kilima Mbogo      81.67 271⇑eP     P      23 24 50.0 +3.3
KMBO  Kilima Mbogo      81.67 271 P      P      23 24 47.9 +1.2
      comp=Z,4.3nm,1.0s,mb4.3,baz=60,slow=7.2,SNR=8.4
KMBO                              LR     LR     23 55 54.8
      comp=Z,114nm,20.0s,MS4.2,baz=88,slow=32
TIXI  Tiksi             83.02   3 eP     P      23 24 51.6 -0.8
TIXI  Tiksi             83.02   3 eP     P      23 24 50.6 -1.8
TIXI                              pmax   pmax
      comp=Z,41nm,1.0s,mb5.4
TIXI                              MLR    MLR
      comp=Z,143nm,18.0s,MS4.4
ARU   Arti              83.84 331 P      P      23 24 56.0 -1.0
      comp=Z,87nm,1.1s,mb5.8,SNR=8.5
ARU   Arti              83.84 331 eP     P      23 24 57.3 +0.3
      comp=Z,25nm,1.3s,mb5.2
ARU   Arti              83.84 331 i P    P      23 24 56.4 -0.6
ARU                               pmax   pmax
      comp=Z,25nm,1.3s,mb5.2
BILL  Bilibino          85.98  16 P      P      23 25 09.2 +1.7
BILL  Bilibino          85.98  16 eP     P      23 25 09.6 +2.1
BILL                              pmax   pmax
      comp=Z,5.0nm,1.6s,mb4.5
ZEI   Tsey              86.89 315 eP     P      23 25 13.9 +1.4
ZEI                               e*PP   pP     23 25 22.2 -1.3
ZEI                               i             23 25 31.7
ZEI                               pmax   pmax
      comp=Z,19nm,1.1s,mb5.2
LSZ   Lusaka            87.84 255 LR     LR     23 59 20.6
      comp=Z,132nm,19.1s,MS4.4,baz=189,slow=32
BOSA  Boshof            87.90 241 eP     P      23 25 19.3 +1.5
BOSA  Boshof            87.90 241 P      P      23 25 18.4 +0.5
      comp=Z,7.9nm,1.1s,mb4.9,baz=88,slow=4.0,SNR=7.4
PPT   Papeete           88.00 107 eLR    LR     23 54 20.5
      comp=Z,365nm,31.5s
KIV   Kislovodsk        88.09 315 eP     P      23 25 18.5 +0.2
KIV   Kislovodsk        88.09 315 eP     P      23 25 19.1 +0.8
KIV                               e             23 35 42.2
KIV                               pmax   pmax
      comp=Z,9.0nm,1.1s,mb4.9
LBTB  Lobatse           88.33 245 eP     P      23 25 21.3 +1.4
      comp=Z,12nm,1.1s,mb5.0
LBTB                              e      pP     23 25 33.4 +2.5
LBTB  Lobatse           88.33 245 eP     P      23 25 21.3 +1.4
LBTB                              e      pP     23 25 33.4 +2.4
LBTB                              pmax   pmax
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	comp=Z,12nm,1.1s,mb5.0						
SNAA	Sanae	88.80	196	P	P	23 25 21.9	+0.7
	comp=Z,5.8nm,0.9s,mb4.9,baz=130,slow=7.4,SNR=16						
MALT	Malatya	89.63	309	eP	P	23 25 27.4	+1.7
	comp=Z,12nm,1.1s,mb5.1						
MALT	Malatya	89.63	309	eP	P	23 25 27.4	+1.7
MALT				pmax	pmax		
	comp=Z,12nm,1.1s,mb5.1						
GAMB	Gambell	91.17	25	eP	P	23 25 36.1	+3.9
PRGR	Permogore	92.11	333	eP	P	23 25 36.3	-0.3
PRGR				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.5						
BRTR	Keskin Array B	93.58	310	P	P	23 25 43.9	-0.1
	comp=Z,3.7nm,0.9s,mb4.8,baz=127,slow=5.3,SNR=17						
BRTR				PP	PP	23 29 25.1	-4.0
	comp=Z,0.6nm,0.9s,baz=79,slow=10,SNR=3.5						
OBN	Obninsk	94.87	325	eP	P	23 25 50.1	+0.6
OBN	Obninsk	94.87	325	eP	P	23 25 49.8	+0.3
OBN				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb5.0						
AKASG	Malin Array Be	98.48	320	i P	P	23 26 08.3	+2.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKASG	Malin Array Be	98.48	320	P	P	23 26 04.9	-1.1
	comp=Z,0.8nm,0.6s,mb4.4,baz=77,slow=4.8,SNR=5.5						
AKASG				LR	LR	00 16 38.1	
	comp=Z,110nm,21.1s,MS4.3,baz=10.0,slow=39						
APA	Apatity	98.66	337	⇓eP	P	23 26 05.0	-1.4
APA				i		23 26 20.0	
APA				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.5						
RKT	Rikitea	100.00	116	eLR	LR	23 59 50.2	
	comp=Z,204nm,35.5s						
FINES	FINESS Array B	101.22	331	i P	Pdif	23 26 19.2	+1.1
FINES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
FINES	FINESS Array B	101.22	331	P	Pdif	23 26 18.0	-0.2
	comp=Z,3.8nm,0.9s,baz=100,slow=6.4,SNR=7.5						
COLA	College	101.48	26	ePdif	Pdif	23 26 21.0	+1.7
ARCES	ARCESS Array B	101.71	339	P	Pdif	23 26 20.5	+0.1
	comp=Z,9.2nm,1.0s,baz=54,slow=6.2,SNR=7.3						
YKA	Yellowknife Ar	116.27	25	PKP	PKPdf	23 31 11.1	+0.5
YKA				PKKPbc	PKKPbc	23 41 48.0	+5.8
YKA	Yellowknife Ar	116.27	25	PKIKP	PKPdf	23 31 11.1	+0.5
YKA						23 41 48.0	
YKA	Yellowknife Ar	116.27	25	PKP	PKPdf	23 31 11.1	+0.5
	comp=Z,1.1nm,0.5s,baz=305,slow=1.9,SNR=19						
YKA				PKKPbc	PKKPbc	23 41 48.0	+5.8
	comp=Z,0.4nm,0.9s,baz=113,slow=4.7,SNR=4.1						
TORD	Torodi Ar. Bea	118.82	279	PKP	PKPdf	23 31 17.4	+0.5
TORD	Torodi Ar. Bea	118.82	279	PKP	PKPdf	23 31 17.4	+0.5
	comp=Z,2.2nm,0.7s,baz=20,slow=2.1,SNR=16						
ESDC	Sonseca Array	122.37	310	PKP	PKPdf	23 31 24.3	+1.2
ESDC	Sonseca Array	122.37	310	PKP	PKPdf	23 31 24.3	+1.2
	comp=Z,0.8nm,0.8s,baz=21,slow=4.3,SNR=4.4						
NVAR	Mina Array Bea	122.46	52	PKP	PKPdf	23 31 24.6	+1.3
NVAR	Mina Array Bea	122.46	52	PKP	PKPdf	23 31 24.6	+1.3
	comp=Z,1.6nm,0.9s,baz=337,slow=0.6,SNR=8.0						
MSO	Missoula	123.19	41	ePKPdf	PKPdf	23 31 28.0	+3.6
HLID	Hailey	123.97	45	ePKPdf	PKPdf	23 31 29.6	+3.6
LIC	Lamto	124.50	270	ePKPdf	PKPdf	23 31 23.7	-4.2
EGMT	Eagleton	125.34	38	ePKPdf	PKPdf	23 31 31.6	+3.1
DUG	Dugway	126.14	48	ePKPdf	PKPdf	23 31 34.1	+3.8
DUG	Dugway	126.14	48	ePKIKP	PKPdf	23 31 34.1	+3.8
REDW	Red Top Meadow	126.48	44	ePKPdf	PKPdf	23 31 34.7	+3.9
NLU	North Lily Min	126.75	48	ePKPdf	PKPdf	23 31 36.9	+5.5
MSU	Marysvale	127.10	50	PKPdf	PKPdf	23 31 34.9	+2.7
MSU	Marysvale	127.10	50	PKIKP	PKPdf	23 31 34.9	+2.7
PDAR	Pinedale Array	127.58	44	PKP	PKPdf	23 31 33.0	+0.1
PDAR	Pinedale Array	127.58	44	PKP	PKPdf	23 31 33.0	+0.1
	comp=Z,1.5nm,1.0s,baz=126,slow=2.6,SNR=6.8						
LAO	LASA Array	128.09	38	ePKPdf	PKPdf	23 31 37.3	+3.6
SRU	San Rafael	128.15	49	ePKPdf	PKPdf	23 31 37.7	+3.5
SRU	San Rafael	128.15	49	ePKIKP	PKPdf	23 31 37.7	+3.5
ULM	Lac du Bonnet	131.75	29	PKP	PKPdf	23 31 41.0	+0.4
ULM	Lac du Bonnet	131.75	29	PKP	PKPdf	23 31 41.0	+0.4
	comp=Z,1.5nm,0.8s,baz=8.3,slow=6.0,SNR=4.9						
SDCO	Great Sand Dun	132.32	49	ePKPdf	PKPdf	23 31 44.5	+2.4
ANMO	Albuquerque	132.55	53	i PKIKP	PKPdf	23 31 48.8	+6.2
MNTX	Cornudas Mount	134.38	57	ePKPdf	PKPdf	23 31 48.7	+2.5
LTX	Lajitas	136.45	59	ePKPdf	PKPdf	23 31 51.1	+1.0
LTX	Lajitas	136.45	59	ePKIKP	PKPdf	23 31 51.1	+1.0
WMOK	Wichita Mounta	138.50	50	ePKPdf	PKPdf	23 31 55.0	+1.3
WMOK	Wichita Mounta	138.50	50	ePKIKP	PKPdf	23 31 55.0	+1.3
LONY	Lake Ozonia	144.80	17	ePKPdf	PKPdf	23 32 06.0	+1.3
WCI	Wyandotte Cave	144.93	36	ePKPdf	PKPdf	23 32 05.0	-0.1
WCI	Wyandotte Cave	144.93	36	ePKIKP	PKPdf	23 32 05.0	-0.1
ACSO	Alum Creek Sta	145.24	30	ePKPdf	PKPdf	23 32 06.0	+0.4
OXF	Oxford	145.31	44	ePKPab	PKPab	23 32 07.0	+1.2
OXF	Oxford	145.31	44	ePKIKP	PKPdf	23 32 07.0	+1.1
NCB	Newcomb	145.50	17	ePKPdf	PKPdf	23 32 06.9	+1.0
PLAL	Pickwick Lake	145.92	42	ePKPdf	PKPdf	23 32 08.0	+1.1
CMIG	Matias Romero	146.69	76	PKPbc	PKPbc	23 32 11.8	+1.4
CMIG	Matias Romero	146.69	76	PKPbc	PKPbc	23 32 11.8	+1.4
	comp=Z,3.7nm,0.6s,baz=229,slow=3.7,SNR=4.9						
SWET	Sewanee	147.15	39	ePKPdf	PKPbc	23 32 12.1	+0.9
TZTN	Tazewell	147.67	35	ePKPdf	PKPbc	23 32 13.6	+1.0
LRAL	Lakeview Retre	147.80	44	ePKPdf	PKPdf	23 32 11.6	+1.5
CPCT	Cooper Cave	147.86	38	ePKPdf	PKPbc	23 32 14.4	+1.3
PAL	Palisades	148.30	19	ePKPab	PKPab	23 32 18.0	+0.9
PAL	Palisades	148.30	19	ePKP2	PKPab	23 32 18.0	+0.8
MVL	Millersville	148.34	23	ePKPab	PKPab	23 32 17.9	+0.6
ELN	Prospectdale	148.66	31	ePKPdf	PKPbc	23 32 15.0	-0.2
GOGA	Godfrey	149.87	40	ePKPdf	PKPbc	23 32 18.1	-0.2
GOGA	Godfrey	149.87	40	ePKP2	PKPbc	23 32 18.1	-0.2
ARE	Arequipa	150.54	159	eP	PKPbc	23 32 23.0	+2.6
ARE	Arequipa	150.54	159	ePKIKP	PKPbc	23 32 23.0	+2.6
LPAZ	La Paz	151.71	165	ePKPdf	PKPdf	23 32 19.1	+2.4
LPAZ				PKPbc	PKPbc	23 32 25.9	+2.9
LPAZ				ePKPbc	PKPbc	23 32 26.0	+2.9
LPAZ	La Paz	151.71	165	ePKIKP	PKPdf	23 32 19.1	+2.3
LPAZ						23 32 26.0	
LPAZ				e		23 32 26.0	
LPAZ	La Paz	151.71	165	PKPbc	PKPbc	23 32 25.9	+2.9
	comp=Z,17nm,1.1s,baz=81,slow=1.1,SNR=6.4						
NNA	Nana	152.04	145	ePKPdf	PKPdf	23 32 17.9	+0.6
NNA				ePKPdf	PKPbc	23 32 27.2	+3.3
SIV	San Ignacio	152.89	180	PKP	PKPdf	23 32 20.3	+1.8
SIV				PKPbc	PKPbc	23 32 28.3	+2.5
SIV	San Ignacio	152.89	180	PKP	PKPdf	23 32 20.3	+1.8
	comp=Z,1.6nm,1.1s,baz=109,slow=2.7,SNR=4.0						
SIV				PKPbc	PKPbc	23 32 28.3	+2.5
	comp=Z,12nm,1.2s,baz=168,slow=4.0,SNR=7.7						
JTS	JuntasAbangare	156.47	90	PKPdf	PKPdf	23 32 23.4	-0.1
JTS	JuntasAbangare	156.47	90	PKIKP	PKPdf	23 32 23.4	-0.1
OTAV	Otavalo	159.49	121	ePKPdf	PKPdf	23 32 31.2	+3.9

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*CRAAG **20** 23:13:39.7, 36.39N×2.54E, Ml2.9*
*ISCJB **20** 23:13:40.5±0.7, 36.59N±0.04×2.39E±0.06, h10km, Error ellipse: s-maj=6.5km s-min=5.4km az=21.9*
*CSEM **20** 23:13:41.4±0.3, 36.51N×2.49E, h35km, ML2.9, Error ellipse: s-maj=8.0km s-min=5.7km az=122.0*
*MDD **20** 23:13:41.9±0.6, 36.38N×2.60E, h28km±30km, mb3.5/6, Error ellipse: s-maj=25.9km s-min=7.5km az=114.0, PRXIMO*
*NEIC **20** 23:13:42.4, 36.63N×2.49E, h0km, MG3.2(MDD), After MDD.*

ISC 20 23:13:41.5±0.8**, 36.45N**±0.06×**2.5E**±0.1**, h32**km±17km**, n25, σ0.90**/40**, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMHD	Djebel Mahouad	0.42	127	P	Pb	23 13 49.2	-1.5
ABA	Alger-Bouzarea	0.53	49	P	Pb	23 13 52.9	+0.5
EBNR	Beni Rached	0.83	259	P	Pn	23 13 56.5	-0.5
ECHA	Ech Chlef	1.00	253	P	Pn	23 13 59.2	0.0
ECHF	Ech Chlef	1.01	253	P	Pn	23 13 59.2	-0.3
EANR	'Ain N'Sour	1.27	247	P	Pn	23 14 02.4	-0.6
ETRT	Tiaret	1.46	224	P	Pn	23 14 06.1	+0.4
EIBI	Ibiza	2.74	340	P	Pn	23 14 23.7	+0.5
EIBI				S	Sn	23 14 54.3	-0.9
EIBI	Ibiza	2.74	340	P	Pn	23 14 23.7	+0.5
	0.1nm,0.1s,SNR=7.9						
EIBI				S	Sn	23 14 55.1	-0.1
	2.1nm,0.1s,SNR=7.9						
EIBI	Ibiza	2.74	340	P	Pn	23 14 23.7	+0.5
	0.1nm,0.1s,SNR=7.9						
EIBI				S	Sn	23 14 54.3	-0.9
	2.1nm,0.1s,SNR=7.9						
EBEN	Beniarda	3.14	316	P	Pn	23 14 29.2	+0.4
	26nm,1.2s,SNR=7.9						
EBEN				S	Sn	23 15 05.0	-0.2
	0.0nm,0.0s,SNR=4.0						
EBEN	Beniarda	3.14	316	S	Sn	23 15 05.0	-0.2
	SNR=4.0						
ETOS	Mallorca	3.32	4	P	Pn	23 14 32.0	+0.9
ETOS				S	Sn	23 15 08.1	-1.3
ETOS	Mallorca	3.32	4	P	Pn	23 14 32.1	+0.9
	0.8nm,0.2s,SNR=7.9						
ETOS				S	Sn	23 15 08.5	-0.9
	0.1nm,0.1s,SNR=7.9						
ETOS	Mallorca	3.32	4	P	Pn	23 14 32.0	+0.9
ETOS				S	Sn	23 15 08.1	-1.4
	0.1nm,0.1s,SNR=7.9						
ETOB	Tobarra	3.92	305	P	Pn	23 14 40.8	+1.3
ETOB				S	Sn	23 15 24.9	+0.6
ETOB	Tobarra	3.92	305	P	Pn	23 14 40.7	+1.3
	0.6nm,0.2s,SNR=5.8						
ETOB				S	Sn	23 15 24.2	-0.1
	2.2nm,0.3s,SNR=7.9						
ETOB	Tobarra	3.92	305	P	Pn	23 14 40.7	+1.3
	0.6nm,0.2s,SNR=5.8						
ETOB				S	Sn	23 15 24.9	+0.6
	2.2nm,0.3s,SNR=7.9						
EMOS	Mosqueruela	4.57	330	P	Pn	23 14 49.7	+1.4
	0.2nm,0.1s,SNR=7.9						
EMOS				S	Sn	23 15 39.1	-1.2
	0.1nm,0.1s,SNR=7.9						
EMOS	Mosqueruela	4.57	330	P	Pn	23 14 49.7	+1.4
	0.2nm,0.1s,SNR=7.9						
EMOS				S	Sn	23 15 39.1	-1.2
	0.1nm,0.1s,SNR=7.9						
EQES	Quesada	4.68	288	P	Pn	23 14 52.0	+2.1
EQES				S	Sn	23 15 42.8	-0.4
EQES	Quesada	4.68	288	P	Pn	23 14 51.2	+1.3
	0.2nm,0.1s,SNR=7.9						
EQES				S	Sn	23 15 42.2	-1.0
	0.2nm,0.2s,SNR=7.9						
EQES	Quesada	4.68	288	P	Pn	23 14 52.0	+2.1
	0.2nm,0.1s,SNR=7.9						
EQES				S	Sn	23 15 42.8	-0.4
	0.2nm,0.2s,SNR=7.9						
EQUE	Quentar	4.86	281	S	Sn	23 15 46.1	-1.3
	SNR=4.0						
EQUE	Quentar	4.86	281	S	Sn	23 15 47.0	-0.4
	0.2nm,0.2s,SNR=4.0						

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*NEIC **20** 23:24:18.3, 31.16S×71.66W, h37km, MD3.8(GUC), After GUC.*

GUC 20 23:24:18.3±0.9**, 31.16S×71.66W, h37**km±16km**, MD3.8, ML3.3, 5C-3D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	Combarbala	0.56	92	⇑iP	Pn	23 24 29.6	-0.1
CMCH				i S	Sn	23 24 38.9	+1.1
CMCH	Combarbala	0.56	92	⇑iP	Pn	23 24 29.6	-0.1
CMCH				i S	Sn	23 24 38.9	+1.1
CMCH				AML	AML	23 24 42.1	
	comp=N,7μm,0.8s						
OVCH	Ovalle	0.67	36	⇓iP	Pn	23 24 31.1	-0.3
OVCH				i S	Sn	23 24 41.3	+0.7
OVCH	Ovalle	0.67	36	⇓iP	Pn	23 24 31.1	-0.3
OVCH				i S	Sn	23 24 41.3	+0.7
OVCH				AML	AML	23 24 43.7	
	comp=N,2μm,0.4s						
CHNG	Los Chungos	0.74	170	⇑iP	Pn	23 24 18.6	-14
CHNG				i S	Sn	23 24 29.0	-13
CHNG				AML	AML	23 24 31.6	
	comp=E,1μm,0.5s						
PTCH	Petorca	1.26	151	i P		23 26 03.1	
PTCH				i S		23 26 19.4	
PTCH				AML	AML	23 26 22.0	
	comp=N,2μm,0.4s						
LSCH	La Serena	1.29	16	⇑iP	Pn	23 24 41.4	+1.5
LSCH				i S	Sn	23 24 57.7	+1.8
LSCH	La Serena	1.29	16	⇑iP	Pn	23 24 41.4	+1.5
LSCH				i S	Sn	23 24 57.7	+1.8
LSCH				AML	AML	23 25 06.3	
	comp=N,303nm,0.5s						
LCO	Las Campanas	2.29	21	ePn	Pn	23 24 55.0	+1.3
LCO				eSn	Sn	23 25 21.2	+0.6
CLCH	Cerro Calan	2.42	157	AML	AML	23 25 37.5	
	comp=E,696nm,0.3s						
FCH	Farellones	2.45	152	⇓iP	Pn	23 24 57.9	+2.1
FCH				AML	AML	23 25 42.1	
	comp=E,207nm,0.7s						

IDC 20 23:32:02.6±3.0**, 5.18S×133.05E, h0**km**, mb3.3**/1**, mb1 3.6**/4**, mb1mx3.4**/13**, mbtmp3.4**/4**, ML3.3**/3**, Error ellipse: s-maj=126.0km s-min=29.0km az=81.0, Aru Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	14.72	175	Pn	Pn	23 35 31.6	-0.7
	0.1nm,0.3s,baz=355,slow=13,SNR=3.5						
FITZ	Fitzroy Crossi	14.74	209	Pn	Pn	23 35 32.3	-0.3
	0.1nm,0.3s,baz=28,slow=17,SNR=9.2						
FITZ				Sn	Sn	23 38 09.4	-7.4
	0.2nm,0.3s,baz=324,slow=19,SNR=4.6						
ASAR	Alice Springs	18.39	178	P	Pn	23 36 19.6	+0.3
	0.1nm,0.3s,baz=2.1,slow=11,SNR=9.1						
MKAR	Makanchi Array	68.43	325	P	P	23 43 06.5	+0.1
	0.2nm,0.6s,baz=122,slow=7.5,SNR=2.7						

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*IDC **20** 23:38:35.9±1.1, 1.00S×127.37E, h0km, mb3.8/6, mb1 4.0/7, mb1mx3.8/17, mbtmp3.9/7, ML3.5/1, Error ellipse: s-maj=119.2km s-min=17.0km az=70.0*
*NEIC **20** 23:38:37.5±0.5, 1.00S×127.36E, h10km, mb4.3/3, Error ellipse: s-maj=21.8km s-min=6.7km az=70.0*
*ISCJB **20** 23:38:38.8±0.7, 1.02S±0.10×127.4E±0.2, h33km, mb4.1/8, Error ellipse: s-maj=30.6km s-min=9.5km az=160.1*

ISC 20 23:38:40.8±0.7**, 1.06S**±0.09×**127.4E**±0.2**, h35**km**, n15, σ0.96**/15**, mb4.1**/8**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.02	186	P	Pn	23 42 37.5	+1.2
	0.1nm,0.3s,baz=358,slow=17,SNR=4.6						
WRA	Warramunga Arr	19.95	161	P	Pn	23 43 10.0	-1.8
	1.1nm,0.3s,baz=340,slow=11,SNR=12						
WB2	Warramunga Arr	19.95	161	eP	Pn	23 43 10.4	-1.5
MBWA	Marble Bar	21.34	200	eP	P	23 43 25.1	+0.1
ASAR	Alice Springs	23.33	165	P	P	23 43 46.1	-0.1
	1.6nm,0.6s,mb3.7,baz=345,slow=12,SNR=21						
KULM	Kulim	27.47	284	eP	P	23 44 23.1	-0.9
STKA	Stephens Creek	33.45	158	P	P	23 45 18.2	+1.7
	2.5nm,0.8s,mb4.2,baz=350,slow=11,SNR=3.4						
LSA	Lhasa	46.19	314	eP	P	23 47 02.2	-0.3
	1.5nm,0.5s,mb4.2						
SONM	Songino Array	52.03	342	P	P	23 47 47.8	+0.9
	0.8nm,0.7s,mb3.7,baz=153,slow=8.9,SNR=6.6						
MK31	Makanchi Array	61.88	326	eP	P	23 48 56.7	0.0
MKAR	Makanchi Array	61.88	326	P	P	23 48 56.8	+0.1
	1.3nm,0.3s,mb4.5,baz=116,slow=8.2,SNR=55						
ZALV	Zalesovo Beam	65.15	334	P	P	23 49 17.2	-1.0
	0.2nm,0.3s,mb3.6,baz=96,slow=7.5,SNR=3.1						
KURK	Kurchatov	66.14	328	eP	P	23 49 24.4	-0.2
	2.3nm,0.4s,mb4.6						
BRVK	Borovoye	71.77	328	eP	P	23 50 00.0	+0.5
	1.4nm,0.6s,mb4.1						
QSPA	South Pole Qui	88.88	180	P	P	23 51 32.1	+1.2

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*ISCJB **20** 23:41:47.9±0.3, 41.20S±0.03×174.16E±0.04, h57km±4km, Error ellipse: s-maj=6.4km s-min=3.8km az=42.7*
*WEL **20** 23:41:48.9±0.1, 41.13S×174.15E, h50km±1km, ML4.4/22, Error ellipse: s-maj=0.9km s-min=0.9km az=90.0, reported intensity MM 4.*
WEL Felt from Nelson to Marlborough, and from West Coast to Wellington, maximum.
*NEIC **20** 23:41:49.2, 41.15S×174.16E, h47km, ML4.4(WEL), After WEL.*
NEIC Felt in the lower part of the North Island and the upper part of the South Island.

ISC 20 23:41:48.9±0.3**, 41.19S**±0.03×**174.18E**±0.04**, h49**km±5km**, n99, σ0.81**/105**, 6C-5D, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TCW	Tory Channel	0.08	109	P	Pn	23 41 56.5	0.0
TCW	Tory Channel	0.08	109	⇑PN	Pn	23 41 56.5	0.0
TCW				SN	Sn	23 42 01.1	-0.8
TUWZ	Tuamarina	0.30	216	⇓PN	Pn	23 41 58.1	+0.1
TUWZ				SN	Sn	23 42 04.4	+0.1
MRW	Makara Radio	0.40	96	P	Pn	23 41 59.1	+0.2
MRW	Makara Radio	0.40	96	⇑PN	Pn	23 41 59.1	+0.2
MRW				SN	Sn	23 42 07.0	+0.9
SNZO	South Karori	0.42	107	P	Pn	23 41 59.4	+0.3
SNZO				S	Sn	23 42 07.5	+1.1
SNZO	South Karori	0.42	107	⇓PN	Pn	23 41 59.4	+0.2
SNZO				SN	Sn	23 42 07.5	+1.1
DUWZ	D'Urville Isla	0.43	333	⇓PN	Pn	23 41 58.2	-1.1
DUWZ				SN	Sn	23 42 05.4	-1.2
WEL	Wellington	0.46	103	P	Pn	23 42 00.0	+0.4
WEL	Wellington	0.46	103	⇑PN	Pn	23 41 60.0	+0.4
CMWZ	Cape Campbell	0.56	177	P	Pn	23 42 02.2	+1.3
CMWZ	Cape Campbell	0.56	177	PN	Pn	23 42 02.2	+1.3
BHW	Baring Head	0.57	113	P	Pn	23 42 01.2	+0.3
BHW	Baring Head	0.57	113	⇑PN	Pn	23 42 01.2	+0.2
BSWZ	Blackbirch Sta	0.57	203	P	Pn	23 42 01.4	+0.4
BSWZ	Blackbirch Sta	0.57	203	⇑PN	Pn	23 42 01.4	+0.4
NNZ	Nelson	0.60	267	P	Pn	23 42 00.8	-0.5
NNZ	Nelson	0.60	267	⇓PN	Pn	23 42 00.8	-0.5
KIW	Kapiti Island	0.64	60	P	Pn	23 42 01.7	-0.1
KIW	Kapiti Island	0.64	60	⇑PN	Pn	23 42 01.7	-0.1
CAW	Cannon Point	0.68	84	P	Pn	23 42 02.6	+0.3
CAW	Cannon Point	0.68	84	⇓PN	Pn	23 42 02.6	+0.3
MSWZ	Moikau Station	0.84	106	P	Pn	23 42 04.4	0.0
MSWZ	Moikau Station	0.84	106	PN	Pn	23 42 04.4	0.0
PAWZ	Paruwai Farm	0.96	102	P	Pn	23 42 05.9	-0.2
PAWZ	Paruwai Farm	0.96	102	PN	Pn	23 42 05.9	-0.2
MTW	Mount Morrison	1.00	89	P	Pn	23 42 06.1	-0.5
MTW	Mount Morrison	1.00	89	PN	Pn	23 42 06.1	-0.5
THZ	Tophouse	1.12	238	P	Pn	23 42 07.9	-0.2
THZ	Tophouse	1.12	238	PN	Pn	23 42 07.9	-0.2
TRWZ	Traveller	1.16	101	PN	Pn	23 42 08.3	-0.4
MRZ	Mangatainoka R	1.19	64	P	Pn	23 42 08.6	-0.5
MRZ	Mangatainoka R	1.19	64	PN	Pn	23 42 08.6	-0.5
QRZ	Quartz Range	1.30	286	eP	Pn	23 42 10.7	+0.1
QRZ	Quartz Range	1.30	286	PN	Pn	23 42 10.7	+0.1
TIWZ	Tintock	1.36	73	PN	Pn	23 42 10.6	-0.8
WAZ	Wanganui	1.56	24	P	Pn	23 42 14.8	+0.7
BFZ	Birch Farm	1.65	73	P	Pn	23 42 13.9	-1.5
BFZ	Birch Farm	1.65	73	PN	Pn	23 42 13.9	-1.5
TSZ	Takapari Road	1.76	51	P	Pn	23 42 16.0	-1.0
TSZ	Takapari Road	1.76	51	PN	Pn	23 42 16.0	-0.9
DSZ	Denniston Nort	1.87	252	P	Pn	23 42 18.9	+0.5
DSZ	Denniston Nort	1.87	252	PN	Pn	23 42 18.9	+0.5
RAEZ	Rainy Point	1.90	5	P	Pn	23 42 20.6	+1.7
NEZ	North Egmont	1.91	358	P	Pn	23 42 19.8	+0.8
NWEZ	Newall Road	1.92	353	P	Pn	23 42 19.6	+0.4
PKE	Pukeiti	1.99	356	P	Pn	23 42 20.7	+0.6
MTVZ	Mangateitei	2.05	29	PN	Pn	23 42 21.5	+0.6
PKVZ	Pokaka	2.10	26	PN	Pn	23 42 21.7	+0.2
VRZ	Vera Road	2.11	12	P	Pn	23 42 22.3	+0.6
VRZ	Vera Road	2.11	12	PN	Pn	23 42 22.3	+0.7
LTZ	Lake Taylor	2.14	221	P	Pn	23 42 22.0	-0.1
LTZ	Lake Taylor	2.14	221	PN	Pn	23 42 22.0	-0.1
MOVZ	Moawhango	2.15	35	P	Pn	23 42 21.5	-0.7
MOVZ	Moawhango	2.15	35	PN	Pn	23 42 21.5	-0.8
WNVZ	Wahianoa	2.15	31	P	Pn	23 42 22.5	+0.2
WNVZ	Wahianoa	2.15	31	PN	Pn	23 42 22.5	+0.2
TRVZ	Turoa	2.16	30	PN	Pn	23 42 22.9	+0.5
FWVZ	Far West T-bar	2.20	29	P	Pn	23 42 23.3	+0.4
FWVZ	Far West T-bar	2.20	29	PN	Pn	23 42 23.3	+0.4
TUVZ	Tukino	2.23	31	P	Pn	23 42 23.4	+0.1
TUVZ	Tukino	2.23	31	PN	Pn	23 42 23.4	+0.1
WPVZ	Whakapapa	2.24	28	P	Pn	23 42 23.7	+0.2
WPVZ	Whakapapa	2.24	28	PN	Pn	23 42 23.7	+0.2
NGZ	Ngauruhoe	2.29	29	P	Pn	23 42 24.4	+0.3
NGZ	Ngauruhoe	2.29	29	PN	Pn	23 42 24.4	+0.2
OTVZ	Oturere	2.32	30	PN	Pn	23 42 24.8	+0.2
TWVZ	Taurewa	2.32	25	P	Pn	23 42 24.8	+0.2
TWVZ	Taurewa	2.32	25	PN	Pn	23 42 24.8	+0.1
WTVZ	West Tongariro	2.33	28	P	Pn	23 42 24.8	0.0
WTVZ	West Tongariro	2.33	28	PN	Pn	23 42 24.8	+0.1
PXZ	Pawanui	2.35	61	PN	Pn	23 42 23.2	-1.8
KRVZ	Karewarewa	2.37	29	PN	Pn	23 42 25.2	-0.1
KATZ	Kakaramea	2.50	28	P	Pn	23 42 27.3	+0.3
KATZ	Kakaramea	2.50	28	PN	Pn	23 42 27.3	+0.3
RATZ	Rangitukua	2.62	28	P	Pn	23 42 29.3	+0.6
RATZ	Rangitukua	2.62	28	PN	Pn	23 42 29.3	+0.6
BKZ	Black Stump Fm	2.69	42	P	Pn	23 42 27.9	-1.7
BKZ	Black Stump Fm	2.69	42	PN	Pn	23 42 27.9	-1.7
HIZ	Hauiti	2.72	11	P	Pn	23 42 30.3	+0.2
HIZ	Hauiti	2.72	11	PN	Pn	23 42 30.3	+0.2
WATZ	Wairara	2.75	26	P	Pn	23 42 34.2	+3.7
RPZ	Rata Peaks	3.42	221	eP	Pn	23 42 40.5	+0.8
RPZ	Rata Peaks	3.42	221	PN	Pn	23 42 40.5	+0.7
MWZ	Matawai	3.84	43	eP	Pn	23 42 41.0	-4.5
FOZ	Fox Glacier	4.09	233	eP	Pn	23 42 46.8	-2.0
FOZ	Fox Glacier	4.09	233	PN	Pn	23 42 46.8	-2.0
LBZ	Lake Benmore	4.34	221	eP	Pn	23 42 51.6	-0.7
PUZ	Puketiti	4.43	47	eP	Pn	23 42 49.6	-3.9
ODZ	Otahua Downs	4.64	213	eP	Pn	23 42 55.4	-1.0
MXZ	Matakaoa Point	4.83	43	eP	Pn	23 42 55.3	-3.7
MXZ	Matakaoa Point	4.83	43	PN	Pn	23 42 55.3	-3.7
JCZ	Jackson Bay	4.93	232	eP	Pn	23 42 59.1	-1.3
JCZ	Jackson Bay	4.93	232	PN	Pn	23 42 59.1	-1.2
WKZ	Wanaka	5.25	224	eP	Pn	23 43 05.2	+0.5
MSZ	Milford Sound	5.76	231	P	Pn	23 43 13.1	+1.4
TUZ	Tuapeka	5.80	213	P	Pn	23 43 11.6	-0.6
TUZ	Tuapeka	5.80	213	PN	Pn	23 43 11.6	-0.7
WHZ	Wether Hill Ro	6.53	222	eP	Pn	23 43 23.9	+1.6

JMA 20 23:44:01.2±0.2**, 43.79N×147.30E, h21**km**, M3.9, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	1.21	250	P	Pn	23 44 22.9	+0.1
NEM2				eS	Sb	23 44 38.8	+0.3
JRA	Rausu	1.58	276	P	Pn	23 44 28.5	+0.5
JRA				eS	Sn	23 44 47.8	0.0
JNK	Nakash	1.88	265	P	Pn	23 44 32.9	+0.8
JNK				eS	Sn	23 44 55.9	+0.7
JAK	Akkeshi	2.06	248	eS	Sn	23 45 00.3	+0.8
JTKR	Abashiri--Toko	2.46	275	P	Pn	23 44 41.0	+1.0
JAR	Ashorobuto	2.61	260	P	Pn	23 44 43.5	+1.3
JAR				eS	Sn	23 45 14.9	+1.7
JOB	Onbets	2.68	252	P	Pn	23 44 44.5	+1.5
JOB				eS	Sn	23 45 16.9	+2.1
JCH	Churui	3.11	249	P	Pn	23 44 49.9	+0.9
JNBK	Urakawa-nobuka	3.66	247	P	Pn	23 44 57.9	+1.4

IDC 21 00:01:46.0±6.4**, 16.92S×159.34E, h0**km**, mb3.6**/3**, mb1 3.8**/3**, mb1mx3.5**/12**, mbtmp3.6**/3**, Error ellipse: s-maj=97.0km s-min=85.7km az=55.0, Northwest of New Caledonia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	21.92	224	P	P	00 06 40.6	-0.4
	2.1nm,0.5s,baz=53,slow=9.0,SNR=8.5						
WRA	Warramunga Arr	23.90	259	P	P	00 07 01.7	0.0
	0.4nm,0.4s,baz=87,slow=9.7,SNR=5.8						
ASAR	Alice Springs	24.76	250	P	P	00 07 09.9	+0.4
	1.2nm,0.5s,baz=75,slow=9.3,SNR=19						

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*NEIC **21** 00:03:10.8, 28.59S×71.05W, h48km, MD3.9(GUC), After GUC.*

GUC 21 00:03:10.8±0.8**, 28.59S×71.05W, h48**km±16km**, MD3.9, ML3.7, 2C, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VACH	Vallenar	0.25	87	⇑iP	Pn	00 03 19.8	+0.5
VACH				i S	Sn	00 03 26.1	+0.7
VACH	Vallenar	0.25	87	⇑iP	Pn	00 03 19.8	+0.5
VACH				i S	Sn	00 03 26.1	+0.7
VACH				AML	AML	00 03 26.6	
	comp=E,12μm,0.1s						
CPCH	Copiapo	1.37	27	eP	Pn	00 03 34.4	+0.9
CPCH				i S	Sn	00 03 51.6	+1.2
CDCH	Caldera	1.52	7	eP	Pn	00 03 34.1	-1.4
CDCH				i S	Sn	00 03 53.0	-1.2
CMCH	Combarbala	2.58	179	eP	Pn	00 03 50.3	+0.3

CMCH				*i* S	Sn	00 04 21.4	+1.3

ISCJB **21** *00:05:46.8±0.2, 63.79N±0.02×4.08W±0.05, h10^{km}, mb4.1/27, Error ellipse: s-maj=3.1km s-min=2.7km az=135.5*
CSEM **21** *00:05:46.7±0.1, 63.81N×4.29W, h8^{km}, mb4.3/11, Error ellipse: s-maj=1.6km s-min=1.3km az=34.0*
MOS **21** *00:05:47.2±1.1, 63.69N×4.14W, h10^{km}, mb4.3/15, Error ellipse: s-maj=14.3km s-min=4.3km az=97.5*
IDC **21** *00:05:48.1±0.6, 63.88N×4.20W, h0^{km}, mb4.0/14, mb1 4.1/21, mb1mx4.0/29, mbtmp3.9/21, ML3.8/6, MS3.7/1, Ms1 3.7/1, ms1mx2.8/31, Error ellipse: s-maj=17.6km s-min=11.6km az=26.0*
NEIC **21** *00:05:49.4±0.2, 63.79N×4.07W, h10^{km}, mb4.0/27, ML3.2(BER), Error ellipse: s-maj=4.1km s-min=3.4km az=95.0*
BER **21** *00:05:51.5±4.2, 63.87N×3.94W, h10^{km}, MD3.2, ML3.2, ML4.0(BGS)*
BGS **21** *00:05:52.6, 63.70N×4.12W, h10^{km}, ML4.0*
REY **21** *00:05:53.6, 64.06N×5.12W, h10^{km}, ML3.5, ML3.8*
NAO **21** *00:05:54.7±3.9, 64.14N×2.87W, ML3.1*
SZGRF **21** *00:06:09.1, 63.02N×1.44W, h33^{km}, mb3.3, Norwegian Sea*
ISC 21 00:05:49.1±0.2**, 63.78N**±0.02×**4.10W**±0.04**, h10**^{km}**, n269,** σ**1**^{s}**29**/323**, mb4.1**/27**, 5C-1D, Norwegian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FTO	**Torshavn**	**2.17**	**216⇑**	*e*P	**Pn**	**00 06 26.6**	**+1.5**
FTO				*e*S	**Sn**	**00 06 51.2**	**-0.8**
LRW	**Lerwick**	**3.91**	**158**	*e*P	**Pn**	**00 06 50.6**	**+1.5**
LRW				*e*S	**Sn**	**00 07 32.3**	**-2.7**
LRW				AML	AML	00 07 37.6	
	comp=E,94nm,0.3s						
LRW				AML	AML	00 07 38.6	
	comp=N,58nm,0.4s						
LRW	**Lerwick**	**3.91**	**158**	P	**Pn**	**00 06 50.6**	**+1.5**
LRW				S	**Sn**	**00 07 32.3**	**-2.7**
FOO	**Floro**	**4.75**	**113**	*e*P	**Pn**	**00 07 00.5**	**0.0**
FOO				*e*S	**Sn**	**00 07 51.4**	**-4.2**
FOO	**Floro**	**4.75**	**113**	*e*P	**Pn**	**00 07 00.5**	**0.0**
FOO				*e*S	**Sn**	**00 07 51.4**	**-4.2**
FOO				AML	AML	00 07 59.4	
	comp=Z,84nm,0.7s						
IGLU	**Glumsstadir**	**4.92**	**289**	P	**Pn**	**00 07 01.1**	**-1.8**
SUE	**Sulen**	**4.94**	**120**	*e*P	**Pn**	**00 07 03.3**	**+0.1**
SUE				*e*S	**Sn**	**00 07 56.5**	**-3.8**
SUE	**Sulen**	**4.94**	**120**	*e*P	**Pn**	**00 07 03.3**	**+0.1**
SUE				*e*S	**Sn**	**00 07 56.5**	**-3.8**
SUE				*e*S	**Sn**	**00 07 57.2**	**-3.2**
SUE				AML	AML	00 08 04.7	
	comp=Z,34nm,0.4s						
IADA	**Aoalbol**	**5.13**	**289**	P	**Pn**	**00 07 04.4**	**-1.4**
IVSH	**V-Sauoahnukur**	**5.17**	**287**	P	**Pn**	**00 07 05.1**	**-1.2**
IHVA	**Hvannstoosfjol**	**5.25**	**288**	P	**Pn**	**00 07 06.0**	**-1.4**
ORE	**Reay**	**5.26**	**178⇑**	*e*P	**Pn**	**00 07 08.2**	**+0.7**
ORE				*e*S	**Sn**	**00 08 04.5**	**-3.6**
ORE				AML	AML	00 08 08.6	
	comp=E,95nm,0.4s						
ORE				AML	AML	00 08 10.2	
	comp=N,80nm,0.4s						
ORE	**Reay**	**5.26**	**178**	P	**Pn**	**00 07 08.2**	**+0.7**
ORE				S	**Sn**	**00 08 04.5**	**-3.6**
ORE	**Reay**	**5.26**	**178⇑**	*e*P	**Pn**	**00 07 08.2**	**+0.6**
ORE				*e*S	**Sn**	**00 08 04.5**	**-3.6**
IBRU	**Bruarjokull**	**5.32**	**287**	P	**Pn**	**00 07 07.4**	**-1.0**
HYA	**Hoyanger**	**5.44**	**114**	*e*P	**Pn**	**00 07 12.3**	**+2.2**
HYA				*e*S	**Sn**	**00 08 11.2**	**-1.5**
HYA	**Hoyanger**	**5.44**	**114**	*e*P	**Pn**	**00 07 12.3**	**+2.2**
HYA				*e*S	**Sn**	**00 08 11.2**	**-1.5**
HYA				AML	AML	00 08 24.6	
	comp=Z,42nm,0.7s						
ASK	**Askoy**	**5.47**	**123**	*e*P	**Pn**	**00 07 11.8**	**+1.3**
ASK				*e*S	**Sn**	**00 08 07.3**	**-6.1**
RSC	**Scourie**	**5.48**	**186⇑**	*e*P	**Pn**	**00 07 11.3**	**+0.7**
IGRS	**Grimsstaoir**	**5.48**	**295**	P	**Pn**	**00 07 09.9**	**-0.7**
IGRS				S	**Sn**	**00 08 09.6**	**-4.0**
MLA1	**Latheron**	**5.51**	**176**	*e*P	**Pn**	**00 07 11.8**	**+0.8**
RTO	**Tolsta**	**5.52**	**192**	*e*P	**Pn**	**00 07 11.6**	**+0.5**
RUND	**Rundenannen**	**5.58**	**123**	*e*P	**Pn**	**00 07 14.9**	**+2.8**
EGD	**Espegrend**	**5.63**	**125**	*e*P	**Pn**	**00 07 13.5**	**+0.9**
IGIL	**Gilhagi**	**5.69**	**299**	P	**Pn**	**00 07 12.1**	**-1.4**
REB	**Eisghbrachaidh**	**5.71**	**186**	*e*P	**Pn**	**00 07 14.3**	**+0.5**
IREN	**Reynihlio**	**5.80**	**294**	P	**Pn**	**00 07 14.7**	**-0.3**
ILEI	**Leirhofn**	**5.86**	**302**	P	**Pn**	**00 07 14.1**	**-1.7**
MVH1	**Achvaich**	**5.88**	**180**	*e*P	**Pn**	**00 07 17.0**	**+0.9**
ISVA	**Svartarkot**	**5.88**	**291**	P	**Pn**	**00 07 15.3**	**-0.8**
RRR	**Rubha Reidh**	**6.01**	**189⇑**	*e*P	**Pn**	**00 07 18.3**	**+0.4**
RRR				*e*S	**Sn**	**00 08 21.2**	**-5.3**
RRR				AML	AML	00 08 25.3	
	comp=N,43nm,0.5s						
RRR				AML	AML	00 08 26.2	
	comp=E,38nm,0.5s						
RRR	**Rubha Reidh**	**6.01**	**189**	P	**Pn**	**00 07 18.3**	**+0.4**
RRR				S	**Sn**	**00 08 21.2**	**-5.3**
IKAL	**Kalfafell**	**6.01**	**278**	P	**Pn**	**00 07 16.9**	**-1.0**
RRH	**Rhenigidale**	**6.02**	**193**	*e*P	**Pn**	**00 07 18.6**	**+0.6**
IHED	**Heoinshofoi**	**6.07**	**298**	P	**Pn**	**00 07 17.8**	**-0.9**
MCD	**Coleburn Disti**	**6.24**	**176**	*e*P	**Pn**	**00 07 21.8**	**+0.8**
MCD				*e*S	**Sn**	**00 08 28.5**	**-3.8**
MCD				AML	AML	00 08 33.3	
	comp=N,98nm,0.5s						
MCD				AML	AML	00 08 34.5	
	comp=E,57nm,0.6s						
MCD	**Coleburn Disti**	**6.24**	**176**	P	**Pn**	**00 07 21.8**	**+0.8**
MCD				S	**Sn**	**00 08 28.5**	**-3.8**
MCD	**Coleburn Disti**	**6.24**	**176**	*e*P	**Pn**	**00 07 21.8**	**+0.8**
MCD				*e*S	**Sn**	**00 08 28.5**	**-3.7**
DOMB	**Dombas**	**6.26**	**100**	*e*P	**Pn**	**00 07 22.5**	**+1.2**
DOMB				*e*S	**Sn**	**00 08 26.7**	**-6.1**
DOMB	**Dombas**	**6.26**	**100**	*e*P	**Pn**	**00 07 22.5**	**+1.2**
DOMB				*e*S	**Sn**	**00 08 26.7**	**-6.1**
DOMB				AML	AML	00 08 34.0	
	comp=Z,41nm,0.4s						
KAC	**Achnashellach**	**6.33**	**186**	*e*P	**Pn**	**00 07 23.7**	**+1.4**
MDO	**Dochfour**	**6.37**	**181**	*e*P	**Pn**	**00 07 23.4**	**+0.6**
ODD1	**Odda**	**6.39**	**123**	*e*P	**Pn**	**00 07 22.7**	**-0.4**
ODD1				*e*S	**Sn**	**00 08 31.8**	**-4.1**
KMY	**Karmoy**	**6.40**	**132**	*e*P	**Pn**	**00 07 23.6**	**+0.3**
KMY				*e*S	**Sn**	**00 08 31.7**	**-4.6**
KMY	**Karmoy**	**6.40**	**132**	*e*P	**Pn**	**00 07 23.6**	**+0.3**
KMY				*e*S	**Sn**	**00 08 31.7**	**-4.6**
KMY				AML	AML	00 08 38.7	
	comp=Z,41nm,0.4s						
KSK	**Scoval**	**6.47**	**193**	*e*P	**Pn**	**00 07 25.4**	**+1.2**
KPL	**Plockton**	**6.51**	**187**	*e*P	**Pn**	**00 07 25.1**	**+0.3**
KPL				*e*S	**Sn**	**00 08 34.0**	**-5.0**
KPL				AML	AML	00 08 35.5	
	comp=E,49nm,0.6s						
KPL				AML	AML	00 08 39.3	
	comp=N,28nm,0.5s						
KPL	**Plockton**	**6.51**	**187**	P	**Pn**	**00 07 25.1**	**+0.3**
KPL				S	**Sn**	**00 08 34.0**	**-5.0**
MME1	**Meikle Cairn**	**6.52**	**175**	*e*P	**Pn**	**00 07 25.8**	**+1.0**
KSB	**Sheil Bridge**	**6.63**	**186**	*e*P	**Pn**	**00 07 27.2**	**+0.8**
BLS5	**Blasjo**	**6.67**	**126**	*e*P	**Pn**	**00 07 28.7**	**+1.9**
KAR1	**Arisaig**	**6.94**	**188**	*e*P	**Pn**	**00 07 31.6**	**+1.0**
NSS	**Namsos**	**7.06**	**77**	*e*P	**Pn**	**00 07 29.7**	**-2.6**
NSS				*e*S	**Sn**	**00 08 42.1**	**-10**
NSS	**Namsos**	**7.06**	**77**	*e*P	**Pn**	**00 07 29.7**	**-2.6**
NSS				*e*S	**Sn**	**00 08 42.1**	**-10**
NSS				AML	AML	00 08 45.6	
	comp=Z,70nm,0.4s						
JMIC	**Jan Mayen**	**7.43**	**349**	Pn	**Pn**	**00 07 41.8**	**+4.5**
JMIC	**Jan Mayen**	**7.43**	**349**	Pn	**Pn**	**00 07 41.8**	**+4.5**
JMIC	**Jan Mayen**	**7.43**	**349**	Pn	**Pn**	**00 07 41.8**	**+4.5**
BORG	**Borgarnes**	**7.56**	**285**	Pn	**Pn**	**00 07 38.8**	**-0.3**
NAO01	**NORSAR Array S**	**7.57**	**106**	*e*Pn	**Pn**	**00 07 39.1**	**-0.2**
	comp=Z,8.2nm,0.4s						
NAO01				*e*Sn	**Sn**	**00 09 05.2**	**+0.2**
NAO01	**NORSAR Array S**	**7.57**	**106**	*e*Pn	**Pn**	**00 07 39.1**	**-0.2**
NB2	**NORSAR Subarra**	**7.62**	**104**	Pn	**Pn**	**00 07 38.9**	**-1.1**
	baz=300,slow=14						
NB2	**NORSAR Subarra**	**7.62**	**104**	Pn	**Pn**	**00 07 38.9**	**-1.1**
	baz=300,slow=14						
NB2	**NORSAR Subarra**	**7.62**	**104**	Pn	**Pn**	**00 07 38.8**	**-1.1**
	SNR=8.3						
NOA	**NORSAR Array B**	**7.62**	**104**	Pn	**Pn**	**00 07 39.1**	**-0.8**
NOA				Sn	**Sn**	**00 08 56.8**	**-9.4**
NOA	**NORSAR Array B**	**7.62**	**104**	Pn	**Pn**	**00 07 39.1**	**-0.8**
	comp=Z,1.2nm,0.3s,baz=40,slow=15,SNR=7.8						
NOA				Sn	**Sn**	**00 08 56.8**	**-9.4**
	comp=Z,3.0nm,0.3s,baz=344,slow=9.4,SNR=4.8						
STOK	**Stokkvaagen**	**7.67**	**63**	*e*P	**Pn**	**00 07 38.8**	**-1.8**
STOK				*e*S	**Sn**	**00 08 54.8**	**-12**
STOK	**Stokkvaagen**	**7.67**	**63**	*e*P	**Pn**	**00 07 38.8**	**-1.8**
STOK				*e*S	**Sn**	**00 08 54.8**	**-12**
STOK				AML	AML	00 09 06.6	
	comp=Z,75nm,0.3s						
KONO	**Kongsberg**	**7.71**	**116**	*e*Pn	**Pn**	**00 07 39.5**	**-1.7**
KONO				*e*Sn	**Sn**	**00 09 05.3**	**-3.1**
KONO	**Kongsberg**	**7.71**	**116**	*e*Pn	**Pn**	**00 07 39.5**	**-1.7**
SNART	**Snartemo**	**7.73**	**130**	*e*P	**Pn**	**00 07 44.4**	**+2.9**
EDI	**Edinburgh**	**7.90**	**176**	*e*P	**Pn**	**00 07 44.8**	**+1.0**
EDI				*e*S	**Sn**	**00 09 08.7**	**-4.5**
EDI				AML	AML	00 09 15.0	
	comp=E,36nm,0.6s						
EDI				AML	AML	00 09 23.8	
	comp=N,19nm,0.6s						
EDI	**Edinburgh**	**7.90**	**176**	P	**Pn**	**00 07 44.8**	**+1.0**
EDI				S	**Sn**	**00 09 08.7**	**-4.4**
MOR8	**Moi Rana**	**8.21**	**65**	*e*P	**Pn**	**00 07 49.2**	**+1.2**
MOR8				*e*S	**Sn**	**00 09 14.3**	**-6.2**
MOR8	**Moi Rana**	**8.21**	**65**	*e*P	**Pn**	**00 07 49.2**	**+1.2**
MOR8				*e*S	**Sn**	**00 09 14.3**	**-6.2**
MOR8				AML	AML	00 09 24.3	
	comp=Z,91nm,0.4s						
LOF	**Lofoten**	**8.40**	**51**	*e*P	**Pn**	**00 07 49.2**	**-1.3**
LOF				*e*S	**Sn**	**00 09 11.6**	**-14**
LOF				AML	AML	00 09 21.3	
	comp=Z,37nm,0.4s						
EKA	**Eskdalemuir Ar**	**8.49**	**176**	Pn	**Pn**	**00 07 52.0**	**+0.1**
EKA				Sn	**Sn**	**00 09 24.1**	**-3.6**
EKA	**Eskdalemuir Ar**	**8.49**	**176**	Pn	**Pn**	**00 07 52.0**	**+0.1**
	comp=Z,1.9nm,0.3s,baz=2.0,slow=13,SNR=40						
EKA				Sn	**Sn**	**00 09 24.1**	**-3.6**
	comp=Z,3.2nm,0.3s,baz=2.1,slow=26,SNR=6.0						
EKA	**Eskdalemuir Ar**	**8.49**	**176**	Pn	**Pn**	**00 07 52.0**	**+0.1**
ESK	**Eskdalemuir**	**8.51**	**177**	*e*Pn	**Pn**	**00 07 52.7**	**+0.6**
	comp=Z,18nm,0.8s						
ESK				*e*Sn	**Sn**	**00 09 24.1**	**-3.9**
ESK	**Eskdalemuir**	**8.51**	**177**	*e*P	**Pn**	**00 07 52.7**	**+0.6**
ESK				*e*		00 09 24.1	
ESK				pmax	pmax		
	comp=Z,19nm,0.8s						
ESK	**Eskdalemuir**	**8.51**	**177**	*e*Pn	**Pn**	**00 07 52.7**	**+0.6**
HFS	**Hagfors**	**9.13**	**106**	Pn	**Pn**	**00 08 01.1**	**+0.4**
	baz=291,slow=14						
HFS				Sn	**Sn**	**00 09 36.7**	**-6.6**
	baz=322,slow=22						
HFS	**Hagfors**	**9.13**	**106**	Pn	**Pn**	**00 07 60.0**	**-0.7**
HFS	**Hagfors**	**9.13**	**106**	Pn	**Pn**	**00 08 01.1**	**+0.4**
	baz=291,slow=14						
HFS				Sn	**Sn**	**00 09 36.7**	**-6.6**
	baz=322,slow=22						
HFS	**Hagfors**	**9.13**	**106**	Pn	**Pn**	**00 07 60.0**	**-0.7**
	comp=Z,0.7nm,0.3s,baz=309,slow=12,SNR=18						
HFS	**Hagfors**	**9.13**	**106**	Pn	**Pn**	**00 08 01.0**	**+0.3**
	SNR=1.3						
HFS				Sn	**Sn**	**00 09 36.7**	**-6.7**
TRO	**Tromso**	**10.78**	**47**	*e*Pn	**Pn**	**00 08 20.9**	**-2.3**
TRO	**Tromso**	**10.78**	**47**	*e*Pn	**Pn**	**00 08 20.9**	**-2.2**
	SNR=50						
KTK1	**Kautokeino**	**12.06**	**52**	*e*P	**Pn**	**00 08 40.4**	**-0.2**
KTK1	**Kautokeino**	**12.06**	**52**	*e*Pn	**Pn**	**00 08 40.4**	**-0.2**
KTK1	**Kautokeino**	**12.06**	**52**	*e*Pn	**Pn**	**00 08 40.4**	**-0.2**
	SNR=50						
ARA0	**ARCESS Array S**	**12.96**	**51**	Pn	**Pn**	**00 08 50.0**	**-3.0**
	baz=253,slow=12						
ARA0				Sn	**Sn**	**00 11 07.0**	**-10**
	baz=239,slow=22						
ARA0	**ARCESS Array S**	**12.96**	**51**	Pn	**Pn**	**00 08 50.0**	**-3.0**
	baz=253,slow=12						
ARA0				Sn	**Sn**	**00 11 07.0**	**-10**
	baz=239,slow=22						
ARA0	**ARCESS Array S**	**12.96**	**51**	Pn	**Pn**	**00 08 50.0**	**-2.9**
	SNR=8.9						
ARA0				Sn	**Sn**	**00 11 07.0**	**-10**
	SNR=5.3						
ARCES	**ARCESS Array B**	**12.96**	**51**	Pn	**Pn**	**00 08 49.6**	**-3.3**
ARCES				Sn	**Sn**	**00 11 07.8**	**-9.1**
ARCES	**ARCESS Array B**	**12.96**	**51**	Pn	**Pn**	**00 08 49.6**	**-3.3**
	comp=Z,0.6nm,0.3s,baz=245,slow=13,SNR=25						
ARCES				Sn	**Sn**	**00 11 07.9**	**-9.1**
	comp=Z,1.7nm,0.3s,baz=238,slow=22,SNR=5.8						
ARCES	**ARCESS Array B**	**12.96**	**51**	Pn	**Pn**	**00 08 49.6**	**-3.3**
ARCES				Sn	**Sn**	**00 11 07.8**	**-9.1**
KEV	**Kevo**	**13.52**	**50**	*e*p	**Pn**	**00 08 59.0**	**-1.5**
	comp=Z,1.6nm,0.3s						
KEV	**Kevo**	**13.52**	**50**	*e*Pn	**Pn**	**00 09 00.6**	**+0.1**
KEV	**Kevo**	**13.52**	**50**	*e*Pn	**Pn**	**00 09 00.6**	**+0.1**
KAF	**Kangasniemi**	**13.87**	**83**	*e*p	**Pn**	**00 09 00.9**	**-4.4**
	comp=Z,1.2nm,0.4s						
KAF	**Kangasniemi**	**13.87**	**83**	*e*P	**Pn**	**00 09 00.9**	**-4.4**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FIA0	**FINESS Array S**	**14.01**	**86**	Pn	**Pn**	**00 09 06.3**	**-1.0**
	baz=307,slow=12						
FIA0				Sn	**Sn**	**00 11 33.0**	**-10**
	baz=301,slow=28						
FIA0	**FINESS Array S**	**14.01**	**86**	Pn	**Pn**	**00 09 06.3**	**-1.0**
	baz=307,slow=12						
FIA0				Sn	**Sn**	**00 11 33.0**	**-10**
	baz=301,slow=28						
FIA0	**FINESS Array S**	**14.01**	**86**	Pn	**Pn**	**00 09 06.3**	**-1.0**
	SNR=9.2						
FIA0				Sn	**Sn**	**00 11 33.0**	**-10**
	SNR=3.1						
FINES	**FINESS Array B**	**14.01**	**86**	Pn	**Pn**	**00 09 06.2**	**-1.1**
FINES				Sn	**Sn**	**00 11 33.0**	**-10**
FINES	**FINESS Array B**	**14.01**	**86**	Pn	**Pn**	**00 09 06.2**	**-1.1**
	comp=Z,0.4nm,0.3s,baz=304,slow=11,SNR=17						
FINES				Sn	**Sn**	**00 11 33.0**	**-10**
	comp=Z,0.6nm,0.3s,baz=300,slow=22,SNR=4.5						
FINES	**FINESS Array B**	**14.01**	**86**	Pn	**Pn**	**00 09 06.2**	**-1.1**
FINES				Sn	**Sn**	**00 11 33.0**	**-10**
BAIF	**Baives**	**14.47**	**158**	*e*P	**Pn**	**00 09 12.2**	**-1.4**
GIVF	**Givet**	**14.53**	**157**	*e*P	**Pn**	**00 09 12.2**	**-2.2**
RUE	**Ruedersdorf**	**14.68**	**132**	Pn	**Pn**	**00 09 18.3**	**+1.9**
FLN	**La Foliniere**	**15.19**	**171**	*e*P	**Pn**	**00 09 16.7**	**-6.6**
	comp=Z,22nm,0.6s						
FLN	**La Foliniere**	**15.19**	**171**	*e*P	**Pn**	**00 09 16.7**	**-6.6**
	comp=Z,11nm,0.6s						
FLN	**La Foliniere**	**15.19**	**171**	*e*P	**Pn**	**00 09 16.7**	**-6.6**
FLN				pmax	pmax		
	comp=Z,11nm,0.6s						
LDF	**La Druitiere**	**15.38**	**170**	*e*P	**Pn**	**00 09 20.3**	**-5.6**
CLL	**Collm**	**15.44**	**136**	*i* P	**Pn**	**00 09 34.7**	**+8.1**
CLL	**Collm**	**15.44**	**136**	*i* PP		00 09 34.7	
ROSF	**Rostrenen**	**15.49**	**178**	*e*P	**Pn**	**00 09 21.9**	**-5.4**
GRR	**Gorron**	**15.54**	**172**	*e*P	**Pn**	**00 09 21.5**	**-6.4**
	comp=Z,28nm,0.8s						
GRR	**Gorron**	**15.54**	**172**	*e*P	**Pn**	**00 09 21.5**	**-6.4**
	comp=Z,14nm,0.8s						
GRR	**Gorron**	**15.54**	**172**	*e*P	**Pn**	**00 09 21.5**	**-6.4**
GRR				pmax	pmax		
	comp=Z,14nm,0.8s						
APA0	**Apatity Array**	**15.56**	**59**	Pn	**Pn**	**00 09 26.3**	**-1.9**
	baz=270,slow=11						
APA0	**Apatity Array**	**15.56**	**59**	Pn	**Pn**	**00 09 26.3**	**-1.9**
	baz=270,slow=11						
APA0	**Apatity Array**	**15.56**	**59**	Pn	**Pn**	**00 09 26.3**	**-1.9**
	SNR=9.5						
SGMF	**Saint Gilles**	**15.59**	**176**	*e*P	**Pn**	**00 09 23.4**	**-5.2**
SPB4	**Spitsbergen Ar**	**15.74**	**15**	*e*Pn	**Pn**	**00 09 31.9**	**+1.5**
SPA0	**Spitsbergen Ar**	**15.74**	**15**	Pn	**Pn**	**00 09 31.1**	**+0.8**
	baz=180,slow=16						
SPA0	**Spitsbergen Ar**	**15.74**	**15**	Pn	**Pn**	**00 09 31.1**	**+0.8**
	baz=180,slow=16						
SPA0	**Spitsbergen Ar**	**15.74**	**15**	Pn	**Pn**	**00 09 31.1**	**+0.7**
	SNR=243						
JOF	**Joensuu**	**15.79**	**77**	*e*p	**Pn**	**00 09 27.7**	**-3.4**
	comp=Z,2.0nm,0.5s						
QUIF	**Quistinic**	**15.91**	**178**	*e*P	**Pn**	**00 09 27.3**	**-5.5**
KBS	**Kingsbay**	**15.94**	**11**	Pn	**Pn**	**00 09 35.6**	**+2.7**
KBS	**Kingsbay**	**15.94**	**11**	*e*Pn	**Pn**	**00 09 32.5**	**-0.4**
KBS	**Kingsbay**	**15.94**	**11**	Pn	**Pn**	**00 09 35.6**	**+2.7**
KBS	**Kingsbay**	**15.94**	**11**	*e*P	**Pn**	**00 09 32.5**	**-0.4**
KBS	**Kingsbay**	**15.94**	**11**	Pn	**Pn**	**00 09 35.6**	**+2.7**
BRG	**Berggiesshubel**	**16.11**	**135**	*e*P	**Pn**	**00 09 41.7**	**+6.5**
	comp=Z,7.5nm,1.0s						
BRG				*e*		00 09 48.5	
	comp=Z,11nm,1.1s						
MEZF	**Maizieres J'vi**	**16.12**	**158**	*e*P	**Pn**	**00 09 33.5**	**-1.9**
GRA1	**Grafenberg Arr**	**16.36**	**142**	*e*P	**Pn**	**00 09 44.2**	**+5.7**
	comp=Z,8.0nm,1.0s						
GRF	**Grafenberg Arr**	**16.36**	**142**	*e*P	**Pn**	**00 09 44.2**	**+5.7**
	comp=Z,8.0nm,1.0s						
GRF				*e*L		00 21 17.6	
	comp=Z,187nm,18.6s						
CDF	**Champ du Feu**	**16.62**	**153**	*e*P	**Pn**	**00 09 40.2**	**-1.6**
HAU	**Haudompre**	**16.82**	**155**	*e*P	**Pn**	**00 09 43.9**	**-0.5**
HINF	**Hinteralfeld**	**17.10**	**154**	*e*P	**Pn**	**00 09 47.2**	**-0.7**
	comp=Z,8.5nm,0.7s						
HINF	**Hinteralfeld**	**17.10**	**154**	*e*P	**Pn**	**00 09 47.2**	**-0.7**
HINF				pmax	pmax		
	comp=Z,4.0nm,0.7s						
HINF	**Hinteralfeld**	**17.10**	**154**	*e*P	**Pn**	**00 09 47.2**	**-0.7**
	comp=Z,4.2nm,0.7s						
LOR	**Lormes**	**17.13**	**161**	*e*P	**Pn**	**00 09 47.5**	**-0.8**
	comp=Z,9.1nm,0.6s						
LOR	**Lormes**	**17.13**	**161**	*e*P	**Pn**	**00 09 47.5**	**-0.8**
LOR				pmax	pmax		
	comp=Z,5.0nm,0.6s						
LOR	**Lormes**	**17.13**	**161**	*e*P	**Pn**	**00 09 47.5**	**-0.8**
	comp=Z,4.6nm,0.6s						
SSF	**Saint Saulge**	**17.29**	**162**	*e*P	**Pn**	**00 09 50.1**	**-0.1**
	comp=Z,17nm,0.9s						
SSF	**Saint Saulge**	**17.29**	**162**	*e*P	**Pn**	**00 09 50.1**	**-0.1**
SSF				pmax	pmax		
	comp=Z,9.0nm,0.9s						
SSF	**Saint Saulge**	**17.29**	**162**	*e*P	**Pn**	**00 09 50.1**	**-0.1**
	comp=Z,8.5nm,0.9s						
MFF	**Saint Martin d**	**17.36**	**171**	*e*P	**Pn**	**00 09 47.3**	**-3.8**
AVF	**Avril sur Loir**	**17.53**	**163**	*e*P	**Pn**	**00 09 49.6**	**-3.6**
KHC	**Kasperske Hory**	**17.54**	**139**	*e*P	**Pn**	**00 09 56.5**	**+3.2**
KHC				*e*x	x	00 10 03.5	
BGF	**Bois d'Agland**	**17.70**	**164**	*e*P	**Pn**	**00 09 52.6**	**-2.7**
	comp=Z,19nm,0.7s						
BGF	**Bois d'Agland**	**17.70**	**164**	*e*P	**Pn**	**00 09 52.6**	**-2.7**
	comp=Z,9.6nm,0.7s						
BGF	**Bois d'Agland**	**17.70**	**164**	*e*P	**Pn**	**00 09 52.6**	**-2.7**
BGF				pmax	pmax		
	comp=Z,10.0nm,0.7s						
SMF	**Signal de Mont**	**17.74**	**162**	*e*P	**Pn**	**00 09 52.3**	**-3.5**
	comp=Z,10nm,0.8s						
SMF	**Signal de Mont**	**17.74**	**162**	*e*P	**Pn**	**00 09 52.3**	**-3.5**
	comp=Z,5.1nm,0.8s						
SMF	**Signal de Mont**	**17.74**	**162**	*e*P	**Pn**	**00 09 52.3**	**-3.5**
SMF				pmax	pmax		
	comp=Z,5.0nm,0.8s						
GERES	**GERESS Array B**	**17.83**	**139**	P	**Pn**	**00 09 59.1**	**+2.2**
	comp=Z,0.2nm,0.3s,baz=334,slow=12,SNR=9.0						
TCF	**Toulx Ste Croi**	**17.89**	**166**	*e*P	**Pn**	**00 09 56.9**	**-0.8**
	comp=Z,11nm,0.8s						
TCF	**Toulx Ste Croi**	**17.89**	**166**	*e*P	**Pn**	**00 09 56.9**	**-0.8**
TCF				pmax	pmax		
	comp=Z,5.0nm,0.8s						
TCF	**Toulx Ste Croi**	**17.89**	**166**	*e*P	**Pn**	**00 09 56.9**	**-0.8**
	comp=Z,5.4nm,0.8s						
CABF	**La Chapelle**	**18.12**	**157**	*e*P	**Pn**	**00 09 58.6**	**-2.0**
	comp=Z,16nm,0.8s						
CABF	**La Chapelle**	**18.12**	**157**	*e*P	**Pn**	**00 09 58.6**	**-2.0**
	comp=Z,8.1nm,0.8s						
CABF	**La Chapelle**	**18.12**	**157**	*e*P	**Pn**	**00 09 58.6**	**-2.0**
CABF				pmax	pmax		
	comp=Z,8.0nm,0.8s						
VRAC	**Vranov**	**18.32**	**133**	P	**Pn**	**00 10 04.6**	**+1.7**
	comp=Z,0.2nm,0.3s,baz=347,slow=18,SNR=2.7						
DAVOS	**Davos**	**18.65**	**149**	P	**Pn**	**00 10 10.5**	**+3.5**
DAVOX	**Davos/Dischmat**	**18.73**	**149**	P	**Pn**	**00 10 10.5**	**+2.5**
	comp=Z,0.1nm,0.3s,baz=320,slow=18,SNR=2.9						
LFF	**La Frestale**	**19.08**	**169**	*e*P	**Pn**	**00 10 11.3**	**-0.9**
CAF	**Calviac**	**19.22**	**167**	*e*P	**Pn**	**00 10 12.6**	**-1.3**
LPL	**La Plagne**	**19.30**	**156**	*e*P	**Pn**	**00 10 13.6**	**-1.2**
LPG	**La Plagne**	**19.32**	**156**	*e*P	**Pn**	**00 10 14.0**	**-1.0**
VIVF	**Saint-Julien-l**	**19.61**	**161**	*e*P	**Pn**	**00 10 17.0**	**-1.5**
ORIF	**Oris-en-Rattie**	**19.73**	**159**	*e*P	**Pn**	**00 10 18.7**	**-1.3**
MBDF	**Montbardon**	**20.07**	**157**	*e*P	**P**	**00 10 23.5**	**+1.3**
	comp=Z,12nm,0.8s						
MBDF	**Montbardon**	**20.07**	**157**	*e*P	**P**	**00 10 23.5**	**+1.3**
MBDF				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MBDF	**Montbardon**	**20.07**	**157**	*e*P	**P**	**00 10 23.5**	**+1.3**
	comp=Z,6.0nm,0.8s						
KWP	**Kalwaria**	**20.21**	**122**	*e*P	**P**	**00 10 25.1**	**+1.5**
	comp=Z,35nm,1.8s						
KWP	**Kalwaria**	**20.21**	**122**	*e*P	**P**	**00 10 25.2**	**+1.5**
KWP				pmax	pmax		
	comp=Z,35nm,1.8s						
KWP	**Kalwaria**	**20.21**	**122**	*e*P	**P**	**00 10 25.1**	**+1.4**
	comp=Z,35nm,1.8s						
PSZ	**Piszkesteto**	**20.62**	**129**	*e*P	**P**	**00 10 29.1**	**+0.9**
	comp=Z,3.1nm,0.6s						
PSZ	**Piszkesteto**	**20.62**	**129**	*e*P	**P**	**00 10 29.1**	**+0.9**
PSZ				pmax	pmax		
	comp=Z,3.0nm,0.6s						
PSZ	**Piszkesteto**	**20.62**	**129**	*e*P	**P**	**00 10 29.1**	**+0.9**
	comp=Z,3.1nm,0.6s						
SJPF	**Ste Jean**	**20.78**	**174**	*e*P	**P**	**00 10 30.1**	**+0.2**
	comp=Z,28nm,1.0s						
SJPF	**Ste Jean**	**20.78**	**174**	*e*P	**P**	**00 10 30.1**	**+0.2**
SJPF				pmax	pmax		
	comp=Z,14nm,1.0s						
SJPF	**Ste Jean**	**20.78**	**174**	*e*P	**P**	**00 10 30.1**	**+0.2**
	comp=Z,14nm,1.0s						
MTLF	**Montolieu**	**20.80**	**167**	*e*P	**P**	**00 10 29.9**	**-0.3**
EPF	**Esparros**	**20.95**	**171**	*e*P	**P**	**00 10 31.8**	**0.0**
	comp=Z,24nm,1.0s						
EPF	**Esparros**	**20.95**	**171**	*e*P	**P**	**00 10 31.8**	**0.0**
EPF				pmax	pmax		
	comp=Z,12nm,1.0s						
EPF	**Esparros**	**20.95**	**171**	*e*P	**P**	**00 10 31.8**	**0.0**
	comp=Z,12nm,1.0s						
ETSF	**Etsaut**	**21.02**	**173**	*e*P	**P**	**00 10 33.6**	**+1.0**
FRF	**La Foret Royal**	**21.18**	**158**	*e*P	**P**	**00 10 33.9**	**-0.3**
AKASG	**Malin Array Be**	**21.96**	**111**	P	**P**	**00 10 43.3**	**+0.8**
	comp=Z,2.2nm,0.5s,mb3.9,baz=320,slow=10.0,SNR=8.0						
OBN	**Obninsk**	**22.05**	**94**	*e*P	**P**	**00 10 44.0**	**+0.6**
	comp=Z,8.3nm,0.5s,mb4.4						
OBN	**Obninsk**	**22.05**	**94⇓**	*e*P	**P**	**00 10 44.4**	**+0.9**
OBN				S	**S**	**00 14 47.0**	**+0.7**
OBN				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.4						
OBN	**Obninsk**	**22.05**	**94**	*e*P	**P**	**00 10 44.0**	**+0.5**
	comp=Z,8.3nm,0.5s,mb4.4						
AQU	**L'Aquila**	**23.74**	**146**	P	**P**	**00 11 04.8**	**+3.6**
ESDC	**Sonseca Array**	**24.15**	**180**	P	**P**	**00 11 06.3**	**+1.5**
	comp=Z,0.9nm,0.6s,mb3.4,baz=360,slow=8.7,SNR=4.0						
ESDC	**Sonseca Array**	**24.15**	**180**	P	**P**	**00 11 06.3**	**+1.4**
KEST	**Kesra**	**29.26**	**157**	P	**P**	**00 11 53.1**	**+2.1**
	comp=Z,0.8nm,0.7s,mb3.6,baz=293,slow=20,SNR=6.1						
ARU	**Arti**	**30.87**	**74**	*e*P	**P**	**00 12 06.5**	**+1.5**
ARU				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.1						
ARU	**Arti**	**30.87**	**74**	*e*P	**P**	**00 12 06.0**	**+1.0**
	comp=Z,1.6nm,0.5s,mb4.1						
SCHQ	**Schefferville**	**31.95**	**284**	*e*P	**P**	**00 12 14.9**	**+0.4**
SCHQ	**Schefferville**	**31.95**	**284**	P	**P**	**00 12 14.4**	**-0.1**
	comp=Z,3.0nm,0.9s,mb4.1,baz=76,slow=14,SNR=8.6						
SCHQ	**Schefferville**	**31.95**	**284**	*e*P	**P**	**00 12 14.9**	**+0.4**
BRTR	**Keskin Array B**	**32.73**	**119**	P	**P**	**00 12 23.9**	**+2.4**
	comp=Z,1.0nm,0.5s,mb4.0,baz=329,slow=6.6,SNR=8.1						
KIV	**Kislovodsk**	**32.93**	**104**	P	**P**	**00 12 23.5**	**+0.3**
KIV	**Kislovodsk**	**32.93**	**104**	*e*P	**P**	**00 12 25.8**	**+2.6**
KIV				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
KIV	**Kislovodsk**	**32.93**	**104**	P	**P**	**00 12 23.5**	**+0.3**
MALT	**Malatya**	**35.84**	**115**	*e*P	**P**	**00 12 48.6**	**+0.2**
	comp=Z,1.3nm,0.4s,mb4.2						
MALT	**Malatya**	**35.84**	**115**	*e*P	**P**	**00 12 48.7**	**+0.2**
MALT				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
MALT	**Malatya**	**35.84**	**115**	*e*P	**P**	**00 12 48.7**	**+0.2**
	comp=Z,1.3nm,0.4s,mb4.2						
BRVK	**Borovoye**	**38.14**	**70**	P	**P**	**00 13 08.7**	**+0.8**
BRVK	**Borovoye**	**38.14**	**70**	P	**P**	**00 13 08.7**	**+0.9**
TIXI	**Tiksi**	**41.07**	**21**	*e*P	**P**	**00 13 32.9**	**+0.8**
	comp=Z,2.3nm,0.6s,mb4.0						
TIXI	**Tiksi**	**41.07**	**21**	*e*P	**P**	**00 13 31.5**	**-0.5**
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.0						
TIXI	**Tiksi**	**41.07**	**21**	*e*P	**P**	**00 13 32.9**	**+0.9**
	comp=Z,2.3nm,0.6s,mb4.0						
ZALV	**Zalesovo Beam**	**43.31**	**59**	P	**P**	**00 13 49.8**	**-0.7**
	comp=Z,0.9nm,0.6s,mb3.7,baz=330,slow=8.7,SNR=7.0						
ZAL	**Zalesovo**	**43.31**	**60**	P	**P**	**00 13 49.8**	**-0.7**
KURK	**Kurchatov**	**43.33**	**67**	*e*P	**P**	**00 13 51.7**	**+1.0**
	comp=Z,1.7nm,0.8s,mb3.8						
KURK	**Kurchatov**	**43.33**	**67**	*e*P	**P**	**00 13 50.9**	**+0.2**
KURK	**Kurchatov**	**43.33**	**67**	*e*P	**P**	**00 13 51.7**	**+1.0**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	comp=Z,1.6nm,0.8s,mb3.8						
INK	Inuvik	43.38	335	P	P	00 13 51.2	+0.4
INK	Inuvik	43.38	335	P	P	00 13 51.2	+0.3
YKA	Yellowknife Ar	43.84	321	P	P	00 13 54.4	-0.3
	comp=Z,2.7nm,0.6s,mb4.2,baz=36,slow=8.4,SNR=55						
BRNJ	Basking Ridge	46.00	275	eP	P	00 14 13.5	+1.4
BRNJ	Basking Ridge	46.00	275	eP	P	00 14 13.5	+1.4
ULM	Lac du Bonnet	47.30	299	P	P	00 14 23.1	+0.9
MK31	Makanchi Array	47.92	68	eP	P	00 14 28.2	+1.2
MK31	Makanchi Array	47.92	68	eP	P	00 14 28.2	+1.2
MKAR	Makanchi Array	47.92	68	i P	P	00 14 28.0	+1.0
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	47.92	68	P	P	00 14 27.9	+0.9
	comp=Z,0.6nm,0.6s,mb3.8,baz=344,slow=6.5,SNR=12						
AAK	Ala-Archa	47.98	77	eP	P	00 14 29.4	+1.9
	comp=Z,2.4nm,0.8s,mb4.3						
AAK	Ala-Archa	47.98	77	eP	P	00 14 28.8	+1.3
AAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
AAK	Ala-Archa	47.98	77	eP	P	00 14 29.4	+1.9
	comp=Z,2.4nm,0.8s,mb4.3						
BBSR	BB Station	48.55	260	P	P	00 14 31.3	-0.8
BBSR	BB Station	48.55	260	P	P	00 14 31.3	-0.8
IMA2	Indian Mountai	48.57	344	eP	P	00 14 32.9	+1.2
IMA2	Indian Mountai	48.57	344	eP	P	00 14 32.9	+1.1
YAK	Yakutsk	49.82	26	P	P	00 14 41.1	-0.3
TORD	Torodi Ar. Bea	50.73	173	P	P	00 14 49.9	+1.1
TORD	Torodi Ar. Bea	50.73	173	P	P	00 14 49.9	+1.1
	comp=Z,2.3nm,0.5s,mb4.3,baz=346,slow=9.4,SNR=45						
TLY	Talaya	51.91	49	eP	P	00 14 57.8	+0.5
	comp=Z,1.7nm,0.3s,mb4.5						
TLY	Talaya	51.91	49	eP	P	00 14 57.8	+0.5
TLY				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.5						
TLY	Talaya	51.91	49	eP	P	00 14 57.8	+0.5
	comp=Z,1.7nm,0.3s,mb4.5						
ZAK	Zakamensk	52.89	50	eP	P	00 15 06.3	+1.7
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.7						
TKL	Tuckaleechee C	54.21	279	P	P	00 15 13.8	-0.6
	comp=Z,2.0nm,0.7s,mb4.1,baz=58,slow=5.1,SNR=3.6						
SONM	Songino Array	56.13	49	P	P	00 15 29.6	+1.5
	comp=Z,0.8nm,0.7s,mb3.9,baz=319,slow=8.5,SNR=10						
ULN	Ulaanbaatar	56.33	49	eP	P	00 15 31.6	+2.0
	comp=Z,1.1nm,0.8s,mb3.9						
ULN	Ulaanbaatar	56.33	49	eP	P	00 15 31.6	+2.1
ULN				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.9						
ULN	Ulaanbaatar	56.33	49	eP	P	00 15 31.5	+2.0
	comp=Z,1.1nm,0.8s,mb3.9						
NEW	Newport	56.60	313	eP	P	00 15 31.4	-0.1
	comp=Z,1.5nm,0.6s,mb4.2						
NEW	Newport	56.60	313	eP	P	00 15 31.4	-0.1
NEW				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NEW	Newport	56.60	313	eP	P	00 15 31.4	-0.1
	comp=Z,1.5nm,0.6s,mb4.2						
PDAR	Pinedale Array	58.74	304	P	P	00 15 46.6	+0.1
	comp=Z,1.0nm,0.6s,mb4.0,baz=63,slow=6.8,SNR=9.4						
WMOK	Wichita Mounta	61.42	291	eP	P	00 16 05.9	+0.8
	comp=Z,1.4nm,0.6s,mb4.3						
WMOK	Wichita Mounta	61.42	291	eP	P	00 16 05.9	+0.8
WMOK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.1						
WMOK	Wichita Mounta	61.42	291	eP	P	00 16 05.9	+0.8
	comp=Z,1.4nm,0.6s,mb4.3						
JCT	Junction City	65.54	289	eP	P	00 16 33.6	+1.2
	comp=Z,4.2nm,0.3s,mb5.0						
JCT	Junction City	65.54	289	eP	P	00 16 33.6	+1.2
JCT				pmax	pmax		
	comp=Z,4.0nm,0.3s,mb4.9						
JCT	Junction City	65.54	289	eP	P	00 16 33.6	+1.2
	comp=Z,4.2nm,0.3s,mb5.0						
TXAR	Lajitas Array	68.15	292	P	P	00 16 49.6	+0.6
	comp=Z,0.7nm,0.7s,mb3.8,baz=60,slow=6.0,SNR=6.2						
TEIG	Tepich	69.50	274	P	P	00 16 58.7	+1.2
	comp=Z,4.3nm,0.7s,mb4.5,baz=27,slow=4.5,SNR=4.3						
ASAR	Alice Springs	131.32	55	PKP	PKPdf	00 25 01.7	+0.8
ASAR	Alice Springs	131.32	55	PKIKP	PKPdf	00 25 01.7	+0.8
ASAR	Alice Springs	131.32	55	PKP	PKPdf	00 25 01.7	+0.8
	comp=Z,0.3nm,0.6s,baz=341,slow=2.3,SNR=3.8						
ASAR	Alice Springs	131.32	55	PKIKP	PKPdf	00 25 01.7	+0.8

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*NEIC **21** 00:08:36.2, 34.42S×70.92W, h95^{km}, MD3.7(GUC), After GUC.*

GUC 21 00:08:36.2±0.8**, 34.42S×70.92W, h95**^{km}±5^{km}**, MD3.7, ML3.0, 4C-4D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SFDO	San Fernando	0.21	202	⇓iP	Pn	00 08 49.6	-0.2
SFDO				i S	Sn	00 08 59.7	-0.2
SFDO	San Fernando	0.21	202	⇓iP	Pn	00 08 49.6	-0.2
SFDO				i S	Sn	00 08 59.7	-0.2
CICH	Cipreses	0.42	77	⇑iP	Pn	00 08 51.3	+0.4
CICH				i S	Sn	00 09 02.7	+0.9
CHCH	Chadas Angostu	0.53	25	⇓iP	Pn	00 08 52.0	+0.4
CHCH				i S	Sn	00 09 03.5	+0.3
LNV	Longovilo	0.61	318	⇑iP	Pn	00 08 52.4	+0.1
LNV				i S	Sn	00 09 04.1	-0.3
TACH	Talagante	0.76	359	⇑iP	Pn	00 08 53.9	+0.1
TACH				i S	Sn	00 09 06.9	+0.1
PCH	Pirque	0.86	23	⇑iP	Pn	00 08 55.1	+0.3
PCH				i S	Sn	00 09 09.1	+0.5
ANTU	Antumapu	0.88	16	eP	Pn	00 08 54.8	-0.1
ANTU				i S	Sn	00 09 09.4	+0.5
ANTU	Antumapu	0.88	16	eP	Pn	00 08 54.8	-0.1
ANTU				i S	Sn	00 09 09.4	+0.5
ANTU				AML	AML	00 09 10.5	
	comp=E,518nm,0.2s						
SJCH	San Jose de Ma	0.90	31	eP	Pn	00 08 54.9	-0.3
SJCH				i S	Sn	00 09 10.0	+0.6
SJCH	San Jose de Ma	0.90	31	eP	Pn	00 08 54.9	-0.3
SJCH				i S	Sn	00 09 10.0	+0.6
SJCH				AML	AML	00 09 11.7	
	comp=E,330nm,0.7s						
DSCH	Colegio Aleman	1.05	16	eP	Pn	00 08 55.9	-1.0
DSCH				i S	Sn	00 09 12.3	-0.1
CLCH	Cerro Calan	1.06	17	eP	Pn	00 08 58.1	+1.1
CLCH				i S	Sn	00 09 14.0	+1.4
CLCH	Cerro Calan	1.06	17	eP	Pn	00 08 58.1	+1.1
CLCH				i S	Sn	00 09 14.0	+1.4
CLCH				AML	AML	00 09 17.9	
	comp=N,438nm,0.4s						
FCH	Farellones	1.20	26	⇓iP	Pn	00 08 59.3	+0.7
FCH				i S	Sn	00 09 17.0	+1.6
FCH				AML	AML	00 09 17.6	
	comp=N,631nm,0.5s						

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*NEIC **21** 00:23:23.0, 45.33S×73.02W, h8^{km}, mb4.7/4, ML4.8(GUC), After GUC.*

*IDC **21** 00:23:23.9±1.6, 45.34S×72.36W, h0^{km}, mb4.3/4, mb1 4.5/4, mb1mx4.3/13, mbtmp4.3/4, MS4.3/7, Ms1 4.3/7, ms1mx4.2/13, Error ellipse: s-maj=64.9km s-min=33.2km az=57.0*

*GUC **21** 00:23:23.0±0.3, 45.33S×73.02W, h8^{km}, ML4.8*

*ISCJB **21** 00:23:27.5±2.3, 45.1S±0.1×72.0W±0.3, h26^{km}±21^{km}, mb4.4/8, MS4.4/7, Error ellipse: s-maj=34.4km s-min=17.1km az=146.0*

ISC 21 00:23:30.5±1.2**, 45.2S**±0.2×**72.1W**±0.3**, h41**^{km}±17^{km}**, n33, σ0^{s}85**/19**, mb4.4**/8**, MS4.4**/7**, Southern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COYC	Coyhaique	0.34	180	i P	Pn	00 23 36.0	-3.3
COYC				i S	Sn	00 23 46.0	+0.5
HOPE	Hope Point	24.48	125	P	P	00 28 44.7	-0.7
ARE	Arequipa	28.69	1	eP	P	00 29 23.0	-0.5
LPAZ	La Paz	29.05	8	P	P	00 29 27.5	+0.8
LPAZ	La Paz	29.05	8	P	P	00 29 27.5	+0.8
	2.6nm,0.6s,mb4.2,baz=161,slow=9.6,SNR=13						
NNA	Nana	33.38	352	eP	P	00 30 06.2	+1.3
	2.9nm,0.4s,mb4.6						
OTAV	Otavalo	45.63	351	eP	P	00 31 47.2	+0.4
	22nm,1.5s,mb4.9						
PAYG	Puerto Ayora	47.20	335	P	P	00 31 58.7	-0.4
RCBR	Riachuelo	50.29	50	P	P	00 32 22.2	-0.7
RKT	Rikitea	55.06	271	eLR	LR	00 48 41.7	
	454nm,27.5s						
JTS	JuntasAbangare	56.47	345	eP	P	00 33 08.2	0.0
	5.9nm,0.6s,mb4.8						
MAW	Mawson	62.47	162	LR	LR	01 00 57.7	
	comp=Z,551nm,18.3s,MS4.8,baz=224,slow=36						
SJG	San Juan	63.27	6	P	P	00 33 54.1	-0.7
TAOE	Nuku Hiva Isla	68.35	279	eS	S	00 43 17.1	-8.9
	489nm,27.9s						
TAOE				eLR	LR	00 54 52.4	
	496nm,23.3s						
PPT	Papeete	69.01	266	eLR	LR	00 55 08.6	
	177nm,24.2s						
PPT	Papeete	69.01	266	LR	LR	00 57 59.5	
	comp=Z,22nm,19.0s,MS3.4,baz=102,slow=30						
BOSA	Boshof	75.06	116	P	P	00 35 09.6	+1.7
	3.9nm,0.9s,mb4.3,baz=149,slow=5.9,SNR=3.9						
BOSA				LR	LR	01 02 07.6	
	comp=Z,285nm,20.1s,MS4.6,baz=223,slow=31						
TXAR	Lajitas Array	79.59	332	P	P	00 35 33.5	+0.5
TXAR				LR	LR	01 04 10.5	
TXAR	Lajitas Array	79.59	332	P	P	00 35 33.5	+0.5
	1.6nm,0.9s,mb3.9,baz=147,slow=7.1,SNR=7.6						
TXAR				LR	LR	01 04 10.5	
	comp=Z,286nm,21.3s,MS4.6,baz=180,slow=31						
WMOK	Wichita Mounta	83.19	338	eP	P	00 35 50.9	-1.0
	3.5nm,0.9s,mb4.4						
ACSO	Alum Creek Sta	85.64	352	P	P	00 36 04.5	+0.3
SDCO	Great Sand Dun	87.93	334	P	P	00 36 14.8	-0.5
TORD	Torodi Ar. Bea	88.14	69	P	P	00 36 17.0	0.0
	1.0nm,0.9s,mb4.1,baz=230,slow=4.6,SNR=9.6						
TORD				LR	LR	01 15 18.5	
	comp=Z,133nm,18.4s,MS4.4,baz=205,slow=35						
PDAR	Pinedale Array	93.77	333	LR	LR	01 13 56.7	
	comp=Z,234nm,18.5s,MS4.7,baz=355,slow=32						
STKA	Stephens Creek	97.38	208	LR	LR	01 17 09.2	
	comp=Z,142nm,19.0s,MS4.5,baz=205,slow=33						
BRTR	Keskin Array B	126.73	68	PKP	PKPdf	00 42 28.4	-0.5
BRTR	Keskin Array B	126.73	68	PKP	PKPdf	00 42 28.4	-0.5
	0.6nm,0.8s,baz=210,slow=3.9,SNR=3.9						
AKTK	Aktyubinsk	146.62	63	PKPbc	PKPbc	00 43 06.2	-0.6
AKTO	Aktyubinsk	146.62	63	PKPbc	PKPbc	00 43 06.2	-0.6
	3.3nm,0.8s,baz=267,slow=4.2,SNR=8.6						
MKAR	Makanchi Array	162.15	76	PKP	PKPdf	00 43 25.8	-0.8
MKAR				PKPab	PKPab	00 44 14.4	+0.7
MKAR	Makanchi Array	162.15	76	PKP	PKPdf	00 43 25.8	-0.8
	0.2nm,0.2s,baz=42,slow=4.5,SNR=2.9						
MKAR				PKPab	PKPab	00 44 14.4	+0.7
	0.2nm,0.2s,baz=286,slow=2.7,SNR=5.1						
ZALV	Zalesovo Beam	162.73	51	PKP	PKPdf	00 43 25.2	-1.7
ZALV				PKPab	PKPab	00 44 16.9	+0.9
ZALV	Zalesovo Beam	162.73	51	PKP	PKPdf	00 43 25.2	-1.7
	0.2nm,0.3s,baz=345,slow=3.4,SNR=2.7						
ZALV				PKPab	PKPab	00 44 16.9	+0.9
	0.5nm,0.6s,baz=296,slow=4.6,SNR=2.8						

IDC 21 00:25:54.5±3.8**, 49.39S×124.73E, h0**^{km}**, mb3.8**/2**, mb1 4.0**/2**, mb1mx3.7**/11**, mbtmp3.9**/2**, MS3.3**/2**, Ms1 3.3**/2**, ms1mx3.1**/14**, Error ellipse: s-maj=136.1km s-min=69.6km az=116.0, Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWAO	Narrogin (SRO)	17.37	338	LR	LR	00 34 34.3	
	comp=Z,77nm,18.6s,baz=169,slow=30						
STKA	Stephens Creek	21.59	42	P	P	00 30 45.7	0.0
	4.0nm,0.8s,baz=206,slow=10,SNR=7.5						
STKA				LR	LR	00 37 11.3	
	comp=Z,118nm,21.4s,baz=25,slow=31						
ASAR	Alice Springs	26.66	19	P	P	00 31 35.1	+0.2
	0.9nm,0.6s,baz=193,slow=9.1,SNR=9.0						
YKA	Yellowknife Ar	145.60	45	PKPbc	PKPbc	00 45 32.8	-0.8
	0.2nm,0.6s,baz=264,slow=3.4,SNR=6.7						

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*IDC **21** 00:33:19.9±0.9, 31.34N×77.73E, h0^{km}, mb3.9/12, mb1 4.1/13, mb1mx3.9/25, mbtmp4.0/13, ML4.1/1, Error ellipse: s-maj=25.5km s-min=18.6km az=48.0*

*ISCJB **21** 00:33:23.1±0.5, 31.38N±0.02×77.72E±0.03, h30^{km}±4^{km}, mb3.9/19, Error ellipse: s-maj=4.5km s-min=3.5km az=140.6*

*MOS **21** 00:33:23.6±0.8, 31.38N×77.78E, h33^{km}, mb4.3/5, Error ellipse: s-maj=13.6km s-min=7.5km az=96.2*

*NDI **21** 00:33:24.3±4.4, 31.38N×77.77E, h33^{km}, ML4.0, mb4.1(NEIC)*

*NEIC **21** 00:33:25.9±0.8, 31.37N×77.75E, h37^{km}±8^{km}, mb4.1/5, Error ellipse: s-maj=8.5km s-min=6.6km az=225.0*

*BJI **21** 00:33:28.2, 31.77N×78.00E, h34^{km}, mb4.3, ML3.9*

*NNC **21** 00:33:40.5±15.0, 32.60N×77.73E, h59^{km}±110^{km}, mb3.8, Error ellipse: s-maj=119.1km s-min=81.2km az=1.0*

ISC 21 00:33:24.5±0.6**, 31.36N**±0.02×**77.73E**±0.03**, h25**^{km}±5^{km}**, n84, σ1^{s}14**/107**, mb3.9**/19**, 6C-2D, Northern India**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KLP	Kalpa	0.47	68	eP	Pb	00 33 33.0	-1.3
KLP				eS	Sb	00 33 40.6	-0.4
KLP				AML	AML	00 33 41.3	
	comp=E,14µm,0.2s						
KLP				AML	AML	00 33 41.4	
	comp=N,6µm,0.1s						
SMLA	Simla	0.54	245	eP	Pb	00 33 35.7	+0.3
SMLA				ex	x	00 33 38.2	
SDNR	Sundarnagar	0.67	283	eP	Pb	00 33 35.6	-2.0
SDNR				ex	Sb	00 33 42.6	-3.9
DDI	Dehra Dun	1.07	165	eP	Pn	00 33 43.7	-0.1
DDI				eS	Sb	00 33 57.5	-0.3
JOSI	Joshimath	1.76	116	ex	Pn	00 33 56.1	+2.7
JOSI				eS	Sn	00 34 15.6	+0.7
JOSI				AML	AML	00 34 23.1	
	comp=N,5µm,0.6s						
JOSI				AML	AML	00 34 24.4	
	comp=E,4µm,0.6s						
DLH	Dalhousie	1.91	309	eP	Pn	00 33 57.0	+1.5
DLH				ex	Sn	00 34 23.0	+4.3
THN	Thein Dam	2.02	303	eP	Pn	00 33 58.4	+1.4
THN				ex	Sn	00 34 27.1	+5.6
LGTI	Lohaghat	2.88	131	eP	Pn	00 34 08.5	-0.3
LGTI				ex	Sn	00 34 48.5	+5.8
SONA	Sohna	3.15	191	eP	Pn	00 34 13.4	+0.9
SONA				eS	Sn	00 34 47.5	-1.6
SONA				AML	AML	00 35 06.1	
	comp=N,154nm,0.4s						
KHET	Khetri	3.67	208	eP	Pn	00 34 18.7	-1.0
KHET				ex	Sn	00 35 12.0	+10
CHCP	Chirah Chowk	4.42	302	⇑P	Pn	00 34 32.1	+2.1
CHCP				S	Sn	00 35 40.0	+19
THW	Thamme Wali	5.28	287	P	Pn	00 34 42.6	+0.8
CEP	Cherat	5.50	298	P	Pn	00 34 46.2	+1.4
CEP				S	Sn	00 36 08.0	+21
AJM	Ajmer	5.56	210	eP	Pn	00 34 45.0	-0.6
AJM				ex	x	00 35 49.7	
SBDP	Sheikh Budin	5.97	281	P	Pn	00 34 50.7	-0.6
DRP	Derazinda	6.44	275	⇑P	Pn	00 34 58.3	+0.6
GKN	Gorkha	6.87	117	eP	Pn	00 35 04.9	+1.2
	comp=N,46nm,0.3s						
KKN	Kakani	7.47	116	eP	Pn	00 35 12.6	+0.7
	comp=N,38nm,0.2s						
GUN	Gumba	7.88	114	eP	Pn	00 35 18.3	+0.9
	comp=N,827nm,0.8s						
KBL	Kabul	7.96	296	ePn	Pn	00 35 19.3	+0.6
KBL				eSn	Sn	00 36 47.9	0.0
BHPL	Bhopal	8.09	182	eP	Pn	00 35 19.6	-0.7
BHPL				ex	Sn	00 36 44.9	-6.1
JIRN	Jiri	8.24	114	eP	Pn	00 35 23.4	+1.0
	comp=N,70nm,0.3s						
KSH	Kashi	8.27	350	eP	Pn	00 35 25.1	+2.3
KSH				eS	Sn	00 36 53.6	-1.7
KSH				Smax			
	comp=N,116nm,1.0s						
KSH				Smax			
	comp=E,80nm,0.6s						
ODAN	Odare	9.56	116	eP	Pn	00 35 40.6	+0.1
TAPN	Taplejung	9.57	112	eP	Pn	00 35 40.5	-0.2
	comp=E,65nm,0.5s						
BLSP	Bilaspur	9.99	156	eP	Pn	00 35 51.4	+4.9
BLSP				eS	Sn	00 37 31.7	-6.1
UCH	Uchtor	11.15	348	ePn	Pn	00 36 03.5	+1.2
	comp=E,4.1nm,0.6s						
UCH				eSn	Sn	00 38 05.7	-0.4
AML	Almayashu	11.23	344	ePn	Pn	00 36 03.6	+0.2
	comp=E,5.5nm,0.6s						
AML				eSn	Sn	00 38 03.6	-4.3
AAK	Ala-Archa	11.55	348	ePn	Pn	00 36 08.5	+0.8
	comp=E,2.1nm,0.6s						
AAK	Ala-Archa	11.55	348	eP	Pn	00 36 08.5	+0.8
AAK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
LSA	Lhasa	11.69	95	ePn	Pn	00 36 10.4	+0.7
	comp=Z,2.4nm,0.6s						
LSA				eSn	Sn	00 38 17.8	-1.5
LSA	Lhasa	11.69	95	eP	Pn	00 36 10.4	+0.8
LSA				e		00 38 17.8	
LSA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
EKS2	Erkin-Say	11.72	345	ePn	Pn	00 36 11.8	+1.8
	comp=Z,2.2nm,0.6s						
EKS2				eSn	Sn	00 38 18.6	-1.3
KK31	Karatay Array	13.05	336	⇑P	Pn	00 36 26.9	-1.4
	comp=Z,4.8nm,0.5s,baz=144,slow=12,SNR=108						
KK31				⇓S	Sn	00 38 40.1	-13
	comp=Z,2.7nm,0.5s,baz=147,slow=22						
POO	Poona	13.24	196	eP	Pn	00 36 28.0	-3.0
POO				i x	Sn	00 38 56.0	-1.5
HYB	Hyderabad	13.90	177	eP	Pn	00 36 40.0	+0.1
HYB	Hyderabad	13.90	177	i P	Pn	00 36 40.0	+0.1
HYB				eS	Sn	00 39 16.0	+2.6
KAD	Karad	14.35	194	ex	Sn	00 39 21.5	-3.1
MK31	Makanchi Array	15.81	12	⇑P	Pn	00 37 05.5	+0.2
	comp=Z,5.9nm,0.8s,baz=192,slow=12,SNR=7.1						
MK31	Makanchi Array	15.81	12	ePn	Pn	00 37 05.1	-0.2
MK31	Makanchi Array	15.81	12	eP	Pn	00 37 05.1	-0.2
MKAR	Makanchi Array	15.81	12	Pn	Pn	00 37 03.2	-2.1
MKAR				Sn	Sn	00 39 51.5	-8.3
MKAR	Makanchi Array	15.81	12	Pn	Pn	00 37 03.2	-2.1
	comp=Z,0.8nm,0.3s,baz=196,slow=12,SNR=50						
MKAR				Sn	Sn	00 39 51.5	-8.3
	comp=Z,0.2nm,0.3s,baz=194,slow=20,SNR=5.3						
KURK	Kurchatov	19.35	2	⇓P	Pn	00 37 46.8	-2.3
	comp=Z,3.8nm,0.8s						
KURK	Kurchatov	19.35	2	eP	Pn	00 37 46.9	-2.2
	comp=Z,7.3nm,0.6s						
KURK	Kurchatov	19.35	2	eP	Pn	00 37 46.9	-2.3
KURK				pmax	pmax		
	comp=Z,7.0nm,0.6s						
GTA	Gaotai	19.68	60	eP	Pn	00 37 52.8	-0.4
GTA				AP	pP	00 37 56.3	-2.3
GTA				AMB	AMB		
	comp=Z,5.0nm,1.2s						
LZH	Lanzhou	22.20	71	eP	P	00 38 21.1	+2.2
LZH				AP		00 38 25.6	
LZH				AMB	AMB		
	comp=Z,18nm,1.4s,mb4.3						
LZH	Lanzhou	22.20	71	eP	P	00 38 21.1	+2.2
	comp=Z,18nm,1.4s,mb4.3						
LZH				pP		00 38 25.6	
LZH				sP	sP	00 38 27.1	-2.0
LZH	Lanzhou	22.20	71	eP	P	00 38 21.1	+2.2
LZH				*SP	sP	00 38 27.1	-2.0
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.3						
CD2	Chengdu	22.27	84	P	P	00 38 20.6	+0.9
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.2						
AB31	Akbulak array	22.35	328	⇑P	P	00 38 21.0	+0.6
	comp=Z,1.9nm,0.6s,mb3.7,baz=127,slow=10						
BRVK	Borovoye	22.36	348	⇑P	P	00 38 21.5	+1.1
	comp=Z,3.0nm,1.1s,mb3.6						
BRVK	Borovoye	22.36	348	eP	P	00 38 21.8	+1.4
	comp=Z,3.5nm,0.6s,mb4.0						
BRVK	Borovoye	22.36	348	eP	P	00 38 21.8	+1.4
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
ZAL	Zalesovo	23.14	11	P	P	00 38 27.2	-1.4
ZALV	Zalesovo Beam	23.15	11	P	P	00 38 27.2	-1.6
ZALV	Zalesovo Beam	23.15	11	P	P	00 38 27.2	-1.6
	comp=Z,4.7nm,0.5s,mb4.2,baz=213,slow=9.9,SNR=18						
NVS	Novosibirsk	23.80	8	eP	P	00 38 34.2	-0.9
NVS				pmax	pmax		
	comp=N,3.0nm,0.5s						
NVS				pmax	pmax		
	comp=E,2.0nm,0.5s						
NVS				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.0						
AKTK	Aktyubinsk	24.06	328	P	P	00 38 37.6	0.0
AKTO	Aktyubinsk	24.06	328	P	P	00 38 37.6	0.0
	comp=Z,4.3nm,0.5s,mb4.1,baz=131,slow=9.3,SNR=24						
SONM	Songino Array	27.33	45	P	P	00 39 06.5	-0.7
	comp=Z,1.4nm,0.9s,mb3.5,baz=240,slow=10,SNR=10						
ULN	Ulaanbaatar	27.74	45	eP	P	00 39 11.8	+0.9
	comp=Z,0.7nm,0.5s,mb3.5						
ULN	Ulaanbaatar	27.74	45	eP	P	00 39 11.8	+0.9
ULN				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.7						
KIV	Kislovodsk	30.24	305	eP	P	00 39 34.1	+1.0
	comp=Z,7.1nm,1.1s,mb4.3						
KIV	Kislovodsk	30.24	305	eP	P	00 39 34.1	+1.0
KIV				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.3						
MALT	Malatya	32.82	293	P	P	00 39 56.7	+0.8
HIA	Hailar	36.13	48	P	P	00 40 24.9	+0.5
OBN	Obninsk	37.46	322	P	P	00 40 36.7	+1.1
FINES	FINESS Array B	44.84	328	P	P	00 41 35.7	-0.5
FINES	FINESS Array B	44.84	328	P	P	00 41 35.7	-0.5
	comp=Z,0.9nm,0.6s,mb3.8,baz=108,slow=12,SNR=6.1						
YAK	Yakutsk	45.15	32	P	P	00 41 37.5	-1.2
KEV	Kevo	47.63	339	eP	P	00 41 58.5	+0.5
ARCES	ARCESS Array B	48.01	338	P	P	00 42 01.1	+0.1
	comp=Z,1.2nm,0.4s,mb4.2,baz=107,slow=8.2,SNR=15						
MAJO	Matsushiro	49.72	67	eP	P	00 42 13.9	-0.7
GERES	GERESS Array B	50.49	310	P	P	00 42 19.7	-0.6
	comp=Z,0.4nm,0.6s,mb3.6,baz=110,slow=3.1,SNR=4.7						
HFS	Hagfors	50.53	324	P	P	00 42 19.8	-0.5
	comp=Z,2.2nm,0.6s,mb4.3,baz=101,slow=7.7,SNR=9.3						
NOA	NORSAR Array B	51.81	325	P	P	00 42 29.7	-0.3
	comp=Z,0.5nm,0.6s,mb3.6,baz=114,slow=6.3,SNR=2.5						
WLF	Walferdange	55.30	311	P	P	00 42 56.2	+0.4
TORD	Torodi Ar. Bea	71.45	274	P	P	00 44 41.8	-1.4
	comp=Z,0.4nm,0.5s,mb3.6,baz=50,slow=5.1,SNR=10						
NWAO	Narrogin (SRO)	74.03	146	P	P	00 44 58.5	+0.4
WRA	Warramunga Arr	74.49	125	P	P	00 45 00.8	-0.2
	comp=Z,0.5nm,0.4s,mb3.8,baz=323,slow=6.4,SNR=5.3						
ASAR	Alice Springs	76.70	128	P	P	00 45 13.6	0.0
	comp=Z,0.4nm,0.4s,mb3.7,baz=311,slow=6.4,SNR=4.5						
YKA	Yellowknife Ar	85.95	6	P	P	00 46 00.9	-1.2
	comp=Z,0.3nm,0.6s,mb3.7,baz=344,slow=5.0,SNR=7.7						

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*NEIC **21** 00:52:41.7, 18.57N×63.94W, h15^{km}, MD3.5(RSPR), After RSPR.*

RSPR 21 00:52:41.7, 18.57N×63.94W, h15^{km}±31^{km}**, MD3.5**/6**, MD3.5**/6**, 12C, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBVI	Tortola	0.66	257	⇑eP	Pg	00 52 51.9	-2.8
TBVI				eS	Sg	00 53 00.8	-2.7
STVI	Saint Thomas	0.99	258	⇑eP	Pb	00 52 56.8	-3.7
STVI				eS	Sb	00 53 10.1	-3.2
MTP	Monte Pirata	1.60	253	⇑eP	Pn	00 53 06.0	-3.4
MTP				eS	Sn	00 53 26.5	-3.4
CBYP	Canovanas	1.85	261	⇑eP	Pn	00 53 09.6	-3.1
CBYP				eS	Sn	00 53 32.5	-3.3
HUMP	Col San Antoni	1.87	257	⇑eP	Pn	00 53 10.4	-2.7
HUMP				eS	Sn	00 53 33.0	-3.3
CPD	Cerro la Pandu	1.95	255	⇑eP	Pn	00 53 12.1	-2.2
CPD				eS	Sn	00 53 34.7	-3.7
SJG	San Juan	2.15	258	⇑eP	Pn	00 53 14.6	-2.3
SJG				eS	Sn	00 53 39.9	-3.5
SJG	San Juan	2.15	258	⇑eP	Pn	00 53 14.6	-2.3
SJG				eS	Sn	00 53 40.0	-3.4
CELP	Cerrillos	2.56	259	⇑eP	Pn	00 53 20.1	-2.5
CELP				eS	Sn	00 53 50.1	-3.3
AOPR	Arecibo Observ	2.68	266	⇑eP	Pn	00 53 22.0	-2.3
AOPR				eS	Sn	00 53 53.2	-3.4
LRS	Lares	2.77	265	⇑eP	Pn	00 53 23.3	-2.2
LRS				eS	Sn	00 53 55.4	-3.4
LSP	Las Mesas	3.02	263	⇑eP	Pn	00 53 27.4	-1.5
LSP				eS	Sn	00 54 00.9	-3.9

IDC 21 00:54:51.2±1.2**, 0.90S×127.77E, h0**^{km}**, mb3.8**/4**, mb1 3.9**/6**, mb1mx3.7**/17**, mbtmp3.7**/6**, ML3.7**/2**, Error ellipse: s-maj=94.9km s-min=18.4km az=71.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.22	187	P	Pn	00 58 53.9	+0.6
	0.1nm,0.3s,baz=38,slow=19,SNR=3.0						

WRA	Warramunga Arr	19.99	162	P	Pn	00 59 24.9	-2.2
	0.4nm,0.3s,baz=342,slow=12,SNR=4.1						
ASAR	Alice Springs	23.40	166	P	P	01 00 00.8	-1.2
	1.8nm,0.7s,baz=346,slow=12,SNR=13						
STKA	Stephens Creek	33.47	158	P	P	01 01 33.8	+1.6
	1.2nm,0.6s,baz=4.8,slow=10.0,SNR=3.8						
SONM	Songino Array	51.99	342	P	P	01 04 03.1	+0.9
	0.4nm,0.7s,baz=162,slow=6.1,SNR=2.8						
MKAR	Makanchi Array	61.94	326	P	P	01 05 12.2	-0.6
	1.0nm,0.4s,baz=116,slow=8.0,SNR=44						

ISCJB ***21*** *01:02:59.6±0.7, 60.03N±0.07×153.5W±0.1, h175^{km}±7^{km}, mb3.4/2, Error ellipse: s-maj=12.0km s-min=10.5km az=36.8*

IDC ***21*** *01:03:01.5±2.5, 57.89N×153.22W, h296^{km}±19^{km}, mb2.9/2, mb1 2.8/3, mb1mx2.6/22, mbtmp2.7/3, Error ellipse: s-maj=108.8km s-min=23.6km az=175.0*

NEIC ***21*** *01:03:01.7, 60.09N×153.56W, h172^{km}, MG2.8(AEIC), After AEIC.*

ISC 21 01:03:00.8±0.7**, 60.05N**±0.07×**153.5W**±0.1**, h168**^{km}±7^{km}**, n16, σ0^{s}90**/20**, mb3.4**/2**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AUL	Augustine Lava	0.67	179	P	Pn	01 03 26.4	+1.3
AUL				S	Sn	01 03 44.6	+1.1
SVW2	Sparrevohn	1.48	316	P	Pn	01 03 31.4	-0.1
SLKM	Skilak Lake	1.68	73	P	Pn	01 03 34.4	+0.8
SEW	Seward	2.01	87	P	Pn	01 03 38.2	+1.1
SEW				S	Sn	01 04 04.2	-1.0
RC01	Rabbit Creek A	2.12	59	P	Pn	01 03 38.3	0.0
KDAK	Kodiak Island	2.32	168	P	Pn	01 03 40.2	-0.5
KDAK				S	Sn	01 04 10.1	-1.3
KDAK	Kodiak Island	2.32	168	P	Pn	01 03 39.4	-1.2
	2.8nm,0.3s,baz=358,slow=12,SNR=29						
KDAK				S	Sn	01 04 10.4	-1.0
	4.2nm,0.3s,baz=22,slow=11,SNR=5.1						
PMR	Palmer	2.63	52	*e*P	Pn	01 03 43.1	-1.2
GHO	Glory Hole Cre	2.81	50	P	Pn	01 03 45.9	-0.6
TT01	Tatalina	3.12	338	P	Pn	01 03 49.9	-0.4
BMRM	Bremner River	4.48	74	P	Pn	01 04 08.1	+0.5
IL1	Eielson Array	5.64	30	P	Pn	01 04 22.3	-0.5
YKA	Yellowknife Ar	18.64	66	P	P	01 07 07.1	+1.7
YKA	Yellowknife Ar	18.64	66	P	P	01 07 07.1	+1.7
	0.1nm,0.3s,baz=275,slow=9.7,SNR=10						
ZALV	Zalesovo Beam	57.20	323	P	P	01 12 30.1	+0.5
	0.6nm,0.5s,mb3.7,baz=26,slow=6.8,SNR=4.7						
MKAR	Makanchi Array	64.25	321	P	P	01 13 16.5	-0.9
	0.1nm,0.3s,mb3.1,baz=46,slow=7.2,SNR=5.7						

IDC ***21*** *01:36:40.8±2.8, 21.91S×175.30W, h0^{km}, mb4.3/3, mb1 4.5/3, mb1mx3.9/15, mbtmp4.3/3, MS3.0/1, Ms1 3.0/1, ms1mx2.1/21, Error ellipse: s-maj=169.0km s-min=33.5km az=154.0*

NEIC 21 01:36:44.9±2.0**, 22.23S**×**175.15W, h35**^{km}**, mb4.2**/1**, Error ellipse: s-maj=109.0km s-min=24.5km az=153.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	36.00	266	P	P	01 43 43.6	+0.9
CTA				LR	LR	01 54 15.7	
CTA	Charters Tower	36.00	266	P	P	01 43 43.6	+0.9
	8.4nm,1.1s,baz=98,slow=15,SNR=3.7						
CTA				LR	LR	01 54 15.7	
	comp=Z,24nm,20.6s,baz=54,slow=29						
CTAO	Charters Tower	36.00	266	*e*P	P	01 43 41.9	-0.8
	1.2nm,0.4s						
STKA	Stephens Creek	39.49	246	P	P	01 44 11.2	-0.9
ASAR	Alice Springs	46.74	258	P	P	01 45 12.6	+1.7
	3.1nm,0.7s,baz=98,slow=7.6,SNR=35						
ASAR				PcP	PcP	01 46 44.8	+0.8
	0.7nm,0.5s,baz=106,slow=3.8,SNR=8.0						
WRA	Warramunga Arr	47.02	263	P	P	01 45 12.8	-0.3
	1.4nm,0.4s,baz=98,slow=8.2,SNR=6.5						
MKAR	Makanchi Array	114.31	313	PKP	PKiKP	01 55 21.0	+0.3
MKAR	Makanchi Array	114.31	313	PKP	PKiKP	01 55 21.0	+0.3
	0.3nm,0.6s,baz=90,slow=1.1,SNR=5.0						
AKASG	Malin Array Be	145.79	332	PKPbc	PKPbc	01 56 19.0	-1.1
AKASG	Malin Array Be	145.79	332	PKPbc	PKPbc	01 56 19.0	-1.1
	3.0nm,0.4s,baz=42,slow=4.6,SNR=15						
EKA	Eskdalemuir Ar	146.40	8	PKPbc	PKPbc	01 56 26.3	+4.6
EKA	Eskdalemuir Ar	146.40	8	PKPbc	PKPbc	01 56 26.3	+4.6
	1.3nm,0.8s,baz=310,slow=3.9,SNR=4.1						
BRTR	Keskin Array B	149.96	312	PKPbc	PKPbc	01 56 31.4	-0.3
BRTR	Keskin Array B	149.96	312	PKPbc	PKPbc	01 56 31.4	-0.2
	0.9nm,0.4s,baz=136,slow=3.6,SNR=9.3						
CLL	Collm	150.29	350	*i* P	PKPbc	01 56 34.6	+2.5
CLL	Collm	150.29	350	*i* PKPbc	PKPbc	01 56 34.6	+2.5
	comp=Z,7.0nm,0.9s						
BRG	Berggiesshubel	150.54	348	*e*P	PKPab	01 56 40.4	+1.1
	comp=Z,7.2nm,1.0s						
MMAI	Mount Meron Ar	150.97	298	PKPbc	PKPbc	01 56 35.4	+1.0
	comp=Z,2.2nm,0.4s,baz=74,slow=7.0,SNR=17						
GERES	GERESS Array B	152.52	347	PKPbc	PKPbc	01 56 38.7	+1.3
GERES	GERESS Array B	152.52	347	PKPbc	PKPbc	01 56 38.7	+1.4
	comp=Z,0.7nm,0.6s,baz=38,slow=2.4,SNR=7.4						

TIR ***21*** *01:40:58.1±2.2, 40.49N×22.43E, h0^{km}±329^{km}, ML3.0*

IDC ***21*** *01:40:59.8±0.9, 40.45N×22.26E, h0^{km}, mb3.6/11, mb1 3.8/16, mb1mx3.7/25, mbtmp3.7/16, ML3.7/5, Error ellipse: s-maj=15.5km s-min=13.5km az=109.0*

SOF ***21*** *01:41:00.6, 40.48N×22.57E, h4^{km}, MD3.4*

MOS ***21*** *01:41:00.8±0.9, 40.52N×22.35E, h15^{km}, mb4.0/1, Error ellipse: s-maj=4.5km s-min=3.2km az=89.9*

NEIC ***21*** *01:41:00.3, 40.54N×22.36E, h15^{km}, MD3.4(SOF), ML4.1(THE), ML3.8(ATH), ML3.5(PDG), After ATH.*

ISCJB ***21*** *01:41:00.0±0.3, 40.51N±0.01×22.36E±0.02, h6^{km}±2^{km}, mb3.5/10, Error ellipse: s-maj=2.2km s-min=2.1km az=44.5*

CSEM ***21*** *01:41:00.8±0.1, 40.55N×22.34E, h8^{km}, ML4.1, Error ellipse: s-maj=1.3km s-min=1.2km az=6.0*

ATH ***21*** *01:41:00.3, 40.54N×22.35E, h15^{km}±2^{km}, MD3.9/12, ML3.8*

THE ***21*** *01:41:00.9, 40.51N×22.38E, h3^{km}, ML4.1*

PDG ***21*** *01:41:01.1±0.7, 40.52N×22.37E, h9^{km}±1^{km}, ML3.5/10, Error ellipse: s-maj=0.9km s-min=0.9km az=0.0*

ISC 21 01:41:00.8±0.3**, 40.49N**±0.01×**22.38E**±0.02**, h2**^{km}±2^{km}**, n293, σ1^{s}13**/383**, mb3.5**/10**, 50C-12D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LIT	Litokhoron	0.39	167	*e*Pg	Pg	01 41 08.2	-0.2
LIT				*e*Sg	Sg	01 41 15.4	+2.0
LIT	Litokhoron	0.39	167	*e*Pg	Pg	01 41 08.2	-0.1
LIT				*e*Sg	Sg	01 41 15.4	+2.0
GRG	Griva	0.47	2	*e*Pg	Pg	01 41 09.8	-0.1
GRG				*e*Sg	Sg	01 41 16.5	+0.6
GRG	Griva	0.47	2	*e*Pg	Pg	01 41 09.8	0.0
GRG				*e*Sg	Sg	01 41 16.5	+0.5
THE	Thessaloniki	0.47	72	*e*Pg	Pg	01 41 10.6	+0.8
THE				*e*Sg	Sg	01 41 16.9	+0.9
THE	Thessaloniki	0.47	72	*e*Pg	Pg	01 41 10.6	+0.8
THE				*e*Sg	Sg	01 41 16.9	+1.0
KZN	Kozani	0.50	249	*e*Pn	Pg	01 41 09.9	-0.4
KZN				*e*Sn	Sg	01 41 17.8	+1.1
KZN	Kozani	0.50	249	*e*PN	Pg	01 41 09.9	-0.4
KZN				*e*SN	Sg	01 41 17.8	+1.1
KZN	Kozani	0.50	249	*e*Pn	Pg	01 41 09.9	-0.4
KZN				*e*Sn	Sg	01 41 17.8	+1.1
HORT	Hortiatis	0.56	78	P	Pg	01 41 11.5	0.0
HORT				S	Sg	01 41 20.6	+1.8
HORT	Hortiatis	0.56	78	*e*Pg	Pg	01 41 11.5	0.0
HORT				*e*Sg	Sg	01 41 20.6	+1.8
HORT	Hortiatis	0.56	78	*e*Pg	Pg	01 41 11.5	-0.1
HORT				*e*Sg	Sg	01 41 20.6	+1.8
KNT	Kendrikon	0.78	30	*e*Pg	Pg	01 41 15.8	0.0
KNT				*e*Sg	Sg	01 41 26.9	+0.9
KNT	Kendrikon	0.78	30	*e*Pg	Pg	01 41 15.8	0.0
KNT				S	Sg	01 41 26.9	+0.9
SOH	Sokhos	0.81	65	*e*Pg	Pg	01 41 16.1	-0.3
SOH				*e*Sg	Sg	01 41 28.3	+1.3
SOH	Sokhos	0.81	65	*e*Pg	Pg	01 41 16.1	-0.3
SOH				*e*Sg	Sg	01 41 28.3	+1.3
FNA	Florina	0.82	292	*e*Pg	Pg	01 41 15.7	-0.8
FNA				*e*Sg	Sg	01 41 27.6	+0.5
FNA	Florina	0.82	292	*e*Pg	Pg	01 41 15.7	-0.8
FNA				*e*Sg	Sg	01 41 27.6	+0.5
PLG	Polygyros	0.82	97	*e*Pn	Pn	01 41 17.4	-2.0
PLG	Polygyros	0.82	97	*e*Pg	Pg	01 41 17.2	+0.6
PLG				*e*Sg	Sg	01 41 29.2	+1.9
PLG	Polygyros	0.82	97	*e*PN	Pn	01 41 17.4	-2.0
PLG	Polygyros	0.82	97	*e*Pg	Pg	01 41 17.2	+0.6
PLG				*e*Sg	Sg	01 41 29.2	+2.0
VAY	Valandovo	0.85	10	*e*Pg	Pg	01 41 15.6	-1.5
VAY	Valandovo	0.85	10	*e*Pg	Pg	01 41 15.5	-1.5
VAY				*e*Sg	Sg	01 41 27.3	-0.7
VAY	Valandovo	0.85	10	*e*Pg	Pg	01 41 15.6	-1.4
THL	Klokotos Trika	0.96	197	*e*PB	Pb	01 41 18.8	-1.4
THL				*e*SN	Sn	01 41 34.0	-1.6
THL	Klokotos Trika	0.96	197	*e*Pb	Pb	01 41 18.8	-1.4
THL				*e*Sn	Sn	01 41 34.0	-1.6
BIA	Bitola	0.96	304	P	Pg	01 41 17.7	-1.5
BIA	Bitola	0.96	304	*e*Pg	Pg	01 41 17.7	-1.5
BIA	Bitola	0.96	304	*e*Pg	Pg	01 41 18.1	-1.2
BIA				*e*Sg	Sg	01 41 32.1	+0.4
BIA	Bitola	0.96	304	*e*Pg	Pg	01 41 17.7	-1.5
SRS	Serrai	1.12	55	*e*Pg	Pg	01 41 21.6	-0.7
SRS				*e*Sg	Sg	01 41 38.1	+1.4
SRS	Serrai	1.12	55	*e*Pg	Pg	01 41 21.6	-0.6
SRS				S	Sg	01 41 38.1	+1.4
PAIG	Paliouri	1.14	119	*e*Pg	Pg	01 41 22.1	-0.6
PAIG	Paliouri	1.14	119	*e*Pg	Pg	01 41 22.1	-0.6
STIP	Stip	1.22	353	*e*Pg	Pg	01 41 22.7	-1.4
STIP	Stip	1.22	353	*e*Pn	Pn	01 41 22.8	-2.1
STIP				*e*Sn	Sn	01 41 40.5	-1.3
STIP	Stip	1.22	353	*e*Pg	Pg	01 41 22.7	-1.4
KBN	Korca	1.22	277	*i* PN	Pn	01 41 23.6	-1.3
KBN				*i* SN	Sn	01 41 42.1	+0.1
KBN	Korca	1.22	277	*i* Pn	Pn	01 41 23.6	-1.3
KBN				*i* Sn	Sn	01 41 42.1	+0.1
KRUS	Krusevo	1.23	316	*e*Pn	Pn	01 41 23.3	-1.7
KRUS				*e*Sn	Sn	01 41 39.3	-2.9
OUR	Ouranopolis	1.23	97	*e*Pg	Pg	01 41 23.9	-0.5
OUR	Ouranopolis	1.23	97	*e*Pg	Pg	01 41 23.9	-0.5
XOR	Xorichti	1.28	150	P	Pg	01 41 25.1	-0.3
XOR	Xorichti	1.28	150	*e*Pg	Pg	01 41 25.1	-0.3
XOR	Xorichti	1.28	150	*e*Pg	Pg	01 41 25.1	-0.3
NEO	Neokhori	1.35	151	*e*Pb	Pb	01 41 25.7	-1.0
NEO	Neokhori	1.35	151	*e*PB	Pb	01 41 25.5	-1.2
NEO	Neokhori	1.35	151	*e*Pb	Pb	01 41 25.7	-1.0
OHR	Ohrid	1.35	298	*e*Pg	Pg	01 41 25.1	-1.6
OHR	Ohrid	1.35	298	*e*Pn	Pn	01 41 25.5	-1.2
OHR				*e*Sn	Sn	01 41 46.5	+1.3
OHR	Ohrid	1.35	298	*e*Pg	Pg	01 41 25.1	-1.6
LSK	Leskovik	1.40	257	*i* PN	Pn	01 41 26.5	-0.9
LSK				*i* SN	Sn	01 41 50.0	+3.6
LSK	Leskovik	1.40	257	*i* Pn	Pn	01 41 26.5	-0.9
LSK				*i* Sn	Sn	01 41 50.0	+3.6
NVR	Nevrokopi	1.42	52	*e*Pn	Pn	01 41 26.8	-0.8
NVR				*e*Sn	Sn	01 41 45.7	-1.2
NVR	Nevrokopi	1.42	52	*e*PN	Pn	01 41 26.8	-0.8
NVR				*e*SN	Sn	01 41 45.7	-1.2
NVR	Nevrokopi	1.42	52	*e*Pn	Pn	01 41 26.8	-0.8
NVR				*e*Sn	Sn	01 41 45.7	-1.2
JAN	Janina	1.44	235	*e*Pn	Pn	01 41 28.5	+0.7
JAN	Janina	1.44	235	*e*PN	Pn	01 41 28.0	+0.2
JAN	Janina	1.44	235	*e*Pn	Pn	01 41 28.5	+0.7
AGG	Agios Georgios	1.46	181	*e*Pg	Pg	01 41 27.8	-1.0
AGG				*e*Sg	Sg	01 41 49.4	+1.6
AGG	Agios Georgios	1.46	181	*e*Pg	Pg	01 41 27.8	-1.0
AGG				*e*Sg	Sg	01 41 49.4	+1.6
KKB	Krupnik	1.48	21	P	Pn	01 41 28.4	-0.1
MMB	Musomiste	1.50	42	P	Pn	01 41 27.7	-1.1
EVR	Evrytania	1.63	196	*e*Pn	Pn	01 41 31.0	+0.5
EVR	Evrytania	1.63	196	*e*PN	Pn	01 41 31.0	+0.5
EVR	Evrytania	1.63	196	*e*Pn	Pn	01 41 31.0	+0.5
SKO	Skopje	1.65	335	*e*Pg	Pg	01 41 30.8	-1.5
SKO	Skopje	1.65	335	*e*Pn	Pn	01 41 30.9	+0.1
SKO				*e*Sn	Sn	01 41 54.1	+1.7
SKO	Skopje	1.65	335	*e*Pg	Pg	01 41 30.8	-1.5
AOS	Alonnisos	1.75	138	P	Pn	01 41 31.4	-0.8
AOS	Alonnisos	1.75	138	*e*Pb	Pn	01 41 31.4	-0.8
AOS	Alonnisos	1.75	138	*e*Pb	Pb	01 41 31.4	-2.2
IGT	Igoumenitsa	1.84	239	*e*Pb	Pb	01 41 34.6	-0.5
IGT				*e*Sb	Sb	01 41 59.0	+0.5
IGT	Igoumenitsa	1.84	239	*e*Pb	Pb	01 41 34.6	-0.5
IGT				*e*Sb	Sb	01 41 59.0	+0.5
LKR	Lokris	1.90	165	*e*Pb	Pb	01 41 34.3	-1.8
LKR	Lokris	1.90	165	*e*PB	Pb	01 41 34.3	-1.8
LKR	Lokris	1.90	165	*e*Pb	Pb	01 41 34.3	-1.8
SRN	Sarande	1.92	252	*i* PN	Pn	01 41 36.6	+2.1
SRN				*i* SN	Sn	01 42 02.6	+3.4
SRN	Sarande	1.92	252	*i* Pn	Pn	01 41 36.6	+2.1
SRN				*i* Sn	Sn	01 42 02.6	+3.4
TIR	Tirane	2.09	295	*e*Pn	Pn	01 41 36.7	-0.1
TIR	Tirane	2.09	295	*i* PN	Pn	01 41 38.4	+1.6
TIR				*i* SN	Sn	01 42 07.2	+3.8
TIR	Tirane	2.09	295	*e*Pn	Pn	01 41 36.7	-0.1
TIR				*i* Sn	Sn	01 42 07.2	+3.8
KEK	Kerkira	2.12	250	*e*Pn	Pn	01 41 38.3	+1.0
KEK	Kerkira	2.12	250	*e*PN	Pn	01 41 38.3	+1.0
KEK	Kerkira	2.12	250	*e*Pn	Pn	01 41 38.3	+1.0
RZN	Rozhen	2.14	55	P	Pn	01 41 37.7	+0.2
LOS	Limnos	2.14	104	P	Pn	01 41 36.2	-1.4
LOS	Limnos	2.14	104	*e*Pn	Pn	01 41 36.2	-1.4
LOS	Limnos	2.14	104	*e*Pn	Pn	01 41 36.2	-1.4
VTS	Vitosha	2.19	16	P	Pn	01 41 37.0	-1.3
LKD	Levkas	2.22	217	P	Pn	01 41 40.5	+1.8
LKD	Levkas	2.22	217	*e*Pn	Pn	01 41 40.5	+1.8
LIA	Limnos Island	2.23	104	*e*Pn	Pn	01 41 40.9	+2.2
LIA	Limnos Island	2.23	104	*e*PN	Pn	01 41 40.4	+1.7
LIA	Limnos Island	2.23	104	*e*Pn	Pn	01 41 40.9	+2.2
BARS	Barje	2.37	350	Pn	Pn	01 41 39.9	-0.8
PLD	Plovdiv	2.38	47	*e*Pn	Pn	01 41 40.9	0.0
PLD	Plovdiv	2.38	47	*e*Pn	Pn	01 41 40.9	0.0
PLD	Plovdiv	2.38	47	*e*P	Pn	01 41 41.3	+0.4
PGB	Panagyurishte	2.46	32	P	Pn	01 41 41.6	-0.4
RDO	Rodhopi	2.49	74	*e*Pb	Pb	01 41 41.6	-4.6
RDO	Rodhopi	2.49	74	*e*PB	Pb	01 41 41.6	-4.6
LTK	Loutraki	2.50	169	*e*Pn	Pn	01 41 43.2	+0.7
LTK	Loutraki	2.50	169	*e*Pn	Pn	01 41 43.2	+0.7
RLS	Riolos of Patr	2.53	197	P	Pn	01 41 47.4	+4.6
KDZ	Kurdzhali	2.58	62	P	Pn	01 41 42.3	-1.2
KDZ				Pg	Pg	01 41 48.3	-1.8
VLS	Valsamata	2.69	212	*e*Pb	Pb	01 41 46.8	-2.9
VLS	Valsamata	2.69	212	*e*PB	Pb	01 41 46.8	-2.9
ATH	Athens Observa	2.72	157	*e*Pn	Pn	01 41 46.7	+1.2
ATH	Athens Observa	2.72	157	*e*PN	Pn	01 41 46.7	+1.2
ATH	Athens Observa	2.72	157	*e*Pn	Pn	01 41 46.7	+1.2
PVY	Plav	2.77	320	⇑*i*Pn	Pn	01 41 46.7	+0.4
PVY				*e*Sn	Sn	01 42 21.5	+1.2
PVY	Plav	2.77	320	⇑*i*Pn	Pn	01 41 46.7	+0.4
PVY				*e*Sn	Sn	01 42 21.5	+1.2
PVY	Plav	2.77	320	⇑*i*Pn	Pn	01 41 46.7	+0.4
ULC	Ulcinj	2.78	303	⇑*i*Pn	Pn	01 41 47.1	+0.7
ULC				*e*Sn	Sn	01 42 22.2	+1.7
ULC	Ulcinj	2.78	303	⇑*i*Pn	Pn	01 41 47.1	+0.7
ULC				*e*Sn	Sn	01 42 22.2	+1.7
ALN	Alexandroupoli	2.82	80	*e*Pn	Pn	01 41 46.3	-0.6
ALN	Alexandroupoli	2.82	80	*e*Pn	Pn	01 41 46.3	-0.6
DIM	Dimitrovgrad	2.85	56	P	Pn	01 41 55.3	+8.1
NAIG	Nisos Aigina	2.86	162	*e*Pn	Pn	01 41 47.0	-0.4
NAIG	Nisos Aigina	2.86	162	*e*PN	Pn	01 41 48.0	+0.6
NAIG	Nisos Aigina	2.86	162	*e*Pn	Pn	01 41 47.0	-0.4
KVR	Kavouri	2.87	157	*e*PN	Pn	01 41 48.0	+0.5
KVR	Kavouri	2.87	157	*e*Pn	Pn	01 41 48.0	+0.5
BEY	Berane	3.02	323	⇑*i*Pn	Pn	01 41 50.5	+0.8
IVA	Berane	3.02	323	⇑*i*Pn	Pn	01 41 50.5	+0.8
IVA				*e*Sn	Sn	01 42 27.0	+0.6
IVA	Berane	3.02	323	⇑*i*Pn	Pn	01 41 50.5	+0.8
IVA				*e*Sn	Sn	01 42 27.0	+0.6
IVA	Berane	3.02	323	⇑*i*Pn	Pn	01 41 50.5	+0.8
TTG	Podgorica	3.04	311	⇑*i*Pn	Pn	01 41 51.1	+1.2
TTG				*e*Sn	Sn	01 42 28.1	+1.2
TTG	Podgorica	3.04	311	⇑*i*Pn	Pn	01 41 51.1	+1.2
TTG				*e*Sn	Sn	01 42 28.1	+1.2
DID	Didima	3.05	167	*e*Pn	Pn	01 41 50.0	-0.1
DID	Didima	3.05	167	*e*Pn	Pn	01 41 50.0	0.0
BUM	Brajici-Budva	3.18	306	⇑*i*Pn	Pn	01 41 52.7	+0.8
BUM				*e*Sn	Sn	01 42 31.4	+1.0
BUM	Brajici-Budva	3.18	306	⇑*i*Pn	Pn	01 41 52.7	+0.8
BUM				*e*Sn	Sn	01 42 31.4	+1.0
BUM	Brajici-Budva	3.18	306	⇑*i*Pn	Pn	01 41 52.7	+0.8
PRK	Paraskevi	3.24	111	*e*Pn	Pn	01 41 52.1	-0.6
PRK	Paraskevi	3.24	111	*e*PN	Pn	01 41 52.9	+0.2
PRK	Paraskevi	3.24	111	*e*Pn	Pn	01 41 52.1	-0.6
LCI	Lecce	3.26	269	Pn	Pn	01 41 52.7	-0.2
LCI				Sn	Sn	01 42 36.3	+4.0
LCI	Lecce	3.26	269	Pn	Pn	01 41 52.7	-0.2
ITM	Ithomi	3.32	186	P	Pn	01 41 58.8	+5.0
SJES	Sjenica	3.32	328	Pn	Pn	01 41 53.6	-0.2
NKY	Niksic	3.44	314	⇑*i*Pn	Pn	01 41 56.4	+1.0
NKY				*e*Sn	Sn	01 42 37.3	+0.6
NKY	Niksic	3.44	314	⇑*i*Pn	Pn	01 41 56.4	+1.0
NKY				*e*Sn	Sn	01 42 37.3	+0.6
PVL	Pavlikeni	3.51	38	P	Pn	01 41 55.0	-1.4
HCY	Herceg Novi	3.51	305	⇑*i*Pn	Pn	01 41 57.2	+0.8
HCY				*e*Sn	Sn	01 42 39.8	+1.3
HCY	Herceg Novi	3.51	305	⇑*i*Pn	Pn	01 41 57.2	+0.8
HCY				*e*Sn	Sn	01 42 39.8	+1.3
CHOS	Chios island	3.54	125	*e*Pn	Pn	01 41 56.8	+0.1
CHOS	Chios island	3.54	125	*e*Pn	Pn	01 41 56.8	+0.1
PLE	Pljevlja	3.61	323	⇑*i*Pn	Pn	01 41 58.4	+0.7
PLE				*e*Sn	Sn	01 42 41.8	+0.9
PLE	Pljevlja	3.61	323	⇑*i*Pn	Pn	01 41 58.4	+0.7
PLE				*e*Sn	Sn	01 42 41.8	+0.9
GRUS	Gruza	3.62	341	Pn	Pn	01 41 56.7	-1.1
JMB	Yambol	3.73	57	P	Pn	01 41 58.7	-0.7
BRY	Bratogost	3.75	311	⇑*i*Pn	Pn	01 42 00.6	+0.9
BRY				*e*Sn	Sn	01 42 45.0	+0.6
BRY	Bratogost	3.75	311	⇑*i*Pn	Pn	01 42 00.6	+0.9
BRY				*e*Sn	Sn	01 42 45.0	+0.6
UPM	Unac-Piva	3.75	317	⇑*i*Pn	Pn	01 42 00.6	+0.9
UPM				*e*Sn	Sn	01 42 44.7	+0.3
UPM	Unac-Piva	3.75	317	⇑*i*Pn	Pn	01 42 00.6	+0.9
UPM				*e*Sn	Sn	01 42 44.7	+0.3
UPM	Unac-Piva	3.75	317	⇑*i*Pn	Pn	01 42 00.6	+0.9
SZH	Strazhica	3.84	43	P	Pn	01 42 01.6	+0.7
SVIS	Svilajnac	3.90	348	Pn	Pn	01 41 59.7	-2.1
DIVS	Divcibare	4.02	335	Pn	Pn	01 42 02.1	-1.3
BBLS	Bajina Basta -	4.04	328	Pn	Pn	01 42 04.7	+1.1
APE	Apeiranthos	4.21	143	*e*Pn	Pn	01 42 08.0	+2.0
APE	Apeiranthos	4.21	143	*e*PN	Pn	01 42 08.0	+2.0
APE	Apeiranthos	4.21	143	*e*Pn	Pn	01 42 08.0	+2.0
TIP	Timpagrande	4.52	255	*e*Pn	Pn	01 42 10.2	0.0
TIP				*e*Sn	Sn	01 43 00.2	-3.2
TIP	Timpagrande	4.52	255	*e*Pn	Pn	01 42 10.2	0.0
TIP				*e*Sn	Sn	01 43 00.2	-3.2
ORI	Oriolo Calabro	4.55	267	Pn	Pn	01 42 11.5	+0.8
ORI	Oriolo Calabro	4.55	267	Pn	Pn	01 42 11.5	+0.8
GZR	Gura Zlata	4.91	3	P	Pn	01 42 15.3	-0.3
GZR	Gura Zlata	4.91	3	⇑P	Pn	01 42 14.7	-0.9
GZR				S	Sn	01 43 12.1	-1.0
GZR	Gura Zlata	4.91	3	⇑*i*P	Pn	01 42 14.7	-0.9
GZR	Gura Zlata	4.91	3	P	Pn	01 42 15.3	-0.3
GZR				S	Sn	01 43 12.1	-1.0
FGMS	Monte Sant’Ang	5.00	286	Pn	Pn	01 42 16.1	-0.8
FGMS	Monte Sant’Ang	5.00	286	Pn	Pn	01 42 16.1	-0.8
FGSL	Fruska Gora	5.04	339	Pn	Pn	01 42 16.9	-0.4
MTUR	Matau	5.13	22	⇑*i*P	Pn	01 42 20.2	+1.6
BZS	Buzias	5.16	354	P	Pn	01 42 18.2	-0.8
BZS	Buzias	5.16	354	⇓P	Pn	01 42 18.1	-0.9
BZS				S	Sn	01 43 16.8	-2.3
BZS	Buzias	5.16	354	⇓*i*P	Pn	01 42 16.7	-2.3
BZS	Buzias	5.16	354	P	Pn	01 42 18.2	-0.8
BZS				S	Sn	01 43 16.8	-2.3
MGR	Morigerati	5.23	268	Pn	Pn	01 42 20.8	+0.8
	72nm,0.4s						
MGR	Morigerati	5.23	268	Pn	Pn	01 42 20.8	+0.8
	72nm,0.4s						
FG4	Candela	5.25	279	Pn	Pn	01 42 19.7	-0.5
	57nm,0.4s						
FG4	Candela	5.25	279	P	Pn	01 42 19.7	-0.5
FG4				pmax	pmax		
	comp=Z,57nm,0.4s						
FG4	Candela	5.25	279	Pn	Pn	01 42 19.7	-0.5
	comp=Z,57nm,0.4s						
MRLC	Muro Lucano	5.25	275	Pn	Pn	01 42 21.1	+0.8
	comp=Z,107nm,1.9s						
MRLC	Muro Lucano	5.25	275	Pn	Pn	01 42 21.1	+0.8
	comp=Z,107nm,1.9s						
RGNG	Rignano Grg	5.27	285	Pn	Pn	01 42 19.4	-1.1
RGNG	Rignano Grg	5.27	285	Pn	Pn	01 42 19.4	-1.1
VOIR		5.32	21	P	Pn	01 42 22.0	+0.7
VOIR		5.32	21	⇓*i*P	Pn	01 42 21.8	+0.5
VOIR		5.32	21	P	Pn	01 42 22.0	+0.7
SGO	Sicignano	5.39	273	Pn	Pn	01 42 22.6	+0.4
	comp=Z,36nm,0.3s						
SGO	Sicignano	5.39	273	P	Pn	01 42 22.6	+0.4
SGO				pmax	pmax		
	comp=Z,36nm,0.3s						
SGO	Sicignano	5.39	273	Pn	Pn	01 42 22.6	+0.4
	comp=Z,36nm,0.3s						
FG5	Orsara di Pugl	5.45	281	Pn	Pn	01 42 23.0	0.0
	comp=Z,16nm,0.2s						
FG5	Orsara di Pugl	5.45	281	P	Pn	01 42 23.0	0.0
FG5				pmax	pmax		
	comp=Z,17nm,0.2s						
FG5	Orsara di Pugl	5.45	281	Pn	Pn	01 42 23.0	0.0
	comp=Z,16nm,0.2s						
IDI	Anoyia	5.56	158	Pn	Pn	01 42 25.9	+1.4
IDI				Sn	Sn	01 43 27.5	-1.5
IDI	Anoyia	5.56	158	Pn	Pn	01 42 25.9	+1.4
	comp=Z,0.8nm,0.3s,baz=1.6,slow=11,SNR=9.0						
IDI				Sn	Sn	01 43 27.5	-1.5
	comp=Z,0.5nm,0.3s,baz=284,slow=21,SNR=1.6						
IDI	Anoyia	5.56	158	Pn	Pn	01 42 25.9	+1.4
IDI				Sn	Sn	01 43 27.5	-1.4
CSSN	Cassano Irpino	5.60	276	Pn	Pn	01 42 26.0	+0.9
	comp=Z,17nm,0.4s						
MLR	Muntele Rosu	5.64	26	P	Pn	01 42 27.2	+1.5
MLR						01 43 33.3	
MLR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
MLR				smax			
	comp=N,1.0nm,0.3s						
MLR	Muntele Rosu	5.64	26	⇑P	Pn	01 42 27.5	+1.8
MLR	Muntele Rosu	5.64	26	Pn	Pn	01 42 27.2	+1.5
	comp=N,4.0nm,0.3s,baz=348,slow=20,SNR=20						
MLR				Sn	Sn	01 43 33.3	+2.2
	comp=N,0.5nm,0.3s,baz=155,slow=9.3,SNR=3.3						
MLR				Lg		01 44 08.6	
	baz=72,slow=20,SNR=1.7						
MLR	Muntele Rosu	5.64	26	⇑*i*P	Pn	01 42 27.5	+1.8
TIRR	Tirgusor	5.97	46	⇑P	Pn	01 42 30.7	+0.5
TIRR	Tirgusor	5.97	46	⇑*i*P	Pn	01 42 30.7	+0.5
SGG	Gregorio Mates	6.12	281	Pn	Pn	01 42 32.6	+0.3
	comp=N,44nm,0.6s						
SGG	Gregorio Mates	6.12	281	Pn	Pn	01 42 32.6	+0.3
	comp=N,44nm,0.6s						
PLOR	Plostina	6.21	29	⇑*i*P	Pn	01 42 34.3	+0.9
VRI	Vrincioaia	6.25	29	⇓*i*P	Pn	01 42 35.8	+1.8
VRI	Vrincioaia	6.25	29	P	Pn	01 42 36.0	+2.0
DRGR		6.31	2	⇓*i*P	Pn	01 42 34.4	-0.4
PKSM	Moragy	6.34	336	⇑*i*P	Pn	01 42 35.1	-0.1
PKSM	Moragy	6.34	336	P	Pn	01 42 35.2	0.0
SDI	San Donato	6.59	283	Pn	Pn	01 42 37.6	-1.0
	comp=N,7.5nm,0.3s						
SDI	San Donato	6.59	283	P	Pn	01 42 37.6	-1.0
SDI				pmax	pmax		
	comp=Z,8.0nm,0.3s						
SDI	San Donato	6.59	283	Pn	Pn	01 42 37.6	-1.0
	comp=Z,7.5nm,0.3s						
AQU	L’Aquila	7.00	288	*e*Pn	Pn	01 42 45.3	+1.0
AQU				*e*Sn	Sn	01 44 01.9	-2.5
BURAR	Bucovina Array	7.41	15	⇓*i*P	Pn	01 42 50.7	+0.7
PSZ	Piszkesteto	7.64	347	*e*Pn	Pn	01 42 55.3	+2.2
KECS	Kecovo	8.11	351	*e*Pn	Pn	01 42 59.7	+0.2
KECS	Kecovo	8.11	351	*e*PN	Pn	01 42 59.7	+0.2
OBKA	Obir	8.28	319	⇑*i*Pn	Pn	01 43 01.8	-0.1
OBKA	Obir	8.28	319	⇑*i*Pn	Pn	01 43 01.8	-0.1
OBKA				*i* Sn	Sn	01 44 34.9	-1.0
OBKA	Obir	8.28	319	⇑*i*Pn	Pn	01 43 01.8	-0.1
OBKA				⇓*i*Sn	Sn	01 44 34.9	-1.0
OBKA	Obir	8.28	319	Pn	Pn	01 43 01.8	-0.1
VOY	Vojsko	8.31	315	*e*Pn	Pn	01 43 02.5	+0.3
VOY				*e*Sn	Sn	01 44 35.7	-0.9
VOY	Vojsko	8.31	315	*e*Pn	Pn	01 43 02.5	+0.3
VOY				*e*Sn	Sn	01 44 35.7	-0.9
VOY	Vojsko	8.31	315	*e*Pn	Pn	01 43 02.5	+0.3
VOY				*e*Sn	Sn	01 44 35.7	-0.9
ARSA	Arzberg	8.38	326	⇑*i*Pn	Pn	01 43 02.5	-0.7
ARSA	Arzberg	8.38	326	⇑*i*Pn	Pn	01 43 02.5	-0.7
ARSA				*i* Sn	Sn	01 44 34.0	-4.3
ARSA	Arzberg	8.38	326	⇑*i*Pn	Pn	01 43 02.5	-0.7
ARSA				⇓*i*Sn	Sn	01 44 34.0	-4.3
ARSA	Arzberg	8.38	326	Pn	Pn	01 43 02.5	-0.7
VYHS	Vyhne	8.40	344	*e*Pn	Pn	01 43 03.9	+0.5

VYHS	Vyhne	8.40	344	ePN	Pn	01 43 03.9	+0.5
KOLS	Kolonicke sedl	8.45	360	ePn	Pn	01 43 05.2	+1.1
KOLS				eSg	Sg	01 45 32.0	+0.1
KOLS	Kolonicke sedl	8.45	360	ePN	Pn	01 43 05.2	+1.1
KOLS				eSG	Sg	01 45 32.0	+0.1
KOLL	Kolacno	8.57	342	ePn	Pn	01 43 06.3	+0.4
KOLL	Kolacno	8.57	342	ePN	Pn	01 43 06.3	+0.4
ZST	Bratislava	8.58	336	ePn	Pn	01 43 06.2	+0.2
ZST	Bratislava	8.58	336	ePN	Pn	01 43 06.2	+0.2
ZST				ePP		02 38 13.0	
BRTR	Keskin Array B	8.66	91	Pn	Pn	01 43 07.5	+0.3
BRTR	Keskin Array B	8.66	91	Pn	Pn	01 43 07.5	+0.3
	comp=Z,0.1nm,0.3s,baz=297,slow=39,SNR=4.8						
BRTR	Keskin Array B	8.66	91	Pn	Pn	01 43 07.4	+0.2
SMOL	Smolenice	8.77	338	ePn	Pn	01 43 09.5	+1.0
SMOL	Smolenice	8.77	338	ePN	Pn	01 43 09.5	+1.0
SMOL	Smolenice	8.77	338	ePn	Pn	01 43 09.5	+1.0
KWP	Kalwaria	9.15	1	ePn	Pn	01 43 16.5	+2.8
KWP	Kalwaria	9.15	1	ePn	Pn	01 43 16.5	+2.8
KBA	Koelnbreinsper	9.28	318	⇓iPn	Pn	01 43 14.0	-1.5
KBA	Koelnbreinsper	9.28	318	⇓iPn	Pn	01 43 14.0	-1.5
KBA	Koelnbreinsper	9.28	318	⇓iPn	Pn	01 43 14.0	-1.5
KBA	Koelnbreinsper	9.28	318	⇓iPn	Pn	01 43 14.0	-1.5
MOA	Molln	9.38	324	⇑iPn	Pn	01 43 17.5	+0.5
MOA	Molln	9.38	324	⇑iSn	Sn	01 45 02.8	-0.2
MOA	Molln	9.38	324	⇑iPn	Pn	01 43 17.5	+0.5
MOA				i Sn	Sn	01 45 02.9	-0.2
MOA	Molln	9.38	324	⇑iPn	Pn	01 43 17.5	+0.5
MOA				⇑iSn	Sn	01 45 00.1	-2.9
MOA	Molln	9.38	324	Pn	Pn	01 43 17.5	+0.5
MOA				i Sn	Sn	01 45 02.8	-0.2
ABTA	Abfaltersbach	9.50	314	⇑iPn	Pn	01 43 17.8	-0.7
ABTA	Abfaltersbach	9.50	314	Pn	Pn	01 43 17.8	-0.8
GERES	GERESS Array B	10.39	326	Pn	Pn	01 43 31.2	+0.5
GERES	GERESS Array B	10.39	326	Pn	Pn	01 43 31.2	+0.5
	comp=Z,0.3nm,0.3s,baz=155,slow=14,SNR=10						
GERES	GERESS Array B	10.39	326	Pn	Pn	01 43 31.2	+0.5
SQTA	Sankt Quirin	10.50	314	⇑iPn	Pn	01 43 31.4	-0.8
SQTA	Sankt Quirin	10.50	314	⇑iPn	Pn	01 43 31.4	-0.8
SQTA	Sankt Quirin	10.50	314	⇑iPn	Pn	01 43 31.4	-0.8
SQTA	Sankt Quirin	10.50	314	⇑iPn	Pn	01 43 31.4	-0.9
DAVOX	Davos/Dischmat	11.02	309	Pn	Pn	01 43 39.5	+0.1
DAVOX	Davos/Dischmat	11.02	309	Pn	Pn	01 43 39.5	+0.1
	comp=Z,0.4nm,0.3s,baz=135,slow=16,SNR=4.8						
DAVOX	Davos/Dischmat	11.02	309	Pn	Pn	01 43 39.5	+0.1
DAVOS	Davos	11.10	309	P	Pn	01 43 39.5	-1.0
MALT	Malatya	12.61	95	Pn	Pn	01 44 04.2	+3.1
MALT	Malatya	12.61	95	Pn	Pn	01 44 04.2	+3.1
RUE	Ruedersdorf	13.37	337	ePn	Pn	01 44 13.7	+2.2
RUE	Ruedersdorf	13.37	337	ePn	Pn	01 44 13.6	+2.2
ESDC	Sonseca Array	20.15	276	P	P	01 45 39.9	+3.7
	comp=Z,0.8nm,0.5s,baz=72,slow=9.3,SNR=8.2						
HFS	Hagfors	20.40	347	P	P	01 45 38.7	-0.1
	comp=Z,6.2nm,1.2s,baz=80,slow=21,SNR=3.3						
FINES	FINESS Array B	21.11	5	P	P	01 45 46.2	-0.2
	comp=Z,1.0nm,0.6s,mb3.3,baz=152,slow=8.6,SNR=5.9						
FINES	FINESS Array B	21.11	5	P	P	01 45 46.2	-0.2
NOA	NORSAR Array B	21.70	345	P	P	01 45 51.2	-1.5
	comp=Z,1.3nm,0.8s,mb3.4,baz=156,slow=8.8,SNR=3.8						
EKA	Eskdalemuir Ar	22.48	320	P	P	01 45 59.4	-1.8
	comp=Z,0.5nm,0.6s,mb3.1,baz=116,slow=10,SNR=4.9						
ARCES	ARCESS Array B	29.16	2	P	P	01 47 01.5	-1.5
	comp=Z,2.7nm,0.7s,mb4.1,baz=186,slow=9.8,SNR=15						
TORD	Torodi Ar. Bea	32.73	220	P	P	01 47 33.6	-1.3
	comp=Z,0.9nm,0.5s,mb3.9,baz=34,slow=9.2,SNR=21						
MKAR	Makanchi Array	42.89	61	P	P	01 49 00.8	+0.2
	comp=Z,0.5nm,0.5s,mb3.5,baz=279,slow=7.0,SNR=11						
ZAL	Zalesovo	43.08	50	P	P	01 49 01.6	-0.4
ZALV	Zalesovo Beam	43.09	50	P	P	01 49 01.6	-0.4
	comp=Z,0.8nm,0.5s,mb3.7,baz=276,slow=9.3,SNR=4.3						
SONM	Songino Array	57.90	52	P	P	01 50 54.4	+0.4
	comp=Z,0.3nm,0.7s,mb3.4,baz=267,slow=7.2,SNR=3.2						
YKA	Yellowknife Ar	71.71	341	P	P	01 52 22.9	-0.9
	comp=Z,0.2nm,0.6s,mb3.2,baz=33,slow=5.5,SNR=6.1						
ULM	Lac du Bonnet	74.69	324	P	P	01 52 40.6	-1.1
	comp=Z,0.4nm,0.4s,mb3.7,baz=31,slow=3.0,SNR=4.2						

SOF **21** *02:04:26.8, 39.82N×21.70E, h7^{km}, MD3.8*
PRU **21** *02:04:35.7, 40.01N×21.42E, h0^{km}, M4.2*
ISCJB **21** *02:04:38.0±0.3, 40.52N±0.01×22.31E±0.01, h7^{km}±2^{km}, mb4.1/29, MS3.2/4, Error ellipse: s-maj=2.1km s-min=1.8km az=21.3*
CSEM **21** *02:04:38.5, 40.55N×22.41E, h5^{km}, ML4.6*
MOS **21** *02:04:38.7±1.3, 40.52N×22.23E, h18^{km}, mb4.4/9, Error ellipse: s-maj=3.7km s-min=2.7km az=114.9*
IDC **21** *02:04:38.7±0.6, 40.53N×22.30E, h0^{km}, mb4.0/18, mb1 4.1/27, mb1mx4.1/31, mbtmp4.0/27, ML3.9/10, MS3.3/9, Ms1 3.3/9, ms1mx3.0/49, Error ellipse: s-maj=11.9km s-min=11.4km az=122.0*
ATH **21** *02:04:38.7, 40.49N×22.39E, h11^{km}±2^{km}, MD4.0/17, ML3.9*
NEIC **21** *02:04:39.9, 40.51N×22.41E, h4^{km}, mb4.2/19, MD3.8(SOF), ML4.6(THE), ML4.0(PDG), ML3.9(ATH), ML3.6(BUC), After THE.*
THE **21** *02:04:39.9, 40.51N×22.41E, h4^{km}, ML4.5*
PDG **21** *02:04:39.6±1.3, 40.56N×22.36E, h8^{km}±2^{km}, MD4.2/1, ML4.0/10, Error ellipse: s-maj=1.6km s-min=1.8km az=0.0*
NAO **21** *02:04:52.7, 41.58N×22.76E, h33^{km}, mb4.0*
ISC 21 02:04:39.1±0.3, **40.50N**±0.01×**22.34E**±0.01, **h2**^{km}±2^{km}, **n517**, σ1§**24**/611, **mb4.1**/29, **MS3.2**/4, **55C-26D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIT	Litokhoron	0.41	164	ePg	Pg	02 04 47.9	+0.9
LIT				eSg	Sg	02 04 54.0	+1.6
LIT	Litokhoron	0.41	164	ePg	Pg	02 04 47.9	+0.9
LIT				eSg	Sg	02 04 54.0	+1.6
GRG	Griva	0.46	6	ePg	Pg	02 04 48.3	+0.4
GRG				eSg	Sg	02 04 55.1	+1.3
GRG	Griva	0.46	6	ePg	Pg	02 04 48.3	+0.4
GRG				eSg	Sg	02 04 55.1	+1.2
KZN	Kozani	0.47	246	ePg	Pg	02 04 48.5	+0.3
KZN				eSb	Sg	02 04 55.8	+1.5
KZN	Kozani	0.47	246	ePG	Pg	02 04 48.5	+0.3
KZN				eSB	Sg	02 04 55.8	+1.5
KZN	Kozani	0.47	246	ePg	Pg	02 04 48.5	+0.3
KZN				eSb	Sg	02 04 55.8	+1.5
THE	Thessaloniki	0.49	74	ePg	Pg	02 04 49.0	+0.4
THE				eSg	Sg	02 04 54.4	-0.6
THE	Thessaloniki	0.49	74	ePg	Pg	02 04 49.0	+0.4
THE				eSg	Sg	02 04 54.4	-0.6
HORT	Hortiatis	0.59	80	P	Pg	02 04 50.0	-0.3
HORT				S	Sg	02 04 58.2	+0.3
HORT	Hortiatis	0.59	80	ePg	Pg	02 04 50.0	-0.3
HORT				eSg	Sg	02 04 58.2	+0.3
HORT	Hortiatis	0.59	80	ePg	Pg	02 04 50.0	-0.3
HORT				eSg	Sg	02 04 58.2	+0.2
FNA	Florina	0.79	291	ePg	Pg	02 04 54.1	-0.1
FNA				eSg	Sg	02 05 07.7	+3.4
KNT	Kendrikon	0.79	32	ePg	Pg	02 04 54.4	+0.2
KNT				eSg	Sg	02 05 05.1	+0.8
KNT	Kendrikon	0.79	32	ePg	Pg	02 04 54.4	+0.2
KNT				eSg	Sg	02 05 05.1	+0.8
SOH	Sokhos	0.84	67	ePg	Pg	02 04 54.8	-0.3
SOH				eSg	Sg	02 05 06.0	0.0
SOH	Sokhos	0.84	67	ePg	Pg	02 04 54.8	-0.3
SOH				eSg	Sg	02 05 06.0	0.0
VAY	Valandovo	0.84	12	ePg	Pg	02 04 54.1	-1.1
VAY				eSg	Sg	02 05 10.7	+4.7
PLG	Polygyros	0.85	98	ePg	Pg	02 04 56.0	+0.6
PLG	Polygyros	0.85	98	ePG	Pg	02 04 56.0	+0.6
PLG	Polygyros	0.85	98	ePg	Pg	02 04 56.0	+0.6
BIA	Bitola	0.93	304	ePn	Pn	02 04 56.4	-2.8
BIA				eSn	Sn	02 05 14.5	+1.4
THL	Klokotos Trika	0.97	195	ePN	Pn	02 04 57.4	-2.3
THL	Klokotos Trika	0.97	195	ePn	Pn	02 04 57.4	-2.3
MEV	Metsovon	1.11	230	P	Pg	02 05 01.6	+1.3
MEV	Metsovon	1.11	230	ePg	Pg	02 05 01.6	+1.3
MEV	Metsovon	1.11	230	ePg	Pg	02 05 01.6	+1.2
PAIG	Paliouri	1.18	119	ePg	Pg	02 05 00.4	-1.2
PAIG				eSg	Sg	02 05 17.6	+0.8
PAIG	Paliouri	1.18	119	ePg	Pg	02 05 00.4	-1.2
PAIG				eSg	Sg	02 05 17.6	+0.8
KBN	Korca	1.19	276	i PN	Pn	02 05 02.3	-0.5
KBN				i SN	Sn	02 05 20.5	+1.0
KBN	Korca	1.19	276	ePn	Pn	02 05 02.3	-0.5
KBN				i Sn	Sn	02 05 20.5	+1.0
KRUS	Krusevo	1.20	317	ePn	Pn	02 05 01.9	-1.0
KRUS				eSn	Sn	02 05 21.2	+1.5
STIP	Stip	1.20	355	ePn	Pn	02 05 01.4	-1.5
STIP				eSn	Sn	02 05 21.4	+1.6
OUR	Ouranopolis	1.27	97	ePg	Pg	02 05 02.5	-0.9
OUR	Ouranopolis	1.27	97	ePg	Pg	02 05 02.5	-0.8
XOR	Xorichti	1.31	150	P	Pg	02 05 03.1	-1.1
XOR	Xorichti	1.31	150	ePg	Pg	02 05 03.1	-1.1
XOR	Xorichti	1.31	150	ePg	Pg	02 05 03.1	-1.1
OHR	Ohrid	1.32	298	ePn	Pn	02 05 03.5	-1.0
OHR				eSn	Sn	02 05 23.3	+0.6
NEO	Neokhori	1.37	150	ePb	Pb	02 05 04.0	-1.5
NEO				eSb	Sb	02 05 22.6	-0.9
NEO	Neokhori	1.37	150	ePB	Pb	02 05 04.0	-1.5
NEO				eSB	Sb	02 05 22.6	-0.9
NEO	Neokhori	1.37	150	ePb	Pb	02 05 04.0	-1.5
NEO				eSb	Sb	02 05 22.6	-0.9
LSK	Leskovik	1.38	256	i PN	Pn	02 05 04.8	-0.5
LSK				i SN	Sg	02 05 28.9	+5.7
LSK	Leskovik	1.38	256	i Pn	Pn	02 05 04.8	-0.5
LSK				i Sn	Sg	02 05 28.9	+5.7
JAN	Janina	1.42	234	ePb	Pb	02 05 06.2	-0.1
JAN	Janina	1.42	234	ePB	Pb	02 05 06.2	-0.1
JAN	Janina	1.42	234	ePb	Pb	02 05 06.2	-0.1
NVR	Nevrokopi	1.43	53	ePb	Pb	02 05 05.3	-1.2
NVR				eSb	Sb	02 05 24.5	-0.7
NVR	Nevrokopi	1.43	53	ePB	Pb	02 05 05.3	-1.2
NVR				eSB	Sb	02 05 24.5	-0.7
NVR	Nevrokopi	1.43	53	ePb	Pb	02 05 05.3	-1.2
AGG	Agios Georgios	1.48	180	ePg	Pg	02 05 06.3	-1.1
AGG				eSg	Sg	02 05 26.9	+0.4
AGG	Agios Georgios	1.48	180	ePg	Pg	02 05 06.3	-1.1
AGG				eSg	Sg	02 05 26.9	+0.4
KKB	Krupnik	1.48	22	P	Pn	02 05 07.3	+0.6
MMB	Musomiste	1.51	44	P	Pn	02 05 07.0	-0.2
SKO	Skopje	1.62	336	ePn	Pn	02 05 09.3	+0.6
SKO				eSn	Sn	02 05 33.2	+3.1
EVR	Evrytania	1.63	195	ePg	Pg	02 05 09.1	-1.3
EVR	Evrytania	1.63	195	ePG	Pg	02 05 09.1	-1.3
EVR	Evrytania	1.63	195	ePg	Pg	02 05 09.1	-1.3
AOS	Alonnisos	1.78	138	P	Pn	02 05 09.8	-1.1
AOS	Alonnisos	1.78	138	ePb	Pn	02 05 09.8	-1.1
AOS	Alonnisos	1.78	138	ePb	Pn	02 05 09.8	-1.1
IGT	Igoumenitsa	1.82	239	ePb	Pb	02 05 12.7	-0.4
IGT				eSb	Sb	02 05 37.9	+1.6
IGT	Igoumenitsa	1.82	239	ePb	Pb	02 05 12.7	-0.4
IGT				S	Sn	02 05 37.9	+2.9
PHP	Peshkopia	1.86	310	i PN	Pn	02 05 12.2	+0.2
PHP				i SN	Sn	02 05 37.7	+1.6
PHP	Peshkopia	1.86	310	i Pn	Pn	02 05 12.2	+0.2
PHP				i Sn	Sn	02 05 37.7	+1.6
SRN	Sarande	1.90	252	i PN	Pg	02 05 15.2	-0.2
SRN				i SN	Sg	02 05 41.5	+1.5
SRN	Sarande	1.90	252	i Pn	Pg	02 05 15.2	-0.2
SRN				i Sn	Sg	02 05 41.5	+1.5
LKR	Lokris	1.92	164	ePb	Pn	02 05 12.1	-0.7
LKR	Lokris	1.92	164	ePN	Pn	02 05 12.1	-0.7
LKR	Lokris	1.92	164	ePb	Pn	02 05 12.1	-0.7
TIR	Tirane	2.06	295	P	Pn	02 05 16.7	+2.0
TIR	Tirane	2.06	295	i PN	Pn	02 05 17.5	+2.8
TIR				i SN	Sn	02 05 45.7	+4.8
TIR	Tirane	2.06	295	i Pn	Pn	02 05 17.5	+2.8
KEK	Kerkira	2.10	249	ePg	Pg	02 05 17.5	-1.8
KEK	Kerkira	2.10	249	ePG	Pg	02 05 17.5	-1.8
KEK	Kerkira	2.10	249	ePg	Pg	02 05 17.5	-1.8
RZN	Rozhen	2.15	56	P	Pn	02 05 16.6	+0.6
LOS	Limnos	2.17	104	P	Pn	02 05 14.7	-1.6
LOS	Limnos	2.17	104	ePn	Pn	02 05 14.7	-1.6
LOS	Limnos	2.17	104	ePn	Pn	02 05 14.7	-1.6
VTS	Vitosha	2.19	17	P	Pn	02 05 16.0	-0.5
LKD	Levkas	2.21	217	P	Pn	02 05 17.9	+1.1
LKD				S	Sn	02 05 46.1	+1.3
LKD	Levkas	2.21	217	ePn	Pn	02 05 17.9	+1.1
LKD				eSn	Sn	02 05 46.1	+1.3
LKD	Levkas	2.21	217	ePn	Pn	02 05 17.9	+1.0
LKD				eSn	Sn	02 05 46.1	+1.3
LIA	Limnos Island	2.26	105	ePn	Pn	02 05 18.7	+1.2
LIA	Limnos Island	2.26	105	ePN	Pn	02 05 18.7	+1.2
LIA	Limnos Island	2.26	105	ePn	Pn	02 05 18.7	+1.2
PLD	Plovdiv	2.40	47	P	Pn	02 05 19.7	+0.3
PGB	Panagyurishte	2.46	33	P	Pn	02 05 20.7	+0.4
RDO	Rodhopi	2.51	74	ePb	Pb	02 05 20.1	-4.8
RDO	Rodhopi	2.51	74	ePB	Pb	02 05 20.1	-4.8
RDO	Rodhopi	2.51	74	ePb	Pb	02 05 20.1	-4.8
LTK	Loutraki	2.52	169	ePn	Pn	02 05 20.8	-0.2
LTK	Loutraki	2.52	169	ePn	Pn	02 05 20.8	-0.3
RLS	Riolos of Patr	2.53	196	P	Pn	02 05 25.8	+4.6
KDZ	Kurdzhali	2.59	63	P	Pn	02 05 20.7	-1.4
VLS	Valsamata	2.69	211	ePn	Pn	02 05 25.8	+2.4
VLS	Valsamata	2.69	211	ePN	Pn	02 05 25.0	+1.6
VLS	Valsamata	2.69	211	ePn	Pn	02 05 25.8	+2.4
PTL	Penteli	2.72	154	ePn	Pn	02 05 24.0	+0.2
PTL	Penteli	2.72	154	ePN	Pn	02 05 24.0	+0.2
PTL	Penteli	2.72	154	ePn	Pn	02 05 24.0	+0.2
GADA	Gvkgeada	2.74	95	PN	Pn	02 05 22.7	-1.4
GADA	Gvkgeada	2.74	95	ePn	Pn	02 05 22.7	-1.4
ATH	Athens Observa	2.74	157	ePb	Pn	02 05 23.9	-0.2
ATH	Athens Observa	2.74	157	ePB	Pn	02 05 23.9	-0.2
ATH	Athens Observa	2.74	157	ePb	Pn	02 05 23.9	-0.2
PVY	Plav	2.75	320	⇑iPn	Pn	02 05 25.0	+0.8
PVY				eSn	Sn	02 05 59.9	+2.0
PVY	Plav	2.75	320	⇑iPn	Pn	02 05 25.0	+0.8
PVY				eSn	Sn	02 05 59.9	+2.0
PVY	Plav	2.75	320	⇑iPn	Pn	02 05 25.0	+0.8
ULC	Ulcinj	2.75	303	⇑iPn	Pn	02 05 25.4	+1.2
ULC				eSn	Sn	02 06 00.3	+2.3
ULC	Ulcinj	2.75	303	⇑iPn	Pn	02 05 25.4	+1.2
ULC				eSn	Sn	02 06 00.3	+2.3
ALN	Alexandroupoli	2.85	81	ePn	Pn	02 05 24.6	-0.9
ALN	Alexandroupoli	2.85	81	ePn	Pn	02 05 24.6	-0.9
DIM	Dimitrovgrad	2.86	56	eP	Pg	02 05 32.8	-1.1
NAIG	Nisos Aigina	2.88	162	ePn	Pn	02 05 26.0	0.0
NAIG	Nisos Aigina	2.88	162	ePN	Pn	02 05 26.0	0.0
NAIG	Nisos Aigina	2.88	162	ePn	Pn	02 05 26.0	0.0
KVR	Kavouri	2.89	157	ePN	Pn	02 05 26.0	-0.2
KVR	Kavouri	2.89	157	ePn	Pn	02 05 25.5	-0.7
ENEZ	Enez	2.91	84	PN	Pn	02 05 28.2	+1.7
ENEZ	Enez	2.91	84	ePn	Pn	02 05 28.2	+1.7
BOZC	Bozcaada	2.92	102	i P	Pn	02 05 27.3	+0.7
BEY	Berane	2.99	323	⇑iPn	Pn	02 05 28.6	+1.0
IVA	Berane	2.99	323	⇑iPn	Pn	02 05 28.6	+1.0
IVA				eSn	Sn	02 06 05.6	+1.6
IVA	Berane	2.99	323	⇑iPn	Pn	02 05 28.6	+1.0
IVA				eSn	Sn	02 06 05.6	+1.6
IVA	Berane	2.99	323	⇑iPn	Pn	02 05 28.6	+1.0
PDG	Podgorica	3.01	311	⇑iPn	Pn	02 05 28.8	+1.0
TTG	Podgorica	3.01	311	⇑iPn	Pn	02 05 28.8	+1.0
TTG				eSn	Sn	02 06 05.8	+1.3
TTG	Podgorica	3.01	311	⇑iPn	Pn	02 05 28.8	+1.0
TTG				eSn	Sn	02 06 05.8	+1.3
DID	Didima	3.07	167	ePn	Pn	02 05 28.6	0.0
DID	Didima	3.07	167	ePn	Pn	02 05 28.6	0.0
VLX	Vlachokerasia	3.12	179	ePn	Pn	02 05 30.1	+0.7
VLX	Vlachokerasia	3.12	179	ePn	Pn	02 05 30.1	+0.7
BUM	Brajici-Budva	3.15	306	⇑iPn	Pn	02 05 30.8	+1.1
BUM				eSn	Sn	02 06 09.7	+1.8
BUM	Brajici-Budva	3.15	306	⇑iPn	Pn	02 05 30.8	+1.1
BUM				eSn	Sn	02 06 09.7	+1.8
BUM	Brajici-Budva	3.15	306	⇑iPn	Pn	02 05 30.8	+1.1
LCI	Lecce	3.23	268	Pn	Pn	02 05 31.3	+0.5
LCI	Lecce	3.23	268	Pn	Pn	02 05 31.3	+0.5
PRK	Paraskevi	3.27	111	ePn	Pn	02 05 31.3	-0.1
PRK	Paraskevi	3.27	111	ePN	Pn	02 05 31.3	-0.1
PRK	Paraskevi	3.27	111	ePn	Pn	02 05 31.3	-0.1
SJES	Sjenica	3.29	328	Pn	Pn	02 05 32.1	+0.4
NKY	Niksic	3.41	314	⇑iPn	Pn	02 05 34.5	+1.3
NKY				eSn	Sn	02 06 15.7	+1.5
NKY	Niksic	3.41	314	⇑iPn	Pn	02 05 34.5	+1.3
NKY				eSn	Sn	02 06 15.7	+1.5
HCY	Herceg Novi	3.48	305	⇑iPn	Pn	02 05 35.1	+0.8
HCY				eSn	Sn	02 06 17.5	+1.5
HCY	Herceg Novi	3.48	305	⇑iPn	Pn	02 05 35.1	+0.8
HCY				eSn	Sn	02 06 17.5	+1.5
AYVA	Ayvalik	3.55	108	i P	Pn	02 05 35.4	+0.1
CHOS	Chios island	3.57	125	ePn	Pn	02 05 35.5	0.0
CHOS	Chios island	3.57	125	ePn	Pn	02 05 35.5	0.0
PLE	Pljevlja	3.58	323	⇑iPn	Pn	02 05 36.9	+1.3
PLE				eSn	Sn	02 06 19.8	+1.3
PLE	Pljevlja	3.58	323	⇑iPn	Pn	02 05 36.9	+1.3
PLE				eSn	Sn	02 06 19.8	+1.3
EDRB	Edirne	3.59	67	PN	Pb	02 05 43.0	-0.2
GRUS	Gruza	3.59	341	Pn	Pn	02 05 35.7	-0.1
RKY	Sarkoy-Tekirda	3.69	86	PN	Pn	02 05 36.5	-0.6
RKY	Sarkoy-Tekirda	3.69	86	ePn	Pn	02 05 36.5	-0.6
SART	Tekirdag	3.69	86	i P	Pn	02 05 36.9	-0.3
BRY	Bratogost	3.72	311	⇑iPn	Pn	02 05 39.0	+1.5
BRY				eSn	Sn	02 06 23.5	+1.6
BRY	Bratogost	3.72	311	⇑iPn	Pn	02 05 39.0	+1.5
BRY				eSn	Sn	02 06 23.5	+1.6
UPM	Unac-Piva	3.72	318	ePn	Pn	02 05 38.9	+1.3
UPM				eSn	Sn	02 06 23.6	+1.6
UPM	Unac-Piva	3.72	318	ePn	Pn	02 05 38.9	+1.3
UPM				eSn	Sn	02 06 23.6	+1.6
UPM	Unac-Piva	3.72	318	ePn	Pn	02 05 38.9	+1.3
JMB	Yambol	3.75	57	P	Pn	02 05 36.9	-1.0
VLI	Veliai	3.81	173	ePn	Pn	02 05 39.2	+0.5
VLI	Veliai	3.81	173	ePN	Pn	02 05 39.2	+0.5
VLI	Veliai	3.81	173	ePn	Pn	02 05 39.2	+0.5
SZH	Strazhica	3.85	43	P	Pn	02 05 39.9	+0.5
ZIMR		3.88	35	P	Pn	02 05 40.3	+0.6
SVIS	Svilajnac	3.88	348	Pn	Pn	02 05 39.6	-0.2
DIVS	Divcibare	4.00	335	Pn	Pn	02 05 41.6	+0.3
BBLS	Bajina Basta -	4.01	328	Pn	Pn	02 05 42.7	+1.2
BAI	Bari	4.19	280	⇑iPn	Pn	02 05 43.9	-0.1
STON	Ston	4.21	306	ePn	Pn	02 05 44.3	+0.1
BLCB	Balcova	4.21	119	ePN	Pn	02 05 47.2	+2.9
BLCB	Balcova	4.21	119	ePn	Pn	02 05 47.2	+2.9
EDC	Edincik	4.22	90	ePN	Pn	02 05 43.9	-0.5
EDC	Edincik	4.22	90	ePn	Pn	02 05 43.9	-0.5
APE	Apeiranthos	4.24	143	ePn	Pn	02 05 44.9	+0.2
APE	Apeiranthos	4.24	143	ePN	Pn	02 05 44.9	+0.2
APE	Apeiranthos	4.24	143	ePn	Pn	02 05 44.9	+0.2
KYTH	Kithira	4.25	172	ePb	Pb	02 05 48.0	-6.5
KYTH	Kithira	4.25	172	ePN	Pn	02 05 47.5	+2.7
KYTH	Kithira	4.25	172	ePb	Pb	02 05 48.0	-6.5
BNT	Bandirma	4.26	90	ePN	Pn	02 05 44.7	-0.3
SG1	Sgolgore (BA)	4.32	276	⇑iPn	Pn	02 05 45.8	0.0
BALB	Balikesir	4.34	100	ePN	Pn	02 05 45.2	-0.8
BALB	Balikesir	4.34	100	ePn	Pn	02 05 45.2	-0.8
KDAG	Bornova	4.35	117	i P	Pn	02 05 41.9	-4.4
SMG	Samos	4.47	127	ePn	Pn	02 05 49.0	+1.1
SMG	Samos	4.47	127	ePN	Pn	02 05 49.0	+1.1
SMG	Samos	4.47	127	ePn	Pn	02 05 49.0	+1.1
TIP	Timpagrande	4.49	255	ePn	Pn	02 05 48.6	+0.4
TIP	Timpagrande	4.49	255	ePn	Pn	02 05 48.6	+0.4
AKS	Akhisar	4.52	109	ePN	Pn	02 05 49.5	+0.9
AKS	Akhisar	4.52	109	ePn	Pn	02 05 49.5	+0.9
CDT	Castel del Mon	4.64	279	⇑iPn	Pn	02 05 50.3	+0.1
GZR	Gura Zlata	4.90	4	⇑P	Pn	02 05 52.9	-0.9
GZR	Gura Zlata	4.90	4	⇑iP	Pn	02 05 52.9	-0.9
DST	Dursunbey	4.91	98	ePN	Pn	02 05 52.5	-1.4
DST	Dursunbey	4.91	98	ePn	Pn	02 05 52.5	-1.4
FGMS	Monte Sant'Ang	4.97	286	Pn	Pn	02 05 54.7	-0.1
FGMS	Monte Sant'Ang	4.97	286	Pn	Pn	02 05 54.7	-0.1
MS1	Monte Sant'Ang	4.98	286	⇓iPn	Pn	02 05 54.6	-0.3
FGSL	Fruska Gora	5.01	339	Pn	Pn	02 05 56.0	+0.7
MTUR	Matau	5.13	22	⇓P	Pn	02 05 58.0	+1.1
MTUR	Matau	5.13	22	⇓iP	Pn	02 05 58.0	+1.1
ISK	Istanbul-Kandi	5.13	82	ePN	Pn	02 05 57.6	+0.6
ISK	Istanbul-Kandi	5.13	82	ePn	Pn	02 05 57.6	+0.6
KLYT	Kilyos	5.14	79	ePN	Pn	02 05 58.1	+1.1
KLYT	Kilyos	5.14	79	ePn	Pn	02 05 58.1	+1.1
BZS	Buzias	5.14	354	P	Pn	02 05 57.4	+0.3
BZS	Buzias	5.14	354	⇓iP	Pn	02 05 56.1	-1.0
BZS	Buzias	5.14	354	P	Pn	02 05 57.4	+0.3
MGR	Morigerati	5.20	268	Pn	Pn	02 05 59.0	+1.1
	286nm,0.6s						
MGR	Morigerati	5.20	268	Pn	Pn	02 05 59.0	+1.1
	286nm,0.6s						
ULDT	Uludag	5.21	92	i P	Pn	02 05 58.7	+0.7
RGNG	Rignano Grg	5.24	285	Pn	Pn	02 05 57.8	-0.6
RGNG	Rignano Grg	5.24	285	Pn	Pn	02 05 57.8	-0.6
KULA	Kula-Manisa	5.28	110	ePN	Pn	02 05 59.3	+0.4
KULA	Kula-Manisa	5.28	110	ePn	Pn	02 05 59.3	+0.4
VOIR		5.32	21	P	Pn	02 06 00.1	+0.6
VOIR		5.32	21	⇑iP	Pn	02 06 00.8	+1.3
VOIR		5.32	21	P	Pn	02 06 00.1	+0.6
SGO	Sicignano	5.36	273	Pn	Pn	02 06 00.7	+0.6
	72nm,0.4s						
SGO	Sicignano	5.36	273	P	Pn	02 06 00.7	+0.6
SGO				pmax	pmax		
	comp=Z,73nm,0.4s						
SGO	Sicignano	5.36	273	Pn	Pn	02 06 00.7	+0.6
	comp=Z,72nm,0.4s						
FG5	Orsara di Pugl	5.42	281	Pn	Pn	02 06 01.8	+0.9
	comp=Z,49nm,0.4s						
FG5	Orsara di Pugl	5.42	281	P	Pn	02 06 01.8	+0.9
FG5				pmax	pmax		
	comp=Z,49nm,0.4s						
FG5	Orsara di Pugl	5.42	281	Pn	Pn	02 06 01.8	+0.9
	comp=Z,49nm,0.4s						
IZI	Iznik	5.45	89	ePN	Pn	02 06 00.1	-1.2
IZI	Iznik	5.45	89	ePn	Pn	02 06 00.1	-1.2
CSSN	Cassano Irpino	5.57	276	Pn	Pn	02 06 04.3	+1.3
	comp=Z,100nm,0.8s						
CSSN	Cassano Irpino	5.57	276	Pn	Pn	02 06 04.3	+1.3
	comp=Z,100nm,0.8s						
IDI	Anoyia	5.58	158	Pn	Pn	02 06 05.2	+2.1
IDI				Sn	Sn	02 07 12.4	+4.6
IDI	Anoyia	5.58	158	Pn	Pn	02 06 05.2	+2.1
	comp=Z,2.6nm,0.3s,baz=357,slow=11,SNR=24						
IDI				Sn	Sn	02 07 12.4	+4.6
	comp=Z,0.5nm,0.3s,baz=276,slow=9.2,SNR=1.7						
IDI	Anoyia	5.58	158	Pn	Pn	02 06 05.2	+2.1
HRT	Hereke	5.58	84	ePN	Pn	02 06 03.8	+0.6
HRT	Hereke	5.58	84	ePn	Pn	02 06 03.8	+0.6
MLR	Muntele Rosu	5.64	27	P	Pn	02 06 05.5	+1.5
MLR	Muntele Rosu	5.64	27	Pn	Pn	02 06 05.5	+1.5
	comp=Z,13nm,0.3s,baz=200,slow=2.6,SNR=36						
MLR				Lg		02 07 47.4	
	comp=Z,0.7nm,0.3s,baz=87,slow=19,SNR=1.9						
MLR	Muntele Rosu	5.64	27	⇓iP	Pn	02 06 05.5	+1.5
TIRR	Tirgusor	5.98	47	P	Pn	02 06 08.1	-0.5
TIRR	Tirgusor	5.98	47	⇑iP	Pn	02 06 08.0	-0.6
TIRR	Tirgusor	5.98	47	P	Pn	02 06 08.1	-0.5
SGG	Gregorio Mates	6.09	281	Pn	Pn	02 06 11.1	+0.9
	comp=Z,121nm,0.6s						
SGG	Gregorio Mates	6.09	281	Pn	Pn	02 06 11.1	+0.9
	comp=Z,121nm,0.6s						
PLOR	Plostina	6.21	29	⇑iP	Pn	02 06 13.4	+1.7
GULT	Gulveren	6.24	88	ePN	Pn	02 06 13.3	+1.2
GULT	Gulveren	6.24	88	ePn	Pn	02 06 13.3	+1.2
VRI	Vrincioaia	6.25	29	P	Pn	02 06 14.1	+1.8
VRI	Vrincioaia	6.25	29	⇓iP	Pn	02 06 13.9	+1.6
VRI	Vrincioaia	6.25	29	P	Pn	02 06 14.1	+1.8
DRGR		6.29	2	P	Pn	02 06 13.7	+0.8
DRGR		6.29	2	⇓iP	Pn	02 06 12.9	0.0
DRGR		6.29	2	P	Pn	02 06 13.7	+0.8
PKSM	Moragy	6.31	336	P	Pn	02 06 12.6	-0.6
PKSM	Moragy	6.31	336	⇑iP	Pn	02 06 13.6	+0.4
PKSM	Moragy	6.31	336	P	Pn	02 06 12.6	-0.6
RFI	Roccamonfina	6.38	280	Pn	Pn	02 06 15.5	+1.4
	comp=Z,4.2nm,0.5s						
RFI	Roccamonfina	6.38	280	Pn	Pn	02 06 15.5	+1.4
	comp=Z,4.2nm,0.5s						
HENT	Hendek	6.52	84	i P	Pn	02 06 15.8	-0.2
SDI	San Donato	6.55	283	Pn	Pn	02 06 17.4	+0.9
	comp=Z,32nm,0.6s						
SDI	San Donato	6.55	283	P	Pn	02 06 17.4	+0.9
SDI				pmax	pmax		
	comp=Z,32nm,0.6s						
SDI	San Donato	6.55	283	Pn	Pn	02 06 17.4	+0.9
	comp=Z,32nm,0.6s						
ESKT	Eskisehir	6.61	96	i P	Pn	02 06 17.6	+0.4
SEYT	Eskypehyr	6.61	96	i P	Pn	02 06 17.6	+0.4
NVLJ	Novalja	6.85	309	ePn	Pn	02 06 20.7	+0.2
NVLJ				Sn	Sn	02 07 37.4	-1.6
NVLJ	Novalja	6.85	309	ePn	Pn	02 06 20.6	+0.1
NVLJ				Sn	Sn	02 07 37.4	-1.6
VAE	Valguarnera	6.87	246	Pn	Pn	02 06 22.9	+2.1
VAE				Sn	Sn	02 07 36.2	-3.4
VAE	Valguarnera	6.87	246	Pn	Pn	02 06 22.9	+2.1
	comp=Z,0.7nm,0.3s,baz=288,slow=20,SNR=3.4						
VAE				Sn	Sn	02 07 36.2	-3.4
	comp=Z,0.7nm,0.3s,baz=282,slow=19,SNR=2.7						
VAE	Valguarnera	6.87	246	Pn	Pn	02 06 22.9	+2.0
VAE				Sn	Sn	02 07 36.2	-3.4
PKS7	Kunszentmiklos	6.94	342	⇑eP	Pn	02 06 23.6	+1.9
AQU	L'Aquila	6.97	288	ePn	Pn	02 06 22.5	+0.4
AQU				eSn	Sn	02 07 43.6	+1.6
AQU	L'Aquila	6.97	288	⇑iP	Pn	02 06 22.4	+0.2
NRCA	Norcia	7.29	292	Pn	Pn	02 06 26.9	+0.3
NRCA	Norcia	7.29	292	Pn	Pn	02 06 26.9	+0.3

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BUD   Budapest          7.38 342  ePn    Pn    02 06 30.5 +2.7
SGKT  Sivrigoynuk       7.40  86  i P    Pn    02 06 28.8 +0.7
BURAR Bucovina Array    7.41  15    P    Pn    02 06 29.4 +1.2
BURAR Bucovina Array    7.41  15⇓iP     Pn    02 06 29.5 +1.3
BURAR Bucovina Array    7.41  15    P    Pn    02 06 29.4 +1.2
KIZT  Kizilcal          7.53  99  ePN    Pn    02 06 30.2 +0.3
KIZT  Kizilcal          7.53  99  ePn    Pn    02 06 30.2 +0.3
PENC  Penc              7.61 344⇑eP     Pn    02 06 30.5 -0.5
PSZ   Piszkesteto       7.62 348  ePn    Pn    02 06 31.6 +0.5
      comp=Z,17nm,0.7s
PSZ   Piszkesteto       7.62 348  eP     Pn    02 06 31.6 +0.5
PSZ                                pmax  pmax
      comp=Z,17nm,0.7s
PSZ   Piszkesteto       7.62 348⇑ePn    Pn    02 06 33.0 +1.9
PSZ   Piszkesteto       7.62 348  ePn    Pn    02 06 31.6 +0.5
      comp=Z,17nm,0.7s
PSZ   Piszkesteto       7.62 348⇑eP     Pn    02 06 33.0 +1.9
TRPA  Tarpa             7.63   1⇓iP     Pn    02 06 31.2  0.0
FSSB  Fossombrone       7.79 297    Pn   Pn    02 06 32.7 -0.8
FSSB  Fossombrone       7.79 297    Pn   Pn    02 06 32.7 -0.8
KECS  Kecovo            8.09 351  ePn    Pn    02 06 39.4 +1.9
KECS  Kecovo            8.09 351  ePN    Pn    02 06 39.4 +1.9
UZH   Uzhgorod          8.13 360  eP     Pn    02 06 43.0 +4.9
UZH                               eS     Sn    02 08 20.0 +9.5
OBKA  Obir              8.25 319⇓iPn    Pn    02 06 40.1 +0.3
      SNR=12
OBKA  Obir              8.25 319⇑iSn    Sn    02 08 13.3 -0.3
OBKA  Obir              8.25 319⇓iPn    Pn    02 06 40.1 +0.3
OBKA                              i Sn   Sn    02 08 13.3 -0.3
OBKA  Obir              8.25 319⇓iPn    Pn    02 06 40.1 +0.3
      SNR=12
OBKA                             ⇑iSn   Sn    02 08 13.3 -0.3
OBKA  Obir              8.25 319    Pn   Pn    02 06 40.1 +0.3
      comp=Z,12nm,3.0s
VOY   Vojsko            8.28 315  ePn    Pn    02 06 40.4 +0.3
VOY                               eSn    Sn    02 08 12.8 -1.3
VOY   Vojsko            8.28 315  ePn    Pn    02 06 40.4 +0.3
VOY                               eSn    Sn    02 08 12.8 -1.3
VOY   Vojsko            8.28 315  ePn    Pn    02 06 40.4 +0.3
VOY                               eSn    Sn    02 08 12.8 -1.3
SOP   Sopron            8.30 332  e      Pn    02 06 37.7 -2.7
CRE   Caprese Michel    8.33 295    Pn   Pn    02 06 40.5 -0.4
CRE   Caprese Michel    8.33 295    Pn   Pn    02 06 40.5 -0.4
ARSA  Arzberg           8.35 326⇓iPn    Pn    02 06 41.4 +0.3
      SNR=21
ARSA  Arzberg           8.35 326⇓iSn    Sn    02 08 13.8 -2.1
ARSA  Arzberg           8.35 326⇓iPn    Pn    02 06 41.4 +0.3
ARSA                              i Sn   Sn    02 08 13.8 -2.1
ARSA  Arzberg           8.35 326⇓iPn    Pn    02 06 41.4 +0.3
      SNR=21
ARSA                             ⇓iSn   Sn    02 08 13.8 -2.1
ARSA  Arzberg           8.35 326    Pn   Pn    02 06 41.4 +0.3
      comp=Z,20nm,7.0s
VYHS  Vyhne             8.37 344  ePn    Pn    02 06 42.5 +1.1
VYHS  Vyhne             8.37 344  ePN    Pn    02 06 42.4 +1.0
CRVS  Cervenica-Dubn    8.43 356  ePn    Pn    02 06 44.4 +2.3
CRVS  Cervenica-Dubn    8.43 356  ePN    Pn    02 06 44.4 +2.3
KOLS  Kolonicke sedl    8.43 360  ePn    Pn    02 06 43.4 +1.2
KOLS                              eSg    Sg    02 09 23.3  +14
KOLS  Kolonicke sedl    8.43 360  ePN    Pn    02 06 43.4 +1.2
KOLS                              eSG    Sg    02 09 23.3  +14
ELDT  Eldivan           8.45  86  i P    Pn    02 06 43.9 +1.4
KOLL  Kolacno           8.55 342  ePn    Pn    02 06 44.6 +0.7
KOLL  Kolacno           8.55 342  ePN    Pn    02 06 44.6 +0.7
BRTR  Keskin Array B    8.69  91    Pn   Pn    02 06 46.4 +0.5
BRTR  Keskin Array B    8.69  91    Pn   Pn    02 06 46.3 +0.5
      comp=Z,0.3nm,0.3s,baz=275,slow=11,SNR=18
BRTR  Keskin Array B    8.69  91    Pn   Pn    02 06 46.3 +0.4
SMOL  Smolenice         8.74 338  ePn    Pn    02 06 49.0 +2.5
SMOL  Smolenice         8.74 338  ePN    Pn    02 06 49.0 +2.5
PTCC  Patocco-Chiusa    8.80 315    Pn   Pn    02 06 47.4 +0.1
KAMT  Kaman             8.81  94  ePN    Pn    02 06 48.4 +0.9
KAMT  Kaman             8.81  94  ePn    Pn    02 06 48.4 +0.9
STHS  Stebnicka Huta    8.95 355  ePn    Pn    02 06 59.8  +10
STHS                              eSg    Sn    02 09 33.6  +63
STHS  Stebnicka Huta    8.95 355  ePN    Pn    02 06 59.8  +10
STHS                              eSG    Sn    02 09 33.6  +63
KWP   Kalwaria          9.13   2  ePn    Pn    02 06 54.5 +2.7
KBA   Koelnbreinsper    9.24 318  i Pn   Pn    02 06 53.8 +0.5
      SNR=20
KBA   Koelnbreinsper    9.24 318  i Pn   Pn    02 06 53.9 +0.5
KBA                               i Sn   Sn    02 08 35.3 -2.6
KBA   Koelnbreinsper    9.24 318  i Pn   Pn    02 06 53.8 +0.5
      SNR=20
KBA                              ⇑iSn   Sn    02 08 35.3 -2.6
MOA   Molln             9.36 324⇑iPn    Pn    02 06 55.2 +0.3
      SNR=17
MOA   Molln             9.36 324⇑iPn    Pn    02 06 55.2 +0.3
MOA                               i Sn   Sn    02 08 38.0 -2.7
MOA   Molln             9.36 324⇑iPn    Pn    02 06 55.2 +0.3
      SNR=17
MOA                              ⇑iSn   Sn    02 08 38.0 -2.7
ABTA  Abfaltersbach     9.47 314⇑iPn    Pn    02 06 56.3 -0.2
      SNR=19
ABTA  Abfaltersbach     9.47 314    Pn   Pn    02 06 56.3 -0.2
      SNR=19
CTI   Castel Tesino     9.56 309    Pn   Pn    02 06 56.5 -1.2
CTI   Castel Tesino     9.56 309    Pn   Pn    02 06 56.5 -1.2
VRAC  Vranov            9.70 337    LR   LR    02 10 26.6
      comp=Z,166nm,19.6s,baz=231,slow=36
OKC   Ostrava-Krasne    9.79 344  eP     Pn    02 07 10.4  +10
PGF   Pioggiola        10.21 286  eP     Pn    02 07 05.2 -1.4
WTTA  Wattenberg       10.26 315⇓iPn    Pn    02 07 06.9 -0.4
WTTA  Wattenberg       10.26 315⇓iPn    Pn    02 07 06.9 -0.4
WTTA                              i Sn   Sn    02 09 00.8 -2.0
WTTA  Wattenberg       10.26 315⇓iPn    Pn    02 07 06.9 -0.4
WTTA                             ⇑iSn   Sn    02 09 00.8 -2.0
GERES GERESS Array B   10.36 327    Pn   Pn    02 07 09.3 +0.7
GERES                               LR   LR    02 11 27.1
GERES GERESS Array B   10.36 327    Pn   Pn    02 07 09.4 +0.7
      comp=Z,0.7nm,0.3s,baz=148,slow=12,SNR=22
GERES                               LR   LR    02 11 27.1
      comp=Z,149nm,20.4s,baz=355,slow=40
SQTA  Sankt Quirin     10.47 314⇑iPn    Pn    02 07 09.6 -0.5
      SNR=20
SQTA  Sankt Quirin     10.47 314⇑iPn    Pn    02 07 09.6 -0.5
SQTA                              i Sn   Sn    02 09 05.5 -2.4
SQTA  Sankt Quirin     10.47 314⇑iPn    Pn    02 07 09.6 -0.5
      SNR=20
SQTA                             ⇑iSn   Sn    02 09 05.5 -2.4
MOTA  Moosalm          10.60 314⇓iPn    Pn    02 07 12.7 +0.7
      SNR=13
MOTA  Moosalm          10.60 314⇓iPn    Pn    02 07 12.7 +0.7
MOTA                              i Sn   Sn    02 09 10.0 -1.2
MOTA  Moosalm          10.60 314⇓iPn    Pn    02 07 12.7 +0.7
      SNR=13
MOTA                             ⇓iSn   Sn    02 09 10.0 -1.2
FETA  Feichten         10.62 312⇓iPn    Pn    02 07 12.3  0.0
      SNR=9.7
KHC   Kasperske Hory   10.63 327  eP     Pn    02 07 15.6 +3.2
KHC                               e            02 38 05.5
DPC   Dobruska-Polom   10.71 339  eP     Pn    02 07 18.4 +4.9
RETA  Reutte           10.87 314⇓iPn    Pn    02 07 15.1 -0.5
PRU   Pruhonice        10.96 333  eP     Pn    02 07 20.7 +3.9
DAVOX Davos/Dischmat   10.99 309    Pn   Pn    02 07 17.2 -0.1
DAVOX Davos/Dischmat   10.99 309    Pn   Pn    02 07 17.2 -0.1
      comp=Z,1.1nm,0.3s,baz=146,slow=17,SNR=14
DAVOX Davos/Dischmat   10.99 309    Pn   Pn    02 07 17.2 -0.1
DAVOS Davos            11.07 309    P    Pn    02 07 17.2 -1.2
DAVA  Damuels          11.25 311⇑iPn    Pn    02 07 21.5 +0.6
DAVA  Damuels          11.25 311⇑iPn    Pn    02 07 21.5 +0.6
DAVA                              i Sn   Sn    02 09 24.9 -2.2
DAVA  Damuels          11.25 311⇑iPn    Pn    02 07 21.5 +0.6
DAVA                             ⇑iSn   Sn    02 09 25.0 -2.2
AKASG Malin Array Be   11.28  23    Pn   Pn    02 07 20.2 -0.9
AKASG Malin Array Be   11.28  23    P    Pn    02 07 20.2 -1.0
AKASG Malin Array Be   11.28  23    Pn   Pn    02 07 20.2 -0.9
      comp=Z,0.8nm,0.3s,baz=207,slow=11,SNR=3.4
KEST  Kesra            11.29 249    Pn   Pn    02 07 23.0 +1.6
      comp=Z,0.1nm,0.3s,baz=175,slow=23,SNR=7.6
SBF   Sospel           11.56 292  eP     Pn    02 07 23.6 -1.4
      comp=Z,10nm,0.7s
SBF   Sospel           11.56 292  eP     Pn    02 07 23.6 -1.4
SBF                                 pmax pmax
      comp=Z,5.0nm,0.7s
SBF   Sospel           11.56 292  eP     Pn    02 07 23.6 -1.4
      comp=Z,5.2nm,0.7s
FRF   La Foret Royal   12.06 290  eP     Pn    02 07 30.1 -1.9
LMR   La Mourre        12.13 289  eP     Pn    02 07 31.2 -1.7
MBDF  Montbardon       12.22 295  eP     Pn    02 07 32.6 -1.5
      comp=Z,13nm,0.7s
MBDF  Montbardon       12.22 295  eP     Pn    02 07 32.6 -1.5
MBDF                                pmax pmax
```

```
      comp=Z,7.0nm,0.7s
MBDF  Montbardon       12.22 295  eP     Pn    02 07 32.6 -1.5
      comp=Z,6.6nm,0.7s
BNI   Bardonecchia     12.37 297  ePn    Pn    02 07 35.4 -0.8
      comp=Z,8.0nm,0.8s
BNI   Bardonecchia     12.37 297  eP     Pn    02 07 35.4 -0.8
BNI                                 pmax pmax
      comp=Z,8.0nm,0.8s
LPG   La Plagne        12.45 299  eP     Pn    02 07 36.2 -1.1
      comp=Z,17nm,0.8s
LPG   La Plagne        12.45 299  eP     Pn    02 07 36.2 -1.1
LPG                                 pmax pmax
      comp=Z,9.0nm,0.8s
LPG   La Plagne        12.45 299  eP     Pn    02 07 36.2 -1.1
      comp=Z,8.7nm,0.8s
LPL   La Plagne        12.47 299  eP     Pn    02 07 36.1 -1.4
      comp=Z,7.1nm,0.5s
LPL   La Plagne        12.47 299  eP     Pn    02 07 36.1 -1.4
LPL                                 pmax pmax
      comp=Z,4.0nm,0.5s
LPL   La Plagne        12.47 299  eP     Pn    02 07 36.1 -1.4
      comp=Z,3.5nm,0.5s
BFO   Black Forest     12.70 313  ePn    Pn    02 07 38.9 -1.7
      comp=Z,3.9nm,0.6s
BFO   Black Forest     12.70 313  eP     Pn    02 07 38.9 -1.7
BFO                                 pmax pmax
      comp=Z,4.0nm,0.6s
BFO   Black Forest     12.70 313  ePn    Pn    02 07 38.9 -1.7
      comp=Z,3.9nm,0.6s
MMAI  Mount Meron Ar   12.86 121    Pn   Pn    02 07 44.1 +1.2
      comp=Z,0.7nm,0.3s,baz=205,slow=31,SNR=4.3
MMAI                                LR   LR    02 13 25.3
      comp=Z,90nm,20.9s,baz=290,slow=41
ORIF  Oris-en-Rattie   12.88 295  eP     Pn    02 07 41.3 -1.8
ORIF                              eMLR   MLR
      comp=Z,223nm,21.0s
SMRF  Simiane la Rot   12.90 291  eP     Pn    02 07 41.5 -1.9
CABF  La Chapelle      13.27 303  eP     Pn    02 07 46.1 -2.3
HINF  Hinteralfeld     13.29 309  eP     Pn    02 07 46.3 -2.5
      comp=Z,11nm,0.9s
HINF  Hinteralfeld     13.29 309  eP     Pn    02 07 46.3 -2.5
HINF                                pmax pmax
      comp=Z,6.0nm,0.9s
HINF  Hinteralfeld     13.29 309  eP     Pn    02 07 46.3 -2.5
      comp=Z,5.6nm,0.9s
CDF   Champ du Feu     13.34 311  eP     Pn    02 07 46.4 -2.9
      comp=Z,3.1nm,0.5s
CDF   Champ du Feu     13.34 311  eP     Pn    02 07 46.4 -2.9
CDF                                 pmax pmax
      comp=Z,2.0nm,0.5s
CDF   Champ du Feu     13.34 311  eP     Pn    02 07 46.4 -2.9
      comp=Z,1.5nm,0.5s
HAU   Haudompre        13.68 309  eP     Pn    02 07 52.1 -2.0
      comp=Z,39nm,1.1s
HAU   Haudompre        13.68 309  eP     Pn    02 07 52.1 -2.0
HAU                                 pmax pmax
      comp=Z,19nm,1.1s
HAU   Haudompre        13.68 309  eP     Pn    02 07 52.1 -2.0
      comp=Z,19nm,1.1s
VIVF  Saint-Julien-l   13.70 294  eP     Pn    02 07 52.0 -2.4
      comp=Z,3.6nm,0.6s
VIVF  Saint-Julien-l   13.70 294  eP     Pn    02 07 52.0 -2.4
VIVF                                pmax pmax
      comp=Z,2.0nm,0.6s
VIVF  Saint-Julien-l   13.70 294  eP     Pn    02 07 52.0 -2.4
      comp=Z,1.8nm,0.6s
ASF   Jabal al Asfar   14.37 121    LR   LR    02 14 22.8
      comp=Z,87nm,20.8s,baz=221,slow=40
WLF   Walferdange      14.63 314  ePn    Pn    02 08 07.5 +0.6
      comp=Z,23nm,1.3s
WLF   Walferdange      14.63 314  eP     Pn    02 08 07.5 +0.6
WLF                                 pmax pmax
      comp=Z,23nm,1.3s
WLF   Walferdange      14.63 314  ePn    Pn    02 08 07.5 +0.6
      comp=Z,23nm,1.3s
MEZF  Maizieres J'vi   14.68 309  eP     Pn    02 08 05.0 -2.7
      comp=Z,14nm,0.8s
MEZF  Maizieres J'vi   14.68 309  eP     Pn    02 08 05.0 -2.7
      comp=Z,6.8nm,0.8s
SMF   Signal de Mont   14.73 301  eP     Pn    02 08 05.6 -2.8
      comp=Z,19nm,0.8s
SMF   Signal de Mont   14.73 301  eP     Pn    02 08 05.6 -2.8
SMF                                 pmax pmax
      comp=Z,10.0nm,0.8s
SMF   Signal de Mont   14.73 301  eP     Pn    02 08 05.6 -2.8
      comp=Z,9.6nm,0.8s
EIL   Elat             14.93 132    Pn   Pn    02 08 11.8 +0.7
EIL                                 LR   LR    02 16 02.5
EIL   Elat             14.93 132    Pn   Pn    02 08 11.8 +0.7
      comp=Z,0.2nm,0.3s,baz=4.5,slow=18,SNR=3.3
EIL                                 LR   LR    02 16 02.5
      comp=Z,65nm,18.9s,baz=269,slow=46
LOR   Lormes           14.93 303  eP     Pn    02 08 08.1 -2.9
      comp=Z,20nm,1.0s
LOR   Lormes           14.93 303  eP     Pn    02 08 08.1 -2.9
LOR                                 pmax pmax
      comp=Z,10.0nm,1.0s
LOR   Lormes           14.93 303  eP     Pn    02 08 08.1 -2.9
      comp=Z,9.9nm,1.0s
SSF   Saint Saulge     15.09 302  eP     Pn    02 08 10.3 -2.9
      comp=Z,20nm,0.8s
SSF   Saint Saulge     15.09 302  eP     Pn    02 08 10.3 -2.9
SSF                                 pmax pmax
      comp=Z,10.0nm,0.8s
SSF   Saint Saulge     15.09 302  eP     Pn    02 08 10.3 -2.9
      comp=Z,10nm,0.8s
AVF   Avril sur Loir   15.10 301  eP     Pn    02 08 10.4 -3.0
      comp=Z,44nm,1.0s
AVF   Avril sur Loir   15.10 301  eP     Pn    02 08 10.4 -3.0
AVF                                 pmax pmax
      comp=Z,22nm,1.0s
AVF   Avril sur Loir   15.10 301  eP     Pn    02 08 10.4 -3.0
      comp=Z,22nm,1.0s
MTLF  Montolieu        15.24 287  eP     Pn    02 08 11.9 -3.4
BGF   Bois d'Agland    15.37 300  eP     Pn    02 08 13.7 -3.2
      comp=Z,18nm,0.9s
BGF   Bois d'Agland    15.37 300  eP     Pn    02 08 13.7 -3.2
BGF                                 pmax pmax
      comp=Z,9.0nm,0.9s
BGF   Bois d'Agland    15.37 300  eP     Pn    02 08 13.7 -3.2
      comp=Z,9.2nm,0.9s
CAF   Calviac          15.54 293  eP     Pn    02 08 15.9 -3.2
      comp=Z,10nm,0.8s
CAF   Calviac          15.54 293  eP     Pn    02 08 15.9 -3.2
CAF                                 pmax pmax
      comp=Z,5.0nm,0.8s
CAF   Calviac          15.54 293  eP     Pn    02 08 15.9 -3.2
      comp=Z,5.2nm,0.8s
TCF   Toulx Ste Croi   15.72 298  eP     Pn    02 08 17.9 -3.6
BAIF  Baives           15.91 313  eP     Pn    02 08 20.7 -3.2
RJF   Les Rejaudoux    15.98 294  eP     Pn    02 08 22.0 -3.0
      comp=Z,7.0nm,0.7s
RJF                               eMLR   MLR
      comp=Z,231nm,18.2s
RJF   Les Rejaudoux    15.98 294  eP     Pn    02 08 22.0 -3.0
RJF                                 pmax pmax
      comp=Z,4.0nm,0.7s
RJF   Les Rejaudoux    15.98 294  eP     Pn    02 08 22.0 -3.0
      comp=Z,3.5nm,0.7s
LFF   La Frestale      16.47 293  eP     Pn    02 08 27.8 -3.4
EPF   Esparros         16.60 286  eP     Pn    02 08 29.4 -3.5
ETSF  Etsaut           17.26 285  eP     Pn    02 08 37.7 -3.5
MFF   Saint Martin d   17.38 298  eP     Pn    02 08 39.6 -3.0
OBN   Obninsk          17.41  28⇑eP     Pn    02 08 43.0  0.0
OBN                                 pmax pmax
      comp=Z,9.0nm,0.7s
SJPF  Ste Jean         17.75 286  eP     Pn    02 08 44.3 -3.0
LDF   La Druitiere     17.89 304  eP     Pn    02 08 45.9 -3.1
      comp=Z,26nm,1.0s
LDF   La Druitiere     17.89 304  eP     Pn    02 08 45.9 -3.1
LDF                                 pmax pmax
      comp=Z,13nm,1.0s
LDF   La Druitiere     17.89 304  eP     Pn    02 08 45.9 -3.1
      comp=Z,13nm,1.0s
FLN   La Foliniere     18.17 305  eP     Pn    02 08 49.6 -2.8
GRR   Gorron           18.30 303  eP     Pn    02 08 51.7 -2.3
SGMF  Saint Gilles     19.35 302  eP     Pn    02 09 03.5 -3.3
      comp=Z,71nm,1.2s
SGMF  Saint Gilles     19.35 302  eP     Pn    02 09 03.5 -3.3
SGMF                                pmax pmax
      comp=Z,36nm,1.2s
SGMF  Saint Gilles     19.35 302  eP     Pn    02 09 03.5 -3.3
      comp=Z,36nm,1.2s
QUIF  Quistinic        19.67 301  eP     Pn    02 09 07.0 -3.6
ROSF  Rostrenen        19.84 302  eP     Pn    02 09 08.7 -3.9
      comp=Z,77nm,1.2s
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ROSF  Rostrenen        19.84 302  eP     Pn    02 09 08.7 -3.9
ROSF                                pmax pmax
      comp=Z,39nm,1.2s
ROSF  Rostrenen        19.84 302  eP     Pn    02 09 08.7 -3.9
      comp=Z,38nm,1.2s
ESDC  Sonseca Array    20.12 276    P    P     02 09 13.3 -0.9
      comp=Z,0.9nm,0.7s,baz=76,slow=10,SNR=5.8
HFS   Hagfors          20.38 348    P    P     02 09 15.8 -1.1
      comp=Z,3.2nm,0.9s,baz=166,slow=18,SNR=4.8
HFS                                 LR   LR    02 16 38.7
      comp=Z,155nm,20.1s,MS3.4,baz=246,slow=35
FINES FINESS Array B   21.10   5    P    P     02 09 23.4 -1.2
FINES                               LR   LR    02 18 10.4
FINES FINESS Array B   21.10   5    P    P     02 09 23.4 -1.2
      comp=Z,2.0nm,0.6s,mb3.6,baz=186,slow=9.6,SNR=12
FINES                               LR   LR    02 18 10.4
      comp=Z,100nm,20.1s,MS3.2,baz=334,slow=38
NAO01 NORSAR Array S   21.56 345  eP     P     02 09 29.7 +0.1
      comp=Z,8.3nm,0.8s,mb4.2
NB2   NORSAR Subarra   21.68 345    P    P     02 09 30.0 -0.8
      comp=Z,7.1nm,0.8s,mb4.2,baz=155,slow=11
NOA   NORSAR Array B   21.68 345    P    P     02 09 29.8 -1.0
NOA                                 LR   LR    02 18 26.0
NOA   NORSAR Array B   21.68 345    P    P     02 09 29.8 -1.0
      comp=Z,4.7nm,0.7s,mb4.0,baz=163,slow=11,SNR=9.4
NOA                                 LR   LR    02 18 26.0
      comp=Z,66nm,21.1s,MS3.0,baz=180,slow=38
KAF   Kangasniemi      21.78   5  ep     P     02 09 30.5 -1.4
      comp=Z,5.8nm,0.7s,mb4.1
KAF   Kangasniemi      21.78   5  eP     P     02 09 30.5 -1.4
KAF                                 pmax pmax
      comp=Z,6.0nm,0.7s,mb4.1
EKA   Eskdalemuir Ar   22.45 320    P    P     02 09 38.2 -0.9
      comp=Z,5.5nm,0.7s,mb4.1,baz=117,slow=9.8,SNR=18
EKA   Eskdalemuir Ar   22.45 320    P    P     02 09 38.2 -1.0
ESK   Eskdalemuir      22.47 320  eP     P     02 09 38.1 -1.2
      comp=Z,7.1nm,0.7s,mb4.2
ESK   Eskdalemuir      22.47 320  eP     P     02 09 38.1 -1.2
ESK                                 pmax pmax
      comp=Z,7.0nm,0.7s,mb4.2
ESK   Eskdalemuir      22.47 320  eP     P     02 09 38.1 -1.2
      comp=Z,7.1nm,0.7s,mb4.2
JOF   Joensuu          23.08  10  ep     P     02 09 42.0 -3.8
      comp=Z,2.2nm,0.7s,mb3.7
AKTK  Aktyubinsk       26.69  56    P    P     02 10 19.6 +0.3
AKTK                                LR   LR    02 22 30.0
AKTK  Aktyubinsk       26.69  56    P    P     02 10 19.6 +0.2
AKTO  Aktyubinsk       26.69  56    P    P     02 10 19.6 +0.2
      comp=Z,0.7nm,0.6s,mb3.4,baz=275,slow=11,SNR=5.3
AKTO                                LR   LR    02 22 30.0
      comp=Z,79nm,18.9s,MS3.3,baz=120,slow=40
ARCES ARCESS Array B   29.15   2    P    P     02 10 40.5 -0.7
      comp=Z,3.7nm,0.6s,mb4.3,baz=188,slow=10,SNR=34
KEV   Kevo             29.42   3  ep     P     02 10 42.7 -0.9
      comp=Z,2.4nm,0.5s,mb4.2
KEV   Kevo             29.42   3  eP     P     02 10 42.7 -0.9
KEV                                 pmax pmax
      comp=Z,2.0nm,0.5s,mb4.1
TOA0  Torodi Ar. Sit   32.72 219  eP     P     02 11 12.1 -1.0
TOA0  Torodi Ar. Sit   32.72 219  eP     P     02 11 12.1 -1.1
TORD  Torodi Ar. Bea   32.72 219    P    P     02 11 12.6 -0.6
      comp=Z,3.1nm,0.5s,mb4.5,baz=34,slow=9.2,SNR=109
BRVK  Borovoye         34.50  52  eP     P     02 11 28.8 +0.4
      comp=Z,3.8nm,0.8s,mb4.4
BRVK  Borovoye         34.50  52  eP     P     02 11 28.8 +0.4
BRVK                                pmax pmax
      comp=Z,4.0nm,0.8s,mb4.4
BRVK  Borovoye         34.50  52  eP     P     02 11 28.8 +0.4
      comp=Z,3.8nm,0.8s,mb4.4
EKS2  Erkin-Say        38.05  69  eP     P     02 11 59.1 +0.2
      comp=Z,2.9nm,0.8s,mb4.1
EKS2  Erkin-Say        38.05  69  eP     P     02 11 59.1 +0.2
      comp=Z,2.9nm,0.8s,mb4.1
AAK   Ala-Archa        38.57  69  eP     P     02 12 03.1 -0.1
AAK                                 pmax pmax
      comp=Z,1.0nm,0.6s,mb3.7
AAK   Ala-Archa        38.57  69  eP     P     02 12 03.1 -0.1
      comp=Z,1.3nm,0.6s,mb3.8
LIC   Lamto            42.02 223  eP     P     02 12 28.8 -3.2
      comp=Z,7.2nm,0.6s,mb4.2
LIC   Lamto            42.02 223  eP     P     02 12 28.8 -3.2
      comp=Z,3.6nm,0.6s,mb4.2
MK31  Makanchi Array   42.91  61  eP     P     02 12 38.5 -0.5
MK31  Makanchi Array   42.91  61  eP     P     02 12 38.5 -0.5
MKAR  Makanchi Array   42.91  61    P    P     02 12 38.9 -0.1
      comp=Z,2.0nm,0.6s,mb4.0,baz=279,slow=6.9,SNR=37
ZAL   Zalesovo         43.10  50    P    P     02 12 40.0 -0.4
ZALV  Zalesovo Beam    43.11  50    P    P     02 12 40.0 -0.4
      comp=Z,2.9nm,0.6s,mb4.2,baz=274,slow=8.3,SNR=16
BOD   Bodaibo          57.68  39  eP     P     02 14 28.4 -2.3
BOD                                 pmax pmax
      comp=Z,3.0nm,1.5s,mb4.1
SCHQ  Schefferville    57.72 317    P    P     02 14 30.8 -0.3
      comp=Z,1.9nm,0.7s,mb4.2,baz=65,slow=18,SNR=3.8
SONM  Songino Array    57.91  52    P    P     02 14 32.2 -0.3
      comp=Z,1.2nm,0.7s,mb4.0,baz=281,slow=8.8,SNR=13
RES   Resolute Bay     57.93 344  eP     P     02 14 32.1 -0.1
      comp=Z,17nm,0.6s,mb5.2
RES   Resolute Bay     57.93 344  eP     P     02 14 32.1 -0.1
      comp=Z,17nm,0.6s,mb5.2
ULN   Ulaanbaatar      58.29  52  eP     P     02 14 35.2  0.0
      comp=Z,1.0nm,0.6s,mb4.0
ULN   Ulaanbaatar      58.29  52  eP     P     02 14 35.2 +0.1
ULN                                 pmax pmax
      comp=Z,1.0nm,0.6s,mb4.0
ULN   Ulaanbaatar      58.29  52  eP     P     02 14 35.2 +0.1
      comp=Z,1.0nm,0.6s,mb4.0
LBTB  Lobatse          65.25 177  eP     P     02 15 22.8 +0.7
      comp=Z,2.9nm,0.9s,mb4.3
LBTB  Lobatse          65.25 177  eP     P     02 15 22.8 +0.7
LBTB                                pmax pmax
      comp=Z,3.0nm,0.9s,mb4.3
LBTB  Lobatse          65.25 177  eP     P     02 15 22.8 +0.7
      comp=Z,2.9nm,0.9s,mb4.3
BOSA  Boshof           68.81 177  eP     P     02 15 45.3 +0.6
      comp=Z,5.2nm,1.0s,mb4.4
BOSA  Boshof           68.81 177  eP     P     02 15 45.3 +0.6
BOSA                                pmax pmax
      comp=Z,5.0nm,1.0s,mb4.4
BOSA  Boshof           68.81 177    P    P     02 15 45.0 +0.2
      comp=Z,0.8nm,0.6s,mb3.8,baz=16,slow=16,SNR=3.9
BOSA  Boshof           68.81 177  eP     P     02 15 45.3 +0.6
      comp=Z,5.2nm,1.0s,mb4.4
YKA   Yellowknife Ar   71.69 340    P    P     02 16 01.7 -0.3
      comp=Z,1.2nm,0.7s,mb3.9,baz=35,slow=5.4,SNR=16
IMA2  Indian Mountai   73.72 358  eP     P     02 16 14.6 +0.5
IMA2  Indian Mountai   73.72 358  eP     P     02 16 14.6 +0.5
ULM   Lac du Bonnet    74.66 324    P    P     02 16 19.3 -0.5
      comp=Z,3.0nm,0.6s,mb4.4,baz=43,slow=5.0,SNR=12
KSRS  Korea Array      76.78  52    P    P     02 16 31.1 -1.1
      comp=Z,0.6nm,0.4s,mb3.9,baz=318,slow=5.3,SNR=4.3
PDAR  Pinedale Array   86.41 327    P    P     02 17 23.7 +0.7
      comp=Z,0.5nm,0.8s,mb3.8,baz=18,slow=3.1,SNR=3.4
TXAR  Lajitas Array    94.37 315    P    P     02 17 59.7 -0.8
      comp=Z,0.8nm,0.8s,mb4.2,baz=84,slow=2.8,SNR=3.2
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*IDC **21** 02:06:53.9±0.9, 0.11N×97.47E, h0^{km}, mb4.1/12, mb1 4.1/13, mb1mx4.0/22, mbtmp4.0/13, ML3.2/1, Error ellipse: s-maj=32.7km s-min=16.8km az=52.0*

*ISCJB **21** 02:06:57.6±0.7, 0.22N±0.09×97.6E±0.1, h33^{km}, mb4.0/17, Error ellipse: s-maj=17.0km s-min=12.4km az=151.2*

*NEIC **21** 02:06:58.8±0.5, 0.17N×97.59E, h30^{km}, mb4.2/5, Error ellipse: s-maj=12.4km s-min=8.7km az=60.0*

ISC 21 02:06:59.7±0.7, **0.21N**±0.10×**97.6E**±0.1, **h35^{km}, n22,** σ0^{s}.67/22, **mb4.0**/17, **Northern Sumatera**

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Code  Station Name       Δ°   AZ°   Phase ID          Time      Res
                                   Op     ISC        h  m  s    ISC
PSI   Prapat            2.88   26  Pn     Pn     02 07 41.6 -1.5
PSI   Prapat            2.88   26  Pn     Pn     02 07 41.6 -1.5
      3.4nm,0.3s,baz=180,slow=12,SNR=8.5
KULM  Kulim             5.88   31 ePn     Pn     02 08 24.7 +0.3
WRA   Warramunga Arr   41.14  121  P      P      02 14 40.4 -0.5
      0.6nm,0.3s,mb3.6,baz=304,slow=8.9,SNR=7.7
ASAR  Alice Springs    42.45  127  P      P      02 14 51.6 +0.1
      1.2nm,0.5s,mb3.8,baz=297,slow=8.2,SNR=15
KSRS  Korea Array      46.42   34  P      P      02 15 23.1 +0.1
      0.7nm,0.4s,mb3.9,baz=115,slow=35,SNR=5.7
AAK   Ala-Archa        47.08  337 eP      P      02 15 27.9 -0.3
      2.0nm,1.0s,mb4.0
EKS2  Erkin-Say        47.39  336 eP      P      02 15 31.9 +1.3
      2.3nm,0.9s,mb4.1
SONM  Songino Array    48.05    8  P      P      02 15 35.8 +0.3
      2.2nm,0.8s,mb4.3,baz=191,slow=9.8,SNR=15
SONM                               PcP    PcP    02 17 03.6 +0.5
```

	0.9nm,0.9s,baz=202,slow=3.7,SNR=3.1						
ULN	Ulaanbaatar	48.17	8	eP	P	02 15 37.1	+0.6
	2.0nm,0.9s,mb4.2						
MK31	Makanchi Array	48.31	346	eP	P	02 15 38.2	+0.6
MKAR	Makanchi Array	48.31	346	P	P	02 15 38.1	+0.5
	3.8nm,0.7s,mb4.6,baz=154,slow=7.9,SNR=40						
STKA	Stephens Creek	52.37	132	P	P	02 16 09.2	+0.6
	0.9nm,0.7s,mb3.8,baz=14,slow=22,SNR=3.0						
KURK	Kurchatov	52.86	345	eP	P	02 16 12.5	+0.7
	3.1nm,0.8s,mb4.3						
ZALV	Zalesovo Beam	54.60	351	P	P	02 16 24.8	+0.3
	3.8nm,0.4s,mb4.8,baz=177,slow=5.9,SNR=31						
BRVK	Borovoye	57.39	341	eP	P	02 16 43.8	-0.7
	1.0nm,0.5s,mb4.1						
BRTR	Keskin Array B	70.10	313	P	P	02 18 07.7	-0.9
	0.5nm,0.7s,mb3.5,baz=109,slow=6.3,SNR=3.0						
AKASG	Malin Array Be	76.31	323	P	P	02 18 44.0	-1.0
	0.5nm,0.4s,mb3.8,baz=87,slow=4.7,SNR=4.2						
FINES	FINESS Array B	81.08	333	P	P	02 19 10.7	-0.3
	1.0nm,0.8s,mb3.8,baz=96,slow=9.9,SNR=3.8						
ARCES	ARCESS Array B	83.61	340	P	P	02 19 24.3	+0.2
ARCES	ARCESS Array B	83.61	340	P	P	02 19 24.3	+0.2
	1.6nm,0.7s,mb4.2,baz=94,slow=3.9,SNR=8.1						
GERES	GERESS Array B	85.85	319	P	P	02 19 35.2	-0.6
	0.7nm,0.8s,mb3.9,baz=90,slow=4.0,SNR=4.9						

ISC 21 02:10:35.1±2.7,258N±02×965E±02,h10^{km},n8,σ0^{s}73/9, Myanmar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMP	Imphal	2.58	247	eP	Pn	02 11 17.0	+0.1
SHL	Shillong	4.21	268	eP	Pn	02 11 41.0	+1.6
AGT	Agartala	5.18	249	eP	Sn	02 12 52.0	-0.5
TAPN	Taplejung	8.05	283	eP	Pn	02 12 31.6	-0.5
	6.7nm,0.3s						
TAPN				eS	Sn	02 14 03.7	+0.4
ODAN	Odare	8.28	279	eP	Pn	02 12 35.9	+0.7
	34nm,0.8s						
JIRN	Jiri	9.43	283	eP	Pn	02 12 50.9	-0.2
	5.2nm,0.2s						
KKN	Kakani	10.25	284	eP	Pn	02 13 01.6	-0.7
	16nm,0.6s						
GKN	Gorkha	10.85	284	eP	Pn	02 13 09.7	-0.7
	9.2nm,0.4s						

BJI ***21*** *02:19:48.3,152S×12777E,h26^{km},mB5.7,mb5.6,Ms5.2, Msz4.9*

ISCJB ***21*** *02:19:53.3±0.2,090S±002×12732E±003,h21^{km}, mb5.6/130,MS5.1/144,Error ellipse: s-maj=3.9km s-min=2.9km az=170.2*

GCMT ***21*** *02:19:55.8±0.2,093S×12722E,h20^{km},MW5.5/99, Moment Tensor Solution. s80,c135; s99,c212; Duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.45±.04; M$_{\theta\theta}$-1.74±.03; M$_{\phi\phi}$0.28±.03; M$_{r\theta}$0.88±.07; M$_{\theta\phi}$1.22±.03; M$_{\phi r}$0.98±.07; Best double couple: M$_0$2.41000×10^{17} NP1:ϕ_s327.00000°,δ51.00000°, λ142.00000°. NP2:ϕ_s83.00000°,δ62.00000°,λ46.00000°. Principal axes: T 2.4650, Plg52.0000°, Azm301.0000°; N -0.1160, Plg37.0000°, Azm108.0000°; P -2.3560, Plg6.0000°, Azm203.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

MOS ***21*** *02:19:55.6±1.1,084S×127.15E,h33^{km},mb5.8/46, MS4.9/37 Error ellipse: s-maj=10.2km s-min=5.1km az=115.3*

NEIC ***21*** *02:19:55.8±1.7,095S×127.19E,h28^{km}±11^{km},mb5.6/60, MS5.1/114,MW5.5,Error ellipse: s-maj=6.2km s-min=3.8km az=63.0,Moment Tensor Solution. s18 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.92; M$_{\theta\theta}$-1.51; M$_{\phi\phi}$-0.42; M$_{r\theta}$0.26; M$_{\theta\phi}$1.05; M$_{\phi r}$1.07; Best double couple: M$_0$2.30000×10^{17} NP1:ϕ_s99.00000°,δ45.00000°, λ54.00000°. NP2:ϕ_s325.00000°,δ55.00000°,λ121.00000°. Principal axes: T 2.4400, Plg64.0000°, Azm292.0000°; N -0.2700, Plg25.0000°, Azm126.0000°; P -2.1800, Plg5.0000°, Azm34.0000°;*

NEIC Felt [IV] at Labuha and [III] on Ternate.

IDC ***21*** *02:19:57.1±1.4,094S×12722E,h37^{km}±11^{km},mb5.1/26, mb1 5.1/27,mb1mx5.1/28,mbtmp5.1/27,ML5.1/1,MS4.9/14, Ms1 4.9/14,ms1mx4.7/25 Error ellipse: s-maj=13.6km s-min=7.9km az=68.0*

ISC 21 02:19:55.3±0.1,092S±002×12732E±003,h23^{km}, h23^{km}±1.7^{km}:pP-P,n567,σ1^{s}15/420,mb5.6/130,MS5.1/144, 62C-26D,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	Ambon	2.88	162	P	Pn	02 20 40.4	+0.6
	11µm,1.3s						
GSPH	General Santos	7.35	341	⇑eP	Pn	02 21 41.9	+0.5
PCI	Palu	7.48	270	P	Pn	02 21 42.4	-0.7
	3µm,1.1s						
DAV	Davao City (W)	8.13	348	eP	Pn	02 21 54.0	+2.0
BAKI	Biak	8.79	92	P	Pn	02 22 07.6	+6.5
	354nm,1.3s						
BIPH	Bislig	9.10	354	⇑eP	Pn	02 22 07.5	+2.3
BIPH				i S	Sn	02 23 45.4	-1.6
CGP	Cagayan de Oro	9.68	344	⇓eP	Pn	02 22 13.2	0.0
MYLDM	Lahad Datu	10.69	305	⇓P	Pn	02 22 28.2	+1.0
TSM	Tawau	10.77	299	⇓P	Pn	02 22 27.8	-0.4
WSI	Waingapu	11.15	219	P	Pn	02 22 36.5	+3.1
	1µm,1.4s						
SDKM	Sandakan	12.03	303	⇓P	Pn	02 22 46.8	+1.3
KAKA	Kakadu	12.77	157	eP	Pn	02 22 53.6	-1.9
	228nm,0.6s						
KAKA				eS	Sn	02 25 12.3	-4.7
KDM	Kudat	13.04	307	⇑P	Pn	02 23 02.2	+2.9
KKM	Kota Kinabalu	13.07	302	ePn	Pn	02 22 59.6	-0.1
KKM	Kota Kinabalu	13.07	302	⇑P	Pn	02 23 00.6	+0.9
RCP	Roxas	13.21	340	⇓eP	Pn	02 23 02.5	+0.9
BATP	Bataraza	13.54	316	eP	Pn	02 23 10.2	+4.2
KMMI	Kalianget	14.64	245	P	Pn	02 23 23.2	+2.1
	924nm,1.4s						
NBBI	Negara	14.65	239	P	Pn	02 23 23.0	+1.7
	1µm,1.1s						
PVCP	Virac	14.76	348	⇑eP	Pn	02 23 23.5	+0.7
PVCP	Virac	14.76	348	eP	Pn	02 23 23.2	+0.4
BTM	Bintulu	14.81	286	⇓P	Pn	02 23 23.8	+0.4
SBUM	Sibu	15.46	283	⇓P	Pn	02 23 31.3	-0.9
LUBP	Lubang	16.16	335	eP	Pn	02 23 40.8	-0.3
TGY	Tagaytay City	16.21	337	⇑eP	Pn	02 23 46.5	+4.8
KRKI	Karangkates	16.46	244	P	Pn	02 23 47.0	+2.0
	1µm,1.5s						
FITZ	Fitzroy Crossi	17.15	185	⇑iP	Pn	02 23 51.3	-2.3
	206nm,0.7s						
FITZ				eS	Sn	02 26 59.9	-3.9
FITZ	Fitzroy Crossi	17.15	185	P	Pn	02 23 51.6	-2.0
	4.8nm,0.3s,baz=22,slow=13,SNR=66						
FITZ				S	Sn	02 27 05.8	+1.9
	0.5nm,0.3s,baz=110,slow=9.4,SNR=4.1						
FITZ				LR	LR	02 31 16.7	
	comp=Z,3µm,18.1s,baz=3.7,slow=40						
KSM	Kuching	17.18	278	ePn	Pn	02 23 52.7	-1.3
KSM	Kuching	17.18	278	⇓P	Pn	02 23 53.3	-0.7
SCZP	Santa Cruz	18.14	336	eP	Pn	02 24 04.5	-1.3
BJII	Banjamegara	18.67	250	P	Pn	02 24 13.8	+1.4
	3µm,1.7s						
CVP	Callao Caves	19.28	344	⇓eP	Pn	02 24 18.9	-0.9
TPI	Tanjungpandan	19.74	264	P	Pn	02 24 24.1	-1.1
	2µm,1.3s						
JCJI	Jatiwangi	19.79	253	P	Pn	02 24 26.2	+0.4
	4µm,1.5s						
WRA	Warramunga Arr	20.11	160	P	P	02 24 26.0	-1.6
	96nm,0.7s,baz=340,slow=12,SNR=70						
WRA				S	S	02 28 02.4	-10
	24nm,1.1s,baz=348,slow=21,SNR=3.7						
WB2	Warramunga Arr	20.12	160	eP	P	02 24 25.9	-1.8
COEN	Coen	20.34	130	eP	P	02 24 31.3	+1.0
	253nm,1.0s						
LEM	Lembang	20.50	253	P	P	02 24 33.1	+1.1
	1µm,1.3s						
TNG	Tangerang	21.27	255	P	P	02 24 41.9	+1.5
	5µm,1.4s						
MBWA	Marble Bar	21.43	200	⇑eP	P	02 24 40.8	-1.2
	298nm,1.0s,mb5.6						
MBWA				eS	S	02 28 35.3	-3.5
MBWA				LR	LR		
	comp=Z,4µm,19.0s,MS4.8						
PMG	Port Moresby	21.46	114	eP	P	02 24 43.0	+0.6
	comp=Z,164nm,0.8s,mb5.4						
PMG				LR	LR		
	comp=Z,4µm,20.0s,MS4.9						
PMG	Port Moresby	21.46	114	c iP	P	02 24 46.9	+4.5
PMG	Port Moresby	21.46	114	P	P	02 24 42.7	+0.3
	comp=Z,179nm,0.8s,mb5.4,baz=315,slow=5.0,SNR=34						
SBJI	Serang	21.76	256	P	P	02 24 46.1	+0.5
	comp=Z,4µm,1.5s						
GUMO	Guam	22.59	50	PFAKE		02 25 10.0	+16
GUMO				LR	LR		
	comp=Z,4µm,19.0s,MS4.8						
ASAR	Alice Springs	23.49	165	P	P	02 25 02.6	-1.2
	comp=Z,270nm,0.8s,mb5.7,baz=344,slow=9.9,SNR=841						
ASAR				S	S	02 29 13.2	-2.8
	comp=Z,38nm,1.1s,baz=347,slow=24,SNR=8.2						
XMIS	Christmas Isla	23.54	245	eP	P	02 25 02.3	-2.0
MYKOM	Kota Tinggi	23.62	277	⇓P	P	02 25 05.2	+0.1
KGM	Kluang	24.17	277	⇓P	P	02 25 11.5	+1.3
KSI	Kapahiang	24.85	263	P	P	02 25 16.9	+0.5
	comp=Z,2µm,1.0s,mb6.5						
KTGM	Kuala Trenggan	24.94	285	⇑P	P	02 25 19.2	+2.0
NACB	Ninganchiao	25.56	348	eP	P	02 25 22.6	0.0
FRIM	Kepong	26.01	279	⇓P	P	02 25 28.1	+1.2
YHNB	Yeheng	26.09	348	eP	P	02 25 27.0	-0.4
QIZ	Qiongzhong	26.23	320	P	P	02 25 28.8	+0.1
QIZ				S	S	02 29 57.1	-2.8
QIZ				AMB	AMB		
	comp=Z,90nm,1.5s,mb5.1						
QIZ				AMB	AMB		
	comp=Z,1µm,9.9s						
QIZ				LR	LR		
	comp=N,1µm,17.3s,MS4.8						
QIZ				LR	LR		
	comp=E,2µm,16.0s,MS4.8						
QIZ				LR	LR		
	comp=Z,2µm,18.2s,MS4.7						
QIZ	Qiongzhong	26.23	320	eP	P	02 25 27.8	-0.9
	comp=Z,176nm,1.4s,mb5.4						
QIZ				LR	LR		
	comp=Z,2µm,21.0s,MS4.6						
TATO	Taipei	26.36	348	eP	P	02 25 29.6	-0.2
	comp=Z,304nm,1.1s,mb5.7						
TATO				LR	LR		
	comp=Z,2µm,20.0s,MS4.6						
HKC	Hong Kong Obse	26.41	332	⇑iP	P	02 25 30.0	-0.3
HKC				i S	S	02 30 04.0	+1.3
CTA	Charters Tower	26.57	137	eP	P	02 25 33.9	+2.1
	comp=Z,83nm,1.1s,mb5.2						
CTA				eS	S	02 30 08.9	+3.6
CTA	Charters Tower	26.57	137	P	P	02 25 33.2	+1.4
CTA				pmax	pmax		
	comp=Z,143nm,1.1s						
CTA	Charters Tower	26.57	137	P	P	02 25 33.2	+1.4
	comp=Z,143nm,1.1s,mb5.4,baz=317,slow=12,SNR=24						
CTAO	Charters Tower	26.57	137	eP	P	02 25 33.5	+1.7
	comp=Z,176nm,1.2s,mb5.5						
CTAO				LR	LR		
	comp=Z,7µm,20.0s,MS5.2						
CTAO	Charters Tower	26.57	137	eP	P	02 25 33.5	+1.7
CTAO				pmax	pmax		
	comp=Z,176nm,1.2s,mb5.5						
CTAO				MLR	MLR		
	comp=Z,7µm,20.0s,MS5.2						
PPI	Padang Panjang	26.92	271	P	P	02 25 35.3	+0.2
	comp=Z,970nm,1.6s,mb6.1						
QZH	Quanzhou	27.07	342	⇑iP	P	02 25 38.9	+2.7
QZH				S	S	02 30 14.3	+1.3
QZH				AMB	AMB		
	comp=Z,350nm,1.2s,mb5.8						
QZH				AMB	AMB		
	comp=Z,3µm,8.4s						
KULM	Kulim	27.34	283	⇑iP	P	02 25 38.2	-0.7
KULM	Kulim	27.34	283	⇑P	P	02 25 39.6	+0.7
GZH	Guangzhou	27.47	331	P	P	02 25 43.3	+3.4
GZH				S	S	02 30 24.4	+4.9
GZH				LR	LR		
	comp=N,1µm,14.6s,MS4.8						
GZH				LR	LR		
	comp=E,1µm,13.4s,MS4.8						
GZH				LR	LR		
	comp=Z,2µm,25.5s						
JOW	Kunigami	27.61	2	P	P	02 25 41.8	+0.7
	comp=Z,62nm,0.7s,mb5.4,baz=178,slow=8.8,SNR=26						
JOW				LR	LR	02 37 05.6	
	comp=Z,3µm,18.6s,MS4.8,baz=52,slow=37						
SNG	Songkhla	27.83	287	P	P	02 25 43.0	-0.2
	comp=Z,148nm,1.0s,mb5.6						
PSI	Prapat	28.63	278	P	P	02 25 50.0	-0.4
	comp=Z,76nm,0.8s,mb5.5,baz=99,slow=6.9,SNR=98						
PSI				S	S	02 30 37.3	-0.7
	comp=Z,2.0nm,0.4s,baz=323,slow=20,SNR=6.0						
KKTK	Khon Kaen	29.64	306	P	P	02 26 03.0	+3.7
	comp=Z,679nm,0.6s,mb6.5						
FORT	Forrest	29.70	179	⇑iP	P	02 25 59.1	-0.6
	comp=Z,217nm,1.0s,mb5.8						
FORT				ePP	PP	02 27 09.8	+2.8
CBIJ	Chichi jima	31.32	26	LR	LR	02 36 23.5	
	comp=Z,1µm,19.8s,MS4.7,baz=205,slow=31						
NST	Nakhon Sawan	31.52	303	P	P	02 26 15.7	-0.2
	comp=Z,43nm,1.0s,mb5.2						
KLBR	Kellerberrin	31.82	196	eP	P	02 26 17.1	-1.2
	comp=Z,104nm,1.2s,mb5.5						
COCO	West Island	32.24	248	PFAKE		02 26 30.0	+7.7
COCO				LR	LR		
	comp=Z,1µm,20.0s,MS4.7						
SSE	Sheshan	32.37	350	P	P	02 26 23.8	+0.6
SSE				S	S	02 31 37.4	+1.2
SSE				AMB	AMB		
	comp=Z,48nm,0.8s,mb5.4						
SSE				AMB	AMB		
	comp=Z,517nm,7.9s						
SSE				LR	LR		
	comp=N,198nm,15.7s,MS4.7						
SSE				LR	LR		
	comp=E,1µm,15.7s,MS4.7						
SSE				LR	LR		
	comp=Z,653nm,15.2s,MS4.4						
SSE	Sheshan	32.37	350	P	P	02 26 23.8	+0.6
	comp=Z,48nm,0.8s,mb5.4						
SSE				sP	sP	02 26 28.3	-4.6
SSE				S	S	02 31 37.4	+1.2
SSE				sS	sS	02 31 42.6	-4.9
SSE				LR	LR		
	comp=Z,650nm,15.2s,MS4.4						
BSI	Banda Aceh	32.61	282	P	P	02 26 24.3	-1.3
	comp=Z,132nm,1.7s,mb5.6						
MUN	Mundaring	32.62	198	eP	P	02 26 24.5	-0.9
NWAO	Narrogin (SRO)	33.22	196	⇑iP	P	02 26 29.6	-1.0
	comp=Z,25nm,0.6s,mb5.3						
NWAO				ePcP	PcP	02 29 12.9	-0.1
NWAO				LR	LR		
	comp=Z,2µm,19.0s,MS4.7						
NWAO	Narrogin (SRO)	33.22	196	⇑iP	P	02 26 29.6	-1.0
NWAO				e		02 29 12.9	
NWAO				pmax	pmax		
	comp=Z,25nm,0.6s						
NWAO				MLR	MLR		
	comp=Z,2µm,19.0s						
BDT	Bhumibol Dam	33.23	304	P	P	02 26 32.0	+1.1
EIDS	Eidsvold	33.42	139	eP	P	02 26 33.4	+1.0
	comp=Z,24nm,1.2s,mb5.0						
HNR	Honiara	33.55	106	eP	P	02 26 35.7	+2.0
	comp=Z,139nm,0.9s,mb5.9						
HNR				LR	LR		
	comp=Z,2µm,21.0s,MS4.7						
HNR	Honiara	33.55	106	P	P	02 26 35.9	+2.2
HNR				pmax	pmax		
	comp=Z,140nm,1.0s,mb5.8						
HNR	Honiara	33.55	106	P	P	02 26 33.0	-0.7
	comp=Z,57nm,0.5s,mb5.8,baz=267,slow=9.4,SNR=7.8						
STKA	Stephens Creek	33.61	158	⇑iP	P	02 26 34.6	+0.5
	comp=Z,234nm,0.8s,mb6.2						
STKA				eS	S	02 31 53.6	-1.9
STKA	Stephens Creek	33.61	158	P	P	02 26 34.5	+0.4
	comp=Z,273nm,0.8s,mb6.2,baz=330,slow=8.3,SNR=335						
STKA				LR	LR	02 42 50.3	
	comp=Z,3µm,18.1s,MS5.0,baz=326,slow=41						
WHN	Wuhan	33.64	340	⇑P	P	02 26 36.0	+1.7
WHN				S	S	02 31 58.8	+2.9
WHN				AMB	AMB		
	comp=Z,298nm,1.0s,mb6.2						
WHN				LR	LR		
	comp=Z,3µm,18.3s,MS5.0						
GYA	Guiyang	33.73	325	P	P	02 26 38.3	+3.1
GYA				AP	pP	02 26 42.5	+0.4
GYA				XP	sP	02 26 45.9	+1.0
GYA				PP	PP	02 27 51.8	0.0
GYA				S	S	02 32 01.4	+3.9
GYA				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.5						
GYA				AMB	AMB		
	comp=Z,670nm,6.4s						
GYA				LR	LR		
	comp=N,2µm,16.8s,MS5.2						
GYA				LR	LR		
	comp=E,3µm,17.0s,MS5.2						
GYA				LR	LR		
	comp=Z,4µm,15.9s,MS5.2						
NJ2	Nanjing	33.76	347	eP	P	02 26 36.8	+1.5
NJ2				AP	pP	02 26 41.1	-1.1
NJ2				XP	sP	02 26 43.5	-1.5
NJ2				PP	PP	02 27 50.1	-1.9
NJ2				S	S	02 32 01.0	+3.2
NJ2				AMB	AMB		
	comp=Z,140nm,1.2s,mb5.8						
NJ2				AMB	AMB		
	comp=Z,960nm,7.8s						
NJ2				LR	LR		
	comp=N,2µm,19.2s,MS5.0						
NJ2				LR	LR		
	comp=E,2µm,19.8s,MS5.0						
NJ2				LR	LR		
	comp=Z,2µm,15.9s,MS4.8						
JNU	Nakatsue	34.03	5	P	P	02 26 37.4	-0.3
	comp=Z,15nm,0.9s,mb4.9,baz=207,slow=7.7,SNR=7.1						
CHG	Chiang Mai	34.09	307	⇑P	P	02 26 38.6	+0.2
	comp=Z,72nm,1.3s,mb5.5						
CHTO	Chiang Mai	34.09	307	⇑iP	P	02 26 38.2	-0.2
	comp=Z,108nm,1.4s,mb5.6						
CHTO				ePcP	PcP	02 29 16.2	+0.4
CHTO				LR	LR		
	comp=Z,1µm,21.0s,MS4.6						
CHTO	Chiang Mai	34.09	307	P	P	02 26 38.4	0.0
CHTO				pmax	pmax		
	comp=Z,110nm,1.3s,mb5.6						
KMI	Kunming	35.17	319	P	P	02 26 49.0	+1.4
KMI				PP	PP	02 28 06.8	-0.9
KMI				PPP		02 28 27.3	
KMI				PCP	PcP	02 29 19.5	+0.7
KMI				S	S	02 32 21.3	+1.6
KMI				SCP	ScP	02 33 02.9	-0.4
KMI				PCS	PcS	02 33 05.3	-0.5
KMI				SS	SS	02 34 42.3	-11
KMI				SSS		02 35 06.4	
KMI				SCS	ScS	02 37 06.8	-0.6
KMI				AMB	AMB		
	comp=Z,109nm,1.4s,mb5.6						
KMI				AMB	AMB		
	comp=Z,1µm,8.9s						
KMI				LR	LR		
	comp=N,1µm,13.8s,MS4.9						
KMI				LR	LR		
	comp=E,867nm,12.9s,MS4.9						
KMI				LR	LR		
	comp=Z,1µm,20.5s						
KMI	Kunming	35.17	319	P	P	02 26 49.0	+1.4
	comp=Z,109nm,1.4s,mb5.6						
KMI				PP	PP	02 28 06.8	-0.9
KMI				PPP		02 28 27.3	
KMI				PcP	PcP	02 29 19.5	+0.7
KMI				S	S	02 32 21.3	+1.6
KMI				ScP	ScP	02 33 02.9	-0.4
KMI				PcS	PcS	02 33 05.3	-0.5
KMI				SS	SS	02 34 42.2	-11
KMI				SSS		02 35 06.4	
KMI				ScS	ScS	02 37 06.7	-0.7
KMI				LR	LR		
	comp=Z,1µm,20.5s,MS4.6						
KMI	Kunming	35.17	319	P	P	02 26 49.0	+1.4
KMI						02 28 06.8	
KMI				PPP		02 28 27.3	
KMI						02 29 19.5	
KMI				S	S	02 32 21.3	+1.6
KMI						02 37 06.7	
KMI				pmax	pmax		
	comp=Z,109nm,1.4s,mb5.6						
KMI				MLR	MLR		
	comp=Z,1µm,20.5s,MS4.6						
ADE	Adelaide	35.50	164	⇑iP	P	02 26 51.7	+1.4
JHJ	Hachijo jima 2	35.84	18	LR	LR	02 39 50.6	
	comp=Z,1µm,18.9s,MS4.7,baz=248,slow=33						
JHS	Saijyo	36.14	8	P	P	02 26 56.4	+0.5
JAD	Aida	36.25	10	P	P	02 26 56.3	-0.5
JWT	Wachi	36.80	11	P	P	02 27 01.5	0.0
ARMA	Armidale	37.33	144	⇑iP	P	02 27 07.9	+1.9
JGF	Kuroka	37.52	13	P	P	02 27 07.9	+0.3
TIA	Tai’an	38.15	347	P	P	02 27 13.0	+0.2
KSRS	Korea Array	38.19	1	P	P	02 27 13.2	+0.1
	comp=Z,26nm,0.9s,mb5.0,baz=179,slow=9.7,SNR=66						
KSRS				PcP	PcP	02 29 27.1	-0.4
	comp=Z,3.6nm,0.6s,baz=185,slow=2.7,SNR=5.4						
KSRS				ScP	ScP	02 33 14.7	+0.4
	comp=Z,1.1nm,0.5s,baz=189,slow=3.9,SNR=5.0						
KSRS				LR	LR	02 43 06.8	
	comp=Z,2µm,18.5s,MS4.9,baz=181,slow=36						
INCN	Inchon	38.22	359	PFAKE		02 27 30.0	+17
INCN				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
JRY	Ryogami san	38.30	15	P	P	02 27 13.0	-1.2
MAJO	Matsushiro	38.62	14	eP	P	02 27 15.5	-1.4
	comp=Z,18nm,0.4s,mb5.1						
MAJO				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
MAJO	Matsushiro	38.62	14	eP	P	02 27 15.5	-1.4
MAJO				pmax	pmax		
	comp=Z,18nm,0.4s,mb5.2						
MAJO				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.0						
MAT	Matsushiro	38.62	14	P	P	02 27 15.2	-1.7
MAT				S	S	02 33 12.0	-0.1
MAT	Matsushiro	38.62	14	P	P	02 27 15.1	-1.8
MJAR	Matsushiro Arr	38.62	14	P	P	02 27 15.8	-1.1
MJAR				ScP	ScP	02 33 16.4	+0.5
MJAR				LR	LR	02 39 58.9	
MJAR	Matsushiro Arr	38.62	14	P	P	02 27 15.8	-1.1
MJAR						02 33 16.4	
MJAR	Matsushiro Arr	38.62	14	P	P	02 27 15.7	-1.1
	comp=Z,9.8nm,0.4s,mb4.9,baz=186,slow=8.8,SNR=26						
MJAR				ScP	ScP	02 33 16.4	+0.5
	comp=Z,0.7nm,0.3s,baz=200,slow=4.5,SNR=4.3						
MJAR				LR	LR	02 39 58.9	
	comp=Z,2µm,21.5s,MS4.9,baz=185,slow=31						
CD2	Chengdu	38.78	327	P	P	02 27 18.3	0.0
CD2				AP	pP	02 27 22.8	-2.4
CD2				PCP	PcP	02 29 30.1	+0.5
CD2				S	S	02 33 12.8	-1.8
CD2				SCS	ScS	02 37 25.9	-1.5
CD2				AMB	AMB		
	comp=Z,240nm,1.1s,mb5.8						
CD2				AMB	AMB		
	comp=Z,1µm,8.6s						
CD2				LR	LR		
	comp=N,2µm,13.4s,MS5.3						
CD2				LR	LR		
	comp=E,3µm,16.8s,MS5.3						
CD2				LR	LR		
	comp=Z,2µm,19.2s,MS4.9						
XAN	Xi’an	38.84	335	P	P	02 27 18.8	+0.1
XAN				S	S	02 33 12.8	-2.6
XAN				AMB	AMB		
	comp=Z,207nm,0.7s,mb6.0						
XAN				AMB	AMB		
	comp=Z,887nm,7.1s						
XAN				LR	LR		
	comp=N,520nm,16.1s,MS4.7						
XAN				LR	LR		
	comp=E,897nm,19.7s,MS4.7						
XAN				LR	LR		
	comp=Z,1µm,19.2s,MS4.7						
CNB	Canberra Magne	39.90	151	eP	P	02 27 29.4	+1.8
	comp=Z,65nm,1.0s,mb5.3						
DL2	Dalian	39.98	353	⇑P	P	02 27 28.0	-0.1
DL2				XP	sP	02 27 35.8	-2.1
DL2				PP	PP	02 29 07.3	+7.0
DL2				S	S	02 33 30.5	-1.9
DL2				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
DL2				AMB	AMB		
	comp=Z,290nm,6.5s						
DL2				LR	LR		
	comp=N,490nm,15.9s,MS4.8						

DL2				LR	LR		
	comp=E,880nm,15.7s,MS4.8						
DL2				LR	LR		
	comp=Z,750nm,16.5s,MS4.6						
JSD	**Sado**	**40.06**	**13**	P	**P**	**02 27 28.6**	**-0.3**
TOO	**Toolangi**	**40.13**	**157**	⇑*i*P	**P**	**02 27 31.8**	**+2.3**
	comp=Z,63nm,1.3s,mb5.2						
TOO				*e*S	**S**	**02 33 36.0**	**+1.3**
TOO	**Toolangi**	**40.13**	**157**	⇑*i*P	**P**	**02 27 31.8**	**+2.3**
TOO				*e*S	**S**	**02 33 36.0**	**+1.3**
TOO				pmax	pmax		
	comp=Z,63nm,1.3s,mb5.2						
JMM	**Marumori**	**40.55**	**16**	P	**P**	**02 27 34.9**	**+2.0**
TIY	**Taiyuan**	**40.83**	**342**	⇑*i*P	**P**	**02 27 35.6**	**+0.4**
TIY				XP	sP	02 27 48.5	+3.5
TIY				PP	PP	02 29 13.0	+3.3
TIY				S	**S**	**02 33 44.9**	**-0.3**
TIY				SCS	ScS	02 37 39.3	0.0
TIY				LR	LR		
	comp=N,741nm,8.8s						
TIY				LR	LR		
	comp=E,375nm,7.5s						
JYA	**Atsumi**	**40.95**	**15**	P	**P**	**02 27 37.0**	**+0.8**
IMP	**Imphal**	**41.22**	**311**	*e*P	**P**	**02 27 38.0**	**-0.6**
BJT	**Baijiatuau**	**42.00**	**347**	*e*P	**P**	**02 27 43.9**	**-0.9**
	comp=E,95nm,0.8s,mb5.5						
BJT				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
BJT	**Baijiatuau**	**42.00**	**347**	*e*P	**P**	**02 27 43.9**	**-0.9**
BJT				pmax	pmax		
	comp=Z,95nm,0.8s						
BJT				MLR	MLR		
	comp=Z,1µm,19.0s						
BJI	**Beijing**	**42.02**	**347**	P	**P**	**02 27 44.3**	**-0.7**
BJI				PCP	PcP	02 29 39.8	0.0
BJI				S	**S**	**02 33 59.9**	**-2.8**
BJI				SS	SS	02 37 11.1	+0.7
BJI				AMB	AMB		
	comp=Z,113nm,0.7s,mb5.6						
BJI				LR	LR		
	comp=N,844nm,14.7s,MS4.8						
BJI				LR	LR		
	comp=E,556nm,17.9s,MS4.8						
BJI				LR	LR		
	comp=Z,839nm,24.5s						
BJI	**Beijing**	**42.02**	**347**	P	**P**	**02 27 44.3**	**-0.7**
	comp=Z,0.1nm,0.7s						
BJI				pP	pP	02 27 47.4	-4.5
BJI				sP	sP	02 27 48.8	-5.9
BJI				PP	PP	02 29 20.2	-2.3
BJI				PcP	PcP	02 29 39.7	-0.1
BJI				S	**S**	**02 33 59.9**	**-2.8**
BJI				SS	SS	02 37 11.1	+0.7
BJI				LR	LR		
	comp=Z,840nm,24.5s						
JOM	**Ohasama**	**42.19**	**16**	P	**P**	**02 27 47.1**	**+0.7**
SNY	**Shenyang**	**42.69**	**356**	⇑P	**P**	**02 27 50.0**	**-0.4**
SNY				AP	pP	02 27 54.6	-2.7
SNY				XP	sP	02 27 57.3	-2.8
SNY				PP	PP	02 29 30.1	+0.4
SNY				PPP		02 29 52.0	
SNY				S	**S**	**02 34 08.1**	**-4.4**
SNY				AMB	AMB		
	comp=Z,30nm,1.4s,mb4.8						
SNY				AMB	AMB		
	comp=Z,475nm,6.5s						
SNY				LR	LR		
	comp=N,746nm,23.1s						
SNY				LR	LR		
	comp=E,2µm,16.7s						
SNY				LR	LR		
	comp=Z,1µm,21.6s,MS4.7						
LZH	**Lanzhou**	**42.82**	**332**	⇑*i*P	**P**	**02 27 52.5**	**+1.0**
LZH				AP	pP	02 27 58.3	-0.2
LZH				XP	sP	02 28 01.3	0.0
LZH				*e*S	**S**	**02 34 16.1**	**+1.5**
LZH				SS	SS	02 37 28.3	+2.0
LZH				AMB	AMB		
	comp=Z,158nm,1.5s,mb5.5						
LZH				AMB	AMB		
	comp=Z,436nm,4.1s						
LZH				LR	LR		
	comp=N,1µm,14.4s						
LZH				LR	LR		
	comp=Z,2µm,16.2s,MS5.1						
LZH	**Lanzhou**	**42.82**	**332**	⇑*i*P	**P**	**02 27 52.5**	**+1.0**
	comp=Z,158nm,1.5s,mb5.5						
LZH				pP	pP	02 27 58.2	-0.3
LZH				sP	sP	02 28 01.3	0.0
LZH				PP	PP	02 29 41.0	+10
LZH				PcP	PcP	02 29 54.7	+12
LZH				*e*S	**S**	**02 34 16.1**	**+1.5**
LZH				sS	sS	02 34 21.1	-5.1
LZH				SS	SS	02 37 28.3	+2.0
LZH				LR	LR		
	comp=Z,2µm,16.2s,MS5.1						
LZH	**Lanzhou**	**42.82**	**332**	⇑*i*P	**P**	**02 27 52.5**	**+1.0**
LZH				*SP	sP	02 28 01.3	0.0
LZH						02 29 41.0	
LZH				*e*S	**S**	**02 34 16.1**	**+1.5**
LZH				pmax	pmax		
	comp=Z,158nm,1.5s,mb5.5						
LZH				MLR	MLR		
	comp=Z,2µm,16.2s,MS5.1						
SHL	**Shillong**	**43.20**	**310**	*i* P	**P**	**02 27 54.5**	**-0.3**
SHL				*e*S	**S**	**02 34 19.5**	**-1.1**
JTM	**Tenmabayashi**	**43.36**	**15**	P	**P**	**02 27 56.1**	**+0.3**
JOT	**Ohata**	**43.91**	**15**	P	**P**	**02 28 02.2**	**+1.9**
HHC	**Hu-ho-hao-te**	**43.98**	**343**	*e*P	**P**	**02 28 00.8**	**0.0**
HHC				AP	pP	02 28 05.3	-2.5
HHC				PP	PP	02 29 45.3	+1.8
HHC				SCP	ScP	02 33 35.9	-1.1
HHC				PCS	PcS	02 33 38.1	-1.2
HHC				S	**S**	**02 34 32.6**	**+1.1**
HHC				SS	SS	02 37 43.3	-5.6
HHC				SCS	ScS	02 37 57.6	-0.9
HHC				AMB	AMB		
	comp=Z,45nm,1.3s,mb5.0						
HHC				AMB	AMB		
	comp=Z,788nm,5.6s						
HHC				LR	LR		
	comp=N,810nm,16.0s,MS4.9						
HHC				LR	LR		
	comp=E,893nm,17.6s,MS4.9						
HHC				LR	LR		
	comp=Z,1µm,18.4s,MS4.8						
BTO	**Baotou**	**44.24**	**341**	*e*P	**P**	**02 28 03.1**	**+0.2**
CN2	**Changchun**	**44.56**	**358**	*e*P	**P**	**02 28 04.4**	**-1.0**
CN2				*e*PP	PP	02 29 49.8	+0.1
CN2				*e*S	**S**	**02 34 39.9**	**+0.1**
CN2				*e*SS	SS	02 37 52.0	-8.0
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.0						
CN2				AMB	AMB		
	comp=Z,200nm,8.0s						
CN2				LR	LR		
	comp=N,1µm,19.0s,MS5.0						
CN2				LR	LR		
	comp=E,1µm,19.0s,MS5.0						
CN2				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
ERM	**Erimo**	**45.08**	**17**	PFAKE		02 28 20.0	+10
ERM				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
MDJ	**Mudanjiang**	**45.38**	**2**	P	**P**	**02 28 12.3**	**+0.3**
MDJ				AP	pP	02 28 18.5	-0.5
MDJ				XP	sP	02 28 21.1	-0.7
MDJ				PP	PP	02 29 58.9	+0.4
MDJ				PCS	PcS	02 33 44.8	-0.1
MDJ				S	**S**	**02 34 51.6**	**-0.1**
MDJ				XS	sS	02 35 04.9	+1.6
MDJ				AMB	AMB		
	comp=Z,44nm,0.9s,mb5.3						
MDJ				AMB	AMB		
	comp=Z,469nm,8.6s						
MDJ				LR	LR		
	comp=N,1µm,25.7s,MS4.8						
MDJ				LR	LR		
	comp=E,701nm,21.6s,MS4.8						
MDJ				LR	LR		
	comp=Z,1µm,27.0s						
MDJ	**Mudanjiang**	**45.38**	**2**	*e*P	**P**	**02 28 11.4**	**-0.5**
	comp=Z,113nm,1.3s,mb5.5						
MDJ				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
TAU	**Tasmania Unive**	**45.48**	**159**	*e*P	**P**	**02 28 14.3**	**+1.5**
	comp=Z,56nm,1.0s,mb5.3						
TAU				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
TAU	**Tasmania Unive**	**45.48**	**159**	*e*P	**P**	**02 28 14.3**	**+1.5**
TAU				pmax	pmax		
	comp=Z,56nm,1.0s,mb5.3						
TAU				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
LSA	**Lhasa**	**46.02**	**314**	P	**P**	**02 28 19.0**	**+1.7**
LSA				AP	pP	02 28 32.5	+8.2
LSA				XP	sP	02 28 35.6	+8.5
LSA				PP	PP	02 30 02.1	-3.3
LSA				AMB	AMB		
	comp=Z,1µm,9.0s						
LSA				LR	LR		
	comp=N,410nm,19.0s,MS4.5						
LSA				LR	LR		
	comp=E,310nm,15.0s,MS4.5						
LSA				LR	LR		
	comp=Z,730nm,19.0s,MS4.7						
LSA	**Lhasa**	**46.02**	**314**	⇑*i*P	**P**	**02 28 19.0**	**+1.8**
	comp=Z,75nm,0.6s,mb5.8						
LSA				LR	LR		
	comp=Z,745nm,20.0s,MS4.6						
LSA	**Lhasa**	**46.02**	**314**	⇑*i*P	**P**	**02 28 19.0**	**+1.7**
LSA				pmax	pmax		
	comp=Z,75nm,0.6s,mb5.8						
LSA				MLR	MLR		
	comp=Z,745nm,20.0s,MS4.6						
ASAJ	**Asahikawa**	**46.87**	**15**	P	**P**	**02 28 24.9**	**+1.2**
ASAJ	**Asahikawa**	**46.87**	**15**	P	**P**	**02 28 24.8**	**+1.1**
	comp=Z,27nm,0.7s,mb5.3,baz=241,slow=12,SNR=14						
ASAJ				LR	LR	02 46 36.2	
	comp=Z,2µm,20.9s,MS5.0,baz=350,slow=34						
VIS	**Vishakhapatnam**	**47.09**	**295**	*i* P	**P**	**02 28 27.2**	**+1.3**
VIS				*e*x	x	02 28 31.8	
	comp=Z,547nm,1.8s						
VIS				*i* S	**S**	**02 35 17.4**	**+0.3**
VIS				*i* S	**S**	**02 35 18.4**	**+1.3**
PALK	**Pallekele**	**47.21**	**281**	P	**P**	**02 28 27.5**	**+0.6**
	comp=Z,606nm,1.1s,mb6.4,SNR=5.2						
PALK	**Pallekele**	**47.21**	**281**	⇑*i*P	**P**	**02 28 26.9**	**0.0**
	comp=Z,95nm,0.9s,mb5.7						
PALK				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
TAPN	**Taplejung**	**47.32**	**310**	*e*P	**P**	**02 28 28.3**	**+0.8**
	comp=Z,627nm,1.1s,mb6.4						
ODAN	**Odare**	**47.33**	**309**	*e*P	**P**	**02 28 28.4**	**+0.8**
	comp=Z,530nm,0.9s,mb6.5						
GTA	**Gaotai**	**47.40**	**331**	⇑P	**P**	**02 28 29.0**	**+1.1**
GTA				AP	pP	02 28 32.9	-2.0
GTA				PCP	PcP	02 30 00.3	+2.0
GTA				PP	PP	02 30 19.8	+0.5
GTA				PCS	PcS	02 33 54.8	+1.3
GTA				S	**S**	**02 35 20.5**	**-0.3**
GTA				SCS	ScS	02 38 20.8	+0.2
GTA				AMB	AMB		
	comp=Z,138nm,1.2s,mb5.8						
GTA				AMB	AMB		
	comp=Z,1µm,6.5s						
GTA				LR	LR		
	comp=N,1µm,19.4s,MS5.0						
GTA				LR	LR		
	comp=E,1µm,19.8s,MS5.0						
GTA				LR	LR		
	comp=Z,1µm,18.2s,MS4.9						
JWK2	**Keihoku**	**47.82**	**14**	P	**P**	**02 28 32.6**	**+1.5**
JIRN	**Jiri**	**48.65**	**309**	*e*P	**P**	**02 28 39.1**	**+1.3**
	comp=Z,60nm,0.3s,mb6.1						
KKN	**Kakani**	**49.42**	**309**	*e*P	**P**	**02 28 44.2**	**+0.5**
	comp=Z,901nm,1.4s						
YSS	**Yuzh-Sakhalins**	**49.56**	**14**	*e*P	**P**	**02 28 45.6**	**+1.2**
	comp=Z,56nm,1.0s,mb5.5						
YSS				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
YSS	**Yuzh-Sakhalins**	**49.56**	**14**	⇑*e*P	**P**	**02 28 45.0**	**+0.6**
YSS				*e*	pP	02 28 51.0	-0.5
YSS				*e*		02 30 10.5	
YSS				*e*S	**S**	**02 35 48.0**	**-3.1**
YSS				PS		02 36 11.0	
YSS				pmax	pmax		
	comp=N,30nm,1.0s						
YSS				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
YSS				MLR	MLR		
	comp=Z,500nm,14.0s,MS4.7						
YSS				MLR	MLR		
	comp=E,500nm,17.0s						
HABR	**Khabarovsk**	**49.65**	**7**	*e*P	**P**	**02 28 41.2**	**-3.9**
HABR				*e*S	**S**	**02 35 47.9**	**-4.4**
GKN	**Gorkha**	**50.02**	**309**	*e*P	**P**	**02 28 48.7**	**+0.4**
	comp=E,722nm,1.1s						
KLR	**Kul’dur**	**50.10**	**4**	*e*P	**P**	**02 28 45.3**	**-3.2**
KLR				*e*	pP	02 28 53.5	-2.1
KLR				*e*S	**S**	**02 35 49.0**	**-10**
HIA	**Hailar**	**50.42**	**354**	*e*P	**P**	**02 28 50.3**	**-0.5**
	comp=E,35nm,0.9s,mb5.4						
HIA				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
HIA	**Hailar**	**50.42**	**354**	*e*P	**P**	**02 28 50.3**	**-0.6**
HIA				pmax	pmax		
	comp=Z,35nm,0.9s						
HIA				MLR	MLR		
	comp=Z,1µm,20.0s						
HYB	**Hyderabad**	**51.36**	**293**	*e*P	**P**	**02 28 58.5**	**0.0**
	comp=Z,165nm,1.0s,mb5.9						
HYB				*e*	pP	02 29 06.0	+0.4
HYB				*e*S	**S**	**02 36 16.0**	**-1.0**
HYB	**Hyderabad**	**51.36**	**293**	*e*P	**P**	**02 28 58.5**	**0.0**
HYB				*e*	pP	02 29 06.0	+0.4
HYB				*e*S	**S**	**02 36 16.0**	**-1.0**
HYB				pmax	pmax		
	comp=Z,165nm,1.0s,mb5.9						
HYB	**Hyderabad**	**51.36**	**293**	*i* P	**P**	**02 28 58.5**	**0.0**
	comp=Z,165nm,1.0s,mb5.9						
HYB				*e*pP	pP	02 29 06.0	+0.4
HYB				*e*S	**S**	**02 36 16.0**	**-1.0**
ULN	**Ulaanbaatar**	**51.70**	**343**	*e*P	**P**	**02 29 00.8**	**+0.2**
	comp=Z,154nm,1.1s,mb5.8						
ULN				LR	LR		
	comp=Z,815nm,20.0s,MS4.8						
ULN	**Ulaanbaatar**	**51.70**	**343**	*c i*P	**P**	**02 29 00.5**	**0.0**
SONM	**Songino Array**	**51.87**	**342**	P	**P**	**02 29 01.8**	**0.0**
SONM				PcP	PcP	02 30 15.9	+1.4
SONM				ScP	ScP	02 34 10.1	-0.1
SONM	**Songino Array**	**51.87**	**342**	P	**P**	**02 29 01.8**	**0.0**
SONM						02 30 15.9	
SONM	**Songino Array**	**51.87**	**342**	P	**P**	**02 29 01.8**	**0.0**
	comp=Z,50nm,0.9s,mb5.4,baz=156,slow=7.2,SNR=126						
SONM				PcP	PcP	02 30 15.9	+1.4
	comp=Z,11nm,0.7s,baz=168,slow=5.2,SNR=2.9						
SONM				ScP	ScP	02 34 10.1	-0.1
	comp=Z,2.5nm,1.0s,baz=156,slow=6.5,SNR=4.2						
JBP	**Jabalpur**	**51.88**	**301**	⇑*i*P	**P**	**02 29 03.9**	**+1.6**
JBP				*i* S	**S**	**02 36 25.4**	**+1.3**
LATR	**Latur**	**53.45**	**294**	*e*x	x	02 29 10.9	
MNGI	**Mangalore**	**53.85**	**287**	*i* P	**P**	**02 29 16.6**	**-0.4**
MNGI				*i* S	**S**	**02 36 52.6**	**+1.4**
CIT	**Chita**	**54.02**	**350**	*e*P	**P**	**02 29 18.5**	**+0.9**
CIT				*e*		02 29 36.8	
CIT				*e*		02 30 29.5	
CIT				pmax	pmax		
	comp=Z,383nm,1.5s,mb6.1						
ZAK	**Zakamensk**	**55.09**	**341**	⇑*i*P	**P**	**02 29 25.3**	**-0.1**
ZAK				pmax	pmax		
	comp=Z,35nm,1.7s,mb5.1						
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.4						
JOSI	**Joshimath**	**55.13**	**309**	*e*P	**P**	**02 29 27.1**	**+1.1**
KAD	**Karad**	**55.37**	**292**	*i* P	**P**	**02 29 27.0**	**-1.0**
POO	**Poona**	**55.97**	**293**	⇑*i*P	**P**	**02 29 32.0**	**-0.3**
	comp=Z,110nm,1.0s,mb5.8						
TLY	**Talaya**	**56.11**	**342**	P	**P**	**02 29 33.4**	**+0.7**
	comp=Z,404nm,0.8s,mb6.5,SNR=15						
TLY	**Talaya**	**56.11**	**342**	*e*P	**P**	**02 29 33.0**	**+0.3**
	comp=Z,56nm,0.9s,mb5.6						
TLY				LR	LR		
	comp=Z,595nm,20.0s,MS4.7						
TLY	**Talaya**	**56.11**	**342**	*e*P	**P**	**02 29 33.1**	**+0.4**
TLY				*e*		02 31 45.0	
TLY				*e*S	**S**	**02 37 19.3**	**-1.0**
TLY				*e*		02 39 19.9	
TLY				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.3						
TLY				MLR	MLR		
	comp=Z,476nm,16.0s,MS4.7						
SONA	**Sohna**	**56.17**	**305**	*e*P	**P**	**02 29 33.3**	**-0.3**
SONA				AMb	AMB	02 29 36.5	
	comp=Z,136nm,1.8s,mb5.7						
NDI	**New Delhi**	**56.23**	**306**	*e*P	**P**	**02 29 32.0**	**-2.0**
IRK	**Irkutsk**	**56.42**	**343**	⇓*i*P	**P**	**02 29 34.8**	**-0.1**
IRK				*e*		02 30 29.0	
IRK				*e*S	**S**	**02 37 25.8**	**+1.4**
IRK				pmax	pmax		
	comp=Z,194nm,0.8s,mb6.2						
JCZ	**Jackson Bay**	**56.54**	**145**	*e*PN	**P**	**02 29 38.4**	**+2.4**
KUDL	**Kundal**	**56.62**	**305**	*e*P	**P**	**02 29 36.2**	**-0.6**
KUDL				AMb	AMB	02 29 39.3	
	comp=Z,135nm,1.1s,mb5.9						
WMQ	**Urumqi**	**56.88**	**327**	P	**P**	**02 29 39.9**	**+1.6**
WMQ				AP	pP	02 29 44.5	-1.0
WMQ				XP	sP	02 29 46.9	-1.4
WMQ				PCP	PcP	02 30 35.4	+1.7
WMQ				PP	PP	02 31 47.8	+2.8
WMQ				SCP	ScP	02 34 33.0	+0.8
WMQ				S	**S**	**02 37 30.8**	**0.0**
WMQ				SCS	ScS	02 39 25.1	-1.3
WMQ				SS	SS	02 41 19.8	+0.4
WMQ				AMB	AMB		
	comp=Z,208nm,0.9s,mb6.2						
WMQ				AMB	AMB		
	comp=Z,252nm,7.7s						
WMQ				LR	LR		
	comp=N,2µm,25.0s,MS5.2						
WMQ				LR	LR		
	comp=E,1µm,20.0s,MS5.2						
WMQ				LR	LR		
	comp=Z,711nm,23.6s,MS4.7						
MOY	**Mondy**	**56.93**	**341**	*e*P	**P**	**02 29 39.4**	**+0.8**
MOY				pmax	pmax		
	comp=Z,70nm,1.4s,mb5.5						
RTK	**Rohtak**	**57.01**	**306**	*e*x	x	02 29 33.4	
RTK				AMb	AMB	02 29 36.6	
	comp=Z,121nm,1.6s,mb5.7						
KKR	**Kurukshetra**	**57.04**	**307**	*e*P	**P**	**02 29 39.9**	**+0.1**
KKR				AMb	AMB	02 29 45.2	
	comp=Z,302nm,0.9s,mb6.3						
KHET	**Khetri**	**57.16**	**305**	*e*P	**P**	**02 29 39.9**	**-0.7**
KHET				AMb	AMB	02 29 42.4	
	comp=Z,109nm,1.6s,mb5.6						
NRGR	**Nerungri**	**57.43**	**358**	*e*P	**P**	**02 29 43.4**	**+1.4**
NRGR				S	**S**	**02 37 31.4**	**-6.2**
NRGR				smax			
	comp=N,28nm,0.6s						
SDNR	**Sundarnagar**	**57.54**	**309**	*e*P	**P**	**02 29 44.6**	**+1.3**
LBZ	**Lake Benmore**	**57.55**	**145**	*e*PN	**P**	**02 29 42.3**	**-0.8**
AJM	**Ajmer**	**57.57**	**302**	*i* P	**P**	**02 29 43.0**	**-0.6**
CLNS	**Chul’man**	**57.61**	**358**	*e*P	**P**	**02 29 42.1**	**-1.1**
CLNS				*e**PP	pP	02 29 49.9	-0.5
CLNS				*e*S	**S**	**02 37 34.3**	**-5.6**
CLNS				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.3						
CLNS				pmax	pmax		
	comp=N,14nm,0.7s						
CLNS				pmax	pmax		
	comp=E,9.0nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,25nm,1.5s,mb5.0						
CLNS				pmax	pmax		
	comp=N,12nm,1.2s						
CLNS				pmax	pmax		
	comp=E,9.0nm,1.0s						
CLNS				smax			
	comp=E,131nm,13.7s						
CLNS				smax			
	comp=Z,106nm,10.6s						
CLNS				smax			
	comp=N,142nm,13.8s						
CLNS				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.1						
CLNS				MLR	MLR		
	comp=N,500nm,17.0s,MS4.9						
CLNS				MLR	MLR		
	comp=E,500nm,14.0s,MS4.9						
TUWZ	**Tuamarina**	**58.20**	**140**	*e*PN	**P**	**02 29 48.1**	**+0.4**
SNZO	**South Karori**	**58.63**	**140**	PFAKE		02 30 00.0	+9.3
SNZO				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
DLH	**Dalhousie**	**58.74**	**309**	*e*P	**P**	**02 29 52.0**	**+0.3**
THN	**Thein Dam**	**58.89**	**309**	*e*P	**P**	**02 29 52.3**	**-0.4**
BOD	**Bodaibo**	**59.52**	**352**	*e*P	**P**	**02 29 56.2**	**-0.4**
BOD				pmax	pmax		
	comp=Z,75nm,1.3s,mb5.6						
PET	**Petropavlovsk**	**59.79**	**21**	*e*P	**P**	**02 29 59.7**	**+1.2**
PET	**Petropavlovsk**	**59.79**	**21**	*e*P	**P**	**02 30 00.0**	**+1.5**
PET				*e*S	**S**	**02 38 15.1**	**+6.7**
PET				pmax	pmax		
	comp=Z,99nm,1.5s,mb5.6						
PET				pmax	pmax		
	comp=Z,500nm,11.5s						
PET				MLR	MLR		
	comp=Z,500nm,18.0s,MS4.7						
AFI	**Afiamalu**	**61.58**	**105**	*e*P	**P**	**02 30 14.4**	**+3.0**
	comp=Z,100nm,1.1s,mb5.9						
AFI	**Afiamalu**	**61.58**	**105**	*e*P	**P**	**02 30 14.4**	**+3.0**
AFI				pmax	pmax		
	comp=Z,100nm,1.1s,mb5.9						
MK31	**Makanchi Array**	**61.71**	**326**	*e*P	**P**	**02 30 11.5**	**-0.2**
MK31	**Makanchi Array**	**61.71**	**326**	P	**P**	**02 30 11.7**	**0.0**
MKAR	**Makanchi Array**	**61.71**	**326**	P	**P**	**02 30 11.6**	**-0.1**
MKAR				ScP	ScP	02 34 53.1	-0.4
MKAR				S	**S**	**02 38 31.2**	**-2.0**
MKAR				⇑*e*		02 59 17.1	
MKAR				LR	LR	03 00 20.9	
MKAR	**Makanchi Array**	**61.71**	**326**	P	**P**	**02 30 11.6**	**-0.1**
MKAR				S	**S**	**02 38 31.2**	**-2.0**
MKAR	**Makanchi Array**	**61.71**	**326**	P	**P**	**02 30 11.6**	**-0.1**
	comp=Z,75nm,0.5s,mb6.1,baz=118,slow=8.4,SNR=472						
MKAR				ScP	ScP	02 34 53.1	-0.4
	comp=Z,6.7nm,0.9s,baz=135,slow=4.7,SNR=4.4						
MKAR				S	**S**	**02 38 31.2**	**-2.0**
	comp=Z,0.5nm,0.7s,baz=116,slow=9.9,SNR=3.1						
MKAR				PKP2bc		02 59 17.1	
	comp=Z,0.7nm,0.9s,baz=274,slow=3.5,SNR=3.5						
MKAR				LR	LR	03 00 20.9	
	comp=Z,649nm,20.5s,MS4.8,baz=115,slow=39						
KSH	**Kashi**	**61.77**	**317**	⇑*i*P	**P**	**02 30 14.0**	**+1.7**
KSH				*e*AP	pP	02 30 24.1	+4.6
KSH				*i* XP	sP	02 30 28.0	+5.7
KSH				*e*PCP	PcP	02 30 53.1	-0.3
KSH				*e*PP	PP	02 32 33.0	+4.5
KSH				*e*PPP		02 34 03.0	
KSH				*e*SCP	ScP	02 34 51.3	-2.7
KSH				*e*PCS	PcS	02 34 55.0	-1.3
KSH				*e*S	**S**	**02 38 33.6**	**-0.7**
KSH				*e*XS	sS	02 38 52.3	+6.1
KSH				*e*SCS	ScS	02 39 59.3	-3.6
KSH				*e*SS	SS	02 42 40.4	+3.9
KSH				AMB	AMB		
	comp=Z,2µm,2.7s						
KSH				LR	LR		
	comp=N,2µm,7.0s						
KSH				LR	LR		
	comp=E,2µm,6.1s						
KSH				LR	LR		
	comp=Z,1µm,5.7s						
YAK	**Yakutsk**	**62.81**	**1**	*e*P	**P**	**02 30 18.6**	**-0.2**
	comp=Z,237nm,0.7s,mb6.4						
YAK				LR	LR		
	comp=Z,953nm,22.0s,MS4.9						
YAK	**Yakutsk**	**62.81**	**1**	*e*P	**P**	**02 30 19.1**	**+0.3**
YAK				*e**PP	pP	02 30 28.2	+2.2
YAK				*e*		02 30 56.5	
YAK				*e*S	**S**	**02 38 45.4**	**-1.1**
YAK				*e**SS	sS	02 39 01.1	+2.6
YAK				pmax	pmax		
	comp=Z,218nm,1.0s,mb6.2						
YAK				pmax	pmax		
	comp=N,32nm,1.1s						
YAK				pmax	pmax		
	comp=E,16nm,1.1s						
YAK				pmax	pmax		
	comp=Z,271nm,3.6s						
YAK				pmax	pmax		
	comp=N,140nm,2.7s						
YAK				pmax	pmax		
	comp=E,150nm,4.3s						
YAK				smax			

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      comp=N,1µm,7.2s
YAK                                  smax
      comp=Z,266nm,6.3s
YAK                                  smax
      comp=E,617nm,5.8s
YAK                                  MLR       MLR
      comp=N,800nm,23.0s,MS4.9
YAK                                  MLR       MLR
      comp=E,607nm,23.0s,MS4.9
YAK                                  MLR       MLR
      comp=Z,990nm,23.0s,MS4.9
MA2   Magadan            63.06  13  eP        P          02 30 20.7 +0.2
      comp=Z,93nm,0.8s,mb6.0
MA2                                  LR        LR
      comp=Z,1µm,22.0s,MS5.0
MA2   Magadan            63.06  13c iP        P          02 30 21.4 +0.9
MA2                                  pmax      pmax
      comp=Z,106nm,0.9s,mb6.0
KZA   Kyzart             63.45 319   P        P          02 30 24.8 +1.3
      SNR=20
TKM2  Tokmak 2           63.63 320   P        P          02 30 25.6 +1.0
      SNR=15
TKM2  Tokmak 2           63.63 320  eP        P          02 30 25.3 +0.7
      comp=Z,41nm,0.6s,mb5.6
TKM2                                 LR        LR
      comp=Z,911nm,20.0s,MS5.0
TKM2  Tokmak 2           63.63 320  eP        P          02 30 25.3 +0.7
TKM2                                 pmax      pmax
      comp=Z,41nm,0.6s,mb5.6
TKM2                                 MLR       MLR
      comp=Z,911nm,20.0s,MS5.0
KBK   Karagaybulak       63.93 319   P        P          02 30 27.3 +0.7
      SNR=26
UCH   Uchtor             64.01 319   P        P          02 30 28.4 +1.3
      SNR=92
UCH   Uchtor             64.01 319⇑iP        P          02 30 28.1 +0.9
      comp=Z,59nm,0.7s,mb5.7
UCH                                  LR        LR
      comp=Z,639nm,21.0s,MS4.8
AAK   Ala-Archa          64.21 319   P        P          02 30 28.0 -0.4
      comp=Z,313nm,1.1s,mb6.2,SNR=34
AAK   Ala-Archa          64.21 319   P        P          02 30 29.1 +0.6
      SNR=38
AAK   Ala-Archa          64.21 319⇑iP        P          02 30 28.1 -0.4
      comp=Z,100nm,1.2s,mb5.7
AAK                                  LR        LR
      comp=Z,746nm,20.0s,MS4.9
AAK   Ala-Archa          64.21 319  eP        P          02 30 31.1 +2.7
CHMS  Chumysh            64.21 320   P        P          02 30 28.4  0.0
      SNR=18
FRU   Bishkek            64.22 319  i P       P          02 30 29.0 +0.5
FRU                                  pmax      pmax
      comp=Z,200nm,2.0s,mb5.8
USP   Ospenovka          64.50 320   P        P          02 30 30.4  0.0
      SNR=45
AML   Almayashu          64.51 318   P        P          02 30 31.4 +1.0
      SNR=67
AML   Almayashu          64.51 318⇑iP        P          02 30 31.1 +0.7
      comp=Z,126nm,1.0s,mb5.9
AML                                  LR        LR
      comp=Z,618nm,21.0s,MS4.8
EKS2  Erkin-Say          64.69 319   P        P          02 30 32.4 +0.8
      SNR=32
EKS2  Erkin-Say          64.69 319  eP        P          02 30 31.9 +0.3
      comp=Z,43nm,0.6s,mb5.7
EKS2                                 LR        LR
      comp=Z,608nm,22.0s,MS4.8
KBL   Kabul              64.85 309  eP        P          02 30 32.7 -0.1
ZALV  Zalesovo Beam      64.98 334   P        P          02 30 32.0 -1.2
ZALV                                 S         S          02 39 11.1 -2.7
ZALV                               ⇑e                    02 59 21.3
ZALV  Zalesovo Beam      64.98 334   P        P          02 30 32.0 -1.2
      comp=Z,34nm,0.9s,mb5.4,baz=117,slow=5.2,SNR=107
ZALV                                 S         S          02 39 11.1 -2.7
      comp=Z,0.7nm,0.6s,baz=123,slow=7.6,SNR=3.2
ZALV                                 PKP2bc               02 59 21.3
      comp=Z,4.4nm,1.0s,baz=304,slow=3.4,SNR=8.6
ZAL   Zalesovo           64.99 334   P        P          02 30 32.1 -1.2
ZAL                                  S         S          02 39 11.1 -2.7
KURK  Kurchatov          65.97 328   P        P          02 30 39.9 +0.2
      comp=Z,1µm,1.2s
KURK  Kurchatov          65.97 328⇑iP        P          02 30 39.0 -0.7
      comp=Z,158nm,0.7s,mb6.2
KURK                                ePP       PP         02 33 03.5 -1.6
KURK                                eS        S          02 39 25.2 -0.8
KURK                                 LR        LR
      comp=Z,635nm,19.0s,MS4.8
KURK  Kurchatov          65.97 328⇑iP        P          02 30 39.0 -0.7
KURK                                e                    02 33 03.5
KURK                                eS        S          02 39 25.2 -0.8
KURK                                 pmax      pmax
      comp=Z,158nm,0.7s,mb6.2
KURK                                 MLR       MLR
      comp=Z,635nm,19.0s,MS4.8
NVS   Novosibirsk        66.27 334⇑iP        P          02 30 40.2 -1.3
NVS                                 eS        S          02 39 19.6  -10
NVS                                  pmax      pmax
      comp=N,165nm,1.5s
NVS                                  pmax      pmax
      comp=E,148nm,1.5s
NVS                                  pmax      pmax
      comp=Z,218nm,1.5s,mb6.0
NVS                                  smax
      comp=N,133nm,2.3s
NVS                                  smax
      comp=E,130nm,2.3s
CASY  Casey              66.30 187  eP        P          02 30 42.1 +0.6
CASY                                 LR        LR
      comp=Z,1µm,20.0s,MS5.1
KK31  Karatay Array      67.04 318  i P       P          02 30 46.3 -0.4
KKAR  Karatay Array      67.04 318  i P       P          02 30 46.3 -0.4
KKAR                                 pmax      pmax
      comp=Z,40nm,0.8s,mb5.5
BRVK  Borovoye           71.60 328  eP        P          02 31 14.1 -0.6
      comp=Z,300nm,1.3s,mb6.1
BRVK                                 LR        LR
      comp=Z,707nm,20.0s,MS4.9
BRVK  Borovoye           71.60 328   P        P          02 31 14.2 -0.5
BRVK                                 pmax      pmax
      comp=Z,102nm,1.3s,mb5.6
TIXI  Tiksi              72.46   1  eP        P          02 31 18.5 -1.0
TIXI                                 LR        LR
      comp=Z,1µm,21.0s,MS5.1
TIXI  Tiksi              72.46   1  eP        P          02 31 17.8 -1.7
TIXI                                e                    02 33 57.0
TIXI                                eS        S          02 40 37.3 -4.6
TIXI                                eSS       SS         02 45 21.4 +0.6
TIXI                                 pmax      pmax
      comp=Z,149nm,2.1s,mb5.5
TIXI                                 MLR       MLR
      comp=Z,659nm,16.0s,MS5.0
BILL  Bilibino           73.88  14  eP        P          02 31 27.0 -1.0
      comp=Z,16nm,1.0s,mb4.9
BILL                                 LR        LR
      comp=Z,993nm,19.0s,MS5.1
BILL  Bilibino           73.88  14⇑eP        P          02 31 29.6 +1.6
BILL                                e                    02 31 38.5
BILL                                e                    02 31 44.4
BILL                                e                    02 41 38.9
BILL                                 pmax      pmax
      comp=Z,30nm,1.8s,mb4.9
BILL                                 MLR       MLR
      comp=Z,400nm,17.0s,MS4.8
ABKT  Ailbek             74.28 310   P        P          02 31 31.3 +0.4
      comp=Z,472nm,0.7s,mb6.5,SNR=27
AB31  Akbulak array      76.12 321⇑eP        P          02 31 40.5 -0.8
UNV   Unalaska Valle     76.92  34  eP        P          02 31 46.3 +0.6
      comp=Z,200nm,1.1s,mb6.0
AKTK  Aktyubinsk         77.66 322   P        P          02 31 49.5 -0.4
AKTK                                 S         S          02 41 36.0 -4.5
AKTO  Aktyubinsk         77.66 322   P        P          02 31 49.5 -0.4
      comp=Z,45nm,0.7s,mb5.5,baz=106,slow=7.9,SNR=78
AKTO                                 S         S          02 41 36.0 -4.5
      comp=Z,0.4nm,0.4s,baz=162,slow=23,SNR=7.6
SVE   Sverdlovsk         78.22 329⇑eP        P          02 31 51.0 -1.9
SVE                                 e                    02 34 50.0
SVE                                 e                    02 41 48.0
SVE                                 e                    02 46 52.0
SVE                                  pmax      pmax
      comp=Z,340nm,2.0s,mb5.9
GAMB  Gambell            78.39  23  eP        P          02 31 54.5 +0.8
VNDA  Vanda              78.77 173  eP        P          02 31 56.4 +0.8
VNDA  Vanda              78.77 173   P        P          02 31 54.2 -1.4
      comp=Z,19nm,0.9s,mb5.0,baz=317,slow=6.4,SNR=15
VNDA                                 LR        LR         03 08 26.0
      comp=Z,810nm,18.8s,MS5.1,baz=334,slow=37
ARU   Arti               79.17 328   P        P          02 31 57.6 -0.5
      comp=Z,353nm,1.0s,mb6.2,SNR=15
ARU   Arti               79.17 328  eP        P          02 31 56.5 -1.7
      comp=Z,49nm,0.8s,mb5.5
ARU                                  LR        LR
      comp=Z,516nm,19.0s,MS4.9
ARU   Arti               79.17 328c iP        P          02 31 56.9 -1.2
ARU                                 e         pP         02 32 05.2 -0.4
ARU                                 e                    02 34 54.9
ARU                                 eS        S          02 41 52.4 -4.1
ARU                                  pmax      pmax
      comp=Z,111nm,1.7s,mb5.5
MAW   Mawson             79.63 201  eP        P          02 32 01.1 +0.7
      comp=Z,23nm,1.0s,mb5.1
MAW   Mawson             79.63 201   P        P          02 32 01.6 +1.1
MAW                                  pmax      pmax
      comp=Z,58nm,1.5s
MAW   Mawson             79.63 201   P        P          02 32 00.7 +0.2
      comp=Z,23nm,0.9s,mb5.1,baz=65,slow=6.5,SNR=7.4
TNA   Tin City           80.63  22  eP        P          02 32 06.0 +0.2
      comp=Z,10nm,1.0s,mb4.7
TNA                                  LR        LR
      comp=Z,413nm,20.0s,MS4.8
SDPT  Sand Point         80.71  33  eP        P          02 32 08.4 +1.9
SOKR  Solikamsk          81.03 331d iP        P          02 32 07.9 -0.2
SOKR                                 S         S          02 42 14.1 -1.9
SOKR                                 pmax      pmax
      comp=Z,120nm,1.3s,mb5.7
QRN   Al-Qurain          81.15 299  eP        P          02 32 07.1 -2.4
QRN                                  AMb       AMB        02 32 11.6
      comp=Z,218nm,0.8s,mb6.1
KBD   Kabd               81.39 300  eP        P          02 32 08.3 -2.5
KBD                                  AMb       AMB        02 32 14.1
      comp=Z,416nm,1.2s,mb6.2
UMR   Umm Al-Rimmam      81.41 300  eP        P          02 32 09.5 -1.3
UMR                                  AMb       AMB        02 32 14.0
      comp=Z,172nm,1.1s,mb5.9
RDF   Al-Radifah         81.49 299  eP        P          02 32 08.9 -2.4
RDF                                  AMb       AMB        02 32 14.4
      comp=Z,200nm,1.2s,mb5.9
MIB   Mutribah           81.76 300  eP        P          02 32 11.1 -1.6
MIB                                  AMb       AMB        02 32 15.8
      comp=Z,156nm,1.1s,mb5.9
NAY   Al-Naaiem          81.79 300  eP        P          02 32 10.9 -2.0
NAY                                  AMb       AMB        02 32 14.1
      comp=Z,69nm,1.0s,mb5.5
PPT   Papeete            83.15 107  eS        S          02 42 38.0 -1.4
      comp=Z,697nm,31.5s
PPT                                 eSS       SS         02 48 03.0 -1.1
      comp=Z,291nm,26.2s
PPT                                 eLQ                  02 54 59.4
      comp=Z,1µm,29.2s
PPT                                 eLR       LR         02 58 37.2
      comp=Z,848nm,23.8s
MAK   Makhachkala        83.17 313  eP        P          02 32 18.5 -1.3
MAK                                 e         pP         02 32 26.7 -0.5
MAK                                 e                    02 35 26.7
MAK                                 eS        S          02 42 32.4 -6.3
MAK                                  pmax      pmax
      comp=Z,112nm,1.4s,mb5.7
DGRG  David-gareji       84.56 312   P        P          02 32 27.7 +0.7
SVW2  Sparrevohn         84.58  28  eP        P          02 32 27.2 +0.6
MTA   Mtatsminda         85.02 312   P        P          02 32 28.4 -0.9
TBLG  Delisi             85.06 312   P        P          02 32 29.9 +0.5
HAKT  HAKKARI            85.49 308  i P       P          02 32 31.4 -0.3
KDAK  Kodiak Island      85.49  32   PFAKE                02 32 40.0 +8.8
KDAK                                 LR        LR
      comp=Z,319nm,20.0s,MS4.7
KDAK  Kodiak Island      85.49  32   LR        LR         03 05 35.9
      comp=Z,983nm,21.1s,MS5.2,baz=271,slow=32
GOR   Gori               85.56 312   P        P          02 32 31.9  0.0
DYDN  Diyadin            85.66 310  i P       P          02 32 32.3 -0.2
ZEI   Tsey               85.78 313  eP        P          02 32 32.8 -0.2
ZEI                                 e*PP      pP         02 32 41.7 +1.2
ZEI                                 e                    02 35 52.2
ZEI                                 eS        S          02 42 55.0  -10
ZEI                                  pmax      pmax
      comp=Z,73nm,1.1s,mb5.8
ZEI                                  smax
      comp=E,46nm,1.9s
TVAN  Van                85.80 309  i P       P          02 32 34.4 +1.2
DIGO  Kars               85.97 310  eP        P          02 32 34.8 +0.8
ONI   Oni                86.10 313   P        P          02 32 35.0 +0.5
TUTA  Tutak              86.33 309  i P       P          02 32 35.9 +0.2
IMA2  Indian Mountai     86.37  24  eP        P          02 32 35.4 +0.1
KIV   Kislovodsk         86.76 314   P        P          02 32 37.1 -0.7
      comp=E,150nm,0.9s,mb6.2,SNR=7.0
KIV   Kislovodsk         86.76 314  eP        P          02 32 36.9 -0.9
      comp=E,72nm,1.4s,mb5.7
KIV                                  LR        LR
      comp=Z,392nm,22.0s,MS4.8
KIV   Kislovodsk         86.76 314  eP        P          02 32 37.1 -0.7
KIV                                 e                    02 35 56.4
KIV                                 e                    02 43 00.9
KIV                                 eSS       SS         02 48 57.5 +1.3
KIV                                  pmax      pmax
      comp=Z,27nm,1.2s,mb5.3
KIV                                  MLR       MLR
      comp=Z,194nm,20.0s,MS4.5
ARTV  Artvin             87.12 311  i P       P          02 32 38.4 -1.3
ERZM  Erzurum            87.47 310  i P       P          02 32 42.9 +1.5
BNGL  BINGOL             87.59 309  i P       P          02 32 42.2 +0.3
PMR   Palmer             87.73  28  eP        P          02 32 41.8 -0.2
      comp=Z,25nm,1.2s,mb5.3
PMR                                  LR        LR
      comp=Z,797nm,21.0s,MS5.1
PMR   Palmer             87.73  28  eP        P          02 32 41.8 -0.3
PMR                                  pmax      pmax
      comp=Z,25nm,1.2s,mb5.3
PMR                                  MLR       MLR
      comp=Z,797nm,21.0s,MS5.1
MARD  Mardin             87.80 307  i P       P          02 32 42.5 -0.4
VRHR  Novokhopersk       88.00 321  eP        P          02 32 42.6 -1.0
VRHR                                 pmax      pmax
      comp=Z,40nm,1.0s,mb5.6
VRHR                                 pmax      pmax
      comp=N,9.0nm,0.8s
VRHR                                 pmax      pmax
      comp=E,30nm,1.2s
SYO   Syowa Base         88.33 201⇑iP        P          02 32 44.8  0.0
SYO   Syowa Base         88.33 201⇑ePcP      PcP        02 32 47.0 +0.5
COLA  College            88.62  25  eP        P          02 32 46.8 +0.6
      comp=E,4.5nm,0.7s,mb4.9
COLA                                 LR        LR
      comp=Z,380nm,19.0s,MS4.8
COLA  College            88.62  25  eP        P          02 32 46.8 +0.6
COLA                                 pmax      pmax
      comp=Z,4.0nm,0.7s,mb4.9
COLA                                 MLR       MLR
      comp=Z,380nm,19.0s,MS4.8
MACK  Trabzon            88.74 311  i P       P          02 32 44.9 -2.4
SOC   Sochi              88.89 313  eP        P          02 32 44.1 -3.9
SOC                                 e                    02 36 16.1
SOC                                 eS        S          02 43 09.5  -25
SOC                                 e*SS      sS         02 43 29.7  -17
SOC                                 eSS       SS         02 49 20.5 -6.7
SOC                                 eSSS                 02 52 51.8
QSPA  South Pole Qui     89.01 180  eP        P          02 32 48.3 +0.4
      comp=Z,46nm,1.0s,mb5.8
QSPA                                 LR        LR
      comp=Z,1µm,19.0s,MS5.3
ELZG  Elazig             89.26 308  i P       P          02 32 50.6 +0.7
DIV   Divide             89.30  29   PFAKE                02 33 00.0  +10
DIV                                  LR        LR
      comp=Z,2µm,21.0s,MS5.6
VORD  Divnogorie         89.46 321  eP        P          02 32 46.7 -3.8
VORD                                e*PP      pP         02 32 57.5 -0.5
VORD                                 pmax      pmax
      comp=Z,10.0nm,0.9s,mb5.2
VORD                                 pmax      pmax
      comp=N,40nm,0.8s
VORD                                 pmax      pmax
      comp=E,20nm,0.8s
VRSR  Storozhevoye       89.54 321  eP        P          02 32 50.7 -0.1
VRSR                                 pmax      pmax
      comp=N,2.0nm,1.0s
VRSR                                 pmax      pmax
      comp=Z,3.0nm,1.0s,mb4.6
VRSR                                 pmax      pmax
      comp=E,3.0nm,0.9s
MALT  Malatya            89.69 308  eP        P          02 32 51.4 -0.5
      comp=E,34nm,1.4s,mb5.5
MALT  Malatya            89.69 308⇓iP        P          02 32 52.8 +0.9
ATAB  Bozova             89.78 307  i P       P          02 32 51.6 -0.7
KMBO  Kilima Mbogo       90.05 269⇑iP        P          02 32 54.8 +0.7
      comp=E,160nm,1.8s,mb6.0
KMBO                                 LR        LR
      comp=Z,501nm,19.0s,MS5.0
KMBO  Kilima Mbogo       90.05 269⇑iP        P          02 32 54.8 +0.7
KMBO                                 pmax      pmax
      comp=Z,160nm,1.8s
KMBO                                 MLR       MLR
      comp=Z,501nm,19.0s
KMBO  Kilima Mbogo       90.05 269   P        P          02 32 54.7 +0.6
      comp=Z,21nm,1.1s,mb5.4,baz=65,slow=5.4,SNR=44
GZT   Gaziantep          90.36 307  i P       P          02 32 55.0  0.0
TMCR  Tamitsa            90.51 334  eP        P          02 32 54.1 -1.0
ANN   Anapa              90.56 315  eP        P          02 32 46.3 -9.5
ANN                                 e                    02 43 23.9
ANN                                  pmax      pmax
      comp=Z,63nm,1.1s,mb5.9
MOS   Moscow             90.58 326  eP        P          02 32 52.9 -2.7
MOS                                 e                    02 36 30.5
MOS                                 eS        S          02 43 43.9 -5.9
MOS                                  pmax      pmax
      comp=Z,52nm,1.2s,mb5.7
MOS                                  MLR       MLR
      comp=Z,1µm,20.0s,MS5.3
ASF   Jabal al Asfar     90.84 302   P        P          02 32 57.3 -0.1
      comp=Z,9.8nm,0.9s,mb5.1,baz=357,slow=3.3,SNR=15
OBN   Obninsk            91.18 325  eP        P          02 32 57.4 -1.0
      comp=Z,82nm,1.4s,mb5.9
OBN                                  LR        LR
      comp=Z,462nm,19.0s,MS4.9
OBN   Obninsk            91.18 325   P        P          02 32 57.0 -1.4
OBN                                           pP         02 33 05.0 -0.9
OBN                                 e                    02 33 11.9
OBN                                 e                    02 36 39.3
OBN                                 e                    02 43 52.4
OBN                                 ePS       PS         02 45 07.4 +1.0
OBN                                 eSS       SS         02 50 03.5 +3.7
OBN                                  pmax      pmax
      comp=Z,82nm,2.0s,mb5.7
OBN                                  MLR       MLR
      comp=Z,400nm,22.0s,MS4.8
LVZ   Lovozero           91.86 338   PFAKE                02 33 10.0 +8.7
LVZ                                  LR        LR
      comp=Z,398nm,19.0s,MS4.9
MMAI  Mount Meron Ar     92.11 303   P        P          02 33 02.9 -0.4
      comp=Z,7.0nm,0.9s,mb5.0,baz=117,slow=6.6,SNR=6.7
TAOE  Nuku Hiva Isla     92.36  99  eSS       SS         02 50 22.8 +3.9
      comp=Z,508nm,29.5s
TAOE                                eLR       LR         03 02 53.1
      comp=Z,2µm,24.4s
BOYT  Boyabat            92.42 311  eP        P          02 32 59.5 -4.9
EIL   Elat               92.51 299   P        P          02 33 04.1 -1.0
      comp=Z,3.5nm,0.8s,mb4.8,baz=352,slow=3.4,SNR=5.8
SIM   Simferopol'        92.92 315  eP        P          02 33 06.7  0.0
SIM                                  pmax      pmax
      comp=Z,12nm,0.8s,mb5.4
BRTR  Keskin Array B     93.42 310   P        P          02 33 07.5 -1.6
      comp=Z,2.9nm,0.8s,mb4.8,baz=110,slow=5.1,SNR=21
BRTR                                 PP        PP         02 36 55.0 +1.5
      comp=Z,3.2nm,1.0s,baz=110,slow=7.1,SNR=5.2
BALT  Daday              93.56 311  i P       P          02 33 07.8 -1.9
ELDT  Eldivan            93.56 310  i P       P          02 33 09.5 -0.2
JOF   Joensuu            93.56 333  ep        P          02 33 07.5 -1.7
      comp=Z,2.4nm,0.4s,mb5.0
CSS   Prodhromos         93.80 305  eP        P          02 33 10.9 -0.1
      comp=Z,18nm,0.9s,mb5.5
ANTO  Ankara             94.07 310   PFAKE                02 33 20.0 +7.9
ANTO                                 LR        LR
      comp=Z,270nm,19.0s,MS4.7
INK   Inuvik             94.25  22  eP        P          02 33 11.9 -0.4
      comp=Z,908nm,1.4s
INK   Inuvik             94.25  22   PKKPbc    PKKPbc     02 50 11.6 -4.2
      comp=Z,2.9nm,1.0s,baz=166,slow=1.0,SNR=4.6
INK                                  LR        LR         03 14 16.0
      comp=Z,364nm,18.7s,MS4.9,baz=270,slow=35
KEV   Kevo               94.43 340  eP        P          02 33 09.4 -3.7
      comp=Z,8.8nm,0.9s,mb5.2
KEV                                  LR        LR
      comp=Z,1µm,20.0s,MS5.3
KEV   Kevo               94.43 340  eP        P          02 33 09.4 -3.7
KEV                                  pmax      pmax
      comp=Z,9.0nm,0.9s,mb5.2
KEV                                  MLR       MLR
      comp=Z,1µm,20.0s,MS5.3
SGKT  Sivrigoynuk        94.60 310  i P       P          02 33 10.2 -4.3
ARCES ARCESS Array B     94.99 340   P        P          02 33 13.5 -2.2
ARCES                                PKKPbc    PKKPbc     02 50 08.8 -5.1
ARCES                                LR        LR         03 18 11.1
ARCES ARCESS Array B     94.99 340   P        P          02 33 13.5 -2.2
      comp=Z,7.7nm,0.8s,mb5.2,baz=78,slow=7.6,SNR=29
ARCES                                PKKPbc    PKKPbc     02 50 08.8 -5.1
      comp=Z,2.9nm,1.0s,baz=263,slow=4.8,SNR=5.7
ARCES                                LR        LR         03 18 11.1
      comp=Z,357nm,19.8s,MS4.8,baz=58,slow=37
ARE0  ARCESS Array S     94.99 340  eP        P          02 33 14.4 -1.2
HENT  Hendek             95.47 311  i P       P          02 33 17.1 -1.4
ESKT  Eskisehir          95.58 309  i P       P          02 33 12.7 -6.3
KBS   Kingsbay           95.66 350   PFAKE                02 33 30.0  +11
KBS                                  LR        LR
      comp=Z,506nm,21.0s,MS5.0
AKASG Malin Array Be     95.85 321   P        P          02 33 18.2 -1.8
AKASG                                PP        PP         02 37 10.6 -1.4
AKASG Malin Array Be     95.85 321   P        P          02 33 18.2 -1.8
      comp=Z,0.3nm,0.3s,baz=73,slow=4.3,SNR=11
AKASG                                PP        PP         02 37 10.6 -1.4
      comp=Z,0.2nm,0.3s,baz=67,slow=8.3,SNR=3.3
KAF   Kangasniemi        95.97 332  ep        P          02 33 17.6 -2.7
      comp=Z,2.9nm,0.5s,mb5.0,baz=76,slow=4.1
KAF   Kangasniemi        95.97 332  eP        P          02 33 17.6 -2.7
KAF                                  pmax      pmax
      comp=Z,3.0nm,0.5s,mb5.0
FINES FINESS Array B     96.18 332   P        P          02 33 19.0 -2.2
FINES                                PP        PP         02 37 15.1 +0.9
FINES                                LR        LR         03 18 43.0
FINES FINESS Array B     96.18 332   P        P          02 33 19.0 -2.3
FINES                                                     02 37 15.1
FINES FINESS Array B     96.18 332   P        P          02 33 19.0 -2.2
      comp=Z,2.0nm,0.7s,mb4.7,baz=58,slow=5.0,SNR=7.7
FINES                                PP        PP         02 37 15.1 +0.9
      comp=Z,3.1nm,1.0s,baz=84,slow=16,SNR=3.3
FINES                                LR        LR         03 18 43.0
      comp=Z,477nm,20.4s,MS5.0,baz=272,slow=37
RKT   Rikitea            96.73 113  eSKSac    SKSac      02 43 56.4 -4.4
      comp=Z,401nm,30.3s
RKT                                 eSS       SS         02 51 22.3 +1.6
      comp=Z,171nm,27.8s
RKT                                 eLR       LR         03 04 53.0
      comp=Z,499nm,24.8s
ULDT  Uludag             96.86 310  i P       P          02 33 22.3 -2.5
TIRR  Tirgusor           97.01 315⇓iP        P          02 33 24.7 -0.7
VRI   Vrincioaia         98.04 316⇓iP        P          02 33 29.6 -0.4
PLOR  Plostina           98.10 316⇓iP        P          02 33 30.4 +0.1
LSZ   Lusaka             98.57 255⇑iP        P          02 33 32.6 -0.4
      comp=Z,61nm,1.6s,mb5.9
LSZ                                 ePP       PP         02 37 31.8 -2.1
LSZ                                  LR        LR
      comp=Z,1µm,22.0s,MS5.4
LSZ   Lusaka             98.57 255⇑iP        P          02 33 32.6 -0.4
LSZ                                 e                    02 37 31.8
LSZ                                  pmax      pmax
      comp=Z,61nm,1.6s,mb5.9
LSZ                                  MLR       MLR
      comp=Z,1µm,22.0s,MS5.4
MLR   Muntele Rosu       98.63 316 ⇓P         P          02 33 32.8 +0.1
MLR   Muntele Rosu       98.63 316   P        P          02 33 31.3 -1.4
      comp=Z,5.2nm,0.8s,mb5.1,baz=346,slow=2.0,SNR=8.9
MLR   Muntele Rosu       98.63 316⇓iP        P          02 33 32.8 +0.1
BURAR Bucovina Array     98.84 318 ⇓P         P          02 33 32.7 -0.8
BURAR Bucovina Array     98.84 318⇓iP        P          02 33 32.7 -0.9
BOSA  Boshof            100.14 241  ePdif     Pdif       02 33 40.0 +0.8
      comp=Z,53nm,2.0s
BOSA                                 LR        LR
      comp=Z,384nm,22.0s,MS4.9
BOSA  Boshof            100.14 241   P        Pdif       02 33 39.4 +0.2
BOSA                                                      02 37 43.0
BOSA                                 pmax      pmax
      comp=Z,7.0nm,1.0s
BOSA                                 pmax      pmax
      comp=Z,9.0nm,1.1s
BOSA  Boshof            100.14 241   P        Pdif       02 33 39.4 +0.2
      comp=Z,7.1nm,0.9s,baz=115,slow=5.8,SNR=6.1
BOSA                                 PP        PP         02 37 43.0 -2.7
      comp=Z,9.2nm,1.1s,baz=106,slow=6.8,SNR=5.6
LBTB  Lobatse           100.23 245  ePdif     Pdif       02 33 40.5 +0.9
KOLS  Kolonicke sedl    100.56 320  eP        Pdif       02 33 41.9 +0.9
KOLS                                e                    02 38 04.3
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KOLS  Kolonicke sedl   100.56 320   PDIF      Pdif      02 33 41.9 +0.9
KOLS  Kolonicke sedl   100.56 320  ePKP       PKiKP     02 38 04.3 -3.3
UZH   Uzhgorod         100.60 319⇑iP          Pdif      02 33 41.7 +0.5
UZH                                e                    02 37 54.0
UZH                                e                    02 44 18.0
UZH                                eS         Sdif      02 45 15.0 -1.9
UZH                                ePS        PS        02 46 50.0 +0.3
UZH                                eSS        SS        02 52 14.0 +0.5
DRGR                   100.66 317 ⇓P          Pdif      02 33 41.6 +0.1
DRGR                   100.66 317⇓iP          Pdif      02 33 41.6 +0.1
CRVS  Cervenica-Dubn   101.09 320  eP         Pdif      02 33 44.6 +1.2
CRVS                               e                    02 33 53.1
CRVS                               e                    02 38 05.8
CRVS  Cervenica-Dubn   101.09 320   PDIF      Pdif      02 33 44.6 +1.2
CRVS                                pPDIF               02 33 53.1
CRVS  Cervenica-Dubn   101.09 320  ePKP       PKiKP     02 38 05.8 -2.8
STHS  Stebnicka Huta   101.12 320  eP         Pdif      02 33 44.0 +0.5
      comp=Z,3.8nm,1.5s
STHS                               e                    02 34 02.6
STHS  Stebnicka Huta   101.12 320  eP         Pdif      02 33 44.0 +0.5
STHS                                pmax      pmax
      comp=Z,4.0nm,1.5s
STHS  Stebnicka Huta   101.12 320   PDIF      Pdif      02 33 44.0 +0.5
STHS                                sPDIF               02 34 02.6
KECS  Kecovo           101.81 319  eP         Pdif      02 33 47.1 +0.5
      comp=Z,2.0nm,1.0s
KECS                               e                    02 34 05.4
KECS                               ePP        PP        02 38 00.1 +2.6
KECS  Kecovo           101.81 319  eP         Pdif      02 33 47.1 +0.5
KECS                               e                    02 38 00.1
KECS                                pmax      pmax
      comp=Z,2.0nm,1.0s
KECS  Kecovo           101.81 319   PDIF      Pdif      02 33 47.1 +0.5
KECS                                sPDIF               02 34 05.4
KECS                               ePP        PP        02 38 00.1 +2.6
RES   Resolute Bay     102.25  11  ePdif      Pdif      02 33 48.2 -0.4
VNA2  Neumayer--Watz   102.48 194  ePdiff     Pdif      02 33 53.4 +3.8
VNA2                               e                    02 33 54.9
VNA2                               e                    02 33 58.0
VNA2                               e                    02 34 02.2
VNA2                               e                    02 34 08.8
VNA2                               e                    02 34 10.9
VNA3  Neumayer Olymp   102.79 193  ePdiff     Pdif      02 33 54.2 +3.2
VNA3                               e                    02 33 56.0
VNA3                               e                    02 33 58.6
VNA3                               e                    02 34 04.0
VNA3                               e                    02 34 10.2
VNA3                               e                    02 34 13.1
VYHS  Vyhne            102.87 320  eP         Pdif      02 33 51.5 +0.2
      comp=Z,52nm,3.2s
VYHS                               e                    02 34 07.9
VYHS                               e                    02 37 58.1
VYHS  Vyhne            102.87 320  eP         Pdif      02 33 51.5 +0.2
VYHS                                pmax      pmax
      comp=Z,52nm,3.2s
VYHS  Vyhne            102.87 320   PDIF      Pdif      02 33 51.4 +0.1
VYHS                                sPDIF               02 34 07.9
VYHS                               ePP        PP        02 37 58.1 -7.4
NOA   NORSAR Array B   103.19 333   Pdif      Pdif      02 33 50.3 -2.4
NOA                                 PP        PP        02 37 59.5 -7.9
NOA   NORSAR Array B   103.19 333   Pdiff     Pdif      02 33 50.3 -2.4
      comp=Z,2.3nm,0.8s,baz=69,slow=4.4,SNR=6.7
NOA                                 PP        PP        02 37 59.5 -7.9
      comp=Z,2.4nm,0.9s,baz=65,slow=6.7,SNR=3.7
YKA   Yellowknife Ar   103.45  25   Pdif      Pdif      02 33 54.7 +0.8
YKA   Yellowknife Ar   103.45  25   Pdiff     Pdif      02 33 54.7 +0.8
      comp=Z,0.4nm,0.6s,baz=299,slow=4.8,SNR=12
YKA                                 PKiKP     PKiKP     02 38 11.1 -1.3
      comp=Z,0.4nm,0.6s,baz=306,slow=1.7,SNR=8.4
YKA                                 PKKPbc    PKKPbc    02 49 46.7 -3.0
      comp=Z,0.5nm,0.5s,baz=112,slow=2.6,SNR=9.1
DPC   Dobruska-Polom   103.99 322  ePP        PP        02 38 14.1 +0.3
UPC   Upice            104.14 322  ePP        PP        02 38 16.4 +1.5
PVCC  Panska Ves       105.02 322  ePP        PP        02 38 28.9 +7.5
HUMO  Hull Mountain    105.06  46   PFAKE               02 38 30.0  +14
HUMO                                LR        LR
      comp=Z,1µm,22.0s,MS5.4
PRU   Pruhonice        105.19 322  ePP        PP        02 38 19.9 -2.8
BRG   Berggiesshubel   105.29 323  e          PP        02 38 14.1 -9.2
      comp=Z,16nm,1.4s
YBH   Yreka Blue Hor   105.44  47   PFAKE               02 38 30.0  +13
YBH                                 LR        LR
      comp=Z,1µm,20.0s,MS5.4
CLL   Collm            105.72 324  ePdif      Pdif      02 34 03.0 -1.0
CLL                                ePKP       PKiKP     02 38 22.0 +5.0
CLL                                ePP        PP        02 38 30.0 +3.5
CLL                                 LR        LR
      comp=Z,300nm,19.5s,MS4.8
CLL   Collm            105.72 324  ePdif      Pdif      02 34 03.0 -1.0
CLL                                e(PKiKP)             02 38 22.0
CLL                                ePP        PP        02 38 29.0 +2.5
      comp=Z,26nm,1.5s
CLL                                esPP                 02 38 37.0
CLL                                eSKSac     SKSac     02 44 48.0 +5.1
CLL                                e(Sdif)              02 46 18.0
CLL                                ex         x         02 46 44.0
CLL                                ePS        PS        02 47 48.0 +4.5
CLL                                ePPS                 02 48 44.0
CLL                                ex         x         02 49 35.0
CLL                                eSS        SS        02 53 29.0 +5.3
CLL                                eSSS                 02 57 36.0
CLL                                ex         x         03 00 30.0
CLL                                ex         x         03 01 36.0
CLL                                ex         x         03 03 48.0
CLL                                 LmV                 03 31 00.0
      comp=Z,300nm,19.5s
HOPS  Hopland          105.75  50   PFAKE               02 38 30.0  +13
HOPS                                LR        LR
      comp=Z,830nm,20.0s,MS5.3
CRES  Cresnjev         105.77 318  i PP       PP        02 38 33.8 +6.7
PERS  Pernice          105.78 318  i PP       PP        02 38 34.4 +7.2
WDC   Whiskeytown Da   105.82  48   PFAKE               02 38 30.0  +13
WDC                                 LR        LR
      comp=Z,959nm,20.0s,MS5.3
KHC   Kasperske Hory   106.05 321  ePP        PP        02 38 28.9 -0.1
GERES GERESS Array B   106.06 321   Pdif      Pdif      02 34 05.4 -0.1
GERES                               PKPdf     PKiKP     02 38 17.4 -0.3
GERES                               PKKPbc    PKKPbc    02 49 41.1 -0.3
GERES GERESS Array B   106.06 321   Pdiff     Pdif      02 34 05.4 -0.1
      comp=Z,0.5nm,0.9s,baz=147,slow=40,SNR=3.6
GERES                               PKiKP     PKiKP     02 38 17.4 -0.3
      comp=Z,0.7nm,0.5s,baz=58,slow=1.4,SNR=8.6
GERES                               PKKPbc    PKKPbc    02 49 41.1 -0.3
      comp=Z,0.2nm,0.5s,baz=241,slow=4.4,SNR=6.3
MCCM  Marconi Confer   106.08  51   PFAKE               02 38 30.0  +12
MCCM                                LR        LR
      comp=Z,600nm,20.0s,MS5.1
MOX   Moxa             106.77 323  ePP        PP        02 38 35.4 +1.2
      comp=Z,72nm,2.2s
MOD   Modoc            107.15  46   PFAKE               02 38 30.0  +10
MOD                                 LR        LR
      comp=Z,385nm,19.0s,MS5.0
GRF   Grafenberg Arr   107.33 322  ePP        PP        02 38 27.5  -11
GRF                                eL                   03 32 09.8
      comp=Z,414nm,20.6s
SAO   San Andreas Ge   107.48  52   PFAKE               02 38 30.0 +9.3
SAO                                 LR        LR
      comp=Z,652nm,20.0s,MS5.2
CMB   Columbia Colle   108.02  50   PFAKE               02 38 30.0 +8.3
CMB                                 LR        LR
      comp=Z,595nm,19.0s,MS5.2
WVOR  Wild Horse Val   108.20  45   PFAKE               02 38 30.0 +8.1
WVOR                                LR        LR
      comp=Z,415nm,20.0s,MS5.0
WVOR  Wild Horse Val   108.20  45  eP         Pdif      02 34 21.0 +6.0
WVOR                                pmax      pmax
      comp=Z,19nm,1.0s
TSUM  Tsumeb           108.29 250   PFAKE               02 38 30.0 +7.3
TSUM                                LR        LR
      comp=Z,492nm,20.0s,MS5.1
BMN   Battle Mountai   109.78  47   PFAKE               02 38 40.0  +15
BMN                                 LR        LR
      comp=Z,1µm,20.0s,MS5.5
MSO   Missoula         109.98  40   PFAKE               02 38 40.0  +15
MSO                                 LR        LR
      comp=Z,482nm,20.0s,MS5.1
TPH   Tonopah          110.43  50   PFAKE               02 38 40.0  +14
TPH                                 LR        LR
      comp=Z,735nm,19.0s,MS5.3
DAC   Darwin (Calif)   110.61  51   PFAKE               02 38 40.0  +13
DAC                                 LR        LR
      comp=Z,1µm,20.0s,MS5.4
HLID  Hailey           110.81  43  ePKP       PKiKP     02 38 27.4 +0.6
HLID                                LR        LR
      comp=Z,764nm,20.0s,MS5.3
ELK   Elko             111.13  46   PFAKE               02 38 40.0  +13
ELK                                 LR        LR
      comp=Z,1µm,20.0s,MS5.4
BAIF  Baives           111.36 325  ePKIKP     PKiKP     02 38 25.8 -1.8
BAIF  Baives           111.36 325  ePKPdf     PKiKP     02 38 25.8 -1.8
BAIF  Baives           111.36 325  ePKIKP     PKiKP     02 38 25.8 -1.8
LPG   La Plagne        111.66 319  ePKIKP     PKiKP     02 38 26.6 -1.7
      comp=Z,5.2nm,0.7s
LPG   La Plagne        111.66 319  ePKPdf     PKiKP     02 38 26.6 -1.7
LPG   La Plagne        111.66 319  ePKIKP     PKiKP     02 38 26.6 -1.7
LPL   La Plagne        111.66 319  ePKIKP     PKiKP     02 38 26.2 -2.1
      comp=Z,2.5nm,0.5s
LPL   La Plagne        111.66 319  ePKPdf     PKiKP     02 38 26.2 -2.1
LPL   La Plagne        111.66 319  ePKIKP     PKiKP     02 38 26.2 -2.1
BNI   Bardonecchia     111.87 319  ePKP       PKiKP     02 38 29.2 +0.5
BNI                                ePP        PP        02 39 13.6 +2.2
BNI   Bardonecchia     111.87 319  ePKIKP     PKiKP     02 38 29.2 +0.5
BNI                                e                    02 39 13.6
BOZ   Bozeman (W)      111.91  40   PFAKE               02 38 40.0  +11
BOZ                                 LR        LR
      comp=Z,752nm,19.0s,MS5.3
MBDF  Montbardon       111.93 319  ePKIKP     PKiKP     02 38 27.4 -1.4
      comp=Z,7.4nm,0.8s
MBDF  Montbardon       111.93 319  ePKPdf     PKiKP     02 38 27.4 -1.4
MBDF  Montbardon       111.93 319  ePKIKP     PKiKP     02 38 27.4 -1.4
PFO   Pinyon Flat Ob   112.18  54   PFAKE               02 38 40.0  +10
PFO                                 LR        LR
      comp=Z,878nm,19.0s,MS5.4
ORIF  Oris-en-Rattie   112.44 319  ePKIKP     PKiKP     02 38 28.2 -1.6
      comp=Z,7.0nm,0.8s
ORIF  Oris-en-Rattie   112.44 319  ePKPdf     PKiKP     02 38 28.2 -1.6
ORIF  Oris-en-Rattie   112.44 319  ePKIKP     PKiKP     02 38 28.2 -1.6
YMR   Madison River    112.72  41   PFAKE               02 38 40.0  +10
YMR                                 LR        LR
      comp=Z,2µm,20.0s,MS5.6
KEST  Kesra            113.01 309   PP        PP        02 39 17.6 -2.4
      comp=Z,2.1nm,1.0s,baz=85,slow=6.5,SNR=6.9
DUG   Dugway           113.06  46  ePKP       PKiKP     02 38 31.6 +0.5
DUG                                 LR        LR
      comp=Z,768nm,22.0s,MS5.2
DUG   Dugway           113.06  46  ePKIKP     PKiKP     02 38 31.6 +0.5
DUG                                 MLR       MLR
      comp=Z,768nm,22.0s,MS5.2
SSF   Saint Saulge     113.08 322  ePKIKP     PKiKP     02 38 29.2 -1.7
      comp=Z,7.8nm,0.7s
SSF   Saint Saulge     113.08 322  ePKPdf     PKiKP     02 38 29.2 -1.7
SSF   Saint Saulge     113.08 322  ePKIKP     PKiKP     02 38 29.2 -1.7
LKWY  Lake             113.14  41   PFAKE               02 38 40.0 +8.9
LKWY                                LR        LR
      comp=Z,2µm,22.0s,MS5.6
AVF   Avril sur Loir   113.30 322  ePKIKP     PKiKP     02 38 29.6 -1.8
      comp=Z,4.1nm,0.7s
AVF   Avril sur Loir   113.30 322  ePKPdf     PKiKP     02 38 29.6 -1.8
AVF   Avril sur Loir   113.30 322  ePKIKP     PKiKP     02 38 29.6 -1.8
AHID  Auburn Hatcher   113.36  43   PFAKE               02 38 40.0 +8.4
AHID                                LR        LR
      comp=Z,681nm,21.0s,MS5.2
HWUT  Hardware Ranch   113.46  44  ePKP       PKiKP     02 38 32.1 +0.3
HWUT                                LR        LR
      comp=Z,461nm,19.0s,MS5.1
FCC   Fort Churchill   113.86  22  ePKP       PKiKP     02 38 31.3 -0.8
FCC   Fort Churchill   113.86  22  ePKIKP     PKiKP     02 38 31.3 -0.8
MPU   Maple Canyon     113.97  46   PFAKE               02 38 40.0 +7.1
MPU                                 LR        LR
      comp=Z,2µm,20.0s,MS5.6
TCF   Toulx Ste Croi   114.22 322  ePKIKP     PKiKP     02 38 31.4 -1.8
TCF   Toulx Ste Croi   114.22 322  ePKPdf     PKiKP     02 38 31.4 -1.8
TCF   Toulx Ste Croi   114.22 322  ePKIKP     PKiKP     02 38 31.4 -1.8
BW06  Boulder Array    114.40  43  ePKP       PKiKP     02 38 34.5 +0.8
BW06                                LR        LR
      comp=Z,846nm,21.0s,MS5.3
PDAR  Pinedale Array   114.40  43   PKP       PKiKP     02 38 34.1 +0.5
PDAR                                PKKPbc    PKKPbc    02 49 12.9 -1.2
PDAR                                PKKPab    PKKPab    02 49 18.9 -0.7
PDAR  Pinedale Array   114.40  43   PKP       PKiKP     02 38 34.1 +0.5
      comp=Z,0.9nm,0.8s,baz=227,slow=3.2,SNR=5.9
PDAR                                PKKPbc    PKKPbc    02 49 12.9 -1.2
      comp=Z,1.2nm,0.8s,baz=114,slow=4.7,SNR=9.4
PDAR                                PKKPab    PKKPab    02 49 18.9 -0.7
      comp=Z,2.1nm,0.9s,baz=122,slow=6.9,SNR=9.8
WUAZ  Wupatki          115.66  51   PFAKE               02 38 50.0  +14
WUAZ                                LR        LR
      comp=Z,668nm,19.0s,MS5.3
LFF   La Frestale      115.75 321  ePKIKP     PKPdf     02 38 34.2 -1.9
LFF   La Frestale      115.75 321  ePKPdf     PKPdf     02 38 34.2 -1.9
LFF   La Frestale      115.75 321  ePKIKP     PKPdf     02 38 34.2 -1.9
TUC   Tucson           117.12  54  ePKPdf     PKPdf     02 38 39.8 +0.6
TUC                                 LR        LR
      comp=Z,433nm,20.0s,MS5.1
TUC   Tucson           117.12  54  ePKIKP     PKPdf     02 38 39.8 +0.6
TUC                                 MLR       MLR
      comp=Z,433nm,20.0s,MS5.1
MVCO  Mesa Verde       117.27  48   PFAKE               02 38 50.0  +11
MVCO                                LR        LR
      comp=Z,807nm,22.0s,MS5.3
RSSD  Black Hills      117.44  39   PFAKE               02 38 50.0  +11
RSSD                                LR        LR
      comp=Z,767nm,20.0s,MS5.3
ISCO  Idaho Springs    118.33  44  ePKPdf     PKPdf     02 38 42.5 +1.2
ISCO                                LR        LR
      comp=Z,399nm,19.0s,MS5.1
ISCO  Idaho Springs    118.33  44  ePKIKP     PKPdf     02 38 42.5 +1.2
ISCO                                MLR       MLR
      comp=Z,399nm,19.0s,MS5.1
ULM   Lac du Bonnet    118.70  30   PKP       PKPdf     02 38 39.5 -2.2
ULM   Lac du Bonnet    118.70  30   PKP       PKPdf     02 38 39.5 -2.2
      comp=Z,1.7nm,0.6s,baz=336,slow=2.7,SNR=7.2
SDCO  Great Sand Dun   119.26  46  ePKPdf     PKPdf     02 38 44.2 +1.1
SDCO                                LR        LR
      comp=Z,764nm,22.0s,MS5.3
ANMO  Albuquerque      119.63  50  ePKPdf     PKPdf     02 38 44.6 +0.7
ANMO                                LR        LR
      comp=Z,336nm,19.0s,MS5.0
ANMO  Albuquerque      119.63  50  ePKIKP     PKPdf     02 38 44.6 +0.7
ANMO                                MLR       MLR
      comp=Z,336nm,19.0s
BNM   Barren Site      119.80  51  ePKPdf     PKPdf     02 38 44.8 +0.5
ESDC  Sonseca Array    121.29 317   PKP       PKPdf     02 38 46.1 -0.9
ESDC                                PP        PP        02 40 16.1 -1.3
ESDC  Sonseca Array    121.29 317   PKP       PKPdf     02 38 46.1 -0.9
      comp=Z,0.5nm,0.6s,baz=39,slow=2.7,SNR=4.3
ESDC                                PP        PP        02 40 16.1 -1.3
      comp=Z,2.4nm,0.8s,baz=53,slow=7.9,SNR=4.6
MNTX  Cornudas Mount   121.66  53  ePKPdf     PKPdf     02 38 47.9  0.0
MNTX                                LR        LR
      comp=Z,452nm,21.0s,MS5.1
ECSD  EROS,Sioux Fal   122.21  36  ePKPdf     PKPdf     02 38 47.8 -0.8
ECSD                                LR        LR
      comp=Z,486nm,20.0s,MS5.2
CBKS  Cedar Bluff      122.83  43  ePKPdf     PKPdf     02 38 50.1 +0.1
CBKS                                LR        LR
      comp=Z,760nm,20.0s,MS5.3
CBKS  Cedar Bluff      122.83  43  ePKIKP     PKPdf     02 38 50.1 +0.2
CBKS                                MLR       MLR
      comp=Z,760nm,20.0s,MS5.3
LTX   Lajitas          123.88  55  ePKPdf     PKPdf     02 38 53.0 +0.8
LTX                                 LR        LR
      comp=Z,789nm,19.0s,MS5.4
LTX   Lajitas          123.88  55  ePKIKP     PKPdf     02 38 53.1 +0.9
LTX                                 MLR       MLR
      comp=Z,789nm,19.0s,MS5.4
TXAR  Lajitas Array    123.88  55   PKP       PKPdf     02 38 52.8 +0.6
TXAR                                PKKPbc    PKKPbc    02 48 39.2 +0.1
TXAR  Lajitas Array    123.88  55   PKIKP     PKPdf     02 38 52.8 +0.6
TXAR  Lajitas Array    123.88  55   PKP       PKPdf     02 38 52.8 +0.6
      comp=Z,1.0nm,0.6s,baz=186,slow=3.2,SNR=6.0
TXAR                                PKKPbc    PKKPbc    02 48 39.2 +0.1
      comp=Z,2.0nm,1.1s,baz=134,slow=7.1,SNR=3.6
KSU1  Kansas State U   124.78  41  ePKPdf     PKPdf     02 38 53.7  0.0
KSU1                                LR        LR
      comp=Z,1µm,22.0s,MS5.6
TOA0  Torodi Ar. Sit   124.82 285  ePKPdf     PKPdf     02 38 53.7 -0.7
TOA0                               ePP        PP        02 40 40.9 -1.4
TORD  Torodi Ar. Bea   124.82 285   PKP       PKPdf     02 38 53.5 -0.9
TORD                                PP        PP        02 40 37.3 -5.0
TORD                                PKKPbc              02 48 37.5
TORD  Torodi Ar. Bea   124.82 285   PKP       PKPdf     02 38 53.5 -0.9
      comp=Z,6.4nm,0.8s,baz=60,slow=1.9,SNR=27
TORD                                PP        PP        02 40 37.3 -5.0
      comp=Z,2.0nm,0.7s,baz=46,slow=4.2,SNR=3.2
TORD                                PKKPbc              02 48 37.5
      comp=Z,1.0nm,0.7s,baz=247,slow=3.9,SNR=9.0
COWI  Conover          124.83  30   PFAKE               02 39 10.0  +16
COWI                                LR        LR
      comp=Z,359nm,20.0s,MS5.0
SCHQ  Schefferville    125.03  10   PKP       PKPdf     02 38 53.5 -0.2
SCHQ  Schefferville    125.03  10   PKP       PKPdf     02 38 53.5 -0.2
      comp=Z,3.1nm,0.6s,baz=346,slow=0.7,SNR=10
WMOK  Wichita Mounta   125.45  47  ePKPdf     PKPdf     02 38 55.4 +0.3
WMOK                                LR        LR
      comp=Z,759nm,20.0s,MS5.4
WMOK  Wichita Mounta   125.45  47  ePKIKP     PKPdf     02 38 55.4 +0.3
WMOK                                MLR       MLR
      comp=Z,759nm,20.0s,MS5.4
JCT   Junction City    126.54  52  ePKPdf     PKPdf     02 38 57.9 +0.5
JCT                                 LR        LR
      comp=Z,804nm,20.0s,MS5.4
JCT   Junction City    126.54  52  ePKIKP     PKPdf     02 38 57.9 +0.6
JCT                                 MLR       MLR
      comp=Z,804nm,20.0s,MS5.4
HDIL  Hopedale         128.45  35   PFAKE               02 39 10.0 +9.3
HDIL                                LR        LR
      comp=Z,763nm,22.0s,MS5.3
KVTX  Kingsville       129.26  54   PFAKE               02 39 10.0 +7.4
KVTX                                LR        LR
      comp=Z,728nm,21.0s,MS5.3
MIAR  Mount Ida        129.27  44   PFAKE               02 39 10.0 +7.6
MIAR                                LR        LR
      comp=Z,825nm,20.0s,MS5.4
HKT   Hockley          129.87  51  ePKPdf     PKPdf     02 39 03.9 +0.2
HKT   Hockley          129.87  51  ePKIKP     PKPdf     02 39 03.9 +0.2
OXF   Oxford           132.13  42   PFAKE               02 39 20.0  +12
OXF                                 LR        LR
      comp=Z,1µm,22.0s,MS5.5
LIC   Lamto            132.17 278  ePKIKP     PKPdf     02 39 08.7 +0.2
      comp=Z,9.9nm,0.6s
LIC   Lamto            132.17 278  ePKPdf     PKPdf     02 39 08.7 +0.2
PLAL  Pickwick Lake    132.72  40  ePKPdf     PKPdf     02 39 08.5 -0.4
PLAL                                LR        LR
      comp=Z,1µm,21.0s,MS5.5
TZTN  Tazewell         134.48  35   PFAKE               02 39 20.0 +7.8
TZTN                                LR        LR
      comp=Z,842nm,19.0s,MS5.5
LRAL  Lakeview Retre   134.62  42  ePKPdf     PKPdf     02 39 13.3 +0.8
LRAL                                LR        LR
      comp=Z,966nm,20.0s,MS5.5
WES   Weston           135.45  20   PFAKE               02 39 30.0  +16
WES                                 LR        LR
      comp=Z,3µm,21.0s,MS5.9
CMIG  Matias Romero    135.48  66   PKP       PKPdf     02 39 14.3 -0.3
CMIG  Matias Romero    135.48  66   PKP       PKPdf     02 39 14.3 -0.3
      comp=Z,1.6nm,0.6s,baz=320,slow=18,SNR=2.2
BRAL  Brewton          135.79  44   PFAKE               02 39 30.0  +15
BRAL                                LR        LR
      comp=Z,976nm,20.0s,MS5.5
GOGA  Godfrey          136.66  39   PFAKE               02 39 30.0  +14
GOGA                                LR        LR
      comp=Z,985nm,20.0s,MS5.5
CNNC  Cliffs of the    138.56  32   PFAKE               02 39 30.0  +10
CNNC                                LR        LR
      comp=Z,815nm,20.0s,MS5.5
NHSC  New Hope         138.86  36   PFAKE               02 39 30.0  +10
NHSC                                LR        LR
      comp=Z,519nm,19.0s,MS5.3
TEIG  Tepich           140.26  59   PKP       PKPdf     02 39 15.2 -8.1
TEIG                                LR        LR
      comp=Z,331nm,21.0s,MS5.1
TEIG  Tepich           140.26  59   PKhKP               02 39 15.1
      comp=Z,2.2nm,0.5s,baz=263,slow=8.1,SNR=2.0
DWPF  Disney           141.43  43   PFAKE               02 39 40.0  +15
DWPF                                LR        LR
      comp=Z,509nm,20.0s,MS5.3
SOR   Soroa            143.38  51  eP         PKPdf     02 39 26.6 -2.2
TGUH  Tegucigalpa,Un   143.38  67  ePKPdf     PKPdf     02 39 27.2 -1.8
TGUH                                LR        LR
      comp=Z,370nm,19.0s,MS5.2
LPA   La Plata         144.02 173 dePKP       PKPdf     02 39 30.0 +0.4
LPA                                ePP        PP        02 42 44.0 +2.1
LCO   Las Campanas     145.60 151  ePKPdf     PKPdf     02 39 32.6 +0.1
LCO                                ePKPbc     PKPbc     02 39 33.7 +1.1
LCO                                 LR        LR
      comp=Z,540nm,20.0s,MS5.3
MGV   Manicaragua      146.09  50  eP         PKPbc     02 39 36.0 +1.6
JCR   Jicaral          146.55  73  eP         PKPbc     02 39 37.4 +1.4
JTS   JuntasAbangare   146.60  73  ePKPdf     PKPdf     02 39 34.1 -0.5
JTS                                ePKPbc     PKPbc     02 39 36.4 +0.3
JTS                                 LR        LR
      comp=Z,449nm,19.0s,MS5.3
JTS   JuntasAbangare   146.60  73  ePKIKP     PKPdf     02 39 34.1 -0.5
JTS                                e                    02 39 36.4
JTS                                 MLR       MLR
      comp=Z,449nm,19.0s
JTS   JuntasAbangare   146.60  73   PKPbc     PKPbc     02 39 34.8 -1.3
      comp=Z,34nm,0.8s,baz=358,slow=6.5,SNR=15
PRS1  Puriscal         147.28  73  eP         PKPbc     02 39 40.8 +2.7
LAJ   Bijagual         147.50  73⇑eP          PKPbc     02 39 39.9 +1.2
QCR   Quepos           147.56  74⇑eP          PKPbc     02 39 39.9 +1.0
LCR2  La Lucha 2       147.64  73⇑eP          PKPbc     02 39 40.7 +1.6
URSC  Urasca           147.83  73⇓eP          PKPbc     02 39 41.2 +1.6
BAR1                   148.42  74⇑eP          PKPbc     02 39 42.6 +1.5
BCIP  Isla Barro Col   151.76  72  ePKPdf     PKPdf     02 39 42.9  0.0
BCIP                               ePKPbc     PKPbc     02 39 48.8 -0.5
BCIP                               ePKPab     PKPab     02 39 59.1 +0.9
NNA   Nana             152.79 119  ePKPbc     PKPbc     02 39 52.4 +0.9
NNA                                 LR        LR
      comp=Z,677nm,19.0s,MS5.5
NNA   Nana             152.79 119   PKPbc     PKPbc     02 39 52.1 +0.6
      comp=Z,28nm,0.8s,baz=255,slow=6.3,SNR=7.7
ATAH  Atahualpa        153.16 107   PKPbc     PKPbc     02 39 54.5 +2.1
      comp=Z,29nm,0.7s,baz=270,slow=3.2,SNR=18
OTAV  Otavalo          154.22  91  ePKPdf     PKPdf     02 39 48.2 +1.7
OTAV                               ePKPbc     PKPbc     02 39 55.2 +0.5
OTAV                               ePKPab     PKPab     02 40 10.7 +2.1
OTAV                                LR        LR
      comp=Z,337nm,20.0s,MS5.2
SDDR  Presa de Saban   154.41  44   PFAKE               02 40 00.0  +13
SDDR                                LR        LR
      comp=Z,499nm,19.0s,MS5.3
LPAZ  La Paz           157.09 139   PKPdf     PKPdf     02 39 51.8 +1.6
LPAZ  La Paz           157.09 139  ePKPdf     PKPdf     02 39 51.8 +1.6
LPAZ                               ePKPab     PKPab     02 40 21.4 +0.9
LPAZ                                LR        LR
      comp=Z,352nm,22.0s,MS5.2
LPAZ  La Paz           157.09 139   PKIKP     PKPdf     02 39 51.7 +1.5
LPAZ                                pmax      pmax
      comp=Z,5.0nm,1.0s
LPAZ  La Paz           157.09 139   PKP       PKPdf     02 39 51.7 +1.5
      comp=Z,4.9nm,1.0s,baz=85,slow=0.8,SNR=13
ROSC  El Rosal         158.03  79   PKP       PKPdf     02 39 52.4 +0.9
ROSC                                PKPab     PKPab     02 40 27.6 +2.6
ROSC  El Rosal         158.03  79   PKP       PKPdf     02 39 52.4 +0.9
      comp=Z,3.8nm,0.7s,baz=91,slow=17,SNR=5.3
ROSC                                PKPab     PKPab     02 40 27.6 +2.6
      comp=Z,12nm,0.8s,baz=138,slow=4.8,SNR=6.1
MTP   Monte Pirata     158.76  36  ePKPab     PKPab     02 40 28.4 +0.7
SIV   San Ignacio      161.26 154   PKP       PKPdf     02 39 55.9 +0.8
SIV                                 PKPab     PKPab     02 40 39.3 +0.7
SIV                                 PP        PP        02 44 19.8 -0.5
SIV   San Ignacio      161.26 154   PKP       PKPdf     02 39 55.9 +0.8
      comp=Z,4.7nm,1.0s,baz=256,slow=1.8,SNR=13
SIV                                 PKPab     PKPab     02 40 39.3 +0.7
      comp=Z,6.1nm,0.6s,baz=216,slow=3.0,SNR=18
SIV                                 PP        PP        02 44 19.8 -0.5
      comp=Z,1.7nm,1.1s,baz=274,slow=11,SNR=3.1
RCBR  Riachuelo        161.95 248  ePKPab     PKPab     02 40 42.0 +0.1
RCBR                                LR        LR
      comp=Z,476nm,21.0s
```

IGQ 21 02:27:20.7,017N×8006W,h13km±2km,Mb4.3,Ms4.1, 5C-19D,Error ellipse: s-maj=3.5km s-min=1.4km az=48.7,Near coast of Ecuador

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Code  Station Name        Δ°  AZ°   Phase ID              Time     Res
                                    Op        ISC       h  m  s    ISC
JAMA  Jama               0.46 199 ⇓P          Pg        02 27 30.5 +0.8
JAMA                              ⇓S          Sg        02 27 35.9 +0.1
CHIS  Cerro-Chispas-     1.38 209  P          Pn        02 27 44.9 -0.9
CHIS  Cerro-Chispas-     1.38 209  S          Sn        02 28 03.5 -0.5
PINO  Pino               1.49 103 ⇓P          Pn        02 27 48.7 +1.5
TERV  Terraza Guagua     1.50 103 ⇓P          Pn        02 27 48.8 +1.5
JUA2  San Juan 2         1.50 105 ⇓P          Pn        02 27 49.1 +1.6
GGP   Refugio Guagua     1.51 103 ⇓P          Pn        02 27 48.9 +1.4
YANA  Yana               1.52 101 ⇓P          Pn        02 27 49.2 +1.6
COTA  Cotacachi          1.73  85  P          Pn        02 27 52.8 +2.3
CAMI  Rancho Maria       1.77 118 ⇓P          Pn        02 27 53.6 +2.5
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CAMI	Rancho Maria	1.77	118	⇓S	Sn	02 28 17.7	+4.2
VC1	Cotopaxi 1	1.84	116	⇓P	Pn	02 27 54.9	+2.8
VC1	Cotopaxi 1	1.84	116	⇓S	Sn	02 28 20.2	+4.9
TAMB	Tambo	1.90	117	⇓P	Pn	02 27 55.9	+3.0
TAMB	Tambo	1.90	117	⇓S	Sn	02 28 21.1	+4.4
ANTI	Antisana	2.00	108	⇑P	Pn	02 27 57.8	+3.5
ANTI	Antisana	2.00	108	⇑S	Sn	02 28 21.4	+2.3
CAYR	Refugio Cayamb	2.06	94	⇑P	Pn	02 27 58.8	+3.7
CAYR	Refugio Cayamb	2.06	94	⇑S	Sn	02 28 26.4	+5.7
CAYA	Cayambe	2.07	93	⇓P	Pn	02 27 58.7	+3.4
CAYA	Cayambe	2.07	93	⇓S	Sn	02 28 24.1	+3.1
PISA	Pisayambo	2.07	126	⇑P	Pn	02 27 58.1	+2.8
IGUA	Igualata	2.18	139	P	Pn	02 27 59.4	+2.6
JUIV	Juive	2.25	135	P	Pn	02 28 00.8	+3.1
JUIV	Juive	2.25	135	S	Sn	02 28 27.1	+1.7
RUN5	Runtun	2.27	134	P	Pn	02 28 01.1	+3.0
RUN5	Runtun	2.27	134	S	Sn	02 28 28.9	+3.0
RETU	Refugio	2.28	135	⇓P	Pn	02 28 01.2	+3.1
RETU	Refugio	2.28	135	⇓S	Sn	02 28 30.5	+4.3
ULBA	Ulba	2.31	134	P	Pn	02 28 01.2	+2.7
ULBA	Ulba	2.31	134	S	Sn	02 28 29.4	+2.6
ARRY	Arrayan	2.31	136	⇓P	Pn	02 28 01.1	+2.5
ARRY	Arrayan	2.31	136	⇓S	Sn	02 28 29.2	+2.3
PATA	Patacocha	2.33	136	P	Pn	02 28 01.8	+3.0
PATA	Patacocha	2.33	136	S	Sn	02 28 30.4	+3.1
CONE	Cono NE Rev Vo	2.43	96	P	Pn	02 28 05.3	+5.1
CONE	Cono NE Rev Vo	2.43	96	S	Sn	02 28 38.1	+8.3
LAV3	Lava3-Reventad	2.44	96	P	Pn	02 28 05.1	+4.7
LAV3	Lava3-Reventad	2.44	96	S	Sn	02 28 38.3	+8.2

MAN 21 02:40:50,738N×12697E,h1^{km},mb4.6,ML3.4,MS3.4,1C, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	1.00	323	⇑iP	Pg	02 41 10.4	+1.2
BIPH				eS	Sg	02 41 29.1	+6.9
SCPH	Surigao	2.80	329	eP	Pn	02 41 37.5	+1.5
SCPH				eS	Sn	02 42 18.8	+8.4

MAN 21 02:43:12,1940N×12135E,h49^{km},mb4.8,ML3.7,MS3.7, 1D,Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CVP	Callao Caves	1.74	165	⇓eP	Pn	02 43 41.5	+1.7
CVP				eS	Sn	02 44 03.2	+2.4

MAN 21 02:45:09,1640N×12217E,h11^{km},mb4.3,ML3.1,MS2.9, 1D,Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CVP	Callao Caves	1.34	346	⇓eP	Pn	02 45 32.6	-1.1
CVP				eS	Sb	02 45 50.9	-0.5

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*BJI **21** 02:45:31.6,5090N×17920W,h5^{km},mb4.5*
*IDC **21** 02:45:35.0±1.0,5127N×17929W,h0^{km},mb4.1/16, mb1 4.3/17,mb1mx4.1/28,mbtmp4.2/17,ML4.1/1,Error ellipse: s-maj=31.0km s-min=15.6km az=165.0*
*NEIC **21** 02:45:37.6,5094N×17925W,h6^{km},ML3.4(AEIC),After AEIC.*
*ISCJB **21** 02:45:40.1±1.2,514N±02×17924W±0.10,h43^{km}±10^{km}, mb4.2/19,Error ellipse: s-maj=30.4km s-min=8.9km az=170.3*

ISC 21 02:45:40.6±1.9,514N±02×1793W±01,h33^{km}±13^{km},n34, σ0^{s}86/30,mb4.2/19,4C,Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AMKA	Amchitka	0.90	272	P	Pn	02 45 55.5	-1.3
AMKA				S	Sb	02 46 09.6	+0.3
ATKA	Atka Island	3.26	73	P	Pn	02 46 31.1	+1.7
KDAK	Kodiak Island	16.68	57	Pn	Pn	02 49 29.7	-1.8
KDAK	Kodiak Island	16.68	57	Pn	Pn	02 49 29.7	-1.8
	0.7nm,0.3s,baz=312,slow=18,SNR=5.5						
INK	Inuvik	27.65	35	P	P	02 51 24.9	+0.2
	0.9nm,0.7s,mb3.5,baz=248,slow=8.7,SNR=3.3						
YKA	Yellowknife Ar	35.46	46	P	P	02 52 33.4	+0.1
YKA	Yellowknife Ar	35.46	46	P	P	02 52 33.4	+0.1
	1.4nm,0.5s,mb4.1,baz=281,slow=8.0,SNR=16						
NEW	Newport	39.17	69	P	P	02 53 05.0	+0.1
	1.1nm,0.5s,mb3.8,baz=348,slow=7.6,SNR=4.6						
KSRS	Korea Array	39.34	270	P	P	02 53 06.8	+0.3
	1.3nm,0.6s,mb3.8,baz=56,slow=8.5,SNR=6.4						
SONM	Songino Array	46.39	296	P	P	02 54 03.3	-0.2
	0.8nm,0.5s,mb3.9,baz=68,slow=6.7,SNR=11						
SONM				PcP	PcP	02 55 36.8	-1.1
	0.4nm,0.6s,baz=87,slow=3.0,SNR=3.3						
PDAR	Pinedale Array	46.60	72	P	P	02 54 05.3	+0.2
	2.4nm,0.7s,mb4.2,baz=309,slow=3.5,SNR=19						
ZALV	Zalesovo Beam	53.83	313	PcP	PcP	02 56 05.8	+0.7
	0.4nm,0.5s,baz=51,slow=4.6,SNR=2.4						
ARCES	ARCESS Array B	58.06	350	P	P	02 55 29.6	-0.2
	3.3nm,0.9s,mb4.4,baz=40,slow=9.6,SNR=6.5						
MKAR	Makanchi Array	59.82	308	P	P	02 55 42.2	-0.1
MKAR	Makanchi Array	59.82	308	P	P	02 55 42.2	-0.1
	1.6nm,0.4s,mb4.4,baz=50,slow=6.0,SNR=31						
GYA	Guiyang	60.03	276	P	P	02 55 45.5	+1.5
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
SCHQ	Schefferville	60.20	38	P	P	02 55 43.6	-1.2
	comp=Z,1.0nm,0.5s,mb4.1,baz=147,slow=14,SNR=4.0						
JOF	Joensuu	63.54	345	ep	P	02 56 06.6	-0.5
	comp=Z,2.1nm,0.6s,mb4.3						
KAF	Kangasniemi	65.07	347	ep	P	02 56 15.9	-1.2
	comp=Z,1.0nm,0.3s,mb4.3						
FINES	FINESS Array B	65.74	347	P	P	02 56 21.0	-0.5
	comp=Z,0.7nm,0.4s,mb4.0,baz=27,slow=7.4,SNR=8.1						
NOA	NORSAR Array B	67.64	355	P	P	02 56 34.0	+0.5
	comp=Z,0.7nm,0.6s,mb3.9,baz=7.8,slow=6.3,SNR=2.8						
AKASG	Malin Array Be	75.48	342	P	P	02 57 20.6	-0.3
	comp=Z,4.1nm,0.4s,mb4.7,baz=20,slow=6.7,SNR=14						
BURAR	Bucovina Array	79.19	343	⇑iP	P	02 57 42.4	+0.6
GERES	GERESS Array B	79.56	351	P	P	02 57 44.1	+0.3
	comp=Z,0.8nm,0.6s,mb3.9,baz=17,slow=5.6,SNR=8.5						
DRGR		80.42	345	⇑iP	P	02 57 48.6	+0.2
MLR	Muntele Rosu	81.10	342	P	P	02 57 53.5	+1.4
	comp=Z,2.3nm,0.6s,mb4.3,baz=289,slow=23,SNR=5.1						
MLR	Muntele Rosu	81.10	342	⇑iP	P	02 57 54.0	+1.9
GZR	Gura Zlata	81.77	344	⇑iP	P	02 57 56.4	+0.8
FITZ	Fitzroy Crossi	84.22	232	P	P	02 58 07.2	-1.4
	comp=Z,2.0nm,0.7s,mb4.4,baz=70,slow=6.1,SNR=9.1						
BRTR	Keskin Array B	84.84	335	P	P	02 58 11.8	+0.2
	comp=Z,0.9nm,0.7s,mb4.0,baz=60,slow=3.0,SNR=7.2						
LBTB	Lobatse	147.54	315	PKPbc	PKPbc	03 05 21.3	+0.2
LBTB	Lobatse	147.54	315	PKPbc	PKPbc	03 05 21.3	+0.2
	comp=Z,2.2nm,0.7s,baz=268,slow=9.1,SNR=4.4						
BOSA	Boshof	150.77	312	PKPbc	PKPbc	03 05 29.3	+0.2
BOSA	Boshof	150.77	312	PKPbc	PKPbc	03 05 29.3	+0.2
	comp=Z,1.5nm,0.7s,baz=90,slow=7.1,SNR=3.8						

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*ISCJB **21** 02:47:25.7±0.7,3898N±005×2122E±004,h1^{km}±9^{km}, Error ellipse: s-maj=7.8km s-min=4.9km az=170.6*
*ATH **21** 02:47:25.1,3885N×2105E,h10^{km},MD3.2/3*
*CSEM **21** 02:47:26.7±0.2,3896N×21.19E,h2^{km},ML2.7,Error ellipse: s-maj=5.5km s-min=3.7km az=172.0*
*THE **21** 02:47:26.7,3897N×21.19E,h1^{km},ML2.7*

ISC 21 02:47:26.4±0.7,3897N±005×2120E±004,h12^{km}±9^{km},n21, σ0^{s}78/31,Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EVR	Evrytania	0.48	96	ePB	Pg	02 47 36.5	+0.7
EVR	Evrytania	0.48	96	ePb	Pg	02 47 36.5	+0.7
LKD	Levkas	0.50	239	ePg	Pg	02 47 35.6	-0.6
LKD				eSg	Sg	02 47 43.4	+0.5
LKD	Levkas	0.50	239	ePg	Pg	02 47 35.6	-0.6
LKD				eSg	Sg	02 47 43.4	+0.5
JAN	Janina	0.74	339	ePB	Pb	02 47 40.5	-0.7
JAN	Janina	0.74	339	ePb	Pb	02 47 40.5	-0.7
IGT	Igoumenitsa	0.88	310	ePg	Pg	02 47 42.9	-0.5
IGT				eSg	Sg	02 47 55.9	+1.0
IGT	Igoumenitsa	0.88	310	ePg	Pg	02 47 42.9	-0.5
IGT				eSg	Sg	02 47 55.9	+1.0
AGG	Agios Georgios	0.88	86	ePg	Pg	02 47 43.6	+0.1
AGG				eSg	Sg	02 47 56.2	+1.1
AGG	Agios Georgios	0.88	86	ePg	Pg	02 47 43.6	+0.1
AGG				eSg	Sg	02 47 56.2	+1.1
VLS	Valsamata	0.92	211	ePB	Pb	02 47 40.0	-4.3
VLS	Valsamata	0.92	211	ePb	Pb	02 47 40.0	-4.3
LSK	Leskovik	1.27	339	i Pn	Pn	02 47 50.3	+0.4
LIT	Litokhoron	1.51	41	ePg	Pg	02 47 54.5	-0.9
LIT				eSg	Sg	02 48 15.2	+0.1
LIT	Litokhoron	1.51	41	ePg	Pg	02 47 54.5	-1.0
LIT				eSg	Sg	02 48 15.2	+0.1
XOR	Xorichti	1.60	75	ePg	Pg	02 47 55.5	-1.7
XOR	Xorichti	1.60	75	ePg	Pg	02 47 55.5	-1.7
FNA	Florina	1.82	4	ePb	Pb	02 47 59.2	-0.4
FNA				eSb	Sb	02 48 22.7	+0.3
FNA	Florina	1.82	4	ePb	Pb	02 47 59.2	-0.4
FNA				eSb	Sb	02 48 22.7	+0.3
GRG	Griva	2.19	25	ePn	Pn	02 48 03.4	+0.8
GRG	Griva	2.19	25	ePn	Pn	02 48 03.4	+0.8

IDC 21 03:20:43.7±1.6,415S×12967E,h0^{km},mb3.6/2,mb1 4.2/5, mb1mx3.9/16,mbtmp4.0/5,ML4.0/3,Error ellipse: s-maj=84.7km s-min=23.2km az=76.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	14.42	196	Pn	Pn	03 24 11.2	+1.9
	0.1nm,0.3s,baz=13,slow=19,SNR=5.4						
FITZ				Sn	Sn	03 26 39.7	-10
	0.1nm,0.3s,baz=47,slow=18,SNR=2.0						
WRA	Warramunga Arr	16.34	164	Pn	Pn	03 24 34.6	-0.1
	0.7nm,0.3s,baz=344,slow=12,SNR=27						
WRA				Sn	Sn	03 27 21.3	-16
	0.2nm,0.3s,baz=337,slow=22,SNR=5.7						
ASAR	Alice Springs	19.83	168	P	Pn	03 25 15.8	-1.9
	1.5nm,0.3s,baz=351,slow=11,SNR=165						
SONM	Songino Array	55.65	341	P	P	03 30 22.6	+1.0
	0.3nm,0.6s,baz=142,slow=4.9,SNR=3.3						
MKAR	Makanchi Array	65.68	326	P	P	03 31 29.4	-0.6
	0.9nm,0.7s,baz=123,slow=7.4,SNR=11						

IDC 21 03:26:57.4±8.6,585S×15112E,h77^{km}±61^{km},mb3.2/3, mb1 3.5/4,mb1mx3.2/15,mbtmp3.3/4,ML2.7/1,Error ellipse: s-maj=104.1km s-min=55.9km az=129.0,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	5.28	228	P	Pn	03 28 14.1	+0.3
	1.9nm,0.3s,baz=47,slow=9.5,SNR=5.5						
PMG				S	Sn	03 29 14.1	+0.6
	1.8nm,0.3s,baz=137,slow=19,SNR=3.7						
WRA	Warramunga Arr	21.50	228	P	P	03 31 39.9	-0.2
	0.5nm,0.5s,baz=53,slow=10,SNR=4.4						
ASAR	Alice Springs	24.26	221	P	P	03 32 07.3	-0.1
	0.5nm,0.5s,baz=58,slow=9.3,SNR=6.0						
FITZ	Fitzroy Crossi	27.69	242	P	P	03 32 38.9	+0.4
	1.2nm,0.6s,baz=37,slow=10,SNR=4.8						
TORD	Torodi Ar. Bea	149.01	286	PKPbc	PKPbc	03 46 37.0	-0.6
	0.3nm,0.4s,baz=96,slow=2.2,SNR=8.4						

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*IDC **21** 03:34:30.2±1.1,300S×12931E,h0^{km},mb4.2/6,mb1 4.5/8, mb1mx4.2/18,mbtmp4.3/8,ML4.6/2,MS3.7/2,Ms1 3.7/2, ms1mx3.1/26,Error ellipse: s-maj=51.4km s-min=17.7km az=68.0*
*ISCJB **21** 03:34:32.8±0.6,308S±008×1294E±0.1,h33^{km},mb4.2/8, MS4.0/1,Error ellipse: s-maj=22.4km s-min=7.4km az=157.5*
*NEIC **21** 03:34:32.0±10.0,299S×12943E,h13^{km}±65^{km},mb4.4/6, Error ellipse: s-maj=22.7km s-min=11.9km az=218.0*
NEIC Felt [II] on Ambon.

ISC 21 03:34:35.2±0.6,304S±007×1294E±01,h35^{km},n19, σ0^{s}63/19,mb4.2/8,MS4.0/1,Seram

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	10.06	163	ePn	Pn	03 36 57.2	-0.1
	32nm,0.7s						
KAKA				eSn	Sn	03 38 48.6	-0.4
FITZ	Fitzroy Crossi	15.41	194	eP	Pn	03 38 10.9	+0.8
	11nm,0.6s						
FITZ	Fitzroy Crossi	15.41	194	Pn	Pn	03 38 11.0	+0.9
	0.8nm,0.3s,baz=25,slow=12,SNR=16						
FITZ				LR	LR	03 44 56.2	
	comp=Z,124nm,18.3s,baz=298,slow=41						
WRA	Warramunga Arr	17.47	164	P	Pn	03 38 34.7	-1.5
	3.8nm,0.3s,baz=343,slow=12,SNR=26						
MBWA	Marble Bar	20.32	207	eP	P	03 39 08.3	-0.1
	8.4nm,0.8s						
ASAR	Alice Springs	20.96	168	P	P	03 39 16.1	+0.9
	33nm,0.7s,baz=350,slow=10,SNR=254						
CTAO	Charters Tower	23.61	137	eP	P	03 39 43.5	+0.3
	12nm,1.0s,mb4.3						
KULM	Kulim	29.89	286	eP	P	03 40 40.6	+0.7
STKA	Stephens Creek	30.89	160	eP	P	03 40 49.0	+0.6
	1.7nm,0.3s,mb4.3						
STKA	Stephens Creek	30.89	160	P	P	03 40 49.2	+0.8
	2.1nm,0.4s,mb4.3,baz=334,slow=8.9,SNR=11						
PSI	Prapat	31.02	280	P	P	03 40 48.7	-1.1
PSI	Prapat	31.02	280	P	P	03 40 48.7	-1.1
	8.0nm,0.9s,mb4.6,baz=113,slow=5.9,SNR=8.5						
CBIJ	Chichi jima	32.40	22	LR	LR	03 51 33.7	
	comp=Z,303nm,21.3s,MS4.0,baz=252,slow=32						
SONM	Songino Array	54.53	341	P	P	03 43 59.6	+0.1
	0.6nm,0.9s,mb3.6,baz=154,slow=8.2,SNR=3.8						
MK31	Makanchi Array	64.62	326	eP	P	03 45 09.3	+0.1
MKAR	Makanchi Array	64.62	326	P	P	03 45 09.4	+0.2
	1.3nm,0.7s,mb4.1,baz=117,slow=8.5,SNR=15						
ZALV	Zalesovo Beam	67.80	333	P	P	03 45 29.2	-0.2
	1.1nm,0.5s,mb4.1,baz=112,slow=5.8,SNR=5.8						
KURK	Kurchatov	68.86	328	eP	P	03 45 35.9	-0.2
	4.5nm,0.9s,mb4.4						
BRVK	Borovoye	74.50	327	eP	P	03 46 09.6	-0.3
	4.6nm,1.0s,mb4.4						

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*NEIC **21** 03:42:07.6,31.15S×7167W,h13^{km},ML3.3(GUC),After GUC.*

GUC 21 03:42:07.6±0.6,3115S×7167W,h13^{km}±4^{km},MD4.3, ML3.3,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMCH	Combarbala	0.57	93	i P	Pg	03 42 18.6	-0.2
CMCH				i S	Sg	03 42 27.5	+1.1
CMCH	Combarbala	0.57	93	i P	Pg	03 42 18.6	-0.2
CMCH				i S	Sg	03 42 27.5	+1.1
CMCH				AML	AML	03 42 29.5	
	comp=N,3µm,0.9s						
OVCH	Ovalle	0.67	37	i P	Pg	03 42 20.0	-0.6
OVCH				i S	Sg	03 42 29.9	+0.5
CHNG	Los Chungos	0.75	169	eP	Pg	03 42 07.9	-14
CHNG				i S	Sg	03 42 18.4	-14
PTCH	Petorca	1.28	151	eP		03 43 56.6	
PTCH				i S		03 44 13.2	
PTCH				AML	AML	03 44 15.3	
	comp=N,2µm,0.1s						
LSCH	La Serena	1.29	17	eP	Pn	03 42 30.1	-1.1
LSCH				i S	Sb	03 42 46.7	-1.3
LCO	Las Campanas	2.29	22	ePn	Pn	03 42 43.5	-1.4
LCO				eSn	Sn	03 43 12.6	-0.4
LCO				eSg	Sg	03 43 19.9	-1.2
FCH	Farellones	2.47	152	eP	Pn	03 42 49.1	+1.7
FCH				i S	Sn	03 43 20.9	+3.5
ANTU	Antumapu	2.57	160	eP	Pn	03 42 47.8	-1.1
CHCH	Chadas Angostu	2.91	163	eP	Pn	03 42 56.0	+2.4

IDC 21 03:46:53.3±1.2,2195N×14312E,h0^{km},mb3.7/7, mb1 3.9/7,mb1mx3.7/21,mbtmp3.7/7,Error ellipse: s-maj=36.6km s-min=29.8km az=70.0,Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	39.10	320	P	P	03 54 22.7	+0.5
	0.8nm,0.7s,baz=136,slow=8.7,SNR=5.9						
ASAR	Alice Springs	46.22	192	P	P	03 55 20.3	+0.1
	0.3nm,0.6s,baz=12,slow=10,SNR=4.7						
ZALV	Zalesovo Beam	53.98	322	P	P	03 56 18.4	-0.4
	0.6nm,0.5s,baz=97,slow=7.6,SNR=4.2						
MKAR	Makanchi Array	54.48	313	P	P	03 56 23.5	+0.9
	0.3nm,0.2s,baz=83,slow=9.6,SNR=3.4						
YKA	Yellowknife Ar	76.26	28	P	P	03 58 43.2	-0.2
	0.3nm,0.5s,baz=292,slow=5.8,SNR=8.4						
NVAR	Mina Array Bea	83.04	51	P	P	03 59 21.9	+1.1
	0.2nm,0.4s,baz=264,slow=4.4,SNR=3.7						
BRTR	Keskin Array B	90.12	313	P	P	03 59 54.0	-1.5
	0.5nm,0.8s,baz=88,slow=4.3,SNR=4.0						

IDC 21 03:59:00.3±6.1,803S×15603E,h0^{km},mb4.3/3,mb1 4.5/3, mb1mx3.8/14,mbtmp4.3/3,MS3.7/7,Ms1 3.7/7, ms1mx3.3/31,Error ellipse: s-maj=102.3km s-min=79.3km az=15.0,Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	8.88	260	LR	LR	04 04 10.2	
	comp=Z,271nm,18.5s,baz=95,slow=35						
CTA	Charters Tower	15.28	217	LR	LR	04 07 14.5	
	comp=Z,140nm,19.5s,baz=47,slow=32						
DZM	Mont Dzumac	17.19	145	LR	LR	04 08 03.1	
	comp=Z,202nm,20.9s,baz=255,slow=32						
WRA	Warramunga Arr	24.12	238	P	P	04 04 17.4	-0.6
	3.8nm,0.8s,baz=65,slow=9.4,SNR=10						
WRA				LR	LR	04 13 01.9	
	comp=Z,86nm,18.1s,baz=165,slow=35						
ASAR	Alice Springs	26.30	231	P	P	04 04 38.4	+0.5
	6.4nm,0.9s,baz=64,slow=9.5,SNR=41						
STKA	Stephens Creek	27.27	208	eP	P	04 04 46.1	-0.4
	3.8nm,0.9s						
STKA	Stephens Creek	27.27	208	P	P	04 04 46.6	+0.1
	4.7nm,0.8s,baz=34,slow=14,SNR=8.1						
STKA				LR	LR	04 14 40.5	
	comp=Z,114nm,18.0s,baz=215,slow=34						
MAW	Mawson	83.85	203	LR	LR	04 44 41.9	
	comp=Z,122nm,18.6s,baz=72,slow=33						
BBB	Bella Bella	87.72	37	LR	LR	04 42 08.9	
	comp=Z,208nm,21.9s,baz=136,slow=30						

IDC 21 04:05:44.0±8.3,561S×15116E,h71^{km}±59^{km},mb3.6/3, mb1 3.9/4,mb1mx3.5/15,mbtmp3.7/4,ML3.2/1,MS3.1/2, Ms1 3.1/2,ms1mx2.9/23,Error ellipse: s-maj=99.0km s-min=52.8km az=126.0,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	5.47	226	P	Pn	04 07 02.7	-0.4
	4.5nm,0.3s,baz=45,slow=7.8,SNR=11						
PMG				S	Sn	04 08 06.5	+1.8
	10.0nm,0.3s,baz=324,slow=20,SNR=9.8						
HNR	Honiara	9.51	114	LR	LR	04 10 45.9	
	comp=Z,69nm,21.0s,baz=176,slow=32						
WRA	Warramunga Arr	21.69	227	P	P	04 10 28.3	-1.0
	1.9nm,0.5s,baz=53,slow=10,SNR=8.8						
DZM	Mont Dzumac	22.06	139	LR	LR	04 17 58.8	
	comp=Z,71nm,18.3s,baz=13,slow=33						
ASAR	Alice Springs	24.46	221	P	P	04 10 56.4	-0.1
	2.1nm,0.8s,baz=54,slow=9.2,SNR=15						
FITZ	Fitzroy Crossi	27.84	241	P	P	04 11 26.9	-0.1
	1.1nm,0.3s,baz=61,slow=9.2,SNR=10.0						
TORD	Torodi Ar. Bea	148.98	286	PKPbc	PKPbc	04 25 25.1	0.0
	2.9nm,0.9s,baz=89,slow=2.2,SNR=15						

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*ISCJB **21** 04:10:23.6±0.8,20N±0.1×309E±0.1,h10^{km},mb3.7/6,Error ellipse: s-maj=24.1km s-min=14.4km az=146.3*
*NEIC **21** 04:10:24.1±1.3,172N×3071E,h10^{km},Error ellipse: s-maj=37.5km s-min=15.3km az=214.0*
*IDC **21** 04:10:24.2±1.3,198N×3076E,h0^{km},mb3.7/6,mb1 3.9/7, mb1mx3.7/19,mbtmp3.7/7,ML3.5/1,MS3.4/2,Ms1 3.4/2, ms1mx3.0/29,Error ellipse: s-maj=35.3km s-min=24.0km az=75.0*

ISC 21 04:10:25.7±0.8,20N±01×309E±01,h10^{km},n9,σ1^{s}07/11, mb3.7/6,Zaire

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMBO	Kilima Mbogo	7.11	116	ePn	Pn	04 12 08.8	-1.0
KMBO				Sn	Sn	04 13 38.5	+7.8
KMBO				eSg	Sg	04 14 03.9	-10
KMBO	Kilima Mbogo	7.11	116	Pn	Pn	04 12 09.0	-0.8
	0.7nm,0.3s,baz=284,slow=16,SNR=13						
KMBO				Sn	Sn	04 13 38.5	+7.8
	1.6nm,0.3s,baz=276,slow=16,SNR=3.3						
KMBO				Lg		04 14 04.7	
	2.9nm,0.3s,baz=218,slow=22,SNR=9.9						
KMBO				LR	LR	04 15 07.4	
	comp=Z,204nm,19.0s,baz=282,slow=39						
ATD	Arta Tunnel	15.19	51	LR	LR	04 20 17.3	
	comp=Z,158nm,19.5s,baz=10,slow=39						
MATP	Matopo	22.41	186	P	P	04 15 25.6	+1.1
	1.1nm,0.6s,mb3.5,baz=6.1,slow=12,SNR=4.1						
TORD	Torodi Ar. Bea	30.91	292	P	P	04 16 41.5	-1.4
	0.6nm,0.9s,mb3.4,baz=93,slow=8.5,SNR=3.4						
BRTR	Keskin Array B	37.63	4	P	P	04 17 42.9	+2.1
	1.2nm,0.9s,mb3.6,baz=154,slow=4.0,SNR=7.6						
AKASG	Malin Array Be	48.54	359	P	P	04 19 08.5	-0.4
	0.1nm,0.3s,mb3.4,baz=180,slow=6.4,SNR=5.5						
GERES	GERESS Array B	48.94	345	P	P	04 19 12.0	0.0
	1.1nm,0.8s,mb4.0,baz=166,slow=6.5,SNR=8.9						
NOA	NORSAR Array B	60.76	349	P	P	04 20 37.3	-0.2
	2.0nm,1.1s,mb4.2,baz=157,slow=6.8,SNR=3.3						

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*IDC **21** 04:14:47.6±0.9,1256N×14182E,h0^{km},mb4.0/11, mb1 4.1/11,mb1mx4.0/21,mbtmp4.0/11,MS3.2/9, Ms1 3.2/9,ms1mx3.1/36,Error ellipse: s-maj=37.3km s-min=19.4km az=82.0*
*ISCJB **21** 04:14:49.4±0.7,1251N±0.10×1417E±02,h23^{km},mb4.1/19, MS3.2/7,Error ellipse: s-maj=24.5km s-min=13.3km az=170.1*
*BJI **21** 04:14:49.2,1250N×14180E,h23^{km},mB4.9,mb4.6*
*MOS **21** 04:14:50.8±1.0,1250N×14175E,h33^{km},mb4.5/6,Error ellipse: s-maj=31.5km s-min=11.9km az=111.9*
*NEIC **21** 04:14:51.3±0.5,1254N×14182E,mb4.6/4,Error ellipse: s-maj=21.3km s-min=11.5km az=77.0*

ISC 21 04:14:51.2±0.7,1255N±009×1419E±02,h24^{km}, h24^{km}±1.9^{km}:pP-P,n38,σ0^{s}88/31,mb4.1/19,MS3.2/7,1D, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	Guam	3.11	70	LR	LR	04 16 48.8	
	comp=Z,152nm,18.4s,baz=149,slow=39						
CBIJ	Chichi jima	14.47	1	LR	LR	04 23 19.5	
	comp=Z,75nm,18.8s,baz=166,slow=35						
PMG	Port Moresby	22.44	166	LR	LR	04 28 40.8	
	comp=Z,96nm,18.3s,MS3.3,baz=344,slow=37						
JNU	Nakatsue	22.80	336	P	P	04 19 52.4	+0.1
	5.7nm,0.8s,mb4.0,baz=144,slow=12,SNR=4.5						
JNU				LR	LR	04 26 44.5	
	comp=Z,85nm,19.1s,MS3.2,baz=133,slow=32						
MJAR	Matsushiro Arr	24.11	353	P	P	04 20 05.3	+0.2
	2.2nm,1.0s,mb3.5,baz=186,slow=11,SNR=3.8						
MJAR				LR	LR	04 28 08.7	
	comp=Z,80nm,20.5s,MS3.2,baz=160,slow=33						
KSRS	Korea Array	27.76	336	LR	LR	04 30 10.4	
	comp=Z,26nm,19.4s,MS2.8,baz=155,slow=33						
HNR	Honiara	28.29	140	LR	LR	04 31 19.6	
	comp=Z,30nm,18.1s,MS2.9,baz=360,slow=35						
WRA	Warramunga Arr	33.13	193	P	P	04 21 25.3	-0.4
	2.3nm,1.0s,mb4.1,baz=13,slow=9.4,SNR=4.9						
WRA				LR	LR	04 34 15.3	
	comp=Z,79nm,20.4s,MS3.4,baz=215,slow=35						
ASAR	Alice Springs	36.83	192	P	P	04 21 57.9	+0.3
	0.1nm,0.3s,mb3.1,baz=17,slow=9.5,SNR=4.3						
KLR	Kul'dur	37.51	349	eP	P	04 22 00.0	-3.1
LZH	Lanzhou	41.43	311	eP	P	04 22 37.5	+1.4
LZH				AP	pP	04 22 43.1	-0.2
LZH				XP	sP	04 22 46.3	0.0
LZH				AMB	AMB		
	comp=Z,15nm,1.3s,mb4.5						
LZH				AMB	AMB		
	comp=Z,68nm,4.3s						
LZH	Lanzhou	41.43	311	eP	P	04 22 37.5	+1.4
	comp=Z,15nm,1.3s,mb4.5						
LZH				pP	pP	04 22 43.1	-0.2
LZH				sP	sP	04 22 46.3	0.0
ULN	Ulaanbaatar	45.61	327	eP	P	04 23 10.1	+0.5
	comp=Z,2.2nm,0.8s,mb4.1						
ULN	Ulaanbaatar	45.61	327	eP	P	04 23 10.1	+0.5
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
GTA	Gaotai	45.71	314	eP	P	04 23 10.3	-0.2

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GTA                                  AP     pP      04 23 16.1  -1.7
GTA                                  AMB    AMB
         comp=Z,4.0nm,1.1s,mb4.3
SONM   Songino Array     45.94 327   P      P       04 23 13.1  +0.9
         comp=Z,0.8nm,0.8s,mb3.7,baz=144,slow=8.4,SNR=6.7
SONM                                 LR     LR      04 43 16.8
         comp=Z,75nm,18.6s,MS3.7,baz=40,slow=37
ZAK    Zakamensk         49.11 328 ⇓iP     P       04 23 37.2  +0.4
ZAK                                  pmax   pmax
         comp=Z,3.0nm,1.0s,mb4.3
BOD    Bodaibo           49.88 341  eP      P       04 23 41.8  -0.7
BOD                                  pmax   pmax
         comp=Z,5.0nm,2.2s,mb4.2
WMQ    Urumqi            55.75 315  eP      P       04 24 25.8  -0.3
WMQ                                  AMB    AMB
         comp=Z,9.0nm,0.8s,mb4.8
MK31   Makanchi Array    60.22 317  eP      P       04 24 58.2  +0.8
MK31                                eppP    pP      04 25 05.8  +0.8
MKAR   Makanchi Array    60.22 317   P      P       04 24 57.7  +0.3
MKAR   Makanchi Array    60.22 317   P      P       04 24 57.7  +0.3
         comp=Z,1.9nm,0.7s,mb4.2,baz=96,slow=7.8,SNR=15
ZALV   Zalesovo Beam     60.78 325   P      P       04 25 00.8  -0.3
ZALV   Zalesovo Beam     60.78 325   P      P       04 25 00.8  -0.3
         comp=Z,0.5nm,0.6s,mb3.8,baz=95,slow=5.1,SNR=3.1
ZAL    Zalesovo          60.78 325   P      P       04 25 00.8  -0.3
KURK   Kurchatov         63.50 321  eP      P       04 25 19.3  -0.1
         comp=Z,4.5nm,1.0s,mb4.5
KURK                                epP     pP      04 25 27.5  +0.5
KURK   Kurchatov         63.50 321  eP      P       04 25 19.3  -0.1
KURK                                e*PP    pP      04 25 27.5  +0.5
KURK                                 pmax   pmax
         comp=Z,4.0nm,1.0s,mb4.5
BRVK   Borovoye          69.00 322  eP      P       04 25 54.8  +0.2
         comp=Z,5.2nm,0.8s,mb4.5
BRVK                                epP     pP      04 26 02.1  -0.2
BRVK   Borovoye          69.00 322  eP      P       04 25 54.8  +0.2
BRVK                                e*PP    pP      04 26 02.1  -0.2
BRVK                                 pmax   pmax
         comp=Z,5.0nm,0.8s,mb4.5
YKA    Yellowknife Ar    85.12  27   P      P       04 27 25.0  -0.1
         comp=Z,1.1nm,0.6s,mb4.2,baz=288,slow=5.2,SNR=18
RES    Resolute Bay      86.22  13  eP      P       04 27 31.5  +1.1
ARCES  ARCESS Array B    87.15 342   P      P       04 27 34.0  -1.0
         comp=Z,2.0nm,0.7s,mb4.4,baz=72,slow=9.3,SNR=6.9
JOF    Joensuu           87.98 335  ep      P       04 27 36.9  -2.2
NVAR   Mina Array Bea    89.85  51   P      P       04 27 49.8  +1.3
         comp=Z,0.2nm,0.3s,mb3.9,baz=267,slow=4.1,SNR=5.2
KAF    Kangasniemi       90.43 335  ep      P       04 27 46.1  -4.5
FINES  FINESS Array B    90.84 334   P      P       04 27 51.3  -1.2
         comp=Z,1.4nm,0.6s,mb4.5,baz=76,slow=6.1,SNR=9.7
LPAZ   La Paz           150.74 101   PKPbc  PKPbc   04 34 44.2  +1.8
LPAZ   La Paz           150.74 101   PKPbc  PKPbc   04 34 44.2  +1.8
         comp=Z,0.7nm,0.4s,baz=17,slow=6.3,SNR=3.7
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INMG ***21*** *04:28:19.7±2.1, 3528N×1145W, h22^{km}±14^{km}, Mb3.6, ML2.7, Error ellipse: s-maj=9.2km s-min=7.1km az=49.0*

ISCJB ***21*** *04:28:19.6±0.7, 3547N±003×1093W±005, h10^{km}, Error ellipse: s-maj=5.5km s-min=4.6km az=170.6*

MDD ***21*** *04:28:19.1±1.0, 3527N×1144W, h36^{km}±41^{km}, mb4.4/19, Error ellipse: s-maj=13.0km s-min=9.1km az=67.0, PRXIMO*

IGIL ***21*** *04:28:22.2, 3550N×1114W, h0^{km}, ML2.8*

CSEM ***21*** *04:28:22.7±0.3, 3522N×1054W, h2^{km}, ML4.0/7, Error ellipse: s-maj=6.7km s-min=3.9km az=84.0*

CNRM ***21*** *04:28:23.5, 3505N×1110W, h30^{km}, MD3.2*

ISC 21 04:28:21.9±0.7**, 3552N**±003×**1095W**±004**, h10^{km}, n91, σ1^{s}11**/163**, 4C, Azores-Cape St. Vincent Ridge**

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Code   Station Name        Δ°   AZ°    Phase ID         Time      Res
                                     Op     ISC      h  m  s    ISC
PFVI   Vila Bisbo         2.35  46  i Pn    Pn      04 29 01.3  +0.7
PFVI                                eSn     Sn      04 29 31.0  +1.5
PFVI                                 A              04 29 32.8
         32nm,0.2s
PFVI   Vila Bisbo         2.35  46  ⇑P      Pn      04 29 01.3  +0.7
PFVI                                 S      Sn      04 29 31.0  +1.5
         16nm,0.2s
MORF   Marmelete          2.57  46  i Pn    Pn      04 29 04.4  +0.8
MORF                                eSn     Sn      04 29 36.6  +1.7
MORF                                 A              04 29 38.9
         37nm,0.1s
MORF   Marmelete          2.57  46  ⇑P      Pn      04 29 04.4  +0.8
MORF                                 S      Sn      04 29 36.6  +1.7
         37nm,0.1s
PTEO   Sao Teotonio       2.70  41  ePn     Pn      04 29 06.0  +0.6
PTEO                                eSn     Sn      04 29 39.2  +1.1
PTEO                                 A              04 29 43.9
         20nm,0.1s
PTEO   Sao Teotonio       2.70  41  ePn     Pn      04 29 06.0  +0.6
PTEO                                eSn     Sn      04 29 39.2  +1.1
         20nm,0.1s
PBDV   Barranco-do-Ve     2.98  54  ePn     Pn      04 29 10.2  +1.0
PBDV                                eSn     Sn      04 29 47.1  +2.1
PBDV                                 A              04 29 50.4
         12nm,0.1s
PBDV   Barranco-do-Ve     2.98  54   P      Pn      04 29 10.2  +1.0
PBDV                                 S      Sn      04 29 47.1  +2.1
         5.8nm,0.1s
PBDV   Barranco-do-Ve     2.98  54  ePn     Pn      04 29 10.2  +1.0
PVAQ   Vaqueiros          3.21  53  i Pn    Pn      04 29 13.3  +0.9
PVAQ                                eSn     Sn      04 29 51.7  +1.0
PVAQ                                 A              04 29 57.1
         20nm,0.1s
PVAQ   Vaqueiros          3.21  53  ⇑P      Pn      04 29 13.3  +0.9
PVAQ                                 S      Sn      04 29 51.7  +1.0
         9.9nm,0.1s
EGRO   El Granado         3.44  53   P      Pn      04 29 16.3  +0.7
         2.8nm,0.1s,SNR=37
EGRO                                 S      Sn      04 29 58.5  +2.2
         10.0nm,0.1s,SNR=7.9
EGRO   El Granado         3.44  53   P      Pn      04 29 16.3  +0.8
         2.8nm,0.1s,SNR=37
EGRO                                 S      Sn      04 29 58.1  +1.8
         10.0nm,0.1s,SNR=7.9
ERIP   Rio Piedras        3.51  57  ⇑P      Pn      04 29 17.4  +1.0
         16nm,0.2s,SNR=18
ERIP                                 S      Sn      04 29 59.9  +2.0
         13nm,0.2s,SNR=7.9
ERIP   Rio Piedras        3.51  57   P      Pn      04 29 17.4  +1.0
         16nm,0.2s,SNR=18
ERIP                                 S      Sn      04 29 58.7  +0.7
         13nm,0.2s,SNR=7.9
PBEJ   Beja               3.52  44  ePn     Pn      04 29 17.0  +0.4
PBEJ                                eSn     Sn      04 29 59.6  +1.3
PBEJ                                 A              04 30 01.9
         11nm,0.1s
PBEJ   Beja               3.52  44   P      Pn      04 29 17.0  +0.4
PBEJ                                 S      Sn      04 29 59.6  +1.3
         5.7nm,0.1s
PBEJ   Beja               3.52  44  ePn     Pn      04 29 17.0  +0.4
MOE    Montemor           3.65  34  eSn     Sn      04 30 01.4   0.0
MOE    Montemor           3.65  34   S      Sn      04 30 01.4   0.0
MOE    Montemor           3.65  34  eSn     Sn      04 30 01.4   0.0
AVE    Averroes           3.67 126   P      Pn      04 29 16.0  -2.7
AVE                                  S      Sn      04 29 56.0  -6.1
PMAFR  Mafra              3.68  21  ePn     Pn      04 29 18.6  -0.2
PMAFR                               eSn     Sn      04 30 02.4  +0.2
PMAFR                                A              04 30 09.0
         29nm,0.1s
PMAFR  Mafra              3.68  21  ePn     Pn      04 29 18.6  -0.2
PMAFR                               eSn     Sn      04 30 02.4  +0.2
         29nm,0.1s
EVO    Evora              3.81  37  ePn     Pn      04 29 20.9  +0.2
EVO                                 eSn     Sn      04 30 05.6   0.0
EVO                                  A              04 30 10.2
         17nm,0.1s
EVO    Evora              3.81  37  ePn     Pn      04 29 20.9  +0.2
EVO                                 eSn     Sn      04 30 05.6   0.0
         17nm,0.1s
ALMR   Almeirim           4.09  27  eP      Pn      04 29 24.8  +0.3
ALMR                                eS      Sn      04 30 12.8  +0.4
ALMR                                eS      Sn      04 30 12.8  +0.4
ALMR                                 AML    AML     04 30 15.5
         comp=N,24nm,0.1s
ALMR   Almeirim           4.09  27  eP      Pn      04 29 24.8  +0.3
ALMR                                eS      Sn      04 30 12.8  +0.4
EMIN   Mina Concepcio     4.11  56   P      Pn      04 29 25.2  +0.6
         comp=N,3.9nm,0.1s,SNR=67
EMIN                                 S      Sn      04 30 13.5  +0.8
         comp=N,3.4nm,0.1s,SNR=7.9
EMIN   Mina Concepcio     4.11  56   P      Pn      04 29 25.2  +0.5
         comp=N,3.9nm,0.1s,SNR=67
EMIN                                 S      Sn      04 30 13.5  +0.7
         comp=N,3.4nm,0.1s,SNR=7.9
PESTR  Estremoz           4.28  38  ePn     Pn      04 29 27.3  +0.2
PESTR                               eSn     Sn      04 30 17.3  +0.2
PESTR                                A              04 30 21.1
         comp=N,4.3nm,0.2s
PESTR  Estremoz           4.28  38  ePn     Pn      04 29 27.3  +0.2
PESTR                               eSn     Sn      04 30 17.3  +0.2
         comp=N,4.3nm,0.2s
ESPR   Espera             4.33  70   P      Pn      04 29 28.2  +0.4
         comp=N,16nm,0.2s,SNR=48
ESPR                                 S      Sn      04 30 18.9  +0.4
         comp=N,25nm,0.2s,SNR=7.9
ESPR   Espera             4.33  70   P      Pn      04 29 28.2  +0.4
         comp=N,16nm,0.2s,SNR=48
ESPR                                 S      Sn      04 30 18.9  +0.5
         comp=N,25nm,0.2s,SNR=7.9
CIA    Chichaoua          4.35 154  i P     Pn      04 29 22.0  -6.1
EBAD   Badajoz            4.51  43   P      Pn      04 29 30.1  -0.1
         comp=N,2.6nm,0.1s,SNR=7.9
EBAD                                 S      Sn      04 30 23.2  +0.5
         comp=N,7.9nm,0.1s,SNR=7.9
EBAD   Badajoz            4.51  43   P      Pn      04 29 30.1  -0.1
         comp=N,2.6nm,0.1s,SNR=7.9
EBAD                                 S      Sn      04 30 23.2  +0.6
         comp=N,7.9nm,0.1s,SNR=7.9
EJIF   Jimena Fronter     4.54  77   P      Pn      04 29 31.2  +0.5
         comp=N,1.5nm,0.1s,SNR=7.9
EJIF                                 S      Sn      04 30 24.1  +0.5
         comp=N,2.3nm,0.2s,SNR=7.9
EJIF   Jimena Fronter     4.54  77   P      Pn      04 29 31.2  +0.5
         comp=N,1.5nm,0.1s,SNR=7.9
EJIF                                 S      Sn      04 30 26.0  +2.5
         comp=N,2.3nm,0.2s,SNR=7.9
PTOM   Tomar              4.56  26  ePn     Pn      04 29 30.8  -0.1
PTOM                                eSn     Sn      04 30 23.9   0.0
PTOM                                 A              04 30 28.3
         comp=N,6.4nm,0.1s
PTOM   Tomar              4.56  26  ePn     Pn      04 29 30.8  -0.1
PTOM                                eSn     Sn      04 30 23.9   0.0
         comp=N,6.4nm,0.1s
TZC    Tazercounte        5.01 131  i P     Pn      04 29 34.0  -3.2
TZC                                 i S     Sn      04 30 26.0  -9.1
KIB    El Ksiba           5.03 124  i P     Pn      04 29 34.0  -3.4
KIB                                 i S     Sn      04 30 26.0  -10
TGT    Taghat             5.07 105  eP      Pn      04 29 37.0  -0.9
TGT                                 eS      Sn      04 30 32.0  -4.4
EMIJ   Mijas              5.11  76   P      Pn      04 29 38.1  -0.5
         comp=N,1.3nm,0.1s,SNR=6.5
EMIJ                                 S      Sn      04 30 37.5  -0.1
         comp=N,5.3nm,0.4s,SNR=7.9
EMIJ   Mijas              5.11  76   P      Pn      04 29 37.6  -0.9
         comp=N,1.3nm,0.1s,SNR=6.5
EMIJ                                 S      Sn      04 30 37.5  -0.1
         comp=N,5.3nm,0.4s,SNR=7.9
PCBR   Castelo Branco     5.12  32  ePn     Pn      04 29 38.7  +0.1
PCBR                                eSn     Sn      04 30 36.2  -1.4
PCBR                                 A              04 30 39.1
         comp=N,2.9nm,0.2s
PCBR   Castelo Branco     5.12  32   P      Pn      04 29 38.7  +0.1
PCBR                                 S      Sn      04 30 36.2  -1.4
         comp=N,1.4nm,0.2s
PCBR   Castelo Branco     5.12  32  ePn     Pn      04 29 38.7  +0.1
MTE    Manteigas          5.56  28  ePn     Pn      04 29 46.2  +1.5
MTE                                 eSn     Sn      04 30 48.0  -0.7
MTE                                  A              04 30 54.4
         comp=N,4.6nm,0.3s
MTE    Manteigas          5.56  28   S      Sn      04 30 48.0  -0.7
         comp=N,2.3nm,0.3s
PMAR   Madeira            5.68 242  ePn     Pn      04 29 33.8  -12
PMAR                                eSn     Sn      04 30 27.3  -24
PVIS   Viseu              5.72  24  ePn     Pn      04 29 47.4  +0.6
PVIS                                eSn     Sn      04 30 51.8  -0.7
PVIS                                 A              04 30 53.2
         comp=N,4.4nm,0.1s
ELOJ   Sierra Loja        5.72  72   P      Pn      04 29 47.6  +0.7
         comp=N,0.3nm,0.1s,SNR=7.9
ELOJ                                 S      Sn      04 30 52.2  -0.4
         comp=N,0.5nm,0.1s,SNR=7.9
ELOJ   Sierra Loja        5.72  72   P      Pn      04 29 48.4  +1.5
         comp=N,0.3nm,0.1s,SNR=7.9
ELOJ                                 S      Sn      04 30 52.2  -0.5
         comp=N,0.5nm,0.1s,SNR=7.9
EADA   Adamuz             5.75  61   P      Pn      04 29 47.7  +0.4
         comp=N,4.0nm,0.1s,SNR=57
EADA                                 S      Sn      04 30 52.7  -0.7
         comp=N,5.8nm,0.1s,SNR=10
EADA   Adamuz             5.75  61   P      Pn      04 29 47.7  +0.4
         comp=N,4.0nm,0.1s,SNR=57
EGUA   Guajares           6.12  75   P      Pn      04 29 52.8  +0.4
         comp=N,0.3nm,0.1s,SNR=7.9
EGUA                                 S      Sn      04 31 00.9  -1.5
         comp=N,0.4nm,0.2s,SNR=7.9
EGUA   Guajares           6.12  75   P      Pn      04 29 53.4  +1.1
         comp=N,0.3nm,0.1s,SNR=7.9
EGUA                                 S      Sn      04 30 59.6  -2.7
         comp=N,0.4nm,0.2s,SNR=7.9
ECOG   Cogollos-Vega      6.21  71   P      Pn      04 29 54.7  +1.1
         comp=N,1.5nm,0.1s,SNR=7.9
ECOG                                 S      Sn      04 31 04.2  -0.4
         comp=N,1.7nm,0.2s,SNR=7.9
ECOG   Cogollos-Vega      6.21  71   P      Pn      04 29 54.7  +1.1
         comp=N,1.5nm,0.1s,SNR=7.9
ECOG                                 S      Sn      04 31 05.3  +0.7
         comp=N,1.7nm,0.2s,SNR=7.9
PVRL   Vila Real          6.28  23  eSn     Sn      04 31 03.1  -3.2
PVRL                                 A              04 31 07.5
         comp=N,4.5nm,0.1s
PVRL   Vila Real          6.28  23   S      Sn      04 31 03.1  -3.2
         comp=N,2.2nm,0.1s
EQUE   Quentar            6.29  72   P      Pn      04 29 55.3  +0.6
         comp=N,0.1nm,0.1s,SNR=5.3
EQUE                                 S      Sn      04 31 05.7  -0.9
         comp=N,0.6nm,0.1s,SNR=4.6
EQUE   Quentar            6.29  72   P      Pn      04 29 55.8  +1.1
         comp=N,0.1nm,0.1s,SNR=5.3
EQUE                                 S      Sn      04 31 06.8  +0.2
         comp=N,0.6nm,0.1s,SNR=4.6
EBAN   Banos Encina       6.32  63   P      Pn      04 29 55.3  +0.2
         comp=N,2.8nm,0.1s,SNR=6.4
EBAN                                 S      Sn      04 31 06.2  -1.2
         comp=N,1.5nm,0.1s,SNR=7.9
MVO    Moncorvo           6.42  28  ePn     Pn      04 29 56.3  -0.2
MVO                                 eSn     Sn      04 31 07.7  -2.1
MVO                                  A              04 31 11.2
         comp=N,3.4nm,0.1s
MVO    Moncorvo           6.42  28   P      Pn      04 29 56.3  -0.2
MVO                                  S      Sn      04 31 07.7  -2.1
         comp=N,1.7nm,0.1s
PCAB   Cabril             6.59  19  eSn     Sn      04 31 11.3  -2.6
PCAB   Cabril             6.59  19   S      Sn      04 31 11.3  -2.6
EBER   Berja              6.66  76   P      Pn      04 29 59.6  -0.2
         comp=N,5.3nm,1.3s,SNR=7.9
EBER                                 S      Sn      04 31 15.0  -0.8
         comp=N,0.1nm,0.1s,SNR=7.9
EBER   Berja              6.66  76   S      Sn      04 31 15.0  -0.8
         comp=N,0.1nm,0.1s,SNR=7.9
ELOB   Lobios             6.73  19   P      Pn      04 30 00.0  -0.6
         comp=N,0.6nm,0.1s,SNR=7.9
ELOB                                 S      Sn      04 31 13.8  -3.5
         comp=N,2.7nm,0.1s,SNR=7.9
EQES   Quesada            6.73  68   P      Pn      04 30 01.2  +0.4
         comp=N,1.3nm,0.1s,SNR=18
EQES                                 S      Sn      04 31 16.6  -0.8
         comp=N,0.5nm,0.1s,SNR=5.4
EQES   Quesada            6.73  68   P      Pn      04 30 01.2  +0.5
         comp=N,1.3nm,0.1s,SNR=18
EQES                                 S      Sn      04 31 17.1  -0.4
         comp=N,0.5nm,0.1s,SNR=5.4
ESDC   Sonseca Array      6.92  51   P      Pn      04 30 03.7  +0.3
         comp=N,3.5nm,0.1s,baz=240,slow=13,SNR=7.9
ESDC                                 S      Sn      04 31 21.4  -0.8
         comp=N,2.0nm,0.2s,baz=239,slow=24,SNR=7.9
PBRG   Braganca           7.08  26  eSn     Sn      04 31 24.1  -2.0
PBRG   Braganca           7.08  26   S      Sn      04 31 24.1  -2.0
ECAL   Calabor            7.21  26   P      Pn      04 30 07.6  +0.4
         comp=N,0.5nm,0.2s,SNR=7.9
ECAL                                 S      Sn      04 31 25.7  -3.4
         comp=N,3.0nm,0.2s,SNR=7.9
GUD    Guadarrama         7.41  44   P      Pn      04 30 10.4  +0.4
         comp=N,0.7nm,0.2s,SNR=7.9
GUD                                  S      Sn      04 31 32.3  -1.8
         comp=N,2.0nm,0.2s,SNR=7.9
EVIA   Vianos             7.43  63   P      Pn      04 30 10.7  +0.3
         comp=N,1.7nm,0.2s,SNR=9.2
EVIA                                 S      Sn      04 31 33.4  -1.4
         comp=N,1.9nm,0.1s,SNR=7.9
EMAZ   Mazaricos          7.57  11   P      Pn      04 30 10.7  -1.6
         comp=N,14nm,1.6s,SNR=7.9
EMAZ                                 S      Sn      04 31 33.6  -4.5
         comp=N,2.0nm,0.1s,SNR=7.9
STS    Santiago           7.58  13   P      Pn      04 30 11.4  -1.1
         comp=N,1.1nm,0.2s,SNR=7.9
STS                                  S      Sn      04 31 33.9  -4.5
         comp=N,221nm,3.5s,SNR=7.9
ETOB   Tobarra            8.14  65   P      Pn      04 30 20.1  +0.1
         comp=N,0.6nm,0.1s,SNR=13
ETOB                                 S      Sn      04 31 50.3  -1.7
         comp=N,1.5nm,0.1s,SNR=7.9
ETOB   Tobarra            8.14  65   P      Pn      04 30 20.1  +0.1
         comp=N,0.6nm,0.1s,SNR=13
EPON   Pontenova          8.33  20   P      Pn      04 30 21.9  -0.7
         comp=N,1.0nm,0.1s,SNR=7.9
EPON                                 S      Sn      04 31 52.3  -4.5
         comp=N,0.1nm,0.1s,SNR=7.9
ETOR   Torete             8.78  50   P      Pn      04 30 29.3  +0.5
         comp=N,3.0nm,0.1s,SNR=8.5
ETOR                                 S      Sn      04 32 05.2  -2.5
         comp=N,1.7nm,0.2s,SNR=7.9
ECHE   Chera              8.91  60   P      Pn      04 30 31.2  +0.6
         comp=N,0.6nm,0.2s,SNR=4.0
EMOS   Mosqueruela        9.58  57   P      Pn      04 30 41.2  +1.4
         comp=N,0.3nm,0.2s,SNR=7.9
EMOS                                 S      Sn      04 32 24.8  -2.8
         comp=N,0.5nm,0.2s,SNR=7.9
EMOS   Mosqueruela        9.58  57   P      Pn      04 30 42.1  +2.2
         comp=N,0.3nm,0.2s,SNR=7.9
EBIE   Bielsa            11.20  47   P      Pn      04 31 02.2  +0.3
         comp=N,0.4nm,0.4s,SNR=7.9
EBIE                                 S      Sn      04 33 02.9  -4.2
         comp=N,0.5nm,0.3s,SNR=7.9
```

IDC 21 04:32:09.6±3.5**, 389S**×**10425E, h0^{km}, mb3.7**/5**, mb1 3.9**/5**, mb1mx3.6**/19**, mbtmp3.7**/5**, MS4.2**/3**, Ms1 4.2**/3**, ms1mx3.4**/31**, Error ellipse: s-maj=198.0km s-min=20.7km az=54.0, Southern Sumatera**

```
Code   Station Name        Δ°   AZ°    Phase ID         Time      Res
                                     Op     ISC      h  m  s    ISC
WRA    Warramunga Arr    33.38 121   P      P       04 38 51.7  +1.6
         0.4nm,0.5s,baz=300,slow=10,SNR=2.3
ASAR   Alice Springs     34.72 127   P      P       04 39 01.8  +0.1
         0.2nm,0.3s,baz=297,slow=7.9,SNR=4.9
CTA    Charters Tower    43.95 115   LR     LR      04 59 57.6
         comp=Z,597nm,20.7s,baz=148,slow=38
STKA   Stephens Creek    44.74 133   P      P       04 40 23.2  -1.8
         2.3nm,0.5s,baz=310,slow=9.8,SNR=7.4
MKAR   Makanchi Array    54.07 341   P      P       04 41 35.1  -0.9
         0.2nm,0.3s,baz=146,slow=8.1,SNR=2.9
HNR    Honiara           55.54  99   LR     LR      05 04 27.2
         comp=Z,102nm,20.3s,baz=180,slow=35
ZALV   Zalesovo Beam     59.88 347   P      P       04 42 18.0  +0.9
         0.5nm,0.4s,baz=148,slow=5.6,SNR=3.3
DZM    Mont Dzumac       62.81 113   LR     LR      05 08 59.9
         comp=Z,156nm,19.1s,baz=338,slow=35
```

BJI ***21*** *04:41:43.6, 161S×12778E, h10^{km}, mB5.1, mb4.9, Ms4.5, Msz4.1*

ISCJB ***21*** *04:41:49.3±1.9, 087S±004×12733E±006, h7^{km}±11^{km}, mb4.9/58, MS3.9/17, Error ellipse: s-maj=10.0km s-min=5.3km az=155.9*

NEIC ***21*** *04:41:51.5±0.2, 088S×12727E, h10^{km}, mb5.0/30, Error ellipse: s-maj=9.4km s-min=4.8km az=66.0*

NEIC Felt [III] at Labuha.

MOS ***21*** *04:41:53.0±1.0, 082S×12727E, h33^{km}, mb5.1/18, Error ellipse: s-maj=15.7km s-min=7.2km az=116.3*

IDC ***21*** *04:41:57.3±2.8, 094S×12725E, h57^{km}±25^{km}, mb4.4/19, mb1 4.5/20, mb1mx4.4/24, mbtmp4.4/20, ML4.4/1, MS4.0/12, Ms1 4.0/12, ms1mx3.8/29, Error ellipse: s-maj=20.0km s-min=8.4km az=68.0*

ISC 21 04:41:55.3±1.1**, 092S**±004×**12732E**±006**, h36^{km}**±10^{km}**, h30^{km}**±3.8^{km}**:pP-P, n127, σ1^{s}12**/128**, mb4.9**/58**, MS3.9**/17**, 1C-2D, Halmahera**

```
Code   Station Name        Δ°   AZ°    Phase ID         Time      Res
                                     Op     ISC      h  m  s    ISC
PCI    Palu               7.48 270   P      Pn      04 43 41.4  -0.6
         342nm,0.7s
KAKA   Kakadu            12.76 157  eP      Pn      04 44 51.6  -2.8
         68nm,0.6s
KAKA                                eS      Sn      04 47 10.5  -4.8
KKM    Kota Kinabalu     13.07 302  ePn     Pn      04 45 01.3  +2.8
FITZ   Fitzroy Crossi    17.15 185  eP      Pn      04 45 51.0  -1.3
         24nm,0.6s
FITZ   Fitzroy Crossi    17.15 185   P      Pn      04 45 51.2  -1.1
         1.0nm,0.3s,baz=11,slow=9.7,SNR=35
FITZ                                 LR     LR      04 53 14.5
         comp=Z,376nm,18.5s,baz=5.4,slow=40
KSM    Kuching           17.18 278  eP      Pn      04 45 52.4  -0.3
BJII   Banjamegara       18.68 250   P      Pn      04 46 13.7  +2.6
         167nm,1.6s
TPI    Tanjungpandan     19.74 264   P      Pn      04 46 22.8  -1.1
         88nm,1.6s
WRA    Warramunga Arr    20.11 160   P      P       04 46 24.7  -1.4
WRA                                  S      S       04 50 08.7  -1.6
WRA    Warramunga Arr    20.11 160   P      P       04 46 24.7  -1.4
         40nm,0.7s,baz=340,slow=12,SNR=117
WRA                                  S      S       04 50 08.7  -1.6
         4.3nm,0.8s,baz=343,slow=22,SNR=4.7
WRA                                  LR     LR      04 55 07.8
         comp=Z,599nm,18.3s,MS4.0,baz=340,slow=39
COEN   Coen              20.34 130  eP      P       04 46 29.3  +0.6
         77nm,0.7s
MBWA   Marble Bar        21.43 200  eP      P       04 46 39.7  -0.7
         49nm,0.9s,mb4.8
PMG    Port Moresby      21.46 114  eP      P       04 46 41.7  +0.8
         73nm,1.0s,mb5.0
PMG    Port Moresby      21.46 114  eP      P       04 46 41.7  +0.8
PMG                                  pmax   pmax
         comp=Z,73nm,1.0s
PMG    Port Moresby      21.46 114   P      P       04 46 42.1  +1.3
         comp=Z,57nm,0.9s,mb4.9,baz=298,slow=6.1,SNR=14
ASAR   Alice Springs     23.49 165   P      P       04 47 00.8  -1.4
         comp=Z,43nm,0.6s,mb5.0,baz=342,slow=9.6,SNR=154
ASAR                                 PcP    PcP     04 50 47.1  -0.2
         comp=Z,2.3nm,0.7s,baz=348,slow=3.2,SNR=4.6
ASAR                                 S      S       04 51 12.4  -0.9
         comp=Z,7.4nm,1.0s,baz=343,slow=21,SNR=7.2
YHNB   Yeheng            26.09 348  eP      P       04 47 25.5  -0.2
QIZ    Qiongzhong        26.23 320   P      P       04 47 25.9  -1.2
QIZ                                  LR     LR
         comp=E,172nm,14.3s
QIZ                                  LR     LR
         comp=Z,208nm,15.7s,MS3.8
CTA    Charters Tower    26.57 137  eP      P       04 47 32.1  +1.9
         comp=Z,10nm,0.6s,mb4.5
CTA    Charters Tower    26.57 137  eP      P       04 47 32.1  +1.9
CTA                                  pmax   pmax
         comp=Z,10.0nm,0.6s
CTA    Charters Tower    26.57 137   P      P       04 47 32.1  +2.0
         comp=Z,12nm,0.6s,mb4.6,baz=323,slow=11,SNR=12
CTAO   Charters Tower    26.57 137  eP      P       04 47 31.9  +1.7
         comp=Z,47nm,1.3s,mb4.9
CTAO   Charters Tower    26.57 137  eP      P       04 47 31.9  +1.7
CTAO                                 pmax   pmax
         comp=Z,47nm,1.3s,mb4.9
KULM   Kulim             27.34 283  eP      P       04 47 36.5  -0.8
GZH    Guangzhou         27.47 331   P      P       04 47 37.3  -0.9
GZH                                  S      S       04 52 17.8  +1.1
GZH                                  LR     LR
         comp=N,91nm,4.7s
GZH                                  LR     LR
         comp=E,248nm,6.5s
GZH                                  LR     LR
         comp=Z,340nm,7.8s
JOW    Kunigami          27.61   2   P      P       04 47 38.7  -0.7
         comp=Z,8.1nm,0.6s,mb4.6,baz=172,slow=8.8,SNR=6.2
JOW                                  LR     LR      04 58 42.6
         comp=Z,235nm,19.5s,MS3.8,baz=350,slow=36
PSI    Prapat            28.63 278   P      P       04 47 48.1  -0.6
         comp=Z,12nm,0.7s,mb4.7,baz=91,slow=6.8,SNR=15
FORT   Forrest           29.70 179  eP      P       04 47 58.1  +0.1
         comp=Z,65nm,0.7s,mb5.5
CBIJ   Chichi jima       31.32  26   LR     LR      04 57 54.5
         comp=Z,172nm,20.8s,MS3.7,baz=350,slow=30
MUN    Mundaring         32.62 198  eP      P       04 48 23.3  -0.4
NWAO   Narrogin (SRO)    33.22 196   P      P       04 48 29.1  +0.2
         comp=Z,7.7nm,0.7s,mb4.8,baz=24,slow=8.2,SNR=5.6
NWAO                                 LR     LR      05 03 09.1
         comp=Z,286nm,18.9s,MS4.0,baz=189,slow=38
```

STKA	Stephens Creek	33.61	158	eP	P	04 48 33.0	+0.6
	comp=Z,82nm,0.8s,mb5.7						
STKA	Stephens Creek	33.61	158	P	P	04 48 33.0	+0.6
	comp=Z,109nm,0.8s,mb5.8,baz=330,slow=8.6,SNR=160						
STKA				LR	LR	05 03 46.5	
	comp=Z,228nm,18.1s,MS3.9,baz=127,slow=39						
WHN	Wuhan	33.64	340	⇓P	P	04 48 35.0	+2.4
WHN				AMB	AMB		
	comp=Z,61nm,1.3s,mb5.4						
NJ2	Nanjing	33.76	347	eP	P	04 48 37.9	+4.2
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
CHTO	Chiang Mai	34.09	307	eP	P	04 48 37.0	+0.2
	comp=Z,3.8nm,0.6s,mb4.5						
CHTO	Chiang Mai	34.09	307	eP	P	04 48 37.0	+0.3
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
KMI	Kunming	35.17	319	P	P	04 48 48.9	+3.0
	comp=Z,11nm,1.3s,mb4.6						
KMI				pP	pP	04 48 57.1	+0.9
KMI				LR	LR		
	comp=Z,100nm,26.0s,MS3.5						
KMI	Kunming	35.17	319	P	P	04 48 48.9	+3.0
KMI				*PP	pP	04 48 57.1	+0.9
KMI				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
KMI				MLR	MLR		
	comp=Z,100nm,26.0s,MS3.5						
ADE	Adelaide	35.50	164	eP	P	04 48 50.0	+1.4
ARMA	Armidale	37.32	144	eP	P	04 49 06.3	+2.0
KSRS	Korea Array	38.19	1	P	P	04 49 11.5	0.0
	comp=Z,2.2nm,0.7s,mb4.0,baz=179,slow=10.0,SNR=10						
KSRS				LR	LR	05 05 04.0	
	comp=Z,114nm,19.3s,MS3.7,baz=170,slow=36						
MJAR	Matsushiro Arr	38.62	14	P	P	04 49 14.0	-1.2
	comp=Z,1.8nm,0.5s,mb4.1,baz=192,slow=8.9,SNR=6.0						
MJAR				LR	LR	05 05 02.8	
	comp=Z,231nm,18.2s,MS4.0,baz=195,slow=36						
CD2	Chengdu	38.78	327	P	P	04 49 17.4	+0.8
CD2				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.7						
XAN	Xi’an	38.84	335	P	P	04 49 16.8	-0.2
XAN				AP	pP	04 49 26.8	-0.6
XAN				AMB	AMB		
	comp=Z,28nm,0.6s,mb5.2						
TOO	Toolangi	40.13	157	eP	P	04 49 30.0	+2.3
	comp=Z,11nm,0.7s,mb4.7						
TOO	Toolangi	40.13	157	eP	P	04 49 30.0	+2.3
TOO				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.7						
BJT	Baijiatuau	42.00	347	eP	P	04 49 42.4	-0.7
	comp=Z,9.2nm,0.6s,mb4.6						
BJT	Baijiatuau	42.00	347	eP	P	04 49 42.4	-0.7
BJT				pmax	pmax		
	comp=Z,9.0nm,0.6s						
LZH	Lanzhou	42.82	332	eP	P	04 49 51.0	+1.2
LZH				AP	pP	04 50 00.0	-0.3
LZH				XP	sP	04 50 04.0	-0.5
LZH				AMB	AMB		
	comp=Z,69nm,1.5s,mb5.2						
LZH				AMB	AMB		
	comp=Z,274nm,5.8s						
LZH	Lanzhou	42.82	332	eP	P	04 49 51.0	+1.2
	comp=Z,69nm,1.5s,mb5.2						
LZH				pP	pP	04 50 00.0	-0.3
LZH				sP	sP	04 50 04.0	-0.5
LZH	Lanzhou	42.82	332	eP	P	04 49 51.0	+1.2
LZH				*PP	pP	04 50 00.0	-0.3
LZH				*SP	sP	04 50 04.0	-0.5
LZH				pmax	pmax		
	comp=Z,69nm,1.5s,mb5.2						
SHL	Shillong	43.20	310	eP	P	04 49 53.5	+0.4
DZM	Mont Dzumac	43.49	122	P	P	04 49 57.6	+2.1
	comp=Z,15nm,1.0s,mb4.7,baz=318,slow=12,SNR=4.6						
HHC	Hu-ho-hao-te	43.98	343	eP	P	04 50 00.1	+1.0
HHC				AMB	AMB		
	comp=Z,13nm,0.7s,mb4.8						
HHC				AMB	AMB		
	comp=Z,188nm,6.3s						
MDJ	Mudanjiang	45.39	2	P	P	04 50 10.5	+0.3
MDJ				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,84nm,7.2s						
MDJ				LR	LR		
	comp=N,83nm,26.8s						
MDJ				LR	LR		
	comp=Z,113nm,25.3s,MS3.7						
MDJ	Mudanjiang	45.39	2	eP	P	04 50 08.6	-1.6
	comp=Z,5.0nm,0.7s,mb4.5						
LSA	Lhasa	46.02	314	eP	P	04 50 17.1	+1.6
	comp=Z,10nm,0.6s,mb4.9						
LSA	Lhasa	46.02	314	eP	P	04 50 17.1	+1.6
LSA				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
TAPN	Taplejung	47.33	310	eP	P	04 50 26.2	+0.4
	comp=Z,30nm,0.5s,mb5.5						
ODAN	Odare	47.33	309	eP	P	04 50 26.8	+0.9
GTA	Gaotai	47.40	331	eP	P	04 50 27.3	+1.2
GTA				AP	pP	04 50 31.8	-4.9
GTA				XP	sP	04 50 34.4	-6.5
GTA				PCP	PcP	04 51 58.6	+2.2
GTA				PP	PP	04 52 17.8	+0.1
GTA				PPP		04 53 05.0	
GTA				S	S	04 57 18.6	+0.7
GTA				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
GTA				AMB	AMB		
	comp=Z,171nm,5.7s						
GTA				LR	LR		
	comp=N,223nm,16.0s,MS4.3						
GTA				LR	LR		
	comp=E,191nm,16.0s,MS4.3						
GTA				LR	LR		
	comp=Z,67nm,16.3s,MS3.7						
JIRN	Jiri	48.65	309	eP	P	04 50 37.0	+0.9
	comp=Z,17nm,0.2s,mb5.7						
KKN	Kakani	49.42	309	eP	P	04 50 42.2	+0.2
	comp=Z,28nm,0.5s,mb5.5						
GKN	Gorkha	50.03	309	eP	P	04 50 46.4	-0.2
	comp=Z,55nm,0.7s,mb5.7						
KLR	Kul’dur	50.10	4	eP	P	04 50 43.0	-3.7
HIA	Hailar	50.42	354	eP	P	04 50 48.2	-0.9
	comp=Z,2.5nm,0.7s,mb4.3						
HIA	Hailar	50.42	354	eP	P	04 50 48.2	-0.9
HIA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
HYB	Hyderabad	51.36	293	eP	P	04 50 57.0	+0.2
HYB	Hyderabad	51.36	293	i P	P	04 50 57.0	+0.2
ULN	Ulaanbaatar	51.70	343	eP	P	04 50 58.5	-0.3
	comp=Z,24nm,1.0s,mb5.1						
ULN	Ulaanbaatar	51.70	343	eP	P	04 50 58.5	-0.3
ULN				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
SONM	Songino Array	51.87	342	P	P	04 51 00.3	+0.2
	comp=Z,6.1nm,0.6s,mb4.7,baz=154,slow=8.2,SNR=45						
SONM				LR	LR	05 14 18.0	
	comp=Z,61nm,18.2s,MS3.7,baz=30,slow=37						
TLY	Talaya	56.11	342	eP	P	04 51 31.0	+0.1
	comp=Z,11nm,0.8s,mb5.0						
TLY	Talaya	56.11	342	eP	P	04 51 30.9	0.0
WMQ	Urumqi	56.88	327	P	P	04 51 37.6	+1.0
WMQ				AMB	AMB		
	comp=Z,28nm,0.8s,mb5.3						
WMQ				LR	LR		
	comp=N,119nm,23.4s,MS4.1						
WMQ				LR	LR		
	comp=E,119nm,20.5s,MS4.1						
WMQ				LR	LR		
	comp=Z,121nm,20.5s,MS4.0						
RPZ	Rata Peaks	57.66	144	LR	LR	05 18 08.7	
	comp=Z,151nm,20.1s,MS4.1,baz=179,slow=38						
BOD	Bodaibo	59.52	352	eP	P	04 51 53.5	-1.3
BOD				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.6						
MK31	Makanchi Array	61.71	326	eP	P	04 52 09.8	-0.1
MKAR	Makanchi Array	61.71	326	P	P	04 52 09.8	-0.1
MKAR	Makanchi Array	61.71	326	P	P	04 52 09.8	-0.1
	comp=Z,12nm,0.5s,mb5.3,baz=118,slow=8.8,SNR=208						
YAK	Yakutsk	62.81	1	eP	P	04 52 16.5	-0.5
	comp=Z,48nm,0.6s,mb5.8						
YAK	Yakutsk	62.81	1	c iP	P	04 52 16.8	-0.2
YAK				pmax	pmax		
	comp=Z,39nm,0.6s,mb5.7						
MA2	Magadan	63.06	13	eP	P	04 52 19.2	+0.5
	comp=Z,10nm,0.6s,mb5.1						
MA2				e	pP	04 52 30.5	+0.9
MA2	Magadan	63.06	13	eP	P	04 52 19.6	+0.9
MA2				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.2						
KZA	Kyzart	63.46	319	P	P	04 52 23.1	+1.4
	SNR=9.1						
TKM2	Tokmak 2	63.63	320	P	P	04 52 22.9	+0.1
	SNR=12						
TKM2	Tokmak 2	63.63	320	eP	P	04 52 22.8	0.0
	comp=Z,8.4nm,0.6s,mb5.0						
TKM2	Tokmak 2	63.63	320	eP	P	04 52 22.8	0.0
TKM2				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
UCH	Uchtor	64.01	319	P	P	04 52 26.9	+1.6
	SNR=18						
UCH	Uchtor	64.01	319	eP	P	04 52 26.6	+1.3
	comp=Z,8.8nm,0.6s,mb5.0						
AAK	Ala-Archa	64.21	319	P	P	04 52 28.1	+1.4
	SNR=6.8						
AAK	Ala-Archa	64.21	319	eP	P	04 52 25.7	-0.9
	comp=Z,4.0nm,0.6s,mb4.6						
AAK	Ala-Archa	64.21	319	eP	P	04 52 25.7	-0.9
AAK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
USP	Ospenovka	64.50	320	P	P	04 52 28.6	+0.1
	SNR=9.6						
AML	Almayashu	64.51	318	P	P	04 52 29.5	+0.9
	SNR=17						
AML	Almayashu	64.51	318	eP	P	04 52 29.1	+0.6
	comp=Z,11nm,0.6s,mb5.0						
EKS2	Erkin-Say	64.69	319	P	P	04 52 30.8	+1.0
	SNR=12						
EKS2	Erkin-Say	64.69	319	eP	P	04 52 30.0	+0.2
	comp=Z,10.0nm,0.7s,mb5.0						
KBL	Kabul	64.85	309	eP	P	04 52 30.3	-0.7
ZALV	Zalesovo Beam	64.99	334	P	P	04 52 30.9	-0.6
	comp=Z,3.3nm,0.6s,mb4.5,baz=115,slow=5.6,SNR=15						
ZAL	Zalesovo	64.99	334	P	P	04 52 30.9	-0.6
KURK	Kurchatov	65.97	328	eP	P	04 52 36.8	-1.1
	comp=Z,32nm,0.8s,mb5.4						
KURK	Kurchatov	65.97	328	eP	P	04 52 37.2	-0.7
NVS	Novosibirsk	66.27	334	eP	P	04 52 38.4	-1.3
NVS				pmax	pmax		
	comp=N,7.0nm,1.0s						
NVS				pmax	pmax		
	comp=E,8.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
BRVK	Borovoye	71.60	328	eP	P	04 53 12.0	-0.9
	comp=Z,12nm,0.8s,mb4.9						
BRVK	Borovoye	71.60	328	eP	P	04 53 12.0	-0.9
BRVK				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
TIXI	Tiksi	72.46	1	eP	P	04 53 16.4	-1.3
	comp=Z,6.4nm,0.4s,mb4.9						
TIXI	Tiksi	72.46	1	eP	P	04 53 15.0	-2.7
TIXI				eS	S	05 02 38.0	-0.9
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,125nm,17.0s,MS4.2						
AKTK	Aktyubinsk	77.66	322	P	P	04 53 47.5	-0.7
AKTO	Aktyubinsk	77.66	322	P	P	04 53 47.5	-0.7
	comp=Z,4.9nm,0.6s,mb4.6,baz=107,slow=8.2,SNR=19						
VNDA	Vanda	78.77	173	eP	P	04 53 54.3	+0.6
	comp=Z,8.8nm,0.7s,mb4.8						
VNDA	Vanda	78.77	173	eP	P	04 53 54.3	+0.5
VNDA				pmax	pmax		
	comp=Z,9.0nm,0.7s						
VNDA	Vanda	78.77	173	P	P	04 53 53.4	-0.4
	comp=Z,5.6nm,0.7s,mb4.6,baz=330,slow=5.2,SNR=7.3						
VNDA				LR	LR	05 29 39.1	
	comp=Z,168nm,18.9s,MS4.4,baz=326,slow=36						
ARU	Arti	79.17	328	d iP	P	04 53 55.7	-0.6
ARU				e		04 56 53.6	
ARU				ePPP		04 58 43.4	
ARU				eS	S	05 03 50.9	-2.5
ARU				pmax	pmax		
	comp=Z,26nm,2.5s,mb4.7						
MAW	Mawson	79.63	201	LR	LR	05 24 23.7	
	comp=Z,124nm,18.2s,MS4.3,baz=242,slow=32						
OPO	Ambohidratompo	80.35	251	P	P	04 54 04.1	+0.5
	comp=Z,4.5nm,0.7s,mb4.5,baz=83,slow=6.0,SNR=5.8						
ZEI	Tsey	85.78	313	eP	P	04 54 31.3	+0.2
ZEI				e*PP	pP	04 54 39.8	-2.6
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.7						
COLA	College	88.62	25	eP	P	04 54 43.8	-0.5
SOC	Sochi	88.89	313	eP	P	04 54 43.5	-2.6
SOC				ePPP		05 00 09.3	
SOC				eS	S	05 05 10.3	-21
SOC				eSSS		05 15 01.8	
SOC				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.8						
QSPA	South Pole Qui	89.01	180	eP	P	04 54 46.9	+1.0
	comp=Z,7.5nm,0.9s,mb5.0						
KMBO	Kilima Mbogo	90.05	269	P	P	04 54 53.1	+0.9
	comp=Z,1.9nm,0.9s,mb4.4,baz=41,slow=15,SNR=3.5						
OBN	Obninsk	91.18	325	P	P	04 54 55.0	-1.5
BRTR	Keskin Array B	93.42	310	P	P	04 55 05.0	-2.3
	comp=Z,0.4nm,0.6s,mb4.0,baz=106,slow=3.1,SNR=3.7						
BRTR				PP	PP	04 58 52.1	+0.4
	comp=Z,0.7nm,1.0s,baz=106,slow=7.8,SNR=4.2						
ARCES	ARCESS Array B	94.99	340	P	P	04 55 11.2	-2.5
	comp=Z,3.7nm,1.0s,mb4.8,baz=64,slow=2.8,SNR=7.3						
TORD	Torodi Ar. Bea	124.82	285	PKP	PKPdf	05 00 51.6	-0.8
TORD	Torodi Ar. Bea	124.82	285	PKP	PKPdf	05 00 51.6	-0.8
	comp=Z,1.0nm,0.7s,baz=118,slow=1.4,SNR=11						

IDC 21 04:46:08.7±17.0**, 10.43N×141.95E, h0^{km}, mb4.1**/4**, mb1 4.2**/4**, mb1mx3.8**/19**, mbtmp4.1**/4**, Error ellipse: s-maj=573.7km s-min=71.3km az=5.0, Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	61.83	318	P	P	04 56 29.8	+0.2
	0.8nm,0.6s,baz=93,slow=8.5,SNR=4.1						
YKA	Yellowknife Ar	86.96	27	P	P	04 58 55.7	+0.2
	0.3nm,0.6s,baz=286,slow=5.0,SNR=5.9						
ARCES	ARCESS Array B	89.18	342	P	P	04 59 05.8	-0.2
	3.0nm,0.9s,baz=60,slow=8.9,SNR=3.6						
FINES	FINESS Array B	92.78	334	P	P	04 59 22.7	-0.2
	1.6nm,0.9s,baz=91,slow=7.1,SNR=4.0						

IDC 21 04:51:26.6±2.4**, 1.02S×127.48E, h0^{km}, mb3.5**/2**, mb1 3.6**/3**, mb1mx3.4**/16**, mbtmp3.4**/3**, ML3.4**/1**, Error ellipse: s-maj=225.2km s-min=25.8km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.97	161	P	Pn	04 55 58.7	-3.5
	0.1nm,0.3s,baz=339,slow=11,SNR=2.7						
ASAR	Alice Springs	23.36	165	P	P	04 56 38.4	+1.4
	0.8nm,0.6s,baz=346,slow=11,SNR=7.0						
MKAR	Makanchi Array	61.88	326	P	P	05 01 47.8	0.0
	0.3nm,0.4s,baz=132,slow=8.4,SNR=7.2						

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*IDC **21** 04:53:45.9±1.1, 0.78S×127.60E, h0^{km}, mb3.9/6, mb1 4.0/7, mb1mx3.8/18, mbtmp3.9/7, ML3.5/1, Error ellipse: s-maj=85.0km s-min=17.2km az=70.0*

*NEIC **21** 04:53:47.4±0.8, 0.80S×127.60E, h10^{km}, mb4.6/1, Error ellipse: s-maj=53.8km s-min=10.4km az=72.0*

*ISCJB **21** 04:53:48.7±0.9, 0.8S±0.1×127.6E±0.4, h33^{km}, mb4.0/6, Error ellipse: s-maj=60.4km s-min=11.7km az=162.5*

ISC 21 04:53:51.1±0.9**, 0.9S**±0.2×**127.5E**±0.4**, h35^{km}, n11, σ0^{s}.76**/11**, mb4.0**/6**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.24	186	P	Pn	04 57 49.8	+0.6
	0.1nm,0.3s,baz=33,slow=9.7,SNR=5.6						
WRA	Warramunga Arr	20.11	161	P	P	04 58 20.8	-1.1
	1.6nm,0.5s,baz=342,slow=12,SNR=7.5						
ASAR	Alice Springs	23.50	165	P	P	04 58 57.2	-0.8
	1.7nm,0.5s,mb3.7,baz=344,slow=10,SNR=18						
STKA	Stephens Creek	33.59	158	P	P	05 00 29.8	+1.7
STKA	Stephens Creek	33.59	158	P	P	05 00 29.8	+1.7
	1.2nm,0.7s,mb4.0,baz=334,slow=13,SNR=3.0						
SONM	Songino Array	51.87	342	P	P	05 02 56.6	+0.7
	0.7nm,0.6s,mb3.8,baz=156,slow=8.0,SNR=6.7						
MK31	Makanchi Array	61.77	326	eP	P	05 04 06.2	-0.1
MKAR	Makanchi Array	61.77	326	P	P	05 04 06.1	-0.1
	1.6nm,0.6s,mb4.4,baz=119,slow=8.9,SNR=16						
KURK	Kurchatov	66.03	328	eP	P	05 04 34.3	+0.2
	3.0nm,0.8s,mb4.4						
AKTK	Aktyubinsk	77.74	322	P	P	05 05 44.0	-0.4
AKTO	Aktyubinsk	77.74	322	P	P	05 05 44.0	-0.4
	0.6nm,0.5s,mb3.8,baz=96,slow=6.0,SNR=4.8						

IDC 21 04:58:17.9±1.1**, 1.03S×127.02E, h0^{km}, mb3.7**/5**, mb1 3.9**/6**, mb1mx3.7**/18**, mbtmp3.7**/6**, ML3.1**/1**, Error ellipse: s-maj=77.9km s-min=18.5km az=76.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.02	184	P	Pn	05 02 19.2	+1.7
	0.1nm,0.3s,baz=330,slow=10,SNR=2.8						
WRA	Warramunga Arr	20.11	160	P	P	05 02 52.8	-0.7
	1.1nm,0.4s,baz=337,slow=11,SNR=7.3						
ASAR	Alice Springs	23.47	164	P	P	05 03 29.4	0.0
	2.1nm,0.7s,baz=342,slow=11,SNR=19						
KSRS	Korea Array	38.30	1	P	P	05 05 40.2	-0.1
	1.5nm,0.6s,baz=178,slow=10.0,SNR=9.0						
SONM	Songino Array	51.88	342	P	P	05 07 28.4	+0.3
	0.4nm,0.7s,baz=162,slow=7.7,SNR=3.5						
MKAR	Makanchi Array	61.64	327	P	P	05 08 37.3	-0.2
	0.8nm,0.5s,baz=117,slow=7.8,SNR=9.6						

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*IDC **21** 05:36:18.4±0.7, 26.99S×70.84W, h0^{km}, mb4.0/9, mb1 4.2/11, mb1mx4.1/18, mbtmp4.0/11, ML4.3/2, MS4.3/7, Ms1 4.2/7, ms1mx3.9/15, Error ellipse: s-maj=28.5km s-min=18.9km az=69.0*

*ISCJB **21** 05:36:21.9±0.7, 26.88S±0.03×70.99W±0.07, h31^{km}±5^{km}, mb4.2/18, MS4.4/6, Error ellipse: s-maj=10.9km s-min=4.6km az=0.1*

*GUC **21** 05:36:21.4±1.0, 26.89S×71.07W, h32^{km}±5^{km}, ML5.0*

*NEIC **21** 05:36:21.4, 26.89S×71.07W, h32^{km}, mb4.5/11, ML5.0(GUC), After GUC.*

NEIC Felt [III] at Copiapo and [II] at Chanaral and Tierra Amarilla.

ISC 21 05:36:22.3±0.9**, 26.86S**±0.03×**70.99W**±0.07**, h20^{km}**±6^{km}**, n67, σ1^{s}.23**/57**, mb4.2**/18**, MS4.4**/6**, 4D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDCH	Caldera	0.26	147	⇓iP	Pb	05 36 28.7	+0.4
CDCH				i S	Sb	05 36 33.6	+1.2
CPCH	Copiapo	0.75	131	⇓iP	Pb	05 36 36.2	-0.5
CPCH				i S	Sb	05 36 47.0	+0.5
VACH	Vallenar	1.72	173	eP	Pn	05 36 50.8	-0.2
VACH				i S	Sn	05 37 12.5	0.0
VACH	Vallenar	1.72	173	eP	Pn	05 36 50.8	-0.2
VACH				i S	Sn	05 37 12.5	0.0
VACH				AML	AML	05 37 20.1	
	comp=E,32µm,0.5s						
LCO	Las Campanas	2.16	173	ePn	Pn	05 36 56.8	-0.3
LCO				eSn	Sn	05 37 25.8	+2.6
CPN1	Cerro Paranal	2.29	13	⇓iP	Pn	05 36 57.7	-1.1
CPN1				i S	Sn	05 37 26.9	+0.5
CPN1				AML	AML	05 37 38.2	
	comp=E,8µm,0.5s						
LSCH	La Serena	3.05	184	eP	Pn	05 37 07.7	-1.5
LSCH				i S	Sn	05 37 43.5	-1.6
ANCH	Antofagasta	3.21	9	eP	Pn	05 37 09.1	-2.4
ANCH				AML	AML	05 38 17.0	
	comp=E,4µm,0.5s						
CEN1	Los Morros	3.53	12	⇓iP	Pn	05 37 10.4	-5.5
CEN1				i S	Sn	05 37 49.3	-7.7
CEN1				AML	AML	05 38 11.3	
	comp=E,2µm,0.7s						
OVCH	Ovalle	3.74	183	i P	Pn	05 37 16.2	-2.6
CFAA	Coronel Fontan	5.30	154	Pn	Pn	05 37 43.0	+2.7
CFAA				Sn	Sn	05 38 40.8	-0.1
CFAA				Lg		05 38 56.7	
CFAA	Coronel Fontan	5.30	154	Pn	Pn	05 37 43.0	+2.7
	comp=E,0.5nm,0.3s,baz=353,slow=12,SNR=55						
CFAA				Sn	Sn	05 38 40.8	-0.1
	comp=E,2.3nm,0.3s,baz=311,slow=15,SNR=4.6						
CFAA				Lg		05 38 56.7	
	comp=E,7.2nm,0.3s,baz=222,slow=19,SNR=6.4						
FCH	Farellones	6.47	175	eP	Pn	05 37 56.5	+0.1
ARE	Arequipa	10.36	357	eP	Pn	05 38 47.0	-2.7
LPAZ	La Paz	10.85	15	ePn	Pn	05 38 55.6	-0.9
LPAZ				Sn	Sn	05 41 02.5	+5.1
LPAZ				LR	LR	05 43 23.9	
LPAZ	La Paz	10.85	15	Pn	Pn	05 38 55.7	-0.8
	comp=E,0.7nm,0.3s,baz=191,slow=8.4,SNR=9.2						
LPAZ				Sn	Sn	05 41 02.5	+5.1
	comp=E,0.1nm,0.3s,baz=186,slow=11,SNR=1.7						
LPAZ				LR	LR	05 43 23.9	
	comp=E,747nm,19.4s,baz=109,slow=39						
SIV	San Ignacio	14.21	42	Pn	Pn	05 39 39.4	-3.0
SIV				Sn	Sn	05 42 20.5	+1.0
SIV	San Ignacio	14.21	42	Pn	Pn	05 39 39.4	-3.0
	comp=E,0.8nm,0.3s,baz=252,slow=9.7,SNR=31						
SIV				Sn	Sn	05 42 20.5	+1.0
	baz=261,slow=18,SNR=3.8						
OTAV	Otavalo	27.88	344	eP	P	05 42 12.5	+1.7
	comp=E,2.5nm,0.9s,mb3.8						
USHA	Ushuaia	28.01	177	LR	LR	05 54 06.2	
	comp=E,586nm,18.5s,MS4.2,baz=218,slow=38						
ROSC	El Rosal	31.69	354	eP	P	05 42 45.2	+0.6
VNA3	Neumayer Olymp	55.67	160	e	P	05 45 56.7	+0.1
VNA3				e	pP	05 46 01.4	-1.7
VNA3				e	pP	05 46 03.8	+0.7
VNA3				e		05 46 09.3	
VNA3				e		05 46 13.5	
VNA3				e		05 46 17.6	
VNA3				e		05 46 25.5	
VNA3				e		05 46 32.8	
VNA2	Neumayer--Watz	56.29	159	e	P	05 46 01.3	+0.3
	baz=286,slow=8.4						
VNA2				e	pP	05 46 05.6	-1.9
VNA2				e	pP	05 46 08.5	+1.0
VNA2				e		05 46 13.2	
VNA2				e		05 46 16.9	
VNA2				e		05 46 21.7	
VNA2				e		05 46 29.7	
VNA2				e		05 46 37.1	
RKT	Rikitea	57.58	259	eT		06 48 24.7	
	comp=E,3.0nm,0.2s						
SNAA	Sanae	57.89	160	P	P	05 46 09.3	-3.0
	comp=E,0.8nm,0.5s,mb4.0,baz=288,slow=8.4,SNR=16						
JCT	Junction City	63.33	332	eP	P	05 46 50.5	+0.7
	comp=E,6.2nm,0.8s,mb4.8						
TXAR	Lajitas Array	64.05	328	P	P	05 46 54.6	0.0
	comp=E,0.7nm,0.9s,mb3.7,baz=153,slow=8.3,SNR=6.7						
MNTX	Cornudas Mount	66.83	328	eP	P	05 47 12.2	-0.4
	comp=E,1.9nm,0.8s,mb4.2						
TAOE	Nuku Hiva Isla	67.49	271	eLR	LR	06 07 48.6	
	comp=E,635nm,26.0s						
ANMO	Albuquerque	70.04	330	P	P	05 47 34.4	+1.7
	comp=E,0.6nm,0.7s,mb3.7,baz=180,slow=3.3,SNR=4.5						
SDCO	Great Sand Dun	71.97	332	eP	P	05 47 45.7	+1.4
	comp=E,7.1nm,1.2s,mb4.5						
PPT	Papeete	72.34	259	eS	S	05 57 07.0	-2.7
	comp=E,87nm,26.2s						
PPT				eLR	LR	06 09 52.7	
	comp=E,67nm,23.2s						
DUG	Dugway	77.23	328	eP	P	05 48 16.1	+1.3
	comp=E,7.1nm,1.4s,mb4.4						
HWUT	Hardware Ranch	77.79	330	eP	P	05 48 18.0	+0.2
	comp=E,3.5nm,0.9s,mb4.3						
PDAR	Pinedale Array	77.86	332	P	P	05 48 19.1	+0.9
	comp=E,0.4nm,0.8s,mb3.4,baz=132,slow=1.3,SNR=3.4						
NVAR	Mina Array Bea	78.61	324	P	P	05 48 24.4	+2.0
	comp=E,0.5nm,0.8s,mb3.5,baz=138,slow=8.2,SNR=3.3						
MAW	Mawson	79.75	164	LR	LR	06 22 34.6	
	comp=E,137nm,18.4s,MS4.3,baz=72,slow=35						
ULM	Lac du Bonnet	79.88	344	eP	P	05 48 28.8	-0.3
	comp=E,2.4nm,0.7s,mb4.2						
ULM	Lac du Bonnet	79.88	344	P	P	05 48 28.9	-0.2
	comp=E,1.2nm,0.6s,mb4.0,baz=233,slow=5.6,SNR=6.0						
TSUM	Tsumeb	80.33	107	eP	P	05 48 31.5	-0.9
	comp=E,11nm,1.1s,mb4.7						
HLID	Hailey	80.62	330	eP	P	05 48 34.3	+1.1
	comp=E,5.2nm,1.2s,mb4.3						
TOA0	Torodi Ar. Sit	80.94	70	eP	P	05 48 34.8	-0.9
TORD	Torodi Ar. Bea	80.94	70	P	P	05 48 35.0	-0.6
	comp=E,10nm,0.7s,mb4.8,baz=268,slow=5.5,SNR=80						
TORD				LR	LR	06 24 47.2	
	comp=E,240nm,18.3s,MS4.6,baz=225,slow=36						
BOSA	Boshof	82.61	118	eP	P	05 48 43.5	-0.8

	comp=E,6.0nm,0.9s,mb4.6						
BOSA				LR	LR	06 19 12.9	
BOSA	**Boshof**	**82.61**	**118**	P	**P**	**05 48 44.4**	**+0.1**
	comp=E,5.1nm,0.9s,mb4.5,baz=218,slow=4.0,SNR=6.8						
BOSA				LR	LR	06 19 12.9	
	comp=E,161nm,18.5s,MS4.4,baz=232,slow=31						
LBTB	**Lobatse**	**84.49**	**115**	eP	**P**	**05 48 53.8**	**-0.2**
	comp=E,4.3nm,0.8s,mb4.6						
ESDC	**Sonseca Array**	**90.95**	**45**	LR	LR	06 29 00.9	
	comp=E,114nm,19.4s,MS4.3,baz=310,slow=35						
YKA	**Yellowknife Ar**	**95.61**	**341**	P	**P**	**05 49 43.9**	**-1.6**
YKA	**Yellowknife Ar**	**95.61**	**341**	P	**P**	**05 49 43.9**	**-1.6**
	comp=E,0.4nm,0.8s,mb3.9,baz=135,slow=4.5,SNR=9.0						
KEST	**Kesra**	**98.00**	**54**	LR	LR	06 37 45.8	
	comp=E,101nm,20.2s,MS4.3,baz=218,slow=38						
ASAR	**Alice Springs**	**124.31**	**208**	PKP	PKPdf	05 55 19.4	-0.8
ASAR	**Alice Springs**	**124.31**	**208**	PKP	PKPdf	05 55 19.4	-0.8
	comp=E,0.5nm,0.7s,baz=135,slow=2.7,SNR=4.1						
WRA	**Warramunga Arr**	**127.39**	**210**	PKP	PKPdf	05 55 26.3	0.0
WRA	**Warramunga Arr**	**127.39**	**210**	PKP	PKPdf	05 55 26.3	0.0
	comp=E,0.5nm,0.5s,baz=185,slow=1.5,SNR=3.3						
KURK	**Kurchatov**	**146.80**	**36**	ePKPbc	PKPbc	05 56 02.2	-0.4
EKS2	**Erkin-Say**	**147.31**	**52**	ePKPbc	PKPbc	05 56 03.6	-0.6
AML	**Almayashu**	**147.41**	**53**	ePKPbc	PKPbc	05 56 05.8	+1.2
ZALV	**Zalesovo Beam**	**147.58**	**27**	PKPbc	PKPbc	05 56 02.5	-2.2
ZALV	**Zalesovo Beam**	**147.58**	**27**	PKPbc	PKPbc	05 56 02.5	-2.2
	comp=E,11nm,0.7s,baz=306,slow=3.5,SNR=41						
AAK	**Ala-Archa**	**147.83**	**52**	ePKPdf	PKPdf	05 56 02.8	0.0
AAK				ePKPbc	PKPbc	05 56 05.6	-0.1
AAK				ePKPab	PKPab	05 56 08.3	+0.1
UCH	**Uchtor**	**147.96**	**52**	ePKPbc	PKPbc	05 56 05.0	-1.1
UCH				ePKPab	PKPab	05 56 08.0	-0.7
TKM2	**Tokmak 2**	**148.50**	**51**	ePKPbc	PKPbc	05 56 07.3	-0.2
MK31	**Makanchi Array**	**151.01**	**40**	ePKPbc	PKPbc	05 56 13.1	-0.3
MKAR	**Makanchi Array**	**151.01**	**40**	PKPbc	PKPbc	05 56 13.4	-0.1
MKAR				PKPab	PKPab	05 56 21.0	0.0
MKAR	**Makanchi Array**	**151.01**	**40**	PKPbc	PKPbc	05 56 13.4	-0.1
	comp=E,6.8nm,0.7s,baz=322,slow=2.3,SNR=66						
MKAR				PKPab	PKPab	05 56 21.0	0.0
	comp=E,3.3nm,0.6s,baz=319,slow=2.8,SNR=11						
SONM	**Songino Array**	**158.96**	**5**	PKP	PKPdf	05 56 19.1	+0.6
SONM				PKPab	PKPab	05 56 55.4	+0.7
SONM	**Songino Array**	**158.96**	**5**	PKP	PKPdf	05 56 19.1	+0.6
	comp=E,0.7nm,0.8s,baz=295,slow=0.7,SNR=6.1						
SONM				PKPab	PKPab	05 56 55.4	+0.7
	comp=E,0.5nm,0.9s,baz=321,slow=2.0,SNR=3.5						

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*ISCJB **21** 05:44:25.0±0.8, 34.91N±0.05×22.58E±0.09, h10^{km}, mb3.8/5, Error ellipse: s-maj=10.7km s-min=6.8km az=154.3*

*HLW **21** 05:44:29.0, 35.16N×22.77E, h33^{km}, Mb3.3*

*CSEM **21** 05:44:34.0±1.3, 35.22N×23.07E, h5^{km}, MD3.4, Error ellipse: s-maj=40.8km s-min=9.4km az=47.0*

*IDC **21** 05:44:35.5±1.7, 36.17N×23.64E, h0^{km}, mb3.8/5, mb1 3.8/6, mb1mx3.5/21, mbtmp3.8/6, ML3.4/1, Error ellipse: s-maj=39.1km s-min=17.7km az=50.0*

*NEIC **21** 05:44:37.3, 35.42N×23.37E, h5^{km}, MD3.4(ATH), After ATH.*

*ATH **21** 05:44:37.3, 35.42N×23.37E, h5^{km}, MD3.4/4*

ISC 21 05:44:27.9±0.8**, 34.96N**±0.05×**22.72E**±0.07**, h10**^{km}**, n27,** σ**1**^{s}**.46**/32**, mb3.8**/5**, 3D, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GVD	**Gavdhos**	**1.13**	**96**	ePg	**Pg**	**05 44 51.4**	**+1.8**
GVD				eSg	**Sg**	**05 45 02.5**	**-1.8**
GVD	**Gavdhos**	**1.13**	**96**	ePg	**Pg**	**05 44 51.4**	**+1.8**
VAM	**Vamos**	**1.29**	**69**	ePb	**Pb**	**05 44 50.7**	**-1.6**
VAM	**Vamos**	**1.29**	**69**	ePB	**Pb**	**05 44 50.7**	**-1.6**
VAM	**Vamos**	**1.29**	**69**	ePb	**Pb**	**05 44 50.7**	**-1.6**
KYTH	**Kithira**	**1.34**	**11**	ePn	**Pn**	**05 44 55.3**	**+2.6**
KYTH	**Kithira**	**1.34**	**11**	ePN	**Pn**	**05 44 55.3**	**+2.6**
KYTH	**Kithira**	**1.34**	**11**	ePn	**Pn**	**05 44 55.3**	**+2.6**
VLI	**Veliai**	**1.76**	**6**	ePg	**Pg**	**05 45 02.2**	**+0.5**
VLI	**Veliai**	**1.76**	**6**	ePG	**Pg**	**05 45 02.2**	**+0.5**
VLI	**Veliai**	**1.76**	**6**	ePg	**Pg**	**05 45 02.2**	**+0.5**
IDI	**Anoyia**	**1.81**	**79**	Pn	**Pn**	**05 45 01.1**	**+2.0**
IDI				Sn	**Sn**	**05 45 23.1**	**+1.0**
IDI	**Anoyia**	**1.81**	**79**	Pn	**Pn**	**05 45 01.1**	**+2.0**
	7.4nm,0.3s,baz=299,slow=12,SNR=49						
IDI				Sn	**Sn**	**05 45 23.1**	**+1.0**
	11nm,0.3s,baz=319,slow=20,SNR=7.7						
IDI	**Anoyia**	**1.81**	**79**	Pn	**Pn**	**05 45 01.1**	**+2.0**
IDI				Sn	**Sn**	**05 45 23.1**	**+1.0**
ITM	**Ithomi**	**2.30**	**344**	ePn	**Pg**	**05 45 16.3**	**+4.2**
ITM	**Ithomi**	**2.30**	**344**	ePN	**Pg**	**05 45 16.3**	**+4.2**
ITM	**Ithomi**	**2.30**	**344**	ePn	**Pg**	**05 45 16.3**	**+4.2**
SLUM		**4.04**	**148**	⇓P	**Pn**	**05 45 30.7**	**+0.9**
SLUM				S	**Sn**	**05 46 15.7**	**-1.5**
HNAT	**Natroun**	**8.54**	**126**	⇓P	**Pn**	**05 46 32.5**	**+0.9**
HFRF	**Wahat Farafira**	**9.14**	**147**	P	**Pn**	**05 46 41.3**	**+1.4**
HFRF	**Wahat Farafira**	**9.14**	**147**	P	**Pn**	**05 46 41.3**	**+1.4**
	315nm,0.3s						
AMAG	**Maghara**	**9.82**	**113**	⇓P	**Pn**	**05 46 49.4**	**+0.2**
HFS	**Hagfors**	**25.86**	**350**	P	**P**	**05 49 58.2**	**-1.2**
	2.6nm,0.9s,mb3.8,baz=146,slow=10,SNR=7.6						
FINES	**FINESS Array B**	**26.59**	**4**	P	**P**	**05 50 04.1**	**-1.8**
	0.5nm,0.5s,mb3.3,baz=172,slow=11,SNR=3.3						
ARCES	**ARCESS Array B**	**34.66**	**2**	P	**P**	**05 51 16.8**	**-0.3**
	1.9nm,1.0s,mb4.0,baz=185,slow=11,SNR=5.8						
MKAR	**Makanchi Array**	**45.55**	**56**	P	**P**	**05 52 46.3**	**-1.4**
	0.3nm,0.3s,mb3.7,baz=270,slow=8.2,SNR=4.2						
ZALV	**Zalesovo Beam**	**46.58**	**46**	P	**P**	**05 52 53.5**	**-2.2**
	0.9nm,0.4s,mb4.1,baz=266,slow=8.4,SNR=6.1						

GUC 21 05:45:17.8±0.7**, 26.81S×70.98W, h34**^{km}±3^{km}**, MD3.9, ML4.0, 2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDCH	**Caldera**	**0.29**	**152**	⇓iP	Pb	05 45 25.6	+0.1
CDCH				i S	Sb	05 45 30.6	-0.3
CPCH	**Copiapo**	**0.78**	**134**	eP	Pn	05 45 32.6	+0.1
CPCH				i S	Sn	05 45 43.5	+0.5
CPCH				AML	AML	05 45 44.7	
	comp=E,11µm,0.1s						
VACH	**Vallenar**	**1.77**	**174**	eP	Pn	05 45 47.6	+1.6
VACH				i S	Sn	05 46 09.8	+2.5
CPN1	**Cerro Paranal**	**2.24**	**14**	⇓eP	Pn	05 45 54.6	+2.1
CPN1				i S	Sn	05 46 22.5	+3.5
CEN1	**Los Morros**	**3.48**	**12**	eP	Pn	05 46 08.1	-1.5

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*NEIC **21** 05:46:49.9±3.1, 8.59S×148.39E, h68^{km}±19^{km}, mb4.1/4, Error ellipse: s-maj=44.7km s-min=16.9km az=107.0*

*IDC **21** 05:46:52.0±4.5, 8.64S×148.34E, h83^{km}±27^{km}, mb3.6/4, mb1 3.7/5, mb1mx3.5/13, mbtmp3.5/5, MS2.8/1, Ms1 2.8/1, ms1mx2.4/16, Error ellipse: s-maj=63.7km s-min=28.4km az=113.0*

ISC 21 05:46:49.3±4.4**, 8.6S**±0.2×**148.5E**±0.4**, h66**^{km}±28^{km}**, n14,** σ**0**^{s}**.69**/12**, mb3.8**/6**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**1.54**	**240**	P	**Pn**	**05 47 14.0**	**-0.6**
	90nm,0.3s,baz=42,slow=6.7,SNR=160						
PMG				S	**Sn**	**05 47 34.5**	**+0.7**
	92nm,0.3s,baz=164,slow=3.2,SNR=8.3						
KAKA	**Kakadu**	**16.30**	**254**	eP	**Pn**	**05 50 33.4**	**-0.7**
	8.0nm,0.7s						
WRA	**Warramunga Arr**	**17.73**	**229**	P	**Pn**	**05 50 51.2**	**-0.6**
	0.6nm,0.3s,baz=54,slow=11,SNR=8.0						
WRA				LR	LR	05 57 51.4	
	comp=Z,32nm,19.1s,baz=335,slow=38						
ASAR	**Alice Springs**	**20.47**	**221**	P	**P**	**05 51 22.8**	**+1.1**
	1.7nm,0.8s,baz=56,slow=9.9,SNR=13						
FITZ	**Fitzroy Crossi**	**24.13**	**245**	P	**P**	**05 51 58.8**	**-0.4**
	2.5nm,0.5s,mb3.8,baz=55,slow=9.8,SNR=20						
ULN	**Ulaanbaatar**	**67.11**	**331**	eP	**P**	**05 57 36.8**	**+1.0**
	1.0nm,0.7s,mb3.8						
SONM	**Songino Array**	**67.41**	**331**	P	**P**	**05 57 38.6**	**+0.9**
	0.5nm,0.9s,mb3.4,baz=149,slow=3.4,SNR=2.9						
MK31	**Makanchi Array**	**80.46**	**320**	eP	**P**	**05 58 53.4**	**-0.6**
MKAR	**Makanchi Array**	**80.46**	**320**	P	**P**	**05 58 54.1**	**+0.2**
	1.2nm,0.4s,mb4.1,baz=100,slow=8.8,SNR=12						
KURK	**Kurchatov**	**84.19**	**323**	eP	**P**	**05 59 12.7**	**-0.7**
	0.9nm,0.4s,mb4.0						
EKS2	**Erkin-Say**	**84.75**	**314**	eP	**P**	**05 59 15.9**	**-0.4**
	1.5nm,0.7s,mb4.0						
TOA0	**Torodi Ar. Sit**	**147.11**	**281**	ePKPbc	PKPbc	06 06 25.5	-0.3
TORD	**Torodi Ar. Bea**	**147.11**	**281**	PKPbc	PKPbc	06 06 26.3	+0.4
TORD	**Torodi Ar. Bea**	**147.11**	**281**	PKPbc	PKPbc	06 06 26.3	+0.4
	2.8nm,0.8s,baz=86,slow=2.4,SNR=9.6						

IDC 21 06:18:24.2±6.8**, 0.83S×127.81E, h0**^{km}**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/16**, mbtmp3.5**/3**, Error ellipse: s-maj=751.2km s-min=26.5km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**20.05**	**162**	P	P	06 22 59.1	+0.1
	0.7nm,0.7s,baz=26,slow=30,SNR=3.6						
ASAR	**Alice Springs**	**23.46**	**166**	P	P	06 23 35.5	-0.1
	0.6nm,0.7s,baz=344,slow=10,SNR=6.7						
MKAR	**Makanchi Array**	**61.90**	**326**	P	P	06 28 45.6	+0.1
	0.8nm,0.5s,baz=121,slow=8.0,SNR=5.7						

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*ISCJB **21** 06:35:02.9±3.1, 12.37N±0.08×95.11E±0.06, h15^{km}±22^{km}, mb4.3/32, MS3.6/5, Error ellipse: s-maj=13.6km s-min=9.0km az=6.2*

*IDC **21** 06:35:03.8±0.8, 12.41N×95.03E, h0^{km}, mb4.0/15, mb1 4.1/15, mb1mx4.0/23, mbtmp4.0/15, MS3.5/5, Ms1 3.6/5, ms1mx3.3/29, Error ellipse: s-maj=28.1km s-min=16.4km az=48.0*

*MOS **21** 06:35:04.9±0.8, 12.15N×95.06E, h33^{km}, mb4.8/10, Error ellipse: s-maj=22.8km s-min=9.2km az=99.0*

*BJI **21** 06:35:05.1, 11.98N×95.15E, h49^{km}, mB4.8, mb4.4, Ms3.8, Msz3.8*

*NEIC **21** 06:35:08.4±0.4, 12.38N×95.04E, h30^{km}, mb4.6/9, Error ellipse: s-maj=13.0km s-min=6.8km az=55.0*

ISC 21 06:35:05.2±3.1**, 12.37N**±0.08×**95.13E**±0.05**, h10**^{km}±19^{km}**, n65,** σ**0**^{s}**.94**/58**, mb4.3**/32**, MS3.6**/5**, 3C-1D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**10.23**	**158**	LR	LR	06 41 32.6	
	comp=Z,162nm,18.8s,baz=96,slow=37						
VIS	**Vishakhapatnam**	**12.57**	**296**	i P	**Pn**	**06 38 05.2**	**+0.9**
VIS				i S	**Sn**	**06 40 14.3**	**-10**
VIS				i S	**Sn**	**06 40 14.3**	**-10**
QIZ	**Qiongzhong**	**15.63**	**63**	P	**Pn**	**06 38 43.8**	**-2.0**
QIZ				S	**Sn**	**06 41 40.3**	**+1.1**
QIZ				AMB	AMB		
	comp=Z,21nm,1.9s						
QIZ				LR	LR		
	comp=N,349nm,16.0s						
QIZ				LR	LR		
	comp=Z,243nm,10.2s						
LSA	**Lhasa**	**17.63**	**349**	ePn	**Pn**	**06 39 12.5**	**+1.4**
	comp=Z,27nm,0.8s						
LSA	**Lhasa**	**17.63**	**349**	eP	**Pn**	**06 39 12.5**	**+1.4**
LSA				pmax	pmax		
	comp=Z,27nm,0.8s						
CD2	**Chengdu**	**20.10**	**22**	P	**P**	**06 39 38.8**	**-0.3**
CD2				AMB	AMB		
	comp=Z,50nm,0.8s						
POO	**Poona**	**21.39**	**289**	ex	**P**	**06 39 57.0**	**+3.7**
LZH	**Lanzhou**	**24.89**	**17**	eP	**P**	**06 40 29.5**	**+1.3**
LZH				AP		06 40 39.0	
LZH				XP	sP	06 40 44.0	+12
LZH				AMB	AMB		
	comp=Z,57nm,1.0s,mb5.1						
LZH				AMB	AMB		
	comp=Z,234nm,4.2s						
LZH	**Lanzhou**	**24.89**	**17**	eP	**P**	**06 40 29.5**	**+1.3**
	comp=Z,57nm,1.0s,mb5.1						
LZH				pP		06 40 39.0	
LZH				sP	sP	06 40 44.0	+12
LZH	**Lanzhou**	**24.89**	**17**	eP	**P**	**06 40 29.5**	**+1.3**
LZH				*PP		06 40 39.0	
LZH				*SP	sP	06 40 44.0	+12
LZH				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.1						
XAN	**Xi'an**	**24.96**	**28**	P	**P**	**06 40 27.3**	**-1.7**
XAN				AP		06 40 36.0	
XAN				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.2						
WHN	**Wuhan**	**25.36**	**42**	⇑P	**P**	**06 40 33.8**	**+1.1**
GTA	**Gaotai**	**27.25**	**8**	eP	**P**	**06 40 49.9**	**+0.3**
GTA				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.3						
NJ2	**Nanjing**	**29.31**	**44**	eP	**P**	**06 41 08.3**	**+0.2**
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
WMQ	**Urumqi**	**31.98**	**350**	eP	**P**	**06 41 33.0**	**+1.5**
TKM2	**Tokmak 2**	**34.82**	**335**	eP	**P**	**06 41 56.9**	**+0.6**
	comp=Z,9.0nm,0.8s,mb4.8						
TKM2	**Tokmak 2**	**34.82**	**335**	eP	**P**	**06 41 56.9**	**+0.6**
TKM2				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
AML	**Almayashu**	**35.03**	**332**	eP	**P**	**06 41 58.8**	**+0.6**
	comp=Z,11nm,1.2s,mb4.7						
AAK	**Ala-Archa**	**35.07**	**333**	eP	**P**	**06 41 58.6**	**+0.2**
	comp=Z,8.8nm,1.1s,mb4.6						
AAK	**Ala-Archa**	**35.07**	**333**	eP	**P**	**06 41 58.6**	**+0.2**
AAK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
EKS2	**Erkin-Say**	**35.41**	**332**	eP	**P**	**06 42 02.2**	**+0.8**
	comp=Z,1.9nm,0.8s,mb4.1						
MK31	**Makanchi Array**	**35.98**	**345**	eP	**P**	**06 42 06.7**	**+0.5**
MKAR	**Makanchi Array**	**35.98**	**345**	P	**P**	**06 42 06.7**	**+0.5**
MKAR	**Makanchi Array**	**35.98**	**345**	P	**P**	**06 42 06.7**	**+0.5**
	comp=Z,4.3nm,0.8s,mb4.4,baz=156,slow=9.2,SNR=34						
SONM	**Songino Array**	**36.59**	**13**	P	**P**	**06 42 11.7**	**+0.3**
	comp=Z,3.0nm,0.9s,mb4.1,baz=196,slow=8.5,SNR=16						
SONM				PcP	PcP	06 44 35.2	+0.6
	comp=Z,0.6nm,0.6s,baz=205,slow=3.9,SNR=4.2						
KSRS	**Korea Array**	**38.51**	**44**	P	**P**	**06 42 26.8**	**-1.0**
	comp=Z,0.4nm,0.3s,mb3.6,baz=246,slow=11,SNR=4.6						
KSRS				LR	LR	06 59 27.7	
	comp=Z,34nm,18.9s,MS3.2,baz=95,slow=38						
TLY	**Talaya**	**39.80**	**8**	eP	**P**	**06 42 39.8**	**+1.4**
TLY				e		06 42 47.2	
TLY				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.3						
KURK	**Kurchatov**	**40.54**	**344**	eP	**P**	**06 42 44.8**	**+0.2**
	comp=Z,16nm,1.0s,mb4.6						
KURK	**Kurchatov**	**40.54**	**344**	⇑eP	**P**	**06 42 44.2**	**-0.4**
CN2	**Changchun**	**40.75**	**34**	eP	**P**	**06 42 45.3**	**-1.1**
HIA	**Hailar**	**42.03**	**24**	eP	**P**	**06 42 56.9**	**0.0**
	comp=Z,4.8nm,0.9s,mb4.1						
HIA	**Hailar**	**42.03**	**24**	eP	**P**	**06 42 56.9**	**0.0**
HIA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ZAL	**Zalesovo**	**42.26**	**351**	P	**P**	**06 42 58.8**	**+0.1**
ZALV	**Zalesovo Beam**	**42.27**	**351**	P	**P**	**06 42 58.8**	**0.0**
	comp=Z,5.3nm,0.8s,mb4.2,baz=174,slow=8.9,SNR=26						
FITZ	**Fitzroy Crossi**	**42.70**	**135**	P	**P**	**06 43 03.0**	**+0.3**
	comp=Z,1.5nm,0.9s,mb3.7,baz=333,slow=14,SNR=2.8						
NVS	**Novosibirsk**	**43.39**	**350**	eP	**P**	**06 43 05.9**	**-1.9**
NVS				pmax	pmax		
	comp=N,5.0nm,1.0s						
NVS				pmax	pmax		
	comp=E,5.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
MJAR	**Matsushiro Arr**	**45.50**	**50**	P	**P**	**06 43 25.1**	**+0.2**
	comp=Z,1.0nm,0.6s,mb3.9,baz=263,slow=10,SNR=4.9						
BOD	**Bodaibo**	**47.57**	**14**	eP	**P**	**06 43 39.4**	**-1.5**
BOD				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.4						
AKTK	**Aktyubinsk**	**48.55**	**329**	P	**P**	**06 43 48.1**	**-0.4**
AKTO	**Aktyubinsk**	**48.55**	**329**	P	**P**	**06 43 48.1**	**-0.4**
	comp=Z,1.4nm,0.6s,mb4.2,baz=127,slow=8.4,SNR=6.7						
WRA	**Warramunga Arr**	**50.21**	**129**	P	**P**	**06 44 03.2**	**+1.6**
	comp=Z,0.5nm,0.4s,mb3.9,baz=353,slow=36,SNR=4.7						
ASAR	**Alice Springs**	**52.16**	**133**	P	**P**	**06 44 17.1**	**+0.8**
	comp=Z,0.4nm,0.8s,mb3.4,baz=308,slow=7.2,SNR=4.3						
ARU	**Arti**	**52.19**	**335**	d iP	**P**	**06 44 15.3**	**-0.8**
ARU				e		06 46 12.2	
ARU				eS	**S**	**06 51 41.2**	**+0.6**
ARU				eSS	SS	06 55 15.3	-2.6
ARU				pmax	pmax		
	comp=Z,10.0nm,1.7s,mb4.5						
KIV	**Kislovodsk**	**54.73**	**315**	eP	**P**	**06 44 33.7**	**-1.2**
KIV				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.9						
KIV				MLR	MLR		
	comp=Z,49nm,17.0s,MS3.6						
BRTR	**Keskin Array B**	**60.31**	**309**	P	**P**	**06 45 13.2**	**-1.1**
	comp=Z,1.2nm,0.8s,mb4.0,baz=139,slow=8.1,SNR=4.6						
BRTR				LR	LR	07 13 13.5	
	comp=Z,42nm,19.6s,MS3.6,baz=143,slow=38						
MA2	**Magadan**	**62.36**	**28**	⇑eP	**P**	**06 45 26.9**	**-1.0**
MA2				pmax	pmax		
	comp=Z,23nm,2.3s,mb4.9						
STKA	**Stephens Creek**	**62.57**	**136**	LR	LR	07 12 42.6	
	comp=Z,81nm,19.6s,MS3.9,baz=205,slow=36						
TIXI	**Tiksi**	**62.66**	**11**	eP	**P**	**06 45 25.0**	**-4.7**
	comp=Z,5.9nm,0.6s,mb4.9						
TIXI	**Tiksi**	**62.66**	**11**	eP	**P**	**06 45 23.9**	**-5.8**
TIXI				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.9						
AKASG	**Malin Array Be**	**65.29**	**320**	i P	**P**	**06 45 42.5**	**-4.8**
AKASG	**Malin Array Be**	**65.29**	**320**	P	**P**	**06 45 46.5**	**-0.8**
	comp=Z,0.3nm,0.3s,mb3.8,baz=79,slow=6.3,SNR=7.6						
FINES	**FINESS Array B**	**69.23**	**331**	P	**P**	**06 46 11.9**	**-0.2**
	comp=Z,1.2nm,0.7s,mb3.9,baz=86,slow=7.8,SNR=3.4						
ARCES	**ARCESS Array B**	**71.40**	**340**	P	**P**	**06 46 25.0**	**-0.3**
	comp=Z,2.8nm,0.9s,mb4.2,baz=74,slow=23,SNR=3.6						
GERES	**GERESS Array B**	**75.16**	**317**	P	**P**	**06 46 47.6**	**-0.3**
	comp=Z,1.5nm,0.6s,mb4.1,baz=90,slow=6.7,SNR=12						
NOA	**NORSAR Array B**	**76.32**	**330**	LR	LR	07 24 11.3	
	comp=Z,51nm,19.2s,MS3.9,baz=120,slow=39						
IMA2	**Indian Mountai**	**87.11**	**22**	eP	**P**	**06 47 50.0**	**-1.1**
TORD	**Torodi Ar. Bea**	**90.51**	**283**	P	**P**	**06 48 08.1**	**-0.1**
	comp=Z,1.5nm,1.1s,mb4.2,baz=84,slow=3.3,SNR=4.1						
NVAR	**Mina Array Bea**	**120.57**	**30**	PKP	PKPdf	06 53 59.1	+1.4
NVAR	**Mina Array Bea**	**120.57**	**30**	PKP	PKPdf	06 53 59.1	+1.4
	comp=Z,0.6nm,0.6s,baz=354,slow=2.3,SNR=4.8						
PDAR	**Pinedale Array**	**120.64**	**21**	PKP	PKPdf	06 53 57.9	+0.2
PDAR	**Pinedale Array**	**120.64**	**21**	PKP	PKPdf	06 53 57.9	+0.2
	comp=Z,0.3nm,0.8s,baz=52,slow=1.5,SNR=2.9						
JLU	**Jordanelle**	**121.83**	**24**	ePdif	Pdif	06 50 28.5	+0.9
TXAR	**Lajitas Array**	**134.74**	**23**	PKP	PKPdf	06 54 25.6	+0.6
TXAR	**Lajitas Array**	**134.74**	**23**	PKIKP	PKPdf	06 54 25.6	+0.6
TXAR	**Lajitas Array**	**134.74**	**23**	PKP	PKPdf	06 54 25.6	+0.6
	comp=Z,0.4nm,0.8s,baz=333,slow=1.4,SNR=4.1						

IDC 21 06:38:04.5±14.0**, 25.86S×177.44W, h159**^{km}±129^{km}**, mb3.6**/7**, mb1 3.8**/7**, mb1mx3.7**/13**, mbtmp3.6**/7**, Error ellipse: s-maj=95.6km s-min=35.0km az=163.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**36.22**	**251**	P	P	06 44 53.0	+0.9
	1.7nm,0.4s,baz=92,slow=7.2,SNR=4.2						
ASAR	**Alice Springs**	**44.04**	**262**	P	P	06 45 56.6	0.0
	1.6nm,0.5s,baz=90,slow=7.1,SNR=27						
WRA	**Warramunga Arr**	**44.62**	**267**	P	P	06 46 00.0	-1.2
	0.8nm,0.3s,baz=99,slow=7.0,SNR=9.3						
FITZ	**Fitzroy Crossi**	**53.01**	**266**	P	P	06 47 05.5	+0.2
	1.1nm,0.6s,baz=90,slow=9.1,SNR=5.2						
KSRS	**Korea Array**	**81.24**	**319**	P	P	06 50 03.5	+0.8
	0.4nm,0.3s,baz=131,slow=6.7,SNR=4.2						
NVAR	**Mina Array Bea**	**84.58**	**43**	P	P	06 50 20.4	+0.6
	0.6nm,0.6s,baz=221,slow=9.5,SNR=5.6						
PDAR	**Pinedale Array**	**92.50**	**43**	P	P	06 50 57.4	0.0
	0.6nm,0.9s,baz=224,slow=4.1,SNR=4.7						
AKASG	**Malin Array Be**	**147.87**	**328**	PKPbc	PKPbc	06 57 29.1	-1.3
	0.4nm,0.4s,baz=42,slow=3.1,SNR=5.2						
BRTR	**Keskin Array B**	**150.61**	**306**	PKPbc	PKPbc	06 57 37.4	-0.3
	0.3nm,0.5s,baz=57,slow=5.3,SNR=2.7						
BRTR				PKPab	PKPab	06 57 45.5	+0.4
	0.8nm,0.7s,baz=117,slow=4.9,SNR=4.2						

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*ISCJB **21** 06:38:29.8±0.8, 51.42N±0.03×6.9E±0.1, h0^{km}, Error ellipse: s-maj=10.6km s-min=4.0km az=9.7*

*LDG **21** 06:38:29.1±0.3, 51.65N×6.93E, h1^{km}, Ml2.9/7, Error ellipse: s-maj=4.9km s-min=4.2km az=65.0, Suspected Mining induced.*

*CSEM **21** 06:38:30.7±0.4, 51.56N×6.85E, h1^{km}, ML2.7/6, Error ellipse: s-maj=12.9km s-min=5.5km az=95.0, Suspected Mining induced.*

ISC 21 06:38:31.6±0.7**, 51.49N**±0.03×**6.6E**±0.1**, h0**^{km}**, n29,** σ**1**^{s}**.31**/43**, 2C, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WTSB	**Winterswijk**	**0.49**	**12**	ePg	**Pg**	**06 38 42.4**	**+1.4**
	17nm,0.1s						
WTSB				eSg	**Sg**	**06 38 48.3**	**+1.0**
WTSB	**Winterswijk**	**0.49**	**12**	eSg	**Sg**	**06 38 48.3**	**+1.0**
HGN	**Heimansgroeve**	**0.85**	**212**	⇑ePg	**Pg**	**06 38 49.2**	**+1.2**
	26nm,0.2s,baz=40						
HGN				eSg	**Sg**	**06 38 58.8**	**-0.2**
HGN	**Heimansgroeve**	**0.85**	**212**	⇑ePg	**Pg**	**06 38 49.2**	**+1.2**
	26nm,0.2s						
HGN				eSg	**Sg**	**06 38 58.8**	**-0.2**
MEM	**Membach**	**0.97**	**205**	PG	**Pg**	**06 38 50.8**	**+0.6**
MEM				PN	**Pn**	**06 38 52.8**	**+0.4**
MEM				SG	**Sg**	**06 39 04.8**	**+2.0**
MEM				SN	**Sn**	**06 39 07.1**	**+0.2**
	comp=E,20nm,0.0s						
MEM	**Membach**	**0.97**	**205**	Pg	**Pg**	**06 38 50.8**	**+0.6**
GIVF	**Givet**	**1.81**	**220**	eP	**Pn**	**06 39 04.7**	**+0.7**
GIVF	**Givet**	**1.81**	**220**	ePg	**Pg**	**06 39 06.9**	**+0.7**
GIVF				eSn	**Sn**	**06 39 27.9**	**+0.3**
	comp=E,18nm,0.3s						
GIVF	**Givet**	**1.81**	**220**	ePg	**Pg**	**06 39 06.9**	**+0.7**
GIVF				eSn	**Sn**	**06 39 27.9**	**+0.3**
	comp=E,9.1nm,0.3s						
BAIF	**Baives**	**2.11**	**228**	ePn	**Pn**	**06 39 06.3**	**-1.8**
BAIF				eSn	**Sn**	**06 39 35.0**	**0.0**
	comp=E,7.4nm,0.3s						
BAIF	**Baives**	**2.11**	**228**	ePn	**Pn**	**06 39 06.3**	**-1.8**
BAIF				eSn	**Sn**	**06 39 35.0**	**0.0**
	comp=E,3.7nm,0.3s						
RFYF	**Reffroy**	**2.96**	**195**	eSg	**Sg**	**06 40 08.5**	**+1.8**
	comp=E,8.7nm,0.3s						
RFYF	**Reffroy**	**2.96**	**195**	eSg	**Sg**	**06 40 08.5**	**+1.8**
	comp=E,4.3nm,0.3s						
CDF	**Champ du Feu**	**3.11**	**172**	eSg	**Sg**	**06 40 10.9**	**-0.6**
	comp=E,2.2nm,0.3s						
CDF	**Champ du Feu**	**3.11**	**172**	eSg	**Sg**	**06 40 10.9**	**-0.6**
	comp=E,1.1nm,0.3s						
MEZF	**Maizieres J'vi**	**3.16**	**200**	ePn	**Pn**	**06 39 21.1**	**-1.5**
MEZF	**Maizieres J'vi**	**3.16**	**200**	ePn	**Pn**	**06 39 21.1**	**-1.5**
SFTF	**Sexfontaines**	**3.45**	**198**	eSg	**Sg**	**06 40 24.3**	**+1.9**
	comp=E,4.0nm,0.3s						
SFTF	**Sexfontaines**	**3.45**	**198**	eSg	**Sg**	**06 40 24.3**	**+1.9**
	comp=E,2.0nm,0.3s						
LOR	**Lormes**	**4.60**	**204**	ePn	**Pn**	**06 39 41.0**	**-1.4**
LOR				eSn	**Sn**	**06 40 33.1**	**-3.4**
LOR				eSg	**Sg**	**06 40 59.7**	**+0.3**
	comp=E,2.2nm,0.3s						
LOR	**Lormes**	**4.60**	**204**	ePn	**Pn**	**06 39 41.0**	**-1.4**
LOR				eSn	**Sn**	**06 40 33.1**	**-3.4**
LOR				eSg	**Sg**	**06 40 59.7**	**+0.3**
	comp=E,1.1nm,0.3s						
SSF	**Saint Saulge**	**4.88**	**206**	ePn	**Pn**	**06 39 44.8**	**-1.5**
SSF	**Saint Saulge**	**4.88**	**206**	ePn	**Pn**	**06 39 44.8**	**-1.5**
AVF	**Avril sur Loir**	**5.18**	**206**	ePn	**Pn**	**06 39 48.4**	**-1.9**
AVF	**Avril sur Loir**	**5.18**	**206**	ePn	**Pn**	**06 39 48.4**	**-1.9**
SMF	**Signal de Mont**	**5.19**	**202**	ePn	**Pn**	**06 39 48.4**	**-2.0**
SMF	**Signal de Mont**	**5.19**	**202**	ePn	**Pn**	**06 39 48.4**	**-2.0**
FLN	**La Foliniere**	**5.33**	**242**	eSn	**Sn**	**06 40 51.2**	**-3.3**
FLN	**La Foliniere**	**5.33**	**242**	eSn	**Sn**	**06 40 51.2**	**-3.3**

IDC 21 06:47:33.8±1.4**, 12.19N×140.62E, h0**^{km}**, mb3.7**/6**, mb1 3.8**/6**, mb1mx3.6**/19**, mbtmp3.7**/6**, Error ellipse: s-maj=69.2km s-min=23.4km az=87.0, Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**32.53**	**191**	P	P	06 54 06.2	-0.4
	1.5nm,0.6s,baz=12,slow=9.6,SNR=7.0						
ASAR	**Alice Springs**	**36.24**	**190**	P	P	06 54 39.0	+0.2
	0.4nm,0.6s,baz=19,slow=12,SNR=9.2						
MKAR	**Makanchi Array**	**59.66**	**317**	P	P	06 57 38.9	-0.9
	0.2nm,0.2s,baz=95,slow=8.4,SNR=3.5						
YKA	**Yellowknife Ar**	**85.98**	**27**	P	P	07 00 15.0	-0.7
	0.1nm,0.3s,baz=290,slow=5.3,SNR=3.9						
FINES	**FINESS Array B**	**90.64**	**334**	P	P	07 00 39.6	+1.6
	1.6nm,0.9s,baz=79,slow=7.5,SNR=4.3						
AKASG	**Malin Array Be**	**93.72**	**324**	P	P	07 00 53.2	+0.7
	0.3nm,0.3s,baz=67,slow=3.6,SNR=4.9						

IDC 21 07:15:25.3±2.7**, 3.32S×135.58E, h0**^{km}**, mb3.5**/2**, mb1 3.9**/4**, mb1mx3.6**/13**, mbtmp3.7**/4**, ML3.4**/2**, Error ellipse: s-maj=90.6km s-min=29.6km az=84.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**16.57**	**184**	Pn	Pn	07 19 20.6	+1.5
	0.2nm,0.3s,baz=6.7,slow=12,SNR=11						
WRA				Sn	Sn	07 22 07.6	-16
	0.2nm,0.3s,baz=3.0,slow=23,SNR=4.0						
FITZ	**Fitzroy Crossi**	**17.62**	**213**	P	Pn	07 19 31.3	-1.1
	0.1nm,0.3s,baz=29,slow=15,SNR=3.1						
FITZ				S	Sn	07 22 32.2	-17
	0.1nm,0.3s,baz=31,slow=21,SNR=3.5						
ASAR	**Alice Springs**	**20.29**	**184**	P	P	07 20 02.7	0.0
	2.8nm,0.6s,baz=7.9,slow=11,SNR=34						
MKAR	**Makanchi Array**	**68.39**	**324**	P	P	07 26 28.9	+0.2
	0.2nm,0.5s,baz=106,slow=9.0,SNR=4.1						

ISCJB ***21*** *07:15:57.0±1.8, 47.1N±02×1529E±02, h99^{km}±15^{km}, mb3.7/9, Error ellipse: s-maj=32.5km s-min=14.2km az=141.1*

MOS ***21*** *07:15:57.8±1.6, 4724N×15274E, h107^{km}, mb4.1/5, Error ellipse: s-maj=30.1km s-min=17.8km az=76.4*

IDC ***21*** *07:16:01.0±4.6, 4703N×15274E, h121^{km}±41^{km}, mb3.4/9, mb1 3.6/10, mb1mx3.4/24, mbtmp3.4/10, Error ellipse: s-maj=26.8km s-min=23.0km az=114.0*

ISC 21 07:15:58.7±1.6**, 472N**±02×**1529E**±02**, h99**^{km}±13^{km}**, n20,** σ**1**^{s}**02**/20**, mb3.7**/9**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**4.12**	**30**	*e*PN	**Pn**	**07 16 58.8**	**-0.6**
SKR				*e*		07 17 42.5	
ASAJ	**Asahikawa**	**7.81**	**251**	PN	**Pn**	**07 17 50.5**	**+1.0**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**7.81**	**251**	P	**Pn**	**07 17 50.5**	**+0.9**
	comp=Z,1.2nm,0.3s,baz=56,slow=15,SNR=5.3						
KSRS	**Korea Array**	**20.76**	**251**	P	**P**	**07 20 31.2**	**-0.3**
	comp=Z,0.5nm,0.4s,baz=89,slow=6.0,SNR=3.9						
MKAR	**Makanchi Array**	**46.60**	**297**	P	**P**	**07 24 15.4**	**-1.1**
	comp=Z,0.3nm,0.6s,mb3.2,baz=64,slow=7.0,SNR=7.0						
YKA	**Yellowknife Ar**	**50.70**	**37**	P	**P**	**07 24 48.6**	**+1.0**
YKA	**Yellowknife Ar**	**50.70**	**37**	P	**P**	**07 24 48.6**	**+1.0**
	comp=Z,0.4nm,0.8s,mb3.5,baz=294,slow=7.1,SNR=4.8						
KEV	**Kevo**	**56.89**	**340**	*e*p	**P**	**07 25 30.0**	**-2.7**
	comp=Z,0.6nm,0.3s,mb4.1						
KEV	**Kevo**	**56.89**	**340**	*e*P	**P**	**07 25 30.0**	**-2.7**
KEV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.3						
FINES	**FINESS Array B**	**63.59**	**335**	P	**P**	**07 26 18.7**	**+0.3**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	**FINESS Array B**	**63.59**	**335**	P	**P**	**07 26 18.7**	**+0.3**
	comp=Z,1.0nm,0.4s,mb4.0,baz=45,slow=6.8,SNR=11						
NB2	**NORSAR Subarra**	**67.78**	**341**	P	**P**	**07 26 45.8**	**+0.5**
	comp=Z,1.7nm,0.6s,mb4.0,baz=29,slow=6.5						
NOA	**NORSAR Array B**	**67.78**	**341**	P	**P**	**07 26 46.0**	**+0.7**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	**NORSAR Array B**	**67.78**	**341**	P	**P**	**07 26 46.0**	**+0.7**
	comp=Z,0.9nm,0.6s,mb3.8,baz=31,slow=6.3,SNR=4.4						
AKASG	**Malin Array Be**	**71.11**	**326**	P	**P**	**07 27 06.0**	**0.0**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	**Malin Array Be**	**71.11**	**326**	P	**P**	**07 27 06.0**	**0.0**
	comp=Z,1.7nm,0.3s,mb4.3,baz=35,slow=6.5,SNR=5.3						
ASAR	**Alice Springs**	**72.55**	**198**	P	**P**	**07 27 13.8**	**-1.0**
	comp=Z,0.2nm,0.5s,mb3.2,baz=14,slow=5.7,SNR=3.2						
MLR	**Muntele Rosu**	**76.62**	**325**	P	**P**	**07 27 39.9**	**+1.6**
MLR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MLR	**Muntele Rosu**	**76.62**	**325**	P	**P**	**07 27 39.9**	**+1.6**
	comp=Z,1.1nm,0.5s,mb3.8,baz=141,slow=8.1,SNR=3.7						
TXAR	**Lajitas Array**	**77.44**	**60**	P	**P**	**07 27 43.5**	**+0.4**
	comp=Z,0.3nm,0.6s,mb3.2,baz=297,slow=5.3,SNR=5.8						

NEIC ***21*** *07:22:37.5, 19.17N×6654W, h20^{km}, MD3.5(RSPR), After RSPR.*

RSPR 21 07:22:37.5, 1917N×6654W, h20^{km}±29^{km}**, MD3.5**/16**, MD3.5**/16**, 7C-9D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AOPR	**Arecibo Observ**	**0.85**	**194**	⇓*e*P	Pb	07 22 51.5	-2.0
AOPR				*e*S	Sb	07 23 02.4	-2.1
AGPR	**Aguadilla, PR**	**0.89**	**218**	⇓*e*P	Pb	07 22 51.7	-2.5
AGPR				*e*S	Sb	07 23 03.4	-2.3
LRS	**Lares**	**0.92**	**198**	⇓*e*P	Pb	07 22 52.5	-2.4
LRS				*e*S	Sb	07 23 03.9	-2.9
CELP	**Cerrillos**	**1.09**	**182**	⇑*e*P	Pn	07 22 55.2	-2.5
CELP				*e*S	Sb	07 23 09.0	-2.6
CBYP	**Canovanas**	**1.11**	**144**	⇑*e*P	Pn	07 22 55.0	-2.9
CBYP				*e*S	Sb	07 23 08.8	-3.3
MPR	**Mayaguez**	**1.11**	**211**	⇑*e*P	Pn	07 22 55.0	-3.0
MPR				*e*S	Sb	07 23 09.4	-2.7
LSP	**Las Mesas**	**1.12**	**208**	⇓*e*P	Pn	07 22 55.7	-2.4
LSP				*e*S	Sb	07 23 08.8	-3.6
SJG	**San Juan**	**1.12**	**161**	⇑*e*P	Pn	07 22 55.4	-2.7
SJG				*e*S	Sb	07 23 09.5	-2.8
SJG	**San Juan**	**1.12**	**161**	⇓*e*P	Pn	07 22 55.4	-2.7
SJG				*e*S	Sb	07 23 09.0	-3.4
OBIP	**Obispado Ponce**	**1.13**	**183**	⇑*e*P	Pn	07 22 55.9	-2.3
OBIP				*e*S	Sb	07 23 09.3	-3.2
HUMP	**Col San Antoni**	**1.22**	**147**	⇓*e*P	Pn	07 22 56.5	-2.9
HUMP				*e*S	Sb	07 23 11.2	-3.9
GBPR	**Guanica, Bosqu**	**1.23**	**195**	⇓*e*P	Pn	07 22 57.6	-2.1
GBPR	**Guanica, Bosqu**	**1.23**	**195**	*e*S	Sb	07 23 12.6	-3.1
CPD	**Cerro la Pandu**	**1.28**	**152**	⇓*e*P	Pn	07 22 57.7	-2.6
CPD				*e*S	Sn	07 23 13.6	-3.2
MTP	**Monte Pirata**	**1.42**	**139**	⇑*e*P	Pn	07 22 59.4	-2.9
MTP				*e*S	Sn	07 23 17.6	-2.8
STVI	**Saint Thomas**	**1.71**	**118**	⇓*e*P	Pn	07 23 03.8	-2.5
STVI				*e*S	Sn	07 23 23.4	-4.1
TBVI	**Tortola**	**1.97**	**112**	⇑*e*P	Pn	07 23 07.5	-2.3
TBVI				*e*S	Sn	07 23 31.0	-2.9
SDDR	**Presa de Saban**	**4.49**	**268**	*e*Pn	Pn	07 23 44.4	-0.1
SDDR				*e*Sn	Sn	07 24 36.3	+0.1

WEL 21 07:24:56.8±0.1**, 3654S×17503E, h5**^{km}**, ML3.6**/6**, Error ellipse: s-maj=0.9km s-min=0.8km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAAZ	**Kauri Point**	**0.39**	**223**	PG	Pg	07 25 04.8	+0.5
KAAZ				SG	Sg	07 25 10.1	+0.8
OTAZ	**Otara**	**0.42**	**192**	PG	Pg	07 25 05.3	+0.4
OTAZ				SG	Sg	07 25 11.2	+0.8
WTAZ	**Waiatarua**	**0.54**	**223**	PG	Pg	07 25 07.8	+0.7
MKAZ	**Moumakai**	**0.58**	**169**	PG	Pg	07 25 08.0	0.0
KUZ	**Kuaotunu**	**0.59**	**111**	P*	Pg	07 25 08.9	+0.7
KUZ				SG	Sg	07 25 17.4	+1.6
WCZ	**Waipu Caves**	**0.81**	**317**	P*	Pb	07 25 12.3	-1.1
WCZ				S*	Sb	07 25 24.4	-0.3
MYRZ	**Mayor Island**	**1.22**	**128**	*e*P*	Pb	07 25 20.2	-0.2
TOZ	**Tahuroa Road**	**1.25**	**163**	P*	Pb	07 25 19.8	-1.0
TGRZ	**Tauranga**	**1.54**	**141**	*e*PN	Pn	07 25 25.3	+0.4
OUZ	**Omahuta**	**1.76**	**318**	PN	Pn	07 25 27.4	-0.4
HIZ	**Hauiti**	**1.98**	**184**	PN	Pn	07 25 30.6	-0.2
TWVZ	**Taurewa**	**2.55**	**173**	PN	Pn	07 25 38.3	-0.5
WTVZ	**West Tongariro**	**2.61**	**170**	*e*PN	Pn	07 25 39.2	-0.4
QRZ	**Quartz Range**	**4.71**	**204**	*e*PN	Pn	07 26 08.6	+0.2

IDC ***21*** *07:39:02.6±6.6, 3643N×71.17E, h44^{km}±54^{km}, mb3.4/4, mb1 3.7/7, mb1mx3.4/23, mbtmp3.6/7, ML3.5/2, Error ellipse: s-maj=62.4km s-min=35.6km az=149.0*

NEIC ***21*** *07:39:03.9±2.8, 3652N×7108E, h52^{km}±19^{km}, Error ellipse: s-maj=30.1km s-min=18.3km az=175.0*

ISCJB ***21*** *07:39:06.6±0.7, 3680N±003×709E±0.1, h75^{km}±13^{km}, mb3.5/4, Error ellipse: s-maj=13.7km s-min=4.9km az=6.5*

NNC ***21*** *07:39:09.8±15.0, 3693N×7069E, h77^{km}±297^{km}, mb3.6, mpv3.8, Error ellipse: s-maj=117.6km s-min=80.9km az=177.0*

ISC 21 07:39:08.1±0.6**, 3678N**±003×**709E**±01**, h72**^{km}±12^{km}**, n33,** σ**0**^{s}**94**/39**, mb3.5**/4**, 4C-4D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	**Cherat**	**3.08**	**163**	⇑P	**Pn**	**07 39 54.4**	**0.0**
CHCP	**Chirah Chowk**	**3.69**	**147**	P	**Pn**	**07 40 02.2**	**-0.5**
CHCP				S	**Sn**	**07 40 45.0**	**0.0**
THW	**Thamme Wali**	**4.04**	**169**	P	**Pn**	**07 40 08.0**	**+0.4**
SBDP	**Sheikh Budin**	**4.47**	**180**	P	**Pn**	**07 40 12.3**	**-1.1**
DRP	**Derazinda**	**5.05**	**186**	P	**Pn**	**07 40 22.9**	**+1.5**
AML	**Almayashu**	**5.78**	**22**	P	**Pn**	**07 40 32.3**	**+1.1**
	SNR=63						
AML	**Almayashu**	**5.78**	**22**	*e*Pn	**Pn**	**07 40 29.6**	**-1.5**
AML				*e*Sn	**Sn**	**07 41 36.5**	**+0.5**
UCH	**Uchtor**	**6.13**	**26**	P	**Pn**	**07 40 37.2**	**+1.2**
	SNR=15						
UCH	**Uchtor**	**6.13**	**26**	*e*Pn	**Pn**	**07 40 34.6**	**-1.5**
	5.8nm,0.5s						
KZA	**Kyzart**	**6.29**	**31**	P	**Pn**	**07 40 38.5**	**+0.3**
	SNR=11						
EKS2	**Erkin-Say**	**6.29**	**20**	P	**Pn**	**07 40 39.4**	**+1.2**
	SNR=32						
EKS2	**Erkin-Say**	**6.29**	**20**	*e*Pn	**Pn**	**07 40 36.9**	**-1.3**
EKS2				*e*Sn	**Sn**	**07 41 48.4**	**-0.1**
KK31	**Karatay Array**	**6.32**	**358**	⇓Pn	**Pn**	**07 40 39.6**	**+1.0**
	11nm,0.2s,baz=181,slow=13,SNR=130						
KK31				⇓Sn	**Sn**	**07 41 47.9**	**-1.4**
	11nm,0.4s,baz=187,slow=24						
KK31				⇓Lg		07 42 27.1	
	19nm,0.5s,baz=173,slow=31						
AAK	**Ala-Archa**	**6.48**	**25**	P	**Pn**	**07 40 41.9**	**+1.0**
	SNR=14						
AAK	**Ala-Archa**	**6.48**	**25**	*e*Pn	**Pn**	**07 40 39.1**	**-1.7**
	18nm,0.4s						
AAK				*e*Sn	**Sn**	**07 41 53.4**	**+0.1**
CHMS	**Chumysh**	**6.89**	**25**	P	**Pn**	**07 40 47.1**	**+0.6**
	SNR=14						
USP	**Ospenovka**	**7.05**	**22**	P	**Pn**	**07 40 48.8**	**+0.1**
	SNR=12						
TKM2	**Tokmak 2**	**7.13**	**29**	P	**Pn**	**07 40 50.2**	**+0.4**
	SNR=14						
TKM2	**Tokmak 2**	**7.13**	**29**	⇓Pn	**Pn**	**07 40 50.0**	**+0.3**
	0.6nm,0.5s						
TKM2				⇑Sn	**Sn**	**07 42 10.1**	**+0.9**
	2.1nm,1.1s						
TKM2	**Tokmak 2**	**7.13**	**29**	*e*Pn	**Pn**	**07 40 47.7**	**-2.0**
	9.2nm,0.5s						
MKAR	**Makanchi Array**	**13.13**	**37**	P	**Pn**	**07 42 09.8**	**-1.8**
	0.1nm,0.3s,baz=227,slow=14,SNR=19						
AB31	**Akbulak array**	**14.78**	**331**	⇑P	**Pn**	**07 42 31.6**	**-1.4**
	1.5nm,0.5s,baz=154,slow=12						
BRVK	**Borovoye**	**16.28**	**359**	⇑P	**Pn**	**07 42 52.4**	**+0.4**
	0.7nm,0.6s						
BRVK	**Borovoye**	**16.28**	**359**	*e*Pn	**Pn**	**07 42 52.3**	**+0.2**
AKTK	**Aktyubinsk**	**16.48**	**330**	P	**Pn**	**07 42 55.0**	**+0.4**
AKTO	**Aktyubinsk**	**16.48**	**330**	P	**Pn**	**07 42 55.0**	**+0.4**
	0.5nm,0.3s,baz=132,slow=8.9,SNR=12						
ZALV	**Zalesovo Beam**	**19.71**	**25**	P	**Pn**	**07 43 29.3**	**-4.3**
ZALV	**Zalesovo Beam**	**19.71**	**25**	P	**Pn**	**07 43 29.3**	**-4.3**
	0.8nm,0.3s,baz=213,slow=9.9,SNR=13						
ARCES	**ARCESS Array B**	**40.84**	**338**	P	**P**	**07 46 43.0**	**+0.8**
	0.6nm,0.4s,mb3.7,baz=115,slow=8.7,SNR=10						
NOA	**NORSAR Array B**	**44.08**	**323**	P	**P**	**07 47 09.9**	**+1.2**
	1.4nm,0.8s,mb3.7,baz=98,slow=7.8,SNR=2.3						
TORD	**Torodi Ar. Bea**	**65.61**	**268**	P	**P**	**07 49 43.7**	**-1.1**
TORD	**Torodi Ar. Bea**	**65.61**	**268**	P	**P**	**07 49 43.7**	**-1.1**
	0.4nm,0.5s,mb3.5,baz=50,slow=5.9,SNR=8.0						
YKA	**Yellowknife Ar**	**80.97**	**3**	P	**P**	**07 51 14.1**	**-0.3**
	0.1nm,0.5s,mb2.9,baz=343,slow=5.2,SNR=2.7						

IDC ***21*** *07:47:43.2±0.8, 104S×127.15E, h0^{km}, mb4.4/9, mb1 4.4/10, mb1mx4.3/19, mbtmp4.3/10, ML4.0/1, MS3.3/5, Ms1 3.3/5, ms1mx3.1/25, Error ellipse: s-maj=50.2km s-min=15.4km az=68.0*

BJI ***21*** *07:47:44.2, 155S×12775E, h52^{km}, mB5.2, mb4.7*

NEIC ***21*** *07:47:44.8±0.4, 105S×12721E, h10^{km}, mb4.6/7, Error ellipse: s-maj=15.8km s-min=6.6km az=62.0*

ISCJB ***21*** *07:47:45.9±0.4, 106S±005×12735E±007, h33^{km}, mb4.6/31, MS3.4/3, Error ellipse: s-maj=11.5km s-min=5.7km az=154.5*

MOS ***21*** *07:47:45.4±1.2, 103S×12742E, h33^{km}, mb4.8/7, Error ellipse: s-maj=27.5km s-min=10.1km az=116.1*

ISC 21 07:47:48.3±0.4**, 108S**±005×**12729E**±007**, h35**^{km}**, n56,** σ**1**^{s}**22**/55**, mb4.6**/31**, MS3.4**/3**, 4C-1D, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**12.64**	**156**	*e*Pn	**Pn**	**07 50 45.0**	**-0.8**
KAKA				*e*Sn	**Sn**	**07 53 06.0**	**+0.7**
FITZ	**Fitzroy Crossi**	**17.00**	**185**	*e*P	**Pn**	**07 51 43.4**	**-0.1**
	10nm,1.2s						
FITZ	**Fitzroy Crossi**	**17.00**	**185**	Pn	**Pn**	**07 51 44.1**	**+0.6**
	0.4nm,0.3s,baz=17,slow=12,SNR=14						
FITZ				LR	LR	07 58 36.1	
	comp=Z,60nm,21.2s,baz=8.3,slow=38						
KSM	**Kuching**	**17.16**	**278**	*e*P	**Pn**	**07 51 44.2**	**-1.4**
BJII	**Banjamegara**	**18.59**	**250**	P	**Pn**	**07 52 05.0**	**+1.9**
	97nm,1.7s						
TPI	**Tanjungpandan**	**19.69**	**265**	P	**Pn**	**07 52 14.3**	**-2.1**
	54nm,1.1s						
WRA	**Warramunga Arr**	**19.98**	**160**	P	**Pn**	**07 52 17.5**	**-2.2**
	5.9nm,0.8s,baz=340,slow=11,SNR=13						
WRA				LR	LR	07 59 59.8	
	comp=Z,113nm,20.1s,baz=285,slow=37						
COEN	**Coen**	**20.27**	**130**	*e*P	**P**	**07 52 22.1**	**+1.1**
ASAR	**Alice Springs**	**23.36**	**165**	P	**P**	**07 52 53.5**	**-0.5**
	3.8nm,0.7s,mb4.0,baz=346,slow=12,SNR=56						
ASAR				PcP	PcP	07 56 40.5	+0.4
	0.6nm,0.6s,baz=356,slow=1.7,SNR=5.3						
KSI	**Kapahiang**	**24.80**	**264**	P	**P**	**07 53 08.6**	**+1.2**
	88nm,0.9s,mb5.3						
PPI	**Padang Panjang**	**26.89**	**271**	P	**P**	**07 53 26.5**	**+0.2**
	36nm,1.2s,mb4.8						
PSI	**Prapat**	**28.61**	**278**	P	**P**	**07 53 40.4**	**-1.3**
PSI	**Prapat**	**28.61**	**278**	P	**P**	**07 53 40.4**	**-1.3**
	3.0nm,0.5s,mb4.3,baz=72,slow=6.6,SNR=4.5						
STKA	**Stephens Creek**	**33.48**	**158**	⇑*i*P	**P**	**07 54 25.8**	**+1.4**
	6.0nm,1.0s,mb4.5						
STKA	**Stephens Creek**	**33.48**	**158**	P	**P**	**07 54 25.9**	**+1.5**
	3.4nm,0.7s,mb4.4,baz=340,slow=12,SNR=8.4						
WHN	**Wuhan**	**33.77**	**340**	⇓P	**P**	**07 54 29.3**	**+2.4**
NJ2	**Nanjing**	**33.90**	**347**	*e*P	**P**	**07 54 25.5**	**-2.5**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
KSRS	**Korea Array**	**38.34**	**1**	P	**P**	**07 55 09.3**	**+3.5**
	comp=Z,0.5nm,0.5s,mb3.5,baz=166,slow=12,SNR=4.2						
KSRS				LR	LR	08 08 48.9	
	comp=Z,32nm,20.4s,MS3.1,baz=66,slow=33						
MJAR	**Matsushiro Arr**	**38.78**	**14**	LR	LR	08 11 48.1	
	comp=Z,90nm,18.4s,MS3.6,baz=65,slow=37						
CD2	**Chengdu**	**38.89**	**327**	P	**P**	**07 55 11.0**	**+0.4**
CD2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.7						
XAN	**Xi'an**	**38.96**	**335**	P	**P**	**07 55 11.8**	**+0.7**
XAN				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.5						
BJT	**Baijiatuau**	**42.14**	**347**	*e*P	**P**	**07 55 36.3**	**-1.0**
	comp=Z,4.2nm,0.6s,mb4.2						
BJT	**Baijiatuau**	**42.14**	**347**	*e*P	**P**	**07 55 36.3**	**-1.0**
BJT				pmax	pmax		
	comp=Z,4.0nm,0.6s						
LZH	**Lanzhou**	**42.94**	**332**	*e*P	**P**	**07 55 46.0**	**+2.1**
LZH				AMB	AMB		
	comp=Z,33nm,1.2s,mb4.9						
LZH				AMB	AMB		
	comp=Z,215nm,4.8s						
LZH	**Lanzhou**	**42.94**	**332**	*e*P	**P**	**07 55 46.0**	**+2.1**
	comp=Z,33nm,1.2s,mb4.9						
LZH				pP	pP	07 55 51.0	-3.2
LZH				sP	sP	07 55 54.5	-3.9
LSA	**Lhasa**	**46.10**	**315**	P	**P**	**07 56 11.3**	**+2.0**
LSA				AMB	AMB		
	comp=Z,30nm,1.1s,mb5.1						
LSA	**Lhasa**	**46.10**	**315**	*e*P	**P**	**07 56 09.3**	**0.0**
	comp=Z,6.1nm,0.6s,mb4.7						
LSA	**Lhasa**	**46.10**	**315**	*e*P	**P**	**07 56 09.3**	**0.0**
LSA				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
TAPN	**Taplejung**	**47.39**	**310**	*e*P	**P**	**07 56 19.9**	**+0.5**
	comp=Z,43nm,1.1s,mb5.3						
GTA	**Gaotai**	**47.51**	**331**	*e*P	**P**	**07 56 21.1**	**+1.0**
GTA				AMB	AMB		
	comp=Z,7.0nm,1.2s,mb4.6						
JIRN	**Jiri**	**48.72**	**309**	*e*P	**P**	**07 56 30.6**	**+0.9**
	comp=Z,4.1nm,0.3s,mb5.0						
KKN	**Kakani**	**49.49**	**309**	*e*P	**P**	**07 56 36.0**	**+0.4**
	comp=Z,34nm,0.8s,mb5.4						
GKN	**Gorkha**	**50.09**	**309**	*e*P	**P**	**07 56 40.3**	**+0.1**
	comp=Z,29nm,0.6s,mb5.5						
HYB	**Hyderabad**	**51.39**	**293**	*e*P	**P**	**07 56 50.0**	**-0.1**
HYB	**Hyderabad**	**51.39**	**293**	*i* P	**P**	**07 56 50.0**	**-0.1**
ULN	**Ulaanbaatar**	**51.84**	**343**	*e*P	**P**	**07 56 52.5**	**-0.4**
	comp=Z,3.1nm,0.6s,mb4.4						
ULN	**Ulaanbaatar**	**51.84**	**343**	*e*P	**P**	**07 56 52.5**	**-0.4**
ULN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
SONM	**Songino Array**	**52.01**	**342**	P	**P**	**07 56 55.1**	**+1.0**
	comp=Z,2.1nm,0.6s,mb4.3,baz=154,slow=8.4,SNR=21						
SONM				LR	LR	08 20 55.2	
	comp=Z,32nm,19.9s,MS3.4,baz=50,slow=38						
ZAK	**Zakamensk**	**55.22**	**342**	*e*P	**P**	**07 57 19.0**	**+1.3**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb4.0						
TLY	**Talaya**	**56.24**	**343**	*e*P	**P**	**07 57 31.4**	**+6.4**
TLY				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
MOY	**Mondy**	**57.06**	**341**	*e*P	**P**	**07 57 32.0**	**+1.2**
BOD	**Bodaibo**	**59.67**	**352**	*e*P	**P**	**07 57 44.4**	**-4.5**
BOD				pmax	pmax		
	comp=Z,3.0nm,1.6s,mb4.1						
PET	**Petropavlovsk**	**59.94**	**21**	*i* P	**P**	**07 57 48.0**	**-2.9**
PET				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.4						
MKAR	**Makanchi Array**	**61.82**	**327**	P	**P**	**07 58 03.9**	**+0.1**
	comp=Z,4.1nm,0.6s,mb4.7,baz=115,slow=8.2,SNR=58						
AAK	**Ala-Archa**	**64.30**	**319**	⇑*e*P	**P**	**07 58 20.4**	**0.0**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.3						
ZALV	**Zalesovo Beam**	**65.11**	**334**	P	**P**	**07 58 24.3**	**-1.0**
	comp=Z,2.1nm,0.7s,mb4.3,baz=119,slow=5.2,SNR=13						
ZAL	**Zalesovo**	**65.11**	**334**	P	**P**	**07 58 24.3**	**-1.1**
KURK	**Kurchatov**	**66.08**	**329**	*e*P	**P**	**07 58 31.4**	**-0.3**
	comp=Z,6.0nm,0.6s,mb4.8						
KURK	**Kurchatov**	**66.08**	**329**	*e*P	**P**	**07 58 31.4**	**-0.3**
KURK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
KURK	**Kurchatov**	**66.08**	**329**	⇑*e*P	**P**	**07 58 31.6**	**-0.1**
NVS	**Novosibirsk**	**66.39**	**334**	*e*P	**P**	**07 58 32.5**	**-1.1**
NVS				*e*S	S	08 07 23.5	+2.4
NVS				pmax	pmax		
	comp=N,4.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,6.0nm,0.8s						
NVS				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
NVS				smax			
	comp=N,12nm,2.0s						
NVS				smax			
	comp=E,11nm,2.0s						
TIXI	**Tiksi**	**72.61**	**1**	⇑*e*P	**P**	**07 59 08.7**	**-3.0**
TIXI				pmax	pmax		
	comp=Z,7.0nm,2.5s,mb4.2						
AKTK	**Aktyubinsk**	**77.76**	**322**	P	**P**	**07 59 41.4**	**-0.4**
AKTO	**Aktyubinsk**	**77.76**	**322**	P	**P**	**07 59 41.4**	**-0.4**
	comp=Z,3.7nm,0.8s,mb4.4,baz=109,slow=6.0,SNR=15						
ARCES	**ARCESS Array B**	**95.12**	**340**	P	**P**	**08 01 06.2**	**-1.3**
	comp=Z,1.8nm,0.8s,mb4.5,baz=106,slow=3.9,SNR=3.9						
TORD	**Torodi Ar. Bea**	**124.82**	**285**	PKP	PKPdf	08 06 45.8	+0.2
	comp=Z,0.6nm,0.8s,baz=87,slow=2.1,SNR=3.2						

ISCJB ***21*** *07:49:23.3±0.7, 176S±0.1×1789W±02, h500^{km}, mb3.7/9, Error ellipse: s-maj=23.0km s-min=15.5km az=38.0*

NEIC ***21*** *07:49:24.2±0.5, 1758S×17884W, h500^{km}, mb4.0/1, Error ellipse: s-maj=20.5km s-min=13.3km az=128.0*

IDC ***21*** *07:49:24.4±2.9, 1760S×17881W, h500^{km}±31^{km}, mb3.3/10, mb1 3.5/10, mb1mx3.4/17, mbtmp3.3/10, Error ellipse: s-maj=22.6km s-min=18.3km az=147.0*

ISC 21 07:49:24.4±0.7**, 176S**±01×**1788W**±02**, h500**^{km}**, n16,** σ**0**^{s}**72**/11**, mb3.7**/9**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**20.90**	**189**	P	**P**	**07 53 30.2**	**-0.8**
	2.8nm,0.3s,baz=270,slow=3.5,SNR=9.1						
RPZ	**Rata Peaks**	**27.41**	**196**	P	**P**	**07 54 28.9**	**0.0**
	2.1nm,0.4s,mb4.0,baz=17,slow=7.6,SNR=3.3						
STKA	**Stephens Creek**	**38.42**	**241**	*e*P	**P**	**07 56 03.2**	**+0.6**
	3.1nm,0.6s,mb3.9						
STKA	**Stephens Creek**	**38.42**	**241**	P	**P**	**07 56 03.8**	**+1.2**
	2.3nm,0.3s,mb4.1,baz=81,slow=9.9,SNR=16						
WRA	**Warramunga Arr**	**44.28**	**259**	P	**P**	**07 56 48.8**	**-0.5**
	0.6nm,0.4s,mb3.4,baz=95,slow=7.5,SNR=6.9						
WRA				PcP	PcP	07 58 22.6	-0.4
	0.2nm,0.3s,baz=89,slow=3.4,SNR=2.7						
ASAR	**Alice Springs**	**44.48**	**254**	P	**P**	**07 56 51.0**	**+0.2**
	10.0nm,0.5s,mb4.5,baz=89,slow=8.0,SNR=109						
ASAR				PcP	PcP	07 58 23.4	-0.3
	0.8nm,0.4s,baz=104,slow=4.0,SNR=6.7						
ASAR				ScP	ScP	08 01 27.6	-0.4
	0.6nm,0.7s,baz=92,slow=4.5,SNR=4.5						
FITZ	**Fitzroy Crossi**	**52.67**	**260**	P	**P**	**07 57 52.3**	**+0.4**
	1.0nm,0.3s,mb3.6,baz=112,slow=9.2,SNR=7.2						
MJAR	**Matsushiro Arr**	**67.41**	**324**	P	**P**	**07 59 29.0**	**-0.6**
	1.7nm,0.6s,mb3.9,baz=152,slow=5.5,SNR=4.4						
TXAR	**Lajitas Array**	**86.18**	**58**	P	**P**	**08 01 14.1**	**+1.6**
	0.6nm,0.8s,mb3.3,baz=223,slow=5.5,SNR=7.1						
PDAR	**Pinedale Array**	**87.41**	**44**	P	**P**	**08 01 17.6**	**-0.4**
	0.3nm,0.5s,mb3.3,baz=216,slow=1.9,SNR=3.9						
YKA	**Yellowknife Ar**	**94.22**	**25**	P	**P**	**08 01 48.3**	**-0.7**
	0.1nm,0.6s,mb3.0,baz=244,slow=4.0,SNR=3.0						
MKAR	**Makanchi Array**	**108.62**	**314**	PKPdf	PKiKP	08 06 54.8	-1.2
MKAR	**Makanchi Array**	**108.62**	**314**	PKiKP	PKiKP	08 06 54.8	-1.2
	0.2nm,0.5s,baz=187,slow=1.1,SNR=4.8						
CLL	**Collm**	**145.06**	**347**	*e*PKPbc	PKPbc	08 08 05.0	+0.1
GERES	**GERESS Array B**	**147.20**	**345**	PKPbc	PKPbc	08 08 11.2	+0.2
GERES	**GERESS Array B**	**147.20**	**345**	PKPbc	PKPbc	08 08 11.2	+0.2
	0.4nm,0.4s,baz=35,slow=4.9,SNR=4.9						

MAN 21 07:52:14, 1855N×12104E, h1^{km}**, mb3.9, ML2.7, MS2.4, 1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CVP	**Callao Caves**	**1.13**	**138**	⇓*e*P	Pg	07 52 36.1	+0.5
CVP				*e*S	Sg	07 52 54.5	+4.2

CSEM ***21*** *07:59:04.4±0.1, 39.14N×3461E, h5^{km}, MD3.4, Error ellipse: s-maj=2.1km s-min=1.8km az=158.0*

ISK ***21*** *07:59:04.5, 39.11N×3461E, h12^{km}, MD3.0*

ISCJB ***21*** *07:59:05.2±0.4, 39.10N±003×3464E±003, h5^{km}, Error ellipse: s-maj=4.3km s-min=3.4km az=136.9*

DDA ***21*** *07:59:05.7, 3909N×3463E, h5^{km}±2^{km}, Md3.4*

ISC 21 07:59:05.8±0.4**, 3909N**±003×**3462E**±004**, h5**^{km}**, n30,** σ**1**^{s}**29**/43**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AVNT	**Avonos**	**0.36**	**150**	*i* P	**Pg**	**07 59 11.8**	**-0.9**
AVNT				*i* S	**Sg**	**07 59 17.3**	**-0.1**
CDAG	**Cicekdag**	**0.57**	**340**	*i* P	**Pg**	**07 59 15.7**	**-0.9**
CDAG				*i* S	**Sg**	**07 59 24.4**	**+0.4**
KAMT	**Kaman**	**0.76**	**292**	*i* PG	**Pg**	**07 59 19.2**	**-1.1**
KAMT				*i* SG	**Sg**	**07 59 30.2**	**0.0**
KAMT	**Kaman**	**0.76**	**292**	*i* Pg	**Pg**	**07 59 19.2**	**-1.1**
KAMT				*i* Sg	**Sg**	**07 59 30.2**	**0.0**
YOZ	**Yozgat**	**0.77**	**44**	*i* PG	**Pg**	**07 59 19.5**	**-1.0**
YOZ				*i* SG	**Sg**	**07 59 30.9**	**+0.3**
YOZ	**Yozgat**	**0.77**	**44**	*i* Pg	**Pg**	**07 59 19.5**	**-1.0**
YOZ				*i* Sg	**Sg**	**07 59 30.9**	**+0.3**
NIG	**Nigde**	**0.98**	**181**	*e*PG	**Pg**	**07 59 25.0**	**+0.5**
NIG	**Nigde**	**0.98**	**181**	*e*Pg	**Pg**	**07 59 25.0**	**+0.5**
BNN	**Bunyan**	**0.98**	**104**	PG	**Pg**	**07 59 23.6**	**-1.0**
BNN				SG	**Sg**	**07 59 38.2**	**+0.8**
BNN	**Bunyan**	**0.98**	**104**	*e*Pg	**Pg**	**07 59 23.6**	**-1.0**
BNN				*e*Sg	**Sg**	**07 59 38.2**	**+0.8**
CTKT	**Corum**	**1.54**	**5**	*i* P	**Pn**	**07 59 33.8**	**0.0**
CTKT				*i* S	**Sn**	**07 59 57.1**	**+3.0**
ANTO	**Ankara**	**1.61**	**299**	*e*PN	**Pn**	**07 59 33.0**	**-1.9**
ANTO	**Ankara**	**1.61**	**299**	*e*Pn	**Pn**	**07 59 33.0**	**-1.9**
LOD	**Lodumlu**	**1.64**	**300**	*e*PN	**Pn**	**07 59 33.2**	**-2.1**
LOD	**Lodumlu**	**1.64**	**300**	*e*Pn	**Pn**	**07 59 33.2**	**-2.1**
ELDT	**Eldivan**	**1.67**	**327**	*i* P	**Pn**	**07 59 36.5**	**+0.8**
ELDT				*e*S	**Sn**	**08 00 00.2**	**+2.7**
CANT	**Cankiri**	**1.70**	**333**	*e*PN	**Pn**	**07 59 33.5**	**-2.5**
GULE	**Gulek**	**1.81**	**176**	*i* P	**Pn**	**07 59 37.9**	**+0.3**
GULE				*i* S	**Sn**	**08 00 03.5**	**+2.7**
GULE	**Gulek**	**1.81**	**176**	*i* P	**Pn**	**07 59 37.8**	**+0.3**
GULE				*i* S	**Sn**	**08 00 03.5**	**+2.7**
SVSK	**Karacayir**	**2.02**	**65**	PN	**Pn**	**07 59 39.7**	**-0.7**
SVSK	**Karacayir**	**2.02**	**65**	*e*Pn	**Pn**	**07 59 39.7**	**-0.7**
KDHN	**Kadinhani**	**2.04**	**255**	*i* P	**Pn**	**07 59 41.5**	**+0.8**

KDHN				*i* S	Sn	08 00 09.8	+3.3
KONT	Konya--Tatoy	2.11	238	*e*PN	Pn	07 59 41.4	-0.3
KONT	Konya--Tatoy	2.11	238	*e*Pn	Pn	07 59 41.4	-0.3
KIZT	Kizilcal	2.15	265	*e*PN	Pn	07 59 41.0	-1.2
KIZT	Kizilcal	2.15	265	*e*Pn	Pn	07 59 41.0	-1.2
BOYT	Boyabat	2.34	5	*i* P	Pn	07 59 45.2	+0.3
SGKT	Sivrigoynuk	2.47	308	*e*P	Pn	07 59 49.6	+3.0
BALT	Daday	2.62	339	*i* P	Pn	07 59 49.9	+1.2
BALT	Daday	2.62	339	*i* P	Pn	07 59 49.8	+1.1

*IDC **21** 08:00:13.2±1.3, 3643S×17525E, h0^{km}, mb3.8/2, mb1 4.1/3, mb1mx3.9/10, mbtmp3.9/3, ML3.1/2, MS3.4/6, Ms1 3.4/6, ms1mx3.0/22, Error ellipse: s-maj=40.4km s-min=23.5km az=53.0*

*WEL **21** 08:00:14.5±0.1, 3653S×17504E, h5^{km}, ML4.5/27, Error ellipse: s-maj=0.7km s-min=0.6km az=90.0*

WEL Felt from Northland to Bay of Plenty, maximum reported intensity MM 5.

*ISCJB **21** 08:00:15.1±0.7, 3657S±004×17503E±004, h15^{km}±7^{km}, mb4.3/3, MS3.5/4, Error ellipse: s-maj=7.1km s-min=5.1km az=36.7*

*NEIC **21** 08:00:15.6, 3656S×17502E, h15^{km}, ML4.5(WEL), After WEL.*

NEIC Felt [III] at Auckland, North Shore and Waitakere. Felt at Manukau and Orewa.

ISC 21 08:00:14.8±0.6**, 3654S**±003×**17505E**±004**, h10**^{km}±4^{km}**, n72,** σ**0^{s}89**/71**, mb4.3**/3**, MS3.5**/4**, 3C-6D, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAAZ	Kauri Point	0.40	224	P	Pg	08 00 22.5	-0.1
KAAZ				S	Sg	08 00 27.6	-0.4
KAAZ	Kauri Point	0.40	224	⇓PG	Pg	08 00 22.5	-0.1
OTAZ	Otara	0.43	193	P	Pg	08 00 23.0	-0.2
OTAZ	Otara	0.43	193	⇓PG	Pg	08 00 23.0	-0.1
WTAZ	Waiatarua	0.55	224	P	Pg	08 00 25.6	+0.1
WTAZ	Waiatarua	0.55	224	⇓PG	Pg	08 00 25.6	+0.1
KUZ	Kuaotunu	0.58	111	P	Pg	08 00 26.6	+0.6
KUZ				S	Sg	08 00 35.2	+1.5
KUZ	Kuaotunu	0.58	111	⇑P*	Pb	08 00 26.6	-0.4
KUZ				SG	Sg	08 00 35.2	+1.5
MKAZ	Moumakai	0.58	171	P	Pg	08 00 25.7	-0.4
MKAZ	Moumakai	0.58	171	⇓P*	Pb	08 00 25.7	-1.4
WCZ	Waipu Caves	0.82	316	*e*P	Pg	08 00 30.1	-0.5
WCZ				S	Sg	08 00 42.0	+0.6
WCZ	Waipu Caves	0.82	316	⇑P*	Pb	08 00 30.1	-1.1
WCZ				S*	Sb	08 00 42.0	-0.2
MYRZ	Mayor Island	1.21	128	P*	Pb	08 00 37.0	-0.8
TOZ	Tahuroa Road	1.25	163	P	Pn	08 00 37.4	-0.8
TOZ	Tahuroa Road	1.25	163	⇑P*	Pb	08 00 37.4	-0.9
TGRZ	Tauranga	1.54	141	P	Pn	08 00 41.1	-1.1
TGRZ	Tauranga	1.54	141	PN	Pn	08 00 41.2	-1.0
KARZ	Kaharoa	1.76	148	P	Pn	08 00 44.6	-0.7
KARZ	Kaharoa	1.76	148	*e*PN	Pn	08 00 44.0	-1.3
OUZ	Omahuta	1.76	318	P	Pn	08 00 45.1	-0.2
OUZ	Omahuta	1.76	318	PN	Pn	08 00 45.1	-0.2
OPRZ	Ohinepanea	1.78	138	⇓PN	Pn	08 00 44.4	-1.1
UTU	Utuhina	1.88	151	P	Pn	08 00 46.7	-0.2
UTU	Utuhina	1.88	151	PN	Pn	08 00 46.5	-0.4
HIZ	Hauiti	1.98	184	P	Pn	08 00 47.6	-0.7
HIZ	Hauiti	1.98	184	⇓PN	Pn	08 00 47.8	-0.5
URZ	Urewera	2.38	137	Pn	Pn	08 00 53.1	-0.6
URZ				LR	LR	08 01 52.8	
URZ	Urewera	2.38	137	Pn	Pn	08 00 53.1	-0.6
	1.1nm,0.3s,baz=318,slow=8.2,SNR=16						
URZ				LR	LR	08 01 52.8	
	comp=Z,350nm,21.7s,baz=340,slow=42						
RATZ	Rangitukua	2.40	166	P	Pn	08 00 54.6	+0.6
RATZ	Rangitukua	2.40	166	PN	Pn	08 00 54.2	+0.1
KATZ	Kakaramea	2.49	168	P	Pn	08 00 55.0	-0.3
KATZ	Kakaramea	2.49	168	*e*PN	Pn	08 00 55.0	-0.3
TWVZ	Taurewa	2.55	173	P	Pn	08 00 55.9	-0.2
TWVZ	Taurewa	2.55	173	PN	Pn	08 00 55.9	-0.2
VRZ	Vera Road	2.60	185	P	Pn	08 00 57.3	+0.5
VRZ	Vera Road	2.60	185	*e*PN	Pn	08 00 57.5	+0.8
KRVZ	Karewarewa	2.60	170	*e*PN	Pn	08 00 56.8	0.0
WTVZ	West Tongariro	2.61	171	P	Pn	08 00 56.8	-0.2
WTVZ	West Tongariro	2.61	171	PN	Pn	08 00 56.8	-0.2
NGZ	Ngauruhoe	2.67	171	P	Pn	08 00 57.8	0.0
NGZ	Ngauruhoe	2.67	171	PN	Pn	08 00 57.8	0.0
WPVZ	Whakapapa	2.69	172	*e*P	Pn	08 00 58.3	+0.2
WPVZ	Whakapapa	2.69	172	*e*PN	Pn	08 00 57.9	-0.2
TUVZ	Tukino	2.77	170	P	Pn	08 00 59.5	+0.3
TUVZ	Tukino	2.77	170	*e*PN	Pn	08 00 59.5	+0.3
PKE	Pukeiti	2.78	197	P	Pn	08 01 00.1	+0.7
PKE	Pukeiti	2.78	197	PN	Pn	08 01 00.1	+0.7
RAEZ	Rainy Point	2.80	190	P	Pn	08 01 00.6	+1.1
RAEZ	Rainy Point	2.80	190	PN	Pn	08 01 00.6	+1.1
WNVZ	Wahianoa	2.82	171	P	Pn	08 01 00.2	+0.3
WNVZ	Wahianoa	2.82	171	PN	Pn	08 01 00.2	+0.3
NEZ	North Egmont	2.83	195	P	Pn	08 01 01.0	+1.0
NEZ	North Egmont	2.83	195	PN	Pn	08 01 01.0	+0.9
NWEZ	Newall Road	2.89	199	P	Pn	08 01 02.0	+1.2
NWEZ	Newall Road	2.89	199	PN	Pn	08 01 02.0	+1.2
PUZ	Puketiti	2.98	122	*e*P	Pn	08 01 04.3	+2.2
PUZ	Puketiti	2.98	122	PN	Pn	08 01 04.3	+2.2
WAZ	Wanganui	3.21	181	P	Pn	08 01 06.8	+1.5
WAZ	Wanganui	3.21	181	*e*PN	Pn	08 01 06.4	+1.1
RPZ	Rata Peaks	7.80	202	Pn	Pn	08 02 09.2	+1.0
RPZ				Sn	Sn	08 03 33.0	-3.4
RPZ				LR	LR	08 04 58.6	
RPZ	Rata Peaks	7.80	202	Pn	Pn	08 02 09.2	+1.0
	1.2nm,0.3s,baz=24,slow=16,SNR=5.5						
RPZ				Sn	Sn	08 03 33.0	-3.4
	1.0nm,0.3s,baz=0.0,slow=20,SNR=3.0						
RPZ				LR	LR	08 04 58.7	
	comp=Z,136nm,19.9s,baz=329,slow=36						
HNR	Honiara	30.27	329	P	P	08 06 24.2	-1.8
	52nm,0.4s,mb5.6,baz=95,slow=7.6,SNR=4.5						
HNR				LR	LR	08 17 02.1	
	comp=Z,72nm,18.3s,MS3.4,baz=179,slow=33						
PPT	Papeete	36.46	68	LR	LR	08 20 48.4	
	comp=Z,135nm,18.8s,MS3.8,baz=201,slow=34						
ASAR	Alice Springs	37.56	278	P	P	08 07 30.9	+1.6
	1.3nm,0.8s,mb3.7,baz=124,slow=7.3,SNR=12						
WRA	Warramunga Arr	39.17	284	P	P	08 07 44.3	+1.4
	0.6nm,0.6s,mb3.5,baz=125,slow=7.5,SNR=4.8						
FITZ	Fitzroy Crossi	47.04	279	LR	LR	08 30 46.3	
	comp=Z,54nm,19.5s,MS3.5,baz=99,slow=39						
KSRS	Korea Array	85.57	324	LR	LR	08 43 50.9	
	comp=Z,14nm,19.2s,MS3.4,baz=40,slow=31						
JOF	Joensuu	145.51	331	*e*p	PKPdf	08 19 51.9	-0.2
	4.2nm,0.7s						
KAF	Kangasniemi	147.87	333	*e*p	PKPdf	08 19 57.5	+1.4
FINES	FINESS Array B	148.37	332	PKPbc	PKPbc	08 20 01.1	+0.7
	4.4nm,1.1s,baz=64,slow=8.7,SNR=5.0						
AKASG	Malin Array Be	151.78	311	PKPbc	PKPbc	08 20 09.3	+0.3
	0.6nm,0.5s,baz=58,slow=2.7,SNR=3.6						
TORD	Torodi Ar. Bea	155.96	196	PKPab	PKPab	08 20 36.3	-0.2
	0.5nm,0.8s,baz=183,slow=3.5,SNR=3.5						

*ISCJB **21** 08:02:53.3±0.5, 3907N±002×3457E±004, h2^{km}, Error ellipse: s-maj=4.2km s-min=3.2km az=164.6*

*ISK **21** 08:02:53.8, 3908N×3458E, h23^{km}, MD2.9*

*CSEM **21** 08:02:54.1±0.3, 3912N×3468E, h2^{km}, MD3.2, Error ellipse: s-maj=7.9km s-min=7.6km az=85.0*

*DDA **21** 08:02:55.9, 3908N×3461E, h5^{km}±2^{km}, Md3.2*

ISC 21 08:02:54.5±0.5**, 3907N**±002×**3460E**±004**, h4**^{km}±8^{km}**, n19,** σ**1^{s}06**/33**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AVNT	Avonos	0.35	146	*i* P	Pg	08 03 01.5	+0.3
AVNT				*i* S	Sg	08 03 06.8	+1.0
CDAG	Cicekdag	0.58	342	*i* P	Pg	08 03 05.7	+0.1
CDAG				*i* S	Sg	08 03 14.7	+1.5
KAMT	Kaman	0.75	294	*i* PG	Pg	08 03 08.7	-0.2
KAMT				*i* SG	Sg	08 03 19.9	+1.3
KAMT	Kaman	0.75	294	*i* Pg	Pg	08 03 08.7	-0.2
KAMT				*i* Sg	Sg	08 03 19.9	+1.3
YOZ	Yozgat	0.80	44	PG	Pg	08 03 09.5	-0.2
YOZ				SG	Sg	08 03 21.9	+1.8
YOZ	Yozgat	0.80	44	*e*Pg	Pg	08 03 09.5	-0.2
YOZ				*e*Sg	Sg	08 03 21.9	+1.8
BNN	Bunyan	0.99	102	*e*PG	Pg	08 03 13.2	-0.3
BNN	Bunyan	0.99	102	*e*Pg	Pg	08 03 13.2	-0.3
CORM	Corum	1.11	1	*e*PN	Pg	08 03 13.4	-2.3
CORM				*e*SN	Sg	08 03 29.2	-0.9
CORM	Corum	1.11	1	*e*Pn	Pg	08 03 13.4	-2.3
CORM				*e*Sn	Sg	08 03 29.2	-0.9
CTKT	Corum	1.56	5	*i* P	Pn	08 03 22.9	-0.1
CTKT				*i* S	Sn	08 03 45.5	+1.9
ELDT	Eldivan	1.68	328	*i* P	Pg	08 03 26.4	-0.3
ELDT				*i* S	Sg	08 03 49.3	+0.8
GULE	Gulek	1.79	176	*e*P	Pg	08 03 28.2	-0.5
GULE				*i* S	Sg	08 03 52.8	+0.9
GULE	Gulek	1.79	176	*e*P	Pg	08 03 28.2	-0.5
GULE				*i* S	Sg	08 03 52.8	+0.9
KDHN	Kadinhani	2.02	255	*i* P	Pg	08 03 31.0	-2.2
KDHN				*i* S	Sg	08 03 59.5	+0.2
SVSK	Karacayir	2.04	65	*e*PN	Pn	08 03 28.2	-1.3
SVSK	Karacayir	2.04	65	*e*Pn	Pn	08 03 28.2	-1.3
BOYT	Boyabat	2.36	6	*i* P	Pg	08 03 38.3	-1.4
BOYT				*i* S	Sg	08 04 09.8	-0.4
SGKT	Sivrigoynuk	2.47	308	*i* P	Pg	08 03 41.8	+0.1

HLW 21 08:04:06.2, 3324N×3067E, h33^{km}, Mb3.2, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AMAG	Maghara	3.37	140	P	Pn	08 04 56.2	-0.3
HHAG	Hagoal	3.50	159	P	Pn	08 04 58.1	-0.1
HNAT	Natroun	3.60	181	P	Pn	08 05 00.1	+0.5
HMAT	Matruh	3.71	236	P	Pn	08 05 01.2	+0.1
HMAT	Matruh	3.71	236	P	Pn	08 05 01.2	0.0
GLL	Jalalah	3.76	166	P	Pn	08 05 01.8	0.0
SUZ		3.86	151	P	Pn	08 05 03.7	+0.5
ZAF		4.26	157	P	Pn	08 05 08.8	+0.1
HNKL	Nakhl	4.34	139	P	Pn	08 05 09.7	-0.2
HKAT	Jabal Katrina	5.50	148	P	Pn	08 05 26.1	+0.2
HKAT	Jabal Katrina	5.50	148	P	Pn	08 05 26.0	+0.2
HFRF	Wahat Farafira	6.41	199	P	Pn	08 05 37.9	-0.3

IDC 21 08:18:11.5±2.2**, 089S×12787E, h0**^{km}**, mb3.3**/2**, mb1 3.4**/3**, mb1mx3.2**/16**, mbtmp3.2**/3**, ML3.3**/1**, Error ellipse: s-maj=190.3km s-min=25.4km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	19.97	162	P	Pn	08 22 46.4	-0.7
	0.1nm,0.3s,baz=341,slow=12,SNR=7.0						
ASAR	Alice Springs	23.39	166	P	P	08 23 21.5	-0.6
	0.5nm,0.7s,baz=346,slow=10,SNR=6.8						
MKAR	Makanchi Array	61.99	326	P	P	08 28 33.6	+0.1
	0.3nm,0.4s,baz=113,slow=8.4,SNR=9.2						

*IDC **21** 08:18:20.5±2.2, 2048S×17512W, h0^{km}, mb4.0/6, mb1 4.2/6, mb1mx3.9/17, mbtmp4.0/6, Error ellipse: s-maj=92.9km s-min=28.9km az=147.0*

*ISCJB **21** 08:18:32.1±2.8, 2045S±06×17533W±05, h100^{km}, mb3.9/6, Error ellipse: s-maj=99.2km s-min=26.8km az=144.5*

*NEIC **21** 08:18:38.9±2.4, 2034S×17547W, h140^{km}, Error ellipse: s-maj=101.0km s-min=27.3km az=148.0*

ISC 21 08:18:33.1±2.8**, 205S**±06×**1752W**±05**, h100**^{km}**, n12,** σ**0^{s}81**/8**, mb3.9**/6**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	36.10	264	P	P	08 25 26.5	+1.0
CTA	Charters Tower	36.10	264	P	P	08 25 26.5	+1.0
	2.9nm,0.5s,mb4.5,baz=84,slow=11,SNR=4.6						
ASAR	Alice Springs	47.07	256	P	P	08 26 56.0	+0.9
	3.2nm,0.8s,mb4.1,baz=90,slow=7.8,SNR=31						
ASAR				PcP	PcP	08 28 25.5	-0.1
	0.7nm,0.8s,baz=104,slow=5.2,SNR=5.2						
WRA	Warramunga Arr	47.20	261	P	P	08 26 55.4	-0.7
	1.1nm,0.5s,mb3.9,baz=98,slow=8.2,SNR=7.6						
FITZ	Fitzroy Crossi	55.63	262	P	P	08 27 57.7	-1.3
	0.8nm,0.5s,mb4.0,baz=104,slow=7.5,SNR=5.4						
MJAR	Matsushiro Arr	71.78	322	P	P	08 29 44.7	-0.1
	0.3nm,0.4s,mb3.5,baz=149,slow=6.7,SNR=4.2						
YKA	Yellowknife Ar	95.42	24	P	P	08 31 46.0	+0.2
YKA	Yellowknife Ar	95.42	24	P	P	08 31 46.0	+0.2
	0.1nm,0.3s,mb3.7,baz=235,slow=4.3,SNR=3.8						
BRTR	Keskin Array B	148.74	314	PKPbc	PKPbc	08 38 08.0	-1.0
BRTR	Keskin Array B	148.74	314	PKPbc	PKPbc	08 38 08.0	-1.0
	0.6nm,0.6s,baz=58,slow=3.1,SNR=3.4						
GERES	GERESS Array B	150.82	348	PKPbc	PKPbc	08 38 16.8	+3.0
GERES	GERESS Array B	150.82	348	PKPbc	PKPbc	08 38 16.8	+3.0
	1.0nm,0.9s,baz=25,slow=2.8,SNR=6.4						

*ISCJB **21** 08:40:35.1±2.8, 590S±01×263W±02, h121^{km}±27^{km}, mb4.5/11, Error ellipse: s-maj=20.2km s-min=15.6km az=17.2*

*NEIC **21** 08:40:35.1±0.3, 5892S×2635W, mb4.2/1, Error ellipse: s-maj=12.0km s-min=10.0km az=36.0*

*IDC **21** 08:40:35.5±0.6, 5899S×2638W, h114^{km}±4^{km}, mb4.2/11, mb1 4.3/12, mb1mx4.2/17, mbtmp4.2/12, MS3.9/2, Ms1 3.9/2, ms1mx3.3/19, Error ellipse: s-maj=16.2km s-min=13.6km az=11.0*

ISC 21 08:40:36.4±2.8**, 590S**±01×**263W**±02**, h121**^{km}±27^{km}**, h114**^{km}±3.0^{km}**:pP-P, n36,** σ**0^{s}81**/18**, mb4.5**/11**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA1	Neumayer--Stat	13.87	154	*e*P	Pn	08 43 47.3	-0.1
VNA1				*e*		08 43 50.2	
VNA1				*e*		08 43 53.8	
VNA1				*e*		08 43 57.8	
VNA1				*e*		08 44 00.2	
VNA1				*e*		08 44 05.6	
VNA1				*e*		08 46 10.3	
VNA1				*e*		08 46 14.4	
VNA1				*e*		08 46 19.6	
VNA1				*e*		08 46 23.4	
VNA3	Neumayer Olymp	14.03	158	*e*P	Pn	08 43 49.4	0.0
VNA3				*e*		08 43 52.2	
VNA3				*e*		08 43 55.5	
VNA3				*e*		08 43 59.7	
VNA3				*e*		08 44 02.6	
VNA3				*e*		08 44 07.3	
VNA3				*e*		08 46 12.9	
VNA3				*e*		08 46 16.3	
VNA3				*e*		08 46 21.7	
VNA3				*e*		08 46 26.7	
VNA2	Neumayer--Watz	14.26	154	*e*P	Pn	08 43 52.1	-0.3
	baz=311,slow=12						
VNA2				*e*		08 43 54.8	
VNA2				*e*		08 43 58.4	
VNA2				*e*		08 44 05.5	
VNA2				*e*		08 44 09.9	
VNA2				*e*		08 46 15.2	
VNA2				*e*		08 46 18.7	
VNA2				*e*		08 46 23.7	
VNA2				*e*		08 46 28.4	
SNAA	Sanae	15.84	153	P	Pn	08 44 13.3	+1.1
	1.4nm,0.3s,baz=310,slow=12,SNR=188						
MAIT	Maitri	19.52	142	*e*P	P	08 44 51.1	-2.7
MAIT				*e*S	S	08 48 17.9	-10
USHA	Ushuaia	23.07	262	P	P	08 45 31.8	+0.8
	22nm,0.8s,mb4.6,baz=108,slow=7.8,SNR=6.2						
USHA				LR	LR	08 51 14.5	
	comp=Z,189nm,18.3s,baz=302,slow=28						
MAW	Mawson	37.49	141	P	P	08 47 37.6	-0.1
	9.0nm,1.0s,mb4.7,baz=239,slow=12,SNR=3.0						
CFAA	Coronel Fontan	39.23	296	P	P	08 47 51.3	-1.4
	1.6nm,0.7s,mb3.9,baz=154,slow=6.8,SNR=38						
CFAA				pP	pP	08 48 18.4	-1.4
	1.5nm,0.9s,baz=147,slow=7.3,SNR=4.5						
SUR	Sutherland	41.07	71	P	P	08 48 08.6	+0.8
	6.3nm,0.9s,mb4.4,baz=154,slow=13,SNR=6.0						
VNDA	Vanda	43.61	183	P	P	08 48 28.8	+1.0
	5.4nm,0.8s,mb4.3,baz=169,slow=7.9,SNR=11						
VNDA				LR	LR	09 07 20.8	
	comp=Z,152nm,18.1s,baz=63,slow=37						
BOSA	Boshof	46.34	72	P	P	08 48 50.0	0.0
	12nm,0.6s,mb4.8,baz=213,slow=7.2,SNR=30						
LBTB	Lobatse	49.51	70	P	P	08 49 14.3	-0.1
	14nm,0.7s,mb5.0,baz=208,slow=5.7,SNR=25						
LPAZ	La Paz	52.51	306	*e*P	P	08 49 36.9	+0.1
	1.8nm,0.6s,mb4.3						
LPAZ	La Paz	52.51	306	P	P	08 49 37.0	+0.2
	1.2nm,0.5s,mb4.2,baz=122,slow=7.6,SNR=9.1						
TORD	Torodi Ar. Bea	75.45	28	P	P	08 52 07.0	+0.3
	7.0nm,0.6s,mb4.5,baz=198,slow=6.1,SNR=45						
TORD				pP	pP	08 52 35.8	-1.3
	4.2nm,0.5s,baz=198,slow=6.4,SNR=6.0						
TORD				sP	sP	08 52 47.2	-2.9
	3.5nm,0.8s,baz=195,slow=6.0,SNR=2.7						
STKA	Stephens Creek	88.87	170	P	P	08 53 16.6	0.0
	2.3nm,0.9s,mb4.2,baz=145,slow=8.2,SNR=4.2						
ASAR	Alice Springs	96.00	162	P	P	08 53 49.0	-0.6
	1.5nm,0.8s,mb4.5,baz=185,slow=4.0,SNR=17						
ASAR				pP	pP	08 54 17.4	-3.6
	0.8nm,0.6s,baz=184,slow=4.1,SNR=3.9						
NOA	NORSAR Array B	123.24	21	PKP	PKPdf	08 59 16.9	-0.3
NOA	NORSAR Array B	123.24	21	PKP	PKPdf	08 59 16.9	-0.3
	1.4nm,0.8s,baz=111,slow=0.9,SNR=3.0						
FINES	FINESS Array B	126.80	28	PKP	PKPdf	08 59 23.4	-0.6
FINES	FINESS Array B	126.80	28	PKP	PKPdf	08 59 23.4	-0.6
	1.1nm,0.5s,baz=203,slow=1.9,SNR=8.2						
AKTK	Aktyubinsk	128.71	55	PKP	PKPdf	08 59 27.8	-0.2
AKTO	Aktyubinsk	128.71	55	PKP	PKPdf	08 59 27.8	-0.2
	1.5nm,0.5s,baz=239,slow=3.1,SNR=6.8						
JOF	Joensuu	129.37	30	*e*p	PKPdf	08 59 26.7	-2.1
	2.4nm,0.5s						
ARCES	ARCESS Array B	133.54	22	PKP	PKPdf	08 59 35.8	-0.7
ARCES				SKPbc	SKPbc	09 02 54.0	+0.5
ARCES	ARCESS Array B	133.54	22	PKP	PKPdf	08 59 35.8	-0.7
	3.6nm,0.8s,baz=211,slow=2.1,SNR=12						
ARCES				SKPbc	SKPbc	09 02 54.0	+0.5
	1.6nm,0.8s,baz=240,slow=1.8,SNR=5.4						
MKAR	Makanchi Array	137.33	74	PKP	PKPdf	08 59 43.0	-1.3
MKAR				SKP		09 03 06.1	
MKAR	Makanchi Array	137.33	74	PKP	PKPdf	08 59 43.0	-1.3
	0.3nm,0.4s,baz=222,slow=1.6,SNR=3.7						
MKAR				SKP		09 03 06.1	
	0.2nm,0.3s,baz=257,slow=2.0,SNR=4.0						
YKA	Yellowknife Ar	138.67	315	PKP	PKPdf	08 59 45.4	-0.9
YKA				pPKP	pPKPdf	09 00 14.9	-4.0
YKA	Yellowknife Ar	138.67	315	PKP	PKPdf	08 59 45.4	-0.9
	1.2nm,0.7s,baz=126,slow=2.4,SNR=24						
YKA				pPKP	pPKPdf	09 00 14.9	-4.0
	0.6nm,0.6s,baz=127,slow=2.2,SNR=3.7						
ZALV	Zalesovo Beam	143.19	67	PKP	PKPdf	08 59 50.6	-4.1
ZALV				PKP	PKPdf	08 59 56.4	+1.7
ZALV	Zalesovo Beam	143.19	67	PKhKP		08 59 50.6	
	1.5nm,0.3s,baz=234,slow=4.5,SNR=6.3						
ZALV				PKP	PKPdf	08 59 56.4	+1.7
	1.9nm,0.8s,baz=221,slow=1.9,SNR=3.7						
INK	Inuvik	148.37	317	*e*PKPdf	PKPdf	09 00 03.1	+0.1
INK				*e*PKPbc	PKPbc	09 00 05.9	-0.8
SONM	Songino Array	150.32	91	PKPbc	PKPbc	09 00 12.1	0.0
SONM				pPKPbc	pPKPbc	09 00 43.2	-1.4
SONM	Songino Array	150.32	91	PKPbc	PKPbc	09 00 12.1	0.0
	7.8nm,0.8s,baz=223,slow=2.8,SNR=41						
SONM				pPKPbc	pPKPbc	09 00 43.2	-1.4
	1.1nm,0.7s,baz=214,slow=3.9,SNR=2.1						
KSRS	Korea Array	152.73	131	PKPbc	PKPbc	09 00 16.8	-1.2
	0.5nm,0.3s,baz=201,slow=2.1,SNR=4.8						
KSRS				PKPab	PKPab	09 00 29.8	+0.5
	1.7nm,0.9s,baz=203,slow=4.3,SNR=6.9						

*NEIC **21** 08:47:53.9, 1704N×10021W, h6^{km}, MD3.8(MEX), After MEX.*

MEX 21 08:47:53.7±0.6**, 1705N×10022W, h7**^{km}±21^{km}**, MD3.9, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	0.05	270	*i* P	Pg	08 47 54.4	-0.8
CAIG				*i* S	Sg	08 47 55.4	-0.8
ACX	Acapulco	0.34	122	*i* P	Pg	08 47 59.5	-0.8
ACX				*i* S	Sg	08 48 05.0	+0.2
MEIG	Mezcala	1.04	33	*i* P	Pg	08 48 11.4	-2.3
MEIG				*i* S	Sg	08 48 23.7	-3.7
PLIG	Platanillo	1.50	27	*i* P	Pn	08 48 19.9	-1.2
PLIG				*i* S	Sn	08 48 36.2	-4.8
PLIG	Platanillo	1.50	27	*e*P	Pn	08 48 19.0	-2.1
PLIG				*i* S	Sn	08 48 36.2	-4.8
SZVM	Salazar	2.40	19	*e*P	Pn	08 48 31.4	-2.1
SZVM				*i* S	Sn	08 48 59.7	-3.4
UTMO	Huajuapan	2.43	71	*e*P	Pn	08 48 31.7	-2.3
UTMO				*i* S	Sn	08 49 00.2	-3.7
PTVM	Pico Tres Padr	2.74	22	*e*P	Pn	08 48 34.0	-4.2
PTVM				*i* S	Sn	08 49 06.6	-5.0
PTVM	Pico Tres Padr	2.74	22	*e*P	Pn	08 48 35.0	-3.2
PTVM				*i* S	Sn	08 49 06.6	-5.0
MOIG	Morelia	2.77	341	*i* P	Pn	08 48 36.7	-1.9
MOIG				*i* S	Sn	08 49 09.1	-3.3
IIO	Organos	2.90	29	*e*P	Pn	08 48 42.2	+1.9
IIO				*i* S	Sn	08 49 16.9	+1.3
TPIG	Tehuac#an	3.05	63	*i* P	Pn	08 48 43.7	+1.4
TPIG				*i* S	Sn	08 49 15.2	-3.9
VHO	Vista Hermosa	3.33	89	*e*P	Pn	08 48 43.7	-2.7
VHO				*i* S	Sn	08 49 22.4	-3.9

MEX 21 09:01:22.7±0.6**, 1707N×10032W, h4**^{km}**, MD3.6, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	0.05	112	*i* P	Pg	09 01 23.4	-0.5
CAIG				*i* S	Sg	09 01 24.4	-0.4
ACX	Acapulco	0.43	117	*i* P	Pg	09 01 27.5	-3.5
ACX				*i* S	Sg	09 01 34.0	-2.6
MEIG	Mezcala	1.08	38	*i* P	Pg	09 01 41.2	-2.3
MEIG				*i* S	Sg	09 01 54.3	-3.2

*IDC **21** 09:01:53.6±4.7, 2529N×10986W, h0^{km}, mb3.9/2, mb1 4.1/5, mb1mx3.9/18, mbtmp3.7/5, ML3.8/3, MS4.0/8, Ms1 4.0/8, ms1mx3.6/28, Error ellipse: s-maj=69.0km s-min=26.5km az=172.0*

*ISCJB **21** 09:01:55.3±0.6, 2555N±005×10974W±006, h10^{km}, mb4.1/4, MS4.0/8, Error ellipse: s-maj=7.9km s-min=6.4km az=140.2*

*NEIC **21** 09:01:56.1±0.6, 2543N×10968W, h10^{km}, mb4.4/5, Error ellipse: s-maj=7.9km s-min=7.0km az=19.0*

*MEX **21** 09:01:59.1±0.6, 2549N×10986W, h7^{km}±13^{km}, MD4.9*

ISC 21 09:01:56.3±0.5**, 2545N**±004×**10971W**±006**, h10**^{km}**, n37,** σ**0^{s}97**/36**, mb4.1**/4**, MS4.0**/8**, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	La Paz	1.45	202	*i* P	Pn	09 02 22.1	-0.4
LPIG				*i* S	Sn	09 02 39.8	-1.8
ANIG	Ahuacatlan	6.47	131	*e*P	Pn	09 03 36.1	+4.5
LTX	Lajitas	6.62	53	*e*Pn	Pn	09 03 33.4	-0.2
	35nm,0.6s						
TXAR	Lajitas Array	6.62	53	Pn	Pn	09 03 34.4	+0.8
TXAR				Pg	Pg	09 04 03.4	+0.3
TXAR				Lg		09 05 29.4	
TXAR	Lajitas Array	6.62	53	Pn	Pn	09 03 34.4	+0.8
	0.3nm,0.3s,baz=226,slow=14,SNR=20						
TXAR				Pg	Pg	09 04 03.4	+0.3
	1.7nm,0.3s,baz=234,slow=15,SNR=25						
TXAR				Lg		09 05 29.4	
	4.2nm,0.3s,baz=235,slow=29,SNR=7.7						
TUC	Tucson	6.90	352	*e*Pn	Pn	09 03 36.0	-1.5
	8.4nm,0.6s						
TUC				*e*Sg	Sg	09 05 35.9	-2.0
MNTX	Cornudas Mount	7.29	30	*e*Pn	Pn	09 03 42.2	-0.7
	32nm,0.9s						
MNTX				*e*Sg	Sg	09 05 47.8	-2.6
LNIG	Linares	9.29	91	*i* P	Pn	09 04 14.6	+4.2
LNIG				*i* S	Sn	09 06 00.0	+5.0
ANMO	Albuquerque	9.88	16	*e*Pn	Pn	09 04 18.4	+0.1
	11nm,1.1s						
JCT	Junction City	10.09	58	*e*Pn	Pn	09 04 21.2	0.0
	4.1nm,0.7s						
WUAZ	Wupatki	10.14	352	*e*Pn	Pn	09 04 22.6	+0.7
	11nm,0.8s						
MVCO	Mesa Verde	11.77	5	*e*Pn	Pn	09 04 44.9	+0.7
	32nm,1.1s						
ARUT	Antelope Range	12.71	346	*e*Pn	Pn	09 04 56.8	-0.2
SDCO	Great Sand Dun	12.77	15	*e*Pn	Pn	09 04 58.9	+1.0
	14nm,1.5s						
MSU	Marysvale	13.19	351	*e*Pn	Pn	09 05 03.8	+0.1
MTUM	Tungsten Hills	14.06	330	*e*Pn	Pn	09 05 15.8	+0.2
NVAR	Mina Array Bea	14.85	333	Pn	Pn	09 05 28.5	+2.3
NVAR	Mina Array Bea	14.85	333	Pn	Pn	09 05 28.5	+2.3
	0.1nm,0.3s,baz=154,slow=15,SNR=6.8						
DUG	Dugway	14.94	351	*e*Pn	Pn	09 05 27.4	0.0
	10nm,1.1s						

DAU	**Daniels Canyon**	14.98	355	*e*Pn	Pn	09 05 28.6	+0.6
MIAR	**Mount Ida**	16.64	53	*e*Pn	Pn	09 05 48.9	-0.7
	18nm,1.1s						
PDAR	**Pinedale Array**	17.28	0	P	Pn	09 05 58.6	+1.1
	0.1nm,0.3s,baz=168,slow=13,SNR=16						
KSU1	**Kansas State U**	17.52	36	*e*P	Pn	09 06 00.9	+0.3
	31nm,1.1s						
UALR	**University of**	17.64	54	*e*P	Pn	09 06 01.8	-0.4
	25nm,1.0s						
MCMT	**McKenzie Canyo**	19.50	353	*e*P	Pn	09 06 23.2	-1.5
ECSD	**EROS,Sioux Fal**	21.14	27	*e*P	P	09 06 41.3	0.0
	23nm,1.1s,mb4.4						
CHMT	**Chamberlain Mo**	21.61	353	*e*P	P	09 06 47.2	+0.9
HDIL	**Hopedale**	22.73	43	*e*P	P	09 06 58.4	+0.1
	18nm,0.9s,mb4.5						
ULM	**Lac du Bonnet**	26.97	20	P	P	09 07 39.2	+1.2
	2.5nm,1.0s,mb3.7,baz=220,slow=10,SNR=5.1						
YKA	**Yellowknife Ar**	37.18	356	P	P	09 09 07.3	+0.1
	1.1nm,0.9s,mb3.7,baz=175,slow=8.1,SNR=21						
YKA				LR	LR	09 24 11.6	
	comp=Z,94nm,21.4s,MS3.5,baz=180,slow=36						
ROSC	**El Rosal**	39.60	115	LR	LR	09 25 58.1	
	comp=Z,53nm,19.7s,MS3.4,baz=331,slow=36						
SCHQ	**Schefferville**	42.95	35	LR	LR	09 27 19.6	
	comp=Z,187nm,19.7s,MS4.0,baz=109,slow=35						
NOA	**NORSAR Array B**	81.54	25	LR	LR	09 53 54.7	
	comp=Z,50nm,18.4s,MS3.9,baz=290,slow=38						
HFS	**Hagfors**	83.06	25	LR	LR	09 50 14.1	
	comp=Z,96nm,20.7s,MS4.2,baz=251,slow=35						
ESDC	**Sonseca Array**	85.27	48	LR	LR	09 51 50.3	
	comp=Z,95nm,19.2s,MS4.2,baz=120,slow=35						
VRAC	**Vranov**	91.56	32	LR	LR	09 56 04.3	
	comp=Z,96nm,19.4s,MS4.2,baz=61,slow=35						
DZM	**Mont Dzumac**	94.00	248	LR	LR	09 48 20.9	
	comp=Z,251nm,18.6s,MS4.7,baz=21,slow=30						

MEX 21 09:11:08.6±0.5**,16.35N×99.39W,h16**^{km}±26^{km}**,MD3.8,**
Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	**Acapulco**	0.73	316	*i* P	Pg	09 11 19.5	-3.3
ACX				*i* S	Sg	09 11 29.0	-3.5
CAIG	**El Cayaco**	1.10	310	*e*P	Pb	09 11 25.5	-3.7
CAIG				*i* S	Sb	09 11 39.1	-4.2
MEIG	**Mezcala**	1.59	352	*e*P	Pn	09 11 33.3	-2.8
MEIG				*i* S	Sn	09 11 51.6	-4.7
UTMO	**Huajuapan**	2.12	45	*e*P	Pn	09 11 41.2	-2.1
UTMO				*i* S	Sn	09 12 04.5	-4.8

IDC ***21*** *09:23:05.4±0.4, 12.52N×95.13E, h0*^{km}*, mb4.5/28, mb1 4.6/29, mb1mx4.6/31, mbtmp4.5/29, MS3.9/13, Ms1 3.9/13, ms1mx3.7/33, Error ellipse: s-maj=15.1km s-min=10.7km az=55.0*

BJI ***21*** *09:23:07.1, 12.16N×95.12E, h41*^{km}*, mB5.0, mb4.6, Ms4.6, Msz4.3*

ISCJB ***21*** *09:23:07.9±0.2, 12.46N±0.03×95.19E±0.03, h28*^{km}*, mb4.6/79, MS4.0/26, Error ellipse: s-maj=4.1km s-min=3.6km az=7.9*

SZGRF ***21*** *09:23:08.3, 12.93N×96.35E, h26*^{km}*, mb5.2, Andaman Islands, India, region*

MOS ***21*** *09:23:08.7±0.8, 12.51N×95.12E, h33*^{km}*, mb5.1/29, Error ellipse: s-maj=10.6km s-min=5.3km az=108.7*

NEIC ***21*** *09:23:09.9±0.2, 12.51N×95.12E, mb4.8/31, Error ellipse: s-maj=6.1km s-min=3.9km az=54.0*

ISC 21 09:23:10.0±0.2**,12.49N**±0.03×**95.18E**±0.03**,h29**^{km}**,**
h29^{km}±1.0^{km}**:pP-P,n214,**σ**0**^{s}**96**/222**,mb4.6**/79**,MS4.0**/26**,**
7C-4D,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PBA	**Port Blair**	2.53	251	*e*P	Pn	09 23 49.1	0.0
PBA				*e*x	x	09 24 28.1	
NNT	**Nongplab**	4.45	88	P	Pn	09 24 14.0	-1.5
NST	**Nakhon Sawan**	5.75	56	P	Pn	09 24 31.3	-2.2
	78nm,0.5s						
BDT	**Bhumibol Dam**	6.00	38	P	Pn	09 24 36.0	-0.9
SNG	**Songkhla**	7.52	134	P	Pn	09 24 56.0	-1.8
	80nm,0.9s						
KULM	**Kulim**	8.96	142	*e*Pn	Pn	09 25 16.3	-1.3
KULM				*e*Sn	Sn	09 26 53.2	-4.4
PSI	**Prapat**	10.31	159	Pn	Pn	09 25 38.9	+2.8
PSI	**Prapat**	10.31	159	Pn	Pn	09 25 38.9	+2.8
	baz=358,slow=16						
VIS	**Vishakhapatnam**	12.57	296	*i* P	Pn	09 26 06.4	-0.6
VIS				*i* x	x	09 28 18.9	
BOK	**Bokaro**	14.29	323	*e*P	Pn	09 26 30.3	-0.2
KMI	**Kunming**	14.45	29	P	Pn	09 26 34.1	+1.4
KMI				S	Sn	09 29 16.1	+4.1
KMI				AMB	AMB		
	comp=Z,14nm,1.4s						
KMI				AMB	AMB		
	comp=Z,504nm,7.3s						
KMI				LR	LR		
	comp=N,1μm,10.8s						
KMI				LR	LR		
	comp=E,1μm,10.0s						
KMI				LR	LR		
	comp=Z,661nm,10.8s						
KMI	**Kunming**	14.45	29	P	Pn	09 26 34.1	+1.4
	comp=Z,14nm,1.4s						
KMI				S	Sn	09 29 16.1	+4.1
PALK	**Pallekele**	15.17	251	Pn	Pn	09 26 42.3	-0.1
	comp=Z,39nm,1.3s						
QIZ	**Qiongzhong**	15.53	63	P	Pn	09 26 45.3	-1.8
QIZ				S	Sn	09 29 39.3	+1.0
QIZ				LR	LR		
	comp=N,1μm,15.7s						
QIZ				LR	LR		
	comp=Z,710nm,10.6s						
BLSP	**Bilaspur**	15.71	309	*e*P	Pn	09 26 49.6	+0.3
BLSP				AMb	AMB	09 26 56.6	
	comp=Z,57nm,1.4s						
ODAN	**Odare**	16.06	334	*e*P	Pn	09 26 57.9	+4.1
	comp=Z,190nm,1.3s						
TAPN	**Taplejung**	16.36	336	*e*P	Pn	09 26 58.2	+0.6
	comp=Z,648nm,2.0s						
HYB	**Hyderabad**	16.79	289	*e*P	Pn	09 27 08.0	+4.8
	comp=Z,40nm,1.0s						
HYB	**Hyderabad**	16.79	289	*e*P	Pn	09 27 08.0	+4.8
HYB				pmax	pmax		
	comp=Z,40nm,1.0s						
HYB	**Hyderabad**	16.79	289	*i* P	Pn	09 27 08.0	+4.8
	comp=Z,40nm,1.0s						
KOD	**Kodaikanal**	17.51	264	*e*P	Pn	09 27 12.8	+0.5
KOD				AMb	AMB	09 27 47.8	
	comp=Z,43nm,1.4s						
LSA	**Lhasa**	17.53	348	P	Pn	09 27 14.3	+2.0
LSA				AMB	AMB		
	comp=Z,20nm,1.0s						
LSA	**Lhasa**	17.53	348	*e*Pn	Pn	09 27 12.1	-0.2
	comp=Z,27nm,0.7s						
LSA	**Lhasa**	17.53	348	*e*P	Pn	09 27 12.1	-0.2
LSA				pmax	pmax		
	comp=Z,27nm,0.7s						
GYA	**Guiyang**	17.60	36	P	Pn	09 27 14.6	+1.4
GYA				AP	pP	09 27 21.8	0.0
GYA				XP	sP	09 27 26.8	+1.2
GYA				PP		09 27 30.4	
GYA				S	Sn	09 30 27.8	-0.6
GYA				XS	sS	09 30 39.3	-8.5
GYA				SS		09 30 50.4	
GYA				PCP	PcP	09 31 53.9	+2.0
GYA				AMB	AMB		
	comp=Z,20nm,0.8s						
GYA				AMB	AMB		
	comp=Z,130nm,4.2s						
GYA				LR	LR		
	comp=N,1μm,14.9s						
GYA				LR	LR		
	comp=E,2μm,15.2s						
GYA				LR	LR		
	comp=Z,2μm,15.0s						
NGP	**Nagpur**	17.67	301	*e*P	Pn	09 27 12.6	-1.5
NGP				*e*x	x	09 27 14.7	
	comp=Z,96nm,1.3s						
NGP				*e*S	Sn	09 30 30.0	-0.2
KKN	**Kakani**	17.82	330	*e*P	Pn	09 27 17.0	+1.1
	comp=Z,100nm,1.0s						
GKN	**Gorkha**	18.31	329	*e*P	Pn	09 27 21.7	-0.3
	comp=Z,70nm,0.7s						
KSM	**Kuching**	18.56	125	*e*P	Pn	09 27 27.0	+1.9
CD2	**Chengdu**	19.97	22	P	Pn	09 27 39.6	-2.2
CD2				AP	pP	09 27 48.8	+0.9
CD2				XP	sP	09 27 52.8	+1.1
CD2				PP		09 27 59.3	
CD2				S	Sn	09 31 19.4	-6.3
CD2				SS		09 31 52.6	
CD2				AMB	AMB		
	comp=Z,40nm,1.5s						
CD2				AMB	AMB		
	comp=Z,170nm,8.8s						
CD2				LR	LR		
	comp=N,280nm,9.6s						
CD2				LR	LR		
	comp=E,470nm,12.6s						
CD2				LR	LR		
	comp=Z,310nm,9.0s						
BHPL	**Bhopal**	19.98	305	*e*P	Pn	09 27 40.2	-1.7
BHPL				AMb	AMB	09 27 45.8	
	comp=Z,113nm,1.1s						
KAD	**Karad**	20.84	286	*e*P	P	09 27 51.6	+2.0
KAD				AMb	AMB	09 27 55.7	
	comp=Z,106nm,1.3s						
POO	**Poona**	21.41	289	*e*P	P	09 27 56.7	+1.0
POO				AMb	AMB	09 28 01.9	
	comp=Z,89nm,1.1s,mb5.0						
KKM	**Kota Kinabalu**	21.71	105	*e*P	P	09 28 00.1	+1.1
AGRA	**Agra**	21.82	315	*e*P	P	09 28 00.5	+0.4
SONA	**Sohna**	23.05	316	*e*P	P	09 28 13.0	-0.1
JOSI	**Joshimath**	23.07	324	*e*P	P	09 28 13.8	+0.5
NDI	**New Delhi**	23.24	317	*e*P	P	09 28 14.9	-0.2
KUDL	**Kundal**	23.39	315	*e*P	P	09 28 16.0	-0.7
AJM	**Ajmer**	23.79	309	*e*P	P	09 28 19.7	-0.8
AJM				AMb	AMB	09 28 27.1	
	comp=Z,27nm,0.7s,mb4.8						
KHET	**Khetri**	23.83	313	*e*P	P	09 28 21.1	+0.3
KHET				AMb	AMB	09 28 29.4	
	comp=Z,114nm,2.0s,mb5.0						
RTK	**Rohtak**	24.00	316	*e*x	x	09 28 14.6	
KLP	**Kalpa**	24.55	323	*e*P	P	09 28 26.6	-0.7
KLP				AMb	AMB	09 28 33.8	
	comp=Z,98nm,1.4s,mb5.2						
LZH	**Lanzhou**	24.76	17	*e*P	P	09 28 29.5	+0.4
LZH				AP		09 28 38.5	
LZH				XP	sP	09 28 43.0	+1.7
LZH				PP		09 29 07.3	
LZH				PCP	PcP	09 32 02.8	-2.7
LZH				*e*S	S	09 32 43.3	-6.3
LZH				AMB	AMB		
	comp=Z,65nm,1.2s,mb5.0						
LZH				AMB	AMB		
	comp=Z,237nm,4.1s						
LZH				LR	LR		
	comp=E,2μm,12.1s						
LZH				LR	LR		
	comp=Z,2μm,13.5s,MS4.8						
LZH	**Lanzhou**	24.76	17	*e*P	P	09 28 29.5	+0.4
	comp=Z,65nm,1.2s,mb5.0						
LZH				pP		09 28 38.5	
LZH				sP	sP	09 28 43.0	+1.7
LZH				PP		09 29 07.3	
LZH				PcP	PcP	09 32 02.7	-2.8
LZH				*e*S	S	09 32 43.2	-6.4
LZH				sS	sS	09 32 55.0	-8.7
LZH				SS		09 33 42.0	
LZH				LR	LR		
	comp=Z,2μm,13.5s,MS4.8						
LZH	**Lanzhou**	24.76	17	*e*P	P	09 28 29.5	+0.4
LZH				*PP		09 28 38.5	
LZH				*SP	sP	09 28 43.0	+1.7
LZH						09 29 07.3	
LZH						09 32 02.7	
LZH				*e*S	S	09 32 43.2	-6.4
LZH				*SS	sS	09 32 55.0	-8.7
LZH				SS		09 33 42.0	
LZH				pmax	pmax		
	comp=Z,65nm,1.2s,mb5.0						
LZH				MLR	MLR		
	comp=Z,2μm,13.5s,MS4.8						
XAN	**Xi'an**	24.84	28	P	P	09 28 28.1	-1.8
XAN				S	S	09 32 53.3	+2.4
XAN				AMB	AMB		
	comp=Z,3.0nm,0.7s,mb3.9						
XAN				LR	LR		
	comp=N,490nm,11.9s,MS4.5						
XAN				LR	LR		
	comp=E,712nm,11.5s,MS4.5						
XAN				LR	LR		
	comp=Z,464nm,13.4s,MS4.2						
SMLA	**Simla**	24.91	321	*e*P	P	09 28 31.8	+1.2
WHN	**Wuhan**	25.24	42	P	P	09 28 35.0	+1.4
WHN				LR	LR		
	comp=Z,997nm,8.7s						
GTA	**Gaotai**	27.12	8	⇑P	P	09 28 51.8	+1.3
GTA				AP	pP	09 29 02.3	+3.2
GTA				XP	sP	09 29 05.9	+3.2
GTA				PP		09 29 39.5	
GTA				PPP		09 29 51.6	
GTA				S	S	09 33 27.6	+0.6
GTA				SS		09 34 46.8	
GTA				AMB	AMB		
	comp=Z,22nm,1.4s,mb4.5						
GTA				AMB	AMB		
	comp=Z,135nm,6.1s						
GTA				LR	LR		
	comp=N,154nm,16.4s,MS3.9						
GTA				LR	LR		
	comp=E,195nm,16.0s,MS3.9						
GTA				LR	LR		
	comp=Z,196nm,16.3s,MS3.8						
SSE	**Sheshan**	30.30	48	P	P	09 29 20.3	+1.4
SSE				AP	pP	09 29 28.8	+1.3
SSE				XP	sP	09 29 33.0	+1.9
SSE				S	S	09 34 17.3	+0.1
SSE				XS	sS	09 34 32.5	+1.1
SSE				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.3						
SSE				AMB	AMB		
	comp=Z,81nm,4.5s						
SSE				LR	LR		
	comp=N,136nm,15.5s,MS3.8						
SSE				LR	LR		
	comp=E,77nm,15.5s,MS3.8						
SSE				LR	LR		
	comp=Z,80nm,11.5s,MS3.6						
SSE	**Sheshan**	30.30	48	P	P	09 29 20.3	+1.4
	comp=Z,6.0nm,0.9s,mb4.3						
SSE				pP	pP	09 29 28.8	+1.3
SSE				sP	sP	09 29 33.0	+1.9
SSE				S	S	09 34 17.2	0.0
SSE				sS	sS	09 34 32.5	+1.1
SSE				LR	LR		
	comp=Z,80nm,11.5s,MS3.6						
HHC	**Hu-ho-hao-te**	31.70	24	*e*P	P	09 29 32.4	+1.3
HHC				AP	pP	09 29 42.0	+2.3
HHC				XP	sP	09 29 45.9	+2.6
HHC				PP	PP	09 30 38.3	-4.7
HHC				PCP	PcP	09 32 23.1	+0.6
HHC				S	S	09 34 39.3	+0.4
HHC				XS	sS	09 34 55.4	+2.3
HHC				SCP	ScP	09 36 02.5	-1.4
HHC				PCS	PcS	09 36 07.3	+0.4
HHC				SS	SS	09 36 32.5	-23
HHC				SCS	ScS	09 39 59.9	-1.9
HHC				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.4						
HHC				AMB	AMB		
	comp=Z,98nm,5.1s						
HHC				LR	LR		
	comp=N,385nm,11.6s,MS4.7						
HHC				LR	LR		
	comp=E,881nm,12.6s,MS4.7						
HHC				LR	LR		
	comp=Z,341nm,13.1s,MS4.2						
WMQ	**Urumqi**	31.88	350	P	P	09 29 33.6	+1.0
WMQ				AP	pP	09 29 43.1	+1.9
WMQ				XP	sP	09 29 47.1	+2.3
WMQ				PP	PP	09 30 39.4	-5.6
WMQ				AMB	AMB		
	comp=Z,19nm,1.2s,mb4.8						
WMQ				AMB	AMB		
	comp=Z,39nm,7.5s						
WMQ				LR	LR		
	comp=N,103nm,22.1s,MS4.4						
WMQ				LR	LR		
	comp=E,784nm,20.2s,MS4.4						
WMQ				LR	LR		
	comp=Z,108nm,22.5s,MS3.5						
BJI	**Beijing**	33.10	30	P	P	09 29 43.3	-0.1
BJI				AP	pP	09 29 52.0	0.0
BJI				XP	sP	09 29 55.9	+0.3
BJI				S	S	09 34 58.3	-2.4
BJI				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.4						
BJI				AMB	AMB		
	comp=Z,34nm,3.3s						
BJI				LR	LR		
	comp=N,438nm,13.8s,MS4.5						
BJI				LR	LR		
	comp=E,477nm,11.7s,MS4.5						
BJI				LR	LR		
	comp=Z,238nm,16.6s,MS4.0						
BJI	**Beijing**	33.10	30	P	P	09 29 43.2	-0.2
BJI				*PP	pP	09 29 52.0	0.0
BJI				*SP	sP	09 29 55.9	+0.3
BJI				S	S	09 34 58.3	-2.4
BJI				SS	SS	09 37 25.2	+1.2
BJI				MLR	MLR		
	comp=Z,240nm,16.6s,MS4.0						
ULHL	**Ulahol**	33.92	334	P	P	09 29 50.5	0.0
	SNR=6.4						
KZA	**Kyzart**	34.21	333	P	P	09 29 54.2	+1.1
	SNR=13						
UCH	**Uchtor**	34.66	333	P	P	09 29 58.0	+1.1
	SNR=5.7						
TKM2	**Tokmak 2**	34.74	334	P	P	09 29 59.3	+1.7
	SNR=14						
KBK	**Karagaybulak**	34.81	333	P	P	09 29 59.6	+1.4
	SNR=7.1						
AML	**Almayashu**	34.95	332	P	P	09 30 00.6	+1.1
	SNR=14						
AML	**Almayashu**	34.95	332	*e*P	P	09 30 00.4	+1.0
	comp=Z,47nm,1.4s,mb5.2						
AML				*e*pP	pP	09 30 08.1	0.0
AAK	**Ala-Archa**	34.99	333	P	P	09 30 01.6	+1.8
	SNR=11						
AAK	**Ala-Archa**	34.99	333	*e*P	P	09 29 59.9	+0.2
	comp=Z,25nm,1.1s,mb5.0						
AAK	**Ala-Archa**	34.99	333	*e*P	P	09 29 59.9	+0.2
AAK				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
FRU	**Bishkek**	35.09	333	*e*P	P	09 30 00.0	-0.7
FRU				pmax	pmax		
	comp=Z,80nm,1.6s,mb5.4						
CHMS	**Chumysh**	35.17	334	P	P	09 30 02.3	+1.0
	SNR=6.2						
EKS2	**Erkin-Say**	35.33	332	P	P	09 30 01.3	-1.4
	SNR=6.8						
EKS2	**Erkin-Say**	35.33	332	*e*P	P	09 30 02.4	-0.3
	comp=Z,12nm,0.9s,mb4.8						
EKS2				*e*pP	pP	09 30 12.9	+1.5
USP	**Ospenovka**	35.49	334	P	P	09 30 04.8	+0.7
	SNR=26						
MK31	**Makanchi Array**	35.88	345	*e*P	P	09 30 07.8	+0.4
MKAR	**Makanchi Array**	35.88	345	P	P	09 30 07.8	+0.4
	comp=Z,12nm,0.9s,mb4.8,baz=152,slow=8.1,SNR=51						
MKAR				LR	LR	09 47 12.9	
	comp=Z,128nm,21.7s,MS3.6,baz=174,slow=40						
SONM	**Songino Array**	36.46	13	P	P	09 30 12.8	+0.5
SONM						09 32 36.6	
SONM	**Songino Array**	36.46	13	P	P	09 30 12.8	+0.5
	comp=Z,6.7nm,1.1s,mb4.5,baz=197,slow=9.1,SNR=30						
SONM				PcP	PcP	09 32 36.6	+0.7
	comp=Z,2.1nm,1.1s,baz=188,slow=2.9,SNR=3.3						
SONM				LR	LR	09 46 53.3	
	comp=Z,226nm,18.2s,MS4.0,baz=5.9,slow=39						
ULN	**Ulaanbaatar**	36.64	13	⇑*e*P	P	09 30 13.6	-0.2
SNY	**Shenyang**	38.29	35	⇑P	P	09 30 29.0	+1.1
SNY				S	S	09 36 26.3	+6.0
SNY				AMB	AMB		
	comp=Z,9.0nm,1.3s,mb4.3						
SNY				LR	LR		
	comp=N,404nm,13.3s,MS4.5						
SNY				LR	LR		
	comp=E,343nm,14.5s,MS4.5						
SNY				LR	LR		
	comp=Z,304nm,13.7s,MS4.3						
ZAK	**Zakamensk**	38.36	8	⇓*i*P	P	09 30 28.8	+0.4
ZAK				*e*		09 32 41.9	
ZAK				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.3						
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.9						
KSRS	**Korea Array**	38.38	44	P	P	09 30 26.6	-2.1
	comp=Z,2.1nm,1.0s,mb3.8,baz=247,slow=10,SNR=7.5						
JNU	**Nakatsue**	38.51	52	P	P	09 30 29.6	-0.3
	comp=Z,5.6nm,0.9s,mb4.3,baz=330,slow=5.9,SNR=4.0						
JNU				LR	LR	09 46 40.8	
	comp=Z,92nm,21.6s,MS3.6,baz=237,slow=37						
MOY	**Mondy**	39.35	6	*e*P	P	09 30 37.5	+0.8
TLY	**Talaya**	39.68	8	*e*P	P	09 30 40.8	+1.4
	comp=Z,12nm,0.9s,mb4.6						
TLY	**Talaya**	39.68	8	*e*P	P	09 30 40.7	+1.3
TLY				*e*SS	SS	09 39 32.3	-4.7
TLY				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.5						
TLY				MLR	MLR		
	comp=Z,165nm,21.0s,MS3.9						
IRK	**Irkutsk**	40.32	9	*e*P	P	09 30 45.3	+0.6
IRK				*e*		09 32 22.1	
IRK				pmax	pmax		
	comp=Z,29nm,1.5s,mb4.8						
KURK	**Kurchatov**	40.45	344	*e*P	P	09 30 46.0	+0.2
	comp=Z,36nm,1.1s,mb5.0						
KURK	**Kurchatov**	40.45	344	⇑*i*P	P	09 30 45.2	-0.6
CN2	**Changchun**	40.63	34	*e*P	P	09 30 47.5	+0.1
CN2				*e*AP	pP	09 30 55.5	-0.6
CN2				*e*S	S	09 36 55.5	+0.2
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.4						
CN2				LR	LR		
	comp=Z,300nm,15.0s,MS4.3						
MBWA	**Marble Bar**	41.23	144	*e*P	P	09 30 53.2	+0.6
	comp=Z,13nm,1.1s,mb4.5						
HIA	**Hailar**	41.91	24	*e*P	P	09 30 56.8	-0.9
ZAL	**Zalesovo**	42.16	351	P	P	09 30 59.6	-0.2
ZALV	**Zalesovo Beam**	42.16	351	P	P	09 30 59.6	-0.2
	comp=Z,13nm,0.9s,mb4.5,baz=165,slow=6.2,SNR=44						
ZALV				LR	LR	09 49 23.6	
	comp=Z,52nm,19.3s,baz=252,slow=38						
FITZ	**Fitzroy Crossi**	42.75	135	*e*P	P	09 31 04.3	-0.7
	comp=Z,7.0nm,0.6s,mb4.6						
FITZ	**Fitzroy Crossi**	42.75	135	P	P	09 31 04.4	-0.7
	comp=Z,4.8nm,0.8s,mb4.3,baz=315,slow=6.7,SNR=11						
NVS	**Novosibirsk**	43.28	350	*e*P	P	09 31 08.5	-0.4
NVS				*e*		09 32 58.1	
NVS				pmax	pmax		
	comp=N,11nm,1.4s						
NVS				pmax	pmax		
	comp=E,10.0nm,1.4s						
NVS				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.6						
MDJ	**Mudanjiang**	43.46	36	P	P	09 31 09.8	-0.7
MDJ				S	S	09 37 37.5	+0.4
MDJ				AMB	AMB		
	comp=Z,5.0nm,1.6s,mb4.0						
MDJ				AMB	AMB		
	comp=Z,194nm,5.4s						
MDJ				LR	LR		
	comp=N,121nm,17.4s,MS4.0						
MDJ				LR	LR		
	comp=E,103nm,16.7s,MS4.0						
MDJ				LR	LR		
	comp=Z,103nm,20.1s,MS3.7						
BRVK	**Borovoye**	45.09	339	*e*P	P	09 31 22.5	-0.9
	comp=Z,11nm,0.9s,mb4.7						
BRVK				*e*pP	pP	09 31 32.5	+0.3
BRVK	**Borovoye**	45.09	339	*e*P	P	09 31 22.5	-0.9
BRVK				*e**PP	pP	09 31 32.5	+0.3
BRVK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
MJAR	**Matsushiro Arr**	45.38	51	P	P	09 31 26.8	+0.8
	comp=Z,1.1nm,0.8s,mb3.8,baz=245,slow=10,SNR=5.1						
BOD	**Bodaibo**	47.45	14	*e*P	P	09 31 40.5	-1.4
BOD				pmax	pmax		
	comp=Z,12nm,1.5s,mb4.6						
AKTK	**Aktyubinsk**	48.48	329	P	P	09 31 49.4	-0.6
AKTK				LR	LR	09 52 59.6	
AKTO	**Aktyubinsk**	48.48	329	P	P	09 31 49.4	-0.6
	comp=Z,14nm,1.2s,mb4.8,baz=125,slow=8.0,SNR=13						
AKTO				LR	LR	09 52 59.6	

	comp=Z,120nm,21.0s,MS3.9,baz=138,slow=37						
MUN	Mundaring	48.59	156	eP	P	09 31 51.2	+0.2
NWAO	Narrogin (SRO)	49.83	156	eP	P	09 32 01.8	+1.3
NWAO	Narrogin (SRO)	49.83	156	P	P	09 32 01.5	+1.0
	comp=Z,39nm,0.9s,mb5.4,baz=310,slow=8.3,SNR=19						
WRA	Warramunga Arr	50.24	129	P	P	09 32 03.9	+0.1
	comp=Z,16nm,0.9s,mb5.0,baz=310,slow=8.3,SNR=69						
WRA				LR	LR	09 55 58.2	
	comp=Z,66nm,19.4s,MS3.6,baz=40,slow=39						
WB2	Warramunga Arr	50.25	129	eP	P	09 32 03.7	-0.2
WB2				e	pP	09 32 10.3	-2.5
SVE	Sverdlovsk	51.56	337	eP	P	09 32 13.0	-0.2
ARU	Arti	52.11	335	eP	P	09 32 17.1	-0.2
	comp=Z,11nm,0.6s,mb5.0						
ARU				epP	pP	09 32 25.9	-0.4
ARU	Arti	52.11	335c	iP	P	09 32 17.4	+0.1
ARU				e		09 34 12.9	
ARU				eS	S	09 39 40.3	+0.9
ARU				eSS	SS	09 43 14.9	-1.9
ARU				pmax	pmax		
	comp=Z,26nm,1.7s,mb4.9						
ASAR	Alice Springs	52.20	133	P	P	09 32 18.4	-0.1
	comp=Z,6.6nm,0.8s,mb4.6,baz=312,slow=6.9,SNR=54						
FORT	Forrest	53.38	144	eP	P	09 32 28.3	+1.2
	comp=Z,15nm,0.7s,mb5.0						
KIV	Kislovodsk	54.69	315	eP	P	09 32 36.9	+0.4
KIV				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.0						
KIV				MLR	MLR		
	comp=Z,73nm,17.0s,MS3.8						
PMG	Port Moresby	56.03	110	eP	P	09 32 47.0	+0.3
	comp=Z,12nm,0.9s,mb4.9						
PMG	Port Moresby	56.03	110	eP	P	09 32 47.0	+0.4
PMG				pmax	pmax		
	comp=Z,12nm,0.9s						
MALT	Malatya	56.37	308	eP	P	09 32 49.5	+0.8
	comp=Z,26nm,1.5s,mb5.0						
MALT	Malatya	56.37	308	eP	P	09 32 49.5	+0.8
MALT				pmax	pmax		
	comp=Z,27nm,1.5s,mb5.1						
ANN	Anapa	58.54	315	eP	P	09 33 03.1	-0.8
ANN				eS	S	09 41 07.4	+1.6
ANN				pmax	pmax		
	comp=Z,184nm,2.5s,mb5.7						
KMBO	Kilima Mbogo	59.05	261	P	P	09 33 07.7	-0.3
	comp=Z,1.1nm,0.2s,mb4.5,baz=354,slow=5.4,SNR=4.6						
BRTR	Keskin Array B	60.28	309	P	P	09 33 14.1	-1.9
	comp=Z,2.7nm,0.9s,mb4.3,baz=116,slow=5.7,SNR=12						
BRTR				LR	LR	10 04 14.5	
	comp=Z,69nm,19.4s,MS3.8,baz=142,slow=41						
MOS	Moscow	61.74	327	eP	P	09 33 25.0	-0.6
MOS				e	pP	09 33 32.7	-2.0
MOS				e		09 33 40.8	
OBN	Obninsk	62.09	326	⇓eP	P	09 33 28.0	0.0
OBN				e	pP	09 33 35.6	-1.5
OBN				pmax	pmax		
	comp=Z,36nm,1.4s,mb5.3						
OBN				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.3						
MA2	Magadan	62.23	28	iP	P	09 33 28.2	-0.6
MA2				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.8						
TIXI	Tiksi	62.53	11	eP	P	09 33 29.4	-1.2
TIXI	Tiksi	62.53	11	⇓iP	P	09 33 29.2	-1.5
TIXI				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.2						
STKA	Stephens Creek	62.62	136	eP	P	09 33 32.8	+1.0
	comp=Z,11nm,0.8s,mb5.0						
STKA				e		09 33 38.9	
STKA	Stephens Creek	62.62	136	P	P	09 33 32.6	+0.7
	comp=Z,14nm,0.8s,mb5.1,baz=316,slow=7.5,SNR=21						
AKASG	Malin Array Be	65.24	320	P	P	09 33 47.2	-1.6
AKASG				LR	LR	10 05 48.8	
AKASG	Malin Array Be	65.24	320	iP	P	09 33 48.4	-0.4
AKASG	Malin Array Be	65.24	320	P	P	09 33 47.2	-1.6
	comp=Z,0.2nm,0.3s,mb3.6,baz=83,slow=5.4,SNR=11						
AKASG				LR	LR	10 05 48.8	
	comp=Z,65nm,18.6s,MS3.9,baz=5.0,slow=39						
MLR	Muntele Rosu	66.65	314	LR	LR	10 07 19.1	
	comp=Z,113nm,18.5s,MS4.1,baz=280,slow=40						
JOF	Joensuu	67.17	334	ep	P	09 34 05.5	+4.5
	comp=Z,5.2nm,0.6s,mb4.7						
TOO	Toolangi	68.58	139	eP	P	09 34 12.8	+2.5
	comp=Z,6.9nm,0.9s,mb4.6						
TOO	Toolangi	68.58	139	eP	P	09 34 12.8	+2.5
TOO				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
FINES	FINESS Array B	69.16	331	P	P	09 34 13.2	-0.3
	comp=Z,1.0nm,0.6s,mb3.9,baz=101,slow=7.2,SNR=3.8						
FINES				LR	LR	10 11 25.9	
	comp=Z,142nm,18.6s,MS4.2,baz=23,slow=42						
KAF	Kangasniemi	69.20	332	ep	P	09 34 22.2	+8.5
CRVS	Cervenica-Dubn	69.99	318	eP	P	09 34 19.2	+0.3
STHS	Stebnicka Huta	70.17	318	eP	P	09 34 20.0	0.0
	comp=Z,2.5nm,0.9s,mb4.1						
STHS				e	pP	09 34 28.4	-0.8
STHS	Stebnicka Huta	70.17	318	eP	P	09 34 20.0	0.0
STHS				e	pP	09 34 28.4	-0.8
STHS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
KECS	Kecovo	70.61	317	eP	P	09 34 22.8	+0.1
	comp=Z,2.6nm,1.1s,mb4.1						
KECS				e	pP	09 34 30.8	-1.1
KECS	Kecovo	70.61	317	eP	P	09 34 22.8	+0.1
KECS				e	pP	09 34 30.8	-1.1
KECS				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
KECS	Kecovo	70.61	317	eP	P	09 34 22.8	+0.1
KECS				epP	pP	09 34 30.8	-1.1
KEV	Kevo	70.86	340	ep	P	09 34 30.1	+6.3
	comp=Z,4.9nm,0.8s,mb4.5						
KEV	Kevo	70.86	340	eP	P	09 34 30.1	+6.3
KEV				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
ARCES	ARCESS Array B	71.31	340	P	P	09 34 26.3	-0.2
	comp=Z,3.7nm,1.0s,mb4.3,baz=90,slow=3.6,SNR=4.2						
ARCES				LR	LR	10 10 18.7	
	comp=Z,261nm,19.0s,MS4.5,baz=40,slow=40						
BILL	Bilibino	71.45	22	⇓P	P	09 34 27.3	-0.1
BILL				e	pP	09 34 34.5	-2.1
BILL				pmax	pmax		
	comp=Z,16nm,2.7s,mb4.5						
BILL				MLR	MLR		
	comp=Z,100nm,16.0s,MS4.2						
VYHS	Vyhne	71.71	317	epP	pP	09 34 37.0	-1.6
MORC	Moravsky Berou	72.59	318	eP	P	09 34 34.7	+0.1
	comp=Z,29nm,1.5s,mb5.0						
MORC	Moravsky Berou	72.59	318	eP	P	09 34 34.7	+0.1
MORC				pmax	pmax		
	comp=Z,29nm,1.5s,mb5.0						
MATP	Matopo	73.26	244	P	P	09 34 37.8	-1.2
	comp=Z,3.1nm,1.0s,mb4.2,baz=62,slow=8.6,SNR=2.1						
KSP	Ksiaz	73.41	320	eP	P	09 34 40.3	+0.9
KSP				epP	pP	09 34 48.1	-0.6
MOA	Molln	74.77	316	⇑iP	P	09 34 47.5	+0.1
	comp=Z,13nm,1.2s,mb4.7						
BRG	Berggiesshubel	74.90	320	eP	P	09 34 48.9	+0.8
BRG				e		09 34 55.5	
BRG				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
BRG	Berggiesshubel	74.90	320	eP	P	09 34 48.9	+0.8
	comp=Z,13nm,1.2s,mb4.7						
BRG				e		09 34 55.5	
	comp=Z,12nm,0.9s						
VOJS	Vojsko	75.10	315	eP	P	09 34 48.5	-0.9
GEC2	GERESS Array S	75.11	317	eP	P	09 34 48.9	-0.5
GEC2				epP	pP	09 34 58.0	-0.7
GERES	GERESS Array B	75.11	317	P	P	09 34 49.1	-0.3
	comp=Z,3.2nm,0.8s,mb4.3,baz=88,slow=6.8,SNR=20						
GERES				LR	LR	10 12 25.7	
	comp=Z,114nm,19.9s,MS4.2,baz=4.0,slow=39						
KHC	Kasperske Hory	75.19	318	⇑eP	P	09 34 50.2	+0.4
CADS	Cadrg	75.19	315	eP	P	09 34 50.1	+0.2
CLL	Collm	75.48	320	eP	P	09 34 52.0	+0.6
CLL				e*PP	pP	09 35 00.0	-0.7
CLL				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
CLL	Collm	75.48	320	eP	P	09 34 52.0	+0.6
	comp=Z,13nm,1.3s,mb4.7						
CLL				epP	pP	09 35 00.0	-0.7
NB2	NORSAR Subarra	76.25	330	P	P	09 34 54.8	-0.8
	comp=Z,14nm,1.4s,mb4.7,baz=87,slow=6.2						
NOA	NORSAR Array B	76.25	330	P	P	09 34 55.9	+0.2
	comp=Z,2.4nm,1.0s,mb4.1,baz=90,slow=5.8,SNR=2.8						
NOA				LR	LR	10 12 05.1	
	comp=Z,68nm,18.6s,MS4.0,baz=50,slow=39						
MOX	Moxa	76.39	319	eP	P	09 34 57.9	+1.3
GRA1	Grafenberg Arr	76.69	318	eP	P	09 34 58.5	+0.1
	comp=Z,33nm,1.8s,mb5.0						
GRA1				epP	pP	09 35 06.1	-1.6
GRF	Grafenberg Arr	76.69	318	eP	P	09 34 58.5	+0.1
GRF				e*PP	pP	09 35 06.1	-1.6
GRF				pmax	pmax		
	comp=Z,33nm,1.8s,mb5.0						
GRF	Grafenberg Arr	76.69	318	eP	P	09 34 58.5	+0.1
GRF				e*PP	pP	09 35 06.1	-1.6
GRF				pmax	pmax		
	comp=Z,33nm,1.8s,mb5.0						
GRF	Grafenberg Arr	76.69	318	eP	P	09 34 58.5	+0.1
	comp=Z,33nm,1.8s,mb5.0						
GRF				epP	pP	09 35 06.1	-1.6
	comp=Z,33nm,1.8s						
LBTB	Lobatse	77.37	241	P	P	09 35 02.6	0.0
	comp=Z,3.4nm,0.7s,mb4.4,baz=105,slow=4.8,SNR=5.7						
DAVOX	Davos/Dischmat	77.81	316	P	P	09 35 04.8	+0.1
	comp=Z,3.4nm,0.8s,mb4.3,baz=337,slow=5.0,SNR=3.9						
BOSA	Boshof	78.91	237	P	P	09 35 11.2	+0.2
	comp=Z,3.5nm,0.8s,mb4.3,baz=101,slow=5.4,SNR=5.1						
CDF	Champ du Feu	79.40	317	eP	P	09 35 12.6	-0.8
KEST	Kesra	79.48	304	P	P	09 35 15.5	+1.4
	comp=Z,1.0nm,0.4s,mb4.1,baz=11,slow=5.2,SNR=3.8						
HAU	Haudompre	80.06	317	eP	P	09 35 16.0	-1.0
LPG	La Plagne	80.12	314	eP	P	09 35 17.2	-0.2
	comp=Z,15nm,0.7s,mb4.7						
LPG	La Plagne	80.12	314	eP	P	09 35 17.2	-0.2
	comp=Z,7.6nm,0.7s,mb4.7						
LPG	La Plagne	80.12	314	eP	P	09 35 17.2	-0.2
LPG				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
LPL	La Plagne	80.13	314	eP	P	09 35 17.0	-0.5
	comp=Z,24nm,0.8s,mb4.9						
LPL	La Plagne	80.13	314	eP	P	09 35 17.0	-0.5
	comp=Z,12nm,0.8s,mb4.9						
LPL	La Plagne	80.13	314	eP	P	09 35 17.0	-0.5
LPL				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
CABF	La Chapelle	80.43	316	eP	P	09 35 18.4	-0.6
FRF	La Foret Royal	80.46	313	eP	P	09 35 18.7	-0.6
	comp=Z,30nm,1.0s,mb4.9						
FRF	La Foret Royal	80.46	313	eP	P	09 35 18.7	-0.6
	comp=Z,15nm,1.0s,mb4.9						
FRF	La Foret Royal	80.46	313	eP	P	09 35 18.7	-0.6
FRF				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
GIVF	Givet	80.77	319	eP	P	09 35 20.4	-0.4
ORIF	Oris-en-Rattie	80.81	314	eP	P	09 35 20.7	-0.4
BAIF	Baives	81.17	319	eP	P	09 35 21.4	-1.5
VIVF	Saint-Julien-l	81.67	314	eP	P	09 35 24.9	-0.8
LOR	Lormes	81.84	317	eP	P	09 35 25.6	-0.9
SMF	Signal de Mont	81.95	316	eP	P	09 35 26.1	-1.0
SSF	Saint Saulge	82.11	316	eP	P	09 35 27.1	-0.8
	comp=Z,23nm,1.2s,mb4.7						
SSF	Saint Saulge	82.11	316	eP	P	09 35 27.1	-0.8
	comp=Z,12nm,1.2s,mb4.7						
SSF	Saint Saulge	82.11	316	eP	P	09 35 27.1	-0.8
SSF				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
AVF	Avril sur Loir	82.26	316	eP	P	09 35 27.7	-1.0
SUR	Sutherland	83.79	235	P	P	09 35 38.8	+1.9
	comp=Z,8.8nm,1.1s,mb4.8,baz=240,slow=5.2,SNR=2.3						
IMA2	Indian Mountai	86.99	22	eP	P	09 35 52.5	+0.3
IMA2				epP	pP	09 36 02.6	+0.9
RPZ	Rata Peaks	88.58	135	P	P	09 36 00.2	+0.1
	comp=Z,8.9nm,1.0s,mb5.0,baz=260,slow=6.1,SNR=3.1						
ESDC	Sonseca Array	89.03	310	P	P	09 36 02.2	-0.4
	comp=Z,0.2nm,0.3s,mb4.0,baz=77,slow=3.9,SNR=3.7						
TORD	Torodi Ar. Bea	90.53	284	P	P	09 36 09.3	-0.7
TORD				PP	PP	09 39 50.5	+5.5
TORD	Torodi Ar. Bea	90.53	284	P	P	09 36 09.3	-0.7
	comp=Z,1.6nm,0.9s,mb4.3,baz=69,slow=5.0,SNR=7.6						
TORD				PP	PP	09 39 50.5	+5.5
	comp=Z,1.6nm,0.9s,baz=66,slow=6.4,SNR=6.2						
URZ	Urewera	91.41	129	P	P	09 36 12.5	-1.0
	comp=Z,5.8nm,0.9s,mb4.9,baz=143,slow=5.1,SNR=2.8						
INK	Inuvik	92.30	16	eP	P	09 36 17.2	0.0
RES	Resolute Bay	92.77	3	eP	P	09 36 17.9	-1.3
	comp=Z,1μm,2.3s						
DAWY	Dawson	93.21	21	eP	P	09 36 19.3	-2.1
YKA	Yellowknife Ar	101.73	14	iP	Pdif	09 36 59.0	-1.0
YKA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
YKA	Yellowknife Ar	101.73	14	P	Pdif	09 36 59.1	-0.9
	comp=Z,0.5nm,1.0s,baz=329,slow=4.4,SNR=4.2						
YKA				PP	PP	09 41 07.4	-2.3
	comp=Z,1.2nm,1.1s,baz=331,slow=7.7,SNR=9.9						
NVAR	Mina Array Bea	120.45	30	PKP	PKPdf	09 41 59.2	+0.1
NVAR	Mina Array Bea	120.45	30	PKP	PKPdf	09 41 59.2	+0.1
	comp=Z,0.7nm,0.7s,baz=298,slow=3.2,SNR=4.7						
PDAR	Pinedale Array	120.52	21	PKP	PKPdf	09 41 59.3	+0.2
PDAR	Pinedale Array	120.52	21	PKP	PKPdf	09 41 59.3	+0.2
	comp=Z,1.1nm,1.1s,baz=96,slow=0.9,SNR=3.1						
LAZ	Ladron	128.77	24	ePKPdf	PKPdf	09 42 13.9	-1.3
TXAR	Lajitas Array	134.61	23	PKP	PKPdf	09 42 26.6	+0.2
TXAR	Lajitas Array	134.61	23	PKIKP	PKPdf	09 42 26.6	+0.2
TXAR	Lajitas Array	134.61	23	PKP	PKPdf	09 42 26.5	+0.2
	comp=Z,0.3nm,0.7s,baz=27,slow=0.2,SNR=3.1						
LPAZ	La Paz	163.40	255	PKPab	PKPab	09 44 02.6	+0.7
	comp=Z,1.0nm,0.9s,baz=72,slow=3.2,SNR=3.9						

IDC 21 09:24:49.5±1.1**,25.74S×71.31E,h0**^{km}**,mb3.8**/7**,mb1 3.9**/7**, mb1mx3.8**/20**,mbtmp3.8**/7**,MS3.8**/6**,Ms1 3.8**/6**, ms1mx3.4**/37**,Error ellipse: s-maj=37.9km s-min=25.4km az=21.0,Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATP	Matopo	39.61	269	LR	LR	09 46 30.5	
	comp=Z,76nm,18.3s,baz=252,slow=33						
BOSA	Boshof	40.88	255	P	P	09 32 34.1	+0.7
	3.6nm,0.9s,baz=121,slow=5.9,SNR=3.8						
BOSA				LR	LR	09 48 23.6	
	comp=Z,105nm,18.3s,baz=264,slow=35						
LBTB	Lobatse	41.15	261	LR	LR	09 46 19.3	
	comp=Z,123nm,18.3s,baz=318,slow=31						
MAW	Mawson	42.20	185	LR	LR	09 45 32.8	
	comp=Z,231nm,18.8s,baz=71,slow=30						
ASAR	Alice Springs	56.42	102	P	P	09 34 31.6	-1.5
	0.6nm,0.9s,baz=254,slow=6.1,SNR=3.0						
WRA	Warramunga Arr	57.91	98	P	P	09 34 44.8	+1.1
	0.6nm,0.8s,baz=250,slow=7.0,SNR=2.8						
ASF	Jabal al Asfar	66.29	328	LR	LR	10 02 07.6	
	comp=Z,87nm,18.9s,baz=56,slow=34						
MKAR	Makanchi Array	72.87	8	P	P	09 36 19.4	-0.6
	1.1nm,0.7s,baz=194,slow=6.0,SNR=9.1						
BRTR	Keskin Array B	74.00	331	P	P	09 36 26.0	-0.8
	0.5nm,0.7s,baz=130,slow=3.3,SNR=2.6						
TORD	Torodi Ar. Bea	77.97	291	LR	LR	10 11 19.2	
	comp=Z,46nm,19.0s,baz=160,slow=36						
SONM	Songino Array	79.74	23	P	P	09 37 00.2	+1.2
	0.7nm,0.9s,baz=202,slow=5.0,SNR=2.9						
ZALV	Zalesovo Beam	80.21	8	P	P	09 37 02.4	+1.1
	1.4nm,0.6s,baz=184,slow=4.3,SNR=3.0						

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*IDC **21** 09:32:33.8±5.4,21.87S×170.53E,h91^{km}±39^{km},mb3.9/7, mb1 4.1/8,mb1mx3.9/16,mbtmp4.0/8,MS3.6/2,Ms1 3.6/2, ms1mx3.0/19,Error ellipse: s-maj=38.5km s-min=27.8km az=107.0*

*NEIC **21** 09:32:34.6±3.3,21.90S×170.66E,h102^{km}±23^{km},mb4.5/3, Error ellipse: s-maj=31.7km s-min=16.2km az=107.0*

*ISCJB **21** 09:32:35.2±3.3,21.9S±0.1×170.4E±0.2,h112^{km}±24^{km}, mb4.3/10,Error ellipse: s-maj=30.3km s-min=21.2km az=6.8*

ISC 21 09:32:35.2±3.1**,22.0S**±0.1**×170.5E**±0.2**,h100**^{km}±23^{km}**,n26, σ0**^{s}**.94**/23**,mb4.3**/10**,1C,Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.79	267	⇑iP	Pn	09 33 31.8	+0.4
DZM				eS	Sn	09 34 13.9	-1.2
DZM	Mont Dzumac	3.79	267	⇑iP	Pn	09 33 31.8	+0.4
DZM				eS	Sn	09 34 13.9	-1.2
DZM	Mont Dzumac	3.79	267	P	Pn	09 33 31.8	+0.3
	66nm,0.3s,baz=88,slow=18,SNR=859						
DZM				S	Sn	09 34 13.8	-1.4
	215nm,0.3s,baz=314,slow=23,SNR=20						
DZM				LR	LR	09 34 17.4	
	comp=Z,168nm,22.0s,baz=170,slow=27						
HNR	Honiara	16.07	319	P	Pn	09 36 16.3	+1.0
HNR				LR	LR	09 40 56.0	
HNR	Honiara	16.07	319	P	Pn	09 36 16.3	+1.0
	5.2nm,0.3s,baz=89,slow=7.1,SNR=5.5						
HNR				LR	LR	09 40 56.0	
	comp=Z,1μm,20.3s,baz=354,slow=31						
ARMA	Armidale	18.92	240	eP	P	09 36 51.5	+3.4
CNB	Canberra Magne	22.79	230	eP	P	09 37 30.7	+1.2
	18nm,0.8s,mb4.4						
STKA	Stephens Creek	27.55	243	eP	P	09 38 13.4	+0.7
	6.1nm,1.0s,mb4.1						
STKA	Stephens Creek	27.55	243	P	P	09 38 13.9	+1.2
	8.0nm,0.8s,mb4.3,baz=86,slow=9.9,SNR=9.3						
ASAR	Alice Springs	33.74	260	P	P	09 39 06.8	-0.5
	2.4nm,0.6s,mb4.2,baz=86,slow=8.6,SNR=41						
WRA	Warramunga Arr	33.81	267	P	P	09 39 06.9	-1.0
	0.7nm,0.4s,mb3.9,baz=98,slow=8.5,SNR=22						
KAKA	Kakadu	37.41	278	eP	P	09 39 40.4	+1.6
	11nm,0.7s,mb4.9						
FORT	Forrest	38.86	248	eP	P	09 39 50.5	-0.3
	12nm,0.5s,mb5.0						
FITZ	Fitzroy Crossi	42.23	267	P	P	09 40 18.8	+0.1
	2.6nm,0.8s,mb4.0,baz=111,slow=8.2,SNR=5.1						
NWAO	Narrogin (SRO)	48.10	245	P	P	09 41 04.8	-0.2
NWAO	Narrogin (SRO)	48.10	245	P	P	09 41 04.8	-0.2
	4.3nm,0.9s,mb4.3,baz=96,slow=7.7,SNR=7.7						
MJAR	Matsushiro Arr	65.70	332	P	P	09 43 07.8	-1.2
	1.0nm,0.7s,mb3.8,baz=170,slow=7.9,SNR=3.0						
SNAA	Sanae	86.52	182	P	P	09 45 05.7	-0.8
	1.5nm,0.8s,mb4.0,baz=247,slow=4.4,SNR=11						
VNA3	Neumayer Olymp	87.06	180	e	P	09 45 08.7	-0.4
VNA2	Neumayer--Watz	87.37	181	e	P	09 45 10.4	-0.2
	baz=184,slow=4.4						
BRG	Berggiesshubel	145.82	333	eP	PKPdf	09 52 02.0	+0.2
	4.3nm,1.0s						
CLL	Collm	145.87	335	iPKPbc	PKPbc	09 52 02.4	-0.3
	comp=Z,8.0nm,1.2s						
EKA	Eskdalemuir Ar	146.33	353	PKPbc	PKPbc	09 52 02.6	-1.3
EKA	Eskdalemuir Ar	146.33	353	PKPbc	PKPbc	09 52 02.6	-1.3
	comp=Z,0.9nm,0.7s,baz=343,slow=2.2,SNR=4.0						
GERES	GERESS Array B	147.44	331	PKPbc	PKPbc	09 52 06.9	-0.4
GERES	GERESS Array B	147.44	331	PKPbc	PKPbc	09 52 06.9	-0.4
	comp=Z,1.3nm,0.7s,baz=36,slow=2.5,SNR=7.8						

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*NEIC **21** 09:32:51.2,16.40N×99.01W,h16^{km},MD4.0(MEX),After MEX.*

MEX 21 09:32:51.9±0.6**,16.43N×98.98W,h16**^{km}±21^{km}**,MD4.0, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.82	92	eP	Pb	09 33 04.7	-3.1
PNIG				iS	Sb	09 33 15.0	-3.6
ACX	Acapulco	1.00	296	iP	Pb	09 33 05.5	-5.3
ACX				iS	Sb	09 33 17.0	-6.7
ACX	Acapulco	1.00	296	iP	Pb	09 33 06.0	-4.8
ACX				iS	Sb	09 33 18.0	-5.7
CAIG	El Cayaco	1.38	297	iP	Pn	09 33 13.2	-3.3
CAIG				iS	Sn	09 33 28.4	-6.0
MEIG	Mezcala	1.61	338	eP	Pn	09 33 15.7	-3.9
MEIG				iS	Sn	09 33 33.6	-6.5
UTMO	Huajuapan	1.79	39	eP	Pn	09 33 18.9	-3.3
UTMO				iS	Sn	09 33 38.6	-6.0
PLIG	Platanillo	2.02	346	iP	Pn	09 33 22.4	-2.9
PLIG				iS	Sn	09 33 45.5	-4.6
VHO	Vista Hermosa	2.25	73	eP	Pn	09 33 25.9	-2.5
VHO				iS	Sn	09 33 51.4	-4.4
YAIG	Yautepec	2.42	358	iP	Pn	09 33 28.0	-2.9
YAIG				iS	Sn	09 33 55.5	-4.7
TPIG	Tehuac#an	2.51	38	eP	Pn	09 33 28.9	-3.2
TPIG				iS	Sn	09 33 59.2	-3.2
HUIG	Huatulco	2.84	103	eP	Pn	09 33 32.5	-4.1
HUIG				iS	Sn	09 34 04.5	-6.0
HUIG	Huatulco	2.84	103	eP	Pn	09 33 34.0	-2.6
HUIG				iS	Sn	09 34 04.8	-5.6
SZVM	Salazar	2.90	353	eP	Pn	09 33 35.4	-2.1
SZVM				iS	Sn	09 34 08.8	-3.2
PTVM	Pico Tres Padr	3.15	358	eP	Pn	09 33 39.3	-1.6
PTVM				iS	Sn	09 34 15.5	-2.6
IIO	Organos	3.16	4	eP	Pn	09 33 39.2	-1.8
IIO				iS	Sn	09 34 19.3	+1.0
MOIG	Morelia	3.85	327	eP	Pn	09 33 46.6	-4.0
MOIG				iS	Sn	09 34 31.0	-4.5

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*ISCJB **21** 09:34:50.3±2.6,3.4S±0.1×152.78E±0.07,h94^{km}±26^{km}, mb4.0/11,Error ellipse: s-maj=19.1km s-min=10.8km az=173.8*

*BJI **21** 09:34:51.6,3.50S×152.80E,h100^{km},mB4.6,mb4.2*

*NEIC **21** 09:34:51.6±0.6,3.48S×152.81E,h100^{km},Error ellipse: s-maj=14.2km s-min=12.4km az=107.0*

*IDC **21** 09:34:53.3±3.1,3.57S×152.79E,h110^{km}±31^{km},mb3.6/7, mb1 3.9/9,mb1mx3.8/15,mbtmp3.8/9,MS3.7/5,Ms1 3.7/5, ms1mx3.5/15,Error ellipse: s-maj=24.5km s-min=19.2km az=153.0*

ISC 21 09:34:51.9±2.0**,3.4S**±0.1**×152.78E**±0.07**,h93**^{km}±21^{km}**,n26, σ1**^{s}**.42**/21**,mb4.0**/11**,New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	8.19	223	P	Pn	09 36 47.7	-0.3
	1.6nm,0.3s,baz=349,slow=5.8,SNR=17						
PMG				S	Sn	09 38 19.7	+0.8
	0.5nm,0.3s,baz=355,slow=22,SNR=2.2						
PMG				LR	LR	09 39 48.8	
	comp=Z,412nm,18.2s,baz=44,slow=37						
HNR	Honiara	9.31	131	P	Pn	09 37 01.2	-2.1
	3.1nm,0.3s,baz=68,slow=3.6,SNR=2.4						
HNR				S	Sn	09 38 47.3	+0.9
	3.4nm,0.3s,baz=268,slow=14,SNR=3.7						
CTA	Charters Tower	17.78	200	P	Pn	09 38 56.3	+2.8
	0.3nm,0.3s,baz=5.5,slow=12,SNR=4.6						
GUMO	Guam	18.60	335	LR	LR	09 44 39.4	
	comp=Z,54nm,19.9s,baz=107,slow=31						
WB2	Warramunga Arr	24.38	226	eP	P	09 40 00.0	-1.5
WRA	Warramunga Arr	24.39	226	P	P	09 39 59.4	-2.2
	23nm,1.0s,mb4.5,baz=51,slow=9.9,SNR=28						
ASAR	Alice Springs	27.19	220	P	P	09 40 25.5	-1.4
	1.3nm,0.9s,mb3.5,baz=58,slow=7.1,SNR=4.3						
STKA	Stephens Creek	30.23	199	P	P	09 40 55.9	+2.1
STKA	Stephens Creek	30.23	199	P	P	09 40 55.9	+2.1
	3.3nm,0.8s,mb4.0,baz=0.0,slow=9.1,SNR=4.0						
FITZ	Fitzroy Crossi	30.34	239	eP	P	09 40 54.6	-0.3
	18nm,1.2s,mb4.6						
RPZ	Rata Peaks	43.30	161	LR	LR	09 58 00.2	
	comp=Z,288nm,20.0s,baz=351,slow=32						
KSRS	Korea Array	46.74	333	P	P	09 43 14.1	+2.4
	0.5nm,0.6s,mb3.4,baz=139,slow=8.0,SNR=3.2						
KSRS				LR	LR	10 00 44.8	
	comp=Z,47nm,18.0s,baz=352,slow=33						
LZH	Lanzhou	60.21	315	eP	P	09 44 48.0	-2.3
LZH				AMB	AMB		
	comp=Z,19nm,1.4s,mb4.9						
GTA	Gaotai	64.61	317	eP	P	09 45 22.0	+2.4
GTA				AMB	AMB		
	comp=Z,2.0nm,1.1s,mb3.9						
SONM	Songino Array	65.12	327	P	P	09 45 22.6	-0.1
	comp=Z,0.5nm,0.8s,mb3.4,baz=106,slow=3.1,SNR=3.5						
MKAR	Makanchi Array	79.25	319	P	P	09 46 47.4	+0.4
	comp=Z,1.1nm,0.9s,mb3.7,baz=106,slow=6.3,SNR=4.0						
ZALV	Zalesovo Beam	79.97	326	P	P	09 46 50.8	+0.1
	comp=Z,1.1nm,0.8s,mb3.8,baz=94,slow=4.8,SNR=2.9						
UCH	Uchtor	83.60	313	eP	P	09 47 10.5	+0.4
AML	Almayashu	84.18	313	eP	P	09 47 12.6	-0.4
	comp=Z,88nm,0.6s						
MAW	Mawson	86.86	203	LR	LR	10 25 49.8	
	comp=Z,159nm,18.0s,baz=101,slow=35						
YKA	Yellowknife Ar	94.19	28	P	P	09 47 59.7	-0.3
YKA	Yellowknife Ar	94.19	28	P	P	09 47 59.7	-0.3
	comp=Z,1.0nm,1.0s,mb4.1,baz=269,slow=4.6,SNR=8.9						
LPAZ	La Paz	135.09	117	PKP	PKPdf	09 54 02.5	+1.2
LPAZ	La Paz	135.09	117	PKP	PKPdf	09 54 02.5	+1.2
	comp=Z,0.9nm,0.7s,baz=300,slow=5.0,SNR=3.8						
TORD	Torodi Ar. Bea	149.82	290	PKPbc	PKPbc	09 54 32.1	0.0
TORD	Torodi Ar. Bea	149.82	290	PKPbc	PKPbc	09 54 32.1	0.0
	comp=Z,1.0nm,0.9s,baz=80,slow=2.2,SNR=4.7						

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*NEIC **21** 09:47:31.8,39.52N×20.69E,h27^{km},MD3.4(ATH),After ATH.*

*ATH **21** 09:47:31.8,39.52N×20.69E,h26^{km}±1^{km},MD3.4/7*

*ISCJB **21** 09:47:33.7±0.5,39.40N±0.02×20.61E±0.04,h10^{km},Error ellipse: s-maj=4.8km s-min=3.3km az=164.4*

CSEM 21 09:47:33.4±0.1, 3942N×2058E, h2km, MD3.4, Error ellipse: s-maj=2.9km s-min=2.5km az=52.0
THE 21 09:47:34.6, 3942N×2052E, h13km, ML3.6
ISC 21 09:47:34.3±0.5, **3939N**±002×**2060E**±004, **h10km, n46, σ1^{s}33**/65, **Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IGT	Igoumenitsa	0.25	305	ePg	Pg	09 47 37.5	-1.9
IGT				eSg	Sg	09 47 43.2	+0.4
IGT	Igoumenitsa	0.25	305	ePg	Pg	09 47 37.5	-1.9
IGT				eSg	Sg	09 47 43.2	+0.4
JAN	Janina	0.33	36	ePb	Pg	09 47 37.3	-3.6
JAN	Janina	0.33	36	ePB	Pg	09 47 37.3	-3.6
JAN	Janina	0.33	36	ePb	Pg	09 47 37.3	-3.6
LKD	Levkas	0.68	176	ePg	Pg	09 47 46.7	-0.8
LKD				eSg	Sg	09 47 59.6	+3.2
LKD	Levkas	0.68	176	ePg	Pg	09 47 46.7	-0.8
LKD				eSg	Sg	09 47 59.6	+3.2
KEK	Kerkira	0.70	298	ePn	Pn	09 47 46.1	-4.1
KEK	Kerkira	0.70	298	ePN	Pn	09 47 46.1	-4.1
KEK	Kerkira	0.70	298	ePn	Pn	09 47 46.1	-4.1
EVR	Evrytania	1.05	116	ePn	Pn	09 47 52.3	-2.8
EVR				eSn	Sn	09 48 07.0	-2.9
EVR	Evrytania	1.05	116	ePN	Pn	09 47 52.3	-2.8
EVR				eSN	Sn	09 48 07.0	-2.9
THL	Klokotos Trika	1.11	80	ePN	Pn	09 47 51.7	-4.2
VLS	Valsamata	1.21	180	ePn	Pn	09 47 57.0	-0.2
VLS	Valsamata	1.21	180	ePN	Pn	09 47 57.0	-0.2
VLS	Valsamata	1.21	180	ePn	Pn	09 47 57.0	-0.2
AGG	Agios Georgios	1.40	105	ePg	Pg	09 47 58.7	-2.4
AGG				eSg	Sg	09 48 20.0	+0.8
AGG	Agios Georgios	1.40	105	ePg	Pg	09 47 58.7	-2.4
AGG				eSg	Sg	09 48 20.0	+0.8
RLS	Riolos of Patr	1.49	153	ePn	Pn	09 48 00.2	-1.0
RLS	Riolos of Patr	1.49	153	ePN	Pn	09 48 00.2	-1.0
RLS	Riolos of Patr	1.49	153	ePn	Pn	09 48 00.2	-1.0
FNA	Florina	1.52	23	ePg	Pn	09 48 00.2	-1.3
FNA				eSg	Sg	09 48 21.2	-1.8
FNA	Florina	1.52	23	ePg	Pn	09 48 00.2	-1.3
FNA				eSg	Sg	09 48 21.2	-1.9
LIT	Litokhoron	1.62	63	ePb	Pn	09 48 01.5	-1.5
LIT				eSb	Sb	09 48 24.8	-0.1
LIT	Litokhoron	1.62	63	ePb	Pn	09 48 01.5	-1.5
LIT				eSb	Sb	09 48 24.8	-0.1
BIA	Bitola	1.72	19	ePn	Pn	09 48 04.8	+0.5
BIA				eSn	Sn	09 48 28.4	+2.1
OHR	Ohrid	1.73	5	ePn	Pn	09 48 04.5	+0.2
OHR				eSn	Sg	09 48 30.6	+0.8
XOR	Xorichti	2.01	90	ePn	Pn	09 48 09.2	+0.9
XOR	Xorichti	2.01	90	ePn	Pn	09 48 09.2	+0.9
KRUS	Krusevo	2.04	14	ePn	Pn	09 48 10.0	+1.4
KRUS				eSn	Sn	09 48 36.8	+2.6
GRG	Griva	2.09	41	ePn	Pn	09 48 09.5	+0.1
GRG	Griva	2.09	41	ePn	Pn	09 48 09.5	+0.1
LTK	Loutraki	2.30	126	ePn	Pn	09 48 13.8	+1.5
LTK				eSn	Sn	09 48 42.3	+1.6
LTK	Loutraki	2.30	126	ePn	Pn	09 48 13.8	+1.5
LTK				eSn	Sn	09 48 42.3	+1.6
PLG	Polygyros	2.40	65	ePn	Pn	09 48 13.6	-0.1
PLG	Polygyros	2.40	65	ePn	Pn	09 48 13.6	-0.1
PAIG	Paliouri	2.44	76	ePn	Pn	09 48 14.3	+0.1
PAIG	Paliouri	2.44	76	ePn	Pn	09 48 14.3	+0.1
ITM	Ithomi	2.44	154	ePb	Pn	09 48 14.9	+0.7
ITM	Ithomi	2.44	154	ePN	Pn	09 48 13.9	-0.3
KNT	Kendrikon	2.50	44	ePn	Pn	09 48 14.0	-0.9
KNT	Kendrikon	2.50	44	ePn	Pn	09 48 14.0	-1.0
SOH	Sokhos	2.56	55	ePn	Pn	09 48 16.7	+1.0
SOH	Sokhos	2.56	55	ePn	Pn	09 48 16.7	+1.0
PYL	PYLOS	2.65	160	ePn	Pn	09 48 17.6	+0.6
PYL				eSn	Sn	09 48 50.1	+0.9
PYL	PYLOS	2.65	160	ePn	Pn	09 48 17.6	+0.6
PYL				eSn	Sn	09 48 50.1	+0.9

IDC 21 09:59:14.4±1.5, **065S×12807E, h0km, mb3.2**/4, **mb1 3.4**/4, **mb1mx3.3**/16, **mbtmp3.3**/4, **Error ellipse: s-maj=136.4km s-min=22.9km az=71.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.13	163	P	P	10 03 50.5	+0.3
	0.2nm,0.4s,baz=340,slow=12,SNR=6.2						
ASAR	Alice Springs	23.57	167	P	P	10 04 26.6	-0.3
	0.2nm,0.3s,baz=347,slow=12,SNR=5.3						
SONM	Songino Array	51.85	342	P	P	10 08 23.5	-0.9
	0.3nm,0.6s,baz=156,slow=7.9,SNR=3.9						
MKAR	Makanchi Array	61.90	326	P	P	10 09 37.0	+1.2
	0.1nm,0.2s,baz=118,slow=7.5,SNR=4.6						

IDC 21 10:19:55.8±0.6, 2194N×14295E, h0km, mb4.3/16, mb1 4.5/17, mb1mx4.4/23, mbtmp4.3/17, ML4.2/1, MS3.6/19, Ms1 3.6/19, ms1mx3.5/45, Error ellipse: s-maj=24.8km s-min=13.7km az=80.0
BJI 21 10:19:57.3, 2188N×14361E, h38km, mB5.0, mb4.7, Ms4.6, Msz4.2
ISCJB 21 10:19:58.8±1.6, 2191N±005×14303E±006, h26km±10km, mb4.5/51, MS3.7/20, Error ellipse: s-maj=9.2km s-min=7.3km az=147.0
MOS 21 10:19:59.8±0.9, 2192N×14287E, h33km, mb4.9/25, Error ellipse: s-maj=16.4km s-min=7.8km az=112.6
NEIC 21 10:20:01.6±0.3, 2191N×14304E, h35km, mb4.7/18, Error ellipse: s-maj=9.5km s-min=8.1km az=223.0
ISC 21 10:20:01.9±1.1, **2190N**±005×**14309E**±006, **h36km**±8km, **h32km**±1.8km**:pP-P, n124, σ1^{s}04**/119, **mb4.5**/51, **MS3.7**/20, **5C, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CBIJ	Chichi jima	5.23	351	Pn	Pn	10 21 16.6	-1.2
	18nm,0.3s,baz=284,slow=17,SNR=10						
CBIJ				Sn	Sn	10 22 16.6	-0.2
	13nm,0.3s,baz=297,slow=23,SNR=5.6						
GUMO	Guam	8.44	168	LR	LR	10 24 45.6	
	comp=Z,334nm,19.4s,baz=164,slow=34						
JHJ	Hachijo jima 2	11.55	346	LR	LR	10 26 45.4	
	comp=Z,305nm,19.9s,baz=140,slow=36						
JOW	Kunigami	14.36	293	LR	LR	10 27 39.7	
	comp=Z,348nm,21.1s,baz=161,slow=33						
MJAR	Matsushiro Arr	15.19	345	Pn	Pn	10 23 32.9	-0.9
MJAR				LR	LR	10 28 59.5	
MJAR	Matsushiro Arr	15.19	345	Pn	Pn	10 23 32.9	-0.9
	0.2nm,0.3s,baz=158,slow=11,SNR=2.7						
MJAR				LR	LR	10 28 59.5	
	comp=Z,256nm,20.1s,baz=165,slow=36						
MAT	Matsushiro	15.19	345	P	Pn	10 23 35.5	+1.7
MAT				eS	S	10 26 30.0	-6.8
JNU	Nakatsue	15.55	319	LR	LR	10 28 18.9	
	comp=Z,128nm,21.3s,baz=113,slow=33						
KSRS	Korea Array	20.30	323	P	P	10 24 36.1	+1.5
	6.5nm,0.8s,baz=140,slow=8.8,SNR=22						
KSRS				LR	LR	10 31 18.7	
	comp=Z,138nm,19.5s,MS3.3,baz=272,slow=34						
KS15	Wonju Array Si	20.31	323	ePn	P	10 24 36.6	+1.8
ASAJ	Asahikawa	22.16	359	LR	LR	10 33 01.9	
	comp=Z,96nm,19.5s,MS3.2,baz=341,slow=36						
NJ2	Nanjing	23.80	300	eP	P	10 25 11.6	+0.1
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.6						
MDJ	Mudanjiang	25.24	337	P	P	10 25 24.6	+0.2
MDJ				AP	pP	10 25 32.9	-1.7
MDJ				PCP	PcP	10 28 57.8	+0.6
MDJ				S	S	10 29 49.3	+1.8
MDJ				XS	sS	10 30 03.8	-0.7
MDJ				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb3.9						
MDJ				AMB	AMB		
	comp=Z,153nm,5.5s						
HABR	Khabarovsk	27.28	348	eP	P	10 25 38.5	-4.3
HABR				eS	S	10 30 16.7	-3.0
KLR	Kul'dur	28.72	344	eP	P	10 25 52.1	-3.6
KLR				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.8						
BJI	Beijing	29.14	314	P	P	10 25 58.9	-0.7
BJI				AP	pP	10 26 07.6	-2.2
BJI				XP	sP	10 26 11.5	-2.7
BJI				S	S	10 30 48.9	-0.4
BJI				AMB	AMB		
	comp=Z,2.0nm,1.0s,mb3.8						
BJI				LR	LR		
	comp=N,189nm,15.9s,MS3.9						
BJI				LR	LR		
	comp=E,186nm,17.4s,MS3.9						
BJI				LR	LR		
	comp=Z,102nm,24.7s						
PMG	Port Moresby	31.37	172	LR	LR	10 37 40.4	
	comp=Z,78nm,19.3s,MS3.4,baz=44,slow=34						
HHC	Hu-ho-hao-te	32.63	313	eP	P	10 26 31.6	+1.3
HHC				AP	pP	10 26 41.3	+0.7
HHC				XP	sP	10 26 45.1	+0.1
HHC				PP	PP	10 27 40.8	-3.6
HHC				PCP	PcP	10 29 17.8	+1.9
HHC				S	S	10 31 43.8	0.0
HHC				XS	sS	10 31 59.9	-1.0
HHC				SCP	ScP	10 32 57.1	0.0
HHC				PCS	PcS	10 33 01.9	+1.0
HHC				SS	SS	10 33 42.1	-23
HHC				SCS	ScS	10 36 56.0	-0.7
HHC				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.6						
HHC				LR	LR		
	comp=N,126nm,18.0s,MS3.9						
HHC				LR	LR		
	comp=E,155nm,18.0s,MS3.9						
HHC				LR	LR		
	comp=Z,159nm,16.8s,MS3.8						
HIA	Hailar	32.99	332	eP	P	10 26 33.1	-0.2
GYA	Guiyang	33.47	285	P	P	10 26 38.4	+0.6
GYA				AP	pP	10 26 47.4	-0.7
GYA				XP	sP	10 26 50.9	-1.6
GYA				PP	PP	10 27 50.8	-3.0
GYA				PPP		10 28 07.9	
GYA				PCP	PcP	10 29 20.0	+1.5
GYA				S	S	10 31 56.8	-0.3
GYA				SCS	ScS	10 37 00.4	-1.1
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
GYA				AMB	AMB		
	comp=Z,670nm,6.0s						
GYA				LR	LR		
	comp=N,490nm,16.9s,MS4.4						
GYA				LR	LR		
	comp=E,480nm,17.2s,MS4.4						
GYA				LR	LR		
	comp=Z,370nm,16.3s,MS4.2						
HNR	Honiara	35.26	150	LR	LR	10 39 59.6	
	comp=Z,78nm,18.3s,MS3.5,baz=0.2,slow=34						
CD2	Chengdu	36.20	293	eP	P	10 27 02.0	+0.7
CD2				AP	pP	10 27 11.5	-0.2
CD2				XP	sP	10 27 16.0	-0.1
CD2				PP	PP	10 28 24.5	+0.5
CD2				S	S	10 32 37.6	-1.5
CD2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.7						
CD2				AMB	AMB		
	comp=Z,30nm,5.2s						
CD2				LR	LR		
	comp=N,150nm,15.6s,MS4.1						
CD2				LR	LR		
	comp=E,190nm,15.6s,MS4.1						
CD2				LR	LR		
	comp=Z,90nm,15.6s,MS3.6						
LZH	Lanzhou	36.86	301	eP	P	10 27 09.3	+2.4
LZH				AP	pP	10 27 17.9	+0.6
LZH				XP	sP	10 27 21.3	-0.4
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.8						
LZH	Lanzhou	36.86	301	eP	P	10 27 09.3	+2.4
	comp=Z,15nm,1.0s,mb4.8						
LZH				pP	pP	10 27 17.9	+0.6
LZH				sP	sP	10 27 21.2	-0.5
LZH	Lanzhou	36.86	301	eP	P	10 27 09.3	+2.4
LZH				*PP	pP	10 27 17.9	+0.6
LZH				*SP	sP	10 27 21.2	-0.5
LZH				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.8						
KMI	Kunming	37.04	283	P	P	10 27 10.0	+1.4
KMI				AMB	AMB		
	comp=Z,6.0nm,1.4s,mb4.2						
KMI	Kunming	37.04	283	P	P	10 27 10.0	+1.4
	comp=Z,6.0nm,1.4s,mb4.2						
ULN	Ulaanbaatar	38.75	321	eP	P	10 27 22.8	+0.1
	comp=Z,11nm,1.1s,mb4.5						
ULN	Ulaanbaatar	38.75	321⇑	eP	P	10 27 21.8	-0.9
SONM	Songino Array	39.12	320	P	P	10 27 24.9	-0.9
SONM						10 29 34.6	
SONM	Songino Array	39.12	320	P	P	10 27 24.9	-0.9
	comp=Z,4.7nm,0.8s,mb4.3,baz=131,slow=7.2,SNR=27						
SONM				PcP	PcP	10 29 34.6	-0.4
	comp=Z,0.3nm,0.6s,baz=131,slow=5.9,SNR=2.7						
SONM				LR	LR	10 42 47.3	
	comp=Z,81nm,20.1s,MS3.5,baz=14,slow=35						
GTA	Gaotai	40.68	305	eP	P	10 27 39.4	+0.5
GTA				AP	pP	10 27 46.5	-2.9
GTA				XP	sP	10 27 50.1	-3.6
GTA				PP	PP	10 29 16.6	+3.6
GTA				PPP		10 29 45.5	
GTA				S	S	10 33 48.4	+1.8
GTA				SS	SS	10 36 45.3	-2.5
GTA				AMB	AMB		
	comp=Z,5.0nm,1.6s,mb3.9						
GTA				AMB	AMB		
	comp=Z,228nm,6.6s						
GTA				LR	LR		
	comp=N,64nm,15.4s,MS3.8						
GTA				LR	LR		
	comp=E,83nm,15.8s,MS3.8						
GTA				LR	LR		
	comp=Z,181nm,16.2s,MS4.0						
YAK	Yakutsk	41.15	350⇑	eP	P	10 27 41.9	-0.5
YAK				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.7						
CTA	Charters Tower	41.85	176	eP	P	10 27 43.2	-5.4
	comp=Z,9.4nm,1.1s,mb4.3						
CTA				P		10 27 48.6	
CTA				LR	LR	10 43 40.6	
CTA	Charters Tower	41.85	176	eP	P	10 27 43.2	-5.4
CTA						10 27 48.6	
CTA				pmax	pmax		
	comp=Z,9.0nm,1.1s						
CTA	Charters Tower	41.85	176	P	P	10 27 48.6	+0.1
	comp=Z,12nm,1.0s,mb4.5,baz=18,slow=7.5,SNR=5.7						
CTA				LR	LR	10 43 40.6	
	comp=Z,47nm,18.6s,MS3.4,baz=230,slow=34						
ZAK	Zakamensk	42.13	322	eP	P	10 27 49.6	-1.0
ZAK				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.3						
WB2	Warramunga Arr	42.46	192	eP	P	10 27 53.5	0.0
WB2	Warramunga Arr	42.46	192	eP	P	10 27 54.0	+0.5
WRA	Warramunga Arr	42.46	192	i P	P	10 27 53.7	+0.1
WRA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
WRA	Warramunga Arr	42.46	192	P	P	10 27 52.6	-0.9
	comp=Z,3.2nm,0.7s,mb4.1,baz=15,slow=8.8,SNR=23						
WRA				LR	LR	10 43 48.2	
	comp=Z,90nm,21.2s,MS3.6,baz=35,slow=34						
IRK	Irkutsk	42.49	325	eP	P	10 27 53.1	-0.4
IRK				pmax	pmax		
	comp=Z,31nm,1.5s,mb4.7						
TLY	Talaya	42.55	324	eP	P	10 27 54.5	+0.6
TLY	Talaya	42.55	324	eP	P	10 27 54.3	+0.3
TLY				eS	S	10 34 14.4	+0.5
TLY				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.5						
TLY				MLR	MLR		
	comp=Z,68nm,19.0s,MS3.6						
FITZ	Fitzroy Crossi	43.27	205	eP	P	10 27 59.2	-1.0
	comp=Z,5.3nm,0.7s,mb4.4						
FITZ	Fitzroy Crossi	43.27	205	LR	LR	10 44 56.0	
	comp=Z,76nm,19.0s,MS3.6,baz=92,slow=35						
ASAR	Alice Springs	46.17	192	P	P	10 28 21.8	-1.4
	comp=Z,1.5nm,0.6s,mb4.1,baz=18,slow=9.5,SNR=33						
LSA	Lhasa	47.08	291	eP	P	10 28 31.6	+1.2
LSA	Lhasa	47.08	291	eP	P	10 28 32.6	+2.1
	comp=Z,3.9nm,0.8s,mb4.4						
LSA	Lhasa	47.08	291	eP	P	10 28 32.6	+2.2
LSA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
BILL	Bilibino	48.34	11	P	P	10 28 39.0	-0.6
BILL				e	pP	10 28 50.3	+0.1
BILL				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
WMQ	Urumqi	50.38	309	P	P	10 28 56.3	+0.7
WMQ				AP	pP	10 29 06.3	0.0
WMQ				XP	sP	10 29 10.1	-0.4
WMQ				PCP	PcP	10 30 15.3	+1.6
WMQ				PP	PP	10 30 52.3	+1.1
WMQ				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.8						
TIXI	Tiksi	50.44	354⇑	eP	P	10 28 54.7	-0.8
TIXI				pmax	pmax		
	comp=Z,9.0nm,2.5s,mb4.4						
STKA	Stephens Creek	53.49	182	eP	P	10 29 18.6	-0.1
	comp=Z,2.1nm,0.8s,mb4.1						
STKA				eP		10 29 18.7	
STKA	Stephens Creek	53.49	182	P	P	10 29 18.5	-0.2
	comp=Z,2.4nm,0.7s,mb4.2,baz=342,slow=9.4,SNR=5.5						
ZALV	Zalesovo Beam	53.99	322	P	P	10 29 20.5	-1.7
ZALV				LR	LR	10 52 27.8	
ZALV	Zalesovo Beam	53.99	322	P	P	10 29 20.5	-1.7
	comp=Z,13nm,1.0s,mb4.8,baz=102,slow=6.5,SNR=32						
ZALV				LR	LR	10 52 27.8	
	comp=Z,36nm,19.1s,MS3.5,baz=94,slow=36						
ZAL	Zalesovo	54.00	322	P	P	10 29 20.5	-1.8
MK31	Makanchi Array	54.49	313	eP	P	10 29 26.2	+0.2
MKAR	Makanchi Array	54.49	313⇑	eP	P	10 29 26.0	0.0
MKAR	Makanchi Array	54.49	313	P	P	10 29 25.1	-1.0
	comp=Z,2.0nm,0.6s,mb4.2,baz=91,slow=9.1,SNR=30						
MKAR				LR	LR	10 55 07.0	
	comp=Z,61nm,18.6s,MS3.7,baz=168,slow=39						
NVS	Novosibirsk	55.09	322	eP	P	10 29 26.8	-3.4
NVS				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.8						
NVS				pmax	pmax		
	comp=N,6.0nm,1.2s						
NVS				pmax	pmax		
	comp=E,7.0nm,1.3s						
KURK	Kurchatov	57.27	317	eP	P	10 29 45.1	-0.6
	comp=E,11nm,0.9s,mb4.9						
KURK	Kurchatov	57.27	317	eP	P	10 29 45.2	-0.6
KURK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
KDAK	Kodiak Island	58.08	35	LR	LR	10 50 23.7	
	comp=Z,370nm,20.0s,MS4.5,baz=266,slow=31						
ULHL	Ulahol	58.70	307	P	P	10 29 56.9	+0.9
	SNR=8.7						
TKM2	Tokmak 2	59.15	308	P	P	10 30 00.1	+1.0
	SNR=9.7						
KZA	Kyzart	59.44	307	P	P	10 30 03.1	+2.0
	SNR=9.0						
USP	Ospenovka	59.94	308	P	P	10 30 04.8	+0.2
	SNR=5.4						
AAK	Ala-Archa	59.97	307	eP	P	10 30 04.4	-0.4
	comp=Z,5.4nm,1.1s,mb4.5						
AAK	Ala-Archa	59.97	307⇑	eP	P	10 30 04.1	-0.7
AAK				pmax	pmax		
	comp=Z,11nm,1.7s,mb4.6						
AAK	Ala-Archa	59.97	307	eP	P	10 30 04.4	-0.4
AAK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
UCH	Uchtor	59.98	307	P	P	10 30 05.8	+1.0
	SNR=14						
UCH	Uchtor	59.98	307	eP	P	10 30 05.7	+0.9
	comp=Z,14nm,1.2s,mb4.9						
EKS2	Erkin-Say	60.50	308	eP	P	10 30 08.8	+0.5
	comp=Z,4.6nm,1.0s,mb4.5						
AML	Almayashu	60.59	307	P	P	10 30 09.8	+0.8
	SNR=11						
BRVK	Borovoye	62.52	319	eP	P	10 30 21.8	-0.1
	comp=Z,16nm,1.0s,mb5.1						
BRVK	Borovoye	62.52	319	eP	P	10 30 21.8	0.0
BRVK				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.1						
KBL	Kabul	65.16	299	eP	P	10 30 39.5	-0.1
URZ	Urewera	67.84	152	LR	LR	10 56 26.2	
	comp=Z,89nm,18.2s,MS4.0,baz=308,slow=32						
ARU	Arti	69.05	324	eP	P	10 31 03.0	-0.8
	comp=Z,5.0nm,0.3s,mb4.9						
ARU				eP		10 31 03.8	
ARU	Arti	69.05	324	eP	P	10 31 03.1	-0.7
ARU				pmax	pmax		
	comp=Z,5.0nm,0.3s,mb4.9						
RAR	Rarotonga	70.32	124	LR	LR	10 55 41.3	
	comp=Z,8.0nm,21.3s,MS2.9,baz=187,slow=30						
AKTK	Aktyubinsk	70.36	317	P	P	10 31 10.5	-1.5
AKTO	Aktyubinsk	70.36	317	P	P	10 31 10.5	-1.5
	comp=Z,1.4nm,0.7s,mb4.0,baz=97,slow=6.2,SNR=7.5						
YKA	Yellowknife Ar	76.31	28	P	P	10 31 45.5	-1.4
YKA	Yellowknife Ar	76.31	28	P	P	10 31 45.5	-1.4
	comp=Z,2.0nm,0.5s,mb4.3,baz=292,slow=5.9,SNR=36						
PPT	Papeete	76.70	115	LR	LR	11 00 17.1	
	comp=Z,104nm,20.8s,MS4.1,baz=282,slow=32						
RES	Resolute Bay	76.90	13	eP	P	10 31 49.7	-0.3
ARCES	ARCESS Array B	78.70	341	P	P	10 31 59.4	-0.7
	comp=Z,2.9nm,0.7s,mb4.3,baz=80,slow=8.8,SNR=11						
JOF	Joensuu	80.09	334	ep	P	10 32 04.5	-3.3
	comp=Z,4.9nm,0.6s,mb4.6						
NEW	Newport	80.19	42	eP	P	10 32 08.8	+0.3
OBN	Obninsk	81.27	326	P	P	10 32 14.0	-0.2
OBN				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
CMB	Columbia Colle	81.71	52	eP	P	10 32 17.3	+0.4
	comp=Z,3.8nm,1.0s,mb4.3						
CMB	Columbia Colle	81.71	52	eP	P	10 32 17.3	+0.4
CMB				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
WALA	Waterton Lakes	81.84	40	eP	P	10 32 18.1	+0.7
KIV	Kislovodsk	82.22	314	eP	P	10 32 19.5	0.0
KIV				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
KAF	Kangasniemi	82.50	335	ep	P	10 32 18.4	-2.1
FINES	FINESS Array B	82.96	334	P	P	10 32 21.5	-1.5
	comp=Z,1.3nm,0.5s,mb4.2,baz=65,slow=6.5,SNR=9.5						
NVAR	Mina Array Bea	83.08	51	P	P	10 32 24.9	+0.8
	comp=Z,3.2nm,0.8s,mb4.4,baz=263,slow=8.5,SNR=21						
HLID	Hailey	83.77	46	eP	P	10 32 28.1	+0.6
QLMT	Earthquake Lak	85.17	43	eP	P	10 32 35.8	+1.2
FFC	Flin Flon	85.70	32	eP	P	10 32 37.2	+0.2
DUG	Dugway	86.27	48	eP	P	10 32 40.6	+0.5
	comp=Z,5.8nm,0.8s,mb4.9						
DUG	Dugway	86.27	48	eP	P	10 32 40.6	+0.5
DUG				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.9						
HWUT	Hardware Ranch	86.50	46	eP	P	10 32 41.2	-0.1
	comp=Z,4.2nm,0.8s,mb4.7						
HWUT				eP		10 32 41.8	
FCC	Fort Churchill	86.89	26	eP	P	10 32 42.2	-0.6
	comp=Z,6.4nm,0.8s,mb4.9						
FCC	Fort Churchill	86.89	26	eP	P	10 32 42.2	-0.6
FCC				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.9						
JLU	Jordanelle	87.02	47	eP	P	10 32 44.4	+0.6
AKASG	Malin Array Be	87.29	324	i P	P	10 32 43.0	-1.9
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	87.29	324	P	P	10 32 42.0	-2.8
	comp=Z,1.8nm,0.7s,mb4.4,baz=46,slow=5.1,SNR=7.5						
PDAR	Pinedale Array	87.31	45	P	P	10 32 44.5	-0.6
	comp=Z,0.7nm,0.9s,mb3.9,baz=259,slow=2.5,SNR=5.4						
WUAZ	Wupatki	89.34	52	eP	P	10 32 56.4	+1.5
BRTR	Keskin Array B	90.14	313	i P	P	10 32 57.2	-1.4
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BRTR	Keskin Array B	90.14	313	P	P	10 32 57.2	-1.3
	comp=Z,3.0nm,0.9s,mb4.6,baz=96,slow=3.7,SNR=11						
SMCO	Snowmass	90.73	47	eP	P	10 33 01.6	+0.3
	comp=Z,5.3nm,1.0s,mb4.8						
ISCO	Idaho Springs	91.34	46	eP	P	10 33 04.3	+0.1
SDCO	Great Sand Dun	92.44	48	eP	P	10 33 10.1	+0.7
ANMO	Albuquerque	93.16	50	eP	P	10 33 12.9	+0.2
TXAR	Lajitas Array	98.00	54	P	P	10 33 36.5	+1.6
	comp=Z,0.3nm,0.7s,mb3.9,baz=297,slow=2.9,SNR=4.5						
WMOK	Wichita Mounta	98.64	47	eP	P	10 33 38.8	+1.2
LPAZ	La Paz	150.01	85	ePKPdf	PKPdf	10 39 45.4	+1.0
LPAZ				ePKPbc	PKPbc	10 39 50.0	+0.6
LPAZ				ePKPbc	PKPbc	10 39 50.0	+0.6
LPAZ				PKPbc	PKPbc	10 39 50.2	+0.8
LPAZ	La Paz	150.01	85	ePKIKP	PKPdf	10 39 45.4	+0.9
LPAZ						10 39 50.3	
LPAZ	La Paz	150.01	85	PKPbc	PKPbc	10 39 50.2	+0.8
	comp=Z,5.0nm,0.8s,baz=296,slow=1.8,SNR=13						

IDC 21 10:21:12.3±24.0, **2388S×17935E, h650km**±308km, **mb2.9**/4, **mb1 3.2**/4, **mb1mx2.9**/13, **mbtmp2.9**/4, **Error ellipse: s-maj=277.1km s-min=73.2km az=148.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	Charters Tower	30.88	270	P	P	10 26 39.5	+0.4

	3.6nm,0.3s,baz=87,slow=11,SNR=12						
ASAR	**Alice Springs**	41.45	261	P	P	10 28 05.5	+0.2
	0.3nm,0.4s,baz=94,slow=7.4,SNR=12						
WRA	**Warramunga Arr**	41.81	266	P	P	10 28 08.1	0.0
	0.9nm,0.3s,baz=104,slow=7.9,SNR=42						
TXAR	**Lajitas Array**	90.92	58	P	P	10 33 09.2	+0.2
	0.2nm,0.9s,baz=212,slow=7.9,SNR=4.1						

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*ISCJB **21** 10:23:53.3±0.8, 36.54S±0.03×175.04E±0.04, h12^{km}±5^{km}, Error ellipse: s-maj=6.5km s-min=4.4km az=38.3*

*WEL **21** 10:23:53.1±0.1, 36.53S×175.04E, h5^{km}, ML3.7/9, Error ellipse: s-maj=1.0km s-min=0.8km az=90.0*

WEL Felt in the Auckland region, maximum reported intensity MM 5.

*NEIC **21** 10:23:53.6, 36.55S×175.03E, h7^{km}, ML3.8(WEL), After WEL.*

NEIC Felt in Auckland.

ISC 21 10:23:53.2±0.7**, 3651S**±003×**17505E**±004**, h10**^{km}±5^{km}**, n34, σ0^{s}79**/44**, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAAZ	**Kauri Point**	0.42	222	P	Pg	10 24 01.3	-0.1
KAAZ	**Kauri Point**	0.42	222	PG	Pg	10 24 01.3	-0.1
KAAZ				SG	Sg	10 24 07.6	+0.6
OTAZ	**Otara**	0.45	193	P	Pg	10 24 01.8	-0.2
OTAZ	**Otara**	0.45	193	PG	Pg	10 24 01.8	-0.3
WTAZ	**Waiatarua**	0.57	222	P	Pg	10 24 04.3	0.0
WTAZ	**Waiatarua**	0.57	222	PG	Pg	10 24 04.3	0.0
KUZ	**Kuaotunu**	0.59	114	P	Pg	10 24 05.2	+0.6
KUZ				S	Sg	10 24 13.2	+0.9
KUZ	**Kuaotunu**	0.59	114	P*	Pb	10 24 05.2	-0.3
KUZ				SG	Sg	10 24 13.1	+0.8
MKAZ	**Moumakai**	0.61	171	P	Pg	10 24 04.4	-0.6
MKAZ				S	Sg	10 24 12.9	0.0
MKAZ	**Moumakai**	0.61	171	P*	Pb	10 24 04.4	-1.5
MKAZ				SG	Sg	10 24 12.9	0.0
WCZ	**Waipu Caves**	0.81	315	P	Pg	10 24 08.7	0.0
WCZ	**Waipu Caves**	0.81	315	P*	Pb	10 24 08.7	-0.6
WCZ				S*	Sb	10 24 18.8	-1.4
MYRZ	**Mayor Island**	1.23	129	*e*P*	Pb	10 24 16.7	+0.3
TOZ	**Tahuroa Road**	1.27	164	P	Pn	10 24 16.3	-0.7
TOZ	**Tahuroa Road**	1.27	164	P*	Pb	10 24 16.3	-1.0
TGRZ	**Tauranga**	1.56	142	*e*PN	Pn	10 24 19.7	-1.3
OUZ	**Omahuta**	1.75	317	*e*P	Pn	10 24 23.9	+0.3
OUZ				S	Sn	10 24 47.3	+1.4
OUZ	**Omahuta**	1.75	317	PN	Pn	10 24 23.9	+0.3
OUZ				SN	Sn	10 24 47.3	+1.4
KARZ	**Kaharoa**	1.78	148	P	Pn	10 24 23.2	-0.9
KARZ	**Kaharoa**	1.78	148	*e*PN	Pn	10 24 23.3	-0.8
UTU	**Utuhina**	1.90	152	*e*PN	Pn	10 24 26.9	+1.3
HIZ	**Hauiti**	2.01	184	P	Pn	10 24 27.0	-0.2
HIZ				S	Sn	10 24 51.9	-0.4
HIZ	**Hauiti**	2.01	184	PN	Pn	10 24 27.0	-0.2
HIZ				SN	Sn	10 24 51.9	-0.4
KATZ	**Kakaramea**	2.51	169	P	Pn	10 24 33.7	-0.4
KATZ	**Kakaramea**	2.51	169	*e*PN	Pn	10 24 33.7	-0.4
TWVZ	**Taurewa**	2.58	173	P	Pn	10 24 34.6	-0.4
TWVZ	**Taurewa**	2.58	173	PN	Pn	10 24 34.6	-0.4
VRZ	**Vera Road**	2.62	185	P	Pn	10 24 36.2	+0.6
VRZ	**Vera Road**	2.62	185	*e*PN	Pn	10 24 36.2	+0.6
MWZ	**Matawai**	2.68	133	*e*PN	Pn	10 24 36.9	+0.4
NEZ	**North Egmont**	2.86	195	P	Pn	10 24 39.7	+0.8
NWEZ	**Newall Road**	2.92	198	P	Pn	10 24 40.5	+0.8
QRZ	**Quartz Range**	4.74	204	*e*P	Pn	10 25 05.4	+0.7
THZ	**Tophouse**	5.50	197	P	Pn	10 25 16.9	+1.7

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*ISCJB **21** 10:36:36.6±2.7, 18.0S±0.4×178.6W±0.1, h634^{km}±43^{km}, mb4.1/12, Error ellipse: s-maj=58.2km s-min=15.2km az=169.4*

*NEIC **21** 10:36:37.0±2.8, 17.98S×178.61W, h620^{km}±42^{km}, mb4.2/3, Error ellipse: s-maj=43.5km s-min=11.0km az=171.0*

*IDC **21** 10:36:36.0±2.8, 17.85S×178.61W, h602^{km}±38^{km}, mb3.4/11, mb1 3.6/12, mb1mx3.4/18, mbtmp3.4/12, Error ellipse: s-maj=42.0km s-min=13.2km az=165.0*

ISC 21 10:36:37.0±3.1**, 180S**±03×**1786W**±01**, h618**^{km}±44^{km}**, n17, σ0^{s}55**/18**, mb4.1**/12**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	14.62	251	P	P	10 39 40.8	-0.1
	0.5nm,0.3s,baz=113,slow=18,SNR=5.2						
DZM				S	S	10 42 11.0	-0.1
	0.2nm,0.3s,baz=65,slow=21,SNR=2.3						
PPT	**Papeete**	27.64	94	P	P	10 41 37.4	-0.3
	19nm,0.5s,mb5.0,baz=297,slow=4.7,SNR=4.3						
CTA	**Charters Tower**	33.24	261	P	P	10 42 25.3	-0.1
	6.9nm,0.8s,mb4.4,baz=105,slow=15,SNR=6.2						
PMG	**Port Moresby**	34.28	280	P	P	10 42 35.1	+1.0
	8.9nm,0.7s,mb4.5,baz=82,slow=7.4,SNR=5.6						
STKA	**Stephens Creek**	38.42	241	*e*P	P	10 43 08.6	+0.8
	3.1nm,0.5s,mb4.1						
STKA	**Stephens Creek**	38.42	241	*e*P	P	10 43 08.2	+0.4
	8.7nm,0.9s,mb4.3						
STKA				*e*P		10 43 08.6	
STKA	**Stephens Creek**	38.42	241	P	P	10 43 08.7	+0.9
	5.2nm,0.6s,mb4.2,baz=93,slow=10,SNR=18						
WB2	**Warramunga Arr**	44.41	260	*e*P	P	10 43 54.1	-0.9
WRA	**Warramunga Arr**	44.43	260	P	P	10 43 54.6	-0.5
	2.7nm,0.3s,mb4.3,baz=92,slow=7.4,SNR=65						
WRA				PcP	PcP	10 45 25.6	+0.7
	0.3nm,0.4s,baz=96,slow=3.5,SNR=2.2						
ASAR	**Alice Springs**	44.58	254	P	P	10 43 56.5	+0.3
	20nm,0.5s,mb4.9,baz=88,slow=8.6,SNR=198						
ASAR				PcP	PcP	10 45 26.2	+0.9
	0.6nm,0.5s,baz=95,slow=4.6,SNR=4.0						
KAKA	**Kakadu**	47.39	269	*e*P	P	10 44 17.0	-0.5
	7.3nm,0.4s,mb4.6						
FITZ	**Fitzroy Crossi**	52.82	261	*e*P	P	10 44 57.4	+0.5
	3.2nm,0.8s,mb3.7						
FITZ	**Fitzroy Crossi**	52.82	261	P	P	10 44 56.8	-0.2
	0.8nm,0.3s,mb3.6,baz=207,slow=5.1,SNR=12						
NVAR	**Mina Array Bea**	79.61	44	P	P	10 47 41.5	0.0
	0.8nm,0.7s,mb3.1,baz=232,slow=12,SNR=5.9						
TXAR	**Lajitas Array**	86.20	58	P	P	10 48 15.4	+0.8
	0.9nm,0.8s,mb3.5,baz=221,slow=6.4,SNR=11						
PDAR	**Pinedale Array**	87.54	44	P	P	10 48 20.8	+0.3
	0.7nm,0.7s,mb3.5,baz=224,slow=3.3,SNR=5.5						
YKA	**Yellowknife Ar**	94.48	25	P	P	10 48 51.1	-0.8
	0.1nm,0.5s,mb3.2,baz=228,slow=4.7,SNR=3.2						

IDC 21 10:37:58.0±1.6**, 099S**×**12751E, h0**^{km}**, mb4.1**/4**, mb1 4.2**/5**, mb1mx3.8**/17**, mbtmp4.1**/5**, ML3.8**/1**, Error ellipse: s-maj=142.4km s-min=20.0km az=65.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	19.99	161	P	Pn	10 42 31.3	-2.5
	0.3nm,0.3s,baz=340,slow=11,SNR=27						
WB2	**Warramunga Arr**	19.99	161	*e*P	Pn	10 42 31.3	-2.6
ASAR	**Alice Springs**	23.38	165	P	P	10 43 08.1	-0.5
	5.3nm,0.7s,baz=346,slow=11,SNR=69						
STKA	**Stephens Creek**	33.48	158	P	P	10 44 40.5	+1.4
	1.7nm,0.8s,baz=322,slow=9.5,SNR=4.1						
MKAR	**Makanchi Array**	61.87	326	P	P	10 48 19.3	+0.2
	0.4nm,0.3s,baz=128,slow=8.9,SNR=8.8						
AKTO	**Aktyubinsk**	77.83	322	P	P	10 49 57.2	-0.1
	1.5nm,0.7s,baz=104,slow=6.8,SNR=7.5						

MOS 21 10:49:07.5±0.2**, 4297N**×**4603E, h22**^{km}**, mb3.6**/1**, 1C-2D, Error ellipse: s-maj=72.4km s-min=15.2km az=5.6, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLKR	**Vladikavkaz**	1.00	275	*e*PG	Pb	10 49 25.7	-0.4
VLKR				*e*S	Sb	10 49 38.0	-0.8
BTKR	**Batakoyurt**	1.16	291	*e*PG	Pn	10 49 28.5	+0.1
BTKR				*e*S	Sb	10 49 43.2	-0.4
LACR	**Lac**	1.28	264	⇓*i*PG	Pn	10 49 30.2	+0.1
LACR				*i* S	Sn	10 49 46.0	-0.6
ARNR	**Ardon**	1.30	280	*e*PG	Pn	10 49 30.5	+0.1
ARNR				*e*S	Sn	10 49 46.8	-0.3
KORR	**Kora**	1.45	275	*e*PG	Pn	10 49 32.8	+0.5
ZEI	**Tsey**	1.58	264	⇓*i*PG	Pn	10 49 34.8	+0.6
DIGR	**Digorskoe uzhe**	1.80	269	⇑*i*PN	Pn	10 49 38.1	+0.9

IDC 21 10:52:54.7±1.1**, 4579N**×**15709E, h0**^{km}**, mb3.5**/4**, mb1 3.8**/4**, mb1mx3.4**/22**, mbtmp3.5**/4**, Error ellipse: s-maj=52.9km s-min=28.8km az=105.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FINES	**FINESS Array B**	66.05	337	P	P	11 03 42.7	0.0
	0.7nm,0.9s,baz=39,slow=9.0,SNR=3.8						
WRA	**Warramunga Arr**	68.61	203	P	P	11 03 58.8	-0.5
	0.4nm,0.8s,baz=18,slow=7.0,SNR=3.8						
ASAR	**Alice Springs**	72.27	202	P	P	11 04 22.5	+0.9
	0.3nm,0.6s,baz=18,slow=5.8,SNR=5.9						
TXAR	**Lajitas Array**	75.52	63	P	P	11 04 41.0	+0.1
	0.3nm,0.7s,baz=306,slow=5.3,SNR=4.8						

JMA 21 10:56:57.8±0.1**, 2700N**×**14158E, h122**^{km}**, M3.9, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	0.55	80	P	Pn	10 57 16.3	+0.1
CBIJ				*e*S	Sn	10 57 30.7	+0.5
JHHJ	**Haha-jima-NKT**	0.65	124	P	Pn	10 57 17.0	0.0
JHHJ				*e*S	Sn	10 57 31.5	+0.1
BSO3	**Boso 3**	7.83	354	P	Pn	10 58 48.2	-0.8
BSO4	**Boso 4**	8.04	353	P	Pn	10 58 52.1	+0.4
BSO4				*e*S	Sn	11 00 19.5	-1.4
JAG	**Ashikaga**	9.57	350	P	Pn	10 59 09.9	-2.5
JAG				*e*S	Sn	11 00 50.9	-7.1
JHO	**Hitachi**	9.62	355	P	Pn	10 59 11.3	-1.8

IDC 21 10:59:44.9±4.0**, 4576N**×**15596E, h0**^{km}**, mb3.4**/3**, mb1 3.8**/3**, mb1mx3.3**/22**, mbtmp3.4**/3**, Error ellipse: s-maj=140.3km s-min=35.7km az=179.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	49.15	299	P	P	11 08 34.1	0.0
	0.2nm,0.2s,baz=68,slow=7.1,SNR=3.6						
YKA	**Yellowknife Ar**	50.53	37	P	P	11 08 44.0	-0.4
	0.2nm,0.5s,baz=293,slow=6.0,SNR=4.3						
TXAR	**Lajitas Array**	76.23	62	P	P	11 11 35.6	+0.4
	0.3nm,0.5s,baz=293,slow=5.4,SNR=6.2						

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*BGS **21** 11:05:09.2, 36.44N×41.04E, h10^{km}, mb5.7, MS5.3*

*BJI **21** 11:05:24.1, 38.42N×38.55E, h17^{km}, mB5.7, mb5.3, Ms5.8, Msz5.5*

*NSSC **21** 11:05:25.4, 38.67N×39.34E, h15^{km}±7^{km}*

*MOS **21** 11:05:26.6±1.2, 38.27N×39.35E, h15^{km}, mb5.8/97, MS5.3/61, Error ellipse: s-maj=5.0km s-min=2.3km az=134.7*

*ISCJB **21** 11:05:27.6±0.3, 38.35N±0.01×39.30E±0.01, h8^{km}±1^{km}, mb5.5/273, MS5.5/214, Error ellipse: s-maj=1.7km s-min=1.4km az=174.0*

*IDC **21** 11:05:27.4±0.4, 38.36N×39.41E, h0^{km}, mb5.0/29, mb1 5.1/39, mb1mx5.1/39, mbtmp5.0/39, ML4.6/10, MS5.3/30, Ms1 5.3/30, ms1mx5.3/37, Error ellipse: s-maj=8.0km s-min=5.8km az=3.0*

*CSEM **21** 11:05:27.4±0.0, 38.30N×39.31E, h11^{km}, mb5.7/99, Ms5.2, Mw5.3, Error ellipse: s-maj=0.8km s-min=0.7km az=179.0*

*DDA **21** 11:05:27.3, 38.40N×39.30E, h23^{km}±1^{km}, Md5.4*

*ISK **21** 11:05:27.3, 38.36N×39.30E, h6^{km}, ML5.9*

*PDG **21** 11:05:28.5±0.7, 38.34N×39.34E, h0^{km}±1^{km}, MD5.6/5, ML5.7/10, Error ellipse: s-maj=1.3km s-min=1.3km az=0.0*

*NEIC **21** 11:05:28.6±0.1, 38.32N×39.28E, h6^{km}, mb5.6/162, ME5.6, MS5.5/164, MW5.7, ML5.9(ISK), Error ellipse: s-maj=3.1km s-min=2.4km az=184.0 Broadband fault plane solution: P waves. NP1:ϕ_s355.00000°, δ70.00000°, λ-150.00000°. NP2:ϕ_s254.00000°, δ62.00000°, λ-23.00000°. Principal axes: T Plg5.0000°, Azm123.0000°; N Plg0.0000°, Azm0.0000°; P Plg35.0000°, Azm217.0000°; Moment Tensor Solution. s19 Moment tensor: Scale 10^{17} Nm; M$_{rr}$-1.47; M$_{\theta\theta}$0.44; M$_{\phi\phi}$1.03; M$_{r\theta}$-0.23; M$_{\theta\phi}$1.20; M$_{\phi r}$-3.66; Best double couple: M$_0$4.10000×10^{17} NP1:ϕ_s245.00000°, δ19.00000°, λ-34.00000°. NP2:ϕ_s8.00000°, δ79.00000°, λ-106.00000°. Principal axes: T 3.9900, Plg33.0000°, Azm111.0000°; N 0.1500, Plg16.0000°, Azm11.0000°; P -4.1500, Plg53.0000°, Azm259.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC Some buildings damaged at Dogankoy, Puturge and Sivrice. Felt at Diyarbakir, Elazig, Malatya, Siverek and Tunceli.

*GCMT **21** 11:05:29.2±0.1, 38.45N×39.23E, h12^{km}, MW5.7/104, Moment Tensor Solution. s78,c159; s104,c290; Duration: 1^{s}8 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-3.22±.04; M$_{\theta\theta}$0.20±.05; M$_{\phi\phi}$3.01±.04; M$_{r\theta}$-0.38±.13; M$_{\theta\phi}$2.79±.04; M$_{\phi r}$-2.26±.11; Best double couple: M$_0$4.64900×10^{17} NP1:ϕ_s233.00000°, δ34.00000°, λ-58.00000°. NP2:ϕ_s15.00000°, δ61.00000°, λ-110.00000°. Principal axes: T 5.2680, Plg14.0000°, Azm120.0000°; N -1.2420, Plg17.0000°, Azm25.0000°; P -4.0310, Plg67.0000°, Azm247.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*IPEC **21** 11:05:30.8±5.1, 38.32N×39.18E, h6^{km}±24^{km} Error ellipse: s-maj=33.9km s-min=18.3km az=131.0*

*SZGRF **21** 11:05:32.7, 38.31N×39.05E, h33^{km}, mb6.0, MS5.0, Turkey*

*GRAL **21** 11:05:57.9±2.3, 36.55N×38.15E, h0^{km}±458^{km}, MD5.0*

*NAO **21** 11:06:03.4, 41.92N×38.37E, h33^{km}, mb5.2*

ISC 21 11:05:28.6±0.3**, 3834N**±001×**3934E**±001**, h5**^{km}±1^{km}**, h14**^{km}±3.5^{km}**:pP-P, n1649, σ1^{s}17**/1775**, mb5.5**/273**, MS5.5**/214**, 116C-200D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.32	300	*i* P	Pg	11 05 33.2	-1.5
ELZG				*i* S	Sg	11 05 38.5	-0.3
ELZG	**Elazig**	0.32	300	*i* P	Pg	11 05 33.2	-1.5
PTK	**Pertek**	0.55	5	*i* PG	Pg	11 05 37.6	-1.6
PTK				*i* SG	Sg	11 05 46.2	-0.2
PTK	**Pertek**	0.55	5	*i* Pg	Pg	11 05 37.6	-1.6
PTK				*i* Sg	Sg	11 05 46.2	-0.2
MALT	**Malatya**	0.71	268	*e*Pg	Pg	11 05 40.8	-1.5
MALT				*e*Sg	Sg	11 05 50.7	-0.9
MALT	**Malatya**	0.71	268	*e*Pg	Pg	11 05 40.8	-1.5
MALT				*e*Sg	Sg	11 05 50.7	-0.9
MYA	**Malataya**	0.72	269	*i* PG	Pg	11 05 40.7	-1.6
MYA	**Malataya**	0.72	269	*i* Pg	Pg	11 05 40.7	-1.6
DIYA	**Diyarbakir**	0.75	124	⇑*i*P	Pg	11 05 43.1	+0.2
DIYA				*i* S	Sg	11 05 59.7	+7.1
DIY	**Diyarbakir**	0.83	122	*i* PG	Pg	11 05 44.4	-0.1
DIY	**Diyarbakir**	0.83	122	*i* Pg	Pg	11 05 44.4	-0.1
URFA	**Urfa**	0.98	205	*i* PG	Pg	11 05 47.5	0.0
URFA				*i* SG	Sg	11 06 00.8	+0.6
URFA	**Urfa**	0.98	205	*i* Pg	Pg	11 05 47.5	0.0
URFA				*i* Sg	Sg	11 06 00.8	+0.6
ATAB	**Bozova**	1.20	224	*i* P	Pg	11 05 51.0	-0.5
ATAB				*i* S	Sg	11 06 09.2	+2.1
EZC	**Erzincan**	1.46	15	PN	Pn	11 05 53.0	-2.5
DRBT	**Darb Altahta**	1.53	166	⇓P	Pn	11 06 02.1	+5.5
MARD	**Mardin**	1.54	131	*i* P	Pn	11 05 55.6	-1.0
MARD				*i* S	Sg	11 06 19.1	+1.2
BNGL	**BINGOL**	1.55	66	*i* P	Pn	11 05 56.3	-0.5
BNGL				*i* S	Sg	11 06 21.2	+3.0
KBSD	**Kabsdagh**	1.65	144	⇓P	Pn	11 05 57.8	-0.3
KBSD	**Kabsdagh**	1.65	144	⇓*i*P	Pn	11 05 57.8	-0.3
BTMT	**Batman**	1.70	94	PN	Pn	11 05 57.6	-1.3
GZT	**Gaziantep**	1.71	236	*i* P	Pn	11 05 58.2	-0.9
GZT				*i* S	Sg	11 06 30.0	+6.4
SFNV	**Sufian**	2.02	162	⇓P	Pn	11 06 02.8	-0.5
SFNV	**Sufian**	2.02	162	⇓*i*P	Pn	11 06 02.8	-0.4
GAZ	**Gaziantep**	2.05	236	PN	Pn	11 06 02.7	-1.0
GAZ	**Gaziantep**	2.05	236	*e*Pn	Pn	11 06 02.7	-1.0
KMRS	**Kahramanmaras**	2.10	247	PN	Pn	11 06 03.4	-1.0
KMRS	**Kahramanmaras**	2.10	247	*e*Pn	Pn	11 06 03.4	-1.0
GUMT	**Gumushane**	2.12	3	PN	Pn	11 06 04.8	+0.1
EZM	**Erzurum**	2.22	45	PN	Pn	11 06 06.7	+0.6
ERZM	**Erzurum**	2.22	45	*i* P	Pn	11 06 06.7	+0.6
ERZM				*i* S	Sn	11 06 35.8	+1.9
MNKR	**ALMNKUR**	2.39	181	⇓P	Pn	11 06 09.2	+0.7
MNKR				⇓S	Sn	11 06 42.8	+4.6
MNKR	**ALMNKUR**	2.39	181	⇓*i*P	Pn	11 06 09.2	+0.8
SLMH	**Al Salmeh**	2.40	208	⇓P	Pn	11 06 08.0	-0.5
SLMH	**Al Salmeh**	2.40	208	⇓*i*P	Pn	11 06 08.0	-0.5
SVSK	**Karacayir**	2.41	312	PN	Pn	11 06 08.7	+0.1
SVSK	**Karacayir**	2.41	312	*e*Pn	Pn	11 06 08.7	+0.1
ANDN	**Andirin**	2.48	253	*i* P	Pn	11 06 08.7	-0.9
ANDN				*i* S	Sn	11 06 50.2	+10
KSRV	**Kasrt alli**	2.49	186	⇑P	Pn	11 06 17.4	+7.7
SIRT	**Sirnak**	2.59	108	PN	Pn	11 06 10.6	-0.6
SIRT	**Sirnak**	2.59	108	*e*Pn	Pn	11 06 10.6	-0.6
MACK	**Trabzon**	2.62	7	*i* P	Pn	11 06 11.7	+0.1
MACK				*i* S	Sg	11 06 50.5	-2.3
KTUT	**Trabzon**	2.66	7	PN	Pn	11 06 11.1	-1.1
KTUT	**Trabzon**	2.66	7	*e*Pn	Pn	11 06 11.1	-1.1
GRSN	**GIRESUNGRSN**	2.71	343	*i* P	Pn	11 06 12.7	-0.1
GRSN				*i* S	Sn	11 06 50.1	+4.1
MZRK	**Al-Mazaregh**	2.72	157	⇓P	Pn	11 06 12.4	-0.5
MZRK	**Al-Mazaregh**	2.72	157	⇓*i*P	Pn	11 06 12.4	-0.5
DRWC	**Darouich**	2.73	232	⇓P	Pn	11 06 11.8	-1.2
DRWC				⇑S	Sn	11 06 48.0	+1.5
DRWC	**Darouich**	2.73	232	⇓*i*P	Pn	11 06 11.8	-1.3
DRWC				⇑*i*S	Sn	11 06 48.0	+1.6
JHLN	**Al Jahlan**	2.76	195	⇓P	Pn	11 06 13.3	-0.2
JHLN				⇑S	Sn	11 06 50.7	+3.6
JHLN	**Al Jahlan**	2.76	195	⇓*i*P	Pn	11 06 13.3	-0.1
BNN	**Bunyan**	2.78	282	PN	Pn	11 06 14.1	+0.3
BNN	**Bunyan**	2.78	282	*e*Pn	Pn	11 06 14.1	+0.3
KOZT	**Kozan**	2.91	254	PN	Pn	11 06 14.2	-1.3
TUTA	**Tutak**	2.92	68	*i* P	Pn	11 06 16.3	+0.7
TUTA				*i* S	Sg	11 07 29.4	+27
TOKT	**Tokat**	2.93	313	PN	Pn	11 06 16.2	+0.4
TOKT	**Tokat**	2.93	313	*e*Pn	Pn	11 06 16.2	+0.4
COBT	**Iskenderun**	3.05	234	*i* P	Pn	11 06 16.2	-1.3
COBT				*i* S	Sg	11 07 02.0	-4.6
AGRB	**Hanur-Agry**	3.11	65	PN	Pn	11 06 18.9	+0.7
AGRB	**Hanur-Agry**	3.11	65	*e*Pn	Pn	11 06 18.9	+0.7
CEYT	**Ceyhan**	3.14	246	PN	Pn	11 06 17.5	-1.2
CEYT	**Ceyhan**	3.14	246	*e*Pn	Pn	11 06 17.5	-1.2
VANT	**Van**	3.19	87	PN	Pn	11 06 18.7	-0.6
VANB	**Van**	3.19	84	PN	Pn	11 06 19.6	+0.2
VANB	**Van**	3.19	84	*e*Pn	Pn	11 06 19.6	+0.2
TVAN	**Van**	3.20	85	*i* P	Pn	11 06 19.5	0.0
TVAN				*i* S	Sn	11 06 51.1	-7.0
BTCH	**Batrach**	3.25	226	⇓P	Pn	11 06 19.3	-0.9
BTCH	**Batrach**	3.25	226	⇓*i*P	Pn	11 06 19.3	-0.9
HTY	**Hatay**	3.38	230	PN	Pn	11 06 21.4	-0.6
HTY	**Hatay**	3.38	230	*e*Pn	Pn	11 06 21.4	-0.6
YAYL	**Yayladag**	3.46	229	⇓*i*P	Pn	11 06 22.0	-1.0
ARTV	**Artvin**	3.47	34	*i* P	Pn	11 06 23.9	+0.6
ARTV				*i* S	Sg	11 07 29.6	+9.4
AVNT	**Avonos**	3.54	279	⇓*i*P	Pn	11 06 24.3	+0.1
HAKT	**HAKKARI**	3.54	101	*i* P	Pn	11 06 23.7	-0.5
HAKT				*i* S	Sg	11 07 20.1	-2.3
CUKT	**Cukurca**	3.56	107	PN	Pn	11 06 24.9	+0.5
CUKT	**Cukurca**	3.56	107	*e*Pn	Pn	11 06 24.9	+0.5
KARA	**Karaisali**	3.56	254	PN	Pn	11 06 23.5	-0.9
KARA	**Karaisali**	3.56	254	*e*Pn	Pn	11 06 23.5	-0.9
HKR	**Hakkari**	3.56	101	PN	Pn	11 06 24.5	0.0
HKR	**Hakkari**	3.56	101	*e*Pn	Pn	11 06 24.5	0.0
BCA	**Borcka**	3.56	29	PN	Pn	11 06 24.8	+0.3
BCA	**Borcka**	3.56	29	*e*Pn	Pn	11 06 24.8	+0.3
DYDN	**Diyadin**	3.60	69	*i* P	Pn	11 06 24.8	-0.2
DYDN				*i* S	Sg	11 07 23.6	-0.6
KRTS	**Karatas**	3.61	242	PN	Pn	11 06 25.1	-0.1
KRTS	**Karatas**	3.61	242	*e*Pn	Pn	11 06 25.1	-0.1
MSL	**Mosul**	3.63	123	*i* Pn	x	11 06 28.0	
MSL				*i* Pb	x	11 06 37.0	
MSL				*i* Pg	x	11 06 47.5	
MSL				*i* Sn	x	11 07 17.0	
MSL				*i* Sb	x	11 07 32.0	
MSL				*i* Sg	x	11 07 42.5	
ARNB	**Al Arnab**	3.65	228	⇓P	Pn	11 06 25.1	-0.7
ARNB				⇑S	Sn	11 07 10.1	+0.9
ARNB	**Al Arnab**	3.65	228	⇓*i*P	Pn	11 06 25.1	-0.7
ARNB				⇑*i*S	Sn	11 07 10.1	+0.9
CLDR	**Caldiran**	3.67	76	PN	Pn	11 06 26.9	+0.9
CLDR	**Caldiran**	3.67	76	*e*Pn	Pn	11 06 26.9	+0.9
WRDH	**Warideh**	3.67	221	⇓P	Pn	11 06 25.4	-0.6
WRDH	**Warideh**	3.67	221	⇓*i*P	Pn	11 06 25.4	-0.6
KARS	**Kars**	3.69	51	*e*PN	Pn	11 06 27.7	+1.5
KARS	**Kars**	3.69	51	*e*Pn	Pn	11 06 27.7	+1.5
SLNF	**Slenfeh**	3.70	223	⇓P	Pn	11 06 25.9	-0.5
SLNF				⇑S	Sn	11 07 12.5	+2.1
SLNF	**Slenfeh**	3.70	223	⇓*i*P	Pn	11 06 25.9	-0.6
SLNF				⇑*i*S	Sn	11 07 12.5	+2.0
NIG	**Nigde**	3.73	268	PN	Pn	11 06 27.1	+0.3
NIG	**Nigde**	3.73	268	*e*Pn	Pn	11 06 27.1	+0.3
KVT	**Kavak**	3.73	318	PN	Pn	11 06 27.0	+0.2
KVT	**Kavak**	3.73	318	*e*Pn	Pn	11 06 27.0	+0.2
DIGO	**Kars**	3.75	55	*i* P	Pn	11 06 27.8	+0.6
DIGO				*i* S	Sg	11 07 33.9	+4.8
GULE	**Gulek**	3.76	255	⇓*i*P	Pn	11 06 27.0	-0.2
CDAG	**Cicekdag**	4.08	290	*i* P	Pn	11 06 31.7	+0.1
CDAG				*i* S	Sg	11 07 36.5	-3.0
CORM	**Corum**	4.09	298	*e*PN	Pn	11 06 31.0	-0.7
CORM	**Corum**	4.09	298	*e*Pn	Pn	11 06 31.0	-0.7
MERS	**Mersin**	4.09	250	*e*PN	Pn	11 06 31.4	-0.4
MERS	**Mersin**	4.09	250	*e*Pn	Pn	11 06 31.4	-0.4
BIDA	**Albida**	4.11	217	⇑P	Pn	11 06 30.9	-1.2
BIDA				⇑S	Sn	11 07 23.1	+2.6
BIDA	**Albida**	4.11	217	⇑*i*P	Pn	11 06 30.9	-1.1
BIDA				⇑*i*S	Sn	11 07 23.0	+2.5
CTKT	**Corum**	4.19	304	*i* P	Pn	11 06 34.5	+1.4
CTKT				*i* S	Sg	11 07 35.6	-7.5
CTKT	**Corum**	4.19	304	*i* P	Pn	11 06 34.5	+1.3
RABH	**Abou Rabah**	4.26	204	⇓P	Pn	11 06 34.6	+0.5
RABH				⇑S	Sn	11 07 28.1	+3.9
RABH	**Abou Rabah**	4.26	204	⇓*i*P	Pn	11 06 34.6	+0.5
RABH				⇑*i*S	Sn	11 07 28.1	+3.9
ROOS	**tl_alroos**	4.48	202	⇑P	Pn	11 06 37.2	+0.1
ROOS	**tl_alroos**	4.48	202	⇑*i*P	Pn	11 06 37.2	+0.1
KAMT	**Kaman**	4.51	285	*e*PN	Pn	11 06 38.2	+0.7
KAMT	**Kaman**	4.51	285	*e*Pn	Pn	11 06 38.2	+0.7
DIKM	**Dikmen**	4.55	318	*e*PN	Pn	11 06 39.1	+1.0
DIKM	**Dikmen**	4.55	318	*e*Pn	Pn	11 06 39.1	+1.0
BOYT	**Boyabat**	4.59	313	*i* P	Pn	11 06 39.3	+0.7
BOYT				*i* S	Sg	11 07 42.5	-13
BR131	**Keskin Array S**	4.65	289	*e*Pn	Pn	11 06 39.8	+0.4
BR131				*e*Sg	Sg	11 08 02.8	+5.0
BR131	**Keskin Array S**	4.65	289	*e*Pn	Pn	11 06 39.8	+0.4
BRTR	**Keskin Array B**	4.65	289	Pn	Pn	11 06 39.7	+0.3
BRTR				Pg	Pg	11 06 52.1	-5.4
BRTR				Sn	Sn	11 07 34.0	+0.3
BRTR				Lg		11 07 54.3	
BRTR				LR	LR	11 08 41.9	
BRTR	**Keskin Array B**	4.65	289	*i* P	Pn	11 06 39.7	+0.3
BRTR				pmax	pmax		
	comp=Z,322nm,0.6s						
BRTR	**Keskin Array B**	4.65	289	Pn	Pn	11 06 39.7	+0.3
	comp=Z,43nm,0.3s,baz=110,slow=15,SNR=735						
BRTR				Pg	Pg	11 06 52.1	-5.4
	comp=Z,58nm,0.3s,baz=172,slow=20,SNR=16						
BRTR				Sn	Sn	11 07 34.0	+0.3
	comp=Z,19nm,0.3s,baz=116,slow=22,SNR=3.4						
BRTR				Lg		11 07 54.3	
	comp=Z,7.2nm,0.3s,baz=239,slow=24,SNR=2.0						
BRTR				LR	LR	11 08 41.9	
	comp=Z,113µm,18.7s,baz=92,slow=41						
BRTR	**Keskin Array B**	4.65	289	Pn	Pn	11 06 39.7	+0.3
BRTR	**Keskin Array B**	4.65	289	Pg	Pg	11 06 52.2	-5.4
FKH	**Fakeheh**	4.73	211	*e*P	Pn	11 06 41.2	+0.7
MARH	**Ras Al Marh**	4.88	209	⇓P	Pn	11 06 43.3	+0.6
MARH				⇓S	Sn	11 07 43.1	+3.5
MARH	**Ras Al Marh**	4.88	209	⇓*i*P	Pn	11 06 43.3	+0.6
MARH				⇓*i*S	Sn	11 07 43.1	+3.5
HWQ	**Hawqa**	4.89	215	*e*P	Pn	11 06 42.6	-0.2
TOS	**Tosya**	4.90	305	*e*PN	Pn	11 06 43.9	+1.0
TOS	**Tosya**	4.90	305	*e*Pn	Pn	11 06 43.9	+1.0
CANT	**Cankiri**	4.97	299	*e*PN	Pn	11 06 44.8	+1.0
IKL	**Isikli**	4.97	247	*e*PN	Pn	11 06 44.9	+1.0
IKL	**Isikli**	4.97	247	*e*Pn	Pn	11 06 44.9	+1.0
ELDT	**Eldivan**	5.05	297	*i* P	Pn	11 06 45.5	+0.5
ELDT				*i* S	Sn	11 08 00.3	+16
GOR	**Gori**	5.16	44	P	Pn	11 06 46.7	+0.3
SOC	**Sochi**	5.25	3*c*	*i*P	Pn	11 06 48.8	+1.2
SOC				*i*		11 07 56.2	
SOC				pmax	pmax		
	comp=Z,539nm,0.7s						
SOC				MLR	MLR		

	comp=Z,19µm,9.0s						
SOC	Sochi	5.25	3	*i* P	Pn	11 06 48.7	+1.1
ONI	Oni	5.27	35	P	Pn	11 06 49.3	+1.3
ONI				S	Sn	11 08 12.1	+23
ANTO	Ankara	5.31	289	*e*PN	Pn	11 06 49.8	+1.2
ANTO	Ankara	5.31	289	*e*Pn	Pn	11 06 49.4	+0.9
	comp=Z,3µm,1.3s						
ANTO				*e*Sg	Sg	11 08 20.4	+1.2
ANTO	Ankara	5.31	289	*e*Pn	Pn	11 06 49.4	+0.8
	comp=Z,3µm,1.3s						
ANTO				*e*Sg	Sg	11 08 20.4	+1.2
BHL	Bhannes	5.34	215	*e*P	Pn	11 06 49.4	+0.5
LOD	Lodumlu	5.34	289	*e*PN	Pn	11 06 50.1	+1.2
LOD	Lodumlu	5.34	289	*e*Pn	Pn	11 06 50.1	+1.2
TBLG	Delisi	5.35	49	P	Pn	11 06 50.1	+1.0
TBLG				S	Sg	11 08 18.6	-1.8
MTA	Mtatsminda	5.36	50	P	Pn	11 06 50.3	+1.1
MTA				S	Sg	11 08 21.6	+0.8
ERMK	Ermenek	5.38	254	*i* P	Pn	11 06 51.2	+1.6
ERMK				*i* S	Sg	11 08 12.2	-9.2
PHNC	Paralimni	5.41	234	P	Pn	11 06 53.0	+3.1
	comp=Z,94nm,1.1s						
TOTH	TOTAH	5.50	206	⇓P	Pn	11 06 51.2	0.0
TOTH				⇓S	Sn	11 07 58.9	+4.1
TOTH	TOTAH	5.50	206	⇓*i*P	Pn	11 06 51.2	0.0
BALT	Daday	5.58	307	*i* P	Pn	11 06 53.1	+0.9
BALT				*i* S	Sg	11 08 13.8	-14
DGRG	David-gareji	5.59	54	P	Pn	11 06 54.4	+2.0
DGRG				S	Sg	11 08 26.9	-1.0
RCY	Rachaya	5.62	212	*e*P	Pn	11 06 53.7	+0.9
ZEI	Tsey	5.63	37	*e*P	Pn	11 06 55.9	+3.0
ZEI				pmax	pmax		
	comp=Z,22nm,0.1s						
BRBR	Barbar	5.63	210	⇑P	Pn	11 06 54.0	+1.0
BRBR				⇑S	Sn	11 08 01.5	+3.4
BRBR	Barbar	5.63	210	⇑*i*P	Pn	11 06 54.0	+1.0
KDHN	Kadinhani	5.67	274	*i* P	Pn	11 06 54.0	+0.5
KDHN				*i* S	Sg	11 08 28.6	-2.1
MATL	Matirih	5.83	215	*e*P	Pn	11 06 56.4	+0.7
MAMC	Mammari	5.84	239	P	Pn	11 06 55.2	-0.6
KIZT	Kizilcal	5.86	278	*e*PN	Pn	11 06 57.4	+1.3
KIZT	Kizilcal	5.86	278	*e*Pn	Pn	11 06 57.4	+1.3
CSS	Prodhromos	5.89	237	P	Pn	11 06 57.0	+0.5
	comp=Z,51nm,1.3s						
CSS				S	Sn	11 08 08.2	+3.9
CSS	Prodhromos	5.89	237	*e*Pn	Pn	11 06 55.7	-0.8
CSS	Prodhromos	5.89	237	P	Pn	11 06 57.0	+0.5
	comp=Z,51nm,1.3s						
KSDI	Kefar Szold	5.94	211	P	Pn	11 06 57.8	+0.6
SGKT	Sivrigoynuk	6.06	294	⇑*i*P	Pn	11 06 59.8	+1.0
KSHT	Keshet	6.07	209	P	Pn	11 07 00.4	+1.5
KIV	Kislovodsk	6.15	23	*e*Pn	Pn	11 07 03.0	+3.0
KIV	Kislovodsk	6.15	23	*e*P	Pn	11 06 59.0	-1.1
KIV				*e*S	Sn	11 08 08.5	-2.3
KIV				pmax	pmax		
	comp=Z,118nm,1.2s						
KIV				MLR	MLR		
	comp=Z,13µm,10.0s						
MMAI	Mount Meron Ar	6.20	212	Pn	Pn	11 07 02.0	+1.2
	comp=Z,60nm,0.3s,baz=52,slow=14,SNR=125						
MMAI				Sn	Sn	11 08 17.0	+4.9
	comp=Z,17nm,0.3s,baz=72,slow=14,SNR=2.4						
MMAI				Lg		11 08 49.6	
	comp=Z,179nm,0.3s,baz=12,slow=30,SNR=6.2						
ALFC	Alevga	6.27	242	P	Pn	11 06 58.9	-2.9
	comp=Z,21nm,0.8s						
ALFC				S	Sn	11 08 18.4	+4.6
SZAC	Souni-Zanaja	6.31	237	P	Pn	11 07 03.2	+1.0
ASF	Jabal al Asfar	6.47	199	Pn	Pn	11 07 04.5	+0.1
ASF				Sn	Sn	11 08 23.5	+4.9
ASF				Lg		11 08 57.5	
ASF				LR	LR	11 09 43.2	
ASF	Jabal al Asfar	6.47	199	P	Pn	11 07 04.5	0.0
ASF						11 08 23.5	
ASF				pmax	pmax		
	comp=Z,15nm,0.3s						
ASF				smax			
	comp=N,32nm,0.3s						
ASF				MLR	MLR		
	comp=Z,12µm,19.0s						
ASF	Jabal al Asfar	6.47	199	Pn	Pn	11 07 04.5	+0.1
	comp=Z,14nm,0.3s,baz=251,slow=8.4,SNR=111						
ASF				Sn	Sn	11 08 23.5	+4.9
	comp=Z,32nm,0.3s,baz=271,slow=23,SNR=3.3						
ASF				Lg		11 08 57.5	
	comp=Z,87nm,0.3s,baz=258,slow=21,SNR=4.2						
ASF				LR	LR	11 09 43.2	
	comp=Z,12µm,19.0s,baz=253,slow=39						
BHD	Baghdad	6.51	139	*i* Pn	x	11 07 05.0	
BHD				*i* Pg	x	11 07 35.0	
BHD				*i* Sn	x	11 08 24.0	
AKMC	Akamas	6.53	242	P	Pn	11 07 04.6	-0.7
ANN	Anapa	6.61	348	*e*P	Pn	11 07 08.8	+2.4
ANN				*e*S	Sn	11 08 30.4	+8.3
ANN				pmax	pmax		
	comp=Z,158nm,2.1s						
ANN				MLR	MLR		
	comp=N,33µm,10.0s						
ANN				MLR	MLR		
	comp=Z,31µm,10.0s						
MDU	Mudurnu	6.64	291	*e*PN	Pn	11 07 07.9	+1.1
MDU	Mudurnu	6.64	291	*e*Pn	Pn	11 07 07.9	+1.1
MMLI	Mount Malkishu	6.70	210	P	Pn	11 07 08.3	+0.7
OFRI	‘Ofer	6.72	213	P	Pn	11 07 08.9	+1.0
ESKT	Eskisehir	6.72	283	*e*PN	Pn	11 07 09.5	+1.6
ESKT	Eskisehir	6.72	283	⇓*i*P	Pn	11 07 08.4	+0.6
ESKT	Eskisehir	6.72	283	*e*Pn	Pn	11 07 09.5	+1.6
SEYT	Eskypehyr	6.72	283	*i* P	Pn	11 07 08.4	+0.5
KDZE	Karadeniz Ereo	6.76	299	*e*PN	Pn	11 07 10.2	+1.8
KDZE	Karadeniz Ereo	6.76	299	*e*Pn	Pn	11 07 10.2	+1.8
HMDT	Nahal Hemdat	6.82	208	P	Pn	11 07 08.6	-0.7
SHUT	Suhut-Afyon	6.90	274	*e*PN	Pn	11 07 11.9	+1.6
SHUT	Suhut-Afyon	6.90	274	*e*Pn	Pn	11 07 11.9	+1.6
BCK	Bucak	6.97	265	*e*PN	Pn	11 07 13.4	+2.0
BCK	Bucak	6.97	265	*e*Pn	Pn	11 07 13.4	+2.0
HENT	Hendek	6.97	293	*i* P	Pn	11 07 12.4	+1.1
HENT				*i* S	Sg	11 09 10.3	-2.1
ISP	Isparta	6.98	269	*e*PN	Pn	11 07 12.5	+1.0
ISP	Isparta	6.98	269	*e*Pn	Pn	11 07 12.8	+1.4
ISP	Isparta	6.98	269	⇑*i*P	Pn	11 07 13.1	+1.6
ISP	Isparta	6.98	269	*e*Pn	Pn	11 07 12.7	+1.2
ISP	Isparta	6.98	269	⇑*i*P	Pn	11 07 13.5	+2.0
SLTI	Sal’it	7.03	211	P	Pn	11 07 12.7	+0.6
YAL	Yalta	7.27	329	⇑*e*P	Pn	11 07 16.6	+1.2
YAL				*e*S	Sn	11 08 41.3	+3.0
YAL				pmax	pmax		
	comp=Z,95nm,0.9s						
YAL				pmax	pmax		
	comp=Z,64nm,0.5s						
YAL				smax			
	comp=N,47nm,1.0s						
YAL				smax			
	comp=E,38nm,1.0s						
YAL				smax			
	comp=N,258nm,2.5s						
YAL				smax			
	comp=E,123nm,2.3s						
FEO	Feodosiya	7.30	337	*e*P	Pb	11 07 33.1	-2.6
FEO				*e*S	Sn	11 08 45.0	+6.0
FEO				smax			
	comp=N,290nm,1.0s						
SUDU	Sudak	7.30	335	*e*P	Pn	11 07 20.4	+4.5
SUDU				*e*S	Sn	11 08 48.6	+9.4
SUDU				pmax	pmax		
	comp=Z,4.0nm,0.9s						
SUDU				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SUDU				smax			
	comp=N,97nm,1.1s						
SUDU				smax			
	comp=E,21nm,0.8s						
SUDU				smax			
	comp=N,47nm,0.8s						
SUDU				smax			
	comp=E,14nm,0.8s						
ALU	Alushta	7.34	331	*e*P	Pn	11 07 16.4	+0.1
ALU				*e*S	Sn	11 08 43.0	+3.1
ALU				pmax	pmax		
	comp=Z,72nm,0.7s						
ALU				smax			
	comp=N,470nm,1.1s						
DRGI	Dragot	7.47	207	P	Pn	11 07 17.9	-0.3
SEV	Sevastopol’	7.52	327	*e*P	Pn	11 07 17.7	-1.1
SEV				*e*S	Sn	11 08 43.7	-0.7
SEV				pmax	pmax		
	comp=Z,17nm,0.5s						
SEV				smax			
	comp=N,105nm,0.9s						
SEV				smax			
	comp=E,24nm,1.0s						
SEV				smax			
	comp=N,98nm,0.9s						
SEV				smax			
	comp=E,12nm,0.8s						
SIM	Simferopol’	7.67	331	*c i*P	Pn	11 07 21.8	+0.9
SIM				*e*S	Sn	11 08 58.8	+11
SIM				pmax	pmax		
	comp=Z,68nm,0.7s						
SIM				MLR	MLR		
	comp=Z,11µm,18.7s						
SIM	Simferopol’	7.67	331	*e*P	Pn	11 07 22.2	+1.3
ADVT	Abdulvahap	7.72	289	*e*PN	Pn	11 07 21.6	0.0
ADVT	Abdulvahap	7.72	289	*e*Pn	Pn	11 07 21.6	0.0
MAK	Makhachkala	7.74	51	*e*P	Pn	11 07 26.3	+4.5
MAK				*e*S	Sn	11 08 53.5	+3.7
MAK				pmax	pmax		
	comp=Z,638nm,2.2s						
MAK				MLR	MLR		
	comp=Z,106µm,12.0s						
MZDA	Masada	7.74	206	P	Pn	11 07 22.5	+0.6
GDZ	Gediz	7.74	279	*i* P	Pn	11 07 22.6	+0.7
GDZ				*i* S	Sg	11 09 33.1	-4.0
YTIR	Yattir	7.78	208	P	Pn	11 07 23.8	+1.4
GOLH	Golhisar	7.82	265	*i* P	Pn	11 07 23.5	+0.5
GOLH				*i* S	Sg	11 10 13.5	+34
HRT	Hereke	7.87	291	*e*PN	Pn	11 07 24.0	+0.4
HRT	Hereke	7.87	291	*e*Pn	Pn	11 07 24.0	+0.4
IZI	Iznik	7.90	288	*e*PN	Pn	11 07 24.0	-0.1
IZI	Iznik	7.90	288	*e*Pn	Pn	11 07 24.0	-0.1
GEMT	Gemlik	8.13	288	*e*PN	Pn	11 07 27.8	+0.5
GEMT	Gemlik	8.13	288	*e*Pn	Pn	11 07 27.8	+0.5
DENT	Denizli	8.15	269	*e*PN	Pn	11 07 28.6	+1.1
DENT	Denizli	8.15	269	*e*Pn	Pn	11 07 28.6	+1.1
ISK	Istanbul-Kandi	8.38	292	*e*PN	Pn	11 07 30.6	0.0
ISK	Istanbul-Kandi	8.38	292	*e*Pn	Pn	11 07 30.6	0.0
DST	Dursunbey	8.44	282	*e*PN	Pn	11 07 32.0	+0.6
DST	Dursunbey	8.44	282	*e*Pn	Pn	11 07 32.0	+0.6
KLYT	Kilyos	8.44	293	*e*PN	Pn	11 07 33.0	+1.5
KLYT	Kilyos	8.44	293	*e*Pn	Pn	11 07 33.0	+1.5
KZIT	Kziot	8.46	210	P	Pn	11 07 32.0	+0.2
ZFRI	Zfri	8.49	205	P	Pn	11 07 32.1	-0.1
YER	Yerkesik	8.84	266	*e*PN	Pn	11 07 37.9	+0.9
YER	Yerkesik	8.84	266	*e*Pn	Pn	11 07 37.9	+0.9
BNT	Bandirma	9.07	286	*e*PN	Pn	11 07 40.8	+0.7
ARG	Arkhangelos	9.18	260	P	Pn	11 07 44.3	+2.6
EIL	Elat	9.38	204	Pn	Pn	11 07 45.2	+0.8
	comp=Z,1.5nm,0.3s,baz=10,slow=9.5,SNR=24						
EIL				Lg		11 10 29.5	
	comp=Z,16nm,0.3s,baz=137,slow=22,SNR=3.6						
EIL				LR	LR	11 11 27.9	
	comp=Z,16µm,20.8s,baz=18,slow=38						
EIL	Elat	9.38	204	P	Pn	11 07 43.3	-1.1
DAT	Datca	9.48	264	*e*PN	Pn	11 07 46.9	+1.2
DAT	Datca	9.48	264	*e*Pn	Pn	11 07 46.9	+1.2
GLFJ		9.51	203	*e*P	Pn	11 07 45.7	-0.5
	SNR=52						
BLCB	Balcova	9.66	274	*e*P	Pn	11 07 49.8	+1.7
SART	Tekirdag	9.68	288	⇑*i*P	Pn	11 07 51.6	+3.1
SMG	Samos	9.88	270	*e*P	Pn	11 07 54.1	+2.8
PSN	Preselentsi	9.97	306	*e*P	Pn	11 07 53.0	+0.5
KARP	Karpathos	10.13	258	*e*P	Pn	11 07 54.5	-0.2
TIRR	Tirgusor	10.23	310	⇑P	Pn	11 07 58.2	+2.3
TIRR	Tirgusor	10.23	310	⇑*i*P	Pn	11 07 58.2	+2.2
PRK	Paraskevi	10.24	279	*e*P	Pn	11 08 00.2	+4.0
CHOS	Chios island	10.43	274	*e*P	Pn	11 08 01.8	+3.0
JMB	Yambol	10.56	297	*e*P	Pn	11 08 06.0	+5.5
ALN	Alexandroupoli	10.57	288	*e*P	Pn	11 08 03.5	+2.9
MIB	Mutribah	10.79	140	*e*P	Pn	11 08 02.5	-1.3
MIB				AML	AML	11 09 47.8	
	comp=Z,153nm,0.6s						
RST	Umm Al-Ruwaisa	10.87	142	*e*P	Pn	11 08 03.5	-1.4
RST				AML	AML	11 09 56.5	
	comp=Z,84nm,0.7s						
RDO	Rodhopi	10.99	289	*e*P	Pn	11 08 09.5	+3.1
RDO	Rodhopi	10.99	289	P	Pn	11 08 06.3	-0.1
RDO	Rodhopi	10.99	289	*e*Pn	Pn	11 08 06.8	+0.4
APE	Apeiranthos	11.01	268	P	Pn	11 08 11.3	+4.6
APE	Apeiranthos	11.01	268	*e*P	Pn	11 08 09.7	+3.0
APE	Apeiranthos	11.01	268	*d i*P	Pn	11 08 09.9	+3.2
APE	Apeiranthos	11.01	268	*e*P	Pn	11 08 10.5	+3.8
APE	Apeiranthos	11.01	268	⇓*i*P	Pn	11 08 09.5	+2.8
LIA	Limnos Island	11.11	282	*e*P	Pn	11 08 13.1	+5.1
KDZ	Kurdzhali	11.18	292	*e*P	Pn	11 08 11.8	+2.8
UMR	Umm Al-Rimmam	11.19	139	*e*P	Pn	11 08 07.7	-1.4
UMR				AML	AML	11 09 57.1	
	comp=Z,106nm,0.7s						
DIM	Dimitrovgrad	11.19	294	*e*P	Pn	11 08 13.4	+4.3
NAY	Al-Naaiem	11.20	142	*e*P	Pn	11 08 08.1	-1.2
NAY				AML	AML	11 09 58.7	
	comp=Z,34nm,0.6s						
SZH	Strazhica	11.28	300	*e*P	Pn	11 08 11.8	+1.4
NPS	Neapolis	11.42	259	*e*P	Pn	11 08 22.1	+10
KBD	Kabd	11.48	140	*e*P	Pn	11 08 11.9	-1.3
KBD				AML	AML	11 10 07.9	
	comp=Z,161nm,0.6s						
XRY	Khrisi	11.49	257	*e*P	Pn	11 08 17.0	+3.6
KIS	Kishinev	11.60	322	*j i*P	Pn	11 08 14.0	-0.7
KIS				*i* S	Sn	11 10 24.0	-0.6
KIS				pmax	pmax		
	comp=E,2µm,3.5s						
KIS				pmax	pmax		
	comp=Z,2µm,3.5s						
KIS				pmax	pmax		
	comp=N,1µm,3.0s						
KIS				pmax	pmax		
	comp=E,3µm,8.0s						
KIS				pmax	pmax		
	comp=Z,3µm,8.0s						
KIS				pmax	pmax		
	comp=N,3µm,4.0s						
KIS				MLR	MLR		
	comp=Z,14µm,13.0s						
KIS				MLR	MLR		
	comp=N,8µm,14.0s						
KIS				MLR	MLR		
	comp=E,7µm,11.0s						
KIS	Kishinev	11.60	322	*e*P	Pn	11 08 14.0	-0.7
	comp=E,3µm,4.0s						
KIS	Kishinev	11.60	322	*e*PP		11 08 23.0	
KIS				*i* S	Sn	11 10 24.0	-0.6
KIS				*i* Li		11 11 18.0	
KIS				*i* Lg1		11 11 36.0	
KIS				*i* Lg2		11 11 56.0	
KIS				*e*Rg		11 12 59.0	
KIS				LRM		11 15 52.0	
	comp=E,11µm,14.0s						
RDF	Al-Radifah	11.61	142	*e*P	Pn	11 08 13.3	-1.7
RDF				AML	AML	11 10 10.7	
	comp=Z,84nm,0.7s						
BUC1	Bucharest	11.66	305	P	Pn	11 08 19.8	+4.2
PVL	Pavlikeni	11.68	299	*e*P	Pn	11 08 20.0	+4.2
RZN	Rozhen	11.70	291	*e*P	Pn	11 08 19.0	+2.9
PLD	Plovdiv	11.80	293	*e*P	Pn	11 08 20.1	+2.6
PLD	Plovdiv	11.80	293	*e*P	Pn	11 08 19.5	+2.0
IDI	Anoyia	11.97	260	Pn	Pn	11 08 20.3	+0.4
IDI				Sn	Sn	11 10 44.4	+11
IDI				LR	LR	11 13 44.7	
IDI	Anoyia	11.97	260	Pn	Pn	11 08 20.3	+0.4
	comp=Z,5.9nm,0.3s,baz=66,slow=12,SNR=22						
IDI				Sn	Sn	11 10 44.4	+11
	comp=Z,0.9nm,0.3s,baz=157,slow=21,SNR=1.9						
IDI				LR	LR	11 13 44.7	
	comp=Z,19µm,21.5s,baz=60,slow=41						
IDI	Anoyia	11.97	260	Pn	Pn	11 08 20.3	+0.4
VRI	Vrincioaia	12.00	313	P	Pn	11 08 22.1	+1.9
VRI	Vrincioaia	12.00	313	⇓*i*P	Pn	11 08 22.8	+2.6
VRI	Vrincioaia	12.00	313	P	Pn	11 08 22.1	+1.9
PLOR	Plostina	12.04	313	⇑*i*P	Pn	11 08 23.3	+2.6
PTL	Penteli	12.18	273	*e*P	Pn	11 08 25.5	+2.8
MLR	Muntele Rosu	12.26	310	P	Pn	11 08 27.5	+3.7
MLR	Muntele Rosu	12.26	310	Pn	Pn	11 08 24.3	+0.6
	comp=Z,0.2nm,0.3s,baz=136,slow=12,SNR=20						
MLR				LR	LR	11 14 15.1	
	comp=Z,27µm,19.0s,baz=317,slow=43						
MLR	Muntele Rosu	12.26	310	⇑*i*P	Pn	11 08 27.0	+3.2
MLR	Muntele Rosu	12.26	310	P	Pn	11 08 24.1	+0.3
MLR	Muntele Rosu	12.26	310	*e*Pn	Pn	11 08 26.8	+3.0
PAIG	Paliouri	12.26	282	*e*P	Pn	11 08 25.8	+2.0
NVR	Nevrokopi	12.27	289	*e*P	Pn	11 08 26.2	+2.3
KVR	Kavouri	12.28	272	*e*P	Pn	11 08 27.0	+2.9
PGB	Panagyurishte	12.30	295	*e*P	Pn	11 08 26.8	+2.5
ATH	Athens Observa	12.30	273	*e*P	Pn	11 08 31.0	+6.6
MMB	Musomiste	12.41	290	*e*P	Pn	11 08 30.4	+4.6
PLG	Polygyros	12.47	284	*e*P	Pn	11 08 28.1	+1.5
PLG	Polygyros	12.47	284	*e*P	Pn	11 08 30.5	+3.9
VAM	Vamos	12.47	261	*e*P	Pn	11 08 28.8	+2.1
NAIG	Nisos Aigina	12.51	272	*e*P	Pn	11 08 30.0	+2.8
SOH	Sokhos	12.58	286	*e*P	Pn	11 08 31.1	+3.0
SOH	Sokhos	12.58	286	*e*P	Pn	11 08 31.1	+3.0
NEO	Neokhori	12.61	279	*e*P	Pn	11 08 31.4	+2.9
VORD	Divnogorie	12.62	360	*e*P	Pn	11 08 29.8	+1.1
VORD				*e*S	Sn	11 10 51.1	+1.5
VORD				pmax	pmax		
	comp=Z,10.0nm,0.6s						
VORD				pmax	pmax		
	comp=N,40nm,0.8s						
VORD				pmax	pmax		
	comp=E,10.0nm,1.1s						
VORD				smax			
	comp=Z,80nm,1.5s						
VORD				smax			
	comp=N,170nm,0.9s						
VORD				smax			
	comp=E,450nm,2.0s						
VORD				MLR	MLR		
	comp=N,6µm,12.0s						
VORD				MLR	MLR		
	comp=Z,10µm,12.0s						
VORD				MLR	MLR		
	comp=E,9µm,13.0s						
DID	Didima	12.74	271	*e*P	Pn	11 08 31.8	+1.4
GVD	Gavdhos	12.74	259	*e*Pn	Pn	11 08 31.8	+1.4
	comp=E,233nm,0.9s						
GVD	Gavdhos	12.74	259	*e*Pn	Pn	11 08 31.3	+0.9
HORT	Hortiatis	12.75	285	*e*P	Pn	11 08 32.6	+2.1
VOIR		12.78	308	P	Pn	11 08 33.3	+2.4
VOIR		12.78	308	⇑*i*P	Pn	11 08 33.0	+2.1
VOIR		12.78	308	P	Pn	11 08 33.3	+2.4
LKR	Lokris	12.81	276	*e*P	Pn	11 08 33.6	+2.3
THE	Thessaloniki	12.85	285	*e*P	Pn	11 08 34.2	+2.3
VRHR	Novokhopersk	12.86	6	*e*P	Pn	11 08 33.6	+1.7
VRHR				*e*S	Sn	11 10 58.6	+3.3
VRHR				pmax	pmax		
	comp=Z,160nm,1.0s						
VRHR				pmax	pmax		
	comp=N,300nm,1.1s						
VRHR				pmax	pmax		
	comp=E,30nm,0.4s						
VRHR				smax			
	comp=N,350nm,7.5s						
VRHR				smax			
	comp=Z,1µm,9.0s						
VRHR				smax			
	comp=E,1µm,9.3s						
VRHR				MLR	MLR		
	comp=Z,4µm,12.0s						
VRHR				MLR	MLR		
	comp=N,6µm,16.0s						
VRHR				MLR	MLR		
	comp=E,4µm,10.0s						
VRSR	Storozhevoye	12.87	360	*e*P	Pn	11 08 26.8	-5.3
VRSR				*e*S	Sn	11 10 57.6	+1.9
VRSR				pmax	pmax		
	comp=Z,5.0nm,1.2s						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,3.0nm,0.8s						
LTK	Loutraki	12.89	274	*e*P	Pn	11 08 34.8	+2.4
SOF	Sofiya	12.92	295	*e*P	Pn	11 08 36.3	+3.4
KKB	Krupnik	12.93	291	*e*P	Pn	11 08 35.0	+2.0
KNT	Kendrikon	12.96	288	*e*P	Pn	11 08 36.3	+2.9
VTS	Vitosha	12.99	294	*e*P	Pn	11 08 35.2	+1.5
VTS	Vitosha	12.99	294	⇑*i*P	Pn	11 08 37.2	+3.4
VTS	Vitosha	12.99	294	*e*P	Pn	11 08 36.1	+2.3
CRAR	CRAIOVA	13.11	302	P	Pn	11 08 40.2	+4.8
VLI	Veliai	13.12	268	*e*P	Pn	11 08 37.3	+1.7
KYTH	Kithira	13.14	266	*e*P	Pn	11 08 38.1	+2.3
LIT	Litokhoron	13.18	283	*e*P	Pn	11 08 38.2	+1.8
LIT	Litokhoron	13.18	283	*e*P	Pn	11 08 38.2	+1.8
VAY	Valandovo	13.23	288	*e*P	Pn	11 08 38.3	+1.3
VAY	Valandovo	13.23	288	*e*P	Pn	11 08 39.2	+2.2
AGG	Agios Georgios	13.31	278	*e*P	Pn	11 08 40.4	+2.3
GRG	Griva	13.31	287	*e*P	Pn	11 08 40.9	+2.8
VLX	Vlachokerasia	13.44	271	*e*P	Pn	11 08 41.9	+2.0
THL	Klokotos Trika	13.54	281	*e*P	Pn	11 08 43.2	+1.9
STIP	Stip	13.56	290	*e*P	Pn	11 08 46.4	+4.8
EVR	Evrytania	13.72	278	*e*P	Pn	11 08 48.2	+4.5
KZN	Kozani	13.74	284	*e*P	Pn	11 08 48.2	+4.2
ITM	Ithomi	13.83	271	*e*P	Pn	11 08 48.2	+3.0
ITM	Ithomi	13.83	271	P	Pn	11 08 46.9	+1.7
BURAR	Bucovina Array	13.86	316	P	Pn	11 08 45.6	0.0
PYL	PYLOS	14.02	270	*e*P	Pn	11 08 46.0	-1.9
BARS	Barje	14.04	294	Pn	Pn	11 08 49.5	+1.5
RLS	Riolos of Patr	14.06	274	*e*P	Pn	11 08 52.3	+3.9
FNA	Florina	14.07	286	*e*P	Pn	11 08 50.6	+2.1
LTBQ	Tobruq	14.07	248	*i* P	Pn	11 08 48.7	+0.1
	comp=E,402nm,1.5s,SNR=45						
LTBQ				*e*S	Sn	11 11 25.6	+0.5
	SNR=47						
DJES	Djerdap	14.07	302	P	Pn	11 08 52.1	+3.6
DJES	Djerdap	14.07	302	Pn	Pn	11 08 50.7	+2.2
BIA	Bitola	14.13	287	*e*P	Pn	11 08 51.3	+2.0
SKO	Skopje	14.16	290	*e*P	Pn	11 08 50.8	+1.1
SKO	Skopje	14.16	290	*e*P	Pn	11 08 52.0	+2.3
GZR	Gura Zlata	14.20	305	P	Pn	11 08 52.7	+2.6
GZR	Gura Zlata	14.20	305	⇓*i*P	Pn	11 08 52.7	+2.5
KRUS	Krusevo	14.22	288	*e*P	Pn	11 08 51.8	+1.2
AKASG	Malin Array Be	14.29	333	Pn	Pn	11 08 48.6	-2.8
AKASG				Sn	Sn	11 11 31.9	+1.7
AKASG	Malin Array Be	14.29	333	P	Pn	11 08 48.7	-2.7
AKASG						11 11 32.0	
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.3s						
AKASG	Malin Array Be	14.29	333	Pn	Pn	11 08 48.6	-2.8
	comp=Z,2.3nm,0.3s,baz=151,slow=12,SNR=28						
AKASG				Sn	Sn	11 11 31.9	+1.7
	baz=159,slow=10.0,SNR=2.4						
AKASG	Malin Array Be	14.29	333	Pn	Pn	11 08 48.7	-2.7
AKBB	Malin Array Si	14.29	333	*e*Pn	Pn	11 08 48.4	-3.1
AKBB	Malin Array Si	14.29	333	*e*Pn	Pn	11 08 48.4	-3.0
KIEV	Kiev	14.29	333	*e*Pn	Pn	11 08 48.6	-2.8
	comp=Z,84nm,0.9s						
KIEV	Kiev	14.29	333	*e*P	Pn	11 08 48.6	-2.8
KIEV				pmax	pmax		
	comp=Z,84nm,1.0s						
KIEV	Kiev	14.29	333	*e*Pn	Pn	11 08 48.6	-2.8
	comp=Z,84nm,0.9s						
JAN	Janina	14.44	281	*e*P	Pn	11 08 56.4	+2.9
KBN	Korca	14.51	285	*i* PN	Pn	11 08 58.6	+4.1
KBN	Korca	14.51	285	*i* Pn	Pn	11 08 58.6	+4.1
OHR	Ohrid	14.53	287	*e*P	Pn	11 08 56.1	+1.3
OHR	Ohrid	14.53	287	*e*P	Pn	11 08 55.6	+0.8
LKD	Levkas	14.64	277	*e*P	Pn	11 09 00.0	+3.8
VLS	Valsamata	14.73	275	*e*P	Pn	11 09 00.9	+3.3
SVIS	Svilajnac	14.84	299	Pn	Pn	11 09 00.0	+1.0
DRGR		14.86	310	⇑*i*P	Pn	11 09 01.0	+1.8
DRGR		14.86	310	P	Pn	11 08 57.7	-1.5
PHP	Peshkopia	14.86	289	*i* PN	Pn	11 09 03.1	+3.9
PHP	Peshkopia	14.86	289	*i* Pn	Pn	11 09 03.1	+3.9
BZS	Buzias	15.03	305	P	Pn	11 09 04.5	+2.9
BZS	Buzias	15.03	305	⇑P	Pn	11 09 03.1	+1.5
BZS	Buzias	15.03	305	⇑*i*P	Pn	11 09 03.0	+1.4
GRUS	Gruza	15.08	297	Pn	Pn	11 09 03.5	+1.2
SRN	Sarande	15.09	282	*i* PN	Pn	11 09 03.6	+1.2
SRN	Sarande	15.09	282	*i* Pn	Pn	11 09 03.6	+1.2
KEK	Kerkira	15.25	281	*e*P	Pn	11 09 05.9	+1.4
KEK	Kerkira	15.25	281	P	Pn	11 09 05.2	+0.7
KEK	Kerkira	15.25	281	*e*Pn	Pn	11 09 05.7	+1.2
TIR	Tirane	15.25	287	*e*P	Pn	11 09 05.8	+1.2
TIR	Tirane	15.25	287	*i* PN	Pn	11 09 06.6	+2.0
TIR	Tirane	15.25	287	P	Pn	11 09 06.1	+1.5
TIR	Tirane	15.25	287	*i* Pn	Pn	11 09 06.6	+2.0
PVY	Plav	15.33	292	⇓*i*Pn	Pn	11 09 08.2	+2.6
PVY				*e*Sn	Sn	11 11 49.3	-6.4
PVY	Plav	15.33	292	⇓*i*Pn	Pn	11 09 08.2	+2.6
PVY				*e*Sn	Sn	11 11 49.3	-6.4
PVY	Plav	15.33	292	⇓*i*Pn	Pn	11 09 08.2	+2.6

PVY			eSn	Sn	11 11 49.3 -6.4
BEY	Berane	15.44 293	⇑iPn	Pn	11 09 09.3 +2.4
BEY			eSn	Sn	11 11 52.0 -6.2
IVA	Berane	15.44 293	⇑iPn	Pn	11 09 09.3 +2.4
IVA			eSn	Sn	11 11 52.0 -6.2
IVA	Berane	15.44 293	⇑iPn	Pn	11 09 09.3 +2.4
IVA			eSn	Sn	11 11 52.0 -6.2
BGY	Belgrade	15.48 301	⇑iPn	Pn	11 09 09.3 +1.8
BGY			eSn	Sn	11 11 52.0 -7.3
BGY	Belgrade	15.48 301	⇑iPn	Pn	11 09 09.3 +1.8
SJES	Sjenica	15.48 295	Pn	Pn	11 09 08.8 +1.3
BEO	Belgrade	15.53 301	Pn	Pn	11 09 08.6 +0.5
DIVS	Divcibare	15.64 298	eP	Pn	11 09 06.4 -3.2
DIVS	Divcibare	15.64 298	Pn	Pn	11 09 11.6 +2.0
TRPA	Tarpa	15.64 314	⇑iP	Pn	11 09 09.9 +0.3
ULC	Ulcinj	15.78 290	⇓iPn	Pn	11 09 13.6 +2.2
ULC			eSn	Sn	11 12 00.2 -6.3
ULC	Ulcinj	15.78 290	⇓iPn	Pn	11 09 13.6 +2.2
ULC			eSn	Sn	11 12 00.2 -6.3
ULC	Ulcinj	15.78 290	⇓iPn	Pn	11 09 13.6 +2.2
ULC			eSn	Sn	11 12 00.2 -6.3
PDG	Podgorica	15.83 291	⇓iPn	Pn	11 09 14.3 +2.3
PDG			eSn	Sn	11 12 01.4 -6.4
TTG	Podgorica	15.83 291	⇓iPn	Pn	11 09 14.3 +2.3
TTG			eSn	Sn	11 12 01.4 -6.4
TTG	Podgorica	15.83 291	⇓iPn	Pn	11 09 14.3 +2.3
TTG			eSn	Sn	11 12 01.4 -6.4
LVV	L'vov	15.86 321	d iP	Pn	11 09 11.5 -0.9
LVV	L'vov	15.86 321	eP	Pn	11 09 11.1 -1.3
PLE	Pljevlja	15.88 295	⇑iPn	Pn	11 09 16.3 +3.5
PLE			eSn	Sn	11 12 03.0 -6.2
PLE	Pljevlja	15.88 295	⇑iPn	Pn	11 09 16.3 +3.5
PLE			eSn	Sn	11 12 03.0 -6.2
PLE	Pljevlja	15.88 295	⇑iPn	Pn	11 09 16.3 +3.5
PLE			eSn	Sn	11 12 03.0 -6.2
BBLS	Bajina Basta -	15.99 297	Pn	Pn	11 09 15.4 +1.3
UZH	Uzhgorod	16.05 315	⇓iP	Pn	11 09 17.7 +2.8
UZH			eS	Sn	11 12 20.0 +6.9
UZH			MLR	MLR	
	comp=N,7µm,14.0s				
UZH			MLR	MLR	
	comp=E,9µm,14.0s				
UZH			MLR	MLR	
	comp=Z,9µm,14.0s				
UZH	Uzhgorod	16.05 315	eP	Pn	11 09 17.3 +2.4
FGSL	Fruska Gora	16.07 301	Pn	Pn	11 09 16.5 +1.4
BUM	Brajici-Budva	16.08 291	⇑iPn	Pn	11 09 17.4 +2.1
BUM			eSn	Sn	11 12 06.9 -6.9
BUM	Brajici-Budva	16.08 291	⇑iPn	Pn	11 09 17.4 +2.1
BUM			eSn	Sn	11 12 06.9 -6.9
BUM	Brajici-Budva	16.08 291	⇑iPn	Pn	11 09 17.4 +2.1
BUM			eSn	Sn	11 12 06.9 -6.9
NKY	Niksic	16.08 293	⇑iPn	Pn	11 09 17.6 +2.3
NKY			eSn	Sn	11 12 07.1 -6.7
NKY	Niksic	16.08 293	⇑iPn	Pn	11 09 17.6 +2.3
NKY			eSn	Sn	11 12 07.1 -6.7
NKY	Niksic	16.08 293	⇑iPn	Pn	11 09 17.6 +2.3
NKY			eSn	Sn	11 12 07.1 -6.7
UPM	Unac-Piva	16.21 294	⇓iPn	Pn	11 09 18.7 +1.7
UPM			eSn	Sn	11 12 10.4 -6.6
UPM	Unac-Piva	16.21 294	⇓iPn	Pn	11 09 18.7 +1.7
UPM			eSn	Sn	11 12 10.4 -6.6
UPM	Unac-Piva	16.21 294	⇓iPn	Pn	11 09 18.7 +1.7
UPM			eSn	Sn	11 12 10.4 -6.6
KOLS	Kolonicke sedl	16.23 316	eP	Pn	11 09 17.8 +0.6
KOLS			e		11 09 20.8
KOLS			e		11 09 26.0
KOLS			eS	Sn	11 12 32.5 +15
KOLS	Kolonicke sedl	16.23 316	ePN	Pn	11 09 17.8 +0.6
KOLS	Kolonicke sedl	16.23 316	eP	Pn	11 09 20.8 +3.6
KOLS			epP	pP	11 09 26.0 +4.3
KOLS			eS	Sn	11 12 32.5 +15
HCY	Herceg Novi	16.39 291	⇓iPn	Pn	11 09 21.2 +1.9
HCY			eSn	Sn	11 12 14.6 -6.8
HCY	Herceg Novi	16.39 291	⇓iPn	Pn	11 09 21.2 +1.9
HCY			eSn	Sn	11 12 14.6 -6.8
HCY	Herceg Novi	16.39 291	⇓iPn	Pn	11 09 21.2 +1.9
HCY			eSn	Sn	11 12 14.6 -6.8
KWP	Kalwaria	16.41 319	eP	Pn	11 09 18.2 -1.3
KWP			epP	pP	11 09 24.6 +0.9
KWP			eS	Sn	11 12 34.7 +13
KWP			LMZ		11 16 37.6
	comp=Z,10µm,20.0s				
KWP	Kalwaria	16.41 319	eP	Pn	11 09 19.2 -0.3
KWP			epP	pP	11 09 24.6 +0.9
KWP			eS	Sn	11 12 34.7 +13
KWP	Kalwaria	16.41 319	eP	Pn	11 09 19.2 -0.3
KWP			epP	pP	11 09 24.6 +0.9
BRY	Bratogost	16.42 293	⇓iPn	Pn	11 09 21.1 +1.4
BRY			eSn	Sn	11 12 15.6 -6.6
BRY	Bratogost	16.42 293	⇓iPn	Pn	11 09 21.1 +1.4
BRY			eSn	Sn	11 12 15.6 -6.6
BRY	Bratogost	16.42 293	⇓iPn	Pn	11 09 21.1 +1.4
BRY			eSn	Sn	11 12 15.6 -6.6
LCI	Lecce	16.54 284	P	Pn	11 09 21.2 0.0
LCI			pmax	pmax	
	comp=Z,2µm,1.6s				
LCI	Lecce	16.54 284	P	Pn	11 09 21.2 0.0
	comp=Z,2µm,1.6s				
CRVS	Cervenica-Dubn	16.66 315	eP	Pn	11 09 23.3 +0.6
CRVS			e		11 09 26.7
CRVS			eS	Sn	11 12 41.3 +13
CRVS	Cervenica-Dubn	16.66 315	ePN	Pn	11 09 23.3 +0.6
CRVS	Cervenica-Dubn	16.66 315	eP	Pn	11 09 26.7 +4.0
CRVS			eS	Sn	11 12 41.3 +13
OBN	Obninsk	16.88 355	eP	Pn	11 09 23.7 -1.8
OBN	Obninsk	16.88 355	κ iP	Pn	11 09 23.2 -2.3
OBN			i S	Sn	11 12 30.0 -3.3
OBN			pmax	pmax	
	comp=Z,412nm,1.8s				
OBN			MLR	MLR	
	comp=Z,7µm,16.0s				
OBN	Obninsk	16.88 355	eP	Pn	11 09 23.7 -1.8
KECS	Kecovo	17.00 313	eP	Pn	11 09 27.3 +0.4
	comp=Z,49nm,1.2s				
KECS			e		11 09 30.1
KECS			eS	Sn	11 12 47.4 +11
KECS	Kecovo	17.00 313	eP	Pn	11 09 27.3 +0.4
KECS			pmax	pmax	
	comp=Z,49nm,1.2s				
KECS	Kecovo	17.00 313	ePN	Pn	11 09 27.3 +0.4
KECS	Kecovo	17.00 313	eP	Pn	11 09 30.1 +3.2
KECS			eS	Sn	11 12 47.4 +11
STON	Ston	17.03 292	iP	Pn	11 09 27.7 +0.3
STON	Ston	17.03 292	i P	Pn	11 09 27.7 +0.3
STHS	Stebnicka Huta	17.06 316	eP	Pn	11 09 29.2 +1.5
	comp=Z,201nm,1.9s				
STHS			e		11 09 31.5
STHS			e		11 09 46.4
STHS			eS	Sn	11 12 51.0 +13
STHS			e		11 24 35.8
STHS	Stebnicka Huta	17.06 316	eP	Pn	11 09 29.2 +1.5
STHS			pmax	pmax	
	comp=Z,201nm,1.9s				
PE1	Pezze di Greco	17.07 285	eP	Pn	11 09 27.2 -0.7
PSZ	Piszkesteto	17.08 310	eP	Pn	11 09 28.8 +0.9
PSZ	Piszkesteto	17.08 310	P	Pn	11 09 29.8 +1.9
PSZ	Piszkesteto	17.08 310	⇑iP	Pn	11 09 30.0 +2.1
PSZ	Piszkesteto	17.08 310	eP	Pn	11 09 28.1 +0.2
PKSM	Moragy	17.18 304	P	Pn	11 09 30.0 +0.7
RHK3	Tenkes	17.34 303	⇑eP	Pn	11 09 33.1 +1.9
LJBD	Adjabya	17.39 251	i P	Pn	11 09 30.9 -1.1
	comp=Z,1µm,1.6s,SNR=41				
PENC	Penc	17.39 309	⇓eP	Pn	11 09 34.5 +2.6
BUD	Budapest	17.42 308	⇑iP	Pn	11 09 35.9 +3.7
BUD	Budapest	17.42 308	P	Pn	11 09 33.2 +1.0
MOS	Moscow	17.44 357	eP	Pn	11 09 29.2 -3.3
MOS			eS	Sn	11 12 43.4 -3.4
MOS			pmax	pmax	
	comp=N,495nm,1.8s				
MOS			pmax	pmax	
	comp=Z,616nm,1.8s				
MOS			pmax	pmax	
	comp=N,4µm,3.0s				
MOS			pmax	pmax	
	comp=Z,4µm,3.0s				
MOS			smax		
	comp=E,11µm,6.0s				
MOS			smax		
	comp=N,5µm,4.5s				
MOS			MLR	MLR	
	comp=N,7µm,14.0s				
MOS			MLR	MLR	
	comp=Z,9µm,14.0s				
MOS	Moscow	17.44 357	eP	Pn	11 09 30.7 -1.8
BAI	Bari	17.49 286	eP	Pn	11 09 34.4 +1.3
NIE	Niedzica	17.57 315	eP	Pn	11 09 33.9 -0.2
TIP	Timpagrande	17.63 280	eP	Pn	11 09 33.7 -1.2
TIP	Timpagrande	17.63 280	eP	Pn	11 09 33.7 -1.2
SG1	Sgolgore (BA)	17.63 285	eP	Pn	11 09 34.1 -0.9
AKTK	Aktyubinsk	17.95 42	P	Pn	11 09 37.1 -1.7
AKTK			S	Sn	11 13 01.0 +1.8
AKTK			LR	LR	11 18 14.1
AKTK	Aktyubinsk	17.95 42	P	Pn	11 09 37.1 -1.7
AKTO	Aktyubinsk	17.95 42	P	Pn	11 09 37.1 -1.7
AKTO			S	Sn	11 13 01.0 +1.8
AKTO			pmax	pmax	
	comp=Z,2.0nm,0.3s				
AKTO			MLR	MLR	
	comp=Z,8µm,19.2s				
AKTO	Aktyubinsk	17.95 42	P	Pn	11 09 37.1 -1.7
	comp=Z,1.9nm,0.3s,baz=230,slow=12,SNR=35				
AKTO			S	Sn	11 13 01.0 +1.8
	baz=99,slow=21,SNR=1.4				
AKTO			LR	LR	11 18 14.1
	comp=Z,8µm,19.2s,baz=84,slow=43				
MNK	Minsk	17.96 338	⇓eP	Pn	11 09 37.0 -1.9
MNK			eS	Sn	11 12 58.0 -1.4
MNK			pmax	pmax	
	comp=N,560nm,1.0s				
MNK			pmax	pmax	
	comp=E,400nm,1.0s				
MNK			pmax	pmax	
	comp=Z,620nm,1.0s				
MNK			pmax	pmax	
	comp=Z,10µm,6.0s				
MNK			smax		
	comp=N,20µm,6.0s				
MNK			smax		
	comp=E,37µm,4.0s				
MNK			MLR	MLR	
	comp=E,17µm,14.0s				
MNK			MLR	MLR	
	comp=N,20µm,12.0s				
MNK			MLR	MLR	
	comp=Z,25µm,16.0s				
VYHS	Vyhne	17.97 311	eP	Pn	11 09 39.8 +0.8
	comp=Z,1µm,2.2s				
VYHS			e		11 09 42.4
VYHS			eS	Sn	11 13 07.4 +7.8
VYHS	Vyhne	17.97 311	eP	Pn	11 09 39.8 +0.8
VYHS			pmax	pmax	
	comp=Z,1µm,2.2s				
VYHS			MLR	MLR	
	comp=Z,8µm,19.3s				
VYHS	Vyhne	17.97 311	eP	Pn	11 09 39.8 +0.8
VYHS			epP	pP	11 09 42.4 +1.4
VYHS			eS	Sn	11 13 07.3 +7.7
VYHS	Vyhne	17.97 311	eP	Pn	11 09 39.8 +0.8
	comp=Z,1µm,2.2s				
FGMS	Monte Sant'Ang	18.21 288	P	Pn	11 09 40.7 -1.3
	comp=Z,306nm,1.0s				
MS1	Monte Sant'Ang	18.22 288	eP	Pn	11 09 42.1 0.0
KOLL	Kolacno	18.26 311	eP	Pn	11 09 43.2 +0.5
KOLL			epP	pP	11 09 46.1 +1.9
KOLL			eS	Sn	11 13 19.8 +13
OJC	Ojcow	18.29 317	eP	Pn	11 09 40.3 -2.6
OJC			eS	Sn	11 13 09.6 +2.3
OJC	Ojcow	18.29 317	eP	Pn	11 09 40.3 -2.6
OJC			eS	Sn	11 13 09.6 +2.3
OJC			MLR	MLR	
	comp=Z,13µm,18.0s				
SISC	Sisak	18.48 300	iP	Pn	11 09 46.1 +0.7
SISC	Sisak	18.48 300	i P	Pn	11 09 46.0 +0.7
MGR	Morigerati	18.50 283	P	Pn	11 09 45.3 -0.3
MTTG	Motta San Giov	18.59 276	P	Pn	11 09 45.0 -1.7
	comp=Z,6µm,3.4s				
JAVC	Velka Javorina	18.82 311	eP	Pn	11 09 50.8 +1.3
KOGS	Kog	18.83 303	eP	Pn	11 09 49.8 +0.2
KOGS			eS	Sn	11 13 28.4 +7.9
WAR	Warsaw	18.88 323	eP	Pn	11 09 51.1 +1.1
WAR			epP	pP	11 09 54.6 +3.7
WAR			eS	Sn	11 13 26.3 +4.8
WAR			LMZ		11 18 01.5
	comp=Z,8µm,20.7s				
WAR	Warsaw	18.88 323	eP	Pn	11 09 51.2 +1.1
WAR			epP	pP	11 09 54.6 +3.7
WAR			eS	Sn	11 13 26.3 +4.8
WAR	Warsaw	18.88 323	eP	Pn	11 09 51.2 +1.1
WAR			epP	pP	11 09 54.6 +3.7
ZST	Bratislava	18.89 309	eP	Pn	11 09 51.1 +0.8
	comp=Z,116nm,0.9s				
ZST			e		11 09 57.2
ZST			eS	Sn	11 13 29.0 +7.1
ZST	Bratislava	18.89 309	eP	Pn	11 09 51.1 +0.8
ZST			pmax	pmax	
	comp=Z,116nm,0.9s				
ZST			MLR	MLR	
	comp=Z,16µm,14.0s				
ZST	Bratislava	18.89 309	ePN	Pn	11 09 51.1 +0.8
ZST	Bratislava	18.89 309	eP	Pn	11 09 57.2 +6.9
ZST			eS	Sn	11 13 29.0 +7.1
ZST	Bratislava	18.89 309	eP	Pn	11 09 50.9 +0.6
OKC	Ostrava-Krasne	19.00 314	⇓iP	Pn	11 09 50.7 -0.9
OKC			eS	Sn	11 13 30.0 +5.5
OKC	Ostrava-Krasne	19.00 314	⇓iP	Pn	11 09 50.7 -0.9
OKC			eS	Sn	11 13 30.0 +5.5
OKC			AMS	AMS	11 18 50.0
	comp=Z,14µm,13.5s				
SOP	Sopron	19.04 307	⇓iP	Pn	11 09 52.6 +0.5
SOP	Sopron	19.04 307	P	Pn	11 09 51.6 -0.5
AGST	Augusta-Monte	19.07 274	P	Pn	11 09 49.7 -2.9
	comp=Z,4µm,3.4s				
GCIS	Gornji Cirnik	19.09 301	eP	Pn	11 09 52.5 -0.2
RAC	Raciborz	19.09 315	eP	Pn	11 09 53.0 +0.3
RAC			eS	Sn	11 13 30.2 +3.4
RAC	Raciborz	19.09 315	eP	Pn	11 09 53.0 +0.3
RAC			eS	Sn	11 13 30.2 +3.4
RAC			MLR	MLR	
	comp=N,15µm,20.6s				
RAC			MLR	MLR	
	comp=Z,9µm,23.6s				
SUW	Suwalki	19.18 330	eP	Pn	11 09 51.7 -2.0
SUW			epP	pP	11 09 54.2 -0.1
SUW			eS	Sn	11 13 29.3 +0.5
SUW			LMZ		11 17 30.3
	comp=Z,8µm,24.2s				
SUW	Suwalki	19.18 330	eP	Pn	11 09 51.7 -2.1
SUW			epP	pP	11 09 54.2 0.0
SUW			eS	Sn	11 13 29.3 +0.4
SUW	Suwalki	19.18 330	eP	Pn	11 09 51.7 -2.1
SUW			epP	pP	11 09 54.2 0.0
CRES	Cresnjev	19.19 301	eP	Pn	11 09 53.9 -0.1
CRES	Cresnjev	19.19 301	eP	Pn	11 09 53.7 -0.2
HAVL	Avola	19.21 273	P	Pn	11 09 51.8 -2.5
	comp=Z,5µm,4.0s				
BOJS	Bojanci	19.25 300	eP	Pn	11 09 54.4 -0.3
BOJS			eS	Sn	11 13 34.8 +4.1
BOJS			e		11 13 39.1
BOJS	Bojanci	19.25 300	eP	Pn	11 09 54.4 -0.3
BOJS			eS	Sn	11 13 34.8 +4.1
BOJS			e		11 13 39.1
BOJS			e		11 13 39.1
MORC	Moravsky Berou	19.31 313	eP	Pn	11 09 54.8 -0.6
	comp=Z,1µm,1.8s				
MORC	Moravsky Berou	19.31 313	eP	Pn	11 09 55.1 -0.3
MORC			pmax	pmax	
	comp=Z,1µm,1.8s				
MORC	Moravsky Berou	19.31 313	eP	Pn	11 09 54.9 -0.5
NVLJ	Novalja	19.33 297	iP	Pn	11 09 54.1 -1.4
NVLJ	Novalja	19.33 297	i P	Pn	11 09 54.1 -1.5
MIDA	Miranda	19.48 288	P	Pn	11 09 57.3 -0.1
HMDC	Modica	19.48 274	P	Pn	11 09 55.2 -2.3
ARSA	Arzberg	19.55 305	⇓iP	Pn	11 09 57.7 -0.6
	comp=Z,178nm,1.5s				
ARSA	Arzberg	19.55 305	⇓iPn	Pn	11 09 57.7 -0.6
	comp=Z,178nm,1.5s				
ARSA	Arzberg	19.55 305	eP	Pn	11 09 57.8 -0.5
CONA	Conrad Observa	19.56 307	⇓iPn	Pn	11 09 58.3 -0.1
	comp=Z,651nm,1.4s				
CONA	Conrad Observa	19.56 307	Pn	Pn	11 09 58.3 -0.1
	comp=Z,651nm,1.4s				
PERS	Pernice	19.63 303	eP	Pn	11 09 58.5 -0.8
PERS			eS	Sn	11 13 44.5 +4.6
VRAC	Vranov	19.66 311	P	Pn	11 09 59.3 -0.2
VRAC	Vranov	19.66 311	P	Pn	11 09 58.2 -1.3
	comp=Z,0.8nm,0.3s,baz=104,slow=10,SNR=31				
VRAC			S	Sn	11 13 42.3 +1.9
	comp=Z,0.4nm,0.3s,baz=127,slow=20,SNR=1.5				
VRAC			LR	LR	11 19 03.5
	comp=Z,12µm,20.8s,baz=101,slow=41				
VRAC	Vranov	19.66 311	eP	Pn	11 09 58.8 -0.7
KRUC	Moravsky	19.67 310	P	Pn	11 09 57.5 -2.1
KRUC	Moravsky	19.67 310	eP	Pn	11 09 58.9 -0.7
VAE	Valguarnera	19.67 275	P	Pn	11 10 01.0 +1.2
	comp=Z,2.5nm,0.3s,baz=72,slow=3.4,SNR=26				
VAE			S	Sn	11 13 46.1 +5.1
	comp=Z,5.9nm,0.3s,baz=295,slow=15,SNR=2.0				
RFI	Roccamonfina	19.68 287	P	Pn	11 09 59.1 -0.7
	comp=Z,14nm,1.5s				
CEY	Cerknica	19.87 300	P	Pn	11 10 01.3 -0.8
LJU	Ljubljana	19.87 301	eP	Pn	11 10 01.7 -0.4
LJU			eS	Sn	11 13 48.6 +2.9
LJU	Ljubljana	19.87 301	eP	Pn	11 10 01.4 -0.7
LSRT	Sirt	19.97 256	i P	Pn	11 10 01.6 -1.8
	comp=Z,932nm,1.8s,SNR=35				
OBKA	Obir	19.98 302	⇑iP	Pn	11 10 02.4 -0.9
	comp=Z,277nm,1.6s				
OBKA	Obir	19.98 302	⇑iPn	Pn	11 10 02.4 -0.9
	comp=Z,277nm,1.6s				
SKDS	Skadanscina	20.11 299	eP	P	11 10 03.0 -0.1
AQU	L'Aquila	20.14 290	eP	P	11 10 04.0 +0.6
AQU	L'Aquila	20.14 290	P	P	11 10 04.2 +0.7
AQU	L'Aquila	20.14 290	eP	P	11 10 04.0 +0.5
DPC	Dobruska-Polom	20.28 314	⇓iP	P	11 10 05.1 +0.2
DPC			eS	S	11 13 55.1 +2.5
DPC			AMS	AMS	11 19 30.0
	comp=Z,12µm,13.0s				
DPC	Dobruska-Polom	20.28 314	eP	P	11 10 05.2 +0.3
VOY	Vojsko	20.30 300	⇓eP	P	11 10 05.7 +0.5
TREC	Trest	20.31 310	⇓iP	P	11 10 05.8 +0.6
TREC			eS	S	11 13 54.8 +1.6
TREC			AMS	AMS	11 18 40.0
	comp=Z,11µm,16.9s				
TRI	Trieste	20.32 299	P	P	11 10 05.2 -0.2
CING	Cingoli	20.36 293	P	P	11 10 06.0 +0.1
CERT	Cerreto	20.44 288	P	P	11 10 06.6 -0.1
USI	Ustica	20.45 279	P	P	11 10 06.5 -0.4
CADS	Cadrg	20.45 301	eP	P	11 10 07.4 +0.6
DRE	Drenchia	20.50 301	⇓iP	P	11 10 08.0 +0.6
KSP	Ksiaz	20.53 315	eP	P	11 10 07.6 +0.1
KSP			epP		11 10 11.0
KSP			eS	S	11 13 59.8 +2.3
KSP			LMZ		11 18 31.4
	comp=Z,15µm,24.5s				
KSP	Ksiaz	20.53 315	⇓eP	P	11 10 07.5 -0.1
KSP			e*PP		11 10 09.4
KSP			eS	S	11 13 57.0 -0.5
KSP			MLR	MLR	
	comp=Z,18µm,18.3s,MS5.5				
KSP	Ksiaz	20.53 315	⇓eP	P	11 10 07.5 -0.1
KSP			epP		11 10 09.4
UPC	Upice	20.53 314	⇓iP	P	11 10 07.7 +0.1
MOA	Molln	20.55 306	⇓iP	P	11 10 08.9 +1.1
	comp=Z,432nm,1.2s				
MOA	Molln	20.55 306	⇓iPn	P	11 10 08.9 +1.1
	comp=Z,432nm,1.2s				
MOA	Molln	20.55 306	eP	P	11 10 08.7 +0.8
LZLA	Zalla	20.58 248	i P	P	11 10 08.7 +0.3
	comp=Z,656nm,1.9s,SNR=34				
CLTB	Caltabellotta	20.59 276	P	P	11 10 07.9 -0.5
MYKA	Terra Mystica	20.61 302	⇓iPn	P	11 10 09.7 +1.1
	comp=Z,411nm,1.0s				
MYKA	Terra Mystica	20.61 302	Pn	P	11 10 09.7 +1.1
	comp=Z,411nm,1.0s				
LSR	Lussari	20.65 301	⇓iP	P	11 10 10.0 +1.0
COLI	Coloredo	20.67 300	⇓eP	P	11 10 10.0 +0.8
LMSR	Misrath	20.71 261	i P	P	11 10 07.9 -1.9
	comp=Z,1µm,1.8s,SNR=34				
BAD	Bernadia	20.79 301	⇓iP	P	11 10 10.0 -0.5
GMNA	Gemona	20.80 301	P	P	11 10 11.7 +1.1
TLI	Talmassons	20.82 300	⇑eP	P	11 10 11.0 +0.2
MURB	Monte Urbino	20.84 292	P	P	11 10 11.8 +0.7
PLRO	Paularo	20.92 301	⇓iP	P	11 10 12.0 +0.1
KBA	Koelnbreinsper	20.93 303	⇓iP	P	11 10 13.1 +1.1
	comp=Z,432nm,1.2s				
KBA	Koelnbreinsper	20.93 303	⇓iPn	P	11 10 13.1 +1.1
	comp=Z,432nm,1.2s				
KBA	Koelnbreinsper	20.93 303	⇓iP	P	11 10 13.1 +1.2
KBA			pmax	pmax	
	comp=Z,432nm,1.2s				
RSM	Repubblica di	20.96 294	P	P	11 10 13.2 +0.9
MPRI	Monte Prat	20.96 301	⇓iP	P	11 10 12.0 -0.3
ZOU	Zoufplan	21.04 301	⇓iP	P	11 10 14.0 +0.8
PRU	Pruhonice	21.15 311	⇓iP	P	11 10 14.5 +0.1
PRU			eS	S	11 14 12.9 +3.0
PRU			AMS	AMS	11 19 10.0
	comp=Z,11µm,20.0s				
TOLF	Tolfa	21.17 289	P	P	11 10 14.0 -0.6
FVI	Forni Avoltri	21.18 301	P	P	11 10 15.4 +0.7
FVI			pmax	pmax	
	comp=Z,940nm,1.8s,mb5.8				
FVI	Forni Avoltri	21.18 301	P	P	11 10 15.4 +0.7
	comp=Z,940nm,1.8s,mb5.8				
GEC2	GERESS Array S	21.23 308	eP	P	11 10 15.2 0.0
GEC2			pmax	pmax	
	comp=Z,966nm,1.6s,mb5.9				
GEC2	GERESS Array S	21.23 308	eP	P	11 10 15.2 0.0
	comp=Z,966nm,1.6s,mb5.9				
GERES	GERESS Array B	21.23 308	P	P	11 10 15.1 -0.1
GERES			S	S	11 14 15.0 +3.5
GERES			pmax	pmax	
	comp=Z,34nm,0.8s				
GERES			smax		
	comp=N,2.0nm,0.8s				
GERES			MLR	MLR	
	comp=Z,6µm,18.6s				
GERES	GERESS Array B	21.23 308	P	P	11 10 15.1 -0.1
	comp=Z,34nm,0.8s,mb4.7,baz=113,slow=10,SNR=185				
GERES			S	S	11 14 15.0 +3.5
	comp=Z,1.9nm,0.8s,baz=46,slow=3.9,SNR=2.1				
GERES			LR	LR	11 20 39.9
	comp=Z,6µm,18.6s,MS5.0,baz=108,slow=43				
CSMI	Casera Mimoias	21.25 301	⇓eP	P	11 10 16.0 +0.6
PRA	Prague	21.25 312	⇓P	P	11 10 15.0 -0.4
PRA			S	S	11 14 16.0 +4.2
GKP	Gorka Klasztor	21.32 322	eP	P	11 10 16.0 -0.2
GKP			epP		11 10 17.9
GKP			eS	S	11 14 15.6 +2.4
GKP			LMZ		11 19 54.0
	comp=Z,12µm,20.6s				
GKP	Gorka Klasztor	21.32 322	eP	P	11 10 16.0 -0.2
GKP			epP		11 10 18.0
PVCC	Panska Ves	21.36 313	⇓iP	P	11 10 16.6 0.0
PVCC			eS	S	11 14 14.6 +0.6
PVCC			AMS	AMS	11 20 20.0
	comp=Z,14µm,11.4s				
ABTA	Abfaltersbach	21.40 302	⇓iPn	P	11 10 17.6 +0.5
	comp=Z,316nm,1.5s,mb5.4				
ABTA	Abfaltersbach	21.40 302	Pn	P	11 10 17.6 +0.6
	comp=Z,316nm,1.5s,mb5.4				
KHC	Kasperske Hory	21.41 309	⇓iP	P	11 10 16.8 -0.3
KHC			epP		11 10 19.5
KHC			eS	S	11 14 16.7 +1.8
KHC			AMS	AMS	11 21 10.0
	comp=Z,8µm,17.3s				
LJFR	Jufra	21.58 252	i P	P	11 10 18.6 -0.5
	comp=Z,1µm,1.6s,mb6.1,SNR=34				
VSU	Vasula	21.73 342	d iP	P	11 10 20.2 -0.3
CSNT	Castellina Chi	21.75 293	P	P	11 10 19.9 -1.0
MAON	Monte Argentar	21.82 290	P	P	11 10 20.4 -1.3
CTI	Castel Tesino	21.83 300	P	P	11 10 22.0 +0.3
WET	Wettzell	21.84 308	eP	P	11 10 20.8 -1.0
WET			pmax	pmax	
	comp=Z,638nm,1.5s,mb5.8				
WET	Wettzell	21.84 308	eP	P	11 10 20.8 -1.0
	comp=Z,638nm,1.5s,mb5.8				
BRG	Berggiesshubel	21.87 313	i P	P	11 10 21.9 -0.1
BRG			S	S	11 14 24.0 +0.1
BRG			pmax	pmax	
	comp=Z,585nm,2.1s,mb5.6				
BRG			MLR	MLR	
	comp=N,6µm,12.1s,MS5.3				
BRG			MLR	MLR	
	comp=Z,6µm,12.1s,MS5.2				
BRG			MLR	MLR	
	comp=E,4µm,12.8s,MS5.3				
BRG	Berggiesshubel	21.87 313	eP	P	11 10 21.6 -0.4

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      comp=Z,982nm,2.1s,mb5.9
BRG   Berggiesshubel    21.87 313  iP    P     11 10 21.9 -0.2
      comp=Z,977nm,2.1s,mb5.9
BRG                                 S    S     11 14 24.0 +0.1
BRG
      comp=N,9µm,12.1s
BRG
      comp=E,7µm,12.8s
BRG
      comp=Z,9µm,12.1s
FNVD  Fontana Vidola    21.93 294   P    P     11 10 23.9 +1.1
LTRP  Tripoli           21.94 264  iP    P     11 10 22.0 -1.0
      comp=Z,3µm,1.7s,mb6.4,SNR=34
ZCCA  Zocca             22.06 295   P    P     11 10 25.6 +1.5
WTTA  Wattenberg        22.10 303⇓iP    P     11 10 24.8 +0.2
      comp=Z,371nm,1.2s,mb5.7
WTTA  Wattenberg        22.10 303⇓iP    P     11 10 24.8 +0.2
WTTA                                pmax pmax
      comp=Z,371nm,1.2s,mb5.7
WATA  Walderalm         22.16 303⇓iP    P     11 10 24.8 -0.4
      comp=Z,506nm,1.4s,mb5.8
WATA  Walderalm         22.16 303⇓iP    P     11 10 24.8 -0.4
WATA                                pmax pmax
      comp=Z,507nm,1.4s,mb5.8
ARU   Arti              22.16  29  eP    P     11 10 23.9 -1.2
ARU                                 LR   LR
      comp=Z,6µm,21.0s,MS5.0
ARU   Arti              22.16  29d iP    P     11 10 24.0 -1.1
ARU                                e           11 10 45.5
ARU                                ePPP        11 10 57.0
ARU                                eS    S     11 14 29.4 -0.1
ARU                                eSS         11 14 57.3
ARU                                eSSS        11 15 11.4
ARU                                 pmax pmax
      comp=Z,260nm,1.2s,mb5.5
ARU                                 MLR  MLR
      comp=Z,5µm,14.0s,MS5.1
ARU   Arti              22.16  29  eP    P     11 10 23.9 -1.2
APPI  Appiano           22.20 301   P    P     11 10 25.7  0.0
PUL   Pulkovo           22.20 348⇓iP    P     11 10 25.9 +0.4
FBE   Freiberg          22.23 313  eP    P     11 10 25.7 -0.2
      comp=Z,2µm,2.4s,mb6.0
LSHF  Shwairf           22.32 256  iP    P     11 10 25.9 -1.2
      comp=Z,2µm,1.8s,mb6.2,SNR=34
MAIM                    22.37 294   P    P     11 10 26.3 -1.1
SQTA  Sankt Quirin      22.37 302⇓iP    P     11 10 27.2 -0.3
      comp=Z,1µm,1.8s,mb6.0
SQTA  Sankt Quirin      22.37 302⇓iP    P     11 10 27.2 -0.3
SQTA                                pmax pmax
      comp=Z,1µm,1.8s,mb6.1
BERN  Bernov            22.45 311 ⇓P    P     11 10 34.7 +6.4
SARO  Sassorosso        22.45 294   P    P     11 10 27.8 -0.6
VLC   Villacollemand    22.46 294  eP    P     11 10 27.9 -0.5
VLC   Villacollemand    22.46 294  eP    P     11 10 27.9 -0.5
ROTZ  Rotzenmuhle       22.47 309  eP    P     11 10 27.7 -0.8
      comp=Z,810nm,1.5s,mb5.9
MOTA  Moosalm           22.47 303⇑iP    P     11 10 28.0 -0.5
      comp=Z,299nm,1.2s,mb5.6
MOTA  Moosalm           22.47 303⇑iP    P     11 10 28.0 -0.5
MOTA                                pmax pmax
      comp=Z,299nm,1.2s,mb5.6
NKC   Novy Kostel       22.49 311⇓iP    P     11 10 28.4 -0.3
NKC                                eS    S     11 14 40.2 +4.2
NKC   Novy Kostel       22.49 311⇓iP    P     11 10 28.4 -0.3
NKC                                eS    S     11 14 40.2 +4.2
NKC                                 AMS  AMS   11 22 00.0
      comp=Z,12µm,17.0s
TANN  Tannenbergstha    22.55 311  eP    P     11 10 29.1 -0.2
      comp=Z,1µm,2.4s,mb5.9
WERN  Wernitzgruen      22.55 311  eP    P     11 10 29.0 -0.3
      comp=Z,551nm,1.5s,mb5.8
FUR   Furstenfeldbru    22.56 305  eP    P     11 10 29.1 -0.4
FUR                                 pmax pmax
      comp=Z,794nm,1.3s,mb6.0
FUR   Furstenfeldbru    22.56 305  eP    P     11 10 29.1 -0.4
      comp=Z,794nm,1.3s,mb6.0
VALM                    22.58 295   P    P     11 10 30.1 +0.4
CLL   Collm             22.59 314  eP    P     11 10 29.1 -0.6
      comp=Z,725nm,2.0s,mb5.8
CLL   Collm             22.59 314⇓iP    P     11 10 29.2 -0.5
      comp=Z,714nm,2.0s,mb5.8
CLL                                ePlp        11 10 33.0
      comp=Z,2µm,20.6s
CLL                                ex    x     11 10 38.0
CLL                                ix    x     11 10 47.9
CLL                                eS    S     11 14 40.0 +2.1
      comp=N,4µm,17.6s
CLL                                eS    S     11 14 40.0 +2.1
      comp=E,4µm,21.8s
CLL                                eS    S     11 14 40.0 +2.1
      comp=Z,5µm,20.5s
MANZ  Manzenberg        22.61 310  eP    P     11 10 29.3 -0.6
      comp=Z,1µm,2.3s,mb6.0
GUNZ  Gunzen            22.61 311  eP    P     11 10 29.9  0.0
      comp=Z,448nm,1.4s,mb5.7
MABI  Malga Bissina     22.61 299   P    P     11 10 30.5 +0.5
FETA  Feichten          22.65 302⇓iP    P     11 10 30.4  0.0
      comp=Z,493nm,1.6s,mb5.7
WERD  Werda             22.65 311  eP    P     11 10 29.5 -0.9
      comp=Z,2µm,2.7s,mb6.0
RUE   Ruedersdorf       22.68 317  eP    P     11 10 36.4 +5.6
      comp=Z,814nm,1.8s,mb5.9
BACM                    22.70 294   P    P     11 10 30.4 -0.5
GRAM                    22.72 295   P    P     11 10 31.2  0.0
RETA  Reutte            22.73 303⇓iP    P     11 10 30.3 -0.9
      comp=Z,566nm,2.3s,mb5.6
CODM                    22.87 295   P    P     11 10 31.1 -1.6
DGI   Dorgali Grotta    23.04 284   P    P     11 10 32.8 -1.8
GRA1  Grafenberg Arr    23.05 309  eP    P     11 10 34.1 -0.5
      comp=Z,2µm,1.5s,mb6.3
GRA1                               eS    S     11 14 48.5 +2.7
GRA1                                LR   LR
      comp=Z,6µm,21.9s,MS5.0
GRF   Grafenberg Arr    23.05 309  eP    P     11 10 34.1 -0.5
GRF                                eS    S     11 14 48.5 +2.7
GRF                                 pmax pmax
      comp=Z,2µm,1.5s,mb6.3
GRF                                 MLR  MLR
      comp=Z,6µm,21.9s,MS5.0
GRF   Grafenberg Arr    23.05 309  eP    P     11 10 34.1 -0.5
GRF                                eS    S     11 14 48.5 +2.7
GRF                                 pmax pmax
      comp=Z,2µm,1.5s,mb6.3
GRF                                 MLR  MLR
      comp=Z,6µm,21.9s,MS5.0
GRF   Grafenberg Arr    23.05 309  eP    P     11 10 34.1 -0.5
      comp=Z,2µm,1.5s,mb6.3
GRF                                eS    S     11 14 48.5 +2.7
GRF                                eL          11 20 21.9
      comp=Z,6µm,21.9s
GRFO  Grafenberg        23.05 309  eP    P     11 10 34.2 -0.3
      comp=Z,2µm,1.7s,mb6.2
GRFO                                LR   LR
      comp=Z,8µm,20.0s,MS5.2
GRFO  Grafenberg        23.05 309  eP    P     11 10 34.3 -0.3
GRFO                                pmax pmax
      comp=Z,2µm,1.7s,mb6.2
GRFO                                MLR  MLR
      comp=Z,8µm,20.0s,MS5.2
GRFO  Grafenberg        23.05 309  eP    P     11 10 34.2 -0.4
      comp=Z,2µm,1.7s,mb6.2
MOX   Moxa              23.14 311  eP    P     11 10 35.1 -0.4
      comp=Z,1µm,2.7s,mb5.9
MOX                                eS    S     11 14 45.0 -2.2
MOX                                 LR   LR
      comp=Z,8µm,20.0s,MS5.2
MOX   Moxa              23.14 311  eP    P     11 10 35.1 -0.4
MOX                                 pmax pmax
      comp=Z,1µm,2.7s,mb5.9
MOX                                 MLR  MLR
      comp=Z,8µm,20.0s,MS5.2
ALAS  Alassa            23.16 265  iP    P     11 10 34.7 -1.2
      comp=Z,840nm,1.9s,mb5.9,SNR=33
DAVOX Davos/Dischmat    23.17 301   P    P     11 10 35.9  0.0
      comp=Z,109nm,1.0s,mb5.2,baz=95,slow=6.5,SNR=70
DAVOX                               S    S     11 14 50.6 +2.7
      comp=Z,6.2nm,1.0s,baz=309,slow=20,SNR=1.9
DAVOX                               LR   LR    11 21 07.9
      comp=Z,10µm,19.2s,MS5.3,baz=90,slow=40
BOB   Bobbio (Coli)     23.19 296   P    P     11 10 36.1  0.0
UBR   Ueberruh          23.20 303   P    P     11 10 35.5 -0.8
DAVOS Davos             23.24 301   P    P     11 10 35.9 -0.8
DAVOS                               S    S     11 14 50.6 +1.6
SVE   Sverdlovsk        23.25  30⇑eP    P     11 10 37.0 +0.4
SVE                                eS    S     11 14 50.0 +1.1
SVE                                 pmax pmax
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      comp=Z,940nm,1.7s,mb5.9
SVE                                 pmax pmax
      comp=N,2µm,4.5s
SVE                                 pmax pmax
      comp=E,2µm,4.5s
SVE                                 pmax pmax
      comp=Z,3µm,4.5s
SVE                                 smax
      comp=N,11µm,13.0s
SVE                                 smax
      comp=E,8µm,13.0s
SVE                                 MLR  MLR
      comp=N,6µm,14.0s,MS5.6
SVE                                 MLR  MLR
      comp=E,12µm,14.0s,MS5.6
SVE                                 MLR  MLR
      comp=Z,11µm,14.0s,MS5.5
DAVA  Damuels           23.27 302⇓iP    P     11 10 36.1 -0.9
      comp=Z,400nm,1.0s,mb5.8
CORF  Corte             23.29 289  eP    P     11 10 35.3 -1.9
VSL   Villasalto        23.29 282  eP    P     11 10 35.8 -1.5
HDH   Heidenheim-Cha    23.36 305   P    P     11 10 37.0 -0.9
MRKH  Merkhyat          23.37 197  iP    P     11 10 39.3 +1.1
      baz=14,slow=12
MRKH                                AMb  AMB   11 10 43.0
      comp=Z,490nm,1.5s,mb5.7
MRKH                               iS    S     11 14 55.5 +4.0
PGF   Pioggiola         23.40 290  eP    P     11 10 36.0 -2.4
      comp=Z,2µm,1.6s,mb6.1
PGF   Pioggiola         23.40 290  eP    P     11 10 36.0 -2.4
PGF                                 pmax pmax
      comp=Z,1µm,1.6s,mb6.1
PGF   Pioggiola         23.40 290  eP    P     11 10 36.0 -2.4
      comp=Z,1µm,1.6s,mb6.1
VDL   Val di Lei        23.41 300 ⇓P    P     11 10 38.3 -0.2
TUE   Stuetta           23.48 300   P    P     11 10 38.8 -0.4
GENL  Genova Univers    23.50 295   P    P     11 10 37.4 -2.0
BSD   Bornholm Skovb    23.51 323  iP    P     11 10 37.4 -2.0
BSD                                iS    S     11 14 55.2 +2.0
BSD                                 pmax pmax
      comp=Z,130nm,1.1s,mb5.3
BSD                                 MLR  MLR
      comp=Z,6µm,18.0s,MS5.1
BSD   Bornholm Skovb    23.51 323  iP    P     11 10 37.4 -2.0
      comp=Z,129nm,1.1s,mb5.3
BSD                                iS    S     11 14 55.2 +2.0
BSD
      comp=Z,6µm,18.0s
LLS   Linth-Limmern     23.77 301 ⇓P    P     11 10 41.0 -1.0
PCP   Pian Castagno     23.81 295   P    P     11 10 40.7 -1.6
MEF   Metsahovi         23.85 341   P    P     11 10 41.9 -0.7
BUCH  Bad Urach         23.88 305   P    P     11 10 42.2 -0.7
GUT   Gutenstein        23.94 304   P    P     11 10 42.9 -0.6
WILA  Wila              23.95 302 ⇓P    P     11 10 42.6 -0.9
SISB  Singen-Schiene    23.96 303   P    P     11 10 43.3 -0.4
SOKR  Solikamsk         23.99  22c iP    P     11 10 43.8 -0.1
SOKR                                S    S     11 15 06.9 +5.9
SOKR                                pmax pmax
      comp=Z,430nm,2.8s,mb5.4
SOKR                                MLR  MLR
      comp=Z,5µm,18.0s,MS5.0
LUMB  Murzuk            24.01 247  iP    P     11 10 44.3  0.0
      comp=Z,580nm,2.1s,mb5.7,SNR=28
KEST  Kesra             24.03 273   P    P     11 10 45.1 +0.7
      comp=Z,44nm,0.8s,mb4.9,baz=28,slow=2.2,SNR=118
KEST                                S    S     11 15 04.8 +2.8
      comp=Z,1.2nm,0.7s,baz=147,slow=17,SNR=1.7
KEST                                LR   LR    11 21 52.0
      comp=Z,3µm,21.0s,MS4.7,baz=195,slow=41
MUO   Muotathal         24.05 301 ⇓P    P     11 10 43.5 -1.0
STU   Stuttgart         24.06 305   P    P     11 10 42.7 -1.8
DHBB  Dhamar BB         24.09 168⇑eP    P     11 10 48.4 +3.3
RORO                    24.12 294   P    P     11 10 44.5 -0.7
KBL   Kabul             24.15  90  eP    P     11 10 47.1 +1.5
      comp=Z,113nm,1.4s,mb5.1
KBL   Kabul             24.15  90  eP    P     11 10 47.1 +1.6
      comp=Z,113nm,1.4s,mb5.1
ZUR   Degenried         24.15 302 ⇓P    P     11 10 44.5 -1.0
UBBA  Unterbreizbach    24.16 311  eP    P     11 10 44.7 -0.8
      comp=Z,1µm,2.2s,mb6.0
QUE   Quetta            24.16 101  eP    P     11 10 43.0 -2.7
QUE                                eS    S     11 14 58.0 -6.2
SPAK  Spaichingen-Ko    24.17 304  eP    P     11 10 44.4 -1.2
LBG   Lerchenberg       24.29 305   P    P     11 10 46.5 -0.2
SLE   Schleitheim       24.29 303 ⇓P    P     11 10 45.7 -1.0
CLZ   Clausthal         24.31 313  eP    P     11 10 45.9 -0.9
CLZ                                 pmax pmax
      comp=Z,888nm,2.1s,mb5.8
CLZ   Clausthal         24.31 313  eP    P     11 10 45.9 -0.9
      comp=Z,888nm,2.1s,mb5.8
MONE  Monesi            24.35 294   P    P     11 10 46.7 -0.6
MMK   Mattmark          24.37 299 ⇑P    P     11 10 46.7 -0.7
NEGI  Negi              24.37 293   P    P     11 10 47.0 -0.5
TRAV                    24.46 297   P    P     11 10 46.0 -2.3
SULZ  Cheisacher        24.50 302 ⇓P    P     11 10 47.6 -1.0
BFO   Black Forest      24.51 304   P    P     11 10 48.4 -0.3
BFO                                 pmax pmax
      comp=Z,800nm,1.8s,mb6.0
BFO   Black Forest      24.51 304  eP    P     11 10 48.3 -0.4
      comp=Z,2µm,2.5s,mb6.2
TOD   Tromm             24.52 307  eP    P     11 10 47.3 -1.5
SWS   Schriesheim-Wi    24.55 307   P    P     11 10 48.5 -0.6
FINES FINESS Array B    24.56 345  iP    P     11 10 48.7 -0.3
FINES                               pmax pmax
      comp=Z,36nm,0.5s
FINES FINESS Array B    24.56 345   P    P     11 10 48.7 -0.3
      comp=Z,36nm,0.5s,mb5.1,baz=148,slow=10,SNR=104
FINES                               LR   LR    11 21 44.0
      comp=Z,7µm,20.0s,MS5.1,baz=146,slow=40
FIA1  FINESS Array S    24.56 345  eP    P     11 10 48.8 -0.2
SBF   Sospel            24.57 293  eP    P     11 10 48.5 -0.8
      comp=Z,2µm,1.6s,mb6.1
SBF   Sospel            24.57 293  eP    P     11 10 48.5 -0.8
SBF                                 pmax pmax
      comp=Z,1µm,1.6s,mb6.1
SBF   Sospel            24.57 293  eP    P     11 10 48.5 -0.8
      comp=Z,1µm,1.6s,mb6.1
REVF  Revere            24.61 293   P    P     11 10 47.5 -2.2
FELD  Feldberg im Sc    24.63 303  eP    P     11 10 48.3 -1.5
LKBD  Leukerbad         24.64 299 ⇓P    P     11 10 49.1 -0.8
STV   Sta Anna Valdi    24.66 294   P    P     11 10 49.3 -0.8
KIZ   Kirchzarten       24.71 303   P    P     11 10 50.3 -0.2
NRDL  Niedersach Rie    24.71 314  eP    P     11 10 50.9 +0.4
      comp=Z,659nm,2.3s,mb5.8
DOI   San Damiano       24.73 295   P    P     11 10 49.2 -1.6
DIX   Grande Dixence    24.76 298 ⇓P    P     11 10 50.2 -0.8
RSP   Reno Superiore    24.77 296   P    P     11 10 48.8 -2.3
MVIF  Mont Vial         24.77 293   P    P     11 10 50.8 -0.3
BBS   Basel-Blauen      24.89 302  eP    P     11 10 50.9 -1.2
KTD   Kalmit            24.90 306  eP    P     11 10 51.7 -0.5
TNS   Taunus Mts        24.91 308  eP    P     11 10 51.7 -0.7
TNS                                 pmax pmax
      comp=Z,2µm,2.2s,mb6.3
TNS   Taunus Mts        24.91 308  eP    P     11 10 51.7 -0.7
      comp=Z,2µm,2.2s,mb6.3
LBOS                    24.93 166⇓eP    P     11 10 53.5 +0.8
LANF  Langenberg        25.00 305  eP    P     11 10 51.3 -1.8
COP   Copenhagen        25.00 323  iP    P     11 10 53.6 +0.5
COP                                 pmax pmax
      comp=Z,57nm,1.1s,mb5.0
COP                                 MLR  MLR
      comp=Z,2µm,15.0s,MS4.7
COP   Copenhagen        25.00 323  iP    P     11 10 53.6 +0.5
      comp=Z,57nm,1.1s,mb5.0
COP                                iS    S     11 15 29.1  +12
COP
      comp=Z,2µm,15.0s
MBDF  Montbardon        25.09 295  eP    P     11 10 53.1 -0.9
      comp=Z,297nm,1.0s,mb5.5
MBDF  Montbardon        25.09 295  eP    P     11 10 53.1 -0.9
MBDF                                pmax pmax
      comp=Z,149nm,1.0s,mb5.5
MBDF  Montbardon        25.09 295  eP    P     11 10 53.1 -0.9
      comp=Z,149nm,1.0s,mb5.5
JOF   Joensuu           25.09 351  ep    P     11 10 52.3 -1.5
      comp=Z,58nm,0.7s,mb5.2
JOF   Joensuu           25.09 351  eP    P     11 10 52.3 -1.5
JOF                                 pmax pmax
      comp=Z,59nm,0.7s,mb5.2
EMV   Vieux Emosson     25.11 298 ⇓P    P     11 10 53.2 -0.9
KAF   Kangasniemi       25.12 346  ep    P     11 10 52.9 -1.2
      comp=Z,123nm,0.8s,mb5.5,baz=153,slow=9.6
KAF   Kangasniemi       25.12 346  eP    P     11 10 52.9 -1.2
KAF                                 pmax pmax
      comp=Z,123nm,0.8s,mb5.5
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FRF   La Foret Royal    25.13 292  eP    P     11 10 53.4 -1.0
      comp=Z,1µm,1.5s,mb5.8
FRF   La Foret Royal    25.13 292  eP    P     11 10 53.4 -1.0
FRF                                 pmax pmax
      comp=Z,538nm,1.5s,mb5.8
FRF   La Foret Royal    25.13 292  eP    P     11 10 53.4 -1.0
      comp=Z,538nm,1.5s,mb5.8
LPG   La Plagne         25.16 297  eP    P     11 10 53.6 -1.0
      comp=Z,250nm,1.0s,mb5.4
LPG   La Plagne         25.16 297  eP    P     11 10 53.6 -1.0
LPG                                 pmax pmax
      comp=Z,125nm,1.0s,mb5.4
LPG   La Plagne         25.16 297  eP    P     11 10 53.6 -1.0
      comp=Z,125nm,1.0s,mb5.4
LPL   La Plagne         25.17 297  eP    P     11 10 53.5 -1.2
      comp=Z,352nm,1.3s,mb5.4
LPL   La Plagne         25.17 297  eP    P     11 10 53.5 -1.2
LPL                                 pmax pmax
      comp=Z,176nm,1.3s,mb5.4
LPL   La Plagne         25.17 297  eP    P     11 10 53.5 -1.2
      comp=Z,176nm,1.3s,mb5.4
BNI   Bardonecchia      25.17 296  eP    P     11 10 54.1 -0.7
BNI   Bardonecchia      25.17 296  eP    P     11 10 54.1 -0.6
MOF   Molkenrain        25.20 303  eP    P     11 10 53.5 -1.5
CDF   Champ du Feu      25.22 304  eP    P     11 10 53.3 -1.8
      comp=Z,349nm,1.2s,mb5.5
CDF   Champ du Feu      25.22 304  eP    P     11 10 53.3 -1.8
CDF                                 pmax pmax
      comp=Z,174nm,1.2s,mb5.5
CDF   Champ du Feu      25.22 304  eP    P     11 10 53.3 -1.8
      comp=Z,174nm,1.2s,mb5.5
LMR   La Mourre         25.23 292  eP    P     11 10 54.1 -1.2
      comp=Z,1µm,1.6s,mb5.9
LMR   La Mourre         25.23 292  eP    P     11 10 54.1 -1.2
LMR                                 pmax pmax
      comp=Z,576nm,1.6s,mb5.9
LMR   La Mourre         25.23 292  eP    P     11 10 54.1 -1.2
      comp=Z,576nm,1.6s,mb5.9
ECH   Echery            25.26 303  eP    P     11 10 53.1 -2.4
CMAH  Djebel Manchou    25.32 276   P    P     11 10 56.5 +0.3
LOMF  Lomont            25.33 301  eP    P     11 10 55.3 -0.8
CGMA  Guelma            25.37 276   P    P     11 10 56.0 -0.7
ABH   Alteburg          25.38 307  eP    P     11 10 55.2 -1.4
HINF  Hinteralfeld      25.39 302  eP    P     11 10 55.1 -1.6
      comp=Z,337nm,1.1s,mb5.5
HINF  Hinteralfeld      25.39 302  eP    P     11 10 55.1 -1.6
HINF                                pmax pmax
      comp=Z,168nm,1.1s,mb5.5
HINF  Hinteralfeld      25.39 302  eP    P     11 10 55.1 -1.6
      comp=Z,168nm,1.1s,mb5.5
TAVF  Tavernes          25.56 293  eP    P     11 10 57.1 -1.2
RUP   Ruppelstein       25.64 307  eP    P     11 10 57.1 -1.9
STOF  St-Etienne Org    25.68 293  eP    P     11 10 58.8 -0.5
CABF  La Chapelle       25.73 299  eP    P     11 10 58.6 -1.2
      comp=Z,555nm,1.1s,mb5.7
CABF  La Chapelle       25.73 299  eP    P     11 10 58.6 -1.2
CABF                                pmax pmax
      comp=Z,278nm,1.1s,mb5.7
CABF  La Chapelle       25.73 299  eP    P     11 10 58.6 -1.2
      comp=Z,278nm,1.1s,mb5.7
ORIF  Oris-en-Rattie    25.73 296  eP    P     11 10 57.6 -2.2
      comp=Z,362nm,1.1s,mb5.5
ORIF                               eMLR  MLR
      comp=Z,10µm,20.5s,MS5.0
ORIF  Oris-en-Rattie    25.73 296  eP    P     11 10 57.6 -2.2
ORIF                                pmax pmax
      comp=Z,181nm,1.1s,mb5.5
ORIF  Oris-en-Rattie    25.73 296  eP    P     11 10 57.6 -2.2
      comp=Z,181nm,1.1s,mb5.5
CAEH  ’Ain El Ouahch    25.73 277   P    P     11 11 01.0 +1.1
HAU   Haudompre         25.75 303  eP    P     11 10 58.2 -1.8
      comp=Z,754nm,1.6s,mb5.7
HAU                                eMLR  MLR
      comp=Z,7µm,22.0s,MS4.9
HAU   Haudompre         25.75 303  eP    P     11 10 58.2 -1.8
      comp=Z,377nm,1.6s,mb5.7
HAU                                 LR   LR
      comp=Z,7µm,22.0s,MS5.2
HAU   Haudompre         25.75 303  eP    P     11 10 58.2 -1.8
HAU                                 pmax pmax
      comp=Z,377nm,1.6s,mb5.7
HAU                                 MLR  MLR
      comp=Z,7µm,22.0s,MS5.2
TMCR  Tamitsa           25.87 359  eP    P     11 11 00.5 -0.4
BRVK  Borovoye          25.89  45  eP    P     11 11 01.3 +0.1
BRVK                                LR   LR
      comp=Z,10µm,22.0s,MS5.3
BRVK  Borovoye          25.89  45  eP    P     11 11 01.3 +0.1
SMRF  Simiane la Rot    25.92 293  eP    P     11 11 00.4 -1.1
      comp=Z,2µm,1.7s,mb6.1
SMRF  Simiane la Rot    25.92 293  eP    P     11 11 00.4 -1.1
      comp=Z,966nm,1.7s,mb6.1
CKFL  Kef-Lekhel        25.92 276   P    P     11 11 01.0 -0.7
BUG   Bochum--Univer    25.99 311  eP    P     11 11 01.9 -0.2
      comp=Z,289nm,1.3s,mb5.7
LGHD  Ghdames           26.00 260  iP    P     11 11 00.4 -2.0
      comp=Z,546nm,1.6s,mb5.8,SNR=28
GELF  Grande-Etoile     26.02 292  eP    P     11 11 00.5 -2.0
THEF  They Montfort     26.03 303  eP    P     11 11 01.2 -1.3
CASM  Ain Smara         26.14 276   P    P     11 11 03.0 -0.6
WLF   Walferdange       26.21 306  eP    P     11 11 03.6 -0.5
      comp=Z,73nm,1.0s,mb5.2
WLF   Walferdange       26.21 306  eP    P     11 11 03.6 -0.5
WLF                                 pmax pmax
      comp=Z,73nm,1.0s,mb5.2
WLF   Walferdange       26.21 306   P    P     11 11 03.6 -0.4
      comp=Z,83nm,1.7s,mb5.0
WLF   Walferdange       26.21 306  eP    P     11 11 03.1 -1.0
      comp=Z,146nm,1.4s,mb5.3
WLF   Walferdange       26.21 306  eP    P     11 11 03.6 -0.5
      comp=Z,73nm,1.0s,mb5.2
PRAF  Pradon            26.21 293  eP    P     11 11 04.0 -0.2
CTEI  Djebel Teioual    26.25 275   P    P     11 11 08.0 +3.4
AML   Almayashu         26.39  71   P    P     11 11 07.8 +2.0
      SNR=15
AML   Almayashu         26.39  71  eP    P     11 11 07.8 +1.9
      comp=Z,232nm,1.7s,mb5.4
AML                                 LR   LR
      comp=Z,11µm,19.0s,MS5.4
AML   Almayashu         26.39  71  eP    P     11 11 07.8 +1.9
      comp=Z,232nm,1.7s,mb5.4
WTSB  Winterswijk       26.43 312⇓eP    P     11 11 06.9 +0.8
      comp=Z,427nm,3.8s
EKS2  Erkin-Say         26.43  70   P    P     11 11 07.5 +1.4
      SNR=42
EKS2  Erkin-Say         26.43  70  eP    P     11 11 07.3 +1.2
      comp=Z,71nm,1.1s,mb5.1
EKS2                                LR   LR
      comp=Z,6µm,20.0s,MS5.1
EKS2  Erkin-Say         26.43  70  eP    P     11 11 07.3 +1.1
      comp=Z,71nm,1.1s,mb5.1
MEM   Membach           26.52 308   P    P     11 11 07.8 +0.8
      comp=Z,84nm,2.0s,mb4.9
MEM   Membach           26.52 308   P    P     11 11 07.7 +0.8
      comp=Z,84nm,2.0s,mb4.9
DFRA  Djebel Bou Aff    26.55 277   P    P     11 11 09.0 +1.7
VIVF  Saint-Julien-l    26.58 295  eP    P     11 11 05.5 -2.0
      comp=Z,264nm,1.1s,mb5.4
VIVF  Saint-Julien-l    26.58 295  eP    P     11 11 05.5 -2.0
VIVF                                pmax pmax
      comp=Z,132nm,1.1s,mb5.4
VIVF  Saint-Julien-l    26.58 295  eP    P     11 11 05.5 -2.0
      comp=Z,132nm,1.1s,mb5.4
HGN   Heimansgroeve     26.61 309  eP    P     11 11 07.7  0.0
      comp=Z,193nm,2.6s,mb5.2
MEZF  Maizieres J’vi    26.69 303  eP    P     11 11 07.0 -1.5
      comp=Z,669nm,1.4s,mb5.7
MEZF  Maizieres J’vi    26.69 303  eP    P     11 11 07.0 -1.5
      comp=Z,335nm,1.4s,mb5.7
CMER  Merouana          26.77 275   P    P     11 11 11.0 +1.7
ATD   Arta Tunnel       26.88 172   P    P     11 11 11.0 +0.6
ATD                                 S    S     11 15 57.8  +10
ATD                                 LR   LR    11 21 46.6
ATD   Arta Tunnel       26.88 172   P    P     11 11 11.0 +0.6
      comp=Z,2.9nm,0.3s,mb4.2,baz=248,slow=19,SNR=3.0
ATD                                 S    S     11 15 57.8  +10
      comp=Z,4.8nm,0.3s,baz=134,slow=19,SNR=3.6
ATD                                 LR   LR    11 21 46.6
      comp=Z,5µm,19.0s,MS5.1,baz=162,slow=36
BCLA  Clavier           26.91 308   P    P     11 11 10.4  0.0
      comp=Z,61nm,1.8s,mb4.8
USP   Ospenovka         26.94  68   P    P     11 11 15.7 +4.9
      SNR=15
AAK   Ala-Archa         26.96  70   P    P     11 11 12.3 +1.4
      SNR=15
AAK   Ala-Archa         26.96  70  eP    P     11 11 11.1 +0.1
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AAK                                LR      LR
      comp=Z,4µm,19.0s,MS5.0
AAK   Ala-Archa         26.96  70 i P     P        11 11 11.9 +0.9
AAK                                pmax    pmax
      comp=Z,61nm,1.8s,mb4.8
AAK   Ala-Archa         26.96  70 eP      P        11 11 11.1 +0.1
CKHR  Kef el Ahmar      26.96 276  P      P        11 11 12.0 +0.9
MUD   Monsted U'grnd    26.97 322 i P     P        11 11 11.9 +1.0
MUD                                pmax    pmax
      comp=Z,250nm,1.4s,mb5.5
MUD                                MLR     MLR
      comp=Z,7µm,19.0s,MS5.2
MUD   Monsted U'grnd    26.97 322 i P     P        11 11 11.9 +1.0
      comp=Z,248nm,1.4s,mb5.5
MUD                               i S     S        11 16 14.6  +26
MUD
      comp=Z,7µm,19.0s
UCH   Uchtor            27.00  71  P      P        11 11 16.3 +5.0
      SNR=7.1
UCH   Uchtor            27.00  71 eP      P        11 11 13.2 +1.9
      comp=Z,48nm,1.3s,mb4.9
UCH                                LR      LR
      comp=Z,8µm,20.0s,MS5.3
UCH   Uchtor            27.00  71 eP      P        11 11 13.2 +1.9
      comp=Z,48nm,1.3s,mb4.9
FRU   Bishkek           27.04  69 i P     P        11 11 13.0 +1.3
FRU                                pmax    pmax
      comp=Z,440nm,2.0s,mb5.6
DESE  Dese              27.11 179 eP      P        11 11 15.3 +2.9
DESE                               S       S       11 16 03.0  +12
CHMS  Chumysh           27.13  69  P      P        11 11 15.0 +2.4
      SNR=12
GIVF  Givet             27.14 307 eP      P        11 11 11.3 -1.2
      comp=Z,295nm,1.5s,mb5.3
GIVF  Givet             27.14 307 eP      P        11 11 11.3 -1.2
GIVF                               pmax    pmax
      comp=Z,148nm,1.5s,mb5.3
GIVF  Givet             27.14 307 eP      P        11 11 11.3 -1.2
      comp=Z,148nm,1.5s,mb5.3
LASF  Ste Croix         27.16 294 eP      P        11 11 11.2 -1.5
      comp=Z,774nm,1.7s,mb5.7
LASF  Ste Croix         27.16 294 eP      P        11 11 11.2 -1.5
      comp=Z,387nm,1.7s,mb5.7
HFS   Hagfors           27.17 332  P      P        11 11 12.3 -0.4
HFS                                S       S       11 15 51.3 -0.2
HFS                                pmax    pmax
      comp=Z,14nm,0.6s
HFS                                smax
      comp=N,5.0nm,1.0s
HFS                                MLR     MLR
      comp=Z,10µm,20.9s
HFS   Hagfors           27.17 332  P      P        11 11 12.3 -0.4
      comp=Z,14nm,0.6s,mb4.7,baz=147,slow=8.9,SNR=21
HFS                                S       S       11 15 51.3 -0.2
      comp=Z,5.3nm,1.0s,baz=98,slow=30,SNR=1.8
HFS                                LR      LR      11 23 37.4
      comp=Z,10µm,20.9s,MS5.3,baz=352,slow=40
HFA0  Hagfors New Ar    27.18 332  P      P        11 11 15.7 +2.9
SMF   Signal de Mont    27.27 299 eP      P        11 11 11.8 -1.9
      comp=Z,285nm,1.4s,mb5.3
SMF   Signal de Mont    27.27 299 eP      P        11 11 11.8 -1.9
SMF                                pmax    pmax
      comp=Z,143nm,1.4s,mb5.3
SMF   Signal de Mont    27.27 299 eP      P        11 11 11.8 -1.9
      comp=Z,143nm,1.4s,mb5.3
DOU   Dourbes           27.28 307  P      P        11 11 13.8  0.0
      comp=Z,58nm,2.4s,mb4.7
DOU   Dourbes           27.28 307  P      P        11 11 13.7 -0.1
      comp=Z,58nm,2.4s,mb4.7
KBK   Karagaybulak      27.29  70  P      P        11 11 17.0 +3.1
      SNR=12
LOR   Lormes            27.32 301 eP      P        11 11 12.2 -1.9
      comp=Z,192nm,1.1s,mb5.2
LOR                               eMLR     MLR
      comp=Z,11µm,20.2s,MS5.1
LOR   Lormes            27.32 301 eP      P        11 11 12.2 -1.9
      comp=Z,96nm,1.1s,mb5.2
LOR                                LR      LR
      comp=Z,11µm,20.3s,MS5.4
LOR   Lormes            27.32 301 eP      P        11 11 12.2 -1.9
LOR                                pmax    pmax
      comp=Z,96nm,1.1s,mb5.2
LOR                                MLR     MLR
      comp=Z,11µm,20.3s,MS5.4
PLDF  La Plantade       27.38 298 eP      P        11 11 13.5 -1.2
BAIF  Baives            27.52 307 eP      P        11 11 14.8 -1.1
      comp=Z,268nm,1.4s,mb5.4
BAIF  Baives            27.52 307 eP      P        11 11 14.8 -1.1
BAIF                               pmax    pmax
      comp=Z,134nm,1.4s,mb5.4
BAIF  Baives            27.52 307 eP      P        11 11 14.8 -1.1
      comp=Z,134nm,1.4s,mb5.4
SSF   Saint Saulge      27.54 300 eP      P        11 11 14.3 -1.8
      comp=Z,160nm,1.1s,mb5.2
SSF   Saint Saulge      27.54 300 eP      P        11 11 14.3 -1.8
SSF                                pmax    pmax
      comp=Z,80nm,1.1s,mb5.3
SSF   Saint Saulge      27.54 300 eP      P        11 11 14.3 -1.8
      comp=Z,80nm,1.1s,mb5.2
KZA   Kyzart            27.55  71  P      P        11 11 18.2 +1.9
      SNR=16
SNF   Seneffe           27.57 308  P      P        11 11 16.4 +0.1
      comp=Z,30nm,1.7s,mb4.6
SNF   Seneffe           27.57 308  P      P        11 11 16.3  0.0
      comp=Z,30nm,1.7s,mb4.6
UCC   Uccle             27.58 308  P      P        11 11 16.8 +0.3
LBL   Lubilhac          27.61 296 eP      P        11 11 15.4 -1.3
AVF   Avril sur Loir    27.62 299 eP      P        11 11 15.0 -1.8
      comp=Z,455nm,1.5s,mb5.6
AVF   Avril sur Loir    27.62 299 eP      P        11 11 15.0 -1.8
AVF                                pmax    pmax
      comp=Z,227nm,1.5s,mb5.6
AVF   Avril sur Loir    27.62 299 eP      P        11 11 15.0 -1.8
      comp=Z,227nm,1.5s,mb5.6
AGO   Saint Agoulin     27.72 298 eP      P        11 11 16.8 -1.0
TKM2  Tokmak 2          27.76  69  P      P        11 11 22.1 +4.0
      SNR=21
TKM2  Tokmak 2          27.76  69 eP      P        11 11 19.6 +1.5
      comp=Z,43nm,1.1s,mb5.0
TKM2                               LR      LR
      comp=Z,4µm,20.0s,MS4.9
TKM2  Tokmak 2          27.76  69 eP      P        11 11 19.6 +1.5
TKM2                               pmax    pmax
      comp=Z,43nm,1.1s,mb5.0
TKM2                               MLR     MLR
      comp=Z,4µm,20.0s,MS4.9
TKM2  Tokmak 2          27.76  69 eP      P        11 11 19.6 +1.5
      comp=Z,43nm,1.1s,mb5.0
PYM   Petit Puy Mans    27.79 297 eP      P        11 11 17.3 -1.1
EJON  La Jonquera       27.92 290  P      P        11 11 17.5 -2.1
      comp=Z,139nm,1.3s,mb5.4
EJON  La Jonquera       27.92 290  P      P        11 11 17.5 -2.1
      comp=Z,139nm,1.3s,mb5.4
BGF   Bois d'Agland     27.95 299 eP      P        11 11 17.9 -1.9
      comp=Z,372nm,1.9s,mb5.4
BGF   Bois d'Agland     27.95 299 eP      P        11 11 17.9 -1.9
BGF                                pmax    pmax
      comp=Z,186nm,1.9s,mb5.4
BGF   Bois d'Agland     27.95 299 eP      P        11 11 17.9 -1.9
      comp=Z,186nm,1.9s,mb5.4
ULHL  Ulahol            28.27  70  P      P        11 11 22.8  0.0
      SNR=25
ETOS  Mallorca          28.28 284  P      P        11 11 22.2 -0.6
      comp=Z,973nm,2.1s,mb6.1
ETOS  Mallorca          28.28 284  P      P        11 11 22.2 -0.6
      comp=Z,973nm,2.1s,mb6.1
MTLF  Montolieu         28.36 292 eP      P        11 11 21.9 -1.6
      comp=Z,403nm,1.6s,mb5.5
MTLF  Montolieu         28.36 292 eP      P        11 11 21.9 -1.6
MTLF                               pmax    pmax
      comp=Z,202nm,1.6s,mb5.5
MTLF  Montolieu         28.36 292 eP      P        11 11 21.9 -1.6
      comp=Z,202nm,1.6s,mb5.5
TCF   Toulx Ste Croi    28.37 298 eP      P        11 11 22.1 -1.5
      comp=Z,196nm,1.4s,mb5.3
TCF   Toulx Ste Croi    28.37 298 eP      P        11 11 22.1 -1.5
TCF                                pmax    pmax
      comp=Z,98nm,1.4s,mb5.2
TCF   Toulx Ste Croi    28.37 298 eP      P        11 11 22.1 -1.5
      comp=Z,98nm,1.4s,mb5.3
KSH   Kashi             28.41  76  P      P        11 11 23.6 -0.3
KSH                               eAP      pP      11 11 27.8 +2.4
KSH                               eXP      sP      11 11 30.5 +4.5
KSH                               ePP      PP      11 12 13.8  -14
KSH                               ePPP             11 12 25.8
KSH                               ePCP     PcP     11 14 37.3 +1.1
KSH                               eS       S       11 16 07.0 -4.4
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KSH                               eS       S       11 16 13.6 +2.2
KSH                                AMB     AMB
      comp=Z,3µm,6.0s
KSH                                LR      LR
      comp=N,9µm,9.6s
KSH                                LR      LR
      comp=E,11µm,7.1s
KSH                                LR      LR
      comp=Z,15µm,11.4s,MS5.8
CAF   Calviac           28.44 295 eP      P        11 11 22.9 -1.3
      comp=Z,276nm,1.8s,mb5.3
CAF   Calviac           28.44 295 eP      P        11 11 22.9 -1.3
CAF                                pmax    pmax
      comp=Z,138nm,1.8s,mb5.3
CAF   Calviac           28.44 295 eP      P        11 11 22.9 -1.3
      comp=Z,138nm,1.8s,mb5.3
KONO  Kongsberg         28.49 328 eP      P        11 11 24.3 -0.1
      comp=Z,115nm,1.4s,mb5.3
KONO                               LR      LR
      comp=Z,4µm,20.0s,MS5.1
KONO  Kongsberg         28.49 328 eP      P        11 11 24.3 -0.1
      comp=Z,115nm,1.4s,mb5.3
NB2   NORSAR Subarra    28.69 331  P      P        11 11 25.6 -0.6
      comp=Z,86nm,1.4s,mb5.3,baz=127,slow=9.3
NOA   NORSAR Array B    28.69 331  P      P        11 11 24.4 -1.8
NOA                                S       S       11 16 19.4 +3.9
NOA                                pmax    pmax
      comp=Z,10.0nm,0.8s
NOA                                smax
      comp=N,2.0nm,0.9s
NOA                                MLR     MLR
      comp=Z,7µm,18.0s
NOA   NORSAR Array B    28.69 331  P      P        11 11 24.4 -1.9
      comp=Z,10nm,0.8s,mb4.6,baz=128,slow=9.2,SNR=17
NOA                                S       S       11 16 19.4 +3.9
      comp=Z,2.3nm,0.9s,baz=209,slow=9.7,SNR=2.5
NOA                                LR      LR      11 25 21.2
      comp=Z,7µm,18.0s,MS5.3,baz=135,slow=42
NAO01 NORSAR Array S    28.69 331 eP      P        11 11 26.2 -0.1
NAO01                              LR      LR
      comp=Z,8µm,19.0s,MS5.3
NAO01 NORSAR Array S    28.69 331 eP      P        11 11 26.2 -0.1
RJF   Les Rejaudoux     28.83 296 eP      P        11 11 26.6 -1.0
      comp=Z,483nm,1.7s,mb5.7
RJF                               eMLR     MLR
      comp=Z,11µm,17.5s,MS5.2
RJF   Les Rejaudoux     28.83 296 eP      P        11 11 26.6 -1.0
      comp=Z,242nm,1.7s,mb5.7
RJF                                LR      LR
      comp=Z,11µm,17.5s,MS5.5
RJF   Les Rejaudoux     28.83 296 eP      P        11 11 26.6 -1.0
RJF                                pmax    pmax
      comp=Z,242nm,1.7s,mb5.7
RJF                                MLR     MLR
      comp=Z,11µm,17.5s,MS5.5
EMHD  Djebel Mahouad    28.92 277  P      P        11 11 27.7 -0.8
EMIR  Miracle           28.98 289  P      P        11 11 28.0 -1.0
      comp=Z,625nm,1.9s,mb6.0
FURI  Furi              29.32 181 eP      P        11 11 34.7 +2.5
FURI                              eS       S       11 16 38.0  +12
EPOB  Poblet            29.37 288  P      P        11 11 30.2 -2.3
      comp=Z,856nm,3.0s
LFF   La Frestale       29.38 295 eP      P        11 11 31.1 -1.4
APA   Apatity           29.47 355⇓iP      P        11 11 32.0 -1.1
APA                               i                11 12 33.6
APA                               eS       S       11 16 24.0 -3.5
APA                                pmax    pmax
      comp=Z,2µm,6.0s
APA                                pmax    pmax
      comp=Z,310nm,2.0s,mb5.7
EIBI  Ibiza             29.53 283  P      P        11 11 33.0 -0.9
      comp=Z,755nm,2.1s,mb6.1
EIBI  Ibiza             29.53 283  P      P        11 11 33.0 -0.9
      comp=Z,755nm,2.1s,mb6.1
LVZ   Lovozero          29.73 356  PFAKE           11 11 50.0  +15
LVZ                                LR      LR
      comp=Z,4µm,22.0s,MS5.0
EPF   Esparros          29.75 292 eP      P        11 11 33.3 -2.6
      comp=Z,40nm,1.1s,mb4.8
EPF   Esparros          29.75 292 eP      P        11 11 33.3 -2.6
      comp=Z,20nm,1.1s,mb4.8
EPF   Esparros          29.75 292 eP      P        11 11 33.3 -2.6
EPF                                pmax    pmax
      comp=Z,20nm,1.1s,mb4.8
EBIE  Bielsa            29.93 291  P      P        11 11 35.2 -2.2
      comp=Z,152nm,1.8s,mb5.4
ERTA  Horta de San J    29.98 287  P      P        11 11 36.7 -1.2
      comp=Z,475nm,2.3s,mb5.8
ERTA  Horta de San J    29.98 287  P      P        11 11 36.7 -1.2
      comp=Z,475nm,2.3s,mb5.8
EBNR  Beni Rached       30.00 278  P      P        11 11 39.5 +1.4
MFF   Saint Martin d    30.01 299 eP      P        11 11 36.0 -2.1
      comp=Z,226nm,1.5s,mb5.4
MFF   Saint Martin d    30.01 299 eP      P        11 11 36.0 -2.1
MFF                                pmax    pmax
      comp=Z,113nm,1.5s,mb5.4
MFF   Saint Martin d    30.01 299 eP      P        11 11 36.0 -2.1
      comp=Z,113nm,1.5s,mb5.4
THN   Thein Dam         30.11  90 eP      P        11 11 38.4 -0.7
LDF   La Druitiere      30.11 303 eP      P        11 11 36.8 -2.2
ECHA  Ech Chlef         30.17 278  P      P        11 11 40.3 +0.7
KURK  Kurchatov         30.25  53 eP      P        11 11 40.9 +0.7
      comp=Z,146nm,1.0s,mb5.7
KURK                               LR      LR
      comp=Z,15µm,20.0s,MS5.6
KURK  Kurchatov         30.25  53⇑iP      P        11 11 41.4 +1.2
KURK  Kurchatov         30.25  53 eP      P        11 11 40.9 +0.7
      comp=Z,146nm,1.0s,mb5.7
FLN   La Foliniere      30.36 303 eP      P        11 11 38.7 -2.5
FLN                               eMLR     MLR
      comp=Z,8µm,21.2s,MS5.0
FLN   La Foliniere      30.36 303 eP      P        11 11 38.7 -2.5
FLN                                MLR     MLR
      comp=Z,8µm,21.3s,MS5.3
ETSF  Etsaut            30.42 291 eP      P        11 11 40.1 -1.7
      comp=Z,76nm,1.0s,mb5.1
ETSF  Etsaut            30.42 291 eP      P        11 11 40.1 -1.7
ETSF                               pmax    pmax
      comp=Z,38nm,1.0s,mb5.1
ETSF  Etsaut            30.42 291 eP      P        11 11 40.1 -1.7
      comp=Z,38nm,1.0s,mb5.1
EANR  'Ain N'Sour       30.43 277  P      P        11 11 40.8 -1.1
ETRT  Tiaret            30.43 276  P      P        11 11 41.2 -0.8
ESAC  San Caprasio      30.48 289  P      P        11 11 41.6 -0.7
      comp=Z,1µm,2.0s,mb6.2
ESAC  San Caprasio      30.48 289  P      P        11 11 41.6 -0.7
      comp=Z,1µm,2.0s,mb6.2
GRR   Gorron            30.58 302 eP      P        11 11 41.7 -1.4
      comp=Z,37nm,0.8s,mb5.0
GRR   Gorron            30.58 302 eP      P        11 11 41.7 -1.4
GRR                                pmax    pmax
      comp=Z,19nm,0.8s,mb5.0
GRR   Gorron            30.58 302 eP      P        11 11 41.7 -1.4
      comp=Z,19nm,0.8s,mb5.0
EMOS  Mosqueruela       30.67 286  P      P        11 11 43.8 -0.2
      comp=Z,810nm,2.1s,mb6.2
EMOS  Mosqueruela       30.67 286  P      P        11 11 43.8 -0.2
      comp=Z,810nm,2.1s,mb6.2
OKGL  Djebel Kef Gue    30.76 278  P      P        11 11 46.0 +1.1
EBEN  Beniarda          30.79 283  P      P        11 11 44.7 -0.4
      comp=Z,1µm,2.2s,mb6.3
EBEN  Beniarda          30.79 283  P      P        11 11 44.7 -0.4
      comp=Z,1µm,2.2s,mb6.3
OJGS  Djebel Guires     30.83 277  P      P        11 11 45.0 -0.5
SJPF  Ste Jean          30.89 292 eP      P        11 11 43.9 -2.0
      comp=Z,134nm,1.3s,mb5.3
SJPF  Ste Jean          30.89 292 eP      P        11 11 43.9 -2.0
SJPF                               pmax    pmax
      comp=Z,67nm,1.3s,mb5.3
SJPF  Ste Jean          30.89 292 eP      P        11 11 43.9 -2.0
      comp=Z,67nm,1.3s,mb5.3
OJBR  Djebel Berber     31.12 277  P      P        11 11 50.0 +2.0
ECHE  Chera             31.18 285  P      P        11 11 48.4 -0.1
      comp=Z,110nm,1.3s,mb5.5
ECHE  Chera             31.18 285  P      P        11 11 48.4 -0.1
ECHE                               pmax    pmax
      comp=Z,110nm,1.3s,mb5.5
ECHE  Chera             31.18 285  P      P        11 11 48.4 -0.1
      comp=Z,110nm,1.3s,mb5.5
ODJA  Bouhanifia        31.58 277  P      P        11 11 54.0 +1.9
SSW   Stow on the Wo    31.63 309 eP      P        11 11 52.5 +0.2
CART  Cartagena         31.64 281 eP      P        11 11 51.5 -1.1
      comp=Z,273nm,1.4s,mb5.9
CART  Cartagena         31.64 281 eP      P        11 11 51.5 -1.1
      comp=Z,273nm,1.4s,mb5.9
KBI1  Birley Grange     31.66 312 eP      P        11 11 52.1 -0.5
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SGMF  Saint Gilles      31.71 302 eP      P        11 11 51.0 -2.0
EMUR  La Murta          31.76 282  P      P        11 11 52.4 -1.3
      comp=Z,355nm,1.8s,mb5.9
EMUR  La Murta          31.76 282  P      P        11 11 52.3 -1.3
      comp=Z,355nm,1.8s,mb5.9
USTO  Oran              31.78 278  P      P        11 12 03.0 +9.2
ETOR  Torete            31.79 288  P      P        11 11 51.7 -2.1
      comp=Z,13nm,0.5s,mb5.0
ETOR  Torete            31.79 288  P      P        11 11 51.7 -2.2
ETOR                               pmax    pmax
      comp=Z,13nm,0.5s,mb5.0
ETOR  Torete            31.79 288  P      P        11 11 51.7 -2.2
      comp=Z,13nm,0.5s,mb5.0
KWE   Weaver Farm       31.80 311 eP      P        11 11 53.5 -0.4
KWE   Weaver Farm       31.80 311 eP      P        11 11 53.5 -0.3
      comp=Z,260nm,1.8s,mb5.8
ETOB  Tobarra           31.81 284  P      P        11 11 53.2 -0.9
      comp=Z,437nm,1.2s,mb6.2
ETOB  Tobarra           31.81 284  P      P        11 11 53.2 -0.9
      comp=Z,437nm,1.2s,mb6.2
HPK   Haverah Park      31.87 313 eP      P        11 11 54.3 -0.1
HPK                                AMb     AMB     11 12 01.3
      comp=Z,260nm,1.8s,mb5.8
HPK                                AMS     AMS     11 27 08.1
      comp=Z,5µm,18.9s,MS5.2
HPK   Haverah Park      31.87 313  P      P        11 11 54.3 -0.1
HPK                                AMb     AMB     11 12 01.3
      comp=Z,260nm,1.8s,mb5.8
ECRI  Cripan            31.88 291  P      P        11 11 52.7 -1.9
      comp=Z,7.1nm,0.4s,mb4.8
ECRI  Cripan            31.88 291  P      P        11 11 52.7 -1.9
ECRI                               pmax    pmax
      comp=Z,7.0nm,0.4s,mb4.8
ECRI  Cripan            31.88 291  P      P        11 11 52.7 -1.9
      comp=Z,7.1nm,0.4s,mb4.8
KHET  Khetri            32.01  98 eP      P        11 11 55.2 -0.7
KHET                               AMb     AMB     11 12 01.4
      comp=Z,38nm,1.2s,mb5.1
RTK   Rohtak            32.04  96 ex      x        11 12 03.5
RTK                                AMb     AMB     11 12 08.8
      comp=Z,71nm,1.5s,mb5.3
QUIF  Quistinic         32.10 301 eP      P        11 11 54.2 -2.3
ARCES ARCESS Array B    32.13 351  P      P        11 11 56.2 -0.3
ARCES                              S       S       11 17 12.1 +2.9
ARCES                              LR      LR      11 26 41.9
ARCES ARCESS Array B    32.13 351  P      P        11 11 56.2 -0.3
ARCES                              S       S       11 17 12.1 +3.0
ARCES                              pmax    pmax
      comp=Z,20nm,0.7s
ARCES                              smax
      comp=N,4.0nm,0.9s
ARCES                              MLR     MLR
      comp=Z,5µm,18.5s
ARCES ARCESS Array B    32.13 351  P      P        11 11 56.2 -0.3
      comp=Z,20nm,0.7s,mb5.0,baz=157,slow=6.6,SNR=62
ARCES                              S       S       11 17 12.1 +2.9
      comp=Z,4.2nm,0.9s,baz=143,slow=29,SNR=2.9
ARCES                              LR      LR      11 26 41.9
      comp=Z,5µm,18.5s,MS5.2,baz=153,slow=40
ARE0  ARCESS Array S    32.13 351 eP      P        11 11 56.6 +0.1
ARE0  ARCESS Array S    32.13 351 eP      P        11 11 56.6 +0.1
KEV   Kevo              32.16 352 eP      P        11 11 55.8 -1.0
      comp=Z,14nm,0.9s,mb4.8
KEV                                LR      LR
      comp=Z,7µm,20.0s,MS5.3
HGH   Gray Hill         32.17 308⇑eP      P        11 11 56.4 -0.7
HGH   Gray Hill         32.17 308⇑eP      P        11 11 56.4 -0.6
      comp=Z,239nm,1.7s,mb5.7
ROSF  Rostrenen         32.19 302 eP      P        11 11 55.2 -2.1
MCH1  Michaelchurch     32.33 309 eP      P        11 11 57.8 -0.7
MCH1                               AMb     AMB     11 12 04.0
      comp=Z,239nm,1.7s,mb5.7
HLM1  Long Mynd         32.34 310 eP      P        11 11 58.2 -0.3
MK31  Makanchi Array    32.40  61 eP      P        11 11 59.9 +0.7
MK31  Makanchi Array    32.40  61 eP      P        11 11 59.9 +0.7
MKAR  Makanchi Array    32.40  61  P      P        11 11 59.8 +0.6
MKAR                               PcP     PcP     11 14 47.0 +0.5
MKAR                               S       S       11 17 13.7 -0.2
MKAR                               LR      LR      11 27 41.6
MKAR  Makanchi Array    32.40  61  P      P        11 11 59.8 +0.6
MKAR                                               11 14 47.0
MKAR                               S       S       11 17 13.7 -0.2
MKAR                               pmax    pmax
      comp=Z,38nm,0.9s
MKAR                               MLR     MLR
      comp=Z,6µm,19.9s
MKAR  Makanchi Array    32.40  61  P      P        11 11 59.8 +0.6
      comp=Z,38nm,0.9s,mb5.2,baz=265,slow=9.1,SNR=75
MKAR                               PcP     PcP     11 14 47.0 +0.5
      comp=Z,5.3nm,0.7s,baz=293,slow=1.1,SNR=4.3
MKAR                               S       S       11 17 13.7 -0.2
      comp=Z,0.1nm,0.3s,baz=13,slow=23,SNR=2.1
MKAR                               LR      LR      11 27 41.6
      comp=Z,6µm,19.9s,MS5.3,baz=266,slow=41
XAL   Allendale         32.41 314 eP      P        11 11 58.9 -0.2
XAL   Allendale         32.41 314 eP      P        11 11 58.8 -0.3
KLP   Kalpa             32.44  90 eP      P        11 12 00.5 +0.8
KLP                                AMb     AMB     11 12 04.7
      comp=Z,36nm,1.0s,mb5.2
ELAN  Lanestosa         32.48 292  P      P        11 11 57.3 -2.6
      comp=Z,104nm,1.4s,mb5.5
KUDL  Kundal            32.51  97 eP      P        11 12 00.8 +0.5
KUDL                               AMb     AMB     11 12 05.6
      comp=Z,67nm,2.4s,mb5.2
EVIA  Vianos            32.55 284  P      P        11 11 59.1 -1.5
      comp=Z,39nm,0.7s,mb5.4
EVIA  Vianos            32.55 284  P      P        11 11 59.1 -1.4
EVIA                               pmax    pmax
      comp=Z,39nm,0.7s,mb5.5
EVIA  Vianos            32.55 284  P      P        11 11 59.1 -1.4
      comp=Z,39nm,0.7s,mb5.4
SBD1  Bryn Du           32.63 311⇑eP      P        11 12 00.8 -0.2
ENIJ  Nijar             32.72 281  P      P        11 12 00.4 -1.7
ENIJ                               pmax    pmax
      comp=Z,47nm,0.6s,mb5.6
ENIJ  Nijar             32.72 281  P      P        11 12 00.4 -1.7
      comp=Z,47nm,0.6s,mb5.6
NDI   New Delhi         32.83  96 eP      P        11 12 00.0 -3.1
SONA  Sohna             32.92  96 eP      P        11 12 04.6 +0.7
SONA                               AMb     AMB     11 12 09.2
      comp=Z,43nm,1.8s,mb5.1
BBO1  Bothel            32.96 314 eP      P        11 12 04.2 +0.2
ECK   Cauldkaine Hil    32.99 315 eP      P        11 12 03.9 -0.3
BHH   Howats Hill       33.02 314 eP      P        11 12 03.3 -1.2
BHH   Howats Hill       33.02 314 eP      P        11 12 03.3 -1.2
      comp=Z,270nm,2.1s,mb5.8
ESK   Eskdalemuir       33.06 315  AMS     AMS     11 28 10.2
      comp=Z,5µm,19.4s,MS5.3
ESK   Eskdalemuir       33.06 315  AMS     AMS     11 28 10.2
      comp=Z,5µm,19.4s
ESK   Eskdalemuir       33.06 315  PFAKE           11 12 10.0 +5.2
ESK                                LR      LR
      comp=Z,8µm,20.0s,MS5.4
HTL   Hartland          33.14 307  AMS     AMS     11 29 00.6
      comp=Z,7µm,16.9s,MS5.5
HTL   Hartland          33.14 307  AMS     AMS     11 29 00.6
      comp=Z,7µm,16.9s
EQES  Quesada           33.18 283  P      P        11 12 05.0 -1.0
      comp=Z,1µm,1.8s,mb6.5
EQES  Quesada           33.18 283  P      P        11 12 05.0 -1.1
      comp=Z,1µm,1.8s,mb6.5
EDI   Edinburgh         33.19 316 eP      P        11 12 06.0 +0.1
EDI                                AMb     AMB     11 12 12.2
      comp=Z,270nm,2.1s,mb5.8
EDI                                AMS     AMS     11 27 32.5
      comp=Z,4µm,22.2s,MS5.1
EDI   Edinburgh         33.19 316  P      P        11 12 06.0 +0.1
EDI                                AMb     AMB     11 12 12.2
      comp=Z,270nm,2.1s,mb5.8
EBER  Berja             33.27 281  P      P        11 12 05.9 -1.0
      comp=Z,937nm,1.8s,mb6.4
GUD   Guadarrama        33.39 288  P      P        11 12 05.9 -2.0
      comp=Z,63nm,1.1s,mb5.5
GUD   Guadarrama        33.39 288  P      P        11 12 05.9 -2.0
GUD                                pmax    pmax
      comp=Z,63nm,1.1s,mb5.5
GUD   Guadarrama        33.39 288  P      P        11 12 05.9 -2.0
      comp=Z,63nm,1.1s,mb5.5
ESDC  Sonseca Array     33.43 286  P      P        11 12 06.7 -1.6
      comp=Z,37nm,1.0s,mb5.3
ESDC  Sonseca Array     33.43 286  P      P        11 12 06.5 -1.8
      comp=Z,25nm,0.8s,mb5.2,baz=70,slow=8.9,SNR=34
ESDC                               LR      LR      11 27 07.5
      comp=Z,3µm,18.3s,MS5.1,baz=90,slow=39
ESDC  Sonseca Array     33.43 286  P      P        11 12 06.7 -1.6
      comp=Z,37nm,1.0s,mb5.3
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ESLA	**Sonseca Array**	**33.43**	**286**	*e*P	**P**	**11 12 07.6**	**-0.7**
	comp=Z,103nm,1.6s,mb5.5						
ESLA				LR	LR		
	comp=Z,23µm,22.0s,MS5.8						
ESLA	**Sonseca Array**	**33.43**	**286**	*e*P	**P**	**11 12 07.6**	**-0.7**
	comp=Z,103nm,1.6s,mb5.5						
MME1	**Meikle Cairn**	**33.44**	**318⇑**	*e*P	**P**	**11 12 08.0**	**-0.1**
LRW	**Lerwick**	**33.49**	**324**	*e*P	**P**	**11 12 08.2**	**-0.3**
LRW				AMb	AMB	11 12 12.1	
	comp=Z,444nm,1.9s,mb6.1						
EBAN	**Banos Encina**	**33.64**	**283**	P	**P**	**11 12 09.1**	**-0.9**
	comp=Z,193nm,0.9s,mb6.0						
EBAN	**Banos Encina**	**33.64**	**283**	P	**P**	**11 12 09.1**	**-1.0**
EBAN				pmax	pmax		
	comp=Z,193nm,0.9s,mb6.0						
EBAN	**Banos Encina**	**33.64**	**283**	P	**P**	**11 12 09.1**	**-1.0**
	comp=Z,193nm,0.9s,mb6.0						
MCD	**Coleburn Disti**	**33.66**	**319⇑**	*e*P	**P**	**11 12 09.9**	**-0.1**
MCD	**Coleburn Disti**	**33.66**	**319⇑**	*e*P	**P**	**11 12 09.9**	**-0.1**
	comp=Z,98nm,1.7s,mb5.5						
ECOG	**Cogollos-Vega**	**33.69**	**282**	P	**P**	**11 12 09.1**	**-1.4**
ECOG				pmax	pmax		
	comp=Z,176nm,1.2s,mb5.9						
ECOG	**Cogollos-Vega**	**33.69**	**282**	P	**P**	**11 12 09.1**	**-1.4**
	comp=Z,176nm,1.2s,mb5.9						
ZAI	**Zaio**	**33.72**	**277**	*i* P	**P**	**11 12 11.0**	**+0.2**
NVS	**Novosibirsk**	**33.73**	**46**	*e*P	**P**	**11 12 10.6**	**-0.1**
NVS				*i* PPP		11 13 29.6	
NVS				*i*		11 14 49.9	
NVS				*e*S	**S**	**11 17 31.3**	**-3.0**
NVS				pmax	pmax		
	comp=Z,390nm,2.0s,mb6.0						
NVS				pmax	pmax		
	comp=N,260nm,2.2s						
NVS				pmax	pmax		
	comp=E,173nm,1.9s						
NVS				smax			
	comp=N,257nm,3.3s						
PAB	**San Pablo**	**33.75**	**286**	*e*P	**P**	**11 12 10.2**	**-0.9**
	comp=N,229nm,1.8s,mb5.8						
PAB				LR	LR		
	comp=Z,3µm,20.0s,MS5.0						
PAB	**San Pablo**	**33.75**	**286**	P	**P**	**11 12 10.4**	**-0.7**
PAB				pmax	pmax		
	comp=Z,230nm,1.8s,mb5.8						
PAB	**San Pablo**	**33.75**	**286**	*e*P	**P**	**11 12 10.2**	**-0.8**
	comp=Z,229nm,1.8s,mb5.8						
EARI	**Arriondas**	**33.77**	**293**	P	**P**	**11 12 10.4**	**-0.7**
	comp=Z,125nm,1.5s,mb5.6						
EARI	**Arriondas**	**33.77**	**293**	P	**P**	**11 12 10.4**	**-0.7**
	comp=Z,125nm,1.5s,mb5.6						
EGUA	**Guajares**	**33.81**	**281**	P	**P**	**11 12 10.4**	**-1.2**
EGUA				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.2						
EGUA	**Guajares**	**33.81**	**281**	P	**P**	**11 12 10.4**	**-1.2**
	comp=Z,28nm,0.9s,mb5.2						
GAL1	**Galloway**	**33.82**	**314**	*e*P	**P**	**11 12 11.2**	**-0.2**
GAL1				AMb	AMB	11 12 17.6	
	comp=Z,98nm,1.7s,mb5.5						
GAL1				AMS	AMS	11 28 19.7	
	comp=Z,4µm,19.7s,MS5.2						
GAL1	**Galloway**	**33.82**	**314**	P	**P**	**11 12 11.2**	**-0.2**
GAL1				AMb	AMB	11 12 17.6	
	comp=Z,98nm,1.7s,mb5.5						
JOSI	**Joshimath**	**33.86**	**91**	*e*P	**P**	**11 12 13.0**	**+0.9**
JOSI				AMb	AMB	11 12 32.0	
	comp=Z,331nm,1.9s,mb5.9						
ERON	**Agron**	**33.94**	**281**	P	**P**	**11 12 11.4**	**-1.3**
	comp=Z,42nm,0.9s,mb5.4						
ERON	**Agron**	**33.94**	**281**	P	**P**	**11 12 11.4**	**-1.3**
	comp=Z,42nm,0.9s,mb5.4						
AGRA	**Agra**	**34.07**	**97**	*e*P	**P**	**11 12 14.4**	**+0.4**
AGRA				AMb	AMB	11 12 16.8	
	comp=Z,81nm,0.3s,mb6.1						
ELUQ	**Luque**	**34.16**	**283**	P	**P**	**11 12 13.0**	**-1.6**
ELUQ				pmax	pmax		
	comp=Z,62nm,0.8s,mb5.6						
ELUQ	**Luque**	**34.16**	**283**	P	**P**	**11 12 13.0**	**-1.6**
	comp=Z,62nm,0.8s,mb5.6						
ELOJ	**Sierra Loja**	**34.18**	**282**	P	**P**	**11 12 13.0**	**-1.8**
	comp=Z,82nm,1.1s,mb5.6						
ELOJ	**Sierra Loja**	**34.18**	**282**	P	**P**	**11 12 13.0**	**-1.8**
ELOJ				pmax	pmax		
	comp=Z,82nm,1.1s,mb5.6						
ELOJ	**Sierra Loja**	**34.18**	**282**	P	**P**	**11 12 13.0**	**-1.8**
	comp=Z,82nm,1.1s,mb5.6						
ORE	**Reay**	**34.20**	**320**	*e*P	**P**	**11 12 14.8**	**+0.1**
EADA	**Adamuz**	**34.24**	**284**	P	**P**	**11 12 14.1**	**-1.2**
	comp=Z,1µm,2.3s,mb6.4						
EADA	**Adamuz**	**34.24**	**284**	P	**P**	**11 12 14.1**	**-1.2**
	comp=Z,1µm,2.3s,mb6.4						
GMM	**Mts of Mourne**	**34.42**	**312**	*e*P	**P**	**11 12 15.9**	**-0.7**
ZAL	**Zalesovo**	**34.48**	**48**	P	**P**	**11 12 16.4**	**-0.8**
ZAL						11 14 53.0	
ZAL				S	**S**	**11 17 46.7**	**+0.8**
ZALV	**Zalesovo Beam**	**34.49**	**48**	P	**P**	**11 12 16.4**	**-0.9**
	comp=Z,13nm,0.6s,mb5.0,baz=266,slow=8.3,SNR=53						
ZALV				PcP	PcP	11 14 53.0	+0.7
	comp=Z,4.3nm,0.7s,baz=197,slow=4.5,SNR=3.5						
ZALV				S	**S**	**11 17 46.7**	**+0.6**
	comp=Z,0.6nm,0.5s,baz=288,slow=42,SNR=2.3						
ZALV				LR	LR	11 28 29.1	
	comp=Z,5µm,18.4s,MS5.3,baz=258,slow=40						
TOU	**Touzarine**	**34.51**	**278**	*i* P	**P**	**11 12 15.5**	**-2.1**
GCL	**Cushendall**	**34.66**	**314**	*e*P	**P**	**11 12 17.9**	**-0.8**
EMIJ	**Mijas**	**34.81**	**281**	P	**P**	**11 12 18.0**	**-2.3**
	comp=Z,933nm,1.9s,mb6.4						
EMIJ	**Mijas**	**34.81**	**281**	P	**P**	**11 12 18.0**	**-2.3**
	comp=Z,933nm,1.9s,mb6.4						
KPL	**Plockton**	**34.85**	**318**	AMS	AMS	11 29 58.7	
	comp=Z,7µm,20.0s,MS5.4						
KPL	**Plockton**	**34.85**	**318**	AMS	AMS	11 29 58.7	
	comp=Z,7µm,20.0s						
ECAL	**Calabor**	**35.08**	**291**	P	**P**	**11 12 19.8**	**-2.7**
	comp=Z,327nm,1.7s,mb6.0						
ERUA	**La Rua**	**35.30**	**292**	P	**P**	**11 12 22.1**	**-2.4**
ERUA	**La Rua**	**35.30**	**292**	P	**P**	**11 12 22.1**	**-2.3**
EJIF	**Jimena Fronter**	**35.38**	**281**	P	**P**	**11 12 23.1**	**-2.1**
EJIF				pmax	pmax		
	comp=Z,308nm,1.6s,mb6.0						
EJIF	**Jimena Fronter**	**35.38**	**281**	P	**P**	**11 12 23.1**	**-2.1**
	comp=Z,308nm,1.6s,mb6.0						
MVO	**Moncorvo**	**35.44**	**290**	*e*P	**P**	**11 12 24.6**	**-1.0**
	comp=Z,94nm,1.6s,mb5.5						
MVO				*e*S	**S**	**11 18 07.1**	**+6.2**
ESPR	**Espera**	**35.56**	**282**	P	**P**	**11 12 24.4**	**-2.3**
	comp=Z,417nm,1.4s,mb6.2						
ESPR	**Espera**	**35.56**	**282**	P	**P**	**11 12 24.4**	**-2.4**
	comp=Z,417nm,1.4s,mb6.2						
TGT	**Taghat**	**35.81**	**277**	*i* P	**P**	**11 12 28.5**	**-0.4**
PVRL	**Vila Real**	**35.92**	**290**	*e*P	**P**	**11 12 32.4**	**+2.6**
	comp=Z,90nm,1.6s,mb5.5						
EMIN	**Mina Concepcio**	**35.94**	**284**	P	**P**	**11 12 28.5**	**-1.5**
	comp=Z,1µm,2.3s,mb6.3						
EMIN	**Mina Concepcio**	**35.94**	**284**	P	**P**	**11 12 28.5**	**-1.5**
	comp=Z,1µm,2.3s,mb6.3						
EBAD	**Badajoz**	**35.95**	**285**	P	**P**	**11 12 27.4**	**-2.6**
	comp=Z,186nm,1.6s,mb5.8						
MTE	**Manteigas**	**35.97**	**288**	*e*P	**P**	**11 12 30.8**	**+0.6**
	comp=Z,123nm,1.5s,mb5.6						
MTE				*e*S	**S**	**11 18 16.4**	**+7.2**
MTE				*e*LQ		11 20 37.7	
MTE				A		11 31 43.6	
	comp=Z,3µm,18.3s						
MTE	**Manteigas**	**35.97**	**288**	*e*P	**P**	**11 12 30.7**	**+0.5**
	comp=Z,160nm,1.1s,mb5.9						
MTE	**Manteigas**	**35.97**	**288**	*e*P	**P**	**11 12 30.7**	**+0.5**
	comp=Z,160nm,1.1s,mb5.9						
MTE				*e*LQ		11 20 37.7	
	comp=Z,3µm,18.3s						
ZFT	**Errachidia**	**36.00**	**273**	*i* P	**P**	**11 12 30.0**	**-0.5**
PCBR	**Castelo Branco**	**36.04**	**287**	*e*P	**P**	**11 12 30.2**	**-0.6**
	comp=Z,216nm,1.6s,mb5.8						
PCAB	**Cabril**	**36.07**	**291**	*e*P	**P**	**11 12 33.8**	**+2.8**
PVIS	**Viseu**	**36.17**	**289**	*e*P	**P**	**11 12 31.2**	**-0.7**
	comp=Z,145nm,1.6s,mb5.7						
CZD	**Col de Zad**	**36.17**	**275**	*i* P	**P**	**11 12 33.5**	**+1.5**
MIF	**Mishlifen**	**36.18**	**276**	*i* P	**P**	**11 12 32.0**	**-0.1**
PESTR	**Estremoz**	**36.36**	**286**	*e*P	**P**	**11 12 32.1**	**-1.4**
	comp=Z,209nm,1.9s,mb5.7						
PESTR	**Estremoz**	**36.36**	**286**	*e*P	**P**	**11 12 32.3**	**-1.2**
	comp=Z,209nm,1.9s,mb5.7						
PESTR				*e*S	**S**	**11 18 17.6**	**+2.5**
PESTR				A		11 29 01.8	
	comp=Z,3µm,17.5s						
PESTR	**Estremoz**	**36.36**	**286**	*e*P	**P**	**11 12 32.3**	**-1.2**
	comp=Z,209nm,1.9s,mb5.7						
WMQ	**Urumqi**	**36.44**	**66**	P	**P**	**11 12 37.1**	**+2.9**
WMQ				PP	PP	11 14 00.8	+3.9
WMQ				S	**S**	**11 18 19.8**	**+3.5**
WMQ				SS	SS	11 20 44.3	-11
WMQ				AMB	AMB		
	comp=Z,76nm,1.4s,mb5.4						
WMQ				AMB	AMB		
	comp=Z,137nm,6.6s						
WMQ				LR	LR		
	comp=N,5µm,16.0s,MS5.5						
WMQ				LR	LR		
	comp=E,5µm,16.4s,MS5.5						
WMQ				LR	LR		
	comp=Z,5µm,16.0s,MS5.4						
EGRO	**El Granado**	**36.63**	**284**	P	**P**	**11 12 33.8**	**-2.0**
	comp=Z,561nm,1.9s,mb6.1						
EGRO	**El Granado**	**36.63**	**284**	P	**P**	**11 12 33.8**	**-2.0**
	comp=Z,561nm,1.9s,mb6.1						
EVO	**Evora**	**36.76**	**285**	*e*P	**P**	**11 12 37.0**	**0.0**
EVO	**Evora**	**36.76**	**285**	*e*P	**P**	**11 12 34.2**	**-2.8**
PBEJ	**Beja**	**36.78**	**285**	*e*P	**P**	**11 12 36.6**	**-0.6**
	comp=Z,288nm,1.8s,mb5.8						
PTOM	**Tomar**	**36.80**	**287**	*e*P	**P**	**11 12 36.3**	**-1.0**
	comp=Z,295nm,1.6s,mb5.9						
PVAQ	**Vaqueiros**	**36.84**	**284**	*e*P	**P**	**11 12 36.5**	**-1.2**
	comp=Z,484nm,1.8s,mb6.0						
PVAQ				*e*S	**S**	**11 18 19.9**	**-2.6**
PVAQ				*e*LR	LR	11 24 10.3	
	comp=Z,1µm,17.2s						
PBDV	**Barranco-do-Ve**	**37.05**	**283**	*e*P	**P**	**11 12 38.5**	**-0.9**
	comp=Z,495nm,1.5s,mb6.1						
PBDV	**Barranco-do-Ve**	**37.05**	**283**	*e*P	**P**	**11 12 39.8**	**+0.4**
	comp=Z,495nm,1.5s,mb6.1						
PBDV				*e*SS	SS	11 21 14.9	+7.4
PBDV				*e*LR	LR	11 24 10.3	
	comp=Z,1µm,18.4s						
PBDV	**Barranco-do-Ve**	**37.05**	**283**	*e*P	**P**	**11 12 39.8**	**+0.4**
	comp=Z,495nm,1.5s,mb6.1						
KIB	**El Ksiba**	**37.12**	**275**	*i* P	**P**	**11 12 39.0**	**-1.1**
PTEO	**Sao Teotonio**	**37.57**	**284**	*e*P	**P**	**11 12 43.8**	**-0.1**
	comp=Z,448nm,1.9s,mb5.9						
LIS	**Lisbon**	**37.58**	**286**	*e*P	**P**	**11 12 43.4**	**-0.5**
MORF	**Marmelete**	**37.58**	**284**	*e*P	**P**	**11 12 42.8**	**-1.2**
	comp=Z,309nm,1.6s,mb5.8						
MORF				*e*S	**S**	**11 18 33.4**	**-0.4**
MORF				*e*SS	SS	11 21 19.6	+1.3
MORF	**Marmelete**	**37.58**	**284**	*e*P	**P**	**11 12 42.7**	**-1.3**
PMAFR	**Mafra**	**37.62**	**287**	*e*P	**P**	**11 12 45.8**	**+1.6**
	comp=Z,258nm,1.6s,mb5.7						
PMAFR				*e*S	**S**	**11 18 38.4**	**+4.1**
TZC	**Tazercounte**	**37.63**	**275**	*i* P	**P**	**11 12 44.0**	**-0.4**
JBP	**Jabalpur**	**37.74**	**102⇑**	*i*P	**P**	**11 12 45.4**	**-0.1**
JBP				*i* x	x	11 18 30.8	
PFVI	**Vila Bisbo**	**37.77**	**284**	*e*P	**P**	**11 12 44.5**	**-1.0**
	comp=Z,597nm,1.8s,mb6.0						
PFVI				*e*S	**S**	**11 18 36.3**	**-0.3**
PFVI				*e*LR	LR	11 24 44.1	
	comp=Z,2µm,18.7s						
PFVI	**Vila Bisbo**	**37.77**	**284**	*e*P	**P**	**11 12 44.5**	**-1.0**
	comp=Z,597nm,1.8s,mb6.0						
PFVI				*e*S	**S**	**11 18 36.3**	**-0.3**
AVE	**Averroes**	**37.92**	**277**	P	**P**	**11 12 45.0**	**-1.9**
NGP	**Nagpur**	**38.16**	**105**	*i* P	**P**	**11 12 48.3**	**-0.8**
NGP				*e*x	x	11 12 51.3	
	comp=Z,78nm,1.6s						
NGP				*e*x	x	11 18 39.9	
GKN	**Gorkha**	**38.96**	**92**	*e*P	**P**	**11 12 56.4**	**+0.7**
	comp=Z,71nm,0.5s,mb5.6						
OUK	**Oukaimeden**	**39.08**	**274**	*i* P	**P**	**11 12 56.0**	**-0.6**
KMBO	**Kilima Mbogo**	**39.32**	**183**	*e*P	**P**	**11 13 00.2**	**+1.5**
KMBO				LR	LR		
	comp=Z,8µm,19.0s,MS5.6						
KMBO	**Kilima Mbogo**	**39.32**	**183**	P	**P**	**11 12 58.8**	**+0.1**
KMBO						11 15 08.3	
KMBO				pmax	pmax		
	comp=Z,12nm,1.1s						
KMBO				MLR	MLR		
	comp=Z,8µm,18.1s						
KMBO	**Kilima Mbogo**	**39.32**	**183**	P	**P**	**11 12 58.8**	**+0.1**
	comp=Z,12nm,1.1s,mb4.5,baz=9.4,slow=10,SNR=23						
KMBO				PcP	PcP	11 15 08.3	+0.8
	comp=Z,3.6nm,0.7s,baz=30,slow=23,SNR=4.1						
KMBO				LR	LR	11 28 36.2	
	comp=Z,8µm,18.1s,MS5.6,baz=332,slow=35						
KMBO	**Kilima Mbogo**	**39.32**	**183**	*e*P	**P**	**11 13 00.2**	**+1.5**
KKN	**Kakani**	**39.56**	**91**	*e*P	**P**	**11 13 01.8**	**+1.1**
	comp=Z,72nm,0.8s,mb5.5						
HYB	**Hyderabad**	**40.05**	**110**	*e*P	**P**	**11 13 04.0**	**-0.9**
HYB				*e*S	**S**	**11 19 06.0**	**-5.4**
HYB	**Hyderabad**	**40.05**	**110**	*i* P	**P**	**11 13 04.0**	**-0.9**
HYB				*e*PP	PP	11 14 41.0	+4.1
HYB				*e*S	**S**	**11 19 10.0**	**-1.4**
HYB				*e*SS	SS	11 22 06.0	-2.5
JIRN	**Jiri**	**40.34**	**91**	*e*P	**P**	**11 13 08.4**	**+1.2**
	comp=Z,14nm,0.4s,mb5.0						
MNGI	**Mangalore**	**40.38**	**119**	*i* P	**P**	**11 13 08.4**	**+0.8**
MNGI				*i* S	**S**	**11 19 19.0**	**+2.7**
SPB4	**Spitsbergen Ar**	**41.08**	**353**	*e*P	**P**	**11 13 14.1**	**+1.3**
SPB4	**Spitsbergen Ar**	**41.08**	**353**	*e*P	**P**	**11 13 14.1**	**+1.4**
ODAN	**Odare**	**41.65**	**91**	*e*P	**P**	**11 13 19.4**	**+1.4**
	comp=Z,180nm,1.1s,mb5.6						
TAPN	**Taplejung**	**41.67**	**90**	*e*P	**P**	**11 13 19.4**	**+1.2**
	comp=Z,45nm,0.6s,mb5.3						
TOA0	**Torodi Ar. Sit**	**41.74**	**243**	*e*P	**P**	**11 13 17.5**	**-1.3**
TORD	**Torodi Ar. Bea**	**41.74**	**243**	P	**P**	**11 13 17.3**	**-1.5**
	comp=Z,47nm,1.2s,mb5.0,baz=38,slow=5.2,SNR=111						
TORD				PcP	PcP	11 15 15.9	+0.6
	comp=Z,4.4nm,0.9s,baz=53,slow=3.5,SNR=3.3						
TORD				LR	LR	11 34 21.2	
	comp=Z,2µm,19.5s,MS5.0,baz=20,slow=42						
BOK	**Bokaro**	**41.99**	**96**	*i* x	x	11 13 15.0	
KBS	**Kingsbay**	**42.18**	**352**	PFAKE		11 13 30.0	+8.3
KBS				LR	LR		
	comp=Z,4µm,22.0s,MS5.3						
LSA	**Lhasa**	**43.32**	**85**	P	**P**	**11 13 32.0**	**+0.4**
LSA				AP	pP	11 13 43.3	+10
LSA				PP	PP	11 15 12.0	-0.1
LSA				S	**S**	**11 19 53.1**	**-6.6**
LSA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.5						
LSA				AMB	AMB		
	comp=Z,700nm,9.0s						
LSA				LR	LR		
	comp=N,2µm,23.0s,MS5.2						
LSA				LR	LR		
	comp=E,4µm,27.0s,MS5.2						
LSA				LR	LR		
	comp=Z,6µm,31.0s,MS5.3						
LSA	**Lhasa**	**43.32**	**85**	*e*P	**P**	**11 13 33.1**	**+1.5**
	comp=Z,18nm,0.8s,mb4.8						
LSA				LR	LR		
	comp=Z,4µm,22.0s,MS5.3						
LSA	**Lhasa**	**43.32**	**85**	*e*P	**P**	**11 13 33.1**	**+1.5**
LSA				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.8						
LSA				MLR	MLR		
	comp=Z,4µm,22.0s,MS5.3						
LSA	**Lhasa**	**43.32**	**85**	*e*P	**P**	**11 13 33.1**	**+1.5**
	comp=Z,18nm,0.8s,mb4.8						
VIS	**Vishakhapatnam**	**43.44**	**106**	*i* P	**P**	**11 13 32.8**	**+0.2**
VIS				*e*x	x	11 13 38.0	
	comp=Z,62nm,1.5s						
VIS				*i* x	x	11 19 58.0	
MOY	**Mondy**	**44.29**	**52**	*e*P	**P**	**11 13 40.9**	**+1.9**
MOY				pmax	pmax		
	comp=Z,298nm,2.5s,mb5.6						
PMPS	**Porto Santo**	**44.94**	**281**	*e*P	**P**	**11 13 45.0**	**+0.5**
	comp=Z,561nm,1.7s,mb6.1						
CFTV	**Fuerteventura**	**45.15**	**274**	P	**P**	**11 13 45.4**	**-0.9**
	comp=Z,61nm,1.2s,mb5.3						
CFTV	**Fuerteventura**	**45.15**	**274**	P	**P**	**11 13 45.4**	**-0.8**
	comp=Z,61nm,1.2s,mb5.3						
PMAR	**Madeira**	**45.52**	**281**	*e*P	**P**	**11 13 49.7**	**+0.6**
	comp=Z,499nm,1.7s,mb6.2						
SHL	**Shillong**	**45.81**	**90**	*e*P	**P**	**11 13 50.5**	**-1.0**
SHL				*e*x	x	11 20 27.5	
ZAK	**Zakamensk**	**45.92**	**53**	*e*P	**P**	**11 13 53.0**	**+1.0**
ZAK				*e*		11 15 29.5	
ZAK				pmax	pmax		
	comp=Z,40nm,2.0s,mb5.0						
TLY	**Talaya**	**45.92**	**51**	*e*P	**P**	**11 13 53.3**	**+1.3**
TLY				LR	LR		
	comp=Z,3µm,22.0s,MS5.2						
TLY	**Talaya**	**45.92**	**51***c*	*i*P	**P**	**11 13 53.9**	**+1.9**
TLY				*e*		11 15 30.5	
TLY				*e*		11 15 43.5	
TLY				*e*S	**S**	**11 20 43.8**	**+7.0**
TLY				*e*		11 23 50.3	
TLY				pmax	pmax		
	comp=Z,142nm,1.4s,mb5.7						
TLY				MLR	MLR		
	comp=Z,5µm,17.0s,MS5.5						
TLY	**Talaya**	**45.92**	**51**	*e*P	**P**	**11 13 53.3**	**+1.3**
AGT	**Agartala**	**46.15**	**93**	*e*P	**P**	**11 13 51.0**	**-3.2**
IRK	**Irkutsk**	**46.21**	**50⇑**	*i*P	**P**	**11 13 54.5**	**+0.2**
IRK				*e*	pP	11 13 54.6	-1.2
IRK				*e*		11 15 30.2	
IRK				*e*		11 15 41.0	
IRK				*e*S	**S**	**11 20 39.5**	**-1.5**
IRK				*e*		11 23 46.5	
IRK				pmax	pmax		
	comp=Z,331nm,2.2s,mb5.9						
GTA	**Gaotai**	**46.31**	**69**	P	**P**	**11 13 55.5**	**+0.3**
GTA				AP	pP	11 13 59.0	+2.3
GTA				PCP	PcP	11 15 31.8	+1.3
GTA				PP	PP	11 15 44.1	+0.4
GTA				PPP		11 16 27.8	
GTA				SCP	ScP	11 19 22.9	-1.6
GTA				PCS	PcS	11 19 24.9	-0.1
GTA				S	**S**	**11 20 41.4**	**-1.3**
GTA				SCS	ScS	11 23 48.3	-3.0
GTA				SS	SS	11 23 57.9	-10
GTA				AMB	AMB		
	comp=Z,19nm,1.7s,mb4.8						
GTA				AMB	AMB		
	comp=Z,540nm,6.6s						
GTA				LR	LR		
	comp=N,3µm,18.5s,MS5.5						
GTA				LR	LR		
	comp=E,3µm,18.2s,MS5.5						
GTA				LR	LR		
	comp=Z,3µm,18.5s,MS5.2						
EOSO	**Osorio**	**46.46**	**274**	P	**P**	**11 13 55.0**	**-1.6**
	comp=Z,1µm,2.1s,mb6.5						
EBAJ	**Bajamar**	**46.87**	**275**	P	**P**	**11 13 58.0**	**-1.8**
	comp=Z,740nm,1.8s,mb6.3						
EBAJ	**Bajamar**	**46.87**	**275**	P	**P**	**11 13 58.0**	**-1.8**
	comp=Z,740nm,1.8s,mb6.3						
CCAN	**Las Canadas**	**47.22**	**275**	P	**P**	**11 14 01.6**	**-0.9**
	comp=Z,54nm,1.2s,mb5.4						
CCAN	**Las Canadas**	**47.22**	**275**	P	**P**	**11 14 01.6**	**-0.9**
	comp=Z,54nm,1.2s,mb5.4						
EGOM	**La Gomera**	**47.72**	**275**	P	**P**	**11 14 04.4**	**-2.1**
	comp=Z,149nm,1.3s,mb5.9						
EGOM	**La Gomera**	**47.72**	**275**	P	**P**	**11 14 04.4**	**-2.0**
	comp=Z,149nm,1.3s,mb5.9						
PALK	**Pallekele**	**48.46**	**119**	*e*P	**P**	**11 14 15.9**	**+3.7**
	comp=Z,50nm,1.1s,mb5.5						
PALK				LR	LR		
	comp=Z,5µm,19.0s,MS5.5						
SONM	**Songino Array**	**48.47**	**56**	P	**P**	**11 14 12.2**	**+0.2**
SONM						11 15 37.7	
SONM				S	**S**	**11 21 13.8**	**+0.5**
SONM				pmax	pmax		
	comp=Z,12nm,0.9s						
SONM				MLR	MLR		
	comp=Z,22µm,18.1s						
SONM	**Songino Array**	**48.47**	**56**	P	**P**	**11 14 12.2**	**+0.2**
	comp=Z,12nm,0.8s,mb5.0,baz=278,slow=7.2,SNR=52						
SONM				PcP	PcP	11 15 37.7	-0.3
	comp=Z,6.2nm,0.6s,baz=252,slow=2.8,SNR=11						
SONM				S	**S**	**11 21 13.8**	**+0.5**
	comp=Z,0.2nm,0.7s,baz=292,slow=18,SNR=2.1						
SONM				LR	LR	11 37 14.4	
	comp=Z,22µm,18.1s,MS6.2,baz=287,slow=39						
ULN	**Ulaanbaatar**	**48.89**	**56**	*e*P	**P**	**11 14 16.2**	**+1.0**
ULN				LR	LR		
	comp=Z,17µm,19.0s,MS6.1						
ULN	**Ulaanbaatar**	**48.89**	**56**	*i* P	**P**	**11 14 15.9**	**+0.7**
LZH	**Lanzhou**	**50.48**	**71**	*e*P	**P**	**11 14 28.0**	**+0.5**
LZH				PCP	PcP	11 15 47.6	+2.0
LZH				PP	PP	11 16 25.1	+2.2
LZH				*e*S	**S**	**11 21 45.0**	**+3.3**
LZH				XS	sS	11 21 53.0	+8.8
LZH				AMB	AMB		
	comp=Z,86nm,1.5s,mb5.6						
LZH				AMB	AMB		
	comp=Z,456nm,5.7s						
LZH				LR	LR		
	comp=N,4µm,13.7s						
LZH				LR	LR		
	comp=Z,8µm,16.5s,MS5.8						
LZH	**Lanzhou**	**50.48**	**71**	*e*P	**P**	**11 14 28.0**	**+0.5**
	comp=Z,86nm,1.5s,mb5.6						
LZH				pP	pP	11 14 29.3	+0.3
LZH				sP	sP	11 14 30.5	+0.9
LZH				PcP	PcP	11 15 47.6	+2.0
LZH				PP	PP	11 16 25.1	+2.2
LZH				*e*S	**S**	**11 21 45.0**	**+3.3**
LZH				sS	sS	11 21 53.0	+8.8
LZH				SS	SS	11 25 07.0	-8.3
LZH				LR	LR		
	comp=Z,8µm,16.5s,MS5.8						
LZH	**Lanzhou**	**50.48**	**71**	*e*P	**P**	**11 14 28.0**	**+0.5**
LZH				*PP	pP	11 14 29.3	+0.3
LZH				*SP	sP	11 14 30.5	+0.9
LZH						11 15 47.6	
LZH						11 16 25.1	
LZH				*e*S	**S**	**11 21 45.0**	**+3.3**
LZH				*SS	sS	11 21 53.0	+8.8
LZH				SS	SS	11 25 07.0	-8.3
LZH				pmax	pmax		
	comp=Z,86nm,1.5s,mb5.6						
LZH				MLR	MLR		
	comp=Z,8µm,16.5s,MS5.8						
BOD	**Bodaibo**	**50.72**	**42**	*e*P	**P**	**11 14 27.4**	**-1.6**
BOD				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.5						
TIC	**Toumodi**	**50.98**	**243**	*e*P	**P**	**11 14 29.4**	**-2.1**
	comp=Z,1µm,1.5s,mb6.7						
KIC	**Kosan Boka**	**50.99**	**243**	*e*P	**P**	**11 14 29.6**	**-1.9**
	comp=Z,1µm,1.4s,mb6.7						
LIC	**Lamto**	**51.28**	**243**	*e*P	**P**	**11 14 32.0**	**-1.8**
	comp=Z,649nm,1.4s,mb6.0,baz=56						
LIC				*e*MLR	MLR		
	comp=Z,2µm,20.8s,MS4.9						
LIC	**Lamto**	**51.28**	**243**	*e*P	**P**	**11 14 31.8**	**-2.0**
	comp=Z,573nm,1.4s,mb6.3						
LIC	**Lamto**	**51.28**	**243**	*e*P	**P**	**11 14 32.0**	**-1.8**
	comp=Z,325nm,1.4s,mb6.1						
LIC				LR	LR		
	comp=Z,1µm,20.8s,MS4.9						
CIT	**Chita**	**51.84**	**49**	*e*P	**P**	**11 14 37.7**	**+0.3**
CIT				*e*		11 15 50.2	
CIT				*e*		11 22 05.3	
CIT				*e*		11 24 30.2	
CIT				pmax	pmax		
	comp=Z,279nm,2.2s,mb5.8						
CD2	**Chengdu**	**52.59**	**77**	P	**P**	**11 14 44.3**	**+1.0**
CD2				PP	PP	11 16 43.0	+0.8
CD2				PPP		11 17 46.5	
CD2				PCS	PcS	11 19 53.4	+1.3
CD2				S	**S**	**11 22 09.0**	**-2.0**
CD2				SCS	ScS	11 24 31.6	-2.4
CD2				SS	SS	11 25 44.8	-4.1
CD2				AMB	AMB		
	comp=Z,30nm,1.4s,mb5.0						
CD2				AMB	AMB		
	comp=Z,340nm,5.3s						
CD2				LR	LR		
	comp=N,2µm,24.0s						
CD2				LR	LR		
	comp=Z,2µm,16.8s						
BTO	**Baotou**	**53.23**	**64**	*e*P	**P**	**11 14 49.4**	**+1.4**
ALE	**Alert**	**53.74**	**351**	P	**P**	**11 14 50.4**	**-0.7**
	comp=Z,107nm,1.7s,mb5.5,SNR=11						
TIXI	**Tiksi**	**53.99**	**23**	*e*P	**P**	**11 14 53.2**	**+0.2**
TIXI				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
TIXI	**Tiksi**	**53.99**	**23***d*	*i*P	**P**	**11 14 52.9**	**-0.1**
TIXI				*e*		11 15 59.5	
TIXI				*e*		11 16 56.3	
TIXI				*e*PPP		11 17 58.9	
TIXI				*e*S	**S**	**11 22 30.9**	**+2.0**
TIXI				*e*		11 24 42.3	
TIXI				*e*SS	SS	11 26 07.5	-2.0
TIXI				pmax	pmax		
	comp=Z,97nm,1.8s,mb5.4						

TIXI	**Tiksi**	53.99	23	*e*P	P	11 14 53.2	+0.2	
HHC	**Hu-ho-hao-te**	54.23	63	*e*P	P	11 14 56.3	+1.1	
HHC				PCP	PcP	11 16 02.3	+2.7	
HHC				PP	PP	11 16 59.4	+2.7	
HHC				PCS	PcS	11 19 59.6	+0.7	
HHC				S	S	11 22 31.6	-1.4	
HHC				PS		11 22 40.8		
HHC				SCS	ScS	11 24 42.9	-2.4	
HHC				SS	SS	11 26 13.0	-1.4	
HHC				AMB	AMB			comp=Z,59nm,1.3s,mb5.4
HHC				AMB	AMB			comp=Z,601nm,6.0s
HHC				LR	LR			comp=N,3μm,18.1s,MS5.7
HHC				LR	LR			comp=E,4μm,16.8s,MS5.7
HHC				LR	LR			comp=Z,6μm,17.0s,MS5.8
LSZ	**Lusaka**	54.35	193	*e*P	P	11 14 56.7	+0.5	comp=Z,107nm,1.4s,mb5.6
LSZ				LR	LR			comp=Z,3μm,21.0s,MS5.4
KMI	**Kunming**	54.55	84	⇑P	P	11 14 57.3	-0.5	
KMI				AP	pP	11 15 05.8	+6.5	
KMI				PP	PP	11 17 01.9	+1.9	
KMI				PPP		11 18 13.8		
KMI				S	S	11 22 35.3	-2.5	
KMI				XS	sS	11 22 49.1	+8.8	
KMI				SCS	ScS	11 24 43.8	-4.3	
KMI				AMB	AMB			comp=Z,38nm,2.0s,mb5.1
KMI				AMB	AMB			comp=Z,504nm,7.3s
KMI				LR	LR			comp=N,2μm,20.6s,MS5.3
KMI				LR	LR			comp=E,2μm,19.9s,MS5.3
KMI				LR	LR			comp=Z,2μm,29.8s
KMI	**Kunming**	54.55	84	Pu	P	11 14 57.2	-0.6	comp=Z,38nm,2.0s,mb5.1
KMI				pP	pP	11 15 05.8	+6.5	
KMI				PP	PP	11 17 01.9	+1.9	
KMI				PPP		11 18 13.8		
KMI				S	S	11 22 35.2	-2.6	
KMI				sS	sS	11 22 49.1	+8.8	
KMI				PS		11 22 49.2		
KMI				ScS	ScS	11 24 43.8	-4.3	
KMI				SS	SS	11 26 15.7	-4.4	
KMI				SSS		11 28 25.9		
KMI				LR	LR			comp=Z,2μm,29.8s,MS5.0
KMI	**Kunming**	54.55	84	P	P	11 14 57.2	-0.6	
KMI				*PP	pP	11 15 05.8	+6.5	
KMI						11 17 01.9		
KMI				PPP		11 18 13.8		
KMI				S	S	11 22 35.2	-2.6	
KMI				*SS	sS	11 22 49.1	+8.8	
KMI				PS		11 22 49.2		
KMI						11 24 43.8		
KMI				SS	SS	11 26 15.7	-4.4	
KMI				pmax	pmax			comp=Z,38nm,2.0s,mb5.1
CHG	**Chiang Mai**	54.91	93	⇓P	P	11 15 00.7	+0.2	comp=Z,38nm,1.2s,mb5.3
CHTO	**Chiang Mai**	54.91	93	*e*P	P	11 15 00.3	-0.2	comp=Z,98nm,1.6s,mb5.6
CHTO				LR	LR			comp=Z,1μm,19.0s,MS5.0
CHTO	**Chiang Mai**	54.91	93	*e*P	P	11 15 00.3	-0.2	
CHTO				pmax	pmax			comp=Z,98nm,1.6s,mb5.6
CHTO				MLR	MLR			comp=Z,1μm,19.0s,MS5.0
CHTO	**Chiang Mai**	54.91	93	*e*P	P	11 15 00.3	-0.2	comp=Z,98nm,1.6s,mb5.6
CM31	**Chiang Mai Arr**	55.11	93	PFAKE		11 15 10.0	+8.1	
CM31				LR	LR			comp=Z,2μm,20.0s,MS5.1
XAN	**Xi'an**	55.11	72	P	P	11 15 01.3	-0.5	
XAN				S	S	11 22 39.3	-5.8	
XAN				AMB	AMB			comp=Z,29nm,1.1s,mb5.2
XAN				AMB	AMB			comp=Z,512nm,9.7s
XAN				LR	LR			comp=N,2μm,13.6s,MS5.5
XAN				LR	LR			comp=E,3μm,17.3s,MS5.5
XAN				LR	LR			comp=Z,4μm,16.5s,MS5.5
SFJD	**Kangerlussuaq**	55.37	331	*i* P	P	11 15 02.6	-0.5	
SFJD				*i* S	S	11 22 46.3	-1.3	
SFJD				pmax	pmax			comp=Z,39nm,1.1s,mb5.3
SFJD				MLR	MLR			comp=Z,1μm,19.0s,MS5.0
SFJD	**Kangerlussuaq**	55.37	331	P	P	11 15 02.5	-0.6	comp=Z,18nm,0.8s,mb5.1,baz=52,slow=9.7,SNR=6.9
SFJD				LR	LR	11 39 33.6		comp=Z,1μm,18.6s,MS5.0,baz=50,slow=37
SFJD	**Kangerlussuaq**	55.37	331	*i* P	P	11 15 02.6	-0.5	comp=Z,39nm,1.1s,mb5.3
SFJD				*i* S	S	11 22 46.3	-1.3	
SFJD								comp=Z,1μm,19.0s
TIY	**Taiyuan**	56.11	66	⇑*i*P	P	11 15 09.6	+0.7	
TIY				XP	sP	11 15 23.8	+13	
TIY				SCS	ScS	11 24 57.3	-1.6	
TIY				LR	LR			comp=N,1μm,10.8s,MS5.4
TIY				LR	LR			comp=E,1μm,12.1s,MS5.4
HIA	**Hailar**	56.45	51	*e*P	P	11 15 11.6	+0.4	comp=E,100nm,1.3s,mb5.7
HIA				LR	LR			comp=Z,3μm,21.0s,MS5.3
HIA	**Hailar**	56.45	51	*e*P	P	11 15 11.6	+0.5	
HIA				pmax	pmax			comp=Z,100nm,1.3s
HIA				MLR	MLR			comp=Z,3μm,21.0s
HIA	**Hailar**	56.45	51	*e*P	P	11 15 11.6	+0.5	comp=Z,100nm,1.3s,mb5.7
NRGR	**Nerungri**	56.64	41	*e*P	P	11 15 13.2	+0.9	
NRGR				S	S	11 23 08.0	+3.3	
NRGR				smax				comp=N,21nm,0.4s
CLNS	**Chul'man**	56.66	41	*e*P	P	11 15 13.6	+1.1	
CLNS				*e**PP	pP	11 15 19.4	+5.4	
CLNS				*e*		11 17 17.2		
CLNS				*e*S	S	11 23 09.6	+4.5	
CLNS				*e*SSS		11 29 04.8		
CLNS				pmax	pmax			comp=E,13nm,0.7s
CLNS				pmax	pmax			comp=Z,35nm,0.7s,mb5.5
CLNS				pmax	pmax			comp=N,15nm,0.9s
CLNS				pmax	pmax			comp=E,12nm,1.2s
CLNS				pmax	pmax			comp=Z,16nm,1.2s,mb4.9
CLNS				pmax	pmax			comp=N,13nm,1.0s
CLNS				smax				comp=E,889nm,12.5s
CLNS				smax				comp=Z,294nm,11.0s
CLNS				smax				comp=N,304nm,11.4s
CLNS				MLR	MLR			comp=Z,8μm,15.0s,MS5.9
CLNS				MLR	MLR			comp=N,2μm,14.0s,MS5.7
CLNS				MLR	MLR			comp=E,3μm,14.0s,MS5.7
GYA	**Guiyang**	56.94	81	⇑*i*P	P	11 15 17.0	+2.0	
GYA				PCP	PcP	11 16 12.6	+2.3	
GYA				PP	PP	11 17 25.5	+4.2	
GYA				S	S	11 23 09.9	+0.3	
GYA				SCS	ScS	11 25 03.8	-1.4	
GYA				AMB	AMB			comp=Z,70nm,1.0s,mb5.7
GYA				AMB	AMB			comp=Z,910nm,7.0s
GYA				LR	LR			comp=N,3μm,18.8s,MS5.7
GYA				LR	LR			comp=E,4μm,19.0s,MS5.7
GYA				LR	LR			comp=Z,8μm,19.9s,MS5.8
YAK	**Yakutsk**	57.14	34	*e*P	P	11 15 16.1	+0.3	comp=Z,77nm,1.1s,mb5.7
YAK				LR	LR			comp=Z,5μm,20.0s,MS5.6
YAK	**Yakutsk**	57.14	34	*e*P	P	11 15 15.1	-0.7	
YAK				*e**PP	pP	11 15 20.2	+2.8	
YAK				*e*		11 16 06.6		
YAK				*e*S	S	11 23 10.1	-1.2	
YAK				*e**SS	sS	11 23 18.1	+4.3	
YAK				*e*		11 25 04.4		
YAK				*e*SS	SS	11 26 56.5	-2.9	
YAK				pmax	pmax			comp=E,60nm,2.0s
YAK				pmax	pmax			comp=Z,121nm,2.0s,mb5.6
YAK				pmax	pmax			comp=N,21nm,1.6s
YAK				smax				comp=N,1μm,4.9s
YAK				smax				comp=Z,783nm,10.1s
YAK				smax				comp=E,742nm,7.4s
YAK	**Yakutsk**	57.14	34	*e*P	P	11 15 16.1	+0.3	comp=E,77nm,1.1s,mb5.7
ENH	**Enshi**	57.26	75	PFAKE		11 15 30.0	+13	
ENH				LR	LR			comp=Z,3.0nm,22.0s
NST	**Nakhon Sawan**	57.63	95	P	P	11 15 20.0	+0.1	
BJI	**Beijing**	57.77	62	P	P	11 15 20.8	+0.2	
BJI				PCP	PcP	11 16 13.8	+0.4	
BJI				PP	PP	11 17 28.4	0.0	
BJI				S	S	11 23 16.8	-3.4	
BJI				SS	SS	11 27 12.0	+1.8	
BJI				AMB	AMB			comp=Z,37nm,2.1s,mb5.0
BJI				AMB	AMB			comp=Z,795nm,4.3s
BJI				LR	LR			comp=N,4μm,16.0s,MS5.8
BJI				LR	LR			comp=E,4μm,18.2s,MS5.8
BJI				LR	LR			comp=Z,4μm,19.6s,MS5.5
BJT	**Baijiatuau**	57.78	62	*e*P	P	11 15 21.0	+0.3	comp=Z,60nm,1.3s,mb5.5
BJT				LR	LR			comp=Z,6μm,20.0s,MS5.7
BJT	**Baijiatuau**	57.78	62	*e*P	P	11 15 21.0	+0.3	
BJT				pmax	pmax			comp=Z,60nm,1.3s
BJT				MLR	MLR			comp=Z,6μm,20.0s
BJT	**Baijiatuau**	57.78	62	*e*P	P	11 15 21.0	+0.3	comp=Z,60nm,1.3s,mb5.5
KKTK	**Khon Kaen**	59.35	93	P	P	11 15 32.3	+0.3	comp=Z,309nm,0.9s,mb6.3
TIA	**Tai'an**	60.14	66	*e*P	P	11 15 36.8	-0.3	
TIA				AMB	AMB			comp=Z,70nm,1.8s,mb5.4
TSUM	**Tsumeb**	60.77	204	*e*P	P	11 15 41.8	+0.3	comp=Z,93nm,1.6s,mb5.7
TSUM				LR	LR			comp=Z,4μm,19.0s,MS5.6
TSUM	**Tsumeb**	60.77	204	*e*P	P	11 15 41.8	+0.3	comp=Z,93nm,1.6s,mb5.7
WHN	**Wuhan**	60.80	73	⇓P	P	11 15 42.0	+0.2	
WHN				S	S	11 23 56.9	-2.8	
WHN				LR	LR			comp=Z,4μm,13.9s,MS5.8
SNY	**Shenyang**	62.01	57	⇑P	P	11 15 49.0	-0.7	
SNY				PP	PP	11 18 09.3	+3.5	
SNY				S	S	11 24 12.3	-2.3	
SNY				AMB	AMB			comp=Z,20nm,1.5s,mb5.0
SNY				AMB	AMB			comp=Z,420nm,6.1s
SNY				LR	LR			comp=N,6μm,16.5s,MS6.2
SNY				LR	LR			comp=E,11μm,16.1s,MS6.2
SNY				LR	LR			comp=Z,13μm,16.3s,MS6.2
DL2	**Dalian**	62.05	61	⇑*i*P	P	11 15 48.9	-1.2	
DL2				S	S	11 24 15.5	+0.2	
DL2				AMB	AMB			comp=Z,40nm,0.8s,mb5.6
DL2				AMB	AMB			comp=Z,220nm,5.0s
DL2				LR	LR			comp=N,1μm,15.2s,MS5.4
DL2				LR	LR			comp=E,1μm,13.5s,MS5.4
DL2				LR	LR			comp=Z,1μm,15.7s,MS5.2
CN2	**Changchun**	62.31	55	*e*P	P	11 15 51.6	-0.1	
CN2				PCP	PcP	11 16 34.3	+2.8	
CN2				*e*S	S	11 24 15.9	-2.5	
CN2				SCS	ScS	11 25 41.6	-2.9	
CN2				AMB	AMB			comp=Z,40nm,1.2s,mb5.4
CN2				AMB	AMB			comp=Z,700nm,4.0s
CN2				LR	LR			comp=N,7μm,22.0s,MS5.8
CN2				LR	LR			comp=E,5μm,22.0s,MS5.8
CN2				LR	LR			comp=Z,6μm,18.0s,MS5.8
RES	**Resolute Bay**	63.27	348	*e*P	P	11 15 58.4	+0.7	comp=Z,4μm,2.3s
RES	**Resolute Bay**	63.27	348	*e*P	P	11 15 58.3	+0.6	comp=Z,4μm,2.3s
QIZ	**Qiongzhong**	63.36	86	P	P	11 15 59.4	+0.4	
QIZ				PP	PP	11 18 18.8	+0.6	
QIZ				PPP		11 19 58.3		
QIZ				S	S	11 24 32.6	+0.4	
QIZ				SS	SS	11 28 41.3	+2.7	
QIZ				AMB	AMB			comp=Z,539nm,4.0s
QIZ				LR	LR			comp=N,1μm,16.8s,MS5.3
QIZ				LR	LR			comp=E,2μm,18.0s,MS5.3
QIZ				LR	LR			comp=Z,1μm,19.8s,MS5.1
QIZ	**Qiongzhong**	63.36	86	PFAKE		11 16 10.0	+11	
QIZ				LR	LR			comp=Z,1μm,19.0s,MS5.2
NJ2	**Nanjing**	63.40	69	*e*P	P	11 16 00.0	+0.8	
NJ2				AP	pP	11 16 04.6	+3.9	
NJ2				XP	sP	11 16 06.9	+5.6	
NJ2				PP	PP	11 18 21.0	+2.7	
NJ2				S	S	11 24 35.0	+2.5	
NJ2				XS	sS	11 24 43.0	+8.0	
NJ2				AMB	AMB			comp=Z,40nm,1.1s,mb5.5
NJ2				AMB	AMB			comp=Z,410nm,8.2s
NJ2				LR	LR			comp=N,6μm,19.4s
NJ2				LR	LR			comp=E,3μm,24.7s
NJ2				LR	LR			comp=Z,3μm,24.8s
KLR	**Kul'dur**	63.59	47	*e*P	P	11 15 56.5	-3.6	
KLR				*e*S	S	11 24 29.5	-4.8	
KLR				*e*		11 25 50.5		
KLR				*e*SS	SS	11 28 35.5	-5.4	
KLR				*e*SSS		11 31 33.0		
KLR				pmax	pmax			comp=E,260nm,2.6s
KLR				pmax	pmax			comp=Z,450nm,2.6s,mb6.0
KLR				smax				comp=N,1μm,8.5s
KLR				smax				comp=E,2μm,8.5s
KLR				MLR	MLR			comp=E,3μm,15.0s
KLR				MLR	MLR			comp=Z,4μm,15.0s,MS5.7
GZH	**Guangzhou**	63.87	80	P	P	11 16 02.5	+0.1	
GZH				S	S	11 24 40.1	+1.5	
GZH				LR	LR			comp=N,2μm,18.3s,MS5.4
GZH				LR	LR			comp=E,2μm,18.4s,MS5.4
GZH				LR	LR			comp=Z,4μm,14.6s,MS5.7
LBTB	**Lobatse**	64.32	194	*e*P	P	11 16 06.0	+0.9	comp=Z,38nm,0.9s,mb5.4
LBTB				LR	LR			comp=Z,2μm,20.0s,MS5.3
LBTB	**Lobatse**	64.32	194	*e*P	P	11 16 06.0	+0.9	comp=Z,38nm,0.9s,mb5.4
KULM	**Kulim**	64.38	104	*e*P	P	11 16 04.8	-1.1	
KULM	**Kulim**	64.38	104	⇑P	P	11 16 05.4	-0.4	
KULM	**Kulim**	64.38	104	*e*P	P	11 16 04.8	-1.0	
MDJ	**Mudanjiang**	64.54	52	P	P	11 16 05.9	-0.6	
MDJ				PCP	PcP	11 16 41.3	+0.7	
MDJ				PP	PP	11 18 29.8	+1.8	
MDJ				S	S	11 24 46.4	+0.2	
MDJ				SS	SS	11 28 58.3	+2.4	
MDJ				AMB	AMB			comp=Z,20nm,2.5s,mb4.7
MDJ				AMB	AMB			comp=Z,322nm,5.3s
MDJ				LR	LR			comp=N,3μm,25.9s,MS5.4
MDJ				LR	LR			comp=E,2μm,28.1s,MS5.4
MDJ				LR	LR			comp=Z,2μm,27.0s,MS5.1
MDJ	**Mudanjiang**	64.54	52	*e*P	P	11 16 09.2	+2.8	comp=Z,44nm,1.6s,mb5.2
MDJ				LR	LR			comp=Z,2μm,20.0s,MS5.3
MDJ	**Mudanjiang**	64.54	52	*e*P	P	11 16 09.2	+2.7	comp=Z,44nm,1.6s,mb5.2
PSI	**Prapat**	64.69	108	P	P	11 16 07.4	-0.4	
PSI				pmax	pmax			comp=Z,11nm,0.7s,mb5.0
PSI	**Prapat**	64.69	108	P	P	11 16 07.3	-0.5	comp=Z,11nm,0.7s,mb5.0,baz=324,slow=9.2,SNR=17
IPM	**Ipoh**	65.18	105	⇑P	P	11 16 11.6	+0.6	
SSE	**Sheshan**	65.60	69	P	P	11 16 13.6	0.0	
SSE				AP	pP	11 16 16.8	+1.7	
SSE				PP	PP	11 18 37.0	-0.6	
SSE				S	S	11 24 57.4	-2.3	
SSE				AMB	AMB			comp=Z,31nm,1.1s,mb5.2
SSE				AMB	AMB			comp=Z,254nm,5.3s
SSE				LR	LR			comp=N,1μm,16.9s,MS5.4
SSE				LR	LR			comp=E,2μm,16.9s,MS5.4
SSE				LR	LR			comp=Z,3μm,12.3s,MS5.6
SSE	**Sheshan**	65.60	69	P	P	11 16 13.6	0.0	comp=Z,31nm,1.1s,mb5.2
SSE				pP	pP	11 16 16.7	+1.6	
SSE				sP	sP	11 16 18.3	+2.6	
SSE				PP	PP	11 18 37.0	-0.6	
SSE				S	S	11 24 57.4	-2.3	
SSE				sS	sS	11 25 03.7	+1.5	
SSE				LR	LR			comp=Z,3μm,12.3s,MS5.6
HABR	**Khabarovsk**	65.86	47	⇓*i*P	P	11 16 14.7	-0.3	
HABR				*e*S	S	11 25 04.2	+1.9	
HABR				pmax	pmax			comp=Z,101nm,2.2s,mb5.5
INCN	**Inchon**	66.18	60	*e*P	P	11 16 17.6	+0.4	comp=Z,34nm,0.8s,mb5.4
INCN				LR	LR			comp=Z,3μm,21.0s,MS5.4
INCN	**Inchon**	66.18	60	*e*P	P	11 16 17.6	+0.4	comp=Z,34nm,0.8s,mb5.4
KTGM	**Kuala Trenggan**	66.25	103	⇓P	P	11 16 18.0	0.0	
FRIM	**Kepong**	66.44	105	⇑P	P	11 16 19.0	-0.2	
BILL	**Bilibino**	66.76	19	*i* Pr	P	11 16 20.7	+0.3	
BILL	**Bilibino**	66.76	19	κ *i*P	P	11 16 20.6	+0.2	
BILL				*e*		11 16 26.9		
BILL						11 16 50.0		
BILL				*i* S	S	11 25 14.4	+1.8	
BILL				*e*		11 26 20.4		
BILL				*i* SSS		11 32 30.8		
BILL				pmax	pmax			comp=Z,66nm,1.2s,mb5.5
QZH	**Quanzhou**	66.91	76	⇑*i*P	P	11 16 23.3	+1.2	
QZH				S	S	11 25 16.3	+0.5	
QZH				AMB	AMB			comp=Z,780nm,9.2s
QZH				LR	LR			comp=N,2μm,14.2s,MS5.8
QZH				LR	LR			comp=E,4μm,14.7s,MS5.8
QZH				LR	LR			comp=Z,6μm,15.4s,MS5.9
KS15	**Wonju Array Si**	67.06	60	*e*P	P	11 16 23.4	+0.6	
KS15	**Wonju Array Si**	67.06	60	*e*P	P	11 16 23.4	+0.6	
KSRS	**Korea Array**	67.08	60	P	P	11 16 21.6	-1.4	comp=Z,28nm,0.8s,mb5.3,baz=292,slow=5.9,SNR=94
KSRS				LR	LR	11 48 19.1		comp=Z,2μm,19.1s,MS5.2,baz=305,slow=38
MA2	**Magadan**	67.32	31	*e*P	P	11 16 24.9	+0.8	
MA2				LR	LR			comp=Z,4μm,20.0s,MS5.7
MA2	**Magadan**	67.32	31	*d* *i*P	P	11 16 24.3	+0.2	
MA2	**Magadan**	67.32	31	*e*P	P	11 16 24.9	+0.8	
SCHQ	**Schefferville**	67.84	323	P	P	11 16 26.8	-0.7	comp=Z,12nm,0.8s,mb5.0,baz=53,slow=7.8,SNR=18
SCHQ				LR	LR	11 45 13.5		comp=Z,1μm,20.6s,MS5.0,baz=48,slow=35
KGM	**Kluang**	68.51	105	⇑P	P	11 16 32.8	+0.5	
MYKOM	**Kota Tinggi**	69.06	105	⇓P	P	11 16 36.1	+0.3	
TATO	**Taipei**	69.09	74	PFAKE		11 16 50.0	+14	
TATO				LR	LR			comp=Z,2μm,19.0s,MS5.4
YHNB	**Yeheng**	69.18	75	*e*P	P	11 16 38.4	+2.0	comp=Z,40nm,1.0s,mb5.3
YHNB	**Yeheng**	69.18	75	*e*P	P	11 16 38.3	+2.0	comp=Z,40nm,1.0s,mb5.3
YSS	**Yuzh-Sakhalins**	71.03	45	*e*P	P	11 16 49.9	+2.5	
YSS				LR	LR			comp=Z,3μm,19.0s,MS5.5
YSS	**Yuzh-Sakhalins**	71.03	45	α*e*P	P	11 16 49.0	+1.6	
YSS				*e*		11 17 08.5		
YSS				*e*S	S	11 26 04.0	+0.1	
YSS				*e*PS		11 26 26.0		
YSS				*e*PPS		11 26 48.0		
YSS				pmax	pmax			comp=Z,370nm,2.1s,mb6.0
YSS				smax				comp=N,1μm,6.0s
YSS				smax				comp=E,1μm,8.0s
YSS	**Yuzh-Sakhalins**	71.03	45	*e*P	P	11 16 49.9	+2.5	
JNU	**Nakatsue**	71.45	62	P	P	11 16 48.8	-1.3	comp=E,12nm,0.8s,mb4.9,baz=22,slow=9.3,SNR=11
JNU				LR	LR	11 52 13.5		comp=E,4μm,18.1s,MS5.7,baz=302,slow=39
SUR	**Sutherland**	72.44	196	*e*P	P	11 16 56.8	+1.0	
SUR				LR	LR			comp=Z,7μm,20.0s,MS5.9
SUR	**Sutherland**	72.44	196	*e*P	P	11 16 56.8	+1.0	
ASAJ	**Asahikawa**	72.63	47	P	P	11 16 55.3	-1.7	
ASAJ				pmax	pmax			comp=Z,14nm,0.8s
ASAJ	**Asahikawa**	72.63	47	P	P	11 16 55.3	-1.7	comp=Z,14nm,0.8s,mb4.9,baz=236,slow=8.4,SNR=5.8
JOW	**Kunigami**	73.12	69	P	P	11 16 60.0	-0.3	comp=Z,16nm,0.6s,mb5.1,baz=307,slow=6.8,SNR=8.8
COCO	**West Island**	73.53	121	PFAKE		11 17 10.0	+7.3	
COCO				LR	LR			comp=Z,2μm,20.0s,MS5.5
INK	**Inuvik**	73.54	357	P	P	11 17 01.2	-0.8	
INK	**Inuvik**	73.54	357	*e*P	P	11 17 01.8	-0.2	
INK	**Inuvik**	73.54	357	P	P	11 17 01.2	-0.8	comp=Z,12nm,1.0s,mb4.8,baz=12,slow=8.4,SNR=18
KSM	**Kuching**	74.21	101	*e*P	P	11 17 07.5	+0.7	
KSM	**Kuching**	74.21	101	⇓P	P	11 17 07.3	+0.5	

KSM	Kuching	74.21	101	*e*P	P	11 17 07.5	+0.7
ERM	Erimo	74.22	49	PFAKE		11 17 20.0	+14
ERM				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
EMMW	East Machias	74.27	315	*e*P	P	11 17 07.1	+0.4
	comp=Z,108nm,1.4s,mb5.6						
EMMW	East Machias	74.27	315	*e*P	P	11 17 07.1	+0.4
	comp=Z,108nm,1.4s,mb5.6						
TNA	Tin City	74.28	11	*e*P	P	11 17 06.8	+0.4
TNA				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
TNA	Tin City	74.28	11	*e*P	P	11 17 06.8	+0.5
MAJO	Matsushiro	74.42	56	*e*P	P	11 17 07.6	-0.1
MAJO				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
MAJO	Matsushiro	74.42	56	*e*P	P	11 17 07.6	-0.1
MAT	Matsushiro	74.42	56	P	P	11 17 06.0	-1.7
MAT				S	S	11 26 40.0	-2.9
MJAR	Matsushiro Arr	74.42	56	P	P	11 17 07.5	-0.2
MJAR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
MJAR				MLR	MLR		
	comp=Z,3µm,18.8s						
MJAR	Matsushiro Arr	74.42	56	P	P	11 17 07.5	-0.2
	comp=Z,9.8nm,1.0s,mb4.7,baz=308,slow=6.5,SNR=23						
MJAR				LR	LR	11 53 15.7	
	comp=Z,3µm,18.8s,MS5.6,baz=315,slow=39						
PKME	Peaks-Kenny Pk	74.93	316	*e*P	P	11 17 11.2	+0.7
	comp=Z,136nm,1.4s,mb5.7						
PKME				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
PET	Petropavlovsk	74.95	33	PFAKE		11 17 20.0	+10
PET				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
SBUM	Sibu	75.08	99	⇑P	P	11 17 12.2	+0.4
GAMB	Gambell	75.28	14	*e*P	P	11 17 12.2	+0.1
GAMB	Gambell	75.28	14	*e*P	P	11 17 12.2	0.0
BTM	Bintulu	75.29	98	⇑P	P	11 17 13.4	+0.4
IMA2	Indian Mountai	75.44	5	*e*P	P	11 17 13.3	+0.3
FCC	Fort Churchill	75.79	337	*e*P	P	11 17 15.9	+0.7
	comp=Z,75nm,1.4s,mb5.4						
FCC	Fort Churchill	75.79	337	*e*P	P	11 17 15.9	+0.7
FCC				pmax	pmax		
	comp=Z,75nm,1.4s,mb5.4						
FCC	Fort Churchill	75.79	337	*e*P	P	11 17 15.9	+0.7
	comp=Z,75nm,1.4s,mb5.4						
KDM	Kudat	75.94	92	⇑P	P	11 17 15.9	-0.8
KKM	Kota Kinabalu	75.99	93	⇓P	P	11 17 18.5	+1.4
COLA	College	76.97	3	⇓*i*P	P	11 17 21.2	-0.5
COLA	College	76.97	3	⇓*i*P	P	11 17 21.3	-0.4
SDKM	Sandakan	77.00	93	⇑P	P	11 17 23.6	+0.8
LBNH	Lisbon	77.03	317	*e*P	P	11 17 22.8	+0.3
	comp=Z,145nm,1.7s,mb5.6						
LBNH				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
LBNH	Lisbon	77.03	317	*e*P	P	11 17 23.4	+0.9
LBNH				pmax	pmax		
	comp=Z,140nm,1.6s,mb5.6						
LBNH	Lisbon	77.03	317	*e*P	P	11 17 22.8	+0.3
	comp=Z,145nm,1.7s,mb5.6						
EGAK	Eagle	77.22	0	*e*P	P	11 17 23.7	+0.5
	comp=Z,36nm,1.3s,mb5.1						
EGAK				LR	LR		
	comp=Z,951nm,20.0s,MS5.1						
EGAK	Eagle	77.22	0	*e*P	P	11 17 23.7	+0.5
	comp=Z,36nm,1.3s,mb5.1						
YKW3	Yellowknife Ar	77.28	348	*e*P	P	11 17 23.9	+0.4
YKW3	Yellowknife Ar	77.28	348	*e*P	P	11 17 23.9	+0.4
YKA	Yellowknife Ar	77.34	348	*i* P	P	11 17 23.5	-0.4
YKA				pmax	pmax		
	comp=Z,11nm,0.9s						
YKA	Yellowknife Ar	77.34	348	P	P	11 17 23.5	-0.4
	comp=Z,11nm,0.9s,mb4.8,baz=22,slow=6.0,SNR=101						
YKA				LR	LR	11 52 52.2	
	comp=Z,897nm,21.1s,MS5.1,baz=165,slow=37						
FRNY	Flat Rock	77.52	318	*e*P	P	11 17 25.3	+0.1
FRNY	Flat Rock	77.52	318	*e*P	P	11 17 25.3	+0.1
HNH	Hanover	77.57	316	*e*P	P	11 17 26.6	+1.0
HNH	Hanover	77.57	316	*e*P	P	11 17 26.6	+1.1
WES	Weston	77.92	315	PFAKE		11 17 40.0	+13
WES				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
DAWY	Dawson	77.93	359	*e*P	P	11 17 27.9	+0.7
DAWY	Dawson	77.93	359	*e*P	P	11 17 27.9	+0.8
HRV	Harvard--Oak R	77.97	315	PFAKE		11 17 40.0	+12
HRV				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
MSNY	Massena	78.07	319	*e*P	P	11 17 29.1	+0.8
MSNY	Massena	78.07	319	*e*P	P	11 17 29.1	+0.8
LONY	Lake Ozonia	78.19	318	*e*P	P	11 17 29.1	+0.2
LONY				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
LONY	Lake Ozonia	78.19	318	*e*P	P	11 17 29.1	+0.2
MYLDM	Lahad Datu	78.31	93	⇑P	P	11 17 31.7	+1.6
TSM	Tawau	78.36	94	⇑P	P	11 17 31.1	+0.7
NCB	Newcomb	78.44	318	PFAKE		11 17 40.0	+10
NCB				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
ACCN	Adirondack Com	78.53	317	*e*P	P	11 17 31.5	+0.6
SML	Sawmill	80.01	4	*e*P	P	11 17 39.1	+0.5
SML	Sawmill	80.01	4	*e*P	P	11 17 39.1	+0.5
SVW2	Sparrevohn	80.17	7	*e*P	P	11 17 40.3	+0.9
PMR	Palmer	80.18	4	*e*P	P	11 17 40.1	+0.6
PMR				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
PMR	Palmer	80.18	4	*e*P	P	11 17 40.5	+1.0
PMR	Palmer	80.18	4	*e*P	P	11 17 40.1	+0.6
BBSR	BB Station	80.34	304	PFAKE		11 17 50.0	+9.1
BBSR				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
BINY	Binghamton	80.59	317	*e*P	P	11 17 42.6	+0.5
BINY				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
BINY	Binghamton	80.59	317	*e*P	P	11 17 42.6	+0.5
SLKM	Skilak Lake	81.19	5	*e*P	P	11 17 45.6	+0.6
SLKM	Skilak Lake	81.19	5	*e*P	P	11 17 45.6	+0.6
FFC	Flin Flon	81.54	338	*e*P	P	11 17 47.4	+0.5
	comp=Z,71nm,1.6s,mb5.3						
FFC				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
FFC	Flin Flon	81.54	338	*e*P	P	11 17 47.4	+0.5
	comp=Z,71nm,1.6s,mb5.3						
RCBR	Riachuelo	82.12	256	PFAKE		11 18 00.0	+9.4
RCBR				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
MVL	Millersville	82.32	316	*e*P	P	11 17 51.6	+0.3
MVL	Millersville	82.32	316	*e*P	P	11 17 51.6	+0.3
SSPA	Standing Stone	82.70	317	*e*P	P	11 17 53.4	+0.1
	comp=Z,41nm,1.4s,mb5.3						
SSPA				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
SSPA	Standing Stone	82.70	317	*e*P	P	11 17 53.4	+0.1
	comp=Z,41nm,1.4s,mb5.3						
DAV	Davao City (W)	82.72	87	PFAKE		11 18 00.0	+6.2
DAV				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
GLMI	Grayling	83.02	324	PFAKE		11 18 00.0	+5.1
GLMI				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
ALLY	Alegheny Colle	83.17	319	*e*P	P	11 17 55.7	0.0
	comp=Z,33nm,0.9s,mb5.4						
DLBC	Dease Lake	83.17	354	*e*P	P	11 17 56.9	+1.5
DLBC	Dease Lake	83.17	354	*e*P	P	11 17 56.9	+1.5
ULM	Lac du Bonnet	83.38	333	P	P	11 17 55.9	-0.7
ULM				LR	LR	11 58 37.5	
ULM	Lac du Bonnet	83.38	333	P	P	11 17 55.9	-0.7
	comp=Z,14nm,1.0s,mb5.0,baz=33,slow=4.9,SNR=20						
ULM				LR	LR	11 58 37.5	
	comp=Z,1µm,18.4s,MS5.3,baz=33,slow=38						
EYMN	Ely	83.59	329	*e*P	P	11 17 57.2	-0.5
EYMN				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
EYMN	Ely	83.59	329	*e*P	P	11 17 57.2	-0.5
KDAK	Kodiak Island	83.72	6	P	P	11 17 58.7	+0.5
	comp=Z,22nm,0.6s,mb5.4,baz=1.9,slow=1.0,SNR=14						
COWI	Conover	84.07	327	*e*P	P	11 17 59.9	-0.4
	comp=Z,55nm,1.0s,mb5.6						
COWI				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
COWI	Conover	84.07	327	*e*P	P	11 17 59.9	-0.3
	comp=Z,55nm,1.0s,mb5.6						
MCWV	Mont Chateau	84.45	317	*e*P	P	11 18 01.7	-0.6
MCWV				LR	LR		
	comp=Z,5µm,22.0s,MS5.8						
MCWV	Mont Chateau	84.45	317	*e*P	P	11 18 01.7	-0.6
AAM	Ann Arbor	84.46	321	*e*P	P	11 18 02.2	-0.1
	comp=Z,38nm,0.8s,mb5.6						
AAM				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
AAM	Ann Arbor	84.46	321	*e*P	P	11 18 02.3	0.0
AAM				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.6						
AAM	Ann Arbor	84.46	321	*e*P	P	11 18 02.2	-0.1
	comp=Z,38nm,0.8s,mb5.6						
URVA	University of	84.68	315	*e*P	P	11 18 02.8	-0.7
SIT	Sitka	84.86	357	PFAKE		11 18 10.0	+6.0
SIT				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
AGMN	Agassiz Refuge	84.99	332	PFAKE		11 18 10.0	+5.1
AGMN				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
WRAK	Wrangell Islan	85.34	355	PFAKE		11 18 20.0	+14
WRAK				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
UNV	Unalaska Valle	85.51	15	PFAKE		11 18 20.0	+13
UNV				LR	LR		
	comp=Z,4µm,19.0s,MS5.8						
ACSO	Alum Creek Sta	85.67	320	PFAKE		11 18 20.0	+12
ACSO				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
EDM	Edmonton	85.79	344	*e*P	P	11 18 09.3	+0.5
EDM	Edmonton	85.79	344	*e*P	P	11 18 09.3	+0.6
BLA	Blacksburg	86.54	316	PFAKE		11 18 20.0	+7.3
BLA				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
CNNC	Cliffs of the	86.54	313	PFAKE		11 18 20.0	+7.2
CNNC				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
JFWS	Jewell Farm	87.08	325	*e*P	P	11 18 14.6	-0.7
JFWS				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
JFWS	Jewell Farm	87.08	325	*e*P	P	11 18 14.6	-0.7
DGMT	Dagmar	87.69	337	*e*P	P	11 18 18.5	+0.4
DGMT				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
DGMT	Dagmar	87.69	337	*e*P	P	11 18 18.5	+0.4
HDIL	Hopedale	88.51	323	*e*P	P	11 18 22.0	-0.1
	comp=Z,14nm,0.9s,mb5.3						
HDIL				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
HDIL	Hopedale	88.51	323	*e*P	P	11 18 22.0	-0.2
	comp=Z,14nm,0.9s,mb5.3						
TZTN	Tazewell	88.72	317	PFAKE		11 18 30.0	+6.8
TZTN				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
WCI	Wyandotte Cave	88.86	320	PFAKE		11 18 30.0	+6.1
WCI				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
ECSD	EROS,Sioux Fal	89.09	330	PFAKE		11 18 30.0	+5.2
ECSD				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
NHSC	New Hope	89.39	313	PFAKE		11 18 40.0	+14
NHSC				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
TKL	Tuckaleechee C	89.50	317	P	P	11 18 27.1	+0.2
TKL				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb5.0						
TKL	Tuckaleechee C	89.50	317	P	P	11 18 27.1	+0.1
	comp=Z,7.6nm,1.0s,mb5.0,baz=97,slow=4.3,SNR=4.8						
TKL	Tuckaleechee C	89.50	317	P	P	11 18 27.0	+0.1
EGMT	Eagleton	89.72	340	*e*P	P	11 18 28.1	+0.4
EGMT				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
EGMT	Eagleton	89.72	340	⇓P	P	11 18 27.4	-0.3
	baz=89						
EGMT	Eagleton	89.72	340	*e*P	P	11 18 28.1	+0.4
USIN	University of	89.75	321	*e*P	P	11 18 27.7	-0.3
	comp=Z,29nm,0.9s,mb5.6						
USIN	University of	89.75	321	*e*P	P	11 18 27.7	-0.3
	comp=Z,29nm,0.9s,mb5.6						
WALA	Waterton Lakes	89.81	343	*e*P	P	11 18 28.4	+0.4
	comp=Z,19nm,1.0s,mb5.4						
WALA	Waterton Lakes	89.81	343	*e*P	P	11 18 28.5	+0.4
	comp=Z,19nm,1.0s,mb5.4						
LAO	LASA Array	89.91	337	*e*P	P	11 18 30.0	+1.4
	comp=Z,58nm,1.0s,mb5.9						
LAO				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
LAO	LASA Array	89.91	337	*e*P	P	11 18 30.0	+1.4
	comp=Z,58nm,1.0s,mb5.9						
A13A	Flathead Natio	90.04	343	⇑P	P	11 18 29.2	0.0
	baz=90,SNR=16						
CPCT	Cooper Cave	90.06	317	*e*P	P	11 18 29.5	0.0
CPCT	Cooper Cave	90.06	317	*e*P	P	11 18 29.5	0.0
A12A	Yaak River Ran	90.32	344	⇑P	P	11 18 30.4	-0.1
	baz=90,SNR=8.8						
A11A	Hall Mountain,	90.45	344	⇑P	P	11 18 31.3	+0.2
	baz=90,SNR=8.2						
SJG	San Juan	90.50	294	PFAKE		11 18 40.0	+8.1
SJG				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
B13A	Whitefish	90.58	343	⇑P	P	11 18 31.8	+0.1
	baz=90,SNR=16						
A10A	Northport	90.67	345	⇓P	P	11 18 32.4	+0.2
	baz=90,SNR=9.6						
SIUC	Southern Illin	90.71	322	*e*P	P	11 18 31.9	-0.6
	comp=Z,70nm,1.5s,mb5.8						
SIUC	Southern Illin	90.71	322	*e*P	P	11 18 31.9	-0.6
	comp=Z,70nm,1.5s,mb5.8						
B12A	Libby	90.74	344	⇑P	P	11 18 32.5	0.0
	baz=90						
A09A	Danville	90.89	346	⇓P	P	11 18 33.4	+0.3
	baz=90,SNR=6.8						
B11A	Sandpoint	90.94	344	⇓P	P	11 18 33.6	+0.2
	baz=90,SNR=7.8						
C14A	Swan Lake	90.97	342	⇓P	P	11 18 33.8	+0.3
	baz=90						
GOGA	Godfrey	91.02	315	PFAKE		11 18 40.0	+6.0
GOGA				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
A08A	Turner Farm, O	91.04	346	⇓P	P	11 18 33.8	0.0
	baz=91,SNR=5.7						
FVM	French Village	91.08	323	*e*P	P	11 18 33.9	-0.4
	comp=Z,46nm,1.4s,mb5.6						
FVM	French Village	91.08	323	*e*P	P	11 18 33.9	-0.3
FVM				pmax	pmax		
	comp=Z,46nm,1.4s,mb5.6						
FVM	French Village	91.08	323	*e*P	P	11 18 33.9	-0.3
	comp=Z,46nm,1.4s,mb5.6						
BSMT	Bassoo Peak	91.14	343	P	P	11 18 35.2	+0.9
BSMT	Bassoo Peak	91.14	343	P	P	11 18 35.2	+0.9
A07A	Ashnola River,	91.15	347	⇓P	P	11 18 34.4	0.0
	baz=91						
C13A	Hot Springs	91.25	343	⇑P	P	11 18 34.7	-0.2
	baz=91,SNR=6.8						
B10A	Chitwood Farm,	91.25	345	⇓P	P	11 18 35.3	+0.4
	baz=91,SNR=8.0						
WVT	Waverly	91.26	320	PFAKE		11 18 40.0	+4.9
WVT				LR	LR		
	comp=Z,4.0nm,21.0s						
NEW	Newport	91.27	345	*e*P	P	11 18 35.7	+0.8
	comp=Z,48nm,1.0s,mb5.8						
NEW				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
NEW	Newport	91.27	345	*e*P	P	11 18 35.7	+0.8
NEW				pmax	pmax		
	comp=Z,48nm,1.0s						
NEW				MLR	MLR		
	comp=Z,2µm,21.0s						
B09A	Rice	91.33	345	⇑P	P	11 18 35.5	+0.3
	baz=91						
D15A	Lincoln	91.35	341	⇓P	P	11 18 35.1	-0.2
	baz=91,SNR=8.2						
HRY	Holter Researc	91.48	341	*e*P	P	11 18 40.5	+4.5
RSSD	Black Hills	91.49	335	PFAKE		11 18 50.0	+14
RSSD				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
A05A	Maple Falls	91.49	348	⇑P	P	11 18 36.5	+0.5
	baz=91						
D14A	Greenough	91.56	342	⇓P	P	11 18 36.1	-0.2
	baz=91,SNR=18						
B08A	Colville Reser	91.62	346	⇓P	P	11 18 36.5	0.0
	baz=91						
CHMT	Chamberlain Mo	91.65	342	*e*P	P	11 18 37.3	+0.6
CHMT	Chamberlain Mo	91.65	342	*e*P	P	11 18 37.3	+0.6
B07A	Winthrop	91.67	346	⇓P	P	11 18 36.4	-0.4
	baz=91,SNR=8.0						
C10A	Spilker Farm,	91.73	344	⇑P	P	11 18 37.2	+0.2
	baz=91						
B06A	Marblemount	91.86	347	⇑P	P	11 18 37.1	-0.5
	baz=91						
A04A	Legoe Bay, Lum	91.86	348	⇑P	P	11 18 37.3	-0.3
	baz=91						
MSO	Missoula	91.90	342	*e*P	P	11 18 38.5	+0.7
MSO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
MSO	Missoula	91.90	342	*e*P	P	11 18 38.5	+0.6
C09A	Chrisman Ranch	91.95	345	⇑P	P	11 18 38.5	+0.5
	baz=92						
E15A	Deer Lodge	91.95	341	⇓P	P	11 18 38.2	+0.1
	baz=92,SNR=6.0						
C08A	Higginbotham F	92.11	346	⇓P	P	11 18 39.0	+0.2
	baz=92,SNR=18						
E14A	Clinton	92.18	342	⇓P	P	11 18 39.1	-0.1
	baz=92,SNR=13						
B05A	Bryant	92.21	348	⇓P	P	11 18 39.0	-0.3
	baz=92						
RLMT	Red Lodge	92.23	338	PFAKE		11 18 50.0	+11
RLMT				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
JCW	Jim Creek	92.25	348	P	P	11 18 39.6	+0.1
JCW	Jim Creek	92.25	348	P	P	11 18 39.6	+0.2
D11A	Klaveano Farm,	92.25	344	⇑P	P	11 18 39.1	-0.3
	baz=92						
PLAL	Pickwick Lake	92.28	319	*e*P	P	11 18 38.1	-1.7
PLAL				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
PLAL	Pickwick Lake	92.28	319	*e*P	P	11 18 38.1	-1.7
E13A	Victor	92.32	342	⇓P	P	11 18 39.7	-0.1
	baz=92,SNR=16						
C07A	Waterville	92.40	346	⇓P	P	11 18 39.8	-0.3
	baz=92						
BOZ	Bozeman (W)	92.41	340	*e*P	P	11 18 41.3	+1.1
BOZ				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
BOZ	Bozeman (W)	92.41	340	⇑P	P	11 18 40.5	+0.3
	baz=92						
BOZ	Bozeman (W)	92.41	340	*e*P	P	11 18 41.3	+1.1
OD2	Odessa Site #2	92.42	345	P	P	11 18 41.2	+0.9
OD2	Odessa Site #2	92.42	345	P	P	11 18 41.2	+0.9
D10A	Wagner Farm, O	92.45	344	⇓P	P	11 18 40.1	-0.3
	baz=92,SNR=6.0						
F15A	Butte	92.46	341	⇓P	P	11 18 40.5	0.0
	baz=92,SNR=6.6						
LRM	Limekiln Ridge	92.46	341	*e*P	P	11 18 41.3	+0.9
LRM	Limekiln Ridge	92.46	341	*e*P	P	11 18 41.3	+0.8
D09A	Jones Farm, Ri	92.66	345	⇑P	P	11 18 41.6	+0.3
	baz=92						
C05A	Tolt Reservoir	92.69	347	⇓P	P	11 18 41.5	0.0
	baz=92						
F14A	Wisdom	92.71	341	⇓P	P	11 18 41.5	-0.2
	baz=92,SNR=8.7						
D08A	Wollman Farm,	92.79	345	⇓P	P	11 18 41.7	-0.3
	baz=92						
D07A	Quincy	92.86	346	⇑P	P	11 18 42.4	+0.1
	baz=92						
E11A	Bogner Ranch,	92.88	343	⇑P	P	11 18 41.7	-0.7
	baz=92						
E10A	Myers Farm, Un	92.95	344	⇑P	P	11 18 42.4	-0.3
	baz=92						
KSU1	Kansas State U	92.97	327	PFAKE		11 18 50.0	+7.1
KSU1				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
GNW	Green Mountain	93.01	348	*e*P	P	11 18 44.2	+1.2
D06A	Cle Elum	93.02	347	⇓P	P	11 18 42.6	-0.4
	baz=92						
LKWY	Lake	93.07	339	*e*P	P	11 18 45.8	+2.5
	comp=Z,12nm,1.0s,mb5.3						
LKWY				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
G15A	Dillon	93.08	340	⇓P	P	11 18 43.3	0.0
	baz=93,SNR=5.5						
QLMT	Earthquake Lak	93.11	340	*e*P	P	11 18 45.0	+1.5
QLMT	Earthquake Lak	93.11	340	*e*P	P	11 18 45.0	+1.5
YMR	Madison River	93.13	339	PFAKE		11 18 50.0	+6.4
YMR				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
E09A	Wood Farm, Sta	93.15	345	⇑P	P	11 18 43.7	+0.1
	baz=93						
LRAL	Lakeview Retre	93.22	317	*e*P	P	11 18 43.6	-0.6
	comp=Z,16nm,1.0s,mb5.4						
LRAL				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
LRAL	Lakeview Retre	93.22	317	*e*P	P	11 18 43.6	-0.6
	comp=Z,16nm,1.0s,mb5.4						
G14A	Jackson	93.26	341	⇑P	P	11 18 44.0	-0.2
	baz=93						
YFT	Old Faithful	93.29	339	*e*P	P	11 18 47.3	+2.9
F11A	Grangeville	93.31	343	⇓P	P	11 18 43.9	-0.4
	baz=93						
OXF	Oxford	93.33	320	PFAKE		11 18 50.0	+5.3
OXF				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
E08A	Dider Farm, El	93.36	345	⇓P	P	11 18 44.2	-0.4
	baz=93						
GBB	Gable Butte	93.36	346	P	P	11 18 45.6	+1.0
GBB	Gable Butte	93.36	346	P	P	11 18 45.6	+1.0
E07A	Sunnyside	93.45	346	⇓P	P	11 18 45.1	+0.1
	baz=93						
F10A	Beach Ranch, E	93.47	344	⇓P	P	11 18 44.9	-0.2
	baz=93						
GUMO	Guam	93.47	70	PFAKE		11 19 00.0	+14
GUMO				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
HAWA	Hanford	93.54	346	*e*P	P	11 18 45.9	+0.5
	comp=Z,18nm,1.0s,mb5.5						
HAWA				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
HAWA	Hanford	93.54	346	*e*P	P	11 18 45.9	+0.4
	comp=Z,18nm,1.0s,mb5.5						
SDDR	Presa de Saban	93.58	297	PFAKE		11 19 00.0	+14
SDDR				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
G13A	Cobalt	93.60	342	⇑P	P	11 18 45.5	-0.2
	baz=93						
E06A	Yakima	93.67	347	⇑P	P	11 18 45.4	-0.7
	baz=93						
DWPF	Disney	93.77	310	PFAKE		11 19 00.0	+13
DWPF				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
E05A	Randle	93.80	347	⇓P	P	11 18 45.7	-0.9
	baz=93						
F09A	S2 Ranch, Elgi	93.86	344	⇓P	P	11 18 46.5	-0.4
	baz=93						
MOOW	Moose Ponds	93.92	339	*e*P	P	11 18 48.8	+1.6
	comp=Z,71nm,1.9s,mb5.8						
MOOW	Moose Ponds	93.92	339	*e*P	P	11 18 48.8	+1.6
	comp=Z,71nm,1.9s,mb5.8						
F08A	Pendleton	93.96	345	⇑P	P	11 18 47.5	+0.1
	baz=94						
LOHW	Long Hollow	94.00	339	*e*P	P	11 18 49.3	+1.7
	comp=Z,80nm,2.1s,mb5.8						
LOHW	Long Hollow	94.00	339	*e*P	P	11 18 49.3	+1.7
	comp=Z,80nm,2.1s,mb5.8						
H13A	Challis	94.10	341	⇑P	P	11 18 48.0	-0.1
	baz=94,SNR=12						
F07A	Phinny Hill Vi	94.10	346	⇓P	P	11 18 47.6	-0.4
	baz=94						
REDW	Red Top Meadow	94.30	339	*e*P	P	11 18 50.6	+1.6
REDW	Red Top Meadow	94.30	339	*e*P	P	11 18 50.6	+1.6
F05A	White Salmon	94.40	347	⇓P	P	11 18 49.1	-0.3
	baz=94						
BW06	Boulder Array	94.47	338	PFAKE		11 19 00.0	+10
BW06				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
PDAR	Pinedale Array	94.47	338	P	P	11 18 49.0	-0.7
	comp=Z,2.3nm,1.0s,mb4.6,baz=45,slow=2.3,SNR=8.5						
PDAR				PP	PP	11 22 28.2	-7.9
	comp=Z,0.8nm,1.0s,baz=46,slow=4.3,SNR=3.8						
PDAR				LR	LR	12 02 38.0	
	comp=Z,3µm,22.0s,MS5.8,baz=27,slow=36						
PDAR	Pinedale Array	94.47	338	P	P	11 18 49.0	-0.8
PHWY	Pilot Hill	94.47	334	*e*P	P	11 18 50.2	+0.4
PHWY	Pilot Hill	94.47	334	*e*P	P	11 18 50.2	+0.4
G08A	Pilot Rock	94.48	345	⇑P	P	11 18 49.6	-0.2
	baz=94						
CBKS	Cedar Bluff	94.50	329	PFAKE		11 19 00.0	+10
CBKS				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
BMO	Blue Mountains	94.55	344	PFAKE		11 19 00.0	+10
BMO				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
I13A	Wildhorse Cree	94.67	341	⇓P	P	11 18 50.1	-0.6
	baz=94						
H10A	Noah’s Angus R	94.67	343	⇓P	P	11 18 50.1	-0.6
	baz=94						
BRAL	Brewton	94.81	316	PFAKE		11 19 00.0	+8.4

BRAL				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
AHID	Auburn Hatcher	94.92	339	PFAKE		11 19 00.0	+8.2
AHID				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
HLID	Hailey	95.08	341	eP	P	11 18 53.2	+0.7
HLID				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
HLID	Hailey	95.08	341	⇓P	P	11 18 52.2	-0.4
	baz=95						
HLID	Hailey	95.08	341	eP	P	11 18 53.2	+0.7
I10A	Payette	95.16	343	⇑P	P	11 18 52.6	-0.4
	baz=95						
H08A	Prairie City	95.16	344	⇑P	P	11 18 52.2	-0.7
	baz=95						
H07A	Lands Inn, Kim	95.28	345	⇑P	P	11 18 53.2	-0.2
	baz=95						
H06A	Lindquist Farm	95.29	346	⇓P	P	11 18 52.6	-0.9
	baz=95						
MIAR	Mount Ida	95.35	323	eP	P	11 18 53.0	-1.0
	comp=Z,21nm,1.2s,mb5.4						
MIAR				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
MIAR	Mount Ida	95.35	323	eP	P	11 18 53.2	-0.8
MIAR				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.4						
MIAR	Mount Ida	95.35	323	eP	P	11 18 53.0	-1.0
	comp=Z,21nm,1.2s,mb5.4						
J12A	Stokes Ranch,	95.54	342	⇓P	P	11 18 54.5	-0.1
	baz=95						
H05A	Madras	95.55	346	⇓P	P	11 18 55.1	+0.4
	baz=95						
MFID	Camas Ranch	95.56	342	⇑P	P	11 18 54.3	-0.5
	baz=95						
MBWA	Marble Bar	95.69	112	PFAKE		11 19 10.0	+14
MBWA				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
K14A	Jones Ranch, D	95.70	340	⇑P	P	11 18 55.7	+0.2
	baz=95						
I08A	Drewsey	95.72	344	⇑P	P	11 18 55.4	-0.1
	baz=95						
I07A	Izee	95.75	345	⇑P	P	11 18 55.5	-0.1
	baz=95						
ISCO	Idaho Springs	95.86	334	eP	P	11 18 56.7	+0.5
	comp=Z,8.3nm,1.1s,mb5.1						
ISCO				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
ISCO	Idaho Springs	95.86	334	eP	P	11 18 57.0	+0.8
ISCO	Idaho Springs	95.86	334	eP	P	11 18 56.7	+0.5
	comp=Z,8.3nm,1.1s,mb5.1						
COR	Corvallis	95.98	348	PFAKE		11 19 10.0	+13
COR				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
I06A	Prineville	96.03	345	⇓P	P	11 18 57.0	+0.1
	baz=96						
K12A	Draper Farm, C	96.07	341	⇑P	P	11 18 56.7	-0.4
	baz=96						
J09A	Fry Pan Ranch,	96.08	343	⇑P	P	11 18 56.8	-0.3
	baz=96						
HWUT	Hardware Ranch	96.12	338	eP	P	11 18 58.1	+0.8
HWUT				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
HWUT	Hardware Ranch	96.12	338	eP	P	11 18 58.1	+0.7
K11A	Parker Ranch,	96.22	342	⇓P	P	11 18 57.8	0.0
	baz=96						
J08A	Circle Bar Ran	96.23	344	⇑P	P	11 18 57.5	-0.3
	baz=96						
L13A	Double Diamond	96.33	340	⇑P	P	11 18 58.0	-0.3
	baz=96						
J07A	Hines	96.39	345	⇑P	P	11 18 58.9	+0.3
	baz=96						
M15A	Larsen Ranch,	96.51	339	⇓P	P	11 18 59.2	+0.1
	baz=96						
L12A	House Creek Ra	96.56	341	⇓P	P	11 18 59.2	-0.2
	baz=96						
J06A	Christmas Vall	96.68	345	⇓P	P	11 19 00.2	+0.3
	baz=96						
K09A	Rome	96.69	343	⇓P	P	11 19 00.5	+0.6
	baz=96						
M14A	Sheep Mountain	96.72	340	⇓P	P	11 19 00.0	0.0
	baz=96						
L11A	Cat Creek Ranc	96.72	342	⇑P	P	11 19 00.4	+0.3
	baz=96						
K08A	Mann Creek Ran	96.83	344	⇓P	P	11 19 00.1	-0.4
	baz=96						
J05A	Fort Rock	96.86	346	⇑P	P	11 19 00.9	+0.2
	baz=96						
L10A	Juniper Basin	96.98	342	⇓P	P	11 19 00.9	-0.3
	baz=96						
JLU	Jordanelle	97.02	338	eP	P	11 19 04.5	+3.0
K07A	Rock Creek Ran	97.03	344	⇑P	P	11 19 01.6	+0.2
	baz=97						
K06A	Valley Falls	97.14	345	⇑P	P	11 19 02.1	+0.2
	baz=97						
WVOR	Wild Horse Val	97.14	344	PFAKE		11 19 10.0	+8.0
WVOR				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
M12A	Wells	97.22	341	⇓P	P	11 19 02.9	+0.6
	baz=97						
K05A	Summer Lake	97.34	345	⇑P	P	11 19 03.1	+0.3
	baz=97						
M11A	Holland Ranch,	97.43	341	⇑P	P	11 19 03.8	+0.6
	baz=97						
N13A	Wendover, West	97.55	340	⇓P	P	11 19 04.3	+0.4
	baz=97						
WMOK	Wichita Mounta	97.57	326	eP	P	11 19 04.3	+0.3
	comp=Z,12nm,1.5s,mb5.2						
WMOK				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
WMOK	Wichita Mounta	97.57	326	eP	P	11 19 04.3	+0.2
	comp=Z,12nm,1.5s,mb5.2						
MPU	Maple Canyon	97.61	338	PFAKE		11 19 10.0	+5.9
MPU				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
SDCO	Great Sand Dun	97.65	333	eP	P	11 19 03.8	-0.5
SDCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
SDCO	Great Sand Dun	97.65	333	eP	P	11 19 03.8	-0.5
L07A	Adell	97.69	344	⇑P	P	11 19 04.9	+0.4
	baz=97						
N12A	Clover Valley,	97.78	341	⇓P	P	11 19 04.8	-0.1
	baz=97						
DUG	Dugway	97.78	339	eP	P	11 19 06.0	+1.1
DUG				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
DUG	Dugway	97.78	339	⇑P	P	11 19 04.8	-0.1
	baz=97						
DUG	Dugway	97.78	339	eP	P	11 19 06.0	+1.1
HUMO	Hull Mountain	97.84	347	PFAKE		11 19 10.0	+4.9
HUMO				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
ELK	Elko	97.93	341	PFAKE		11 19 20.0	+14
ELK				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
MOD	Modoc	98.01	345	PFAKE		11 19 20.0	+14
MOD				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
L04A	Klamath Falls	98.06	346	⇓P	P	11 19 06.8	+0.7
	baz=98						
NATX	Nacogdoches	98.15	322	PFAKE		11 19 20.0	+13
NATX				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
FITZ	Fitzroy Crossi	98.20	106	P	P	11 19 05.0	-2.0
	comp=Z,3.4nm,0.7s,mb5.0,baz=248,slow=4.8,SNR=8.4						
FITZ				LR	LR	12 04 33.1	
	comp=Z,544nm,19.7s,MS5.0,baz=315,slow=36						
FITZ	Fitzroy Crossi	98.20	106	eP	P	11 19 05.4	-1.6
	comp=Z,6.8nm,0.8s,mb5.2						
M07A	Soldier Meadow	98.26	344	⇓P	P	11 19 05.7	-1.3
	baz=98						
N09A	Rock Creek Ran	98.40	342	⇓P	P	11 19 07.8	+0.1
	baz=98						
M04C	Macdoel	98.43	346	⇓P	P	11 19 07.5	-0.2
	baz=98						
N08A	GE Springer Mi	98.61	343	⇑P	P	11 19 08.6	0.0
	baz=98						
O11A	Cowboy Ranch,	98.61	341	⇓P	P	11 19 08.8	+0.1
	baz=98						
YBH	Yreka Blue Hor	98.64	347	PFAKE		11 19 20.0	+11
YBH				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
AMTX	Amarillo	98.67	328	PFAKE		11 19 20.0	+11
AMTX				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
M05C	Lookout	98.70	345	⇑P	P	11 19 08.6	-0.4
	baz=98						
BMN	Battle Mountai	98.72	342	PFAKE		11 19 20.0	+11
BMN				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
N07B	Gerlach	98.80	343	⇓P	P	11 19 09.2	-0.3
	baz=98						
O09A	Fish Creek Ran	98.96	342	⇓P	P	11 19 10.5	+0.4
	baz=98						
MSU	Marysvale	99.16	338	eP	P	11 19 12.8	+1.7
MSU	Marysvale	99.16	338	eP	P	11 19 12.8	+1.7
MVCO	Mesa Verde	99.18	334	PFAKE		11 19 20.0	+8.8
MVCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
Q12A	Willow Creek R	99.42	340	⇓P	P	11 19 11.7	-0.5
	baz=99						
WDC	Whiskeytown Da	99.73	346	PFAKE		11 19 20.0	+6.4
WDC				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
BEKR	Beckwourth	99.97	344	⇓P	Pdif	11 19 14.1	-0.6
	baz=100						
HKT	Hockley	100.20	322	PFAKE		11 19 30.0	+14
HKT				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
ANMO	Albuquerque	100.48	332	PFAKE		11 19 30.0	+13
ANMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
ORV	Oroville	100.51	345	⇓P	Pdif	11 19 17.2	+0.1
	baz=100						
NVAR	Mina Array Bea	100.88	342	PP	PP	11 23 23.2	-2.2
	comp=Z,0.4nm,0.8s,baz=20,slow=5.8,SNR=3.0						
TPH	Tonopah	100.95	341	PFAKE		11 19 30.0	+11
TPH				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
NWAO	Narrogin (SRO)	101.28	123	PFAKE		11 19 30.0	+10
NWAO				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
HOPS	Hopland	101.36	346	PFAKE		11 19 30.0	+9.1
HOPS				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
JCT	Junction City	101.63	325	PFAKE		11 19 30.0	+7.9
JCT				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
WUAZ	Wupatki	101.67	336	PFAKE		11 19 30.0	+7.8
WUAZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
CMB	Columbia Colle	101.74	344	PFAKE		11 19 30.0	+7.4
CMB				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
MCCM	Marconi Confer	102.15	346	PFAKE		11 19 30.0	+5.6
MCCM				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
DAC	Darwin (Calif)	102.75	341	PFAKE		11 19 40.0	+13
DAC				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
MNTX	Cornudas Mount	102.95	330	PFAKE		11 19 40.0	+12
MNTX				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
SAO	San Andreas Ge	103.19	344	PFAKE		11 19 40.0	+11
SAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
KVTX	Kingsville	103.20	322	PFAKE		11 19 40.0	+11
KVTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
TEIG	Tepich	103.79	310	PFAKE		11 19 40.0	+8.3
TEIG				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
LTX	Lajitas	104.32	327	PFAKE		11 19 40.0	+6.0
LTX				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
TXAR	Lajitas Array	104.32	327	Pdif	Pdif	11 19 35.1	+1.1
TXAR				PP	PP	11 23 50.0	-1.6
TXAR	Lajitas Array	104.32	327	Pdiff	Pdif	11 19 35.1	+1.1
	comp=Z,0.4nm,0.9s,baz=116,slow=8.5,SNR=3.2						
TXAR				PP	PP	11 23 50.0	-1.6
	comp=Z,1.0nm,1.0s,baz=35,slow=3.3,SNR=4.1						
TXAR	Lajitas Array	104.32	327	PP	PP	11 23 50.0	-1.6
TUC	Tucson	104.41	334	PFAKE		11 19 40.0	+5.6
TUC				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
PFO	Pinyon Flat Ob	104.96	339	PFAKE		11 19 50.0	+13
PFO				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
WRA	Warramunga Arr	105.90	103	Pdif	Pdif	11 19 40.0	-1.0
WRA				PP	PP	11 24 04.2	-0.5
WRA	Warramunga Arr	105.90	103	Pdiff	Pdif	11 19 40.0	-1.0
	comp=Z,0.4nm,0.8s,baz=317,slow=4.1,SNR=6.8						
WRA				PP	PP	11 24 04.2	-0.5
	comp=Z,0.7nm,1.0s,baz=330,slow=6.6,SNR=3.4						
WRA	Warramunga Arr	105.90	103	PP	PP	11 24 04.2	-0.5
ASAR	Alice Springs	107.70	106	P	Pdif	11 19 49.7	+0.7
ASAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
ASAR	Alice Springs	107.70	106	Pdiff	Pdif	11 19 49.7	+0.7
	comp=Z,0.7nm,1.0s,baz=304,slow=4.7,SNR=5.7						
ASAR				PKiKP	PKiKP	11 23 56.0	-1.0
	comp=Z,0.5nm,0.7s,baz=300,slow=1.7,SNR=5.5						
ASAR	Alice Springs	107.70	106	PKIKP	PKiKP	11 23 56.0	-1.0
TGUH	Tegucigalpa,Un	107.82	305	PFAKE		11 24 10.0	+12
TGUH				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
JTS	JuntasAbangare	109.05	301	PFAKE		11 24 10.0	+10
JTS				LR	LR		
	comp=Z,592nm,21.0s,MS5.1						
PMG	Port Moresby	109.74	86	PFAKE		11 24 10.0	+8.8
PMG				LR	LR		
	comp=Z,463nm,19.0s,MS5.1						
OTAV	Otavalo	111.35	288	PFAKE		11 24 10.0	+5.7
OTAV				LR	LR		
	comp=Z,706nm,22.0s,MS5.2						
HOPE	Hope Point	112.80	218	PFAKE		11 24 20.0	+14
HOPE				LR	LR		
	comp=Z,6.0nm,22.0s						
LPAZ	La Paz	113.51	267	PFAKE		11 24 20.0	+12
LPAZ				LR	LR		
	comp=Z,771nm,22.0s,MS5.3						
CTAO	Charters Tower	115.22	96	PFAKE		11 24 20.0	+8.6
CTAO				LR	LR		
	comp=Z,618nm,20.0s,MS5.2						
CASY	Casey	117.54	154	PFAKE		11 24 20.0	+5.6
CASY				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
STKA	Stephens Creek	117.82	110	eP	PKPdf	11 24 15.2	-0.9
	comp=Z,3.1nm,1.2s						
STKA	Stephens Creek	117.82	110	PKP	PKPdf	11 24 14.5	-1.5
	comp=Z,2.4nm,0.8s,baz=14,slow=3.1,SNR=6.3						
NNA	Nana	117.83	277	PFAKE		11 24 30.0	+13
NNA				LR	LR		
	comp=Z,654nm,20.0s,MS5.2						
HNR	Honiara	119.71	78	PFAKE		11 24 30.0	+10
HNR				LR	LR		
	comp=Z,704nm,20.0s,MS5.3						
LCO	Las Campanas	122.28	257	PFAKE		11 24 30.0	+5.3
LCO				LR	LR		
	comp=Z,868nm,19.0s,MS5.4						
EFI	East Falkland	123.12	228	PFAKE		11 24 40.0	+14
EFI				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
TAU	Tasmania Unive	126.69	119	PFAKE		11 24 40.0	+7.3
TAU				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
QSPA	South Pole Qui	128.17	180	PFAKE		11 24 40.0	+5.5
QSPA				LR	LR		
	comp=Z,948nm,21.0s,MS5.5						
PMSA	Palmer Station	129.51	213	PFAKE		11 24 50.0	+13
PMSA				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
VNDA	Vanda	134.02	165	PFAKE		11 25 00.0	+14
VNDA				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
SNZO	South Karori	145.88	109	PFAKE		11 25 20.0	+12
SNZO				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
TAOE	Nuku Hiva Isla	150.64	359	eLR	LR	12 15 21.2	
	comp=Z,3µm,23.0s						
RAR	Rarotonga	156.28	49	PFAKE		11 25 30.0	+5.4
RAR				LR	LR		
	comp=Z,2.0nm,20.0s						
PPT	Papeete	157.88	23	ePP	PP	11 29 37.6	-0.4
	comp=Z,66nm,23.8s						
PPT	Papeete	157.88	23	eSS	SS	11 49 33.4	-2.8
	comp=Z,628nm,28.8s						
PPT				eLR	LR	12 18 45.1	
	comp=Z,2µm,27.2s						
RKT	Rikitea	164.07	341	ePP	PP	11 30 12.0	+0.9
	comp=Z,159nm,27.0s						
RKT	Rikitea	164.07	341	eSS	SS	11 50 38.2	-2.7
	comp=Z,649nm,34.2s						
RKT				eLR	LR	12 21 26.0	
	comp=Z,1µm,25.5s						

IDC 21 11:16:25.7±1.4**, 0.93S**×**127.32E, h0^{km}, mb3.4**/4**, mb1 3.6**/4**, mb1mx3.5**/16**, mbtmp3.5**/4**, Error ellipse: s-maj=146.7km s-min=21.2km az=69.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	20.11	160	P	P	11 20 59.6	-1.6
	0.5nm,0.4s,baz=342,slow=12,SNR=9.5						
ASAR	Alice Springs	23.49	165	P	P	11 21 38.5	+1.1
	0.5nm,0.6s,baz=344,slow=11,SNR=12						
SONM	Songino Array	51.88	342	P	P	11 25 36.1	+0.3
	0.2nm,0.6s,baz=156,slow=7.6,SNR=2.8						
MKAR	Makanchi Array	61.72	326	P	P	11 26 45.8	-0.1
	0.8nm,0.3s,baz=115,slow=7.9,SNR=18						

ISCJB ***21*** *11:19:03.0±0.8, 38.42N±0.05×39.34E±0.06, h3^{km}±12^{km}, Error ellipse: s-maj=8.3km s-min=6.7km az=141.4*

CSEM ***21*** *11:19:02.8±0.2, 38.45N×39.31E, h2^{km}, MD2.9, Error ellipse: s-maj=4.2km s-min=3.1km az=114.0*

DDA ***21*** *11:19:03.7, 38.39N×39.16E, h5^{km}, Md2.7*

ISK ***21*** *11:19:03.3, 38.44N×39.32E, h6^{km}, MD2.9*

ISC 21 11:19:03.6±0.8**, 38.44N**±0.05×**39.34E**±0.06**, h6^{km}**±10^{km}**, n13, σ1^{s}01**/18**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.28	283	i P	Pg	11 19 06.5	-2.6
ELZG				i S	Sg	11 19 12.4	-0.4
PTK	Pertek	0.46	6	PG	Pg	11 19 12.9	+0.4
PTK				SG	Sg	11 19 19.1	+0.7
PTK	Pertek	0.46	6	ePg	Pg	11 19 12.9	+0.4
PTK				eSg	Sg	11 19 19.1	+0.7
MYA	Malataya	0.72	262	PG	Pg	11 19 17.1	-0.4
MYA				SG	Sg	11 19 27.7	+0.8
MYA	Malataya	0.72	262	ePg	Pg	11 19 17.1	-0.4
MYA				eSg	Sg	11 19 27.7	+0.8
DIY	Diyarbakir	0.89	127	PG	Pg	11 19 21.1	+0.5
DIY	Diyarbakir	0.89	127	ePg	Pg	11 19 21.1	+0.5
URFA	Urfa	1.07	202	ePG	Pg	11 19 24.4	+0.2
URFA	Urfa	1.07	202	ePg	Pg	11 19 24.4	+0.2
EZC	Erzincan	1.36	16	ePN	Pn	11 19 29.3	+0.1
BTMT	Batman	1.71	97	ePN	Pn	11 19 32.2	-1.7
GAZ	Gaziantep	2.10	234	ePN	Pn	11 19 40.6	+1.3
GAZ	Gaziantep	2.10	234	ePn	Pn	11 19 40.6	+1.3

ISCJB ***21*** *11:20:25.8±0.8, 38.39N±0.03×39.27E±0.06, h1^{km}±10^{km}, Error ellipse: s-maj=7.5km s-min=5.8km az=12.3*

CSEM ***21*** *11:20:25.6±0.1, 38.40N×39.25E, h2^{km}, MD2.9, Error ellipse: s-maj=4.0km s-min=2.3km az=110.0*

ISK ***21*** *11:20:25.2, 38.39N×39.25E, h5^{km}, MD2.9*

DDA ***21*** *11:20:27.4, 38.48N×39.20E, h19^{km}, Md2.5*

ISC 21 11:20:26.4±0.7**, 38.40N**±0.04×**39.26E**±0.06**, h2^{km}**±8^{km}**, n17, σ0^{s}80**/22**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.24	295	i P	Pg	11 20 31.1	+0.1
ELZG				i S	Sg	11 20 32.8	-1.3
PTK	Pertek	0.50	12	PG	Pg	11 20 36.3	+0.3
PTK				SG	Sg	11 20 43.9	+1.3
PTK	Pertek	0.50	12	ePg	Pg	11 20 36.3	+0.3
PTK				eSg	Sg	11 20 43.9	+1.3
MYA	Malataya	0.66	264	PG	Pg	11 20 38.2	-0.8
MYA	Malataya	0.66	264	ePg	Pg	11 20 38.2	-0.8
DIY	Diyarbakir	0.91	123	PG	Pg	11 20 43.0	-0.8
DIY	Diyarbakir	0.91	123	ePg	Pg	11 20 43.0	-0.8
URFA	Urfa	1.02	200	PG	Pg	11 20 45.9	0.0
URFA				SG	Sg	11 21 00.3	+1.3
URFA	Urfa	1.02	200	ePg	Pg	11 20 45.9	+0.1
URFA				eSg	Sg	11 21 00.3	+1.3
EZC	Erzincan	1.42	18	PN	Pn	11 20 52.9	-0.1
BTMT	Batman	1.77	96	PN	Pn	11 20 56.6	-1.3
GAZ	Gaziantep	2.03	234	ePN	Pn	11 21 01.8	+0.2
GAZ	Gaziantep	2.03	234	ePn	Pn	11 21 01.8	+0.2
KMRS	Kahramanmaras	2.07	245	ePN	Pn	11 21 02.6	+0.6
KMRS	Kahramanmaras	2.07	245	ePn	Pn	11 21 02.6	+0.6
SVSK	Karacayir	2.32	311	ePN	Pn	11 21 06.0	+0.4
SVSK	Karacayir	2.32	311	ePn	Pn	11 21 06.0	+0.5

IDC ***21*** *11:23:59.5±0.8, 46.77N×155.57E, h0^{km}, mb3.7/11, mb1 3.9/12, mb1mx3.8/23, mbtmp3.7/12, ML3.3/1, Error ellipse: s-maj=25.7km s-min=16.5km az=161.0*

NEIC ***21*** *11:24:00.9±0.5, 46.75N×155.46E, h10^{km}, Error ellipse: s-maj=17.4km s-min=13.1km az=169.0*

ISCJB ***21*** *11:24:02.3±2.4, 46.8N±0.1×155.5E±0.2, h33^{km}±21^{km}, mb3.6/11, Error ellipse: s-maj=24.7km s-min=13.6km az=148.3*

MOS ***21*** *11:24:04.5±1.4, 46.76N×155.40E, h53^{km}, mb4.2/2, Error ellipse: s-maj=26.5km s-min=15.1km az=81.4*

ISC 21 11:24:06.6±1.8**, 46.8N**±0.1×**155.5E**±0.1**, h51^{km}**±15^{km}**, n18, σ0^{s}95**/18**, mb3.6**/11**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	3.93	6	ePN	Pn	11 25 06.5	+2.1
PET	Petropavlovsk	6.58	17	ePN	Pn	11 25 39.0	-1.7
ASAJ	Asahikawa	9.44	258	PN	Pn	11 26 19.2	-0.6
ASAJ	Asahikawa	9.44	258	Pn	Pn	11 26 19.2	-0.6
	0.3nm,0.3s,baz=101,slow=16,SNR=2.8						
KSRS	Korea Array	22.36	255	P	P	11 29 01.9	+1.7
	0.4nm,0.4s,mb3.2,baz=65,slow=8.1,SNR=5.3						
SONM	Songino Array	32.85	290	P	P	11 30 33.6	-1.6
	0.4nm,0.9s,mb3.4,baz=65,slow=8.5,SNR=3.9						
ZALV	Zalesovo Beam	43.91	306	P	P	11 32 08.0	+0.2
	0.6nm,0.5s,mb3.5,baz=62,slow=6.6,SNR=4.2						
ZAL	Zalesovo	43.92	306	P	P	11 32 08.0	0.0
MKAR	Makanchi Array	48.37	298	P	P	11 32 43.3	+0.3
	0.2nm,0.4s,mb3.5,baz=71,slow=8.0,SNR=2.7						
YKA	Yellowknife Ar	49.93	37	P	P	11 32 54.0	-0.6
	0.2nm,0.5s,mb3.4,baz=294,slow=7.2,SNR=4.0						
NVAR	Mina Array Bea	60.98	64	P	P	11 34 14.9	+0.5
	1.0nm,0.6s,mb4.1,baz=287,slow=8.8,SNR=7.9						
PDAR	Pinedale Array	63.41	55	P	P	11 34 30.8	+0.2
	0.8nm,0.8s,mb3.9,baz=270,slow=1.5,SNR=6.7						
FINES	FINESS Array B	64.70	336	P	P	11 34 38.8	+0.1
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	64.70	336	P	P	11 34 38.8	+0.1
	comp=Z,0.7nm,0.4s,mb4.0,baz=27,slow=25,SNR=2.6						
WRA	Warramunga Arr	69.09	201	P	P	11 35 06.3	-0.8
	comp=Z,0.3nm,0.6s,mb3.4,baz=17,slow=6.6,SNR=4.8						
ASAR	Alice Springs	72.78	201	P	P	11 35 29.7	+0.4
	comp=Z,0.4nm,0.6s,mb3.5,baz=24,slow=4.3,SNR=5.5						
TXAR	Lajitas Array	76.06	62	P	P	11 35 48.7	+0.1
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	76.06	62	P	P	11 35 48.7	+0.1
	comp=Z,0.8nm,0.5s,mb3.9,baz=303,slow=4.6,SNR=23						

IDC ***21*** *11:30:17.3±13.0, 5.99S×128.98E, h250^{km}±148^{km}, mb3.3/1, mb1 3.5/4, mb1mx3.1/14, mbtmp3.3/4, Error ellipse: s-maj=109.0km s-min=45.5km az=46.0*

NEIC ***21*** *11:30:25.5±2.4, 6.47S×128.44E, h346^{km}±28^{km}, Error ellipse: s-maj=37.4km s-min=23.2km az=61.0*

ISCJB ***21*** *11:30:26.1±1.9, 6.2S±0.1×129.3E±0.2, h382^{km}±20^{km}, Error ellipse: s-maj=29.2km s-min=18.0km az=171.4*

ISC 21 11:30:27.2±1.7**, 6.3S**±0.1×**129.2E**±0.2**, h365^{km}**±17^{km}**, n6, σ0^{s}76**/10**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	7.12	153	eP	Pn	11 32 11.4	+0.1
	3.3nm,0.4s						
KAKA				eS	S	11 33 35.7	-0.4
FITZ	Fitzroy Crossi	12.19	196	P	P	11 33 05.9	-4.4
	0.2nm,0.3s,baz=32,slow=13,SNR=12						
FITZ				S	S	11 35 25.1	-0.2
	0.1nm,0.3s,baz=8.6,slow=18,SNR=2.3						
WRA	Warramunga Arr	14.44	160	P	P	11 33 35.7	+0.7
	1.3nm,0.3s,baz=340,slow=11,SNR=98						
WRA				S	S	11 36 09.1	-1.6
	0.1nm,0.3s,baz=339,slow=22,SNR=3.1						
WB2	Warramunga Arr	14.44	160	eP	P	11 33 35.5	+0.4
ASAR	Alice Springs	17.83	166	P	P	11 34 12.2	+0.6

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	1.4nm,0.3s,baz=346,slow=11,SNR=142						
ASAR				S	S	11 37 18.6	+1.0
	0.1nm,0.3s,baz=345,slow=20,SNR=8.7						
MKAR	Makanchi Array	67.21	327	P	P	11 40 42.5	-0.6
	0.7nm,0.5s,baz=123,slow=7.4,SNR=9.2						

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*NSSC **21** 11:31:45.3, 38.88N×39.77E, h15^{km}±27^{km}*
*ISCJB **21** 11:31:50.2±0.3, 38.40N±0.02×39.32E±0.02, h4^{km}, Error ellipse: s-maj=3.5km s-min=2.7km az=179.5*
*CSEM **21** 11:31:50.1±0.1, 38.44N×39.31E, h5^{km}, MD3.3, Error ellipse: s-maj=1.6km s-min=1.3km az=165.0*
*ISK **21** 11:31:50.0, 38.42N×39.31E, h5^{km}, MD3.2*
*DDA **21** 11:31:51.6, 38.38N×39.31E, h4^{km}, Md3.3*
ISC 21 11:31:50.7±0.5**, 38.41N**±0.02×**39.33E**±0.03**, h2**^{km}±4^{km}**, n47, σ1**^{s}**03**/69**, 8D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.29	289	i P	Pg	11 31 56.3	0.0
ELZG				i S	Sg	11 31 58.1	-1.9
PTK	Pertek	0.49	5	i PG	Pg	11 31 59.9	-0.2
PTK				i SG	Sg	11 32 06.9	+0.5
PTK	Pertek	0.49	5	i Pg	Pg	11 31 59.9	-0.2
PTK				i Sg	Sg	11 32 06.9	+0.5
MALT	Malatya	0.72	263	i PG	Pg	11 32 03.8	-0.7
MALT				i SG	Sg	11 32 14.4	+0.6
MALT	Malatya	0.72	263	i Pg	Pg	11 32 03.8	-0.7
MALT				i Sg	Sg	11 32 14.4	+0.6
MYA	Malataya	0.72	264	i PG	Pg	11 32 03.9	-0.6
MYA				i SG	Sg	11 32 14.8	+1.0
MYA	Malataya	0.72	264	i Pg	Pg	11 32 03.9	-0.6
MYA				i Sg	Sg	11 32 14.8	+1.0
DIY	Diyarbakir	0.87	126	i PG	Pg	11 32 07.6	+0.3
DIY				i SG	Sg	11 32 20.2	+1.6
DIY	Diyarbakir	0.87	126	i Pg	Pg	11 32 07.6	+0.3
DIY				i Sg	Sg	11 32 20.2	+1.6
BINT	Bingol	1.02	62	PG	Pg	11 32 10.3	+0.1
BINT	Bingol	1.02	62	ePg	Pg	11 32 10.3	+0.1
URFA	Urfa	1.04	203	PG	Pg	11 32 11.1	+0.4
URFA	Urfa	1.04	203	ePg	Pg	11 32 11.1	+0.4
ATAB	Bozova	1.24	222	i P	Pg	11 32 14.8	+0.2
ATAB				i S	Sg	11 32 32.2	+1.6
EZC	Erzincan	1.39	16	PN	Pn	11 32 15.7	-1.4
BNGL	BINGOL	1.52	68	i P	Pn	11 32 20.2	+1.3
BNGL				i S	Sn	11 32 43.0	+3.8
MARD	Mardin	1.58	133	i P	Pn	11 32 18.9	-0.7
MARD				i S	Sn	11 32 40.1	-0.5
BEST	Besiri	1.61	108	i P	Pn	11 32 19.6	-0.4
BEST				i S	Sn	11 32 41.8	+0.4
KBSD	Kabsdagh	1.70	145	⇑P	Pn	11 32 19.1	-2.2
KBSD				⇓S	Sn	11 32 43.6	+0.1
KBSD	Kabsdagh	1.70	145	⇑i P	Pn	11 32 19.1	-2.2
KBSD				⇓i S	Sn	11 32 43.6	0.0
BTMT	Batman	1.71	97	PN	Pn	11 32 20.1	-1.3
GZT	Gaziantep	1.75	234	i P	Pn	11 32 21.3	-0.6
GZT				i S	Sg	11 32 46.7	-0.1
GUMT	Gumushane	2.05	3	ePN	Pn	11 32 26.5	+0.3
GUMT	Gumushane	2.05	3	ePn	Pn	11 32 26.5	+0.3
SFNV	Sufian	2.08	162	⇑P	Pn	11 32 24.1	-2.4
SFNV				⇓S	Sg	11 32 55.4	-2.1
SFNV	Sufian	2.08	162	⇑i P	Pn	11 32 24.1	-2.4
SFNV				⇓i S	Sg	11 32 55.3	-2.2
GAZ	Gaziantep	2.08	234	PN	Pn	11 32 25.9	-0.7
GAZ	Gaziantep	2.08	234	ePn	Pn	11 32 25.9	-0.7
KMRS	Kahramanmaras	2.12	246	ePN	Pn	11 32 27.5	+0.4
KMRS	Kahramanmaras	2.12	246	ePn	Pn	11 32 27.5	+0.4
EZM	Erzurum	2.17	46	ePN	Pn	11 32 28.4	+0.6
SVSK	Karacayir	2.36	310	ePN	Pn	11 32 29.9	-0.5
SVSK	Karacayir	2.36	310	ePn	Pn	11 32 29.9	-0.5
SLMH	Al Salmeh	2.46	208	⇑P	Pn	11 32 33.6	+1.9
SLMH				⇑S	Sg	11 33 10.5	+0.9
SLMH	Al Salmeh	2.46	208	⇑i P	Pn	11 32 33.6	+1.9
SIRT	Sirnak	2.62	109	ePN	Pn	11 32 34.8	+0.9
SIRT	Sirnak	2.62	109	ePn	Pn	11 32 34.8	+0.9
DRWC	Darouich	2.77	231	⇑P	Pn	11 32 37.2	+1.2
DRWC				⇓S	Sg	11 33 17.5	-2.1
DRWC	Darouich	2.77	231	⇑i P	Pn	11 32 37.2	+1.2
KOZT	Kozan	2.92	253	ePN	Pn	11 32 38.7	+0.6
VANT	Van	3.19	88	ePN	Pn	11 32 41.7	0.0
BTCH	Batrach	3.29	225	⇓P	Pn	11 32 43.9	+0.6
BTCH				⇓S	Sg	11 33 30.5	-6.0
BTCH	Batrach	3.29	225	⇓i P	Pn	11 32 43.9	+0.7
YOZ	Yozgat	3.36	293	ePN	Pn	11 32 44.4	+0.3
YOZ	Yozgat	3.36	293	ePn	Pn	11 32 44.4	+0.3
SLNF	Slenfeh	3.75	223	⇑P	Pn	11 32 50.3	+0.8
SLNF				⇑S	Sg	11 33 42.4	-8.8
SLNF	Slenfeh	3.75	223	⇑i P	Pn	11 32 50.3	+0.8

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*CSEM **21** 11:33:01.5±0.2, 38.40N×39.29E, h4^{km}±1^{km}, MD3.1, Error ellipse: s-maj=3.0km s-min=2.3km az=157.0*
*ISCJB **21** 11:33:02.2±0.5, 38.46N±0.04×39.31E±0.03, h9^{km}, Error ellipse: s-maj=5.8km s-min=3.5km az=176.5*
*DDA **21** 11:33:02.3, 38.57N×39.35E, h9^{km}, Md3.1*
*ISK **21** 11:33:02.0, 38.40N×39.29E, h10^{km}, MD3.0*
ISC 21 11:33:02.3±0.6**, 38.43N**±0.04×**39.34E**±0.04**, h1**^{km}±7^{km}**, n20, σ1**^{s}**00**/32**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.28	284	i P	Pg	11 33 07.7	0.0
ELZG				i S	Sg	11 33 10.5	-1.0
PTK	Pertek	0.46	5	i PG	Pg	11 33 12.3	+1.1
PTK				i SG	Sg	11 33 20.2	+3.0
PTK	Pertek	0.46	5	i Pg	Pg	11 33 12.3	+1.1
PTK				i Sg	Sg	11 33 20.2	+3.0
MYA	Malataya	0.72	262	i PG	Pg	11 33 15.3	-0.9
MYA				i SG	Sg	11 33 25.9	+0.4
MYA	Malataya	0.72	262	i Pg	Pg	11 33 15.3	-0.9
MYA				i Sg	Sg	11 33 25.9	+0.4
MALT	Malatya	0.72	261	i PG	Pg	11 33 14.8	-1.4
MALT				i SG	Sg	11 33 25.9	+0.3
MALT	Malatya	0.72	261	i Pg	Pg	11 33 14.8	-1.4
MALT				i Sg	Sg	11 33 25.9	+0.3
DIY	Diyarbakir	0.88	127	i PG	Pg	11 33 20.0	+0.8
DIY	Diyarbakir	0.88	127	i Pg	Pg	11 33 20.0	+0.8
BINT	Bingol	1.01	63	PG	Pg	11 33 22.1	+0.5
BINT	Bingol	1.01	63	ePg	Pg	11 33 22.1	+0.5
URFA	Urfa	1.07	203	PG	Pg	11 33 21.9	-0.9
URFA	Urfa	1.07	203	ePg	Pg	11 33 21.9	-0.9
ATAB	Bozova	1.27	221	i P	Pg	11 33 27.1	+0.5
ATAB				i S	Sg	11 33 43.4	+0.4
ATAB	Bozova	1.27	221	i P	Pg	11 33 27.0	+0.5
ATAB				i S	Sg	11 33 43.4	+0.5
EZC	Erzincan	1.37	16	PN	Pn	11 33 27.1	-1.4
MARD	Mardin	1.60	134	i P	Pn	11 33 31.1	-0.5
MARD				i S	Sn	11 33 53.5	+0.6
BEST	Besiri	1.62	109	i P	Pn	11 33 31.7	-0.3
BEST				i S	Sn	11 33 53.4	-0.1
BTMT	Batman	1.71	97	PN	Pn	11 33 31.5	-1.8
GZT	Gaziantep	1.77	233	i P	Pn	11 33 34.4	+0.4
GZT				i S	Sn	11 33 59.2	+2.1

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*IDC **21** 11:34:15.1±11.0, 9.81S×80.05W, h0^{km}, mb3.4/1, mb1 3.8/1, mb1mx3.4/15, mbtmp3.4/1, Error ellipse: s-maj=1229.0km s-min=70.6km az=88.0*
NEIC 21 11:34:22.7±2.1**, 9.57S**×**75.63W, h102**^{km}±18^{km}**, Error ellipse: s-maj=63.3km s-min=13.3km az=94.0, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	Nana	2.68	206	eP	Pn	11 35 04.4	+0.1
NNA				eS	Sn	11 35 42.3	+6.0
OTAV	Otavalo	10.14	344	eP	Pn	11 36 45.8	+0.4
	9.8nm,0.9s						
YKA	Yellowknife Ar	77.89	343	P	P	11 46 08.9	+0.1
	0.2nm,0.5s,baz=139,slow=5.8,SNR=5.2						
ASAR	Alice Springs	136.13	221	PKP	PKPdf	11 53 33.2	+0.4
ASAR	Alice Springs	136.13	221	PKP	PKPdf	11 53 33.2	+0.4
	0.4nm,0.9s,baz=136,slow=3.4,SNR=4.1						
WRA	Warramunga Arr	138.40	225	PKP	PKPdf	11 53 36.8	-0.2
WRA	Warramunga Arr	138.40	225	PKP	PKPdf	11 53 36.8	-0.2
	0.4nm,0.6s,baz=123,slow=1.9,SNR=7.3						

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*ISCJB **21** 11:35:07.7±0.7, 59.35N±0.03×26.4E±0.1, h0^{km}, Error ellipse: s-maj=8.8km s-min=4.2km az=173.7*
*NAO **21** 11:35:10.1±1.0, 59.30N×26.85E, ML2.2*
*BER **21** 11:35:10.4±3.2, 59.32N×26.99E, h0^{km}, ML2.2(NAO), Suspected explosion*
*HEL **21** 11:35:11.1, 59.26N×27.00E, h0^{km}, ML1.9, Explosion*
ISC 21 11:35:09.5±0.6**, 59.33N**±0.03×**26.54E**±0.09**, h0**^{km}**, n18, σ1**^{s}**11**/27**, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VSU	Vasula	0.87	173	i P	Pg	11 35 26.5	+0.3
VSU				i S	Sg	11 35 37.5	0.0
VSU				eRG		11 35 41.6	
VSU	Vasula	0.87	173	Pg	Pg	11 35 26.5	+0.3
VSU				Lg		11 35 37.5	
VSU				Rg		11 35 41.6	
VJF	Virojoki	1.32	22	ePB	Pb	11 35 33.0	-2.1
VJF				eSN	Sn	11 35 54.5	+1.1
VJF				MSG		11 35 54.5	
	comp=Z,10nm,0.4s						
MEF	Metsahovi	1.41	310	eSG	Sg	11 36 02.0	+7.5
MEF				MSG		11 36 02.0	
	comp=Z,8.1nm,0.2s						
FIA0	FINESS Array S	2.14	354	Pn	Pn	11 35 48.0	+1.6
	baz=164,slow=18						
FIA0				Lg		11 36 19.3	
	baz=173,slow=28						
FIA0	FINESS Array S	2.14	354	ePB	Pb	11 35 48.8	-0.2
	baz=172						
FIA0				eSG	Sg	11 36 18.4	+0.3
FIA0				MSG		11 36 18.4	
	comp=Z,4.8nm,0.3s						
FIA0	FINESS Array S	2.14	354	Pn	Pn	11 35 48.0	+1.6
	baz=164,slow=18						
FIA0				Lg		11 36 19.3	
	baz=173,slow=28						
FIA1	FINESS Array S	2.14	354	eS	Sn	11 36 15.9	+2.3
KAF	Kangasniemi	2.80	358	eSG	Sg	11 36 37.8	-1.5
KAF				MSG		11 36 37.8	
	comp=Z,4.3nm,0.4s						
RAF	Rauma	2.93	308	eP	Pn	11 36 03.0	+5.8
KEF	Keuruu	2.97	345	ePG	Pg	11 36 04.7	-1.6
KEF				eSG	Sg	11 36 45.5	+0.8
KEF				MSG		11 36 45.5	
	comp=Z,4.8nm,0.4s						
JOF	Joensuu	4.28	31	eP	Pn	11 36 15.9	+0.1
JOF				eSG	Sg	11 37 16.2	-11
JOF				MSG		11 37 16.2	
	comp=Z,2.5nm,0.4s						
HFS	Hagfors	6.55	283	Sn	Sn	11 38 02.4	+0.3
	baz=108,slow=18						
HFS				Lg		11 38 39.2	
	baz=90,slow=56						
HFS	Hagfors	6.55	283	e	Sn	11 38 02.4	+0.3
HFS				eSG	Sg	11 38 39.2	-0.3
HFS	Hagfors	6.55	283	Sn	Sn	11 38 02.4	+0.3
	baz=108,slow=18						
HFS				Lg		11 38 39.2	
	baz=90,slow=56						
ARA0	ARCESS Array S	10.26	358	Pn	Pn	11 37 36.9	-0.9
	baz=173,slow=14						
ARA0				Sn	Sn	11 39 26.6	-6.7
	baz=175,slow=28						
ARA0				Lg		11 40 24.8	
	baz=167,slow=28						
ARA0	ARCESS Array S	10.26	358	eP	Pn	11 37 36.9	-0.9
ARA0				eS	Sn	11 39 26.6	-6.7
ARA0				eSG	Sn	11 40 24.8	+52
ARA0	ARCESS Array S	10.26	358	Pn	Pn	11 37 36.9	-0.9
	baz=173,slow=14						
ARA0				Sn	Sn	11 39 26.6	-6.7
	baz=175,slow=28						
ARA0				Lg		11 40 24.8	
	baz=167,slow=28						

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*CSEM **21** 11:42:50.5±0.1, 38.41N×39.30E, h5^{km}, MD3.3, Error ellipse: s-maj=1.4km s-min=1.0km az=163.0*
*ISK **21** 11:42:50.6, 38.41N×39.31E, h6^{km}, MD3.4*
*ISCJB **21** 11:42:51.4±0.3, 38.44N±0.02×39.33E±0.02, h10^{km}, Error ellipse: s-maj=3.2km s-min=2.7km az=172.6*
*DDA **21** 11:42:51.4, 38.47N×39.33E, h10^{km}, Md3.3*
*NSSC **21** 11:42:54.8, 38.42N×39.56E, h31^{km}±6^{km}*
ISC 21 11:42:52.0±0.3**, 38.44N**±0.02×**39.33E**±0.02**, h10**^{km}**, n58, σ1**^{s}**21**/88**, 5D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.28	282	i P	Pg	11 42 56.7	-0.9
ELZG				i S	Sg	11 42 59.5	-1.8
PTK	Pertek	0.46	6	i PG	Pg	11 43 00.1	-0.8
PTK				i SG	Sg	11 43 08.0	+1.1
PTK	Pertek	0.46	6	i Pg	Pg	11 43 00.1	-0.8
PTK				i Sg	Sg	11 43 08.0	+1.1
MYA	Malataya	0.72	261	i PG	Pg	11 43 04.4	-1.5
MYA				i SG	Sg	11 43 15.0	-0.3
MYA	Malataya	0.72	261	i Pg	Pg	11 43 04.4	-1.5
MYA				i Sg	Sg	11 43 15.0	-0.3
MALT	Malatya	0.72	260	i PG	Pg	11 43 04.3	-1.6
MALT				i SG	Sg	11 43 14.8	-0.5
MALT	Malatya	0.72	260	i Pg	Pg	11 43 04.3	-1.6
MALT				i Sg	Sg	11 43 14.8	-0.5
DIY	Diyarbakir	0.89	127	i PG	Pg	11 43 07.7	-1.4
DIY				i SG	Sg	11 43 21.1	+0.4
DIY	Diyarbakir	0.89	127	i Pg	Pg	11 43 07.7	-1.4
DIY				i Sg	Sg	11 43 21.1	+0.4
BINT	Bingol	1.01	64	ePG	Pg	11 43 11.2	-0.1
BINT	Bingol	1.01	64	ePg	Pg	11 43 11.2	-0.1
URFA	Urfa	1.07	202	PG	Pg	11 43 11.2	-1.4
URFA				SG	Sg	11 43 25.7	-0.9
URFA	Urfa	1.07	202	ePg	Pg	11 43 11.2	-1.4
URFA				eSg	Sg	11 43 25.7	-0.9
ATAB	Bozova	1.27	221	i P	Pn	11 43 14.7	-1.0
ATAB				i S	Sb	11 43 32.9	+0.6
ATAB	Bozova	1.27	221	i P	Pn	11 43 14.7	-1.0
ATAB				i S	Sb	11 43 32.8	+0.5
EZC	Erzincan	1.36	16	PN	Pn	11 43 16.8	-0.2
MARD	Mardin	1.60	134	i P	Pn	11 43 19.0	-1.3
MARD				i S	Sn	11 43 40.2	-0.9
BEST	Besiri	1.62	109	i P	Pn	11 43 20.4	-0.2
BEST				i S	Sn	11 43 42.1	+0.5
DRBT	Darb Altahta	1.63	166	⇑P	Pg	11 43 27.8	+4.6
DRBT				⇑S	Sg	11 43 53.7	+9.4
BTMT	Batman	1.72	98	PN	Pn	11 43 20.1	-1.8
KBSD	Kabsdagh	1.73	146	⇑P	Pn	11 43 21.7	-0.4
KBSD				⇑S	Sn	11 43 41.4	-2.7
KBSD	Kabsdagh	1.73	146	⇑i P	Pn	11 43 21.7	-0.4
KBSD				⇑i S	Sn	11 43 41.4	-2.7
GZT	Gaziantep	1.77	233	i P	Pn	11 43 21.8	-0.8
GZT				i S	Sn	11 43 46.7	+1.6
GUMT	Gumushane	2.02	3	ePN	Pn	11 43 27.1	+1.0
GUMT	Gumushane	2.02	3	ePn	Pn	11 43 27.1	+1.0
GAZ	Gaziantep	2.10	234	ePN	Pn	11 43 26.6	-0.6
GAZ	Gaziantep	2.10	234	ePn	Pn	11 43 26.6	-0.6
SFNV	Sufian	2.11	163	⇓P	Pn	11 43 27.6	+0.3
SFNV				⇑S	Sn	11 43 52.0	-1.6
SFNV	Sufian	2.11	163	⇓i P	Pn	11 43 27.6	+0.3
SFNV				⇑i S	Sn	11 43 52.0	-1.6
KMRS	Kahramanmaras	2.13	245	ePN	Pn	11 43 26.6	-1.1
KMRS	Kahramanmaras	2.13	245	ePn	Pn	11 43 26.6	-1.1
EZM	Erzurum	2.15	47	PN	Pn	11 43 28.9	+1.0
SVSK	Karacayir	2.34	310	ePN	Pn	11 43 30.8	+0.3
SVSK	Karacayir	2.34	310	ePn	Pn	11 43 30.8	+0.3
SLMH	Al Salmeh	2.49	207	⇑P	Pn	11 43 34.1	+1.7
SLMH				⇑S	Sn	11 44 04.3	+1.4
SLMH	Al Salmeh	2.49	207	⇑i P	Pn	11 43 34.2	+1.7
SLMH				⇑i S	Sn	11 44 04.3	+1.4
SIRT	Sirnak	2.63	110	ePN	Pn	11 43 34.5	0.0
SIRT	Sirnak	2.63	110	ePn	Pn	11 43 34.5	0.0
BNN	Bunyan	2.76	280	ePN	Pn	11 43 35.9	-0.4
BNN	Bunyan	2.76	280	ePn	Pn	11 43 35.9	-0.4
DRWC	Darouich	2.79	230	⇓P	Pn	11 43 39.4	+2.7
DRWC				⇓S	Sn	11 44 14.6	+4.3
BSHR	Al Beshri	2.79	172	⇑P	Pn	11 43 40.8	+4.1
BSHR				⇑S	Sn	11 44 16.7	+6.2
JHLN	Al Jahlan	2.85	195	⇑P	Pn	11 43 38.5	+1.0
JHLN				⇑S	Sn	11 44 13.7	+1.9
JHLN	Al Jahlan	2.85	195	⇑i P	Pn	11 43 38.5	+1.0
JHLN				⇑i S	Sn	11 44 13.7	+1.8
KOZT	Kozan	2.93	252	ePN	Pn	11 43 38.7	+0.1
AGRB	Hanur-Agry	3.07	67	ePN	Pn	11 43 41.9	+1.4
AGRB	Hanur-Agry	3.07	67	ePn	Pn	11 43 41.9	+1.4
BTCH	Batrach	3.31	225	⇑P	Pn	11 43 46.3	+2.4
BTCH				⇓S	Sn	11 44 26.6	+3.2
YOZ	Yozgat	3.34	292	ePN	Pn	11 43 44.7	+0.4
YOZ	Yozgat	3.34	292	ePn	Pn	11 43 44.7	+0.4
HTY	Hatay	3.44	229	ePN	Pn	11 43 45.2	-0.4
HTY	Hatay	3.44	229	ePn	Pn	11 43 45.2	-0.4
CUKT	Cukurca	3.59	108	ePN	Pn	11 43 48.9	+1.2
CUKT	Cukurca	3.59	108	ePn	Pn	11 43 48.9	+1.2
KRTS	Karatas	3.66	241	ePN	Pn	11 43 48.5	-0.1
KRTS	Karatas	3.66	241	ePn	Pn	11 43 48.5	-0.1
SLNF	Slenfeh	3.77	222	⇑P	Pn	11 43 52.4	+2.2
SLNF				⇑S	Sn	11 44 38.2	+3.6
SLNF	Slenfeh	3.77	222	⇑i P	Pn	11 43 52.4	+2.2
SLNF				⇑i S	Sn	11 44 38.2	+3.6

IDC 21 11:46:52.4±2.3**, 1.32S**×**127.16E, h0**^{km}**, mb3.3**/2**, mb1 3.4**/3**, mb1mx3.2**/17**, mbtmp3.2**/3**, ML3.3**/1**, Error ellipse: s-maj=191.4km s-min=27.6km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.80	160	P	Pn	11 51 24.8	-1.2
	0.1nm,0.3s,baz=342,slow=12,SNR=7.8						
ASAR	Alice Springs	23.16	164	P	P	11 52 00.6	0.0
	0.4nm,0.5s,baz=347,slow=12,SNR=9.2						
MKAR	Makanchi Array	61.95	327	P	P	11 57 14.1	0.0
	0.2nm,0.4s,baz=131,slow=5.9,SNR=3.7						

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*CSEM **21** 11:48:18.8±0.1, 38.37N×39.29E, h5^{km}, MD3.1, Error ellipse: s-maj=2.3km s-min=1.6km az=1.0*
*ISCJB **21** 11:48:19.8±0.3, 38.38N±0.03×39.30E±0.03, h5^{km}, Error ellipse: s-maj=3.8km s-min=2.9km az=164.0*
*DDA **21** 11:48:19.7, 38.49N×39.10E, h29^{km}±1^{km}, Md3.1*
*ISK **21** 11:48:19.5, 38.38N×39.29E, h8^{km}, MD3.6*
*NSSC **21** 11:48:26.7, 37.99N×39.62E, h12^{km}±5^{km}*
ISC 21 11:48:20.1±0.5**, 38.37N**±0.03×**39.31E**±0.03**, h0**^{km}±5^{km}**, n46, σ1**^{s}**00**/62**, 3D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.29	296	i P	Pg	11 48 25.0	-0.6
ELZG				i S	Sg	11 48 28.6	-0.7
PTK	Pertek	0.52	7	PG	Pg	11 48 29.5	-0.6
PTK				SG	Sg	11 48 38.1	+1.2
PTK	Pertek	0.52	7	ePg	Pg	11 48 29.5	-0.6
PTK				eSg	Sg	11 48 38.1	+1.2
MALT	Malatya	0.70	265	i PG	Pg	11 48 32.2	-1.3
MALT				i SG	Sg	11 48 43.8	+1.3
MALT	Malatya	0.70	265	i Pg	Pg	11 48 32.2	-1.3
MALT				i Sg	Sg	11 48 43.8	+1.3
MYA	Malataya	0.70	266	i PG	Pg	11 48 32.4	-1.1
MYA				i SG	Sg	11 48 43.5	+1.0
MYA	Malataya	0.70	266	i Pg	Pg	11 48 32.4	-1.1
MYA				i Sg	Sg	11 48 43.5	+1.0
DIY	Diyarbakir	0.86	123	i PG	Pg	11 48 36.8	+0.1
DIY	Diyarbakir	0.86	123	i Pg	Pg	11 48 36.8	+0.1
URFA	Urfa	1.01	203	PG	Pg	11 48 39.4	0.0
URFA				SG	Sg	11 48 54.2	+1.8
URFA	Urfa	1.01	203	ePg	Pg	11 48 39.4	0.0
URFA				eSg	Sg	11 48 54.2	+1.8
BINT	Bingol	1.05	61	PG	Pg	11 48 40.3	+0.1
BINT	Bingol	1.05	61	ePg	Pg	11 48 40.3	+0.1
ATAB	Bozova	1.21	222	i P	Pg	11 48 43.4	+0.1
ATAB				i S	Sg	11 48 58.1	-0.8
ATAB	Bozova	1.21	222	i P	Pg	11 48 43.3	+0.1
ATAB				i S	Sg	11 48 58.1	-0.8
BNGL	BINGOL	1.55	68	eP	Pn	11 48 49.9	+1.0
BNGL				i S	Sn	11 49 12.8	+3.1
MARD	Mardin	1.57	132	i P	Pn	11 48 47.9	-1.3
MARD				i S	Sn	11 49 08.7	-1.5
GZT	Gaziantep	1.72	234	eP	Pn	11 48 49.9	-1.3
GZT				i S	Sn	11 49 14.7	+0.9
BTMT	Batman	1.72	95	ePN	Pn	11 48 49.5	-1.8
GAZ	Gaziantep	2.05	235	ePN	Pn	11 48 55.2	-0.6
GAZ	Gaziantep	2.05	235	ePn	Pn	11 48 55.2	-0.6
GUMT	Gumushane	2.09	4	ePN	Pn	11 48 56.2	-0.1
GUMT	Gumushane	2.09	4	ePn	Pn	11 48 56.2	-0.1
KMRS	Kahramanmaras	2.09	246	ePN	Pn	11 48 55.2	-1.1
KMRS	Kahramanmaras	2.09	246	ePn	Pn	11 48 55.2	-1.1
EZM	Erzurum	2.21	46	ePN	Pn	11 48 58.0	0.0
ERZM	Erzurum	2.21	46	eP	Pn	11 48 59.4	+1.4
SVSK	Karacayir	2.37	311	ePN	Pn	11 48 59.9	-0.2
SVSK	Karacayir	2.37	311	ePn	Pn	11 48 59.9	-0.2
SLMH	Al Salmeh	2.42	208	⇓P	Pn	11 49 02.9	+2.0
ANDN	Andirin	2.47	252	i P	Pn	11 49 02.2	+0.7
ANDN				i S	Sg	11 49 40.0	+0.5
ANDN	Andirin	2.47	252	i P	Pn	11 49 02.2	+0.6
SIRT	Sirnak	2.62	108	ePN	Pn	11 49 03.2	-0.4
SIRT	Sirnak	2.62	108	ePn	Pn	11 49 03.2	-0.4
BNN	Bunyan	2.76	281	ePN	Pn	11 49 05.0	-0.5
BNN	Bunyan	2.76	281	ePn	Pn	11 49 05.0	-0.5
JHLN	Al Jahlan	2.78	195	⇓P	Pn	11 49 06.9	+1.0
JHLN	Al Jahlan	2.78	195	⇓i P	Pn	11 49 06.9	+1.1
KOZT	Kozan	2.90	253	ePN	Pn	11 49 06.9	-0.5
TUTA	Tutak	2.92	68	i P	Pn	11 49 11.2	+3.5
TUTA				i S	Sg	11 49 53.5	-0.4
YOZ	Yozgat	3.36	293	ePN	Pn	11 49 13.0	-0.7
YOZ	Yozgat	3.36	293	ePn	Pn	11 49 13.0	-0.7
CUKT	Cukurca	3.58	107	ePN	Pn	11 49 17.2	+0.4
CUKT	Cukurca	3.58	107	ePn	Pn	11 49 17.2	+0.4
HKR	Hakkari	3.59	101	ePN	Pn	11 49 17.2	+0.3
HKR	Hakkari	3.59	101	ePn	Pn	11 49 17.2	+0.3

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*DDA **21** 11:50:21.9, 38.67N×39.33E, h7^{km}±8^{km}, Md2.6*
*ISK **21** 11:50:23.3, 38.34N×39.28E, h5^{km}, MD3.0*
*ISCJB **21** 11:50:24.7±0.6, 38.37N±0.03×39.29E±0.03, h2^{km}±7^{km}, Error ellipse: s-maj=5.9km s-min=4.1km az=176.6*
*CSEM **21** 11:50:24.0±0.2, 38.36N×39.29E, h5^{km}, MD2.6, Error ellipse: s-maj=4.3km s-min=3.2km az=179.0*
ISC 21 11:50:25.4±0.5**, 38.38N**±0.04×**39.30E**±0.03**, h7**^{km}±6^{km}**, n21, σ1**^{s}**18**/33**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.27	295	i P	Pg	11 50 30.2	-0.5
ELZG				i S	Sg	11 50 32.6	-1.7
PTK	Pertek	0.51	8	PG	Pg	11 50 35.5	+0.2
PTK				SG	Sg	11 50 44.1	+2.0
PTK	Pertek	0.51	8	ePg	Pg	11 50 35.5	+0.2
PTK				eSg	Sg	11 50 44.1	+2.0
MALT	Malatya	0.69	264	PG	Pg	11 50 37.1	-1.5
MALT				SG	Sg	11 50 47.2	-0.4
MALT	Malatya	0.69	264	ePg	Pg	11 50 37.1	-1.5
MALT				eSg	Sg	11 50 47.2	-0.4
MYA	Malataya	0.69	266	PG	Pg	11 50 37.4	-1.2
MYA				SG	Sg	11 50 48.8	+1.2
MYA	Malataya	0.69	266	ePg	Pg	11 50 37.4	-1.2
MYA				eSg	Sg	11 50 48.8	+1.2
DIYA	Diyarbakir	0.80	125	i P	Pg	11 50 41.0	+0.3
DIYA				i S	Sg	11 50 54.0	+3.0
DIY	Diyarbakir	0.88	123	PG	Pg	11 50 40.7	-1.6
DIY	Diyarbakir	0.88	123	ePg	Pg	11 50 40.7	-1.6
URFA	Urfa	1.01	202	ePG	Pg	11 50 43.8	-1.0
URFA	Urfa	1.01	202	ePg	Pg	11 50 43.8	-1.0
BINT	Bingol	1.05	62	ePN	Pn	11 50 45.8	-0.8
BINT	Bingol	1.05	62	ePn	Pn	11 50 45.8	-0.8
ATAB	Bozova	1.21	221	i P	Pb	11 50 49.0	+0.4
ATAB				i S	Sb	11 51 05.4	+1.0
MARD	Mardin	1.58	132	i P	Pn	11 50 53.4	-0.5
MARD				i S	Sn	11 51 15.1	+0.5
GZT	Gaziantep	1.71	234	eP	Pn	11 50 56.4	+0.8
GZT				i S	Sn	11 51 16.8	-1.0
BTMT	Batman	1.73	96	ePN	Pn	11 50 54.4	-1.6
SVSK	Karacayir	2.35	311	ePN	Pn	11 51 05.6	+1.1
SVSK	Karacayir	2.35	311	ePn	Pn	11 51 05.6	+1.1
ANDN	Andirin	2.47	252	eP	Pg	11 51 14.2	+1.5
ANDN				i S	Sg	11 51 46.0	+1.4

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*CSEM **21** 11:51:27.0±0.1, 38.41N×39.29E, h5^{km}, MD2.7, Error ellipse: s-maj=3.4km s-min=3.0km az=124.0*
*ISK **21** 11:51:27.2, 38.39N×39.29E, h10^{km}, MD2.9*
*ISCJB **21** 11:51:28.2±0.5, 38.43N±0.03×39.27E±0.04, h5^{km}, Error ellipse: s-maj=5.4km s-min=3.7km az=149.1*
*DDA **21** 11:51:30.8, 38.47N×39.10E, h9^{km}±3^{km}, Md2.7*

ISC 21 11:51:28.6±0.7,**38.44N**±0.04×**39.28E**±0.05,**h4**^{km}±9^{km},**n18,** σ**1**^{s}**08**/27,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.24	285	*i* P	Pg	11 51 33.5	+0.3
ELZG				*i* S	Sg	11 51 35.2	-1.1
PTK	**Pertek**	0.46	11	PG	Pg	11 51 37.3	-0.2
PTK				SG	Sg	11 51 45.5	+2.0
PTK	**Pertek**	0.46	11	*e*Pg	Pg	11 51 37.3	-0.2
PTK				*e*Sg	Sg	11 51 45.5	+2.0
MYA	**Malataya**	0.68	261	PG	Pg	11 51 40.6	-1.0
MYA	**Malataya**	0.68	261	*e*Pg	Pg	11 51 40.6	-1.0
MALT	**Malatya**	0.68	260	PG	Pg	11 51 40.6	-1.0
MALT				SG	Sg	11 51 51.1	+0.6
MALT	**Malatya**	0.68	260	*e*Pg	Pg	11 51 40.6	-1.0
MALT				*e*Sg	Sg	11 51 51.1	+0.6
DIY	**Diyarbakir**	0.92	126	*e*PG	Pg	11 51 44.7	-1.5
DIY	**Diyarbakir**	0.92	126	*e*Pg	Pg	11 51 44.7	-1.5
URFA	**Urfa**	1.06	200	*e*PG	Pg	11 51 48.0	-0.8
URFA	**Urfa**	1.06	200	*e*Pg	Pg	11 51 48.0	-0.8
ATAB	**Bozova**	1.24	219	*i* P	Pg	11 51 53.0	+0.6
ATAB				*i* S	Sg	11 52 09.5	+1.1
EZC	**Erzincan**	1.38	18	*e*PN	Pn	11 51 52.9	-1.6
BNGL	**BINGOL**	1.55	70	*i* P	Pn	11 51 57.7	+0.8
BNGL				*i* S	Sn	11 52 18.2	+0.8
MARD	**Mardin**	1.63	133	*i* P	Pn	11 51 58.3	+0.2
MARD				*i* S	Sn	11 52 15.5	-4.0
GZT	**Gaziantep**	1.73	232	*e*P	Pg	11 52 05.2	+3.5
GZT				*i* S	Sg	11 52 25.3	+1.1
SVSK	**Karacayir**	2.31	311	*e*PN	Pn	11 52 06.8	-0.5
SVSK	**Karacayir**	2.31	311	*e*Pn	Pn	11 52 06.8	-0.5

CASC 21 11:55:51.1±2.4,**9.17N**×**83.88W**,**h6**^{km}±8^{km},**MD3.7,5C-6D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
QCR	**Quepos**	0.38	312	⇑*i*P	Pg	11 55 59.5	+0.9
QCR				*e*S	Sg	11 56 04.8	+1.2
BUS	**Buena Vista**	0.40	17	⇓*i*P	Pg	11 56 00.6	+1.7
BUS				*e*S	Sg	11 56 08.0	+3.8
BAR1		0.56	82	⇑*e*P	Pg	11 56 02.9	+1.0
BAR1				*e*S	Sg	11 56 11.5	+2.3
LCR2	**La Lucha 2**	0.58	348	⇓*e*P	Pg	11 56 02.9	+0.5
LCR2				*e*S	Sg	11 56 11.8	+1.8
URSC	**Urasca**	0.67	8	⇓*i*P	Pg	11 56 04.4	+0.3
URSC				*e*S	Sg	11 56 13.7	+0.9
LAJ	**Bijagual**	0.73	341	⇓*e*P	Pg	11 56 07.7	+2.5
ICR	**Volcan Irazu**	0.81	3	⇓*e*P	Pg	11 56 06.9	+0.2
PRS1	**Puriscal**	0.92	332	⇑*e*P	Pg	11 56 07.2	-1.6
CGA2	**Cerro Gallo 2**	1.02	325	⇑*e*P	Pg	11 56 10.2	-0.6
CGA2				*e*S	Sg	11 56 23.7	-0.4
TBS2		1.26	107	*e*P	Pn	11 56 19.8	+4.6
TBS2				*e*S	Sg	11 56 36.8	+5.2
BRU	**Baru**	1.35	105	⇑*e*P	Pn	11 56 16.1	-0.3
BRU				*e*S	Sb	11 56 34.7	+0.5
CNI	**Changuinola**	1.36	79	*e*P	Pn	11 56 15.8	-0.9
JCR	**Jicaral**	1.40	299	*e*P	Pn	11 56 14.5	-2.6
CUI		1.96	319	⇓*i*P	Pn	11 56 23.8	-1.1
CUI				*e*S	Sn	11 56 50.5	+0.6

CSEM ***21*** *11:56:28.9±0.1, 38.37N×39.22E, h5^{km}, MD2.5, Error ellipse: s-maj=2.9km s-min=2.4km az=144.0*
ISK ***21*** *11:56:28.7, 38.36N×39.21E, h4^{km}, MD3.0*
ISCJB ***21*** *11:56:29.1±0.5, 38.35N±0.03×39.27E±0.03, h5^{km}, Error ellipse: s-maj=4.5km s-min=3.9km az=172.0*
DDA ***21*** *11:56:31.4, 38.34N×38.96E, h6^{km}±8^{km}, Md2.5*
ISC 21 11:56:29.5±0.6,**38.34N**±0.03×**39.27E**±0.04,**h5**^{km}±6^{km},**n22,** σ**0**^{s}**90**/31,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.27	304	*i* P	Pg	11 56 34.5	-0.3
ELZG				*i* S	Sg	11 56 38.0	-0.4
PTK	**Pertek**	0.56	10	*i* PG	Pg	11 56 40.1	-0.1
PTK				*i* SG	Sg	11 56 48.5	+1.1
PTK	**Pertek**	0.56	10	*i* Pg	Pg	11 56 40.1	-0.1
PTK				*i* Sg	Sg	11 56 48.5	+1.1
MALT	**Malatya**	0.66	268	*i* PG	Pg	11 56 41.0	-1.2
MALT				*i* SG	Sg	11 56 50.3	-0.5
MALT	**Malatya**	0.66	268	*i* Pg	Pg	11 56 41.0	-1.2
MALT				*i* Sg	Sg	11 56 50.3	-0.5
MYA	**Malataya**	0.66	269	*i* PG	Pg	11 56 41.4	-0.8
MYA	**Malataya**	0.66	269	*i* Pg	Pg	11 56 41.4	-0.8
DIY	**Diyarbakir**	0.88	120	PG	Pg	11 56 46.8	+0.5
DIY	**Diyarbakir**	0.88	120	*e*Pg	Pg	11 56 46.8	+0.5
URFA	**Urfa**	0.97	202	PG	Pg	11 56 48.2	+0.1
URFA	**Urfa**	0.97	202	*e*Pg	Pg	11 56 48.2	+0.1
BINT	**Bingol**	1.09	61	*e*PN	Pn	11 56 50.8	-0.6
BINT	**Bingol**	1.09	61	*e*Pn	Pn	11 56 50.8	-0.6
ATAB	**Bozova**	1.17	222	*i* P	Pg	11 56 52.3	+0.4
ATAB				*i* S	Sg	11 57 08.3	+1.4
MARD	**Mardin**	1.58	130	*i* P	Pn	11 56 58.4	+0.3
MARD				*i* S	Sn	11 57 17.2	-1.6
BNGL	**BINGOL**	1.59	67	*i* P	Pn	11 56 59.3	+1.0
BNGL				*i* S	Sn	11 57 23.4	+4.2
GZT	**Gaziantep**	1.67	234	*e*P	Pn	11 56 57.9	-1.5
GZT				*i* S	Sn	11 57 22.3	+1.1
BTMT	**Batman**	1.75	94	*e*PN	Pn	11 56 59.6	-0.9
GAZ	**Gaziantep**	2.01	235	*e*PN	Pn	11 57 04.7	+0.7
GAZ	**Gaziantep**	2.01	235	*e*Pn	Pn	11 57 04.7	+0.7
SVSK	**Karacayir**	2.36	312	*e*PN	Pn	11 57 09.8	+0.9
SVSK	**Karacayir**	2.36	312	*e*Pn	Pn	11 57 09.8	+0.9

IDC ***21*** *12:02:04.4±2.2, 18.69N×39.44E, h0^{km}, mb3.6/5, mb1 3.6/5, mb1mx3.5/18, mbtmp3.6/5, Error ellipse: s-maj=64.1km s-min=26.8km az=156.0*
ISCJB ***21*** *12:02:06.6±1.2, 19.10N±0.08×39.6E±0.1, h10^{km}, mb3.6/5, Error ellipse: s-maj=17.9km s-min=9.2km az=157.6*
SGS ***21*** *12:02:09.3, 19.07N×39.45E, h28^{km}*
ISC 21 12:02:08.2±1.2,**19.13N**±0.08×**39.7E**±0.1,**h10**^{km},**n14,** σ**1**^{s}**21**/17,**mb3.6**/5,**Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LTHS	**Al Lith**	1.34	32	P	Pn	12 02 33.1	+0.1
SHBS		1.86	1	P	Pn	12 02 39.0	-1.1
FRAS	**Faraa**	2.08	23	P	Pn	12 02 43.0	-0.2
FRAS				S	Sn	12 03 08.4	-0.8
FRAS	**Faraa**	2.08	23	P	Pn	12 02 43.0	-0.2
FDAS		2.77	14	P	Pn	12 02 52.8	+0.2
JAZS	**Jizan**	3.72	123	P	Pn	12 03 05.9	+0.2
JAZS				S	Sn	12 03 47.5	-2.2
JAZS	**Jizan**	3.72	123	P	Pn	12 03 05.9	+0.1
YOBS		5.27	351	P	Pn	12 03 25.7	-1.3
YOBS				S	Sn	12 04 22.5	-5.3
YOBS		5.27	351	P	Pn	12 03 25.7	-1.3
BRTR	**Keskin Array B**	21.17	347	P	P	12 06 55.8	+2.2
	0.7nm,0.7s,mb3.1,baz=139,slow=11,SNR=4.0						
TORD	**Torodi Ar. Bea**	36.89	267	P	P	12 09 13.1	-4.2
	1.9nm,1.0s,mb3.9,baz=68,slow=6.9,SNR=8.1						
MKAR	**Makanchi Array**	44.39	42	P	P	12 10 20.4	+1.6
	0.5nm,0.6s,mb3.4,baz=246,slow=5.6,SNR=7.1						
ZALV	**Zalesovo Beam**	48.95	34	P	P	12 10 55.3	+0.8
	0.7nm,0.6s,mb3.9,baz=246,slow=11,SNR=3.8						
SONM	**Songino Array**	60.51	45	P	P	12 12 19.9	+1.4
	0.4nm,0.8s,mb3.6,baz=265,slow=6.1,SNR=4.8						

NEIC ***21*** *12:04:36.9, 33.31S×72.94W, h26^{km}, MD3.9(GUC), After GUC.*
GUC 21 12:04:36.9±0.4,**33.31S**×**72.94W**,**h26**^{km}±2^{km},**MD3.9, 3C-2D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LNV	**Longovilo**	1.43	117	⇑*i*P	Pn	12 05 01.6	+0.4
LNV				*i* S	Sn	12 05 20.0	+0.9
TACH	**Talagante**	1.71	102	⇑*i*P	Pn	12 05 05.8	+0.9
CHNG	**Los Chungos**	1.87	41	*e*P	Pn	12 04 55.9	-11
CHNG				*i* S	Sn	12 05 19.8	-10
CHCH	**Chadas Angostu**	2.01	109	⇑*i*P	Pn	12 05 10.4	+1.3
CHCH				*i* S	Sn	12 05 36.2	+2.9
PCH	**Pirque**	2.05	99	⇓*i*P	Pn	12 05 11.2	+1.5
FCH	**Farellones**	2.22	91	*e*P	Pn	12 05 14.1	+2.2
FCH				*i* S	Sn	12 05 42.1	+3.6
CICH	**Cipreses**	2.33	116	⇓*i*P	Pn	12 05 15.0	+1.5

DDA ***21*** *12:04:55.5, 38.63N×39.41E, h28^{km}±2^{km}, Md2.6*
CSEM ***21*** *12:04:57.7±0.2, 38.41N×39.30E, h3^{km}±1^{km}, MD2.6, Error ellipse: s-maj=3.2km s-min=2.5km az=116.0*
ISK ***21*** *12:04:57.6, 38.42N×39.27E, h5^{km}, MD2.8*
ISCJB ***21*** *12:04:58.1±0.6, 38.38N±0.03×39.35E±0.04, h3^{km}, Error ellipse: s-maj=5.1km s-min=3.7km az=28.4*
ISC 21 12:04:58.7±0.6,**38.39N**±0.04×**39.36E**±0.04,**h5**^{km}±9^{km},**n12,** σ**1**^{s}**07**/24,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.31	290	*i* P	Pg	12 05 03.9	-0.8
ELZG				*i* S	Sg	12 05 09.5	+0.7
PTK	**Pertek**	0.50	3	PG	Pg	12 05 08.2	-0.1
PTK				SG	Sg	12 05 16.2	+1.4
PTK	**Pertek**	0.50	3	*e*Pg	Pg	12 05 08.2	-0.1
PTK				*e*Sg	Sg	12 05 16.2	+1.4
MALT	**Malatya**	0.74	264	PG	Pg	12 05 11.0	-1.8
MALT				SG	Sg	12 05 21.8	-0.5
MALT	**Malatya**	0.74	264	*e*Pg	Pg	12 05 11.0	-1.8
MALT				*e*Sg	Sg	12 05 21.8	-0.5
MYA	**Malataya**	0.74	265	PG	Pg	12 05 11.9	-0.9
MYA				SG	Sg	12 05 22.8	+0.4
MYA	**Malataya**	0.74	265	*e*Pg	Pg	12 05 11.9	-0.9
MYA				*e*Sg	Sg	12 05 22.8	+0.4
DIYA	**Diyarbakir**	0.76	128	*i* P	Pg	12 05 14.5	+1.2
DIYA				*i* S	Sg	12 05 22.0	-1.2
URFA	**Urfa**	1.04	204	*e*PG	Pg	12 05 19.0	+0.4
URFA				*e*SG	Sg	12 05 33.8	+1.7
URFA	**Urfa**	1.04	204	*e*Pg	Pg	12 05 19.0	+0.4
URFA				*e*Sg	Sg	12 05 33.8	+1.7
MARD	**Mardin**	1.56	133	*i* P	Pn	12 05 25.3	-1.7
MARD				*i* S	Sn	12 05 48.2	+0.7
GZT	**Gaziantep**	1.76	234	*i* P	Pn	12 05 29.6	-0.1
GZT				*i* S	Sn	12 05 56.5	+4.1

CSEM ***21*** *12:08:01.9±0.2, 38.45N×39.28E, h8^{km}, MD2.9, Error ellipse: s-maj=5.5km s-min=2.8km az=121.0*
DDA ***21*** *12:08:01.6, 38.22N×39.22E, h6^{km}±4^{km}, Md2.7*
ISK ***21*** *12:08:02.1, 38.43N×39.28E, h8^{km}, MD2.9*
ISCJB ***21*** *12:08:03.1±0.7, 38.44N±0.06×39.27E±0.06, h23^{km}±9^{km}, Error ellipse: s-maj=10.3km s-min=6.9km az=148.5*
ISC 21 12:08:02.9±0.8,**38.41N**±0.05×**39.29E**±0.06,**h16**^{km}±7^{km},**n13,** σ**0**^{s}**80**/20,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.25	290	*i* P	Pg	12 08 08.0	-0.5
ELZG				*i* S	Sg	12 08 13.8	+1.6
ELZG	**Elazig**	0.25	290	*i* P	Pg	12 08 07.9	-0.5
PTK	**Pertek**	0.49	10	PG	Pg	12 08 11.3	-1.3
PTK				SG	Sg	12 08 19.2	0.0
PTK	**Pertek**	0.49	10	*e*Pg	Pg	12 08 11.3	-1.3
PTK				*e*Sg	Sg	12 08 19.2	0.0
MALT	**Malatya**	0.68	262	PG	Pg	12 08 15.7	-0.6
MALT	**Malatya**	0.68	262	*e*Pg	Pg	12 08 15.7	-0.6
MYA	**Malataya**	0.68	263	PG	Pg	12 08 15.5	-0.8
MYA				SG	Sg	12 08 25.7	+0.4
MYA	**Malataya**	0.68	263	*e*Pg	Pg	12 08 15.5	-0.8
MYA				*e*Sg	Sg	12 08 25.7	+0.4
URFA	**Urfa**	1.04	201	*e*PG	Pg	12 08 23.1	+0.1
URFA	**Urfa**	1.04	201	*e*Pg	Pg	12 08 23.1	+0.1
MARD	**Mardin**	1.61	132	*i* P	Pn	12 08 31.2	+0.5
MARD				*i* S	Sn	12 08 51.7	+0.5
GZT	**Gaziantep**	1.72	233	*i* P	Pn	12 08 32.2	-0.1
GZT				*i* S	Sn	12 08 52.9	-1.0
SVSK	**Karacayir**	2.33	311	*e*PN	Pn	12 08 41.7	+1.1

MAN 21 12:11:57,8.55N×122.41E,h33^{km}**,mb4.0,ML2.8,MS2.5, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SNPH	**Sibulan**	1.14	46	*e*P	Pn	12 12 16.3	-0.3
GUIM	**Jordan**	2.07	5	*e*P	Pn	12 12 30.9	+1.4
GUIM				*e*S	Sn	12 12 56.1	+1.9
CUYO	**Cuyo Island**	2.67	329	*e*P	Pn	12 12 39.1	+1.4

DDA ***21*** *12:13:31.4, 38.61N×39.37E, h23^{km}±1^{km}, Md2.4*
CSEM ***21*** *12:13:33.4±0.2, 38.36N×39.26E, h2^{km}, MD2.6, Error ellipse: s-maj=5.7km s-min=3.2km az=115.0*
ISK ***21*** *12:13:33.5, 38.38N×39.22E, h5^{km}, MD2.6*
ISCJB ***21*** *12:13:34.8±0.8, 38.37N±0.04×39.23E±0.07, h14^{km}±16^{km}, Error ellipse: s-maj=9.8km s-min=6.0km az=32.1*
ISC 21 12:13:35.4±0.7,**38.42N**±0.05×**39.19E**±0.07,**h20**^{km}±11^{km}, **n11,** σ**1**^{s}**21**/22,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.18	296	*i* P	Pb	12 13 39.6	-0.7
ELZG				*i* S	Sb	12 13 43.5	-0.1
PTK	**Pertek**	0.50	18	PG	Pb	12 13 44.8	-0.6
PTK				SG	Sb	12 13 53.8	+1.5
PTK	**Pertek**	0.50	18	*e*Pg	Pb	12 13 44.8	-0.6
PTK				*e*Sg	Sb	12 13 53.8	+1.5
MYA	**Malataya**	0.61	261	PG	Pb	12 13 47.2	-0.1
MYA				SG	Sb	12 13 56.7	+1.2
MYA	**Malataya**	0.61	261	*e*Pg	Pb	12 13 47.2	-0.1
MYA				*e*Sg	Sb	12 13 56.7	+1.2
MALT	**Malatya**	0.61	260	PG	Pb	12 13 46.2	-1.1
MALT				SG	Sb	12 13 56.8	+1.3
MALT	**Malatya**	0.61	260	*e*Pg	Pb	12 13 46.2	-1.1
MALT				*e*Sg	Sb	12 13 56.8	+1.3
URFA	**Urfa**	1.02	197	PG	Pb	12 13 53.0	-1.3
URFA				SG	Sb	12 14 08.8	+1.5
URFA	**Urfa**	1.02	197	*e*Pg	Pb	12 13 53.0	-1.3
URFA				*e*Sg	Sb	12 14 08.8	+1.5
GZT	**Gaziantep**	1.67	231	*i* P	Pn	12 14 01.3	-2.1
GZT				*i* S	Sn	12 14 31.2	+7.0
MARD	**Mardin**	1.67	131	*i* P	Pn	12 14 02.4	-1.0
MARD				*i* S	Sn	12 14 25.8	+1.5

ISCJB ***21*** *12:20:52.4±0.6, 45.26S±0.06×167.41E±0.08, h133^{km}±5^{km}, mb3.6/3, Error ellipse: s-maj=10.9km s-min=7.8km az=139.9*
IDC ***21*** *12:20:53.5±6.6, 45.11S×167.34E, h118^{km}±66^{km}, mb3.4/3, mb1 3.7/5, mb1mx3.5/12, mbtmp3.5/5, MS3.4/1, Ms1 3.4/1, ms1mx3.2/15, Error ellipse: s-maj=80.9km s-min=26.8km az=23.0*
WEL ***21*** *12:20:54.2±0.3, 45.32S×167.25E, h119^{km}±2^{km}, ML4.7/18, Error ellipse: s-maj=3.3km s-min=1.5km az=90.0*
NEIC ***21*** *12:20:54.2, 45.32S×167.24E, h118^{km}, MG4.8(WEL), After WEL.*
ISC 21 12:20:53.3±0.6,**45.27S**±0.06×**167.40E**±0.08,**h127**^{km}±5^{km}, **n56,** σ**0**^{s}**82**/63,**mb3.8**/3,**8C-3D, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DCZ	**Deep Cove**	0.27	219	P	Pn	12 21 10.3	-0.6
DCZ				S	Sn	12 21 22.0	-2.3
DCZ	**Deep Cove**	0.27	219	⇑PN	Pn	12 21 10.3	-0.7
DCZ				SN	Sn	12 21 22.0	-2.2
MLZ	**Mavora Lakes**	0.55	99	P	Pn	12 21 12.8	+0.5
MLZ	**Mavora Lakes**	0.55	99	⇑PN	Pn	12 21 12.8	+0.5
MLZ				SN	Sn	12 21 26.8	+0.2
MSZ	**Milford Sound**	0.70	33	P	Pn	12 21 14.3	+0.9
MSZ	**Milford Sound**	0.70	33	⇑PN	Pn	12 21 14.3	+0.9
MSZ				SN	Sn	12 21 28.8	+0.3
WHZ	**Wether Hill Ro**	0.74	149	P	Pn	12 21 13.8	+0.2
WHZ				S	Sn	12 21 28.5	-0.5
WHZ	**Wether Hill Ro**	0.74	149	⇑PN	Pn	12 21 13.8	+0.2
WHZ				SN	Sn	12 21 28.3	-0.8
WKZ	**Wanaka**	1.23	70	P	Pn	12 21 19.8	+1.6
WKZ	**Wanaka**	1.23	70	⇑PN	Pn	12 21 19.8	+1.6
EAZ	**Earnscleugh**	1.35	89	P	Pn	12 21 20.7	+1.2
EAZ	**Earnscleugh**	1.35	89	⇑PN	Pn	12 21 20.7	+1.2
JCZ	**Jackson Bay**	1.54	40	P	Pn	12 21 23.0	+1.4
JCZ	**Jackson Bay**	1.54	40	⇑PN	Pn	12 21 23.0	+1.4
APZ	**The Paps**	1.62	165	⇓PN	Pb	12 21 22.4	-0.1
TUZ	**Tuapeka**	1.71	115	P	Pn	12 21 24.6	+1.0
TUZ	**Tuapeka**	1.71	115	⇓PN	Pn	12 21 24.6	+1.0
TUZ				SN	Sn	12 21 45.4	-1.3
SYZ	**Scrubby Hill**	1.76	137	⇓PN	Pn	12 21 24.8	+0.6
LBZ	**Lake Benmore**	2.17	67	P	Pn	12 21 29.4	+0.2
LBZ	**Lake Benmore**	2.17	67	⇑PN	Pn	12 21 29.4	+0.3
ODZ	**Otahua Downs**	2.31	86	P	Pn	12 21 31.4	+0.5
ODZ	**Otahua Downs**	2.31	86	PN	Pn	12 21 31.4	+0.5
HHSZ	**Highcliff Hill**	2.33	107	PN	Pn	12 21 32.1	+0.9
FOZ	**Fox Glacier**	2.36	45	P	Pn	12 21 32.8	+1.2
FOZ	**Fox Glacier**	2.36	45	PN	Pn	12 21 32.8	+1.2
RPZ	**Rata Peaks**	3.04	61	P	Pn	12 21 40.2	-0.1
RPZ	**Rata Peaks**	3.04	61	P	Pn	12 21 40.2	-0.1
	20nm,0.3s,baz=224,slow=5.2,SNR=166						
RPZ				S	Sn	12 22 15.9	-0.7
	58nm,0.3s,baz=99,slow=20,SNR=57						
RPZ				LR	LR	12 22 47.0	
	comp=Z,726nm,21.8s,baz=169,slow=38						
RPZ	**Rata Peaks**	3.04	61	PN	Pn	12 21 40.2	-0.2
WVZ	**Waitaha Valley**	3.25	49	*e*P	Pn	12 21 42.7	-0.4
WVZ	**Waitaha Valley**	3.25	49	PN	Pn	12 21 42.7	-0.4
MQZ	**McQueen's Vall**	4.07	69	*e*P	Pn	12 21 53.7	-0.2
MQZ	**McQueen's Vall**	4.07	69	PN	Pn	12 21 53.7	-0.2
CRLZ	**Canterbury Las**	4.11	68	*e*P	Pn	12 21 54.6	+0.2
CRLZ	**Canterbury Las**	4.11	68	PN	Pn	12 21 54.6	+0.3
LTZ	**Lake Taylor**	4.30	56	P	Pn	12 21 56.3	-0.7
LTZ	**Lake Taylor**	4.30	56	PN	Pn	12 21 56.3	-0.6
DSZ	**Denniston Nort**	4.76	44	P	Pn	12 22 02.6	-0.5
DSZ	**Denniston Nort**	4.76	44	PN	Pn	12 22 02.6	-0.5
KHZ	**Kahutara**	5.28	60	*e*P	Pn	12 22 10.5	+0.5
KHZ	**Kahutara**	5.28	60	*e*PN	Pn	12 22 10.5	+0.5
THZ	**Tophouse**	5.32	51	*e*P	Pn	12 22 09.7	-0.9
THZ	**Tophouse**	5.32	51	PN	Pn	12 22 09.7	-0.9
QRZ	**Quartz Range**	5.81	42	*e*P	Pn	12 22 17.0	-0.3
QRZ	**Quartz Range**	5.81	42	*e*PN	Pn	12 22 16.8	-0.5
CAW	**Cannon Point**	6.98	56	P	Pn	12 22 32.5	-0.4
CAW	**Cannon Point**	6.98	56	PN	Pn	12 22 32.5	-0.5
MRZ	**Mangatainoka R**	7.56	55	*e*P	Pn	12 22 40.3	-0.5
MRZ	**Mangatainoka R**	7.56	55	*e*PN	Pn	12 22 38.5	-2.3
BFZ	**Birch Farm**	7.94	58	*e*P	Pn	12 22 45.0	-1.0
BFZ	**Birch Farm**	7.94	58	PN	Pn	12 22 45.0	-1.0
URZ	**Urewera**	10.08	49	P	Pn	12 23 14.0	-0.6
	0.4nm,0.3s,baz=320,slow=17,SNR=3.9						
URZ				S	Sn	12 24 57.0	-8.8
	0.8nm,0.3s,baz=100,slow=18,SNR=8.7						
ASAR	**Alice Springs**	34.65	297	P	P	12 27 30.9	+0.3
	0.7nm,0.5s,mb3.7,baz=137,slow=7.9,SNR=25						
WRA	**Warramunga Arr**	37.17	302	P	P	12 27 52.1	+0.1
	0.6nm,0.4s,mb3.8,baz=136,slow=8.0,SNR=23						
FITZ	**Fitzroy Crossi**	43.97	294	P	P	12 28 47.5	-0.4
	1.1nm,0.7s,mb3.7,baz=128,slow=11,SNR=6.5						
TORD	**Torodi Ar. Bea**	145.75	205	PKPbc	PKPbc	12 40 18.3	+0.6
	1.4nm,0.5s,baz=132,slow=2.2,SNR=9.2						
BRTR	**Keskin Array B**	145.83	277	PKPbc	PKPbc	12 40 18.1	+0.9
	1.0nm,0.8s,baz=116,slow=4.3,SNR=4.1						

ISCJB ***21*** *12:21:23.5±0.8, 38.38N±0.04×39.29E±0.06, h6^{km}±13^{km}, Error ellipse: s-maj=8.8km s-min=5.5km az=33.3*
CSEM ***21*** *12:21:23.1±0.2, 38.41N×39.24E, h5^{km}, MD2.7, Error ellipse: s-maj=6.1km s-min=3.4km az=119.0*
ISK ***21*** *12:21:23.0, 38.40N×39.27E, h4^{km}, MD2.7*
DDA ***21*** *12:21:26.1, 38.34N×38.92E, h7^{km}±7^{km}, Md2.3*
ISC 21 12:21:24.1±0.8,**38.40N**±0.04×**39.28E**±0.07,**h10**^{km}±11^{km}, **n11,** σ**0**^{s}**71**/22,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.25	292	*i* P	Pg	12 21 28.6	-0.7
ELZG				*i* S	Sg	12 21 33.5	+0.7
PTK	**Pertek**	0.49	10	PG	Pg	12 21 33.7	-0.1
PTK				SG	Sg	12 21 41.0	+0.7
PTK	**Pertek**	0.49	10	*e*Pg	Pg	12 21 33.7	-0.1
PTK				*e*Sg	Sg	12 21 41.0	+0.7
MALT	**Malatya**	0.68	263	PG	Pg	12 21 35.7	-1.5
MALT				SG	Sg	12 21 46.4	+0.3
MALT	**Malatya**	0.68	263	*e*Pg	Pg	12 21 35.7	-1.5
MALT				*e*Sg	Sg	12 21 46.4	+0.3
MYA	**Malataya**	0.68	264	PG	Pg	12 21 36.1	-1.1
MYA				SG	Sg	12 21 46.9	+0.8
MYA	**Malataya**	0.68	264	*e*Pg	Pg	12 21 36.1	-1.1
MYA				*e*Sg	Sg	12 21 46.9	+0.8
URFA	**Urfa**	1.03	201	PG	Pg	12 21 43.8	-0.1
URFA				SG	Sg	12 21 57.4	+0.2
URFA	**Urfa**	1.03	201	*e*Pg	Pg	12 21 43.8	-0.1
URFA				*e*Sg	Sg	12 21 57.4	+0.2
MARD	**Mardin**	1.61	132	*e*P	Pn	12 21 52.1	-0.4
MARD				*i* S	Sn	12 22 14.0	+0.7
GZT	**Gaziantep**	1.72	233	*i* P	Pn	12 21 53.8	-0.2
GZT				*i* S	Sg	12 22 20.1	+0.8

IDC 21 12:22:43.0±2.1,**0.96S**×**127.48E,h0**^{km}**,mb3.0**/3,**mb1 3.3**/3, **mb1mx3.1**/16,**mbtmp3.1**/3,**Error ellipse: s-maj=162.8km s-min=26.9km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	20.03	161	P	P	12 27 17.5	-0.1
	0.4nm,1.0s,baz=340,slow=12,SNR=5.9						
ASAR	**Alice Springs**	23.42	165	P	P	12 27 54.0	+0.1
	0.2nm,0.4s,baz=348,slow=12,SNR=4.2						
MKAR	**Makanchi Array**	61.83	326	P	P	12 33 03.9	0.0
	0.4nm,0.5s,baz=109,slow=8.9,SNR=5.9						

CSEM ***21*** *12:24:03.5, 31.13N×57.03E, h12^{km}, ML3.8, After TEH*
TEH ***21*** *12:24:03.5, 31.13N×57.03E, h12^{km}, ML3.8*
ISCJB ***21*** *12:24:32.7±1.0, 31.12N±0.10×56.97E±0.05, h12^{km}, Error ellipse: s-maj=14.4km s-min=5.8km az=173.9*
ISC 21 12:24:34.6±2.1,**31.2N**±0.1×**56.99E**±0.05,**h17**^{km}±11^{km},**n17,** σ**0**^{s}**59**/19,**Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IBAF	**Bafgh**	1.29	290	*e*Sg	Sg	12 25 16.1	-0.4
IBAF				*e*		12 25 19.9	
	comp=Z,16μm,0.1s						
IBAF	**Bafgh**	1.29	290	*e*Sg	Sg	12 25 16.1	-0.4
IMEH	**Mehriz**	2.05	277	*e*Pn	Pn	12 25 08.9	+0.6
IMEH				*e*		12 25 40.1	
	comp=Z,14μm,0.2s						
IMEH	**Mehriz**	2.05	277	*e*Pn	Pn	12 25 08.9	+0.6
IKOO		2.13	53	*e*Pn	Pn	12 25 09.0	-0.5
ICHK	**Chekchek**	2.46	297	*e*Pn	Pn	12 25 14.9	+1.0
ICHK				*e*		12 25 19.6	
	comp=Z,6μm,0.2s						
ICHK	**Chekchek**	2.46	297	*e*Pn	Pn	12 25 14.9	+1.0
IDAH		2.92	56	*e*Pn	Pn	12 25 20.1	-0.1
ISAD	**Sadrabad**	2.92	286	*e*Sn	Sn	12 25 55.6	+0.6
ISAD	**Sadrabad**	2.92	286	*e*Sn	Sn	12 25 55.6	+0.6
IMON		3.05	47	*e*Pn	Pn	12 25 22.0	-0.1
ISRV	**Sarvestan**	3.79	243	*e*Sn	Sn	12 26 15.8	-0.6
ISRV	**Sarvestan**	3.79	243	*e*Sn	Sn	12 26 15.8	-0.6
IZEF	**Zefreh**	4.33	295	*e*Pn	Pn	12 25 40.2	+0.6
IZEF				*e*Sn	Sn	12 26 28.6	-1.0
IZEF	**Zefreh**	4.33	295	*e*Pn	Pn	12 25 40.2	+0.6
IZEF				*e*Sn	Sn	12 26 28.6	-1.0
ISFB	**Sefidab**	5.12	310	*e*Pn	Pn	12 25 50.6	0.0
ISFB	**Sefidab**	5.12	310	*e*Pn	Pn	12 25 50.6	0.0

JMA ***21*** *12:33:43.3±0.3, 47.56N×142.52E, h13^{km}, M3.6*
IDC ***21*** *12:33:43.7±2.4, 47.42N×141.67E, h0^{km}, mb3.3/3, mb1 3.6/4, mb1mx3.3/22, mbtmp3.3/4, ML3.4/1, Error ellipse: s-maj=119.4km s-min=28.1km az=104.0*
SKHL ***21*** *12:33:45.1±1.1, 47.44N×142.19E, h10^{km}, mb4.0/3*
SKHL Felt (III) at Ozhidaevo,Chekhov, (I-II) at Bykov.
ISCJB ***21*** *12:33:45.3±0.6, 47.44N±0.03×142.33E±0.09, h14^{km}±6^{km}, mb3.2/3, Error ellipse: s-maj=11.0km s-min=3.9km az=165.1*
NEIC ***21*** *12:33:45.8±1.3, 47.31N×142.07E, h10^{km}, Error ellipse: s-maj=32.1km s-min=17.6km az=55.0*
NEIC Felt [III] at Chekhov and Ozhidayevo and [II] at Bykov.
MOS ***21*** *12:33:46.5±2.7, 47.14N×143.37E, h11^{km}, mb3.8/1, Error ellipse: s-maj=70.1km s-min=29.8km az=63.8*
MOS Felt (III) at Ozhidaevo, Chekhov; (II) at Bikov.
ISC 21 12:33:47.0±0.6,**47.46N**±0.03×**142.5E**±0.1,**h17**^{km}±5^{km},**n25,** σ**0**^{s}**93**/34,**mb3.2**/3,**3C, Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YSS	**Yuzh-Sakhalins**	0.52	164	*i* Pncu	Pg	12 33 57.1	-0.3
YSS				*e*		12 34 04.0	
YSS	**Yuzh-Sakhalins**	0.52	164	α*i*PN	Pg	12 33 57.1	-0.3

YSS				*e*		12 34 04.0	
YSS				pmax	pmax		
	comp=N,380nm,0.3s						
YSS				pmax	pmax		
	comp=E,430nm,0.3s						
YSS				pmax	pmax		
	comp=Z,500nm,0.3s						
YSS				smax			
	comp=N,1µm,0.3s						
YSS				smax			
	comp=E,1µm,0.4s						
YSS	**Yuzh-Sakhalins**	**0.52**	**164**	⇑*i*Pg	**Pg**	**12 33 57.5**	**+0.1**
YSS				AMB	AMB	12 33 58.0	
	comp=E,500nm,0.3s						
YSS				AMB	AMB	12 33 58.0	
	comp=E,380nm,0.3s						
YSS				AMB	AMB	12 33 58.0	
	comp=E,430nm,0.3s						
YSS				*e*Sg	**Sg**	**12 34 05.0**	**+0.6**
YSS				A		12 34 08.0	
	comp=E,1µm,0.4s						
YSS				A		12 34 08.0	
	comp=E,1µm,0.4s						
YSS				AMS	AMS	12 34 17.0	
	comp=E,900nm,7.0s						
YSS				AMS	AMS	12 34 17.0	
	comp=E,1µm,7.0s						
UGL	**Uglegorsk**	**1.65**	**349**	*e*Pb	**Pb**	**12 34 15.0**	**-2.0**
UGL				AMB	AMB	12 34 17.0	
	comp=E,102nm,0.8s						
UGL				*e*Pg	**Pg**	**12 34 18.3**	**-0.5**
UGL				AMB	AMB	12 34 19.1	
	comp=E,61nm,0.4s						
UGL				*e*Sg	**Sg**	**12 34 40.0**	**-0.3**
UGL				A		12 34 40.5	
	comp=E,92nm,0.3s						
UGL				A		12 34 40.5	
	comp=E,110nm,0.3s						
JWK2	**Keihoku**	**2.19**	**192**	P	**Pn**	**12 34 21.4**	**-1.1**
JWK2				*e*S	**Sn**	**12 34 50.0**	**+0.8**
JRR	**Rishiri**	**2.47**	**201**	P	**Pn**	**12 34 25.3**	**-1.1**
JSE	**Soyaes**	**2.50**	**179**	P	**Pn**	**12 34 26.1**	**-0.7**
JSE				*e*S	**Sn**	**12 34 57.3**	**+0.4**
ASAJ	**Asahikawa**	**3.34**	**179**	PN	**Pn**	**12 34 37.6**	**-0.8**
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ	**Asahikawa**	**3.34**	**179**	Pn	**Pn**	**12 34 37.6**	**-0.8**
	comp=Z,2.8nm,0.3s,baz=6.3,slow=11,SNR=26						
ASAJ				Sn	**Sn**	**12 35 26.2**	**+8.6**
	comp=Z,1.9nm,0.3s,baz=1.5,slow=30,SNR=4.0						
TYV	**Tymovskoe**	**3.41**	**1**	*e*Pb	**Pb**	**12 34 46.4**	**-0.5**
TYV				*e*Pg	**Pg**	**12 34 53.0**	**+0.7**
TYV				AMB	AMB	12 34 54.0	
	comp=Z,6.0nm,0.7s						
TYV				AMB	AMB	12 34 54.0	
	comp=Z,10.0nm,0.7s						
TYV				*e*Sg	**Sg**	**12 35 41.5**	**+5.0**
TYV				A		12 35 43.0	
	comp=Z,23nm,0.4s						
TYV				A		12 35 43.0	
	comp=Z,19nm,0.4s						
JKK2	**Kamakawa 2**	**3.59**	**178**	P	**Pn**	**12 34 41.7**	**-0.1**
JTKR	**Abashiri--Toko**	**3.62**	**164**	P	**Pn**	**12 34 41.1**	**-1.1**
JTKR				*e*S	**Sn**	**12 35 24.1**	**-0.3**
JHR	**Hokuryu**	**3.76**	**189**	P	**Pn**	**12 34 44.7**	**+0.6**
JRA	**Rausu**	**3.96**	**152**	P	**Pn**	**12 34 47.2**	**+0.3**
JAR	**Ashorobuto**	**4.25**	**168**	P	**Pn**	**12 34 51.4**	**+0.5**
JFR	**Furan**	**4.29**	**179**	P	**Pn**	**12 34 51.6**	**+0.1**
NEM2	**Nemuro 2**	**4.67**	**150**	P	**Pn**	**12 34 57.7**	**+1.0**
GRNR	**Gornyy**	**5.21**	**312**	*e*Sg	**Sg**	**12 36 35.5**	**+1.5**
NKL	**Nikolayevsk**	**5.82**	**349**	*e*Pg	**Pg**	**12 35 38.4**	**0.0**
EKMR	**Ekimchan**	**8.32**	**316**	*e*rx	**Sn**	**12 37 26.5**	**+6.3**
EKMR				*e*Sg		12 38 13.5	
EKMR				A		12 38 17.0	
	comp=Z,3.0nm,0.5s						
YKA	**Yellowknife Ar**	**54.52**	**34**	P	**P**	**12 43 14.7**	**+1.4**
YKA	**Yellowknife Ar**	**54.52**	**34**	P	**P**	**12 43 14.7**	**+1.4**
	comp=Z,0.1nm,0.5s,mb3.1,baz=305,slow=7.1,SNR=4.4						
ASAR	**Alice Springs**	**71.22**	**188**	P	**P**	**12 45 03.6**	**-1.2**
	comp=Z,0.1nm,0.5s,mb3.0,baz=6.5,slow=6.0,SNR=5.0						
TXAR	**Lajitas Array**	**83.17**	**54**	P	**P**	**12 46 15.0**	**+2.9**
TXAR	**Lajitas Array**	**83.17**	**54**	P	**P**	**12 46 15.0**	**+2.9**
	comp=Z,0.3nm,0.8s,mb3.4,baz=309,slow=5.7,SNR=3.6						

CSEM ***21*** *12:34:17.6±0.3, 38.41N×39.27E, h4^{km}±1^{km}, MD2.7, Error ellipse: s-maj=5.6km s-min=3.1km az=119.0*
ISK ***21*** *12:34:17.4, 38.40N×39.27E, h3^{km}, MD2.7*
ISCJB ***21*** *12:34:18.4±0.8, 38.39N±0.04×39.29E±0.05, h10^{km}, Error ellipse: s-maj=6.2km s-min=5.0km az=25.3*
ISC 21 12:34:19.0±0.8, 38.40N±0.04×39.29E±0.05, h10^{km}, n11, σ0^{s}.91/20, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	**Elazig**	**0.26**	**292**	*i* P	**Pg**	**12 34 23.3**	**-0.9**
ELZG				*i* S	**Sg**	**12 34 28.7**	**+0.9**
PTK	**Pertek**	**0.50**	**9**	PG	**Pg**	**12 34 27.8**	**-0.9**
PTK				SG	**Sg**	**12 34 36.0**	**+0.8**
PTK	**Pertek**	**0.50**	**9**	*e*Pg	**Pg**	**12 34 27.8**	**-0.9**
PTK				*e*Sg	**Sg**	**12 34 36.0**	**+0.8**
MALT	**Malatya**	**0.68**	**263**	PG	**Pg**	**12 34 30.7**	**-1.5**
MALT				SG	**Sg**	**12 34 41.1**	**0.0**
MALT	**Malatya**	**0.68**	**263**	*e*Pg	**Pg**	**12 34 30.7**	**-1.5**
MALT				*e*Sg	**Sg**	**12 34 41.1**	**0.0**
MYA	**Malataya**	**0.68**	**264**	PG	**Pg**	**12 34 31.5**	**-0.7**
MYA				SG	**Sg**	**12 34 41.4**	**+0.3**
MYA	**Malataya**	**0.68**	**264**	*e*Pg	**Pg**	**12 34 31.5**	**-0.7**
MYA				*e*Sg	**Sg**	**12 34 41.4**	**+0.3**
URFA	**Urfa**	**1.03**	**201**	*e*PG	**Pg**	**12 34 38.5**	**-0.2**
URFA				*e*SG	**Sg**	**12 34 52.3**	**+0.2**
URFA	**Urfa**	**1.03**	**201**	*e*Pg	**Pg**	**12 34 38.5**	**-0.2**
URFA				*e*Sg	**Sg**	**12 34 52.3**	**+0.2**
MARD	**Mardin**	**1.60**	**132**	*i* P	**Pn**	**12 34 47.4**	**0.0**
GZT	**Gaziantep**	**1.72**	**233**	*i* P	**Pn**	**12 34 51.2**	**+2.3**

ISCJB ***21*** *12:45:57.3±2.4, 2.7N±0.1×79.6W±0.2, h53^{km}±25^{km}, mb3.9/7, Error ellipse: s-maj=32.3km s-min=17.7km az=168.7*
NEIC ***21*** *12:45:58.4±2.4, 2.62N×79.57W, h48^{km}±26^{km}, Error ellipse: s-maj=30.5km s-min=15.0km az=79.0*
IDC ***21*** *12:46:05.3±6.7, 2.86N×79.10W, h113^{km}±65^{km}, mb3.2/6, mb1 3.5/7, mb1mx3.4/19, mbtmp3.3/7, Error ellipse: s-maj=74.2km s-min=18.3km az=64.0*
ISC 21 12:45:58.8±2.4, 2.6N±0.1×79.6W±0.2, h49^{km}±26^{km}, n13, σ1^{s}.05/11, mb3.9/7, South of Panama

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OTAV	**Otavalo**	**2.62**	**155**	*e*P	**Pn**	**12 46 38.1**	**-0.6**
ROSC	**El Rosal**	**5.67**	**67**	P	**Pn**	**12 47 21.1**	**+0.4**
	7.5nm,0.3s,baz=84,slow=10,SNR=8.0						
LPAZ	**La Paz**	**21.93**	**149**	P	**P**	**12 50 48.9**	**+0.6**
	1.1nm,0.5s,mb3.5,baz=333,slow=9.6,SNR=3.7						
SIV	**San Ignacio**	**26.01**	**136**	P	**P**	**12 51 27.4**	**0.0**
	1.0nm,0.7s,mb3.4,baz=297,slow=9.5,SNR=8.3						
TZTN	**Tazewell**	**33.95**	**354**	*e*P	**P**	**12 52 41.9**	**+4.3**
	108nm,1.5s,mb5.6						
PDAR	**Pinedale Array**	**48.10**	**330**	P	**P**	**12 54 34.5**	**+0.8**
	0.3nm,0.8s,mb3.4,baz=113,slow=6.9,SNR=2.9						
ULM	**Lac du Bonnet**	**49.43**	**346**	P	**P**	**12 54 41.6**	**-2.2**
	0.6nm,0.5s,mb3.9,baz=153,slow=4.5,SNR=3.2						
NVAR	**Mina Array Bea**	**50.20**	**320**	P	**P**	**12 54 51.3**	**+1.4**
NVAR	**Mina Array Bea**	**50.20**	**320**	P	**P**	**12 54 51.3**	**+1.4**
	0.4nm,0.6s,mb3.6,baz=127,slow=5.7,SNR=3.3						
YKA	**Yellowknife Ar**	**65.17**	**343**	P	**P**	**12 56 33.5**	**-1.0**
YKA	**Yellowknife Ar**	**65.17**	**343**	P	**P**	**12 56 33.5**	**-1.0**
	0.5nm,0.8s,mb3.6,baz=138,slow=5.8,SNR=13						
WRA	**Warramunga Arr**	**142.69**	**240**	PKP	PKPdf	13 05 21.2	-6.4
WRA	**Warramunga Arr**	**142.69**	**240**	PKhKP		13 05 21.2	
	0.5nm,0.8s,baz=103,slow=2.7,SNR=3.4						

IDC 21 12:48:01.6±2.1, 0.58S×127.83E, h0^{km}, mb3.3/3, mb1 3.6/3, mb1mx3.3/16, mbtmp3.4/3, Error ellipse: s-maj=162.8km s-min=25.1km az=67.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**20.27**	**162**	P	P	12 52 38.6	-0.3
	0.8nm,0.7s,baz=341,slow=12,SNR=8.1						
ASAR	**Alice Springs**	**23.69**	**166**	P	P	12 53 15.6	+0.2
	1.5nm,0.7s,baz=345,slow=11,SNR=22						
MKAR	**Makanchi Array**	**61.71**	**326**	P	P	12 58 21.8	0.0
	0.1nm,0.4s,baz=121,slow=5.6,SNR=1.7						

IDC 21 13:03:07.5±1.6, 3.89N×127.70E, h0^{km}, mb3.6/4, mb1 3.7/4, mb1mx3.5/18, mbtmp3.6/4, MS3.4/1, Ms1 3.4/1, ms1mx2.8/22, Error ellipse: s-maj=131.7km s-min=26.2km az=69.0, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**21.94**	**185**	LR	LR	13 17 08.4	
	comp=Z,90nm,20.0s,baz=113,slow=38						
WRA	**Warramunga Arr**	**24.56**	**165**	P	P	13 08 29.3	+0.2
	0.5nm,0.6s,baz=344,slow=10,SNR=6.3						
SONM	**Songino Array**	**47.46**	**341**	P	P	13 11 43.7	-0.3
	0.2nm,0.4s,baz=157,slow=10,SNR=5.6						
MKAR	**Makanchi Array**	**57.98**	**325**	P	P	13 13 02.8	+0.9
	1.3nm,0.5s,baz=115,slow=8.6,SNR=19						
ZALV	**Zalesovo Beam**	**60.89**	**333**	P	P	13 13 21.1	-0.7
	0.2nm,0.3s,baz=92,slow=4.3,SNR=2.8						

NEIC ***21*** *13:03:14.5, 17.00N×100.22W, h5^{km}, MD3.9(MEX), After MEX.*
MEX 21 13:03:15.2±0.9, 17.03N×100.27W, h8^{km}±7^{km}, MD3.9, Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	**El Cayaco**	**0.02**	**4**	*i* P	Pg	13 03 15.7	-1.0
CAIG				*i* S	Sg	13 03 16.7	-1.2
ACX	**Acapulco**	**0.37**	**115**	*i* P	Pg	13 03 20.0	-2.5
ACX				*i* S	Sg	13 03 25.0	-2.4
MEIG	**Mezcala**	**1.09**	**35**	*i* P	Pg	13 03 33.0	-3.1
MEIG				*i* S	Sg	13 03 46.3	-4.0
PLIG	**Platanillo**	**1.54**	**28**	*i* P	Pn	13 03 40.7	-2.3
PLIG				*i* S	Sn	13 03 58.5	-4.7
YAIG	**Yautepec**	**2.16**	**32**	*e*P	Pn	13 03 48.1	-3.3
YAIG				*i* S	Sn	13 04 13.3	-5.0
MOIG	**Morelia**	**2.78**	**342**	*e*P	Pn	13 03 56.7	-3.3
MOIG				*i* S	Sn	13 04 29.1	-4.6
PTVM	**Pico Tres Padr**	**2.78**	**23**	*i* P	Pn	13 03 54.9	-5.1
PTVM				*i* S	Sn	13 04 30.3	-3.4
IIO	**Organos**	**2.94**	**30**	*e*P	Pn	13 03 58.6	-3.6
IIO				*i* S	Sn	13 04 35.7	-2.1
TPIG	**Tehuac#an**	**3.10**	**63**	*i* S	Sn	13 04 37.5	-4.1
VHO	**Vista Hermosa**	**3.38**	**89**	*e*P	Pn	13 04 06.5	-1.7
VHO				*i* S	Sn	13 04 44.2	-4.4

ISCJB ***21*** *13:16:24.3±0.9, 23.47S±0.05×66.8W±0.1, h201^{km}±12^{km}, mb3.1/4, Error ellipse: s-maj=20.1km s-min=8.2km az=10.2*
IDC ***21*** *13:16:24.4±1.6, 23.45S×66.67W, h186^{km}±15^{km}, mb3.1/4, mb1 3.3/7, mb1mx3.2/17, mbtmp3.0/7, Error ellipse: s-maj=24.3km s-min=14.3km az=95.0*
NEIC ***21*** *13:16:25.6±1.0, 23.42S×66.57W, h198^{km}±10^{km}, Error ellipse: s-maj=21.4km s-min=11.5km az=98.0*
ISC 21 13:16:24.6±0.8, 23.47S±0.05×66.7W±0.1, h188^{km}±11^{km}, n10, σ1^{s}.11/11, mb3.2/4, Jujuy Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	**La Paz**	**7.26**	**349**	P	**Pn**	**13 18 09.6**	**+1.4**
	1.1nm,0.3s,baz=167,slow=9.1,SNR=22						
LPAZ				S	**Sn**	**13 19 28.8**	**-1.5**
	0.3nm,0.3s,baz=291,slow=22,SNR=5.1						
CFAA	**Coronel Fontan**	**8.21**	**189**	P	**Pn**	**13 18 22.6**	**+2.0**
	0.1nm,0.3s,baz=6.1,slow=9.8,SNR=4.3						
CFAA				S	**Sn**	**13 19 51.5**	**-1.3**
	0.3nm,0.3s,baz=194,slow=14,SNR=11						
SIV	**San Ignacio**	**9.15**	**37**	P	**Pn**	**13 18 32.4**	**-0.6**
	0.8nm,0.3s,baz=213,slow=11,SNR=19						
SIV				S	**Sn**	**13 20 15.9**	**+0.6**
	0.2nm,0.3s,baz=332,slow=23,SNR=2.4						
TXAR	**Lajitas Array**	**63.39**	**324**	P	**P**	**13 26 34.5**	**+0.5**
	0.1nm,0.4s,mb3.0,baz=158,slow=7.6,SNR=2.9						
TORD	**Torodi Ar. Bea**	**76.15**	**69**	P	**P**	**13 27 51.0**	**-1.2**
	0.5nm,0.4s,mb3.5,baz=257,slow=5.9,SNR=7.9						
PDAR	**Pinedale Array**	**76.81**	**329**	P	**P**	**13 27 55.9**	**+0.6**
	0.2nm,0.6s,mb2.9,baz=113,slow=6.0,SNR=2.2						
YKA	**Yellowknife Ar**	**93.71**	**340**	P	**P**	**13 29 18.9**	**-0.3**
YKA	**Yellowknife Ar**	**93.71**	**340**	P	**P**	**13 29 18.9**	**-0.3**
	0.2nm,0.6s,mb3.4,baz=132,slow=4.5,SNR=5.7						
MKAR	**Makanchi Array**	**145.96**	**39**	PKPbc	PKPbc	13 35 42.5	+0.6
MKAR	**Makanchi Array**	**145.96**	**39**	PKPbc	PKPbc	13 35 42.5	+0.6
	0.2nm,0.3s,baz=296,slow=4.0,SNR=3.3						

ISK ***21*** *13:24:10.6, 38.38N×39.25E, h3^{km}, MD3.4*
ISCJB ***21*** *13:24:11.1±0.7, 38.37N±0.03×39.30E±0.03, h0^{km}±7^{km}, Error ellipse: s-maj=5.9km s-min=4.3km az=157.7*
CSEM ***21*** *13:24:11.0±0.1, 38.39N×39.25E, h5^{km}, MD3.4, Error ellipse: s-maj=1.5km s-min=1.3km az=148.0*
DDA ***21*** *13:24:11.9, 38.33N×39.24E, h4^{km}, Md3.4*
ISC 21 13:24:11.9±0.6, 38.37N±0.03×39.28E±0.04, h4^{km}±6^{km}, n36, σ1^{s}.04/45, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	**Elazig**	**0.27**	**299**	*i* P	**Pg**	**13 24 16.8**	**-0.3**
ELZG				*i* S	**Sg**	**13 24 22.2**	**+1.7**
PTK	**Pertek**	**0.53**	**9**	*i* PG	**Pg**	**13 24 21.5**	**-0.6**
PTK				*i* SG	**Sg**	**13 24 29.6**	**+0.6**
PTK	**Pertek**	**0.53**	**9**	*i* Pg	**Pg**	**13 24 21.5**	**-0.6**
PTK				*i* Sg	**Sg**	**13 24 29.6**	**+0.6**
MALT	**Malatya**	**0.67**	**265**	PG	**Pg**	**13 24 23.2**	**-1.7**
MALT	**Malatya**	**0.67**	**265**	*e*Pg	**Pg**	**13 24 23.2**	**-1.7**
MYA	**Malataya**	**0.68**	**267**	PG	**Pg**	**13 24 24.1**	**-0.8**
MYA				SG	**Sg**	**13 24 33.5**	**-0.1**
MYA	**Malataya**	**0.68**	**267**	*e*Pg	**Pg**	**13 24 24.1**	**-0.8**
MYA				*e*Sg	**Sg**	**13 24 33.5**	**-0.1**
DIY	**Diyarbakir**	**0.88**	**122**	PG	**Pg**	**13 24 29.1**	**+0.3**
DIY	**Diyarbakir**	**0.88**	**122**	*e*Pg	**Pg**	**13 24 29.1**	**+0.3**
URFA	**Urfa**	**1.00**	**202**	PG	**Pg**	**13 24 30.9**	**-0.1**
URFA	**Urfa**	**1.00**	**202**	*e*Pg	**Pg**	**13 24 30.9**	**-0.1**
BINT	**Bingol**	**1.07**	**62**	PN	**Pn**	**13 24 31.8**	**-1.9**
BINT	**Bingol**	**1.07**	**62**	*e*Pn	**Pn**	**13 24 31.8**	**-1.9**
ATAB	**Bozova**	**1.19**	**221**	*i* P	**Pg**	**13 24 34.6**	**-0.2**
ATAB				*i* S	**Sg**	**13 24 51.5**	**+1.4**
EZC	**Erzincan**	**1.44**	**17**	PN	**Pn**	**13 24 37.6**	**-1.1**
BNGL	**BINGOL**	**1.57**	**68**	*i* P	**Pn**	**13 24 42.6**	**+2.0**
BNGL				*i* S	**Sn**	**13 25 05.5**	**+4.1**
MARD	**Mardin**	**1.59**	**131**	*i* P	**Pn**	**13 24 40.4**	**-0.4**
MARD				*i* S	**Sn**	**13 25 01.3**	**-0.3**
GZT	**Gaziantep**	**1.69**	**234**	*i* P	**Pn**	**13 24 41.5**	**-0.7**
GZT				*i* S	**Sn**	**13 25 07.4**	**+3.1**
BTMT	**Batman**	**1.75**	**95**	PN	**Pn**	**13 24 41.2**	**-1.7**
GAZ	**Gaziantep**	**2.03**	**235**	PN	**Pn**	**13 24 46.7**	**-0.1**
GAZ	**Gaziantep**	**2.03**	**235**	*e*Pn	**Pn**	**13 24 46.7**	**-0.1**
KMRS	**Kahramanmaras**	**2.07**	**246**	PN	**Pn**	**13 24 46.6**	**-0.8**
KMRS	**Kahramanmaras**	**2.07**	**246**	*e*Pn	**Pn**	**13 24 46.6**	**-0.8**
SVSK	**Karacayir**	**2.35**	**312**	PN	**Pn**	**13 24 51.2**	**-0.1**
SVSK	**Karacayir**	**2.35**	**312**	*e*Pn	**Pn**	**13 24 51.2**	**-0.1**
SIRT	**Sirnak**	**2.64**	**108**	*e*PN	**Pn**	**13 24 55.3**	**0.0**
SIRT	**Sirnak**	**2.64**	**108**	*e*Pn	**Pn**	**13 24 55.3**	**0.0**
BNN	**Bunyan**	**2.73**	**281**	*e*PN	**Pn**	**13 24 56.6**	**+0.1**
BNN	**Bunyan**	**2.73**	**281**	*e*Pn	**Pn**	**13 24 56.6**	**+0.1**
KOZT	**Kozan**	**2.87**	**253**	*e*PN	**Pn**	**13 24 58.5**	**+0.1**
AGRB	**Hanur-Agry**	**3.13**	**66**	*e*PN	**Pn**	**13 25 03.4**	**+1.4**
AGRB	**Hanur-Agry**	**3.13**	**66**	*e*Pn	**Pn**	**13 25 03.4**	**+1.4**
BCA	**Borcka**	**3.56**	**30**	*e*PN	**Pn**	**13 25 08.3**	**+0.4**
BCA	**Borcka**	**3.56**	**30**	*e*Pn	**Pn**	**13 25 08.3**	**+0.4**
CUKT	**Cukurca**	**3.60**	**107**	*e*PN	**Pn**	**13 25 10.2**	**+1.7**
CUKT	**Cukurca**	**3.60**	**107**	*e*Pn	**Pn**	**13 25 10.2**	**+1.7**

ISCJB ***21*** *13:26:06.2±1.0, 56.6S±0.2×27.3W±0.5, h200^{km}, mb4.5/3, Error ellipse: s-maj=46.0km s-min=20.2km az=149.3*
NEIC ***21*** *13:26:07.2±0.5, 56.56S×27.37W, h200^{km}, Error ellipse: s-maj=35.1km s-min=16.6km az=58.0*
IDC ***21*** *13:26:07.1±5.8, 56.46S×27.37W, h190^{km}±53^{km}, mb4.5/3, mb1 4.6/3, mb1mx3.9/13, mbtmp4.5/3, Error ellipse: s-maj=33.3km s-min=13.7km az=61.0*
ISC 21 13:26:02.9±5.5, 56.4S±0.2×27.3W±0.5, h143^{km}±51^{km}, n14, σ0^{s}.55/5, mb4.7/3, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNAA	**Sanae**	**18.43**	**156**	P	**P**	**13 30 06.8**	**-0.1**
	0.2nm,0.3s,baz=316,slow=14,SNR=17						
SNAA				S	**S**	**13 33 29.5**	**0.0**
	0.0nm,0.3s,baz=3.0,slow=10,SNR=3.4						
LPAZ	**La Paz**	**50.54**	**306**	P	**P**	**13 34 46.8**	**+0.3**
	10nm,0.4s,mb4.8,baz=94,slow=6.1,SNR=69						
PCRV	**Puerto La Cruz**	**73.20**	**321**	P	**P**	**13 37 17.4**	**-0.4**
	7.1nm,0.4s,mb4.7,baz=180,slow=7.1,SNR=5.0						
TORD	**Torodi Ar. Bea**	**73.40**	**30**	P	**P**	**13 37 19.1**	**+0.1**
	4.4nm,0.5s,mb4.4,baz=200,slow=6.3,SNR=40						
FINES	**FINESS Array B**	**124.73**	**28**	PKP	PKPdf	13 44 41.6	-2.2
FINES	**FINESS Array B**	**124.73**	**28**	PKP	PKPdf	13 44 41.6	-2.2
	1.1nm,0.5s,baz=170,slow=2.1,SNR=11						
KAF	**Kangasniemi**	**125.35**	**28**	*e*p	PKPdf	13 44 40.1	-4.9
JOF	**Joensuu**	**127.35**	**29**	*e*p	PKPdf	13 44 45.5	-3.3
	0.7nm,0.4s						
ARCES	**ARCESS Array B**	**131.30**	**22**	PKP	PKPdf	13 44 53.7	-2.5
ARCES	**ARCESS Array B**	**131.30**	**22**	PKP	PKPdf	13 44 53.7	-2.5
	0.8nm,0.5s,baz=208,slow=2.3,SNR=10.0						
YKA	**Yellowknife Ar**	**136.40**	**318**	PKP	PKPdf	13 45 03.4	-2.5
YKA	**Yellowknife Ar**	**136.40**	**318**	PKP	PKPdf	13 45 03.4	-2.5
	0.7nm,0.4s,baz=128,slow=2.2,SNR=19						
SONM	**Songino Array**	**150.81**	**87**	PKPbc	PKPbc	13 45 35.3	-1.8
SONM	**Songino Array**	**150.81**	**87**	PKPbc	PKPbc	13 45 35.3	-1.8
	1.4nm,0.4s,baz=215,slow=3.8,SNR=12						

IDC ***21*** *13:31:02.7±6.4, 36.32N×70.93E, h182^{km}±58^{km}, mb3.3/7, mb1 3.4/9, mb1mx3.2/23, mbtmp3.2/9, Error ellipse: s-maj=33.5km s-min=22.2km az=19.0*
BJI ***21*** *13:31:06.2, 36.59N×70.93E, h231^{km}, mb3.9*
ISCJB ***21*** *13:31:07.1±0.6, 36.69N±0.06×70.91E±0.10, h221^{km}±6^{km}, mb3.4/7, Error ellipse: s-maj=14.5km s-min=6.8km az=35.4*
NEIC ***21*** *13:31:07.7±1.2, 36.52N×71.01E, h224^{km}±13^{km}, mb3.9/1, Error ellipse: s-maj=21.7km s-min=16.3km az=128.0*
ISC 21 13:31:07.8±0.6, 36.62N±0.07×71.0E±0.1, h217^{km}±6^{km}, n26, σ1^{s}.15/29, mb3.4/7, 1C-4D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**2.63**	**219**	*e*P	**Pn**	**13 31 54.4**	**+0.3**
KBL				*e*S	**S**	**13 32 29.8**	**-0.6**
KSH	**Kashi**	**4.86**	**52**	⇓*i*P	**Pn**	**13 32 22.3**	**+1.5**
KSH				S	**S**	**13 33 17.9**	**-0.7**
KSH				Smax			
	comp=N,376nm,0.5s						
KSH				Smax			
	comp=E,454nm,0.5s						
AML	**Almayashu**	**5.88**	**20**	P	**Pn**	**13 32 34.2**	**+0.5**
	SNR=31						
UCH	**Uchtor**	**6.22**	**25**	P	**Pn**	**13 32 38.6**	**+0.6**
	SNR=19						
KZA	**Kyzart**	**6.36**	**30**	P	**Pn**	**13 32 40.0**	**+0.2**
	SNR=14						
EKS2	**Erkin-Say**	**6.40**	**19**	P	**S**	**13 33 51.5**	**-2.4**
	SNR=8.6						
KK31	**Karatay Array**	**6.49**	**357**	⇓P	**Pn**	**13 32 42.0**	**+0.6**
	comp=E,0.7nm,0.2s,baz=176,slow=12						
KK31				⇑S	**S**	**13 33 51.4**	**-4.7**
	comp=E,13nm,0.5s,baz=177,slow=22						
AAK	**Ala-Archa**	**6.58**	**23**	P	**Pn**	**13 32 43.5**	**+0.9**
	SNR=12						
KBK	**Karagaybulak**	**6.75**	**25**	P	**Pn**	**13 32 46.1**	**+1.3**
	SNR=7.7						
ULHL	**Ulahol**	**6.92**	**34**	P	**Pn**	**13 32 47.8**	**+0.8**
	SNR=8.9						
USP	**Ospenovka**	**7.16**	**21**	P	**Pn**	**13 32 47.3**	**-2.7**
	SNR=5.3						
TKM2	**Tokmak 2**	**7.21**	**28**	P	**Pn**	**13 32 51.5**	**+0.8**
	SNR=6.9						
TKM2	**Tokmak 2**	**7.21**	**28**	⇓P	**Pn**	**13 32 51.1**	**+0.4**
	comp=E,0.5nm,0.5s						
TKM2				⇓S	**S**	**13 34 10.6**	**-2.4**
	comp=E,2.6nm,1.0s						
MKAR	**Makanchi Array**	**13.19**	**36**	P	**Pn**	**13 34 06.3**	**-0.6**
	comp=E,0.4nm,0.3s,baz=223,slow=18,SNR=12						
AKTK	**Aktyubinsk**	**16.69**	**330**	P	**P**	**13 34 48.6**	**+0.6**
AKTO	**Aktyubinsk**	**16.69**	**330**	P	**P**	**13 34 48.6**	**+0.6**
	comp=E,0.5nm,0.3s,baz=144,slow=9.9,SNR=7.7						
ZALV	**Zalesovo Beam**	**19.80**	**25**	P	**P**	**13 35 22.0**	**+0.4**
	comp=E,1.5nm,0.4s,baz=217,slow=11,SNR=9.6						
FINES	**FINESS Array B**	**37.40**	**326**	P	**P**	**13 37 59.1**	**-0.4**
	comp=E,0.9nm,0.5s,mb3.6,baz=124,slow=10.0,SNR=6.2						
ARCES	**ARCESS Array B**	**41.05**	**338**	P	**P**	**13 38 29.9**	**+0.3**
	comp=E,2.0nm,0.7s,mb3.7,baz=92,slow=8.5,SNR=8.1						
NOA	**NORSAR Array B**	**44.30**	**323**	P	**P**	**13 38 55.0**	**-0.7**
	comp=E,1.9nm,1.0s,mb3.4,baz=104,slow=7.3,SNR=2.9						
TORD	**Torodi Ar. Bea**	**65.74**	**269**	P	**P**	**13 41 27.7**	**-2.0**
	comp=E,0.3nm,0.3s,mb3.4,baz=44,slow=5.9,SNR=4.9						
TNA	**Tin City**	**68.45**	**23**	*e*P	**P**	**13 41 48.2**	**+2.3**
	comp=E,1.1nm,0.5s,mb3.7						
YKA	**Yellowknife Ar**	**81.13**	**3**	P	**P**	**13 42 58.8**	**+0.2**
YKA	**Yellowknife Ar**	**81.13**	**3**	P	**P**	**13 42 58.8**	**+0.2**
	comp=E,0.3nm,0.5s,mb3.2,baz=350,slow=5.3,SNR=7.9						
WRA	**Warramunga Arr**	**82.03**	**122**	P	**P**	**13 43 02.3**	**-1.6**
	comp=E,0.3nm,0.7s,mb3.0,baz=323,slow=5.0,SNR=6.3						
PDAR	**Pinedale Array**	**100.99**	**0**	P	Pdif	13 44 33.1	+0.6
	comp=E,0.2nm,0.5s,baz=123,slow=5.5,SNR=4.1						

CSEM ***21*** *13:34:44.8±0.4, 30.27N×9.62W, h12^{km}, MD3.8, Error ellipse: s-maj=13.5km s-min=5.9km az=111.0*
CNRM 21 13:34:45.6, 30.27N×9.76W, h2^{km}, MD3.8, Morocco

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AOF	**Agadir Oufela**	**0.24**	**46**	*i* P	Pg	13 34 49.5	-0.8
AOF				*i* S	Sg	13 34 53.5	+0.1
AFS	**Agadir Fac de**	**0.27**	**56**	*i* P	Pg	13 34 50.5	-0.3
AFS				*i* S	Sg	13 34 55.0	+0.7
CIA	**Chichaoua**	**1.55**	**33**	*i* P	Pn	13 35 14.0	-0.2
CIA				*i* S	Sn	13 35 32.0	-2.9
OUK	**Oukaimeden**	**1.88**	**60**	*i* P	Pn	13 35 18.0	-0.7
OUK				*i* S	Sn	13 35 40.5	-2.5
TIO	**Tiouine**	**2.25**	**72**	P	Pn	13 35 27.0	+3.1
TIO				S	Sn	13 35 58.0	+5.8
TZC	**Tazercounte**	**3.37**	**55**	*e*P	Pn	13 35 37.0	-2.2
TZC				*e*S	Sn	13 36 16.0	-3.8
AVE	**Averroes**	**3.62**	**33**	P	Pn	13 35 49.0	+6.3
AVE				S	Sn	13 36 34.0	+8.0
KIB	**El Ksiba**	**3.92**	**53**	*e*P	Pn	13 35 45.5	-1.4
KIB				*e*S	Sn	13 36 30.0	-3.5
CZD	**Col de Zad**	**4.88**	**54**	*e*P	Pn	13 35 57.0	-2.9
CZD				*e*S	Sn	13 36 54.5	-2.4

NEIC ***21*** *13:45:11.9, 18.65N×68.73W, h173^{km}, MD3.6(RSPR), After RSPR.*
RSPR 21 13:45:11.9, 18.65N×68.73W, h173^{km}±2^{km}, MD3.6/5, MD3.6/5, 4C, Mona Passage

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGPR	**Aguadilla, PR**	**1.54**	**96**	*e*S	Sn	13 46 09.0	+0.9
LSP	**Las Mesas**	**1.63**	**106**	*e*S	Sn	13 46 10.4	+0.8
CRPR	**Cabo Rojo, PR**	**1.66**	**112**	⇑*e*P	Pn	13 45 45.1	+0.2
CRPR				*e*S	Sn	13 46 10.6	+0.3
GBPR	**Guanica, Bosqu**	**1.88**	**111**	*e*S	Sn	13 46 14.9	+0.6
AOPR	**Arecibo Observ**	**1.89**	**99**	⇑*e*P	Pn	13 45 47.7	+0.3
AOPR				*e*S	Sn	13 46 15.2	+0.6
CBYP	**Canovanas**	**2.75**	**97**	⇑*e*P	Pn	13 45 57.5	+0.3
CBYP				*e*S	Sn	13 46 32.9	+0.6
MTP	**Monte Pirata**	**3.06**	**100**	⇑*e*P	Pn	13 46 02.1	+1.0
MTP				*e*S	Sn	13 46 39.9	+0.8

IDC 21 13:45:17.1±2.1, 0.96S×127.82E, h0^{km}, mb3.5/2, mb1 3.7/3, mb1mx3.4/16, mbtmp3.5/3, ML3.3/1, Error ellipse: s-maj=156.1km s-min=26.4km az=67.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**19.91**	**162**	P	Pn	13 49 50.2	-1.8
	0.1nm,0.3s,baz=340,slow=12,SNR=10						
ASAR	**Alice Springs**	**23.33**	**166**	P	P	13 50 27.2	+0.2
	1.8nm,0.7s,baz=346,slow=11,SNR=27						
MKAR	**Makanchi Array**	**62.02**	**326**	P	P	13 55 39.3	0.0
	0.1nm,0.4s,baz=114,slow=7.9,SNR=4.8						

CSEM ***21*** *14:11:18.3±0.2, 34.40N×36.76E, h2^{km}, Mc1.0, Error ellipse: s-maj=5.0km s-min=3.5km az=88.0*
GRAL ***21*** *14:11:18.1±3.1, 34.50N×36.86E, h0^{km}±965^{km}, MD3.1*

*ISCJB **21** 14:11:20.6±0.5, 34.41N±0.03×36.67E±0.03, h10^{km}±7^{km}, Error ellipse: s-maj=5.3km s-min=4.3km az=6.2*
*NSSC **21** 14:11:20.0, 34.41N×36.64E, h8^{km}±1^{km}*
ISC 21 14:11:20.9±0.5, **34.41N**±0.03×**36.66E**±0.03, **h13**^{km}±6^{km}, **n19**, σ**1^{s}05**/36, **6D**, **Jordan - Syria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HAWK	Haweek	0.24	299	⇑P	Pg	14 11 24.6	-1.3
HAWK				⇑S	Sg	14 11 29.5	0.0
HAWK	Haweek	0.24	299	⇑iP	Pg	14 11 24.6	-1.4
HAWK				⇑iS	Sg	14 11 29.5	+0.1
FKH	Fakeheh	0.27	232	ePg	Pg	14 11 25.2	-1.3
FKH				eSg	Sg	14 11 30.4	+0.1
FKH	Fakeheh	0.27	232	ePg	Pg	14 11 25.2	-1.3
FKH				eSg	Sg	14 11 30.5	+0.2
MARH	Ras Al Marh	0.41	201	⇑P	Pg	14 11 28.4	-0.6
MARH				⇑S	Sg	14 11 34.3	-0.1
MARH	Ras Al Marh	0.41	201	⇑iP	Pg	14 11 28.4	-0.5
MARH				⇑iS	Sg	14 11 34.3	-0.1
RABH	Abou Rabah	0.45	86	⇑P	Pg	14 11 29.3	-0.5
RABH				⇑S	Sg	14 11 36.5	+0.6
RABH	Abou Rabah	0.45	86	⇑iS	Sg	14 11 36.5	+0.6
ROOS	tl_alroos	0.57	114	⇑P	Pg	14 11 31.2	-0.8
ROOS				⇓S	Sg	14 11 41.5	+1.9
ROOS	tl_alroos	0.57	114	⇑iP	Pg	14 11 31.2	-0.8
ROOS				⇓iS	Sg	14 11 41.5	+1.9
HWQ	Hawqa	0.60	258	ePg	Pg	14 11 33.1	+0.5
HWQ				eSg	Sg	14 11 43.1	+2.5
HWQ	Hawqa	0.60	258	ePg	Pg	14 11 33.1	+0.4
HWQ				eSg	Sg	14 11 43.1	+2.5
BIDA	Albida	0.67	335	⇓P	Pg	14 11 33.5	-0.4
BIDA				⇑S	Sg	14 11 43.3	+0.6
BIDA	Albida	0.67	335	⇓iP	Pg	14 11 33.5	-0.4
RCY	Rachaya	1.15	218	ePg	Pg	14 11 41.7	-1.4
RCY				eSg	Sg	14 12 01.2	+3.1
RCY	Rachaya	1.15	218	ePg	Pg	14 11 41.7	-1.4
RCY				eSg	Sg	14 12 01.2	+3.1
SLNF	Slenfeh	1.24	343	⇓P	Pn	14 11 42.9	-1.1
SLNF				⇑S	Sb	14 12 00.9	+0.8
SLNF	Slenfeh	1.24	343	⇓iP	Pn	14 11 42.9	-1.1
SLNF				⇑iS	Sb	14 12 00.9	+0.8
ARNB	Al Arnab	1.56	339	⇑P	Pn	14 11 48.0	-0.4
ARNB				⇑S	Sn	14 12 09.0	+0.5

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*CSEM **21** 14:13:53.0, 41.21N×24.21E, h10^{km}, MD3.3/3, After ATH*
ATH 21 14:13:53.0, 41.21N×24.21E, h10^{km}, **MD3.4**/3, **Greece-Bulgaria border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NVR	Nevrokopi	0.30	298	ePB	Pg	14 13 59.1	+0.1
NVR	Nevrokopi	0.30	298	ePb	Pg	14 13 59.1	+0.1
RDO	Rodhopi	1.00	93	ePB	Pb	14 14 12.0	-0.5
RDO	Rodhopi	1.00	93	ePb	Pb	14 14 12.0	-0.5
PLG	Polygyros	1.02	215	ePB	Pb	14 14 11.8	-0.9
PLG	Polygyros	1.02	215	ePb	Pb	14 14 11.8	-0.9

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*DDA **21** 14:20:44.8, 38.60N×39.43E, h8^{km}, Md3.0*
*CSEM **21** 14:20:45.2±0.2, 38.48N×39.24E, h30^{km}, MD3.0, Error ellipse: s-maj=4.8km s-min=2.4km az=127.0*
*ISCJB **21** 14:20:46.3±0.6, 38.42N±0.03×39.31E±0.04, h8^{km}, Error ellipse: s-maj=4.6km s-min=4.3km az=2.4*
*ISK **21** 14:20:46.0, 38.43N×39.25E, h6^{km}, MD2.9*
ISC 21 14:20:46.8±0.7, **38.42N**±0.04×**39.32E**±0.05, **h5**^{km}±10^{km}, **n19**, σ**0^{s}91**/38, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.28	285	iP	Pg	14 20 51.9	-0.3
ELZG				iS	Sg	14 20 57.6	+1.8
ELZG	Elazig	0.28	285	iP	Pg	14 20 51.9	-0.3
ELZG				iS	Sg	14 20 57.2	+1.4
ELZG	Elazig	0.28	285	iP	Pg	14 20 51.9	-0.3
ELZG				iS	Sg	14 20 57.2	+1.4
PTK	Pertek	0.47	6	iPG	Pg	14 20 55.4	-0.4
PTK				iSG	Sg	14 21 02.8	+0.8
PTK	Pertek	0.47	6	iPg	Pg	14 20 55.4	-0.4
PTK				iSg	Sg	14 21 02.8	+0.8
MALT	Malatya	0.71	261	iPG	Pg	14 20 59.2	-1.3
MALT				iSG	Sg	14 21 08.6	-1.1
MALT	Malatya	0.71	261	iPg	Pg	14 20 59.2	-1.3
MALT				iSg	Sg	14 21 08.6	-1.1
MYA	Malataya	0.71	262	PG	Pg	14 20 59.6	-0.9
MYA				SG	Sg	14 21 09.0	-0.7
MYA	Malataya	0.71	262	ePg	Pg	14 20 59.6	-0.9
MYA				eSg	Sg	14 21 09.0	-0.7
URFA	Urfa	1.06	202	PG	Pg	14 21 07.0	-0.1
URFA				SG	Sg	14 21 21.2	+0.4
URFA	Urfa	1.06	202	ePg	Pg	14 21 07.0	-0.1
URFA				eSg	Sg	14 21 21.2	+0.4
MARD	Mardin	1.60	133	iP	Pg	14 21 17.8	+0.4
MARD				iS	Sn	14 21 37.2	+0.5
MARD	Mardin	1.60	133	iP	Pn	14 21 14.8	-0.9
MARD				iS	Sn	14 21 35.9	-0.8
MARD	Mardin	1.60	133	iP	Pg	14 21 17.8	+0.4
MARD				iS	Sn	14 21 37.2	+0.5
MARD	Mardin	1.60	133	iP	Pn	14 21 14.8	-0.9
MARD				iS	Sn	14 21 35.9	-0.8
GZT	Gaziantep	1.75	233	iP	Pn	14 21 19.3	+1.5
GZT				iS	Sg	14 21 44.5	+1.4
GZT	Gaziantep	1.75	233	iP	Pb	14 21 19.4	0.0
GZT				iS	Sg	14 21 44.7	+1.6
GZT	Gaziantep	1.75	233	iP	Pn	14 21 19.3	+1.5
GZT				iS	Sg	14 21 44.5	+1.4
GZT	Gaziantep	1.75	233	iP	Pb	14 21 19.4	0.0
GZT				iS	Sg	14 21 44.7	+1.6

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*IDC **21** 14:24:42.9±0.9, 9.05S×119.75E, h0^{km}, mb4.1/5, mb1 4.1/7, mb1mx3.9/18, mbtmp4.0/7, ML3.9/2, MS3.2/3, Ms1 3.1/3, ms1mx2.9/28, Error ellipse: s-maj=57.0km s-min=17.5km az=64.0*
*NEIC **21** 14:24:44.1±0.7, 9.11S×119.70E, h10^{km}, mb4.3/1, Error ellipse: s-maj=40.1km s-min=11.4km az=57.0*
*ISCJB **21** 14:24:49.6±3.8, 9.6S±0.3×119.3E±0.3, h87^{km}±31^{km}, mb3.9/6, Error ellipse: s-maj=68.4km s-min=11.4km az=142.1*
ISC 21 14:24:58.4±3.6, **9.3S**±0.2×**119.9E**±0.3, **h146**^{km}±31^{km}, **n15**, σ**1^{s}02**/18, **mb3.9**/6, **Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	10.37	148	eP	Pn	14 27 14.0	-9.4
	11nm,0.4s						
FITZ				eS	Sn	14 29 01.8	-16
FITZ	Fitzroy Crossi	10.37	148	Pn	Pn	14 27 14.4	-9.1
	1.4nm,0.3s,baz=326,slow=10,SNR=59						
FITZ				Sn	Sn	14 29 03.9	-14
	1.2nm,0.3s,baz=194,slow=18,SNR=5.9						
FITZ				LR	LR	14 31 17.4	
	comp=Z,89nm,21.3s,baz=274,slow=37						
KAKA	Kakadu	12.80	106	eP	Pn	14 27 55.9	+0.6
WRA	Warramunga Arr	17.52	129	P	Pn	14 28 52.7	-1.2
	0.4nm,0.3s,baz=298,slow=13,SNR=27						
WRA				S	S	14 31 59.8	-7.6
	0.1nm,0.3s,baz=291,slow=22,SNR=2.8						
WB2	Warramunga Arr	17.54	129	eP	Pn	14 28 53.1	-0.9
ASAR	Alice Springs	19.59	138	P	P	14 29 16.0	+0.8
	0.3nm,0.3s,baz=310,slow=10,SNR=25						
ASAR				S	S	14 32 48.2	-0.3
	0.1nm,0.3s,baz=316,slow=26,SNR=3.8						
NWAO	Narrogin (SRO)	23.61	186	P	P	14 29 59.2	+3.2
	2.5nm,0.4s,mb4.1,baz=354,slow=12,SNR=5.9						
STKA	Stephens Creek	30.16	141	P	P	14 30 56.2	+1.5
	0.7nm,0.5s,mb3.6,baz=290,slow=10,SNR=4.8						
STKA				LR	LR	14 43 12.6	
	comp=Z,62nm,18.3s,baz=22,slow=36						
GUMO	Guam	33.69	48	LR	LR	14 43 09.7	
	comp=Z,29nm,19.3s,baz=95,slow=33						
SONM	Songino Array	58.15	349	P	P	14 34 38.2	+1.5
	0.9nm,0.4s,mb3.9,baz=168,slow=8.3,SNR=26						
MK31	Makanchi Array	65.14	333	eP	P	14 35 22.7	-0.8
MKAR	Makanchi Array	65.14	333	P	P	14 35 23.0	-0.5
MKAR	Makanchi Array	65.14	333	P	P	14 35 23.0	-0.5
	1.0nm,0.5s,mb3.9,baz=161,slow=7.5,SNR=37						
ZALV	Zalesovo Beam	69.65	339	P	P	14 35 51.3	-0.5
	1.1nm,0.4s,mb4.0,baz=141,slow=4.8,SNR=9.9						
KURK	Kurchatov	69.67	333	eP	P	14 35 51.8	-0.2
	1.2nm,0.6s,mb3.8						

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*ISK **21** 14:33:36.9, 38.40N×39.24E, h5^{km}, MD3.0*
*ISCJB **21** 14:33:37.6±0.6, 38.37N±0.03×39.28E±0.03, h2^{km}±6^{km}, Error ellipse: s-maj=5.8km s-min=4.1km az=11.2*
*CSEM **21** 14:33:37.0±0.1, 38.38N×39.24E, h2^{km}, MD3.0, Error ellipse: s-maj=3.9km s-min=2.5km az=178.0*
*DDA **21** 14:33:37.2, 38.59N×39.29E, h17^{km}±1^{km}, Md3.0*
ISC 21 14:33:38.1±0.5, **38.37N**±0.03×**39.28E**±0.03, **h3**^{km}±5^{km}, **n24**, σ**0^{s}71**/34, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.27	298	iP	Pg	14 33 43.0	-0.2
ELZG				iS	Sg	14 33 46.8	+0.1
ELZG	Elazig	0.27	298	iP	Pg	14 33 43.0	-0.3
PTK	Pertek	0.53	9	iPG	Pg	14 33 47.9	-0.3
PTK				iSG	Sg	14 33 56.2	+1.1
PTK	Pertek	0.53	9	iPg	Pg	14 33 47.9	-0.3
PTK				iSg	Sg	14 33 56.2	+1.1
MALT	Malatya	0.68	265	iPG	Pg	14 33 50.0	-1.1
MALT				iSG	Sg	14 34 01.0	+1.2
MALT	Malatya	0.68	265	iPg	Pg	14 33 50.0	-1.1
MALT				iSg	Sg	14 34 01.0	+1.2
MYA	Malataya	0.68	266	iPG	Pg	14 33 50.5	-0.6
MYA				iSG	Sg	14 34 00.1	+0.2
MYA	Malataya	0.68	266	iPg	Pg	14 33 50.5	-0.6
MYA				iSg	Sg	14 34 00.1	+0.2
DIYA	Diyarbakir	0.80	124	iP	Pg	14 33 53.7	+0.3
DIYA				iS	Sg	14 34 03.9	+0.1
DIY	Diyarbakir	0.88	122	iPG	Pg	14 33 55.6	+0.5
DIY	Diyarbakir	0.88	122	iPg	Pg	14 33 55.6	+0.5
URFA	Urfa	1.00	202	PG	Pg	14 33 57.9	+0.6
URFA	Urfa	1.00	202	ePg	Pg	14 33 57.9	+0.6
ATAB	Bozova	1.19	221	iP	Pg	14 33 59.8	-1.2
EZC	Erzincan	1.44	17	PN	Pn	14 34 04.2	-0.8
MARD	Mardin	1.59	131	iP	Pn	14 34 06.6	-0.5
MARD				iS	Sn	14 34 29.0	+0.9
GZT	Gaziantep	1.70	234	iP	Pn	14 34 08.0	-0.6
GZT				iS	Sn	14 34 31.7	+0.8
BTMT	Batman	1.75	95	PN	Pn	14 34 08.3	-1.0
GAZ	Gaziantep	2.03	235	PN	Pn	14 34 12.8	-0.4
GAZ	Gaziantep	2.03	235	ePn	Pn	14 34 12.8	-0.4
KMRS	Kahramanmaras	2.07	246	ePN	Pn	14 34 14.4	+0.6
KMRS	Kahramanmaras	2.07	246	ePn	Pn	14 34 14.4	+0.6
SVSK	Karacayir	2.35	312	ePN	Pn	14 34 18.0	+0.4
SVSK	Karacayir	2.35	312	ePn	Pn	14 34 18.0	+0.4

MEX 21 14:35:46.5±0.9, **17.05N**×**100.23W**, **h5**^{km}±60^{km}, **MD3.6**, **Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	0.04	263	iP	Pg	14 35 47.0	-0.8
CAIG				iS	Sg	14 35 47.9	-0.7
MEIG	Mezcala	1.04	34	eP	Pg	14 36 03.8	-2.7
MEIG				iS	Sg	14 36 15.5	-4.5
PLIG	Platanillo	1.50	27	eP	Pn	14 36 12.2	-1.9
PLIG				iS	Sn	14 36 28.1	-5.9
UTMO	Huajuapan	2.44	71	eP	Pn	14 36 24.3	-2.7
UTMO				iS	Sn	14 36 53.1	-4.0

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*CSEM **21** 15:02:26.9±0.1, 38.40N×39.26E, h10^{km}, MD3.1, Error ellipse: s-maj=2.4km s-min=2.0km az=2.0*
*DDA **21** 15:02:26.0, 38.64N×39.37E, h8^{km}±4^{km}, Md3.1*
*ISCJB **21** 15:02:27.5±0.5, 38.40N±0.03×39.30E±0.03, h6^{km}±5^{km}, Error ellipse: s-maj=5.2km s-min=4.2km az=2.9*
*ISK **21** 15:02:27.5, 38.39N×39.26E, h11^{km}, MD2.9*
ISC 21 15:02:28.1±0.5, **38.41N**±0.03×**39.29E**±0.03, **h11**^{km}±5^{km}, **n21**, σ**0^{s}85**/34, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.26	291	iP	Pg	15 02 33.0	-0.4
ELZG				iS	Sg	15 02 37.3	+0.4
PTK	Pertek	0.49	9	iPG	Pg	15 02 38.3	+0.5
PTK				iSG	Sg	15 02 45.9	+1.6
PTK	Pertek	0.49	9	iPg	Pg	15 02 38.3	+0.5
PTK				iSg	Sg	15 02 45.9	+1.6
MALT	Malatya	0.69	263	iPG	Pg	15 02 39.9	-1.5
MALT				iSG	Sg	15 02 50.1	-0.2
MALT	Malatya	0.69	263	iPg	Pg	15 02 39.9	-1.5
MALT				iSg	Sg	15 02 50.1	-0.2
MYA	Malataya	0.69	264	iPG	Pg	15 02 40.2	-1.2
MYA				iSG	Sg	15 02 51.1	+0.8
MYA	Malataya	0.69	264	iPg	Pg	15 02 40.2	-1.2
MYA				iSg	Sg	15 02 51.1	+0.8
DIYA	Diyarbakir	0.81	126	iP	Pg	15 02 44.0	+0.2
DIYA				iS	Sg	15 02 54.6	+0.3
DIY	Diyarbakir	0.90	124	PG	Pg	15 02 44.8	-0.6
DIY	Diyarbakir	0.90	124	ePg	Pg	15 02 44.8	-0.6
URFA	Urfa	1.03	201	PG	Pg	15 02 47.9	-0.1
URFA				SG	Sg	15 03 02.1	+0.7
URFA	Urfa	1.03	201	ePg	Pg	15 02 47.9	-0.1
URFA				eSg	Sg	15 03 02.1	+0.7
ATAB	Bozova	1.22	220	iP	Pn	15 02 51.4	+0.3
ATAB				iS	Sb	15 03 06.6	-0.4
EZC	Erzincan	1.40	17	ePN	Pn	15 02 52.4	-1.2
MARD	Mardin	1.60	132	iP	Pn	15 02 56.0	-0.4
MARD				iS	Sn	15 03 18.0	+0.9
GZT	Gaziantep	1.72	233	iP	Pn	15 02 57.9	-0.1
GZT				iS	Sn	15 03 22.8	+2.8
BTMT	Batman	1.74	96	ePN	Pn	15 02 57.2	-1.1
KMRS	Kahramanmaras	2.09	245	ePN	Pn	15 03 03.1	0.0
KMRS	Kahramanmaras	2.09	245	ePn	Pn	15 03 03.1	0.0
BNN	Bunyan	2.73	280	ePN	Pn	15 03 12.0	0.0
BNN	Bunyan	2.73	280	ePn	Pn	15 03 12.0	0.0

IDC 21 15:11:39.3±2.2, **1.06S**×**127.41E**, **h0**^{km}, **mb3.1**/2, **mb1 3.2**/3, **mb1mx3.1**/16, **mbtmp3.1**/3, **ML2.9**/1, **MS3.2**/1, **Ms1 3.2**/1, **ms1mx2.5**/13, **Error ellipse: s-maj=199.5km s-min=25.3km az=66.0**, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	19.96	161	P	Pn	15 16 13.7	-1.0
	0.0nm,0.3s,baz=340,slow=11,SNR=4.6						
ASAR	Alice Springs	23.34	165	P	P	15 16 49.0	-0.4
	0.3nm,0.8s,baz=347,slow=11,SNR=4.0						
JHJ	Hachijo jima 2	35.94	18	LR	LR	15 32 22.2	
	comp=Z,34nm,18.4s,baz=117,slow=35						
MKAR	Makanchi Array	61.87	326	P	P	15 22 00.5	+0.1
	0.2nm,0.4s,baz=121,slow=7.6,SNR=8.6						

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*ISCJB **21** 15:16:07.4±5.3, 7.1S±0.2×154.1E±0.2, h57^{km}±42^{km}, mb3.6/5, Error ellipse: s-maj=40.1km s-min=31.4km az=31.9*
*IDC **21** 15:16:14.7±7.0, 7.15S×153.80E, h96^{km}±53^{km}, mb3.5/5, mb1 3.6/6, mb1mx3.5/16, mbtmp3.5/6, MS2.9/2, Ms1 2.9/2, ms1mx2.6/13, Error ellipse: s-maj=52.0km s-min=25.7km az=96.0*
*NEIC **21** 15:16:17.6±5.1, 7.14S×153.44E, h106^{km}±32^{km}, Error ellipse: s-maj=57.4km s-min=22.1km az=95.0*
ISC 21 15:16:09.7±5.0, **7.2S**±0.2×**154.1E**±0.3, **h64**^{km}±38^{km}, **n9**, σ**1^{s}11**/9, **mb3.6**/5, **Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	7.23	252	P	Pn	15 17 52.2	-0.5
	1.1nm,0.3s,baz=62,slow=10.0,SNR=7.1						
PMG				S	Sn	15 19 14.6	+1.2
	0.6nm,0.3s,baz=65,slow=21,SNR=3.3						
PMG				LR	LR	15 20 37.5	
	comp=Z,61nm,18.2s,baz=31,slow=38						
CTA	Charters Tower	14.91	210	LR	LR	15 24 10.5	
	comp=Z,59nm,19.4s,baz=187,slow=32						
WB2	Warramunga Arr	22.98	235	eP	P	15 21 08.1	-1.0
WRA	Warramunga Arr	22.99	235	P	P	15 21 07.9	-1.3
	0.8nm,0.7s,mb3.3,baz=58,slow=10.0,SNR=11						
ASAR	Alice Springs	25.39	228	P	P	15 21 31.0	-0.2
	1.6nm,0.8s,mb3.6,baz=59,slow=9.1,SNR=16						
STKA	Stephens Creek	27.19	204	eP	P	15 21 49.5	+2.2
STKA	Stephens Creek	27.19	204	P	P	15 21 49.8	+2.4
	1.9nm,0.8s,mb3.7,baz=24,slow=13,SNR=4.0						
FITZ	Fitzroy Crossi	29.78	246	P	P	15 22 09.7	-0.9
	1.7nm,0.7s,mb3.9,baz=93,slow=12,SNR=8.0						
SONM	Songino Array	69.04	328	P	P	15 27 09.3	+0.8
	0.5nm,0.4s,mb3.8,baz=144,slow=5.1,SNR=13						

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*ISCJB **21** 15:26:50.4±0.4, 50.43N±0.02×87.61E±0.06, h10^{km}, mb3.6/4, MS3.0/2, Error ellipse: s-maj=5.2km s-min=3.1km az=10.0*
*IDC **21** 15:26:51.7±1.2, 50.35N×87.69E, h0^{km}, mb3.6/4, mb1 3.7/8, mb1mx3.5/25, mbtmp3.7/8, ML4.1/3, MS3.1/2, Ms1 3.1/2, ms1mx2.6/25, Error ellipse: s-maj=18.3km s-min=12.3km az=109.0*
*ASRS **21** 15:26:51.2±1.0, 50.30N×87.59E, h15^{km}, Ms3.3*
*MOS **21** 15:26:53.0±2.7, 50.22N×87.29E, h10^{km}, mb3.8/3, Error ellipse: s-maj=12.3km s-min=9.0km az=77.0*
*NNC **21** 15:26:54.8±2.7, 50.48N×87.13E, h0^{km}±12^{km}, mb3.9, mpv4.2, Error ellipse: s-maj=22.8km s-min=12.2km az=87.0*
*NEIC **21** 15:26:56.4±1.1, 50.32N×87.56E, h36^{km}±13^{km}, mb3.6/1, Error ellipse: s-maj=12.0km s-min=11.3km az=176.0*
ISC 21 15:26:52.7±0.4, **50.44N**±0.02×**87.60E**±0.05, **h10**^{km}, **n50**, σ**1^{s}43**/68, **mb3.6**/4, **MS3.0**/2, **6C-5D**, **Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKAR	Aktash	0.12	173	iPg	Pg	15 26 53.0	-2.6
AKAR				iSg	Sg	15 26 54.2	-3.4
ARTR	Artybash	1.37	352	ePg	Pg	15 27 19.6	+0.6
ARTR				eSg	Sg	15 27 34.9	-1.9
UKR	Ust'-Kan	1.86	287	ePN	Pn	15 27 26.0	+1.4
UKR				e		15 27 52.0	
UKR	Ust'-Kan	1.86	287	ePg	Pn	15 27 26.0	+1.4
UKR				eSg	Sg	15 27 52.0	-0.5
TASR	Tashtagol	2.33	4	ePN	Pg	15 27 36.2	-1.1
TASR				e		15 28 09.7	
TASR	Tashtagol	2.33	4	ePg	Pg	15 27 36.2	-1.1
TASR				eSg	Sg	15 28 09.7	+2.3
ELT	Yel'tsovka	2.95	344	eSn	Sn	15 28 15.4	+0.5
ELT				eSg	Sg	15 28 27.3	+0.1
CERR	Cheremushki	3.39	43	ePN	Pg	15 27 57.1	-0.5
CERR				e		15 28 40.2	
CERR	Cheremushki	3.39	43	iPg	Pg	15 27 57.1	-0.5
CERR				eSg	Sg	15 28 40.2	-1.3
ZAL	Zalesovo	3.90	335	PN	Pn	15 27 55.5	+2.9
ZAL						15 28 05.0	
ZAL						15 28 44.2	
ZAL						15 28 57.6	
ZALV	Zalesovo Beam	3.91	335	Pn	Pn	15 27 55.5	+2.9
ZALV				Pg	Pg	15 28 05.0	-2.4
ZALV				Sn	Sn	15 28 44.2	+5.7
ZALV				Lg		15 28 57.6	
ZALV	Zalesovo Beam	3.91	335	Pn	Pn	15 27 55.5	+2.9
	27nm,0.3s,baz=156,slow=13,SNR=518						
ZALV				Pg	Pg	15 28 05.0	-2.4
	15nm,0.3s,baz=156,slow=16,SNR=17						
ZALV				Sn	Sn	15 28 44.2	+5.7
	18nm,0.3s,baz=159,slow=26,SNR=6.8						
ZALV				Lg		15 28 57.6	
	25nm,0.3s,baz=152,slow=25,SNR=7.4						
MK31	Makanchi Array	5.07	226	Pn	Pn	15 28 10.3	+1.7
	5.1nm,0.2s,baz=55,slow=13,SNR=997						
MK31				⇑Pg	Pg	15 28 24.2	-5.5
	29nm,0.5s,baz=43,slow=18,SNR=9.5						
MK31				⇓Sn	Sn	15 29 08.1	+0.9
	78nm,0.7s,baz=57,slow=26						
MK31				⇓Lg		15 29 28.6	
	372nm,1.1s,baz=47,slow=30						
MK31	Makanchi Array	5.07	226	ePN	Pn	15 28 10.2	+1.5
MKAR	Makanchi Array	5.07	226	Pn	Pn	15 28 10.2	+1.5
MKAR				Sn	Sn	15 29 08.6	+1.4
MKAR				Lg		15 29 28.2	
MKAR	Makanchi Array	5.07	226	iPN	Pn	15 28 10.1	+1.4
MKAR				pmax	pmax		
	comp=Z,23nm,0.4s						
MKAR	Makanchi Array	5.07	226	Pn	Pn	15 28 10.2	+1.5
	comp=Z,14nm,0.3s,baz=54,slow=13,SNR=335						
MKAR				Sn	Sn	15 29 08.6	+1.4
	comp=Z,23nm,0.3s,baz=53,slow=27,SNR=11						
MKAR				Lg		15 29 28.2	
	comp=Z,44nm,0.3s,baz=47,slow=28,SNR=17						
NVS	Novosibirsk	5.14	331	ePN	Pn	15 28 11.0	+1.4
NVS				e		15 28 27.3	
NVS				e		15 29 12.1	
NVS				e		15 29 36.7	
NVS	Novosibirsk	5.14	331	ePn	Pn	15 28 11.0	+1.4
NVS				iPg	Pg	15 28 27.3	-3.8
NVS				eSn	Sn	15 29 12.1	+3.1
NVS				eSg	Sg	15 29 36.7	-1.0
KURK	Kurchatov	5.73	276	eP	Pn	15 28 18.0	+0.4
	comp=Z,15nm,0.3s						
KURK	Kurchatov	5.73	276	iPN	Pn	15 28 18.4	+0.7
BRVK	Borovoye	11.05	290	⇓Pn	Pn	15 29 30.0	-0.6
	comp=Z,1.1nm,0.7s						
BRVK				⇑Sn	Sn	15 31 31.8	-2.2
	comp=Z,2.5nm,0.5s						
BRVK				⇑Lg		15 32 34.9	
	comp=Z,5.9nm,0.9s						
BRVK	Borovoye	11.05	290	eP	Pn	15 29 29.0	-1.6
	comp=Z,3.5nm,0.6s						
BRVK	Borovoye	11.05	290	eP	Pn	15 29 29.0	-1.6
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
TKM2	Tokmak 2	11.15	232	⇓Pn	Pn	15 29 32.6	+0.6
	comp=Z,0.4nm,0.6s						
TKM2				⇓Lg		15 32 42.1	
	comp=Z,3.9nm,1.1s						
TKM2	Tokmak 2	11.15	232	eP	Pn	15 29 32.1	+0.1
	comp=Z,4.7nm,0.6s						
TKM2				eS	Sn	15 31 51.2	+15
TKM2	Tokmak 2	11.15	232	eP	Pn	15 29 32.1	+0.1
TKM2				pmax	pmax		
	comp=Z,5.0nm,0.6s						
AAK	Ala-Archa	11.92	234	eP	Pn	15 29 40.5	-2.0
	comp=Z,2.3nm,0.5s						
AAK	Ala-Archa	11.92	234	iP	Pn	15 29 43.1	+0.5
UCH	Uchtor	12.20	233	eP	Pn	15 29 48.4	+2.0
	comp=Z,2.7nm,0.8s						
EKS2	Erkin-Say	12.28	236	eP	Pn	15 29 45.7	-1.8
	comp=Z,187nm,0.4s						
SONM	Songino Array	12.58	95	Pn	Pn	15 29 52.9	+1.3
SONM				Pg	Pn	15 30 39.3	+48
SONM	Songino Array	12.58	95	Pn	Pn	15 29 52.9	+1.3
	comp=Z,0.0nm,0.3s,baz=286,slow=12,SNR=4.4						
SONM				Pg	Pn	15 30 39.3	+48
	comp=Z,0.1nm,0.3s,baz=276,slow=16,SNR=3.0						
AML	Almayashu	12.69	234	eP	Pn	15 29 53.3	+0.2
	comp=Z,2.9nm,0.6s						
KK31	Karatay Array	13.80	244	Pn	Pn	15 30 07.6	-0.6
	comp=Z,0.5nm,0.3s,baz=45,slow=15,SNR=19						
KK31				⇑Sn	Sn	15 32 39.1	-2.3
	comp=Z,2.8nm,0.7s						
KK31				⇑Lg		15 34 03.3	
	comp=Z,8.4nm,0.8s						
AB31	Akbulak array	17.84	277	⇑Pn	Pn	15 30 59.3	-1.4
	comp=Z,1.2nm,0.8s						
ARU	Arti	18.22	300	iP	Pn	15 31 09.2	+3.9
AKTK	Aktyubinsk	18.79	281	Pn	Pn	15 31 11.7	-0.7
AKTO	Aktyubinsk	18.79	281	P	Pn	15 31 11.7	-0.7
AKTO	Aktyubinsk	18.79	281	Pn	Pn	15 31 11.7	-0.7
	comp=Z,0.2nm,0.3s,baz=91,slow=12,SNR=5.3						
LSA	Lhasa	20.89	171	P	P	15 31 33.6	-1.3
	comp=Z,1.8nm,0.7s						
LSA	Lhasa	20.89	171	P	P	15 31 33.7	-1.3
LSA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
KSRS	Korea Array	31.41	99	LR	LR	15 46 42.7	
	comp=Z,22nm,19.1s,MS2.8,baz=10.0,slow=38						
FINES	FINESS Array B	34.84	312	P	P	15 33 44.2	+0.9
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	FINESS Array B	34.84	312	P	P	15 33 44.2	+0.8
	comp=Z,0.7nm,0.8s,mb3.6,baz=68,slow=9.4,SNR=3.9						
AKASG	Malin Array Be	36.23	294	P	P	15 33 56.2	+0.7
	comp=Z,0.3nm,0.3s,mb3.7,baz=61,slow=8.8,SNR=2.8						
BRTR	Keskin Array B	38.78	275	P	P	15 34 18.4	+1.2
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BRTR	Keskin Array B	38.78	275	P	P	15 34 18.4	+1.2
	comp=Z,0.9nm,0.6s,mb3.7,baz=80,slow=7.4,SNR=5.2						
ATD	Arta Tunnel	53.29	239	LR	LR	15 59 52.6	
	comp=Z,23nm,19.7s,MS3.2,slow=37						
ASAR	Alice Springs	84.37	138	P	P	15 39 24.4	-0.5
	comp=Z,0.3nm,0.8s,mb3.5,baz=335,slow=4.8,SNR=5.5						

KRSC 21 15:41:01.4±1.3, 4973N×15700E, h5^{km}±5^{km}, ML3.7, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALID	Alaid	1.47	321	P	Pn	15 41 28.2	-0.3
ALID				S	Sn	15 41 47.7	-0.4
MIPR	Malaya Ipel'ka	2.55	357	P	Pn	15 41 44.2	+0.8
RUS	Russkaya	2.87	19	i P	Pn	15 41 49.4	+1.7
RUS				eS	Sn	15 42 24.5	+1.9
GRL	Gorelyy	2.91	13	i P	Pn	15 41 50.9	+2.7
GRL				S	Sn	15 42 27.2	+3.7
PET	Petropavlovsk	3.46	17	P	Pn	15 41 58.0	+2.2
PET				eS	Sn	15 42 39.9	+2.8
SDLR	Sedlovina	3.74	18	i P	Pn	15 42 02.0	+2.3
SDLR				S	Sn	15 42 46.4	+2.3
NLC	Nalytchevo	3.75	22	S	Sn	15 42 45.1	+0.9
SPN	Mys Shipunski	3.87	28	eP	Pn	15 42 03.7	+2.3
SPN				eS	Sn	15 42 49.8	+2.6
GNL	Ganaly	4.01	8	eP	Pn	15 42 05.7	+2.2
KBTR	Krutoberegovo	7.38	26	P	Pn	15 42 50.9	+1.3

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*ISCJB **21** 15:49:20.3±0.7, 19.45N±0.03×78.04W±0.06, h10^{km}, Error ellipse: s-maj=7.6km s-min=4.7km az=10.4*
*SSNC **21** 15:49:21.2, 19.27N×78.04W, h7^{km}, MD3.2, ML2.5*
*JSN **21** 15:49:22.3±0.9, 19.41N×78.09W, h6^{km}±9^{km}, MD4.1*
ISC 21 15:49:20.5±1.0, 1942N±003×7803W±006, h5^{km}±7^{km}, n12, σ0.^{s}64/18, 5D, Cuba region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBJ	Montego Bay	1.02	171	⇓eP	Pg	15 49 40.3	+0.1
MBJ				i S	Sg	15 49 53.6	+0.1
LMGC	Las Mercedes	1.16	56	ePG	Pg	15 49 41.8	-1.0
	baz=224						
LMGC				eSG	Sg	15 49 57.8	-0.1
	comp=N,301nm,0.3s						
LMGC				e			
	comp=E,306nm,0.2s						
BBJ	Bamboo Saint A	1.26	145	⇓iP	Pg	15 49 45.0	+0.3
MCJ	Malvern	1.52	167	eP	Pn	15 49 48.7	+0.3
MCJ				eS	Sn	15 50 07.5	-1.1
STH	Stony Hill	1.77	139	⇓eP	Pn	15 49 51.8	0.0
CCCC	Cccc	1.79	8	eP	Pn	15 49 53.5	+1.5
GWJ	Greenwich	1.82	137	⇓eP	Pn	15 49 52.4	-0.1
PCJ	Portland Cotta	1.86	153	⇓iP	Pn	15 49 53.7	+0.6
PCJ				eS	Sn	15 50 17.3	+0.3
RCC	Rio Carpintero	2.28	75	ePG	Pn	15 49 59.1	+0.3
	baz=265						
RCC				eSG	Sn	15 50 27.0	-0.2
	comp=N,41nm,0.4s						
RCC				e			
	comp=E,37nm,0.6s						
MGV	Manicaragua	3.24	326	eP	Pn	15 50 12.2	+0.2
MASC	Masc	3.66	78	ePG	Pn	15 50 22.4	+4.6
	baz=254						
MASC				eSG	Sn	15 51 07.7	+6.3
	comp=N,0.8nm,0.1s						
MASC				e			
	comp=E,0.8nm,0.1s						
SOR	Soroa	5.73	307	eP	Pn	15 50 45.1	-1.1

MAN 21 16:03:47, 1925N×12211E, h22^{km}, mb4.2, ML3.1, MS2.8, 1D, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGCP	Mt. Cagua	1.00	183	eP	Pb	16 04 05.4	-0.3
CVP	Callao Caves	1.56	190	⇓eP	Pn	16 04 13.8	+0.4
CVP				eS	Sn	16 04 35.2	+2.3
APYP	Conner	1.60	211	eP	Pn	16 04 14.2	+0.2
APYP				eS	Sn	16 04 34.7	+0.7
ABRA	Dolores	2.07	220	eP	Pn	16 04 20.5	+0.1
ABRA				eS	Sn	16 04 46.7	+1.2
CAUP	Cauayan	2.31	187	eP	Pn	16 04 27.2	+3.5
BALP	Baler	3.52	188	eP	Pn	16 04 42.0	+1.6

IDC 21 16:04:29.8±55.0, 1682S×17039W, h0^{km}, mb4.2/3, mb1 4.4/3, mb1mx3.8/15, mbtmp4.2/3, Error ellipse: s-maj=1081.0km s-min=181.6km az=82.0, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	45.87	242	P	P	16 12 54.6	+0.5
	1.1nm,0.5s,baz=89,slow=10,SNR=8.2						
WRA	Warramunga Arr	52.35	258	P	P	16 13 43.6	-0.3
	1.7nm,0.4s,baz=98,slow=7.0,SNR=87						
ASAR	Alice Springs	52.44	253	P	P	16 13 44.4	-0.2
	7.9nm,1.1s,baz=94,slow=7.3,SNR=74						

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*BJI **21** 16:59:40.9, 2.55N×95.62E, h25^{km}, mB5.1, mb4.5, Ms4.5, Msz4.1*
*ISCJB **21** 16:59:43.7±0.6, 2.87N±0.07×95.52E±0.05, h26^{km}, mb4.3/34, MS3.6/5, Error ellipse: s-maj=11.8km s-min=5.4km az=28.9*
*MOS **21** 16:59:44.5±1.1, 2.96N×95.82E, h33^{km}, mb4.7/10, Error ellipse: s-maj=25.6km s-min=9.1km az=102.9*
*NEIC **21** 16:59:47.9±2.8, 2.79N×95.64E, h48^{km}±24^{km}, mb4.4/8, Error ellipse: s-maj=27.7km s-min=9.7km az=64.0*
*IDC **21** 16:59:51.1±4.5, 2.95N×95.92E, h72^{km}±39^{km}, mb3.7/12, mb1 3.8/13, mb1mx3.6/23, mbtmp3.7/13, ML3.4/1, MS3.6/3, Ms1 3.6/3, ms1mx3.1/31, Error ellipse: s-maj=39.9km s-min=14.6km az=60.0*
ISC 21 16:59:45.9±0.6, 284N±008×9551E±005, h27^{km}, h27^{km}±1.2^{km}:pP-P, n71, σ1.^{s}13/71, mb4.3/34, MS3.6/5, 9C-9D, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSI	Banda Aceh	2.64	355	P	Pn	17 00 25.7	-1.0
	0.0nm,0.0s						
PSI	Prapat	3.41	91	P	Pn	17 00 36.8	-0.5
	4.6nm,0.3s,baz=294,slow=5.8,SNR=37						
KULM	Kulim	5.67	64	eP	Pn	17 01 08.6	+0.1
KULM	Kulim	5.67	64	⇑P	Pn	17 01 08.8	+0.4
IPM	Ipoh	5.74	73	⇑P	Pn	17 01 09.4	0.0
PPI	Padang Panjang	5.88	124	P	Pn	17 01 14.9	+3.6
	0.0nm,0.0s						
FRIM	Kepong	6.12	86	⇑P	Pn	17 01 14.2	-0.4
KGM	Kluang	7.85	96	⇑P	Pn	17 01 37.4	-0.9
KTGM	Kuala Trenggan	8.00	72	⇑P	Pn	17 01 41.1	+0.7
MYKOM	Kota Tinggi	8.40	97	⇓P	Pn	17 01 45.0	-0.9
KSI	Kapahiang	9.58	132	P	Pn	17 02 07.6	+5.5
	0.0nm,0.0s						
KSM	Kuching	14.85	95	⇑P	Pn	17 03 19.2	+5.0
SBUM	Sibu	16.70	91	⇓P	Pn	17 03 40.0	+1.9
BTM	Bintulu	17.55	88	⇑P	Pn	17 03 49.0	+0.2
KKM	Kota Kinabalu	20.89	81	⇑P	P	17 04 27.3	+1.1
QIZ	Qiongzhong	21.34	40	P	P	17 04 28.9	-2.1
QIZ				S	S	17 08 21.6	-5.1
QIZ				LR	LR		
	comp=Z,190nm,10.4s,MS3.8						
KDM	Kudat	21.62	78	⇓P	P	17 04 35.7	+1.6
SDKM	Sandakan	21.80	82	⇓P	P	17 04 36.5	+0.5
TSM	Tawau	22.37	86	⇓P	P	17 04 42.6	+0.5
MYLDM	Lahad Datu	23.05	83	⇑P	P	17 04 50.1	+0.8
KMI	Kunming	23.22	17	P	P	17 04 52.5	+1.5
KMI				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.3						
KMI				LR	LR		
	comp=Z,121nm,14.6s,MS3.5						
KMI	Kunming	23.22	17	P	P	17 04 52.5	+1.5
	comp=Z,12nm,1.0s,mb4.3						
KMI				LR	LR		
	comp=Z,120nm,14.6s,MS3.5						
ODAN	Odare	25.11	343	eP	P	17 05 10.1	+1.6
	comp=Z,37nm,1.2s,mb4.8						
TAPN	Taplejung	25.48	344	eP	P	17 05 13.8	+1.9
	comp=Z,29nm,1.0s,mb4.8						
KKN	Kakani	26.66	339	eP	P	17 05 23.5	+1.0
	comp=Z,16nm,0.9s,mb4.5						
LSA	Lhasa	27.03	352	eP	P	17 05 27.1	+1.3
LSA	Lhasa	27.03	352	eP	P	17 05 26.9	+1.1
	comp=Z,8.8nm,1.0s,mb4.2						
LSA	Lhasa	27.03	352	eP	P	17 05 26.9	+1.1
LSA				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
GKN	Gorkha	27.09	339	eP	P	17 05 27.2	+0.8
	comp=Z,29nm,1.0s,mb4.8						
WHN	Wuhan	32.81	31	⇓P	P	17 06 16.5	-0.6
XAN	Xi'an	33.47	20	P	P	17 06 21.9	-0.8
XAN				AP	pP	17 06 28.3	-2.5
XAN				AMB	AMB		
	comp=Z,19nm,0.8s,mb5.1						
LZH	Lanzhou	33.97	12	eP	P	17 06 26.5	-0.5
LZH				AP	pP	17 06 34.1	-1.1
LZH				XP	sP	17 06 38.5	0.0
LZH				AMB	AMB		
	comp=Z,17nm,1.4s,mb4.8						
LZH	Lanzhou	33.97	12	eP	P	17 06 26.5	-0.5
	comp=Z,17nm,1.4s,mb4.8						
LZH				pP	pP	17 06 34.1	-1.1
LZH				sP	sP	17 06 38.5	0.0
GTA	Gaotai	36.61	6	eP	P	17 06 49.3	-0.4
GTA				AP	pP	17 06 57.3	-0.6
GTA				XP	sP	17 07 01.3	+0.1
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.2						
HHC	Hu-ho-hao-te	40.51	19	eP	P	17 07 22.6	+0.1
HHC				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.6						
HHC				AMB	AMB		
	comp=Z,173nm,5.8s						
NWAO	Narrogin (SRO)	41.09	152	P	P	17 07 27.8	+0.3
	comp=Z,7.1nm,1.0s,mb4.2,baz=124,slow=3.6,SNR=2.8						
BJT	Baijiatuau	41.47	24	eP	P	17 07 31.4	+1.0
	comp=Z,8.5nm,1.0s,mb4.3						
BJT	Baijiatuau	41.47	24	eP	P	17 07 31.4	+0.9
BJT				pmax	pmax		
	comp=Z,9.0nm,1.0s						
UCH	Uchtor	43.48	337	eP	P	17 07 48.0	+1.2
	comp=Z,4.6nm,0.9s,mb4.2						
AML	Almayashu	43.72	336	eP	P	17 07 49.1	+0.4
	comp=Z,10.0nm,1.1s,mb4.5						
AAK	Ala-Archa	43.84	338	eP	P	17 07 49.1	-0.5
AAK				pmax	pmax		
	comp=Z,7.0nm,2.3s,mb4.0						
WRA	Warramunga Arr	44.34	122	P	P	17 07 51.7	-2.3
	comp=Z,2.5nm,0.8s,mb4.0,baz=298,slow=9.3,SNR=16						
MK31	Makanchi Array	45.26	347	eP	P	17 08 01.1	+0.2
MK31				e	pP	17 08 08.8	-0.4
MKAR	Makanchi Array	45.26	347	i P	P	17 08 01.3	+0.4
MKAR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
MKAR	Makanchi Array	45.26	347	P	P	17 08 01.4	+0.5
	comp=Z,6.5nm,0.8s,mb4.5,baz=164,slow=8.2,SNR=84						
KSRS	Korea Array	45.51	37	P	P	17 07 59.2	-3.8
	comp=Z,1.1nm,0.7s,mb3.9,baz=232,slow=9.7,SNR=4.8						
KSRS				LR	LR	17 30 04.2	
	comp=Z,60nm,18.9s,MS3.6,baz=251,slow=40						
ASAR	Alice Springs	45.73	127	P	P	17 08 02.9	-2.1
	comp=Z,0.8nm,0.7s,mb3.8,baz=298,slow=7.8,SNR=18						
SONM	Songino Array	45.79	10	P	P	17 08 05.1	0.0
	comp=Z,1.0nm,0.7s,mb3.9,baz=192,slow=8.5,SNR=9.5						
SONM				PcP	PcP	17 09 42.6	+0.2
	comp=Z,0.3nm,0.6s,baz=190,slow=2.9,SNR=2.8						
ULN	Ulaanbaatar	45.94	11	eP	P	17 08 04.8	-1.5
ZAK	Zakamensk	47.82	7	eP	P	17 08 18.2	-2.7
ZAK				pmax	pmax		
	comp=Z,2.0nm,2.1s,mb3.8						
KURK	Kurchatov	49.79	346	eP	P	17 08 36.5	+0.5
	comp=Z,4.7nm,0.8s,mb4.6						
KURK	Kurchatov	49.79	346	⇓iP	P	17 08 36.8	+0.8
MJAR	Matsushiro Arr	51.66	44	LR	LR	17 33 08.1	
	comp=Z,52nm,19.9s,MS3.6,baz=10.0,slow=39						
ZAL	Zalesovo	51.68	352	P	P	17 08 50.5	+0.2
ZALV	Zalesovo Beam	51.69	352	P	P	17 08 50.5	+0.2
	comp=Z,7.7nm,0.9s,mb4.6,baz=176,slow=5.9,SNR=34						
NVS	Novosibirsk	52.79	351	eP	P	17 08 57.5	-1.0
BRVK	Borovoye	54.22	342	eP	P	17 09 08.6	-0.4
	comp=Z,7.3nm,1.0s,mb4.6						
BRVK	Borovoye	54.22	342	eP	P	17 09 08.6	-0.4
BRVK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
CTA	Charters Tower	54.75	117	LR	LR	17 36 30.4	
	comp=Z,69nm,18.7s,MS3.8,baz=146,slow=40						
BOD	Bodaibo	56.73	12	eP	P	17 09 25.4	-1.6
AKTK	Aktyubinsk	57.00	332	P	P	17 09 28.1	-1.0
AKTO	Aktyubinsk	57.00	332	P	P	17 09 28.1	-1.0
	comp=Z,0.8nm,0.6s,mb3.9,baz=118,slow=7.5,SNR=4.8						
ARU	Arti	61.02	338	d iP	P	17 09 56.4	-0.4
ARU				i	pP	17 10 05.4	0.0
ARU				e		17 12 11.3	
ARU				ePPP		17 13 35.4	
ARU				eS	S	17 18 16.1	+2.4
ARU				eSS	SS	17 22 17.5	+3.9
ARU				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.4						
YAK	Yakutsk	64.34	17	eP	P	17 10 17.5	-1.3
YAK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
OBN	Obninsk	70.34	328	⇓eP	P	17 11 04.7	+7.7
OBN				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
TIXI	Tiksi	71.88	11	i P	P	17 11 04.1	-1.9
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.3						
AKASG	Malin Array Be	72.93	322	P	P	17 11 14.6	+2.0
	comp=Z,1.0nm,0.6s,mb4.0,baz=313,slow=35,SNR=3.8						
FINES	FINESS Array B	77.77	333	P	P	17 11 41.3	+1.0
	comp=Z,1.3nm,0.9s,mb3.8,baz=66,slow=3.4,SNR=2.3						
ARCES	ARCESS Array B	80.43	340	P	P	17 11 51.5	-3.2
	comp=Z,1.6nm,0.8s,mb4.0,baz=33,slow=5.4,SNR=2.5						
GERES	GERESS Array B	82.47	319	P	P	17 12 05.7	-0.2
	comp=Z,0.6nm,0.8s,mb3.6,baz=36,slow=19,SNR=2.7						
NOA	NORSAR Array B	84.76	331	P	P	17 12 17.1	-0.3
	comp=Z,1.2nm,0.9s,mb4.0,baz=87,slow=7.6,SNR=3.1						

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*CSEM **21** 17:03:50.9±0.1, 38.44N×39.33E, h5^{km}, MD3.5, Error ellipse: s-maj=1.7km s-min=1.6km az=127.0*
*ISCJB **21** 17:03:51.1±0.6, 38.43N±0.03×39.34E±0.03, h3^{km}±5^{km}, Error ellipse: s-maj=4.7km s-min=4.1km az=140.7*
*ISK **21** 17:03:51.0, 38.44N×39.32E, h5^{km}, MD3.5*
*NSSC **21** 17:03:53.1, 38.55N×39.71E, h17^{km}±8^{km}*
ISC 21 17:03:51.8±0.6, 3844N±003×3934E±003, h5^{km}±5^{km}, n39, σ0.^{s}98/54, 9D, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTK	Pertek	0.46	5	i PG	Pg	17 04 00.5	-0.1
PTK				i SG	Sg	17 04 07.3	+0.7
PTK	Pertek	0.46	5	i Pg	Pg	17 04 00.5	-0.1
PTK				i Sg	Sg	17 04 07.3	+0.7
MYA	Malataya	0.72	262	i PG	Pg	17 04 05.4	-0.3
MYA	Malataya	0.72	262	i Pg	Pg	17 04 05.4	-0.3
MALT	Malatya	0.73	261	i PG	Pg	17 04 04.7	-1.0
MALT				i SG	Sg	17 04 15.1	-0.1
MALT	Malatya	0.73	261	i Pg	Pg	17 04 04.7	-1.0
MALT				i Sg	Sg	17 04 15.1	-0.1
DIY	Diyarbakir	0.88	127	i PG	Pg	17 04 08.7	-0.1
DIY				i SG	Sg	17 04 21.1	+0.9
DIY	Diyarbakir	0.88	127	i Pg	Pg	17 04 08.7	-0.1
DIY				i Sg	Sg	17 04 21.1	+0.9
BINT	Bingol	1.00	64	PG	Pg	17 04 11.0	-0.1
BINT	Bingol	1.00	64	ePg	Pg	17 04 11.0	-0.1
URFA	Urfa	1.07	202	PG	Pg	17 04 12.1	-0.3
URFA				SG	Sg	17 04 27.6	+1.3
URFA	Urfa	1.07	202	ePg	Pg	17 04 12.1	-0.3
URFA				eSg	Sg	17 04 27.6	+1.3
EZC	Erzincan	1.36	16	PN	Pn	17 04 16.8	-0.7
DRBT	Darb Altahta	1.63	166	⇑P	Pg	17 04 29.8	+6.8
DRBT				⇓S	Sg	17 04 58.3	+14
BTMT	Batman	1.71	98	PN	Pn	17 04 21.1	-1.1
KBSD	Kabsdagh	1.72	146	⇑P	Pn	17 04 21.9	-0.5
KBSD				⇑S	Sn	17 04 43.9	-0.8
KBSD	Kabsdagh	1.72	146	⇑iP	Pn	17 04 21.9	-0.5
KBSD				⇑iS	Sn	17 04 43.9	-0.8
GUMT	Gumushane	2.02	3	ePN	Pn	17 04 27.0	+0.4
GUMT	Gumushane	2.02	3	ePn	Pn	17 04 27.0	+0.4
GAZ	Gaziantep	2.10	234	ePN	Pn	17 04 28.0	+0.4
GAZ	Gaziantep	2.10	234	ePn	Pn	17 04 28.0	+0.4
SFNV	Sufian	2.11	163	⇓P	Pn	17 04 28.5	+0.8
SFNV				⇑S	Sn	17 04 55.2	+0.9
SFNV	Sufian	2.11	163	⇓iP	Pn	17 04 28.5	+0.8
SFNV				⇑iS	Sn	17 04 55.2	+1.0
KMRS	Kahramanmaras	2.14	245	ePN	Pn	17 04 28.0	-0.1
KMRS	Kahramanmaras	2.14	245	ePn	Pn	17 04 28.0	-0.1
EZM	Erzurum	2.15	46	ePN	Pn	17 04 28.4	+0.1
SVSK	Karacayir	2.34	310	ePN	Pn	17 04 32.0	+1.0
SVSK	Karacayir	2.34	310	ePn	Pn	17 04 32.0	+1.0
SLMH	Al Salmeh	2.49	207	⇓P	Pn	17 04 36.1	+3.2
SIRT	Sirnak	2.62	110	ePN	Pn	17 04 34.5	-0.3
SIRT	Sirnak	2.62	110	ePn	Pn	17 04 34.5	-0.3
BNN	Bunyan	2.77	280	ePN	Pn	17 04 37.7	+1.0
BNN	Bunyan	2.77	280	ePn	Pn	17 04 37.7	+1.0
DRWC	Darouich	2.79	230	⇑P	Pb	17 04 40.9	-1.2
DRWC				⇓S	Sb	17 05 18.7	+2.1
MZRK	Al-Mazaregh	2.81	158	⇓P	Pn	17 04 36.9	-0.5
MZRK	Al-Mazaregh	2.81	158	⇓iP	Pn	17 04 36.9	-0.4
BTCH	Batrach	3.32	225	⇓P	Pb	17 04 48.6	-2.5
BTCH				⇑S	Sb	17 05 32.1	+0.4
MSL	Mosul	3.68	124	ePn	x	17 05 02.0	
MSL				eSn	x	17 05 51.0	
SLNF	Slenfeh	3.77	222	⇓P	Pb	17 04 54.7	-4.2
SLNF				⇑S	Sb	17 05 42.8	-2.1

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*PRU **21** 17:06:10.7, 50.28N×18.62E, h0^{km}*
WAR 21 17:06:09.3, 5025N×1876E, ML2.5, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	Ostrava-Krasne	0.57	224	ePG	Pg	17 06 20.6	+0.4
OKC				eSG	Sg	17 06 29.5	+1.9
	49nm,1.0s						
DPC	Dobruska-Polom	1.56	275	ePG	Pg	17 06 37.9	-1.3
DPC				eSG	Sg	17 06 58.2	-1.3
	14nm,0.3s						
KSP	Ksiaz	1.68	292	ePn	Pn	17 06 41.4	+1.6
KSP				eSn	Sn	17 07 03.2	+1.1
VYHS	Vyhne	1.76	178	ePN	Pn	17 06 40.4	-0.6
VYHS				ePG	Pg	17 06 45.6	+2.6
VYHS				eSN	Sn	17 07 05.3	+1.2
STHS	Stebnicka Huta	1.81	117	ePN	Pn	17 06 43.8	+2.0
STHS				eSN	Sn	17 07 09.4	+4.0
KECS	Kecovo	2.10	147	ePN	Pn	17 06 51.5	+5.8
KECS				e		17 07 11.0	
CRVS	Cervenica-Dubn	2.22	126	ePN	Pn	17 06 52.0	+4.7
CRVS				eSG	Sg	17 07 26.1	+5.5
PRU	Pruhonice	2.73	266	ePG	Pg	17 06 58.1	-3.4
PRU				eSG	Sg	17 07 33.1	-3.7
	6.7nm,0.5s						
BRG	Berggiesshubel	3.13	283	SG	Sg	17 07 48.6	-1.3
	3.7nm,0.5s						
KHC	Kasperske Hory	3.54	254	ePG	Pg	17 07 14.3	-2.9
KHC				eSG	Sg	17 08 01.5	-1.6
	6.4nm,0.5s						
CLL	Collm	3.80	288	eSg	Sg	17 08 13.0	+1.7
NKC	Novy Kostel	4.05	272	eSG	Sg	17 08 16.2	-3.1

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*GCMT **21** 17:09:12.0±0.4, 24.39S×115.78W, h17^{km}±2^{km}, MW4.8/58, Moment Tensor Solution. s13,c13; s58,c74; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.41±.13; $M_{\theta\theta}$-1.05±.10; $M_{\phi\phi}$1.46±.11; $M_{r\theta}$-0.68±.33; $M_{\theta\phi}$1.72±.13; $M_{\phi r}$0.18±.31; Best double couple: $M_0$2.26600×10^{16} NP1:ϕ_s164.00000°,δ73.00000°,λ-167.00000°. NP2: ϕ_s70.00000°,δ78.00000°,λ-18.00000°. Principal axes: T 2.3420, Plg3.0000°, Azm117.0000°; N -0.1510, Plg69.0000°, Azm216.0000°; P -2.1890, Plg21.0000°, Azm26.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
IDC 21 17:09:12.1±4.6, 2403S×11023W, h0^{km}, mb3.9/3, mb1 4.3/3, mb1mx4.0/13, mbtmp3.9/3, MS4.0/4, Ms1 4.0/4, ms1mx3.4/22 Error ellipse: s-maj=173.2km s-min=102.2km az=128.0, Easter Island region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPN	Rapa Nui	3.19	166	LR	LR	17 10 39.9	
	comp=Z,422nm,19.3s,baz=136,slow=28						
RKT	Rikitea	22.70	267	eLR	LR	17 17 19.9	
	1µm,26.8s,baz=109						
TAOE	Nuku Hiva Isla	32.32	293	eLR	LR	17 22 03.5	
	2µm,26.7s						
PPT	Papeete	37.25	272	eS		17 20 46.7	
	105nm,25.8s						
PPT				eLR	LR	17 23 54.7	
	552nm,28.2s,baz=106						
TKL	Tuckaleechee C	64.42	24	P	P	17 19 50.1	-0.1
	3.7nm,0.5s,baz=269,slow=17,SNR=6.5						
VNDA	Vanda	66.27	194	LR	LR	17 41 19.4	
	comp=Z,164nm,19.4s,baz=148,slow=29						
PDAR	Pinedale Array	66.46	1	P	P	17 20 04.0	+0.8
	0.4nm,0.8s,baz=153,slow=7.1,SNR=2.9						
YKA	Yellowknife Ar	86.29	358	P	P	17 21 55.2	-0.1
	0.2nm,0.5s,baz=176,slow=5.4,SNR=8.3						
SCHQ	Schefferville	86.89	23	LR	LR	18 00 47.3	
	comp=Z,144nm,18.7s,baz=208,slow=36						
MAW	Mawson	88.50	177	LR	LR	18 02 29.7	
	comp=Z,116nm,18.8s,baz=69,slow=36						
ZALV	Zalesovo Beam	148.05	343	PKP	PKPdf	17 28 55.4	-0.8
	0.4nm,0.5s,baz=20,slow=4.6,SNR=2.8						

IDC 21 17:16:03.8±2.8, 227S×13912E, h0^{km}, mb3.6/5, mb1 3.8/6, mb1mx3.7/12, mbtmp3.7/6, ML3.7/1, Error ellipse: s-maj=146.4km s-min=20.9km az=83.0, Near north coast of Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	18.17	195	P	Pn	17 20 18.1	+0.4
	0.2nm,0.3s,baz=16,slow=12,SNR=4.7						
ASAR	Alice Springs	21.86	193	P	P	17 20 57.9	-0.3
	1.3nm,0.8s,baz=24,slow=10,SNR=9.4						
STKA	Stephens Creek	29.54	176	P	P	17 22 10.5	+0.3
	1.5nm,0.8s,baz=325,slow=14,SNR=3.1						
SONM	Songino Array	57.50	334	P	P	17 25 55.2	+0.4
	0.2nm,0.6s,baz=153,slow=9.5,SNR=3.1						
MKAR	Makanchi Array	69.69	322	P	P	17 27 16.0	+0.5
	0.9nm,0.8s,baz=117,slow=6.5,SNR=11						
ZALV	Zalesovo Beam	71.76	330	P	P	17 27 27.4	-0.5
	0.4nm,0.5s,baz=117,slow=5.0,SNR=3.2						

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*NEIC **21** 17:21:54.6, 34.13S×70.04W, h20^{km}, ML2.5(GUC), After GUC.*
GUC 21 17:21:54.6±0.7, 3413S×7004W, h20^{km}±3^{km}, MD3.7, ML2.5, 1C-2D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CICH	Cipreses	0.37	239	⇑iP	Pb	17 22 02.3	-0.2
CICH				i S	Sb	17 22 07.8	0.0
CHCH	Chadas Angostu	0.55	291	i P	Pb	17 22 05.6	+0.1
CHCH				i S	Sb	17 22 13.1	+0.2
PCH	Pirque	0.65	322	⇓iP	Pb	17 22 07.1	-0.1
PCH				i S	Sb	17 22 16.4	+0.6
ANTU	Antumapu	0.75	318	P	Pb	17 22 10.4	+1.5
ANTU				i S	Sb	17 22 19.6	+0.9
ANTU	Antumapu	0.75	318	eP	Pb	17 22 10.4	+1.5
ANTU				i S	Sb	17 22 19.6	+0.9
ANTU				AML	AML	17 22 20.0	
	comp=E,466nm,0.2s						
FCH	Farellones	0.83	345	⇓eP	Pb	17 22 10.4	+0.1
FCH				i S	Sb	17 22 21.8	+0.8
FCH				AML	AML	17 22 23.4	
	comp=E,501nm,0.2s						
TACH	Talagante	0.89	302	i P	Pb	17 22 11.4	+0.1
RCDM	Rinconada Maip	0.91	315	eP	Pb	17 22 11.5	-0.1
RCDM				i S	Sb	17 22 24.2	+1.0
RCDM	Rinconada Maip	0.91	315	eP	Pb	17 22 11.5	-0.1
RCDM				i S	Sb	17 22 24.2	+1.0
RCDM				AML	AML	17 22 25.4	
	comp=E,221nm,0.6s						
SFDO	San Fernando	0.94	239	eP	Pb	17 22 12.2	-0.1
LNV	Longovilo	1.15	278	eP	Pn	17 22 15.7	+0.1
LNV				i S	Sb	17 22 31.3	+0.9

MEX 21 17:23:43.9±0.9, 1658N×9895W, h14^{km}±29^{km}, MD3.5, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.97	287	i P	Pb	17 23 56.0	-6.5
ACX				i S	Sb	17 24 07.0	-8.2
MEIG	Mezcala	1.49	335	i P	Pn	17 24 06.9	-3.2
MEIG				i S	Sn	17 24 24.6	-4.8
UTMO	Huajuapan	1.66	41	i P	Pn	17 24 08.7	-3.8
UTMO				i S	Sn	17 24 29.1	-4.5

VHO	**Vista Hermosa**	**2.18**	**77**	*e*P	Pn	17 24 17.9	-1.8
VHO				*i* S	Sn	17 24 42.7	-3.8

ISCJB ***21*** *17:32:30.0±3.6, 125N±0.1×1417E±0.3, h66^{km}±38^{km}, mb3.8/10, Error ellipse: s-maj=43.3km s-min=19.8km az=0.8*

NEIC ***21*** *17:32:33.3±2.3, 1252N×14190E, h84^{km}±25^{km}, mb4.2/2, Error ellipse: s-maj=28.6km s-min=12.8km az=91.0*

IDC ***21*** *17:32:33.6±4.0, 1251N×14192E, h85^{km}±42^{km}, mb3.5/8, mb1 3.7/9, mb1mx3.6/21, mbtmp3.6/9, Error ellipse: s-maj=43.0km s-min=17.8km az=92.0*

ISC 21 17:32:33.5±3.1**, 125N**±01×**1419E**±03**, h85**^{km}±34^{km}**, n13, σ0^{s}59**/13**, mb3.8**/10**, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**3.07**	**69**	P	**Pn**	**17 33 19.8**	**-0.1**
	4.6nm,0.3s,baz=204,slow=18,SNR=3.1						
WRA	**Warramunga Arr**	**33.11**	**193**	P	**P**	**17 39 00.9**	**-0.6**
	1.1nm,0.7s,mb3.8,baz=12,slow=9.7,SNR=13						
ASAR	**Alice Springs**	**36.80**	**192**	P	**P**	**17 39 33.9**	**+0.7**
	0.2nm,0.3s,mb3.5,baz=20,slow=12,SNR=9.2						
SONM	**Songino Array**	**46.00**	**327**	P	**P**	**17 40 48.7**	**+0.5**
	0.1nm,0.5s,mb2.8,baz=16,slow=26,SNR=4.1						
MK31	**Makanchi Array**	**60.28**	**317**	*e*P	**P**	**17 42 33.7**	**+0.6**
MK31				*e*		17 42 40.9	
MKAR	**Makanchi Array**	**60.28**	**317**	P	**P**	**17 42 33.8**	**+0.8**
	0.9nm,0.6s,mb4.0,baz=94,slow=8.9,SNR=14						
ZALV	**Zalesovo Beam**	**60.84**	**325**	P	**P**	**17 42 36.5**	**-0.2**
	0.2nm,0.3s,mb3.7,baz=95,slow=7.2,SNR=3.8						
KURK	**Kurchatov**	**63.56**	**321**	*e*P	**P**	**17 42 54.7**	**-0.3**
	1.6nm,0.6s,mb4.0						
KURK				*e*		17 43 03.9	
BRVK	**Borovoye**	**69.06**	**322**	*e*P	**P**	**17 43 29.0**	**-1.1**
	3.6nm,0.9s,mb4.2						
YKA	**Yellowknife Ar**	**85.12**	**27**	P	**P**	**17 45 00.5**	**+0.7**
	0.2nm,0.5s,mb3.3,baz=285,slow=5.0,SNR=5.5						
ARCES	**ARCESS Array B**	**87.20**	**342**	P	**P**	**17 45 09.4**	**-0.5**
	4.7nm,1.1s,mb4.3,baz=42,slow=3.8,SNR=5.2						
FINES	**FINESS Array B**	**90.89**	**334**	P	**P**	**17 45 27.0**	**-0.4**
FINES	**FINESS Array B**	**90.89**	**334**	P	**P**	**17 45 27.0**	**-0.4**
	1.3nm,0.6s,mb4.2,baz=67,slow=5.0,SNR=4.8						

IDC 21 17:46:25.8±2.3**, 1884N**×**3948E, h0**^{km}**, mb3.5**/5**, mb1 3.6**/5**, mb1mx3.4**/18**, mbtmp3.6**/5**, Error ellipse: s-maj=66.2km s-min=27.5km az=157.0, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRTR	**Keskin Array B**	**21.41**	**348**	P	P	17 51 15.3	0.0
	2.2nm,1.1s,baz=149,slow=12,SNR=5.7						
TORD	**Torodi Ar. Bea**	**36.71**	**267**	P	P	17 53 35.0	0.0
	1.3nm,0.9s,baz=87,slow=7.8,SNR=6.1						
MKAR	**Makanchi Array**	**44.72**	**42**	P	P	17 54 41.1	+0.4
	0.7nm,0.8s,baz=242,slow=6.7,SNR=10						
ZALV	**Zalesovo Beam**	**49.27**	**34**	P	P	17 55 16.4	+0.2
	0.8nm,0.9s,baz=246,slow=7.3,SNR=4.3						
SONM	**Songino Array**	**60.83**	**45**	P	P	17 56 39.5	-0.4
	0.4nm,0.8s,baz=271,slow=7.1,SNR=4.3						

IDC 21 17:55:05.4±7.0**, 1528S**×**17416W, h0**^{km}**, mb4.1**/2**, mb1 4.4**/2**, mb1mx3.8**/14**, mbtmp4.1**/2**, MS3.8**/3**, Ms1 3.8**/3**, ms1mx3.2**/21**, Error ellipse: s-maj=333.7km s-min=43.2km az=141.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPT	**Papeete**	**23.69**	**99**	*e*LQ		18 04 32.8	
	444nm,28.5s						
PPT				*e*LR	LR	18 05 35.2	
	194nm,24.8s						
PPT	**Papeete**	**23.69**	**99**	LR	LR	18 08 40.7	
	comp=Z,200nm,18.1s,baz=220,slow=34						
HNR	**Honiara**	**25.93**	**280**	LR	LR	18 09 12.8	
	comp=Z,175nm,18.3s,baz=180,slow=33						
TAOE	**Nuku Hiva Isla**	**33.84**	**83**	*e*LR	LR	18 10 09.1	
	366nm,25.7s						
WRA	**Warramunga Arr**	**49.16**	**257**	P	P	18 03 55.7	+0.3
	1.1nm,0.9s,baz=94,slow=7.4,SNR=14						
ASAR	**Alice Springs**	**49.45**	**252**	P	P	18 03 57.5	-0.1
	5.8nm,0.8s,baz=86,slow=7.7,SNR=55						
MJAR	**Matsushiro Arr**	**68.37**	**320**	LR	LR	18 31 19.8	
	comp=Z,61nm,20.6s,baz=170,slow=32						
BRTR	**Keskin Array B**	**145.60**	**320**	PKPbc	PKPbc	18 14 43.6	-2.5
	1.6nm,0.8s,baz=64,slow=2.9,SNR=8.6						
GERES	**GERESS Array B**	**145.91**	**351**	PKPbc	PKPbc	18 14 47.8	+1.0
	0.4nm,0.5s,baz=332,slow=5.5,SNR=5.5						

IDC ***21*** *18:13:59.3±0.8, 2104S×17041E, h0^{km}, mb4.3/9, mb1 4.5/11, mb1mx4.3/17, mbtmp4.3/11, ML3.5/2, MS3.9/15, Ms1 3.9/15, ms1mx3.8/22, Error ellipse: s-maj=25.3km s-min=18.3km az=159.0*

ISCJB ***21*** *18:14:01.0±0.5, 2106S±009×17041E±006, h20^{km}, mb4.4/15, MS3.9/13, Error ellipse: s-maj=12.9km s-min=8.3km az=174.3*

NEIC ***21*** *18:14:04.8±2.4, 2102S×17046E, h38^{km}±20^{km}, mb4.5/9, Error ellipse: s-maj=15.8km s-min=11.3km az=211.0*

ISC 21 18:14:02.8±0.5**, 2106S**±009×**17043E**±006**, h21**^{km}**, h21**^{km}±.6^{km}**:pP-P, n52, σ1^{s}06**/34**, mb4.4**/15**, MS3.9**/13**, 1C, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**3.84**	**254**	*e*P	**Pn**	**18 15 01.3**	**+0.5**
DZM				*e*S	**Sn**	**18 15 44.6**	**-0.7**
DZM	**Mont Dzumac**	**3.84**	**254**	*e*P	**Pn**	**18 15 01.2**	**+0.5**
DZM				*e*S	**Sn**	**18 15 44.6**	**-0.7**
DZM	**Mont Dzumac**	**3.84**	**254**	Pn	**Pn**	**18 15 01.0**	**+0.2**
	1.7nm,0.3s,baz=352,slow=23,SNR=32						
DZM				Sn	**Sn**	**18 15 45.9**	**+0.6**
	8.6nm,0.3s,baz=333,slow=23,SNR=11						
HNR	**Honiara**	**15.34**	**317**	LR	LR	18 22 40.0	
	comp=Z,203nm,18.7s,baz=180,slow=34						
URZ	**Urewera**	**18.09**	**163**	P	**Pn**	**18 18 13.5**	**+0.7**
	0.3nm,0.3s,baz=103,slow=3.5,SNR=5.7						
URZ				LR	LR	18 23 38.3	
	comp=Z,191nm,18.9s,baz=327,slow=32						
ARMA	**Armidale**	**19.31**	**237**	*e*P	**Pn**	**18 18 30.0**	**+2.3**
ARMA				*e*		18 18 35.6	
RPZ	**Rata Peaks**	**22.60**	**179**	P	**P**	**18 19 00.8**	**-1.2**
RPZ				LR	LR	18 26 18.0	
RPZ	**Rata Peaks**	**22.60**	**179**	P	**P**	**18 19 00.8**	**-1.2**
	12nm,0.9s,mb4.3,baz=21,slow=2.7,SNR=6.4						
RPZ				LR	LR	18 26 18.0	
	comp=Z,257nm,20.7s,MS3.6,baz=1.2,slow=33						
CTA	**Charters Tower**	**22.65**	**268**	*e*P	**P**	**18 19 03.1**	**+0.4**
	7.2nm,0.8s,mb4.2						
CTA				*e*pP		18 19 10.2	
CTA	**Charters Tower**	**22.65**	**268**	P	**P**	**18 19 03.4**	**+0.7**
	18nm,0.8s,mb4.6,baz=87,slow=11,SNR=5.6						
CTAO	**Charters Tower**	**22.65**	**268**	*e*P	**P**	**18 19 03.2**	**+0.5**
	18nm,0.8s,mb4.5						
CNB	**Canberra Magne**	**23.31**	**228**	*e*P	**P**	**18 19 10.7**	**+1.2**
	45nm,1.3s,mb4.7						
CNB				*e*pP		18 19 17.2	
PMG	**Port Moresby**	**25.22**	**294**	P	**P**	**18 19 26.9**	**-0.5**
	8.8nm,0.8s,mb4.3,baz=152,slow=4.9,SNR=5.3						
PMG				LR	LR	18 28 10.3	
	comp=Z,133nm,19.0s,MS3.5,baz=326,slow=34						
TOO	**Toolangi**	**27.15**	**227**	*e*P	**P**	**18 19 46.6**	**+2.0**
	4.4nm,0.8s,mb4.0						
TOO				*e*	pP	18 19 51.5	+0.5
RAR	**Rarotonga**	**27.78**	**96**	LR	LR	18 27 31.7	
	comp=Z,216nm,22.0s,MS3.7,baz=267,slow=29						
STKA	**Stephens Creek**	**27.89**	**241**	*e*P	**P**	**18 19 52.1**	**+0.8**
	6.0nm,0.8s,mb4.3						
STKA				*e*pP	pP	18 19 58.1	+0.4
STKA	**Stephens Creek**	**27.89**	**241**	P	**P**	**18 19 51.1**	**-0.2**
	6.6nm,0.8s,mb4.3,baz=82,slow=7.9,SNR=13						
STKA				LR	LR	18 31 10.8	
	comp=Z,375nm,18.1s,MS4.0,baz=21,slow=37						
WB2	**Warramunga Arr**	**33.77**	**265**	*e*P	**P**	**18 20 42.7**	**-0.6**
WB2				*e*pP	pP	18 20 48.5	-1.2
WRA	**Warramunga Arr**	**33.78**	**265**	P	**P**	**18 20 42.5**	**-1.0**
	4.8nm,1.0s,mb4.4,baz=98,slow=8.6,SNR=28						
WRA				LR	LR	18 34 25.6	
	comp=Z,258nm,20.1s,MS4.0,baz=105,slow=36						
ASAR	**Alice Springs**	**33.82**	**259**	P	**P**	**18 20 43.5**	**-0.3**
	15nm,0.7s,mb5.0,baz=84,slow=9.3,SNR=201						
KAKA	**Kakadu**	**37.21**	**277**	*e*P	**P**	**18 21 12.6**	**-0.4**
	5.0nm,0.9s,mb4.3						
KAKA				*e*pP	pP	18 21 18.8	-0.6
PPT	**Papeete**	**37.84**	**92**	*e*S	**S**	**18 27 11.3**	**+2.8**
	65nm,23.7s						
PPT				*e*LR	LR	18 31 44.0	
	295nm,26.2s						
PPT	**Papeete**	**37.84**	**92**	LR	LR	18 32 05.7	
	comp=Z,101nm,21.6s,MS3.6,baz=263,slow=29						
FORT	**Forrest**	**39.12**	**247**	*e*P	**P**	**18 21 28.7**	**-0.2**
	8.6nm,0.8s,mb4.5						
FORT				*e*pP	pP	18 21 34.8	-0.6
FITZ	**Fitzroy Crossi**	**42.20**	**266**	⇑*i*P	**P**	**18 21 54.6**	**+0.1**
	9.3nm,0.9s,mb4.4						
FITZ				*e*pP	pP	18 22 00.9	-0.1
FITZ	**Fitzroy Crossi**	**42.20**	**266**	LR	LR	18 39 49.3	
	comp=Z,209nm,19.1s,MS4.0,baz=101,slow=37						
NWAO	**Narrogin (SRO)**	**48.40**	**244**	LR	LR	18 43 39.3	
	comp=Z,319nm,18.1s,MS4.3,baz=76,slow=37						
TAOE	**Nuku Hiva Isla**	**49.08**	**83**	*e*LR	LR	18 36 57.5	
	532nm,24.8s						
VNDA	**Vanda**	**56.66**	**182**	LR	LR	18 43 19.3	
	comp=Z,136nm,19.0s,MS4.1,baz=204,slow=31						
QSPA	**South Pole Qui**	**69.01**	**180**	*e*P	**P**	**18 25 05.0**	**-1.2**
	27nm,1.1s,mb5.1						
ASAJ	**Asahikawa**	**69.69**	**339**	LR	LR	18 55 01.5	
	comp=Z,55nm,19.8s,MS3.8,baz=149,slow=35						
KSRS	**Korea Array**	**70.63**	**325**	LR	LR	18 54 15.8	
	comp=Z,25nm,19.9s,MS3.5,baz=250,slow=34						
MAW	**Mawson**	**77.18**	**202**	LR	LR	18 53 49.0	
	comp=Z,136nm,20.4s,MS4.3,baz=74,slow=31						
GAMB	**Gambell**	**85.70**	**8**	*e*P	**P**	**18 26 40.1**	**+0.5**
GAMB				*e*	pP	18 26 46.8	+0.2
VNA3	**Neumayer Olymp**	**87.95**	**180**	*e*	**P**	**18 26 49.0**	**-1.7**
VNA3				*e*	pP	18 26 54.6	-3.1
VNA3				*e*		18 27 09.4	
VNA2	**Neumayer--Watz**	**88.25**	**181**	*e*	**P**	**18 26 50.1**	**-2.1**
	baz=191,slow=3.6						
VNA2				*e*	pP	18 26 56.8	-2.4
VNA2				*e*		18 27 11.9	
NVAR	**Mina Array Bea**	**89.17**	**48**	P	**P**	**18 26 57.9**	**+1.0**
NVAR	**Mina Array Bea**	**89.17**	**48**	P	**P**	**18 26 57.9**	**+1.0**
	1.1nm,0.8s,mb4.2,baz=210,slow=6.5,SNR=7.8						
SONM	**Songino Array**	**89.33**	**323**	P	**P**	**18 26 57.0**	**-0.5**
	0.3nm,0.8s,mb3.6,baz=133,slow=5.4,SNR=4.7						
TXAR	**Lajitas Array**	**96.65**	**61**	P	**P**	**18 27 32.0**	**+0.3**
TXAR				LR	LR	19 02 03.2	
TXAR	**Lajitas Array**	**96.65**	**61**	P	**P**	**18 27 32.0**	**+0.3**
	0.1nm,0.3s,mb3.7,baz=205,slow=1.9,SNR=2.6						
TXAR				LR	LR	19 02 03.2	
	comp=Z,154nm,21.3s,MS4.5,baz=180,slow=30						
YKA	**Yellowknife Ar**	**101.76**	**27**	P	Pdif	18 27 55.2	+1.0
YKA	**Yellowknife Ar**	**101.76**	**27**	P	Pdif	18 27 55.2	+1.0
	0.1nm,0.4s,baz=249,slow=4.4,SNR=4.1						
BRG	**Berggiesshubel**	**144.98**	**334**	*e*P	PKPdf	18 33 36.9	-1.4
	27nm,1.9s						
CLL	**Collm**	**145.03**	**335**	*e*P	PKPbc	18 33 37.0	-0.7
CLL	**Collm**	**145.03**	**335**	*e*PKPdf	PKPdf	18 33 37.0	-1.3
EKA	**Eskdalemuir Ar**	**145.44**	**354**	PKPbc	PKPbc	18 33 38.0	-0.9
EKA	**Eskdalemuir Ar**	**145.44**	**354**	PKPbc	PKPbc	18 33 38.0	-0.9
	5.0nm,0.8s,baz=346,slow=2.8,SNR=8.1						
GERES	**GERESS Array B**	**146.61**	**332**	PKPbc	PKPbc	18 33 41.8	-0.8
GERES	**GERESS Array B**	**146.61**	**332**	PKPbc	PKPbc	18 33 41.8	-0.8
	1.6nm,0.8s,baz=45,slow=2.3,SNR=14						
DAVOX	**Davos/Dischmat**	**149.85**	**333**	PKPbc	PKPbc	18 33 49.6	-1.6
DAVOX	**Davos/Dischmat**	**149.85**	**333**	PKPbc	PKPbc	18 33 49.6	-1.6
	5.3nm,1.0s,baz=336,slow=18,SNR=3.9						

IDC 21 18:31:21.0±8.6**, 1096N**×**9120E, h0**^{km}**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.3**/21**, mbtmp3.4**/3**, Error ellipse: s-maj=428.9km s-min=28.4km az=60.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**36.51**	**350**	P	P	18 38 28.1	0.0
	0.5nm,0.8s,baz=173,slow=8.5,SNR=6.0						
WRA	**Warramunga Arr**	**52.40**	**126**	P	P	18 40 35.6	+0.1
	0.5nm,0.4s,baz=306,slow=8.3,SNR=16						
ASAR	**Alice Springs**	**54.10**	**130**	P	P	18 40 47.8	-0.2
	0.1nm,0.3s,baz=306,slow=7.2,SNR=5.2						

IDC ***21*** *18:34:43.2±0.7, 3081N×6978E, h0^{km}, mb4.1/17, mb1 4.2/18, mb1mx4.1/26, mbtmp4.1/18, ML4.0/1, MS4.0/13, Ms1 4.0/13, ms1mx3.8/33, Error ellipse: s-maj=20.4km s-min=15.3km az=26.0*

ISCJB ***21*** *18:34:46.8±0.3, 3095N±003×6987E±003, h33^{km}, mb4.3/43, MS3.9/17, Error ellipse: s-maj=5.0km s-min=3.9km az=26.4*

BJI ***21*** *18:34:46.4, 31.15N×6990E, h17^{km}, mB5.0, mb4.6, Ms4.3, Msz4.2*

MOS ***21*** *18:34:47.8±1.2, 3106N×6980E, h33^{km}, mb4.5/32, Error ellipse: s-maj=8.4km s-min=5.3km az=87.9*

NEIC ***21*** *18:34:48.9±3.0, 3100N×6981E, h31^{km}±21^{km}, mb4.5/20, Error ellipse: s-maj=10.5km s-min=7.1km az=212.0*

NNC ***21*** *18:34:48.4±15.0, 3132N×6966E, h0^{km}±149^{km}, mb4.2, Error ellipse: s-maj=130.0km s-min=71.7km az=156.0*

NDI ***21*** *18:34:55.2±7.1, 3092N×7041E, h33^{km}, ML4.3, mb4.5(NEIC)*

ISC 21 18:34:47.4±1.1**, 3095N**±003×**6977E**±004**, h21**^{km}±8^{km}**, n167, σ1^{s}27**/170**, mb4.3**/43**, MS3.9**/17**, 10C-5D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DRP	**Derazinda**	**0.87**	**25**	⇑P	**Pb**	**18 35 05.0**	**+1.2**
SBDP	**Sheikh Budin**	**1.61**	**33**	P	**Pn**	**18 35 16.2**	**+1.6**
THW	**Thamme Wali**	**2.49**	**42**	P	**Pn**	**18 35 28.4**	**+1.7**
CEP	**Cherat**	**3.39**	**32**	⇑P	**Pn**	**18 35 41.5**	**+2.5**
KBL	**Kabul**	**3.63**	**350**	*e*P	**Pn**	**18 35 45.0**	**+2.5**
CHCP	**Chirah Chowk**	**4.00**	**47**	⇑P	**Pn**	**18 35 49.5**	**+2.0**
THN	**Thein Dam**	**5.28**	**72**	*e*P	**Pn**	**18 36 05.8**	**+0.8**
THN				*e*x	x	18 37 29.2	
DLH	**Dalhousie**	**5.51**	**72**	*e*P	**Pn**	**18 36 08.0**	**-0.2**
DLH				*e*x	x	18 37 13.0	
BHK	**Bhakra**	**5.71**	**84**	*e*P	**Pn**	**18 36 09.0**	**-2.0**
AJM	**Ajmer**	**6.17**	**135**	*e*P	**Pn**	**18 36 16.0**	**-1.4**
AJM				*i* x	x	18 38 01.0	
SDNR	**Sundarnagar**	**6.19**	**83**	*e*P	**Pn**	**18 36 18.1**	**+0.5**
SDNR				*e*x	x	18 37 28.5	
KUDL	**Kundal**	**6.49**	**114**	*e*P	**Pn**	**18 36 18.6**	**-3.0**
KUDL				*e*S	**Sn**	**18 37 25.3**	**-10**
KUDL				AML	AML	18 38 22.6	
	comp=N,197nm,0.6s						
KUDL				AML	AML	18 38 22.7	
	comp=E,225nm,0.7s						
NDI	**New Delhi**	**6.85**	**107**	*e*P	**Pn**	**18 36 24.0**	**-2.7**
NDI				*e*x	x	18 38 20.0	
SONA	**Sohna**	**6.91**	**111**	*e*P	**Pn**	**18 36 25.8**	**-1.7**
SONA				*e*S	**Sn**	**18 37 35.3**	**-10**
SONA				AML	AML	18 38 30.6	
	comp=N,116nm,0.3s						
SONA				AML	AML	18 38 31.3	
	comp=E,151nm,0.7s						
DDI	**Dehra Dun**	**7.17**	**93**	*e*P	**Pn**	**18 36 30.8**	**-0.2**
DDI				*e*x	x	18 38 04.8	
JOSI	**Joshimath**	**8.43**	**90**	*e*P	**Pn**	**18 36 47.9**	**-0.4**
JOSI				*e*x	x	18 38 19.0	
JOSI				AML	AML	18 39 31.9	
	comp=E,1µm,0.8s						
JOSI				AML	AML	18 39 32.6	
	comp=N,1µm,0.8s						
LGTI	**Lohaghat**	**9.19**	**97**	*e*P	**Pn**	**18 36 57.0**	**-1.7**
KSH	**Kashi**	**9.94**	**29**	P	**Pn**	**18 37 11.4**	**+2.5**
KSH				S	**Sn**	**18 38 54.3**	**-5.5**
KSH				Smax			
	comp=N,410nm,0.9s						
KSH				Smax			
	comp=E,467nm,0.7s						
AML	**Almayashu**	**11.59**	**15**	P	**Pn**	**18 37 31.4**	**-0.2**
	SNR=60						
AML	**Almayashu**	**11.59**	**15**	*e*P	**Pn**	**18 37 31.1**	**-0.4**
	comp=E,70nm,0.5s						
UCH	**Uchtor**	**11.88**	**17**	P	**Pn**	**18 37 35.6**	**+0.1**
	SNR=30						
UCH	**Uchtor**	**11.88**	**17**	*e*P	**Pn**	**18 37 34.6**	**-0.9**
	comp=E,30nm,0.6s						
KZA	**Kyzart**	**11.94**	**20**	P	**Pn**	**18 37 35.9**	**-0.4**
	SNR=13						
JBP	**Jabalpur**	**11.95**	**128**	⇓*i*x	x	18 37 30.8	
JBP				*e*S	**Sn**	**18 39 34.7**	**-15**
EKS2	**Erkin-Say**	**12.12**	**14**	P	**Pn**	**18 37 36.1**	**-2.7**
	SNR=14						
EKS2	**Erkin-Say**	**12.12**	**14**	*e*P	**Pn**	**18 37 38.2**	**-0.5**
	comp=E,17nm,0.6s						
KK31	**Karatay Array**	**12.14**	**3**	P	**Pn**	**18 37 38.5**	**-0.7**
	comp=E,9.1nm,0.6s,baz=186,slow=13,SNR=171						
KK31				⇑S	**Sn**	**18 39 51.8**	**-2.1**
	comp=E,21nm,0.8s,baz=189,slow=26						
KK31	**Karatay Array**	**12.14**	**3**	*i* P	**Pn**	**18 37 38.4**	**-0.7**
KK31				pmax	pmax		
	comp=Z,12nm,0.5s						
KKAR	**Karatay Array**	**12.14**	**3**	*e*P	**Pn**	**18 37 38.4**	**-0.7**
KKAR				pmax	pmax		
	comp=Z,6.0nm,0.5s						
AAK	**Ala-Archa**	**12.26**	**17**	P	**Pn**	**18 37 40.6**	**0.0**
	SNR=12						
AAK	**Ala-Archa**	**12.26**	**17**	*e*P	**Pn**	**18 37 39.4**	**-1.3**
	comp=Z,26nm,0.7s						
AAK	**Ala-Archa**	**12.26**	**17**	⇑*i*P	**Pn**	**18 37 39.6**	**-1.1**
AAK				pmax	pmax		
	comp=Z,10.0nm,0.7s						
KBK	**Karagaybulak**	**12.39**	**18**	P	**Pn**	**18 37 43.3**	**+0.8**
	SNR=7.6						
FRU	**Bishkek**	**12.47**	**17**	*e*P	**Pn**	**18 37 42.0**	**-1.6**
FRU				pmax	pmax		
	comp=Z,80nm,1.4s						
CHMS	**Chumysh**	**12.66**	**17**	P	**Pn**	**18 37 45.5**	**-0.7**
	SNR=9.6						
TKM2	**Tokmak 2**	**12.82**	**20**	P	**Pn**	**18 37 50.2**	**+1.9**
	SNR=12						
TKM2	**Tokmak 2**	**12.82**	**20**	⇓P	**Pn**	**18 37 48.0**	**-0.3**
	comp=Z,3.8nm,1.1s						
TKM2				⇑S	**Sn**	**18 40 09.1**	**-1.3**
	comp=Z,4.0nm,1.4s						
TKM2	**Tokmak 2**	**12.82**	**20**	*e*P	**Pn**	**18 37 47.9**	**-0.5**
	comp=Z,15nm,0.7s						
TKM2	**Tokmak 2**	**12.82**	**20**	*e*P	**Pn**	**18 37 47.9**	**-0.4**
TKM2				pmax	pmax		
	comp=Z,15nm,0.7s						
USP	**Ospenovka**	**12.86**	**16**	P	**Pn**	**18 37 49.0**	**+0.1**
	SNR=7.4						
POO	**Poona**	**12.91**	**162**	*e*P	**Pn**	**18 37 52.0**	**+2.3**
GKN	**Gorkha**	**13.28**	**99**	*e*P	**Pn**	**18 37 50.3**	**-4.4**
	comp=Z,41nm,0.4s						
KKN	**Kakani**	**13.89**	**99**	*e*P	**Pn**	**18 37 58.5**	**-4.5**
	comp=Z,72nm,0.7s						
JIRN	**Jiri**	**14.70**	**99**	*e*P	**Pn**	**18 38 10.0**	**-4.0**
	comp=Z,14nm,0.3s						
HYB	**Hyderabad**	**15.66**	**147**	*e*P	**Pn**	**18 38 29.0**	**+2.1**
HYB				*e*S	Sn	18 41 51.0	+31
HYB	**Hyderabad**	**15.66**	**147**	*i* P	**Pn**	**18 38 29.0**	**+2.1**
	comp=Z,170nm,1.0s						
HYB				*e*S	**Sn**	**18 41 22.0**	**+2.0**
ODAN	**Odare**	**15.96**	**100**	*e*P	**Pn**	**18 38 27.5**	**-3.2**
	comp=Z,24nm,0.7s						
TAPN	**Taplejung**	**16.08**	**98**	*e*P	**Pn**	**18 38 28.4**	**-3.8**
	comp=Z,25nm,0.7s						
VIS	**Vishakhapatnam**	**18.03**	**134**	*e*x	x	18 39 07.9	
LSA	**Lhasa**	**18.50**	**88**	P	**Pn**	**18 39 04.5**	**+2.1**
LSA				AMB	AMB		
	comp=Z,20nm,1.0s						
LSA	**Lhasa**	**18.50**	**88**	*e*P	**Pn**	**18 39 02.3**	**-0.1**
	comp=Z,24nm,1.1s						
LSA	**Lhasa**	**18.50**	**88**	*e*P	**Pn**	**18 39 02.3**	**-0.1**
LSA				pmax	pmax		
	comp=Z,24nm,1.1s						
MK31	**Makanchi Array**	**18.54**	**28**	⇓P	**Pn**	**18 39 01.5**	**-1.3**
	comp=Z,8.4nm,0.7s						
MK31	**Makanchi Array**	**18.54**	**28**	*e*P	**Pn**	**18 39 01.1**	**-1.7**
MK31	**Makanchi Array**	**18.54**	**28**	*i* P	**Pn**	**18 39 01.6**	**-1.2**
MK31				pmax	pmax		
	comp=Z,9.0nm,0.6s						
MKAR	**Makanchi Array**	**18.54**	**28**	P	**Pn**	**18 39 01.6**	**-1.2**
MKAR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
MKAR	**Makanchi Array**	**18.54**	**28**	P	**Pn**	**18 39 01.4**	**-1.4**
	comp=Z,0.5nm,0.3s,baz=209,slow=11,SNR=86						
MKAR				LR	LR	18 47 16.4	
	comp=Z,710nm,18.3s,baz=210,slow=40						
WMQ	**Urumqi**	**19.13**	**43**	P	**Pn**	**18 39 10.3**	**+0.4**
WMQ				AP	pP	18 39 17.3	+2.5
WMQ				XP	sP	18 39 22.8	+5.3
WMQ				PP		18 39 26.0	
WMQ				S	**Sn**	**18 42 31.6**	**-12**
WMQ				SS		18 42 56.3	
WMQ				AMB	AMB		
	comp=Z,27nm,1.0s						
WMQ				LR	LR		
	comp=N,567nm,18.5s						
WMQ				LR	LR		
	comp=E,346nm,20.5s						
WMQ				LR	LR		
	comp=Z,523nm,17.2s						
RDF	**Al-Radifah**	**19.36**	**270**	*e*P	**Pn**	**18 39 11.6**	**-1.3**
RDF				AML	AML	18 39 21.4	
	comp=Z,15nm,0.6s						
MIB	**Mutribah**	**19.39**	**272**	*e*P	**Pn**	**18 39 12.3**	**-0.8**
MIB				AMb	AMB	18 39 18.7	
	comp=Z,36nm,0.7s						
NAY	**Al-Naaiem**	**19.57**	**271**	*e*P	**Pn**	**18 39 14.3**	**-1.0**
NAY				AMb	AMB	18 39 19.2	
	comp=Z,27nm,1.0s						
RST	**Umm Al-Ruwaisa**	**19.73**	**272**	*e*P	**Pn**	**18 39 16.5**	**-0.8**
RST				AML	AML	18 39 24.1	
	comp=Z,16nm,0.6s						
AB31	**Akbulak array**	**19.74**	**341**	⇑P	**Pn**	**18 39 16.4**	**-0.7**
	comp=Z,3.1nm,0.6s,baz=148,slow=12						
AB31	**Akbulak array**	**19.74**	**341**	P	**Pn**	**18 39 16.6**	**-0.6**
AB31				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SHL	**Shillong**	**20.19**	**100**	*e*P	**P**	**18 39 19.5**	**-1.3**
SHL				*e*x	x	18 42 56.5	
KURK	**Kurchatov**	**20.82**	**16**	*e*P	**P**	**18 39 26.4**	**-0.9**
	comp=Z,21nm,0.9s						
KURK	**Kurchatov**	**20.82**	**16**	⇑*i*P	**P**	**18 39 26.8**	**-0.6**
AKTK	**Aktyubinsk**	**21.36**	**339**	P	**P**	**18 39 33.6**	**+0.4**
AKTK				LR	LR	18 48 56.2	
AKTO	**Aktyubinsk**	**21.36**	**339**	P	**P**	**18 39 33.6**	**+0.4**
AKTO				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.1						
AKTO				MLR	MLR		
	comp=Z,180nm,19.9s,MS3.5						
AKTO	**Aktyubinsk**	**21.36**	**339**	P	**P**	**18 39 33.6**	**+0.4**
	comp=Z,6.8nm,0.7s,mb4.1,baz=177,slow=8.4,SNR=9.8						
AKTO				LR	LR	18 48 56.2	
	comp=Z,180nm,19.9s,MS3.5,baz=150,slow=40						
BRVK	**Borovoye**	**22.09**	**1**	⇑P	**P**	**18 39 41.0**	**0.0**
	comp=Z,7.2nm,1.0s,mb4.1						
BRVK	**Borovoye**	**22.09**	**1**	*e*P	**P**	**18 39 40.5**	**-0.5**
	comp=Z,17nm,0.7s,mb4.6						
BRVK	**Borovoye**	**22.09**	**1**	*e*P	**P**	**18 39 40.5**	**-0.5**
BRVK				pmax	pmax		
	comp=Z,17nm,0.7s,mb4.6						
KIV	**Kislovodsk**	**24.99**	**309**	*e*P	**P**	**18 40 16.5**	**+6.9**
	comp=Z,14nm,1.1s,mb4.4						
KIV	**Kislovodsk**	**24.99**	**309**	*e*P	**P**	**18 40 11.0**	**+1.4**
KIV				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.3						
KIV				MLR	MLR		
	comp=Z,117nm,13.0s,MS3.6						
ZAL	**Zalesovo**	**25.40**	**21**	P	**P**	**18 40 13.2**	**0.0**
ZALV	**Zalesovo Beam**	**25.42**	**21**	P	**P**	**18 40 13.2**	**-0.2**
	comp=Z,6.8nm,0.4s,mb4.5,baz=216,slow=9.0,SNR=45						
ZALV				LR	LR	18 51 20.0	
	comp=Z,353nm,19.0s,MS3.9,baz=317,slow=39						
NVS	**Novosibirsk**	**25.74**	**18**	*e*P	**P**	**18 40 15.9**	**-0.4**
NVS				pmax	pmax		
	comp=Z,34nm,2.2s,mb4.5						
NVS				pmax	pmax		
	comp=N,29nm,1.9s						
GTA	**Gaotai**	**25.88**	**63**	P	**P**	**18 40 18.8**	**+1.1**
GTA				AP	pP	18 40 22.4	-1.5
GTA				XP	sP	18 40 23.9	-2.6
GTA				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.2						
ARU	**Arti**	**26.66**	**346**	*e*P	**P**	**18 40 25.9**	**+1.4**
	comp=Z,5.0nm,0.6s,mb4.2						
ARU	**Arti**	**26.66**	**346**	*d i*P	**P**	**18 40 25.6**	**+1.1**
ARU				*e*PPP		18 41 13.1	
ARU				*e*S	**S**	**18 44 55.8**	**-2.6**
ARU				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.1						
ASF	**Jabal al Asfar**	**27.98**	**281**	LR	LR	18 53 40.6	
	comp=Z,130nm,20.5s,MS3.5,baz=122,slow=41						
CHTO	**Chiang Mai**	**29.00**	**108**	*e*P	**P**	**18 40 45.6**	**-0.2**
	comp=Z,4.8nm,0.9s,mb4.2						
CHTO	**Chiang Mai**	**29.00**	**108**	*e*P	**P**	**18 40 45.7**	**-0.2**
CHTO				pmax	pmax		

	comp=Z,5.0nm,0.9s,mb4.2						
MMAI	**Mount Meron Ar**	29.15	283	LR	LR	18 54 16.3	
	comp=Z,224nm,18.3s,MS3.8,baz=100,slow=40						
KMI	**Kunming**	29.60	93	P	P	18 40 51.1	-0.1
KMI				LR	LR		
	comp=N,237nm,14.3s						
KMI				LR	LR		
	comp=E,153nm,5.9s						
KMI				LR	LR		
	comp=Z,164nm,14.3s,MS3.8						
EIL	**Elat**	30.02	277	LR	LR	18 55 04.3	
	comp=Z,180nm,19.3s,MS3.7,baz=84,slow=41						
BRTR	**Keskin Array B**	30.58	297	*i* P	P	18 41 00.3	+0.6
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BRTR	**Keskin Array B**	30.58	297	P	P	18 41 00.3	+0.6
	comp=Z,1.6nm,0.6s,mb4.0,baz=94,slow=9.5,SNR=6.5						
MOY	**Mondy**	30.91	39	*e*P	P	18 41 04.9	+2.5
ZAK	**Zakamensk**	31.60	42	⇑*i*P	P	18 41 10.2	+1.7
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.1						
TLY	**Talaya**	32.37	40	*e*P	P	18 41 17.8	+2.5
TLY				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.3						
TLY				MLR	MLR		
	comp=Z,390nm,19.0s,MS4.1						
SONM	**Songino Array**	32.57	48	P	P	18 41 18.8	+1.7
SONM				pmax	pmax		
	comp=Z,6.0nm,0.7s						
SONM				MLR	MLR		
	comp=Z,517nm,18.3s						
SONM	**Songino Array**	32.57	48	P	P	18 41 18.8	+1.7
	comp=Z,5.6nm,0.7s,mb4.6,baz=252,slow=8.8,SNR=64						
SONM				LR	LR	18 56 49.3	
	comp=Z,517nm,18.3s,MS4.3,baz=350,slow=41						
IRK	**Irkutsk**	32.97	40	*e*P	P	18 41 21.7	+1.2
IRK				pmax	pmax		
	comp=N,27nm,2.2s						
ULN	**Ulaanbaatar**	33.00	48	*e*P	P	18 41 22.2	+1.3
	comp=N,3.6nm,1.0s,mb4.3						
ULN	**Ulaanbaatar**	33.00	48	*i* P	P	18 41 22.1	+1.2
OBN	**Obninsk**	33.71	325	P	P	18 41 27.0	+0.1
OBN				*e*		18 41 43.8	
OBN				MLR	MLR		
	comp=Z,400nm,18.0s,MS4.2						
AKASG	**Malin Array Be**	35.90	315	P	P	18 41 44.6	-1.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKASG	**Malin Array Be**	35.90	315	P	P	18 41 44.5	-1.3
	comp=Z,2.1nm,0.6s,mb4.2,baz=94,slow=7.2,SNR=12						
KIEV	**Kiev**	35.90	315	*e*P	P	18 41 53.6	+7.7
	comp=Z,5.9nm,0.8s,mb4.6						
KIEV	**Kiev**	35.90	315	*e*P	P	18 41 53.6	+7.7
KIEV				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
MLR	**Muntele Rosu**	36.90	306	P	P	18 41 55.7	+1.2
MLR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
MLR	**Muntele Rosu**	36.90	306	P	P	18 41 55.7	+1.3
	comp=Z,4.3nm,1.0s,mb4.2,baz=42,slow=4.4,SNR=4.3						
CIT	**Chita**	38.22	44	*e*P	P	18 42 06.9	+1.3
BJT	**Baijiatuau**	38.48	63	*e*P	P	18 42 09.7	+1.7
	comp=Z,5.0nm,0.8s,mb4.3						
BJT	**Baijiatuau**	38.48	63	*e*P	P	18 42 09.7	+1.7
BJT				pmax	pmax		
	comp=Z,5.0nm,0.8s						
BJI	**Beijing**	38.49	63	P	P	18 42 09.4	+1.4
BJI				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.4						
LVV	**L’vov**	38.90	312	*e*P	P	18 42 21.1	+10
PSI	**Prapat**	39.26	130	LR	LR	18 59 24.7	
	comp=Z,215nm,19.3s,MS4.0,baz=100,slow=38						
JOF	**Joensuu**	40.28	334	*e*p	P	18 42 22.0	-0.6
	comp=Z,3.6nm,0.6s,mb4.3						
JOF	**Joensuu**	40.28	334	*e*P	P	18 42 22.0	-0.6
JOF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.3						
BOD	**Bodaibo**	40.38	35	*e*P	P	18 42 21.8	-1.8
BOD				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.9						
HIA	**Hailar**	41.53	49	*e*P	P	18 42 33.9	+0.8
	comp=Z,4.4nm,1.0s,mb4.0						
HIA	**Hailar**	41.53	49	*e*P	P	18 42 33.9	+0.8
HIA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
NJ2	**Nanjing**	41.57	75	*e*P	P	18 42 35.3	+1.6
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.6						
FINES	**FINESS Array B**	41.65	330	*i* P	P	18 42 34.2	+0.3
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES	**FINESS Array B**	41.65	330	P	P	18 42 34.2	+0.3
	comp=Z,1.5nm,0.6s,mb3.8,baz=114,slow=13,SNR=8.8						
FINES				LR	LR	19 01 54.2	
	comp=Z,233nm,19.6s,MS4.1,baz=124,slow=39						
KAF	**Kangasniemi**	41.85	331	*e*p	P	18 42 35.2	-0.4
	comp=Z,2.0nm,0.5s,mb4.0,baz=117,slow=8.1						
KAF	**Kangasniemi**	41.85	331	*e*P	P	18 42 35.2	-0.4
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.0						
GERES	**GERESS Array B**	45.49	310	P	P	18 43 05.4	+0.3
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	**GERESS Array B**	45.49	310	P	P	18 43 05.4	+0.3
	comp=Z,0.7nm,0.6s,mb3.7,baz=90,slow=6.7,SNR=7.2						
KEV	**Kevo**	45.63	341	*e*p	P	18 43 06.8	+0.9
	comp=Z,2.3nm,0.5s,mb4.4						
KEV	**Kevo**	45.63	341	*e*P	P	18 43 06.8	+0.9
KEV				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
ARCES	**ARCESS Array B**	45.94	340	P	P	18 43 09.1	+0.8
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ARCES	**ARCESS Array B**	45.94	340	P	P	18 43 09.1	+0.7
	comp=Z,1.7nm,0.5s,mb4.2,baz=128,slow=7.9,SNR=18						
KSRS	**Korea Array**	47.88	66	P	P	18 43 23.4	-0.5
	comp=Z,2.2nm,0.8s,mb4.2,baz=273,slow=6.7,SNR=6.2						
NB2	**NORSAR Subarra**	48.30	326	P	P	18 43 25.4	-1.5
	comp=Z,1.0nm,0.5s,mb4.1,baz=103,slow=7.9						
NOA	**NORSAR Array B**	48.30	326	P	P	18 43 26.1	-0.8
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA				MLR	MLR		
	comp=Z,193nm,19.1s						
NOA	**NORSAR Array B**	48.30	326	P	P	18 43 26.1	-0.8
	comp=Z,1.0nm,0.5s,mb4.1,baz=104,slow=7.8,SNR=5.7						
NOA				LR	LR	19 07 43.9	
	comp=Z,193nm,19.1s,MS4.1,baz=105,slow=41						
YAK	**Yakutsk**	49.13	33	*e*P	P	18 43 32.2	-0.9
	comp=Z,7.9nm,0.6s,mb4.9						
YAK	**Yakutsk**	49.13	33	*d i*P	P	18 43 33.1	-0.1
YAK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
KLR	**Kul’dur**	49.38	50	*e*P	P	18 43 32.8	-2.5
SBF	**Sospel**	50.07	303	*e*P	P	18 43 41.5	+0.9
	comp=Z,22nm,0.8s,mb4.9						
SBF	**Sospel**	50.07	303	*e*P	P	18 43 41.5	+0.9
	comp=Z,11nm,0.8s,mb5.0						
SBF	**Sospel**	50.07	303	*e*P	P	18 43 41.5	+0.9
SBF				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
LPG	**La Plagne**	50.36	306	*e*P	P	18 43 42.9	+0.1
	comp=Z,6.8nm,0.7s,mb4.5						
LPG	**La Plagne**	50.36	306	*e*P	P	18 43 42.9	+0.1
	comp=Z,3.4nm,0.7s,mb4.5						
LPG	**La Plagne**	50.36	306	*e*P	P	18 43 42.9	+0.1
LPG				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
LPL	**La Plagne**	50.38	306	*e*P	P	18 43 42.9	0.0
MBDF	**Montbardon**	50.44	305	*e*P	P	18 43 44.6	+1.2
	comp=Z,8.9nm,0.9s,mb4.5						
MBDF	**Montbardon**	50.44	305	*e*P	P	18 43 44.6	+1.2
	comp=Z,4.4nm,0.9s,mb4.5						
MBDF	**Montbardon**	50.44	305	*e*P	P	18 43 44.6	+1.2
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
CABF	**La Chapelle**	50.71	307	*e*P	P	18 43 47.9	+2.5
	comp=Z,9.3nm,0.8s,mb4.4						
CABF	**La Chapelle**	50.71	307	*e*P	P	18 43 47.9	+2.5
	comp=Z,4.7nm,0.8s,mb4.5						
CABF	**La Chapelle**	50.71	307	*e*P	P	18 43 47.9	+2.5
CABF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
TIXI	**Tiksi**	51.31	20	*e*P	P	18 43 48.5	-1.1
	comp=Z,6.7nm,0.8s,mb4.6						
TIXI	**Tiksi**	51.31	20	*e*P	P	18 43 48.7	-0.8
TIXI				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,115nm,15.0s,MS4.0						
SMF	**Signal de Mont**	52.24	307	*e*P	P	18 43 57.4	+0.5
	comp=Z,16nm,0.9s,mb4.6						
SMF	**Signal de Mont**	52.24	307	*e*P	P	18 43 57.4	+0.5
	comp=Z,7.9nm,0.9s,mb4.6						
SMF	**Signal de Mont**	52.24	307	*e*P	P	18 43 57.4	+0.5
SMF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
SSF	**Saint Saulge**	52.42	308	*e*P	P	18 43 59.0	+0.8
	comp=Z,11nm,0.8s,mb4.5						
SSF	**Saint Saulge**	52.42	308	*e*P	P	18 43 59.0	+0.8
	comp=Z,5.3nm,0.8s,mb4.5						
SSF	**Saint Saulge**	52.42	308	*e*P	P	18 43 59.0	+0.8
SSF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
EKA	**Eskdalemuir Ar**	55.66	319	P	P	18 44 20.3	-1.5
EKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
EKA	**Eskdalemuir Ar**	55.66	319	P	P	18 44 20.2	-1.5
	comp=Z,1.3nm,0.8s,mb4.0,baz=79,slow=6.9,SNR=6.0						
SEY	**Seymchan**	59.63	32	*i* P	P	18 44 50.5	+1.0
TORD	**Torodi Ar. Bea**	64.65	271	P	P	18 45 22.8	-1.2
	comp=Z,1.6nm,1.0s,mb4.0,baz=56,slow=5.5,SNR=5.1						
TORD				LR	LR	19 18 34.7	
	comp=Z,101nm,18.3s,MS4.0,baz=35,slow=41						
BOSA	**Boshof**	72.85	220	P	P	18 46 14.7	0.0
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
BOSA				MLR	MLR		
	comp=Z,129nm,18.6s,MS4.2						
BOSA	**Boshof**	72.85	220	P	P	18 46 14.7	0.0
	comp=Z,3.1nm,0.9s,mb4.2,baz=143,slow=5.2,SNR=3.1						
BOSA				LR	LR	19 15 19.5	
	comp=Z,129nm,18.6s,MS4.2,baz=82,slow=34						
WRA	**Warramunga Arr**	80.00	120	P	P	18 46 53.9	-1.6
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
WRA	**Warramunga Arr**	80.00	120	P	P	18 46 53.9	-1.6
	comp=Z,1.6nm,0.9s,mb4.0,baz=323,slow=4.9,SNR=14						
ASAR	**Alice Springs**	81.99	124	P	P	18 47 04.7	-1.3
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ASAR	**Alice Springs**	81.99	124	P	P	18 47 04.7	-1.3
	comp=Z,0.8nm,0.8s,mb3.7,baz=308,slow=5.4,SNR=14						
YKA	**Yellowknife Ar**	86.82	2	P	P	18 47 28.8	-1.1
YKA				LR	LR	19 32 09.4	
YKA	**Yellowknife Ar**	86.82	2	P	P	18 47 28.8	-1.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA				MLR	MLR		
	comp=Z,76nm,19.3s						
YKA	**Yellowknife Ar**	86.82	2	P	P	18 47 28.8	-1.1
	comp=Z,1.0nm,0.7s,mb4.1,baz=349,slow=4.9,SNR=16						
YKA				LR	LR	19 32 09.4	
	comp=Z,76nm,19.3s,MS4.1,baz=230,slow=40						

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*ATH **21** 18:34:46.6,39.16N×26.14E,h33^{km},MD3.6/4*
*ISK **21** 18:34:48.6,3938N×2633E,h8^{km},MD3.2*
*ISCJB **21** 18:34:48.2±0.6,3935N±002×2622E±004,h11^{km}±5^{km}, Error ellipse: s-maj=5.9km s-min=3.5km az=170.3*
*NEIC **21** 18:34:48.0,3940N×2634E,h7^{km},MD3.6(ATH), MD3.3(ISK),After ISK.*
*CSEM **21** 18:34:49.0±0.1,3937N×2633E,h15^{km},MD3.6,Error ellipse: s-maj=2.0km s-min=1.4km az=89.0*
*THE **21** 18:34:51.6,3929N×2624E,h21^{km},ML3.5*
ISC 21 18:34:49.1±0.5,**3935N**±002×**2622E**±005,**h15**^{km}±4^{km},**n59, σ0^{s}75**/71,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	**Paraskevi**	0.11	158	*e*Pb	Pg	18 34 52.8	+0.3
PRK	**Paraskevi**	0.11	158	*e*PB	Pg	18 34 52.8	+0.3
PRK	**Paraskevi**	0.11	158	*e*Pb	Pg	18 34 52.8	+0.3
GADA	**Gvkgeada**	0.88	344	PG	Pg	18 35 06.4	+0.3
GADA				SG	Sg	18 35 18.0	+0.4
GADA	**Gvkgeada**	0.88	344	*e*Pg	Pg	18 35 06.4	+0.3
CHOS	**Chios island**	0.97	188	*e*Pg	Pg	18 35 07.9	0.0
CHOS				*e*Sg	Sg	18 35 21.1	+0.6
CHOS	**Chios island**	0.97	188	*e*Pg	Pg	18 35 07.9	+0.1
CHOS				*e*Sg	Sg	18 35 21.1	+0.6
LIA	**Limnos Island**	0.97	305	*e*Pn	Pn	18 35 06.3	-1.9
LIA	**Limnos Island**	0.97	305	*e*PN	Pn	18 35 06.3	-1.9
LIA	**Limnos Island**	0.97	305	*e*Pn	Pn	18 35 06.3	-1.9
LOS	**Limnos**	1.05	304	*e*Pg	Pg	18 35 10.9	+1.4
LOS	**Limnos**	1.05	304	*e*Pg	Pg	18 35 10.9	+1.4
BLCB	**Balcova**	1.16	146	PN	Pn	18 35 10.7	-0.1
BLCB				SN	Sn	18 35 26.6	+0.3
BLCB	**Balcova**	1.16	146	*e*Pg	Pg	18 35 11.2	-0.2
BLCB				*e*Sg	Sg	18 35 25.7	-0.8
BLCB	**Balcova**	1.16	146	*e*Pn	Pn	18 35 10.7	-0.1
BLCB	**Balcova**	1.16	146	*e*Pg	Pg	18 35 11.2	-0.2
BLCB				*e*Sn	Sn	18 35 26.6	+0.3
BALB	**Balikesir**	1.32	77	PN	Pn	18 35 12.1	-0.9
BALB				SN	Sn	18 35 30.0	-0.3
BALB	**Balikesir**	1.32	77	*e*Pn	Pn	18 35 12.1	-0.9
BALB				*e*Sn	Sn	18 35 30.0	-0.3
AKS	**Akhisar**	1.33	110	PN	Pn	18 35 13.8	+0.7
AKS	**Akhisar**	1.33	110	*e*Pn	Pn	18 35 13.8	+0.7
ENEZ	**Enez**	1.39	358	PN	Pn	18 35 14.6	+0.7
ENEZ	**Enez**	1.39	358	*e*Pn	Pn	18 35 14.6	+0.7
RKY	**Sarkoy-Tekirda**	1.53	29	PN	Pn	18 35 16.4	+0.5
RKY	**Sarkoy-Tekirda**	1.53	29	*e*Pn	Pn	18 35 16.4	+0.5
ALN	**Alexandroupoli**	1.55	355	*e*Pg	Pg	18 35 16.3	-2.6
ALN				*e*Sg	Sg	18 35 38.7	-0.5
ALN	**Alexandroupoli**	1.55	355	*e*Pg	Pg	18 35 16.3	-2.7
ALN				*e*Sg	Sg	18 35 38.7	-0.5
EDC	**Edincik**	1.61	51	PN	Pn	18 35 16.6	-0.4
EDC	**Edincik**	1.61	51	*e*Pn	Pn	18 35 16.6	-0.4
MRMT	**Marmara Adasi**	1.64	40	PN	Pn	18 35 18.1	+0.7
MRMT	**Marmara Adasi**	1.64	40	*e*Pn	Pn	18 35 18.1	+0.7
BNT	**Bandirma**	1.65	52	PN	Pn	18 35 16.8	-0.8
MFT	**Murefte**	1.65	29	PN	Pn	18 35 17.3	-0.3
MFT	**Murefte**	1.65	29	*e*Pn	Pn	18 35 17.3	-0.3
SMG	**Samos**	1.71	163	*e*Pn	Pn	18 35 13.7	-4.6
SMG	**Samos**	1.71	163	*e*PN	Pn	18 35 13.7	-4.6
SMG	**Samos**	1.71	163	*e*Pn	Pn	18 35 13.7	-4.6
AOS	**Alonnisos**	1.82	265	*e*Pb	Pb	18 35 21.1	-1.1
AOS	**Alonnisos**	1.82	265	*e*Pb	Pb	18 35 21.1	-1.1
RDO	**Rodhopi**	1.87	344	*e*Pn	Pn	18 35 20.6	0.0
RDO	**Rodhopi**	1.87	344	*e*PN	Pn	18 35 20.6	0.0
RDO	**Rodhopi**	1.87	344	*e*Pn	Pn	18 35 20.6	0.0
KCT	**Karacabey**	1.89	60	PN	Pn	18 35 20.1	-0.7
KCT	**Karacabey**	1.89	60	*e*Pn	Pn	18 35 20.1	-0.7
PAIG	**Paliouri**	2.04	287	*e*Pn	Pn	18 35 23.6	+0.7
PAIG	**Paliouri**	2.04	287	*e*Pn	Pn	18 35 23.6	+0.6
APE	**Apeiranthos**	2.34	194	*e*Pn	Pn	18 35 26.6	-0.4
APE				*e*Sn	Sn	18 35 55.4	-0.1
APE	**Apeiranthos**	2.34	194	*e*Pn	Pn	18 35 26.6	-0.4
APE				*e*Sn	Sn	18 35 55.4	-0.1
KDZ	**Kurdzhali**	2.38	345	*i* P	Pn	18 35 27.9	+0.3
CTT	**Catalca**	2.47	43	PN	Pn	18 35 29.1	+0.3
CTT	**Catalca**	2.47	43	*e*Pn	Pn	18 35 29.1	+0.3
GEMT	**Gemlik**	2.53	64	*e*PN	Pn	18 35 30.5	+0.8
GEMT	**Gemlik**	2.53	64	*e*Pn	Pn	18 35 30.5	+0.8
IZI	**Iznik**	2.69	67	*e*PN	Pn	18 35 32.3	+0.4
IZI	**Iznik**	2.69	67	*e*Pn	Pn	18 35 32.3	+0.4
YLV	**Yalova**	2.71	62	*e*PN	Pn	18 35 33.4	+1.2
YLV	**Yalova**	2.71	62	*e*Pn	Pn	18 35 33.4	+1.2
DIM	**Dimitrovgrad**	2.75	349	*i* P	Pn	18 35 33.1	+0.4
JMB	**Yambol**	3.13	5	*i* P	Pn	18 35 38.0	+0.1
SZH	**Strazhica**	3.92	357	*i* P	Pn	18 35 48.4	-0.4

IDC 21 18:50:47.8±2.0,**101S**×**12758E**,**h0**^{km},**mb3.1**/2,**mb1 3.3**/3, **mb1mx3.2**/16,**mbtmp3.1**/3,**ML3.1**/1,**Error ellipse: s-maj=153.5km s-min=25.6km az=67.0**,**Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	19.94	161	P	Pn	18 55 21.4	-1.7
	0.1nm,0.3s,baz=340,slow=11,SNR=5.7						
ASAR	**Alice Springs**	23.34	165	P	P	18 55 58.0	+0.1
	0.3nm,0.7s,baz=343,slow=12,SNR=8.9						
MKAR	**Makanchi Array**	61.93	326	P	P	19 01 09.4	+0.1
	0.1nm,0.4s,baz=122,slow=7.2,SNR=3.0						

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*NEIC **21** 18:50:57.6±0.7,4687N×15294E,h10^{km},Error ellipse: s-maj=21.7km s-min=14.6km az=126.0*
*ISCJB **21** 18:51:01.3±0.6,466N±0.1×1528E±0.1,h52^{km},mb3.6/9, Error ellipse: s-maj=18.1km s-min=5.0km az=143.7*
*JMA **21** 18:51:01.4±0.8,4699N×15277E,h30^{km},M4.2*
*MOS **21** 18:51:03.7±1.0,4685N×15264E,h75^{km},mb4.3/4,Error ellipse: s-maj=23.4km s-min=13.0km az=53.6*
*IDC **21** 18:51:03.4±0.8,4684N×15284E,h55^{km}±7^{km},mb3.4/10, mb1 3.6/12,mb1mx3.5/24,mbtmp3.5/12,Error ellipse: s-maj=21.5km s-min=15.7km az=130.0*
ISC 21 18:51:04.7±1.0,**466N**±01×**1527E**±01,**h71**^{km}±9^{km}, **h54**^{km}±2.0^{km}**:pP-P,n47,σ1^{s}48**/59,**mb3.5**/9,**Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril’sk**	3.67	250	PN	Pn	18 52 00.5	+1.5
KUR				*e*S	Sn	18 52 42.0	+0.9
KUR				smax			
	comp=N,300nm,0.8s						
KUR				smax			
	comp=E,190nm,0.8s						
SKR	**Severo-Kuril’s**	4.65	27	*e*PN	Pn	18 52 10.5	-1.8
SKR				*e*		18 52 57.0	
YUK	**Yuzh-Kuril’sk**	5.49	245	PN	Pn	18 52 25.0	+1.1
YUK				*e*S	Sn	18 53 31.2	+5.6
YUK				smax			
	comp=N,100nm,0.5s						
YUK				smax			
	comp=E,300nm,0.6s						
NEM2	**Nemuro 2**	5.93	239	P	Pn	18 52 29.0	-0.8
NEM2				*e*S	Sn	18 53 34.1	-2.2
JRA	**Rausu**	6.00	246	P	Pn	18 52 32.7	+1.8
JNK	**Nakash**	6.43	245	P	Pn	18 52 37.8	+1.1
JNK				*e*S	Sn	18 53 49.9	+1.2
JAK	**Akkeshi**	6.77	241	P	Pn	18 52 40.4	-0.9
JAK				*e*S	Sn	18 53 54.7	-2.2
JTKR	**Abashiri--Toko**	6.77	250	P	Pn	18 52 43.3	+2.0
JMP	**Maruseppu**	7.11	252	P	Pn	18 52 48.6	+2.6
JAR	**Ashorobuto**	7.18	246	P	Pn	18 52 48.1	+1.2
JAR				*e*S	Sn	18 54 08.5	+1.7
JOB	**Onbets**	7.34	243	P	Pn	18 52 49.8	+0.6
JOB				*e*S	Sn	18 54 09.9	-1.1
JKK2	**Kamakawa 2**	7.57	252	P	Pn	18 52 54.6	+2.4
ASAJ	**Asahikawa**	7.57	254	P	Pn	18 52 54.3	+2.1
ASAJ	**Asahikawa**	7.57	254	PN	Pn	18 52 52.3	+0.1
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	7.57	254	P	Pn	18 52 52.3	+0.1
	comp=Z,0.9nm,0.3s,baz=295,slow=22,SNR=6.2						
JCH	**Churui**	7.79	243	P	Pn	18 52 55.0	-0.3
JCH				*e*S	Sn	18 54 19.3	-2.7
JEM	**Erimo**	8.27	240	P	Pn	18 53 02.7	+1.0
JEM				*e*S	Sn	18 54 32.2	-1.3
JBT2	**Biratori 2**	8.33	246	P	Pn	18 53 03.2	+0.6
JNBK	**Urakawa-nobuka**	8.35	242	P	Pn	18 53 02.3	-0.7
JNBK				*e*S	Sn	18 54 32.5	-3.2
JNB	**Noboribetsu**	9.33	248	P	Pn	18 53 16.1	-0.1
JKB	**Kayabe**	9.64	245	P	Pn	18 53 19.2	-1.3
JKB				*e*S	Sn	18 55 01.3	-5.7
JYM2	**Yakumo 2**	9.93	248	P	Pn	18 53 24.1	-0.4
JTM	**Tenmabayashi**	10.26	240	P	Pn	18 53 26.5	-2.5
JANG	**Nango**	10.26	237	P	Pn	18 53 26.2	-2.8
JANG				*e*S	Sn	18 55 13.5	-8.8
JTH	**Tanohata**	10.36	234	*e*S	Sn	18 55 15.6	-9.0
JRG	**Rokugo**	11.42	235	P	Pn	18 53 42.5	-2.3
JIO	**Ouri**	11.70	230	*e*S	Sn	18 55 47.8	-10
MJAR	**Matsushiro Arr**	14.79	232	P	Pn	18 54 31.4	+1.5
	comp=Z,0.2nm,0.3s,baz=48,slow=11,SNR=3.1						
KSRS	**Korea Array**	20.51	252	P	P	18 55 39.8	+2.9
	comp=Z,1.1nm,0.6s,baz=57,slow=9.9,SNR=5.8						
SONM	**Songino Array**	31.14	289	P	P	18 57 18.0	+1.6
	comp=Z,0.4nm,0.7s,mb3.2,baz=81,slow=9.3,SNR=3.0						
MKAR	**Makanchi Array**	46.78	297	P	P	18 59 26.2	-0.5
	comp=Z,0.4nm,0.6s,mb3.3,baz=71,slow=7.2,SNR=7.4						
YKA	**Yellowknife Ar**	51.19	37	P	P	18 59 59.8	-0.4
YKA				*PP	pP	19 00 14.6	-3.5
YKA	**Yellowknife Ar**	51.19	37	P	P	18 59 59.8	-0.4
	comp=Z,0.2nm,0.7s,mb3.3,baz=292,slow=7.3,SNR=3.1						
YKA				pP	pP	19 00 14.6	-3.5
	comp=Z,0.3nm,0.6s,baz=298,slow=6.9,SNR=3.9						
FINES	**FINESS Array B**	64.06	335	P	P	19 01 29.1	-1.4
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	**FINESS Array B**	64.06	335	P	P	19 01 29.1	-1.5
	comp=Z,1.1nm,0.4s,mb4.0,baz=39,slow=7.3,SNR=16						
NB2	**NORSAR Subarra**	68.28	341	P	P	19 01 56.8	-0.7
	comp=Z,1.1nm,0.6s,mb3.9,baz=28,slow=6.5						
NOA	**NORSAR Array B**	68.28	341	P	P	19 01 57.0	-0.6
NOA	**NORSAR Array B**	68.28	341	P	P	19 01 57.0	-0.5
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	**NORSAR Array B**	68.28	341	P	P	19 01 57.0	-0.6
	comp=Z,2.4nm,0.8s,mb4.1,baz=27,slow=6.5,SNR=4.7						
WRA	**Warramunga Arr**	68.30	199	P	P	19 01 59.2	+1.2
	comp=Z,0.2nm,0.5s,mb3.2,baz=20,slow=6.8,SNR=5.4						
AKASG	**Malin Array Be**	71.52	326	P	P	19 02 16.7	-0.9
AKASG	**Malin Array Be**	71.52	326	P	P	19 02 16.7	-0.9
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	**Malin Array Be**	71.52	326	P	P	19 02 16.7	-0.9
	comp=Z,0.8nm,0.3s,mb4.0,baz=34,slow=5.9,SNR=7.4						
ASAR	**Alice Springs**	71.99	198	P	P	19 02 23.3	+2.7
ASAR				*PP	pP	19 02 37.6	-1.8
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
ASAR	**Alice Springs**	71.99	198	P	P	19 02 23.2	+2.7
	comp=Z,0.5nm,0.6s,mb3.5,baz=9.2,slow=5.4,SNR=14						
ASAR				pP	pP	19 02 37.5	-1.9
	comp=Z,0.5nm,1.0s,baz=9.0,slow=5.9,SNR=3.0						
TXAR	**Lajitas Array**	77.78	60	P	P	19 02 53.9	-0.3
TXAR				*PP	pP	19 03 08.6	-4.6
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	**Lajitas Array**	77.78	60	P	P	19 02 53.9	-0.3
	comp=Z,0.2nm,0.5s,mb3.1,baz=316,slow=7.7,SNR=2.7						
TXAR				pP	pP	19 03 08.6	-4.6
	comp=Z,0.5nm,0.6s,baz=293,slow=4.7,SNR=3.9						

IDC 21 19:00:21.9±5.3,**1345N**×**8777W**,**h0**^{km},**mb3.2**/2, **mb1 3.7**/2,**mb1mx3.4**/15,**mbtmp3.3**/2,**Error ellipse: s-maj=142.9km s-min=91.7km az=49.0**,**Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TXAR	**Lajitas Array**	21.61	320	P	P	19 05 13.8	+0.2
	0.4nm,0.5s,baz=143,slow=11,SNR=4.3						
YKA	**Yellowknife Ar**	52.57	345	P	P	19 09 36.8	-0.1
	0.2nm,0.3s,baz=133,slow=8.6,SNR=6.5						
WRA	**Warramunga Arr**	139.23	255	PKP	PKPdf	19 19 51.4	-0.4
	0.1nm,0.4s,baz=91,slow=3.3,SNR=4.7						

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*NEIC **21** 19:25:48.3,3174S×6967W,h147^{km},MD3.8(GUC),After GUC.*
GUC 21 19:25:48.3±0.6,**3174S**×**6967W**,**h147**^{km}±9^{km},**MD3.8, ML3.5,2C-1D,San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMCH	**Combarbala**	1.27	296	*e*P	Pn	19 26 15.9	+0.6
CMCH				*i* S	Sn	19 26 36.4	+0.6
CMCH	**Combarbala**	1.27	296	*e*P	Pn	19 26 15.9	+0.6
CMCH				*i* S	Sn	19 26 36.4	+0.6
CMCH				AML	AML	19 26 39.0	
	comp=N,854nm,0.7s						
MDZ	**Mendoza**	1.34	149	*e*P	Pn	19 26 13.5	-2.4
MDZ				*e*S	Sn	19 26 32.6	-4.4
FCH	**Farellones**	1.67	198	⇑*i*P	Pn	19 26 20.7	+1.3
FCH				*i* S	Sn	19 26 45.0	+1.6
FCH				AML	AML	19 26 45.9	
	comp=E,312nm,0.3s						
TLL	**Tololo Astrono**	1.84	328	*e*P	Pn	19 26 22.7	+1.3
TLL				*i* S	Sn	19 26 47.9	+1.1
TLL	**Tololo Astrono**	1.84	328	*e*P	Pn	19 26 22.7	+1.3
TLL				*i* S	Sn	19 26 47.9	+1.1
TLL				AML	AML	19 26 50.8	
	comp=N,160nm,0.6s						
RCDM	**Rinconada Maip**	1.99	209	*e*P	Pn	19 26 23.6	+0.5
RCDM				*i* S	Sn	19 26 50.9	+1.0
RCDM	**Rinconada Maip**	1.99	209	*e*P	Pn	19 26 23.6	+0.5
RCDM				*i* S	Sn	19 26 50.9	+1.0

RCDM				AML	AML	19 26 52.2	
	comp=E,728nm,0.0s						
ANTU	**Antumapu**	2.00	204	i S	Sn	19 26 50.5	+0.4
PCH	**Pirque**	2.01	201	⇓eP	Pn	19 26 23.7	+0.4
PCH				i S	Sn	19 26 51.0	+0.8
TACH	**Talagante**	2.19	209	eP	Pn	19 26 25.9	+0.5
TACH				i S	Sn	19 26 54.5	+0.5
CHCH	**Chadas Angostu**	2.34	200	⇑eP	Pn	19 26 28.0	+0.7
LCO	**Las Campanas**	2.86	342	eP	Pn	19 26 34.8	+1.0
SFDO	**San Fernando**	3.08	201	eP	Pn	19 26 36.9	+0.3
SFDO				i S	Sn	19 27 14.4	+0.6

ISCJB ***21*** *19:28:39.3±0.5, 4199N±004×14258E±005, h70^{km}±3^{km}, mb3.6/9, Error ellipse: s-maj=7.6km s-min=5.1km az=153.5*

MOS ***21*** *19:28:39.4±1.0, 4206N×14285E, h82^{km}, mb3.8/5, Error ellipse: s-maj=23.5km s-min=14.2km az=102.1*

NEIC ***21*** *19:28:41.0±0.8, 4215N×14276E, h71^{km}±10^{km}, mb4.0/1, Error ellipse: s-maj=19.9km s-min=14.3km az=124.0*

JMA ***21*** *19:28:40.4±0.1, 4204N×14261E, h62^{km}±1^{km}, M3.4*

JMA Felt I J1.

IDC ***21*** *19:28:42.3±2.0, 4212N×14270E, h83^{km}±14^{km}, mb3.4/8, mb1 3.4/10, mb1mx3.3/24, mbtmp3.3/10, Error ellipse: s-maj=27.6km s-min=14.0km az=105.0*

ISC 21 19:28:40.3±0.5**, 4200N**±004×**14258E**±005**, h63**^{km}±3^{km}**, n38, σ0^{s}40**/50**, mb3.6**/9**, 4C-5D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JNBK	**Urakawa-nobuka**	0.31	25	⇑P	Pn	19 28 50.4	-0.3
JNBK				eS	Sn	19 28 58.0	-0.4
ERM	**Erimo**	0.43	88	eP	Pn	19 28 51.8	0.0
ERM	**Erimo**	0.43	88	ePN	Pn	19 28 51.8	0.0
JEM	**Erimo**	0.43	88	⇑P	Pn	19 28 52.0	+0.2
JEM				eS	Sn	19 28 59.9	-0.3
JBT2	**Biratori 2**	0.79	348	⇓P	Pn	19 28 55.4	-0.4
JBT2				eS	Sn	19 29 06.7	-0.6
JCH	**Churui**	0.84	43	⇑P	Pn	19 28 56.2	-0.2
JCH				eS	Sn	19 29 08.3	-0.1
JKB	**Kayabe**	1.16	265	⇓P	Pn	19 29 00.6	+0.1
JKB				eS	Sn	19 29 15.6	+0.1
JFR	**Furan**	1.16	1	P	Pn	19 29 00.1	-0.4
JEW	**Eniwo**	1.18	315	⇓P	Pn	19 29 00.8	0.0
JEW				eS	Sn	19 29 16.7	+0.6
JNB	**Noboribetsu**	1.24	293	⇓P	Pn	19 29 00.8	-0.7
JNB				eS	Sn	19 29 16.9	-0.4
JOB	**Onbets**	1.29	45	⇑P	Pn	19 29 03.0	+0.7
JOB				eS	Sn	19 29 19.8	+1.1
JOT	**Ohata**	1.30	242	⇓P	Pn	19 29 02.7	+0.4
JOT				eS	Sn	19 29 19.4	+0.5
JAB	**Ashibetsu**	1.53	350	P	Pn	19 29 05.5	+0.2
JAB				eS	Sn	19 29 24.4	+0.2
JAR	**Ashorobuto**	1.56	34	P	Pn	19 29 05.7	-0.2
JAR				eS	Sn	19 29 24.9	-0.3
ASAJ	**Asahikawa**	2.12	0	PN	Pn	19 29 13.9	+0.6
ASAJ				S	Sn	19 29 39.0	+0.5
ASAJ				pmax	pmax		
	comp=Z,25nm,0.3s						
ASAJ				smax			
	comp=N,9.0nm,0.3s						
ASAJ	**Asahikawa**	2.12	0	P	Pn	19 29 13.9	+0.6
	comp=N,25nm,0.3s,baz=213,slow=11,SNR=123						
ASAJ				S	Sn	19 29 39.0	+0.5
	comp=N,9.2nm,0.3s,baz=106,slow=26,SNR=8.2						
MJAR	**Matsushiro Arr**	6.42	213	PN	Pn	19 30 17.0	+4.9
MJAR	**Matsushiro Arr**	6.42	213	P	Pn	19 30 17.0	+4.8
	comp=N,0.3nm,0.3s,baz=22,slow=13,SNR=3.7						
KSRS	**Korea Array**	12.16	253	P	Pn	19 31 36.3	+5.7
	comp=N,0.2nm,0.3s,baz=63,slow=15,SNR=5.0						
SONM	**Songino Array**	26.11	295	P	P	19 34 08.5	+0.5
	comp=N,0.3nm,0.5s,mb3.1,baz=77,slow=8.5,SNR=7.8						
ZALV	**Zalesovo Beam**	39.40	308	P	P	19 36 03.8	+0.3
	comp=N,1.2nm,0.6s,mb3.8,baz=82,slow=7.4,SNR=9.4						
ZAL	**Zalesovo**	39.41	308	P	P	19 36 03.8	+0.2
MK31	**Makanchi Array**	42.42	298	eP	P	19 36 28.4	0.0
MKAR	**Makanchi Array**	42.42	298	P	P	19 36 28.3	-0.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
MKAR	**Makanchi Array**	42.42	298	P	P	19 36 28.2	-0.2
	comp=Z,0.8nm,0.8s,mb3.4,baz=82,slow=8.7,SNR=7.6						
KURK	**Kurchatov**	43.73	304	eP	P	19 36 38.8	-0.1
	comp=Z,2.0nm,0.7s,mb4.0						
KURK	**Kurchatov**	43.73	304	eP	P	19 36 38.8	-0.1
KURK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
INK	**Inuvik**	49.59	29	P	P	19 37 24.2	-0.3
INK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	**Inuvik**	49.59	29	P	P	19 37 24.1	-0.3
	comp=Z,0.8nm,0.7s,mb3.9,baz=299,slow=8.0,SNR=3.7						
WRA	**Warramunga Arr**	62.10	189	P	P	19 38 54.3	-0.1
	comp=Z,0.2nm,0.6s,mb3.4,baz=6.0,slow=6.8,SNR=5.7						
KAF	**Kangasniemi**	64.33	332	ep	pP	19 39 25.7	+0.1
FINES	**FINESS Array B**	64.86	332	P	P	19 39 11.8	-0.4
FINES	**FINESS Array B**	64.86	332	P	P	19 39 11.8	-0.4
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	64.86	332	P	P	19 39 11.8	-0.4
	comp=Z,0.9nm,0.6s,mb4.0,baz=51,slow=7.6,SNR=5.9						
NOA	**NORSAR Array B**	69.96	337	P	P	19 39 44.2	-0.2
NOA	**NORSAR Array B**	69.96	337	P	P	19 39 44.2	-0.2
NOA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
NOA	**NORSAR Array B**	69.96	337	P	P	19 39 44.2	-0.2
	comp=Z,1.0nm,0.9s,mb3.7,baz=45,slow=5.7,SNR=2.7						
AKASG	**Malin Array Be**	70.94	322	P	P	19 39 50.0	-0.5
	comp=Z,0.2nm,0.3s,mb3.6,baz=51,slow=5.4,SNR=3.9						

IDC 21 19:30:35.6±1.6**, 084S**×**12744E, h0**^{km}**, mb3.5**/4**, mb1 3.7**/5**, mb1mx3.5**/17**, mbtmp3.6**/5**, ML3.2**/1**, Error ellipse: s-maj=101.8km s-min=22.8km az=68.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	17.25	186	P	Pn	19 34 37.9	-0.1
	0.1nm,0.3s,baz=358,slow=18,SNR=3.1						
WRA	**Warramunga Arr**	20.15	161	P	P	19 35 11.5	-0.1
	0.7nm,0.6s,baz=340,slow=11,SNR=9.7						
ASAR	**Alice Springs**	23.54	165	P	P	19 35 47.3	-0.6
	0.8nm,0.9s,baz=341,slow=6.7,SNR=13						
STKA	**Stephens Creek**	33.65	158	P	P	19 37 18.6	+0.5
	2.5nm,1.0s,baz=340,slow=11,SNR=3.4						
MKAR	**Makanchi Array**	61.71	326	P	P	19 40 55.8	+0.2
	0.4nm,0.6s,baz=131,slow=7.4,SNR=7.8						

IDC 21 19:51:31.5±5.5**, 3059S**×**6794W, h0**^{km}**, mb3.7**/2**, mb1 4.0**/2**, mb1mx3.7**/13**, mbtmp3.7**/2**, Error ellipse: s-maj=266.7km s-min=56.0km az=21.0, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORD	**Torodi Ar. Bea**	79.75	68	P	P	20 03 41.9	+0.1
	0.5nm,0.8s,baz=254,slow=6.1,SNR=4.3						
PDAR	**Pinedale Array**	82.41	330	P	P	20 03 55.6	+0.4
	0.3nm,0.3s,baz=125,slow=5.6,SNR=8.2						
ZALV	**Zalesovo Beam**	149.49	32	PKPbc	PKPbc	20 11 21.9	-0.4
	0.8nm,0.4s,baz=319,slow=3.7,SNR=4.7						
MKAR	**Makanchi Array**	151.90	46	PKPbc	PKPbc	20 11 28.1	-0.1
	0.4nm,0.6s,baz=288,slow=1.2,SNR=9.3						

IDC 21 19:52:06.1±2.3**, 086S**×**12778E, h0**^{km}**, mb2.9**/3**, mb1 3.1**/3**, mb1mx3.0**/16**, mbtmp3.0**/3**, Error ellipse: s-maj=194.0km s-min=26.5km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	20.02	162	P	P	19 56 40.9	+0.2
	0.2nm,0.6s,baz=341,slow=11,SNR=4.0						
ASAR	**Alice Springs**	23.44	166	P	P	19 57 17.2	-0.1
	0.3nm,0.7s,baz=345,slow=11,SNR=3.2						
MKAR	**Makanchi Array**	61.91	326	P	P	20 02 27.6	+0.1
	1.1nm,1.2s,baz=132,slow=6.0,SNR=5.6						

ISCJB ***21*** *20:15:21.4±0.4, 4244N±002×2158E±004, h9^{km}, Error ellipse: s-maj=4.6km s-min=2.7km az=163.1*

SKO ***21*** *20:15:24.4, 4227N×2162E, h22^{km}, M1.8, ML2.1*

BEO ***21*** *20:15:24.2±0.6, 4247N×2159E, h9^{km}±4^{km}, ML2.5/5*

ISC 21 20:15:22.5±0.4**, 4243N**±002×**2158E**±004**, h4**^{km}±9^{km}**, n12, σ0^{s}64**/23**, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BARS	**Barje**	0.43	25	ePg	Pg	20 15 31.0	+0.3
BARS				eSg	Sg	20 15 37.1	+0.8
SKO	**Skopje**	0.47	193	ePg	Pg	20 15 32.1	+0.5
SKO				eSg	Sg	20 15 38.8	+1.0
SKO				eLg		20 15 38.8	
	comp=E,149nm,0.4s						
SKO				eLg		20 15 39.0	
	comp=N,155nm,0.3s						
STIP	**Stip**	0.86	148	ePg	Pg	20 15 39.0	-0.1
STIP				eSg	Sg	20 15 49.4	-0.9
STIP				eLg		20 15 49.5	
	comp=N,48nm,0.5s						
STIP				eLg		20 15 49.5	
	comp=E,26nm,0.6s						
KRUS	**Krusevo**	1.09	193	ePg	Pg	20 15 43.3	-0.1
KRUS				eSg	Sg	20 15 57.8	+0.2
VTS	**Vitosha**	1.21	82	ePg	Pg	20 15 45.8	+0.1
VTS				eSg	Sg	20 16 02.8	+1.4
VAY	**Valandovo**	1.33	146	ePg	Pg	20 15 47.4	-0.7
VAY				eSg	Sg	20 16 04.6	-0.7
VAY				eLg		20 16 04.8	
	comp=E,26nm,0.5s						
VAY				eLg		20 16 06.0	
	comp=N,48nm,0.6s						
SJES	**Sjenica**	1.47	305	ePg	Pg	20 15 50.7	0.0
SJES				eSg	Sg	20 16 09.9	+0.2
GRUS	**Gruza**	1.59	337	ePg	Pg	20 15 52.1	-0.9
GRUS				eSg	Sg	20 16 14.3	+0.7
SVIS	**Svilajnac**	1.88	352	ePg	Pg	20 15 57.6	-1.0
SVIS				eSg	Sg	20 16 22.0	-1.0
DIVS	**Divcibare**	2.03	326	ePn	Pn	20 15 57.4	-0.1
DIVS				eSg	Sg	20 16 28.1	+0.3
FGSL	**Fruska Gora**	3.01	335	ePn	Pn	20 16 11.3	+0.3
BZS	**Buzias**	3.18	0	ePn	Pn	20 16 13.5	+0.2
BZS				eSg	Sg	20 17 04.2	-0.6

BJI 21 20:38:56.5, 2221N×**9860E, h25**^{km}**, ML3.2, Ms3.5, Msz3.6, Myanmar-China border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHG	**Chiang Mai**	3.39	174	PG	Pn	20 40 21.2	+33
CHG				SG	Sn	20 41 13.2	+46
KMI	**Kunming**	4.78	52	PG	Pn	20 40 22.1	+15
KMI				Smax			
	comp=N,20nm,1.1s						
KMI				Smax			
	comp=E,18nm,0.9s						

IDC ***21*** *20:50:19.6±0.8, 1733N×9591E, h0^{km}, mb4.0/15, mb1 4.1/15, mb1mx4.0/22, mbtmp3.9/15, MS3.9/20, Ms1 3.9/20, ms1mx3.8/39, Error ellipse: s-maj=30.1km s-min=16.3km az=49.0*

ISCJB ***21*** *20:50:20.7±1.4, 1747N±005×9593E±004, h15^{km}±10^{km}, mb4.2/30, MS3.9/22, Error ellipse: s-maj=9.3km s-min=5.2km az=22.5*

BJI ***21*** *20:50:20.5, 1684N×9566E, h42^{km}, mB5.1, mb4.2, Ms4.5, Msz4.3*

NEIC ***21*** *20:50:21.6±0.5, 1740N×9592E, h10^{km}, mb4.6/9, Error ellipse: s-maj=12.6km s-min=8.4km az=221.0*

MOS ***21*** *20:50:23.3±1.2, 1747N×9599E, h33^{km}, mb4.9/6, Error ellipse: s-maj=12.9km s-min=7.5km az=106.6*

ISC 21 20:50:22.2±1.4**, 1743N**±005×**9594E**±004**, h12**^{km}±9^{km}**, n96, σ1^{s}10**/97**, mb4.2**/30**, MS3.9**/22**, 1C-2D, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDT	**Bhumibol Dam**	2.93	93	P	Pn	20 51 08.0	-0.7
	253nm,0.5s						
CHG	**Chiang Mai**	3.17	64	PG	Pn	20 51 12.5	+0.5
CHG				SG	Sg	20 52 10.2	+6.0
CHTO	**Chiang Mai**	3.17	64	eP	Pn	20 51 12.5	+0.5
NST	**Nakhon Sawan**	4.39	113	PN	Pn	20 51 26.8	-1.9
NST				PG	Pg	20 51 46.6	+0.3
NST				SG	Sg	20 52 53.9	+11
NNT	**Nongplab**	6.05	142	P	Pn	20 51 51.0	-0.6
KKTK	**Khon Kaen**	6.68	98	PN	Pn	20 52 03.7	+3.4
KKTK				PG	Pg	20 52 41.5	+11
KKTK				SG	Sg	20 53 58.0	+1.2
IMP	**Imphal**	7.55	346	eP	Pn	20 52 15.0	+2.8
IMP				ex	x	20 53 53.0	
AGT	**Agartala**	7.78	326	i P	Pn	20 52 16.0	+0.7
AGT				i x	x	20 52 46.0	
SHL	**Shillong**	8.93	336	eP	Pn	20 52 30.0	-1.1
SHL				ex	x	20 58 24.0	
KMI	**Kunming**	9.94	38	P	Pn	20 52 54.3	+9.4
KMI				LR	LR		
	comp=N,837nm,11.0s						
KMI				LR	LR		
	comp=E,852nm,12.2s						
KMI				LR	LR		
	comp=Z,769nm,14.2s						
ODAN	**Odare**	12.27	321	eP	Pn	20 53 17.3	+0.4
	comp=Z,58nm,0.5s						
TAPN	**Taplejung**	12.46	324	eP	Pn	20 53 18.6	-0.8
	comp=Z,65nm,0.4s						
LSA	**Lhasa**	12.97	341	P	Pn	20 53 28.4	+1.9
LSA				AP		20 53 40.1	
LSA				AMB	AMB		
	comp=Z,20nm,1.0s						
LSA				AMB	AMB		
	comp=Z,250nm,7.0s						
LSA				LR	LR		
	comp=N,260nm,8.0s						
LSA				LR	LR		
	comp=E,290nm,9.0s						
LSA				LR	LR		
	comp=Z,490nm,9.0s						
LSA	**Lhasa**	12.97	341	eP	Pn	20 53 25.7	-0.8
QIZ	**Qiongzhong**	13.31	81	P	Pn	20 53 31.9	+0.8
QIZ				S	Sn	20 55 58.5	-0.5
QIZ				LR	LR		
	comp=N,1µm,13.7s						
QIZ				LR	LR		
	comp=Z,386nm,13.5s						
JIRN	**Jiri**	13.58	320	eP	Pn	20 53 33.6	-1.2
	comp=Z,16nm,0.3s						
KKN	**Kakani**	14.24	318	eP	Pn	20 53 42.1	-1.7
	comp=Z,20nm,0.4s						
GKN	**Gorkha**	14.80	317	eP	Pn	20 53 48.6	-2.8
	comp=Z,48nm,0.4s						
PSI	**Prapat**	14.83	168	Pn	Pn	20 53 54.8	+2.9
PSI				LR	LR	21 00 07.6	
PSI	**Prapat**	14.83	168	Pn	Pn	20 53 54.8	+2.9
	comp=Z,0.5nm,0.3s,baz=323,slow=9.3,SNR=5.8						
PSI				LR	LR	21 00 07.6	
	comp=Z,583nm,18.0s,baz=187,slow=40						
JBP	**Jabalpur**	16.01	293	eP	Pn	20 54 05.8	-1.6
JBP				ex	x	20 54 21.6	
	comp=Z,30nm,1.1s						
JBP				i S	Sn	20 57 04.8	-0.1
HYB	**Hyderabad**	16.59	273	eP	Pn	20 54 18.0	+3.1
HYB				eS	Sn	20 57 23.0	+3.9
HYB	**Hyderabad**	16.59	273	i P	Pn	20 54 15.0	+0.1
HYB				eS	Sn	20 57 23.0	+3.9
JOSI	**Joshimath**	19.83	314	eP	Pn	20 54 53.6	-1.0
JOSI				AMb	AMB	20 54 58.4	
	comp=Z,256nm,0.9s						
LZH	**Lanzhou**	19.86	19	eP	Pn	20 55 00.0	+5.2
LZH				AP	pP	20 55 06.5	+10
LZH				XP	sP	20 55 10.0	+12
LZH				AMB	AMB		
	comp=Z,25nm,1.0s						
LZH				AMB	AMB		
	comp=Z,125nm,4.1s						
LZH	**Lanzhou**	19.86	19	eP	Pn	20 55 00.0	+5.2
	comp=Z,25nm,1.0s						
LZH				pP	pP	20 55 06.5	+10
LZH				sP	sP	20 55 10.0	+12
XAN	**Xi'an**	20.22	33	P	P	20 54 58.0	+0.8
XAN				AP		20 55 08.8	
XAN				AMB	AMB		
	comp=Z,3.0nm,0.7s						
XAN				LR	LR		
	comp=N,390nm,8.8s						
XAN				LR	LR		
	comp=E,613nm,9.9s						
XAN				LR	LR		
	comp=Z,664nm,10.5s,MS4.3						
SONA	**Sohna**	20.41	305	eP	P	20 54 59.5	+0.2
KUDL	**Kundal**	20.83	304	eP	P	20 55 03.2	-0.7
KUDL				AMb	AMB	20 55 05.2	
	comp=Z,10nm,0.8s						
POO	**Poona**	21.04	276	eP	P	20 55 09.0	+2.8
KSM	**Kuching**	21.24	137	eP	P	20 55 09.0	+0.6
WHN	**Wuhan**	21.25	49	P	P	20 55 13.8	+5.4
RTK	**Rohtak**	21.30	306	ex	x	20 54 58.7	
RTK				AMb	AMB	20 55 07.1	
	comp=Z,16nm,1.1s,mb4.2						
KHET	**Khetri**	21.34	303	eP	P	20 55 08.0	-1.4
KHET				AMb	AMB	20 55 10.2	
	comp=Z,13nm,1.5s,mb4.0						
KHET				eS	S	20 59 07.0	+0.7
AJM	**Ajmer**	21.68	298	eP	P	20 55 14.0	+1.0
GTA	**Gaotai**	22.16	8	eP	P	20 55 22.0	+4.0
GTA				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.1						
NJ2	**Nanjing**	25.32	51	eP	P	20 55 49.1	+0.2
NJ2				AP	pP	20 55 58.4	+5.8
NJ2				XP	sP	20 56 02.4	+8.3
NJ2				PP		20 56 26.8	
NJ2				S	S	21 00 11.0	-3.9
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.5						
NJ2				AMB	AMB		
	comp=Z,320nm,6.0s						
NJ2				LR	LR		
	comp=N,1µm,19.0s,MS4.6						
NJ2				LR	LR		
	comp=E,1µm,18.8s,MS4.6						
NJ2				LR	LR		
	comp=Z,1µm,24.8s						
SSE	**Sheshan**	26.66	55	P	P	20 56 01.1	0.0
SSE				XP	sP	20 56 14.0	+7.8
SSE				S	S	21 00 29.6	-6.5
SSE				AMB	AMB		
	comp=Z,3.0nm,0.6s,mb4.0						
SSE				AMB	AMB		
	comp=Z,57nm,10.1s						
SSE				LR	LR		
	comp=N,72nm,13.6s,MS3.7						
SSE				LR	LR		
	comp=E,136nm,13.6s,MS3.7						
SSE				LR	LR		
	comp=Z,146nm,11.8s,MS3.8						
SSE	**Sheshan**	26.66	55	P	P	20 56 01.1	0.0
	comp=Z,3.0nm,0.6s,mb4.0						
SSE				sP	sP	20 56 14.0	+7.8
SSE				S	S	21 00 29.6	-6.5
SSE				sS	sS	21 00 44.7	+2.6
SSE				LR	LR		
	comp=Z,150nm,11.8s,MS3.8						
WMQ	**Urumqi**	27.21	347	eP	P	20 56 09.1	+3.2
WMQ				AMB	AMB		
	comp=Z,9.0nm,1.1s,mb4.2						
WMQ				LR	LR		
	comp=N,154nm,25.8s						
WMQ				LR	LR		
	comp=E,298nm,18.4s						
WMQ				LR	LR		
	comp=Z,131nm,25.8s,MS3.4						
KSH	**Kashi**	28.02	326	eP	P	20 56 14.0	+0.8
KSH				eAP	pP	20 56 23.1	+6.2
KSH				eXP	sP	20 56 27.0	+8.6
KSH				ePP		20 57 02.1	
KSH				eS	S	21 00 52.3	-5.1
KSH				AMB	AMB		
	comp=Z,953nm,8.0s						
KSH				LR	LR		
	comp=N,1µm,6.1s						
KSH				LR	LR		
	comp=E,2µm,6.8s						
KSH				LR	LR		
	comp=Z,1µm,5.8s						
AAK	**Ala-Archa**	31.06	328	eP	P	20 56 40.0	0.0
	comp=Z,15nm,1.1s,mb4.7						
AAK	**Ala-Archa**	31.06	328	eP	P	20 56 40.0	-0.1
AAK				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.7						
MK31	**Makanchi Array**	31.38	342	eP	P	20 56 42.9	0.0
MKAR	**Makanchi Array**	31.38	342	P	P	20 56 43.4	+0.5
	comp=Z,5.2nm,0.6s,mb4.6,baz=155,slow=8.8,SNR=64						
MKAR				LR	LR	21 12 50.0	
	comp=Z,123nm,19.4s,MS3.6,baz=278,slow=43						
EKS2	**Erkin-Say**	31.44	328	eP	P	20 56 45.7	+2.3
	comp=Z,4.2nm,1.0s,mb4.2						
SONM	**Songino Array**	31.51	14	P	P	20 56 42.8	-1.2
SONM				LR	LR	21 11 19.0	
SONM	**Songino Array**	31.51	14	P	P	20 56 42.8	-1.2
	comp=Z,0.2nm,0.8s,baz=210,slow=6.2,SNR=3.4						
SONM				LR	LR	21 11 19.0	
	comp=Z,413nm,18.3s,baz=5.2,slow=40						
ULN	**Ulaanbaatar**	31.69	14	i P	P	20 56 45.3	-0.3
ZAK	**Zakamensk**	33.40	9	eP	P	20 57 00.0	-0.5
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.7						
KSRS	**Korea Array**	34.44	48	LR	LR	21 12 16.7	
	comp=Z,223nm,18.2s,MS3.9,baz=66,slow=38						
JNU	**Nakatsue**	35.05	57	LR	LR	21 14 48.4	
	comp=Z,90nm,18.9s,MS3.5,baz=94,slow=42						
KURK	**Kurchatov**	35.98	341	eP	P	20 57 21.6	-1.2
	comp=Z,7.1nm,0.7s,mb4.7						
KURK	**Kurchatov**	35.98	341	eP	P	20 57 21.6	-1.2
KURK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
KURK	**Kurchatov**	35.98	341	⇑eP	P	20 57 22.5	-0.3
HIA	**Hailar**	37.14	26	i P	P	20 57 32.7	-0.1
ZAL	**Zalesovo**	37.45	349	P	P	20 57 35.2	-0.1
ZALV	**Zalesovo Beam**	37.45	349	P	P	20 57 35.2	-0.2
ZALV	**Zalesovo Beam**	37.45	349	P	P	20 57 35.2	-0.1
	comp=Z,2.7nm,0.6s,mb4.3,baz=167,slow=8.6,SNR=16						
NVS	**Novosibirsk**	38.59	348	eP	P	20 57 46.3	+1.3
NVS				eS	S	21 03 29.0	-12
NVS				pmax	pmax		
	comp=Z,24nm,2.2s,mb4.5						
NVS				smax			
	comp=E,12nm,1.9s						
BRVK	**Borovoye**	40.82	336	eP	P	20 58 04.9	+1.4
	comp=E,1.9nm,0.6s,mb3.9						
BRVK	**Borovoye**	40.82	336	eP	P	20 58 04.9	+1.4
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
MJAR	**Matsushiro Arr**	41.81	54	P	P	20 58 13.2	+1.3
	comp=Z,0.3nm,0.4s,mb3.2,baz=279,slow=2.3,SNR=2.9						
MJAR				LR	LR	21 18 04.3	
	comp=Z,140nm,18.9s,MS3.9,baz=255,slow=40						
JHJ	**Hachijo jima 2**	42.29	60	LR	LR	21 15 21.9	
	comp=Z,85nm,19.0s,MS3.6,baz=269,slow=35						
BOD	**Bodaibo**	42.50	14	eP	P	20 58 25.9	+8.7
AKTK	**Aktyubinsk**	44.73	326	P	P	20 58 35.8	+0.5
AKTK				LR	LR	21 21 05.3	
AKTO	**Aktyubinsk**	44.73	326	P	P	20 58 35.8	+0.5
	comp=Z,3.4nm,0.7s,mb4.3,baz=124,slow=7.5,SNR=15						
AKTO				LR	LR	21 21 05.3	
	comp=Z,222nm,19.3s,MS4.1,baz=132,slow=41						
ASAJ	**Asahikawa**	47.27	45	LR	LR	21 21 58.7	
	comp=Z,68nm,18.2s,MS3.6,baz=176,slow=40						
KIV	**Kislovodsk**	51.80	313	eP	P	20 59 30.7	+0.7
	comp=Z,33nm,1.0s,mb5.2						
KIV	**Kislovodsk**	51.80	313	eP	P	20 59 31.2	+1.2
KIV				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
WRA	**Warramunga Arr**	52.92	133	P	P	20 59 37.5	-1.1
	comp=Z,1.8nm,0.7s,mb4.1,baz=318,slow=7.4,SNR=20						
NWAO	**Narrogin (SRO)**	54.06	158	LR	LR	21 25 29.6	
	comp=Z,114nm,19.1s,MS4.0,baz=331,slow=39						
ASAR	**Alice Springs**	55.16	137	P	P	20 59 53.4	-1.5
	comp=Z,0.8nm,0.7s,mb3.9,baz=315,slow=6.8,SNR=11						
MMAI	**Mount Meron Ar**	56.22	298	LR	LR	21 27 56.5	
	comp=Z,69nm,18.7s,MS3.8,baz=120,slow=40						
TIXI	**Tiksi**	57.57	12	eP	P	21 00 09.6	-1.8
	comp=Z,4.1nm,0.7s,mb4.6						
TIXI	**Tiksi**	57.57	12	i P	P	21 00 11.3	-0.1
TIXI				pmax	pmax		
	comp=Z,10.0nm,2.2s,mb4.5						
BRTR	**Keskin Array B**	57.88	306	P	P	21 00 13.4	-0.7
	comp=Z,1.1nm,0.8s,mb3.9,baz=104,slow=9.0,SNR=5.4						
OBN	**Obninsk**	58.46	325	P	P	21 00 24.0	+6.1
CTA	**Charters Tower**	61.88	125	LR	LR	21 28 35.4	
	comp=Z,71nm,20.4s,MS3.8,baz=120,slow=37						
AKASG	**Malin Array Be**	61.98	319	i P	P	21 00 47.4	+5.3
AKASG				pmax	pmax		

	comp=Z,1.0nm,0.6s						
AKASG	Malin Array Be	61.98	319	P	P	21 00 41.2	-0.9
	comp=Z,0.2nm,0.3s,mb3.7,baz=84,slow=5.3,SNR=3.2						
JOF	Joensuu	63.13	332	*e*p	P	21 00 49.8	+0.2
	comp=Z,1.3nm,0.5s,mb4.3						
PLOR	Plostina	63.33	313	⇓*i*P	P	21 00 50.8	-0.4
MLR	Muntele Rosu	63.81	313	⇓*i*P	P	21 00 55.8	+1.4
FINES	FINESS Array B	65.22	330	P	P	21 01 02.3	-1.0
	comp=Z,1.0nm,0.8s,mb3.9,baz=112,slow=8.5,SNR=4.1						
FINES				LR	LR	21 30 28.5	
	comp=Z,124nm,19.1s,MS4.1,baz=140,slow=37						
KAF	Kangasniemi	65.23	331	*e*p	P	21 01 03.1	-0.3
STKA	Stephens Creek	65.72	138	LR	LR	21 32 45.8	
	comp=Z,91nm,18.1s,MS4.0,baz=25,slow=39						
ARCES	ARCESS Array B	66.97	339	P	P	21 01 14.1	-0.3
	comp=Z,2.3nm,0.8s,mb4.3,baz=80,slow=6.7,SNR=7.9						
ARCES				LR	LR	21 35 31.3	
	comp=Z,130nm,20.0s,MS4.2,baz=57,slow=40						
GERES	GERESS Array B	72.02	317	P	P	21 01 47.4	+1.3
	comp=Z,1.3nm,0.8s,mb3.9,baz=64,slow=6.1,SNR=7.2						
GERES				LR	LR	21 41 02.3	
	comp=Z,111nm,19.6s,MS4.1,baz=123,slow=42						
NOA	NORSAR Array B	72.37	329	P	P	21 01 47.3	-0.6
	comp=Z,1.7nm,1.0s,mb3.9,baz=89,slow=5.4,SNR=2.4						
NOA				LR	LR	21 39 35.5	
	comp=Z,93nm,21.1s,MS4.0,baz=300,slow=41						
LSZ	Lusaka	74.28	248	*e*P	P	21 01 59.0	-0.9
	comp=Z,9.1nm,0.8s,mb4.8						
LSZ	Lusaka	74.28	248	*e*P	P	21 01 59.0	-0.9
LSZ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
KEST	Kesra	77.33	304	LR	LR	21 41 35.4	
	comp=Z,50nm,18.5s,MS3.9,baz=199,slow=40						
BOSA	Boshof	82.19	237	LR	LR	21 39 48.5	
	comp=Z,118nm,18.2s,MS4.3,baz=142,slow=36						
TORD	Torodi Ar. Bea	90.09	284	P	P	21 03 22.6	-0.3
	comp=Z,1.2nm,1.2s,mb4.1,baz=64,slow=3.4,SNR=3.0						
YKA	Yellowknife Ar	96.78	14	P	P	21 03 52.6	-0.1
	comp=Z,0.2nm,0.5s,mb3.8,baz=322,slow=4.5,SNR=3.4						
YKA				LR	LR	21 54 21.8	
	comp=Z,65nm,18.9s,MS4.1,baz=150,slow=40						

ISK ***21*** *20:53:57.6, 38.39N×39.23E, h5^{km}, MD3.5*
ISCJB ***21*** *20:53:58.7±0.4, 38.39N±0.03×39.27E±0.03, h4^{km}, Error ellipse: s-maj=4.1km s-min=3.0km az=3.5*
CSEM ***21*** *20:53:58.3±0.1, 38.40N×39.23E, h4^{km}, MD3.4, Error ellipse: s-maj=1.6km s-min=1.2km az=150.0*
DDA ***21*** *20:53:58.2, 38.40N×39.24E, h3^{km}±6^{km}, Md3.4*
ISC 21 20:53:59.0±0.5, 38.39N±0.03×39.28E±0.03, h1^{km}±5^{km}, n36, $\sigma 1^{s}.03$/50, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.26	296	*i* P	Pg	20 54 03.7	-0.2
ELZG				*i* S	Sg	20 54 05.5	-1.7
PTK	Pertek	0.51	10	*i* PG	Pg	20 54 08.9	+0.1
PTK				*i* SG	Sg	20 54 16.9	+1.4
PTK	Pertek	0.51	10	*i* Pg	Pg	20 54 08.9	+0.1
PTK				*i* Sg	Sg	20 54 16.9	+1.4
MALT	Malatya	0.67	264	*i* PG	Pg	20 54 11.0	-0.8
MALT				*i* SG	Sg	20 54 20.8	+0.2
MALT	Malatya	0.67	264	*i* Pg	Pg	20 54 11.0	-0.8
MALT				*i* Sg	Sg	20 54 20.8	+0.2
MYA	Malataya	0.67	265	*i* PG	Pg	20 54 10.9	-1.0
MYA				*i* SG	Sg	20 54 21.2	+0.6
MYA	Malataya	0.67	265	*i* Pg	Pg	20 54 10.9	-1.0
MYA				*i* Sg	Sg	20 54 21.2	+0.6
DIYA	Diyarbakir	0.81	125	*i* P	Pg	20 54 14.2	-0.3
DIYA				*i* S	Sg	20 54 25.6	+0.7
DIY	Diyarbakir	0.89	123	*i* PG	Pg	20 54 16.2	+0.1
DIY	Diyarbakir	0.89	123	*i* Pg	Pg	20 54 16.2	+0.1
URFA	Urfa	1.01	201	PG	Pg	20 54 18.2	-0.1
URFA	Urfa	1.01	201	*e*Pg	Pg	20 54 18.2	-0.1
BINT	Bingol	1.07	62	PN	Pn	20 54 19.7	-1.4
BINT	Bingol	1.07	62	*e*Pn	Pn	20 54 19.7	-1.4
ATAB	Bozova	1.20	221	*i* P	Pg	20 54 22.2	+0.3
ATAB				*i* S	Sg	20 54 38.5	+0.9
ATAB	Bozova	1.20	221	*i* P	Pg	20 54 22.2	+0.2
ATAB				*i* S	Sg	20 54 38.5	+1.0
EZC	Erzincan	1.42	17	PN	Pn	20 54 24.8	-1.2
BNGL	BINGOL	1.57	68	*i* P	Pn	20 54 28.8	+0.8
BNGL				*i* S	Sn	20 54 52.5	+3.5
MARD	Mardin	1.60	132	*i* P	Pn	20 54 26.9	-1.4
MARD				*i* S	Sn	20 54 48.4	-1.3
GZT	Gaziantep	1.70	233	*i* P	Pn	20 54 28.5	-1.3
GZT				*i* S	Sn	20 54 53.4	+1.2
BTMT	Batman	1.75	96	PN	Pn	20 54 29.1	-1.4
GAZ	Gaziantep	2.04	234	PN	Pn	20 54 34.5	+0.1
GAZ	Gaziantep	2.04	234	*e*Pn	Pn	20 54 34.5	+0.1
KMRS	Kahramanmaras	2.08	246	*e*PN	Pn	20 54 34.0	-0.9
KMRS	Kahramanmaras	2.08	246	*e*Pn	Pn	20 54 34.0	-0.9
EZM	Erzurum	2.22	46	*e*PN	Pn	20 54 37.0	+0.1
SVSK	Karacayir	2.34	311	*e*PN	Pn	20 54 39.2	+0.6
SVSK	Karacayir	2.34	311	*e*Pn	Pn	20 54 39.2	+0.6
ANDN	Andirin	2.45	252	*i* P	Pn	20 54 43.3	+3.1
ANDN				*i* S	Sn	20 55 18.6	+7.8
SIRT	Sirnak	2.65	108	*e*PN	Pn	20 54 43.8	+0.9
SIRT	Sirnak	2.65	108	*e*Pn	Pn	20 54 43.8	+0.9
KOZT	Kozan	2.88	253	*e*PN	Pn	20 54 46.3	+0.4
YOZ	Yozgat	3.33	293	*e*PN	Pn	20 54 53.2	+1.0
YOZ	Yozgat	3.33	293	*e*Pn	Pn	20 54 53.2	+1.0
CUKT	Cukurca	3.61	107	*e*PN	Pn	20 54 57.6	+1.5
CUKT	Cukurca	3.61	107	*e*Pn	Pn	20 54 57.6	+1.5

MEX 21 20:59:28.2±0.6, 20.07N×106.35W, h13^{km}±132^{km}, MD4.0, Off coast of Jalisco

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANIG	Ahuacatlan	1.97	60	*i* P	Pn	20 59 58.9	-2.4
ANIG				*i* S	Sn	21 00 22.1	-3.8
SFJM	Santa Fe	3.13	82	*i* P	Pn	21 00 16.0	-1.3
SFJM				*i* S	Sn	21 00 52.0	-2.7
MMIG	Aquila	3.35	122	*i* P	Pn	21 00 17.1	-3.2
MMIG				*i* S	Sn	21 00 57.0	-3.0

IDC ***21*** *21:03:18.8±1.0, 28.04N×139.76E, h430^{km}±12^{km}, mb2.6/3, mb1 2.9/6, mb1mx2.7/22, mbtmp2.9/6, Error ellipse: s-maj=34.3km s-min=17.3km az=74.0*
ISCJB ***21*** *21:03:20.8±1.0, 28.52N±0.09×140.2E±0.2, h431^{km}±10^{km}, mb2.9/3, Error ellipse: s-maj=31.2km s-min=11.1km az=163.8*
JMA ***21*** *21:03:21.2±0.1, 28.55N×140.32E, h431^{km}, M3.7*
ISC 21 21:03:20.8±1.2, 28.4N±0.1×140.1E±0.2, h430^{km}±11^{km}, n15, $\sigma 0^{s}.57$/17, mb2.9/3, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	2.23	124	P	P	21 04 21.5	+0.6
	19nm,0.3s,baz=288,slow=20,SNR=9.7						
CBIJ				S	S	21 05 09.1	-0.4
	70nm,0.3s,baz=290,slow=22,SNR=19						
JHHJ	Haha-jima-NKT	2.52	133	*e*S	S	21 05 12.8	-0.2
JHJ2	Mitsune	4.74	357	P	P	21 04 41.4	-0.1
JHJ	Hachijo jima 2	4.75	357	P	P	21 04 41.5	-0.1
	13nm,0.3s,baz=252,slow=20,SNR=3.9						
BSO1	Boso 1	6.32	7	P	P	21 04 57.8	+0.2
BSO3	Boso 3	6.43	3	P	P	21 04 58.8	0.0
BSO3				*e*S	S	21 06 12.9	-6.0
BSO4	Boso 4	6.61	2	*e*S	S	21 06 18.1	-4.4
JIE	Ise	6.68	335	P	P	21 05 02.2	+0.8
JKN2	Miekihoku	6.71	332	P	P	21 05 02.6	+0.8
JHO	Hitachi	8.24	3	P	P	21 05 17.8	-0.5
MJAR	Matsushiro Arr	8.31	349	P	P	21 05 18.4	-0.8
	0.6nm,0.3s,baz=166,slow=10,SNR=5.6						
JFK	Kawauchi	9.00	4	P	P	21 05 26.8	0.0
SONM	Songino Array	32.53	316	P	P	21 09 13.0	-1.0
	0.5nm,1.1s,mb2.8,baz=124,slow=8.9,SNR=8.5						
ASAR	Alice Springs	52.07	187	P	P	21 11 44.0	-5.2
	0.3nm,0.5s,mb2.8,baz=0.2,slow=8.4,SNR=5.6						
YKA	Yellowknife Ar	71.90	28	P	P	21 13 59.2	+0.6
	0.3nm,0.6s,mb3.0,baz=297,slow=5.7,SNR=6.7						

ISCJB ***21*** *21:04:43.9±0.4, 51.42N±0.02×16.13E±0.02, h0^{km}, mb3.1/2, Error ellipse: s-maj=3.2km s-min=1.9km az=15.6*
BGR ***21*** *21:04:45.0±0.5, 51.52N×16.12E, h1^{km}, ML3.0/13, Error ellipse: s-maj=8.9km s-min=3.3km az=8.0*
NEIC ***21*** *21:04:45.2±0.3, 51.52N×16.12E, h5^{km}, ML3.0(SZGRF), ML2.6(BRA), Error ellipse: s-maj=4.2km s-min=2.7km az=197.0*
IPEC ***21*** *21:04:45.2±0.3, 51.53N×16.19E, h7^{km}±1^{km}, ML2.6/4, Error ellipse: s-maj=2.0km s-min=0.7km az=28.0*
PRU ***21*** *21:04:46.9, 51.44N×16.07E, h0^{km}*
CSEM ***21*** *21:04:46.1±0.2, 51.48N×16.07E, h0^{km}, ML3.3/9, Error ellipse: s-maj=3.2km s-min=2.0km az=11.0*
WAR ***21*** *21:04:46.4, 51.49N×16.10E, ML2.8, Mining Induced*
IDC ***21*** *21:04:46.1±0.7, 51.47N×16.00E, h0^{km}, mb3.2/2, mb1 3.3/9, mb1mx3.2/23, mbtmp3.2/9, ML3.0/7, Error ellipse: s-maj=15.1km s-min=6.8km az=109.0*
VIE ***21*** *21:04:48.6±0.7, 51.22N×16.23E, h0^{km}, mb2.5/5, ML2.9/6, Error ellipse: s-maj=4.3km s-min=3.9km az=129.0, Suspected Mining induced.*
ISC 21 21:04:44.9±0.3, 51.49N±0.02×16.11E±0.02, h0^{km}, n137, $\sigma 0^{s}.84$/244, mb3.1/2, 14C-6D, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.66	170	*e*Pg	Pg	21 04 58.4	+0.8
KSP				*e*Sg	Sg	21 05 07.7	+1.5
KSP				*e*Sg	Sg	21 05 07.9	+1.8
KSP	Ksiaz	0.66	170	*e*Pg	Pg	21 04 58.3	+0.7
KSP	Ksiaz	0.66	170	⇓*i*Pg	Pg	21 04 58.4	+0.8
KSP				*e*Sg	Sg	21 05 07.0	+0.9
KSP				*e*		21 05 12.3	
KSP	Ksiaz	0.66	170	Pg	Pg	21 04 58.3	+0.7
KSP				*e*Sg	Sg	21 05 06.9	+0.8
UPC	Upice	0.99	184	*e*Pg	Pg	21 05 04.4	+0.6
UPC	Upice	0.99	184	*e*PG	Pg	21 05 04.4	+0.6
UPC	Upice	0.99	184	*e*Pg	Pg	21 05 04.4	+0.6
DPC	Dobruska-Polom	1.15	173	*e*Pg	Pg	21 05 07.2	+0.2
DPC				*e*Sg	Sg	21 05 21.9	0.0
DPC	Dobruska-Polom	1.15	173	*e*PG	Pg	21 05 07.2	+0.2
DPC				*e*SG	Sg	21 05 21.9	0.0
	59nm,0.5s						
DPC	Dobruska-Polom	1.15	173	*e*Pg	Pg	21 05 07.2	+0.2
DPC				*e*Sg	Sg	21 05 21.9	0.0
PVCC	Panska Ves	1.37	226	*e*Pg	Pg	21 05 11.4	+0.2
PVCC	Panska Ves	1.37	226	*e*PG	Pg	21 05 11.4	+0.2
PVCC	Panska Ves	1.37	226	*e*Pg	Pg	21 05 11.4	+0.2
PVCC				*e*Sg	Sg	21 05 30.0	+1.0
BRG	Berggiesshubel	1.50	246	*e*Pn	Pn	21 05 12.4	-0.6
BRG				*e*Sg	Sg	21 05 34.1	+1.1
BRG	Berggiesshubel	1.50	246	Pn	Pn	21 05 12.3	-0.7
BRG				Pg	Pg	21 05 14.0	+0.3
BRG				Sg	Sg	21 05 34.1	+1.0
BRG	Berggiesshubel	1.50	246	*e*Pn	Pn	21 05 13.4	+0.4
BRG	Berggiesshubel	1.50	246	Pg	Pg	21 05 14.0	+0.4
BRG				*e*Sg	Sg	21 05 33.7	+0.6
BRG	Berggiesshubel	1.50	246	PN	Pn	21 05 12.3	-0.7
BRG				PG	Pg	21 05 14.0	+0.3
BRG				SG	Sg	21 05 34.1	+1.0
	111nm,0.4s						
RUE	Ruedersdorf	1.75	305	*e*P	Pn	21 05 15.9	-0.5
RUE				*e*S	Sn	21 05 40.1	+0.7
RUE	Ruedersdorf	1.75	305	*e*P	Pn	21 05 15.9	-0.5
RUE				*e*S	Sn	21 05 40.1	+0.7
PRU	Pruhonice	1.81	214	*e*Pn	Pn	21 05 17.1	-0.1
PRU				*e*Pg	Pg	21 05 19.0	-0.5
PRU				*e*Sg	Sg	21 05 43.6	+0.7
PRU	Pruhonice	1.81	214	*e*PN	Pn	21 05 17.1	-0.1
PRU				*e*PG	Pg	21 05 19.0	-0.5
PRU				*e*SG	Sg	21 05 43.6	+0.7
	41nm,0.6s						
PRU	Pruhonice	1.81	214	*e*Pn	Pn	21 05 17.0	-0.2
FBE	Freiberg	1.83	253	*e*Pn	Pn	21 05 18.4	+0.9
FBE				*e*Sg	Sg	21 05 43.6	0.0
FBE	Freiberg	1.83	253	Pn	Pn	21 05 18.4	+0.9
FBE				Sg	Sg	21 05 43.6	0.0
RAC	Raciborz	1.93	136	*e*Pg	Pg	21 05 21.7	-0.2
RAC				*e*Sg	Sg	21 05 48.3	+1.3
RAC	Raciborz	1.93	136	*e*Pg	Pg	21 05 21.7	-0.2
RAC				*e*Sg	Sg	21 05 48.3	+1.3
MORC	Moravsky Berou	1.94	152	*e*P	Pn	21 05 18.6	-0.5
MORC	Moravsky Berou	1.94	152	⇑*i*P	Pn	21 05 19.1	0.0
MORC	Moravsky Berou	1.94	152	*e*Pn	Pn	21 05 18.8	-0.3
MORC				Sg	Sg	21 05 46.3	-1.1
CLL	Collm	1.96	266	*e*Pn	Pn	21 05 18.7	-0.6
CLL				*e*Sg	Sg	21 05 46.8	-0.9
CLL	Collm	1.96	266	*e*Pn	Pn	21 05 19.0	-0.3
CLL				*i* Pg	Pg	21 05 21.2	-1.2
CLL				*i*		21 05 26.0	
CLL				*i* Sg	Sg	21 05 47.5	-0.2
CLL	Collm	1.96	266	*e*Pn	Pn	21 05 19.0	-0.3
CLL				*i* Pg	Pg	21 05 21.2	-1.2
CLL				*i* x	x	21 05 26.0	
CLL				*i* Sg	Sg	21 05 47.5	-0.2
	comp=Z,27nm,0.7s						
CLL	Collm	1.96	266	*e*Pn	Pn	21 05 19.0	-0.3
CLL	Collm	1.96	266	*i* Pg	Pg	21 05 21.2	-1.2
CLL				Sg	Sg	21 05 46.8	-0.9
OKC	Ostrava-Krasne	2.10	141	*e*Pn	Pn	21 05 21.3	0.0
OKC				*e*Pg	Pg	21 05 25.0	-0.2
OKC				*e*Sg	Sg	21 05 51.6	-0.8
OKC	Ostrava-Krasne	2.10	141	*e*PN	Pn	21 05 21.3	0.0
OKC				*e*PG	Pg	21 05 25.0	-0.2
OKC				*e*SG	Sg	21 05 51.6	-0.8
	comp=Z,37nm,0.5s						
OKC	Ostrava-Krasne	2.10	141	*e*Pn	Pn	21 05 21.3	0.0
VRAC	Vranov	2.21	172	Pn	Pn	21 05 23.5	+0.7
VRAC				Lg		21 05 55.0	
VRAC	Vranov	2.21	172	Pn	Pn	21 05 23.5	+0.7
	comp=Z,3.9nm,0.3s,baz=351,slow=17,SNR=14						
VRAC				Lg		21 05 55.0	
	comp=Z,2.0nm,0.3s,baz=58,slow=19,SNR=4.2						
VRAC	Vranov	2.21	172	⇓*i*P	Pn	21 05 23.8	+1.0
VRAC	Vranov	2.21	172	*e*Pn	Pn	21 05 23.1	+0.3
VRAC				*e*Sg	Sg	21 05 55.1	-0.7
	comp=Z,23nm,0.4s						
KRUC	Moravsky	2.44	176	*e*Pn	Pn	21 05 26.9	+0.9
KRUC	Moravsky	2.44	176	*e*Pg	Pg	21 05 30.2	-1.5
KRUC				*e*Sg	Sg	21 06 02.4	-0.9
	comp=Z,19nm,0.4s						
TANN	Tannenbergstha	2.55	246	*e*Pn	Pn	21 05 27.9	+0.4
TANN				*e*Sg	Sg	21 06 05.4	-1.3
TANN	Tannenbergstha	2.55	246	Pn	Pn	21 05 27.9	+0.5
TANN				Sg	Sg	21 06 05.4	-1.3
WERD	Werda	2.62	248	*e*Pn	Pn	21 05 28.5	0.0
WERD				*e*Sg	Sg	21 06 08.0	-1.2
WERD	Werda	2.62	248	Pn	Pn	21 05 28.5	0.0
WERD				Sg	Sg	21 06 08.0	-1.2
NKC	Novy Kostel	2.64	243	*e*Pn	Pn	21 05 29.3	+0.6
NKC				*e*Pg	Pg	21 05 35.3	-0.2
NKC				*e*Sg	Sg	21 06 11.0	+1.2
NKC	Novy Kostel	2.64	243	*e*PN	Pn	21 05 29.3	+0.6
NKC				*e*PG	Pg	21 05 35.3	-0.2
NKC				*e*SG	Sg	21 06 11.0	+1.2
	comp=Z,53nm,0.4s						
NKC	Novy Kostel	2.64	243	*e*Pn	Pn	21 05 29.2	+0.5
NKC	Novy Kostel	2.64	243	*e*Pg	Pg	21 05 35.3	-0.2
NKC				*e*Sg	Sg	21 06 10.5	+0.8
OJC	Ojcow	2.66	117	*e*Pn	Pn	21 05 27.6	-1.4
OJC				*e*Sg	Sg	21 06 11.1	+0.7
OJC	Ojcow	2.66	117	*e*Pg	Pg	21 05 35.9	0.0
OJC				*e*Sg	Sg	21 06 11.6	+1.2
OJC	Ojcow	2.66	117	Pn	Pn	21 05 27.6	-1.4
OJC	Ojcow	2.66	117	*e*Pg	Pg	21 05 35.9	0.0
OJC				Sg	Sg	21 06 11.1	+0.7
JAVC	Velka Javorina	2.82	159	*e*Sg	Sg	21 06 14.9	-0.6
	comp=Z,29nm,0.6s						
KHC	Kasperske Hory	2.87	215	*e*Pn	Pn	21 05 32.0	+0.2
KHC				*e*Pg	Pg	21 05 38.2	-1.7
KHC				*e*Sn	Sn	21 06 07.3	+0.3
KHC				*e*Sg	Sg	21 06 17.9	+0.9
KHC	Kasperske Hory	2.87	215	*e*PN	Pn	21 05 32.0	+0.2
KHC				*e*PG	Pg	21 05 38.2	-1.7
KHC				*e*SN	Sn	21 06 07.3	+0.3
KHC				*e*SG	Sg	21 06 17.9	+0.9
	comp=Z,26nm,0.8s						
KHC	Kasperske Hory	2.87	215	*e*Pn	Pn	21 05 32.0	+0.2
MOX	Moxa	2.96	255	*e*Pn	Pn	21 05 32.6	-0.5
MOX	Moxa	2.96	255	*e*Pn	Pn	21 05 32.8	-0.3
MOX				*e*Pg	Pg	21 05 41.0	-0.6
MOX				*e*Sg	Sg	21 06 20.9	+0.9
MOX	Moxa	2.96	255	*e*PN	Pn	21 05 32.8	-0.3
MOX				*e*PG	Pg	21 05 41.0	-0.6
MOX				*e*SG	Sg	21 06 20.9	+0.9
MOX	Moxa	2.96	255	*e*Pn	Pn	21 05 32.8	-0.3
MOX	Moxa	2.96	255	*e*Pg	Pg	21 05 41.0	-0.6
MOX				*e*Sg	Sg	21 06 19.0	-1.0
ROTZ	Rotzenmuhle	3.03	237	*e*Pn	Pn	21 05 34.4	+0.4
GEC2	GERESS Array S	3.07	211	*e*Pn	Pn	21 05 35.1	+0.5
GEC2	GERESS Array S	3.07	211	*e*Pn	Pn	21 05 35.1	+0.5
GEC2	GERESS Array S	3.07	211	Pn	Pn	21 05 35.1	+0.5
GERES	GERESS Array B	3.07	211	Pn	Pn	21 05 35.0	+0.4
GERES				Pg	Pg	21 05 41.6	-2.1
GERES				Sn	Sn	21 06 13.0	+0.9
GERES				Lg		21 06 21.4	
GERES	GERESS Array B	3.07	211	Pn	Pn	21 05 35.0	+0.4
	comp=Z,2.1nm,0.3s,baz=29,slow=12,SNR=62						
GERES				Pg	Pg	21 05 41.6	-2.1
	comp=Z,4.4nm,0.3s,baz=31,slow=17,SNR=33						
GERES				Sn	Sn	21 06 13.0	+0.9
	comp=Z,2.3nm,0.3s,baz=45,slow=26,SNR=5.8						
GERES				Lg		21 06 21.4	
	comp=Z,2.6nm,0.3s,baz=39,slow=28,SNR=7.3						
GERES	GERESS Array B	3.07	211	Pn	Pn	21 05 35.0	+0.4
GERES	GERESS Array B	3.07	211	Pg	Pg	21 05 41.6	-2.1
SMOL	Smolenice	3.10	164	*e*Pg	Pg	21 05 44.1	-0.2
SMOL				*e*Sg	Sg	21 06 24.6	+0.1
SMOL	Smolenice	3.10	164	*e*PG	Pg	21 05 44.1	-0.2
SMOL				*e*SG	Sg	21 06 24.6	+0.1
SMOL	Smolenice	3.10	164	*e*Pg	Pg	21 05 44.1	-0.2
SMOL				*e*Sg	Sg	21 06 24.6	+0.1
WET	Wettzell	3.13	223	*e*Pn	Pn	21 05 35.8	+0.3
WET	Wettzell	3.13	223	*e*Pn	Pn	21 05 35.8	+0.3
WET	Wettzell	3.13	223	*e*Pn	Pn	21 05 35.6	+0.1
KOLL	Kolacno	3.27	152	*e*Pn	Pn	21 05 38.1	+0.7
KOLL				*e*Pg	Pg	21 05 47.7	+0.2
KOLL				*e*Sg	Sg	21 06 29.7	-0.2
KOLL	Kolacno	3.27	152	*e*PN	Pn	21 05 38.1	+0.7
KOLL				*e*PG	Pg	21 05 47.7	+0.2
KOLL				*e*SG	Sg	21 06 29.7	-0.2
KOLL	Kolacno	3.27	152	*e*Pn	Pn	21 05 38.1	+0.7
ZST	Bratislava	3.36	169	*e*Pg	Pg	21 05 49.3	0.0
ZST				*e*Sg	Sg	21 06 31.0	-1.9
ZST	Bratislava	3.36	169	*e*PG	Pg	21 05 49.3	0.0
ZST				*e*SG	Sg	21 06 31.0	-1.9
ZST	Bratislava	3.36	169	*e*Pg	Pg	21 05 49.3	0.0
ZST				*e*Sg	Sg	21 06 31.0	-1.9
NIE	Niedzica	3.39	126	*e*P	Pg	21 05 49.4	-0.5
NIE				*e*S	Sg	21 06 33.2	-0.7
VYHS	Vyhne	3.48	149	*e*Pn	Pn	21 05 40.4	+0.2
VYHS				*e*Pg	Pg	21 05 51.7	+0.2
VYHS				*e*Sg	Sg	21 06 34.7	-1.9
VYHS	Vyhne	3.48	149	*e*PN	Pn	21 05 40.4	+0.2
VYHS				*e*PG	Pg	21 05 51.7	+0.2
VYHS				*e*SG	Sg	21 06 34.7	-1.9
VYHS	Vyhne	3.48	149	*e*Pn	Pn	21 05 40.4	+0.2
CONA	Conrad Observa	3.57	183	⇑*i*Pn	Pn	21 05 42.8	+1.3
CONA				⇓*i*Sg	Sg	21 06 38.4	-1.2
	comp=Z,11nm,0.5s						
CONA	Conrad Observa	3.57	183	Pn	Pn	21 05 42.8	+1.3
CONA				Sg	Sg	21 06 38.4	-1.2
	comp=Z,11nm,0.5s						
GRA1	Grafenberg Arr	3.60	242	*e*Pn	Pn	21 05 42.5	+0.6
GRA1				*e*Sg	Sg	21 06 40.7	+0.2
GRA1	Grafenberg Arr	3.60	242	Pn	Pn	21 05 42.5	+0.6
GRA1				Sg	Sg	21 06 40.7	+0.2
GRF	Grafenberg Arr	3.60	242	*e*Pn	Pn	21 05 42.5	+0.6
GRF				*e*Sg	Sg	21 06 40.7	+0.2
GRF	Grafenberg Arr	3.60	242	*e*Pn	Pn	21 05 42.5	+0.6
GRF				*e*Sg	Sg	21 06 40.7	+0.2
GRF	Grafenberg Arr	3.60	242	*e*Pn	Pn	21 05 42.5	+0.6
GRF				*e*Sg	Sg	21 06 40.7	+0.2
GRFO	Grafenberg	3.60	242	*e*P	Pn	21 05 41.3	-0.6
MOA	Molln	3.84	199	⇑*i*Pn	Pn	21 05 45.6	+0.5
MOA	Molln	3.84	199	⇑*i*Pn	Pn	21 05 45.6	+0.4
MOA				*i* Sg	Sg	21 06 48.9	+0.7
MOA	Molln	3.84	199	⇑*i*Pn	Pn	21 05 45.6	+0.5
MOA				⇑*i*Sg	Sg	21 06 48.9	+0.7
	comp=Z,14nm,0.5s						
MOA	Molln	3.84	199	Pn	Pn	21 05 45.6	+0.4
MOA				Sg	Sg	21 06 48.9	+0.7
	comp=Z,14nm,0.5s						
STHS	Stebnicka Huta	3.88	120	*e*Pn	Pn	21 05 46.8	+1.0
STHS				*e*Pg	Pg	21 06 00.6	+1.3
STHS				*e*Sg	Sg	21 06 55.0	+5.4
STHS	Stebnicka Huta	3.88	120	*e*PN	Pn	21 05 46.8	+1.0
STHS				*e*PG	Pg	21 06 00.6	+1.3
STHS				*e*SG	Sg	21 06 55.0	+5.4
STHS	Stebnicka Huta	3.88	120	*e*Pn	Pn	21 05 46.8	+1.0
KECS	Kecovo	4.13	135	*e*Pg	Pg	21 06 04.9	+0.9
KECS				*e*Sg	Sg	21 06 57.3	-0.1
KECS	Kecovo	4.13	135	*e*PG	Pg	21 06 04.9	+0.9
KECS				*e*SG	Sg	21 06 57.3	-0.1
ARSA	Arzberg	4.26	185	⇑*i*Pn	Pn	21 05 50.9	-0.1
ARSA	Arzberg	4.26	185	⇑*i*Pn	Pn	21 05 50.9	-0.1
ARSA				*i* Sg	Sg	21 07 00.6	-1.3
ARSA	Arzberg	4.26	185	⇑*i*Pn	Pn	21 05 50.9	-0.1
ARSA				⇓*i*Sg	Sg	21 07 00.6	-1.3
	comp=Z,16nm,0.6s						
ARSA	Arzberg	4.26	185	Pn	Pn	21 05 50.9	-0.1
ARSA				Sg	Sg	21 07 00.6	-1.2
	comp=Z,16nm,0.6s						
CRVS	Cervenica-Dubn	4.30	125	*e*Pg	Pg	21 06 08.1	+0.7
CRVS				*e*Sg	Sg	21 07 03.3	+0.2
CRVS	Cervenica-Dubn	4.30	125	*e*PG	Pg	21 06 08.1	+0.7
CRVS				*e*SG	Sg	21 07 03.3	+0.2
CRVS	Cervenica-Dubn	4.30	125	*e*Pg	Pg	21 06 08.1	+0.7
CRVS				*e*Sg	Sg	21 07 03.3	+0.2
PSZ	Piszkesteto	4.34	144	⇑*i*P	Pn	21 05 53.0	+1.0
KOLS	Kolonicke sedl	4.71	121	*e*Pn	Pn	21 05 57.7	+0.5
KOLS				*e*Pg	Pg	21 06 16.5	+1.3
KOLS				*e*		21 07 14.3	
KOLS	Kolonicke sedl	4.71	121	*e*PN	Pn	21 05 57.7	+0.5
KOLS				*e*PG	Pg	21 06 16.5	+1.3
KOLS				*e*		21 07 14.3	
KOLS	Kolonicke sedl	4.71	121	*e*Pn	Pn	21 05 57.7	+0.5
KBA	Koelnbreinsper	4.78	203	⇑*i*Pn	Pn	21 05 59.1	+1.1
KBA	Koelnbreinsper	4.78	203	⇑*i*Pn	Pn	21 05 59.1	+1.1
KBA				*i* Sg	Sg	21 07 18.8	+0.6
KBA	Koelnbreinsper	4.78	203	⇑*i*Pn	Pn	21 05 59.1	+1.1
KBA				⇑*i*Sg	Sg	21 07 18.8	+0.6
	comp=Z,8.5nm,0.6s						
KBA	Koelnbreinsper	4.78	203	Pn	Pn	21 05 59.1	+1.1
KBA				Sg	Sg	21 07 18.8	+0.6
	comp=Z,8.5nm,0.6s						
PKSM	Moragy	5.54	162	⇓*i*P	Pn	21 06 08.9	+0.3
DAVOX	Davos/Dischmat	6.24	223	Pn	Pn	21 06 18.0	-0.1
DAVOX	Davos/Dischmat	6.24	223	Pn	Pn	21 06 18.0	-0.1
	comp=Z,0.3nm,0.3s,baz=35,slow=12,SNR=3.6						
DAVOX	Davos/Dischmat	6.24	223	Pn	Pn	21 06 18.0	-0.2
BURAR	Bucovina Array	7.08	120	⇓*i*P	Pn	21 06 29.9	+0.2
AKASG	Malin Array Be	8.29	90	Pn	Pn	21 06 45.2	-1.1
AKASG	Malin Array Be	8.29	90	Pn	Pn	21 06 45.2	-1.1
	comp=Z,1.0nm,0.3s,baz=284,slow=12,SNR=4.5						
AKASG	Malin Array Be	8.29	90	Pn	Pn	21 06 45.2	-1.1
HFS	Hagfors	8.77	352	Pn	Pn	21 06 51.8	-0.9
HFS	Hagfors	8.77	352	Pn	Pn	21 06 51.8	-0.9
	comp=Z,0.1nm,0.3s,baz=169,slow=16,SNR=2.5						
HFS	Hagfors	8.77	352	Pn	Pn	21 06 51.8	-0.9
FINES	FINESS Array B	11.38	25	Pn	Pn	21 07 26.9	-1.6
	comp=Z,0.1nm,0.3s,baz=209,slow=11,SNR=4.3						
FINES				Sn	Sn	21 09 27.5	-8.6
	comp=Z,0.2nm,0.3s,baz=209,slow=20,SNR=4.0						
EKA	Eskdalemuir Ar	12.11	296	Pn	Pn	21 07 35.6	-3.0
	comp=Z,0.1nm,0.3s,baz=105,slow=14,SNR=3.2						
ARCES	ARCESS Array B	18.64	10	Pn	Pn	21 08 59.5	-4.5
	comp=Z,0.2nm,0.3s,baz=192,slow=13,SNR=7.6						
TORD	Torodi Ar. Bea	39.98	202	P	P	21 12 21.3	+0.1
	comp=Z,0.5nm,1.1s,mb3.1,baz=8.5,slow=11,SNR=2.6						
YKA	Yellowknife Ar	59.87	336	P	P	21 14 52.5	+0.8
	comp=Z,0.1nm,0.4s,mb3.2,baz=51,slow=5.3,SNR=3.5						

DDA ***21*** *21:06:09.1, 38.56N×39.30E, h26^{km}±1^{km}, Md3.0*
ISCJB ***21*** *21:06:10.9±0.5, 38.39N±0.03×39.27E±0.04, h7^{km}±7^{km}, Error ellipse: s-maj=5.3km s-min=4.8km az=12.3*
CSEM ***21*** *21:06:10.0±0.1, 38.40N×39.24E, h10^{km}, MD3.0*
ISK ***21*** *21:06:10.6, 38.39N×39.25E, h9^{km}, MD2.8*
ISC 21 21:06:11.4±0.5, 38.41N±0.03×39.26E±0.03, h13^{km}±5^{km}, n19, $\sigma 0^{s}.80$/33, 1D, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.23	293	*i* P	Pg	21 06 16.1	-0.3
ELZG				*i* S	Sg	21 06 20.2	+0.4
PTK	Pertek	0.49	12	PG	Pg	21 06 20.6	-0.5

PTK				SG	Sg	21 06 29.2	+1.4
PTK	Pertek	0.49	12	*e*Pg	Pg	21 06 20.6	-0.5
PTK				*e*Sg	Sg	21 06 29.2	+1.4
MALT	Malatya	0.66	262	PG	Pg	21 06 22.7	-1.5
MALT				SG	Sg	21 06 33.0	+0.1
MALT	Malatya	0.66	262	*e*Pg	Pg	21 06 22.7	-1.5
MALT	Malatya	0.66	262	⇓*i*P	Pg	21 06 23.1	-1.1
MALT				*e*Sg	Sg	21 06 33.0	+0.1
MYA	Malataya	0.66	263	PG	Pg	21 06 23.1	-1.1
MYA				SG	Sg	21 06 33.7	+0.8
MYA	Malataya	0.66	263	*e*Pg	Pg	21 06 23.1	-1.1
MYA				*e*Sg	Sg	21 06 33.7	+0.8
DIYA	Diyarbakir	0.84	125	*i* P	Pg	21 06 27.2	-0.4
DIYA				*i* S	Sg	21 06 38.9	+0.4
DIY	Diyarbakir	0.92	123	PG	Pg	21 06 28.4	-0.8
DIY				SG	Sg	21 06 41.3	+0.1
DIY	Diyarbakir	0.92	123	*e*Pg	Pg	21 06 28.4	-0.8
DIY				*e*Sg	Sg	21 06 41.3	+0.1
URFA	Urfa	1.02	200	PG	Pg	21 06 31.1	0.0
URFA				SG	Sg	21 06 45.5	+1.0
URFA	Urfa	1.02	200	*e*Pg	Pg	21 06 31.1	0.0
URFA				*e*Sg	Sg	21 06 45.5	+1.0
BINT	Bingol	1.07	64	*e*PN	Pn	21 06 32.5	+0.5
BINT	Bingol	1.07	64	*e*Pn	Pn	21 06 32.5	+0.5
EZC	Erzincan	1.41	18	*e*PN	Pn	21 06 36.8	+0.2
MARD	Mardin	1.63	132	*i* P	Pn	21 06 39.8	+0.2
MARD				*i* S	Sn	21 07 01.2	+0.8
GZT	Gaziantep	1.70	232	*i* P	Pn	21 06 41.1	+0.4
GZT				*i* S	Sn	21 07 07.1	+4.8
BTMT	Batman	1.77	96	*e*PN	Pn	21 06 39.6	-2.0

IDC 21 21:06:40.0±1.3**, 103S×12780E, h0^{km}, mb3.8**/5**, mb1 3.9**/6**, mb1mx3.7**/17**, mbtmp3.8**/6**, ML3.9**/1**, Error ellipse: s-maj=119.9km s-min=19.8km az=69.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	12.48	159	*e*P	Pn	21 09 41.1	+2.0
	7.5nm,0.8s						
WRA	Warramunga Arr	19.86	162	P	Pn	21 11 12.9	-1.4
	0.3nm,0.3s,baz=342,slow=12,SNR=35						
WB2	Warramunga Arr	19.86	162	*e*P	Pn	21 11 13.7	-0.6
ASAR	Alice Springs	23.27	166	P	P	21 11 49.5	+0.2
	1.7nm,0.7s,baz=344,slow=11,SNR=20						
SONM	Songino Array	52.12	342	P	P	21 15 53.0	+1.0
	0.4nm,0.6s,baz=148,slow=7.8,SNR=5.0						
MKAR	Makanchi Array	62.07	326	P	P	21 17 02.5	0.0
	0.7nm,0.5s,baz=115,slow=8.0,SNR=26						
ZALV	Zalesovo Beam	65.29	334	P	P	21 17 23.8	+0.2
	0.2nm,0.3s,baz=141,slow=5.0,SNR=2.8						
AKTO	Aktyubinsk	78.04	322	P	P	21 18 39.9	-0.7
	1.4nm,0.6s,baz=106,slow=5.9,SNR=7.9						

ISCJB ***21*** *21:14:52.5±0.7, 2821S±005×1792W±0.1, h441^{km}±8^{km}, mb3.7/8, Error ellipse: s-maj=20.1km s-min=7.7km az=0.3*
NEIC ***21*** *21:14:54.4±0.8, 2825S×17923W, h450^{km}±9^{km}, mb4.1/1, Error ellipse: s-maj=14.8km s-min=8.6km az=81.0*
IDC ***21*** *21:14:54.5±1.2, 28.16S×17931W, h436^{km}±14^{km}, mb3.4/8, mb1 3.6/10, mb1mx3.6/15, mbtmp3.5/10, Error ellipse: s-maj=20.3km s-min=18.3km az=140.0*
ISC 21 21:14:54.0±0.6**, 2822S**±005×**1793W**±01**, h428**^{km}±8^{km}**, n67,** $\sigma 1^{s}$**03**/73**, mb3.7**/8**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	1.61	130	P	P	21 15 52.3	+1.9
	241nm,0.3s,baz=72,slow=8.6,SNR=24						
RAO				S	S	21 16 35.4	-0.7
	70nm,0.3s,baz=90,slow=20,SNR=3.6						
MXZ	Matakaoa Point	9.53	191	*e*P	P	21 17 06.9	+1.0
MXZ	Matakaoa Point	9.53	191	*e*PN	P	21 17 05.9	0.0
MXZ				SN	S	21 18 53.6	-0.8
PUZ	Puketiti	10.04	191	P	P	21 17 12.4	+1.0
PUZ				S	S	21 19 05.1	+0.5
PUZ	Puketiti	10.04	191	PN	P	21 17 09.9	-1.5
PUZ				*e*SN	S	21 19 03.7	-0.9
MWZ	Matawai	10.43	194	*e*P	P	21 17 15.4	-0.3
MWZ				S	S	21 19 14.5	+2.0
MWZ	Matawai	10.43	194	PN	P	21 17 14.6	-1.1
MWZ				*e*SN	S	21 19 13.3	+0.7
URZ	Urewera	10.45	196	P	P	21 17 16.8	+0.8
	59nm,0.3s,baz=344,slow=1.7,SNR=88						
URZ				S	S	21 19 13.5	+0.5
	19nm,0.3s,baz=59,slow=23,SNR=16						
URZ	Urewera	10.45	196	*e*SN	S	21 19 14.1	+1.1
KNZ	Kokohu	11.06	192	*e*P	P	21 17 21.7	-1.0
KNZ	Kokohu	11.06	192	*e*PN	P	21 17 21.5	-1.2
HIZ	Hauiti	11.36	204	P	P	21 17 30.9	+4.9
HIZ	Hauiti	11.36	204	*e*PN	P	21 17 29.9	+3.9
BKZ	Black Stump Fm	11.46	197	*e*P	P	21 17 26.8	-0.3
BKZ	Black Stump Fm	11.46	197	*e*PN	P	21 17 26.5	-0.6
NGZ	Ngauruhoe	11.72	200	P	P	21 17 31.4	+1.5
NGZ	Ngauruhoe	11.72	200	*e*PN	P	21 17 30.9	+1.0
FWVZ	Far West T-bar	11.81	200	P	P	21 17 32.8	+2.0
WNVZ	Wahianoa	11.86	200	P	P	21 17 32.6	+1.2
WNVZ	Wahianoa	11.86	200	*e*PN	P	21 17 32.3	+0.9
MOVZ	Moawhango	11.89	199	P	P	21 17 31.8	+0.1
PXZ	Pawanui	12.20	194	*e*PN	P	21 17 33.1	-2.0
PXZ				SN	S	21 19 47.5	-0.7
WAZ	Wanganui	12.44	201	*e*P	P	21 17 39.3	+1.6
BFZ	Birch Farm	12.96	195	*e*P	P	21 17 43.7	+0.3
BFZ	Birch Farm	12.96	195	*e*PN	P	21 17 43.5	+0.1
MRZ	Mangatainoka R	13.11	197	P	P	21 17 44.7	-0.3
MRZ	Mangatainoka R	13.11	197	PN	P	21 17 44.6	-0.4
KIW	Kapiti Island	13.48	199	P	P	21 17 48.7	-0.3
MTW	Mount Morrison	13.59	197	P	P	21 17 49.7	-0.6
MRW	Makara Radio	13.88	199	P	P	21 17 52.8	-0.5
MRW	Makara Radio	13.88	199	*e*PN	P	21 17 52.6	-0.8
MSWZ	Moikau Station	13.90	197	P	P	21 17 53.2	-0.4
SNZO	South Karori	13.95	199	P	P	21 17 53.6	-0.5
TCW	Tory Channel	13.99	200	P	P	21 17 54.1	-0.5
TCW	Tory Channel	13.99	200	PN	P	21 17 54.1	-0.4
QRZ	Quartz Range	14.25	206	*e*P	P	21 17 55.0	-2.4
QRZ	Quartz Range	14.25	206	*e*PN	P	21 17 57.5	+0.1
DZM	Mont Dzumac	14.27	292	P	P	21 17 58.1	+0.3
	1.6nm,0.3s,baz=129,slow=20,SNR=9.1						
NNZ	Nelson	14.29	203	*e*P	P	21 17 57.0	-0.8
NNZ	Nelson	14.29	203	PN	P	21 17 56.9	-0.8
NOUC	Port Laguerre	14.37	292	*e*P	P	21 17 59.2	+0.3
NOUC	Port Laguerre	14.37	292	*e*P	P	21 17 59.2	+0.3
THZ	Tophouse	14.93	203	*e*P	P	21 18 04.7	0.0
THZ	Tophouse	14.93	203	*e*PN	P	21 18 04.6	-0.2
THZ				*e*SN	S	21 20 43.8	+1.3
KHZ	Kahutara	15.31	200	P	P	21 18 08.5	-0.3
KHZ	Kahutara	15.31	200	*e*PN	P	21 18 08.5	-0.3
WVZ	Waitaha Valley	16.87	206	*e*P	P	21 18 25.7	+0.4
RPZ	Rata Peaks	17.30	204	P	P	21 18 28.9	-0.9
RPZ	Rata Peaks	17.30	204	P	P	21 18 28.9	-0.9
	1.0nm,0.3s,baz=28,slow=1.1,SNR=14						
JCZ	Jackson Bay	18.49	208	*e*P	P	21 18 41.4	-1.0
WHZ	Wether Hill Ro	20.32	206	*e*P	P	21 18 57.6	-1.7
CTA	Charters Tower	32.35	277	*e*P	P	21 20 46.9	+0.6
	4.3nm,0.5s,mb4.0						
CTA	Charters Tower	32.35	277	P	P	21 20 47.0	+0.7
	5.3nm,0.5s,mb4.2,baz=82,slow=6.9,SNR=8.4						
STKA	Stephens Creek	33.91	254	P	P	21 21 00.5	+1.1
STKA	Stephens Creek	33.91	254	P	P	21 21 00.5	+1.1
	1.5nm,0.5s,mb3.6,baz=36,slow=10,SNR=4.1						
ASAR	Alice Springs	42.11	265	P	P	21 22 06.8	-0.2
	1.2nm,0.4s,mb3.6,baz=100,slow=7.7,SNR=19						
WB2	Warramunga Arr	42.88	271	*e*P	P	21 22 12.2	-0.9
WRA	Warramunga Arr	42.89	271	P	P	21 22 12.3	-1.0
	2.0nm,0.4s,mb3.8,baz=104,slow=6.0,SNR=66						
FITZ	Fitzroy Crossi	51.23	269	P	P	21 23 17.4	+0.8
	0.9nm,0.4s,mb3.3,baz=121,slow=12,SNR=5.8						
MJAR	Matsushiro Arr	75.79	326	P	P	21 25 53.4	-1.2
	2.6nm,0.7s,mb4.0,baz=166,slow=6.2,SNR=11						
VNA3	Neumayer Olymp	80.55	177	*e*	P	21 26 22.5	+2.7
VNA3				*e*		21 26 26.5	
VNA3				*e*		21 26 33.0	
VNA2	Neumayer--Watz	80.97	177	*e*	P	21 26 25.0	+2.9
	baz=181,slow=4.8						
VNA2				*e*		21 26 29.1	
VNA2				*e*		21 26 35.9	
KSRS	Korea Array	81.94	320	P	P	21 26 27.8	+0.3
	1.2nm,0.8s,mb3.7,baz=134,slow=5.4,SNR=4.0						
NVAR	Mina Array Bea	87.44	43	P	P	21 26 54.2	-0.2
	1.7nm,0.8s,mb3.8,baz=199,slow=6.7,SNR=4.7						
FINES	FINESS Array B	142.71	340	PKP	PKPdf	21 33 33.2	-3.4
FINES	FINESS Array B	142.71	340	PKP	PKPdf	21 33 33.2	-3.4
	1.0nm,0.8s,baz=27,slow=2.1,SNR=3.6						
TORD	Torodi Ar. Bea	164.98	184	PKPab	PKPab	21 35 08.9	+1.3
	0.8nm,0.6s,baz=176,slow=3.9,SNR=12						

IDC ***21*** *21:18:15.2±4.7, 2150S×17039E, h0^{km}, mb4.2/4, mb1 4.3/4, mb1mx4.0/13, mbtmp4.2/4, ML2.2/1, Error ellipse: s-maj=131.5km s-min=64.3km az=0.0*
NEIC ***21*** *21:18:17.4±3.2, 2156S×17030E, h10^{km}, mb4.4/1, Error ellipse: s-maj=81.8km s-min=21.8km az=201.0*
ISC 21 21:18:15.9±2.0**, 213S**±04×**1704E**±01**, h10**^{km}**, n7,** $\sigma 0^{s}$**40**/9**, mb4.2**/5**, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	3.78	258	Pn	Pn	21 19 13.7	-0.6
DZM				Sn	Sn	21 19 59.2	+0.3
DZM	Mont Dzumac	3.78	258	Pn	Pn	21 19 13.7	-0.6
	0.2nm,0.3s,baz=218,slow=19,SNR=3.5						
DZM				Sn	Sn	21 19 59.2	+0.3
	1.4nm,0.3s,baz=135,slow=24,SNR=6.0						
STKA	Stephens Creek	27.77	242	P	P	21 24 04.7	-0.4
	2.0nm,0.9s,mb3.8,baz=54,slow=8.9,SNR=3.3						
WRA	Warramunga Arr	33.76	266	P	P	21 24 58.4	+0.4
	0.9nm,0.7s,mb3.8,baz=98,slow=7.7,SNR=2.8						
ASAR	Alice Springs	33.77	259	P	P	21 24 58.4	+0.3
	3.9nm,0.8s,mb4.4,baz=97,slow=9.8,SNR=16						
NWAO	Narrogin (SRO)	48.30	244	P	P	21 26 57.2	-0.3
	5.1nm,0.7s,mb4.6,baz=90,slow=12,SNR=2.8						
QSPA	South Pole Qui	68.77	180	*e*P	P	21 29 19.9	+0.3
	2.1nm,0.8s,mb4.1						

IDC 21 21:29:09.4±40.0**, 3105N×8986E, h0^{km}, mb3.1**/2**, mb1 3.2**/3**, mb1mx3.1**/22**, mbtmp3.2**/3**, ML2.8**/1**, Error ellipse: s-maj=578.1km s-min=75.5km az=12.0, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKAR	Makanchi Array	16.77	342	Pn	Pn	21 33 02.7	-2.9
	0.0nm,0.3s,baz=152,slow=14,SNR=5.2						
SONM	Songino Array	21.00	32	P	P	21 33 54.6	+0.3
	0.1nm,0.3s,baz=214,slow=12,SNR=4.8						
ZALV	Zalesovo Beam	23.17	352	P	P	21 34 17.2	-0.2
	0.4nm,0.3s,baz=170,slow=10,SNR=5.2						

ISK ***21*** *21:32:56.8, 3839N×3922E, h5^{km}, MD3.2*
ISCJB ***21*** *21:32:57.5±0.4, 3837N±003×3928E±003, h2^{km}, Error ellipse: s-maj=4.2km s-min=2.9km az=1.4*
CSEM ***21*** *21:32:57.0±0.1, 3842N×3921E, h2^{km}, MD3.1, Error ellipse: s-maj=2.8km s-min=1.9km az=143.0*
DDA ***21*** *21:32:57.7, 3840N×3927E, h7^{km}±6^{km}, Md3.1*
ISC 21 21:32:58.2±0.5**, 3838N**±003×**3928E**±003**, h6**^{km}±5^{km}**, n27,** $\sigma 1^{s}$**09**/40**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.26	297	*i* P	Pg	21 33 02.5	-0.8
ELZG				*i* S	Sg	21 33 06.9	+0.2
PTK	Pertek	0.52	10	*i* PG	Pg	21 33 08.0	-0.2
PTK				*i* SG	Sg	21 33 16.4	+1.5
PTK	Pertek	0.52	10	*i* Pg	Pg	21 33 08.0	-0.2
PTK				*i* Sg	Sg	21 33 16.4	+1.5
MALT	Malatya	0.67	264	*i* PG	Pg	21 33 09.6	-1.6
MALT				*i* SG	Sg	21 33 19.3	-0.6
MALT	Malatya	0.67	264	*i* Pg	Pg	21 33 09.6	-1.6
MALT				*i* Sg	Sg	21 33 19.3	-0.6
MYA	Malataya	0.68	266	*i* PG	Pg	21 33 09.9	-1.3
MYA				*i* SG	Sg	21 33 20.2	+0.3
MYA	Malataya	0.68	266	*i* Pg	Pg	21 33 09.9	-1.3
MYA				*i* Sg	Sg	21 33 20.2	+0.3
DIYA	Diyarbakir	0.81	124	*i* P	Pg	21 33 13.0	-0.6
DIYA				*i* S	Sg	21 33 25.1	+1.0
DIY	Diyarbakir	0.89	123	*i* PG	Pg	21 33 15.1	-0.2
DIY	Diyarbakir	0.89	123	*i* Pg	Pg	21 33 15.1	-0.2
URFA	Urfa	1.01	201	*i* PG	Pg	21 33 17.8	+0.3
URFA	Urfa	1.01	201	*i* Pg	Pg	21 33 17.8	+0.3
BINT	Bingol	1.07	62	PN	Pn	21 33 19.4	-0.2
BINT	Bingol	1.07	62	*e*Pn	Pn	21 33 19.4	-0.2
ATAB	Bozova	1.20	221	*i* P	Pg	21 33 21.1	0.0
ATAB				*i* S	Sg	21 33 38.2	+1.5
EZC	Erzincan	1.43	17	PN	Pn	21 33 23.5	-1.1
BNGL	BINGOL	1.57	68	*i* P	Pn	21 33 27.1	+0.6
BNGL				*i* S	Sn	21 33 50.4	+3.3
MARD	Mardin	1.59	131	*i* P	Pn	21 33 25.6	-1.3
MARD				*i* S	Sn	21 33 46.4	-1.3
GZT	Gaziantep	1.70	233	*i* P	Pn	21 33 27.8	-0.5
GZT				*i* S	Sn	21 33 53.4	+3.0
BTMT	Batman	1.75	96	PN	Pn	21 33 28.2	-0.8
KMRS	Kahramanmaras	2.08	246	*e*PN	Pn	21 33 32.9	-0.6
KMRS	Kahramanmaras	2.08	246	*e*Pn	Pn	21 33 32.9	-0.6
SVSK	Karacayir	2.34	312	*e*PN	Pn	21 33 38.0	+0.8
SVSK	Karacayir	2.34	312	*e*Pn	Pn	21 33 38.0	+0.8
ANDN	Andirin	2.45	252	*i* P	Pg	21 33 44.5	-0.7
ANDN				*i* S	Sg	21 34 19.2	+2.2
SIRT	Sirnak	2.65	108	*e*PN	Pn	21 33 43.0	+1.7
SIRT	Sirnak	2.65	108	*e*Pn	Pn	21 33 43.0	+1.7

NNC ***21*** *21:46:36.1±13.0, 4405N×8403E, h9^{km}±53^{km}, mb2.5, mpv2.2, Error ellipse: s-maj=90.8km s-min=39.4km az=150.0*
BJI 21 21:46:35.4, 4400N×8377E, h10^{km}, ML2.7, 2C-3D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WMQ	Urumqi	2.84	92	*e*P	Pn	21 47 23.6	+2.8
WMQ				S	Sn	21 48 00.4	+5.4
WMQ				Smax			
	comp=N,17nm,0.8s						
WMQ				Smax			
	comp=E,14nm,0.4s						
MK31	Makanchi Array	2.98	340	⇓Pn	Pn	21 47 24.0	+1.3
	comp=E,0.1nm,0.3s,baz=148,slow=14,SNR=99						
MK31				⇓Pg	Pg	21 47 31.2	-1.3
	comp=E,1.1nm,0.3s,baz=153,slow=17,SNR=66						
MK31				⇑Lg		21 48 11.3	
	comp=E,15nm,0.5s,baz=158,slow=23						
TKM2	Tokmak 2	6.05	263	⇓Lg		21 49 52.7	
	comp=E,0.3nm,0.7s						
KURK	Kurchatov	7.57	334	⇑Lg		21 50 38.9	
	comp=E,1.1nm,0.7s						

ISCJB ***21*** *22:13:23.2±0.2, 4097N±001×11641W±001, h0^{km}, mb2.9/1, Error ellipse: s-maj=1.6km s-min=1.5km az=144.2*
IDC ***21*** *22:13:23.8±1.3, 4104N×11653W, h0^{km}, mb2.6/1, mb1 3.4/4, mb1mx3.2/21, mbtmp3.0/4, ML3.1/3, Error ellipse: s-maj=27.8km s-min=8.7km az=130.0*
NEIC ***21*** *22:13:24.4±0.4, 4097N×11648W, h0^{km}, ML2.7, Error ellipse: s-maj=6.9km s-min=4.6km az=153.0, Suspected Mining explosion.*
NEIC 55 km [35 miles] NE of Battle Mountain.
ISC 21 22:13:24.0±0.2**, 4098N**±001×**11641W**±001**, h0**^{km}**, n94,** $\sigma 1^{s}$**07**/165**, mb2.9**/1**, 59C-39D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
N10A	Dunphy	0.27	196	⇑P	Pg	22 13 28.9	-0.2
	baz=0.3,SNR=14						
N10A				⇓S	Sg	22 13 32.8	+0.2
	baz=0.3						
N11A	Elko Archery C	0.54	107	⇓P	Pg	22 13 33.5	-0.8
	baz=0.5						
N11A				⇑S	Sg	22 13 40.0	-1.2
	baz=0.5						
M10A	I.L. Ranch, Tu	0.55	350	⇑P	Pg	22 13 34.5	-0.1
	baz=0.6,SNR=36						
M10A				⇑S	Sg	22 13 42.2	+0.4
	baz=0.6						
M11A	Holland Ranch,	0.65	46	⇑P	Pg	22 13 35.9	-0.6
	baz=0.7						
M11A				⇑S	Sg	22 13 44.0	-0.9
	baz=0.7						
O10A	Cortez Mining,	0.69	186	⇑P	Pg	22 13 36.7	-0.5
	baz=0.7,SNR=19						
O10A				⇓S	Sg	22 13 46.1	0.0
	baz=0.7						
BMN	Battle Mountai	0.82	229	*e*P	Pg	22 13 39.8	0.0
BMN				*e*S	Sg	22 13 51.4	+0.9
N09A	Rock Creek Ran	0.85	262	⇓P	Pg	22 13 40.6	+0.2
	baz=0.8,SNR=41						
N09A				⇑S	Sg	22 13 52.6	+1.2
	baz=0.8						
ELK	Elko	0.92	104	*e*P	Pg	22 13 41.7	+0.1
ELK				*e*S	Sg	22 13 55.6	+2.1
O09A	Fish Creek Ran	1.00	217	⇑P	Pg	22 13 43.4	+0.2
	baz=1.0						
O09A				⇑S	Sg	22 13 57.2	+1.0
	baz=1.0						
O11A	Cowboy Ranch,	1.02	146	⇓P	Pg	22 13 43.0	-0.5
	baz=1.0,SNR=23						
O11A				⇓S	Sg	22 13 56.2	-0.6
	baz=1.0						
N12A	Clover Valley,	1.05	96	⇓P	Pg	22 13 43.6	-0.4
	baz=1.0,SNR=256						
N12A				⇓S	Sg	22 13 56.7	-0.9
	baz=1.0						
L10A	Juniper Basin	1.10	358	⇑P	Pg	22 13 44.6	-0.5
	baz=1.1						
L10A				⇓S	Sg	22 13 59.8	+0.5
	baz=1.1						
M12A	Wells	1.21	68	⇓P	Pg	22 13 46.5	-0.7
	baz=1.2,SNR=20						
M12A				⇓S	Sg	22 14 02.6	-0.3
	baz=1.2						
L11A	Cat Creek Ranc	1.29	22	⇑P	Pg	22 13 48.0	-0.6
	baz=1.3						
L11A				⇓S	Sg	22 14 05.7	+0.3
	baz=1.3						
N08A	GE Springer Mi	1.32	262	⇑P	Pg	22 13 48.2	-1.2
	baz=1.3,SNR=18						
N08A				⇓S	Sg	22 14 07.3	+0.9
	baz=1.3						
P10A	Eureka	1.36	182	⇓P	Pg	22 13 49.0	-1.0
	baz=1.4						
P10A				⇑S	Sg	22 14 07.5	-0.1
	baz=1.4						
L09A	Wilkinson Ranc	1.41	318	⇑P	Pn	22 13 49.8	-1.1
	baz=1.4						
L09A				⇑S	Sg	22 14 09.7	+0.6
	baz=1.4						
O12A	Currie	1.45	119	⇑P	Pn	22 13 49.9	-1.5
	baz=1.5,SNR=20						
O12A				⇓S	Sg	22 14 09.9	-0.7
	baz=1.5						
O08A	Rochester Mine	1.50	243	⇑P	Pn	22 13 51.6	-0.5
	baz=1.5						
P11A	Circle Ranch,	1.51	160	⇑P	Pn	22 13 51.5	-0.8
	baz=1.5						
P11A				⇑S	Sg	22 14 12.0	-0.5
	baz=1.5						
P09A	Austin	1.53	202	⇑P	Pn	22 13 51.9	-0.6
	baz=1.5						
P09A				⇓S	Sn	22 14 13.7	+0.6
	baz=1.5						
M08A	Happy Creek Ra	1.56	288	⇓P	Pn	22 13 52.1	-0.9
	baz=1.6,SNR=13						
M08A				⇓S	Sn	22 14 15.0	+1.2
	baz=1.6						
L12A	House Creek Ra	1.57	41	⇓P	Pn	22 13 52.5	-0.6
	baz=1.6						
L12A				⇑S	Sn	22 14 14.3	+0.2
	baz=1.6						
N13A	Wendover, West	1.68	93	⇑P	Pn	22 13 53.3	-1.3
	baz=1.7						
N13A				⇑S	Sn	22 14 16.1	-0.7
	baz=1.7						
M13A	Montello	1.74	77	⇑P	Pn	22 13 53.9	-1.5
	baz=1.7						
M13A				⇓S	Sn	22 14 18.2	-0.1
	baz=1.7						
K11A	Parker Ranch,	1.81	9	⇓P	Pn	22 13 56.0	-0.5
	baz=1.8,SNR=30						
K11A				⇑S	Sn	22 14 21.1	+1.0
	baz=1.8						
K10A	MacKenzie Ranc	1.83	349	⇑P	Pn	22 13 56.4	-0.3
	baz=1.8,SNR=16						
K10A				⇓S	Sn	22 14 21.0	+0.4
	baz=1.8						
P12A	McGill	1.89	142	⇓P	Pn	22 13 56.2	-1.3
	baz=1.9						
P12A				⇓S	Sn	22 14 21.0	-1.1
	baz=1.9						
N07B	Gerlach	1.95	265	⇑P	Pn	22 13 58.0	-0.4
	baz=1.9						
N07B				⇑Sb	Sb	22 14 27.0	+1.7
	baz=1.9						
K09A	Rome	1.98	331	⇑P	Pn	22 13 58.5	-0.2
	baz=2.0						
K09A				⇑S	Sn	22 14 24.8	+0.5
	baz=2.0						
K12A	Draper Farm, C	2.00	34	⇑P	Pn	22 13 58.3	-0.7
	baz=2.0,SNR=72						
K12A				⇑Sb	Sb	22 14 27.0	+0.2
	baz=2.0						
O07A	Toulon	2.05	247	⇑P	Pn	22 13 59.1	-0.5
	baz=2.0,SNR=7.2						
O07A				⇑Sg	Sg	22 14 30.2	+0.4
	baz=2.0						
M07A	Soldier Meadow	2.12	282	⇑P	Pn	22 14 00.7	0.0
	baz=2.1						
Q10A	Clear Creek Ra	2.15	180	⇑P	Pn	22 14 00.5	-0.6
	baz=2.2						
L13A	Double Diamond	2.16	58	⇓P	Pn	22 13 60.0	-1.2
	baz=2.2						
Q11A	Duckwater	2.21	164	⇓P	Pn	22 14 01.3	-0.6
	baz=2.2						
Q11A				⇑Sb	Sb	22 14 33.8	+1.2
	baz=2.2						
WVOR	Wild Horse Val	2.21	312	*e*Pn	Pn	22 14 03.1	+1.1
WVOR				*e*S	Sn	22 14 33.0	+3.1
Q09A	Carvers	2.22	196	⇑P	Pn	22 14 01.6	-0.5
	baz=2.2						
Q12A	Willow Creek R	2.28	147	⇓P	Pn	22 14 02.0	-0.9
	baz=2.3						
Q12A				⇓S	Sn	22 14 30.8	-1.0
	baz=2.3						
K08A	Mann Creek Ran	2.34	319	⇑P	Pn	22 14 04.4	+0.7
	baz=2.3,SNR=10						
M14A	Sheep Mountain	2.37	76	⇑P	Pn	22 14 02.8	-1.3
	baz=2.4						
P07A	Fallon	2.38	234	⇓P	Pn	22 14 03.7	-0.6
	baz=2.4						
K13A	Stover Farm, H	2.41	45	⇓P	Pn	22 14 04.3	-0.4
	baz=2.4						
Q08A	Gabbs	2.42	209	⇑P	Pn	22 14 03.8	-1.0
	baz=2.4						
L07A	Adell	2.43	296	⇑P	Pn	22 14 05.8	+0.9
	baz=2.4						
J12A	Stokes Ranch,	2.47	23	⇑P	Pn	22 14 05.3	-0.2
	baz=2.5						
MFID	Camas Ranch	2.47	10	⇑P	Pn	22 14 06.9	+1.4
	baz=2.5						
J09A	Fry Pan Ranch,	2.57	338	⇑P	Pn	22 14 08.2	+1.4
	baz=2.6						
PAHR	Pah Rah Range	2.60	242	*e*Pn	Pn	22 14 06.2	-1.1
PAHR				*e*Pg	Pg	22 14 13.2	-0.7
PAHR				*e*Sn	Sn	22 14 39.5	-0.1
PAHR				*e*Sg	Sg	22 14 49.4	+1.8
N06A	Buffalo Meadow	2.61	266	⇑P	Pn	22 14 05.8	-1.6
	baz=2.6						
R10A	Warm Springs	2.69	178	⇑P	Pn	22 14 07.6	-0.8
	baz=2.7						
K07A	Rock Creek Ran	2.73	310	⇑P	Pn	22 14 10.2	+1.2
	baz=2.7						
O06A	Flanigan	2.73	254	⇓P	Pn	22 14 08.9	-0.1
	baz=2.7						
R09A	Tonopah	2.78	191	⇑P	Pn	22 14 07.1	-2.7
	baz=2.8						
J08A	Circle Bar Ran	2.83	328	⇓P	Pn	22 14 11.5	+1.0
	baz=2.8						
DUG	Dugway	2.85	105	*e*Pn	Pn	22 14 10.8	+0.1
DUG				*e*Pg	Pg	22 14 19.7	+1.1
DUG				*e*Sg	Sg	22 14 57.8	+2.3
DUG	Dugway	2.85	105	⇑P	Pn	22 14 10.0	-0.7
	baz=2.8						
HVU	Hansel Valley	2.85	72	*e*Pn	Pn	22 14 10.7	0.0
HVU				*e*Pg	Pg	22 14 17.6	-1.0
HVU				*e*Sn	Sn	22 14 49.9	+4.2
HVU				*e*Sg	Sg	22 14 57.5	+2.0
K14A	Jones Ranch, D	2.88	56	⇓P	Pn	22 14 10.7	-0.4
	baz=2.9						
J13A	Cove Ranch, Pi	2.93	34	⇓P	Pn	22 14 12.5	+0.7
	baz=2.9						
NVAR	Mina Array Bea	2.93	210	Pn	Pn	22 14 11.2	-0.7
NVAR				Pg	Pg	22 14 18.4	-1.8

NVAR				Lg		22 14 55.9	
NVAR	Mina Array Bea	2.93	210	Pn	Pn	22 14 11.2	-0.7
	2.1nm,0.3s,baz=30,slow=13,SNR=34						
NVAR				Pg	Pg	22 14 18.4	-1.8
	12nm,0.3s,baz=29,slow=16,SNR=48						
NVAR				Lg		22 14 55.9	
	4.1nm,0.3s,baz=27,slow=26,SNR=5.9						
TPH	Tonopah	2.97	192	*e*Pn	Pn	22 14 12.8	+0.5
TPH				*e*Pg	Pg	22 14 21.5	+0.6
TPH				*e*Sn	Sn	22 14 49.6	+1.0
TPH				*e*Sg	Sg	22 15 01.1	+1.8
HLID	Hailey	2.98	29	⇑P	Pn	22 14 13.0	+0.5
	baz=3.0						
R12A	Pony Springs,	2.99	152	⇓P	Pn	22 14 13.5	+0.9
	baz=3.0						
SPUT	South Promonto	3.01	82	*e*Pn	Pn	22 14 16.2	+3.3
SPUT				*e*Pg	Pg	22 14 23.6	+2.0
SPUT				*e*Sn	Sn	22 14 53.2	+3.6
S10A	Tonopah Range,	3.05	183	⇓P	Pn	22 14 13.2	-0.3
	baz=3.1						
WCN	Washoe City	3.06	238	⇓P	Pn	22 14 13.3	-0.4
	baz=3.1						
MOD	Modoc	3.07	289	*e*Pn	Pn	22 14 12.9	-0.8
MOD				*e*Pg	Pg	22 14 22.5	-0.3
MOD				*e*Sn	Sn	22 14 48.6	-2.5
MOD				*e*Sg	Sg	22 15 04.0	+1.4
MOD	Modoc	3.07	289	⇑P	Pn	22 14 13.7	0.0
	baz=3.1						
M06C	Likely Place G	3.08	276	⇑P	Pn	22 14 13.6	-0.3
	baz=3.1						
I10A	Payette	3.12	355	⇑Pb	Pb	22 14 18.0	-2.3
	baz=3.1						
I09A	Lost Marbles R	3.15	342	⇓Pb	Pb	22 14 18.8	-2.0
	baz=3.2						
I13A	Wildhorse Cree	3.39	29	⇑P	Pn	22 14 18.3	+0.1
	baz=3.4						
K06A	Valley Falls	3.40	304	⇓P	Pn	22 14 19.1	+0.9
	baz=3.4						
NLU	North Lily Min	3.46	106	*e*Pn	Pn	22 14 20.7	+1.6
NLU				Pg	Pg	22 14 31.9	+1.6
NLU				Sn	Sn	22 15 04.0	+3.3
HWUT	Hardware Ranch	3.70	79	*e*Pn	Pn	22 14 24.3	+1.8
HWUT				*e*Pg	Pg	22 14 35.2	+0.3
HWUT				*e*Sn	Sn	22 15 09.2	+2.4
HWUT				*e*Sg	Sg	22 15 22.7	-0.3
H08A	Prairie City	3.91	336	⇑Pb	Pb	22 14 33.0	-0.8
	baz=3.9						
H13A	Challis	3.92	23	⇑Pb	Pb	22 14 32.4	-1.5
	baz=3.9						
S13A	Holt Ranch, En	3.93	149	⇑P	Pn	22 14 26.0	+0.5
	baz=3.9						
ARUT	Antelope Range	3.93	143	*e*Pn	Pn	22 14 27.6	+2.1
ARUT				*e*Pg	Pg	22 14 41.3	+2.0
ARUT				Sn	Sn	22 15 15.7	+3.4
ARUT				*e*Sg	Sg	22 15 32.9	+2.7
MTUM	Tungsten Hills	3.99	206	Pn	Pn	22 14 26.7	+0.4
MTUM				*e*Pg	Pg	22 14 40.3	-0.1
CCUT	Cedar City	4.16	144	*e*Pn	Pn	22 14 29.1	+0.4
CCUT				*e*Pg	Pg	22 14 43.0	-0.7
CCUT				*e*Sn	Sn	22 15 22.0	+3.9
CMB	Columbia Colle	4.25	228	*e*Pn	Pn	22 14 29.6	-0.4
CMB				*e*Pg	Pg	22 14 44.4	-1.2
CMB				*e*Sn	Sn	22 15 19.2	-1.1
CMB				*e*Sg	Sg	22 15 39.6	-1.0
MCMT	McKenzie Canyo	4.65	33	*e*Pn	Pn	22 14 35.4	0.0
MCMT				*e*Pg	Pg	22 14 45.6	-7.5
MCMT				*e*Sn	Sn	22 15 30.3	+0.2
MCMT				*e*Sg	Sg	22 15 51.8	-1.6
MOOW	Moose Ponds	5.03	55	*e*Pn	Pn	22 14 41.9	+1.3
MOOW				*e*Pg	Pg	22 14 49.0	-11
LOHW	Long Hollow	5.05	57	*e*Pn	Pn	22 14 41.9	+1.0
	9.6nm,0.7s						
PDAR	Pinedale Array	5.42	68	Pn	Pn	22 14 48.2	+2.3
PDAR	Pinedale Array	5.42	68	Pn	Pn	22 14 48.3	+2.3
	0.0nm,0.3s,baz=246,slow=12,SNR=3.5						
YMR	Madison River	5.44	46	*e*Pn	Pn	22 14 43.8	-2.5
	10nm,0.7s						
YMR				Pg	Pg	22 14 57.7	-11
TXAR	Lajitas Array	15.59	134	Pn	Pn	22 17 11.3	+6.4
TXAR	Lajitas Array	15.59	134	Pn	Pn	22 17 11.3	+6.4
	0.1nm,0.3s,baz=316,slow=10,SNR=4.2						
YKA	Yellowknife Ar	21.57	2	P	P	22 18 15.4	+0.6
YKA	Yellowknife Ar	21.57	2	P	P	22 18 15.4	+0.6
	0.2nm,0.4s,mb2.9,baz=185,slow=10,SNR=6.5						

MAN 21 22:30:15, 8.31N×126.35E, h7^{km}, mb4.3, ML3.1, MS2.9, 1C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	0.12	173	⇓*e*P	Pg	22 30 19.4	+1.7
BIPH				*e*S	Sg	22 30 29.0	+9.5
BUKP	Musuan	1.34	252	*e*P	Pn	22 30 40.5	+0.4
CGP	Cagayan de Oro	1.64	275	⇑*e*P	Pn	22 30 44.4	+0.1
CGP				*e*S	Sn	22 31 15.4	+10
SCPH	Surigao	1.69	330	*e*P	Pn	22 30 47.4	+2.5
PAGZ	Pagadian	2.97	261	*e*P	Pn	22 31 03.7	+1.1

KRSC 21 22:34:07.2±1.6, 53.22N×157.37E, h273^{km}±42^{km}, ML3.5, Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GNL	Ganaly	0.59	35	*e*P	Pn	22 34 44.4	+1.6
KOK	Koryaka	0.76	84	P	Pn	22 34 45.7	+2.2
SDLR	Sedlovina	0.91	86	P	Pn	22 34 45.9	+1.7
MIPR	Malaya Ipel'ka	1.02	202	*e*P	Pn	22 34 46.3	+1.5
RUS	Russkaya	1.05	138	*e*P	Pn	22 34 46.3	+1.4
RUS				*e*S	S	22 35 14.8	+0.1
NLC	Nalytchevo	1.19	92	S	S	22 35 15.4	-0.6
SPN	Mys Shipunski	1.60	93	*e*P	Pn	22 34 49.5	+1.1
SPN				*e*S	S	22 35 20.2	-0.8

*NEIC **21** 22:46:23.4±5.0, 43.78N×146.71E, h67^{km}±28^{km}, mb4.0/3, Error ellipse: s-maj=64.2km s-min=31.5km az=105.0*

NEIC Recorded [1 JMA] in eastern Hokkaido.

*ISCJB **21** 22:46:24.1±0.9, 43.64N±0.08×146.45E±0.10, h81^{km}±4^{km}, mb3.9/3, Error ellipse: s-maj=16.2km s-min=6.3km az=137.7*

*MOS **21** 22:46:25.1±0.8, 43.86N×146.29E, h76^{km}, mb4.3/3, Error ellipse: s-maj=18.0km s-min=16.7km az=59.2*

*JMA **21** 22:46:25.2±0.1, 43.57N×146.44E, h77^{km}±1^{km}, M4.1*

JMA Felt I J1.

ISC 21 22:46:25.0±0.9, 43.64N±0.07×146.46E±0.10, h73^{km}±4^{km}, n28, σ0^{s}.88/38, mb3.9/3, 1C-5D, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	0.59	243	⇑P	Pn	22 46 39.1	+0.2
NEM2				*e*S	Sn	22 46 49.3	+0.1
YUK	Yuzh-Kuril'sk	0.59	313	*e*PN	Pn	22 46 39.0	+0.1
YUK				*i* S	Sn	22 46 49.0	-0.2
YUK				pmax	pmax		
	comp=N,180nm,0.3s						
YUK				pmax	pmax		
	comp=E,180nm,0.3s						
YUK				pmax	pmax		
	comp=Z,500nm,0.3s						
YUK				smax			
	comp=E,3µm,0.3s						
YUK				smax			
	comp=N,4µm,0.3s						
YUK				smax			
	comp=E,2µm,0.4s						
JRA	Rausu	1.02	288	⇓P	Pn	22 46 44.4	+0.6
JRA				*e*S	Sn	22 46 59.1	+1.3
JNK	Nakash	1.27	268	⇓P	Pn	22 46 46.9	0.0
JNK				*e*S	Sn	22 47 02.6	-0.9
JAK	Akkeshi	1.44	244	P	Pn	22 46 49.2	0.0
JAK				*e*S	Sn	22 47 06.7	-0.7
JTKR	Abashiri--Toko	1.88	281	⇓P	Pn	22 46 55.6	+0.6
KUR	Kuril'sk	1.89	32	*e*PN	Pn	22 46 54.7	-0.4
KUR				*i* S	Sn	22 47 17.2	-0.9
KUR				pmax	pmax		
	comp=N,80nm,0.5s						
KUR				pmax	pmax		
	comp=Z,100nm,0.5s						
KUR				smax			
	comp=N,3µm,1.6s						
KUR				smax			
	comp=N,680nm,0.5s						
KUR				smax			
	comp=E,680nm,0.5s						
KUR	Kuril'sk	1.89	32	*e*PN	Pn	22 46 55.0	-0.1
JAR	Ashorobuto	1.99	261	⇓P	Pn	22 46 57.1	+0.6
JAR				*e*S	Sn	22 47 20.8	+0.3
JOB	Onbets	2.05	250	P	Pn	22 46 57.8	+0.5
JOB				*e*S	Sn	22 47 21.8	-0.2
JMP	Maruseppu	2.28	280	⇓P	Pn	22 47 01.1	+0.8
JCH	Churui	2.49	247	P	Pn	22 47 03.2	0.0
JCH				*e*S	Sn	22 47 30.9	-1.6
ERM	Erimo	2.92	237	*e*Pn	Pn	22 47 10.5	+1.4
ERM				*e*Sn	Sn	22 47 40.2	-2.8
ERM	Erimo	2.92	237	*e*PN	Pn	22 47 10.5	+1.4
HIA	Hailar	19.20	296	P	Pn	22 50 42.7	-1.6
BJT	Baijiatuau	22.80	271	*e*P	P	22 51 22.7	+1.3
	comp=E,1.6nm,0.3s,mb3.8						
BJT	Baijiatuau	22.80	271	*e*P	P	22 51 22.7	+1.4
BJT				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ENH	Enshi	32.15	258	P	P	22 52 47.4	+2.0
KURK	Kurchatov	45.18	304	P	P	22 54 34.2	+0.1
LSA	Lhasa	45.70	271	*e*P	P	22 54 38.5	0.0
	comp=Z,0.9nm,0.3s,mb4.0						
LSA	Lhasa	45.70	271	*e*P	P	22 54 38.5	0.0
LSA				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.0						
CHKZ	Chkalovo	48.83	310	*e*P	P	22 55 02.3	-0.2
BRVK	Borovoye	49.24	309	*e*P	P	22 55 04.8	-0.8
	comp=Z,1.4nm,0.8s,mb3.9						
BRVK	Borovoye	49.24	309	*e*P	P	22 55 04.8	-0.8
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
TKM2	Tokmak 2	50.10	295	P	P	22 55 12.4	0.0
EKS2	Erkin-Say	51.41	296	*e*P	P	22 55 21.1	-1.1
ARU	Arti	54.09	317	*e*P	P	22 55 41.9	+0.2
ARU	Arti	54.09	317	*e*P	P	22 55 41.9	+0.2

*CSEM **21** 22:46:55.9±0.1, 38.36N×39.31E, h2^{km}, MD2.9, Error ellipse: s-maj=2.0km s-min=1.7km az=155.0*

*ISK **21** 22:46:55.7, 38.36N×39.28E, h5^{km}, MD2.9*

*ISCJB **21** 22:46:56.7±0.6, 38.34N±0.03×39.31E±0.03, h1^{km}±7^{km}, Error ellipse: s-maj=5.5km s-min=3.9km az=178.4*

*DDA **21** 22:46:57.9, 38.36N×39.32E, h3^{km}±4^{km}, Md2.9*

ISC 21 22:46:57.4±0.5, 38.36N±0.03×39.31E±0.03, h8^{km}±5^{km}, n20, σ0^{s}.96/32, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.29	299	*i* P	Pg	22 47 02.2	-0.9
ELZG				*i* S	Sg	22 47 07.1	+0.1
PTK	Pertek	0.54	7	PG	Pg	22 47 06.7	-1.1
PTK				SG	Sg	22 47 16.5	+1.6
PTK	Pertek	0.54	7	*e*Pg	Pg	22 47 06.7	-1.1
PTK				*e*Sg	Sg	22 47 16.5	+1.6
MALT	Malatya	0.69	267	PG	Pg	22 47 09.4	-1.3
MALT				SG	Sg	22 47 20.2	+0.5
MALT	Malatya	0.69	267	*e*Pg	Pg	22 47 09.4	-1.3
MALT				*e*Sg	Sg	22 47 20.2	+0.5
MYA	Malataya	0.69	268	PG	Pg	22 47 09.4	-1.3
MYA				SG	Sg	22 47 21.1	+1.3
MYA	Malataya	0.69	268	*e*Pg	Pg	22 47 09.4	-1.3
MYA				*e*Sg	Sg	22 47 21.1	+1.3
DIYA	Diyarbakir	0.77	124	*i* P	Pg	22 47 12.0	-0.2
DIYA				*i* S	Sg	22 47 23.8	+1.5
DIY	Diyarbakir	0.86	122	PG	Pg	22 47 13.2	-0.7
DIY	Diyarbakir	0.86	122	*e*Pg	Pg	22 47 13.2	-0.7
URFA	Urfa	0.99	203	PG	Pg	22 47 16.2	-0.2
URFA	Urfa	0.99	203	*e*Pg	Pg	22 47 16.2	-0.2
BINT	Bingol	1.06	60	PG	Pg	22 47 17.4	-0.4
BINT	Bingol	1.06	60	*e*Pg	Pg	22 47 17.4	-0.4
ATAB	Bozova	1.19	222	*i* P	Pb	22 47 19.8	-0.4
ATAB				*i* S	Sg	22 47 36.9	+1.2
EZC	Erzincan	1.45	16	*e*PN	Pn	22 47 23.4	-0.4
BNGL	BINGOL	1.56	67	*i* P	Pn	22 47 27.1	+1.7
BNGL				*i* S	Sn	22 47 49.4	+3.6
MARD	Mardin	1.56	131	*i* P	Pn	22 47 24.7	-0.7
MARD				*i* S	Sn	22 47 45.3	-0.5
GZT	Gaziantep	1.70	235	*i* P	Pn	22 47 27.1	-0.2
GZT				*i* S	Sn	22 47 49.8	+0.6
BTMT	Batman	1.73	95	*e*PN	Pn	22 47 27.0	-0.6

IDC 21 22:56:36.9±1.4, 1.08S×127.38E, h0^{km}, mb3.5/3, mb1 3.6/4, mb1mx3.4/16, mbtmp3.4/4, ML3.4/1, Error ellipse: s-maj=127.9km s-min=21.6km az=69.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	19.95	160	P	Pn	23 01 10.8	-1.5
	0.1nm,0.3s,baz=340,slow=11,SNR=47						
ASAR	Alice Springs	23.33	165	P	P	23 01 47.0	0.0
	0.6nm,0.5s,baz=346,slow=12,SNR=7.8						
SONM	Songino Array	52.04	342	P	P	23 05 48.7	+0.4
	0.3nm,0.7s,baz=148,slow=8.5,SNR=2.6						
MKAR	Makanchi Array	61.87	327	P	P	23 06 57.9	-0.2
	0.5nm,0.5s,baz=114,slow=8.1,SNR=10						

IDC 21 23:13:27.1±1.4, 1.10S×127.61E, h0^{km}, mb3.5/3, mb1 3.7/4, mb1mx3.5/16, mbtmp3.5/4, ML3.6/1, Error ellipse: s-maj=131.0km s-min=21.7km az=69.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	19.85	161	P	Pn	23 17 59.6	-1.7
	0.2nm,0.3s,baz=340,slow=11,SNR=9.2						
ASAR	Alice Springs	23.25	165	P	P	23 18 36.6	+0.3
	0.7nm,0.7s,baz=344,slow=11,SNR=10						
SONM	Songino Array	52.13	342	P	P	23 22 40.0	+0.8
	0.4nm,0.9s,baz=152,slow=6.3,SNR=4.6						
MKAR	Makanchi Array	62.02	326	P	P	23 23 49.0	-0.3
	0.4nm,0.4s,baz=115,slow=8.2,SNR=22						

IDC 21 23:19:42.6±2.2, 1.14S×127.26E, h0^{km}, mb3.2/2, mb1 3.4/3, mb1mx3.2/17, mbtmp3.2/3, ML3.2/1, Error ellipse: s-maj=196.5km s-min=26.0km az=66.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	19.93	160	P	Pn	23 24 16.4	-1.3
	0.1nm,0.3s,baz=342,slow=12,SNR=6.6						
ASAR	Alice Springs	23.30	164	P	P	23 24 52.1	-0.2
	0.4nm,0.6s,baz=343,slow=11,SNR=5.7						
MKAR	Makanchi Array	61.86	327	P	P	23 30 03.8	+0.1
	0.2nm,0.6s,baz=119,slow=7.8,SNR=7.4						

*ISCJB **21** 23:27:01.3±0.7, 38.17N±0.04×26.73E±0.05, h10^{km}, Error ellipse: s-maj=6.2km s-min=6.1km az=13.6*

*CSEM **21** 23:27:01.4±0.1, 38.22N×26.77E, h20^{km}, MD3.1, Error ellipse: s-maj=2.6km s-min=2.2km az=146.0*

*ATH **21** 23:27:01.1, 38.14N×26.88E, h36^{km}, MD3.1/3*

*THE **21** 23:27:01.3, 38.22N×26.76E, h23^{km}*

ISC 21 23:27:01.8±0.7, 38.19N±0.04×26.73E±0.05, h10^{km}, n12, σ0^{s}.74/18, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BLCB	Balcova	0.32	51	*e*Pg	Pg	23 27 08.1	0.0
BLCB				*e*Sg	Sg	23 27 12.6	+0.3
BLCB	Balcova	0.32	51	*e*Pg	Pg	23 27 08.1	0.0
BLCB				*e*Sg	Sg	23 27 12.6	+0.2
SMG	Samos	0.49	170	*e*PB	Pg	23 27 11.1	-0.2
SMG				*e*SB	Sg	23 27 18.5	+0.8
SMG	Samos	0.49	170	*e*Pb	Pg	23 27 11.1	-0.2
SMG				*e*Sb	Sg	23 27 18.5	+0.8
CHOS	Chios island	0.57	291	*e*Pg	Pg	23 27 12.4	-0.4
CHOS				*e*Sg	Sg	23 27 21.2	+1.0
CHOS	Chios island	0.57	291	*e*Pg	Pg	23 27 12.4	-0.4
CHOS				*e*Sg	Sg	23 27 21.2	+1.0
PRK	Paraskevi	1.11	341	*e*PN	Pn	23 27 23.2	-0.3
PRK	Paraskevi	1.11	341	*e*Pn	Pn	23 27 23.2	-0.3
APE	Apeiranthos	1.47	221	*e*Pg	Pn	23 27 25.8	-2.5
APE	Apeiranthos	1.47	221	*e*PN	Pn	23 27 27.7	-0.6
APE	Apeiranthos	1.47	221	*e*Pg	Pn	23 27 25.8	-2.5
APE	Apeiranthos	1.47	221	*e*Pn	Pn	23 27 27.7	-0.6

IDC 21 23:27:48.0±1.3, 1.04S×127.07E, h0^{km}, mb3.3/5, mb1 3.5/5, mb1mx3.4/17, mbtmp3.4/5, Error ellipse: s-maj=138.1km s-min=21.5km az=69.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	20.09	160	P	P	23 32 23.1	-0.1
	0.3nm,0.4s,baz=339,slow=11,SNR=7.7						
ASAR	Alice Springs	23.45	164	P	P	23 32 59.5	+0.2
	0.2nm,0.3s,baz=343,slow=12,SNR=4.4						
SONM	Songino Array	51.91	342	P	P	23 36 59.3	+1.0
	0.3nm,0.6s,baz=151,slow=8.9,SNR=4.7						
MKAR	Makanchi Array	61.67	327	P	P	23 38 08.1	+0.3
	0.3nm,0.4s,baz=113,slow=8.3,SNR=12						
ZALV	Zalesovo Beam	64.98	334	P	P	23 38 28.7	-0.8
	0.2nm,0.3s,baz=111,slow=6.3,SNR=2.4						

IDC 21 23:48:10.1±7.3, 3.77S×150.42E, h479^{km}±76^{km}, mb2.5/3, mb1 2.8/4, mb1mx2.6/15, mbtmp2.6/4, Error ellipse: s-maj=93.7km s-min=40.7km az=96.0, New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	16.73	194	P	P	23 51 38.6	-0.2
	0.4nm,0.3s,baz=24,slow=13,SNR=3.7						
WRA	Warramunga Arr	22.46	223	P	P	23 52 32.5	+0.3
	0.2nm,0.3s,baz=46,slow=9.4,SNR=12						
ASAR	Alice Springs	25.42	217	P	P	23 52 58.4	-0.1
	0.4nm,0.6s,baz=53,slow=8.6,SNR=4.9						
SONM	Songino Array	64.20	329	P	P	23 57 57.2	+0.3
	0.3nm,0.5s,baz=151,slow=6.4,SNR=3.6						
TORD	Torodi Ar. Bea	147.73	289	PKPbc	PKPbc	00 07 00.7	-0.7
	0.1nm,0.3s,baz=69,slow=2.2,SNR=7.3						

KRSC 21 23:59:33.0±0.1, 54.88N×163.08E, h5^{km}±5^{km}, ML3.8, Off east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKZ	Mys Kozlova	0.85	248	*e*P	Pg	23 59 49.8	+0.6
MKZ				*i* S	Sg	00 00 02.8	+2.6
KBTR	Krutoberegovo	1.34	354	*i* P	Pn	23 59 57.3	-1.0
KBTR				*i* S	Sb	00 00 13.9	-2.1
ZLN	Zelenaya	1.73	312	*e*P	Pn	00 00 04.3	+0.7
ZLN				*i* S	Sn	00 00 27.7	+1.7
TUMR	Tumrok	1.73	285	*e*P	Pn	00 00 04.0	+0.3
TUMR				*i* S	Sn	00 00 27.4	+1.2
KMNR	Kamenistaya	1.85	300	*e*P	Pn	00 00 05.6	+0.3
KMNR				*i* S	Sn	00 00 29.0	0.0
KPT	Kopyto	1.96	305	*e*P	Pn	00 00 08.2	+1.4
KPT				*i* S	Sn	00 00 33.7	+1.9
KRSR	Krestovskiy	1.96	314	*e*P	Pn	00 00 08.4	+1.6
KRSR				*i* S	Sn	00 00 34.0	+2.3
KLY	Klyuchi	1.99	317	*e*P	Pn	00 00 06.9	-0.4
KLY				*i* S	Sn	00 00 31.9	-0.6
BDR	Baidarnaya	2.00	329	P	Pn	00 00 08.5	+1.2
BDR				*i* S	Sn	00 00 34.3	+1.6
KOZ	Kozyrevsk	2.17	304	P	Pn	00 00 12.4	+2.6
KOZ				*i* S	Sn	00 00 40.6	+3.5
KII	Karymskiy	2.28	250	*e*P	Pn	00 00 12.7	+1.4
KII				*e*S	Sn	00 00 41.4	+1.7
SRDR	Sredinnyy	2.39	308	P	Pn	00 00 13.9	+1.1
SRDR				*i* S	Sn	00 00 43.4	+1.0
SPN	Mys Shipunski	2.54	227	*e*P	Pn	00 00 14.9	+0.1
SPN				*i* S	Sn	00 00 45.7	-0.3
NLC	Nalytchevo	2.79	234	P	Pn	00 00 19.2	+1.0
NLC				*i* S	Sn	00 00 53.6	+1.4
AVH	Avacha	3.03	239	*e*P	Pn	00 00 23.9	+2.4
AVH				*i* S	Sn	00 01 00.7	+2.6
PET	Petropavlovsk	3.21	236	P	Pn	00 00 26.0	+2.0
PET				*i* S	Sn	00 01 04.6	+2.0
GNL	Ganaly	3.24	251	*e*P	Pn	00 00 26.9	+2.5
RUS	Russkaya	3.66	230	*e*P	Pn	00 00 31.5	+1.3
RUS				*e*S	Sn	00 01 14.1	+0.4
GRL	Gorelyy	3.78	234	P	Pn	00 00 33.9	+2.1

KRSC 22 00:08:01.3±0.6, 54.87N×163.05E, h5^{km}±5^{km}, ML3.7, Off east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MKZ	Mys Kozlova	0.83	248	*e*P	Pg	00 08 18.1	+0.9
MKZ				*i* S	Sg	00 08 30.9	+3.0
KBTR	Krutoberegovo	1.35	355	*e*P	Pn	00 08 25.5	-1.2
KBTR				*i* S	Sb	00 08 42.7	-1.8
TUMR	Tumrok	1.72	285	*e*P	Pn	00 08 32.9	+1.1
TUMR				*i* S	Sn	00 08 55.4	+1.2
ZLN	Zelenaya	1.72	313	*e*P	Pn	00 08 32.4	+0.6
ZLN				*i* S	Sn	00 08 54.7	+0.5
KMNR	Kamenistaya	1.84	300	*e*P	Pn	00 08 34.6	+1.2
KMNR				*i* S	Sn	00 08 58.5	+1.5
KPT	Kopyto	1.95	305	P	Pn	00 08 36.3	+1.3
KPT				*i* S	Sn	00 09 01.4	+1.6
KRSR	Krestovskiy	1.95	315	P	Pn	00 08 36.7	+1.7
KRSR				*i* S	Sn	00 09 02.2	+2.3
KLY	Klyuchi	1.99	318	*e*P	Pn	00 08 34.9	-0.6
KLY				*i* S	Sn	00 08 59.1	-1.6
SRKR	Sorokina	2.08	330	P	Pn	00 08 37.8	+1.0
KOZ	Kozyrevsk	2.17	305	P	Pn	00 08 39.7	+1.7
KOZ				*i* S	Sn	00 09 07.6	+2.5
KII	Karymskiy	2.26	250	P	Pn	00 08 41.4	+2.1
KII				*i* S	Sn	00 09 10.5	+3.0
SRDR	Sredinnyy	2.38	309	P	Pn	00 08 42.1	+1.1
SRDR				*i* S	Sn	00 09 11.9	+1.4
SPN	Mys Shipunski	2.52	226	*e*P	Pn	00 08 42.9	+0.1
NLC	Nalytchevo	2.77	234	P	Pn	00 08 46.6	+0.3
NLC				*i* S	Sn	00 09 19.3	-0.7
AVH	Avacha	3.01	239	*e*P	Pn	00 08 52.2	+2.7
AVH				*i* S	Sn	00 09 28.5	+2.6
PET	Petropavlovsk	3.19	236	P	Pn	00 08 52.4	+0.4
PET				*i* S	Sn	00 09 30.7	+0.3
GNL	Ganaly	3.22	251	*e*P	Pn	00 08 55.0	+2.6
RUS	Russkaya	3.64	230	*e*P	Pn	00 08 59.8	+1.6
RUS				*e*S	Sn	00 09 42.7	+1.2
GRL	Gorelyy	3.76	234	P	Pn	00 09 01.9	+2.0
MIPR	Malaya Ipel'ka	4.56	238	P	Pn	00 09 13.8	+2.9

IDC 22 00:18:43.9±16.0, 5.32S×129.51E, h170^{km}±173^{km}, mb3.0/1, mb1 3.3/4, mb1mx3.0/16, mbtmp3.1/4, ML3.4/2, Error ellipse: s-maj=123.0km s-min=53.5km az=45.0, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	13.25	196	P	Pn	00 21 45.8	+0.2
	0.1nm,0.3s,baz=8.5,slow=17,SNR=4.2						
FITZ				S	Sn	00 23 59.5	-13
	0.1nm,0.3s,baz=319,slow=20,SNR=2.6						
WRA	Warramunga Arr	15.28	162	P	Pn	00 22 10.6	-0.3
	0.2nm,0.3s,baz=345,slow=13,SNR=22						
WRA				S	S	00 24 54.1	-7.0
	0.1nm,0.3s,baz=337,slow=21,SNR=7.5						
ASAR	Alice Springs	18.73	167	P	P	00 22 50.0	+0.2
	0.3nm,0.3s,baz=349,slow=12,SNR=17						
MKAR	Makanchi Array	66.56	327	P	P	00 29 15.7	+0.1
	0.2nm,0.4s,baz=123,slow=5.3,SNR=3.5						

*NEIC **22** 00:27:36.8±2.0, 14.53S×167.20E, h105^{km}±13^{km}, mb4.0/1, Error ellipse: s-maj=30.8km s-min=13.7km az=65.0*

*IDC **22** 00:27:36.6±8.2, 14.60S×167.17E, h100^{km}±73^{km}, mb3.6/4, mb1 3.7/5, mb1mx3.5/17, mbtmp3.6/5, ML3.8/1, Error ellipse: s-maj=58.7km s-min=46.2km az=177.0*

*ISCJB **22** 00:27:40.1±5.1, 14.9S±0.3×166.5E±0.8, h88^{km}±31^{km}, mb3.7/4, Error ellipse: s-maj=133.0km s-min=13.2km az=160.9*

ISC 22 00:27:42.3±4.7, 14.9S±0.2×166.4E±0.7, h86^{km}±23^{km}, n10, σ0^{s}.43/9, mb3.7/4, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	7.17	179	P	Pn	00 29 24.1	-0.4
	1.3nm,0.3s,baz=210,slow=12,SNR=13						
DZM				S	Sn	00 30 44.6	+0.2
	0.4nm,0.3s,baz=108,slow=20,SNR=2.4						
HNR	Honiara	8.27	310	Pn	Pn	00 29 39.9	+0.4
PMG	Port Moresby	19.53	284	P	Pn	00 32 04.7	-0.5
	2.9nm,0.4s						
STKA	Stephens Creek	28.23	229	*e*P	P	00 33 28.0	+0.8

STKA	Stephens Creek	28.23	229	P	P	00 33 28.0	+0.7
	1.9nm,0.4s,mb4.0,baz=65,slow=10,SNR=10						
WRA	Warramunga Arr	30.93	256	P	P	00 33 50.7	-0.6
	0.3nm,0.5s,mb3.3,baz=84,slow=8.9,SNR=6.4						
ASAR	Alice Springs	31.80	249	P	P	00 33 58.9	0.0
	0.9nm,0.5s,mb3.8,baz=78,slow=9.0,SNR=13						
FITZ	Fitzroy Crossi	39.12	260	P	P	00 35 01.8	+0.1
	0.7nm,0.7s,mb3.6,baz=96,slow=10,SNR=8.2						
ARCES	ARCESS Array B	120.16	345	PKP	PKPdf	00 46 14.6	-8.0
ARCES	ARCESS Array B	120.16	345	PKP	PKPdf	00 46 14.6	-8.0
	3.5nm,1.1s,baz=63,slow=2.2,SNR=3.7						

*IDC **22** 00:34:05.2±1.0, 3205S×6869W, h0^{km}, mb3.7/2, mb1 3.9/4, mb1mx3.8/15, mbtmp3.6/4, ML3.8/2, Error ellipse: s-maj=41.1km s-min=10.3km az=133.0*

*ISCJB **22** 00:34:10.0±0.9, 3178S±003×6852W±006, h31^{km}±9^{km}, mb3.5/2, Error ellipse: s-maj=8.8km s-min=5.2km az=5.7*

*NEIC **22** 00:34:09.1, 3180S×6877W, h6^{km}, ML4.3(GUC), After GUC.*

*GUC **22** 00:34:09.1±1.0, 3180S×6877W, h6^{km}±7^{km}, ML4.3*

ISC 22 00:34:10.5±1.2, **3180S**±003×**6854W**±007, **h22**^{km}±12^{km}, **n28**, σ**1^{s}06**/33, **mb3.5**/2, **3C-2D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CFAA	Coronel Fontan	0.32	53	Pg	Pb	00 34 17.2	-0.4
CFAA				Lg		00 34 23.8	
CFAA	Coronel Fontan	0.32	53	Pg	Pb	00 34 17.2	-0.4
	14nm,0.3s,baz=240,slow=16,SNR=2417						
CFAA				Lg		00 34 23.8	
	94nm,0.3s,baz=131,slow=20,SNR=150						
MDZ	Mendoza	1.11	193	⇑*i*P	Pn	00 34 27.9	-2.8
MDZ				*e*		00 34 45.7	
FCH	Farellones	2.12	224	⇑*i*P	Pn	00 34 44.1	-0.5
FCH				*i* S	Sn	00 35 09.5	-0.8
CMCH	Combarbala	2.19	286	⇓*i*P	Pn	00 34 43.6	-2.0
CMCH				*i* S	Sn	00 35 10.1	-1.9
CMCH	Combarbala	2.19	286	⇓*i*P	Pn	00 34 43.6	-2.0
CMCH				*i* S	Sn	00 35 10.1	-1.9
CMCH				AML	AML	00 35 18.9	
	comp=E,7µm,0.7s						
PEL	Peldehue	2.25	233	*e*P	Pn	00 34 45.6	-0.8
PEL				*i* S	Sn	00 35 13.2	-0.3
PEL				AML	AML	00 35 20.9	
	comp=E,2µm,0.6s						
CLCH	Cerro Calan	2.32	226	*e*P	Pn	00 34 48.5	+1.2
CLCH				*i* S	Sn	00 35 16.9	+1.7
PCH	Pirque	2.46	222	*e*P	Pn	00 34 50.3	+1.0
TLL	Tololo Astrono	2.53	309	*e*P	Pn	00 34 50.7	+0.5
TLL				*e*S	Sn	00 35 21.7	+1.3
TLL	Tololo Astrono	2.53	309	*e*P	Pn	00 34 50.7	+0.5
TLL				*e*S	Sn	00 35 21.7	+1.3
TLL				AML	AML	00 35 29.7	
	comp=E,1µm,0.4s						
OVCH	Ovalle	2.57	297	*e*P	Pn	00 34 50.7	-0.1
OVCH				*i* S	Sn	00 35 22.2	+0.9
TACH	Talagante	2.74	227	*e*P	Pn	00 34 53.4	+0.3
CHCH	Chadas Angostu	2.77	219	*e*P	Pn	00 34 54.8	+1.3
LSCH	La Serena	2.99	308	*e*P	Pn	00 34 56.1	-0.5
LSCH				*i* S	Sn	00 35 31.6	-0.1
LCO	Las Campanas	3.35	326	*e*Pn	Pn	00 35 02.2	+0.8
LCO				*e*Sn	Sn	00 35 39.0	-1.5
VACH	Vallenar	3.74	329	⇑*e*P	Pn	00 35 07.1	+0.3
VACH				*i* S	Sn	00 35 50.6	+0.4
LPAZ	La Paz	15.45	1	Pn	Pn	00 37 49.0	+1.9
LPAZ	La Paz	15.45	1	Pn	Pn	00 37 49.0	+1.9
	comp=E,0.2nm,0.3s,baz=186,slow=7.4,SNR=9.9						
SIV	San Ignacio	17.14	25	P	Pn	00 38 08.7	0.0
	comp=E,0.1nm,0.3s,baz=233,slow=15,SNR=3.3						
TXAR	Lajitas Array	69.36	328	P	P	00 45 15.7	-0.7
	comp=E,0.6nm,0.6s,mb3.7,baz=153,slow=8.7,SNR=11						
TORD	Torodi Ar. Bea	80.68	68	P	P	00 46 21.6	-0.5
	comp=E,0.3nm,0.8s,mb3.3,baz=215,slow=4.8,SNR=2.8						
WRA	Warramunga Arr	124.07	206	PKP	PKPdf	00 53 05.2	-2.5
WRA	Warramunga Arr	124.07	206	PKP	PKPdf	00 53 05.2	-2.5
	comp=E,0.2nm,0.4s,baz=164,slow=1.6,SNR=6.7						
ZALV	Zalesovo Beam	150.79	33	PKPbc	PKPbc	00 53 59.7	-0.8
ZALV	Zalesovo Beam	150.79	33	PKPbc	PKPbc	00 53 59.7	-0.8
	comp=E,1.4nm,0.5s,baz=306,slow=3.4,SNR=8.0						
MKAR	Makanchi Array	153.11	48	PKPbc	PKPbc	00 54 04.1	-1.9
MKAR				PKPab	PKPab	00 54 17.2	-0.4
MKAR	Makanchi Array	153.11	48	PKPbc	PKPbc	00 54 04.1	-1.9
	comp=E,0.3nm,0.9s,baz=353,slow=0.7,SNR=2.5						
MKAR				PKPab	PKPab	00 54 17.2	-0.4
	comp=E,0.3nm,0.6s,baz=264,slow=3.7,SNR=4.4						

*ISCJB **22** 00:41:58.0±0.3, 3433N±001×11683W±002, h4^{km}±3^{km}, Error ellipse: s-maj=2.5km s-min=2.4km az=8.3*

*NEIC **22** 00:41:59.3, 3433N×11685W, h4^{km}, ML2.9(PAS), After PAS.*

NEIC Felt [III] at Big Bear City.

ISC 22 00:41:58.7±0.3, **3432N**±001×**11684W**±002, **h8**^{km}±2^{km}, **n49**, σ**0^{s}72**/75, **26C-27D, Southern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SIL	Silver Peak	0.03	23	⇓*i*P	Pg	00 42 00.5	+0.3
BBRC	Big Bear Sol-O	0.09	229	⇑P	Pg	00 42 01.3	+0.4
	baz=0.1,SNR=1000						
BBRC				⇓S	Sg	00 42 03.0	+0.6
	baz=0.1						
RMR	Rimrock	0.24	115	⇑*i*P	Pg	00 42 04.1	+0.5
SVD	Seven Oaks Dam	0.30	225	⇓*i*P	Pg	00 42 05.0	+0.4
SVD				*i* S	Sg	00 42 09.4	+0.8
VTV	Victorville	0.47	301	⇑*i*P	Pg	00 42 07.8	0.0
VTV				*i* S	Sg	00 42 14.2	+0.2
PEC	Perris	0.50	212	⇓*i*P	Pg	00 42 08.8	+0.4
RVR	Riverside	0.55	234	⇑*i*P	Pg	00 42 09.5	+0.2
RVR				*i* S	Sg	00 42 16.0	-0.5
RRX	Edison Barstow	0.57	347	⇑P	Pg	00 42 09.9	+0.1
	baz=0.6,SNR=10						
RRX				⇑S	Sg	00 42 17.8	+0.5
	baz=0.6						
HEC	Hector,Ludlow	0.66	39	⇑P	Pg	00 42 11.5	0.0
	baz=0.7,SNR=63						
HEC				⇓S	Sg	00 42 20.5	+0.4
	baz=0.7						
BFSC	Mount Baldy St	0.68	264	⇑P	Pg	00 42 11.9	+0.1
	baz=0.7						
BFSC				⇑S	Sg	00 42 21.0	+0.3
	baz=0.7						
BELC	Belle Mtn.	0.77	114	⇑P	Pg	00 42 13.7	+0.2
	baz=0.8,SNR=114						
BELC				⇓S	Sg	00 42 24.0	+0.5
	baz=0.8						
MURC	Murrieta	0.78	203	P	Pg	00 42 13.4	-0.2
	baz=0.8,SNR=165						
MURC				⇓S	Sg	00 42 23.9	+0.1
	baz=0.8						
PFO	Pinyon Flat Ob	0.78	155	*e*P	Pg	00 42 13.8	+0.1
PFO				*e*S	Sg	00 42 23.9	+0.2
PFO	Pinyon Flat Ob	0.78	155	P	Pg	00 42 13.6	0.0
	baz=0.8,SNR=228						
PFO				⇓S	Sg	00 42 24.0	+0.3
	baz=0.8						
GSC	Goldstone	0.98	2	P	Pg	00 42 17.4	-0.2
	baz=1.0,SNR=98						
GSC				⇓S	Sg	00 42 30.8	+0.5
	baz=1.0						
GMRC	Granite Mounta	1.08	64	⇑P	Pg	00 42 18.9	-0.6
	baz=1.1,SNR=376						
GMRC				⇓S	Sg	00 42 33.6	+0.1
	baz=1.1						
EDW2	Edwards Air Fo	1.10	301	⇑P	Pg	00 42 19.3	-0.5
	baz=1.1,SNR=291						
EDW2				⇓S	Sg	00 42 33.8	-0.4
	baz=1.1						
DECC	Green Verdugo	1.23	267	⇑P	Pn	00 42 21.6	-0.6
	baz=1.2,SNR=11						
DECC				⇓S	Sb	00 42 38.6	+0.2
	baz=1.2						
BC3	Big Chuckw Mtn	1.33	119	⇑P	Pn	00 42 23.1	-0.5
	baz=1.3,SNR=105						
BC3				⇑S	Sb	00 42 41.3	+0.2
	baz=1.3						
TUQ	Turquoise Mtn.	1.35	34	⇓S	Sb	00 42 41.5	-0.1
	baz=1.3						
FMP	Fort Macarthur	1.35	244	⇓S	Sb	00 42 41.1	-0.5
	baz=1.3						
LRMC	Laurel Mountai	1.35	329	⇑S	Sb	00 42 41.9	+0.2
	baz=1.3						
IRM	Iron Mountain	1.41	96	P	Pn	00 42 23.7	-1.0
	baz=1.4,SNR=150						
109C	Camp Elliot, M	1.44	189	⇓P	Pn	00 42 24.8	-0.3
	baz=1.5,SNR=26						
109C				⇓S	Sn	00 42 43.5	-0.7
	baz=1.5						
MONP	Monument Peak	1.47	166	⇑Pb	Pb	00 42 25.9	-0.4
	baz=1.5,SNR=132						
MONP				⇑S	Sn	00 42 45.0	+0.1
	baz=1.5						
OSI	Osito Adit	1.58	281	⇓Pb	Pb	00 42 27.7	-0.5
	baz=1.6,SNR=8.9						
OSI				⇓Sg	Sg	00 42 50.4	+0.8
	baz=1.6						
CIS	Catalina Islan	1.59	235	⇓Sb	Sb	00 42 49.0	+0.5
	baz=1.6						
SWSC	Sam W. Stewart	1.63	147	⇑P	Pn	00 42 27.0	-0.7
	baz=1.6,SNR=28						
SWSC				⇑Sb	Sb	00 42 50.4	+0.7
	baz=1.6						
SHOC	Shoshone	1.64	16	⇓Pg	Pg	00 42 29.8	-0.4
	baz=1.6,SNR=7.9						
SHOC				⇑Sb	Sb	00 42 51.6	+1.5
	baz=1.6						
DVTC	Desert V Tower	1.77	159	⇓Sb	Sb	00 42 54.8	+1.1
	baz=1.8						
MPMC	Manual Prospec	1.82	343	⇓Pg	Pg	00 42 32.4	-1.2
	baz=1.8,SNR=72						
ARVC	Arvin	1.82	297	⇓Pg	Pg	00 42 32.5	-1.2
	baz=1.8,SNR=9.6						
BLG	Laguna Peak	1.85	264	⇓Pb	Pb	00 42 32.1	-0.7
	baz=1.8,SNR=8.6						
NEE2	Needles Airpor	1.89	76	⇑Pg	Pg	00 42 34.0	-1.0
	baz=1.9						
ISA	Isabella	1.90	315	⇓Pg	Pg	00 42 34.2	-0.9
	baz=1.9,SNR=16						
Y12C	Blythe	2.01	106	P	Pn	00 42 32.2	-0.7
	baz=2.0,SNR=6.5						
DAC	Darwin (Calif)	2.05	343	*e*Pn	Pn	00 42 35.2	+1.8
DAC				*e*Sn	Sn	00 43 00.6	+1.4
GLA	Glamis	2.10	126	⇑P	Pn	00 42 33.6	-0.6
	baz=2.1,SNR=11						
U10A	Ash Meadows, A	2.14	11	⇓Pg	Pg	00 42 38.6	-1.1
	baz=2.1						
V12A	Nelson	2.15	49	⇓P	Pn	00 42 34.7	-0.2
	baz=2.2,SNR=8.1						
X13A	Yucca	2.50	83	P	Pn	00 42 39.0	-0.7
	baz=2.5,SNR=20						
Y13A	Salome	2.55	101	⇑P	Pn	00 42 39.3	-1.1
	baz=2.6						
W13A	Hualapai Mount	2.56	71	⇑P	Pn	00 42 40.0	-0.4
	baz=2.6,SNR=13						
W14A	Seligman	3.22	73	⇑P	Pn	00 42 49.4	-0.1
	baz=3.2,SNR=13						
MTUM	Tungsten Hills	3.34	336	*e*Pn	Pn	00 42 54.4	+3.2
MTUM				*e*Pg	Pg	00 43 00.4	-2.2
MTUM				*e*Sn	Sn	00 43 36.6	+5.6
MTUM				*e*Sg	Sg	00 43 46.0	+0.1
WUAZ	Wupatki	4.65	74	*e*Pn	Pn	00 43 10.2	+0.9
WUAZ				Pg	Pg	00 43 28.0	+0.2
ELK	Elko	6.54	11	Pn	Pn	00 43 35.7	+0.5
PV01	Paradox Valley	7.69	58	Pn	Pn	00 43 52.4	+1.4
SPUT	South Promonto	7.79	25	*e*Pn	Pn	00 43 52.9	+0.5

*CSEM **22** 00:42:01.8±0.1, 3838N×3925E, h5^{km}, MD2.6, Error ellipse: s-maj=2.2km s-min=1.8km az=129.0*

*ISK **22** 00:42:01.8, 3838N×3924E, h4^{km}, MD2.9*

*ISCJB **22** 00:42:02.3±0.4, 3837N±003×3929E±003, h5^{km}, Error ellipse: s-maj=4.6km s-min=3.6km az=17.0*

*DDA **22** 00:42:03.3, 3846N×3929E, h20^{km}±3^{km}, Md2.6*

ISC 22 00:42:02.7±0.5, **3837N**±003×**3928E**±004, **h7**^{km}±6^{km}, **n21**, σ**0^{s}69**/31, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.27	299	*i* P	Pg	00 42 07.7	-0.4
ELZG				*i* S	Sg	00 42 12.5	+0.9
PTK	Pertek	0.53	9	PG	Pg	00 42 12.4	-0.6
PTK				SG	Sg	00 42 21.0	+1.1
PTK	Pertek	0.53	9	*e*Pg	Pg	00 42 12.4	-0.6
PTK				*e*Sg	Sg	00 42 21.0	+1.1
MALT	Malatya	0.68	266	PG	Pg	00 42 14.7	-1.0
MALT				SG	Sg	00 42 24.1	-0.4
MALT	Malatya	0.68	266	*e*Pg	Pg	00 42 14.7	-1.0
MALT				*e*Sg	Sg	00 42 24.1	-0.4
MYA	Malataya	0.68	267	PG	Pg	00 42 15.2	-0.5
MYA	Malataya	0.68	267	*e*Pg	Pg	00 42 15.2	-0.5
DIYA	Diyarbakir	0.80	124	*i* P	Pg	00 42 18.1	0.0
DIYA				*i* S	Sg	00 42 28.8	+0.4
DIYA	Diyarbakir	0.80	124	*i* P	Pg	00 42 18.0	0.0
DIY	Diyarbakir	0.88	122	PG	Pg	00 42 20.0	+0.4
DIY	Diyarbakir	0.88	122	*e*Pg	Pg	00 42 20.0	+0.4
URFA	Urfa	1.00	202	PG	Pg	00 42 21.5	-0.3
URFA	Urfa	1.00	202	*e*Pg	Pg	00 42 21.5	-0.3
BINT	Bingol	1.07	61	*e*PN	Pn	00 42 23.4	-0.7
BINT	Bingol	1.07	61	*e*Pn	Pn	00 42 23.4	-0.7
ATAB	Bozova	1.19	221	*i* P	Pb	00 42 26.1	+0.5
ATAB				*i* S	Sb	00 42 42.1	+1.0
EZC	Erzincan	1.44	17	*e*PN	Pn	00 42 28.7	-0.5
BNGL	BINGOL	1.57	68	*i* P	Pn	00 42 32.0	+1.0
BNGL				*i* S	Sn	00 42 56.1	+4.6
MARD	Mardin	1.58	131	*i* P	Pn	00 42 30.4	-0.8
MARD				*i* S	Sn	00 42 52.0	+0.2
GZT	Gaziantep	1.70	234	*i* P	Pn	00 42 33.3	+0.6
GZT				*i* S	Sn	00 42 59.2	+4.6
BTMT	Batman	1.75	95	*e*PN	Pn	00 42 32.5	-0.9

MOS 22 00:51:29.6±1.3, **4354N**×**4476E**, **h22**^{km}, **mb4.2**/1, **1C-3D, Error ellipse: s-maj=19.5km s-min=9.6km az=62.2, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRKR	Terskaya	0.19	353	⇓*i*PG	Pb	00 51 36.6	+1.8
TRKR				*e*S	Sb	00 51 41.6	+3.3
BTKR	Batakoyurt	0.23	225	⇓*i*PG	Pb	00 51 35.0	-0.3
BTKR				*i* S	Sb	00 51 39.0	-0.2
KMSR	Komsomolskaya	0.38	245	⇓*i*PG	Pb	00 51 37.8	+0.1
KMSR				*i* S	Sb	00 51 43.7	+0.5
PRTR	Priterechnaya	0.41	302	*e*PG	Pb	00 51 39.4	+1.2
PRTR				*i* S	Sb	00 51 46.6	+2.5
SNJR	Sundja	0.47	176	*e*PG	Pb	00 51 39.6	+0.5
SNJR				*e*S	Sb	00 51 46.7	+1.1
ARNR	Ardon	0.49	226	*e*PG	Pb	00 51 39.7	+0.1
ARNR				*e*S	Sb	00 51 46.9	+0.5
KORR	Kora	0.68	229	*e*PG	Pb	00 51 44.6	+1.9
KORR				*e*S	Sb	00 51 54.0	+2.3
LSNR	Lesken	0.74	250	*i* PG	Pb	00 51 45.0	+1.2
LSNR				*i* S	Sb	00 51 55.7	+2.3
LACR	Lac	0.79	206	*i* PG	Pb	00 51 46.8	+2.2
LACR				*i* S	Sb	00 51 57.3	+2.5
ZEI	Tsey	0.99	220	*e*PG	Pb	00 51 48.4	+0.3
ZEI				*e*S	Sb	00 52 01.9	+1.2
DIGR	Digorskoe uzhe	1.07	234	⇑*i*PG	Pn	00 51 50.0	+0.7
DIGR				*i* S	Sb	00 52 04.7	+1.7

*IDC **22** 00:59:12.1±1.8, 561S×13103E, h0^{km}, mb3.7/2, mb1 4.4/5, mb1mx3.9/14, mbtmp4.2/5, ML4.6/3, Error ellipse: s-maj=88.2km s-min=24.8km az=72.0*

*NEIC **22** 00:59:17.6±0.5, 575S×13094E, h35^{km}, mb4.0/6, Error ellipse: s-maj=13.3km s-min=8.2km az=60.0*

*ISCJB **22** 00:59:25.1±1.8, 612S±007×13090E±008, h134^{km}±19^{km}, mb3.9/7, Error ellipse: s-maj=15.3km s-min=9.2km az=144.5*

ISC 22 00:59:18.1±2.6, **58S**±01×**13098E**±007, **h41**^{km}±29^{km}, **n21**, σ**1^{s}17**/29, **mb4.1**/7, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	6.99	168	*e*P	Pn	01 01 03.9	+5.9
	32nm,0.2s						
KAKA				*e*S	Sn	01 02 18.9	+2.7
FITZ	Fitzroy Crossi	13.27	203	*e*P	Pn	01 02 23.3	-0.6
	14nm,0.2s						
FITZ				*e*S	Sn	01 04 41.6	-8.5
FITZ	Fitzroy Crossi	13.27	203	Pn	Pn	01 02 24.0	+0.1
	3.8nm,0.3s,baz=37,slow=12,SNR=76						
FITZ				Sn	Sn	01 04 39.8	-10
	1.7nm,0.3s,baz=182,slow=15,SNR=6.0						
WRA	Warramunga Arr	14.41	167	Pn	Pn	01 02 40.0	+0.6
WRA				Sn	Sn	01 05 13.4	-4.5
WRA	Warramunga Arr	14.41	167	Pn	Pn	01 02 40.0	+0.6
	1.9nm,0.3s,baz=351,slow=11,SNR=62						
WRA				Sn	Sn	01 05 13.4	-4.5
	3.3nm,0.3s,baz=349,slow=18,SNR=7.4						
WB2	Warramunga Arr	14.41	167	*e*P	Pn	01 02 39.8	+0.3
WB2				*e*S	Sn	01 05 11.8	-6.2
COEN	Coen	14.47	125	*e*Pn	Pn	01 02 43.3	+2.9
COEN				*e*Sn	Sn	01 05 18.8	-0.8
PMG	Port Moresby	16.43	103	*e*Pn	Pn	01 03 04.5	-1.2
	12nm,1.0s						
ASAR	Alice Springs	17.96	171	P	Pn	01 03 26.7	+2.0
	1.4nm,0.3s,baz=345,slow=9.8,SNR=52						
ASAR				S	S	01 06 35.5	-13
	0.3nm,0.3s,baz=354,slow=27,SNR=4.7						
MBWA	Marble Bar	18.74	215	*e*P	Pn	01 03 34.1	-0.1
	3.6nm,0.5s						
KSM	Kuching	21.88	289	*e*P	P	01 04 07.4	-0.2
STKA	Stephens Creek	27.75	160	P	P	01 05 04.2	+1.3
	0.4nm,0.3s,mb3.5,baz=339,slow=14,SNR=2.7						
KULM	Kulim	32.23	289	P	P	01 05 42.2	-0.6
MKAR	Makanchi Array	67.79	326	P	P	01 10 10.9	-0.7
	0.2nm,0.4s,mb3.5,baz=133,slow=8.1,SNR=6.5						
EKS2	Erkin-Say	70.77	319	*e*P	P	01 10 29.6	-0.6
	1.0nm,0.8s,mb3.8						
KURK	Kurchatov	72.04	328	*e*P	P	01 10 37.1	-0.5
	0.4nm,0.4s,mb3.7						
MAW	Mawson	76.39	201	*e*P	P	01 11 07.2	+4.4
	5.5nm,0.4s,mb4.8						
BRVK	Borovoye	77.67	327	P	P	01 11 09.3	-0.9
	1.4nm,0.6s,mb4.1						
CHKZ	Chkalovo	77.78	328	P	P	01 11 12.6	+1.8
TNA	Tin City	83.78	21	P	P	01 11 41.8	-0.8
KIV	Kislovodsk	92.77	314	*e*P	P	01 12 27.8	+1.6
	4.5nm,0.4s,mb5.2						

*NEIC **22** 01:03:07.4, 3182S×6874W, h10^{km}, ML4.0(GUC), After GUC.*

GUC 22 01:03:07.4±1.0, **3182S**×**6874W**, **h10**^{km}, **ML4.0, 3D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDZ	Mendoza	1.07	185	*e*P	Pg	01 03 26.6	-1.3
MDZ				*e*		01 03 44.7	
PTCH	Petorca	1.92	256	*e*P		01 05 30.2	
PTCH				*i* S		01 05 55.5	
FCH	Farellones	2.00	221	⇓*e*P	Pn	01 03 42.1	+0.9
FCH				*i* S	Sn	01 04 08.5	+2.2
CMCH	Combarbala	2.04	288	⇓*i*P	Pn	01 03 41.8	0.0
CMCH				*i* S	Sn	01 04 08.3	+1.1
CMCH	Combarbala	2.04	288	⇓*i*P	Pn	01 03 41.8	0.0
CMCH				*i* S	Sn	01 04 08.3	+1.1
CMCH				AML	AML	01 04 18.0	
	comp=E,4µm,1.0s						
PEL	Peldehue	2.11	231	*e*P	Pn	01 03 43.6	+0.8
PEL				*i* S	Sn	01 04 10.9	+1.8
PEL				AML	AML	01 04 19.7	
	comp=N,2µm,0.4s						
CLCH	Cerro Calan	2.19	224	*e*P	Pn	01 03 46.5	+2.7
CLCH				*i* S	Sn	01 04 15.1	+4.2
CLCH	Cerro Calan	2.19	224	*e*P	Pn	01 03 46.5	+2.7
CLCH				*i* S	Sn	01 04 15.1	+4.2
CLCH				AML	AML	01 04 27.1	
	comp=N,706nm,0.6s						
PCH	Pirque	2.34	219	*e*P	Pn	01 03 47.5	+1.5
CHNG	Los Chungos	2.35	268	*e*P	Pn	01 03 34.1	-12
CHNG				*i* S	Sn	01 04 04.3	-11
TLL	Tololo Astrono	2.42	312	*e*P	Pn	01 03 49.0	+2.0
TLL				AML	AML	01 04 30.1	
	comp=N,570nm,0.5s						
CHCH	Chadas Angostu	2.66	217	*e*P	Pn	01 03 52.8	+2.6
CICH	Cipreses	2.87	209	*e*P	Pn	01 03 56.1	+3.0
LSCH	La Serena	2.88	311	*e*P	Pn	01 03 55.3	+2.0
LSCH				*i* S	Sn	01 04 30.1	+2.2
LCO	Las Campanas	3.27	328	*e*Pn	Pn	01 04 00.3	+1.5
LCO				*e*Sn	Sn	01 04 40.0	+2.3
LPAZ	La Paz	15.47	2	*e*Pn	Pn	01 06 45.6	-0.1
NNA	Nana	21.10	337	P	P	01 07 52.1	-0.1

CASC 22 01:04:17.1±1.4, **838N**×**8284W**, **h10**^{km}±5^{km}, **MD3.7, 2C-1D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRU2	Volcan	0.43	20	⇓*i*P	Pg	01 04 26.3	+0.7
BRU2				*e*S	Sg	01 04 34.0	+2.6
CTCR	Cotoan	0.52	9	*e*P	Pg	01 04 27.7	+0.5
CTCR				*e*S	Sg	01 04 36.2	+2.2
BAR1		0.97	331	⇑*e*P	Pg	01 04 34.3	-1.5
BAR1				*e*S	Sg	01 04 49.2	+0.7
CNI	Changuinola	1.07	17	*e*P	Pg	01 04 36.1	-1.7
CNI				*e*S	Sg	01 04 51.0	-0.8
QCR	Quepos	1.67	308	*e*P	Pn	01 04 45.4	-1.1
QCR				*e*S	Sn	01 05 08.5	+0.6
LCR2	La Lucha 2	1.77	320	*e*P	Pn	01 04 48.3	+0.5
LCR2				*e*S	Sn	01 05 11.8	+1.3
PRS1	Puriscal	2.15	318	*e*P	Pn	01 04 52.4	-0.7
PRS1				*e*S	Sn	01 05 20.2	+0.3
PTP	Ponta Puerca	19.39	58	⇑*i*P		01 04 20.6	
PTP				*e*S		01 04 25.8	

*NEIC **22** 01:05:30.6, 6164N×14139W, h1^{km}, ML2.8(PMR), ML2.5(AEIC), After AEIC.*

PGC 22 01:05:31.8±0.9, **6167N**×**14132W**, **h1**^{km}, **ML2.9**/3, **227km Wnw of Haines Jct., Yt Southern Alaska, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BCA3	Beaver Creek A	1.41	351	P	Pn	01 05 56.6	-2.0
MENT	Mentasta	1.69	320	*e*P	Pn	01 06 00.8	-1.6
HYT	Haines Junctio	2.03	113	Trac			
HYT	Haines Junctio	2.03	113	Pn	Pn	01 06 06.5	-0.5
HYT				Pg	Pg	01 06 08.7	-2.0
HYT				Sg	Sg	01 06 34.3	-2.6
PNL	Peninsula	2.22	154	P	Pn	01 06 09.1	-0.6
DOT	Dot Lake	2.35	329	P	Pn	01 06 11.2	-0.2
EYAK	Cordova Ski Ar	2.43	244	P	Pn	01 06 11.2	-1.2
DAWY	Dawson	2.56	19	P	Pn	01 06 13.0	-1.3
DAWY	Dawson	2.56	19	Trac			
DAWY	Dawson	2.56	19	Pn	Pn	01 06 12.9	-1.3
DAWY				Pg	Pg	01 06 17.6	-3.1
DAWY				Sn	Sn	01 06 45.2	-0.8
DAWY				Sg	Sg	01 06 50.8	-3.1
EGAK	Eagle	3.12	1	*e*Pn	Pn	01 06 20.8	-1.1
EGAK				*e*Sn	Sn	01 06 59.6	-0.2
WHY	Whitehorse	3.28	105	Trac			
WHY	Whitehorse	3.28	105	Pn	Pn	01 06 23.7	-0.5
WHY				Pg	Pg	01 06 29.5	-5.1
WHY				Sg	Sg	01 07 13.1	-3.9

*IDC **22** 01:15:43.7±0.6, 3201S×6870W, h0^{km}, mb4.3/11, mb1 4.5/12, mb1mx4.4/18, mbtmp4.3/12, ML4.3/1, MS4.0/5, Ms1 4.0/5, ms1mx3.7/19, Error ellipse: s-maj=16.9km s-min=8.6km az=130.0*

*ISCJB **22** 01:15:47.0±0.8, 3179S±002×6847W±003, h25^{km}±6^{km}, mb4.6/33, MS4.0/4, Error ellipse: s-maj=4.8km s-min=3.1km az=17.4*

*NEIC **22** 01:15:46.6, 3180S×6872W, h5^{km}, mb4.8/20, ML5.1(GUC), After GUC.*

NEIC Felt [IV] at San Juan and [III] at Mendoza.

*GUC **22** 01:15:46.6±0.8, 3180S×6872W, h5^{km}±6^{km}, MD4.4, ML5.1*

ISC 22 01:15:47.2±0.9, **3181S**±002×**6850W**±003, **h14**^{km}±6^{km}, **h15**^{km}±1.7^{km}**:pP-P, n118**, σ**1^{s}00**/127, **mb4.6**/33, **MS4.0**/4, **13C-5D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CFAA	Coronel Fontan	0.30	48	Pg	Pg	01 15 54.7	+1.2
CFAA				Lg		01 16 02.2	
CFAA	Coronel Fontan	0.30	48	Pg	Pg	01 15 54.7	+1.2
	219nm,0.3s,baz=240,slow=16						
CFAA				Lg		01 16 02.2	
	771nm,0.3s,baz=265,slow=11,SNR=92						
MDZ	Mendoza	1.11	195	*e*P	Pb	01 16 05.7	-2.5
MDZ				*i*		01 16 19.6	
MDZ				*i* S	Sb	01 16 23.4	+0.9

FCH	**Farellones**	2.14	224	⇓iP	Pn	01 16 21.6	-0.8
FCH				iS	Sn	01 16 48.4	-0.4
FCH				AML	AML	01 16 49.4	
	comp=N,7µm,0.5s						
CMCH	**Combarbala**	2.23	286	⇑iP	Pn	01 16 21.1	-2.6
CMCH				iS	Sn	01 16 47.8	-3.2
CMCH	**Combarbala**	2.23	286	⇑iP	Pn	01 16 21.1	-2.6
CMCH				iS	Sn	01 16 47.8	-3.2
CMCH				AML	AML	01 16 54.3	
	comp=E,83µm,0.7s						
PEL	**Peldehue**	2.27	234	⇑iP	Pn	01 16 23.3	-1.0
PEL				iS	Sn	01 16 51.4	-0.8
PEL				AML	AML	01 16 59.5	
	comp=N,34µm,0.5s						
CLCH	**Cerro Calan**	2.33	227	⇓iP	Pn	01 16 25.8	+0.6
CLCH				iS	Sn	01 16 55.1	+1.5
CLCH	**Cerro Calan**	2.33	227	⇓iP	Pn	01 16 25.8	+0.6
CLCH				iS	Sn	01 16 55.1	+1.5
CLCH				AML	AML	01 17 00.1	
	comp=E,27µm,0.6s						
DSCH	**Colegio Aleman**	2.36	227	eP	Pn	01 16 25.2	-0.2
DSCH				iS	Sn	01 16 54.3	+0.1
DSCH	**Colegio Aleman**	2.36	227	eP	Pn	01 16 25.2	-0.2
DSCH				iS	Sn	01 16 54.3	+0.1
DSCH				AML	AML	01 16 59.5	
	comp=N,3µm,0.3s						
FSR	**Penalolen**	2.39	225	eP	Pn	01 16 26.4	+0.5
FSR				iS	Sn	01 16 56.0	+1.1
FSR	**Penalolen**	2.39	225	eP	Pn	01 16 26.4	+0.5
FSR				iS	Sn	01 16 56.0	+1.1
FSR				AML	AML	01 16 57.0	
	comp=N,24µm,0.6s						
SJCH	**San Jose de Ma**	2.40	220	iP	Pn	01 16 26.5	+0.4
SJCH				iS	Sn	01 16 56.4	+1.1
SJCH	**San Jose de Ma**	2.40	220	iP	Pn	01 16 26.5	+0.4
SJCH				iS	Sn	01 16 56.4	+1.1
SJCH				AML	AML	01 17 01.8	
	comp=N,6µm,0.4s						
ROCH	**El Roble**	2.42	241	iP	Pn	01 16 25.9	-0.4
STL	**Santa Lucia**	2.43	228	eP	Pn	01 16 25.8	-0.6
STL				iS	Sn	01 16 56.2	+0.3
STL				AML	AML	01 17 04.1	
	comp=N,1µm,0.3s						
PCH	**Pirque**	2.48	223	⇑iP	Pn	01 16 27.7	+0.6
ANTU	**Antumapu**	2.51	225	eP	Pn	01 16 28.5	+0.9
ANTU				iS	Sn	01 16 59.7	+1.7
ANTU	**Antumapu**	2.51	225	eP	Pn	01 16 28.5	+0.9
ANTU				iS	Sn	01 16 59.7	+1.7
ANTU				AML	AML	01 17 04.2	
	comp=N,14µm,0.5s						
TLL	**Tololo Astrono**	2.57	309	⇑iP	Pn	01 16 28.6	+0.2
TLL				iS	Sn	01 17 00.6	+1.2
TLL	**Tololo Astrono**	2.57	309	⇑iP	Pn	01 16 28.6	+0.2
TLL				iS	Sn	01 17 00.6	+1.2
TLL				AML	AML	01 17 08.3	
	comp=E,15µm,0.5s						
OVCH	**Ovalle**	2.60	297	eP	Pn	01 16 28.8	-0.1
OVCH				iS	Sn	01 17 00.5	+0.2
OVCH	**Ovalle**	2.60	297	eP	Pn	01 16 28.8	-0.1
OVCH				iS	Sn	01 17 00.5	+0.2
OVCH				AML	AML	01 17 04.8	
	comp=N,55µm,0.6s						
TACH	**Talagante**	2.76	228	eP	Pn	01 16 31.1	+0.1
CACH	**El Canelo**	2.90	217	⇑iP	Pn	01 16 34.1	+1.2
LSCH	**La Serena**	3.03	308	⇑iP	Pn	01 16 33.9	-0.8
LSCH				iS	Sn	01 17 10.1	-0.6
LSCH	**La Serena**	3.03	308	⇑iP	Pn	01 16 33.9	-0.8
LSCH				iS	Sn	01 17 10.1	-0.6
LSCH				AML	AML	01 17 15.2	
	comp=E,4µm,0.6s						
LNV	**Longovilo**	3.25	228	⇑iP	Pn	01 16 36.5	-1.3
LNV				iS	Sn	01 17 14.9	-1.3
LCO	**Las Campanas**	3.38	325	⇑ePn	Pn	01 16 39.6	+0.2
LCO				eSn	Sn	01 17 19.7	+0.4
SFDO	**San Fernando**	3.50	216	⇓iP	Pn	01 16 41.5	+0.3
VACH	**Vallenar**	3.77	328	⇑iP	Pn	01 16 44.9	0.0
VACH				iS	Sn	01 17 29.2	+0.1
VACH	**Vallenar**	3.77	328	⇑iP	Pn	01 16 44.9	0.0
VACH				iS	Sn	01 17 29.2	+0.1
VACH				AML	AML	01 17 41.4	
	comp=N,6µm,0.5s						
NICH	**Los Niches**	3.92	215	eP	Pn	01 16 46.4	-0.5
CPCH	**Copiapo**	4.72	340	eP	Pn	01 16 58.7	+0.8
CPCH				iS	Sn	01 17 53.0	+0.5
CDCH	**Caldera**	5.14	336	⇓iP	Pn	01 17 03.7	0.0
LPAZ	**La Paz**	15.46	1	Pn	Pn	01 19 26.0	+1.2
LPAZ				LR	LR	01 26 21.7	
LPAZ	**La Paz**	15.46	1	Pn	Pn	01 19 26.0	+1.2
	comp=N,0.6nm,0.3s,baz=207,slow=8.9,SNR=16						
LPAZ				LR	LR	01 26 21.7	
	comp=N,270nm,21.7s,baz=286,slow=41						
ARE	**Arequipa**	15.52	349	eP	Pn	01 19 25.0	-0.6
SIV	**San Ignacio**	17.14	25	P	Pn	01 19 43.2	-3.2
	comp=N,0.2nm,0.3s,baz=215,slow=14,SNR=11						
NNA	**Nana**	21.17	337	eP	P	01 20 32.3	+0.2
	comp=N,14nm,0.7s,mb4.4						
NNA	**Nana**	21.17	337	P	P	01 20 31.8	-0.3
	comp=N,11nm,0.7s,mb4.3,baz=188,slow=17,SNR=2.9						
EFI	**East Falkland**	21.28	162	eP	P	01 20 33.9	+0.9
USHA	**Ushuaia**	23.01	180	P	P	01 20 48.7	-2.8
	comp=N,18nm,0.6s,mb4.7,baz=325,slow=4.6,SNR=15						
USHA				LR	LR	01 30 42.1	
	comp=N,397nm,20.0s,MS3.9,baz=207,slow=39						
ATAH	**Atahualpa**	26.35	337	P	P	01 21 23.3	+0.4
	comp=N,2.3nm,0.3s,mb4.2,baz=104,slow=8.3,SNR=2.7						
PMSA	**Palmer Station**	33.10	177	P	P	01 22 23.6	+1.2
OTAV	**Otavalo**	33.24	342	eP	P	01 22 25.3	+1.3
	comp=N,5.2nm,1.0s,mb4.4						
ROSC	**El Rosal**	36.88	350	LR	LR	01 37 42.1	
	comp=N,166nm,18.6s,MS3.9,baz=203,slow=36						
JTS	**JuntasAbangare**	44.73	337	P	P	01 23 59.4	-0.7
TGUH	**Tegucigalpa,Un**	49.03	336	eP	P	01 24 35.3	+1.6
	comp=N,27nm,0.9s,mb5.3						
VNA3	**Neumayer Olymp**	50.29	159	e	P	01 24 42.0	-0.8
VNA2	**Neumayer--Watz**	50.90	158	e	P	01 24 46.8	-0.6
	baz=293,slow=9.0						
SNAA	**Sanae**	52.51	159	P	P	01 24 58.4	-1.0
	comp=N,6.2nm,0.8s,mb4.6,baz=289,slow=7.5,SNR=37						
MAIT	**Maitri**	57.13	157	eP	P	01 25 29.2	-3.6
QSPA	**South Pole Qui**	58.42	180	eP	P	01 25 40.9	-0.9
	comp=N,24nm,0.7s,mb5.3						
BBSR	**BB Station**	63.94	4	P	P	01 26 20.4	+0.8
SWET	**Sewanee**	68.66	345	eP	P	01 26 48.3	-1.5
JCT	**Junction City**	68.70	331	P	P	01 26 49.5	-0.7
	comp=N,23nm,1.1s,mb5.0						
OXF	**Oxford**	68.84	342	eP	P	01 26 49.8	-1.2
	comp=N,22nm,1.0s,mb5.0						
LTX	**Lajitas**	69.39	327	eP	P	01 26 54.2	-0.4
	comp=N,3.8nm,0.7s,mb4.4						
TXAR	**Lajitas Array**	69.39	327	P	P	01 26 53.5	-1.0
	comp=N,1.2nm,0.6s,mb4.0,baz=151,slow=8.0,SNR=22						
MIAR	**Mount Ida**	70.09	338	eP	P	01 26 59.7	+0.9
PARMO	**Parma**	70.96	342	eP	P	01 27 02.7	-1.3
LIC	**Lamto**	71.24	70	eP	P	01 27 07.7	+1.4
	comp=N,72nm,1.8s,mb5.3						
TIC	**Toumodi**	71.50	70	eP	P	01 27 07.1	-0.7
	comp=N,108nm,1.5s,mb5.5						
KIC	**Kosan Boka**	71.55	70	eP	P	01 27 08.7	+0.5
	comp=N,139nm,1.5s,mb5.7						
SIUC	**Southern Illin**	71.82	343	P	P	01 27 09.5	+0.3
WMOK	**Wichita Mounta**	72.06	334	eP	P	01 27 09.8	-0.9
	comp=N,2.0nm,0.8s,mb4.1						
MNTX	**Cornudas Mount**	72.17	327	eP	P	01 27 08.9	-2.5
	comp=N,7.0nm,0.8s,mb4.6						
BRNJ	**Basking Ridge**	72.35	355	P	P	01 27 12.6	+0.4
FVM	**French Village**	72.38	342	eP	P	01 27 10.8	-1.8
	comp=N,13nm,0.8s,mb4.9						
ACSO	**Alum Creek Sta**	72.92	348	eP	P	01 27 15.5	-0.2
	comp=N,10nm,0.8s,mb4.8						
SUR	**Sutherland**	73.25	118	eP	P	01 27 19.1	+1.0
MAW	**Mawson**	74.40	163	LR	LR	01 58 44.0	
	comp=N,138nm,20.0s,MS4.2,baz=70,slow=35						
BNM	**Barren Site**	74.79	328	eP	P	01 27 26.7	-0.1
LPM	**Los Pinos Moun**	74.93	328	eP	P	01 27 28.2	+0.6
ANMO	**Albuquerque**	75.39	329	eP	P	01 27 30.1	-0.1
	comp=N,3.9nm,0.8s,mb4.4						
ANMO				e	pP	01 27 35.0	+0.2
SDCO	**Great Sand Dun**	77.33	331	eP	P	01 27 40.9	-0.3
	comp=N,4.3nm,0.8s,mb4.4						
BOSA	**Boshof**	78.41	116	P	P	01 27 47.4	-0.3
	comp=N,6.4nm,0.9s,mb4.5,baz=316,slow=3.2,SNR=8.1						
PV01	**Paradox Valley**	78.97	329	eP	P	01 27 50.2	-0.1
ISCO	**Idaho Springs**	79.13	332	P	P	01 27 50.9	-0.2
	comp=N,1.9nm,0.3s,mb4.5						
PV10	**Paradox Valley**	79.38	329	P	P	01 27 53.0	+0.5
ECSD	**EROS,Sioux Fal**	79.45	340	eP	P	01 27 49.7	-3.0
	comp=N,13nm,1.0s,mb4.8						
LBTB	**Lobatse**	80.48	113	eP	P	01 27 58.8	-0.2
SRU	**San Rafael**	80.65	328	P	P	01 28 01.0	+1.7
	comp=N,7.0nm,0.5s,mb4.8						
TOA0	**Torodi Ar. Sit**	80.65	68	eP	P	01 28 00.1	+0.1
TORD	**Torodi Ar. Bea**	80.65	68	P	P	01 27 59.6	-0.3
	comp=N,0.8nm,0.6s,mb3.9,baz=284,slow=6.7,SNR=10						
CCUT	**Cedar City**	80.72	325	eP	P	01 27 59.5	-0.2
CCUT				e	pP	01 28 05.0	+0.5
MSU	**Marysvale**	80.92	327	eP	P	01 27 58.8	-2.1
ARUT	**Antelope Range**	80.94	325	P	P	01 28 02.5	+1.6
RSSD	**Black Hills**	82.24	335	eP	P	01 28 09.1	+1.5
	comp=N,3.2nm,0.9s,mb4.2						
HWUT	**Hardware Ranch**	83.14	329	eP	P	01 28 13.7	+1.3
	comp=N,4.6nm,0.9s,mb4.5						
PDAR	**Pinedale Array**	83.23	331	P	P	01 28 12.4	-0.4
	comp=N,0.4nm,0.7s,mb3.6,baz=165,slow=3.7,SNR=4.4						
NVAR	**Mina Array Bea**	83.86	323	P	P	01 28 15.7	-0.5
	comp=N,0.5nm,0.6s,mb3.9,baz=163,slow=6.6,SNR=3.5						
ULM	**Lac du Bonnet**	85.23	343	P	P	01 28 23.5	+0.7
ULM	**Lac du Bonnet**	85.23	343	P	P	01 28 23.5	+0.7
	comp=N,3.1nm,0.8s,mb4.5,baz=141,slow=4.3,SNR=11						
HLID	**Hailey**	85.96	328	eP	P	01 28 26.5	-0.1
	comp=N,5.6nm,1.0s,mb4.8						
HLID				e	pP	01 28 30.0	-1.3
MCMT	**McKenzie Canyo**	86.29	330	P	P	01 28 29.0	+0.8
SCHQ	**Schefferville**	86.30	1	P	P	01 28 29.3	+1.3
SCHQ	**Schefferville**	86.30	1	P	P	01 28 29.3	+1.3
	comp=N,4.3nm,1.0s,mb4.6,baz=185,slow=11,SNR=2.9						
RPZ	**Rata Peaks**	87.22	219	LR	LR	01 58 08.0	
	comp=N,109nm,19.9s,MS4.3,baz=4.3,slow=29						
WALA	**Waterton Lakes**	90.11	332	eP	P	01 28 46.7	+0.4
FCC	**Fort Churchill**	92.72	347	eP	P	01 28 58.4	+0.2
	comp=N,9.6nm,1.1s,mb5.1						
YKA	**Yellowknife Ar**	100.98	340	P	Pdif	01 29 35.3	-0.9
YKA	**Yellowknife Ar**	100.98	340	P	Pdif	01 29 35.3	-0.9
	comp=N,0.4nm,1.0s,baz=137,slow=3.9,SNR=2.9						
ASAR	**Alice Springs**	120.82	204	PKP	PKPdf	01 34 35.7	-3.7
ASAR	**Alice Springs**	120.82	204	PKP	PKPdf	01 34 35.7	-3.7
	comp=N,0.6nm,0.7s,baz=116,slow=2.9,SNR=5.2						
WB2	**Warramunga Arr**	124.07	206	eP	PKPdf	01 34 42.7	-3.1
WRA	**Warramunga Arr**	124.08	206	PKP	PKPdf	01 34 42.7	-3.0
WRA	**Warramunga Arr**	124.08	206	PKP	PKPdf	01 34 42.7	-3.0
	comp=N,1.6nm,0.5s,baz=162,slow=1.7,SNR=51						
UCH	**Uchtor**	148.91	60	PKPdf	PKPdf	01 35 33.8	+3.4
TKM2	**Tokmak 2**	149.60	58	ePKPdf	PKPdf	01 35 32.5	+1.1
ZALV	**Zalesovo Beam**	150.78	33	PKPbc	PKPbc	01 35 37.4	-1.1
ZALV	**Zalesovo Beam**	150.78	33	PKPbc	PKPbc	01 35 37.4	-1.1
	comp=N,1.2nm,0.5s,baz=309,slow=3.0,SNR=11						
MK31	**Makanchi Array**	153.09	48	ePKPdf	PKPdf	01 35 39.0	+2.4
MKAR	**Makanchi Array**	153.09	48	PKPbc	PKPbc	01 35 42.4	-1.6
MKAR	**Makanchi Array**	153.09	48	PKPbc	PKPbc	01 35 42.4	-1.6
	comp=N,1.2nm,0.9s,baz=288,slow=2.3,SNR=5.8						
SONM	**Songino Array**	163.53	12	PKPab	PKPab	01 36 43.9	+3.4
	comp=N,0.7nm,0.7s,baz=321,slow=3.2,SNR=7.1						

ISCJB ***22*** *01:17:28.9±0.6, 3839N±004×3932E±004, h5km, Error ellipse: s-maj=6.1km s-min=3.9km az=29.7*
CSEM ***22*** *01:17:28.6±0.4, 3845N×3925E, h10km, MD2.7, Error ellipse: s-maj=11.5km s-min=5.6km az=119.0*
DDA ***22*** *01:17:28.7, 3857N×3941E, h5km±5km, Md2.7*
ISK ***22*** *01:17:28.4, 3844N×3925E, h5km, MD2.7*
ISC 22 01:17:29.4±0.7, **3841N**±004×**3934E**±004, **h3**km±9km, **n11**, σ**1.07**/19, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	**Elazig**	0.29	288	iP	Pg	01 17 34.5	-0.6
ELZG				iS	Sg	01 17 38.8	-0.1
PTK	**Pertek**	0.49	5	PG	Pg	01 17 38.1	-0.7
PTK				SG	Sg	01 17 46.6	+1.5
PTK	**Pertek**	0.49	5	ePg	Pg	01 17 38.1	-0.7
PTK				eSg	Sg	01 17 46.6	+1.5
MYA	**Malataya**	0.72	264	PG	Pg	01 17 41.5	-1.8
MYA				SG	Sg	01 17 52.9	+0.2
MYA	**Malataya**	0.72	264	ePg	Pg	01 17 41.5	-1.8
MYA				eSg	Sg	01 17 52.9	+0.2
DIYA	**Diyarbakir**	0.78	128	iP	Pg	01 17 44.8	+0.4
DIYA				iS	Sg	01 17 55.3	+0.8
URFA	**Urfa**	1.05	203	ePG	Pg	01 17 49.9	+0.4
URFA	**Urfa**	1.05	203	ePg	Pg	01 17 49.9	+0.4
MARD	**Mardin**	1.58	133	iP	Pn	01 17 57.9	-0.3
MARD				iS	Sn	01 18 18.0	-1.2
BTMT	**Batman**	1.70	97	ePN	Pn	01 17 59.5	-0.5
GZT	**Gaziantep**	1.75	234	iP	Pn	01 18 04.3	+3.5
GZT				iS	Sn	01 18 26.6	+3.1

GUC 22 01:22:49.3±0.4, **3181S**×**6854W**, **h36**km±52km, **ML3.6**, **2C-1D**, **San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTCH	**Petorca**	2.08	257	⇓iP		01 25 11.0	
PTCH				iS		01 25 36.5	
PTCH				AML	AML	01 25 41.4	
	comp=N,645nm,0.5s						
PEL	**Peldehue**	2.25	233	⇑iP	Pn	01 23 25.6	+1.5
PEL				iS	Sn	01 23 53.2	+2.5
PEL				AML	AML	01 23 58.8	
	comp=E,325nm,0.7s						
CHNG	**Los Chungos**	2.52	267	⇑iP	Pn	01 23 15.0	-13
CHNG				iS	Sn	01 23 45.4	-12
CHNG				AML	AML	01 23 48.3	
	comp=N,213nm,0.7s						
RCDM	**Rinconada Maip**	2.55	228	eP	Pn	01 23 29.9	+1.8
RCDM				iS	Sn	01 24 00.4	+2.6
RCDM				AML	AML	01 24 06.8	
	comp=E,195nm,0.2s						
OVCH	**Ovalle**	2.58	297	eP	Pn	01 23 29.8	+1.3
OVCH				iS	Sn	01 24 00.8	+2.2
OVCH				AML	AML	01 24 03.0	
	comp=N,1µm,0.5s						

NIED ***22*** *01:31:00, 3220N×14160E, h5km, Mw3.7 Best double couple: $M_0$4.26000×10^{14} NP1:ϕ_s206.00000°, δ16.00000°, λ143.00000°. NP2:ϕ_s332.00000°, δ80.00000°, λ77.00000°.*
IDC ***22*** *01:31:11.2±0.9, 3190N×14156E, h0km, mb3.6/6, mb1 3.8/7, mb1mx3.6/21, mbtmp3.5/7, ML2.9/1, Error ellipse: s-maj=29.5km s-min=17.9km az=64.0*
ISCJB ***22*** *01:31:14.3±2.1, 3203N±009×1417E±02, h37km±19km, mb3.6/6, Error ellipse: s-maj=23.5km s-min=13.6km az=164.7*
JMA ***22*** *01:31:14.4±0.6, 3217N×14156E, h0km, M3.6*
ISC 22 01:31:15.4±3.3, **3197N**±008×**1416E**±01, **h27**km±24km, **n12**, σ**0.75**/15, **mb3.6**/6, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	**Mitsune**	1.86	308	P	Pn	01 31 46.2	+0.6
JHJ	**Hachijo jima 2**	1.89	308	Pn	Pn	01 31 45.5	-0.5
	16nm,0.3s,baz=198,slow=19,SNR=5.3						
JHJ				Sn	Sn	01 32 10.0	+1.1
	30nm,0.3s,baz=221,slow=19,SNR=3.0						
JOD2	**Odawara 2**	3.88	328	eS	Sn	01 32 56.7	-1.3
JRY	**Ryogami san**	4.60	332	P	Pn	01 32 23.2	0.0
JRY				eS	Sn	01 33 15.8	0.0
JAG	**Ashikaga**	4.78	339	P	Pn	01 32 26.3	+0.7
JAG				eS	Sn	01 33 19.6	-0.4
MJAR	**Matsushiro Arr**	5.34	330	Pn	Pn	01 32 32.7	-0.6
	0.4nm,0.3s,baz=154,slow=11,SNR=6.0						
SONM	**Songino Array**	30.97	311	P	P	01 37 30.9	+0.7
	0.3nm,0.7s,mb3.2,baz=100,slow=7.9,SNR=1.8						
MKAR	**Makanchi Array**	47.06	306	P	P	01 39 44.5	-0.1
	0.8nm,0.7s,mb3.8,baz=86,slow=9.3,SNR=8.1						
WRA	**Warramunga Arr**	52.08	189	P	P	01 40 21.8	-1.3
	1.1nm,0.5s,mb4.0,baz=4.8,slow=7.5,SNR=20						
ASAR	**Alice Springs**	55.80	188	P	P	01 40 50.1	-0.1
	0.4nm,0.5s,mb3.7,baz=18,slow=14,SNR=9.4						
YKA	**Yellowknife Ar**	68.14	29	P	P	01 42 12.5	-0.2
	0.1nm,0.3s,mb3.3,baz=301,slow=6.3,SNR=2.8						
TXAR	**Lajitas Array**	93.10	53	P	P	01 44 28.6	+1.4
	0.2nm,0.7s,mb3.7,baz=305,slow=3.2,SNR=3.0						

NIED ***22*** *01:45:00, 4480N×14650E, h185km, Mw4.1 Best double couple: $M_0$1.56000×10^{15} NP1:ϕ_s75.00000°, δ77.00000°, λ175.00000°. NP2:ϕ_s166.00000°, δ85.00000°, λ13.00000°.*
MOS ***22*** *01:45:10.3±1.6, 4513N×14650E, h157km, mb4.1/12, Error ellipse: s-maj=13.0km s-min=9.7km az=95.2*
BJI ***22*** *01:45:13.8, 4471N×14636E, h193km, mB4.9, mb4.3*
ISCJB ***22*** *01:45:14.3±0.4, 4492N±005×14647E±007, h197km±4km, mb3.8/23, Error ellipse: s-maj=9.1km s-min=7.2km az=155.4*
NEIC ***22*** *01:45:15.0±0.9, 4499N×14643E, h186km±8km, mb4.1/11, Error ellipse: s-maj=10.3km s-min=7.7km az=132.0*
JMA ***22*** *01:45:16.4±0.3, 4476N×14646E, h192km±3km, M3.9*
IDC ***22*** *01:45:16.4±1.2, 4513N×14623E, h196km±14km, mb3.6/15, mb1 3.7/17, mb1mx3.5/26, mbtmp3.6/17, Error ellipse: s-maj=22.5km s-min=12.6km az=176.0*
ISC 22 01:45:15.3±0.4, **4493N**±005×**14646E**±007, **h191**km±4km, **n87**, σ**1.21**/99, **mb4.0**/23, **1D**, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YUK	**Yuzh-Kuril'sk**	0.99	206	ePN	Pn	01 45 44.1	+0.1
YUK				pmax	pmax		
	comp=N,280nm,0.4s						
YUK				pmax	pmax		
	comp=E,280nm,0.4s						
YUK				pmax	pmax		
	comp=Z,710nm,0.4s						
JRA	**Rausu**	1.38	225	P	Pn	01 45 47.3	+0.2
NEM2	**Nemuro 2**	1.64	199	P	Pn	01 45 48.8	-0.7
NEM2				eS	Sn	01 46 14.2	-1.7
JNK	**Nakash**	1.83	224	P	Pn	01 45 51.8	+0.4
JTKR	**Abashiri--Toko**	2.06	243	P	Pn	01 45 54.2	+0.5
JTKR				eS	Sn	01 46 23.5	0.0
JAK	**Akkeshi**	2.31	214	P	Pn	01 45 56.2	-0.3
JAK				eS	Sn	01 46 26.3	-2.1
JMP	**Maruseppu**	2.41	249	P	Pn	01 45 58.1	+0.6
JMP				eS	Sn	01 46 30.9	+0.7
JAR	**Ashorobuto**	2.53	231	P	Pn	01 45 59.7	+0.8
JSE	**Soyaes**	2.76	272	P	Pn	01 46 02.4	+0.9
JKK2	**Kamakawa 2**	2.86	250	P	Pn	01 46 03.7	+0.9
JKK2				eS	Sn	01 46 40.4	+0.7
ASAJ	**Asahikawa**	2.88	255	PN	Pn	01 46 03.8	+0.8
ASAJ				S	Sn	01 46 40.2	+0.1
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.3s						
ASAJ				smax			
	comp=N,4.0nm,0.3s						
ASAJ	**Asahikawa**	2.88	255	P	Pn	01 46 03.8	+0.8
	comp=N,6.5nm,0.3s,baz=82,slow=15,SNR=15						
ASAJ				S	Sn	01 46 40.1	0.0
	comp=N,3.5nm,0.3s,baz=68,slow=22,SNR=12						
JCH	**Churui**	3.22	225	P	Pn	01 46 06.8	-0.3
JCH				eS	Sn	01 46 44.0	-3.5
JWK2	**Keihoku**	3.26	279	P	Pn	01 46 09.3	+1.9
YSS	**Yuzh-Sakhalins**	3.29	309	ePn	Pn	01 46 08.3	+0.5
YSS	**Yuzh-Sakhalins**	3.29	309	⇓iPN	Pn	01 46 08.1	+0.3
YSS				pmax	pmax		
	comp=E,50nm,0.7s						
YSS				pmax	pmax		
	comp=Z,70nm,0.7s						
JFR	**Furan**	3.30	239	P	Pn	01 46 09.1	+1.1
JFR				eS	Sn	01 46 49.3	+0.1
ERM	**Erimo**	3.77	221	ePn	Pn	01 46 13.9	0.0
ERM				eSn	Sn	01 46 52.8	-6.9
ERM	**Erimo**	3.77	221	ePN	Pn	01 46 13.9	0.0
ERM				e		01 46 52.8	
JNBK	**Urakawa-nobuka**	3.77	227	P	Pn	01 46 12.7	-1.2
JNBK				eS	Sn	01 46 54.5	-5.2
JEW	**Eniwo**	4.18	242	P	Pn	01 46 20.1	+1.1
JEW				eS	Sn	01 47 08.8	-0.1
MAJO	**Matsushiro**	10.45	220	ePn	Pn	01 47 39.6	-0.8
	comp=Z,5.3nm,0.6s						
MAJO	**Matsushiro**	10.45	220	ePN	Pn	01 47 39.6	-0.9
MAJO				pmax	pmax		
	comp=Z,5.0nm,0.6s						
MJAR	**Matsushiro Arr**	10.45	220	P	Pn	01 47 39.2	-1.2
MJAR	**Matsushiro Arr**	10.45	220	PN	Pn	01 47 39.2	-1.3
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	**Matsushiro Arr**	10.45	220	P	Pn	01 47 39.2	-1.2
	comp=Z,0.5nm,0.3s,baz=27,slow=13,SNR=10						
KLR	**Kul'dur**	10.92	298	ePN	Pn	01 47 42.2	-4.1
MDJ	**Mudanjiang**	12.00	274	P	Pn	01 47 59.6	-0.7
MDJ				AMB	AMB		
	comp=Z,10.0nm,0.7s						
MDJ				AMB	AMB		
	comp=Z,145nm,3.0s						
MA2	**Magadan**	14.90	9	ePn	Pn	01 48 35.0	-1.4
	comp=Z,3.5nm,0.6s						
MA2	**Magadan**	14.90	9	eP	Pn	01 48 35.0	-1.4
MA2				pmax	pmax		
	comp=Z,3.0nm,0.6s						
CN2	**Changchun**	15.07	273	eP	Pn	01 48 37.4	-1.2
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s						
KSRS	**Korea Array**	15.81	248	P	Pn	01 48 46.6	-1.1
	comp=Z,0.2nm,0.3s,baz=56,slow=12,SNR=6.4						
BJT	**Baijiatuau**	22.80	268	eP	P	01 50 01.6	+0.1
	comp=Z,8.2nm,0.9s,mb4.2						
BJT	**Baijiatuau**	22.80	268	eP	P	01 50 01.6	+0.1
BJT				pmax	pmax		
	comp=Z,8.0nm,0.9s						
BILL	**Bilibino**	25.38	17	eP	P	01 50 26.7	+2.2
BILL				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.5						
ULN	**Ulaanbaatar**	27.14	290	eP	P	01 50 38.2	-2.3
	comp=Z,1.8nm,0.6s,mb3.9						
ULN	**Ulaanbaatar**	27.14	290	eP	P	01 50 38.2	-2.3
ULN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
SONM	**Songino Array**	27.58	290	P	P	01 50 43.8	-0.6
SONM				pmax	pmax		
	comp=Z,2.0nm,0.5s						
SONM	**Songino Array**	27.58	290	P	P	01 50 43.8	-0.6
	comp=Z,1.8nm,0.5s,mb4.1,baz=81,slow=8.9,SNR=21						
YHNB	**Yeheng**	28.66	234	P	P	01 50 57.3	+3.1
ENH	**Enshi**	32.44	256	eP	P	01 51 28.2	+0.9
IMA2	**Indian Mountai**	37.99	35	eP	P	01 52 13.9	-0.3
KDAK	**Kodiak Island**	38.83	48	P	P	01 52 21.8	+0.5
	comp=Z,6.0nm,0.5s,mb4.5,baz=108,slow=14,SNR=9.1						
ZALV	**Zalesovo Beam**	39.91	306	P	P	01 52 28.7	-1.6
	comp=Z,1.2nm,0.4s,mb3.9,baz=82,slow=8.8,SNR=8.8						
ZAL	**Zalesovo**	39.92	306	P	P	01 52 28.7	-1.7
COLA	**College**	40.42	37	eP	P	01 52 33.9	-0.5
	comp=Z,7.2nm,0.8s,mb4.3						
COLA	**College**	40.42	37	eP	P	01 52 33.9	-0.5
COLA				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.3						
MK31	**Makanchi Array**	43.61	296	eP	P	01 53 00.1	-0.3
MKAR	**Makanchi Array**	43.61	296	P	P	01 53 00.3	-0.1
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MKAR	**Makanchi Array**	43.61	296	P	P	01 53 00.2	-0.2
	comp=Z,2.2nm,0.7s,mb3.9,baz=76,slow=8.9,SNR=16						
KURK	**Kurchatov**	44.47	303	eP	P	01 53 05.8	-1.4
	comp=Z,4.1nm,0.5s,mb4.3						
KURK	**Kurchatov**	44.47	303	eP	P	01 53 05.8	-1.4
KURK				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.3						
INK	**Inuvik**	45.64	31	P	P	01 53 15.3	-0.8
INK				pmax	pmax		
	comp=Z,2.0nm,0.4s						
INK	**Inuvik**	45.64	31	P	P	01 53 15.3	-0.8
	comp=Z,1.7nm,0.4s,mb4.1,baz=305,slow=5.0,SNR=15						
LSA	**Lhasa**	45.68	270	eP	P	01 53 19.2	+2.3
CHKZ	**Chkalovo**	48.01	309	P	P	01 53 36.7	+2.1
BRVK	**Borovoye**	48.43	308	P	P	01 53 39.5	+1.7
TKM2	**Tokmak 2**	49.57	294	eP	P	01 53 48.1	+1.5
AAK	**Ala-Archa**	50.42	294	eP	P	01 53 53.1	0.0
	comp=Z,1.4nm,0.8s,mb3.6						
AAK	**Ala-Archa**	50.42	294	eP	P	01 53 53.1	0.0
AAK				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.5						
UCH	**Uchtor**	50.60	294	P	P	01 53 57.3	+2.9
EKS2	**Erkin-Say**	50.87	295	eP	P	01 53 56.9	+0.5
	comp=Z,1.5nm,0.6s,mb3.8						
AML	**Almayashu**	51.18	294	eP	P	01 54 00.6	+1.9
	comp=Z,2.7nm,0.8s,mb3.9						
RES	**Resolute Bay**	53.98	17	eP	P	01 54 17.6	-1.3
	comp=Z,57nm,0.7s						
PMG	**Port Moresby**	54.08	179	eP	P	01 54 21.7	+1.4
	comp=Z,19nm,1.0s,mb4.8						
PMG	**Port Moresby**	54.08	179	eP	P	01 54 21.7	+1.5
PMG				pmax	pmax		
	comp=Z,19nm,1.0s						
PMG	**Port Moresby**	54.08	179	P	P	01 54 21.5	+1.3

	comp=Z,6.7nm,0.7s,mb4.5,baz=313,slow=22,SNR=3.0						
YKA	Yellowknife Ar	55.10	34	P	P	01 54 27.1	+0.1
	comp=Z,1.1nm,0.5s,mb3.9,baz=300,slow=6.9,SNR=20						
ARCES	ARCESS Array B	57.98	339	P	P	01 54 45.7	-1.5
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	57.98	339	P	P	01 54 45.7	-1.5
	comp=Z,2.8nm,0.9s,mb4.1,baz=53,slow=8.0,SNR=4.0						
JOF	Joensuu	60.82	332	ep	P	01 55 04.0	-2.7
KAF	Kangasniemi	63.04	333	ep	P	01 55 18.6	-2.9
FINES	FINESS Array B	63.61	332	P	P	01 55 23.0	-2.2
FINES	FINESS Array B	63.61	332	P	P	01 55 23.0	-2.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	63.61	332	P	P	01 55 23.0	-2.2
	comp=Z,0.5nm,0.5s,mb3.6,baz=49,slow=8.8,SNR=6.3						
CTAO	Charters Tower	64.70	180	eP	P	01 55 33.0	+0.2
	comp=Z,6.3nm,1.0s,mb4.4						
CTAO	Charters Tower	64.70	180	eP	P	01 55 33.0	+0.2
CTAO				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.4						
FCC	Fort Churchill	65.25	30	eP	P	01 55 36.1	+0.2
NVAR	Mina Array Bea	67.37	58	P	P	01 55 50.9	+1.1
	comp=Z,0.8nm,0.5s,mb3.8,baz=296,slow=8.3,SNR=4.8						
NOA	NORSAR Array B	68.33	338	P	P	01 55 53.7	-1.6
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	68.33	338	P	P	01 55 53.7	-1.6
	comp=Z,0.8nm,0.6s,mb3.6,baz=32,slow=6.6,SNR=2.4						
PDAR	Pinedale Array	69.53	50	P	P	01 56 04.3	+1.3
	comp=Z,1.0nm,0.5s,mb3.8,baz=295,slow=1.9,SNR=13						
MBWA	Marble Bar	70.14	207	P	P	01 56 07.2	+0.3
AKASG	Malin Array Be	70.34	323	P	P	01 56 06.3	-1.6
	comp=Z,0.3nm,0.3s,mb3.6,baz=40,slow=6.1,SNR=2.9						
PV01	Paradox Valley	73.25	53	eP	P	01 56 27.1	+1.6
SCHQ	Schefferville	76.67	19	P	P	01 56 44.6	-0.1
	comp=Z,1.5nm,0.6s,mb3.8,baz=1.8,slow=17,SNR=7.0						
TXAR	Lajitas Array	82.40	56	P	P	01 57 17.2	+1.2
	comp=Z,0.3nm,0.6s,baz=290,slow=3.7,SNR=5.5						

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*ISCJB **22** 01:55:34.5±0.5, 32.18S±0.02×71.73W±0.06, h63^{km}±4^{km}, mb4.6/23, Error ellipse: s-maj=8.4km s-min=3.2km az=174.3*

*BJI **22** 01:55:34.8, 32.20S×71.60W, h43^{km}, mB4.7, Ms4.8, Msz4.7*

*GUC **22** 01:55:34.8±1.1, 32.18S×71.63W, h44^{km}±14^{km}, ML4.9*

*NEIC **22** 01:55:34.8, 32.18S×71.63W, h44^{km}, mb4.6/15, After GUC.*

NEIC Felt [V] at Papudo; [IV] at Cabildo, La Ligua, Los Molles, Petorca, Quillota and Zapallar; [III] at Puchuncavi, Quilpue, Valparaiso and Vina del Mar; [II] at Illapel, Salamanca and Santiago.

*IDC **22** 01:55:37.8±3.4, 32.16S×71.63W, h81^{km}±27^{km}, mb4.1/9, mb1 4.3/12, mb1mx4.2/17, mbtmp4.1/12, MS4.0/8, Ms1 4.0/8, ms1mx3.8/17, Error ellipse: s-maj=25.8km s-min=16.2km az=74.0*

ISC 22 01:55:35.5±0.5**, 32.18S**±0.02×**71.72W**±0.06**, h56**^{km}±4^{km}**, h51**^{km}±3.2^{km}**:pP-P, n120, σ0**^{s}**83**/120**, mb4.6**/23**, MS4.1**/9**, 14C-18D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	Los Chungos	0.35	32	⇑iP	Pn	01 55 32.5	-13
CHNG				iS	Sn	01 55 39.9	-13
CHNG				AML	AML	01 55 41.4	
	comp=N,64µm,0.6s						
PTCH	Petorca	0.68	97	⇑iP	Px	01 57 39.8	
PTCH				iS	Sx	01 57 50.0	
PTCH				AML	AML	01 57 53.6	
	comp=N,73µm,0.2s						
IHA	Instituto Hidr	0.84	175	⇓iP	Pn	01 55 50.7	-0.6
IHA				iS	Sn	01 56 02.5	-0.4
ROCH	El Roble	0.99	143	⇑iP	Pn	01 55 52.8	-0.4
CMCH	Combarbala	1.18	32	⇑iP	Pn	01 55 55.0	-0.7
CMCH				iS	Sn	01 56 10.5	-0.3
CMCH	Combarbala	1.18	32	⇑iP	Pn	01 55 55.0	-0.7
CMCH				iS	Sn	01 56 10.5	-0.3
CMCH				AML	AML	01 56 12.6	
	comp=E,276µm,0.7s						
PEL	Peldehue	1.30	138	⇑iP	Pn	01 55 57.1	-0.2
PEL				iS	Sn	01 56 13.5	-0.1
PEL				AML	AML	01 56 15.6	
	comp=E,35µm,0.3s						
RCDM	Rinconada Maip	1.51	150	⇓iP	Pn	01 55 59.8	-0.4
RCDM				iS	Sn	01 56 18.6	-0.3
RCDM	Rinconada Maip	1.51	150	⇓iP	Pn	01 55 59.8	-0.4
RCDM				iS	Sn	01 56 18.6	-0.3
RCDM				AML	AML	01 56 21.1	
	comp=E,18µm,0.1s						
STL	Santa Lucia	1.55	144	⇑iP	Pn	01 55 59.7	-1.0
STL				iS	Sn	01 56 19.7	+0.1
STL				AML	AML	01 56 21.1	
	comp=N,3µm,0.3s						
SAN	Santiago	1.55	145	⇓iP	Pn	01 56 00.6	-0.2
SAN				iS	Sn	01 56 19.4	-0.4
CLCH	Cerro Calan	1.57	141	⇓iP	Pn	01 56 01.5	+0.6
CLCH				iS	Sn	01 56 21.0	+0.8
CLCH	Cerro Calan	1.57	141	⇓iP	Pn	01 56 01.5	+0.6
CLCH				iS	Sn	01 56 21.0	+0.8
CLCH				AML	AML	01 56 22.9	
	comp=N,38µm,0.4s						
TACH	Talagante	1.61	156	⇑iP	Pn	01 56 01.5	0.0
OVCH	Ovalle	1.63	16	⇓iP	Pn	01 56 01.7	-0.2
OVCH				iS	Sn	01 56 22.3	+0.5
OVCH	Ovalle	1.63	16	⇓iP	Pn	01 56 01.7	-0.2
OVCH				iS	Sn	01 56 22.3	+0.5
OVCH				AML	AML	01 56 23.6	
	comp=N,15µm,0.6s						
FSR	Penalolen	1.64	142	⇓iP	Pn	01 56 02.0	0.0
FSR				iS	Sn	01 56 22.1	+0.2
FSR	Penalolen	1.64	142	⇓iP	Pn	01 56 02.0	0.0
FSR				iS	Sn	01 56 22.1	+0.2
FSR				AML	AML	01 56 23.6	
	comp=N,23µm,0.3s						
FCH	Farellones	1.66	134	⇓iP	Pn	01 56 02.2	0.0
FCH				iS	Sn	01 56 23.1	+0.6
FCH				AML	AML	01 56 23.9	
	comp=E,12µm,0.3s						
PCH	Pirque	1.76	145	⇑iP	Pn	01 56 03.4	-0.2
SJCH	San Jose de Ma	1.85	142	⇑iP	Pn	01 56 04.2	-0.7
SJCH				iS	Sn	01 56 26.8	-0.4
SJCH	San Jose de Ma	1.85	142	⇑iP	Pn	01 56 04.2	-0.7
SJCH				iS	Sn	01 56 26.8	-0.4
SJCH				AML	AML	01 56 27.8	
	comp=E,18µm,0.5s						
CACH	El Canelo	2.15	154	⇓iP	Pn	01 56 09.8	+0.9
TLL	Tololo Astrono	2.16	22	⇓iP	Pn	01 56 08.8	-0.2
TLL				iS	Sn	01 56 35.1	+0.5
TLL	Tololo Astrono	2.16	22	⇓iP	Pn	01 56 08.8	-0.2
TLL				iS	Sn	01 56 35.1	+0.5
TLL				AML	AML	01 56 42.0	
	comp=N,6µm,0.6s						
CICH	Cipreses	2.39	153	⇑iP	Pn	01 56 12.7	+0.5
CICH				iS	Sn	01 56 40.8	+0.5
SFDO	San Fernando	2.50	166	⇑iP	Pn	01 56 13.6	-0.1
MDZ	Mendoza	2.52	107	eP	Pn	01 56 16.0	+2.0
MDZ				e		01 56 33.8	
MDZ				iS	Sn	01 56 47.7	+4.1
NICH	Los Niches	2.84	172	⇓iP	Pn	01 56 18.4	+0.1
CFAA	Coronel Fontan	3.02	80	P	Pn	01 56 22.1	+1.3
	comp=N,7.5nm,0.3s,baz=249,slow=11,SNR=955						
CFAA				S	Sn	01 56 57.6	+1.9
	comp=N,36nm,0.3s,baz=75,slow=14,SNR=19						
TALC	Talca	3.21	179	⇓iP	Pn	01 56 17.2	-6.2
TALC				iS	Sn	01 56 53.4	-6.9
TALC	Talca	3.21	179	⇓iP	Pn	01 56 17.2	-6.2
TALC				iS	Sn	01 56 53.4	-6.9
TALC				AML	AML	01 56 59.7	
	comp=E,13µm,0.4s						
LCO	Las Campanas	3.28	16	ePn	Pn	01 56 23.7	-0.7
LCO				eSn	Sn	01 57 01.4	-0.8
VACH	Vallenar	3.69	13	eP	Pn	01 56 29.0	-1.0
VACH				iS	Sn	01 57 11.1	-1.2
VACH	Vallenar	3.69	13	eP	Pn	01 56 29.0	-1.0
VACH				iS	Sn	01 57 11.1	-1.2
VACH				AML	AML	01 57 13.2	
	comp=E,7µm,0.5s						
ARE	Arequipa	15.65	1	eP	Pn	01 59 15.0	+2.5
LPAZ	La Paz	16.16	12	eP	Pn	01 59 19.3	+0.4
LPAZ	La Paz	16.16	12	P	Pn	01 59 19.6	+0.6
	comp=E,0.6nm,0.3s,baz=180,slow=8.0,SNR=39						
LPAZ				S	S	02 02 28.1	+0.3
	comp=E,0.0nm,0.3s,baz=210,slow=8.1,SNR=2.7						
SIV	San Ignacio	18.80	33	P	Pn	01 59 48.3	-3.2
	comp=E,1.8nm,0.3s,baz=228,slow=12,SNR=60						
SIV				S	S	02 03 32.5	+11
	baz=319,slow=21,SNR=3.1						
NNA	Nana	20.64	346	eP	P	02 00 08.7	-1.8
	comp=E,9.7nm,0.8s						
NNA	Nana	20.64	346	LR	LR	02 06 41.4	
	comp=E,116nm,20.1s,MS3.2,baz=143,slow=32						
USHA	Ushuaia	22.76	175	P	P	02 00 33.3	+0.5
	comp=E,66nm,0.9s,mb5.0,baz=1.3,slow=5.9,SNR=4.4						
USHA				LR	LR	02 09 43.5	
	comp=E,359nm,19.4s,MS3.8,baz=333,slow=37						
ATAH	Atahualpa	25.82	345	LR	LR	02 09 48.1	
	comp=E,82nm,20.6s,MS3.2,baz=10,slow=33						
PAYG	Puerto Ayora	35.91	327	eP	P	02 02 31.0	+0.6
RCBR	Riachuelo	42.48	60	eP	P	02 03 25.0	-0.4
	comp=E,14nm,0.9s,mb4.6						
JTS	JuntasAbangare	44.09	341	P	P	02 03 38.9	+0.7
VNA3	Neumayer Olymp	50.94	158	eP	P	02 04 30.6	-0.2
VNA3				e	pP	02 04 43.0	-2.5
VNA3				e		02 04 50.5	
VNA1	Neumayer--Stat	51.24	158	eP	P	02 04 32.3	-0.7
VNA1				e	pP	02 04 45.2	-2.6
VNA1				e		02 04 52.4	
VNA2	Neumayer--Watz	51.59	158	eP	P	02 04 35.8	+0.2
	baz=292,slow=9.0						
VNA2				e	pP	02 04 47.1	-3.3
VNA2				e		02 04 55.2	
SNAA	Sanae	53.17	158	P	P	02 04 47.0	-0.3
	comp=E,6.3nm,0.9s,mb4.6,baz=284,slow=6.6,SNR=21						
TEIG	Tepich	54.47	341	eP	P	02 04 57.4	0.0
	comp=E,15nm,1.2s,mb4.8						
QSPA	South Pole Qui	58.05	180	eP	P	02 05 22.6	+0.4
	comp=E,6.9nm,0.8s,mb4.7						
QSPA				e	pP	02 05 34.9	-2.4
BBSR	BB Station	64.55	7	P	P	02 06 06.7	+0.1
TAOE	Nuku Hiva Isla	67.10	274	eLR	LR	02 26 48.4	
	comp=E,324nm,26.6s						
SYO	Syowa Base	67.46	159	⇓eP	P	02 06 23.4	-1.5
LTX	Lajitas	68.29	330	eP	P	02 06 31.2	+0.7
	comp=E,1.0nm,0.5s,mb4.1						
TXAR	Lajitas Array	68.29	330	P	P	02 06 30.6	0.0
	comp=E,0.5nm,0.8s,mb3.6,baz=153,slow=8.8,SNR=5.9						
SWET	Sewanee	68.36	348	eP	P	02 06 31.0	+0.1
SWET				eP		02 06 31.2	
OXF	Oxford	68.39	344	eP	P	02 06 31.6	+0.5
PPT	Papeete	70.78	261	eLR	LR	02 28 20.9	
	comp=E,153nm,29.5s						
PPT	Papeete	70.78	261	LR	LR	02 28 41.9	
	comp=E,48nm,19.2s,MS3.8,baz=109,slow=28						
WMOK	Wichita Mounta	71.26	337	P	P	02 06 49.1	+0.4
MVL	Millersville	71.95	356	eP	P	02 06 53.9	+1.2
FVM	French Village	71.95	345	eP	P	02 06 51.5	-1.3
	comp=E,15nm,1.0s,mb4.9						
BRNJ	Basking Ridge	72.55	358	P	P	02 06 56.5	+0.2
ACSO	Alum Creek Sta	72.80	351	eP	P	02 06 56.7	-1.1
	comp=E,4.0nm,0.6s,mb4.5						
ACSO				eP		02 06 57.0	
LIC	Lamto	73.95	72	eP	P	02 07 03.8	-1.4
	comp=E,109nm,1.2s,mb5.7						
TIC	Toumodi	74.20	71	eP	P	02 07 05.4	-1.3
	comp=E,155nm,1.2s						
KIC	Kosan Boka	74.26	72	eP	P	02 07 05.8	-1.3
	comp=E,192nm,0.8s						
ANMO	Albuquerque	74.33	331	eP	P	02 07 08.1	+1.2
	comp=E,3.0nm,1.1s,mb4.1						
MAW	Mawson	74.84	164	P	P	02 07 09.6	0.0
MAW	Mawson	74.84	164	LR	LR	02 37 30.6	
	comp=E,218nm,20.4s,MS4.4,baz=344,slow=34						
SUR	Sutherland	75.48	119	eP	P	02 07 14.6	+0.8
	comp=E,11nm,0.7s,mb4.9						
SDCO	Great Sand Dun	76.37	333	eP	P	02 07 20.1	+1.5
	comp=E,20nm,2.1s,mb4.7						
SDCO				e	pP	02 07 32.2	-2.0
FRNY	Flat Rock	76.67	359	eP	P	02 07 20.5	+0.5
SMCO	Snowmass	78.19	333	eP	P	02 07 30.2	+1.6
	comp=E,12nm,1.2s,mb4.7						
ISCO	Idaho Springs	78.21	334	eP	P	02 07 30.5	+1.7
TSUM	Tsumeb	79.46	106	eP	P	02 07 35.9	-0.4
	comp=E,7.0nm,0.8s,mb4.6						
SRU	San Rafael	79.56	330	eP	P	02 07 37.1	+0.8
BOSA	Boshof	80.68	118	P	P	02 07 41.9	-0.9
	comp=E,15nm,0.9s,mb4.9,baz=250,slow=6.0,SNR=15						
BOSA				pP	pP	02 07 59.0	+0.6
	comp=E,3.7nm,0.7s,baz=141,slow=0.5,SNR=2.1						
RSSD	Black Hills	81.46	337	eP	P	02 07 47.0	+0.7
	comp=E,3.6nm,1.0s,mb4.3						
HWUT	Hardware Ranch	82.09	331	eP	P	02 07 49.1	-0.6
	comp=E,3.2nm,1.0s,mb4.2						
HWUT				ePcP	PcP	02 07 55.9	+1.0
PDAR	Pinedale Array	82.27	333	P	P	02 07 50.1	-0.5
	comp=E,0.5nm,0.8s,baz=183,slow=2.7,SNR=5.5						
NVAR	Mina Array Bea	82.55	325	P	P	02 07 53.0	+0.8
	comp=E,0.8nm,0.7s,mb3.9,baz=136,slow=5.5,SNR=6.0						
LBTB	Lobatse	82.83	115	eP	P	02 07 53.5	-0.6
TOA0	Torodi Ar. Sit	83.34	70	eP	P	02 07 55.9	-0.9
TOA0				e	pP	02 08 12.5	-0.1
TORD	Torodi Ar. Bea	83.34	70	P	P	02 07 55.6	-1.2
	comp=E,15nm,0.8s,mb5.1,baz=261,slow=4.5,SNR=69						
TORD				pP	pP	02 08 11.9	-0.7
	comp=E,3.8nm,0.7s,baz=269,slow=5.6,SNR=4.6						
TORD				sP	sP	02 08 19.2	+0.5
	comp=E,4.0nm,0.7s,baz=283,slow=5.9,SNR=3.8						
MOOW	Moose Ponds	83.56	333	eP	P	02 07 58.0	+0.7
ULM	Lac du Bonnet	84.82	345	P	P	02 08 02.7	-0.8
ULM	Lac du Bonnet	84.82	345	P	P	02 08 02.7	-0.8
	comp=E,1.8nm,0.5s,mb4.5,baz=173,slow=3.3,SNR=10						
HLID	Hailey	84.89	330	eP	P	02 08 04.7	+0.7
	comp=E,2.4nm,1.0s,mb4.3						
URZ	Urewera	85.08	227	LR	LR	02 35 43.3	
	comp=E,710nm,21.3s,MS5.0,baz=10,slow=28						
DGMT	Dagmar	85.38	339	eP	P	02 08 06.5	+0.2
SCHQ	Schefferville	86.76	3	eP	P	02 08 12.6	-0.4
SCHQ				LR	LR	02 47 24.7	
SCHQ	Schefferville	86.76	3	P	P	02 08 12.2	-0.7
	comp=E,3.4nm,0.9s,mb4.6,baz=189,slow=2.2,SNR=5.1						
SCHQ				LR	LR	02 47 24.7	
	comp=E,176nm,18.7s,MS4.5,baz=92,slow=36						
WALA	Waterton Lakes	89.19	334	eP	P	02 08 25.4	+0.7
NEW	Newport	89.80	332	P	P	02 08 26.8	-0.7
NEW	Newport	89.80	332	LR	LR	02 44 29.0	
	comp=E,110nm,18.2s,MS4.3,baz=94,slow=33						
FCC	Fort Churchill	92.50	349	eP	P	02 08 39.1	-0.7
YKA	Yellowknife Ar	100.43	341	P	Pdif	02 09 14.1	-2.3
	comp=E,0.4nm,0.5s,baz=144,slow=4.3,SNR=11						
ARCES	ARCESS Array B	122.26	24	PKP	PKPdf	02 14 21.4	-1.6
ARCES	ARCESS Array B	122.26	24	PKP	PKPdf	02 14 21.4	-1.6
	comp=E,2.3nm,0.9s,baz=247,slow=2.5,SNR=7.0						
WRA	Warramunga Arr	122.47	209	PKP	PKPdf	02 14 23.7	-1.4
WRA	Warramunga Arr	122.47	209	PKP	PKPdf	02 14 23.7	-1.4
	comp=E,2.5nm,1.0s,baz=162,slow=1.5,SNR=9.7						
AML	Almayashu	150.88	60	ePKP	PKPdf	02 15 18.0	+2.1
NVS	Novosibirsk	151.25	31	⇑iP	PKPbc	02 15 21.3	-0.7
NVS				pmax	pmax		
	comp=E,11nm,1.2s						
NVS				pmax	pmax		
	comp=Z,42nm,1.2s						
ZAL	Zalesovo	152.54	31	eP	PKPbc	02 15 24.4	-0.6
ZALV	Zalesovo Beam	152.54	31	PKP	PKPdf	02 15 17.1	-1.0
ZALV				PKPbc	PKPbc	02 15 24.4	-0.6
ZALV	Zalesovo Beam	152.54	31	PKP	PKPdf	02 15 17.1	-1.0
	comp=Z,1.2nm,0.8s,baz=274,slow=3.9,SNR=6.7						
ZALV				PKPbc	PKPbc	02 15 24.4	-0.6
	comp=Z,14nm,0.5s,baz=308,slow=3.3,SNR=59						
ZALV	Zalesovo Beam	152.54	31	LR	LR	02 29 54.4	
	comp=Z,40nm,20.6s,MS4.2,baz=168,slow=38						
MKAR	Makanchi Array	155.34	46	PKPab	PKPab	02 15 46.9	-0.8
MKAR	Makanchi Array	155.34	46	PKPab	PKPab	02 15 46.9	-0.8
	comp=Z,5.7nm,0.8s,baz=296,slow=4.0,SNR=12						
SONM	Songino Array	164.30	5	PKPab	PKPab	02 16 26.1	-0.5
	comp=Z,1.8nm,1.0s,baz=1.5,slow=2.6,SNR=10.0						
HHC	Hu-ho-hao-te	170.96	344	ePKP	PKPdf	02 15 36.8	-0.4
NJ2	Nanjing	171.03	272	ePKP	PKPdf	02 15 39.9	+2.3
KMI	Kunming	171.45	144	PKP	PKPdf	02 15 38.8	+0.8
KMI	Kunming	171.45	144	P	PKPdf	02 15 38.7	+0.7
GYA	Guiyang	174.12	166	ePKP	PKPdf	02 15 38.0	-1.1
GYA				APKP		02 15 56.8	
GYA				XPKP		02 16 02.9	
GYA				PKP2	PKPab	02 17 12.0	+1.5
GYA				PKS		02 19 09.0	
GYA				PP	PP	02 21 05.0	+3.3
GYA				PP	PP		
	comp=Z,90nm,7.9s						
LZH	Lanzhou	174.65	42	ePKP	PKPdf	02 15 40.0	+1.1
LZH				APKP		02 15 50.0	
LZH				XPKP		02 15 53.5	
CD2	Chengdu	175.94	107	ePKP	PKPdf	02 15 39.9	+0.5

IDC 22 02:07:21.6±35.0**, 15.84S**×**162.53E, h0**^{km}**, mb4.0**/3**, mb1 4.2**/3**, mb1mx3.8**/13**, mbtmp4.0**/3**, Error ellipse: s-maj=580.3km s-min=89.6km az=64.0, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	24.86	226	eP	P	02 12 45.5	-0.4
	1.7nm,0.5s						
STKA	Stephens Creek	24.86	226	P	P	02 12 45.3	-0.6
	2.0nm,0.5s,baz=55,slow=7.6,SNR=9.1						
WRA	Warramunga Arr	27.12	257	P	P	02 13 06.7	+0.2
	0.9nm,0.5s,baz=86,slow=9.4,SNR=27						
ASAR	Alice Springs	28.01	249	P	P	02 13 14.9	+0.5
	0.9nm,0.4s,baz=76,slow=9.4,SNR=16						

IDC 22 02:08:53.6±16.0**, 0.11S**×**125.05E, h0**^{km}**, mb3.9**/3**, mb1 4.2**/3**, mb1mx3.6**/17**, mbtmp4.0**/3**, Error ellipse: s-maj=254.2km s-min=184.9km az=164.0, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.89	178	eP	Pn	02 13 06.0	+2.0
	2.1nm,0.3s						
WRA	Warramunga Arr	21.71	156	P	P	02 13 46.8	+0.4
	2.4nm,0.5s,baz=334,slow=10,SNR=25						
WB2	Warramunga Arr	21.72	156	eP	P	02 13 46.8	+0.3
ASAR	Alice Springs	24.95	160	P	P	02 14 18.4	-0.3
	2.7nm,0.4s,baz=346,slow=14,SNR=48						
STKA	Stephens Creek	35.26	155	P	P	02 15 50.3	+0.2
	0.6nm,0.3s,baz=327,slow=8.8,SNR=4.4						

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*TEH **22** 02:08:38.3, 31.74N×50.89E, h14^{km}, ML4.6*

*CSEM **22** 02:09:05.8±0.0, 31.70N×50.82E, h21^{km}, mb4.7/51, Ms3.5, Error ellipse: s-maj=1.8km s-min=1.5km az=34.0*

*THR **22** 02:09:05.0±0.3, 31.50N×50.94E, h18^{km}±4^{km}, ML4.4*

*NEIC **22** 02:09:07.0, 31.74N×50.89E, h14^{km}, mb4.6/56, ML4.4(THR), MN4.6(TEH), After TEH.*

*ISCJB **22** 02:09:07.2±0.8, 31.68N±0.02×50.79E±0.02, h29^{km}±6^{km}, mb4.6/99, MS3.9/7, Error ellipse: s-maj=3.9km s-min=2.7km az=21.9*

*MOS **22** 02:09:07.3±1.1, 31.66N×50.80E, h33^{km}, mb4.8/44, Error ellipse: s-maj=8.3km s-min=4.4km az=122.9*

*BJI **22** 02:09:07.0, 31.70N×50.90E, h14^{km}, mB5.1, mb4.6, Ms4.8, Msz4.6*

*IDC **22** 02:09:09.1±3.0, 31.69N×50.81E, h33^{km}±23^{km}, mb4.2/25, mb1 4.2/30, mb1mx4.2/34, mbtmp4.2/30, ML3.9/5, MS3.5/8, Ms1 3.5/8, ms1mx3.3/27, Error ellipse: s-maj=15.0km s-min=10.8km az=27.0*

ISC 22 02:09:07.8±0.8**, 31.71N**±0.02×**50.81E**±0.02**, h19**^{km}±4^{km}**, h19**^{km}±3.7^{km}**:pP-P, n409, σ1**^{s}**19**/448**, mb4.6**/98**, MS3.9**/7**, 17C-16D, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IPIR	Pirpir	0.97	4	Pg	Pg	02 09 24.2	-2.6
IPIR				Sg	Sg	02 09 37.1	-2.6
IPIR	Pirpir	0.97	4	⇑ePg	Pg	02 09 24.3	-2.5
IPIR				eSg	Sg	02 09 37.1	-2.6
IPIR				e		02 09 48.0	
	comp=Z,88µm,0.4s						
IPIR	Pirpir	0.97	4	Pg	Pg	02 09 24.2	-2.6
IKLH	Kalahroud	1.73	22	Pn	Pn	02 09 36.5	-0.4
IKLH				Sn	Sn	02 09 57.9	-0.6
IKLH	Kalahroud	1.73	22	ePn	Pn	02 09 36.6	-0.3
IKLH				eSn	Sn	02 09 58.0	-0.5
IKLH				e		02 10 11.9	
	comp=Z,44µm,0.4s						
IKLH	Kalahroud	1.73	22	Pn	Pn	02 09 36.5	-0.4
IKLH				Sn	Sn	02 09 57.9	-0.6
ISAD	Sadrabad	2.46	84	eSn	Sn	02 10 14.7	-1.7
SHI	Shiraz	2.53	144	Pn	Pn	02 09 51.1	+3.2
SHI				Sn	Sn	02 10 17.2	-1.0
SHI	Shiraz	2.53	144	ePn	Pn	02 09 51.1	+3.2
SHI				eSn	Sn	02 10 17.3	-0.9
SHI				e		02 10 43.8	
	comp=Z,28µm,0.4s						
GHVR	GHOM	2.79	8	ePn	Pn	02 09 53.6	+2.1
	SNR=52						
GHVR				eSg	Sg	02 10 37.8	+0.1
	SNR=91						
GHVR	GHOM	2.79	8	ePn	Pn	02 09 53.6	+2.1
GHVR				eSg	Sg	02 10 37.8	+0.1
ISFB	Sefidab	2.90	24	Pn	Pn	02 09 54.3	+1.4
ISFB	Sefidab	2.90	24	⇑ePn	Pn	02 09 54.3	+1.4
ISFB				e		02 10 05.0	
	comp=Z,10µm,0.4s						
ASAO	Ashtian	2.91	347	Pn	Pn	02 09 55.0	+2.0
ASAO				Sn	Sn	02 10 32.0	+4.6
ASAO	Ashtian	2.91	347	Pn	Pn	02 09 55.0	+2.0
ASAO	Ashtian	2.91	347	ePn	Pn	02 09 55.7	+2.7
ASAO				Sn	Sn	02 10 32.8	+5.4
ASAO				AML	AML	02 10 51.6	
	comp=E,710nm,0.6s						
ASAO				AML	AML	02 10 55.3	
	comp=N,1µm,0.7s						
ICHK	Chekchek	3.11	79	Pn	Pn	02 09 54.6	-1.2
ICHK	Chekchek	3.11	79	ePn	Pn	02 09 54.7	-1.1
ICHK				e		02 10 47.1	
	comp=Z,10µm,0.3s						
ICHK	Chekchek	3.11	79	Pn	Pn	02 09 54.6	-1.2
IMOK	Mook	3.12	148	Pn	Pn	02 09 55.9	-0.1
IMOK				Sn	Sn	02 10 32.1	-0.7
IMOK	Mook	3.12	148	ePn	Pn	02 09 55.9	-0.1
IMOK				eSn	Sn	02 10 32.1	-0.7
IMOK				e		02 11 14.0	
	comp=Z,21µm,0.4s						
IMOK	Mook	3.12	148	ePn	Pn	02 09 55.9	-0.1
IMEH	Mehriz	3.27	95	Pn	Pn	02 09 56.8	-1.2
IMEH	Mehriz	3.27	95	ePn	Pn	02 09 56.9	-1.1
IMEH				e		02 10 19.6	
	comp=Z,8µm,0.4s						
IMEH	Mehriz	3.27	95	Pn	Pn	02 09 56.8	-1.2
IKOM	Komasi	3.70	313	Pn	Pn	02 10 04.4	+0.4
IKOM				Sn	Sn	02 10 46.4	-0.7
IKOM	Komasi	3.70	313	ePn	Pn	02 10 04.5	+0.5
IKOM				eSn	Sn	02 10 46.4	-0.7
IKOM				e		02 11 22.2	
	comp=Z,11µm,0.4s						
IKOM	Komasi	3.70	313	Pn	Pn	02 10 04.4	+0.4
IRAZ	Razeghan	3.76	349	Pn	Pn	02 10 04.4	-0.3
IRAZ	Razeghan	3.76	349	ePn	Pn	02 10 04.4	-0.3
IRAZ				e		02 11 17.1	
	comp=Z,7µm,0.5s						
IMHD	Mahdasht	3.97	358	Pn	Pn	02 10 09.3	+1.7
IMHD	Mahdasht	3.97	358	ePn	Pn	02 10 09.3	+1.7
IMHD				e		02 10 19.1	
	comp=Z,6µm,0.3s						
DAMV	Damavand	4.03	14	Pn	Pn	02 10 10.0	+1.5
DAMV	Damavand	4.03	14	Pn	Pn	02 10 10.0	+1.5
DAMV	Damavand	4.03	14	ePn	Pn	02 10 10.5	+2.0
DAMV				AML	AML	02 11 25.2	
	comp=N,259nm,0.6s						
DAMV				AML	AML	02 11 26.0	
	comp=E,267nm,0.8s						
IBAF	Bafgh	4.06	90	Pn	Pn	02 10 10.8	+1.9
IBAF				Sn	Sn	02 10 52.5	-3.4
IBAF	Bafgh	4.06	90	⇓ePn	Pn	02 10 10.9	+2.0
IBAF				eSn	Sn	02 10 52.6	-3.3
IBAF	Bafgh	4.06	90	⇓ePn	Pn	02 10 10.9	+2.0
IBAF				eSn	Sn	02 10 52.6	-3.3
ILAS	Lasjerd	4.08	26	Pn	Pn	02 09 58.9	-10
ILAS	Lasjerd	4.08	26	ePn	Pn	02 09 58.9	-10
ILAS				e		02 11 23.9	
	comp=Z,5µm,0.3s						
CHTH	Charan	4.20	4	Pn	Pn	02 10 13.0	+2.2
CHTH				Sg	Sg	02 11 21.0	-1.6
CHTH	Charan	4.20	4	Pn	Pn	02 10 13.0	+2.2
CHTH				Sg	Sg	02 11 21.0	-1.6
CHTH	Charan	4.20	4	ePn	Pn	02 10 13.2	+2.4
CHTH				eSg	Sg	02 11 21.6	-1.0
THKV	Tehran--Karaj	4.20	1	Pn	Pn	02 10 13.0	+2.2
THKV				Sg	Sg	02 11 21.0	-1.6
THKV	Tehran--Karaj	4.20	1	Pn	Pn	02 10 13.0	+2.2

THKV				Sg	Sg	02 11 21.0	-1.6
THKV	Tehran--Karaj	4.20	1	*e*Pn	Pn	02 10 13.2	+2.5
THKV				*e*Sg	Sg	02 11 21.5	-1.1
IFIR	Firoozkooh	4.25	22	Pn	Pn	02 10 13.0	+1.6
IFIR				Sn	Sn	02 10 57.3	-3.1
IFIR	Firoozkooh	4.25	22	*e*Pn	Pn	02 10 13.1	+1.7
IFIR				*e*Sn	Sn	02 10 57.4	-3.0
IFIR	Firoozkooh	4.25	22	Pn	Pn	02 10 13.0	+1.6
IFIR				Sn	Sn	02 10 57.3	-3.1
KFJS		4.30	216	P	Pn	02 10 12.6	+0.4
KFJS		4.30	216	P	Pn	02 10 12.7	+0.4
IVIS	Veys	4.35	311	Pn	Pn	02 10 13.1	+0.3
IVIS				Sn	Sn	02 11 01.8	-1.1
IVIS	Veys	4.35	311	*e*Pn	Pn	02 10 13.1	+0.3
IVIS				*e*Sn	Sn	02 11 01.9	-1.0
IVIS				*e*		02 11 49.7	
	comp=Z,8µm,0.7s						
IGHG	Ghaleghazi	4.42	307	Pn	Pn	02 10 14.1	+0.3
IGHG				Sn	Sn	02 11 03.6	-1.0
IGHG	Ghaleghazi	4.42	307	*e*Pn	Pn	02 10 14.1	+0.3
IGHG				*e*Sn	Sn	02 11 03.7	-0.9
IGHG				*e*		02 12 07.2	
	comp=Z,10µm,0.8s						
ILIN	Laeen	4.54	316	Pn	Pn	02 10 15.5	0.0
ILIN	Laeen	4.54	316	*e*Pn	Pn	02 10 15.6	+0.1
ILIN				*e*		02 12 02.1	
	comp=Z,7µm,0.7s						
ILIN	Laeen	4.54	316	Pn	Pn	02 10 15.5	0.0
IANJ	Anjiloo	4.56	34	Pn	Pn	02 10 06.2	-10
IANJ				Sn	Sn	02 11 04.6	-3.6
IANJ	Anjiloo	4.56	34	*e*Pn	Pn	02 10 06.2	-10
IANJ				*e*Sn	Sn	02 11 04.6	-3.6
IANJ				*e*		02 11 38.3	
	comp=Z,3µm,0.4s						
ISHM	Shahmirzad	4.58	26	Pn	Pn	02 10 06.6	-9.5
ISHM	Shahmirzad	4.58	26	*e*Pn	Pn	02 10 06.6	-9.5
ISHM				*e*		02 10 40.4	
	comp=Z,5µm,0.2s						
IPRN	Paran-Amol	4.68	14	Pn	Pn	02 10 16.2	-1.2
IPRN	Paran-Amol	4.68	14	*e*Pn	Pn	02 10 16.3	-1.1
IPRN				*e*		02 10 40.9	
	comp=Z,5µm,0.3s						
IGLO	Galoogah	5.10	25	Pn	Pn	02 10 27.4	+4.2
IGLO	Galoogah	5.10	25	*e*Pn	Pn	02 10 27.5	+4.3
IGLO				*e*		02 12 10.7	
	comp=Z,5µm,0.4s						
BHD	Baghdad	5.65	288	*e*Pn	x	02 10 32.0	
BHD				*e*Pg	x	02 10 57.0	
BHD				*e*Sn	x	02 11 36.0	
BHD				*e*Sg	x	02 12 17.0	
BOQSS		5.95	193	P	Pn	02 10 34.7	-0.2
IBND		6.55	129	*e*Pn	Pn	02 10 41.8	-1.4
ITEG		6.83	78	*e*Pn	Pn	02 10 48.9	+2.0
SLWS		6.89	181	P	Pn	02 10 48.4	+0.6
IKOO		7.00	82	*e*Pn	Pn	02 10 50.5	+1.3
MRVT	Maraveh tapeh	7.36	35	*e*Pn	Pn	02 10 55.5	+1.3
	SNR=52						
MRVT	Maraveh tapeh	7.36	35	*e*Pn	Pn	02 10 55.5	+1.3
MRVT				AML	AML	02 13 34.1	
	comp=E,135nm,0.7s						
BTHS		7.63	180	P	Pn	02 10 57.2	-0.8
BTHS		7.63	180	S	Sn	02 12 17.2	-6.8
MSL	Mosul	7.87	308	*e*P	x	02 11 06.0	
MSL				*e*S	x	02 13 47.0	
HRDDS		8.83	188	S	Sn	02 12 47.5	-5.9
HRDDS		8.83	188	P	Pn	02 11 12.1	-2.3
ASF	Jabal al Asfar	11.83	276	Pn	Pn	02 11 53.6	-1.9
ASF				Sn	Sn	02 13 56.4	-10
ASF				Lg		02 15 44.5	
ASF				LR	LR	02 17 10.8	
ASF	Jabal al Asfar	11.83	276	P	Pn	02 11 53.6	-1.8
ASF				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASF				MLR	MLR		
	comp=Z,85nm,21.8s						
ASF	Jabal al Asfar	11.83	276	Pn	Pn	02 11 53.6	-1.9
	comp=Z,2.2nm,0.3s,baz=310,slow=10,SNR=23						
ASF				Sn	Sn	02 13 56.4	-10
	comp=Z,0.2nm,0.3s,baz=342,slow=20,SNR=2.6						
ASF				Lg		02 15 44.5	
	comp=Z,0.1nm,0.3s,baz=197,slow=20,SNR=2.7						
ASF				LR	LR	02 17 10.8	
	comp=Z,85nm,21.8s,baz=170,slow=41						
MALT	Malatya	12.09	306	*e*Pn	Pn	02 11 59.8	+0.8
	comp=Z,29nm,0.5s						
MALT	Malatya	12.09	306	*e*P	Pn	02 11 59.8	+0.8
MALT				pmax	pmax		
	comp=Z,29nm,0.5s						
MMAI	Mount Meron Ar	13.09	280	Pn	Pn	02 12 11.3	-1.3
	comp=Z,0.7nm,0.3s,baz=83,slow=14,SNR=5.9						
MMAI				Sn	Sn	02 14 40.7	+3.0
	comp=Z,0.6nm,0.3s,baz=92,slow=19,SNR=3.3						
MMAI				Lg		02 16 32.6	
	baz=82,slow=35,SNR=3.0						
EIL	Elat	13.79	266	Pn	Pn	02 12 21.7	-0.7
EIL				Lg		02 16 52.4	
EIL				LR	LR	02 18 50.2	
EIL	Elat	13.79	266	Pn	Pn	02 12 21.7	-0.7
	comp=Z,0.4nm,0.3s,baz=18,slow=4.4,SNR=8.9						
EIL				Lg		02 16 52.4	
	comp=Z,0.3nm,0.3s,baz=240,slow=15,SNR=3.3						
EIL				LR	LR	02 18 50.2	
	comp=Z,284nm,21.1s,baz=86,slow=42						
EIL	Elat	13.79	266	Pn	Pn	02 12 21.7	-0.7
KIV	Kislovodsk	13.80	335	*e*Pn	Pn	02 12 19.0	-3.3
	comp=Z,58nm,1.3s						
KIV	Kislovodsk	13.80	335	⇓*e*P	Pn	02 12 26.3	+4.0
KIV				*e*S	Sn	02 14 56.0	+1.1
KIV				pmax	pmax		
	comp=Z,41nm,1.3s						
KIV				MLR	MLR		
	comp=Z,200nm,20.0s						
KIV	Kislovodsk	13.80	335	*e*Pn	Pn	02 12 19.0	-3.3
	comp=Z,58nm,1.3s						
CSS	Prodhromos	14.96	287	*e*Pn	Pn	02 12 39.0	+0.7
	comp=Z,17nm,0.7s						
CSS	Prodhromos	14.96	287	*e*Pn	Pn	02 12 39.0	+0.7
	comp=Z,17nm,0.7s						
KBL	Kabul	15.54	75	*e*Pn	Pn	02 12 49.0	+3.2
CTKT	Corum	15.68	309	*i* P	Pn	02 12 53.1	+5.5
BR131	Keskin Array S	16.06	305	*e*Pn	Pn	02 12 53.5	+1.0
	comp=Z,12nm,0.7s						
BRTR	Keskin Array B	16.06	305	Pn	Pn	02 12 52.2	-0.2
BRTR	Keskin Array B	16.06	305	*i* P	Pn	02 12 53.5	+1.0
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.7s						
BRTR	Keskin Array B	16.06	305	Pn	Pn	02 12 52.2	-0.2
	comp=Z,0.2nm,0.3s,baz=116,slow=11,SNR=29						
ELDT	Eldivan	16.53	307	*i* P	Pn	02 13 02.2	+3.6
ANTO	Ankara	16.71	304	*e*P	Pn	02 13 04.1	+3.3
	comp=Z,28nm,1.0s						
ANTO	Ankara	16.71	304	*e*P	Pn	02 13 04.1	+3.3
ANTO				pmax	pmax		
	comp=Z,28nm,1.0s						
ANTO	Ankara	16.71	304	⇑*i*P	Pn	02 13 05.0	+4.2
BALT	Daday	17.05	310	*i* P	Pn	02 13 07.0	+1.9
SGKT	Sivrigoynuk	17.51	306	*i* P	Pn	02 13 12.1	+1.2
ISP	Isparta	17.75	296	*e*P	Pn	02 13 18.1	+4.3
	comp=Z,24nm,0.8s						
ISP	Isparta	17.75	296	*i* P	Pn	02 13 17.2	+3.4
ESKT	Eskisehir	17.98	301	*i* P	Pn	02 13 18.3	+1.7
SEYT	Eskypehyr	17.98	301	*i* P	Pn	02 13 18.3	+1.7
AB31	Akbulak array	18.83	19	P	Pn	02 13 25.6	-1.3
AB31				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ULDT	Uludag	19.43	302	*i* P	Pn	02 13 34.3	+0.2
AKTK	Aktyubinsk	19.46	14	P	Pn	02 13 33.8	-0.7
AKTK				LR	LR	02 23 08.2	
AKTK	Aktyubinsk	19.46	14	P	Pn	02 13 33.8	-0.7
AKTO	Aktyubinsk	19.46	14	P	Pn	02 13 33.8	-0.7
	comp=Z,0.3nm,0.3s,baz=180,slow=12,SNR=11						
AKTO				LR	LR	02 23 08.2	
	comp=Z,243nm,21.6s,baz=185,slow=43						
KARP	Karpathos	20.05	287	*e*Pn	P	02 13 44.0	+4.3
KARP	Karpathos	20.05	287	*e*PN	P	02 13 44.0	+4.3
KDAG	Bornova	20.36	296	*i* P	P	02 13 46.8	+3.7
VRHR	Novokhopersk	20.53	343	*e*P	P	02 13 44.8	0.0
VRHR				pmax	pmax		
	comp=Z,30nm,0.5s						
VRHR				pmax	pmax		
	comp=N,60nm,0.8s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.5s						
BLCB	Balcova	20.54	295	*e*P	P	02 13 48.4	+3.4
AML	Almayashu	20.99	54	*e*P	P	02 13 50.8	+0.8
	comp=E,29nm,1.0s						
AML	Almayashu	20.99	54	*e*P	P	02 13 50.8	+0.9
	comp=E,29nm,1.0s						
VORD	Divnogorie	21.05	339	*e*P	P	02 13 51.3	+0.9
VORD				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb4.5						
VORD				pmax	pmax		
	comp=N,70nm,0.6s						
VORD				pmax	pmax		
	comp=E,100nm,0.7s						
EKS2	Erkin-Say	21.25	53	*e*P	P	02 13 53.7	+1.0
	comp=E,25nm,1.4s,mb4.3						
EKS2	Erkin-Say	21.25	53	*e*P	P	02 13 53.7	+1.0
	comp=E,25nm,1.4s,mb4.3						
NPS	Neapolis	21.29	286	*e*Pn	P	02 13 54.1	+0.9
NPS	Neapolis	21.29	286	*e*PN	P	02 13 54.1	+0.9
NPS	Neapolis	21.29	286	*e*Pn	P	02 13 54.1	+0.9
VRSR	Storozhevoye	21.30	340	*e*P	P	02 13 55.3	+2.2
VRSR				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb3.8						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.4s						
VRSR				pmax	pmax		
	comp=E,9.0nm,1.9s						
CHOS	Chios island	21.30	295	*e*P	P	02 13 54.1	+0.8
ATD	Arta Tunnel	21.38	202	P	P	02 13 54.5	+0.2
	comp=E,16nm,0.9s,mb4.4,baz=283,slow=10,SNR=4.7						
LAST	Lasithi	21.40	286	*e*P	P	02 13 55.4	+1.0
LAST	Lasithi	21.40	286	P	P	02 13 57.0	+2.6
APE	Apeiranthos	21.50	291	*e*P	P	02 13 57.9	+2.4
APE	Apeiranthos	21.50	291	⇑*i*P	P	02 13 57.3	+1.8
UCH	Uchtor	21.59	54	*e*P	P	02 13 57.1	+0.8
	comp=E,16nm,0.9s,mb4.4						
UCH	Uchtor	21.59	54	*e*P	P	02 13 57.1	+0.7
	comp=E,16nm,0.9s,mb4.4						
TIRR	Tirgusor	21.66	312	⇓P	P	02 13 57.0	-0.1
TIRR	Tirgusor	21.66	312	⇓*i*P	P	02 13 57.0	-0.1
AAK	Ala-Archa	21.73	53	*e*P	P	02 13 57.6	-0.2
	comp=E,47nm,1.6s,mb4.7						
AAK	Ala-Archa	21.73	53	⇓*e*P	P	02 13 57.7	-0.2
AAK				pmax	pmax		
	comp=Z,16nm,1.8s,mb4.2						
AAK				MLR	MLR		
	comp=Z,400nm,17.0s,MS3.9						
AAK	Ala-Archa	21.73	53	*e*P	P	02 13 57.7	-0.2
	comp=Z,47nm,1.6s,mb4.7						
KSH	Kashi	21.85	62	*e*P	P	02 14 03.0	+3.8
KSH				*e*AP		02 14 12.0	
KSH				*e*PP		02 14 27.3	
KSH				*e*PPP		02 14 37.0	
KSH				*e*S	S	02 17 52.8	-6.9
KSH				*e*XS	sS	02 18 09.3	+0.7
KSH				AMB	AMB		
	comp=Z,281nm,2.6s,mb5.2						
KSH				LR	LR		
	comp=N,3µm,10.8s						
KSH				LR	LR		
	comp=E,3µm,7.0s						
KSH				LR	LR		
	comp=Z,2µm,12.4s,MS4.8						
IDI	Anoyia	21.88	286	P	P	02 14 00.4	+0.8
	comp=Z,72nm,0.9s,mb5.1,baz=103,slow=10,SNR=37						
FRU	Bishkek	21.89	53	P	P	02 13 56.0	-3.6
FRU				*e*		02 14 18.8	
ALN	Alexandroupoli	21.90	302	*e*P	P	02 13 59.8	+0.1
SIVA	Sivas	21.94	286	*e*P	P	02 14 00.6	+0.4
KHET	Khetri	21.96	93	*e*P	P	02 13 59.7	-0.8
KHET				AMb	AMB	02 14 05.6	
	comp=Z,8.5nm,0.9s,mb4.2						
SDNR	Sundarnagar	22.27	84	*e*P	P	02 14 06.6	+2.8
KUDL	Kundal	22.52	92	*e*P	P	02 14 05.7	-0.8
KUDL				AMb	AMB	02 14 11.7	
	comp=Z,41nm,0.7s,mb5.0						
TKM2	Tokmak 2	22.59	53	*e*P	P	02 14 07.5	+0.4
	comp=Z,16nm,1.3s,mb4.3						
TKM2	Tokmak 2	22.59	53	*e*P	P	02 14 07.5	+0.5
TKM2				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.3						
TKM2	Tokmak 2	22.59	53	*e*P	P	02 14 07.5	+0.5
	comp=Z,16nm,1.3s,mb4.3						
KARN	Karanos	22.68	287	*e*P	P	02 14 11.5	+3.4
KIS	Kishinev	22.74	318	*e*P	P	02 14 08.0	-0.6
KIS				*i*		02 14 25.0	
KIS				*e*		02 14 37.0	
KIS				*e*S	S	02 18 07.0	-10
KIS				*e*		02 18 17.0	
KIS	Kishinev	22.74	318	*e*P	P	02 14 08.0	-0.6
KIS				*e*pP		02 14 33.0	
KIS				*e*S	S	02 18 07.0	-10
SONA	Sohna	23.00	92	*e*P	P	02 14 12.0	+0.5
SONA				AMb	AMB	02 14 17.0	
	comp=Z,39nm,1.0s,mb4.8						
NDI	New Delhi	23.01	91	*e*P	P	02 14 11.0	-0.6
DID	Didima	23.37	292	*e*P	P	02 14 14.5	-0.8
PAIG	Paliouri	23.41	298	*e*P	P	02 14 14.7	-1.0
PLOR	Plostina	23.42	314	⇑*i*P	P	02 14 16.5	+0.7
VLI	Veliai	23.54	290	*e*Pn	P	02 14 15.1	-2.0
VLI	Veliai	23.54	290	*e*PN	P	02 14 15.1	-2.0
VLI	Veliai	23.54	290	*e*Pn	P	02 14 15.1	-2.0
LTK	Loutraki	23.64	293	*e*P	P	02 14 18.2	+0.2
PLG	Polygyros	23.68	299	*e*P	P	02 14 18.4	+0.1
MLR	Muntele Rosu	23.69	313	⇑P	P	02 14 20.4	+2.0
MLR	Muntele Rosu	23.69	313	P	P	02 14 19.9	+1.6
MLR				pmax	pmax		
	comp=Z,13nm,0.9s						
MLR	Muntele Rosu	23.69	313	P	P	02 14 19.9	+1.6
	comp=Z,12nm,0.8s,mb4.4,baz=154,slow=1.1,SNR=10						
MLR	Muntele Rosu	23.69	313	⇑*i*P	P	02 14 20.4	+2.1
HORT	Hortiatis	23.99	299	*e*P	P	02 14 21.1	0.0
HORT	Hortiatis	23.99	299	*e*P	P	02 14 21.1	0.0
AGRA	Agra	24.02	94	*e*P	P	02 14 21.7	+0.2
VLX	Vlachokerasia	24.04	291	*e*P	P	02 14 21.3	-0.3
VOIR		24.23	312	⇓P	P	02 14 24.4	+1.1
VOIR		24.23	312	⇓*i*P	P	02 14 24.4	+1.1
AGG	Agios Georgios	24.27	295	*e*P	P	02 14 23.9	+0.1
LIT	Litokhoron	24.34	298	*e*P	P	02 14 24.4	0.0
PYL	PYLOS	24.51	290	*e*P	P	02 14 26.1	+0.2
SELA	Sela	24.52	293	*e*P	P	02 14 26.3	+0.3
GRG	Griva	24.59	300	*e*P	P	02 14 32.6	+6.1
JOSI	Joshimath	24.61	85	*e*P	P	02 14 28.3	+1.4
AKASG	Malin Array Be	24.82	326	P	P	02 14 27.9	-0.6
AKASG				S	S	02 18 49.6	-0.5
AKASG				pmax	pmax		
	comp=Z,9.0nm,0.6s						
AKASG	Malin Array Be	24.82	326	*i* P	P	02 14 28.7	+0.2
AKASG				pmax	pmax		
	comp=Z,9.0nm,0.6s						
AKASG	Malin Array Be	24.82	326	P	P	02 14 27.9	-0.6
	comp=Z,8.6nm,0.6s,mb4.5,baz=137,slow=8.7,SNR=28						
AKASG				S	S	02 18 49.6	-0.5
	comp=Z,0.2nm,0.4s,baz=132,slow=16,SNR=6.0						
AKBB	Malin Array Si	24.82	326	*e*P	P	02 14 28.3	-0.3
AKBB	Malin Array Si	24.82	326	*e*P	P	02 14 28.3	-0.2
KIEV	Kiev	24.82	326	*e*P	P	02 14 28.2	-0.3
	comp=Z,16nm,0.5s,mb4.8						
KIEV	Kiev	24.82	326	*e*P	P	02 14 28.2	-0.4
KIEV				pmax	pmax		
	comp=Z,16nm,0.5s,mb4.8						
KIEV	Kiev	24.82	326	*e*P	P	02 14 28.2	-0.4
	comp=Z,16nm,0.5s,mb4.8						
BURAR	Bucovina Array	25.14	317	⇓*i*P	P	02 14 32.7	+1.1
ARU	Arti	25.30	10	*e*P	P	02 14 34.3	+1.4
	comp=Z,8.2nm,0.8s,mb4.3						
ARU	Arti	25.30	10	*d* *i*P	P	02 14 32.7	-0.2
ARU				*i*		02 14 40.1	
ARU				*e*PPP		02 15 11.3	
ARU				*e*S	S	02 18 48.7	-9.0
ARU				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.3						
ARU	Arti	25.30	10	*e*P	P	02 14 34.3	+1.4
	comp=Z,8.2nm,0.8s,mb4.3						
FNA	Florina	25.31	299	*e*P	P	02 14 33.1	-0.1
KFL	Anninata	25.36	293	*e*P	P	02 14 32.9	-0.8
OBN	Obninsk	25.48	341	*e*P	P	02 14 33.8	-0.8
	comp=Z,160nm,1.5s,mb5.3						
OBN	Obninsk	25.48	341	⇓*e*P	P	02 14 34.3	-0.2
OBN				pmax	pmax		
	comp=Z,28nm,0.7s,mb4.9						
OBN				MLR	MLR		
	comp=Z,100nm,15.0s,MS3.5						
OBN	Obninsk	25.48	341	*e*P	P	02 14 33.8	-0.7
	comp=Z,160nm,1.5s,mb5.3						
VLS	Valsamata	25.52	293	*e*Pn	P	02 14 43.9	+8.8
VLS	Valsamata	25.52	293	*e*PN	P	02 14 43.9	+8.8
LKD	Levkas	25.53	294	*e*P	P	02 14 34.5	-0.7
BRVK	Borovoye	25.57	28	*e*P	P	02 14 34.2	-1.2
	comp=Z,38nm,1.2s,mb4.8						
BRVK	Borovoye	25.57	28	*e*P	P	02 14 34.3	-1.1
BRVK				pmax	pmax		
	comp=Z,38nm,1.2s,mb4.8						
BRVK	Borovoye	25.57	28	*e*P	P	02 14 34.2	-1.2
	comp=Z,38nm,1.2s,mb4.8						
GZR	Gura Zlata	25.68	310	⇑P	P	02 14 37.8	+1.4
GZR	Gura Zlata	25.68	310	⇑*i*P	P	02 14 37.8	+1.4
MOS	Moscow	25.75	343	*e*P	P	02 14 36.7	-0.3
MOS				pmax	pmax		
	comp=Z,60nm,1.2s,mb5.0						
IGT	Igoumenitsa	25.88	296	*e*P	P	02 14 38.2	-0.2
DRGR		26.28	313	⇓P	P	02 14 42.8	+1.0
DRGR		26.28	313	⇓*i*P	P	02 14 42.8	+0.9
LVV	L’vov	26.95	320	*e*P	P	02 14 48.6	+0.7
LVV				*e*S	S	02 19 23.8	-0.2
LVV				*e*SS		02 20 40.2	
UZH	Uzhgorod	27.35	316	*e*P	P	02 14 56.3	+4.8
UZH				*i*		02 15 05.3	
UZH				*i*		02 15 10.3	
UZH				*i*		02 15 36.0	
KOLS	Kolonicke sedl	27.50	317	*e*P	P	02 14 55.2	+2.3
KOLS				*e*pP	pP	02 14 58.2	-0.5
KWP	Kalwaria	27.59	319	*e*P	P	02 14 54.5	+0.8
KWP				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.5						
KWP	Kalwaria	27.59	319	*e*P	P	02 14 54.5	+0.8
	comp=Z,8.0nm,0.6s,mb4.5						
CRVS	Cervenica-Dubn	27.96	316	*e*P	P	02 14 57.1	+0.1
CRVS				*e*pP	pP	02 15 05.1	+2.3
KURK	Kurchatov	28.00	39	*e*P	P	02 14 57.4	+0.2
	comp=Z,16nm,0.8s,mb4.7						
KURK	Kurchatov	28.00	39	⇑*e*P	P	02 14 57.3	+0.1
KURK	Kurchatov	28.00	39	*e*P	P	02 14 57.4	+0.2
	comp=Z,16nm,0.8s,mb4.7						
STHS	Stebnicka Huta	28.33	317	*e*P	P	02 15 04.9	+4.7
KECS	Kecovo	28.36	315	*e*P	P	02 15 02.5	+2.0
MK31	Makanchi Array	28.43	49	*e*P	P	02 15 02.0	+0.9
MK31	Makanchi Array	28.43	49	*e*P	P	02 15 02.0	+0.9
MKAR	Makanchi Array	28.43	49	*i* P	P	02 15 02.0	+0.9
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	28.43	49	P	P	02 15 01.1	0.0
	comp=Z,1.3nm,0.6s,mb3.7,baz=246,slow=7.6,SNR=14						
TIP	Timpagrande	28.60	295	*e*P	P	02 15 02.7	-0.1
TIP	Timpagrande	28.60	295	*e*P	P	02 15 02.7	-0.1
HYB	Hyderabad	28.87	113	*i* P	P	02 15 05.5	+0.2
HYB	Hyderabad	28.87	113	*e*P	P	02 15 05.5	+0.2
VYHS	Vyhne	29.37	314	*e*P	P	02 15 10.4	+0.9
VYHS				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.7						
VYHS	Vyhne	29.37	314	*e*P	P	02 15 10.4	+0.9
	comp=Z,1.5nm,1.2s,mb3.6						
GKN	Gorkha	29.50	88	*e*P	P	02 15 13.4	+2.5
	comp=Z,29nm,0.9s,mb5.0						
GKN	Gorkha	29.50	88	*e*P	P	02 15 13.4	+2.5
	comp=Z,29nm,0.9s,mb5.0						
OJC	Ojcow	29.53	318	*e*P	P	02 15 11.2	+0.3
SUW	Suwalki	29.78	327	*e*P	P	02 15 13.7	+0.6
KKN	Kakani	30.11	88	*e*P	P	02 15 18.5	+2.2
	comp=Z,28nm,0.8s,mb5.1						
KKN	Kakani	30.11	88	*e*P	P	02 15 18.0	+1.7
	comp=Z,28nm,0.8s,mb5.1						
OKC	Ostrava-Krasne	30.32	316	*e*P	P	02 15 18.2	+0.3
VAE	Valguarnera	30.38	291	P	P	02 15 21.3	+2.7
	comp=Z,5.0nm,0.8s,mb4.3,baz=163,slow=5.2,SNR=3.8						
MORC	Moravsky Berou	30.66	316	*e*P	P	02 15 20.3	-0.6
	comp=Z,6.5nm,0.9s,mb4.5						
MORC	Moravsky Berou	30.66	316	⇓*i*P	P	02 15 21.0	+0.2
CONA	Conrad Observa	31.02	312		P	02 15 24.9	+0.8
	comp=Z,4.9nm,1.6s,mb4.1						
VRAC	Vranov	31.05	314	P	P	02 15 23.0	-1.3
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.6s						
VRAC				MLR	MLR		
	comp=Z,137nm,21.4s						
VRAC	Vranov	31.05	314	P	P	02 15 23.0	-1.3
	comp=Z,1.6nm,0.6s,mb4.1,baz=90,slow=12,SNR=2.7						
VRAC				LR	LR	02 29 40.4	
	comp=Z,137nm,21.4s,MS3.6,baz=114,slow=40						
WMQ	Urumqi	31.32	57	*e*P	P	02 15 27.8	+1.0
VSU	Vasula	31.35	336	*i* P	P	02 15 27.4	+0.5
AQU	L’Aquila	31.47	300	*e*P	P	02 15 30.1	+2.0
	comp=Z,9.2nm,1.0s,mb4.6						
AQU	L’Aquila	31.47	300	*e*P	P	02 15 30.1	+2.0
AQU				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
AQU	L’Aquila	31.47	300	*e*P	P	02 15 30.1	+2.0
	comp=Z,9.2nm,1.0s,mb4.6						
DPC	Dobruska-Polom	31.60	316	*e*P	P	02 15 33.5	+4.3
TREC	Trest	31.72	314	*e*pP	pP	02 15 35.9	-0.2
UPC	Upice	31.85	316	*e*P	P	02 15 35.2	+3.9
ODAN	Odare	32.17	89	*e*P	P	02 15 36.4	+1.9
	comp=Z,15nm,0.8s,mb4.9						
ODAN	Odare	32.17	89	*e*P	P	02 15 35.9	+1.4
	comp=Z,15nm,0.8s,mb4.9						
TAPN	Taplejung	32.30	88	*e*P	P	02 15 36.7	+1.1
	comp=Z,6.8nm,0.4s,mb4.8						
TAPN	Taplejung	32.30	88	*e*P	P	02 15 38.2	+2.6
	comp=Z,6.8nm,0.4s,mb4.8						
KBA	Koelnbreinsper	32.41	309	⇑*i*P	P	02 15 37.2	+0.9
	comp=Z,11nm,1.1s,mb4.6						
KBA	Koelnbreinsper	32.41	309	⇑*i*P	P	02 15 37.2	+0.8
KBA				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.6						
PRU	Pruhonice	32.53	315	*e*P	P	02 15 45.8	+8.4
GERES	GERESS Array B	32.68	312	P	P	02 15 38.3	-0.3
GERES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
GERES	GERESS Array B	32.68	312	P	P	02 15 38.3	-0.4
	comp=Z,1.4nm,0.8s,mb3.9,baz=108,slow=7.6,SNR=12						
KHC	Kasperske Hory	32.84	313	*e*P	P	02 15 43.4	+3.3
KHC	Kasperske Hory	32.84	313	⇑*e*P	P	02 15 42.0	+1.9
KHC	Kasperske Hory	32.84	313	*e*P	P	02 15 40.0	-0.1
KHC				*e*x	x	02 15 43.4	
TMCR	Tamitsa	33.45	350	*e*P	P	02 15 38.9	-6.3
TMCR				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.1						
JOF	Joensuu	33.62	344	*e*p	P	02 15 45.7	-0.9
	comp=Z,4.9nm,0.5s,mb4.7						
JOF	Joensuu	33.62	344	*e*P	P	02 15 45.7	-0.9
JOF				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
WATA	Walderalm	33.65	309	⇑*i*P	P	02 15 47.2	+0.1
	comp=Z,8.5nm,1.2s,mb4.5						
WATA	Walderalm	33.65	309	⇑*i*P	P	02 15 47.3	+0.2
WATA				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
WATA	Walderalm	33.65	309	P	P	02 15 47.2	+0.1
	comp=Z,8.5nm,1.2s,mb4.5						
FINES	FINESS Array B	33.83	339	*i* P	P	02 15 48.2	-0.3
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FINES	FINESS Array B	33.83	339	P	P	02 15 47.8	-0.8
	comp=Z,2.1nm,0.4s,mb4.5,baz=144,slow=11,SNR=21						
SQTA	Sankt Quirin	33.86	309	⇑*i*P	P	02 15 47.6	-1.4
	comp=Z,5.7nm,0.9s,mb4.5						
SQTA	Sankt Quirin	33.86	309	⇑*i*P	P	02 15 47.6	-1.4
SQTA				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
CLL	Collm	33.91	316	*i* P	pP	02 15 54.6	-0.7
CLL	Collm	33.91	316	*i* pP	pP	02 15 54.6	-0.7
KAF	Kangasniemi	34.28	340	*e*p	P	02 15 51.8	-0.6
	comp=Z,1.0nm,0.4s,mb4.1,baz=139,slow=9.0						
KAF	Kangasniemi	34.28	340	*e*P	P	02 15 51.8	-0.6
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
KEST	Kesra	34.53	288	P	P	02 15 55.9	+0.9
	comp=Z,2.1nm,0.9s,mb4.1,baz=208,slow=3.2,SNR=5.9						
LSA	Lhasa	34.61	83	*e*P	P	02 15 56.4	+0.7
	comp=Z,4.9nm,0.8s,mb4.5						
LSA	Lhasa	34.61	83	*e*P	P	02 15 56.4	+0.7
LSA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
LSA	Lhasa	34.61	83	*e*P	P	02 15 56.4	+0.7
	comp=Z,4.9nm,0.8s,mb4.5						
DAVA	Damuels	34.76	309	⇓*i*P	P	02 15 55.6	-1.2
	comp=Z,8.1nm,0.5s,mb4.9						
SBF	Sospel	35.97	302	*e*P	P	02 16 05.1	-2.1
	comp=Z,40nm,0.9s,mb5.1						
SBF	Sospel	35.97	302	*e*P	P	02 16 05.1	-2.1
SBF				pmax	pmax		

	comp=Z,20nm,0.9s,mb5.0						
SBF	Sospel	35.97	302	eP	P	02 16 05.1	-2.1
	comp=Z,20nm,0.9s,mb5.1						
SHL	Shillong	36.41	89	eP	P	02 16 10.0	-1.2
MBDF	Montbardon	36.52	304	eP	P	02 16 10.6	-1.4
	comp=Z,18nm,0.7s,mb4.7						
MBDF	Montbardon	36.52	304	eP	P	02 16 10.6	-1.4
MBDF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.7						
MBDF	Montbardon	36.52	304	eP	P	02 16 10.6	-1.4
	comp=Z,9.1nm,0.7s,mb4.7						
LPG	La Plagne	36.62	305	eP	P	02 16 10.6	-2.1
	comp=Z,22nm,0.8s,mb4.8						
LPG	La Plagne	36.62	305	eP	P	02 16 10.6	-2.1
LPG				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
LPG	La Plagne	36.62	305	eP	P	02 16 10.6	-2.1
	comp=Z,11nm,0.8s,mb4.8						
BNI	Bardonecchia	36.62	304	eP	P	02 16 11.3	-1.5
	comp=Z,18nm,0.9s,mb4.9						
BNI	Bardonecchia	36.62	304	eP	P	02 16 11.3	-1.5
BNI				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.9						
BNI	Bardonecchia	36.62	304	eP	P	02 16 11.3	-1.5
	comp=Z,18nm,0.9s,mb4.9						
LPL	La Plagne	36.63	305	eP	P	02 16 10.9	-2.0
	comp=Z,21nm,0.8s,mb4.7						
LPL	La Plagne	36.63	305	eP	P	02 16 10.9	-2.0
LPL				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
LPL	La Plagne	36.63	305	eP	P	02 16 10.9	-2.0
	comp=Z,11nm,0.8s,mb4.7						
ORIF	Oris-en-Rattie	37.17	304	eP	P	02 16 15.5	-2.0
	comp=Z,18nm,1.0s,mb4.5						
ORIF	Oris-en-Rattie	37.17	304	eP	P	02 16 15.5	-2.0
ORIF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
ORIF	Oris-en-Rattie	37.17	304	eP	P	02 16 15.5	-2.0
	comp=Z,9.0nm,1.0s,mb4.5						
CABF	La Chapelle	37.21	307	eP	P	02 16 16.5	-1.3
	comp=Z,50nm,1.1s,mb5.0						
CABF	La Chapelle	37.21	307	eP	P	02 16 16.5	-1.3
CABF				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.0						
CABF	La Chapelle	37.21	307	eP	P	02 16 16.5	-1.3
	comp=Z,25nm,1.1s,mb5.0						
HAU	Haudompre	37.24	309	eP	P	02 16 16.4	-1.6
HFS	Hagfors	37.53	330	P	P	02 16 19.8	-0.5
HFS				pmax	pmax		
	comp=Z,32nm,0.7s						
HFS	Hagfors	37.53	330	P	P	02 16 19.8	-0.6
	comp=Z,32nm,0.7s,mb5.2,baz=124,slow=9.2,SNR=81						
MEZF	Maizieres J'vi	38.18	310	eP	P	02 16 24.1	-1.8
	comp=Z,25nm,1.1s,mb4.6						
MEZF	Maizieres J'vi	38.18	310	eP	P	02 16 24.1	-1.8
	comp=Z,13nm,1.1s,mb4.6						
SMF	Signal de Mont	38.75	306	eP	P	02 16 28.9	-1.9
	comp=Z,48nm,1.2s,mb4.8						
SMF	Signal de Mont	38.75	306	eP	P	02 16 28.9	-1.9
SMF				pmax	pmax		
	comp=Z,24nm,1.2s,mb4.8						
SMF	Signal de Mont	38.75	306	eP	P	02 16 28.9	-1.9
	comp=Z,24nm,1.2s,mb4.8						
SSF	Saint Saulge	39.02	307	eP	P	02 16 31.4	-1.7
	comp=Z,27nm,1.2s,mb4.5						
SSF	Saint Saulge	39.02	307	eP	P	02 16 31.4	-1.7
SSF				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.6						
SSF	Saint Saulge	39.02	307	eP	P	02 16 31.4	-1.7
	comp=Z,14nm,1.2s,mb4.5						
NB2	NORSAR Subarra	39.05	331	P	P	02 16 31.8	-1.3
	comp=Z,17nm,0.8s,mb4.8,baz=120,slow=8.6						
NOA	NORSAR Array B	39.05	331	P	P	02 16 31.9	-1.2
NOA				pmax	pmax		
	comp=Z,12nm,0.7s						
NOA				MLR	MLR		
	comp=Z,51nm,21.1s						
NOA	NORSAR Array B	39.05	331	P	P	02 16 31.9	-1.2
	comp=Z,12nm,0.7s,mb4.8,baz=121,slow=8.3,SNR=31						
NAO01	NORSAR Array S	39.09	330	eP	P	02 16 32.5	-0.9
	comp=Z,10nm,0.7s,mb4.7						
NAO01	NORSAR Array S	39.09	330	eP	P	02 16 32.5	-0.9
	comp=Z,10nm,0.7s,mb4.7						
AVF	Avril sur Loir	39.10	307	eP	P	02 16 31.6	-2.1
	comp=Z,21nm,1.1s,mb4.5						
AVF	Avril sur Loir	39.10	307	eP	P	02 16 31.6	-2.1
AVF				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.5						
AVF	Avril sur Loir	39.10	307	eP	P	02 16 31.6	-2.1
	comp=Z,11nm,1.1s,mb4.5						
ETOS	Mallorca	39.39	296	P	P	02 16 35.4	-0.8
	comp=Z,31nm,1.9s,mb4.7						
ETOS	Mallorca	39.39	296	P	P	02 16 35.4	-0.8
	comp=Z,31nm,1.9s,mb4.7						
KEV	Kevo	40.38	347	ep	P	02 16 43.4	-0.6
ARCES	ARCESS Array B	40.48	347	P	P	02 16 44.4	-0.5
ARCES						02 18 18.2	
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ARCES	ARCESS Array B	40.48	347	P	P	02 16 44.4	-0.5
	comp=Z,2.8nm,0.7s,mb4.1,baz=160,slow=7.6,SNR=13						
ARCES				PP	PP	02 18 18.2	+0.1
	comp=Z,2.9nm,0.8s,baz=146,slow=8.8,SNR=3.7						
ARCES	ARCESS Array B	40.48	347	PP	PP	02 18 18.1	+0.1
ERTA	Horta de San J	41.20	298	P	P	02 16 51.2	0.0
	comp=Z,34nm,1.1s,mb4.9						
ERTA	Horta de San J	41.20	298	P	P	02 16 51.2	0.0
	comp=Z,34nm,1.1s,mb4.9						
EMOS	Mosqueruela	41.86	297	P	P	02 16 57.3	+0.7
	comp=Z,22nm,1.0s,mb4.8						
EMOS	Mosqueruela	41.86	297	P	P	02 16 57.3	+0.7
	comp=Z,22nm,1.0s,mb4.8						
ZAK	Zakamensk	42.76	48	eP	P	02 17 03.5	-0.3
ETOB	Tobarra	42.87	294	P	P	02 17 05.4	+0.5
	comp=Z,8.8nm,0.7s,mb4.6						
ETOB	Tobarra	42.87	294	P	P	02 17 05.4	+0.6
	comp=Z,8.8nm,0.7s,mb4.6						
ETOR	Torete	43.02	298	P	P	02 17 06.3	+0.2
	comp=Z,5.3nm,0.7s,mb4.4						
ETOR	Torete	43.02	298	P	P	02 17 06.3	+0.3
ETOR				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.3						
ETOR	Torete	43.02	298	P	P	02 17 06.3	+0.3
	comp=Z,5.3nm,0.7s,mb4.4						
QUIF	Quistinic	43.59	308	eP	P	02 17 09.0	-1.6
EVIA	Vianos	43.61	294	P	P	02 17 11.0	+0.1
	comp=Z,5.1nm,0.5s,mb4.5						
EVIA	Vianos	43.61	294	P	P	02 17 11.0	+0.2
EVIA				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.5						
EVIA	Vianos	43.61	294	P	P	02 17 11.0	+0.2
	comp=Z,5.1nm,0.5s,mb4.5						
LZH	Lanzhou	43.80	69	eP	P	02 17 13.0	+0.6
LZH				AP	pP	02 17 19.5	+1.1
LZH				XP	sP	02 17 23.0	+2.2
LZH				AMB	AMB		
	comp=Z,16nm,1.0s,mb4.7						
EQES	Quesada	44.17	293	P	P	02 17 16.1	+0.7
	comp=Z,11nm,0.8s,mb4.7						
EQES	Quesada	44.17	293	P	P	02 17 16.1	+0.7
	comp=Z,11nm,0.8s,mb4.7						
ESDC	Sonseca Array	44.60	296	P	P	02 17 18.1	-0.7
	comp=Z,0.9nm,0.5s,mb3.9						
ESDC	Sonseca Array	44.60	296	P	P	02 17 18.1	-0.7
	comp=Z,2.3nm,0.8s,mb4.1,baz=71,slow=8.0,SNR=8.2						
ECOG	Cogollos-Vega	44.65	293	P	P	02 17 18.7	-0.4
	comp=Z,1.5nm,0.3s,mb4.3						
ECOG	Cogollos-Vega	44.65	293	P	P	02 17 18.7	-0.5
ECOG				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.4						
ECOG	Cogollos-Vega	44.65	293	P	P	02 17 18.7	-0.5
	comp=Z,1.5nm,0.3s,mb4.3						
SONM	Songino Array	44.68	52	P	P	02 17 19.3	0.0
SONM						02 19 02.7	
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,112nm,18.8s						
SONM	Songino Array	44.68	52	P	P	02 17 19.3	0.0
	comp=Z,0.9nm,0.8s,mb3.7,baz=276,slow=8.8,SNR=6.4						
SONM				PP	PP	02 19 02.7	-0.9
	comp=Z,0.6nm,0.8s,baz=284,slow=5.8,SNR=3.1						
SONM				LR	LR	02 38 32.3	
	comp=Z,112nm,18.8s,MS3.8,baz=115,slow=40						
CD2	Chengdu	44.87	76	eP	P	02 17 21.5	+0.4
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.7						
CD2				AMB	AMB		
	comp=Z,30nm,5.2s						
CHTO	Chiang Mai	45.06	95	eP	P	02 17 22.2	-0.5
	comp=Z,5.0nm,0.9s,mb4.3						
CHTO	Chiang Mai	45.06	95	eP	P	02 17 22.2	-0.4
CHTO				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.3						
CHTO	Chiang Mai	45.06	95	eP	P	02 17 22.2	-0.4
	comp=Z,5.0nm,0.9s,mb4.3						
EMIJ	Mijas	45.72	292	P	P	02 17 26.7	-1.0
	comp=Z,19nm,0.8s,mb5.1						
EMIJ	Mijas	45.72	292	P	P	02 17 26.7	-1.0
	comp=Z,19nm,0.8s,mb5.1						
KMI	Kunming	45.80	85	P	P	02 17 31.3	+2.8
KMI				AMB	AMB		
	comp=Z,15nm,1.2s,mb4.8						
KMI	Kunming	45.80	85	P	P	02 17 31.2	+2.7
EJIF	Jimena Fronter	46.30	292	P	P	02 17 32.6	+0.3
	comp=Z,2.9nm,0.5s,mb4.5						
EJIF	Jimena Fronter	46.30	292	P	P	02 17 32.6	+0.4
EJIF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
EJIF	Jimena Fronter	46.30	292	P	P	02 17 32.6	+0.4
	comp=Z,2.9nm,0.5s,mb4.5						
MDT	Midelt	46.41	287	P	P	02 17 32.7	-0.6
	comp=Z,2.8nm,0.8s,mb4.2,baz=95,slow=11,SNR=3.3						
ESPR	Espera	46.52	293	P	P	02 17 33.6	-0.4
	comp=Z,5.7nm,0.6s,mb4.7						
EMIN	Mina Concepcio	46.99	294	P	P	02 17 38.9	+1.2
	comp=Z,5.5nm,0.6s,mb4.7						
EMIN	Mina Concepcio	46.99	294	P	P	02 17 38.9	+1.2
	comp=Z,5.5nm,0.6s,mb4.7						
XAN	Xi'an	48.30	71	P	P	02 17 49.5	+1.6
XAN				AMB	AMB		
	comp=Z,2.0nm,0.8s,mb4.2						
TOA0	Torodi Ar. Sit	48.57	259	eP	P	02 17 49.1	-1.1
TORD	Torodi Ar. Bea	48.57	259	P	P	02 17 49.4	-0.8
	comp=Z,22nm,0.8s,mb5.2,baz=58,slow=6.0,SNR=51						
HHC	Hu-ho-hao-te	48.96	61	eP	P	02 17 53.4	+0.5
HHC				AP	pP	02 17 57.8	-1.1
HHC				XP	sP	02 18 00.1	-1.2
HHC				PP	PP	02 19 45.9	-0.3
HHC				PCS	PcS	02 23 13.3	+0.2
HHC				S	S	02 24 55.3	-0.7
HHC				SCS	ScS	02 27 42.3	-1.9
HHC				SS	SS	02 28 20.3	-6.4
HHC				AMB	AMB		
	comp=Z,2.0nm,0.6s,mb4.3						
HHC				AMB	AMB		
	comp=Z,274nm,7.9s						
HHC				LR	LR		
	comp=N,240nm,19.0s,MS4.4						
HHC				LR	LR		
	comp=E,283nm,17.2s,MS4.4						
HHC				LR	LR		
	comp=Z,337nm,14.9s,MS4.5						
BOD	Bodaibo	49.65	39	eP	P	02 17 57.1	-0.8
BOD				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
PSI	Prapat	53.58	112	P	P	02 18 28.3	+0.4
PSI	Prapat	53.58	112	P	P	02 18 28.3	+0.4
PSI				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
PSI	Prapat	53.58	112	P	P	02 18 28.3	+0.4
	comp=Z,5.1nm,0.5s,mb4.7,baz=321,slow=6.4,SNR=7.1						
TIXI	Tiksi	56.50	22	eP	P	02 18 45.8	-2.3
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.3						
NJ2	Nanjing	56.85	70	eP	P	02 18 51.3	0.0
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb5.0						
KIC	Kosan Boka	57.53	256	eP	P	02 18 55.3	-1.0
	comp=Z,103nm,0.9s						
TIC	Toumodi	57.61	257	eP	P	02 18 56.9	+0.1
	comp=Z,54nm,0.9s,mb5.6						
LIC	Lamto	57.84	256	eP	P	02 18 58.3	-0.2
	comp=Z,39nm,0.8s,mb5.2						
LIC	Lamto	57.84	256	eP	P	02 18 57.6	-0.9
	comp=Z,58nm,0.8s,mb5.6						
LIC	Lamto	57.84	256	eP	P	02 18 58.3	-0.2
	comp=Z,20nm,0.8s,mb5.2						
LBTB	Lobatse	61.33	206	eP	P	02 19 22.0	-0.2
	comp=Z,5.0nm,0.8s,mb4.7						
LBTB	Lobatse	61.33	206	eP	P	02 19 22.0	-0.2
LBTB				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
LBTB	Lobatse	61.33	206	eP	P	02 19 22.0	-0.2
	comp=Z,5.0nm,0.8s,mb4.7						
KSRS	Korea Array	62.10	61	P	P	02 19 26.4	-1.0
	comp=Z,3.6nm,0.7s,mb4.6,baz=278,slow=6.9,SNR=9.3						
KSRS				LR	LR	02 50 44.7	
	comp=Z,49nm,20.3s,MS3.6,baz=298,slow=40						
BOSA	Boshof	64.73	205	P	P	02 19 44.0	-0.7
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
BOSA	Boshof	64.73	205	P	P	02 19 44.0	-0.8
	comp=Z,2.1nm,0.5s,mb4.4,baz=12,slow=12,SNR=4.3						
BILL	Bilibino	69.71	21	eP	P	02 20 16.2	+0.4
	comp=Z,3.5nm,0.8s,mb4.3						
BILL	Bilibino	69.71	21	⇓iP	P	02 20 16.1	+0.2
BILL				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.3						
BILL	Bilibino	69.71	21	eP	P	02 20 16.2	+0.3
	comp=Z,3.5nm,0.8s,mb4.3						
SCHQ	Schefferville	78.59	328	P	P	02 21 07.3	-0.6
SCHQ	Schefferville	78.59	328	P	P	02 21 07.3	-0.6
	comp=Z,3.3nm,1.0s,mb4.2,baz=42,slow=14,SNR=3.0						
FCC	Fort Churchill	85.24	342	eP	P	02 21 42.8	-0.1
	comp=Z,12nm,1.5s,mb4.8						
FCC	Fort Churchill	85.24	342	eP	P	02 21 42.8	0.0
FCC				pmax	pmax		
	comp=Z,12nm,1.5s,mb4.8						
FCC	Fort Churchill	85.24	342	eP	P	02 21 42.8	0.0
	comp=Z,12nm,1.5s,mb4.8						
YKA	Yellowknife Ar	85.40	353	P	P	02 21 42.7	-0.8
YKA	Yellowknife Ar	85.40	353	P	P	02 21 42.7	-0.8
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	85.40	353	P	P	02 21 42.7	-0.8
	comp=Z,0.8nm,0.7s,mb4.0,baz=11,slow=5.4,SNR=15						
FITZ	Fitzroy Crossi	87.10	113	eP	P	02 21 54.5	+1.9
	comp=Z,6.0nm,0.9s,mb4.8						
FITZ	Fitzroy Crossi	87.10	113	P	P	02 21 53.0	+0.4
	comp=Z,2.4nm,0.8s,mb4.5,baz=225,slow=7.1,SNR=4.9						
KAKA	Kakadu	89.62	105	eP	P	02 22 04.7	0.0
	comp=Z,8.2nm,0.7s,mb5.2						
ULM	Lac du Bonnet	93.22	339	P	P	02 22 19.9	-0.9
ULM	Lac du Bonnet	93.22	339	P	P	02 22 19.9	-0.9
	comp=Z,0.6nm,0.5s,mb4.2,baz=42,slow=5.1,SNR=3.0						
WRA	Warramunga Arr	94.99	110	P	P	02 22 27.3	-2.1
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
WRA	Warramunga Arr	94.99	110	P	P	02 22 27.3	-2.1
	comp=Z,0.5nm,0.9s,mb4.0,baz=318,slow=3.9,SNR=3.4						
ASAR	Alice Springs	96.60	114	P	P	02 22 33.9	-2.7
	comp=Z,0.3nm,0.5s,mb4.0,baz=307,slow=5.4,SNR=3.1						

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*IDC **22** 02:14:08.0±1.2, 34.75N×73.89E, h0^{km}, mb3.5/5, mb1 3.6/7, mb1mx3.4/23, mbtmp3.5/7, ML3.3/2, Error ellipse: s-maj=33.6km s-min=27.9km az=71.0*

*ISCJB **22** 02:14:13.4±0.9, 34.93N±0.05×73.7E±0.1, h46^{km}±12^{km}, mb3.4/4, Error ellipse: s-maj=15.7km s-min=6.9km az=157.4*

*NEIC **22** 02:14:14.2±2.1, 34.72N×73.80E, h46^{km}±17^{km}, Error ellipse: s-maj=26.0km s-min=14.5km az=142.0*

ISC 22 02:14:14.8±0.7, **34.83N**±0.06×**73.8E**±0.1, **h48**^{km}±11^{km}**, n20, σ1^{s}.15**/21**, mb3.4**/4**, 1C-1D, Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THN	Thein Dam	2.90	145	eP	Pn	02 15 00.7	+2.3
THN				eS	Sn	02 15 36.7	+4.7
DLH	Dalhousie	2.94	140	eP	Pn	02 15 00.0	+1.0
DLH				eS	Sn	02 15 31.0	-2.0
KBL	Kabul	3.89	267	ePn	Pn	02 15 11.3	-0.7
SDNR	Sundarnagar	4.28	140	ex	x	02 15 22.2	
SMLA	Simla	4.68	141	eP	Pn	02 15 22.5	-0.4
SMLA				ex	x	02 16 34.3	
KHET	Khetri	6.96	165	eS	Sn	02 17 16.9	+4.9
KHET				AML	AML	02 17 59.6	
	comp=E,7.7nm,0.1s						
KHET				AML	AML	02 17 59.8	
	comp=N,6.2nm,0.3s						
KUDL	Kundal	7.07	160	ex	x	02 17 34.6	
KUDL				AML	AML	02 18 01.8	
	comp=E,8.4nm,0.4s						
KUDL				AML	AML	02 18 03.0	
	comp=N,4.7nm,0.2s						
SONA	Sohna	7.15	156	eS	Sn	02 17 12.7	-4.0
SONA				AML	AML	02 17 20.8	
	comp=E,14nm,0.2s						
SONA				AML	AML	02 17 20.9	
	comp=N,7.9nm,0.1s						
EKS2	Erkin-Say	7.82	0	ePn	Pn	02 16 08.3	+2.5
KK31	Karatay Array	8.63	344	⇑Pn	Pn	02 16 16.7	-0.3
	comp=N,2.4nm,0.6s,baz=160,slow=12						
KK31				⇓Sn	Sn	02 17 51.5	-1.5
	comp=N,2.0nm,0.3s,baz=164,slow=21						
MKAR	Makanchi Array	13.57	26	Pn	Pn	02 17 25.0	+0.5
MKAR	Makanchi Array	13.57	26	Pn	Pn	02 17 25.0	+0.5
	comp=N,0.1nm,0.3s,baz=208,slow=11,SNR=2.5						
AKTK	Aktyubinsk	19.36	328	P	Pn	02 18 37.6	0.0
AKTO	Aktyubinsk	19.36	328	P	Pn	02 18 37.6	0.0
	comp=N,0.2nm,0.3s,baz=118,slow=13,SNR=5.2						
ZALV	Zalesovo Beam	20.64	19	P	P	02 18 48.9	-1.1
	comp=N,0.9nm,0.3s,baz=206,slow=9.8,SNR=4.2						
ARCES	ARCESS Array B	43.54	338	P	P	02 22 14.3	+1.0
ARCES	ARCESS Array B	43.54	338	P	P	02 22 14.3	+1.0
	comp=N,0.5nm,0.6s,mb3.5,baz=86,slow=5.3,SNR=4.3						
TORD	Torodi Ar. Bea	67.96	271	P	P	02 25 09.9	+0.8
	comp=N,0.4nm,0.7s,mb3.6,baz=38,slow=5.5,SNR=4.8						
WRA	Warramunga Arr	79.20	123	P	P	02 26 14.9	0.0
	comp=N,0.3nm,0.8s,mb3.3,baz=318,slow=4.8,SNR=2.5						
YKA	Yellowknife Ar	82.78	4	P	P	02 26 32.5	-0.8
	comp=N,0.1nm,0.3s,mb3.3,baz=344,slow=5.2,SNR=3.2						

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*DDA **22** 02:18:16.5, 38.70N×39.19E, h7^{km}±7^{km}, Md2.8*

*ISCJB **22** 02:18:20.3±0.7, 38.45N±0.04×39.25E±0.03, h2^{km}±8^{km}, Error ellipse: s-maj=7.4km s-min=4.6km az=4.8*

*CSEM **22** 02:18:20.0±0.1, 38.43N×39.26E, h2^{km}, MD2.8, Error ellipse: s-maj=2.8km s-min=2.4km az=118.0*

*ISK **22** 02:18:20.4, 38.42N×39.21E, h3^{km}, MD2.7*

ISC 22 02:18:21.0±0.6, **38.46N**±0.04×**39.23E**±0.04, **h9**^{km}±7^{km}**, n18, σ0^{s}.83**/24**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.20	282	iP	Pg	02 18 20.8	-4.4
ELZG				iS	Sg	02 18 25.7	-2.2
PTK	Pertek	0.45	16	PG	Pg	02 18 30.6	+0.8
PTK	Pertek	0.45	16	ePg	Pg	02 18 30.6	+0.8
MYA	Malataya	0.65	259	PG	Pg	02 18 33.6	+0.1
MYA				SG	Sg	02 18 43.1	+1.2
MYA	Malataya	0.65	259	ePg	Pg	02 18 33.6	+0.1
MALT	Malatya	0.65	258	PG	Pg	02 18 32.4	-1.1
MALT				SG	Sg	02 18 42.1	+0.1
MALT	Malatya	0.65	258	ePg	Pg	02 18 32.4	-1.1
DIYA	Diyarbakir	0.88	127	iP	Pg	02 18 37.7	-0.1
DIYA				iS	Sg	02 18 49.8	+0.5
DIY	Diyarbakir	0.96	125	PG	Pg	02 18 38.8	-0.6
DIY	Diyarbakir	0.96	125	ePg	Pg	02 18 38.8	-0.6
URFA	Urfa	1.06	198	ePG	Pg	02 18 41.5	+0.1
URFA	Urfa	1.06	198	ePg	Pg	02 18 41.5	+0.1
BINT	Bingol	1.07	66	PN	Pn	02 18 42.8	+0.7
BINT	Bingol	1.07	66	ePn	Pn	02 18 42.8	+0.7
ATAB	Bozova	1.23	217	iP	Pb	02 18 45.0	+0.6
ATAB				iS	Sg	02 19 01.4	+0.8
EZC	Erzincan	1.37	19	ePN	Pn	02 18 46.7	+0.5
MARD	Mardin	1.67	133	iP	Pn	02 18 50.1	-0.2
MARD				iS	Sn	02 19 10.6	-1.3
BTMT	Batman	1.79	98	ePN	Pn	02 18 51.7	-0.3

MAN 22 02:21:01, 8.45N×122.87E, h93^{km}, mb4.1, ML2.9, MS2.6, 1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAGZ	Pagadian	0.78	139	eP	Pn	02 21 20.4	+1.8
PAGZ				eS	Sn	02 21 34.2	+2.4
SNPH	Sibulan	0.96	22	⇓eP	Pn	02 21 21.5	+1.0
SNPH				iS	Sn	02 21 36.5	+1.4
TBP	Tagbilaran	1.58	38	eP	Pn	02 21 32.0	+4.1
GUIM	Jordan	2.18	353	eP	Pn	02 21 36.8	+1.0
MATI	Mati	3.67	114	eP	Pn	02 21 57.4	+1.6

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*CSEM **22** 02:53:47.8±0.1, 38.37N×39.25E, h5^{km}, MD2.7, Error ellipse: s-maj=2.4km s-min=2.0km az=139.0*

*ISK **22** 02:53:47.4, 38.37N×39.18E, h5^{km}, MD3.0*

*ISCJB **22** 02:53:48.5±0.4, 38.35N±0.04×39.22E±0.03, h5^{km}, Error ellipse: s-maj=5.2km s-min=3.3km az=12.6*

*DDA **22** 02:53:48.7, 38.33N×39.20E, h7^{km}±6^{km}, Md2.7*

ISC 22 02:53:48.9±0.6, **38.36N**±0.04×**39.22E**±0.03, **h6**^{km}±6^{km}**, n26, σ0^{s}.89**/36**, 1C-1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.23	307	⇑iP	Pg	02 53 53.7	+0.2
ELZG				iS	Sg	02 53 57.5	+0.8
PTK	Pertek	0.55	14	PG	Pg	02 53 58.8	-0.7
PTK	Pertek	0.55	14	ePg	Pg	02 53 58.8	-0.7
MALT	Malatya	0.63	266	PG	Pg	02 53 59.3	-1.6
MALT				SG	Sg	02 54 09.0	-0.1
MALT	Malatya	0.63	266	ePg	Pg	02 53 59.3	-1.6
MALT				eSg	Sg	02 54 09.0	-0.1
MYA	Malataya	0.63	267	PG	Pg	02 53 59.9	-1.1
MYA				SG	Sg	02 54 10.1	+1.0
MYA	Malataya	0.63	267	ePg	Pg	02 53 59.9	-1.1
MYA				eSg	Sg	02 54 10.1	+1.0
DIYA	Diyarbakir	0.83	121	eP	Pg	02 54 04.8	0.0
DIYA				iS	Sg	02 54 17.6	+2.0
DIY	Diyarbakir	0.92	120	PG	Pg	02 54 05.9	-0.5
DIY	Diyarbakir	0.92	120	ePg	Pg	02 54 05.9	-0.5
URFA	Urfa	0.97	199	PG	Pg	02 54 07.0	-0.4
URFA	Urfa	0.97	199	ePg	Pg	02 54 07.0	-0.4
BINT	Bingol	1.12	62	PN	Pn	02 54 10.8	-0.2
BINT	Bingol	1.12	62	ePn	Pn	02 54 10.8	-0.2
ATAB	Bozova	1.15	220	eP	Pg	02 54 10.9	0.0
ATAB				iS	Sg	02 54 26.0	+0.1
EZC	Erzincan	1.46	18	PN	Pn	02 54 14.6	-1.2
MARD	Mardin	1.61	130	eP	Pn	02 54 17.5	-0.4
MARD				iS	Sn	02 54 38.2	-0.7
BNGL	BINGOL	1.62	68	⇓iP	Pn	02 54 20.0	+2.0
BNGL				iS	Sn	02 54 43.8	+4.6
GZT	Gaziantep	1.65	233	eP	Pn	02 54 17.7	-0.6
GZT				iS	Sn	02 54 46.0	+6.2
BTMT	Batman	1.79	95	PN	Pn	02 54 19.9	-0.4
GAZ	Gaziantep	1.98	234	ePN	Pn	02 54 23.8	+0.9
GAZ	Gaziantep	1.98	234	ePn	Pn	02 54 23.8	+0.9
KMRS	Kahramanmaras	2.02	246	ePN	Pn	02 54 24.2	+0.7
KMRS	Kahramanmaras	2.02	246	ePn	Pn	02 54 24.2	+0.7
SVSK	Karacayir	2.33	313	ePN	Pn	02 54 28.6	+0.9
SVSK	Karacayir	2.33	313	ePn	Pn	02 54 28.6	+0.9

IDC 22 03:03:59.5±2.2**, 1.21S×127.31E, h0**^{km}**, mb3.5**/2**, mb1 3.7**/3**, mb1mx3.4**/17**, mbtmp3.5**/3**, ML3.2**/1**, Error ellipse: s-maj=201.6km s-min=25.6km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.84	160	P	Pn	03 08 32.3	-1.3
	0.1nm,0.3s,baz=340,slow=10.0,SNR=3.8						
ASAR	Alice Springs	23.22	164	P	P	03 09 08.3	-0.1
	1.1nm,0.8s,baz=343,slow=11,SNR=16						
MKAR	Makanchi Array	61.95	327	P	P	03 14 21.2	+0.1
	0.3nm,0.5s,baz=126,slow=8.2,SNR=6.5						

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*BJI **22** 03:20:15.2, 1.36S×127.56E, h30^{km}, mB5.2, mb5.0, Ms4.5, Msz4.1*

*IDC **22** 03:20:15.4±0.5, 1.05S×127.10E, h0^{km}, mb4.7/18, mb1 4.7/19, mb1mx4.6/24, mbtmp4.7/19, ML4.6/1, MS3.9/11, Ms1 3.9/11, ms1mx3.7/25, Error ellipse: s-maj=21.6km s-min=11.6km az=69.0*

*ISCJB **22** 03:20:17.6±1.7, 1.06S±0.04×127.30E±0.05, h27^{km}±12^{km}, mb5.0/70, MS3.9/15, Error ellipse: s-maj=9.7km s-min=5.3km az=151.4*

*MOS **22** 03:20:19.4±1.0, 0.94S×127.18E, h33^{km}, mb5.1/27, Error*

ellipse: s-maj=17.5km s-min=6.8km az=121.4

*NEIC **22** 03:20:19.2±2.5, 1.10S×127.21E, h25^{km}±18^{km}, mb5.1/34, Error ellipse: s-maj=9.7km s-min=5.1km az=60.0*

*GCMT **22** 03:20:19.2±0.3, 1.00S×127.36E, h18^{km}±1^{km}, MW5.0/57, Moment Tensor Solution. s29,c35; s57,c84; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.60±.21; M$_{\theta\theta}$0.09±.13; M$_{\phi\phi}$0.52±.17; M$_{r\theta}$0.23±.36; M$_{\theta\phi}$3.60±.12; M$_{\phi r}$-1.16±.42; Best double couple: M$_0$3.81600×10^{16} NP1:ϕ_s267.00000°,δ71.00000°,λ-7.00000°. NP2: ϕ_s360.00000°,δ84.00000°,λ-161.00000°. Principal axes: T 4.0140, Plg9.0000°, Azm132.0000°; N -0.3950, Plg70.0000°, Azm18.0000°; P -3.6180, Plg18.0000°, Azm225.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 22 03:20:21.2±0.8**, 1.11S**±0.04×**127.28E**±0.05**, h40**^{km}±7^{km}**, h37**^{km}±5.0^{km}**:pP-P, n167,** σ**1^{s}16**/161**, mb5.0**/70**, MS3.9**/15**, 12C-16D, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MYLDM	Lahad Datu	10.77	306	⇑P	Pn	03 22 54.9	+2.0
TSM	Tawau	10.82	300	⇓P	Pn	03 22 52.4	-1.3
SDKM	Sandakan	12.10	304	⇑P	Pn	03 23 08.8	-2.3
KAKA	Kakadu	12.61	156	⇓*i*P	Pn	03 23 16.2	-1.9
	81nm,0.5s						
KDM	Kudat	13.12	308	⇓P	Pn	03 23 26.0	+0.8
KKM	Kota Kinabalu	13.13	303	*e*Pn	Pn	03 23 24.4	-0.9
KKM	Kota Kinabalu	13.13	303	⇑P	Pn	03 23 25.0	-0.3
BTM	Bintulu	14.82	287	⇓P	Pn	03 23 48.8	+0.6
SBUM	Sibu	15.46	283	⇓P	Pn	03 24 01.9	+5.3
FITZ	Fitzroy Crossi	16.96	185	⇓*i*P	Pn	03 24 15.3	-0.3
	42nm,1.3s						
FITZ	Fitzroy Crossi	16.96	185	P	Pn	03 24 15.2	-0.4
	1.7nm,0.3s,baz=26,slow=11,SNR=35						
FITZ				S	S	03 27 26.2	-5.8
	0.3nm,0.3s,baz=292,slow=17,SNR=2.5						
KSM	Kuching	17.16	279	*e*P	Pn	03 24 16.8	-1.3
KSM	Kuching	17.16	279	⇑P	Pn	03 24 17.9	-0.2
WRA	Warramunga Arr	19.95	160	P	Pn	03 24 48.2	-3.7
WRA				S	S	03 28 25.4	-6.9
WRA	Warramunga Arr	19.95	160	P	Pn	03 24 48.2	-3.6
	21nm,0.6s,baz=341,slow=12,SNR=88						
WRA				S	S	03 28 25.4	-6.9
	14nm,1.1s,baz=343,slow=21,SNR=6.8						
WRA				LR	LR	03 32 53.5	
	comp=Z,308nm,21.4s,baz=350,slow=38						
WB2	Warramunga Arr	19.95	160	⇓*i*P	Pn	03 24 49.3	-2.6
COEN	Coen	20.25	130	*e*P	P	03 24 54.4	+1.1
	122nm,1.0s						
MBWA	Marble Bar	21.24	200	*e*P	P	03 25 03.2	-0.7
	85nm,1.2s,mb5.0						
PMG	Port Moresby	21.43	113	*e*P	P	03 25 07.3	+1.2
	90nm,1.1s,mb5.0						
PMG	Port Moresby	21.43	113	*i* P	P	03 25 08.1	+2.1
PMG	Port Moresby	21.43	113	P	P	03 25 07.7	+1.7
	9.2nm,0.6s,mb4.3,baz=312,slow=14,SNR=4.0						
GUMO	Guam	22.75	49	LR	LR	03 32 39.3	
	comp=Z,235nm,19.6s,MS3.6,baz=254,slow=33						
ASAR	Alice Springs	23.32	164	P	P	03 25 25.2	-0.8
	20nm,0.7s,mb4.7,baz=345,slow=11,SNR=148						
ASAR				S	S	03 29 33.0	-2.7
	3.4nm,0.8s,baz=346,slow=19,SNR=5.3						
MYKOM	Kota Tinggi	23.60	277	⇓P	P	03 25 29.7	+1.0
KGM	Kluang	24.15	277	⇓P	P	03 25 32.9	-0.9
KTGM	Kuala Trenggan	24.95	285	⇓P	P	03 25 44.0	+2.9
FRIM	Kepong	26.00	280	⇑P	P	03 25 53.8	+3.1
YHNB	Yeheng	26.26	348	*e*P	P	03 25 51.6	-1.1
QIZ	Qiongzhong	26.34	320	P	P	03 25 50.0	-3.6
QIZ				S	S	03 30 22.4	-1.7
QIZ				LR	LR		
	comp=N,343nm,14.8s						
QIZ				LR	LR		
	comp=Z,327nm,23.9s						
CTA	Charters Tower	26.46	137	⇓*i*P	P	03 25 59.0	+4.3
	comp=Z,16nm,0.7s,mb4.7						
CTA	Charters Tower	26.46	137	⇓*i*P	P	03 25 59.0	+4.3
CTA				pmax	pmax		
	comp=Z,16nm,0.7s						
CTA	Charters Tower	26.46	137	P	P	03 25 56.9	+2.2
	comp=Z,38nm,1.1s,mb4.8,baz=315,slow=13,SNR=10						
CTAO	Charters Tower	26.46	137	*e*P	P	03 25 58.8	+4.2
	comp=Z,60nm,1.3s,mb5.0						
CTAO	Charters Tower	26.46	137	*e*P	P	03 25 58.8	+4.1
CTAO				pmax	pmax		
	comp=Z,61nm,1.3s,mb5.0						
IPM	Ipoh	26.81	282	⇑P	P	03 25 59.4	+1.5
QZH	Quanzhou	27.23	343	⇓*i*P	P	03 26 03.6	+2.1
QZH				AMB	AMB		
	comp=Z,360nm,1.9s,mb5.6						
KULM	Kulim	27.34	284	*e*P	P	03 26 01.1	-1.6
KULM	Kulim	27.34	284	⇓P	P	03 26 05.7	+3.0
JOW	Kunigami	27.80	2	P	P	03 26 06.5	0.0
	comp=Z,16nm,0.6s,mb4.8,baz=164,slow=16,SNR=5.5						
PSI	Prapat	28.61	278	P	P	03 26 13.7	-0.3
	comp=Z,14nm,0.7s,mb4.8,baz=109,slow=4.9,SNR=14						
FORT	Forrest	29.51	179	*e*P	P	03 26 22.0	+0.2
	comp=Z,47nm,0.6s,mb5.4						
KLBR	Kellerberrin	31.62	196	*e*P	P	03 26 40.8	+0.4
	comp=Z,12nm,0.9s,mb4.7						
SSE	Sheshan	32.55	350	*e*P	P	03 26 46.6	-1.9
SSE				XP	sP	03 27 00.8	-3.7
SSE				S	S	03 31 57.1	-4.1
SSE				SCS	ScS	03 37 14.9	-0.1
SSE				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb4.5						
SSE				AMB	AMB		
	comp=Z,111nm,7.2s						
SSE				LR	LR		
	comp=N,13nm,25.7s,MS3.5						
SSE				LR	LR		
	comp=E,113nm,25.6s,MS3.5						
SSE	Sheshan	32.55	350	*e*P	P	03 26 46.6	-1.9
	comp=E,7.0nm,1.1s,mb4.5						
SSE				sP	sP	03 27 00.7	-3.8
SSE				S	S	03 31 57.1	-4.1
SSE				sS	sS	03 32 13.4	-6.4
SSE				ScS	ScS	03 37 14.9	-0.1
SSE				LR	LR		
	comp=Z,120nm,29.2s,MS3.4						
STKA	Stephens Creek	33.45	158	*e*P	P	03 26 55.1	-1.4
	comp=Z,24nm,0.9s,mb5.1						
STKA	Stephens Creek	33.45	158	P	P	03 26 57.0	+0.5
	comp=Z,11nm,0.7s,mb4.9,baz=332,slow=8.7,SNR=28						
STKA				LR	LR	03 42 11.4	
	comp=Z,255nm,20.4s,MS3.9,baz=93,slow=39						
WHN	Wuhan	33.80	340	P	P	03 27 01.3	+1.8
WHN				AP	pP	03 27 12.8	+2.1
CHTO	Chiang Mai	34.16	307	*e*P	P	03 27 02.0	-0.8
	comp=Z,6.3nm,0.8s,mb4.6						
CHTO	Chiang Mai	34.16	307	*e*P	P	03 27 02.0	-0.8
CHTO				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
KMI	Kunming	35.28	319	P	P	03 27 14.0	+1.6
	comp=Z,31nm,1.6s,mb5.0						
KMI				LR	LR		
	comp=Z,140nm,27.0s,MS3.6						
KMI	Kunming	35.28	319	P	P	03 27 14.0	+1.6
KMI				pmax	pmax		
	comp=Z,31nm,1.6s,mb5.0						
KMI				MLR	MLR		
	comp=Z,140nm,27.0s,MS3.6						
ARMA	Armidale	37.20	144	*e*P	P	03 27 30.6	+1.9
	comp=Z,0.3nm,0.7s						
KSRS	Korea Array	38.38	1	P	P	03 27 37.9	-0.7
	comp=Z,0.8nm,0.5s,baz=173,slow=10.0,SNR=9.4						
KSRS				LR	LR	03 45 30.9	
	comp=Z,132nm,18.7s,MS3.8,baz=345,slow=40						
MAT	Matsushiro	38.82	14	P	P	03 27 40.3	-1.9
MJAR	Matsushiro Arr	38.82	14	P	P	03 27 40.9	-1.3
	comp=Z,2.8nm,0.5s,mb4.2,baz=195,slow=9.0,SNR=8.0						
XAN	Xi’an	38.99	335	P	P	03 27 43.4	-0.3
XAN				AP	pP	03 27 53.9	-1.1
XAN				AMB	AMB		
	comp=Z,28nm,0.7s,mb5.1						
CNB	Canberra Magne	39.76	151	*e*P	P	03 27 53.7	+3.6
	comp=Z,15nm,1.1s,mb4.6						
TOO	Toolangi	39.98	157	*e*P	P	03 27 54.4	+2.5
	comp=Z,11nm,0.8s,mb4.7						
TOO	Toolangi	39.98	157	*e*P	P	03 27 54.4	+2.5
TOO				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
BJT	Baijiatuau	42.17	347	*e*P	P	03 28 09.7	-0.2
	comp=Z,22nm,0.7s,mb4.9						
BJT	Baijiatuau	42.17	347	*e*P	P	03 28 09.7	-0.2
BJT				pmax	pmax		
	comp=Z,22nm,0.7s						
BJI	Beijing	42.19	347	P	P	03 28 09.8	-0.3
BJI				LR	LR		
	comp=Z,68nm,22.3s,MS3.5						
BJI	Beijing	42.19	347	P	P	03 28 09.7	-0.4
BJI				LR	LR		
	comp=Z,70nm,22.3s,MS3.5						
LZH	Lanzhou	42.97	332	⇑*i*P	P	03 28 17.5	+1.1
LZH				AP	pP	03 28 27.0	-0.8
LZH				XP	sP	03 28 31.0	-1.6
LZH				AMB	AMB		
	comp=Z,62nm,1.5s,mb5.1						
LZH				AMB	AMB		
	comp=Z,388nm,4.7s						
LZH	Lanzhou	42.97	332	⇑*i*P	P	03 28 17.5	+1.1
	comp=Z,62nm,1.5s,mb5.1						
LZH				pP	pP	03 28 27.0	-0.8
LZH				sP	sP	03 28 31.0	-1.6
LZH	Lanzhou	42.97	332	⇑*i*P	P	03 28 17.5	+1.1
LZH				*PP	pP	03 28 27.0	-0.8
LZH				*SP	sP	03 28 31.0	-1.6
LZH				pmax	pmax		
	comp=Z,62nm,1.5s,mb5.1						
SHL	Shillong	43.29	310	*e*P	P	03 28 20.0	+0.8
HHC	Hu-ho-hao-te	44.15	343	*e*P	P	03 28 25.6	-0.2
HHC				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.5						
HHC				AMB	AMB		
	comp=Z,153nm,3.9s						
LSA	Lhasa	46.12	315	P	P	03 28 43.0	+1.3
LSA	Lhasa	46.12	315	*e*P	P	03 28 43.7	+2.0
	comp=Z,30nm,0.7s,mb5.3						
LSA	Lhasa	46.12	315	*e*P	P	03 28 43.7	+2.0
LSA				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.3						
PALK	Pallekele	47.20	281	*e*P	P	03 28 50.6	+0.1
	comp=Z,14nm,0.8s,mb5.0						
TAPN	Taplejung	47.41	310	*e*P	P	03 28 52.5	+0.6
	comp=Z,86nm,0.8s,mb5.7						
ODAN	Odare	47.41	309	*e*P	P	03 28 52.4	+0.5
	comp=Z,173nm,0.9s,mb6.0						
GTA	Gaotai	47.54	331	P	P	03 28 53.4	+0.8
GTA				AP	pP	03 28 57.8	-6.4
GTA				PCP	PcP	03 30 24.8	+2.6
GTA				PP	PP	03 30 44.0	-0.4
GTA				PCS	PcS	03 34 19.3	+1.7
GTA				S	S	03 35 44.8	-0.1
GTA				SCS	ScS	03 38 44.6	+1.4
GTA				SS	SS	03 39 04.8	-8.7
GTA				AMB	AMB		
	comp=Z,42nm,1.0s,mb5.4						
GTA				AMB	AMB		
	comp=Z,274nm,5.7s						
GTA				LR	LR		
	comp=N,276nm,16.3s,MS4.5						
GTA				LR	LR		
	comp=E,249nm,16.0s,MS4.5						
GTA				LR	LR		
	comp=Z,159nm,16.3s,MS4.1						
JIRN	Jiri	48.74	309	*e*P	P	03 29 02.9	+0.8
	comp=Z,28nm,0.4s,mb5.7						
PKI	Pulchoki	49.30	309	*e*P	P	03 29 06.7	+0.2
KKN	Kakani	49.51	309	*e*P	P	03 29 09.0	+1.0
	comp=Z,190nm,1.1s,mb6.0						
GKN	Gorkha	50.11	309	*e*P	P	03 29 13.0	+0.4
	comp=Z,232nm,1.1s						
KLR	Kul’dur	50.29	4	*e*P	P	03 29 06.9	-6.7
HIA	Hailar	50.60	354	*e*P	P	03 29 17.3	+1.4
	comp=Z,23nm,1.2s,mb5.0						
HIA	Hailar	50.60	354	*i* P	P	03 29 16.6	+0.7
HYB	Hyderabad	51.39	293	*e*P	P	03 29 22.5	+0.1
	comp=Z,100nm,1.0s,mb5.7						
HYB	Hyderabad	51.39	293	*e*P	P	03 29 22.5	+0.1
HYB				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.7						
HYB	Hyderabad	51.39	293	*i* P	P	03 29 22.5	+0.1
	comp=Z,100nm,1.0s,mb5.7						
HYB				*e*sP	sP	03 29 34.0	-4.8
SONM	Songino Array	52.04	342	P	P	03 29 27.2	+0.5
	comp=Z,12nm,0.9s,mb4.8,baz=158,slow=6.5,SNR=29						
SONM				LR	LR	03 55 45.6	
	comp=Z,46nm,19.7s,MS3.5,baz=358,slow=41						
CIT	Chita	54.19	350	*e*P	P	03 29 43.2	+0.7
CIT				*e*		03 29 58.4	
ZAK	Zakamensk	55.25	342	*e*P	P	03 29 49.9	-0.3
ZAK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
TLY	Talaya	56.27	343	*e*P	P	03 29 58.6	+1.1
	comp=Z,28nm,1.2s,mb5.2						
TLY	Talaya	56.27	343	*e*P	P	03 30 03.5	+6.0
TLY				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.1						
NDI	New Delhi	56.30	306	*e*x	P	03 30 00.0	+1.8
WMQ	Urumqi	57.01	327	*e*P	P	03 30 04.0	+1.1
WMQ				AMB	AMB		
	comp=Z,32nm,1.2s,mb5.2						
WMQ				LR	LR		
	comp=N,121nm,24.0s,MS4.0						
WMQ				LR	LR		
	comp=E,89nm,23.4s,MS4.0						
WMQ				LR	LR		
	comp=Z,131nm,24.2s,MS4.0						
MOY	Mondy	57.10	341	*e*P	P	03 30 04.0	+0.7
MOY				pmax	pmax		
	comp=Z,43nm,1.7s,mb5.2						
RPZ	Rata Peaks	57.54	144	P	P	03 30 09.2	+2.5
	comp=Z,6.8nm,0.7s,mb4.8,baz=331,slow=13,SNR=2.1						
URZ	Urewera	58.70	135	P	P	03 30 18.7	+3.9
	comp=Z,7.8nm,0.8s,mb4.8,baz=323,slow=5.1,SNR=2.3						
BOD	Bodaibo	59.70	352	*e*P	P	03 30 21.4	0.0
BOD				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.6						
MK31	Makanchi Array	61.84	327	*e*P	P	03 30 35.8	-0.4
MK31	Makanchi Array	61.84	327	*i* P	P	03 30 36.1	-0.1
MK31				pmax	pmax		
	comp=Z,5.0nm,0.3s,mb5.1						
MKAR	Makanchi Array	61.84	327	P	P	03 30 36.1	-0.1
	comp=Z,16nm,0.6s,mb5.4,baz=122,slow=8.5,SNR=109						
MKAR				LR	LR	03 55 38.2	
	comp=Z,60nm,21.5s,MS3.7,baz=333,slow=34						
YAK	Yakutsk	63.00	1	⇑*e*P	P	03 30 43.1	-0.5
YAK				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.5						
MA2	Magadan	63.25	13	*e*P	P	03 30 46.1	+0.8
	comp=Z,16nm,0.8s,mb5.2						
MA2	Magadan	63.25	13	*e*P	P	03 30 46.0	+0.7
MA2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.4						
TKM2	Tokmak 2	63.75	320	P	P	03 30 48.8	-0.2
	SNR=16						
TKM2	Tokmak 2	63.75	320	*e*P	P	03 30 48.4	-0.6
	comp=Z,8.9nm,0.6s,mb5.0						
TKM2	Tokmak 2	63.75	320	*e*P	P	03 30 48.4	-0.6
TKM2				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb5.0						
UCH	Uchtor	64.12	319	P	P	03 30 52.9	+1.4
	SNR=26						
UCH	Uchtor	64.12	319	*e*P	P	03 30 51.9	+0.5
	comp=Z,19nm,0.9s,mb5.1						
AAK	Ala-Archa	64.32	319	P	P	03 30 54.6	+1.9
	SNR=9.4						
AAK	Ala-Archa	64.32	319	*e*P	P	03 30 52.9	+0.1
	comp=Z,17nm,1.2s,mb4.9						
AAK	Ala-Archa	64.32	319	⇓*i*P	P	03 30 52.8	0.0
AAK				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.6						
FRU	Bishkek	64.34	320	*e*P	P	03 30 52.4	-0.5
FRU				*e*		03 31 26.0	
AML	Almayashu	64.62	319	P	P	03 30 55.7	+1.0
	SNR=25						
AML	Almayashu	64.62	319	*e*P	P	03 30 55.0	+0.3
	comp=Z,32nm,1.0s,mb5.3						
USP	Ospenovka	64.62	320	P	P	03 30 54.7	0.0
	SNR=22						
EKS2	Erkin-Say	64.81	319	P	P	03 30 56.7	+0.8
	SNR=18						
EKS2	Erkin-Say	64.81	319	*e*P	P	03 30 55.9	0.0
	comp=Z,21nm,1.0s,mb5.1						
KBL	Kabul	64.94	309	*e*P	P	03 30 57.2	+0.3
ZALV	Zalesovo Beam	65.14	334	P	P	03 30 56.6	-1.2
	comp=Z,7.2nm,0.8s,mb4.8,baz=117,slow=5.2,SNR=36						
ZAL	Zalesovo	65.14	334	P	P	03 30 56.6	-1.2
DRV	Dumont d’Urvil	66.03	174	P	PcP	03 31 23.0	-11
DRV				SS	SS	03 44 08.0	+3.8
KURK	Kurchatov	66.11	329	*e*P	P	03 31 03.5	-0.7
	comp=Z,60nm,0.9s,mb5.6						
KURK	Kurchatov	66.11	329	⇑*i*P	P	03 31 03.6	-0.6
NVS	Novosibirsk	66.42	334	*e*P	P	03 31 04.0	-2.1
NVS				*e*S	S	03 39 44.9	-8.4
NVS				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.2						
NVS				pmax	pmax		
	comp=N,22nm,1.4s						
NVS				pmax	pmax		
	comp=E,17nm,1.4s						
NVS				smax			
	comp=N,29nm,2.4s						
NVS				smax			
	comp=E,26nm,2.5s						
KK31	Karatay Array	67.16	318	*i* P	P	03 31 11.2	+0.2
KK31				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
KKAR	Karatay Array	67.16	318	*i* P	P	03 31 11.2	+0.2
KKAR				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
BRVK	Borovoye	71.74	328	*e*P	P	03 31 38.1	-1.0
	comp=Z,21nm,1.0s,mb5.0						
BRVK	Borovoye	71.74	328	*e*P	P	03 31 38.1	-1.0
BRVK				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
TIXI	Tiksi	72.64	1	*e*P	P	03 31 43.4	-0.8
	comp=Z,11nm,0.5s,mb5.0						
TIXI	Tiksi	72.64	1	⇑*e*P	P	03 31 44.0	-0.2
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
AB31	Akbulak array	76.24	322	P	P	03 32 04.6	-0.9
AB31				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
AKTK	Aktyubinsk	77.78	322	P	P	03 32 13.8	-0.4
AKTK				LR	LR	04 05 02.8	
AKTO	Aktyubinsk	77.78	322	P	P	03 32 13.8	-0.4
	comp=Z,13nm,0.9s,mb4.9,baz=104,slow=6.8,SNR=32						
AKTO				LR	LR	04 05 02.8	
	comp=Z,73nm,21.0s,MS4.0,baz=102,slow=35						
SVE	Sverdlovsk	78.36	329	*e*P	P	03 32 17.0	-0.2
ARU	Arti	79.30	328	*e*P	P	03 32 21.4	-1.0
	comp=Z,7.9nm,0.8s,mb4.7						
ARU	Arti	79.30	328	⇓*e*P	P	03 32 21.2	-1.2
ARU				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
MAW	Mawson	79.44	201	LR	LR	04 01 09.0	
	comp=Z,149nm,20.7s,MS4.3,baz=246,slow=31						
OPO	Ambohidratompo	80.25	251	P	P	03 32 27.5	-0.8
	comp=Z,4.0nm,0.6s,mb4.5,baz=111,slow=5.3,SNR=4.4						
QRN	Al-Qurain	81.20	299	*e*P	P	03 32 31.0	-2.2
QRN				AMb	AMB	03 32 40.2	
	comp=Z,23nm,0.8s,mb5.2						
RDF	Al-Radifah	81.54	299	*e*P	P	03 32 33.8	-1.3
RDF				AMb	AMB	03 32 41.1	
	comp=Z,23nm,1.0s,mb5.1						
MIB	Mutribah	81.82	300	*e*P	P	03 32 35.0	-1.5
MIB				AMb	AMB	03 32 43.0	
	comp=Z,25nm,1.0s,mb5.1						
NAY	Al-Naaiem	81.84	300	*e*P	P	03 32 35.4	-1.2
NAY				AMb	AMB	03 32 44.0	
	comp=Z,16nm,0.9s,mb4.9						
ZEI	Tsey	85.88	313	*e*P	P	03 32 56.1	-0.8
ZEI				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.2						
IMA2	Indian Mountai	86.56	24	*e*P	P	03 33 00.5	+0.7
KIV	Kislovodsk	86.86	314	*e*P	P	03 33 02.1	+0.3
KIV				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.8						
QSPA	South Pole Qui	88.83	180	*e*P	P	03 33 11.4	+1.0
	comp=Z,51nm,0.8s,mb5.9						
MALT	Malatya	89.78	308	*e*P	P	03 33 17.6	+1.9
	comp=Z,4.3nm,1.1s,mb4.7						
MALT	Malatya	89.78	308	*e*P	P	03 33 17.6	+1.9
MALT				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.7						
KMBO	Kilima Mbogo	90.00	269	*e*P	P	03 33 17.5	+0.2
	comp=Z,8.1nm,1.4s,mb4.9						
KMBO	Kilima Mbogo	90.00	269	*i* P	P	03 33 17.6	+0.3
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.8s						
KMBO	Kilima Mbogo	90.00	269	P	P	03 33 17.6	+0.3
	comp=Z,1.2nm,0.8s,mb4.3,baz=56,slow=14,SNR=3.5						
OBN	Obninsk	91.31	325	*e*P	P	03 33 22.4	-0.1
OBN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.6						
BRTR	Keskin Array B	93.51	310	P	P	03 33 31.3	-1.7
BRTR				PP	PP	03 37 17.9	+0.1
BRTR	Keskin Array B	93.51	310	P	P	03 33 31.3	-1.7
	comp=Z,0.3nm,0.5s,mb4.0,baz=57,slow=4.6,SNR=4.0						
BRTR				PP	PP	03 37 17.9	+0.1
	comp=Z,1.0nm,0.9s,baz=115,slow=9.7,SNR=4.7						
ARCES	ARCESS Array B	95.15	340	P	P	03 33 38.7	-1.2
ARCES				LR	LR	04 24 51.9	
ARCES	ARCESS Array B	95.15	340	P	P	03 33 38.7	-1.2
	comp=Z,1.0nm,0.5s,mb4.5,baz=97,slow=4.5,SNR=8.1						
ARCES				LR	LR	04 24 51.9	
	comp=Z,100nm,20.8s,MS4.3,baz=30,slow=41						
FINES	FINESS Array B	96.33	332	P	P	03 33 44.8	-0.6
	comp=Z,0.4nm,0.4s,mb4.2,baz=104,slow=4.4,SNR=3.0						
LSZ	Lusaka	98.47	254	LR	LR	04 12 58.8	
	comp=Z,127nm,19.2s,MS4.4,baz=181,slow=32						
BOSA	Boshof	100.01	241	LR	LR	04 17 30.1	
	comp=Z,108nm,18.6s,MS4.4,baz=150,slow=34						
PDAR	Pinedale Array	114.57	43	PKP	PKiKP	03 38 58.8	+1.5
PDAR	Pinedale Array	114.57	43	PKP	PKiKP	03 38 58.8	+1.5
	comp=Z,0.6nm,1.1s,baz=343,slow=5.6,SNR=3.3						
TXAR	Lajitas Array	124.02	55	PKP	PKPdf	03 39 15.9	0.0
TXAR	Lajitas Array	124.02	55	PKIKP	PKPdf	03 39 15.9	0.0
TXAR	Lajitas Array	124.02	55	PKP	PKPdf	03 39 15.9	0.0
	comp=Z,0.4nm,0.8s,baz=205,slow=1.5,SNR=2.5						
TOA0	Torodi Ar. Sit	124.82	285	*e*PKPdf	PKPdf	03 39 17.9	+0.2
TORD	Torodi Ar. Bea	124.82	285	PKP	PKPdf	03 39 16.8	-1.0
TORD	Torodi Ar. Bea	124.82	285	PKP	PKPdf	03 39 16.8	-1.0
	comp=Z,2.0nm,0.8s,baz=81,slow=1.0,SNR=9.9						
LCO	Las Campanas	145.46	152	*e*PKPbc	PKPbc	03 39 57.5	+1.9

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*CSEM **22** 03:23:12.9±0.1, 38.39N×39.27E, h5^{km}, MD2.4, Error ellipse: s-maj=2.3km s-min=1.8km az=162.0*

*ISCJB **22** 03:23:13.3±0.6, 38.38N±0.03×39.29E±0.03, h3^{km}±7^{km}, Error ellipse: s-maj=5.7km s-min=4.4km az=4.6*

*DDA **22** 03:23:13.1, 38.39N×39.28E, h8^{km}±5^{km}, Md2.4*

*ISK **22** 03:23:13.2, 38.38N×39.26E, h6^{km}, MD2.8*

ISC 22 03:23:13.9±0.5**, 38.39N**±0.04×**39.28E**±0.04**, h9**^{km}±6^{km}**, n19,** σ**0^{s}65**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.25	296	*i* P	Pg	03 23 18.9	-0.1
ELZG				*i* S	Sg	03 23 22.2	-0.2
PTK	Pertek	0.51	10	PG	Pg	03 23 23.4	-0.4
PTK				SG	Sg	03 23 31.8	+1.3
PTK	Pertek	0.51	10	*e*Pg	Pg	03 23 23.4	-0.4
PTK				*e*Sg	Sg	03 23 31.8	+1.3
MALT	Malatya	0.67	264	PG	Pg	03 23 25.9	-0.9
MALT				SG	Sg	03 23 35.7	+0.1
MALT	Malatya	0.67	264	*e*Pg	Pg	03 23 25.9	-0.9
MALT				*e*Sg	Sg	03 23 35.7	+0.1
MYA	Malataya	0.67	265	PG	Pg	03 23 26.3	-0.5
MYA				SG	Sg	03 23 36.6	+1.0
MYA	Malataya	0.67	265	*e*Pg	Pg	03 23 26.3	-0.5
MYA				*e*Sg	Sg	03 23 36.6	+1.0
DIYA	Diyarbakir	0.81	125	*i* P	Pg	03 23 29.5	0.0
DIYA				*i* S	Sg	03 23 40.7	+0.6
DIY	Diyarbakir	0.90	123	*e*PG	Pg	03 23 30.7	-0.4
DIY	Diyarbakir	0.90	123	*e*Pg	Pg	03 23 30.7	-0.4
URFA	Urfa	1.01	201	*e*PG	Pg	03 23 33.2	-0.1
URFA	Urfa	1.01	201	*e*Pg	Pg	03 23 33.2	-0.1
BINT	Bingol	1.07	63	*e*PN	Pn	03 23 35.2	+0.2
BINT	Bingol	1.07	63	*e*Pn	Pn	03 23 35.2	+0.2
ATAB	Bozova	1.20	221	*i* P	Pb	03 23 36.9	+0.1
ATAB				*i* S	Sb	03 23 52.9	+0.5
ATAB	Bozova	1.20	221	*i* P	Pb	03 23 36.8	0.0
ATAB				*i* S	Sb	03 23 52.9	+0.5
EZC	Erzincan	1.42	17	*e*PN	Pn	03 23 39.8	-0.1
MARD	Mardin	1.60	132	*e*P	Pn	03 23 42.1	-0.2
MARD				*i* S	Sn	03 24 04.1	+0.9
BTMT	Batman	1.75	96	*e*PN	Pn	03 23 42.9	-1.5

IDC 22 03:27:20.0±1.4**, 7.76S**×**155.97E, h0**^{km}**, mb3.8**/4**, mb1 4.0**/5**, mb1mx3.8**/15**, mbtmp3.9**/5**, ML3.7**/1**, MS3.6**/2**, Ms1 3.7**/2**, ms1mx3.1**/18**, Error ellipse: s-maj=32.7km**

s-min=26.8km az=5.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	4.27	113	Pn	Pn	03 28 27.0	+0.6
	3.9nm,0.3s,baz=268,slow=13,SNR=3.2						
HNR				LR	LR	03 29 13.8	
	comp=Z,156nm,19.6s,baz=358,slow=27						
HNR				Sn	Sn	03 29 15.5	-1.5
	18nm,0.3s,baz=90,slow=20,SNR=2.9						
WRA	Warramunga Arr	24.20	238	P	P	03 32 37.9	-0.6
	3.7nm,0.7s,baz=61,slow=9.1,SNR=7.4						
ASAR	Alice Springs	26.42	231	P	P	03 32 58.8	+0.2
	0.8nm,0.7s,baz=63,slow=8.5,SNR=3.4						
SONM	Songino Array	70.50	327	P	P	03 38 37.3	+0.8
	0.4nm,0.7s,baz=116,slow=6.6,SNR=3.6						
MKAR	Makanchi Array	84.61	319	P	P	03 39 55.5	+0.1
	0.3nm,0.5s,baz=104,slow=5.1,SNR=5.6						
PDAR	Pinedale Array	98.49	48	LR	LR	04 15 37.3	
	comp=Z,148nm,21.6s,baz=157,slow=29						

IDC 22 03:39:07.7±4.1**, 2454S×11555W, h0^{km}, mb3.7**/3**, mb1 4.0**/3**, mb1mx3.8**/14**, mbtmp3.7**/3**, Error ellipse: s-maj=135.8km s-min=44.3km az=31.0, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPN	Rapa Nui	6.17	116	T		03 47 20.1	
	14nm,0.3s,baz=286,slow=23,SNR=4.0						
RKT	Rikitea	17.83	271	*e*LR	LR	03 47 18.1	
	359nm,26.5s						
TAOE	Nuku Hiva Isla	28.17	299	*e*LR	LR	03 52 02.6	
	735nm,27.5s						
PPT	Papeete	32.44	276	*e*LR	LR	03 53 56.3	
	144nm,27.2s						
LPAZ	La Paz	45.02	89	P	P	03 47 26.0	+0.7
	1.5nm,0.7s,baz=270,slow=6.1,SNR=5.9						
PDAR	Pinedale Array	67.20	5	P	P	03 50 04.7	+1.3
	0.4nm,0.8s,baz=190,slow=4.6,SNR=3.3						
YKA	Yellowknife Ar	86.73	0	P	P	03 51 52.1	-0.9
	0.4nm,0.7s,baz=170,slow=5.6,SNR=5.2						
ZALV	Zalesovo Beam	146.91	338	PKPbc	PKPbc	03 58 50.9	-0.8
	0.6nm,0.5s,baz=48,slow=2.1,SNR=2.9						

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*CSEM **22** 03:39:48.1, 3844N×3934E, h5^{km}, MD3.3, After ISK*

ISK 22 03:39:48.1, 3844N×3934E, h5^{km}, MD3.3, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.28	282	*i* P	Pg	03 39 54.6	+1.0
ELZG				*i* S	Sg	03 39 58.8	+1.4
PTK	Pertek	0.45	5	PG	Pg	03 39 57.8	+1.0
PTK				SG	Sg	03 40 05.3	+2.5
PTK	Pertek	0.45	5	*e*Pg	Pg	03 39 57.8	+1.0
PTK				*e*Sg	Sg	03 40 05.3	+2.5
URFA	Urfa	1.08	202	*e*PG	Pg	03 40 10.1	+1.3
URFA				*e*SG	Sg	03 40 25.4	+2.7
URFA	Urfa	1.08	202	*e*Pg	Pg	03 40 10.1	+1.3
URFA				*e*Sg	Sg	03 40 25.4	+2.7
BTMT	Batman	1.71	98	*e*PN	Pn	03 40 18.1	-0.4

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*NEIC **22** 03:52:00.3±1.0, 389N×9623E, h30^{km}, mb3.7/1, Error ellipse: s-maj=26.6km s-min=12.6km az=219.0*

*IDC **22** 03:52:06.6±4.4, 405N×9669E, h80^{km}±34^{km}, mb3.5/7, mb1 3.7/8, mb1mx3.5/22, mbtmp3.6/8, Error ellipse: s-maj=67.4km s-min=18.1km az=56.0*

*ISCJB **22** 03:52:07.6±2.2, 416N±010×968E±01, h99^{km}±19^{km}, mb3.7/8, Error ellipse: s-maj=24.1km s-min=16.4km az=174.4*

ISC 22 03:52:08.9±2.2**, 413N**±010×**968E**±01**, h97^{km}**±20^{km}**, n13, σ0^{s}62**/15**, mb3.7**/8**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.49	122	P	Pn	03 52 47.4	-0.4
	13nm,0.3s,baz=287,slow=10,SNR=52						
PSI				S	Sn	03 53 18.1	+0.5
	21nm,0.3s,baz=177,slow=13,SNR=20						
KULM	Kulim	4.00	73	*e*Pn	Pn	03 53 08.5	+0.5
KULM				*e*Sn	Sn	03 53 53.1	-0.8
KKM	Kota Kinabalu	19.42	84	*e*P	Pn	03 56 30.3	+0.5
WRA	Warramunga Arr	43.95	124	P	P	04 00 06.4	-0.3
	2.8nm,0.5s,mb4.3,baz=302,slow=9.3,SNR=31						
SONM	Songino Array	44.32	9	P	P	04 00 10.0	+0.9
	0.9nm,0.8s,mb3.5,baz=186,slow=10,SNR=7.9						
SONM				PcP	PcP	04 01 52.0	+0.3
	0.2nm,0.4s,baz=199,slow=3.2,SNR=4.8						
MKAR	Makanchi Array	44.32	346	P	P	04 00 08.4	-0.8
	0.5nm,0.4s,mb3.6,baz=163,slow=8.9,SNR=4.8						
ULN	Ulaanbaatar	44.45	10	*e*P	P	04 00 11.2	+1.0
	0.8nm,0.7s,mb3.6						
ASAR	Alice Springs	45.50	129	P	P	04 00 18.5	-0.4
	0.3nm,0.4s,mb3.4,baz=302,slow=7.6,SNR=4.5						
ZALV	Zalesovo Beam	50.62	351	P	P	04 00 56.9	-0.9
ZALV	Zalesovo Beam	50.62	351	P	P	04 00 56.9	-0.9
	0.8nm,0.3s,mb4.2,baz=167,slow=7.0,SNR=6.1						
ARCES	ARCESS Array B	79.66	340	P	P	04 04 05.5	+0.1
ARCES	ARCESS Array B	79.66	340	P	P	04 04 05.5	+0.1
	2.0nm,0.8s,mb4.0,baz=97,slow=6.2,SNR=6.5						
GERES	GERESS Array B	82.37	319	P	P	04 04 20.2	+0.1
	0.3nm,0.5s,mb3.4,baz=101,slow=6.9,SNR=4.3						

IDC 22 03:56:14.3±3.0**, 904S×10932E, h0^{km}, mb3.4**/3**, mb1 3.6**/4**, mb1mx3.4**/18**, mbtmp3.4**/4**, ML3.0**/1**, MS2.9**/1**, Ms1 2.9**/1**, ms1mx2.6**/20**, Error ellipse: s-maj=151.6km s-min=24.2km az=47.0, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	18.23	121	P	Pn	04 00 27.1	-1.9
	0.0nm,0.3s,baz=17,slow=20,SNR=1.8						
WRA	Warramunga Arr	26.50	117	P	P	04 01 53.9	+0.3
	0.2nm,0.3s,baz=289,slow=12,SNR=3.9						
WRA				LR	LR	04 11 36.8	
	comp=Z,27nm,20.1s,baz=210,slow=35						
ASAR	Alice Springs	27.65	125	P	P	04 02 04.7	+0.8
	0.1nm,0.3s,baz=307,slow=9.2,SNR=2.8						
MKAR	Makanchi Array	60.58	339	P	P	04 06 26.6	-0.1
	0.6nm,0.5s,baz=150,slow=7.6,SNR=10						

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*CSEM **22** 04:02:48.6±0.2, 5084N×621E, h8^{km}, ML2.5/7, Error ellipse: s-maj=2.9km s-min=2.0km az=30.0*

*UCC **22** 04:02:48.6±0.3, 5085N×623E, h15^{km}, ML1.6*

*LDG **22** 04:02:48.7±0.1, 5084N×622E, h10^{km}, Md2.6/1, Ml2.5/8, Error ellipse: s-maj=1.2km s-min=1.1km az=128.0*

*NEIC **22** 04:02:48.7, 5084N×622E, h10^{km}, ML2.5(LDG), After LDG.*

ISC 22 04:02:48.6±0.9**, 5077N**±004×**622E**±006**, h18^{km}**±3^{km}**, n62, σ0^{s}69**/99**, 2C-4D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HGN	Heimansgroeve	0.19	268	⇓*i*Pg	Pg	04 02 53.2	-0.1
	45nm,0.1s						
HGN				*i* Sg	Sg	04 02 56.5	0.0
MEM	Membach	0.21	220	⇑P	Pg	04 02 54.4	+0.7
MEM				S	Sg	04 02 58.5	+1.3
	comp=N,98nm,0.5s						
BEBN	Eben Emael	0.35	274	⇓P	Pg	04 02 55.7	-0.2
BEBN				S	Sg	04 03 00.5	-0.4
	comp=E,15nm,0.4s						
BEBN	Eben Emael	0.35	274	P	Pg	04 02 55.6	-0.3
BCLA	Clavier	0.69	239	⇓P	Pb	04 03 02.6	+0.6
BCLA				S	Sb	04 03 12.3	+1.2
	comp=N,8.2nm,0.1s						
BCLA	Clavier	0.69	239	P	Pb	04 03 02.5	+0.5
GIVF	Givet	1.12	234	*e*Pn	Pn	04 03 09.7	+0.4
GIVF	Givet	1.12	234	*e*Pg	Pg	04 03 10.4	+0.2
GIVF				*e*Sg	Sg	04 03 25.6	+0.7
	comp=N,24nm,0.2s						
GIVF	Givet	1.12	234	*e*Pn	Pn	04 03 09.7	+0.4
GIVF				*e*Pg	Pg	04 03 10.4	+0.2
GIVF				*e*Sg	Sg	04 03 25.6	+0.7
GIVF	Givet	1.12	234	*e*Pn	Pn	04 03 09.7	+0.4
GIVF	Givet	1.12	234	*e*Pg	Pg	04 03 10.4	+0.2
GIVF				*e*Sg	Sg	04 03 25.6	+0.7
	comp=N,12nm,0.2s						
UCC	Uccle	1.18	272	⇑P	Pn	04 03 09.5	-0.7
UCC				S	Sb	04 03 24.4	-1.0
DOU	Dourbes	1.24	238	⇓P	Pn	04 03 11.7	+0.7
DOU				S	Sb	04 03 28.6	+1.4
	comp=E,13nm,0.2s						
DOU	Dourbes	1.24	238	P	Pn	04 03 11.7	+0.7
DOU				S	Sb	04 03 28.5	+1.4
	comp=E,13nm,0.2s						
BAIF	Baives	1.47	242	*e*Pn	Pn	04 03 14.1	-0.1
BAIF	Baives	1.47	242	*e*P	Pn	04 03 15.7	+1.5
BAIF	Baives	1.47	242	*e*Pg	Pg	04 03 16.8	-0.2
BAIF				*e*Sn	Sn	04 03 32.3	-0.7
	comp=E,16nm,0.2s						
BAIF				*e*Sg	Sg	04 03 36.3	+0.1
BAIF	Baives	1.47	242	*e*Pn	Pn	04 03 14.1	-0.1
BAIF				*e*P		04 03 15.7	
BAIF				*e*Pg	Pg	04 03 16.8	-0.2
BAIF				*e*Sn	Sn	04 03 32.3	-0.7
BAIF				*e*Sg	Sg	04 03 36.3	+0.1
BAIF	Baives	1.47	242	*e*Pn	Pn	04 03 14.1	-0.1
BAIF	Baives	1.47	242	*e*P	Pn	04 03 15.7	+1.5
BAIF	Baives	1.47	242	*e*Pg	Pg	04 03 16.8	-0.2
BAIF				*e*Sn	Sn	04 03 32.3	-0.7
	comp=E,8.1nm,0.2s						
BAIF				*e*Sg	Sg	04 03 36.3	+0.1
RFYF	Reffroy	2.20	193	*e*Pg	Pg	04 03 30.8	0.0
RFYF	Reffroy	2.20	193	*e*Pg	Pg	04 03 30.8	0.0
RFYF	Reffroy	2.20	193	*e*Pg	Pg	04 03 30.8	0.0
MEZF	Maizieres J'vi	2.40	199	*e*Pg	Pg	04 03 34.1	-0.4
MEZF	Maizieres J'vi	2.40	199	*e*Pg	Pg	04 03 34.1	-0.4
MEZF	Maizieres J'vi	2.40	199	*e*Pg	Pg	04 03 34.1	-0.4
CDF	Champ du Feu	2.46	163	*e*Pn	Pn	04 03 28.4	+0.7
CDF	Champ du Feu	2.46	163	*e*Pg	Pg	04 03 36.0	+0.3
CDF				*e*Sg	Sg	04 04 07.1	-0.5
	comp=E,1.1nm,0.2s						
CDF	Champ du Feu	2.46	163	*e*Pn	Pn	04 03 28.4	+0.7
CDF				*e*Pg	Pg	04 03 36.0	+0.3
CDF				*e*Sg	Sg	04 04 07.1	-0.5
CDF	Champ du Feu	2.46	163	*e*Pn	Pn	04 03 28.4	+0.7
CDF	Champ du Feu	2.46	163	*e*Pg	Pg	04 03 36.0	+0.3
CDF				*e*Sg	Sg	04 04 07.1	-0.5
	comp=E,0.6nm,0.2s						
SFTF	Sexfontaines	2.68	197	*e*Pn	Pn	04 03 30.7	-0.1
	baz=22						
SFTF	Sexfontaines	2.68	197	*e*Pg	Pg	04 03 39.4	-0.6
SFTF				*e*Sg	Sg	04 04 14.8	0.0
	comp=E,2.5nm,0.3s						
SFTF	Sexfontaines	2.68	197	*e*Pn	Pn	04 03 30.7	-0.1
SFTF				*e*Pg	Pg	04 03 39.4	-0.6
SFTF				*e*Sg	Sg	04 04 14.8	0.0
SFTF	Sexfontaines	2.68	197	*e*Pn	Pn	04 03 30.7	-0.1
SFTF	Sexfontaines	2.68	197	*e*Pg	Pg	04 03 39.4	-0.6
SFTF				*e*Sg	Sg	04 04 14.8	0.0
	comp=E,1.2nm,0.3s						
HAU	Haudompre	2.77	178	*e*Pn	Pn	04 03 32.4	+0.4
HAU	Haudompre	2.77	178	*e*Pg	Pg	04 03 42.3	+0.6
HAU				*e*Sg	Sg	04 04 17.8	+0.2
	comp=E,2.3nm,0.2s						
HAU	Haudompre	2.77	178	*e*Pn	Pn	04 03 32.4	+0.4
HAU				*e*Pg	Pg	04 03 42.3	+0.6
HAU				*e*Sg	Sg	04 04 17.8	+0.2
HAU	Haudompre	2.77	178	*e*Pn	Pn	04 03 32.4	+0.4
HAU	Haudompre	2.77	178	*e*Pg	Pg	04 03 42.3	+0.6
HAU				*e*Sg	Sg	04 04 17.8	+0.2
	comp=E,1.1nm,0.2s						
LOR	Lormes	3.84	205	*e*Pn	Pn	04 03 46.6	-0.1
LOR	Lormes	3.84	205	*e*Pg	Pg	04 04 00.8	-1.2
	baz=23						
LOR				*e*Sg	Sg	04 04 50.1	-1.6
	comp=E,1.6nm,0.2s						
LOR	Lormes	3.84	205	*e*Pn	Pn	04 03 46.6	-0.1
LOR				*e*Pg	Pg	04 04 00.8	-1.2
LOR				*e*Sg	Sg	04 04 50.1	-1.6
LOR	Lormes	3.84	205	*e*Pn	Pn	04 03 46.6	-0.1
LOR	Lormes	3.84	205	*e*Pg	Pg	04 04 00.8	-1.2
LOR				*e*Sg	Sg	04 04 50.1	-1.6
	comp=E,0.8nm,0.2s						
SSF	Saint Saulge	4.12	207	*e*Pn	Pn	04 03 50.8	+0.2
SSF				*e*Sg	Sg	04 04 59.7	-1.2
	comp=E,1.5nm,0.3s						
SSF	Saint Saulge	4.12	207	*e*Pn	Pn	04 03 50.8	+0.2
SSF				*e*Sg	Sg	04 04 59.7	-1.2
SSF	Saint Saulge	4.12	207	*e*Pn	Pn	04 03 50.8	+0.2
SSF				*e*Sg	Sg	04 04 59.7	-1.2
	comp=E,0.8nm,0.3s						
AVF	Avril sur Loir	4.41	207	*e*Pn	Pn	04 03 54.6	0.0
AVF	Avril sur Loir	4.41	207	*e*Pn	Pn	04 03 54.6	0.0
AVF	Avril sur Loir	4.41	207	*e*Pn	Pn	04 03 54.6	0.0
SMF	Signal de Mont	4.42	202	*e*Pn	Pn	04 03 54.9	+0.2
SMF	Signal de Mont	4.42	202	*e*Pn	Pn	04 03 54.9	+0.2
SMF	Signal de Mont	4.42	202	*e*Pn	Pn	04 03 54.9	+0.2
FLN	La Foliniere	4.79	248	*e*Pn	Pn	04 03 58.9	-0.8
	baz=63						
FLN	La Foliniere	4.79	248	*e*Pn	Pn	04 03 58.9	-0.8
FLN	La Foliniere	4.79	248	*e*Pn	Pn	04 03 58.9	-0.8
GRR	Gorron	5.19	245	*e*Pn	Pn	04 04 04.8	-0.4
GRR	Gorron	5.19	245	*e*Pn	Pn	04 04 04.8	-0.4
GRR	Gorron	5.19	245	*e*Pn	Pn	04 04 04.8	-0.4

WEL 22 04:02:50.6±0.3**, 3875S×17575E, h136^{km}**±2^{km}**, ML3.6**/19**, Error ellipse: s-maj=2.3km s-min=1.9km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRVZ	Karewarewa	0.35	194	PN	Pn	04 03 09.8	+0.2
KRVZ				SN	Sn	04 03 24.6	+0.5
WTVZ	West Tongariro	0.38	199	PN	Pn	04 03 09.9	+0.2
WTVZ				SN	Sn	04 03 24.2	-0.1
TWVZ	Taurewa	0.40	218	PN	Pn	04 03 09.8	0.0
TWVZ				SN	Sn	04 03 24.0	-0.4
NGZ	Ngauruhoe	0.44	195	PN	Pn	04 03 10.2	+0.2
WPVZ	Whakapapa	0.48	200	PN	Pn	04 03 10.4	+0.2
TUVZ	Tukino	0.52	188	PN	Pn	04 03 10.7	+0.3
TUVZ				SN	Sn	04 03 25.4	-0.1
WNVZ	Wahianoa	0.59	192	PN	Pn	04 03 11.1	+0.3
MOVZ	Moawhango	0.65	180	PN	Pn	04 03 11.1	-0.1
MOVZ				SN	Sn	04 03 26.0	-1.0
MTVZ	Mangateitei	0.67	199	PN	Pn	04 03 11.5	+0.1
BKZ	Black Stump Fm	0.71	126	PN	Pn	04 03 11.8	+0.2
HIZ	Hauiti	0.74	289	PN	Pn	04 03 11.5	-0.3
WAZ	Wanganui	1.16	210	PN	Pn	04 03 15.3	-0.3
URZ	Urewera	1.18	66	PN	Pn	04 03 15.3	-0.4
TSZ	Takapari Road	1.31	173	PN	Pn	04 03 17.0	-0.1
MWZ	Matawai	1.45	74	PN	Pn	04 03 18.9	+0.3
KNZ	Kokohu	1.52	101	PN	Pn	04 03 19.6	+0.3
MRZ	Mangatainoka R	1.91	184	PN	Pn	04 03 22.5	-1.3
BFZ	Birch Farm	1.96	169	PN	Pn	04 03 23.5	-0.9
KIW	Kapiti Island	2.20	197	PN	Pn	04 03 25.5	-1.8
MXZ	Matakaoa Point	2.34	60	PN	Pn	04 03 29.0	0.0
CAW	Cannon Point	2.41	192	PN	Pn	04 03 27.9	-1.9
MTW	Mount Morrison	2.41	184	PN	Pn	04 03 27.8	-2.1
DUWZ	D'Urville Isla	2.48	214	PN	Pn	04 03 28.6	-2.2
MRW	Makara Radio	2.60	198	PN	Pn	04 03 30.0	-2.3
PAWZ	Paruwai Farm	2.64	185	PN	Pn	04 03 30.4	-2.3
TRWZ	Traveller	2.64	181	PN	Pn	04 03 30.8	-2.0
SNZO	South Karori	2.68	197	PN	Pn	04 03 30.7	-2.6
MSWZ	Moikau Station	2.69	188	PN	Pn	04 03 31.0	-2.4
TCW	Tory Channel	2.71	204	PN	Pn	04 03 31.2	-2.4
BHW	Baring Head	2.74	194	PN	Pn	04 03 31.4	-2.6
TUWZ	Tuamarina	3.01	207	PN	Pn	04 03 34.8	-2.7
NNZ	Nelson	3.06	216	PN	Pn	04 03 35.4	-2.7
QRZ	Quartz Range	3.23	229	PN	Pn	04 03 39.0	-1.4
THZ	Tophouse	3.71	215	PN	Pn	04 03 43.9	-2.7
KHZ	Kahutara	4.03	204	PN	Pn	04 03 47.5	-3.3
MQZ	McQueen's Vall	5.47	204	PN	Pn	04 04 04.7	-5.4

IDC 22 04:24:56.7±9.1**, 718S×12015E, h352^{km}**±109^{km}**, mb2.7**/2**, mb1 2.7**/4**, mb1mx2.6**/18**, mbtmp2.6**/4**, Error ellipse: s-maj=132.5km s-min=36.9km az=57.0, Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.10	154	P	P	04 27 40.0	+0.6
	0.1nm,0.3s,baz=334,slow=14,SNR=7.8						
FITZ				S	S	04 29 52.3	-1.7
	0.1nm,0.3s,baz=182,slow=22,SNR=3.2						
WRA	Warramunga Arr	18.72	134	P	P	04 28 50.9	-0.4
	0.1nm,0.3s,baz=304,slow=12,SNR=8.1						
ASAR	Alice Springs	21.05	143	P	P	04 29 14.6	+0.4
	0.3nm,0.4s,baz=310,slow=8.3,SNR=5.1						
MKAR	Makanchi Array	63.38	332	P	P	04 34 49.5	0.0
	0.1nm,0.2s,baz=132,slow=7.1,SNR=5.3						

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*IDC **22** 04:31:19.6±1.0, 1653N×12108E, h0^{km}, mb3.7/8, mb1 3.8/8, mb1mx3.7/20, mbtmp3.7/8, Error ellipse: s-maj=63.3km s-min=18.9km az=72.0*

*ISCJB **22** 04:31:21.9±0.7, 1657N±003×12101E±005, h23^{km}±6^{km}, mb3.7/9, Error ellipse: s-maj=8.0km s-min=5.7km az=168.9*

*MAN **22** 04:31:21, 1656N×12103E, h7^{km}, mb4.3, ML3.1, MS2.9*

*NEIC **22** 04:31:24.3±0.8, 1672N×12151E, h35^{km}, mb4.2/1, Error ellipse: s-maj=31.3km s-min=14.9km az=73.0*

ISC 22 04:31:21.1±0.7**, 1659N**±003×**12106E**±004**, h6^{km}**±6^{km}**, n21, σ1^{s}14**/26**, mb3.7**/9**, 5D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BCPH	Baguio City Da	0.50	246	⇓*e*P	Pg	04 31 30.5	-0.2
BCPH				*i* S	Sg	04 31 39.1	+1.8
CAUP	Cauayan	0.82	64	*e*P	Pg	04 31 37.9	+1.1
BALP	Baler	0.98	149	*e*S	Sg	04 31 51.9	-0.7
PCPH	Palayan	1.02	178	⇓*e*P	Pg	04 31 39.1	-1.6
PCPH				*i* S	Sg	04 31 53.6	-0.3
ABRA	Dolores	1.11	343	*e*P	Pg	04 31 41.9	-0.4
APYP	Conner	1.28	8	*e*P	Pn	04 31 45.5	-0.1
CVP	Callao Caves	1.33	33	⇓*e*P	Pn	04 31 45.5	-0.8
CVP				*i* S	Sb	04 32 04.8	+0.9
PIP	Pasuquin	1.78	346	⇓*i*P	Pn	04 31 54.3	+1.8
PIP				*e*S	Sn	04 32 07.6	-7.8
POLP	Polilio Island	2.03	155	*e*S	Sn	04 32 25.1	+3.4
LQP	Lukban	2.50	169	*i* P	Pn	04 32 08.8	+6.4
GQP	Guinayangan	2.98	153	⇓*e*P	Pn	04 32 10.2	+1.2
GQP				*e*S	Sn	04 32 46.5	+1.4
KSRS	Korea Array	21.65	15	P	P	04 36 11.9	-0.5
	0.8nm,0.6s,mb3.3,baz=192,slow=11,SNR=3.2						
KULM	Kulim	22.94	243	*e*P	P	04 36 30.6	+4.4
SONM	Songino Array	33.42	342	P	P	04 37 59.7	-0.9
	0.6nm,0.7s,mb3.6,baz=161,slow=10.0,SNR=5.6						
WRA	Warramunga Arr	38.57	160	P	P	04 38 43.0	-2.0
	0.4nm,0.5s,mb3.4,baz=338,slow=9.1,SNR=4.3						
ASAR	Alice Springs	41.93	162	P	P	04 39 12.1	-0.7
	0.7nm,0.6s,mb3.5,baz=341,slow=6.6,SNR=6.5						
MKAR	Makanchi Array	43.96	322	P	P	04 39 29.2	+0.2
	0.2nm,0.2s,mb3.4,baz=111,slow=6.6,SNR=4.5						
ZALV	Zalesovo Beam	46.69	331	P	P	04 39 49.0	-1.6
	0.3nm,0.4s,mb3.6,baz=123,slow=5.3,SNR=2.4						
KURK	Kurchatov	48.02	325	*e*P	P	04 40 00.5	-0.5
	2.4nm,0.9s,mb4.2						
ARCES	ARCESS Array B	76.53	339	P	P	04 43 13.4	+1.5
	2.4nm,1.0s,mb4.1,baz=95,slow=6.4,SNR=2.3						
FINES	FINESS Array B	77.95	331	P	P	04 43 19.1	-0.8
	1.1nm,0.8s,mb3.9,baz=96,slow=5.7,SNR=4.5						

IDC 22 04:56:03.4±8.6**, 747S×11974E, h316^{km}**±99^{km}**, mb2.9**/2**, mb1 3.0**/4**, mb1mx2.8**/18**, mbtmp2.8**/4**, Error ellipse: s-maj=136.4km s-min=34.7km az=55.0, Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.03	152	P	Pn	04 58 46.6	+0.6
	0.1nm,0.3s,baz=37,slow=5.4,SNR=5.4						
FITZ				S	S	05 00 59.9	0.0
	0.2nm,0.3s,baz=198,slow=18,SNR=5.5						
WRA	Warramunga Arr	18.82	133	P	P	05 00 00.8	-0.2
	0.2nm,0.3s,baz=304,slow=12,SNR=11						
WRA				S	S	05 03 25.9	+7.9
	0.1nm,0.3s,baz=204,slow=29,SNR=5.4						
ASAR	Alice Springs	21.07	141	P	P	05 00 24.0	+0.2
	0.9nm,0.3s,baz=313,slow=8.7,SNR=14						
MKAR	Makanchi Array	63.45	332	P	P	05 06 00.2	+0.1
	0.1nm,0.5s,baz=135,slow=6.9,SNR=4.0						

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*IDC **22** 05:17:51.9±1.7, 5420N×16274W, h0^{km}, mb3.7/8, mb1 3.9/9, mb1mx3.7/27, mbtmp3.8/9, Error ellipse: s-maj=43.7km s-min=20.4km az=13.0*

*ISCJB **22** 05:17:53.1±0.7, 5420N±008×16223W±007, h10^{km}, mb3.7/8, Error ellipse: s-maj=10.8km s-min=6.1km az=177.7*

*NEIC **22** 05:17:57.9, 5424N×16244W, h10^{km}, ML3.5(AEIC), After AEIC.*

ISC 22 05:17:54.7±0.7**, 5418N**±007×**16236W**±007**, h10^{km}, n20, σ1^{s}25**/25**, mb3.7**/8**, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FALS	False Pass	0.91	318	P	Pg	05 18 12.7	+0.4
FALS				S	Sg	05 18 24.2	0.0
SDPT	Sand Point	1.60	42	P	Pn	05 18 23.8	+0.8
AKUT	Akutan	2.00	270	P	Pn	05 18 29.4	+0.8
AKLV	Akutan Long Va	2.11	271	P	Pn	05 18 30.6	+0.5
UNV	Unalaska Valle	2.47	264	P	Pn	05 18 35.4	+0.5
CHGN	Chignik	3.10	45	*e*P	Pn	05 18 44.6	+0.9
KDAK	Kodiak Island	6.57	53	Pn	Pn	05 19 31.2	0.0
KDAK				Pg	Pg	05 19 44.2	-16
KDAK				Sn	Sn	05 20 44.4	-1.6
KDAK				Lg		05 21 12.1	
KDAK	Kodiak Island	6.57	53	Pn	Pn	05 19 31.2	0.0
	1.5nm,0.3s,baz=185,slow=8.3,SNR=8.9						
KDAK				Pg	Pg	05 19 44.2	-16
	4.5nm,0.3s,baz=269,slow=7.4,SNR=12						
KDAK				Sn	Sn	05 20 44.4	-1.6
	0.5nm,0.3s,baz=333,slow=23,SNR=1.9						
KDAK				Lg		05 21 12.1	
	3.2nm,0.3s,baz=96,slow=18,SNR=5.9						
SVW2	Sparrevohn	7.83	25	*e*P	Pn	05 19 49.9	+1.4
TNA	Tin City	11.75	349	*e*Pn	Pn	05 20 44.1	+2.0
	1.2nm,0.5s						
YKA	Yellowknife Ar	25.84	52	P	P	05 23 27.5	+1.6
	0.9nm,0.8s,mb3.4,baz=274,slow=9.9,SNR=16						
NVAR	Mina Array Bea	33.64	100	P	P	05 24 36.5	+1.3
	0.7nm,0.6s,mb3.8,baz=296,slow=8.9,SNR=4.8						
ULM	Lac du Bonnet	39.57	68	P	P	05 25 25.4	-0.2
	0.8nm,0.6s,mb3.6,baz=303,slow=11,SNR=3.3						
TXAR	Lajitas Array	48.62	96	P	P	05 26 38.4	-0.1
TXAR	Lajitas Array	48.62	96	P	P	05 26 38.4	-0.1
	0.4nm,0.8s,mb3.5,baz=305,slow=6.0,SNR=5.2						
ZALV	Zalesovo Beam	58.82	320	P	P	05 27 51.1	-1.7
	0.4nm,0.4s,mb3.8,baz=28,slow=5.6,SNR=2.4						
MKAR	Makanchi Array	65.49	317	P	P	05 28 35.0	-2.6
	0.2nm,0.3s,mb3.7,baz=42,slow=8.1,SNR=3.1						
HFS	Hagfors	65.99	2	P	P	05 28 38.5	-2.2
	3.3nm,0.9s,mb4.4,baz=32,slow=4.1,SNR=6.8						
AKTK	Aktyubinsk	70.39	334	P	P	05 29 06.9	-1.5
AKTO	Aktyubinsk	70.39	334	P	P	05 29 06.9	-1.5
	0.9nm,0.7s,mb3.8,baz=11,slow=5.2,SNR=4.8						

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*TEH **22** 05:24:49.2, 3497N×4674E, h21^{km}, ML3.6*

*THR **22** 05:25:30.9±0.4, 3478N×47.15E, h14^{km}±6^{km}, ML3.2*

*ISCJB **22** 05:25:33.6±0.5, 3456N±003×4739E±004, h10^{km}, Error ellipse: s-maj=5.7km s-min=3.3km az=142.6*

*KISR **22** 05:25:34.3±0.9, 3438N×4740E, h8^{km}±999^{km}, ML3.4*

*CSEM **22** 05:25:35.8±0.1, 3452N×4763E, h20^{km}, ML3.6, Error ellipse: s-maj=3.8km s-min=1.6km az=126.0*

ISC 22 05:25:33.6±0.5**, 3468N**±003×**4728E**±004**, h10^{km}, n50, σ1^{s}22**/61**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILIN	Laeen	0.35	312	*e*Sg	Pg	05 25 38.8	-1.7
IVIS	Veys	0.38	246	*e*Sg	Pg	05 25 45.5	+4.4
IVIS				*e*	Sg	05 25 47.2	+0.9
	comp=Z,71µm,0.1s						
IGHG	Ghaleghazi	0.68	239	*e*	Sg	05 25 58.9	+3.2
	comp=Z,28µm,0.1s						
ASAO	Ashtian	2.27	93	*e*Pg	Pb	05 26 14.0	-0.6
	SNR=90						
ASAO	Ashtian	2.27	93	*e*Pg	Pb	05 26 14.0	-0.6
ASAO				*e*Sg	Sg	05 26 45.7	-0.8
ASAO				AML	AML	05 26 53.7	
	comp=N,124nm,0.8s						
IRAZ	Razeghan	2.29	71	*e*	Sg	05 26 53.8	+6.6
	comp=Z,4µm,0.4s						
BHD	Baghdad	2.79	240	*e*Pn	x	05 26 20.0	
BHD				*e*Sn	x	05 26 53.0	
BHD	Baghdad	2.79	240	*e*Pn	x	05 26 20.0	
BHD				*e*Sn	x	05 26 53.0	
IMHD	Mahdasht	2.95	69	*e*Pn	Pn	05 26 20.6	+0.1
IMHD	Mahdasht	2.95	69	*e*Pn	Pn	05 26 20.6	+0.1

THKV	Tehran--Karaj	3.19	66	*e*Pn	Pn	05 26 23.7	-0.1
	SNR=52						
THKV	Tehran--Karaj	3.19	66	*e*Pn	Pn	05 26 23.7	-0.1
CHTH	Charan	3.38	68	*e*Pn	Pn	05 26 26.5	+0.2
	SNR=52						
CHTH	Charan	3.38	68	*e*Pn	Pn	05 26 26.5	+0.2
IPIR	Pirpir	3.61	122	*e*	Sg	05 27 41.7	+12
	comp=Z,965nm,0.3s						
IVRN	Varamin	3.67	84	*e*Pn	Pn	05 26 31.2	+0.8
IVRN				*e*		05 26 46.6	
	comp=Z,2μm,0.5s						
IVRN	Varamin	3.67	84	*e*Pn	Pn	05 26 31.2	+0.8
MSL	Mosul	3.77	296	*e*Pn	x	05 26 43.0	
MSL				*e*Sn	x	05 27 24.0	
IKLH	Kalahroud	3.82	110	*e*Pn	Pn	05 26 34.0	+1.5
IKLH				*e*		05 27 46.9	
	comp=Z,1μm,0.6s						
IKLH	Kalahroud	3.82	110	*e*Pn	Pn	05 26 34.0	+1.5
DAMV	Damavand	3.96	75	*e*Pn	Pn	05 26 34.7	+0.4
	SNR=52						
DAMV	Damavand	3.96	75	*e*Pn	Pn	05 26 34.7	+0.3
DAMV				AML	AML	05 27 55.0	
	comp=E,33nm,0.7s						
IDMV	Damavand	4.00	76	*e*Pn	Pn	05 26 35.3	+0.4
IDMV				*e*		05 26 52.1	
	comp=Z,702nm,0.3s						
IDMV	Damavand	4.00	76	*e*Pn	Pn	05 26 35.3	+0.4
ISFB	Sefidab	4.11	93	*e*	Pg	05 26 53.1	+0.9
	comp=Z,343nm,0.2s						
GRMI	Germi	4.15	7	*e*Pn	Pn	05 26 34.7	-2.2
	SNR=52						
GRMI	Germi	4.15	7	*e*Pn	Pn	05 26 34.7	-2.2
IZEF	Zefreh	4.57	112	*e*Pn	Pn	05 26 44.3	+1.6
IZEF				*e*		05 28 10.0	
	comp=Z,495nm,0.5s						
IZEF	Zefreh	4.57	112	*e*Pn	Pn	05 26 44.3	+1.6
IFIR	Firoozkooh	4.59	76	*e*Pn	Pn	05 26 43.2	+0.2
IFIR				*e*		05 26 48.6	
	comp=Z,383nm,0.2s						
IFIR	Firoozkooh	4.59	76	*e*Pn	Pn	05 26 43.2	+0.2
ILAS	Lasjerd	4.71	80	*e*	Pg	05 27 06.0	+2.2
	comp=Z,277nm,0.2s						
MIB	Mutribah	4.87	179	*e*P	Pn	05 26 48.0	+1.2
MIB				*e*S	Sn	05 27 43.2	0.0
MIB				AML	AML	05 27 44.4	
	comp=Z,12nm,0.4s						
MIB	Mutribah	4.87	179	*e*P	Pn	05 26 48.0	+1.2
MIB				*e*S	Sn	05 27 43.2	0.0
	comp=Z,12nm,0.4s						
ISHM	Shahmirzad	5.05	75	*e*	Pb	05 27 00.2	-1.8
	comp=Z,450nm,0.3s						
RST	Umm Al-Ruwaisa	5.17	183	*e*P	Pn	05 26 52.1	+1.1
RST				*e*S	Sn	05 27 50.2	-0.6
RST				AML	AML	05 27 52.3	
	comp=Z,49nm,0.7s						
RST	Umm Al-Ruwaisa	5.17	183	*e*P	Pn	05 26 52.1	+1.1
RST				*e*S	Sn	05 27 50.2	-0.5
NAY	Al-Naaiem	5.42	180	*e*P	Pn	05 26 55.5	+1.1
NAY				*e*S	Sn	05 27 56.2	-0.6
NAY				AML	AML	05 27 58.2	
	comp=Z,12nm,0.5s						
NAY	Al-Naaiem	5.42	180	*e*P	Pn	05 26 55.5	+1.1
NAY				*e*S	Sn	05 27 56.2	-0.6
	comp=Z,12nm,0.5s						
IANJ	Anjiloo	5.50	80	*e*	Sg	05 28 29.6	-0.5
	comp=Z,151nm,0.3s						
KBD	Kabd	5.50	176	*e*P	Pn	05 26 56.5	+0.9
KBD				*e*S	Sn	05 27 58.5	-0.4
KBD				AML	AML	05 27 59.7	
	comp=Z,48nm,0.3s						
KBD	Kabd	5.50	176	*e*P	Pn	05 26 56.5	+1.0
KBD				*e*S	Sn	05 27 58.5	-0.4
	comp=Z,48nm,0.3s						
RDF	Al-Radifah	5.74	178	*e*P	Pn	05 26 59.9	+1.0
RDF				*e*S	Sn	05 28 03.8	-1.1
RDF				AML	AML	05 28 06.0	
	comp=Z,20nm,0.5s						
RDF	Al-Radifah	5.74	178	*e*P	Pn	05 26 59.8	+0.9
RDF				*e*S	Sn	05 28 03.8	-1.0
QRN	Al-Qurain	5.94	175	*e*P	Pn	05 27 02.6	+1.0
QRN				*e*S	Sn	05 28 09.2	-0.6
KFJS		6.50	175	P	Pn	05 27 10.2	+0.9
KFJS				S	Sn	05 28 21.8	-1.7
KFJS		6.50	175	P	Pn	05 27 10.2	+0.9
ASYS		7.58	200	P	Pn	05 27 22.2	-2.0
BTHS		11.04	163	P	Pn	05 28 09.0	-2.6
HRDDS		11.87	170	P	Pn	05 28 20.2	-2.7

IDC ***22*** *05:39:08.0±0.7, 13.72N×121.18E, h0^{km}, mb4.1/10, mb1 4.2/10, mb1mx4.0/21, mbtmp4.1/10, Error ellipse: s-maj=71.1km s-min=15.2km az=66.0*

ISCJB ***22*** *05:39:24.1±0.3, 13.50N±0.04×120.73E±0.06, h152^{km}±3^{km}, mb4.0/21, Error ellipse: s-maj=10.4km s-min=6.2km az=167.9*

MAN ***22*** *05:39:25, 13.59N×120.68E, h116^{km}, mb4.3, ML3.1, MS2.9*

NEIC ***22*** *05:39:26.3±4.1, 13.46N×120.76E, h159^{km}±40^{km}, mb4.2/11, Error ellipse: s-maj=24.0km s-min=5.4km az=63.0*

ISC 22 05:39:25.2±0.3, **13.50N**±0.04×**120.74E**±0.06, **h146**^{km}±3^{km}, **n43,** σ**0ˢ.94**/44, **mb4.0**/21, **2C-1D, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LUBP	Lubang	0.53	296	*e*P	Pn	05 39 44.9	-1.4
TGY	Tagaytay City	0.63	18⇑	*e*P	Pn	05 39 48.9	+2.1
TGY				*e*S	Sn	05 40 04.3	+0.9
BOAC	Boac	1.08	92	*e*P	Pn	05 39 50.2	0.0
BUSP	Coron	1.58	200	*e*P	Pn	05 39 55.6	+0.3
BUSP				*e*S	Sn	05 40 17.6	-0.9
POLP	Polilio Island	1.69	44	*e*P	Pn	05 39 56.7	+0.3
OTRP	Odiongan	1.69	132	*e*P	Pn	05 39 56.7	+0.2
OTRP				*e*S	Sn	05 40 19.9	-0.6
GQP	Guinayangan	1.71	76⇓	*e*P	Pn	05 39 56.9	+0.2
PCPH	Palayan	2.08	10⇑	*e*P	Pn	05 39 59.1	-1.9
BALP	Baler	2.37	20	*e*P	Pn	05 40 04.0	-0.5
SCZP	Santa Cruz	2.40	341	*e*P	Pn	05 40 02.7	-2.2
ENPP	El Nido	2.62	209	*e*P	Pn	05 40 09.2	+1.5
CUYO	Cuyo Island	2.65	174	*e*P	Pn	05 40 09.5	+1.5
BOLP	Bolinao	2.97	345	*e*P	Pn	05 40 10.4	-1.7
PVCP	Virac	3.32	88	*e*P	Pn	05 40 18.1	+1.5
CHTO	Chiang Mai	21.58	287	*e*P	P	05 44 04.0	+0.6
	7.5nm,0.9s,mb4.1						
LZH	Lanzhou	27.13	329	*e*P	P	05 44 56.2	+1.6
	15nm,1.3s,mb4.5						
LZH				pP	pP	05 45 00.3	-25
LZH				sP	sP	05 45 02.5	-40
FITZ	Fitzroy Crossi	31.77	171	*e*P	P	05 45 35.6	-0.2
	4.3nm,1.0s,mb4.1						
MBWA	Marble Bar	34.46	182	*e*P	P	05 45 59.0	-0.1
	17nm,0.5s,mb5.0						
WRA	Warramunga Arr	35.83	158	P	P	05 46 10.0	-0.8
	5.2nm,0.6s,mb4.4,baz=336,slow=9.6,SNR=24						
WB2	Warramunga Arr	35.83	158	*e*P	P	05 46 09.7	-1.1
SONM	Songino Array	36.26	344	P	P	05 46 13.7	-0.4
	0.5nm,0.8s,mb3.2,baz=104,slow=6.1,SNR=3.7						
ASAR	Alice Springs	39.12	161	P	P	05 46 38.3	-0.2
	2.5nm,0.6s,mb4.0,baz=338,slow=6.7,SNR=34						
CTAO	Charters Tower	41.77	143	*e*P	P	05 47 01.0	+0.7
	5.9nm,0.8s,mb4.3						
FORT	Forrest	44.59	171	*e*P	P	05 47 21.2	-1.6
	8.9nm,0.9s,mb4.4						
KLBR	Kellerberrin	44.93	184	*e*P	P	05 47 25.1	-0.3
	9.7nm,0.7s,mb4.5						
MK31	Makanchi Array	46.21	324	*e*P	P	05 47 36.3	+0.8
MKAR	Makanchi Array	46.21	324	P	P	05 47 36.4	+1.0
	1.4nm,0.7s,mb3.7,baz=131,slow=8.6,SNR=16						
TKM2	Tokmak 2	48.59	316	*e*P	P	05 47 54.4	+0.5
	1.0nm,0.6s,mb3.6						
ZALV	Zalesovo Beam	49.25	333	P	P	05 47 58.4	-0.3
	0.7nm,0.4s,mb3.6,baz=71,slow=6.4,SNR=4.0						
STKA	Stephens Creek	49.35	156	*e*P	P	05 47 59.3	-0.4
	1.5nm,0.4s,mb4.0						
STKA	Stephens Creek	49.35	156	P	P	05 47 59.3	-0.4
	1.9nm,0.4s,mb4.1,baz=333,slow=9.0,SNR=9.3						
EKS2	Erkin-Say	49.73	315	*e*P	P	05 48 03.2	+0.6
	1.4nm,0.6s,mb3.8						
KURK	Kurchatov	50.37	326	*e*P	P	05 48 07.6	+0.3
	5.0nm,0.8s,mb4.2						
BRVK	Borovoye	56.03	326	*e*P	P	05 48 48.3	-0.3
	1.4nm,0.7s,mb3.9						
AKTK	Aktyubinsk	62.39	320	P	P	05 49 32.7	+0.4
AKTO	Aktyubinsk	62.39	320	P	P	05 49 32.7	+0.4
	0.5nm,0.5s,mb3.6,baz=88,slow=14,SNR=3.8						
ARCES	ARCESS Array B	79.28	339	P	P	05 51 13.4	-0.6
	4.0nm,1.1s,mb4.0,baz=82,slow=8.7,SNR=5.0						
FINES	FINESS Array B	80.47	331	P	P	05 51 20.2	-0.4
FINES	FINESS Array B	80.47	331	P	P	05 51 20.2	-0.4
	2.3nm,1.1s,mb3.7,baz=53,slow=7.8,SNR=4.6						
YKA	Yellowknife Ar	92.94	22	P	P	05 52 21.4	0.0
YKA	Yellowknife Ar	92.94	22	P	P	05 52 21.4	0.0
	0.3nm,0.5s,mb3.6,baz=309,slow=4.5,SNR=9.7						
TXAR	Lajitas Array	119.58	45	PKP	PKPdf	05 57 58.9	+0.6
TXAR	Lajitas Array	119.58	45	PKP	PKPdf	05 57 58.9	+0.6
	0.4nm,0.6s,baz=187,slow=0.8,SNR=7.5						

CSEM ***22*** *05:51:40.8±0.2, 38.39N×39.23E, h15^{km}, MD2.9, Error ellipse: s-maj=4.4km s-min=3.9km az=149.0*

ISCJB ***22*** *05:51:41.6±0.5, 38.36N±0.03×39.24E±0.03, h5^{km}, Error ellipse: s-maj=4.8km s-min=3.5km az=178.0*

ISK ***22*** *05:51:41.0, 38.37N×39.22E, h6^{km}, MD2.9*

DDA ***22*** *05:51:42.6, 38.34N×39.22E, h5^{km}, Md3.0*

ISC 22 05:51:42.1±0.7, **38.37N**±0.04×**39.26E**±0.05, **h4**^{km}±8^{km}, **n16,** σ**0ˢ.81**/25, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	Elazig	0.25	301	*i* P	Pg	05 51 47.1	+0.2
ELZG				*i* S	Sg	05 51 51.9	+1.8
PTK	Pertek	0.53	12	PG	Pg	05 51 52.1	-0.2
PTK				SG	Sg	05 51 59.4	+0.2
PTK	Pertek	0.53	12	*e*Pg	Pg	05 51 52.1	-0.2
PTK				*e*Sg	Sg	05 51 59.4	+0.2
MALT	Malatya	0.65	265	PG	Pg	05 51 53.5	-1.1
MALT				SG	Sg	05 52 02.1	-1.0
MALT	Malatya	0.65	265	*e*Pg	Pg	05 51 53.5	-1.1
MALT				*e*Sg	Sg	05 52 02.1	-1.0
MYA	Malataya	0.65	266	PG	Pg	05 51 54.1	-0.5
MYA	Malataya	0.65	266	*e*Pg	Pg	05 51 54.1	-0.5
DIY	Diyarbakir	0.90	121	PG	Pg	05 51 58.8	-0.5
DIY	Diyarbakir	0.90	121	*e*Pg	Pg	05 51 58.8	-0.5
URFA	Urfa	0.99	200	*e*PG	Pg	05 52 01.0	0.0
URFA	Urfa	0.99	200	*e*Pg	Pg	05 52 01.0	0.0
EZC	Erzincan	1.44	17	*e*PN	Pn	05 52 08.1	-0.9
BNGL	BINGOL	1.59	68	*i* P	Pn	05 52 11.5	+0.5
BNGL				*i* S	Sn	05 52 31.7	-0.3
MARD	Mardin	1.60	131	*i* P	Pn	05 52 10.7	-0.4
MARD				*i* S	Sn	05 52 32.1	-0.1
BEST	Besiri	1.66	106	*i* P	Pn	05 52 12.1	+0.2
BEST				*i* S	Sn	05 52 35.1	+1.5
GZT	Gaziantep	1.68	233	*i* P	Pn	05 52 11.6	-0.5
GZT				*i* S	Sg	05 52 37.6	+1.6

BJI ***22*** *05:59:05.8, 9.66S×151.56E, h46^{km}, mB5.2, mb4.7, Msz4.6*

MOS ***22*** *05:59:07.4±1.0, 9.54S×150.93E, h33^{km}, mb4.9/13, Error ellipse: s-maj=10.4km s-min=9.4km az=98.0*

ISCJB ***22*** *05:59:08.0±1.4, 9.62S±0.06×150.99E±0.06, h42^{km}±12^{km}, mb4.6/37, MS3.9/12, Error ellipse: s-maj=10.7km s-min=9.4km az=144.1*

GCMT ***22*** *05:59:10.4±0.3, 9.66S×151.13E, h12^{km}, MW4.9/69, Moment Tensor Solution. s23,c28; s69,c109; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.67±.09; M$_{\theta\theta}$2.60±.07; M$_{\phi\phi}$0.06±.09; M$_{r\theta}$0.05±.30; M$_{\theta\phi}$0.34±.08; M$_{\phi r}$0.07±.39; Best double couple: M$_0$2.65800×10^{16} NP1:ϕ_s84.00000°, δ44.00000°, λ-88.00000°. NP2: ϕ_s261.00000°, δ46.00000°, λ-92.00000°. Principal axes: T 2.6450, Plg1.0000°, Azm353.0000°; N 0.0260, Plg1.0000°, Azm263.0000°; P -2.6720, Plg89.0000°, Azm110.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***22*** *05:59:10.4±0.8, 9.60S×151.00E, h51^{km}±7^{km}, mb4.7/22 Error ellipse: s-maj=7.8km s-min=6.7km az=162.0*

IDC ***22*** *05:59:11.3±2.4, 9.63S×150.95E, h57^{km}±21^{km}, mb4.3/10, mb1 4.5/15, mb1mx4.4/18, mbtmp4.4/15, ML4.1/5, MS3.9/14, Ms1 3.9/14, ms1mx3.7/20, Error ellipse: s-maj=18.1km s-min=17.0km az=141.0*

ISC 22 05:59:10.4±1.1, **9.62S**±0.07×**150.98E**±0.06, **h48**^{km}±10^{km}, **n159,** σ**0ˢ.99**/93, **mb4.6**/37, **MS3.9**/12, **3C-5D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	3.77	273*d*	*i*P	Pn	06 00 06.0	-0.1
PMG	Port Moresby	3.77	273	P	Pn	06 00 06.1	-0.1
	32nm,0.3s,baz=91,slow=6.3,SNR=60						
PMG				S	Sn	06 00 59.1	+10
	5.3nm,0.3s,baz=322,slow=23,SNR=1.9						
PMG				LR	LR	06 01 15.3	
	comp=Z,274nm,19.1s,baz=64,slow=33						
COEN	Coen	8.77	240	*e*Pn	Pn	06 01 13.3	-1.4
	5.1nm,0.5s						
HNR	Honiara	8.85	90	P	Pn	06 01 16.4	+0.7
HNR	Honiara	8.85	90	P	Pn	06 01 16.4	+0.7
	4.5nm,0.3s,baz=266,slow=6.6,SNR=7.0						
CTA	Charters Tower	11.37	203	*e*P	Pn	06 01 49.7	-0.5
	3.5nm,0.3s						
CTA	Charters Tower	11.37	203	*e*P	Pn	06 01 49.7	-0.5
CTA				pmax	pmax		
	comp=Z,4.0nm,0.3s						
CTA	Charters Tower	11.37	203	P	Pn	06 01 50.3	+0.1
	comp=Z,1.3nm,0.3s,baz=27,slow=14,SNR=6.2						
CTAO	Charters Tower	11.37	203	*e*P	Pn	06 01 50.9	+0.7
	comp=Z,5.4nm,0.5s						
CTAO	Charters Tower	11.37	203	*e*P	Pn	06 01 50.9	+0.7
CTAO				pmax	pmax		
	comp=Z,5.0nm,0.5s						
KAKA	Kakadu	18.45	259⇑	*i*P	Pn	06 03 22.7	0.0
	comp=Z,35nm,0.7s						
WB2	Warramunga Arr	19.06	236⇓	*i*P	Pn	06 03 29.9	-0.1
WRA	Warramunga Arr	19.07	236	P	Pn	06 03 30.1	-0.1
	comp=Z,1.4nm,0.3s,baz=60,slow=11,SNR=51						
WRA				LR	LR	06 10 21.5	
	comp=Z,251nm,18.9s,baz=70,slow=35						
DZM	Mont Dzumac	19.33	132	*e*P	Pn	06 03 29.9	-3.4
DZM	Mont Dzumac	19.33	132	P	Pn	06 03 32.9	-0.3
	comp=Z,0.3nm,0.3s,baz=327,slow=12,SNR=11						
DZM				LR	LR	06 09 34.0	
	comp=Z,948nm,21.2s,baz=347,slow=32						
ARMA	Armidale	20.70	178	*e*P	P	06 03 48.8	+2.1
ASAR	Alice Springs	21.48	227	P	P	06 03 55.9	+0.8
	comp=Z,7.7nm,0.7s,mb4.1,baz=64,slow=9.4,SNR=48						
STKA	Stephens Creek	23.80	200	*e*P	P	06 04 15.2	-3.6
	comp=Z,12nm,0.8s,mb4.4						
STKA	Stephens Creek	23.80	200	P	P	06 04 17.4	-1.5
	comp=Z,13nm,0.8s,mb4.4,baz=3.1,slow=11,SNR=12						
STKA				LR	LR	06 14 03.8	
	comp=Z,432nm,18.1s,MS4.0,baz=20,slow=38						
GUMO	Guam	23.84	345	LR	LR	06 11 45.7	
	comp=Z,273nm,20.4s,MS3.7,baz=114,slow=32						
FITZ	Fitzroy Crossi	25.98	248⇓	*i*P	P	06 04 39.4	+0.5
	comp=Z,36nm,0.6s,mb5.1						
FITZ	Fitzroy Crossi	25.98	248	P	P	06 04 39.4	+0.5
	comp=Z,18nm,0.7s,mb4.7,baz=81,slow=8.4,SNR=80						
FITZ				LR	LR	06 13 45.4	
	comp=Z,165nm,21.0s,MS3.5,baz=249,slow=34						
FORT	Forrest	29.98	222	*e*P	P	06 05 14.7	+0.3
	comp=Z,19nm,0.9s,mb4.8						
MBWA	Marble Bar	32.17	245	*e*P	P	06 05 34.2	+0.4
	comp=Z,14nm,0.9s,mb4.8						
AFI	Afiamalu	36.68	100	LR	LR	06 17 40.3	
	comp=Z,148nm,18.8s,MS3.8,baz=276,slow=30						
KLBR	Kellerberrin	37.77	230	*e*P	P	06 06 21.7	-0.3
NWAO	Narrogin (SRO)	38.79	228	LR	LR	06 23 10.7	
	comp=Z,362nm,19.5s,MS4.2,baz=183,slow=37						
MJAR	Matsushiro Arr	47.46	346	P	P	06 07 40.1	-0.3
	comp=Z,6.1nm,0.9s,mb4.5,baz=163,slow=10.0,SNR=12						
MAJO	Matsushiro	47.46	346	*e*P	P	06 07 39.8	-0.6
	comp=Z,15nm,0.9s,mb4.9						
MAJO	Matsushiro	47.46	346	*e*P	P	06 07 39.8	-0.6
MAJO				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
SSE	Sheshan	49.55	326	*e*P	P	06 07 57.8	+1.2
SSE				AP	pP	06 08 06.8	-3.1
SSE				XP	sP	06 08 11.0	-4.5
SSE				AMB	AMB		
	comp=Z,7.0nm,1.3s,mb4.5						
SSE				AMB	AMB		
	comp=Z,149nm,6.7s						
SSE	Sheshan	49.55	326	*e*P	P	06 07 57.8	+1.2
	comp=Z,7.0nm,1.3s,mb4.5						
SSE				pP	pP	06 08 06.7	-3.2
SSE				sP	sP	06 08 11.0	-4.5
SSE				S	S	06 15 11.7	+10
SSE				sS	sS	06 15 28.5	+5.1
SSE				LR	LR		
	comp=Z,170nm,36.4s,MS3.8						
QIZ	Qiongzhong	49.55	305	*e*P	P	06 08 00.6	+3.8
QIZ				S	S	06 15 09.9	+8.3
QIZ				LR	LR		
	comp=Z,233nm,7.1s						
KSRS	Korea Array	51.57	337	P	P	06 08 12.2	+0.4
	comp=Z,5.7nm,1.1s,mb4.4,baz=157,slow=8.8,SNR=11						
KSRS				LR	LR	06 29 27.3	
	comp=Z,93nm,18.1s,MS3.9,baz=169,slow=35						
NJ2	Nanjing	51.57	325	*e*P	P	06 08 14.3	+2.4
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
KULM	Kulim	52.29	284	*e*P	P	06 08 18.0	+0.4
PSI	Prapat	53.30	281	P	P	06 08 23.9	-1.2
	comp=Z,4.4nm,0.7s,mb4.5,baz=173,slow=9.0,SNR=8.0						
PPT	Papeete	58.13	105	*e*S	S	06 17 01.5	+3.7
	comp=Z,61nm,26.0s						
PPT				*e*LR	LR	06 26 07.2	
	comp=Z,180nm,31.5s						
XAN	Xi'an	58.97	320	P	P	06 09 04.6	-0.6
XAN				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.7						
KLR	Kul'dur	60.98	346	*e*P	P	06 09 15.2	-3.4
LZH	Lanzhou	63.51	318	*e*P	P	06 09 37.0	+1.1
	comp=Z,19nm,1.0s,mb5.1						
LZH				pP	pP	06 09 41.0	-8.5
LZH				sP	sP	06 09 43.5	-12
LZH	Lanzhou	63.51	318	*e*P	P	06 09 37.0	+1.1
LZH				*SP	sP	06 09 43.5	-12
LZH				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
HIA	Hailar	64.73	338	*e*P	P	06 09 43.0	-0.6
	comp=Z,3.9nm,0.8s,mb4.5						
HIA	Hailar	64.73	338	*e*P	P	06 09 43.0	-0.5
HIA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
SHL	Shillong	67.28	303	*e*P	P	06 10 02.0	+1.5
GTA	Gaotai	68.03	319	*e*P	P	06 10 05.8	+0.9
GTA				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.8						
VNDA	Vanda	68.12	177	LR	LR	06 35 18.6	
	comp=Z,83nm,19.5s,MS4.0,baz=14,slow=32						
MA2	Magadan	68.96	360	*i* P	P	06 10 11.7	+1.4
MA2				pmax	pmax		
	comp=Z,11nm,1.8s,mb4.5						
ULN	Ulaanbaatar	69.17	330	*e*P	P	06 10 12.3	+0.5
	comp=Z,2.3nm,0.7s,mb4.2						
ULN	Ulaanbaatar	69.17	330⇑	*e*P	P	06 10 12.9	+1.1
SONM	Songino Array	69.48	330	P	P	06 10 14.5	+0.8
	comp=Z,4.2nm,0.8s,mb4.4,baz=146,slow=5.5,SNR=32						
SONM				LR	LR	06 40 58.0	
	comp=Z,101nm,21.2s,MS4.0,baz=3.5,slow=36						
LSA	Lhasa	69.55	307	P	P	06 10 13.9	-0.7
LSA	Lhasa	69.55	307	*e*P	P	06 10 14.1	-0.5
	comp=Z,5.4nm,0.8s,mb4.5						
LSA	Lhasa	69.55	307	*e*P	P	06 10 14.1	-0.5
LSA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
ZAK	Zakamensk	72.70	330	*e*P	P	06 10 32.1	-1.1
ZAK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
TLY	Talaya	73.37	331	*e*P	P	06 10 37.7	+0.6
TLY				*e*		06 28 01.3	
TLY				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.4						
BOD	Bodaibo	73.66	340	*e*P	P	06 10 34.7	-4.0
MOY	Mondy	74.63	330	*e*P	P	06 10 45.1	+0.6
WMQ	Urumqi	78.09	319	*e*P	P	06 11 05.0	+0.7
WMQ				AMB	AMB		
	comp=Z,12nm,0.4s,mb5.2						
BILL	Bilibino	78.23	6	*e*P	P	06 11 04.2	-0.3
	comp=Z,10nm,1.0s,mb4.7						
BILL	Bilibino	78.23	6⇓	*e*P	P	06 11 04.1	-0.4
BILL				*e*		06 11 11.8	
BILL				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
QSPA	South Pole Qui	80.37	180	*e*P	P	06 11 15.9	-0.2
	comp=Z,6.1nm,0.8s,mb4.6						
MAW	Mawson	80.46	203	LR	LR	06 43 43.2	
	comp=Z,209nm,19.0s,MS4.5,baz=71,slow=33						
TNA	Tin City	80.89	16	*e*P	P	06 11 18.3	-0.8
	comp=Z,2.9nm,0.9s,mb4.2						
SVW2	Sparrevohn	81.93	23	*e*P	P	06 11 24.2	-0.4
TIXI	Tiksi	82.42	353	*e*P	P	06 11 26.3	-0.7
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
MK31	Makanchi Array	82.78	320	*e*P	P	06 11 29.6	+0.2
MKAR	Makanchi Array	82.78	320	P	P	06 11 29.5	+0.1
	comp=Z,4.6nm,0.8s,mb4.5,baz=114,slow=5.5,SNR=27						
MKAR				LR	LR	06 46 44.3	
	comp=Z,49nm,20.8s,MS3.9,baz=271,slow=34						
ZALV	Zalesovo Beam	84.16	327	P	P	06 11 35.4	-0.9
	comp=Z,3.7nm,0.6s,mb4.7,baz=114,slow=5.5,SNR=10						
ZALV				LR	LR	06 48 49.5	
	comp=Z,75nm,20.6s,MS4.1,baz=225,slow=35						
ZAL	Zalesovo	84.17	327	P	P	06 11 35.4	-0.9
ULHL	Ulahol	85.32	314	P	P	06 11 43.0	+0.6
	SNR=12						
NVS	Novosibirsk	85.37	328	*e*P	P	06 11 39.9	-2.5
TKM2	Tokmak 2	85.97	315	P	P	06 11 45.9	+0.2
	SNR=11						
TKM2	Tokmak 2	85.97	315	*e*P	P	06 11 45.5	-0.1
	comp=Z,6.8nm,0.8s,mb4.9						
TKM2	Tokmak 2	85.97	315	*e*P	P	06 11 45.5	-0.2
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.9						
KZA	Kyzart	85.98	314	P	P	06 11 46.8	+1.1
	SNR=19						
KURK	Kurchatov	86.45	323	*e*P	P	06 11 46.5	-1.3
KURK	Kurchatov	86.45	323⇑	*e*P	P	06 11 47.0	-0.8
UCH	Uchtor	86.55	314	P	P	06 11 49.8	+1.3
	SNR=7.1						
UCH	Uchtor	86.55	314	*e*P	P	06 11 49.5	+1.0
	comp=Z,6.0nm,0.8s,mb4.9						
AAK	Ala-Archa	86.67	314	P	P	06 11 47.9	-1.2
	SNR=6.4						
AAK	Ala-Archa	86.67	314	*e*P	P	06 11 47.0	-2.1
	comp=Z,4.6nm,0.7s,mb4.8						
AAK	Ala-Archa	86.67	314⇓	*i*P	P	06 11 47.5	-1.6
AAK				pmax	pmax		
	comp=Z,14nm,1.5s,mb5.0						
USP	Ospenovka	86.84	315	P	P	06 11 49.9	0.0
	SNR=10						
COLA	College	86.96	22	*e*P	P	06 11 49.6	-0.4
	comp=Z,5.1nm,0.9s,mb4.8						
COLA	College	86.96	22	*i* P	P	06 11 46.8	-3.2
AML	Almayashu	87.10	313	P	P	06 11 48.9	-2.3
	SNR=5.7						
AML	Almayashu	87.10	313	*e*P	P	06 11 51.3	+0.1
	comp=Z,9.9nm,1.2s,mb4.9						
EKS2	Erkin-Say	87.19	314	*e*P	P	06 11 51.9	+0.2
	comp=Z,3.9nm,0.8s,mb4.7						
BRVK	Borovoye	92.07	323	*e*P	P	06 12 12.9	-1.4
	comp=Z,1.5nm,0.4s,mb4.7						
BRVK	Borovoye	92.07	323	*e*P	P	06 12 12.9	-1.4
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.5						
INK	Inuvik	93.57	21	*e*P	P	06 12 21.4	+0.5
NVAR	Mina Array Bea	96.45	52	P	P	06 12 35.5	+0.7
	comp=Z,1.5nm,0.7s,mb4.6,baz=247,slow=4.7,SNR=10						
WVOR	Wild Horse Val	96.69	48	*e*P	P	06 12 34.9	-0.8
	comp=Z,0.9nm,0.5s,mb4.5						
WVOR	Wild Horse Val	96.69	48	*e*P	P	06 12 34.9	-0.8
WVOR				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.5						
YKA	Yellowknife Ar	100.50	28	P	Pdif	06 12 53.6	+1.0
	comp=Z,0.1nm,0.4s,baz=267,slow=5.2,SNR=4.9						
PDAR	Pinedale Array	103.39	48	Pdif	Pdif	06 13 05.3	-0.1
PDAR	Pinedale Array	103.39	48	Pdiff	Pdif	06 13 05.3	-0.1
	comp=Z,0.5nm,0.8s,baz=191,slow=1.5,SNR=4.0						
KIV	Kislovodsk	109.78	313	*e*PKP	PKiKP	06 17 36.7	+0.4
AKASG	Malin Array Be	117.27	323	PKP	PKPdf	06 17 49.4	-1.1
AKASG	Malin Array Be	117.27	323	PKIKP	PKPdf	06 17 49.4	-1.0
AKASG	Malin Array Be	117.27	323	PKP	PKPdf	06 17 49.4	-1.1
	comp=Z,1.8nm,0.8s,baz=61,slow=2.9,SNR=8.1						
HFS	Hagfors	120.42	337	PKP	PKPdf	06 17 53.6	-2.6
HFS	Hagfors	120.42	337	PKIKP	PKPdf	06 17 53.6	-2.6
HFS	Hagfors	120.42	337	PKP	PKPdf	06 17 53.6	-2.6
	comp=Z,6.5nm,1.1s,baz=144,slow=10,SNR=3.7						
NOA	NORSAR Array B	120.76	339	PKP	PKPdf	06 17 54.2	-2.7
NOA	NORSAR Array B	120.76	339	PKIKP	PKPdf	06 17 54.2	-2.6
NOA	NORSAR Array B	120.76	339	PKP	PKPdf	06 17 54.2	-2.6
	comp=Z,1.4nm,0.9s,baz=165,slow=0.8,SNR=3.4						
WCI	Wyandotte Cave	121.48	51	*e*PKPdf	PKPdf	06 17 58.3	-0.6

WCI	Wyandotte Cave	121.48	51	*e*PKIKP	PKPdf	06 17 58.3	-0.6
LCO	Las Campanas	124.40	135	*e*PKPdf	PKPdf	06 18 04.8	0.0
BRG	Berggiesshubel	125.85	328	*e*PKIKP	PKPdf	06 18 07.0	+0.1
BRG	Berggiesshubel	125.85	328	*e*P	PKPdf	06 18 07.0	+0.1
	comp=Z,7.3nm,1.0s						
CLL	Collm	126.09	329	*i* P		06 17 56.6	
CLL				*i*	PKPdf	06 18 07.2	-0.2
CLL	Collm	126.09	329	*i* PKIKP		06 17 56.6	
CLL				*i*	PKPdf	06 18 07.2	-0.2
CLL	Collm	126.09	329	*i* PKPpre		06 17 56.6	
CLL				*i* PKPdf	PKPdf	06 18 07.2	-0.2
GERES	GERESS Array B	127.10	326	PKP	PKPdf	06 18 09.6	+0.3
GERES	GERESS Array B	127.10	326	PKIKP	PKPdf	06 18 09.6	+0.2
GERES	GERESS Array B	127.10	326	PKP	PKPdf	06 18 09.6	+0.3
	comp=Z,2.1nm,0.7s,baz=64,slow=3.1,SNR=16						
EKA	Eskdalemuir Ar	130.03	341	PKP	PKPdf	06 18 14.3	-0.5
EKA	Eskdalemuir Ar	130.03	341	PKIKP	PKPdf	06 18 14.3	-0.5
EKA	Eskdalemuir Ar	130.03	341	PKP	PKPdf	06 18 14.3	-0.5
	comp=Z,3.1nm,0.8s,baz=355,slow=4.2,SNR=4.6						
CABF	La Chapelle	132.56	327	*e*PKIKP	PKPdf	06 18 20.1	+0.3
CABF	La Chapelle	132.56	327	*e*PKPdf	PKPdf	06 18 20.1	+0.3
CABF	La Chapelle	132.56	327	*e*PKIKP	PKPdf	06 18 20.1	+0.3
LPG	La Plagne	132.90	326	*e*PKIKP	PKPdf	06 18 19.1	-1.4
	comp=Z,5.7nm,0.8s						
LPG	La Plagne	132.90	326	*e*PKPdf	PKPdf	06 18 19.1	-1.4
LPG	La Plagne	132.90	326	*e*PKIKP	PKPdf	06 18 19.1	-1.4
LOR	Lormes	133.28	329	*e*PKIKP	PKPdf	06 18 22.1	+1.0
LOR	Lormes	133.28	329	*e*PKPdf	PKPdf	06 18 22.1	+1.0
LOR	Lormes	133.28	329	*e*PKIKP	PKPdf	06 18 22.1	+1.0
PGF	Pioggiola	133.31	321	*e*PKIKP	PKPdf	06 18 21.2	-0.2
PGF	Pioggiola	133.31	321	*e*PKPdf	PKPdf	06 18 21.2	-0.2
PGF	Pioggiola	133.31	321	*e*PKIKP	PKPdf	06 18 21.2	-0.2
LPAZ	La Paz	133.52	123	*e*PKPdf	PKPdf	06 18 23.2	+0.7
LPAZ				PKP	PKPdf	06 18 23.4	+0.9
LPAZ	La Paz	133.52	123	*e*PKIKP	PKPdf	06 18 23.2	+0.7
LPAZ	La Paz	133.52	123	PKP	PKPdf	06 18 23.4	+0.9
	comp=Z,2.3nm,1.1s,baz=79,slow=1.6,SNR=6.1						
SSF	Saint Saulge	133.60	329	*e*PKIKP	PKPdf	06 18 22.8	+1.1
	comp=Z,16nm,1.0s						
SSF	Saint Saulge	133.60	329	*e*PKPdf	PKPdf	06 18 22.8	+1.1
SSF	Saint Saulge	133.60	329	*e*PKIKP	PKPdf	06 18 22.8	+1.1
SMF	Signal de Mont	133.71	329	*e*PKIKP	PKPdf	06 18 22.1	+0.1
SMF	Signal de Mont	133.71	329	*e*PKPdf	PKPdf	06 18 22.1	+0.1
SMF	Signal de Mont	133.71	329	*e*PKIKP	PKPdf	06 18 22.1	+0.1
BGF	Bois d'Agland	134.27	329	*e*PKIKP	PKPdf	06 18 22.5	-0.5
BGF	Bois d'Agland	134.27	329	*e*PKPdf	PKPdf	06 18 22.5	-0.5
BGF	Bois d'Agland	134.27	329	*e*PKIKP	PKPdf	06 18 22.5	-0.5
TCF	Toulx Ste Croi	134.78	330	*e*PKIKP	PKPdf	06 18 24.4	+0.4
	comp=Z,14nm,1.0s						
TCF	Toulx Ste Croi	134.78	330	*e*PKPdf	PKPdf	06 18 24.4	+0.4
TCF	Toulx Ste Croi	134.78	330	*e*PKIKP	PKPdf	06 18 24.4	+0.4
ROSC	El Rosal	134.83	93	*e*PKPdf	PKPdf	06 18 24.7	-0.4
ROSC				PKP	PKPdf	06 18 25.5	+0.5
ROSC	El Rosal	134.83	93	PKP	PKPdf	06 18 25.5	+0.5
	comp=Z,4.4nm,0.7s,baz=96,slow=23,SNR=5.5						
MDT	Midelt	147.75	319	PKPbc	PKPbc	06 18 50.6	+0.2
MDT	Midelt	147.75	319	PKPbc	PKPbc	06 18 50.6	+0.2
	comp=Z,7.8nm,1.0s,baz=42,slow=4.0,SNR=7.5						
TOA0	Torodi Ar. Sit	149.70	280	*e*PKPbc	PKPbc	06 18 55.7	-0.2
TORD	Torodi Ar. Bea	149.70	280	PKPbc	PKPbc	06 18 55.9	0.0
TORD	Torodi Ar. Bea	149.70	280	PKPbc	PKPbc	06 18 55.9	0.0
	comp=Z,14nm,0.8s,baz=43,slow=1.3,SNR=62						
KIC	Kosan Boka	155.74	264	*e*PKP2	PKPab	06 19 27.2	+0.4
	comp=Z,58nm,0.9s						
LIC	Lamto	156.00	264	*e*PKP2	PKPab	06 19 28.3	+0.4
	comp=Z,61nm,1.8s						
TIC	Toumodi	156.06	265	*e*PKP2	PKPab	06 19 28.5	+0.4
	comp=Z,85nm,1.1s						

WEL 22 06:01:02.2±0.6**,3607S×17845E,h33**^{km}**,ML3.5**/5**,Error ellipse: s-maj=7.5km s-min=4.1km az=90.0,Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	1.49	184	P*	Pb	06 01 26.1	-3.3
MXZ				S*	Sb	06 01 44.7	-3.3
PUZ	Puketiti	2.00	184	PN	Pn	06 01 33.1	-0.6
PUZ				SN	Sn	06 01 56.2	-1.4
MWZ	Matawai	2.38	198	P*	Pb	06 01 39.1	-5.2
MWZ				S*	Sb	06 02 06.6	-6.6
URZ	Urewera	2.43	206	P*	Pb	06 01 39.4	-5.8
URZ				S*	Sb	06 02 07.7	-7.1
KNZ	Kokohu	3.01	192	PN	Pn	06 01 48.0	+0.4
BKZ	Black Stump Fm	3.46	206	P*	Pb	06 01 52.7	-10

NAO **22** *06:02:46.8,3991N×13.15E,h33*^{km}*,mb3.7*

UPP **22** *06:02:50.1,3867N×1499E,h34*^{km}

PRU **22** *06:02:57.5,3977N×15.16E,h0*^{km}*,M4.3*

SZGRF **22** *06:02:58.2,3954N×1581E,h33*^{km}*,Southern Italy*

ROM **22** *06:03:04.2±0.2,3999N×1556E,h302*^{km}*±3*^{km}*,Ml4.0/80, Error ellipse: s-maj=3.0km s-min=2.5km az=8.0*

NEIC **22** *06:03:04.2,3999N×1556E,h302*^{km}*,mb4.3/64,After ROM.*

PDG **22** *06:03:04.5±1.1,4004N×1546E,h300*^{km}*±4*^{km}*,ML4.3/10, Error ellipse: s-maj=1.6km s-min=2.4km az=0.0*

LDG **22** *06:03:05.3±0.2,4005N×1548E,h280*^{km}*,Mb4.2/31,Error ellipse: s-maj=9.6km s-min=6.0km az=33.0*

ISCJB **22** *06:03:06.6±0.1,3999N±001×1545E±002,h290*^{km}*±1*^{km}*, mb4.0/21,Error ellipse: s-maj=2.3km s-min=1.9km az=22.8*

CSEM **22** *06:03:06.6±0.0,3999N×1544E,h280*^{km}*,mb4.0/3, ML4.4/19,Error ellipse: s-maj=1.0km s-min=0.8km az=17.0*

MOS **22** *06:03:06.8±1.0,4000N×1539E,h293*^{km}*,mb4.3/11,Error ellipse: s-maj=4.3km s-min=2.5km az=105.8*

IDC **22** *06:03:08.2±0.7,4009N×1539E,h292*^{km}*±7*^{km}*,mb3.7/17, mb1 3.8/31,mb1mx3.8/36,mbtmp3.7/31,Error ellipse: s-maj=9.0km s-min=7.7km az=63.0*

ISC 22 06:03:07.6±0.1**,4000N**±001×**1546E**±002**,h283**^{km}±1^{km}**, n802,**σ0^{s}**93**/899**,mb4.0**/21**,195C-111D,Southern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BULG	Bulgheria - Ca	0.10	321	⇓*i*Pn	Pn	06 03 43.9	+0.3
BULG				Sn	S	06 04 12.4	+0.3
	615nm,0.7s						
BULG	Bulgheria - Ca	0.10	321	⇓*i*Pn	Pn	06 03 43.9	+0.3
BULG				Sn	S	06 04 12.4	+0.3
	615nm,0.7s						
MGR	Morigerati	0.16	26	P	Pn	06 03 43.6	0.0
MGR				Sn	S	06 04 11.7	-0.5
MGR	Morigerati	0.16	26	⇓*i*Pn	Pn	06 03 43.7	+0.1
MGR				Sn	S	06 04 11.7	-0.5
	1µm,0.7s						
MGR	Morigerati	0.16	26	⇓*i*Pn	Pn	06 03 43.7	+0.1
MGR				Sn	S	06 04 11.7	-0.5
	1µm,0.7s						
CMPR	Campora	0.34	339	⇓*i*Pn	Pn	06 03 43.9	+0.1
CMPR				Sn	S	06 04 12.3	-0.3
	1µm,1.6s						
CMPR	Campora	0.34	339	⇓*i*Pn	Pn	06 03 43.9	+0.1
CMPR				Sn	S	06 04 12.3	-0.3
	1µm,1.6s						
MTSN	Montesano sull	0.35	39	⇓Pn	Pn	06 03 43.7	-0.2
MTSN				Sn	S	06 04 13.3	+0.7
	703nm,0.6s						
MTSN	Montesano sull	0.35	39	⇓Pn	Pn	06 03 43.7	-0.2
MTSN				Sn	S	06 04 13.3	+0.7
	703nm,0.6s						
SIRI	Monte Sirino -	0.36	59	Pn	Pn	06 03 43.7	-0.2
	467nm,0.4s						
SIRI	Monte Sirino -	0.36	59	Pn	Pn	06 03 43.7	-0.2
	467nm,0.4s						
MCEL	Monticello	0.42	38	⇓*i*Pn	Pn	06 03 44.6	+0.6
MCEL				Sn	S	06 04 13.4	+0.5
	899nm,0.5s						
MCEL	Monticello	0.42	38	⇓*i*Pn	Pn	06 03 44.6	+0.6
MCEL				Sn	S	06 04 13.4	+0.5
	899nm,0.5s						
CDRU	Civita di Ruta	0.51	346	⇓*i*Pn	Pn	06 03 44.4	+0.2
CDRU				Sn	S	06 04 13.0	-0.3
	326nm,0.8s						
CDRU	Civita di Ruta	0.51	346	⇓*i*Pn	Pn	06 03 44.4	+0.2
CDRU				Sn	S	06 04 13.0	-0.3
	326nm,0.8s						
SCHR	S. Chirico Rap	0.51	66	⇓*i*Pn	Pn	06 03 44.3	+0.1
	272nm,0.7s						
SCHR	S. Chirico Rap	0.51	66	⇓*i*Pn	Pn	06 03 44.3	+0.1
	272nm,0.7s						
SGO	Sicignano	0.58	348	⇓*i*Pn	Pn	06 03 44.8	+0.4
SGO	Sicignano	0.58	348	⇓*i*Pn	Pn	06 03 44.8	+0.4
TDS	Terranova Siba	0.75	116	⇑*i*Pn	Pn	06 03 45.4	+0.3
TDS	Terranova Siba	0.75	116	⇑*i*Pn	Pn	06 03 45.4	+0.3
TDS	Terranova Siba	0.75	116	⇑*i*Pn	Pn	06 03 45.4	+0.3
MRLC	Muro Lucano	0.76	1	⇓*i*Pn	Pn	06 03 45.3	+0.3
MRLC	Muro Lucano	0.76	1	⇓*i*Pn	Pn	06 03 45.3	+0.3
	137nm,0.9s						
MRLC	Muro Lucano	0.76	1	⇓*i*Pn	Pn	06 03 45.3	+0.3
	137nm,0.9s						
ORI	Oriolo Calabro	0.76	85	⇓*i*Pn	Pn	06 03 45.1	0.0
ORI	Oriolo Calabro	0.76	85	⇓*i*Pn	Pn	06 03 45.1	0.0
	1µm,0.6s						
ORI	Oriolo Calabro	0.76	85	⇓*i*Pn	Pn	06 03 45.1	0.0
	1µm,0.6s						
MCRV	Calabrutti - M	0.82	344	⇓*i*Pn	Pn	06 03 45.7	+0.5
	505nm,1.3s						
MCRV	Calabrutti - M	0.82	344	⇓*i*Pn	Pn	06 03 45.7	+0.5
	505nm,1.3s						
CRAC	Craco	0.83	63	⇓*i*Pn	Pn	06 03 45.0	-0.3
CRAC	Craco	0.83	63	⇓*i*Pn	Pn	06 03 45.0	-0.3
CSSN	Cassano Irpino	0.93	339	⇑*i*Pn	Pn	06 03 45.8	+0.1
CSSN	Cassano Irpino	0.93	339	⇑*i*Pn	Pn	06 03 45.8	+0.1
CSSN	Cassano Irpino	0.93	339	⇑*i*Pn	Pn	06 03 45.8	+0.1
CARO	Carolei	0.94	142	⇓*i*Pn	Pn	06 03 44.9	-1.0
CARO				Sn	S	06 04 14.1	-2.2
	5µm,0.7s						
CARO	Carolei	0.94	142	⇓*i*Pn	Pn	06 03 44.9	-1.0
CARO				Sn	S	06 04 14.1	-2.2
	5µm,0.7s						
SNAL	S. Angelo Dei	0.95	348	⇓*i*Pn	Pn	06 03 46.3	+0.5
SNAL				Sn	S	06 04 17.0	+0.8
SNAL	S. Angelo Dei	0.95	348	⇓*i*Pn	Pn	06 03 46.3	+0.5
SNAL				Sn	S	06 04 17.0	+0.8
MIGL	Miglionico	0.96	51	⇓*i*Pn	Pn	06 03 45.3	-0.6
	1µm,1.1s						
MIGL	Miglionico	0.96	51	⇓*i*Pn	Pn	06 03 45.3	-0.6
	1µm,1.1s						
VULT	Monte Vulture	0.96	7	⇓*i*Pn	Pn	06 03 45.7	-0.2
	272nm,0.8s						
VULT	Monte Vulture	0.96	7	⇓*i*Pn	Pn	06 03 45.7	-0.2
	272nm,0.8s						
PALZ	Palazzo San Ge	1.02	22	⇓*i*Pn	Pn	06 03 45.8	-0.3
PALZ				Sn	S	06 04 15.5	-1.3
	1µm,1.3s						
PALZ	Palazzo San Ge	1.02	22	⇓*i*Pn	Pn	06 03 45.8	-0.3
PALZ				Sn	S	06 04 15.5	-1.3
	1µm,1.3s						
CAFE	Carife	1.04	351	⇓*i*Pn	Pn	06 03 47.2	+0.9
CAFE				Sn	S	06 04 17.8	+0.8
	3µm,2.1s						
CAFE	Carife	1.04	351	⇓*i*Pn	Pn	06 03 47.2	+0.9
CAFE				Sn	S	06 04 17.8	+0.8
	3µm,2.1s						
FG4	Candela	1.14	2	⇑*i*Pn	Pn	06 03 47.0	+0.3
FG4	Candela	1.14	2	⇑*i*Pn	Pn	06 03 47.0	+0.3
	260nm,0.4s						
FG4	Candela	1.14	2	⇑*i*Pn	Pn	06 03 47.0	+0.3
	260nm,0.4s						
SGTA	Sant Agata di	1.14	356	⇓*i*Pn	Pn	06 03 47.3	+0.5
SGTA				Sn	S	06 04 17.8	-0.1
	1µm,1.8s						
SGTA	Sant Agata di	1.14	356	⇓*i*Pn	Pn	06 03 47.3	+0.5
SGTA				Sn	S	06 04 17.8	-0.1
	1µm,1.8s						
SG1	Sgolgore (BA)	1.25	47	*e*P	Pn	06 03 47.2	-0.2
AMUR	Altamura	1.26	43	⇓*i*Pn	Pn	06 03 47.3	-0.2
AMUR				Sn	S	06 04 17.3	-1.8
	678nm,0.9s						
AMUR	Altamura	1.26	43	⇓*i*Pn	Pn	06 03 47.3	-0.2
AMUR				Sn	S	06 04 17.3	-1.8
	678nm,0.9s						
TIP	Timpagrande	1.29	129	⇓*i*Pn	Pn	06 03 47.4	-0.3
TIP				Sn	S	06 04 17.9	-1.7
TIP	Timpagrande	1.29	129	⇓*i*Pn	Pn	06 03 47.5	-0.3
TIP				Sn	S	06 04 17.9	-1.7
	2µm,1.0s						
TIP	Timpagrande	1.29	129	⇓*i*Pn	Pn	06 03 47.4	-0.4
TIP				Sn	S	06 04 17.9	-1.7
	2µm,1.0s						
FG5	Orsara di Pugl	1.29	353	Pn	Pn	06 03 48.4	+0.7
FG5	Orsara di Pugl	1.29	353	Pn	Pn	06 03 48.4	+0.7
	49nm,0.3s						
FG5	Orsara di Pugl	1.29	353	Pn	Pn	06 03 48.4	+0.7
	49nm,0.3s						
PSB1	Pescosannita	1.32	338	Pn	Pn	06 03 48.3	+0.5
PSB1	Pescosannita	1.32	338	Pn	Pn	06 03 48.3	+0.5
	354nm,1.4s						
PSB1	Pescosannita	1.32	338	Pn	Pn	06 03 48.3	+0.5
	354nm,1.4s						
SERS	Sersale	1.35	135	⇓*i*Pn	Pn	06 03 47.9	-0.2
SERS				Sn	S	06 04 18.2	-2.1
	1µm,0.4s						
SERS	Sersale	1.35	135	⇓*i*Pn	Pn	06 03 47.9	-0.2
SERS				Sn	S	06 04 18.2	-2.1
	1µm,0.4s						
GRI	Girifalco	1.39	147	⇑*e*Pn	Pn	06 03 48.1	-0.3
GRI				Sn	S	06 04 19.3	-1.4
GRI	Girifalco	1.39	147	⇑*e*Pn	Pn	06 03 48.1	-0.3
GRI				Sn	S	06 04 19.3	-1.4
	3µm,0.5s						
GRI	Girifalco	1.39	147	⇑*e*Pn	Pn	06 03 48.1	-0.3
GRI				Sn	S	06 04 19.3	-1.4
	3µm,0.5s						
JOPP	Joppolo	1.43	167	⇓*e*Pn	Pn	06 03 47.5	-1.2
JOPP				Sn	S	06 04 18.4	-2.8
	1µm,0.5s						
JOPP	Joppolo	1.43	167	⇓*e*Pn	Pn	06 03 47.5	-1.2
JOPP				Sn	S	06 04 18.4	-2.8
	1µm,0.5s						
NOCI	Noci	1.46	57	⇓*i*Pn	Pn	06 03 48.5	-0.2
NOCI				Sn	S	06 04 19.7	-1.7
	669nm,0.5s						
NOCI	Noci	1.46	57	⇓*i*Pn	Pn	06 03 48.5	-0.2
NOCI				Sn	S	06 04 19.7	-1.7
	669nm,0.5s						
SLNA	Salina	1.51	199	Pn	Pn	06 03 49.3	+0.1
SLNA	Salina	1.51	199	Pn	Pn	06 03 49.3	+0.1
	297nm,0.7s						
SLNA	Salina	1.51	199	Pn	Pn	06 03 49.3	+0.1
	297nm,0.7s						
SACR	S. Croce Del S	1.51	338	Pn	Pn	06 03 49.5	+0.4
	524nm,1.9s						
SACR	S. Croce Del S	1.51	338	Pn	Pn	06 03 49.5	+0.4
	524nm,1.9s						
PTRJ	Pietraroja	1.54	333	⇑*i*Pn	Pn	06 03 49.7	+0.4
	300nm,1.1s						
PTRJ	Pietraroja	1.54	333	⇑*i*Pn	Pn	06 03 49.7	+0.4
	300nm,1.1s						
BAI	Bari	1.55	44	*e*P	Pn	06 03 49.0	-0.3
IFIL	Filicudi I Eol	1.59	206	Pn	Pn	06 03 50.0	+0.2
	663nm,0.7s						
IFIL	Filicudi I Eol	1.59	206	Pn	Pn	06 03 50.0	+0.2
	663nm,0.7s						
SGG	Gregorio Mates	1.62	330	⇑*i*Pn	Pn	06 03 50.5	+0.7
SGG				Sn	S	06 04 23.2	-0.1
SGG	Gregorio Mates	1.62	330	⇑*i*Pn	Pn	06 03 50.5	+0.7
SGG				Sn	S	06 04 23.2	-0.1
	256nm,1.2s						
SGG	Gregorio Mates	1.62	330	⇑*i*Pn	Pn	06 03 50.5	+0.7
SGG				Sn	S	06 04 23.2	-0.1
	256nm,1.2s						
VPL	Vulcano Piano	1.66	193	⇓*e*Pn	Pn	06 03 50.3	0.0
	1µm,1.1s						
VPL	Vulcano Piano	1.66	193	⇓*e*Pn	Pn	06 03 50.3	0.0
	1µm,1.1s						
RGNG	Rignano Grg	1.68	3	Pn	Pn	06 03 49.9	-0.3
RGNG	Rignano Grg	1.68	3	Pn	Pn	06 03 49.9	-0.3
RGNG	Rignano Grg	1.68	3	Pn	Pn	06 03 49.9	-0.3
BSSO	Busso	1.68	337	Pn	Pn	06 03 51.0	+0.7
	318nm,1.2s						
BSSO	Busso	1.68	337	Pn	Pn	06 03 51.0	+0.7
	318nm,1.2s						
VAGA	Valle Agricola	1.70	327	⇑*i*Pn	Pn	06 03 51.2	+0.8
VAGA				Sn	S	06 04 25.1	+0.7
	315nm,1.0s						
VAGA	Valle Agricola	1.70	327	⇑*i*Pn	Pn	06 03 51.2	+0.8
VAGA				Sn	S	06 04 25.1	+0.7
	315nm,1.0s						
PE1	Pezze di Greco	1.70	61	*e*P	Pn	06 03 50.1	-0.3
CIGN	Sant'Elia a Pi	1.71	346	⇑*i*Pn	Pn	06 03 50.6	+0.1
CIGN	Sant'Elia a Pi	1.71	346	⇑*i*Pn	Pn	06 03 50.6	+0.1
	707nm,2.0s						
CIGN	Sant'Elia a Pi	1.71	346	⇑*i*Pn	Pn	06 03 50.6	+0.1
	707nm,2.0s						
PLAC	Placanica	1.72	154	⇓*i*Pn	Pn	06 03 49.8	-0.9
PLAC				Sn	S	06 04 22.7	-2.2
	989nm,0.5s						
PLAC	Placanica	1.72	154	⇓*i*Pn	Pn	06 03 49.8	-0.9
PLAC				Sn	S	06 04 22.7	-2.2
	989nm,0.5s						
RFI	Roccamonfina	1.72	320	⇓*i*Pn	Pn	06 03 51.7	+1.1
RFI	Roccamonfina	1.72	320	⇓*i*Pn	Pn	06 03 51.7	+1.1
	10.0nm,0.5s						
RFI	Roccamonfina	1.72	320	⇓*i*Pn	Pn	06 03 51.7	+1.1
	10.0nm,0.5s						
MS1	Monte Sant'Ang	1.75	12	*e*P	Pn	06 03 50.5	-0.2
MSAG	Monte S. Angel	1.75	11	⇓*i*Pn	Pn	06 03 50.5	-0.2
MSAG				Sn	S	06 04 23.9	-1.2
	809nm,1.0s						
MSAG	Monte S. Angel	1.75	11	⇓*i*Pn	Pn	06 03 50.5	-0.2
MSAG				Sn	S	06 04 23.9	-1.2
	809nm,1.0s						
SCLL	Scilla	1.75	174	Pn	Pn	06 03 49.6	-1.3
SCLL	Scilla	1.75	174	Pn	Pn	06 03 49.6	-1.3
	117nm,0.4s						
SCLL	Scilla	1.75	174	Pn	Pn	06 03 49.6	-1.3
	117nm,0.4s						
FGMS	Monte Sant'Ang	1.75	12	⇑*i*Pn	Pn	06 03 50.7	-0.1
FGMS	Monte Sant'Ang	1.75	12	⇑*i*Pn	Pn	06 03 50.7	-0.1
	91nm,0.5s						
FGMS	Monte Sant'Ang	1.75	12	⇑*i*Pn	Pn	06 03 50.7	-0.1
	91nm,0.5s						
SGRT	San Giovanni R	1.77	7	⇑*i*Pn	Pn	06 03 50.8	-0.1
SGRT				Sn	S	06 04 23.8	-1.6
	315nm,1.0s						
SGRT	San Giovanni R	1.77	7	⇑*i*Pn	Pn	06 03 50.8	-0.1
SGRT				Sn	S	06 04 23.8	-1.6
	315nm,1.0s						
FG2	Serracapriola	1.82	353	⇑*i*Pn	Pn	06 03 51.2	-0.1
FG2	Serracapriola	1.82	353	⇑*i*Pn	Pn	06 03 51.2	-0.1
	211nm,0.4s						
FG2	Serracapriola	1.82	353	⇑*i*Pn	Pn	06 03 51.2	-0.1
	211nm,0.4s						
MIDA	Miranda	1.88	331	⇑*e*Pn	Pn	06 03 52.5	+0.7
MIDA	Miranda	1.88	331	⇑*e*Pn	Pn	06 03 52.5	+0.7
	156nm,0.5s						
MIDA	Miranda	1.88	331	⇑*e*Pn	Pn	06 03 52.5	+0.7
	156nm,0.5s						
TRIV	Trivento	1.90	339	⇑*i*Pn	Pn	06 03 52.4	+0.5
	197nm,1.3s						
TRIV	Trivento	1.90	339	⇑*i*Pn	Pn	06 03 52.4	+0.5
	197nm,1.3s						
CERA	Filignano	1.94	326	⇑*i*Pn	Pn	06 03 52.8	+0.5
	161nm,0.5s						
CERA	Filignano	1.94	326	⇑*i*Pn	Pn	06 03 52.8	+0.5
	161nm,0.5s						
RNI2	Rionero Sannit	1.97	330	⇑*i*Pn	Pn	06 03 53.8	+1.3
RNI2				Sn	S	06 04 29.6	+1.3
RNI2	Rionero Sannit	1.97	330	⇑*i*Pn	Pn	06 03 53.8	+1.3
RNI2				Sn	S	06 04 29.6	+1.3
	213nm,0.5s						
RNI2	Rionero Sannit	1.97	330	⇑*i*Pn	Pn	06 03 53.8	+1.3
RNI2				Sn	S	06 04 29.6	+1.3
	213nm,0.5s						
SOI	Samo	1.98	166	Pn	Pn	06 03 51.5	-1.2
SOI	Samo	1.98	166	Pn	Pn	06 03 51.5	-1.2
SOI	Samo	1.98	166	Pn	Pn	06 03 51.5	-1.2
MTTG	Motta San Giov	2.00	175	Pn	Pn	06 03 52.6	-0.3
MTTG	Motta San Giov	2.00	175	Pn	Pn	06 03 52.6	-0.3
	552nm,0.5s						
MTTG	Motta San Giov	2.00	175	Pn	Pn	06 03 52.6	-0.3
	552nm,0.5s						
FRES	Fresagrandinar	2.06	343	⇑*i*Pn	Pn	06 03 53.5	+0.2
FRES				Sn	S	06 04 29.3	-0.4
	1µm,1.2s						
FRES	Fresagrandinar	2.06	343	⇑*i*Pn	Pn	06 03 53.5	+0.2
FRES				Sn	S	06 04 29.3	-0.4
	1µm,1.2s						
MPAZ	Palizzi	2.08	168	Pn	Pn	06 03 52.5	-1.1
	1µm,0.6s						
MPAZ	Palizzi	2.08	168	Pn	Pn	06 03 52.5	-1.1
	1µm,0.6s						
SDI	San Donato	2.12	324	⇑*i*Pn	Pn	06 03 54.4	+0.6
SDI	San Donato	2.12	324	⇑*i*Pn	Pn	06 03 54.4	+0.6
	80nm,0.4s						
SDI	San Donato	2.12	324	⇑*i*Pn	Pn	06 03 54.4	+0.6
	80nm,0.4s						
USI	Ustica	2.19	235	Pn	Pn	06 03 54.8	+0.3
USI	Ustica	2.19	235	Pn	Pn	06 03 54.8	+0.3
	135nm,0.9s						
USI	Ustica	2.19	235	Pn	Pn	06 03 54.8	+0.3
	135nm,0.9s						
GIB	Gibilmanna	2.29	210	⇑*e*Pn	Pn	06 03 55.8	+0.3
GIB	Gibilmanna	2.29	210	⇑*e*Pn	Pn	06 03 55.8	+0.3
	247nm,0.5s						
GIB	Gibilmanna	2.29	210	⇑*e*Pn	Pn	06 03 55.8	+0.3
	247nm,0.5s						
SCTE	Santa Cesarea	2.31	87	⇓*i*Pn	Pn	06 03 55.3	-0.2
	637nm,0.4s						
SCTE	Santa Cesarea	2.31	87	⇓*i*Pn	Pn	06 03 55.3	-0.2
	637nm,0.4s						
CSLB	Castelbuono	2.33	208	⇑Pn	Pn	06 03 56.0	+0.2
CSLB	Castelbuono	2.33	208	⇑Pn	Pn	06 03 56.0	+0.2
	147nm,0.6s						
CSLB	Castelbuono	2.33	208	⇑Pn	Pn	06 03 56.0	+0.2
	147nm,0.6s						
INTR	Introdacqua	2.33	330	⇑*i*Pn	Pn	06 03 55.4	-0.2
INTR	Introdacqua	2.33	330	⇑*i*Pn	Pn	06 03 55.4	-0.2
	354nm,0.7s						
INTR	Introdacqua	2.33	330	⇑*i*Pn	Pn	06 03 55.4	-0.2
	354nm,0.7s						
VVLD	Villa Vallelon	2.33	324	⇑*i*Pn	Pn	06 03 56.5	+0.8
VVLD	Villa Vallelon	2.33	324	⇑*i*Pn	Pn	06 03 56.5	+0.8
	265nm,0.7s						
VVLD	Villa Vallelon	2.33	324	⇑*i*Pn	Pn	06 03 56.5	+0.8
	265nm,0.7s						
CAFR	Castel Frentan	2.38	340	⇑*i*Pn	Pn	06 03 56.4	+0.3
	388nm,0.5s						
CAFR	Castel Frentan	2.38	340	⇑*i*Pn	Pn	06 03 56.4	+0.3
	388nm,0.5s						
GALF	Gagliano Caste	2.39	197	Pn	Pn	06 03 58.0	+1.7
	473nm,0.8s						
GALF	Gagliano Caste	2.39	197	Pn	Pn	06 03 58.0	+1.7
	473nm,0.8s						
ECNV	Catenanuova	2.47	194	Pn	Pn	06 03 57.4	+0.4
ECNV				Sn	S	06 04 39.0	+2.6
	2µm,1.4s						
ECNV	Catenanuova	2.47	194	Pn	Pn	06 03 57.4	+0.4
ECNV				Sn	S	06 04 39.0	+2.6
	2µm,1.4s						
PTQR	Pietraquaria	2.56	323	⇑*i*Pn	Pn	06 03 58.9	+1.2
PTQR	Pietraquaria	2.56	323	⇑*i*Pn	Pn	06 03 58.9	+1.2
	225nm,0.7s						
PTQR	Pietraquaria	2.56	323	⇑*i*Pn	Pn	06 03 58.9	+1.2
	225nm,0.7s						
VAE	Valguarnera	2.65	198	P	Pn	06 03 59.4	+0.7
	7.4nm,0.3s,baz=100,slow=4.7,SNR=15						
VAE				S	S	06 04 45.0	+5.6
	2.5nm,0.3s,baz=326,slow=21,SNR=3.4						
CORL	Corleone	2.69	219	⇑*i*Pn	Pn	06 03 59.9	+0.8
	210nm,0.5s						
CORL	Corleone	2.69	219	⇑*i*Pn	Pn	06 03 59.9	+0.8
	210nm,0.5s						
VCEL	Villa Celiera	2.69	333	⇑*i*Pn	Pn	06 03 59.4	+0.4
	123nm,0.5s						
VCEL	Villa Celiera	2.69	333	⇑*i*Pn	Pn	06 03 59.4	+0.4
	123nm,0.5s						
HAGA	Augusta	2.72	185	Pn	Pn	06 03 58.6	-0.8
	267nm,0.8s						
HAGA	Augusta	2.72	185	Pn	Pn	06 03 58.6	-0.8
	267nm,0.8s						
RDP	Rocca di Papa	2.73	311	⇑*i*Pn	Pn	06 04 00.5	+1.2
RDP	Rocca di Papa	2.73	311	⇑*i*Pn	Pn	06 04 00.5	+1.2
RDP	Rocca di Papa	2.73	311	⇑*i*Pn	Pn	06 04 00.5	+1.2
AGST	Augusta-Monte	2.74	184	Pn	Pn	06 03 58.3	-1.4
AGST				Sn	S	06 04 38.1	-3.0
AGST	Augusta-Monte	2.74	184	Pn	Pn	06 03 58.3	-1.4
AGST				Sn	S	06 04 38.1	-3.0
	339nm,0.7s						
AGST	Augusta-Monte	2.74	184	Pn	Pn	06 03 58.3	-1.4
AGST				Sn	S	06 04 38.1	-3.0
	339nm,0.7s						
AQU	L'Aquila	2.82	327	⇑*e*Pn	Pn	06 04 01.5	+1.2
	168nm,0.6s						
AQU	L'Aquila	2.82	327	⇓*i*P	Pn	06 04 01.2	+0.9
AQU	L'Aquila	2.82	327	*e*Pg	Pn	06 04 01.1	+0.8
AQU	L'Aquila	2.82	327	⇑*e*Pn	Pn	06 04 01.5	+1.2
	168nm,0.6s						
HVZN	Vizzini	2.87	192	⇑*i*Pn	Pn	06 04 00.8	-0.2

HVZN				Sn	S	06 04 43.3	-0.2
HVZN	Vizzini	2.87	192	⇑iPn	Pn	06 04 00.8	-0.2
HVZN				Sn	S	06 04 43.3	-0.2
	890nm,1.1s						
HVZN	Vizzini	2.87	192	⇑iPn	Pn	06 04 00.8	-0.2
HVZN				Sn	S	06 04 43.3	-0.2
	890nm,1.1s						
FIAM	Fiamignano	2.88	323	⇑iPn	Pn	06 04 02.2	+1.4
FIAM	Fiamignano	2.88	323	⇑iPn	Pn	06 04 02.2	+1.4
	313nm,0.9s						
FIAM	Fiamignano	2.88	323	⇑iPn	Pn	06 04 02.2	+1.4
	313nm,0.9s						
RAFF	Raffo Rosso	2.90	198	⇑iPn	Pn	06 04 01.3	+0.1
RAFF	Raffo Rosso	2.90	198	⇑iPn	Pn	06 04 01.3	+0.1
	296nm,1.0s						
RAFF	Raffo Rosso	2.90	198	⇑iPn	Pn	06 04 01.3	+0.1
	296nm,1.0s						
CAMP	Campotosto	2.97	329	⇑ePn	Pn	06 04 02.5	+0.7
	18nm,0.7s						
CAMP	Campotosto	2.97	329	⇑ePn	Pn	06 04 02.5	+0.7
	18nm,0.7s						
ERC	Erice	2.97	230	Pn	Pn	06 04 02.9	+1.0
ERC	Erice	2.97	230	Pn	Pn	06 04 02.9	+1.0
	1µm,0.8s						
ERC	Erice	2.97	230	Pn	Pn	06 04 02.9	+1.0
	1µm,0.8s						
TERO	Teramo	2.98	333	⇑iPn	Pn	06 04 01.9	+0.1
TERO	Teramo	2.98	333	⇑iPn	Pn	06 04 01.9	+0.1
	77nm,0.8s						
TERO	Teramo	2.98	333	⇑iPn	Pn	06 04 01.9	+0.1
	77nm,0.8s						
CLTB	Caltabellotta	2.98	217	⇑ePn	Pn	06 04 02.5	+0.4
CLTB	Caltabellotta	2.98	217	⇑ePn	Pn	06 04 02.5	+0.4
	88nm,0.4s						
CLTB	Caltabellotta	2.98	217	⇑ePn	Pn	06 04 02.5	+0.4
	88nm,0.4s						
HAVL	Avola	3.04	185	Pn	Pn	06 04 02.0	-0.7
HAVL	Avola	3.04	185	Pn	Pn	06 04 02.0	-0.7
	280nm,0.9s						
HAVL	Avola	3.04	185	Pn	Pn	06 04 02.0	-0.7
	280nm,0.9s						
FAVR	Favara	3.07	208	Pn	Pn	06 04 04.0	+1.1
FAVR	Favara	3.07	208	Pn	Pn	06 04 04.0	+1.1
FAVR	Favara	3.07	208	Pn	Pn	06 04 04.0	+1.1
HMDC	Modica	3.08	190	⇑iPn	Pn	06 04 02.7	-0.4
HMDC				Sn	S	06 04 46.6	-0.7
HMDC	Modica	3.08	190	⇑iPn	Pn	06 04 02.7	-0.4
HMDC				Sn	S	06 04 46.6	-0.7
	1µm,2.2s						
HMDC	Modica	3.08	190	⇑iPn	Pn	06 04 02.7	-0.4
HMDC				Sn	S	06 04 46.6	-0.7
	1µm,2.2s						
MNS	Montasola	3.18	320	⇑iPn	Pn	06 04 04.6	+0.7
MNS	Montasola	3.18	320	⇑iPn	Pn	06 04 04.6	+0.7
	94nm,0.6s						
MNS	Montasola	3.18	320	⇑iPn	Pn	06 04 04.6	+0.7
	94nm,0.6s						
LNSS	Leonessa	3.18	326	⇑iPn	Pn	06 04 04.6	+0.7
	138nm,0.5s						
LNSS	Leonessa	3.18	326	⇑iPn	Pn	06 04 04.6	+0.7
	138nm,0.5s						
OFFI	Offida	3.23	336	⇑iPn	Pn	06 04 05.1	+0.7
	428nm,0.8s						
OFFI	Offida	3.23	336	⇑iPn	Pn	06 04 05.1	+0.7
	428nm,0.8s						
STON	Ston	3.33	30	iP	Pn	06 04 05.3	-0.2
TOLF	Tolfa	3.34	309	⇑iPn	Pn	06 04 06.5	+0.9
TOLF	Tolfa	3.34	309	⇑iPn	Pn	06 04 06.5	+0.9
	123nm,0.7s						
TOLF	Tolfa	3.34	309	⇑iPn	Pn	06 04 06.5	+0.9
	123nm,0.7s						
NRCA	Norcia	3.34	329	⇑iPn	Pn	06 04 06.4	+0.8
NRCA	Norcia	3.34	329	⇑iPn	Pn	06 04 06.4	+0.8
	46nm,0.5s						
NRCA	Norcia	3.34	329	⇑iPn	Pn	06 04 06.4	+0.8
	46nm,0.5s						
KEK	Kerkira	3.35	93	eP	Pn	06 04 05.5	-0.3
KEK	Kerkira	3.35	93	⇓iPn	Pn	06 04 05.6	-0.2
	132nm,0.4s						
KEK	Kerkira	3.35	93	⇓iPn	Pn	06 04 05.6	-0.2
	132nm,0.4s						
HCY	Herceg Novi	3.35	42	⇓iPn	Pn	06 04 05.6	-0.1
HCY				eSn	S	06 04 50.6	-1.5
HCY	Herceg Novi	3.35	42	⇓iPn	Pn	06 04 05.6	-0.1
HCY				eSn	S	06 04 50.6	-1.5
HCY	Herceg Novi	3.35	42	⇓iPn	Pn	06 04 05.6	-0.1
HCY				eSn	S	06 04 50.6	-1.5
BUM	Brajici-Budva	3.47	47	⇓iPn	Pn	06 04 07.0	0.0
BUM				eSn	S	06 04 53.5	-0.9
BUM	Brajici-Budva	3.47	47	⇓iPn	Pn	06 04 07.0	0.0
BUM				eSn	S	06 04 53.5	-0.9
BUM	Brajici-Budva	3.47	47	⇓iPn	Pn	06 04 07.0	0.0
BUM				eSn	S	06 04 53.5	-0.9
ULC	Ulcinj	3.48	54	⇓iPn	Pn	06 04 07.0	0.0
ULC				eSn	S	06 04 53.0	-1.5
ULC	Ulcinj	3.48	54	⇓iPn	Pn	06 04 07.0	0.0
ULC				eSn	S	06 04 53.0	-1.5
ULC	Ulcinj	3.48	54	⇓iPn	Pn	06 04 07.0	0.0
ULC				eSn	S	06 04 53.0	-1.5
CESI	CESI - Serrava	3.57	328	⇑iPn	Pn	06 04 08.5	+0.5
TIR	Tirane	3.61	67	eP	Pn	06 04 09.2	+0.7
TIR	Tirane	3.61	67	⇓iPn	Pn	06 04 09.1	+0.6
	225nm,0.7s						
TIR	Tirane	3.61	67	⇓iPn	Pn	06 04 09.1	+0.6
	225nm,0.7s						
BRY	Bratogost	3.71	38	⇓iPn	Pn	06 04 09.8	+0.2
BRY				eSn	S	06 04 57.7	-1.5
BRY	Bratogost	3.71	38	⇓iPn	Pn	06 04 09.8	+0.2
BRY				eSn	S	06 04 57.7	-1.5
BRY	Bratogost	3.71	38	⇓iPn	Pn	06 04 09.8	+0.2
BRY				eSn	S	06 04 57.7	-1.5
ASS	Assisi	3.72	326	⇑iPn	Pn	06 04 10.1	+0.4
ASS	Assisi	3.72	326	⇑iPn	Pn	06 04 10.1	+0.4
	4.0nm,0.5s						
ASS	Assisi	3.72	326	⇑iPn	Pn	06 04 10.1	+0.4
	4.0nm,0.5s						
PDG	Podgorica	3.76	48	⇓iPn	Pn	06 04 10.2	+0.1
PDG				eSn	S	06 04 59.1	-1.0
TTG	Podgorica	3.76	48	⇓iPn	Pn	06 04 10.2	+0.1
TTG				eSn	S	06 04 59.1	-1.0
TTG	Podgorica	3.76	48	⇓iPn	Pn	06 04 10.2	+0.1
TTG				eSn	S	06 04 59.1	-1.0
TTG	Podgorica	3.76	48	⇓iPn	Pn	06 04 10.2	+0.1
TTG				eSn	S	06 04 59.1	-1.0
SNTG	Esanatoglia	3.77	331	⇑ePn	Pn	06 04 10.4	+0.2
SNTG	Esanatoglia	3.77	331	⇑ePn	Pn	06 04 10.4	+0.2
	96nm,0.6s						
SNTG	Esanatoglia	3.77	331	⇑ePn	Pn	06 04 10.4	+0.2
	96nm,0.6s						
CING	Cingoli	3.78	334	⇑iPn	Pn	06 04 09.8	-0.5
CING	Cingoli	3.78	334	⇑iPn	Pn	06 04 09.8	-0.5
	49nm,0.6s						
CING	Cingoli	3.78	334	⇑iPn	Pn	06 04 09.8	-0.5
	49nm,0.6s						
IGT	Igoumenitsa	3.78	95	eP	Pn	06 04 10.2	-0.3
LATE	Laterza	3.80	315	⇑iPn	Pn	06 04 11.6	+1.0
	18nm,0.8s						
LATE	Laterza	3.80	315	⇑iPn	Pn	06 04 11.6	+1.0
	18nm,0.8s						
AOI	Ancona	3.81	339	⇑iPn	Pn	06 04 10.0	-0.7
AOI	Ancona	3.81	339	⇑iPn	Pn	06 04 10.0	-0.7
	163nm,0.7s						
AOI	Ancona	3.81	339	⇑iPn	Pn	06 04 10.0	-0.7
	163nm,0.7s						
NKY	Niksic	3.87	42	⇓iPn	Pn	06 04 11.7	+0.3
NKY				eSn	S	06 05 01.1	-1.2
NKY	Niksic	3.87	42	⇓iPn	Pn	06 04 11.7	+0.3
NKY				eSn	S	06 05 01.1	-1.2
NKY	Niksic	3.87	42	⇓iPn	Pn	06 04 11.7	+0.3
NKY				eSn	S	06 05 01.1	-1.2
SACS	San Casciano d	3.91	318	⇑iPn	Pn	06 04 12.7	+0.9
	106nm,0.9s						
MURB	Monte Urbino	3.94	327	⇑ePn	Pn	06 04 12.4	+0.3
MURB	Monte Urbino	3.94	327	⇑ePn	Pn	06 04 12.4	+0.3
	198nm,0.6s						
MURB	Monte Urbino	3.94	327	⇑ePn	Pn	06 04 12.4	+0.3
	198nm,0.6s						
ARVD	Arcevia	3.98	332	⇑iPn	Pn	06 04 12.4	-0.1
	122nm,1.1s						
ARVD	Arcevia	3.98	332	⇑iPn	Pn	06 04 12.4	-0.1
	122nm,1.1s						
MAON	Monte Argentar	4.07	308	⇑iPn	Pn	06 04 14.5	+0.9
MAON	Monte Argentar	4.07	308	⇑iPn	Pn	06 04 14.5	+0.9
	82nm,0.7s						
MAON	Monte Argentar	4.07	308	⇑iPn	Pn	06 04 14.5	+0.9
	82nm,0.7s						
UPM	Unac-Piva	4.12	38	⇓iPn	Pn	06 04 14.6	+0.5
UPM				eSn	S	06 05 06.4	-0.9
UPM	Unac-Piva	4.12	38	⇓iPn	Pn	06 04 14.6	+0.5
UPM				eSn	S	06 05 06.4	-0.9
UPM	Unac-Piva	4.12	38	⇓iPn	Pn	06 04 14.6	+0.5
UPM				eSn	S	06 05 06.4	-0.9
ARCI	Arcidosso	4.14	315	⇑iPn	Pn	06 04 16.5	+2.1
	47nm,0.7s						
ARCI	Arcidosso	4.14	315	⇑iPn	Pn	06 04 16.5	+2.1
	47nm,0.7s						
JAN	Janina	4.16	93	eP	Pn	06 04 15.4	+0.7
FSSB	Fossombrone	4.20	332	⇑iPn	Pn	06 04 15.0	-0.1
FSSB	Fossombrone	4.20	332	⇑iPn	Pn	06 04 15.0	-0.1
	158nm,0.5s						
FSSB	Fossombrone	4.20	332	⇑iPn	Pn	06 04 15.0	-0.1
	158nm,0.5s						
OHR	Ohrid	4.21	73	eP	Pn	06 04 15.7	+0.5
OHR	Ohrid	4.21	73	ePn	Pn	06 04 15.7	+0.5
CDCA	Citt‘ di Caste	4.22	326	Pn	Pn	06 04 15.9	+0.6
CDCA	Citt‘ di Caste	4.22	326	Pn	Pn	06 04 15.9	+0.6
	44nm,0.7s						
CDCA	Citt‘ di Caste	4.22	326	Pn	Pn	06 04 15.9	+0.6
	44nm,0.7s						
LKD	Levkas	4.22	106	eP	Pn	06 04 15.1	-0.3
BADI	Badiali	4.26	327	Pn	Pn	06 04 15.9	+0.2
BADI	Badiali	4.26	327	Pn	Pn	06 04 15.9	+0.2
	83nm,0.6s						
BADI	Badiali	4.26	327	Pn	Pn	06 04 15.9	+0.2
	83nm,0.6s						
PVY	Plav	4.28	51	⇓iPn	Pn	06 04 16.6	+0.7
PVY				eSn	S	06 05 09.2	-1.4
PVY	Plav	4.28	51	⇓iPn	Pn	06 04 16.6	+0.7
PVY				eSn	S	06 05 09.2	-1.4
PVY	Plav	4.28	51	⇓iPn	Pn	06 04 16.6	+0.7
PVY				eSn	S	06 05 09.2	-1.4
VLS	Valsamata	4.38	113	eP	Pn	06 04 16.7	-0.6
PESA	Pesaro	4.40	334	Pn	Pn	06 04 17.0	-0.3
PESA	Pesaro	4.40	334	Pn	Pn	06 04 17.0	-0.3
	111nm,0.6s						
PESA	Pesaro	4.40	334	Pn	Pn	06 04 17.0	-0.3
	111nm,0.6s						
BEY	Berane	4.40	48	⇓iPn	Pn	06 04 18.3	+1.0
BEY				eSn	S	06 05 12.1	-1.1
IVA	Berane	4.40	48	⇓iPn	Pn	06 04 18.3	+1.0
IVA				eSn	S	06 05 12.1	-1.1
IVA	Berane	4.40	48	⇓iPn	Pn	06 04 18.3	+1.0
IVA				eSn	S	06 05 12.1	-1.1
IVA	Berane	4.40	48	⇓iPn	Pn	06 04 18.3	+1.0
IVA				eSn	S	06 05 12.1	-1.1
PLE	Pljevlja	4.45	40	⇓iPn	Pn	06 04 18.6	+0.7
PLE				eSn	S	06 05 12.8	-1.3
PLE	Pljevlja	4.45	40	⇓iPn	Pn	06 04 18.6	+0.7
PLE				eSn	S	06 05 12.8	-1.3
PLE	Pljevlja	4.45	40	⇓iPn	Pn	06 04 18.6	+0.7
PLE				eSn	S	06 05 12.8	-1.3
CRE	Caprese Michel	4.47	325	⇑iPn	Pn	06 04 18.1	-0.1
CRE	Caprese Michel	4.47	325	⇑iPn	Pn	06 04 18.1	-0.1
	10.0nm,0.8s						
CRE	Caprese Michel	4.47	325	⇑iPn	Pn	06 04 18.1	-0.1
	10.0nm,0.8s						
RSM	Repubblica di	4.53	331	⇑iPn	Pn	06 04 19.1	+0.3
RSM	Repubblica di	4.53	331	⇑iPn	Pn	06 04 19.1	+0.3
	778nm,6.3s						
RSM	Repubblica di	4.53	331	⇑iPn	Pn	06 04 19.1	+0.3
	778nm,6.3s						
BIA	Bitola	4.58	75	eP	Pn	06 04 19.6	+0.1
BIA	Bitola	4.58	75	ePn	Pn	06 04 19.5	0.0
FNA	Florina	4.58	78	eP	Pn	06 04 19.8	+0.3
NVLJ	Novalja	4.59	355	iP	Pn	06 04 19.5	0.0
NVLJ	Novalja	4.59	355	i P	Pn	06 04 19.4	0.0
KRUS	Krusevo	4.61	71	ePn	Pn	06 04 20.7	+0.9
CSNT	Castellina Chi	4.67	319	⇑iPn	Pn	06 04 21.4	+1.0
CSNT	Castellina Chi	4.67	319	⇑iPn	Pn	06 04 21.4	+1.0
	759nm,5.2s						
CSNT	Castellina Chi	4.67	319	⇑iPn	Pn	06 04 21.4	+1.0
	759nm,5.2s						
VSL	Villasalto	4.72	266	ePn	Pn	06 04 21.8	+0.7
VSL	Villasalto	4.72	266	ePn	Pn	06 04 21.8	+0.7
SFI	Santa Sofia	4.75	327	Pn	Pn	06 04 21.5	+0.2
SFI	Santa Sofia	4.75	327	Pn	Pn	06 04 21.5	+0.2
	94nm,1.6s						
SFI	Santa Sofia	4.75	327	Pn	Pn	06 04 21.5	+0.2
	94nm,1.6s						
KZN	Kozani	4.84	84	eP	Pn	06 04 23.5	+1.0
VMG	Vicchio	4.92	325	Pn	Pn	06 04 23.8	+0.4
VMG	Vicchio	4.92	325	Pn	Pn	06 04 23.8	+0.4
	22nm,0.9s						
VMG	Vicchio	4.92	325	Pn	Pn	06 04 23.8	+0.4
	22nm,0.9s						
SKO	Skopje	4.94	64	ePn	Pn	06 04 24.3	+0.7
EVR	Evrytania	5.03	100	eP	Pn	06 04 26.0	+1.3
RLS	Riolos of Patr	5.06	111	eP	Pn	06 04 25.7	+0.6
THL	Klokotos Trika	5.07	93	eP	Pn	06 04 25.9	+0.8
SEI	Scarperia	5.08	324	Pn	Pn	06 04 25.1	-0.1
	23nm,0.4s						
SEI	Scarperia	5.08	324	Pn	Pn	06 04 25.1	-0.1
	23nm,0.4s						
SEI	Scarperia	5.08	324	Pn	Pn	06 04 25.1	-0.1
	23nm,0.4s						
FNVD	Fontana Vidola	5.27	324	Pn	Pn	06 04 27.4	-0.1
FNVD	Fontana Vidola	5.27	324	Pn	Pn	06 04 27.4	-0.1
FNVD	Fontana Vidola	5.27	324	Pn	Pn	06 04 27.4	-0.1
SELA	Sela	5.29	107	eP	Pn	06 04 28.6	+0.8
CORF	Corte	5.29	298	eP	Pn	06 04 28.1	+0.3
DIVS	Divcibare	5.31	38	eP	Pn	06 04 28.3	+0.3
DIVS	Divcibare	5.31	38	Pn	Pn	06 04 28.2	+0.3
PZZT	Monte Pizzetto	5.37	322	P	Pn	06 04 28.0	-0.7
STIP	Stip	5.37	69	eP	Pn	06 04 28.8	0.0
STIP	Stip	5.37	69	ePn	Pn	06 04 28.7	-0.1
GRG	Griva	5.38	77	eP	Pn	06 04 28.7	-0.1
MAIM		5.39	318	P	Pn	06 04 29.0	0.0
LIT	Litokhoron	5.39	87	eP	Pn	06 04 29.0	-0.1
GROG	Isola di Gorgo	5.40	311	P	Pn	06 04 29.7	+0.7
AGG	Agios Georgios	5.40	98	eP	Pn	06 04 29.8	+0.6
BDI	Bagni Di Lucca	5.44	320	P	Pn	06 04 29.1	-0.5
PGF	Pioggiola	5.50	300	⇑iP	Pn	06 04 30.3	0.0
	39nm,0.6s						
PGF	Pioggiola	5.50	300	⇑iP	Pn	06 04 30.3	0.0
	20nm,0.6s						
BOJS	Bojanci	5.51	358	i P	Pn	06 04 30.8	+0.5
BOJS				eS	S	06 05 36.5	-0.3
SISC	Sisak	5.51	7	iP	Pn	06 04 30.5	+0.1
SISC	Sisak	5.51	7	i P	Pn	06 04 30.4	0.0
VAY	Valandovo	5.56	74	eP	Pn	06 04 30.4	-0.7
VAY	Valandovo	5.56	74	ePn	Pn	06 04 30.5	-0.6
SARO	Sassorosso	5.63	320	P	Pn	06 04 31.0	-0.8
SKDS	Skadanscina	5.65	350	i P	Pn	06 04 31.7	-0.3
SKDS				eS	S	06 05 44.9	+5.0
GSCL	Gusciola	5.66	322	Pn	Pn	06 04 33.0	+0.8
	21nm,1.1s						
GSCL	Gusciola	5.66	322	Pn	Pn	06 04 33.0	+0.8
	21nm,1.1s						
GSCL	Gusciola	5.66	322	Pn	Pn	06 04 33.0	+0.8
	21nm,1.1s						
THE	Thessaloniki	5.77	81	eP	Pn	06 04 33.1	-0.5
KNT	Kendrikon	5.78	76	eP	Pn	06 04 33.5	-0.2
ITM	Ithomi	5.79	117	⇓iP	Pn	06 04 34.1	+0.2
ERBM	Eremo	5.80	321	Pn	Pn	06 04 34.7	+0.9
	16nm,0.8s						
ERBM	Eremo	5.80	321	Pn	Pn	06 04 34.7	+0.9
	16nm,0.8s						
ERBM	Eremo	5.80	321	Pn	Pn	06 04 34.7	+0.9
	16nm,0.8s						
PYL	PYLOS	5.82	120	eP	Pn	06 04 33.8	-0.4
VALM		5.83	320	P	Pn	06 04 34.0	-0.2
TRI	Trieste	5.84	348	⇑iPn	Pn	06 04 34.0	-0.4
	1µm,5.4s						
TRI	Trieste	5.84	348	⇑iP	Pn	06 04 34.0	-0.4
TRI				pmax	pmax		
	comp=Z,1µm,5.4s						
TRI	Trieste	5.84	348	⇑iPn	Pn	06 04 34.0	-0.4
	comp=Z,1µm,5.4s						
TRI	Trieste	5.84	348	⇑iPn	Pn	06 04 34.0	-0.4
	comp=Z,1µm,5.4s						
BACM		5.86	319	P	Pn	06 04 34.2	-0.4
HORT	Hortiatis	5.87	82	eP	Pn	06 04 34.0	-0.8
LKR	Lokris	6.00	101	eP	Pn	06 04 36.6	+0.3
XOR	Xorichti	6.00	94	eP	Pn	06 04 36.5	+0.2
VLX	Vlachokerasia	6.01	114	eP	Pn	06 04 37.3	+0.8
GRAM		6.02	320	P	Pn	06 04 36.8	+0.3
NEO	Neokhori	6.03	94	eP	Pn	06 04 37.1	+0.4
KKB	Krupnik	6.07	70	i P	Pn	06 04 38.8	+1.7
SOH	Sokhos	6.08	80	eP	Pn	06 04 37.5	+0.2
LJU	Ljubljana	6.08	354	i P	Pn	06 04 37.5	+0.3
LJU				eS	S	06 05 50.8	+1.3
PLG	Polygyros	6.12	84	eP	Pn	06 04 37.6	-0.3
PLG	Polygyros	6.12	84	eP	Pn	06 04 33.5	-4.4
VOY	Vojsko	6.14	350	⇑iP	Pn	06 04 37.7	-0.3
VOY				e		06 04 45.5	
LTK	Loutraki	6.17	106	eP	Pn	06 04 38.4	0.0
SRS	Serrai	6.29	77	eP	Pn	06 04 39.8	-0.1
PAIG	Paliouri	6.31	88	eP	Pn	06 04 39.4	-0.8
VTS	Vitosha	6.38	64	eP	Pn	06 04 42.0	+1.0
VTS	Vitosha	6.38	64	i P	Pn	06 04 42.1	+1.1
VTS	Vitosha	6.38	64	i P	Pn	06 04 42.1	+1.1
VTS	Vitosha	6.38	64	⇓iP	Pn	06 04 42.0	+1.0
KEST	Kesra	6.44	231	P	Pn	06 04 43.6	+1.8
	comp=Z,0.2nm,0.3s,baz=300,slow=4.6,SNR=7.6						
MMB	Musomiste	6.47	73	i P	Pn	06 04 43.2	+1.1
GMNA	Gemona	6.48	346	Pn	Pn	06 04 41.6	-0.5
GMNA	Gemona	6.48	346	Pn	Pn	06 04 41.6	-0.5
OUR	Ouranopolis	6.53	84	eP	Pn	06 04 42.2	-0.7
OBKA	Obir	6.54	354	i P	Pn	06 04 43.3	+0.4
	comp=Z,78nm,1.0s,SNR=24						
OBKA	Obir	6.54	354	i Pn	Pn	06 04 43.3	+0.4
	comp=Z,78nm,1.0s,SNR=24						
OBKA	Obir	6.54	354	i P	Pn	06 04 43.2	+0.3
	comp=Z,78nm,1.0s						
AOS	Alonnisos	6.55	95	eP	Pn	06 04 43.0	-0.2
DID	Didima	6.56	110	eP	Pn	06 04 42.8	-0.4
PTCC	Patocco-Chiusa	6.59	347	Pn	Pn	06 04 42.7	-0.7
PTCC	Patocco-Chiusa	6.59	347	Pn	Pn	06 04 42.7	-0.7
PKSM	Moragy	6.63	19	⇑P	Pn	06 04 44.0	0.0
PKSM	Moragy	6.63	19	⇑iP	Pn	06 04 44.0	0.0
PKSM	Moragy	6.63	19	⇑eP	Pn	06 04 43.9	-0.1
PERS	Pernice	6.64	358	i P	Pn	06 04 43.9	-0.2
PERS				i S	S	06 05 59.8	-2.0
NAIG	Nisos Aigina	6.65	107	eP	Pn	06 04 44.0	-0.3
CTI	Castel Tesino	6.66	336	⇑iPn	Pn	06 04 43.5	-0.8
CTI	Castel Tesino	6.66	336	⇑iPn	Pn	06 04 43.5	-0.8
VLI	Veliai	6.72	117	eP	Pn	06 04 46.7	+1.5
ATH	Athens Observa	6.74	105	eP	Pn	06 04 45.5	+0.1
MYKA	Terra Mystica	6.76	349	⇑iPn	Pn	06 04 45.8	+0.2
	comp=Z,24nm,0.6s						
MAGA	Magasa	6.78	330	Pn	Pn	06 04 44.0	-1.8
PTL	Penteli	6.82	104	eP	Pn	06 04 46.0	-0.5
KVR	Kavouri	6.83	106	eP	Pn	06 04 46.5	0.0
QLNO	Quiliano	6.83	312	P	Pn	06 04 46.9	+0.5
PCP	Pian Castagno	6.85	314	P	Pn	06 04 46.0	-0.7
RORO		6.87	309	P	Pn	06 04 47.9	+1.0
FVI	Forni Avoltri	6.88	344	⇑iPn	Pn	06 04 46.7	-0.3
FVI	Forni Avoltri	6.88	344	⇑iPn	Pn	06 04 46.7	-0.3
KYTH	Kithira	7.03	119	eP	Pn	06 04 49.8	+0.8
MONE	Monesi	7.04	308	P	Pn	06 04 49.7	+0.7
ABTA	Abfaltersbach	7.08	343	⇑iPn	Pn	06 04 49.7	+0.2
	comp=Z,75nm,0.6s,SNR=43						
SAOF	Saorge	7.11	307	eP	Pn	06 04 50.1	+0.2
SBF	Sospel	7.12	305	⇑iP	Pn	06 04 50.1	+0.1
	comp=Z,62nm,0.8s						
SBF	Sospel	7.12	305	⇑iP	Pn	06 04 50.1	+0.1
	comp=Z,31nm,0.8s						
SEST	Monte Rota	7.15	342	⇑iPn	Pn	06 04 50.9	+0.6
	comp=Z,1µm,5.8s						
SEST	Monte Rota	7.15	342	⇑iPn	Pn	06 04 50.9	+0.6
	comp=Z,1µm,5.8s						
APPI	Appiano	7.18	336	⇑iPn	Pn	06 04 50.1	-0.6
APPI	Appiano	7.18	336	⇑iPn	Pn	06 04 50.1	-0.6
BZS	Buzias	7.21	37	P	Pn	06 04 51.7	+0.6
BZS	Buzias	7.21	37	⇓iP	Pn	06 04 51.5	+0.4
KBA	Koelnbreinsper	7.25	348	i P	Pn	06 04 51.9	+0.4
	comp=Z,45nm,0.7s,SNR=8.4						
KBA	Koelnbreinsper	7.25	348	i Pn	Pn	06 04 51.9	+0.4
	comp=Z,45nm,0.7s,SNR=8.4						
KBA	Koelnbreinsper	7.25	348	i P	Pn	06 04 51.9	+0.4
KBA				pmax	pmax		
	comp=Z,45nm,0.6s						
ARSA	Arzberg	7.25	0	i P	Pn	06 04 51.6	0.0
	comp=Z,34nm,1.3s,SNR=10						
ARSA	Arzberg	7.25	0	i Pn	Pn	06 04 51.6	0.0
	comp=Z,34nm,1.3s,SNR=10						
TOUF	Mont Tournerai	7.32	306	eP	Pn	06 04 53.4	+1.0
MVIF	Mont Vial	7.32	305	eP	Pn	06 04 52.5	+0.1
LOS	Limnos	7.39	87	eP	Pn	06 04 53.0	-0.4
STV	Sta Anna Valdi	7.39	308	P	Pn	06 04 54.5	+1.2
CALN	Calern	7.42	303	eP	Pn	06 04 54.9	+1.2
BRMO	Bormio	7.47	332	Pn	Pn	06 04 54.6	+0.4
BRMO	Bormio	7.47	332	Pn	Pn	06 04 54.6	+0.4
LMR	La Mourre	7.49	299	⇑iP	Pn	06 04 54.2	-0.3
	comp=Z,14nm,0.7s						
LMR	La Mourre	7.49	299	⇑iP	Pn	06 04 54.2	-0.3
	comp=Z,6.9nm,0.7s						
FRF	La Foret Royal	7.49	301	⇑iP	Pn	06 04 54.5	-0.1
	comp=Z,23nm,0.7s						
FRF	La Foret Royal	7.49	301	⇑iP	Pn	06 04 54.5	-0.1
	comp=Z,11nm,0.7s						
DOI	San Damiano	7.58	309	Pn	Pn	06 04 56.9	+1.3
DOI	San Damiano	7.58	309	Pn	Pn	06 04 56.9	+1.3
	comp=Z,17nm,0.1s						
GZR	Gura Zlata	7.62	43	P	Pn	06 04 59.2	+3.1
GZR	Gura Zlata	7.62	43	⇑iP	Pn	06 04 58.1	+2.0
VAI	Varese	7.65	322	Pn	Pn	06 04 54.5	-2.0
VAI	Varese	7.65	322	Pn	Pn	06 04 54.5	-2.0
SOP	Sopron	7.73	6	⇑ePn	Pn	06 04 57.7	+0.3
KDZ	Kurdzhali	7.73	74	i P	Pn	06 04 57.0	-0.5
RDO	Rodhopi	7.75	78	eP	Pn	06 04 58.5	+0.6
WTTA	Wattenberg	7.78	340	⇑iP	Pn	06 04 59.6	+1.5
	comp=Z,20nm,0.6s						
WTTA	Wattenberg	7.78	340	⇑iPn	Pn	06 04 59.6	+1.5
	comp=Z,20nm,0.6s						
WTTA	Wattenberg	7.78	340	⇑iP	Pn	06 04 59.6	+1.6
WTTA				pmax	pmax		
	comp=Z,20nm,0.6s						
FETA	Feichten	7.82	335	i Pn	Pn	06 04 58.5	0.0
	comp=Z,35nm,1.2s,SNR=16						
SQTA	Sankt Quirin	7.85	338	⇑iP	Pn	06 05 00.6	+1.6
	comp=Z,22nm,0.6s,SNR=9.2						
SQTA	Sankt Quirin	7.85	338	⇑iPn	Pn	06 05 00.6	+1.6
	comp=Z,22nm,0.6s,SNR=9.2						
SQTA	Sankt Quirin	7.85	338	⇑iP	Pn	06 05 00.6	+1.6
SQTA				pmax	pmax		
	comp=Z,22nm,0.6s						
TUE	Stuetta	7.86	327	Pn	Pn	06 04 58.5	-0.6
TUE	Stuetta	7.86	327	Pn	Pn	06 04 58.5	-0.6
MOA	Molln	7.90	354	i P	Pn	06 04 59.9	+0.4
	comp=Z,29nm,0.8s,SNR=14						
MOA	Molln	7.90	354	i Pn	Pn	06 04 59.9	+0.4
	comp=Z,29nm,0.8s,SNR=14						
DAVOX	Davos/Dischmat	7.91	331	P	Pn	06 05 00.3	+0.7
	comp=Z,4.8nm,0.3s,baz=168,slow=6.8,SNR=47						
TRAV		7.91	317	P	Pn	06 04 57.9	-1.8
CONA	Conrad Observa	7.94	2	⇑iPn	Pn	06 05 00.2	+0.2
	comp=Z,35nm,1.0s						
RSP	Reno Superiore	7.95	313	P	Pn	06 04 59.9	-0.3
MBDF	Montbardon	7.98	309	eP	Pn	06 05 00.8	+0.2
	comp=Z,86nm,0.7s						
MBDF	Montbardon	7.98	309	eP	Pn	06 05 00.8	+0.2
	comp=Z,43nm,0.7s						
DAVOS	Davos	7.99	331	P	Pn	06 05 00.3	-0.3
MOTA	Moosalm	8.00	338	⇑iP	Pn	06 05 01.2	+0.4
	comp=Z,13nm,0.6s,SNR=9.0						
MOTA	Moosalm	8.00	338	⇑iPn	Pn	06 05 01.2	+0.4
	comp=Z,13nm,0.6s,SNR=9.0						
MOTA	Moosalm	8.00	338	⇑iP	Pn	06 05 01.2	+0.5
MOTA				pmax	pmax		
	comp=Z,13nm,0.6s						
PVL	Pavlikeni	8.06	63	eP	Pn	06 05 02.0	+0.3
KARN	Karanos	8.12	122	eP	Pn	06 05 02.9	+0.4
ALN	Alexandroupoli	8.12	80	eP	Pn	06 05 02.7	+0.2
BNI	Bardonecchia	8.22	311	ePn	Pn	06 05 04.8	+1.2
	comp=Z,37nm,1.0s						
BNI	Bardonecchia	8.22	311	eP	Pn	06 05 04.8	+1.2
BNI				pmax	pmax		
	comp=Z,37nm,1.0s						
BNI	Bardonecchia	8.22	311	ePn	Pn	06 05 04.8	+1.2
	comp=Z,37nm,1.0s						
PENC	Penc	8.26	18	⇑eP	Pn	06 05 04.3	+0.2
ZST	Bratislava	8.28	8	eP	Pn	06 05 04.7	+0.4
ZST	Bratislava	8.28	8	eP	Pn	06 05 04.8	+0.5
ZST	Bratislava	8.28	8	ePN	Pn	06 05 04.8	+0.5
DAVA	Damuels	8.33	333	⇓iP	Pn	06 05 05.2	+0.3
	comp=Z,25nm,0.5s,SNR=23						
DAVA	Damuels	8.33	333	⇓iPn	Pn	06 05 05.2	+0.3
	comp=Z,25nm,0.5s,SNR=23						
SMRF	Simiane la Rot	8.37	302	eP	Pn	06 05 04.8	-0.6
	comp=Z,14nm,1.0s						

SMRF	Simiane la Rot	8.37	302	*e*P	Pn	06 05 04.8	-0.6
	comp=Z,7.1nm,1.0s						
PRK	Paraskevi	8.38	92	*e*P	Pn	06 05 05.5	-0.1
APE	Apeiranthos	8.41	107	*e*P	Pn	06 05 05.2	-0.9
APE	Apeiranthos	8.41	107	*e*P	Pn	06 05 05.5	-0.6
APE	Apeiranthos	8.41	107	⇑*i*P	Pn	06 05 05.0	-1.1
LPG	La Plagne	8.44	313	*e*P	Pn	06 05 06.7	+0.4
	comp=Z,66nm,0.7s						
LPG	La Plagne	8.44	313	*e*P	Pn	06 05 06.7	+0.4
	comp=Z,33nm,0.7s						
LPL	La Plagne	8.46	314	*e*P	Pn	06 05 06.3	-0.3
	comp=Z,52nm,0.7s						
LPL	La Plagne	8.46	314	*e*P	Pn	06 05 06.3	-0.3
	comp=Z,26nm,0.7s						
PSZ	Piszkesteto	8.54	20	*e*Pn	Pn	06 05 07.1	-0.3
	comp=Z,47nm,1.3s						
PSZ	Piszkesteto	8.54	20	⇑*e*	Pn	06 05 07.4	-0.1
PSZ	Piszkesteto	8.54	20	⇓*i*P	Pn	06 05 07.6	+0.1
GVD	Gavdhos	8.57	124	*e*Pn	Pn	06 05 08.4	+0.3
	comp=Z,45nm,0.6s						
GVD	Gavdhos	8.57	124	*e*P	Pn	06 05 08.7	+0.6
ORIF	Oris-en-Rattie	8.62	308	*e*P	Pn	06 05 08.2	-0.4
	comp=Z,31nm,0.8s						
ORIF	Oris-en-Rattie	8.62	308	*e*P	Pn	06 05 08.2	-0.4
	comp=Z,15nm,0.8s						
GDM	Grand'Maison	8.63	310	*e*P	Pn	06 05 10.4	+1.7
FUR	Furstenfeldbru	8.70	341	*e*Pn	Pn	06 05 09.6	+0.1
FUR	Furstenfeldbru	8.70	341	*e*Pn	Pn	06 05 09.6	+0.1
URLA	Izmir	8.80	97	*i* P	Pn	06 05 11.0	+0.1
IDI	Anoyia	8.83	119	P	Pn	06 05 11.6	+0.3
	comp=Z,3.4nm,0.3s,baz=318,slow=17,SNR=21						
VYHS	Vyhne	8.83	15	*e*Pn	Pn	06 05 11.0	-0.1
VYHS	Vyhne	8.83	15	*e*PN	Pn	06 05 11.3	+0.2
KOLL	Kolacno	8.84	13	*e*Pn	Pn	06 05 11.3	+0.2
KOLL	Kolacno	8.84	13	*e*PN	Pn	06 05 11.5	+0.4
GRN	Grenoble	8.88	309	*e*P	Pn	06 05 12.7	+1.0
VOIR		8.90	49	⇓P	Pn	06 05 13.3	+1.2
VOIR		8.90	49	⇓*i*P	Pn	06 05 13.3	+1.2
GEC2	GERESS Array S	8.94	352	*e*Pn	Pn	06 05 12.0	-0.4
GEC2	GERESS Array S	8.94	352	*e*Pn	Pn	06 05 12.0	-0.4
GERES	GERESS Array B	8.94	352	P	Pn	06 05 12.2	-0.2
GERES				pmax	pmax		
	comp=Z,2.0nm,0.3s						
GERES	GERESS Array B	8.94	352	P	Pn	06 05 12.2	-0.2
	comp=Z,2.1nm,0.3s,baz=167,slow=13,SNR=86						
KECS	Kecovo	9.22	21	*e*Pn	Pn	06 05 16.7	+0.8
KECS	Kecovo	9.22	21	*e*PN	Pn	06 05 16.7	+0.8
KHC	Kasperske Hory	9.23	352	*e*P	Pn	06 05 15.2	-0.9
KHC				*e*x	x	06 05 21.6	
KHC				*e*x	x	06 05 33.0	
LAST	Lasithi	9.30	118	*e*P	Pn	06 05 17.2	+0.1
TREC	Trest	9.30	0	*e*P	Pn	06 05 17.1	+0.2
TREC				*e*x	x	06 05 23.6	
KDAG	Bornova	9.30	96	*i* P	Pn	06 05 17.5	+0.4
WET	Wettzell	9.33	349	*e*Pn	Pn	06 05 16.1	-1.2
WET	Wettzell	9.33	349	*e*Pn	Pn	06 05 16.1	-1.2
VIVF	Saint-Julien-l	9.34	305	*e*P	Pn	06 05 16.7	-0.7
	comp=Z,11nm,0.7s						
VIVF	Saint-Julien-l	9.34	305	*e*P	Pn	06 05 16.7	-0.7
	comp=Z,5.6nm,0.7s						
VRAC	Vranov	9.35	5	P	Pn	06 05 17.8	+0.3
VRAC	Vranov	9.35	5	P	Pn	06 05 17.8	+0.4
	comp=Z,5.6nm,0.3s,baz=191,slow=12,SNR=43						
VRAC	Vranov	9.35	5	⇓*i*P	Pn	06 05 18.0	+0.5
SPAK	Spaichingen-Ko	9.42	332	*e*P	Pn	06 05 17.5	-0.9
BBS	Basel-Blauen	9.42	325	*e*P	Pn	06 05 17.1	-1.3
MLR	Muntele Rosu	9.46	51	⇑P	Pn	06 05 21.9	+2.9
MLR	Muntele Rosu	9.46	51	P	Pn	06 05 20.3	+1.3
MLR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MLR	Muntele Rosu	9.46	51	P	Pn	06 05 20.3	+1.3
	comp=Z,1.0nm,0.3s,baz=270,slow=4.3,SNR=20						
MLR	Muntele Rosu	9.46	51	⇑*i*P	Pn	06 05 21.9	+2.9
CABF	La Chapelle	9.50	317	⇑*i*P	Pn	06 05 17.8	-1.7
	comp=Z,24nm,0.5s						
CABF	La Chapelle	9.50	317	⇑*i*P	Pn	06 05 17.8	-1.7
	comp=Z,12nm,0.5s						
FELD	Feldberg im Sc	9.54	328	*e*P	Pn	06 05 19.2	-0.6
TRPA	Tarpa	9.59	30	⇑*i*P	Pn	06 05 21.2	+0.7
LOMF	Lomont	9.65	322	*e*P	Pn	06 05 22.8	+1.6
ETOS	Mallorca	9.73	273	P	Pn	06 05 23.0	+0.6
	comp=Z,2.1nm,0.5s						
ETOS	Mallorca	9.73	273	P	Pn	06 05 23.0	+0.7
	comp=Z,2.1nm,0.5s						
BFO	Black Forest	9.78	331	*e*Pn	Pn	06 05 22.3	-0.5
BFO	Black Forest	9.78	331	*e*Pn	Pn	06 05 22.3	-0.5
ZKR	Zakros	9.83	116	*e*P	Pn	06 05 24.1	+0.4
ZKR	Zakros	9.83	116	*e*P	Pn	06 05 24.0	+0.3
CRVS	Cervenica-Dubn	9.88	24	*e*PN	Pn	06 05 24.7	+0.6
MOF	Molkenrain	9.88	325	*e*P	Pn	06 05 23.2	-0.9
MORC	Moravsky Berou	9.89	8	*e*Pn	Pn	06 05 24.7	+0.5
	comp=Z,39nm,1.0s						
MORC	Moravsky Berou	9.89	8	*e*P	Pn	06 05 24.7	+0.5
MORC				pmax	pmax		
	comp=Z,39nm,1.0s						
MORC	Moravsky Berou	9.89	8	⇓*i*P	Pn	06 05 24.9	+0.7
HINF	Hinteralfeld	9.98	324	*e*P	Pn	06 05 23.8	-1.5
	comp=Z,60nm,0.5s						
HINF	Hinteralfeld	9.98	324	*e*P	Pn	06 05 23.8	-1.5
	comp=Z,30nm,0.5s						
PRU	Pruhonice	10.01	357	*e*P	Pn	06 05 25.8	+0.1
PRU				*e*x	x	06 05 30.5	
OKC	Ostrava-Krasne	10.02	10	*e*P	Pn	06 05 26.3	+0.5
NIE	Niedzica	10.03	18	⇑*e*P	Pn	06 05 27.7	+1.8
GRFO	Grafenberg	10.15	344	*e*Pn	Pn	06 05 26.9	-0.5
	comp=Z,22nm,1.1s						
GRFO	Grafenberg	10.15	344	*e*P	Pn	06 05 26.9	-0.5
GRFO				pmax	pmax		
	comp=Z,22nm,1.1s						
GRA1	Grafenberg Arr	10.15	344	*e*Pn	Pn	06 05 26.7	-0.7
GRF	Grafenberg Arr	10.15	344	*e*Pn	Pn	06 05 26.7	-0.7
GRF	Grafenberg Arr	10.15	344	*e*Pn	Pn	06 05 26.7	-0.7
ECH	Echery	10.15	327	*e*P	Pn	06 05 27.4	-0.1
KOLS	Kolonicke sedl	10.17	26	*e*PN	Pn	06 05 28.7	+1.0
CDF	Champ du Feu	10.26	328	*e*P	Pn	06 05 27.6	-1.2
	comp=Z,37nm,0.6s						
CDF	Champ du Feu	10.26	328	*e*P	Pn	06 05 27.6	-1.2
CDF				pmax	pmax		
	comp=Z,19nm,0.6s						
CDF	Champ du Feu	10.26	328	*e*P	Pn	06 05 27.6	-1.2
	comp=Z,19nm,0.6s						
STHS	Stebnicka Huta	10.28	22	*e*Pn	Pn	06 05 30.7	+1.7
STHS				*e*		06 05 30.9	
STHS	Stebnicka Huta	10.28	22	*e*PN	Pn	06 05 30.9	+1.9
HAU	Haudompre	10.35	324	*e*P	Pn	06 05 28.5	-1.4
	comp=Z,40nm,0.6s						
HAU	Haudompre	10.35	324	*e*P	Pn	06 05 28.5	-1.4
HAU				pmax	pmax		
	comp=Z,20nm,0.6s						
HAU	Haudompre	10.35	324	*e*P	Pn	06 05 28.5	-1.4
	comp=Z,20nm,0.6s						
BURAR	Bucovina Array	10.37	40	⇓P	Pn	06 05 31.7	+1.5
BURAR	Bucovina Array	10.37	40	⇓*i*P	Pn	06 05 31.7	+1.5
DPC	Dobruska-Polom	10.37	3	*e*P	Pn	06 05 30.1	-0.1
DPC				*e*x	x	06 05 35.1	
LBL	Lubilhac	10.41	304	*e*P	Pn	06 05 32.5	+1.8
MTLF	Montolieu	10.46	293	⇑*i*P	Pn	06 05 29.7	-1.6
	comp=Z,42nm,1.3s						
MTLF	Montolieu	10.46	293	⇑*i*P	Pn	06 05 29.7	-1.6
MTLF				pmax	pmax		
	comp=Z,21nm,1.3s						
MTLF	Montolieu	10.46	293	⇑*i*P	Pn	06 05 29.7	-1.6
	comp=Z,21nm,1.3s						
ULDT	Uludag	10.48	85	*i* P	Pn	06 05 30.0	-1.7
UPC	Upice	10.52	2	*e*P	Pn	06 05 32.6	+0.6
UPC				*e*x	x	06 05 36.2	
PLDF	La Plantade	10.53	308	*e*P	Pn	06 05 35.1	+3.0
PVCC	Panska Ves	10.55	357	*e*P	Pn	06 05 32.5	+0.1
PVCC				*e*x	x	06 05 36.2	
TANN	Tannenbergstha	10.63	350	*e*Pn	Pn	06 05 32.2	-1.1
OJC	Ojcow	10.67	15	*e*P	Pn	06 05 34.4	+0.6
THEF	They Montfort	10.68	324	*e*P	Pn	06 05 33.6	-0.3
SMF	Signal de Mont	10.76	312	*e*P	Pn	06 05 32.6	-2.4
	comp=Z,26nm,0.7s						
SMF	Signal de Mont	10.76	312	*e*P	Pn	06 05 32.6	-2.4
SMF				pmax	pmax		
	comp=Z,13nm,0.7s						
SMF	Signal de Mont	10.76	312	*e*P	Pn	06 05 32.6	-2.4
	comp=Z,13nm,0.7s						
AGO	Saint Agoulin	10.86	308	*e*P	Pn	06 05 35.4	-0.9
KSP	Ksiaz	10.86	3	*e*P	Pn	06 05 38.6	+2.4
KSP	Ksiaz	10.86	3	*e*P	Pn	06 05 38.0	+1.8
KWP	Kalwaria	10.92	26	*e*P	Pn	06 05 39.4	+2.5
BRG	Berggiesshubel	10.93	355	*e*Pn	Pn	06 05 37.2	+0.2
EIBI	Ibiza	10.95	269	P	Pn	06 05 41.7	+4.2
	comp=Z,6.7nm,0.5s						
MOX	Moxa	10.99	347	*e*Pn	Pn	06 05 37.0	-0.7
EPOB	Poblet	11.01	282	P	Pn	06 05 40.8	+2.6
	comp=Z,2.8nm,0.5s						
CAF	Calviac	11.05	301	*e*P	Pn	06 05 37.5	-1.1
LOR	Lormes	11.11	315	*e*P	Pn	06 05 36.6	-2.7
	comp=Z,13nm,0.6s						
LOR	Lormes	11.11	315	*e*P	Pn	06 05 36.6	-2.7
	comp=Z,6.3nm,0.6s						
LOR	Lormes	11.11	315	*e*P	Pn	06 05 36.6	-2.7
LOR				pmax	pmax		
	comp=Z,6.0nm,0.6s						
AVF	Avril sur Loir	11.12	312	*e*P	Pn	06 05 36.9	-2.5
	comp=Z,22nm,0.6s						
AVF	Avril sur Loir	11.12	312	*e*P	Pn	06 05 36.9	-2.5
	comp=Z,11nm,0.6s						
AVF	Avril sur Loir	11.12	312	*e*P	Pn	06 05 36.9	-2.5
AVF				pmax	pmax		
	comp=Z,11nm,0.6s						
SSF	Saint Saulge	11.18	313	*e*P	Pn	06 05 37.7	-2.5
	comp=Z,7.6nm,0.3s						
SSF	Saint Saulge	11.18	313	*e*P	Pn	06 05 37.7	-2.5
	comp=Z,3.8nm,0.3s						
SSF	Saint Saulge	11.18	313	*e*P	Pn	06 05 37.7	-2.5
SSF				pmax	pmax		
	comp=Z,4.0nm,0.3s						
BGF	Bois d'Agland	11.29	310	*e*P	Pn	06 05 39.9	-1.6
	comp=Z,34nm,0.7s						
BGF	Bois d'Agland	11.29	310	*e*P	Pn	06 05 39.9	-1.6
BGF				pmax	pmax		
	comp=Z,17nm,0.7s						
BGF	Bois d'Agland	11.29	310	*e*P	Pn	06 05 39.9	-1.6
	comp=Z,17nm,0.7s						
TNS	Taunus Mts	11.36	337	*e*Pn	Pn	06 05 43.6	+1.3
TNS	Taunus Mts	11.36	337	*e*Pn	Pn	06 05 43.6	+1.3
GOLH	Golhisar	11.37	100	*i* P	Pn	06 05 44.5	+1.8
MELF	Melles	11.41	289	*e*P	Pn	06 05 48.2	+5.2
CLL	Collm	11.44	352	*e*Pn	Pn	06 05 44.1	+0.8
CLL	Collm	11.44	352	*i* P	Pn	06 05 44.1	+0.8
CLL				*i* x	x	06 05 47.2	
TCF	Toulx Ste Croi	11.54	307	*e*P	Pn	06 05 43.3	-1.3
RJF	Les Rejaudoux	11.55	302	*e*P	Pn	06 05 44.1	-0.7
ERTA	Horta de San J	11.57	280	P	Pn	06 05 47.1	+2.1
	comp=Z,6.0nm,0.4s						
ERTA	Horta de San J	11.57	280	P	Pn	06 05 47.1	+2.1
	comp=Z,6.0nm,0.4s						
WLF	Walferdange	11.70	329	*e*Pn	Pn	06 05 47.2	+0.7
EPF	Esparros	11.74	290	⇑*i*P	Pn	06 05 45.3	-1.8
	comp=Z,15nm,0.6s						
EPF	Esparros	11.74	290	⇑*i*P	Pn	06 05 45.3	-1.8
EPF				pmax	pmax		
	comp=Z,7.0nm,0.6s						
EPF	Esparros	11.74	290	⇑*i*P	Pn	06 05 45.3	-1.8
	comp=Z,7.4nm,0.6s						
EBIE	Bielsa	11.83	288	P	Pn	06 05 48.2	0.0
	comp=Z,4.1nm,0.4s						
EBIE	Bielsa	11.83	288	P	Pn	06 05 48.2	0.0
	comp=Z,4.1nm,0.4s						
ESKT	Eskisehir	11.86	87	*i* P	Pn	06 05 48.2	-0.3
SEYT	Eskypehyr	11.86	87	*i* P	Pn	06 05 48.2	-0.4
LABF	Labassere	11.93	290	*e*P	Pn	06 05 53.7	+4.3
LFF	La Frestale	11.94	299	*e*P	Pn	06 05 48.4	-1.1
VIEF	Viey	11.94	289	*e*P	Pn	06 05 53.1	+3.5
ESAC	San Caprasio	12.19	283	P	Pn	06 05 53.9	+1.3
	comp=Z,34nm,0.3s						
EMOS	Mosqueruela	12.20	277	P	Pn	06 05 55.6	+2.9
	comp=Z,3.1nm,0.4s						
EBEN	Beniarda	12.22	269	P	Pn	06 05 55.5	+2.6
	comp=Z,8.1nm,0.5s						
EBEN	Beniarda	12.22	269	P	Pn	06 05 55.5	+2.5
	comp=Z,8.1nm,0.5s						
CLZ	Clausthal	12.36	345	*e*Pn	Pn	06 05 56.6	+2.0
CLZ	Clausthal	12.36	345	*e*Pn	Pn	06 05 56.6	+2.0
ETSF	Etsaut	12.37	289	*e*P	Pn	06 05 54.0	-0.8
	comp=Z,20nm,0.6s						
ETSF	Etsaut	12.37	289	*e*P	Pn	06 05 54.0	-0.8
ETSF				pmax	pmax		
	comp=Z,10.0nm,0.6s						
ETSF	Etsaut	12.37	289	*e*P	Pn	06 05 54.0	-0.8
	comp=Z,10nm,0.6s						
GIVF	Givet	12.58	327	*e*P	Pn	06 05 56.6	-0.7
	comp=Z,20nm,0.5s						
GIVF	Givet	12.58	327	*e*P	Pn	06 05 56.6	-0.7
GIVF				pmax	pmax		
	comp=Z,10.0nm,0.5s						
GIVF	Givet	12.58	327	*e*P	Pn	06 05 56.6	-0.7
	comp=Z,10nm,0.5s						
ECHE	Chera	12.65	273	P	Pn	06 05 59.6	+1.3
	comp=Z,11nm,0.6s						
ECHE	Chera	12.65	273	P	Pn	06 05 59.6	+1.4
ECHE				pmax	pmax		
	comp=Z,11nm,0.6s						
ECHE	Chera	12.65	273	P	Pn	06 05 59.6	+1.4
	comp=Z,11nm,0.6s						
SJPF	Ste Jean	12.88	289	*e*P	Pn	06 06 00.0	-1.0
	comp=Z,34nm,0.6s						
SJPF	Ste Jean	12.88	289	*e*P	Pn	06 06 00.0	-1.0
SJPF				pmax	pmax		
	comp=Z,17nm,0.6s						
SJPF	Ste Jean	12.88	289	*e*P	Pn	06 06 00.0	-1.0
	comp=Z,17nm,0.6s						
ELIZ	Elizondo	13.11	289	P	Pn	06 06 03.8	0.0
	comp=Z,5.0nm,0.4s						
ELIZ	Elizondo	13.11	289	P	Pn	06 06 03.8	0.0
ELIZ				pmax	pmax		
	comp=Z,5.0nm,0.4s						
ELIZ	Elizondo	13.11	289	P	Pn	06 06 03.8	0.0
	comp=Z,5.0nm,0.4s						
MFF	Saint Martin d	13.14	305	*e*P	Pn	06 06 02.9	-1.1
	comp=Z,37nm,0.8s						
MFF	Saint Martin d	13.14	305	*e*P	Pn	06 06 02.9	-1.1
MFF				pmax	pmax		
	comp=Z,19nm,0.8s						
MFF	Saint Martin d	13.14	305	*e*P	Pn	06 06 02.9	-1.1
	comp=Z,19nm,0.8s						
GKP	Gorka Klasztor	13.33	5	*e*P	Pn	06 06 08.7	+2.3
ETOR	Torete	13.38	279	P	Pn	06 06 06.5	-0.6
	comp=Z,13nm,0.3s						
ETOR	Torete	13.38	279	P	Pn	06 06 06.5	-0.6
ETOR				pmax	pmax		
	comp=Z,13nm,0.3s						
ETOR	Torete	13.38	279	P	Pn	06 06 06.5	-0.6
	comp=Z,13nm,0.3s						
ECRI	Cripan	13.76	287	P	Pn	06 06 12.0	+0.4
	comp=Z,7.8nm,0.5s						
ECRI	Cripan	13.76	287	P	Pn	06 06 12.0	+0.4
ECRI				pmax	pmax		
	comp=Z,8.0nm,0.5s						
ECRI	Cripan	13.76	287	P	Pn	06 06 12.0	+0.4
	comp=Z,7.8nm,0.5s						
BRTR	Keskin Array B	13.97	85	P	Pn	06 06 16.1	+1.9
	comp=Z,0.4nm,0.3s,baz=271,slow=11,SNR=18						
BRTR	Keskin Array B	13.97	85	P	Pn	06 06 16.0	+1.9
EVIA	Vianos	13.98	270	P	Pn	06 06 15.2	+0.9
	comp=Z,6.8nm,0.7s						
EVIA	Vianos	13.98	270	P	Pn	06 06 15.2	+0.9
EVIA				pmax	pmax		
	comp=Z,7.0nm,0.7s						
EVIA	Vianos	13.98	270	P	Pn	06 06 15.2	+0.9
	comp=Z,6.8nm,0.7s						
LDF	La Druitiere	14.07	313	*e*P	Pn	06 06 13.4	-1.8
	comp=Z,13nm,0.6s						
LDF	La Druitiere	14.07	313	*e*P	Pn	06 06 13.4	-1.8
LDF				pmax	pmax		
	comp=Z,7.0nm,0.6s						
LDF	La Druitiere	14.07	313	*e*P	Pn	06 06 13.4	-1.8
	comp=Z,6.7nm,0.6s						
ENIJ	Nijar	14.17	263	P	Pn	06 06 16.6	0.0
	comp=Z,7.8nm,0.6s						
ENIJ	Nijar	14.17	263	P	Pn	06 06 16.6	0.0
ENIJ				pmax	pmax		
	comp=Z,8.0nm,0.6s						
ENIJ	Nijar	14.17	263	P	Pn	06 06 16.6	0.0
	comp=Z,7.8nm,0.6s						
FLN	La Foliniere	14.36	313	*e*P	Pn	06 06 15.6	-3.1
GRR	Gorron	14.38	311	*e*P	Pn	06 06 16.9	-2.1
AKASG	Malin Array Be	14.40	37	P	Pn	06 06 18.9	-0.3
AKASG				pmax	pmax		
	comp=Z,9.0nm,0.3s						
AKASG	Malin Array Be	14.40	37	P	Pn	06 06 18.9	-0.3
	comp=Z,9.4nm,0.3s,baz=230,slow=10,SNR=98						
ELAN	Lanestosa	14.50	289	P	Pn	06 06 20.2	-0.3
	comp=Z,3.7nm,0.5s						
ELAN	Lanestosa	14.50	289	P	Pn	06 06 20.2	-0.2
	comp=Z,3.7nm,0.5s						
EQES	Quesada	14.60	267	P	Pn	06 06 22.1	+0.4
	comp=Z,7.7nm,0.4s						
EQES	Quesada	14.60	267	P	Pn	06 06 22.1	+0.4
	comp=Z,7.7nm,0.4s						
EBER	Berja	14.71	264	P	Pn	06 06 23.0	0.0
	comp=Z,13nm,0.6s						
ESDC	Sonseca Array	14.93	275	P	Pn	06 06 26.5	+0.8
	comp=Z,4.8nm,0.3s						
ESDC	Sonseca Array	14.93	275	P	Pn	06 06 24.5	-1.1
	comp=Z,2.4nm,0.3s,baz=77,slow=12,SNR=20						
ESDC	Sonseca Array	14.93	275	P	Pn	06 06 26.5	+0.9
	comp=Z,4.8nm,0.3s						
SUW	Suwalki	14.96	18	*e*P	Pn	06 06 24.7	-1.1
GUD	Guadarrama	14.98	279	P	Pn	06 06 26.3	+0.1
	comp=Z,14nm,0.8s						
GUD	Guadarrama	14.98	279	P	Pn	06 06 26.3	+0.1
GUD				pmax	pmax		
	comp=Z,14nm,0.8s						
GUD	Guadarrama	14.98	279	P	Pn	06 06 26.3	+0.1
	comp=Z,14nm,0.8s						
AVNT	Avonos	15.05	88	*i* P	Pn	06 06 27.5	+0.5
EBAN	Banos Encina	15.06	269	P	Pn	06 06 26.6	-0.6
	comp=Z,6.3nm,0.7s						
EBAN	Banos Encina	15.06	269	P	Pn	06 06 26.6	-0.6
EBAN				pmax	pmax		
	comp=Z,6.0nm,0.7s						
EBAN	Banos Encina	15.06	269	P	Pn	06 06 26.6	-0.6
	comp=Z,6.3nm,0.7s						
ECOG	Cogollos-Vega	15.12	266	P	Pn	06 06 28.4	+0.6
	comp=Z,4.4nm,0.3s						
ECOG	Cogollos-Vega	15.12	266	P	Pn	06 06 28.4	+0.5
ECOG				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ECOG	Cogollos-Vega	15.12	266	P	Pn	06 06 28.4	+0.5
	comp=Z,4.4nm,0.3s						
EGUA	Guajares	15.25	264	P	Pn	06 06 28.4	-0.9
	comp=Z,1.2nm,0.4s						
EGUA	Guajares	15.25	264	P	Pn	06 06 28.4	-1.0
EGUA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
EGUA	Guajares	15.25	264	P	Pn	06 06 28.4	-1.0
	comp=Z,1.2nm,0.4s						
SGMF	Saint Gilles	15.32	309	*e*P	Pn	06 06 27.1	-3.0
ERON	Agron	15.38	265	P	Pn	06 06 30.9	0.0
	comp=Z,4.1nm,0.3s						
ERON	Agron	15.38	265	P	Pn	06 06 30.9	0.0
	comp=Z,4.1nm,0.3s						
QUIF	Quistinic	15.55	307	*e*P	Pn	06 06 28.8	-4.0
ELUQ	Luque	15.58	267	P	Pn	06 06 33.1	-0.2
	comp=Z,34nm,0.4s						
ELUQ	Luque	15.58	267	P	Pn	06 06 33.1	-0.2
ELUQ				pmax	pmax		
	comp=Z,34nm,0.4s						
ELUQ	Luque	15.58	267	P	Pn	06 06 33.1	-0.2
	comp=Z,34nm,0.4s						
ELOJ	Sierra Loja	15.60	266	P	Pn	06 06 34.7	+1.1
EADA	Adamuz	15.67	270	P	Pn	06 06 34.5	+0.2
	comp=Z,6.1nm,0.4s						
EADA	Adamuz	15.67	270	P	Pn	06 06 34.5	+0.1
	comp=Z,6.1nm,0.4s						
ROSF	Rostrenen	15.79	308	*e*P	Pn	06 06 32.4	-3.2
EARI	Arriondas	15.80	289	P	Pn	06 06 34.3	-1.5
	comp=Z,1.4nm,0.6s						
EARI	Arriondas	15.80	289	P	Pn	06 06 34.3	-1.5
	comp=Z,1.4nm,0.6s						
EMIJ	Mijas	16.25	264	P	P	06 06 38.5	-0.7
	comp=Z,16nm,0.4s						
EMIJ	Mijas	16.25	264	P	P	06 06 38.5	-0.6
	comp=Z,16nm,0.4s						
EJIF	Jimena Fronter	16.82	265	P	P	06 06 45.2	-0.2
	comp=Z,12nm,0.5s						
EJIF	Jimena Fronter	16.82	265	P	P	06 06 45.2	-0.1
EJIF				pmax	pmax		
	comp=Z,12nm,0.5s						
EJIF	Jimena Fronter	16.82	265	P	P	06 06 45.2	-0.1
	comp=Z,12nm,0.5s						
ESPR	Espera	16.99	266	P	P	06 06 45.9	-1.3
	comp=Z,11nm,0.4s						
MVO	Moncorvo	17.12	281	*e*P	P	06 06 47.9	-0.7
	comp=Z,60nm,1.8s						
EPON	Pontenova	17.21	289	P	P	06 06 49.5	0.0
	comp=Z,2.9nm,0.4s						
EPON	Pontenova	17.21	289	P	P	06 06 49.5	0.0
	comp=Z,2.9nm,0.4s						
EMIN	Mina Concepcio	17.38	270	P	P	06 06 51.1	-0.2
	comp=Z,3.3nm,0.3s						
EMIN	Mina Concepcio	17.38	270	P	P	06 06 51.1	-0.2
	comp=Z,3.3nm,0.3s						
EBAD	Badajoz	17.42	273	P	P	06 06 51.2	-0.6
	comp=Z,1.8nm,0.4s						
MMAI	Mount Meron Ar	17.46	107	P	P	06 06 53.6	+1.3
	comp=Z,9.3nm,0.3s,baz=304,slow=9.5,SNR=50						
PCBR	Castelo Branco	17.60	277	*e*P	P	06 06 52.8	-0.9
	comp=Z,33nm,1.9s						
MDT	Midelt	17.66	252	P	P	06 06 53.5	-0.9
	comp=Z,0.6nm,0.3s,baz=76,slow=11,SNR=15						
PVIS	Viseu	17.81	280	*e*P	P	06 06 56.4	+0.4
GOTU	Gotland	17.82	5	P	P	06 06 55.1	-0.7
EGRO	El Granado	18.06	270	P	P	06 06 58.3	-0.3
	comp=Z,5.0nm,0.4s						
EGRO	El Granado	18.06	270	P	P	06 06 58.3	-0.4
	comp=Z,5.0nm,0.4s						
PBEJ	Beja	18.23	271	*e*P	P	06 06 59.4	-1.1
EVO	Evora	18.23	273	*e*P	P	06 06 59.1	-1.4
PVAQ	Vaqueiros	18.27	269	*e*P	P	06 06 59.6	-1.4
	comp=Z,54nm,1.2s						
PTOM	Tomar	18.34	277	*e*P	P	06 07 01.3	-0.4
	comp=Z,71nm,1.9s						
PBDV	Barranco-do-Ve	18.48	269	*e*P	P	06 07 03.7	+0.5
	comp=Z,85nm,1.5s						
ASF	Jabal al Asfar	18.97	108	P	P	06 07 10.3	+1.8
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF	Jabal al Asfar	18.97	108	P	P	06 07 10.3	+1.7
	comp=Z,0.9nm,0.3s,baz=192,slow=9.0,SNR=3.6						
EIL	Elat	18.99	117	P	P	06 07 09.6	+0.9
	comp=Z,1.2nm,0.3s,baz=326,slow=8.8,SNR=15						
EKA	Eskdalemuir Ar	19.72	327	P	P	06 07 14.0	-2.1
EKA				pmax	pmax		
	comp=Z,1.0nm,0.3s						
EKA	Eskdalemuir Ar	19.72	327	P	P	06 07 14.0	-2.1
	comp=Z,1.0nm,0.3s,baz=120,slow=8.6,SNR=18						
HFS	Hagfors	20.19	357	P	P	06 07 19.3	-1.8
HFS				pmax	pmax		
	comp=Z,6.0nm,0.5s						
HFS	Hagfors	20.19	357	P	P	06 07 19.3	-1.8
	comp=Z,6.4nm,0.5s,baz=172,slow=12,SNR=24						
OBN	Obninsk	20.65	36	*e*P	P	06 07 24.3	-1.7
OBN				pmax	pmax		
	comp=Z,11nm,1.5s						
NB2	NORSAR Subarra	21.23	354	P	P	06 07 29.1	-2.3
	comp=Z,1.7nm,0.4s,mb3.7,baz=176,slow=11						
NOA	NORSAR Array B	21.23	354	P	P	06 07 30.0	-1.4
NOA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
NOA	NORSAR Array B	21.23	354	P	P	06 07 30.0	-1.4
	comp=Z,3.1nm,0.6s,mb3.8,baz=168,slow=10,SNR=12						
FINES	FINESS Array B	22.44	13	P	P	06 07 41.9	-0.6
FINES						06 11 25.9	
FINES				pmax	pmax		
	comp=Z,5.0nm,0.7s						
FINES	FINESS Array B	22.44	13	P	P	06 07 41.9	-0.6
	comp=Z,4.6nm,0.7s,mb3.9,baz=165,slow=7.9,SNR=18						
FINES				PcP	PcP	06 11 25.9	-0.6
	comp=Z,1.1nm,0.4s,baz=160,slow=3.4,SNR=9.7						
FINES	FINESS Array B	22.44	13	P	P	06 07 41.8	-0.7
FINES	FINESS Array B	22.44	13	PcP	PcP	06 11 25.9	-0.6
KAF	Kangasniemi	23.11	13	*e*p	P	06 07 46.4	-2.1
	baz=196,slow=10						
JOF	Joensuu	24.85	17	*e*p	P	06 08 02.6	-1.6
	comp=Z,0.3nm,0.3s,mb3.2						
TORD	Torodi Ar. Bea	29.36	208	P	P	06 08 44.1	-0.7
	comp=Z,1.4nm,0.4s,mb3.8,baz=18,slow=9.2,SNR=36						
ARCES	ARCESS Array B	30.08	7	P	P	06 08 48.6	-1.9
ARCES						06 11 43.4	
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES	ARCESS Array B	30.08	7	P	P	06 08 48.6	-1.9
	comp=Z,1.6nm,0.7s,mb3.7,baz=191,slow=9.6,SNR=21						
ARCES				PcP	PcP	06 11 43.4	-0.9
	comp=Z,0.9nm,0.5s,baz=219,slow=3.9,SNR=9.8						
ARCES	ARCESS Array B	30.08	7	PcP	PcP	06 11 43.3	-1.0
KEV	Kevo	30.44	8	*e*p	P	06 08 56.9	+3.2
	comp=Z,1.8nm,0.6s,mb3.8						
KEV	Kevo	30.44	8	*e*P	P	06 08 56.9	+3.2
KEV				pmax	pmax		

	comp=Z,2.0nm,0.6s,mb3.8						
TIC	Toumodi	37.96	214	eP	P	06 10 02.6	+4.1
	comp=Z,92nm,1.3s,mb5.1						
KIC	Kosan Boka	38.09	214	eP	P	06 09 58.8	-0.9
	comp=Z,28nm,0.6s,mb4.9						
LIC	Lamto	38.34	214	eP	P	06 10 00.9	-0.8
	comp=Z,21nm,0.7s,mb4.4						
LIC	Lamto	38.34	214	eP	P	06 10 00.6	-1.1
	comp=Z,35nm,0.7s,mb4.9						
LIC	Lamto	38.34	214	eP	P	06 10 00.9	-0.8
	comp=Z,10nm,0.7s,mb4.4						
KMBO	Kilima Mbogo	45.52	149	P	P	06 11 01.1	+1.7
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.6s						
KMBO	Kilima Mbogo	45.52	149	P	P	06 11 01.1	+1.7
	comp=Z,0.9nm,0.6s,mb3.3,baz=37,slow=20,SNR=3.3						
ZAL	Zalesovo	47.42	49	P	P	06 11 13.5	-0.2
ZALV	Zalesovo Beam	47.43	49	P	P	06 11 13.4	-0.3
	comp=Z,3.9nm,0.4s,mb4.1,baz=302,slow=6.2,SNR=6.7						
ZALV	Zalesovo Beam	47.43	49	P	P	06 11 13.4	-0.3
MKAR	Makanchi Array	47.71	59	P	P	06 11 15.9	-0.1
MKAR				*PP	pP	06 12 14.8	-0.5
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.4s						
MKAR	Makanchi Array	47.71	59	P	P	06 11 15.9	-0.1
	comp=Z,3.8nm,0.4s,mb4.0,baz=282,slow=6.8,SNR=49						
MKAR				pP	pP	06 12 14.8	-0.5
	comp=Z,5.4nm,0.8s,baz=286,slow=6.1,SNR=11						
SCHQ	Schefferville	54.43	315	P	P	06 12 04.4	-1.1
	comp=Z,10nm,0.3s,mb4.6,baz=66,slow=6.6,SNR=85						
SONM	Songino Array	62.31	50	P	P	06 12 59.7	-0.2
SONM				*PP	pP	06 14 02.2	-0.5
SONM				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	62.31	50	P	P	06 12 59.7	-0.2
	comp=Z,0.6nm,0.6s,mb3.4,baz=280,slow=7.8,SNR=4.9						
SONM				pP	pP	06 14 02.2	-0.5
	comp=Z,0.7nm,0.7s,baz=292,slow=8.5,SNR=4.2						
SADO	Sadowa	66.08	309	P	P	06 13 24.2	-0.1
	baz=54,slow=7.8						
BOSA	Boshof	68.86	171	P	P	06 13 41.8	+0.2
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
BOSA	Boshof	68.86	171	P	P	06 13 41.8	+0.1
	comp=Z,1.5nm,0.6s,mb3.9,baz=336,slow=6.4,SNR=3.6						
YKA	Yellowknife Ar	70.28	338	P	P	06 13 49.6	-0.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
YKA	Yellowknife Ar	70.28	338	P	P	06 13 49.6	-0.3
	comp=Z,0.8nm,0.4s,mb3.8,baz=40,slow=5.6,SNR=24						
ULM	Lac du Bonnet	71.86	321	P	P	06 13 59.2	-0.3
	comp=Z,7.5nm,0.5s,mb4.6,baz=52,slow=5.7,SNR=30						
KDAK	Kodiak Island	82.07	354	P	P	06 14 56.3	+0.3
	comp=Z,5.8nm,0.7s,mb4.4,baz=342,slow=13,SNR=3.2						
PDAR	Pinedale Array	83.77	323	P	P	06 15 05.2	+0.2
	comp=Z,1.7nm,0.6s,mb4.0,baz=62,slow=6.6,SNR=19						
ANMO	Albuquerque	88.20	316	P	P	06 15 25.9	-0.8
	comp=Z,1.6nm,1.1s,mb3.8,baz=67,slow=11,SNR=4.1						
TXAR	Lajitas Array	90.83	310	P	P	06 15 39.8	+0.7
	comp=Z,1.3nm,0.5s,mb4.0,baz=64,slow=4.8,SNR=33						
WRA	Warramunga Arr	124.48	88	PKP	PKPdf	06 21 32.0	-1.2
	comp=Z,0.6nm,0.7s,baz=266,slow=0.6,SNR=4.8						
ASAR	Alice Springs	126.23	92	PKP	PKPdf	06 21 35.3	-1.2
	comp=Z,0.5nm,0.5s,baz=272,slow=1.9,SNR=6.6						

*ISCJB **22** 06:03:38.6±0.7, 38.36N±0.04×39.29E±0.05, h5^{km}, Error ellipse: s-maj=5.6km s-min=5.0km az=31.1*
*CSEM **22** 06:03:38.5±0.2, 38.42N×39.20E, h10^{km}, MD2.8, Error ellipse: s-maj=5.0km s-min=2.4km az=117.0*
*DDA **22** 06:03:38.9, 38.39N×39.31E, h2^{km}±4^{km}, Md2.9*
*ISK **22** 06:03:38.0, 38.42N×39.21E, h5^{km}, MD2.8*
ISC 22 06:03:38.7±1.1**, 38.35N**±0.05×**39.31E**±0.06**, h0^{km}**±11^{km}**, n12, σ0^{s}.69**/19**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.30	300	iP	Pg	06 03 44.0	-0.4
ELZG				iS	Sg	06 03 48.7	+0.5
PTK	Pertek	0.55	7	PG	Pg	06 03 48.9	-0.3
PTK				SG	Sg	06 03 56.9	+0.6
PTK	Pertek	0.55	7	ePg	Pg	06 03 48.9	-0.3
PTK				eSg	Sg	06 03 56.9	+0.6
MALT	Malatya	0.70	267	PG	Pg	06 03 50.3	-1.7
MALT	Malatya	0.70	267	ePg	Pg	06 03 50.3	-1.7
MALT	Malatya	0.70	267	⇑iP	Pg	06 03 51.3	-0.7
MYA	Malataya	0.70	268	PG	Pg	06 03 51.3	-0.7
MYA				SG	Sg	06 04 01.3	+0.3
MYA	Malataya	0.70	268	ePg	Pg	06 03 51.3	-0.7
MYA				eSg	Sg	06 04 01.3	+0.3
URFA	Urfa	0.98	203	ePG	Pg	06 03 58.8	+1.3
URFA	Urfa	0.98	203	ePg	Pg	06 03 58.8	+1.3
MARD	Mardin	1.56	131	iP	Pn	06 04 07.5	-0.1
MARD				iS	Sn	06 04 28.1	-0.3
GZT	Gaziantep	1.70	235	iP	Pn	06 04 03.2	-6.3
GZT				iS	Sn	06 04 32.4	+0.4

CASC 22 06:21:17.7±1.3**, 8.75N**×**82.54W, h16^{km}**±3^{km}**, MD3.7, 2C-1D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRU	Baru	0.06	342	eP	Pg	06 21 22.8	+2.1
BRU				eS	Sg	06 21 25.1	+2.3
TBS2		0.12	292	⇑iP	Pg	06 21 25.9	+4.6
TBS2				eS	Sg	06 21 29.2	+5.4
BRU2	Volcan	0.15	287	⇓iP	Pg	06 21 21.6	-0.2
BRU2				eS	Sg	06 21 25.6	+1.1
CNI	Changuinola	0.67	2	⇑iP	Pg	06 21 29.2	-1.6
BAR1		0.91	303	eP	Pb	06 21 33.7	-1.4
BAR1				eS	Sb	06 21 46.9	+0.1
URSC	Urasca	1.63	312	eP	Pn	06 21 46.1	+0.3
URSC				eS	Sn	06 22 07.6	+1.2
LCR2	La Lucha 2	1.75	305	eP	Pn	06 21 48.1	+0.8
LCR2				eS	Sn	06 22 10.5	+1.1
PRS1	Puriscal	2.13	305	eP	Pn	06 21 52.8	+0.2
PRS1				eS	Sn	06 22 19.7	+0.8

*IDC **22** 06:27:30.8±6.6, 36.23N×70.91E, h164^{km}±60^{km}, mb3.6/10, mb1 3.7/12, mb1mx3.5/23, mbtmp3.6/12, Error ellipse: s-maj=30.4km s-min=16.0km az=16.0*
*MOS **22** 06:27:32.2±1.0, 36.41N×70.78E, h186^{km}, mb4.2/8, Error ellipse: s-maj=15.8km s-min=9.8km az=88.6*
*BJI **22** 06:27:34.7, 36.71N×70.92E, h181^{km}, mb4.3*
*ISCJB **22** 06:27:34.6±0.3, 36.57N±0.02×71.04E±0.05, h204^{km}±4^{km}, mb3.9/14, Error ellipse: s-maj=6.2km s-min=3.9km az=177.9*
*NEIC **22** 06:27:35.4±0.8, 36.56N×70.91E, h199^{km}±8^{km}, mb4.6/8, Error ellipse: s-maj=11.7km s-min=9.7km az=136.0*
*NNC **22** 06:27:41.6±1.9, 37.15N×70.90E, h236^{km}±24^{km}, mb2.9, mpv3.7, Error ellipse: s-maj=19.8km s-min=11.6km az=3.0*
ISC 22 06:27:35.5±0.3**, 36.59N**±0.02×**71.01E**±0.05**, h194^{km}**±4^{km}**, n81, σ1^{s}.08**/96**, mb3.9**/14**, 3C-6D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	2.60	219	ePn	Pn	06 28 20.7	+0.7
KBL				eSn	Sn	06 28 54.3	-0.5
CEP	Cherat	2.85	165	⇑P	Pn	06 28 23.9	+0.8
CHCP	Chirah Chowk	3.45	147	⇓P	Pn	06 28 31.2	+0.9
THW	Thamme Wali	3.83	171	⇓P	Pn	06 28 35.4	+0.5
SBDP	Sheikh Budin	4.28	182	P	Pn	06 28 39.5	-1.1
SBDP				S	Sn	06 29 24.0	-7.6
SARP	Sargodha	4.85	163	P	Pn	06 28 47.4	-0.4
DRP	Derazinda	4.88	188	P	Pn	06 28 48.4	+0.3
KSH	Kashi	4.89	52	⇓iP	Pn	06 28 50.3	+2.1
KSH				S	Sn	06 29 43.8	-1.7
KSH				Smax			
	comp=N,754nm,0.4s						
KSH				Smax			
	comp=E,690nm,0.4s						
THN	Thein Dam	5.68	135	eP	Pn	06 28 58.4	0.0
THN				ex	x	06 30 02.9	
DLH	Dalhousie	5.74	133	eP	Pn	06 28 59.0	-0.3
DLH				eS	Sn	06 30 01.0	-4.4
AML	Almayashu	5.92	20	P	Pn	06 29 02.4	+1.0
	SNR=87						
AML	Almayashu	5.92	20	ePn	Pn	06 29 02.2	+0.8
	comp=E,60nm,0.4s						
AML				eSn	Sn	06 30 07.9	-1.5
PONG	Pong	6.17	137	ex	x	06 31 05.5	
UCH	Uchtor	6.25	25	P	Pn	06 29 06.9	+1.1
	SNR=62						
UCH	Uchtor	6.25	25	ePn	Pn	06 29 06.8	+1.0
	comp=E,27nm,0.4s						
UCH				eSn	Sn	06 30 15.6	-1.7
KZA	Kyzart	6.39	30	P	Pn	06 29 07.9	+0.3
	SNR=12						
EKS2	Erkin-Say	6.43	19	P	Pn	06 29 08.9	+0.8
	SNR=27						
EKS2	Erkin-Say	6.43	19	ePn	Pn	06 29 08.7	+0.6
	comp=E,12nm,0.4s						
EKS2				eSn	Sn	06 30 19.4	-2.0
KK31	Karatay Array	6.52	357	⇑P	Pn	06 29 09.1	-0.1
	comp=E,2.3nm,0.3s,baz=178,slow=12,SNR=13						
KK31				⇓S	Sn	06 30 18.3	-5.3
	comp=E,20nm,0.6s,baz=188,slow=24,SNR=16						
AAK	Ala-Archa	6.61	23	P	Pn	06 29 11.5	+1.1
	SNR=30						
AAK	Ala-Archa	6.61	23	ePn	Pn	06 29 10.3	-0.1
	comp=E,16nm,0.4s						
AAK	Ala-Archa	6.61	23	ePN	Pn	06 29 10.4	0.0
AAK				pmax	pmax		
	comp=Z,16nm,0.4s						
KBK	Karagaybulak	6.78	25	P	Pn	06 29 14.7	+2.1
	SNR=13						
ULHL	Ulahol	6.95	34	P	Pn	06 29 15.7	+0.9
	SNR=11						
CHMS	Chumysh	7.02	23	P	Pn	06 29 16.6	+0.9
	SNR=8.2						
SDNR	Sundarnagar	7.08	134	eP	Pn	06 29 16.6	-0.1
SDNR				eS	Sn	06 30 31.0	-6.0
USP	Ospenovka	7.19	21	P	Pn	06 29 18.6	+0.6
	SNR=25						
TKM2	Tokmak 2	7.24	28	P	Pn	06 29 19.5	+0.8
	SNR=56						
TKM2	Tokmak 2	7.24	28	⇓P	Pn	06 29 19.1	+0.4
	comp=Z,4.1nm,0.7s						
TKM2				⇑S	Sn	06 30 38.8	-1.8
	comp=Z,1.6nm,0.8s						
TKM2	Tokmak 2	7.24	28	ePn	Pn	06 29 19.4	+0.8
	comp=Z,43nm,0.6s						
TKM2	Tokmak 2	7.24	28	ePN	Pn	06 29 19.4	+0.7
TKM2				pmax	pmax		
	comp=Z,43nm,0.6s						
JOSI	Joshimath	9.32	128	eP	Pn	06 29 46.8	+0.8
JOSI				AMb	AMB	06 29 49.6	
	comp=Z,37nm,0.7s						
JOSI				eS	Sn	06 31 24.9	-5.4
KHET	Khetri	9.40	153	eS	Sn	06 31 20.9	-11
NDI	New Delhi	9.46	145	eS	Sn	06 31 22.0	-11
KUDL	Kundal	9.60	150	eP	Pn	06 29 47.7	-1.9
KUDL				AMb	AMB	06 29 49.3	
	comp=Z,6.3nm,0.8s						
KUDL				eS	Sn	06 31 26.1	-11
SONA	Sohna	9.76	147	eP	Pn	06 29 50.2	-1.5
SONA				AMb	AMB	06 29 50.6	
	comp=Z,12nm,0.2s						
SONA				eS	Sn	06 31 30.9	-10
MK31	Makanchi Array	13.21	36	P	Pn	06 30 35.7	0.0
	comp=Z,5.8nm,0.8s,baz=215,slow=11,SNR=23						
MK31	Makanchi Array	13.21	36	ePn	Pn	06 30 36.0	+0.4
MK31	Makanchi Array	13.21	36	eP	Pn	06 30 36.0	+0.4
MKAR	Makanchi Array	13.21	36	P	Pn	06 30 36.1	+0.5
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MKAR	Makanchi Array	13.21	36	P	Pn	06 30 36.0	+0.4
	comp=Z,0.6nm,0.3s,baz=219,slow=13,SNR=23						
GKN	Gorkha	14.34	123	eP	Pn	06 30 49.6	-0.2
	comp=Z,39nm,0.4s						
GKN				eS	Sn	06 33 19.4	-11
WMQ	Urumqi	14.64	55	eP	Pn	06 30 53.6	+0.3
WMQ				AMB	AMB		
	comp=Z,12nm,0.6s						
KKN	Kakani	14.91	122	eP	Pn	06 30 56.4	-0.5
	comp=Z,50nm,0.4s						
AB31	Akbulak array	15.01	331	P	Pn	06 30 56.2	-1.7
	comp=Z,7.6nm,0.8s,baz=141,slow=10,SNR=45						
AB31				⇓S	S	06 33 34.8	-10
	comp=Z,2.3nm,0.7s,baz=154,slow=24,SNR=2.8						
JIRN	Jiri	15.62	120	eP	Pn	06 31 05.4	-0.1
	comp=Z,35nm,0.4s						
JIRN				eS	S	06 33 50.4	-8.4
AKTK	Aktyubinsk	16.71	330	P	Pn	06 31 18.4	0.0
AKTO	Aktyubinsk	16.71	330	P	Pn	06 31 18.4	+0.1
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.3s						
AKTO	Aktyubinsk	16.71	330	P	Pn	06 31 18.4	0.0
	comp=Z,2.0nm,0.3s,baz=140,slow=10,SNR=49						
TAPN	Taplejung	16.88	118	eP	Pn	06 31 20.7	+0.2
	comp=Z,16nm,0.4s						
ODAN	Odare	16.95	120	eP	Pn	06 31 22.9	+1.4
LSA	Lhasa	18.19	106	P	P	06 31 37.3	+3.6
LSA	Lhasa	18.19	106	eP	P	06 31 37.1	+3.4
	comp=Z,8.3nm,0.9s						
LSA	Lhasa	18.19	106	eP	P	06 31 37.1	+3.4
LSA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
ZAL	Zalesovo	19.82	25	P	P	06 31 51.7	+0.7
ZALV	Zalesovo Beam	19.83	25	P	P	06 31 51.7	+0.5
ZALV	Zalesovo Beam	19.83	25	P	P	06 31 51.7	+0.5
	comp=Z,2.4nm,0.4s,baz=215,slow=11,SNR=17						
KIV	Kislovodsk	22.76	298	eP	P	06 32 23.4	+2.5
KIV				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.1						
GTA	Gaotai	22.83	74	eP	P	06 32 25.0	+3.4
GTA				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.1						
MALT	Malatya	25.86	284	eP	P	06 32 45.5	-3.6
	comp=Z,5.2nm,0.6s,mb4.3						
MALT	Malatya	25.86	284	eP	P	06 32 45.5	-3.5
MALT				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.3						
SONM	Songino Array	28.28	55	P	P	06 33 11.5	+1.0
	comp=Z,0.3nm,0.5s,mb3.2,baz=262,slow=8.6,SNR=5.0						
AKASG	Malin Array Be	32.90	309	P	P	06 33 50.7	-0.3
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	Malin Array Be	32.90	309	P	P	06 33 50.6	-0.4
	comp=Z,1.6nm,0.5s,mb3.8,baz=81,slow=7.1,SNR=11						
JOF	Joensuu	35.80	330	ep	P	06 34 15.2	-0.5
	comp=Z,6.6nm,0.3s,mb4.6						
JOF	Joensuu	35.80	330	eP	P	06 34 15.2	-0.5
JOF				pmax	pmax		
	comp=Z,7.0nm,0.3s,mb4.7						
FINES	FINESS Array B	37.42	326	P	P	06 34 29.8	+0.4
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FINES	FINESS Array B	37.42	326	P	P	06 34 29.8	+0.4
	comp=Z,2.0nm,0.4s,mb4.0,baz=120,slow=10,SNR=16						
KAF	Kangasniemi	37.56	327	ep	P	06 34 30.4	-0.2
	comp=Z,0.9nm,0.3s,mb3.8,baz=111,slow=8.4						
KAF	Kangasniemi	37.56	327	eP	P	06 34 30.4	-0.2
KAF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.8						
KEV	Kevo	40.73	338	ep	P	06 34 56.3	-0.4
ARCES	ARCESS Array B	41.07	338	P	P	06 35 00.3	+0.8
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.6s						
ARCES	ARCESS Array B	41.07	338	P	P	06 35 00.2	+0.7
	comp=Z,4.5nm,0.6s,mb4.1,baz=113,slow=8.3,SNR=35						
NB2	NORSAR Subarra	44.32	323	P	P	06 35 25.6	-0.1
	comp=Z,1.7nm,0.6s,mb3.5,baz=95,slow=7.9						
NOA	NORSAR Array B	44.32	323	P	P	06 35 25.6	-0.1
NOA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
NOA	NORSAR Array B	44.32	323	P	P	06 35 25.6	-0.1
	comp=Z,3.6nm,0.8s,mb3.8,baz=96,slow=7.8,SNR=8.6						
TORD	Torodi Ar. Bea	65.73	269	P	P	06 37 57.2	-2.4
	comp=Z,1.3nm,0.5s,mb3.9,baz=51,slow=5.8,SNR=28						
YKA	Yellowknife Ar	81.16	3	P	P	06 39 29.0	+0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
YKA	Yellowknife Ar	81.16	3	P	P	06 39 29.0	+0.2
	comp=Z,1.0nm,0.4s,mb3.8,baz=351,slow=5.3,SNR=29						
WRA	Warramunga Arr	82.03	122	P	P	06 39 32.3	-1.7
	comp=Z,0.3nm,0.4s,mb3.3,baz=325,slow=4.9,SNR=3.0						
ASAR	Alice Springs	84.29	125	P	P	06 39 44.0	-1.5
	comp=Z,0.2nm,0.4s,mb3.2,baz=313,slow=4.8,SNR=4.4						

*NIED **22** 06:33:00, 37.00N×142.00E, h26^{km}, Mw3.7 Best double couple: M$_0$3.73000×10^{14} NP1:φ$_s$100.00000°, δ13.00000°, λ-10.00000°. NP2:φ$_s$200.00000°, δ88.00000°, λ-103.00000°.*
*IDC **22** 06:33:40.0±1.3, 37.01N×142.25E, h0^{km}, mb3.7/6, mb1 3.8/9, mb1mx3.7/24, mbtmp3.7/9, ML3.6/3, MS2.7/3, Ms1 2.7/3, ms1mx2.4/29, Error ellipse: s-maj=27.3km s-min=23.6km az=153.0*
*ISCJB **22** 06:33:41.9±1.4, 37.06N±0.05×142.09E±0.07, h20^{km}±9^{km}, mb3.7/7, Error ellipse: s-maj=10.1km s-min=8.4km az=23.1*
*NEIC **22** 06:33:43.6, 37.04N×141.98E, h44^{km}, mb4.4/1, After JMA.*
*JMA **22** 06:33:43.6±0.2, 37.04N×141.98E, h44^{km}, M3.9*
ISC 22 06:33:41.8±1.4**, 37.18N**±0.05×**142.06E**±0.07**, h5^{km}**±7^{km}**, n28, σ1^{s}.07**/35**, mb3.7**/7**, 5D, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JFK	Kawauchi	0.97	282	⇓P	Pg	06 34 00.4	0.0
ONAJ	Iwakimizuishiy	1.01	266	⇓P	Pg	06 34 00.5	-0.8
JMM	Marumori	1.22	305	⇓P	Pg	06 34 05.2	-0.1
JHO	Hitachi	1.32	245	P	Pn	06 34 04.1	-2.9
JHO				eS	Sg	06 34 18.8	-5.6
JIO	Ouri	1.39	336	⇓P	Pn	06 34 08.3	+0.3
JIO				eS	Sb	06 34 25.2	-1.3
JFT	Otama	1.42	284	⇓P	Pn	06 34 08.0	-0.3
JOU	Okura	1.62	317	P	Pn	06 34 11.8	+0.7
JOU				eS	Sn	06 34 32.9	+0.5
JMK	Ichinoseki	1.89	340	P	Pn	06 34 16.1	+1.3
JFY	Yanaizu	1.89	278	P	Pn	06 34 14.5	-0.3
JFY				eS	Sn	06 34 37.3	-1.8
JYS	Shirataka	1.90	304	eS	Sn	06 34 39.6	+0.5
JAG	Ashikaga	2.22	251	P	Pn	06 34 18.2	-1.2
JAG				eS	Sn	06 34 42.5	-4.8
MJAR	Matsushiro Arr	3.15	260	Pn	Pn	06 34 33.3	+1.1
MJAR				Sn	Sn	06 35 14.7	+4.5
MJAR				LR	LR	06 36 00.6	
MJAR	Matsushiro Arr	3.15	260	Pn	Pn	06 34 33.3	+1.1
	7.8nm,0.3s,baz=81,slow=16,SNR=34						
MJAR				Sn	Sn	06 35 14.7	+4.5
	6.2nm,0.3s,baz=84,slow=32,SNR=6.3						
MJAR				LR	LR	06 36 00.6	
	comp=Z,234nm,19.1s,baz=310,slow=43						
MAJO	Matsushiro	3.16	260	ePn	Pn	06 34 33.6	+1.4
MAT	Matsushiro	3.16	260	P	Pn	06 34 32.7	+0.5
MAT				S	Sn	06 35 10.7	+0.5
ASAJ	Asahikawa	6.94	3	Sn	Sn	06 36 42.1	-1.4
	1.3nm,0.3s,baz=28,slow=34,SNR=2.3						
JNU	Nakatsue	10.01	249	Pn	Pn	06 36 06.5	+0.2
JNU	Nakatsue	10.01	249	Pn	Pn	06 36 06.5	+0.2
	0.4nm,0.3s,baz=51,slow=12,SNR=3.1						
CBIJ	Chichi jima	10.05	179	LR	LR	06 39 23.9	
	comp=Z,21nm,18.2s,baz=142,slow=35						
KSRS	Korea Array	11.27	276	Pn	Pn	06 36 26.4	+2.9
	0.3nm,0.3s,baz=91,slow=13,SNR=3.8						
KSRS				LR	LR	06 40 35.7	
	comp=Z,36nm,20.1s,baz=85,slow=36						
SONM	Songino Array	28.14	304	P	P	06 39 35.1	+0.3
	1.3nm,0.7s,mb3.7,baz=113,slow=8.4,SNR=6.8						
ZALV	Zalesovo Beam	42.20	312	P	P	06 41 35.3	-0.1
	0.7nm,0.4s,mb3.7,baz=77,slow=6.5,SNR=4.6						
MK31	Makanchi Array	44.48	302	eP	P	06 41 53.7	-0.2
MKAR	Makanchi Array	44.48	302	P	P	06 41 53.7	-0.3
	0.8nm,0.6s,mb3.6,baz=87,slow=9.0,SNR=11						
KURK	Kurchatov	46.25	308	eP	P	06 42 09.5	+1.6
	3.3nm,0.6s,mb4.4						
WRA	Warramunga Arr	57.28	189	P	P	06 43 28.1	-2.3
	0.5nm,0.5s,mb3.8,baz=7.3,slow=6.9,SNR=3.8						
YKA	Yellowknife Ar	63.42	30	P	P	06 44 11.9	-0.2
	0.1nm,0.6s,mb3.1,baz=299,slow=6.2,SNR=4.8						
FINES	FINESS Array B	68.93	332	P	P	06 44 48.7	+1.3
	1.0nm,0.8s,mb3.8,baz=157,slow=7.5,SNR=2.6						

*CSEM **22** 06:34:43.3±0.5, 38.92N×38.89E, h40^{km}, MD2.6, Error ellipse: s-maj=22.8km s-min=3.6km az=151.0*
ISK 22 06:34:43.4, 39.00N×38.76E, h4^{km}, MD2.6, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTK	Pertek	0.51	102	PG	Pg	06 34 54.0	+0.9
PTK				SG	Sg	06 35 01.4	+1.7
PTK	Pertek	0.51	102	ePg	Pg	06 34 54.0	+0.9
PTK				eSg	Sg	06 35 01.4	+1.7
ELZG	Elazig	0.53	161	iP	Pg	06 34 51.1	-2.6
ELZG				iS	Sg	06 34 56.3	-4.3
MYA	Malataya	0.72	201	ePG	Pg	06 34 58.1	+0.8
MYA				eSG	Sg	06 35 09.4	+2.8
MYA	Malataya	0.72	201	ePg	Pg	06 34 58.1	+0.8
MYA				eSg	Sg	06 35 09.4	+2.8
MALT	Malatya	0.73	201	ePG	Pg	06 34 57.9	+0.4
MALT				eSG	Sg	06 35 08.3	+1.3
MALT	Malatya	0.73	201	ePg	Pg	06 34 57.9	+0.4
MALT				eSg	Sg	06 35 08.3	+1.3

*ISCJB **22** 06:46:51.0±1.1, 23.59N±0.04×121.42E±0.03, h6^{km}±6^{km}, mb3.7/9, Error ellipse: s-maj=7.4km s-min=5.2km az=3.9*
*JMA **22** 06:46:52.8±0.4, 23.68N×121.33E, h89^{km}, M3.3*
*NEIC **22** 06:46:52.1±1.9, 23.60N×121.55E, h6^{km}±12^{km}, mb4.2/1, Error ellipse: s-maj=29.1km s-min=10.0km az=73.0*
*IDC **22** 06:47:00.5±7.0, 23.64N×121.60E, h75^{km}±67^{km}, mb3.5/8, mb1 3.6/9, mb1mx3.5/22, mbtmp3.5/9, ML3.2/1, MS3.6/1, Ms1 3.6/1, ms1mx2.6/20, Error ellipse: s-maj=45.0km s-min=15.6km az=70.0*
*BJI **22** 06:47:01.4, 24.21N×120.90E, h15^{km}, mB4.5, mb4.1, ML4.1, Ms3.6, Msz3.7*
ISC 22 06:46:52.1±1.3**, 23.60N**±0.05×**121.47E**±0.04**, h3^{km}**±7^{km}**, n28, σ0^{s}.94**/38**, mb3.7**/9**, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	Ninganchiao	0.58	12	ePg	Pg	06 47 03.4	+0.1
NACB				eSg	Sg	06 47 11.0	+0.2
YHNB	Yeheng	1.06	356	ePg	Pg	06 47 12.1	-0.5
YHNB				eSg	Sg	06 47 25.4	-1.0
TATO	Taipei	1.37	1	ePn	Pn	06 47 17.2	-0.9
TATO				eSn	Sn	06 47 37.0	+0.3
YOJ	Yonaguni jima	1.65	59	P	Pn	06 47 21.8	-0.2
YOJ				eS	Sn	06 47 43.8	0.0
HATJ	Hateruma jima	2.19	78	P	Pn	06 47 29.4	0.0
IRIF	Iriomote-Funau	2.20	70	P	Pn	06 47 29.6	+0.1
IRIF				eS	Sn	06 47 57.9	+0.7
JKRS	Kuro-shima	2.41	74	P	Pn	06 47 32.8	+0.3
JIJ	Ishigaki jima	2.56	72	P	Pn	06 47 34.3	-0.3
JIJ				eS	Sn	06 48 05.8	-0.5
QZH	Quanzhou	2.94	298	P	Pn	06 47 41.5	+1.7
QZH				S	Sn	06 48 14.5	-1.1
QZH				Smax			
	comp=N,930nm,0.8s						
QZH				Smax			
	comp=E,700nm,0.8s						
JTJ	Tarama	3.13	70	P	Pn	06 47 42.3	-0.1
SSE	Sheshan	7.47	358	eP	Pn	06 48 43.4	+1.4
SSE				S	Sn	06 50 02.4	-4.8
SSE				AMB	AMB		
	comp=Z,20nm,0.8s						
SSE				AMB	AMB		
	comp=Z,141nm,6.0s						
SSE				Smax			
	comp=N,35nm,1.3s						
SSE				Smax			
	comp=E,48nm,1.3s						
SSE				LR	LR		
	comp=N,15nm,19.2s						
SSE				LR	LR		
	comp=E,127nm,19.2s						
SSE				LR	LR		
	comp=Z,527nm,14.4s						
SSE	Sheshan	7.47	358	ePn	Pn	06 48 43.4	+1.4
	comp=Z,20nm,0.8s						
SSE				Sn	Sn	06 50 02.4	-4.8
GZH	Guangzhou	7.48	268	P	Pn	06 48 45.1	+2.9
GZH				S	Sn	06 49 59.8	-7.8
GZH				Smax			
	comp=N,116nm,0.8s						
GZH				Smax			
	comp=E,79nm,1.1s						
KSRS	Korea Array	14.88	20	P	Pn	06 50 26.1	+2.7
	comp=E,0.1nm,0.3s,baz=193,slow=11,SNR=5.9						
CD2	Chengdu	17.33	299	eP	Pn	06 50 54.1	-1.1
CD2				XP	sP	06 51 02.0	+4.2
CD2				PP		06 51 08.6	
CD2				S	Sn	06 54 04.0	-4.5
CD2				AMB	AMB		

	comp=Z,10.0nm,0.6s						
CD2				LR	LR		
	comp=N,210nm,9.6s						
CD2				LR	LR		
	comp=E,270nm,13.2s						
CD2				LR	LR		
	comp=Z,210nm,7.2s						
CBIJ	Chichi jima	19.04	75	LR	LR	06 57 23.9	
	comp=Z,164nm,20.0s,baz=107,slow=33						
LZH	Lanzhou	19.67	313	*e*P	Pn	06 51 29.0	+5.4
LZH				AP	pP	06 51 33.0	+10
LZH				XP	sP	06 51 35.0	+12
LZH				AMB	AMB		
	comp=Z,15nm,1.0s						
LZH	Lanzhou	19.67	313	*e*P	Pn	06 51 29.0	+5.4
	comp=Z,15nm,1.0s						
LZH				pP	pP	06 51 33.0	+10
LZH				sP	sP	06 51 35.0	+12
GTA	Gaotai	24.18	316	*e*P	P	06 52 11.5	+1.8
GTA				AP		06 52 16.6	
GTA				XP	sP	06 52 19.5	+8.6
GTA				AMB	AMB		
	comp=Z,3.0nm,1.4s,mb3.5						
SONM	Songino Array	27.00	337	P	P	06 52 35.3	+0.1
	comp=Z,1.3nm,0.8s,mb3.5,baz=148,slow=8.2,SNR=6.2						
MK31	Makanchi Array	38.93	316	*e*P	P	06 54 19.1	-0.1
MKAR	Makanchi Array	38.93	316	P	P	06 54 18.9	-0.3
	comp=Z,2.8nm,0.9s,mb4.0,baz=104,slow=10,SNR=14						
ZALV	Zalesovo Beam	40.87	327	P	P	06 54 35.5	+0.3
	comp=Z,1.2nm,0.4s,mb3.9,baz=127,slow=9.6,SNR=9.2						
FITZ	Fitzroy Crossi	41.65	174	P	P	06 54 42.1	+0.2
	comp=Z,1.0nm,0.8s,mb3.5,baz=0.0,slow=20,SNR=2.8						
WRA	Warramunga Arr	45.06	163	P	P	06 55 08.6	-0.9
	comp=Z,0.6nm,0.5s,mb3.7,baz=342,slow=8.5,SNR=5.2						
ASAR	Alice Springs	48.51	165	P	P	06 55 36.0	-0.4
	comp=Z,0.2nm,0.3s,mb3.6,baz=338,slow=6.9,SNR=5.5						
FINES	FINESS Array B	72.08	330	P	P	06 58 17.1	-0.3
	comp=Z,1.1nm,0.9s,mb3.8,baz=57,slow=5.1,SNR=2.6						
YKA	Yellowknife Ar	83.40	23	P	P	06 59 18.6	-1.9
	comp=Z,0.6nm,0.7s,mb3.8,baz=312,slow=4.9,SNR=11						

*ISCJB **22** 06:56:41.1±0.7, 33.28N±0.10×138.3E±0.1, h341^{km}±9^{km}, mb3.1/2, Error ellipse: s-maj=17.9km s-min=12.9km az=136.0*

*JMA **22** 06:56:41.2±0.2, 33.08N×138.30E, h324^{km}, M2.9*

*IDC **22** 06:56:42.3±1.9, 33.24N×138.12E, h330^{km}±69^{km}, mb2.9/2, mb1 3.1/3, mb1mx2.7/23, mbtmp2.8/3, Error ellipse: s-maj=214.3km s-min=29.6km az=67.0*

ISC 22 06:56:42.2±0.7**, 33.28N**±0.09×**138.3E**±0.1**, h333**^{km}±9^{km}**, n19,** σ**1^{s}02**/25**, mb3.1**/2**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ	Hachijo jima 2	1.23	97	P	Pn	06 57 28.8	+1.6
	16nm,0.3s,baz=39,slow=6.5,SNR=3.1						
JHJ				S	S	06 58 04.7	+1.5
	1.9nm,0.3s,baz=277,slow=8.1,SNR=2.2						
JHJ2	Mitsune	1.26	97	P	Pn	06 57 25.5	-1.9
JAA	Atsumi	1.67	324	P	Pn	06 57 29.4	-0.2
JKN2	Miekihoku	1.96	300	P	Pn	06 57 30.4	-1.2
JOD2	Odawara 2	2.07	18	P	Pn	06 57 33.4	+1.0
JNY	Yasuok	2.11	350	P	Pn	06 57 33.2	+0.5
JAO	Obara	2.17	336	P	Pn	06 57 33.2	+0.1
JYN	Shimob	2.22	5	P	Pn	06 57 34.3	+0.8
BSO3	Boso 3	2.36	50	P	Pn	06 57 33.3	-1.4
BSO3				*e*S	S	06 58 16.8	0.0
BSO4	Boso 4	2.38	44	P	Pn	06 57 35.4	+0.5
BSO1	Boso 1	2.59	57	P	Pn	06 57 36.4	-0.2
BSO1				*e*S	S	06 58 19.2	-1.1
JHU	Hanno	2.68	17	P	Pn	06 57 37.1	-0.3
JHU				*e*S	S	06 58 20.1	-1.5
JRY	Ryogami san	2.77	10	P	Pn	06 57 39.1	+1.0
JRY				*e*S	S	06 58 22.6	-0.4
JWT	Wachi	3.14	310	P	Pn	06 57 40.4	-1.1
MJAR	Matsushiro Arr	3.25	358	P	Pn	06 57 42.5	-0.1
	2.1nm,0.3s,baz=180,slow=9.7,SNR=21						
MAT	Matsushiro	3.25	358	P	Pn	06 57 42.7	+0.1
MAT				*e*S	S	06 58 33.7	+2.5
MAT	Matsushiro	3.25	358	P	Pn	06 57 42.9	+0.3
WRA	Warramunga Arr	53.06	185	P	P	07 05 25.5	-0.6
	0.8nm,0.5s,mb3.3,baz=357,slow=7.3,SNR=11						
ASAR	Alice Springs	56.79	185	P	P	07 05 53.5	+0.9
	0.3nm,0.5s,mb2.9,baz=16,slow=11,SNR=5.4						

*ISCJB **22** 06:59:26.2±0.3, 36.55N±0.03×70.95E±0.05, h200^{km}±5^{km}, mb3.5/12, Error ellipse: s-maj=7.0km s-min=4.1km az=173.8*

*NEIC **22** 06:59:28.4±0.5, 36.58N×70.96E, mb4.4/7, Error ellipse: s-maj=12.8km s-min=9.2km az=121.0*

*IDC **22** 06:59:28.3±0.9, 36.46N×70.96E, h206^{km}±7^{km}, mb3.4/12, mb1 3.6/14, mb1mx3.4/22, mbtmp3.4/14, Error ellipse: s-maj=14.5km s-min=13.1km az=175.0*

*BJI **22** 06:59:36.4, 36.86N×71.74E, h205^{km}, mb3.8*

*NNC **22** 06:59:37.5±2.8, 37.45N×71.23E, h262^{km}±37^{km}, mb2.6, mpv3.6, Error ellipse: s-maj=34.0km s-min=19.0km az=25.0*

ISC 22 06:59:27.2±0.4**, 36.53N**±0.03×**70.99E**±0.06**, h193**^{km}±5^{km}**, h207**^{km}±4.0^{km}**: pP-P, n58,** σ**1^{s}05**/72**, mb3.5**/12**, 6C-5D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	2.54	219	*e*Pn	Pn	07 00 12.0	+0.9
CEP	Cherat	2.80	164	⇓P	Pn	07 00 15.4	+1.3
CEP				S	Sn	07 00 54.0	+3.3
CHCP	Chirah Chowk	3.42	146	⇓P	Pn	07 00 22.9	+1.4
THW	Thamme Wali	3.78	170	⇓P	Pn	07 00 26.7	+0.8
SBDP	Sheikh Budin	4.22	182	⇑P	Pn	07 00 31.4	-0.1
SARP	Sargodha	4.80	163	P	Pn	07 00 39.2	+0.3
DRP	Derazinda	4.82	188	⇑P	Pn	07 00 39.5	+0.4
DRP				S	Sn	07 01 33.0	-2.6
KSH	Kashi	4.94	51	P	Pn	07 00 42.3	+1.8
KSH				S	Sn	07 01 39.1	+0.8
KSH				Smax			
	comp=N,739nm,0.5s						
KSH				Smax			
	comp=E,472nm,0.3s						
THN	Thein Dam	5.65	135	*e*P	Pn	07 00 50.0	+0.2
THN				*e*x	x	07 01 53.9	
DLH	Dalhousie	5.72	133	*e*P	Pn	07 00 50.0	-0.7
DLH				*e*S	Sn	07 01 53.0	-3.5
AML	Almayashu	5.97	20	P	Pn	07 00 54.3	+0.4
	SNR=166						
AML	Almayashu	5.97	20	*e*Pn	Pn	07 00 54.3	+0.4
	comp=E,119nm,0.4s						
AML				*e*Sn	Sn	07 01 55.8	-6.6
UCH	Uchtor	6.31	25	P	Pn	07 00 58.9	+0.6
	SNR=50						
UCH	Uchtor	6.31	25	⇓*i*Pn	Pn	07 00 58.7	+0.5
	comp=E,21nm,0.4s						
UCH				*e*Sn	Sn	07 02 08.0	-2.3
KZA	Kyzart	6.45	30	P	Pn	07 01 00.1	0.0
	SNR=14						
EKS2	Erkin-Say	6.49	19	P	Pn	07 01 00.9	+0.3
	SNR=15						
EKS2	Erkin-Say	6.49	19	*e*Pn	Pn	07 01 00.6	0.0
	comp=E,13nm,0.4s						
EKS2				*e*Sn	Sn	07 02 11.5	-3.1
KK31	Karatay Array	6.58	357	P	Pn	07 01 01.3	-0.4
	comp=E,7.9nm,0.3s,baz=193,slow=14,SNR=249						
KK31				⇓S	Sn	07 02 10.6	-5.9
	comp=E,49nm,0.5s,baz=184,slow=21,SNR=14						
AAK	Ala-Archa	6.67	23	P	Pn	07 01 03.5	+0.6
	SNR=15						
AAK	Ala-Archa	6.67	23	*e*Pn	Pn	07 01 02.3	-0.6
	comp=E,13nm,0.4s						
SDNR	Sundarnagar	7.06	134	*e*P	Pn	07 01 07.6	-0.5
SDNR				*e*S	Sn	07 02 22.8	-5.3
CHMS	Chumysh	7.08	23	P	Pn	07 01 08.4	+0.2
	SNR=6.5						
USP	Ospenovka	7.25	21	P	Pn	07 01 10.0	-0.4
	SNR=16						
TKM2	Tokmak 2	7.30	28	P	Pn	07 01 11.7	+0.5
	SNR=28						
TKM2	Tokmak 2	7.30	28	⇑P	Pn	07 01 11.1	0.0
	comp=E,0.8nm,0.5s						
TKM2				⇑S	Sn	07 02 25.2	-8.6
	comp=E,4.0nm,0.9s						
TKM2	Tokmak 2	7.30	28	*e*Pn	Pn	07 01 11.6	+0.4
	comp=E,14nm,0.5s						
JOSI	Joshimath	9.31	127	*e*P	Pn	07 01 37.9	+0.5
JOSI				*e*x	x	07 03 07.9	
KHET	Khetri	9.36	153	*e*P	Pn	07 01 35.5	-2.7
KHET				AMb	AMB	07 01 38.8	
	comp=Z,22nm,0.6s						
KHET				*e*S	Sn	07 03 11.0	-12
NDI	New Delhi	9.42	144	*e*x	x	07 01 30.0	
KUDL	Kundal	9.57	149	*e*P	Pn	07 01 39.0	-1.8
KUDL				AMb	AMB	07 01 41.0	
	comp=Z,58nm,0.8s						
KUDL				*e*S	Sn	07 03 19.1	-8.7
SONA	Sohna	9.73	146	*e*P	Pn	07 01 41.8	-1.1
SONA				AMb	AMB	07 01 46.3	
	comp=Z,36nm,0.8s						
SONA				*e*S	Sn	07 03 21.6	-10
AJM	Ajmer	10.49	162	*i* P	Pn	07 01 52.0	-0.9
GKN	Gorkha	14.33	123	*e*P	Pn	07 02 40.9	-0.5
	comp=Z,76nm,0.5s						
KKN	Kakani	14.90	122	*e*P	Pn	07 02 48.3	-0.2
	comp=Z,60nm,0.5s						
AB31	Akbulak array	15.05	331	⇑P	Pn	07 02 48.5	-1.5
	comp=Z,3.3nm,0.6s,baz=139,slow=11,SNR=58						
AB31				⇑S	S	07 05 28.6	-8.6
	comp=Z,1.3nm,0.4s,baz=150,slow=23,SNR=4.8						
JIRN	Jiri	15.61	120	*e*P	Pn	07 02 57.9	+0.8
	comp=Z,45nm,0.4s						
JIRN				*e*S	S	07 05 44.7	-5.7
BRVK	Borovoye	16.54	359	*e*P	Pn	07 03 07.5	-0.5
	comp=Z,5.8nm,0.6s						
AKTK	Aktyubinsk	16.75	330	P	Pn	07 03 10.5	0.0
AKTO	Aktyubinsk	16.75	330	P	Pn	07 03 10.5	0.0
	comp=Z,1.6nm,0.3s,baz=137,slow=11,SNR=50						
TAPN	Taplejung	16.87	118	*e*P	Pn	07 03 12.9	+0.7
	comp=Z,45nm,0.5s						
ODAN	Odare	16.95	120	*e*P	Pn	07 03 14.3	+1.2
	comp=Z,21nm,0.4s						
LSA	Lhasa	18.20	106	P	P	07 03 29.8	+4.3
LSA	Lhasa	18.20	106	*e*P	P	07 03 29.6	+4.1
	comp=Z,6.1nm,0.6s						
ZALV	Zalesovo Beam	19.89	25	P	P	07 03 44.2	+0.7
	comp=Z,0.5nm,0.3s,baz=218,slow=11,SNR=11						
SONM	Songino Array	28.33	55	P	P	07 05 04.0	+1.2
	comp=Z,0.5nm,0.8s,mb3.2,baz=262,slow=8.6,SNR=3.3						
SONM				pP	pP	07 05 47.0	+4.9
	comp=Z,0.2nm,0.5s,baz=252,slow=12,SNR=2.8						
BRTR	Keskin Array B	29.41	288	P	P	07 05 13.9	+1.5
	comp=Z,0.4nm,0.4s,mb3.4,baz=94,slow=10,SNR=2.7						
AKASG	Malin Array Be	32.92	309	P	P	07 05 43.0	0.0
	comp=Z,0.2nm,0.2s,mb3.3,baz=90,slow=6.1,SNR=5.3						
AKASG				sP	sP	07 06 48.0	+2.9
	comp=Z,0.2nm,0.3s,baz=86,slow=6.5,SNR=2.3						
FINES	FINESS Array B	37.45	326	P	P	07 06 21.5	0.0
	comp=Z,1.0nm,0.8s,mb3.4,baz=120,slow=8.2,SNR=2.8						
ARCES	ARCESS Array B	41.11	338	P	P	07 06 52.5	+0.9
	comp=Z,0.4nm,0.4s,mb3.2,baz=114,slow=7.5,SNR=9.3						
ARCES				pP	pP	07 07 35.9	+3.0
	comp=Z,2.6nm,0.9s,baz=118,slow=12,SNR=2.6						
NOA	NORSAR Array B	44.35	323	P	P	07 07 17.3	-0.4
	comp=Z,1.2nm,0.7s,mb3.3,baz=97,slow=7.7,SNR=3.5						
KMBO	Kilima Mbogo	48.84	228	P	P	07 07 54.5	+1.3
	comp=Z,1.9nm,0.6s,mb3.6,baz=44,slow=13,SNR=6.2						
TORD	Torodi Ar. Bea	65.71	269	P	P	07 09 49.6	-1.7
	comp=Z,0.8nm,0.5s,mb3.6,baz=48,slow=5.7,SNR=11						
BOSA	Boshof	77.76	220	P	P	07 11 02.7	0.0
BOSA	Boshof	77.76	220	P	P	07 11 02.7	0.0
	comp=Z,2.8nm,0.8s,mb4.0,baz=129,slow=22,SNR=4.1						
YKA	Yellowknife Ar	81.22	3	P	P	07 11 21.7	+0.8
YKA				pP	pP	07 12 10.6	+2.8
YKA	Yellowknife Ar	81.22	3	P	P	07 11 21.7	+0.8
	comp=Z,1.1nm,0.4s,mb3.8,baz=350,slow=5.4,SNR=30						
YKA				pP	pP	07 12 10.6	+2.8
	comp=Z,0.6nm,0.8s,baz=345,slow=4.4,SNR=3.7						
WRA	Warramunga Arr	82.02	122	P	P	07 11 24.7	-1.0
	comp=Z,1.6nm,0.6s,mb3.9,baz=321,slow=5.2,SNR=16						
ASAR	Alice Springs	84.28	125	P	P	07 11 36.5	-0.7
	comp=Z,2.0nm,0.6s,mb4.0,baz=310,slow=4.9,SNR=41						

*ISCJB **22** 07:21:11.0±4.3, 13.83N±0.10×92.30W±0.10, h15^{km}±39^{km}, mb3.5/3, Error ellipse: s-maj=19.9km s-min=11.7km az=44.6*

*NEIC **22** 07:21:16.9±1.4, 13.97N×92.18W, h45^{km}, Error ellipse: s-maj=26.5km s-min=11.0km az=210.0*

*IDC **22** 07:21:18.0±8.2, 14.19N×92.08W, h46^{km}±45^{km}, mb3.3/3, mb1 3.7/6, mb1mx3.5/19, mbtmp3.5/6, ML3.5/3, MS2.7/1, Ms1 2.7/1, ms1mx2.2/19, Error ellipse: s-maj=97.1km s-min=28.6km az=14.0*

ISC 22 07:21:13.4±4.6**, 13.9N**±0.1×**92.29W**±0.09**, h15**^{km}±35^{km}**, n10,** σ**0^{s}90**/12**, mb3.5**/3**, Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CCIG	Comitan	2.39	4	*i* P	Pn	07 21 53.0	+0.9
CCIG				*i* S	Sn	07 22 21.6	+0.4
CMIG	Matias Romero	4.05	322	P	Pn	07 22 14.2	-0.8
	0.8nm,0.3s,baz=135,slow=9.3,SNR=22						
CMIG				S	Sn	07 23 01.6	-0.6
	2.3nm,0.3s,baz=103,slow=12,SNR=6.0						
TGUH	Tegucigalpa,Un	4.87	87	*e*Pn	Pn	07 22 26.4	+0.2
TEIG	Tepich	7.39	31	*e*P	Pn	07 22 60.0	-0.8
TEIG	Tepich	7.39	31	P	Pn	07 22 59.4	-1.3
	5.3nm,0.3s,baz=220,slow=0.8,SNR=39						
TEIG				LR	LR	07 25 11.1	
	comp=Z,64nm,19.9s,baz=173,slow=33						
BCIP	Isla Barro Col	13.07	110	*e*Pn	Pn	07 24 18.5	-0.1
TXAR	Lajitas Array	18.64	327	P	Pn	07 25 31.8	+0.8
	0.0nm,0.3s,baz=137,slow=11,SNR=11						
ANMO	Albuquerque	24.57	331	P	P	07 26 33.1	+0.3
	1.0nm,0.7s,mb3.4,baz=148,slow=12,SNR=5.7						
NVAR	Mina Array Bea	33.59	321	P	P	07 27 54.2	+1.2
	0.5nm,0.7s,mb3.6,baz=130,slow=8.4,SNR=3.3						
YKA	Yellowknife Ar	51.08	347	P	P	07 30 11.8	-3.1
	0.4nm,0.8s,mb3.4,baz=151,slow=7.6,SNR=9.2						

*DDA **22** 07:27:54.8, 38.26N×39.15E, h12^{km}±1^{km}, Md2.5*

ISK 22 07:27:46.7, 39.16N×38.59E, h18^{km}**, MD2.8, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTK	Pertek	0.68	113	PG	Pg	07 28 00.1	+0.1
PTK				SG	Sg	07 28 10.7	+1.7
MYA	Malataya	0.84	189	*e*PG	Pg	07 28 04.1	+1.0
MYA				*e*SG	Sg	07 28 15.8	+1.7
MALT	Malatya	0.85	189	*e*PG	Pg	07 28 03.7	+0.4
MALT				*e*SG	Sg	07 28 15.3	+0.8
DIYA	Diyarbakir	1.72	135	*i* P	Pn	07 28 09.2	-6.5
DIYA				*i* S	Sn	07 28 22.1	-15
GZT	Gaziantep	1.97	205	*i* P	Pn	07 28 27.1	+7.9
MARD	Mardin	2.52	136	*i* P	Pn	07 28 22.1	-4.6
MARD				*i* S	Sn	07 28 43.2	-14

*IDC **22** 07:33:17.9±1.0, 23.80S×179.91W, h497^{km}±10^{km}, mb3.8/13, mb1 4.0/14, mb1mx4.0/15, mbtmp3.8/14, Error ellipse: s-maj=13.8km s-min=11.5km az=157.0*

*ISCJB **22** 07:33:18.3±0.8, 23.97S±0.05×179.91W±0.07, h512^{km}±9^{km}, mb4.7/23, Error ellipse: s-maj=10.2km s-min=8.4km az=173.0*

*NEIC **22** 07:33:19.0±0.9, 24.02S×179.78W, h517^{km}±10^{km}, mb5.0/14, Error ellipse: s-maj=9.7km s-min=8.2km az=48.0*

*BJI **22** 07:33:20.8, 23.09S×179.77W, h515^{km}, mB4.7, mb4.5*

*MOS **22** 07:33:22.0±1.4, 24.19S×179.81E, h518^{km}, mb5.0/6, Error ellipse: s-maj=17.7km s-min=14.2km az=1.4*

ISC 22 07:33:19.0±0.8**, 24.02S**±0.05×**179.85W**±0.07**, h510**^{km}±8^{km}**, n190,** σ**1^{s}04**/107**, mb4.7**/23**, 12C-28D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	5.49	162	P	P	07 34 51.5	+0.7
	196nm,0.3s,baz=94,slow=21,SNR=5.8						
RAO				S	S	07 36 04.9	-1.1
	150nm,0.3s,baz=79,slow=23,SNR=4.1						
AFI	Afiamalu	12.62	39	P	P	07 35 56.9	-7.3
	8.7nm,0.3s,baz=94,slow=14,SNR=11						
AFI				S	S	07 38 04.5	-16
	28nm,0.3s,baz=94,slow=17,SNR=14						
DZM	Mont Dzumac	12.77	276	P	P	07 36 05.8	+0.2
	1.7nm,0.3s,baz=73,slow=21,SNR=15						
PUZ	Puketiti	14.11	186	*e*P	P	07 36 20.8	+1.4
PUZ	Puketiti	14.11	186	PN	P	07 36 19.8	+0.4
URZ	Urewera	14.43	190	P	P	07 36 21.3	-1.6
	11nm,0.3s,baz=281,slow=3.7,SNR=51						
URZ				S	S	07 38 55.8	+1.2
	9.2nm,0.3s,baz=68,slow=22,SNR=20						
URZ	Urewera	14.43	190	PN	P	07 36 20.9	-2.0
MWZ	Matawai	14.45	188	*e*P	P	07 36 24.2	+1.2
MWZ	Matawai	14.45	188	PN	P	07 36 24.2	+1.2
KNZ	Kokohu	15.11	187	*e*P	P	07 36 30.6	+0.7
KNZ	Kokohu	15.11	187	PN	P	07 36 32.1	+2.3
BKZ	Black Stump Fm	15.42	191	*e*P	P	07 36 31.9	-1.3
BKZ	Black Stump Fm	15.42	191	PN	P	07 36 31.9	-1.3
WNVZ	Wahianoa	15.75	193	P	P	07 36 36.9	+0.4
WNVZ	Wahianoa	15.75	193	PN	P	07 36 36.9	+0.4
MTVZ	Mangateitei	15.83	193	PN	P	07 36 38.8	+1.5
BFZ	Birch Farm	16.94	190	*e*P	P	07 36 47.0	-1.8
BFZ	Birch Farm	16.94	190	PN	P	07 36 47.0	-1.9
BFZ				SN	S	07 39 35.6	-4.6
MRZ	Mangatainoka R	17.04	192	*e*P	P	07 36 48.1	-1.6
MRZ	Mangatainoka R	17.04	192	PN	P	07 36 48.1	-1.6
KIW	Kapiti Island	17.36	193	P	P	07 36 51.3	-1.4
KIW	Kapiti Island	17.36	193	PN	P	07 36 51.3	-1.4
MTW	Mount Morrison	17.53	192	P	P	07 36 53.4	-0.9
MTW	Mount Morrison	17.53	192	PN	P	07 36 53.4	-0.8
CAW	Cannon Point	17.57	193	P	P	07 36 53.6	-1.0
CAW	Cannon Point	17.57	193	PN	P	07 36 53.6	-1.0
MRW	Makara Radio	17.76	194	P	P	07 36 55.8	-0.6
MRW	Makara Radio	17.76	194	PN	P	07 36 56.4	+0.1
SNZO	South Karori	17.84	194	*e*Pn	P	07 36 56.8	-0.3
	80nm,0.8s						
TCW	Tory Channel	17.84	195	P	P	07 36 56.1	-1.0
TCW	Tory Channel	17.84	195	PN	P	07 36 57.1	0.0
QRZ	Quartz Range	17.94	199	P	P	07 36 58.9	+0.9
QRZ	Quartz Range	17.94	199	PN	P	07 36 58.9	+0.9
NNZ	Nelson	18.07	197	*e*P	P	07 36 58.8	-0.4
NNZ	Nelson	18.07	197	PN	P	07 36 58.8	-0.3
TUWZ	Tuamarina	18.12	195	PN	P	07 36 59.7	0.0
BSWZ	Blackbirch Sta	18.41	195	P	P	07 37 02.9	+0.6
BSWZ	Blackbirch Sta	18.41	195	PN	P	07 37 02.9	+0.6
THZ	Tophouse	18.70	197	*e*P	P	07 37 05.3	+0.3
THZ	Tophouse	18.70	197	PN	P	07 37 05.3	+0.3
DSZ	Denniston Nort	19.00	199	*e*P	P	07 37 08.7	+1.0
DSZ	Denniston Nort	19.00	199	PN	P	07 37 08.7	+0.9
DSZ				SN	S	07 40 12.3	-1.6
KHZ	Kahutara	19.16	195	*e*P	P	07 37 08.9	-0.2
KHZ	Kahutara	19.16	195	PN	P	07 37 08.9	-0.2
LTZ	Lake Taylor	19.82	197	*e*P	P	07 37 14.4	-0.8
LTZ	Lake Taylor	19.82	197	PN	P	07 37 14.4	-0.7
WVZ	Waitaha Valley	20.54	200	*e*P	P	07 37 19.5	-2.2
WVZ	Waitaha Valley	20.54	200	PN	P	07 37 21.5	-0.2
RPZ	Rata Peaks	21.02	199	P	P	07 37 26.3	+0.2
	29nm,0.5s,mb5.2,baz=334,slow=2.7,SNR=29						
FOZ	Fox Glacier	21.32	201	*e*P	P	07 37 27.5	-1.2
FOZ	Fox Glacier	21.32	201	PN	P	07 37 27.5	-1.2
LBZ	Lake Benmore	21.89	199	*e*P	P	07 37 32.9	-1.0
LBZ	Lake Benmore	21.89	199	PN	P	07 37 32.9	-1.1
JCZ	Jackson Bay	22.08	202	*e*P	P	07 37 36.0	+0.4
JCZ	Jackson Bay	22.08	202	PN	P	07 37 36.0	+0.4
ARMA	Armidale	26.11	250	*e*P	P	07 38 13.8	+2.1
EIDS	Eidsvold	26.43	261	*e*P	P	07 38 15.2	+0.7
CNB	Canberra Magne	28.91	240	⇓*i*P	P	07 38 38.1	+1.9
	76nm,0.7s,mb5.4						
CTA	Charters Tower	31.61	270	⇓*i*P	P	07 39 00.4	+0.7
	141nm,0.4s,mb5.8						
CTA	Charters Tower	31.61	270	⇓*i*P	P	07 39 00.4	+0.7
CTA				pmax	pmax		
	comp=Z,141nm,0.4s						
CTAO	Charters Tower	31.61	270	*e*P	P	07 39 00.5	+0.8
	comp=Z,151nm,0.4s						
CTAO	Charters Tower	31.61	270	*e*P	P	07 39 00.5	+0.8
CTAO				pmax	pmax		
	comp=Z,151nm,0.4s						
TOO	Toolangi	32.50	237	⇓*i*P	P	07 39 08.7	+1.6
	comp=Z,33nm,0.5s,mb5.1						
TOO	Toolangi	32.50	237	⇓*i*P	P	07 39 08.7	+1.6
TOO				pmax	pmax		
	comp=Z,33nm,0.5s,mb5.1						
PMG	Port Moresby	34.66	289	*e*P	P	07 39 24.9	-0.7
	comp=Z,85nm,0.9s,mb5.3						
PMG	Port Moresby	34.66	289	*e*P	P	07 39 24.9	-0.7
PMG				pmax	pmax		
	comp=Z,85nm,0.9s						
STKA	Stephens Creek	34.81	248	⇓*i*P	P	07 39 27.7	+1.1
	comp=Z,16nm,0.7s,mb4.7						
STKA	Stephens Creek	34.81	248	P	P	07 39 27.7	+1.1
	comp=Z,17nm,0.4s,mb4.9,baz=91,slow=9.5,SNR=54						
STKA				PcP	PcP	07 41 46.3	+0.6
	comp=Z,3.8nm,0.5s,baz=100,slow=12,SNR=2.8						
ASAR	Alice Springs	42.15	261	P	P	07 40 26.6	+0.2
	comp=Z,44nm,0.5s,mb5.2,baz=99,slow=6.8,SNR=486						
ASAR				ScP	ScP	07 45 12.8	+1.8
	comp=Z,8.3nm,0.7s,baz=106,slow=4.0,SNR=24						
WB2	Warramunga Arr	42.53	266	⇓*i*P	P	07 40 28.8	-0.6
WB2				*e*SCP	ScP	07 45 15.8	+3.2
WB2				*e*S	S	07 46 11.5	-3.1
WRA	Warramunga Arr	42.54	266	P	P	07 40 28.7	-0.8
WRA						07 42 10.9	
WRA				S	S	07 46 12.0	-2.8
WRA	Warramunga Arr	42.54	266	P	P	07 40 28.7	-0.8
	comp=Z,69nm,0.5s,mb5.5,baz=103,slow=8.2,SNR=310						
WRA				PcP	PcP	07 42 10.9	+0.4
	comp=Z,3.8nm,0.6s,baz=103,slow=3.7,SNR=5.1						
WRA				ScP	ScP	07 45 14.8	+2.1
	comp=Z,6.2nm,0.9s,baz=99,slow=4.1,SNR=13						
WRA				S	S	07 46 12.0	-2.8
	comp=Z,1.3nm,0.7s,baz=102,slow=13,SNR=4.3						
FORT	Forrest	46.40	250	⇓*i*P	P	07 40 58.9	-0.3
	comp=Z,320nm,0.6s						
KAKA	Kakadu	46.46	275	⇓*i*P	P	07 40 58.8	-1.1
	comp=Z,31nm,0.3s,mb5.3						
FITZ	Fitzroy Crossi	50.96	266	⇓*i*P	P	07 41 33.2	-0.1
	comp=Z,58nm,0.7s,mb5.0						
FITZ	Fitzroy Crossi	50.96	266	*e*P	P	07 41 33.4	+0.1
VNDA	Vanda	54.27	185	P	P	07 41 58.1	+2.0
	comp=Z,6.8nm,0.9s,mb4.0,baz=13,slow=7.7,SNR=4.3						
KLBR	Kellerberrin	55.07	247	⇓*i*P	P	07 42 02.4	-0.1
	comp=Z,48nm,0.6s,mb4.9						
MBWA	Marble Bar	55.49	260	*e*P	P	07 42 05.0	-0.5
	comp=Z,36nm,0.9s,mb4.6						
MUN	Mundaring	56.31	247	⇓*i*P	P	07 42 11.4	+0.3
QSPA	South Pole Qui	66.07	180	*e*P	P	07 43 16.8	+2.5
	comp=Z,17nm,0.7s,mb4.7						
MJAR	Matsushiro Arr	72.07	326	P	P	07 43 49.4	-1.7
	comp=Z,3.1nm,0.9s,mb3.7,baz=166,slow=5.4,SNR=4.5						
MAW	Mawson	77.69	200	P	P	07 44 22.6	+0.4
	comp=Z,8.4nm,0.5s,mb4.3						
MAW	Mawson	77.69	200	P	P	07 44 22.6	+0.4
MAW				pmax	pmax		
	comp=Z,8.0nm,0.5s						
MAW	Mawson	77.69	200	P	P	07 44 24.1	+1.9
	comp=Z,9.7nm,0.6s,mb4.3,baz=143,slow=6.5,SNR=17						
KSRS	Korea Array	78.42	320	P	P	07 44 26.0	-0.5
	comp=Z,1.8nm,0.6s,baz=138,slow=6.5,SNR=8.1						
PFO	Pinyon Flat Ob	83.18	49	P	P	07 44 50.9	-0.4
PFO	Pinyon Flat Ob	83.18	49	P	P	07 44 50.9	-0.4
	comp=Z,1.2nm,0.5s,mb3.7,baz=110,slow=4.0,SNR=3.2						
NVAR	Mina Array Bea	84.74	44	P	P	07 44 58.6	-0.3
	comp=Z,1.2nm,0.8s,baz=205,slow=7.2,SNR=7.0						
VNA3	Neumayer Olymp	84.75	177	*e*	P	07 44 59.1	+0.6
VNA3				*e*		07 45 03.4	
VNA3				*e*		07 45 05.5	
VNA3				*e*		07 45 11.6	
VNA3				*e*		07 45 16.6	
VNA2	Neumayer--Watz	85.17	178	*e*	P	07 45 01.4	+0.9
	baz=190,slow=4.1						
VNA2				*e*		07 45 06.4	
VNA2				*e*		07 45 08.1	
VNA2				*e*		07 45 13.5	
VNA2				*e*		07 45 18.3	
XAN	Xi’an	88.92	308	P	P	07 45 19.3	+0.5
XAN				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.7						
TMUT	Trail Mountain	89.82	46	*e*P	P	07 45 23.5	+0.7
CHTO	Chiang Mai	89.85	291	*e*P	P	07 45 24.3	+0.9
	comp=Z,3.8nm,0.8s,mb4.3						
CHTO	Chiang Mai	89.85	291	*e*P	P	07 45 24.3	+0.9
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
TXAR	Lajitas Array	90.38	58	P	P	07 45 26.2	+0.6
	comp=Z,3.2nm,0.7s,mb4.3,baz=213,slow=6.4,SNR=52						
ANMO	Albuquerque	90.92	52	P	P	07 45 27.9	-0.2
	comp=Z,1.2nm,0.6s,mb4.0,baz=248,slow=5.2,SNR=4.9						
PDAR	Pinedale Array	92.68	44	P	P	07 45 35.5	-0.4
	comp=Z,1.5nm,0.8s,mb4.1,baz=221,slow=3.9,SNR=13						
SONM	Songino Array	97.28	319	P	P	07 45 55.9	-0.7
	comp=Z,0.3nm,0.5s,mb3.8,baz=124,slow=4.0,SNR=2.8						
MK31	Makanchi Array	112.33	313	*e*PKPdf	PKiKP	07 50 54.9	-1.5

MK31	**Makanchi Array**	112.33	313	*e*PKIKP	PKiKP	07 50 54.9	-1.5
MKAR	**Makanchi Array**	112.33	313	PKPdf	PKiKP	07 50 55.0	-1.3
MKAR				SKP		07 53 43.0	
MKAR	**Makanchi Array**	112.33	313	PKIKP	PKiKP	07 50 55.1	-1.3
MKAR						07 53 43.0	
MKAR	**Makanchi Array**	112.33	313	PKiKP	PKiKP	07 50 55.0	-1.3
	comp=Z,1.1nm,0.6s,baz=201,slow=1.4,SNR=12						
MKAR				SKP		07 53 43.0	
	comp=Z,0.5nm,0.6s,baz=85,slow=1.9,SNR=4.0						
AML	**Almayashu**	117.59	306	*e*PKPdf	PKPdf	07 51 06.3	-0.4
AKTK	**Aktyubinsk**	128.48	316	PKP	PKPdf	07 51 26.4	-0.8
AKTO	**Aktyubinsk**	128.48	316	PKIKP	PKPdf	07 51 26.5	-0.7
AKTO	**Aktyubinsk**	128.48	316	PKP	PKPdf	07 51 26.4	-0.8
	comp=Z,2.2nm,0.6s,baz=129,slow=2.7,SNR=10						
ARCES	**ARCESS Array B**	132.03	348	PKP	PKPdf	07 51 32.5	-1.0
ARCES				SKPbc	SKPbc	07 54 11.9	+0.1
ARCES	**ARCESS Array B**	132.03	348	PKIKP	PKPdf	07 51 32.5	-0.9
ARCES						07 54 12.0	
ARCES	**ARCESS Array B**	132.03	348	PKP	PKPdf	07 51 32.5	-1.0
	comp=Z,1.2nm,0.4s,baz=41,slow=1.2,SNR=16						
ARCES				SKPbc	SKPbc	07 54 11.9	+0.1
	comp=Z,4.3nm,0.8s,baz=54,slow=2.1,SNR=6.8						
JOF	**Joensuu**	135.89	340	*e*p		07 51 33.2	
JOF	**Joensuu**	135.89	340	*e*PKHKP		07 51 33.2	
KAF	**Kangasniemi**	138.00	342	*e*p		07 51 35.5	
KAF	**Kangasniemi**	138.00	342	*e*PKHKP		07 51 35.5	
FINES	**FINESS Array B**	138.60	341	PKP		07 51 35.7	
FINES				PKP	PKPdf	07 51 45.8	0.0
FINES				SKPbc	SKPbc	07 54 32.3	0.0
FINES	**FINESS Array B**	138.60	341	PKHKP		07 51 35.7	
FINES						07 51 45.8	
FINES	**FINESS Array B**	138.60	341	PKhKP		07 51 35.7	
	comp=Z,0.5nm,0.4s,baz=45,slow=3.2,SNR=6.7						
FINES				PKP	PKPdf	07 51 45.8	0.0
	comp=Z,0.7nm,0.4s,baz=66,slow=1.3,SNR=6.2						
FINES				SKPbc	SKPbc	07 54 32.3	0.0
	comp=Z,4.5nm,0.6s,baz=64,slow=4.4,SNR=17						
NB2	**NORSAR Subarra**	142.22	351	PKPa		07 51 47.4	
	comp=Z,0.2nm,0.8s,baz=22,slow=3.4						
NOA	**NORSAR Array B**	142.22	351	PKP		07 51 47.5	
NOA				SKPbc	SKPbc	07 54 41.8	+0.1
NOA	**NORSAR Array B**	142.22	351	PKHKP		07 51 47.6	
NOA	**NORSAR Array B**	142.22	351	PKhKP		07 51 47.5	
	comp=Z,1.7nm,0.8s,baz=16,slow=4.5,SNR=3.8						
NOA				SKPbc	SKPbc	07 54 41.8	+0.1
	comp=Z,2.0nm,0.8s,baz=14,slow=4.2,SNR=3.9						
ELZG	**Elazig**	144.08	303	*i* P	PKPdf	07 51 56.4	0.0
MALT	**Malatya**	144.55	303	⇑P	PKPdf	07 51 57.5	+0.4
MALT	**Malatya**	144.55	303	⇑PKIKP	PKPdf	07 51 57.5	+0.3
MALT	**Malatya**	144.55	303	⇑*i*P	PKPdf	07 51 57.5	+0.3
AKASG	**Malin Array Be**	145.14	327	PKP	PKPdf	07 51 57.1	-0.6
AKASG				SKPbc	SKPbc	07 54 48.8	-0.2
AKASG	**Malin Array Be**	145.14	327	PKHKP		07 51 57.1	
AKASG	**Malin Array Be**	145.14	327	PKP	PKPdf	07 51 57.1	-0.6
	comp=Z,3.4nm,0.3s,baz=45,slow=4.4,SNR=41						
AKASG				SKPbc	SKPbc	07 54 48.8	-0.2
	comp=Z,4.0nm,0.6s,baz=44,slow=3.3,SNR=15						
AKBB	**Malin Array Si**	145.14	327	*e*PKPdf	PKPdf	07 51 57.3	-0.5
AKBB				*e*SKPbc	SKPbc	07 54 49.4	+0.5
AKBB	**Malin Array Si**	145.14	327	*e*PKHKP		07 51 57.3	
KIEV	**Kiev**	145.16	327	*e*PKPdf	PKPdf	07 51 57.2	-0.6
KIEV				*e*SKPbc	SKPbc	07 54 49.5	+0.5
KIEV	**Kiev**	145.16	327	*e*PKHKP		07 51 57.2	
GZT	**Gaziantep**	145.42	301	*i* P	PKPdf	07 51 60.0	+1.3
BOYT	**Boyabat**	146.28	309	*i* P	PKPdf	07 51 58.9	-1.1
COBT	**Iskenderun**	146.61	300	*i* P	PKPbc	07 52 03.7	+0.4
CTKT	**Corum**	146.63	308	*i* P	PKPbc	07 52 02.6	-0.5
BALT	**Daday**	147.31	310	*i* P	PKPdf	07 52 03.3	+1.6
GULE	**Gulek**	147.60	302	*i* P	PKPbc	07 52 06.0	+0.1
ELDT	**Eldivan**	147.66	309	*i* P	PKPbc	07 52 05.7	-0.2
BR131	**Keskin Array S**	147.76	307	*e*PKPbc	PKPbc	07 52 05.8	-0.3
BR131				*e*PKPab	PKPab	07 52 10.4	0.0
BRTR	**Keskin Array B**	147.76	307	PKPbc	PKPbc	07 52 05.5	-0.7
BRTR	**Keskin Array B**	147.76	307	PKIKP	PKPbc	07 52 05.5	-0.7
BRTR	**Keskin Array B**	147.76	307	PKPbc	PKPbc	07 52 05.5	-0.7
	comp=Z,2.9nm,0.5s,baz=146,slow=5.7,SNR=15						
ANTO	**Ankara**	148.32	308	⇓P	PKPbc	07 52 06.6	-1.0
ANTO	**Ankara**	148.32	308	⇓PKHKP	PKPbc	07 52 06.6	-1.0
ANTO	**Ankara**	148.32	308	⇓*i*P	PKPbc	07 52 06.6	-1.0
SGKT	**Sivrigoynuk**	148.60	309	*i* P	PKPbc	07 52 07.6	-0.7
BURAR	**Bucovina Array**	149.14	326	⇓P	PKPbc	07 52 09.9	+0.6
BURAR	**Bucovina Array**	149.14	326	⇓PKHKP	PKPbc	07 52 09.9	+0.6
BURAR	**Bucovina Array**	149.14	326	⇓*i*P	PKPbc	07 52 09.9	+0.6
KOLS	**Kolonicke sedl**	149.64	331	*e*PKHKP	PKPbc	07 52 10.4	-0.1
KOLS	**Kolonicke sedl**	149.64	331	*e*PKP	PKPbc	07 52 10.4	-0.1
STHS	**Stebnicka Huta**	149.73	332	*e*PKHKP	PKPbc	07 52 10.6	-0.1
STHS				pmax	pmax		
	comp=Z,6.0nm,0.4s						
STHS	**Stebnicka Huta**	149.73	332	*e*PKP	PKPbc	07 52 10.6	-0.1
UZH	**Uzhgorod**	149.85	330	*e*PKHKP	PKPbc	07 52 12.0	+1.0
CRVS	**Cervenica-Dubn**	150.03	331	*e*PKIKP	PKPbc	07 52 10.3	-1.1
CRVS	**Cervenica-Dubn**	150.03	331	*e*PKP	PKPbc	07 52 10.3	-1.1
MLR	**Muntele Rosu**	150.09	322	⇑P	PKPbc	07 52 10.7	-0.9
MLR	**Muntele Rosu**	150.09	322	⇑PKIKP	PKPbc	07 52 10.7	-1.0
MLR	**Muntele Rosu**	150.09	322	⇑*i*P	PKPbc	07 52 10.7	-1.0
KSP	**Ksiaz**	150.45	339	*e*P	PKPbc	07 52 12.2	-0.1
KSP	**Ksiaz**	150.45	339	*e*PKIKP	PKPbc	07 52 12.2	-0.1
ISP	**Isparta**	150.69	305	⇓PKIKP	PKPbc	07 52 11.8	-1.5
ISP	**Isparta**	150.69	305	⇓*i*P	PKPbc	07 52 11.8	-1.5
KECS	**Kecovo**	150.77	332	*e*PKIKP	PKPab	07 52 19.1	-3.4
KECS	**Kecovo**	150.77	332	*e*PKP	PKPab	07 52 19.1	-3.4
ULDT	**Uludag**	150.82	310	*i* P	PKPbc	07 52 11.8	-1.8
MORC	**Moravsky Berou**	150.91	337	⇑P	PKPbc	07 52 13.3	-0.2
MORC	**Moravsky Berou**	150.91	337	⇑PKIKP	PKPbc	07 52 13.3	-0.1
MORC	**Moravsky Berou**	150.91	337	⇑*i*P	PKPbc	07 52 13.3	-0.1
CLL	**Collm**	151.01	343	⇓*i*PKIKP	PKPbc	07 52 13.0	-0.6
CLL				pmax	pmax		
	comp=Z,8.0nm,0.8s						
CLL	**Collm**	151.01	343	⇓*i*PKPbc	PKPbc	07 52 13.0	-0.6
	comp=Z,8.0nm,0.8s						
CLL				*e*PKPab	PKPab	07 52 22.0	-1.4
BRG	**Berggiesshubel**	151.14	342	*i* PKIKP	PKPbc	07 52 13.5	-0.4
BRG				pmax	pmax		
	comp=Z,6.0nm,0.5s						
BRG	**Berggiesshubel**	151.14	342	*i* P	PKPbc	07 52 13.5	-0.3
	comp=Z,9.5nm,0.5s						
GOLH	**Golhisar**	151.60	305	*i* P	PKPbc	07 52 13.4	-1.9
GZR	**Gura Zlata**	151.88	325	⇓P	PKPbc	07 52 14.9	-0.9
GZR	**Gura Zlata**	151.88	325	⇓PKIKP	PKPbc	07 52 14.9	-0.8
GZR	**Gura Zlata**	151.88	325	⇓*i*P	PKPbc	07 52 14.9	-0.8
BZS	**Buzias**	152.32	326	⇓P	PKPbc	07 52 15.8	-0.9
BZS	**Buzias**	152.32	326	⇓PKIKP	PKPbc	07 52 15.8	-0.9
BZS	**Buzias**	152.32	326	⇓*i*P	PKPbc	07 52 15.8	-0.9
GERES	**GERESS Array B**	153.01	340	PKPbc	PKPbc	07 52 16.1	-2.0
GERES				PKPab	PKPab	07 52 30.7	-1.3
GERES	**GERESS Array B**	153.01	340	PKIKP	PKPbc	07 52 16.1	-2.0
GERES						07 52 30.7	
GERES	**GERESS Array B**	153.01	340	PKPbc	PKPbc	07 52 16.1	-2.0
	comp=Z,0.6nm,0.4s,baz=37,slow=5.3,SNR=5.1						
GERES				PKPab	PKPab	07 52 30.7	-1.3
	comp=Z,0.5nm,0.4s,baz=18,slow=3.5,SNR=3.2						
PKSM	**Moragy**	153.31	331	⇑P	PKPbc	07 52 17.6	-1.2
PKSM	**Moragy**	153.31	331	⇑PKIKP	PKPbc	07 52 17.7	-1.1
PKSM	**Moragy**	153.31	331	⇑*i*P	PKPbc	07 52 17.6	-1.2
TORD	**Torodi Ar. Bea**	169.09	188	PKP	PKPdf	07 52 26.4	-1.6
TORD				PKPab	PKPab	07 53 43.9	+0.9
TORD	**Torodi Ar. Bea**	169.09	188	PKP	PKPdf	07 52 26.4	-1.6
	comp=Z,0.4nm,0.8s,baz=6.8,slow=1.1,SNR=3.7						
TORD				PKPab	PKPab	07 53 43.9	+0.9
	comp=Z,2.3nm,0.6s,baz=173,slow=3.8,SNR=12						

IDC ***22*** *07:39:59.7±3.9, 3.91N×96.87E, h0^{km}, mb3.9/4, mb1 4.0/4, mb1mx3.6/20, mbtmp3.9/4, Error ellipse: s-maj=154.3km s-min=29.0km az=58.0*

ISCJB ***22*** *07:40:03.1±1.7, 4.0N±0.2×97.0E±0.2, h33^{km}, mb4.0/5, Error ellipse: s-maj=34.9km s-min=18.5km az=34.8*

NEIC ***22*** *07:40:04.5±1.4, 4.05N×97.00E, h30^{km}, mb4.7/1, Error ellipse: s-maj=31.2km s-min=16.4km az=216.0*

ISC 22 07:40:05.4±1.7**, 4.1N**±0.2×**97.0E**±0.2**, h35**^{km}**, n7, σ**$0^{s}.$**65**/7**,**
mb4.0/5**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KULM	**Kulim**	3.82	71	*e*Pn	Pn	07 41 02.0	+0.2
LZH	**Lanzhou**	32.50	10	*e*P	P	07 46 31.3	-1.4
	16nm,1.4s,mb4.7						
LZH				pP	pP	07 46 35.2	-7.7
LZH				sP	sP	07 46 37.1	-10
WRA	**Warramunga Arr**	43.73	124	P	P	07 48 07.5	-0.2
	0.8nm,0.7s,mb3.6,baz=301,slow=9.3,SNR=4.6						
SONM	**Songino Array**	44.36	9	P	P	07 48 13.0	+0.8
	0.4nm,0.4s,mb3.5,baz=191,slow=8.8,SNR=5.3						
MK31	**Makanchi Array**	44.45	346	*e*P	P	07 48 12.9	-0.1
MKAR	**Makanchi Array**	44.45	346	P	P	07 48 13.4	+0.4
	1.7nm,0.6s,mb3.9,baz=162,slow=7.9,SNR=27						
ZALV	**Zalesovo Beam**	50.74	351	P	P	07 49 01.8	+0.2
	2.3nm,0.4s,mb4.5,baz=177,slow=7.4,SNR=2.1						

ISCJB ***22*** *07:55:43.5±0.6, 38.40N±0.04×39.31E±0.03, h1^{km}±7^{km}, Error ellipse: s-maj=6.4km s-min=4.4km az=9.4*

CSEM ***22*** *07:55:43.1±0.1, 38.39N×39.27E, h10^{km}, MD3.1, Error ellipse: s-maj=3.0km s-min=1.9km az=175.0*

DDA ***22*** *07:55:43.6, 38.52N×39.38E, h7^{km}±2^{km}, Md3.1*

ISK ***22*** *07:55:43.5, 38.40N×39.27E, h9^{km}, MD3.1*

ISC 22 07:55:44.2±0.5**, 38.40N**±0.04×**39.30E**±0.04**, h7**^{km}±6^{km}**, n20,**
σ$0^{s}.$**95**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.27	291	*i* P	Pg	07 55 49.0	-0.6
PTK	**Pertek**	0.50	8	PG	Pg	07 55 53.6	-0.2
PTK				SG	Sg	07 56 01.2	+0.9
PTK	**Pertek**	0.50	8	*e*Pg	Pg	07 55 53.6	-0.2
PTK				*e*Sg	Sg	07 56 01.2	+0.9
MALT	**Malatya**	0.69	263	PG	Pg	07 55 56.2	-1.4
MALT				SG	Sg	07 56 06.3	-0.3
MALT	**Malatya**	0.69	263	*e*Pg	Pg	07 55 56.2	-1.4
MALT				*e*Sg	Sg	07 56 06.3	-0.3
MYA	**Malataya**	0.69	264	PG	Pg	07 55 56.9	-0.7
MYA				SG	Sg	07 56 07.2	+0.6
MYA	**Malataya**	0.69	264	*e*Pg	Pg	07 55 56.9	-0.7
MYA				*e*Sg	Sg	07 56 07.2	+0.6
DIYA	**Diyarbakir**	0.80	126	*i* P	Pg	07 55 59.9	+0.3
DIYA				*i* S	Sg	07 56 11.2	+1.2
DIYA	**Diyarbakir**	0.80	126	*i* P	Pg	07 55 59.9	+0.3
DIYA				*i* S	Sg	07 56 11.1	+1.1
DIY	**Diyarbakir**	0.89	124	*e*PG	Pg	07 56 00.9	-0.3
DIY	**Diyarbakir**	0.89	124	*e*Pg	Pg	07 56 00.9	-0.3
URFA	**Urfa**	1.03	202	PG	Pg	07 56 04.0	0.0
URFA	**Urfa**	1.03	202	*e*Pg	Pg	07 56 04.0	0.0
BINT	**Bingol**	1.04	63	*e*PG	Pg	07 56 04.7	+0.5
BINT	**Bingol**	1.04	63	*e*Pg	Pg	07 56 04.7	+0.5
MARD	**Mardin**	1.59	132	*i* P	Pn	07 56 12.2	-0.6
MARD				*i* S	Sn	07 56 33.0	-0.5
GZT	**Gaziantep**	1.73	233	*i* P	Pn	07 56 16.1	+1.5
GZT				*i* S	Sn	07 56 40.1	+3.2
BTMT	**Batman**	1.73	96	*e*PN	Pn	07 56 12.4	-2.3
SVSK	**Karacayir**	2.35	311	*e*PN	Pn	07 56 23.5	+0.4
SVSK	**Karacayir**	2.35	311	*e*Pn	Pn	07 56 23.5	+0.4

BNS ***22*** *07:58:46.9±0.6, 51.52N×6.52E, h1^{km}, ML2.1*

BUG ***22*** *07:58:46.9, 51.43N×6.60E, h1^{km}, ML1.8*

BGR 22 07:58:47.7±1.0**, 51.45N**×**6.58E, h1**^{km}**, ML2.5, 1D, Error**
ellipse: s-maj=11.1km s-min=4.4km az=135.0, Germany

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUG	**Bochum--Univer**	0.43	90	⇓*e*Pg	Pg	07 58 55.8	-0.2
BUG				Sg	Sg	07 59 02.2	+0.6
WTSB	**Winterswijk**	0.54	15	*e*Pg	Pg	07 58 57.0	-1.1
	21nm,0.1s						
WTSB				*e*Sg	Sg	07 59 03.7	-1.3
BNS	**Bensberg**	0.61	142	*e*Pg	Pg	07 58 59.8	+0.4
HOBG	**Hohbusch**	0.66	134	*e*Pg	Pg	07 59 00.7	+0.3
DREG	**Dreilaegerbach**	0.81	196	*e*Pg	Pg	07 59 03.5	+0.2
KLL	**Kalltalsperre**	0.82	192	*e*Pg	Pg	07 59 03.6	+0.2
STB	**Steinbach**	0.87	169	*e*Pg	Pg	07 59 05.2	+0.9
STB				*e*Sg	Sg	07 59 18.1	+2.5
	53nm,0.3s						
BGG	**Burgeitz**	1.33	159	*e*Pg	Pg	07 59 12.4	-0.8
TNS	**Taunus Mts**	1.71	135	*e*Pg	Pg	07 59 18.9	-1.4
TNS				*e*Sg	Sg	07 59 41.8	-0.6
WLF	**Walferdange**	1.80	189	*e*Pg	Pg	07 59 19.8	-2.5
WLF				*e*Sg	Sg	07 59 44.8	-0.8
CLZ	**Clausthal**	2.40	79	*e*Pg	Pg	07 59 30.7	-2.9
CLZ				*e*Sg	Sg	08 00 03.3	-1.4

ISK ***22*** *08:06:17.7, 38.45N×39.32E, h5^{km}, MD3.0*

CSEM ***22*** *08:06:18.1±0.2, 38.45N×39.30E, h5^{km}, MD2.9, Error ellipse: s-maj=4.6km s-min=3.6km az=134.0*

ISCJB ***22*** *08:06:19.2±0.5, 38.46N±0.03×39.32E±0.04, h11^{km}, Error ellipse: s-maj=4.8km s-min=4.4km az=148.4*

DDA ***22*** *08:06:19.4, 38.32N×39.19E, h11^{km}, Md2.9*

ISC 22 08:06:19.1±0.8**, 38.43N**±0.04×**39.35E**±0.05**, h4**^{km}±8^{km}**, n20,**
σ$0^{s}.$**95**/31**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.29	283	*i* P	Pg	08 06 24.4	-0.3
ELZG				*i* S	Sg	08 06 29.3	+0.7
PTK	**Pertek**	0.46	4	PG	Pg	08 06 27.4	-0.6
PTK				SG	Sg	08 06 34.5	+0.5
PTK	**Pertek**	0.46	4	*e*Pg	Pg	08 06 27.4	-0.6
PTK				*e*Sg	Sg	08 06 34.5	+0.5
MALT	**Malatya**	0.73	261	PG	Pg	08 06 31.7	-1.5
MALT	**Malatya**	0.73	261	*e*Pg	Pg	08 06 31.7	-1.5
MYA	**Malataya**	0.73	262	PG	Pg	08 06 32.0	-1.1
MYA				SG	Sg	08 06 43.7	+1.1
MYA	**Malataya**	0.73	262	*e*Pg	Pg	08 06 32.0	-1.1
MYA				*e*Sg	Sg	08 06 43.7	+1.1
DIY	**Diyarbakir**	0.88	127	*e*PG	Pg	08 06 36.3	+0.4
DIY	**Diyarbakir**	0.88	127	*e*Pg	Pg	08 06 36.3	+0.4
URFA	**Urfa**	1.07	203	PN	Pn	08 06 39.4	-1.5
URFA				SN	Sn	08 06 55.9	-0.3
URFA	**Urfa**	1.07	203	*e*Pn	Pn	08 06 39.4	-1.5
URFA				*e*Sn	Sn	08 06 55.9	-0.3
ATAB	**Bozova**	1.27	221	*i* P	Pg	08 06 39.3	-4.1
ATAB				*i* S	Sg	08 07 01.1	+1.2
EZC	**Erzincan**	1.36	15	PN	Pn	08 06 44.3	-0.6
BNGL	**BINGOL**	1.50	69	*i* P	Pn	08 06 47.9	+1.0
BNGL				*i* S	Sn	08 07 11.7	+4.8
MARD	**Mardin**	1.59	134	*i* P	Pn	08 06 47.2	-0.8
MARD				*i* S	Sn	08 07 09.9	+0.9
GZT	**Gaziantep**	1.77	233	*i* P	Pn	08 06 46.8	-3.7
GZT				*i* S	Sn	08 07 18.7	+5.2
GAZ	**Gaziantep**	2.11	234	PN	Pn	08 06 55.9	+0.8
GAZ	**Gaziantep**	2.11	234	*e*Pn	Pn	08 06 55.9	+0.8
SVSK	**Karacayir**	2.35	310	*e*PN	Pn	08 06 59.2	+0.7
SVSK	**Karacayir**	2.35	310	*e*Pn	Pn	08 06 59.2	+0.7

UCR ***22*** *08:20:09.5, 8.95N×82.92W, h0^{km}, MD3.3*

UPA ***22*** *08:20:10.4, 8.94N×82.84W, h18^{km}, MW3.9*

CASC 22 08:20:10.2±1.4**, 8.96N**×**82.91W, h8**^{km}±5^{km}**, MD3.4, 4C-3D,**
Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTCR	**Cotoan**	0.16	114	⇑*i*P	Pg	08 20 14.9	+1.4
BRU2	**Volcan**	0.27	128	⇑*i*P	Pg	08 20 16.3	+0.8
BRU2				*e*S	Sg	08 20 20.7	+1.6
TBS2		0.30	124	⇑*i*P	Pg	08 20 22.2	+6.2
TBS2				*e*S	Sg	08 20 26.9	+6.9
BRU	**Baru**	0.37	114	⇑*e*P	Pg	08 20 18.5	+1.0
BRU				*e*S	Sg	08 20 24.2	+1.7
BAR1		0.49	305	⇓*e*P	Pg	08 20 20.3	+0.6
BAR1				*e*S	Sg	08 20 27.6	+1.5
CNI	**Changuinola**	0.59	40	⇓*i*P	Pg	08 20 22.2	+0.6
URSC	**Urasca**	1.22	315	*e*P	Pb	08 20 33.0	-0.6
URSC				*e*S	Sb	08 20 49.8	+0.2
QCR	**Quepos**	1.33	290	⇓*e*P	Pn	08 20 33.5	-1.5
QCR				*e*S	Sb	08 20 51.3	-1.3
LCR2	**La Lucha 2**	1.33	306	*e*P	Pn	08 20 34.5	-0.6
LCR2				*e*S	Sb	08 20 52.2	-0.5
LAJ	**Bijagual**	1.50	307	*e*P	Pn	08 20 41.5	+4.1
LAJ				*e*S	Sn	08 21 05.2	+8.1
PRS1	**Puriscal**	1.72	306	*e*P	Pn	08 20 40.0	-0.5
PRS1				*e*S	Sn	08 21 03.1	+0.5

IDC ***22*** *08:23:26.1±12.0, 24.62S×179.07W, h331^{km}±121^{km}, mb3.2/2, mb1 3.6/3, mb1mx3.3/13, mbtmp3.5/3, Error ellipse: s-maj=77.0km s-min=47.0km az=54.0*

ISC 22 08:23:25.5±3.3**, 24.7S**±0.2×**179.4W**±0.5**, h300**^{km}**, n10,**
σ$0^{s}.$**99**/10**, mb3.2**/2**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	12.93	188	PN	Pn	08 26 19.9	+0.7
PUZ	**Puketiti**	13.44	188	PN	Pn	08 26 26.9	+1.6
URZ	**Urewera**	13.80	192	P	Pn	08 26 30.4	+0.8
	6.1nm,0.3s,baz=348,slow=1.6,SNR=37						
URZ				S	S	08 29 01.8	+0.1
	1.6nm,0.3s,baz=53,slow=24,SNR=12						
URZ	**Urewera**	13.80	192	PN	Pn	08 26 28.6	-1.0
PXZ	**Pawanui**	15.57	191	PN	Pn	08 26 49.9	-0.6
BFZ	**Birch Farm**	16.31	192	PN	Pn	08 26 57.0	-2.1
MRZ	**Mangatainoka R**	16.43	194	PN	Pn	08 26 55.2	-5.2
ASAR	**Alice Springs**	42.46	261	P	P	08 30 52.0	+0.2
	0.3nm,0.3s,mb3.0,baz=90,slow=6.8,SNR=15						
WRA	**Warramunga Arr**	42.91	267	P	P	08 30 55.6	0.0
	1.3nm,0.4s,mb3.5,baz=102,slow=8.4,SNR=16						
ARCES	**ARCESS Array B**	132.82	348	PKP	PKPdf	08 42 00.7	-3.4
	5.1nm,1.1s,baz=76,slow=1.5,SNR=5.5						

IDC 22 08:25:41.4±3.6**, 6.36S**×**102.59E, h0**^{km}**, mb3.7**/5**, mb1 3.8**/5**,**
mb1mx3.7/18**, mbtmp3.7**/5**, Error ellipse:**
s-maj=157.1km s-min=22.1km az=56.0, Southwest of
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	33.65	117	P	P	08 32 23.5	-0.6
	0.5nm,0.7s,baz=287,slow=12,SNR=3.7						
ASAR	**Alice Springs**	34.66	123	P	P	08 32 32.7	-0.2
	0.6nm,0.9s,baz=297,slow=8.2,SNR=7.3						
STKA	**Stephens Creek**	44.36	130	P	P	08 33 53.7	0.0
	1.8nm,0.7s,baz=308,slow=13,SNR=4.5						
SONM	**Songino Array**	54.07	3	P	P	08 35 07.8	+0.2
	1.1nm,0.7s,baz=182,slow=8.6,SNR=9.9						
MKAR	**Makanchi Array**	55.91	343	P	P	08 35 20.4	-0.7
	0.8nm,0.7s,baz=150,slow=8.9,SNR=6.5						
TXAR	**Lajitas Array**	146.30	44	PKPbc	PKPbc	08 45 25.4	+0.6
	0.7nm,0.7s,baz=294,slow=1.5,SNR=10.0						

IDC 22 08:26:23.7±4.6**, 9.81S**×**109.21W, h0**^{km}**, mb3.6**/5**,**
mb1 4.0/5**, mb1mx3.9**/10**, mbtmp3.6**/5**, MS4.3**/7**, Ms1 4.3**/7**,**
ms1mx4.1/15**, Error ellipse: s-maj=141.0km**
s-min=32.1km az=49.0, Central East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPN	**Rapa Nui**	17.22	180	T		08 49 06.9	
	20nm,0.3s,baz=28,slow=16,SNR=7.8						
RKT	**Rikitea**	27.96	239	*e*S	S	08 37 25.3	+24
	199nm,30.8s						
RKT				*e*LQ		08 38 51.3	
	1μm,37.8s						
RKT				*e*LR	LR	08 40 07.8	
	2μm,31.8s						
TAOE	**Nuku Hiva Isla**	30.54	269	*e*LR	LR	08 41 20.8	
	517nm,24.0s						
ROSC	**El Rosal**	37.68	69	LR	LR	08 46 31.2	
	comp=Z,218nm,19.9s,baz=10.0,slow=32						
TXAR	**Lajitas Array**	39.28	8	P	P	08 33 55.2	+0.9
	0.7nm,1.0s,baz=169,slow=7.3,SNR=4.4						
TXAR				LR	LR	08 46 11.0	
	comp=Z,221nm,20.4s,baz=70,slow=30						
PPT	**Papeete**	39.91	254	*e*S	S	08 40 32.4	+26
	128nm,31.2s						
PPT				*e*LQ		08 43 52.3	
	4μm,32.0s						
PPT				*e*LR	LR	08 45 37.8	
	2μm,30.2s,baz=82						
PPT	**Papeete**	39.91	254	LR	LR	08 46 17.6	
	comp=Z,758nm,18.1s,baz=84,slow=30						
LPAZ	**La Paz**	40.48	104	P	P	08 34 05.2	+0.7
	2.4nm,1.0s,baz=287,slow=6.9,SNR=5.7						
LPAZ				LR	LR	08 47 47.7	
	comp=Z,676nm,18.9s,baz=88,slow=32						
NVAR	**Mina Array Bea**	48.73	350	P	P	08 35 12.0	+1.9
	1.3nm,1.1s,baz=179,slow=8.7,SNR=3.9						
PDAR	**Pinedale Array**	52.32	360	P	P	08 35 35.5	-1.7
	0.4nm,0.6s,baz=165,slow=7.3,SNR=3.4						
PDAR				LR	LR	08 55 39.0	
	comp=Z,246nm,20.0s,baz=191,slow=34						
YKA	**Yellowknife Ar**	72.20	357	P	P	08 37 49.7	-0.5
	0.6nm,0.8s,baz=167,slow=5.7,SNR=13						
YKA				LR	LR	09 07 59.0	
	comp=Z,287nm,18.8s,baz=170,slow=35						
SCHQ	**Schefferville**	73.55	24	LR	LR	09 09 13.9	
	comp=Z,289nm,20.7s,baz=112,slow=35						
MKAR	**Makanchi Array**	141.87	347	PKP	PKPdf	08 45 58.7	+1.1
	0.2nm,0.2s,baz=11,slow=2.2,SNR=3.7						

IDC 22 08:33:02.6±10.0**, 10.56S**×**109.47W, h0**^{km}**, mb3.3**/4**,**
mb1 3.8/4**, mb1mx3.7**/10**, mbtmp3.3**/4**, Error ellipse:**
s-maj=272.4km s-min=176.9km az=123.0, Central East
Pacific Rise

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TXAR	**Lajitas Array**	40.05	8	P	P	08 40 39.7	0.0
	0.6nm,1.0s,baz=178,slow=8.1,SNR=3.5						
NVAR	**Mina Array Bea**	49.43	351	P	P	08 41 54.0	-0.3
	0.3nm,0.5s,baz=169,slow=5.5,SNR=1.9						
PDAR	**Pinedale Array**	53.06	360	P	P	08 42 22.0	+0.5
	0.3nm,0.8s,baz=161,slow=5.7,SNR=2.3						
YKA	**Yellowknife Ar**	72.94	358	P	P	08 44 33.5	+0.1
	0.2nm,0.8s,baz=166,slow=5.4,SNR=3.8						

ISCJB ***22*** *08:44:08.9±0.4, 37.48N±0.03×72.25E±0.06, h190^{km}±6^{km}, mb3.7/8, Error ellipse: s-maj=8.3km s-min=4.8km az=178.4*

MOS ***22*** *08:44:08.4±0.9, 37.42N×72.19E, h189^{km}, mb4.0/2, Error ellipse: s-maj=32.3km s-min=18.0km az=96.0*

NEIC ***22*** *08:44:10.1±0.8, 37.44N×72.22E, h190^{km}±8^{km}, mb4.4/3, Error ellipse: s-maj=19.2km s-min=8.4km az=125.0*

IDC ***22*** *08:44:10.3±5.5, 37.33N×72.18E, h195^{km}±54^{km}, mb3.4/8, mb1 3.4/10, mb1mx3.2/23, mbtmp3.3/10, MS3.9/1, Ms1 4.0/1, ms1mx2.8/19, Error ellipse: s-maj=25.7km s-min=15.7km az=144.0*

ISC 22 08:44:09.8±0.4**, 37.47N**±0.03×**72.26E**±0.06**, h181**^{km}±6^{km}**,**
n36, σ$0^{s}.$**89**/46**, mb3.7**/8**, 1C, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	**Kabul**	3.92	223	*e*Pn	Pn	08 45 11.1	+1.2
KBL				*e*Sn	Sn	08 45 56.7	0.0
AML	**Almayashu**	4.79	13	*e*Pn	Pn	08 45 21.9	+1.1
AML				*e*Sn	Sn	08 46 15.1	-1.6
UCH	**Uchtor**	5.06	19	*e*Pn	Pn	08 45 25.5	+1.1
	34nm,0.6s						
UCH				*e*Sn	Sn	08 46 22.3	-0.7
EKS2	**Erkin-Say**	5.32	12	*e*Pn	Pn	08 45 29.1	+1.4
	16nm,0.6s						
EKS2				*e*Sn	Sn	08 46 28.4	-0.7
AAK	**Ala-Archa**	5.43	18	*e*Pn	Pn	08 45 29.6	+0.3
	6.2nm,0.4s						
AAK				*e*Sn	Sn	08 46 31.1	-0.8
AAK	**Ala-Archa**	5.43	18	*e*PN	Pn	08 45 29.6	+0.3
AAK				*e*		08 46 31.1	
AAK				pmax	pmax		
	comp=Z,6.0nm,0.4s						
THN	**Thein Dam**	5.77	150	*e*P	Pn	08 45 33.8	0.0
THN				*e*x	x	08 46 37.5	
DLH	**Dalhousie**	5.78	147	*e*S	Sn	08 46 36.0	-4.1
KK31	**Karatay Array**	5.78	347	P	Pn	08 45 34.0	+0.2
	comp=Z,2.3nm,0.4s,baz=158,slow=13,SNR=57						
KK31				⇑S	Sn	08 46 35.0	-5.0
	comp=Z,4.9nm,0.3s,baz=165,slow=25,SNR=16						
SDNR	**Sundarnagar**	7.11	145	*e*P	Pn	08 45 50.8	-0.6
SDNR				*e*S	Sn	08 47 05.8	-5.8
JOSI	**Joshimath**	9.18	137	*e*P	Pn	08 46 16.9	-1.6
JOSI				*e*S	Sn	08 47 52.8	-8.1
KHET	**Khetri**	9.83	161	*e*P	Pn	08 46 27.9	+0.8
KHET				AMb	AMB	08 46 32.9	
	comp=Z,2.7nm,0.7s						
KHET				*e*S	Sn	08 48 05.8	-11
KUDL	**Kundal**	9.96	158	*e*P	Pn	08 46 29.6	+0.9
KUDL				AMb	AMB	08 46 34.7	
	comp=Z,3.6nm,0.7s						
KUDL				*e*S	Sn	08 48 09.7	-10
SONA	**Sohna**	10.05	155	*e*x	x	08 46 42.0	
SONA				AMb	AMB	08 46 47.5	
	comp=Z,6.8nm,0.3s						
SONA				*e*S	Sn	08 48 12.6	-9.2
GKN	**Gorkha**	14.04	129	*e*P	Pn	08 47 20.0	-1.0
	comp=Z,34nm,0.4s						

GKN				eS	Sn	08 49 47.1	-10
KKN	Kakani	14.60	128	eP	Pn	08 47 27.4	-0.5
	comp=Z,20nm,0.6s						
JIRN	Jiri	15.27	126	eP	Pn	08 47 36.4	+0.3
	comp=Z,21nm,0.4s						
TAPN	Taplejung	16.47	123	eP	Pn	08 47 51.7	+1.0
	comp=Z,8.5nm,0.5s						
AKTK	Aktyubinsk	16.49	326	P	Pn	08 47 50.8	+0.1
AKTO	Aktyubinsk	16.49	326	P	Pn	08 47 50.8	+0.1
	comp=Z,0.1nm,0.3s,baz=151,slow=10,SNR=3.0						
ODAN	Odare	16.59	125	eP	Pn	08 47 53.2	+1.1
ZAL	Zalesovo	18.60	24	P	P	08 48 13.9	+0.8
ZALV	Zalesovo Beam	18.62	24	P	P	08 48 13.9	+0.6
	comp=Z,0.3nm,0.3s,baz=222,slow=11,SNR=10						
SONM	Songino Array	26.96	57	P	P	08 49 35.2	+0.9
	comp=Z,0.2nm,0.4s,mb3.1,baz=273,slow=8.6,SNR=2.6						
BRTR	Keskin Array B	30.11	286	P	P	08 50 02.2	-0.1
	comp=Z,0.3nm,0.5s,mb3.3,baz=99,slow=7.4,SNR=2.3						
ATD	Arta Tunnel	36.91	233	P	P	08 50 59.4	-1.8
ATD	Arta Tunnel	36.91	233	P	P	08 50 59.4	-1.8
	comp=Z,3.4nm,0.4s,mb4.4,baz=253,slow=19,SNR=2.8						
FINES	FINESS Array B	37.26	325	P	P	08 51 03.5	-0.1
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	FINESS Array B	37.26	325	P	P	08 51 03.5	-0.1
	comp=Z,1.9nm,0.9s,mb3.7,baz=198,slow=34,SNR=3.0						
ARCES	ARCESS Array B	40.64	337	P	P	08 51 32.1	+0.5
ARCES				pmax	pmax		
	comp=Z,4.0nm,1.1s						
ARCES	ARCESS Array B	40.64	337	P	P	08 51 32.1	+0.5
	comp=Z,4.3nm,1.1s,mb4.0,baz=106,slow=8.9,SNR=8.9						
NB2	NORSAR Subarra	44.22	322	P	P	08 52 00.1	-0.5
	comp=Z,1.5nm,0.8s,mb3.7,baz=95,slow=7.9						
NOA	NORSAR Array B	44.22	322	P	P	08 51 59.7	-0.8
	comp=Z,0.7nm,0.5s,mb3.5,baz=94,slow=7.6,SNR=2.7						
ESDC	Sonseca Array	57.90	298	LR	LR	09 22 32.6	
	comp=Z,97nm,19.3s,baz=325,slow=40						
TORD	Torodi Ar. Bea	66.75	269	P	P	08 54 40.3	-1.5
	comp=Z,0.9nm,0.4s,mb4.0,baz=47,slow=5.8,SNR=26						
YKA	Yellowknife Ar	80.23	3	P	P	08 55 59.5	-0.1
	comp=Z,0.3nm,0.4s,mb3.2,baz=348,slow=5.5,SNR=10						

IDC 22 08:47:53.9±3.2, 29.09S×178.03W, h0^{km}, mb3.8/4, mb1 4.0/4, mb1mx3.8/13, mbtmp3.8/4, MS3.1/1, Ms1 3.1/1, ms1mx2.8/12, Error ellipse: s-maj=137.2km s-min=46.8km az=160.0, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	33.58	277	P	P	08 54 37.2	+1.3
	1.8nm,0.5s,baz=76,slow=12,SNR=3.1						
CTA				LR	LR	09 05 03.5	
	comp=Z,34nm,20.0s,baz=218,slow=31						
STKA	Stephens Creek	34.77	255	P	P	08 54 46.2	+0.1
	1.2nm,0.8s,baz=85,slow=12,SNR=3.0						
ASAR	Alice Springs	43.17	266	P	P	08 55 56.3	-0.3
	0.5nm,0.6s,baz=100,slow=6.9,SNR=12						
WRA	Warramunga Arr	44.04	271	P	P	08 56 02.5	-1.1
	0.6nm,0.6s,baz=110,slow=7.8,SNR=6.6						
FINES	FINESS Array B	143.91	341	PKP	PKPdf	09 07 29.8	-0.7
	2.4nm,0.5s,baz=60,slow=3.5,SNR=15						
AKASG	Malin Array Be	150.23	324	PKPbc	PKPbc	09 07 46.4	-0.2
	0.8nm,0.5s,baz=44,slow=2.9,SNR=5.8						

*IDC **22** 08:50:43.4±36.0, 15.57S×176.08E, h0^{km}, mb3.9/4, mb1 4.1/4, mb1mx3.7/14, mbtmp3.9/4, Error ellipse: s-maj=624.4km s-min=136.9km az=68.0*
*NEIC **22** 08:51:25.0±6.4, 17.78S×172.11E, h35^{km}, Error ellipse: s-maj=125.0km s-min=29.8km az=107.0*
ISC 22 08:52:06.7±4.5, 18.3S±0.2×167.0E±0.5, h35^{km}, n6, σ0^{s}.90/7, mb3.7/3, Vanuatu Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.82	188	eP	Pn	08 53 02.5	-0.5
DZM				eS	Sn	08 53 46.9	+0.1
NOUC	Port Laguerre	3.87	189	eP	Pn	08 53 04.5	+0.7
CTA	Charters Tower	19.66	261	P	Pn	08 56 42.3	+8.0
	1.3nm,0.4s,baz=93,slow=11,SNR=3.0						
STKA	Stephens Creek	26.61	235	P	P	08 57 38.8	-3.1
	0.7nm,0.5s,mb3.4,baz=79,slow=10,SNR=4.5						
WRA	Warramunga Arr	30.87	262	P	P	08 58 20.3	+0.4
	0.2nm,0.5s,mb3.2,baz=85,slow=8.5,SNR=2.9						
ASAR	Alice Springs	31.31	254	P	P	08 58 24.1	+0.3
	3.0nm,0.4s,mb4.5,baz=84,slow=8.7,SNR=73						

*ISK **22** 08:55:51.9, 38.40N×39.21E, h5^{km}, MD2.8*
*CSEM **22** 08:55:52.2±0.3, 38.43N×39.20E, h20^{km}, MD2.8, Error ellipse: s-maj=7.5km s-min=4.3km az=121.0*
*ISCJB **22** 08:55:53.8±1.0, 38.45N±0.07×39.19E±0.09, h26^{km}±12^{km}, Error ellipse: s-maj=14.8km s-min=7.0km az=41.3*
ISC 22 08:55:53.8±1.0, 38.44N±0.06×39.20E±0.09, h24^{km}±12^{km}, n9, σ0^{s}.81/18, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.18	289	i P	Pb	08 55 58.3	-0.7
ELZG				i S	Sb	08 56 02.8	+0.3
PTK	Pertek	0.47	19	PG	Pb	08 56 02.7	-0.9
PTK				SG	Sb	08 56 11.4	+1.2
PTK	Pertek	0.47	19	ePg	Pb	08 56 02.7	-0.9
PTK				eSg	Sb	08 56 11.4	+1.2
MYA	Malataya	0.62	260	PG	Pb	08 56 05.6	-0.3
MYA				SG	Sb	08 56 14.9	+0.7
MYA	Malataya	0.62	260	ePg	Pb	08 56 05.6	-0.3
MYA				eSg	Sb	08 56 14.9	+0.7
MALT	Malatya	0.62	258	PG	Pb	08 56 04.3	-1.7
MALT				SG	Sb	08 56 14.8	+0.6
MALT	Malatya	0.62	258	ePg	Pb	08 56 04.3	-1.7
MALT				eSg	Sb	08 56 14.8	+0.6
URFA	Urfa	1.04	197	ePG	Pn	08 56 13.1	+0.2
URFA				eSG	Sb	08 56 26.9	+0.5
URFA	Urfa	1.04	197	ePg	Pn	08 56 13.1	+0.2
URFA				eSg	Sb	08 56 26.9	+0.5

MAN 22 09:04:19, 12.39N×123.72E, h21^{km}, mb3.5, ML2.2, MS1.7, 1C-1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MMPH	Masbate	0.10	251⇑	eP	Pb	09 04 24.2	+1.1
MMPH				i S	Sb	09 04 27.8	+1.9
RCP	Roxas	1.26	229⇓	eP	Pn	09 04 41.9	+0.5
RCP				eS	Sn	09 04 58.5	+0.8
OCLP	Ormoc	1.59	147	eP	Pn	09 04 46.0	0.0
OTRP	Odiongan	1.66	269	eP	Pn	09 04 48.9	+2.1
PLP	Palo	1.73	135	eP	Pn	09 04 47.6	-0.3
PLP				i S	Sn	09 05 11.0	+1.5
GUIM	Jordan	2.07	212	eP	Pn	09 04 54.7	+2.1

*ISCJB **22** 09:13:28.6±1.0, 53.50N±0.08×87.9E±0.2, h10^{km}, mb4.4/1, Error ellipse: s-maj=13.1km s-min=11.3km az=9.3*
*MOS **22** 09:13:28.4±1.3, 53.46N×87.81E, h10^{km}, mb4.4/1, Error ellipse: s-maj=46.5km s-min=31.1km az=126.6*
*IDC **22** 09:13:29.1±1.8, 53.56N×87.74E, h0^{km}, mb4.4/1, mb1 3.8/3, mb1mx3.3/23, mbtmp3.6/3, ML2.9/2, Error ellipse: s-maj=18.4km s-min=13.6km az=69.0*
ISC 22 09:13:30.8±1.0, 53.59N±0.08×87.8E±0.2, h10^{km}, n9, σ1^{s}.09/10, mb4.4/1, Southwestern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZALV	Zalesovo Beam	1.80	283	Pg	Pg	09 14 00.1	-5.2
	3.8nm,0.3s,baz=105,slow=15,SNR=54						
ZALV				Lg		09 14 26.0	
	7.4nm,0.3s,baz=105,slow=25,SNR=17						
ZAL	Zalesovo	1.81	282	ePN	Pn	09 14 00.1	-1.9
NVS	Novosibirsk	2.95	297	ePN	Pn	09 14 19.8	+2.1
NVS				e		09 14 58.0	
MKAR	Makanchi Array	7.66	210	P	Pn	09 15 22.5	+0.2
MKAR						09 16 49.3	
MKAR	Makanchi Array	7.66	210	Pn	Pn	09 15 22.4	+0.1
	0.3nm,0.3s,baz=27,slow=12,SNR=21						
MKAR				Sn	Sn	09 16 49.2	+0.2
	0.2nm,0.3s,baz=27,slow=30,SNR=7.6						
MKAR				Lg		09 17 28.4	
	0.3nm,0.3s,baz=29,slow=27,SNR=6.4						
SONM	Songino Array	13.11	109	P	Pn	09 16 36.7	-0.1
SONM	Songino Array	13.11	109	Pn	Pn	09 16 36.7	-0.1
	0.0nm,0.3s,baz=306,slow=16,SNR=2.5						
ARCES	ARCESS Array B	31.89	324	P	P	09 19 55.7	0.0
ARCES				pmax	pmax		
	comp=Z,7.0nm,1.1s						
ARCES	ARCESS Array B	31.89	324	P	P	09 19 55.7	0.0
	comp=Z,6.5nm,1.1s,mb4.4,baz=79,slow=15,SNR=3.8						

*IDC **22** 09:17:47.7±0.7, 16.72S×173.17W, h0^{km}, mb4.1/11, mb1 4.3/12, mb1mx4.3/19, mbtmp4.1/12, ML3.5/1, MS4.2/12, Ms1 4.2/12, ms1mx4.0/21, Error ellipse: s-maj=26.2km s-min=14.3km az=143.0*
*ISCJB **22** 09:17:48.1±0.6, 16.49S±0.08×173.2W±0.1, h15^{km}, mb4.0/11, MS4.3/10, Error ellipse: s-maj=17.0km s-min=7.3km az=38.9*
*NEIC **22** 09:17:50.1±0.6, 16.57S×173.18W, h15^{km}, mb4.1/1, Error ellipse: s-maj=19.3km s-min=11.5km az=129.0*
ISC 22 09:17:48.5±3.3, 16.52S±0.08×173.2W±0.1, h8^{km}±20^{km}, n40, σ1^{s}.02/22, mb4.0/11, MS4.3/11, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.92	28	Pn	Pn	09 18 34.6	-0.7
AFI				Sn	Sn	09 19 09.3	-1.3
AFI	Afiamalu	2.92	28	Pn	Pn	09 18 34.6	-0.7
	23nm,0.3s,baz=136,slow=1.0,SNR=12						
AFI				Sn	Sn	09 19 09.3	-1.3
	75nm,0.3s,baz=149,slow=20,SNR=4.1						
FUNA	Funafuti	10.89	316	P	Pn	09 20 24.3	-0.5
RAR	Rarotonga	13.51	112	LR	LR	09 23 42.9	
	comp=Z,180nm,22.0s,baz=246,slow=26						
DZM	Mont Dzumac	20.01	251	P	P	09 22 21.9	0.0
	0.1nm,0.3s,baz=142,slow=21,SNR=2.4						
DZM				LR	LR	09 28 18.5	
	comp=Z,456nm,18.4s,MS3.9,baz=85,slow=32						
PPT	Papeete	22.58	96	eLR	LR	09 27 49.4	
	847nm,26.5s,baz=261						
URZ	Urewera	23.28	200	P	P	09 22 54.9	-1.9
	11nm,0.5s,mb4.5,baz=92,slow=3.6,SNR=12						
HNR	Honiara	27.11	282	LR	LR	09 32 58.4	
	comp=Z,1µm,18.1s,MS4.4,baz=179,slow=34						
RPZ	Rata Peaks	30.24	203	P	P	09 23 59.2	-0.5
	3.7nm,0.8s,mb4.1,baz=99,slow=19,SNR=2.0						
TAOE	Nuku Hiva Isla	33.06	81	eLQ		09 31 01.6	
	365nm,21.1s						
TAOE				eLR	LR	09 32 38.9	
	1µm,27.5s						
RKT	Rikitea	36.45	107	eLR	LR	09 34 03.3	
	441nm,29.0s						
STKA	Stephens Creek	43.68	241	eP	P	09 25 54.8	+0.7
	3.6nm,1.1s,mb4.0						
STKA	Stephens Creek	43.68	241	P	P	09 25 54.3	+0.2
	1.7nm,0.6s,mb4.0,baz=66,slow=4.9,SNR=6.0						
STKA				LR	LR	09 41 08.8	
	comp=Z,257nm,18.7s,MS4.2,baz=214,slow=32						
WB2	Warramunga Arr	49.80	258	eP	P	09 26 42.2	-0.1
WRA	Warramunga Arr	49.81	258	P	P	09 26 42.6	+0.2
	3.4nm,0.8s,mb4.5,baz=96,slow=6.9,SNR=26						
WRA				LR	LR	09 47 34.3	
	comp=Z,464nm,18.1s,MS4.5,baz=90,slow=36						
ASAR	Alice Springs	49.99	253	P	P	09 26 43.9	+0.3
	6.2nm,0.6s,mb4.8,baz=90,slow=8.1,SNR=87						
ASAR				S	S	09 33 53.4	-1.5
	0.9nm,0.9s,baz=92,slow=15,SNR=6.8						
MJAR	Matsushiro Arr	69.93	320	P	P	09 29 02.2	+1.8
	0.9nm,0.7s,mb3.8,baz=161,slow=7.7,SNR=2.4						
MJAR				LR	LR	09 54 17.6	
	comp=Z,180nm,19.5s,MS4.3,baz=75,slow=31						
NVAR	Mina Array Bea	75.01	42	P	P	09 29 32.2	+1.6
	0.8nm,0.6s,mb3.8,baz=234,slow=9.4,SNR=4.3						
KSRS	Korea Array	77.11	316	P	P	09 29 42.3	-0.3
	0.2nm,0.3s,mb3.5,baz=122,slow=4.4,SNR=2.9						
KSRS				LR	LR	09 59 08.8	
	comp=Z,81nm,19.7s,MS4.0,baz=342,slow=32						
TXAR	Lajitas Array	81.05	56	P	P	09 30 03.7	-0.7
TXAR				LR	LR	10 02 32.7	
TXAR	Lajitas Array	81.05	56	P	P	09 30 03.7	-0.7
	1.2nm,1.1s,mb3.7,baz=239,slow=8.3,SNR=5.6						
TXAR				LR	LR	10 02 32.7	
	comp=Z,191nm,18.6s,MS4.5,baz=65,slow=33						
PDAR	Pinedale Array	82.95	42	P	P	09 30 14.9	+0.9
	1.1nm,0.9s,mb3.9,baz=187,slow=2.3,SNR=6.8						
PDAR				LR	LR	10 02 18.3	
	comp=Z,78nm,21.2s,MS4.0,baz=164,slow=32						
YKA	Yellowknife Ar	91.03	23	P	P	09 30 54.8	+1.8
YKA	Yellowknife Ar	91.03	23	P	P	09 30 54.8	+1.8
	0.6nm,0.9s,mb3.9,baz=236,slow=4.1,SNR=6.5						
ULM	Lac du Bonnet	94.66	39	LR	LR	10 10 34.5	
	comp=Z,192nm,18.8s,MS4.6,baz=97,slow=33						
LPAZ	La Paz	99.22	110	LR	LR	10 07 18.9	
	comp=Z,62nm,19.4s,MS4.1,baz=318,slow=30						
ROSC	El Rosal	99.82	88	LR	LR	10 05 19.9	
	comp=Z,89nm,21.2s,MS4.2,baz=192,slow=29						
AKASG	Malin Array Be	141.45	337	PKP	PKPdf	09 37 19.8	-0.3
AKASG	Malin Array Be	141.45	337	PKP	PKPdf	09 37 19.7	-0.4
	0.6nm,0.4s,baz=44,slow=4.4,SNR=5.1						
KMBO	Kilima Mbogo	145.24	243	PKPbc	PKPbc	09 37 29.4	+1.8
KMBO	Kilima Mbogo	145.24	243	PKPbc	PKPbc	09 37 29.4	+1.8
	3.5nm,0.8s,baz=53,slow=7.2,SNR=9.0						
BRG	Berggiesshubel	145.26	352	P	PKPbc	09 37 35.5	+9.0
BRG	Berggiesshubel	145.26	352	e(P)	PKPbc	09 37 35.5	+9.0
	4.5nm,1.1s						
BRTR	Keskin Array B	147.16	320	PKPbc	PKPbc	09 37 35.4	+2.8
BRTR	Keskin Array B	147.16	320	PKPbc	PKPbc	09 37 35.4	+2.8
	2.2nm,0.7s,baz=102,slow=2.5,SNR=11						
GERES	GERESS Array B	147.28	352	PKPbc	PKPbc	09 37 33.8	+1.2
GERES	GERESS Array B	147.28	352	PKPbc	PKPbc	09 37 33.8	+1.2
	0.3nm,0.3s,baz=318,slow=1.8,SNR=3.9						
DAVOX	Davos/Dischmat	149.72	356	PKPbc	PKPbc	09 37 42.0	+3.0
DAVOX	Davos/Dischmat	149.72	356	PKPbc	PKPbc	09 37 42.0	+3.0
	2.8nm,0.5s,baz=180,slow=18,SNR=4.0						
TORD	Torodi Ar. Bea	174.01	123	PKPab	PKPab	09 39 27.9	-2.7
	1.0nm,0.9s,baz=256,slow=5.2,SNR=3.5						

*ISK **22** 09:28:34.7, 38.44N×39.19E, h5^{km}, MD2.7*
*ISCJB **22** 09:28:35.1±1.2, 38.39N±0.06×39.25E±0.07, h10^{km}, Error ellipse: s-maj=9.6km s-min=5.6km az=135.6*
*CSEM **22** 09:28:35.1±0.2, 38.43N×39.20E, h10^{km}, MD2.7, Error ellipse: s-maj=4.6km s-min=2.4km az=129.0*
ISC 22 09:28:35.7±1.3, 38.40N±0.08×39.23E±0.10, h13^{km}±23^{km}, n9, σ0^{s}.55/16, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.22	296	i P	Pg	09 28 40.5	0.0
ELZG				i S	Sg	09 28 43.4	-0.3
PTK	Pertek	0.51	14	PG	Pg	09 28 45.2	-0.5
PTK				SG	Sg	09 28 53.1	+0.7
PTK	Pertek	0.51	14	ePg	Pg	09 28 45.2	-0.5
PTK				eSg	Sg	09 28 53.1	+0.7
MALT	Malatya	0.64	262	ePG	Pg	09 28 47.2	-1.0
MALT				eSG	Sg	09 28 56.9	+0.3
MALT	Malatya	0.64	262	ePg	Pg	09 28 47.2	-1.0
MALT				eSg	Sg	09 28 56.9	+0.3
MYA	Malataya	0.64	263	PG	Pg	09 28 47.8	-0.4
MYA				SG	Sg	09 28 57.4	+0.8
MYA	Malataya	0.64	263	ePg	Pg	09 28 47.8	-0.4
MYA				eSg	Sg	09 28 57.4	+0.8
URFA	Urfa	1.01	199	ePG	Pg	09 28 55.7	+0.4
URFA	Urfa	1.01	199	ePg	Pg	09 28 55.7	+0.4

*ISK **22** 09:43:32.6, 39.56N×42.77E, h12^{km}, MD2.8*
*CSEM **22** 09:43:33.9±0.2, 39.50N×42.90E, h7^{km}±1^{km}, MD3.0, Error ellipse: s-maj=5.3km s-min=3.9km az=113.0*
*ISCJB **22** 09:43:35.3±0.6, 39.46N±0.04×42.95E±0.05, h9^{km}±5^{km}, Error ellipse: s-maj=6.9km s-min=6.2km az=32.1*
*DDA **22** 09:43:35.6, 39.51N×42.89E, h3^{km}, Md3.0*
ISC 22 09:43:35.2±0.6, 39.48N±0.04×42.93E±0.06, h13^{km}±4^{km}, n14, σ0^{s}.98/20, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGRB	Hanur-Agry	0.11	26	i PG	Pg	09 43 37.0	-1.3
AGRB				i SG	Sg	09 43 39.9	-0.7
AGRB	Hanur-Agry	0.11	26	i Pg	Pg	09 43 37.0	-1.3
AGRB				i Sg	Sg	09 43 39.9	-0.7
TUTA	Tutak	0.12	230	i P	Pg	09 43 38.0	-0.5
TUTA				i S	Sg	09 43 41.7	+1.0
DYDN	Diyadin	0.59	83	i P	Pg	09 43 46.7	-0.1
CLDR	Caldiran	0.83	113	PG	Pg	09 43 52.2	+0.8
CLDR	Caldiran	0.83	113	ePg	Pg	09 43 52.2	+0.8
VANB	Van	0.95	158	ePG	Pg	09 43 53.4	-0.2
VANB	Van	0.95	158	ePg	Pg	09 43 53.4	-0.2
DIGO	Kars	1.00	20	i P	Pb	09 43 54.4	0.0
DIGO				i S	Sg	09 44 10.0	+2.5
TVAN	Van	1.02	159	i P	Pb	09 43 55.5	+0.8
TVAN				i S	Sb	09 44 14.1	+6.1
VANT	Van	1.09	161	ePN	Pn	09 43 55.4	-0.8
VANT	Van	1.09	161	ePn	Pn	09 43 55.4	-0.8
ERZM	Erzurum	1.28	290	i P	Pn	09 43 57.7	-1.1
ERZM				i S	Sb	09 44 16.3	+0.7
EZM	Erzurum	1.28	290	PN	Pn	09 43 54.9	-4.0

*ISCJB **22** 09:52:43.5±1.4, 38.34N±0.07×39.33E±0.08, h10^{km}, Error ellipse: s-maj=10.1km s-min=8.7km az=158.6*
*CSEM **22** 09:52:43.8±0.2, 38.40N×39.27E, h10^{km}, MD2.8, Error ellipse: s-maj=5.9km s-min=3.8km az=128.0*
*ISK **22** 09:52:43.6, 38.41N×39.25E, h2^{km}, MD2.8*
ISC 22 09:52:44.0±1.4, 38.36N±0.07×39.34E±0.08, h10^{km}, n9, σ0^{s}.63/14, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.31	296	i P	Pg	09 52 50.3	+0.1
ELZG				i S	Sg	09 52 55.3	+0.9
PTK	Pertek	0.53	4	PG	Pg	09 52 54.3	-0.1
PTK	Pertek	0.53	4	ePg	Pg	09 52 54.3	-0.1
MALT	Malatya	0.72	267	PG	Pg	09 52 56.7	-1.2
MALT				SG	Sg	09 53 07.6	+0.3
MALT	Malatya	0.72	267	ePg	Pg	09 52 56.7	-1.2
MALT				eSg	Sg	09 53 07.6	+0.3
MYA	Malataya	0.72	268	PG	Pg	09 52 57.6	-0.3
MYA				SG	Sg	09 53 06.9	-0.4
MYA	Malataya	0.72	268	ePg	Pg	09 52 57.6	-0.3
MYA				eSg	Sg	09 53 06.9	-0.4
URFA	Urfa	1.00	204	ePG	Pg	09 53 04.1	+0.7
URFA	Urfa	1.00	204	ePg	Pg	09 53 04.1	+0.7

*ISCJB **22** 09:59:45.0±0.7, 64.70N±0.02×30.3E±0.1, h0^{km}, Error ellipse: s-maj=6.3km s-min=3.3km az=9.0*
*HEL **22** 09:59:48.4±0.5, 64.81N×30.70E, h0^{km}, ML2.2, Explosion*
*IDC **22** 09:59:49.2±2.4, 64.77N×30.54E, h0^{km}, mb1 3.1/4, mb1mx2.9/22, mbtmp3.0/4, ML2.5/4, Error ellipse: s-maj=35.7km s-min=8.2km az=101.0*
ISC 22 09:59:47.0±0.7, 64.75N±0.02×30.4E±0.1, h0^{km}, n15, σ1^{s}.57/29, Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KU6	Riekki	1.30	350	PN	Pn	10 00 09.6	-2.8
	baz=170						
KU6				SG	Sg	10 00 27.6	-1.2
MSF	Maaselka	1.31	334	PN	Pn	10 00 11.2	-1.2
MSF				SG	Sg	10 00 30.4	+1.5
JOF	Joensuu	1.88	168	PN	Pn	10 00 20.3	0.0
	baz=351						
JOF				SG	Sg	10 00 47.4	+0.2
JOF				MSG		10 00 47.4	
	comp=Z,14nm,0.1s						
OUL	Oulu	1.97	282	PN	Pn	10 00 24.2	+2.7
OUL				SG	Sg	10 00 50.5	+0.4
OUL				MSG		10 00 50.5	
	comp=Z,22nm,0.1s						
SUF	Sumiainen	2.79	225	PN	Pn	10 00 36.2	+3.3
SUF				SG	Sg	10 01 14.7	-1.9
SUF				MSG		10 01 14.7	
	comp=Z,6.8nm,0.1s						
SGF	Sodankyl	3.14	331	PN	Pn	10 00 38.1	+0.5
	baz=137						
SGF				SG	Sg	10 01 22.2	-5.5
KAF	Kangasniemi	3.23	217	PN	Pn	10 00 43.2	+4.2
KAF				SG	Sg	10 01 28.4	-2.4
KEF	Keuruu	3.60	227	PN	Pn	10 00 47.6	+3.6
KEF				SG	Sg	10 01 40.8	-1.8
VAF	Ylistaro	3.84	247	PN	Pn	10 00 51.3	+4.1
VAF				SN	Sg	10 01 50.9	+0.7
FIA1	FINESS Array S	3.87	213	PN	Pn	10 00 51.3	+3.7
FIA1				SN	Sg	10 01 51.5	+0.5
FIA0	FINESS Array S	3.87	213	PN	Pn	10 00 51.0	+3.4
	baz=27						
FIA0				SN	Sg	10 01 50.7	-0.4
FINES	FINESS Array B	3.87	213	Pn	Pn	10 00 49.7	+2.1
	comp=Z,0.1nm,0.3s,baz=35,slow=14,SNR=7.5						
FINES				Pg	Pg	10 00 58.2	-2.8
	comp=Z,0.2nm,0.3s,baz=33,slow=14,SNR=6.5						
FINES				Sn	Sn	10 01 36.0	+2.4
	comp=Z,0.2nm,0.3s,baz=43,slow=21,SNR=2.5						
FINES				Lg		10 01 49.5	
	comp=Z,0.8nm,0.3s,baz=32,slow=29,SNR=12						
ARCES	ARCESS Array B	5.18	340	Pn	Pn	10 01 05.7	+0.1
	comp=Z,0.7nm,0.3s,baz=154,slow=13,SNR=66						
ARCES				Sn	Sn	10 02 01.9	-3.9
	comp=Z,0.3nm,0.3s,baz=157,slow=21,SNR=6.1						
ARCES				Lg		10 02 24.4	
	comp=Z,0.4nm,0.3s,baz=152,slow=30,SNR=5.2						
HFS	Hagfors	9.02	247	Pn	Pn	10 01 56.7	-1.6
	comp=Z,0.1nm,0.3s,baz=62,slow=12,SNR=2.8						
NOA	NORSAR Array B	9.52	256	Pn	Pn	10 02 05.4	+0.4
	comp=Z,0.1nm,0.3s,baz=63,slow=14,SNR=2.7						

IDC 22 10:03:57.5±0.9, 1.35S×126.66E, h0^{km}, mb4.0/7, mb1 4.1/8, mb1mx4.0/18, mbtmp4.0/8, ML4.1/1, MS3.6/1, Ms1 3.5/1, ms1mx2.8/27, Error ellipse: s-maj=88.0km s-min=16.7km az=69.0, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.95	158	P	Pn	10 08 30.2	-2.7
	0.6nm,0.3s,baz=340,slow=12,SNR=34						
WB2	Warramunga Arr	19.96	158	eP	Pn	10 08 30.4	-2.5
ASAR	Alice Springs	23.27	163	P	P	10 09 06.5	-0.5
	3.3nm,0.5s,baz=344,slow=11,SNR=34						
STKA	Stephens Creek	33.48	157	P	P	10 10 39.9	+1.3
	1.4nm,0.5s,baz=8.1,slow=7.6,SNR=4.3						
STKA				LR	LR	10 24 45.4	
	comp=Z,86nm,19.3s,baz=204,slow=37						
KSRS	Korea Array	38.62	2	P	P	10 11 22.6	+0.1
	0.5nm,0.5s,baz=172,slow=11,SNR=4.1						
SONM	Songino Array	52.07	343	P	P	10 13 08.4	-0.7
	2.1nm,0.7s,baz=153,slow=7.7,SNR=7.9						
MKAR	Makanchi Array	61.70	327	P	P	10 14 17.6	+0.1
	2.5nm,0.4s,baz=116,slow=7.8,SNR=56						
ZALV	Zalesovo Beam	65.07	334	P	P	10 14 39.7	+0.1
	0.5nm,0.3s,baz=127,slow=4.6,SNR=2.5						
AKTO	Aktyubinsk	77.59	322	P	P	10 15 56.0	+0.6
	0.7nm,0.4s,baz=101,slow=9.0,SNR=4.4						

*CSEM **22** 10:28:45.8±0.1, 38.38N×39.07E, h8^{km}, MD3.0, Error ellipse: s-maj=2.3km s-min=1.7km az=158.0*
*NEIC **22** 10:28:45.9, 38.39N×39.06E, h7^{km}, MD3.0(ISK), After ISK.*
*ISCJB **22** 10:28:46.2±0.6, 38.37N±0.04×39.10E±0.03, h1^{km}±8^{km}, Error ellipse: s-maj=6.3km s-min=4.1km az=10.5*
*ISK **22** 10:28:46.0, 38.40N×39.05E, h6^{km}, MD3.0*
*DDA **22** 10:28:48.3, 38.40N×39.10E, h3^{km}, Md3.1*
ISC 22 10:28:47.0±0.5, 38.40N±0.04×39.08E±0.03, h8^{km}±6^{km}, n28, σ0^{s}.95/37, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.12	322	i P	Pg	10 28 50.1	+0.4
ELZG				i S	Sg	10 28 53.5	+1.9
MALT	Malatya	0.52	261	i PG	Pg	10 28 55.3	-1.8
MALT				i SG	Sg	10 29 03.2	-0.7
MALT	Malatya	0.52	261	Pg	Pg	10 28 56.0	-1.1
MALT				Sg	Sg	10 29 03.0	-0.9
MALT	Malatya	0.52	261	Pg	Pg	10 28 56.0	-1.1
MALT				i Sg	Sg	10 29 03.2	-0.7
MYA	Malataya	0.52	262	i PG	Pg	10 28 56.5	-0.6
MYA				i SG	Sg	10 29 03.5	-0.4
MYA	Malataya	0.52	262	Pg	Pg	10 28 56.4	-0.7
MYA	Malataya	0.52	262	Pg	Pg	10 28 56.4	-0.7
MYA				i Sg	Sg	10 29 03.5	-0.4
PTK	Pertek	0.55	26	i PG	Pg	10 28 57.3	-0.3
PTK	Pertek	0.55	26	Pg	Pg	10 28 57.4	-0.3
PTK	Pertek	0.55	26	Pg	Pg	10 28 57.4	-0.2
URFA	Urfa	0.98	192	PG	Pg	10 29 05.4	-0.4
URFA	Urfa	0.98	192	Pg	Pg	10 29 05.0	-0.8
URFA	Urfa	0.98	192	Pg	Pg	10 29 05.0	-0.8

DIY	Diyarbakir	1.03	119	Pg	Pg	10 29 06.1	-0.8
DIY	Diyarbakir	1.03	119	Pg	Pg	10 29 06.1	-0.8
BINT	Bingol	1.20	66	PN	Pn	10 29 09.6	-0.5
BINT	Bingol	1.20	66	Pn	Pn	10 29 09.7	-0.5
BINT	Bingol	1.20	66	Pn	Pn	10 29 09.7	-0.4
EZC	Erzincan	1.46	23	PN	Pn	10 29 12.1	-1.6
EZC	Erzincan	1.46	23	Pn	Pn	10 29 12.1	-1.6
GZT	Gaziantep	1.59	229	*i* P	Pn	10 29 16.9	+1.5
GZT				*i* S	Sg	10 29 39.5	+1.4
MARD	Mardin	1.73	128	*i* P	Pn	10 29 18.1	+0.7
MARD				*i* S	Sg	10 29 42.5	0.0
BEST	Besiri	1.80	106	*i* P	Pn	10 29 19.9	+1.5
BEST				*i* S	Sg	10 29 45.0	+0.1
KMRS	Kahramanmaras	1.94	243	PN	Pn	10 29 19.9	-0.4
KMRS	Kahramanmaras	1.94	243	*e*Pn	Pn	10 29 19.9	-0.4
SVSK	Karacayir	2.22	314	*e*PN	Pn	10 29 24.4	+0.3
SVSK	Karacayir	2.22	314	Pn	Pn	10 29 24.5	+0.4
SVSK	Karacayir	2.22	314	*e*Pn	Pn	10 29 24.4	+0.3

IDC 22 10:33:45.9±36.0, 7.01S×106.83E, h0^{km}, mb3.8/3, mb1 4.0/3, mb1mx3.5/18, mbtmp3.8/3, 1D, Error ellipse: s-maj=611.0km s-min=148.6km az=128.0, Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	29.62	118	P	P	10 39 53.2	0.0
	0.3nm,0.7s,baz=291,slow=10,SNR=6.5						
ASAR	Alice Springs	30.82	125	P	P	10 40 03.9	+0.1
	0.2nm,0.5s,baz=301,slow=8.5,SNR=8.4						
STKA	Stephens Creek	40.76	132	⇓*i*P	P	10 41 28.7	-0.2
	2.8nm,0.4s						
STKA	Stephens Creek	40.76	132	P	P	10 41 28.9	0.0
	4.3nm,0.5s,baz=313,slow=7.3,SNR=16						

IDC 22 10:35:51.3±1.0, 55.56S×130.15W, h0^{km}, mb4.0/6, mb1 4.3/6, mb1mx4.2/13, mbtmp4.0/6, MS4.1/17, Ms1 4.1/17, ms1mx3.9/27, Error ellipse: s-maj=103.1km s-min=23.6km az=157.0, Pacific-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNDA	Vanda	31.84	202	LR	LR	10 52 16.7	
	comp=Z,187nm,19.7s,baz=82,slow=31						
RKT	Rikitea	32.60	352	*e*LR	LR	10 50 38.8	
	879nm,29.5s,baz=165						
RPZ	Rata Peaks	38.73	262	LR	LR	10 55 47.7	
	comp=Z,239nm,20.9s,baz=293,slow=31						
URZ	Urewera	38.90	274	LR	LR	10 55 42.3	
	comp=Z,291nm,18.8s,baz=355,slow=31						
PPT	Papeete	40.71	331	*e*S	S	10 49 44.1	-0.6
	114nm,26.0s						
PPT				*e*LR	LR	10 54 33.1	
	910nm,26.2s,baz=172						
PPT	Papeete	40.71	331	LR	LR	10 55 48.4	
	comp=Z,437nm,21.2s,baz=173,slow=29						
RAR	Rarotonga	40.81	315	LR	LR	10 54 51.2	
	comp=Z,388nm,20.0s,baz=106,slow=28						
TAOE	Nuku Hiva Isla	47.25	346	*e*S	S	10 51 19.4	-0.7
	538nm,26.8s						
TAOE				*e*LR	LR	10 57 28.3	
	2µm,28.9s,baz=186						
CFAA	Coronel Fontan	48.90	87	LR	LR	10 59 59.7	
	comp=Z,27nm,20.5s,baz=215,slow=30						
MAW	Mawson	56.77	186	LR	LR	11 08 40.4	
	comp=Z,152nm,20.7s,baz=66,slow=35						
LPAZ	La Paz	60.96	76	P	P	10 46 07.1	+0.9
	0.6nm,0.4s,baz=244,slow=1.0,SNR=4.7						
LPAZ				LR	LR	11 04 52.1	
	comp=Z,82nm,19.3s,baz=251,slow=29						
STKA	Stephens Creek	63.44	252	P	P	10 46 23.9	+1.3
	2.1nm,0.8s,baz=4.6,slow=0.4,SNR=4.4						
STKA				LR	LR	11 08 27.1	
	comp=Z,216nm,19.8s,baz=205,slow=31						
ASAR	Alice Springs	74.07	252	P	P	10 47 28.6	-0.4
	2.0nm,0.9s,baz=137,slow=5.9,SNR=15						
ROSC	El Rosal	75.59	58	LR	LR	11 13 41.1	
	comp=Z,146nm,21.8s,baz=183,slow=30						
JTS	JuntasAbangare	75.64	46	LR	LR	11 11 58.4	
	comp=Z,77nm,21.8s,baz=32,slow=29						
WRA	Warramunga Arr	76.84	254	P	P	10 47 45.1	+0.1
	0.8nm,0.7s,baz=143,slow=5.1,SNR=11						
FITZ	Fitzroy Crossi	83.02	248	P	P	10 48 18.3	-0.2
	2.8nm,0.9s,baz=144,slow=4.6,SNR=4.5						
FITZ				LR	LR	11 20 24.3	
	comp=Z,110nm,20.7s,baz=333,slow=32						
PCRV	Puerto La Cruz	84.98	64	LR	LR	11 19 07.4	
	comp=Z,177nm,20.9s,baz=134,slow=30						
TXAR	Lajitas Array	87.54	23	P	P	10 48 40.8	+0.2
	0.7nm,1.1s,baz=206,slow=8.3,SNR=4.4						
PFO	Pinyon Flat Ob	89.58	11	LR	LR	11 20 50.0	
	comp=Z,182nm,21.9s,baz=237,slow=30						
SJG	San Juan	91.00	59	LR	LR	11 21 54.4	
	comp=Z,117nm,19.0s,baz=272,slow=30						
BOSA	Boshof	93.56	158	LR	LR	11 30 41.2	
	comp=Z,131nm,18.6s,baz=182,slow=35						
PDAR	Pinedale Array	99.50	15	LR	LR	11 26 07.9	
	comp=Z,144nm,21.0s,baz=340,slow=30						
SONM	Songino Array	145.00	281	PKPbc	PKPdf	10 55 27.8	-1.6
	2.3nm,0.7s,baz=133,slow=2.9,SNR=19						
MKAR	Makanchi Array	158.03	260	PKPab	PKPab	10 56 22.3	-0.3
	0.9nm,0.7s,baz=109,slow=5.6,SNR=9.6						
NOA	NORSAR Array B	159.21	59	PKPab	PKPab	10 56 26.9	-0.3
	1.2nm,0.8s,baz=227,slow=4.2,SNR=3.3						

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*NEIC **22** 10:39:32.6, 31.69S×68.64W, h150^{km}, MD3.6(GUC), After GUC.*

GUC 22 10:39:32.6±0.9, 31.69S×68.64W, h150^{km}, MD3.6, ML3.4, 2C-9D, San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDZ	Mendoza	1.21	188	⇑*i*P	Pn	10 39 55.9	-3.3
MDZ				*e*S	Sn	10 40 19.7	+0.1
FCH	Farellones	2.15	220	⇓*i*P	Pn	10 40 10.3	+0.9
FCH				AML	AML	10 40 46.3	
	comp=E,116nm,0.2s						
PEL	Peldehue	2.26	229	⇑*i*P	Pn	10 40 11.2	+0.4
PEL				*i* S	Sn	10 40 42.4	+2.3
PEL				AML	AML	10 40 49.5	
	comp=E,183nm,0.4s						
TLL	Tololo Astrono	2.40	309	⇓*i*P	Pn	10 40 12.9	+0.5
TLL				*i* S	Sn	10 40 45.0	+1.9
TLL	Tololo Astrono	2.40	309	⇓*i*P	Pn	10 40 12.9	+0.5
TLL				*i* S	Sn	10 40 45.0	+1.9
TLL				AML	AML	10 40 47.6	
	comp=E,189nm,0.3s						
CHNG	Los Chungos	2.44	265	*e*P	Pn	10 40 01.6	-11
CHNG				*i* S	Sn	10 40 32.4	-12
CHNG				AML	AML	10 40 42.3	
	comp=E,124nm,0.4s						
PCH	Pirque	2.49	219	⇓*i*P	Pn	10 40 14.6	+1.0
TACH	Talagante	2.75	224	⇓*i*P	Pn	10 40 17.2	+0.4
CHCH	Chadas Angostu	2.81	217	⇓*i*P	Pn	10 40 18.0	+0.5
CACH	El Canelo	2.93	214	*i* P	Pn	10 40 20.3	+1.3
CICH	Cipreses	3.02	209	⇓*i*P	Pn	10 40 21.6	+1.4
LCO	Las Campanas	3.21	326	*e*Pn	Pn	10 40 21.8	-0.7
LCO				*e*Sn	Sn	10 41 01.2	0.0
LNV	Longovilo	3.25	225	⇓*i*P	Pn	10 40 22.5	-0.6
SFDO	San Fernando	3.53	214	⇓*i*P	Pn	10 40 26.6	-0.1

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*ISCJB **22** 10:40:11.6±0.7, 59.35N±0.03×26.40E±0.08, h0^{km}, Error ellipse: s-maj=6.2km s-min=3.9km az=178.0*

*NAO **22** 10:40:13.7±1.1, 59.30N×26.98E, ML2.2*

*HEL **22** 10:40:14.5±0.1, 59.30N×27.21E, h0^{km}, ML1.8, ML2.2(NAO), Explosion*

*BER **22** 10:40:14.0±2.4, 59.33N×27.16E, h0^{km}, ML2.2(NAO), Suspected explosion*

ISC 22 10:40:13.8±0.7, 59.35N±0.03×27.1E±0.1, h0^{km}, n19, σ1.^{s}30/31, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSU	Vasula	0.90	192	*i* P	Pg	10 40 30.3	-0.7
VSU				*i* S	Sg	10 40 41.5	-1.2
VSU	Vasula	0.90	192	Pg	Pg	10 40 30.3	-0.7
VSU				Lg		10 40 41.5	
VJF	Virojoki	1.22	11	*e*P	Pg	10 40 36.7	-0.4
VJF				*e*SB	Sb	10 40 53.8	-0.2
VJF				MSG		10 40 53.8	
	comp=Z,11nm,0.1s						
MEF	Metsahovi	1.61	304	*e*P	Pn	10 40 44.4	+1.0
MEF				*e*S	Sn	10 41 06.4	+1.4
MEF				MSG		10 41 06.4	
	comp=Z,5.7nm,0.1s						
FIA0	FINESS Array S	2.16	347	Pn	Pn	10 40 51.9	+0.9
	baz=165,slow=18						
FIA0				Lg		10 41 22.0	
	baz=164,slow=37						
FIA0				Rg		10 41 35.6	
FIA0	FINESS Array S	2.16	347	*e*P	Pn	10 40 51.8	+0.8
	baz=167						
FIA0				MSG		10 41 22.3	
	comp=Z,4.3nm,0.3s						
FIA0				*e*SG	Sg	10 41 22.3	-0.9
FIA0	FINESS Array S	2.16	347	Pn	Pn	10 40 51.9	+0.9
	baz=165,slow=18						
FIA0				Lg		10 41 22.0	
	baz=164,slow=37						
FIA0				Rg		10 41 35.6	
FIA1	FINESS Array S	2.17	347	*e*P	Pn	10 40 52.0	+1.0
FIA1				*e*SG	Sg	10 41 22.8	-0.4
KAF	Kangasniemi	2.80	353	*e*P	Pn	10 41 01.6	+1.8
KAF				*e*SG	Sg	10 41 42.6	-1.1
KAF				MSG		10 41 42.6	
	comp=Z,2.9nm,0.4s						
KEF	Keuruu	3.03	340	*e*PB	Pb	10 41 07.4	-1.1
KEF				*e*SG	Sg	10 41 48.3	-2.8
KEF				MSG		10 41 48.3	
	comp=Z,3.4nm,0.4s						
RAF	Rauma	3.14	305	*e*P	Pn	10 41 06.8	+2.4
	baz=113						
RAF				*e*S	Sn	10 41 46.6	+4.0
RAF				MSG		10 41 46.6	
	comp=Z,1.7nm,0.2s						
SUF	Sumiainen	3.42	353	*e*SB	Sb	10 41 58.8	+1.7
SUF				MSG		10 41 58.8	
	comp=Z,2.3nm,0.4s						
JOF	Joensuu	4.13	28	*e*P	Pn	10 41 19.4	+1.4
HFS	Hagfors	6.81	282	Sn	Sn	10 43 06.0	-6.9
HFS				Lg		10 43 46.5	
	baz=94,slow=28						
HFS	Hagfors	6.81	282	*e*	Sn	10 43 06.0	-6.9
HFS				*e*SG	Sg	10 43 46.5	-5.8
HFS	Hagfors	6.81	282	Sn	Sn	10 43 06.0	-6.9
HFS				Lg		10 43 46.5	
	baz=94,slow=28						
ARA0	ARCESS Array S	10.26	357	Pn	Pn	10 42 40.5	-1.4
	baz=174,slow=14						
ARA0				Sn	Sn	10 44 28.4	-9.0
	baz=172,slow=28						
ARA0	ARCESS Array S	10.26	357	*e*P	Pn	10 42 40.5	-1.4
ARA0				*e*S	Sn	10 44 28.4	-9.0
ARA0	ARCESS Array S	10.26	357	Pn	Pn	10 42 40.5	-1.4
	baz=174,slow=14						
ARA0				Sn	Sn	10 44 28.4	-9.0
	baz=172,slow=28						

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*ISCJB **22** 10:53:08.4±2.0, 9.90S±0.10×78.9W±0.2, h70^{km}±18^{km}, mb3.7/7, Error ellipse: s-maj=33.8km s-min=10.0km az=157.1*

*IDC **22** 10:53:10.6±2.7, 9.95S×78.83W, h75^{km}±24^{km}, mb3.5/7, mb1 3.8/11, mb1mx3.7/20, mbtmp3.6/11, Error ellipse: s-maj=39.4km s-min=13.5km az=68.0*

ISC 22 10:53:10.5±1.9, 9.86S±0.10×78.8W±0.2, h71^{km}±17^{km}, n13, σ0.^{s}91/13, mb3.7/7, Near coast of northern Peru

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATAH	Atahualpa	2.87	9	P	Pn	10 53 52.9	-1.2
	49nm,0.3s,baz=218,slow=5.3,SNR=177						
ATAH				S	Sn	10 54 28.3	+0.7
	98nm,0.3s,baz=314,slow=20,SNR=5.6						
NNA	Nana	2.87	138	P	Pn	10 53 52.7	-1.4
	29nm,0.3s,baz=315,slow=9.6,SNR=180						
NNA				S	Sn	10 54 30.8	+3.3
	158nm,0.3s,baz=196,slow=17,SNR=12						
LPAZ	La Paz	12.22	123	P	Pn	10 56 02.6	+0.9
	0.1nm,0.3s,baz=314,slow=14,SNR=3.8						
SIV	San Ignacio	18.34	111	P	Pn	10 57 19.8	-0.4
	0.3nm,0.3s,baz=304,slow=11,SNR=6.3						
TXAR	Lajitas Array	45.74	329	P	P	11 01 25.5	+0.5
	0.7nm,0.8s,mb3.4,baz=148,slow=8.0,SNR=8.2						
ANMO	Albuquerque	51.68	331	P	P	11 02 11.6	+1.2
	1.0nm,0.5s,mb4.1,baz=142,slow=7.9,SNR=5.6						
PDAR	Pinedale Array	59.43	334	P	P	11 03 05.7	-0.2
	0.5nm,0.8s,mb3.6,baz=116,slow=6.8,SNR=4.6						
NVAR	Mina Array Bea	60.52	325	P	P	11 03 13.7	+0.3
	0.6nm,0.6s,mb3.8,baz=131,slow=7.2,SNR=4.1						
ULM	Lac du Bonnet	61.68	348	P	P	11 03 20.4	-0.6
	1.1nm,0.6s,mb4.1,baz=160,slow=8.6,SNR=3.3						
YKA	Yellowknife Ar	77.26	344	P	P	11 04 56.5	-0.3
	0.6nm,0.5s,mb3.6,baz=141,slow=5.9,SNR=22						
TORD	Torodi Ar. Bea	83.13	75	P	P	11 05 28.7	-0.7
	0.3nm,0.7s,mb3.3,baz=194,slow=4.1,SNR=3.9						
ASAR	Alice Springs	133.80	223	PKP	PKPdf	11 12 20.6	+0.4
	0.3nm,0.6s,baz=131,slow=2.2,SNR=7.2						
WRA	Warramunga Arr	135.92	228	PKP	PKPdf	11 12 24.9	+0.6
	0.8nm,0.6s,baz=126,slow=1.9,SNR=15						

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*NEIC **22** 11:07:16.2, 31.25S×69.60W, h148^{km}, MD3.7(GUC), After GUC.*

GUC 22 11:07:16.2±0.9, 31.25S×69.60W, h148^{km}±15^{km}, MD3.7, ML3.7, 6C-8D, San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TLL	Tololo Astrono	1.50	316	⇑*i*P	Pn	11 07 46.7	+1.1
TLL				*i* S	Sn	11 08 09.0	+1.0
TLL	Tololo Astrono	1.50	316	⇑*i*P	Pn	11 07 46.7	+1.1
TLL				*i* S	Sn	11 08 09.0	+1.0
TLL				AML	AML	11 08 10.6	
	comp=N,416nm,0.4s						
CHNG	Los Chungos	1.74	248	⇓*i*P	Pn	11 07 36.1	-12
CHNG				*i* S	Sn	11 08 00.3	-12
CHNG				AML	AML	11 08 06.4	
	comp=N,552nm,0.6s						
MDZ	Mendoza	1.75	159	*e*P	Pn	11 07 46.8	-1.4
MDZ				*i*		11 08 06.8	
MDZ				*i* S	Sn	11 08 10.6	-2.2
LSCH	La Serena	1.95	313	⇓*i*P	Pn	11 07 51.4	+0.8
LSCH				*i* S	Sn	11 08 17.2	+0.3
LSCH	La Serena	1.95	313	⇓*i*P	Pn	11 07 51.4	+0.8
LSCH				*i* S	Sn	11 08 17.2	+0.3
LSCH				AML	AML	11 08 17.5	
	comp=N,131nm,0.5s						
ROCH	El Roble	2.09	215	⇑*i*P	Pn	11 07 52.9	+0.7
PEL	Peldehue	2.10	206	⇑*i*P	Pn	11 07 52.8	+0.5
PEL				*i* S	Sn	11 08 20.9	+0.8
PEL				AML	AML	11 08 21.8	
	comp=N,865nm,0.3s						
FCH	Farellones	2.15	196	⇓*i*P	Pn	11 07 54.2	+1.3
FCH				*i* S	Sn	11 08 23.0	+1.8
FCH				AML	AML	11 08 26.0	
	comp=N,471nm,0.2s						
CLCH	Cerro Calan	2.28	200	*e*P	Pn	11 07 56.0	+1.6
CLCH				*i* S	Sn	11 08 26.1	+2.1
CLCH	Cerro Calan	2.28	200	*e*P	Pn	11 07 56.0	+1.6
CLCH				*i* S	Sn	11 08 26.1	+2.1
CLCH				AML	AML	11 08 30.3	
	comp=E,753nm,0.4s						
LCO	Las Campanas	2.43	337	*e*Pn	Pn	11 07 56.9	+0.6
LCO				*e*Sn	Sn	11 08 26.1	-1.2
ANTU	Antumapu	2.47	200	*e*P	Pn	11 07 57.5	+0.7
ANTU				*i* S	Sn	11 08 28.9	+0.7
ANTU	Antumapu	2.47	200	*e*P	Pn	11 07 57.5	+0.7
ANTU				*i* S	Sn	11 08 28.9	+0.7
ANTU				AML	AML	11 08 30.5	
	comp=N,599nm,0.4s						
PCH	Pirque	2.48	198	⇓*i*P	Pn	11 07 57.9	+0.9
PCH				*i* S	Sn	11 08 30.4	+2.0
TACH	Talagante	2.65	205	⇓*i*P	Pn	11 07 59.1	+0.1
TACH				*i* S	Sn	11 08 32.3	+0.3
CHCH	Chadas Angostu	2.82	198	*e*P	Pn	11 08 01.6	+0.5
CHCH				*i* S	Sn	11 08 37.0	+1.2
VACH	Vallenar	2.85	339	⇑*i*P	Pn	11 08 02.4	+0.8
VACH				*i* S	Sn	11 08 36.1	-0.5
CACH	El Canelo	2.98	196	⇑*i*P	Pn	11 08 04.2	+1.1
CACH				*i* S	Sn	11 08 41.1	+1.6
LNV	Longovilo	3.10	209	⇓*i*P	Pn	11 08 04.0	-0.7
LNV				*i* S	Sn	11 08 41.2	-1.0
CICH	Cipreses	3.14	193	⇓*i*P	Pn	11 08 05.9	+0.7
CICH				*i* S	Sn	11 08 45.0	+2.0

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*BJI **22** 11:13:30.9, 3.46N×95.43E, h30^{km}, mb4.7*

*NEIC **22** 11:13:40.3±0.6, 4.36N×95.20E, h30^{km}, mb4.2/6, Error ellipse: s-maj=16.7km s-min=9.6km az=221.0*

*ISCJB **22** 11:13:44.1±1.9, 4.52N±0.09×95.45E±0.10, h77^{km}±18^{km}, mb4.1/20, Error ellipse: s-maj=17.7km s-min=12.6km az=148.6*

*IDC **22** 11:13:45.8±3.2, 4.48N×95.40E, h80^{km}±30^{km}, mb3.8/13, mb1 3.9/14, mb1mx3.7/24, mbtmp3.8/14, MS3.4/1, Ms1 3.4/1, ms1mx3.0/28, Error ellipse: s-maj=27.7km s-min=14.7km az=56.0*

ISC 22 11:13:45.7±1.6, 4.48N±0.08×95.4E±0.1, h76^{km}±16^{km}, n39, σ0.^{s}83/40, mb4.1/20, 8C-4D, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	3.86	116	P	Pn	11 14 42.5	-0.2
	8.6nm,0.3s,baz=309,slow=7.4,SNR=18						
PSI				S	Sn	11 15 30.7	+3.8
	15nm,0.3s,baz=316,slow=14,SNR=12						
KULM	Kulim	5.25	81	*e*Pn	Pn	11 15 01.2	-0.6
KULM				*e*Sn	Sn	11 16 00.1	-0.9
KULM	Kulim	5.25	81	⇓P	Pn	11 15 01.3	-0.4
IPM	Ipoh	5.57	90	⇑P	Pn	11 15 05.8	-0.2
FRIM	Kepong	6.29	101	⇓P	Pn	11 15 15.2	-0.8
KTGM	Kuala Trenggan	7.71	83	⇓P	Pn	11 15 35.6	+0.2
KGM	Kluang	8.24	107	⇑P	Pn	11 15 42.5	-0.1
MYKOM	Kota Tinggi	8.81	107	⇑P	Pn	11 15 50.6	+0.2
KSM	Kuching	15.15	101	*e*P	Pn	11 17 21.0	+5.5
KSM	Kuching	15.15	101	⇓P	Pn	11 17 16.4	+0.9
SBUM	Sibu	16.87	96	⇑P	Pn	11 17 38.0	+0.9
BTM	Bintulu	17.65	94	⇑P	Pn	11 17 49.5	+2.8
KKM	Kota Kinabalu	20.75	85	⇑P	P	11 18 24.7	+4.3
KMI	Kunming	21.69	18	P	P	11 18 33.4	+3.0
	7.0nm,0.9s,mb4.0						
KMI				LR	LR		
	comp=Z,90nm,22.9s						
SDKM	Sandakan	21.70	86	⇑P	P	11 18 35.2	+4.5
MYLDM	Lahad Datu	22.99	87	⇑P	P	11 18 49.1	+4.8
LSA	Lhasa	25.41	351	*e*P	P	11 19 06.5	+0.3
	comp=Z,4.0nm,0.4s,mb4.2						
XAN	Xi’an	31.97	21	P	P	11 20 03.4	-1.1
XAN				AP	pP	11 20 13.6	-8.9
XAN				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.6						
FITZ	Fitzroy Crossi	37.29	128	P	P	11 20 49.6	-1.0
	comp=Z,1.3nm,0.8s,mb3.9,baz=305,slow=16,SNR=2.7						
UCH	Uchtor	41.96	337	*e*P	P	11 21 29.8	+0.8
	comp=Z,2.6nm,0.6s,mb4.1						
AML	Almayashu	42.21	336	*e*P	P	11 21 31.9	+0.8
	comp=Z,17nm,1.1s,mb4.7						
AML				*e*pP	pP	11 21 45.4	-4.3
AAK	Ala-Archa	42.31	337	*e*P	P	11 21 32.6	+0.7
	comp=Z,2.3nm,0.6s,mb4.1						
JNU	Nakatsue	43.63	45	LR	LR	11 38 51.0	
	comp=Z,52nm,21.2s,baz=94,slow=34						
MK31	Makanchi Array	43.66	347	*e*P	P	11 21 42.2	-0.6
MKAR	Makanchi Array	43.66	347	P	P	11 21 41.7	-1.0
MKAR	Makanchi Array	43.66	347	P	P	11 21 41.7	-1.0
	comp=Z,2.5nm,0.4s,mb4.3,baz=156,slow=8.0,SNR=36						
SONM	Songino Array	44.21	11	P	P	11 21 46.5	-0.6
	comp=Z,0.2nm,0.3s,mb3.3,baz=189,slow=9.6,SNR=7.1						
SONM				PcP	PcP	11 23 30.5	-0.1
	comp=Z,0.3nm,0.5s,baz=196,slow=4.2,SNR=5.8						
SONM				pPcP		11 23 46.2	
	comp=Z,1.7nm,0.5s,baz=189,slow=3.6,SNR=12						
KSRS	Korea Array	44.25	38	P	P	11 21 48.1	+0.4
	comp=Z,1.2nm,0.7s,mb3.8,baz=224,slow=10,SNR=4.7						
WRA	Warramunga Arr	45.28	124	P	P	11 21 55.8	-0.3
	comp=Z,3.6nm,0.8s,mb4.2,baz=302,slow=9.2,SNR=28						
ASAR	Alice Springs	46.78	128	P	P	11 22 07.5	-0.3
	comp=Z,2.3nm,0.6s,mb4.1,baz=298,slow=7.9,SNR=40						
HIA	Hailar	49.17	21	*e*P	P	11 22 25.6	-0.2
	comp=Z,3.2nm,0.7s,mb4.4						
ZALV	Zalesovo Beam	50.07	352	P	P	11 22 31.9	-0.7
	comp=Z,3.2nm,0.4s,mb4.6,baz=171,slow=7.4,SNR=15						
BRTR	Keskin Array B	65.62	312	P	P	11 24 21.3	-0.5
	comp=Z,1.4nm,0.7s,mb3.9,baz=127,slow=7.5,SNR=6.3						
LSZ	Lusaka	69.40	252	P	P	11 24 46.5	+0.4
	comp=Z,1.0nm,0.4s,mb4.0,baz=57,slow=12,SNR=3.5						
FINES	FINESS Array B	76.30	332	P	P	11 25 25.8	-0.2
	comp=Z,0.6nm,0.4s,mb3.7,baz=112,slow=8.5,SNR=5.5						
ARCES	ARCESS Array B	78.87	340	P	P	11 25 40.5	+0.3
ARCES	ARCESS Array B	78.87	340	P	P	11 25 40.5	+0.3
	comp=Z,2.2nm,0.4s,mb4.3,baz=93,slow=5.8,SNR=16						
GERES	GERESS Array B	81.20	319	P	P	11 25 53.8	+0.6
	comp=Z,0.6nm,0.5s,mb3.7,baz=117,slow=4.8,SNR=6.0						
TORD	Torodi Ar. Bea	92.63	283	P	P	11 26 49.0	-0.8
	comp=Z,0.3nm,0.5s,mb3.9,baz=91,slow=4.6,SNR=4.0						

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*ISCJB **22** 11:18:11.8±2.1, 7.3S±0.1×156.19E±0.07, h56^{km}±21^{km}, mb4.3/10, MS3.5/6, Error ellipse: s-maj=21.2km s-min=11.3km az=174.6*

*IDC **22** 11:18:15.1±2.5, 7.51S×156.19E, h79^{km}±26^{km}, mb4.0/7, mb1 4.0/10, mb1mx4.0/16, mbtmp4.0/10, MS3.5/10, Ms1 3.5/10, ms1mx3.4/25, Error ellipse: s-maj=25.0km s-min=16.2km az=178.0*

ISC 22 11:18:14.8±1.6, 7.4S±0.1×156.20E±0.07, h74^{km}±18^{km}, n23, σ0.^{s}70/16, mb4.2/10, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	4.20	118	P	Pn	11 19 15.3	-1.1
	11nm,0.3s,baz=262,slow=4.1,SNR=17						
HNR				S	Sn	11 20 05.0	+0.7
	15nm,0.3s,baz=247,slow=1.7,SNR=4.4						
HNR				LR	LR	11 20 27.1	
	comp=Z,355nm,18.0s,baz=358,slow=32						
PMG	Port Moresby	9.15	257	P	Pn	11 20 24.4	+0.3
	1.3nm,0.3s,baz=85,slow=6.7,SNR=4.4						
PMG				LR	LR	11 23 49.7	
	comp=Z,520nm,18.8s,baz=67,slow=37						
CTA	Charters Tower	15.84	216	P	Pn	11 21 53.9	+0.4
	0.3nm,0.3s,baz=36,slow=16,SNR=3.9						
CTA				LR	LR	11 26 07.8	
	comp=Z,43nm,19.8s,baz=53,slow=30						
DZM	Mont Dzumac	17.58	147	LR	LR	11 27 33.6	
	comp=Z,156nm,18.2s,baz=278,slow=32						
GUMO	Guam	23.73	332	LR	LR	11 31 41.6	
	comp=Z,70nm,18.1s,baz=149,slow=34						
KAKA	Kakadu	23.96	255	*e*P	P	11 23 22.0	-0.5
	30nm,0.8s,mb4.7						
WB2	Warramunga Arr	24.55	237	*e*P	P	11 23 28.0	+0.1
WB2				*i*		11 23 34.3	
WRA	Warramunga Arr	24.56	237	P	P	11 23 27.8	-0.1
	4.6nm,0.8s,mb4.0,baz=62,slow=9.0,SNR=13						
WRA				PcP	PcP	11 27 04.5	0.0
	0.9nm,1.0s,baz=62,slow=2.8,SNR=4.6						
WRA				LR	LR	11 33 01.8	
	comp=Z,191nm,18.9s,baz=50,slow=36						
ASAR	Alice Springs	26.79	231	P	P	11 23 47.0	-1.1
	0.6nm,0.7s,mb3.2,baz=64,slow=9.2,SNR=5.5						
STKA	Stephens Creek	27.86	207	P	P	11 24 01.2	+3.7
	2.5nm,1.0s,mb3.7,baz=11,slow=10,SNR=3.0						
STKA				LR	LR	11 35 34.8	
	comp=Z,183nm,18.7s,baz=142,slow=37						
FITZ	Fitzroy Crossi	31.58	247	*e*P	P	11 24 36.4	+5.8
	9.1nm,1.0s,mb4.5						
FITZ	Fitzroy Crossi	31.58	247	P	P	11 24 35.4	+4.8
	5.3nm,0.9s,mb4.3,baz=58,slow=9.0,SNR=11						
FITZ				LR	LR	11 38 12.1	
	comp=Z,127nm,18.0s,baz=90,slow=38						
MJAR	Matsushiro Arr	46.90	340	LR	LR	11 42 15.0	
	comp=Z,56nm,21.8s,baz=55,slow=31						
KSRS	Korea Array	51.89	331	P	P	11 27 16.0	+0.1
	1.6nm,0.8s,mb4.1,baz=152,slow=8.4,SNR=5.0						
KSRS				LR	LR	11 49 38.3	
	comp=Z,31nm,18.2s,baz=138,slow=36						
PPT	Papeete	53.73	106	*e*LR	LR	11 41 42.9	
	36nm,23.2s						
TAOE	Nuku Hiva Isla	62.96	96	*e*LR	LR	11 47 21.8	
	221nm,24.9s						
RKT	Rikitea	67.67	112	*e*LR	LR	11 49 53.7	
	103nm,29.2s						
SONM	Songino Array	70.36	327	P	P	11 29 21.6	+1.0
	2.6nm,0.8s,mb4.1,baz=135,slow=6.0,SNR=22						
MKAR	Makanchi Array	84.53	318	P	P	11 30 40.1	+0.4
	15nm,0.7s,mb5.0,baz=104,slow=5.8,SNR=149						
ZALV	Zalesovo Beam	85.22	326	P	P	11 30 42.4	-0.7
	7.0nm,0.7s,mb4.7,baz=114,slow=6.1,SNR=35						
YKA	Yellowknife Ar	96.17	28	P	P	11 31 34.1	-0.1
	0.3nm,0.6s,mb3.9,baz=268,slow=4.6,SNR=8.3						

LPAZ	La Paz	130.20	119	PKP	PKPdf	11 37 18.8	+1.4
	1.2nm,0.8s,baz=266,slow=3.7,SNR=4.2						
TORD	Torodi Ar. Bea	154.29	285	PKPbc	PKPbc	11 38 05.0	-2.7
	0.9nm,0.8s,baz=68,slow=2.7,SNR=3.8						
TORD				PKPab	PKPab	11 38 17.7	-4.1
	0.8nm,0.8s,baz=108,slow=2.7,SNR=3.7						

IDC 22 11:25:30.4±9.8, **8.00S**×**117.36E**, **h302**^{km}±108^{km}, **mb2.7**/3, **mb1 2.9**/4, **mb1mx2.8**/18, **mbtmp2.7**/4, **Error ellipse: s-maj=124.8km s-min=30.6km az=59.0, Bali Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.87	142	P	Pn	11 28 24.9	+1.5
	0.2nm,0.3s,baz=332,slow=17,SNR=6.5						
FITZ				S	S	11 30 50.6	+4.5
	0.1nm,0.3s,baz=33,slow=23,SNR=3.8						
WRA	Warramunga Arr	20.28	128	P	P	11 29 42.6	-1.6
	0.4nm,0.6s,baz=299,slow=12,SNR=10						
ASAR	Alice Springs	22.23	136	P	P	11 30 03.3	+1.0
	0.5nm,0.5s,baz=315,slow=9.7,SNR=11						
SONM	Songino Array	56.43	351	P	P	11 34 41.2	+0.3
	0.4nm,0.5s,baz=167,slow=8.5,SNR=7.3						

*DDA **22** 11:33:04.0, 38.56N×39.38E, h7^{km}, Md2.8*
*CSEM **22** 11:33:05.5±0.1, 38.42N×39.17E, h15^{km}, MD2.7, Error ellipse: s-maj=4.1km s-min=2.6km az=130.0*
*ISK **22** 11:33:05.1, 38.41N×39.17E, h5^{km}, MD2.7*
*ISCJB **22** 11:33:06.0±0.8, 38.39N±0.05×39.23E±0.05, h10^{km}, Error ellipse: s-maj=7.1km s-min=5.0km az=12.5*
ISC 22 11:33:06.4±0.8, **38.42N**±0.05×**39.25E**±0.05, **h10**^{km}, **n11**, σ**0**^{s}**92**/18, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.22	292	iP	Pg	11 33 11.0	0.0
ELZG				iS	Sg	11 33 15.4	+1.3
PTK	Pertek	0.49	14	PG	Pg	11 33 16.3	+0.3
PTK	Pertek	0.49	14	ePg	Pg	11 33 16.3	+0.3
MYA	Malataya	0.65	262	PG	Pg	11 33 17.8	-1.2
MYA				SG	Sg	11 33 27.5	0.0
MYA	Malataya	0.65	262	ePg	Pg	11 33 17.8	-1.2
MYA				eSg	Sg	11 33 27.5	0.0
MALT	Malatya	0.65	261	PG	Pg	11 33 17.3	-1.7
MALT				SG	Sg	11 33 26.6	-0.9
MALT	Malatya	0.65	261	ePg	Pg	11 33 17.3	-1.7
MALT				eSg	Sg	11 33 26.6	-0.9
URFA	Urfa	1.03	199	ePG	Pg	11 33 25.7	-0.5
URFA	Urfa	1.03	199	ePg	Pg	11 33 25.7	-0.5
MARD	Mardin	1.64	132	iP	Pn	11 33 35.2	0.0
MARD				iS	Sn	11 33 56.4	+0.1
GZT	Gaziantep	1.70	232	iP	Pg	11 33 40.2	+1.2
GZT				iS	Sg	11 34 02.4	+1.4

*DDA **22** 11:36:22.1, 38.69N×39.40E, h11^{km}, Md2.5*
*ISCJB **22** 11:36:25.9±0.8, 38.39N±0.07×39.25E±0.09, h9^{km}±18^{km}, Error ellipse: s-maj=15.5km s-min=5.8km az=43.3*
*CSEM **22** 11:36:25.4±0.1, 38.43N×39.20E, h15^{km}, MD2.7, Error ellipse: s-maj=3.7km s-min=2.1km az=126.0*
*ISK **22** 11:36:25.7, 38.43N×39.20E, h18^{km}, MD2.7*
ISC 22 11:36:26.6±0.7, **38.43N**±0.08×**39.22E**±0.09, **h17**^{km}±15^{km}, **n11**, σ**0**^{s}**71**/20, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.20	290	iP	Pg	11 36 30.9	-0.4
ELZG				iS	Sg	11 36 35.2	+0.6
PTK	Pertek	0.48	16	PG	Pg	11 36 35.9	-0.3
PTK				SG	Sg	11 36 43.4	+0.7
PTK	Pertek	0.48	16	ePg	Pg	11 36 35.9	-0.3
PTK				eSg	Sg	11 36 43.4	+0.7
MYA	Malataya	0.63	261	PG	Pg	11 36 38.3	-0.8
MYA				SG	Sg	11 36 48.0	+0.5
MYA	Malataya	0.63	261	ePg	Pg	11 36 38.3	-0.8
MYA				eSg	Sg	11 36 48.0	+0.5
MALT	Malatya	0.64	260	PG	Pg	11 36 37.9	-1.2
MALT				SG	Sg	11 36 47.1	-0.5
MALT	Malatya	0.64	260	ePg	Pg	11 36 37.9	-1.2
MALT				eSg	Sg	11 36 47.1	-0.5
URFA	Urfa	1.04	198	ePG	Pg	11 36 45.9	-0.8
URFA	Urfa	1.04	198	ePg	Pg	11 36 45.9	-0.8
MARD	Mardin	1.66	132	iP	Pn	11 36 54.7	-0.3
MARD				iS	Sn	11 37 16.3	+0.4
GZT	Gaziantep	1.69	231	iP	Pg	11 37 00.1	+1.0
GZT				iS	Sg	11 37 22.3	+1.1

*CSEM **22** 11:42:37.9±0.1, 38.41N×39.30E, h6^{km}±2^{km}, MD2.8, Error ellipse: s-maj=3.3km s-min=2.9km az=136.0*
*DDA **22** 11:42:37.8, 38.50N×39.41E, h4^{km}, Md3.0*
*ISK **22** 11:42:37.9, 38.40N×39.29E, h6^{km}, MD2.8*
*ISCJB **22** 11:42:38.2±0.6, 38.39N±0.04×39.32E±0.04, h4^{km}, Error ellipse: s-maj=5.4km s-min=4.3km az=13.4*
ISC 22 11:42:38.6±0.8, **38.39N**±0.04×**39.33E**±0.05, **h3**^{km}±9^{km}, **n14**, σ**0**^{s}**78**/23, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.29	292	iP	Pg	11 42 44.3	+0.1
ELZG				iS	Sg	11 42 49.8	+1.7
PTK	Pertek	0.50	5	PG	Pg	11 42 48.3	+0.1
PTK				SG	Sg	11 42 55.2	+0.4
PTK	Pertek	0.50	5	ePg	Pg	11 42 48.3	+0.1
PTK				eSg	Sg	11 42 55.2	+0.4
MALT	Malatya	0.72	264	PG	Pg	11 42 51.2	-1.1
MALT				SG	Sg	11 43 01.2	-0.4
MALT	Malatya	0.72	264	ePg	Pg	11 42 51.2	-1.1
MALT				eSg	Sg	11 43 01.2	-0.4
MYA	Malataya	0.72	265	PG	Pg	11 42 51.7	-0.6
MYA				SG	Sg	11 43 01.6	0.0
MYA	Malataya	0.72	265	ePg	Pg	11 42 51.7	-0.6
MYA				eSg	Sg	11 43 01.6	0.0
DIY	Diyarbakir	0.86	125	ePG	Pg	11 42 55.1	+0.1
DIY	Diyarbakir	0.86	125	ePg	Pg	11 42 55.1	+0.1
URFA	Urfa	1.03	203	ePG	Pg	11 42 58.7	+0.4
URFA	Urfa	1.03	203	ePg	Pg	11 42 58.7	+0.4
EZC	Erzincan	1.41	15	ePN	Pn	11 43 03.9	-1.2
MARD	Mardin	1.57	133	iP	Pn	11 43 07.2	-0.1
MARD				iS	Sn	11 43 28.9	+0.8
GZT	Gaziantep	1.74	234	iP	Pn	11 43 09.0	-0.6
GZT				iS	Sn	11 43 36.0	+3.7

*NIED **22** 11:58:00, 46.60N×153.10E, h20^{km}, Mw4.5 Best double couple: M$_0$6.23000×10^{15} NP1:ϕ$_s$35.00000°, δ34.00000°, λ60.00000°. NP2:ϕ$_s$250.00000°, δ61.00000°, λ109.00000°.*
*BJI **22** 11:58:02.5, 46.81N×152.93E, h21^{km}, mB5.1, mb4.7, Ms4.5, Msz4.4*
*NEIC **22** 11:58:03.6±0.3, 46.92N×152.66E, h10^{km}, mb4.7/40, Error ellipse: s-maj=8.8km s-min=5.0km az=153.0*
*SKHL **22** 11:58:05.4±1.7, 46.30N×153.44E, h55^{km}±22^{km}, mb5.1/4, msh5.6/1*
*SZGRF **22** 11:58:05.9, 46.52N×152.97E, h33^{km}, mb4.8, Kuril Islands, Russia*
*JMA **22** 11:58:06.2±0.8, 46.63N×153.11E, h30^{km}, M5.0*
*ISCJB **22** 11:58:08.1±0.6, 46.65N±0.04×152.71E±0.05, h66^{km}±5^{km}, mb4.5/77, Error ellipse: s-maj=7.7km s-min=4.1km az=147.6*
*MOS **22** 11:58:09.0±1.0, 46.86N×152.68E, h67^{km}, mb4.8/36, Error ellipse: s-maj=8.4km s-min=6.2km az=102.5*
*IDC **22** 11:58:10.7±3.5, 46.90N×152.64E, h68^{km}±31^{km}, mb4.0/20, mb1 4.2/21, mb1mx4.1/26, mbtmp4.1/21, ML4.3/1, MS3.7/10, Ms1 3.7/10, ms1mx3.4/30, Error ellipse: s-maj=16.0km s-min=12.8km az=143.0*
ISC 22 11:58:09.9±0.5, **46.72N**±0.04×**152.69E**±0.05, **h64**^{km}±5^{km}, **h6**^{km}±5.9^{km}**:pP-P**, **n241**, σ**1**^{s}**25**/269, **mb4.5**/77, **13C-7D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	3.67	248	⇑iPN	Pn	11 59 05.0	+0.8
KUR				iS	Sn	11 59 47.8	+1.6
KUR				pmax	pmax		
	comp=N,140nm,0.5s						
KUR				pmax	pmax		
	comp=E,110nm,0.5s						
KUR				pmax	pmax		
	comp=Z,380nm,0.5s						
KUR				smax			
	comp=N,1µm,0.7s						
KUR				smax			
	comp=E,430nm,0.7s						
KUR				smax			
	comp=N,4µm,2.0s						
KUR				smax			
	comp=E,2µm,2.0s						
KUR	Kuril'sk	3.67	248	iP	Pn	11 59 05.0	+0.8
KUR				AMB	AMB	11 59 06.5	
	comp=E,140nm,0.5s						
KUR				AMB	AMB	11 59 06.5	
	comp=E,110nm,0.5s						
KUR				AMB	AMB	11 59 06.5	
	comp=E,380nm,0.5s						
KUR				iS	Sn	11 59 47.8	+1.6
KUR				A		11 59 59.5	
	comp=E,1µm,0.7s						
KUR				A		11 59 59.5	
	comp=E,430nm,0.7s						
KUR				A		12 00 05.5	
	comp=E,4µm,2.0s						
KUR				A		12 00 05.5	
	comp=E,2µm,2.0s						
SKR	Severo-Kuril's	4.57	29	ePN	Pn	11 59 15.1	-1.3
SKR				eS	Sn	12 00 12.4	+4.2
SKR				pmax	pmax		
	comp=Z,80nm,0.6s						
SKR				smax			
	comp=E,150nm,0.5s						
SKR				smax			
	comp=N,320nm,0.6s						
SKR	Severo-Kuril's	4.57	29	eP	Pn	11 59 15.1	-1.3
SKR				AMB	AMB	11 59 16.5	
	comp=N,80nm,0.6s						
SKR				eS	Sn	12 00 12.4	+4.2
SKR				A		12 01 18.5	
	comp=N,320nm,0.5s						
SKR				A		12 01 18.5	
	comp=N,150nm,0.5s						
YUK	Yuzh-Kuril'sk	5.51	243	ePN	Pn	11 59 30.5	+1.3
YUK				S	Sn	12 00 35.9	+4.7
YUK				pmax	pmax		
	comp=Z,380nm,0.5s						
YUK				smax			
	comp=E,610nm,0.5s						
YUK				smax			
	comp=N,350nm,0.4s						
YUK				smax			
	comp=N,5µm,1.0s						
YUK				smax			
	comp=E,5µm,1.0s						
YUK	Yuzh-Kuril'sk	5.51	243	eP	Pn	11 59 30.5	+1.3
YUK				AMB	AMB	11 59 30.9	
	comp=E,380nm,0.5s						
YUK				eS	Sn	12 00 35.9	+4.7
YUK				A		12 00 38.8	
	comp=E,350nm,0.5s						
YUK				A		12 00 38.8	
	comp=E,610nm,0.5s						
YUK				A		12 00 55.0	
	comp=E,5µm,1.0s						
YUK				A		12 00 55.0	
	comp=E,5µm,1.0s						
NEM2	Nemuro 2	5.95	238	P	Pn	11 59 34.6	-0.8
NEM2				eS	Sn	12 00 39.1	-3.0
JRA	Rausu	6.01	245	P	Pn	11 59 38.4	+2.2
JNK	Nakash	6.45	244	P	Pn	11 59 43.4	+1.3
JTKR	Abashiri--Toko	6.77	249	P	Pn	11 59 48.6	+2.1
JAK	Akkeshi	6.79	240	P	Pn	11 59 46.1	-0.7
JAK				eS	Sn	12 01 00.4	-2.2
YSS	Yuzh-Sakhalins	6.82	276	ePn	Pn	11 59 49.6	+2.4
YSS	Yuzh-Sakhalins	6.82	276	⇑iPN	Pn	11 59 50.0	+2.8
YSS				eS	Sn	12 01 05.0	+1.7
YSS				pmax	pmax		
	comp=E,60nm,1.0s						
YSS				pmax	pmax		
	comp=Z,60nm,1.0s						
YSS				smax			
	comp=N,60nm,0.7s						
YSS				smax			
	comp=E,50nm,0.6s						
YSS				MLR	MLR		
	comp=Z,600nm,17.0s						
YSS	Yuzh-Sakhalins	6.82	276	iP	Pn	11 59 50.0	+2.8
YSS				AMB	AMB	11 59 51.7	
	comp=Z,60nm,1.0s						
YSS				eS	Sn	12 01 05.0	+1.7
YSS				A		12 01 07.5	
	comp=Z,60nm,0.7s						
YSS				A		12 01 07.5	
	comp=Z,50nm,0.7s						
JMP	Maruseppu	7.11	251	P	Pn	11 59 53.6	+2.5
JAR	Ashorobuto	7.19	245	P	Pn	11 59 53.7	+1.5
JAR				eS	Sn	12 01 12.6	+0.3
JSE	Soyaes	7.27	260	P	Pn	11 59 58.5	+5.1
JOB	Onbets	7.36	242	P	Pn	11 59 54.9	+0.3
JOB				eS	Sn	12 01 15.7	-0.9
PET	Petropavlovsk	7.39	29	ePN	Pn	11 59 59.6	+4.6
PET				pmax	pmax		
	comp=Z,39nm,0.8s						
PET				MLR	MLR		
	comp=Z,100nm,19.0s						
ASAJ	Asahikawa	7.56	254	P	Pn	12 00 00.7	+3.3
ASAJ	Asahikawa	7.56	254	PN	Pn	12 00 00.3	+2.9
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,290nm,20.1s						
ASAJ	Asahikawa	7.56	254	P	Pn	12 00 00.3	+2.9
	comp=Z,5.2nm,0.3s,baz=86,slow=12,SNR=35						
ASAJ				LR	LR	12 02 45.5	
	comp=Z,290nm,20.1s,baz=164,slow=36						
JKK2	Kamakawa 2	7.56	251	P	Pn	12 00 00.2	+2.8
JCH	Churui	7.81	242	P	Pn	12 00 00.3	-0.5
JCH				eS	Sn	12 01 25.5	-2.1
JFR	Furan	7.99	247	P	Pn	12 00 05.1	+1.8
JAB	Ashibetsu	8.07	250	P	Pn	12 00 07.7	+3.4
JEM	Erimo	8.29	239	P	Pn	12 00 07.5	+0.2
ERM	Erimo	8.29	239	ePn	Pn	12 00 07.6	+0.3
	comp=Z,118nm,0.6s						
ERM	Erimo	8.29	239	iPN	Pn	12 00 07.6	+0.3
JBT2	Biratori 2	8.34	246	P	Pn	12 00 08.5	+0.6
JBT2				eS	Sn	12 01 38.1	-2.4
JNBK	Urakawa-nobuka	8.37	242	P	Pn	12 00 07.6	-0.8
JNBK				eS	Sn	12 01 38.8	-2.6
JEW	Eniwo	8.88	248	P	Pn	12 00 17.4	+2.0
JNB	Noboribetsu	9.33	247	P	Pn	12 00 21.7	+0.1
JNB				eS	Sn	12 02 03.4	-1.5
JKB	Kayabe	9.65	244	P	Pn	12 00 24.5	-1.4
JKB				eS	Sn	12 02 07.6	-5.0
JSH	Shimam	9.88	250	P	Pn	12 00 29.9	+0.8
JYM2	Yakumo 2	9.94	247	P	Pn	12 00 29.3	-0.5
JTM	Tenmabayashi	10.28	239	P	Pn	12 00 32.2	-2.3
JTM				eS	Sn	12 02 20.1	-8.0
JANG	Nango	10.29	236	P	Pn	12 00 31.2	-3.4
JANG				eS	Sn	12 02 18.0	-10
JTH	Tanohata	10.39	233	P	Pn	12 00 32.1	-3.9
JTH				eS	Sn	12 02 20.2	-11
JOSM	Okushiri--Mats	10.53	249	P	Pn	12 00 37.6	-0.3
OFUJ	Ofunato	11.11	231	P	Pn	12 00 42.1	-3.7
OFUJ				eS	Sn	12 02 38.6	-10
JRG	Rokugo	11.45	235	P	Pn	12 00 48.1	-2.4
JRG				eS	Sn	12 02 49.2	-7.4
JIO	Ouri	11.74	229	eS	Sn	12 02 51.9	-12
HABR	Khabarovsk	12.04	285	ePN	Pn	12 01 00.4	+2.0
HABR				eS	Sn	12 03 13.8	+3.0
JYA	Atsumi	12.52	234	P	Pn	12 01 02.4	-2.7
MA2	Magadan	12.93	356	ePn	Pn	12 01 09.6	-0.9
MA2	Magadan	12.93	356	d iPN	Pn	12 01 09.7	-0.8
KLR	Kul'dur	14.24	288	eP	Pn	12 01 28.0	-0.1
MJAR	Matsushiro Arr	14.83	232	P	Pn	12 01 33.8	-2.0
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR				MLR	MLR		
	comp=Z,105nm,20.1s						
MJAR	Matsushiro Arr	14.83	232	P	Pn	12 01 33.8	-2.1
	comp=Z,0.5nm,0.3s,baz=25,slow=13,SNR=8.1						
MJAR				LR	LR	12 07 32.6	
	comp=Z,105nm,20.1s,baz=50,slow=38						
MAJO	Matsushiro	14.83	232	ePn	Pn	12 01 33.5	-2.3
MAT	Matsushiro	14.83	232	P	Pn	12 01 33.4	-2.4
MDJ	Mudanjiang	16.27	271	P	Pn	12 01 53.3	-0.8
MDJ				AP	pP	12 01 58.8	-11
MDJ				XP	sP	12 02 00.3	-17
MDJ				S	S	12 04 54.9	-8.2
MDJ				SCP	ScP	12 10 20.8	+7.7
MDJ				SCS	ScS	12 13 59.8	+7.8
MDJ				AMB	AMB		
	comp=Z,13nm,0.9s						
MDJ				AMB	AMB		
	comp=Z,274nm,6.8s						
CN2	Changchun	19.36	271	eP	Pn	12 02 29.8	-2.0
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s						
CLNS	Chul'man	19.82	311	eP	Pn	12 02 37.0	0.0
CLNS				pmax	pmax		
	comp=Z,18nm,0.9s						
CLNS				pmax	pmax		
	comp=N,9.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,12nm,0.9s						
YAK	Yakutsk	20.19	328	eP	P	12 02 39.0	0.0
	comp=E,25nm,0.6s						
YAK	Yakutsk	20.19	328	eP	P	12 02 39.5	+0.6
YAK				e		12 02 56.4	
YAK				eS	S	12 06 22.7	+0.9
YAK				eSS		12 06 44.5	
YAK				pmax	pmax		
	comp=Z,31nm,0.9s						
YAK				pmax	pmax		
	comp=N,9.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,12nm,1.0s						
YAK				pmax	pmax		
	comp=Z,64nm,1.6s						
YAK				pmax	pmax		
	comp=N,14nm,1.1s						
YAK				pmax	pmax		
	comp=E,43nm,1.7s						
YAK				smax			
	comp=E,85nm,3.7s						
YAK				smax			
	comp=N,59nm,4.9s						
YAK				MLR	MLR		
	comp=Z,126nm,17.0s						
YAK				MLR	MLR		
	comp=N,121nm,21.0s						
YAK				MLR	MLR		
	comp=E,66nm,17.0s						
KSRS	Korea Array	20.51	252	P	P	12 02 43.1	+0.5
	comp=E,8.5nm,0.6s,baz=59,slow=9.1,SNR=22						
KSRS				PcP	PcP	12 06 53.3	+1.6
	comp=E,1.6nm,0.7s,baz=325,slow=1.8,SNR=6.1						
KSRS				LR	LR	12 08 58.6	
	comp=E,80nm,22.0s,baz=354,slow=32						
JNU	Nakatsue	21.45	238	P	P	12 02 54.6	+1.8
	comp=E,19nm,1.0s,mb4.4,baz=54,slow=12,SNR=10						
JNU				LR	LR	12 11 02.5	
	comp=E,77nm,21.3s,baz=267,slow=36						
HIA	Hailar	22.10	289	eP	P	12 02 57.8	-1.8
	comp=E,6.3nm,0.8s,mb4.1						
HIA	Hailar	22.10	289	eP	P	12 02 57.8	-1.7
HIA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BILL	Bilibino	22.49	13	eP	P	12 03 04.9	+1.4
	comp=Z,2.9nm,0.5s,mb4.0						
BILL	Bilibino	22.49	13	eP	P	12 03 04.9	+1.4
BILL				e		12 03 33.3	
BILL				e		12 06 54.5	
BILL				eS	S	12 07 06.2	+0.5
BILL				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.8						
BOD	Bodaibo	25.78	310	eP	P	12 03 33.8	-0.6
BOD				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.8						
BJI	Beijing	27.18	269	P	P	12 03 51.0	+3.8
BJI				S	S	12 08 27.4	+6.1
BJI				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.5						
BJI				LR	LR		
	comp=Z,145nm,19.8s						
BJT	Baijiatuau	27.20	269	eP	P	12 03 50.1	+2.8
	comp=Z,12nm,0.8s,mb4.5						
BJT	Baijiatuau	27.20	269	eP	P	12 03 50.1	+2.7
BJT				pmax	pmax		
	comp=Z,12nm,0.8s						
TIXI	Tiksi	27.41	344	eP	P	12 03 44.2	-4.8
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
TNA	Tin City	28.22	34	eP	P	12 03 56.4	+0.2
NJ2	Nanjing	29.71	253	eP	P	12 04 13.0	+3.2
NJ2				AP	pP	12 04 17.3	-8.0
NJ2				XP	sP	12 04 20.0	-13
NJ2				PP	PP	12 05 10.0	-7.7
NJ2				S	S	12 09 07.0	+5.9
NJ2				XS	sS	12 09 15.0	-13
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.7						
NJ2				AMB	AMB		
	comp=Z,270nm,4.6s						
NJ2				LR	LR		
	comp=N,530nm,15.1s						
NJ2				LR	LR		
	comp=E,560nm,19.0s						
NJ2				LR	LR		
	comp=Z,560nm,19.0s						
HHC	Hu-ho-hao-te	30.00	274	eP	P	12 04 12.6	+0.3
HHC				XP	sP	12 04 19.6	-16
HHC				PP	PP	12 05 11.4	-9.4
HHC				S	S	12 09 08.6	+3.0
HHC				SS	SS	12 10 44.9	-30
HHC				PCS	PcS	12 10 56.8	+0.5
HHC				SCS	ScS	12 14 48.8	+4.0
HHC				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.7						
HHC				AMB	AMB		
	comp=Z,369nm,7.3s						
HHC				LR	LR		
	comp=N,230nm,22.6s						
HHC				LR	LR		
	comp=E,240nm,21.4s						
HHC				LR	LR		
	comp=Z,281nm,19.0s						
ULN	Ulaanbaatar	30.63	289	eP	P	12 04 21.7	+4.0
	comp=Z,9.5nm,0.9s,mb4.6						
ULN	Ulaanbaatar	30.63	289	eP	P	12 04 21.7	+3.9
ULN				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.6						
SONM	Songino Array	31.07	289	P	P	12 04 20.6	-1.0
SONM						12 07 16.6	
SONM				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,152nm,18.5s						
SONM	Songino Array	31.07	289	P	P	12 04 20.6	-1.0
	comp=Z,1.8nm,0.9s,mb3.9,baz=76,slow=8.6,SNR=11						
SONM				PcP	PcP	12 07 16.6	+0.9
	comp=Z,0.8nm,0.8s,baz=88,slow=1.7,SNR=4.9						
SONM				LR	LR	12 17 55.2	
	comp=Z,152nm,18.5s,baz=349,slow=38						
ZAK	Zakamensk	32.42	295	eP	P	12 04 32.5	-1.0
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
WHN	Wuhan	33.64	255	eP	P	12 04 44.8	+0.5
IMA2	Indian Mountai	34.00	36	eP	P	12 04 46.9	-0.1
XAN	Xi'an	35.22	265	P	P	12 04 58.5	+0.6
XAN				AP	pP	12 05 11.9	-1.7
XAN				AMB	AMB		
	comp=Z,18nm,0.8s,mb5.0						
COLA	College	36.34	38	eP	P	12 05 06.9	-0.2
	comp=Z,5.4nm,0.5s,mb4.7						
COLA	College	36.34	38	iP	P	12 05 07.3	+0.1
LZH	Lanzhou	37.59	272	eP	P	12 05 21.0	+2.9
LZH				AP	pP	12 05 23.0	-11
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.7						
LZH	Lanzhou	37.59	272	eP	P	12 05 21.0	+2.9
	comp=Z,15nm,1.0s,mb4.7						
LZH				pP	pP	12 05 23.0	-11
LZH				sP	sP	12 05 24.5	-17
GTA	Gaotai	38.69	279	eP	P	12 05 28.9	+1.6
GTA				AP	pP	12 05 33.0	-10
GTA				XP	sP	12 05 35.0	-16

GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.2						
EGAK	**Eagle**	39.21	38	*e*P	P	12 05 30.5	-0.8
	comp=Z,5.7nm,0.6s,mb4.5						
CD2	**Chengdu**	40.58	265	*e*P	P	12 05 43.9	+0.8
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
CD2				AMB	AMB		
	comp=Z,30nm,5.8s						
GYA	**Guiyang**	41.42	257	P	P	12 05 52.3	+2.3
GYA				AP	pP	12 05 56.8	-9.3
GYA				XP	sP	12 05 59.8	-14
GYA				PP	PP	12 07 31.6	+4.9
GYA				PCP	PcP	12 07 51.0	+4.1
GYA				SCP	ScP	12 11 39.8	+8.6
GYA				S	S	12 12 07.5	+7.1
GYA				SCS	ScS	12 15 54.6	+7.0
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
GYA				AMB	AMB		
	comp=Z,80nm,4.9s						
GYA				LR	LR		
	comp=N,340nm,17.9s						
GYA				LR	LR		
	comp=E,270nm,18.0s						
GYA				LR	LR		
	comp=Z,360nm,18.4s						
INK	**Inuvik**	41.84	32	*e*P	P	12 05 52.9	0.0
	comp=Z,171nm,0.8s,mb5.7						
INK	**Inuvik**	41.84	32	P	P	12 05 53.1	+0.2
	comp=Z,5.7nm,0.7s,mb4.3,baz=292,slow=5.9,SNR=16						
ZALV	**Zalesovo Beam**	42.39	306	P	P	12 05 55.8	-1.9
ZALV				PcP	PcP	12 07 49.7	0.0
ZALV				LR	LR	12 24 54.7	
ZALV	**Zalesovo Beam**	42.39	306	P	P	12 05 55.8	-1.9
	comp=Z,1.4nm,0.5s,mb3.9,baz=76,slow=6.9,SNR=7.1						
ZALV				PcP	PcP	12 07 49.7	0.0
	comp=Z,1.3nm,0.4s,baz=79,slow=3.2,SNR=9.8						
ZALV				LR	LR	12 24 54.7	
	comp=Z,145nm,18.6s,baz=294,slow=38						
ZAL	**Zalesovo**	42.41	306	P	P	12 05 55.8	-1.9
ZAL						12 07 49.7	
WMQ	**Urumqi**	44.66	291	P	P	12 06 18.0	+2.0
WMQ				AP	pP	12 06 22.8	-9.4
WMQ				XP	sP	12 06 25.0	-15
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.5s,mb4.8						
KMI	**Kunming**	44.95	259	P	P	12 06 19.9	+1.4
KMI				AMB	AMB		
	comp=Z,8.0nm,0.7s,mb4.7						
KMI	**Kunming**	44.95	259	P	P	12 06 19.9	+1.4
	comp=Z,8.0nm,0.7s,mb4.7						
MK31	**Makanchi Array**	46.70	297	*e*P	P	12 06 31.2	-0.8
MKAR	**Makanchi Array**	46.70	297	*i* P	P	12 06 31.3	-0.7
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
MKAR	**Makanchi Array**	46.70	297	P	P	12 06 31.4	-0.6
	comp=Z,3.8nm,0.7s,mb4.5,baz=67,slow=7.4,SNR=30						
MKAR				PcP	PcP	12 08 04.8	+0.2
	comp=Z,1.7nm,0.6s,baz=63,slow=3.4,SNR=6.1						
MKAR				LR	LR	12 27 18.7	
	comp=Z,173nm,18.6s,baz=353,slow=38						
KURK	**Kurchatov**	47.14	303	*e*P	P	12 06 34.3	-1.1
	comp=Z,5.9nm,0.8s,mb4.6						
KURK	**Kurchatov**	47.14	303	*c* *i*P	P	12 06 34.2	-1.2
LSA	**Lhasa**	49.98	273	P	P	12 06 59.6	+2.1
LSA	**Lhasa**	49.98	273	*e*P	P	12 06 59.6	+2.1
	comp=Z,15nm,0.6s,mb5.2						
LSA	**Lhasa**	49.98	273	*e*P	P	12 06 59.6	+2.1
LSA				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.2						
BRVK	**Borovoye**	50.69	309	*e*P	P	12 07 01.6	-1.0
	comp=Z,1.8nm,0.6s,mb4.2						
BRVK	**Borovoye**	50.69	309	*e*P	P	12 07 01.6	-0.9
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
RES	**Resolute Bay**	50.96	18	*e*P	P	12 07 03.7	-0.6
	comp=Z,97nm,1.0s,mb5.7						
YKW3	**Yellowknife Ar**	51.09	36	*e*P	P	12 07 05.9	+0.5
YKA	**Yellowknife Ar**	51.12	37	P	P	12 07 04.8	-0.9
YKA						12 08 19.8	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	**Yellowknife Ar**	51.12	37	P	P	12 07 04.8	-0.9
	comp=Z,1.2nm,0.7s,mb3.9,baz=296,slow=7.0,SNR=18						
YKA				PcP	PcP	12 08 19.8	-0.5
	comp=Z,1.0nm,0.5s,baz=302,slow=3.7,SNR=11						
CHTO	**Chiang Mai**	51.83	256	*e*P	P	12 07 12.8	+1.4
	comp=Z,10nm,0.8s,mb4.8						
CHTO	**Chiang Mai**	51.83	256	*e*P	P	12 07 12.9	+1.4
CHTO				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
SHL	**Shillong**	52.08	268	*i* P	P	12 07 15.0	+1.7
AAK	**Ala-Archa**	53.59	296	*e*P	P	12 07 23.2	-1.0
	comp=Z,3.7nm,0.8s,mb4.4						
AAK	**Ala-Archa**	53.59	296	⇑*e*P	P	12 07 23.4	-0.8
AAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
AAK				MLR	MLR		
	comp=Z,100nm,15.0s						
TAPN	**Taplejung**	53.81	273	*e*P	P	12 07 27.5	+1.5
	comp=Z,35nm,0.8s,mb5.3						
ODAN	**Odare**	54.34	273	*e*P	P	12 07 31.1	+1.2
	comp=Z,10nm,0.4s,mb5.1						
AML	**Almayashu**	54.36	296	*e*P	P	12 07 32.1	+2.3
	comp=Z,2.5nm,0.8s,mb4.2						
JIRN	**Jiri**	54.66	274	*e*P	P	12 07 33.9	+1.7
	comp=Z,8.6nm,0.2s,mb5.4						
ARU	**Arti**	54.84	317	⇓*e*P	P	12 07 33.8	+0.8
KKN	**Kakani**	55.20	275	*e*P	P	12 07 37.4	+1.3
	comp=Z,31nm,0.6s,mb5.5						
GKN	**Gorkha**	55.50	276	*e*P	P	12 07 39.5	+1.2
	comp=Z,52nm,0.8s,mb5.6						
EDM	**Edmonton**	56.55	46	*e*P	P	12 07 45.5	+0.2
KEV	**Kevo**	57.27	340	*e*p	P	12 07 47.1	-3.1
	comp=Z,1.2nm,0.5s,mb4.2						
KEV	**Kevo**	57.27	340	*e*P	P	12 07 47.1	-3.1
KEV				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
ARCES	**ARCESS Array B**	57.79	341	P	P	12 07 52.4	-1.4
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ARCES	**ARCESS Array B**	57.79	341	P	P	12 07 52.4	-1.5
	comp=Z,0.8nm,0.5s,mb4.0,baz=39,slow=7.8,SNR=9.6						
AKTK	**Aktyubinsk**	58.53	312	P	P	12 07 58.6	-0.7
AKTO	**Aktyubinsk**	58.53	312	P	P	12 07 58.6	-0.7
AKTO				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
AKTO	**Aktyubinsk**	58.53	312	P	P	12 07 58.6	-0.7
	comp=Z,0.8nm,0.5s,mb4.0,baz=63,slow=9.0,SNR=4.2						
WALA	**Waterton Lakes**	58.69	50	*e*P	P	12 08 00.4	0.0
	comp=Z,5.0nm,0.6s,mb4.7						
MSO	**Missoula**	60.01	52	*e*P	P	12 08 10.3	+0.7
	comp=Z,6.2nm,1.2s,mb4.5						
CHMT	**Chamberlain Mo**	60.34	52	*e*P	P	12 08 12.0	+0.2
FFC	**Flin Flon**	60.95	40	*e*P	P	12 08 15.6	-0.3
	comp=Z,5.8nm,0.9s,mb4.7						
FFC	**Flin Flon**	60.95	40	*e*P	P	12 08 15.6	-0.3
FFC				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
JOF	**Joensuu**	61.23	334	*e*p	P	12 08 16.0	-1.6
	comp=Z,3.4nm,0.5s,mb4.7						
JOF	**Joensuu**	61.23	334	*e*P	P	12 08 16.0	-1.6
JOF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.7						
LRM	**Limekiln Ridge**	61.45	52	*e*P	P	12 08 20.3	+1.0
FCC	**Fort Churchill**	61.45	33	*e*P	P	12 08 18.2	-0.9
	comp=Z,4.7nm,0.7s,mb4.7						
FCC	**Fort Churchill**	61.45	33	*e*P	P	12 08 18.2	-1.0
FCC				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
EGMT	**Eagleton**	61.50	49	*e*P	P	12 08 20.3	+0.6
BOZ	**Bozeman (W)**	62.01	52	*e*P	P	12 08 24.1	+0.9
	comp=Z,3.5nm,0.8s,mb4.5						
BOZ	**Bozeman (W)**	62.01	52	*e*P	P	12 08 24.1	+1.0
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
NVAR	**Mina Array Bea**	62.71	62	P	P	12 08 27.3	-0.6
	comp=Z,0.9nm,0.5s,mb4.2,baz=281,slow=8.8,SNR=6.5						
KAF	**Kangasniemi**	63.35	335	*e*p	P	12 08 29.6	-2.2
	comp=Z,3.9nm,0.4s,mb4.9,baz=36,slow=6.2						
KAF	**Kangasniemi**	63.35	335	*e*P	P	12 08 29.6	-2.2
KAF				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.9						
REDW	**Red Top Meadow**	63.90	54	*e*P	P	12 08 36.9	+1.2
	comp=Z,3.8nm,0.8s,mb4.5						
FINES	**FINESS Array B**	63.94	335	*i* P	P	12 08 34.9	-0.8
FINES				pmax	pmax		
	comp=Z,7.0nm,0.4s						
FINES	**FINESS Array B**	63.94	335	P	P	12 08 34.9	-0.9
	comp=Z,7.2nm,0.4s,mb5.0,baz=39,slow=7.3,SNR=86						
FINES				LR	LR	12 37 03.8	
	comp=Z,109nm,20.1s,baz=292,slow=37						
DGMT	**Dagmar**	64.04	46	*e*P	P	12 08 37.0	+0.5
HWUT	**Hardware Ranch**	64.64	56	*e*P	P	12 08 40.6	+0.1
	comp=Z,1.8nm,0.8s,mb4.2						
DUG	**Dugway**	64.84	58	*e*P	P	12 08 42.9	+1.0
	comp=Z,4.6nm,1.1s,mb4.4						
DUG	**Dugway**	64.84	58	*e*P	P	12 08 42.9	+1.0
DUG				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
PDAR	**Pinedale Array**	65.00	54	P	P	12 08 43.5	+0.5
	comp=Z,2.8nm,0.8s,mb4.3,baz=304,slow=1.5,SNR=25						
OBN	**Obninsk**	65.17	325	*e*P	P	12 08 43.6	-0.2
OBN				*e*		12 11 05.1	
OBN				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.4						
ULM	**Lac du Bonnet**	66.74	41	P	P	12 08 52.6	-1.3
	comp=Z,1.8nm,0.7s,mb4.2,baz=293,slow=8.3,SNR=5.1						
SRU	**San Rafael**	66.88	57	*e*P	P	12 08 55.8	+0.8
NB2	**NORSAR Subarra**	68.16	341	P	P	12 09 02.0	-0.8
	comp=Z,5.3nm,0.5s,mb4.8,baz=28,slow=6.5						
NOA	**NORSAR Array B**	68.16	341	P	P	12 09 02.1	-0.7
NOA				pmax	pmax		
	comp=Z,7.0nm,0.5s						
NOA				MLR	MLR		
	comp=Z,55nm,20.7s						
NOA	**NORSAR Array B**	68.16	341	P	P	12 09 02.0	-0.7
	comp=Z,7.3nm,0.5s,mb4.9,baz=28,slow=6.3,SNR=25						
NOA				LR	LR	12 39 29.2	
	comp=Z,55nm,20.7s,baz=295,slow=36						
PV10	**Paradox Valley**	68.23	57	*e*P	P	12 09 04.6	+1.0
WB2	**Warramunga Arr**	68.39	199	*e*P	P	12 09 04.8	+0.2
WRA	**Warramunga Arr**	68.39	199	*i* P	P	12 09 04.9	+0.3
WRA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
WRA	**Warramunga Arr**	68.39	199	P	P	12 09 04.9	+0.4
	comp=Z,1.5nm,0.5s,mb4.3,baz=18,slow=6.9,SNR=33						
FITZ	**Fitzroy Crossi**	68.98	208	⇑*i*P	P	12 09 09.3	+1.0
	comp=Z,5.6nm,0.9s,mb4.5						
ISCO	**Idaho Springs**	69.20	54	*e*P	P	12 09 10.4	+0.8
	comp=Z,2.3nm,1.0s,mb4.1						
ISCO	**Idaho Springs**	69.20	54	*e*P	P	12 09 10.4	+0.8
ISCO				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
AKASG	**Malin Array Be**	71.41	326	*i* P	P	12 09 22.0	-0.9
AKASG				pmax	pmax		
	comp=Z,10.0nm,0.4s						
AKASG	**Malin Array Be**	71.41	326	P	P	12 09 22.0	-0.9
	comp=Z,10nm,0.4s,mb5.1,baz=33,slow=6.2,SNR=54						
ASAR	**Alice Springs**	72.09	198	P	P	12 09 28.7	+1.6
ASAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ASAR	**Alice Springs**	72.09	198	P	P	12 09 28.6	+1.5
	comp=Z,3.3nm,0.7s,mb4.4,baz=13,slow=5.4,SNR=85						
KWP	**Kalwaria**	74.70	329	*e*P	P	12 09 42.6	+0.3
STHS	**Stebnicka Huta**	75.39	330	*e*P	P	12 09 46.7	+0.4
	comp=Z,6.5nm,1.0s,mb4.5						
STHS	**Stebnicka Huta**	75.39	330	*e*P	P	12 09 46.7	+0.4
STHS				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
KOLS	**Kolonicke sedl**	75.44	329	*e*P	P	12 09 46.6	0.0
BURAR	**Bucovina Array**	75.45	326	⇑P	P	12 09 46.6	-0.1
BURAR	**Bucovina Array**	75.45	326	⇑*i*P	P	12 09 46.6	-0.1
CRVS	**Cervenica-Dubn**	75.75	329	*e*P	P	12 09 45.9	-2.5
UPC	**Upice**	76.18	333	*e*P	P	12 09 50.6	-0.2
DPC	**Dobruska-Polom**	76.22	333	*e*P	P	12 09 50.9	-0.1
MORC	**Moravsky Berou**	76.33	332	*e*P	P	12 09 51.5	-0.2
	comp=Z,6.4nm,0.9s,mb4.5						
MORC	**Moravsky Berou**	76.33	332	⇑*i*P	P	12 09 51.7	+0.1
CLL	**Collm**	76.37	335	⇓*i*P	P	12 09 51.3	-0.5
	comp=Z,11nm,0.8s,mb4.8						
CLL	**Collm**	76.37	335	⇓*i*P	P	12 09 51.3	-0.5
CLL				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
CLL	**Collm**	76.37	335	⇓*i*P	P	12 09 51.3	-0.5
	comp=Z,11nm,0.8s,mb4.8						
MLR	**Muntele Rosu**	76.92	325	⇓P	P	12 09 56.1	+1.0
MLR	**Muntele Rosu**	76.92	325	⇓*i*P	P	12 09 56.1	+1.0
MALT	**Malatya**	76.96	313	*e*P	P	12 09 57.2	+1.8
	comp=Z,4.7nm,0.6s,mb4.6						
MALT	**Malatya**	76.96	313	*e*P	P	12 09 57.2	+1.8
MALT				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
PRU	**Pruhonice**	77.09	334	*e*P	P	12 09 55.6	-0.3
VOIR		77.32	325	⇑P	P	12 09 57.9	+0.6
VOIR		77.32	325	⇑*i*P	P	12 09 57.9	+0.6
TXAR	**Lajitas Array**	77.76	60	P	P	12 10 00.3	+0.3
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TXAR	**Lajitas Array**	77.76	60	P	P	12 10 00.3	+0.3
	comp=Z,1.2nm,0.6s,mb4.0,baz=298,slow=4.8,SNR=28						
KHC	**Kasperske Hory**	78.14	334	⇑*e*P	P	12 10 01.4	-0.4
KHC	**Kasperske Hory**	78.14	334	*e*P	P	12 10 01.6	-0.2
BRTR	**Keskin Array B**	78.21	316	P	P	12 10 03.0	+0.6
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BRTR	**Keskin Array B**	78.21	316	P	P	12 10 03.0	+0.6
	comp=Z,3.1nm,0.9s,mb4.2,baz=74,slow=4.5,SNR=12						
GRA1	**Grafenberg Arr**	78.33	336	*e*P	P	12 10 02.8	0.0
	comp=Z,9.0nm,1.0s,mb4.7						
GRF	**Grafenberg Arr**	78.33	336	*e*P	P	12 10 02.8	0.0
GRF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
GRF	**Grafenberg Arr**	78.33	336	*e*P	P	12 10 02.8	0.0
GRF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
GRF	**Grafenberg Arr**	78.33	336	*e*P	P	12 10 02.8	0.0
	comp=Z,9.0nm,1.0s,mb4.7						
GERES	**GERESS Array B**	78.36	334	P	P	12 10 02.7	-0.2
GERES				LR	LR	12 48 44.7	
GERES	**GERESS Array B**	78.36	334	P	P	12 10 02.7	-0.3
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES				MLR	MLR		
	comp=Z,188nm,19.6s						
GERES	**GERESS Array B**	78.36	334	P	P	12 10 02.7	-0.2
	comp=Z,1.4nm,0.6s,mb4.0,baz=38,slow=5.0,SNR=8.9						
GERES				LR	LR	12 48 44.7	
	comp=Z,188nm,19.6s,baz=287,slow=39						
BZS	**Buzias**	78.48	327	⇑P	P	12 10 03.8	0.0
BZS	**Buzias**	78.48	327	⇑*i*P	P	12 10 03.8	+0.1
BAIF	**Baives**	79.81	340	*e*P	P	12 10 09.8	-1.1
CDF	**Champ du Feu**	80.57	337	*e*P	P	12 10 14.2	-0.8
	comp=Z,5.2nm,0.6s,mb4.3						
CDF	**Champ du Feu**	80.57	337	*e*P	P	12 10 14.2	-0.8
	comp=Z,2.6nm,0.6s,mb4.3						
CDF	**Champ du Feu**	80.57	337	*e*P	P	12 10 14.2	-0.8
CDF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
MEZF	**Maizieres J'vi**	81.06	339	*e*P	P	12 10 17.2	-0.4
LOR	**Lormes**	82.50	339	*e*P	P	12 10 24.9	-0.3
	comp=Z,11nm,0.8s,mb4.6						
LOR	**Lormes**	82.50	339	*e*P	P	12 10 24.9	-0.3
	comp=Z,5.3nm,0.8s,mb4.6						
LOR	**Lormes**	82.50	339	*e*P	P	12 10 24.9	-0.3
LOR				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
SSF	**Saint Saulge**	82.78	339	*e*P	P	12 10 26.2	-0.5
	comp=Z,7.9nm,0.8s,mb4.5						
SSF	**Saint Saulge**	82.78	339	*e*P	P	12 10 26.2	-0.5
	comp=Z,4.0nm,0.8s,mb4.5						
SSF	**Saint Saulge**	82.78	339	*e*P	P	12 10 26.2	-0.5
SSF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
SWET	**Sewanee**	82.92	45	*e*P	P	12 10 27.1	-0.5
AVF	**Avril sur Loir**	83.07	339	*e*P	P	12 10 27.5	-0.7
SMF	**Signal de Mont**	83.09	339	*e*P	P	12 10 27.5	-0.8
	comp=Z,48nm,1.3s,mb5.1						
SMF	**Signal de Mont**	83.09	339	*e*P	P	12 10 27.5	-0.8
	comp=Z,24nm,1.3s,mb5.1						
SMF	**Signal de Mont**	83.09	339	*e*P	P	12 10 27.5	-0.8
SMF				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.1						
LPL	**La Plagne**	83.39	337	*e*P	P	12 10 29.1	-0.7
LPG	**La Plagne**	83.40	337	*e*P	P	12 10 30.1	+0.2
	comp=Z,27nm,1.2s,mb4.9						
LPG	**La Plagne**	83.40	337	*e*P	P	12 10 30.1	+0.2
	comp=Z,14nm,1.2s,mb4.8						
LPG	**La Plagne**	83.40	337	*e*P	P	12 10 30.1	+0.2
LPG				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.9						
TCF	**Toulx Ste Croi**	83.82	340	*e*P	P	12 10 31.2	-0.8
MBDF	**Montbardon**	84.10	336	*e*P	P	12 10 33.0	-0.5
	comp=Z,4.7nm,0.8s,mb4.4						
MBDF	**Montbardon**	84.10	336	*e*P	P	12 10 33.0	-0.5
	comp=Z,2.3nm,0.8s,mb4.4						
MBDF	**Montbardon**	84.10	336	*e*P	P	12 10 33.0	-0.5
MBDF				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
ORIF	**Oris-en-Rattie**	84.17	337	*e*P	P	12 10 32.9	-0.9
	comp=Z,9.2nm,0.6s,mb4.8						
ORIF	**Oris-en-Rattie**	84.17	337	*e*P	P	12 10 32.9	-0.9
	comp=Z,4.6nm,0.6s,mb4.8						
ORIF	**Oris-en-Rattie**	84.17	337	*e*P	P	12 10 32.9	-0.9
ORIF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.8						
SBF	**Sospel**	84.71	336	*e*P	P	12 10 35.8	-0.8
SMRF	**Simiane la Rot**	85.12	337	*e*P	P	12 10 37.5	-1.2
PGF	**Pioggiola**	85.45	334	*e*P	P	12 10 38.7	-1.7
	comp=Z,39nm,1.5s,mb5.0						
PGF	**Pioggiola**	85.45	334	*e*P	P	12 10 38.7	-1.7
	comp=Z,19nm,1.5s,mb5.0						
PGF	**Pioggiola**	85.45	334	*e*P	P	12 10 38.7	-1.7
PGF				pmax	pmax		
	comp=Z,19nm,1.5s,mb5.0						
LMR	**La Mourre**	85.46	336	*e*P	P	12 10 39.5	-0.9
VNA2	**Neumayer--Watz**	153.90	195	*e*PKPdf	PKPbc	12 18 00.5	+0.1
	baz=106,slow=2.9						
VNA2				*e*		12 18 05.9	
VNA2				*e*		12 18 15.2	
VNA2				*e*		12 18 18.8	
VNA3	**Neumayer Olymp**	154.00	193	*e*PKPdf	PKPbc	12 18 01.1	+0.5
VNA3				*e*		12 18 06.0	
VNA3				*e*		12 18 15.9	
VNA3				*e*		12 18 19.5	

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*CSEM **22** 12:18:30.9±0.4, 3861N×3901E, h20^{km}, MD2.7, Error ellipse: s-maj=20.7km s-min=7.1km az=138.0*
*ISK **22** 12:18:30.9, 3857N×3903E, h5^{km}, MD2.7*
*ISCJB **22** 12:18:32.5±0.8, 3864N±006×3897E±007, h5^{km}, Error ellipse: s-maj=10.8km s-min=4.6km az=137.3*
*DDA **22** 12:18:32.2, 3849N×39.18E, h7^{km}±6^{km}, Md2.3*
ISC 22 12:18:32.8±0.9**, 3859N**±010×**390E**±01**, h14**^{km}±7^{km}**, n10,** σ**1**^{s}**19**/16**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.10	206	*i* P	Pg	12 18 35.6	-0.4
ELZG				*i* S	Sg	12 18 37.9	-0.4
PTK	**Pertek**	0.41	42	PG	Pg	12 18 39.7	-1.2
PTK				SG	Sg	12 18 48.2	+1.8
PTK	**Pertek**	0.41	42	*e*Pg	Pg	12 18 39.7	-1.2
PTK				*e*Sg	Sg	12 18 48.2	+1.8
MYA	**Malataya**	0.55	241	PG	Pg	12 18 42.4	-1.3
MYA	**Malataya**	0.55	241	*e*Pg	Pg	12 18 42.4	-1.3
MALT	**Malatya**	0.56	240	PG	Pg	12 18 42.5	-1.2
MALT				SG	Sg	12 18 51.5	+0.3
MALT	**Malatya**	0.56	240	*e*Pg	Pg	12 18 42.5	-1.2
MALT				*e*Sg	Sg	12 18 51.5	+0.3
URFA	**Urfa**	1.16	189	*e*PN	Pn	12 18 53.9	-0.7
URFA	**Urfa**	1.16	189	*e*Pn	Pn	12 18 53.9	-0.7
GZT	**Gaziantep**	1.70	224	*i* P	Pg	12 19 07.2	+1.8
GZT				*i* S	Sg	12 19 29.2	+1.7

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*ISK **22** 12:30:49.9, 3842N×39.18E, h5^{km}, MD2.7*
*ISCJB **22** 12:30:50.5±1.1, 3838N±005×3924E±007, h10^{km}, Error ellipse: s-maj=8.8km s-min=5.6km az=42.4*
*CSEM **22** 12:30:50.3±0.3, 3842N×3921E, h10^{km}, MD2.7, Error ellipse: s-maj=7.8km s-min=4.3km az=128.0*
*DDA **22** 12:30:53.3, 3841N×3908E, h6^{km}±1^{km}, Md2.3*
ISC 22 12:30:51.1±1.1**, 3839N**±005×**3924E**±007**, h10**^{km}**, n10,** σ**0**^{s}**79**/18**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.23	299	*i* P	Pg	12 30 55.8	+0.1
ELZG				*i* S	Sg	12 30 58.5	-0.5
PTK	**Pertek**	0.52	13	PG	Pg	12 31 00.3	-0.9
PTK				SG	Sg	12 31 09.2	+1.1
PTK	**Pertek**	0.52	13	*e*Pg	Pg	12 31 00.3	-0.9
PTK				*e*Sg	Sg	12 31 09.2	+1.1
MALT	**Malatya**	0.64	264	PG	Pg	12 31 02.2	-1.3
MALT				SG	Sg	12 31 12.4	+0.5
MALT	**Malatya**	0.64	264	*e*Pg	Pg	12 31 02.2	-1.3
MALT				*e*Sg	Sg	12 31 12.4	+0.5
MYA	**Malataya**	0.64	265	PG	Pg	12 31 02.7	-0.8
MYA				SG	Sg	12 31 12.8	+0.9
MYA	**Malataya**	0.64	265	*e*Pg	Pg	12 31 02.7	-0.8
MYA				*e*Sg	Sg	12 31 12.8	+0.9
URFA	**Urfa**	1.00	199	*e*PG	Pg	12 31 10.7	+0.4
URFA	**Urfa**	1.00	199	*e*Pg	Pg	12 31 10.7	+0.4
GZT	**Gaziantep**	1.68	233	*i* P	Pn	12 31 20.6	+0.2
GZT				*i* S	Sn	12 31 46.1	+4.2

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*ISCJB **22** 12:41:25.4±1.2, 3834N±004×3932E±007, h7^{km}, Error ellipse: s-maj=8.0km s-min=5.6km az=0.5*
*CSEM **22** 12:41:25.1±0.4, 3837N×3926E, h15^{km}, MD2.4, Error ellipse: s-maj=7.4km s-min=4.8km az=110.0*
*ISK **22** 12:41:25.1, 3833N×3928E, h5^{km}, MD2.6*
*DDA **22** 12:41:29.3, 3834N×3909E, h7^{km}±5^{km}, Md2.4*
ISC 22 12:41:25.7±1.3**, 3835N**±004×**3934E**±008**, h8**^{km}±22^{km}**, n11,** σ**0**^{s}**66**/20**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.32	298	*i* P	Pg	12 41 32.3	+0.4
ELZG				*i* S	Sg	12 41 36.9	+0.8
PTK	**Pertek**	0.54	4	PG	Pg	12 41 36.5	+0.3
PTK	**Pertek**	0.54	4	*e*Pg	Pg	12 41 36.5	+0.3
MALT	**Malatya**	0.72	267	PG	Pg	12 41 38.3	-1.2
MALT				SG	Sg	12 41 48.1	-0.8
MALT	**Malatya**	0.72	267	*e*Pg	Pg	12 41 38.3	-1.2
MALT				*e*Sg	Sg	12 41 48.1	-0.8
MYA	**Malataya**	0.72	268	PG	Pg	12 41 38.6	-0.9
MYA				SG	Sg	12 41 48.8	-0.1
MYA	**Malataya**	0.72	268	*e*Pg	Pg	12 41 38.6	-0.9
MYA				*e*Sg	Sg	12 41 48.8	-0.1
URFA	**Urfa**	1.00	204	*e*PG	Pg	12 41 44.8	0.0
URFA				*e*SG	Sg	12 41 57.3	-0.4
URFA	**Urfa**	1.00	204	*e*Pg	Pg	12 41 44.8	0.0
URFA				*e*Sg	Sg	12 41 57.3	-0.4
ATAB	**Bozova**	1.21	224	*i* P	Pb	12 41 49.0	+0.2
ATAB				*i* S	Sg	12 42 05.0	+0.5
GZT	**Gaziantep**	1.72	235	*i* P	Pg	12 41 58.7	0.0
GZT				*i* S	Sg	12 42 22.2	+1.2

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*NEIC **22** 12:51:10.2, 1809N×10203W, h10^{km}, MD4.0(MEX), After MEX.*
MEX 22 12:51:10.6±0.6**, 1809N×10203W, h13**^{km}±6^{km}**, MD4.0, 1C, Michoacan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIIG	**Zihuatanejo**	0.72	131	⇑*i*P	Pg	12 51 22.6	-2.0
ZIIG				*i* S	Sg	12 51 31.9	-2.2
MMIG	**Aquila**	1.27	279	*i* P	Pn	12 51 30.5	-3.5
MMIG				*i* S	Sb	12 51 45.6	-4.9
MOIG	**Morelia**	1.77	27	*e*P	Pn	12 51 37.1	-3.9
MOIG				*i* S	Sn	12 51 59.7	-3.7
CAIG	**El Cayaco**	1.97	121	*i* P	Pn	12 51 39.6	-4.2
CAIG				*i* S	Sn	12 52 04.9	-3.5
CAIG	**El Cayaco**	1.97	121	*i* P	Pn	12 51 39.6	-4.2
CAIG				*i* S	Sn	12 52 03.5	-4.9
MEIG	**Mezcala**	2.30	94	*e*P	Pn	12 51 45.6	-2.6
MEIG				*i* S	Sn	12 52 12.6	-3.9
ACX	**Acapulco**	2.35	121	*i* P	Pn	12 51 45.0	-4.0
ACX				*i* S	Sn	12 52 11.0	-6.8
ACX	**Acapulco**	2.35	121	*i* P	Pn	12 51 45.0	-4.0
ACX				*i* S	Sn	12 52 11.5	-6.3
PLIG	**Platanillo**	2.42	82	*e*P	Pn	12 51 46.9	-3.1
PLIG				*i* S	Sn	12 52 16.8	-2.7
PLIG	**Platanillo**	2.42	82	*e*P	Pn	12 51 46.9	-3.1
PLIG				*i* S	Sn	12 52 15.5	-4.0
SFJM	**Santa Fe**	2.57	338	*e*P	Pn	12 51 49.0	-3.0
SZVM	**Salazar**	2.80	64	*e*P	Pn	12 51 53.6	-1.5

SZVM				*i* S	Sn	12 52 26.2	-2.6
PPM	**Popocatepetl**	3.37	73	*e*P	Pn	12 52 01.1	-2.0
PPM				*i* S	Sn	12 52 38.6	-4.3
PPM	**Popocatepetl**	3.37	73	*e*P	Pn	12 52 01.1	-2.0
PPM				*i* S	Sn	12 52 40.1	-2.9
ANIG	**Ahuacatlan**	3.77	322	*e*P	Pn	12 52 05.3	-3.2
ANIG				*i* S	Sn	12 52 48.8	-4.0
UTMO	**Huajuapan**	4.03	93	*i* P	Pn	12 52 10.9	-1.2
UTMO				*i* S	Sn	12 52 55.2	-4.0
ZAIG	**Zacatecas**	4.69	354	*i* S	Sn	12 53 11.6	-3.8
ZAIG	**Zacatecas**	4.69	354	*i* S	Sn	12 53 11.6	-3.8
HUIG	**Huatulco**	6.12	111	*e*P	Pn	12 52 39.3	-1.5

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*DDA **22** 12:51:42.1, 41.10N×40.71E, h7^{km}±5^{km}, Md2.9*
*ISCJB **22** 12:51:43.8±0.7, 41.09N±0.06×40.76E±0.04, h9^{km}±8^{km}, Error ellipse: s-maj=10.4km s-min=4.3km az=168.7*
*CSEM **22** 12:51:43.4±0.2, 41.09N×40.79E, h15^{km}, MD2.9, Error ellipse: s-maj=8.8km s-min=4.5km az=170.0*
*ISK **22** 12:51:43.0, 41.17N×40.71E, h25^{km}, MD3.0*
ISC 22 12:51:44.3±0.6, **41.06N**±0.07×**40.78E**±0.04, **h11**^{km}±7^{km}**, n12, σ1^{s}07**/22**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BCA	**Borcka**	0.74	59	PG	Pg	12 51 58.1	-0.6
BCA				SG	Sg	12 52 09.3	+0.9
BCA	**Borcka**	0.74	59	*e*Pg	Pg	12 51 58.1	-0.6
BCA				*e*Sg	Sg	12 52 09.3	+0.9
KTUT	**Trabzon**	0.77	265	PG	Pg	12 51 58.7	-0.4
KTUT				SG	Sg	12 52 08.6	-0.5
KTUT	**Trabzon**	0.77	265	*e*Pg	Pg	12 51 58.7	-0.4
KTUT				*e*Sg	Sg	12 52 08.6	-0.5
MACK	**Trabzon**	0.77	262	*i* P	Pg	12 51 59.4	+0.2
MACK				*i* S	Sg	12 52 10.2	+0.9
ARTV	**Artvin**	0.88	81	*i* P	Pg	12 52 00.7	-0.5
ARTV				*i* S	Sg	12 52 12.5	-0.2
GUMT	**Gumushane**	1.15	239	PN	Pn	12 52 04.1	-2.3
GUMT				SN	Sn	12 52 19.4	-2.7
GUMT	**Gumushane**	1.15	239	*e*Pn	Pn	12 52 04.1	-2.3
GUMT				*e*Sn	Sn	12 52 19.4	-2.7
EZM	**Erzurum**	1.24	159	PN	Pn	12 52 06.9	-0.6
ERZM	**Erzurum**	1.24	159	*i* P	Pn	12 52 07.2	-0.3
ERZM				*i* S	Sb	12 52 24.6	+1.0
EZC	**Erzincan**	1.50	210	PN	Pn	12 52 12.9	+1.7
GRSN	**GIRESUNGRSN**	1.90	267	*i* P	Pn	12 52 17.1	+0.4
GRSN				*i* S	Sn	12 52 42.2	+1.5

IDC 22 12:54:48.2±4.9**, 20.45S×169.16E, h0**^{km}**, mb3.7**/3**, mb1 3.9**/4**, mb1mx3.7**/14**, mbtmp3.7**/4**, ML3.1**/1**, MS3.4**/1**, Ms1 3.4**/1**, ms1mx2.7**/18**, Error ellipse: s-maj=157.0km s-min=42.9km az=140.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	3.00	237	*e*P	Pn	12 55 37.0	-0.1
DZM				*e*S	Sn	12 56 11.6	-2.3
DZM	**Mont Dzumac**	3.00	237	Pn	Pn	12 55 37.0	0.0
	2.8nm,0.3s,baz=78,slow=20,SNR=38						
DZM				Sn	Sn	12 56 11.3	-2.5
	8.9nm,0.3s,baz=131,slow=19,SNR=13						
URZ	**Urewera**	19.03	161	LR	LR	13 05 20.8	
	comp=Z,117nm,20.4s,baz=53,slow=33						
WRA	**Warramunga Arr**	32.65	265	P	P	13 01 21.8	-0.3
	0.2nm,0.5s,baz=92,slow=8.2,SNR=5.9						
ASAR	**Alice Springs**	32.78	258	P	P	13 01 22.6	-0.8
	0.8nm,0.9s,baz=94,slow=9.1,SNR=10						
FITZ	**Fitzroy Crossi**	41.06	266	P	P	13 02 34.8	+1.0
	1.8nm,0.7s,baz=122,slow=11,SNR=8.3						
GERES	**GERESS Array B**	145.52	331	PKPbc	PKPbc	13 14 27.6	-0.7
	0.4nm,0.4s,baz=25,slow=3.5,SNR=6.2						

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*IDC **22** 12:59:01.0±1.8, 3.02S×129.90E, h0^{km}, mb3.7/4, mb1 4.0/6, mb1mx3.9/17, mbtmp3.8/6, ML4.0/2, MS3.4/2, Ms1 3.4/2, ms1mx2.9/25, Error ellipse: s-maj=124.9km s-min=22.3km az=76.0*
*ISCJB **22** 12:59:08.8±2.9, 3.3S±0.1×130.1E±0.4, h95^{km}±28^{km}, mb3.5/3, Error ellipse: s-maj=60.9km s-min=11.6km az=161.9*
ISC 22 12:59:06.3±2.4**, 3.1S**±0.1×**130.0E**±0.3**, h40**^{km}±24^{km}**, n10, σ1^{s}03**/13**, mb3.6**/3**, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	9.84	166	*e*P	Pn	13 01 25.4	0.0
	6.2nm,0.4s						
KAKA				*e*S	Sn	13 03 15.3	+0.7
FITZ	**Fitzroy Crossi**	15.48	196	*e*P	Pn	13 02 42.2	+0.3
	6.0nm,0.6s						
FITZ	**Fitzroy Crossi**	15.48	196	Pn	Pn	13 02 41.7	-0.2
	0.2nm,0.3s,baz=29,slow=15,SNR=8.6						
FITZ				LR	LR	13 07 42.9	
	comp=Z,39nm,21.2s,baz=167,slow=34						
WRA	**Warramunga Arr**	17.26	166	P	Pn	13 03 03.6	-0.8
	0.8nm,0.3s,baz=350,slow=12,SNR=32						
WRA				S	S	13 06 07.6	-16
	0.1nm,0.3s,baz=316,slow=30,SNR=3.3						
WB2	**Warramunga Arr**	17.27	166	*e*P	Pn	13 03 02.9	-1.6
WB2				*e*S	S	13 06 08.1	-15
ASAR	**Alice Springs**	20.78	170	P	P	13 03 45.9	+1.8
	13nm,0.7s,baz=351,slow=11,SNR=171						
ASAR				S	S	13 07 33.6	-0.4
	1.6nm,0.9s,baz=351,slow=22,SNR=6.0						
RPZ	**Rata Peaks**	54.35	144	LR	LR	13 31 38.7	
	comp=Z,139nm,19.1s,baz=285,slow=36						
SONM	**Songino Array**	54.78	341	P	P	13 08 33.5	+1.6
	0.3nm,0.6s,mb3.5,baz=140,slow=7.0,SNR=2.4						
MKAR	**Makanchi Array**	64.99	326	P	P	13 09 41.7	-0.4
	1.0nm,0.8s,mb3.9,baz=122,slow=7.7,SNR=4.7						
ZALV	**Zalesovo Beam**	68.11	333	P	P	13 10 00.9	-1.0
	0.2nm,0.4s,mb3.5,baz=110,slow=7.8,SNR=3.1						

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*CSEM **22** 13:05:59.3±0.3, 29.87N×36.22E, h1^{km}, ML2.6, Error ellipse: s-maj=6.6km s-min=3.3km az=66.0, Mining explosion.*
*SGS **22** 13:05:59.5, 30.12N×36.24E, h8^{km}*
*GII **22** 13:05:59.6±0.0, 29.89N×36.26E, h0^{km}*
ISC 22 13:05:58.0±1.8**, 29.87N**±0.07×**36.40E**±0.09**, h0**^{km}**, n12, σ0^{s}49**/17**, Western Arabian Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HRFI	**Mount Harif**	1.19	278	Pg	Pg	13 06 20.4	-0.5
HRFI				Sg	Sg	13 06 37.3	+1.0
HRFI	**Mount Harif**	1.19	278	Pg	Pg	13 06 20.3	-0.6
HRFI				Sg	Sg	13 06 37.3	+0.9
ZFRI	**Zfri**	1.26	303	Pg	Pg	13 06 22.1	-0.1
ZFRI	**Zfri**	1.26	303	Pg	Pg	13 06 22.1	0.0
EIL	**Elat**	1.27	261	Pg	Pg	13 06 22.7	+0.3
EIL				Sg	Sg	13 06 38.7	-0.2
EIL	**Elat**	1.27	261	Pg	Pg	13 06 22.7	+0.3
EIL				Sg	Sg	13 06 38.7	-0.2
HQLS		1.29	244	P	Pg	13 06 22.2	-0.6
HQLS				S	Sg	13 06 39.2	-0.4
HQLS		1.29	244	P	Pg	13 06 22.2	-0.6
PRNI	**Paran**	1.30	292	Pg	Pg	13 06 22.8	-0.2
PRNI	**Paran**	1.30	292	Pg	Pg	13 06 22.8	-0.1
JLOS		1.38	215	P	Pg	13 06 25.1	+0.7
RSHS		2.10	222	P	Pn	13 06 34.5	+0.1

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*ISK **22** 13:08:23.7, 38.43N×39.11E, h5^{km}, MD2.6*
*ISCJB **22** 13:08:24.5±1.2, 38.38N±0.05×39.19E±0.07, h7^{km}, Error ellipse: s-maj=8.4km s-min=7.1km az=34.1*
*CSEM **22** 13:08:24.1±0.2, 38.43N×39.12E, h15^{km}, MD2.6, Error ellipse: s-maj=4.8km s-min=3.0km az=134.0*
*DDA **22** 13:08:26.8, 38.36N×38.93E, h7^{km}±1^{km}, Md2.0*
ISC 22 13:08:24.7±1.3**, 38.36N**±0.06×**39.20E**±0.08**, h0**^{km}±12^{km}**, n10, σ0^{s}72**/16**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.22	309	*i* P	Pg	13 08 29.0	+0.2
ELZG				*i* S	Sg	13 08 32.9	+1.2
PTK	**Pertek**	0.55	16	*e*PG	Pg	13 08 34.9	-0.4
PTK	**Pertek**	0.55	16	*e*Pg	Pg	13 08 34.9	-0.4
MALT	**Malatya**	0.61	266	*e*PG	Pg	13 08 35.0	-1.4
MALT				*e*SG	Sg	13 08 43.9	-0.3
MALT	**Malatya**	0.61	266	*e*Pg	Pg	13 08 35.0	-1.4
MALT				*e*Sg	Sg	13 08 43.9	-0.3
MYA	**Malataya**	0.61	267	*e*PG	Pg	13 08 35.7	-0.7
MYA				*e*SG	Sg	13 08 44.5	+0.2
MYA	**Malataya**	0.61	267	*e*Pg	Pg	13 08 35.7	-0.7
MYA				*e*Sg	Sg	13 08 44.5	+0.2
URFA	**Urfa**	0.96	198	*e*PG	Pg	13 08 44.3	+1.1
URFA	**Urfa**	0.96	198	*e*Pg	Pg	13 08 44.3	+1.1
GZT	**Gaziantep**	1.64	233	*i* P	Pn	13 08 54.6	0.0
GZT				*i* S	Sn	13 09 16.5	+0.1

IDC 22 13:15:38.6±1.5**, 21.39S×174.82W, h0**^{km}**, mb4.2**/7**, mb1 4.4**/8**, mb1mx4.2**/17**, mbtmp4.2**/8**, ML4.0**/1**, MS3.9**/1**, Ms1 3.9**/1**, ms1mx2.8**/23**, Error ellipse: s-maj=47.8km s-min=24.7km az=136.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	7.98	22	Pn	Pn	13 17 31.3	-4.6
	2.8nm,0.3s,baz=37,slow=20,SNR=3.4						
URZ	**Urewera**	18.20	201	P	Pn	13 19 53.5	+0.9
	0.5nm,0.3s,baz=65,slow=16,SNR=3.8						
PPT	**Papeete**	24.09	85	*e*LR	LR	13 26 49.4	
	78nm,20.8s						
PPT	**Papeete**	24.09	85	LR	LR	13 27 46.6	
	comp=Z,258nm,18.0s,baz=267,slow=30						
CTA	**Charters Tower**	36.37	265	P	P	13 22 45.6	+0.9
	4.7nm,0.9s,baz=90,slow=9.1,SNR=3.3						
STKA	**Stephens Creek**	40.11	246	*e*P	P	13 23 15.8	-0.3
	2.6nm,0.8s						
STKA	**Stephens Creek**	40.11	246	P	P	13 23 15.9	-0.3
	3.2nm,0.8s,baz=93,slow=9.1,SNR=7.9						
ASAR	**Alice Springs**	47.22	257	P	P	13 24 13.2	-0.3
	2.9nm,0.8s,baz=90,slow=8.4,SNR=30						
WB2	**Warramunga Arr**	47.41	262	*e*P	P	13 24 14.0	-1.1
WRA	**Warramunga Arr**	47.42	262	P	P	13 24 14.5	-0.7
	2.8nm,0.7s,baz=101,slow=7.8,SNR=31						
MJAR	**Matsushiro Arr**	72.71	322	P	P	13 27 08.3	-0.2
	2.9nm,0.7s,baz=157,slow=7.0,SNR=7.6						
KSRS	**Korea Array**	79.54	317	P	P	13 27 48.4	+1.0
	2.4nm,1.0s,baz=132,slow=5.4,SNR=4.7						
NVAR	**Mina Array Bea**	79.66	42	P	P	13 27 48.5	+0.5
	0.6nm,0.6s,baz=232,slow=11,SNR=3.9						
BRTR	**Keskin Array B**	149.62	313	PKPbc	PKPbc	13 35 29.4	-1.0
	0.6nm,0.7s,baz=126,slow=2.0,SNR=3.0						

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*ISCJB **22** 13:52:12.4±0.5, 43.73N±0.05×138.6E±0.1, h266^{km}±8^{km}, mb3.3/10, Error ellipse: s-maj=12.6km s-min=7.1km az=19.3*
*JMA **22** 13:52:12.9±0.2, 43.72N×138.57E, h260^{km}, M3.4*
*MOS **22** 13:52:12.0±0.8, 43.83N×138.48E, h261^{km}, mb3.6/5, Error ellipse: s-maj=27.1km s-min=16.7km az=90.0*
*IDC **22** 13:52:12.9±1.4, 43.85N×138.47E, h250^{km}±14^{km}, mb3.0/10, mb1 3.2/13, mb1mx3.1/25, mbtmp3.0/13, Error ellipse: s-maj=16.1km s-min=12.1km az=78.0*
ISC 22 13:52:13.1±0.5**, 43.70N**±0.05×**138.6E**±0.1**, h257**^{km}±8^{km}**, n37, σ0^{s}83**/43**, mb3.3**/10**, 1C, Eastern Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSK	**Shakotan**	1.44	103	P	Pn	13 52 51.6	-0.1
JKB	**Kayabe**	2.57	134	P	Pn	13 53 01.7	+0.1
JWK2	**Keihoku**	2.88	55	P	Pn	13 53 05.2	+0.5
JBT2	**Biratori 2**	2.93	107	*e*S	S	13 53 47.2	+0.6
ASAJ	**Asahikawa**	2.95	81	P	Pn	13 53 05.3	-0.1
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ	**Asahikawa**	2.95	81	P	Pn	13 53 05.3	-0.1
	comp=Z,4.4nm,0.3s,baz=221,slow=5.2,SNR=30						
JFR	**Furan**	2.99	99	P	Pn	13 53 06.0	+0.1
JFR				*e*S	S	13 53 48.6	+0.9
JKK2	**Kamakawa 2**	3.04	85	P	Pn	13 53 06.6	+0.2
JKK2				*e*S	S	13 53 49.2	+0.6
JSE	**Soyaes**	3.15	65	P	Pn	13 53 07.7	+0.1
JNBK	**Urakawa-nobuka**	3.39	113	P	Pn	13 53 10.3	0.0
JCH	**Churui**	3.68	106	*e*S	S	13 53 58.2	-3.3
JAR	**Ashorobuto**	3.81	94	P	Pn	13 53 15.0	0.0
JAR				*e*S	S	13 54 04.0	-0.2
JTKR	**Abashiri--Toko**	3.88	84	P	Pn	13 53 15.7	-0.1
JANG	**Nango**	3.99	146	P	Pn	13 53 16.9	-0.2
JANG				*e*S	S	13 54 05.6	-2.4
YSS	**Yuzh-Sakhalins**	4.39	41	⇑*e*P	Pn	13 53 21.2	-0.5
YSS				pmax	pmax		
	comp=Z,50nm,0.8s						
JMK	**Ichinoseki**	5.15	156	P	Pn	13 53 31.1	+0.1
JMK				*e*S	S	13 54 32.2	-1.0
NEM2	**Nemuro 2**	5.23	91	*e*S	S	13 54 28.9	-5.9
MAT	**Matsushiro**	7.16	182	P	Pn	13 53 56.5	+0.6
MAT				*e*S	S	13 55 17.8	-0.7
MJAR	**Matsushiro Arr**	7.16	182	P	Pn	13 53 56.9	+1.0
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MJAR	**Matsushiro Arr**	7.16	182	P	Pn	13 53 56.9	+1.0
	comp=Z,1.5nm,0.3s,baz=357,slow=13,SNR=11						
KSRS	**Korea Array**	10.21	236	P	Pn	13 54 35.7	+1.4
	comp=Z,0.0nm,0.3s,baz=40,slow=10,SNR=3.1						
SONM	**Songino Array**	22.72	292	P	P	13 56 52.7	-0.1
	comp=Z,0.2nm,0.5s,mb2.7,baz=68,slow=8.8,SNR=5.7						
ZALV	**Zalesovo Beam**	36.02	306	P	P	13 58 48.8	-0.8
	comp=Z,0.9nm,0.7s,mb3.4,baz=93,slow=6.1,SNR=3.7						
MKAR	**Makanchi Array**	39.02	295	P	P	13 59 14.2	-0.6
	comp=Z,0.3nm,0.2s,mb3.3,baz=82,slow=10,SNR=5.1						
ARCES	**ARCESS Array B**	57.00	337	P	P	14 01 30.6	-1.0
ARCES				pmax	pmax		
	comp=Z,3.0nm,1.1s						
ARCES	**ARCESS Array B**	57.00	337	P	P	14 01 30.6	-1.0
	comp=Z,2.6nm,1.1s,mb3.6,baz=58,slow=8.6,SNR=2.1						
YKA	**Yellowknife Ar**	59.19	31	P	P	14 01 46.6	-0.1
YKA	**Yellowknife Ar**	59.19	31	P	P	14 01 46.6	-0.1
	comp=Z,0.2nm,0.5s,mb2.8,baz=307,slow=6.5,SNR=4.5						
FINES	**FINESS Array B**	61.93	330	P	P	14 02 04.2	-1.0
FINES				pmax	pmax		
	comp=Z,1.0nm,1.0s						
FINES	**FINESS Array B**	61.93	330	P	P	14 02 04.2	-1.0
	comp=Z,1.1nm,1.0s,mb3.5,baz=180,slow=34,SNR=2.8						
WRA	**Warramunga Arr**	63.45	184	P	P	14 02 16.4	+0.8
WRA						14 02 51.2	
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	**Warramunga Arr**	63.45	184	P	P	14 02 16.4	+0.7
	comp=Z,0.8nm,0.7s,mb3.5,baz=5.6,slow=7.1,SNR=25						
WRA				PcP	PcP	14 02 51.2	+1.3
	comp=Z,0.4nm,0.6s,baz=359,slow=4.7,SNR=9.3						
ASAR	**Alice Springs**	67.17	185	P	P	14 02 41.4	+2.0
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	**Alice Springs**	67.17	185	P	P	14 02 41.4	+2.0
	comp=Z,0.6nm,0.6s,mb3.5,baz=1.6,slow=5.9,SNR=18						
AKASG	**Malin Array Be**	67.75	320	P	P	14 02 42.1	-0.7
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	**Malin Array Be**	67.75	320	P	P	14 02 42.1	-0.7
	comp=Z,0.5nm,0.5s,mb3.5,baz=44,slow=4.7,SNR=3.6						
PDAR	**Pinedale Array**	74.53	45	P	P	14 03 24.4	+0.9
	comp=Z,0.6nm,0.9s,mb3.2,baz=318,slow=1.2,SNR=3.8						

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*MAN **22** 14:27:54, 5.02N×126.73E, h2^{km}, mb5.3, ML4.2, MS4.5*
*IDC **22** 14:28:00.7±4.4, 5.53N×126.41E, h29^{km}±29^{km}, mb3.8/10, mb1 3.9/10, mb1mx3.8/20, mbtmp3.8/10, MS3.2/2, Ms1 3.2/2, ms1mx2.8/35, Error ellipse: s-maj=73.5km s-min=13.7km az=73.0*
*ISCJB **22** 14:28:02.9±1.1, 5.61N±0.06×126.7E±0.1, h75^{km}±9^{km}, mb4.2/21, Error ellipse: s-maj=19.9km s-min=8.4km az=167.9*
*NEIC **22** 14:28:03.6±1.5, 5.60N×126.75E, h68^{km}±13^{km}, mb4.5/12, Error ellipse: s-maj=17.2km s-min=6.9km az=73.0*
*BJI **22** 14:28:04.2, 5.37N×126.50E, h78^{km}, mb4.3*
ISC 22 14:28:06.4±1.1**, 5.52N**±0.06×**126.6E**±0.1**, h90**^{km}±9^{km}**, n49, σ1^{s}10**/49**, mb4.2**/21**, 2C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	**Mati**	1.46	346	*e*P	Pn	14 28 25.8	-5.9
GSPH	**General Santos**	1.75	289	⇑*i*P	Pn	14 28 27.2	-8.3
GSPH				*e*S	Sn	14 28 46.9	-11
DAV	**Davao City (W)**	1.86	326	*e*Pn	Pn	14 28 32.8	-4.0
KCP	**Kidapawan**	2.12	314	⇑*e*P	Pn	14 28 41.6	+1.4
KCP				*i* S	Sn	14 29 10.2	+4.2
CGP	**Cagayan de Oro**	3.49	327	⇓*e*P	Pn	14 28 58.2	-0.3
CGP				*e*S	Sn	14 29 45.1	+6.3
PAGZ	**Pagadian**	3.96	306	*e*P	Pn	14 29 02.8	-2.1
SCPH	**Surigao**	4.38	345	*e*P	Pn	14 29 10.6	-0.1
SCPH				*e*S	Sn	14 29 55.6	-5.0
KSM	**Kuching**	16.77	257	*e*Pn	Pn	14 31 56.4	+0.5
NACB	**Ninganchiao**	19.17	346	P	Pn	14 32 27.3	+2.5
FITZ	**Fitzroy Crossi**	23.49	182	*e*P	P	14 33 08.3	0.0
	5.5nm,0.9s,mb3.9						
FITZ	**Fitzroy Crossi**	23.49	182	P	P	14 33 07.9	-0.4
	1.4nm,0.7s,mb3.4,baz=64,slow=7.7,SNR=4.0						
PMG	**Port Moresby**	25.27	126	LR	LR	14 44 30.2	
	comp=Z,84nm,19.1s,baz=198,slow=39						
KULM	**Kulim**	25.85	271	*e*P	P	14 33 30.4	+0.5
WRA	**Warramunga Arr**	26.42	163	P	P	14 33 34.9	+0.1
	4.4nm,1.1s,mb3.8,baz=343,slow=10,SNR=16						
WRA				ScP	ScP	14 40 37.6	+7.2
	0.5nm,0.8s,baz=339,slow=2.9,SNR=4.8						
WB2	**Warramunga Arr**	26.42	163	*e*P	P	14 33 36.0	+1.1
WB2	**Warramunga Arr**	26.42	163	*e*P	P	14 33 36.0	+1.1
MBWA	**Marble Bar**	27.36	194	P	P	14 33 42.6	-0.7
	16nm,1.2s,mb4.4						
ASAR	**Alice Springs**	29.86	166	P	P	14 34 06.0	+0.4
	0.5nm,0.8s,mb3.2,baz=347,slow=7.0,SNR=11						
ASAR				PcP	PcP	14 37 08.2	+1.4
	0.3nm,0.4s,baz=346,slow=2.2,SNR=6.6						
KSRS	**Korea Array**	31.81	2	LR	LR	14 45 22.1	
	comp=Z,25nm,21.1s,baz=195,slow=33						
LZH	**Lanzhou**	36.92	329	*e*P	P	14 35 08.5	+1.8
LZH				AMB	AMB		
	comp=Z,16nm,1.5s,mb4.7						
LZH	**Lanzhou**	36.92	329	*e*P	P	14 35 08.5	+1.8
	comp=Z,16nm,1.5s,mb4.7						
LZH				pP	pP	14 35 12.4	-15
LZH				sP	sP	14 35 15.5	-22
NWAO	**Narrogin (SRO)**	39.26	193	*e*P	P	14 35 25.8	-0.6
	comp=Z,42nm,1.4s,mb5.1						
NWAO	**Narrogin (SRO)**	39.26	193	P	P	14 35 26.5	+0.1
	comp=Z,2.7nm,0.5s,mb4.4,baz=19,slow=16,SNR=5.6						
STKA	**Stephens Creek**	39.83	160	*e*P	P	14 35 30.5	-0.6
	comp=Z,2.3nm,0.6s,mb4.2						
STKA	**Stephens Creek**	39.83	160	*e*P	P	14 35 30.4	-0.7
	comp=Z,6.4nm,0.9s,mb4.5						
STKA	**Stephens Creek**	39.83	160	P	P	14 35 33.4	+2.2
	comp=Z,2.8nm,0.7s,mb4.2,baz=328,slow=10,SNR=8.2						
GTA	**Gaotai**	41.52	328	*e*P	P	14 35 47.3	+2.3
GTA				AMB	AMB		
	comp=Z,2.0nm,1.2s,mb3.7						
ULN	**Ulaanbaatar**	45.40	342	*e*P	P	14 36 17.9	+1.9
	comp=Z,5.1nm,1.1s,mb4.2						
SONM	**Songino Array**	45.58	341	P	P	14 36 18.2	+0.8
	comp=Z,0.9nm,0.7s,mb3.6,baz=153,slow=7.9,SNR=6.2						
SONM				PcP	PcP	14 37 55.7	+1.2
	comp=Z,0.3nm,0.6s,baz=149,slow=4.4,SNR=2.9						
MK31	**Makanchi Array**	56.04	325	*e*P	P	14 37 35.3	-0.6
MK31				*e*PcP	PcP	14 38 33.3	+0.1
MKAR	**Makanchi Array**	56.04	325	P	P	14 37 35.7	-0.3
MKAR				PcP	PcP	14 38 34.1	+0.9
MKAR	**Makanchi Array**	56.04	325	P	P	14 37 35.7	-0.3
	comp=Z,1.2nm,0.5s,mb4.2,baz=121,slow=7.8,SNR=40						
MKAR				PcP	PcP	14 38 34.1	+0.9
	comp=Z,1.3nm,0.7s,baz=131,slow=3.8,SNR=5.9						
MA2	**Magadan**	57.01	14	P	P	14 37 40.2	-2.4
UCH	**Uchtor**	58.80	317	P	P	14 37 55.0	-0.5
	comp=Z,2.6nm,0.9s,mb4.3						
ZALV	**Zalesovo Beam**	58.96	333	P	P	14 37 56.5	+0.1
ZALV	**Zalesovo Beam**	58.96	333	P	P	14 37 56.5	+0.1
	comp=Z,1.0nm,0.5s,mb4.2,baz=130,slow=7.9,SNR=6.1						
AML	**Almayashu**	59.32	316	P	P	14 37 59.8	+0.7
	comp=Z,3.0nm,0.9s,mb4.3						
EKS2	**Erkin-Say**	59.47	317	*e*P	P	14 37 59.7	-0.4
	comp=Z,1.4nm,0.6s,mb4.2						
KURK	**Kurchatov**	60.19	327	*e*P	P	14 38 04.1	-0.7
	comp=Z,4.9nm,0.6s,mb4.7						
KBL	**Kabul**	60.36	307	P	P	14 38 06.3	-0.1
BRVK	**Borovoye**	65.84	327	*e*P	P	14 38 41.8	-0.5
	comp=Z,4.8nm,0.8s,mb4.4						
ARU	**Arti**	73.38	327	*e*P	P	14 39 28.0	-0.5
	comp=Z,4.2nm,0.7s,mb4.4						
JOF	**Joensuu**	87.55	333	*e*p	P	14 40 42.1	-2.1
ARCES	**ARCESS Array B**	88.74	340	P	P	14 40 49.7	-0.1
ARCES	**ARCESS Array B**	88.74	340	P	P	14 40 49.7	0.0
	comp=Z,1.6nm,0.7s,mb4.1,baz=53,slow=4.7,SNR=5.7						
KAF	**Kangasniemi**	89.97	332	*e*p	P	14 40 54.4	-1.2
	comp=Z,0.6nm,0.3s,mb4.2						
FINES	**FINESS Array B**	90.21	332	P	P	14 40 57.1	+0.3
	comp=Z,0.6nm,0.5s,mb4.0,baz=57,slow=7.0,SNR=5.8						
TORD	**Torodi Ar. Bea**	122.25	289	PKP	PKPdf	14 46 54.8	+2.8
TORD	**Torodi Ar. Bea**	122.25	289	PKP	PKPdf	14 46 54.8	+2.8
	comp=Z,0.8nm,0.7s,baz=80,slow=1.5,SNR=4.7						

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*CSEM **22** 14:34:29.6±0.2, 38.34N×29.79E, h8^{km}, MD2.6, Error ellipse: s-maj=4.6km s-min=3.6km az=54.0*
*ISK **22** 14:34:29.0, 38.33N×29.77E, h26^{km}, MD2.6*
*ISCJB **22** 14:34:30.7±0.6, 38.34N±0.03×29.81E±0.04, h8^{km}±7^{km}, Error ellipse: s-maj=6.0km s-min=5.1km az=135.5*
*DDA **22** 14:34:30.8, 38.31N×29.06E, h10^{km}, Md2.9*
ISC 22 14:34:31.1±0.6**, 38.33N**±0.03×**29.79E**±0.04**, h11**^{km}±6^{km}**, n10, σ1^{s}04**/18**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHL	**Karahalli**	0.21	269	*i* PG	Pg	14 34 35.4	-0.1
KHL				*i* SG	Sg	14 34 39.1	+0.6
KHL	**Karahalli**	0.21	269	*i* Pg	Pg	14 34 35.4	-0.1
KHL				*i* Sg	Sg	14 34 39.1	+0.6
SHUT	**Suhut-Afyon**	0.64	69	PG	Pg	14 34 43.0	-0.5
SHUT				SG	Sg	14 34 52.1	+0.2
SHUT	**Suhut-Afyon**	0.64	69	*e*Pg	Pg	14 34 43.0	-0.5
SHUT				*e*Sg	Sg	14 34 52.1	+0.2
ISP	**Isparta**	0.75	130	*e*PG	Pg	14 34 45.3	-0.2
ISP				*e*SG	Sg	14 34 55.6	+0.4
GDZ	**Gediz**	0.80	343	*i* P	Pg	14 34 46.2	-0.3
GDZ				*i* S	Sg	14 34 58.7	+1.7
KULA	**Kula-Manisa**	0.91	282	PG	Pg	14 34 46.1	-2.4
KULA	**Kula-Manisa**	0.91	282	*e*Pg	Pg	14 34 46.1	-2.4
GOLH	**Golhisar**	1.10	189	*i* P	Pb	14 34 51.1	-1.1
GOLH				*i* S	Sb	14 35 08.5	+2.0
ULDT	**Uludag**	1.88	345	*i* P	Pn	14 35 02.3	-1.0
ULDT				*i* S	Sn	14 35 27.5	+0.5

IDC 22 14:37:46.8±1.9**, 3.32N×127.55E, h0**^{km}**, mb3.5**/4**, mb1 3.6**/4**, mb1mx3.4**/18**, mbtmp3.5**/4**, Error ellipse: s-maj=143.2km s-min=23.8km az=66.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	24.06	164	P	P	14 43 03.4	-0.6
	1.6nm,0.8s,baz=344,slow=10,SNR=17						
ASAR	**Alice Springs**	27.53	167	P	P	14 43 35.5	+0.1
	0.2nm,0.7s,baz=350,slow=7.3,SNR=4.3						
STKA	**Stephens Creek**	37.47	160	P	P	14 45 02.8	+0.6
	1.2nm,0.8s,baz=352,slow=14,SNR=3.8						
MKAR	**Makanchi Array**	58.35	325	P	P	14 47 43.9	+0.1
	0.2nm,0.4s,baz=116,slow=7.9,SNR=7.5						

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*IDC **22** 14:41:29.9±2.6, 10.12N×92.10E, h0^{km}, mb3.8/6, mb1 4.0/6, mb1mx3.7/22, mbtmp3.8/6, Error ellipse: s-maj=116.0km s-min=18.7km az=63.0*
*ISCJB **22** 14:41:33.5±1.1, 10.2N±0.1×92.3E±0.2, h33^{km}, mb3.9/7, Error ellipse: s-maj=32.5km s-min=13.0km az=160.3*
*NEIC **22** 14:41:34.3±0.8, 10.13N×92.19E, h30^{km}, mb4.3/1, Error ellipse: s-maj=26.2km s-min=10.7km az=70.0*
ISC 22 14:41:35.3±1.1**, 10.2N**±0.1×**92.2E**±0.2**, h35**^{km}**, n13, σ0^{s}72**/11**, mb3.9**/7**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	10.51	37	Pn	Pn	14 44 03.4	-0.2
MK31	**Makanchi Array**	37.48	349	*e*P	P	14 48 45.7	+0.1
MKAR	**Makanchi Array**	37.48	349	P	P	14 48 45.7	+0.1
	1.5nm,0.6s,mb4.0,baz=170,slow=8.0,SNR=21						
SONM	**Songino Array**	39.42	15	P	P	14 49 01.9	+0.1
	0.5nm,0.6s,mb3.5,baz=210,slow=6.8,SNR=5.4						
FITZ	**Fitzroy Crossi**	43.31	130	P	P	14 49 35.2	+1.1
	1.7nm,0.7s,mb3.9,baz=254,slow=6.1,SNR=5.3						
ZALV	**Zalesovo Beam**	44.08	354	P	P	14 49 39.8	-0.1
	1.0nm,0.6s,mb3.7,baz=177,slow=8.6,SNR=6.0						
WRA	**Warramunga Arr**	51.11	126	P	P	14 50 34.8	-0.2
	1.5nm,0.7s,mb4.1,baz=305,slow=8.7,SNR=18						
WB2	**Warramunga Arr**	51.12	126	*e*P	P	14 50 35.2	+0.2
WB2	**Warramunga Arr**	51.12	126	*e*P	P	14 50 35.1	+0.1

ASAR	Alice Springs	52.81	130	P	P	14 50 48.2	+0.6
	0.5nm,0.5s,mb3.7,baz=302,slow=7.6,SNR=16						
STKA	Stephens Creek	63.03	134	P	P	14 51 57.1	-2.0
	2.4nm,0.9s,mb4.3						
NVAR	Mina Array Bea	123.90	29	PKP	PKPdf	15 00 29.8	-0.4
NVAR	Mina Array Bea	123.90	29	PKP	PKPdf	15 00 29.8	-0.4
	0.6nm,0.4s,baz=353,slow=5.6,SNR=4.8						

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*ISCJB **22** 14:49:43.0±0.6, 53.37N±0.08×172.22E±0.1, h10^{km}, mb4.1/13, Error ellipse: s-maj=13.1km s-min=7.7km az=32.0*

*IDC **22** 14:49:43.1±0.8, 53.19N×172.25E, h0^{km}, mb3.9/11, mb1 4.2/11, mb1mx3.9/25, mbtmp3.9/11, MS3.1/1, Ms1 3.1/1, ms1mx2.5/44, Error ellipse: s-maj=28.6km s-min=16.4km az=165.0*

*NEIC **22** 14:49:45.2±5.1, 53.31N×172.21E, h15^{km}±32^{km}, mb4.7/4, ML3.9(AEIC), Error ellipse: s-maj=11.8km s-min=10.7km az=116.0*

ISC 22 14:49:44.7±0.6, 53.27N±0.08×172.3E±0.1, h10^{km}, n21, σ0^{s}97/22, mb4.1/13, Near Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMY	Shemya	1.23	115	P	Pn	14 50 08.3	+0.3
SMY				S	Sb	14 50 25.1	+1.0
AMKA	Amchitka	4.71	111	P	Pn	14 50 55.9	+0.1
AMKA				S	Sn	14 51 48.4	-2.1
TNA	Tin City	15.81	31	*e*Pn	Pn	14 53 27.7	+0.6
	9.0nm,1.4s						
KDAK	Kodiak Island	20.25	63	P	P	14 54 19.4	-0.4
	4.1nm,0.5s,baz=191,slow=16,SNR=11						
IMA2	Indian Mountai	21.09	39	*e*P	P	14 54 29.0	+0.2
ASAJ	Asahikawa	21.48	257	LR	LR	15 02 12.2	
	comp=Z,51nm,20.9s,baz=28,slow=35						
MENT	Mentasta	24.69	50	*e*P	P	14 55 06.2	+0.8
INK	Inuvik	29.21	38	P	P	14 55 43.8	-2.2
	83nm,1.0s,mb5.4						
YKA	Yellowknife Ar	37.90	46	P	P	14 57 01.9	+0.4
YKA	Yellowknife Ar	37.90	46	P	P	14 57 01.9	+0.4
	1.9nm,0.7s,mb3.9,baz=291,slow=8.1,SNR=21						
RES	Resolute Bay	40.28	24	P	P	14 57 20.3	-1.0
	70nm,1.0s,mb5.3						
SONM	Songino Array	40.86	290	P	P	14 57 26.6	+0.2
	0.4nm,0.4s,mb3.4,baz=60,slow=7.6,SNR=11						
HLID	Hailey	47.59	71	*e*P	P	14 58 20.5	+0.2
	0.9nm,0.5s,mb4.1						
NVAR	Mina Array Bea	48.65	78	P	P	14 58 29.1	+0.6
	1.6nm,0.6s,mb4.2,baz=307,slow=6.3,SNR=9.0						
PDAR	Pinedale Array	50.83	68	P	P	14 58 45.6	+0.5
	1.7nm,0.7s,mb4.1,baz=291,slow=3.1,SNR=14						
ULM	Lac du Bonnet	53.09	53	P	P	14 59 00.9	-0.9
	1.0nm,0.5s,mb4.0,baz=299,slow=3.3,SNR=3.4						
MKAR	Makanchi Array	54.47	302	P	P	14 59 10.5	-1.5
	0.2nm,0.4s,mb3.4,baz=54,slow=6.9,SNR=6.1						
ARCES	ARCESS Array B	55.12	346	P	P	14 59 18.8	+2.4
	4.1nm,0.9s,mb4.4,baz=39,slow=9.2,SNR=3.6						
TXAR	Lajitas Array	63.65	76	P	P	15 00 16.4	+0.5
	1.2nm,0.6s,mb4.1,baz=306,slow=5.0,SNR=16						
WRA	Warramunga Arr	79.95	216	P	P	15 01 53.4	-0.3
	0.4nm,0.8s,mb3.4,baz=26,slow=5.3,SNR=3.7						
ASAR	Alice Springs	83.53	215	P	P	15 02 12.9	+0.4
	0.3nm,0.5s,mb3.7,baz=18,slow=4.8,SNR=9.5						

IDC 22 14:56:15.5±2.1, 30.75N×139.41E, h0^{km}, mb3.4/4, mb1 3.6/4, mb1mx3.4/20, mbtmp3.4/4, MS3.5/1, Ms1 3.5/1, ms1mx2.5/38, Error ellipse: s-maj=92.6km s-min=22.2km az=59.0, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	Matsushiro Arr	5.87	350	Pn	Pn	14 57 37.3	-6.5
	0.4nm,0.3s,baz=147,slow=11,SNR=3.8						
SONM	Songino Array	30.42	314	P	P	15 02 30.4	+0.9
	0.4nm,0.8s,baz=108,slow=7.7,SNR=3.2						
SONM				LR	LR	15 15 06.8	
	comp=Z,79nm,19.9s,baz=0.2,slow=37						
HNR	Honiara	44.55	150	P	P	15 04 29.2	0.0
	38nm,0.4s,baz=110,slow=4.8,SNR=7.6						
MKAR	Makanchi Array	46.31	307	P	P	15 04 42.1	-0.9
	0.3nm,0.6s,baz=92,slow=6.4,SNR=4.2						
WRA	Warramunga Arr	50.63	186	P	P	15 05 16.2	-0.2
	0.8nm,0.8s,baz=5.7,slow=7.6,SNR=8.5						
ASAR	Alice Springs	54.36	186	P	P	15 05 44.2	+0.2
	0.2nm,0.8s,baz=354,slow=6.3,SNR=4.2						

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*INMG **22** 15:09:29.7±0.9, 36.15N×7.92W, h31^{km}, ML1.6, Error ellipse: s-maj=6.0km s-min=4.8km az=33.0*

MDD 22 15:09:29.3±1.9, 36.15N×7.90W, h41^{km}±56^{km}, mb3.7/4, Error ellipse: s-maj=18.8km s-min=10.0km az=17.0, PRXIMO, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PBDV	Barranco-do-Ve	1.09	359	*e*P	Pn	15 09 47.5	-0.5
PBDV				*e*S	Sn	15 10 01.3	-0.6
PBDV				A		15 10 05.7	
	6.4nm,0.3s						
PBDV	Barranco-do-Ve	1.09	359	P	Pn	15 09 47.5	-0.5
PBDV				S	Sn	15 10 01.3	-0.6
	3.2nm,0.3s						
PFVI	Vila Bisbo	1.23	323	*e*P	Pn	15 09 49.3	-0.7
PFVI				*e*S	Sn	15 10 03.7	-1.7
PFVI				A		15 10 08.8	
	5.7nm,0.2s						
PFVI	Vila Bisbo	1.23	323	P	Pn	15 09 49.3	-0.7
PFVI				S	Sn	15 10 03.7	-1.7
	2.8nm,0.2s						
PVAQ	Vaqueiros	1.26	7	*e*P	Pn	15 09 49.9	-0.4
PVAQ				*e*S	Sn	15 10 04.9	-1.1
PVAQ				A		15 10 11.8	
	5.4nm,0.2s						
PVAQ	Vaqueiros	1.26	7	P	Pn	15 09 49.9	-0.4
PVAQ				S	Sn	15 10 04.9	-1.1
	2.7nm,0.2s						
MORF	Marmelete	1.30	333	*e*P	Pn	15 09 50.2	-0.7
MORF				*e*S	Sn	15 10 05.7	-1.4
MORF				A		15 10 08.3	
	12nm,0.2s						
MORF	Marmelete	1.30	333	P	Pn	15 09 50.2	-0.7
MORF				S	Sn	15 10 05.7	-1.4
	12nm,0.2s						
EGRO	El Granado	1.42	13	P	Pn	15 09 51.9	-0.6
	2.0nm,0.1s,SNR=7.9						
EGRO				S	Sn	15 10 08.4	-1.6
	3.0nm,0.1s,SNR=7.9						
PTEO	Sao Teotonio	1.54	335	*e*P	Pn	15 09 53.8	-0.4
PTEO				*e*S	Sn	15 10 12.0	-1.0
PTEO				A		15 10 13.4	
	4.4nm,0.1s						
PTEO	Sao Teotonio	1.54	335	P	Pn	15 09 53.8	-0.4
PTEO				S	Sn	15 10 12.0	-1.0
	2.2nm,0.1s						
ESPR	Espera	1.79	66	S	Sn	15 10 16.9	-2.3
	2.2nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	1.89	31	P	Pn	15 09 58.3	-0.7
	0.9nm,0.1s,SNR=7.7						
EMIN				S	Sn	15 10 19.2	-2.4
	0.9nm,0.1s,SNR=8.5						
EBAD	Badajoz	2.69	15	P	Pn	15 10 10.0	-0.1
	2.1nm,0.1s,SNR=6.7						
EBAD				S	Sn	15 10 39.1	-2.2
	0.6nm,0.0s,SNR=5.0						
EADA	Adamuz	3.33	52	P	Pn	15 10 18.2	-0.6
	0.2nm,0.1s,SNR=7.9						
EADA				S	Sn	15 10 54.8	-2.3
	1.3nm,0.1s,SNR=10						
ESDC	Sonseca Array	4.69	40	P	Pn	15 10 37.5	-0.1
	SNR=7.9						
ESDC				S	Sn	15 11 27.3	-3.4
	SNR=7.9						

IDC 22 15:21:01.3±2.1, 18.58S×177.50E, h0^{km}, mb3.7/3, mb1 4.2/4, mb1mx3.8/14, mbtmp4.1/4, ML3.1/1, Error ellipse: s-maj=153.2km s-min=33.0km az=159.0, Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	11.30	67	Pn	Pn	15 23 44.2	+0.1
	8.0nm,0.3s,baz=18,slow=16,SNR=6.6						
STKA	Stephens Creek	34.91	241	P	P	15 27 54.9	+0.1
	1.5nm,0.9s,baz=75,slow=12,SNR=3.3						
WRA	Warramunga Arr	40.69	261	P	P	15 28 43.8	-0.1
	0.6nm,0.7s,baz=95,slow=7.8,SNR=8.9						
ASAR	Alice Springs	40.86	255	P	P	15 28 45.2	-0.1
	1.0nm,0.5s,baz=89,slow=8.6,SNR=25						

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*ISCJB **22** 15:48:07.6±1.9, 7.94S±0.09×129.3E±0.1, h93^{km}±20^{km}, mb4.0/8, Error ellipse: s-maj=21.6km s-min=12.5km az=157.4*

*NEIC **22** 15:48:09.2±2.0, 7.94S×129.28E, h90^{km}±21^{km}, mb4.2/6, Error ellipse: s-maj=21.4km s-min=15.6km az=57.0*

*IDC **22** 15:48:09.8±3.3, 7.93S×128.76E, h82^{km}±28^{km}, mb3.5/4, mb1 3.7/6, mb1mx3.6/14, mbtmp3.6/6, MS2.9/2, Ms1 2.9/2, ms1mx2.7/18, Error ellipse: s-maj=60.2km s-min=19.1km az=75.0*

ISC 22 15:48:13.1±2.0, 8.23S±0.10×129.35E±0.10, h136^{km}±21^{km}, n18, σ1^{s}07/25, mb3.9/8, Timor Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	5.39	146	*e*P	Pn	15 49 31.7	+0.1
	13nm,0.3s						
KAKA				*e*S	Sn	15 50 33.2	+0.5
FITZ	Fitzroy Crossi	10.45	200	*e*P	Pn	15 50 40.0	+0.6
	12nm,0.3s						
FITZ				*e*S	Sn	15 52 33.7	-1.2
FITZ	Fitzroy Crossi	10.45	200	P	Pn	15 50 40.0	+0.6
	2.8nm,0.3s,baz=33,slow=12,SNR=68						
FITZ				S	Sn	15 52 34.1	-0.8
	4.2nm,0.3s,baz=115,slow=20,SNR=8.0						
FITZ				LR	LR	15 54 46.2	
	comp=Z,73nm,21.6s,baz=72,slow=38						
WRA	Warramunga Arr	12.61	158	P	Pn	15 51 07.5	-0.2
	0.9nm,0.3s,baz=327,slow=14,SNR=44						
WRA				S	Sn	15 53 26.0	-0.9
	2.0nm,0.3s,baz=337,slow=22,SNR=10.0						
WRA				LR	LR	15 56 52.2	
	comp=Z,54nm,19.2s,baz=45,slow=40						
WB2	Warramunga Arr	12.61	158	*e*P	Pn	15 51 08.3	+0.5
WB2				*e*S	Sn	15 53 25.4	-1.6
MBWA	Marble Bar	15.85	215	*e*Pn	Pn	15 51 49.8	+1.0
	12nm,0.8s						
MBWA				*e*Sn	Sn	15 54 38.4	-6.7
ASAR	Alice Springs	15.96	165	P	Pn	15 51 53.1	+3.1
	0.3nm,0.3s,baz=330,slow=9.1,SNR=31						
ASAR				S	S	15 54 49.3	+1.3
	0.9nm,0.3s,baz=347,slow=24,SNR=6.1						
ASAR				ScP	ScP	16 00 10.6	+10
	0.1nm,0.3s,baz=347,slow=1.5,SNR=6.8						
FORT	Forrest	22.46	183	*e*P	P	15 53 08.4	+7.2
	15nm,0.6s,mb4.6						
KLBR	Kellerberrin	25.63	203	*e*P	P	15 53 37.5	+7.5
	7.6nm,0.7s,mb4.4						
STKA	Stephens Creek	26.14	156	*e*P	P	15 53 42.0	+7.4
	2.0nm,0.9s,mb3.8						
STKA	Stephens Creek	26.14	156	*e*P	P	15 53 39.2	+4.6
	2.7nm,0.8s,mb3.9						
STKA	Stephens Creek	26.14	156	P	P	15 53 41.1	+6.5
	1.3nm,0.6s,mb3.7,baz=329,slow=17,SNR=4.7						
SONM	Songino Array	59.40	342	P	P	15 58 00.9	-0.2
	0.2nm,0.6s,mb3.1,baz=168,slow=4.3,SNR=3.5						
MK31	Makanchi Array	68.90	327	*e*P	P	15 59 01.9	-1.3
MKAR	Makanchi Array	68.90	327	P	P	15 59 02.1	-1.1
	0.7nm,0.4s,mb3.7,baz=118,slow=8.2,SNR=15						
ZALV	Zalesovo Beam	72.40	334	P	P	15 59 23.8	-0.4
	1.0nm,0.6s,mb3.7,baz=135,slow=5.9,SNR=5.8						
KURK	Kurchatov	73.23	329	P	P	15 59 29.2	+0.1
	2.1nm,0.8s,mb3.9						
QSPA	South Pole Qui	81.75	180	P	P	16 00 18.5	+2.4
	7.6nm,1.4s,mb4.1						

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*ISCJB **22** 15:55:32.0±0.7, 39.81N±0.05×33.03E±0.05, h10^{km}, Error ellipse: s-maj=8.3km s-min=4.1km az=34.8*

*CSEM **22** 15:55:31.3±0.2, 39.83N×33.05E, h10^{km}, MD3.0, Error ellipse: s-maj=7.2km s-min=3.1km az=26.0*

*DDA **22** 15:55:34.6, 39.93N×33.11E, h10^{km}, Md3.0*

ISC 22 15:55:32.4±0.7, 39.83N±0.04×33.03E±0.05, h10^{km}, n9, σ0^{s}44/18, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANTO	Ankara	0.18	282	*i* PG	Pg	15 55 35.9	-0.5
ANTO				*i* SG	Sg	15 55 39.3	+0.3
ANTO	Ankara	0.18	282	*i* Pg	Pg	15 55 35.9	-0.5
ANTO				*i* Sg	Sg	15 55 39.3	+0.3
KAMT	Kaman	0.70	131	PG	Pg	15 55 45.6	-0.3
KAMT				SG	Sg	15 55 55.2	+0.1
KAMT	Kaman	0.70	131	*e*Pg	Pg	15 55 45.6	-0.3
KAMT				*e*Sg	Sg	15 55 55.2	+0.1
ELDT	Eldivan	0.73	25	*i* P	Pg	15 55 46.2	-0.3
ELDT				*i* S	Sg	15 55 56.3	+0.3
SGKT	Sivrigoynuk	1.05	315	*i* P	Pg	15 55 53.0	+0.4
SGKT				*i* S	Sg	15 56 12.2	+6.0
SGKT	Sivrigoynuk	1.05	315	*i* P	Pg	15 55 53.0	+0.4
SGKT				*i* S	Sg	15 56 12.2	+5.9
CDAG	Cicekdag	1.06	101	*i* P	Pg	15 55 52.4	-0.3
CDAG				*i* S	Sg	15 56 06.1	-0.3
AVNT	Avonos	1.76	126	*i* P	Pg	15 56 05.8	-0.4
AVNT				*i* S	Sg	15 56 30.1	+1.0

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*MOS **22** 16:13:32.7±1.2, 36.38N×26.96E, h122^{km}, mb4.0/11, Error ellipse: s-maj=8.7km s-min=4.7km az=128.3*

*CSEM **22** 16:13:34.6±0.0, 36.64N×27.25E, h140^{km}, mb4.0/4, Mw3.5, Error ellipse: s-maj=1.5km s-min=0.9km az=35.0*

*ISCJB **22** 16:13:35.1±0.1, 36.58N±0.02×27.14E±0.02, h142^{km}±2^{km}, mb4.0/16, Error ellipse: s-maj=3.0km s-min=1.9km az=33.3*

*NEIC **22** 16:13:36.0±0.3, 36.60N×27.10E, mb4.2/29, Error ellipse: s-maj=6.4km s-min=4.1km az=195.0*

*ISK **22** 16:13:36.4, 36.71N×27.10E, h131^{km}, MD3.8, ML3.7*

*IDC **22** 16:13:36.4±0.6, 36.59N×27.06E, h132^{km}±6^{km}, mb3.6/10, mb1 3.8/20, mb1mx3.7/30, mbtmp3.7/20, MS3.3/1, Ms1 3.3/1, ms1mx2.4/34, Error ellipse: s-maj=13.9km s-min=6.9km az=149.0*

*ATH **22** 16:13:36.5, 36.69N×27.17E, h123^{km}±3^{km}*

*HLW **22** 16:13:37.3, 36.48N×27.44E, h33^{km}, Mb4.8*

*NIC **22** 16:13:38.3±0.2, 37.16N×27.66E, h33^{km}, mb4.4, ML3.9, MW3.5*

*THE **22** 16:13:40.0, 36.70N×27.10E, h83^{km}, ML4.1*

*GII **22** 16:13:45.3±0.0, 36.33N×28.12E, h100^{km}±3^{km}, mb4.3/2, ML4.2/2*

ISC 22 16:13:36.1±0.1, 36.57N±0.02×27.14E±0.02, h136^{km}±2^{km}, h130^{km}±1.6^{km}:pP-P, n362, σ1^{s}09/404, mb4.0/16, 15C-30D, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAT	Datca	0.39	66	*i* PG	Pn	16 13 55.6	+0.3
DAT				*i* SG	Sn	16 14 09.0	-0.8
DAT	Datca	0.39	66	*i* Pg	Pn	16 13 55.6	+0.3
ARG	Arkhangelos	0.87	114	⇑*i*P	Pn	16 13 59.7	+1.3
ARG	Arkhangelos	0.87	114	⇑*i*P	Pn	16 13 59.7	+1.3
ARG				*e*S	Sn	16 14 14.5	-0.9
KARP	Karpathos	1.02	179	*e*P	Pn	16 14 01.2	+1.4
YER	Yerkesik	1.08	58	*i* PG	Pn	16 14 00.6	+0.4
YER				*i* SG	Sn	16 14 17.8	-0.8
YER	Yerkesik	1.08	58	*i* Pg	Pn	16 14 00.6	+0.4
YER				*i* Sg	Sn	16 14 17.8	-0.8
SMG	Samos	1.16	348	⇓*i*P	Pn	16 14 00.5	-0.6
SMG				*e*S	Sn	16 14 16.5	-3.6
SMG	Samos	1.16	348	⇓*i*P	Pn	16 14 00.5	-0.6
SMG				*e*S	Sn	16 14 16.5	-3.6
DALT	Dalyan (Mudla)	1.22	80	*i* PN	Pn	16 14 02.9	+1.2
DALT	Dalyan (Mudla)	1.22	80	*i* Pn	Pn	16 14 02.9	+1.2
APE	Apeiranthos	1.38	292	*e*Pg	Pn	16 14 03.4	+0.1
APE				*e*Sg	Sn	16 14 19.3	-4.8
APE	Apeiranthos	1.38	292	*d iP*	Pn	16 14 03.6	+0.3
APE	Apeiranthos	1.38	292	*e*Pg	Pn	16 14 03.4	+0.1
APE	Apeiranthos	1.38	292	⇓*i*P	Pn	16 14 04.2	+0.9
FETY	Fethiye	1.57	87	PN	Pn	16 14 05.9	+0.6
FETY	Fethiye	1.57	87	*e*Pn	Pn	16 14 05.9	+0.6
NPS	Neapolis	1.80	224	⇓*i*P	Pn	16 14 09.4	+1.4
BLCB	Balcova	1.81	358	*e*Pb	Pn	16 14 07.7	-0.5
KDAG	Bornova	1.83	3	⇓*i*P	Pn	16 14 08.0	-0.4
URLA	Izmir	1.84	347	⇓*i*P	Pn	16 14 07.8	-0.7
DENT	Denizli	1.92	51	PN	Pn	16 14 09.8	+0.4
DENT	Denizli	1.92	51	*e*Pn	Pn	16 14 09.8	+0.4
CHOS	Chios island	2.01	335	*e*Pb	Pn	16 14 10.0	-0.4
CHOS				*e*Sb	Sn	16 14 31.9	-4.9
CHOS	Chios island	2.01	335	*e*Pb	Pn	16 14 10.0	-0.5
KSL	Kastellorizon	2.02	101	*e*P	Pn	16 14 11.5	+0.9
KSL				*e*S	Sn	16 14 36.0	-1.0
GOLH	Golhisar	2.05	70	⇑*i*P	Pn	16 14 12.3	+1.3
XRY	Khrisi	2.06	215	*e*P	Pn	16 14 13.0	+1.9
IDI	Anoyia	2.23	236	P	Pn	16 14 14.1	+0.9
	30nm,0.3s,baz=50,slow=11,SNR=409						
IDI				S	Sn	16 14 40.9	-0.7
	128nm,0.3s,baz=338,slow=20,SNR=57						
ELL	Elmali	2.23	85	PN	Pn	16 14 14.4	+1.2
ELL	Elmali	2.23	85	*e*Pn	Pn	16 14 14.4	+1.2
KULA	Kula-Manisa	2.29	32	PN	Pn	16 14 13.7	-0.2
KULA	Kula-Manisa	2.29	32	*e*Pn	Pn	16 14 13.7	-0.2
AKS	Akhisar	2.37	13	PN	Pn	16 14 14.2	-0.6
AKS	Akhisar	2.37	13	*e*Pn	Pn	16 14 14.2	-0.6
KHL	Karahalli	2.58	47	PN	Pn	16 14 17.8	+0.3
KHL	Karahalli	2.58	47	*e*Pn	Pn	16 14 17.8	+0.3
VAM	Vamos	2.65	245	*e*P	Pn	16 14 19.8	+1.4
VAM	Vamos	2.65	245	*e*P	Pn	16 14 19.6	+1.1
AYVA	Ayvalik	2.76	353	⇓*i*P	Pn	16 14 19.1	-0.7
PRK	Paraskevi	2.76	346	⇓*i*P	Pn	16 14 19.6	-0.2
BCK	Bucak	2.90	71	PN	Pn	16 14 22.6	+1.0
BCK	Bucak	2.90	71	*e*Pn	Pn	16 14 22.6	+1.0
KVR	Kavouri	2.97	296	*e*P	Pn	16 14 23.0	+0.5
ISP	Isparta	2.98	64	PN	Pn	16 14 22.6	0.0
ISP	Isparta	2.98	64	*e*Pn	Pn	16 14 22.6	0.0
ISP	Isparta	2.98	64	*e*Pn	Pn	16 14 22.9	+0.3
ISP	Isparta	2.98	64	*c iP*	Pn	16 14 22.8	+0.2
ISP	Isparta	2.98	64	*e*Pn	Pn	16 14 22.9	+0.3
PTL	Penteli	3.00	300	*e*P	Pn	16 14 23.5	+0.6
GVD	Gavdhos	3.02	236	*e*Pn	Pn	16 14 24.7	+1.5
GVD				*e*Sn	Sn	16 14 51.9	-7.7
GVD	Gavdhos	3.02	236	*e*Pn	Pn	16 14 24.7	+1.5
BALB	Balikesir	3.12	11	PN	Pn	16 14 23.7	-0.7
BALB	Balikesir	3.12	11	*e*Pn	Pn	16 14 23.7	-0.7
GDZ	Gediz	3.12	36	⇑*i*P	Pn	16 14 24.6	+0.1
NAIG	Nisos Aigina	3.15	293	*e*P	Pn	16 14 25.0	+0.2
DST	Dursunbey	3.25	21	PN	Pn	16 14 24.8	-1.3
DST	Dursunbey	3.25	21	*e*Pn	Pn	16 14 24.8	-1.3
DID	Didima	3.26	288	*e*Pn	Pn	16 14 27.0	+0.8
DID				*e*Sn	Sn	16 15 03.5	-1.5
DID	Didima	3.26	288	*e*Pn	Pn	16 14 27.0	+0.8
DID				*e*Sn	Sn	16 15 03.5	-1.5
BTOK	Tokmak	3.26	12	⇓*i*P	Pn	16 14 25.6	-0.7
BTOK	Tokmak	3.26	12	*i* P	Pn	16 14 25.5	-0.8
EZN	Ezine	3.31	349	*e*PN	Pn	16 14 26.4	-0.5
EZN	Ezine	3.31	349	*e*Pn	Pn	16 14 26.4	-0.5
SHUT	Suhut-Afyon	3.36	53	*e*PN	Pn	16 14 27.3	-0.2
SHUT	Suhut-Afyon	3.36	53	*e*Pn	Pn	16 14 27.3	-0.2
BOZC	Bozcaada	3.38	346	⇓*i*P	Pn	16 14 27.1	-0.7
VLI	Veliai	3.38	274	⇑*i*P	Pn	16 14 28.4	+0.6
LTK	Loutraki	3.63	295	*e*Pn	Pn	16 14 32.2	+1.2
LTK	Loutraki	3.63	295	*e*Pn	Pn	16 14 32.2	+1.1
AOS	Alonnisos	3.66	316	*e*Pn	Pn	16 14 32.1	+0.7
AOS	Alonnisos	3.66	316	*e*Pn	Pn	16 14 32.1	+0.7
LOS	Limnos	3.73	335	*e*Pn	Pn	16 14 32.7	+0.3
LOS	Limnos	3.73	335	*e*Pn	Pn	16 14 32.7	+0.3
GADA	Gvkgeada	3.74	345	*e*PN	Pn	16 14 31.7	-0.9
GADA	Gvkgeada	3.74	345	*e*Pn	Pn	16 14 31.7	-0.9
BNT	Bandirma	3.83	9	*e*PN	Pn	16 14 32.6	-1.1
BNT	Bandirma	3.83	9	*e*Pn	Pn	16 14 32.6	-1.1
LKR	Lokris	3.89	304	*e*P	Pn	16 14 35.6	+1.1
VLX	Vlachokerasia	3.89	283	*e*Pn	Pn	16 14 36.3	+1.7
VLX				*e*Sn	Sn	16 15 20.0	+0.1
VLX	Vlachokerasia	3.89	283	*e*Pn	Pn	16 14 36.3	+1.8
VLX				*e*Sn	Sn	16 15 20.0	+0.1
ULDT	Uludag	3.90	23	⇓*i*P	Pn	16 14 34.4	-0.2
RKY	Sarkoy-Tekirda	4.11	0	*e*PN	Pn	16 14 36.3	-1.1
SART	Tekirdag	4.11	0	⇓*i*P	Pn	16 14 36.9	-0.6
NEO	Neokhori	4.13	313	*e*P	Pn	16 14 38.8	+1.2
ESKT	Eskisehir	4.15	44	*e*PN	Pn	16 14 38.3	+0.3
ESKT	Eskisehir	4.15	44	⇑*i*P	Pn	16 14 38.6	+0.7
ESKT	Eskisehir	4.15	44	*e*Pn	Pn	16 14 38.3	+0.3
SEYT	Eskypehyr	4.15	44	*i* P	Pn	16 14 38.6	+0.6
IZI	Iznik	4.18	25	*e*PN	Pn	16 14 38.2	-0.2
IZI	Iznik	4.18	25	*e*Pn	Pn	16 14 38.2	-0.2
XOR	Xorichti	4.18	313	*e*Pn	Pn	16 14 39.4	+1.1
XOR	Xorichti	4.18	313	*e*Pn	Pn	16 14 39.4	+1.0
MFT	Murefte	4.21	1	*e*PN	Pn	16 14 37.7	-1.0
ITM	Ithomi	4.22	280	*e*P	Pn	16 14 40.8	+1.9
PAIG	Paliouri	4.32	322	*e*Pn	Pn	16 14 40.7	+0.5
PAIG				*e*Sn	Sn	16 15 28.4	-1.5
PAIG	Paliouri	4.32	322	*e*Pn	Pn	16 14 40.7	+0.6
PAIG				*e*Sn	Sn	16 15 28.4	-1.5
PYL	PYLOS	4.35	276	*e*Pn	Pn	16 14 40.7	+0.2
PYL				*e*Sn	Sn	16 15 29.5	-1.1
PYL	PYLOS	4.35	276	*e*Pn	Pn	16 14 40.7	+0.2
PYL				*e*Sn	Sn	16 15 29.5	-1.1
KONT	Konya--Tatoy	4.39	70	*e*PN	Pn	16 14 41.8	+0.7
KONT	Konya--Tatoy	4.39	70	*e*Pn	Pn	16 14 41.8	+0.7
ALN	Alexandroupoli	4.40	349	*e*Pn	Pn	16 14 40.8	-0.5
ALN	Alexandroupoli	4.40	349	*e*Pn	Pn	16 14 40.8	-0.5
KDHN	Kadinhani	4.41	62	⇑*i*P	Pn	16 14 42.1	+0.7
KIZT	Kizilcal	4.41	57	*e*PN	Pn	16 14 41.5	+0.1
KIZT	Kizilcal	4.41	57	*e*Pn	Pn	16 14 41.5	+0.1
AKMC	Akamas	4.49	109	⇑*e*P	Pn	16 14 42.1	-0.4
SELA	Sela	4.51	294	*e*Pn	Pn	16 14 44.4	+1.7
SELA				*e*Sn	Sn	16 15 33.2	-1.2
SELA	Sela	4.51	294	*e*Pn	Pn	16 14 44.4	+1.7
SELA				*e*Sn	Sn	16 15 33.2	-1.2
AGG	Agios Georgios	4.53	304	*e*Pn	Pn	16 14 44.0	+1.0
AGG				*e*Sn	Sn	16 15 32.7	-2.2
AGG	Agios Georgios	4.53	304	*e*Pn	Pn	16 14 44.0	+1.1
AGG				*e*Sn	Sn	16 15 32.7	-2.2
ALFC	Alevga	4.66	106	⇑*e*P	Pn	16 14 43.7	-1.0
	15nm,0.3s						
ALFC				S	Sn	16 15 35.7	-2.3
GULT	Gulveren	4.68	33	*e*PN	Pn	16 14 45.6	+0.7
GULT	Gulveren	4.68	33	*e*Pn	Pn	16 14 45.6	+0.7
RDO	Rodhopi	4.74	345	*e*P	Pn	16 14 45.5	-0.2
RLS	Riolos of Patr	4.76	290	*e*P	Pn	16 14 48.9	+2.9
EVR	Evrytania	4.83	301	*e*P	Pn	16 14 48.4	+1.5
EVR	Evrytania	4.83	301	*e*P	Pn	16 14 49.4	+2.5
SZAC	Souni-Zanaja	5.02	109	P	Pn	16 14 49.1	-0.4
	17nm,0.3s						
SZAC				S	Sn	16 15 45.0	-1.6
THL	Klokotos Trika	5.03	308	*e*P	Pn	16 14 51.3	+1.7
MAMC	Mammari	5.13	104	P	Pn	16 14 49.9	-1.1
LTBQ	Tobruq	5.23	212	*i* P	Pn	16 14 53.5	+1.1
	SNR=23						
CSS	Prodhromos	5.29	106	P	Pn	16 14 52.1	-1.0
	4.0nm,0.3s						
CSS				S	Sn	16 15 50.4	-2.6
KFL	Anninata	5.29	289	*e*Pn	Pn	16 14 53.9	+0.8
KFL	Anninata	5.29	289	*e*Pn	Pn	16 14 53.9	+0.8
SLUM		5.31	198	⇓P	Pn	16 14 54.8	+1.3
NVR	Nevrokopi	5.41	333	*e*P	Pn	16 14 55.4	+0.7
VLS	Valsamata	5.46	289	*e*P	Pn	16 14 55.7	+0.4
HMAT	Matruh	5.46	180	⇓P	Pn	16 14 55.4	-0.1
HMAT				S	Sn	16 15 52.8	-4.5
ANTO	Ankara	5.54	52	*e*Pn	Pn	16 14 57.6	+1.2
	37nm,0.6s						
ANTO				*e*		16 15 06.1	
ANTO	Ankara	5.54	52	*e*P	Pn	16 14 57.6	+1.2
ANTO				pmax	pmax		
	comp=Z,37nm,0.6s						
ANTO	Ankara	5.54	52	*e*Pn	Pn	16 14 57.6	+1.2
LKD	Levkas	5.57	294	*e*Pn	Pn	16 14 58.0	+1.1
LKD				*e*Sn	Sn	16 15 58.2	-1.7
LKD	Levkas	5.57	294	*e*Pn	Pn	16 14 58.0	+1.1
LKD				*e*Sn	Sn	16 15 58.2	-1.7
KNT	Kendrikon	5.65	325	*e*Pn	Pn	16 14 59.8	+1.8
KNT	Kendrikon	5.65	325	*e*Pn	Pn	16 14 59.8	+1.9
PHNC	Paralimni	5.82	104	P	Pn	16 15 02.2	+2.0
KAMT	Kaman	5.90	60	*e*PN	Pn	16 15 01.6	+0.4
KAMT	Kaman	5.90	60	*e*Pn	Pn	16 15 01.6	+0.4
BR131	Keskin Array S	6.01	56	*e*Pn	Pn	16 15 03.8	+1.0
	comp=Z,17nm,0.6s						
BR131	Keskin Array S	6.01	56	*e*Pn	Pn	16 15 03.8	+1.0
	comp=Z,17nm,0.6s						
BRTR	Keskin Array B	6.01	56	*i* P	Pn	16 15 03.7	+0.9
BRTR				pmax	pmax		
	comp=Z,20nm,0.6s						
BRTR	Keskin Array B	6.01	56	P	Pn	16 15 03.8	+1.0
	comp=Z,3.7nm,0.3s,baz=223,slow=14,SNR=106						
BRTR				S	Sn	16 16 13.0	+2.5
	comp=Z,0.4nm,0.3s,baz=230,slow=22,SNR=2.7						
IGT	Igoumenitsa	6.13	301	*e*Pn	Pn	16 15 05.3	+1.0
IGT	Igoumenitsa	6.13	301	*e*Pn	Pn	16 15 05.3	+0.9

FNA	Florina	6.16	315	*e*Pn	Pn	16 15 06.5	+1.7
FNA	Florina	6.16	315	*e*Pn	Pn	16 15 06.5	+1.7
KEK	Kerkira	6.58	301	*e*P	Pn	16 15 10.9	+0.5
VTS	Vitosha	6.73	334	P	Pn	16 15 13.3	+0.9
HMYD	Mayadein	7.42	155	⇓P	Pn	16 15 21.1	-0.7
BHL	Bhannes	7.46	108	*e*Pn	Pn	16 15 20.2	-2.1
BHL	Bhannes	7.46	108	*e*Pn	Pn	16 15 20.2	-2.1
SQR		7.49	152	⇓P	Pn	16 15 22.8	+0.1
HNAT	Natroun	7.51	156	⇓P	Pn	16 15 22.5	-0.5
HWQ	Hawqa	7.55	105	*e*Pn	Pn	16 15 23.1	-0.4
HWQ	Hawqa	7.55	105	*e*Pn	Pn	16 15 23.1	-0.3
OFRI	‘Ofer	7.58	119	Pn	Pn	16 15 24.5	+0.6
OFRI	‘Ofer	7.58	119	Pn	Pn	16 15 24.5	+0.7
FYM	Al Fayyum	7.60	153	P	Pn	16 15 23.6	-0.6
AYT	Al ‘Ayyat	7.63	153	⇓P	Pn	16 15 24.1	-0.5
MMA0	Mount Meron ar	7.67	115	Pn	Pn	16 15 24.0	-1.1
MMAI	Mount Meron Ar	7.67	115	P	Pn	16 15 24.4	-0.7
	comp=Z,91nm,0.3s,baz=312,slow=12,SNR=487						
MMAI				S	Sn	16 16 45.5	-4.9
	comp=Z,54nm,0.3s,baz=318,slow=25,SNR=20						
RCY	Rachaya	7.76	111	*e*Pn	Pn	16 15 25.5	-0.8
RCY	Rachaya	7.76	111	*e*Pn	Pn	16 15 25.5	-0.8
KSDI	Kefar Szold	7.77	113	Pn	Pn	16 15 26.1	-0.4
KSDI	Kefar Szold	7.77	113	Pn	Pn	16 15 26.1	-0.4
AMAG	Maghara	7.78	138	⇓P	Pn	16 15 25.8	-0.9
HRI	Mount Hermon	7.79	113	Pn	Pn	16 15 26.2	-0.6
HRI	Mount Hermon	7.79	113	Pn	Pn	16 15 26.2	-0.6
HHAG	Hagoal	7.80	146	P	Pn	16 15 26.2	-0.7
HHAG				S	Sn	16 16 45.7	-7.9
SLTI	Sal’it	7.83	121	Pn	Pn	16 15 26.4	-0.9
SLTI				Sn	Sn	16 16 48.5	-5.8
SLTI	Sal’it	7.83	121	Pn	Pn	16 15 26.3	-1.0
HSAF	As Saff	7.86	151	P	Pn	16 15 27.4	-0.3
FKH	Fakeheh	7.92	104	*e*Pn	Pn	16 15 27.9	-0.5
FKH	Fakeheh	7.92	104	*e*Pn	Pn	16 15 27.9	-0.5
TIRR	Tirgusor	7.94	7	⇑*i*P	Pn	16 15 38.7	+10
GLL	Jalalah	7.96	150	⇓P	Pn	16 15 28.8	-0.2
KSHT	Keshet	7.98	114	Pn	Pn	16 15 29.2	-0.1
KSHT	Keshet	7.98	114	Pn	Pn	16 15 29.2	-0.1
MMLI	Mount Malkishu	7.98	119	Pn	Pn	16 15 29.0	-0.4
MMLI	Mount Malkishu	7.98	119	Pn	Pn	16 15 29.7	+0.4
MMLI	Mount Malkishu	7.98	119	Pn	Pn	16 15 29.7	+0.4
GLH	Golan-Tel Qazi	8.00	116	Pn	Pn	16 15 30.0	+0.4
GLH	Golan-Tel Qazi	8.00	116	Pn	Pn	16 15 30.0	+0.5
LJBD	Adjabya	8.07	228	*i* P	Pn	16 15 30.4	-0.2
	SNR=22						
HMDT	Nahal Hemdat	8.16	119	Pn	Pn	16 15 32.4	+0.7
HMDT	Nahal Hemdat	8.16	119	Pn	Pn	16 15 32.4	+0.7
SUZ		8.23	143	⇓P	Pn	16 15 32.3	-0.4
KZIT	Kziot	8.27	131	Pn	Pn	16 15 33.6	+0.3
KZIT				Sn	Sn	16 17 00.9	-4.2
KZIT	Kziot	8.27	131	Pn	Pn	16 15 33.6	+0.4
KZIT				Sn	Sn	16 17 00.9	-4.2
HBNS	Bani Suwayf	8.34	155	⇓P	Pn	16 15 34.4	+0.3
DSI	Dead Sea	8.46	124	Pn	Pn	16 15 36.5	+0.7
DSI	Dead Sea	8.46	124	Pn	Pn	16 15 36.5	+0.7
ZAF		8.57	146	⇓P	Pn	16 15 37.0	-0.3
TIP	Timpagrande	8.61	291	*e*Pn	Pn	16 15 34.9	-2.8
TIP				*e*Sn	Sn	16 16 55.1	-18
MZDA	Masada	8.61	125	Pn	Pn	16 15 37.6	-0.2
MZDA	Masada	8.61	125	Pn	Pn	16 15 37.6	-0.2
ZNM		8.64	144	⇓P	Pn	16 15 37.6	-0.6
PE1	Pezze di Greco	8.69	302	*e*P	Pn	16 15 37.5	-1.3
HNKL	Nakhl	8.76	137	⇓P	Pn	16 15 39.2	-0.5
HNKL				S	Sn	16 17 08.1	-8.7
HNKL	Nakhl	8.76	137	P	Pn	16 15 39.2	-0.5
SOI	Samo	8.96	283	Pn	Pn	16 15 40.6	-1.7
	comp=Z,34nm,1.2s						
SOI	Samo	8.96	283	P	Pn	16 15 40.6	-1.7
SOI				pmax	pmax		
	comp=Z,34nm,1.2s						
MLR	Muntele Rosu	8.96	355	P	Pn	16 15 41.6	-0.7
	comp=Z,0.3nm,0.3s,baz=164,slow=3.3,SNR=15						
MLR	Muntele Rosu	8.96	355	⇑*i*P	Pn	16 15 42.9	+0.6
PRNI	Paran	9.03	131	Pn	Pn	16 15 43.2	-0.2
PRNI				Sn	Sn	16 17 18.5	-4.9
MALT	Malatya	9.15	76	*e*Pn	Pn	16 15 45.2	+0.3
ASF	Jabal al Asfar	9.18	116	P	Pn	16 15 45.7	+0.3
ASF				S	Sn	16 17 23.1	-3.9
ASF				pmax	pmax		
	comp=Z,7.0nm,0.3s						
ASF				smax			
	comp=N,1.0nm,0.3s						
ASF	Jabal al Asfar	9.18	116	P	Pn	16 15 45.7	+0.3
	comp=N,6.9nm,0.3s,baz=187,slow=4.7,SNR=39						
ASF				S	Sn	16 17 23.1	-3.9
	comp=N,0.9nm,0.3s,baz=169,slow=20,SNR=4.7						
SG1	Sgolgore (BA)	9.22	301	*e*P	Pn	16 15 44.3	-1.5
MTTG	Motta San Giov	9.23	282	Pn	Pn	16 15 45.2	-0.8
	comp=N,15nm,0.7s						
MTTG	Motta San Giov	9.23	282	Pn	Pn	16 15 45.2	-0.8
	comp=N,15nm,0.7s						
PLOR	Plostina	9.28	358	⇑*i*P	Pn	16 15 48.1	+1.5
HFRF	Wahat Farafira	9.45	174	P	Pn	16 15 49.1	+0.1
EIL	Elat	9.50	134	P	Pn	16 15 49.0	-0.7
	comp=N,1.3nm,0.3s,baz=344,slow=13,SNR=16						
EIL				S	Sn	16 17 29.7	-5.0
	comp=N,17nm,0.3s,baz=273,slow=22,SNR=16						
GRB	Gharib	9.55	148	P	Pn	16 15 50.7	+0.4
AGST	Augusta-Monte	9.56	278	Pn	Pn	16 15 48.3	-2.2
	comp=N,693nm,3.0s						
HAVL	Avola	9.65	276	Pn	Pn	16 15 48.2	-3.4
	comp=N,282nm,0.3s						
SSY	Sortino	9.69	277	Pn	Pn	16 15 50.5	-1.6
	comp=N,150nm,0.4s						
HBST	Basata	9.72	137	P	Pn	16 15 52.9	+0.3
HQLS		9.84	135	P	Pn	16 15 53.4	-0.8
HQLS		9.84	135	S	Sn	16 17 32.6	-10
ASUT		9.89	156	⇓P	Pn	16 15 54.9	0.0
HKAT	Jabal Katrina	9.89	142	P	Pn	16 15 55.1	+0.2
HMDC	Modica	9.92	276	Pn	Pn	16 15 53.8	-1.4
	comp=N,82nm,1.2s						
HVZN	Vizzini	9.97	277	Pn	Pn	16 15 54.9	-1.0
	comp=N,212nm,0.6s						
HDHB	Dhahab	10.05	139	P	Pn	16 15 57.2	+0.2
SGO	Sicignano	10.08	297	Pn	Pn	16 15 56.4	-0.9
	comp=N,3.7nm,0.2s						
SGO	Sicignano	10.08	297	P	Pn	16 15 56.4	-0.9
SGO				pmax	pmax		
	comp=Z,4.0nm,0.2s						
SGO	Sicignano	10.08	297	Pn	Pn	16 15 56.4	-0.9
	comp=Z,3.7nm,0.2s						
RAFF	Raffo Rosso	10.25	277	Pn	Pn	16 15 57.5	-2.1
	comp=Z,1µm,3.7s						
TR1		10.30	144	⇓P	Pn	16 16 00.3	0.0
TR1		10.30	144	P	Pn	16 16 00.3	0.0
	comp=Z,28µm,0.1s						
RSHS		10.48	140	P	Pn	16 16 02.2	-0.5
SHRM		10.48	144	P	Pn	16 16 03.2	+0.5
JLOS		10.51	136	P	Pn	16 16 02.5	-0.7
HHRG	Al Ghardaqah	10.80	148	P	Pn	16 16 08.0	+1.0
BURAR	Bucovina Array	11.13	353	⇑*i*P	Pn	16 16 12.0	+0.9
HDK1	Dakhla	11.16	169	⇓P	Pn	16 16 13.8	+2.1
ANN	Anapa	11.34	40	*e*P	Pn	16 16 20.5	+6.6
ANN				*e*S	Sn	16 18 30.2	+11
ANN				pmax	pmax		
	comp=Z,19nm,1.0s						
AKRG	Al Kharijah	11.40	164	P	Pn	16 16 15.2	+0.3
GTR	Jabal at Tayr	11.41	164	⇓P	Pn	16 16 15.0	0.0
HSFG		11.53	148	⇑P	Pn	16 16 18.1	+1.6
HSFG		11.53	148	P	Pn	16 16 18.1	+1.5
PSZ	Piszkesteto	12.54	337	P	Pn	16 16 31.1	+1.6
PSZ	Piszkesteto	12.54	337	P	Pn	16 16 31.1	+1.5
WJHS		12.58	139	P	Pn	16 16 29.2	-1.1
BOJS	Bojanci	12.64	319	*i* Pn	Pn	16 16 32.6	+1.7
BOJS	Bojanci	12.64	319	*i* Pn	Pn	16 16 32.6	+1.7
VISS	Visnje	13.06	319	*i* Pn	Pn	16 16 38.3	+2.0
VISS	Visnje	13.06	319	*i* Pn	Pn	16 16 38.3	+2.0
PERS	Pernice	13.47	322	*i* Pn	Pn	16 16 45.0	+3.3
PERS	Pernice	13.47	322	*i* Pn	Pn	16 16 45.0	+3.3
PERS	Pernice	13.47	322	*i* Pn	Pn	16 16 45.0	+3.3
JAVS	Javornik	13.53	318	*i* Pn	Pn	16 16 42.6	+0.2
JAVS	Javornik	13.53	318	*i* Pn	Pn	16 16 42.6	+0.2
AKASG	Malin Array Be	14.21	5	P	Pn	16 16 52.3	+1.4
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.3s						
AKASG	Malin Array Be	14.21	5	P	Pn	16 16 52.3	+1.3
	comp=Z,1.5nm,0.3s,baz=194,slow=12,SNR=16						
VSL	Villasalto	14.30	287	*e*Pn	Pn	16 16 49.9	-2.3
	comp=Z,19nm,0.8s						
KEST	Kesra	14.40	272	P	Pn	16 16 55.0	+1.4
	comp=Z,0.6nm,0.3s,baz=16,slow=2.7,SNR=13						
MORC	Moravsky Berou	14.92	335	Pn	Pn	16 17 01.9	+1.9
	comp=Z,2.2nm,0.8s						
MORC	Moravsky Berou	14.92	335	P	Pn	16 17 01.9	+1.9
MORC				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MORC	Moravsky Berou	14.92	335	Pn	Pn	16 17 01.9	+1.9
	comp=Z,2.2nm,0.8s						
PGF	Pioggiola	15.20	299	*e*P	Pn	16 17 00.6	-2.9
	comp=Z,8.9nm,0.6s						
PGF	Pioggiola	15.20	299	*e*P	Pn	16 17 00.6	-2.9
	comp=Z,4.4nm,0.6s						
PGF	Pioggiola	15.20	299	*e*P	Pn	16 17 00.6	-2.9
PGF				pmax	pmax		
	comp=Z,4.0nm,0.6s						
GERES	GERESS Array B	15.72	325	P	Pn	16 17 10.0	+0.2
	comp=Z,0.3nm,0.3s,baz=143,slow=11,SNR=13						
KHC	Kasperske Hory	15.98	326	*i* P	Pn	16 17 18.8	+5.7
DAVOX	Davos/Dischmat	16.41	314	P	Pn	16 17 19.4	+1.1
	comp=Z,0.3nm,0.3s,baz=154,slow=15,SNR=3.5						
DAVOS	Davos	16.49	314	P	Pn	16 17 19.4	+0.1
SBF	Sospel	16.70	302	*e*P	Pn	16 17 19.1	-2.8
	comp=Z,32nm,0.7s						
SBF	Sospel	16.70	302	*e*P	Pn	16 17 19.1	-2.8
	comp=Z,16nm,0.7s						
SBF	Sospel	16.70	302	*e*P	Pn	16 17 19.1	-2.8
SBF				pmax	pmax		
	comp=Z,16nm,0.7s						
LMR	La Mourre	17.18	299	*e*P	Pn	16 17 24.8	-2.9
	comp=Z,6.4nm,0.6s						
LMR	La Mourre	17.18	299	*e*P	Pn	16 17 24.8	-2.9
	comp=Z,3.2nm,0.6s						
LMR	La Mourre	17.18	299	*e*P	Pn	16 17 24.8	-2.9
LMR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MBDF	Montbardon	17.44	304	*e*P	Pn	16 17 28.0	-2.8
	comp=Z,24nm,0.6s						
MBDF	Montbardon	17.44	304	*e*P	Pn	16 17 28.0	-2.8
	comp=Z,12nm,0.6s						
MBDF	Montbardon	17.44	304	*e*P	Pn	16 17 28.0	-2.8
MBDF				pmax	pmax		
	comp=Z,12nm,0.6s						
BNI	Bardonecchia	17.62	305	*e*Pn	Pn	16 17 30.5	-2.4
	comp=Z,4.0nm,0.6s						
BNI	Bardonecchia	17.62	305	*e*P	Pn	16 17 30.5	-2.5
BNI				pmax	pmax		
	comp=Z,4.0nm,0.6s						
LPG	La Plagne	17.74	306	*e*P	Pn	16 17 31.7	-2.7
	comp=Z,7.1nm,0.4s						
LPG	La Plagne	17.74	306	*e*P	Pn	16 17 31.7	-2.7
	comp=Z,3.5nm,0.4s						
LPG	La Plagne	17.74	306	*e*P	Pn	16 17 31.7	-2.7
LPG				pmax	pmax		
	comp=Z,4.0nm,0.4s						
LPL	La Plagne	17.76	307	*e*P	Pn	16 17 32.9	-1.8
	comp=Z,12nm,0.5s						
LPL	La Plagne	17.76	307	*e*P	Pn	16 17 32.9	-1.8
	comp=Z,6.1nm,0.5s						
LPL	La Plagne	17.76	307	*e*P	Pn	16 17 32.9	-1.8
LPL				pmax	pmax		
	comp=Z,6.0nm,0.5s						
ORIF	Oris-en-Rattie	18.10	304	*e*P	P	16 17 36.8	-0.5
	comp=Z,7.2nm,0.6s						
ORIF	Oris-en-Rattie	18.10	304	*e*P	P	16 17 36.8	-0.5
ORIF				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ORIF	Oris-en-Rattie	18.10	304	*e*P	P	16 17 36.8	-0.5
	comp=Z,3.6nm,0.6s						
CABF	La Chapelle	18.62	309	*e*P	P	16 17 43.3	+0.4
	comp=Z,32nm,0.7s						
CABF	La Chapelle	18.62	309	*e*P	P	16 17 43.3	+0.4
CABF				pmax	pmax		
	comp=Z,16nm,0.7s						
CABF	La Chapelle	18.62	309	*e*P	P	16 17 43.3	+0.4
	comp=Z,16nm,0.7s						
CDF	Champ du Feu	18.77	315	*e*P	P	16 17 44.6	+0.1
	comp=Z,6.6nm,0.6s						
CDF	Champ du Feu	18.77	315	*e*P	P	16 17 44.6	+0.1
CDF				pmax	pmax		
	comp=Z,3.0nm,0.6s						
CDF	Champ du Feu	18.77	315	*e*P	P	16 17 44.6	+0.1
	comp=Z,3.3nm,0.6s						
VIVF	Saint-Julien-l	18.89	303	*e*P	P	16 17 45.6	-0.3
	comp=Z,8.6nm,0.7s						
VIVF	Saint-Julien-l	18.89	303	*e*P	P	16 17 45.6	-0.3
	comp=Z,4.3nm,0.7s						
VIVF	Saint-Julien-l	18.89	303	*e*P	P	16 17 45.6	-0.3
VIVF				pmax	pmax		
	comp=Z,4.0nm,0.7s						
HAU	Haudompre	19.09	313	*e*P	P	16 17 47.6	-0.5
	comp=Z,11nm,0.5s						
HAU	Haudompre	19.09	313	*e*P	P	16 17 47.6	-0.5
	comp=Z,5.5nm,0.5s						
HAU	Haudompre	19.09	313	*e*P	P	16 17 47.6	-0.5
HAU				pmax	pmax		
	comp=Z,6.0nm,0.5s						
LASF	Ste Croix	19.23	300	*e*P	P	16 17 50.0	+0.4
SMF	Signal de Mont	20.05	307	*e*P	P	16 17 57.5	-0.9
	comp=Z,18nm,0.6s						
SMF	Signal de Mont	20.05	307	*e*P	P	16 17 57.5	-0.9
	comp=Z,9.0nm,0.6s						
SMF	Signal de Mont	20.05	307	*e*P	P	16 17 57.5	-0.9
SMF				pmax	pmax		
	comp=Z,9.0nm,0.6s						
MTLF	Montolieu	20.22	297	*e*P	P	16 17 59.7	-0.6
	comp=Z,16nm,0.7s						
MTLF	Montolieu	20.22	297	*e*P	P	16 17 59.7	-0.6
	comp=Z,7.8nm,0.7s						
MTLF	Montolieu	20.22	297	*e*P	P	16 17 59.7	-0.6
MTLF				pmax	pmax		
	comp=Z,8.0nm,0.7s						
LOR	Lormes	20.28	309	*e*P	P	16 18 00.9	0.0
AVF	Avril sur Loir	20.42	307	*e*P	P	16 18 00.6	-1.7
SSF	Saint Saulge	20.42	308	*e*P	P	16 18 01.6	-0.8
	comp=Z,18nm,0.6s						
SSF	Saint Saulge	20.42	308	*e*P	P	16 18 01.6	-0.8
	comp=Z,8.9nm,0.6s						
SSF	Saint Saulge	20.42	308	*e*P	P	16 18 01.6	-0.8
SSF				pmax	pmax		
	comp=Z,9.0nm,0.6s						
BGF	Bois d’Agland	20.66	306	*e*P	P	16 18 05.4	+0.5
	comp=Z,12nm,0.7s						
BGF	Bois d’Agland	20.66	306	*e*P	P	16 18 05.4	+0.5
BGF				pmax	pmax		
	comp=Z,6.0nm,0.6s						
BGF	Bois d’Agland	20.66	306	*e*P	P	16 18 05.4	+0.5
	comp=Z,6.0nm,0.7s						
CAF	Calviac	20.69	302	*e*P	P	16 18 06.0	+0.7
RJF	Les Rejaudoux	21.16	302	*e*P	P	16 18 10.7	+0.4
BAIF	Baives	21.34	316	*e*P	P	16 18 11.6	-0.5
ETSF	Etsaut	22.16	295	*e*P	P	16 18 21.5	+0.6
	comp=Z,9.4nm,0.6s,mb4.1						
ETSF	Etsaut	22.16	295	*e*P	P	16 18 21.5	+0.6
ETSF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.1						
ETSF	Etsaut	22.16	295	*e*P	P	16 18 21.5	+0.6
	comp=Z,4.7nm,0.6s,mb4.1						
MFF	Saint Martin d	22.63	305	*e*P	P	16 18 24.7	-0.8
SJPF	Ste Jean	22.67	296	*e*P	P	16 18 26.8	+0.9
	comp=Z,8.4nm,0.6s,mb4.1						
SJPF	Ste Jean	22.67	296	*e*P	P	16 18 26.8	+0.9
SJPF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.0						
SJPF	Ste Jean	22.67	296	*e*P	P	16 18 26.8	+0.9
	comp=Z,4.2nm,0.6s,mb4.1						
LDF	La Druitiere	23.26	310	*e*P	P	16 18 30.2	-1.0
	comp=Z,7.9nm,0.6s,mb4.1						
LDF	La Druitiere	23.26	310	*e*P	P	16 18 30.2	-1.0
LDF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.0						
LDF	La Druitiere	23.26	310	*e*P	P	16 18 30.2	-1.0
	comp=Z,4.0nm,0.6s,mb4.1						
FLN	La Foliniere	23.54	310	*e*P	P	16 18 32.5	-1.3
	comp=Z,26nm,0.5s,mb4.7						
FLN	La Foliniere	23.54	310	*e*P	P	16 18 32.5	-1.3
	comp=Z,13nm,0.5s,mb4.7						
FLN	La Foliniere	23.54	310	*e*P	P	16 18 32.5	-1.3
FLN				pmax	pmax		
	comp=Z,13nm,0.5s,mb4.7						
GRR	Gorron	23.65	309	*e*P	P	16 18 32.6	-2.2
	comp=Z,33nm,0.6s,mb4.8						
GRR	Gorron	23.65	309	*e*P	P	16 18 32.6	-2.2
	comp=Z,16nm,0.6s,mb4.7						
GRR	Gorron	23.65	309	*e*P	P	16 18 32.6	-2.2
GRR				pmax	pmax		
	comp=Z,17nm,0.6s,mb4.8						
ESDC	Sonseca Array	24.60	287	P	P	16 18 44.2	+0.7
	comp=Z,5.3nm,0.5s,mb4.4,baz=80,slow=9.4,SNR=21						
ESLA	Sonseca Array	24.60	287	*e*P	P	16 18 43.6	0.0
	comp=Z,1.2nm,0.6s,mb3.6						
ESLA	Sonseca Array	24.60	287	*e*P	P	16 18 43.6	+0.1
	comp=Z,1.2nm,0.6s,mb3.6						
SGMF	Saint Gilles	24.68	308	*e*P	P	16 18 40.8	-3.4
FINES	FINESS Array B	24.90	359	P	P	16 18 45.5	-0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FINES				MLR	MLR		
	comp=Z,74nm,21.3s						
FINES	FINESS Array B	24.90	359	P	P	16 18 45.5	-0.6
	comp=Z,1.2nm,0.9s,mb3.4,baz=188,slow=7.1,SNR=4.6						
FINES				LR	LR	16 29 53.7	
	comp=Z,74nm,21.3s,baz=292,slow=39						
QUIF	Quistinic	24.98	306	*e*P	P	16 18 48.0	+1.2
HFS	Hagfors	25.11	344	P	P	16 18 47.7	-0.2
HFS				pmax	pmax		
	comp=Z,2.0nm,0.5s						
HFS	Hagfors	25.11	344	P	P	16 18 47.7	-0.2
	comp=Z,2.1nm,0.5s,mb4.0,baz=144,slow=10,SNR=18						
NOA	NORSAR Array B	26.49	343	P	P	16 19 00.3	0.0
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	26.49	343	P	P	16 19 00.3	-0.1
	comp=Z,0.9nm,0.8s,mb3.4,baz=352,slow=14,SNR=2.9						
TOA0	Torodi Ar. Sit	32.62	231	*e*P	P	16 19 56.3	+1.3
TOA0	Torodi Ar. Sit	32.62	231	*e*P	P	16 19 56.3	+1.3
TORD	Torodi Ar. Bea	32.62	231	P	P	16 19 56.5	+1.5
TORD	Torodi Ar. Bea	32.62	231	P	P	16 19 56.5	+1.5
	comp=Z,5.7nm,0.4s,mb4.7,baz=32,slow=8.9,SNR=58						
ARCES	ARCESS Array B	33.03	359	P	P	16 19 58.3	+0.3
ARCES				pmax	pmax		
	comp=Z,4.0nm,1.1s						
ARCES	ARCESS Array B	33.03	359	P	P	16 19 58.3	+0.3
	comp=Z,3.7nm,1.1s,mb4.0,baz=195,slow=7.5,SNR=3.5						
MK31	Makanchi Array	41.66	58	*e*P	P	16 21 11.4	+0.5
MK31	Makanchi Array	41.66	58	*e*P	P	16 21 11.4	+0.5
MKAR	Makanchi Array	41.66	58	*i* P	P	16 21 12.0	+1.1
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MKAR	Makanchi Array	41.66	58	P	P	16 21 12.0	+1.1
	comp=Z,0.5nm,0.3s,mb3.6,baz=269,slow=8.7,SNR=13						
MKAR				pP	pP	16 21 42.0	+0.7
	comp=Z,0.7nm,0.7s,baz=280,slow=6.5,SNR=3.4						
MKAR				ScP	ScP	16 26 42.3	-0.2
	comp=Z,0.1nm,0.4s,baz=247,slow=4.6,SNR=4.9						
ZAL	Zalesovo	42.86	47	P	P	16 21 22.4	+1.9
ZAL				*PP	pP	16 21 51.0	0.0
ZALV	Zalesovo Beam	42.87	47	P	P	16 21 22.4	+1.7
	comp=Z,0.9nm,0.5s,mb3.7,baz=264,slow=9.4,SNR=6.0						
ZALV				pP	pP	16 21 51.0	-0.1
	comp=Z,0.3nm,0.3s,baz=96,slow=40,SNR=1.7						
SONM	Songino Array	57.35	52	P	P	16 23 11.8	+2.0
	comp=Z,0.1nm,0.4s,mb3.0,baz=281,slow=7.3,SNR=4.7						
SONM				pP	pP	16 23 42.8	+1.0
	comp=Z,0.4nm,0.9s,baz=288,slow=10,SNR=2.4						
SCHQ	Schefferville	63.15	320	P	P	16 23 48.0	-1.2
SCHQ	Schefferville	63.15	320	P	P	16 23 48.0	-1.2
	comp=Z,0.9nm,0.4s,mb3.9,baz=26,slow=11,SNR=3.9						

NEIC ***22*** *16:20:12.9±1.0, 27.98S×177.96W, h236^{km}±10^{km}, mb4.4/13, Error ellipse: s-maj=11.5km s-min=7.7km az=116.0*

ISCJB ***22*** *16:20:15.3±1.2, 28.10S±0.06×178.5W±0.1, h245^{km}±11^{km}, mb4.2/16, Error ellipse: s-maj=17.0km s-min=9.4km az=9.7*

IDC ***22*** *16:20:23.1±2.4, 27.76S×178.36W, h312^{km}±21^{km}, mb3.8/8, mb1 4.0/8, mb1mx3.9/13, mbtmp3.8/8, Error ellipse: s-maj=21.6km s-min=12.5km az=163.0*

ISC 22 16:20:19.7±1.0**, 28.40S**±0.05×**178.1W**±0.1**, h297**^{km}±10^{km}**, n85,** σ1^{s}.**06**/69**, mb4.2**/16**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	9.62	197	PN	Pn	16 22 32.6	-0.4
PUZ	Puketiti	10.11	197	*e*P	Pn	16 22 38.2	-0.8
PUZ	Puketiti	10.11	197	PN	Pn	16 22 38.2	-0.8
MWZ	Matawai	10.56	199	*e*P	Pn	16 22 43.9	-0.6
MWZ	Matawai	10.56	199	PN	Pn	16 22 43.9	-0.5
URZ	Urewera	10.61	201	*e*P	Pn	16 22 45.4	+0.2
URZ	Urewera	10.61	201	P	Pn	16 22 45.3	+0.1
	2.3nm,0.3s,baz=243,slow=3.2,SNR=17						
URZ				S	S	16 24 43.4	-0.8
	4.4nm,0.3s,baz=101,slow=22,SNR=10						
URZ	Urewera	10.61	201	PN	Pn	16 22 45.4	+0.2
URZ				SN	S	16 24 42.4	-1.8
BKZ	Black Stump Fm	11.64	201	*e*P	Pn	16 22 58.2	+0.5
BKZ	Black Stump Fm	11.64	201	PN	Pn	16 22 58.2	+0.5
PXZ	Pawanui	12.32	198	PN	Pn	16 23 05.3	-0.7
PXZ				SN	S	16 25 20.1	-2.7
TSZ	Takapari Road	12.62	201	*e*P	Pn	16 23 10.6	+1.0
TSZ	Takapari Road	12.62	201	PN	Pn	16 23 10.6	+1.1
MRZ	Mangatainoka R	13.29	201	*e*P	Pn	16 23 18.2	+0.6
MRZ				S	S	16 25 40.5	-3.9
MRZ	Mangatainoka R	13.29	201	PN	Pn	16 23 18.2	+0.6
MRZ				SN	S	16 25 40.5	-3.9
CAW	Cannon Point	13.86	202	P	Pn	16 23 24.1	-0.3
CAW	Cannon Point	13.86	202	PN	Pn	16 23 26.1	+1.7
SNZO	South Karori	14.16	203	*e*Pn	Pn	16 23 23.5	-4.6
SNZO				*e*Sn	S	16 25 58.0	-5.3
TUWZ	Tuamarina	14.53	205	PN	Pn	16 23 31.5	-1.0
THZ	Tophouse	15.21	206	*e*P	Pn	16 23 40.4	-0.1
THZ				S	S	16 26 25.1	+0.5
THZ	Tophouse	15.21	206	PN	Pn	16 23 40.4	-0.1
THZ				SN	S	16 26 25.1	+0.5
DZM	Mont Dzumac	15.34	291	*e*P	Pn	16 23 43.8	+1.6
DZM	Mont Dzumac	15.34	291	P	Pn	16 23 41.6	-0.6
	4.4nm,0.3s,baz=96,slow=13,SNR=46						
NOUC	Port Laguerre	15.44	290	*e*P	Pn	16 23 45.1	+1.7
KHZ	Kahutara	15.54	204	*e*P	Pn	16 23 44.7	+0.4
KHZ	Kahutara	15.54	204	PN	Pn	16 23 44.7	+0.4
AFI	Afiamalu	15.57	23	*e*Pn	Pn	16 23 35.3	-10
	31nm,0.5s						
AFI				*e*S	S	16 26 08.2	-24
AFI	Afiamalu	15.57	23	P	Pn	16 23 35.5	-9.5
	11nm,0.3s,baz=261,slow=1.6,SNR=14						
AFI				S	S	16 26 07.1	-25
	4.4nm,0.3s,baz=264,slow=23,SNR=4.7						
LTZ	Lake Taylor	16.33	206	*e*P	P	16 23 53.0	+1.8
LTZ	Lake Taylor	16.33	206	PN	Pn	16 23 54.0	+0.5
RPZ	Rata Peaks	17.59	207	S	S	16 27 13.2	+1.3
	1.3nm,0.3s,baz=352,slow=20,SNR=13						
TAU	Tasmania Unive	31.36	233	P	P	16 26 13.0	0.0
	38nm,1.3s,mb4.8						
CTA	Charters Tower	33.44	276	*e*P	P	16 26 31.5	+0.1
	5.3nm,0.5s,mb4.3						
CTA	Charters Tower	33.44	276	P	P	16 26 31.9	+0.5
	6.5nm,0.5s,mb4.4,baz=101,slow=10,SNR=15						
CTAO	Charters Tower	33.44	276	*e*P	P	16 26 31.4	0.0
	6.9nm,0.6s,mb4.4						
STKA	Stephens Creek	34.89	254	*e*P	P	16 26 45.4	+1.8
	1.5nm,0.5s,mb3.8						
STKA	Stephens Creek	34.89	254	*e*P	P	16 26 45.2	+1.6
	2.4nm,0.6s,mb3.9						
STKA	Stephens Creek	34.89	254	P	P	16 26 45.5	+1.9
	1.7nm,0.5s,mb3.9,baz=108,slow=10,SNR=12						
STKA				PcP	PcP	16 29 12.2	+3.1
	1.4nm,0.8s,baz=320,slow=2.2,SNR=4.2						
PMG	Port Moresby	37.71	293	*e*P	P	16 27 07.1	-0.4
	12nm,0.9s,mb4.3						
ASAR	Alice Springs	43.16	265	P	P	16 27 52.1	+0.3
	2.0nm,0.6s,mb3.5,baz=93,slow=6.6,SNR=73						
ASAR				PcP	PcP	16 29 36.6	+1.1
	1.2nm,0.5s,baz=124,slow=3.8,SNR=7.9						
ASAR				S	S	16 33 55.8	+0.2
	0.4nm,0.8s,baz=101,slow=15,SNR=3.6						
WB2	Warramunga Arr	43.96	270	*e*P	P	16 27 57.8	-0.4
WRA	Warramunga Arr	43.97	270	P	P	16 27 57.9	-0.4
	6.2nm,0.4s,mb4.2,baz=110,slow=6.4,SNR=218						
WRA				PcP	PcP	16 29 39.0	+0.7
	2.4nm,0.7s,baz=111,slow=3.5,SNR=8.7						
WRA				S	S	16 34 04.7	-2.6
	0.6nm,0.8s,baz=113,slow=14,SNR=4.2						
FORT	Forrest	46.50	253	*e*P	P	16 28 18.3	+0.4
	12nm,0.7s,mb4.3						
KAKA	Kakadu	48.53	278	*e*P	P	16 28 32.2	-1.4
	18nm,1.5s,mb4.2						
FITZ	Fitzroy Crossi	52.30	268	*e*P	P	16 29 01.6	0.0
	2.4nm,0.4s,mb3.9						
QSPA	South Pole Qui	61.70	180	*e*P	P	16 30 13.3	+7.2
	5.5nm,0.7s,mb4.3						
KKM	Kota Kinabalu	71.87	288	*e*P	P	16 31 09.5	-1.5
MAW	Mawson	74.14	200	*e*P	P	16 31 28.2	+4.9
	10nm,0.7s,mb4.6						

MAW	Mawson	74.14	200	P	P	16 31 28.3	+4.9
	8.8nm,0.7s,mb4.5,baz=104,slow=9.6,SNR=8.3						
KSM	Kuching	74.57	280	eP	P	16 31 26.6	-0.2
MJAR	Matsushiro Arr	76.56	325	P	P	16 31 35.1	-2.3
	2.6nm,0.6s,mb4.2,baz=156,slow=5.4,SNR=7.6						
MAJO	Matsushiro	76.56	325	eP	P	16 31 34.3	-3.2
	3.7nm,0.5s,mb4.4						
VNA3	Neumayer Olymp	80.30	176	ePKiKP	P	16 32 02.3	+5.0
VNA2	Neumayer--Watz	80.73	177	ePKiKP	P	16 32 05.0	+5.4
	baz=191,slow=5.4						
VNA1	Neumayer--Stat	80.96	177	ePKiKP	P	16 32 06.4	+5.6
KSRS	Korea Array	82.78	320	P	P	16 32 10.7	0.0
	1.7nm,0.8s,mb3.9,baz=139,slow=5.5,SNR=4.6						
KULM	Kulim	84.83	279	P	P	16 32 22.6	+1.0
NVAR	Mina Array Bea	86.84	43	P	P	16 32 31.9	+1.1
	0.2nm,0.3s,mb3.4,baz=211,slow=6.8,SNR=4.9						
BJT	Baijiatuau	91.43	316	eP	P	16 32 52.4	+0.2
	7.9nm,0.8s,mb4.6						
MKAR	Makanchi Array	116.42	311	PKP	PKPdf	16 38 27.8	0.0
MKAR	Makanchi Array	116.42	311	PKP	PKPdf	16 38 27.8	0.0
	0.7nm,0.6s,baz=182,slow=0.9,SNR=16						
AKTK	Aktyubinsk	132.68	314	PKP	PKPdf	16 38 59.1	+0.3
AKTO	Aktyubinsk	132.68	314	PKP	PKPdf	16 38 59.1	+0.3
	1.7nm,0.7s,baz=124,slow=3.5,SNR=7.6						
ARCES	ARCESS Array B	136.63	348	PKP	PKPdf	16 39 06.0	+0.4
ARCES	ARCESS Array B	136.63	348	PKP	PKPdf	16 39 06.0	+0.4
	4.2nm,0.8s,baz=51,slow=1.0,SNR=12						
JOF	Joensuu	140.53	339	epkp	PKPdf	16 39 08.5	-4.4
JOF	Joensuu	140.53	339	ePKP	PKPdf	16 39 08.5	-4.4
KAF	Kangasniemi	142.64	341	epkp	PKPdf	16 39 12.3	-4.4
KAF	Kangasniemi	142.64	341	ePKP	PKPdf	16 39 12.3	-4.4
FINES	FINESS Array B	143.24	341	PKP	PKPdf	16 39 14.0	-3.8
FINES	FINESS Array B	143.24	341	PKhKP		16 39 14.0	
	0.9nm,0.5s,baz=57,slow=4.1,SNR=14						
NB2	NORSAR Subarra	146.77	352	PKPa	PKPdf	16 39 25.3	+1.5
	comp=Z,3.0nm,0.5s,baz=12,slow=2.9						
NOA	NORSAR Array B	146.77	352	PKPbc	PKPbc	16 39 25.7	-0.4
NOA	NORSAR Array B	146.77	352	PKPbc	PKPbc	16 39 25.7	-0.4
	comp=Z,4.4nm,0.6s,baz=15,slow=4.5,SNR=10						
HFS	Hagfors	147.28	349	PKPbc	PKPbc	16 39 26.9	-0.6
HFS	Hagfors	147.28	349	PKPbc	PKPbc	16 39 26.9	-0.6
	comp=Z,9.7nm,0.7s,baz=58,slow=3.7,SNR=20						
AKASG	Malin Array Be	149.64	325	PKPbc	PKPbc	16 39 33.4	-0.4
AKASG	Malin Array Be	149.64	325	PKPbc	PKPbc	16 39 33.4	-0.4
	comp=Z,9.0nm,0.7s,baz=43,slow=3.4,SNR=50						
BRTR	Keskin Array B	151.53	302	PKPbc	PKPbc	16 39 39.2	+0.7
BRTR				PKPab	PKPab	16 39 48.0	-0.3
BRTR	Keskin Array B	151.53	302	PKPbc	PKPbc	16 39 39.2	+0.7
	comp=Z,2.4nm,0.6s,baz=127,slow=4.0,SNR=9.9						
BRTR				PKPab	PKPab	16 39 48.0	-0.3
	comp=Z,0.6nm,0.5s,baz=47,slow=5.6,SNR=4.9						
EKA	Eskdalemuir Ar	152.84	6	PKPbc	PKPbc	16 39 40.9	-0.1
EKA				PKPab	PKPab	16 39 52.0	-1.2
EKA	Eskdalemuir Ar	152.84	6	PKPbc	PKPbc	16 39 40.9	-0.1
	comp=Z,1.3nm,0.5s,baz=320,slow=1.9,SNR=7.2						
EKA				PKPab	PKPab	16 39 52.0	-1.2
	comp=Z,1.8nm,0.5s,baz=337,slow=2.8,SNR=6.6						
CLL	Collm	155.64	343	ePKPab	PKPab	16 40 04.0	-1.4
TORD	Torodi Ar. Bea	164.82	179	PKP	PKPdf	16 39 50.1	+1.3
TORD				PKPab	PKPab	16 40 50.7	+4.5
TORD	Torodi Ar. Bea	164.82	179	PKP	PKPdf	16 39 50.1	+1.3
	comp=Z,1.2nm,0.8s,baz=13,slow=0.4,SNR=6.1						
TORD				PKPab	PKPab	16 40 50.7	+4.5
	comp=Z,4.1nm,1.0s,baz=177,slow=3.8,SNR=12						

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*ISK **22** 16:27:02.7, 3839N×3923E, h5^{km}, MD3.0*
*ISCJB **22** 16:27:03.7±0.6, 3835N±004×3927E±005, h6^{km}±8^{km}, Error ellipse: s-maj=6.7km s-min=5.4km az=39.7*
*CSEM **22** 16:27:03.2±0.1, 3839N×3924E, h5^{km}, MD3.0, Error ellipse: s-maj=3.3km s-min=2.9km az=148.0*
*DDA **22** 16:27:03.3, 3857N×3938E, h14^{km}±3^{km}, Md2.8*
ISC 22 16:27:04.2±0.5, **3836N**±004×**3926E**±004, **h10**^{km}±6^{km}, **n18**, σ**0ˢ68**/26, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.26	303	i P	Pg	16 27 09.1	-0.4
ELZG				i S	Sg	16 27 14.3	+1.2
PTK	Pertek	0.55	11	PG	Pg	16 27 13.9	-0.9
PTK				SG	Sg	16 27 22.4	+0.4
PTK	Pertek	0.55	11	ePg	Pg	16 27 13.9	-0.9
PTK				eSg	Sg	16 27 22.4	+0.4
MALT	Malatya	0.66	267	PG	Pg	16 27 15.7	-1.2
MALT	Malatya	0.66	267	ePg	Pg	16 27 15.7	-1.2
MYA	Malataya	0.66	268	PG	Pg	16 27 16.2	-0.7
MYA				SG	Sg	16 27 26.3	+0.8
MYA	Malataya	0.66	268	ePg	Pg	16 27 16.2	-0.7
MYA				eSg	Sg	16 27 26.3	+0.8
DIYA	Diyarbakir	0.80	122	i P	Pg	16 27 19.8	+0.1
DIYA				i S	Sg	16 27 30.3	+0.1
DIY	Diyarbakir	0.89	121	ePG	Pg	16 27 21.4	+0.1
DIY	Diyarbakir	0.89	121	ePg	Pg	16 27 21.4	+0.1
URFA	Urfa	0.98	201	ePG	Pg	16 27 23.3	+0.3
URFA	Urfa	0.98	201	ePg	Pg	16 27 23.3	+0.3
BINT	Bingol	1.09	61	ePN	Pn	16 27 24.7	-0.8
BINT	Bingol	1.09	61	ePn	Pn	16 27 24.7	-0.8
EZC	Erzincan	1.46	17	ePN	Pn	16 27 30.4	-0.1
MARD	Mardin	1.59	130	i P	Pn	16 27 32.2	-0.2
MARD				i S	Sn	16 27 53.2	+0.3
BNGL	BINGOL	1.59	67	i P	Pn	16 27 33.6	+1.2
BNGL				i S	Sn	16 27 57.4	+4.4
BTMT	Batman	1.76	95	ePN	Pn	16 27 34.7	0.0

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*ISCJB **22** 16:37:27.0±0.2, 4635N±001×1359E±002, h10^{km}, Error ellipse: s-maj=2.0km s-min=1.6km az=36.2*
*ROM **22** 16:37:26.4±0.2, 4630N×1358E, h7^{km}±1^{km}, Md2.1/4, Ml2.1/2, Error ellipse: s-maj=2.6km s-min=2.2km az=39.0*
*CSEM **22** 16:37:27.0±0.1, 4631N×1357E, h12^{km}, ML2.7/8, Error ellipse: s-maj=1.2km s-min=0.9km az=35.0*
*NEIC **22** 16:37:27.3±0.3, 4633N×1358E, h10^{km}, MD2.1(ROM), ML2.1(LJU), Error ellipse: s-maj=4.5km s-min=3.1km az=213.0*
NEIC Felt [IV] at Bovec.
*LJU **22** 16:37:27.2, 4633N×1358E, h7^{km}, ML2.0*
*VIE **22** 16:37:27.1±0.1, 4634N×1359E, h9^{km}±2^{km}, mb1.8/6, ML2.4/10, Error ellipse: s-maj=1.1km s-min=0.8km az=19.0*
*PRU **22** 16:37:30.1, 4634N×1370E, h0^{km}*
ISC 22 16:37:27.8±0.2, **4631N**±001×**1358E**±002, **h10**^{km}, **n89**, σ**0ˢ91**/157, **21C-28D**, **Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROBS	Robic	0.08	216	⇑iPg	Pg	16 37 29.5	-0.6
ROBS				i Sg	Sg	16 37 31.1	-0.7
ROBS	Robic	0.08	216	⇑iPg	Pg	16 37 29.5	-0.6
ROBS				i Sg	Sg	16 37 31.1	-0.7
ROBS							
	comp=Z,594nm,0.1s						
ROBS	Robic	0.08	216	⇑iPg	Pg	16 37 29.5	-0.7
ROBS				i Sg	Sg	16 37 31.1	-0.7
	comp=Z,594nm,0.1s						
CADS	Cadrg	0.14	127	i Pg	Pg	16 37 30.5	-0.4
CADS				i Sg	Sg	16 37 33.0	-0.1
CADS	Cadrg	0.14	127	i Pg	Pg	16 37 30.5	-0.4
CADS				i Sg	Sg	16 37 33.0	-0.1
CADS							
	comp=Z,542nm,0.1s						
CADS	Cadrg	0.14	127	i Pg	Pg	16 37 30.5	-0.5
CADS				i Sg	Sg	16 37 33.0	-0.1
	comp=Z,542nm,0.1s						
DRE	Drenchia	0.15	162	⇓iPg	Pg	16 37 30.7	-0.4
DRE				i Sg	Sg	16 37 32.9	-0.4
DRE	Drenchia	0.15	162	i Pg	Pg	16 37 30.7	-0.4
DRE				i Sg	Sg	16 37 32.9	-0.4
LSR	Lussari	0.17	348	⇓iPg	Pg	16 37 30.6	-0.9
LSR				Sg	Sg	16 37 33.6	-0.4
LSR	Lussari	0.17	348	Sg	Sg	16 37 33.6	-0.4
PTCC	Patocco-Chiusa	0.18	301	⇓Pg	Pg	16 37 30.8	-0.9
PTCC				Sg	Sg	16 37 34.1	-0.2
PTCC	Patocco-Chiusa	0.18	301	⇓Pg	Pg	16 37 30.8	-0.9
PTCC				Sg	Sg	16 37 34.1	-0.2
PTCC	Patocco-Chiusa	0.18	301	Sg	Sg	16 37 34.1	-0.2
GMNA	Gemona	0.24	261	Pg	Pg	16 37 33.5	+0.8
GMNA				Sg	Sg	16 37 38.1	+2.1
GMNA	Gemona	0.24	261	Pg	Pg	16 37 33.5	+0.8
GMNA				Sg	Sg	16 37 38.1	+2.1
GMNA	Gemona	0.24	261	Sg	Sg	16 37 38.1	+2.1
BAD	Bernadia	0.24	252	⇑iPg	Pg	16 37 32.1	-0.7
BAD				i Sg	Sg	16 37 36.1	-0.1
BAD	Bernadia	0.24	252	i Sg	Sg	16 37 36.1	0.0
GORS	Gorjuse	0.29	89	i Pg	Pg	16 37 33.1	-0.5
GORS				i Sg	Sg	16 37 38.1	+0.6
GORS	Gorjuse	0.29	89	i Pg	Pg	16 37 33.1	-0.5
GORS				i Sg	Sg	16 37 38.1	+0.6
GORS							
	comp=Z,195nm,0.2s						
GORS	Gorjuse	0.29	89	i Pg	Pg	16 37 33.1	-0.5
GORS				i Sg	Sg	16 37 38.2	+0.7
	comp=Z,195nm,0.2s						
MYKA	Terra Mystica	0.32	8	⇓iPg	Pg	16 37 33.6	-0.6
MYKA				⇑iSg	Sg	16 37 38.6	0.0
	comp=Z,40nm,0.2s						
MYKA	Terra Mystica	0.32	8	Pg	Pg	16 37 33.6	-0.6
MYKA				Sg	Sg	16 37 38.6	+0.1
	comp=Z,40nm,0.2s						
BUA	Buia	0.33	254	⇓iPg	Pg	16 37 33.8	-0.5
BUA				i Sg	Sg	16 37 39.0	+0.2
BUA	Buia	0.33	254	i Sg	Sg	16 37 39.0	+0.2
BOO	Bordano	0.33	272	⇓iPg	Pg	16 37 33.4	-1.0
VOJS	Vojsko	0.35	143	i Pg	Pg	16 37 34.4	-0.4
VOJS	Vojsko	0.35	143	i Pg	Pg	16 37 34.4	-0.4
VOJS				i Sg	Sg	16 37 40.5	+1.1
VOJS	Vojsko	0.35	143	i Pg	Pg	16 37 34.4	-0.3
PLRO	Paularo	0.38	309	⇑iPg	Pg	16 37 34.5	-0.8
PLRO				i Sg	Sg	16 37 40.5	+0.1
PLRO	Paularo	0.38	309	i Pg	Pg	16 37 34.5	-0.8
PLRO				i Sg	Sg	16 37 40.5	+0.1
MPRI	Monte Prat	0.41	261	⇓iPg	Pg	16 37 35.2	-0.7
MPRI				i Sg	Sg	16 37 41.8	+0.3
MPRI	Monte Prat	0.41	261	i Sg	Sg	16 37 41.8	+0.3
ZOU	Zoufplan	0.48	301	⇓iPg	Pg	16 37 36.5	-0.8
ZOU				i Sg	Sg	16 37 43.9	+0.2
ZOU	Zoufplan	0.48	301	i Pg	Pg	16 37 36.5	-0.8
ZOU				i Sg	Sg	16 37 43.9	+0.2
JAVS	Javornik	0.54	141	⇓iPg	Pg	16 37 37.5	-0.8
JAVS				i Sg	Sg	16 37 46.5	+1.1
JAVS	Javornik	0.54	141	⇓iPg	Pg	16 37 37.5	-0.8
JAVS				i Sg	Sg	16 37 46.5	+1.1
JAVS							
	comp=Z,26nm,0.2s						
MOZS	Mozjanca	0.60	91	⇑iPg	Pg	16 37 39.3	-0.1
MOZS				i Sg	Sg	16 37 49.3	+2.0
TRI	Trieste	0.62	168	Pg	Pg	16 37 38.7	-1.1
TRI				Sg	Sg	16 37 48.3	+0.5
TRI	Trieste	0.62	168	Pg	Pg	16 37 38.7	-1.1
TRI				Sg	Sg	16 37 48.3	+0.5
	comp=Z,95nm,0.2s						
FVI	Forni Avoltri	0.62	298	Pg	Pg	16 37 38.9	-0.9
FVI				Sg	Sg	16 37 48.5	+0.5
FVI	Forni Avoltri	0.62	298	Pg	Pg	16 37 38.9	-0.9
FVI				Sg	Sg	16 37 48.5	+0.5
	comp=Z,70nm,0.2s						
FVI	Forni Avoltri	0.62	298	Pg	Pg	16 37 38.9	-0.9
FVI				Sg	Sg	16 37 48.5	+0.5
	comp=Z,70nm,0.2s						
OBKA	Obir	0.70	73	⇑ePg	Pg	16 37 40.7	-0.6
	SNR=6.5						
OBKA	Obir	0.70	73	⇑ePg	Pg	16 37 40.7	-0.6
OBKA				i Sg	Sg	16 37 49.9	-0.6
OBKA	Obir	0.70	73	⇑ePg	Pg	16 37 40.7	-0.6
	SNR=6.5						
OBKA				⇓iSg	Sg	16 37 49.9	-0.6
	comp=Z,53nm,0.3s						
OBKA	Obir	0.70	73	Pg	Pg	16 37 40.7	-0.6
	comp=Z,6.0nm,5.0s						
OBKA				Sg	Sg	16 37 49.9	-0.6
	comp=Z,53nm,0.3s						
LJU	Ljubljana	0.71	112	i Pg	Pg	16 37 41.4	-0.1
LJU	Ljubljana	0.71	112	i Pg	Pg	16 37 41.4	-0.1
LJU							
	comp=Z,15nm,0.1s						
LJU	Ljubljana	0.71	112	i Pg	Pg	16 37 41.4	-0.2
	comp=Z,23nm,0.3s						
KBA	Koelnbreinsper	0.78	348	⇑iPg	Pg	16 37 42.3	-0.6
KBA	Koelnbreinsper	0.78	348	⇑iPg	Pg	16 37 42.3	-0.6
KBA				i Sg	Sg	16 37 53.0	-0.2
KBA	Koelnbreinsper	0.78	348	⇑iPg	Pg	16 37 42.3	-0.6
KBA				⇓iSg	Sg	16 37 53.0	-0.2
	comp=Z,16nm,0.2s						
KBA	Koelnbreinsper	0.78	348	Pg	Pg	16 37 42.3	-0.6
KBA				Sg	Sg	16 37 53.0	-0.2
	comp=Z,16nm,0.2s						
CEY	Cerknica	0.82	134	i Pg	Pg	16 37 44.6	+1.0
CEY				i Sg	Sg	16 37 57.0	+2.6
CEY	Cerknica	0.82	134	i Pg	Pg	16 37 44.6	+1.0
CEY				i Sg	Sg	16 37 57.0	+2.6
CEY							
	comp=Z,23nm,0.3s						
SKDS	Skadanscina	0.82	158	⇓iPg	Pg	16 37 42.5	-1.2
SKDS				eSg	Sg	16 37 55.9	+1.5
ZAVS	Zavodnje	1.01	83	i Pg	Pg	16 37 46.2	-1.0
ZAVS				i Sg	Sg	16 38 01.1	+0.8
PERS	Pernice	1.11	72	i Pg	Pg	16 37 48.0	-1.1
PERS	Pernice	1.11	72	i Pg	Pg	16 37 48.0	-1.1
PERS				i Sg	Sg	16 38 03.5	-0.2
PERS							
	comp=Z,17nm,0.2s						
PERS	Pernice	1.11	72	i Pg	Pg	16 37 48.0	-1.2
MOA	Molln	1.61	17	⇓iPg	Pg	16 37 57.6	-1.1
MOA	Molln	1.61	17	⇓iPg	Pg	16 37 57.5	-1.1
MOA				i Sg	Sg	16 38 19.6	+0.1
MOA	Molln	1.61	17	⇓iPg	Pg	16 37 57.6	-1.1
MOA				⇑iSg	Sg	16 38 19.6	+0.1
	comp=Z,8.9nm,0.4s						
MOA	Molln	1.61	17	Pg	Pg	16 37 57.6	-1.1
MOA				Sg	Sg	16 38 19.6	+0.1
	comp=Z,8.9nm,0.4s						
ARSA	Arzberg	1.63	54	⇓iPg	Pg	16 37 57.9	-1.2
ARSA	Arzberg	1.63	54	⇓iPg	Pg	16 37 57.9	-1.2
ARSA				i Sg	Sg	16 38 19.9	-0.4
ARSA	Arzberg	1.63	54	⇓iPg	Pg	16 37 57.9	-1.2
ARSA				⇑iSg	Sg	16 38 19.9	-0.4
	comp=Z,2.5nm,0.2s						
ARSA	Arzberg	1.63	54	Pg	Pg	16 37 57.9	-1.2
ARSA				Sg	Sg	16 38 19.9	-0.4
	comp=Z,2.5nm,0.2s						
WTTA	Wattenberg	1.64	306	⇓iPg	Pg	16 37 58.2	-1.1
WTTA	Wattenberg	1.64	306	⇓iPg	Pg	16 37 58.2	-1.1
WTTA				i Sg	Sg	16 38 21.6	+1.0
WTTA	Wattenberg	1.64	306	⇓iPg	Pg	16 37 58.2	-1.1
WTTA				⇑iSg	Sg	16 38 21.6	+1.0
	comp=Z,32nm,0.6s						
WTTA	Wattenberg	1.64	306	Pg	Pg	16 37 58.2	-1.1
WTTA				Sg	Sg	16 38 21.6	+1.1
	comp=Z,32nm,0.6s						
SQTA	Sankt Quirin	1.86	300	⇑iPg	Pg	16 38 03.3	-0.3
SQTA	Sankt Quirin	1.86	300	⇑iPg	Pg	16 38 03.3	-0.3
SQTA				i Sg	Sg	16 38 28.9	+1.1
SQTA	Sankt Quirin	1.86	300	⇑iPg	Pg	16 38 03.3	-0.3
SQTA				⇓iSg	Sg	16 38 28.9	+1.1
	comp=Z,3.7nm,0.3s						
SQTA	Sankt Quirin	1.86	300	Pg	Pg	16 38 03.3	-0.3
SQTA				Sg	Sg	16 38 28.9	+1.1
	comp=Z,3.7nm,0.3s						
MOTA	Moosalm	1.99	302	⇓iPg	Pg	16 38 04.9	-1.0
MOTA	Moosalm	1.99	302	⇓iPg	Pg	16 38 04.9	-1.0
MOTA				i Sg	Sg	16 38 33.2	+1.5
MOTA	Moosalm	1.99	302	⇓iPg	Pg	16 38 04.9	-1.0
MOTA				⇑iSg	Sg	16 38 33.2	+1.5
	comp=Z,5.4nm,0.4s						
MOTA	Moosalm	1.99	302	Pg	Pg	16 38 04.9	-1.0
MOTA				Sg	Sg	16 38 33.2	+1.5
	comp=Z,5.4nm,0.4s						
FETA	Feichten	2.09	291	⇑iPg	Pg	16 38 06.8	-1.0
FETA				⇓iSg	Sg	16 38 36.0	+1.1
	comp=Z,6.0nm,0.5s						
FETA	Feichten	2.09	291	Sg	Sg	16 38 36.0	+1.2
	comp=Z,6.0nm,0.5s						
GEC2	GERESS Array S	2.54	2	ePn	Pn	16 38 10.2	+1.2
GEC2				eSg	Sg	16 38 48.6	-0.7
KHC	Kasperske Hory	2.82	360	ePn	Pn	16 38 14.5	+1.6
KHC				ePg	Pg	16 38 22.5	+0.6
KHC				eSn	Sn	16 38 49.6	+2.7
KHC				eSg	Sg	16 38 58.7	+0.3
KHC	Kasperske Hory	2.82	360	ePN	Pn	16 38 14.5	+1.6
KHC				ePG	Pg	16 38 22.5	+0.6
KHC				eSN	Sn	16 38 49.6	+2.7
KHC				eSG	Sg	16 38 58.7	+0.3
PRU	Pruhonice	3.73	10	eSG	Sg	16 39 27.9	+0.2
NKC	Novy Kostel	4.00	350	eSG	Sg	16 39 37.2	+1.1
CLL	Collm	5.01	356	eSg	Sg	16 40 10.0	+1.3

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*CSEM **22** 16:49:44.3±0.2, 3847N×3919E, h29^{km}±5^{km}, MD2.7, Error ellipse: s-maj=9.3km s-min=4.1km az=132.0*
*DDA **22** 16:49:44.9, 3860N×3934E, h14^{km}±1^{km}, Md2.7*
*ISK **22** 16:49:44.8, 3844N×3921E, h3^{km}, MD2.7*
*ISCJB **22** 16:49:45.2±0.6, 3841N±003×3929E±004, h1^{km}±9^{km}, Error ellipse: s-maj=5.9km s-min=4.6km az=8.9*
ISC 22 16:49:45.9±0.6, **3842N**±004×**3928E**±004, **h5**^{km}±7^{km}, **n12**, σ**0ˢ90**/24, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.25	288	i P	Pg	16 49 50.3	-0.3
ELZG				i S	Sg	16 49 55.4	+1.5
PTK	Pertek	0.47	10	PG	Pg	16 49 54.8	-0.2
PTK				SG	Sg	16 50 02.1	+0.9
PTK	Pertek	0.47	10	ePg	Pg	16 49 54.8	-0.2
PTK				eSg	Sg	16 50 02.1	+0.9
MALT	Malatya	0.68	261	PG	Pg	16 49 57.8	-1.1
MALT				SG	Sg	16 50 07.8	0.0
MALT	Malatya	0.68	261	ePg	Pg	16 49 57.8	-1.1
MALT				eSg	Sg	16 50 07.8	0.0
MYA	Malataya	0.68	262	PG	Pg	16 49 57.1	-1.8
MYA				SG	Sg	16 50 06.8	-1.0
MYA	Malataya	0.68	262	ePg	Pg	16 49 57.1	-1.8
MYA				eSg	Sg	16 50 06.8	-1.0
DIYA	Diyarbakir	0.83	127	i P	Pg	16 50 01.8	+0.1
DIYA				i S	Sg	16 50 12.9	+0.4
URFA	Urfa	1.05	201	ePG	Pg	16 50 06.2	+0.3
URFA				eSG	Sg	16 50 20.5	+1.0
URFA	Urfa	1.05	201	ePg	Pg	16 50 06.2	+0.3
URFA				eSg	Sg	16 50 20.5	+1.0
MARD	Mardin	1.62	133	i P	Pn	16 50 14.7	-0.4
MARD				i S	Sn	16 50 35.4	-1.0
GZT	Gaziantep	1.73	232	i P	Pn	16 50 16.8	+0.2
GZT				i S	Sn	16 50 40.4	+1.4

IDC 22 16:55:00.7±5.7, **684N**×**7394W**, **h176**^{km}±20^{km}, **mb3.4**/2, **mb1 3.6**/3, **mb1mx3.2**/18, **mbtmp3.5**/3, **Error ellipse: s-maj=280.4km s-min=26.8km az=91.0**, **Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	El Rosal	2.00	191	P	Pn	16 55 38.0	+0.4
	41nm,0.3s,baz=88,slow=16,SNR=59						
ROSC				S	Sn	16 56 07.4	+1.3
	70nm,0.3s,baz=84,slow=18,SNR=7.8						
ULM	Lac du Bonnet	47.00	341	P	P	17 03 14.7	+0.7
	1.1nm,0.5s,baz=178,slow=3.4,SNR=4.1						
YKA	Yellowknife Ar	62.97	340	P	P	17 05 07.9	-0.4
	0.6nm,0.5s,baz=132,slow=6.7,SNR=15						
ASAR	Alice Springs	148.46	235	PKPbc	PKPbc	17 14 26.8	-0.5
	0.4nm,1.1s,baz=113,slow=3.0,SNR=3.7						
WRA	Warramunga Arr	149.63	242	PKPbc	PKPbc	17 14 30.0	-0.3
	0.1nm,0.5s,baz=104,slow=2.9,SNR=5.6						

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*ISCJB **22** 16:58:15.5±3.9, 214S±02×1704E±02, h44^{km}±28^{km}, mb4.5/11, MS3.4/3, Error ellipse: s-maj=29.1km s-min=25.3km az=30.3*
*NEIC **22** 16:58:16.2±3.3, 2136S×17050E, h39^{km}±24^{km}, mb4.6/6, Error ellipse: s-maj=26.9km s-min=18.3km az=94.0*
*IDC **22** 16:58:17.7±7.4, 2134S×17038E, h45^{km}±52^{km}, mb4.1/7, mb1 4.2/8, mb1mx4.0/16, mbtmp4.1/8, ML2.9/1, MS3.5/4, Ms1 3.5/4, ms1mx3.1/19, Error ellipse: s-maj=63.3km s-min=33.9km az=123.0*
ISC 22 16:58:17.3±4.0, **214S**±02×**1704E**±02, **h43**^{km}±29^{km}, **n21**, σ**0ˢ47**/19, **mb4.5**/11, **MS3.4**/3, **Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.76	258	eP	Pn	16 59 12.6	-0.2
DZM				eS	Sn	16 59 56.4	+0.6
DZM	Mont Dzumac	3.76	258	P	Pn	16 59 12.7	-0.1
	1.0nm,0.3s,baz=275,slow=22,SNR=18						
DZM				S	Sn	16 59 55.9	+0.1
	4.7nm,0.3s,baz=119,slow=13,SNR=9.3						
AFI	Afiamalu	18.51	69	LR	LR	17 07 14.6	
	comp=Z,109nm,18.9s,baz=263,slow=29						
CTA	Charters Tower	22.63	269	P	P	17 03 14.5	-0.2
	6.7nm,1.0s,mb4.0,baz=146,slow=11,SNR=2.6						
CTA				LR	LR	17 10 48.3	
	comp=Z,56nm,21.6s,MS3.0,baz=244,slow=33						
PMG	Port Moresby	25.34	294	P	P	17 03 39.6	-0.8
	6.2nm,0.7s,mb4.2,baz=122,slow=8.5,SNR=3.8						
STKA	Stephens Creek	27.73	242	eP	P	17 04 02.6	+0.7
	3.9nm,0.8s,mb4.1						
STKA				e		17 04 08.7	
STKA	Stephens Creek	27.73	242	P	P	17 04 02.8	+0.9
	3.8nm,0.9s,mb4.0,baz=111,slow=7.8,SNR=6.9						
STKA				LR	LR	17 12 34.9	
	comp=Z,107nm,21.4s,MS3.4,baz=205,slow=31						
WB2	Warramunga Arr	33.73	266	eP	P	17 04 55.2	+0.3
WRA	Warramunga Arr	33.74	266	P	P	17 04 54.1	-1.0
	1.4nm,0.5s,mb4.1,baz=98,slow=8.2,SNR=9.6						
ASAR	Alice Springs	33.75	259	P	P	17 04 55.0	-0.1
	9.9nm,0.8s,mb4.8,baz=89,slow=9.2,SNR=111						
FITZ	Fitzroy Crossi	42.17	266	eP	P	17 06 06.4	+0.3
	6.3nm,1.0s,mb4.2						
FITZ	Fitzroy Crossi	42.17	266	P	P	17 06 06.1	0.0
	3.4nm,0.8s,mb4.0,baz=98,slow=8.2,SNR=6.1						
KLBR	Kellerberrin	47.84	246	eP	P	17 06 51.0	0.0
	7.0nm,0.8s,mb4.7						
NWAO	Narrogin (SRO)	48.26	244	P	P	17 06 54.3	0.0
	13nm,1.0s,mb4.9						
VNDA	Vanda	56.36	182	LR	LR	17 28 38.4	
	comp=Z,102nm,21.6s,MS3.9,baz=68,slow=32						
MJAR	Matsushiro Arr	65.14	332	P	P	17 08 54.4	+0.6
MJAR	Matsushiro Arr	65.14	332	P	P	17 08 54.4	+0.6
	5.1nm,0.6s,mb4.7,baz=157,slow=13,SNR=14						
MAJO	Matsushiro	65.14	332	eP	P	17 08 54.2	+0.4
	5.4nm,0.5s,mb4.8						
QSPA	South Pole Qui	68.70	180	eP	P	17 09 15.8	-0.2
	6.0nm,1.0s,mb4.5						
GERES	GERESS Array B	146.88	331	PKPbc	PKPbc	17 17 52.8	-2.1
GERES	GERESS Array B	146.88	331	PKPbc	PKPbc	17 17 52.7	-2.1
	1.6nm,0.8s,baz=15,slow=4.1,SNR=12						

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*CSEM **22** 16:58:43.4±0.1, 3848N×3913E, h30^{km}, MD2.8, Error ellipse: s-maj=3.9km s-min=2.8km az=154.0*
*ISK **22** 16:58:43.7, 3846N×3913E, h5^{km}, MD2.7*
*ISCJB **22** 16:58:44.6±0.6, 3839N±004×3924E±003, h5^{km}, Error ellipse: s-maj=5.4km s-min=3.8km az=17.6*
*DDA **22** 16:58:44.8, 3857N×3931E, h14^{km}, Md2.8*
ISC 22 16:58:45.0±0.7, **3839N**±004×**3925E**±004, **h0**^{km}±8^{km}, **n12**, σ**1ˢ14**/22, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.23	298	i P	Pg	16 58 50.1	+0.7
ELZG				i S	Sg	16 58 54.2	+1.7
PTK	Pertek	0.52	13	PG	Pg	16 58 54.1	-0.8
PTK				SG	Sg	16 59 02.1	+0.5
PTK	Pertek	0.52	13	ePg	Pg	16 58 54.1	-0.8
PTK				eSg	Sg	16 59 02.1	+0.5
MALT	Malatya	0.65	264	PG	Pg	16 58 55.7	-1.7
MALT				SG	Sg	16 59 05.5	-0.3
MALT	Malatya	0.65	264	ePg	Pg	16 58 55.7	-1.7
MALT				eSg	Sg	16 59 05.5	-0.3
MYA	Malataya	0.65	265	PG	Pg	16 58 55.5	-1.9
MYA				SG	Sg	16 59 05.4	-0.4
MYA	Malataya	0.65	265	ePg	Pg	16 58 55.5	-1.9
MYA				eSg	Sg	16 59 05.4	-0.4
DIYA	Diyarbakir	0.83	124	i P	Pg	16 59 01.4	+0.4
DIYA				i S	Sg	16 59 13.0	+1.3
URFA	Urfa	1.00	200	ePG	Pg	16 59 04.9	+0.6
URFA	Urfa	1.00	200	ePg	Pg	16 59 04.9	+0.6
MARD	Mardin	1.62	131	i P	Pn	16 59 12.9	-1.9
MARD				i S	Sn	16 59 35.7	-0.7
GZT	Gaziantep	1.68	233	i P	Pn	16 59 16.3	+0.7
GZT				i S	Sn	16 59 39.5	+1.6

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*NEIC **22** 17:01:39.4, 4052N×2231E, h25^{km}, MD3.1(ATH), After ATH.*
*ATH **22** 17:01:39.4, 4052N×2231E, h26^{km}±1^{km}, MD3.1/6*
*CSEM **22** 17:01:40.0±0.1, 4050N×2233E, h15^{km}, ML2.8, Error*

ellipse: s-maj=3.8km s-min=2.5km az=132.0
*ISCJB **22** 17:01:40.4±0.5, 4048N±003×2239E±004, h19^{km}±7^{km}, Error ellipse: s-maj=5.4km s-min=4.6km az=31.9*
*THE **22** 17:01:40.3, 4053N×2235E, h7^{km}, ML2.8*
*SKO **22** 17:01:41.6, 4057N×2244E, h19^{km}*
ISC 22 17:01:40.2±0.5, **4050N**±003×**2237E**±004, **h19**^{km}±4^{km}, **n28**, σ**0^{s}81**/45, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LIT	Litokhoron	0.41	167	*e*Pg	Pg	17 01 48.3	-0.4
LIT				*e*Sg	Sg	17 01 55.1	+0.6
LIT	Litokhoron	0.41	167	*e*Pg	Pg	17 01 48.3	-0.4
LIT				*e*Sg	Sg	17 01 55.1	+0.6
GRG	Griva	0.46	3	*e*Pg	Pg	17 01 48.7	-0.9
GRG				*e*Sg	Sg	17 01 55.5	-0.4
GRG	Griva	0.46	3	*e*Pg	Pg	17 01 48.7	-0.9
GRG				*e*Sg	Sg	17 01 55.5	-0.4
THE	Thessaloniki	0.47	74	*e*Pg	Pg	17 01 49.7	-0.2
THE				*e*Sg	Sg	17 01 57.0	+0.6
THE	Thessaloniki	0.47	74	*e*Pg	Pg	17 01 49.7	-0.2
THE				*e*Sg	Sg	17 01 57.0	+0.6
KZN	Kozani	0.49	247	*e*Pb	Pb	17 01 48.9	-1.3
KZN				*e*Sb	Sb	17 01 56.6	-0.4
KZN	Kozani	0.49	247	*e*PB	Pb	17 01 48.9	-1.3
KZN				*e*SB	Sb	17 01 56.6	-0.4
KZN	Kozani	0.49	247	*e*Pb	Pb	17 01 48.9	-1.3
KZN				*e*Sb	Sb	17 01 56.6	-0.4
HORT	Hortiatis	0.57	80	*e*Pg	Pg	17 01 51.5	-0.1
HORT	Hortiatis	0.57	80	*e*Pg	Pg	17 01 51.5	0.0
PLG	Polygyros	0.83	98	*e*Pn	Pn	17 01 56.2	-0.6
PLG				*e*Sn	Sn	17 02 08.2	-0.3
PLG	Polygyros	0.83	98	*e*PN	Pn	17 01 56.2	-0.6
PLG				*e*SN	Sn	17 02 08.2	-0.3
PLG	Polygyros	0.83	98	*e*Pn	Pn	17 01 56.2	-0.6
PLG				*e*Sn	Sn	17 02 08.2	-0.3
VAY	Valandovo	0.83	11	*e*Pg	Pg	17 01 54.8	-1.7
VAY				*e*Sg	Sg	17 02 07.6	0.0
BIA	Bitola	0.95	304	*e*Pg	Pg	17 01 59.3	+0.7
BIA				*e*Sg	Sg	17 02 14.7	+3.5
THL	Klokotos Trika	0.97	196	*e*PN	Pn	17 01 58.4	-0.3
THL				*e*SN	Sn	17 02 12.1	+0.1
THL	Klokotos Trika	0.97	196	*e*Pn	Pn	17 01 58.4	-0.3
THL				*e*Sn	Sn	17 02 12.1	+0.1
KRUS	Krusevo	1.21	316	*e*Pg	Pg	17 02 03.5	-0.2
KRUS				*e*Sg	Sg	17 02 20.7	+1.1
NVR	Nevrokopi	1.42	53	*e*Pn	Pn	17 02 06.1	+1.3
NVR	Nevrokopi	1.42	53	*e*PN	Pn	17 02 06.1	+1.3
NVR	Nevrokopi	1.42	53	*e*Pn	Pn	17 02 06.1	+1.3
EVR	Evrytania	1.64	195	*e*Pn	Pn	17 02 08.5	+0.6
EVR	Evrytania	1.64	195	*e*PN	Pn	17 02 08.5	+0.6
EVR	Evrytania	1.64	195	*e*Pn	Pn	17 02 08.5	+0.6
RDO	Rodhopi	2.49	74	*e*Pn	Pn	17 02 20.7	+1.1
RDO	Rodhopi	2.49	74	*e*PN	Pn	17 02 20.7	+1.1
RDO	Rodhopi	2.49	74	*e*Pn	Pn	17 02 20.7	+1.1

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*ISCJB **22** 17:08:05.5±0.7, 3395N±005×14025E±009, h95^{km}±6^{km}, mb3.3/3, Error ellipse: s-maj=12.2km s-min=8.0km az=172.7*
*JMA **22** 17:08:06.7±0.1, 3400N×14022E, h82^{km}±2^{km}, M2.7*
*IDC **22** 17:08:07.4±14.0, 3255N×13700E, h0^{km}, mb3.3/3, mb1 3.5/3, mb1mx3.2/22, mbtmp3.3/3, Error ellipse: s-maj=571.7km s-min=30.0km az=63.0*
ISC 22 17:08:06.7±0.7, **3396N**±005×**14024E**±009, **h87**^{km}±6^{km}, **n15**, σ**0^{s}68**/19, **mb3.3**/3, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSO3	Boso 3	0.87	15	P	Pn	17 08 24.4	-0.2
BSO3				*e*S	Sn	17 08 38.2	+0.1
NJJJ	Nii jima 2	0.91	299	P	Pn	17 08 24.8	-0.2
JHJ2	Mitsune	0.92	203	P	Pn	17 08 25.9	+0.7
JHJ2				*e*S	Sn	17 08 39.3	+0.3
BSO1	Boso 1	0.92	41	P	Pn	17 08 24.8	-0.4
JKO	Kozu shima	0.94	284	P	Pn	17 08 25.1	-0.3
JIM2	Oshima 3	1.01	319	P	Pn	17 08 25.5	-0.7
BSO4	Boso 4	1.03	5	P	Pn	17 08 26.6	+0.1
JIZS	Izushimoda	1.36	304	P	Pn	17 08 30.2	-0.2
JIZS				*e*S	Sn	17 08 47.9	-0.4
KTJJ	Kamata 2	1.37	315	P	Pn	17 08 30.1	-0.4
JOD2	Odawara 2	1.61	324	*e*S	Sn	17 08 53.0	-1.1
JYN	Shimob	2.07	318	P	Pn	17 08 40.5	+0.8
MAT	Matsushiro	3.07	328	P	Pn	17 08 55.0	+2.0
MAT				S	Sn	17 09 29.7	+1.0
MKAR	Makanchi Array	45.00	305	P	P	17 16 13.1	-0.2
	0.3nm,0.5s,mb3.3,baz=88,slow=9.3,SNR=9.4						
WRA	Warramunga Arr	53.90	187	P	P	17 17 20.4	-0.7
	0.3nm,0.7s,mb3.4,baz=1.3,slow=8.1,SNR=7.6						
ASAR	Alice Springs	57.62	187	P	P	17 17 47.7	0.0
	0.2nm,0.6s,mb3.3,baz=13,slow=8.7,SNR=5.6						

IDC 22 17:19:38.3±2.5, **435S**×**12988E**, **h0**^{km}, **mb3.8**/2, **mb1 3.7**/3, **mb1mx3.4**/13, **mbtmp3.6**/3, **Error ellipse: s-maj=276.2km s-min=24.8km az=67.0**, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	16.10	165	Pn	Pn	17 23 21.4	-4.7
	0.1nm,0.3s,baz=352,slow=13,SNR=7.2						
WRA				Sn	Sn	17 26 11.1	-14
	0.3nm,0.3s,baz=349,slow=24,SNR=8.7						
ASAR	Alice Springs	19.60	169	P	Pn	17 24 07.7	-1.8
	0.2nm,0.3s,baz=358,slow=9.5,SNR=16						
STKA	Stephens Creek	29.51	159	P	P	17 25 44.9	+0.4
	0.7nm,0.6s,baz=345,slow=16,SNR=2.4						
MKAR	Makanchi Array	65.96	326	P	P	17 30 26.5	+0.1
	0.6nm,0.5s,baz=110,slow=7.5,SNR=15						

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*ISCJB **22** 17:24:07.7±0.5, 4135N±003×2258E±003, h7^{km}±4^{km}, Error ellipse: s-maj=5.2km s-min=3.3km az=31.4*
*SKO **22** 17:24:07.7, 4131N×2258E, h15^{km}, M0.3, ML1.8*
*CSEM **22** 17:24:08.2±0.1, 4138N×2258E, h2^{km}, ML2.5, Error ellipse: s-maj=2.2km s-min=1.8km az=176.0*
*THE **22** 17:24:08.8, 4133N×2259E, h2^{km}, ML2.5*
*ATH **22** 17:24:18.6, 4098N×2360E, h10^{km}, MD3.1/3*
ISC 22 17:24:08.3±0.5, **4136N**±003×**2259E**±003, **h7**^{km}±5^{km}, **n38**, σ**0^{s}70**/60, **Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VAY	Valandovo	0.04	206	*e*Pg	Pg	17 24 08.9	-0.7
VAY				*e*Sg	Sg	17 24 10.2	-0.4
VAY	Valandovo	0.04	206	*e*Pg	Pg	17 24 09.3	-0.3
VAY				*i* Sg	Sg	17 24 09.6	-1.0
VAY				*e*Lg		17 24 10.5	
	comp=N,2μm,0.2s						
VAY				*e*Lg		17 24 10.5	
	comp=E,1μm,0.2s						
VAY	Valandovo	0.04	206	*e*Pg	Pg	17 24 08.9	-0.7
VAY				*e*Sg	Sg	17 24 10.2	-0.4
KNT	Kendrikon	0.30	130	*e*Pg	Pg	17 24 14.5	+0.3
KNT				*e*Sg	Sg	17 24 18.5	+0.4
KNT	Kendrikon	0.30	130	*e*Pg	Pg	17 24 14.5	+0.3
KNT				*e*Sg	Sg	17 24 18.5	+0.4
GRG	Griva	0.42	200	*e*Pg	Pg	17 24 16.3	-0.1
GRG				*e*Sg	Sg	17 24 22.6	+0.6
GRG	Griva	0.42	200	*e*Pg	Pg	17 24 16.3	-0.1
GRG				*e*Sg	Sg	17 24 22.6	+0.6
STIP	Stip	0.46	318	*e*Pg	Pg	17 24 17.8	+0.7
STIP				*e*Sg	Sg	17 24 24.6	+1.6
STIP	Stip	0.46	318	*i* Pg	Pg	17 24 17.8	+0.7
STIP				*e*Sg	Sg	17 24 25.0	+2.0
STIP				*e*Lg		17 24 25.4	
	comp=N,42nm,0.3s						
STIP				*e*Lg		17 24 25.5	
	comp=E,53nm,0.3s						
STIP	Stip	0.46	318	*e*Pg	Pg	17 24 17.8	+0.7
STIP				*e*Sg	Sg	17 24 24.6	+1.5
SOH	Sokhos	0.79	132	*e*Pg	Pg	17 24 22.9	-0.4
SOH				*e*Sg	Sg	17 24 34.2	+0.7
SOH	Sokhos	0.79	132	*e*Pg	Pg	17 24 22.9	-0.4
SOH				*e*Sg	Sg	17 24 34.2	+0.7
SRS	Serrai	0.79	107	*e*Pg	Pg	17 24 23.5	0.0
SRS	Serrai	0.79	107	*e*Pg	Pg	17 24 23.5	0.0
HORT	Hortiatis	0.85	153	*e*Pg	Pg	17 24 24.2	-0.4
HORT				*e*Sg	Sg	17 24 36.7	+1.1
HORT	Hortiatis	0.85	153	*e*Pg	Pg	17 24 24.2	-0.4
HORT				*e*Sg	Sg	17 24 36.7	+1.1
NVR	Nevrokopi	0.96	90	*e*PB	Pb	17 24 26.7	-0.5
NVR	Nevrokopi	0.96	90	*e*Pn	Pb	17 24 26.7	-0.5
KRUS	Krusevo	1.01	271	*e*Pg	Pg	17 24 27.5	-0.2
KRUS				*e*Sg	Sg	17 24 40.8	0.0
BIA	Bitola	1.01	251	*e*Pg	Pg	17 24 27.1	-0.6
BIA				*e*Sg	Sg	17 24 40.0	-0.9
BIA				*e*Lg		17 24 42.7	
	comp=E,12nm,0.3s						
BIA				*e*Lg		17 24 42.8	
	comp=N,18nm,0.4s						
FNA	Florina	1.08	239	*e*Pg	Pg	17 24 28.4	-0.6
FNA				*e*Sg	Sg	17 24 44.1	+1.1
FNA	Florina	1.08	239	*e*Pg	Pg	17 24 28.4	-0.6
FNA				*e*Sg	Sg	17 24 44.1	+1.1
PLG	Polygyros	1.18	146	*e*Pg	Pg	17 24 30.4	-0.4
PLG				*e*Sg	Sg	17 24 46.9	+0.9
PLG	Polygyros	1.18	146	*e*PB	Pb	17 24 30.0	-0.9
PLG	Polygyros	1.18	146	*e*Pn	Pb	17 24 30.0	-0.9
PLG	Polygyros	1.18	146	*e*Pg	Pg	17 24 30.4	-0.4
PLG				*e*Sg	Sg	17 24 46.9	+0.9
LIT	Litokhoron	1.25	184	*e*Pg	Pg	17 24 32.0	-0.4
LIT				*e*Sg	Sg	17 24 49.5	+0.9
LIT	Litokhoron	1.25	184	*e*Pg	Pg	17 24 32.0	-0.3
LIT				*e*Sg	Sg	17 24 49.5	+0.9
OUR	Ouranopolis	1.47	134	*e*Pg	Pg	17 24 35.4	-1.0
OUR	Ouranopolis	1.47	134	*e*Pg	Pg	17 24 35.4	-1.0
BARS	Barje	1.57	339	Pg	Pg	17 24 37.8	-0.6
PAIG	Paliouri	1.65	149	*e*Pb	Pb	17 24 38.1	-0.9
PAIG	Paliouri	1.65	149	*e*Pb	Pb	17 24 38.1	-0.9
RDO	Rodhopi	2.23	94	*e*PB	Pn	17 24 46.2	+0.5
RDO	Rodhopi	2.23	94	*e*Pn	Pn	17 24 46.2	+0.5
AGG	Agios Georgios	2.34	185	*e*Pn	Pn	17 24 46.8	-0.4
AGG	Agios Georgios	2.34	185	*e*Pn	Pn	17 24 46.8	-0.3
DIVS	Divcibare	3.34	326	Pn	Pn	17 25 01.6	+0.6

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*ISCJB **22** 17:26:41.7±0.9, 3703N±004×2159E±006, h10^{km}±7^{km}, Error ellipse: s-maj=8.3km s-min=6.5km az=140.1*
*CSEM **22** 17:26:42.4±0.1, 3704N×2160E, h2^{km}, MD3.2, Error ellipse: s-maj=3.0km s-min=1.8km az=51.0*
*THE **22** 17:26:42.7, 3703N×2164E, h3^{km}, ML2.8*
*NEIC **22** 17:26:45.2, 3726N×2195E, h20^{km}, MD3.2(ATH), After ATH.*
*ATH **22** 17:26:45.2, 3726N×2195E, h18^{km}±12^{km}, MD3.2/5*
ISC 22 17:26:41.5±1.2, **3701N**±005×**2153E**±007, **h0**^{km}±11^{km}, **n27**, σ**1^{s}12**/38, **2C**, **Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYL	PYLOS	0.20	124	*e*Pg	Pg	17 26 45.8	+0.4
PYL				*e*Sg	Sg	17 26 48.7	+0.6
PYL	PYLOS	0.20	124	*e*Pg	Pg	17 26 45.8	+0.4
PYL				*e*Sg	Sg	17 26 48.7	+0.7
ITM	Ithomi	0.36	62	⇑*i*Pb	Pg	17 26 47.8	-0.6
ITM				*e*Sb	Sg	17 26 52.4	-0.6
ITM	Ithomi	0.36	62	⇑*i*PB	Pg	17 26 47.8	-0.6
ITM				*e*SB	Sg	17 26 51.8	-1.2
ITM	Ithomi	0.36	62	*i* Pb	Pg	17 26 47.8	-0.6
ITM				*e*Sb	Sg	17 26 52.4	-0.6
VLX	Vlachokerasia	0.77	62	*e*Pg	Pg	17 26 55.3	-1.0
VLX				*e*Sg	Sg	17 27 06.0	-0.2
VLX	Vlachokerasia	0.77	62	*e*Pg	Pg	17 26 55.3	-0.9
VLX				*e*Sg	Sg	17 27 05.9	-0.2
RLS	Riolos of Patr	1.05	357	*e*Pn	Pn	17 27 02.4	-1.0
RLS	Riolos of Patr	1.05	357	*e*PN	Pn	17 27 02.4	-1.0
RLS	Riolos of Patr	1.05	357	*e*Pn	Pn	17 27 02.4	-1.0
VLI	Veliai	1.16	104	*e*Pb	Pb	17 27 03.1	-1.4
VLI	Veliai	1.16	104	*e*PB	Pb	17 27 03.1	-1.4
VLI	Veliai	1.16	104	*e*Pb	Pb	17 27 03.1	-1.4
KFL	Anninata	1.25	332	*e*Pg	Pg	17 27 05.8	+0.4
KFL	Anninata	1.25	332	*e*Pg	Pg	17 27 05.8	+0.4
SELA	Sela	1.29	13	*e*Pg	Pg	17 27 05.8	-0.5
SELA				*e*Sg	Sg	17 27 25.2	+2.0
SELA	Sela	1.29	13	*e*Pg	Pg	17 27 05.8	-0.6
SELA				*e*Sg	Sg	17 27 25.2	+2.0
KYTH	Kithira	1.41	121	*e*Pn	Pn	17 27 11.0	+2.6
KYTH	Kithira	1.41	121	*e*PN	Pn	17 27 11.0	+2.6
KYTH	Kithira	1.41	121	*e*Pn	Pn	17 27 11.0	+2.6
DID	Didima	1.45	69	*e*Pg	Pg	17 27 08.0	-1.3
DID				*e*Sg	Sg	17 27 30.1	+2.1
DID	Didima	1.45	69	*e*Pg	Pg	17 27 07.9	-1.4
DID				*e*Sg	Sg	17 27 30.1	+2.1
LKD	Levkas	1.83	338	*e*Pb	Pb	17 27 16.1	+0.2
LKD	Levkas	1.83	338	*e*Pb	Pb	17 27 16.0	+0.1
EVR	Evrytania	1.92	6	*e*Pn	Pn	17 27 15.4	+0.1
EVR	Evrytania	1.92	6	*e*PN	Pn	17 27 15.4	+0.1
EVR	Evrytania	1.92	6	*e*Pn	Pn	17 27 15.4	+0.1

IDC 22 17:41:15.3±2.1, **100S**×**12758E**, **h0**^{km}, **mb3.5**/2, **mb1 3.6**/3, **mb1mx3.4**/16, **mbtmp3.4**/3, **ML3.3**/1, **Error ellipse: s-maj=151.1km s-min=27.1km az=67.0**, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	19.95	161	P	Pn	17 45 49.5	-1.3
	0.1nm,0.3s,baz=340,slow=12,SNR=12						
ASAR	Alice Springs	23.35	165	P	P	17 46 25.4	-0.2
	0.5nm,0.6s,baz=346,slow=12,SNR=10						
MKAR	Makanchi Array	61.92	326	P	P	17 51 36.8	0.0
	0.8nm,0.6s,baz=115,slow=7.6,SNR=4.1						

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*IDC **22** 17:44:07.8±1.3, 3236N×7202E, h0^{km}, mb3.8/9, mb1 4.0/10, mb1mx3.8/24, mbtmp3.8/10, ML3.6/1, Error ellipse: s-maj=31.7km s-min=22.2km az=29.0*
*MOS **22** 17:44:10.4±1.1, 3245N×7203E, h33^{km}, mb4.1/8, Error ellipse: s-maj=14.7km s-min=7.1km az=91.1*
*BJI **22** 17:44:12.2, 3255N×7207E, h41^{km}, mb4.2*
*ISCJB **22** 17:44:13.0±0.5, 3246N±004×7207E±004, h59^{km}±6^{km}, mb3.9/10, Error ellipse: s-maj=6.9km s-min=4.9km az=42.3*
*NEIC **22** 17:44:14.1±1.0, 3244N×7224E, h54^{km}±10^{km}, mb4.0/4, Error ellipse: s-maj=10.9km s-min=8.4km az=52.0*
NEIC Felt at Chakwal, Mianwali and Sargodha.
*NDI **22** 17:44:32.1±5.3, 3157N×7345E, h33^{km}, ML4.0, mb4.0(NEIC)*
*NNC **22** 17:45:04.3±2.5, 3638N×7250E, h92^{km}±24^{km}, mb3.6, mpv3.8, Error ellipse: s-maj=30.5km s-min=15.4km az=36.0*
ISC 22 17:44:14.3±0.4, **3244N**±004×**7207E**±004, **h52**^{km}±6^{km}, **n91**, σ**1^{s}57**/102, **mb3.9**/10, **6C-4D**, **Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THW	Thamme Wali	0.45	322	P	Pn	17 44 22.4	-2.7
SBDP	Sheikh Budin	1.08	263	⇓P	Pn	17 44 32.1	-1.0
CEP	Cherat	1.39	354	⇓P	Pn	17 44 37.5	+0.2
CHCP	Chirah Chowk	1.58	39	⇓P	Pn	17 44 41.1	+1.2
DRP	Derazinda	1.73	247	⇑P	Pn	17 44 42.3	+0.4
SRNI	Srinagar	2.86	54	*e*x	Pn	17 44 52.0	-5.4
SRNI				*e*S		17 45 47.0	
THN	Thein Dam	3.08	89	*e*P	Pn	17 45 02.8	+2.3
THN				*e*x	Sn	17 45 59.9	+24
KBL	Kabul	3.29	311	*e*Pn	Pn	17 45 03.7	+0.4
KBL				*e*Pb	Pn	17 45 12.1	+8.8
KBL				*e*Pg	Pn	17 45 15.4	+12
KBL				*e*Sn	Sn	17 45 41.9	+0.8
DLH	Dalhousie	3.29	87	*e*P	Pn	17 45 08.0	+4.6
DLH				*e*x	Sn	17 46 00.0	+19
PONG	Pong	3.32	97	*e*P	Pn	17 45 05.5	+1.7
PONG				*e*x	Sn	17 46 10.5	+28
BHK	Bhakra	3.83	104	*e*P	Pn	17 45 09.0	-1.8
SDNR	Sundarnagar	4.27	101	*e*P	Pn	17 45 18.6	+1.9
SDNR				*e*x	x	17 46 30.8	
SMLA	Simla	4.53	105	*e*P	Pn	17 45 22.3	+2.0
SMLA				*e*x	Sn	17 46 12.7	+0.9
DDI	Dehra Dun	5.54	111	*e*P	Pn	17 45 35.8	+1.7
DDI				*e*x	x	17 47 15.5	
NDI	New Delhi	5.80	129	*e*P	Pn	17 45 35.0	-2.8
NDI				*e*x	Sn	17 46 57.0	+14
AJM	Ajmer	6.34	159	*e*P	Pn	17 45 47.0	+1.7
AJM				*i* x	x	17 47 33.0	
LGTI	Lohaghat	7.63	111	*e*P	Pn	17 46 01.0	-1.8
KSH	Kashi	7.74	23	P	Pn	17 46 07.6	+3.3
AML	Almayashu	9.76	7	P	Pn	17 46 33.5	+1.5
	SNR=52						
AML	Almayashu	9.76	7	*e*Pn	Pn	17 46 32.7	+0.7
	32nm,0.4s						
AML				*e*Sn	Sn	17 48 14.7	-5.4
KZA	Kyzart	9.95	14	P	Pn	17 46 35.1	+0.5
	SNR=16						
UCH	Uchtor	9.96	11	P	Pn	17 46 36.9	+2.1
	SNR=12						
UCH	Uchtor	9.96	11	*e*Pn	Pn	17 46 34.8	+0.1
	28nm,0.6s						
EKS2	Erkin-Say	10.30	7	P	Pn	17 46 41.6	+2.3
	SNR=7.2						
EKS2	Erkin-Say	10.30	7	*e*Pn	Pn	17 46 39.7	+0.4
	11nm,0.6s						
ULHL	Ulahol	10.34	18	P	Pn	17 46 40.6	+0.8
	SNR=5.3						
AAK	Ala-Archa	10.36	10	P	Pn	17 46 42.4	+2.3
	SNR=7.0						
AAK	Ala-Archa	10.36	10	*e*Pn	Pn	17 46 40.9	+0.8
	26nm,0.4s						
AAK	Ala-Archa	10.36	10	*c i*P	Pn	17 46 41.1	+1.0
KBK	Karagaybulak	10.45	12	P	Pn	17 46 43.6	+2.2
	SNR=8.6						
KK31	Karatay Array	10.72	354	Pn	Pn	17 46 43.9	-1.2
	9.4nm,0.5s,baz=181,slow=13,SNR=105						
KK31				⇑Sn	Sn	17 48 02.9	-41
	12nm,0.3s,baz=162,slow=20,SNR=14						
KK31	Karatay Array	10.72	354	*i* P	Pn	17 46 43.8	-1.2
KK31				pmax	pmax		
	comp=Z,8.0nm,0.2s						
KKAR	Karatay Array	10.72	354	*e*P	Pn	17 46 43.8	-1.2
KKAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CHMS	Chumysh	10.76	11	P	Pn	17 46 46.3	+0.8
	SNR=6.3						
TKM2	Tokmak 2	10.83	14	P	Pn	17 46 46.9	+0.3
	SNR=11						
TKM2	Tokmak 2	10.83	14	⇑P	Pn	17 46 43.1	-3.5
	comp=Z,1.8nm,0.9s						
TKM2	Tokmak 2	10.83	14	*e*Pn	Pn	17 46 46.5	-0.1
	comp=Z,9.3nm,0.6s						
TKM2				*e*Sn	Sn	17 48 42.4	-3.8
TKM2	Tokmak 2	10.83	14	*e*P	Pn	17 46 46.5	-0.1
TKM2				*e*		17 48 42.4	
TKM2				pmax	pmax		
	comp=Z,9.0nm,0.6s						
USP	Ospenovka	10.98	9	P	Pn	17 46 47.4	-1.2
	SNR=5.4						
JBP	Jabalpur	11.58	141	⇓*e*P	Pn	17 46 55.6	-1.4
JBP				*i* x	x	17 48 54.5	
JBP				AML	AML	17 50 27.1	
	comp=E,47nm,0.5s						
JBP				AML	AML	17 50 29.8	
	comp=N,40nm,0.8s						
GKN	Gorkha	11.73	109	*e*P	Pn	17 46 56.5	-2.4
	comp=N,59nm,0.3s						
GKN				*e*S	Sn	17 49 01.6	-6.8
KKN	Kakani	12.34	109	*e*P	Pn	17 47 04.5	-2.7
	comp=N,131nm,0.6s						
JIRN	Jiri	13.12	108	*e*P	Pn	17 47 15.2	-2.7
	comp=N,49nm,0.4s						
JIRN				*e*S	Sn	17 49 36.1	-6.2
POO	Poona	13.94	173	*e*x	x	17 49 55.0	
ODAN	Odare	14.43	109	*e*P	Pn	17 47 32.2	-3.4
	comp=N,55nm,0.5s						
TAPN	Taplejung	14.48	106	*e*P	Pn	17 47 32.4	-3.8
	comp=N,42nm,0.5s						
LATR	Latur	14.53	163	*e*x	x	17 50 00.0	
HYB	Hyderabad	16.06	157	*e*P	Pn	17 47 55.5	-1.2
HYB				*e*S	S	17 51 14.5	+9.4
HYB	Hyderabad	16.06	157	*i* P	Pn	17 47 55.5	-1.2
HYB				*e*S	S	17 51 41.0	+36
MK31	Makanchi Array	16.34	26	P	Pn	17 48 01.5	+1.5
	comp=N,2.2nm,0.6s,baz=208,slow=13,SNR=33						
MK31	Makanchi Array	16.34	26	*e*Pn	Pn	17 47 57.6	-2.4
MK31				*e*Sn	Sn	17 50 58.0	-2.1
MK31	Makanchi Array	16.34	26	*i* P	Pn	17 47 57.6	-2.4
MK31				pmax	pmax		
	comp=Z,1.0nm,0.2s						
MKAR	Makanchi Array	16.34	26	Pn	Pn	17 47 58.0	-2.0
MKAR	Makanchi Array	16.34	26	*i* P	Pn	17 47 57.6	-2.4
MKAR	Makanchi Array	16.34	26	Pn	Pn	17 47 58.0	-2.0
	comp=Z,0.2nm,0.3s,baz=213,slow=13,SNR=18						
LSA	Lhasa	16.57	94	P	Pn	17 48 01.8	-1.3
LSA	Lhasa	16.57	94	*e*P	Pn	17 48 01.2	-2.0
	comp=Z,7.5nm,0.8s						
LSA	Lhasa	16.57	94	*e*P	Pn	17 48 01.2	-1.9
LSA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
WMQ	Urumqi	16.71	43	*e*P	Pn	17 48 02.8	-1.9
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.8s						
SHL	Shillong	18.62	106	*e*P	Pn	17 48 29.5	+1.2
SHL				*e*x	x	17 51 29.0	
KURK	Kurchatov	18.89	13	⇑P	Pn	17 48 31.1	-0.2
	comp=Z,2.3nm,0.6s						
KURK	Kurchatov	18.89	13	*e*P	Pn	17 48 28.8	-2.6
	comp=Z,12nm,1.0s						
KURK	Kurchatov	18.89	13	*i* P	Pn	17 48 29.2	-2.2
AB31	Akbulak array	19.10	335	Pn	Pn	17 48 31.9	-2.0
	comp=Z,4.3nm,0.7s,baz=137,slow=12,SNR=25						
AB31				⇑Sn	Sn	17 51 34.0	-33
	comp=Z,0.7nm,0.5s,baz=140,slow=24,SNR=3.4						
AB31	Akbulak array	19.10	335	P	Pn	17 48 31.8	-2.1
AB31				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BRVK	Borovoye	20.65	357	*e*P	P	17 48 48.7	-0.8
	comp=Z,5.1nm,0.6s						
BRVK	Borovoye	20.65	357	*e*P	P	17 48 48.7	-0.7
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.6s						
AKTK	Aktyubinsk	20.78	334	P	P	17 48 51.9	+1.1
AKTO	Aktyubinsk	20.78	334	P	P	17 48 51.9	+1.1
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.3s						
AKTO	Aktyubinsk	20.78	334	P	P	17 48 51.9	+1.1
	comp=Z,2.0nm,0.3s,baz=131,slow=7.2,SNR=16						
ZAL	Zalesovo	23.34	19	P	P	17 49 16.9	-0.9
ZALV	Zalesovo Beam	23.35	19	P	P	17 49 16.9	-1.1
	comp=Z,4.8nm,0.4s,mb4.2,baz=214,slow=9.6,SNR=26						
NVS	Novosibirsk	23.75	16	*e*P	P	17 49 23.9	+2.3
KIV	Kislovodsk	25.66	305	P	P	17 49 40.9	+1.7
	comp=Z,8.4nm,0.6s,mb4.5						
KIV	Kislovodsk	25.66	305	*e*P	P	17 49 37.2	-2.0
KIV				*e*		17 53 02.7	
KIV				*e*S	S	17 54 08.2	+4.3
KIV				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.0						
SONM	Songino Array	30.12	49	P	P	17 50 21.6	+2.7
	comp=Z,0.3nm,0.8s,mb3.1,baz=90,slow=24,SNR=3.8						
BRTR	Keskin Array B	31.72	294	P	P	17 50 34.1	+1.0
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	31.72	294	P	P	17 50 34.1	+1.0
	comp=Z,0.7nm,0.8s,mb3.6,baz=79,slow=13,SNR=3.7						
OBN	Obninsk	33.65	323	*e*P	P	17 50 49.1	-0.7
OBN				*e*		17 51 59.3	
OBN				*e*		17 53 27.5	
OBN				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.2						
AKASG	Malin Array Be	36.27	313	P	P	17 51 11.8	-0.7
AKASG	Malin Array Be	36.27	313	*i* P	P	17 51 13.1	+0.7
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.7s						
AKASG	Malin Array Be	36.27	313	P	P	17 51 11.8	-0.7
	comp=Z,1.1nm,0.7s,mb3.9,baz=96,slow=7.1,SNR=6.6						
ARCES	ARCESS Array B	45.24	339	P	P	17 52 26.5	+0.5
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	ARCESS Array B	45.24	339	P	P	17 52 26.5	+0.5
	comp=Z,1.6nm,0.8s,mb3.9,baz=108,slow=6.5,SNR=5.2						
NB2	NORSAR Subarra	48.19	325	P	P	17 52 49.4	+0.3
	comp=Z,1.3nm,0.6s,mb4.1,baz=100,slow=7.9						
NOA	NORSAR Array B	48.19	325	P	P	17 52 49.0	-0.1
NOA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
NOA	NORSAR Array B	48.19	325	P	P	17 52 49.0	-0.1
	comp=Z,2.0nm,1.0s,mb4.1,baz=99,slow=7.8,SNR=3.2						
PET	Petropavlovsk	62.88	43	*e*P	P	17 54 26.8	-8.0
WRA	Warramunga Arr	79.09	122	P	P	17 56 13.9	+0.5
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRA	Warramunga Arr	79.09	122	P	P	17 56 13.9	+0.5
	comp=Z,1.0nm,0.5s,mb4.0,baz=323,slow=5.0,SNR=12						
YKA	Yellowknife Ar	85.25	3	P	P	17 56 48.1	+3.1
	comp=Z,0.3nm,0.6s,mb3.6,baz=316,slow=7.0,SNR=3.0						

NIED **22** *17:45:00, 3830N×14300E, h26^{km}, Mw4.4 Best double couple: M$_0$4.81000×10^{15} NP1:φ$_s$204.00000°, δ18.00000°, λ96.00000°. NP2:φ$_s$17.00000°, δ72.00000°, λ88.00000°.*

IDC **22** *17:45:44.8±0.7, 3827N×14289E, h0^{km}, mb4.1/14, mb1 4.2/17, mb1mx4.1/25, mbtmp4.1/17, ML3.8/3, MS3.8/10, Ms1 3.8/10, ms1mx3.5/35, Error ellipse: s-maj=22.9km s-min=14.2km az=85.0*

JMA **22** *17:45:45.8±0.1, 3826N×14298E, h17^{km}±2^{km}, M4.6*

ISCJB **22** *17:45:46.4±1.2, 3822N±003×14302E±004, h27^{km}±8^{km}, mb4.3/40, MS3.9/14, Error ellipse: s-maj=5.7km s-min=4.6km az=135.6*

BJI **22** *17:45:47.2, 3831N×14252E, h9^{km}, mB5.0, mb4.5, Ms4.5, Msz4.3*

MOS **22** *17:45:47.6±0.8, 3825N×14295E, h33^{km}, mb4.6/25, Error ellipse: s-maj=10.9km s-min=7.0km az=108.6*

NEIC **22** *17:45:50.6±1.0, 3829N×14277E, h39^{km}±8^{km}, mb4.4/22, Error ellipse: s-maj=10.1km s-min=6.0km az=121.0*

ISC 22 17:45:47.1±1.4**, 3825N**±003×**14292E**±004**, h15**^{km}±9^{km}**, h27**^{km}±3.3^{km}**:pP-P, n125,** σ**0**^{s}**97**/141**, mb4.3**/40**, MS3.9**/14**, 2C-1D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JIO	**Ouri**	**1.25**	**280**	P	**Pn**	**17 46 09.2**	**-0.9**
JIO				*e*S	**Sb**	**17 46 26.0**	**-0.4**
OFUJ	**Ofunato**	**1.28**	**311**	P	**Pn**	**17 46 09.5**	**-1.0**
OFUJ				*e*S	**Sb**	**17 46 26.9**	**-0.3**
JMK	**Ichinoseki**	**1.50**	**298**	P	**Pn**	**17 46 12.9**	**-0.6**
JMK				*e*S	**Sn**	**17 46 33.1**	**+0.2**
JMM	**Marumori**	**1.72**	**258**	P	**Pn**	**17 46 15.9**	**-0.6**
JMM				*e*S	**Sn**	**17 46 38.3**	**0.0**
JOM	**Ohasama**	**1.76**	**314**	P	**Pn**	**17 46 16.9**	**-0.2**
JOM				*e*S	**Sn**	**17 46 40.1**	**+0.9**
JOU	**Okura**	**1.78**	**274**	P	**Pn**	**17 46 17.3**	**0.0**
JOU				*e*S	**Sn**	**17 46 40.6**	**+1.0**
JFK	**Kawauchi**	**1.85**	**242**	P	**Pn**	**17 46 17.7**	**-0.5**
JFK				*e*S	**Sn**	**17 46 41.0**	**-0.3**
JYK	**Kaneyama**	**2.11**	**289**	P	**Pn**	**17 46 22.1**	**+0.2**
JYK				*e*S	**Sn**	**17 46 48.8**	**+0.9**
JFT	**Otama**	**2.17**	**251**	P	**Pn**	**17 46 23.5**	**+0.8**
JFT				*e*S	**Sn**	**17 46 50.9**	**+1.6**
JYS	**Shirataka**	**2.25**	**270**	P	**Pn**	**17 46 24.0**	**+0.2**
JYS				*e*S	**Sn**	**17 46 52.3**	**+1.1**
JANG	**Nango**	**2.38**	**333**	P	**Pn**	**17 46 25.5**	**-0.1**
JANG				*e*S	**Sn**	**17 46 54.5**	**0.0**
JYA	**Atsumi**	**2.54**	**279**	P	**Pn**	**17 46 28.2**	**+0.4**
ERM	**Erimo**	**3.76**	**3**	*e*Pn	**Pn**	**17 46 44.5**	**-0.1**
ERM	**Erimo**	**3.76**	**3**	*i* P	**Pn**	**17 46 45.2**	**+0.6**
MJAR	**Matsushiro Arr**	**4.12**	**247**	Pn	**Pn**	**17 46 50.7**	**+1.1**
MJAR				Sn	**Sn**	**17 47 34.3**	**-3.1**
MJAR	**Matsushiro Arr**	**4.12**	**247**	P	**Pn**	**17 46 50.7**	**+1.2**
MJAR						17 47 34.3	
MJAR				pmax	pmax		
	comp=Z,13nm,0.3s						
MJAR				smax			
	comp=N,6.0nm,0.3s						
MJAR	**Matsushiro Arr**	**4.12**	**247**	Pn	**Pn**	**17 46 50.7**	**+1.1**
	comp=N,13nm,0.3s,baz=55,slow=11,SNR=109						
MJAR				Sn	**Sn**	**17 47 34.3**	**-3.1**
	comp=N,5.6nm,0.3s,baz=76,slow=18,SNR=6.7						
MAJO	**Matsushiro**	**4.12**	**247**	*e*Pn	**Pn**	**17 46 51.1**	**+1.6**
MAT	**Matsushiro**	**4.12**	**247**	P	**Pn**	**17 46 51.4**	**+1.9**
MAT				S	**Sn**	**17 47 45.5**	**+8.0**
JHJ	**Hachijo jima 2**	**5.72**	**207**	Pn	**Pn**	**17 47 11.5**	**0.0**
	comp=N,15nm,0.3s,baz=79,slow=18,SNR=4.5						
JHJ				Sn	**Sn**	**17 48 12.1**	**-4.9**
	comp=N,34nm,0.3s,baz=36,slow=20,SNR=4.2						
JHJ				LR	LR	17 49 14.5	
	comp=N,204nm,18.4s,baz=117,slow=37						
ASAJ	**Asahikawa**	**5.86**	**358**	P	**Pn**	**17 47 14.1**	**+0.7**
ASAJ						17 48 22.6	
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				smax			
	comp=N,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,1μm,18.6s						
ASAJ	**Asahikawa**	**5.86**	**358**	Pn	**Pn**	**17 47 14.1**	**+0.6**
	comp=Z,1.0nm,0.3s,baz=260,slow=29,SNR=12						
ASAJ				Sn	**Sn**	**17 48 22.6**	**+2.3**
	comp=Z,1.0nm,0.3s,baz=243,slow=34,SNR=2.6						
ASAJ				LR	LR	17 50 13.7	
	comp=Z,1μm,18.6s,baz=159,slow=46						
YUK	**Yuzh-Kuril'sk**	**6.19**	**20**	*e*P	**Pn**	**17 47 18.5**	**+0.6**
YUK				*e*S	**Sn**	**17 48 21.9**	**-6.4**
YUK				smax			
	comp=N,190nm,0.5s						
YUK				smax			
	comp=E,380nm,0.5s						
YUK				smax			
	comp=N,2μm,2.0s						
YUK				smax			
	comp=E,2μm,2.0s						
YSS	**Yuzh-Sakhalins**	**8.70**	**359**	*e*Pn	**Pn**	**17 47 54.1**	**+1.8**
YSS	**Yuzh-Sakhalins**	**8.70**	**359**	*e*P	**Pn**	**17 48 01.8**	**+10**
JNU	**Nakatsue**	**11.05**	**246**	LR	LR	17 53 12.9	
	comp=E,641nm,18.4s,baz=58,slow=41						
HABR	**Khabarovsk**	**11.70**	**333**	*e*P	**Pn**	**17 48 32.1**	**-1.3**
HABR				*e*S	**Sn**	**17 50 41.7**	**-2.0**
KSRS	**Korea Array**	**11.89**	**271**	Pn	**Pn**	**17 48 39.0**	**+2.9**
	comp=E,0.3nm,0.3s,baz=92,slow=13,SNR=6.9						
KSRS				LR	LR	17 52 54.9	
	comp=E,466nm,19.5s,baz=158,slow=36						
KLR	**Kul'dur**	**13.61**	**327**	*e*P	**Pn**	**17 48 56.0**	**-3.4**
KLR				MLR	MLR		
	comp=E,800nm,16.0s						
KLR				MLR	MLR		
	comp=Z,1μm,16.0s						
SSE	**Sheshan**	**19.23**	**255**	*e*P	**Pn**	**17 50 10.5**	**-1.1**
SSE				AMB	AMB		
	comp=Z,15nm,1.1s						
SSE				AMB	AMB		
	comp=Z,121nm,8.3s						
SSE	**Sheshan**	**19.23**	**255**	*e*P	**Pn**	**17 50 10.5**	**-1.1**
	comp=Z,15nm,1.1s						
HIA	**Hailar**	**19.95**	**311**	*e*P	**Pn**	**17 50 22.5**	**+2.3**
	comp=Z,6.0nm,0.6s						
HIA	**Hailar**	**19.95**	**311**	*e*P	**Pn**	**17 50 22.5**	**+2.3**
HIA				pmax	pmax		
	comp=Z,6.0nm,0.6s						
NJ2	**Nanjing**	**20.60**	**260**	*e*P	**P**	**17 50 24.9**	**-0.7**
NJ2				AMB	AMB		
	comp=Z,30nm,1.2s						
BJI	**Beijing**	**20.80**	**283**	P	**P**	**17 50 25.4**	**-2.3**
BJI				AMB	AMB		
	comp=Z,7.0nm,1.1s						
BJI				LR	LR		
	comp=N,229nm,14.4s,MS4.1						
BJI				LR	LR		
	comp=E,500nm,14.2s,MS4.1						
BJI				LR	LR		
	comp=Z,291nm,15.5s,MS3.8						
BJT	**Baijiatuau**	**20.80**	**283**	*e*P	**P**	**17 50 25.5**	**-2.2**
	comp=Z,9.4nm,0.7s						
BJT	**Baijiatuau**	**20.80**	**283**	*e*P	**P**	**17 50 25.5**	**-2.3**
BJT				pmax	pmax		
	comp=Z,9.0nm,0.7s						
MA2	**Magadan**	**21.93**	**11**	*e*P	**P**	**17 50 40.2**	**+0.5**
	comp=Z,16nm,0.9s,mb4.4						
MA2	**Magadan**	**21.93**	**11**	*e*P	**P**	**17 50 40.5**	**+0.9**
MA2				*e*S	**S**	**17 54 35.6**	**-5.5**
MA2				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.7						
MA2				MLR	MLR		
	comp=Z,200nm,20.0s,MS3.5						
CLNS	**Chul'man**	**22.10**	**333**	*e*P	**P**	**17 50 41.7**	**+0.2**
CLNS				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.6						
CLNS				pmax	pmax		
	comp=N,16nm,0.8s						
CLNS				pmax	pmax		
	comp=E,13nm,1.1s						
YHNB	**Yeheng**	**22.76**	**240**	P	**P**	**17 50 45.7**	**-3.1**
HHC	**Hu-ho-hao-te**	**24.25**	**286**	*e*P	**P**	**17 51 04.3**	**+0.9**
HHC				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.2						
HHC				AMB	AMB		
	comp=Z,161nm,5.5s						
GUMO	**Guam**	**24.62**	**175**	LR	LR	17 59 15.7	
	comp=Z,122nm,18.7s,MS3.4,baz=76,slow=33						
CIT	**Chita**	**24.67**	**313**	*e*P	**P**	**17 51 07.3**	**+0.2**
WHN	**Wuhan**	**24.73**	**260**	*e*P	**P**	**17 51 05.3**	**-2.6**
YAK	**Yakutsk**	**25.17**	**345**	*e*P	**P**	**17 51 11.6**	**0.0**
	comp=Z,15nm,0.7s,mb4.6						
YAK	**Yakutsk**	**25.17**	**345**	*c i*P	**P**	**17 51 12.1**	**+0.6**
YAK				*e**PP	pP	17 51 21.7	+5.6
YAK				*e*		17 51 44.9	
YAK				*e*SS		17 56 47.0	
YAK				*e*		18 02 14.5	
YAK				pmax	pmax		
	comp=Z,21nm,1.0s,mb4.6						
YAK				pmax	pmax		
	comp=N,12nm,1.2s						
YAK				pmax	pmax		
	comp=E,18nm,1.7s						
YAK				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.6						
YAK				pmax	pmax		
	comp=N,22nm,1.7s						
YAK				pmax	pmax		
	comp=E,19nm,1.7s						
YAK				MLR	MLR		
	comp=Z,184nm,15.0s,MS3.7						
YAK				MLR	MLR		
	comp=N,100nm,13.0s,MS3.7						
YAK				MLR	MLR		
	comp=E,162nm,18.0s,MS3.7						
BOD	**Bodaibo**	**27.17**	**325**	*e*P	**P**	**17 51 28.4**	**-1.3**
BOD				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.3						
XAN	**Xi'an**	**27.68**	**272**	P	**P**	**17 51 33.6**	**-0.9**
XAN				AP	pP	17 51 40.0	+0.9
XAN				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.2						
ULN	**Ulaanbaatar**	**27.69**	**302**	*e*P	**P**	**17 51 33.3**	**-1.2**
	comp=Z,5.0nm,0.8s,mb4.2						
ULN	**Ulaanbaatar**	**27.69**	**302**	*d i*P	**P**	**17 51 35.5**	**+1.0**
SONM	**Songino Array**	**28.13**	**302**	P	**P**	**17 51 38.7**	**+0.3**
SONM				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SONM				MLR	MLR		
	comp=Z,188nm,18.0s						
SONM	**Songino Array**	**28.13**	**302**	P	**P**	**17 51 38.7**	**+0.3**
	comp=Z,3.1nm,0.9s,mb4.0,baz=101,slow=7.8,SNR=16						
SONM				LR	LR	18 02 27.3	
	comp=Z,188nm,18.0s,MS3.7,baz=4.7,slow=36						
TLY	**Talaya**	**30.47**	**309**	*e*P	**P**	**17 51 57.0**	**-2.1**
	comp=Z,1.7nm,0.6s,mb4.0						
TLY	**Talaya**	**30.47**	**309**	*e*P	**P**	**17 52 00.4**	**+1.4**
TLY				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.4						
TLY				MLR	MLR		
	comp=Z,406nm,18.0s,MS4.1						
ZAK	**Zakamensk**	**30.48**	**306**	*e*P	**P**	**17 51 59.2**	**0.0**
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.2						
LZH	**Lanzhou**	**31.06**	**278**	*e*P	**P**	**17 52 05.0**	**+0.5**
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.8						
LZH				AMB	AMB		
	comp=Z,86nm,4.2s						
LZH				LR	LR		
	comp=E,305nm,10.2s						
LZH				LR	LR		
	comp=Z,553nm,13.0s,MS4.4						
LZH	**Lanzhou**	**31.06**	**278**	*e*P	**P**	**17 52 05.0**	**+0.5**
	comp=Z,15nm,1.0s,mb4.8						
LZH				pP	pP	17 52 09.5	+0.5
LZH				sP	sP	17 52 11.0	+0.1
LZH				LR	LR		
	comp=Z,550nm,13.0s,MS4.4						
BILL	**Bilibino**	**32.52**	**16**	*e*P	**P**	**17 52 17.6**	**+0.7**
	comp=Z,7.6nm,1.0s,mb4.6						
BILL	**Bilibino**	**32.52**	**16**	*e*P	**P**	**17 52 18.0**	**+1.0**
BILL				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.0						
BILL				MLR	MLR		
	comp=Z,100nm,20.0s,MS3.5						
GTA	**Gaotai**	**33.37**	**286**	*e*P	**P**	**17 52 25.5**	**+0.8**
GTA				AP	pP	17 52 32.8	+3.5
GTA				XP	sP	17 52 36.0	+4.9
GTA				AMB	AMB		
	comp=Z,8.0nm,1.3s,mb4.5						
TIXI	**Tiksi**	**34.24**	**352**	*e*P	**P**	**17 52 30.8**	**-1.1**
	comp=Z,2.8nm,0.8s,mb4.2						
TIXI	**Tiksi**	**34.24**	**352**	*e*P	**P**	**17 52 39.9**	**+8.1**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
KMI	**Kunming**	**36.33**	**261**	P	**P**	**17 52 50.3**	**-0.1**
KMI				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.3						
KMI				LR	LR		
	comp=N,348nm,9.0s						
KMI				LR	LR		
	comp=E,213nm,12.9s						
KMI				LR	LR		
	comp=Z,248nm,9.7s						
KMI	**Kunming**	**36.33**	**261**	P	**P**	**17 52 50.3**	**-0.1**
	comp=Z,5.0nm,1.2s,mb4.3						
KMI				S	S	17 58 53.3	+22
ZALV	**Zalesovo Beam**	**41.99**	**311**	P	**P**	**17 53 37.4**	**0.0**
ZALV				PcP	PcP	17 55 31.9	-0.5
ZALV				LR	LR	18 11 35.5	
ZALV	**Zalesovo Beam**	**41.99**	**311**	P	**P**	**17 53 37.4**	**0.0**
	comp=Z,3.1nm,0.4s,mb4.3,baz=87,slow=8.2,SNR=18						
ZALV				PcP	PcP	17 55 31.9	-0.5
	comp=Z,1.5nm,0.6s,baz=61,slow=2.4,SNR=3.8						
ZALV				LR	LR	18 11 35.5	
	comp=Z,136nm,20.8s,MS3.8,baz=229,slow=37						
ZAL	**Zalesovo**	**42.01**	**311**	P	**P**	**17 53 37.4**	**-0.1**
ZAL						17 55 31.9	
NVS	**Novosibirsk**	**42.88**	**313**	*i* P	**P**	**17 53 43.8**	**-0.8**
LSA	**Lhasa**	**43.30**	**275**	*e*P	**P**	**17 53 48.8**	**+0.5**
	comp=Z,2.4nm,0.6s,mb4.1						
LSA	**Lhasa**	**43.30**	**275**	*e*P	**P**	**17 53 48.8**	**+0.5**
LSA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
MK31	**Makanchi Array**	**44.50**	**301**	*e*P	**P**	**17 53 57.2**	**-0.6**
MKAR	**Makanchi Array**	**44.50**	**301**	P	**P**	**17 53 57.2**	**-0.5**
MKAR				LR	LR	18 11 45.4	
MKAR	**Makanchi Array**	**44.50**	**301**	P	**P**	**17 53 57.2**	**-0.5**
MKAR				pmax	pmax		
	comp=Z,7.0nm,1.0s						
MKAR				MLR	MLR		
	comp=Z,124nm,19.8s						
MKAR	**Makanchi Array**	**44.50**	**301**	P	**P**	**17 53 57.2**	**-0.5**
	comp=Z,6.9nm,1.0s,mb4.3,baz=82,slow=8.7,SNR=17						
MKAR				LR	LR	18 11 45.4	
	comp=Z,124nm,19.8s,MS3.8,baz=14,slow=35						
KURK	**Kurchatov**	**46.13**	**307**	*e*P	**P**	**17 54 10.1**	**-0.6**
	comp=Z,16nm,0.6s,mb5.1						
KURK	**Kurchatov**	**46.13**	**307**	*e*P	**P**	**17 54 10.1**	**-0.6**
KURK				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.1						
HNR	**Honiara**	**50.03**	**158**	LR	LR	18 13 38.3	
	comp=Z,103nm,20.4s,MS3.8,baz=179,slow=33						
TKM2	**Tokmak 2**	**50.11**	**298**	*e*P	**P**	**17 54 41.8**	**+0.3**
	comp=Z,3.5nm,0.6s,mb4.6						
TKM2	**Tokmak 2**	**50.11**	**298**	*e*P	**P**	**17 54 41.8**	**+0.3**
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
KULM	**Kulim**	**50.46**	**240**	*e*P	**P**	**17 54 44.7**	**+0.2**
BRVK	**Borovoye**	**50.70**	**312**	*e*P	**P**	**17 54 45.1**	**-0.7**
	comp=Z,5.2nm,0.8s,mb4.5						
BRVK	**Borovoye**	**50.70**	**312**	*e*P	**P**	**17 54 45.1**	**-0.7**
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
AAK	**Ala-Archa**	**50.97**	**298**	*e*P	**P**	**17 54 46.5**	**-1.5**
	comp=Z,4.1nm,1.0s,mb4.3						
AAK	**Ala-Archa**	**50.97**	**298**	*e*P	**P**	**17 54 46.5**	**-1.5**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
UCH	**Uchtor**	**51.09**	**297**	P	**P**	**17 54 49.4**	**+0.5**
	comp=Z,1.4nm,0.8s,mb3.9						
EKS2	**Erkin-Say**	**51.46**	**298**	*e*P	**P**	**17 54 51.7**	**0.0**
	comp=Z,3.6nm,1.0s,mb4.3						
AML	**Almayashu**	**51.70**	**298**	*e*P	**P**	**17 54 53.9**	**+0.4**
	comp=Z,4.1nm,0.8s,mb4.4						
ARU	**Arti**	**56.24**	**318**	*e*P	**P**	**17 55 25.9**	**-0.5**
	comp=Z,4.6nm,0.8s,mb4.6						
ARU	**Arti**	**56.24**	**318**	*c i*P	**P**	**17 55 26.3**	**-0.1**
ARU				*e*S	**S**	**18 03 14.0**	**-1.4**
ARU				*e*SS	SS	18 07 00.1	-1.4
ARU				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
KBL	**Kabul**	**58.10**	**291**	*e*P	**P**	**17 55 36.2**	**-3.7**
WB2	**Warramunga Arr**	**58.44**	**189**	*e*P	**P**	**17 55 41.8**	**-0.5**
WB2	**Warramunga Arr**	**58.44**	**189**	*e*P	**P**	**17 55 41.9**	**-0.4**
WRA	**Warramunga Arr**	**58.44**	**189**	P	**P**	**17 55 41.9**	**-0.4**
WRA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
WRA	**Warramunga Arr**	**58.44**	**189**	P	**P**	**17 55 41.9**	**-0.3**
	comp=Z,4.6nm,0.7s,mb4.6,baz=7.4,slow=7.1,SNR=42						
AKTK	**Aktyubinsk**	**58.75**	**312**	P	**P**	**17 55 44.0**	**-0.3**
AKTO	**Aktyubinsk**	**58.75**	**312**	P	**P**	**17 55 44.0**	**-0.2**
AKTO				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
AKTO	**Aktyubinsk**	**58.75**	**312**	P	**P**	**17 55 44.0**	**-0.3**
	comp=Z,2.7nm,0.8s,mb4.3,baz=76,slow=10,SNR=6.5						
RES	**Resolute Bay**	**61.12**	**15**	*e*P	**P**	**17 55 59.2**	**-0.9**
	comp=Z,218nm,0.9s						
YKA	**Yellowknife Ar**	**62.15**	**31**	P	**P**	**17 56 07.6**	**+0.3**
YKA	**Yellowknife Ar**	**62.15**	**31**	P	**P**	**17 56 07.6**	**+0.3**
	comp=Z,0.1nm,0.5s,baz=301,slow=6.4,SNR=3.2						
ASAR	**Alice Springs**	**62.17**	**189**	P	**P**	**17 56 08.1**	**+0.4**
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ASAR	**Alice Springs**	**62.17**	**189**	P	**P**	**17 56 08.1**	**+0.3**
	comp=Z,1.9nm,0.7s,mb4.3,baz=12,slow=6.4,SNR=24						
JOF	**Joensuu**	**65.45**	**332**	*e*p	**P**	**17 56 36.6**	**+7.6**
	comp=Z,4.6nm,0.7s,mb4.6						
JOF	**Joensuu**	**65.45**	**332**	*e*P	**P**	**17 56 36.6**	**+7.6**
JOF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
KAF	**Kangasniemi**	**67.77**	**333**	*e*p	**P**	**17 56 50.9**	**+7.1**
	comp=Z,5.3nm,0.6s,mb4.8,baz=48,slow=6.0						
KAF	**Kangasniemi**	**67.77**	**333**	*e*P	**P**	**17 56 50.9**	**+7.1**
KAF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
OBN	**Obninsk**	**67.83**	**323**	*e*P	**P**	**17 56 44.4**	**+0.1**
OBN				*e*		17 59 12.9	
OBN				pmax	pmax		
	comp=Z,7.0nm,1.7s,mb4.4						
OBN				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.4						
FINES	**FINESS Array B**	**68.29**	**333**	P	**P**	**17 56 46.5**	**-0.6**
FINES	**FINESS Array B**	**68.29**	**333**	P	**P**	**17 56 46.5**	**-0.6**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	**FINESS Array B**	**68.29**	**333**	P	**P**	**17 56 46.5**	**-0.6**
	comp=Z,1.4nm,0.7s,mb4.1,baz=53,slow=9.8,SNR=5.7						
STKA	**Stephens Creek**	**69.78**	**181**	*e*P	**P**	**17 56 57.8**	**+1.2**
	comp=Z,4.2nm,0.7s,mb4.5						
STKA				*e*		17 57 06.5	
STKA	**Stephens Creek**	**69.78**	**181**	P	**P**	**17 56 57.2**	**+0.7**
	comp=Z,1.2nm,0.8s,mb3.9,baz=335,slow=12,SNR=2.8						
KIV	**Kislovodsk**	**71.01**	**311**	*e*P	**P**	**17 57 05.6**	**+1.5**
KIV				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
KIV				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.1						
NB2	**NORSAR Subarra**	**73.52**	**338**	P	**P**	**17 57 19.0**	**+0.2**
	comp=Z,5.2nm,0.7s,mb4.6,baz=39,slow=6.2						
NOA	**NORSAR Array B**	**73.52**	**338**	P	**P**	**17 57 19.1**	**+0.3**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,104nm,20.1s						
NOA	**NORSAR Array B**	**73.52**	**338**	P	**P**	**17 57 19.1**	**+0.2**
	comp=Z,2.0nm,0.8s,mb4.1,baz=38,slow=6.1,SNR=4.4						
NOA				LR	LR	18 31 38.5	
	comp=Z,104nm,20.1s,MS4.1,baz=235,slow=38						
AKASG	**Malin Array Be**	**74.06**	**323**	P	**P**	**17 57 21.9**	**-0.3**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.9s						
AKASG	**Malin Array Be**	**74.06**	**323**	P	**P**	**17 57 21.9**	**-0.3**
	comp=Z,3.2nm,0.8s,mb4.3,baz=44,slow=6.0,SNR=10						
PDAR	**Pinedale Array**	**75.96**	**46**	P	**P**	**17 57 34.4**	**+1.0**
	comp=Z,0.6nm,0.7s,mb3.7,baz=269,slow=2.9,SNR=5.7						
MALT	**Malatya**	**76.96**	**309**	P	**P**	**17 57 39.1**	**+0.1**
BRTR	**Keskin Array B**	**78.93**	**312**	P	**P**	**17 57 50.2**	**+0.2**
	comp=Z,0.4nm,0.5s,mb3.6,baz=160,slow=7.6,SNR=3.7						
CLL	**Collm**	**80.63**	**331**	*e*P	**P**	**17 57 59.0**	**0.0**
CLL				*i* pP	pP	17 58 09.3	+5.4
	comp=Z,8.0nm,1.0s						
KHC	**Kasperske Hory**	**82.12**	**329**	*e*pP	pP	17 58 18.0	+6.1
GERES	**GERESS Array B**	**82.30**	**329**	P	**P**	**17 58 08.0**	**+0.2**
	comp=Z,0.4nm,0.7s,mb3.5,baz=23,slow=5.3,SNR=3.3						

ISCJB **22** *17:50:51.8±2.0, 995N±005×4276E±007, h6^{km}±13^{km}, mb3.8/11, MS3.6/8, Error ellipse: s-maj=12.7km s-min=6.7km az=25.9*

IDC **22** *17:50:52.8±0.9, 997N×4291E, h0^{km}, mb3.9/8, mb1 4.0/9, mb1mx3.8/21, mbtmp3.9/9, ML3.0/1, MS3.6/9, Ms1 3.6/9, ms1mx3.5/27, Error ellipse: s-maj=26.0km s-min=12.9km az=95.0*

DHMR **22** *17:50:53.0±2.7, 999N×4268E, h7^{km}±193^{km}, ML4.1*

NEIC **22** *17:50:53.8±0.6, 1003N×4279E, h10^{km}, mb3.9/3, Error ellipse: s-maj=20.7km s-min=10.6km az=111.0*

CSEM **22** *17:50:55.8±0.1, 1001N×4294E, h30^{km}, mb3.9/3, Error ellipse: s-maj=5.9km s-min=3.0km az=112.0*

ISC 22 17:50:53.8±2.2**, 987N**±005×**4287E**±007**, h9**^{km}±14^{km}**, n39,** σ**1**^{s}**01**/43**, mb3.8**/11**, MS3.6**/8**, 2C-2D, Ethiopia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATD	**Arta Tunnel**	**1.66**	**359**	Pg	**Pn**	**17 51 19.9**	**-3.2**
ATD				Lg		17 51 42.3	
ATD	**Arta Tunnel**	**1.66**	**359**	Pg	**Pn**	**17 51 19.9**	**-3.2**
	346nm,0.3s,baz=184,slow=14,SNR=1190						
ATD				Lg		17 51 42.3	
	2μm,0.3s,baz=86,slow=22,SNR=55						
ATD	**Arta Tunnel**	**1.66**	**359**	Pg	**Pn**	**17 51 19.9**	**-3.2**
DESE	**Dese**	**3.42**	**292**	*e*P	**Pn**	**17 51 47.9**	**+0.5**
DESE				S	**Sg**	**17 52 38.3**	**-5.4**
TRBA	**At Turbah**	**3.56**	**20**	⇑*i*P	**Pn**	**17 51 49.3**	**0.0**
TRBA				*i* S	**Sn**	**17 52 35.6**	**+4.0**
TRBA				AML	AML	17 52 53.4	
	comp=E,835nm,0.6s						
UDYN	**Al 'Udayn**	**4.21**	**15**	⇓*i*P	**Pn**	**17 51 58.9**	**+0.6**
UDYN				*i* S	**Sn**	**17 52 50.8**	**+3.1**
UDYN				AML	AML	17 53 08.6	
	comp=N,572nm,0.6s						
FURI	**Furi**	**4.25**	**257**	*e*PN	**Pn**	**17 52 00.6**	**+1.8**
FURI				*e*SG	**Sg**	**17 53 10.1**	**-0.2**
LBOS		**4.61**	**30**	⇑*i*P	**Pn**	**17 52 04.1**	**+0.3**
LBOS				*i* S	**Sn**	**17 52 58.6**	**+1.1**
BDHA	**Al Bayda'**	**4.86**	**33**	⇓*i*P	**Pn**	**17 52 07.2**	**0.0**
BDHA				*i* S	**Sn**	**17 53 04.3**	**+0.6**
BDHA				AML	AML	17 53 36.9	
	comp=N,321nm,0.6s						
DHBB	**Dhamar BB**	**4.91**	**17**	*i* P	**Pn**	**17 52 07.4**	**-0.4**
DHBB				*i* S	**Sn**	**17 53 04.4**	**-0.4**
HAJJ	**Hajjah**	**5.84**	**7**	*i* P	**Pn**	**17 52 18.9**	**-1.7**
HAJJ				*i* S	**Sn**	**17 53 26.4**	**-1.4**
HAJJ				AML	AML	17 53 56.1	
	comp=Z,510nm,0.8s						
HAJJ	**Hajjah**	**5.84**	**7**	*i* P	**Pn**	**17 52 19.0**	**-1.7**
HAJJ				*i* S	**Sn**	**17 53 26.4**	**-1.5**
	comp=Z,255nm,0.8s						
KMBO	**Kilima Mbogo**	**12.27**	**207**	*e*Pn	**Pn**	**17 53 48.7**	**-0.2**
KMBO				Sn	**Sn**	**17 56 04.5**	**-1.4**
KMBO				Lg		17 57 16.6	
KMBO				LR	LR	17 58 18.1	
KMBO	**Kilima Mbogo**	**12.27**	**207**	Pn	**Pn**	**17 53 51.7**	**+2.8**
	comp=Z,0.1nm,0.3s,baz=33,slow=15,SNR=5.6						
KMBO				Sn	**Sn**	**17 56 04.5**	**-1.4**
	comp=Z,0.4nm,0.3s,baz=26,slow=20,SNR=2.8						
KMBO				Lg		17 57 16.6	
	comp=Z,1.1nm,0.3s,baz=342,slow=14,SNR=6.9						
KMBO				LR	LR	17 58 18.1	
	comp=Z,168nm,21.9s,baz=90,slow=36						
KMBO	**Kilima Mbogo**	**12.27**	**207**	*e*Pn	**Pn**	**17 53 48.7**	**-0.2**
EIL	**Elat**	**21.05**	**340**	LR	LR	18 02 17.9	
	comp=Z,144nm,20.8s,MS3.3,baz=97,slow=33						
ASF	**Jabal al Asfar**	**22.88**	**347**	LR	LR	18 04 04.4	
	comp=Z,175nm,19.5s,MS3.5,baz=186,slow=35						
MMAI	**Mount Meron Ar**	**24.05**	**344**	LR	LR	18 04 47.0	
	comp=Z,113nm,19.2s,MS3.4,baz=200,slow=35						
LSZ	**Lusaka**	**28.91**	**210**	P	**P**	**17 56 54.8**	**+1.5**
	comp=Z,1.9nm,0.9s,mb3.8,baz=63,slow=4.5,SNR=4.0						
LSZ				LR	LR	18 09 18.6	
	comp=Z,147nm,18.8s,MS3.6,baz=12,slow=38						
BRTR	**Keskin Array B**	**30.85**	**346**	LR	LR	18 08 01.0	
	comp=Z,75nm,21.1s,MS3.3,baz=142,slow=33						
KEST	**Kesra**	**39.89**	**316**	LR	LR	18 16 52.3	
	comp=Z,93nm,20.2s,MS3.6,baz=228,slow=39						
TORD	**Torodi Ar. Bea**	**40.45**	**279**	P	**P**	**17 58 33.6**	**+0.5**
	comp=Z,1.2nm,0.8s,mb3.6,baz=96,slow=6.7,SNR=5.4						
BOSA	**Boshof**	**41.87**	**203**	LR	LR	18 16 27.9	
	comp=Z,149nm,19.1s,MS3.9,baz=120,slow=37						
AKASG	**Malin Array Be**	**42.24**	**347**	P	**P**	**17 58 46.7**	**-0.6**

AKASG	Malin Array Be	42.24	347	P	P	17 58 46.7	-0.6
	comp=Z,0.5nm,0.7s,mb3.3,baz=166,slow=6.9,SNR=5.2						
EKS2	Erkin-Say	42.39	34	P	P	17 58 48.0	-0.7
	comp=Z,0.6nm,0.8s,mb3.3						
EKS2	Erkin-Say	42.39	34	P	P	17 58 48.0	-0.6
	comp=Z,0.6nm,0.8s,mb3.3						
AAK	Ala-Archa	42.77	35	P	P	17 58 52.7	+1.0
	comp=Z,2.6nm,1.0s,mb3.9						
AAK	Ala-Archa	42.77	35	P	P	17 58 52.7	+1.0
	comp=Z,2.6nm,1.0s,mb3.9						
GERES	GERESS Array B	45.88	333	LR	LR	18 20 41.0	
	comp=Z,175nm,18.8s,MS4.0,baz=283,slow=39						
LSA	Lhasa	49.12	59	eP	P	17 59 41.9	-0.2
	comp=Z,2.3nm,0.8s,mb4.3						
LSA	Lhasa	49.12	59	eP	P	17 59 41.9	-0.2
	comp=Z,2.3nm,0.8s,mb4.3						
MK31	Makanchi Array	49.71	35	eP	P	17 59 45.3	-1.0
MKAR	Makanchi Array	49.71	35	P	P	17 59 45.7	-0.6
	comp=Z,1.7nm,0.9s,mb4.1,baz=226,slow=6.6,SNR=9.6						
ZALV	Zalesovo Beam	55.21	29	P	P	18 00 26.4	-0.6
ZALV	Zalesovo Beam	55.21	29	P	P	18 00 26.4	-0.6
	comp=Z,1.5nm,0.9s,mb4.0,baz=237,slow=5.1,SNR=5.8						
SONM	Songino Array	65.05	42	P	P	18 01 35.6	+1.0
	comp=Z,0.9nm,0.8s,mb3.9,baz=242,slow=5.6,SNR=9.9						
WRA	Warramunga Arr	94.67	109	P	P	18 04 15.9	-0.1
	comp=Z,0.5nm,0.9s,mb4.0,baz=284,slow=8.1,SNR=4.5						
ASAR	Alice Springs	94.83	113	P	P	18 04 16.4	-0.3
	comp=Z,0.5nm,0.9s,mb4.0,baz=280,slow=4.5,SNR=4.9						

IDC ***22*** *18:17:51.7±1.0, 46.54N×155.61E, h0^{km}, mb3.7/6, mb1 3.9/7, mb1mx3.6/23, mbtmp3.7/7, ML3.4/1, Error ellipse: s-maj=33.1km s-min=24.4km az=96.0*
ISCJB ***22*** *18:17:57.0±2.7, 46.5N±0.2×155.3E±0.3, h50^{km}±23^{km}, mb3.6/6, Error ellipse: s-maj=34.6km s-min=18.3km az=39.6*
MOS ***22*** *18:17:58.3±1.1, 46.60N×155.21E, h64^{km}, mb4.1/3, Error ellipse: s-maj=36.7km s-min=21.7km az=81.9*
ISC 22 18:17:59.1±2.3**, 46.5N**±0.2×**155.4E**±0.3**, h52**^{km}±20^{km}**, n12, σ1^{s}06**/12**, mb3.6**/6**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	4.18	6	ePN	Pn	18 19 00.5	+0.2
ASAJ	Asahikawa	9.33	260	PN	Pn	18 20 10.7	-0.2
ASAJ	Asahikawa	9.33	260	Pn	Pn	18 20 10.7	-0.2
	0.4nm,0.3s,baz=275,slow=12,SNR=3.2						
MKAR	Makanchi Array	48.43	299	P	P	18 26 35.4	-0.5
	0.2nm,0.5s,mb3.4,baz=65,slow=8.0,SNR=2.5						
FINES	FINESS Array B	64.89	336	P	P	18 28 31.4	-1.1
FINES				pmax	pmax		
	comp=Z,2.0nm,1.0s						
FINES	FINESS Array B	64.89	336	P	P	18 28 31.4	-1.1
	comp=Z,1.7nm,0.9s,mb4.0,baz=20,slow=6.1,SNR=6.3						
WRA	Warramunga Arr	68.85	201	P	P	18 28 57.3	-0.7
	comp=Z,0.4nm,0.7s,mb3.5,baz=20,slow=6.8,SNR=4.1						
NOA	NORSAR Array B	68.92	342	P	P	18 29 00.2	+2.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	68.92	342	P	P	18 29 00.2	+2.1
	comp=Z,0.9nm,0.8s,mb3.8,baz=36,slow=8.3,SNR=2.6						
ASAR	Alice Springs	72.53	201	P	P	18 29 21.9	+1.5
	comp=Z,0.2nm,0.6s,mb3.3,baz=21,slow=6.1,SNR=7.0						
TXAR	Lajitas Array	76.22	62	P	P	18 29 41.0	-1.0
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	Lajitas Array	76.22	62	P	P	18 29 41.0	-0.9
	comp=Z,0.5nm,0.7s,mb3.6,baz=289,slow=4.1,SNR=4.1						

ISCJB ***22*** *18:24:41.5±1.6, 24.4S±0.1×179.4W±0.2, h519^{km}±27^{km}, mb4.2/12, Error ellipse: s-maj=22.2km s-min=19.0km az=2.1*
NEIC ***22*** *18:24:41.7±1.2, 24.41S×179.50W, h492^{km}±20^{km}, mb3.9/4, Error ellipse: s-maj=17.7km s-min=16.1km az=69.0*
IDC ***22*** *18:24:41.8±2.7, 24.38S×179.40W, h504^{km}±52^{km}, mb3.5/5, mb1 3.7/8, mb1mx3.4/17, mbtmp3.6/8, Error ellipse: s-maj=42.4km s-min=23.2km az=78.0*
ISC 22 18:24:41.9±1.3**, 24.4S**±0.1×**179.4W**±0.2**, h507**^{km}±22^{km}**, n19, σ0^{s}62**/19**, mb4.1**/12**, 1D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	Afiamalu	12.71	36	P	P	18 27 28.1	+0.1
	5.8nm,0.3s,baz=38,slow=12,SNR=4.8						
DZM	Mont Dzumac	13.21	277	P	P	18 27 33.6	+0.3
	0.6nm,0.3s,baz=100,slow=17,SNR=6.3						
URZ	Urewera	14.09	191	P	P	18 27 41.5	-0.7
	2.1nm,0.3s,baz=6.3,slow=9.2,SNR=11						
RPZ	Rata Peaks	20.76	200	P	P	18 28 47.4	+0.6
	7.9nm,0.5s,baz=30,slow=8.1,SNR=11						
CTA	Charters Tower	32.02	271	eP	P	18 30 26.8	+0.5
	9.9nm,0.4s,mb4.6						
CTAO	Charters Tower	32.02	271	eP	P	18 30 26.7	+0.4
	14nm,0.6s,mb4.6						
STKA	Stephens Creek	35.02	249	⇓iP	P	18 30 52.3	+0.8
	2.6nm,0.6s,mb3.8						
STKA	Stephens Creek	35.02	249	P	P	18 30 52.3	+0.8
	3.0nm,0.6s,mb3.9,baz=96,slow=9.9,SNR=13						
PMG	Port Moresby	35.18	289	P	P	18 30 53.1	+0.1
	4.2nm,0.5s,mb4.1,baz=100,slow=6.1,SNR=5.2						
ASAR	Alice Springs	42.48	261	P	P	18 31 52.3	+0.2
	1.9nm,0.5s,mb3.8,baz=97,slow=7.1,SNR=36						
WB2	Warramunga Arr	42.90	267	eP	P	18 31 53.8	-1.6
WRA	Warramunga Arr	42.91	267	P	P	18 31 55.2	-0.3
	4.6nm,0.4s,mb4.2,baz=100,slow=8.2,SNR=89						
FORT	Forrest	46.63	250	eP	P	18 32 23.6	-0.5
	9.3nm,0.5s,mb4.5						
KAKA	Kakadu	46.89	275	eP	P	18 32 25.6	-0.7
	4.2nm,0.3s,mb4.3						
FITZ	Fitzroy Crossi	51.32	266	eP	P	18 32 59.7	+0.6
	8.8nm,0.6s,mb4.3						
KLBR	Kellerberrin	55.28	247	eP	P	18 33 27.4	+0.4
	32nm,1.2s,mb4.5						
MBWA	Marble Bar	55.81	260	eP	P	18 33 30.8	-0.1
	3.8nm,0.6s,mb3.9						
QSPA	South Pole Qui	65.64	180	eP	P	18 34 39.0	+4.2
	0.7nm,0.4s,mb3.6						
MAW	Mawson	77.43	200	eP	P	18 35 44.0	0.0
	3.6nm,0.7s,mb4.0						

JMA 22 18:33:00.2±0.4**, 25.78N**×**122.44E, h248**^{km}**, M3.8, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IRIF	Iriomote-Funau	1.85	141	P	Pn	18 33 41.4	+0.2
IRIF				eS	S	18 34 14.9	+1.4
JIJ	Ishigaki jima	2.09	132	P	Pn	18 33 43.3	-0.1
JIJ				eS	S	18 34 16.1	-1.3
JKRS	Kuro-shima	2.09	137	P	Pn	18 33 43.6	+0.2
JKRS				eS	S	18 34 17.3	-0.1
HATJ	Hateruma jima	2.12	144	P	Pn	18 33 43.8	+0.2
JTJ	Tarama	2.34	118	P	Pn	18 33 46.2	+0.5
JTJ				S	S	18 34 21.3	-0.3
JMJ	Miyako jima 2	2.76	110	P	Pn	18 33 50.3	+0.4
JOGS	Gusukube	2.87	110	P	Pn	18 33 51.6	+0.4
JOGS				S	S	18 34 30.8	-0.6

NSSC ***22*** *18:54:31.5, 38.92N×39.62E, h15^{km}±20^{km}*
CSEM ***22*** *18:54:37.9±0.1, 38.36N×39.23E, h5^{km}, MD3.3, Error ellipse: s-maj=2.0km s-min=1.7km az=178.0*
ISK ***22*** *18:54:37.7, 38.39N×39.21E, h3^{km}, MD3.3*
ISCJB ***22*** *18:54:38.2±0.3, 38.33N±0.02×39.25E±0.02, h5^{km}, Error ellipse: s-maj=3.5km s-min=2.8km az=167.4*
DDA ***22*** *18:54:38.1, 38.30N×39.25E, h8^{km}±7^{km}, Md3.3*
ISC 22 18:54:38.6±0.5**, 38.34N**±0.02×**39.27E**±0.03**, h4**^{km}±4^{km}**, n47, σ1^{s}02**/66**, 2D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	Elazig	0.28	305	iP	Pg	18 54 43.5	-0.5
ELZG				iS	Sg	18 54 48.7	+1.2
PTK	Pertek	0.56	9	iPG	Pg	18 54 48.4	-0.9
PTK				iSG	Sg	18 54 56.5	-0.1
PTK	Pertek	0.56	9	iPg	Pg	18 54 48.4	-0.9
PTK				iSg	Sg	18 54 56.5	-0.1
MALT	Malatya	0.67	268	iPG	Pg	18 54 50.3	-1.1
MALT				iSG	Sg	18 55 00.2	+0.2
MALT	Malatya	0.67	268	iPg	Pg	18 54 50.3	-1.1
MALT				iSg	Sg	18 55 00.2	+0.2
MYA	Malataya	0.67	269	iPG	Pg	18 54 50.7	-0.7
MYA				iSG	Sg	18 55 00.0	0.0
MYA	Malataya	0.67	269	iPg	Pg	18 54 50.7	-0.7
MYA				iSg	Sg	18 55 00.0	0.0
DIYA	Diyarbakir	0.79	122	iP	Pg	18 54 54.3	+0.6
DIY	Diyarbakir	0.87	120	iPG	Pg	18 54 56.2	+0.9
DIY	Diyarbakir	0.87	120	iPg	Pg	18 54 56.2	+0.9
URFA	Urfa	0.97	202	iPG	Pg	18 54 57.8	+0.7
URFA	Urfa	0.97	202	iPg	Pg	18 54 57.8	+0.7
BINT	Bingol	1.09	60	PN	Pn	18 55 00.5	-0.2
BINT	Bingol	1.09	60	ePn	Pn	18 55 00.5	-0.2
ATAB	Bozova	1.16	222	iP	Pg	18 55 00.9	0.0
ATAB				iS	Sg	18 55 17.1	+1.1
EZC	Erzincan	1.47	17	PN	Pn	18 55 05.2	-0.7
MARD	Mardin	1.57	130	iP	Pn	18 55 06.0	-1.3
MARD				iS	Sn	18 55 28.8	+0.8
BNGL	BINGOL	1.59	67	iP	Pn	18 55 08.6	+1.0
BNGL				iS	Sn	18 55 32.6	+4.1
GZT	Gaziantep	1.67	235	iP	Pn	18 55 08.1	-0.5
GZT				iS	Sn	18 55 30.3	-0.2
KBSD	Kabsdagh	1.67	143	⇓P	Pn	18 55 06.3	-2.4
KBSD				⇑S	Sn	18 55 31.3	+0.7
KBSD	Kabsdagh	1.67	143	⇓iP	Pn	18 55 06.3	-2.4
KBSD				⇑iS	Sn	18 55 31.3	+0.7
BTMT	Batman	1.75	94	PN	Pn	18 55 09.5	-0.2
GAZ	Gaziantep	2.01	235	PN	Pn	18 55 12.6	-0.7
GAZ	Gaziantep	2.01	235	ePn	Pn	18 55 12.6	-0.7
KMRS	Kahramanmaras	2.05	247	PN	Pn	18 55 13.1	-0.8
KMRS	Kahramanmaras	2.05	247	ePn	Pn	18 55 13.1	-0.8
EZM	Erzurum	2.25	45	PN	Pn	18 55 17.3	+0.6
SVSK	Karacayir	2.37	312	ePN	Pn	18 55 18.4	+0.1
SVSK	Karacayir	2.37	312	ePn	Pn	18 55 18.4	+0.1
SLMH	Al Salmeh	2.38	207	⇑P	Pn	18 55 18.0	-0.4
SLMH				⇑S	Sg	18 55 55.6	+0.7
SLMH	Al Salmeh	2.38	207	⇑iP	Pn	18 55 18.0	-0.4
ANDN	Andirin	2.44	253	iP	Pg	18 55 24.1	-1.1
ANDN				iS	Sg	18 55 57.8	+0.9
DRWC	Darouich	2.69	231	⇑P	Pn	18 55 21.8	-0.9
DRWC				⇑S	Sg	18 56 02.3	-2.7
DRWC	Darouich	2.69	231	⇑iP	Pn	18 55 21.8	-0.9
JHLN	Al Jahlan	2.75	194	⇑P	Pn	18 55 23.4	0.0
JHLN				⇑S	Sg	18 56 04.8	-1.9
JHLN	Al Jahlan	2.75	194	⇑iP	Pn	18 55 23.4	0.0
KOZT	Kozan	2.86	254	ePN	Pn	18 55 25.7	+0.7
BTCH	Batrach	3.21	225	⇑P	Pn	18 55 30.4	+0.6
BTCH				⇑S	Sg	18 56 15.6	-6.2
BTCH	Batrach	3.21	225	⇑iP	Pn	18 55 30.4	+0.5
YOZ	Yozgat	3.34	294	ePN	Pn	18 55 32.2	+0.6
YOZ	Yozgat	3.34	294	ePn	Pn	18 55 32.2	+0.6
YAYL	Yayladag	3.42	229	eP	Pn	18 55 33.0	+0.3
YAYL				iS	Sg	18 56 30.8	+2.4
AVNT	Avonos	3.49	279	iP	Pn	18 55 35.2	+1.6
AVNT	Avonos	3.49	279	iP	Pn	18 55 35.2	+1.5
HAKT	HAKKARI	3.59	101	iP	Pn	18 55 33.2	-1.8
CUKT	Cukurca	3.60	106	ePN	Pn	18 55 37.3	+2.1
CUKT	Cukurca	3.60	106	ePn	Pn	18 55 37.3	+2.1

ISK ***22*** *18:58:07.6, 38.37N×39.15E, h5^{km}, MD3.3*
ISCJB ***22*** *18:58:08.4±0.7, 38.34N±0.03×39.23E±0.03, h1^{km}±7^{km}, Error ellipse: s-maj=5.6km s-min=4.3km az=173.1*
CSEM ***22*** *18:58:08.3±0.1, 38.40N×39.18E, h6^{km}±1^{km}, MD2.6, Error ellipse: s-maj=3.4km s-min=2.3km az=141.0*
DDA ***22*** *18:58:11.3, 38.35N×39.01E, h7^{km}±6^{km}, Md2.6*
ISC 22 18:58:09.1±0.6**, 38.35N**±0.03×**39.22E**±0.04**, h5**^{km}±6^{km}**, n30, σ0^{s}94**/40**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	Elazig	0.24	309	⇑iP	Pg	18 58 13.5	-0.3
ELZG				iS	Sg	18 58 18.1	+1.1
PTK	Pertek	0.56	14	PG	Pg	18 58 19.0	-0.9
PTK				SG	Sg	18 58 29.2	+1.9
PTK	Pertek	0.56	14	ePg	Pg	18 58 19.0	-0.9
PTK				eSg	Sg	18 58 29.2	+1.9
MALT	Malatya	0.63	267	PG	Pg	18 58 19.1	-2.0
MALT				SG	Sg	18 58 28.6	-0.7
MALT	Malatya	0.63	267	ePg	Pg	18 58 19.1	-2.0
MALT				eSg	Sg	18 58 28.6	-0.7
MYA	Malataya	0.63	269	PG	Pg	18 58 20.1	-1.1
MYA				SG	Sg	18 58 29.2	-0.1
MYA	Malataya	0.63	269	ePg	Pg	18 58 20.1	-1.1
MYA				eSg	Sg	18 58 29.2	-0.1
DIYA	Diyarbakir	0.82	120	iP	Pg	18 58 24.6	-0.3
DIYA				iS	Sg	18 58 45.1	+10
DIY	Diyarbakir	0.91	119	PG	Pg	18 58 26.4	-0.2
DIY	Diyarbakir	0.91	119	ePg	Pg	18 58 26.4	-0.2
URFA	Urfa	0.96	199	PG	Pg	18 58 28.1	+0.6
URFA	Urfa	0.96	199	ePg	Pg	18 58 28.1	+0.6
BINT	Bingol	1.13	62	PN	Pn	18 58 30.5	-1.0
BINT	Bingol	1.13	62	ePn	Pn	18 58 30.5	-1.0
ATAB	Bozova	1.14	220	iP	Pg	18 58 32.0	+1.1
ATAB				iS	Sg	18 58 46.5	+0.7
EZC	Erzincan	1.48	18	PN	Pn	18 58 34.7	-1.6
MARD	Mardin	1.61	129	iP	Pn	18 58 37.2	-0.9
MARD				iS	Sn	18 58 59.3	+0.2
BTMT	Batman	1.79	94	PN	Pn	18 58 39.9	-0.7
GAZ	Gaziantep	1.98	234	ePN	Pn	18 58 43.1	-0.1
GAZ	Gaziantep	1.98	234	ePn	Pn	18 58 43.1	-0.1
KMRS	Kahramanmaras	2.02	246	ePN	Pn	18 58 44.2	+0.5
KMRS	Kahramanmaras	2.02	246	ePn	Pn	18 58 44.2	+0.5
EZM	Erzurum	2.28	46	ePN	Pn	18 58 48.8	+1.4
SVSK	Karacayir	2.34	313	ePN	Pn	18 58 48.3	+0.2
SVSK	Karacayir	2.34	313	ePn	Pn	18 58 48.3	+0.2
SIRT	Sirnak	2.68	107	ePN	Pn	18 58 54.1	+1.3
SIRT	Sirnak	2.68	107	ePn	Pn	18 58 54.1	+1.3
BNN	Bunyan	2.69	282	ePN	Pn	18 58 53.2	+0.2
BNN	Bunyan	2.69	282	ePn	Pn	18 58 53.2	+0.2
KOZT	Kozan	2.82	253	ePN	Pn	18 58 55.5	+0.7

ISCJB ***22*** *18:59:24.9±2.5, 0.88S±0.06×127.5E±0.1, h9^{km}±15^{km}, mb4.6/23, MS3.1/2, Error ellipse: s-maj=23.1km s-min=6.9km az=162.9*
BJI ***22*** *18:59:25.4, 0.90S×127.30E, h10^{km}, mB5.1, mb4.5*
NEIC ***22*** *18:59:27.4±0.4, 0.94S×127.28E, h10^{km}, mb4.6/9, Error ellipse: s-maj=21.4km s-min=7.4km az=69.0*
MOS ***22*** *18:59:28.9±1.6, 1.00S×127.11E, h33^{km}, mb4.8/5, Error ellipse: s-maj=32.0km s-min=11.3km az=113.7*
IDC ***22*** *18:59:34.5±3.2, 1.10S×127.13E, h71^{km}±30^{km}, mb4.1/8, mb1 4.1/9, mb1mx3.9/19, mbtmp4.1/9, MS3.2/3, Ms1 3.2/3, ms1mx3.0/22, Error ellipse: s-maj=49.3km s-min=10.2km az=68.0*
ISC 22 18:59:31.2±1.6**, 0.96S**±0.06×**127.5E**±0.1**, h40**^{km}±16^{km}**, n44, σ0^{s}92**/48**, mb4.6**/23**, MS3.1**/2**, 4C-1D, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	12.67	157	eP	Pn	19 02 28.0	-1.0
	6.9nm,0.3s						
FITZ	Fitzroy Crossi	17.12	186	eP	Pn	19 03 29.0	+1.3
	7.0nm,0.6s						
FITZ	Fitzroy Crossi	17.12	186	P	Pn	19 03 28.1	+0.4
	0.3nm,0.3s,baz=23,slow=6.1,SNR=15						
FITZ				LR	LR	19 09 37.2	
	comp=Z,68nm,19.4s,baz=127,slow=36						
WRA	Warramunga Arr	20.03	161	P	P	19 04 00.4	-0.5
WRA				S	S	19 07 42.0	-2.0
WRA	Warramunga Arr	20.03	161	P	P	19 04 00.4	-0.5
	3.9nm,0.5s,baz=342,slow=12,SNR=48						
WRA				S	S	19 07 42.0	-2.0
	0.7nm,0.7s,baz=335,slow=22,SNR=3.4						
WRA				LR	LR	19 11 41.7	
	comp=Z,56nm,18.4s,MS2.9,baz=70,slow=36						
WB2	Warramunga Arr	20.03	161	eP	P	19 04 00.2	-0.7
PMG	Port Moresby	21.32	114	iP	P	19 04 20.7	+5.8
PMG	Port Moresby	21.32	114	P	P	19 04 18.6	+3.7
	8.1nm,0.9s,mb4.1,baz=270,slow=5.3,SNR=3.6						
MBWA	Marble Bar	21.44	200	eP	P	19 04 15.3	-0.8
ASAR	Alice Springs	23.42	165	P	P	19 04 37.1	+0.2
	6.0nm,0.6s,mb4.2,baz=346,slow=12,SNR=85						
ASAR				S	S	19 08 46.6	-0.7
	0.5nm,0.9s,baz=347,slow=20,SNR=4.8						
FORT	Forrest	29.66	179	eP	P	19 05 34.5	+1.4
	5.4nm,0.5s,mb4.5						
STKA	Stephens Creek	33.52	158	eP	P	19 06 08.9	+1.8
	4.7nm,0.8s,mb4.5						
STKA	Stephens Creek	33.52	158	P	P	19 06 09.2	+2.1
	5.2nm,0.8s,mb4.5,baz=330,slow=8.6,SNR=14						
STKA				LR	LR	19 20 13.9	
	comp=Z,64nm,18.9s,MS3.4,baz=204,slow=37						
NJ2	Nanjing	33.83	347	eP	P	19 06 08.8	-1.0
NJ2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.6						
XAN	Xi'an	38.93	335	P	P	19 06 52.9	-0.4
XAN				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.7						
LZH	Lanzhou	42.92	332	eP	P	19 07 27.5	+1.3
LZH				AMB	AMB		
	comp=Z,26nm,1.0s,mb4.9						
LZH				AMB	AMB		
	comp=Z,114nm,4.4s						
LZH	Lanzhou	42.92	332	eP	P	19 07 27.5	+1.3
	comp=Z,26nm,1.0s,mb4.9						
LZH				pP	pP	19 07 48.0	+11
LZH				sP	sP	19 07 57.0	+15
LSA	Lhasa	46.15	314	eP	P	19 07 53.5	+1.5
	comp=Z,5.5nm,0.8s,mb4.5						
LSA	Lhasa	46.15	314	eP	P	19 07 53.5	+1.5
LSA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
TAPN	Taplejung	47.46	309	eP	P	19 08 02.6	+0.3
	comp=Z,6.4nm,0.4s,mb4.9						
ODAN	Odare	47.47	309	eP	P	19 08 02.4	0.0
	comp=Z,15nm,0.8s,mb5.0						
GTA	Gaotai	47.50	331	eP	P	19 08 03.4	+1.0
GTA				AP	pP	19 08 06.8	-7.1
GTA				XP	sP	19 08 08.8	-10
GTA				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.5						
JIRN	Jiri	48.79	309	eP	P	19 08 13.0	+0.4
	comp=Z,11nm,0.4s,mb5.2						
KKN	Kakani	49.56	309	eP	P	19 08 18.3	-0.2
HABR	Khabarovsk	49.68	7	eP	P	19 08 17.9	-1.1
HABR				eS	S	19 15 24.4	-0.5
GKN	Gorkha	50.16	308	eP	P	19 08 22.9	-0.2
	comp=Z,16nm,0.7s,mb5.2						
ULN	Ulaanbaatar	51.78	343	⇑eP	P	19 08 35.2	+0.3
SONM	Songino Array	51.95	342	P	P	19 08 36.3	+0.1
	comp=Z,2.1nm,0.7s,mb4.2,baz=154,slow=7.8,SNR=22						
ZAK	Zakamensk	55.17	341	eP	P	19 08 59.9	+0.2
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.8						
MK31	Makanchi Array	61.82	326	eP	P	19 09 45.8	-0.4
MKAR	Makanchi Array	61.82	326	P	P	19 09 45.9	-0.3
	comp=Z,2.6nm,0.5s,mb4.6,baz=133,slow=6.1,SNR=17						
YAK	Yakutsk	62.85	1	eP	P	19 09 52.3	-0.4
	comp=Z,11nm,0.8s,mb5.0						
YAK	Yakutsk	62.85	1	c iP	P	19 09 52.2	-0.5
YAK				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.1						
MA2	Magadan	63.06	13	⇓eP	P	19 09 55.4	+1.2
MA2				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.6						
KBL	Kabul	64.98	309	eP	P	19 10 06.3	-1.0
ZALV	Zalesovo Beam	65.08	334	P	P	19 10 06.2	-1.3
	comp=Z,2.0nm,0.9s,mb4.2,baz=107,slow=5.0,SNR=8.2						
ZAL	Zalesovo	65.08	334	P	P	19 10 06.2	-1.4
KURK	Kurchatov	66.08	328	eP	P	19 10 13.1	-0.9
	comp=Z,6.0nm,0.8s,mb4.7						
KURK	Kurchatov	66.08	328	c iP	P	19 10 13.4	-0.7
SEY	Seymchan	66.42	12	⇑eP	P	19 10 17.2	+1.2
BRVK	Borovoye	71.71	328	eP	P	19 10 48.1	-0.9
	comp=Z,1.8nm,0.7s,mb4.1						
BRVK	Borovoye	71.71	328	eP	P	19 10 48.1	-0.9
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
QSPA	South Pole Qui	88.97	180	eP	P	19 12 22.3	+1.1
	comp=Z,3.6nm,1.0s,mb4.7						
ARCES	ARCESS Array B	95.08	340	P	P	19 12 50.4	+0.8
	comp=Z,2.6nm,0.8s,mb4.7,baz=82,slow=6.6,SNR=3.2						

CSEM ***22*** *19:04:48.2, 29.54N×57.59E, h18^{km}, ML3.7, After TEH*
TEH ***22*** *19:04:48.2, 29.54N×57.59E, h18^{km}, ML3.7*
ISCJB ***22*** *19:05:00.6±1.1, 29.55N±0.08×57.62E±0.08, h10^{km}, Error ellipse: s-maj=11.4km s-min=9.2km az=19.1*
ISC 22 19:05:01.5±1.1**, 29.54N**±0.09×**57.6E**±0.1**, h10**^{km}**, n11, σ0^{s}83**/11**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IBND		2.28	204	ePn	Pn	19 05 39.4	+0.2
IBAF	Bafgh	2.69	320	ePn	Pn	19 05 44.8	-0.1
IBAF				e		19 05 51.3	
	comp=Z,3µm,0.1s						
IBAF	Bafgh	2.69	320	ePn	Pn	19 05 44.8	-0.1
IKOO		3.12	22	ePn	Pn	19 05 51.0	+0.3
IMEH	Mehriz	3.17	306	ePn	Pn	19 05 51.5	0.0
IMEH				e		19 05 60.0	
	comp=Z,1µm,0.1s						
IMEH	Mehriz	3.17	306	ePn	Pn	19 05 51.5	0.0
ITEG		3.49	16	ePn	Pn	19 05 56.1	+0.3
IDAH		3.73	31	ePn	Pn	19 05 59.1	-0.1
ICHK	Chekchek	3.85	315	ePn	Pb	19 06 06.9	-2.6
ICHK				e		19 06 13.5	
	comp=Z,1µm,0.2s						
ICHK				eLg		19 07 02.5	
ICHK	Chekchek	3.85	315	ePn	Pb	19 06 06.9	-2.6
ICHK				eLg		19 07 02.5	
ISAD	Sadrabad	4.12	306	e	Sg	19 07 18.4	+4.6
	comp=N,842nm,0.2s						

NEIC ***22*** *19:05:20.4±0.8, 43.30N×105.07W, h0^{km}, ML3.2, Error ellipse: s-maj=11.3km s-min=7.3km az=136.0, Suspected Mining explosion.*
NEIC 65 km [40 miles] NNE of Douglas.
IDC ***22*** *19:05:21.4±2.4, 43.27N×105.12W, h0^{km}, mb3.5/3, mb1 3.8/5, mb1mx3.5/21, mbtmp3.7/5, ML3.5/2, Error ellipse: s-maj=53.8km s-min=8.8km az=156.0*
ISCJB ***22*** *19:05:22.6±0.5, 43.72N±0.05×105.25W±0.06, h0^{km}, mb4.4/2, Error ellipse: s-maj=7.8km s-min=6.0km az=163.7*
ISC 22 19:05:24.1±0.5**, 43.70N**±0.05×**105.26W**±0.06**, h0**^{km}**, n31, σ0^{s}90**/32**, mb4.4**/2**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RSSD	Black Hills	0.98	64	eP	Pg	19 05 42.8	-0.1
PHWY	Pilot Hill	2.40	184	eP	Pn	19 06 05.2	+0.6
LAO	LASA Array	3.07	347	eP	Pn	19 06 14.2	+0.4
RLMT	Red Lodge	3.21	298	eP	Pn	19 06 16.2	+0.5
BW06	Boulder Array	3.28	255	eP	Pn	19 06 16.9	+0.2
BW06				eS	Sn	19 07 01.8	+5.5
PDAR	Pinedale Array	3.28	255	Pn	Pn	19 06 17.7	+1.0
PDAR				Lg		19 07 04.1	
PDAR	Pinedale Array	3.28	255	Pn	Pn	19 06 17.7	+1.0
	2.8nm,0.3s,baz=76,slow=14,SNR=61						
PDAR				Lg		19 07 04.1	
	16nm,0.3s,baz=66,slow=32,SNR=17						
GCMT	Greycliff	3.78	305	ePn	Pn	19 06 24.3	+0.8
ISCO	Idaho Springs	3.90	184	ePg	Pn	19 06 26.1	+0.8
MOOW	Moose Ponds	3.98	273	eP	Pn	19 06 26.9	+0.6
YNR	Norris Junctio	4.03	287	Pn	Pn	19 06 26.1	-0.9
REDW	Red Top Meadow	4.08	267	eP	Pn	19 06 28.4	+0.6
YMR	Madison River	4.22	285	eP	Pn	19 06 30.7	+1.1
AHID	Auburn Hatcher	4.37	260	eP	Pn	19 06 30.2	-1.5
QLMT	Earthquake Lak	4.58	286	eP	Pn	19 06 32.8	-1.8
DGMT	Dagmar	4.83	8	eP	Pn	19 06 39.2	+1.2
	32nm,0.3s						
BOZ	Bozeman (W)	4.95	295	eP	Pn	19 06 39.0	-0.6
	3.0nm,0.3s						
HWUT	Hardware Ranch	5.10	248	eP	Pn	19 06 40.5	-1.2
	9.5nm,0.8s						
EGMT	Eagleton	5.35	326	eP	Pn	19 06 46.4	+1.3
	9.4nm,0.3s						
HRY	Holter Researc	5.54	305	eP	Pn	19 06 47.3	-0.4
MCMT	McKenzie Canyo	5.57	284	eP	Pn	19 06 46.9	-1.3
MPU	Maple Canyon	6.02	234	ePg	Pg	19 07 13.7	-5.7
ECSD	EROS,Sioux Fal	6.26	87	eP	Pn	19 06 57.8	+0.1
	4.7nm,0.3s						
CHMT	Chamberlain Mo	6.49	302	eP	Pn	19 07 01.8	+0.9
DUG	Dugway	6.63	241	eP	Pn	19 06 56.5	-6.3
ULM	Lac du Bonnet	9.16	41	Pn	Pn	19 07 36.1	-1.4
ULM				Lg		19 10 13.2	
ULM	Lac du Bonnet	9.16	41	Pn	Pn	19 07 36.1	-1.4
	1.7nm,0.3s,baz=235,slow=12,SNR=15						
ULM				Lg		19 10 13.2	
	0.2nm,0.3s,baz=119,slow=17,SNR=4.6						
YKA	Yellowknife Ar	19.61	347	P	Pn	19 09 55.0	+0.1
YKA	Yellowknife Ar	19.61	347	P	Pn	19 09 55.0	+0.1
	0.1nm,0.3s,baz=163,slow=11,SNR=4.7						
ARCES	ARCESS Array B	61.45	18	P	P	19 15 40.9	-0.8

	2.0nm,0.8s,mb4.3,baz=329,slow=6.8,SNR=4.2						
FINES	FINESS Array B	68.07	23	P	P	19 16 24.7	-0.3
	3.1nm,1.1s,mb4.4,baz=330,slow=9.7,SNR=3.3						

DDA 22 19:32:50.7, 38.56N×39.32E, h37^{km}±1^{km}, Md3.0
CSEM 22 19:32:51.7±0.1, 38.42N×39.32E, h8^{km}, MD3.0, Error ellipse: s-maj=2.2km s-min=1.8km az=150.0
ISCJB 22 19:32:52.4±0.5, 38.42N±0.03×39.33E±0.04, h9^{km}±8^{km}, Error ellipse: s-maj=6.4km s-min=5.2km az=136.9
ISK 22 19:32:52.2, 38.42N×39.32E, h7^{km}, MD3.1
ISC 22 19:32:52.9±0.5, 38.43N±0.04×39.33E±0.04, h14^{km}±7^{km}, n18, σ0^{s}.75/30, 1C, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.28	284	*i* P	Pg	19 32 58.4	-0.3
ELZG				*i* S	Sg	19 33 03.3	+0.6
PTK	Pertek	0.46	6	PG	Pg	19 33 01.8	-0.3
PTK				SG	Sg	19 33 09.7	+1.4
PTK	Pertek	0.46	6	*e*Pg	Pg	19 33 01.8	-0.3
PTK				*e*Sg	Sg	19 33 09.7	+1.4
MYA	Malataya	0.71	262	PG	Pg	19 33 06.0	-0.8
MYA				SG	Sg	19 33 17.0	+0.7
MYA	Malataya	0.71	262	*e*Pg	Pg	19 33 06.0	-0.8
MYA				*e*Sg	Sg	19 33 17.0	+0.7
MALT	Malatya	0.72	261	PG	Pg	19 33 05.6	-1.3
MALT				SG	Sg	19 33 16.8	+0.5
MALT	Malatya	0.72	261	*e*Pg	Pg	19 33 05.6	-1.3
MALT				*e*Sg	Sg	19 33 16.8	+0.5
DIYA	Diyarbakir	0.81	129	⇑*i*P	Pb	19 33 08.4	-0.3
DIYA				*i* S	Sb	19 33 20.9	+1.4
DIY	Diyarbakir	0.89	127	PG	Pg	19 33 09.7	-0.4
DIY	Diyarbakir	0.89	127	*e*Pg	Pg	19 33 09.7	-0.4
BINT	Bingol	1.01	64	*e*PG	Pg	19 33 12.0	-0.5
BINT	Bingol	1.01	64	*e*Pg	Pg	19 33 12.0	-0.5
URFA	Urfa	1.07	202	PG	Pg	19 33 12.4	-1.1
URFA				SG	Sg	19 33 28.2	+0.8
URFA	Urfa	1.07	202	*e*Pg	Pg	19 33 12.4	-1.1
URFA				*e*Sg	Sg	19 33 28.2	+0.8
EZC	Erzincan	1.37	16	PN	Pn	19 33 17.0	-0.5
MARD	Mardin	1.60	134	*i* P	Pn	19 33 20.3	-0.5
MARD				*i* S	Sn	19 33 41.8	+0.6
BTMT	Batman	1.72	97	PN	Pn	19 33 22.1	-0.3
GZT	Gaziantep	1.76	233	*i* P	Pn	19 33 23.2	+0.3
GZT				*i* S	Sn	19 33 50.9	+5.8

IDC 22 19:37:49.0±3.1, 2.92N×129.37E, h0^{km}, mb3.4/4, mb1 3.6/4, mb1mx3.4/17, mbtmp3.4/4, Error ellipse: s-maj=257.2km s-min=25.6km az=68.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.24	168	P	P	19 42 57.2	-0.9
	0.3nm,0.3s,baz=348,slow=10,SNR=21						
ASAR	Alice Springs	26.79	171	P	P	19 43 31.6	+0.7
	0.3nm,0.5s,baz=356,slow=7.9,SNR=12						
STKA	Stephens Creek	36.50	162	P	P	19 44 56.4	+0.2
	0.7nm,0.6s,baz=328,slow=9.5,SNR=3.9						
MKAR	Makanchi Array	59.73	324	P	P	19 47 55.7	0.0
	0.1nm,0.4s,baz=108,slow=8.3,SNR=4.3						

IDC 22 20:02:03.3±9.2, 4.89S×145.75E, h0^{km}, mb3.6/3, mb1 3.8/5, mb1mx3.5/15, mbtmp3.7/5, ML3.4/2, MS4.3/1, Ms1 4.3/1, ms1mx3.0/23, Error ellipse: s-maj=136.5km s-min=50.1km az=25.0, Near north coast of New Guinea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.70	163	Pn	Pn	20 03 14.4	-1.1
	1.0nm,0.3s,baz=356,slow=14,SNR=6.8						
PMG				Sn	Sn	20 03 59.0	-12
	2.0nm,0.3s,baz=255,slow=21,SNR=7.5						
KAKA	Kakadu	15.27	239	*e*P	Pn	20 05 50.3	+10
	5.4nm,0.4s						
WB2	Warramunga Arr	18.63	216	*e*P	Pn	20 06 21.8	-1.1
WRA	Warramunga Arr	18.64	216	P	Pn	20 06 22.0	-0.9
	0.6nm,0.3s,baz=37,slow=12,SNR=53						
ASAR	Alice Springs	21.89	210	P	P	20 06 59.0	+1.0
	1.0nm,0.6s,baz=41,slow=8.0,SNR=4.6						
FITZ	Fitzroy Crossi	23.64	235	*e*P	P	20 07 16.0	-0.7
	5.3nm,1.5s						
FITZ	Fitzroy Crossi	23.64	235	P	P	20 07 15.9	-0.8
	1.2nm,0.6s,baz=41,slow=11,SNR=3.6						
STKA	Stephens Creek	27.13	188	P	P	20 07 48.8	+0.6
	0.6nm,0.4s,baz=23,slow=12,SNR=3.5						
AFI	Afiamalu	42.78	105	LR	LR	20 25 41.4	
	comp=Z,368nm,18.5s,baz=240,slow=33						

CSEM 22 20:15:03.9±0.1, 36.95N×27.60E, h12^{km}, MD3.0, Error ellipse: s-maj=2.2km s-min=2.1km az=21.0
ISK 22 20:15:03.9, 36.94N×27.59E, h14^{km}, MD3.0
ISCJB 22 20:15:04.2±0.5, 36.93N±0.03×27.61E±0.04, h13^{km}±5^{km}, Error ellipse: s-maj=6.1km s-min=5.3km az=136.1
NEIC 22 20:15:04.4, 36.91N×27.55E, h29^{km}, MD2.9(ATH), After ATH.
ATH 22 20:15:04.4, 36.91N×27.55E, h29^{km}±2^{km}, MD2.9/5
ISC 22 20:15:04.3±0.5, 36.93N±0.04×27.60E±0.04, h15^{km}±4^{km}, n29, σ0^{s}.34/43, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDRM	Kayabasi	0.18	319	*i* P	Pg	20 15 08.3	-0.4
DAT	Datca	0.20	184	*i* PG	Pg	20 15 09.1	+0.2
DAT	Datca	0.20	184	*i* Pg	Pg	20 15 09.1	+0.2
BODT	Bodrum	0.27	301	*i* PG	Pg	20 15 10.0	0.0
BODT				*i* SG	Sg	20 15 13.9	0.0
BODT	Bodrum	0.27	301	*i* Pg	Pg	20 15 10.0	0.0
BODT				*i* Sg	Sg	20 15 13.9	0.0
MLSB	Milas	0.40	21	PG	Pg	20 15 12.0	-0.3
MLSB				SG	Sg	20 15 18.3	+0.6
MLSB	Milas	0.40	21	*e*Pg	Pg	20 15 12.0	-0.3
MLSB				*e*Sg	Sg	20 15 18.3	+0.6
NISR	Nisiros	0.49	230	*e*Pb	Pb	20 15 14.5	-0.1
NISR				*e*Sb	Sb	20 15 21.5	-0.1
NISR	Nisiros	0.49	230	*e*PB	Pb	20 15 14.5	-0.1
NISR				*e*SB	Sb	20 15 21.5	-0.1
NISR	Nisiros	0.49	230	*e*Pb	Pb	20 15 14.5	-0.1
NISR				*e*Sb	Sb	20 15 21.5	-0.1
YER	Yerkesik	0.59	69	*e*PG	Pg	20 15 15.4	-0.4
YER	Yerkesik	0.59	69	*e*Pg	Pg	20 15 15.4	-0.4
ARG	Arkhangelos	0.83	149	*e*Pb	Pb	20 15 20.2	-0.2
ARG				*e*Sn	Sn	20 15 33.6	+0.3
ARG	Arkhangelos	0.83	149	*e*PB	Pb	20 15 20.2	-0.2
ARG				*e*SN	Sn	20 15 33.6	+0.3
ARG	Arkhangelos	0.83	149	*e*Pb	Pb	20 15 20.2	-0.2
ARG				*e*Sn	Sn	20 15 33.6	+0.3
DALT	Dalyan (Mudla)	0.85	100	*e*PG	Pg	20 15 21.0	+0.2
DALT	Dalyan (Mudla)	0.85	100	*e*Pg	Pg	20 15 21.0	+0.2
SMG	Samos	0.99	322	*e*Pn	Pn	20 15 23.0	-0.6
SMG				*e*Sn	Sn	20 15 37.5	+0.2
SMG	Samos	0.99	322	*e*PN	Pn	20 15 23.0	-0.6
SMG				*e*SN	Sn	20 15 37.5	+0.2
SMG	Samos	0.99	322	*e*Pn	Pn	20 15 23.0	-0.6
SMG				*e*Sn	Sn	20 15 37.5	+0.2
FETY	Fethiye	1.23	103	*e*PN	Pn	20 15 26.5	-0.4
FETY	Fethiye	1.23	103	*e*Pn	Pn	20 15 26.5	-0.4
KARP	Karpathos	1.42	194	*e*Pn	Pn	20 15 30.0	+0.4
KARP	Karpathos	1.42	194	*e*PN	Pn	20 15 30.0	+0.4
KARP	Karpathos	1.42	194	*e*Pn	Pn	20 15 30.0	+0.4
KDAG	Bornova	1.50	350	*i* P	Pg	20 15 33.4	+0.3
KDAG				*i* S	Sg	20 15 57.2	+4.6
APE	Apeiranthos	1.66	276	*e*Pn	Pn	20 15 33.1	+0.3
APE	Apeiranthos	1.66	276	*e*PN	Pn	20 15 33.1	+0.3
APE	Apeiranthos	1.66	276	*e*Pn	Pn	20 15 33.1	+0.3

IDC 22 20:19:39.6±0.9, 19.57S×173.51W, h0^{km}, mb4.2/12, mb1 4.4/12, mb1mx4.3/19, mbtmp4.2/12, MS3.7/8, Ms1 3.7/8, ms1mx3.4/33, Error ellipse: s-maj=40.6km s-min=17.1km az=147.0
ISCJB 22 20:19:40.3±0.7, 19.2S±0.1×173.8W±0.1, h10^{km}, mb4.4/17, MS3.8/6, Error ellipse: s-maj=27.0km s-min=10.0km az=138.2
NEIC 22 20:19:41.3±0.5, 19.40S×173.56W, h10^{km}, mb4.8/7, Error ellipse: s-maj=19.7km s-min=8.1km az=137.0
ISC 22 20:19:41.3±0.6, 19.4S±0.1×173.6W±0.1, h10^{km}, n45, σ0^{s}.82/30, mb4.4/17, MS3.8/6, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	5.73	18	Pn	Pn	20 21 03.9	-2.6
AFI				Sn	Sn	20 22 03.1	-9.2
AFI	Afiamalu	5.73	18	Pn	Pn	20 21 03.9	-2.6
	7.5nm,0.3s,baz=269,slow=19,SNR=5.7						
AFI				Sn	Sn	20 22 03.1	-9.2
	8.6nm,0.3s,baz=228,slow=22,SNR=4.1						
RAR	Rarotonga	13.08	100	LR	LR	20 27 00.3	
	comp=Z,453nm,19.0s,baz=263,slow=34						
DZM	Mont Dzumac	18.87	258	P	Pn	20 24 06.5	+4.1
	1.0nm,0.3s,baz=79,slow=19,SNR=8.1						
DZM				LR	LR	20 28 58.5	
	comp=Z,62nm,21.9s,baz=124,slow=30						
URZ	Urewera	20.46	201	P	P	20 24 18.4	-0.7
	3.3nm,0.4s,baz=326,slow=11,SNR=4.1						
PPT	Papeete	22.84	89	*e*LR	LR	20 29 53.3	
	307nm,28.2s						
PPT	Papeete	22.84	89	LR	LR	20 31 47.1	
	comp=Z,295nm,18.1s,MS3.8,baz=176,slow=32						
HNR	Honiara	27.45	287	LR	LR	20 35 10.8	
	comp=Z,85nm,18.3s,MS3.4,baz=360,slow=34						
RPZ	Rata Peaks	27.46	205	P	P	20 25 31.8	+4.3
	9.9nm,0.6s,mb4.5,baz=17,slow=17,SNR=4.1						
RKT	Rikitea	36.10	103	*e*LR	LR	20 36 02.3	
	320nm,29.5s						
CTA	Charters Tower	37.74	262	*e*P	P	20 26 57.6	-0.1
	11nm,0.7s,mb4.7						
CTAO	Charters Tower	37.74	262	*e*P	P	20 26 57.5	-0.2
PMG	Port Moresby	39.21	279	P	P	20 27 12.4	+2.3
	9.0nm,0.9s,mb4.5,baz=113,slow=9.0,SNR=4.4						
PMG				LR	LR	20 41 10.1	
	comp=Z,106nm,18.3s,MS3.7,baz=353,slow=33						
STKA	Stephens Creek	42.00	244	*e*P	P	20 27 32.8	-0.1
	2.7nm,0.8s,mb3.9						
STKA	Stephens Creek	42.00	244	P	P	20 27 32.0	-0.9
	2.6nm,0.7s,mb4.0,baz=94,slow=11,SNR=8.5						
STKA				LR	LR	20 43 43.1	
	comp=Z,166nm,18.8s,MS3.9,baz=24,slow=34						
ASAR	Alice Springs	48.81	255	P	P	20 28 26.8	-0.3
	13nm,0.9s,mb5.0,baz=88,slow=8.4,SNR=61						
WB2	Warramunga Arr	48.86	260	*e*P	P	20 28 27.1	-0.4
WRA	Warramunga Arr	48.87	260	P	P	20 28 26.6	-1.0
	2.8nm,0.6s,mb4.5,baz=98,slow=8.1,SNR=63						
KAKA	Kakadu	52.13	269	*e*P	P	20 28 52.4	+0.1
	5.8nm,0.6s,mb4.7						
FORT	Forrest	53.54	246	*e*P	P	20 29 02.0	-0.5
	7.7nm,0.6s,mb4.8						
FITZ	Fitzroy Crossi	57.30	261	*e*P	P	20 29 29.8	0.0
	7.3nm,0.6s,mb4.9						
FITZ	Fitzroy Crossi	57.30	261	P	P	20 29 30.3	+0.5
	3.9nm,0.5s,mb4.7,baz=114,slow=12						
MBWA	Marble Bar	62.15	256	*e*P	P	20 30 03.4	+0.2
KLBR	Kellerberrin	62.27	244	*e*P	P	20 30 03.9	0.0
	12nm,0.8s,mb5.1						
NWAO	Narrogin (SRO)	62.56	242	LR	LR	20 56 10.8	
	comp=Z,111nm,21.2s,MS4.0,baz=65,slow=35						
MJAR	Matsushiro Arr	71.89	321	P	P	20 31 05.0	+0.3
	1.4nm,0.8s,mb4.0,baz=161,slow=5.9,SNR=4.4						
NVAR	Mina Array Bea	77.42	41	P	P	20 31 37.6	+0.9
	0.6nm,0.4s,mb3.9,baz=234,slow=8.8,SNR=2.4						
TXAR	Lajitas Array	82.99	56	P	P	20 32 07.1	+0.1
	0.7nm,0.9s,mb3.7,baz=216,slow=7.7,SNR=5.9						
PDAR	Pinedale Array	85.35	42	P	P	20 32 18.5	-0.2
	0.5nm,0.9s,mb3.6,baz=178,slow=4.3,SNR=4.2						
COLA	College	86.30	11	*e*P	P	20 32 23.2	+0.3
	11nm,0.9s,mb5.1						
IMA2	Indian Mountai	86.53	8	*e*P	P	20 32 23.7	-0.3
DAWY	Dawson	87.32	14	*e*P	P	20 32 28.7	+0.8
INK	Inuvik	92.17	14	P	P	20 32 51.3	+0.7
	1.5nm,0.8s,mb4.4,baz=198,slow=9.6,SNR=5.2						
YKA	Yellowknife Ar	93.82	24	P	P	20 32 58.8	+0.5
	0.5nm,0.8s,mb4.0,baz=238,slow=3.8,SNR=8.6						
LPAZ	La Paz	98.60	111	LR	LR	21 07 50.7	
	comp=Z,48nm,20.2s,MS4.0,baz=236,slow=29						
MKAR	Makanchi Array	113.47	313	PKPdf	PKiKP	20 38 19.9	+0.3
MKAR	Makanchi Array	113.47	313	PKiKP	PKiKP	20 38 19.9	+0.3
	0.2nm,0.8s,baz=104,slow=1.8,SNR=2.4						
AKASG	Malin Array Be	143.91	335	PKP	PKPdf	20 39 15.7	-1.2
AKASG	Malin Array Be	143.91	335	PKP	PKPdf	20 39 15.7	-1.2
	0.2nm,0.3s,baz=32,slow=2.8,SNR=7.5						
MALT	Malatya	146.46	311	*e*PKPab	PKPab	20 39 25.3	+1.4
CLL	Collm	147.74	352	*e*PKPbc	PKPbc	20 39 29.0	+2.8
BRTR	Keskin Array B	149.04	317	PKPbc	PKPbc	20 39 31.0	+1.0
BRTR	Keskin Array B	149.04	317	PKPbc	PKPbc	20 39 31.0	+1.0
	1.0nm,0.8s,baz=69,slow=2.3,SNR=5.6						
GERES	GERESS Array B	150.04	350	PKPbc	PKPbc	20 39 33.7	+1.6
GERES	GERESS Array B	150.04	350	PKPbc	PKPbc	20 39 33.7	+1.6
	0.7nm,0.7s,baz=75,slow=1.5,SNR=4.9						

IDC 22 20:27:39.8±53.0, 55.86S×143.34E, h0^{km}, mb3.8/4, mb1 4.0/4, mb1mx3.9/11, mbtmp3.9/4, Error ellipse: s-maj=943.6km s-min=144.1km az=147.0, West of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	24.01	356	P	P	20 32 56.3	+0.3
	4.1nm,0.7s,baz=172,slow=10.0,SNR=6.3						
ASAR	Alice Springs	32.90	344	P	P	20 34 15.2	-0.2
	0.8nm,0.6s,baz=166,slow=9.5,SNR=9.9						
WB2	Warramunga Arr	36.49	346	*e*P	P	20 34 46.7	+0.1
WRA	Warramunga Arr	36.49	346	P	P	20 34 46.5	-0.1
	1.2nm,0.7s,baz=170,slow=8.2,SNR=12						
FITZ	Fitzroy Crossi	40.01	333	*e*P	P	20 35 16.4	+0.2
	3.7nm,1.2s						
FITZ	Fitzroy Crossi	40.01	333	P	P	20 35 16.3	+0.1
	1.1nm,0.8s,baz=181,slow=12,SNR=4.3						

IDC 22 20:38:07.5±2.4, 6.76S×131.22E, h0^{km}, mb3.5/1, mb1 4.2/4, mb1mx3.8/13, mbtmp4.0/4, ML4.2/2, Error ellipse: s-maj=104.8km s-min=27.9km az=80.0, Tanimbar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.52	205	Pn	Pn	20 41 06.4	-0.6
	1.5nm,0.3s,baz=35,slow=13,SNR=87						
FITZ				Sn	Sn	20 43 13.0	-14
	1.4nm,0.3s,baz=225,slow=16,SNR=11						
WRA	Warramunga Arr	13.45	167	Pn	Pn	20 41 20.5	+0.8
	0.9nm,0.3s,baz=350,slow=13,SNR=53						
WRA				Sn	Sn	20 43 39.8	-10
	1.3nm,0.3s,baz=344,slow=24,SNR=9.0						
ASAR	Alice Springs	17.00	172	Pn	Pn	20 42 06.8	-0.1
	0.7nm,0.3s,baz=349,slow=9.4,SNR=33						
ASAR				Sn	Sn	20 45 01.7	-15
	0.1nm,0.3s,baz=349,slow=24,SNR=3.0						
MKAR	Makanchi Array	68.70	326	P	P	20 49 13.1	+0.1
	0.2nm,0.4s,baz=114,slow=7.1,SNR=11						

NEIC 22 20:46:14.7, 38.89S×175.97E, h88^{km}, ML3.9(WEL), After WEL.
WEL 22 20:46:14.6±0.1, 38.90S×175.96E, h89^{km}±1^{km}, ML3.8/19, Error ellipse: s-maj=1.2km s-min=0.8km az=90.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RITZ	Rihia Road	0.12	225	P	Pn	20 46 27.2	0.0
RITZ	Rihia Road	0.12	225	P*	Pn	20 46 27.2	0.0
RITZ				S*	Sn	20 46 36.8	+0.3
RATZ	Rangitukua	0.15	281	P	Pn	20 46 27.0	-0.3
RATZ				S	Sn	20 46 37.0	+0.3
RATZ	Rangitukua	0.15	281	P*	Pn	20 46 27.0	-0.3
RATZ				S*	Sn	20 46 37.0	+0.3
KATZ	Kakaramea	0.22	249	P	Pn	20 46 27.4	-0.1
KATZ	Kakaramea	0.22	249	P*	Pn	20 46 27.4	-0.1
KATZ				S*	Sn	20 46 37.1	0.0
WHTZ	Whakaora	0.23	359	P	Pn	20 46 27.7	+0.1
WHTZ	Whakaora	0.23	359	P*	Pn	20 46 27.7	+0.1
WHTZ				S*	Sn	20 46 39.1	+1.9
WATZ	Wairara	0.26	316	P	Pn	20 46 27.5	-0.2
WATZ				S	Sn	20 46 37.2	-0.2
WATZ	Wairara	0.26	316	P*	Pn	20 46 27.5	-0.2
WATZ				S*	Sn	20 46 37.2	-0.2
KRVZ	Karewarewa	0.32	232	P*	Pn	20 46 27.8	-0.2
KRVZ				S*	Sn	20 46 37.9	0.0
OTVZ	Oturere	0.35	221	P*	Pn	20 46 28.5	+0.3
OTVZ				S*	Sn	20 46 38.6	+0.3
WTVZ	West Tongariro	0.36	233	P	Pn	20 46 28.1	-0.2
WTVZ	West Tongariro	0.36	233	P*	Pn	20 46 28.1	-0.2
NGZ	Ngauruhoe	0.40	225	P	Pn	20 46 28.4	-0.1
NGZ	Ngauruhoe	0.40	225	P*	Pn	20 46 28.4	-0.1
TUVZ	Tukino	0.44	213	P	Pn	20 46 29.1	+0.3
TUVZ				S	Sn	20 46 39.7	+0.3
TUVZ	Tukino	0.44	213	P*	Pn	20 46 29.1	+0.3
TUVZ				S*	Sn	20 46 39.7	+0.4
TWVZ	Taurewa	0.45	247	P	Pn	20 46 28.6	-0.2
TWVZ	Taurewa	0.45	247	P*	Pn	20 46 28.6	-0.2
WPVZ	Whakapapa	0.45	226	P	Pn	20 46 28.6	-0.2
WPVZ	Whakapapa	0.45	226	P*	Pn	20 46 28.6	-0.2
FWVZ	Far West T-bar	0.48	222	P	Pn	20 46 29.0	-0.1
FWVZ	Far West T-bar	0.48	222	P*	Pn	20 46 29.0	-0.1
DRZ	Dome Shelter	0.49	219	P	Pn	20 46 29.5	+0.3
DRZ	Dome Shelter	0.49	219	P*	Pn	20 46 29.5	+0.4
BKZ	Black Stump Fm	0.49	123	P	Pn	20 46 29.2	0.0
BKZ				S	Sn	20 46 39.7	-0.3
BKZ	Black Stump Fm	0.49	123	P*	Pn	20 46 29.2	+0.1
BKZ				S*	Sn	20 46 39.7	-0.3
TRVZ	Turoa	0.52	219	P*	Pn	20 46 29.6	+0.2
WNVZ	Wahianoa	0.52	213	P	Pn	20 46 29.6	+0.2
WNVZ	Wahianoa	0.52	213	P*	Pn	20 46 29.6	+0.2
MOVZ	Moawhango	0.54	198	P	Pn	20 46 29.4	-0.1
MOVZ	Moawhango	0.54	198	P*	Pn	20 46 29.4	-0.1
PATZ	Paeroa	0.56	24	P	Pn	20 46 30.0	+0.2
PATZ	Paeroa	0.56	24	P*	Pn	20 46 30.0	+0.3
MTVZ	Mangateitei	0.62	218	P*	Pn	20 46 30.4	+0.1
PKVZ	Pokaka	0.62	231	P*	Pn	20 46 30.3	+0.1
PKVZ				S*	Sn	20 46 41.9	-0.1
TAZ	Tarawera	0.79	33	P	Pn	20 46 30.1	-1.8
TAZ	Tarawera	0.79	33	P*	Pn	20 46 30.1	-1.8
HIZ	Hauiti	0.95	293	P	Pn	20 46 33.6	0.0
HIZ	Hauiti	0.95	293	PN	Pn	20 46 33.6	-0.1
VRZ	Vera Road	0.97	256	P	Pn	20 46 33.9	+0.1
VRZ				S	Sn	20 46 48.2	0.0
VRZ	Vera Road	0.97	256	P*	Pn	20 46 33.9	+0.1
VRZ				S*	Sn	20 46 48.2	-0.1
MARZ	Manawahe	1.07	32	P	Pn	20 46 35.1	+0.1
MARZ	Manawahe	1.07	32	P*	Pn	20 46 35.1	+0.1
URZ	Urewera	1.10	55	P	Pn	20 46 35.2	-0.2
URZ	Urewera	1.10	55	P*	Pn	20 46 35.2	-0.2
WAZ	Wanganui	1.15	221	P	Pn	20 46 36.4	+0.5
WAZ				S	Sn	20 46 53.2	+1.3
WAZ	Wanganui	1.15	221	PN	Pn	20 46 36.4	+0.5
WAZ				SN	Sn	20 46 53.2	+1.3
OPRZ	Ohinepanea	1.15	24	P*	Pn	20 46 36.0	0.0
TSZ	Takapari Road	1.16	180	P	Pn	20 46 36.2	+0.1
TSZ	Takapari Road	1.16	180	PN	Pn	20 46 36.2	+0.1
RAEZ	Rainy Point	1.28	252	P	Pn	20 46 38.3	+0.7
RAEZ	Rainy Point	1.28	252	PN	Pn	20 46 38.3	+0.8
PXZ	Pawanui	1.33	149	PN	Pn	20 46 38.0	-0.1
KNZ	Kokohu	1.34	96	*e*P	Pn	20 46 38.8	+0.5
KNZ	Kokohu	1.34	96	PN	Pn	20 46 38.8	+0.5
MWZ	Matawai	1.35	66	*e*P	Pn	20 46 38.3	-0.1
MWZ	Matawai	1.35	66	*e*P*	Pn	20 46 38.3	0.0
NEZ	North Egmont	1.50	255	P	Pn	20 46 41.2	+0.9
NEZ	North Egmont	1.50	255	PN	Pn	20 46 41.2	+0.9
PKE	Pukeiti	1.57	258	P	Pn	20 46 41.5	+0.4
PKE	Pukeiti	1.57	258	PN	Pn	20 46 41.5	+0.4
MRZ	Mangatainoka R	1.79	189	P	Pn	20 46 42.9	-1.1
MRZ	Mangatainoka R	1.79	189	PN	Pn	20 46 42.9	-1.1
BFZ	Birch Farm	1.80	173	P	Pn	20 46 43.2	-0.9
BFZ	Birch Farm	1.80	173	PN	Pn	20 46 43.2	-0.9
TIWZ	Tintock	1.88	182	PN	Pn	20 46 44.2	-0.9
PUZ	Puketiti	1.98	66	P	Pn	20 46 46.0	-0.5
PUZ	Puketiti	1.98	66	PN	Pn	20 46 46.0	-0.4
KIW	Kapiti Island	2.12	202	P	Pn	20 46 47.1	-1.3
KIW	Kapiti Island	2.12	202	PN	Pn	20 46 47.1	-1.3
MXZ	Matakaoa Point	2.27	55	*e*P	Pn	20 46 50.7	+0.3
MXZ	Matakaoa Point	2.27	55	PN	Pn	20 46 50.7	+0.4
MTW	Mount Morrison	2.29	189	P	Pn	20 46 48.7	-1.8
MTW	Mount Morrison	2.29	189	PN	Pn	20 46 48.7	-1.9
CAW	Cannon Point	2.31	197	P	Pn	20 46 49.2	-1.7
CAW	Cannon Point	2.31	197	PN	Pn	20 46 49.2	-1.7
DUWZ	D'Urville Isla	2.47	219	PN	Pn	20 46 52.6	-0.3
TRWZ	Traveller	2.51	185	PN	Pn	20 46 51.7	-1.8
PAWZ	Paruwai Farm	2.52	189	P	Pn	20 46 51.5	-2.1
PAWZ	Paruwai Farm	2.52	189	PN	Pn	20 46 51.5	-2.1
MRW	Makara Radio	2.52	202	P	Pn	20 46 51.9	-1.8
MRW	Makara Radio	2.52	202	PN	Pn	20 46 51.9	-1.7
MSWZ	Moikau Station	2.58	192	P	Pn	20 46 52.1	-2.3
MSWZ	Moikau Station	2.58	192	PN	Pn	20 46 52.1	-2.3
BHW	Baring Head	2.65	198	P	Pn	20 46 52.9	-2.4
BHW	Baring Head	2.65	198	PN	Pn	20 46 52.9	-2.4
TCW	Tory Channel	2.65	209	P	Pn	20 46 53.4	-2.0
TCW	Tory Channel	2.65	209	PN	Pn	20 46 53.4	-2.0
TUWZ	Tuamarina	2.97	211	PN	Pn	20 46 57.3	-2.3
NNZ	Nelson	3.05	220	P	Pn	20 47 00.5	-0.3
NNZ	Nelson	3.05	220	PN	Pn	20 47 00.5	-0.2
QRZ	Quartz Range	3.27	233	*e*P	Pn	20 47 02.0	-1.7
QRZ	Quartz Range	3.27	233	PN	Pn	20 47 02.0	-1.7
THZ	Tophouse	3.70	218	*e*P	Pn	20 47 08.6	-0.9
THZ	Tophouse	3.70	218	PN	Pn	20 47 08.6	-0.8
KHZ	Kahutara	3.97	207	*e*P	Pn	20 47 08.8	-4.4
KHZ	Kahutara	3.97	207	PN	Pn	20 47 09.8	-3.4
DSZ	Denniston Nort	4.27	227	PN	Pn	20 47 15.5	-1.7

IDC 22 20:49:24.8±0.9, 37.43N×35.90E, h0^{km}, mb3.5/7, mb1 3.6/14, mb1mx3.6/25, mbtmp3.6/14, ML3.7/7, MS3.2/6, Ms1 3.2/6, ms1mx3.0/31, Error ellipse: s-maj=17.7km s-min=12.8km az=83.0
MOS 22 20:49:24.8±1.1, 37.46N×35.81E, h10^{km}, mb4.0/5, Error ellipse: s-maj=14.0km s-min=9.1km az=112.2
ISK 22 20:49:26.7, 37.43N×35.86E, h21^{km}, MD4.0, ML4.1
NEIC 22 20:49:26.0, 37.45N×35.85E, h17^{km}, mb4.0/2, ML4.1(NIC), ML3.9(ISK), After ISK.
NIC 22 20:49:26.9±0.4, 37.85N×35.07E, h61^{km}, mb4.4, ML4.1, MW3.6
DDA 22 20:49:26.6, 37.43N×35.79E, h11^{km}, Md3.8
CSEM 22 20:49:27.2±0.0, 37.48N×35.90E, h25^{km}, Mw3.6, Error ellipse: s-maj=1.4km s-min=1.1km az=76.0
ISCJB 22 20:49:27.4±0.4, 37.43N±0.02×35.82E±0.02, h31^{km}±4^{km}, mb3.6/8, MS3.4/2, Error ellipse: s-maj=3.3km s-min=2.5km az=7.3
GII 22 20:49:30.6±0.0, 37.15N×35.68E, h0^{km}±1^{km}, ML3.0/2
NSSC 22 20:49:30.2, 37.35N×35.93E, h34^{km}±2^{km}
HLW 22 20:49:37.7, 36.82N×35.21E, h33^{km}, Mb3.4
ISC 22 20:49:27.8±0.3, 37.44N±0.02×35.84E±0.02, h20^{km}±2^{km}, n157, σ0^{s}.96/189, mb3.6/8, MS3.4/2, 18D, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KOZT	Kozan	0.04	343	PG	Pg	20 49 31.3	0.0
KOZT				SG	Sg	20 49 34.5	+0.8
ANDN	Andirin	0.42	71	*e*P	Pg	20 49 36.1	-0.5
ANDN				*i* S	Sg	20 49 44.0	+1.4
CEYT	Ceyhan	0.44	190	PG	Pg	20 49 36.1	-0.8
CEYT	Ceyhan	0.44	190	*e*Pg	Pg	20 49 36.1	-0.8
KARA	Karaisali	0.65	254	PG	Pg	20 49 39.9	-0.8
KARA				SG	Sg	20 49 49.3	-0.2
KARA	Karaisali	0.65	254	*e*Pg	Pg	20 49 39.9	-0.8
KMRS	Kahramanmaras	0.84	86	PG	Pg	20 49 43.3	-1.0
KMRS				SG	Sg	20 49 55.1	-0.4
KMRS	Kahramanmaras	0.84	86	*e*Pg	Pg	20 49 43.3	-1.0
KMRS				*e*Sg	Sg	20 49 55.1	-0.4
KRTS	Karatas	0.95	203	PG	Pg	20 49 45.3	-0.9
KRTS	Karatas	0.95	203	*e*Pg	Pg	20 49 45.3	-0.9
COBT	Iskenderun	0.98	160	*i* P	Pb	20 49 45.1	-0.9
COBT				*i* S	Sb	20 50 00.8	+2.2
DRWC	Darouich	1.05	141	⇑P	Pb	20 49 47.3	0.0
DRWC				⇓S	Sb	20 49 59.8	-0.9
DRWC	Darouich	1.05	141	⇑*i*P	Pb	20 49 47.3	0.0
DRWC				⇓*i*S	Sb	20 49 59.8	-0.9
GAZ	Gaziantep	1.13	104	PN	Pn	20 49 47.9	-0.5
GAZ	Gaziantep	1.13	104	*e*Pn	Pn	20 49 47.9	-0.5
NIG	Nigde	1.18	305	PN	Pn	20 49 49.1	0.0
NIG	Nigde	1.18	305	*e*Pn	Pn	20 49 49.1	0.0
MERS	Mersin	1.20	242	PN	Pn	20 49 48.8	-0.6
MERS	Mersin	1.20	242	*e*Pn	Pn	20 49 48.8	-0.6
HTY	Hatay	1.34	170	PN	Pn	20 49 51.2	-0.1
HTY	Hatay	1.34	170	*e*Pn	Pn	20 49 51.2	-0.1
BNN	Bunyan	1.41	0	PN	Pn	20 49 51.8	-0.4
BNN	Bunyan	1.41	0	*e*Pn	Pn	20 49 51.8	-0.4
BTCH	Batrach	1.49	160	⇓P	Pn	20 49 53.1	-0.3
BTCH				⇓S	Sn	20 50 11.1	-1.1
BTCH	Batrach	1.49	160	⇓*i*P	Pn	20 49 53.1	-0.3

BTCH				⇓*i*S	Sn	20 50 11.1	-1.1
AVNT	Avonos	1.54	330	⇓*e*P	Pn	20 49 53.4	-0.7
AVNT				*i* S	Sn	20 50 17.2	+3.6
ARNB	Al Arnab	1.58	176	⇓P	Pn	20 49 54.7	0.0
ARNB				⇑S	Sn	20 50 13.9	-0.7
SLNF	Slenfeh	1.87	170	⇓P	Pn	20 49 58.6	0.0
SLNF				⇑S	Sn	20 50 21.0	-0.6
SLNF	Slenfeh	1.87	170	⇓*i*P	Pn	20 49 58.6	0.0
SLNF				⇑*i*S	Sn	20 50 21.0	-0.6
ATAB	Bozova	1.95	89	*i* P	Pn	20 49 58.8	-0.9
ATAB				*i* S	Sn	20 50 31.1	+7.4
WRDH	Warideh	1.99	166	⇑P	Pn	20 50 00.4	+0.2
WRDH				⇓S	Sn	20 50 22.6	-1.9
WRDH	Warideh	1.99	166	⇑*i*P	Pn	20 50 00.4	+0.2
WRDH				⇓*i*S	Sn	20 50 22.6	-1.9
SLMH	Al Salmeh	2.08	126	⇑P	Pn	20 50 01.2	-0.3
SLMH				⇓S	Sn	20 50 25.9	-0.8
SLMH	Al Salmeh	2.08	126	⇑*i*P	Pn	20 50 01.2	-0.2
SLMH				⇓*i*S	Sn	20 50 25.9	-0.8
MALT	Malatya	2.22	66	PN	Pn	20 50 02.9	-0.6
MALT	Malatya	2.22	66	*e*P	Pn	20 50 03.0	-0.5
MALT	Malatya	2.22	66	*e*Pn	Pn	20 50 02.9	-0.6
MYA	Malataya	2.23	66	PN	Pn	20 50 03.9	+0.4
MYA	Malataya	2.23	66	*e*Pn	Pn	20 50 03.9	+0.4
YOZ	Yozgat	2.23	350	PN	Pn	20 50 03.7	+0.1
YOZ	Yozgat	2.23	350	*e*Pn	Pn	20 50 03.7	+0.1
URFA	Urfa	2.37	89	PN	Pn	20 50 04.9	-0.6
URFA	Urfa	2.37	89	*e*Pn	Pn	20 50 04.9	-0.6
SVSK	Karacayir	2.63	20	*e*PN	Pn	20 50 09.2	+0.1
SVSK	Karacayir	2.63	20	*e*Pn	Pn	20 50 09.2	+0.1
JHLN	Al Jahlan	2.74	129	⇓P	Pn	20 50 10.4	-0.2
JHLN				⇓S	Sn	20 50 42.1	-1.0
JHLN	Al Jahlan	2.74	129	⇓*i*P	Pn	20 50 10.4	-0.2
JHLN				⇓*i*S	Sn	20 50 42.1	-1.0
PHNC	Paralimni	2.84	212	P	Pn	20 50 12.4	+0.4
	6.4nm,0.6s						
PHNC				S	Sn	20 50 47.7	+2.1
BR131	Keskin Array S	2.86	324	*e*P	Pn	20 50 10.8	-1.4
BR131	Keskin Array S	2.86	324	*e*P	Pn	20 50 10.8	-1.4
BRTR	Keskin Array B	2.86	324	Pn	Pn	20 50 12.2	+0.1
BRTR				Lg		20 50 59.6	
BRTR	Keskin Array B	2.86	324	P	Pn	20 50 12.3	+0.1
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
BRTR	Keskin Array B	2.86	324	Pn	Pn	20 50 12.2	+0.1
	comp=Z,4.0nm,0.3s,baz=157,slow=12,SNR=76						
BRTR				Lg		20 50 59.6	
	comp=Z,9.8nm,0.3s,baz=116,slow=39,SNR=5.9						
BRTR	Keskin Array B	2.86	324	Pn	Pn	20 50 12.2	0.0
CORM	Corum	2.89	341	*e*PN	Pn	20 50 13.2	+0.6
CORM	Corum	2.89	341	*e*Pn	Pn	20 50 13.2	+0.6
TOKT	Tokat	2.92	11	*e*PN	Pn	20 50 13.1	0.0
TOKT	Tokat	2.92	11	*e*Pn	Pn	20 50 13.1	0.0
MAMC	Mammari	3.10	224	P	Pn	20 50 13.3	-2.3
PTK	Pertek	3.15	62	*e*PN	Pn	20 50 17.0	+0.8
PTK	Pertek	3.15	62	*e*Pn	Pn	20 50 17.0	+0.8
HWQ	Hawqa	3.16	178	*e*Pn	Pn	20 50 17.3	+1.0
HWQ	Hawqa	3.16	178	*e*Pn	Pn	20 50 17.3	+0.9
CSS	Prodhromos	3.20	220	P	Pn	20 50 15.1	-1.8
	comp=Z,3.4nm,0.8s						
CSS				S	Sn	20 50 53.2	-1.3
FKH	Fakeheh	3.23	172	*e*Pn	Pn	20 50 18.5	+1.1
FKH	Fakeheh	3.23	172	*e*Pn	Pn	20 50 18.5	+1.1
ANTO	Ankara	3.40	316	*e*P	Pn	20 50 20.1	+0.5
ANTO	Ankara	3.40	316	*e*P	Pn	20 50 20.1	+0.5
ALFC	Alevga	3.47	230	P	Pn	20 50 18.3	-2.4
ALFC				S	Sn	20 50 57.0	-4.2
BHL	Bhannes	3.54	183	*e*Pn	Pn	20 50 22.0	+0.5
BHL	Bhannes	3.54	183	*e*Pn	Pn	20 50 22.0	+0.5
BEYL	Beyrouth	3.58	185	*e*Pn	Pn	20 50 21.6	-0.5
SZAC	Souni-Zanaja	3.60	223	P	Pn	20 50 23.1	+0.8
SZAC				S	Sn	20 51 07.2	+3.0
KVT	Kavak	3.63	2	*e*PN	Pn	20 50 23.0	+0.1
KVT	Kavak	3.63	2	*e*Pn	Pn	20 50 23.0	+0.1
KBSD	Kabsdagh	3.78	95	⇑P	Pn	20 50 25.1	+0.2
KBSD	Kabsdagh	3.78	95	⇑*i*P	Pn	20 50 25.1	+0.2
TOS	Tosya	3.85	339	*e*PN	Pn	20 50 26.5	+0.6
TOS	Tosya	3.85	339	*e*Pn	Pn	20 50 26.5	+0.6
EZC	Erzincan	3.87	52	*e*PN	Pn	20 50 22.6	-3.5
BINT	Bingol	3.93	67	*e*PN	Pn	20 50 26.9	-0.1
BINT	Bingol	3.93	67	*e*Pn	Pn	20 50 26.9	-0.1
RCY	Rachaya	3.95	180	*e*Pn	Pn	20 50 27.9	+0.7
RCY	Rachaya	3.95	180	*e*Pn	Pn	20 50 27.9	+0.7
MATL	Matirih	3.97	186	*e*Pn	Pn	20 50 27.5	0.0
MATL	Matirih	3.97	186	*e*Pn	Pn	20 50 27.5	0.0
GUMT	Gumushane	4.14	42	*e*PN	Pn	20 50 30.2	+0.4
GUMT	Gumushane	4.14	42	*e*Pn	Pn	20 50 30.2	+0.4
DIKM	Dikmen	4.22	354	*e*PN	Pn	20 50 32.6	+1.6
DIKM	Dikmen	4.22	354	*e*Pn	Pn	20 50 32.6	+1.6
KSDI	Kefar Szold	4.25	182	Pn	Pn	20 50 32.1	+0.8
KSDI	Kefar Szold	4.25	182	Pn	Pn	20 50 32.1	+0.8
HNTI	Hanita	4.38	187	Pn	Pn	20 50 33.8	+0.6
HNTI	Hanita	4.38	187	Pn	Pn	20 50 33.8	+0.6
MMA1	Mount Meron ar	4.43	185	Pn	Pn	20 50 34.2	+0.4
MMA1	Mount Meron ar	4.43	185	Pn	Pn	20 50 34.2	+0.4
MMA0	Mount Meron ar	4.43	185	Pn	Pn	20 50 34.2	+0.3
MMA0	Mount Meron ar	4.43	185	Pn	Pn	20 50 34.2	+0.3
MMAI	Mount Meron Ar	4.43	185	Pn	Pn	20 50 34.0	+0.1
	comp=Z,31nm,0.3s,baz=349,slow=13,SNR=159						
MMAI				Sn	Sn	20 51 26.0	+1.1
	comp=Z,19nm,0.3s,baz=356,slow=26,SNR=8.6						
MMAI				LR	LR	20 52 40.9	
	comp=Z,226nm,18.9s,baz=325,slow=44						
BTMT	Batman	4.53	79	*e*PN	Pn	20 50 34.7	-0.5
OFRI	‘Ofer	4.86	189	Pn	Pn	20 50 40.2	+0.4
OFRI				Sn	Sn	20 51 34.6	-0.9
OFRI	‘Ofer	4.86	189	Pn	Pn	20 50 40.2	+0.4
OFRI				Sn	Sn	20 51 34.6	-0.9
EZM	Erzurum	4.97	59	*e*PN	Pn	20 50 43.3	+2.1
MMLI	Mount Malkishu	5.01	184	Pn	Pn	20 50 42.6	+0.8
MMLI				Sn	Sn	20 51 39.5	+0.5
MMLI	Mount Malkishu	5.01	184	Pn	Pn	20 50 42.6	+0.9
HMDT	Nahal Hemdat	5.18	183	Pn	Pn	20 50 46.6	+2.4
HMDT	Nahal Hemdat	5.18	183	Pn	Pn	20 50 46.6	+2.4
SLTI	Sal’it	5.23	187	Pn	Pn	20 50 45.5	+0.6
SLTI				Sn	Sn	20 51 45.1	+0.5
SLTI	Sal’it	5.23	187	Pn	Pn	20 50 45.4	+0.5
ASF	Jabal al Asfar	5.33	170	Pn	Pn	20 50 46.9	+0.7
ASF				Lg		20 52 18.4	
ASF				LR	LR	20 53 10.6	
ASF	Jabal al Asfar	5.33	170	P	Pn	20 50 46.9	+0.7
ASF				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASF				MLR	MLR		
	comp=Z,263nm,19.1s						
ASF	Jabal al Asfar	5.33	170	Pn	Pn	20 50 46.9	+0.7
	comp=Z,0.7nm,0.3s,baz=214,slow=19,SNR=9.1						
ASF				Lg		20 52 18.4	
	comp=Z,2.3nm,0.3s,baz=221,slow=21,SNR=5.7						
ASF				LR	LR	20 53 10.6	
	comp=Z,263nm,19.1s,baz=348,slow=43						
MASH	Mash‘abbe Sade	6.49	188	Pn	Pn	20 51 04.0	+1.8
MASH	Mash‘abbe Sade	6.49	188	Pn	Pn	20 51 04.0	+1.9
KZIT	Kziot	6.63	191	Pn	Pn	20 51 05.7	+1.7
KZIT	Kziot	6.63	191	Pn	Pn	20 51 05.7	+1.6
HNKL	Nakhl	7.65	192	P	Pn	20 51 17.8	-0.3
EIL	Elat	7.79	186	Pn	Pn	20 51 20.7	+0.7
EIL				Sn	Sn	20 52 49.0	+1.5
EIL				LR	LR	20 54 55.9	
EIL	Elat	7.79	186	Pn	Pn	20 51 20.7	+0.7
	comp=Z,1.4nm,0.3s,baz=5.2,slow=9.8,SNR=5.2						
EIL				Sn	Sn	20 52 49.0	+1.5
	comp=Z,0.7nm,0.3s,baz=6.6,slow=6.8,SNR=3.7						
EIL				LR	LR	20 54 55.9	
	comp=Z,184nm,20.1s,baz=152,slow=43						
EIL	Elat	7.79	186	Pn	Pn	20 51 20.7	+0.7
SUZ		7.99	199	P	Pn	20 51 22.0	-0.7
KIV	Kislovodsk	8.32	36	*e*P	Pn	20 51 30.2	+3.0
ZNM		8.42	198	P	Pn	20 51 27.8	-0.8
HKAT	Jabal Katrina	9.03	190	P	Pn	20 51 36.9	-0.1
IDI	Anoyia	9.09	260	Pn	Pn	20 51 38.3	+0.5
IDI				Sn	Sn	20 53 23.8	+4.2
IDI				LR	LR	20 55 17.7	
IDI	Anoyia	9.09	260	Pn	Pn	20 51 38.3	+0.5
	comp=Z,1.5nm,0.3s,baz=80,slow=18,SNR=20						
IDI				Sn	Sn	20 53 23.8	+4.3
	comp=Z,0.4nm,0.3s,baz=72,slow=20,SNR=2.0						
IDI				LR	LR	20 55 17.7	
	comp=Z,37nm,20.3s,baz=92,slow=39						
IDI	Anoyia	9.09	260	Pn	Pn	20 51 38.3	+0.5
GRB	Gharib	9.50	197	P	Pn	20 51 42.7	-0.8
TR1		9.54	190	P	Pn	20 51 44.4	+0.4
HMAT	Matruh	9.61	231	P	Pn	20 51 43.9	-1.1
AKASG	Malin Array Be	14.07	342	Pn	Pn	20 52 45.4	-0.4
AKASG	Malin Array Be	14.07	342	P	Pn	20 52 45.4	-0.4
AKASG	Malin Array Be	14.07	342	Pn	Pn	20 52 45.4	-0.4
	comp=Z,0.3nm,0.3s,baz=110,slow=11,SNR=3.0						
GERES	GERESS Array B	19.69	312	P	Pn	20 53 55.8	-1.3
	comp=Z,0.1nm,0.3s,baz=115,slow=9.0,SNR=4.1						
AKTK	Aktyubinsk	20.48	44	P	P	20 54 03.1	-1.1
AKTO	Aktyubinsk	20.48	44	P	P	20 54 03.1	-1.1
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKTO	Aktyubinsk	20.48	44	P	P	20 54 03.1	-1.1
	comp=Z,2.3nm,0.6s,baz=246,slow=9.8,SNR=10						
MBDF	Montbardon	23.00	298	*e*P	P	20 54 31.9	+0.7
	comp=Z,7.3nm,0.8s,mb3.9						
MBDF	Montbardon	23.00	298	*e*P	P	20 54 31.9	+0.7
	comp=Z,3.7nm,0.8s,mb3.9						
MBDF	Montbardon	23.00	298	*e*P	P	20 54 31.9	+0.7
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.9						
LPG	La Plagne	23.14	300	*e*P	P	20 54 30.9	-1.7
LPL	La Plagne	23.16	300	*e*P	P	20 54 31.8	-1.0
FINES	FINESS Array B	24.79	349	P	P	20 54 47.2	-0.8
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	24.79	349	P	P	20 54 47.1	-0.8
	comp=Z,0.9nm,0.5s,mb3.5,baz=159,slow=10,SNR=7.2						
LOR	Lormes	25.43	303	*e*P	P	20 54 54.4	+0.4
SSF	Saint Saulge	25.63	302	*e*P	P	20 54 54.9	-0.9
AVF	Avril sur Loir	25.69	302	*e*P	P	20 54 56.8	+0.5
	comp=Z,6.0nm,0.6s,mb4.0						
AVF	Avril sur Loir	25.69	302	*e*P	P	20 54 56.8	+0.5
	comp=Z,3.0nm,0.6s,mb4.0						
AVF	Avril sur Loir	25.69	302	*e*P	P	20 54 56.8	+0.5
AVF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.0						
ATD	Arta Tunnel	26.56	164	LR	LR	21 03 50.7	
	comp=Z,65nm,21.8s,MS3.1,baz=62,slow=33						
ARCES	ARCESS Array B	32.64	353	P	P	20 55 59.1	+1.3
ARCES				pmax	pmax		
	comp=Z,2.0nm,1.0s						
ARCES	ARCESS Array B	32.64	353	P	P	20 55 59.1	+1.3
	comp=Z,2.3nm,1.0s,mb4.1,baz=166,slow=7.5,SNR=4.5						
MKAR	Makanchi Array	35.25	60	P	P	20 56 21.3	+0.6
	comp=Z,0.2nm,0.6s,mb3.2,baz=294,slow=8.5,SNR=4.6						
TORD	Torodi Ar. Bea	38.88	241	P	P	20 56 51.2	-0.7
	comp=Z,0.4nm,0.6s,mb3.3,baz=55,slow=6.3,SNR=7.4						
SONM	Songino Array	51.25	55	P	P	20 58 30.4	+0.5
	comp=Z,0.4nm,0.9s,mb3.4,baz=266,slow=5.1,SNR=3.7						
KSRS	Korea Array	69.91	58	LR	LR	21 34 56.6	
	comp=Z,35nm,22.0s,MS3.6,baz=335,slow=39						
YKA	Yellowknife Ar	77.60	346	P	P	21 01 21.8	-0.3
	comp=Z,0.1nm,0.3s,mb3.2,baz=32,slow=5.3,SNR=5.1						

ISCJB ***22*** *20:54:05.1±1.0, 26.13S±0.09×179.8E±0.1, h489^{km}±12^{km}, mb4.1/10, Error ellipse: s-maj=14.8km s-min=13.1km az=151.5*
NEIC ***22*** *20:54:05.8±0.8, 26.16S×179.85E, h491^{km}±9^{km}, mb4.7/4, Error ellipse: s-maj=15.1km s-min=10.5km az=199.0*
IDC ***22*** *20:54:05.2±1.6, 26.04S×179.77E, h478^{km}±18^{km}, mb3.6/7, mb1 3.8/9, mb1mx3.7/14, mbtmp3.6/9, Error ellipse: s-maj=21.4km s-min=12.6km az=159.0*
ISC 22 20:54:06.0±0.9**, 26.19S**±0.09×**179.8E**±0.1**, h488**^{km}±11^{km}**, n36, σ0**^{s}**85**/27**, mb4.1**/10**, 1D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	3.65	147	P	P	20 55 20.3	-0.4
	86nm,0.3s,baz=292,slow=19,SNR=4.3						
URZ	Urewera	12.25	190	P	P	20 56 46.1	-1.0
	7.1nm,0.3s,baz=34,slow=4.0,SNR=38						
URZ				S	S	20 58 59.5	-0.3
	0.9nm,0.3s,baz=131,slow=19,SNR=6.1						
DZM	Mont Dzumac	12.88	286	*e*P	P	20 56 55.1	+1.1
DZM	Mont Dzumac	12.88	286	P	P	20 56 55.2	+1.2
	2.6nm,0.3s,baz=99,slow=14,SNR=25						
NOUC	Port Laguerre	12.99	285	*e*P	P	20 56 56.1	+0.9
NOUC	Port Laguerre	12.99	285	*e*P	P	20 56 56.1	+0.9
AFI	Afiamalu	14.54	34	P	P	20 57 04.6	-7.2
	6.4nm,0.3s,baz=243,slow=4.5,SNR=5.0						
RPZ	Rata Peaks	18.88	200	P	P	20 57 55.7	+0.9
	1.9nm,0.3s,baz=339,slow=10,SNR=11						
EIDS	Eidsvold	25.87	265	*e*P	P	20 58 58.2	+0.3
	18nm,0.6s,mb4.7						
CTA	Charters Tower	31.39	274	⇓*i*P	P	20 59 46.6	+0.3
	19nm,0.7s,mb4.6						
CTAO	Charters Tower	31.39	274	*e*P	P	20 59 46.6	+0.4
	22nm,0.7s,mb4.7						
STKA	Stephens Creek	33.77	251	*e*P	P	21 00 07.1	+0.7
	2.5nm,0.6s,mb3.8						
STKA	Stephens Creek	33.77	251	*e*P	P	21 00 06.6	+0.2
STKA	Stephens Creek	33.77	251	P	P	21 00 07.0	+0.7
	2.6nm,0.5s,mb3.9,baz=88,slow=13,SNR=15						
ASAR	Alice Springs	41.55	263	P	P	21 01 10.1	-0.1
	4.8nm,0.4s,mb4.3,baz=91,slow=7.3,SNR=28						
ASAR				S	S	21 06 51.0	+0.7
	2.5nm,0.9s,baz=100,slow=17,SNR=8.5						
WB2	Warramunga Arr	42.12	269	*e*P	P	21 01 14.1	-0.8
WRA	Warramunga Arr	42.13	269	P	P	21 01 14.2	-0.8
	3.7nm,0.4s,mb4.2,baz=104,slow=7.9,SNR=28						
WRA				S	S	21 06 58.5	-0.4
	1.6nm,1.0s,baz=100,slow=14,SNR=5.8						
KAKA	Kakadu	46.39	277	*e*P	P	21 01 46.7	-1.3
QSPA	South Pole Qui	63.90	180	*e*P	P	21 03 50.9	+1.4
	3.4nm,0.7s,mb4.0						
MJAR	Matsushiro Arr	73.69	326	P	P	21 04 47.5	-1.9
	2.1nm,0.7s,mb3.8,baz=163,slow=5.1,SNR=6.7						
KSRS	Korea Array	79.89	321	P	P	21 05 23.1	-0.3
	1.6nm,0.7s,mb3.7,baz=135,slow=6.4,SNR=4.7						
NVAR	Mina Array Bea	86.51	44	P	P	21 05 57.0	+0.5
	1.5nm,0.7s,mb3.8,baz=202,slow=7.8,SNR=5.1						
TXAR	Lajitas Array	91.78	58	P	P	21 06 21.9	+0.6
TXAR	Lajitas Array	91.78	58	P	P	21 06 21.9	+0.6
	1.2nm,0.8s,mb3.9,baz=204,slow=7.0,SNR=8.9						
ARCES	ARCESS Array B	134.09	348	PKP	PKPdf	21 12 26.8	+0.3
ARCES	ARCESS Array B	134.09	348	PKP	PKPdf	21 12 26.8	+0.3
	2.5nm,1.0s,baz=107,slow=1.2,SNR=3.6						
NOA	NORSAR Array B	144.31	351	PKP	PKPdf	21 12 43.6	-1.8
NOA	NORSAR Array B	144.31	351	PKP	PKPdf	21 12 43.6	-1.8
	0.4nm,0.4s,baz=15,slow=4.5,SNR=2.9						
HFS	Hagfors	144.75	348	PKP	PKPdf	21 12 44.6	-1.5
HFS	Hagfors	144.75	348	PKP	PKPdf	21 12 44.6	-1.5
	3.6nm,0.9s,baz=53,slow=4.0,SNR=9.2						
MMAI	Mount Meron Ar	148.43	291	PKPbc	PKPbc	21 12 58.1	+0.8
	0.6nm,0.3s,baz=77,slow=7.2,SNR=8.9						
BRTR	Keskin Array B	148.77	304	PKPbc	PKPbc	21 12 57.4	-0.6
BRTR	Keskin Array B	148.77	304	PKPbc	PKPbc	21 12 57.4	-0.6
	0.2nm,0.3s,baz=42,slow=6.6,SNR=2.7						
EKA	Eskdalemuir Ar	150.81	3	PKPbc	PKPbc	21 13 01.2	-1.0
EKA	Eskdalemuir Ar	150.81	3	PKPbc	PKPbc	21 13 01.2	-1.0
	3.5nm,1.1s,baz=348,slow=3.7,SNR=6.4						
TORD	Torodi Ar. Bea	166.90	188	PKPab	PKPab	21 14 22.7	+0.3
	0.4nm,0.8s,baz=162,slow=3.3,SNR=3.4						

IDC ***22*** *20:56:14.2±3.5, 6.73S×132.19E, h0^{km}, mb4.5/2, mb1 4.2/4, mb1mx4.0/12, mbtmp4.1/4, ML3.8/2, Error ellipse: s-maj=264.6km s-min=29.7km az=75.0*
NEIC ***22*** *20:56:17.5±0.9, 7.11S×131.00E, h10^{km}, mb4.2/1, Error ellipse: s-maj=23.7km s-min=11.0km az=77.0*
ISCJB ***22*** *20:56:18.7±1.1, 7.18S±0.09×131.0E±0.2, h33^{km}, mb4.4/2, Error ellipse: s-maj=27.8km s-min=10.5km az=162.1*
ISC 22 20:56:21.1±1.2**, 7.17S**±0.09×**131.0E**±0.2**, h35**^{km}**, n10, σ0**^{s}**65**/13**, mb4.4**/2**, Tanimbar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	5.70	165	*e*P	Pn	20 57 47.2	+3.9
	9.8nm,0.2s						
KAKA				*e*S	Sn	20 58 47.8	+0.2
FITZ	Fitzroy Crossi	12.05	205	*e*P	Pn	20 59 09.9	-0.5
	18nm,0.4s						
FITZ				*e*S	Sn	21 01 13.0	-11
WRA	Warramunga Arr	13.12	166	Pn	Pn	20 59 24.3	-0.8
WRA	Warramunga Arr	13.12	166	Pn	Pn	20 59 24.3	-0.8
	0.4nm,0.3s,baz=351,slow=13,SNR=31						
WB2	Warramunga Arr	13.12	166	*e*P	Pn	20 59 24.6	-0.5
WB2				*e*S	Sn	21 01 39.0	-11
ASAR	Alice Springs	16.65	171	Pn	Pn	21 00 12.7	+0.8
ASAR	Alice Springs	16.65	171	Pn	Pn	21 00 12.7	+0.8
	0.6nm,0.3s,baz=349,slow=9.2,SNR=28						
MBWA	Marble Bar	17.65	217	*e*P	Pn	21 00 24.7	+0.3
	24nm,1.3s						
MKAR	Makanchi Array	68.89	326	P	P	21 07 22.9	+0.6
	3.7nm,0.4s,mb4.7,baz=126,slow=7.9,SNR=116						
ZALV	Zalesovo Beam	72.16	333	P	P	21 07 41.5	-0.5
	1.3nm,0.5s,mb4.1,baz=129,slow=5.4,SNR=9.4						

ISK ***22*** *20:57:57.9, 38.40N×39.23E, h5^{km}, MD3.3*
CSEM ***22*** *20:57:57.6±0.1, 38.40N×39.25E, h2^{km}, MD3.3, Error ellipse: s-maj=1.9km s-min=1.4km az=145.0*
ISCJB ***22*** *20:57:58.8±0.4, 38.38N±0.03×39.27E±0.03, h2^{km}, Error ellipse: s-maj=4.5km s-min=3.2km az=2.1*
DDA ***22*** *20:58:59.6, 38.35N×39.25E, h4^{km}, Md3.1*
ISC 22 20:57:59.3±0.6**, 38.38N**±0.03×**39.27E**±0.04**, h4**^{km}±7^{km}**, n29, σ0**^{s}**90**/42**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.25	297	*i* P	Pg	20 58 03.8	-0.4
ELZG				*i* S	Sg	20 58 08.0	+0.4
PTK	Pertek	0.52	10	PG	Pg	20 58 08.5	-0.7
PTK				SG	Sg	20 58 17.3	+1.3
PTK	Pertek	0.52	10	*e*Pg	Pg	20 58 08.5	-0.7
PTK				*e*Sg	Sg	20 58 17.3	+1.3
MALT	Malatya	0.67	264	PG	Pg	20 58 11.3	-0.8
MALT				SG	Sg	20 58 21.5	+0.7
MALT	Malatya	0.67	264	*e*Pg	Pg	20 58 11.3	-0.8
MALT				*e*Sg	Sg	20 58 21.5	+0.7
MYA	Malataya	0.67	265	PG	Pg	20 58 11.4	-0.7
MYA				SG	Sg	20 58 21.1	+0.3
MYA	Malataya	0.67	265	*e*Pg	Pg	20 58 11.4	-0.7
MYA				*e*Sg	Sg	20 58 21.1	+0.3
DIY	Diyarbakir	0.90	123	PG	Pg	20 58 16.5	0.0
DIY	Diyarbakir	0.90	123	*e*Pg	Pg	20 58 16.5	0.0
URFA	Urfa	1.01	201	PG	Pg	20 58 18.2	-0.4
URFA	Urfa	1.01	201	*e*Pg	Pg	20 58 18.2	-0.4
BINT	Bingol	1.07	62	PN	Pn	20 58 20.4	-0.6
BINT	Bingol	1.07	62	*e*Pn	Pn	20 58 20.4	-0.6
ATAB	Bozova	1.20	221	*i* P	Pg	20 58 22.2	0.0
ATAB				*i* S	Sg	20 58 38.8	+1.1
ATAB	Bozova	1.20	221	*i* P	Pg	20 58 22.2	0.0
ATAB				*i* S	Sg	20 58 38.8	+1.1
EZC	Erzincan	1.43	17	PN	Pn	20 58 24.3	-1.6
BNGL	BINGOL	1.57	68	*i* P	Pn	20 58 28.9	+0.9
BNGL				*i* S	Sg	20 58 55.5	+5.6
MARD	Mardin	1.60	131	*i* P	Pn	20 58 27.3	-1.0
MARD				*i* S	Sn	20 58 48.9	-0.5
BEST	Besiri	1.65	107	*i* P	Pn	20 58 28.3	-0.7
BEST				*i* S	Sn	20 58 52.9	+2.3
GZT	Gaziantep	1.70	233	*i* P	Pn	20 58 28.5	-1.1
GZT				*i* S	Sn	20 58 56.0	+4.2
BTMT	Batman	1.75	96	PN	Pn	20 58 29.9	-0.5
GAZ	Gaziantep	2.03	234	PN	Pn	20 58 34.1	-0.1
GAZ	Gaziantep	2.03	234	*e*Pn	Pn	20 58 34.1	-0.1
KMRS	Kahramanmaras	2.07	246	PN	Pn	20 58 35.7	+0.9
KMRS	Kahramanmaras	2.07	246	*e*Pn	Pn	20 58 35.7	+0.9
SVSK	Karacayir	2.34	312	PN	Pn	20 58 38.9	+0.4
SVSK	Karacayir	2.34	312	*e*Pn	Pn	20 58 38.9	+0.4
SIRT	Sirnak	2.65	108	*e*PN	Pn	20 58 44.2	+1.4
SIRT	Sirnak	2.65	108	*e*Pn	Pn	20 58 44.2	+1.4

IDC ***22*** *21:00:14.8±0.8, 24.14N×121.92E, h0^{km}, mb4.0/11, mb1 4.1/12, mb1mx4.0/22, mbtmp4.0/12, ML3.8/1, Error ellipse: s-maj=32.5km s-min=16.5km az=64.0*
ISCJB ***22*** *21:00:17.0±0.9, 24.04N±0.06×121.74E±0.03, h24^{km}±6^{km}, mb4.1/16, Error ellipse: s-maj=9.7km s-min=4.0km az=11.8*
NEIC ***22*** *21:00:16.4, 24.14N×121.79E, h5^{km}, mb4.4/5, ML4.6(TAP), After TAP.*
NEIC Recorded [2 TAP] in Hua-lien and Nan-t’ou; [1 TAP] in T’ai-chung and I-lan Counties.
JMA ***22*** *21:00:17.1±0.2, 24.09N×121.65E, h55^{km}, M4.1*
BJI ***22*** *21:00:20.2, 24.45N×121.70E, h15^{km}, mB4.8, mb4.1, ML4.7, Ms4.2, Msz4.1*
ISC 22 21:00:17.2±0.9**, 24.07N**±0.05×**121.80E**±0.03**, h11**^{km}±5^{km}**, n45, σ1**^{s}**10**/56**, mb4.1**/16**, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NACB	Ninganchiao	0.21	299	*e*Pg	Pg	21 00 21.6	-0.2
YHNB	Yeheng	0.71	327	*e*P	Pg	21 00 31.1	0.0
TATO	Taipei	0.94	342	*e*P	Pg	21 00 35.2	-0.3
YOJ	Yonaguni jima	1.17	70	P	Pn	21 00 39.3	-0.2
YOJ				*e*S	Sb	21 00 55.7	+1.1
IRIF	Iriomote-Funau	1.78	81	P	Pn	21 00 48.0	+0.1
IRIF				*e*S	Sn	21 01 11.7	+1.2
HATJ	Hateruma jima	1.83	90	P	Pn	21 00 48.7	+0.1
HATJ				*e*S	Sn	21 01 12.4	+0.6
JKRS	Kuro-shima	2.02	85	P	Pn	21 00 51.8	+0.5
JKRS				*e*S	Sn	21 01 17.3	+0.8
JIJ	Ishigaki jima	2.16	82	P	Pn	21 00 53.0	-0.1
JIJ				*e*S	Sn	21 01 19.7	-0.1
JTJ	Tarama	2.71	77	P	Pn	21 01 01.2	+0.6
JTJ				*e*S	Sn	21 01 33.3	-0.1
QZH	Quanzhou	3.05	287	P	Pn	21 01 07.3	+1.9
QZH				S	Sn	21 01 43.8	+1.9
QZH				Smax			
	comp=N,2µm,1.2s						
QZH				Smax			
	comp=E,1µm,1.2s						
JKE	Kume jima 2	5.04	63	P	Pn	21 01 31.9	-0.9
JOW	Kunigami	6.46	63	Pn	Pn	21 01 51.4	-0.9
JOW	Kunigami	6.46	63	P	Pn	21 01 51.5	-0.8
JOW	Kunigami	6.46	63	Pn	Pn	21 01 51.4	-0.9
	comp=E,5.1nm,0.3s,baz=20,slow=28,SNR=13						
NJ2	Nanjing	8.37	343	*e*P	Pn	21 02 20.8	+2.4
NJ2				AP		21 02 27.5	
NJ2				XP		21 02 32.6	
NJ2				S	Sn	21 03 54.1	+1.2
NJ2				AMB	AMB		
	comp=Z,20nm,0.5s						
NJ2				Smax			
	comp=N,280nm,1.0s						
NJ2				Smax			
	comp=E,220nm,1.2s						
NJ2				LR	LR		
	comp=N,1µm,10.6s						
NJ2				LR	LR		
	comp=E,2µm,11.4s						
NJ2				LR	LR		
	comp=Z,2µm,11.4s						
WHN	Wuhan	9.24	316	*e*P	Pn	21 02 29.4	-1.1
WHN				S	Sn	21 04 10.3	-4.2
WHN				Smax			
	comp=N,176nm,1.0s						
WHN				Smax			
	comp=E,163nm,1.0s						
WHN				LR	LR		
	comp=Z,3µm,10.3s						
CD2	Chengdu	17.39	297	*e*P	Pn	21 04 16.6	-3.2
CD2				PP		21 04 31.3	
CD2				S	Sn	21 07 28.5	-4.9
CD2				SS		21 07 50.1	
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s						
CD2				LR	LR		
	comp=E,320nm,9.5s						
CD2				LR	LR		
	comp=Z,360nm,12.0s						
HHC	Hu-ho-hao-te	18.80	335	*e*P	Pn	21 04 38.3	+1.1
HHC				PP		21 04 54.5	
HHC				S	Sn	21 08 05.8	-1.7
HHC				PCP	PcP	21 09 04.6	+0.9
HHC				PCS	PcS	21 12 40.1	-0.3
HHC				AMB	AMB		
	comp=Z,288nm,5.0s						
HHC				LR	LR		
	comp=N,191nm,13.2s						
HHC				LR	LR		
	comp=E,258nm,12.2s						
LZH	Lanzhou	19.58	312	*e*P	Pn	21 04 48.5	+1.9
LZH				AP	pP	21 04 51.5	+3.1
LZH				XP	sP	21 04 53.5	+3.7
LZH				AMB	AMB		
	comp=Z,15nm,1.0s						
LZH				AMB	AMB		
	comp=Z,134nm,5.6s						
LZH				LR	LR		
	comp=N,437nm,9.6s						
LZH				LR	LR		

	comp=Z,529nm,11.8s						
LZH	**Lanzhou**	**19.58**	**312**	*e*P	**Pn**	**21 04 48.5**	**+1.9**
	comp=Z,15nm,1.0s						
LZH				pP	pP	21 04 51.5	+3.1
LZH				sP	sP	21 04 53.5	+3.7
GTA	**Gaotai**	**24.07**	**315**	*e*P	**P**	**21 05 33.4**	**+0.9**
GTA				AP		21 05 36.9	
GTA				XP	sP	21 05 38.6	+1.3
GTA				AMB	AMB		
	comp=Z,3.0nm,1.3s,mb3.6						
ULN	**Ulaanbaatar**	**26.48**	**337**	*e*P	**P**	**21 05 54.1**	**-0.2**
	comp=Z,6.5nm,0.9s,mb4.2						
SONM	**Songino Array**	**26.69**	**337**	P	**P**	**21 05 55.2**	**-1.0**
	comp=Z,3.5nm,1.1s,mb3.8,baz=155,slow=10,SNR=18						
LSA	**Lhasa**	**27.86**	**288**	P	**P**	**21 06 08.8**	**+1.9**
LSA	**Lhasa**	**27.86**	**288**	*e*P	**P**	**21 06 09.1**	**+2.1**
	comp=Z,3.7nm,0.6s,mb4.2						
WMQ	**Urumqi**	**34.14**	**314**	*e*P	**P**	**21 07 04.1**	**+1.9**
MK31	**Makanchi Array**	**38.81**	**316**	*e*P	**P**	**21 07 42.4**	**+0.4**
MKAR	**Makanchi Array**	**38.81**	**316**	P	**P**	**21 07 42.3**	**+0.3**
	comp=Z,2.5nm,0.7s,mb4.0,baz=104,slow=10,SNR=9.8						
ZALV	**Zalesovo Beam**	**40.65**	**327**	P	**P**	**21 07 56.3**	**-0.8**
	comp=Z,4.9nm,0.9s,mb4.2,baz=111,slow=8.1,SNR=19						
WRA	**Warramunga Arr**	**45.42**	**163**	P	**P**	**21 08 34.9**	**-1.2**
	comp=Z,1.2nm,0.7s,mb3.8,baz=345,slow=8.7,SNR=6.3						
TIXI	**Tiksi**	**47.78**	**3**	*e*P	**P**	**21 08 51.8**	**-2.2**
	comp=Z,31nm,1.3s,mb5.2						
BRVK	**Borovoye**	**48.19**	**321**	*e*P	**P**	**21 08 57.3**	**-0.1**
	comp=Z,3.5nm,0.8s,mb4.4						
ASAR	**Alice Springs**	**48.88**	**165**	P	**P**	**21 09 03.1**	**+0.1**
	comp=Z,0.3nm,0.3s,mb3.8,baz=338,slow=7.1,SNR=5.9						
AKTK	**Aktyubinsk**	**55.25**	**316**	P	**P**	**21 09 49.7**	**-0.6**
AKTO	**Aktyubinsk**	**55.25**	**316**	P	**P**	**21 09 49.7**	**-0.6**
	comp=Z,1.5nm,0.9s,mb4.0,baz=79,slow=4.5,SNR=4.7						
STKA	**Stephens Creek**	**58.76**	**160**	P	**P**	**21 10 15.1**	**-0.2**
STKA	**Stephens Creek**	**58.76**	**160**	P	**P**	**21 10 15.1**	**-0.2**
	comp=Z,1.4nm,0.8s,mb4.0,baz=145,slow=23,SNR=3.3						
JOF	**Joensuu**	**69.08**	**331**	*e*p	**P**	**21 11 18.8**	**-4.1**
FINES	**FINESS Array B**	**71.83**	**330**	P	**P**	**21 11 39.4**	**-0.3**
	comp=Z,1.9nm,1.0s,mb4.0,baz=74,slow=7.4,SNR=3.3						
DAWY	**Dawson**	**72.38**	**27**	*e*P	**P**	**21 11 41.7**	**-1.2**
INK	**Inuvik**	**73.12**	**22**	*e*P	**P**	**21 11 45.3**	**-2.0**
NOA	**NORSAR Array B**	**78.59**	**332**	P	**P**	**21 12 18.2**	**-0.4**
	comp=Z,0.8nm,0.8s,mb3.7,baz=57,slow=5.4,SNR=3.7						
YKA	**Yellowknife Ar**	**82.86**	**23**	P	**P**	**21 12 39.7**	**-1.8**
YKA	**Yellowknife Ar**	**82.86**	**23**	P	**P**	**21 12 39.7**	**-1.8**
	comp=Z,1.1nm,0.6s,mb4.1,baz=313,slow=5.0,SNR=24						
KMBO	**Kilima Mbogo**	**85.47**	**267**	P	**P**	**21 12 56.3**	**+0.6**
	comp=Z,0.6nm,0.2s,mb4.3,baz=49,slow=18,SNR=4.0						

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*NIED **22** 21:01:00, 28.10N×130.30E, h32^{km}, Mw4.5 Best double couple: $M_0$5.57000×10^{15} NP1:ϕ_s286.00000°, δ30.00000°, λ-170.00000°. NP2:ϕ_s187.00000°, δ85.00000°, λ-60.00000°.*

*IDC **22** 21:01:35.3±0.8, 28.24N×130.04E, h0^{km}, mb3.9/12, mb1 4.0/15, mb1mx3.9/24, mbtmp3.8/15, ML3.8/3, MS3.5/4, Ms1 3.5/4, ms1mx3.2/33, Error ellipse: s-maj=25.4km s-min=15.5km az=96.0*

*JMA **22** 21:01:36.9±0.1, 28.10N×130.33E, h27^{km}±1^{km}, M3.9*

JMA Felt I J1.

*ISCJB **22** 21:01:37.3±1.1, 28.15N±0.04×130.30E±0.07, h31^{km}±6^{km}, mb3.9/15, MS4.2/2, Error ellipse: s-maj=10.9km s-min=5.8km az=26.5*

*BJI **22** 21:01:38.0, 28.20N×130.20E, h33^{km}, mB4.7, mb3.8, Ms4.6, Msz4.5*

*NEIC **22** 21:01:40.0±3.1, 28.20N×130.15E, h34^{km}±23^{km}, mb4.4/3, Error ellipse: s-maj=15.7km s-min=11.2km az=113.0*

NEIC Recorded [1 JMA] on Amami-oshima.

ISC 22 21:01:38.3±1.2**, 28.14N**±0.04×**130.26E**±0.07**, h24**^{km}±7^{km}**, n42, σ1^{s}02**/47**, mb3.9**/15**, MS4.2**/2**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JZK	**Kikaishima**	**0.30**	**305**	P	**Pb**	**21 01 45.2**	**-0.1**
JAM	**Amami Oshima**	**0.63**	**295**	P	**Pb**	**21 01 50.4**	**-0.3**
JAM				*e*S	**Sb**	**21 02 00.1**	**+0.9**
JTK	**Tokunoshima**	**1.21**	**253**	P	**Pn**	**21 01 59.3**	**-0.3**
JOW	**Kunigami**	**2.19**	**234**	Pn	**Pn**	**21 02 13.0**	**-0.1**
JOW				Sn	**Sn**	**21 02 40.2**	**+0.8**
JOW	**Kunigami**	**2.19**	**234**	P	**Pn**	**21 02 12.9**	**-0.2**
JOW	**Kunigami**	**2.19**	**234**	Pn	**Pn**	**21 02 13.0**	**-0.1**
	66nm,0.3s,baz=88,slow=12,SNR=45						
JOW				Sn	**Sn**	**21 02 40.2**	**+0.8**
	77nm,0.3s,baz=48,slow=18,SNR=5.9						
JIH	**Iheya**	**2.31**	**242**	P	**Pn**	**21 02 14.2**	**-0.6**
JMZ	**Minamidaito 2**	**2.47**	**159**	P	**Pn**	**21 02 15.4**	**-1.6**
JTN	**Tanegashima 3**	**2.58**	**14**	P	**Pn**	**21 02 18.9**	**+0.4**
JTN				*e*S	**Sn**	**21 02 49.5**	**+0.3**
JAGN	**Aguni-jima**	**3.09**	**241**	P	**Pn**	**21 02 25.2**	**-0.4**
JKE	**Kume jima 2**	**3.58**	**240**	P	**Pn**	**21 02 31.7**	**-0.5**
JNU	**Nakatsue**	**4.99**	**6**	Pn	**Pn**	**21 02 50.4**	**-1.3**
JNU				Sn	**Sn**	**21 03 47.6**	**-1.0**
JNU	**Nakatsue**	**4.99**	**6**	Pn	**Pn**	**21 02 50.4**	**-1.3**
	4.4nm,0.3s,baz=175,slow=16,SNR=28						
JNU				Sn	**Sn**	**21 03 47.6**	**-1.0**
	baz=223,slow=19,SNR=4.4						
KSRS	**Korea Array**	**9.49**	**349**	Pn	**Pn**	**21 03 47.4**	**-6.0**
	0.4nm,0.3s,baz=200,slow=12,SNR=9.1						
KSRS				LR	LR	21 07 56.5	
	comp=Z,212nm,18.1s,baz=165,slow=41						
JHJ	**Hachijo jima 2**	**9.59**	**57**	LR	LR	21 07 06.9	
	comp=Z,166nm,20.5s,baz=277,slow=34						
MJAR	**Matsushiro Arr**	**10.74**	**37**	Pn	**Pn**	**21 04 12.4**	**+1.9**
MJAR	**Matsushiro Arr**	**10.74**	**37**	Pn	**Pn**	**21 04 12.4**	**+1.9**
	0.3nm,0.3s,baz=235,slow=15,SNR=3.5						
BJT	**Baijiatuau**	**16.61**	**319**	*e*P	**Pn**	**21 05 31.6**	**+2.2**
	19nm,0.9s						
BJI	**Beijing**	**16.61**	**319**	P	**Pn**	**21 05 37.5**	**+8.0**
BJI				S	**Sn**	**21 08 27.4**	**-5.8**
GUMO	**Guam**	**19.87**	**134**	LR	LR	21 12 30.3	
	comp=Z,66nm,19.6s,baz=102,slow=33						
LZH	**Lanzhou**	**23.68**	**296**	*e*P	**P**	**21 06 49.5**	**+1.4**
LZH				AP		21 06 59.3	
LZH				XP	sP	21 07 03.4	+5.0
LZH				AMB	AMB		
	comp=Z,19nm,1.5s,mb4.3						
LZH				AMB	AMB		
	comp=Z,86nm,4.0s						
LZH				LR	LR		
	comp=N,437nm,9.6s						
LZH				LR	LR		
	comp=Z,529nm,11.8s,MS4.2						
LZH	**Lanzhou**	**23.68**	**296**	*e*P	**P**	**21 06 49.5**	**+1.4**
	comp=Z,19nm,1.5s,mb4.3						
LZH				pP		21 06 59.3	
LZH				sP	sP	21 07 03.4	+5.0
LZH				LR	LR		
	comp=Z,530nm,11.8s,MS4.2						
KMI	**Kunming**	**24.76**	**269**	P	**P**	**21 06 58.3**	**+0.2**
KMI				LR	LR		
	comp=N,368nm,8.5s						
KMI				LR	LR		
	comp=E,1μm,9.5s						
KMI				LR	LR		
	comp=Z,1μm,8.6s						
KMI	**Kunming**	**24.76**	**269**	P	**P**	**21 06 58.2**	**+0.1**
SONM	**Songino Array**	**27.02**	**323**	P	**P**	**21 07 15.9**	**-2.5**
	comp=Z,0.7nm,0.9s,mb3.2,baz=133,slow=9.5,SNR=1.6						
MKAR	**Makanchi Array**	**41.66**	**310**	P	**P**	**21 09 22.9**	**-1.7**
	comp=Z,0.3nm,0.5s,mb3.2,baz=94,slow=11,SNR=4.1						
ZALV	**Zalesovo Beam**	**41.87**	**321**	P	**P**	**21 09 25.2**	**-1.0**
	comp=Z,0.5nm,0.4s,mb3.5,baz=108,slow=9.7,SNR=3.7						
WRA	**Warramunga Arr**	**47.96**	**175**	P	**P**	**21 10 15.8**	**+0.7**
	comp=Z,1.4nm,0.6s,mb4.2,baz=354,slow=8.3,SNR=8.1						
ASAR	**Alice Springs**	**51.62**	**176**	P	**P**	**21 10 44.2**	**+1.4**
	comp=Z,1.0nm,0.8s,mb3.8,baz=6.8,slow=14,SNR=7.2						
KBL	**Kabul**	**51.99**	**293**	*e*P	**P**	**21 10 45.4**	**-0.2**
KEV	**Kevo**	**68.32**	**339**	*e*p	**P**	**21 12 41.4**	**+4.4**
	comp=Z,3.9nm,0.8s,mb4.5						
JOF	**Joensuu**	**69.25**	**331**	*e*p	**P**	**21 12 41.7**	**-1.1**
	comp=Z,2.9nm,0.7s,mb4.3						
KAF	**Kangasniemi**	**71.70**	**331**	*e*p	**P**	**21 12 57.5**	**-0.3**
FINES	**FINESS Array B**	**72.09**	**331**	P	**P**	**21 13 00.1**	**-0.1**
	comp=Z,1.1nm,0.5s,mb4.1,baz=68,slow=5.6,SNR=8.7						
AKASG	**Malin Array Be**	**75.25**	**320**	P	**P**	**21 13 19.3**	**+0.4**
	comp=Z,1.5nm,0.5s,mb4.2,baz=58,slow=6.3,SNR=5.1						
YKA	**Yellowknife Ar**	**76.03**	**26**	P	**P**	**21 13 24.5**	**+1.3**
	comp=Z,0.1nm,0.4s,mb3.1,baz=278,slow=21,SNR=2.8						
BRTR	**Keskin Array B**	**77.28**	**308**	P	**P**	**21 13 30.9**	**+0.2**
	comp=Z,0.5nm,0.6s,mb3.6,baz=35,slow=5.2,SNR=2.6						
HFS	**Hagfors**	**77.96**	**333**	P	**P**	**21 13 35.3**	**+1.2**
	comp=Z,1.1nm,0.5s,mb4.0,baz=80,slow=8.1,SNR=3.0						
NB2	**NORSAR Subarra**	**78.39**	**334**	P	**P**	**21 13 33.4**	**-3.1**
	comp=Z,2.1nm,0.7s,mb4.2,baz=52,slow=5.9						
NOA	**NORSAR Array B**	**78.39**	**334**	P	**P**	**21 13 36.2**	**-0.3**
NOA				LR	LR	21 50 21.8	
NOA	**NORSAR Array B**	**78.39**	**334**	P	**P**	**21 13 36.2**	**-0.3**
	comp=Z,1.7nm,0.7s,mb4.1,baz=52,slow=5.6,SNR=4.1						
NOA				LR	LR	21 50 21.8	
	comp=Z,115nm,21.9s,MS4.2,baz=220,slow=37						
GERES	**GERESS Array B**	**84.75**	**324**	P	**P**	**21 14 10.7**	**+0.3**
	comp=Z,0.3nm,0.6s,mb3.6,baz=46,slow=2.8,SNR=3.1						

IDC 22 21:07:20.6±16.0**, 24.09S×174.39W, h0**^{km}**, mb3.7**/3**, mb1 3.9**/4**, mb1mx3.8**/14**, mbtmp3.8**/4**, ML4.1**/1**, Error ellipse: s-maj=312.6km s-min=55.6km az=88.0, South of Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**15.87**	**205**	Pn	Pn	21 11 05.0	-0.4
	0.8nm,0.3s,baz=18,slow=9.8,SNR=6.9						
URZ				Sn	Sn	21 14 02.6	+0.6
	0.2nm,0.3s,baz=124,slow=17,SNR=2.4						
STKA	**Stephens Creek**	**39.42**	**249**	P	P	21 14 53.4	+1.0
	0.7nm,0.4s,baz=76,slow=12,SNR=3.5						
ASAR	**Alice Springs**	**47.05**	**259**	P	P	21 15 53.5	-0.8
	0.5nm,0.7s,baz=98,slow=9.0,SNR=5.1						
WRA	**Warramunga Arr**	**47.50**	**264**	P	P	21 15 57.7	-0.1
	0.2nm,0.2s,baz=105,slow=8.2,SNR=9.4						

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*MOS **22** 21:11:09.3±1.2, 36.30N×70.30E, h196^{km}, mb3.7/4, Error ellipse: s-maj=26.1km s-min=13.9km az=83.4*

*ISCJB **22** 21:11:11.4±0.6, 36.45N±0.04×70.34E±0.08, h210^{km}±8^{km}, mb3.3/6, Error ellipse: s-maj=11.0km s-min=5.4km az=155.5*

*NEIC **22** 21:11:12.2±0.7, 36.41N×70.49E, h211^{km}±8^{km}, mb4.6/5, Error ellipse: s-maj=16.9km s-min=8.8km az=127.0*

*IDC **22** 21:11:13.6±3.5, 36.35N×70.42E, h228^{km}±34^{km}, mb3.1/7, mb1 3.2/9, mb1mx3.0/23, mbtmp3.1/9, Error ellipse: s-maj=20.9km s-min=14.0km az=137.0*

ISC 22 21:11:12.5±0.6**, 36.44N**±0.04×**70.38E**±0.08**, h203**^{km}±7^{km}**, n47, σ1^{s}06**/56**, mb3.3**/6**, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**2.19**	**210**	*e*P	**Pn**	**21 11 54.5**	**+1.4**
THN	**Thein Dam**	**5.95**	**131**	*e*P	**Pn**	**21 12 39.4**	**+0.2**
THN				*e*x	x	21 13 47.6	
DLH	**Dalhousie**	**6.04**	**129**	*e*S	**Sn**	**21 13 48.0**	**-1.7**
AML	**Almayashu**	**6.24**	**23**	P	**Pn**	**21 12 42.6**	**-0.1**
	SNR=166						
AML	**Almayashu**	**6.24**	**23**	*e*P	**Pn**	**21 12 42.5**	**-0.2**
	123nm,0.4s						
UCH	**Uchtor**	**6.61**	**28**	P	**Pn**	**21 12 47.8**	**+0.3**
	SNR=78						
UCH	**Uchtor**	**6.61**	**28**	*e*P	**Pn**	**21 12 47.4**	**-0.1**
	78nm,0.8s						
EKS2	**Erkin-Say**	**6.75**	**22**	P	**Pn**	**21 12 49.4**	**+0.2**
	SNR=12						
EKS2	**Erkin-Say**	**6.75**	**22**	*e*P	**Pn**	**21 12 49.0**	**-0.2**
	8.6nm,0.5s						
AAK	**Ala-Archa**	**6.95**	**26**	P	**Pn**	**21 12 52.2**	**+0.3**
	SNR=23						
AAK	**Ala-Archa**	**6.95**	**26**	*e*P	**Pn**	**21 12 50.9**	**-1.1**
	14nm,0.6s						
AAK	**Ala-Archa**	**6.95**	**26**	*e*PN	**Pn**	**21 12 50.9**	**-1.1**
AAK				pmax	pmax		
	comp=Z,14nm,0.6s						
KBK	**Karagaybulak**	**7.14**	**28**	P	**Pn**	**21 12 54.6**	**+0.2**
	SNR=13						
CHMS	**Chumysh**	**7.37**	**26**	P	**Pn**	**21 12 56.9**	**-0.4**
	SNR=7.8						
SDNR	**Sundarnagar**	**7.37**	**130**	*e*P	**Pn**	**21 12 57.8**	**+0.3**
SDNR				*e*S	**Sn**	**21 14 16.0**	**-4.9**
ULHL	**Ulahol**	**7.37**	**36**	P	**Pn**	**21 12 57.8**	**+0.5**
	SNR=10.0						
USP	**Ospenovka**	**7.52**	**24**	P	**Pn**	**21 12 58.7**	**-0.6**
	SNR=16						
TKM2	**Tokmak 2**	**7.62**	**30**	P	**Pn**	**21 13 00.6**	**0.0**
	SNR=31						
TKM2	**Tokmak 2**	**7.62**	**30**	*e*P	**Pn**	**21 13 00.2**	**-0.4**
	comp=Z,18nm,0.4s						
TKM2	**Tokmak 2**	**7.62**	**30**	*e*PN	**Pn**	**21 13 00.2**	**-0.4**
TKM2				pmax	pmax		
	comp=Z,18nm,0.4s						
KHET	**Khetri**	**9.52**	**150**	*e*P	**Pn**	**21 13 24.2**	**-1.2**
KHET				AMb	AMB	21 13 27.7	
	comp=Z,7.4nm,0.3s						
KHET				*e*S	**Sn**	**21 15 03.3**	**-8.9**
JOSI	**Joshimath**	**9.65**	**125**	*e*P	**Pn**	**21 13 26.4**	**-0.8**
JOSI				AMb	AMB	21 13 29.0	
	comp=Z,38nm,0.6s						
JOSI				*e*S	**Sn**	**21 15 06.2**	**-9.0**
KUDL	**Kundal**	**9.75**	**146**	*e*P	**Pn**	**21 13 27.0**	**-1.4**
KUDL				AMb	AMB	21 13 32.5	
	comp=Z,4.8nm,0.4s						
KUDL				*e*S	**Sn**	**21 15 09.1**	**-8.5**
SONA	**Sohna**	**9.94**	**143**	*e*P	**Pn**	**21 13 34.1**	**+3.2**
	comp=Z,10nm,0.3s						
SONA				AMb	AMB	21 13 37.5	
	comp=Z,10nm,0.3s						
SONA				*e*S	**Sn**	**21 15 13.3**	**-8.8**
MKAR	**Makanchi Array**	**13.64**	**37**	P	**Pn**	**21 14 16.8**	**-0.8**
MKAR	**Makanchi Array**	**13.64**	**37**	P	**Pn**	**21 14 16.8**	**-0.8**
	comp=Z,0.1nm,0.3s,baz=210,slow=11,SNR=7.6						
GKN	**Gorkha**	**14.70**	**121**	*e*P	**Pn**	**21 14 31.7**	**+0.8**
	comp=Z,9.6nm,0.3s						
KKN	**Kakani**	**15.28**	**120**	*e*P	**Pn**	**21 14 39.5**	**+1.6**
JIRN	**Jiri**	**16.00**	**119**	*e*P	**Pn**	**21 14 48.2**	**+1.6**
	comp=Z,16nm,0.3s						
AKTK	**Aktyubinsk**	**16.59**	**331**	P	**P**	**21 14 52.9**	**+0.5**
AKTK				S	**S**	**21 17 49.9**	**-5.3**
AKTO	**Aktyubinsk**	**16.59**	**331**	P	**P**	**21 14 52.9**	**+0.5**
	comp=Z,0.4nm,0.3s,baz=135,slow=8.9,SNR=14						
AKTO				S	**S**	**21 17 49.9**	**-5.3**
	comp=Z,0.1nm,0.3s,baz=239,slow=16,SNR=2.3						
TAPN	**Taplejung**	**17.27**	**117**	*e*P	**P**	**21 15 02.1**	**+2.1**
	comp=Z,5.1nm,0.4s						
ODAN	**Odare**	**17.33**	**119**	*e*P	**P**	**21 15 03.3**	**+2.6**
	comp=Z,8.8nm,0.6s						
ZAL	**Zalesovo**	**20.16**	**25**	P	**P**	**21 15 31.6**	**+0.5**
ZAL				S	**S**	**21 19 06.0**	**+0.1**
ZALV	**Zalesovo Beam**	**20.18**	**25**	P	**P**	**21 15 31.6**	**+0.3**
	comp=Z,0.8nm,0.4s,baz=210,slow=11,SNR=7.7						
ZALV				S	**S**	**21 19 06.0**	**-0.2**
	comp=Z,0.4nm,0.4s,baz=230,slow=15,SNR=2.7						
BRTR	**Keskin Array B**	**28.97**	**288**	P	**P**	**21 16 53.4**	**+0.4**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BRTR	**Keskin Array B**	**28.97**	**288**	P	**P**	**21 16 53.4**	**+0.4**
	comp=Z,0.6nm,0.6s,mb3.4,baz=81,slow=11,SNR=3.3						
FINES	**FINESS Array B**	**37.25**	**326**	P	**P**	**21 18 04.5**	**+0.3**
FINES	**FINESS Array B**	**37.25**	**326**	P	**P**	**21 18 04.5**	**+0.3**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
FINES	**FINESS Array B**	**37.25**	**326**	P	**P**	**21 18 04.5**	**+0.3**
	comp=Z,1.6nm,0.8s,mb3.6,baz=132,slow=2.8,SNR=4.5						
ARCES	**ARCESS Array B**	**41.01**	**338**	P	**P**	**21 18 35.6**	**+0.4**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES	**ARCESS Array B**	**41.01**	**338**	P	**P**	**21 18 35.6**	**+0.4**
	comp=Z,1.7nm,0.7s,mb3.6,baz=111,slow=7.6,SNR=10						
NOA	**NORSAR Array B**	**44.13**	**323**	P	**P**	**21 18 58.9**	**-1.4**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	**NORSAR Array B**	**44.13**	**323**	P	**P**	**21 18 58.9**	**-1.5**
	comp=Z,0.5nm,0.7s,mb2.9,baz=103,slow=6.8,SNR=2.6						
TORD	**Torodi Ar. Bea**	**65.21**	**268**	P	**P**	**21 21 30.5**	**-1.9**
TORD	**Torodi Ar. Bea**	**65.21**	**268**	P	**P**	**21 21 30.5**	**-1.9**
	comp=Z,0.5nm,0.6s,mb3.3,baz=48,slow=5.5,SNR=10						
WRA	**Warramunga Arr**	**82.39**	**121**	P	**P**	**21 23 10.4**	**-1.5**
	comp=Z,0.3nm,0.8s,mb3.0,baz=318,slow=6.7,SNR=3.0						

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*ISCJB **22** 21:16:58.5±0.2, 36.99N±0.02×4.41W±0.02, h32^{km}, Error ellipse: s-maj=2.7km s-min=2.0km az=172.6*

*CSEM **22** 21:16:59.5±0.1, 36.87N×4.34W, h25^{km}, ML3.9/19, Error ellipse: s-maj=1.8km s-min=1.2km az=156.0*

*LDG **22** 21:16:59.8±0.1, 36.83N×4.37W, h20^{km}, Ml3.5/4, Error ellipse: s-maj=2.8km s-min=1.7km az=165.0*

*IGIL **22** 21:17:00.2, 36.84N×4.39W, h29^{km}, ML3.2*

*MDD **22** 21:17:00.5±0.1, 36.89N×4.37W, h32^{km}, mbLg3.3/29, Error ellipse: s-maj=2.2km s-min=1.3km az=147.0, PRXIMO*

MDD EMS: II INTENSIDAD MAXIMA.

*NEIC **22** 21:17:00.6, 36.88N×4.37W, h31^{km}, MN3.4(MDD), After MDD.*

NEIC Felt [II] at Malaga.

*INMG **22** 21:17:00.6±1.3, 36.92N×4.39W, h31^{km}±2^{km}, MD3.3, ML3.4, Error ellipse: s-maj=2.4km s-min=1.6km az=149.0*

*SFS **22** 21:17:00.0, 36.74N×4.39W, h29^{km}, ML3.2*

*CNRM **22** 21:17:05.4, 36.41N×4.16W, h6^{km}, MD3.7*

ISC 22 21:16:59.8±0.2**, 36.93N**±0.02×**4.39W**±0.02**, h36**^{km}±8^{km}**, n222, σ1^{s}15**/361**, 7C-8D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMAL	**Malaga-Limoner**	**0.17**	**191**	⇑Pg	**Pn**	**21 17 06.3**	**-0.1**
EMAL				Lg		21 17 10.8	
EMAL	**Malaga-Limoner**	**0.17**	**191**	⇑Pg	**Pn**	**21 17 06.3**	**-0.1**
	515nm,0.1s,SNR=18						
EMAL				Lg		21 17 10.2	
	3μm,0.1s,SNR=7.9						
EMAL	**Malaga-Limoner**	**0.17**	**191**	*i* P	**Pn**	**21 17 05.3**	**-1.1**
EMAL	**Malaga-Limoner**	**0.17**	**191**	Pg	**Pn**	**21 17 06.3**	**-0.1**
	515nm,0.1s,SNR=18						
EMAL				*i* S	**Sn**	**21 17 09.8**	**-1.1**
ELOJ	**Sierra Loja**	**0.29**	**41**	⇑Pg	**Pn**	**21 17 07.8**	**+0.1**
ELOJ				Lg		21 17 13.8	
ELOJ	**Sierra Loja**	**0.29**	**41**	⇑Pg	**Pn**	**21 17 07.8**	**+0.1**
	66nm,0.4s,SNR=18						
ELOJ				Lg		21 17 13.8	
	377nm,0.4s,SNR=7.9						
ELOJ	**Sierra Loja**	**0.29**	**41**	Pg	**Pn**	**21 17 07.8**	**+0.2**
	SNR=18						
ERON	**Agron**	**0.47**	**79**	⇓Pg	**Pn**	**21 17 09.7**	**-0.4**
ERON				Lg		21 17 17.7	
ERON	**Agron**	**0.47**	**79**	⇓Pg	**Pn**	**21 17 09.7**	**-0.4**
	123nm,0.2s,SNR=18						
ERON				Lg		21 17 17.7	
	225nm,0.2s,SNR=46						
ERON	**Agron**	**0.47**	**79**	Pg	**Pn**	**21 17 09.7**	**-0.4**
	123nm,0.2s,SNR=18						
EMIJ	**Mijas**	**0.48**	**220**	Pg	**Pn**	**21 17 08.8**	**-1.4**
EMIJ				Lg		21 17 15.8	
EMIJ	**Mijas**	**0.48**	**220**	Pg	**Pn**	**21 17 08.9**	**-1.2**
	108nm,0.3s,SNR=309						
EMIJ				Lg		21 17 16.5	
	774nm,0.3s,SNR=5.0						
EMIJ	**Mijas**	**0.48**	**220**	Pg	**Pn**	**21 17 08.8**	**-1.3**
	108nm,0.3s,SNR=309						
ELUQ	**Luque**	**0.64**	**9**	⇑Pg	**Pn**	**21 17 13.5**	**+1.2**
ELUQ				Lg		21 17 23.0	
ELUQ	**Luque**	**0.64**	**9**	⇑Pg	**Pn**	**21 17 13.5**	**+1.2**
	298nm,0.2s,SNR=18						
ELUQ				Lg		21 17 23.0	
	239nm,0.2s,SNR=7.8						
ELUQ	**Luque**	**0.64**	**9**	Pg	**Pn**	**21 17 13.5**	**+1.2**
	298nm,0.2s,SNR=18						
EGUA	**Guajares**	**0.67**	**98**	⇓Pg	**Pn**	**21 17 11.3**	**-1.4**
EGUA				Lg		21 17 21.2	
EGUA	**Guajares**	**0.67**	**98**	⇓Pg	**Pn**	**21 17 11.4**	**-1.3**
	48nm,0.1s,SNR=18						
EGUA				Lg		21 17 21.2	
	130nm,0.3s,SNR=7.9						
EGUA	**Guajares**	**0.67**	**98**	Pg	**Pn**	**21 17 11.3**	**-1.4**
	SNR=18						
ECOG	**Cogollos-Vega**	**0.74**	**62**	⇓Pg	**Pn**	**21 17 14.4**	**+0.7**
ECOG				Lg		21 17 26.2	
ECOG	**Cogollos-Vega**	**0.74**	**62**	⇓Pg	**Pn**	**21 17 14.4**	**+0.7**
	35nm,0.5s,SNR=18						
ECOG				Lg		21 17 25.2	
	321nm,0.3s,SNR=7.9						
ECOG	**Cogollos-Vega**	**0.74**	**62**	Pg	**Pn**	**21 17 14.4**	**+0.6**
	SNR=18						
REAL	**Reales**	**0.80**	**236**	Pg	**Pn**	**21 17 16.2**	**+1.8**
REAL	**Reales**	**0.80**	**236**	*e*P	**Pn**	**21 17 16.2**	**+1.7**
REAL				*i* S	**Sn**	**21 17 27.6**	**+2.5**
EQUE	**Quentar**	**0.81**	**70**	⇑Pg	**Pn**	**21 17 15.4**	**+0.7**
	79nm,0.4s,SNR=18						
EQUE				Lg		21 17 26.7	
	207nm,0.3s,SNR=7.9						
EQUE	**Quentar**	**0.81**	**70**	Pg	**Pn**	**21 17 15.4**	**+0.8**
	79nm,0.4s,SNR=18						
LIJA	**Lijar**	**0.81**	**269**	Pg	**Pn**	**21 17 16.8**	**+2.0**
LIJA	**Lijar**	**0.81**	**269**	*i* P	**Pn**	**21 17 16.8**	**+2.1**
EJIF	**Jimena Fronter**	**0.99**	**241**	Pg	**Pn**	**21 17 18.1**	**+0.9**
EJIF				Lg		21 17 31.9	
EJIF	**Jimena Fronter**	**0.99**	**241**	Pg	**Pn**	**21 17 18.1**	**+0.9**
	SNR=7.9						
EJIF				Lg		21 17 31.1	
	298nm,0.4s,SNR=7.9						
EJIF	**Jimena Fronter**	**0.99**	**241**	Pg	**Pn**	**21 17 18.1**	**+0.9**
	SNR=7.9						
ESPR	**Espera**	**1.18**	**267**	Pg	**Pn**	**21 17 21.0**	**+1.2**
ESPR				Lg		21 17 38.4	
ESPR	**Espera**	**1.18**	**267**	Pg	**Pn**	**21 17 21.0**	**+1.2**
	34nm,0.3s,SNR=70						
ESPR				Lg		21 17 37.3	
	669nm,0.3s,SNR=9.7						
ESPR	**Espera**	**1.18**	**267**	Pg	**Pn**	**21 17 21.0**	**+1.2**
	34nm,0.3s,SNR=70						
EBER	**Berja**	**1.20**	**91**	Pg	**Pn**	**21 17 20.4**	**+0.3**
EBER				Lg		21 17 37.1	
EBER	**Berja**	**1.20**	**91**	Pg	**Pn**	**21 17 20.4**	**+0.3**
	54nm,0.3s,SNR=7.9						
EBER				Lg		21 17 37.1	
	280nm,0.4s,SNR=7.9						
EBER	**Berja**	**1.20**	**91**	Pg	**Pn**	**21 17 20.4**	**+0.3**
	54nm,0.3s,SNR=7.9						
EADA	**Adamuz**	**1.24**	**353**	Pg	**Pn**	**21 17 22.5**	**+1.8**
EADA				Lg		21 17 40.6	
EADA	**Adamuz**	**1.24**	**353**	Pn	**Pn**	**21 17 21.2**	**+0.6**
	5.9nm,0.1s,SNR=7.9						
EADA				Pg	**Pn**	**21 17 22.5**	**+1.8**
	4.9nm,0.1s,SNR=7.9						
EADA				Lg		21 17 39.6	
	501nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**1.24**	**353**	Pg	**Pn**	**21 17 22.5**	**+1.8**
	SNR=7.9						
GIBL	**Gibalbin**	**1.27**	**266**	Pg	**Pn**	**21 17 22.0**	**+1.0**
GIBL	**Gibalbin**	**1.27**	**266**	*e*P	**Pn**	**21 17 22.0**	**+1.0**
EBAN	**Banos Encina**	**1.32**	**21**	Pn	**Pn**	**21 17 22.3**	**+0.6**
EBAN				Pg	**Pn**	**21 17 25.4**	**+3.6**
EBAN				Lg		21 17 42.0	
EBAN	**Banos Encina**	**1.32**	**21**	Pn	**Pn**	**21 17 22.3**	**+0.6**
	22nm,0.1s,SNR=7.9						
EBAN				Pg	**Pn**	**21 17 24.2**	**+2.5**
	38nm,0.1s,SNR=42						
EBAN				Sn	**Sn**	**21 17 39.5**	**+1.4**
	44nm,0.1s,SNR=7.9						
EBAN				Lg		21 17 41.6	
	388nm,0.3s,SNR=5.0						
EBAN	**Banos Encina**	**1.32**	**21**	Pn	**Pn**	**21 17 22.3**	**+0.6**
	22nm,0.1s,SNR=7.9						
EBAN	**Banos Encina**	**1.32**	**21**	Pg	**Pn**	**21 17 25.4**	**+3.7**
	38nm,0.1s,SNR=42						
MDAL	**Dalia**	**1.35**	**221**	*i* S	**Sn**	**21 17 43.0**	**+4.1**
EQES	**Quesada**	**1.36**	**50**	Pn	**Pn**	**21 17 23.5**	**+1.2**
EQES				Pg	**Pn**	**21 17 26.1**	**+3.8**
EQES				Lg		21 17 41.7	
EQES	**Quesada**	**1.36**	**50**	Pn	**Pn**	**21 17 23.2**	**+0.8**
	6.4nm,0.2s,SNR=7.9						
EQES				Sn	**Sn**	**21 17 39.7**	**+0.6**
	38nm,0.4s,SNR=7.9						
EQES				Lg		21 17 42.4	
	168nm,0.2s,SNR=9.5						
EQES	**Quesada**	**1.36**	**50**	Pn	**Pn**	**21 17 23.5**	**+1.2**
	SNR=7.9						
EQES	**Quesada**	**1.36**	**50**	Pg	**Pn**	**21 17 26.1**	**+3.8**
	46nm,0.5s,SNR=69						
EALB	**Alboran**	**1.47**	**132**	Pn	**Pn**	**21 17 21.2**	**-2.6**
EALB				Sn	**Sn**	**21 17 39.2**	**-2.6**
EALB	**Alboran**	**1.47**	**132**	Pn	**Pn**	**21 17 22.8**	**-1.0**
	16nm,0.1s,SNR=7.9						
EALB				Sn	**Sn**	**21 17 39.6**	**-2.2**
	137nm,0.2s,SNR=7.9						
EALB	**Alboran**	**1.47**	**132**	Pn	**Pn**	**21 17 21.2**	**-2.6**
	16nm,0.1s,SNR=7.9						
EALB				Sn	**Sn**	**21 17 39.2**	**-2.6**
	137nm,0.2s,SNR=7.9						
MPAL	**Palemas**	**1.74**	**168**	*i* P	**Pn**	**21 17 27.0**	**-0.5**
ENIJ	**Nijar**	**1.75**	**88**	Pn	**Pn**	**21 17 28.2**	**+0.6**
ENIJ				Pg	**Pn**	**21 17 33.2**	**+5.6**
ENIJ	**Nijar**	**1.75**	**88**	Pn	**Pn**	**21 17 28.2**	**+0.6**
	0.8nm,0.3s,SNR=7.9						
ENIJ				Pg	**Pn**	**21 17 30.0**	**+2.4**
	49nm,0.4s,SNR=7.9						

ENIJ				Sn	Sn	21 17 47.6	-1.0
	11nm,0.3s,SNR=7.9						
ENIJ				Lg		21 17 51.4	
	62nm,0.8s,SNR=7.9						
ENIJ	**Nijar**	1.75	88	Pn	Pn	21 17 28.2	+0.6
	SNR=7.9						
ENIJ	**Nijar**	1.75	88	Pg	Pn	21 17 33.2	+5.6
	49nm,0.4s,SNR=7.9						
EMIN	**Mina Concepcio**	2.00	295	⇓Pn	Pn	21 17 30.6	-0.4
EMIN				Pg	Pn	21 17 37.2	+6.1
EMIN				Sn	Sn	21 17 54.7	-0.3
EMIN				Lg		21 18 01.2	
EMIN	**Mina Concepcio**	2.00	295	⇓Pn	Pn	21 17 30.6	-0.4
	2.9nm,0.2s,SNR=18						
EMIN				Pg	Pn	21 17 34.7	+3.6
	21nm,0.2s,SNR=78						
EMIN				Sn	Sn	21 17 54.7	-0.3
	35nm,0.1s,SNR=7.9						
EMIN				Lg		21 17 59.9	
	160nm,0.2s,SNR=6.5						
EMIN	**Mina Concepcio**	2.00	295	Pn	Pn	21 17 30.6	-0.5
	SNR=18						
EMIN	**Mina Concepcio**	2.00	295	Pg	Pn	21 17 37.2	+6.1
	21nm,0.2s,SNR=78						
EMIN				Sn	Sn	21 17 54.7	-0.2
	35nm,0.1s,SNR=7.9						
TOU	**Touzarine**	2.03	165	*i* P	Pn	21 17 32.0	+0.5
EVIA	**Vianos**	2.27	41	Pn	Pn	21 17 35.1	+0.4
EVIA				Pg	Pn	21 17 40.5	+5.8
EVIA				Sn	Sn	21 18 00.7	-0.7
EVIA				Lg		21 18 08.5	
EVIA	**Vianos**	2.27	41	Pn	Pn	21 17 35.2	+0.4
	6.4nm,0.4s,SNR=9.9						
EVIA				Pg	Pn	21 17 38.5	+3.8
	16nm,0.2s,SNR=4.0						
EVIA				Sn	Sn	21 18 00.7	-0.7
	8.4nm,0.1s,SNR=7.9						
EVIA				Lg		21 18 06.5	
	30nm,0.2s,SNR=9.0						
EVIA	**Vianos**	2.27	41	Pn	Pn	21 17 35.2	+0.5
	6.4nm,0.4s,SNR=9.9						
EVIA	**Vianos**	2.27	41	Pg	Pn	21 17 40.5	+5.8
	16nm,0.2s,SNR=4.0						
EVIA				Sn	Sn	21 18 00.7	-0.7
	8.4nm,0.1s,SNR=7.9						
ZAI	**Zaio**	2.37	145	*i* P	Pn	21 17 35.0	-1.1
ZAI				*i* S	Sn	21 18 00.0	-3.9
PBAR	**Barrancos**	2.44	301	*e*Pn	Pn	21 17 36.9	-0.3
PBAR				A		21 18 30.7	
	105nm,0.3s						
PBAR	**Barrancos**	2.44	301	Pn	Pn	21 17 36.9	-0.3
PBAR	**Barrancos**	2.44	301	*e*Pn	Pn	21 17 36.9	-0.3
	105nm,0.3s						
EGRO	**El Granado**	2.54	285	Pn	Pn	21 17 37.9	-0.7
EGRO				Sn	Sn	21 18 07.9	-0.4
EGRO				Lg		21 18 20.3	
EGRO	**El Granado**	2.54	285	Pn	Pn	21 17 37.8	-0.7
	11nm,0.3s,SNR=115						
EGRO				Sn	Sn	21 18 07.9	-0.4
	56nm,0.3s,SNR=5.0						
EGRO				Lg		21 18 14.4	
	75nm,0.3s,SNR=7.9						
EGRO	**El Granado**	2.54	285	Pn	Pn	21 17 37.8	-0.7
	11nm,0.3s,SNR=115						
EGRO				Sn	Sn	21 18 07.9	-0.3
	56nm,0.3s,SNR=5.0						
PAB	**San Pablo**	2.61	1	*e*P	Pn	21 17 39.9	+0.4
PAB	**San Pablo**	2.61	1	*e*P	Pn	21 17 39.9	+0.4
EMUR	**La Murta**	2.67	69	Pn	Pn	21 17 41.4	+1.1
EMUR				Pg	Pn	21 17 44.3	+4.1
EMUR				Sn	Sn	21 18 10.4	-0.9
EMUR				Lg		21 18 21.7	
EMUR	**La Murta**	2.67	69	Pn	Pn	21 17 40.7	+0.4
	25nm,0.4s,SNR=10.0						
EMUR				Pg	Pn	21 17 44.3	+4.1
	24nm,0.4s,SNR=4.0						
EMUR				Sn	Sn	21 18 10.4	-0.9
	36nm,0.7s,SNR=4.0						
EMUR	**La Murta**	2.67	69	Pn	Pn	21 17 41.4	+1.2
	25nm,0.4s,SNR=10.0						
EMUR	**La Murta**	2.67	69	Pg	Pn	21 17 44.3	+4.1
	24nm,0.4s,SNR=4.0						
EMUR				Sn	Sn	21 18 10.4	-0.9
	SNR=4.0						
PVAQ	**Vaqueiros**	2.70	281	*e*Pn	Pn	21 17 39.9	-0.8
PVAQ				*e*Sn	Sn	21 18 11.7	-0.4
PVAQ				A		21 18 43.3	
	69nm,0.4s						
PVAQ	**Vaqueiros**	2.70	281	Pn	Pn	21 17 39.9	-0.8
PVAQ				Sn	Sn	21 18 11.7	-0.4
	35nm,0.4s						
PVAQ	**Vaqueiros**	2.70	281	*e*Pn	Pn	21 17 39.9	-0.8
PVAQ				*e*Sn	Sn	21 18 11.7	-0.4
	69nm,0.4s						
ESLA	**Sonseca Array**	2.76	7	*e*P	Pn	21 17 42.4	+0.9
ESLA	**Sonseca Array**	2.76	7	*e*P	Pn	21 17 42.4	+0.9
ESDC	**Sonseca Array**	2.76	7	Pn	Pn	21 17 42.8	+1.3
ESDC				Pg	Pn	21 17 50.3	+8.8
ESDC				Sn	Sn	21 18 14.3	+0.7
ESDC				Lg		21 18 24.6	
ESDC	**Sonseca Array**	2.76	7	Pn	Pn	21 17 42.8	+1.3
	16nm,0.3s,baz=185,slow=12,SNR=7.9						
ESDC				Pg	Pn	21 17 46.7	+5.2
	10.0nm,0.5s,baz=187,slow=12,SNR=7.9						
ESDC				Sn	Sn	21 18 13.9	+0.3
	15nm,0.9s,baz=191,slow=16,SNR=7.9						
ESDC				Lg		21 18 21.0	
	117nm,0.3s,baz=182,slow=15,SNR=7.9						
ESDC	**Sonseca Array**	2.76	7	Pn	Pn	21 17 42.8	+1.3
	SNR=7.9						
ESDC	**Sonseca Array**	2.76	7	Pg	Pn	21 17 50.3	+8.8
	SNR=7.9						
ESDC				Sn	Sn	21 18 14.3	+0.7
	SNR=7.9						
EBAD	**Badajoz**	2.76	312	Pn	Pn	21 17 41.5	0.0
EBAD				Sn	Sn	21 18 13.8	+0.1
EBAD				Lg		21 18 25.8	
EBAD	**Badajoz**	2.76	312	Pn	Pn	21 17 41.5	0.0
	8.9nm,0.3s,SNR=53						
EBAD				Pg	Pn	21 17 46.5	+4.9
	19nm,0.5s,SNR=7.9						
EBAD				Sn	Sn	21 18 13.8	+0.1
	109nm,0.4s,SNR=5.0						
EBAD				Lg		21 18 21.0	
	212nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	2.76	312	Pn	Pn	21 17 41.5	-0.1
	8.9nm,0.3s,SNR=53						
EBAD				Sn	Sn	21 18 13.8	+0.1
	109nm,0.4s,SNR=5.0						
ETOB	**Tobarra**	2.83	52	Pn	Pn	21 17 42.6	+0.2
ETOB				Pg	Pn	21 17 48.5	+6.0
ETOB				Sn	Sn	21 18 15.4	+0.1
ETOB				Lg		21 18 27.7	
ETOB	**Tobarra**	2.83	52	Pn	Pn	21 17 42.6	+0.2
	2.9nm,0.3s,SNR=28						
ETOB				Pg	Pn	21 17 47.0	+4.6
	12nm,0.5s,SNR=7.9						
ETOB				Sn	Sn	21 18 14.5	-0.7
	12nm,0.4s,SNR=13						
ETOB				Lg		21 18 22.1	
	40nm,0.3s,SNR=7.9						
ETOB	**Tobarra**	2.83	52	Pn	Pn	21 17 42.7	+0.3
	2.9nm,0.3s,SNR=28						
ETOB	**Tobarra**	2.83	52	Pg	Pn	21 17 48.5	+6.1
	SNR=7.9						
ETOB				Sn	Sn	21 18 15.4	+0.2
	12nm,0.4s,SNR=13						
PBDV	**Barranco-do-Ve**	2.85	277	*e*Pn	Pn	21 17 42.2	-0.5
PBDV				*e*Sn	Sn	21 18 14.8	-1.0
PBDV				A		21 18 39.9	
	60nm,0.5s						
PBDV	**Barranco-do-Ve**	2.85	277	Pn	Pn	21 17 42.2	-0.5
PBDV				Sn	Sn	21 18 14.8	-1.0
	30nm,0.5s						
PBDV	**Barranco-do-Ve**	2.85	277	*e*Pn	Pn	21 17 42.2	-0.5
PBDV				*e*Sn	Sn	21 18 14.8	-1.0
	60nm,0.5s						
PBEJ	**Beja**	2.98	293	*e*Pn	Pn	21 17 44.2	-0.3
PBEJ				*e*Sn	Sn	21 18 19.3	+0.4
PBEJ				A		21 18 42.1	
	45nm,0.3s						
PBEJ	**Beja**	2.98	293	Pn	Pn	21 17 44.2	-0.3
PBEJ				Sn	Sn	21 18 19.3	+0.4
	22nm,0.3s						
PBEJ	**Beja**	2.98	293	*e*Pn	Pn	21 17 44.2	-0.3
PBEJ				*e*Sn	Sn	21 18 19.3	+0.4
	45nm,0.3s						
EVO	**Evora**	3.29	300	*e*Pn	Pn	21 17 48.7	-0.1
EVO				*e*Sn	Sn	21 18 26.3	-0.3
EVO				A		21 18 55.1	
	88nm,0.4s						
EVO	**Evora**	3.29	300	Pn	Pn	21 17 48.7	-0.1
EVO				Sn	Sn	21 18 26.3	-0.3
	44nm,0.4s						
EVO	**Evora**	3.29	300	*e*Pn	Pn	21 17 48.7	-0.1
EVO				*e*Sn	Sn	21 18 26.3	-0.3
	88nm,0.4s						
MORF	**Marmelete**	3.43	278	*e*Pn	Pn	21 17 50.9	+0.2
MORF				*e*Sn	Sn	21 18 29.0	-1.1
MORF				A		21 18 58.1	
	33nm,0.3s						
MORF	**Marmelete**	3.43	278	Pn	Pn	21 17 50.9	+0.2
MORF				Sn	Sn	21 18 29.0	-1.1
	33nm,0.3s						
MORF	**Marmelete**	3.43	278	*e*Pn	Pn	21 17 50.9	+0.2
MORF				*e*Sn	Sn	21 18 29.0	-1.1
	33nm,0.3s						
PTEO	**Sao Teotonio**	3.51	281	*e*Pn	Pn	21 17 52.0	+0.1
PTEO				*e*Sn	Sn	21 18 31.1	-1.1
PTEO				A		21 19 05.0	
	60nm,0.1s						
PTEO	**Sao Teotonio**	3.51	281	Pn	Pn	21 17 52.0	+0.1
PTEO				Sn	Sn	21 18 31.1	-1.1
	30nm,0.1s						
PTEO	**Sao Teotonio**	3.51	281	*e*Pn	Pn	21 17 52.0	+0.1
PTEO				*e*Sn	Sn	21 18 31.1	-1.1
	60nm,0.1s						
MOE	**Montemor**	3.52	298	*e*Pn	Pn	21 17 51.0	-1.0
MOE				*e*Sn	Sn	21 18 31.2	-1.2
MOE	**Montemor**	3.52	298	Pn	Pn	21 17 51.0	-1.0
MOE				Sn	Sn	21 18 31.2	-1.2
MOE	**Montemor**	3.52	298	*e*Pn	Pn	21 17 51.0	-1.0
MOE				*e*Sn	Sn	21 18 31.2	-1.2
PFVI	**Vila Bisbo**	3.56	275	*e*Pn	Pn	21 17 51.7	-0.8
PFVI				*e*Sn	Sn	21 18 31.6	-1.7
PFVI				A		21 19 04.5	
	45nm,0.5s						
PFVI	**Vila Bisbo**	3.56	275	Pn	Pn	21 17 51.7	-0.8
PFVI				Sn	Sn	21 18 31.6	-1.7
	22nm,0.5s						
PFVI	**Vila Bisbo**	3.56	275	*e*Pn	Pn	21 17 51.7	-0.8
PFVI				*e*Sn	Sn	21 18 31.6	-1.7
	45nm,0.5s						
GUD	**Guadarrama**	3.71	3	Pn	Pn	21 17 55.9	+1.3
GUD				Sn	Sn	21 18 38.0	+1.0
GUD				Lg		21 18 57.4	
GUD	**Guadarrama**	3.71	3	Pn	Pn	21 17 55.9	+1.3
	3.6nm,0.4s,SNR=7.9						
GUD				Sn	Sn	21 18 36.3	-0.7
	2.6nm,0.2s,SNR=7.9						
GUD				Lg		21 18 46.3	
	60nm,0.4s,SNR=7.9						
GUD	**Guadarrama**	3.71	3	Pn	Pn	21 17 55.9	+1.3
	SNR=7.9						
GUD				Sn	Sn	21 18 38.0	+1.0
	SNR=7.9						
EBEN	**Beniarda**	3.74	61	Pn	Pn	21 17 54.6	-0.4
EBEN				Sn	Sn	21 18 36.7	-1.1
EBEN	**Beniarda**	3.74	61	Pn	Pn	21 17 54.9	-0.1
	6.0nm,0.5s,SNR=6.8						
EBEN				Pg	Pn	21 18 02.5	+7.5
	10nm,1.3s,SNR=7.9						
EBEN				Sn	Sn	21 18 35.9	-1.9
	41nm,1.0s,SNR=5.0						
EBEN				Lg		21 18 46.5	
	12nm,1.0s,SNR=7.9						
EBEN	**Beniarda**	3.74	61	Pn	Pn	21 17 54.7	-0.3
EBEN				Sn	Sn	21 18 36.7	-1.1
	41nm,1.0s,SNR=5.0						
ECHE	**Chera**	3.78	44	Pn	Pn	21 17 55.7	+0.2
ECHE				Sn	Sn	21 18 38.7	-0.1
ECHE				Lg		21 18 57.0	
ECHE	**Chera**	3.78	44	Pn	Pn	21 17 55.7	+0.2
	4.6nm,0.4s,SNR=7.9						
ECHE				Pg	Pn	21 18 03.4	+7.8
	0.8nm,0.3s,SNR=7.9						
ECHE				Sn	Sn	21 18 37.6	-1.2
	6.0nm,0.4s,SNR=7.9						
ECHE				Lg		21 18 47.6	
	9.6nm,0.3s,SNR=7.9						
ECHE	**Chera**	3.78	44	Pn	Pn	21 17 55.7	+0.2
	SNR=7.9						
ECHE				Sn	Sn	21 18 38.7	-0.1
	SNR=7.9						
PCBR	**Castelo Branco**	3.79	321	*e*Pn	Pn	21 17 56.6	+1.0
PCBR				*e*Sn	Sn	21 18 38.4	-0.5
PCBR				A		21 19 09.9	
	60nm,0.4s						
PCBR	**Castelo Branco**	3.79	321	Pn	Pn	21 17 56.6	+1.0
PCBR				Sn	Sn	21 18 38.4	-0.5
	30nm,0.4s						
PCBR	**Castelo Branco**	3.79	321	*e*Pn	Pn	21 17 56.6	+1.0
PCBR				*e*Sn	Sn	21 18 38.4	-0.5
	60nm,0.4s						
CZD	**Col de Zad**	3.93	188	Pn	Pn	21 17 59.0	+1.4
CZD				Sn	Sn	21 18 39.0	-3.4
CZD	**Col de Zad**	3.93	188	*e*P	Pn	21 17 59.0	+1.4
ALMR	**Almeirim**	3.98	305	*e*P	Pn	21 17 58.9	+0.5
ALMR				AML	AML	21 17 59.9	
	comp=Z,53nm,0.6s						
ALMR				*e*S	Sn	21 18 41.0	-2.8
ALMR				*e*S	Sn	21 18 41.1	-2.7
ALMR	**Almeirim**	3.98	305	*e*P	Pn	21 17 58.9	+0.6
ALMR				A		21 17 59.9	
	comp=Z,53nm,0.6s						
ALMR				*e*S	Sn	21 18 41.1	-2.7
ALMR	**Almeirim**	3.98	305	*e*P	Pn	21 17 58.9	+0.6
	comp=Z,53nm,0.6s						
PTOM	**Tomar**	4.15	312	*e*Pn	Pn	21 18 01.3	+0.7
PTOM				*e*Sn	Sn	21 18 47.5	-0.3
PTOM				A		21 19 21.1	
	comp=Z,109nm,0.5s						
PTOM	**Tomar**	4.15	312	Pn	Pn	21 18 01.3	+0.7
PTOM				Sn	Sn	21 18 47.5	-0.3
	comp=Z,55nm,0.5s						
PTOM	**Tomar**	4.15	312	*e*Pn	Pn	21 18 01.3	+0.7
PTOM				*e*Sn	Sn	21 18 47.5	-0.3
	comp=Z,109nm,0.5s						
MTE	**Manteigas**	4.25	325	*e*Pn	Pn	21 18 04.7	+2.7
MTE				A		21 19 20.7	
	comp=Z,176nm,0.3s						
MTE	**Manteigas**	4.25	325	Pn	Pn	21 18 04.7	+2.7
ETOR	**Torete**	4.29	24	Pn	Pn	21 18 03.2	+0.7
ETOR				Sn	Sn	21 18 50.5	-0.7
ETOR				Lg		21 19 14.4	
ETOR	**Torete**	4.29	24	Pn	Pn	21 18 03.2	+0.7
	comp=Z,13nm,0.3s,SNR=29						
ETOR				Pg	Pn	21 18 12.9	+10
	comp=Z,10nm,0.5s,SNR=7.9						
ETOR				Sn	Sn	21 18 49.9	-1.4
	comp=Z,147nm,0.4s,SNR=5.0						
ETOR				Lg		21 19 01.7	
	comp=Z,117nm,0.4s,SNR=7.9						
ETOR	**Torete**	4.29	24	Pn	Pn	21 18 03.2	+0.7
	comp=Z,13nm,0.3s,SNR=29						
ETOR	**Torete**	4.29	24	Pn	Pn	21 18 03.2	+0.7
ETOR				Sn	Sn	21 18 50.5	-0.8
	comp=Z,147nm,0.4s,SNR=5.0						
ETOR				Sn	Sn	21 18 50.5	-0.8
PMAFR	**Mafra**	4.37	299	*e*Pn	Pn	21 18 03.5	-0.1
PMAFR				*e*Sn	Sn	21 18 52.4	-0.8
PMAFR				A		21 19 31.3	
	comp=Z,58nm,0.5s						
PMAFR	**Mafra**	4.37	299	Pn	Pn	21 18 03.5	-0.1
PMAFR				Sn	Sn	21 18 52.4	-0.8
	comp=Z,29nm,0.5s						
KIB	**El Ksiba**	4.55	198	*e*P	Pn	21 18 07.0	+0.8
EMOS	**Mosqueruela**	4.60	41	Pn	Pn	21 18 06.9	+0.1
EMOS				Sn	Sn	21 18 56.6	-2.3
EMOS				Lg		21 19 23.5	
EMOS	**Mosqueruela**	4.60	41	Pn	Pn	21 18 06.9	+0.1
	comp=Z,2.1nm,0.9s,SNR=7.9						
EMOS				Pg	Pn	21 18 17.8	+11
	comp=Z,71nm,1.3s,SNR=7.9						
EMOS				Sn	Sn	21 18 56.6	-2.3
	comp=Z,52nm,1.1s,SNR=7.9						
EMOS	**Mosqueruela**	4.60	41	Pn	Pn	21 18 06.9	+0.1
	SNR=7.9						
EMOS				Sn	Sn	21 18 56.6	-2.3
	SNR=7.9						
PVIS	**Viseu**	4.67	325	*e*Pn	Pn	21 18 08.5	+0.8
PVIS				*e*Sn	Sn	21 19 00.1	-0.5
PVIS				A		21 19 35.1	
	comp=Z,62nm,0.6s						
PVIS	**Viseu**	4.67	325	Pn	Pn	21 18 08.5	+0.8
PVIS				Sn	Sn	21 19 00.1	-0.5
	comp=Z,31nm,0.6s						
MVO	**Moncorvo**	4.70	335	*e*Pn	Pn	21 18 09.4	+1.2
MVO				A		21 19 37.5	
	comp=Z,90nm,0.7s						
MVO	**Moncorvo**	4.70	335	Pn	Pn	21 18 09.4	+1.2
ZFT	**Errachidia**	4.88	180	*e*P	Pn	21 18 10.0	-0.7
PVRL	**Vila Real**	5.05	330	*e*Pn	Pn	21 18 14.0	+1.0
PVRL				*e*Sn	Sn	21 19 09.1	-1.0
PVRL				A		21 19 50.0	
	comp=Z,45nm,0.7s						
PVRL	**Vila Real**	5.05	330	Pn	Pn	21 18 14.0	+1.0
PVRL				Sn	Sn	21 19 09.1	-1.0
	comp=Z,22nm,0.7s						
PBRG	**Braganca**	5.20	340	*e*Pn	Pn	21 18 16.0	+1.0
PBRG				A		21 19 54.3	
	comp=Z,41nm,0.8s						
PBRG	**Braganca**	5.20	340	Pn	Pn	21 18 16.0	+1.0
ECAL	**Calabor**	5.32	341	Pn	Pn	21 18 17.5	+0.8
ECAL				Sn	Sn	21 19 15.6	-1.2
ECAL				Lg		21 19 47.4	
ECAL	**Calabor**	5.32	341	Pn	Pn	21 18 17.5	+0.8
	comp=Z,3.5nm,0.9s,SNR=7.9						
ECAL				Sn	Sn	21 19 14.0	-2.8
	comp=Z,8.0nm,1.1s,SNR=7.9						
ECAL				Lg		21 19 30.0	
	comp=Z,61nm,0.3s,SNR=7.9						
ECAL	**Calabor**	5.32	341	Pn	Pn	21 18 17.5	+0.8
	SNR=7.9						
ECAL				Sn	Sn	21 19 15.6	-1.2
	SNR=7.9						
ERTA	**Horta de San J**	5.45	41	Pn	Pn	21 18 19.9	+1.5
ERTA				Sn	Sn	21 19 19.3	-0.6
ERTA				Lg		21 19 50.6	
ERTA	**Horta de San J**	5.45	41	Pn	Pn	21 18 19.4	+1.0
	comp=Z,0.5nm,0.8s,SNR=7.9						
ERTA				Pg	Pn	21 18 31.3	+13
	comp=Z,2.1nm,0.5s,SNR=7.9						
ERTA				Sn	Sn	21 19 16.8	-3.1
	comp=Z,25nm,0.9s,SNR=7.9						
ERTA				Lg		21 19 33.2	
	comp=Z,9.3nm,0.4s,SNR=7.9						
ERTA	**Horta de San J**	5.45	41	Pn	Pn	21 18 19.9	+1.4
	SNR=7.9						
ERTA				Sn	Sn	21 19 19.3	-0.6
	SNR=7.9						
PCAB	**Cabril**	5.54	331	*e*Pn	Pn	21 18 20.9	+1.2
PCAB				A		21 20 01.6	
	comp=Z,75nm,0.5s						
PCAB	**Cabril**	5.54	331	Pn	Pn	21 18 20.9	+1.2
ESAC	**San Caprasio**	5.67	31	Pn	Pn	21 18 22.4	+0.9
ESAC				Sn	Sn	21 19 23.2	-2.0
ESAC				Lg		21 19 58.0	
ESAC	**San Caprasio**	5.67	31	Pn	Pn	21 18 22.4	+0.9
	comp=Z,19nm,1.0s,SNR=7.9						
ESAC				Pg	Pn	21 18 35.4	+14
	comp=Z,51nm,1.8s,SNR=7.9						
ESAC				Sn	Sn	21 19 21.9	-3.3
	comp=Z,38nm,0.4s,SNR=7.9						
ESAC				Lg		21 19 38.5	
	comp=Z,50nm,0.4s,SNR=7.9						
ESAC	**San Caprasio**	5.67	31	Pn	Pn	21 18 22.4	+1.0
ESAC				Sn	Sn	21 19 23.2	-2.0
	comp=Z,38nm,0.4s,SNR=7.9						
ELOB	**Lobios**	5.69	331	Pn	Pn	21 18 22.6	+0.8
ELOB				Sn	Sn	21 19 23.7	-2.1
ELOB				Lg		21 19 57.5	
ELOB	**Lobios**	5.69	331	Pn	Pn	21 18 22.6	+0.8
	comp=Z,44nm,1.1s,SNR=7.9						
ELOB				Pg	Pn	21 18 35.9	+14
	comp=Z,17nm,0.6s,SNR=7.9						
ELOB				Sn	Sn	21 19 23.7	-2.1
	comp=Z,110nm,1.7s,SNR=7.9						
ELOB				Lg		21 19 39.7	
	comp=Z,27nm,0.4s,SNR=7.9						
ELOB	**Lobios**	5.69	331	Pn	Pn	21 18 22.6	+0.8
ELOB				Sn	Sn	21 19 23.7	-2.1
ERUA	**La Rua**	5.85	340	Pn	Pn	21 18 24.8	+0.8
ERUA				Sn	Sn	21 19 28.5	-1.3
ERUA	**La Rua**	5.85	340	Pn	Pn	21 18 24.8	+0.8
	comp=Z,6.4nm,1.0s,SNR=7.9						
ERUA				Sn	Sn	21 19 27.6	-2.2
	comp=Z,0.7nm,0.6s,SNR=7.9						
ERUA	**La Rua**	5.85	340	Pn	Pn	21 18 24.8	+0.8
ERUA				Sn	Sn	21 19 28.5	-1.3
EPOB	**Poblet**	6.13	42	Pn	Pn	21 18 28.2	+0.4
EPOB				Sn	Sn	21 19 34.1	-2.5
EPOB	**Poblet**	6.13	42	Pn	Pn	21 18 28.2	+0.4
	comp=Z,43nm,0.9s,SNR=7.9						
EPOB				Sn	Sn	21 19 33.3	-3.3
	comp=Z,13nm,1.6s,SNR=7.9						
EPOB	**Poblet**	6.13	42	Pn	Pn	21 18 28.2	+0.4
EPOB				Sn	Sn	21 19 34.1	-2.5
ELAN	**Lanestosa**	6.34	6	Pn	Pn	21 18 31.5	+0.8
ELAN				Lg		21 20 17.3	
ELAN	**Lanestosa**	6.34	6	Pn	Pn	21 18 31.5	+0.8
	comp=Z,0.8nm,0.1s,SNR=4.0						
ELAN				Sn	Sn	21 19 38.6	-3.1
	comp=Z,82nm,1.5s,SNR=7.9						
ELAN	**Lanestosa**	6.34	6	Pn	Pn	21 18 31.5	+0.9
IUSE	**Utxeti**	6.39	19	Pn	Pn	21 18 33.0	+1.6
	comp=Z,3.4nm,0.5s,SNR=7.9						
IUSE				Sn	Sn	21 19 40.2	-2.9
	comp=Z,1.8nm,0.5s,SNR=7.9						
EARI	**Arriondas**	6.39	355	Pn	Pn	21 18 32.5	+1.0
EARI				Sn	Sn	21 19 40.0	-3.1
EARI				Lg		21 20 22.1	
EARI	**Arriondas**	6.39	355	Pn	Pn	21 18 32.5	+1.0
	comp=Z,1.6nm,0.6s,SNR=7.9						
EARI				Sn	Sn	21 19 40.0	-3.1
	comp=Z,57nm,1.3s,SNR=7.9						
EARI	**Arriondas**	6.39	355	Pn	Pn	21 18 32.5	+1.1
EARI				Sn	Sn	21 19 40.0	-3.1
ELIZ	**Elizondo**	6.60	19	Pn	Pn	21 18 34.9	+0.7
ELIZ				Lg		21 20 29.7	
ELIZ	**Elizondo**	6.60	19	Pn	Pn	21 18 34.9	+0.7
	comp=Z,18nm,1.2s,SNR=7.9						
ELIZ	**Elizondo**	6.60	19	Pn	Pn	21 18 34.9	+0.7
SJPF	**Ste Jean**	6.63	20	*e*Pn	Pn	21 18 35.7	+1.0
SJPF				*e*Sg	Sn	21 20 29.5	+40
	comp=Z,14nm,0.5s						
SJPF	**Ste Jean**	6.63	20	*e*Pn	Pn	21 18 35.7	+1.0
SJPF				*e*Sg	Sn	21 20 29.5	+40
SJPF	**Ste Jean**	6.63	20	Pn	Pn	21 18 35.7	+1.0
SJPF	**Ste Jean**	6.63	20	*e*Pn	Pn	21 18 35.7	+1.0
ETSF	**Etsaut**	6.65	25	*e*Pn	Pn	21 18 35.4	+0.5
ETSF				*e*Sg	Sn	21 20 30.1	+41
	comp=Z,8.5nm,0.4s						
ETSF	**Etsaut**	6.65	25	*e*Pn	Pn	21 18 35.4	+0.5
ETSF				*e*Sg	Sn	21 20 30.1	+41
ETSF	**Etsaut**	6.65	25	Pn	Pn	21 18 35.4	+0.5
ETSF	**Etsaut**	6.65	25	*e*Pn	Pn	21 18 35.4	+0.5
EBIE	**Bielsa**	6.72	30	Pn	Pn	21 18 37.9	+2.0
EBIE				Sn	Sn	21 19 49.4	-1.8
EBIE	**Bielsa**	6.72	30	Pn	Pn	21 18 37.2	+1.3
	comp=Z,1.3nm,0.4s,SNR=6.4						
EBIE				Sn	Sn	21 19 48.3	-2.9
	comp=Z,14nm,1.9s,SNR=7.9						
EBIE	**Bielsa**	6.72	30	Pn	Pn	21 18 37.9	+2.0
EBIE				Sn	Sn	21 19 49.4	-1.8
EPON	**Pontenova**	6.73	343	Pn	Pn	21 18 37.4	+1.4
EPON				Lg		21 20 32.2	
EPON	**Pontenova**	6.73	343	Pn	Pn	21 18 37.4	+1.4
	comp=Z,82nm,1.6s,SNR=7.9						
EPON				Sn	Sn	21 19 48.4	-2.9
	comp=Z,136nm,1.9s,SNR=7.9						
EPON	**Pontenova**	6.73	343	Pn	Pn	21 18 37.4	+1.4
EMIR	**Miracle**	6.76	41	Pn	Pn	21 18 36.9	+0.5
EMIR				Lg		21 20 32.9	
EMIR	**Miracle**	6.76	41	Pn	Pn	21 18 36.9	+0.5
	comp=Z,4.4nm,0.4s,SNR=7.9						
EMIR	**Miracle**	6.76	41	Pn	Pn	21 18 36.9	+0.4
EPF	**Esparros**	7.09	29	*e*Pn	Pn	21 18 41.7	+0.7
EPF				*e*Sn	Sn	21 19 56.7	-3.6
EPF				*e*Sg	Sn	21 20 43.9	+44
	comp=Z,11nm,0.5s						
EPF	**Esparros**	7.09	29	*e*Pn	Pn	21 18 41.7	+0.7
EPF				*e*Sn	Sn	21 19 56.7	-3.6
EPF				*e*Sg	Sn	21 20 43.9	+44
EPF	**Esparros**	7.09	29	Pn	Pn	21 18 41.7	+0.7

EPF				Sn	Sn	21 19 56.7	-3.6
EPF	Esparros	7.09	29	ePn	Pn	21 18 41.7	+0.7
EPF				eSn	Sn	21 19 56.7	-3.6
MTLF	Montolieu	8.16	36	eSg	Sx	21 21 16.1	
	comp=Z,2.0nm,0.4s						
MTLF	Montolieu	8.16	36	eSg	Sx	21 21 16.1	
	comp=Z,1.0nm,0.4s						
LFF	La Frestale	8.89	24	ePn	Pn	21 19 05.9	+0.3
LFF	La Frestale	8.89	24	ePn	Pn	21 19 05.9	+0.3
LFF	La Frestale	8.89	24	Pn	Pn	21 19 05.9	+0.3
LFF	La Frestale	8.89	24	ePn	Pn	21 19 05.9	+0.3
MFF	Saint Martin d	10.17	17	ePn	Pn	21 19 23.0	-0.1
MFF	Saint Martin d	10.17	17	Pn	Pn	21 19 23.0	-0.1
MFF	Saint Martin d	10.17	17	ePn	Pn	21 19 23.0	-0.1
QUIF	Quistinic	11.02	4	ePn	Pn	21 19 34.5	-0.2
QUIF	Quistinic	11.02	4	Pn	Pn	21 19 34.5	-0.2
QUIF	Quistinic	11.02	4	ePn	Pn	21 19 34.5	-0.2

CASC 22 21:17:13.0±5.1, 12.32N×87.09W, h45^{km}±30^{km}, MD3.6, ML3.4, 2C-4D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TEL3	Telica 3	0.35	43	⇓eP	Pn	21 17 21.3	-0.9
TELN	Telica	0.38	41	eP	Pn	21 17 21.6	-1.0
COPN	Copaltepe	0.51	106	eP	Pn	21 17 23.0	-1.1
COPN				eS	Sn	21 17 33.9	+2.0
MOMJ	Momotombo	0.55	80	⇓eP	Pn	21 17 23.6	-0.9
MOMJ				eS	Sn	21 17 36.2	+3.4
XAVN	Gruta Xavier	0.77	103	eP	Pn	21 17 26.6	-0.9
XAVN				eS	Sn	21 17 38.9	+1.0
TISN	Laguna Tiscapa	0.82	102	⇓eP	Pn	21 17 27.2	-1.0
TISN				eS	Sn	21 17 40.7	+1.4
MGAN	Managua	0.84	102	⇑eP	Pn	21 17 27.3	-1.2
MGAN				eS	Sn	21 17 41.2	+1.5
	comp=E,1μm,0.4s						
TICN	Ticuantepe	0.89	108	⇑eP	Pn	21 17 28.1	-0.9
TICN				eS	Sn	21 17 42.0	+1.2
HUEN		0.90	89	⇓eP	Pn	21 17 28.1	-1.2
CNCH	Conchagua	1.20	323	eP	x	21 17 41.7	
CNCH				eS	x	21 17 57.1	
BLLM	Bellamira	1.58	315	eP	x	21 17 46.4	
BLLM				eS	x	21 18 05.4	
VSM	San Miguel	1.60	314	eP	x	21 17 47.4	
VSM				eS	x	21 18 06.9	
CONN	Concepcion	1.62	117	eP	Pn	21 17 37.0	-2.1
SNVI	San Vicente	2.14	307	eP	x	21 17 54.5	
SNVI				eS	x	21 18 18.5	
LCBS	La Ceiba	2.27	306	eP	x	21 17 55.1	
LCBS				eS	x	21 18 20.4	
LFRS	El Faro	2.32	304	eP	x	21 17 55.8	
LFRS				eS	x	21 18 20.9	
LBRS	Las Brisas	2.37	307	eP	x	21 17 56.4	
LBRS				eS	x	21 18 24.4	
LFU	La Fuente	2.43	306	eP	x	21 17 57.4	
LFU				eS	x	21 18 23.8	
SBLS	San Blas	2.90	302	eS	x	21 18 36.3	
SNJE	San Jose	2.90	302	eP	x	21 18 04.8	
SNJE				eS	x	21 18 36.2	
PRS1	Puriscal	3.58	130	eP	Pn	21 18 09.8	+3.8
LAJ	Bijagual	3.80	130	eP	Pn	21 18 07.8	-1.3
LCR2	La Lucha 2	3.97	130	eP	Pn	21 18 10.8	-0.5

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*TIF **22** 21:27:32.2, 44.19N×42.02E, h11^{km}±2^{km}*

*ISCJB **22** 21:27:34.1±1.1, 44.3N±0.1×42.02E±0.06, h10^{km}, Error ellipse: s-maj=14.9km s-min=6.0km az=12.3*

*MOS **22** 21:27:34.7±1.7, 44.19N×42.07E, h15^{km}, mb4.3/1, Error ellipse: s-maj=18.7km s-min=8.0km az=39.5*

MOS Felt (III-IV) at Cherkessk.

ISC 22 21:27:35.4±1.1, 44.26N±0.09×42.10E±0.06, h10^{km}, n16, σ1^{s}55/27, 2C-5D, Western Caucasus

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIV	Kislovodsk	0.52	126	cePG	Pg	21 27 42.7	-2.8
KIV				e		21 27 50.5	
KIV				pmax	pmax		
	comp=Z,19nm,0.9s						
KIV				smax			
	comp=N,126nm,0.8s						
SHAR	Shatzhatmas	0.66	142	i PG	Pg	21 27 45.0	-3.1
SHAR				i S	Sg	21 27 54.0	-2.8
SHAR				pmax	pmax		
	comp=Z,31nm,0.2s						
SHAR				smax			
	comp=N,294nm,0.6s						
SHAR				smax			
	comp=E,797nm,0.7s						
PYA	Pyatigorsk	0.73	108	⇓ePG	Pg	21 27 47.5	-1.9
PYA				i S	Sg	21 27 57.5	-1.3
KUBR	Kubataba	1.05	116	⇑iPG	Pg	21 27 53.5	-2.0
KUBR				eS	Sg	21 28 08.5	-0.7
LSNR	Lesken	1.59	128	⇓iPG	Pg	21 28 03.6	-2.2
LSNR				i S	Sn	21 28 25.7	+1.7
PRTR	Priterechnaya	1.65	107	⇓iPN	Pn	21 28 06.0	+1.6
PRTR				i S	Sn	21 28 29.8	+4.1
DIGR	Digorskoe uzhe	1.73	141	⇓iPN	Pn	21 28 04.4	-1.1
DIGR				i S	Sn	21 28 27.0	-0.7
KMSR	Komsomolskaya	1.82	119	ePN	Pn	21 28 07.4	+0.7
KMSR				eS	Sn	21 28 32.4	+2.6
KORR	Kora	1.85	129	ePN	Pn	21 28 07.8	+0.7
KORR				eS	Sn	21 28 33.0	+2.5
SOC	Sochi	1.85	249	ePN	Pn	21 28 05.7	-1.4
SOC				e		21 28 29.2	
SOC				pmax	pmax		
	comp=Z,24nm,0.4s						
SOC				smax			
	comp=N,18nm,0.2s						
ARNR	Ardon	1.91	123	⇓iPN	Pn	21 28 08.3	+0.4
ARNR				eS	Sn	21 28 33.8	+1.8
ONI	Oni	1.95	149	P	Pn	21 28 08.5	+0.1
ONI				S	Sn	21 28 33.3	+0.4
ZEI	Tsey	1.98	138	ePN	Pn	21 28 08.5	-0.4
ZEI				pmax	pmax		
	comp=Z,10.0nm,0.1s						
LACR	Lac	2.15	131	i PN	Pn	21 28 11.9	+0.7
LACR				i S	Sn	21 28 40.2	+2.4
DGRG	David-gareji	3.70	138	S	Pb	21 28 42.1	+1.4
BRTR	Keskin Array B	7.76	237	i P	Pn	21 29 29.3	+1.0
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.3s						

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*IDC **22** 21:29:15.9±1.0, 24.03N×121.83E, h0^{km}, mb3.6/6, mb1 3.7/7, mb1mx3.6/21, mbtmp3.7/7, ML3.5/1, Error ellipse: s-maj=30.7km s-min=19.5km az=63.0*

*BJI **22** 21:29:16.0, 24.11N×121.82E, h7^{km}, mb4.4, ML4.1, Ms3.7, Msz4.0*

*ISCJB **22** 21:29:18.1±1.0, 23.99N±0.06×121.72E±0.03, h24^{km}±6^{km}, mb3.5/6, Error ellipse: s-maj=10.5km s-min=4.6km az=13.4*

*JMA **22** 21:29:18.9±0.3, 24.10N×121.67E, h49^{km}, M3.5*

*NEIC **22** 21:29:18.2±1.5, 24.03N×121.75E, h16^{km}±8^{km}, mb4.2/1, Error ellipse: s-maj=17.7km s-min=12.6km az=53.0*

ISC 22 21:29:17.4±1.1, 23.95N±0.06×121.78E±0.03, h5^{km}±5^{km}, n24, σ1^{s}00/35, mb3.5/6, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	Ninganchiao	0.28	322	eP	Pg	21 29 23.1	+0.3
YHNB	Yeheng	0.80	333	eP	Pg	21 29 32.6	-0.2
TATO	Taipei	1.05	345	eP	Pg	21 29 36.7	-0.8
YOJ	Yonaguni jima	1.23	66	P	Pg	21 29 40.7	-0.3
YOJ				eS	Sg	21 29 56.8	-0.2
IRIF	Iriomote-Funau	1.82	78	P	Pn	21 29 49.5	+0.2
IRIF				eS	Sn	21 30 12.2	-0.5
HATJ	Hateruma jima	1.85	86	P	Pn	21 29 50.3	+0.5
HATJ				eS	Sn	21 30 14.5	+0.9
JKRS	Kuro-shima	2.06	82	P	Pn	21 29 53.3	+0.7
JKRS				eS	Sn	21 30 18.6	0.0
JIJ	Ishigaki jima	2.19	79	P	Pn	21 29 54.4	-0.1
JIJ				eS	Sn	21 30 20.1	-1.9
JTJ	Tarama	2.75	75	P	Pn	21 30 03.1	+1.0
JTJ				eS	Sn	21 30 35.8	+0.1
QZH	Quanzhou	3.07	289	P	Pn	21 30 08.8	+2.3
QZH				S	Sn	21 30 44.4	+0.8
QZH				Smax			
	comp=N,470nm,0.8s						
QZH				Smax			
	comp=E,350nm,0.7s						
JOW	Kunigami	6.53	63	Pn	Pn	21 30 53.5	-0.6
JOW				Sn	Sn	21 32 10.2	+1.1
JOW	Kunigami	6.53	63	Pn	Pn	21 30 53.5	-0.6
	comp=E,2.1nm,0.3s,baz=349,slow=29,SNR=5.9						
JOW				Sn	Sn	21 32 10.2	+1.1
	comp=E,1.0nm,0.3s,baz=288,slow=20,SNR=3.3						
NJ2	Nanjing	8.47	343	eP	Pn	21 31 23.1	+2.4
NJ2				AP		21 31 30.0	
NJ2				S	Sn	21 32 57.6	+0.9
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s						
NJ2				Smax			
	comp=N,110nm,1.0s						
NJ2				Smax			
	comp=E,70nm,1.0s						
NJ2				LR	LR		
	comp=N,270nm,10.9s						
NJ2				LR	LR		
	comp=E,380nm,9.9s						
NJ2				LR	LR		
	comp=Z,380nm,9.8s						
WHN	Wuhan	9.31	316	eP	Pn	21 31 31.3	-1.0
WHN				eS	Sn	21 33 15.9	-1.6
WHN				Smax			
	comp=N,112nm,1.2s						
WHN				Smax			
	comp=E,78nm,1.2s						
WHN				LR	LR		
	comp=Z,2μm,8.7s						
KSRS	Korea Array	14.45	20	Pn	Pn	21 32 43.7	+1.2
	comp=Z,0.2nm,0.3s,baz=202,slow=12,SNR=4.1						
LZH	Lanzhou	19.64	312	eP	Pn	21 33 43.3	-5.0
LZH				AP	pP	21 33 47.5	-0.9
LZH				AMB	AMB		
	comp=Z,18nm,1.3s						
LZH	Lanzhou	19.64	312	eP	Pn	21 33 43.2	-5.1
	comp=Z,18nm,1.3s						
LZH				pP	pP	21 33 47.5	-0.9
LZH				sP	sP	21 33 49.1	0.0
SONM	Songino Array	26.79	337	P	P	21 34 58.0	-0.2
	comp=Z,0.8nm,0.8s,mb3.3,baz=158,slow=11,SNR=8.4						
MK31	Makanchi Array	38.88	316	eP	P	21 36 43.6	0.0
MKAR	Makanchi Array	38.88	316	P	P	21 36 43.5	-0.2
	comp=Z,0.9nm,0.7s,mb3.6,baz=105,slow=10,SNR=17						
ZALV	Zalesovo Beam	40.73	327	P	P	21 36 57.1	-1.8
	comp=Z,1.4nm,0.6s,mb3.7,baz=119,slow=8.6,SNR=9.0						
WRA	Warramunga Arr	45.31	163	P	P	21 37 35.9	-0.4
	comp=Z,0.2nm,0.7s,mb3.1,baz=345,slow=8.5,SNR=4.7						
ASAR	Alice Springs	48.78	165	P	P	21 38 03.5	+0.1
	comp=Z,0.2nm,0.4s,mb3.5,baz=337,slow=6.6,SNR=2.8						
YKA	Yellowknife Ar	82.97	23	P	P	21 41 41.1	-2.1
	comp=Z,0.4nm,0.5s,mb3.7,baz=312,slow=4.9,SNR=8.4						

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*IDC **22** 21:35:55.2±0.6, 17.09S×172.86W, h0^{km}, mb4.4/15, mb1 4.6/15, mb1mx4.6/20, mbtmp4.4/15, MS4.4/24, Ms1 4.3/24, ms1mx4.2/33, Error ellipse: s-maj=23.5km s-min=15.7km az=129.0*

*NEIC **22** 21:35:57.0±0.3, 17.03S×172.98W, h10^{km}, mb5.2/7, Error ellipse: s-maj=16.1km s-min=8.7km az=135.0*

*GCMT **22** 21:35:57.0±0.3, 17.29S×172.28W, h16^{km}±1^{km}, MW5.0/52, Moment Tensor Solution. s18,c27; s52,c71; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.30±.19; $M_{\theta\theta}$0.59±.12; $M_{\phi\phi}$-2.89±.13; $M_{r\theta}$1.77±.47; $M_{\theta\phi}$0.92±.11; $M_{\phi r}$2.45±.40; Best double couple: $M_0$4.10200×10^{16} NP1:ϕ_s139.00000°,δ34.00000°,λ36.00000°. NP2: ϕ_s18.00000°,δ71.00000°,λ119.00000°. Principal axes: T 4.3290, Plg55.0000°, Azm324.0000°; N -0.4570, Plg27.0000°, Azm188.0000°; P -3.8740, Plg21.0000°, Azm87.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **22** 21:35:57.9, 16.40S×172.37W, h19^{km}, mB5.5, mb4.8*

*ISCJB **22** 21:35:58.9±0.5, 17.03S±0.08×173.03W±0.10, h33^{km}, mb4.6/23, MS4.4/24, Error ellipse: s-maj=14.6km s-min=9.8km az=37.0*

ISC 22 21:36:00.7±0.4, 17.06S±0.08×172.97W±0.09, h35^{km}, n184, σ1^{s}08/52, mb4.6/23, MS4.4/25, 8C-20D, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	3.34	20	Pn	Pn	21 36 41.5	-8.9
AFI				Sn	Sn	21 37 14.8	-14
AFI	Afiamalu	3.34	20	Pn	Pn	21 36 41.5	-8.9
	32nm,0.3s,baz=280,slow=1.8,SNR=19						
AFI				Sn	Sn	21 37 14.7	-14
	91nm,0.3s,baz=133,slow=22,SNR=8.2						
DZM	Mont Dzumac	20.03	252	P	P	21 40 31.4	+0.6
	9.0nm,0.8s,baz=73,slow=17,SNR=4.3						
DZM				LR	LR	21 46 50.2	
	comp=Z,1μm,21.8s,MS4.2,baz=119,slow=33						
PPT	Papeete	22.34	95	eLQ		21 45 03.8	
	1μm,26.2s						
PPT				eLR	LR	21 45 59.1	
	1μm,27.0s,baz=265						
URZ	Urewera	22.84	200	P	P	21 41 00.2	-0.6
	36nm,0.6s,mb5.0,baz=45,slow=2.3,SNR=39						
URZ				S	S	21 45 06.8	-1.2
	4.7nm,0.7s,baz=79,slow=18,SNR=4.2						
URZ				LR	LR	21 47 57.9	
	comp=Z,439nm,21.9s,MS3.9,baz=192,slow=32						
HNR	Honiara	27.41	283	LR	LR	21 51 04.9	
	comp=Z,1μm,18.2s,MS4.6,baz=179,slow=33						
RPZ	Rata Peaks	29.82	204	P	P	21 42 05.7	+1.3
	9.2nm,0.7s,mb4.7,baz=8.1,slow=11,SNR=6.0						
ARMA	Armidale	34.88	241	eP	P	21 42 49.6	+0.7
RKT	Rikitea	36.11	106	eLR	LR	21 52 24.8	
	557nm,27.2s						
CTA	Charters Tower	38.71	259	eP	P	21 43 20.3	-1.3
	6.2nm,0.8s,mb4.4						
CTA	Charters Tower	38.71	259	LR	LR	21 57 08.9	
	comp=Z,358nm,18.4s,MS4.2,baz=294,slow=33						
STKA	Stephens Creek	43.59	242	eP	P	21 44 01.7	0.0
	3.1nm,0.5s,mb4.3						
STKA	Stephens Creek	43.59	242	eP	P	21 44 00.0	-1.7
STKA	Stephens Creek	43.59	242	P	P	21 44 01.3	-0.3
	4.1nm,0.5s,mb4.4,baz=84,slow=7.8,SNR=9.5						
STKA				LR	LR	22 01 00.8	
	comp=Z,373nm,18.7s,MS4.3,baz=32,slow=34						
WB2	Warramunga Arr	49.88	258	eP	P	21 44 49.5	-1.6
WB2	Warramunga Arr	49.88	258	eP	P	21 44 49.0	-2.0
WRA	Warramunga Arr	49.89	258	P	P	21 44 49.8	-1.3
	6.3nm,0.7s,mb4.7,baz=97,slow=6.9,SNR=72						
WRA				LR	LR	22 05 13.2	
	comp=Z,594nm,18.1s,MS4.6,baz=95,slow=35						
ASAR	Alice Springs	50.01	253	P	P	21 44 51.1	-0.9
	15nm,0.5s,mb5.2,baz=88,slow=8.5,SNR=148						
GUMO	Guam	51.59	304	LR	LR	22 05 11.9	
	comp=Z,122nm,18.8s,MS4.0,baz=100,slow=34						
KAKA	Kakadu	52.80	267	eP	P	21 45 13.0	0.0
	4.7nm,0.6s,mb4.6						
KAKA	Kakadu	52.80	267	eP	P	21 45 12.5	-0.6
FORT	Forrest	55.06	244	eP	P	21 45 28.8	-0.5
	35nm,0.8s,mb5.4						
FITZ	Fitzroy Crossi	58.29	259	eP	P	21 45 52.5	+0.1
	3.4nm,0.6s,mb4.5						
FITZ	Fitzroy Crossi	58.29	259	LR	LR	22 10 34.8	
	comp=Z,410nm,18.2s,MS4.6,baz=110,slow=36						
VNDA	Vanda	61.78	186	P	P	21 46 15.2	-0.2
	3.1nm,0.9s,mb4.4,baz=18,slow=9.6,SNR=2.2						
VNDA				LR	LR	22 09 30.3	
	comp=Z,169nm,18.0s,MS4.2,baz=20,slow=33						
MBWA	Marble Bar	63.31	255	eP	P	21 46 26.7	+0.1
KLBR	Kellerberrin	63.84	243	eP	P	21 46 30.1	+0.1
	29nm,1.2s,mb5.2						
MUN	Mundaring	65.12	242	eP	P	21 46 39.1	+0.8
MJAR	Matsushiro Arr	70.47	320	P	P	21 47 12.5	+0.8
	1.0nm,0.5s,mb4.0,baz=148,slow=5.9,SNR=4.6						
MJAR				LR	LR	22 13 07.6	
	comp=Z,199nm,19.5s,MS4.4,baz=125,slow=32						
QSPA	South Pole Qui	72.99	180	eP	P	21 47 27.0	+0.7
	138nm,1.1s						
NVAR	Mina Array Bea	75.28	41	P	P	21 47 41.3	+1.0
	1.1nm,0.3s,mb4.2,baz=219,slow=8.4,SNR=3.7						
KSRS	Korea Array	77.63	316	P	P	21 47 55.0	+1.5
	2.3nm,1.0s,mb4.1,baz=119,slow=4.4,SNR=4.5						
KSRS				LR	LR	22 19 04.0	
	comp=Z,45nm,18.4s,MS3.8,baz=147,slow=33						
TXAR	Lajitas Array	81.19	56	P	P	21 48 12.3	-0.9
TXAR				LR	LR	22 21 40.5	
TXAR	Lajitas Array	81.19	56	P	P	21 48 12.3	-0.8
	1.3nm,0.9s,mb3.9,baz=211,slow=7.1,SNR=7.3						
TXAR				LR	LR	22 21 40.5	
	comp=Z,150nm,18.2s,MS4.4,baz=5.0,slow=34						
ANMO	Albuquerque	81.55	50	LR	LR	22 15 16.0	
	comp=Z,248nm,21.1s,MS4.5,baz=90,slow=29						
NEW	Newport	81.84	34	LR	LR	22 20 04.4	
	comp=Z,297nm,18.2s,MS4.7,baz=119,slow=32						
CN2	Changchun	82.62	320	eP	P	21 48 21.4	+1.1
PDAR	Pinedale Array	83.22	42	P	P	21 48 22.2	-1.3
PDAR				LR	LR	22 20 04.8	
PDAR	Pinedale Array	83.22	42	P	P	21 48 22.2	-1.3
	1.7nm,0.8s,mb4.1,baz=207,slow=3.1,SNR=5.7						
PDAR				LR	LR	22 20 04.8	
	comp=Z,218nm,21.6s,MS4.5,baz=243,slow=32						
COLA	College	83.91	11	eP	P	21 48 24.1	-2.4
	11nm,0.9s,mb5.0						
DAWY	Dawson	84.92	14	eP	P	21 48 30.9	-0.7
MAW	Mawson	86.36	199	LR	LR	22 26 20.1	
	comp=Z,500nm,18.8s,MS4.9,baz=325,slow=35						
BJT	Baijiatuau	86.90	313	eP	P	21 48 42.9	+0.8
	46nm,1.8s,mb5.4						
BJI	Beijing	86.91	313	P	P	21 48 43.3	+1.3
BJI				AMB	AMB		
	comp=Z,11nm,1.4s,mb4.9						
BJI	Beijing	86.91	313	P	P	21 48 43.2	+1.2
BJI				LR	LR		
	comp=Z,70nm,19.7s,MS4.1						
PSI	Prapat	89.01	273	P	P	21 48 51.3	-1.4
	comp=Z,3.7nm,0.4s,mb5.1,baz=164,slow=9.2,SNR=4.6						
INK	Inuvik	89.77	14	LR	LR	22 28 57.1	
	comp=Z,220nm,18.5s,MS4.6,baz=150,slow=35						
XAN	Xi’an	89.93	306	P	P	21 48 58.4	+1.8
XAN				AMB	AMB		
	comp=Z,6.0nm,1.4s,mb4.7						
TEIG	Tepich	90.98	69	LR	LR	22 27 12.1	
	comp=Z,195nm,18.3s,MS4.6,baz=358,slow=34						
VNA3	Neumayer Olymp	91.17	175	e	P	21 49 02.7	+1.0
VNA3	Neumayer Olymp	91.17	175	e	P	21 49 02.7	+1.0
VNA3	Neumayer Olymp	91.17	175	e	P	21 49 02.8	+1.1
VNA3	Neumayer Olymp	91.17	175	e	P	21 49 02.8	+1.1
YKA	Yellowknife Ar	91.45	23	P	P	21 49 01.3	-1.6
YKA				LR	LR	22 26 45.4	
YKA	Yellowknife Ar	91.45	23	P	P	21 49 01.3	-1.6
	comp=Z,0.2nm,0.5s,mb3.7,baz=234,slow=4.4,SNR=5.8						
YKA				LR	LR	22 26 45.4	
	comp=Z,91nm,19.0s,MS4.2,baz=230,slow=33						
VNA2	Neumayer--Watz	91.67	175	e	P	21 49 05.1	+1.1
	baz=187,slow=5.1						
VNA2	Neumayer--Watz	91.67	175	e	P	21 49 05.1	+1.1
	baz=180,slow=5.6						
VNA2	Neumayer--Watz	91.67	175	e	P	21 49 05.3	+1.3
	baz=187,slow=5.1						
VNA2	Neumayer--Watz	91.67	175	e	P	21 49 05.3	+1.3
	baz=180,slow=5.6						
VNA2				e	pP	21 49 14.0	-1.2
ULM	Lac du Bonnet	94.95	39	LR	LR	22 27 32.6	
	comp=Z,186nm,20.7s,MS4.5,baz=221,slow=33						
SONM	Songino Array	96.35	318	P	P	21 49 26.7	+0.9
	comp=Z,0.5nm,0.8s,mb4.0,baz=108,slow=5.0,SNR=4.5						
SONM				LR	LR	22 27 39.6	
	comp=Z,163nm,19.0s,MS4.5,baz=8.4,slow=32						
LPAZ	La Paz	98.86	110	LR	LR	22 27 20.4	
	comp=Z,71nm,18.8s,MS4.2,baz=319,slow=31						
TKL	Tuckaleechee C	99.10	56	LR	LR	22 28 01.9	
	comp=Z,220nm,20.2s,MS4.7,baz=310,slow=32						
ROSC	El Rosal	99.65	88	LR	LR	22 23 52.4	
	comp=Z,129nm,19.3s,MS4.4,baz=240,slow=29						
ZALV	Zalesovo Beam	110.78	322	PKPdf	PKiKP	21 54 29.4	-0.3
ZALV	Zalesovo Beam	110.78	322	PKiKP	PKiKP	21 54 29.4	-0.3
	comp=Z,0.5nm,0.6s,baz=126,slow=0.7,SNR=3.7						
MK31	Makanchi Array	112.28	314	ePKiKP	PKiKP	21 54 32.6	-0.1
MKAR	Makanchi Array	112.28	314	PKPdf	PKiKP	21 54 31.9	-0.9
MKAR	Makanchi Array	112.28	314	PKiKP	PKiKP	21 54 31.9	-0.9
	comp=Z,0.8nm,0.6s,baz=87,slow=0.4,SNR=11						
ARCES	ARCESS Array B	126.30	352	PKP	PKPdf	21 54 59.8	+0.8
ARCES	ARCESS Array B	126.30	352	PKP	PKPdf	21 54 59.8	+0.8
	comp=Z,2.8nm,0.9s,baz=330,slow=14,SNR=3.8						
AKASG	Malin Array Be	142.02	337	PKP		21 55 22.9	
AKASG	Malin Array Be	142.02	337	PKhKP		21 55 22.9	
	comp=Z,0.3nm,0.4s,baz=44,slow=4.9,SNR=4.4						
KWP	Kalwaria	145.12	342	eP	PKPbc	21 55 34.1	+0.2
KMBO	Kilima Mbogo	145.16	242	PKPbc	PKPbc	21 55 37.4	+2.2
KMBO	Kilima Mbogo	145.16	242	PKPbc	PKPbc	21 55 37.4	+2.2
	comp=Z,5.7nm,0.8s,baz=80,slow=4.4,SNR=16						
MALT	Malatya	145.32	314	⇓P	PKPbc	21 55 37.8	+2.8
MALT	Malatya	145.32	314	⇓iP	PKPbc	21 55 37.8	+2.8
OJC	Ojcow	145.36	346	eP	PKPbc	21 55 35.2	+0.5
KSP	Ksiaz	145.49	350	eP	PKPdf	21 55 35.6	+0.6
CLL	Collm	145.50	353	eP	PKPdf	21 55 35.0	0.0
CLL				e		21 55 44.0	
CLL	Collm	145.50	353	ePKPbc	PKPbc	21 55 35.0	-0.1
CLL				e(pPKiKP)		21 55 42.0	
STHS	Stebnicka Huta	145.73	343	eP	PKPdf	21 55 37.5	+2.0
STHS	Stebnicka Huta	145.73	343	ePKP	PKPdf	21 55 37.5	+2.0
BRG	Berggiesshubel	145.82	352	eP	PKPdf	21 55 36.8	+1.3
BRG	Berggiesshubel	145.82	352	ePKPbc	PKPbc	21 55 37.2	+1.1
BRG	Berggiesshubel	145.82	352	eP	PKPdf	21 55 36.8	+1.3
	comp=Z,14nm,1.1s						
FBE	Freiberg	145.84	353	ePKPbc	PKPbc	21 55 36.4	+0.2
UPC	Upice	145.86	350	eP	PKPbc	21 55 37.3	+1.1
UPC	Upice	145.86	350	ePKP	PKPbc	21 55 37.3	+1.1
KOLS	Kolonicke sedl	145.88	342	eP	PKPbc	21 55 38.1	+1.8
KOLS	Kolonicke sedl	145.88	342	ePKP	PKPbc	21 55 38.1	+1.8
BOYT	Boyabat	145.91	321	i P	PKPbc	21 55 38.8	+2.1
DPC	Dobruska-Polom	145.96	349	eP	PKPdf	21 55 37.2	+1.4
DPC				e		21 55 48.2	
DPC	Dobruska-Polom	145.96	349	ePKP	PKPdf	21 55 37.2	+1.4
DPC				ex	x	21 55 48.2	
BURAR	Bucovina Array	146.06	338	⇑P	PKPbc	21 55 38.5	+1.6
BURAR	Bucovina Array	146.06	338	⇑iP	PKPbc	21 55 38.5	+1.6
PVCC	Panska Ves	146.07	351	eP	PKPbc	21 55 38.1	+1.2
PVCC	Panska Ves	146.07	351	ePKP	PKPbc	21 55 38.1	+1.2
OKC	Ostrava-Krasne	146.09	347	eP	PKPbc	21 55 38.0	+1.0
OKC				e		21 55 49.4	
OKC	Ostrava-Krasne	146.09	347	ePKP	PKPbc	21 55 38.0	+1.0
OKC				ex	x	21 55 49.4	
CRVS	Cervenica-Dubn	146.14	343	eP	PKPbc	21 55 39.1	+2.0
CRVS	Cervenica-Dubn	146.14	343	ePKP	PKPbc	21 55 39.1	+2.0
MORC	Moravsky Berou	146.28	348	eP	PKPdf	21 55 37.1	+0.7
MOX	Moxa	146.30	355	eP	PKPbc	21 55 39.0	+1.5
	comp=Z,35nm,1.9s						
WERD	Werda	146.43	354	ePKPbc	PKPbc	21 55 38.3	+0.4
CTKT	Corum	146.45	320	i P	PKPbc	21 55 40.2	+1.9
WERN	Wernitzgruen	146.58	354	ePKPbc	PKPbc	21 55 39.3	+0.9
PRU	Pruhonice	146.60	351	eP	PKPbc	21 55 39.4	+0.9
PRU				e		21 55 49.6	
PRU	Pruhonice	146.60	351	ePKP	PKPbc	21 55 39.4	+0.9
PRU				ex	x	21 55 49.6	
NKC	Novy Kostel	146.62	354	eP	PKPbc	21 55 40.3	+1.8
NKC				e		21 55 49.9	
NKC	Novy Kostel	146.62	354	ePKP	PKPbc	21 55 40.3	+1.8
NKC				ex	x	21 55 49.9	
KECS	Kecovo	146.79	344	eP	PKPbc	21 55 39.6	+0.6
KECS	Kecovo	146.79	344	ePKP	PKPbc	21 55 39.6	+0.6
MANZ	Manzenberg	146.90	354	ePKPbc	PKPbc	21 55 39.9	+0.6
PLOR	Plostina	146.96	335	⇑iP		21 55 40.6	
BAIF	Baives	147.00	3	ePKP1	PKPbc	21 55 42.2	+2.6
BAIF	Baives	147.00	3	ePKP	PKPbc	21 55 42.2	+2.6
ROTZ	Rotzenmuhle	147.11	354	ePKPbc	PKPbc	21 55 41.1	+1.2
VYHS	Vyhne	147.20	345	eP	PKPbc	21 55 40.4	+0.2
VYHS	Vyhne	147.20	345	ePKP	PKPbc	21 55 40.4	+0.2
KOLL	Kolacno	147.22	346	eP	PKPbc	21 55 40.9	+0.6
KOLL	Kolacno	147.22	346	ePKP	PKPbc	21 55 40.8	+0.5
GRA1	Grafenberg Arr	147.28	355	ePKPbc	PKPbc	21 55 41.4	+1.0
GRF	Grafenberg Arr	147.28	355	ePKP	PKPbc	21 55 41.4	+1.0
GRF	Grafenberg Arr	147.28	355	ePKPbc	PKPbc	21 55 41.4	+1.0
ELDT	Eldivan	147.36	321	i P	PKPbc	21 55 42.8	+1.9
AVNT	Avonos	147.47	317	i P	PKPbc	21 55 42.4	+1.1
MLR	Muntele Rosu	147.54	335	⇓P	PKPbc	21 55 42.7	+1.5
MLR	Muntele Rosu	147.54	335	⇓iP	PKPbc	21 55 42.7	+1.4
KHC	Kasperske Hory	147.57	352	eP	PKPbc	21 55 41.4	+0.2
KHC				e		21 55 52.5	
KHC	Kasperske Hory	147.57	352	ePKP	PKPbc	21 55 41.4	+0.2
KHC				ex	x	21 55 52.5	
DRGR		147.63	340	⇓P	PKPbc	21 55 42.3	+0.8
DRGR		147.63	340	⇓iP	PKPbc	21 55 42.3	+0.8
BR131	Keskin Array S	147.69	320	ePKPbc	PKPbc	21 55 42.3	+0.4
BRTR	Keskin Array B	147.69	320	PKPbc	PKPbc	21 55 42.9	+1.0
BRTR	Keskin Array B	147.69	320	PKPbc	PKPbc	21 55 42.9	+1.0
	comp=Z,4.1nm,0.7s,baz=123,slow=2.6,SNR=23						
GEC2	GERESS Array S	147.84	352	ePKPbc	PKPbc	21 55 42.3	+0.4
GEC2	GERESS Array S	147.84	352	ePKPbc	PKPbc	21 55 42.3	+0.4
GERES	GERESS Array B	147.84	352	PKPbc	PKPbc	21 55 42.5	+0.6

GERES	GERESS Array B	147.84	352	PKPbc	PKPbc	21 55 42.5	+0.6
	comp=Z,1.2nm,0.7s,baz=14,slow=2.8,SNR=12						
ZST	Bratislava	147.87	347	eP	PKPbc	21 55 43.3	+1.2
ZST	Bratislava	147.87	347	ePKP	PKPbc	21 55 43.3	+1.2
VOIR		147.94	336	⇓P	PKPbc	21 55 43.9	+1.6
VOIR		147.94	336	⇓iP	PKPbc	21 55 43.9	+1.5
SGKT	Sivrigoynuk	148.12	322	i P	PKPbc	21 55 44.2	+1.3
ANTO	Ankara	148.12	321	⇑P	PKPbc	21 55 44.6	+1.6
ANTO	Ankara	148.12	321	⇑iP	PKPbc	21 55 44.7	+1.7
CONA	Conrad Observa	148.37	349	⇑iPKiKP	PKiKP	21 55 44.0	-1.0
	comp=Z,15nm,1.4s						
MOA	Molln	148.72	351	⇓iP	PKPbc	21 55 43.8	-0.5
	comp=Z,11nm,1.9s						
MOA	Molln	148.72	351	⇓iPKPbc	PKPbc	21 55 43.8	-0.5
	comp=Z,11nm,1.9s						
BFO	Black Forest	148.80	358	ePKPbc	PKPbc	21 55 47.9	+3.4
BFO	Black Forest	148.80	358	ePKPbc	PKPbc	21 55 47.9	+3.4
GZR	Gura Zlata	148.83	338	⇓P	PKPbc	21 55 47.7	+3.0
GZR	Gura Zlata	148.83	338	⇓iP	PKPbc	21 55 47.7	+3.0
BZS	Buzias	149.03	340	⇓iP	PKPbc	21 55 45.9	+0.7
ARSA	Arzberg	149.09	349	⇓iP	PKPbc	21 55 45.5	+0.3
	comp=Z,9.9nm,1.8s						
ARSA	Arzberg	149.09	349	⇓iPKiKP	PKiKP	21 55 45.5	-1.0
	comp=Z,9.9nm,1.8s						
ASF	Jabal al Asfar	149.09	305	PKPbc	PKPbc	21 55 47.2	+1.4
ASF	Jabal al Asfar	149.09	305	PKPbc	PKPbc	21 55 47.2	+1.4
	comp=Z,2.5nm,0.9s,baz=22,slow=6.8,SNR=4.7						
HAU	Haudompre	149.13	1	ePKP1	PKPbc	21 55 45.6	+0.3
	comp=Z,15nm,0.8s						
HAU	Haudompre	149.13	1	ePKP	PKPbc	21 55 45.6	+0.3
PKSM	Moragy	149.37	344	⇓P	PKPbc	21 55 46.5	+0.5
PKSM	Moragy	149.37	344	⇓iP	PKPbc	21 55 46.5	+0.5
WTTA	Wattenberg	149.64	354	⇓iP	PKPbc	21 55 47.5	+0.9
	comp=Z,24nm,1.7s						
WTTA	Wattenberg	149.64	354	⇓iPKiKP	PKiKP	21 55 47.5	-0.1
	comp=Z,24nm,1.7s						
SQTA	Sankt Quirin	149.73	354	⇑iP	PKiKP	21 55 47.2	-0.7
	comp=Z,17nm,1.3s						
SQTA	Sankt Quirin	149.73	354	⇑iPKiKP	PKiKP	21 55 47.2	-0.7
	comp=Z,17nm,1.3s						
LOR	Lormes	149.76	4	ePKP1	PKPbc	21 55 47.2	+0.3
	comp=Z,9.9nm,0.8s						
LOR	Lormes	149.76	4	ePKP	PKPbc	21 55 47.2	+0.3
MMAI	Mount Meron Ar	149.92	307	PKPbc	PKPbc	21 55 48.8	+1.0
	comp=Z,3.3nm,0.8s,baz=52,slow=3.3,SNR=9.9						
MMAI				PKPab	PKPab	21 55 54.3	+0.9
	comp=Z,6.3nm,0.7s,baz=46,slow=6.0,SNR=17						
SSF	Saint Saulge	149.94	5	ePKP1	PKPbc	21 55 47.7	+0.3
	comp=Z,13nm,0.8s						
SSF	Saint Saulge	149.94	5	ePKP	PKPbc	21 55 47.7	+0.3
ULDT	Uludag	150.07	325	i P	PKPbc	21 55 48.7	+0.7
CSS	Prodhromos	150.54	312	ePKPbc	PKPbc	21 55 52.0	+2.8
VTS	Vitosha	151.05	335	⇓iP	PKPbc	21 55 50.8	+0.6
LPL	La Plagne	151.63	0	ePKP1	PKPbc	21 55 52.7	+1.3
LPL	La Plagne	151.63	0	ePKP	PKPbc	21 55 52.7	+1.3
LPG	La Plagne	151.65	0	ePKP1	PKPbc	21 55 52.9	+1.5
	comp=Z,10nm,0.8s						
LPG	La Plagne	151.65	0	ePKP	PKPbc	21 55 52.9	+1.5
MBDF	Montbardon	152.42	0	ePKP1	PKPbc	21 55 53.9	+0.7
	comp=Z,8.8nm,0.8s						
MBDF	Montbardon	152.42	0	ePKP	PKPbc	21 55 53.9	+0.7
TORD	Torodi Ar. Bea	173.54	126	PKP	PKPdf	21 56 06.1	-1.2
TORD				PKPab	PKPab	21 57 34.8	-1.7
TORD	Torodi Ar. Bea	173.54	126	PKP	PKPdf	21 56 06.1	-1.2
	comp=Z,0.9nm,1.0s,baz=301,slow=1.5,SNR=3.0						
TORD				PKPab	PKPab	21 57 34.8	-1.7
	comp=Z,0.6nm,0.6s,baz=272,slow=3.0,SNR=8.0						

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*ISCJB **22** 21:43:28.7±0.4, 36.44N±0.03×71.23E±0.06, h225^{km}±5^{km}, mb3.5/8, Error ellipse: s-maj=7.8km s-min=4.5km az=156.2*
*MOS **22** 21:43:29.0±0.9, 36.50N×71.10E, h226^{km}, mb3.6/5, Error ellipse: s-maj=21.1km s-min=10.3km az=88.5*
*BJI **22** 21:43:30.9, 36.29N×71.43E, h199^{km}, mb4.2*
*NNC **22** 21:43:31.4±3.9, 37.13N×69.95E, h0^{km}, mb3.8, mpv3.2, Error ellipse: s-maj=31.8km s-min=28.7km az=130.0*
*NEIC **22** 21:43:32.0±2.0, 36.68N×71.23E, h226^{km}±16^{km}, mb4.0/7, Error ellipse: s-maj=23.2km s-min=11.6km az=213.0*
*IDC **22** 21:43:32.9±3.2, 36.49N×71.32E, h261^{km}±31^{km}, mb3.2/7, mb1 3.4/10, mb1mx3.1/23, mbtmp3.3/10, Error ellipse: s-maj=19.3km s-min=14.1km az=134.0*
ISC 22 21:43:30.0±0.4**, 36.47N**±0.03×**71.36E**±0.06**, h232**^{km}±6^{km}**, n62, σ1^s.15**/79**, mb3.5**/8**, 5C-3D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEP	Cherat	2.67	170	⇑P	Pn	21 44 18.4	+0.6
CEP				S	S	21 44 51.0	-4.5
CHCP	Chirah Chowk	3.21	150	P	Pn	21 44 24.8	+1.1
THW	Thamme Wali	3.67	175	P	Pn	21 44 29.5	+0.3
SBDP	Sheikh Budin	4.18	186	⇓P	Pn	21 44 34.2	-1.0
KSH	Kashi	4.75	49	P	Pn	21 44 43.3	+1.3
KSH				S	S	21 45 37.1	-2.1
KSH				Smax			
	comp=N,212nm,0.4s						
KSH				Smax			
	comp=E,192nm,0.4s						
DRP	Derazinda	4.81	192	P	Pn	21 44 43.3	+0.4
THN	Thein Dam	5.39	137	eP	Pn	21 44 50.6	+0.4
THN				eS	S	21 45 52.6	-1.3
DLH	Dalhousie	5.46	135	eP	Pn	21 44 52.0	+1.1
DLH				eS	S	21 45 54.0	-1.3
AML	Almayashu	5.94	17	P	Pn	21 44 57.2	+0.3
	SNR=70						
AML	Almayashu	5.94	17	eP	Pn	21 44 56.9	+0.1
	comp=E,36nm,0.5s						
UCH	Uchtor	6.25	22	P	Pn	21 45 01.7	+0.9
	SNR=13						
UCH	Uchtor	6.25	22	eP	Pn	21 45 01.2	+0.4
EKS2	Erkin-Say	6.46	16	P	Pn	21 45 04.2	+0.7
	SNR=13						
EKS2	Erkin-Say	6.46	16	eP	Pn	21 45 03.8	+0.3
	comp=E,3.9nm,0.6s						
AAK	Ala-Archa	6.62	20	P	Pn	21 45 07.7	+2.2
	SNR=7.5						
AAK	Ala-Archa	6.62	20	eP	Pn	21 45 05.3	-0.2
	comp=E,6.1nm,0.3s						
AAK	Ala-Archa	6.62	20	ePN	Pn	21 45 05.3	-0.2
AAK				pmax	pmax		
	comp=Z,6.0nm,0.3s						
KK31	Karatay Array	6.66	355	⇑Pn	Pn	21 45 04.4	-1.6
	comp=Z,5.4nm,0.5s,baz=176,slow=12						
KK31				⇓Sn	S	21 46 16.9	-5.9
	comp=Z,23nm,0.4s,baz=180,slow=20						
SDNR	Sundarnagar	6.80	135	eP	Pn	21 45 08.0	+0.1
SDNR				eS	S	21 46 21.6	-4.5
TKM2	Tokmak 2	7.23	26	P	Pn	21 45 13.9	+0.7
	SNR=5.5						
TKM2	Tokmak 2	7.23	26	⇑Pn	Pn	21 45 17.8	+4.7
	comp=Z,0.3nm,0.7s						
TKM2				⇓Sn	S	21 46 43.6	+7.7
	comp=Z,1.1nm,1.1s						
TKM2	Tokmak 2	7.23	26	eP	Pn	21 45 13.5	+0.3
	comp=Z,2.4nm,0.4s						
TKM2	Tokmak 2	7.23	26	ePN	Pn	21 45 13.5	+0.3
TKM2				pmax	pmax		
	comp=Z,2.0nm,0.4s						
JOSI	Joshimath	9.03	128	eP	Pn	21 45 37.0	+0.6
JOSI				AMb	AMB	21 45 39.5	
	comp=Z,118nm,0.7s						
JOSI				eS	S	21 47 16.0	-2.2
KHET	Khetri	9.17	155	eP	Pn	21 45 36.4	-1.8
KHET				AMb	AMB	21 45 38.5	
	comp=Z,4.1nm,0.3s						
KHET				eS	S	21 47 13.1	-8.6
KUDL	Kundal	9.36	151	eP	Pn	21 45 39.3	-1.4
KUDL				AMb	AMB	21 45 40.3	
	comp=Z,10nm,0.7s						
KUDL				eS	S	21 47 16.8	-9.4
SONA	Sohna	9.51	148	eP	Pn	21 45 42.1	-0.5
SONA				AMb	AMB	21 45 43.9	
	comp=Z,7.0nm,0.1s						
SONA				eS	S	21 47 21.7	-8.0
MKAR	Makanchi Array	13.15	35	P	Pn	21 46 29.1	+1.0
	comp=Z,0.4nm,0.3s,baz=214,slow=10,SNR=4.4						
GKN	Gorkha	14.04	123	eP	Pn	21 46 40.3	+1.1
	comp=Z,44nm,0.4s						
GKN				eS	S	21 49 10.7	-4.3
KKN	Kakani	14.61	122	eP	Pn	21 46 47.1	+0.9
	comp=Z,60nm,0.5s						
KURK	Kurchatov	15.17	18	⇑Lg		21 46 56.7	
	comp=Z,3.5nm,1.3s						
KURK	Kurchatov	15.17	18	eP	Pn	21 46 52.6	-0.1
	comp=Z,3.0nm,0.6s						
KURK	Kurchatov	15.17	18	eP	Pn	21 46 52.6	-0.1
KURK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
AB31	Akbulak array	15.26	330	Pn	Pn	21 46 52.4	-1.3
	comp=Z,2.1nm,0.6s,baz=101,slow=9.1,SNR=36						
AB31				⇑Sn	S	21 49 29.8	-12
	comp=Z,1.1nm,0.6s,baz=155,slow=23,SNR=5.2						
JIRN	Jiri	15.32	121	eP	Pn	21 46 56.4	+1.7
	comp=Z,58nm,0.5s						
TAPN	Taplejung	16.57	119	eP	P	21 47 11.9	+3.7
	comp=Z,18nm,0.5s						
BRVK	Borovoye	16.61	358	eP	P	21 47 09.4	+1.1
	comp=Z,2.9nm,0.4s						
BRVK	Borovoye	16.61	358	eP	P	21 47 09.4	+1.1
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.4s						
ODAN	Odare	16.65	121	eP	P	21 47 12.9	+3.9
	comp=Z,24nm,0.6s						
AKTK	Aktyubinsk	16.96	330	P	P	21 47 13.1	+1.0
AKTK				S	S	21 50 14.0	-2.7
AKTO	Aktyubinsk	16.96	330	P	P	21 47 13.1	+1.0
AKTO				S	S	21 50 14.0	-2.7
AKTO				pmax	pmax		
	comp=Z,2.0nm,0.3s						
AKTO	Aktyubinsk	16.96	330	P	P	21 47 13.1	+1.0
	comp=Z,2.1nm,0.3s,baz=142,slow=9.3,SNR=39						
AKTO				S	S	21 50 14.0	-2.7
	comp=Z,0.1nm,0.3s,baz=102,slow=22,SNR=2.2						
LSA	Lhasa	17.89	106	P	P	21 47 27.5	+5.0
LSA	Lhasa	17.89	106	eP	P	21 47 27.6	+5.1
	comp=Z,4.1nm,0.7s						
LSA	Lhasa	17.89	106	eP	P	21 47 27.6	+5.1
LSA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ZAL	Zalesovo	19.81	24	P	P	21 47 43.3	+0.5
ZAL				S	S	21 51 11.9	-1.0
ZALV	Zalesovo Beam	19.83	24	P	P	21 47 43.2	+0.2
	comp=Z,1.6nm,0.3s,baz=218,slow=11,SNR=18						
ZALV				S	S	21 51 11.9	-1.3
	baz=228,slow=17,SNR=2.3						
AKASG	Malin Array Be	33.20	309	P	P	21 49 44.5	-0.2
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	33.20	309	P	P	21 49 44.5	-0.3
	comp=Z,0.7nm,0.5s,mb3.4,baz=80,slow=8.3,SNR=4.8						
JOF	Joensuu	36.05	330	ep	P	21 50 09.3	+0.4
	comp=Z,2.2nm,0.3s,mb4.2						
JOF	Joensuu	36.05	330	eP	P	21 50 09.3	+0.4
JOF				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.1						
FINES	FINESS Array B	37.68	326	P	P	21 50 23.0	+0.4
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES	FINESS Array B	37.68	326	P	P	21 50 23.0	+0.4
	comp=Z,1.6nm,0.6s,mb3.7,baz=120,slow=11,SNR=9.1						
ARCES	ARCESS Array B	41.29	338	P	P	21 50 53.7	+1.4
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ARCES	ARCESS Array B	41.29	338	P	P	21 50 53.6	+1.4
	comp=Z,1.4nm,0.5s,mb3.7,baz=120,slow=8.1,SNR=17						
NB2	NORSAR Subarra	44.58	323	P	P	21 51 19.1	+0.4
	comp=Z,0.9nm,0.5s,mb3.4,baz=93,slow=7.9						
NOA	NORSAR Array B	44.58	323	P	P	21 51 19.1	+0.4
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA	NORSAR Array B	44.58	323	P	P	21 51 19.1	+0.4
	comp=Z,1.6nm,0.7s,mb3.5,baz=96,slow=7.7,SNR=4.4						
TORD	Torodi Ar. Bea	66.01	269	P	P	21 53 50.2	-1.7
	comp=Z,0.7nm,0.5s,mb3.6,baz=50,slow=6.2,SNR=24						
YKA	Yellowknife Ar	81.27	3	P	P	21 55 20.6	+0.8
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	81.27	3	P	P	21 55 20.6	+0.9
	comp=Z,0.5nm,0.6s,mb3.4,baz=348,slow=5.2,SNR=10						
WRA	Warramunga Arr	81.72	122	P	P	21 55 23.3	+0.5
	comp=Z,0.2nm,0.4s,mb3.1,baz=326,slow=5.1,SNR=7.0						

IDC 22 21:58:34.9±2.3**, 2.34N**×**126.43E, h0**^{km}**, mb3.3**/3**, mb1 3.5**/3**, mb1mx3.2**/17**, mbtmp3.3**/3**, Error ellipse: s-maj=227.8km s-min=24.0km az=66.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	23.46	161	P	P	22 03 45.9	-0.5
	0.3nm,0.4s,baz=339,slow=10.0,SNR=10.0						
ASAR	Alice Springs	26.85	165	P	P	22 04 17.6	+0.2
	0.1nm,0.3s,baz=344,slow=9.6,SNR=3.2						
MKAR	Makanchi Array	58.53	326	P	P	22 08 33.3	+0.2
	0.2nm,0.4s,baz=123,slow=7.9,SNR=11						

MEX 22 22:00:23.2±0.6**, 18.32N**×**99.35W, h52**^{km}±7^{km}**, MD3.5, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLIG	Platanillo	0.16	296	i P	Pn	22 00 30.2	-1.3
PLIG				i S	Sn	22 00 35.9	-1.4
MEIG	Mezcala	0.47	213	i P	Pn	22 00 32.6	-1.6
MEIG				i S	Sn	22 00 40.6	-1.6
CAIG	El Cayaco	1.54	215	i P	Pn	22 00 47.0	-1.3
CAIG				i S	Sn	22 01 04.8	-2.3
ACX	Acapulco	1.55	201	eP	Pn	22 00 47.0	-1.4
ACX				i S	Sn	22 01 07.0	-0.3

IDC 22 22:11:40.0±0.9**, 17.08S**×**172.84W, h0**^{km}**, mb3.8**/6**, mb1 4.2**/6**, mb1mx4.0**/16**, mbtmp3.8**/6**, Error ellipse: s-maj=59.2km s-min=20.3km az=153.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	3.31	18	Pn	Pn	22 12 28.1	-5.1
	9.2nm,0.3s,baz=55,slow=3.1,SNR=7.7						
AFI				Sn	Sn	22 13 00.1	-13
	12nm,0.3s,baz=48,slow=13,SNR=3.9						
STKA	Stephens Creek	43.69	242	P	P	22 19 48.1	+1.2
	1.3nm,0.9s,baz=323,slow=19,SNR=3.7						
WRA	Warramunga Arr	50.01	258	P	P	22 20 35.2	-1.3
	0.8nm,0.5s,baz=96,slow=7.0,SNR=15						
ASAR	Alice Springs	50.13	253	P	P	22 20 36.4	-1.0
	2.0nm,0.6s,baz=89,slow=8.3,SNR=32						
NVAR	Mina Array Bea	75.22	41	P	P	22 23 24.7	+0.1
	0.4nm,0.3s,baz=222,slow=9.2,SNR=2.4						
TXAR	Lajitas Array	81.10	56	P	P	22 23 57.6	+0.1
	0.3nm,0.7s,baz=165,slow=6.5,SNR=3.8						
PDAR	Pinedale Array	83.15	41	P	P	22 24 07.5	-0.4
	0.8nm,0.8s,baz=249,slow=4.1,SNR=6.2						
KMBO	Kilima Mbogo	145.26	242	PKPbc	PKPbc	22 31 21.7	+1.3
	3.0nm,1.1s,baz=83,slow=6.5,SNR=6.2						
BRTR	Keskin Array B	147.79	320	PKPbc	PKPbc	22 31 27.4	+0.3
	1.2nm,0.9s,baz=54,slow=6.3,SNR=4.7						
GERES	GERESS Array B	147.87	352	PKPbc	PKPbc	22 31 28.0	+1.0
	0.6nm,0.9s,baz=50,slow=2.1,SNR=5.9						
TORD	Torodi Ar. Bea	173.43	126	PKPab	PKPab	22 33 19.8	-1.0
	0.5nm,0.7s,baz=250,slow=4.6,SNR=3.4						

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*CSEM **22** 22:14:49.5±0.1, 38.37N×39.26E, h2^{km}, MD3.5, Error ellipse: s-maj=2.0km s-min=1.4km az=179.0*
*ISK **22** 22:14:49.7, 38.38N×39.24E, h5^{km}, MD3.4*
*ISCJB **22** 22:14:50.2±0.5, 38.34N±0.03×39.27E±0.02, h1^{km}±5^{km}, Error ellipse: s-maj=4.5km s-min=3.1km az=169.1*
*DDA **22** 22:14:51.2, 38.36N×39.30E, h2^{km}±3^{km}, Md3.5*
ISC 22 22:14:51.0±0.4**, 38.35N**±0.03×**39.28E**±0.02**, h5**^{km}±4^{km}**, n55, σ0^s.93**/72**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.27	303	i P	Pg	22 14 55.7	-0.6
ELZG				i S	Sg	22 15 00.1	+0.2
PTK	Pertek	0.55	10	PG	Pg	22 15 00.9	-0.7
PTK				SG	Sg	22 15 08.9	+0.1
PTK	Pertek	0.55	10	ePg	Pg	22 15 00.9	-0.7
PTK				eSg	Sg	22 15 08.9	+0.1
MALT	Malatya	0.67	267	PG	Pg	22 15 02.5	-1.3
MALT				SG	Sg	22 15 13.2	+0.7
MALT	Malatya	0.67	267	ePg	Pg	22 15 02.5	-1.3
MALT				eSg	Sg	22 15 13.2	+0.7
MYA	Malataya	0.67	268	PG	Pg	22 15 03.2	-0.7
MYA				SG	Sg	22 15 13.2	+0.7
MYA	Malataya	0.67	268	ePg	Pg	22 15 03.2	-0.7
MYA				eSg	Sg	22 15 13.2	+0.7
DIYA	Diyarbakir	0.79	122	i P	Pg	22 15 06.4	+0.2
DIYA				i S	Sg	22 15 16.6	+0.1
DIYA	Diyarbakir	0.79	122	i P	Pg	22 15 06.2	0.0
DIYA	Diyarbakir	0.79	122	i P	Pg	22 15 06.4	+0.2
DIYA				i S	Sg	22 15 16.7	+0.2
DIY	Diyarbakir	0.88	121	PG	Pg	22 15 07.9	+0.1
DIY	Diyarbakir	0.88	121	ePg	Pg	22 15 07.9	+0.1
URFA	Urfa	0.97	202	PG	Pg	22 15 10.4	+0.7
URFA	Urfa	0.97	202	ePg	Pg	22 15 10.4	+0.7
BINT	Bingol	1.09	61	PN	Pn	22 15 11.9	-1.0
BINT	Bingol	1.09	61	ePn	Pn	22 15 11.9	-1.0
ATAB	Bozova	1.17	222	i P	Pg	22 15 13.9	+0.4
ATAB				i S	Sg	22 15 29.9	+1.2
ATAB	Bozova	1.17	222	i P	Pg	22 15 14.1	+0.6
EZC	Erzincan	1.46	17	PN	Pn	22 15 16.1	-1.9
MARD	Mardin	1.58	130	i P	Pn	22 15 18.1	-1.4
MARD				i S	Sn	22 15 39.5	-0.9
MARD	Mardin	1.58	130	i P	Pn	22 15 18.5	-1.1
BNGL	BINGOL	1.59	67	i P	Pn	22 15 20.1	+0.3
BNGL				i S	Sg	22 15 43.8	+1.8
BNGL	BINGOL	1.59	67	i P	Pn	22 15 20.2	+0.5
GZT	Gaziantep	1.68	234	i P	Pn	22 15 20.7	-0.3
GZT				i S	Sg	22 15 45.0	0.0
GZT	Gaziantep	1.68	234	i P	Pn	22 15 20.2	-0.8
BTMT	Batman	1.75	94	PN	Pn	22 15 21.3	-0.7
GAZ	Gaziantep	2.01	235	PN	Pn	22 15 25.8	+0.2
GAZ	Gaziantep	2.01	235	ePn	Pn	22 15 25.8	+0.2
KMRS	Kahramanmaras	2.06	247	PN	Pn	22 15 26.7	+0.5
KMRS	Kahramanmaras	2.06	247	ePn	Pn	22 15 26.7	+0.5
GUMT	Gumushane	2.11	4	PN	Pn	22 15 27.7	+0.7
EZM	Erzurum	2.25	46	PN	Pn	22 15 29.9	+1.1
ERZM	Erzurum	2.25	46	i P	Pn	22 15 30.5	+1.7
ERZM	Erzurum	2.25	46	i P	Pn	22 15 30.8	+2.0
SVSK	Karacayir	2.36	312	PN	Pn	22 15 30.6	+0.2
SVSK	Karacayir	2.36	312	ePn	Pn	22 15 30.6	+0.2
ANDN	Andirin	2.44	253	i P	Pn	22 15 31.2	-0.3
ANDN				i S	Sg	22 16 10.5	+1.1
ANDN	Andirin	2.44	253	i P	Pn	22 15 30.5	-1.0
SIRT	Sirnak	2.64	108	ePN	Pn	22 15 34.7	+0.5
SIRT	Sirnak	2.64	108	ePn	Pn	22 15 34.7	+0.5
KOZT	Kozan	2.86	253	ePN	Pn	22 15 37.2	-0.1
TUTA	Tutak	2.96	68	i P	Pg	22 15 45.3	-2.3
TUTA				i S	Sg	22 16 21.6	-4.3
COBT	Iskenderun	3.02	234	i P	Pg	22 15 47.6	-1.3
COBT				i S	Sg	22 16 26.6	-1.4
COBT	Iskenderun	3.02	234	i P	Pn	22 15 39.2	-0.2
COBT	Iskenderun	3.02	234	i P	Pn	22 15 39.2	-0.2
YOZ	Yozgat	3.34	294	ePN	Pn	22 15 44.2	+0.4
YOZ	Yozgat	3.34	294	ePn	Pn	22 15 44.2	+0.4
YAYL	Yayladag	3.43	229	i P	Pn	22 15 45.4	+0.4
YAYL	Yayladag	3.43	229	i P	Pn	22 15 45.2	+0.2
HAKT	HAKKARI	3.59	101	i P	Pn	22 15 46.5	-0.8
HAKT				i S	Sg	22 16 41.2	-5.2
HAKT	HAKKARI	3.59	101	i P	Pn	22 15 46.3	-1.0
CUKT	Cukurca	3.60	106	ePN	Pn	22 15 49.1	+1.6
CUKT	Cukurca	3.60	106	ePn	Pn	22 15 49.1	+1.6
HKR	Hakkari	3.61	101	ePN	Pn	22 15 48.6	+1.0
HKR	Hakkari	3.61	101	ePn	Pn	22 15 48.6	+1.0

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*IDC **22** 22:15:27.3±2.0, 34.90S×179.68W, h0^{km}, mb4.0/2, mb1 4.2/3, mb1mx3.9/12, mbtmp4.0/3, ML3.8/1, Error ellipse: s-maj=46.5km s-min=44.2km az=56.0*
ISC 22 22:15:34.7±2.4**, 35.0S**±0.3×**180.0E**±0.6**, h37**^{km}±46^{km}**, n10, σ0^s.36**/13**, mb3.8**/2**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	2.92	207	PN	Pn	22 16 18.2	-0.4
MXZ				SN	Sn	22 16 52.9	+0.4
PUZ	Puketiti	3.40	204	PN	Pn	22 16 25.1	-0.1
PUZ				SN	Sn	22 17 04.0	-0.1
MWZ	Matawai	3.90	210	PN	Pn	22 16 32.3	+0.3
MWZ				SN	Sn	22 17 16.5	0.0
URZ	Urewera	4.02	214	Pn	Pn	22 16 33.5	-0.2
	5.0nm,0.3s,baz=351,slow=5.4,SNR=30						
URZ				Sn	Sn	22 17 19.4	0.0
	8.1nm,0.3s,baz=105,slow=20,SNR=7.1						
URZ	Urewera	4.02	214	PN	Pn	22 16 34.2	+0.6
URZ				SN	Sn	22 17 19.0	-0.5
BKZ	Black Stump Fm	5.04	213	PN	Pn	22 16 47.7	+0.1
ASAR	Alice Springs	41.41	273	P	P	22 23 18.2	+0.6
	1.4nm,0.5s,mb3.8,baz=114,slow=7.9,SNR=15						
WRA	Warramunga Arr	42.81	278	P	P	22 23 28.5	-0.6
	1.0nm,0.5s,mb3.8,baz=119,slow=7.6,SNR=19						
FINES	FINESS Array B	148.73	336	PKPbc	PKPbc	22 35 15.7	-1.5
	2.2nm,0.9s,baz=54,slow=3.3,SNR=4.5						
TORD	Torodi Ar. Bea	158.22	184	PKPab	PKPab	22 36 00.3	-1.9
	0.3nm,0.6s,baz=180,slow=3.0,SNR=4.4						

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*NEIC **22** 22:39:59.8, 16.92N×95.09W, h114^{km}, MD4.2(MEX), After MEX.*
MEX 22 22:39:59.8±1.2**, 16.92N**×**95.09W, h113**^{km}±14^{km}**, MD4.2, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TUIG	Tuzandepetl	1.28	30	i P	Pn	22 40 22.8	-1.5
TUIG				eP		22 40 23.0	
TUIG				i S	Sn	22 40 41.0	-1.9
HUIG	Huatulco	1.50	221	i P	Pn	22 40 25.1	-1.8
HUIG				i S	Sn	22 40 46.5	-0.9
OXX	Oaxaca	1.57	276	i P	Pn	22 40 26.0	-1.6
OXX				i S	Sn	22 40 48.0	-0.8
TPIG	Tehuac#an	2.63	305	i P	Pn	22 40 41.0	0.0
TPIG				i S	Sn	22 41 11.6	-1.2
UTMO	Huajuapan	2.75	290	i P	Pn	22 40 42.3	-0.2
UTMO				i S	Sn	22 41 13.2	-2.2
CCIG	Comitan	2.90	102	eP	Pn	22 40 44.3	-0.3
CCIG				i S	Sn	22 41 17.3	-1.8
PNIG	Pinotepa	2.96	260	i P	Pn	22 40 43.4	-2.0
PNIG				i S	Sn	22 41 18.7	-1.7
LVIG	Laguna Verde	3.06	336	i P	Pn	22 40 43.2	-3.5
PPM	Popocatepetl	3.99	303	i P	Pn	22 41 01.5	+2.4
PPM				i S	Sn	22 41 47.5	+2.6
MEIG	Mezcala	4.44	284	i P	Pn	22 41 05.4	+0.3
MEIG				i S	Sn	22 41 54.2	-1.6
PLIG	Platanillo	4.46	290	i P	Pn	22 41 05.9	+0.5
PLIG				i S	Sn	22 41 55.5	-0.8
ACX	Acapulco	4.62	270	i P	Pn	22 41 02.5	-5.1
ACX				i S	Sn	22 41 53.5	-6.7
CAIG	El Cayaco	4.96	272	i P	Pn	22 41 10.6	-1.5
CAIG				i S	Sn	22 42 05.1	-3.2

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*CSEM **22** 22:55:33.9±0.2, 37.20N×34.45E, h5^{km}, MD3.1, Error ellipse: s-maj=5.7km s-min=3.4km az=93.0*
*ISK **22** 22:55:34.0, 37.20N×34.41E, h5^{km}, MD3.4*
*ISCJB **22** 22:55:35.2±0.8, 37.18N±0.03×34.47E±0.08, h9^{km}±8^{km}, Error ellipse: s-maj=11.3km s-min=5.1km az=174.8*
*DDA **22** 22:55:35.2, 37.17N×34.53E, h5^{km}±3^{km}, Md3.1*
ISC 22 22:55:35.7±0.9**, 37.18N**±0.03×**34.45E**±0.10**, h11**^{km}±7^{km}**, n11, σ0^s.83**/20**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MERS	Mersin	0.31	170	PG	Pg	22 55 41.8	-0.1
MERS				SG	Sg	22 55 47.4	+1.3
MERS	Mersin	0.31	170	ePg	Pg	22 55 41.8	-0.1
MERS				eSg	Sg	22 55 47.4	+1.3
NIG	Nigde	0.94	8	ePG	Pg	22 55 52.4	-1.4
NIG				eSG	Sg	22 56 06.5	+0.4
NIG	Nigde	0.94	8	ePg	Pg	22 55 52.4	-1.4
NIG				eSg	Sg	22 56 06.5	+0.4
IKL	Isikli	1.12	214	ePN	Pn	22 55 56.5	-0.8
IKL	Isikli	1.12	214	ePn	Pn	22 55 56.5	-0.8
ANDN	Andirin	1.56	74	i P	Pn	22 56 02.3	-1.1
ANDN				i S	Sn	22 56 23.6	0.0
COBT	Iskenderun	1.59	114	i P	Pn	22 56 03.3	-0.5
COBT				i S	Sn	22 56 23.8	-0.5
AVNT	Avonos	1.63	11	i P	Pn	22 56 05.0	+0.6
AVNT				i S	Sn	22 56 27.0	+1.6
AVNT	Avonos	1.63	11	i P	Pn	22 56 04.9	+0.5
AVNT				i S	Sn	22 56 27.0	+1.6
YAYL	Yayladag	1.75	130	i P	Pn	22 56 06.0	0.0

YAYL				*i* S	Sn	22 56 29.0	+0.6

IDC 22 23:15:15.5±1.5**,121S**×**12737E,h0km,mb3.3**/3**,mb1 3.4**/4**, mb1mx3.3**/16**,mbtmp3.3**/4**,ML3.3**/1**,Error ellipse: s-maj=146.2km s-min=22.7km az=68.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.83	160	P	Pn	23 19 47.8	-1.6
	0.1nm,0.3s,baz=340,slow=11,SNR=11						
ASAR	Alice Springs	23.20	165	P	P	23 20 24.4	+0.2
	0.3nm,0.3s,baz=344,slow=11,SNR=5.3						
MKAR	Makanchi Array	61.98	327	P	P	23 25 36.6	-0.8
	0.1nm,0.3s,baz=118,slow=8.0,SNR=5.6						
ZALV	Zalesovo Beam	65.26	334	P	P	23 25 59.6	+0.7
	0.2nm,0.3s,baz=126,slow=7.4,SNR=2.5						

IDC 22 23:22:27.3±2.2**,494S**×**13023E,h0km,mb3.0**/1**,mb1 3.9**/4**, mb1mx3.6**/15**,mbtmp3.6**/4**,ML3.8**/3**,Error ellipse: s-maj=99.9km s-min=27.1km az=75.0,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	13.83	199	Pn	Pn	23 25 44.7	0.0
	0.1nm,0.3s,baz=22,slow=16,SNR=12						
FITZ				Sn	Sn	23 28 08.5	-11
	0.1nm,0.3s,baz=88,slow=17,SNR=2.9						
WRA	Warramunga Arr	15.44	165	Pn	Pn	23 26 05.0	-1.6
	0.5nm,0.3s,baz=348,slow=13,SNR=47						
WRA				Sn	Sn	23 28 44.2	-14
	0.2nm,0.3s,baz=340,slow=21,SNR=3.8						
ASAR	Alice Springs	18.95	170	P	Pn	23 26 50.9	+0.2
	0.8nm,0.3s,baz=352,slow=11,SNR=40						
MKAR	Makanchi Array	66.64	326	P	P	23 33 19.9	+0.1
	0.1nm,0.4s,baz=121,slow=7.6,SNR=3.4						

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*CSEM **22** 23:42:37.9±0.1,3836N×3924E,h2km,MD2.9,Error ellipse: s-maj=2.8km s-min=1.9km az=173.0*
*ISCJB **22** 23:42:38.2±0.3,3835N±003×3929E±002,h2km,Error ellipse: s-maj=3.9km s-min=2.7km az=2.3*
*ISK **22** 23:42:38.0,3837N×3927E,h4km,MD3.2*
*DDA **22** 23:42:40.3,3845N×3916E,h17km±2km,Md2.9*
ISC 22 23:42:38.7±0.5**,3836N**±003×**3929E**±003**,h2km**±4km**,n37, σ1^{s}00**/52**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.27	300	*i* P	Pg	23 42 43.8	-0.2
ELZG				*i* S	Sg	23 42 47.3	-0.3
PTK	Pertek	0.54	9	PG	Pg	23 42 48.3	-0.7
PTK				SG	Sg	23 42 57.3	+1.3
PTK	Pertek	0.54	9	*e*Pg	Pg	23 42 48.3	-0.7
PTK				*e*Sg	Sg	23 42 57.3	+1.3
MALT	Malatya	0.68	266	PG	Pg	23 42 50.9	-0.8
MALT				SG	Sg	23 43 00.6	+0.1
MALT	Malatya	0.68	266	*e*Pg	Pg	23 42 50.9	-0.8
MALT				*e*Sg	Sg	23 43 00.6	+0.1
MYA	Malataya	0.68	267	PG	Pg	23 42 51.2	-0.5
MYA	Malataya	0.68	267	*e*Pg	Pg	23 42 51.2	-0.5
DIYA	Diyarbakir	0.79	123	*i* P	Pg	23 42 53.0	-0.9
DIYA				*i* S	Sg	23 43 04.9	+0.8
DIY	Diyarbakir	0.88	122	PG	Pg	23 42 55.0	-0.5
DIY				SG	Sg	23 43 07.6	+0.8
DIY	Diyarbakir	0.88	122	*e*Pg	Pg	23 42 55.0	-0.5
DIY				*e*Sg	Sg	23 43 07.6	+0.8
URFA	Urfa	0.99	202	PG	Pg	23 42 58.5	+0.8
URFA	Urfa	0.99	202	*e*Pg	Pg	23 42 58.5	+0.8
BINT	Bingol	1.07	61	PN	Pn	23 42 59.0	-1.8
BINT	Bingol	1.07	61	*e*Pn	Pn	23 42 59.0	-1.8
ATAB	Bozova	1.19	222	*i* P	Pg	23 43 01.4	-0.1
ATAB				*i* S	Sg	23 43 17.6	+0.7
EZC	Erzincan	1.45	16	PN	Pn	23 43 05.6	-0.3
BNGL	BINGOL	1.57	67	*i* P	Pn	23 43 08.2	+0.5
BNGL				*i* S	Sn	23 43 29.7	+1.1
MARD	Mardin	1.58	131	*i* P	Pn	23 43 06.0	-1.7
MARD				*i* S	Sn	23 43 26.7	-2.0
GZT	Gaziantep	1.69	234	*i* P	Pn	23 43 08.3	-1.0
GZT				*i* S	Sn	23 43 30.9	-0.6
BTMT	Batman	1.74	95	PN	Pn	23 43 08.9	-1.1
GAZ	Gaziantep	2.03	235	*e*PN	Pn	23 43 14.8	+0.9
GAZ	Gaziantep	2.03	235	*e*Pn	Pn	23 43 14.8	+0.9
KMRS	Kahramanmaras	2.07	246	*e*PN	Pn	23 43 14.9	+0.4
KMRS	Kahramanmaras	2.07	246	*e*Pn	Pn	23 43 14.9	+0.4
SVSK	Karacayir	2.36	312	*e*PN	Pn	23 43 18.7	+0.2
SVSK	Karacayir	2.36	312	*e*Pn	Pn	23 43 18.7	+0.2
ANDN	Andirin	2.45	252	*i* P	Pn	23 43 18.7	-1.1
ANDN				*i* S	Sn	23 43 52.2	+1.9
SIRT	Sirnak	2.64	108	*e*PN	Pn	23 43 23.4	+1.1
SIRT	Sirnak	2.64	108	*e*Pn	Pn	23 43 23.4	+1.1
COBT	Iskenderun	3.03	234	*i* P	Pn	23 43 27.4	-0.3
COBT				*i* S	Sn	23 44 08.8	+4.1
HTY	Hatay	3.36	229	*e*PN	Pn	23 43 33.2	+0.9
HTY	Hatay	3.36	229	*e*Pn	Pn	23 43 33.2	+0.9
HAKT	HAKKARI	3.58	102	*e*P	Pn	23 43 34.4	-0.9
HAKT				*i* S	Sn	23 44 24.6	+6.4
CUKT	Cukurca	3.60	107	*e*PN	Pn	23 43 36.8	+1.3
CUKT	Cukurca	3.60	107	*e*Pn	Pn	23 43 36.8	+1.3
HKR	Hakkari	3.61	101	*e*PN	Pn	23 43 37.4	+1.8
HKR	Hakkari	3.61	101	*e*Pn	Pn	23 43 37.4	+1.8

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*ISCJB **22** 23:46:22.7±0.3,3835N±003×3932E±003,h4km,Error ellipse: s-maj=4.0km s-min=2.9km az=178.5*
*CSEM **22** 23:46:22.2±0.1,3839N×3929E,h2km,MD3.2,Error ellipse: s-maj=2.9km s-min=2.1km az=126.0*
*ISK **22** 23:46:22.0,3840N×3927E,h5km,MD3.1*
*DDA **22** 23:46:23.2,3838N×3931E,h4km±3km,Md3.2*
ISC 22 23:46:23.0±0.5**,3835N**±003×**3932E**±003**,h1km**±5km**,n31, σ0^{s}99**/41**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.30	299	*i* P	Pg	23 46 28.3	-0.5
ELZG				*i* S	Sg	23 46 32.4	-0.3
PTK	Pertek	0.54	6	PG	Pg	23 46 32.2	-1.2
PTK				SG	Sg	23 46 41.2	+0.7
PTK	Pertek	0.54	6	*e*Pg	Pg	23 46 32.2	-1.2
PTK				*e*Sg	Sg	23 46 41.2	+0.7
MALT	Malatya	0.70	267	PG	Pg	23 46 35.4	-1.1
MALT				SG	Sg	23 46 46.9	+1.3
MYA	Malataya	0.70	268	PG	Pg	23 46 35.8	-0.7
MYA				SG	Sg	23 46 46.5	+0.9
DIYA	Diyarbakir	0.76	124	*i* P	Pg	23 46 36.8	-0.8
DIYA				*i* S	Sg	23 46 48.4	+0.9
DIY	Diyarbakir	0.85	122	PG	Pg	23 46 39.6	+0.4
DIY	Diyarbakir	0.85	122	*e*Pg	Pg	23 46 39.6	+0.4
URFA	Urfa	0.99	204	PG	Pg	23 46 42.3	+0.3
URFA	Urfa	0.99	204	*e*Pg	Pg	23 46 42.3	+0.3
ATAB	Bozova	1.20	223	*i* P	Pg	23 46 46.0	+0.1
ATAB				*i* S	Sg	23 47 00.8	-0.6
EZC	Erzincan	1.45	15	PN	Pn	23 46 49.0	-1.3
MARD	Mardin	1.55	131	*i* P	Pn	23 46 50.2	-1.4
MARD				*i* S	Sn	23 47 11.4	-1.0
BNGL	BINGOL	1.55	67	*i* P	Pn	23 46 52.0	+0.3
BNGL				*i* S	Sn	23 47 11.3	-1.2
GZT	Gaziantep	1.71	235	*i* P	Pn	23 46 52.8	-1.1
GZT				*i* S	Sn	23 47 17.3	+1.0
BTMT	Batman	1.71	95	PN	Pn	23 46 53.4	-0.5
GAZ	Gaziantep	2.04	236	*e*PN	Pn	23 46 59.1	+0.6
GAZ	Gaziantep	2.04	236	*e*Pn	Pn	23 46 59.1	+0.6
KMRS	Kahramanmaras	2.09	247	*e*PN	Pn	23 46 59.8	+0.7
KMRS	Kahramanmaras	2.09	247	*e*Pn	Pn	23 46 59.8	+0.7
GUMT	Gumushane	2.11	3	*e*PN	Pn	23 46 59.6	+0.2
GUMT	Gumushane	2.11	3	*e*Pn	Pn	23 46 59.6	+0.2
EZM	Erzurum	2.22	45	*e*PN	Pn	23 47 02.0	+1.1
ERZM	Erzurum	2.22	45	*e*P	Pn	23 47 02.9	+2.0
ANDN	Andirin	2.47	253	*i* P	Pn	23 47 04.0	-0.4
SIRT	Sirnak	2.61	108	*e*PN	Pn	23 47 08.2	+2.0
SIRT	Sirnak	2.61	108	*e*Pn	Pn	23 47 08.2	+2.0
COBT	Iskenderun	3.05	234	*e*P	Pn	23 47 11.3	-1.0
HAKT	HAKKARI	3.56	101	*i* P	Pn	23 47 18.8	-0.4
CUKT	Cukurca	3.57	107	*e*PN	Pn	23 47 21.5	+2.0
CUKT	Cukurca	3.57	107	*e*Pn	Pn	23 47 21.5	+2.0

IDC 22 23:50:48.5±1.2**,102S**×**12737E,h0km,mb3.6**/5**,mb1 3.8**/6**, mb1mx3.7**/17**,mbtmp3.7**/6**,ML3.0**/1**,Error ellipse: s-maj=94.4km s-min=18.4km az=70.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.06	186	Pn	Pn	23 54 47.6	-1.0
	0.0nm,0.3s,baz=21,slow=17,SNR=2.8						
WRA	Warramunga Arr	20.01	161	P	P	23 55 22.5	-0.4
	1.1nm,0.6s,baz=341,slow=11,SNR=14						
ASAR	Alice Springs	23.39	165	P	P	23 55 58.8	-0.4
	1.1nm,0.7s,baz=344,slow=12,SNR=15						
STKA	Stephens Creek	33.51	158	P	P	23 57 31.0	+1.2
	0.6nm,0.4s,baz=318,slow=11,SNR=3.5						
SONM	Songino Array	51.98	342	P	P	23 59 59.5	+0.2
	0.7nm,0.8s,baz=155,slow=7.1,SNR=6.7						
MKAR	Makanchi Array	61.82	326	P	P	00 01 09.2	-0.1
	0.5nm,0.4s,baz=114,slow=8.0,SNR=24						

IDC 22 23:55:32.5±2.3**,089S**×**12787E,h0km,mb3.2**/2**,mb1 3.3**/3**, mb1mx3.2**/16**,mbtmp3.2**/3**,ML3.1**/1**,Error ellipse: s-maj=196.8km s-min=25.6km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.96	162	P	Pn	00 00 06.1	-2.0
	0.1nm,0.3s,baz=341,slow=12,SNR=3.1						
ASAR	Alice Springs	23.38	166	P	P	00 00 43.4	+0.3
	0.4nm,0.8s,baz=339,slow=9.9,SNR=3.0						
MKAR	Makanchi Array	61.99	326	P	P	00 05 54.5	+0.1
	0.2nm,0.4s,baz=122,slow=7.4,SNR=7.9						

IDC 22 23:55:51.2±1.4**,101S**×**12778E,h0km,mb3.5**/3**,mb1 3.7**/4**, mb1mx3.5**/16**,mbtmp3.5**/4**,ML3.7**/1**,Error ellipse: s-maj=128.8km s-min=21.6km az=70.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.88	162	P	Pn	00 00 23.9	-1.9
	0.2nm,0.3s,baz=341,slow=12,SNR=9.1						
ASAR	Alice Springs	23.29	166	P	P	00 01 01.2	+0.4
	0.9nm,0.7s,baz=346,slow=11,SNR=8.8						
SONM	Songino Array	52.10	342	P	P	00 05 03.8	+0.9
	0.3nm,0.6s,baz=148,slow=8.5,SNR=3.4						
MKAR	Makanchi Array	62.04	326	P	P	00 06 13.0	-0.5
	0.4nm,0.3s,baz=114,slow=8.0,SNR=16						

IDC 22 23:56:10.4±1.2**,124S**×**12694E,h0km,mb3.9**/5**,mb1 4.0**/6**, mb1mx3.9**/17**,mbtmp3.9**/6**,ML4.1**/1**,Error ellipse: s-maj=199.4km s-min=17.7km az=68.0,Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.95	159	P	Pn	00 00 43.0	-2.8
	0.5nm,0.3s,baz=341,slow=12,SNR=14						
ASAR	Alice Springs	23.29	164	P	P	00 01 19.8	-0.3
	1.9nm,0.7s,baz=346,slow=11,SNR=12						
STKA	Stephens Creek	33.47	157	P	P	00 02 52.8	+1.4
	3.3nm,1.1s,baz=350,slow=11,SNR=4.5						
SONM	Songino Array	52.06	343	P	P	00 05 22.4	+0.4
	0.6nm,0.6s,baz=150,slow=8.3,SNR=7.8						
MKAR	Makanchi Array	61.77	327	P	P	00 06 31.8	+0.9
	1.4nm,0.5s,baz=123,slow=8.7,SNR=17						
MKAR				PcP	PcP	00 07 11.7	-0.4
	0.8nm,0.6s,baz=126,slow=3.5,SNR=5.3						
ZALV	Zalesovo Beam	65.10	334	P	P	00 06 51.4	-1.4
	0.8nm,0.8s,baz=117,slow=5.0,SNR=4.5						

IDC 23 00:16:51.4±2.0**,065S**×**12846E,h0km,mb3.2**/3**,mb1 3.4**/3**, mb1mx3.3**/16**,mbtmp3.3**/3**,Error ellipse: s-maj=130.6km s-min=25.6km az=68.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.02	164	P	P	00 21 26.6	+0.6
	0.3nm,0.6s,baz=344,slow=12,SNR=5.5						
ASAR	Alice Springs	23.49	167	P	P	00 22 02.7	-0.4
	0.5nm,0.8s,baz=340,slow=11,SNR=6.2						
MKAR	Makanchi Array	62.12	326	P	P	00 27 14.3	+0.1
	0.4nm,0.4s,baz=115,slow=7.9,SNR=9.6						

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*ISK **23** 00:21:06.9,3836N×3931E,h7km,MD2.9*
*CSEM **23** 00:21:06.5±0.2,3835N×3931E,h10km,MD2.9,Error ellipse: s-maj=3.9km s-min=2.4km az=19.0*
*ISCJB **23** 00:21:07.3±0.5,3833N±004×3931E±003,h7km,Error ellipse: s-maj=5.6km s-min=3.2km az=19.3*
*DDA **23** 00:21:07.5,3824N×3929E,h2km,Md3.0*
ISC 23 00:21:07.8±0.5**,3833N**±004×**3931E**±003**,h7km,n16, σ1^{s}16**/29**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.31	303	*i* P	Pg	00 21 13.6	-0.2
ELZG				*i* S	Sg	00 21 18.9	+1.0
PTK	Pertek	0.57	6	PG	Pg	00 21 17.0	-1.7
PTK				SG	Sg	00 21 26.4	+0.3
PTK	Pertek	0.57	6	*e*Pg	Pg	00 21 17.0	-1.7
PTK				*e*Sg	Sg	00 21 26.4	+0.3
MALT	Malatya	0.70	269	PG	Pg	00 21 20.1	-1.0
MALT				SG	Sg	00 21 31.5	+1.3
MALT	Malatya	0.70	269	*e*Pg	Pg	00 21 20.1	-1.0
MALT				*e*Sg	Sg	00 21 31.5	+1.3
MYA	Malataya	0.70	270	PG	Pg	00 21 20.7	-0.5
MYA				SG	Sg	00 21 31.2	+0.9
MYA	Malataya	0.70	270	*e*Pg	Pg	00 21 20.7	-0.5
MYA				*e*Sg	Sg	00 21 31.2	+0.9
DIY	Diyarbakir	0.84	121	PG	Pg	00 21 23.5	-0.4
DIY				SG	Sg	00 21 36.6	+1.8
DIY	Diyarbakir	0.84	121	*e*Pg	Pg	00 21 23.5	-0.4
DIY				*e*Sg	Sg	00 21 36.6	+1.8
URFA	Urfa	0.97	204	*e*PG	Pg	00 21 25.9	-0.4
URFA	Urfa	0.97	204	*e*Pg	Pg	00 21 25.9	-0.4
MARD	Mardin	1.54	131	*i* P	Pn	00 21 33.4	-2.2
MARD				*i* S	Sn	00 21 56.0	+0.2
BNGL	BINGOL	1.57	66	*i* P	Pn	00 21 37.1	+1.1
BNGL				*i* S	Sn	00 22 00.3	+3.8
BEST	Besiri	1.60	105	*i* P	Pn	00 21 36.2	-0.3
BEST				*i* S	Sn	00 21 59.2	+1.8
GZT	Gaziantep	1.69	235	*i* P	Pn	00 21 37.1	-0.6
GZT				*i* S	Sn	00 22 06.5	+7.0
BTMT	Batman	1.72	94	*e*PN	Pn	00 21 36.3	-1.8

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*ISCJB **23** 00:25:15.3±0.1,40.119N±0.010×116.24W±0.01,h5km, mb2.9/1,Error ellipse: s-maj=1.5km s-min=1.3km az=38.6*
*NEIC **23** 00:25:16.4±0.4,40.11N×116.31W,h5km,ML3.5,Error ellipse: s-maj=6.9km s-min=5.1km az=146.0*
*IDC **23** 00:25:16.2±1.0,39.75N×115.92W,h0km,mb2.9/1, mb1 3.6/3,mb1mx3.3/20,mbtmp3.2/3,ML3.7/2,Error ellipse: s-maj=49.5km s-min=7.1km az=144.0*
ISC 23 00:25:15.6±0.2**,40126N**±0009×**11625W**±001**,h1km**±2km**, n125,σ1^{s}07**/222**,mb2.9**/1**,65C-50D,Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
O10A	Cortez Mining,	0.25	311	⇓P	Pg	00 25 21.3	+0.8
	baz=0.2,SNR=1000						
O10A				⇑S	Sg	00 25 25.1	+1.4
	baz=0.2						
O11A	Cowboy Ranch,	0.46	89	⇓P	Pg	00 25 25.0	+0.7
	baz=0.4,SNR=1000						
O11A				⇓S	Sg	00 25 31.0	+0.8
	baz=0.4						
P10A	Eureka	0.53	198	⇓P	Pg	00 25 26.8	+1.0
	baz=0.6,SNR=70						
P10A				⇓S	Sg	00 25 34.3	+1.7
	baz=0.6						
N10A	Dunphy	0.62	342	⇑P	Pg	00 25 27.7	+0.1
	baz=0.6,SNR=84						
N10A				⇑S	Sg	00 25 36.2	+0.5
	baz=0.6						
O09A	Fish Creek Ran	0.72	274	⇑P	Pg	00 25 30.3	+0.9
	baz=0.7,SNR=694						
O09A				⇑S	Sg	00 25 39.9	+1.2
	baz=0.7						
N11A	Elko Archery C	0.79	30	P	Pg	00 25 31.4	+0.6
	baz=0.8,SNR=46						
N11A				⇑S	Sg	00 25 41.7	+0.5
	baz=0.8						
BMN	Battle Mountai	0.80	293	*e*Pg	Pg	00 25 31.4	+0.4
BMN				*e*Sg	Sg	00 25 44.2	+2.9
P09A	Austin	0.89	230	⇓P	Pg	00 25 33.7	+1.0
	baz=0.9,SNR=82						
P09A				⇓S	Sg	00 25 46.0	+1.8
	baz=0.9						
ELK	Elko	0.99	51	*e*Pg	Pg	00 25 34.9	+0.3
ELK				*e*Sg	Sg	00 25 47.2	-0.3
O12A	Currie	1.16	83	⇓P	Pg	00 25 37.8	-0.1
	baz=1.1,SNR=441						
O12A				⇑S	Sg	00 25 52.7	-0.2
	baz=1.1						
N12A	Clover Valley,	1.18	52	⇓P	Pg	00 25 38.0	-0.2
	baz=1.1,SNR=395						
N12A				⇑S	Sg	00 25 53.4	0.0
	baz=1.1						
N09A	Rock Creek Ran	1.21	307	⇓P	Pg	00 25 38.7	-0.1
	baz=1.2,SNR=1000						
N09A				⇓S	Sg	00 25 55.0	+0.5
	baz=1.2						
P12A	McGill	1.22	122	⇑P	Pg	00 25 38.7	-0.4
	baz=1.2,SNR=384						
P12A				⇑S	Sg	00 25 55.3	+0.4
	baz=1.2						
Q10A	Clear Creek Ra	1.30	185	⇑P	Pg	00 25 40.8	+0.2
	baz=1.3,SNR=69						
Q10A				⇓S	Sg	00 25 58.5	+1.0
	baz=1.3						
M11A	Holland Ranch,	1.35	15	⇓P	Pg	00 25 40.6	-0.8
	baz=1.3,SNR=22						
M11A				⇑S	Sg	00 25 59.1	+0.1
	baz=1.3						
Q11A	Duckwater	1.36	160	⇓P	Pg	00 25 41.2	-0.5
	baz=1.4,SNR=457						
Q11A				⇑S	Sg	00 25 60.0	+0.7
	baz=1.4						
M10A	I.L. Ranch, Tu	1.41	351	⇑P	Pn	00 25 41.8	-0.7
	baz=1.4,SNR=842						
M10A				⇑S	Sg	00 26 01.1	+0.1
	baz=1.4						
O08A	Rochester Mine	1.47	277	⇓Pb	Pb	00 25 43.4	-0.3
	baz=1.5,SNR=12						
O08A				⇑S	Sg	00 26 01.4	-1.3
	baz=1.5						
P08A	Dixie Valley	1.47	254	⇓Pb	Pb	00 25 43.9	+0.2
	baz=1.5,SNR=14						
P08A				⇓S	Sg	00 26 02.8	0.0
	baz=1.5						
Q09A	Carvers	1.48	209	P	Pn	00 25 43.2	-0.1
	baz=1.5,SNR=56						
Q09A				⇑S	Sg	00 26 03.4	+0.4
	baz=1.5						
Q12A	Willow Creek R	1.54	134	⇑P	Pn	00 25 43.3	-0.9
	baz=1.6,SNR=484						
Q12A				⇑S	Sn	00 26 04.6	-0.3
	baz=1.6						
N08A	GE Springer Mi	1.58	295	⇓P	Pn	00 25 43.5	-1.2
	baz=1.6						
N08A				⇓S	Sn	00 26 05.9	+0.1
	baz=1.6						
M09A	Marrel Ranch,	1.58	325	⇓P	Pn	00 25 43.9	-0.9
	baz=1.6,SNR=161						
M09A				⇓S	Sn	00 26 05.3	-0.6
	baz=1.6						
M12A	Wells	1.64	38	⇑P	Pn	00 25 44.5	-1.1
	baz=1.6,SNR=38						
M12A				⇑S	Sn	00 26 06.7	-0.7
	baz=1.6						
N13A	Wendover, West	1.72	64	⇓P	Pn	00 25 45.6	-1.1
	baz=1.7,SNR=20						
N13A				⇓S	Sn	00 26 08.1	-1.2
	baz=1.7						
Q08A	Gabbs	1.81	226	⇑P	Pn	00 25 47.1	-0.9
	baz=1.8,SNR=10						
Q08A				⇑S	Sn	00 26 10.9	-0.6
	baz=1.8						
R10A	Warm Springs	1.83	181	⇓P	Pn	00 25 48.1	-0.2
	baz=1.9						
TRCR	Troy Canyon	1.85	164	*e*Pn	Pn	00 25 47.1	-1.4
TRCR				*e*Pg	Pg	00 25 50.1	-0.9
TRCR				*e*Sg	Sg	00 26 15.4	+0.5
L10A	Juniper Basin	1.96	355	P	Pn	00 25 49.4	-0.5
	baz=1.9,SNR=162						
R09A	Tonopah	1.99	199	⇑P	Pn	00 25 50.2	-0.2
	baz=2.0,SNR=9.4						
M13A	Montello	2.01	51	⇑P	Pn	00 25 49.7	-1.0
	baz=2.0,SNR=18						
O07A	Toulon	2.01	272	⇑P	Pn	00 25 50.1	-0.6
	baz=2.0						
L11A	Cat Creek Ranc	2.07	10	⇓P	Pn	00 25 51.4	-0.2
	baz=2.0,SNR=492						
M08A	Happy Creek Ra	2.09	310	⇓P	Pn	00 25 51.0	-0.7
	baz=2.1,SNR=128						
P07A	Fallon	2.11	255	⇑Pg	Pg	00 25 56.5	+0.4
	baz=2.1						
P07A				⇑S	Sn	00 26 18.3	-0.7
	baz=2.1						
L09A	Wilkinson Ranc	2.17	331	⇑P	Pn	00 25 52.4	-0.5
	baz=2.2						
N07B	Gerlach	2.17	288	⇑P	Pn	00 25 52.3	-0.6
	baz=2.2,SNR=28						
TPH	Tonopah	2.18	201	*e*Pn	Pn	00 25 53.1	0.0
TPH				*e*Pg	Pg	00 25 57.4	0.0
TPH				*e*Sg	Sg	00 26 25.9	+0.2
R12A	Pony Springs,	2.20	144	⇑Pb	Pb	00 25 56.1	-0.1
	baz=2.2						
S10A	Tonopah Range,	2.22	187	⇑P	Pn	00 25 53.3	-0.2
	baz=2.2						
S10A				⇓Sb	Sb	00 26 26.7	+2.3
	baz=2.2						
L12A	House Creek Ra	2.22	24	⇓P	Pn	00 25 53.3	-0.3
	baz=2.2,SNR=18						
L12A				⇑S	Sn	00 26 21.3	-0.4
	baz=2.2						
R08A	Mina	2.29	220	⇑P	Pn	00 25 54.2	-0.2
	baz=2.3,SNR=9.5						
R08A				⇓S	Sn	00 26 22.9	-0.3
	baz=2.3						
Q07A	Schurz	2.31	240	⇑S	Sn	00 26 23.8	0.0
	baz=2.3						
NVAR	Mina Array Bea	2.33	224	Pn	Pn	00 25 54.6	-0.4
NVAR				Lg		00 26 27.8	
NVAR	Mina Array Bea	2.33	224	Pn	Pn	00 25 54.6	-0.4
	15nm,0.3s,baz=54,slow=14,SNR=48						
NVAR				Lg		00 26 27.8	
	96nm,0.3s,baz=21,slow=15,SNR=13						
PAHR	Pah Rah Range	2.44	261	*e*Pn	Pn	00 25 56.2	-0.4
PAHR				*e*Sg	Sg	00 26 34.0	-0.1
S11A	Rachel	2.51	171	⇑Pb	Pb	00 26 01.5	+0.1
	baz=2.5						
S09A	Goldfield	2.52	198	⇓P	Pn	00 25 57.6	0.0
	baz=2.5						
M07A	Soldier Meadow	2.55	301	⇓P	Pn	00 25 57.5	-0.6
	baz=2.5,SNR=20						
BGU	Big Grassy Mou	2.58	71	*e*Pn	Pn	00 25 58.5	0.0
L08A	Fields	2.60	323	⇓Pb	Pb	00 26 02.3	-0.7
	baz=2.6						
M14A	Sheep Mountain	2.60	57	⇑P	Pn	00 25 57.9	-0.8
	baz=2.6,SNR=28						
M14A				⇑S	Sn	00 26 30.1	-0.9
	baz=2.6						
L13A	Double Diamond	2.62	41	⇑P	Pn	00 25 58.5	-0.6
	baz=2.6,SNR=9.9						
DUG	Dugway	2.64	87	*e*Pn	Pn	00 26 00.2	+0.9
K11A	Parker Ranch,	2.65	4	⇑P	Pn	00 25 59.6	+0.1
	baz=2.6,SNR=71						
K11A				⇑S	Sn	00 26 31.8	-0.5
	baz=2.6						
K10A	MacKenzie Ranc	2.69	350	⇓P	Pn	00 26 00.2	+0.1
	baz=2.7,SNR=111						
K10A				⇑S	Sn	00 26 33.0	-0.2
	baz=2.7						
K12A	Draper Farm, C	2.71	22	⇑P	Pn	00 26 00.1	-0.1
	baz=2.7,SNR=92						
K12A				⇑S	Sn	00 26 33.8	+0.2
	baz=2.7						
S12A	Delamar Landin	2.74	156	⇑Pb	Pb	00 26 05.2	-0.2
	baz=2.8						
K09A	Rome	2.80	337	⇑P	Pn	00 26 01.4	-0.2
	baz=2.8,SNR=54						
WCN	Washoe City	2.83	254	⇑P	Pn	00 26 01.4	-0.5
	baz=2.8,SNR=49						
WVOR	Wild Horse Val	2.92	323	*e*Pn	Pn	00 26 04.3	+1.1
R06C	Coleville	2.95	238	⇓P	Pn	00 26 02.9	-0.7
	baz=3.0,SNR=9.9						
R06C				⇑S	Sn	00 26 39.8	0.0
	baz=3.0						
T11A	Corn Creek, Al	2.99	164	⇑P	Pn	00 26 04.2	0.0
	baz=3.0						
K13A	Stover Farm, H	3.00	32	⇓P	Pn	00 26 04.0	-0.4

	baz=3.0,SNR=29						
K13A				⇑S	**Sn**	**00 26 40.7**	**-0.2**
	baz=3.0						
S08C	**White Mtn Res**	**3.02**	**210**	⇑P	**Pn**	**00 26 04.7**	**+0.1**
	baz=3.1,SNR=9.1						
K08A	**Mann Creek Ran**	**3.10**	**328**	⇑Pb	**Pb**	**00 26 10.5**	**-1.0**
	baz=3.1						
HVU	**Hansel Valley**	**3.11**	**57**	*e*Pn	**Pn**	**00 26 05.5**	**-0.3**
SPUT	**South Promonto**	**3.12**	**67**	*e*Pn	**Pn**	**00 26 06.6**	**+0.6**
SPUT				*e*Pg	**Pg**	**00 26 16.1**	**+0.7**
SPUT				Sn	**Sn**	**00 26 46.5**	**+2.5**
SPUT				*e*Sg	**Sg**	**00 26 54.3**	**-1.6**
S13A	**Holt Ranch, En**	**3.15**	**143**	⇓P	**Pn**	**00 26 06.0**	**-0.4**
	baz=3.2,SNR=37						
BEKR	**Beckwourth**	**3.17**	**267**	⇑P	**Pn**	**00 26 06.4**	**-0.2**
	baz=3.2,SNR=15						
TPNV	**Topopah Spring**	**3.17**	**180**	*e*Pn	**Pn**	**00 26 06.6**	**-0.1**
TPNV				*e*Sg	**Sg**	**00 26 56.3**	**-1.2**
M15A	**Larsen Ranch,**	**3.18**	**64**	⇓P	**Pn**	**00 26 06.7**	**-0.1**
	baz=3.1,SNR=11						
NOQ	**North Oquirrh**	**3.20**	**79**	*e*Pn	**Pn**	**00 26 07.9**	**+0.8**
NOQ				*e*Pg	**Pg**	**00 26 16.1**	**-0.8**
NOQ				*e*Sn	**Sn**	**00 26 49.2**	**+3.4**
NOQ				*e*Sg	**Sg**	**00 26 55.5**	**-2.9**
ARUT	**Antelope Range**	**3.20**	**136**	*e*Pn	**Pn**	**00 26 09.4**	**+2.4**
ARUT				*e*Pg	**Pg**	**00 26 17.5**	**+0.5**
NLU	**North Lily Min**	**3.21**	**92**	Pn	**Pn**	**00 26 09.2**	**+2.0**
NLU				*e*Sg	**Sg**	**00 26 55.9**	**-2.9**
J12A	**Stokes Ranch,**	**3.24**	**15**	⇓P	**Pn**	**00 26 07.5**	**0.0**
	baz=3.2,SNR=36						
J12A				⇑S	**Sn**	**00 26 45.6**	**-1.1**
	baz=3.2						
R05C	**Kirkwood Meado**	**3.29**	**246**	⇑P	**Pn**	**00 26 07.7**	**-0.5**
	baz=3.3,SNR=18						
MFID	**Camas Ranch**	**3.30**	**5**	⇓Sb	**Sb**	**00 26 56.6**	**+1.0**
	baz=3.3						
MTUM	**Tungsten Hills**	**3.31**	**214**	*e*Pn	**Pn**	**00 26 08.9**	**+0.4**
J10A	**Berg Farm, Mel**	**3.32**	**354**	⇑S	**Sn**	**00 26 48.6**	**-0.3**
	baz=3.3						
K14A	**Jones Ranch, D**	**3.35**	**43**	⇓P	**Pn**	**00 26 08.5**	**-0.6**
	baz=3.3,SNR=5.8						
J09A	**Fry Pan Ranch,**	**3.41**	**341**	⇓P	**Pn**	**00 26 11.6**	**+1.7**
	baz=3.4,SNR=24						
K07A	**Rock Creek Ran**	**3.41**	**320**	⇑P	**Pn**	**00 26 12.2**	**+2.3**
	baz=3.4,SNR=104						
K07A				⇓Sb	**Sb**	**00 27 00.6**	**+1.8**
	baz=3.4						
CCUT	**Cedar City**	**3.42**	**138**	*e*Pn	**Pn**	**00 26 11.1**	**+1.0**
CCUT				*e*Pg	**Pg**	**00 26 21.1**	**0.0**
CCUT				*e*Sg	**Sg**	**00 27 04.1**	**-1.4**
CTU	**Camp Tracy**	**3.48**	**79**	*e*Pn	**Pn**	**00 26 13.8**	**+2.9**
CTU				*e*Pg	**Pg**	**00 26 23.1**	**+0.8**
CTU				*e*Sn	**Sn**	**00 26 54.5**	**+1.7**
CTU				*e*Sg	**Sg**	**00 27 05.1**	**-2.4**
MOD	**Modoc**	**3.54**	**301**	*e*Pn	**Pn**	**00 26 13.6**	**+1.9**
MOD				*e*Pg	**Pg**	**00 26 22.9**	**-0.6**
MOD				Sn	**Sn**	**00 26 51.9**	**-2.3**
MOD				*e*Sg	**Sg**	**00 27 09.7**	**+0.3**
MPU	**Maple Canyon**	**3.55**	**90**	Pn	**Pn**	**00 26 12.4**	**+0.7**
MPU				*e*Pg	**Pg**	**00 26 24.4**	**+0.8**
MPU				*e*Sn	**Sn**	**00 26 58.1**	**+3.8**
MPU				*e*Sg	**Sg**	**00 27 11.2**	**+1.7**
J13A	**Cove Ranch, Pi**	**3.62**	**25**	⇓P	**Pn**	**00 26 12.8**	**0.0**
	baz=3.6,SNR=40						
J13A				⇑Sb	**Sb**	**00 27 05.5**	**+0.7**
	baz=3.6						
J08A	**Circle Bar Ran**	**3.63**	**333**	⇑P	**Pn**	**00 26 14.9**	**+1.9**
	baz=3.6						
HLID	**Hailey**	**3.70**	**21**	*e*Pn	**Pn**	**00 26 14.4**	**+0.5**
HLID				*e*Sn	**Sn**	**00 26 55.2**	**-2.9**
JLU	**Jordanelle**	**3.70**	**81**	*e*Pn	**Pn**	**00 26 09.8**	**-4.1**
JLU				*e*Pg	**Pg**	**00 26 22.7**	**-3.8**
JLU				*e*Sn	**Sn**	**00 26 58.1**	**-0.1**
JLU				*e*Sg	**Sg**	**00 27 15.7**	**+1.3**
I11A	**Placerville**	**3.79**	**3**	⇓Sb	**Sb**	**00 27 10.5**	**+0.8**
	baz=3.8						
CMB	**Columbia Colle**	**3.84**	**238**	*e*Pn	**Pn**	**00 26 14.8**	**-1.0**
CMB				*e*Sn	**Sn**	**00 27 01.8**	**+0.3**
CMB				*e*Sg	**Sg**	**00 27 18.6**	**-0.2**
CMB	**Columbia Colle**	**3.84**	**238**	⇓P	**Pn**	**00 26 15.0**	**-0.7**
	baz=3.9,SNR=14						
CMB				⇓S	**Sn**	**00 27 01.1**	**-0.4**
	baz=3.9						
HWUT	**Hardware Ranch**	**3.85**	**66**	*e*Pn	**Pn**	**00 26 18.1**	**+2.1**
J07A	**Hines**	**3.97**	**326**	⇑Pb	**Pb**	**00 26 24.4**	**-1.9**
	baz=4.0						
DAC	**Darwin (Calif)**	**3.98**	**196**	*e*Pn	**Pn**	**00 26 18.8**	**+1.0**
DAC				*e*Pg	**Pg**	**00 26 30.6**	**-1.4**
DAC				*e*Sg	**Sg**	**00 27 22.6**	**-1.0**
I09A	**Lost Marbles R**	**4.00**	**344**	⇓Sb	**Sb**	**00 27 17.3**	**+1.5**
	baz=4.0						
I13A	**Wildhorse Cree**	**4.11**	**22**	⇑Sb	**Sb**	**00 27 20.3**	**+1.6**
	baz=4.1						
T06C	**Millerton Lake**	**4.13**	**222**	⇑S	**Sn**	**00 27 08.2**	**-0.5**
	baz=4.2						
MPMC	**Manual Prospec**	**4.17**	**194**	⇓P	**Pn**	**00 26 20.6**	**+0.2**
	baz=4.2,SNR=9.2						
S05C	**Merced**	**4.23**	**230**	⇓P	**Pn**	**00 26 20.8**	**-0.3**
	baz=4.3,SNR=6.6						
J06A	**Christmas Vall**	**4.28**	**318**	P	**Pn**	**00 26 22.2**	**+0.4**
	baz=4.3,SNR=15						
J06A				⇑S	**Sn**	**00 27 11.2**	**-1.2**
	baz=4.3						
V12A	**Nelson**	**4.53**	**165**	⇑P	**Pn**	**00 26 25.7**	**+0.4**
	baz=4.6,SNR=19						
SRU	**San Rafael**	**4.54**	**101**	Pn	**Pn**	**00 26 23.4**	**-2.0**
SRU				*e*Sg	**Sg**	**00 27 37.8**	**-3.5**
H11A	**Donnelly**	**4.58**	**2**	⇓Sb	**Sb**	**00 27 34.0**	**+1.6**
	baz=4.6						
H13A	**Challis**	**4.68**	**18**	⇑Sb	**Sb**	**00 27 36.7**	**+1.5**
	baz=4.6						
AHID	**Auburn Hatcher**	**4.68**	**54**	Pn	**Pn**	**00 26 28.5**	**+1.1**
AHID				*e*Pg	**Pg**	**00 26 44.6**	**-0.7**
AHID				*e*Sn	**Sn**	**00 27 26.1**	**+3.7**
AHID				*e*Sg	**Sg**	**00 27 44.7**	**-1.3**
BMO	**Blue Mountains**	**4.79**	**351**	Pn	**Pn**	**00 26 33.8**	**+4.9**
WDC	**Whiskeytown Da**	**4.83**	**277**	*e*Pg	**Pg**	**00 26 44.9**	**-3.2**
WDC				*e*Sg	**Sg**	**00 27 47.0**	**-3.6**
YBH	**Yreka Blue Hor**	**5.15**	**290**	*e*Pg	**Pg**	**00 26 50.6**	**-3.6**
YBH				*e*Sg	**Sg**	**00 27 56.9**	**-4.1**
MCMT	**McKenzie Canyo**	**5.33**	**27**	*e*Pn	**Pn**	**00 26 37.4**	**+1.1**
MCMT				*e*Pg	**Pg**	**00 26 57.4**	**-0.3**
MCMT				*e*Sn	**Sn**	**00 27 37.8**	**-0.5**
MCMT				*e*Sg	**Sg**	**00 28 06.5**	**-0.3**
MOOW	**Moose Ponds**	**5.47**	**47**	*e*Pn	**Pn**	**00 26 36.7**	**-1.6**
	4.2nm,0.6s						
MOOW				*e*Pg	**Pg**	**00 26 58.8**	**-1.7**
MOOW				Sn	**Sn**	**00 27 40.4**	**-1.5**
MOOW				*e*Sg	**Sg**	**00 28 10.2**	**-1.2**
HUMO	**Hull Mountain**	**5.62**	**298**	*e*Pn	**Pn**	**00 26 39.6**	**-0.6**
	5.4nm,0.6s						
HUMO				*e*Pg	**Pg**	**00 26 59.9**	**-3.3**
HUMO				*e*Sn	**Sn**	**00 27 41.9**	**-3.6**
PDAR	**Pinedale Array**	**5.68**	**60**	Pn	**Pn**	**00 26 44.0**	**+2.9**
PDAR				Lg		00 28 12.9	
PDAR	**Pinedale Array**	**5.68**	**60**	Pn	**Pn**	**00 26 44.0**	**+2.9**
	0.3nm,0.3s,baz=240,slow=12,SNR=21						
PDAR				Lg		00 28 12.9	
	0.6nm,0.3s,baz=231,slow=27,SNR=5.2						
QLMT	**Earthquake Lak**	**5.90**	**36**	Pn	**Pn**	**00 26 46.9**	**+2.8**
WUAZ	**Wupatki**	**6.01**	**138**	*e*Pg	**Pg**	**00 27 07.8**	**-2.9**
PV01	**Paradox Valley**	**6.29**	**106**	*e*Pn	**Pn**	**00 26 51.6**	**+2.1**
PV01				*e*Pg	**Pg**	**00 27 16.5**	**+0.3**
PV01				*e*Sn	**Sn**	**00 28 09.3**	**+7.2**
PV01				*e*Sg	**Sg**	**00 28 37.1**	**-0.6**
PFO	**Pinyon Flat Ob**	**6.51**	**181**	Lg		00 28 42.3	
	baz=88,slow=17						
MVCO	**Mesa Verde**	**6.73**	**113**	*e*Pn	**Pn**	**00 26 58.4**	**+2.9**
	8.5nm,0.5s						
MVCO				*e*Pg	**Pg**	**00 27 26.1**	**+1.6**
MVCO				*e*Sn	**Sn**	**00 28 16.7**	**+3.9**
MVCO				*e*Sg	**Sg**	**00 28 50.5**	**-1.1**
CHMT	**Chamberlain Mo**	**7.13**	**17**	*e*Pn	**Pn**	**00 27 00.4**	**-0.6**
CHMT				*e*Pg	**Pg**	**00 27 29.0**	**-3.1**
CHMT				Sn	**Sn**	**00 28 24.5**	**+1.9**
CHMT				*e*Sg	**Sg**	**00 28 59.3**	**-5.1**
SMCO	**Snowmass**	**7.22**	**95**	*e*Pg	**Pg**	**00 27 29.6**	**-4.4**
SMCO				*e*Sg	**Sg**	**00 28 59.1**	**-8.4**
YKA	**Yellowknife Ar**	**22.42**	**2**	P	**P**	**00 30 19.4**	**+4.0**
YKA	**Yellowknife Ar**	**22.42**	**2**	P	**P**	**00 30 19.4**	**+4.0**
	0.3nm,0.7s,mb2.9,baz=184,slow=9.5,SNR=6.4						

IDC 23 00:35:21.2±2.0**,1.03S×127.55E,h0^{km},mb3.4**/2**,mb1 3.5**/3**,mb1mx3.3**/16**,mbtmp3.3**/3**,Error ellipse: s-maj=158.4km s-min=25.1km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.93**	**161**	P	Pn	00 39 55.6	-0.8
	0.1nm,0.3s,baz=340,slow=11,SNR=5.0						
ASAR	**Alice Springs**	**23.32**	**165**	P	P	00 40 30.7	-0.5
	0.2nm,0.3s,baz=344,slow=10,SNR=6.1						
MKAR	**Makanchi Array**	**61.93**	**326**	P	P	00 45 42.9	+0.1
	0.2nm,0.3s,baz=114,slow=7.7,SNR=13						

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*CSEM **23** 00:40:33.4±0.1,38.34N×39.26E,h5^{km},MD3.6,Error ellipse: s-maj=2.2km s-min=1.0km az=175.0*

*ISK **23** 00:40:33.8,38.36N×39.23E,h3^{km},MD3.4*

*ISCJB **23** 00:40:34.1±0.7,38.33N±0.03×39.27E±0.03,h1^{km}±6^{km}, Error ellipse: s-maj=4.9km s-min=3.6km az=158.5*

*DDA **23** 00:40:35.5,38.35N×39.24E,h9^{km},Md3.6*

ISC 23 00:40:35.0±0.5**,38.36N**±0.03×**39.28E**±0.03**,h5^{km}**±5^{km}**,n45,σ0^{s}86**/61**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.27**	**301**	*i* P	**Pg**	**00 40 39.9**	**-0.4**
ELZG				*i* S	**Sg**	**00 40 45.0**	**+1.2**
PTK	**Pertek**	**0.54**	**9**	PG	**Pg**	**00 40 44.3**	**-1.1**
PTK				SG	**Sg**	**00 40 53.2**	**+0.8**
PTK	**Pertek**	**0.54**	**9**	*e*Pg	**Pg**	**00 40 44.3**	**-1.1**
PTK				*e*Sg	**Sg**	**00 40 53.2**	**+0.8**
MALT	**Malatya**	**0.67**	**266**	PG	**Pg**	**00 40 46.4**	**-1.5**
MALT				SG	**Sg**	**00 40 56.7**	**+0.1**
MALT	**Malatya**	**0.67**	**266**	*e*Pg	**Pg**	**00 40 46.4**	**-1.5**
MALT				*e*Sg	**Sg**	**00 40 56.7**	**+0.1**
MYA	**Malataya**	**0.67**	**268**	PG	**Pg**	**00 40 46.7**	**-1.2**
MYA				SG	**Sg**	**00 40 56.3**	**-0.3**
MYA	**Malataya**	**0.67**	**268**	*e*Pg	**Pg**	**00 40 46.7**	**-1.2**
MYA				*e*Sg	**Sg**	**00 40 56.3**	**-0.3**
DIY	**Diyarbakir**	**0.88**	**121**	PG	**Pg**	**00 40 51.9**	**+0.1**
DIY	**Diyarbakir**	**0.88**	**121**	*e*Pg	**Pg**	**00 40 51.9**	**+0.1**
URFA	**Urfa**	**0.98**	**202**	PG	**Pg**	**00 40 53.9**	**0.0**
URFA	**Urfa**	**0.98**	**202**	*e*Pg	**Pg**	**00 40 53.9**	**0.0**
BINT	**Bingol**	**1.08**	**61**	PN	**Pn**	**00 40 56.4**	**-0.4**
BINT	**Bingol**	**1.08**	**61**	*e*Pn	**Pn**	**00 40 56.4**	**-0.4**
ATAB	**Bozova**	**1.18**	**222**	*i* P	**Pg**	**00 40 57.2**	**-0.4**
ATAB				*i* S	**Sg**	**00 41 14.3**	**+1.4**
EZC	**Erzincan**	**1.45**	**17**	PN	**Pn**	**00 41 01.4**	**-0.5**
BNGL	**BINGOL**	**1.58**	**67**	*i* P	**Pn**	**00 41 05.1**	**+1.4**
BNGL				*i* S	**Sn**	**00 41 27.9**	**+3.3**
MARD	**Mardin**	**1.58**	**131**	*i* P	**Pn**	**00 41 02.9**	**-0.8**
MARD				*i* S	**Sn**	**00 41 25.6**	**+1.1**
BEST	**Besiri**	**1.64**	**106**	*i* P	**Pn**	**00 41 04.3**	**-0.2**
BEST				*i* S	**Sn**	**00 41 25.9**	**0.0**
GZT	**Gaziantep**	**1.69**	**234**	*i* P	**Pn**	**00 41 04.6**	**-0.6**
GZT				*i* S	**Sg**	**00 41 29.5**	**+0.3**
BTMT	**Batman**	**1.75**	**95**	PN	**Pn**	**00 41 05.3**	**-0.7**
GAZ	**Gaziantep**	**2.02**	**235**	PN	**Pn**	**00 41 08.8**	**-1.0**
GAZ	**Gaziantep**	**2.02**	**235**	*e*Pn	**Pn**	**00 41 08.8**	**-1.0**
KMRS	**Kahramanmaras**	**2.06**	**246**	*e*PN	**Pn**	**00 41 09.3**	**-1.1**
KMRS	**Kahramanmaras**	**2.06**	**246**	*e*Pn	**Pn**	**00 41 09.3**	**-1.1**
GUMT	**Gumushane**	**2.10**	**4**	*e*PN	**Pn**	**00 41 11.7**	**+0.8**
GUMT	**Gumushane**	**2.10**	**4**	*e*Pn	**Pn**	**00 41 11.7**	**+0.8**
SVSK	**Karacayir**	**2.36**	**312**	*e*PN	**Pn**	**00 41 15.2**	**+0.8**
SVSK	**Karacayir**	**2.36**	**312**	*e*Pn	**Pn**	**00 41 15.2**	**+0.8**
ANDN	**Andirin**	**2.44**	**252**	*i* P	**Pn**	**00 41 14.7**	**-0.9**
ANDN				*i* S	**Sg**	**00 41 54.4**	**+0.9**
SIRT	**Sirnak**	**2.64**	**108**	*e*PN	**Pn**	**00 41 18.6**	**+0.3**
SIRT	**Sirnak**	**2.64**	**108**	*e*Pn	**Pn**	**00 41 18.6**	**+0.3**
BNN	**Bunyan**	**2.73**	**281**	*e*PN	**Pn**	**00 41 20.3**	**+0.7**
BNN	**Bunyan**	**2.73**	**281**	*e*Pn	**Pn**	**00 41 20.3**	**+0.7**
COBT	**Iskenderun**	**3.03**	**234**	*i* P	**Pn**	**00 41 22.1**	**-1.5**
COBT				*i* S	**Sg**	**00 42 13.9**	**+1.7**
COBT	**Iskenderun**	**3.03**	**234**	*i* P	**Pn**	**00 41 22.0**	**-1.6**
YOZ	**Yozgat**	**3.34**	**294**	*e*PN	**Pn**	**00 41 27.5**	**-0.4**
YOZ	**Yozgat**	**3.34**	**294**	*e*Pn	**Pn**	**00 41 27.5**	**-0.4**
HTY	**Hatay**	**3.36**	**229**	*e*PN	**Pn**	**00 41 27.9**	**-0.2**
HTY	**Hatay**	**3.36**	**229**	*e*Pn	**Pn**	**00 41 27.9**	**-0.2**
AVNT	**Avonos**	**3.49**	**278**	*i* P	**Pn**	**00 41 30.7**	**+0.7**
AVNT				*i* S	**Sg**	**00 42 33.9**	**+6.7**
HAKT	**HAKKARI**	**3.59**	**101**	*i* P	**Pn**	**00 41 31.4**	**0.0**
HAKT				*i* S	**Sg**	**00 42 29.7**	**-0.6**
CUKT	**Cukurca**	**3.60**	**107**	*e*PN	**Pn**	**00 41 32.0**	**+0.5**
CUKT	**Cukurca**	**3.60**	**107**	*e*Pn	**Pn**	**00 41 32.0**	**+0.5**
HKR	**Hakkari**	**3.61**	**101**	*e*PN	**Pn**	**00 41 32.0**	**+0.4**
HKR	**Hakkari**	**3.61**	**101**	*e*Pn	**Pn**	**00 41 32.0**	**+0.4**

IDC 23 00:41:27.1±2.1**,1.00S×127.51E,h0^{km},mb3.3**/2**,mb1 3.4**/3**,mb1mx3.3**/16**,mbtmp3.3**/3**,ML3.2**/1**,Error ellipse: s-maj=164.2km s-min=27.0km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.97**	**161**	P	Pn	00 46 01.8	-1.0
	0.1nm,0.3s,baz=340,slow=11,SNR=4.6						
ASAR	**Alice Springs**	**23.37**	**165**	P	P	00 46 37.1	-0.4
	0.4nm,0.6s,baz=349,slow=12,SNR=4.4						
MKAR	**Makanchi Array**	**61.88**	**326**	P	P	00 51 48.4	+0.1
	0.3nm,0.5s,baz=121,slow=7.8,SNR=6.0						

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*ISK **23** 01:01:49.8,38.44N×39.30E,h5^{km},MD2.9*

*ISCJB **23** 01:01:50.8±0.5,38.41N±0.04×39.35E±0.03,h5^{km},Error ellipse: s-maj=5.1km s-min=3.5km az=8.8*

*CSEM **23** 01:01:50.2±0.1,38.45N×39.33E,h10^{km},MD2.8,Error ellipse: s-maj=3.2km s-min=2.9km az=137.0*

*DDA **23** 01:01:51.3,38.45N×39.37E,h9^{km},Md2.8*

ISC 23 01:01:51.2±0.5**,38.40N**±0.03×**39.36E**±0.03**,h5^{km},n16,σ0^{s}82**/27**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.31**	**288**	*i* P	**Pg**	**01 01 56.9**	**-0.2**
ELZG				*i* S	**Sg**	**01 02 02.1**	**+0.9**
PTK	**Pertek**	**0.49**	**3**	PG	**Pg**	**01 01 59.5**	**-1.1**
PTK				SG	**Sg**	**01 02 07.6**	**+0.6**
PTK	**Pertek**	**0.49**	**3**	*e*Pg	**Pg**	**01 01 59.5**	**-1.1**
PTK				*e*Sg	**Sg**	**01 02 07.6**	**+0.6**
MALT	**Malatya**	**0.73**	**263**	PG	**Pg**	**01 02 03.7**	**-1.6**
MALT				SG	**Sg**	**01 02 15.4**	**+0.6**
MALT	**Malatya**	**0.73**	**263**	*e*Pg	**Pg**	**01 02 03.7**	**-1.6**
MALT				*e*Sg	**Sg**	**01 02 15.4**	**+0.6**
MYA	**Malataya**	**0.74**	**264**	PG	**Pg**	**01 02 04.7**	**-0.6**
MYA				SG	**Sg**	**01 02 15.5**	**+0.7**
MYA	**Malataya**	**0.74**	**264**	*e*Pg	**Pg**	**01 02 04.7**	**-0.6**
MYA				*e*Sg	**Sg**	**01 02 15.5**	**+0.7**
DIY	**Diyarbakir**	**0.85**	**126**	PG	**Pg**	**01 02 08.2**	**+0.7**
DIY	**Diyarbakir**	**0.85**	**126**	*e*Pg	**Pg**	**01 02 08.2**	**+0.7**
URFA	**Urfa**	**1.05**	**204**	*e*PG	**Pg**	**01 02 11.4**	**+0.2**
URFA	**Urfa**	**1.05**	**204**	*e*Pg	**Pg**	**01 02 11.4**	**+0.2**
ATAB	**Bozova**	**1.25**	**222**	*i* P	**Pg**	**01 02 15.0**	**-0.2**
ATAB				*i* S	**Sg**	**01 02 31.3**	**-0.1**
MARD	**Mardin**	**1.56**	**134**	*i* P	**Pn**	**01 02 18.1**	**-1.5**
MARD				*i* S	**Sn**	**01 02 40.1**	**-0.1**
BEST	**Besiri**	**1.59**	**108**	*i* P	**Pn**	**01 02 20.0**	**+0.1**
BEST				*i* S	**Sn**	**01 02 42.4**	**+1.5**
BTMT	**Batman**	**1.69**	**96**	*e*PN	**Pn**	**01 02 21.1**	**-0.2**
GZT	**Gaziantep**	**1.76**	**234**	*i* P	**Pn**	**01 02 22.1**	**-0.2**
GZT				*i* S	**Sn**	**01 02 48.9**	**+3.8**

IDC 23 01:08:32.4±4.7**,8.67S×108.18W,h0^{km},mb3.6**/5**,mb1 4.0**/5**,mb1mx3.9**/10**,mbtmp3.6**/5**,MS4.0**/5**,Ms1 4.0**/5**,ms1mx3.7**/13**,Error ellipse: s-maj=148.4km s-min=29.7km az=49.0,Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RKT	**Rikitea**	**29.42**	**238**	*e*LR	LR	01 22 04.3	
	493nm,27.5s						
ROSC	**El Rosal**	**36.33**	**70**	LR	LR	01 27 12.0	
	comp=Z,118nm,18.7s,baz=197,slow=31						
TXAR	**Lajitas Array**	**38.03**	**6**	P	P	01 15 51.7	-0.8
	0.2nm,0.9s,baz=216,slow=7.6,SNR=3.6						
TXAR				LR	LR	01 29 49.2	
	comp=Z,128nm,19.7s,baz=55,slow=34						
LPAZ	**La Paz**	**39.77**	**105**	P	P	01 16 08.1	+0.7
	1.9nm,0.8s,baz=281,slow=4.4,SNR=10						
LPAZ				LR	LR	01 29 07.7	
	comp=Z,179nm,18.3s,baz=113,slow=31						
PPT	**Papeete**	**41.19**	**253**	*e*LR	LR	01 27 22.1	
	296nm,23.8s						
PPT	**Papeete**	**41.19**	**253**	LR	LR	01 28 04.6	
	comp=Z,219nm,21.7s,baz=54,slow=28						
NVAR	**Mina Array Bea**	**47.80**	**349**	P	P	01 17 12.3	+0.8
	0.6nm,0.5s,baz=140,slow=13,SNR=2.9						
PDAR	**Pinedale Array**	**51.20**	**359**	P	P	01 17 39.7	+2.2
	0.5nm,1.0s,baz=155,slow=6.8,SNR=3.1						
YKA	**Yellowknife Ar**	**71.12**	**357**	P	P	01 19 51.2	-1.2
	0.2nm,0.4s,baz=167,slow=5.7,SNR=5.3						
SCHQ	**Schefferville**	**72.11**	**24**	LR	LR	01 49 52.3	
	comp=Z,167nm,18.1s,baz=106,slow=34						
MKAR	**Makanchi Array**	**140.97**	**349**	PKP	PKPdf	01 28 04.6	-0.1
	0.6nm,0.9s,baz=28,slow=2.9,SNR=4.5						

IDC 23 01:18:49.1±3.0**,0.81S×128.07E,h0^{km},mb3.5**/2**,mb1 3.7**/3**,mb1mx3.4**/16**,mbtmp3.5**/3**,ML3.6**/1**,Error ellipse: s-maj=283.5km s-min=25.4km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.98**	**162**	P	Pn	01 23 23.1	-1.8
	0.2nm,0.3s,baz=341,slow=12,SNR=10						
ASAR	**Alice Springs**	**23.41**	**166**	P	P	01 24 00.2	+0.2
	0.4nm,0.5s,baz=347,slow=12,SNR=4.5						
MKAR	**Makanchi Array**	**62.03**	**326**	P	P	01 29 11.4	0.0
	0.3nm,0.4s,baz=119,slow=8.0,SNR=11						

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*IDC **23** 01:22:09.8±1.6,29.24N×132.13E,h0^{km},mb3.5/4, mb1 3.6/6,mb1mx3.5/22,mbtmp3.5/6,ML3.3/2,Error ellipse: s-maj=42.3km s-min=21.6km az=77.0*

*ISCJB **23** 01:22:11.6±0.8,29.36N±0.03×132.26E±0.06,h33^{km}, mb3.3/4,Error ellipse: s-maj=7.7km s-min=4.6km az=12.1*

*JMA **23** 01:22:12.2±0.2,29.39N×132.26E,h62^{km},M3.8*

*NEIC **23** 01:22:14.2±1.2,29.32N×132.10E,h35^{km},MG3.8(JMA), Error ellipse: s-maj=30.5km s-min=15.3km az=87.0*

ISC 23 01:22:11.9±2.1**,29.37N**±0.03×**132.20E**±0.07**,h20^{km}**±18^{km}**,n19,σ1^{s}02**/33**,mb3.3**/4**,Southeast of Shikoku**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTN	**Tanegashima 3**	**1.66**	**321**	P	**Pn**	**01 22 40.0**	**+0.1**
JTN				*e*S	**Sn**	**01 23 00.5**	**-0.1**
JKC	**Kuchinoerabu**	**2.05**	**303**	P	**Pn**	**01 22 46.1**	**+0.8**
JKC				*e*S	**Sn**	**01 23 11.3**	**+1.0**
JNN	**Nakanoshima**	**2.08**	**284**	P	**Pn**	**01 22 46.0**	**+0.4**
JNN				*e*S	**Sn**	**01 23 12.2**	**+1.3**
JTSR	**Tashiro 2**	**2.10**	**329**	P	**Pn**	**01 22 45.9**	**-0.1**
JTSR				*e*S	**Sn**	**01 23 11.2**	**-0.4**
JZK	**Kikaishima**	**2.22**	**242**	*e*S	**Sn**	**01 23 15.9**	**+1.5**
JNAR	**Kushima--Naru**	**2.29**	**340**	P	**Pn**	**01 22 48.6**	**0.0**
JNAR				*e*S	**Sn**	**01 23 14.6**	**-1.7**
JAM	**Amami Oshima**	**2.47**	**248**	P	**Pn**	**01 22 51.3**	**+0.3**
JAM				*e*S	**Sn**	**01 23 19.8**	**-0.7**
JTZ	**Takazaki**	**2.70**	**339**	P	**Pn**	**01 22 54.2**	**0.0**
JTZ				S	**Sn**	**01 23 25.6**	**-0.6**
JSJ	**Shimokoshiki**	**3.14**	**318**	P	**Pn**	**01 22 59.8**	**-0.5**
JSJ				*e*S	**Sn**	**01 23 35.9**	**-1.3**
JTK	**Tokunoshima**	**3.26**	**242**	P	**Pn**	**01 23 02.2**	**+0.2**
JTK				*e*S	**Sn**	**01 23 39.0**	**-1.2**
JTO	**Tosashimizu**	**3.52**	**8**	P	**Pn**	**01 23 04.1**	**-1.3**
JTO				*e*S	**Sn**	**01 23 40.5**	**-5.9**
JNU	**Nakatsue**	**3.91**	**344**	Pn	**Pn**	**01 23 11.5**	**+0.7**
JNU				Sn	**Sn**	**01 23 57.0**	**+0.9**
JNU	**Nakatsue**	**3.91**	**344**	Pn	**Pn**	**01 23 11.5**	**+0.7**
	3.1nm,0.3s,baz=135,slow=2.9,SNR=22						
JNU				Sn	**Sn**	**01 23 57.0**	**+0.9**
	2.3nm,0.3s,baz=206,slow=32,SNR=6.2						
JOW	**Kunigami**	**4.29**	**235**	Pn	**Pn**	**01 23 15.2**	**-0.8**
JOW				Sn	**Sn**	**01 24 02.8**	**-2.8**
JOW	**Kunigami**	**4.29**	**235**	Pn	**Pn**	**01 23 15.2**	**-0.8**
	3.2nm,0.3s,baz=126,slow=23,SNR=5.2						
JOW				Sn	**Sn**	**01 24 02.8**	**-2.8**
	7.0nm,0.3s,baz=110,slow=26,SNR=6.1						
SONM	**Songino Array**	**27.12**	**320**	P	**P**	**01 27 55.6**	**+2.2**
	0.5nm,0.8s,mb3.1,baz=137,slow=6.9,SNR=4.4						
MKAR	**Makanchi Array**	**42.20**	**309**	P	**P**	**01 30 04.6**	**+1.3**
	0.6nm,0.8s,mb3.2,baz=96,slow=9.9,SNR=4.4						
WRA	**Warramunga Arr**	**49.07**	**177**	P	**P**	**01 30 56.7**	**-1.1**
	0.4nm,0.8s,mb3.5,baz=351,slow=7.8,SNR=4.5						
ASAR	**Alice Springs**	**52.76**	**178**	P	**P**	**01 31 26.5**	**+1.0**
	0.3nm,0.6s,mb3.4,baz=8.8,slow=14,SNR=4.7						

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*ISCJB **23** 01:33:39.6±0.7,1.07S±0.09×127.4E±0.2,h10^{km},mb4.1/6, Error ellipse: s-maj=26.0km s-min=8.7km az=156.5*

*IDC **23** 01:33:40.2±1.2,1.10S×127.39E,h0^{km},mb3.8/4,mb1 3.9/6, mb1mx3.7/17,mbtmp3.8/6,ML3.7/2,Error ellipse: s-maj=99.4km s-min=18.9km az=72.0*

*NEIC **23** 01:33:41.8±0.4,1.08S×127.36E,h10^{km},mb4.4/1,Error ellipse: s-maj=17.2km s-min=5.6km az=66.0*

ISC 23 01:33:41.0±7.8**,1.1S**±0.1×**127.4E**±0.2**,h6^{km}**±50^{km}**,n16,σ0^{s}74**/16**,mb4.1**/6**,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**12.59**	**157**	*e*Pn	**Pn**	**01 36 41.6**	**+0.7**
KKM	**Kota Kinabalu**	**13.21**	**303**	Pn	**Pn**	**01 36 49.0**	**-0.4**
FITZ	**Fitzroy Crossi**	**17.00**	**186**	Pn	**Pn**	**01 37 40.7**	**+1.1**
FITZ	**Fitzroy Crossi**	**17.00**	**186**	Pn	**Pn**	**01 37 40.7**	**+1.1**
	0.1nm,0.3s,baz=3.4,slow=13,SNR=4.3						
WRA	**Warramunga Arr**	**19.94**	**161**	P	**Pn**	**01 38 13.2**	**-2.4**
	0.3nm,0.3s,baz=339,slow=11,SNR=22						
MBWA	**Marble Bar**	**21.31**	**200**	P	**P**	**01 38 29.4**	**+0.6**
ASAR	**Alice Springs**	**23.32**	**165**	P	**P**	**01 38 49.9**	**-0.3**
	3.0nm,0.9s,mb3.7,baz=343,slow=10,SNR=15						
KULM	**Kulim**	**27.45**	**284**	P	**P**	**01 39 27.4**	**-0.7**
TAU	**Tasmania Unive**	**45.31**	**159**	*e*P	**P**	**01 41 59.4**	**-0.4**
SONM	**Songino Array**	**52.04**	**342**	P	**P**	**01 42 52.5**	**+1.0**
	1.2nm,0.9s,mb3.8,baz=159,slow=8.6,SNR=7.8						
MK31	**Makanchi Array**	**61.88**	**327**	*e*P	**P**	**01 44 01.4**	**0.0**
MKAR	**Makanchi Array**	**61.88**	**327**	P	**P**	**01 44 01.3**	**0.0**
	0.7nm,0.3s,mb4.2,baz=114,slow=7.9,SNR=50						
ZALV	**Zalesovo Beam**	**65.16**	**334**	P	**P**	**01 44 22.8**	**0.0**
	0.8nm,0.8s,mb3.8,baz=126,slow=7.5,SNR=4.1						
KURK	**Kurchatov**	**66.14**	**328**	*e*P	**P**	**01 44 29.3**	**+0.1**
	3.2nm,0.6s,mb4.5						
BRVK	**Borovoye**	**71.77**	**328**	*e*P	**P**	**01 45 04.3**	**0.0**
	2.7nm,0.8s,mb4.2						
CHKZ	**Chkalovo**	**71.89**	**328**	P	**P**	**01 45 05.0**	**+0.1**

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*IDC **23** 01:35:08.6±1.5,1.95S×128.24E,h0^{km},mb3.8/5,mb1 3.9/6, mb1mx3.8/16,mbtmp3.8/6,ML3.7/1,Error ellipse: s-maj=224.3km s-min=19.5km az=69.0*

*ISCJB **23** 01:35:10.5±5.7,1.9S±0.1×128.3E±0.1,h29^{km}±43^{km}, mb3.9/7,Error ellipse: s-maj=24.7km s-min=10.9km az=142.4*

*NEIC **23** 01:35:13.4±0.4,1.92S×128.31E,h35^{km},mb4.1/3,Error ellipse: s-maj=15.4km s-min=6.8km az=57.0*

ISC 23 01:35:12.3±5.1**,1.9S**±0.1×**128.3E**±0.1**,h26^{km}**±38^{km}**,n18,σ0^{s}73**/18**,mb3.9**/7**,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KKM	**Kota Kinabalu**	**14.45**	**303**	*e*Pn	**Pn**	**01 38 34.5**	**-0.7**
WRA	**Warramunga Arr**	**18.84**	**162**	P	**Pn**	**01 39 31.4**	**+0.4**
	0.2nm,0.3s,baz=338,slow=11,SNR=8.5						
WB2	**Warramunga Arr**	**18.84**	**162**	*e*P	**Pn**	**01 39 31.4**	**+0.3**
PMG	**Port Moresby**	**20.15**	**112**	*e*P	**P**	**01 39 45.1**	**+0.4**
	7.6nm,0.8s						
ASAR	**Alice Springs**	**22.27**	**166**	P	**P**	**01 40 08.2**	**+0.7**
	0.9nm,0.5s,mb3.5,baz=352,slow=16,SNR=6.5						
YHNB	**Yeheng**	**27.29**	**346**	*e*P	**P**	**01 40 54.7**	**-0.1**
KULM	**Kulim**	**28.55**	**285**	*e*P	**P**	**01 41 06.9**	**+0.7**
STKA	**Stephens Creek**	**32.31**	**159**	P	**P**	**01 41 38.4**	**-0.8**
	0.9nm,0.5s,mb3.8,baz=336,slow=12,SNR=1.7						
HNR	**Honiara**	**32.32**	**105**	P	**P**	**01 41 38.7**	**-0.9**
NWAO	**Narrogin (SRO)**	**32.54**	**197**	P	**P**	**01 41 40.5**	**-0.8**
LSA	**Lhasa**	**47.44**	**314**	P	**P**	**01 43 45.4**	**+0.5**
SONM	**Songino Array**	**53.14**	**342**	P	**P**	**01 44 28.6**	**+0.9**
	1.1nm,0.9s,mb3.8,baz=155,slow=8.5,SNR=3.5						
MK31	**Makanchi Array**	**63.10**	**326**	*e*P	**P**	**01 45 37.5**	**0.0**
MKAR	**Makanchi Array**	**63.10**	**326**	P	**P**	**01 45 37.5**	**-0.1**
	1.5nm,0.5s,mb4.4,baz=115,slow=8.1,SNR=8.2						
ZALV	**Zalesovo Beam**	**66.33**	**334**	P	**P**	**01 45 59.1**	**+0.7**
	0.3nm,0.4s,mb3.7,baz=107,slow=5.0,SNR=3.2						
KURK	**Kurchatov**	**67.35**	**328**	*e*P	**P**	**01 46 05.4**	**+0.3**
	2.4nm,0.6s,mb4.4						
BRVK	**Borovoye**	**72.98**	**328**	*e*P	**P**	**01 46 37.3**	**-2.2**
	1.2nm,0.6s,mb4.0						
CHKZ	**Chkalovo**	**73.10**	**328**	P	**P**	**01 46 40.5**	**+0.3**

IDC 23 01:50:06.0±1.4**,129S×12708E,h0^{km},mb3.4**/3**,mb1 3.5**/4**, mb1mx3.4**/17**,mbtmp3.4**/4**,ML3.5**/1**,Error ellipse: s-maj=131.8km s-min=22.8km az=69.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**19.86**	**160**	P	Pn	01 54 38.8	-1.5
	0.2nm,0.3s,baz=340,slow=11,SNR=10.0						
ASAR	**Alice Springs**	**23.21**	**164**	P	P	01 55 14.9	+0.2
	0.4nm,0.5s,baz=344,slow=11,SNR=6.5						
SONM	**Songino Array**	**52.14**	**342**	P	P	01 59 19.9	+1.8
	0.4nm,0.8s,baz=150,slow=10,SNR=4.0						
MKAR	**Makanchi Array**	**61.88**	**327**	P	P	02 00 25.9	-1.3
	0.4nm,0.6s,baz=132,slow=8.5,SNR=5.9						

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*IDC **23** 01:54:22.8±7.9,507S×15092E,h92^{km}±56^{km},mb3.8/3, mb1 4.0/4,mb1mx3.6/15,mbtmp3.9/4,ML3.5/1,Error ellipse: s-maj=105.6km s-min=53.0km az=124.0*

NEIC 23 01:54:22.2±4.7**,521S×15114E,h97^{km}**±28^{km}**,mb4.1**/2**, Error ellipse: s-maj=63.2km s-min=43.4km az=124.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**5.74**	**223**	P	Pn	01 55 45.1	+0.1
	8.3nm,0.3s,baz=45,slow=8.2,SNR=25						
PMG				S	Sn	01 56 50.2	+0.7
	12nm,0.3s,baz=153,slow=21,SNR=20						
WRA	**Warramunga Arr**	**21.95**	**227**	P	P	01 59 07.6	-0.5
	2.4nm,0.4s,baz=51,slow=10,SNR=32						
ASAR	**Alice Springs**	**24.75**	**220**	P	P	01 59 35.5	+0.7
	2.4nm,0.5s,baz=55,slow=9.1,SNR=27						
FITZ	**Fitzroy Crossi**	**28.01**	**241**	*e*P	P	02 00 04.8	+0.5
	2.3nm,0.4s						
FITZ	**Fitzroy Crossi**	**28.01**	**241**	P	P	02 00 04.6	+0.3
	1.0nm,0.4s,baz=61,slow=11,SNR=30						
TORD	**Torodi Ar. Bea**	**148.85**	**287**	PKPbc	PKPbc	02 13 59.9	+0.2
TORD	**Torodi Ar. Bea**	**148.85**	**287**	PKPbc	PKPbc	02 13 59.9	+0.2
	0.5nm,0.6s,baz=82,slow=2.1,SNR=8.0						

IDC 23 01:56:22.1±1.4**,188N×12713E,h0^{km},mb3.8**/6**,mb1 3.9**/6**, mb1mx3.8**/16**,mbtmp3.8**/6**,Error ellipse: s-maj=212.0km s-min=17.6km az=68.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**22.81**	**162**	P	P	02 01 27.1	+0.5
	2.5nm,0.5s,baz=340,slow=11,SNR=20						
ASAR	**Alice Springs**	**26.23**	**166**	P	P	02 01 59.5	+0.5
	0.5nm,0.5s,baz=350,slow=14,SNR=5.1						
STKA	**Stephens Creek**	**36.27**	**159**	P	P	02 03 26.3	-0.9
	1.1nm,0.6s,baz=332,slow=12,SNR=3.7						
SONM	**Songino Array**	**49.17**	**342**	P	P	02 05 12.7	+1.0
	0.5nm,0.5s,baz=159,slow=5.6,SNR=4.7						
MKAR	**Makanchi Array**	**59.30**	**326**	P	P	02 06 25.9	+0.2
	1.2nm,0.5s,baz=115,slow=7.5,SNR=24						
ZALV	**Zalesovo Beam**	**62.41**	**333**	P	P	02 06 46.0	-0.7
	0.5nm,0.5s,baz=131,slow=6.3,SNR=2.8						

NEIC 23 02:11:39.7,4173S×17215E,h101^{km},MG4.4(WEL)**,After WEL.,South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DSZ	**Denniston Nort**	**0.26**	**266**	P	Pn	02 11 53.6	-0.6
DSZ				S	Sn	02 12 05.1	+0.1
THZ	**Tophouse**	**0.56**	**94**	P	Pn	02 11 56.2	+0.2
THZ				S	Sn	02 12 07.9	-0.4
QRZ	**Quartz Range**	**0.95**	**18**	P	Pn	02 11 59.6	0.0
QRZ				S	Sn	02 12 13.3	-1.2
LTZ	**Lake Taylor**	**1.06**	**175**	*e*P	Pn	02 12 01.4	+0.6
NNZ	**Nelson**	**1.06**	**61**	*e*P	Pn	02 12 00.5	-0.3
NNZ				S	Sn	02 12 15.8	-0.8
MQZ	**McQueen's Vall**	**2.01**	**170**	*e*P	Pn	02 12 11.7	-0.7

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*ISCJB **23** 02:35:17.9±4.6,1.45N±0.10×1270E±02,h11^{km}±27^{km}, mb4.3/11,Error ellipse: s-maj=33.4km s-min=10.4km az=156.5*

*NEIC **23** 02:35:19.9±0.5,1.40N×12689E,h10^{km},mb4.4/7,Error ellipse: s-maj=21.2km s-min=8.3km az=65.0*

*IDC **23** 02:35:19.2±0.8,1.19N×12633E,h0^{km},mb4.1/6,mb1 4.2/7, mb1mx4.0/17,mbtmp4.1/7,ML3.5/1,Error ellipse: s-maj=85.9km s-min=15.4km az=70.0*

ISC 23 02:35:27.1±3.4**,12N**±01**×1267E**±02**,h69^{km}**±30^{km}**,n23, σ0^{s}63**/17**,mb4.2**/11**,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSM	**Kuching**	**16.43**	**271**	*e*P	**Pn**	**02 39 14.2**	**+0.8**
FITZ	**Fitzroy Crossi**	**19.24**	**183**	P	**Pn**	**02 39 46.3**	**-1.3**
	0.1nm,0.3s,baz=37,slow=15,SNR=7.1						
WRA	**Warramunga Arr**	**22.32**	**161**	P	**P**	**02 40 19.2**	**+0.1**
	8.6nm,0.5s,mb4.3,baz=338,slow=10.0,SNR=56						
WB2	**Warramunga Arr**	**22.33**	**161**	*e*P	**P**	**02 40 18.5**	**-0.6**
WB2				*e*S	**S**	**02 44 20.7**	**+0.1**
ASAR	**Alice Springs**	**25.71**	**165**	P	**P**	**02 40 51.6**	**+0.6**
	5.2nm,0.8s,mb4.0,baz=347,slow=11,SNR=29						
STKA	**Stephens Creek**	**35.81**	**158**	P	**P**	**02 42 21.4**	**+1.4**
	1.3nm,0.4s,mb4.2,baz=328,slow=6.8,SNR=8.8						
SONM	**Songino Array**	**49.66**	**342**	P	**P**	**02 44 12.5**	**+0.8**
	0.5nm,0.6s,mb3.6,baz=156,slow=6.5,SNR=5.3						
SONM				PcP	PcP	02 45 34.1	+1.9
	0.7nm,0.8s,baz=148,slow=5.6,SNR=3.0						
MK31	**Makanchi Array**	**59.61**	**326**	*e*P	**P**	**02 45 23.3**	**-0.5**
MKAR	**Makanchi Array**	**59.61**	**326**	P	**P**	**02 45 23.7**	**-0.1**
	1.3nm,0.5s,mb4.3,baz=123,slow=8.6,SNR=24						
MKAR				PcP	PcP	02 46 11.3	+0.9
	1.6nm,0.7s,baz=114,slow=6.5,SNR=4.4						
TKM2	**Tokmak 2**	**61.62**	**319**	*e*P	**P**	**02 45 37.9**	**+0.3**
	1.9nm,0.7s,mb4.2						
AAK	**Ala-Archa**	**62.21**	**319**	*e*P	**P**	**02 45 41.1**	**-0.5**
	0.9nm,0.5s,mb4.1						
EKS2	**Erkin-Say**	**62.70**	**319**	*e*P	**P**	**02 45 44.9**	**0.0**
	1.8nm,0.6s,mb4.2						
ZALV	**Zalesovo Beam**	**62.81**	**334**	P	**P**	**02 45 45.3**	**-0.1**
	0.7nm,0.5s,mb3.8,baz=104,slow=6.3,SNR=5.7						
KBL	**Kabul**	**63.05**	**308**	*e*P	**P**	**02 45 47.0**	**-0.4**
KURK	**Kurchatov**	**63.84**	**328**	*e*P	**P**	**02 45 52.1**	**-0.1**
	8.7nm,0.8s,mb4.6						
ARU	**Arti**	**77.04**	**328**	*e*P	**P**	**02 47 12.0**	**-0.5**
	3.5nm,0.6s,mb4.3						
TXAR	**Lajitas Array**	**123.10**	**53**	PKP	PKPdf	02 54 19.6	+3.1
TXAR	**Lajitas Array**	**123.10**	**53**	PKP	PKPdf	02 54 19.6	+3.1
	0.3nm,0.8s,baz=204,slow=2.0,SNR=4.3						
TOA0	**Torodi Ar. Sit**	**123.67**	**287**	*e*PKPdf	PKPdf	02 54 18.8	+0.8
TORD	**Torodi Ar. Bea**	**123.67**	**287**	PKP	PKPdf	02 54 18.1	+0.1
TORD	**Torodi Ar. Bea**	**123.67**	**287**	PKP	PKPdf	02 54 18.1	+0.1
	0.7nm,0.7s,baz=55,slow=1.4,SNR=7.4						
CFAA	**Coronel Fontan**	**146.64**	**156**	PKPbc	PKPbc	02 55 03.7	+2.1
CFAA	**Coronel Fontan**	**146.64**	**156**	PKPbc	PKPbc	02 55 03.7	+2.1
	0.6nm,0.9s,baz=220,slow=3.7,SNR=6.1						

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*IDC **23** 02:40:00.4±1.7,909S×7468W,h0^{km},mb3.7/4,mb1 3.8/7, mb1mx3.7/18,mbtmp3.6/7,ML3.6/3,Error ellipse: s-maj=69.7km s-min=21.7km az=40.0*

*ISCJB **23** 02:40:02.7±1.5,999S±009×7532W±009,h61^{km}±19^{km}, mb3.7/4,Error ellipse: s-maj=16.9km s-min=13.4km az=38.6*

*NEIC **23** 02:40:05.7±4.1,1026S×7542W,h84^{km}±59^{km},Error ellipse: s-maj=75.1km s-min=14.3km az=193.0*

NEIC Felt [III] at Pozuzo.

ISC 23 02:40:04.5±1.3**,1002S**±010**×7535W**±009**,h61^{km}**±17^{km}**, n10,σ0^{s}99**/11**,mb3.7**/4**,Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	**Nana**	**2.45**	**217**	*e*Pn	**Pn**	**02 40 40.5**	**-1.6**
NNA				*e*Sn	**Sn**	**02 41 11.6**	**+0.7**
ATAH	**Atahualpa**	**4.25**	**315**	Pn	**Pn**	**02 41 07.0**	**+0.2**
	6.9nm,0.3s,baz=83,slow=4.6,SNR=13						
ATAH				Lg		02 42 09.1	
	7.0nm,0.3s,baz=264,slow=20,SNR=5.4						
LPAZ	**La Paz**	**9.39**	**132**	*e*Pn	**Pn**	**02 42 18.4**	**+1.3**
LPAZ				Pg	Pn	02 42 56.9	+40
LPAZ				Lg		02 44 57.1	
LPAZ	**La Paz**	**9.39**	**132**	Pn	**Pn**	**02 42 19.2**	**+2.1**
	0.1nm,0.3s,baz=318,slow=14,SNR=6.6						
LPAZ				Pg	Pn	02 42 56.9	+40
	0.2nm,0.3s,baz=336,slow=18,SNR=4.1						
LPAZ				Lg		02 44 57.1	
	0.3nm,0.3s,baz=183,slow=15,SNR=3.5						
SIV	**San Ignacio**	**15.12**	**115**	Pn	**Pn**	**02 43 33.2**	**-1.3**
SIV				Lg		02 47 46.3	
SIV	**San Ignacio**	**15.12**	**115**	Pn	**Pn**	**02 43 33.2**	**-1.3**
	0.3nm,0.3s,baz=299,slow=13,SNR=6.7						
SIV				Lg		02 47 46.3	
	0.2nm,0.3s,baz=259,slow=19,SNR=3.1						
TXAR	**Lajitas Array**	**47.71**	**326**	P	**P**	**02 48 35.8**	**+0.5**
	0.5nm,0.9s,mb3.5,baz=146,slow=9.1,SNR=4.2						
ULM	**Lac du Bonnet**	**62.63**	**345**	P	**P**	**02 50 22.8**	**+0.4**
	2.0nm,0.9s,mb4.2,baz=129,slow=6.5,SNR=3.6						
YKA	**Yellowknife Ar**	**78.40**	**343**	P	**P**	**02 51 57.3**	**-0.8**
	0.3nm,0.8s,mb3.3,baz=138,slow=6.3,SNR=5.9						
TORD	**Torodi Ar. Bea**	**79.86**	**75**	P	**P**	**02 52 07.5**	**+0.3**
	0.7nm,0.9s,mb3.6,baz=250,slow=3.7,SNR=5.0						

MAN 23 03:09:55,1463N×12360E,h34^{km},mb3.9,ML2.7,MS2.4, 1D,Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PVCP	**Virac**	**1.16**	**152**	⇓*i*P	Pn	03 10 15.2	+0.4
PVCP				*e*S	Sn	03 10 30.2	+0.7
PVCP	**Virac**	**1.16**	**152**	*e*P	Pn	03 10 15.7	+0.9
PVCP				*e*S	Sn	03 10 30.4	+0.9
POLP	**Polilio Island**	**1.61**	**274**	*e*P	Pn	03 10 22.4	+1.3
POLP				*e*S	Sn	03 10 42.0	+1.3
BALP	**Baler**	**2.25**	**300**	*e*P	Pn	03 10 31.6	+1.8
BALP				*e*S	Sn	03 10 57.5	+1.2

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*ISCJB **23** 03:22:35.3±4.6,22.6S±0.4×171.0E±02,h46^{km}±33^{km}, mb3.9/6,Error ellipse: s-maj=69.9km s-min=27.5km az=169.0*

*IDC **23** 03:22:36.9±6.8,22.49S×171.02E,h46^{km}±51^{km},mb3.6/5, mb1 3.9/6,mb1mx3.7/14,mbtmp3.7/6,ML4.1/1,MS3.0/2, Ms1 3.0/2,ms1mx2.6/25,Error ellipse: s-maj=84.5km s-min=35.0km az=158.0*

*NEIC **23** 03:22:41.5±4.7,22.04S×170.62E,h67^{km}±27^{km},mb4.2/1, Error ellipse: s-maj=93.3km s-min=27.7km az=151.0*

ISC 23 03:22:36.7±4.6**,225S**±04**×1710E**±02**,h44^{km}**±33^{km}**,n13, σ0^{s}55**/10**,mb3.9**/6**,Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**4.27**	**275**	*e*P	**Pn**	**03 23 38.8**	**-0.3**
DZM				*e*S	**Sn**	**03 24 27.0**	**-0.7**
DZM	**Mont Dzumac**	**4.27**	**275**	P	**Pn**	**03 23 39.1**	**0.0**
	12nm,0.3s,baz=337,slow=22,SNR=267						
DZM				S	**Sn**	**03 24 28.7**	**+1.1**
	9.6nm,0.3s,baz=104,slow=17,SNR=4.6						
DZM				LR	LR	03 25 05.7	
	comp=Z,106nm,21.6s,baz=123,slow=35						
CTA	**Charters Tower**	**23.20**	**271**	LR	LR	03 35 15.2	
	comp=Z,61nm,20.4s,baz=230,slow=33						
ASAR	**Alice Springs**	**34.10**	**261**	P	**P**	**03 29 17.2**	**-0.1**
	1.1nm,0.8s,mb3.8,baz=90,slow=8.8,SNR=12						
WRA	**Warramunga Arr**	**34.24**	**267**	P	**P**	**03 29 17.8**	**-0.8**
	0.2nm,0.3s,mb3.5,baz=96,slow=8.2,SNR=3.0						
FITZ	**Fitzroy Crossi**	**42.67**	**267**	P	**P**	**03 30 30.2**	**+0.9**
	1.6nm,0.6s,mb3.9,baz=90,slow=10,SNR=6.0						
MBWA	**Marble Bar**	**47.44**	**261**	*e*P	**P**	**03 31 07.2**	**0.0**
	0.7nm,0.2s,mb4.2						
NVAR	**Mina Array Bea**	**89.75**	**48**	P	**P**	**03 35 30.7**	**+0.3**
	0.6nm,0.8s,mb4.0,baz=206,slow=7.0,SNR=4.2						
SONM	**Songino Array**	**90.84**	**322**	P	**P**	**03 35 34.9**	**-0.4**
	0.6nm,0.9s,mb3.9,baz=116,slow=3.4,SNR=3.9						
MORC	**Moravsky Berou**	**145.74**	**329**	*e*PKPdf	PKPdf	03 42 10.5	+0.4
CLL	**Collm**	**146.60**	**335**	*i* P	PKPdf	03 42 12.9	+1.3
GERES	**GERESS Array B**	**148.18**	**331**	PKPbc	PKPbc	03 42 17.3	-0.3
GERES	**GERESS Array B**	**148.18**	**331**	PKPbc	PKPbc	03 42 17.3	-0.3
	2.1nm,0.8s,baz=31,slow=3.1,SNR=16						

IDC 23 03:22:48.1±1.4**,109S×12754E,h0^{km},mb3.4**/3**,mb1 3.7**/4**, mb1mx3.5**/16**,mbtmp3.5**/4**,ML3.8**/1**,Error ellipse: s-maj=125.9km s-min=22.3km az=70.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**19.88**	**161**	P	Pn	03 27 21.6	-1.1
	0.3nm,0.3s,baz=340,slow=11,SNR=6.5						
ASAR	**Alice Springs**	**23.27**	**165**	P	P	03 27 57.4	-0.2
	0.6nm,0.5s,baz=347,slow=12,SNR=6.5						
SONM	**Songino Array**	**52.10**	**342**	P	P	03 32 00.1	+0.2
	0.4nm,0.7s,baz=157,slow=7.8,SNR=3.6						
MKAR	**Makanchi Array**	**61.97**	**326**	P	P	03 33 09.9	0.0
	0.3nm,0.4s,baz=120,slow=8.6,SNR=3.6						

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*ISK **23** 03:28:29.8,3833N×3925E,h2^{km},MD3.1*

*ISCJB **23** 03:28:30.2±0.8,3830N±005×3932E±005,h1^{km}±11^{km}, Error ellipse: s-maj=7.8km s-min=6.9km az=178.7*

*CSEM **23** 03:28:30.2±0.2,3834N×3926E,h6^{km}±3^{km},MD3.1,Error ellipse: s-maj=4.7km s-min=4.1km az=130.0*

*DDA **23** 03:28:31.3,3833N×3928E,h14^{km},Md2.6*

ISC 23 03:28:30.9±0.7**,3830N**±005**×3929E**±006**,h10^{km}**±10^{km}**, n15,σ0^{s}62**/20**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	**Elazig**	**0.31**	**309**	*i* P	**Pg**	**03 28 37.0**	**0.0**
ELZG				*i* S	**Sg**	**03 28 42.2**	**+1.0**
PTK	**Pertek**	**0.59**	**8**	PG	**Pg**	**03 28 41.5**	**-0.9**
PTK				SG	**Sg**	**03 28 50.8**	**+0.6**
PTK	**Pertek**	**0.59**	**8**	*e*Pg	**Pg**	**03 28 41.5**	**-0.9**
PTK				*e*Sg	**Sg**	**03 28 50.8**	**+0.6**
MALT	**Malatya**	**0.68**	**271**	PG	**Pg**	**03 28 43.1**	**-0.9**
MALT	**Malatya**	**0.68**	**271**	*e*Pg	**Pg**	**03 28 43.1**	**-0.9**
MYA	**Malataya**	**0.68**	**272**	PG	**Pg**	**03 28 43.3**	**-0.7**
MYA	**Malataya**	**0.68**	**272**	*e*Pg	**Pg**	**03 28 43.3**	**-0.7**
DIY	**Diyarbakir**	**0.85**	**118**	*e*PG	**Pg**	**03 28 47.4**	**+0.2**
DIY	**Diyarbakir**	**0.85**	**118**	*e*Pg	**Pg**	**03 28 47.4**	**+0.2**
URFA	**Urfa**	**0.94**	**203**	*e*PG	**Pg**	**03 28 49.5**	**+0.6**
URFA	**Urfa**	**0.94**	**203**	*e*Pg	**Pg**	**03 28 49.5**	**+0.6**
MARD	**Mardin**	**1.54**	**129**	*i* P	**Pn**	**03 28 57.9**	**-0.4**
MARD				*i* S	**Sn**	**03 29 18.9**	**+0.5**
BEST	**Besiri**	**1.62**	**104**	*i* P	**Pn**	**03 28 59.7**	**+0.3**
GZT	**Gaziantep**	**1.66**	**236**	*i* P	**Pn**	**03 29 00.2**	**+0.3**
GZT				*i* S	**Sn**	**03 29 26.1**	**+4.8**
BTMT	**Batman**	**1.74**	**93**	*e*PN	**Pn**	**03 29 00.4**	**-0.6**

IDC 23 03:31:27.9±7.1**,540S×15105E,h98^{km}**±49^{km}**,mb3.4**/4**, mb1 3.6**/5**,mb1mx3.4**/15**,mbtmp3.4**/5**,MS2.9**/1**,Ms1 2.9**/1**, ms1mx2.5**/22**,Error ellipse: s-maj=85.7km s-min=34.2km az=107.0,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**5.54**	**224**	P	Pn	03 32 46.5	-1.4
	3.2nm,0.3s,baz=29,slow=9.9,SNR=4.7						
PMG				S	Sn	03 33 52.3	+2.0
	4.4nm,0.3s,baz=318,slow=19,SNR=3.8						
WRA	**Warramunga Arr**	**21.75**	**227**	P	P	03 36 10.8	-0.7
	0.9nm,0.5s,baz=51,slow=10.0,SNR=13						
DZM	**Mont Dzumac**	**22.28**	**139**	LR	LR	03 43 35.4	
	comp=Z,33nm,20.2s,baz=267,slow=33						
ASAR	**Alice Springs**	**24.54**	**221**	P	P	03 36 38.5	-0.1
	0.9nm,0.5s,baz=59,slow=9.1,SNR=11						
FITZ	**Fitzroy Crossi**	**27.84**	**241**	P	P	03 37 08.6	+0.3
	1.8nm,0.3s,baz=71,slow=7.5,SNR=30						
SONM	**Songino Array**	**65.92**	**329**	P	P	03 42 04.0	+0.7
	0.1nm,0.3s,baz=147,slow=8.0,SNR=4.1						
TORD	**Torodi Ar. Bea**	**148.82**	**286**	PKPbc	PKPbc	03 51 04.5	-0.6
	0.5nm,0.3s,baz=98,slow=2.3,SNR=24						

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*IDC **23** 03:34:43.1±2.4,46.81N×155.57E,h0^{km},mb3.8/9, mb1 4.0/9,mb1mx3.8/23,mbtmp3.8/9,Error ellipse: s-maj=76.2km s-min=21.0km az=2.0*

*NEIC **23** 03:34:45.2±1.4,46.93N×155.61E,h10^{km},mb4.1/3,Error ellipse: s-maj=44.8km s-min=10.8km az=176.0*

*ISCJB **23** 03:34:47.7±4.2,47.1N±0.2×155.6E±0.1,h33^{km}±32^{km}, mb3.9/12,Error ellipse: s-maj=31.1km s-min=15.7km az=170.1*

*MOS **23** 03:34:49.2±0.9,47.16N×155.50E,h46^{km},mb4.2/5,Error ellipse: s-maj=31.4km s-min=18.6km az=97.6*

ISC 23 03:34:48.8±6.7**,471N**±01**×1556E**±01**,h26^{km}**±47^{km}**,n20, σ0^{s}57**/21**,mb3.9**/12**,East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**3.57**	**5**	*e*PN	**Pn**	**03 35 42.5**	**+0.1**
SKR				*e*S	**Sn**	**03 36 23.5**	**-0.2**
SKR				smax			
	comp=N,80nm,0.4s						
SKR				smax			
	comp=E,50nm,0.4s						
SONM	**Songino Array**	**32.81**	**290**	P	**P**	**03 41 18.0**	**-1.6**
	comp=E,0.3nm,0.7s,mb3.4,baz=76,slow=8.0,SNR=3.3						
EGAK	**Eagle**	**37.64**	**39**	*e*P	**P**	**03 42 00.3**	**-0.7**
	comp=E,2.7nm,0.8s,mb4.0						
INK	**Inuvik**	**40.41**	**33**	P	**P**	**03 42 24.8**	**+0.6**
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	**Inuvik**	**40.41**	**33**	P	**P**	**03 42 24.8**	**+0.7**
	comp=Z,1.3nm,0.5s,mb3.9,baz=290,slow=6.3,SNR=4.4						
ZALV	**Zalesovo Beam**	**43.76**	**306**	P	**P**	**03 42 52.1**	**+0.5**
	comp=Z,0.3nm,0.3s,mb3.5,baz=84,slow=8.1,SNR=2.9						
ZAL	**Zalesovo**	**43.78**	**306**	P	**P**	**03 42 52.1**	**+0.4**
MKAR	**Makanchi Array**	**48.27**	**298**	P	**P**	**03 43 27.4**	**+0.2**
	comp=Z,0.2nm,0.2s,mb3.7,baz=71,slow=7.3,SNR=3.3						
KURK	**Kurchatov**	**48.56**	**304**	*e*P	**P**	**03 43 29.9**	**+0.4**
	comp=Z,1.4nm,0.5s,mb4.2						
KURK	**Kurchatov**	**48.56**	**304**	*e*P	**P**	**03 43 29.9**	**+0.5**
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
YKA	**Yellowknife Ar**	**49.59**	**38**	P	**P**	**03 43 37.2**	**+0.1**
YKA	**Yellowknife Ar**	**49.59**	**38**	P	**P**	**03 43 37.2**	**+0.1**
	comp=Z,0.3nm,0.5s,mb3.6,baz=295,slow=7.1,SNR=4.8						
AAK	**Ala-Archa**	**55.18**	**297**	*e*P	**P**	**03 44 19.1**	**+0.3**
	comp=Z,0.8nm,0.6s,mb3.9						
AAK	**Ala-Archa**	**55.18**	**297**	*e*P	**P**	**03 44 19.1**	**+0.2**
AAK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
NVAR	**Mina Array Bea**	**60.75**	**64**	P	**P**	**03 44 58.2**	**+0.3**
	comp=Z,1.5nm,0.7s,mb4.2,baz=305,slow=6.0,SNR=11						
PDAR	**Pinedale Array**	**63.14**	**55**	P	**P**	**03 45 14.2**	**+0.2**
	comp=Z,0.9nm,0.8s,mb3.9,baz=242,slow=4.7,SNR=5.8						
FINES	**FINESS Array B**	**64.41**	**336**	P	**P**	**03 45 21.9**	**-0.1**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FINES	**FINESS Array B**	**64.41**	**336**	P	**P**	**03 45 21.9**	**-0.1**
	comp=Z,1.4nm,0.9s,mb4.0,baz=48,slow=6.2,SNR=4.8						
TXAR	**Lajitas Array**	**75.82**	**62**	P	**P**	**03 46 31.8**	**-0.7**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	**Lajitas Array**	**75.82**	**62**	P	**P**	**03 46 31.8**	**-0.7**
	comp=Z,0.9nm,0.5s,mb4.0,baz=301,slow=4.6,SNR=17						

IDC 23 03:35:10.4±1.7**,2618N×11043W,h0^{km},mb1 3.6**/4**, mb1mx3.4**/21**,mbtmp3.2**/4**,ML3.1**/3**,Error ellipse: s-maj=23.9km s-min=13.4km az=100.0,Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	**La Paz**	**2.08**	**177**	Pn	Pn	03 35 45.9	-0.6
	2.0nm,0.3s,baz=185,slow=11,SNR=2.8						
LPIG				Lg		03 36 17.3	
	44nm,0.3s,baz=263,slow=18,SNR=12						
TXAR	**Lajitas Array**	**6.76**	**61**	Pn	Pn	03 36 50.4	-0.6
	0.3nm,0.3s,baz=231,slow=14,SNR=10						
TXAR				Sn	Sn	03 38 08.8	+0.1
	0.4nm,0.3s,baz=236,slow=16,SNR=4.1						
TXAR				Lg		03 38 45.0	
	1.5nm,0.3s,baz=103,slow=5.5,SNR=7.9						
ANMO	**Albuquerque**	**9.38**	**20**	Lg		03 40 11.4	
	0.2nm,0.3s,baz=107,slow=16,SNR=4.1						
NVAR	**Mina Array Bea**	**13.90**	**333**	Pn	Pn	03 38 30.8	+2.2
	0.1nm,0.3s,baz=181,slow=12,SNR=3.2						
PDAR	**Pinedale Array**	**16.56**	**2**	Pn	Pn	03 39 08.3	+4.4
	baz=206,slow=8.0,SNR=2.9						

IDC 23 03:48:12.8±2.0**,263S×12564E,h0^{km},mb3.6**/2**,mb1 3.9**/3**, mb1mx3.5**/17**,mbtmp3.7**/3**,ML3.7**/1**,Error ellipse: s-maj=195.6km s-min=27.3km az=64.0,Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**19.19**	**154**	P	Pn	03 52 37.9	-1.3
	0.2nm,0.3s,baz=332,slow=11,SNR=8.2						
ASAR	**Alice Springs**	**22.39**	**160**	P	P	03 53 13.2	+0.3
	2.1nm,0.4s,baz=346,slow=12,SNR=38						
MKAR	**Makanchi Array**	**62.22**	**328**	P	P	03 58 36.5	+0.2
	0.3nm,0.6s,baz=116,slow=7.0,SNR=3.5						

MAN 23 03:51:15,1900N×12001E,h17^{km},mb4.4,ML3.2,MS3.1, 1D,Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABRA	**Dolores**	**1.50**	**153**	*e*P	Pn	03 51 40.3	-0.8
ABRA				*e*S	Sn	03 52 00.1	-0.1
APYP	**Conner**	**1.63**	**134**	*e*P	Pn	03 51 42.2	-0.7
APYP				*e*S	Sn	03 52 04.1	+0.7
SGCP	**Mt. Cagua**	**2.07**	**111**	*e*P	Pn	03 51 49.8	+0.8
BCPH	**Baguio City Da**	**2.66**	**168**	⇓*i*P	Pn	03 51 57.8	+0.7
BCPH				*i* S	Sn	03 52 26.1	-2.8
BALP	**Baler**	**3.57**	**155**	*e*P	Pn	03 52 11.2	+1.7
BALP				*e*S	Sn	03 52 54.0	+2.6

IGQ 23 04:05:02.0,083S×7940W,h27^{km}±2^{km}**,Mb4.0,Ms3.8, 10C-20D,Error ellipse: s-maj=1.4km s-min=0.9km az=161.6,Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAG1	**Magdalena**	**0.84**	**334**	⇓P	Pb	04 05 18.6	+0.5
MAG1	**Magdalena**	**0.84**	**334**	⇓S	Sb	04 05 27.5	-1.5
CAMI	**Rancho Maria**	**0.91**	**80**	P	Pn	04 05 20.1	+1.1
CAMI	**Rancho Maria**	**0.91**	**80**	S	Sb	04 05 33.7	+2.9
JUA2	**San Juan 2**	**1.00**	**52**	⇑P	Pn	04 05 21.4	+1.1
VC1	**Cotopaxi 1**	**1.01**	**79**	P	Pn	04 05 22.0	+1.6
TERV	**Terraza Guagua**	**1.03**	**51**	⇑P	Pn	04 05 21.8	+1.1
TERV	**Terraza Guagua**	**1.03**	**51**	⇑S	Sn	04 05 37.1	+2.9
GGP	**Refugio Guagua**	**1.03**	**51**	⇑P	Pn	04 05 21.9	+1.2
PINO	**Pino**	**1.03**	**50**	⇑P	Pn	04 05 21.6	+0.8
PINO	**Pino**	**1.03**	**50**	⇑S	Sn	04 05 36.2	+1.8
PISA	**Pisayambo**	**1.04**	**103**	⇓P	Pn	04 05 22.1	+1.3
PISA	**Pisayambo**	**1.04**	**103**	⇓S	Sn	04 05 36.2	+1.8
TAMB	**Tambo**	**1.04**	**82**	⇑P	Pn	04 05 22.9	+2.1
BILB	**Tungurahua vol**	**1.08**	**124**	⇓P	Pn	04 05 22.4	+1.0
BILB	**Tungurahua vol**	**1.08**	**124**	⇓S	Sn	04 05 37.6	+2.1
YANA	**Yana**	**1.09**	**49**	⇓P	Pn	04 05 22.6	+1.0
YANA	**Yana**	**1.09**	**49**	⇓S	Sn	04 05 38.5	+2.8
JUIV	**Juive**	**1.10**	**122**	⇓P	Pn	04 05 22.6	+0.9
JUIV	**Juive**	**1.10**	**122**	⇓S	Sn	04 05 37.9	+1.9
RETU	**Refugio**	**1.13**	**123**	⇑P	Pn	04 05 23.4	+1.2
RUN5	**Runtun**	**1.13**	**121**	P	Pn	04 05 23.1	+1.0
RUN5	**Runtun**	**1.13**	**121**	S	Sn	04 05 38.3	+1.5
ARRY	**Arrayan**	**1.16**	**125**	⇓P	Pn	04 05 23.3	+0.8
ARRY	**Arrayan**	**1.16**	**125**	⇓S	Sn	04 05 37.6	+0.2
ULBA	**Ulba**	**1.16**	**122**	⇓P	Pn	04 05 23.6	+1.0
ULBA	**Ulba**	**1.16**	**122**	⇓S	Sn	04 05 39.0	+1.4
PATA	**Patacocha**	**1.17**	**125**	P	Pn	04 05 23.8	+1.1
PATA	**Patacocha**	**1.17**	**125**	S	Sn	04 05 40.7	+2.9
ANTI	**Antisana**	**1.29**	**73**	⇑P	Pn	04 05 26.7	+2.4
ANTI	**Antisana**	**1.29**	**73**	⇑S	Sn	04 05 43.4	+2.6
CHIS	**Cerro-Chispas-**	**1.35**	**261**	P	Pn	04 05 27.1	+2.0
COTA	**Cotacachi**	**1.57**	**42**	⇓P	Pn	04 05 30.9	+2.7
COTA	**Cotacachi**	**1.57**	**42**	⇓S	Sn	04 05 52.0	+4.4
CAYR	**Refugio Cayamb**	**1.62**	**59**	⇓P	Pn	04 05 32.7	+3.8
CAYR	**Refugio Cayamb**	**1.62**	**59**	⇓S	Sn	04 05 52.6	+3.6
CAYA	**Cayambe**	**1.67**	**57**	⇓P	Pn	04 05 33.3	+3.8
CAYA	**Cayambe**	**1.67**	**57**	⇓S	Sn	04 05 53.9	+3.9

MOS 23 04:06:44.5±1.7**,4325N×4582E,h15^{km},mb3.6**/1**,1C-1D, Error ellipse: s-maj=54.7km s-min=12.9km az=172.7, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BTKR	**Batakoyurt**	**0.94**	**278**	*e*PG	Pg	04 07 04.0	+1.3
BTKR				*i* S	Sb	04 07 18.3	+3.5
KMSR	**Komsomolskaya**	**1.12**	**277**	*e*PG	Pg	04 07 07.1	+1.0
KMSR				*e*S	Sb	04 07 23.8	+3.8
ARNR	**Ardon**	**1.13**	**267**	*e*PG	Pg	04 07 07.1	+0.8
ARNR				*e*S	Sb	04 07 23.8	+3.7

LACR	Lac	1.20	250	⇑iPG	Pg	04 07 08.2	+0.7
LACR				iS	Sb	04 07 25.3	+3.2
KORR	Kora	1.29	263	ePG	Pg	04 07 10.4	+1.0
KORR				eS	Sb	04 07 29.0	+4.1
LSNR	Lesken	1.46	272	ePG	Pg	04 07 12.1	-0.6
LSNR				eS	Sn	04 07 32.4	+3.2
ZEI	Tsey	1.49	252	⇓iPG	Pg	04 07 12.3	-0.8
ZEI				iS	Sn	04 07 32.7	+2.9
DIGR	Digorskoe uzhe	1.68	259	ePN	Pn	04 07 15.0	+1.7
DIGR				eS	Sn	04 07 37.5	+3.0
ONI	Oni	1.86	250	P	Sn	04 07 45.2	+6.1

IDC 23 04:11:45.1±1.2**,017N×12609E,h0^{km},mb3.7**/6**,mb1 3.8**/6**,mb1mx3.7**/17**,mbtmp3.7**/6**,Error ellipse: s-maj=229.1km s-min=18.7km az=67.0,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	21.56	158	P	P	04 16 35.5	-0.8
	2.0nm,0.7s,baz=334,slow=11,SNR=12						
ASAR	Alice Springs	24.88	163	P	P	04 17 10.4	+0.7
	1.2nm,0.6s,baz=348,slow=12,SNR=15						
STKA	Stephens Creek	35.09	157	P	P	04 18 40.0	-0.1
	0.7nm,0.4s,baz=323,slow=15,SNR=2.9						
SONM	Songino Array	50.47	343	P	P	04 20 44.6	-0.1
	0.3nm,0.6s,baz=148,slow=8.5,SNR=3.7						
MKAR	Makanchi Array	60.13	327	P	P	04 21 53.9	-0.6
	0.3nm,0.4s,baz=118,slow=5.1,SNR=5.5						
ZALV	Zalesovo Beam	63.48	334	P	P	04 22 17.9	+1.0
	0.6nm,0.6s,baz=140,slow=5.1,SNR=3.2						

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*BJI **23** 04:16:11.2,2600N×11040W,h10^{km},mb4.8,Ms4.9, Msz4.7*

*IDC **23** 04:16:13.7±1.2,2619N×11043W,h0^{km},mb3.6/2, mb1 4.1/6,mb1mx3.9/21,mbtmp3.7/6,ML3.8/3,MS3.9/14, Ms1 3.9/14,ms1mx3.7/28,Error ellipse: s-maj=21.2km s-min=12.7km az=92.0*

*ISCJB **23** 04:16:14.7±0.5,2604N±005×11027W±004,h10^{km}, mb4.2/12,MS3.9/12,Error ellipse: s-maj=7.0km s-min=4.8km az=16.9*

*GCMT **23** 04:16:15.2±0.5,2638N×11082W,h17^{km}±1^{km},MW4.9/45, Moment Tensor Solution. s16,c19; s45,c58; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.81±.17; $M_{\theta\theta}$-0.03±.09; $M_{\phi\phi}$1.84±.12; $M_{r\theta}$0.43±.29; $M_{\theta\phi}$0.24±.07; $M_{\phi r}$1.52±.28; Best double couple: $M_0$2.42600×10^{16} NP1:ϕ_s1.00000°,δ25.00000°,λ-101.00000°. NP2: ϕ_s193.00000°,δ65.00000°,λ-85.00000°. Principal axes: T 2.4460, Plg20.0000°, Azm279.0000°; N -0.0420, Plg5.0000°, Azm11.0000°; P -2.4060, Plg69.0000°, Azm113.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **23** 04:16:15.2±0.7,2597N×11035W,h10^{km},mb4.3/20 Error ellipse: s-maj=10.2km s-min=8.0km az=45.0*

ISC 23 04:16:16.9±1.4**,2600N**±005×**11029W**±004**,h15**^{km}±8^{km}**, n241,σ1§15**/238**,mb4.2**/12**,MS3.9**/12**,77C-71D,Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LPIG	La Paz	1.89	181	eP	Pn	04 16 48.6	0.0
LPIG				iS	Sn	04 17 05.4	-6.8
LPIG	La Paz	1.89	181	Pn	Pn	04 16 49.3	+0.7
	20nm,0.3s,baz=110,slow=4.8,SNR=15						
LPIG				Lg		04 17 20.3	
	204nm,0.3s,baz=271,slow=17,SNR=11						
TUC	Tucson	6.30	356	ePn	Pn	04 17 46.1	-3.1
	23nm,1.0s						
TUC				eSn	Sg	04 19 37.3	-1.8
116A	Eloy	6.65	350	⇓P	Pn	04 17 52.4	-1.7
	baz=6.8						
LTX	Lajitas	6.74	59	ePn	Pn	04 17 55.3	0.0
LTX				ePg	Pg	04 18 25.4	-0.5
LTX				eSg	Sg	04 19 46.7	-6.6
TXAR	Lajitas Array	6.74	59	Pn	Pn	04 17 54.4	-0.9
TXAR				Sn	Sn	04 19 09.8	-2.1
TXAR				Lg		04 19 48.8	
TXAR	Lajitas Array	6.74	59	Pn	Pn	04 17 54.4	-0.9
	0.4nm,0.3s,baz=240,slow=12,SNR=31						
TXAR				Sn	Sn	04 19 09.8	-2.1
	0.6nm,0.3s,baz=243,slow=24,SNR=5.1						
TXAR				Lg		04 19 48.8	
	1.8nm,0.3s,baz=238,slow=28,SNR=5.9						
115A	Sonoran Desert	6.89	346	⇓P	Pn	04 17 56.2	-1.1
	baz=7.0						
MNTX	Cornudas Mount	7.12	36	ePn	Pn	04 17 59.4	-1.2
MNTX				ePg		04 18 33.2	
MNTX				eSg		04 19 56.0	
Z14A	Wintersburg	7.69	343	⇑P	Pn	04 18 07.9	-0.4
	baz=7.8						
GDL2	Guadalupe Moun	8.06	39	ePn	Pn	04 18 16.1	+2.7
GDL2				ePg	Pn	04 18 49.8	+36
GDL2				eSb	Sb	04 20 31.5	+19
Y14A	Wickenburg	8.25	344	⇓P	Pn	04 18 17.0	+1.0
	baz=8.4						
Y13A	Salome	8.37	339	⇓P	Pn	04 18 17.0	-0.7
	baz=8.5						
X15A	Humboldt	8.62	349	⇑P	Pn	04 18 20.5	-0.6
	baz=8.8						
LENM	Lemitar	8.63	19	ePn	Pn	04 18 17.6	-3.5
BNM	Barren Site	8.72	20	ePn	Pn	04 18 22.1	-0.3
BNM				eSn	Sn	04 20 04.0	+3.6
X14A	Yava	8.73	346	⇑P	Pn	04 18 23.2	+0.6
	baz=8.9						
LAZ	Ladron	8.80	17	ePn	Pn	04 18 24.4	+0.8
PDMCI	Parker Dam,Lak	8.92	339	⇑P	Pn	04 18 22.6	-2.6
	baz=9.0						
X13A	Yucca	9.09	341	⇓P	Pn	04 18 26.2	-1.4
	baz=9.2						
PFO	Pinyon Flat Ob	9.28	326	LR	LR	04 21 34.8	
	comp=Z,397nm,21.4s,baz=212,slow=35						
W15A	Williams	9.30	350	⇓P	Pn	04 18 30.2	-0.3
	baz=9.4						
W14A	Seligman	9.49	346	⇑P	Pn	04 18 32.0	-1.0
	baz=9.6						
ANMO	Albuquerque	9.51	19	ePn	Pn	04 18 34.2	+0.9
	5.2nm,1.0s						
ANMO	Albuquerque	9.51	19	Pn	Pn	04 18 33.8	+0.5
	0.1nm,0.3s,baz=209,slow=13,SNR=5.5						
ANMO				Lg		04 21 08.4	
	0.1nm,0.3s,baz=18,slow=19,SNR=2.3						
W13A	Hualapai Mount	9.58	342	⇓P	Pn	04 18 33.5	-0.8
	baz=9.7						
V12A	Nelson	10.46	339	⇓P	Pn	04 18 44.2	-2.0
	baz=11						
V11A	Goodsprings	10.75	337	⇓P	Pn	04 18 49.8	-0.5
	baz=11						
T15A	Red Dirt Ranch	11.13	351	⇓P	Pn	04 18 56.4	+0.9
	baz=11						
SHPR	Sheep Range	11.27	339	ePn	Pn	04 18 58.0	+0.6
MVCO	Mesa Verde	11.28	7	ePn	Pn	04 18 55.1	-2.4
	25nm,1.2s						
MVCO				eSn	Sn	04 21 22.3	+19
MVCO	Mesa Verde	11.28	7	⇑P	Pn	04 18 57.8	+0.3
	baz=11						
T14A	Hurricane	11.28	348	⇓P	Pn	04 18 58.9	+1.3
	baz=11						
T13A	Saint George	11.41	345	⇓P	Pn	04 19 00.7	+1.4
	baz=12						
AMTX	Amarillo	11.55	38	ePn	Pn	04 19 00.5	-0.7
	1μm,2.8s						
AMTX				eLg		04 22 11.8	
MPMC	Manual Prospec	11.77	330	⇓P	Pn	04 19 03.5	-0.8
	baz=12						
ISA	Isabella	11.92	326	⇓P	Pn	04 19 05.5	-0.8
	baz=12						
TPNV	Topopah Spring	12.04	336	ePn	Pn	04 19 05.5	-2.4
S12A	Delamar Landin	12.20	343	⇑P	Pn	04 19 10.3	+0.1
	baz=12						
VES	Vestal, Richgr	12.37	325	⇓P	Pn	04 19 11.0	-1.4
	baz=12						
SDCO	Great Sand Dun	12.39	18	ePn	Pn	04 19 16.0	+3.2
S11A	Rachel	12.50	340	⇑P	Pn	04 19 14.9	+0.8
	baz=13						
S10A	Tonopah Range,	13.03	337	⇑P	Pn	04 19 21.5	+0.1
	baz=13						
SRU	San Rafael	13.07	359	ePn	Pn	04 19 23.2	+1.1
S09A	Goldfield	13.08	335	⇑P	Pn	04 19 22.6	+0.4
	baz=13						
WMOK	Wichita Mounta	13.20	46	ePn	Pn	04 19 23.2	-0.6
	20nm,1.2s						
R10A	Warm Springs	13.26	339	⇓P	Pn	04 19 25.1	+0.5
	baz=13						
S08C	White Mtn Res	13.27	332	⇑P	Pn	04 19 23.9	-0.9
	baz=13						
R09A	Tonopah	13.48	336	⇑P	Pn	04 19 27.1	-0.5
	baz=14						
Q11A	Duckwater	13.58	342	⇓P	Pn	04 19 30.4	+1.5
	baz=14						
T06C	Millerton Lake	13.59	326	⇓P	Pn	04 19 29.7	+0.6
	baz=14						
KCC	Kaiser Creek	13.65	328	⇓P	Pn	04 19 29.5	-0.4
	baz=14						
P12A	McGill	13.98	345	⇑P	Pn	04 19 36.4	+2.0
	baz=14						
NLU	North Lily Min	14.00	354	eP	Pn	04 19 42.0	+7.4
MPU	Maple Canyon	14.02	356	eP	Pn	04 19 41.5	+6.6
NVAR	Mina Array Bea	14.12	333	Pn	Pn	04 19 35.2	-1.1
NVAR	Mina Array Bea	14.12	333	Pn	Pn	04 19 35.2	-1.1
	0.0nm,0.3s,baz=150,slow=15,SNR=8.9						
ISCO	Idaho Springs	14.30	15	ePn	Pn	04 19 39.8	+1.0
DUG	Dugway	14.31	352	ePn	Pn	04 19 39.9	+0.9
	28nm,1.1s						
DUG	Dugway	14.31	352	⇑P	Pn	04 19 42.1	+3.2
	baz=14,SNR=6.7						
Q08A	Gabbs	14.35	335	⇓P	Pn	04 19 40.4	+1.0
	baz=14						
DAU	Daniels Canyon	14.39	357	eP	Pn	04 19 46.8	+6.7
JLU	Jordanelle	14.59	356	eP	Pn	04 19 54.2	+11
WAKR	Walker	14.66	330	ePn	Pn	04 19 44.9	+1.2
R06C	Coleville	14.68	330	⇓P	Pn	04 19 44.1	+0.1
	baz=15						
O12A	Currie	14.71	346	⇑P	Pn	04 19 45.2	+0.9
	baz=15						
O11A	Cowboy Ranch,	14.79	344	⇓P	Pn	04 19 46.7	+1.3
	baz=15,SNR=5.5						
BGU	Big Grassy Mou	15.06	352	eP	Pn	04 19 53.4	+4.3
O10A	Cortez Mining,	15.16	342	⇑P	Pn	04 19 51.3	+0.9
	baz=15						
N13A	Wendover, West	15.17	349	⇑P	Pn	04 19 51.5	+1.0
	baz=15						
O09A	Fish Creek Ran	15.26	340	⇓P	Pn	04 19 53.0	+1.3
	baz=15,SNR=5.6						
ELK	Elko	15.27	346	ePn	Pn	04 19 51.6	-0.3
	27nm,1.7s						
BMN	Battle Mountai	15.51	340	eP	Pn	04 19 58.0	+3.1
	24nm,1.1s						
CBKS	Cedar Bluff	15.56	32	ePn	Pn	04 19 55.3	-0.3
HWUT	Hardware Ranch	15.60	356	ePn	Pn	04 19 56.2	0.0
	26nm,1.1s						
PAHR	Pah Rah Range	15.64	333	ePn	Pn	04 19 55.3	-1.5
M14A	Sheep Mountain	15.67	351	⇓P	Pn	04 20 00.4	+3.4
	baz=16						
PHWY	Pilot Hill	15.78	13	ePn	Pn	04 19 59.1	+0.7
O07A	Toulon	15.84	335	⇑P	Pn	04 19 59.9	+0.7
	baz=16						
P05C	Yuba Gap, Truc	15.84	329	⇓P	Pn	04 20 00.9	+1.6
	baz=16						
M12A	Wells	15.85	347	⇓P	Pn	04 20 01.4	+2.0
	baz=16						
HVU	Hansel Valley	15.87	353	eP	Pn	04 20 03.2	+3.5
	33nm,1.1s						
N09A	Rock Creek Ran	15.98	340	⇓P	Pn	04 20 03.5	+2.4
	baz=16						
M11A	Holland Ranch,	16.05	345	⇓P	Pn	04 20 04.7	+2.7
	baz=16,SNR=7.8						
N08A	GE Springer Mi	16.12	338	⇓P	Pn	04 20 04.9	+2.0
	baz=16,SNR=13						
O06A	Flanigan	16.21	333	⇑P	Pn	04 20 04.6	+0.5
	baz=16						
OHCM	Honcut	16.28	328	eP	Pn	04 20 07.9	+2.9
M10A	I.L. Ranch, Tu	16.32	343	⇑P	Pn	04 20 05.9	+0.4
	baz=16						
L13A	Double Diamond	16.33	350	⇓P	Pn	04 20 06.1	+0.6
	baz=16						
N07B	Gerlach	16.41	336	⇓P	Pn	04 20 07.6	+1.0
	baz=16						
MNRC	McLaughlin Nat	16.41	324	⇓P	Pn	04 20 04.1	-2.6
	baz=16						
ORV	Oroville	16.46	328	⇓P	Pn	04 20 08.2	+0.9
	baz=16						
L12A	House Creek Ra	16.57	348	P	Pn	04 20 11.0	+2.4
	baz=17,SNR=5.5						
K14A	Jones Ranch, D	16.67	353	⇑P	Pn	04 20 11.4	+1.4
	baz=17,SNR=6.3						
N06A	Buffalo Meadow	16.71	334	⇑P	Pn	04 20 10.7	+0.3
	baz=17						
BW06	Boulder Array	16.74	2	eP	Pn	04 20 12.5	+1.7
	25nm,1.4s						
PDAR	Pinedale Array	16.74	2	Pn	Pn	04 20 10.0	-0.7
PDAR				Lg		04 24 47.8	
PDAR	Pinedale Array	16.74	2	Pn	Pn	04 20 10.0	-0.7
	0.1nm,0.3s,baz=176,slow=10,SNR=14						
PDAR				Lg		04 24 47.8	
	0.1nm,0.3s,baz=185,slow=34,SNR=2.7						
L11A	Cat Creek Ranc	16.74	346	⇑P	Pn	04 20 13.0	+2.2
	baz=17,SNR=5.5						
M08A	Happy Creek Ra	16.80	339	⇓P	Pn	04 20 12.1	+0.6
	baz=17						
L10A	Juniper Basin	16.83	344	⇑P	Pn	04 20 13.1	+1.2
	baz=17,SNR=5.3						
CMIG	Matias Romero	16.84	119	P	Pn	04 20 18.4	+6.3
	0.2nm,0.3s,baz=301,slow=9.9,SNR=8.6						
CMIG				LR	LR	04 26 22.0	
	comp=Z,610nm,19.8s,baz=289,slow=36						
K13A	Stover Farm, H	16.90	350	⇓P	Pn	04 20 14.6	+1.9
	baz=17						
M07A	Soldier Meadow	17.02	337	⇑P	Pn	04 20 13.7	-0.6
	baz=17						
K12A	Draper Farm, C	17.02	348	⇓P	Pn	04 20 15.3	+1.0
	baz=17,SNR=5.8						
L09A	Wilkinson Ranc	17.10	341	⇑P	Pn	04 20 16.3	+1.0
	baz=17,SNR=5.8						
REDW	Red Top Meadow	17.33	359	ePn	Pn	04 20 17.3	-0.9
M06C	Likely Place G	17.36	333	⇑P	Pn	04 20 18.8	+0.2
	baz=18						
K11A	Parker Ranch,	17.38	346	⇑P	Pn	04 20 19.0	+0.2
	baz=18						
KSU1	Kansas State U	17.39	38	eP	Pn	04 20 19.8	+0.8
	23nm,1.0s						
L08A	Fields	17.46	340	⇑P	Pn	04 20 21.0	+1.2
	baz=18,SNR=6.6						
DCID1	Drake Creek	17.57	358	ePn	Pn	04 20 22.4	+1.3
LOHW	Long Hollow	17.57	359	eP	Pn	04 20 20.9	-0.3
	10nm,1.2s						
L07A	Adell	17.63	337	⇓P	Pn	04 20 21.9	0.0
	baz=18						
J13A	Cove Ranch, Pi	17.64	351	⇓P	Pn	04 20 23.1	+1.0
	baz=18						
J12A	Stokes Ranch,	17.65	348	⇑P	Pn	04 20 22.6	+0.4
	baz=18						
MOOW	Moose Ponds	17.71	359	eP	Pn	04 20 21.0	-1.9
	88nm,2.1s						
K09A	Rome	17.74	342	⇑P	Pn	04 20 24.0	+0.8
	baz=18,SNR=7.8						
M05C	Lookout	17.76	332	⇓P	Pn	04 20 22.0	-1.6
	baz=18						
MFID	Camas Ranch	17.95	347	⇓P	Pn	04 20 25.9	0.0
	baz=18						
M03C	McCloud	18.11	330	⇑P	Pn	04 20 27.0	-0.9
	baz=18						
I13A	Wildhorse Cree	18.14	351	P	Pn	04 20 28.8	+0.6
	baz=18,SNR=7.2						
K07A	Rock Creek Ran	18.20	338	⇑P	Pn	04 20 28.3	-0.6
	baz=18						
L05A	Lakeview	18.21	334	⇑P	Pn	04 20 28.5	-0.6
	baz=18						
J09A	Fry Pan Ranch,	18.35	342	⇓P	Pn	04 20 30.8	+0.1
	baz=18,SNR=7.5						
M04C	Macdoel	18.40	332	⇓P	Pn	04 20 30.2	-1.2
	baz=18						
I11A	Placerville	18.45	347	⇓P	Pn	04 20 32.2	+0.2
	baz=19						
LKWY	Lake	18.52	360	ePn	Pn	04 20 39.1	+6.3
J08A	Circle Bar Ran	18.56	341	⇓P	Pn	04 20 33.1	-0.2
	baz=19,SNR=8.0						
K06A	Valley Falls	18.64	337	⇓P	Pn	04 20 34.3	0.0
	baz=19						
L04A	Klamath Falls	18.75	332	⇓P	Pn	04 20 36.3	+0.7
	baz=19						
H13A	Challis	18.80	351	⇑P	Pn	04 20 35.7	-0.5
	baz=19						
QLMT	Earthquake Lak	18.81	357	eP	Pn	04 20 36.9	+0.5
K05A	Summer Lake	18.81	335	⇑P	Pn	04 20 36.6	+0.2
	baz=19						
J07A	Hines	18.83	339	⇓P	Pn	04 20 36.5	-0.1
	baz=19,SNR=6.7						
H12A	Diamond D Ranc	18.87	350	⇑P	Pn	04 20 37.0	-0.1
	baz=19						
MCMT	McKenzie Canyo	18.90	354	ePn	Pn	04 20 34.4	-3.0
J06A	Christmas Vall	19.00	337	⇑P	Pn	04 20 38.3	-0.4
	baz=19						
G15A	Dillon	19.21	355	⇑P	Pn	04 20 41.4	+0.3
	baz=19						
H11A	Donnelly	19.23	348	⇓P	Pn	04 20 41.0	-0.3
	baz=19						
H10A	Noah's Angus R	19.27	346	⇓P	Pn	04 20 42.0	+0.1
	baz=19						
G13A	Cobalt	19.31	352	⇓P	Pn	04 20 42.5	0.0
	baz=20,SNR=14						
G14A	Jackson	19.37	353	⇑P	Pn	04 20 43.4	+0.3
	baz=20						
J05A	Fort Rock	19.42	335	⇓P	Pn	04 20 41.6	-2.1
	baz=20						
I07A	Izee	19.53	340	⇑P	Pn	04 20 44.5	-0.5
	baz=20						
H09A	Durkee	19.55	344	⇓P	Pn	04 20 45.0	-0.3
	baz=20						
BOZ	Bozeman (W)	19.63	357	eP	Pn	04 20 44.4	-1.8
	14nm,1.3s						
BOZ				ePn	Pn	04 20 45.1	-1.1
BOZ	Bozeman (W)	19.63	357	⇑P	Pn	04 20 45.9	-0.3
	baz=20						
I06A	Prineville	19.63	338	⇑P	Pn	04 20 45.0	-1.3
	baz=20						
H08A	Prairie City	19.68	342	⇓P	Pn	04 20 45.7	-1.1
	baz=20						
GCMT	Greycliff	19.75	1	eP	Pn	04 20 45.4	-2.3
LRM	Limekiln Ridge	19.86	356	ePn	Pn	04 20 47.0	-1.9
F15A	Butte	19.88	355	⇑P	Pn	04 20 47.7	-1.4
	baz=20						
F14A	Wisdom	19.92	354	⇑P	Pn	04 20 48.6	-1.0
	baz=20						
H07A	Lands Inn, Kim	20.01	340	⇑P	P	04 20 48.1	-0.8
	baz=20						
F13A	Darby	20.01	352	⇑P	P	04 20 48.5	-0.5
	baz=20,SNR=5.5						
F12A	Elk City	20.11	350	⇓P	P	04 20 50.6	+0.5
	baz=20,SNR=5.9						
H06A	Lindquist Farm	20.38	339	⇓P	P	04 20 52.2	-0.7
	baz=20						
F11A	Grangeville	20.39	348	⇓P	P	04 20 52.9	-0.2
	baz=20,SNR=5.5						
E15A	Deer Lodge	20.47	355	⇑P	P	04 20 52.5	-1.4
	baz=21						
G08A	Pilot Rock	20.47	342	⇑P	P	04 20 53.7	-0.2
	baz=21						
E14A	Clinton	20.53	354	⇓P	P	04 20 54.7	+0.1
	baz=21,SNR=6.5						
F09A	S2 Ranch, Elgi	20.59	345	⇑P	P	04 20 55.2	-0.1
	baz=21,SNR=10						
FVM	French Village	20.60	50	eP	P	04 20 55.3	-0.1
	30nm,1.2s						
E13A	Victor	20.64	352	P	P	04 20 55.0	-0.8
	baz=21,SNR=16						
G07A	Ruggs Ranch, H	20.65	341	⇑P	P	04 20 54.8	-1.1
	baz=21						
F10A	Beach Ranch, E	20.69	346	⇑P	P	04 20 55.5	-0.9
	baz=21,SNR=8.0						
E11A	Bogner Ranch,	20.86	348	⇑P	P	04 20 57.1	-1.0
	baz=21,SNR=8.9						
MSO	Missoula	20.99	353	eP	P	04 20 58.1	-1.4
	14nm,1.0s						
CHMT	Chamberlain Mo	21.00	354	eP	P	04 20 59.0	-0.7
TEIG	Tepich	21.03	101	P	P	04 21 05.1	+4.8
	11nm,0.8s,mb4.2,baz=298,slow=10,SNR=3.9						
TEIG				LR	LR	04 30 26.7	
	comp=Z,504nm,21.4s,MS3.9,baz=226,slow=40						
D15A	Lincoln	21.07	356	⇓P	P	04 20 59.8	-0.7
	baz=21						
PLAL	Pickwick Lake	21.10	60	ePn	P	04 21 02.2	+1.4
	35nm,1.7s,mb4.4						
E10A	Myers Farm, Un	21.15	347	⇑P	P	04 21 00.5	-0.8
	baz=21						
D14A	Greenough	21.19	354	P	P	04 21 00.4	-1.3
	baz=21,SNR=16						
F07A	Phinny Hill Vi	21.30	341	⇓P	P	04 21 02.0	-0.9
	baz=21						
D13A	Huson	21.31	352	⇑P	P	04 21 03.3	+0.3
	baz=22						
D12A	Red Ives Fores	21.39	350	⇑P	P	04 21 03.0	-0.9
	baz=22						
E09A	Wood Farm, Sta	21.41	345	⇑P	P	04 21 04.0	-0.1
	baz=22						
LRAL	Lakeview Retre	21.42	65	eP	P	04 21 06.7	+2.4
	14nm,1.1s,mb4.2						
F06A	Goldendale	21.44	340	⇑P	P	04 21 04.6	+0.2
	baz=22						
G04A	Mulino	21.53	336	⇓P	P	04 21 04.5	-0.9
	baz=22						
HAWA	Hanford	21.64	342	eP	P	04 21 06.6	0.0
	8.9nm,1.0s,mb4.2						
D10A	Wagner Farm, O	21.73	347	⇓P	P	04 21 06.7	-0.8
	baz=22						
E07A	Sunnyside	21.89	342	⇑P	P	04 21 09.2	0.0
	baz=22,SNR=6.3						
C14A	Swan Lake	21.90	354	P	P	04 21 07.8	-1.5
	baz=22,SNR=6.6						
C13A	Hot Springs	21.90	352	⇑P	P	04 21 07.1	-2.3
	baz=22						
EGMT	Eagleton	21.99	1	eP	P	04 21 09.0	-1.2
	63nm,1.3s,mb4.9						
EGMT	Eagleton	21.99	1	⇑P	P	04 21 10.3	+0.1
	baz=22						
D08A	Wollman Farm,	22.10	344	⇓P	P	04 21 13.3	+1.8
	baz=22						
F04A	Amboy	22.13	337	⇑P	P	04 21 12.7	+0.9
	baz=22						
E06A	Yakima	22.20	340	⇑P	P	04 21 12.7	+0.2
	baz=22						
E05A	Randle	22.46	339	⇑P	P	04 21 15.7	+0.4
	baz=23,SNR=9.9						
C10A	Spilker Farm,	22.47	348	⇑P	P	04 21 16.3	+0.9
	baz=23						
D07A	Quincy	22.50	343	⇑P	P	04 21 17.4	+1.7
	baz=23						
B13A	Whitefish	22.57	353	⇓P	P	04 21 16.2	-0.3
	baz=23						
LON	Longmire	22.64	339	eP	P	04 21 15.4	-1.8
D06A	Cle Elum	22.74	341	⇓P	P	04 21 20.5	+2.2
	baz=23						
E04A	Onalaska	22.81	337	⇓P	P	04 21 21.0	+2.0
	baz=23						
B12A	Libby	22.81	351	⇑P	P	04 21 18.6	-0.4
	baz=23						
C08A	Higginbotham F	22.81	345	⇓P	P	04 21 18.6	-0.4
	baz=23						
NEW	Newport	22.86	348	eP	P	04 21 17.0	-2.5
	3.9nm,0.5s,mb4.1						
NEW	Newport	22.86	348	P	P	04 21 16.1	-3.4
	2.9nm,1.0s,mb3.6,baz=99,slow=18,SNR=3.2						
NEW				LR	LR	04 31 46.5	
	comp=Z,211nm,18.4s,MS3.6,baz=192,slow=41						
B11A	Sandpoint	22.90	350	⇓P	P	04 21 20.9	+1.0
	baz=23						
B10A	Chitwood Farm,	22.91	348	⇑P	P	04 21 20.2	+0.1
	baz=23						
DGMT	Dagmar	22.93	10	eP	P	04 21 20.3	+0.1
C07A	Waterville	22.98	343	⇑P	P	04 21 20.6	-0.2
	baz=23						
E03A	Lebam	23.07	336	⇑P	P	04 21 22.2	+0.5
	baz=23						
D05A	Enumclaw	23.09	339	⇓P	P	04 21 22.1	+0.1
	baz=23						
A13A	Flathead Natio	23.12	353	⇑P	P	04 21 23.4	+1.1
	baz=23						
WALA	Waterton Lakes	23.19	354	eP	P	04 21 21.3	-1.7
	7.4nm,1.0s,mb4.1						
B09A	Rice	23.21	347	⇑P	P	04 21 24.4	+1.1
	baz=23						
A12A	Yaak River Ran	23.27	351	⇑P	P	04 21 23.9	0.0
	baz=23						
A11A	Hall Mountain,	23.40	350	⇓P	P	04 21 24.5	-0.7
	baz=24						
B08A	Colville Reser	23.42	345	⇑P	P	04 21 25.2	-0.2
	baz=24						
C05A	Tolt Reservoir	23.45	340	⇑P	P	04 21 26.7	+0.9
	baz=24						
WCI	Wyandotte Cave	23.62	53	eP	P	04 21 27.5	0.0
	6.8nm,0.7s,mb4.2						
A10A	Northport	23.63	348	⇑P	P	04 21 27.3	-0.2
	baz=24						
B07A	Winthrop	23.71	344	⇓P	P	04 21 26.5	-1.7
	baz=24						
A08A	Turner Farm, O	23.96	345	⇓P	P	04 21 32.1	+1.6

	baz=24						
TKL	Tuckaleechee C	24.65	61	LR	LR	04 31 49.4	
	comp=Z,544nm,21.2s,MS4.0,baz=241,slow=38						
A04A	Legoe Bay, Lum	24.67	340	⇑P	P	04 21 36.7	-0.3
	baz=25						
ULM	Lac du Bonnet	26.64	21	P	P	04 21 57.0	+2.3
	2.2nm,0.9s,mb3.7,baz=216,slow=8.7,SNR=4.1						
ULM				LR	LR	04 34 09.6	
	comp=Z,162nm,21.0s,MS3.5,baz=247,slow=41						
EDM	Edmonton	27.28	356	*e*P	P	04 22 01.4	+0.8
JTS	JuntasAbangare	28.61	118	LR	LR	04 33 44.7	
	comp=Z,188nm,20.9s,MS3.7,baz=247,slow=36						
FCC	Fort Churchill	34.66	15	*e*P	P	04 23 02.8	-2.8
YKA	Yellowknife Ar	36.60	357	P	P	04 23 19.7	-2.4
YKA				LR	LR	04 38 14.3	
YKA	Yellowknife Ar	36.60	357	P	P	04 23 19.7	-2.4
	0.7nm,0.9s,mb3.5,baz=182,slow=8.0,SNR=11						
YKA				LR	LR	04 38 14.3	
	comp=Z,146nm,18.4s,MS3.8,baz=160,slow=36						
OTAV	Otavalo	39.97	125	*e*P	P	04 23 54.4	+3.3
	11nm,1.3s,mb4.4						
ROSC	El Rosal	40.31	115	LR	LR	04 43 10.6	
	comp=Z,133nm,19.7s,MS3.8,baz=43,slow=40						
SCHQ	Schefferville	42.81	36	LR	LR	04 41 54.1	
	comp=Z,538nm,21.8s,MS4.4,baz=92,slow=36						
IMA2	Indian Mountai	48.33	338	*e*P	P	04 24 56.3	-1.2
RKT	Rikitea	54.37	208	*e*LR	LR	04 41 31.6	
	151nm,27.2s						
PPT	Papeete	57.75	226	*e*LR	LR	04 43 06.5	
	281nm,24.5s						
PPT	Papeete	57.75	226	LR	LR	04 43 44.9	
	comp=Z,188nm,21.9s,MS4.2,baz=284,slow=29						
LPAZ	La Paz	58.72	131	*e*P	P	04 26 13.8	-0.5
	2.6nm,1.1s,mb4.2						
NOA	NORSAR Array B	81.26	25	LR	LR	05 07 10.2	
	comp=Z,52nm,19.9s,MS3.9,baz=270,slow=38						
MJAR	Matsushiro Arr	90.41	311	LR	LR	05 02 57.6	
	comp=Z,140nm,20.0s,MS4.4,baz=35,slow=31						
KSRS	Korea Array	96.50	317	LR	LR	05 10 55.2	
	comp=Z,41nm,19.5s,MS3.9,baz=20,slow=34						
HHC	Hu-ho-hao-te	102.97	329	*e*P	Pdif	04 30 12.4	-2.2
HHC				PP	PP	04 34 28.8	+0.5
GYA	Guiyang	116.84	323	*e*PDIF	Pdif	04 31 14.0	-2.3
GYA				PKP	PKPdf	04 34 58.3	-3.1
GYA				PP	PP	04 36 10.5	+1.6

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*ISCJB **23** 04:29:38.8±0.6, 43.48N±0.03×10.74E±0.04, h7^{km}±6^{km}, Error ellipse: s-maj=5.7km s-min=4.6km az=9.2*

*CSEM **23** 04:29:38.7±0.1, 43.50N×10.74E, h12^{km}, ML2.4/5, Error ellipse: s-maj=2.2km s-min=1.4km az=172.0*

*GEN **23** 04:29:38.9, 43.44N×10.78E, h2^{km}, ML2.0*

*ROM **23** 04:29:38.5±0.2, 43.51N×10.73E, h2^{km}, Md2.5/10, Ml2.2/8, Error ellipse: s-maj=2.6km s-min=1.8km az=11.0*

*LDG **23** 04:29:43.2±1.0, 43.30N×10.53E, h10^{km}, Ml2.2/3, Error ellipse: s-maj=22.6km s-min=12.0km az=105.0*

ISC 23 04:29:39.5±0.6, **43.49N**±0.04×**10.74E**±0.04, **h10**^{km}±5^{km}, **n47, σ0ˢ90**/67, **2C-1D, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRMI	Carmignano	0.35	29	⇑Pg	Pg	04 29 46.4	0.0
CRMI				Sg	Sg	04 29 51.4	+0.3
	70nm,0.2s						
CRMI	Carmignano	0.35	29	⇑Pg	Pg	04 29 46.4	0.0
CRMI				Sg	Sg	04 29 51.4	+0.3
	70nm,0.2s						
CSNT	Castellina Chi	0.41	92	Pg	Pg	04 29 47.3	-0.1
CSNT				Sg	Sg	04 29 52.8	0.0
	211nm,0.4s						
CSNT	Castellina Chi	0.41	92	Pg	Pg	04 29 47.3	-0.1
CSNT				Sg	Sg	04 29 52.8	0.0
	211nm,0.4s						
MAIM		0.46	338	Pg	Pg	04 29 48.3	-0.2
MAIM				Sg	Sg	04 29 53.9	-0.8
	128nm,0.3s						
MAIM		0.46	338	Pg	Pg	04 29 48.3	-0.2
MAIM				Sg	Sg	04 29 53.9	-0.8
	128nm,0.3s						
BDI	Bagni Di Lucca	0.58	350	Pg	Pg	04 29 50.6	-0.2
BDI				Sg	Sg	04 29 57.9	-0.6
	164nm,0.5s						
BDI	Bagni Di Lucca	0.58	350	Pg	Pg	04 29 50.6	-0.2
BDI				Sg	Sg	04 29 57.9	-0.6
	164nm,0.5s						
GROG	Isola di Gorgo	0.62	265	Pg	Pg	04 29 51.9	+0.5
GROG				Sg	Sg	04 30 00.7	+1.2
	105nm,0.4s						
GROG	Isola di Gorgo	0.62	265	Pg	Pg	04 29 51.9	+0.5
GROG				Sg	Sg	04 30 00.7	+1.2
	105nm,0.4s						
PZZT	Monte Pizzetto	0.65	8	Pg	Pg	04 29 51.6	-0.5
	302nm,0.5s						
PZZT	Monte Pizzetto	0.65	8	Pg	Pg	04 29 51.6	-0.5
	302nm,0.5s						
VLC	Villacollemand	0.72	340	Pg	Pg	04 29 53.4	0.0
	117nm,0.7s						
VLC	Villacollemand	0.72	340	Pg	Pg	04 29 53.4	0.0
	117nm,0.7s						
SEI	Scarperia	0.72	38	Pg	Pg	04 29 53.3	-0.2
	149nm,0.3s						
SEI	Scarperia	0.72	38	Pg	Pg	04 29 53.3	-0.2
	149nm,0.3s						
FNVD	Fontana Vidola	0.74	22	Pg	Pg	04 29 53.4	-0.3
	289nm,0.8s						
FNVD	Fontana Vidola	0.74	22	Pg	Pg	04 29 53.4	-0.3
	289nm,0.8s						
SARO	Sassorosso	0.74	341	P	Pg	04 29 53.7	0.0
VMG	Vicchio	0.76	51	Pg	Pg	04 29 53.7	-0.3
	54nm,0.4s						
VMG	Vicchio	0.76	51	Pg	Pg	04 29 53.7	-0.3
	54nm,0.4s						
GSCL	Gusciola	0.87	353	Pg	Pg	04 29 56.1	-0.1
GSCL				Sg	Sg	04 30 07.7	+0.1
	24nm,0.3s						
GSCL	Gusciola	0.87	353	Pg	Pg	04 29 56.1	-0.1
GSCL				Sg	Sg	04 30 07.7	+0.1
	24nm,0.3s						
CRE	Caprese Michel	0.89	81	Pg	Pg	04 29 56.9	+0.2
	19nm,0.4s						
CRE	Caprese Michel	0.89	81	Pg	Pg	04 29 56.9	+0.2
	19nm,0.4s						
SFI	Santa Sofia	0.91	62	⇓Pg	Pg	04 29 56.7	-0.3
SFI				Sg	Sg	04 30 09.2	+0.4
	31nm,0.3s						
BACM		0.93	329	P	Pg	04 29 56.9	-0.4
VALM		0.93	338	P	Pg	04 29 57.3	-0.1
GRAM		1.11	335	P	Pb	04 30 01.6	+0.8
GRAM				S	Sb	04 30 15.9	+0.6
PGF	Pioggiola	1.58	234	*e*Pn	Pn	04 30 07.0	-0.5
PGF				*e*Sn	Sn	04 30 23.8	-4.1
	8.8nm,0.5s						
PGF	Pioggiola	1.58	234	*e*Pn	Pn	04 30 07.0	-0.5
PGF				*e*Sn	Sn	04 30 23.8	-4.1
	4.4nm,0.5s						
SBF	Sospel	2.42	280	*e*Pn	Pn	04 30 19.0	-0.1
SBF	Sospel	2.42	280	*e*Pn	Pn	04 30 19.0	-0.1
FRF	La Foret Royal	2.98	273	*e*Pn	Pn	04 30 25.2	-1.4
FRF				*e*Sn	Sn	04 30 58.9	-3.4
	2.8nm,0.4s						
FRF	La Foret Royal	2.98	273	*e*Pn	Pn	04 30 25.2	-1.4
FRF				*e*Sn	Sn	04 30 58.9	-3.4
	1.4nm,0.4s						
LMR	La Mourre	3.08	269	*e*Pn	Pn	04 30 27.2	-0.9
LMR				*e*Sn	Sn	04 31 02.0	-3.0
	1.3nm,0.4s						
LMR	La Mourre	3.08	269	*e*Pn	Pn	04 30 27.2	-0.9
LMR				*e*Sn	Sn	04 31 02.0	-3.0
	0.6nm,0.4s						
MBDF	Montbardon	3.11	295	*e*Pn	Pn	04 30 28.5	0.0
MBDF	Montbardon	3.11	295	*e*Pn	Pn	04 30 28.5	0.0
LPG	La Plagne	3.49	307	*e*Pn	Pn	04 30 35.8	+2.1
LPG	La Plagne	3.49	307	*e*Pn	Pn	04 30 35.8	+2.1
LPL	La Plagne	3.51	307	*e*Pn	Pn	04 30 36.8	+2.8
LPL	La Plagne	3.51	307	*e*Pn	Pn	04 30 36.8	+2.8
SMRF	Simiane la Rot	3.77	279	*e*Pn	Pn	04 30 38.5	+0.9
SMRF	Simiane la Rot	3.77	279	*e*Pn	Pn	04 30 38.5	+0.9
ORIF	Oris-en-Rattie	3.77	294	*e*Pn	Pn	04 30 40.0	+2.4
ORIF	Oris-en-Rattie	3.77	294	*e*Pn	Pn	04 30 40.0	+2.4

MOS 23 05:27:25.1±1.1, **43.35N×44.90E, h16**^{km}, **mb3.5**/1, **2C-1D, Error ellipse: s-maj=26.5km s-min=12.8km az=144.8, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTKR	Batakoyurt	0.26	275	*e*PG	Pg	05 27 32.9	+2.1
BTKR				*e*S	Sg	05 27 38.3	+3.6
VLKR	Vladikavkaz	0.34	208	⇑*i*PG	Pg	05 27 33.5	+1.3
VLKR				*i* S	Sg	05 27 39.4	+2.4
KMSR	Komsomolskaya	0.44	273	*e*PG	Pg	05 27 36.1	+2.1
KMSR				*e*S	Sg	05 27 43.9	+3.9
KORR	Kora	0.66	247	*e*PG	Pg	05 27 39.8	+1.7
KORR				*e*S	Sg	05 27 50.3	+3.4
LACR	Lac	0.69	220	⇓*i*PG	Pg	05 27 39.9	+1.4
LACR				*i* S	Sg	05 27 50.4	+2.8
LSNR	Lesken	0.80	265	*e*PG	Pg	05 27 42.2	+1.6
LSNR				*e*S	Sb	05 27 54.6	+3.6
ZEI	Tsey	0.94	232	⇑*i*PG	Pg	05 27 44.2	+1.0
ZEI				*e*S	Sb	05 27 57.9	+2.8
DIGR	Digorskoe uzhe	1.07	245	*e*PG	Pg	05 27 46.7	+1.0
DIGR				*i* S	Sb	05 28 02.2	+3.4

MOS 23 05:29:04.9±0.7, **43.43N×45.20E, h16**^{km}, **mb3.5**/1, **4C, Error ellipse: s-maj=46.3km s-min=12.4km az=152.4, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTKR	Batakoyurt	0.48	263	*e*PG	Pg	05 29 15.4	+0.8
BTKR				*e*S	Sg	05 29 21.1	0.0
KMSR	Komsomolskaya	0.67	265	*e*PG	Pg	05 29 18.6	+0.6
KMSR				*e*S	Sg	05 29 26.8	0.0
ARNR	Ardon	0.72	250	⇑*i*PG	Pg	05 29 18.7	-0.2
ARNR				*i* S	Sg	05 29 27.1	-1.3
KORR	Kora	0.90	248	*e*PG	Pg	05 29 22.0	-0.3
KORR				*i* S	Sb	05 29 32.8	-1.0
LACR	Lac	0.90	228	⇑*i*PG	Pg	05 29 21.9	-0.5
LACR				*i* S	Sb	05 29 32.4	-1.4
LSNR	Lesken	1.02	262	*e*PG	Pg	05 29 24.8	+0.1
LSNR				*e*S	Sb	05 29 37.5	+0.1
ZEI	Tsey	1.16	236	⇑*i*PG	Pg	05 29 26.6	-0.7
ZEI				*e*S	Sb	05 29 40.5	-0.9
DIGR	Digorskoe uzhe	1.30	246	⇑*i*PG	Pg	05 29 29.3	-0.7
DIGR				*i* S	Sb	05 29 45.2	-0.2

MOS 23 05:29:40.5±1.0, **43.87N×45.87E, h18**^{km}, **mb3.5**/1, **1D, Error ellipse: s-maj=99.9km s-min=20.7km az=137.9, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTKR	Batakoyurt	1.09	243	*e*PG	Pg	05 29 59.7	-1.9
KORR	Kora	1.53	240	*e*PG	Pg	05 30 07.1	-2.9
LACR	Lac	1.56	228	⇓*i*PG	Pg	05 30 07.4	-3.0
ZEI	Tsey	1.81	233	*e*PN	Pn	05 30 11.8	+1.0
DIGR	Digorskoe uzhe	1.93	241	*e*PN	Pn	05 30 14.5	+2.1

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*IDC **23** 05:53:04.9±1.1, 3.63N×127.43E, h0^{km}, mb4.0/7, mb1 4.2/7, mb1mx4.0/19, mbtmp4.0/7, Error ellipse: s-maj=104.8km s-min=15.6km az=71.0*

*ISCJB **23** 05:53:21.2±6.0, 3.4N±0.2×127.2E±0.5, h158^{km}±63^{km}, mb3.9/10, Error ellipse: s-maj=79.2km s-min=17.7km az=163.3*

*NEIC **23** 05:53:22.3±0.6, 3.45N×127.28E, h150^{km}, mb4.3/3, Error ellipse: s-maj=52.9km s-min=8.3km az=71.0*

ISC 23 05:53:21.1±5.7, **3.4N**±0.2×**127.2E**±0.4, **h138**^{km}±58^{km}, **n17, σ0ˢ78**/15, **mb3.9**/10, **Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	16.85	162	*e*P	Pn	05 57 08.6	-0.4
FITZ	Fitzroy Crossi	21.43	184	*e*P	P	05 57 58.9	+0.5
FITZ	Fitzroy Crossi	21.43	184	P	P	05 57 57.6	-0.8
	1.9nm,0.6s,mb3.6,baz=26,slow=11,SNR=8.2						
WRA	Warramunga Arr	24.25	163	P	P	05 58 26.1	+0.7
	7.1nm,0.7s,mb4.3,baz=342,slow=10,SNR=34						
WB2	Warramunga Arr	24.25	163	*e*P	P	05 58 26.1	+0.6
ASAR	Alice Springs	27.70	167	P	P	05 58 57.4	+0.9
	1.1nm,0.7s,mb3.7,baz=351,slow=7.9,SNR=12						
STKA	Stephens Creek	37.67	160	P	P	06 00 21.5	-1.6
STKA	Stephens Creek	37.67	160	P	P	06 00 21.5	-1.6
	6.8nm,0.7s,mb4.4,baz=356,slow=5.9,SNR=18						
BJT	Baijiatuau	37.78	346	*e*P	P	06 00 24.3	+0.4
	4.6nm,0.7s,mb4.2						
SONM	Songino Array	47.74	341	P	P	06 01 44.7	+0.6
	0.8nm,0.7s,mb3.5,baz=157,slow=8.3,SNR=7.8						
MK31	Makanchi Array	58.07	325	*e*P	P	06 02 59.7	-0.1
MKAR	Makanchi Array	58.07	325	P	P	06 02 59.8	0.0
	0.6nm,0.4s,mb3.8,baz=121,slow=7.8,SNR=16						
TKM2	Tokmak 2	60.28	318	*e*P	P	06 03 15.4	+0.2
	1.2nm,0.6s,mb3.9						
ZALV	Zalesovo Beam	61.07	333	P	P	06 03 18.6	-1.7
	0.5nm,0.5s,mb3.6,baz=120,slow=8.5,SNR=3.4						
KURK	Kurchatov	62.25	327	*e*P	P	06 03 28.6	+0.4
	3.5nm,0.7s,mb4.3						
TORD	Torodi Ar. Bea	123.45	288	PKP	PKPdf	06 12 04.8	+1.7
TORD	Torodi Ar. Bea	123.45	288	PKP	PKPdf	06 12 04.8	+1.7
	0.3nm,0.7s,baz=90,slow=2.9,SNR=2.8						

MOS 23 05:54:26.1±1.0, **43.33N×44.91E, h17**^{km}, **mb3.5**/1, **4D, Error ellipse: s-maj=34.8km s-min=14.3km az=140.3, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTKR	Batakoyurt	0.27	279	*e*PG	Pg	05 54 33.7	+1.6
BTKR				*i* S	Sg	05 54 39.1	+3.0
VLKR	Vladikavkaz	0.33	211	⇓*i*PG	Pg	05 54 34.1	+1.0
VLKR				*i* S	Sg	05 54 39.7	+1.9
ARNR	Ardon	0.48	253	*e*PG	Pg	05 54 37.3	+1.5
ARNR				*e*S	Sg	05 54 45.3	+3.0
KORR	Kora	0.66	249	*e*PG	Pg	05 54 40.7	+1.6
KORR				*e*S	Sg	05 54 51.1	+3.2
LACR	Lac	0.68	222	⇓*i*PG	Pg	05 54 40.5	+1.1
LACR				*i* S	Sg	05 54 51.0	+2.7
ZEI	Tsey	0.93	233	⇓*i*PG	Pg	05 54 45.0	+0.9
ZEI				*e*S	Sb	05 54 58.9	+3.2
DIGR	Digorskoe uzhe	1.06	247	⇓*i*PG	Pg	05 54 47.7	+1.0
DIGR				*i* S	Sb	05 55 03.4	+3.8

MOS 23 05:59:50.6±0.8, **43.46N×45.16E, h13**^{km}, **mb3.5**/1, **2C-1D, Error ellipse: s-maj=45.9km s-min=13.4km az=142.2, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTKR	Batakoyurt	0.46	259	*e*PG	Pg	06 00 00.2	+0.6
BTKR				*e*S	Sg	06 00 04.9	-0.8
VLKR	Vladikavkaz	0.54	221	*e*PG	Pg	06 00 01.6	+0.4
VLKR				*i* S	Sg	06 00 07.4	-1.0
ARNR	Ardon	0.70	248	*e*PG	Pg	06 00 04.2	+0.1
ARNR				*e*S	Sg	06 00 11.9	-1.4
LACR	Lac	0.89	225	⇑*i*PG	Pg	06 00 08.1	+0.2
LACR				*i* S	Sg	06 00 18.5	-1.0
LSNR	Lesken	1.00	260	*e*PG	Pg	06 00 10.0	+0.2
LSNR				*e*S	Sb	06 00 22.0	-0.7
ZEI	Tsey	1.15	234	⇑*i*PG	Pg	06 00 12.4	-0.3
ZEI				*e*S	Sb	06 00 26.1	-1.0
DIGR	Digorskoe uzhe	1.28	245	⇓*i*PG	Pg	06 00 14.9	-0.3
DIGR				*e*S	Sb	06 00 30.4	-0.5

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*VIE **23** 06:07:30.4±0.1, 46.99N×13.27E, h9^{km}±2^{km}, mb2.2/8, ML2.7/14, Error ellipse: s-maj=1.4km s-min=0.7km az=9.0*

*ISCJB **23** 06:07:30.5±0.3, 47.02N±0.01×13.26E±0.02, h10^{km}, Error ellipse: s-maj=2.3km s-min=1.9km az=150.4*

*PRU **23** 06:07:31.5, 46.97N×13.34E, h0^{km}*

*CSEM **23** 06:07:31.0±0.1, 46.98N×13.28E, h12^{km}, ML3.2/9, Error ellipse: s-maj=1.6km s-min=1.5km az=51.0*

*ROM **23** 06:07:32.3±1.0, 46.92N×13.26E, h10^{km}, Md2.3/2, Ml2.0/3, Error ellipse: s-maj=13.2km s-min=6.0km az=30.0*

*BGR **23** 06:07:35.2±0.9, 47.08N×13.21E, h10^{km}, ML2.7/2, Error ellipse: s-maj=10.0km s-min=6.7km az=159.0*

ISC 23 06:07:31.7±0.3, **46.99N**±0.01×**13.27E**±0.02, **h10**^{km}, **n75, σ0ˢ91**/126, **26C-20D, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBA	Koelnbreinsper	0.10	30	⇓*e*Pg	Pg	06 07 33.8	-0.4
	comp=Z,155nm,0.1s,SNR=367						
KBA				⇑*i*Sg	Sg	06 07 35.4	-0.7
	comp=E,754nm,0.1s						
KBA	Koelnbreinsper	0.10	30	⇓*e*Pg	Pg	06 07 33.8	-0.4
	155nm,0.1s,SNR=367						
KBA				⇑*i*Sg	Sg	06 07 35.4	-0.7
	754nm,0.1s						
KBA	Koelnbreinsper	0.10	30	Pg	Pg	06 07 33.8	-0.5
	155nm,0.1s,SNR=367						
KBA				Sg	Sg	06 07 35.4	-0.7
	754nm,0.1s						
MYKA	Terra Mystica	0.44	145	⇓*i*Pg	Pg	06 07 39.6	-0.8
	2.0nm,0.1s						
MYKA				⇑*i*Sg	Sg	06 07 45.0	-1.2
	28nm,0.1s						
MYKA	Terra Mystica	0.44	145	Pg	Pg	06 07 39.6	-0.8
	2.0nm,0.1s						
MYKA				Sg	Sg	06 07 45.0	-1.2
	28nm,0.1s						
PLRO	Paularo	0.45	191	⇑*i*Pg	Pg	06 07 40.4	-0.2
PLRO				*i* Sg	Sg	06 07 46.2	-0.3
PLRO	Paularo	0.45	191	*i* Pg	Pg	06 07 40.4	-0.1
PLRO				*i* Sg	Sg	06 07 46.2	-0.3
ZOU	Zoufplan	0.48	205	⇓*e*Pg	Pg	06 07 41.0	-0.1
ZOU				*e*Sg	Sg	06 07 47.3	-0.2
ZOU	Zoufplan	0.48	205	*e*Pg	Pg	06 07 41.0	-0.1
ZOU				*e*Sg	Sg	06 07 47.3	-0.2
FVI	Forni Avoltri	0.52	221	Pg	Pg	06 07 41.7	-0.2
FVI				Sg	Sg	06 07 48.8	+0.1
	82nm,0.5s						
FVI	Forni Avoltri	0.52	221	Pg	Pg	06 07 41.7	-0.2
FVI				Sg	Sg	06 07 48.8	+0.1
	82nm,0.5s						
LSR	Lussari	0.55	161	⇓*i*Pg	Pg	06 07 42.5	+0.2
LSR				*i* Sg	Sg	06 07 49.6	+0.1
LSR	Lussari	0.55	161	*i* Pg	Pg	06 07 42.5	+0.2
LSR				*i* Sg	Sg	06 07 49.6	+0.1
PTCC	Patocco-Chiusa	0.59	175	Pg	Pg	06 07 42.8	-0.4
	12nm,0.2s						
PTCC	Patocco-Chiusa	0.59	175	Pg	Pg	06 07 42.8	-0.4
	12nm,0.2s						
CSMI	Casera Mimoias	0.64	222	⇓*e*Pg	Pg	06 07 43.9	-0.3
CSMI				*e*Sg	Sg	06 07 52.3	-0.3
CSMI	Casera Mimoias	0.64	222	*e*Pg	Pg	06 07 43.9	-0.3
CSMI				*e*Sg	Sg	06 07 52.3	-0.3
BGLD	Berchtesgaden	0.68	345	⇓*i*Pg	Pg	06 07 44.7	-0.2
BGLD				*i* Sg	Sg	06 07 53.8	0.0
BGLD	Berchtesgaden	0.68	345	Pg	Pg	06 07 44.7	-0.2
BGLD				Sg	Sg	06 07 53.8	0.0
BAD	Bernadia	0.76	182	⇓*i*Pg	Pg	06 07 46.8	+0.5
BAD				*i* Sg	Sg	06 07 56.6	+0.4
BAD	Bernadia	0.76	182	*i* Pg	Pg	06 07 46.8	+0.5
BAD				*i* Sg	Sg	06 07 56.6	+0.4
SEST	Monte Rota	0.77	252	Pn	Pg	06 07 46.0	-0.5
	77nm,0.7s						
SEST	Monte Rota	0.77	252	Pn	Pg	06 07 46.0	-0.5
	77nm,0.7s						
DRE	Drenchia	0.86	163	⇑*i*Pg	Pg	06 07 49.2	+0.9
DRE				*i* Sg	Sg	06 08 00.6	+1.1
DRE	Drenchia	0.86	163	*i* Pg	Pg	06 07 49.2	+0.9
DRE				*i* Sg	Sg	06 08 00.6	+1.2
OBKA	Obir	1.00	118	⇑*e*Pg	Pg	06 07 50.1	-0.9
	comp=Z,2.3nm,0.1s,SNR=13						
OBKA	Obir	1.00	118	⇑*i*Sg	Sg	06 08 03.6	-0.4
	comp=N,41nm,0.3s						
OBKA	Obir	1.00	118	⇑*e*Pg	Pg	06 07 50.1	-0.9
	2.3nm,0.1s,SNR=13						
OBKA				⇑*i*Sg	Sg	06 08 03.6	-0.4
	41nm,0.3s						
OBKA	Obir	1.00	118	Pg	Pg	06 07 50.1	-0.9
	2.3nm,0.1s,SNR=13						
OBKA				Sg	Sg	06 08 03.6	-0.4
	41nm,0.3s						
VOY	Vojsko	1.05	156	*e*Pg	Pg	06 07 53.2	+1.2
VOY				*e*Sg	Sg	06 08 06.5	+0.9
MOA	Molln	1.09	38	⇑*e*Pg	Pg	06 07 51.6	-1.1
	comp=Z,1.3nm,0.1s,SNR=13						
MOA	Molln	1.09	38	⇑*i*Sg	Sg	06 08 07.0	+0.2
	comp=E,21nm,0.1s						
MOA	Molln	1.09	38	⇑*e*Pg	Pg	06 07 51.6	-1.1
	1.3nm,0.1s,SNR=13						
MOA				⇑*i*Sg	Sg	06 08 07.0	+0.2
	21nm,0.1s						
MOA	Molln	1.09	38	Pg	Pg	06 07 51.6	-1.1
	1.3nm,0.1s,SNR=13						
MOA				Sg	Sg	06 08 07.0	+0.2
	21nm,0.1s						
WTTA	Wattenberg	1.15	284	⇑*e*Pg	Pg	06 07 53.0	-0.8
	comp=Z,28nm,0.2s,SNR=33						
WTTA	Wattenberg	1.15	284	⇑*i*Sg	Sg	06 08 08.2	-0.6
	comp=E,32nm,0.3s						
WTTA	Wattenberg	1.15	284	⇑*e*Pg	Pg	06 07 53.0	-0.8
	28nm,0.2s,SNR=33						
WTTA				⇑*i*Sg	Sg	06 08 08.2	-0.6
	32nm,0.3s						
WTTA	Wattenberg	1.15	284	Pg	Pg	06 07 53.0	-0.8
	28nm,0.2s,SNR=33						
WTTA				Sg	Sg	06 08 08.2	-0.5
	32nm,0.3s						
WATA	Walderalm	1.21	287	⇓*i*Pg	Pg	06 07 54.0	-0.8
	comp=Z,28nm,0.1s						
WATA	Walderalm	1.21	287	⇓*i*Sg	Sg	06 08 10.1	-0.5
	comp=Z,32nm,0.2s						
WATA	Walderalm	1.21	287	⇓*i*Pg	Pg	06 07 54.0	-0.8
	28nm,0.1s						
WATA				⇓*i*Sg	Sg	06 08 10.1	-0.5
	32nm,0.2s						
WATA	Walderalm	1.21	287	Pg	Pg	06 07 54.0	-0.9
	28nm,0.1s						
WATA				Sg	Sg	06 08 10.1	-0.5
	32nm,0.2s						
SQTA	Sankt Quirin	1.43	280	⇓*e*Pg	Pg	06 07 58.0	-1.2
	comp=Z,22nm,0.2s,SNR=23						
SQTA	Sankt Quirin	1.43	280	⇓*i*Sg	Sg	06 08 17.9	+0.3
	comp=Z,45nm,0.3s						
SQTA	Sankt Quirin	1.43	280	⇓*e*Pg	Pg	06 07 58.0	-1.2
	22nm,0.2s,SNR=23						
SQTA				⇓*i*Sg	Sg	06 08 17.9	+0.3
	45nm,0.3s						
SQTA	Sankt Quirin	1.43	280	Pg	Pg	06 07 58.0	-1.1
	22nm,0.2s,SNR=23						
SQTA				Sg	Sg	06 08 17.9	+0.3
	45nm,0.3s						
APPI	Appiano	1.50	251	Pn	Pn	06 07 59.6	+1.0
	664nm,4.1s						
APPI	Appiano	1.50	251	Pn	Pn	06 07 59.6	+1.0
	664nm,4.1s						
MOTA	Moosalm	1.52	284	⇑*i*Pg	Pg	06 07 59.8	-1.1
	comp=Z,4.5nm,0.1s						
MOTA	Moosalm	1.52	284	⇓*e*Sg	Sg	06 08 21.0	+0.4
	comp=Z,25nm,0.3s,SNR=11						
MOTA	Moosalm	1.52	284	⇑*i*Pg	Pg	06 07 59.8	-1.1
	4.5nm,0.1s						
MOTA				⇓*e*Sg	Sg	06 08 21.0	+0.4
	25nm,0.3s,SNR=11						
MOTA	Moosalm	1.52	284	Pg	Pg	06 07 59.8	-1.1
	4.5nm,0.1s						
MOTA				Sg	Sg	06 08 21.0	+0.4
	25nm,0.3s,SNR=11						
FETA	Feichten	1.74	272	⇑*e*Pg	Pg	06 08 03.4	-1.7
	5.3nm,0.3s,SNR=22						
FETA				⇑*i*Sg	Sg	06 08 28.5	+0.9
	8.3nm,0.4s						
FETA	Feichten	1.74	272	Pg	Pg	06 08 03.4	-1.7
	5.3nm,0.3s,SNR=22						
FETA				Sg	Sg	06 08 28.5	+0.8
	8.3nm,0.4s						
FUR	Furstenfeldbru	1.79	312	*e*Pg	Pg	06 08 06.0	0.0
	SNR=2.1						
FUR				*e*Sg	Sg	06 08 29.5	+0.3
FUR	Furstenfeldbru	1.79	312	Pg	Pg	06 08 06.0	0.0
	SNR=2.1						
FUR				Sg	Sg	06 08 29.5	+0.3
GEC2	GERESS Array S	1.88	9	*e*Pn	Pn	06 08 06.2	+2.4
	SNR=1.7						
GEC2				*e*Sg	Sg	06 08 31.7	-0.2
GEC2	GERESS Array S	1.88	9	Pn	Pn	06 08 06.2	+2.4
	SNR=1.7						
GEC2				Sg	Sg	06 08 31.7	-0.2
CONA	Conrad Observa	1.99	61	⇑*i*Pg	Pg	06 08 08.8	-1.1
	2.4nm,0.2s						
CONA				⇑*e*Sg	Sg	06 08 36.1	+0.5
	12nm,0.4s,SNR=5.2						
CONA	Conrad Observa	1.99	61	Pg	Pg	06 08 08.8	-1.0
	2.4nm,0.2s						
CONA				Sg	Sg	06 08 36.1	+0.5

	12nm,0.4s,SNR=5.2						
OBER	Oberstdorf	2.07	283	⇑iPg	Pg	06 08 11.0	-0.4
OBER				i Sg	Sg	06 08 39.9	+1.6
OBER	Oberstdorf	2.07	283	Pg	Pg	06 08 11.0	-0.4
OBER				Sg	Sg	06 08 39.9	+1.6
KHC	Kasperske Hory	2.15	5	ePG	Pg	06 08 09.4	-3.5
KHC				eSN	Sn	06 08 36.0	+1.8
KHC	Kasperske Hory	2.15	5	ePg	Pg	06 08 09.4	-3.5
KHC				eSn	Sn	06 08 36.0	+1.8
DAVA	Damuels	2.33	278	⇓ePg	Pg	06 08 15.1	-1.4
	comp=Z,7.6nm,0.2s,SNR=13						
DAVA	Damuels	2.33	278	⇑iSg	Sg	06 08 47.5	+0.8
	comp=Z,16nm,0.3s						
DAVA	Damuels	2.33	278	⇓ePg	Pg	06 08 15.1	-1.4
	7.6nm,0.2s,SNR=13						
DAVA				⇑iSg	Sg	06 08 47.5	+0.8
	16nm,0.3s						
DAVA	Damuels	2.33	278	Pg	Pg	06 08 15.1	-1.3
	7.6nm,0.2s,SNR=13						
DAVA				Sg	Sg	06 08 47.5	+0.8
	16nm,0.3s						
GRA1	Grafenberg Arr	3.03	334	Sg	Sg	06 09 09.0	+0.1
GRF	Grafenberg Arr	3.03	334	eSg	Sg	06 09 09.0	+0.2
PRU	Pruhonice	3.11	15	eSG	Sg	06 09 11.6	0.0
PRU	Pruhonice	3.11	15	eSg	Sg	06 09 11.6	0.0
BFO	Black Forest	3.60	294	ePn	Pn	06 08 29.7	+2.2
	SNR=2.6						
BFO				ePg	Pg	06 08 39.9	-0.7
	SNR=2.6						
BFO				eSn	Sn	06 09 10.5	+0.5
BFO				eSg	Sg	06 09 26.3	-0.9
MOX	Moxa	3.81	344	ePn	Pn	06 08 32.3	+1.8
	SNR=2.1						
TNS	Taunus Mts	4.55	317	ePn	Pn	06 08 43.6	+3.1
	SNR=1.5						

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*BJI **23** 06:10:25.3, 150S×12698E, h30^{km}, mB5.2, mb4.7, Ms4.8, Msz4.4*

*ISCJB **23** 06:10:26.2±0.4, 098S±006×12688E±008, h10^{km}, mb4.5/21, MS3.5/4, Error ellipse: s-maj=12.3km s-min=6.6km az=152.9*

*NEIC **23** 06:10:28.1±0.3, 096S×12687E, h10^{km}, mb4.7/7, Error ellipse: s-maj=12.0km s-min=5.6km az=59.0*

*MOS **23** 06:10:29.8±1.2, 096S×12666E, h33^{km}, mb4.9/5, Error ellipse: s-maj=25.3km s-min=11.1km az=117.6*

*IDC **23** 06:10:31.7±2.4, 099S×12681E, h34^{km}±17^{km}, mb4.3/10, mb1 4.4/11, mb1mx4.2/20, mbtmp4.3/11, ML3.8/1, MS3.3/4, Ms1 3.3/4, ms1mx3.1/27, Error ellipse: s-maj=28.3km s-min=11.2km az=70.0*

ISC 23 06:10:30.0±2.9**, 101S**±006×**12685E**±008**, h21^{km}**±21^{km}**, h17^{km}**±1.0^{km}**:pP-P, n44,** σ0^{s}**82**/41**, mb4.5**/21**, MS3.5**/4**, 2C, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PCI	Palu	7.01	271	P	Pn	06 12 12.0	+0.4
	0.0nm,0.0s						
KAKA	Kakadu	12.88	155	ePn	Pn	06 13 31.5	-0.5
KSM	Kuching	16.72	278	ePn	Pn	06 14 23.9	+0.7
FITZ	Fitzroy Crossi	17.03	184	P	Pn	06 14 26.7	-0.4
	0.3nm,0.3s,baz=16,slow=13,SNR=9.2						
FITZ				LR	LR	06 21 24.3	
	comp=Z,44nm,18.7s,baz=288,slow=38						
WRA	Warramunga Arr	20.20	159	P	P	06 15 03.1	-0.5
	19nm,0.9s,baz=338,slow=11,SNR=65						
WB2	Warramunga Arr	20.20	159	eP	P	06 15 03.2	-0.4
COEN	Coen	20.65	129	eP	P	06 15 08.9	+0.4
PMG	Port Moresby	21.86	113	c iP	P	06 15 24.7	+3.1
PMG	Port Moresby	21.86	113	P	P	06 15 22.7	+1.1
	28nm,0.8s,mb4.7,baz=266,slow=13,SNR=11						
GUMO	Guam	23.01	50	LR	LR	06 23 12.6	
	comp=Z,66nm,20.2s,MS3.1,baz=132,slow=33						
ASAR	Alice Springs	23.54	164	P	P	06 15 38.8	-0.5
	15nm,0.9s,mb4.4,baz=342,slow=9.9,SNR=122						
ASAR				S	S	06 19 52.1	+0.1
	0.9nm,0.8s,baz=349,slow=24,SNR=3.5						
CTA	Charters Tower	26.83	136	P	P	06 16 13.2	+4.0
	9.4nm,0.8s,mb4.4,baz=301,slow=5.8,SNR=6.1						
PSI	Prapat	28.17	278	P	P	06 16 20.5	-0.8
	2.9nm,0.5s,mb4.2,baz=98,slow=12,SNR=5.5						
STKA	Stephens Creek	33.72	157	P	P	06 17 11.0	+1.1
	24nm,0.8s,mb5.2,baz=328,slow=9.0,SNR=43						
STKA				LR	LR	06 32 34.0	
	comp=Z,27nm,21.3s,MS2.9,baz=26,slow=39						
KSRS	Korea Array	38.28	1	P	P	06 17 48.9	-0.1
	2.6nm,0.5s,mb4.2,baz=179,slow=9.7,SNR=10.0						
XAN	Xi'an	38.72	336	P	P	06 17 52.3	-0.4
XAN				AP	pP	06 17 57.8	-1.4
XAN				AMB	AMB		
	comp=Z,15nm,0.6s,mb4.9						
MJAR	Matsushiro Arr	38.82	15	P	P	06 17 51.4	-2.2
	comp=Z,1.7nm,0.6s,mb4.0,baz=187,slow=9.0,SNR=5.0						
LZH	Lanzhou	42.67	332	eP	P	06 18 25.5	+0.1
LZH				AP	pP	06 18 30.1	-1.8
LZH				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.6						
LZH	Lanzhou	42.67	332	eP	P	06 18 25.5	+0.1
	comp=Z,16nm,1.3s,mb4.6						
LZH				pP	pP	06 18 30.1	-1.8
LZH				sP	sP	06 18 32.5	-1.9
LZH	Lanzhou	42.67	332	eP	P	06 18 25.5	+0.1
LZH				*SP	sP	06 18 32.5	-1.9
LZH				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.6						
GTA	Gaotai	47.24	331	⇑P	P	06 19 02.8	+1.1
GTA				AP	pP	06 19 07.5	-0.7
GTA				XP	sP	06 19 09.8	-1.0
GTA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
ULN	Ulaanbaatar	51.64	343	i P	P	06 19 35.2	+0.1
SONM	Songino Array	51.81	343	P	P	06 19 36.2	-0.2
SONM				ScP	ScP	06 24 42.8	-2.4
SONM	Songino Array	51.81	343	P	P	06 19 36.2	-0.2
	comp=Z,2.3nm,0.8s,mb4.1,baz=153,slow=8.1,SNR=7.5						
SONM				ScP	ScP	06 24 42.8	-2.4
	comp=Z,0.5nm,0.8s,baz=157,slow=4.7,SNR=3.3						
ZAK	Zakamensk	55.02	342	eP	P	06 19 59.4	-0.5
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.8						
WMQ	Urumqi	56.69	327	eP	P	06 20 12.0	0.0
WMQ				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.9						
RPZ	Rata Peaks	57.88	143	LR	LR	06 43 30.9	
	comp=Z,136nm,18.3s,MS4.1,baz=204,slow=34						
MK31	Makanchi Array	61.52	327	eP	P	06 20 45.2	-0.3
MKAR	Makanchi Array	61.52	327	i P	P	06 20 45.0	-0.5
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MKAR	Makanchi Array	61.52	327	P	P	06 20 45.1	-0.4
	comp=Z,4.8nm,0.7s,mb4.8,baz=122,slow=7.6,SNR=48						
MKAR				ScP	ScP	06 25 25.5	-2.5
	comp=Z,0.6nm,0.9s,baz=124,slow=5.9,SNR=3.7						
YAK	Yakutsk	62.91	1	i P	P	06 20 57.1	+2.6
YAK				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
YAK				MLR	MLR		
	comp=Z,100nm,22.0s,MS3.9						
MA2	Magadan	63.25	13	i P	P	06 20 57.3	+0.6
UCH	Uchtor	63.76	319	eP	P	06 21 02.1	+1.6
	comp=Z,3.4nm,0.7s,mb4.5						
AAK	Ala-Archa	63.97	319	i P	P	06 21 01.3	-0.6
AAK				pmax	pmax		
	comp=Z,5.0nm,1.9s,mb4.2						
AML	Almayashu	64.26	319	eP	P	06 21 04.2	+0.4
	comp=Z,5.1nm,0.9s,mb4.5						
KBL	Kabul	64.54	309	eP	P	06 21 05.7	-0.1
ZALV	Zalesovo Beam	64.85	334	P	P	06 21 07.4	0.0
	comp=Z,1.0nm,0.5s,mb4.1,baz=126,slow=2.6,SNR=5.2						
ZAL	Zalesovo	64.86	334	P	P	06 21 07.4	0.0
KURK	Kurchatov	65.80	329	eP	P	06 21 13.3	-0.3
	comp=Z,4.0nm,0.6s,mb4.6						
KURK	Kurchatov	65.80	329	eP	P	06 21 13.3	-0.3
KURK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
TIXI	Tiksi	72.55	1	eP	P	06 21 53.7	-1.4
	comp=Z,4.8nm,0.4s,mb4.8						
TIXI	Tiksi	72.55	1	i P	P	06 21 54.0	-1.1
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
TORD	Torodi Ar. Bea	124.39	285	PKP	PKPdf	06 29 28.6	0.0
TORD	Torodi Ar. Bea	124.39	285	PKP	PKPdf	06 29 28.6	0.0
	comp=Z,0.3nm,0.6s,baz=107,slow=1.4,SNR=2.9						

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*VIE **23** 06:14:38.3±0.1, 4703N×1328E, h8^{km}±1^{km}, mb2.7/13, ML3.2/18, Error ellipse: s-maj=1.3km s-min=0.8km az=7.0*

*ISCJB **23** 06:14:38.2±0.2, 4703N±001×1328E±002, h10^{km}, Error ellipse: s-maj=1.8km s-min=1.5km az=172.8*

*LDG **23** 06:14:39.5±0.1, 4693N×1328E, h10^{km}, Ml3.2/6, Error ellipse: s-maj=3.4km s-min=2.1km az=25.0*

*BGR **23** 06:14:39.5±0.3, 4702N×1331E, h10^{km}, ML2.9/6, Error ellipse: s-maj=4.4km s-min=2.2km az=21.0*

*CSEM **23** 06:14:39.1±0.1, 4700N×1332E, h12^{km}, ML3.5/14, Error ellipse: s-maj=1.0km s-min=0.9km az=50.0*

*NEIC **23** 06:14:39.6±0.5, 4697N×1329E, h5^{km}, ML3.2(LDG), ML2.6(SZGRF), Error ellipse: s-maj=5.7km s-min=5.3km az=24.0*

*PRU **23** 06:14:40.4, 4701N×1335E, h0^{km}*

ISC 23 06:14:39.5±0.2**, 47002N**±0010×**1328E**±002**, h10^{km}, n208,** σ**1^{s}23**/333**, 48C-24D, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KBA	Koelnbreinsper	0.09	30	⇑ePg	Pg	06 14 41.6	-0.3
	comp=Z,161nm,0.1s,SNR=1113						
KBA				⇑iSg	Sg	06 14 43.2	-0.5
	comp=E,988nm,0.1s						
KBA	Koelnbreinsper	0.09	30	ePg	Pg	06 14 41.6	-0.3
	SNR=252						
KBA				eSg	Sg	06 14 43.0	-0.6
	SNR=13						
KBA	Koelnbreinsper	0.09	30	⇑ePg	Pg	06 14 41.6	-0.3
KBA				i Sg	Sg	06 14 43.2	-0.5
KBA	Koelnbreinsper	0.09	30	⇑ePg	Pg	06 14 41.6	-0.3
	16µm,0.0s,SNR=1113						
KBA				⇑iSg	Sg	06 14 43.2	-0.5
	988nm,0.1s						
KBA	Koelnbreinsper	0.09	30	Pg	Pg	06 14 41.6	-0.3
	SNR=1000						
KBA				Sg	Sg	06 14 43.2	-0.4
	988nm,0.1s						
MYKA	Terra Mystica	0.45	146	⇑iPg	Pg	06 14 47.5	-0.6
	4.2nm,0.1s						
MYKA				⇑iSg	Sg	06 14 53.4	-0.7
	118nm,0.1s						
MYKA	Terra Mystica	0.45	146	Pg	Pg	06 14 47.5	-0.7
	4.2nm,0.1s						
MYKA				Sg	Sg	06 14 53.4	-0.7
	118nm,0.1s						
PLRO	Paularo	0.46	191	⇑iPg	Pg	06 14 48.2	-0.2
PLRO				i Sg	Sg	06 14 54.0	-0.5
PLRO	Paularo	0.46	191	i Pg	Pg	06 14 48.2	-0.2
PLRO				i Sg	Sg	06 14 54.0	-0.5
ZOU	Zoufplan	0.49	206	⇑iPg	Pg	06 14 48.7	-0.3
ZOU				i Sg	Sg	06 14 55.0	-0.6
ZOU	Zoufplan	0.49	206	i Pg	Pg	06 14 48.7	-0.3
ZOU				i Sg	Sg	06 14 55.0	-0.5
FVI	Forni Avoltri	0.53	221	Pg	Pg	06 14 49.5	-0.3
FVI				Sg	Sg	06 14 56.5	-0.2
FVI	Forni Avoltri	0.53	221	Pg	Pg	06 14 49.5	-0.3
FVI				Sg	Sg	06 14 56.5	-0.2
LSR	Lussari	0.55	162	⇑iPg	Pg	06 14 50.1	-0.1
LSR				i Sg	Sg	06 14 57.4	0.0
LSR	Lussari	0.55	162	i Pg	Pg	06 14 50.1	-0.1
LSR				i Sg	Sg	06 14 57.4	0.0
ABTA	Abfaltersbach	0.58	245	⇓iPg	Pg	06 14 50.3	-0.5
	1.8nm,0.1s						
ABTA				⇑iSg	Sg	06 14 58.6	+0.2
	47nm,0.1s						
ABTA	Abfaltersbach	0.58	245	Pg	Pg	06 14 50.3	-0.5
	1.8nm,0.1s						
ABTA				Sg	Sg	06 14 58.6	+0.1
	47nm,0.1s						
PTCC	Patocco-Chiusa	0.60	175	Pg	Pg	06 14 51.1	+0.1
PTCC	Patocco-Chiusa	0.60	175	Pg	Pg	06 14 51.1	+0.1
CSMI	Casera Mimoias	0.65	222	⇑iPg	Pg	06 14 51.6	-0.5
CSMI				i Sg	Sg	06 15 00.1	-0.5
CSMI	Casera Mimoias	0.65	222	i Pg	Pg	06 14 51.6	-0.5
CSMI				i Sg	Sg	06 15 00.1	-0.5
BGLD	Berchtesgaden	0.68	344	⇑iPg	Pg	06 14 52.4	-0.1
BGLD				i Sg	Sg	06 15 01.7	+0.3
BGLD	Berchtesgaden	0.68	344	⇑iPg	Pg	06 14 52.4	-0.1
BGLD				i Sg	Sg	06 15 01.7	+0.3
BGLD	Berchtesgaden	0.68	344	Pg	Pg	06 14 52.4	-0.1
BGLD				Sg	Sg	06 15 01.7	+0.3
BOO	Bordano	0.69	190	⇑iPg	Pg	06 14 52.7	-0.1
BOO	Bordano	0.69	190	i Pg	Pg	06 14 52.7	-0.1
GMNA	Gemona	0.73	182	Pn	Pg	06 14 54.2	+0.7
GMNA	Gemona	0.73	182	Pn	Pg	06 14 54.2	+0.7
BAD	Bernadia	0.77	182	⇑iPg	Pg	06 14 54.2	0.0
BAD				i Sg	Sg	06 15 04.3	+0.2
BAD	Bernadia	0.77	182	i Pg	Pg	06 14 54.2	0.0
BAD				i Sg	Sg	06 15 04.3	+0.1
SEST	Monte Rota	0.77	251	Pn	Pg	06 14 53.8	-0.5
SEST	Monte Rota	0.77	251	Pn	Pg	06 14 53.8	-0.5
MPRI	Monte Prat	0.79	195	⇓iPg	Pg	06 14 54.5	-0.1
MPRI				i Sg	Sg	06 15 04.5	-0.3
MPRI	Monte Prat	0.79	195	i Pg	Pg	06 14 54.5	-0.1
MPRI				i Sg	Sg	06 15 04.5	-0.3
BUA	Buia	0.79	188	ePg	Pg	06 14 54.9	+0.2
BUA				eSg	Sg	06 15 05.4	+0.4
BUA	Buia	0.79	188	ePg	Pg	06 14 54.9	+0.2
BUA				eSg	Sg	06 15 05.4	+0.4
RJOB	Jochberg	0.81	336	⇑iPg	Pg	06 14 54.7	-0.3
RJOB	Jochberg	0.81	336	Pg	Pg	06 14 54.7	-0.3
CADS	Cadrg	0.83	158	i Pg	Pg	06 14 55.0	-0.6
CADS	Cadrg	0.83	158	i Pg	Pg	06 14 55.0	-0.6
CADS	Cadrg	0.83	158	i Pg	Pg	06 14 55.0	-0.5
GORS	Gorjuse	0.84	144	i Pg	Pg	06 14 55.2	-0.4
GORS	Gorjuse	0.84	144	i Pg	Pg	06 14 55.2	-0.4
GORS							
	comp=Z,72nm,0.2s						
GORS	Gorjuse	0.84	144	i Pg	Pg	06 14 55.2	-0.5
DRE	Drenchia	0.86	163	⇓iPg	Pg	06 14 56.8	+0.6
DRE				i Sg	Sg	06 15 08.6	+1.3
DRE	Drenchia	0.86	163	i Pg	Pg	06 14 56.8	+0.7
DRE				i Sg	Sg	06 15 08.6	+1.2
MLNI	Malnisio	0.97	209	⇑iPg	Pg	06 14 57.9	-0.2
MLNI				i Sg	Sg	06 15 11.4	+0.7
MLNI	Malnisio	0.97	209	i Pg	Pg	06 14 57.8	-0.3
MLNI				i Sg	Sg	06 15 11.4	+0.7
CSO	Casso	0.98	223	⇓iPg	Pg	06 14 57.6	-0.8
CSO				i Sg	Sg	06 15 11.1	0.0
CSO	Casso	0.98	223	i Pg	Pg	06 14 57.6	-0.7
CSO				i Sg	Sg	06 15 11.1	0.0
OBKA	Obir	1.00	119	⇑ePg	Pg	06 14 57.9	-0.8
	comp=Z,18nm,0.2s,SNR=12						
OBKA	Obir	1.00	119	⇑iSg	Sg	06 15 12.1	+0.4
	comp=Z,126nm,0.3s						
OBKA	Obir	1.00	119	ePg	Pg	06 14 57.8	-0.9
	SNR=28						
OBKA				eSg	Sg	06 15 11.6	-0.1
	SNR=3.4						
OBKA	Obir	1.00	119	⇑ePg	Pg	06 14 57.9	-0.8
OBKA				i Sg	Sg	06 15 12.1	+0.4
OBKA	Obir	1.00	119	⇑ePg	Pg	06 14 57.9	-0.8
	comp=Z,18nm,0.2s,SNR=12						
OBKA				⇑iSg	Sg	06 15 12.1	+0.4
	comp=Z,126nm,0.3s						
OBKA	Obir	1.00	119	Pg	Pg	06 14 57.9	-0.8
	comp=Z,18nm,0.2s,SNR=12						
OBKA				Sg	Sg	06 15 11.6	-0.1
	SNR=3.4						
VOY	Vojsko	1.06	156	ePg	Pg	06 15 00.1	+0.3
VOY				e(Sg)	Sg	06 15 12.9	-0.6
VOY				e		06 15 14.0	
VOY				e		06 15 14.8	
MOZS	Mozjanca	1.07	131	i Pg	Pg	06 14 59.5	-0.5
MOA	Molln	1.08	38	⇑ePg	Pg	06 14 59.2	-1.0
	comp=Z,43nm,0.3s,SNR=51						
MOA	Molln	1.08	38	⇓iSg	Sg	06 15 14.3	0.0
	comp=Z,167nm,0.3s						
MOA	Molln	1.08	38	ePg	Pg	06 15 01.9	+1.6
MOA	Molln	1.08	38	⇑ePg	Pg	06 14 59.2	-1.0
MOA				i Sg	Sg	06 15 14.2	0.0
MOA	Molln	1.08	38	⇑ePg	Pg	06 14 59.2	-1.0
	comp=Z,43nm,0.3s,SNR=51						
MOA				⇓iSg	Sg	06 15 14.3	0.0
	comp=Z,167nm,0.3s						
MOA	Molln	1.08	38	Pg	Pg	06 14 59.2	-1.0
	comp=Z,43nm,0.3s,SNR=51						
MOA				i Sg	Sg	06 15 14.2	-0.1
WTTA	Wattenberg	1.15	284	ePg	Pg	06 15 00.8	-0.8
	comp=Z,79nm,0.2s,SNR=95						
WTTA	Wattenberg	1.15	284	⇑iSg	Sg	06 15 16.0	-0.6
	comp=Z,99nm,0.2s						
WTTA	Wattenberg	1.15	284	ePg	Pg	06 15 00.8	-0.8
	SNR=32						
WTTA	Wattenberg	1.15	284	ePg	Pg	06 15 00.8	-0.8
WTTA				i Sg	Sg	06 15 16.0	-0.5
WTTA	Wattenberg	1.15	284	ePg	Pg	06 15 00.8	-0.8
	comp=Z,79nm,0.2s,SNR=95						
WTTA				⇑iSg	Sg	06 15 16.0	-0.6
	comp=Z,99nm,0.2s						
WTTA	Wattenberg	1.15	284	Pg	Pg	06 15 00.8	-0.8
	comp=Z,79nm,0.2s,SNR=95						
WTTA				Sg	Sg	06 15 16.0	-0.6
	comp=Z,99nm,0.2s						
FAU	Forcella Aurin	1.18	230	⇑iPg	Pg	06 15 01.9	-0.3
FAU	Forcella Aurin	1.18	230	i Pg	Pg	06 15 01.9	-0.3
WATA	Walderalm	1.21	287	⇓ePg	Pg	06 15 02.0	-0.7
	comp=Z,134nm,0.2s,SNR=74						
WATA	Walderalm	1.21	287	⇓iSg	Sg	06 15 18.2	-0.2
	comp=Z,80nm,0.2s						
WATA	Walderalm	1.21	287	⇓ePg	Pg	06 15 02.0	-0.7
WATA				i Sg	Sg	06 15 18.2	-0.2
WATA	Walderalm	1.21	287	⇓ePg	Pg	06 15 02.0	-0.7
	comp=Z,134nm,0.2s,SNR=74						
WATA				⇓iSg	Sg	06 15 18.2	-0.2
	comp=Z,80nm,0.2s						
WATA	Walderalm	1.21	287	Pg	Pg	06 15 02.0	-0.7
	comp=Z,134nm,0.2s,SNR=74						
WATA				Sg	Sg	06 15 18.2	-0.2
	comp=Z,80nm,0.2s						
TRI	Trieste	1.34	165	Pn	Pn	06 15 05.7	+1.6
TRI	Trieste	1.34	165	Pn	Pn	06 15 05.7	+1.6
SQTA	Sankt Quirin	1.43	280	⇑ePg	Pg	06 15 05.8	-1.2
	comp=Z,67nm,0.2s,SNR=58						
SQTA	Sankt Quirin	1.43	280	⇑iSg	Sg	06 15 25.2	-0.3
	comp=Z,146nm,0.3s						
SQTA	Sankt Quirin	1.43	280	⇑ePg	Pg	06 15 05.8	-1.2
SQTA				i Sg	Sg	06 15 25.2	-0.3
SQTA	Sankt Quirin	1.43	280	⇑ePg	Pg	06 15 05.8	-1.2
	comp=Z,33nm,0.2s,SNR=58						
SQTA				⇑iSg	Sg	06 15 25.2	-0.3
	comp=Z,146nm,0.3s						
SQTA	Sankt Quirin	1.43	280	Pg	Pg	06 15 05.8	-1.1
	comp=Z,33nm,0.2s,SNR=58						
SQTA				Sg	Sg	06 15 25.2	-0.3
	comp=Z,146nm,0.3s						
CTI	Castel Tesino	1.48	230	Pn	Pn	06 15 07.6	+1.6
CTI	Castel Tesino	1.48	230	Pn	Pn	06 15 07.6	+1.6
APPI	Appiano	1.51	250	Pn	Pn	06 15 07.3	+0.8
APPI	Appiano	1.51	250	Pn	Pn	06 15 07.3	+0.8
CGRP	Cima Grappa	1.52	223	⇓iPg	Pg	06 15 08.5	-0.1
CGRP				i Sg	Sg	06 15 30.0	+1.7
CGRP	Cima Grappa	1.52	223	i Pg	Pg	06 15 08.5	-0.1
CGRP				i Sg	Sg	06 15 30.0	+1.7
MOTA	Moosalm	1.52	284	⇓ePg	Pg	06 15 07.3	-1.3
	comp=Z,23nm,0.2s,SNR=16						
MOTA	Moosalm	1.52	284	⇓iSg	Sg	06 15 28.7	+0.2
	comp=Z,88nm,0.3s						
MOTA	Moosalm	1.52	284	⇓ePg	Pg	06 15 07.3	-1.3
MOTA				i Sg	Sg	06 15 28.7	+0.2
MOTA	Moosalm	1.52	284	⇓ePg	Pg	06 15 07.5	-1.2
	comp=Z,23nm,0.2s,SNR=16						
MOTA				⇓iSg	Sg	06 15 28.7	+0.2
	comp=Z,88nm,0.3s						
MOTA	Moosalm	1.52	284	Pg	Pg	06 15 07.5	-1.2
	comp=Z,23nm,0.2s,SNR=16						
MOTA				Sg	Sg	06 15 28.7	+0.2
	comp=Z,88nm,0.3s						
ARSA	Arzberg	1.55	80	⇑ePg	Pg	06 15 07.9	-1.3
	comp=Z,6.7nm,0.2s,SNR=8.3						
ARSA	Arzberg	1.55	80	⇓iSn	Sn	06 15 27.7	+0.4
ARSA	Arzberg	1.55	80	⇑iSg	Sg	06 15 29.7	+0.4
	comp=Z,12nm,0.2s						
ARSA	Arzberg	1.55	80	ePg	Pg	06 15 08.0	-1.2
	SNR=9.7						
ARSA				eSg	Sg	06 15 28.4	-0.9
	SNR=3.5						
ARSA	Arzberg	1.55	80	⇑ePg	Pg	06 15 07.9	-1.3
ARSA				i Sn	Sn	06 15 27.7	+0.4
ARSA				i Sg	Sg	06 15 29.7	+0.4
ARSA	Arzberg	1.55	80	⇑iPg	Pg	06 15 07.9	-1.3
	comp=Z,6.7nm,0.2s,SNR=8.3						
ARSA				⇓iSn	Sn	06 15 27.7	+0.4
ARSA				⇑iSg	Sg	06 15 29.7	+0.4
	comp=Z,12nm,0.2s						
ARSA	Arzberg	1.55	80	Pg	Pg	06 15 08.0	-1.2
	SNR=9.7						
ARSA				Sn	Sn	06 15 27.7	+0.5
ARSA				Sg	Sg	06 15 28.4	-0.9
	SNR=3.5						
FETA	Feichten	1.75	272	⇑ePg	Pg	06 15 11.0	-1.9
	comp=Z,20nm,0.3s,SNR=56						
FETA				⇓iSg	Sg	06 15 36.1	+0.5
	comp=Z,30nm,0.4s						
FETA	Feichten	1.75	272	Pg	Pg	06 15 11.0	-1.9
	comp=Z,20nm,0.3s,SNR=56						
FETA				Sg	Sg	06 15 36.1	+0.5
	comp=Z,30nm,0.4s						
RETA	Reutte	1.78	287	⇓ePg	Pg	06 15 13.5	-0.1
	comp=Z,9.4nm,0.2s,SNR=13						
RETA				⇑eSg	Sg	06 15 39.7	+2.9
	comp=Z,93nm,0.4s						
RETA	Reutte	1.78	287	Pg	Pg	06 15 13.5	-0.1
	comp=Z,9.4nm,0.2s,SNR=13						
FUR	Furstenfeldbru	1.79	311	ePg	Pg	06 15 13.8	+0.1
	SNR=5.4						
FUR				eSg	Sg	06 15 37.3	+0.4
	SNR=6.4						
FUR	Furstenfeldbru	1.79	311	Pg	Pg	06 15 13.8	+0.1
	SNR=5.4						
FUR				Sg	Sg	06 15 37.3	+0.4
	SNR=6.4						
GEC2	GERESS Array S	1.87	9	ePg	Pg	06 15 14.6	-0.6
	SNR=13						
GEC2				eSg	Sg	06 15 38.5	-0.9
	SNR=4.4						
GEC2	GERESS Array S	1.87	9	ePn	Pn	06 15 14.3	+2.9
GEC2				eSg	Sg	06 15 40.2	+0.8
GEC2	GERESS Array S	1.87	9	ePn	Pn	06 15 14.3	+2.9
GEC2	GERESS Array S	1.87	9	Pg	Pg	06 15 14.6	-0.6
	SNR=13						
GEC2				Sg	Sg	06 15 38.5	-0.9
	SNR=4.4						
CONA	Conrad Observa	1.98	61	⇓ePg	Pg	06 15 16.0	-1.4
	comp=Z,6.4nm,0.2s,SNR=12						
CONA				⇑iSg	Sg	06 15 43.8	+0.7
	comp=Z,37nm,0.4s						
CONA	Conrad Observa	1.98	61	Pg	Pg	06 15 16.0	-1.4
	comp=Z,6.4nm,0.2s,SNR=12						
CONA				Sg	Sg	06 15 43.8	+0.7
	comp=Z,37nm,0.4s						
BRMO	Bormio	2.07	256	Pn	Pn	06 15 17.1	+2.9
BRMO	Bormio	2.07	256	Pn	Pn	06 15 17.1	+2.9
OBER	Oberstdorf	2.08	282	⇑iPg	Pg	06 15 18.8	-0.5
OBER				i Sg	Sg	06 15 47.9	+1.7
OBER	Oberstdorf	2.08	282	Pg	Pg	06 15 18.8	-0.5
KHC	Kasperske Hory	2.14	5	ePn	Pn	06 15 17.0	+1.8
KHC				eSn	Sn	06 15 45.2	+3.4
KHC	Kasperske Hory	2.14	5	ePN	Pn	06 15 17.0	+1.8
KHC				ePG	Pg	06 15 25.0	+4.5
KHC				ex	x	06 15 39.5	
KHC				eSN	Sn	06 15 45.2	+3.4
	comp=Z,20nm,0.6s						
KHC	Kasperske Hory	2.14	5	ePn	Pn	06 15 17.0	+1.8
KHC				eSn	Sn	06 15 45.2	+3.4
DAVA	Damuels	2.34	278	⇑ePg	Pg	06 15 23.1	-1.1
	SNR=16						
DAVA	Damuels	2.34	278	⇓iSn	Sn	06 15 47.1	+0.4
DAVA				⇑iSg	Sg	06 15 55.4	+0.8
	comp=Z,57nm,0.3s						
DAVA	Damuels	2.34	278	ePg	Pg	06 15 23.0	-1.3
	SNR=32						
DAVA				eSg	Sg	06 15 55.6	+1.1
	SNR=7.7						
DAVA	Damuels	2.34	278	⇑ePg	Pg	06 15 23.1	-1.1
DAVA				i Sn	Sn	06 15 47.1	+0.4
DAVA				i Sg	Sg	06 15 55.4	+0.8
DAVA	Damuels	2.34	278	⇑ePg	Pg	06 15 23.1	-1.1
	SNR=16						
DAVA				⇓iSn	Sn	06 15 47.1	+0.4
DAVA				⇑iSg	Sg	06 15 55.4	+0.8
	comp=Z,57nm,0.3s						
DAVA	Damuels	2.34	278	Pg	Pg	06 15 23.1	-1.2
	SNR=16						
DAVA				Sn	Sn	06 15 47.1	+0.4
DAVA				Sg	Sg	06 15 55.4	+0.8
	comp=Z,57nm,0.3s						

ROTZ	Rotzenmuhle	2.86	346	eSn	Sn	06 16 00.7	+1.2
ROTZ				eSg	Sg	06 16 11.6	+0.4
GRF	Grafenberg Arr	3.02	334	eSg	Sg	06 16 15.3	-1.1
	SNR=2.8						
MANZ	Manzenberg	3.09	346	ePn	Pn	06 15 30.8	+2.6
MANZ				eSn	Sn	06 16 06.4	+1.2
PRU	Pruhonice	3.10	15	ePn	Pn	06 15 30.5	+2.1
PRU				ePg	Pg	06 15 37.5	-1.4
PRU				eSg	Sg	06 16 19.3	+0.2
PRU	Pruhonice	3.10	15	ePN	Pn	06 15 30.5	+2.1
PRU				ePG	Pg	06 15 37.5	-1.4
PRU				eSG	Sg	06 16 19.3	+0.2
	comp=Z,16nm,0.7s						
PRU	Pruhonice	3.10	15	ePn	Pn	06 15 30.5	+2.1
GUNZ	Gunzen	3.42	350	eSg	Sg	06 16 27.4	-1.9
	SNR=2.2						
TANN	Tannenbergstha	3.46	351	eSg	Sg	06 16 27.8	-2.7
	SNR=2.5						
WERD	Werda	3.51	350	ePn	Pn	06 15 36.2	+2.2
	SNR=2.9						
WERD				eSg	Sg	06 16 33.3	+1.2
BFO	Black Forest	3.60	293	ePn	Pn	06 15 37.5	+2.3
	SNR=5.9						
BFO				ePg	Pg	06 15 47.5	-0.9
	SNR=3.0						
BFO				eSn	Sn	06 16 18.1	+0.4
	SNR=4.2						
BFO				eSg	Sg	06 16 33.2	-1.8
	SNR=2.3						
BFO	Black Forest	3.60	293	P	Pn	06 15 37.6	+2.4
BFO	Black Forest	3.60	293	P	Pn	06 15 37.6	+2.4
MOX	Moxa	3.81	344	ePn	Pn	06 15 40.1	+2.0
	SNR=8.3						
MOX				eSn	Sn	06 16 22.6	-0.3
	SNR=4.0						
MOX				eSg	Sg	06 16 43.0	+1.3
MOX	Moxa	3.81	344	ePn	Pn	06 15 40.1	+2.0
MOX				eSn	Sn	06 16 23.6	+0.7
MOX				eSg	Sg	06 16 43.0	+1.3
MOX	Moxa	3.81	344	ePN	Pn	06 15 40.1	+2.0
MOX				eSN	Sn	06 16 23.6	+0.7
MOX				eSG	Sg	06 16 43.0	+1.3
MOX	Moxa	3.81	344	ePn	Pn	06 15 40.1	+2.0
MOX				eSn	Sn	06 16 23.6	+0.7
BRG	Berggiesshubel	3.90	6	eSg	Sg	06 16 43.8	-0.8
	SNR=2.0						
BRG	Berggiesshubel	3.90	6	SG	Sg	06 16 43.7	-0.9
	comp=Z,2.5nm,0.4s						
DPC	Dobruska-Polom	3.91	30	eSG	Sg	06 16 42.3	-2.6
	comp=Z,7.3nm,0.5s						
DPC	Dobruska-Polom	3.91	30	eSg	Sg	06 16 42.3	-2.6
	comp=Z,7.3nm,0.5s						
UPC	Upice	3.95	26	eSG	Sg	06 16 45.0	-1.1
UPC	Upice	3.95	26	eSg	Sg	06 16 45.0	-1.1
VYHS	Vyhne	4.03	66	eSG	Sg	06 16 48.9	0.0
VYHS	Vyhne	4.03	66	eSg	Sg	06 16 49.0	+0.1
CDF	Champ du Feu	4.29	291	ePn	Pn	06 15 43.4	-1.4
CDF	Champ du Feu	4.29	291	eP	Pn	06 15 46.5	+1.7
CDF	Champ du Feu	4.29	291	ePg	Pg	06 15 58.3	-3.3
CDF				eSn	Sn	06 16 31.6	-3.2
CDF				eSg	Sg	06 16 54.4	-2.8
	comp=Z,5.2nm,0.3s						
CDF	Champ du Feu	4.29	291	eP	Pn	06 15 46.5	+1.7
CDF				eSn	Sn	06 16 31.6	-3.2
CDF				eSg	Sg	06 16 54.4	-2.8
CDF	Champ du Feu	4.29	291	ePn	Pn	06 15 43.4	-1.4
CDF	Champ du Feu	4.29	291	eP	Pn	06 15 46.5	+1.7
CDF	Champ du Feu	4.29	291	ePg	Pg	06 15 58.3	-3.3
CDF				eSn	Sn	06 16 31.6	-3.2
CDF				eSg	Sg	06 16 54.4	-2.8
	comp=Z,2.6nm,0.3s						
CLL	Collm	4.31	358	ePn	Pn	06 15 48.0	+3.0
CLL				e(Sn)	Sn	06 16 28.0	-7.4
CLL				eSg	Sg	06 16 58.0	+0.1
CLL	Collm	4.31	358	ePn	Pn	06 15 48.0	+3.0
CLL				Sn	Sn	06 16 28.0	-7.4
CLL				eSg	Sg	06 16 58.0	+0.1
CLL	Collm	4.31	358	ePn	Pn	06 15 48.0	+3.0
CLL				e(Sn)	Sn	06 16 28.0	-7.4
CLL				eSg	Sg	06 16 58.0	+0.1
CLL	Collm	4.31	358	ePn	Pn	06 15 48.0	+3.0
HINF	Hinteralfeld	4.44	283	ePn	Pn	06 15 45.2	-1.6
HINF	Hinteralfeld	4.44	283	eP	Pn	06 15 48.5	+1.7
HINF				eSn	Sn	06 16 35.1	-3.4
	comp=Z,22nm,0.5s						
HINF	Hinteralfeld	4.44	283	ePn	Pn	06 15 45.2	-1.6
HINF	Hinteralfeld	4.44	283	eP	Pn	06 15 48.5	+1.7
HINF				eSn	Sn	06 16 35.1	-3.4
	comp=Z,11nm,0.5s						
TNS	Taunus Mts	4.55	317	ePn	Pn	06 15 51.1	+2.9
	SNR=3.6						
TNS				eSn	Sn	06 16 41.0	-0.1
	SNR=5.7						
LPG	La Plagne	4.77	254	ePn	Pn	06 15 49.6	-1.8
LPG	La Plagne	4.77	254	eP	Pn	06 15 53.7	+2.3
LPG				eSg	Sg	06 17 08.9	-3.7
	comp=Z,1.1nm,0.3s						
LPG	La Plagne	4.77	254	ePn	Pn	06 15 49.6	-1.8
LPG	La Plagne	4.77	254	eP	Pn	06 15 53.7	+2.3
LPG				eSg	Sg	06 17 08.9	-3.7
	comp=Z,0.6nm,0.3s						
LPL	La Plagne	4.78	254	ePn	Pn	06 15 49.7	-1.7
LPL	La Plagne	4.78	254	eP	Pn	06 15 53.6	+2.2
LPL	La Plagne	4.78	254	ePn	Pn	06 15 49.7	-1.7
LPL	La Plagne	4.78	254	eP	Pn	06 15 53.6	+2.2
HAU	Haudompre	4.80	285	ePn	Pn	06 15 50.2	-1.6
HAU	Haudompre	4.80	285	eP	Pn	06 15 53.8	+2.0
HAU				eSn	Sn	06 16 44.0	-3.5
	comp=Z,22nm,0.5s						
HAU	Haudompre	4.80	285	ePn	Pn	06 15 50.2	-1.6
HAU				eSn	Sn	06 16 44.0	-3.5
HAU	Haudompre	4.80	285	ePn	Pn	06 15 50.2	-1.6
HAU	Haudompre	4.80	285	eP	Pn	06 15 53.8	+2.0
HAU				eSn	Sn	06 16 44.0	-3.5
	comp=Z,11nm,0.5s						
CABF	La Chapelle	4.96	268	ePn	Pn	06 15 52.1	-1.8
CABF	La Chapelle	4.96	268	eP	Pn	06 15 56.2	+2.3
CABF	La Chapelle	4.96	268	ePn	Pn	06 15 52.1	-1.8
CABF	La Chapelle	4.96	268	ePn	Pn	06 15 52.1	-1.8
CABF	La Chapelle	4.96	268	eP	Pn	06 15 56.2	+2.3
MBDF	Montbardon	5.08	246	ePn	Pn	06 15 53.6	-2.0
MBDF	Montbardon	5.08	246	eP	Pn	06 15 57.8	+2.2
MBDF	Montbardon	5.08	246	ePn	Pn	06 15 53.6	-2.0
MBDF	Montbardon	5.08	246	ePn	Pn	06 15 53.6	-2.0
MBDF	Montbardon	5.08	246	eP	Pn	06 15 57.8	+2.2
ORIF	Oris-en-Rattie	5.56	251	ePn	Pn	06 16 00.1	-2.1
ORIF	Oris-en-Rattie	5.56	251	eP	Pn	06 16 04.2	+2.0
ORIF	Oris-en-Rattie	5.56	251	ePn	Pn	06 16 00.1	-2.1
ORIF	Oris-en-Rattie	5.56	251	eP	Pn	06 16 04.2	+2.0
SFTF	Sexfontaines	5.70	285	eP	Pn	06 16 06.4	+2.3
SFTF				eSg	Sg	06 17 37.9	-4.5
	comp=Z,7.2nm,0.4s						
SFTF	Sexfontaines	5.70	285	eP	Pn	06 16 06.4	+2.3
SFTF				eSg	Sg	06 17 37.9	-4.5
	comp=Z,3.6nm,0.4s						
VIVF	Saint-Julien-l	6.38	253	ePn	Pn	06 16 10.8	-2.6
VIVF	Saint-Julien-l	6.38	253	eP	Pn	06 16 15.9	+2.5
VIVF	Saint-Julien-l	6.38	253	ePn	Pn	06 16 10.8	-2.6
VIVF	Saint-Julien-l	6.38	253	ePn	Pn	06 16 10.8	-2.6
VIVF	Saint-Julien-l	6.38	253	eP	Pn	06 16 15.9	+2.5
GIVF	Givet	6.41	302	eP	Pn	06 16 17.1	+3.2
LOR	Lormes	6.43	276	ePn	Pn	06 16 12.4	-1.8
LOR	Lormes	6.43	276	ePn	Pn	06 16 12.4	-1.8
LOR	Lormes	6.43	276	ePn	Pn	06 16 12.4	-1.8
AVF	Avril sur Loir	6.81	272	eP	Pn	06 16 22.1	+2.8
BGF	Bois d’Agland	7.18	270	eSn	Sn	06 17 40.4	-5.5
	comp=Z,11nm,0.6s						
BGF	Bois d’Agland	7.18	270	eSn	Sn	06 17 40.4	-5.5
	comp=Z,5.4nm,0.6s						

IDC 23 06:18:03.6±36.0**, 20.16S**×**177.89W, h520**^{km}±330^{km}**, mb3.3**/4**, mb1 3.5**/4**, mb1mx3.1**/15**, mbtmp3.3**/4**, Error ellipse: s-maj=281.3km s-min=149.0km az=121.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	33.63	264	P	P	06 24 01.3	+0.4
	4.0nm,0.4s,baz=89,slow=11,SNR=8.4						
ASAR	Alice Springs	44.70	256	P	P	06 25 30.1	-0.2
	3.0nm,0.5s,baz=96,slow=7.7,SNR=51						
WRA	Warramunga Arr	44.75	262	P	P	06 25 30.2	-0.5
	1.8nm,0.6s,baz=98,slow=8.6,SNR=18						
FITZ	Fitzroy Crossi	53.17	262	P	P	06 26 33.5	+0.3
	0.8nm,0.5s,baz=107,slow=11,SNR=5.6						
AKASG	Malin Array Be	142.77	331	PKP	PKPdf	06 36 36.8	-0.7
	0.5nm,0.3s,baz=45,slow=4.2,SNR=5.0						

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*ISCJB **23** 06:35:56.7±0.3, 38.41N±0.04×98.60E±0.05, h9^{km}, mb4.2/20, Error ellipse: s-maj=5.8km s-min=5.4km az=31.8*

*BJI **23** 06:35:56.9, 38.37N×98.74E, h9^{km}, mb4.1, ML4.0, Ms3.8, Msz3.7*

*IDC **23** 06:35:56.3±0.8, 38.17N×98.57E, h0^{km}, mb3.9/11, mb1 4.1/13, mb1mx4.0/23, mbtmp3.9/13, ML4.1/2, Error ellipse: s-maj=29.4km s-min=17.3km az=41.0*

*NEIC **23** 06:35:58.5±0.8, 38.25N×98.48E, h10^{km}, mb3.7/2, Error ellipse: s-maj=14.3km s-min=8.8km az=14.0*

ISC 23 06:35:58.9±1.4**, 38.39N**±0.05×**98.68E**±0.07**, h12**^{km}±9^{km}**, n49, σ1^{s}29**/54**, mb4.2**/20**, 3C, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GTA	Gaotai	1.35	41	PG	Pg	06 36 23.8	-1.1
GTA				SG	Sg	06 36 43.0	+0.6
GTA				Smax			
	comp=N,751nm,1.0s						
GTA				Smax			
	comp=E,1µm,0.9s						
LZH	Lanzhou	4.72	118	P	Pn	06 37 10.8	+1.0
LZH				SG	Sg	06 38 29.6	-0.8
LZH				Smax			
	comp=N,127nm,0.8s						
LZH				Smax			
	comp=E,204nm,1.0s						
LZH				LR	LR		
	comp=N,888nm,4.4s						
LZH				LR	LR		
	comp=Z,2µm,6.1s						
LZH	Lanzhou	4.72	118	Pn	Pn	06 37 10.7	+0.9
LZH				Pg	Pg	06 37 26.5	-2.7
LZH				Sg	Sg	06 38 29.6	-0.8
CD2	Chengdu	8.55	149	eP	Pn	06 38 05.6	+3.2
CD2				S	Sn	06 39 43.6	+4.8
CD2				AMB	AMB		
	comp=Z,10.0nm,0.7s						
CD2				LR	LR		
	comp=N,220nm,8.4s						
CD2				LR	LR		
	comp=Z,210nm,9.6s						
XAN	Xi’an	9.35	115	P	Pn	06 38 15.3	+2.0
XAN				LG2		06 41 15.6	
XAN				AMB	AMB		
	comp=Z,2.0nm,0.5s						
XAN				LR	LR		
	comp=N,261nm,8.8s						
XAN				LR	LR		
	comp=E,291nm,8.1s						
XAN				LR	LR		
	comp=Z,379nm,11.7s						
WMQ	Urumqi	9.90	307	eP	Pn	06 38 21.0	+0.1
LSA	Lhasa	10.68	218	eP	Pn	06 38 36.4	+4.9
SONM	Songino Array	10.99	28	Pn	Pn	06 38 38.8	+3.0
SONM				Lg		06 41 43.1	
SONM	Songino Array	10.99	28	Pn	Pn	06 38 38.8	+3.0
	comp=Z,2.6nm,0.3s,baz=210,slow=15,SNR=119						
SONM				Lg		06 41 43.1	
	comp=Z,0.4nm,0.3s,baz=211,slow=30,SNR=5.3						
ULN	Ulaanbaatar	11.27	30	ePn	Pn	06 38 42.1	+2.6
	comp=Z,7.0nm,0.8s						
GYA	Guiyang	13.67	148	P	Pn	06 39 10.8	-1.6
SHL	Shillong	14.02	206	eP	Pn	06 39 24.0	+6.8
TAPN	Taplejung	14.34	223	eP	Pn	06 39 31.1	+9.4
MKAR	Makanchi Array	14.68	310	Pn	Pn	06 39 24.7	-1.5
MKAR				Lg		06 43 51.9	
MKAR	Makanchi Array	14.68	310	Pn	Pn	06 39 24.7	-1.5
	comp=Z,0.1nm,0.3s,baz=118,slow=12,SNR=5.9						
MKAR				Lg		06 43 51.9	
	comp=Z,0.0nm,0.3s,baz=120,slow=35,SNR=2.6						
ODAN	Odare	14.90	223	eP	Pn	06 39 34.0	+4.7
	comp=Z,6.2nm,0.4s						
JIRN	Jiri	14.96	228	eP	Pn	06 39 35.2	+5.2
	comp=Z,20nm,0.5s						
KKN	Kakani	15.40	231	eP	Pn	06 39 38.5	+2.6
	comp=Z,34nm,0.6s						
GKN	Gorkha	15.65	233	eP	Pn	06 39 39.8	+0.7
	comp=Z,12nm,0.6s						
NJ2	Nanjing	17.64	105	eP	Pn	06 39 59.9	-4.5
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s						
TKM2	Tokmak 2	18.07	292	ePn	Pn	06 40 09.2	-0.4
	comp=Z,2.9nm,0.7s						
ZALV	Zalesovo Beam	18.23	333	P	Pn	06 40 12.8	+1.4
	comp=Z,0.3nm,0.3s,baz=142,slow=11,SNR=15						
KURK	Kurchatov	18.80	317	ePn	Pn	06 40 17.8	-0.6
	comp=Z,7.0nm,0.8s						
KSRS	Korea Array	23.05	83	P	P	06 41 04.7	+0.8
	comp=Z,1.8nm,0.8s,mb3.5,baz=302,slow=24,SNR=4.1						
FINES	FINESS Array B	49.06	323	P	P	06 44 45.2	-0.1
	comp=Z,0.8nm,0.5s,mb4.0,baz=110,slow=6.5,SNR=3.3						
AKASG	Malin Array Be	49.26	308	P	P	06 44 47.0	0.0
	comp=Z,0.9nm,0.6s,mb4.0,baz=64,slow=7.8,SNR=4.3						
BRTR	Keskin Array B	49.50	293	P	P	06 44 49.1	+0.1
	comp=Z,1.2nm,0.7s,mb4.0,baz=101,slow=6.2,SNR=7.4						
NB2	NORSAR Subarra	56.14	324	P	P	06 45 37.4	-0.4
	comp=Z,0.6nm,0.6s,mb3.8,baz=44,slow=5.6						
NOA	NORSAR Array B	56.14	324	P	P	06 45 37.6	-0.1
	comp=Z,1.7nm,0.8s,mb4.1,baz=44,slow=5.4,SNR=3.7						
GERES	GERESS Array B	59.35	310	P	P	06 46 00.9	+0.3
	comp=Z,0.2nm,0.2s,mb3.7,baz=40,slow=8.1,SNR=4.1						
LPG	La Plagne	65.10	309	⇑iP	P	06 46 40.1	+0.9
	comp=Z,7.4nm,0.6s,mb4.6						
LPL	La Plagne	65.10	309	⇑iP	P	06 46 40.0	+0.8
	comp=Z,11nm,0.8s,mb4.6						
PGF	Pioggiola	65.17	305	eP	P	06 46 40.1	+0.4
	comp=Z,8.0nm,0.7s,mb4.5						
MBDF	Montbardon	65.47	308	eP	P	06 46 42.8	+1.2
	comp=Z,7.3nm,0.6s,mb4.6						
SBF	Sospel	65.50	307	⇑iP	P	06 46 41.8	0.0
	comp=Z,14nm,0.6s,mb4.9						
ORIF	Oris-en-Rattie	65.92	309	eP	P	06 46 44.7	+0.2
	comp=Z,4.2nm,0.5s,mb4.4						
SMF	Signal de Mont	66.26	311	eP	P	06 46 46.4	-0.2
	comp=Z,14nm,0.8s,mb4.7						
WRA	Warramunga Arr	66.98	143	P	P	06 46 49.9	-1.5
	comp=Z,3.6nm,0.8s,mb4.5,baz=342,slow=6.7,SNR=7.9						
LASF	Ste Croix	67.60	309	eP	P	06 46 55.5	+0.3
	comp=Z,6.4nm,0.7s,mb4.5						
MFF	Saint Martin d	68.60	313	eP	P	06 47 01.5	0.0
	comp=Z,20nm,0.9s,mb4.8						
ASAR	Alice Springs	70.02	146	P	P	06 47 09.3	-1.0
	comp=Z,1.1nm,0.7s,mb3.9,baz=332,slow=6.7,SNR=8.2						
ESDC	Sonseca Array	74.90	309	P	P	06 47 40.0	+0.6
	comp=Z,0.2nm,0.3s,mb3.5,baz=44,slow=5.7,SNR=4.1						
YKA	Yellowknife Ar	75.95	15	P	P	06 47 45.3	+0.3
	comp=Z,1.1nm,0.9s,mb3.8,baz=331,slow=5.7,SNR=11						
TORD	Torodi Ar. Bea	87.32	285	P	P	06 48 44.9	-1.0
	comp=Z,0.3nm,0.6s,mb3.7,baz=22,slow=4.8,SNR=2.7						
PMAT	Coroa da Mata	88.38	319	eP	P	06 48 48.2	-2.4
MESC	Monte Escuro	88.39	319	eP	P	06 48 48.1	-2.6
PVER	Pico Vermelho	88.42	319	eP	P	06 48 47.0	-3.8
LFA	Lagoa do Fogo	88.42	319	eP	P	06 48 48.2	-2.6
CML	Cha da Macela	88.46	319	eP	P	06 48 48.4	-2.6

MOS 23 06:39:14.0±0.3**, 42.65N**×**45.44E, h19**^{km}**, mb3.7**/1**, 1C, Error ellipse: s-maj=43.7km s-min=12.3km az=34.2, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LACR	Lac	0.86	282	⇑iPG	Pg	06 39 30.2	-0.6
LACR				i S	Sb	06 39 45.1	+3.6
BTKR	Batakoyurt	0.98	318	ePG	Pg	06 39 32.3	-0.8
BTKR				eS	Sb	06 39 48.7	+3.8
ARNR	Ardon	1.01	303	ePG	Pg	06 39 32.8	-0.8
ARNR				eS	Sb	06 39 49.8	+4.0
KORR	Kora	1.10	294	ePG	Pg	06 39 34.4	-0.9
KORR				eS	Sb	06 39 52.5	+4.2
KMSR	Komsomolskaya	1.11	311	ePG	Pg	06 39 34.6	-0.9
KMSR				eS	Sb	06 39 52.6	+4.0
ZEI	Tsey	1.14	277	ePG	Pg	06 39 34.9	-1.2
ZEI				eS	Sb	06 39 53.3	+3.7
LSNR	Lesken	1.35	298	ePG	Pg	06 39 37.6	-2.4
LSNR				eS	Sn	06 39 58.8	+3.7
DIGR	Digorskoe uzhe	1.39	281	ePG	Pg	06 39 39.0	-1.9
DIGR				eS	Sn	06 40 00.2	+4.0

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*ISCJB **23** 06:45:55.6±0.8, 26.20N±0.06×110.30W±0.06, h10^{km}, mb3.2/1, MS3.7/2, Error ellipse: s-maj=10.0km s-min=6.4km az=151.8*

*IDC **23** 06:45:55.0±1.3, 26.13N×110.41W, h0^{km}, mb3.2/1, mb1 3.8/6, mb1mx3.7/22, mbtmp3.5/6, ML3.6/5, MS3.7/4, Ms1 3.7/4, ms1mx3.2/12, Error ellipse: s-maj=22.4km s-min=12.6km az=96.0*

*NEIC **23** 06:45:56.3±0.7, 26.10N×110.48W, h10^{km}, MN3.3, Error ellipse: s-maj=10.5km s-min=8.1km az=95.0*

ISC 23 06:45:56.4±0.8**, 26.09N**±0.06×**110.48W**±0.06**, h10**^{km}**, n24, σ0^{s}68**/29**, mb3.2**/1**, MS3.7**/2**, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	La Paz	1.99	175	Pn	Pn	06 46 30.3	+0.2
LPIG				Lg		06 46 59.6	
LPIG	La Paz	1.99	175	Pn	Pn	06 46 30.3	+0.2
	8.2nm,0.3s,baz=350,slow=8.9,SNR=13						
LPIG				Lg		06 46 59.6	
	48nm,0.3s,baz=234,slow=8.7,SNR=8.6						
TUC	Tucson	6.20	358	ePn	Pn	06 47 27.4	-0.6
	14nm,0.8s						
LTX	Lajitas	6.85	60	ePn	Pn	06 47 36.8	-0.1
	20nm,0.9s						
LTX				ePg	Pg	06 48 08.6	+1.0
LTX				eSg	Sg	06 49 36.8	+0.5
TXAR	Lajitas Array	6.85	60	Pn	Pn	06 47 36.1	-0.8
TXAR				Sn	Sn	06 48 53.5	-1.5
TXAR				Lg		06 49 29.6	
TXAR	Lajitas Array	6.85	60	Pn	Pn	06 47 36.1	-0.8
	0.5nm,0.3s,baz=232,slow=14,SNR=25						
TXAR				Sn	Sn	06 48 53.5	-1.5
	0.4nm,0.3s,baz=281,slow=26,SNR=2.5						
TXAR				Lg		06 49 29.6	
	2.6nm,0.3s,baz=244,slow=26,SNR=8.2						
MNTX	Cornudas Mount	7.15	37	ePn	Pn	06 47 41.1	0.0
	15nm,0.8s						
MNTX				ePg	Pg	06 48 13.5	+0.1
MNTX				eSg	Sg	06 49 46.2	+0.2
LAZ	Ladron	8.77	18	ePn	Pn	06 48 03.0	-0.2
PFO	Pinyon Flat Ob	9.11	327	LR	LR	06 51 03.6	
	comp=Z,312nm,21.0s,baz=290,slow=34						
ANMO	Albuquerque	9.48	20	Pn	Pn	06 48 14.3	+1.2
ANMO				Lg		06 50 53.1	
ANMO	Albuquerque	9.48	20	Pn	Pn	06 48 14.3	+1.2
	0.1nm,0.3s,baz=195,slow=10,SNR=9.1						
ANMO				Lg		06 50 53.1	
	0.2nm,0.3s,baz=280,slow=17,SNR=3.3						
MVCO	Mesa Verde	11.21	8	ePn	Pn	06 48 36.5	-0.2
	10nm,1.1s						
AMTX	Amarillo	11.59	39	ePn	Pn	06 48 41.6	-0.3
	11nm,0.9s						
WMOK	Wichita Mounta	13.27	47	ePn	Pn	06 49 05.0	+0.2
	18nm,1.0s						
NVAR	Mina Array Bea	13.96	334	Pn	Pn	06 49 18.2	+4.0
NVAR	Mina Array Bea	13.96	334	Pn	Pn	06 49 18.2	+4.0
	0.1nm,0.3s,baz=147,slow=12,SNR=6.2						
PDAR	Pinedale Array	16.65	2	Pn	Pn	06 49 50.9	+1.1
	0.1nm,0.3s,baz=171,slow=10,SNR=8.2						
CMIG	Matias Romero	17.04	119	Pn	Pn	06 49 59.9	+5.1
CMIG				LR	LR	06 56 03.9	
CMIG	Matias Romero	17.04	119	Pn	Pn	06 49 59.9	+5.1
	0.1nm,0.3s,baz=309,slow=7.2,SNR=6.4						
CMIG				LR	LR	06 56 03.9	
	comp=Z,298nm,19.8s,baz=284,slow=36						
MCMT	McKenzie Canyo	18.79	355	eP	Pn	06 50 16.0	-0.2
MCMT				eSn	Sn	06 53 46.1	-0.3
CHMT	Chamberlain Mo	20.90	355	eP	P	06 50 39.4	+0.7
TEIG	Tepich	21.23	101	LR	LR	07 00 08.1	
	comp=Z,309nm,18.7s,MS3.7,baz=2.0,slow=40						
YKA	Yellowknife Ar	36.50	357	P	P	06 53 00.5	-1.0
	0.2nm,0.7s,mb3.2,baz=179,slow=8.0,SNR=6.1						
YKA				LR	LR	07 09 12.5	
	comp=Z,98nm,18.1s,MS3.6,baz=230,slow=38						
SVW2	Sparrevohn	46.31	332	eP	P	06 54 21.8	-0.2

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*IDC **23** 06:50:51.3±1.1, 0.91S×127.44E, h0^{km}, mb4.0/6, mb1 4.1/7, mb1mx3.9/17, mbtmp4.0/7, ML3.3/1, Error ellipse: s-maj=116.6km s-min=16.6km az=70.0*

*NEIC **23** 06:50:52.6±0.4, 0.86S×127.73E, h10^{km}, mb4.4/3, Error ellipse: s-maj=19.6km s-min=7.3km az=75.0*

*ISCJB **23** 06:50:53.9±0.6, 0.86S±0.08×127.7E±0.2, h33^{km}, mb4.2/8, Error ellipse: s-maj=25.7km s-min=10.6km az=168.2*

ISC 23 06:50:56.2±0.6**, 0.88S**±0.08×**127.8E**±0.2**, h35**^{km}**, n14, σ0^{s}93**/13**, mb4.2**/8**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	17.25	187	P	Pn	06 54 54.0	-0.5
	0.1nm,0.3s,baz=9.0,slow=19,SNR=3.7						
WRA	Warramunga Arr	20.01	162	P	P	06 55 25.7	-0.3
	3.1nm,0.6s,baz=340,slow=11,SNR=16						
GUMO	Guam	22.22	49	eP	P	06 55 49.5	-0.4
	54nm,0.9s,mb5.0						
ASAR	Alice Springs	23.42	166	P	P	06 56 01.9	-0.5
	4.2nm,0.8s,mb3.9,baz=341,slow=9.5,SNR=39						
STKA	Stephens Creek	33.49	158	P	P	06 57 34.1	+1.8
	4.4nm,0.8s,mb4.5,baz=330,slow=8.7,SNR=9.3						
LZH	Lanzhou	42.99	331	eP	P	06 58 54.2	+2.0
	15nm,1.4s,mb4.5						
LZH				pP	pP	06 58 58.3	-4.2
LZH				sP	sP	06 59 00.5	-6.2
SONM	Songino Array	51.97	342	P	P	07 00 02.6	+0.9
	0.5nm,0.9s,mb3.5,baz=147,slow=5.3,SNR=5.3						
MK31	Makanchi Array	61.92	326	eP	P	07 01 11.7	-0.6
MKAR	Makanchi Array	61.92	326	P	P	07 01 12.1	-0.3
MKAR	Makanchi Array	61.92	326	P	P	07 01 12.1	-0.3
	1.5nm,0.6s,mb4.3,baz=125,slow=8.6,SNR=19						
ZALV	Zalesovo Beam	65.14	334	P	P	07 01 32.3	-1.2
	0.4nm,0.3s,mb3.9,baz=126,slow=7.4,SNR=3.1						
KURK	Kurchatov	66.17	328	eP	P	07 01 39.6	-0.6
	1.0nm,0.4s,mb4.2						
CASY	Casey	66.41	188	eP	P	07 01 41.5	+0.1
	67nm,1.3s						
SIUC	Southern Illin	129.99	39	ePKPdf	PKPdf	07 10 03.6	+0.9

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*ISCJB **23** 07:03:02.8±1.6, 22.1N±0.1×92.8E±0.3, h10^{km}, mb3.5/3, Error ellipse: s-maj=47.7km s-min=11.8km az=161.6*

*IDC **23** 07:03:07.4±6.0, 23.08N×94.86E, h0^{km}, mb3.5/3, mb1 3.7/3, mb1mx3.3/20, mbtmp3.5/3, Error ellipse: s-maj=526.1km s-min=27.0km az=60.0*

ISC 23 07:03:05.2±1.6**, 22.2N**±0.1×**92.9E**±0.4**, h10**^{km}**, n5, σ1^{s}05**/6**, mb3.5**/3**, India-Bangladesh border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IMP	Imphal	2.77	19	eP	Pn	07 03 50.0	+0.4
SHL	Shillong	3.52	344	ePN	Pn	07 04 05.5	+5.5
SHL				eSN	Sn	07 04 41.0	-0.7
MKAR	Makanchi Array	26.04	343	P	P	07 08 39.6	+1.1
	0.9nm,0.8s,mb3.4,baz=159,slow=10,SNR=10						
WRA	Warramunga Arr	58.20	133	P	P	07 12 58.9	-1.0
	0.2nm,0.5s,mb3.5,baz=323,slow=7.5,SNR=5.0						
ASAR	Alice Springs	60.53	136	P	P	07 13 16.1	+0.3
	0.2nm,0.4s,mb3.6,baz=314,slow=7.0,SNR=4.2						

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*NNC **23** 07:11:17.7±1.0, 43.61N×75.45E, h0^{km}, mb3.2, mpv2.7, Error ellipse: s-maj=9.1km s-min=6.3km az=91.0*

*ISCJB **23** 07:11:19.0±0.7, 43.61N±0.05×75.41E±0.05, h10^{km}, Error ellipse: s-maj=7.7km s-min=4.3km az=154.3*

*KNET **23** 07:11:20.0±0.5, 43.50N×75.38E, h9^{km}±3^{km}, ml2.0, Error ellipse: s-maj=3.0km s-min=1.6km az=18.0*

ISC 23 07:11:20.0±0.6**, 43.55N**±0.05×**75.40E**±0.04**, h10**^{km}**, n14, σ0^{s}95**/22**, 18C-4D, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TKM2	Tokmak 2	0.65	167	⇑P	Pg	07 11 31.7	-0.8
	70nm,0.2s,SNR=46						
TKM2				⇓S	Sg	07 11 41.0	+0.1
	121nm,0.1s						
TKM2	Tokmak 2	0.65	167	⇑P	Pg	07 11 31.6	-0.9
	0.3nm,0.2s						
TKM2				⇑S	Sg	07 11 41.0	0.0
	1.3nm,0.3s						
USP	Ospenovka	0.71	247	⇑P	Pg	07 11 32.8	-0.9
	25nm,0.1s,SNR=26						
USP				⇑S	Sg	07 11 43.0	-0.1
	77nm,0.3s						

CHMS	Chumysh	0.73	221	⇑P	Pg	07 11 33.3	-0.8
	23nm,0.2s,SNR=10						
CHMS				⇓S	Sg	07 11 43.8	+0.3
	45nm,0.2s						
KBK	Karagaybulak	0.96	200	P	Pg	07 11 37.8	-0.5
	20nm,0.1s,SNR=21						
AAK	Ala-Archa	1.13	216	P	Pb	07 11 40.9	-0.7
	14nm,0.2s,SNR=54						
AAK				⇑S	Sb	07 11 57.0	+0.6
	22nm,0.2s						
KNDC	Almaty	1.19	106	⇑P	Pb	07 11 41.4	-1.2
	17nm,0.2s						
KNDC				⇑S	Sb	07 11 58.5	+0.4
	32nm,0.3s						
ULHL	Ulahol	1.45	154	⇑P	Pn	07 11 46.1	0.0
	20nm,0.1s,SNR=57						
UCH	Uchtor	1.48	206	⇑P	Pn	07 11 47.0	+0.5
	11nm,0.2s,SNR=12						
KZA	Kyzart	1.48	184	⇑P	Pn	07 11 47.4	+0.8
	16nm,0.2s,SNR=27						
EKS2	Erkin-Say	1.48	234	⇑P	Pn	07 11 47.3	+0.6
	25nm,0.1s,SNR=172						
AML	Almayashu	1.90	222	⇑P	Pn	07 11 54.8	+2.5
	32nm,0.2s,SNR=66						
KK31	Karatay Array	3.59	264	⇑Pn	Pn	07 12 17.3	+1.6
	0.1nm,0.2s,baz=332,slow=40,SNR=7.1						
KK31				⇑Pg	Pg	07 12 26.1	-2.7
	4.1nm,0.3s,baz=86,slow=17,SNR=53						
KK31				⇓Lg		07 13 10.7	
	3.1nm,0.4s,baz=81,slow=29,SNR=7.4						
MK31	Makanchi Array	5.85	54	⇑Pn	Pn	07 12 47.1	+0.4
	0.7nm,0.4s,baz=230,slow=14,SNR=57						
MK31				⇑Sn	Sn	07 13 53.7	0.0
	0.3nm,0.3s,baz=240,slow=25						
MK31				⇓Lg		07 14 18.0	
	0.7nm,0.5s,baz=238,slow=29						

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*BJI **23** 07:12:14.9, 25.85N×110.94W, h15^{km}, mB5.5, mb5.0, Ms5.1, Msz4.7*

*MOS **23** 07:12:15.6±1.2, 25.91N×110.45W, h10^{km}, mb4.8/10, Error ellipse: s-maj=9.9km s-min=4.6km az=88.5*

*ISCJB **23** 07:12:16.7±0.3, 26.01N±0.03×110.49W±0.03, h10^{km}, mb4.6/33, MS4.5/12, Error ellipse: s-maj=4.9km s-min=3.3km az=38.9*

*IDC **23** 07:12:16.6±0.7, 26.18N×110.57W, h0^{km}, mb4.3/11, mb1 4.3/16, mb1mx4.3/24, mbtmp4.2/16, ML3.6/5, MS4.5/11, Ms1 4.5/11, ms1mx4.1/34, Error ellipse: s-maj=17.4km s-min=11.0km az=91.0*

*GCMT **23** 07:12:18.2±0.2, 26.32N×110.72W, h12^{km}, MW5.2/87, Moment Tensor Solution. s44,c62; s87,c153; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-6.32±.21; $M_{\theta\theta}$-0.26±.13; $M_{\phi\phi}$6.58±.16; $M_{r\theta}$1.80±.43; $M_{\theta\phi}$-0.57±.11; $M_{\phi r}$2.55±.37; Best double couple: $M_0$7.18900×10^{16} NP1:ϕ_s340.00000°, δ37.00000°, λ-116.00000°. NP2: ϕ_s191.00000°, δ57.00000°, λ-72.00000°. Principal axes: T 7.0730, Plg11.0000°, Azm268.0000°; N 0.2290, Plg15.0000°, Azm1.0000°; P -7.3050, Plg72.0000°, Azm144.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **23** 07:12:18.2±0.5, 25.96N×110.52W, h10^{km}, mb4.6/31 Error ellipse: s-maj=7.0km s-min=4.5km az=37.0*

ISC 23 07:12:18.0±0.3, **25.94N**±0.03×**110.52W**±0.03, **h10^{km}, n326, σ0^{s}96**/317, **mb4.6**/35, **MS4.5**/12, **60C-70D, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	1.84	174	*e*P	Pn	07 12 52.2	+2.6
LPIG				*i* S	Sn	07 13 14.3	+1.3
LPIG	La Paz	1.84	174	Pn	Pn	07 12 51.9	+2.3
	32nm,0.3s,baz=249,slow=1.0,SNR=31						
LPIG				Lg		07 13 24.7	
	318nm,0.3s,baz=258,slow=14,SNR=8.0						
TUC	Tucson	6.35	358	*e*Pn	Pn	07 13 49.4	-2.3
	52nm,0.9s						
TUC	Tucson	6.35	358	*e*P	Pn	07 13 49.4	-2.2
TUC				pmax	pmax		
	comp=Z,52nm,0.9s						
116A	Eloy	6.68	351	P	Pn	07 13 55.7	-0.4
	baz=6.8,SNR=9.1						
115A	Sonoran Desert	6.90	348	⇓P	Pn	07 13 59.0	-0.2
	baz=7.0						
LTX	Lajitas	6.95	59	*e*Pn	Pn	07 13 59.1	-0.8
TXAR	Lajitas Array	6.95	59	Pn	Pn	07 13 58.0	-1.9
TXAR				Sn	Sn	07 15 16.9	-2.2
TXAR				Lg		07 15 52.6	
TXAR	Lajitas Array	6.95	59	P	Pn	07 13 58.1	-1.8
TXAR						07 15 17.0	
TXAR	Lajitas Array	6.95	59	Pn	Pn	07 13 58.0	-1.9
	comp=Z,1.5nm,0.3s,baz=239,slow=13,SNR=49						
TXAR				Sn	Sn	07 15 16.9	-2.2
	comp=Z,1.6nm,0.3s,baz=227,slow=23,SNR=2.9						
TXAR				Lg		07 15 52.6	
	comp=Z,8.2nm,0.3s,baz=210,slow=17,SNR=6.0						
MNTX	Cornudas Mount	7.29	37	*e*Pn	Pn	07 14 03.6	-1.0
Z14A	Wintersburg	7.69	345	⇑P	Pn	07 14 09.8	-0.2
	baz=7.8						
GLA	Glamis	8.02	333	⇑P	Pn	07 14 13.7	-0.9
	baz=8.1						
GDL2	Guadalupe Moun	8.24	39	*e*Pn	Pn	07 14 19.3	+1.8
Y14A	Wickenburg	8.26	345	P	Pn	07 14 18.3	+0.5
	baz=8.4,SNR=8.0						
Y13A	Salome	8.36	341	⇑P	Pn	07 14 19.0	-0.2
	baz=8.5						
Y12C	Blythe	8.52	337	⇑P	Pn	07 14 21.5	0.0
	baz=8.6						
X15A	Humboldt	8.65	351	⇑P	Pn	07 14 23.2	+0.1
	baz=8.8,SNR=8.4						
Y22C	IRIS PASSCAL I	8.69	20	⇓P	Pn	07 14 23.9	+0.2
	baz=8.8						
X14A	Yava	8.74	347	⇑P	Pn	07 14 24.3	-0.1
	baz=8.9						
LENM	Lemitar	8.75	20	*e*Pn	Pn	07 14 25.4	+0.8
BC3	Big Chuckw Mtn	8.80	332	⇑P	Pn	07 14 25.0	-0.3
	baz=8.9						
BNM	Barren Site	8.85	21	*e*Pn	Pn	07 14 26.1	+0.2
PDMCI	Parker Dam,Lak	8.90	340	⇓P	Pn	07 14 26.5	-0.1
	baz=9.0						
LAZ	Ladron	8.93	18	*e*Pn	Pn	07 14 27.3	+0.3
LPM	Los Pinos Moun	9.00	21	*e*Pn	Pn	07 14 28.6	+0.6
X13A	Yucca	9.09	342	⇓P	Pn	07 14 29.1	-0.1
	baz=9.2						
W15A	Williams	9.33	351	⇓P	Pn	07 14 33.1	+0.5
	baz=9.5						
W14A	Seligman	9.50	347	⇓P	Pn	07 14 35.2	+0.3
	baz=9.6						
W13A	Hualapai Mount	9.58	343	⇓P	Pn	07 14 36.8	+0.9
	baz=9.7						
ANMO	Albuquerque	9.64	20	Pn	Pn	07 14 35.2	-1.5
ANMO				Lg		07 17 14.9	
ANMO	Albuquerque	9.64	20	Pn	Pn	07 14 35.2	-1.5
	comp=Z,0.1nm,0.3s,baz=204,slow=12,SNR=7.4						
ANMO				Lg		07 17 14.9	
	comp=Z,0.8nm,0.3s,baz=91,slow=23,SNR=3.9						
V12A	Nelson	10.44	340	⇓P	Pn	07 14 48.4	+0.7
	baz=11						
JCT	Junction City	10.48	62	*e*Pn	Pn	07 14 50.0	+1.7
T15A	Red Dirt Ranch	11.16	352	⇓P	Pn	07 14 59.0	+1.5
	baz=11,SNR=12						
SHPR	Sheep Range	11.25	340	*e*Pn	Pn	07 15 00.8	+2.0
T14A	Hurricane	11.30	349	⇑P	Pn	07 15 00.3	+0.8
	baz=11						
LRMC	Laurel Mountai	11.33	329	⇑P	Pn	07 14 59.9	0.0
	baz=11						
MVCO	Mesa Verde	11.37	8	*e*Pn	Pn	07 15 00.2	-0.2
	comp=Z,77nm,1.3s						
MVCO	Mesa Verde	11.37	8	P	Pn	07 15 00.6	+0.1
	baz=12,SNR=31						
T13A	Saint George	11.42	346	P	Pn	07 15 01.9	+0.9
	baz=12,SNR=9.5						
CCUT	Cedar City	11.82	349	*e*Pn	Pn	07 15 07.8	+1.1
DAC	Darwin (Calif)	11.95	331	*e*Pn	Pn	07 15 13.7	+5.3
T11A	Corn Creek, Al	11.96	342	⇑P	Pn	07 15 09.5	+1.1
	baz=12						
TPNV	Topopah Spring	12.01	337	*e*Pn	Pn	07 15 10.3	+1.1
ARUT	Antelope Range	12.07	349	*e*Pn	Pn	07 15 12.6	+2.6
S12A	Delamar Landin	12.20	344	⇑P	Pn	07 15 12.2	+0.4
	baz=12						
VES	Vestal, Richgr	12.30	325	⇑P	Pn	07 15 13.5	+0.4
	baz=12						
S11A	Rachel	12.48	340	⇑P	Pn	07 15 16.9	+1.2
	baz=13,SNR=5.5						
SDCO	Great Sand Dun	12.52	19	*e*Pn	Pn	07 15 17.1	+1.0
MSU	Marysvale	12.61	354	*e*Pn	Pn	07 15 18.8	+1.3
R12A	Pony Springs,	12.83	345	⇑P	Pn	07 15 21.0	+0.6
	baz=13						
S10A	Tonopah Range,	13.01	338	⇓P	Pn	07 15 24.5	+1.7
	baz=13,SNR=18						
S09A	Goldfield	13.05	336	P	Pn	07 15 25.0	+1.6
	baz=13,SNR=15						
TRCR	Troy Canyon	13.09	342	*e*Pn	Pn	07 15 25.3	+1.3
SRU	San Rafael	13.13	360	*e*Pn	Pn	07 15 25.3	+0.8
S08C	White Mtn Res	13.23	332	⇑P	Pn	07 15 25.9	0.0
	baz=13,SNR=6.5						
R10A	Warm Springs	13.25	340	⇓P	Pn	07 15 26.3	+0.2
	baz=13						
TMUT	Trail Mountain	13.33	358	*e*Pn	Pn	07 15 32.8	+5.6
TPH	Tonopah	13.36	337	*e*Pn	Pn	07 15 28.7	+1.0
WMOK	Wichita Mounta	13.39	46	*e*Pn	Pn	07 15 27.7	-0.4
R09A	Tonopah	13.46	337	⇑P	Pn	07 15 29.8	+0.8
	baz=14,SNR=17						
SMCO	Snowmass	13.53	12	*e*Pn	Pn	07 15 30.9	+0.9
Q12A	Willow Creek R	13.56	346	⇓P	Pn	07 15 30.7	+0.3
	baz=14						
Q11A	Duckwater	13.58	343	⇑P	Pn	07 15 31.0	+0.4
	baz=14,SNR=8.0						
Q10A	Clear Creek Ra	13.77	340	⇑P	Pn	07 15 33.9	+0.6
	baz=14						
P12A	McGill	13.99	346	⇓P	Pn	07 15 37.4	+1.2
	baz=14,SNR=8.4						
NLU	North Lily Min	14.04	355	*e*Pn	Pn	07 15 39.2	+2.3
MPU	Maple Canyon	14.07	356	*e*Pn	Pn	07 15 43.8	+6.5
NVAR	Mina Array Bea	14.08	334	Pn	Pn	07 15 37.3	-0.2
NVAR	Mina Array Bea	14.08	334	Pn	Pn	07 15 37.3	-0.2
	comp=Z,0.0nm,0.3s,baz=148,slow=8.6,SNR=5.1						
Q08A	Gabbs	14.32	336	⇑P	Pn	07 15 41.7	+1.0
	baz=14						
DUG	Dugway	14.35	353	*e*Pn	Pn	07 15 43.3	+2.2
DUG	Dugway	14.35	353	⇓P	Pn	07 15 42.5	+1.4
	baz=14,SNR=12						
ISCO	Idaho Springs	14.42	15	*e*Pn	Pn	07 15 42.9	+0.9
DAU	Daniels Canyon	14.45	358	*e*Pn	Pn	07 15 45.1	+2.6
P10A	Eureka	14.52	341	⇓P	Pn	07 15 44.0	+0.5
	baz=15						
WAKR	Walker	14.61	331	*e*Pn	Pn	07 15 50.3	+5.6
JLU	Jordanelle	14.64	357	*e*Pn	Pn	07 15 48.2	+3.1
CMB	Columbia Colle	14.67	328	*e*Pn	Pn	07 15 47.6	+2.1
	comp=Z,25nm,1.2s						
CMB	Columbia Colle	14.67	328	*e*P	Pn	07 15 47.6	+2.1
CMB				pmax	pmax		
	comp=Z,25nm,1.2s						
O12A	Currie	14.72	347	⇓P	Pn	07 15 47.0	+0.8
	baz=15						
CTU	Camp Tracy	14.75	356	*e*Pn	Pn	07 15 48.7	+2.1
O11A	Cowboy Ranch,	14.79	344	⇑P	Pn	07 15 48.0	+0.9
	baz=15,SNR=12						
R05C	Kirkwood Meado	15.06	330	⇓P	Pn	07 15 50.9	0.0
	baz=15						
BGU	Big Grassy Mou	15.09	353	Pn	Pn	07 15 51.2	0.0
O10A	Cortez Mining,	15.16	342	⇓P	Pn	07 15 52.7	+0.6
	baz=15						
N13A	Wendover, West	15.19	349	⇑P	Pn	07 15 53.5	+1.0
	baz=15						
O09A	Fish Creek Ran	15.24	340	⇑P	Pn	07 15 53.8	+0.6
	baz=15,SNR=11						
ELK	Elko	15.28	346	*e*Pn	Pn	07 15 55.1	+1.4
WCN	Washoe City	15.42	332	⇑P	Pn	07 15 56.2	+0.7
	baz=16,SNR=8.4						
BMN	Battle Mountai	15.49	341	*e*Pn	Pn	07 15 58.7	+2.1
	comp=Z,28nm,0.9s						
BMN	Battle Mountai	15.49	341	*e*P	Pn	07 15 58.7	+2.2
BMN				pmax	pmax		
	comp=Z,28nm,0.9s						
HWUT	Hardware Ranch	15.65	357	*e*Pn	Pn	07 15 58.4	-0.1
	comp=Z,45nm,1.3s						
M13A	Montello	15.68	350	⇑P	Pn	07 15 59.5	+0.7
	baz=16,SNR=5.7						
M14A	Sheep Mountain	15.70	352	⇓P	Pn	07 16 00.3	+1.1
	baz=16						
CBKS	Cedar Bluff	15.72	33	*e*Pn	Pn	07 15 59.5	0.0
	comp=Z,50nm,1.0s						
CBKS	Cedar Bluff	15.72	33	*e*P	Pn	07 15 59.5	0.0
CBKS				pmax	pmax		
	comp=Z,50nm,1.0s						
O07A	Toulon	15.81	336	⇓P	Pn	07 16 01.8	+1.2
	baz=16,SNR=12						
PHWY	Pilot Hill	15.89	14	*e*Pn	Pn	07 16 02.4	+0.8
HVU	Hansel Valley	15.91	354	*e*Pn	Pn	07 16 01.8	-0.1
	comp=Z,46nm,1.2s						
HVU	Hansel Valley	15.91	354	*e*P	Pn	07 16 01.8	-0.1
HVU				pmax	pmax		
	comp=Z,46nm,1.2s						
RWWY	Rawlins	15.95	9	*e*P	Pn	07 16 07.1	+4.7
	comp=Z,49nm,0.9s						
N09A	Rock Creek Ran	15.97	340	⇓P	Pn	07 16 03.5	+0.8
	baz=16						
M11A	Holland Ranch,	16.06	346	⇓P	Pn	07 16 04.8	+1.0
	baz=16,SNR=14						
N08A	GE Springer Mi	16.10	339	⇑P	Pn	07 16 04.7	+0.3
	baz=16,SNR=12						
BEKR	Beckwourth	16.14	332	⇓P	Pn	07 16 05.6	+0.6
	baz=16,SNR=16						
O06A	Flanigan	16.18	334	⇓P	Pn	07 16 06.0	+0.7
	baz=16						
OHCM	Honcut	16.22	328	*e*Pn	Pn	07 16 10.0	+4.0
M10A	I.L. Ranch, Tu	16.32	344	⇑P	Pn	07 16 07.5	+0.3
	baz=16						
L13A	Double Diamond	16.35	351	⇓P	Pn	07 16 08.5	+0.9
	baz=16,SNR=10						
O05C	Quincy	16.46	331	⇓P	Pn	07 16 09.3	+0.3
	baz=17						
M09A	Marrel Ranch,	16.48	341	⇑P	Pn	07 16 09.8	+0.7
	baz=17						
L12A	House Creek Ra	16.59	348	⇓P	Pn	07 16 10.7	+0.1
	baz=17,SNR=10.0						
N06A	Buffalo Meadow	16.68	335	⇓P	Pn	07 16 11.9	+0.1
	baz=17						
K14A	Jones Ranch, D	16.71	353	⇑P	Pn	07 16 13.2	+1.1
	baz=17,SNR=21						
L11A	Cat Creek Ranc	16.75	346	⇓P	Pn	07 16 13.6	+0.9
	baz=17,SNR=15						
M08A	Happy Creek Ra	16.78	339	⇑P	Pn	07 16 14.1	+1.0
	baz=17,SNR=14						
AHID	Auburn Hatcher	16.79	359	*e*Pn	Pn	07 16 13.1	-0.1
	comp=Z,39nm,1.4s						
BW06	Boulder Array	16.80	2	*e*Pn	Pn	07 16 13.4	0.0
	comp=Z,66nm,1.4s						
PDAR	Pinedale Array	16.80	2	Pn	Pn	07 16 13.0	-0.3
PDAR				Lg		07 21 01.4	
PDAR	Pinedale Array	16.80	2	Pn	Pn	07 16 13.0	-0.3
	comp=Z,0.1nm,0.3s,baz=203,slow=17,SNR=20						
PDAR				Lg		07 21 01.4	
	comp=Z,0.0nm,0.3s,baz=188,slow=23,SNR=2.6						
L10A	Juniper Basin	16.83	345	⇓P	Pn	07 16 14.2	+0.6
	baz=17,SNR=10						
O04C	Chester	16.83	331	⇑P	Pn	07 16 13.2	-0.4
	baz=17,SNR=12						
K13A	Stover Farm, H	16.92	351	⇑P	Pn	07 16 15.9	+1.0
	baz=17						
MIAR	Mount Ida	16.95	56	*e*P	Pn	07 16 18.0	+2.7
	comp=Z,48nm,1.6s						
MIAR	Mount Ida	16.95	56	*e*P	Pn	07 16 18.0	+2.7
MIAR				pmax	pmax		
	comp=Z,48nm,1.6s						
CMIG	Matias Romero	16.99	118	P	Pn	07 16 21.9	+6.0
	comp=Z,0.2nm,0.3s,baz=307,slow=11,SNR=6.5						
CMIG				LR	LR	07 22 27.0	
	comp=Z,2μm,20.2s,baz=133,slow=36						
M07A	Soldier Meadow	16.99	337	⇑P	Pn	07 16 16.5	+0.8
	baz=17						
K12A	Draper Farm, C	17.04	349	⇓P	Pn	07 16 17.1	+0.8
	baz=17,SNR=12						
L09A	Wilkinson Ranc	17.09	342	⇓P	Pn	07 16 17.8	+0.9
	baz=17						
M06C	Likely Place G	17.32	334	⇓P	Pn	07 16 20.6	+0.8
	baz=17,SNR=7.5						
K11A	Parker Ranch,	17.39	346	⇓P	Pn	07 16 21.4	+0.8
	baz=18						
HATC	Hat Creek Radi	17.40	331	⇓P	Pn	07 16 22.0	+1.1
	baz=18						
L08A	Fields	17.44	340	⇓P	Pn	07 16 21.5	+0.2
	baz=18						
KSU1	Kansas State U	17.57	38	*e*Pn	Pn	07 16 22.8	-0.2
L07A	Adell	17.61	338	⇑P	Pn	07 16 23.6	+0.2
	baz=18						
DCID1	Drake Creek	17.62	358	*e*Pn	Pn	07 16 23.9	+0.3
LOHW	Long Hollow	17.63	360	*e*Pn	Pn	07 16 23.5	-0.2
J13A	Cove Ranch, Pi	17.67	351	⇑P	Pn	07 16 24.6	+0.4
	baz=18						
WVOR	Wild Horse Val	17.75	340	*e*Pn	Pn	07 16 25.1	-0.1
	comp=Z,24nm,1.3s						
WVOR	Wild Horse Val	17.75	340	*e*P	Pn	07 16 25.1	-0.1
WVOR				pmax	pmax		
	comp=Z,24nm,1.3s						
MFID	Camas Ranch	17.96	347	⇓P	Pn	07 16 28.0	+0.2
	baz=18						
UALR	University of	17.97	56	*e*P	Pn	07 16 28.1	+0.2
	comp=Z,88nm,1.9s						
K08A	Mann Creek Ran	17.98	341	⇓P	Pn	07 16 28.1	+0.2
	baz=18						
M03C	McCloud	18.06	331	⇑P	Pn	07 16 29.4	+0.4
	baz=18,SNR=6.3						
I13A	Wildhorse Cree	18.17	352	P	Pn	07 16 31.3	+1.0
	baz=18,SNR=16						
L05A	Lakeview	18.18	335	⇓P	Pn	07 16 30.8	+0.4
	baz=18,SNR=8.3						
K07A	Rock Creek Ran	18.18	339	⇑P	Pn	07 16 30.7	+0.2
	baz=18,SNR=9.9						
J09A	Fry Pan Ranch,	18.34	343	⇓P	Pn	07 16 32.6	+0.2
	baz=18						
M04C	Macdoel	18.36	332	⇑P	Pn	07 16 32.8	+0.1
	baz=18,SNR=12						
I11A	Placerville	18.47	348	P	Pn	07 16 34.4	+0.4
	baz=19,SNR=12						
YFT	Old Faithful	18.47	359	*e*P	Pn	07 16 35.1	+1.1
J08A	Circle Bar Ran	18.55	342	⇓P	Pn	07 16 35.3	+0.3
	baz=19,SNR=6.8						
LKWY	Lake	18.59	0	*e*P	Pn	07 16 35.9	+0.6
	comp=Z,7.5nm,0.5s						
LKWY	Lake	18.59	0	*e*P	Pn	07 16 35.9	+0.5
LKWY				pmax	pmax		
	comp=Z,8.0nm,0.5s						
K06A	Valley Falls	18.61	337	⇓P	Pn	07 16 36.3	+0.6
	baz=19						
YMR	Madison River	18.69	359	*e*P	Pn	07 16 38.7	+2.0
	comp=Z,71nm,1.4s						
K05A	Summer Lake	18.78	336	⇓P	Pn	07 16 37.4	-0.4
	baz=19						
I10A	Payette	18.81	346	⇑P	Pn	07 16 37.8	-0.3
	baz=19						
J07A	Hines	18.82	340	P	Pn	07 16 38.4	+0.2
	baz=19,SNR=9.7						
H13A	Challis	18.83	352	P	Pn	07 16 38.6	+0.3
	baz=19,SNR=7.2						
QLMT	Earthquake Lak	18.86	358	*e*P	Pn	07 16 38.8	0.0
H12A	Diamond D Ranc	18.90	350	P	Pn	07 16 39.0	-0.2
	baz=19,SNR=6.5						
I09A	Lost Marbles R	18.93	344	⇑P	Pn	07 16 38.6	-0.9
	baz=19						
MCMT	McKenzie Canyo	18.94	355	*e*P	Pn	07 16 39.4	-0.3
J06A	Christmas Vall	18.98	338	P	Pn	07 16 40.1	-0.1
	baz=19,SNR=9.1						
K04A	Chilquin	19.01	334	⇓P	Pn	07 16 40.1	-0.4
	baz=19						
I08A	Drewsey	19.09	342	⇑P	Pn	07 16 41.0	-0.4
	baz=19						
RLMT	Red Lodge	19.17	3	*e*P	Pn	07 16 41.7	-0.7
	comp=Z,46nm,1.4s						
H11A	Donnelly	19.24	348	⇑P	Pn	07 16 42.7	-0.6
	baz=19,SNR=5.3						
G15A	Dillon	19.25	356	⇑P	Pn	07 16 42.7	-0.7
	baz=19,SNR=17						
H10A	Noah’s Angus R	19.28	346	P	Pn	07 16 42.7	-1.1
	baz=19,SNR=23						
G13A	Cobalt	19.34	352	P	Pn	07 16 43.7	-0.8
	baz=20,SNR=24						
J05A	Fort Rock	19.39	336	⇓P	Pn	07 16 43.9	-1.2
	baz=20						
G14A	Jackson	19.41	354	⇓P	Pn	07 16 44.5	-0.8
	baz=20						
DLMT	Dillon	19.45	356	*e*P	Pn	07 16 46.8	+1.0
	comp=Z,43nm,1.3s						
I07A	Izee	19.52	340	⇓P	Pn	07 16 45.6	-1.1
	baz=20						
HBAR	Harrisburg	19.55	56	*e*P	Pn	07 16 46.3	-0.7
I06A	Prineville	19.61	339	⇑P	Pn	07 16 46.4	-1.3
	baz=20						
BMO	Blue Mountains	19.65	346	*e*P	Pn	07 16 46.8	-1.5
	comp=Z,5.3nm,0.9s						
H08A	Prairie City	19.68	342	⇓P	Pn	07 16 47.7	-0.9
	baz=20,SNR=8.1						
BOZ	Bozeman (W)	19.69	358	*e*P	Pn	07 16 47.5	-1.1
	comp=Z,62nm,1.7s						
BOZ	Bozeman (W)	19.69	358	*e*P	Pn	07 16 47.5	-1.1
BOZ				pmax	pmax		
	comp=Z,62nm,1.7s						
BOZ	Bozeman (W)	19.69	358	⇓P	Pn	07 16 48.2	-0.4
	baz=20						
GCMT	Greycliff	19.82	2	*e*P	Pn	07 16 49.5	-0.7
LRM	Limekiln Ridge	19.90	356	*e*P	Pn	07 16 50.0	-1.1
F15A	Butte	19.92	356	P	Pn	07 16 50.2	-1.2
	baz=20,SNR=7.7						
F14A	Wisdom	19.96	354	⇓P	Pn	07 16 50.7	-1.2
	baz=20						
H07A	Lands Inn, Kim	20.00	341	⇓P	Pn	07 16 50.8	-1.5
	baz=20						
F13A	Darby	20.04	352	P	P	07 16 50.7	-0.4
	baz=20,SNR=11						
F12A	Elk City	20.14	350	P	P	07 16 52.0	-0.1
	baz=20,SNR=11						
GNAR	Gosnell	20.19	55	*e*P	P	07 16 52.5	-0.3
	comp=Z,271nm,0.8s						
H06A	Lindquist Farm	20.36	340	⇓P	P	07 16 54.1	-0.4
	baz=20						
F11A	Grangeville	20.41	349	P	P	07 16 54.2	-0.9
	baz=21,SNR=18						
G08A	Pilot Rock	20.47	343	P	P	07 16 55.4	-0.3
	baz=21,SNR=8.2						
E15A	Deer Lodge	20.51	356	⇑P	P	07 16 56.0	-0.2
	baz=21						
E14A	Clinton	20.57	354	P	P	07 16 56.9	+0.1
	baz=21,SNR=19						
F09A	S2 Ranch, Elgi	20.60	345	P	P	07 16 57.1	0.0
	baz=21,SNR=15						
G07A	Ruggs Ranch, H	20.64	341	P	P	07 16 57.3	-0.3
	baz=21,SNR=7.2						
E13A	Victor	20.67	353	P	P	07 16 57.4	-0.5
	baz=21,SNR=21						
F10A	Beach Ranch, E	20.70	347	P	P	07 16 57.9	-0.3
	baz=21,SNR=9.2						
HRY	Holter Researc	20.76	357	*e*P	P	07 16 53.2	-5.6
FVM	French Village	20.80	50	*e*P	P	07 16 59.3	-0.2
	comp=Z,41nm,0.9s						
FVM	French Village	20.80	50	*e*P	P	07 16 59.3	-0.1
FVM				pmax	pmax		
	comp=Z,41nm,0.9s						
E11A	Bogner Ranch,	20.88	349	P	P	07 16 59.1	-1.0
	baz=21,SNR=14						
LAO	LASA Array	20.99	8	*e*P	P	07 17 00.6	-0.7
	comp=Z,38nm,1.0s						
MSO	Missoula	21.02	353	*e*P	P	07 17 01.4	-0.3
	comp=Z,7.9nm,0.9s,mb4.0						
CHMT	Chamberlain Mo	21.05	355	*e*P	P	07 17 01.8	-0.2
ECSD	EROS,Sioux Fal	21.05	29	*e*P	P	07 17 01.9	-0.1
	comp=Z,23nm,1.1s,mb4.4						
D15A	Lincoln	21.12	356	⇓P	P	07 17 02.1	-0.6
	baz=21						
E10A	Myers Farm, Un	21.17	347	⇓P	P	07 17 02.0	-1.2
	baz=21						
UTMT	University of	21.20	55	*e*P	P	07 17 04.2	+0.5
BRAL	Brewton	21.22	71	*e*P	P	07 17 06.0	+2.0
	comp=Z,342nm,1.5s,mb5.5						
TEIG	Tepich	21.23	101	*e*P	P	07 17 05.1	+1.0
	comp=Z,8.0nm,0.4s,mb4.4						
TEIG	Tepich	21.23	101	P	P	07 17 05.7	+1.6
	comp=Z,10nm,0.9s,mb4.1,baz=263,slow=19,SNR=3.4						
TEIG				LR	LR	07 26 31.8	
	comp=Z,2μm,21.3s,MS4.5,baz=95,slow=40						
D14A	Greenough	21.23	354	P	P	07 17 03.3	-0.7
	baz=21,SNR=36						
SLM	Saint Louis	21.26	48	*e*P	P	07 17 04.2	-0.2
	comp=Z,37nm,0.7s,mb4.8						
SLM	Saint Louis	21.26	48	*e*P	P	07 17 04.2	-0.1
SLM				pmax	pmax		
	comp=Z,37nm,0.7s,mb4.8						
F07A	Phinny Hill Vi	21.29	342	⇓P	P	07 17 03.8	-0.8
	baz=21						
PLAL	Pickwick Lake	21.31	60	*e*P	P	07 17 05.5	+0.6
D13A	Huson	21.34	353	P	P	07 17 04.0	-1.1
	baz=22,SNR=10						
SCIA	State Center	21.38	38	*e*P	P	07 17 08.6	+3.0
	comp=Z,226nm,1.6s,mb5.2						
E09A	Wood Farm, Sta	21.41	345	⇑P	P	07 17 04.5	-1.4
	baz=22						
D12A	Red Ives Fores	21.42	351	⇓P	P	07 17 05.1	-0.9
	baz=22						
F06A	Goldendale	21.43	340	⇑P	P	07 17 05.4	-0.7

	baz=22						
SIUC	**Southern Illin**	**21.52**	**52**	*e*P	**P**	**07 17 07.4**	**+0.3**
	comp=Z,62nm,1.0s,mb5.0						
LRAL	**Lakeview Retre**	**21.64**	**65**	*e*P	**P**	**07 17 09.5**	**+1.0**
	comp=Z,36nm,1.2s,mb4.7						
HAWA	**Hanford**	**21.64**	**343**	*e*P	**P**	**07 17 07.0**	**-1.3**
D10A	**Wagner Farm, O**	**21.75**	**347**	⇑P	**P**	**07 17 08.4**	**-1.1**
	baz=22						
F05A	**White Salmon**	**21.75**	**339**	⇑P	**P**	**07 17 08.3**	**-1.2**
	baz=22						
E07A	**Sunnyside**	**21.88**	**343**	⇓P	**P**	**07 17 09.6**	**-1.4**
	baz=22						
C13A	**Hot Springs**	**21.93**	**353**	⇓P	**P**	**07 17 10.4**	**-1.1**
	baz=22						
C14A	**Swan Lake**	**21.94**	**354**	⇑P	**P**	**07 17 10.8**	**-0.7**
	baz=22						
D09A	**Jones Farm, Ri**	**21.97**	**346**	⇓P	**P**	**07 17 10.3**	**-1.6**
	baz=22						
EGMT	**Eagleton**	**22.05**	**1**	⇓P	**P**	**07 17 11.6**	**-1.2**
	baz=22						
D08A	**Wollman Farm,**	**22.11**	**345**	⇑P	**P**	**07 17 11.4**	**-1.9**
	baz=22						
BSMT	**Bassoo Peak**	**22.13**	**352**	*e*P	**P**	**07 17 12.5**	**-1.1**
E06A	**Yakima**	**22.19**	**341**	⇑P	**P**	**07 17 13.1**	**-1.1**
	baz=22						
EBG	**Ellensburg**	**22.40**	**342**	P	**P**	**07 17 15.5**	**-0.9**
E05A	**Randle**	**22.44**	**339**	P	**P**	**07 17 16.5**	**-0.4**
	baz=23,SNR=9.3						
D07A	**Quincy**	**22.50**	**343**	⇓P	**P**	**07 17 16.3**	**-1.2**
	baz=23						
WPW	**White Pass**	**22.50**	**340**	P	**P**	**07 17 17.0**	**-0.5**
B13A	**Whitefish**	**22.61**	**353**	⇓P	**P**	**07 17 18.0**	**-0.7**
	baz=23						
LON	**Longmire**	**22.63**	**340**	*e*P	**P**	**07 17 18.3**	**-0.5**
USIN	**University of**	**22.73**	**53**	*e*P	**P**	**07 17 20.7**	**+0.6**
	comp=Z,116nm,1.5s,mb5.1						
FMW	**Mount Fremont**	**22.75**	**340**	P	**P**	**07 17 19.9**	**-0.3**
C08A	**Higginbotham F**	**22.82**	**345**	⇓P	**P**	**07 17 20.0**	**-0.9**
	baz=23						
B12A	**Libby**	**22.84**	**351**	⇓P	**P**	**07 17 20.5**	**-0.6**
	baz=23						
NEW	**Newport**	**22.88**	**349**	*e*P	**P**	**07 17 19.8**	**-1.8**
	comp=Z,7.0nm,0.9s,mb4.1						
NEW	**Newport**	**22.88**	**349**	*e*P	**P**	**07 17 19.8**	**-1.7**
NEW				pmax	pmax		
	comp=Z,7.0nm,0.9s						
NEW	**Newport**	**22.88**	**349**	P	**P**	**07 17 19.1**	**-2.4**
	comp=Z,8.7nm,0.9s,mb4.2,baz=168,slow=9.5,SNR=11						
NEW				LR	LR	07 26 37.0	
	comp=Z,623nm,19.1s,MS4.1,baz=68,slow=38						
HDIL	**Hopedale**	**22.89**	**45**	*e*P	**P**	**07 17 21.2**	**-0.5**
	comp=Z,333nm,1.6s,mb5.5						
B11A	**Sandpoint**	**22.92**	**350**	⇑P	**P**	**07 17 21.2**	**-0.8**
	baz=23						
B10A	**Chitwood Farm,**	**22.93**	**348**	⇓P	**P**	**07 17 21.4**	**-0.7**
	baz=23						
C07A	**Waterville**	**22.98**	**343**	⇓P	**P**	**07 17 20.9**	**-1.6**
	baz=23						
DGMT	**Dagmar**	**23.03**	**11**	*e*P	**P**	**07 17 22.7**	**-0.4**
	comp=Z,73nm,1.3s,mb5.0						
E03A	**Lebam**	**23.04**	**337**	⇑P	**P**	**07 17 22.0**	**-1.3**
	baz=23						
SWET	**Sewanee**	**23.05**	**60**	*e*P	**P**	**07 17 23.4**	**-0.2**
D05A	**Enumclaw**	**23.07**	**340**	⇑P	**P**	**07 17 23.0**	**-0.6**
	baz=23						
A13A	**Flathead Natio**	**23.15**	**353**	⇑P	**P**	**07 17 23.7**	**-0.7**
	baz=23						
B09A	**Rice**	**23.23**	**347**	⇑P	**P**	**07 17 24.4**	**-0.8**
	baz=23						
WALA	**Waterton Lakes**	**23.23**	**354**	*e*P	**P**	**07 17 23.6**	**-1.7**
	comp=Z,35nm,1.6s,mb4.5						
A12A	**Yaak River Ran**	**23.30**	**351**	⇓P	**P**	**07 17 24.4**	**-1.6**
	baz=23						
B08A	**Colville Reser**	**23.42**	**345**	⇑P	**P**	**07 17 26.0**	**-1.3**
	baz=24						
A11A	**Hall Mountain,**	**23.43**	**350**	⇓P	**P**	**07 17 25.6**	**-1.7**
	baz=24						
C05A	**Tolt Reservoir**	**23.43**	**341**	⇑P	**P**	**07 17 26.0**	**-1.4**
	baz=24						
A10A	**Northport**	**23.65**	**348**	⇑P	**P**	**07 17 28.0**	**-1.5**
	baz=24						
A08A	**Turner Farm, O**	**23.97**	**346**	⇑P	**P**	**07 17 31.4**	**-1.0**
	baz=24						
BLO	**Bloomington**	**24.06**	**51**	*e*P	**P**	**07 17 33.6**	**+0.2**
	comp=Z,40nm,1.1s,mb4.8						
BLO	**Bloomington**	**24.06**	**51**	*e*P	**P**	**07 17 33.6**	**+0.2**
BLO				pmax	pmax		
	comp=Z,40nm,1.1s,mb4.8						
CPCT	**Cooper Cave**	**24.22**	**61**	*e*P	**P**	**07 17 35.1**	**+0.2**
GOGA	**Godfrey**	**24.61**	**66**	*e*P	**P**	**07 17 43.2**	**+4.8**
A05A	**Maple Falls**	**24.72**	**342**	⇓P	**P**	**07 17 39.4**	**+0.1**
	baz=25						
TGUH	**Tegucigalpa,Un**	**24.79**	**114**	*e*P	**P**	**07 17 44.0**	**+3.8**
	comp=Z,51nm,1.0s,mb5.0						
TKL	**Tuckaleechee C**	**24.87**	**61**	P	**P**	**07 17 40.8**	**0.0**
	comp=Z,11nm,1.1s,mb4.3,baz=266,slow=1.5,SNR=4.9						
TKL				LR	LR	07 27 54.5	
	comp=Z,2μm,19.5s,MS4.6,baz=245,slow=38						
TZTN	**Tazewell**	**25.29**	**59**	*e*P	**P**	**07 17 45.3**	**+0.7**
EYMN	**Ely**	**26.58**	**29**	*e*P	**P**	**07 18 02.2**	**+6.1**
ULM	**Lac du Bonnet**	**26.77**	**21**	P	**P**	**07 17 57.1**	**-0.7**
	comp=Z,5.5nm,1.0s,mb4.0,baz=202,slow=14,SNR=4.3						
ULM				LR	LR	07 27 46.0	
	comp=Z,574nm,19.0s,MS4.2,baz=30,slow=35						
ACSO	**Alum Creek Sta**	**26.99**	**51**	*e*P	**P**	**07 17 59.6**	**-0.3**
	comp=Z,55nm,1.3s,mb4.9						
EDM	**Edmonton**	**27.33**	**356**	*e*P	**P**	**07 18 01.6**	**-1.3**
JTS	**JuntasAbangare**	**28.77**	**118**	LR	LR	07 29 48.9	
	comp=Z,888nm,21.7s,MS4.3,baz=317,slow=36						
BBB	**Bella Bella**	**29.40**	**338**	LR	LR	07 31 28.1	
	comp=Z,592nm,18.6s,MS4.2,baz=319,slow=40						
FFC	**Flin Flon**	**29.44**	**10**	*e*P	**P**	**07 18 21.2**	**-0.4**
	comp=Z,25nm,1.5s,mb4.7						
FFC	**Flin Flon**	**29.44**	**10**	*e*P	**P**	**07 18 21.2**	**-0.4**
FFC				pmax	pmax		
	comp=Z,25nm,1.5s,mb4.7						
FCC	**Fort Churchill**	**34.78**	**15**	*e*P	**P**	**07 19 06.9**	**-1.5**
	comp=Z,7.8nm,0.8s,mb4.7						
FCC	**Fort Churchill**	**34.78**	**15**	*e*P	**P**	**07 19 06.9**	**-1.5**
FCC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
DLBC	**Dease Lake**	**35.27**	**342**	*e*P	**P**	**07 19 13.2**	**+0.6**
YKA	**Yellowknife Ar**	**36.65**	**357**	P	**P**	**07 19 22.6**	**-1.8**
YKA				LR	LR	07 35 34.7	
YKA	**Yellowknife Ar**	**36.65**	**357**	P	**P**	**07 19 22.6**	**-1.8**
	comp=Z,1.6nm,0.9s,baz=179,slow=8.2,SNR=25						
YKA				LR	LR	07 35 34.7	
	comp=Z,264nm,18.4s,MS4.0,baz=160,slow=38						
OTAV	**Otavalo**	**40.11**	**125**	*e*P	**P**	**07 19 55.7**	**+1.6**
	comp=Z,9.8nm,1.0s,mb4.5						
ROSC	**El Rosal**	**40.47**	**115**	P	**P**	**07 20 02.2**	**+5.1**
	comp=Z,1.8nm,0.4s,mb4.2,baz=94,slow=13,SNR=5.3						
ROSC				LR	LR	07 39 05.8	
	comp=Z,350nm,18.8s,MS4.2,baz=20,slow=40						
SCHQ	**Schefferville**	**42.98**	**36**	P	**P**	**07 20 17.3**	**+0.1**
	comp=Z,3.3nm,1.0s,mb4.0,baz=238,slow=13,SNR=2.5						
SCHQ				LR	LR	07 38 45.3	
	comp=Z,2μm,18.2s,MS5.0,baz=249,slow=37						
INK	**Inuvik**	**44.60**	**348**	*e*P	**P**	**07 20 30.5**	**+0.5**
	comp=Z,318nm,1.2s						
COLA	**College**	**45.65**	**339**	*e*P	**P**	**07 20 37.4**	**-0.9**
TTA	**Tatalina**	**47.50**	**334**	*e*P	**P**	**07 20 52.7**	**-0.2**
IMA2	**Indian Mountai**	**48.31**	**338**	*e*P	**P**	**07 20 58.6**	**-0.5**
RES	**Resolute Bay**	**49.47**	**5**	*e*P	**P**	**07 21 07.8**	**-0.2**
	comp=Z,273nm,1.3s						
RKT	**Rikitea**	**54.22**	**208**	*e*S	**S**	**07 29 22.0**	**+0.7**
	comp=Z,99nm,26.5s						
RKT				*e*LR	LR	07 37 22.7	
	comp=Z,531nm,30.0s						
PPT	**Papeete**	**57.56**	**225**	*e*S	**S**	**07 30 06.7**	**+0.7**
	comp=Z,272nm,27.5s						
PPT				*e*LR	LR	07 38 58.8	
	comp=Z,1μm,27.5s,baz=30						
LPAZ	**La Paz**	**58.84**	**131**	P	**P**	**07 22 19.0**	**+2.0**
	comp=Z,1.1nm,0.6s,mb4.1,baz=349,slow=7.8,SNR=4.1						
BILL	**Bilibino**	**63.70**	**335**	*e*P	**P**	**07 22 49.0**	**-0.3**
	comp=Z,17nm,1.1s,mb5.0						
BILL	**Bilibino**	**63.70**	**335**	*e*P	**P**	**07 22 49.1**	**-0.1**
BILL				*e*		07 22 55.4	
BILL				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
DAG	**Danmarks Havn**	**65.38**	**15**	⇓*i*P	**P**	**07 22 59.0**	**-1.1**
DAG				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.2						
RAR	**Rarotonga**	**66.93**	**230**	LR	LR	07 45 50.7	
	comp=Z,686nm,18.3s,MS4.9,baz=71,slow=30						
MA2	**Magadan**	**72.24**	**328**	*e*P	**P**	**07 23 42.6**	**-0.5**
	comp=Z,16nm,1.4s,mb4.7						
MA2	**Magadan**	**72.24**	**328**	*e*P	**P**	**07 23 42.5**	**-0.6**
MA2				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
TIXI	**Tiksi**	**74.49**	**344**	*e*P	**P**	**07 23 54.6**	**-1.6**
	comp=Z,2.1nm,0.4s,mb4.4						
TIXI	**Tiksi**	**74.49**	**344**	*e*P	**P**	**07 23 54.4**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
ARCES	**ARCESS Array B**	**79.67**	**14**	P	**P**	**07 24 23.9**	**-1.4**
	comp=Z,5.0nm,0.9s,mb4.5,baz=321,slow=6.9,SNR=3.7						
NB2	**NORSAR Subarra**	**81.40**	**25**	P	**P**	**07 24 30.1**	**-4.7**
	comp=Z,16nm,1.7s,mb4.7,baz=309,slow=5.3						
FINES	**FINESS Array B**	**86.15**	**19**	P	**P**	**07 24 58.3**	**-0.8**
	comp=Z,1.3nm,0.8s,mb4.2,baz=274,slow=9.4,SNR=2.6						
BOD	**Bodaibo**	**88.63**	**338**	*e*P	**P**	**07 25 09.0**	**-2.1**
BOD				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.8						
TLY	**Talaya**	**97.09**	**339**	*e*P	**P**	**07 25 49.1**	**-1.2**
TLY				pmax	pmax		
	comp=Z,3.0nm,2.5s,mb4.3						
ZALV	**Zalesovo Beam**	**99.35**	**351**	P	**P**	**07 26 00.2**	**-0.1**
	comp=Z,0.3nm,0.3s,mb4.3,baz=46,slow=4.2,SNR=2.3						
ZAL	**Zalesovo**	**99.36**	**351**	P	**P**	**07 26 00.2**	**-0.2**
SONM	**Songino Array**	**99.41**	**336**	P	**P**	**07 26 00.2**	**-0.5**
	comp=Z,1.2nm,1.1s,mb4.3,baz=26,slow=3.7,SNR=5.0						
HHC	**Hu-ho-hao-te**	**102.92**	**329**	*e*P	Pdif	07 26 15.5	-0.8
HHC				PP	PP	07 30 31.8	+2.1
HHC				SKS		07 36 53.1	
HHC				S	Sdif	07 37 56.5	-5.8
HHC				XS		07 38 04.5	
HHC				PS	PS	07 39 37.3	-0.6
HHC				AMB	AMB		
	comp=Z,7.0nm,0.6s						
HHC				LR	LR		
	comp=N,279nm,20.2s,MS4.9						
HHC				LR	LR		
	comp=E,275nm,22.6s,MS4.9						
HHC				LR	LR		
	comp=Z,368nm,25.0s,MS4.8						
CD2	**Chengdu**	**114.65**	**328**	*e*PKP	PKiKP	07 30 56.1	-2.9
GYA	**Guiyang**	**116.76**	**323**	*e*PDIF	Pdif	07 27 16.8	-1.1
GYA				PKP	PKPdf	07 31 00.8	-2.4
GYA				PP	PP	07 32 12.5	+2.2
GYA				PKS		07 34 36.0	
GYA				SKS	SKSdf	07 38 10.4	-5.3
GYA				SKKS	SKKSac	07 39 04.3	-8.4
GYA				S	Sdif	07 39 52.0	-5.8
GYA				PS	PS	07 41 51.0	-2.6
GYA				PP	PP		
	comp=Z,110nm,7.9s						
GYA				LR	LR		
	comp=N,314nm,20.9s,MS5.0						
GYA				LR	LR		
	comp=E,170nm,19.0s,MS5.0						
GYA				LR	LR		
	comp=Z,260nm,20.4s,MS4.8						
STKA	**Stephens Creek**	**117.64**	**246**	PKP	PKPdf	07 31 05.2	+0.6
STKA	**Stephens Creek**	**117.64**	**246**	PKP	PKPdf	07 31 05.2	+0.6
	comp=Z,3.3nm,1.1s,baz=42,slow=18,SNR=3.2						
KMI	**Kunming**	**119.92**	**325**	PKP	PKPdf	07 31 06.4	-2.9
KMI	**Kunming**	**119.92**	**325**	PKIKP	PKPdf	07 31 06.4	-2.9
WRA	**Warramunga Arr**	**120.49**	**261**	PKP	PKPdf	07 31 09.7	-0.7
	comp=Z,1.6nm,1.1s,baz=98,slow=1.6,SNR=4.4						
ASAR	**Alice Springs**	**122.01**	**257**	PKP	PKPdf	07 31 12.1	-1.1
	comp=Z,0.9nm,0.9s,baz=72,slow=2.9,SNR=4.6						

*ISCJB **23** 07:13:50.9±0.7, 3833N±004×3933E±004, h5^{km}±8^{km}, Error ellipse: s-maj=6.6km s-min=5.6km az=175.3*
*ISK **23** 07:13:50.7, 3836N×3928E, h4^{km}, MD3.1*
*CSEM **23** 07:13:50.8±0.1, 3836N×3930E, h5^{km}, MD3.1, Error ellipse: s-maj=1.7km s-min=1.6km az=131.0*
*DDA **23** 07:13:52.0, 3834N×3930E, h11^{km}, Md3.0*
ISC 23 07:13:51.4±0.7**, 3834N**±004×**3933E**±004**, h7**^{km}±7^{km}**, n21, σ0^{s}73**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.32**	**300**	*i* P	**Pg**	**07 13 57.7**	**0.0**
ELZG				*i* S	**Sg**	**07 14 02.9**	**+1.0**
PTK	**Pertek**	**0.56**	**5**	PG	**Pg**	**07 14 02.2**	**0.0**
PTK				SG	**Sg**	**07 14 09.9**	**+0.5**
PTK	**Pertek**	**0.56**	**5**	*e*Pg	**Pg**	**07 14 02.2**	**0.0**
PTK				*e*Sg	**Sg**	**07 14 09.9**	**+0.5**
MALT	**Malatya**	**0.71**	**268**	PG	**Pg**	**07 14 03.6**	**-1.6**
MALT				SG	**Sg**	**07 14 14.4**	**-0.1**
MALT	**Malatya**	**0.71**	**268**	*e*Pg	**Pg**	**07 14 03.6**	**-1.6**
MALT				*e*Sg	**Sg**	**07 14 14.4**	**-0.1**
MYA	**Malataya**	**0.71**	**269**	PG	**Pg**	**07 14 04.0**	**-1.2**
MYA				SG	**Sg**	**07 14 14.5**	**0.0**
MYA	**Malataya**	**0.71**	**269**	*e*Pg	**Pg**	**07 14 04.0**	**-1.2**
MYA				*e*Sg	**Sg**	**07 14 14.5**	**0.0**
DIY	**Diyarbakir**	**0.83**	**122**	PG	**Pg**	**07 14 08.1**	**+0.7**
DIY	**Diyarbakir**	**0.83**	**122**	*e*Pg	**Pg**	**07 14 08.1**	**+0.7**
URFA	**Urfa**	**0.98**	**205**	PG	**Pg**	**07 14 10.6**	**+0.3**
URFA	**Urfa**	**0.98**	**205**	*e*Pg	**Pg**	**07 14 10.6**	**+0.3**
EZC	**Erzincan**	**1.46**	**15**	*e*PN	**Pn**	**07 14 17.7**	**-0.5**
MARD	**Mardin**	**1.53**	**131**	*i* P	**Pn**	**07 14 19.2**	**0.0**
MARD				*i* S	**Sn**	**07 14 39.6**	**+0.2**
BTMT	**Batman**	**1.70**	**94**	*e*PN	**Pn**	**07 14 20.2**	**-1.3**
GZT	**Gaziantep**	**1.71**	**236**	*i* P	**Pn**	**07 14 21.3**	**-0.3**
GZT				*i* S	**Sn**	**07 14 48.0**	**+4.3**
GAZ	**Gaziantep**	**2.04**	**236**	*e*PN	**Pn**	**07 14 27.0**	**+0.8**
GAZ	**Gaziantep**	**2.04**	**236**	*e*Pn	**Pn**	**07 14 27.0**	**+0.8**
KMRS	**Kahramanmaras**	**2.10**	**247**	*e*PN	**Pn**	**07 14 28.0**	**+1.1**
KMRS	**Kahramanmaras**	**2.10**	**247**	*e*Pn	**Pn**	**07 14 28.0**	**+1.1**
SVSK	**Karacayir**	**2.41**	**312**	*e*PN	**Pn**	**07 14 31.2**	**0.0**
SVSK	**Karacayir**	**2.41**	**312**	*e*Pn	**Pn**	**07 14 31.2**	**0.0**

MOS 23 07:20:58.7±0.7**, 4336N**×**4584E, h24**^{km}**, mb3.7**/1**, 3C, Error ellipse: s-maj=38.6km s-min=12.4km az=169.6, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRKR	**Terskaya**	**0.88**	**295**	*e*PG	Pb	07 21 15.1	-0.2
TRKR				*e*S	Sb	07 21 26.4	-0.2
BTKR	**Batakoyurt**	**0.94**	**271**	*e*PG	Pb	07 21 17.0	+0.7
BTKR				*e*S	Sb	07 21 30.5	+2.1
KMSR	**Komsomolskaya**	**1.12**	**271**	*e*PG	Pn	07 21 19.1	+0.2
KMSR				*e*S	Sn	07 21 34.1	+0.5
ARNR	**Ardon**	**1.15**	**262**	*e*PG	Pn	07 21 19.4	+0.2
ARNR				*e*S	Sn	07 21 34.8	+0.6
LACR	**Lac**	**1.25**	**245**	⇑*i*PG	Pn	07 21 21.1	+0.5
LACR				*i* S	Sn	07 21 37.5	+0.9
KORR	**Kora**	**1.32**	**259**	*e*PG	Pn	07 21 22.7	+1.1
KORR				*i* S	Sn	07 21 39.8	+1.4
LSNR	**Lesken**	**1.48**	**267**	*e*PG	Pn	07 21 23.4	-0.3
ZEI	**Tsey**	**1.54**	**248**	⇑*i*PG	Pn	07 21 24.5	-0.1
DIGR	**Digorskoe uzhe**	**1.71**	**255**	⇑*i*PN	Pn	07 21 26.7	-0.3

*NEIC **23** 07:26:49.5, 1844N×6289W, h47^{km}, MD3.8(RSPR), MD2.8(TRN), After RSPR.*
*RSPR **23** 07:26:49.5, 1844N×6289W, h47^{km}±30^{km}, MD3.8/6, MD3.8/6*
TRN 23 07:26:47.6, 1846N×6294W, h35^{km}, MD2.8, 5C-2D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STMA	**St. Maarten, A**	**0.44**	**201**	*e*P	Pb	07 26 59.2	+1.7
STMA				*i* S	Sb	07 27 06.8	+2.7
TBVI	**Tortola**	**1.59**	**269**	*e*S	Sn	07 27 35.1	+2.4
TBVI	**Tortola**	**1.59**	**269**	⇑*e*P	Pn	07 27 15.0	+1.7
TBVI				*e*S	Sn	07 27 35.1	+2.4
STVI	**Saint Thomas**	**1.92**	**267**	*e*S	Sn	07 27 42.0	+1.3
STVI	**Saint Thomas**	**1.92**	**267**	⇑*e*P	Pn	07 27 18.7	+0.9
STVI				*e*S	Sn	07 27 42.0	+1.3
MTP	**Monte Pirata**	**2.51**	**262**	*e*S	Sn	07 27 56.7	+1.3
MTP	**Monte Pirata**	**2.51**	**262**	⇓*e*P	Pn	07 27 27.3	+1.4
MTP				*e*S	Sn	07 27 56.7	+1.3
CBYP	**Canovanas**	**2.78**	**267**	*e*S	Sn	07 28 04.5	+2.6
CBYP	**Canovanas**	**2.78**	**267**	⇑*e*P	Pn	07 27 31.9	+2.3
CBYP				*e*S	Sn	07 28 04.5	+2.6
CBYP	**Canovanas**	**2.78**	**267**	⇑*e*P	Pn	07 27 31.9	+2.3
CBYP				*e*S	Sn	07 28 04.5	+2.6
HUMP	**Col San Antoni**	**2.78**	**264**	*e*S	Sn	07 28 05.3	+3.3
HUMP	**Col San Antoni**	**2.78**	**264**	⇓*e*P	Pn	07 27 32.3	+2.6
HUMP				*e*S	Sn	07 28 05.3	+3.3
CPD	**Cerro la Pandu**	**2.86**	**262**	*e*S	Sn	07 28 06.2	+2.3
CPD	**Cerro la Pandu**	**2.86**	**262**	⇑*e*P	Pn	07 27 32.5	+1.7
CPD				*e*S	Sn	07 28 06.2	+2.3

MEX 23 07:29:27.8±0.3**, 2554N**×**11435W, h20**^{km}**, MD4.8, Off west coast of Baja California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	**La Paz**	**3.94**	**110**	*e*P	Pn	07 30 25.1	-2.1
LPIG				*i* S	Sn	07 31 09.8	-3.0
MAIG	**Mazatlaan**	**7.60**	**106**	*i* P	Pn	07 31 16.6	-0.8
MAIG				*i* S	Sn	07 32 41.2	-1.7
ANIG	**Ahuacatlan**	**10.08**	**114**	*e*P	Pn	07 31 50.7	-0.7
ANIG				*i* S	Sn	07 33 46.3	+2.4
MMIG	**Aquila**	**12.50**	**123**	*i* P	Pn	07 32 22.2	-2.4
MMIG				*i* S	Sn	07 34 37.3	-6.0
LNIG	**Linares**	**13.49**	**90**	*e*P	Pn	07 32 38.9	+0.8
LNIG				*i* S	Sn	07 35 04.0	-3.4

*BJI **23** 07:30:09.8, 2623N×10988W, h18^{km}, mB5.6, mb4.9, Ms5.1, Msz4.8*
*MOS **23** 07:30:10.3±1.4, 2599N×11041W, h10^{km}, mb5.0/15, Error ellipse: s-maj=8.4km s-min=4.6km az=85.3*
*IDC **23** 07:30:10.3±0.7, 2621N×11054W, h0^{km}, mb4.3/13, mb1 4.4/19, mb1mx4.3/26, mbtmp4.2/19, ML3.8/6, MS4.6/27, Ms1 4.6/27, ms1mx4.4/38, Error ellipse: s-maj=15.6km s-min=10.2km az=80.0*
*ISCJB **23** 07:30:11.2±0.4, 2607N±004×11040W±003, h10^{km}, mb4.6/40, MS4.7/26, Error ellipse: s-maj=5.9km s-min=3.1km az=30.4*
*GCMT **23** 07:30:12.1±0.2, 2625N×11070W, h12^{km}, MW5.2/83, Moment Tensor Solution. s40,c52; s83,c146; Duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.81±.02; $M_{\theta\theta}$-0.07±.01; $M_{\phi\phi}$0.87±.02; $M_{r\theta}$0.02±.06; $M_{\theta\phi}$-0.10±.01; $M_{\phi r}$0.32±.05; Best double couple: $M_0$0.90300×10^{17} NP1:ϕ_s350.00000°,δ35.00000°,λ-96.00000°. NP2: ϕ_s177.00000°,δ55.00000°,λ-86.00000°. Principal axes: T 0.9400, Plg10.0000°, Azm264.0000°; N -0.0750, Plg4.0000°, Azm355.0000°; P -0.8660, Plg79.0000°, Azm104.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **23** 07:30:12.1±0.5, 2599N×11050W, h10^{km}, mb4.7/41 Error ellipse: s-maj=7.3km s-min=4.6km az=39.0*
ISC 23 07:30:12.4±0.4**, 2600N**±004×**11040W**±003**, h10**^{km}**, n392, σ1^{s}23**/372**, mb4.6**/40**, MS4.7**/26**, 76C-73D, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	**La Paz**	**1.89**	**177**	*e*P	**Pn**	**07 30 45.4**	**+0.7**
LPIG				*i* S	**Sn**	**07 31 17.0**	**+8.4**
LPIG	**La Paz**	**1.89**	**177**	Pn	**Pn**	**07 30 45.4**	**+0.7**
	26nm,0.3s,baz=252,slow=6.6,SNR=14						
LPIG				Lg		07 31 17.7	
	242nm,0.3s,baz=208,slow=22,SNR=10						
TUC	**Tucson**	**6.30**	**357**	*e*Pn	**Pn**	**07 31 41.6**	**-3.8**
TUC				*e*Sg	**Sg**	**07 33 30.2**	**-4.5**
116A	**Eloy**	**6.64**	**350**	⇑P	**Pn**	**07 31 48.8**	**-1.3**
	baz=6.6,SNR=8.1						
LTX	**Lajitas**	**6.83**	**59**	*e*Pn	**Pn**	**07 31 51.6**	**-1.1**
TXAR	**Lajitas Array**	**6.83**	**59**	Pn	**Pn**	**07 31 51.1**	**-1.6**
TXAR				Sn	**Sn**	**07 33 08.2**	**-2.4**
TXAR				Lg		07 33 45.2	
TXAR				LR	LR	07 34 58.2	
TXAR	**Lajitas Array**	**6.83**	**59**	P	**Pn**	**07 31 51.2**	**-1.5**
TXAR						07 33 08.2	
TXAR	**Lajitas Array**	**6.83**	**59**	Pn	**Pn**	**07 31 51.1**	**-1.6**
	1.1nm,0.3s,baz=233,slow=13,SNR=25						
TXAR				Sn	**Sn**	**07 33 08.2**	**-2.4**
	2.7nm,0.3s,baz=246,slow=27,SNR=3.7						
TXAR				Lg		07 33 45.2	
	9.6nm,0.3s,baz=239,slow=24,SNR=7.5						
TXAR				LR	LR	07 34 58.2	
	comp=Z,4μm,18.7s,baz=320,slow=42						
115A	**Sonoran Desert**	**6.87**	**347**	⇑P	**Pn**	**07 31 51.6**	**-1.6**
	baz=6.8						
MNTX	**Cornudas Mount**	**7.19**	**37**	*e*Pn	**Pn**	**07 31 57.8**	**+0.3**
Z14A	**Wintersburg**	**7.67**	**344**	⇑P	**Pn**	**07 32 02.5**	**-1.6**
	baz=7.6						
GLA	**Glamis**	**8.02**	**332**	⇓P	**Pn**	**07 32 06.3**	**-2.7**
	baz=8.0						
GDL2	**Guadalupe Moun**	**8.13**	**39**	*e*Pn	**Pn**	**07 32 12.5**	**+2.0**
Y14A	**Wickenburg**	**8.23**	**345**	⇑P	**Pn**	**07 32 09.6**	**-2.3**
	baz=8.2						
Y12C	**Blythe**	**8.52**	**336**	⇓P	**Pn**	**07 32 14.8**	**-1.0**
	baz=8.5						
LENM	**Lemitar**	**8.66**	**19**	*e*Pn	**Pn**	**07 32 18.0**	**+0.1**
X14A	**Yava**	**8.71**	**346**	⇑P	**Pn**	**07 32 18.0**	**-0.5**
	baz=8.7						
BNM	**Barren Site**	**8.76**	**21**	*e*Pn	**Pn**	**07 32 19.0**	**-0.2**
BC3	**Big Chuckw Mtn**	**8.80**	**331**	⇓P	**Pn**	**07 32 19.7**	**0.0**
	baz=8.8						
LAZ	**Ladron**	**8.84**	**18**	*e*Pn	**Pn**	**07 32 20.1**	**-0.1**
PDMCI	**Parker Dam,Lak**	**8.88**	**340**	⇓P	**Pn**	**07 32 19.3**	**-1.6**
	baz=8.9						
LPM	**Los Pinos Moun**	**8.90**	**21**	*e*Pn	**Pn**	**07 32 21.8**	**+0.6**
X13A	**Yucca**	**9.07**	**342**	⇑P	**Pn**	**07 32 22.1**	**-1.3**
	baz=9.0						
PFO	**Pinyon Flat Ob**	**9.23**	**327**	LR	LR	07 36 14.5	
	comp=Z,3μm,18.0s,baz=144,slow=40						
W15A	**Williams**	**9.29**	**350**	⇓P	**Pn**	**07 32 26.6**	**+0.2**
	baz=9.3						
W14A	**Seligman**	**9.47**	**347**	P	**Pn**	**07 32 29.1**	**+0.2**
	baz=9.5,SNR=7.5						
WUAZ	**Wupatki**	**9.53**	**355**	*e*Pn	**Pn**	**07 32 30.7**	**+1.1**
	34nm,1.0s						
ANMO	**Albuquerque**	**9.55**	**20**	*e*Pn	**Pn**	**07 32 29.7**	**-0.3**
ANMO	**Albuquerque**	**9.55**	**20**	⇑*e*P	**Pn**	**07 32 29.5**	**-0.5**
ANMO	**Albuquerque**	**9.55**	**20**	Pn	**Pn**	**07 32 28.5**	**-1.5**
	0.1nm,0.3s,baz=208,slow=12,SNR=17						
ANMO				Lg		07 35 05.3	
	0.4nm,0.3s,baz=195,slow=12,SNR=3.0						
W13A	**Hualapai Mount**	**9.56**	**343**	P	**Pn**	**07 32 30.8**	**+0.7**
	baz=9.5,SNR=8.8						
GMRC	**Granite Mounta**	**9.86**	**334**	⇓P	**Pn**	**07 32 34.0**	**-0.2**
	baz=9.8						
JCT	**Junction City**	**10.36**	**62**	*e*Pn	**Pn**	**07 32 43.1**	**+2.0**
V12A	**Nelson**	**10.42**	**340**	⇑P	**Pn**	**07 32 42.1**	**+0.1**
	baz=10,SNR=7.0						
V11A	**Goodsprings**	**10.72**	**337**	⇓P	**Pn**	**07 32 46.7**	**+0.8**
	baz=11						
GSC	**Goldstone**	**10.79**	**331**	⇓P	**Pn**	**07 32 47.3**	**+0.4**
	baz=11						
U12A	**Valley of Fire**	**10.99**	**342**	⇑P	**Pn**	**07 32 51.9**	**+2.2**
	baz=11						
EDW2	**Edwards Air Fo**	**11.01**	**325**	⇑P	**Pn**	**07 32 51.0**	**+1.0**
	baz=11						
T15A	**Red Dirt Ranch**	**11.12**	**352**	P	**Pn**	**07 32 52.9**	**+1.5**
	baz=11,SNR=12						
U11A	**Corn Creek**	**11.23**	**339**	⇓P	**Pn**	**07 32 54.2**	**+1.1**
	baz=11						
SHPR	**Sheep Range**	**11.24**	**340**	*e*Pn	**Pn**	**07 32 54.2**	**+1.1**
T14A	**Hurricane**	**11.27**	**349**	P	**Pn**	**07 32 54.6**	**+1.1**
	baz=11,SNR=7.9						
MVCO	**Mesa Verde**	**11.30**	**8**	*e*Pn	**Pn**	**07 32 54.0**	**+0.1**
	551nm,1.4s						
MVCO	**Mesa Verde**	**11.30**	**8**	P	**Pn**	**07 32 54.2**	**+0.3**
	baz=11,SNR=11						
T13A	**Saint George**	**11.39**	**346**	⇓P	**Pn**	**07 32 54.7**	**-0.5**
	baz=11						
ARVC	**Arvin**	**11.64**	**323**	⇑P	**Pn**	**07 32 59.6**	**+1.0**
	baz=12						
MPMC	**Manual Prospec**	**11.72**	**331**	⇑P	**Pn**	**07 33 01.1**	**+1.4**
	baz=12						
CCUT	**Cedar City**	**11.79**	**348**	*e*Pn	**Pn**	**07 33 02.4**	**+1.7**
FURC	**Furnace Creek,**	**11.81**	**334**	⇓P	**Pn**	**07 33 02.0**	**+1.1**
	baz=12						
ISA	**Isabella**	**11.87**	**326**	⇓P	**Pn**	**07 33 02.7**	**+1.0**
	baz=12						
T11A	**Corn Creek, Al**	**11.94**	**341**	⇑P	**Pn**	**07 33 03.5**	**+0.8**
	baz=12						
DAC	**Darwin (Calif)**	**11.95**	**331**	*e*Pn	**Pn**	**07 33 04.5**	**+1.6**
S14A	**Cedar City**	**11.96**	**349**	⇑P	**Pn**	**07 33 03.9**	**+0.9**
	baz=12,SNR=5.2						
TPNV	**Topopah Spring**	**12.00**	**337**	*e*Pn	**Pn**	**07 33 04.9**	**+1.4**
PKM	**Peak Mountain**	**12.02**	**320**	⇓P	**Pn**	**07 33 04.0**	**+0.1**
	baz=12						
ARUT	**Antelope Range**	**12.04**	**348**	*e*Pn	**Pn**	**07 33 05.0**	**+1.0**
S12A	**Delamar Landin**	**12.18**	**343**	⇑P	**Pn**	**07 33 06.8**	**+0.9**

	baz=12						
VES	Vestal, Richgr	12.31	325	⇑P	Pn	07 33 08.9	+1.0
	baz=12,SNR=15						
SDCO	Great Sand Dun	12.43	18	*e*Pn	Pn	07 33 11.6	+2.2
S11A	Rachel	12.47	340	⇑P	Pn	07 33 10.4	+0.5
	baz=12,SNR=9.4						
GRAC	Grapevine Rang	12.47	333	⇓P	Pn	07 33 11.4	+1.4
	baz=12						
MSU	Marysvale	12.57	354	*e*Pn	Pn	07 33 12.4	+1.1
PTRM	Twissleman Ran	12.79	321	*e*Pn	Pn	07 33 15.3	+1.0
S10A	Tonopah Range,	13.00	338	⇑P	Pn	07 33 17.3	+0.1
	baz=13,SNR=14						
S09A	Goldfield	13.04	335	P	Pn	07 33 18.4	+0.6
	baz=13,SNR=16						
TRCR	Troy Canyon	13.07	342	*e*Pn	Pn	07 33 18.0	-0.1
SRU	San Rafael	13.08	360	*e*Pn	Pn	07 33 18.8	+0.5
S08C	White Mtn Res	13.23	332	⇓P	Pn	07 33 20.4	+0.1
	baz=13,SNR=14						
R10A	Warm Springs	13.23	339	⇓P	Pn	07 33 20.9	+0.5
	baz=13,SNR=12						
MTUM	Tungsten Hills	13.28	330	*e*Pn	Pn	07 33 23.8	+2.8
WMOK	Wichita Mounta	13.28	46	*e*Pn	Pn	07 33 20.0	-1.0
TMUT	Trail Mountain	13.28	357	*e*Pn	Pn	07 33 20.5	-0.5
TPH	Tonopah	13.35	336	*e*Pn	Pn	07 33 22.9	+0.8
R09A	Tonopah	13.45	337	⇑P	Pn	07 33 23.4	+0.1
	baz=13,SNR=9.7						
SMCO	Snowmass	13.46	12	*e*Pn	Pn	07 33 25.7	+2.3
Q12A	Willow Creek R	13.53	345	⇑P	Pn	07 33 24.0	-0.4
	baz=14,SNR=5.1						
T06C	Millerton Lake	13.54	326	⇓P	Pn	07 33 24.9	+0.3
	baz=14						
Q11A	Duckwater	13.55	342	P	Pn	07 33 25.6	+0.8
	baz=14,SNR=12						
KCC	Kaiser Creek	13.60	328	⇑P	Pn	07 33 25.4	0.0
	baz=14						
MLAC	Mammoth Lakes	13.63	330	⇑P	Pn	07 33 27.9	+2.1
	baz=14						
Q10A	Clear Creek Ra	13.75	340	⇓P	Pn	07 33 27.6	+0.2
	baz=14,SNR=9.7						
R08A	Mina	13.93	334	⇓P	Pn	07 33 31.0	+1.1
	baz=14						
P12A	McGill	13.96	345	⇓P	Pn	07 33 30.9	+0.6
	baz=14,SNR=7.3						
NLU	North Lily Min	13.99	355	*e*Pn	Pn	07 33 31.9	+1.1
MPU	Maple Canyon	14.02	356	*e*Pn	Pn	07 33 37.2	+6.1
NVAR	Mina Array Bea	14.08	334	Pn	Pn	07 33 31.5	-0.4
NVAR				Lg		07 37 30.6	
NVAR	Mina Array Bea	14.08	334	Pn	Pn	07 33 31.5	-0.4
	0.1nm,0.3s,baz=152,slow=13,SNR=8.6						
NVAR				Lg		07 37 30.6	
	0.1nm,0.3s,baz=124,slow=24,SNR=2.3						
P11A	Circle Ranch,	14.24	343	⇓P	Pn	07 33 35.1	+0.9
	baz=14						
DUG	Dugway	14.30	353	*e*Pn	Pn	07 33 36.7	+1.8
DUG	Dugway	14.30	353	⇓P	Pn	07 33 36.3	+1.3
	baz=14,SNR=12						
Q08A	Gabbs	14.31	336	⇓P	Pn	07 33 35.9	+0.8
	baz=14						
ISCO	Idaho Springs	14.34	15	*e*Pn	Pn	07 33 36.8	+1.4
DAU	Daniels Canyon	14.39	357	*e*Pn	Pn	07 33 36.2	0.0
P10A	Eureka	14.50	341	⇑P	Pn	07 33 39.3	+1.6
	baz=14						
WAKR	Walker	14.62	331	*e*Pn	Pn	07 33 42.4	+3.1
R06C	Coleville	14.64	331	⇓P	Pn	07 33 41.3	+1.8
	baz=15						
P09A	Austin	14.65	339	⇑P	Pn	07 33 40.9	+1.2
	baz=15						
CMB	Columbia Colle	14.68	327	*e*Pn	Pn	07 33 42.6	+2.5
	16nm,1.1s						
CMB	Columbia Colle	14.68	327	*e*P	Pn	07 33 42.6	+2.5
CMB				pmax	pmax		
	comp=Z,16nm,1.1s						
O12A	Currie	14.69	347	⇓P	Pn	07 33 40.5	+0.3
	baz=15						
CTU	Camp Tracy	14.70	356	*e*P	Pn	07 33 46.8	+6.4
O11A	Cowboy Ranch,	14.76	344	⇓P	Pn	07 33 42.9	+1.6
	baz=15,SNR=7.7						
NATX	Nacogdoches	14.93	64	*e*Pn	Pn	07 33 44.7	+1.1
BGU	Big Grassy Mou	15.05	352	*e*P	Pn	07 33 49.6	+4.5
R05C	Kirkwood Meado	15.06	330	⇓P	Pn	07 33 45.8	+0.4
	baz=15						
P08A	Dixie Valley	15.10	337	⇓P	Pn	07 33 47.3	+1.5
	baz=15,SNR=7.2						
O10A	Cortez Mining,	15.14	342	⇑P	Pn	07 33 46.5	+0.2
	baz=15,SNR=7.7						
N13A	Wendover, West	15.15	349	P	Pn	07 33 47.5	+1.0
	baz=15,SNR=6.6						
O09A	Fish Creek Ran	15.23	340	⇓P	Pn	07 33 47.7	+0.2
	baz=15,SNR=10						
ELK	Elko	15.25	346	*e*Pn	Pn	07 33 48.8	+1.0
LAVA	Lava Cap Winer	15.41	328	⇓P	Pn	07 33 51.7	+1.8
	baz=15						
WCN	Washoe City	15.42	332	⇑P	Pn	07 33 50.1	+0.1
	baz=15						
N11A	Elko Archery C	15.43	345	⇑P	Pn	07 33 51.8	+1.6
	baz=15						
BMN	Battle Mountai	15.48	340	*e*Pn	Pn	07 33 51.0	+0.2
	comp=Z,23nm,0.9s						
BMN	Battle Mountai	15.48	340	*e*P	Pn	07 33 51.0	+0.2
BMN				pmax	pmax		
	comp=Z,23nm,0.9s						
M15A	Larsen Ranch,	15.52	354	⇑P	Pn	07 33 53.0	+1.7
	baz=16						
N10A	Dunphy	15.54	342	⇑P	Pn	07 33 52.1	+0.6
	baz=16						
HWUT	Hardware Ranch	15.60	357	*e*Pn	Pn	07 33 51.9	-0.4
	comp=Z,38nm,1.2s						
CBKS	Cedar Bluff	15.62	32	*e*Pn	Pn	07 33 52.8	+0.2
	comp=Z,34nm,0.9s						
CBKS	Cedar Bluff	15.62	32	*e*P	Pn	07 33 52.8	+0.2
CBKS				pmax	pmax		
	comp=Z,34nm,0.9s						
M13A	Montello	15.64	349	⇓P	Pn	07 33 53.5	+0.7
	baz=16						
M14A	Sheep Mountain	15.66	352	⇑P	Pn	07 33 53.1	0.0
	baz=16,SNR=8.6						
Q04C	Lincoln	15.79	327	⇓P	Pn	07 33 56.9	+2.1
	baz=16						
P06A	Stead Airport,	15.79	332	⇑P	Pn	07 33 55.3	+0.5
	baz=16						
P05C	Yuba Gap, Truc	15.79	330	⇑P	Pn	07 33 56.0	+1.1
	baz=16						
O07A	Toulon	15.80	335	⇑P	Pn	07 33 55.1	+0.2
	baz=16,SNR=10						
PHWY	Pilot Hill	15.80	14	*e*Pn	Pn	07 33 55.7	+0.7
M12A	Wells	15.83	347	⇑P	Pn	07 33 56.3	+1.0
	baz=16						
N09A	Rock Creek Ran	15.96	340	⇑P	Pn	07 33 58.5	+1.6
	baz=16						
M11A	Holland Ranch,	16.03	345	⇑P	Pn	07 33 59.6	+1.7
	baz=16,SNR=12						
N08A	GE Springer Mi	16.09	338	P	Pn	07 33 59.6	+1.0
	baz=16,SNR=9.7						
BEKR	Beckwourth	16.14	331	P	Pn	07 34 00.8	+1.4
	baz=16,SNR=12						
O06A	Flanigan	16.17	333	⇓P	Pn	07 33 59.9	+0.1
	baz=16						
OHCM	Honcut	16.23	328	*e*P	Pn	07 34 03.1	+2.6
M10A	I.L. Ranch, Tu	16.30	343	P	Pn	07 34 02.9	+1.6
	baz=16,SNR=8.0						
L13A	Double Diamond	16.32	351	⇓P	Pn	07 34 03.3	+1.7
	baz=16,SNR=8.2						
N07B	Gerlach	16.37	336	⇑P	Pn	07 34 03.2	+0.9
	baz=16						
ORV	Oroville	16.41	328	⇓P	Pn	07 34 03.9	+1.1
	baz=16						
M09A	Marrel Ranch,	16.45	341	⇑P	Pn	07 34 03.3	-0.1
	baz=16,SNR=5.9						
O05C	Quincy	16.47	330	⇓P	Pn	07 34 04.0	+0.4
	baz=16						
L12A	House Creek Ra	16.55	348	⇓P	Pn	07 34 04.9	+0.3
	baz=16,SNR=13						
K14A	Jones Ranch, D	16.66	353	⇓P	Pn	07 34 07.4	+1.4
	baz=17,SNR=9.7						
N06A	Buffalo Meadow	16.67	334	⇓P	Pn	07 34 07.3	+1.2
	baz=17,SNR=14						
L11A	Cat Creek Ranc	16.72	346	P	Pn	07 34 08.1	+1.3
	baz=17,SNR=20						
AHID	Auburn Hatcher	16.74	358	*e*Pn	Pn	07 34 07.4	+0.4
BW06	Boulder Array	16.74	2	*e*Pn	Pn	07 34 07.5	+0.4
	comp=Z,83nm,1.4s						
PDAR	Pinedale Array	16.74	2	Pn	Pn	07 34 06.3	-0.7
PDAR				Lg		07 38 49.7	
PDAR	Pinedale Array	16.74	2	Pn	Pn	07 34 06.3	-0.7
	comp=Z,0.1nm,0.3s,baz=179,slow=8.5,SNR=20						
PDAR				Lg		07 38 49.7	
	comp=Z,0.0nm,0.3s,baz=190,slow=24,SNR=2.9						
M08A	Happy Creek Ra	16.77	339	P	Pn	07 34 08.9	+1.6
	baz=17,SNR=16						
L10A	Juniper Basin	16.80	344	P	Pn	07 34 08.8	+1.0
	baz=17,SNR=14						
MIAR	Mount Ida	16.83	56	*e*Pn	Pn	07 34 09.5	+1.3
O04C	Chester	16.83	331	⇑P	Pn	07 34 09.6	+1.5
	baz=17,SNR=14						
K13A	Stover Farm, H	16.89	351	P	Pn	07 34 10.2	+1.4
	baz=17,SNR=5.2						
CMIG	Matias Romero	16.92	118	Pn	Pn	07 34 13.3	+3.8
CMIG				LR	LR	07 40 19.4	
CMIG	Matias Romero	16.92	118	Pn	Pn	07 34 13.3	+3.9
	comp=Z,0.4nm,0.3s,baz=303,slow=8.6,SNR=12						
CMIG				LR	LR	07 40 19.4	
	comp=Z,3µm,19.1s,baz=126,slow=36						
M07A	Soldier Meadow	16.98	337	⇑P	Pn	07 34 11.6	+1.6
	baz=17						
K12A	Draper Farm, C	17.00	349	P	Pn	07 34 11.3	+1.0
	baz=17,SNR=11						
L09A	Wilkinson Ranc	17.07	341	⇑P	Pn	07 34 12.7	+1.6
	baz=17						
GASB	Alder Springs	17.08	326	⇓P	Pn	07 34 12.4	+1.1
	baz=17						
P01C	Double 8 Ranch	17.26	324	⇑P	Pn	07 34 13.9	+0.3
	baz=17						
M06C	Likely Place G	17.32	334	⇓P	Pn	07 34 15.4	+1.2
	baz=17,SNR=9.4						
REDW	Red Top Meadow	17.33	359	*e*P	Pn	07 34 15.4	+1.1
	comp=Z,56nm,1.3s						
K11A	Parker Ranch,	17.36	346	P	Pn	07 34 16.8	+2.0
	baz=17,SNR=9.2						
HATC	Hat Creek Radi	17.40	331	⇓P	Pn	07 34 17.8	+2.5
	baz=17						
L08A	Fields	17.43	340	P	Pn	07 34 16.6	+1.0
	baz=17,SNR=7.1						
KSU1	Kansas State U	17.46	38	*e*Pn	Pn	07 34 16.0	0.0
DCID1	Drake Creek	17.57	358	*e*P	Pn	07 34 18.8	+1.5
LOHW	Long Hollow	17.58	360	*e*Pn	Pn	07 34 16.7	-0.8
J13A	Cove Ranch, Pi	17.63	351	P	Pn	07 34 18.4	+0.2
	baz=18,SNR=5.6						
J12A	Stokes Ranch,	17.64	349	P	Pn	07 34 18.6	+0.4
	baz=18,SNR=13						
WDC	Whiskeytown Da	17.71	328	⇑P	Pn	07 34 19.8	+0.8
	baz=18						
K09A	Rome	17.71	342	⇑P	Pn	07 34 19.1	-0.1
	baz=18,SNR=8.8						
MOOW	Moose Ponds	17.71	359	*e*Pn	Pn	07 34 17.2	-1.9
	comp=Z,7.2nm,1.0s						
M05C	Lookout	17.72	333	⇑P	Pn	07 34 19.0	-0.2
	baz=18						
WVOR	Wild Horse Val	17.74	340	*e*Pn	Pn	07 34 19.2	-0.3
	comp=Z,25nm,1.3s						
WVOR	Wild Horse Val	17.74	340	*e*P	Pn	07 34 19.2	-0.3
WVOR				pmax	pmax		
	comp=Z,25nm,1.3s						
MOD	Modoc	17.84	335	*e*P	Pn	07 34 22.2	+1.4
MOD	Modoc	17.84	335	⇓P	Pn	07 34 19.9	-0.8
	baz=18						
UALR	University of	17.85	56	*e*Pn	Pn	07 34 22.1	+1.2
	comp=Z,115nm,1.9s						
MFID	Camas Ranch	17.93	347	⇓P	Pn	07 34 21.2	-0.7
	baz=18,SNR=8.6						
K08A	Mann Creek Ran	17.96	340	⇑P	Pn	07 34 22.5	+0.3
	baz=18,SNR=6.9						
M03C	McCloud	18.07	330	⇓P	Pn	07 34 24.0	+0.4
	baz=18						
I13A	Wildhorse Cree	18.13	351	⇑P	Pn	07 34 24.7	+0.4
	baz=18,SNR=12						
K07A	Rock Creek Ran	18.17	339	⇑P	Pn	07 34 23.9	-0.8
	baz=18,SNR=15						
L05A	Lakeview	18.17	334	⇓P	Pn	07 34 25.3	+0.5
	baz=18						
J09A	Fry Pan Ranch,	18.32	343	P	Pn	07 34 28.0	+1.4
	baz=18,SNR=7.5						
M04C	Macdoel	18.36	332	P	Pn	07 34 28.2	+1.1
	baz=18,SNR=8.0						
YFT	Old Faithful	18.42	359	*e*Pn	Pn	07 34 27.7	0.0
I11A	Placerville	18.44	347	⇓P	Pn	07 34 28.3	+0.3
	baz=18,SNR=7.1						
LKWY	Lake	18.53	0	*e*P	Pn	07 34 29.6	+0.5
	comp=Z,52nm,1.5s						
LKWY	Lake	18.53	0	*e*P	Pn	07 34 29.6	+0.5
LKWY				pmax	pmax		
	comp=Z,52nm,1.5s						
J08A	Circle Bar Ran	18.53	341	P	Pn	07 34 30.2	+1.0
	baz=18,SNR=6.0						
K06A	Valley Falls	18.60	337	P	Pn	07 34 31.2	+1.1
	baz=19,SNR=8.0						
YMR	Madison River	18.64	359	*e*P	Pn	07 34 31.8	+1.4
	comp=Z,119nm,1.8s						
YNR	Norris Junctio	18.68	359	*e*Pn	Pn	07 34 40.0	+9.0
L04A	Klamath Falls	18.70	333	⇓P	Pn	07 34 32.5	+1.2
	baz=19						
K05A	Summer Lake	18.77	335	⇑P	Pn	07 34 31.2	-0.9
	baz=19						
I10A	Payette	18.78	346	⇓P	Pn	07 34 31.4	-0.8
	baz=19						
H13A	Challis	18.79	351	P	Pn	07 34 31.6	-0.7
	baz=19,SNR=9.0						
J07A	Hines	18.80	339	P	Pn	07 34 31.9	-0.5
	baz=19,SNR=16						
QLMT	Earthquake Lak	18.81	358	*e*P	Pn	07 34 33.0	+0.4
H12A	Diamond D Ranc	18.86	350	P	Pn	07 34 32.4	-0.8
	baz=19,SNR=7.5						
MCMT	McKenzie Canyo	18.89	355	*e*P	Pn	07 34 33.1	-0.5
J06A	Christmas Vall	18.97	338	P	Pn	07 34 33.5	-1.0
	baz=19,SNR=13						
K04A	Chilquin	19.00	334	⇑P	Pn	07 34 33.7	-1.2
	baz=19						
I08A	Drewsey	19.07	342	⇑P	Pn	07 34 34.8	-0.8
	baz=19						
G15A	Dillon	19.20	356	⇑P	Pn	07 34 36.8	-0.5
	baz=19,SNR=15						
H11A	Donnelly	19.21	348	⇓P	Pn	07 34 36.1	-1.3
	baz=19,SNR=6.5						
H10A	Noah's Angus R	19.25	346	P	Pn	07 34 35.8	-2.1
	baz=19,SNR=16						
G13A	Cobalt	19.30	352	P	Pn	07 34 37.0	-1.5
	baz=19,SNR=16						
G14A	Jackson	19.36	353	⇑P	Pn	07 34 37.5	-1.7
	baz=19						
J05A	Fort Rock	19.38	336	P	Pn	07 34 38.4	-1.1
	baz=19,SNR=6.7						
DLMT	Dillon	19.41	355	*e*Pn	Pn	07 34 41.3	+1.5
	comp=Z,57nm,1.4s						
HBAR	Harrisburg	19.43	56	*e*P	Pn	07 34 40.7	+0.6
I07A	Izee	19.50	340	P	Pn	07 34 39.5	-1.3
	baz=20,SNR=6.2						
H09A	Durkee	19.53	344	⇓P	Pn	07 34 40.3	-0.9
	baz=20						
I06A	Prineville	19.60	338	⇑P	Pn	07 34 41.0	-1.1
	baz=20						
BMO	Blue Mountains	19.62	345	*e*P	Pn	07 34 40.8	-1.5
BOZ	Bozeman (W)	19.63	357	*e*P	Pn	07 34 41.3	-1.1
	comp=Z,42nm,1.5s						
BOZ	Bozeman (W)	19.63	357	*e*P	Pn	07 34 41.3	-1.2
BOZ				pmax	pmax		
	comp=Z,42nm,1.5s						
H08A	Prairie City	19.66	342	⇓P	Pn	07 34 41.6	-1.1
	baz=20,SNR=16						
GCMT	Greycliff	19.76	2	*e*P	Pn	07 34 42.5	-1.5
LRM	Limekiln Ridge	19.85	356	*e*P	Pn	07 34 43.6	-1.5
F15A	Butte	19.87	356	⇑P	Pn	07 34 43.5	-1.9
	baz=20,SNR=11						
F14A	Wisdom	19.92	354	P	Pn	07 34 45.0	-0.8
	baz=20,SNR=11						
H07A	Lands Inn, Kim	19.98	341	⇓P	Pn	07 34 43.8	-2.8
	baz=20						
OXF	Oxford	20.00	60	*e*Pn	Pn	07 34 47.6	+0.7
	comp=Z,45nm,1.1s						
OXF	Oxford	20.00	60	*e*P	Pn	07 34 47.6	+0.7
OXF				pmax	pmax		
	comp=Z,45nm,1.1s						
F13A	Darby	20.00	352	P	Pn	07 34 44.1	-2.7
	baz=20,SNR=9.8						
F12A	Elk City	20.10	350	⇑P	P	07 34 44.8	-1.3
	baz=20,SNR=8.3						
I05A	Bend	20.16	337	⇓P	P	07 34 46.3	-0.5
	baz=20						
H06A	Lindquist Farm	20.35	339	⇑P	P	07 34 48.1	-0.8
	baz=20						
F11A	Grangeville	20.38	348	P	P	07 34 47.6	-1.5
	baz=20,SNR=15						
G08A	Pilot Rock	20.45	342	⇑P	P	07 34 48.2	-1.7
	baz=20,SNR=7.5						
E15A	Deer Lodge	20.46	356	P	P	07 34 49.0	-1.1
	baz=20,SNR=9.8						
E14A	Clinton	20.53	354	P	P	07 34 50.0	-0.9
	baz=20,SNR=15						
F09A	S2 Ranch, Elgi	20.57	345	P	P	07 34 50.2	-1.1
	baz=21,SNR=16						
G07A	Ruggs Ranch, H	20.62	341	P	P	07 34 50.7	-1.2
	baz=21,SNR=12						
E13A	Victor	20.63	353	P	P	07 34 50.8	-1.1
	baz=21,SNR=18						
F10A	Beach Ranch, E	20.67	346	P	P	07 34 50.9	-1.4
	baz=21,SNR=17						
FVM	French Village	20.68	50	*e*P	P	07 34 51.9	-0.7
	comp=Z,51nm,1.1s						
FVM	French Village	20.68	50	*e*P	P	07 34 51.9	-0.7
FVM				pmax	pmax		
	comp=Z,51nm,1.1s						
E11A	Bogner Ranch,	20.84	349	P	P	07 34 52.1	-2.1
	baz=21,SNR=15						
G06A	Carlson Farm,	20.89	339	⇓P	P	07 34 52.3	-2.5
	baz=21						
LAO	LASA Array	20.92	8	*e*P	P	07 34 52.8	-2.3
	comp=Z,47nm,1.1s						
H04A	Detroit Lake	20.94	336	⇑P	P	07 34 53.8	-1.5
	baz=21						
ECSD	EROS,Sioux Fal	20.95	29	*e*P	P	07 34 55.7	+0.3
	comp=Z,13nm,0.9s						
MSO	Missoula	20.98	353	*e*P	P	07 34 54.4	-1.4
	comp=Z,9.4nm,0.8s						
CHMT	Chamberlain Mo	21.00	355	*e*P	P	07 34 54.8	-1.1
D15A	Lincoln	21.07	356	⇑P	P	07 34 56.4	-0.2
	baz=21						
TEIG	Tepich	21.13	101	*e*P	P	07 34 59.6	+2.0
	comp=Z,76nm,1.4s,mb4.8						
TEIG	Tepich	21.13	101	P	P	07 34 59.9	+2.4
	comp=Z,13nm,0.8s,mb4.3,baz=287,slow=5.6,SNR=6.6						
TEIG				LR	LR	07 44 54.3	
	comp=Z,2µm,18.5s,MS4.6,baz=256,slow=42						
E10A	Myers Farm, Un	21.14	347	⇑P	P	07 34 55.7	-1.7
	baz=21						
SLM	Saint Louis	21.14	48	*e*P	P	07 34 57.4	-0.1
	comp=Z,24nm,0.5s,mb4.8						
SLM	Saint Louis	21.14	48	*e*P	P	07 34 57.4	-0.1
SLM				pmax	pmax		
	comp=Z,24nm,0.5s,mb4.8						
PLAL	Pickwick Lake	21.19	60	*e*P	P	07 34 59.2	+1.1
	comp=Z,21nm,1.0s,mb4.4						
D14A	Greenough	21.19	354	P	P	07 34 56.4	-1.6
	baz=21,SNR=20						
SCIA	State Center	21.27	37	*e*P	P	07 34 58.9	0.0
	comp=Z,216nm,1.6s,mb5.2						
F07A	Phinny Hill Vi	21.27	341	P	P	07 34 57.7	-1.1
	baz=21,SNR=7.9						
D13A	Huson	21.30	352	P	P	07 35 00.0	+0.9
	baz=21,SNR=6.9						
D12A	Red Ives Fores	21.38	351	⇓P	P	07 34 58.7	-1.3
	baz=21						
E09A	Wood Farm, Sta	21.39	345	⇓P	P	07 34 57.7	-2.4
	baz=21						
SIUC	Southern Illin	21.40	52	*e*P	P	07 35 00.0	-0.3
	comp=Z,76nm,0.9s,mb5.0						
F06A	Goldendale	21.41	340	⇓P	P	07 34 58.2	-2.1
	baz=21						
LRAL	Lakeview Retre	21.52	65	*e*P	P	07 35 02.4	+0.7
	comp=Z,38nm,1.0s,mb4.8						
HAWA	Hanford	21.62	343	*e*P	P	07 34 59.9	-2.6
D10A	Wagner Farm, O	21.71	347	⇑P	P	07 35 02.3	-1.3
	baz=22						
F05A	White Salmon	21.73	339	⇑P	P	07 35 02.0	-1.8
	baz=22						
E07A	Sunnyside	21.86	342	P	P	07 35 03.3	-1.8
	baz=22,SNR=8.2						
C13A	Hot Springs	21.89	352	⇓P	P	07 35 03.9	-1.6
	baz=22						
C14A	Swan Lake	21.89	354	⇓P	P	07 35 03.9	-1.6
	baz=22						
EGMT	Eagleton	21.99	1	*e*P	P	07 35 05.2	-1.4
	comp=Z,198nm,1.6s,mb5.3						
EGMT	Eagleton	21.99	1	⇑P	P	07 35 05.7	-0.9
	baz=22,SNR=14						
D08A	Wollman Farm,	22.08	344	P	P	07 35 03.8	-3.7
	baz=22,SNR=9.4						
BSMT	Bassoo Peak	22.09	352	*e*P	P	07 35 06.3	-1.3
E06A	Yakima	22.17	340	⇓P	P	07 35 06.7	-1.8
	baz=22						
E05A	Randle	22.43	339	P	P	07 35 10.0	-1.2
	baz=22,SNR=11						
D07A	Quincy	22.47	343	⇓P	P	07 35 10.0	-1.7
	baz=22						
B13A	Whitefish	22.56	353	P	P	07 35 12.4	-0.3
	baz=23,SNR=7.1						
LON	Longmire	22.61	339	P	P	07 35 11.8	-1.4
USIN	University of	22.61	53	*e*P	P	07 35 14.4	+1.1
	comp=Z,20nm,0.8s,mb4.6						
D06A	Cle Elum	22.72	341	⇑P	P	07 35 14.9	+0.6
	baz=23						
FMW	Mount Fremont	22.73	340	P	P	07 35 13.0	-1.4
HDIL	Hopedale	22.77	45	*e*P	P	07 35 15.0	+0.1
	comp=Z,340nm,1.4s,mb5.6						
E04A	Onalaska	22.77	338	⇓P	P	07 35 14.5	-0.4
	baz=23						
C08A	Higginbotham F	22.79	345	⇓P	P	07 35 14.0	-1.0
	baz=23						
B12A	Libby	22.80	351	⇓P	P	07 35 14.2	-1.0
	baz=23						
NEW	Newport	22.85	348	P	P	07 35 13.3	-2.4
NEW				LR	LR	07 45 29.0	
NEW	Newport	22.85	348	P	P	07 35 13.3	-2.4
	comp=Z,7.4nm,0.9s,mb4.1,baz=169,slow=12,SNR=15						
NEW				LR	LR	07 45 29.0	
	comp=Z,844nm,19.4s,MS4.2,baz=70,slow=41						
B11A	Sandpoint	22.88	350	⇓P	P	07 35 14.4	-1.6
	baz=23						
B10A	Chitwood Farm,	22.90	348	⇓P	P	07 35 15.2	-1.0
	baz=23						
SWET	Sewanee	22.93	61	*e*P	P	07 35 16.8	+0.1
C07A	Waterville	22.95	343	⇓P	P	07 35 14.4	-2.4
	baz=23						
DGMT	Dagmar	22.95	11	*e*P	P	07 35 15.7	-1.1
	comp=Z,21nm,0.8s,mb4.6						
GSM	Grass Mountain	23.01	340	P	P	07 35 16.5	-0.8
E03A	Lebam	23.03	336	⇑P	P	07 35 16.1	-1.5
	baz=23						
D05A	Enumclaw	23.06	340	⇑P	P	07 35 17.1	-0.7
	baz=23						
A13A	Flathead Natio	23.11	353	⇑P	P	07 35 17.2	-1.3
	baz=23						
WALA	Waterton Lakes	23.18	354	*e*P	P	07 35 16.9	-2.3
	comp=Z,11nm,0.9s,mb4.3						
B09A	Rice	23.20	347	⇓P	P	07 35 18.7	-0.7
	baz=23						
A12A	Yaak River Ran	23.26	351	⇓P	P	07 35 18.7	-1.3
	baz=23						
A11A	Hall Mountain,	23.39	350	P	P	07 35 20.1	-1.3
	baz=23,SNR=6.4						
B08A	Colville Reser	23.40	345	⇓P	P	07 35 21.1	-0.3
	baz=23						
C05A	Tolt Reservoir	23.42	341	P	P	07 35 21.8	+0.1
	baz=23,SNR=6.2						
A10A	Northport	23.61	348	⇑P	P	07 35 21.3	-2.3
	baz=24						
B07A	Winthrop	23.68	344	⇓P	P	07 35 23.2	-1.0
	baz=24						
WCI	Wyandotte Cave	23.71	53	*e*P	P	07 35 25.6	+1.0
	comp=Z,117nm,1.7s,mb5.0						
WCI	Wyandotte Cave	23.71	53	*e*P	P	07 35 25.6	+1.0
WCI				pmax	pmax		
	comp=Z,117nm,1.7s,mb5.0						
A09A	Danville	23.81	347	⇑P	P	07 35 24.1	-1.3
	baz=24						
A08A	Turner Farm, O	23.94	345	P	P	07 35 26.0	-0.6
	baz=24,SNR=6.1						
BLO	Bloomington	23.94	51	*e*P	P	07 35 28.1	+1.3
	comp=Z,27nm,1.0s,mb4.6						
BLO	Bloomington	23.94	51	*e*P	P	07 35 28.1	+1.3
BLO				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.6						
CPCT	Cooper Cave	24.10	61	*e*P	P	07 35 28.7	+0.5
CMW	Cultus Mountai	24.20	341	P	P	07 35 27.3	-1.7
GOGA	Godfrey	24.49	66	*e*P	P	07 35 30.9	-1.0
	comp=Z,55nm,1.4s,mb4.8						
GOGA	Godfrey	24.49	66	*e*P	P	07 35 30.9	-0.9
GOGA				pmax	pmax		
	comp=Z,55nm,1.4s,mb4.8						
TGUH	Tegucigalpa,Un	24.72	114	*e*P	P	07 35 36.5	+2.5
	comp=Z,90nm,1.3s,mb5.1						
TKL	Tuckaleechee C	24.75	61	P	P	07 35 35.1	+1.0
	comp=Z,16nm,0.9s,mb4.5,baz=224,slow=11,SNR=12						
TKL				LR	LR	07 46 04.9	
	comp=Z,3µm,19.5s,MS4.7,baz=336,slow=39						

AGMN	Agassiz Refuge	25.01	23	eP	P	07 35 35.9	-0.5
	comp=Z,13nm,1.0s,mb4.4						
TZTN	Tazewell	25.17	59	eP	P	07 35 40.5	+2.5
EYMN	Ely	26.48	29	eP	P	07 35 51.0	+1.3
ULM	Lac du Bonnet	26.68	21	P	P	07 35 47.8	-3.7
	comp=Z,2.6nm,0.9s,mb3.7,baz=204,slow=8.9,SNR=6.3						
ULM				LR	LR	07 48 02.4	
	comp=Z,355nm,20.9s,MS3.9,baz=32,slow=40						
EDM	Edmonton	27.28	356	eP	P	07 35 55.0	-1.9
JTS	JuntasAbangare	28.70	118	LR	LR	07 47 41.4	
	comp=Z,1µm,21.0s,MS4.4,baz=314,slow=36						
FFC	Flin Flon	29.36	10	eP	P	07 36 14.8	-0.6
	comp=Z,39nm,1.8s,mb4.8						
FFC	Flin Flon	29.36	10	eP	P	07 36 14.8	-0.6
FFC				pmax	pmax		
	comp=Z,39nm,1.8s,mb4.8						
BBB	Bella Bella	29.38	338	LR	LR	07 47 33.0	
	comp=Z,718nm,18.3s,MS4.3,baz=353,slow=36						
FCC	Fort Churchill	34.70	15	eP	P	07 36 59.3	-2.9
	comp=Z,11nm,0.8s,mb4.8						
FCC	Fort Churchill	34.70	15	eP	P	07 36 59.3	-2.8
FCC				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
DLBC	Dease Lake	35.25	342	P	P	07 37 04.8	-2.1
	baz=184,slow=5.8						
YKA	Yellowknife Ar	36.60	357	P	P	07 37 15.4	-3.0
	comp=Z,1.8nm,0.8s,mb4.0,baz=181,slow=8.2,SNR=31						
YKA				LR	LR	07 54 28.4	
	comp=Z,228nm,20.7s,MS3.9,baz=175,slow=40						
OTAV	Otavalo	40.05	125	eP	P	07 37 50.5	+2.4
	comp=Z,9.7nm,1.0s,mb4.5						
ROSC	El Rosal	40.40	115	eP	P	07 37 55.3	+4.3
ROSC	El Rosal	40.40	115	P	P	07 37 53.3	+2.3
	comp=Z,2.3nm,0.6s,mb4.1,baz=94,slow=19,SNR=6.3						
ROSC				LR	LR	07 56 49.1	
	comp=Z,492nm,18.2s,MS4.4,baz=16,slow=39						
SJG	San Juan	41.60	92	eP	P	07 38 02.3	+1.4
	comp=Z,25nm,0.9s,mb4.8						
SJG	San Juan	41.60	92	eP	P	07 38 02.3	+1.4
SJG				pmax	pmax		
	comp=Z,25nm,0.9s						
MTP	Monte Pirata	42.14	91	eP	P	07 38 06.2	+1.0
DAWY	Dawson	42.47	342	eP	P	07 38 03.9	-3.4
SCHQ	Schefferville	42.88	36	P	P	07 38 12.1	+1.4
	comp=Z,3.1nm,0.9s,mb4.0,baz=253,slow=14,SNR=3.7						
SCHQ				LR	LR	07 56 47.2	
	comp=Z,2µm,18.4s,MS5.1,baz=248,slow=37						
KDAK	Kodiak Island	43.50	328	P	P	07 38 12.3	-3.5
KDAK				LR	LR	07 54 01.8	
KDAK	Kodiak Island	43.50	328	P	P	07 38 12.3	-3.5
	comp=Z,6.0nm,0.8s,mb4.4,baz=306,slow=19,SNR=2.5						
KDAK				LR	LR	07 54 01.8	
	comp=Z,361nm,19.1s,MS4.3,baz=130,slow=33						
INK	Inuvik	44.57	348	eP	P	07 38 24.4	+0.2
ATAH	Atahualpa	45.19	132	LR	LR	07 54 51.9	
	comp=Z,538nm,21.2s,MS4.5,baz=151,slow=33						
COLA	College	45.63	339	eP	P	07 38 33.5	+0.8
	comp=Z,7.0nm,0.9s,mb4.6						
COLA	College	45.63	339	eP	P	07 38 32.2	-0.5
SVW2	Sparrevohn	46.43	332	eP	P	07 38 37.8	-1.2
IMA2	Indian Mountai	48.30	338	eP	P	07 38 52.2	-1.4
RES	Resolute Bay	49.40	5	eP	P	07 39 01.0	-0.9
RKT	Rikitea	54.31	208	eS	S	07 47 22.6	+5.5
	comp=Z,154nm,32.2s						
RKT				eLR	LR	07 55 29.6	
	comp=Z,746nm,27.5s						
PPT	Papeete	57.67	225	eS	S	07 48 06.8	+4.8
	comp=Z,259nm,26.5s						
PPT				eLQ		07 54 38.2	
	comp=Z,534nm,26.5s						
PPT				eLR	LR	07 57 06.2	
	comp=Z,1µm,25.0s,baz=30						
PPT	Papeete	57.67	225	LR	LR	07 57 59.9	
	comp=Z,702nm,19.0s,MS4.8,baz=48,slow=29						
LPAZ	La Paz	58.80	131	P	P	07 40 12.1	+0.9
LPAZ				LR	LR	08 03 13.9	
LPAZ	La Paz	58.80	131	P	P	07 40 12.1	+0.9
	comp=Z,1.0nm,0.9s,mb3.9,baz=346,slow=7.5,SNR=4.6						
LPAZ				LR	LR	08 03 13.9	
	comp=Z,188nm,18.9s,MS4.2,baz=326,slow=34						
BILL	Bilibino	63.69	335	eP	P	07 40 42.1	-1.6
	comp=Z,27nm,1.5s,mb5.0						
BILL	Bilibino	63.69	335	⇓iP	P	07 40 41.9	-1.8
BILL				i		07 40 50.4	
BILL				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
DAG	Danmarks Havn	65.30	15	⇑iP	P	07 40 51.9	-2.2
DAG				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
KBS	Kingsbay	70.45	10	⇑eP	P	07 41 27.1	+0.6
MA2	Magadan	72.25	328	eP	P	07 41 36.2	-1.4
	comp=Z,16nm,1.4s,mb4.8						
MA2	Magadan	72.25	328	⇑eP	P	07 41 35.8	-1.8
MA2				pmax	pmax		
	comp=Z,6.0nm,1.7s,mb4.2						
TIXI	Tiksi	74.47	344	eP	P	07 41 46.9	-3.6
	comp=Z,6.4nm,0.9s,mb4.5						
TIXI	Tiksi	74.47	344	eP	P	07 41 45.8	-4.7
TIXI				pmax	pmax		
	comp=Z,19nm,2.1s,mb4.7						
ARCES	ARCESS Array B	79.59	14	P	P	07 42 18.9	-0.5
	comp=Z,7.3nm,1.0s,mb4.6,baz=330,slow=7.1,SNR=5.5						
YAK	Yakutsk	80.05	335	⇑eP	P	07 42 21.6	-0.4
YAK				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
NOA	NORSAR Array B	81.30	25	P	P	07 42 27.4	-1.4
NOA				LR	LR	08 17 55.6	
NOA	NORSAR Array B	81.30	25	P	P	07 42 27.4	-1.4
	comp=Z,2.6nm,0.9s,mb4.2,baz=316,slow=5.8,SNR=4.8						
NOA				LR	LR	08 17 55.6	
	comp=Z,318nm,19.2s,MS4.7,baz=285,slow=35						
KONO	Kongsberg	81.55	26	⇑eP	P	07 42 31.0	+1.0
FINES	FINESS Array B	86.06	19	P	P	07 42 51.9	-1.2
FINES	FINESS Array B	86.06	19	P	P	07 42 51.9	-1.2
	comp=Z,2.5nm,1.0s,mb4.4,baz=309,slow=1.2,SNR=4.2						
MDT	Midelt	88.34	54	LR	LR	08 21 04.3	
	comp=Z,605nm,18.1s,MS5.0,baz=85,slow=35						
BOD	Bodaibo	88.62	338	eP	P	07 43 01.9	-3.6
BOD				pmax	pmax		
	comp=Z,7.0nm,1.8s,mb4.7						
DAVOX	Davos/Dischmat	89.72	36	LR	LR	08 23 49.8	
	comp=Z,758nm,18.1s,MS5.2,baz=300,slow=36						
MJAR	Matsushiro Arr	90.34	311	LR	LR	08 18 13.8	
	comp=Z,338nm,18.4s,MS4.8,baz=65,slow=32						
GERES	GERESS Array B	90.35	33	LR	LR	08 23 29.9	
	comp=Z,866nm,21.2s,MS5.2,baz=294,slow=36						
CBIJ	Chichi jima	92.44	302	LR	LR	08 17 10.5	
	comp=Z,305nm,20.0s,MS4.8,baz=121,slow=31						
DZM	Mont Dzumac	93.63	247	LR	LR	08 17 15.8	
	comp=Z,382nm,19.2s,MS4.9,baz=40,slow=30						
HNR	Honiara	93.76	261	LR	LR	08 17 16.3	
	comp=Z,810nm,20.3s,MS5.2,baz=1.0,slow=30						
AKASG	Malin Array Be	95.72	24	LR	LR	08 28 58.4	
	comp=Z,416nm,18.7s,MS4.9,baz=310,slow=37						
KEST	Kesra	96.31	45	LR	LR	08 26 47.9	
	comp=Z,306nm,21.9s,MS4.7,baz=250,slow=35						
JNU	Nakatsue	97.23	312	LR	LR	08 19 17.4	
	comp=Z,245nm,21.7s,MS4.7,baz=29,slow=30						
ULN	Ulaanbaatar	99.14	335	⇑eP	P	07 43 55.2	+1.2
ZALV	Zalesovo Beam	99.31	351	P	P	07 43 53.9	-0.7
	comp=Z,0.4nm,0.3s,mb4.4,baz=15,slow=6.0,SNR=2.9						
ZAL	Zalesovo	99.32	351	P	P	07 43 53.9	-0.8
SONM	Songino Array	99.41	336	P	P	07 43 54.1	-1.1
	comp=Z,0.6nm,0.8s,mb4.2,baz=46,slow=4.3,SNR=5.0						
HHC	Hu-ho-hao-te	102.92	329	eP	Pdif	07 44 11.4	+0.6
HHC				PP	PP	07 48 28.3	+4.0
HHC				SKS		07 54 49.3	
HHC				S	Sdif	07 55 52.4	-4.5
HHC				PS	PS	07 57 31.9	-0.6
HHC				SS	SS	08 03 03.8	-0.9
HHC				AMB	AMB		
	comp=Z,254nm,11.9s						
HHC				LR	LR		
	comp=N,316nm,21.4s,MS5.0						
HHC				LR	LR		
	comp=E,399nm,21.4s,MS5.0						
HHC				LR	LR		
	comp=Z,280nm,21.4s,MS4.8						
CD2	Chengdu	114.66	328	ePKP	PKiKP	07 48 51.8	-1.7
GYA	Guiyang	116.78	323	ePDIF	Pdif	07 45 12.9	+0.5
GYA				PKP	PKPdf	07 48 57.3	-0.4
GYA				PP	PP	07 50 08.6	+3.7
GYA				PKS		07 52 32.8	
GYA				SKS	SKSdf	07 56 07.0	-3.2
GYA				SKKS	SKKSac	07 57 00.4	-6.9
GYA				S	Sdif	07 57 47.9	-4.6
GYA				PS	PS	07 59 46.8	-1.5
GYA				PP	PP		
	comp=Z,110nm,7.9s						
GYA				LR	LR		
	comp=N,214nm,21.9s,MS4.9						
GYA				LR	LR		
	comp=E,190nm,20.0s,MS4.9						
GYA				LR	LR		
	comp=Z,360nm,20.8s,MS5.0						
KMI	Kunming	119.94	325	PKP	PKPdf	07 49 01.8	-2.0
KMI	Kunming	119.94	325	PKIKP	PKPdf	07 49 01.7	-2.1
WRA	Warramunga Arr	120.60	261	PKP	PKPdf	07 49 03.3	-1.8
WRA	Warramunga Arr	120.60	261	PKIKP	PKPdf	07 49 03.3	-1.8
WRA	Warramunga Arr	120.60	261	PKP	PKPdf	07 49 03.3	-1.8
	comp=Z,0.8nm,0.8s,baz=70,slow=1.5,SNR=5.6						
ASAR	Alice Springs	122.13	257	PKP	PKPdf	07 49 06.5	-1.4
	comp=Z,1.0nm,0.9s,baz=78,slow=1.7,SNR=6.8						

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*IDC **23** 07:36:21.6±1.3, 26.17N×110.48W, h0^{km}, mb3.9/4, mb1 4.2/7, mb1mx3.9/22, mbtmp3.9/7, ML3.6/2, MS3.6/1, Ms1 3.6/1, ms1mx2.5/37, Error ellipse: s-maj=23.1km s-min=12.7km az=95.0*

*ISCJB **23** 07:36:22.5±0.7, 26.09N±0.07×110.28W±0.06, h10^{km}, mb4.1/10, Error ellipse: s-maj=9.9km s-min=7.9km az=25.9*

*NEIC **23** 07:36:23.4±0.7, 25.97N×110.39W, h10^{km}, mb4.4/11, Error ellipse: s-maj=10.9km s-min=8.0km az=37.0*

ISC 23 07:36:23.8±0.7**, 26.03N**±0.07×**110.37W**±0.07**, h10^{km}, n43, σ1^{s}15**/45**, mb4.1**/10**, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	1.92	178	Pn	Pn	07 36 56.1	-0.5
LPIG				Lg		07 37 28.1	
LPIG	La Paz	1.92	178	Pn	Pn	07 36 56.1	-0.5
	7.6nm,0.3s,baz=358,slow=3.9,SNR=7.5						
LPIG				Lg		07 37 28.1	
	35nm,0.3s,baz=179,slow=9.2,SNR=9.2						
TUC	Tucson	6.27	357	ePn	Pn	07 37 56.1	-0.2
	22nm,0.8s						
TUC				eSn	Sn	07 39 05.4	-2.6
TXAR	Lajitas Array	6.79	60	Pn	Pn	07 38 02.1	-1.4
TXAR				Sn	Sn	07 39 18.6	-2.4
TXAR				Lg		07 39 57.4	
TXAR	Lajitas Array	6.79	60	Pn	Pn	07 38 02.1	-1.4
	0.2nm,0.3s,baz=234,slow=13,SNR=6.5						
TXAR				Sn	Sn	07 39 18.5	-2.4
	0.7nm,0.3s,baz=251,slow=21,SNR=2.9						
TXAR				Lg		07 39 57.4	
	2.6nm,0.3s,baz=244,slow=31,SNR=6.4						
MNTX	Cornudas Mount	7.14	37	ePn	Pn	07 38 09.1	+0.8
ANMO	Albuquerque	9.51	20	LR	LR	07 42 34.0	
	comp=Z,429nm,21.5s,baz=188,slow=40						
WMOK	Wichita Mounta	13.23	46	ePn	Pn	07 39 33.0	+1.1
	83nm,1.7s						
NVAR	Mina Array Bea	14.06	333	Pn	Pn	07 39 45.4	+2.3
NVAR	Mina Array Bea	14.06	333	Pn	Pn	07 39 45.4	+2.3
	0.1nm,0.3s,baz=150,slow=14,SNR=4.9						
ISCO	Idaho Springs	14.30	15	ePn	Pn	07 39 47.9	+1.6
	14nm,1.1s						
BMN	Battle Mountai	15.46	340	ePn	Pn	07 40 03.2	+1.4
	14nm,1.0s						
HWUT	Hardware Ranch	15.57	357	ePn	Pn	07 40 04.4	+1.1
	12nm,1.2s						
OHCM	Honcut	16.21	328	ePn	Pn	07 40 11.3	-0.4
PDAR	Pinedale Array	16.71	2	Pn	Pn	07 40 19.2	+1.2
PDAR				Lg		07 45 05.5	
PDAR	Pinedale Array	16.71	2	Pn	Pn	07 40 19.2	+1.2
	0.0nm,0.3s,baz=170,slow=12,SNR=4.1						
PDAR				Lg		07 45 05.5	
	0.0nm,0.3s,baz=222,slow=32,SNR=4.3						
CMIG	Matias Romero	16.92	119	P	Pn	07 40 26.8	+6.0
CMIG	Matias Romero	16.92	119	P	Pn	07 40 26.8	+6.0
	0.2nm,0.3s,baz=316,slow=12,SNR=3.7						
YMR	Madison River	18.60	359	eP	Pn	07 40 41.9	+0.4
	34nm,1.8s						
MCMT	McKenzie Canyo	18.86	355	eP	Pn	07 40 44.5	-0.1
BOZ	Bozeman (W)	19.60	357	eP	Pn	07 40 53.6	+0.1
LRM	Limekiln Ridge	19.82	356	eP	Pn	07 40 55.7	-0.4
PVMO	Portageville	20.45	55	eP	P	07 41 01.1	-0.3
	133nm,0.6s						
PARMO	Parma	20.51	54	eP	P	07 41 01.6	-0.5
FVM	French Village	20.64	50	eP	P	07 41 04.4	+0.9
HRY	Holter Researc	20.67	357	eP	P	07 41 04.2	+0.5
ECSD	EROS,Sioux Fal	20.91	29	eP	P	07 41 07.9	+1.5
	11nm,1.0s						
MSO	Missoula	20.95	353	eP	P	07 41 06.7	-0.1
	8.3nm,1.1s						
SLM	Saint Louis	21.10	48	eP	P	07 41 08.6	+0.2
	42nm,1.4s,mb4.6						
SIUC	Southern Illin	21.36	52	eP	P	07 41 12.0	+0.8
HAWA	Hanford	21.59	343	eP	P	07 41 12.4	-1.3
EGMT	Eagleton	21.96	1	eP	P	07 41 18.0	+0.4
	0.7nm,1.0s,mb3.0						
LON	Longmire	22.59	339	eP	P	07 41 23.9	-0.5
HDIL	Hopedale	22.73	45	eP	P	07 41 27.0	+1.1
	54nm,1.0s,mb4.9						
NEW	Newport	22.82	348	P	P	07 41 24.1	-2.7
	3.1nm,0.8s,mb3.8,baz=166,slow=13,SNR=5.2						
WALA	Waterton Lakes	23.16	354	eP	P	07 41 30.3	0.0
	42nm,1.9s,mb4.5						
TKL	Tuckaleechee C	24.70	61	P	P	07 41 46.1	+1.0
	9.8nm,1.1s,mb4.3,baz=228,slow=1.2,SNR=3.8						
COWI	Conover	26.23	35	eP	P	07 41 59.0	+0.1
	13nm,1.1s,mb4.4						
ULM	Lac du Bonnet	26.64	21	P	P	07 42 00.1	-2.4
	2.1nm,1.0s,mb3.6,baz=193,slow=10,SNR=2.9						
EDM	Edmonton	27.25	356	eP	P	07 42 07.4	-0.5
FCC	Fort Churchill	34.66	15	eP	P	07 43 11.6	-1.6
	7.3nm,1.0s,mb4.6						
YKA	Yellowknife Ar	36.57	357	P	P	07 43 27.8	-1.7
YKA	Yellowknife Ar	36.57	357	P	P	07 43 27.8	-1.7
	0.7nm,0.8s,mb3.5,baz=180,slow=8.1,SNR=12						

MOS 23 07:40:02.4±0.5**, 42.51N×46.39E, h12^{km}, mb3.7**/1**, 1C-1D, Error ellipse: s-maj=99.9km s-min=14.2km az=23.4, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLKR	Vladikavkaz	1.37	293	ePG	Pg	07 40 27.0	-1.8
LACR	Lac	1.58	282	⇑iPG	Pg	07 40 30.3	-2.4
ARNR	Ardon	1.70	294	ePN	Pn	07 40 32.4	+0.6
KORR	Kora	1.81	289	ePN	Pn	07 40 35.0	+1.7
ZEI	Tsey	1.86	279	ePN	Pn	07 40 35.1	+1.1
LSNR	Lesken	2.04	293	ePN	Pn	07 40 37.9	+1.4
DIGR	Digorskoe uzhe	2.11	282	⇓iPN	Pn	07 40 38.8	+1.3

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*CSEM **23** 07:41:41.2±0.1, 38.41N×39.23E, h5^{km}, MD3.2, Error ellipse: s-maj=2.4km s-min=1.7km az=149.0*

*ISK **23** 07:41:41.0, 38.42N×39.20E, h5^{km}, MD3.2*

*DDA **23** 07:41:42.2, 38.43N×39.27E, h11^{km}, Md3.0*

ISC 23 07:41:41.9±0.7**, 38.38N**±0.04×**39.29E**±0.04**, h2^{km}**±7^{km}**, n25, σ0^{s}73**/35**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.27	297	i P	Pg	07 41 47.0	
ELZG				i S	Sg	07 41 50.9	
PTK	Pertek	0.52	9	PG	Pg	07 41 51.6	
PTK				SG	Sg	07 41 59.4	
PTK	Pertek	0.52	9	ePg	Pg	07 41 51.6	
PTK				eSg	Sg	07 41 59.4	
MALT	Malatya	0.68	265	PG	Pg	07 41 53.7	
MALT				SG	Sg	07 42 04.1	
MALT	Malatya	0.68	265	ePg	Pg	07 41 53.7	
MALT				eSg	Sg	07 42 04.1	
MYA	Malataya	0.68	266	PG	Pg	07 41 54.3	
MYA				SG	Sg	07 42 03.7	
MYA	Malataya	0.68	266	ePg	Pg	07 41 54.3	
MYA				eSg	Sg	07 42 03.7	
DIY	Diyarbakir	0.88	123	PG	Pg	07 41 59.8	
DIY	Diyarbakir	0.88	123	ePg	Pg	07 41 59.8	
URFA	Urfa	1.01	202	PG	Pg	07 42 01.6	
URFA	Urfa	1.01	202	ePg	Pg	07 42 01.6	
BINT	Bingol	1.06	62	PN	Pn	07 42 03.8	
BINT	Bingol	1.06	62	ePn	Pn	07 42 03.8	
EZC	Erzincan	1.43	17	PN	Pn	07 42 07.5	
MARD	Mardin	1.59	132	i P	Pn	07 42 10.4	
MARD				i S	Sn	07 42 31.7	
BEST	Besiri	1.64	107	i P	Pn	07 42 11.2	
BEST				i S	Sn	07 42 33.5	
GZT	Gaziantep	1.71	234	i P	Pn	07 42 12.2	
GZT				i S	Sn	07 42 38.0	
BTMT	Batman	1.74	95	PN	Pn	07 42 13.3	
GAZ	Gaziantep	2.04	234	ePN	Pn	07 42 18.0	
GAZ	Gaziantep	2.04	234	ePn	Pn	07 42 18.0	
KMRS	Kahramanmaras	2.08	246	ePN	Pn	07 42 17.1	
KMRS	Kahramanmaras	2.08	246	ePn	Pn	07 42 17.1	
GUMT	Gumushane	2.08	4	ePN	Pn	07 42 18.5	
SVSK	Karacayir	2.35	311	ePN	Pn	07 42 21.8	
SVSK	Karacayir	2.35	311	ePn	Pn	07 42 21.8	

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*ISCJB **23** 07:54:18.9±0.6, 40.15N±0.03×27.32E±0.03, h1^{km}±7^{km}, Error ellipse: s-maj=4.8km s-min=4.1km az=169.2*

*ISK **23** 07:54:18.9, 40.17N×27.34E, h5^{km}, MD2.8*

*CSEM **23** 07:54:18.2±0.1, 40.14N×27.31E, h5^{km}, MD2.8, Error ellipse: s-maj=2.3km s-min=2.2km az=159.0*

*DDA **23** 07:54:20.1, 40.15N×27.35E, h7^{km}, Md2.9*

ISC 23 07:54:19.5±0.4**, 40.16N**±0.03×**27.32E**±0.03**, h7^{km}**±6^{km}**, n24, σ0^{s}62**/34**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EDC	Edincik	0.46	65	PG	Pg	07 54 27.9	-0.5
EDC				SG	Sg	07 54 34.3	0.0
EDC	Edincik	0.46	65	ePg	Pg	07 54 27.9	-0.5
EDC				eSg	Sg	07 54 34.3	0.0
BNT	Bandirma	0.50	66	PG	Pg	07 54 28.4	-0.8
BNT				SG	Sg	07 54 35.7	0.0
RKY	Sarkoy-Tekirda	0.54	348	PG	Pg	07 54 29.6	-0.4
RKY				SG	Sg	07 54 37.6	+0.5
RKY	Sarkoy-Tekirda	0.54	348	ePg	Pg	07 54 29.6	-0.4
RKY				eSg	Sg	07 54 37.6	+0.5
SART	Tekirdag	0.54	349	i P	Pg	07 54 30.4	+0.4
SART				i S	Sg	07 54 37.0	-0.1
BALB	Balikesir	0.67	140	ePG	Pg	07 54 31.9	-0.6
BALB	Balikesir	0.67	140	ePg	Pg	07 54 31.9	-0.6
BTOK	Tokmak	0.67	126	i P	Pg	07 54 32.2	-0.3
BTOK				i S	Sg	07 54 41.4	+0.2
KCT	Karacabey	0.80	82	ePG	Pg	07 54 35.3	+0.4
KCT	Karacabey	0.80	82	ePg	Pg	07 54 35.3	+0.4
EZN	Ezine	0.83	247	ePG	Pg	07 54 36.3	+0.8
EZN	Ezine	0.83	247	ePg	Pg	07 54 36.3	+0.8
AYVA	Ayvalik	0.98	210	i P	Pg	07 54 38.3	0.0
AYVA				i S	Sg	07 54 51.5	+0.5
BOZC	Bozcaada	1.02	252	i P	Pg	07 54 38.9	-0.3
BOZC				i S	Sg	07 54 52.8	+0.3
GADA	Gvkgeada	1.09	272	ePN	Pn	07 54 40.2	-1.0
GADA	Gvkgeada	1.09	272	ePn	Pn	07 54 40.2	-1.0
DST	Dursunbey	1.15	118	ePN	Pn	07 54 41.1	-0.8
DST	Dursunbey	1.15	118	ePn	Pn	07 54 41.1	-0.8
ULDT	Uludag	1.39	90	i P	Pn	07 54 44.5	-0.8
ULDT				i S	Sb	07 55 05.5	+1.8
YLV	Yalova	1.62	75	ePN	Pn	07 54 49.0	+0.5
YLV	Yalova	1.62	75	ePn	Pn	07 54 49.0	+0.5
IZI	Iznik	1.66	83	ePN	Pn	07 54 49.3	+0.3
IZI	Iznik	1.66	83	ePn	Pn	07 54 49.3	+0.3

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*IDC **23** 07:54:50.6±1.0, 1.35N×126.14E, h0^{km}, mb4.1/6, mb1 4.3/7, mb1mx4.1/17, mbtmp4.1/7, ML4.1/1, MS4.1/1, Ms1 4.1/1, ms1mx3.2/30, Error ellipse: s-maj=110.8km s-min=13.9km az=70.0*

*ISCJB **23** 07:54:51.3±5.9, 1.2N±0.2×125.9E±0.5, h18^{km}±41^{km}, mb4.2/6, MS4.2/1, Error ellipse: s-maj=93.4km s-min=13.4km az=160.1*

*NEIC **23** 07:54:52.0±0.7, 1.21N×126.00E, h10^{km}, mb4.2/2, Error ellipse: s-maj=62.8km s-min=10.0km az=70.0*

ISC 23 07:54:59.7±4.0**, 1.1N**±0.2×**125.8E**±0.5**, h74^{km}**±37^{km}**, n8, σ0^{s}73**/10**, mb4.1**/6**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.03	180	P	Pn	07 59 17.3	-0.1
	0.5nm,0.3s,baz=12,slow=8.2,SNR=13						
WRA	Warramunga Arr	22.48	159	P	P	07 59 52.3	-0.7
	20nm,1.1s,mb4.3,baz=336,slow=10,SNR=36						
WRA				S	S	08 03 54.8	-0.2
	1.0nm,0.9s,baz=333,slow=21,SNR=4.6						
ASAR	Alice Springs	25.80	163	P	P	08 00 24.7	+0.7
	3.9nm,0.7s,mb4.0,baz=349,slow=14,SNR=34						
ASAR				PcP	PcP	08 03 53.8	+1.6
	1.0nm,0.5s,baz=354,slow=2.3,SNR=10.0						
ASAR				S	S	08 05 00.1	+12
	0.9nm,0.9s,baz=348,slow=18,SNR=5.2						
STKA	Stephens Creek	36.01	157	P	P	08 01 54.2	+0.4
	6.0nm,0.8s,mb4.6,baz=323,slow=9.5,SNR=13						
SONM	Songino Array	49.54	343	P	P	08 03 43.6	+0.6
	1.6nm,1.1s,mb3.9,baz=167,slow=7.7,SNR=4.0						
SONM				LR	LR	08 26 32.3	
	comp=Z,225nm,20.6s,baz=7.8,slow=38						
MK31	Makanchi Array	59.23	327	eP	P	08 04 53.7	+0.4
MKAR	Makanchi Array	59.23	327	P	P	08 04 53.6	+0.3
	1.1nm,0.4s,mb4.2,baz=120,slow=7.2,SNR=23						
ZALV	Zalesovo Beam	62.55	334	P	P	08 05 14.0	-1.7
	0.5nm,0.4s,mb3.8,baz=133,slow=7.2,SNR=3.5						

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*BJI **23** 08:06:43.0, 1.10S×127.00E, h10^{km}, mB5.2, mb4.5, Ms4.8, Msz4.4*

*NEIC **23** 08:06:44.0±0.4, 1.15S×127.03E, h10^{km}, mb4.7/9, Error ellipse: s-maj=19.0km s-min=7.5km az=65.0*

*ISCJB **23** 08:06:45.0±0.4, 1.10S±0.06×127.38E±0.10, h33^{km}, mb4.7/26, Error ellipse: s-maj=14.6km s-min=6.2km az=157.3*

*MOS **23** 08:06:47.6±0.9, 0.65S×127.21E, h33^{km}, mb4.6/6, Error ellipse: s-maj=34.2km s-min=12.9km az=118.6*

*IDC **23** 08:06:47.1±4.0, 1.29S×126.75E, h33^{km}±30^{km}, mb4.3/7, mb1 4.3/9, mb1mx4.1/19, mbtmp4.2/9, ML4.2/1, Error ellipse: s-maj=45.6km s-min=15.4km az=69.0*

ISC 23 08:06:47.5±0.4**, 1.14S**±0.06×**127.3E**±0.1**, h35^{km}, n55, σ1^{s}12**/51**, mb4.7**/26**, 5C-2D, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAI	Ambon	2.68	161	P	Pn	08 07 30.2	+2.0
	591nm,0.9s						
PCI	Palu	7.48	272	P	Pn	08 08 36.8	+2.6
	189nm,0.9s						
KAKA	Kakadu	12.57	156	eP	Pn	08 09 44.0	+0.1
	13nm,0.5s						
FITZ	Fitzroy Crossi	16.94	185	eP	Pn	08 10 43.0	+1.1
	13nm,1.5s						
FITZ	Fitzroy Crossi	16.94	185	Pn	Pn	08 10 40.9	-1.0
	0.6nm,0.3s,baz=20,slow=9.9,SNR=16						
WRA	Warramunga Arr	19.91	160	P	Pn	08 11 15.8	-2.3
	0.8nm,0.3s,baz=342,slow=12,SNR=24						
WB2	Warramunga Arr	19.92	160	eP	Pn	08 11 15.6	-2.5
COEN	Coen	20.21	130	eP	P	08 11 21.8	+2.2
MBWA	Marble Bar	21.23	200	eP	P	08 11 29.7	-0.8
	25nm,1.2s,mb4.4						
PMG	Port Moresby	21.39	113	P	P	08 11 36.9	+4.6
	6.7nm,0.6s,mb4.1,baz=228,slow=7.3,SNR=4.3						
ASAR	Alice Springs	23.29	165	P	P	08 11 51.8	-0.6
	8.4nm,0.7s,mb4.3,baz=346,slow=12,SNR=104						
STKA	Stephens Creek	33.42	158	eP	P	08 13 24.0	+1.1
	7.4nm,0.8s,mb4.7						
STKA	Stephens Creek	33.42	158	P	P	08 13 24.4	+1.5
	11nm,0.8s,mb4.8,baz=325,slow=8.8,SNR=17						
WHN	Wuhan	33.84	340	⇓P	P	08 13 30.0	+3.4
NJ2	Nanjing	33.97	347	eP	P	08 13 29.8	+2.1
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.3						
KSRS	Korea Array	38.40	1	P	P	08 14 07.3	+1.7
	comp=Z,0.9nm,0.5s,mb3.8,baz=182,slow=11,SNR=5.1						
CD2	Chengdu	38.95	327	⇓iP	P	08 14 10.0	-0.3
CD2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.5						
XAN	Xi’an	39.03	335	P	P	08 14 10.0	-0.9
XAN				AP	pP	08 14 18.6	-2.5
XAN				AMB	AMB		
	comp=Z,5.0nm,0.8s,mb4.3						
SHL	Shillong	43.34	310	eP	P	08 14 47.0	+0.6
LSA	Lhasa	46.17	315	P	P	08 15 10.4	+1.4
LSA	Lhasa	46.17	315	eP	P	08 15 09.1	+0.2
	comp=Z,6.2nm,0.7s,mb4.7						
LSA	Lhasa	46.17	315	eP	P	08 15 09.1	+0.1
LSA				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						

TAPN	Taplejung	47.45	310	eP	P	08 15 19.2	+0.1
	comp=Z,16nm,0.7s,mb5.0						
ODAN	Odare	47.46	309	eP	P	08 15 19.9	+0.8
	comp=Z,24nm,0.6s,mb5.3						
GTA	Gaotai	47.58	331	⇑eP	P	08 15 20.4	+0.6
GTA				AP	pP	08 15 24.6	-5.7
GTA				XP	sP	08 15 26.1	-8.3
GTA				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.8						
JIRN	Jiri	48.78	309	eP	P	08 15 29.7	+0.4
	comp=Z,5.2nm,0.2s,mb5.1						
KKN	Kakani	49.55	309	eP	P	08 15 35.4	+0.2
	comp=Z,29nm,0.7s,mb5.4						
GKN	Gorkha	50.15	309	eP	P	08 15 40.2	+0.4
	comp=Z,37nm,0.7s,mb5.5						
ULN	Ulaanbaatar	51.90	343	⇑eP	P	08 15 51.5	-1.1
SONM	Songino Array	52.07	342	P	P	08 15 53.3	-0.5
	comp=Z,5.2nm,0.9s,mb4.5,baz=156,slow=7.0,SNR=15						
SONM				PcP	PcP	08 17 05.0	-0.6
	comp=Z,0.6nm,0.7s,baz=138,slow=4.7,SNR=2.5						
ZAK	Zakamensk	55.29	342	eP	P	08 16 17.1	-0.2
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb4.0						
WMQ	Urumqi	57.05	327	eP	P	08 16 30.0	-0.1
MOY	Mondy	57.13	341	eP	P	08 16 34.6	+4.1
MK31	Makanchi Array	61.89	327	eP	P	08 17 02.8	-0.6
MKAR	Makanchi Array	61.89	327	P	P	08 17 02.6	-0.7
MKAR				ScP	ScP	08 21 42.7	-0.7
MKAR	Makanchi Array	61.89	327	P	P	08 17 02.6	-0.7
	comp=Z,4.7nm,0.5s,mb4.9,baz=115,slow=8.0,SNR=60						
MKAR				ScP	ScP	08 21 42.7	-0.7
	comp=Z,0.6nm,0.9s,baz=137,slow=4.0,SNR=4.8						
YAK	Yakutsk	63.03	1	eP	P	08 17 10.2	-0.5
MA2	Magadan	63.27	13	eP	P	08 17 12.8	+0.5
	comp=Z,6.4nm,0.9s,mb4.8						
MA2	Magadan	63.27	13	⇑eP	P	08 17 13.1	+0.8
MA2				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.6						
TKM2	Tokmak 2	63.79	320	eP	P	08 17 16.7	+0.5
	comp=Z,3.1nm,0.7s,mb4.5						
TKM2	Tokmak 2	63.79	320	eP	P	08 17 16.7	+0.6
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
UCH	Uchtor	64.17	319	eP	P	08 17 19.1	+0.5
	comp=Z,4.5nm,0.8s,mb4.5						
AAK	Ala-Archa	64.37	319	⇑eP	P	08 17 18.9	-1.0
AAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
AML	Almayashu	64.66	319	eP	P	08 17 21.7	-0.2
	comp=Z,6.7nm,0.9s,mb4.7						
ZALV	Zalesovo Beam	65.17	334	P	P	08 17 23.9	-1.0
	comp=Z,1.9nm,0.5s,mb4.3,baz=111,slow=6.5,SNR=11						
ZAL	Zalesovo	65.18	334	P	P	08 17 24.0	-1.0
KURK	Kurchatov	66.15	329	eP	P	08 17 30.1	-1.2
	comp=Z,16nm,0.8s,mb5.1						
KURK	Kurchatov	66.15	329	⇑eP	P	08 17 30.9	-0.4
NVS	Novosibirsk	66.46	334	i P	P	08 17 32.6	-0.6
TIXI	Tiksi	72.67	1	eP	P	08 18 09.3	-1.9
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
ARU	Arti	79.34	328	eP	P	08 18 56.6	+7.1
BOZ	Bozeman (W)	112.08	40	ePKP	PKiKP	08 25 21.1	+1.7
BOZ	Bozeman (W)	112.08	40	ePKIKP	PKiKP	08 25 21.1	+1.7
TORD	Torodi Ar. Bea	124.87	285	PKP	PKPdf	08 25 42.9	-1.9
TORD	Torodi Ar. Bea	124.87	285	PKP	PKPdf	08 25 42.9	-1.9
	comp=Z,0.5nm,0.8s,baz=85,slow=3.0,SNR=2.9						

*IDC **23** 08:26:34.5±1.4, 26.16N×110.47W, h0^{km}, mb3.3/1, mb1 3.7/5, mb1mx3.6/21, mbtmp3.3/5, ML3.5/4, MS3.3/3, Ms1 3.3/3, ms1mx2.8/19, Error ellipse: s-maj=22.5km s-min=13.1km az=95.0*

*ISCJB **23** 08:26:35.4±1.0, 26.10N±0.08×110.25W±0.09, h10^{km}, mb3.3/1, MS3.4/1, Error ellipse: s-maj=12.9km s-min=9.9km az=141.0*

*NEIC **23** 08:26:37.8±1.4, 25.97N×110.20W, h10^{km}, MN3.2, Error ellipse: s-maj=32.8km s-min=10.8km az=110.0*

ISC 23 08:26:36.8±2.0, **26.04N**±0.08×**110.32W**±0.08, **h9**^{km}±13^{km}, **n14**, σ**0^{s}89**/15, **mb3.3**/1, **MS3.4**/1, **Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	1.93	180	Pn	Pn	08 27 09.8	0.0
LPIG				Lg		08 27 40.3	
LPIG	La Paz	1.93	180	Pn	Pn	08 27 09.8	+0.1
	6.0nm,0.3s,baz=345,slow=4.3,SNR=7.0						
LPIG				Lg		08 27 40.3	
	28nm,0.3s,baz=44,slow=19,SNR=7.6						
LTX	Lajitas	6.75	59	ePn	Pn	08 28 16.6	+0.6
	14nm,0.9s						
LTX				ePg	Pg	08 28 46.3	+0.2
LTX				Sg	Sg	08 30 12.8	-0.8
TXAR	Lajitas Array	6.75	59	Pn	Pn	08 28 15.9	-0.2
TXAR				Sn	Sn	08 29 32.9	-0.2
TXAR				Lg		08 30 09.9	
TXAR	Lajitas Array	6.75	59	Pn	Pn	08 28 15.9	-0.2
	0.3nm,0.3s,baz=232,slow=13,SNR=19						
TXAR				Sn	Sn	08 29 32.9	-0.2
	0.4nm,0.3s,baz=227,slow=18,SNR=3.2						
TXAR				Lg		08 30 09.9	
	1.2nm,0.3s,baz=202,slow=1.8,SNR=6.7						
MNTX	Cornudas Mount	7.11	36	ePn	Pn	08 28 21.7	+0.7
	12nm,0.9s						
PFO	Pinyon Flat Ob	9.24	326	LR	LR	08 31 30.2	
	comp=Z,144nm,21.4s,baz=223,slow=33						
ANMO	Albuquerque	9.49	20	Pn	Pn	08 28 55.0	+1.4
ANMO				Lg		08 31 32.6	
ANMO	Albuquerque	9.49	20	Pn	Pn	08 28 55.0	+1.4
	0.1nm,0.3s,baz=197,slow=12,SNR=6.4						
ANMO				Lg		08 31 32.6	
	0.2nm,0.3s,baz=127,slow=20,SNR=4.3						
NVAR	Mina Array Bea	14.07	333	Pn	Pn	08 29 55.5	-0.9
	0.1nm,0.3s,baz=172,slow=8.2,SNR=2.2						
PDAR	Pinedale Array	16.70	2	Pn	Pn	08 30 31.9	+0.9
	0.1nm,0.3s,baz=166,slow=7.9,SNR=5.9						
CMIG	Matias Romero	16.88	119	LR	LR	08 38 03.0	
	comp=Z,83nm,18.6s,baz=7.8,slow=40						
TEIG	Tepich	21.07	101	LR	LR	08 42 23.6	
	comp=Z,152nm,18.4s,MS3.4,baz=252,slow=45						
YKA	Yellowknife Ar	36.56	357	P	P	08 33 40.6	-2.0
	0.4nm,0.8s,mb3.3,baz=180,slow=8.4,SNR=9.3						

*NIED **23** 08:31:00, 46.90N×152.80E, h53^{km}, Mw4.4 Best double couple: M$_0$4.58000×10^{15} NP1: ϕ_s327.00000°, δ9.00000°, λ-29.00000°. NP2: ϕ_s85.00000°, δ86.00000°, λ-98.00000°.*

*NEIC **23** 08:31:03.3±0.5, 46.80N×152.67E, h10^{km}, mb3.9/1, Error ellipse: s-maj=12.0km s-min=9.9km az=142.0*

*SKHL **23** 08:31:05.9±3.2, 46.76N×153.08E, h65^{km}±34^{km}, mb4.5/1*

*ISCJB **23** 08:31:08.0±1.1, 46.83N±0.10×152.7E±0.1, h60^{km}±11^{km}, mb3.7/9, Error ellipse: s-maj=22.2km s-min=6.4km az=44.0*

*MOS **23** 08:31:09.6±1.5, 46.91N×152.72E, h76^{km}, mb4.0/5, Error ellipse: s-maj=24.2km s-min=12.3km az=61.6*

*IDC **23** 08:31:13.4±4.1, 46.84N×152.65E, h92^{km}±38^{km}, mb3.3/10, mb1 3.7/12, mb1mx3.5/24, mbtmp3.4/12, Error ellipse: s-maj=24.6km s-min=16.8km az=126.0*

ISC 23 08:31:10.1±1.0, **46.82N**±0.10×**152.7E**±0.1, **h61**^{km}±9^{km}, **n39**, σ**1^{s}23**/44, **mb3.7**/9, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	3.71	246	ePN	Pn	08 32 04.0	-0.8
KUR				eS	Sn	08 32 50.0	+2.8
KUR				pmax	pmax		
	comp=Z,100nm,0.7s						
KUR				smax			
	comp=N,400nm,0.6s						
KUR				smax			
	comp=E,230nm,0.6s						
KUR	Kuril'sk	3.71	246	eP	Pn	08 32 04.0	-0.8
KUR				AMB	AMB	08 32 05.0	
	comp=E,100nm,0.7s						
KUR				eS	Sn	08 32 50.0	+2.8
KUR				A		08 33 09.0	
	comp=E,400nm,0.6s						
KUR				A		08 33 09.0	
	comp=E,230nm,0.6s						
SKR	Severo-Kuril's	4.49	29	ePN	Pn	08 32 14.0	-1.4
SKR				eS	Sn	08 33 07.0	+0.7
SKR				pmax	pmax		
	comp=N,90nm,0.5s						
SKR				pmax	pmax		
	comp=Z,150nm,0.5s						
SKR				smax			
	comp=N,90nm,0.5s						
SKR				smax			
	comp=E,150nm,0.5s						
YUK	Yuzh-Kuril'sk	5.55	242	eP	Pn	08 32 34.4	+4.4
YUK				A		08 33 58.0	
	comp=E,750nm,0.8s						
YUK				A		08 33 58.0	
	comp=E,1μm,0.8s						
NEM2	Nemuro 2	6.00	237	P	Pn	08 32 34.3	-1.9
NEM2				eS	Sn	08 33 39.5	-4.0
JRA	Rausu	6.05	244	P	Pn	08 32 38.7	+1.8
JNK	Nakash	6.49	243	P	Pn	08 32 43.1	+0.2
JTKR	Abashiri--Toko	6.80	248	P	Pn	08 32 48.6	+1.5
JAK	Akkeshi	6.83	239	eS	Sn	08 33 59.3	-4.7
JAR	Ashorobuto	7.22	244	P	Pn	08 32 53.3	+0.3
JOB	Onbets	7.40	241	eS	Sn	08 34 16.0	-1.9
ASAJ	Asahikawa	7.58	253	PN	Pn	08 33 01.3	+3.4
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	7.58	253	P	Pn	08 33 01.3	+3.4
	comp=Z,1.6nm,0.3s,baz=71,slow=6.6,SNR=11						
JKK2	Kamakawa 2	7.59	251	P	Pn	08 33 00.1	+2.1
JCH	Churui	7.85	241	P	Pn	08 33 00.6	-1.0
JCH				eS	Sn	08 34 24.1	-4.8
JEM	Erimo	8.33	238	P	Pn	08 33 06.9	-1.2
JNBK	Urakawa-nobuka	8.41	241	P	Pn	08 33 08.6	-0.6
MA2	Magadan	12.83	356	ePn	Pn	08 34 06.0	-3.3
	comp=Z,6.8nm,0.6s						
MA2	Magadan	12.83	356	ePN	Pn	08 34 10.3	+0.9
MA2				pmax	pmax		
	comp=Z,10.0nm,0.7s						
MJAR	Matsushiro Arr	14.89	232	P	Pn	08 34 38.7	+1.8
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	14.89	232	P	Pn	08 34 38.7	+1.8
	comp=Z,0.5nm,0.3s,baz=36,slow=8.0,SNR=9.1						
MDJ	Mudanjiang	16.26	271	ePn	Pn	08 34 51.4	-3.0
	comp=Z,14nm,1.4s						
KSRS	Korea Array	20.53	252	P	P	08 35 43.7	+0.4
	comp=Z,1.4nm,0.7s,baz=54,slow=12,SNR=3.1						
MKAR	Makanchi Array	46.64	297	P	P	08 39 31.9	-0.1
	comp=Z,0.2nm,0.6s,mb3.2,baz=69,slow=11,SNR=2.5						
YKA	Yellowknife Ar	51.05	37	P	P	08 40 05.6	+0.1
YKA	Yellowknife Ar	51.05	37	P	P	08 40 05.6	+0.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	51.05	37	P	P	08 40 05.6	+0.1
	comp=Z,0.5nm,0.8s,mb3.5,baz=294,slow=7.3,SNR=8.4						
NVAR	Mina Array Bea	62.67	62	P	P	08 41 28.5	+0.3
	comp=Z,0.2nm,0.5s,mb3.5,baz=299,slow=5.1,SNR=5.9						
FINES	FINESS Array B	63.85	335	P	P	08 41 35.4	-0.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	63.85	335	P	P	08 41 35.4	-0.2
	comp=Z,0.6nm,0.4s,mb4.0,baz=29,slow=8.7,SNR=6.7						
PDAR	Pinedale Array	64.95	54	P	P	08 41 43.1	0.0
	comp=Z,0.8nm,0.8s,mb3.8,baz=282,slow=1.2,SNR=6.5						
NOA	NORSAR Array B	68.06	341	P	P	08 42 02.5	-0.2
NOA	NORSAR Array B	68.06	341	P	P	08 42 02.5	-0.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	NORSAR Array B	68.06	341	P	P	08 42 02.5	-0.2
	comp=Z,2.1nm,0.8s,mb4.2,baz=27,slow=6.0,SNR=3.4						
WRA	Warramunga Arr	68.48	199	P	P	08 42 05.3	-0.4
WRA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
WRA	Warramunga Arr	68.48	199	P	P	08 42 05.3	-0.3
	comp=Z,0.7nm,1.0s,mb3.6,baz=347,slow=7.6,SNR=3.3						
ASAR	Alice Springs	72.18	198	P	P	08 42 28.7	+0.5
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	72.18	198	P	P	08 42 28.6	+0.5
	comp=Z,0.7nm,0.6s,mb3.7,baz=12,slow=5.2,SNR=15						
TXAR	Lajitas Array	77.72	60	P	P	08 43 00.1	-0.2
	comp=Z,0.4nm,0.6s,mb3.5,baz=292,slow=4.9,SNR=8.2						

*NIED **23** 08:37:00, 46.80N×153.20E, h47^{km}, Mw4.8 Best double couple: M$_0$1.67000×10^{16} NP1: ϕ_s44.00000°, δ14.00000°, λ51.00000°. NP2: ϕ_s264.00000°, δ79.00000°, λ99.00000°.*

*BJI **23** 08:37:06.8, 46.63N×152.75E, h7^{km}, mB4.9, mb4.5, Ms4.5, Msz4.4*

*NEIC **23** 08:37:07.3±0.3, 46.63N×152.92E, h10^{km}, mb4.8/14, Error ellipse: s-maj=10.4km s-min=5.3km az=147.0*

*ISCJB **23** 08:37:09.2±0.6, 46.55N±0.04×152.99E±0.04, h39^{km}±6^{km}, mb4.4/36, MS4.1/7, Error ellipse: s-maj=7.9km s-min=3.9km az=150.5*

*MOS **23** 08:37:09.5±1.2, 46.67N×153.03E, h43^{km}, mb4.7/18, Error ellipse: s-maj=12.0km s-min=7.6km az=58.7*

*SKHL **23** 08:37:10.8±0.8, 46.69N×153.07E, h48^{km}±3^{km}, mb5.1/3*

*IDC **23** 08:37:16.3±3.5, 46.82N×152.71E, h85^{km}±33^{km}, mb3.9/19, mb1 4.2/20, mb1mx4.0/27, mbtmp4.0/20, MS4.0/5, Ms1 4.0/5, ms1mx3.4/44, Error ellipse: s-maj=18.2km s-min=12.3km az=142.0*

ISC 23 08:37:12.6±0.5, **46.58N**±0.04×**152.91E**±0.05, **h51**^{km}±5^{km}, **h27**^{km}±10.8^{km}**:pP-P**, **n296**, σ**0^{s}90**/314, **mb4.4**/36, **MS4.1**/7, **62C-79D**, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	3.77	251	⇓iPN	Pn	08 38 08.3	+0.2
KUR				eS	Sn	08 38 52.0	+0.8
KUR				pmax	pmax		
	comp=N,90nm,0.7s						
KUR				pmax	pmax		
	comp=E,90nm,0.7s						
KUR				pmax	pmax		
	comp=Z,430nm,0.7s						
KUR				smax			
	comp=N,3μm,1.0s						
KUR				smax			
	comp=E,5μm,1.0s						
KUR				smax			
	comp=N,1μm,0.6s						
KUR				smax			
	comp=E,380nm,0.6s						
KUR	Kuril'sk	3.77	251	i P	Pn	08 38 08.3	+0.2
KUR				AMB	AMB	08 38 09.0	
	comp=E,90nm,0.7s						
KUR				AMB	AMB	08 38 09.0	
	comp=E,430nm,0.7s						
KUR				eS	Sn	08 38 52.0	+0.8
KUR				A		08 39 07.0	
	comp=E,3μm,1.0s						
KUR				A		08 39 07.0	
	comp=E,5μm,1.0s						
KUR				A		08 39 12.8	
	comp=E,1μm,0.6s						
KUR				A		08 39 12.8	
	comp=E,380nm,0.6s						
SKR	Severo-Kuril's	4.63	26	ePN	Pn	08 38 16.5	-3.3
SKR				eS	Sn	08 39 12.5	+0.3
SKR				pmax	pmax		
	comp=N,230nm,0.5s						
SKR				pmax	pmax		
	comp=E,150nm,0.5s						
SKR				pmax	pmax		
	comp=Z,540nm,0.5s						
SKR				smax			
	comp=E,2μm,1.0s						
SKR				smax			
	comp=N,230nm,0.5s						
SKR	Severo-Kuril's	4.63	26	eP	Pn	08 38 16.5	-3.3
SKR				AMB	AMB	08 38 19.8	
	comp=N,150nm,0.5s						
SKR				AMB	AMB	08 38 19.8	
	comp=N,540nm,0.5s						
SKR				eS	Sn	08 39 12.5	+0.3
SKR				A		08 39 27.0	
	comp=N,230nm,1.0s						
SKR				A		08 39 27.0	
	comp=N,2μm,1.0s						
YUK	Yuzh-Kuril'sk	5.58	245	ePN	Pn	08 38 33.9	+0.9
YUK				i S	Sn	08 39 45.0	+9.2
YUK				pmax	pmax		
	comp=Z,280nm,0.5s						
YUK				smax			
	comp=N,1μm,0.8s						
YUK				smax			
	comp=E,2μm,0.8s						
YUK				smax			
	comp=N,2μm,0.8s						
YUK	Yuzh-Kuril'sk	5.58	245	eP	Pn	08 38 33.9	+0.9
YUK				AMB	AMB	08 38 40.2	
	comp=N,280nm,0.5s						
YUK				i S	Sn	08 39 45.0	+9.2
YUK				A		08 39 59.0	
	comp=N,1μm,0.8s						
YUK				A		08 39 59.0	
	comp=N,2μm,0.8s						
YUK				A		08 40 02.0	
	comp=N,2μm,0.8s						
NEM2	Nemuro 2	6.01	240	P	Pn	08 38 37.8	-1.1
NEM2				eS	Sn	08 39 44.1	-2.2
JRA	Rausu	6.10	247	P	Pn	08 38 41.9	+1.9
JNK	Nakash	6.53	246	P	Pn	08 38 46.7	+0.8
JNK				eS	Sn	08 40 00.6	+1.7
JAK	Akkeshi	6.85	241	P	Pn	08 38 49.8	-0.6
JAK				eS	Sn	08 40 04.6	-2.4
JTKR	Abashiri--Toko	6.87	251	P	Pn	08 38 52.3	+1.8
YSS	Yuzh-Sakhalins	6.99	277	ePn	Pn	08 38 50.4	-1.8
YSS	Yuzh-Sakhalins	6.99	277	ePN	Pn	08 38 54.0	+1.8
YSS				pmax	pmax		
	comp=Z,60nm,1.0s						
YSS	Yuzh-Sakhalins	6.99	277	eP	Pn	08 38 54.0	+1.8
YSS				AMB	AMB	08 38 57.0	
	comp=Z,60nm,1.0s						
YSS				eS	Sn	08 40 11.5	+1.3
JMP	Maruseppu	7.21	253	P	Pn	08 38 57.9	+2.6
JAR	Ashorobuto	7.27	246	P	Pn	08 38 57.1	+1.0
JOB	Onbets	7.43	244	P	Pn	08 38 59.1	+0.8
JOB				eS	Sn	08 40 20.3	-0.9
PET	Petropavlovsk	7.45	28	ePn	Pn	08 38 55.7	-2.7
PET	Petropavlovsk	7.45	28	ePN	Pn	08 38 55.8	-2.6
PET				pmax	pmax		
	comp=Z,75nm,1.0s						
PET				MLR	MLR		
	comp=Z,600nm,17.0s						
PET	Petropavlovsk	7.45	28	eP	Pn	08 38 54.5	-3.9
JKK2	Kamakawa 2	7.67	253	P	Pn	08 39 03.8	+2.3
ASAJ	Asahikawa	7.67	255	P	Pn	08 39 04.7	+3.1
ASAJ	Asahikawa	7.67	255	PN	Pn	08 39 04.6	+3.0
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,382nm,20.2s						
ASAJ	Asahikawa	7.67	255	P	Pn	08 39 04.6	+3.0
	comp=Z,4.8nm,0.3s,baz=88,slow=16,SNR=38						
ASAJ				LR	LR	08 41 52.3	
	comp=Z,382nm,20.2s,baz=357,slow=36						
JCH	Churui	7.88	243	P	Pn	08 39 04.1	-0.4
JCH				eS	Sn	08 40 28.0	-4.2
JAB	Ashibetsu	8.17	252	P	Pn	08 39 10.9	+2.5
JEM	Erimo	8.35	240	P	Pn	08 39 11.9	+1.0
ERM	Erimo	8.35	240	ePn	Pn	08 39 08.3	-2.6
	comp=Z,105nm,0.6s						
ERM	Erimo	8.35	240	⇓iPN	Pn	08 39 11.8	+0.9
JBT2	Biratori 2	8.42	247	P	Pn	08 39 12.5	+0.7
JNBK	Urakawa-nobuka	8.44	243	P	Pn	08 39 11.6	-0.5
JNB	Noboribetsu	9.42	248	P	Pn	08 39 25.7	+0.2
JNB				eS	Sn	08 41 08.6	-1.4
JKB	Kayabe	9.73	245	P	Pn	08 39 28.6	-1.1
JSH	Shimam	9.98	251	P	Pn	08 39 34.0	+0.8
JYM2	Yakumo 2	10.03	248	P	Pn	08 39 33.7	-0.1
JSR	Shiriuchi	10.31	245	P	Pn	08 39 36.5	-1.2
JANG	Nango	10.34	237	P	Pn	08 39 34.9	-3.2
JANG				eS	Sn	08 41 23.0	-9.5
JTM	Tenmabayashi	10.34	240	P	Pn	08 39 36.2	-1.9
JOSM	Okushiri--Mats	10.62	250	P	Pn	08 39 41.8	-0.1
OFUJ	Ofunato	11.14	232	P	Pn	08 39 45.8	-3.2
JRG	Rokugo	11.49	236	P	Pn	08 39 51.1	-2.8
JIO	Ouri	11.77	231	P	Pn	08 39 55.4	-2.2
HABR	Khabarovsk	12.22	285	ePN	Pn	08 40 04.9	+1.1
HABR				eS	Sn	08 42 26.9	+8.5
MA2	Magadan	13.09	355	ePn	Pn	08 40 13.6	-1.9
MA2	Magadan	13.09	355	c iPN	Pn	08 40 13.7	-1.7
MA2				pmax	pmax		
	comp=Z,7.0nm,0.7s						
JFY	Yanaizu	13.42	232	P	Pn	08 40 17.9	-2.2
MAJO	Matsushiro	14.86	233	ePn	Pn	08 40 40.3	+0.8
MAT	Matsushiro	14.86	233	P	Pn	08 40 36.7	-2.7
MJAR	Matsushiro Arr	14.86	233	P	Pn	08 40 37.4	-2.1
	comp=Z,0.3nm,0.3s,baz=26,slow=14,SNR=12						
MDJ	Mudanjiang	16.43	272	P	Pn	08 40 59.6	+0.2
MDJ				AP	pP	08 41 05.6	-7.4
MDJ				XP	sP	08 41 07.1	-12
MDJ				S	S	08 44 03.5	-7.1
MDJ				PCP	PcP	08 45 54.1	+5.2
MDJ				SCP	ScP	08 49 26.3	+7.4
MDJ				PCS	PcS	08 49 28.3	+3.8
MDJ				SCS	ScS	08 53 06.5	+8.6
MDJ				AMB	AMB		
	comp=Z,10.0nm,1.5s						
MDJ				AMB	AMB		
	comp=Z,246nm,4.4s						
YAK	Yakutsk	20.39	328	eP	P	08 41 45.8	+1.0
	comp=Z,31nm,0.6s						
YAK				epP		08 41 56.8	
YAK	Yakutsk	20.39	328	eP	pP	08 41 54.5	-2.0
YAK				e	S	08 45 28.2	-2.0
YAK				pmax	pmax		
	comp=Z,32nm,1.0s						
YAK				pmax	pmax		
	comp=N,11nm,1.1s						
YAK				pmax	pmax		
	comp=E,12nm,1.4s						
YAK				pmax	pmax		
	comp=E,13nm,1.3s						
YAK				pmax	pmax		
	comp=N,13nm,1.4s						
KSRS	Korea Array	20.61	253	P	P	08 41 48.4	+1.0
	comp=N,8.9nm,0.9s,baz=56,slow=10,SNR=17						
SNY	Shenyang	21.49	268	⇑P	P	08 41 57.8	+1.0
SNY				XP	sP	08 42 03.8	-11
SNY				S	S	08 45 51.4	-0.7
SNY				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.2						
SNY				AMB	AMB		
	comp=Z,332nm,5.2s						
SNY				LR	LR		
	comp=E,333nm,20.0s						
SNY				LR	LR		
	comp=Z,489nm,16.3s,MS4.0						
JNU	Nakatsue	21.51	239	P	P	08 41 58.1	+1.0
	comp=Z,16nm,0.8s,mb4.5,baz=112,slow=4.9,SNR=5.3						
HIA	Hailar	22.29	289	eP	P	08 42 10.3	+5.0
BILL	Bilibino	22.59	13	eP	P	08 42 05.1	-3.2
BILL				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.7						
BOD	Bodaibo	25.99	310	eP	P	08 42 42.0	+1.8
GAMB	Gambell	26.05	36	eP	P	08 42 42.0	+1.4
GAMB				epP	pP	08 42 53.8	+0.2
TIXI	Tiksi	27.60	344	eP	P	08 42 58.3	+3.8
TIXI				pmax	pmax		
	comp=Z,1.0nm,1.3s						
SONM	Songino Array	31.26	290	P	P	08 43 27.3	+0.1
SONM				pmax	pmax		
	comp=Z,2.0nm,1.1s						
SONM				MLR	MLR		
	comp=Z,130nm,18.9s						
SONM	Songino Array	31.26	290	P	P	08 43 27.3	+0.1
	comp=Z,1.6nm,1.1s,mb3.8,baz=69,slow=7.9,SNR=3.9						
SONM				LR	LR	08 56 52.4	
	comp=Z,130nm,18.9s,MS3.6,baz=175,slow=38						
TTA	Tatalina	32.64	41	eP	P	08 43 39.0	-0.1
	comp=Z,8.0nm,0.8s,mb4.7						
TTA	Tatalina	32.64	41	eP	P	08 43 39.0	-0.1
TTA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
SVW2	Sparrevohn	32.71	45	eP	P	08 43 39.5	-0.2
IMA2	Indian Mountai	34.03	36	eP	P	08 43 50.6	-0.5
KDAK	Kodiak Island	34.32	51	eP	P	08 43 52.7	-1.1
	comp=Z,11nm,0.6s,mb5.0						
KDAK	Kodiak Island	34.32	51	P	P	08 43 52.3	-1.4
	comp=Z,14nm,0.8s,mb5.0,baz=287,slow=4.9,SNR=8.3						
XAN	Xi'an	35.36	265	P	P	08 44 02.8	-0.2
XAN				AP	pP	08 44 15.1	-1.2
XAN				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.7						
COLA	College	36.36	38	eP	P	08 44 11.0	-0.2
	comp=Z,16nm,1.0s,mb4.9						
COLA	College	36.36	38	eP	P	08 44 11.0	-0.2
COLA				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
LZH	Lanzhou	37.76	272	eP	P	08 44 24.5	+1.1
LZH				AP	pP	08 44 27.5	-9.2

LZH				XP	sP	08 44 29.5	-13
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.7						
LZH	Lanzhou	37.76	272	eP	P	08 44 24.5	+1.1
	comp=Z,15nm,1.0s,mb4.7						
LZH				pP	pP	08 44 27.5	-9.2
LZH				sP	sP	08 44 29.5	-13
EGAK	Eagle	39.22	38	eP	P	08 44 34.6	-0.8
	comp=Z,15nm,1.0s,mb4.7						
CD2	Chengdu	40.73	265	⇓iP	P	08 44 46.3	-1.9
CD2				AP	pP	08 44 50.8	-11
CD2				XP	sP	08 44 54.0	-14
CD2				PP	PP	08 46 22.8	+0.1
CD2				S	S	08 50 52.5	-2.4
CD2				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.9						
CD2				AMB	AMB		
	comp=Z,40nm,5.2s						
CD2				LR	LR		
	comp=N,120nm,14.4s						
CD2				LR	LR		
	comp=Z,70nm,15.6s,MS3.6						
GYA	Guiyang	41.54	258	P	P	08 44 58.4	+3.4
GYA				AP	pP	08 45 01.4	-7.1
GYA				XP	sP	08 45 03.8	-11
GYA				PP	PP	08 46 37.9	+6.3
GYA				PCP	PcP	08 46 55.8	+4.3
GYA				S	S	08 51 15.0	+7.9
GYA				SCS	ScS	08 54 59.9	+6.1
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
GYA				AMB	AMB		
	comp=Z,80nm,4.9s						
GYA				LR	LR		
	comp=N,440nm,17.9s,MS4.5						
GYA				LR	LR		
	comp=E,470nm,18.0s,MS4.5						
GYA				LR	LR		
	comp=Z,560nm,18.4s,MS4.5						
INK	Inuvik	41.87	32	eP	P	08 44 57.1	0.0
	comp=Z,275nm,0.8s						
INK	Inuvik	41.87	32	P	P	08 44 57.1	-0.1
INK				pmax	pmax		
	comp=Z,8.0nm,0.7s						
INK	Inuvik	41.87	32	P	P	08 44 57.1	0.0
	comp=Z,7.6nm,0.7s,mb4.5,baz=286,slow=8.2,SNR=22						
WMQ	Urumqi	44.86	291	P	P	08 45 25.3	+3.8
KMI	Kunming	45.07	259	P	P	08 45 28.3	+4.9
KMI				AMB	AMB		
	comp=Z,5.0nm,1.5s,mb4.1						
KMI	Kunming	45.07	259	P	P	08 45 28.3	+4.9
	comp=Z,5.0nm,1.5s,mb4.1						
DLBC	Dease Lake	45.82	46	eP	P	08 45 28.9	0.0
MK31	Makanchi Array	46.90	297	eP	P	08 45 35.7	-1.8
MKAR	Makanchi Array	46.90	297	P	P	08 45 35.7	-1.8
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	46.90	297	P	P	08 45 35.7	-1.8
	comp=Z,0.5nm,0.6s,mb3.7,baz=67,slow=7.0,SNR=5.8						
LSA	Lhasa	50.15	273	P	P	08 46 04.0	+1.3
LSA	Lhasa	50.15	273	eP	P	08 46 03.5	+0.8
	comp=Z,8.3nm,0.6s,mb4.9						
LSA	Lhasa	50.15	273	eP	P	08 46 03.5	+0.8
LSA				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
YKW3	Yellowknife Ar	51.11	36	eP	P	08 46 09.5	0.0
YKW3				epP	pP	08 46 18.8	-4.5
YKA	Yellowknife Ar	51.15	37	P	P	08 46 09.3	-0.5
	comp=Z,2.2nm,0.8s,mb4.1,baz=295,slow=7.2,SNR=29						
CHTO	Chiang Mai	51.94	257	eP	P	08 46 17.3	+1.0
	comp=Z,3.5nm,0.8s,mb4.3						
CHTO	Chiang Mai	51.94	257	eP	P	08 46 17.3	+1.0
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
SHL	Shillong	52.23	269	eP	P	08 46 19.0	+0.6
TAPN	Taplejung	53.97	273	eP	P	08 46 30.5	-0.7
ODAN	Odare	54.50	273	eP	P	08 46 34.7	-0.3
B05A	Bryant	54.63	55	⇓P	P	08 46 35.6	-0.1
	baz=54						
JCW	Jim Creek	54.76	55	P	P	08 46 37.1	+0.4
A07A	Ashnola River,	55.16	53	⇓P	P	08 46 39.1	-0.4
	baz=55						
C05A	Tolt Reservoir	55.17	55	⇓P	P	08 46 38.8	-0.7
	baz=55						
KKN	Kakani	55.37	275	eP	P	08 46 42.2	+0.9
H02A	Toledo	55.49	59	⇑P	P	08 46 42.5	+0.6
	baz=55						
B07A	Winthrop	55.63	54	⇓P	P	08 46 42.2	-0.7
	baz=55						
GKN	Gorkha	55.67	276	eP	P	08 46 43.9	+0.4
NLW	Nelson Butte	55.72	54	P	P	08 46 44.0	+0.5
F04A	Amboy	55.72	57	⇓P	P	08 46 43.2	-0.4
	baz=55						
A08A	Turner Farm, O	55.82	53	P	P	08 46 44.5	+0.2
	baz=56,SNR=5.3						
D06A	Cle Elum	55.92	55	⇓P	P	08 46 44.9	-0.1
	baz=56						
TBM	Table Mountain	56.08	55	P	P	08 46 46.4	+0.3
C07A	Waterville	56.09	54	⇓P	P	08 46 46.1	0.0
	baz=56						
G04A	Mulino	56.09	58	⇓P	P	08 46 46.2	-0.1
	baz=56						
B08A	Colville Reser	56.12	53	⇓P	P	08 46 45.7	-0.7
	baz=56						
A09A	Danville	56.19	52	P	P	08 46 47.2	+0.3
	baz=56,SNR=7.8						
EBG	Ellensburg	56.24	55	P	P	08 46 48.0	+0.7
D07A	Quincy	56.42	55	⇓P	P	08 46 47.8	-0.7
	baz=56						
J02A	Umpqua	56.48	60	⇑P	P	08 46 49.0	-0.1
	baz=56						
EDM	Edmonton	56.54	46	eP	P	08 46 49.1	-0.2
H04A	Detroit Lake	56.56	58	⇑P	P	08 46 48.1	-1.4
	baz=56						
C08A	Higginbotham F	56.60	54	P	P	08 46 50.0	+0.2
	baz=56,SNR=5.3						
B09A	Rice	56.74	53	⇓P	P	08 46 50.1	-0.7
	baz=56						
A10A	Northport	56.74	52	⇓P	P	08 46 50.8	0.0
	baz=56						
G05A	Wamic	56.75	57	⇑P	P	08 46 51.2	+0.3
	baz=56						
E07A	Sunnyside	56.84	55	⇑P	P	08 46 51.2	-0.4
	baz=56						
K02A	Glendale	56.88	61	⇑P	P	08 46 52.1	+0.2
	baz=56						
I04A	Tendick Farm,	56.93	59	⇑P	P	08 46 52.5	+0.3
	baz=57						
C09A	Chrisman Ranch	57.02	53	⇓P	P	08 46 52.5	-0.3
	baz=57						
D08A	Wollman Farm,	57.09	54	⇓P	P	08 46 52.9	-0.4
	baz=57						
H05A	Madras	57.14	58	⇑P	P	08 46 53.6	-0.1
	baz=57						
G06A	Carlson Farm,	57.15	57	⇓P	P	08 46 53.7	-0.1
	baz=57						
F07A	Phinny Hill Vi	57.18	56	⇑P	P	08 46 54.6	+0.6
	baz=57						
E08A	Dider Farm, El	57.33	55	⇓P	P	08 46 54.6	-0.4
	baz=57						
NEW	Newport	57.39	52	P	P	08 46 55.4	0.0
NEW				pmax	pmax		
	comp=Z,4.0nm,0.9s						
NEW	Newport	57.39	52	P	P	08 46 55.4	0.0
	comp=Z,3.5nm,0.9s,mb4.4,baz=305,slow=9.0,SNR=7.6						
I05A	Bend	57.40	58	⇓P	P	08 46 56.1	+0.6
	baz=57						
A11A	Hall Mountain,	57.41	51	⇓P	P	08 46 55.9	+0.4
	baz=57						
H06A	Lindquist Farm	57.61	57	⇑P	P	08 46 56.3	-0.7
	baz=57						
G07A	Ruggs Ranch, H	57.69	57	⇓P	P	08 46 57.5	0.0
	baz=57						
A12A	Yaak River Ran	57.80	51	⇑P	P	08 46 58.7	+0.4
	baz=57						
E09A	Wood Farm, Sta	57.83	55	⇓P	P	08 46 58.5	0.0
	baz=58						
J05A	Fort Rock	57.92	59	⇓P	P	08 46 59.2	-0.1
	baz=58						
YBH	Yreka Blue Hor	57.95	62	⇑P	P	08 46 59.3	-0.1
	baz=58						
D10A	Wagner Farm, O	58.01	54	⇑P	P	08 46 59.4	-0.3
	baz=58						
G08A	Pilot Rock	58.08	56	⇓P	P	08 46 59.9	-0.4
	baz=58						
I06A	Prineville	58.14	58	⇓P	P	08 47 00.7	0.0
	baz=58						
L04A	Klamath Falls	58.18	61	⇓P	P	08 47 00.6	-0.4
	baz=58						
E10A	Myers Farm, Un	58.43	54	⇑P	P	08 47 02.4	-0.3
	baz=58						
K05A	Summer Lake	58.46	60	⇑P	P	08 47 03.9	+1.0
	baz=58						
A13A	Flathead Natio	58.47	51	⇑P	P	08 47 02.7	-0.3
	baz=58						
I07A	Izee	58.48	58	⇑P	P	08 47 03.4	+0.3
	baz=58						
J06A	Christmas Vall	58.59	59	⇓P	P	08 47 04.1	+0.3
	baz=58						
WALA	Waterton Lakes	58.66	50	eP	P	08 47 04.5	+0.2
F10A	Beach Ranch, E	58.67	55	⇓P	P	08 47 04.0	-0.3
	baz=58						
H08A	Prairie City	58.70	57	⇑P	P	08 47 05.0	+0.3
	baz=58						
B13A	Whitefish	58.77	51	P	P	08 47 05.7	+0.7
	baz=58,SNR=10						
K06A	Valley Falls	58.79	59	P	P	08 47 07.0	+1.7
	baz=58,SNR=5.0						
L05A	Lakeview	58.89	60	⇑P	P	08 47 06.6	+0.6
	baz=58						
J07A	Hines	59.01	58	⇑P	P	08 47 06.1	-0.7
	baz=59						
E11A	Bogner Ranch,	59.01	54	⇑P	P	08 47 06.1	-0.6
	baz=59						
M05C	Lookout	59.12	61	⇑P	P	08 47 07.5	0.0
	baz=59						
C13A	Hot Springs	59.12	52	⇓P	P	08 47 07.2	-0.3
	baz=59						
GASB	Alder Springs	59.18	63	⇓P	P	08 47 07.6	-0.4
	baz=59						
H09A	Durkee	59.19	56	⇓P	P	08 47 08.0	0.0
	baz=59						
F11A	Grangeville	59.32	54	⇑P	P	08 47 08.6	-0.3
	baz=59						
K07A	Rock Creek Ran	59.45	59	⇑P	P	08 47 09.5	-0.4
	baz=59						
J08A	Circle Bar Ran	59.51	58	⇓P	P	08 47 09.5	-0.7
	baz=59						
C14A	Swan Lake	59.52	51	⇓P	P	08 47 10.3	+0.1
	baz=59						
D13A	Huson	59.54	52	⇑P	P	08 47 10.4	+0.1
	baz=59						
H10A	Noah's Angus R	59.76	56	P	P	08 47 12.5	+0.5
	baz=59,SNR=6.2						
O04C	Chester	59.78	62	⇓P	P	08 47 12.1	0.0
	baz=59						
L07A	Adell	59.80	59	⇑P	P	08 47 11.9	-0.3
	baz=59						
K08A	Mann Creek Ran	59.88	58	⇓P	P	08 47 13.8	+1.0
	baz=60						
F12A	Elk City	59.90	54	P	P	08 47 13.9	+1.1
	baz=60,SNR=6.4						
J09A	Fry Pan Ranch,	59.93	57	P	P	08 47 14.5	+1.3
	baz=60,SNR=5.5						
ORV	Oroville	59.99	63	⇓P	P	08 47 13.2	-0.4
	baz=60						
D14A	Greenough	60.06	52	P	P	08 47 14.3	+0.4
	baz=60,SNR=12						
E13A	Victor	60.08	53	⇓P	P	08 47 14.5	+0.4
	baz=60						
H11A	Donnelly	60.11	55	P	P	08 47 14.6	+0.2
	baz=60,SNR=6.4						
N06A	Buffalo Meadow	60.27	61	⇑P	P	08 47 15.5	0.0
	baz=60						
M07A	Soldier Meadow	60.28	60	P	P	08 47 17.1	+1.5
	baz=60,SNR=10						
L08A	Fields	60.29	59	⇓P	P	08 47 16.3	+0.7
	baz=60						
K09A	Rome	60.34	58	⇓P	P	08 47 15.3	-0.7
	baz=60						
F13A	Darby	60.40	53	⇑P	P	08 47 15.7	-0.6
	baz=60						
E14A	Clinton	60.48	53	P	P	08 47 17.0	+0.2
	baz=60,SNR=7.9						
BEKR	Beckwourth	60.49	62	⇓P	P	08 47 16.7	-0.3
	baz=60						
D15A	Lincoln	60.62	51	⇓P	P	08 47 17.5	-0.2
	baz=60						
O06A	Flanigan	60.63	61	⇓P	P	08 47 18.3	+0.3
	baz=60						
M08A	Happy Creek Ra	60.72	60	⇓P	P	08 47 18.2	-0.3
	baz=60						
N07B	Gerlach	60.77	60	⇑P	P	08 47 18.3	-0.7
	baz=60						
L09A	Wilkinson Ranc	60.79	59	⇑P	P	08 47 18.7	-0.3
	baz=60						
K10A	MacKenzie Ranc	60.79	58	⇓P	P	08 47 18.7	-0.3
	baz=60						
G13A	Cobalt	60.88	54	P	P	08 47 19.8	+0.2
	baz=60,SNR=8.0						
F14A	Wisdom	60.91	53	⇑P	P	08 47 19.5	-0.2
	baz=60						
E15A	Deer Lodge	60.94	52	P	P	08 47 20.4	+0.5
	baz=61,SNR=6.4						
LAVA	Lava Cap Winer	60.94	63	⇓P	P	08 47 20.1	0.0
	baz=61						
H13A	Challis	61.19	55	P	P	08 47 22.4	+0.7
	baz=61,SNR=5.8						
O07A	Toulon	61.21	61	P	P	08 47 23.1	+1.2
	baz=61,SNR=5.2						
N08A	GE Springer Mi	61.27	60	⇑P	P	08 47 23.0	+0.7
	baz=61						
K11A	Parker Ranch,	61.28	57	⇓P	P	08 47 22.7	+0.4
	baz=61						
F15A	Butte	61.38	53	P	P	08 47 23.9	+0.9
	baz=61,SNR=7.0						
LRM	Limekiln Ridge	61.41	53	eP	P	08 47 23.5	+0.3
JOF	Joensuu	61.43	334	ep	P	08 47 36.6	+14
	comp=Z,0.5nm,0.3s,mb4.1						
L10A	Juniper Basin	61.46	58	⇑P	P	08 47 23.9	+0.4
	baz=61						
EGMT	Eagleton	61.48	49	⇓P	P	08 47 23.4	-0.2
	baz=61						
FCC	Fort Churchill	61.48	33	eP	P	08 47 22.4	-1.1
J12A	Stokes Ranch,	61.53	56	⇓P	P	08 47 24.4	+0.4
	baz=61						
N09A	Rock Creek Ran	61.59	60	⇑P	P	08 47 24.5	0.0
	baz=61						
CMB	Columbia Colle	61.61	64	⇑P	P	08 47 25.0	+0.4
	baz=61						
I13A	Wildhorse Cree	61.67	55	P	P	08 47 26.1	+1.2
	baz=61,SNR=5.3						
PACP	Pacheco Peak	61.68	65	⇓P	P	08 47 25.2	0.0
	baz=61						
M10A	I.L. Ranch, Tu	61.76	58	⇓P	P	08 47 26.3	+0.7
	baz=61						
G15A	Dillon	61.80	53	⇑P	P	08 47 26.2	+0.5
	baz=61						
L11A	Cat Creek Ranc	61.82	57	⇑P	P	08 47 26.7	+0.7
	baz=61						
R06C	Coleville	61.88	63	⇓P	P	08 47 26.8	+0.4
	baz=62						
J13A	Cove Ranch, Pi	61.96	56	⇓P	P	08 47 27.7	+0.8
	baz=62						
BOZ	Bozeman (W)	61.97	52	⇓P	P	08 47 27.1	+0.1
	baz=62						
K12A	Draper Farm, C	62.02	57	⇓P	P	08 47 27.7	+0.4
	baz=62						
S05C	Merced	62.07	64	⇓P	P	08 47 27.4	-0.3
	baz=62						
O09A	Fish Creek Ran	62.22	60	⇓P	P	08 47 29.4	+0.7
	baz=62						
M11A	Holland Ranch,	62.26	58	⇑P	P	08 47 29.0	+0.1
	baz=62						
L12A	House Creek Ra	62.26	57	⇓P	P	08 47 29.4	+0.4
	baz=62						
O10A	Cortez Mining,	62.55	60	⇑P	P	08 47 31.3	+0.4
	baz=62						
Q08A	Gabbs	62.59	62	P	P	08 47 32.3	+1.1
	baz=62,SNR=5.1						
NVAR	Mina Array Bea	62.64	62	P	P	08 47 32.3	+0.8
	comp=Z,3.0nm,0.7s,mb4.5,baz=286,slow=8.7,SNR=23						
M12A	Wells	62.78	58	⇓P	P	08 47 32.5	+0.1
	baz=62						
L13A	Double Diamond	62.92	57	⇓P	P	08 47 34.1	+0.8
	baz=62						
K14A	Jones Ranch, D	63.07	56	⇑P	P	08 47 34.1	-0.2
	baz=63						
O11A	Cowboy Ranch,	63.16	59	⇓P	P	08 47 35.0	+0.1
	baz=63						
S08C	White Mtn Res	63.31	63	⇑P	P	08 47 36.0	+0.1
	baz=63						
R09A	Tonopah	63.51	62	⇑P	P	08 47 37.4	+0.1
	baz=63						
Q10A	Clear Creek Ra	63.54	61	⇑P	P	08 47 37.2	-0.2
	baz=63						
KAF	Kangasniemi	63.54	335	ep	P	08 47 50.8	+14
O12A	Currie	63.61	59	⇑P	P	08 47 38.3	+0.5
	baz=63						
MOOW	Moose Ponds	63.66	53	eP	P	08 47 38.7	+0.4
S09A	Goldfield	63.74	62	⇑P	P	08 47 38.2	-0.6
	baz=63						
VES	Vestal, Richgr	63.80	65	⇑P	P	08 47 38.3	-1.0
	baz=63						
LOHW	Long Hollow	63.83	54	eP	P	08 47 40.4	+1.0
PKM	Peak Mountain	63.94	66	⇓P	P	08 47 40.0	-0.2
	baz=64						
Q11A	Duckwater	63.98	60	⇑P	P	08 47 39.8	-0.6
	baz=64						
S10A	Tonopah Range,	64.00	62	⇓P	P	08 47 40.3	-0.2
	baz=64						
GRAC	Grapevine Rang	64.12	63	⇓P	P	08 47 41.1	-0.2
	baz=64						
FINES	FINESS Array B	64.14	335	i P	P	08 47 39.0	-2.0
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	64.14	335	P	P	08 47 39.0	-2.1
	comp=Z,1.2nm,0.4s,mb4.2,baz=34,slow=7.8,SNR=14						
M15A	Larsen Ranch,	64.18	56	⇑P	P	08 47 40.7	-0.9
	baz=64						
LAO	LASA Array	64.18	49	eP	P	08 47 42.5	+0.9
	comp=Z,11nm,0.9s,mb4.9						
ISA	Isabella	64.29	65	⇑P	P	08 47 41.6	-0.9
	baz=64						
Q12A	Willow Creek R	64.34	60	⇓P	P	08 47 43.6	+0.8
	baz=64						
MPMC	Manual Prospec	64.65	64	⇓P	P	08 47 44.6	-0.2
	baz=64						
S11A	Rachel	64.69	61	⇑P	P	08 47 45.9	+0.8
	baz=64						
FURC	Furnace Creek,	64.77	63	⇑P	P	08 47 45.7	+0.1
	baz=64						
DUG	Dugway	64.78	58	⇓P	P	08 47 45.8	+0.2
	baz=64						
PDAR	Pinedale Array	64.96	54	P	P	08 47 47.2	+0.5
	comp=Z,3.2nm,0.8s,mb4.4,baz=290,slow=1.5,SNR=27						
PDAR				LR	LR	09 13 46.6	
	comp=Z,144nm,19.6s,MS4.2,baz=140,slow=34						
EDW2	Edwards Air Fo	65.10	65	⇑P	P	08 47 47.8	+0.1
	baz=65						
SNCC	San Nicolas Is	65.19	67	⇓P	P	08 47 48.1	-0.2
	baz=65						
S12A	Delamar Landin	65.26	61	⇑P	P	08 47 48.9	+0.1
	baz=65						
T11A	Corn Creek, Al	65.27	61	⇓P	P	08 47 49.0	+0.1
	baz=65						
GSC	Goldstone	65.56	64	⇑P	P	08 47 49.9	-0.9
	baz=65						
BFSC	Mount Baldy St	65.72	65	⇑P	P	08 47 51.6	-0.2
	baz=65						
S13A	Holt Ranch, En	65.87	60	⇓P	P	08 47 52.5	-0.2
	baz=66						
T13A	Saint George	66.21	61	⇓P	P	08 47 55.0	+0.2
	baz=66						
V12A	Nelson	66.49	62	⇓P	P	08 47 56.8	+0.2
	baz=66						
GMRC	Granite Mounta	66.61	64	⇑P	P	08 47 58.0	+0.5
	baz=66						
ULM	Lac du Bonnet	66.75	41	P	P	08 47 56.6	-1.5
	comp=Z,2.2nm,0.6s,mb4.3,baz=310,slow=6.1,SNR=9.0						
SRU	San Rafael	66.83	57	eP	P	08 47 59.1	+0.3
	comp=Z,3.9nm,0.6s,mb4.6						
SRU	San Rafael	66.83	57	eP	P	08 47 59.1	+0.3
SRU				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
109C	Camp Elliot, M	66.96	66	⇑P	P	08 47 59.2	-0.5
	baz=67						
T15A	Red Dirt Ranch	67.13	60	⇓P	P	08 47 59.9	-0.8
	baz=67						
IRM	Iron Mountain	67.34	64	⇓P	P	08 48 01.7	-0.4
	baz=67						
X13A	Yucca	67.86	63	⇓P	P	08 48 04.6	-0.8
	baz=68						
PDMCI	Parker Dam,Lak	67.87	63	⇓P	P	08 48 05.0	-0.5
	baz=68						
W14A	Seligman	67.91	62	P	P	08 48 06.6	+0.9
	baz=68,SNR=5.0						
Y12C	Blythe	68.00	64	⇑P	P	08 48 05.5	-0.8
	baz=68						
AFI	Afiamalu	68.06	143	eP	P	08 48 05.1	-1.5
	comp=Z,31nm,0.9s,mb5.3						
AFI	Afiamalu	68.06	143	eP	P	08 48 05.1	-1.6
AFI				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.3						
GLA	Glamis	68.28	65	⇓P	P	08 48 07.2	-0.8
	baz=68						
WRA	Warramunga Arr	68.30	199	i P	P	08 48 08.5	+0.4
WRA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
WRA	Warramunga Arr	68.30	199	P	P	08 48 08.5	+0.4
	comp=Z,2.5nm,0.8s,mb4.3,baz=18,slow=6.8,SNR=12						
NB2	NORSAR Subarra	68.35	341	P	P	08 48 06.1	-1.9
	comp=Z,2.5nm,0.7s,mb4.3,baz=27,slow=6.2						
NOA	NORSAR Array B	68.35	341	P	P	08 48 06.5	-1.5
	comp=Z,4.0nm,0.8s,mb4.5,baz=28,slow=6.2,SNR=9.6						
NOA				LR	LR	09 24 19.5	
	comp=Z,106nm,18.3s,MS4.1,baz=220,slow=42						
Y14A	Wickenburg	68.81	63	⇑P	P	08 48 10.6	-0.8
	baz=68						
X15A	Humboldt	68.91	62	⇑P	P	08 48 12.2	+0.3
	baz=68						
FITZ	Fitzroy Crossi	68.92	208	eP	P	08 48 12.6	+0.6
	comp=Z,8.4nm,0.8s,mb4.7						
Z14A	Wintersburg	69.23	63	⇓P	P	08 48 13.9	-0.1
	baz=69						
MVCO	Mesa Verde	69.29	58	⇓P	P	08 48 13.8	-0.4
	baz=69						
AKASG	Malin Array Be	71.62	326	i P	P	08 48 26.3	-1.9
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	71.62	326	P	P	08 48 26.4	-1.8
	comp=Z,1.0nm,0.4s,mb4.1,baz=33,slow=6.3,SNR=6.7						
ASAR	Alice Springs	72.00	198	P	P	08 48 32.4	+1.8
ASAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ASAR	Alice Springs	72.00	198	P	P	08 48 32.4	+1.7
	comp=Z,3.2nm,0.7s,mb4.4,baz=12,slow=5.1,SNR=61						
SCHQ	Schefferville	73.53	23	P	P	08 48 38.3	-1.1
	comp=Z,1.9nm,0.9s,mb4.0,baz=307,slow=5.1,SNR=1.9						
SCHQ				LR	LR	09 26 32.5	
	comp=Z,257nm,19.3s,MS4.5,baz=132,slow=40						
MORC	Moravsky Berou	76.53	332	eP	P	08 48 51.8	-5.0
	comp=Z,5.6nm,0.6s,mb4.7						
MORC	Moravsky Berou	76.53	332	eP	P	08 48 51.8	-5.1
MORC				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
TXAR	Lajitas Array	77.70	60	P	P	08 49 04.1	+0.3
TXAR	Lajitas Array	77.70	60	P	P	08 49 04.1	+0.3
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
TXAR	Lajitas Array	77.70	60	P	P	08 49 04.1	+0.3
	comp=Z,1.7nm,0.7s,mb4.1,baz=299,slow=4.6,SNR=40						
GERES	GERESS Array B	78.55	334	P	P	08 49 06.4	-1.8
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
GERES	GERESS Array B	78.55	334	P	P	08 49 06.4	-1.8
	comp=Z,0.6nm,0.4s,mb3.9,baz=10,slow=6.0,SNR=6.4						
CFAA	Coronel Fontan	145.16	79	PKPbc	PKPbc	08 56 43.6	-0.1
	comp=Z,0.7nm,0.7s,baz=308,slow=3.8,SNR=16						

ISCJB ***23*** *09:08:10.2±1.2, 7.7S±0.2×119.3E±0.3, h10km, mb3.9/5, Error ellipse: s-maj=48.9km s-min=10.6km az=147.1*

NEIC ***23*** *09:08:12.5±0.8, 7.65S×119.28E, h10km, mb4.1/2, Error ellipse: s-maj=35.1km s-min=8.2km az=58.0*

IDC ***23*** *09:08:19.3±5.8, 7.44S×119.72E, h62km±54km, mb3.7/4, mb1 3.8/5, mb1mx3.5/17, mbtmp3.6/5, ML3.9/1, Error ellipse: s-maj=198.7km s-min=13.6km az=55.0*

ISC 23 09:08:14.7±4.9**, 7.7S**±0.2×**119.4E**±0.3**, h26**km±35km**, n9, σ0.ˢ48**/10**, mb3.9**/5**, Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.06	150	S	Sn	09 13 08.1	-11
	0.1nm,0.3s,baz=228,slow=16,SNR=2.8						
KKM	Kota Kinabalu	13.96	347	Pn	Pn	09 11 30.4	-0.5
WRA	Warramunga Arr	18.98	132	P	Pn	09 12 34.9	-0.3
	0.4nm,0.3s,baz=306,slow=12,SNR=22						
WB2	Warramunga Arr	18.99	132	eP	Pn	09 12 35.0	-0.3
ASAR	Alice Springs	21.18	140	P	P	09 12 58.7	+0.5
	2.7nm,0.7s,mb3.7,baz=323,slow=12,SNR=54						

ASAR				S	S	09 16 51.5	-1.1
	0.5nm,0.9s,baz=320,slow=23,SNR=4.6						
PMG	Port Moresby	27.55	96	*e*P	P	09 14 00.4	+0.7
	1.9nm,0.5s,mb4.0						
STKA	Stephens Creek	31.78	142	P	P	09 14 37.4	+0.3
	1.6nm,0.5s,mb4.2,baz=320,slow=10,SNR=7.0						
MKAR	Makanchi Array	63.42	332	P	P	09 18 42.4	+0.3
	0.6nm,0.6s,mb3.9,baz=139,slow=8.1,SNR=7.5						
ZALV	Zalesovo Beam	67.91	339	P	P	09 19 10.7	-0.2
	0.4nm,0.4s,mb3.8,baz=140,slow=4.7,SNR=3.2						

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*ISCJB **23** 09:23:29.5±0.9, 26.06N±0.08×110.5W±0.1, h10^{km}, mb4.0/1, Error ellipse: s-maj=17.8km s-min=11.4km az=168.3*

*NEIC **23** 09:23:31.1±0.8, 25.98N×110.55W, h10^{km}, mb3.9/1, Error ellipse: s-maj=16.4km s-min=10.7km az=76.0*

*IDC **23** 09:23:31.6±1.5, 25.99N×110.27W, h0^{km}, mb1 3.7/4, mb1mx3.5/21, mbtmp3.3/4, ML3.3/4, Error ellipse: s-maj=25.7km s-min=12.0km az=100.0*

ISC 23 09:23:31.2±0.9, 25.98N±0.08×110.6W±0.1, h10^{km}, n17, σ0^{s}.80/17, mb4.0/1, Gulf of California

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	La Paz	1.88	173	Pn	Pn	09 24 03.6	+0.2
LPIG				Lg		09 24 32.5	
LPIG	La Paz	1.88	173	Pn	Pn	09 24 03.6	+0.2
	5.0nm,0.3s,baz=158,slow=1.3,SNR=10						
LPIG				Lg		09 24 32.5	
	45nm,0.3s,baz=210,slow=22,SNR=8.3						
TXAR	Lajitas Array	6.97	60	Pn	Pn	09 25 12.1	-1.3
TXAR				Lg		09 27 04.8	
TXAR	Lajitas Array	6.97	60	Pn	Pn	09 25 12.1	-1.3
	0.4nm,0.3s,baz=234,slow=14,SNR=7.6						
TXAR				Lg		09 27 04.8	
	0.6nm,0.3s,baz=262,slow=12,SNR=6.0						
ANMO	Albuquerque	9.62	21	Pn	Pn	09 25 50.7	+1.1
ANMO				Lg		09 28 34.6	
ANMO	Albuquerque	9.62	21	Pn	Pn	09 25 50.7	+1.1
	0.1nm,0.3s,baz=204,slow=18,SNR=2.6						
ANMO				Lg		09 28 34.6	
	0.1nm,0.3s,baz=158,slow=18,SNR=2.8						
PTRM	Twissleman Ran	12.71	322	*e*Pn	Pn	09 26 31.3	-0.7
NVAR	Mina Array Bea	14.03	334	Pn	Pn	09 26 56.4	+6.4
NVAR	Mina Array Bea	14.03	334	Pn	Pn	09 26 56.4	+6.4
	0.1nm,0.3s,baz=154,slow=11,SNR=4.7						
PDAR	Pinedale Array	16.77	3	Pn	Pn	09 27 30.1	+4.1
PDAR	Pinedale Array	16.77	3	Pn	Pn	09 27 30.1	+4.1
	0.0nm,0.3s,baz=173,slow=11,SNR=5.2						
CMIG	Matias Romero	17.04	118	Pn	Pn	09 27 33.8	+4.1
CMIG	Matias Romero	17.04	118	Pn	Pn	09 27 33.8	+4.1
	0.0nm,0.3s,baz=291,slow=11,SNR=3.6						
MCMT	McKenzie Canyo	18.90	355	*e*P	Pn	09 27 52.8	+0.4
CHMT	Chamberlain Mo	21.00	355	P	P	09 28 14.1	-0.6
FCC	Fort Churchill	34.75	15	P	P	09 30 21.8	+0.5
	1.4nm,0.7s,mb4.0						
BBGH	Gun Hill	49.44	95	P	P	09 32 21.5	-0.2
	272nm,1.2s						

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*ISCJB **23** 09:38:19.0±0.4, 43.22N±0.02×126.61W±0.04, h10^{km}, mb4.7/6, MS3.4/3, Error ellipse: s-maj=4.2km s-min=2.5km az=178.5*

*BJI **23** 09:38:19.2, 43.33N×127.58W, h14^{km}, mB5.1, mb4.8, Ms4.7, Msz4.5*

*NEIC **23** 09:38:21.2±1.5, 43.19N×126.62W, h10^{km}, mb4.4/5, Error ellipse: s-maj=17.6km s-min=6.5km az=76.0*

*IDC **23** 09:38:25.9±2.9, 43.40N×125.82W, h0^{km}, mb3.6/2, mb1 4.0/6, mb1mx3.7/24, mbtmp3.7/6, ML3.6/4, MS3.4/5, Ms1 3.4/5, ms1mx3.0/34, Error ellipse: s-maj=40.3km s-min=16.6km az=70.0*

ISC 23 09:38:21.6±0.5, 43.20N±0.02×126.56W±0.05, h10^{km}, n223, σ0^{s}.95/255, mb4.7/6, MS3.4/3, 61C-93D, Off coast of Oregon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
K01A	Sixes	1.58	104	⇑P	Pn	09 38 47.2	-2.5
	baz=1.6,SNR=288						
K01A				⇓S	Sn	09 39 08.8	-1.4
	baz=1.6						
KEBM	Edson Butte	1.66	101	*e*Pn	Pn	09 38 48.7	-2.1
I02A	Mapleton	2.14	67	⇑P	Pn	09 38 55.9	-1.4
	baz=2.3						
I02A				⇓S	Sn	09 39 23.2	-0.8
	baz=2.3						
RNO	Roman Nose	2.17	70	P	Pn	09 38 56.8	-1.0
J02A	Umpqua	2.19	85	P	Pn	09 38 56.4	-1.6
	baz=2.3,SNR=606						
M01C	Crescent City	2.25	126	⇑P	Pn	09 38 56.4	-2.5
	baz=2.2						
K02A	Glendale	2.29	100	⇑P	Pn	09 38 57.8	-1.7
	baz=2.4						
K02A				⇑S	Sn	09 39 26.6	-1.1
	baz=2.4						
H02A	Toledo	2.37	51	⇓P	Pn	09 38 59.0	-1.4
	baz=2.5						
H02A				⇓S	Sn	09 39 28.5	-1.0
	baz=2.5						
L02A	Cave Junction	2.42	115	⇓P	Pn	09 38 59.5	-1.7
	baz=2.4						
L02A				⇑S	Sn	09 39 29.9	-0.9
	baz=2.4						
DBO	Dodson Butte	2.43	91	P	Pn	09 39 00.0	-1.3
I03A	Eugene	2.51	71	P	Pn	09 39 01.5	-0.9
	baz=2.6,SNR=896						
I03A				⇓S	Sn	09 39 32.5	-0.5
	baz=2.6						
MPOR	Mary's Peak	2.54	58	P	Pn	09 39 01.6	-1.2
HSO	Harness Mounta	2.55	81	P	Pn	09 39 01.9	-1.1
J03A	Ideyld Park	2.63	85	P	Pn	09 39 02.9	-1.2
	baz=2.7,SNR=244						
EUO	Eugene	2.67	71	P	Pn	09 39 03.9	-0.7
HUMO	Hull Mountain	2.71	101	*e*Pn	Pn	09 39 03.9	-1.4
HUMO				*e*Sn	Sn	09 39 38.0	0.0
HUMO	Hull Mountain	2.71	101	P	Pn	09 39 03.7	-1.5
	baz=2.8,SNR=530						
HUMO				⇓S	Sn	09 39 36.5	-1.6
	baz=2.8						
COR	Corvallis	2.73	58	*e*Pn	Pn	09 39 05.0	-0.5
COR				*e*Pb	Pb	09 39 11.1	+0.6
COR				*e*Sn	Sn	09 39 39.0	+0.5
H03A	Soap Creek Ran	2.78	57	⇓P	Pn	09 39 05.3	-0.9
	baz=2.9,SNR=314						
H03A				⇑S	Sn	09 39 38.6	-1.2
	baz=2.9						
BBOR	Butler Butte	2.86	95	P	Pn	09 39 06.7	-0.5
I04A	Tendick Farm,	3.08	77	⇑P	Pn	09 39 09.8	-0.4
	baz=3.2,SNR=409						
I04A				⇓S	Sn	09 39 46.3	-0.7
	baz=3.2						
HBO	Huckleberry Mo	3.15	77	P	Pn	09 39 11.2	0.0
BROR	Big Rock Looko	3.16	69	P	Pn	09 39 11.1	-0.3
G03A	Yamhill	3.17	47	⇑P	Pn	09 39 10.8	-0.6
	baz=3.3						
G03A				⇓S	Sn	09 39 48.9	-0.4
	baz=3.3						
YBH	Yreka Blue Hor	3.20	116	*e*Pn	Pn	09 39 11.4	-0.5
YBH				*e*Sn	Sn	09 39 50.7	+0.5
YBH	Yreka Blue Hor	3.20	116	⇑P	Pn	09 39 11.3	-0.6
	baz=3.2						
YBH				⇓S	Sn	09 39 48.8	-1.4
	baz=3.2						
IRO	Indian Ridge	3.23	74	P	Pn	09 39 12.3	0.0
J04A	Umpqua Nationa	3.25	88	⇓P	Pn	09 39 13.0	+0.4
	baz=3.3,SNR=35						
BUOR	Burton Butte	3.31	105	P	Pn	09 39 13.6	+0.2
FRIS	Frissel Point	3.39	71	P	Pn	09 39 14.6	+0.1
F03A	Seaside	3.47	37	⇓P	Pn	09 39 14.8	-0.9
	baz=3.6,SNR=24						
F03A				⇓S	Sn	09 39 55.5	-1.2
	baz=3.6						
H04A	Detroit Lake	3.49	63	⇑P	Pn	09 39 15.8	-0.1
	baz=3.6						
H04A				⇑S	Sn	09 39 55.9	-1.3
	baz=3.6						
HUOR	Husband	3.54	73	P	Pn	09 39 17.0	+0.4
WIFE	Three Sisters-	3.55	74	P	Pn	09 39 17.1	+0.4
G04A	Mulino	3.55	54	⇓P	Pn	09 39 17.0	+0.2
	baz=3.7,SNR=261						
G04A				⇓S	Sn	09 39 58.5	-0.3
	baz=3.7						
L04A	Klamath Falls	3.59	105	⇓P	Pn	09 39 16.8	-0.4
	baz=3.6,SNR=21						
K04A	Chilquin	3.60	98	⇓P	Pn	09 39 16.9	-0.4
	baz=3.7,SNR=17						
NLO	Nicolai Mounta	3.64	36	P	Pn	09 39 17.6	-0.4
BKCOR	Black Crater	3.69	71	P	Pn	09 39 19.0	+0.3
M04C	Macdoel	3.77	110	⇑P	Pn	09 39 19.6	-0.1
	baz=3.8,SNR=17						
J05A	Fort Rock	3.89	87	⇓P	Pn	09 39 21.0	-0.4
	baz=4.0,SNR=81						
BEND	Bend	3.90	75	P	Pn	09 39 21.4	0.0
I05A	Bend	3.96	74	⇓P	Pn	09 39 22.2	-0.1
	baz=4.1,SNR=13						
E03A	Lebam	3.97	31	P	Pn	09 39 21.7	-0.7
	baz=4.1,SNR=18						
E03A				⇓S	Sn	09 40 07.7	-1.2
	baz=4.1						
WDC	Whiskeytown Da	3.98	130	*e*Pn	Pn	09 39 22.5	-0.1
TDH	Tom, Dick, Har	4.01	57	P	Pn	09 39 23.6	+0.5
F04A	Amboy	4.03	46	⇓P	Pn	09 39 23.4	+0.1
	baz=4.2,SNR=286						
F04A				⇓S	Sn	09 40 10.4	0.0
	baz=4.2						
HOOD	Mount Hood Mea	4.11	57	*e*Pn	Pn	09 39 25.5	+1.1
H05A	Madras	4.12	68	P	Pn	09 39 24.4	-0.1
	baz=4.2,SNR=64						
K05A	Summer Lake	4.19	95	P	Pn	09 39 25.3	-0.1
	baz=4.3,SNR=130						
FL2	Flat Top 2	4.24	44	P	Pn	09 39 26.9	+0.7
GMO	Grizzlie Mount	4.24	71	P	Pn	09 39 26.1	-0.1
G05A	Wamic	4.29	60	⇓P	Pn	09 39 27.2	+0.3
	baz=4.4,SNR=184						
G05A				⇓S	Sn	09 40 17.5	+0.6
	baz=4.4						
E04A	Onalaska	4.35	37	⇓P	Pn	09 39 27.8	0.0
	baz=4.5						
E04A				⇑S	Sn	09 40 18.1	-0.4
	baz=4.5						
L05A	Lakeview	4.38	103	P	Pn	09 39 27.7	-0.5
	baz=4.4,SNR=54						
D03A	Wishkah Elem.	4.38	26	⇓S	Sn	09 40 18.2	-1.1
	baz=4.6						
M05C	Lookout	4.42	113	⇓P	Pn	09 39 28.3	-0.4
	baz=4.4,SNR=16						
F05A	White Salmon	4.53	52	⇑P	Pn	09 39 30.4	+0.3
	baz=4.7,SNR=26						
F05A				⇓S	Sn	09 40 24.7	+1.9
	baz=4.7						
K06A	Valley Falls	4.64	93	⇓P	Pn	09 39 31.3	-0.5
	baz=4.7,SNR=36						
I06A	Prineville	4.67	79	⇓P	Pn	09 39 32.1	-0.1
	baz=4.8						
J06A	Christmas Vall	4.68	87	P	Pn	09 39 31.6	-0.7
	baz=4.8,SNR=177						
G06A	Carlson Farm,	4.72	62	P	Pn	09 39 32.8	0.0
	baz=4.9,SNR=152						
G06A				⇓S	Sn	09 40 27.8	+0.3
	baz=4.9						
D04A	Dobbs Creek Ra	4.73	33	⇓S	Sn	09 40 28.7	+1.0
	baz=4.9						
H06A	Lindquist Farm	4.75	69	P	Pn	09 39 33.5	+0.3
	baz=4.9,SNR=376						
H06A				⇑S	Sn	09 40 28.4	+0.1
	baz=4.9						
E05A	Randle	4.79	44	P	Pn	09 39 34.2	+0.5
	baz=5.0,SNR=124						
E05A				⇑S	Sn	09 40 28.8	-0.4
	baz=5.0						
MOD	Modoc	4.80	104	*e*Pn	Pn	09 39 34.3	+0.4
MOD	Modoc	4.80	104	⇓P	Pn	09 39 33.5	-0.4
	baz=4.8						
F06A	Goldendale	4.87	56	⇑P	Pn	09 39 35.0	+0.2
	baz=5.0,SNR=58						
F06A				⇓S	Sn	09 40 31.0	-0.2
	baz=5.0						
GLK	Glacier Lake	4.87	45	P	Pn	09 39 35.6	+0.8
M06C	Likely Place G	4.94	112	⇓P	Pn	09 39 35.9	+0.1
	baz=5.0,SNR=6.5						
GL2	New Goldendale	4.94	54	P	Pn	09 39 36.4	+0.5
RCS	Mount Rainier-	5.02	41	P	Pn	09 39 37.7	+0.8
FMW	Mount Fremont	5.09	41	P	Pn	09 39 38.7	+0.8
D05A	Enumclaw	5.13	37	⇓P	Pn	09 39 39.0	+0.6
	baz=5.3,SNR=58						
D05A				⇓S	Sn	09 40 37.7	+0.1
	baz=5.3						
C04A	Brinnon	5.17	28	⇑P	Pn	09 39 40.0	+1.0
	baz=5.3						
C04A				⇑S	Sn	09 40 37.9	-0.8
	baz=5.3						
E06A	Yakima	5.19	48	⇓P	Pn	09 39 39.9	+0.7
	baz=5.3						
I07A	Izee	5.20	78	P	Pn	09 39 39.6	+0.3
	baz=5.3,SNR=29						
H07A	Lands Inn, Kim	5.24	72	⇑P	Pn	09 39 40.1	+0.1
	baz=5.4						
ORV	Oroville	5.27	132	⇓P	Pn	09 39 40.1	-0.2
	baz=5.2						
J07A	Hines	5.29	86	⇑P	Pn	09 39 40.5	-0.2
	baz=5.4						
B04A	Port Angeles	5.31	23	⇑S	Sn	09 40 39.5	-2.5
	baz=5.5						
G07A	Ruggs Ranch, H	5.36	65	P	Pn	09 39 42.0	+0.3
	baz=5.5,SNR=153						
K07A	Rock Creek Ran	5.39	93	P	Pn	09 39 41.5	-0.5
	baz=5.5,SNR=257						
F07A	Phinny Hill Vi	5.45	58	⇑P	Pn	09 39 42.7	-0.1
	baz=5.6,SNR=11						
L07A	Adell	5.46	100	⇑P	Pn	09 39 42.4	-0.5
	baz=5.5,SNR=26						
N06A	Buffalo Meadow	5.58	114	⇑P	Pn	09 39 44.1	-0.5
	baz=5.6						
C05A	Tolt Reservoir	5.65	36	⇓P	Pn	09 39 45.3	-0.3
	baz=5.8						
C05A				⇓S	Sn	09 40 50.0	-0.5
	baz=5.8						
D06A	Cle Elum	5.68	43	⇓P	Pn	09 39 46.4	+0.4
	baz=5.8						
D06A				⇑S	Sn	09 40 51.7	+0.5
	baz=5.8						
E07A	Sunnyside	5.83	53	P	Pn	09 39 48.6	+0.6
	baz=6.0,SNR=8.8						
E07A				⇓S	Sn	09 40 56.1	+1.3
	baz=6.0						
G08A	Pilot Rock	5.84	66	P	Pn	09 39 48.6	+0.3
	baz=6.0,SNR=138						
I08A	Drewsey	5.85	80	⇓P	Pn	09 39 48.3	-0.1
	baz=5.9						
H08A	Prairie City	5.86	74	P	Pn	09 39 48.6	+0.2
	baz=6.0,SNR=32						
PGC	Sidney	5.87	21	*e*Pn	Pn	09 39 48.3	-0.3
WVOR	Wild Horse Val	5.88	95	*e*Pn	Pn	09 39 47.6	-1.1
	6.1nm,0.3s						
J08A	Circle Bar Ran	5.91	86	⇓P	Pn	09 39 48.6	-0.5
	baz=6.0,SNR=12						
HAWA	Hanford	5.93	55	*e*Pn	Pn	09 39 49.8	+0.3
K08A	Mann Creek Ran	5.94	92	⇓P	Pn	09 39 48.5	-1.1
	baz=6.0,SNR=7.2						
B05A	Bryant	5.95	30	⇑S	Sn	09 40 57.5	-0.3
	baz=6.1						
D07A	Quincy	6.13	47	⇓P	Pn	09 39 52.9	+0.8
	baz=6.3,SNR=7.9						
L08A	Fields	6.14	97	⇓P	Pn	09 39 51.5	-0.8
	baz=6.2						
C06A	Tall Timber Ra	6.17	38	⇓P	Pn	09 39 53.2	+0.5
	baz=6.3						
C06A				⇓S	Sn	09 41 03.8	+0.4
	baz=6.3						
LAVA	Lava Cap Winer	6.25	133	⇑P	Pn	09 39 53.3	-0.5
	baz=6.2						
E08A	Dider Farm, El	6.26	56	⇓P	Pn	09 39 54.0	0.0
	baz=6.4						
M08A	Happy Creek Ra	6.31	103	⇑P	Pn	09 39 54.6	-0.1
	baz=6.3,SNR=6.0						
B06A	Marblemount	6.39	32	⇓P	Pn	09 39 55.4	-0.4
	baz=6.6						
B06A				⇓S	Sn	09 41 08.9	+0.2
	baz=6.6						
C07A	Waterville	6.41	43	⇓P	Pn	09 39 56.8	+0.8
	baz=6.6,SNR=30						
J09A	Fry Pan Ranch,	6.43	86	⇓P	Pn	09 39 55.4	-0.9
	baz=6.5						
I09A	Lost Marbles R	6.45	80	⇑P	Pn	09 39 55.9	-0.6
	baz=6.5						
K09A	Rome	6.50	91	P	Pn	09 39 56.5	-0.8
	baz=6.6,SNR=26						
A05A	Maple Falls	6.58	27	⇑S	Sn	09 41 12.2	-1.1
	baz=6.7						
H09A	Durkee	6.59	74	⇑P	Pn	09 39 58.5	+0.1
	baz=6.7,SNR=12						
D08A	Wollman Farm,	6.64	52	⇓P	Pn	09 39 58.4	-0.8
	baz=6.8						
R05C	Kirkwood Meado	6.65	130	⇑P	Pn	09 39 57.8	-1.5
	baz=6.6						
L09A	Wilkinson Ranc	6.67	97	⇑P	Pn	09 39 58.1	-1.5
	baz=6.7						
F09A	S2 Ranch, Elgi	6.68	65	⇑P	Pn	09 39 59.9	+0.2
	baz=6.8						
E09A	Wood Farm, Sta	6.83	58	P	Pn	09 40 01.0	-0.8
	baz=7.0,SNR=7.7						
BMO	Blue Mountains	6.87	73	*e*Pn	Pn	09 40 02.4	+0.1
B07A	Winthrop	6.92	38	⇓P	Pn	09 40 02.9	-0.1
	baz=7.1						
C08A	Higginbotham F	6.99	46	⇓P	Pn	09 40 04.1	+0.1
	baz=7.1,SNR=17						
D09A	Jones Farm, Ri	7.00	54	⇓P	Pn	09 40 03.9	-0.1
	baz=7.1						
K10A	MacKenzie Ranc	7.12	90	P	Pn	09 40 05.0	-0.7
	baz=7.2,SNR=8.7						
F10A	Beach Ranch, E	7.22	64	⇑P	Pn	09 40 06.4	-0.6
	baz=7.3						
B08A	Colville Reser	7.22	42	⇓P	Pn	09 40 07.2	+0.1
	baz=7.4						
H10A	Noah's Angus R	7.22	76	⇓P	Pn	09 40 06.4	-0.8
	baz=7.3,SNR=24						
C09A	Chrisman Ranch	7.42	49	⇓P	Pn	09 40 09.8	0.0
	baz=7.6						
E10A	Myers Farm, Un	7.47	61	⇑P	Pn	09 40 09.7	-0.9
	baz=7.6						
L10A	Juniper Basin	7.52	95	⇓P	Pn	09 40 10.5	-0.8
	baz=7.6						
D10A	Wagner Farm, O	7.61	56	⇓P	Pn	09 40 11.2	-1.2
	baz=7.8						
K11A	Parker Ranch,	7.73	90	⇓P	Pn	09 40 13.9	-0.2
	baz=7.8						
I11A	Placerville	7.74	81	P	Pn	09 40 14.4	+0.2
	baz=7.8,SNR=6.1						
H11A	Donnelly	7.76	75	⇑P	Pn	09 40 14.6	+0.1
	baz=7.9,SNR=71						
MFID	Camas Ranch	7.83	85	⇓P	Pn	09 40 15.4	-0.1
	baz=7.9						
B09A	Rice	7.86	45	⇓P	Pn	09 40 15.9	0.0
	baz=8.0,SNR=18						
NVAR	Mina Array Bea	7.87	125	Pn	Pn	09 40 18.9	+2.9
NVAR	Mina Array Bea	7.87	125	Pn	Pn	09 40 18.9	+2.9
	0.2nm,0.3s,baz=296,slow=12,SNR=8.0						
F11A	Grangeville	7.90	67	⇓P	Pn	09 40 17.0	+0.5
	baz=8.0						
C10A	Spilker Farm,	7.97	51	⇑P	Pn	09 40 17.6	+0.2
	baz=8.1						
A09A	Danville	8.00	41	⇑P	Pn	09 40 18.1	+0.3
	baz=8.2						
E11A	Bogner Ranch,	8.01	63	⇑P	Pn	09 40 18.2	+0.2
	baz=8.1						
L11A	Cat Creek Ranc	8.03	94	⇑P	Pn	09 40 18.4	+0.1
	baz=8.1						
B10A	Chitwood Farm,	8.28	49	⇑P	Pn	09 40 21.9	+0.2
	baz=8.4						
NEW	Newport	8.32	49	*e*Pn	Pn	09 40 22.4	+0.3
NEW	Newport	8.32	49	Pn	Pn	09 40 22.5	+0.3
	0.7nm,0.3s,baz=226,slow=10,SNR=10						
NEW				LR	LR	09 43 58.3	
	comp=Z,276nm,19.1s,baz=38,slow=43						
J12A	Stokes Ranch,	8.37	86	⇓P	Pn	09 40 23.8	+0.9
	baz=8.4						
F12A	Elk City	8.48	69	⇓P	Pn	09 40 25.0	+0.6
	baz=8.6						
A10A	Northport	8.51	44	⇓P	Pn	09 40 25.0	+0.1
	baz=8.7,SNR=7.2						
H12A	Diamond D Ranc	8.56	77	⇓P	Pn	09 40 26.3	+0.8
	baz=8.7,SNR=6.1						
L12A	House Creek Ra	8.57	93	⇓P	Pn	09 40 26.8	+1.1
	baz=8.6						
K12A	Draper Farm, C	8.57	90	⇑P	Pn	09 40 26.5	+0.8
	baz=8.6						
O11A	Cowboy Ranch,	8.72	107	⇑P	Pn	09 40 29.9	+2.2
	baz=8.7						
R09A	Tonopah	8.74	121	⇓P	Pn	09 40 26.5	-1.5
	baz=8.7						
D12A	Red Ives Fores	8.81	60	⇓P	Pn	09 40 29.0	+0.1
	baz=8.9						
M12A	Wells	8.81	98	⇓P	Pn	09 40 30.8	+1.8
	baz=8.9						
Q10A	Clear Creek Ra	8.84	116	⇓P	Pn	09 40 30.4	+1.1
	baz=8.8						
HLID	Hailey	8.86	84	*e*Pn	Pn	09 40 30.2	+0.7
	6.9nm,0.6s						
H13A	Challis	8.99	77	⇑P	Pn	09 40 32.5	+1.0
	baz=9.1						
J13A	Cove Ranch, Pi	9.04	85	⇓P	Pn	09 40 33.4	+1.3
	baz=9.1						
BBB	Bella Bella	9.05	354	LR	LR	09 43 24.7	
	comp=Z,190nm,21.0s,baz=340,slow=34						
G13A	Cobalt	9.06	74	⇓P	Pn	09 40 33.4	+1.0
	baz=9.2						
I13A	Wildhorse Cree	9.06	81	⇑P	Pn	09 40 34.4	+1.9
	baz=9.1						
F13A	Darby	9.12	69	⇓P	Pn	09 40 33.2	+0.1
	baz=9.2						
A11A	Hall Mountain,	9.13	47	P	Pn	09 40 35.0	+1.7
	baz=9.3,SNR=7.8						
K13A	Stover Farm, H	9.17	89	⇑P	Pn	09 40 35.6	+1.7
	baz=9.2						
O12A	Currie	9.31	104	⇑P	Pn	09 40 38.2	+2.4
	baz=9.3						
Q11A	Duckwater	9.32	114	⇑P	Pn	09 40 36.4	+0.5
	baz=9.3						
VES	Vestal, Richgr	9.35	139	⇑P	Pn	09 40 38.0	+1.7
	baz=9.3						
E13A	Victor	9.37	66	⇑P	Pn	09 40 36.7	+0.1
	baz=9.5,SNR=10						
D13A	Huson	9.39	61	⇓P	Pn	09 40 36.8	-0.1
	baz=9.5						
BSMT	Bassoo Peak	9.48	57	*e*Pn	Pn	09 40 39.2	+1.1
N13A	Wendover, West	9.49	100	⇓P	Pn	09 40 39.7	+1.4
	baz=9.5						
A12A	Yaak River Ran	9.50	49	⇑P	Pn	09 40 39.2	+0.8
	baz=9.6						
P12A	McGill	9.52	109	⇓P	Pn	09 40 41.3	+2.6
	baz=9.5						
C13A	Hot Springs	9.54	58	⇓P	Pn	09 40 38.2	-0.8
	baz=9.7						
G14A	Jackson	9.63	73	⇑P	Pn	09 40 41.2	+1.1
	baz=9.7						
TRCR	Troy Canyon	9.63	117	*e*Pn	Pn	09 40 37.1	-3.0
MSO	Missoula	9.64	64	*e*Pn	Pn	09 40 40.9	+0.6
F14A	Wisdom	9.78	70	⇓P	Pn	09 40 42.5	+0.3
	baz=9.9,SNR=5.5						
E14A	Clinton	9.83	66	⇑P	Pn	09 40 43.5	+0.6
	baz=9.9						
B13A	Whitefish	9.90	54	⇓P	Pn	09 40 44.5	+0.6
	baz=10.0						
M14A	Sheep Mountain	9.93	95	⇓P	Pn	09 40 42.1	-2.2
	baz=10.0						
D14A	Greenough	10.01	63	⇓P	Pn	09 40 45.2	-0.1
	baz=10,SNR=7.1						
MCMT	McKenzie Canyo	10.01	76	*e*Pn	Pn	09 40 47.0	+1.6
FURC	Furnace Creek,	10.04	129	⇑P	Pn	09 40 47.3	+1.6
	baz=10.0						
C14A	Swan Lake	10.09	59	⇑P	Pn	09 40 47.2	+0.8
	baz=10						
CHMT	Chamberlain Mo	10.12	64	*e*Pn	Pn	09 40 47.2	+0.4
A13A	Flathead Natio	10.20	52	⇓P	Pn	09 40 48.4	+0.4
	baz=10						
R12A	Pony Springs,	10.29	114	⇓P	Pn	09 40 50.0	+0.8
	baz=10						
G15A	Dillon	10.30	74	⇓P	Pn	09 40 50.7	+1.4
	baz=10						
F15A	Butte	10.39	70	⇑P	Pn	09 40 50.6	0.0
	baz=10						
E15A	Deer Lodge	10.40	67	P	Pn	09 40 51.4	+0.7
	baz=10,SNR=11						
LRM	Limekiln Ridge	10.41	71	*e*Pn	Pn	09 40 52.2	+1.3
WALA	Waterton Lakes	10.55	52	*e*Pn	Pn	09 40 53.3	+0.6
D15A	Lincoln	10.64	64	⇓P	Pn	09 40 53.7	-0.3
	baz=11						
DUG	Dugway	10.71	102	⇑P	Pn	09 40 57.0	+2.0
	baz=11						
BOZ	Bozeman (W)	10.96	72	*e*Pn	Pn	09 40 59.5	+1.2
BOZ	Bozeman (W)	10.96	72	⇑P	Pn	09 40 58.6	+0.3
	baz=11						
QLMT	Earthquake Lak	11.02	76	*e*Pn	Pn	09 41 00.2	+1.0
DCID1	Drake Creek	11.20	83	*e*Pn	Pn	09 41 03.0	+1.4
AHID	Auburn Hatcher	11.34	87	*e*Pn	Pn	09 41 05.3	+1.8
REDW	Red Top Meadow	11.46	84	*e*Pn	Pn	09 41 07.4	+2.2
MOOW	Moose Ponds	11.51	82	*e*Pn	Pn	09 41 09.0	+3.1
YNR	Norris Junctio	11.55	77	*e*Pn	Pn	09 41 10.7	+4.2
LOHW	Long Hollow	11.62	83	*e*Pn	Pn	09 41 09.0	+1.6

PDAR	Pinedale Array	12.46	86	Pn	Pn	09 41 21.1	+2.1
PDAR	Pinedale Array	12.46	86	Pn	Pn	09 41 21.1	+2.1
	0.1nm,0.3s,baz=278,slow=12,SNR=22						
EGMT	Eagleton	12.71	62	*e*Pn	Pn	09 41 23.0	+0.7
DLBC	Dease Lake	15.41	353	Pn	Pn	09 42 04.8	+5.9
DLBC	Dease Lake	15.41	353	Pn	Pn	09 42 04.8	+5.9
	baz=180,slow=12						
DGMT	Dagmar	16.43	64	*e*Pn	Pn	09 42 17.4	+5.3
	24nm,1.1s						
SDCO	Great Sand Dun	16.91	102	*e*Pn	Pn	09 42 19.4	+1.1
	42nm,1.7s						
ANMO	Albuquerque	17.62	111	P	Pn	09 42 28.8	+1.7
	0.2nm,0.3s,baz=320,slow=13,SNR=3.8						
FFC	Flin Flon	19.72	46	*e*Pn	Pn	09 42 51.6	-0.9
	7.5nm,0.8s						
YKA	Yellowknife Ar	20.56	16	P	P	09 43 00.4	+0.3
	1.3nm,0.8s,baz=205,slow=11,SNR=14						
YKA				LR	LR	09 50 09.4	
	comp=Z,73nm,20.0s,MS3.0,baz=130,slow=35						
ULM	Lac du Bonnet	22.07	61	P	P	09 43 16.2	-0.3
ULM				LR	LR	09 51 25.6	
ULM	Lac du Bonnet	22.07	61	P	P	09 43 16.2	-0.3
	5.2nm,0.7s,mb4.1,baz=274,slow=11,SNR=13						
ULM				LR	LR	09 51 25.6	
	comp=Z,172nm,18.6s,MS3.5,baz=43,slow=36						
WMOK	Wichita Mounta	23.11	102	*e*P	P	09 43 28.6	+0.9
	24nm,1.3s,mb4.5						
JCT	Junction City	24.78	112	*e*Pn	P	09 43 41.7	-1.8
	23nm,1.1s,mb4.6						
CMIG	Matias Romero	37.40	124	LR	LR	10 03 19.8	
	comp=Z,80nm,18.5s,MS3.5,baz=115,slow=40						
HHC	Hu-ho-hao-te	81.29	319	*e*P	P	09 50 34.8	-3.1
HHC				XP	sP	09 50 41.5	-0.9
HHC				PP	PP	09 53 42.3	-0.5
HHC				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.8						
HHC				AMB	AMB		
	comp=Z,208nm,9.3s						
NJ2	Nanjing	84.15	309	*e*P	P	09 50 50.0	-3.0
WMQ	Urumqi	88.10	336	*e*P	P	09 51 11.1	-1.1
CD2	Chengdu	93.02	319	*e*P	P	09 51 32.0	-3.4
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb5.2						
GYA	Guiyang	95.17	314	P	P	09 51 42.3	-3.1
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb5.3						

IDC ***23*** *09:38:20.6±1.2, 26.01N×110.38W, h0^{km}, mb3.5/2, mb1 3.8/6, mb1mx3.7/22, mbtmp3.5/6, ML3.5/3, MS3.5/2, Ms1 3.4/2, ms1mx3.0/26, Error ellipse: s-maj=24.5km s-min=11.8km az=94.0*

ISCJB ***23*** *09:38:22.2±0.9, 26.08N±0.07×110.3W±0.1, h10^{km}, mb3.8/4, MS3.3/1, Error ellipse: s-maj=13.1km s-min=10.2km az=4.5*

NEIC ***23*** *09:38:23.2±0.8, 25.99N×110.38W, h10^{km}, mb3.9/4, Error ellipse: s-maj=13.3km s-min=10.2km az=84.0*

ISC 23 09:38:23.3±0.9**, 25.98N**±0.07×**110.4W**±0.1**, h10^{km}, n27, σ0^{s}95**/27**, mb3.8**/4**, MS3.3**/1**, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	1.87	178	Pn	Pn	09 38 55.8	+0.5
LPIG				Lg		09 39 19.6	
LPIG	La Paz	1.87	178	Pn	Pn	09 38 55.8	+0.5
	4.5nm,0.3s,baz=181,slow=0.7,SNR=31						
LPIG				Lg		09 39 19.6	
	14nm,0.3s,baz=182,slow=9.1,SNR=11						
TUC	Tucson	6.32	357	*e*Pn	Pn	09 39 55.3	-1.2
	10nm,0.8s						
LTX	Lajitas	6.83	59	*e*Pn	Pn	09 40 03.8	+0.4
	11nm,0.8s						
TXAR	Lajitas Array	6.83	59	Pn	Pn	09 40 02.4	-1.1
TXAR				Lg		09 41 55.9	
TXAR				LR	LR	09 42 44.3	
TXAR	Lajitas Array	6.83	59	Pn	Pn	09 40 02.4	-1.1
	0.2nm,0.3s,baz=237,slow=14,SNR=21						
TXAR				Lg		09 41 55.9	
	0.6nm,0.3s,baz=258,slow=26,SNR=4.0						
TXAR				LR	LR	09 42 44.3	
	comp=Z,322nm,20.5s,baz=5.0,slow=39						
MNTX	Cornudas Mount	7.19	36	*e*Pn	Pn	09 40 08.4	0.0
	16nm,0.8s						
MNTX				*e*Pg	Pg	09 40 41.1	+0.2
LENM	Lemitar	8.68	19	*e*Pn	Pn	09 40 29.0	+0.1
LAZ	Ladron	8.85	18	*e*Pn	Pn	09 40 31.4	+0.2
ANMO	Albuquerque	9.56	20	Pn	Pn	09 40 41.5	+0.5
ANMO				Lg		09 43 19.1	
ANMO	Albuquerque	9.56	20	Pn	Pn	09 40 41.5	+0.5
	0.1nm,0.3s,baz=174,slow=7.7,SNR=7.3						
ANMO				Lg		09 43 19.1	
	0.2nm,0.3s,baz=59,slow=12,SNR=3.0						
PV10	Paradox Valley	12.41	5	*e*Pn	Pn	09 41 19.6	-0.4
NVAR	Mina Array Bea	14.10	334	Pn	Pn	09 41 45.1	+2.1
NVAR	Mina Array Bea	14.10	334	Pn	Pn	09 41 45.1	+2.1
	baz=154,slow=12,SNR=2.7						
ISCO	Idaho Springs	14.35	15	Pn	Pn	09 41 47.4	+1.0
	5.3nm,0.9s						
HWUT	Hardware Ranch	15.62	357	*e*Pn	Pn	09 42 02.7	-0.7
	7.8nm,1.2s						
PDAR	Pinedale Array	16.76	2	Pn	Pn	09 42 19.2	+1.2
PDAR	Pinedale Array	16.76	2	Pn	Pn	09 42 19.2	+1.2
	0.0nm,0.3s,baz=177,slow=8.5,SNR=5.0						
CMIG	Matias Romero	16.90	118	Pn	Pn	09 42 27.2	+7.2
CMIG	Matias Romero	16.90	118	Pn	Pn	09 42 27.2	+7.2
	0.1nm,0.3s,baz=282,slow=12,SNR=4.9						
KSU1	Kansas State U	17.46	38	*e*Pn	Pn	09 42 27.1	+0.1
	3.6nm,0.4s						
TEIG	Tepich	21.11	101	LR	LR	09 52 43.8	
	comp=Z,130nm,20.3s,MS3.3,baz=26,slow=41						
EGMT	Eagleton	22.01	1	*e*P	P	09 43 17.7	+0.1
	6.0nm,0.9s,mb4.0						
HDIL	Hopedale	22.77	45	*e*P	P	09 43 26.2	+0.4
	5.5nm,0.4s,mb4.3						
YKA	Yellowknife Ar	36.62	357	P	P	09 45 26.9	-2.5
	0.3nm,0.8s,mb3.1,baz=184,slow=8.1,SNR=5.8						
INK	Inuvik	44.59	348	P	P	09 46 33.7	-1.5
INK	Inuvik	44.59	348	P	P	09 46 33.7	-1.5
	0.9nm,0.6s,mb3.8,baz=173,slow=8.1,SNR=3.9						

IDC 23 09:42:46.1±4.1**, 13.84S×170.78E, h626^{km}**±52^{km}**, mb2.8**/5**, mb1 3.0**/6**, mb1mx2.8**/17**, mbtmp2.9**/6**, Error ellipse: s-maj=69.3km s-min=32.3km az=160.0, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	9.17	206	P	P	09 44 56.8	-0.4
	1.2nm,0.3s,baz=50,slow=22,SNR=9.2						
STKA	Stephens Creek	32.18	231	P	P	09 48 25.4	+0.4
	1.4nm,0.3s,baz=48,slow=9.2,SNR=8.5						
WRA	Warramunga Arr	35.34	255	P	P	09 48 51.3	-0.2
	0.5nm,0.4s,baz=81,slow=6.1,SNR=16						
ASAR	Alice Springs	36.17	249	P	P	09 48 58.2	0.0
	0.3nm,0.3s,baz=82,slow=8.8,SNR=5.1						
ASAR				PcP	PcP	09 51 05.6	-0.4
	0.6nm,0.8s,baz=96,slow=2.5,SNR=4.1						
FITZ	Fitzroy Crossi	43.53	258	P	P	09 49 57.2	+0.3
	1.1nm,0.8s,baz=73,slow=14,SNR=4.1						
YKA	Yellowknife Ar	95.21	27	P	P	09 55 04.2	+0.4
	0.2nm,0.4s,baz=256,slow=4.9,SNR=6.0						
ARCES	ARCESS Array B	120.22	347	PKP	PKPdf	10 00 26.1	-0.6
	3.0nm,1.0s,baz=66,slow=3.1,SNR=8.1						

NEIC ***23*** *09:58:12.3±1.0, 14.72N×91.99W, h162^{km}±9^{km}, mb4.3/21, MD4.4(MEX), Error ellipse: s-maj=13.0km s-min=9.7km az=50.0*

ISCJB ***23*** *09:58:25.7±0.5, 16.04N±0.06×92.89W±0.04, h168^{km}±3^{km}, mb4.0/18, Error ellipse: s-maj=10.8km s-min=5.3km az=10.5*

IDC ***23*** *09:58:26.4±1.5, 15.99N×92.69W, h160^{km}±16^{km}, mb3.7/7, mb1 4.0/11, mb1mx3.7/22, mbtmp3.8/11, Error ellipse: s-maj=26.4km s-min=11.5km az=52.0*

MEX ***23*** *09:58:30.3±0.6, 15.99N×93.05W, h143^{km}±12^{km}, MD4.4*

ISC 23 09:58:26.5±0.5**, 15.96N**±0.06×**92.94W**±0.03**, h161**^{km}±3^{km}**, n54, σ1^{s}55**/68**, mb4.0**/18**, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCX	San Cristobal	0.82	21	*i* P	Pn	09 58 50.7	-0.3
SCX				*i* S	Sn	09 59 09.0	-0.8
CCIG	Comitan	0.84	68	*i* P	Pn	09 58 52.4	+1.4
CCIG				*i* S	Sn	09 59 10.5	+0.7
CMIG	Matias Romero	2.17	301	P	Pn	09 59 05.2	+0.9
	324nm,0.3s,baz=102,slow=8.2,SNR=7182						
CMIG				S	Sn	09 59 33.6	+0.2
	204nm,0.3s,baz=316,slow=20,SNR=31						
TUIG	Tuzandepetl	2.50	326	*i* P	Pn	09 59 08.7	+0.6
TUIG				*i* S	Sn	09 59 38.2	-2.1
HUIG	Huatulco	3.05	267	*i* P	Pn	09 59 14.7	-0.2
HUIG				*i* S	Sn	09 59 50.5	-1.9
VHO	Vista Hermosa	3.80	287	*i* P	Pn	09 59 26.6	+2.1
VHO				*i* S	Sn	10 00 09.1	-0.5
TPIG	Tehuac#an	4.88	301	*i* P	Pn	09 59 40.1	+1.6
TPIG				*i* S	Sn	10 00 33.7	-1.1
PNIG	Pinotepa	5.00	276	*i* P	Pn	09 59 41.3	+1.2
PNIG				*i* S	Sn	10 00 35.6	-2.0
UTMO	Huajuapan	5.01	292	*i* P	Pn	09 59 42.0	+1.8
UTMO				*i* S	Sn	10 00 36.8	-1.1
TEIG	Tepich	6.14	46	*e*Pn	Pn	09 59 52.6	-2.5
	24nm,0.5s						
TEIG	Tepich	6.14	46	P	Pn	09 59 53.1	-1.9
	4.2nm,0.3s,baz=218,slow=1.6,SNR=34						
MEIG	Mezcala	6.68	288	*i* P	Pn	10 00 05.3	+2.9
MEIG				*i* S	Sn	10 01 15.1	-2.5
PLIG	Platanillo	6.72	292	*i* P	Pn	10 00 05.8	+3.0
PLIG				*i* S	Sn	10 01 18.1	-0.4
SZVM	Salazar	6.99	299	*e*P	Pn	10 00 08.5	+2.1
SZVM				*i* S	Sn	10 01 23.9	-1.0
CAIG	El Cayaco	7.11	280	*i* P	Pn	10 00 09.9	+1.9
CAIG				*i* S	Sn	10 01 27.1	-0.7
JTS	JuntasAbangare	9.61	125	P	Pn	10 00 40.1	-1.1
	3.0nm,0.3s,baz=315,slow=18,SNR=18						
JTS				S	Sn	10 02 18.0	-10
	0.6nm,0.3s,baz=279,slow=19,SNR=2.1						
LNIG	Linares	10.79	327	*e*P	Pn	10 00 59.9	+3.2
JCT	Junction City	15.76	338	*e*Pn	Pn	10 02 02.3	+2.7
	11nm,0.5s						
JCT				*e*P		10 02 02.5	
LTX	Lajitas	16.57	325	*e*P	Pn	10 02 12.1	+2.6
TXAR	Lajitas Array	16.57	325	P	Pn	10 02 11.7	+2.1
	0.3nm,0.3s,baz=147,slow=12,SNR=28						
MIAR	Mount Ida	18.51	358	*e*P	P	10 02 30.3	-0.2
	15nm,1.0s						
OXF	Oxford	18.74	9	*e*P	P	10 02 29.9	-3.1
	17nm,1.1s						
GDL2	Guadalupe Moun	19.21	329	*e*P	P	10 02 40.5	+2.4
MNTX	Cornudas Mount	19.33	326	*e*P	P	10 02 41.5	+2.1
	8.7nm,0.9s						
WMOK	Wichita Mounta	19.42	345	*e*P	P	10 02 41.9	+1.6
	5.4nm,0.5s						
SWET	Sewanee	20.17	17	*e*P	P	10 02 43.7	-4.7
UTMT	University of	20.62	9	*e*P	P	10 02 43.9	-9.2
TKL	Tuckaleechee C	21.25	21	P	P	10 02 59.4	-0.5
TKL	Tuckaleechee C	21.25	21	P	P	10 02 59.4	-0.5
	5.7nm,1.1s,mb3.8,baz=188,slow=15,SNR=2.6						
BNM	Barren Site	21.90	328	*e*P	P	10 03 07.2	+0.4
SIUC	Southern Illin	21.91	8	*e*P	P	10 03 02.4	-4.5
	18nm,1.3s,mb4.3						
ANMO	Albuquerque	22.46	330	*e*P	P	10 03 12.3	0.0
	1.6nm,0.4s,mb3.8						
ANMO	Albuquerque	22.46	330	P	P	10 03 13.8	+1.6
	2.3nm,0.5s,mb3.8,baz=141,slow=11,SNR=11						
KSU1	Kansas State U	23.27	353	*e*P	P	10 03 18.4	-1.3
CBKS	Cedar Bluff	23.53	347	*e*P	P	10 03 21.0	-1.0
	10.0nm,0.8s,mb4.4						
SDCO	Great Sand Dun	24.37	335	*e*P	P	10 03 27.4	-2.3
	1.6nm,0.6s,mb3.7						
MVCO	Mesa Verde	25.25	330	*e*P	P	10 03 39.8	+2.1
	7.7nm,0.8s,mb4.3						
RSSD	Black Hills	29.60	344	*e*P	P	10 04 13.4	-3.0
	4.5nm,0.7s,mb4.3						
HWUT	Hardware Ranch	30.18	332	*e*P	P	10 04 20.1	-1.4
	1.8nm,1.0s,mb3.8						
PDAR	Pinedale Array	30.27	335	P	P	10 04 22.4	+0.2
	0.4nm,0.6s,mb3.3,baz=138,slow=9.8,SNR=4.4						
REDW	Red Top Meadow	31.29	334	*e*P	P	10 04 32.2	+1.0
LOHW	Long Hollow	31.39	335	*e*P	P	10 04 33.4	+1.3
	3.2nm,0.7s,mb4.2						
MOOW	Moose Ponds	31.56	335	*e*P	P	10 04 33.9	+0.3
	1.2nm,0.8s,mb3.7						
NVAR	Mina Array Bea	31.58	320	P	P	10 04 36.9	+3.0
	3.7nm,0.7s,mb4.3,baz=129,slow=9.0,SNR=36						
MCMT	McKenzie Canyo	33.32	334	*e*P	P	10 04 47.2	-1.7
ULM	Lac du Bonnet	34.28	357	P	P	10 04 53.3	-3.8
	1.2nm,0.5s,mb3.9,baz=169,slow=9.6,SNR=5.7						
LPAZ	La Paz	40.33	141	P	P	10 05 48.5	0.0
	5.3nm,0.6s,mb4.3,baz=331,slow=7.1,SNR=24						
EDM	Edmonton	40.49	341	*e*P	P	10 05 48.4	-1.0
FCC	Fort Churchill	42.74	359	*e*P	P	10 06 02.9	-4.6
	42nm,2.3s,mb4.7						
SIV	San Ignacio	44.70	134	P	P	10 06 21.5	-2.1
	3.1nm,0.5s,mb4.2,baz=304,slow=7.3,SNR=25						
YKA	Yellowknife Ar	48.92	347	P	P	10 06 54.7	-1.1
YKA				pP	pP	10 07 33.0	+0.9
YKA				sP	sP	10 07 49.9	-0.1
YKA	Yellowknife Ar	48.92	347	P	P	10 06 54.7	-1.1
	2.1nm,0.6s,mb3.9,baz=150,slow=7.4,SNR=51						
YKA				pP	pP	10 07 33.0	+0.9
	0.3nm,0.5s,baz=150,slow=7.2,SNR=2.0						
YKA				sP	sP	10 07 49.9	-0.1
	1.1nm,0.8s,baz=147,slow=7.5,SNR=5.5						
PMR	Palmer	60.26	333	*e*P	P	10 08 13.2	-4.4
COLA	College	61.10	336	*e*P	P	10 08 18.3	-4.9
	1.1nm,0.5s,mb3.9						

IDC 23 10:11:27.3±1.5**, 1.14S×127.29E, h0^{km}, mb3.5**/3**, mb1 3.7**/5**, mb1mx3.6**/16**, mbtmp3.5**/5**, ML3.3**/2**, Error ellipse: s-maj=104.7km s-min=21.9km az=72.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	16.93	185	Pn	Pn	10 15 24.8	-1.0
	0.1nm,0.3s,baz=357,slow=16,SNR=2.1						
WRA	Warramunga Arr	19.92	160	P	Pn	10 16 00.8	-1.5
	0.1nm,0.3s,baz=339,slow=12,SNR=13						
ASAR	Alice Springs	23.29	165	P	P	10 16 37.2	+0.3
	1.5nm,0.8s,baz=347,slow=12,SNR=14						
SONM	Songino Array	52.07	342	P	P	10 20 38.5	-0.4
	0.2nm,0.4s,baz=144,slow=6.2,SNR=2.8						
MKAR	Makanchi Array	61.88	327	P	P	10 21 48.9	+0.4
	0.4nm,0.4s,baz=124,slow=9.1,SNR=3.7						

ISCJB ***23*** *11:04:24.2±0.7, 35.98N±0.04×140.14E±0.06, h75^{km}±5^{km}, mb3.6/5, Error ellipse: s-maj=8.7km s-min=6.4km az=11.3*

IDC ***23*** *11:04:24.9±6.0, 36.12N×140.26E, h77^{km}±43^{km}, mb3.1/3, mb1 3.2/3, mb1mx3.0/21, mbtmp3.1/3, Error ellipse: s-maj=66.4km s-min=27.7km az=60.0*

NEIC ***23*** *11:04:25.4±1.2, 35.06N×137.97E, h10^{km}, mb4.2/2, Error ellipse: s-maj=29.1km s-min=15.3km az=104.0*

JMA ***23*** *11:04:25.7±0.1, 36.04N×140.10E, h63^{km}±1^{km}, M3.1*

JMA Felt I J1.

ISC 23 11:04:25.1±0.6**, 35.98N**±0.04×**140.14E**±0.06**, h68**^{km}±5^{km}**, n21, σ0^{s}66**/30**, mb3.6**/5**, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYT	Yasato	0.25	10	P	Pn	11 04 35.6	-0.2
JYT				S	Sn	11 04 42.8	-0.8
TOK	Tokyo	0.43	226	P	Pn	11 04 38.6	+1.5
JAG	Ashikaga	0.71	309	P	Pn	11 04 39.8	-0.2
JAG				S	Sn	11 04 50.0	-0.9
JRY	Ryogami san	1.00	272	P	Pn	11 04 43.6	+0.1
JRY				*e*S	Sn	11 04 57.2	0.0
JKT	Katashina	1.06	318	P	Pn	11 04 44.0	-0.3
JKT				*e*S	Sn	11 04 58.2	-0.4
JOD2	Odawara 2	1.12	230	P	Pn	11 04 45.1	+0.1
JOD2				*e*S	Sn	11 04 58.4	-1.4
BSO3	Boso 3	1.22	165	P	Pn	11 04 47.6	+1.3
JYN	Shimob	1.38	250	P	Pn	11 04 49.1	+0.6
JYN				*e*S	Sn	11 05 06.1	+0.1
JIM2	Oshima 3	1.39	205	*e*S	Sn	11 05 05.3	-0.8
JFY	Yanaizu	1.46	346	P	Pn	11 04 49.7	+0.2
JFY				*e*S	Sn	11 05 08.1	+0.2
JFK	Kawauchi	1.50	23	P	Pn	11 04 50.1	+0.1
JHK	Hiroka	1.55	325	P	Pn	11 04 50.8	+0.1
MJAR	Matsushiro Arr	1.66	290	P	Pn	11 04 52.1	+0.1
	24nm,0.3s,baz=92,slow=9.6,SNR=193						
MJAR				S	Sn	11 05 13.4	+1.0
	6.3nm,0.3s,baz=303,slow=19,SNR=8.6						
MAJO	Matsushiro	1.66	290	*e*P	Pn	11 04 52.2	+0.1
MAT	Matsushiro	1.66	290	P	Pn	11 04 52.6	+0.5
MAT				S	Sn	11 05 13.2	+0.7
SONM	Songino Array	27.54	306	P	P	11 10 04.8	-0.4
	0.3nm,0.6s,mb3.0,baz=106,slow=7.4,SNR=3.4						
MKAR	Makanchi Array	43.81	303	P	P	11 12 23.0	-1.1
MKAR	Makanchi Array	43.81	303	P	P	11 12 23.0	-1.0
	0.3nm,0.7s,mb3.2,baz=90,slow=9.7,SNR=5.4						
KURK	Kurchatov	45.78	309	*e*P	P	11 12 39.5	-0.1
	1.8nm,0.8s,mb3.9						
BRVK	Borovoye	50.58	313	*e*P	P	11 13 20.7	+4.1
	1.7nm,0.5s,mb4.3						
WRA	Warramunga Arr	55.89	187	P	P	11 13 55.6	-0.2
	0.5nm,0.8s,mb3.6,baz=1.7,slow=7.6,SNR=7.6						

ISCJB ***23*** *11:12:16.2±2.3, 13.88N±0.06×125.15E±0.09, h19^{km}±15^{km}, mb3.3/4, Error ellipse: s-maj=15.6km s-min=8.3km az=155.7*

IDC ***23*** *11:12:16.4±1.5, 13.43N×124.13E, h0^{km}, mb3.3/4, mb1 3.4/4, mb1mx3.3/19, mbtmp3.3/4, Error ellipse: s-maj=173.6km s-min=21.2km az=69.0*

MAN ***23*** *11:12:18, 13.87N×125.07E, h32^{km}, mb4.5, ML3.3, MS3.2*

ISC 23 11:12:16.8±2.2**, 13.82N**±0.06×**125.10E**±0.08**, h10**^{km}±11^{km}**, n10, σ0^{s}77**/15**, mb3.3**/4**, 1D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVCP	Virac	0.95	256	⇓*e*P	Pg	11 12 35.4	+0.3
PVCP				*i* S	Sg	11 12 47.6	+0.2
PVCP	Virac	0.95	256	*e*P	Pg	11 12 35.3	+0.3
PVCP				*e*S	Sg	11 12 47.5	+0.1
CNP	Catarman	1.37	198	*e*P	Pn	11 12 41.9	0.0
CNP				*e*S	Sb	11 12 59.6	-0.5
POLP	Polilio Island	3.19	287	*e*P	Pn	11 13 07.9	+0.9
POLP				*e*S	Sn	11 13 45.7	+0.5
BALP	Baler	3.91	300	*e*P	Pn	11 13 14.5	-2.4
CAUP	Cauayan	4.43	315	*e*P	Pn	11 13 23.2	-0.9
CAUP				*e*S	Sn	11 14 15.3	-0.4
WRA	Warramunga Arr	34.76	165	P	P	11 19 07.7	+0.2
	0.2nm,0.6s,mb3.2,baz=339,slow=9.1,SNR=5.2						
SONM	Songino Array	37.31	339	P	P	11 19 29.7	+0.7
	0.2nm,0.4s,mb3.3,baz=157,slow=10,SNR=9.8						
ASAR	Alice Springs	38.24	167	P	P	11 19 37.0	-0.1
	0.3nm,0.5s,mb3.3,baz=344,slow=7.2,SNR=13						
MKAR	Makanchi Array	48.54	321	P	P	11 21 00.7	+0.7
	0.2nm,0.6s,mb3.4,baz=119,slow=7.8,SNR=2.8						

CSEM ***23*** *11:13:13.8±0.1, 38.37N×39.25E, h5^{km}, MD3.1, Error ellipse: s-maj=1.9km s-min=1.6km az=168.0*

DDA ***23*** *11:13:13.9, 38.33N×39.27E, h2^{km}±5^{km}, Md3.1*

ISCJB ***23*** *11:13:14.4±0.3, 38.35N±0.03×39.25E±0.03, h5^{km}, Error ellipse: s-maj=3.9km s-min=2.9km az=177.1*

ISK ***23*** *11:13:14.1, 38.36N×39.24E, h5^{km}, MD3.5*

ISC 23 11:13:14.8±0.5**, 38.36N**±0.03×**39.27E**±0.03**, h2**^{km}±5^{km}**, n41, σ0^{s}88**/53**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.26	301	⇑*i*P	Pg	11 13 19.7	-0.2
ELZG				*i* S	Sg	11 13 24.7	+1.4
PTK	Pertek	0.54	10	PG	Pg	11 13 24.8	-0.4
PTK				SG	Sg	11 13 32.4	+0.3
PTK	Pertek	0.54	10	*e*Pg	Pg	11 13 24.8	-0.4
PTK				*e*Sg	Sg	11 13 32.4	+0.3
MALT	Malatya	0.67	266	PG	Pg	11 13 26.2	-1.4
MALT	Malatya	0.67	266	*e*Pg	Pg	11 13 26.2	-1.4
MYA	Malataya	0.67	267	PG	Pg	11 13 26.8	-0.8
MYA				SG	Sg	11 13 36.0	-0.2
MYA	Malataya	0.67	267	*e*Pg	Pg	11 13 26.8	-0.8
MYA				*e*Sg	Sg	11 13 36.0	-0.2
DIYA	Diyarbakir	0.80	123	*i* P	Pg	11 13 30.1	-0.1
DIYA				*i* S	Sg	11 13 46.2	+5.6
DIYA	Diyarbakir	0.80	123	*i* P	Pg	11 13 30.0	-0.2
DIYA				*i* S	Sg	11 13 46.2	+5.7
DIY	Diyarbakir	0.89	121	PG	Pg	11 13 31.5	-0.3
DIY				SG	Sg	11 13 44.7	+1.4
DIY	Diyarbakir	0.89	121	*e*Pg	Pg	11 13 31.5	-0.3
DIY				*e*Sg	Sg	11 13 44.7	+1.4
URFA	Urfa	0.99	201	PG	Pg	11 13 33.3	-0.4
URFA	Urfa	0.99	201	*e*Pg	Pg	11 13 33.3	-0.4
BINT	Bingol	1.08	61	PN	Pn	11 13 35.8	-1.3
BINT	Bingol	1.08	61	*e*Pn	Pn	11 13 35.8	-1.3
ATAB	Bozova	1.18	221	*i* P	Pg	11 13 37.1	-0.3
ATAB				*i* S	Sg	11 13 53.5	+0.8
EZC	Erzincan	1.45	17	PN	Pn	11 13 41.0	-1.1
BNGL	BINGOL	1.58	68	*i* P	Pn	11 13 44.9	+1.0
MARD	Mardin	1.59	131	*i* P	Pn	11 13 42.4	-1.6
MARD				*i* S	Sn	11 14 05.3	+0.2
GZT	Gaziantep	1.68	234	*i* P	Pn	11 13 44.2	-1.1
GZT				*i* S	Sg	11 14 09.7	+0.7
BTMT	Batman	1.75	95	PN	Pn	11 13 44.9	-1.4
GAZ	Gaziantep	2.02	235	PN	Pn	11 13 49.8	-0.1
GAZ	Gaziantep	2.02	235	*e*Pn	Pn	11 13 49.8	-0.1
GUMT	Gumushane	2.10	4	PN	Pn	11 13 51.3	+0.2
EZM	Erzurum	2.24	46	PN	Pn	11 13 53.3	+0.3
SVSK	Karacayir	2.35	312	PN	Pn	11 13 55.1	+0.6
SVSK	Karacayir	2.35	312	*e*Pn	Pn	11 13 55.1	+0.6
ANDN	Andirin	2.44	252	*e*P	Pg	11 13 60.0	-1.7
ANDN				*i* S	Sg	11 14 34.5	+1.3
SIRT	Sirnak	2.65	108	*e*PN	Pn	11 13 58.6	0.0
SIRT	Sirnak	2.65	108	*e*Pn	Pn	11 13 58.6	0.0
BNN	Bunyan	2.73	281	*e*PN	Pn	11 13 59.6	-0.1
BNN	Bunyan	2.73	281	*e*Pn	Pn	11 13 59.6	-0.1
KOZT	Kozan	2.86	253	*e*PN	Pn	11 14 02.0	+0.5
AGRB	Hanur-Agry	3.14	66	*e*PN	Pn	11 14 06.1	+0.7
AGRB	Hanur-Agry	3.14	66	*e*Pn	Pn	11 14 06.1	+0.7
YOZ	Yozgat	3.33	294	*e*PN	Pn	11 14 09.0	+1.0
YOZ	Yozgat	3.33	294	*e*Pn	Pn	11 14 09.0	+1.0
CUKT	Cukurca	3.61	107	*e*PN	Pn	11 14 12.9	+1.1
CUKT	Cukurca	3.61	107	*e*Pn	Pn	11 14 12.9	+1.1
HKR	Hakkari	3.62	101	*e*PN	Pn	11 14 13.0	+1.1
MSL	Mosul	3.68	123	*e*Pn	x	11 14 26.0	
MSL				*e*Sn	x	11 15 12.5	

IDC 23 11:40:55.0±1.2**, 26.20N×110.42W, h0^{km}, mb3.7**/2**, mb1 3.9**/6**, mb1mx3.7**/22**, mbtmp3.5**/6**, ML3.5**/4**, MS3.5**/3**, Ms1 3.5**/3**, ms1mx2.9**/37**, Error ellipse: s-maj=21.8km s-min=12.7km az=93.0, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	2.09	177	Pn	Pn	11 41 31.1	-0.1
	3.9nm,0.3s,baz=354,slow=9.2,SNR=11						
LPIG				Lg		11 42 02.8	
	93nm,0.3s,baz=245,slow=18,SNR=5.9						
TXAR	Lajitas Array	6.75	61	Pn	Pn	11 42 35.7	+0.4
	0.4nm,0.3s,baz=234,slow=14,SNR=26						
TXAR				Sn	Sn	11 43 52.7	-0.1
	0.7nm,0.3s,baz=228,slow=20,SNR=4.5						
TXAR				Lg		11 44 29.2	
	0.7nm,0.3s,baz=194,slow=30,SNR=4.3						
ANMO	Albuquerque	9.37	20	Pn	Pn	11 43 14.6	+3.4
	0.1nm,0.3s,baz=222,slow=16,SNR=3.7						
ANMO				Lg		11 45 51.4	
	0.1nm,0.3s,baz=17,slow=20,SNR=3.9						
NVAR	Mina Array Bea	13.89	333	Pn	Pn	11 44 16.6	+3.4
	0.1nm,0.3s,baz=147,slow=12,SNR=5.1						
PDAR	Pinedale Array	16.55	2	Pn	Pn	11 44 52.2	+3.9
	0.0nm,0.3s,baz=180,slow=10,SNR=11						
CMIG	Matias Romero	17.03	119	LR	LR	11 51 54.7	
	comp=Z,89nm,21.6s,baz=172,slow=39						
TEIG	Tepich	21.18	102	LR	LR	11 55 30.5	
	comp=Z,136nm,18.2s,baz=319,slow=41						
TKL	Tuckaleechee C	24.66	61	LR	LR	11 57 17.4	
	comp=Z,179nm,21.9s,baz=320,slow=40						
YKA	Yellowknife Ar	36.40	357	P	P	11 48 00.3	-0.5
	0.4nm,0.8s,baz=181,slow=8.1,SNR=8.6						
SIV	San Ignacio	63.72	126	P	P	11 51 28.1	-0.6
	1.8nm,0.8s,baz=306,slow=10,SNR=7.3						

IDC 23 11:42:29.8±1.8**, 1.40N×126.56E, h0^{km}, mb3.7**/3**, mb1 3.8**/4**, mb1mx3.6**/17**, mbtmp3.6**/4**, ML3.4**/1**, Error ellipse: s-maj=113.7km s-min=23.0km az=68.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.40	183	P	Pn	11 46 58.3	-0.3

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	0.1nm,0.3s,baz=17,slow=14,SNR=3.5						
WRA	Warramunga Arr	22.54	161	P	P	11 47 31.4	-0.1
	2.5nm,0.6s,baz=338,slow=11,SNR=28						
ASAR	Alice Springs	25.92	164	P	P	11 48 03.5	-0.2
	0.4nm,0.4s,baz=338,slow=7.7,SNR=16						
MKAR	Makanchi Array	59.37	326	P	P	11 52 34.0	+0.1
	0.3nm,0.4s,baz=129,slow=7.4,SNR=8.6						

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*ISCJB **23** 12:06:10.6±0.3, 51.49N±0.02×6.92E±0.04, h0^{km}, Error ellipse: s-maj=3.6km s-min=2.4km az=26.3*

*BUG **23** 12:06:11.8, 51.58N×6.83E, h1^{km}, ML2.0*

*LDG **23** 12:06:12.3±0.2, 51.62N×6.87E, h1^{km}, Ml3.1/11, Error ellipse: s-maj=3.7km s-min=2.4km az=38.0, Suspected Mining induced.*

*CSEM **23** 12:06:12.1±0.1, 51.61N×6.94E, h1^{km}, ML3.1/11, Error ellipse: s-maj=3.0km s-min=1.5km az=86.0*

*BGR **23** 12:06:12.6±0.6, 51.53N×6.89E, h1^{km}, ML2.5/2, Error ellipse: s-maj=5.6km s-min=3.3km az=119.0*

*BNS **23** 12:06:14.4±0.6, 51.52N×6.83E, h1^{km}, ML2.3*

ISC 23 12:06:11.8±0.3, 51.57N±0.02×6.86E±0.03, h0^{km}, n65, σ$1^{s}23$/118, 1D, Germany

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BZER	Hlnxe	0.05	6	Pg	Pg	12 06 13.2	+0.3
BZER				Sg	Sg	12 06 14.8	+1.3
BZER	Hlnxe	0.05	6	Pg	Pg	12 06 13.2	+0.3
BZER				Sg	Sg	12 06 14.8	+1.3
BUG	Bochum--Univer	0.29	116	⇓ePg	Pg	12 06 18.6	+1.3
BUG				Sg	Sg	12 06 23.5	+2.5
WTSB	Winterswijk	0.40	355	ePg	Pg	12 06 20.4	+0.9
	115nm,0.3s						
WTSB				eP		14 24 59.9	
	56nm,1.1s						
WTSB	Winterswijk	0.40	355	ePg	Pg	12 06 20.4	+0.9
	115nm,0.3s						
BNS	Bensberg	0.64	162	ePg	Pg	12 06 25.7	+1.7
BNS				eSg	Sg	12 06 34.3	+2.0
HOBG	Hohbusch	0.66	153	ePg	Pg	12 06 26.1	+1.7
HOBG				eSg	Sg	12 06 34.8	+1.9
	143nm,0.4s						
IBBN	Ibbenburen	0.93	37	ePg	Pg	12 06 29.9	+0.3
	SNR=9.3						
IBBN				eSg	Sg	12 06 43.0	+1.5
	SNR=2.5						
STB	Steinbach	0.98	181	ePg	Pg	12 06 31.9	+1.4
STB				eSg	Sg	12 06 44.9	+1.7
	97nm,0.4s						
KLL	Kalltalsperre	0.99	201	ePg	Pg	12 06 32.0	+1.3
KLL				eSg	Sg	12 06 44.9	+1.4
	84nm,0.2s						
DREG	Dreilaegerbach	0.99	204	ePg	Pg	12 06 32.0	+1.3
HGN	Heimansgroeve	0.99	216	ePg	Pg	12 06 32.2	+1.3
	29nm,0.2s						
HGN				eSg	Sg	12 06 45.2	+1.4
MEM	Membach	1.10	210	Pg	Pg	12 06 33.6	+0.7
MEM	Membach	1.10	210	Pn	Pn	12 06 34.9	+0.4
MEM				Sg	Sg	12 06 48.5	+1.3
HILG	Hillesheim	1.28	185	ePg	Pg	12 06 37.2	+0.8
HILG				eSg	Sg	12 06 54.3	+1.3
BGG	Burgeitz	1.40	167	ePg	Pg	12 06 38.6	0.0
BGG				eSg	Sg	12 06 56.9	+0.3
	46nm,0.2s						
TNS	Taunus Mts	1.68	143	ePg	Pg	12 06 42.9	-1.1
	SNR=5.7						
TNS				eSg	Sg	12 07 04.8	-1.0
	SNR=4.1						
SNF	Seneffe	1.94	238	PN	Pn	12 06 40.1	-5.9
GIVF	Givet	1.96	222	ePn	Pn	12 06 45.8	-0.4
GIVF	Givet	1.96	222	ePg	Pg	12 06 49.2	-0.1
GIVF				eSn	Sn	12 07 09.8	-1.6
	84nm,0.4s						
GIVF	Givet	1.96	222	ePn	Pn	12 06 45.8	-0.4
GIVF	Givet	1.96	222	ePg	Pg	12 06 49.2	-0.1
GIVF				eSn	Sn	12 07 09.8	-1.6
	42nm,0.4s						
WLF	Walferdange	1.96	194	ePg	Pg	12 06 49.4	+0.1
	SNR=1.8						
WLF				eSg	Sg	12 07 13.2	-1.6
	SNR=2.5						
WLF	Walferdange	1.96	194	PG	Pg	12 06 50.1	+0.8
WLF				SN	Sn	12 07 13.5	+2.0
	comp=N,20nm,0.0s						
WLF	Walferdange	1.96	194	Pg	Pg	12 06 50.1	+0.7
WLF				Sn	Sn	12 07 13.5	+2.0
DOU	Dourbes	2.06	225	PN	Pn	12 06 47.5	-0.1
DOU				PG	Pg	12 06 52.1	+0.9
DOU				SN	Sn	12 07 16.2	+2.2
	comp=E,14nm,0.0s						
DOU	Dourbes	2.06	225	Pn	Pn	12 06 47.5	-0.1
DOU	Dourbes	2.06	225	Pg	Pg	12 06 52.1	+0.8
DOU				Sn	Sn	12 07 16.1	+2.1
CLZ	Clausthal	2.20	81	ePg	Pg	12 06 54.4	+0.4
	SNR=3.3						
CLZ				eSg	Sg	12 07 21.8	-0.7
	SNR=2.6						
BAIF	Baives	2.26	229	ePn	Pn	12 06 49.5	-0.9
BAIF	Baives	2.26	229	ePg	Pg	12 06 55.5	+0.3
BAIF				eSn	Sn	12 07 17.1	-1.9
	comp=E,15nm,0.2s						
BAIF	Baives	2.26	229	ePn	Pn	12 06 49.5	-0.9
BAIF	Baives	2.26	229	ePg	Pg	12 06 55.5	+0.3
BAIF				eSn	Sn	12 07 17.1	-1.9
	comp=E,7.7nm,0.2s						
RFYF	Reffroy	3.08	197	ePg	Pg	12 07 10.2	-0.5
RFYF				eSg	Sg	12 07 50.3	-0.3
	comp=E,13nm,0.2s						
RFYF	Reffroy	3.08	197	ePg	Pg	12 07 10.2	-0.5
RFYF				eSg	Sg	12 07 50.3	-0.3
	comp=E,6.4nm,0.2s						
MOX	Moxa	3.14	105	eSg	Sg	12 07 51.1	-1.5
	SNR=2.5						
CDF	Champ du Feu	3.17	175	ePn	Pn	12 07 01.9	-1.0
CDF	Champ du Feu	3.17	175	ePg	Pg	12 07 11.8	-0.8
CDF				eSn	Sn	12 07 38.1	-3.3
CDF				eSg	Sg	12 07 53.1	-0.6
	comp=E,6.6nm,0.4s						
CDF	Champ du Feu	3.17	175	ePn	Pn	12 07 01.9	-1.0
CDF	Champ du Feu	3.17	175	ePg	Pg	12 07 11.8	-0.8
CDF				eSn	Sn	12 07 38.1	-3.3
CDF				eSg	Sg	12 07 53.1	-0.6
	comp=E,3.3nm,0.4s						
MEZF	Maizieres J’vi	3.28	201	ePn	Pn	12 07 03.8	-0.7
MEZF				eSg	Sg	12 07 57.4	+0.1
	comp=E,8.3nm,0.3s						
MEZF	Maizieres J’vi	3.28	201	ePn	Pn	12 07 03.8	-0.7
MEZF				eSg	Sg	12 07 57.4	+0.1
	comp=E,4.2nm,0.3s						
SFTF	Sexfontaines	3.57	200	ePn	Pn	12 07 07.3	-1.1
SFTF				eSg	Sg	12 08 06.2	-0.2
	comp=E,4.8nm,0.2s						
SFTF	Sexfontaines	3.57	200	ePn	Pn	12 07 07.3	-1.1
SFTF				eSg	Sg	12 08 06.2	-0.2
	comp=E,2.4nm,0.2s						
HAU	Haudompre	3.58	186	eSg	Sg	12 08 06.0	-0.9
	comp=E,7.3nm,0.3s						
HAU	Haudompre	3.58	186	eSg	Sg	12 08 06.0	-0.9
	comp=E,3.7nm,0.3s						
WERD	Werda	3.62	106	eSg	Sg	12 08 06.3	-1.7
	SNR=1.8						
GUNZ	Gunzen	3.66	107	eSg	Sg	12 08 08.4	-1.1
	SNR=1.5						
TANN	Tannenbergstha	3.72	106	ePn	Pn	12 07 11.5	+1.0
	SNR=2.0						
TANN				eSg	Sg	12 08 09.4	-2.0
	SNR=2.6						
HINF	Hinteralfeld	3.76	180	ePn	Pn	12 07 09.7	-1.3
HINF				eSg	Sg	12 08 12.6	+0.2
	comp=E,5.8nm,0.4s						
HINF	Hinteralfeld	3.76	180	ePn	Pn	12 07 09.7	-1.3
HINF				eSg	Sg	12 08 12.6	+0.2
	comp=E,2.9nm,0.4s						
LOR	Lormes	4.73	206	ePn	Pn	12 07 22.9	-1.4
	baz=27						
LOR				eSn	Sn	12 08 15.8	-4.0
LOR				eSg	Sg	12 08 42.3	-1.4
	comp=E,7.2nm,0.4s						
LOR	Lormes	4.73	206	ePn	Pn	12 07 22.9	-1.4
LOR				eSn	Sn	12 08 15.8	-4.0
LOR				eSg	Sg	12 08 42.3	-1.4
	comp=E,3.6nm,0.4s						
SSF	Saint Saulge	5.02	207	ePn	Pn	12 07 27.0	-1.3
SSF				eSn	Sn	12 08 21.6	-5.3
SSF				eSg	Sg	12 08 52.8	-0.1
	comp=E,5.2nm,0.4s						
SSF	Saint Saulge	5.02	207	ePn	Pn	12 07 27.0	-1.3
SSF				eSn	Sn	12 08 21.6	-5.3
SSF				eSg	Sg	12 08 52.8	-0.1
	comp=E,2.6nm,0.4s						
AVF	Avril sur Loir	5.31	207	ePn	Pn	12 07 30.3	-2.0
AVF				eSn	Sn	12 08 30.7	-3.3
AVF	Avril sur Loir	5.31	207	ePn	Pn	12 07 30.3	-2.0
AVF				eSn	Sn	12 08 30.7	-3.3
SMF	Signal de Mont	5.31	203	ePn	Pn	12 07 30.9	-1.4
SMF	Signal de Mont	5.31	203	ePn	Pn	12 07 30.9	-1.4
LDF	La Druitiere	5.39	239	ePn	Pn	12 07 32.6	-0.8
LDF				eSn	Sn	12 08 30.8	-5.3
LDF	La Druitiere	5.39	239	ePn	Pn	12 07 32.6	-0.8
LDF				eSn	Sn	12 08 30.8	-5.3
FLN	La Foliniere	5.49	242	ePn	Pn	12 07 33.9	-0.9
	baz=59						
FLN				eSn	Sn	12 08 33.6	-5.0
FLN	La Foliniere	5.49	242	ePn	Pn	12 07 33.9	-0.9
FLN				eSn	Sn	12 08 33.6	-5.0
GRR	Gorron	5.91	240	ePn	Pn	12 07 38.5	-2.0
GRR				eSn	Sn	12 08 42.5	-6.4
	comp=E,6.7nm,0.2s						
GRR	Gorron	5.91	240	ePn	Pn	12 07 38.5	-2.0
GRR				eSn	Sn	12 08 42.5	-6.4
	comp=E,3.3nm,0.2s						

IDC 23 12:10:25.8±6.3, 23.36S×178.06W, h0^{km}, mb4.1/3, mb1 4.2/3, mb1mx3.9/12, mbtmp4.1/3, Error ellipse: s-maj=173.5km s-min=99.9km az=144.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	36.57	248	P	P	12 17 32.8	-0.8
	1.0nm,0.5s,baz=101,slow=13,SNR=5.0						
ASAR	Alice Springs	43.88	260	P	P	12 18 34.1	-0.2
	0.8nm,0.4s,baz=95,slow=7.1,SNR=23						
WRA	Warramunga Arr	44.22	265	P	P	12 18 37.7	+0.7
	1.2nm,0.3s,baz=101,slow=8.4,SNR=95						
HFS	Hagfors	142.34	350	PKP	PKPdf	12 29 59.2	-0.6
	3.3nm,0.8s,baz=107,slow=2.0,SNR=4.9						

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*ISK **23** 12:11:59.6, 38.40N×39.28E, h5^{km}, MD3.8, ML3.9*

*CSEM **23** 12:12:00.3±0.1, 38.40N×39.28E, h5^{km}, MD3.9, Error ellipse: s-maj=1.5km s-min=1.1km az=161.0*

*ISCJB **23** 12:12:00.8±0.5, 38.33N±0.02×39.28E±0.02, h9^{km}±4^{km}, mb3.4/5, Error ellipse: s-maj=4.2km s-min=2.8km az=158.6*

*IDC **23** 12:12:01.3±1.2, 38.36N×39.25E, h0^{km}, mb3.4/5, mb1 3.5/8, mb1mx3.5/21, mbtmp3.4/8, ML3.5/3, Error ellipse: s-maj=23.6km s-min=16.3km az=118.0*

*DDA **23** 12:12:01.6, 38.39N×39.31E, h7^{km}, Md3.9*

*NSSC **23** 12:12:02.1, 38.50N×39.42E, h40^{km}*

*NEIC **23** 12:12:02.7±0.8, 38.29N×39.22E, h10^{km}, ML3.8(ISK), Error ellipse: s-maj=16.1km s-min=11.4km az=174.0*

ISC 23 12:12:01.3±0.5, 38.33N±0.02×39.30E±0.02, h4^{km}±4^{km}, n92, σ$1^{s}00$/122, mb3.4/5, 6D, Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.30	304	i P	Pg	12 12 06.4	-0.7
ELZG				i S	Sg	12 12 10.9	-0.2
PTK	Pertek	0.57	7	i PG	Pg	12 12 10.3	-1.9
PTK				i SG	Sg	12 12 18.8	-0.7
PTK	Pertek	0.57	7	i Pg	Pg	12 12 10.3	-1.9
PTK				i Sg	Sg	12 12 18.8	-0.7
MALT	Malatya	0.69	269	i PG	Pg	12 12 13.9	-0.6
MALT				i SG	Sg	12 12 24.3	+0.9
MALT	Malatya	0.69	269	eP	Pg	12 12 13.5	-1.0
MALT	Malatya	0.69	269	eP	Pg	12 12 13.5	-1.0
MALT	Malatya	0.69	269	i Pg	Pg	12 12 13.9	-0.6
MALT				i Sg	Sg	12 12 24.3	+0.9
MYA	Malataya	0.69	270	i PG	Pg	12 12 13.8	-0.7
MYA				i SG	Sg	12 12 24.3	+0.8
MYA	Malataya	0.69	270	i Pg	Pg	12 12 13.8	-0.7
MYA				i Sg	Sg	12 12 24.3	+0.8
DIY	Diyarbakir	0.85	120	i PG	Pg	12 12 17.5	-0.1
DIY	Diyarbakir	0.85	120	i Pg	Pg	12 12 17.5	-0.1
URFA	Urfa	0.97	203	i PG	Pg	12 12 20.5	+0.7
URFA	Urfa	0.97	203	i Pg	Pg	12 12 20.5	+0.7
BINT	Bingol	1.08	59	i PG	Pg	12 12 21.3	-0.7
BINT	Bingol	1.08	59	i Pg	Pg	12 12 21.3	-0.7
ATAB	Bozova	1.17	223	i P	Pg	12 12 24.3	+0.6
ATAB				i S	Sg	12 12 42.7	+3.7
EZC	Erzincan	1.47	16	i PN	Pn	12 12 26.5	-2.1
DRBT	Darb Altahta	1.53	165	⇑P	Pn	12 12 35.5	+6.1
DRBT				⇑S	Sn	12 12 58.8	+9.0
MARD	Mardin	1.55	130	i P	Pn	12 12 28.5	-1.2
MARD				i S	Sn	12 12 48.9	-1.3
BNGL	BINGOL	1.57	66	i P	Pn	12 12 29.3	-0.7
BNGL				i S	Sn	12 12 52.8	+1.9
BEST	Besiri	1.61	105	i P	Pn	12 12 29.6	-1.0
BEST				i S	Sn	12 12 52.4	+0.5
KBSD	Kabsdagh	1.65	143	⇑P	Pn	12 12 30.6	-0.5
KBSD				⇑S	Sn	12 12 49.6	-3.1
KBSD	Kabsdagh	1.65	143	⇑iP	Pn	12 12 30.6	-0.5
KBSD				⇑iS	Sn	12 12 49.6	-3.2
GZT	Gaziantep	1.69	235	i P	Pn	12 12 31.5	0.0
GZT				i S	Sn	12 12 55.5	+1.9
BTMT	Batman	1.73	94	i PN	Pn	12 12 30.4	-1.7
GAZ	Gaziantep	2.02	236	i PN	Pn	12 12 36.6	+0.4
GAZ	Gaziantep	2.02	236	i Pn	Pn	12 12 36.6	+0.4
GUMT	Gumushane	2.13	4	i PN	Pn	12 12 37.0	-0.7
GUMT	Gumushane	2.13	4	i Pn	Pn	12 12 37.0	-0.7
EZM	Erzurum	2.25	45	i PN	Pn	12 12 38.7	-0.6
SLMH	Al Salmeh	2.38	208	⇑P	Pn	12 12 41.1	0.0
SLMH				⇑S	Sn	12 13 10.9	+0.1
SLMH	Al Salmeh	2.38	208	⇑iP	Pn	12 12 41.1	0.0
SLMH				⇑iS	Sn	12 13 10.9	+0.2
SVSK	Karacayir	2.39	312	i PN	Pn	12 12 41.5	+0.2
SVSK	Karacayir	2.39	312	i Pn	Pn	12 12 41.5	+0.2
SIRT	Sirnak	2.62	107	PN	Pn	12 12 45.5	+1.2
SIRT	Sirnak	2.62	107	ePn	Pn	12 12 45.5	+1.2
KTUT	Trabzon	2.68	8	PN	Pn	12 12 44.9	-0.3
KTUT	Trabzon	2.68	8	ePn	Pn	12 12 44.9	-0.3
DRWC	Darouich	2.70	232	⇑P	Pn	12 12 45.4	-0.1
DRWC				⇑S	Sn	12 13 17.7	-1.0
DRWC	Darouich	2.70	232	⇑iP	Pn	12 12 45.4	-0.1
DRWC				⇑iS	Sn	12 13 17.7	-1.0
JHLN	Al Jahlan	2.74	195	⇓P	Pn	12 12 46.9	+0.9
JHLN	Al Jahlan	2.74	195	⇓iP	Pn	12 12 46.9	+0.8
BNN	Bunyan	2.76	282	PN	Pn	12 12 45.9	-0.4
BNN	Bunyan	2.76	282	ePn	Pn	12 12 45.9	-0.4
KOZT	Kozan	2.88	254	PN	Pn	12 12 48.3	+0.4
TOKT	Tokat	2.92	314	PN	Pn	12 12 48.0	-0.5
TOKT	Tokat	2.92	314	ePn	Pn	12 12 48.0	-0.5
AGRB	Hanur-Agry	3.13	65	PN	Pn	12 12 52.0	+0.5
AGRB	Hanur-Agry	3.13	65	ePn	Pn	12 12 52.0	+0.5
VANB	Van	3.22	84	PN	Pn	12 12 53.5	+0.9
VANB	Van	3.22	84	ePn	Pn	12 12 53.5	+0.9
BTCH	Batrach	3.22	226	⇓P	Pn	12 12 53.5	+0.8
BTCH				⇓S	Sn	12 13 31.0	-0.6
BTCH	Batrach	3.22	226	⇓iP	Pn	12 12 53.5	+0.8
BTCH				⇓iS	Sn	12 13 31.0	-0.5
YOZ	Yozgat	3.37	294	PN	Pn	12 12 55.5	+0.8
YOZ	Yozgat	3.37	294	ePn	Pn	12 12 55.5	+0.8
CUKT	Cukurca	3.58	106	ePN	Pn	12 12 59.2	+1.6
CUKT	Cukurca	3.58	106	ePn	Pn	12 12 59.2	+1.6
HKR	Hakkari	3.59	101	PN	Pn	12 12 58.6	+0.9
HKR	Hakkari	3.59	101	ePn	Pn	12 12 58.6	+0.9
ARNB	Al Arnab	3.63	228	⇑P	Pn	12 12 58.3	0.0
ARNB				⇑S	Sn	12 13 39.7	-1.8
MSL	Mosul	3.64	123	ePn	x	12 13 08.0	
MSL				eSn	x	12 13 58.0	
WRDH	Warideh	3.65	220	⇑P	Pn	12 12 59.7	+1.2
WRDH				⇑S	Sn	12 13 40.9	-1.1
WRDH	Warideh	3.65	220	⇑iP	Pn	12 12 59.7	+1.2
WRDH				⇑iS	Sn	12 13 40.9	-1.1
SLNF	Slenfeh	3.68	223	⇑iP	Pn	12 12 59.3	+0.3
SLNF				⇑iS	Sn	12 13 41.5	-1.3
CLDR	Caldiran	3.70	76	ePN	Pn	12 13 00.4	+1.2
CLDR	Caldiran	3.70	76	ePn	Pn	12 13 00.4	+1.2
NIG	Nigde	3.70	268	ePN	Pn	12 12 59.6	+0.3
NIG	Nigde	3.70	268	ePn	Pn	12 12 59.6	+0.3
BIDA	Albida	4.09	217	⇑P	Pn	12 13 05.5	+0.9
BIDA				⇑S	Sn	12 13 51.4	-1.4
BIDA	Albida	4.09	217	⇑iP	Pn	12 13 05.5	+0.9
BIDA				⇑iS	Sn	12 13 51.4	-1.4
ROOS	tl_alroos	4.46	202	⇑P	Pn	12 13 10.1	+0.4
ROOS				⇑S	Sn	12 14 00.8	-1.2
ROOS	tl_alroos	4.46	202	⇑iP	Pn	12 13 10.1	+0.4
ROOS				⇑iS	Sn	12 14 00.8	-1.2
KAMT	Kaman	4.49	285	ePN	Pn	12 13 10.8	+0.8
KAMT	Kaman	4.49	285	ePn	Pn	12 13 10.8	+0.8
BR131	Keskin Array S	4.62	289	eP	Pn	12 13 13.8	+1.8
BR131	Keskin Array S	4.62	289	eP	Pn	12 13 13.8	+1.8
BRTR	Keskin Array B	4.62	289	Pn	Pn	12 13 13.2	+1.3
BRTR				Pg	Pg	12 13 25.9	-4.0
BRTR	Keskin Array B	4.62	289	Pn	Pn	12 13 13.2	+1.3
	1.7nm,0.3s,baz=105,slow=15,SNR=35						
BRTR				Pg	Pg	12 13 25.9	-4.0
	1.4nm,0.3s,baz=100,slow=15,SNR=12						
BRTR	Keskin Array B	4.62	289	Pn	Pn	12 13 13.2	+1.2
BRTR	Keskin Array B	4.62	289	Pg	Pg	12 13 25.9	-4.0
TOS	Tosya	4.89	305	ePN	Pn	12 13 16.1	+0.5
TOS	Tosya	4.89	305	ePn	Pn	12 13 16.1	+0.5
MMAI	Mount Meron Ar	6.18	212	Pn	Pn	12 13 34.0	+0.7
	2.5nm,0.3s,baz=53,slow=13,SNR=7.1						
MMAI				Lg		12 15 20.6	
	2.1nm,0.3s,baz=5.7,slow=30,SNR=3.1						
ASF	Jabal al Asfar	6.45	198	Pn	Pn	12 13 36.9	-0.2
ASF				Lg		12 15 24.4	
ASF	Jabal al Asfar	6.45	198	Pn	Pn	12 13 36.9	-0.2
	0.5nm,0.3s,baz=255,slow=10,SNR=7.1						
ASF				Lg		12 15 24.4	
	0.8nm,0.3s,baz=112,slow=19,SNR=2.7						
GERES	GERESS Array B	21.22	308	P	P	12 16 48.3	+0.3
	0.4nm,0.2s,mb3.3,baz=134,slow=5.8,SNR=6.2						
FINES	FINESS Array B	24.56	345	P	P	12 17 21.4	-0.5
	1.6nm,0.7s,mb3.7,baz=134,slow=11,SNR=5.7						
MKAR	Makanchi Array	32.43	61	P	P	12 18 34.1	+1.8
	0.2nm,0.2s,mb3.5,baz=265,slow=11,SNR=2.8						
SONM	Songino Array	48.50	56	P	P	12 20 46.7	+1.6
	0.2nm,0.7s,mb3.3,baz=267,slow=8.3,SNR=3.6						
YKA	Yellowknife Ar	77.35	348	P	P	12 23 56.0	-0.8
YKA	Yellowknife Ar	77.35	348	P	P	12 23 56.0	-0.8
	0.1nm,0.5s,mb3.0,baz=18,slow=5.5,SNR=3.5						
YKA	Yellowknife Ar	77.35	348	P	P	12 23 56.0	-0.8

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*ISCJB **23** 12:34:09.7±0.7, 6.89N±0.07×72.99W±0.09, h164^{km}±8^{km}, mb3.3/1, Error ellipse: s-maj=17.0km s-min=7.4km az=38.6*

*IDC **23** 12:34:10.5±7.4, 6.67N×76.11W, h101^{km}±79^{km}, mb3.1/1, mb1 3.4/2, mb1mx3.1/17, mbtmp3.3/2, ML2.3/1, Error ellipse: s-maj=127.5km s-min=32.8km az=77.0*

*FUNV **23** 12:34:12.5, 6.90N×72.98W, h164^{km}, MW3.4*

ISC 23 12:34:10.7±0.7, 6.87N±0.08×72.95W±0.09, h158^{km}±8^{km}, n17, σ$1^{s}02$/22, mb3.3/1, 1C-1D, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAPV	Capacho	1.18	33	⇓eP	Pn	12 34 39.1	+1.3
CAPV				eS	Sn	12 34 59.8	+1.2
ROSC	El Rosal	2.42	214	P	Pn	12 34 50.8	-0.5
	14nm,0.3s,baz=290,slow=3.8,SNR=8.8						
ROSC				S	Sn	12 35 21.9	-0.8
	22nm,0.3s,baz=80,slow=20,SNR=12						
SOCV	Socops	2.51	56	eP	Pn	12 34 53.7	+1.3
SOCV				eS	Sn	12 35 23.8	-0.8
VIGV	El Vigia	2.51	39	eP	Pn	12 34 53.4	+1.0
VIGV				eS	Sn	12 35 23.2	-1.5
VIRV	Villa del Rosa	3.65	8	eP	Pn	12 35 06.4	-0.4
VIRV				eS	Sn	12 35 47.2	-3.1
QARV	Quebrada Arrib	4.10	36	⇑iP	Pn	12 35 13.6	+1.1
SANV	Sanarito	4.28	52	eP	Pn	12 35 15.5	+0.7
CURV	Curarigua	4.30	43	eP	Pn	12 35 15.6	+0.4
CURV				eS	Sn	12 36 02.2	-3.2
TEPV	Terepaima	4.83	50	eP	Pn	12 35 23.1	+1.0
SIQV	Siquisique	4.88	39	eP	Pn	12 35 23.2	+0.5
SIQV				eS	Sn	12 36 14.7	-4.2
BAUV	El Baul	5.29	67	eP	Pn	12 35 27.6	-0.5
TURV	Turiamo	6.18	54	eP	Pn	12 35 39.6	-0.4
CAOV	Caicara del Or	6.60	86	eP	Pn	12 35 45.0	-0.5
BIRV	Birongo	7.52	61	eP	Pn	12 35 57.0	-0.7
YKA	Yellowknife Ar	63.28	340	P	P	12 44 22.3	+0.1
	0.3nm,0.6s,mb3.3,baz=134,slow=6.8,SNR=10.0						
ASAR	Alice Springs	149.27	234	PKPbc	PKPbc	12 53 40.7	-0.8
	0.3nm,0.6s,baz=105,slow=4.4,SNR=7.5						
WRA	Warramunga Arr	150.50	241	PKPbc	PKPbc	12 53 43.2	-1.4
	0.8nm,1.1s,baz=107,slow=2.8,SNR=12						

WEL 23 12:40:03.2±0.3, 36.94S×177.32E, h170^{km}±3^{km}, ML3.5/15, Error ellipse: s-maj=4.7km s-min=4.5km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	1.00	129	PN	Pn	12 40 29.8	-0.1
MXZ				SN	Sn	12 40 50.1	-0.3
URZ	Urewera	1.33	187	PN	Pn	12 40 33.0	+0.4
URZ				SN	Sn	12 40 55.6	+0.1
PUZ	Puketiti	1.35	147	PN	Pn	12 40 32.9	0.0
PUZ				SN	Sn	12 40 55.1	-0.7
MWZ	Matawai	1.40	173	PN	Pn	12 40 34.0	+0.6
MWZ				SN	Sn	12 40 56.9	+0.3
KNZ	Kokohu	2.10	172	PN	Pn	12 40 40.7	+0.1
BKZ	Black Stump Fm	2.32	196	PN	Pn	12 40 43.2	+0.1
WNVZ	Wahianoa	2.75	209	PN	Pn	12 40 48.6	+0.4
MOVZ	Moawhango	2.76	206	PN	Pn	12 40 47.9	-0.4
PXZ	Pawanui	3.11	186	PN	Pn	12 40 51.7	-1.0
TSZ	Takapari Road	3.29	198	PN	Pn	12 40 53.6	-1.3
BFZ	Birch Farm	3.83	192	PN	Pn	12 40 59.8	-1.9
MRZ	Mangatainoka R	3.96	200	PN	Pn	12 41 01.0	-2.4
KIW	Kapiti Island	4.34	205	PN	Pn	12 41 05.7	-2.6
MTW	Mount Morrison	4.45	198	PN	Pn	12 41 06.5	-3.1
CAW	Cannon Point	4.52	202	PN	Pn	12 41 07.6	-3.0
SNZO	South Karori	4.81	204	PN	Pn	12 41 11.1	-3.3
TCW	Tory Channel	4.88	208	PN	Pn	12 41 12.1	-3.2
TUWZ	Tuamarina	5.20	209	PN	Pn	12 41 16.2	-3.2
NNZ	Nelson	5.26	214	PN	Pn	12 41 17.3	-3.0
THZ	Tophouse	5.91	214	PN	Pn	12 41 26.2	-2.6
KHZ	Kahutara	6.20	207	PN	Pn	12 41 29.1	-3.5
LTZ	Lake Taylor	7.01	212	PN	Pn	12 41 39.3	-4.0

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*ISCJB **23** 13:14:19.8±1.7, 18.5S±0.1×175.7W±0.1, h212^{km}±18^{km}, mb3.9/11, Error ellipse: s-maj=23.5km s-min=13.2km az=30.0*

*NEIC **23** 13:14:20.8±1.1, 18.52S×175.70W, h210^{km}±11^{km}, mb4.3/4, Error ellipse: s-maj=14.2km s-min=7.8km az=133.0*

*IDC **23** 13:14:27.2±2.4, 18.71S×175.73W, h272^{km}±23^{km}, mb3.6/10, mb1 3.9/10, mb1mx3.7/16, mbtmp3.6/10, Error ellipse: s-maj=19.2km s-min=11.4km az=118.0*

ISC 23 13:14:20.8±1.7, 18.5S±0.1×175.7W±0.1, h207^{km}±17^{km}, n20, σ$0^{s}62$/19, mb3.9/11, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	5.94	40	P	Pn	13 15 47.5	+0.1
	4.7nm,0.3s,baz=29,slow=22,SNR=10						
AFI				S	Sn	13 16 50.3	-5.7
	14nm,0.3s,baz=38,slow=22,SNR=16						
URZ	Urewera	20.64	196	P	P	13 18 43.8	-0.5
	9.4nm,0.3s,baz=353,slow=1.6,SNR=29						
URZ				S	S	13 22 18.3	-4.8
	3.1nm,0.8s,baz=15,slow=20,SNR=4.8						
RPZ	Rata Peaks	27.48	201	P	P	13 19 46.8	-0.8
	3.1nm,0.4s,mb4.3,baz=345,slow=3.7,SNR=3.5						
CTAO	Charters Tower	35.89	261	eP	P	13 21 01.6	+0.3
STKA	Stephens Creek	40.61	242	P	P	13 21 41.3	+0.8
	1.1nm,0.4s,mb3.6,baz=116,slow=11,SNR=3.7						
WRA	Warramunga Arr	47.06	260	P	P	13 22 31.6	-0.3
	1.0nm,0.3s,mb3.6,baz=98,slow=6.9,SNR=33						
ASAR	Alice Springs	47.11	255	P	P	13 22 32.5	+0.2
	5.8nm,0.4s,mb4.3,baz=90,slow=9.0,SNR=278						
ASAR				S	S	13 29 02.5	-6.3
	1.6nm,0.9s,baz=91,slow=15,SNR=12						
MJAR	Matsushiro Arr	69.96	322	P	P	13 25 09.1	-0.6
	2.5nm,0.7s,mb4.0,baz=145,slow=5.2,SNR=6.4						
QSPA	South Pole Qui	71.53	180	eP	P	13 25 19.4	+0.9
	11nm,1.1s,mb4.4						
KSRS	Korea Array	76.89	317	P	P	13 25 50.6	+0.5
	1.4nm,0.8s,mb3.7,baz=131,slow=6.6,SNR=4.0						
NVAR	Mina Array Bea	78.11	43	P	P	13 25 56.9	+0.1
NVAR	Mina Array Bea	78.11	43	P	P	13 25 56.9	+0.1
	0.6nm,0.7s,mb3.4,baz=220,slow=6.9,SNR=5.1						

TXAR	Lajitas Array	84.17	57	P	P	13 26 29.9	+0.9
	0.5nm,0.8s,mb3.3,baz=204,slow=8.4,SNR=4.6						
COLA	College	85.84	12	*e*P	P	13 26 35.7	-0.7
	4.1nm,0.7s,mb4.3						
YKA	Yellowknife Ar	93.83	24	P	P	13 27 12.9	-1.0
YKA	Yellowknife Ar	93.83	24	P	P	13 27 12.9	-0.9
	0.6nm,0.8s,mb3.7,baz=241,slow=4.4,SNR=12						
BRTR	Keskin Array B	147.03	316	PKPbc	PKPbc	13 33 39.0	-0.2
BRTR	Keskin Array B	147.03	316	PKPbc	PKPbc	13 33 39.0	-0.2
	0.8nm,0.7s,baz=92,slow=4.1,SNR=3.5						
GERES	GERESS Array B	148.82	348	PKPbc	PKPbc	13 33 43.2	-0.4
GERES	GERESS Array B	148.82	348	PKPbc	PKPbc	13 33 43.2	-0.4
	0.8nm,0.7s,baz=28,slow=3.2,SNR=6.2						

IDC 23 13:45:00.0±70.0,**15.52S×176.59W,h0^{km},mb4.1**/3, **mb1 4.2**/3,**mb1mx3.7**/13,**mbtmp4.1**/3,**Error ellipse: s-maj=1308.0km s-min=179.6km az=77.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	41.32	239	P	P	13 52 47.5	-0.1
	0.5nm,0.3s,baz=90,slow=11,SNR=3.1						
WRA	Warramunga Arr	46.82	257	P	P	13 53 32.0	+0.1
	1.0nm,0.5s,baz=90,slow=8.2,SNR=40						
ASAR	Alice Springs	47.15	252	P	P	13 53 34.4	-0.1
	2.5nm,0.3s,baz=89,slow=7.4,SNR=145						

ISCJB ***23*** *13:54:28.1±0.7,7.6S±0.1×68.2E±0.1,h10^{km},mb4.1/16, MS4.0/8,Error ellipse: s-maj=17.9km s-min=14.1km az=19.1*

IDC ***23*** *13:54:28.3±0.7,7.57S×68.16E,h0^{km},mb4.0/11, mb1 4.1/11,mb1mx3.9/23,mbtmp4.0/11,MS3.9/9, Ms1 3.9/9,ms1mx3.7/26,Error ellipse: s-maj=26.0km s-min=18.7km az=21.0*

BJI ***23*** *13:54:29.7,7.60S×68.10E,h10^{km},mb4.1*

NEIC ***23*** *13:54:29.8±0.6,7.62S×68.11E,h10^{km},mb4.4/4,Error ellipse: s-maj=19.7km s-min=15.3km az=198.0*

ISC 23 13:54:30.1±0.6,**7.6S**±0.1×**68.1E**±0.1,**h10^{km},n30,**σ**1^{s}.20**/20, **mb4.1**/16,**MS4.0**/8,**Chagos Archipelago region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	31.44	280	LR	LR	14 10 46.2	
	comp=Z,228nm,19.6s,MS3.9,baz=98,slow=31						
PSI	Prapat	32.42	73	P	P	14 00 59.8	-0.9
	4.2nm,0.7s,mb4.3,baz=214,slow=7.3,SNR=3.8						
PSI				LR	LR	14 10 14.2	
	comp=Z,89nm,20.8s,MS3.4,baz=235,slow=29						
KULM	Kulim	34.89	69	*e*P	P	14 01 23.2	+1.0
LSZ	Lusaka	39.82	255	P	P	14 02 03.0	-1.0
	5.6nm,0.9s,mb4.3,baz=93,slow=11,SNR=7.2						
LSA	Lhasa	43.21	30	P	P	14 02 33.0	+1.4
LSA	Lhasa	43.21	30	*e*P	P	14 02 33.2	+1.6
	4.6nm,0.9s,mb4.2						
AML	Almayashu	49.77	5	*e*P	P	14 03 26.8	+4.0
	3.1nm,0.8s,mb4.4						
GTA	Gaotai	55.24	30	*e*P	P	14 04 04.3	+0.8
GTA				AP	pP	14 04 09.3	+2.6
GTA				XP	sP	14 04 12.4	+4.5
GTA				AMB	AMB		
	comp=Z,4.0nm,1.5s,mb4.2						
MK31	Makanchi Array	55.62	12	*e*P	P	14 04 04.2	-1.8
MKAR	Makanchi Array	55.62	12	P	P	14 04 04.3	-1.8
	comp=Z,0.3nm,0.5s,mb3.6,baz=203,slow=7.9,SNR=11						
MKAR				PcP	PcP	14 05 05.3	-0.4
	comp=Z,0.4nm,0.7s,baz=229,slow=5.3,SNR=2.5						
BRTR	Keskin Array B	56.89	329	P	P	14 04 14.1	-1.2
	comp=Z,0.4nm,0.4s,mb3.8,baz=100,slow=11,SNR=3.1						
KURK	Kurchatov	58.81	8	*e*P	P	14 04 26.8	-1.7
	comp=Z,5.2nm,0.8s,mb4.6						
BRVK	Borovoye	60.47	1	*e*P	P	14 04 42.2	+2.3
	comp=Z,3.3nm,1.0s,mb4.3						
ZALV	Zalesovo Beam	62.94	11	P	P	14 04 56.9	+0.3
	comp=Z,2.0nm,0.8s,mb4.3,baz=206,slow=5.1,SNR=6.9						
SONM	Songino Array	64.72	27	P	P	14 05 08.3	-0.2
	comp=Z,2.2nm,0.9s,mb4.2,baz=218,slow=8.0,SNR=7.6						
SONM				LR	LR	14 33 53.6	
	comp=Z,104nm,19.4s,MS4.0,baz=9.5,slow=37						
ASAR	Alice Springs	64.82	112	P	P	14 05 09.2	-0.4
	comp=Z,0.8nm,0.7s,mb3.8,baz=281,slow=6.4,SNR=11						
WRA	Warramunga Arr	65.11	108	P	P	14 05 11.5	-0.1
	comp=Z,3.4nm,1.1s,mb4.3,baz=281,slow=6.2,SNR=14						
WB2	Warramunga Arr	65.12	108	*e*P	P	14 05 11.2	-0.5
TORD	Torodi Ar. Bea	69.13	287	P	P	14 05 38.6	+1.4
	comp=Z,0.8nm,0.9s,mb3.6,baz=91,slow=5.8,SNR=4.7						
TORD				LR	LR	14 30 54.3	
	comp=Z,112nm,21.9s,MS4.1,baz=330,slow=32						
STKA	Stephens Creek	71.99	121	P	P	14 05 55.1	+0.7
	comp=Z,1.1nm,1.0s,mb3.8,baz=291,slow=8.6,SNR=2.9						
STKA				LR	LR	14 35 52.4	
	comp=Z,112nm,19.0s,MS4.2,baz=206,slow=34						
CTA	Charters Tower	76.31	109	LR	LR	14 36 06.4	
	comp=Z,115nm,20.2s,MS4.2,baz=224,slow=33						
GUMO	Guam	79.03	75	LR	LR	14 41 11.0	
	comp=Z,38nm,19.0s,MS3.8,baz=278,slow=36						
ESDC	Sonseca Array	81.29	312	P	P	14 06 48.1	+1.2
	comp=Z,1.7nm,0.8s,mb4.0,baz=118,slow=3.6,SNR=2.8						
DZM	Mont Dzumac	94.80	113	LR	LR	14 46 49.7	
	comp=Z,152nm,18.9s,MS4.5,baz=220,slow=33						
YKA	Yellowknife Ar	125.20	2	PKP	PKPdf	14 13 28.8	-1.9
YKA	Yellowknife Ar	125.20	2	PKP	PKPdf	14 13 28.7	-1.9
	comp=Z,0.1nm,0.3s,baz=345,slow=1.8,SNR=5.0						
PDAR	Pinedale Array	144.94	357	PKP	PKPdf	14 14 06.5	-1.3
PDAR	Pinedale Array	144.94	357	PKP	PKPdf	14 14 06.5	-1.3
	comp=Z,0.3nm,0.8s,baz=108,slow=2.9,SNR=2.4						
NVAR	Mina Array Bea	148.78	10	PKPbc	PKPbc	14 14 18.8	+0.4
NVAR	Mina Array Bea	148.78	10	PKPbc	PKPbc	14 14 18.8	+0.4
	comp=Z,1.4nm,0.8s,baz=268,slow=4.5,SNR=9.0						

IGQ ***23*** *14:12:22.7,1.72S×78.19W,h187^{km}±4^{km},Mb4.7,Ms4.6, Error ellipse: s-maj=4.1km s-min=2.6km az=54.1*

MOS ***23*** *14:12:25.6±0.7,1.46S×78.04W,h153^{km},mb5.0/60,Error ellipse: s-maj=8.0km s-min=5.8km az=94.4*

ISCJB ***23*** *14:12:26.1±0.2,1.58S±0.03×78.07W±0.03,h164^{km}±1^{km}, mb4.9/151,Error ellipse: s-maj=5.7km s-min=3.7km az=29.4*

IDC ***23*** *14:12:26.2±0.6,1.63S×77.98W,h155^{km}±4^{km},mb4.4/17, mb1 4.5/23,mb1mx4.5/25,mbtmp4.4/23,MS3.8/4, Ms1 3.8/4,ms1mx3.3/25,Error ellipse: s-maj=13.8km s-min=9.3km az=75.0*

BJI ***23*** *14:12:28.5,1.40S×78.00W,h168^{km},mB5.2*

GCMT ***23*** *14:12:28.5±0.4,1.58S×78.08W,h160^{km}±4^{km},MW5.0/65, Moment Tensor Solution. s12,c13; s65,c92; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.97±.16; M$_{\theta\theta}$1.36±.18; M$_{\phi\phi}$0.61±.23; M$_{r\theta}$-0.51±.12; M$_{\theta\phi}$-3.35±.14; M$_{\phi r}$-2.27±.16; Best double couple: M$_0$4.43000×10^{16} NP1:ϕ_s95.00000°,δ52.00000°,λ-154.00000°. NP2: ϕ_s348.00000°,δ70.00000°,λ-41.00000°. Principal axes: T 4.5740, Plg11.0000°, Azm45.0000°; N -0.2840, Plg45.0000°, Azm146.0000°; P -4.2860, Plg43.0000°, Azm305.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***23*** *14:12:28.5±0.2,1.44S×77.97W,mb5.0/137,MD4.7(IGQ) Error ellipse: s-maj=6.3km s-min=3.2km az=210.0*

NEIC Felt at Manabi.

ISC 23 14:12:27.0±0.2,**1.58S**±0.03×**77.95W**±0.03,**h157^{km}**±1^{km}, **h167^{km}**±2.4^{km}**:pP-P,n710,**σ**0^{s}.66**/660,**mb4.9**/151, **126C-114D,Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ULBA	Ulba	0.47	286	⇑P	Pn	14 12 48.3	-0.7
PATA	Patacocha	0.49	279	⇑P	Pn	14 12 48.4	-0.7
RUN5	Runtun	0.50	289	⇑P	Pn	14 12 48.4	-0.7
RUN5	Runtun	0.50	289	⇑S	Sn	14 13 06.7	+0.7
ARRY	Arrayan	0.51	278	⇑P	Pn	14 12 47.8	-1.4
RETU	Refugio	0.51	285	⇑P	Pn	14 12 48.6	-0.6
RETU	Refugio	0.51	285	⇑S	Sn	14 13 07.9	+1.8
JUIV	Juive	0.54	287	⇑P	Pn	14 12 48.4	-0.9
BILB	Tungurahua vol	0.56	284	⇓P	Pn	14 12 48.8	-0.7
IGUA	Igualata	0.69	277	⇑P	Pn	14 12 49.3	-0.9
TAMB	Tambo	0.97	335	⇓P	Pn	14 12 52.7	+0.4
VC1	Cotopaxi 1	1.04	334	⇓P	Pn	14 12 53.2	+0.4
CAMI	Rancho Maria	1.05	328	P	Pn	14 12 53.2	+0.2
ANTI	Antisana	1.14	349	⇓P	Pn	14 12 54.4	+0.7
JUA2	San Juan 2	1.51	334	⇑P	Pn	14 12 57.0	-0.2
LAV3	Lava3-Reventad	1.51	12	⇑P	Pn	14 12 58.2	+0.9
LAV3	Lava3-Reventad	1.51	12	⇑S	Sn	14 13 21.2	+7.8
CONE	Cono NE Rev Vo	1.53	12	⇑P	Pn	14 12 58.5	+1.0
CONE	Cono NE Rev Vo	1.53	12	⇑S	Sn	14 13 22.8	+8.8
GGP	Refugio Guagua	1.54	335	⇑P	Pn	14 12 57.4	-0.2
TERV	Terraza Guagua	1.54	335	⇑P	Pn	14 12 57.5	-0.1
PINO	Pino	1.56	335	⇑P	Pn	14 12 57.7	-0.1
YANA	Yana	1.58	337	⇑P	Pn	14 12 57.7	-0.2
CAYR	Refugio Cayamb	1.59	358	⇓P	Pn	14 12 59.2	+1.2
CAYR	Refugio Cayamb	1.59	358	⇓S	Sn	14 13 27.9	+13
CAYA	Cayambe	1.64	359	⇑P	Pn	14 12 59.8	+1.2
OTAV	Otavalo	1.87	345	⇑*i*Pn	Pn	14 13 00.6	-0.6
OTAV				*e*Sn	Sn	14 13 27.6	+5.3
COTA	Cotacachi	1.94	349	⇓P	Pn	14 13 02.5	+0.6
MAG1	Magdalena	2.36	309	P	Pn	14 13 04.0	-2.7
JAMA	Jama	2.61	300	P	Pn	14 13 05.8	-4.0
JAMA	Jama	2.61	300	S	Sn	14 13 35.3	-4.5
CHIS	Cerro-Chispas-	2.82	281	⇑P	Pn	14 13 07.9	-4.6
CHIS	Cerro-Chispas-	2.82	281	⇑S	Sn	14 13 39.6	-5.4
ATAH	Atahualpa	5.40	185	P	Pn	14 13 47.2	+1.4
	73nm,0.3s,baz=12,slow=9.3,SNR=204						
ATAH				S	Sn	14 14 44.7	-2.5
	56nm,0.3s,baz=360,slow=10,SNR=3.7						
ROSC	El Rosal	7.35	29	⇑*e*Pn	Pn	14 14 11.2	-0.5
ROSC	El Rosal	7.35	29	P	Pn	14 14 11.6	-0.1
	5.7nm,0.3s,baz=88,slow=23,SNR=9.3						
NNA	Nana	10.40	174	Pn	Pn	14 14 51.7	-0.5
	528nm,0.5s,SNR=15						
NNA	Nana	10.40	174	⇑*e*Pn	Pn	14 14 50.1	-2.1
	45nm,0.5s						
NNA				*e*Sn	Sn	14 16 34.8	-13
NNA	Nana	10.40	174	P	Pn	14 14 50.8	-1.4
	16nm,0.3s,baz=349,slow=12,SNR=28						
NNA				S	Sn	14 16 36.3	-11
	21nm,0.3s,baz=271,slow=21,SNR=6.7						
BCIP	Isla Barro Col	10.84	350	*e*Pn	Pn	14 14 57.0	-1.1
	65nm,0.7s						
BCIP				*e*Sn	Sn	14 16 56.1	-2.0
PAYG	Puerto Ayora	12.36	274	*e*Pn	Pn	14 15 21.5	+3.6
	114nm,0.9s						
JTS	JuntasAbangare	13.70	330	Pn	Pn	14 15 35.6	+0.7
	753nm,0.9s,SNR=14						
JTS	JuntasAbangare	13.70	330	⇓*i*Pn	Pn	14 15 34.3	-0.6
	106nm,0.8s						
JTS				*e*		14 15 39.0	
JTS	JuntasAbangare	13.70	330	⇓*i*P	Pn	14 15 34.6	-0.3
JTS	JuntasAbangare	13.70	330	P	Pn	14 15 34.3	-0.6
	3.0nm,0.3s,baz=123,slow=5.2,SNR=22						
JTS				LR	LR	14 20 28.4	
	comp=Z,240nm,20.1s,baz=166,slow=35						
ARE	Arequipa	16.10	157	*e*P	Pn	14 16 10.0	+5.3
LPAZ	La Paz	17.53	147	*e*P	Pn	14 16 22.5	+0.6
	27nm,0.9s						
LPAZ				*e*		14 16 31.6	
LPAZ	La Paz	17.53	147	*e*P	Pn	14 16 22.5	+0.6
LPAZ				pmax	pmax		
	comp=Z,27nm,0.9s						
LPAZ	La Paz	17.53	147	P	Pn	14 16 21.6	-0.3
	comp=Z,0.5nm,0.3s,baz=335,slow=12,SNR=16						
PCRV	Puerto La Cruz	17.67	48	P	Pn	14 16 23.9	+0.3
	comp=Z,5.8nm,0.3s,baz=334,slow=5.1,SNR=12						
TGUH	Tegucigalpa,Un	18.07	330	⇓*e*P	P	14 16 27.2	+0.6
	comp=Z,146nm,0.8s						
TGUH				*e*		14 16 34.6	
GRGR	Grenville	21.16	49	*e*P	P	14 16 58.1	-1.8
	comp=Z,334nm,1.1s,mb5.6						
SDDR	Presa de Saban	21.46	17	*e*P	P	14 17 03.9	+0.8
	comp=Z,84nm,1.0s,mb5.0						
SIV	San Ignacio	21.95	132	P	P	14 17 08.4	+0.1
	comp=Z,15nm,0.8s,mb4.5,baz=318,slow=11,SNR=66						
SJG	San Juan	22.76	30	*e*P	P	14 17 14.6	-1.4
	comp=Z,37nm,0.2s,mb5.5						
SJG	San Juan	22.76	30	*e*P	P	14 17 14.6	-1.4
SJG				pmax	pmax		
	comp=Z,37nm,0.2s						
SJG	San Juan	22.76	30	P	P	14 17 15.1	-0.9
	comp=Z,24nm,0.7s,mb4.8,baz=345,slow=19,SNR=7.7						
CPD	Cerro la Pandu	22.81	31	*e*P	P	14 17 07.8	-8.7
MTP	Monte Pirata	23.05	31	*e*P	P	14 17 09.8	-8.9
TEIG	Tepich	23.92	335	*e*P	P	14 17 26.1	-0.5
	comp=Z,57nm,0.9s,mb5.1						
TEIG	Tepich	23.92	335	P	P	14 17 25.4	-1.1
	comp=Z,37nm,0.8s,mb5.0,baz=155,slow=6.5,SNR=21						
CMIG	Matias Romero	24.96	319	P	P	14 17 35.9	-0.3
	comp=Z,68nm,0.8s,mb5.2,baz=110,slow=6.2,SNR=83						
CMIG				LR	LR	14 25 49.9	
	comp=Z,204nm,19.8s,baz=140,slow=32						
LRAL	Lakeview Retre	35.47	347	*e*P	P	14 19 07.2	-1.2
	comp=Z,18nm,0.9s,mb4.7						
SWET	Sewanee	37.36	349	*e*P	P	14 19 22.9	-1.5
OXF	Oxford	37.48	344	P	P	14 19 23.5	-2.0
PLAL	Pickwick Lake	37.59	346	*e*P	P	14 19 24.0	-2.4
	comp=Z,7.4nm,0.8s,mb4.4						
JCT	Junction City	38.08	329	*e*P	P	14 19 30.5	-0.1
	comp=Z,34nm,0.9s,mb5.0						
JCT	Junction City	38.08	329	*e*P	P	14 19 30.5	-0.1
JCT				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.0						
UALR	University of	38.60	341	*e*P	P	14 19 33.0	-1.8
	comp=Z,22nm,0.8s,mb4.8						
MIAR	Mount Ida	38.81	339	*e*P	P	14 19 35.1	-1.5
	comp=Z,5.5nm,0.8s,mb4.2						
MIAR	Mount Ida	38.81	339	*e*P	P	14 19 35.1	-1.5
MIAR				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.2						
LTX	Lajitas	39.37	323	*e*P	P	14 19 41.0	-0.3
	comp=Z,16nm,0.8s,mb4.7						
LTX				*e*PcP	PcP	14 21 46.8	+0.2
LTX	Lajitas	39.37	323	*e*P	P	14 19 41.1	-0.2
LTX				*e*		14 21 46.8	
LTX				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.7						
TXAR	Lajitas Array	39.37	323	P	P	14 19 41.4	0.0
	comp=Z,10nm,0.7s,mb4.5,baz=145,slow=8.9,SNR=101						
TXAR				PcP	PcP	14 21 46.5	-0.2
	comp=Z,5.1nm,0.8s,baz=149,slow=6.6,SNR=9.0						
PARMO	Parma	39.60	345	*e*P	P	14 19 41.7	-1.4
USIN	University of	40.36	348	*e*P	P	14 19 47.6	-1.8
	comp=Z,60nm,1.0s,mb5.2						
SIUC	Southern Illin	40.47	346	*e*P	P	14 19 48.5	-1.7
	comp=Z,76nm,1.0s,mb5.3						
WMOK	Wichita Mounta	41.07	334	*e*P	P	14 19 54.5	-0.8
	comp=Z,31nm,0.8s,mb5.0						
WMOK				*e*PcP	PcP	14 21 51.7	-0.3
WMOK	Wichita Mounta	41.07	334	*e*P	P	14 19 54.5	-0.7
WMOK				*e*		14 21 51.7	
WMOK				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.0						
ACSO	Alum Creek Sta	41.87	354	*e*P	P	14 20 00.3	-1.3
	comp=Z,18nm,0.8s,mb4.8						
MNTX	Cornudas Mount	42.10	324	*e*P	P	14 20 02.9	-0.8
	comp=Z,39nm,0.9s,mb5.0						
RCBR	Riachuelo	42.16	97	*e*P	P	14 20 04.2	-0.2
	comp=Z,60nm,1.2s,mb5.1						
HDIL	Hopedale	43.20	347	*e*P	P	14 20 10.0	-2.4
	comp=Z,27nm,0.6s,mb5.1						
KSU1	Kansas State U	43.97	339	*e*P	P	14 20 17.2	-1.3
	comp=Z,37nm,0.9s,mb5.0						
BNM	Barren Site	44.60	325	*e*P	P	14 20 24.0	+0.3
BNM				*e*pP	pP	14 21 01.4	+2.9
LPM	Los Pinos Moun	44.72	326	*e*P	P	14 20 24.7	+0.1
LENM	Lemitar	44.81	325	*e*P	P	14 20 25.7	+0.4
CBKS	Cedar Bluff	44.92	336	*e*P	P	14 20 26.3	+0.1
	comp=Z,86nm,1.2s,mb5.2						
CBKS				*e*pP	pP	14 21 07.2	+6.2
CBKS	Cedar Bluff	44.92	336	*e*P	P	14 20 26.3	+0.2
CBKS				pmax	pmax		
	comp=Z,85nm,1.2s,mb5.2						
ANMO	Albuquerque	45.09	326	*e*P	P	14 20 28.0	+0.4
	comp=Z,70nm,0.8s,mb5.3						
ANMO				*e*pP	pP	14 21 04.7	+2.2
ANMO	Albuquerque	45.09	326	*e*P	P	14 20 27.8	+0.2
TUC	Tucson	45.84	320	*e*P	P	14 20 33.1	-0.3
	comp=Z,43nm,0.8s,mb5.1						
TUC	Tucson	45.84	320	*e*P	P	14 20 33.2	-0.3
TUC				pmax	pmax		
	comp=Z,43nm,0.8s,mb5.1						
116A	Eloy	46.59	320	⇓P	P	14 20 39.6	+0.2
	baz=47,SNR=36						
SDCO	Great Sand Dun	46.70	330	⇓*i*P	P	14 20 40.6	+0.5
	comp=Z,82nm,0.9s,mb5.4						
SDCO				*e*pP	pP	14 21 18.5	+3.2
115A	Sonoran Desert	47.02	320	⇑P	P	14 20 43.0	+0.3
	baz=47,SNR=10						
MVCO	Mesa Verde	47.87	327	*e*P	P	14 20 49.1	0.0
	comp=Z,11nm,0.6s,mb4.7						
MVCO				*e*PcP	PcP	14 22 15.7	+0.4
MVCO	Mesa Verde	47.87	327	P	P	14 20 49.5	+0.3
	baz=48,SNR=12						
Z14A	Wintersburg	47.91	320	⇓P	P	14 20 49.8	+0.3
	baz=48,SNR=7.2						
ECSD	EROS,Sioux Fal	48.12	342	*e*P	P	14 20 48.2	-2.7
	comp=Z,14nm,0.7s,mb4.7						
ECSD				*e*PcP	PcP	14 22 15.0	-1.0
X15A	Humboldt	48.18	321	P	P	14 20 52.3	+0.7
	baz=48,SNR=27						
Y14A	Wickenburg	48.31	320	⇑P	P	14 20 52.8	+0.2
	baz=48,SNR=6.1						
WUAZ	Wupatki	48.33	323	⇓*i*P	P	14 20 53.3	+0.5
	comp=Z,90nm,1.1s,mb5.3						
WUAZ				*e*PcP	PcP	14 22 17.1	+0.1
WUAZ	Wupatki	48.33	323	⇑P	P	14 20 53.3	+0.6
	baz=48,SNR=14						
ISCO	Idaho Springs	48.35	331	*e*P	P	14 20 53.2	+0.4
	comp=Z,5.0nm,0.5s,mb4.4						
ISCO				*e*PcP	PcP	14 22 16.4	-0.5
ISCO	Idaho Springs	48.35	331	*e*P	P	14 20 53.2	+0.4
ISCO				*e*		14 22 16.5	
ISCO				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.4						
X14A	Yava	48.58	321	P	P	14 20 55.4	+0.7
	baz=49,SNR=40						
PV01	Paradox Valley	48.58	328	*e*P	P	14 20 54.8	+0.2
W15A	Williams	48.65	322	⇓P	P	14 20 56.2	+1.0
	baz=49,SNR=14						
Y13A	Salome	48.76	320	⇑P	P	14 20 56.2	+0.2
	baz=49						
GLA	Glamis	48.95	318	⇑P	P	14 20 57.7	+0.2
	baz=49,SNR=8.9						
PV10	Paradox Valley	49.01	327	*e*P	P	14 20 57.5	-0.4
Y12C	Blythe	49.18	319	⇑P	P	14 20 59.2	0.0
	baz=49,SNR=7.3						
W14A	Seligman	49.18	321	⇑P	P	14 20 59.8	+0.6
	baz=49,SNR=15						
X13A	Yucca	49.25	320	P	P	14 20 59.8	+0.1
	baz=49,SNR=9.8						
PDMCI	Parker Dam,Lak	49.27	320	⇓P	P	14 21 00.0	+0.2
	baz=49,SNR=5.8						
SWSC	Sam W. Stewart	49.54	317	⇑P	P	14 21 02.2	+0.3
	baz=50						
DVTC	Desert V Tower	49.58	317	⇓P	P	14 21 02.8	+0.5
	baz=50						
W13A	Hualapai Mount	49.61	321	⇑P	P	14 21 03.2	+0.8
	baz=50,SNR=32						
BC3	Big Chuckw Mtn	49.73	318	⇑P	P	14 21 03.7	+0.3
	baz=50,SNR=12						
IRM	Iron Mountain	49.84	319	⇓P	P	14 21 04.4	+0.2
	baz=50,SNR=14						
NEE2	Needles Airpor	49.87	320	⇓P	P	14 21 04.6	+0.1
	baz=50,SNR=6.4						
T15A	Red Dirt Ranch	49.95	324	P	P	14 21 05.8	+0.8
	baz=50,SNR=14						
BELC	Belle Mtn.	50.30	318	⇑P	P	14 21 07.9	+0.2
	baz=50,SNR=5.9						
SRU	San Rafael	50.34	327	*e*P	P	14 21 08.0	+0.1
	comp=Z,74nm,1.3s,mb5.2						
SRU				*e*PcP	PcP	14 22 23.9	-0.4
SRU	San Rafael	50.34	327	*e*P	P	14 21 08.0	+0.1
SRU				*e*		14 22 23.9	
SRU				pmax	pmax		
	comp=Z,74nm,1.3s,mb5.2						
W12A	Cal Nev Ari	50.36	320	⇑P	P	14 21 08.3	+0.2
	baz=50						
PFO	Pinyon Flat Ob	50.38	318	P	P	14 21 08.6	+0.3
	comp=Z,138nm,1.1s,mb5.5,SNR=5.5						
PFO	Pinyon Flat Ob	50.38	318	*e*P	P	14 21 08.5	+0.2
	comp=Z,32nm,1.1s,mb4.9						
PFO	Pinyon Flat Ob	50.38	318	*e*P	P	14 21 08.5	+0.2
PFO				pmax	pmax		
	comp=Z,32nm,1.1s,mb4.9						
PFO	Pinyon Flat Ob	50.38	318	P	P	14 21 08.7	+0.4
	baz=50,SNR=8.4						
T14A	Hurricane	50.39	323	⇑P	P	14 21 09.0	+0.6
	baz=50,SNR=14						
109C	Camp Elliot, M	50.40	316	⇑P	P	14 21 08.3	-0.2
	baz=50						
GMRC	Granite Mounta	50.55	319	P	P	14 21 10.1	+0.6
	baz=51,SNR=26						
RWWY	Rawlins	50.58	332	*e*P	P	14 21 08.7	-0.9
	comp=Z,50nm,0.9s,mb5.1						
RWWY				*e*pP	pP	14 21 48.5	+3.1
V12A	Nelson	50.62	321	P	P	14 21 10.5	+0.5
	baz=51,SNR=33						
EYMN	Ely	50.72	348	*e*P	P	14 21 08.4	-2.2
	comp=Z,8.9nm,0.6s,mb4.6						
MSU	Marysvale	50.84	325	*e*P	P	14 21 11.9	+0.2
MSU				*e*PcP	PcP	14 22 26.6	+0.5
T13A	Saint George	50.86	323	⇑P	P	14 21 12.6	+0.7
	baz=51,SNR=8.8						
U12A	Valley of Fire	50.87	322	⇑P	P	14 21 12.3	+0.4
	baz=51						
MURC	Murrieta	50.88	317	⇓P	P	14 21 12.3	+0.3
	baz=51,SNR=9.9						
CCUT	Cedar City	50.88	324	*e*P	P	14 21 12.6	+0.6
CCUT				*e*		14 21 25.3	
S14A	Cedar City	50.91	324	⇑P	P	14 21 12.8	+0.6
	baz=51,SNR=11						
HEC	Hector,Ludlow	51.02	319	⇑P	P	14 21 13.7	+0.6
	baz=51,SNR=16						
V11A	Goodsprings	51.05	321	⇓P	P	14 21 13.5	+0.2
	baz=51,SNR=11						
BBRC	Big Bear Sol-O	51.07	318	⇓P	P	14 21 14.5	+1.1
	baz=51						
ARUT	Antelope Range	51.09	324	*e*P	P	14 21 14.2	+0.7
TUQ	Turquoise Mtn.	51.12	320	⇓P	P	14 21 14.1	+0.3
	baz=51,SNR=7.7						
S13A	Holt Ranch, En	51.20	323	⇑P	P	14 21 15.4	+1.0
	baz=51,SNR=29						
BFSC	Mount Baldy St	51.55	317	⇓P	P	14 21 17.2	+0.1
	baz=52,SNR=9.0						
MPU	Maple Canyon	51.59	327	*e*P	P	14 21 17.2	0.0
	comp=Z,26nm,0.9s,mb4.8						
MPU				*e*PcP	PcP	14 22 28.7	-0.2
GSC	Goldstone	51.61	319	⇓P	P	14 21 17.8	+0.4
	baz=52,SNR=21						
SHOC	Shoshone	51.63	320	⇑P	P	14 21 17.9	+0.3
	baz=52,SNR=9.2						
DAU	Daniels Canyon	51.67	328	*e*P	P	14 21 18.0	+0.3
T11A	Corn Creek, Al	51.80	322	⇑P	P	14 21 19.4	+0.5
	baz=52						
S12A	Delamar Landin	51.81	323	⇓P	P	14 21 19.6	+0.7
	baz=52						
JLU	Jordanelle	51.91	328	*e*P	P	14 21 19.7	+0.2
U10A	Ash Meadows, A	51.98	321	⇓P	P	14 21 20.7	+0.5
	baz=52,SNR=8.0						
DECC	Green Verdugo	52.02	317	⇓P	P	14 21 20.9	+0.4
	baz=52						
AGMN	Agassiz Refuge	52.06	345	*e*P	P	14 21 18.9	-1.7
	comp=Z,42nm,1.0s,mb5.0						
AGMN				*e*PcP	PcP	14 22 29.9	-0.5
CTU	Camp Tracy	52.13	328	*e*P	P	14 21 21.4	+0.2
	comp=Z,49nm,1.3s,mb5.0						
R12A	Pony Springs,	52.13	324	⇑P	P	14 21 22.0	+0.7
	baz=52,SNR=23						
EDW2	Edwards Air Fo	52.15	318	⇑P	P	14 21 21.5	0.0
	baz=52,SNR=25						
TPNV	Topopah Spring	52.26	321	*e*P	P	14 21 22.9	+0.7
	comp=Z,47nm,0.9s,mb5.1						
TPNV	Topopah Spring	52.26	321	*e*P	P	14 21 22.9	+0.7
TPNV				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.1						
LRMC	Laurel Mountai	52.30	319	P	P	14 21 23.0	+0.5
	baz=52,SNR=16						
NOQ	North Oquirrh	52.30	327	*e*P	P	14 21 22.4	-0.1
	comp=Z,17nm,0.8s,mb4.7						
FURC	Furnace Creek,	52.35	320	⇑P	P	14 21 23.4	+0.5
	baz=52,SNR=20						
DUG	Dugway	52.36	326	*e*P	P	14 21 22.8	-0.1
	comp=Z,74nm,1.3s,mb5.2						
DUG	Dugway	52.36	326	*e*P	P	14 21 22.8	-0.1
DUG				pmax	pmax		
	comp=Z,74nm,1.3s,mb5.2						
DUG	Dugway	52.36	326	P	P	14 21 23.5	+0.6
	baz=52,SNR=36						
S11A	Rachel	52.38	322	⇓P	P	14 21 24.0	+0.9
	baz=52,SNR=14						
BLG	Laguna Peak	52.44	317	⇓P	P	14 21 23.7	+0.1
	baz=52						
MPMC	Manual Prospec	52.51	319	P	P	14 21 24.2	+0.1
	baz=53,SNR=10						
PDAR	Pinedale Array	52.53	331	P	P	14 21 23.5	-0.6
	comp=Z,6.3nm,0.8s,mb4.4,baz=129,slow=8.9,SNR=55						

PDAR				PcP	PcP	14 22 31.5	-0.9
	comp=Z,5.7nm,0.9s,baz=128,slow=4.3,SNR=8.4						
PDAR				LR	LR	14 45 52.1	
	comp=Z,109nm,19.9s,baz=212,slow=38						
HWUT	**Hardware Ranch**	52.69	329	*e*P	P	14 21 24.8	-0.5
	comp=Z,44nm,0.8s,mb5.2						
HWUT				*e*pP	pP	14 22 03.0	+1.7
HWUT				*e*PcP	PcP	14 22 32.7	-0.3
DAC	**Darwin (Calif)**	52.71	320	*e*P	P	14 21 25.4	-0.2
	comp=Z,4.3nm,0.7s,mb4.3						
DAC	**Darwin (Calif)**	52.71	320	*e*P	P	14 21 25.4	-0.1
DAC				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
Q12A	**Willow Creek R**	52.73	324	P	P	14 21 26.2	+0.6
	baz=53,SNR=19						
TRCR	**Troy Canyon**	52.73	323	*e*P	P	14 21 26.0	+0.3
BSC	**Santa Cruz Isl**	52.77	316	⇓P	P	14 21 25.8	-0.3
	baz=53						
ARVC	**Arvin**	52.85	318	⇓P	P	14 21 26.8	+0.2
	baz=53,SNR=10						
ISA	**Isabella**	52.92	318	⇑P	P	14 21 27.5	+0.4
	baz=53,SNR=14						
GRAC	**Grapevine Rang**	53.00	320	P	P	14 21 28.2	+0.5
	baz=53,SNR=12						
M15A	**Larsen Ranch,**	53.05	328	⇓P	P	14 21 27.7	-0.3
	baz=53,SNR=10						
P12A	**McGill**	53.06	324	⇑P	P	14 21 28.6	+0.5
	baz=53,SNR=30						
S10A	**Tonopah Range,**	53.08	322	P	P	14 21 29.1	+0.9
	baz=53,SNR=82						
Q11A	**Duckwater**	53.09	323	P	P	14 21 29.1	+0.7
	baz=53,SNR=52						
CWC	**Cottonwood Cre**	53.12	319	⇑P	P	14 21 29.0	+0.4
	baz=53,SNR=18						
R10A	**Warm Springs**	53.13	322	⇑P	P	14 21 29.6	+1.0
	baz=53,SNR=11						
AHID	**Auburn Hatcher**	53.29	330	*e*P	P	14 21 28.2	-1.5
	comp=Z,4.7nm,0.6s,mb4.4						
S09A	**Goldfield**	53.35	321	⇑P	P	14 21 30.3	+0.1
	baz=53,SNR=39						
PKM	**Peak Mountain**	53.39	317	⇓P	P	14 21 30.9	+0.3
	baz=54,SNR=7.6						
VES	**Vestal, Richgr**	53.43	318	⇑P	P	14 21 31.1	+0.2
	baz=54,SNR=12						
HVU	**Hansel Valley**	53.45	328	*e*P	P	14 21 30.3	-0.5
	comp=Z,12nm,0.8s,mb4.7						
HVU	**Hansel Valley**	53.45	328	*e*P	P	14 21 30.3	-0.5
HVU				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.7						
O12A	**Currie**	53.50	325	P	P	14 21 31.8	+0.6
	baz=54,SNR=32						
Q10A	**Clear Creek Ra**	53.53	323	⇓P	P	14 21 32.4	+0.9
	baz=54,SNR=31						
M14A	**Sheep Mountain**	53.56	327	⇑P	P	14 21 31.4	-0.2
	baz=54,SNR=40						
TPH	**Tonopah**	53.56	322	*e*P	P	14 21 32.0	+0.3
	comp=Z,44nm,1.1s,mb5.1						
TPH	**Tonopah**	53.56	322	*e*P	P	14 21 32.0	+0.2
TPH				pmax	pmax		
	comp=Z,44nm,1.1s,mb5.1						
R09A	**Tonopah**	53.57	322	⇓P	P	14 21 32.1	+0.2
	baz=54,SNR=19						
TIN	**Tinemaha**	53.58	320	⇓P	P	14 21 32.4	+0.5
	baz=54						
N13A	**Wendover, West**	53.59	326	P	P	14 21 32.1	+0.2
	baz=54,SNR=13						
REDW	**Red Top Meadow**	53.60	331	*e*P	P	14 21 31.3	-0.7
	comp=Z,74nm,1.5s,mb5.2						
P11A	**Circle Ranch,**	53.61	324	⇓P	P	14 21 32.5	+0.5
	baz=54						
LOHW	**Long Hollow**	53.67	331	*e*P	P	14 21 32.0	-0.4
	comp=Z,25nm,0.9s,mb5.0						
LOHW				*e*PcP	PcP	14 22 36.2	-0.5
SMMC	**Simmler**	53.75	317	P	P	14 21 33.7	+0.5
	baz=54,SNR=7.6						
S08C	**White Mtn Res**	53.81	320	⇑P	P	14 21 34.4	+0.8
	baz=54,SNR=27						
MOOW	**Moose Ponds**	53.84	331	*e*P	P	14 21 33.0	-0.6
	comp=Z,17nm,0.9s,mb4.8						
MOOW				*e*PcP	PcP	14 22 36.4	-1.0
ULM	**Lac du Bonnet**	53.87	346	*e*P	P	14 21 31.5	-2.3
	comp=Z,8.0nm,0.4s,mb4.8						
ULM				*e*PcP	PcP	14 22 36.2	-1.1
ULM	**Lac du Bonnet**	53.87	346	P	P	14 21 31.8	-2.0
	comp=Z,13nm,0.5s,mb4.9,baz=154,slow=7.6,SNR=52						
ULM				PcP	PcP	14 22 36.4	-0.9
	comp=Z,7.1nm,0.7s,baz=150,slow=4.3,SNR=6.6						
ULM				LR	LR	14 45 43.5	
	comp=Z,122nm,19.0s,baz=13,slow=37						
M13A	**Montello**	53.91	327	P	P	14 21 34.0	-0.2
	baz=54,SNR=10						
O11A	**Cowboy Ranch,**	53.93	325	⇓P	P	14 21 34.6	+0.2
	baz=54,SNR=18						
DCID1	**Drake Creek**	53.94	330	*e*P	P	14 21 34.1	-0.2
V05C	**Boulder Hill,**	53.99	318	⇑P	P	14 21 35.3	+0.3
	baz=54						
Q09A	**Carvers**	54.01	322	⇑P	P	14 21 35.5	+0.5
	baz=54						
N12A	**Clover Valley,**	54.05	326	⇑P	P	14 21 35.0	-0.3
	baz=54						
P10A	**Eureka**	54.07	324	⇓P	P	14 21 36.0	+0.6
	baz=54,SNR=9.8						
ELK	**Elko**	54.09	325	*e*P	P	14 21 35.8	+0.3
	comp=Z,9.5nm,0.7s,mb4.6						
ELK	**Elko**	54.09	325	*e*P	P	14 21 35.8	+0.2
ELK				pmax	pmax		
	comp=Z,9.0nm,0.7s						
RLMT	**Red Lodge**	54.18	333	*e*P	P	14 21 35.2	-0.9
	comp=Z,18nm,0.8s,mb4.8						
K14A	**Jones Ranch, D**	54.20	328	P	P	14 21 35.9	-0.4
	baz=54,SNR=13						
L13A	**Double Diamond**	54.29	327	⇑P	P	14 21 36.8	-0.2
	baz=54,SNR=11						
MLAC	**Mammoth Lakes**	54.31	320	⇑P	P	14 21 37.6	+0.4
	baz=54						
M12A	**Wells**	54.36	326	⇓P	P	14 21 37.1	-0.4
	baz=54,SNR=7.4						
YFT	**Old Faithful**	54.40	331	*e*P	P	14 21 39.2	+1.5
N11A	**Elko Archery C**	54.42	325	⇑P	P	14 21 37.9	0.0
	baz=54,SNR=9.1						
P09A	**Austin**	54.43	323	⇓P	P	14 21 38.3	+0.2
	baz=54						
KCC	**Kaiser Creek**	54.44	320	⇓P	P	14 21 37.7	-0.5
	baz=54,SNR=6.0						
NVAR	**Mina Array Bea**	54.45	321	P	P	14 21 38.7	+0.5
NVAR				PcP	PcP	14 22 40.0	+0.2
NVAR	**Mina Array Bea**	54.45	321	P	P	14 21 38.7	+0.5
	comp=Z,13nm,0.7s,mb4.8,baz=122,slow=6.9,SNR=92						
NVAR				PcP	PcP	14 22 40.0	+0.2
	comp=Z,5.1nm,0.7s,baz=137,slow=5.4,SNR=5.9						
PKD	**Parkfield**	54.47	318	⇓P	P	14 21 38.0	-0.3
	baz=55						
Q08A	**Gabbs**	54.48	322	⇓P	P	14 21 38.6	+0.1
	baz=55,SNR=11						
T06C	**Millerton Lake**	54.51	319	⇑P	P	14 21 38.7	0.0
	baz=55						
V04C	**Ramage Ranch,**	54.52	317	⇑P	P	14 21 38.9	+0.1
	baz=55						
YNR	**Norris Junctio**	54.52	332	*e*P	P	14 21 39.4	+0.8
O10A	**Cortez Mining,**	54.52	324	P	P	14 21 39.3	+0.6
	baz=55,SNR=18						
YMR	**Madison River**	54.62	332	*e*P	P	14 21 40.2	+0.8
	comp=Z,22nm,0.8s,mb4.9						
R07C	**Lee Vining**	54.72	321	⇑P	P	14 21 40.7	+0.6
	baz=55,SNR=7.9						
K13A	**Stover Farm, H**	54.75	328	⇓P	P	14 21 40.0	-0.3
	baz=55,SNR=8.6						
N10A	**Dunphy**	54.80	325	⇓P	P	14 21 40.5	-0.2
	baz=55						
O09A	**Fish Creek Ran**	54.85	324	P	P	14 21 41.4	+0.4
	baz=55,SNR=20						
M11A	**Holland Ranch,**	54.86	326	⇑P	P	14 21 40.9	-0.2
	baz=55,SNR=8.1						
U04C	**Hernandez Rese**	54.86	318	⇓P	P	14 21 40.8	-0.4
	baz=55,SNR=6.0						
L12A	**House Creek Ra**	54.91	327	P	P	14 21 41.4	0.0
	baz=55,SNR=14						
QLMT	**Earthquake Lak**	54.97	331	*e*P	P	14 21 42.6	+0.8
V03C	**Hunter Liggett**	54.98	317	⇑P	P	14 21 42.3	+0.2
	baz=55						
BMN	**Battle Mountai**	55.04	324	*e*P	P	14 21 42.4	0.0
	comp=Z,25nm,0.8s,mb5.0						
BMN	**Battle Mountai**	55.04	324	*e*P	P	14 21 42.4	0.0
BMN				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.0						
T05C	**Eagle Field, D**	55.09	318	⇓P	P	14 21 42.6	-0.2
	baz=55						
P08A	**Dixie Valley**	55.09	323	⇓P	P	14 21 43.2	+0.4
	baz=55,SNR=6.3						
S05C	**Merced**	55.11	319	⇓P	P	14 21 42.7	-0.2
	baz=55,SNR=14						
K12A	**Draper Farm, C**	55.18	327	P	P	14 21 43.7	+0.3
	baz=55,SNR=14						
R06C	**Coleville**	55.23	321	P	P	14 21 44.5	+0.7
	baz=55,SNR=10.0						
J13A	**Cove Ranch, Pi**	55.32	328	P	P	14 21 44.5	+0.1
	baz=55,SNR=28						
L11A	**Cat Creek Ranc**	55.33	326	⇑P	P	14 21 44.4	-0.1
	baz=55,SNR=15						
M10A	**I.L. Ranch, Tu**	55.34	325	⇑P	P	14 21 44.3	-0.2
	baz=55,SNR=5.5						
N09A	**Rock Creek Ran**	55.48	324	⇑P	P	14 21 45.1	-0.5
	baz=56,SNR=12						
P07A	**Fallon**	55.49	322	⇓P	P	14 21 46.0	+0.4
	baz=56						
CMB	**Columbia Colle**	55.54	320	*e*P	P	14 21 45.5	-0.6
	comp=Z,6.4nm,0.7s,mb4.6						
CMB	**Columbia Colle**	55.54	320	*e*P	P	14 21 45.5	-0.6
CMB				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.5						
CMB	**Columbia Colle**	55.54	320	P	P	14 21 45.8	-0.3
	baz=56,SNR=9.1						
HLID	**Hailey**	55.55	328	*e*P	P	14 21 46.1	+0.1
	comp=Z,18nm,0.9s,mb4.9						
HLID				*e*pP	pP	14 22 23.1	+0.8
HLID				*e*PcP	PcP	14 22 43.0	-1.0
PACP	**Pacheco Peak**	55.56	318	⇓P	P	14 21 46.2	+0.1
	baz=56,SNR=6.4						
I13A	**Wildhorse Cree**	55.65	329	P	P	14 21 47.1	+0.5
	baz=56,SNR=40						
MCMT	**McKenzie Canyo**	55.66	330	*e*P	P	14 21 47.1	+0.4
BOZ	**Bozeman (W)**	55.67	332	⇓*i*P	P	14 21 46.4	-0.3
	comp=Z,30nm,1.0s,mb5.1						
BOZ				*e*pP	pP	14 22 25.2	+2.0
BOZ	**Bozeman (W)**	55.67	332	⇓*i*P	P	14 21 46.4	-0.4
BOZ				*e**PP	pP	14 22 25.2	+2.1
BOZ				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.1						
BOZ	**Bozeman (W)**	55.67	332	P	P	14 21 46.7	0.0
	baz=56,SNR=53						
L10A	**Juniper Basin**	55.67	326	P	P	14 21 46.8	0.0
	baz=56,SNR=26						
J12A	**Stokes Ranch,**	55.70	328	P	P	14 21 47.1	0.0
	baz=56,SNR=16						
G15A	**Dillon**	55.72	331	P	P	14 21 47.5	+0.3
	baz=56,SNR=7.8						
R05C	**Kirkwood Meado**	55.73	321	⇑P	P	14 21 47.8	+0.5
	baz=56,SNR=12						
N08A	**GE Springer Mi**	55.80	324	⇓P	P	14 21 47.0	-0.8
	baz=56,SNR=6.4						
M09A	**Marrel Ranch,**	55.80	325	⇑P	P	14 21 47.5	-0.3
	baz=56,SNR=6.5						
O07A	**Toulon**	55.86	323	P	P	14 21 47.9	-0.4
	baz=56,SNR=14						
S04C	**Ingram Canyon,**	55.86	319	⇓P	P	14 21 48.4	+0.1
	baz=56						
WCN	**Washoe City**	55.88	321	P	P	14 21 49.2	+0.7
	baz=56,SNR=9.3						
R04C	**Big Horse Ranc**	56.03	320	⇑P	P	14 21 50.1	+0.6
	baz=56,SNR=21						
H13A	**Challis**	56.17	329	P	P	14 21 50.4	0.0
	baz=56,SNR=18						
LAVA	**Lava Cap Winer**	56.19	320	⇑P	P	14 21 50.4	-0.2
	baz=56,SNR=6.8						
P06A	**Stead Airport,**	56.20	322	⇓P	P	14 21 51.3	+0.6
	baz=56,SNR=5.2						
MFID	**Camas Ranch**	56.20	327	P	P	14 21 51.1	+0.4
	baz=56,SNR=48						
WENL	**Wente Brothers**	56.21	319	⇑P	P	14 21 51.5	+0.7
	baz=56						
F15A	**Butte**	56.22	332	P	P	14 21 50.6	-0.1
	baz=56,SNR=17						
G14A	**Jackson**	56.26	330	P	P	14 21 51.0	0.0
	baz=56,SNR=23						
N07B	**Gerlach**	56.30	323	⇑P	P	14 21 50.8	-0.5
	baz=56,SNR=12						
L09A	**Wilkinson Ranc**	56.31	325	⇑P	P	14 21 51.3	-0.1
	baz=56,SNR=6.9						
K10A	**MacKenzie Ranc**	56.35	326	P	P	14 21 52.0	+0.3
	baz=56,SNR=23						
M08A	**Happy Creek Ra**	56.36	324	P	P	14 21 51.7	-0.1
	baz=56,SNR=17						
P05C	**Yuba Gap, Truc**	56.42	321	⇓P	P	14 21 52.6	+0.4
	baz=56,SNR=18						
O06A	**Flanigan**	56.44	322	P	P	14 21 52.7	+0.3
	baz=56,SNR=17						
BDM	**Black Diamond**	56.46	319	⇓P	P	14 21 53.1	+0.6
	baz=57						
H12A	**Diamond D Ranc**	56.47	329	P	P	14 21 52.6	+0.1
	baz=57,SNR=23						
G13A	**Cobalt**	56.53	330	⇑P	P	14 21 52.6	-0.3
	baz=57,SNR=13						
BEKR	**Beckwourth**	56.59	322	⇑P	P	14 21 53.7	+0.2
	baz=57,SNR=46						
I11A	**Placerville**	56.61	328	⇓P	P	14 21 53.4	-0.1
	baz=57,SNR=20						
F14A	**Wisdom**	56.62	331	⇓P	P	14 21 53.4	-0.1
	baz=57,SNR=18						
EGMT	**Eagleton**	56.63	335	*e*P	P	14 21 52.9	-0.7
	comp=Z,26nm,1.1s,mb5.0						
EGMT	**Eagleton**	56.63	335	P	P	14 21 53.3	-0.2
	baz=57,SNR=12						
Q04C	**Lincoln**	56.64	320	⇑P	P	14 21 54.3	+0.5
	baz=57,SNR=8.7						
E15A	**Deer Lodge**	56.72	332	⇑P	P	14 21 53.9	-0.3
	baz=57,SNR=6.6						
K09A	**Rome**	56.78	326	⇑P	P	14 21 55.1	+0.3
	baz=57,SNR=132						
M07A	**Soldier Meadow**	56.79	324	P	P	14 21 54.4	-0.4
	baz=57,SNR=11						
N06A	**Buffalo Meadow**	56.80	323	P	P	14 21 54.8	-0.1
	baz=57,SNR=61						
L08A	**Fields**	56.81	325	⇑P	P	14 21 54.9	0.0
	baz=57,SNR=72						
Q03C	**Winters**	56.94	319	⇑P	P	14 21 56.8	+0.9
	baz=57						
SCHQ	**Schefferville**	56.97	8	*e*P	P	14 21 56.0	+0.2
	comp=Z,7.8nm,1.0s,mb4.5						
SCHQ	**Schefferville**	56.97	8	P	P	14 21 56.3	+0.5
	comp=Z,2.2nm,0.5s,mb4.2,baz=55,slow=8.8,SNR=9.0						
OHCM	**Honcut**	56.99	320	*e*P	P	14 21 56.1	-0.2
OHCM				*e*PcP	PcP	14 22 49.5	-0.1
O05C	**Quincy**	57.00	321	P	P	14 21 57.0	+0.7
	baz=57,SNR=22						
CVS	**Carmenet Viney**	57.07	319	⇓P	P	14 21 56.7	-0.1
	baz=57						
F13A	**Darby**	57.07	330	P	P	14 21 56.5	-0.3
	baz=57,SNR=19						
FARB	**Farallon Islan**	57.08	318	⇑P	P	14 21 56.8	-0.1
	baz=57						
D15A	**Lincoln**	57.11	332	⇓P	P	14 21 56.9	-0.1
	baz=57						
E14A	**Clinton**	57.11	331	⇓P	P	14 21 56.8	-0.2
	baz=57,SNR=7.0						
ORV	**Oroville**	57.13	321	P	P	14 21 57.7	+0.4
	baz=57,SNR=68						
WVOR	**Wild Horse Val**	57.13	325	*e*P	P	14 21 56.8	-0.4
	comp=Z,79nm,1.1s,mb5.5						
WVOR				*e*pP	pP	14 22 36.1	+2.4
WVOR	**Wild Horse Val**	57.13	325	*e*P	P	14 21 56.8	-0.4
WVOR				*e**PP	pP	14 22 36.1	+2.4
WVOR				pmax	pmax		
	comp=Z,79nm,1.1s,mb5.5						
H11A	**Donnelly**	57.18	328	P	P	14 21 56.9	-0.5
	baz=57,SNR=14						
I10A	**Payette**	57.18	327	⇓P	P	14 21 57.3	-0.2
	baz=57,SNR=7.8						
J09A	**Fry Pan Ranch,**	57.21	326	⇑P	P	14 21 57.6	-0.1
	baz=57,SNR=15						
K08A	**Mann Creek Ran**	57.23	325	P	P	14 21 57.9	0.0
	baz=57,SNR=34						
ELFS	**Eagle Lake Fie**	57.26	322	⇑P	P	14 21 58.3	+0.1
	baz=57,SNR=5.5						
L07A	**Adell**	57.28	324	P	P	14 21 58.1	-0.2
	baz=57,SNR=24						
O04C	**Chester**	57.31	322	⇓P	P	14 21 58.8	+0.3
	baz=57,SNR=34						
MNRC	**McLaughlin Nat**	57.35	319	⇓P	P	14 21 59.0	+0.2
	baz=57,SNR=5.9						
CHMT	**Chamberlain Mo**	57.36	332	*e*P	P	14 21 57.8	-0.9
M06C	**Likely Place G**	57.46	323	⇑P	P	14 21 59.5	0.0
	baz=58,SNR=15						
E13A	**Victor**	57.47	331	⇑P	P	14 21 59.3	-0.2
	baz=58,SNR=7.2						
H10A	**Noah’s Angus R**	57.48	328	⇓P	P	14 21 58.4	-1.3
	baz=58,SNR=13						
F12A	**Elk City**	57.51	330	P	P	14 21 59.7	-0.1
	baz=58,SNR=34						
D14A	**Greenough**	57.60	332	⇑P	P	14 22 00.4	0.0
	baz=58						
I09A	**Lost Marbles R**	57.61	327	⇑P	P	14 22 00.1	-0.4
	baz=58,SNR=15						
J08A	**Circle Bar Ran**	57.62	326	P	P	14 22 00.4	-0.2
	baz=58,SNR=16						
MSO	**Missoula**	57.63	331	*e*P	P	14 22 00.1	-0.4
	comp=Z,16nm,1.0s,mb4.8						
K07A	**Rock Creek Ran**	57.64	325	⇑P	P	14 22 00.4	-0.4
	baz=58,SNR=6.8						
LBCM	**Butte Creek Ri**	57.77	322	P	P	14 22 01.5	-0.2
MOD	**Modoc**	57.77	324	⇓P	P	14 22 01.9	+0.1
	baz=58,SNR=11						
HOPS	**Hopland**	57.83	319	⇑P	P	14 22 02.2	0.0
	baz=58						
HATC	**Hat Creek Radi**	57.83	322	⇓P	P	14 22 02.0	-0.1
	baz=58,SNR=6.9						
M05C	**Lookout**	57.96	323	P	P	14 22 03.1	+0.1
	baz=58,SNR=42						
GASB	**Alder Springs**	57.96	320	⇓P	P	14 22 03.1	+0.1
	baz=58,SNR=11						
H09A	**Durkee**	58.03	327	⇑P	P	14 22 02.6	-0.8
	baz=58						
I08A	**Drewsey**	58.03	326	⇓P	P	14 22 03.0	-0.5
	baz=58						
D13A	**Huson**	58.06	331	P	P	14 22 03.6	0.0
	baz=58,SNR=18						
J07A	**Hines**	58.10	325	⇑P	P	14 22 03.7	-0.3
	baz=58						
L05A	**Lakeview**	58.18	323	⇑P	P	14 22 04.8	+0.3
	baz=58,SNR=15						
P01C	**Double 8 Ranch**	58.26	320	⇑P	P	14 22 05.4	+0.3
	baz=58,SNR=5.2						
K06A	**Valley Falls**	58.29	324	⇑P	P	14 22 05.8	+0.5
	baz=58,SNR=5.1						
O02C	**Red Bluff**	58.30	321	⇑P	P	14 22 04.2	-1.1
	baz=58,SNR=9.1						
WDC	**Whiskeytown Da**	58.37	321	⇓*i*P	P	14 22 03.5	-2.4
	comp=Z,16nm,0.8s,mb4.9						
WDC	**Whiskeytown Da**	58.37	321	⇓*i*P	P	14 22 03.5	-2.4
WDC				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.9						
WDC	**Whiskeytown Da**	58.37	321	⇓P	P	14 22 03.8	-2.1
	baz=58,SNR=10						
E11A	**Bogner Ranch,**	58.41	330	P	P	14 22 05.3	-0.7
	baz=58,SNR=19						
H08A	**Prairie City**	58.48	327	P	P	14 22 06.4	-0.2
	baz=59,SNR=28						
M03C	**McCloud**	58.50	322	⇓P	P	14 22 06.1	-0.7
	baz=59,SNR=12						
J06A	**Christmas Vall**	58.51	325	P	P	14 22 06.7	-0.1
	baz=59,SNR=6.9						
C13A	**Hot Springs**	58.54	332	P	P	14 22 06.8	0.0
	baz=59,SNR=12						
K05A	**Summer Lake**	58.62	324	⇓P	P	14 22 08.1	+0.6
	baz=59,SNR=13						
M04C	**Macdoel**	58.62	323	P	P	14 22 07.4	-0.2
	baz=59,SNR=17						
I07A	**Izee**	58.66	326	P	P	14 22 07.8	0.0
	baz=59,SNR=29						
F10A	**Beach Ranch, E**	58.66	329	⇑P	P	14 22 07.6	-0.2
	baz=59,SNR=23						
F09A	**S2 Ranch, Elgi**	58.84	328	⇑P	P	14 22 09.3	+0.3
	baz=59,SNR=21						
L04A	**Klamath Falls**	58.89	323	⇓P	P	14 22 09.4	0.0
	baz=59,SNR=6.7						
O01C	**Eel River Cons**	58.94	320	⇓P	P	14 22 10.4	+0.6
	baz=59						
E10A	**Myers Farm, Un**	58.95	329	P	P	14 22 09.4	-0.3
	baz=59,SNR=15						
I06A	**Prineville**	58.97	325	P	P	14 22 10.3	+0.3
	baz=59,SNR=38						
B13A	**Whitefish**	58.98	332	⇑P	P	14 22 09.9	-0.1
	baz=59,SNR=9.7						
YBH	**Yreka Blue Hor**	59.13	322	*e*P	P	14 22 09.9	-1.2
	comp=Z,24nm,0.9s,mb5.0						
YBH	**Yreka Blue Hor**	59.13	322	*e*P	P	14 22 09.9	-1.2
YBH				pmax	pmax		
	comp=Z,23nm,0.9s						
YBH	**Yreka Blue Hor**	59.13	322	⇑P	P	14 22 09.8	-1.3
	baz=59,SNR=8.3						
G08A	**Pilot Rock**	59.13	327	P	P	14 22 11.2	+0.1
	baz=59,SNR=49						
J05A	**Fort Rock**	59.16	324	⇑P	P	14 22 11.5	+0.2
	baz=59,SNR=21						
WALA	**Waterton Lakes**	59.23	333	*e*P	P	14 22 11.3	-0.3
	comp=Z,12nm,0.8s,mb4.8						
D10A	**Wagner Farm, O**	59.42	330	P	P	14 22 12.5	-0.5
	baz=60,SNR=22						
G07A	**Ruggs Ranch, H**	59.50	327	P	P	14 22 13.9	+0.4
	baz=60,SNR=6.4						
E09A	**Wood Farm, Sta**	59.50	329	P	P	14 22 13.3	-0.3
	baz=60,SNR=11						
FFC	**Flin Flon**	59.51	344	P	P	14 22 12.3	-1.2
	comp=Z,75nm,1.0s,mb5.5,SNR=6.3						
H06A	**Lindquist Farm**	59.53	326	P	P	14 22 14.3	+0.5
	baz=60,SNR=16						
B12A	**Libby**	59.58	332	⇓P	P	14 22 14.1	+0.1
	baz=60,SNR=6.1						
J04A	**Umpqua Nationa**	59.64	324	⇑P	P	14 22 14.6	0.0
	baz=60,SNR=8.0						
I05A	**Bend**	59.71	325	⇑P	P	14 22 15.5	+0.5
	baz=60,SNR=6.7						
HUMO	**Hull Mountain**	59.78	323	⇑P	P	14 22 14.7	-0.8
	baz=60						
L02A	**Cave Junction**	59.92	322	⇓P	P	14 22 16.0	-0.5
	baz=60						
B11A	**Sandpoint**	59.92	331	⇓P	P	14 22 16.2	-0.2
	baz=60,SNR=6.1						
A12A	**Yaak River Ran**	59.94	332	⇑P	P	14 22 16.5	0.0
	baz=60,SNR=6.0						
D09A	**Jones Farm, Ri**	59.95	329	P	P	14 22 16.4	-0.3
	baz=60,SNR=16						
E08A	**Dider Farm, El**	59.96	328	⇑P	P	14 22 16.2	-0.5
	baz=60						
H05A	**Madras**	59.98	326	⇑P	P	14 22 17.4	+0.5
	baz=60,SNR=5.7						
G06A	**Carlson Farm,**	60.01	326	⇑P	P	14 22 17.8	+0.7
	baz=60,SNR=12						
F07A	**Phinny Hill Vi**	60.04	327	⇓P	P	14 22 17.5	+0.3
	baz=60,SNR=6.0						
CROR	**Criterion Ridg**	60.05	326	P	P	14 22 18.2	+0.9
HAWA	**Hanford**	60.15	328	*e*P	P	14 22 17.6	-0.4
	comp=Z,14nm,0.7s,mb4.9						
I04A	**Tendick Farm,**	60.15	324	⇓P	P	14 22 17.2	-0.8
	baz=60						
NEW	**Newport**	60.17	331	*e*P	P	14 22 17.2	-0.8
	comp=Z,29nm,1.0s,mb5.1						
NEW	**Newport**	60.17	331	*e*P	P	14 22 17.2	-0.9
NEW				pmax	pmax		
	comp=Z,29nm,1.0s						
K02A	**Glendale**	60.19	323	⇓P	P	14 22 17.9	-0.5
	baz=60,SNR=5.2						
B10A	**Chitwood Farm,**	60.24	331	⇑P	P	14 22 18.2	-0.4
	baz=60						
D08A	**Wollman Farm,**	60.26	329	P	P	14 22 18.5	-0.2
	baz=60,SNR=8.3						
SNIWA	**Snively Ranch**	60.26	328	P	P	14 22 19.0	+0.2
A11A	**Hall Mountain,**	60.29	332	P	P	14 22 19.1	+0.2
	baz=60,SNR=10						
OD2	**Odessa Site #2**	60.37	329	P	P	14 22 19.4	0.0
G05A	**Wamic**	60.39	326	⇓P	P	14 22 20.4	+0.7
	baz=60,SNR=8.4						
F06A	**Goldendale**	60.42	327	⇑P	P	14 22 20.5	+0.6
	baz=60,SNR=14						
C09A	**Chrisman Ranch**	60.42	330	⇓P	P	14 22 19.8	0.0
	baz=60						
E07A	**Sunnyside**	60.42	328	P	P	14 22 20.1	+0.2
	baz=60,SNR=13						
H04A	**Detroit Lake**	60.55	325	⇑P	P	14 22 20.1	-0.6
	baz=61						
J02A	**Umpqua**	60.59	323	⇓P	P	14 22 21.0	0.0
	baz=61						
MXC	**Moxie City**	60.67	328	P	P	14 22 22.2	+0.7
I03A	**Eugene**	60.76	324	⇓P	P	14 22 22.0	-0.2
	baz=61						
B09A	**Rice**	60.78	330	P	P	14 22 22.2	0.0
	baz=61,SNR=52						
C08A	**Higginbotham F**	60.80	329	⇑P	P	14 22 22.2	-0.2
	baz=61,SNR=13						
F05A	**White Salmon**	60.87	327	⇓P	P	14 22 22.7	-0.1
	baz=61						
A10A	**Northport**	60.87	331	P	P	14 22 22.4	-0.4
	baz=61,SNR=6.6						
D07A	**Quincy**	60.90	328	⇓P	P	14 22 23.4	+0.4

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      baz=61,SNR=16
E06A  Yakima             61.02 327  P      P       14 22 24.2 +0.4
      baz=61,SNR=12
G04A  Mulino             61.02 325 ⇓P      P       14 22 23.6 -0.4
      baz=61,SNR=5.9
I02A  Mapleton           61.10 324 ⇓P      P       14 22 24.4 -0.1
      baz=61
H03A  Soap Creek Ran     61.18 325 ⇓P      P       14 22 25.1 +0.1
      baz=61,SNR=5.9
WTV   Waterville         61.21 329  P      P       14 22 25.4 +0.2
C07A  Waterville         61.26 329  P      P       14 22 25.7 +0.2
      baz=61,SNR=16
B08A  Colville Reser     61.33 330  P      P       14 22 25.8 -0.1
      baz=61,SNR=7.1
D06A  Cle Elum           61.35 328 ⇓P      P       14 22 26.3 +0.2
      baz=61,SNR=5.9
A09A  Danville           61.36 331  P      P       14 22 26.1  0.0
      baz=61,SNR=9.8
WPW   White Pass         61.42 327  P      P       14 22 27.1 +0.6
F04A  Amboy              61.43 326 ⇓P      P       14 22 26.4 -0.3
      baz=62
E05A  Randle             61.45 327  P      P       14 22 26.7 -0.1
      baz=62,SNR=8.1
FCC   Fort Churchill     61.51 351 eP      P       14 22 24.5 -2.4
      comp=Z,7.2nm,1.1s,mb4.4
FCC                                e               14 23 06.4
FCC   Fort Churchill     61.51 351 eP      P       14 22 24.5 -2.4
FCC                                e               14 23 06.4
FCC                                 pmax   pmax
      comp=Z,7.0nm,1.1s,mb4.4
G03A  Yamhill            61.55 325 ⇑P      P       14 22 27.6 +0.1
      baz=62
A08A  Turner Farm, O     61.69 330  P      P       14 22 28.5 +0.2
      baz=62,SNR=34
B07A  Winthrop           61.79 330 ⇓P      P       14 22 28.7 -0.3
      baz=62,SNR=9.8
C06A  Tall Timber Ra     61.84 329 ⇓P      P       14 22 29.2 -0.1
      baz=62
D05A  Enumclaw           61.96 328 ⇓P      P       14 22 30.0 -0.1
      baz=62,SNR=11
E04A  Onalaska           61.99 327 ⇓P      P       14 22 30.4  0.0
      baz=62
F03A  Seaside            62.06 326 ⇓P      P       14 22 31.1 +0.2
      baz=62
EDM   Edmonton           62.09 337⇓eP      P       14 22 29.4 -1.5
C05A  Tolt Reservoir     62.11 328 ⇓P      P       14 22 30.7 -0.4
      baz=62,SNR=5.1
A07A  Ashnola River,     62.30 330 ⇓P      P       14 22 33.0 +0.6
      baz=62,SNR=18
D04A  Dobbs Creek Ra     62.35 327 ⇑P      P       14 22 33.2 +0.4
      baz=62
E03A  Lebam              62.43 326 ⇑P      P       14 22 33.4 +0.1
      baz=62
B06A  Marblemount        62.52 329 ⇓P      P       14 22 33.3 -0.6
      baz=63,SNR=6.2
B05A  Bryant             62.68 328  P      P       14 22 34.3 -0.7
      baz=63,SNR=5.6
C04A  Brinnon            62.81 328 ⇓P      P       14 22 35.6 -0.2
      baz=63,SNR=5.8
A06A  Chilliwack         62.89 329 ⇑P      P       14 22 35.9 -0.4
      baz=63
A05A  Maple Falls        63.13 329  P      P       14 22 37.8 -0.2
      baz=63,SNR=11
A04A  Legoe Bay, Lum     63.28 329 ⇑P      P       14 22 38.9  0.0
      baz=63
B04A  Port Angeles       63.30 328 ⇓P      P       14 22 39.6 +0.5
      baz=63
C03A  Quillayute Air     63.81 327 ⇑P      P       14 22 43.0 +0.7
      baz=64
PMSA  Palmer Station     63.86 173  P      P       14 22 40.3 -2.1
      comp=Z,36nm,0.9s,mb5.2
YKA   Yellowknife Ar     69.63 343  P      P       14 23 17.6 -1.3
      comp=Z,6.2nm,0.7s,mb4.5,baz=140,slow=5.7,SNR=153
YKA                                 pP     pP      14 23 57.8 +0.9
      comp=Z,2.2nm,1.0s,baz=134,slow=6.4,SNR=1.4
DLBC  Dease Lake         72.55 334 eP      P       14 23 36.8 +0.1
LIC   Lamto              73.21  83⇑iP      P       14 23 40.9 -0.6
      comp=Z,151nm,1.0s,mb5.7
LIC   Lamto              73.21  83⇑iP      P       14 23 41.0 -0.5
TIC   Toumodi            73.24  83⇑iP      P       14 23 41.1 -0.5
      comp=Z,286nm,0.9s,mb6.0
KIC   Kosan Boka         73.50  83⇑iP      P       14 23 42.9 -0.3
      comp=Z,532nm,0.8s
RES   Resolute Bay       76.84 355 eP      P       14 23 59.6 -1.4
      comp=Z,141nm,0.9s,mb5.6
EJIF  Jimena Fronter     76.92  52  P      P       14 24 01.7 -0.5
      comp=Z,18nm,1.0s,mb4.7
EJIF  Jimena Fronter     76.92  52  P      P       14 24 01.7 -0.5
EJIF                                pmax   pmax
      comp=Z,18nm,1.0s,mb4.7
ERON  Agron              78.34  52  P      P       14 24 11.4 +1.3
      comp=Z,12nm,0.7s,mb4.6
ECOG  Cogollos-Vega      78.57  52  P      P       14 24 12.0 +0.6
      comp=Z,12nm,0.6s,mb4.7
ECOG  Cogollos-Vega      78.57  52  P      P       14 24 12.0 +0.6
ECOG                                pmax   pmax
      comp=Z,12nm,0.6s,mb4.7
EARI  Arriondas          78.59  45  P      P       14 24 10.3 -1.0
      comp=Z,215nm,1.8s,mb5.5
ESDC  Sonseca Array      78.73  49  P      P       14 24 11.7 -0.5
      comp=Z,5.7nm,0.5s,mb4.5
ESDC  Sonseca Array      78.73  49  P      P       14 24 11.9 -0.3
      comp=Z,3.5nm,0.6s,mb4.2,baz=270,slow=5.1,SNR=14
GUD   Guadarrama         78.79  48  P      P       14 24 11.5 -1.0
      comp=Z,9.8nm,0.8s,mb4.5
GUD   Guadarrama         78.79  48  P      P       14 24 11.5 -1.0
GUD                                 pmax   pmax
      comp=Z,10.0nm,0.8s,mb4.5
EBER  Berja              79.04  52  P      P       14 24 13.8 -0.2
      comp=Z,156nm,1.9s,mb5.3
EQES  Quesada            79.06  51  P      P       14 24 14.2 +0.2
      comp=Z,37nm,1.0s,mb5.0
DAWY  Dawson             79.31 337 eP      P       14 24 14.3 -0.5
INK   Inuvik             79.36 342⇓eP      P       14 24 14.6 -0.4
      comp=Z,1µm,0.9s
INK                                epP     pP      14 24 55.4 +1.6
EVIA  Vianos             79.65  50  P      P       14 24 17.8 +0.6
      comp=Z,18nm,0.7s,mb4.8
EVIA  Vianos             79.65  50  P      P       14 24 17.8 +0.6
EVIA                                pmax   pmax
      comp=Z,18nm,0.7s,mb4.8
DCN   Croghan            79.84  35 eP      P       14 24 17.9  0.0
ELAN  Lanestosa          79.84  46  P      P       14 24 17.7 -0.5
      comp=Z,22nm,0.6s,mb5.0
DLF   Lyons Farm         80.25  35 eP      P       14 24 19.9 -0.2
TOA0  Torodi Ar. Sit     80.28  76⇑iP      P       14 24 19.9 -1.1
TOA0                               epP     pP      14 24 58.4 -1.5
TORD  Torodi Ar. Bea     80.28  76  P      P       14 24 20.2 -0.9
      comp=Z,11nm,0.5s,mb4.7,baz=280,slow=6.0,SNR=166
TORD                                pP     pP      14 24 58.5 -1.4
      comp=Z,11nm,1.1s,baz=287,slow=3.8,SNR=5.0
EGAK  Eagle              80.31 337⇓iP      P       14 24 19.7 -0.4
      comp=Z,41nm,1.0s,mb5.0
ETOR  Torete             80.39  48  P      P       14 24 21.2 +0.1
      comp=Z,14nm,0.9s,mb4.6
ETOR  Torete             80.39  48  P      P       14 24 21.2 +0.1
ETOR                                pmax   pmax
      comp=Z,14nm,0.9s,mb4.6
ETOB  Tobarra            80.39  51  P      P       14 24 21.6 +0.4
      comp=Z,50nm,0.7s,mb5.3
ECHE  Chera              80.99  50  P      P       14 24 24.0 -0.3
      comp=Z,3.8nm,0.4s,mb4.4
ECHE  Chera              80.99  50  P      P       14 24 24.0 -0.4
ECHE                                pmax   pmax
      comp=Z,4.0nm,0.4s,mb4.4
QUIF  Quistinic          81.01  41 eP      P       14 24 25.4 +1.1
ROSF  Rostrenen          81.03  41 eP      P       14 24 24.6 +0.2
      comp=Z,57nm,0.9s,mb4.9
ROSF  Rostrenen          81.03  41 eP      P       14 24 24.6 +0.2
      comp=Z,29nm,0.9s,mb4.9
ROSF  Rostrenen          81.03  41 eP      P       14 24 24.6 +0.2
ROSF                                pmax   pmax
      comp=Z,29nm,0.9s,mb4.9
SJPF  Ste Jean           81.41  46 eP      P       14 24 27.1 +0.6
      comp=Z,61nm,1.0s,mb4.9
SJPF  Ste Jean           81.41  46 eP      P       14 24 27.1 +0.6
      comp=Z,31nm,1.0s,mb4.9
SJPF  Ste Jean           81.41  46 eP      P       14 24 27.1 +0.6
SJPF                                pmax   pmax
      comp=Z,31nm,1.0s,mb4.9
EBEN  Beniarda           81.42  51  P      P       14 24 27.9 +1.3
      comp=Z,896nm,3.0s
SGMF  Saint Gilles       81.48  41 eP      P       14 24 26.9 +0.1
      comp=Z,86nm,1.0s,mb5.0
SGMF  Saint Gilles       81.48  41 eP      P       14 24 26.9 +0.1
      comp=Z,43nm,1.0s,mb5.0
SGMF  Saint Gilles       81.48  41 eP      P       14 24 26.9 +0.1
SGMF                                pmax   pmax
      comp=Z,43nm,1.0s,mb5.0
EMOS  Mosqueruela        81.49  49  P      P       14 24 27.1 +0.1
      comp=Z,28nm,0.8s,mb5.0
VNA3  Neumayer Olymp     81.63 162 eP      P       14 24 27.8 +0.7
VNA3                               e               14 24 31.9
VNA3                               e               14 25 13.5
ETSF  Etsaut             81.85  46 eP      P       14 24 29.5 +0.7
      comp=Z,11nm,0.7s,mb4.3
ETSF  Etsaut             81.85  46 eP      P       14 24 29.5 +0.7
      comp=Z,5.7nm,0.7s,mb4.3
ETSF  Etsaut             81.85  46 eP      P       14 24 29.5 +0.7
ETSF                                pmax   pmax
      comp=Z,6.0nm,0.7s,mb4.3
ERTA  Horta de San J     82.19  48  P      P       14 24 31.0 +0.4
      comp=Z,50nm,0.8s,mb5.2
VNA2  Neumayer--Watz     82.23 162 eP      P       14 24 30.8 +0.6
VNA2                               e               14 24 35.1
VNA2                               e               14 25 15.4
EBIE  Bielsa             82.33  47  P      P       14 24 31.9 +0.6
      comp=Z,171nm,1.9s,mb5.3
PMR   Palmer             82.52 333 eP      P       14 24 37.8 +6.0
      comp=Z,2.6nm,0.6s,mb4.1
PMR   Palmer             82.52 333 eP      P       14 24 37.8 +5.9
PMR                                 pmax   pmax
      comp=Z,3.0nm,0.6s,mb4.2
EPF   Esparros           82.52  46 eP      P       14 24 33.0 +0.7
      comp=Z,92nm,1.2s,mb5.1
EPF   Esparros           82.52  46 eP      P       14 24 33.0 +0.7
      comp=Z,46nm,1.2s,mb5.1
EPF   Esparros           82.52  46 eP      P       14 24 33.0 +0.7
EPF                                 pmax   pmax
      comp=Z,46nm,1.2s,mb5.1
GRR   Gorron             82.62  41 eP      P       14 24 32.8 +0.1
      comp=Z,96nm,0.9s,mb5.2
GRR   Gorron             82.62  41 eP      P       14 24 32.8 +0.1
      comp=Z,48nm,0.9s,mb5.2
GRR   Gorron             82.62  41 eP      P       14 24 32.8 +0.1
GRR                                 pmax   pmax
      comp=Z,48nm,0.9s,mb5.2
ESK   Eskdalemuir        82.66  34 eP      P       14 24 32.1 -0.6
      comp=Z,19nm,0.7s,mb4.9
ESK   Eskdalemuir        82.66  34 eP      P       14 24 32.1 -0.6
ESK                                 pmax   pmax
      comp=Z,19nm,0.7s,mb4.9
EIBI  Ibiza              82.68  51  P      P       14 24 32.0 -1.2
      comp=Z,78nm,0.7s,mb5.5
MFF   Saint Martin d     82.78  43 eP      P       14 24 33.8 +0.3
      comp=Z,35nm,0.7s,mb4.9
MFF   Saint Martin d     82.78  43 eP      P       14 24 33.8 +0.3
      comp=Z,18nm,0.7s,mb4.9
MFF   Saint Martin d     82.78  43 eP      P       14 24 33.8 +0.3
MFF                                 pmax   pmax
      comp=Z,18nm,0.7s,mb4.9
EPOB  Poblet             82.81  48  P      P       14 24 33.1 -0.7
      comp=Z,141nm,1.7s,mb5.4
FLN   La Foliniere       82.94  41 eP      P       14 24 34.6 +0.3
      comp=Z,62nm,0.8s,mb5.1
FLN   La Foliniere       82.94  41 eP      P       14 24 34.6 +0.3
      comp=Z,31nm,0.8s,mb5.1
FLN   La Foliniere       82.94  41 eP      P       14 24 34.6 +0.3
FLN                                 pmax   pmax
      comp=Z,31nm,0.8s,mb5.1
COLA  College            83.00 336 eP      P       14 24 32.5 -1.8
      comp=Z,14nm,0.9s,mb4.7
COLA  College            83.00 336 eP      P       14 24 33.1 -1.2
SALF  Salau              83.10  47 eP      P       14 24 36.2 +0.9
LFF   La Frestale        83.11  45 eP      P       14 24 35.6 +0.3
      comp=Z,82nm,0.8s,mb5.2
LFF   La Frestale        83.11  45 eP      P       14 24 35.6 +0.3
      comp=Z,41nm,0.8s,mb5.2
LFF   La Frestale        83.11  45 eP      P       14 24 35.6 +0.3
LFF                                 pmax   pmax
      comp=Z,41nm,0.8s,mb5.2
LDF   La Druitiere       83.14  41 eP      P       14 24 35.5 +0.1
      comp=Z,75nm,0.9s,mb5.1
LDF   La Druitiere       83.14  41 eP      P       14 24 35.5 +0.1
      comp=Z,38nm,0.9s,mb5.1
LDF   La Druitiere       83.14  41 eP      P       14 24 35.5 +0.1
LDF                                 pmax   pmax
      comp=Z,37nm,0.9s,mb5.1
EMIR  Miracle            83.22  48  P      P       14 24 36.0  0.0
      comp=Z,24nm,0.6s,mb5.1
RJF   Les Rejaudoux      83.71  44 eP      P       14 24 38.5 +0.1
      comp=Z,72nm,0.8s,mb5.1
RJF   Les Rejaudoux      83.71  44 eP      P       14 24 38.5 +0.1
      comp=Z,36nm,0.8s,mb5.2
RJF   Les Rejaudoux      83.71  44 eP      P       14 24 38.5 +0.1
RJF                                 pmax   pmax
      comp=Z,36nm,0.8s,mb5.2
ETOS  Mallorca           83.91  50  P      P       14 24 38.3 -1.1
      comp=Z,110nm,1.5s,mb5.4
MTLF  Montolieu          83.93  46 eP      P       14 24 39.6 +0.1
      comp=Z,94nm,0.9s,mb5.2
MTLF  Montolieu          83.93  46 eP      P       14 24 39.6 +0.1
      comp=Z,47nm,0.9s,mb5.2
MTLF  Montolieu          83.93  46 eP      P       14 24 39.6 +0.1
MTLF                                pmax   pmax
      comp=Z,47nm,0.9s,mb5.2
CAF   Calviac            84.04  45 eP      P       14 24 40.2 +0.2
      comp=Z,82nm,1.0s,mb5.1
CAF   Calviac            84.04  45 eP      P       14 24 40.2 +0.2
      comp=Z,41nm,1.0s,mb5.1
CAF   Calviac            84.04  45 eP      P       14 24 40.2 +0.2
CAF                                 pmax   pmax
      comp=Z,41nm,1.0s,mb5.1
FILF  Fillols            84.07  47 eP      P       14 24 40.3 +0.1
EJON  La Jonquera        84.30  47  P      P       14 24 41.2 -0.2
      comp=Z,16nm,0.5s,mb5.0
SJAF  Saint Jean de      84.30  47 eP      P       14 24 41.6 +0.2
TCF   Toulx Ste Croi     84.34  43 eP      P       14 24 41.4 -0.1
      comp=Z,47nm,0.7s,mb5.0
TCF   Toulx Ste Croi     84.34  43 eP      P       14 24 41.4 -0.1
      comp=Z,24nm,0.7s,mb5.0
TCF   Toulx Ste Croi     84.34  43 eP      P       14 24 41.4 -0.1
TCF                                 pmax   pmax
      comp=Z,24nm,0.7s,mb5.0
BGF   Bois d'Agland      84.81  43 eP      P       14 24 43.9  0.0
      comp=Z,65nm,0.8s,mb5.1
BGF   Bois d'Agland      84.81  43 eP      P       14 24 43.9  0.0
      comp=Z,32nm,0.8s,mb5.1
BGF   Bois d'Agland      84.81  43 eP      P       14 24 43.9  0.0
BGF                                 pmax   pmax
      comp=Z,33nm,0.8s,mb5.1
AVF   Avril sur Loir     85.19  43 eP      P       14 24 45.4 -0.3
      comp=Z,77nm,1.0s,mb5.1
AVF   Avril sur Loir     85.19  43 eP      P       14 24 45.4 -0.3
      comp=Z,39nm,1.0s,mb5.1
AVF   Avril sur Loir     85.19  43 eP      P       14 24 45.4 -0.3
AVF                                 pmax   pmax
      comp=Z,39nm,1.0s,mb5.1
LASF  Ste Croix          85.20  46 eP      P       14 24 46.5 +0.6
      comp=Z,36nm,0.8s,mb4.9
SSF   Saint Saulge       85.32  43 eP      P       14 24 46.0 -0.4
      comp=Z,32nm,1.0s,mb4.7
SSF   Saint Saulge       85.32  43 eP      P       14 24 46.0 -0.4
      comp=Z,16nm,1.0s,mb4.7
SSF   Saint Saulge       85.32  43 eP      P       14 24 46.0 -0.4
SSF                                 pmax   pmax
      comp=Z,16nm,1.0s,mb4.7
SMF   Signal de Mont     85.50  43 eP      P       14 24 47.1 -0.2
      comp=Z,80nm,1.2s,mb5.0
SMF   Signal de Mont     85.50  43 eP      P       14 24 47.1 -0.2
      comp=Z,40nm,1.2s,mb5.0
SMF   Signal de Mont     85.50  43 eP      P       14 24 47.1 -0.2
SMF                                 pmax   pmax
      comp=Z,40nm,1.2s,mb5.0
LOR   Lormes             85.59  43 eP      P       14 24 47.4 -0.3
      comp=Z,35nm,0.8s,mb4.8
LOR   Lormes             85.59  43 eP      P       14 24 47.4 -0.3
      comp=Z,18nm,0.8s,mb4.8
LOR   Lormes             85.59  43 eP      P       14 24 47.4 -0.3
LOR                                 pmax   pmax
      comp=Z,17nm,0.8s,mb4.8
IMA2  Indian Mountai     85.67 337 eP      P       14 24 47.2 -0.5
VIVF  Saint-Julien-l     85.87  45 eP      P       14 24 49.5 +0.3
      comp=Z,13nm,0.8s,mb4.4
VIVF  Saint-Julien-l     85.87  45 eP      P       14 24 49.5 +0.3
      comp=Z,6.6nm,0.8s,mb4.4
VIVF  Saint-Julien-l     85.87  45 eP      P       14 24 49.5 +0.3
VIVF                                pmax   pmax
      comp=Z,7.0nm,0.8s,mb4.4
TTA   Tatalina           85.97 333 eP      P       14 24 47.5 -1.7
      comp=Z,3.6nm,1.0s,mb4.1
TTA   Tatalina           85.97 333 eP      P       14 24 47.5 -1.7
TTA                                 pmax   pmax
      comp=Z,4.0nm,1.0s,mb4.1
BAIF  Baives             86.16  40 eP      P       14 24 50.5  0.0
      comp=Z,35nm,1.0s,mb4.8
BAIF  Baives             86.16  40 eP      P       14 24 50.5  0.0
      comp=Z,17nm,1.0s,mb4.7
BAIF  Baives             86.16  40 eP      P       14 24 50.5  0.0
BAIF                                pmax   pmax
      comp=Z,17nm,1.0s,mb4.7
SNF   Seneffe            86.27  39  P      P       14 24 51.3 +0.3
      comp=Z,11nm,1.0s,mb4.5
DOU   Dourbes            86.41  40  P      P       14 24 51.7  0.0
      comp=Z,14nm,1.0s,mb4.7
SMRF  Simiane la Rot     86.42  46 eP      P       14 24 52.3 +0.4
MEZF  Maizieres J'vi     86.53  41 eP      P       14 24 52.4 +0.1
      comp=Z,46nm,0.6s,mb5.2
MEZF  Maizieres J'vi     86.53  41 eP      P       14 24 52.4 +0.1
      comp=Z,46nm,0.6s,mb5.5
GIVF  Givet              86.56  40 eP      P       14 24 52.8 +0.4
      comp=Z,147nm,1.0s,mb5.5
GIVF  Givet              86.56  40 eP      P       14 24 52.8 +0.4
      comp=Z,74nm,1.0s,mb5.5
GIVF  Givet              86.56  40 eP      P       14 24 52.8 +0.4
GIVF                                pmax   pmax
      comp=Z,74nm,1.0s,mb5.5
ORIF  Oris-en-Rattie     86.73  45 eP      P       14 24 54.0 +0.6
      comp=Z,29nm,0.9s,mb4.8
ORIF  Oris-en-Rattie     86.73  45 eP      P       14 24 54.0 +0.6
      comp=Z,14nm,0.9s,mb4.8
ORIF  Oris-en-Rattie     86.73  45 eP      P       14 24 54.0 +0.6
ORIF                                pmax   pmax
      comp=Z,14nm,0.9s,mb4.8
BCLA  Clavier            86.90  40  P      P       14 24 54.4 +0.3
      comp=Z,8.8nm,1.0s,mb4.5
CABF  La Chapelle        87.04  43 eP      P       14 24 54.9 +0.1
      comp=Z,30nm,0.8s,mb4.8
CABF  La Chapelle        87.04  43 eP      P       14 24 54.9 +0.1
      comp=Z,15nm,0.8s,mb4.9
CABF  La Chapelle        87.04  43 eP      P       14 24 54.9 +0.1
CABF                                pmax   pmax
      comp=Z,15nm,0.8s,mb4.9
LMR   La Mourre          87.04  47 eP      P       14 24 54.7 -0.2
      comp=Z,16nm,0.8s,mb4.6
LMR   La Mourre          87.04  47 eP      P       14 24 54.7 -0.2
      comp=Z,7.9nm,0.8s,mb4.6
LMR   La Mourre          87.04  47 eP      P       14 24 54.7 -0.2
LMR                                 pmax   pmax
      comp=Z,8.0nm,0.8s,mb4.6
THEF  They Montfort      87.12  42 eP      P       14 24 55.1 -0.1
FRF   La Foret Royal     87.16  46 eP      P       14 24 55.2 -0.3
      comp=Z,41nm,0.7s,mb5.0
FRF   La Foret Royal     87.16  46 eP      P       14 24 55.2 -0.3
      comp=Z,21nm,0.7s,mb5.1
FRF   La Foret Royal     87.16  46 eP      P       14 24 55.2 -0.3
FRF                                 pmax   pmax
      comp=Z,21nm,0.7s,mb5.1
HAU   Haudompre          87.34  42 eP      P       14 24 56.0 -0.2
      comp=Z,11nm,0.4s,mb4.7
HAU   Haudompre          87.34  42 eP      P       14 24 56.0 -0.2
      comp=Z,5.6nm,0.4s,mb4.8
HAU   Haudompre          87.34  42 eP      P       14 24 56.0 -0.2
HAU                                 pmax   pmax
      comp=Z,6.0nm,0.4s,mb4.8
MBDF  Montbardon         87.34  45 eP      P       14 24 56.7 +0.4
      comp=Z,5.4nm,0.7s,mb4.2
MBDF  Montbardon         87.34  45 eP      P       14 24 56.7 +0.4
      comp=Z,2.7nm,0.7s,mb4.2
MBDF  Montbardon         87.34  45 eP      P       14 24 56.7 +0.4
MBDF                                pmax   pmax
      comp=Z,3.0nm,0.7s,mb4.2
CALN  Calern             87.35  46 eP      P       14 24 56.4  0.0
MEM   Membach            87.37  39  P      P       14 24 56.8 +0.5
      comp=Z,18nm,1.5s,mb4.7
WLF   Walferdange        87.37  40  P      P       14 24 57.1 +0.7
      comp=Z,19nm,0.9s,mb4.9
LPL   La Plagne          87.39  44 eP      P       14 24 57.2 +0.7
LPG   La Plagne          87.40  45 eP      P       14 24 57.4 +0.8
      comp=Z,12nm,0.7s,mb4.5
LPG   La Plagne          87.40  45 eP      P       14 24 57.4 +0.8
      comp=Z,5.8nm,0.7s,mb4.5
LPG   La Plagne          87.40  45 eP      P       14 24 57.4 +0.8
LPG                                 pmax   pmax
      comp=Z,6.0nm,0.7s,mb4.5
MVIF  Mont Vial          87.55  46 eP      P       14 24 57.0 -0.3
TOUF  Mont Tournerai     87.63  46 eP      P       14 24 57.5 -0.2
HINF  Hinteralfeld       87.66  42 eP      P       14 24 57.3 -0.5
      comp=Z,8.5nm,0.6s,mb4.4
HINF  Hinteralfeld       87.66  42 eP      P       14 24 57.3 -0.5
      comp=Z,4.3nm,0.6s,mb4.5
HINF  Hinteralfeld       87.66  42 eP      P       14 24 57.3 -0.5
HINF                                pmax   pmax
      comp=Z,4.0nm,0.6s,mb4.4
LUCF  Luceram            87.69  46 eP      P       14 24 57.7 -0.3
SBF   Sospel             87.75  46 eP      P       14 24 58.0 -0.3
      comp=Z,40nm,0.7s,mb5.0
SBF   Sospel             87.75  46 eP      P       14 24 58.0 -0.3
      comp=Z,20nm,0.7s,mb5.1
SBF   Sospel             87.75  46 eP      P       14 24 58.0 -0.3
SBF                                 pmax   pmax
      comp=Z,20nm,0.7s,mb5.1
SAOF  Saorge             87.85  46 eP      P       14 24 58.2 -0.5
ECH   Echery             87.90  42 eP      P       14 24 58.6 -0.3
RUP   Ruppelstein        87.96  40 eP      P       14 25 00.3 +1.2
CDF   Champ du Feu       88.00  42 eP      P       14 24 59.3  0.0
      comp=Z,42nm,0.8s,mb5.0
CDF   Champ du Feu       88.00  42 eP      P       14 24 59.3  0.0
      comp=Z,21nm,0.8s,mb5.0
CDF   Champ du Feu       88.00  42 eP      P       14 24 59.3  0.0
CDF                                 pmax   pmax
      comp=Z,21nm,0.8s,mb5.0
QSPA  South Pole Qui     88.48 180 eP      P       14 25 02.0 +0.9
      comp=Z,18nm,1.1s,mb4.8
QSPA                               epP     pP      14 25 40.6  0.0
KEST  Kesra              88.72  54  P      P       14 25 03.2 +0.2
      comp=Z,6.1nm,0.7s,mb4.6,baz=275,slow=4.4,SNR=13
PGF   Pioggiola          88.81  48 eP      P       14 25 03.0 -0.3
      comp=Z,14nm,0.8s,mb4.6
PGF   Pioggiola          88.81  48 eP      P       14 25 03.0 -0.3
      comp=Z,6.8nm,0.8s,mb4.6
PGF   Pioggiola          88.81  48 eP      P       14 25 03.0 -0.3
PGF                                 pmax   pmax
      comp=Z,7.0nm,0.8s,mb4.6
VSL   Villasalto         88.93  51 eP      P       14 25 03.6 -0.3
      comp=Z,42nm,0.8s,mb5.4
NB2   NORSAR Subarra     90.97  29  P      P       14 25 13.5 +0.6
      comp=Z,1.0nm,0.6s,mb4.0,baz=273,slow=4.6
NOA   NORSAR Array B     90.97  29  P      P       14 25 12.2 -0.8
      comp=Z,1.0nm,0.6s,mb4.0,baz=272,slow=4.7,SNR=3.9
NKC   Novy Kostel        91.46  40 eP      P       14 25 16.3 +0.8
CLL   Collm              91.82  39 i P     P       14 25 17.6 +0.5
CLL                                 pmax   pmax
      comp=Z,10.0nm,1.1s,mb4.8
CLL   Collm              91.82  39 i P     P       14 25 17.6 +0.5
      comp=Z,10.0nm,1.1s,mb4.8
KHC   Kasperske Hory     92.19  41 eP      P       14 25 19.2 +0.3
GERES GERESS Array B     92.27  41  P      P       14 25 18.5 -0.7
      comp=Z,2.5nm,0.7s,mb4.4,baz=253,slow=4.1,SNR=15
VOJS  Vojsko             92.41  44 i P     P       14 25 20.2 +0.3
BRG   Berggiesshubel     92.42  39 eP      P       14 25 20.4 +0.5
BRG                                 pmax   pmax
      comp=Z,9.0nm,1.0s,mb4.8
BRG   Berggiesshubel     92.42  39 eP      P       14 25 20.4 +0.6
      comp=Z,14nm,1.0s,mb5.0
SKDS  Skadanscina        92.50  45 i P     P       14 25 22.7 +2.4
JAVS  Javornik           92.53  44 i P     P       14 25 20.8 +0.3
CEY   Cerknica           92.79  44 i P     P       14 25 23.0 +1.3
PRU   Pruhonice          92.81  40 eP      P       14 25 22.2 +0.5
PVCC  Panska Ves         92.82  40 eP      P       14 25 21.6 -0.1
TREC  Trest              93.44  41 eP      P       14 25 25.3 +0.7
UPC   Upice              93.74  40 eP      P       14 25 26.9 +0.9
DPC   Dobruska-Polom     93.94  40 eP      P       14 25 28.3 +1.4
ZST   Bratislava         94.55  42 eP      P       14 25 30.2 +0.5
VYHS  Vyhne              95.69  42 eP      P       14 25 35.6 +0.7
      comp=Z,5.0nm,1.2s,mb4.7
VYHS  Vyhne              95.69  42 eP      P       14 25 35.6 +0.7
VYHS                                pmax   pmax
      comp=Z,5.0nm,1.2s,mb4.7
ARCES ARCESS Array B     96.17  20  P      P       14 25 36.1 -0.6
      comp=Z,5.6nm,1.0s,mb4.8,baz=276,slow=3.5,SNR=5.0
KECS  Kecovo             96.78  42 eP      P       14 25 41.0 +1.1
      comp=Z,3.9nm,1.3s,mb4.6
KECS  Kecovo             96.78  42 eP      P       14 25 41.0 +1.1
KECS                                pmax   pmax
      comp=Z,4.0nm,1.3s,mb4.6
FINES FINESS Array B     98.08  28  P      P       14 25 44.8 -0.6
      comp=Z,1.3nm,0.7s,mb4.5,baz=299,slow=3.9,SNR=4.4
ZALV  Zalesovo Beam     125.91  12  PKP    PKPdf   14 31 09.8 -0.4
ZALV                                pPKP   pPKPdf  14 31 51.2 -0.6
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ZALV	**Zalesovo Beam**	**125.91**	**12**	PKP	PKPdf	14 31 09.8	-0.4
	comp=Z,2.3nm,0.5s,baz=273,slow=3.1,SNR=12						
ZALV				pPKP	pPKPdf	14 31 51.2	-0.6
	comp=Z,1.5nm,0.7s,baz=289,slow=4.5,SNR=3.1						
ZAL	**Zalesovo**	**125.91**	**13**	PKIKP	PKPdf	14 31 09.8	-0.4
ZAL						14 31 51.2	
KURK	**Kurchatov**	**127.17**	**18**	*i* PKIKP	PKPdf	14 31 11.3	-1.4
STKA	**Stephens Creek**	**129.90**	**225**	*e*P	PKPdf	14 31 18.1	-0.4
	comp=Z,5.5nm,0.9s						
STKA	**Stephens Creek**	**129.90**	**225**	PKP	PKPdf	14 31 18.3	-0.2
	comp=Z,5.9nm,0.8s,baz=102,slow=3.6,SNR=11						
MDJ	**Mudanjiang**	**130.71**	**334**	PKP	PKPdf	14 31 18.8	-0.8
VLA	**Vladivostok**	**130.81**	**331**	*i* PKIKP	PKPdf	14 31 15.3	-4.6
ZAK	**Zakamensk**	**131.37**	**359**	*e*PKIKP	PKPdf	14 31 21.1	+0.4
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.7s						
MKAR	**Makanchi Array**	**131.78**	**18**	PKP	PKPdf	14 31 21.3	-0.3
MKAR				pPKP	pPKPdf	14 32 02.1	-1.0
MKAR				SKPbc	SKPbc	14 34 33.1	+0.2
MKAR	**Makanchi Array**	**131.78**	**18**	PKIKP	PKPdf	14 31 21.3	-0.3
MKAR						14 32 02.1	
MKAR	**Makanchi Array**	**131.78**	**18**	PKP	PKPdf	14 31 21.3	-0.3
	comp=Z,0.5nm,0.4s,baz=315,slow=2.4,SNR=8.6						
MKAR				pPKP	pPKPdf	14 32 02.1	-1.0
	comp=Z,0.2nm,0.3s,baz=0.0,slow=1.5,SNR=2.2						
MKAR				SKPbc	SKPbc	14 34 33.1	+0.2
	comp=Z,0.4nm,0.5s,baz=347,slow=2.6,SNR=6.5						
AAK	**Ala-Archa**	**132.26**	**27**	*i* PKIKP	PKPdf	14 31 20.2	-2.5
ULN	**Ulaanbaatar**	**133.69**	**355**	*i* PKIKP	PKPdf	14 31 23.6	-1.6
SONM	**Songino Array**	**133.77**	**356**	PKP	PKPdf	14 31 24.8	-0.6
SONM				pPKP	pPKPdf	14 32 06.7	-0.1
SONM				SKPbc	SKPbc	14 34 40.1	+0.3
SONM	**Songino Array**	**133.77**	**356**	PKIKP	PKPdf	14 31 24.8	-0.5
SONM						14 32 06.7	
SONM	**Songino Array**	**133.77**	**356**	PKP	PKPdf	14 31 24.8	-0.6
	comp=Z,1.1nm,0.7s,baz=332,slow=1.1,SNR=12						
SONM				pPKP	pPKPdf	14 32 06.7	-0.1
	comp=Z,0.5nm,0.7s,baz=96,slow=1.5,SNR=2.1						
SONM				SKPbc	SKPbc	14 34 40.1	+0.3
	comp=Z,2.8nm,1.1s,baz=358,slow=1.4,SNR=11						
WMQ	**Urumqi**	**136.04**	**15**	*e*PKP	PKPdf	14 31 26.8	-2.9
KSRS	**Korea Array**	**137.08**	**329**	PKP	PKPdf	14 31 31.4	-0.4
	comp=Z,8.5nm,0.9s,baz=14,slow=1.5,SNR=16						
HHC	**Hu-ho-hao-te**	**139.97**	**349**	*e*PKP	PKPdf	14 31 37.3	+0.3
HHC				XPKP		14 32 36.3	
HHC				PP	PP	14 34 38.8	+4.9
HHC				PKS		14 35 11.6	
HHC				SKS	SKSdf	14 38 29.0	-3.8
HHC				SKKS	SKKSac	14 41 09.9	-3.6
HHC				SS	SS	14 52 42.0	-0.1
HHC				PP	PP		
	comp=Z,226nm,10.1s						
ASAR	**Alice Springs**	**140.13**	**229**	PKP	PKPdf	14 31 29.0	-8.8
ASAR				PKP	PKPdf	14 31 37.5	-0.3
ASAR				pPKP	pPKPdf	14 32 18.6	-0.8
ASAR				SKPbc	SKPbc	14 34 58.1	-1.3
ASAR	**Alice Springs**	**140.13**	**229**	PKHKP		14 31 29.0	
ASAR						14 31 37.6	
ASAR						14 32 18.6	
ASAR	**Alice Springs**	**140.13**	**229**	PKhKP		14 31 29.0	
	comp=Z,1.8nm,0.8s,baz=120,slow=3.4,SNR=16						
ASAR				PKP	PKPdf	14 31 37.5	-0.3
	comp=Z,7.7nm,1.0s,baz=118,slow=1.8,SNR=23						
ASAR				pPKP	pPKPdf	14 32 18.6	-0.8
	comp=Z,1.6nm,1.0s,baz=153,slow=1.7,SNR=1.7						
ASAR				SKPbc	SKPbc	14 34 58.1	-1.3
	comp=Z,1.1nm,1.1s,baz=123,slow=3.4,SNR=4.0						
WB2	**Warramunga Arr**	**141.77**	**234**	*e*P	PKPdf	14 31 34.5	-6.3
WRA	**Warramunga Arr**	**141.78**	**234**	PKP	PKPdf	14 31 34.2	-6.7
WRA				PKP	PKPdf	14 31 39.8	-1.0
WRA				SKPbc	SKPbc	14 35 00.9	-2.8
WRA	**Warramunga Arr**	**141.78**	**234**	PKHKP		14 31 34.2	
WRA						14 31 39.8	
WRA	**Warramunga Arr**	**141.78**	**234**	PKhKP		14 31 34.2	
	comp=Z,4.1nm,0.8s,baz=122,slow=2.9,SNR=43						
WRA				PKP	PKPdf	14 31 39.8	-1.0
	comp=Z,6.5nm,0.7s,baz=110,slow=1.9,SNR=34						
WRA				SKPbc	SKPbc	14 35 00.9	-2.8
	comp=Z,1.3nm,1.0s,baz=123,slow=2.6,SNR=5.7						
GTA	**Gaotai**	**142.29**	**3**	*e*PKP	PKPdf	14 31 38.3	-2.9
GTA				APKP		14 32 20.3	
GTA				XPKP		14 32 41.4	
GTA				PP	PP	14 34 49.4	+1.5
GTA				PKS		14 35 12.6	
GTA				PPP		14 38 00.8	
GTA				SKS	SKSdf	14 38 30.3	-6.3
GTA				SKKS	SKKSac	14 41 22.3	-4.7
GTA				SS	SS	14 53 09.4	+0.4
GTA				PP	PP		
	comp=Z,102nm,6.8s						
GTA				LR	LR		
	comp=N,124nm,16.4s						
GTA				LR	LR		
	comp=E,146nm,16.0s						
GTA				LR	LR		
	comp=Z,99nm,16.4s						
JOW	**Kunigami**	**144.45**	**317**	PKP	PKPdf	14 31 44.0	-1.4
JOW	**Kunigami**	**144.45**	**317**	PKP	PKPdf	14 31 44.0	-1.4
	comp=Z,33nm,0.6s,baz=291,slow=26,SNR=7.7						
SSE	**Sheshan**	**145.51**	**330**	PKP	PKPdf	14 31 46.3	-0.8
SSE	**Sheshan**	**145.51**	**330**	P	PKPdf	14 31 46.2	-0.9
LZH	**Lanzhou**	**145.63**	**357**	⇓PKP	PKPdf	14 31 48.0	+0.8
LZH				APKP		14 32 30.0	
LZH				XPKP		14 32 47.5	
LZH				PP	PP	14 35 13.0	+5.2
LZH				SKKS	SKKSac	14 41 45.3	-0.8
LZH				*e*SS	SS	14 53 47.6	+0.4
LZH				PP	PP		
	comp=Z,140nm,4.2s						
LZH				LR	LR		
	comp=N,256nm,19.5s						
LZH				LR	LR		
	comp=Z,368nm,20.4s						
LZH	**Lanzhou**	**145.63**	**357**	⇓PKP	PKPdf	14 31 48.0	+0.8
LZH				pPKP	pPKPdf	14 32 30.0	+1.3
LZH				sPKP		14 32 47.5	
LZH				PP	PP	14 35 13.0	+5.2
LZH				SKKS	SKKSac	14 41 45.2	-0.9
LZH				*e*SS	SS	14 53 47.6	+0.4
LZH				LR	LR		
	comp=Z,370nm,20.4s						
LZH	**Lanzhou**	**145.63**	**357**	⇓PKP2	PKPab	14 31 48.0	-0.1
LZH						14 35 13.0	
LZH				*e*SS	SS	14 53 47.6	+0.4
LZH				MLR	MLR		
	comp=Z,370nm,20.4s						
NJ2	**Nanjing**	**145.80**	**334**	*e*PKP	PKPdf	14 31 48.1	+0.5
KAKA	**Kakadu**	**146.66**	**244**	*e*P	PKPdf	14 31 48.1	-1.4
	comp=Z,45nm,1.0s						
XAN	**Xi’an**	**147.07**	**349**	PKP	PKPdf	14 31 49.6	-0.1
GKN	**Gorkha**	**148.89**	**31**	*e*P	PKPdf	14 31 52.8	0.0
	comp=Z,29nm,0.7s						
WHN	**Wuhan**	**148.92**	**339**	⇓PKP	PKPdf	14 31 55.5	+2.7
KKN	**Kakani**	**149.39**	**30**	*e*P	PKPdf	14 31 52.5	-1.1
	comp=Z,25nm,0.6s						
FITZ	**Fitzroy Crossi**	**149.64**	**229**	*e*P	PKPdf	14 31 53.9	-0.4
	comp=Z,31nm,0.8s						
FITZ	**Fitzroy Crossi**	**149.64**	**229**	PKP	PKPdf	14 31 53.4	-0.8
	comp=Z,18nm,0.8s,baz=177,slow=2.3,SNR=9.4						
FITZ				PKPbc	PKPbc	14 31 58.1	-0.9
	comp=Z,18nm,0.8s,baz=156,slow=2.5,SNR=31						
FITZ				PKPab	PKPab	14 32 04.6	+0.1
	comp=Z,11nm,0.7s,baz=156,slow=7.1,SNR=15						
JIRN	**Jiri**	**149.95**	**29**	*e*P	PKPdf	14 31 54.7	+0.2
	comp=Z,23nm,1.1s						
LSA	**Lhasa**	**150.18**	**19**	*e*PKPdf	PKPdf	14 31 55.9	+1.0
LSA				*e*PKPbc	PKPbc	14 32 00.8	+0.8
LSA	**Lhasa**	**150.18**	**19**	*e*PKIKP	PKPdf	14 31 55.9	+1.1
CD2	**Chengdu**	**150.78**	**357**	*e*PKP	PKPdf	14 31 55.5	-0.2
CD2				PKP2	PKPab	14 32 06.8	-2.1
CD2				APKP		14 32 44.0	
CD2				XPKP		14 32 58.0	
CD2				PP	PP	14 35 38.1	+0.2
CD2				SKS	SKSdf	14 38 42.0	-7.0
CD2				SKKS	SKKSac	14 42 09.3	-5.7
CD2				SS	SS	14 54 42.0	-3.0
CD2				PP	PP		
	comp=Z,80nm,10.4s						
CD2				LR	LR		
	comp=N,120nm,26.4s						
CD2				LR	LR		
	comp=Z,100nm,24.2s						
TAPN	**Taplejung**	**150.92**	**27**	*e*P	PKPdf	14 31 56.4	+0.4
	comp=Z,16nm,0.7s						
ODAN	**Odare**	**151.19**	**28**	*e*P	PKPdf	14 31 56.5	0.0
	comp=Z,19nm,0.7s						
HYB	**Hyderabad**	**152.06**	**54**	*e*P	PKPab	14 32 14.0	-0.7
HYB	**Hyderabad**	**152.06**	**54**	*i* PKP	PKPab	14 32 14.0	-0.7
GYA	**Guiyang**	**154.87**	**350**	*i* PKP	PKPdf	14 31 59.3	-2.5
GYA				APKP		14 32 48.8	
GYA				PKS		14 35 32.4	
GYA				PP	PP	14 36 03.0	+2.0
GYA				SKS	SKSdf	14 38 45.6	-8.5
GYA				SKKS	SKKSac	14 42 30.8	-6.5
GYA				PP	PP		
	comp=Z,120nm,8.0s						
GYA				LR	LR		
	comp=N,214nm,21.9s						
GYA				LR	LR		
	comp=E,290nm,22.0s						
GYA				LR	LR		
	comp=Z,360nm,21.8s						
KMI	**Kunming**	**156.59**	**358**	PKP	PKPdf	14 32 03.0	-1.1
KMI	**Kunming**	**156.59**	**358**	PKIKP	PKPdf	14 32 03.0	-1.1
PSI	**Prapat**	**176.65**	**69**	PKPab	PKPab	14 34 01.9	-0.8
	comp=Z,1.8nm,0.3s,baz=144,slow=1.7,SNR=4.1						

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*NEIC **23** 14:21:54.6, 1687N×10034W, h10^{km}, MD3.6(MEX), After MEX.*

MEX 23 14:21:53.0±0.6**, 1682N**×**10028W, h9**^{km}±3^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	**0.23**	**3**	*i* P	Pg	14 21 57.5	-0.1
CAIG				*i* S	Sg	14 22 00.5	-0.3
CAIG	**El Cayaco**	**0.23**	**3**	*i* P	Pg	14 21 57.5	-0.1
CAIG				*i* S	Sg	14 22 00.4	-0.4
ACX	**Acapulco**	**0.35**	**82**	*i* P	Pg	14 21 59.3	-0.6
ACX				*i* S	Sg	14 22 05.0	+0.3
MEIG	**Mezcala**	**1.27**	**30**	*e*P	Pn	14 22 13.5	-3.3
MEIG				*i* S	Sb	14 22 29.1	-4.4
PLIG	**Platanillo**	**1.73**	**25**	*i* P	Pn	14 22 22.2	-1.0
PLIG				*i* S	Sn	14 22 43.5	-1.9
PLIG	**Platanillo**	**1.73**	**25**	*i* P	Pn	14 22 18.3	-4.9
PLIG				*i* S	Sn	14 22 40.1	-5.4
UTMO	**Huajuapan**	**2.57**	**67**	*i* P	Pn	14 22 31.8	-3.0
UTMO				*i* S	Sn	14 23 01.8	-4.4
PPM	**Popocatepetl**	**2.73**	**35**	*i* P	Pn	14 22 33.3	-3.8
PPM				*i* S	Sn	14 23 08.6	-1.6
PPM	**Popocatepetl**	**2.73**	**35**	*i* P	Pn	14 22 35.5	-1.6
PPM				*i* S	Sn	14 23 07.0	-3.2

IDC 23 14:25:32.0±2.0**, 089S**×**12789E, h0**^{km}**, mb3.3**/2**, mb1 3.5**/3**, mb1mx3.4**/16**, mbtmp3.3**/3**, ML3.2**/1**, Error ellipse: s-maj=156.0km s-min=25.3km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.96**	**162**	P	Pn	14 30 06.2	-1.4
	0.1nm,0.3s,baz=341,slow=12,SNR=8.6						
ASAR	**Alice Springs**	**23.39**	**166**	P	P	14 30 42.5	-0.1
	0.7nm,0.8s,baz=347,slow=12,SNR=12						
MKAR	**Makanchi Array**	**61.99**	**326**	P	P	14 35 54.0	+0.1
	0.1nm,0.4s,baz=113,slow=6.6,SNR=2.6						

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*ISCJB **23** 14:38:54.2±0.6, 12S±02×1272E±04, h10^{km}, mb4.0/10, Error ellipse: s-maj=55.3km s-min=10.7km az=158.6*

*IDC **23** 14:38:55.0±1.3, 1.13S×12722E, h0^{km}, mb3.8/5, mb1 3.9/6, mb1mx3.8/17, mbtmp3.8/6, Error ellipse: s-maj=211.9km s-min=18.2km az=68.0*

*NEIC **23** 14:38:56.4±0.5, 120S×127.12E, h10^{km}, mb4.3/6, Error ellipse: s-maj=44.1km s-min=8.4km az=68.0*

ISC 23 14:38:56.2±0.6**, 12S**±02×**1272E**±04**, h10**^{km}**, n13,** σ1^{s}**02**/13**, mb4.0**/10**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.86**	**160**	P	**Pn**	**14 43 28.4**	**-0.8**
	0.3nm,0.3s,baz=342,slow=13,SNR=24						
WB2	**Warramunga Arr**	**19.86**	**160**	*e*P	**Pn**	**14 43 27.7**	**-1.5**
ASAR	**Alice Springs**	**23.22**	**164**	P	**P**	**14 44 04.5**	**+0.8**
	2.0nm,0.8s,mb3.6,baz=347,slow=10,SNR=16						
STKA	**Stephens Creek**	**33.37**	**157**	*e*P	**P**	**14 45 36.6**	**+1.9**
	3.8nm,0.9s,mb4.3						
STKA	**Stephens Creek**	**33.37**	**157**	P	**P**	**14 45 36.8**	**+2.1**
	2.4nm,0.8s,mb4.2,baz=320,slow=8.6,SNR=4.7						
ULN	**Ulaanbaatar**	**51.97**	**343**	P	**P**	**14 48 05.7**	**+0.2**
	1.4nm,0.6s,mb4.1						
SONM	**Songino Array**	**52.13**	**342**	P	**P**	**14 48 06.4**	**-0.2**
	1.0nm,1.1s,mb3.7,baz=157,slow=8.7,SNR=4.1						
MKAR	**Makanchi Array**	**61.90**	**327**	P	**P**	**14 49 16.4**	**+0.4**
	1.2nm,0.6s,mb4.2,baz=119,slow=8.5,SNR=18						
MA2	**Magadan**	**63.40**	**13**	*e*P	**P**	**14 49 25.9**	**+0.2**
	2.5nm,0.7s,mb4.5						
UCH	**Uchtor**	**64.16**	**319**	*e*P	**P**	**14 49 32.8**	**+1.7**
	1.5nm,0.8s,mb4.1						
EKS2	**Erkin-Say**	**64.85**	**319**	*e*P	**P**	**14 49 34.5**	**-1.0**
	1.8nm,0.9s,mb4.1						
ZALV	**Zalesovo Beam**	**65.21**	**334**	P	**P**	**14 49 36.6**	**-1.1**
	0.5nm,0.5s,mb3.8,baz=101,slow=4.6,SNR=3.3						
KURK	**Kurchatov**	**66.17**	**329**	*e*P	**P**	**14 49 43.5**	**-0.4**
	2.7nm,0.9s,mb4.3						

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*NEIC **23** 14:39:04.0, 4448N×114.14W, h8^{km}, ML3.1(BUT), After BUT.*

NEIC Felt in the epicentral area.

*ISCJB **23** 14:39:05.7±0.2, 4452N±001×114.15W±002, h10^{km}, Error ellipse: s-maj=2.1km s-min=1.7km az=29.3*

ISC 23 14:39:06.3±0.2**, 4451N**±001×**11414W**±002**, h10**^{km}**, n72,** σ1^{s}**13**/117**, 35C-34D, Western Idaho**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
H13A	**Challis**	**0.10**	**301**	P	**Pg**	**14 39 07.0**	**-1.9**
	baz=0.1,SNR=1000						
H13A				⇑S	**Sg**	**14 39 08.9**	**-1.8**
	baz=0.1						
H12A	**Diamond D Ranc**	**0.52**	**274**	P	**Pg**	**14 39 14.8**	**-1.5**
	baz=0.5,SNR=422						
H12A				⇑S	**Sg**	**14 39 21.9**	**-1.2**
	baz=0.5						
G13A	**Cobalt**	**0.58**	**353**	P	**Pg**	**14 39 16.6**	**-1.0**
	baz=0.6,SNR=1000						
G13A				⇑S	**Sg**	**14 39 24.3**	**-1.0**
	baz=0.6						
I13A	**Wildhorse Cree**	**0.60**	**179**	⇓P	**Pg**	**14 39 15.9**	**-2.0**
	baz=0.6						
I13A				⇓S	**Sg**	**14 39 23.9**	**-1.8**
	baz=0.6						
G14A	**Jackson**	**0.87**	**33**	P	**Pg**	**14 39 22.2**	**-0.8**
	baz=0.9,SNR=141						
G14A				⇑S	**Sg**	**14 39 33.7**	**-0.8**
	baz=0.9						
MCMT	**McKenzie Canyo**	**0.97**	**71**	*e*Pg	**Pg**	**14 39 23.2**	**-1.7**
HLID	**Hailey**	**0.97**	**192**	*e*Pg	**Pg**	**14 39 22.4**	**-2.6**
HLID				*e*Sg	**Sg**	**14 39 35.8**	**-1.8**
J13A	**Cove Ranch, Pi**	**1.11**	**181**	⇑P	**Pb**	**14 39 25.7**	**-1.9**
	baz=1.1						
J13A				⇑S	**Sb**	**14 39 40.9**	**-1.2**
	baz=1.1						
F13A	**Darby**	**1.28**	**354**	P	**Pn**	**14 39 29.3**	**-0.9**
	baz=1.3,SNR=508						
F13A				⇓S	**Sb**	**14 39 46.1**	**-0.9**
	baz=1.3						
G15A	**Dillon**	**1.34**	**60**	⇑P	**Pn**	**14 39 30.1**	**-0.9**
	baz=1.4						
G15A				⇑S	**Sb**	**14 39 47.9**	**-0.7**
	baz=1.4						
H11A	**Donnelly**	**1.35**	**279**	⇑P	**Pn**	**14 39 30.2**	**-1.0**
	baz=1.4,SNR=136						
H11A				⇓S	**Sb**	**14 39 48.2**	**-0.8**
	baz=1.4						
DLMT	**Dillon**	**1.38**	**52**	*e*Pn	**Pn**	**14 39 31.1**	**-0.5**
DLMT				*e*Sn	**Sn**	**14 39 49.7**	**-0.2**
F14A	**Wisdom**	**1.41**	**22**	⇓P	**Pn**	**14 39 31.7**	**-0.2**
	baz=1.4,SNR=246						
F14A				⇑S	**Sn**	**14 39 50.2**	**-0.3**
	baz=1.4						
I11A	**Placerville**	**1.44**	**246**	⇑P	**Pn**	**14 39 31.7**	**-0.7**
	baz=1.4,SNR=22						
I11A				⇓S	**Sn**	**14 39 51.2**	**-0.1**
	baz=1.4						
J12A	**Stokes Ranch,**	**1.44**	**209**	⇓P	**Pn**	**14 39 31.6**	**-0.8**
	baz=1.4,SNR=153						
J12A				⇓S	**Sn**	**14 39 49.9**	**-1.4**
	baz=1.4						
F12A	**Elk City**	**1.47**	**328**	P	**Pn**	**14 39 32.5**	**-0.3**
	baz=1.5,SNR=540						
F12A				⇑S	**Sn**	**14 39 52.7**	**+0.5**
	baz=1.5						
MFID	**Camas Ranch**	**1.64**	**229**	⇓P	**Pn**	**14 39 34.6**	**-0.6**
	baz=1.6,SNR=129						
MFID				⇑S	**Sn**	**14 39 56.9**	**+0.6**
	baz=1.6						
F15A	**Butte**	**1.76**	**41**	⇓P	**Pn**	**14 39 36.5**	**-0.4**
	baz=1.8,SNR=128						
F15A				⇓S	**Sn**	**14 40 00.1**	**+0.8**
	baz=1.8						
K13A	**Stover Farm, H**	**1.86**	**179**	⇑P	**Pn**	**14 39 37.8**	**-0.4**
	baz=1.8,SNR=20						
K13A				⇑S	**Sn**	**14 40 02.3**	**+0.6**
	baz=1.8						
H10A	**Noah’s Angus R**	**1.87**	**273**	⇓P	**Pn**	**14 39 37.9**	**-0.3**
	baz=1.9,SNR=101						
H10A				⇑S	**Sn**	**14 40 03.0**	**+1.1**
	baz=1.9						
E13A	**Victor**	**1.93**	**359**	P	**Pn**	**14 39 38.6**	**-0.5**
	baz=2.0,SNR=68						
E13A				⇓S	**Sn**	**14 40 04.5**	**+1.1**
	baz=2.0						
E14A	**Clinton**	**1.96**	**13**	⇓Pb	**Pb**	**14 39 41.8**	**-0.2**
	baz=2.0						
E14A				⇑S	**Sn**	**14 40 05.6**	**+1.5**
	baz=2.0						
QLMT	**Earthquake Lak**	**1.96**	**80**	*e*Pn	**Pn**	**14 39 40.2**	**+0.8**
QLMT				*e*Sn	**Sn**	**14 40 05.7**	**+1.6**
K12A	**Draper Farm, C**	**1.96**	**197**	⇑P	**Pn**	**14 39 39.2**	**-0.2**
	baz=1.9,SNR=78						
K12A				⇑S	**Sn**	**14 40 04.9**	**+0.8**
	baz=1.9						
I10A	**Payette**	**1.96**	**258**	⇑P	**Pn**	**14 39 39.4**	**-0.2**
	baz=1.9,SNR=23						
I10A				⇓S	**Sn**	**14 40 05.0**	**+0.8**
	baz=1.9						
K14A	**Jones Ranch, D**	**2.09**	**160**	⇑P	**Pn**	**14 39 41.3**	**0.0**
	baz=2.1,SNR=17						
K14A				⇓S	**Sn**	**14 40 08.1**	**+0.8**
	baz=2.1						
BOZ	**Bozeman (W)**	**2.11**	**57**	*e*Pn	**Pn**	**14 39 41.4**	**-0.1**
BOZ				*e*Sn	**Sn**	**14 40 08.1**	**+0.3**
BOZ	**Bozeman (W)**	**2.11**	**57**	⇑P	**Pn**	**14 39 40.6**	**-0.9**
	baz=2.1						
BOZ				⇑Sb	**Sb**	**14 40 11.5**	**+0.8**
	baz=2.1						
E15A	**Deer Lodge**	**2.18**	**28**	⇓P	**Pn**	**14 39 41.6**	**-0.9**
	baz=2.2,SNR=21						
J10A	**Berg Farm, Mel**	**2.19**	**241**	⇓S	**Sn**	**14 40 11.3**	**+1.5**
	baz=2.2						
YMR	**Madison River**	**2.27**	**85**	*e*Pn	**Pn**	**14 39 45.3**	**+1.6**
YMR				*e*Sn	**Sn**	**14 40 16.2**	**+4.4**
BMO	**Blue Mountains**	**2.29**	**280**	*e*Pn	**Pn**	**14 39 42.9**	**-1.1**
BMO				*e*Sn	**Sn**	**14 40 16.2**	**+4.0**
DCID1	**Drake Creek**	**2.32**	**112**	*e*Pn	**Pn**	**14 39 45.3**	**+0.8**
MSO	**Missoula**	**2.32**	**3**	*e*Pn	**Pn**	**14 39 38.6**	**-5.9**
MSO				*e*Sn	**Sn**	**14 40 11.8**	**-1.2**
E11A	**Bogner Ranch,**	**2.35**	**322**	⇓P	**Pn**	**14 39 44.5**	**-0.4**
	baz=2.4,SNR=52						
E11A				⇓S	**Sn**	**14 40 14.2**	**+0.4**
	baz=2.4						
YFT	**Old Faithful**	**2.36**	**90**	*e*Pg	**Pg**	**14 39 47.6**	**-4.0**
L13A	**Double Diamond**	**2.43**	**177**	⇓P	**Pn**	**14 39 47.1**	**+1.1**
	baz=2.4						
L12A	**House Creek Ra**	**2.45**	**196**	⇓P	**Pn**	**14 39 46.9**	**+0.6**
	baz=2.4,SNR=8.0						
YNR	**Norris Junctio**	**2.48**	**84**	*e*Pg	**Pg**	**14 39 51.3**	**-2.4**
YNR				*e*Sn	**Sn**	**14 40 22.3**	**+5.4**
CHMT	**Chamberlain Mo**	**2.48**	**14**	*e*Pn	**Pn**	**14 39 46.1**	**-0.5**
CHMT				*e*Sn	**Sn**	**14 40 19.2**	**+2.2**
H09A	**Durkee**	**2.53**	**275**	⇑P	**Pn**	**14 39 47.4**	**+0.1**
	baz=2.5						
MOOW	**Moose Ponds**	**2.56**	**106**	*e*Pn	**Pn**	**14 39 49.3**	**+1.6**
MOOW				*e*Sn	**Sn**	**14 40 19.0**	**+0.1**
D13A	**Huson**	**2.59**	**355**	⇓P	**Pn**	**14 39 48.0**	**-0.2**
	baz=2.6,SNR=20						
D14A	**Greenough**	**2.61**	**9**	⇑P	**Pn**	**14 39 47.9**	**-0.5**
	baz=2.6						
L11A	**Cat Creek Ranc**	**2.63**	**207**	⇓P	**Pn**	**14 39 48.6**	**0.0**
	baz=2.6,SNR=25						
L11A				⇓S	**Sn**	**14 40 22.3**	**+1.8**
	baz=2.6						
F10A	**Beach Ranch, E**	**2.63**	**305**	⇓S	**Sn**	**14 40 22.5**	**+1.9**
	baz=2.6						
REDW	**Red Top Meadow**	**2.64**	**115**	*e*Pn	**Pn**	**14 39 51.2**	**+2.4**
K10A	**MacKenzie Ranc**	**2.64**	**230**	⇓S	**Sn**	**14 40 21.0**	**+0.2**
	baz=2.6						
LOHW	**Long Hollow**	**2.70**	**108**	*e*Pn	**Pn**	**14 39 51.3**	**+1.6**
HRY	**Holter Researc**	**2.73**	**36**	*e*Pn	**Pn**	**14 39 49.3**	**-0.8**
HRY				*e*Pg	**Pg**	**14 39 56.1**	**-2.5**
HRY				*e*Sg	**Sg**	**14 40 30.6**	**-3.3**
D15A	**Lincoln**	**2.77**	**24**	⇓P	**Pn**	**14 39 50.0**	**-0.6**
	baz=2.8,SNR=16						
D15A				⇑S	**Sn**	**14 40 25.2**	**+1.1**
	baz=2.8						
J09A	**Fry Pan Ranch,**	**2.86**	**247**	⇑P	**Pn**	**14 39 51.9**	**-0.1**
	baz=2.8						
E10A	**Myers Farm, Un**	**2.88**	**314**	⇑S	**Sn**	**14 40 27.6**	**+0.9**
	baz=2.9						
HVU	**Hansel Valley**	**2.91**	**160**	*e*Pn	**Pn**	**14 39 54.8**	**+2.2**
HVU				*e*Sn	**Sn**	**14 40 33.9**	**+6.4**
L10A	**Juniper Basin**	**2.97**	**216**	⇑P	**Pn**	**14 39 53.9**	**+0.4**
	baz=2.9						
C13A	**Hot Springs**	**3.18**	**355**	⇑P	**Pn**	**14 39 56.4**	**+0.1**
	baz=3.2						
H08A	**Prairie City**	**3.24**	**272**	⇑S	**Sn**	**14 40 37.0**	**+1.1**
	baz=3.2						
I08A	**Drewsey**	**3.25**	**261**	⇓P	**Pn**	**14 39 57.2**	**0.0**
	baz=3.2						
J08A	**Circle Bar Ran**	**3.34**	**251**	⇓P	**Pn**	**14 39 58.6**	**+0.1**
	baz=3.3						
J08A				⇑S	**Sn**	**14 40 38.9**	**+0.7**
	baz=3.3						
D10A	**Wagner Farm, O**	**3.36**	**320**	⇓S	**Sn**	**14 40 39.3**	**+0.7**
	baz=3.4						
HWUT	**Hardware Ranch**	**3.46**	**146**	*e*Pn	**Pn**	**14 40 03.1**	**+3.0**
M10A	**I.L. Ranch, Tu**	**3.47**	**211**	⇓P	**Pn**	**14 40 01.1**	**+0.8**
	baz=3.4						
RLMT	**Red Lodge**	**3.52**	**78**	*e*Pg	**Pg**	**14 40 09.2**	**-4.5**
RLMT				*e*Sn	**Sg**	**14 40 53.8**	**-5.4**
K08A	**Mann Creek Ran**	**3.63**	**242**	⇑P	**Pn**	**14 40 02.5**	**0.0**
	baz=3.6,SNR=9.6						
ELK	**Elko**	**3.85**	**193**	Pn	**Pn**	**14 40 09.0**	**+3.5**
ELK				*e*Sg	**Sg**	**14 41 01.3**	**-8.6**
B11A	**Sandpoint**	**4.22**	**339**	⇓S	**Sn**	**14 41 00.8**	**+1.1**
	baz=4.2						
DUG	**Dugway**	**4.42**	**167**	*e*Pn	**Pn**	**14 40 15.1**	**+1.7**
E07A	**Sunnyside**	**4.51**	**299**	⇑S	**Sn**	**14 41 08.7**	**+1.7**
	baz=4.5						
WALA	**Waterton Lakes**	**4.55**	**2**	*e*Pn	**Pn**	**14 40 16.7**	**+1.6**
WALA				*e*Sg	**Sg**	**14 41 26.6**	**-5.6**
EGMT	**Eagleton**	**4.64**	**39**	*e*Pn	**Pn**	**14 40 15.9**	**-0.4**
EGMT				*e*Pg	**Pg**	**14 40 29.8**	**-5.3**
EGMT				*e*Sg	**Sg**	**14 41 30.7**	**-4.6**
EGMT	**Eagleton**	**4.64**	**39**	⇑S	**Sn**	**14 41 11.3**	**+1.0**
	baz=4.7						
A11A	**Hall Mountain,**	**4.70**	**342**	⇓S	**Sn**	**14 41 12.5**	**+0.8**
	baz=4.7						

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*MOS **23** 14:48:17.6±1.0, 1084N×6180W, h46^{km}, mb5.1/24, Error ellipse: s-maj=7.4km s-min=6.3km az=102.1*

*ISCJB **23** 14:48:17.8±0.1, 1082N±002×6178W±002, h50^{km}, mb4.8/73, MS4.3/7, Error ellipse: s-maj=3.1km s-min=2.8km az=21.9*

*LDG **23** 14:48:18.0±0.4, 1080N×6190W, h50^{km}, Mb4.7/11, Ms3.8/1, Error ellipse: s-maj=34.3km s-min=8.8km az=100.0*

*TRN **23** 14:48:20.3, 1070N×6149W, h59^{km}, MD4.8*

TRN Felt strongly in Port of Spain and some parts of Central and south Trinidad (III) & (IV). Also felt in Tobago and St. Vincent.

*NEIC **23** 14:48:20.0±0.2, 1082N×6167W, mb4.9/49, MD4.7(TRN), Error ellipse: s-maj=5.3km s-min=4.7km az=151.0*

NEIC Felt [IV] at Chaguanas, Couva, Port-of-Spain and San Juan; [III] at San Fernando and Tunapuna. Felt at Arima, Cunupia, Point Lisas, Tabaquite and Tacarigua. Felt on Tobago. Also felt at Upper Hopewell, St. Vincent.

*IDC **23** 14:48:20.3±0.5, 1096N×6160W, h52^{km}±3^{km}, mb4.3/21,* *mb1 4.5/24, mb1mx4.5/27, mbtmp4.4/24, MS3.8/8, Ms1 3.9/8, ms1mx3.6/30, Error ellipse: s-maj=10.4km s-min=8.5km az=151.0*

BJI ***23*** *14:48:20.0, 1080N×6170W, h49*^{km}*, mB5.5, Ms5.3, Msz5.0*

FUNV ***23*** *14:48:20.8, 1074N×6139W, h57*^{km}*, MW4.7*

ISC 23 14:48:20.0±0.1**, 1081N**±002×**6172W**±002**, h52**^{km}**,**
h52^{km}±1.5^{km}**:pP-P, n482,** σ1^{s}**05**/468**, mb4.8**/73**, MS4.3**/7**,**
78C-110D, Trinidad

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TCE	Chacachacare	0.12	198	⇑*i*P	Pn	14 48 30.9	+2.7
TCE				*e*S	Sn	14 48 36.9	+2.8
TRN	Trinidad (W)	0.35	118	⇑*i*P	Pn	14 48 28.9	-0.9
TRN				*e*S	Sn	14 48 33.9	-2.9
GUIV	Guiria	0.53	252	⇓*i*P	Pn	14 48 35.4	+3.7
GUIV				*e*S	Sn	14 48 46.4	+6.2
GUIV	Guiria	0.53	252	⇓*i*P	Pn	14 48 35.3	+3.6
GUIV				*e*S	Sn	14 48 46.1	+6.0
TPP	Pointe-a-Pierr	0.56	152	⇑*e*P	Pn	14 48 31.0	-1.1
ALNG	Atlantic LNG	0.63	178	⇑*i*P	Pn	14 48 34.6	+1.7
ALNG				*e*S	Sn	14 48 44.4	+2.1
TBH	Brigand Hill	0.72	117	⇑*i*P	Pn	14 48 32.5	-1.6
TPR	Prospect	0.99	68	⇓*i*P	Pn	14 48 36.3	-1.4
GRGR	Grenville	1.31	3	*e*Pn	Pn	14 48 42.5	+0.5
GRGR				*e*Sn	Sn	14 48 56.8	-1.6
GRW	Mount Saint Ca	1.34	2	⇑*i*P	Pn	14 48 44.5	+2.1
GUNV	Guanoco	1.37	242	⇓*e*P	Pn	14 48 47.0	+4.2
GUNV				*e*S	Sn	14 49 07.0	+7.1
ITEV	Isla Los Testi	1.49	291	⇑*e*P	Pn	14 48 48.0	+3.6
ITEV				*e*S	Sn	14 49 09.4	+6.5
CRUV	Carupano	1.50	265	⇓*i*P	Pn	14 48 47.8	+3.2
CRUV				*e*S	Sn	14 49 09.8	+6.7
CRUV	Carupano	1.50	265	⇓*i*P	Pn	14 48 47.8	+3.2
CRUV				*e*S	Sn	14 49 09.8	+6.7
FCV	Fort Charlotte	2.37	11	*e*P	Pn	14 48 58.9	+2.4
FCV				*e*S	Sn	14 49 28.3	+3.8
CAIV	Caiguire	2.44	262	⇓*i*P	Sn	14 49 43.2	+17
SVB	Belmont	2.48	10	*e*P	Pn	14 49 00.3	+2.3
SVB				*e*S	Sn	14 49 31.3	+4.1
BHS	Barnard House	2.53	13	*e*P	Pn	14 49 01.7	+3.0
SSV	Crater Summit	2.55	11	*e*P	Pn	14 49 01.0	+2.1
RIOV	Rio Grande	2.73	182	⇓*i*P	Pn	14 49 01.5	+0.1
RIOV				*e*S	Sn	14 49 30.5	-2.6
RIOV	Rio Grande	2.73	182	⇓*i*P	Pn	14 49 01.5	+0.2
RIOV				*e*S	Sn	14 49 30.7	-2.5
PCRV	Puerto La Cruz	2.94	258	⇓*i*P	Pn	14 49 07.8	+3.5
PCRV				*e*S	Sn	14 49 42.3	+3.9
PCRV	Puerto La Cruz	2.94	258	P	Pn	14 49 07.5	+3.2
	319nm,0.3s,baz=86,slow=4.2,SNR=517						
PCRV				S	Sn	14 49 42.8	+4.4
	83nm,0.3s,baz=238,slow=13,SNR=5.9						
PCRV				LR	LR	14 50 34.9	
	comp=Z,444nm,20.7s,baz=268,slow=44						
IBAV	Isla La Blanqu	2.98	290	⇑*e*P	Pn	14 49 08.3	+3.5
IBAV				*e*S	Sn	14 49 44.9	+5.5
IBAV	Isla La Blanqu	2.98	290	⇑*e*P	Pn	14 49 08.3	+3.4
BBGH	Gun Hill	3.13	42	*e*Pn	Pn	14 49 07.6	+0.7
SLW	Petit Monier	3.28	13	*e*P	Pn	14 49 10.1	+1.2
SLW				*e*S	Sn	14 49 48.0	+1.4
GURV	El Guri	3.32	204	⇓*i*P	Pn	14 49 10.1	+0.6
GURV				*e*S	Sn	14 49 46.8	-1.0
PRGV	PARIAGUAN	3.54	235	⇓*i*P	Pn	14 49 15.0	+2.6
PRGV				*e*S	Sn	14 49 56.8	+3.8
BIM	Bigot	3.73	10	*e*P	Pn	14 49 16.1	+1.0
MVM	Montagne Vaucl	3.80	12	*e*P	Pn	14 49 17.1	+1.0
MVM				*e*S	Sn	14 50 01.0	+1.4
FDF	Fort de France	3.94	8	⇑*e*P	Pn	14 49 19.0	+1.1
FDF				*e*S	Sn	14 50 03.7	+0.8
CUPV	Cœpira	4.08	260	⇓*i*P	Pn	14 49 23.5	+3.6
CUPV				*e*S	Sn	14 50 10.7	+4.3
DSHT	Scott's Head	4.39	4	*e*P	Pn	14 49 27.1	+3.0
DSHT				*e*S	Sn	14 50 16.2	+2.3
DBCT	Belle View Cho	4.45	5	*e*P	Pn	14 49 27.5	+2.6
MDN	Morne-Daniel	4.49	4	*e*P	Pn	14 49 28.0	+2.5
BIRV	Birongo	4.49	266	⇓*i*P	Pn	14 49 29.8	+4.3
BIRV				*e*S	Sn	14 50 20.8	+4.3
BIRV	Birongo	4.49	266	⇓*i*P	Pn	14 49 29.8	+4.3
ORCV	Isla La Orchil	4.50	283	*e*P	Pn	14 49 29.2	+3.5
ORCV				*e*S	Sn	14 50 20.6	+3.7
BBL	Barber's Block	4.69	3	*e*P	Pn	14 49 28.3	0.0
MERV	Las Mercedes	4.77	251	⇓*e*P	Pn	14 49 31.7	+2.3
LUEV	Luepa	4.95	177	⇑*e*P	Pn	14 49 29.6	-2.2
LUEV				*e*S	Sn	14 50 20.5	-7.2
TBG	Guadaloupe-3	5.01	1	*e*P	Pn	14 49 34.6	+2.0
FUNV	FUNVISIS	5.02	267	*e*P	Pn	14 49 36.5	+3.6
MGG	Marie-Galante	5.09	4	*e*P	Pn	14 49 36.1	+2.4
HMG	Houelmont	5.14	0	⇓*e*P	Pn	14 49 37.2	+2.7
SCG	Saint Claude	5.18	0	*e*P	Pn	14 49 37.4	+2.3
DOG	Dongo Capester	5.19	1	*e*P	Pn	14 49 37.5	+2.4
DEG	La Desirade	5.50	7	*e*P	Pn	14 49 40.6	+1.1
CAOV	Caicara del Or	5.72	233	⇓*e*P	Pn	14 49 43.2	+0.8
TURV	Turiamo	6.03	267	*e*P	Pn	14 49 49.3	+2.6
BPA	Boggy Peak	6.20	359	*e*P	Pn	14 49 52.0	+3.0
BPA				*e*S	Sn	14 51 00.7	+2.2
BAUV	El Baul	6.50	254	⇓*e*P	Pn	14 49 54.6	+1.4
BAUV	El Baul	6.50	254	⇓*e*P	Pn	14 49 54.7	+1.5
JACV	Jacura	6.99	273	*e*P	Pn	14 50 03.3	+3.4
TEPV	Terepaima	7.40	264	*e*P	Pn	14 50 07.4	+1.9
SANV	Sanarito	7.81	261	⇓*e*P	Pn	14 50 13.4	+2.3
SIQV	Siquisique	7.96	270	*e*P	Pn	14 50 15.7	+2.6
PAYV	Puerto Ayacuch	7.96	228	*e*P	Pn	14 50 14.0	+0.9
MTP	Monte Pirata	8.14	333	⇓*i*Pn	Pn	14 50 17.3	+1.8
CURV	Curarigua	8.15	265	*e*P	Pn	14 50 18.2	+2.4
CPD	Cerro la Pandu	8.25	331	*e*Pn	Pn	14 50 18.7	+1.6
SJG	San Juan	8.43	330	*e*Pn	Pn	14 50 21.1	+1.5
	49nm,0.6s						
SJG	San Juan	8.43	330	*e*P	Pn	14 50 21.1	+1.5
SJG				pmax	pmax		
	comp=Z,49nm,0.6s						
SJG	San Juan	8.43	330	P	Pn	14 50 20.6	+1.1
	comp=Z,17nm,0.3s,baz=350,slow=21,SNR=13						
SJG				S	Sn	14 51 52.7	-0.6
	comp=Z,17nm,0.3s,baz=307,slow=17,SNR=3.1						
SJG				LR	LR	14 53 44.7	
	comp=Z,482nm,21.4s,baz=102,slow=39						
ELOV	Elorza	8.56	244	⇓*e*P	Pn	14 50 22.9	+1.6
QARV	Quebrada Arrib	8.68	267	*e*P	Pn	14 50 25.6	+2.5
SOCV	Socops	9.36	255	*e*P	Pn	14 50 33.3	+1.0
VIGV	El Vigia	9.71	259	*e*P	Pn	14 50 39.3	+2.2
VIRV	Villa del Rosa	10.51	269	*e*P	Pn	14 50 50.2	+2.1
CAPV	Capacho	10.86	255	*e*P	Pn	14 50 53.8	+1.0
SDDR	Presa de Saban	12.31	312	*e*Pn	Pn	14 51 16.7	+4.1
	comp=Z,108nm,0.6s						
SDDR				*e*Sn	Sn	14 53 30.5	+2.2
ROSC	El Rosal	13.82	246	*e*Pn	Pn	14 51 35.5	+2.2
ROSC				*e*Sn	Sn	14 54 10.3	+4.9
ROSC	El Rosal	13.82	246	P	Pn	14 51 35.4	+2.0
	comp=Z,7.2nm,0.3s,baz=97,slow=17,SNR=14						
ROSC				LR	LR	14 57 25.4	
	comp=Z,336nm,20.0s,baz=20,slow=39						
OTAV	Otavalo	19.68	239	*e*Pn	Pn	14 52 48.5	+1.7
	comp=Z,66nm,1.0s						
JTS	JuntasAbangare	22.85	271	*e*P	P	14 53 24.1	+5.1
ATAH	Atahualpa	24.27	224	P	P	14 53 37.2	+4.7
	comp=Z,35nm,0.6s,mb5.0,baz=43,slow=4.9,SNR=28						
DWPF	Disney	25.26	316	*e*P	P	14 53 41.9	+0.4
SIV	San Ignacio	26.64	179	P	P	14 53 55.1	+1.1
	comp=Z,6.6nm,0.7s,mb4.3,baz=12,slow=9.8,SNR=31						
NNA	Nana	27.18	214	*e*P	P	14 54 00.6	+1.8
	comp=Z,34nm,0.8s,mb4.9						
NNA	Nana	27.18	214	LR	LR	15 05 44.8	
	comp=Z,180nm,21.2s,MS3.6,baz=207,slow=38						
TEIG	Tepich	27.21	293	*e*P	P	14 53 59.9	+0.7
TEIG	Tepich	27.21	293	P	P	14 54 00.2	+1.1
	comp=Z,6.1nm,0.4s,mb4.5,baz=119,slow=3.0,SNR=9.7						
LPAZ	La Paz	27.66	193	⇓*i*P	P	14 54 05.3	+2.2
	comp=Z,9.5nm,1.0s,mb4.4						
LPAZ	La Paz	27.66	193	⇓*i*P	P	14 54 05.3	+2.2
LPAZ				pmax	pmax		
	comp=Z,10.0nm,1.0s						
LPAZ	La Paz	27.66	193	P	P	14 54 05.5	+2.4
	comp=Z,5.7nm,0.9s,mb4.2,baz=5.9,slow=10.0,SNR=19						
LPAZ				LR	LR	15 05 58.0	
	comp=Z,350nm,21.1s,MS3.9,baz=33,slow=38						
TKL	Tuckaleechee C	31.82	325	P	P	14 54 40.4	+0.6
TKL	Tuckaleechee C	31.82	325	P	P	14 54 40.4	+0.6
	comp=Z,5.4nm,0.4s,mb4.7,baz=156,slow=8.5,SNR=5.4						
LRAL	Lakeview Retre	32.07	317	*e*P	P	14 54 42.3	+0.2
	comp=Z,12nm,0.6s,mb4.9						
SWET	Sewanee	32.79	322	*e*P	P	14 54 48.7	+0.4
PLAL	Pickwick Lake	33.98	319	⇑*e*P	P	14 54 58.9	+0.2
	comp=Z,17nm,0.4s,mb5.3						
PLAL				*e*PcP	PcP	14 57 35.0	-0.9
OXF	Oxford	34.56	317	*e*P	P	14 55 04.0	+0.2
	comp=Z,30nm,0.8s,mb5.3						
OXF	Oxford	34.56	317	*e*P	P	14 55 04.0	+0.2
OXF				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
SIUC	Southern Illin	36.42	322	*e*P	P	14 55 19.6	-0.1
	comp=Z,96nm,0.9s,mb5.7						
SADO	Sadowa	37.01	339	P	P	14 55 24.1	-0.5
	baz=175,slow=8.8						
FVM	French Village	37.33	321	*e*P	P	14 55 27.3	-0.1
	comp=Z,22nm,0.4s,mb5.3						
FVM	French Village	37.33	321	*e*P	P	14 55 27.3	-0.1
FVM				pmax	pmax		
	comp=Z,22nm,0.4s,mb5.3						
JCT	Junction City	40.39	305	*e*P	P	14 55 52.6	-0.6
	comp=Z,35nm,0.7s,mb5.2						
JCT	Junction City	40.39	305	*e*P	P	14 55 52.6	-0.5
JCT				pmax	pmax		
	comp=Z,35nm,0.7s,mb5.2						
LCO	Las Campanas	40.53	192	*e*P	P	14 55 54.4	+0.2
	comp=Z,12nm,1.0s,mb4.5						
WMOK	Wichita Mounta	41.29	311	*e*P	P	14 55 58.3	-2.2
	comp=Z,3.5nm,0.6s,mb4.2						
WMOK	Wichita Mounta	41.29	311	*e*P	P	14 55 58.3	-2.2
WMOK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
KSU1	Kansas State U	41.92	318	*e*P	P	14 56 03.3	-2.2
	comp=Z,22nm,0.9s,mb4.8						
CFAA	Coronel Fontan	42.64	188	P	P	14 56 11.5	+0.1
CFAA	Coronel Fontan	42.64	188	P	P	14 56 11.5	+0.1
	comp=Z,2.2nm,0.8s,mb4.0,baz=355,slow=8.0,SNR=30						
LTX	Lajitas	43.21	302	*e*P	P	14 56 15.9	-0.3
	comp=Z,7.8nm,0.7s,mb4.5						
LTX				*e*PcP	PcP	14 58 05.9	+1.1
LTX	Lajitas	43.21	302	*e*P	P	14 56 15.9	-0.3
LTX				*e*		14 58 05.9	
LTX				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.6						
TXAR	Lajitas Array	43.21	302	P	P	14 56 16.3	+0.1
TXAR				PcP	PcP	14 58 05.8	+1.0
TXAR				ScP	ScP	15 01 51.0	-0.9
TXAR	Lajitas Array	43.21	302	P	P	14 56 16.3	+0.1
TXAR						14 58 05.9	
TXAR	Lajitas Array	43.21	302	P	P	14 56 16.3	+0.1
	comp=Z,8.6nm,0.7s,mb4.6,baz=119,slow=10,SNR=85						
TXAR				PcP	PcP	14 58 05.8	+1.0
	comp=Z,2.7nm,0.5s,baz=124,slow=5.4,SNR=11						
TXAR				ScP	ScP	15 01 51.0	-0.9
	comp=Z,0.5nm,0.8s,baz=120,slow=7.4,SNR=3.6						
SCHQ	Schefferville	44.09	356	*e*P	P	14 56 24.0	+1.2
	comp=Z,148nm,0.9s,mb5.7						
SCHQ	Schefferville	44.09	356	P	P	14 56 23.9	+1.1
	comp=Z,56nm,0.5s,mb5.6,baz=177,slow=6.3,SNR=176						
SCHQ				ScP	ScP	15 01 53.9	-1.0
	comp=Z,1.5nm,0.6s,baz=38,slow=19,SNR=3.7						
ECSD	EROS,Sioux Fal	44.56	324	*e*P	P	14 56 25.8	-1.0
	comp=Z,17nm,0.8s,mb4.9						
ECSD				*e*PcP	PcP	14 58 09.0	-0.2
EYMN	Ely	44.66	332	*e*P	P	14 56 26.4	-1.1
	comp=Z,5.2nm,0.5s,mb4.6						
MNTX	Cornudas Mount	45.31	304	*e*P	P	14 56 32.6	-0.3
	comp=Z,11nm,0.7s,mb4.8						
AGMN	Agassiz Refuge	47.02	329	*e*P	P	14 56 44.5	-1.6
	comp=Z,13nm,0.6s,mb5.0						
BNM	Barren Site	47.06	307	*e*P	P	14 56 46.9	+0.2
LPM	Los Pinos Moun	47.12	307	*e*P	P	14 56 47.6	+0.5
ANMO	Albuquerque	47.20	308	*e*P	P	14 56 48.0	+0.3
	comp=Z,13nm,1.0s,mb4.8						
ANMO	Albuquerque	47.20	308	*d* *i*P	P	14 56 48.2	+0.5
LENM	Lemitar	47.34	307	*e*P	P	14 56 49.2	+0.3
SDCO	Great Sand Dun	47.48	312	*e*P	P	14 56 49.1	-0.7
	comp=Z,7.2nm,0.6s,mb4.8						
LAZ	Ladron	47.55	307	*e*P	P	14 56 49.2	-1.3
ULM	Lac du Bonnet	48.33	331	*e*P	P	14 56 54.1	-2.1
	comp=Z,31nm,0.8s,mb5.4						
ULM	Lac du Bonnet	48.33	331	P	P	14 56 54.4	-1.8
	comp=Z,24nm,0.6s,mb5.4,baz=131,slow=7.4,SNR=61						
MVCO	Mesa Verde	49.51	310	⇓P	P	14 57 05.7	+0.2
	baz=50						
PV01	Paradox Valley	49.88	311	*e*P	P	14 57 08.4	+0.1
PV01				*e*	pP	14 57 20.1	-2.2
115A	Sonoran Desert	51.17	303	⇓P	P	14 57 18.4	+0.3
	baz=51						
WUAZ	Wupatki	51.20	307	⇑P	P	14 57 18.7	+0.4
	baz=51						
DGMT	Dagmar	51.59	325	*e*P	P	14 57 20.6	-0.3
	comp=Z,17nm,0.4s,mb5.3						
DGMT				pP	pP	14 57 40.4	+5.3
X15A	Humboldt	51.61	306	⇓P	P	14 57 21.6	+0.3
	baz=52						
SRU	San Rafael	51.65	312	*e*P	P	14 57 20.9	-0.7
	comp=Z,5.2nm,0.7s,mb4.6						
SRU	San Rafael	51.65	312	*e*P	P	14 57 20.9	-0.7
SRU				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
W15A	Williams	51.81	306	⇓P	P	14 57 23.1	+0.3
	baz=52						
LAO	LASA Array	51.86	322	*e*P	P	14 57 22.9	-0.2
	comp=Z,18nm,0.6s,mb5.2						
Z14A	Wintersburg	51.91	304	⇑P	P	14 57 23.9	+0.2
	baz=52						
Y14A	Wickenburg	52.09	305	⇓P	P	14 57 25.2	+0.2
	baz=52						
X14A	Yava	52.13	305	⇑P	P	14 57 25.7	+0.4
	baz=52,SNR=5.8						
TMUT	Trail Mountain	52.21	312	*e*P	P	14 57 25.5	-0.3
PDAR	Pinedale Array	52.29	316	P	P	14 57 25.5	-0.8
	comp=Z,10nm,0.8s,mb4.8,baz=118,slow=9.5,SNR=84						
PDAR				PcP	PcP	14 58 36.9	-0.1
	comp=Z,4.4nm,0.9s,baz=104,slow=6.3,SNR=4.6						
PDAR				ScP	ScP	15 02 28.4	-1.5
	comp=Z,1.0nm,0.7s,baz=111,slow=6.2,SNR=6.0						
PDAR				LR	LR	15 18 58.3	
	comp=Z,154nm,19.0s,MS4.1,baz=301,slow=35						
T15A	Red Dirt Ranch	52.40	309	⇓P	P	14 57 27.7	+0.5
	baz=52,SNR=14						
W14A	Seligman	52.47	306	⇑P	P	14 57 28.2	+0.5
	baz=52,SNR=5.2						
MSU	Marysvale	52.68	310	*e*P	P	14 57 29.3	0.0
Y13A	Salome	52.73	304	⇓P	P	14 57 29.9	+0.2
	baz=53						
X13A	Yucca	52.91	305	⇑P	P	14 57 31.4	+0.3
	baz=53						
T14A	Hurricane	52.95	308	⇓P	P	14 57 31.6	+0.3
	baz=53						
RLMT	Red Lodge	53.05	319	*e*P	P	14 57 31.1	-0.8
	comp=Z,15nm,1.0s,mb4.9						
CTU	Camp Tracy	53.06	313	*e*P	P	14 57 31.4	-0.7
	comp=Z,9.2nm,0.8s,mb4.8						
W13A	Hualapai Mount	53.07	306	⇑P	P	14 57 32.5	+0.2
	baz=53						
S14A	Cedar City	53.21	309	⇑P	P	14 57 32.9	-0.3
	baz=53						
HWUT	Hardware Ranch	53.25	314	*e*P	P	14 57 32.3	-1.1
	comp=Z,8.7nm,0.8s,mb4.7						
GLA	Glamis	53.38	303	⇓P	P	14 57 34.6	0.0
	baz=53						
REDW	Red Top Meadow	53.39	317	*e*P	P	14 57 34.0	-0.4
	comp=Z,8.9nm,0.6s,mb4.9						
ARUT	Antelope Range	53.42	309	*e*P	P	14 57 34.8	+0.1
T13A	Saint George	53.57	308	⇑P	P	14 57 36.0	+0.2
	baz=54						
DUG	Dugway	53.67	312	*e*P	P	14 57 36.0	-0.6
	comp=Z,11nm,0.8s,mb4.8						
DUG	Dugway	53.67	312	*e*P	P	14 57 36.0	-0.5
DUG				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
DUG	Dugway	53.67	312	⇓P	P	14 57 36.2	-0.3
	baz=54						
S13A	Holt Ranch, En	53.69	309	⇑P	P	14 57 36.9	+0.2
	baz=54,SNR=8.6						
DCID1	Drake Creek	53.70	317	*e*P	P	14 57 36.5	-0.2
FCC	Fort Churchill	53.73	340	*e*P	P	14 57 34.8	-1.8
	comp=Z,27nm,0.6s,mb5.3						
FCC				*e*pP	pP	14 57 51.9	+1.1
FCC	Fort Churchill	53.73	340	*e*P	P	14 57 34.8	-1.8
FCC				*e**PP	pP	14 57 51.9	+1.1
FCC				pmax	pmax		
	comp=Z,27nm,0.6s,mb5.3						
M15A	Larsen Ranch,	53.82	314	⇑P	P	14 57 36.4	-1.2
	baz=54						
IRM	Iron Mountain	53.88	304	⇑P	P	14 57 38.2	0.0
	baz=54,SNR=7.4						
U12A	Valley of Fire	53.91	307	⇓P	P	14 57 38.6	+0.2
	baz=54						
YMR	Madison River	53.97	318	*e*P	P	14 57 38.7	+0.1
	comp=Z,7.4nm,0.6s,mb4.8						
V12A	Nelson	53.99	306	⇓P	P	14 57 39.2	+0.2
	baz=54						
BC3	Big Chuckw Mtn	54.02	304	⇑P	P	14 57 39.4	+0.2
	baz=54						
FFC	Flin Flon	54.08	332	P	P	14 57 37.8	-1.4
	comp=Z,70nm,0.8s,mb5.6,SNR=5.5						
FFC	Flin Flon	54.08	332	*e*P	P	14 57 37.2	-2.0
	comp=Z,11nm,0.9s,mb4.8						
FFC	Flin Flon	54.08	332	*e*P	P	14 57 37.2	-2.0
FFC				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
HVU	Hansel Valley	54.16	314	*e*P	P	14 57 39.0	-1.0
	comp=Z,7.9nm,0.9s,mb4.6						
HVU	Hansel Valley	54.16	314	*e*P	P	14 57 39.0	-1.0
HVU				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
QLMT	Earthquake Lak	54.34	318	*e*P	P	14 57 42.0	+0.7
QLMT				*e*pP	pP	14 57 59.7	+4.2
GMRC	Granite Mounta	54.42	305	⇑P	P	14 57 42.1	0.0
	baz=54						
R12A	Pony Springs,	54.46	310	P	P	14 57 42.9	+0.6
	baz=54,SNR=9.3						
M14A	Sheep Mountain	54.47	314	P	P	14 57 41.8	-0.5
	baz=54,SNR=9.3						
V11A	Goodsprings	54.47	306	⇓P	P	14 57 42.3	-0.1
	baz=54						
BELC	Belle Mtn.	54.53	304	⇑P	P	14 57 42.3	-0.6
	baz=54						
EGMT	Eagleton	54.61	322	*e*P	P	14 57 42.6	-0.6
	comp=Z,30nm,1.0s,mb5.3						
EGMT	Eagleton	54.61	322	⇓P	P	14 57 42.4	-0.9
	baz=55,SNR=14						
T11A	Corn Creek, Al	54.65	308	⇓P	P	14 57 43.8	+0.1
	baz=55						
K14A	Jones Ranch, D	54.69	315	P	P	14 57 43.3	-0.7
	baz=55,SNR=14						
BOZ	Bozeman (W)	54.79	319	⇓P	P	14 57 44.1	-0.4
	baz=55						
Q12A	Willow Creek R	54.82	310	⇓P	P	14 57 44.5	-0.4
	baz=55						
PFO	Pinyon Flat Ob	54.83	304	⇓P	P	14 57 44.5	-0.6
	baz=55						
N13A	Wendover, West	54.88	313	⇓P	P	14 57 45.0	-0.3
	baz=55						
P12A	McGill	55.00	311	⇓P	P	14 57 45.9	-0.3
	baz=55						
M13A	Montello	55.01	313	⇑P	P	14 57 45.5	-0.8
	baz=55,SNR=7.1						
L13A	Double Diamond	55.08	314	⇑P	P	14 57 46.1	-0.7
	baz=55						
O12A	Currie	55.10	312	⇑P	P	14 57 46.9	-0.1
	baz=55						
G15A	Dillon	55.16	318	⇑P	P	14 57 46.9	-0.3
	baz=55						
109C	Camp Elliot, M	55.23	303	⇑P	P	14 57 47.9	-0.1
	baz=55						
MCMT	McKenzie Canyo	55.27	318	*e*P	P	14 57 48.0	0.0
U10A	Ash Meadows, A	55.31	307	⇓P	P	14 57 48.4	-0.1
	baz=55						
K13A	Stover Farm, H	55.36	315	⇑P	P	14 57 48.2	-0.6
	baz=55						
TPNV	Topopah Spring	55.37	308	*e*P	P	14 57 49.2	+0.3
	comp=Z,11nm,0.9s,mb4.9						
TPNV	Topopah Spring	55.37	308	*e*P	P	14 57 49.2	+0.3
TPNV				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
Q11A	Duckwater	55.39	310	⇑P	P	14 57 48.7	-0.3
	baz=55,SNR=5.5						
F15A	Butte	55.42	319	⇓P	P	14 57 48.9	-0.2
	baz=55,SNR=7.0						
GSC	Goldstone	55.45	305	⇑P	P	14 57 49.8	+0.3
	baz=55						
N12A	Clover Valley,	55.49	312	⇑P	P	14 57 49.5	-0.2
	baz=56,SNR=6.6						
M12A	Wells	55.56	313	P	P	14 57 49.8	-0.4
	baz=56,SNR=5.5						
J13A	Cove Ranch, Pi	55.67	316	P	P	14 57 50.9	-0.1
	baz=56,SNR=8.9						
O11A	Cowboy Ranch,	55.73	311	⇑P	P	14 57 51.4	0.0
	baz=56,SNR=8.3						
R10A	Warm Springs	55.73	309	⇓P	P	14 57 52.0	+0.4
	baz=56						
E15A	Deer Lodge	55.74	319	⇑P	P	14 57 50.9	-0.5
	baz=56						
I13A	Wildhorse Cree	55.80	316	P	P	14 57 52.1	+0.2
	baz=56,SNR=15						
G14A	Jackson	55.83	318	⇑P	P	14 57 51.5	-0.6
	baz=56						
L12A	House Creek Ra	55.86	314	⇑P	P	14 57 51.7	-0.7
	baz=56						
S10A	Tonopah Range,	55.87	309	⇓P	P	14 57 53.1	+0.6
	baz=56,SNR=5.8						
HLID	Hailey	55.89	316	*e*P	P	14 57 51.9	-0.6
	comp=Z,9.0nm,0.7s,mb4.9						
HLID	Hailey	55.89	316	⇓P	P	14 57 52.0	-0.5
	baz=56						
D15A	Lincoln	55.90	320	P	P	14 57 52.2	-0.4
	baz=56,SNR=22						
K12A	Draper Farm, C	55.93	315	⇑P	P	14 57 52.2	-0.6
	baz=56						
Q10A	Clear Creek Ra	55.94	310	⇓P	P	14 57 53.5	+0.5
	baz=56,SNR=11						
F14A	Wisdom	55.98	319	P	P	14 57 52.9	-0.2
	baz=56,SNR=5.4						
H13A	Challis	56.12	317	P	P	14 57 53.4	-0.7
	baz=56,SNR=6.0						
MPMC	Manual Prospec	56.15	306	⇑P	P	14 57 53.8	-0.8
	baz=56						
LIC	Lamto	56.18	90	*e*P	P	14 57 53.7	-1.4
	comp=Z,6.7nm,0.6s,mb4.6						
LIC	Lamto	56.18	90	*e*P	P	14 57 53.7	-1.4
	comp=Z,3.3nm,0.6s,mb4.5						
P10A	Eureka	56.20	311	⇓P	P	14 57 54.1	-0.6
	baz=56						
M11A	Holland Ranch,	56.20	313	P	P	14 57 54.9	+0.1
	baz=56,SNR=9.2						
GRAC	Grapevine Rang	56.26	307	⇓P	P	14 57 55.6	+0.4
	baz=56						
J12A	Stokes Ranch,	56.26	315	⇑P	P	14 57 54.4	-0.8
	baz=56						
E14A	Clinton	56.28	319	⇑P	P	14 57 54.8	-0.4
	baz=56,SNR=5.6						
G13A	Cobalt	56.29	317	⇑P	P	14 57 54.9	-0.4
	baz=56						
S09A	Goldfield	56.31	308	⇑P	P	14 57 55.3	-0.3
	baz=56,SNR=7.9						
R09A	Tonopah	56.31	309	⇓P	P	14 57 55.4	-0.3
	baz=56						
EDW2	Edwards Air Fo	56.32	305	⇑P	P	14 57 55.4	-0.3
	baz=56						
L11A	Cat Creek Ranc	56.39	314	⇓P	P	14 57 55.1	-1.0
	baz=56,SNR=5.1						
O10A	Cortez Mining,	56.40	311	⇓P	P	14 57 55.5	-0.7
	baz=56						
H12A	Diamond D Ranc	56.52	317	⇑P	P	14 57 56.0	-1.0
	baz=56						
D14A	Greenough	56.54	320	⇑P	P	14 57 56.4	-0.6
	baz=56,SNR=6.4						
F13A	Darby	56.60	318	⇓P	P	14 57 56.6	-0.9
	baz=57						
SFJD	Kangerlussuaq	56.61	5	*i* P	P	14 57 58.1	+0.9
SFJD				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
E13A	Victor	56.74	319	⇓P	P	14 57 57.5	-1.0
	baz=57,SNR=5.8						
M10A	I.L. Ranch, Tu	56.76	313	⇓P	P	14 57 58.3	-0.5
	baz=57						
MFID	Camas Ranch	56.82	315	⇓P	P	14 57 58.3	-0.8
	baz=57						
L10A	Juniper Basin	56.87	313	P	P	14 57 59.6	+0.1
	baz=57,SNR=8.1						
O09A	Fish Creek Ran	56.88	311	P	P	14 57 59.9	+0.3
	baz=57,SNR=8.6						
C14A	Swan Lake	56.95	321	⇓P	P	14 57 59.7	-0.3
	baz=57						
S08C	White Mtn Res	56.99	308	P	P	14 58 01.4	+1.0
	baz=57,SNR=6.5						
ARVC	Arvin	57.04	305	⇓P	P	14 58 01.2	+0.3
	baz=57						
I11A	Placerville	57.06	316	P	P	14 58 00.6	-0.3
	baz=57,SNR=16						
Q08A	Gabbs	57.11	309	⇓P	P	14 58 00.9	-0.4
	baz=57,SNR=8.6						
R08A	Mina	57.13	309	⇓P	P	14 58 01.4	0.0
	baz=57						
D13A	Huson	57.15	320	P	P	14 58 01.2	-0.2

	baz=57,SNR=14						
F12A	Elk City	57.19	318	P	P	14 58 01.3	-0.4
	baz=57,SNR=7.8						
NVAR	Mina Array Bea	57.30	309	P	P	14 58 02.2	-0.4
NVAR				PcP	PcP	14 58 56.5	+0.1
NVAR	Mina Array Bea	57.30	309	P	P	14 58 02.2	-0.4
	comp=Z,2.5nm,0.5s,mb4.5,baz=97,slow=7.3,SNR=28						
NVAR				PcP	PcP	14 58 56.5	+0.1
	comp=Z,1.6nm,0.8s,baz=126,slow=5.7,SNR=4.4						
N09A	Rock Creek Ran	57.30	312	⇓P	P	14 58 02.3	-0.3
	baz=57,SNR=7.9						
K10A	MacKenzie Ranc	57.36	314	⇑P	P	14 58 02.4	-0.6
	baz=57						
M09A	Marrel Ranch,	57.39	312	⇑P	P	14 58 02.6	-0.6
	baz=57						
C13A	Hot Springs	57.44	320	⇑P	P	14 58 03.0	-0.4
	baz=57,SNR=6.3						
HELL	Mitchell Peak,	57.49	307	⇑P	P	14 58 03.7	-0.4
	baz=58						
WALA	Waterton Lakes	57.55	322	*e*P	P	14 58 02.6	-1.6
B13A	Whitefish	57.63	321	⇓P	P	14 58 03.7	-1.1
	baz=58						
D12A	Red Ives Fores	57.70	319	⇓P	P	14 58 04.5	-0.8
	baz=58						
N08A	GE Springer Mi	57.73	312	P	P	14 58 05.5	-0.1
	baz=58,SNR=5.3						
R07C	Lee Vining	57.80	308	⇑P	P	14 58 06.3	+0.2
	baz=58						
A13A	Flathead Natio	57.81	322	⇓P	P	14 58 05.2	-0.8
	baz=58						
H10A	Noah's Angus R	57.81	316	⇓P	P	14 58 04.7	-1.4
	baz=58						
F11A	Grangeville	57.83	318	⇑P	P	14 58 05.0	-1.2
	baz=58						
KCC	Kaiser Creek	57.85	307	⇓P	P	14 58 06.1	-0.4
	baz=58						
K09A	Rome	57.94	314	P	P	14 58 07.0	-0.1
	baz=58,SNR=6.6						
E11A	Bogner Ranch,	58.02	318	P	P	14 58 07.0	-0.6
	baz=58,SNR=17						
M08A	Happy Creek Ra	58.08	312	P	P	14 58 08.3	+0.3
	baz=58,SNR=9.6						
T06C	Millerton Lake	58.09	307	⇑P	P	14 58 06.7	-1.6
	baz=58						
O07A	Toulon	58.13	311	⇑P	P	14 58 07.7	-0.7
	baz=58,SNR=5.5						
J09A	Fry Pan Ranch,	58.14	315	⇓P	P	14 58 07.7	-0.7
	baz=58						
L08A	Fields	58.24	313	P	P	14 58 09.1	-0.1
	baz=58,SNR=13						
N07B	Gerlach	58.34	311	P	P	14 58 09.7	-0.2
	baz=58,SNR=18						
B12A	Libby	58.36	321	P	P	14 58 10.0	+0.1
	baz=58,SNR=5.4						
S06C	San Francisco	58.37	308	⇑P	P	14 58 09.8	-0.4
	baz=58						
ESDC	Sonseca Array	58.46	50	P	P	14 58 10.6	-0.1
	comp=Z,1.9nm,0.7s,mb4.2,baz=267,slow=7.3,SNR=5.1						
ESDC				pP	pP	14 58 24.5	-0.6
	comp=Z,7.2nm,0.8s,baz=258,slow=7.7,SNR=8.1						
ESLA	Sonseca Array	58.46	50	P	P	14 58 11.7	+0.9
H09A	Durkee	58.46	316	P	P	14 58 10.1	-0.6
	baz=58,SNR=7.4						
K08A	Mann Creek Ran	58.49	314	⇓P	P	14 58 10.2	-0.7
	baz=58						
WVOR	Wild Horse Val	58.52	313	*e*P	P	14 58 09.9	-1.2
	comp=Z,19nm,1.5s,mb4.9						
WVOR	Wild Horse Val	58.52	313	*e*P	P	14 58 09.9	-1.2
WVOR				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.9						
F10A	Beach Ranch, E	58.56	318	⇓P	P	14 58 10.2	-1.2
	baz=58						
A12A	Yaak River Ran	58.57	321	⇓P	P	14 58 11.0	-0.3
	baz=58,SNR=7.8						
M07A	Soldier Meadow	58.64	312	P	P	14 58 12.0	+0.1
	baz=59,SNR=17						
J08A	Circle Bar Ran	58.65	314	⇓P	P	14 58 11.9	0.0
	baz=59						
E10A	Myers Farm, Un	58.65	318	⇓P	P	14 58 10.9	-1.0
	baz=59						
G09A	Cove	58.72	317	⇓P	P	14 58 11.6	-0.9
	baz=59						
B11A	Sandpoint	58.83	321	⇑P	P	14 58 12.7	-0.5
	baz=59,SNR=13						
O06A	Flanigan	58.84	310	⇓P	P	14 58 12.6	-0.8
	baz=59						
I08A	Drewsey	58.86	315	⇓P	P	14 58 12.9	-0.6
	baz=59						
L07A	Adell	58.91	313	⇓P	P	14 58 13.7	-0.2
	baz=59						
F09A	S2 Ranch, Elgi	58.94	317	⇓P	P	14 58 12.8	-1.1
	baz=59						
D10A	Wagner Farm, O	58.94	319	P	P	14 58 13.0	-1.0
	baz=59,SNR=9.1						
N06A	Buffalo Meadow	58.97	311	⇓P	P	14 58 13.2	-1.1
	baz=59						
A11A	Hall Mountain,	59.01	321	⇑P	P	14 58 14.2	-0.2
	baz=59,SNR=5.8						
K07A	Rock Creek Ran	59.02	313	⇓P	P	14 58 14.0	-0.6
	baz=59						
H08A	Prairie City	59.10	316	⇓P	P	14 58 14.6	-0.5
	baz=59						
BEKR	Beckwourth	59.17	310	⇑P	P	14 58 14.7	-1.0
	baz=59						
J07A	Hines	59.24	314	⇓P	P	14 58 15.7	-0.4
	baz=59						
P05C	Yuba Gap, Truc	59.24	309	⇓P	P	14 58 16.2	0.0
	baz=59						
NEW	Newport	59.24	320	*e*P	P	14 58 14.5	-1.5
	comp=Z,20nm,0.8s,mb5.2						
NEW				*e*pP	pP	14 58 33.6	+3.2
NEW	Newport	59.24	320	*e*P	P	14 58 14.5	-1.5
NEW				*e**PP	pP	14 58 33.6	+3.2
NEW				pmax	pmax		
	comp=Z,20nm,0.8s						
G08A	Pilot Rock	59.52	316	⇓P	P	14 58 16.9	-1.1
	baz=60						
I07A	Izee	59.56	315	P	P	14 58 18.1	-0.1
	baz=60,SNR=12						
D09A	Jones Farm, Ri	59.61	319	⇓P	P	14 58 17.4	-1.2
	baz=60						
H07A	Lands Inn, Kim	59.74	316	⇓P	P	14 58 18.9	-0.6
	baz=60						
A10A	Northport	59.76	321	P	P	14 58 18.8	-0.7
	baz=60,SNR=6.4						
K06A	Valley Falls	59.76	313	⇓P	P	14 58 20.0	+0.3
	baz=60						
J06A	Christmas Vall	59.80	314	P	P	14 58 19.6	-0.4
	baz=60,SNR=6.7						
C09A	Chrisman Ranch	59.82	319	⇑P	P	14 58 19.0	-1.0
	baz=60						
E08A	Dider Farm, El	59.93	318	⇑P	P	14 58 19.9	-0.9
	baz=60						
B09A	Rice	59.94	320	P	P	14 58 19.9	-0.9
	baz=60,SNR=7.5						
ORV	Oroville	59.97	309	⇓P	P	14 58 21.0	-0.2
	baz=60						
G07A	Ruggs Ranch, H	59.99	316	⇓P	P	14 58 20.4	-0.8
	baz=60						
L05A	Lakeview	60.00	312	⇑P	P	14 58 20.9	-0.5
	baz=60						
D08A	Wollman Farm,	60.01	318	⇑P	P	14 58 20.4	-0.9
	baz=60						
I06A	Prineville	60.02	315	⇑P	P	14 58 20.9	-0.5
	baz=60						
HATC	Hat Creek Radi	60.19	311	⇓P	P	14 58 22.4	-0.3
	baz=60						
K05A	Summer Lake	60.20	313	P	P	14 58 23.2	+0.5
	baz=60,SNR=9.3						
GBL	Gable Mountain	60.23	318	P	P	14 58 22.3	-0.5
H06A	Lindquist Farm	60.31	316	⇓P	P	14 58 23.1	-0.3
	baz=60						
C08A	Higginbotham F	60.31	319	P	P	14 58 22.4	-1.0
	baz=60,SNR=14						
F07A	Phinny Hill Vi	60.34	317	⇓P	P	14 58 22.6	-1.0
	baz=60						
A09A	Danville	60.40	321	⇑P	P	14 58 22.6	-1.3
	baz=60						
E07A	Sunnyside	60.48	318	⇓P	P	14 58 23.7	-0.8
	baz=60						
EPH	Ephrata	60.54	319	P	P	14 58 24.3	-0.6
J05A	Fort Rock	60.58	314	⇓P	P	14 58 25.0	-0.2
	baz=60,SNR=5.2						
G06A	Carlson Farm,	60.64	316	⇑P	P	14 58 25.6	-0.1
	baz=61						
B08A	Colville Reser	60.67	320	⇓P	P	14 58 24.3	-1.5
	baz=61,SNR=7.0						
M04C	Macdoel	60.68	312	P	P	14 58 26.1	+0.1
	baz=61,SNR=5.8						
D07A	Quincy	60.74	318	⇑P	P	14 58 25.7	-0.6
	baz=61,SNR=6.3						
M03C	McCloud	60.78	311	⇑P	P	14 58 25.6	-1.1
	baz=61						
L04A	Klamath Falls	60.80	312	P	P	14 58 26.3	-0.5
	baz=61,SNR=6.6						
A08A	Turner Farm, O	60.82	320	P	P	14 58 26.0	-0.8
	baz=61,SNR=6.6						
F06A	Goldendale	60.88	317	⇑P	P	14 58 26.7	-0.6
	baz=61						
H05A	Madras	60.90	315	⇑P	P	14 58 27.4	0.0
	baz=61						
LHEM	Herd Peak	60.92	312	P	P	14 58 27.8	+0.1
C07A	Waterville	60.94	319	⇑P	P	14 58 26.1	-1.5
	baz=61						
WDC	Whiskeytown Da	60.95	310	⇓P	P	14 58 25.6	-2.3
	baz=61						
BUOR	Burton Butte	61.08	312	P	P	14 58 28.8	+0.1
QUIF	Quistinic	61.13	41	*e*P	P	14 58 30.3	+1.3
TBM	Table Mountain	61.14	318	P	P	14 58 29.1	+0.1
J04A	Umpqua Nationa	61.19	314	⇓P	P	14 58 29.3	-0.1
	baz=61,SNR=9.8						
B07A	Winthrop	61.20	320	P	P	14 58 28.3	-1.1
	baz=61,SNR=9.9						
E06A	Yakima	61.22	317	⇓P	P	14 58 29.5	-0.1
	baz=61						
SJPF	Ste Jean	61.23	47	*e*P	P	14 58 31.1	+1.4
SJPF				*e*pP	pP	14 58 44.9	+0.8
YBH	Yreka Blue Hor	61.30	312	⇓P	P	14 58 28.7	-1.5
	baz=61						
D06A	Cle Elum	61.31	318	⇑P	P	14 58 29.6	-0.5
	baz=61						
P01C	Double 8 Ranch	61.35	309	⇑P	P	14 58 30.7	+0.1
	baz=61						
I04A	Tendick Farm,	61.53	314	⇓P	P	14 58 30.7	-1.0
	baz=62						
C06A	Tall Timber Ra	61.54	319	⇓P	P	14 58 30.5	-1.2
	baz=62						
A07A	Ashnola River,	61.54	320	P	P	14 58 31.9	+0.2
	baz=62,SNR=8.3						
H04A	Detroit Lake	61.57	315	⇓P	P	14 58 31.2	-0.8
	baz=62						
SGMF	Saint Gilles	61.62	41	*e*P	P	14 58 33.3	+1.1
WPW	White Pass	61.64	317	P	P	14 58 32.5	+0.1
ETSF	Etsaut	61.66	47	*e*P	P	14 58 34.1	+1.5
HUMO	Hull Mountain	61.66	313	⇓P	P	14 58 31.1	-1.5
	baz=62						
E05A	Randle	61.74	317	⇓P	P	14 58 32.1	-1.0
	baz=62						
J03A	Ideyld Park	61.83	314	⇑P	P	14 58 32.9	-0.8
	baz=62						
TOA0	Torodi Ar. Sit	61.93	81	*e*P	P	14 58 33.4	-1.5
TOA0				*e*	pP	14 58 47.5	-1.9
TORD	Torodi Ar. Bea	61.93	81	P	P	14 58 33.8	-1.1
	comp=Z,1.2nm,0.3s,mb4.5,baz=289,slow=6.5,SNR=19						
TORD				pP	pP	14 58 47.3	-2.1
	comp=Z,5.6nm,0.7s,baz=279,slow=5.9,SNR=15						
K02A	Glendale	62.08	313	⇓P	P	14 58 34.3	-1.1
	baz=62						
B06A	Marblemount	62.09	319	⇓P	P	14 58 33.8	-1.5
	baz=62						
JCW	Jim Creek	62.28	319	P	P	14 58 34.7	-2.0
EPF	Esparros	62.33	47	*e*P	P	14 58 38.7	+1.6
	comp=Z,6.1nm,0.5s,mb4.7						
EPF				*e*pP	pP	14 58 52.5	+0.9
EPF	Esparros	62.33	47	*e*P	P	14 58 38.7	+1.6
	comp=Z,3.0nm,0.5s,mb4.7						
EPF				*e*pP	pP	14 58 52.5	+0.9
EPF	Esparros	62.33	47	*e*P	P	14 58 38.7	+1.6
EPF				*e**PP	pP	14 58 52.5	+0.9
EPF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.7						
B05A	Bryant	62.41	319	⇑P	P	14 58 35.2	-2.4
	baz=62						
MFF	Saint Martin d	62.77	43	*e*P	P	14 58 40.9	+0.9
C04A	Brinnon	62.84	318	⇑P	P	14 58 39.1	-1.3
	baz=63						
E03A	Lebam	62.95	317	⇑P	P	14 58 40.6	-0.5
	baz=63						
LFF	La Frestale	63.01	45	*e*P	P	14 58 42.4	+0.8
FLN	La Foliniere	63.09	41	*e*P	P	14 58 42.9	+0.9
	comp=Z,87nm,1.2s,mb5.5						
FLN				*e*pP	pP	14 58 56.7	+0.2
FLN	La Foliniere	63.09	41	*e*P	P	14 58 42.9	+0.9
	comp=Z,44nm,1.2s,mb5.5						
FLN				*e*pP	pP	14 58 56.7	+0.2
FLN	La Foliniere	63.09	41	*e*P	P	14 58 42.9	+0.9
FLN				*e**PP	pP	14 58 56.7	+0.2
FLN				pmax	pmax		
	comp=Z,44nm,1.2s,mb5.5						
LDF	La Druitiere	63.28	41	*e*P	P	14 58 43.9	+0.6
PGC	Sidney	63.38	319	*e*P	P	14 58 43.2	-0.8
MTLF	Montolieu	63.74	47	*e*P	P	14 58 47.1	+0.6
	comp=Z,82nm,1.5s,mb5.2						
MTLF				*e*pP	pP	14 59 01.0	0.0
MTLF	Montolieu	63.74	47	*e*P	P	14 58 47.1	+0.6
	comp=Z,41nm,1.5s,mb5.2						
MTLF				*e*pP	pP	14 59 01.0	0.0
MTLF	Montolieu	63.74	47	*e*P	P	14 58 47.1	+0.6
MTLF				*e**PP	pP	14 59 01.0	0.0
MTLF				pmax	pmax		
	comp=Z,41nm,1.5s,mb5.2						
YKA	Yellowknife Ar	63.88	336	P	P	14 58 45.2	-1.7
YKA				LR	LR	15 22 54.4	
YKA	Yellowknife Ar	63.88	336	P	P	14 58 45.2	-1.7
	comp=Z,5.4nm,0.4s,mb5.0,baz=110,slow=7.4,SNR=103						
YKA				LR	LR	15 22 54.4	
	comp=Z,110nm,19.6s,MS4.0,baz=60,slow=32						
CAF	Calviac	63.92	45	*e*P	P	14 58 48.4	+0.8
CAF				*e*pP	pP	14 59 02.3	+0.1
TCF	Toulx Ste Croi	64.29	44	*e*P	P	14 58 50.8	+0.8
BGF	Bois d'Agland	64.78	44	*e*P	P	14 58 53.9	+0.7
LASF	Ste Croix	65.04	46	*e*P	P	14 58 56.3	+1.4
AVF	Avril sur Loir	65.17	43	*e*P	P	14 58 56.2	+0.5
AVF				*e*pP	pP	14 59 10.1	-0.2
SSF	Saint Saulge	65.32	43	*e*P	P	14 58 57.1	+0.4
SMF	Signal de Mont	65.47	44	*e*P	P	14 58 58.3	+0.6
	comp=Z,21nm,1.1s,mb4.8						
SMF				*e*pP	pP	14 59 12.1	-0.1
SMF	Signal de Mont	65.47	44	*e*P	P	14 58 58.3	+0.6
	comp=Z,10nm,1.1s,mb4.8						
SMF				*e*pP	pP	14 59 12.1	-0.1
SMF	Signal de Mont	65.47	44	*e*P	P	14 58 58.3	+0.6
SMF				*e**PP	pP	14 59 12.1	-0.1
SMF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
LOR	Lormes	65.59	43	*e*P	P	14 58 58.7	+0.2
	comp=Z,9.6nm,0.9s,mb4.5						
LOR				*e*pP	pP	14 59 12.7	-0.3
LOR	Lormes	65.59	43	*e*P	P	14 58 58.7	+0.2
	comp=Z,4.8nm,0.9s,mb4.5						
LOR				*e*pP	pP	14 59 12.7	-0.3
LOR	Lormes	65.59	43	*e*P	P	14 58 58.7	+0.2
LOR				*e**PP	pP	14 59 12.7	-0.3
LOR				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
VIVF	Saint-Julien-l	65.74	46	*e*P	P	14 59 01.0	+1.6
VIVF				*e*pP	pP	14 59 14.8	+0.8
SMRF	Simiane la Rot	66.25	47	*e*P	P	14 59 03.1	+0.4
BAIF	Baives	66.37	40	*e*P	P	14 59 03.7	+0.3
RES	Resolute Bay	66.53	351	*e*P	P	14 59 03.2	-0.8
	comp=Z,325nm,0.8s						
ORIF	Oris-en-Rattie	66.59	46	*e*P	P	14 59 06.6	+1.7
MEZF	Maizieres J'vi	66.61	42	*e*P	P	14 59 05.6	+0.6
GIVF	Givet	66.77	40	*e*P	P	14 59 06.3	+0.4
GIVF				*e*pP	pP	14 59 20.2	-0.3
LMR	La Mourre	66.83	47	*e*P	P	14 59 07.1	+0.6
	comp=Z,16nm,1.1s,mb4.7						
LMR	La Mourre	66.83	47	*e*P	P	14 59 07.1	+0.6
	comp=Z,7.9nm,1.0s,mb4.7						
LMR	La Mourre	66.83	47	*e*P	P	14 59 07.1	+0.6
LMR				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
FRF	La Foret Royal	66.96	47	*e*P	P	14 59 08.1	+0.8
CABF	La Chapelle	66.99	44	*e*P	P	14 59 08.3	+0.9
CABF				*e*pP	pP	14 59 22.1	+0.1
MBDF	Montbardon	67.20	46	*e*P	P	14 59 10.1	+1.3
MBDF				*e*pP	pP	14 59 24.1	+0.7
LPL	La Plagne	67.28	45	*e*P	P	14 59 10.7	+1.5
LPG	La Plagne	67.29	45	*e*P	P	14 59 11.2	+1.9
LPG				*e*pP	pP	14 59 25.0	+1.1
HAU	Haudompre	67.38	42	*e*P	P	14 59 10.0	+0.1
SBF	Sospel	67.56	47	*e*P	P	14 59 12.1	+1.0
HINF	Hinteralfeld	67.69	43	*e*P	P	14 59 11.9	+0.1
CDF	Champ du Feu	68.06	42	*e*P	P	14 59 14.5	+0.4
CDF				*e*pP	pP	14 59 28.4	-0.4
KEST	Kesra	68.42	56	pP	pP	14 59 32.1	+0.8
	comp=Z,7.3nm,0.9s,baz=216,slow=1.6,SNR=8.8						
PGF	Pioggiola	68.57	49	*e*P	P	14 59 18.3	+0.9
PGF				*e*pP	pP	14 59 32.2	+0.1
VSL	Villasalto	68.63	52	*e*P	P	14 59 20.5	+2.6
	comp=Z,21nm,0.9s,mb5.1						
DLBC	Dease Lake	69.54	329	*e*P	P	14 59 22.6	-0.6
DLBC	Dease Lake	69.54	329	P	P	14 59 22.4	-0.8
	baz=89,slow=5.5						
NKC	Novy Kostel	71.64	41	*e*P	pP	14 59 51.6	+0.8
NKC	Novy Kostel	71.64	41	*e*pP	pP	14 59 51.6	+0.8
CLL	Collm	72.08	40	*i* P	pP	14 59 53.8	+0.3
CLL				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.9						
KHC	Kasperske Hory	72.28	42	*e*P	pP	14 59 55.1	+0.4
KHC	Kasperske Hory	72.28	42	*e*pP	pP	14 59 55.1	+0.4
GERES	GERESS Array B	72.34	42	P	P	14 59 40.0	-0.3
	comp=Z,1.6nm,0.8s,mb4.0,baz=258,slow=4.9,SNR=9.8						
GERES				pP	pP	14 59 54.9	-0.2
	comp=Z,3.7nm,0.7s,baz=255,slow=4.0,SNR=12						
NOA	NORSAR Array B	72.35	29	P	P	14 59 41.5	+1.3
	comp=Z,5.4nm,1.0s,mb4.4,baz=263,slow=6.1,SNR=6.0						
NOA				LR	LR	15 24 05.4	
	comp=Z,165nm,19.8s,MS4.3,baz=285,slow=30						
BRG	Berggiesshubel	72.64	40	*e*P	pP	14 59 57.4	+0.6
BRG				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
PRU	Pruhonice	72.96	41	*e*P	pP	14 59 59.1	+0.3
PRU	Pruhonice	72.96	41	*e*pP	pP	14 59 59.1	+0.3
PVCC	Panska Ves	73.01	40	*e*P	pP	14 59 59.2	+0.1
PVCC	Panska Ves	73.01	40	*e*pP	pP	14 59 59.2	+0.1
INK	Inuvik	73.32	338	*e*P	P	14 59 43.4	-2.3
	comp=Z,398nm,0.9s						
INK	Inuvik	73.32	338	P	P	14 59 44.7	-1.1
	comp=Z,9.0nm,0.8s,mb4.8,baz=118,slow=7.0,SNR=16						
TREC	Trest	73.54	42	*e*P	pP	15 00 02.6	+0.4
TREC	Trest	73.54	42	*e*pP	pP	15 00 02.6	+0.4
UPC	Upice	73.93	40	*e*pP	pP	15 00 05.6	+1.1
DPC	Dobruska-Polom	74.12	41	*e*pP	pP	15 00 06.6	+1.0
DAWY	Dawson	74.95	334	*e*P	P	14 59 54.7	-0.7
EGAK	Eagle	75.79	334	*e*P	P	14 59 59.4	-0.7
	comp=Z,13nm,0.8s,mb4.9						
CRVS	Cervenica-Dubn	77.46	42	*e*P	pP	15 00 22.4	-2.4
COLA	College	78.65	334	*e*P	P	15 00 14.4	-1.7
ARCES	ARCESS Array B	78.97	21	P	P	15 00 18.6	+0.8
	comp=Z,5.4nm,0.6s,mb4.7,baz=270,slow=6.4,SNR=30						
FINES	FINESS Array B	79.53	29	P	P	15 00 21.3	+0.3
	comp=Z,2.3nm,0.5s,mb4.3,baz=270,slow=3.3,SNR=27						
FINES				sP	sP	15 00 40.0	-1.8
	comp=Z,1.1nm,0.4s,baz=260,slow=3.9,SNR=3.1						
KAF	Kangasniemi	79.60	29	*e*P	P	15 00 20.7	-0.7
KAF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
SLKM	Skilak Lake	79.94	330	*e*P	P	15 00 23.0	-0.3
IMA2	Indian Mountai	81.00	336	*e*P	P	15 00 28.3	-0.6
KDAK	Kodiak Island	81.41	327	P	P	15 00 31.4	+0.2
	comp=Z,7.1nm,0.6s,mb4.8,baz=92,slow=0.7,SNR=9.1						
SVW2	Sparrevohn	82.49	331	*e*P	P	15 00 36.3	-0.5
TSUM	Tsumeb	83.60	111	*e*P	P	15 00 43.8	+0.5
	comp=Z,12nm,1.3s,mb4.9						
OBN	Obninsk	85.92	35	*e*P	P	15 00 53.9	-0.4
OBN				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb5.0						
BRTR	Keskin Array B	87.25	50	P	P	15 01 02.0	+0.9
	comp=Z,0.4nm,0.4s,baz=351,slow=7.3,SNR=3.2						
BRTR				pP	pP	15 01 16.3	0.0
	comp=Z,2.5nm,1.0s,baz=273,slow=4.8,SNR=4.8						
ANN	Anapa	88.87	45	*e*P	P	15 01 02.2	-6.6
ANN				pmax	pmax		
	comp=Z,85nm,1.4s,mb5.9						
BOSA	Boshof	92.47	119	P	P	15 01 26.2	+0.4
	comp=Z,2.4nm,0.9s,mb4.5,baz=191,slow=5.2,SNR=2.6						
BILL	Bilibino	94.28	344	*e*P	P	15 01 30.3	-3.1
BILL				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.7						
TIXI	Tiksi	97.42	357	*e*P	P	15 01 46.3	-1.3
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb4.4						
ZALV	Zalesovo Beam	109.52	20	PKPdf	PKiKP	15 06 44.5	-0.2
ZALV	Zalesovo Beam	109.52	20	PKiKP	PKiKP	15 06 44.5	-0.2
	comp=Z,0.3nm,0.3s,baz=321,slow=2.1,SNR=4.3						
MKAR	Makanchi Array	114.25	26	PKP	PKiKP	15 06 53.8	-0.1
MKAR	Makanchi Array	114.25	26	PKIKP	PKiKP	15 06 53.8	-0.1
MKAR	Makanchi Array	114.25	26	PKP	PKiKP	15 06 53.8	-0.1
	comp=Z,0.2nm,0.6s,baz=298,slow=2.6,SNR=3.8						
WMQ	Urumqi	118.92	25	*e*PKP	PKPdf	15 07 01.0	-2.0
SONM	Songino Array	120.66	9	PKP	PKPdf	15 07 06.7	+0.5
SONM	Songino Array	120.66	9	PKIKP	PKPdf	15 07 06.7	+0.5
SONM	Songino Array	120.66	9	PKP	PKPdf	15 07 06.7	+0.5
	comp=Z,1.1nm,0.4s,baz=274,slow=1.1,SNR=31						
MDJ	Mudanjiang	123.89	350	PKP	PKPdf	15 07 10.9	-1.6
GTA	Gaotai	127.16	18	*e*PKP	PKPdf	15 07 20.0	+1.1
GTA				PP	PP	15 09 21.6	+4.7
GTA				PKS		15 10 55.3	
GTA				PPP		15 12 05.3	
GTA				SKS	SKSdf	15 14 20.6	-6.0
GTA				SKKS	SKKSac	15 16 02.9	-8.6
GTA				PP	PP		
	comp=Z,130nm,4.9s						
GTA				LR	LR		
	comp=N,135nm,16.0s,MS4.8						
GTA				LR	LR		
	comp=E,125nm,16.4s,MS4.8						
GTA				LR	LR		
	comp=Z,228nm,16.7s,MS4.9						
KSRS	Korea Array	131.15	350	SKPbc	SKPbc	15 10 45.2	-1.8
	comp=Z,2.3nm,0.7s,baz=354,slow=4.5,SNR=7.5						
LSA	Lhasa	131.98	32	*e*PKP	PKPdf	15 07 31.0	+2.6
NJ2	Nanjing	137.38	359	*e*PKP	PKPdf	15 07 42.6	+4.2
KMI	Kunming	141.20	23	PKP	PKPdf	15 07 44.3	-1.3
KMI	Kunming	141.20	23	PKIKP	PKPdf	15 07 44.2	-1.4
GYA	Guiyang	141.27	17	PKP	PKPdf	15 07 46.1	+0.4
GYA				PP	PP	15 10 48.4	+1.9
GYA				PKS		15 11 17.6	
GYA				SKS	SKSdf	15 14 43.4	-8.4
GYA				LR	LR		
	comp=N,214nm,20.9s,MS5.1						
GYA				LR	LR		
	comp=E,290nm,21.0s,MS5.1						
GYA				LR	LR		
	comp=Z,360nm,20.8s,MS5.1						
CHTO	Chiang Mai	144.92	33	*e*PKPdf	PKPdf	15 07 51.7	-0.5
CHTO	Chiang Mai	144.92	33	*e*PKIKP	PKPdf	15 07 51.7	-0.6
STKA	Stephens Creek	149.95	222	PKP	PKPdf	15 08 01.5	+1.2
	comp=Z,1.7nm,0.7s,baz=101,slow=10,SNR=4.8						
STKA				PKPbc	PKPbc	15 08 05.9	+0.7
	comp=Z,5.6nm,1.0s,baz=92,slow=5.0,SNR=7.6						
CTA	Charters Tower	151.55	248	*e*PKIKP	PKPdf	15 08 09.9	+6.9
CTA	Charters Tower	151.55	248	PKPbc	PKPbc	15 08 09.2	-0.1
	comp=Z,7.3nm,0.8s,baz=110,slow=21,SNR=6.6						
ASAR	Alice Springs	160.38	227	PKP	PKPdf	15 08 15.3	+0.7
ASAR				pPKP	pPKPdf	15 08 30.2	-0.2
ASAR				PKPab	PKPab	15 08 56.5	+1.0
ASAR	Alice Springs	160.38	227	PKIKP	PKPdf	15 08 15.3	+0.7
ASAR						15 08 30.2	
ASAR	Alice Springs	160.38	227	PKP	PKPdf	15 08 15.3	+0.7
	comp=Z,0.8nm,0.8s,baz=113,slow=1.2,SNR=9.7						
ASAR				pPKP	pPKPdf	15 08 30.2	-0.2
	comp=Z,2.2nm,1.1s,baz=125,slow=1.0,SNR=4.9						
ASAR				PKPab	PKPab	15 08 56.5	+1.0
	comp=Z,0.6nm,0.7s,baz=124,slow=2.7,SNR=6.2						
WRA	Warramunga Arr	162.07	238	PKP	PKPdf	15 08 17.0	+0.5
WRA				pPKP	pPKPdf	15 08 34.0	+1.7
WRA				PKPab	PKPab	15 09 03.7	+0.6
WRA	Warramunga Arr	162.07	238	PKIKP	PKPdf	15 08 17.0	+0.5
WRA						15 08 34.0	
WRA	Warramunga Arr	162.07	238	PKP	PKPdf	15 08 17.0	+0.5
	comp=Z,2.3nm,1.0s,baz=103,slow=0.3,SNR=12						
WRA				pPKP	pPKPdf	15 08 34.0	+1.7
	comp=Z,2.5nm,0.9s,baz=98,slow=0.2,SNR=7.3						
WRA				PKPab	PKPab	15 09 03.7	+0.6
	comp=Z,0.8nm,0.7s,baz=103,slow=4.6,SNR=7.2						

ISCJB ***23*** *15:12:00.8±0.9, 5.83N±0.09×126.95E±0.09, h10km, mb3.4/4, Error ellipse: s-maj=16.3km s-min=7.8km az=135.5*

IDC ***23*** *15:12:01.4±2.0, 5.78N×126.67E, h0km, mb3.5/4, mb1 3.7/4, mb1mx3.5/19, mbtmp3.5/4, Error ellipse: s-maj=128.7km s-min=23.1km az=69.0*

ISC 23 15:12:03.3±2.6, **5.9N**±0.1×**126.86E**±0.10, **h16km**±18km, **n10,** σ0.**91**/15, **mb3.4**/4, **1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	**Mati**	1.20	330	*e*P	Pn	15 12 30.0	+4.6
MATI				*e*S	Sb	15 12 54.4	+13
GSPH	**General Santos**	1.91	276	*e*P	Pn	15 12 31.4	-3.7
GSPH				*e*S	Sn	15 12 58.7	-0.1
KCP	**Kidapawan**	2.07	302	*e*P	Pg	15 12 46.5	+3.3
KCP				*e*S	Sg	15 13 15.9	+5.8
BUKP	**Musuan**	2.66	318	*e*P	Pn	15 12 46.6	+1.1
BUKP				*e*S	Sg	15 13 28.2	-0.5
CGP	**Cagayan de Oro**	3.33	320⇓	*e*P	Pb	15 13 01.9	0.0
CGP				*e*S	Sg	15 13 45.9	-4.3
SCPH	**Surigao**	4.09	341	*i* P	Pn	15 13 04.3	-0.9
FITZ	**Fitzroy Crossi**	23.88	183	P	P	15 17 16.3	+0.1
	1.3nm,0.7s,mb3.4,baz=15,slow=12,SNR=4.6						
WRA	**Warramunga Arr**	26.71	164	P	P	15 17 42.1	+0.1
	0.8nm,0.7s,mb3.4,baz=342,slow=10,SNR=15						
ASAR	**Alice Springs**	30.18	167	P	P	15 18 12.2	-0.6
	0.2nm,0.4s,mb3.2,baz=341,slow=7.3,SNR=6.3						
MKAR	**Makanchi Array**	55.87	324	P	P	15 21 40.7	+0.6
	0.4nm,0.5s,mb3.7,baz=120,slow=7.4,SNR=13						

MAN 23 15:19:50, 18.26N×120.68E, h30^{km}, mb4.0, ML2.8, MS2.5, 1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	**Pasuquin**	0.09	316⇓	*e*P	Pb	15 19 56.1	+0.9
PIP				*e*S	Sb	15 20 02.0	+3.2
ABRA	**Dolores**	0.61	177	*e*P	Pb	15 20 03.1	+0.8
APYP	**Conner**	0.67	127	*e*P	Pb	15 20 04.4	+1.2
APYP				*e*S	Sb	15 20 14.0	+1.9

IDC 23 15:22:05.9±1.3**, 26.27N×110.43W, h0^{km}, mb3.6**/2**, mb1 3.9**/6**, mb1mx3.7**/22**, mbtmp3.5**/6**, ML3.6**/4**, MS3.6**/4**, Ms1 3.6**/4**, ms1mx3.1**/35**, Error ellipse: s-maj=21.2km s-min=13.6km az=96.0, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	**La Paz**	2.16	177	Pn	Pn	15 22 44.7	+1.6
	21nm,0.3s,baz=356,slow=6.3,SNR=5.2						
LPIG				Lg		15 23 13.8	
	11nm,0.3s,baz=216,slow=23,SNR=4.1						
LPIG				LR	LR	15 23 35.0	
	comp=Z,963nm,18.5s,baz=5.7,slow=41						
TXAR	**Lajitas Array**	6.73	61	Pn	Pn	15 23 45.6	-0.4
	0.5nm,0.3s,baz=232,slow=14,SNR=25						
TXAR				Sn	Sn	15 25 03.2	-0.1
	0.4nm,0.3s,baz=233,slow=22,SNR=3.1						
TXAR				Lg		15 25 39.6	
	0.9nm,0.3s,baz=248,slow=36,SNR=5.7						
TXAR				LR	LR	15 26 36.1	
	comp=Z,549nm,18.7s,baz=10.0,slow=40						
ANMO	**Albuquerque**	9.30	21	Lg		15 27 05.0	
	0.4nm,0.3s,baz=238,slow=8.0,SNR=3.0						
NVAR	**Mina Array Bea**	13.82	333	Pn	Pn	15 25 26.2	+3.1
	0.1nm,0.3s,baz=155,slow=15,SNR=5.0						
PDAR	**Pinedale Array**	16.48	2	Pn	Pn	15 26 01.6	+3.2
	0.0nm,0.3s,baz=147,slow=3.5,SNR=7.1						
TKL	**Tuckaleechee C**	24.64	61	P	P	15 27 28.1	0.0
	3.0nm,0.5s,baz=304,slow=7.3,SNR=5.7						
TKL				LR	LR	15 38 08.5	
	comp=Z,170nm,19.1s,baz=351,slow=39						
YKA	**Yellowknife Ar**	36.33	357	P	P	15 29 10.6	-0.5
	0.1nm,0.3s,baz=180,slow=8.0,SNR=4.6						
YKA				LR	LR	15 43 19.8	
	comp=Z,86nm,18.3s,baz=155,slow=35						

IDC 23 15:33:26.0±2.2**, 5.94S×130.50E, h0^{km}, mb3.8**/1**, mb1 3.4**/4**, mb1mx3.3**/14**, mbtmp3.3**/4**, ML2.8**/3**, Error ellipse: s-maj=101.4km s-min=27.3km az=77.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	12.98	201	Pn	Pn	15 36 31.7	-0.2
	0.0nm,0.3s,baz=16,slow=17,SNR=5.6						
FITZ				Sn	Sn	15 38 38.0	-19
	0.1nm,0.3s,baz=4.1,slow=18,SNR=6.1						
WRA	**Warramunga Arr**	14.41	165	Pn	Pn	15 36 51.8	+0.4
	0.0nm,0.3s,baz=349,slow=13,SNR=3.0						
WRA				Sn	Sn	15 39 20.2	-12
	0.2nm,0.3s,baz=357,slow=22,SNR=8.5						
ASAR	**Alice Springs**	17.92	170	P	Pn	15 37 36.9	0.0
	0.1nm,0.3s,baz=348,slow=9.8,SNR=16						
ASAR				S	Sn	15 40 44.4	-13
	0.0nm,0.3s,baz=355,slow=26,SNR=3.7						
MKAR	**Makanchi Array**	67.62	326	P	P	15 44 24.8	+0.1
	0.6nm,0.5s,baz=115,slow=8.2,SNR=21						

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*CSEM **23** 15:44:32.8, 38.42N×39.07E, h12^{km}, MD2.7, After ISK*

ISK 23 15:44:32.8, 38.42N×39.07E, h12^{km}, MD2.7, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MYA	**Malataya**	0.51	260	PG	Pg	15 44 43.7	+0.8
MYA				SG	Sg	15 44 50.9	+1.2
MYA	**Malataya**	0.51	260	*e*Pg	Pg	15 44 43.7	+0.8
MYA				*e*Sg	Sg	15 44 50.9	+1.2
MALT	**Malatya**	0.52	259	PG	Pg	15 44 43.1	+0.2
MALT				SG	Sg	15 44 51.1	+1.4
MALT	**Malatya**	0.52	259	*e*Pg	Pg	15 44 43.1	+0.2
MALT				*e*Sg	Sg	15 44 51.1	+1.4
PTK	**Pertek**	0.54	28	PG	Pg	15 44 44.1	+0.8
PTK				SG	Sg	15 44 51.6	+1.1
PTK	**Pertek**	0.54	28	*e*Pg	Pg	15 44 44.1	+0.8
PTK				*e*Sg	Sg	15 44 51.6	+1.1
URFA	**Urfa**	0.99	192	*e*PG	Pg	15 44 52.3	+0.4
URFA	**Urfa**	0.99	192	*e*Pg	Pg	15 44 52.3	+0.4
EZC	**Erzincan**	1.45	23	*e*PN	Pn	15 44 58.0	-0.9

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*NEIC **23** 15:58:27.9, 16.43N×98.37W, h39^{km}, MD3.9(MEX), After MEX.*

MEX 23 15:58:27.0±0.6**, 16.42N×98.52W, h20^{km}**±16^{km}**, MD3.9, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	0.38	93	*i* P	Pb	15 58 33.9	-1.1
PNIG				*i* S	Sb	15 58 39.0	-1.5
PNIG	**Pinotepa**	0.38	93	*i* P	Pb	15 58 33.9	-1.1
PNIG				*i* S	Sb	15 58 39.0	-1.5
ACX	**Acapulco**	1.41	289	*i* P	Pn	15 58 48.0	-3.6
ACX				*i* S	Sn	15 59 06.0	-3.6
UTMO	**Huajuapan**	1.56	26	*i* P	Pn	15 58 50.4	-3.3
UTMO				*i* S	Sn	15 59 09.4	-4.0
CAIG	**El Cayaco**	1.79	291	*i* P	Pn	15 58 57.1	+0.3
CAIG				*i* S	Sn	15 59 18.4	-0.5
CAIG	**El Cayaco**	1.79	291	*e*P	Pn	15 58 55.1	-1.7
CAIG				*i* S	Sn	15 59 14.3	-4.6
MEIG	**Mezcala**	1.83	325	*i* P	Pn	15 58 55.4	-2.0
MEIG				*i* S	Sn	15 59 15.6	-4.4
PLIG	**Platanillo**	2.18	335	*i* P	Pn	15 59 01.8	-0.3
PLIG				*i* S	Sn	15 59 26.8	-1.8
PLIG	**Platanillo**	2.18	335	*e*P	Pn	15 59 00.1	-2.0
PLIG				*i* S	Sn	15 59 24.6	-3.9
TPIG	**Tehuac#an**	2.28	29	*i* P	Pn	15 59 00.9	-2.6
TPIG				*i* S	Sn	15 59 27.9	-3.2
HUIG	**Huatulco**	2.41	105	*i* P	Pn	15 59 02.3	-2.9
HUIG				*i* S	Sn	15 59 28.0	-6.1
HUIG	**Huatulco**	2.41	105	*i* P	Pn	15 59 02.3	-2.9
HUIG				*i* S	Sn	15 59 29.8	-4.4
YAIG	**Yautepec**	2.49	348	*i* P	Pn	15 59 04.8	-1.6
YAIG				*i* S	Sn	15 59 34.8	-1.4
YAIG	**Yautepec**	2.49	348	*i* P	Pn	15 59 04.8	-1.6
YAIG				*i* S	Sn	15 59 33.6	-2.6
PPM	**Popocatepetl**	2.64	358	*i* P	Pn	15 59 06.3	-2.2
PPM				*i* S	Sn	15 59 38.7	-1.2
PPM	**Popocatepetl**	2.64	358	*i* P	Pn	15 59 06.3	-2.2
PPM				*i* S	Sn	15 59 38.4	-1.5

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*GII **23** 16:03:12.4±0.0, 26.63N×35.09E, h10^{km}±3^{km}, mb4.0/2, ML3.7/4*
*SGS **23** 16:03:27.0, 27.71N×34.52E, h8^{km}*
*ISCJB **23** 16:03:27.1±1.7, 27.70N±0.07×34.6E±0.1, h27^{km}±14^{km}, Error ellipse: s-maj=20.9km s-min=8.6km az=154.2*
*CSEM **23** 16:03:27.2±0.2, 27.72N×34.73E, h10^{km}, ML3.6, Error ellipse: s-maj=6.9km s-min=1.9km az=61.0*

ISC 23 16:03:27.5±1.8**, 27.74N**±0.06×**34.6E**±0.1**, h16^{km}**±9^{km}**, n25, σ0^{s}85**/31**, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSHS		0.58	14	P	Pg	16 03 39.5	+0.5
RSHS		0.58	14	P	Pg	16 03 39.5	+0.6
JLOS		1.25	37	P	Pn	16 03 49.4	-0.9
JLOS				S	Sb	16 04 07.3	+0.7
JLOS		1.25	37	P	Pn	16 03 49.4	-0.9
HQLS		1.60	13	P	Pn	16 03 54.4	-0.8
HQLS				S	Sn	16 04 15.1	-0.5
HQLS		1.60	13	P	Pn	16 03 54.4	-0.8
WJHS		1.86	122	P	Pn	16 03 58.4	-0.3
WJHS				S	Sn	16 04 21.5	-0.3
EIL	**Elat**	1.95	8	Pn	Pn	16 03 59.1	-0.8
EIL				Sn	Sg	16 04 36.5	+6.3
EIL	**Elat**	1.95	8	Pn	Pn	16 03 59.1	-0.8
HRFI	**Mount Harif**	2.32	9	Pn	Pn	16 04 05.1	+0.1
HRFI				Sn	Sg	16 04 45.2	+3.0
HRFI	**Mount Harif**	2.32	9	Pn	Pn	16 04 05.1	+0.1
KRMI	**Paran Flat**	2.37	2	Pn	Pn	16 04 05.8	0.0
KRMI	**Paran Flat**	2.37	2	Pn	Pn	16 04 05.8	0.0
PRNI	**Paran**	2.63	7	Pn	Pn	16 04 10.1	+0.8
PRNI	**Paran**	2.63	7	Pn	Pn	16 04 10.0	+0.7
ZFRI	**Zfri**	2.85	9	Pn	Pn	16 04 12.7	+0.4
ZFRI	**Zfri**	2.85	9	Pn	Pn	16 04 12.7	+0.4
RMNI	**Mount Ramon**	2.85	2	Pn	Pn	16 04 13.5	+1.1
RMNI	**Mount Ramon**	2.85	2	Pn	Pn	16 04 13.5	+1.1
SVTA	**Shivta**	3.18	360	Sn	Sg	16 05 08.7	-1.1
MASH	**Mash'abbe Sade**	3.25	2	Sn	Sg	16 05 10.6	-1.4
YTIR	**Yattir**	3.64	6	Pn	Pn	16 04 23.7	+0.5
YTIR	**Yattir**	3.64	6	Pn	Pn	16 04 23.7	+0.5
SLTI	**Sal'it**	4.50	4	Pn	Pn	16 04 35.7	+0.6
SLTI				Sn	Sg	16 05 41.0	-11
SLTI	**Sal'it**	4.50	4	Pn	Pn	16 04 35.7	+0.6

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*ISCJB **23** 16:13:14.9±0.4, 49.85N±0.03×18.45E±0.03, h0^{km}, Error ellipse: s-maj=4.1km s-min=2.3km az=13.6*
*IPEC **23** 16:13:16.2±0.2, 49.83N×18.58E, h8^{km}±1^{km}, ML2.0/4, Error ellipse: s-maj=2.1km s-min=1.1km az=163.0*
*CSEM **23** 16:13:16.5±0.1, 49.88N×18.53E, h2^{km}, ML3.0/3, Error ellipse: s-maj=3.5km s-min=2.0km az=6.0*
*PRU **23** 16:13:17.1, 49.85N×18.49E, h0^{km}*

ISC 23 16:13:16.4±0.4**, 49.82N**±0.03×**18.48E**±0.02**, h0^{km}, n37, σ1^{s}22**/64**, Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	**Ostrava-Krasne**	0.22	276	*e*PG	Pg	16 13 21.7	+1.2
OKC				*e*SG	Sg	16 13 25.3	+1.9
	154nm,0.5s						
OKC	**Ostrava-Krasne**	0.22	276	*e*Pg	Pg	16 13 21.6	+1.1
OKC				*e*Sg	Sg	16 13 25.3	+1.9
	154nm,0.5s						
RAC	**Raciborz**	0.33	325	*e*Sg	Sg	16 13 30.2	+3.3
MORC	**Moravsky Berou**	0.61	267	*e*Pg	Pg	16 13 28.9	+0.9
MORC				*e*Sg	Sg	16 13 37.6	+1.7
	21nm,0.3s						
OJC	**Ojcow**	0.94	64	*e*Pg	Pg	16 13 33.2	-1.2
OJC				*e*Sg	Sg	16 13 46.1	-0.5
JAVC	**Velka Javorina**	1.09	209	*e*Pg	Pg	16 13 38.3	+1.0
KOLL	**Kolacno**	1.24	182	*e*PG	Pg	16 13 39.5	-0.6
KOLL				*e*SG	Sg	16 13 57.0	+0.9
KOLL	**Kolacno**	1.24	182	*e*Pn	Pg	16 13 39.5	-0.6
KOLL				*e*Sn	Sg	16 13 57.0	+0.9
NIE	**Niedzica**	1.25	108	*e*Pg	Pg	16 13 39.6	-0.8
NIE				*e*Sg	Sg	16 13 58.6	+2.0
VRAC	**Vranov**	1.33	248	*e*Pg	Pg	16 13 41.3	-0.5
VRAC				*e*Sg	Sg	16 14 00.5	+1.4
	17nm,0.2s						
VYHS	**Vyhne**	1.34	170	*e*PN	Pn	16 13 40.8	-1.5
VYHS				*e*SN	Sn	16 13 59.3	-1.5
VYHS	**Vyhne**	1.34	170	*e*Pn	Pn	16 13 40.8	-1.5
VYHS				*e*Sn	Sn	16 13 59.3	-1.5
SMOL	**Smolenice**	1.48	208	*e*SN	Sn	16 14 04.0	-0.1
SMOL	**Smolenice**	1.48	208	*e*Sn	Sn	16 14 04.0	-0.1
DPC	**Dobruska-Polom**	1.49	292	*e*PG	Pg	16 13 44.0	-0.9
DPC				*e*SG	Sg	16 14 04.6	+0.4
	17nm,0.4s						
DPC	**Dobruska-Polom**	1.49	292	*e*Pn	Pn	16 13 43.9	-0.5
DPC	**Dobruska-Polom**	1.49	292	*e*Pg	Pg	16 13 44.0	-0.9
DPC				*e*Sg	Sg	16 14 04.9	+0.7
KRUC	**Moravsky**	1.56	242	*e*Pn	Pn	16 13 44.9	-0.4
KRUC				*e*Sg	Sg	16 14 06.7	+0.4
	15nm,0.3s						
UPC	**Upice**	1.73	295	*e*PG	Pg	16 13 48.5	-1.1
UPC				*e*SG	Sg	16 14 11.3	-0.7
UPC	**Upice**	1.73	295	*e*Pg	Pg	16 13 48.5	-1.1
UPC				*e*Sg	Sg	16 14 11.3	-0.7
STHS	**Stebnicka Huta**	1.84	101	*e*PN	Pn	16 13 50.7	+1.6
STHS				*e*SN	Sn	16 14 16.5	+3.4
STHS	**Stebnicka Huta**	1.84	101	*e*Pn	Pn	16 13 50.7	+1.6
STHS				*e*Sn	Sn	16 14 16.5	+3.4
ZST	**Bratislava**	1.86	210	*e*SN	Sn	16 14 12.4	-1.1
ZST	**Bratislava**	1.86	210	*e*Sn	Sn	16 14 12.4	-1.1
KECS	**Kecovo**	1.87	135	*e*PN	Pn	16 13 48.0	-1.6
KECS				*e*SN	Sn	16 14 13.2	-0.7
CRVS	**Cervenica-Dubn**	2.15	114	*e*PN	Pn	16 13 55.6	+2.2
CRVS				*e*SN	Sn	16 14 23.3	+2.5
CRVS	**Cervenica-Dubn**	2.15	114	*e*Pn	Pn	16 13 55.6	+2.2
CRVS				*e*Sn	Sn	16 14 23.3	+2.5
PRU	**Pruhonice**	2.55	275	*e*PG	Pg	16 14 03.5	-1.8
PRU				*e*SG	Sg	16 14 38.7	+0.3
	7.4nm,0.5s						
PRU	**Pruhonice**	2.55	275	*e*Pg	Pg	16 14 03.5	-1.8
PRU				*e*Sg	Sg	16 14 38.7	+0.3
	7.4nm,0.5s						
KOLS	**Kolonicke sedl**	2.63	108	*e*PG	Pg	16 14 07.2	+0.5
KOLS				*e*SG	Sg	16 14 40.2	-0.6
KOLS	**Kolonicke sedl**	2.63	108	*e*Pg	Pg	16 14 07.2	+0.5
KOLS				*e*Sg	Sg	16 14 40.2	-0.6
BRG	**Berggiesshubel**	3.10	292	PG	Pg	16 14 12.9	-2.8
BRG				SG	Sg	16 14 55.4	-0.4
	6.3nm,0.6s						
KHC	**Kasperske Hory**	3.27	260	*e*PN	Pn	16 14 09.1	+0.3
KHC				*e*PG	Pg	16 14 15.2	-3.8
KHC				*e*SG	Sg	16 15 00.2	-1.2
KHC	**Kasperske Hory**	3.27	260	*e*Pn	Pn	16 14 09.1	+0.3
CLL	**Collm**	3.80	295	*e*Sg	Sg	16 15 19.0	+0.6
NKC	**Novy Kostel**	3.91	278	*e*SG	Sg	16 15 21.7	-0.3
NKC	**Novy Kostel**	3.91	278	*e*Sg	Sg	16 15 21.7	-0.3

IDC 23 16:20:55.5±3.4**, 15.43S×70.44W, h195^{km}**±31^{km}**, mb3.2**/2**, mb1 3.4**/3**, mb1mx3.1**/16**, mbtmp3.2**/3**, Error ellipse: s-maj=109.7km s-min=47.0km az=19.0, Southern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	**La Paz**	2.38	111	P	Pn	16 21 37.6	-0.1
	5.8nm,0.3s,baz=296,slow=11,SNR=132						
LPAZ				S	Sn	16 22 12.5	+1.9
	0.5nm,0.3s,baz=203,slow=24,SNR=8.3						
TORD	**Torodi Ar. Bea**	76.80	72	P	P	16 32 25.7	-0.5
	0.1nm,0.4s,baz=262,slow=4.9,SNR=4.6						
YKA	**Yellowknife Ar**	85.01	341	P	P	16 33 08.2	-0.3
	0.1nm,0.3s,baz=138,slow=5.4,SNR=5.3						
SONM	**Songino Array**	147.59	4	PKPbc	PKPbc	16 40 18.0	+1.2
	0.3nm,0.7s,baz=323,slow=2.6,SNR=2.9						

IDC 23 16:22:59.5±9.5**, 31.22N×139.58E, h0^{km}, mb3.2**/3**, mb1 3.4**/3**, mb1mx3.2**/20**, mbtmp3.2**/3**, Error ellipse: s-maj=357.7km s-min=33.7km az=65.0, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	46.14	307	P	P	16 31 25.5	0.0
	0.1nm,0.4s,baz=95,slow=10,SNR=3.7						
WRA	**Warramunga Arr**	51.12	186	P	P	16 32 03.5	-0.6
	0.4nm,0.5s,baz=4.7,slow=7.5,SNR=12						
ASAR	**Alice Springs**	54.85	186	P	P	16 32 32.1	+0.6
	0.1nm,0.5s,baz=358,slow=5.6,SNR=5.9						

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*ISK **23** 16:28:26.1, 38.36N×39.24E, h5^{km}, MD3.1*
*DDA **23** 16:28:26.7, 38.43N×39.16E, h28^{km}, Md3.3*
*CSEM **23** 16:28:26.2±0.2, 38.37N×39.25E, h1^{km}±1^{km}, MD3.3, Error ellipse: s-maj=2.7km s-min=2.3km az=117.0*
*ISCJB **23** 16:28:27.1±0.4, 38.35N±0.03×39.27E±0.03, h5^{km}, Error ellipse: s-maj=4.5km s-min=3.4km az=4.7*

ISC 23 16:28:27.3±0.6**, 38.35N**±0.03×**39.29E**±0.04**, h2^{km}**±6^{km}**, n25, σ1^{s}04**/36**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.28	303	*i* P	Pg	16 28 31.8	-0.9
ELZG				*i* S	Sg	16 28 36.8	+0.4
PTK	**Pertek**	0.55	8	PG	Pg	16 28 37.6	-0.3
PTK				SG	Sg	16 28 46.7	+1.7
PTK	**Pertek**	0.55	8	*e*Pg	Pg	16 28 37.6	-0.3
PTK				*e*Sg	Sg	16 28 46.7	+1.7
MALT	**Malatya**	0.68	268	PG	Pg	16 28 39.1	-1.2
MALT				SG	Sg	16 28 49.8	+0.7
MALT	**Malatya**	0.68	268	*e*Pg	Pg	16 28 39.1	-1.2
MALT				*e*Sg	Sg	16 28 49.8	+0.7
MYA	**Malataya**	0.68	269	PG	Pg	16 28 39.2	-1.1
MYA	**Malataya**	0.68	269	*e*Pg	Pg	16 28 39.2	-1.1
DIY	**Diyarbakir**	0.87	121	PG	Pg	16 28 44.3	+0.4
DIY	**Diyarbakir**	0.87	121	*e*Pg	Pg	16 28 44.3	+0.4
URFA	**Urfa**	0.98	202	*e*PG	Pg	16 28 46.5	+0.5
URFA	**Urfa**	0.98	202	*e*Pg	Pg	16 28 46.5	+0.5
BINT	**Bingol**	1.08	60	*e*PN	Pn	16 28 48.6	-0.9
BINT	**Bingol**	1.08	60	*e*Pn	Pn	16 28 48.6	-0.9
ATAB	**Bozova**	1.18	222	*i* P	Pg	16 28 49.9	+0.1
ATAB				*i* S	Sg	16 29 06.1	+1.1
EZC	**Erzincan**	1.46	16	*e*PN	Pn	16 28 53.9	-0.8
MARD	**Mardin**	1.57	131	*i* P	Pn	16 28 54.9	-1.2
MARD				*i* S	Sn	16 29 16.7	-0.4
BNGL	**BINGOL**	1.58	67	*i* P	Pn	16 28 57.2	+0.9
BNGL				*i* S	Sn	16 29 22.0	+4.7
BEST	**Besiri**	1.63	106	*i* P	Pn	16 28 55.9	-1.1
BEST				*i* S	Sn	16 29 20.2	+1.7
GZT	**Gaziantep**	1.69	235	*i* P	Pn	16 28 56.2	-1.5
GZT				*i* S	Sn	16 29 22.7	+2.8
BTMT	**Batman**	1.74	94	*e*PN	Pn	16 28 57.6	-0.9
SVSK	**Karacayir**	2.37	312	*e*PN	Pn	16 29 07.9	+0.7
SVSK	**Karacayir**	2.37	312	*e*Pn	Pn	16 29 07.9	+0.7
ANDN	**Andirin**	2.45	253	*i* P	Pn	16 29 03.9	-4.3
ANDN				*i* S	Sn	16 29 38.6	-0.2
SIRT	**Sirnak**	2.63	108	*e*PN	Pn	16 29 11.9	+1.1
SIRT	**Sirnak**	2.63	108	*e*Pn	Pn	16 29 11.9	+1.1

IDC 23 16:42:44.4±6.9**, 0.28S×121.79E, h294^{km}**±41^{km}**, mb3.1**/3**, mb1 3.3**/4**, mb1mx2.9**/18**, mbtmp3.2**/4**, Error ellipse: s-maj=104.4km s-min=64.5km az=64.0, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	18.11	168	P	P	16 46 35.5	-0.1
	0.1nm,0.3s,baz=358,slow=18,SNR=3.2						
WRA	**Warramunga Arr**	23.09	149	P	P	16 47 24.5	-0.3
	0.5nm,0.3s,baz=330,slow=10.0,SNR=22						
ASAR	**Alice Springs**	26.05	154	P	P	16 47 51.9	+0.4
	0.5nm,0.6s,baz=344,slow=14,SNR=16						
ASAR				PcP	PcP	16 51 10.7	-0.4
	0.3nm,0.3s,baz=339,slow=2.2,SNR=8.1						
ASAR				ScP	ScP	16 54 22.1	-0.4
	0.3nm,0.7s,baz=346,slow=2.3,SNR=4.6						
STKA	**Stephens Creek**	36.58	151	P	P	16 49 23.1	+0.2
	2.5nm,0.8s,baz=349,slow=5.2,SNR=5.7						

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*ISK **23** 17:06:27.1, 38.40N×39.22E, h5^{km}, MD3.3*
*DDA **23** 17:06:27.8, 38.32N×39.26E, h4^{km}, Md3.3*
*CSEM **23** 17:06:27.3±0.1, 38.40N×39.24E, h2^{km}, MD3.3, Error ellipse: s-maj=2.2km s-min=1.9km az=158.0*
*ISCJB **23** 17:06:28.3±0.4, 38.39N±0.03×39.26E±0.03, h5^{km}, Error ellipse: s-maj=4.4km s-min=3.1km az=0.2*

ISC 23 17:06:28.7±0.4**, 38.39N**±0.03×**39.26E**±0.03**, h5^{km}, n29, σ1^{s}07**/41**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.24	297	*i* P	Pg	17 06 32.9	-0.5
ELZG				*i* S	Sg	17 06 37.5	+0.9
PTK	**Pertek**	0.51	12	PG	Pg	17 06 38.0	-0.6
PTK				SG	Sg	17 06 46.5	+1.2
PTK	**Pertek**	0.51	12	*e*Pg	Pg	17 06 38.0	-0.6
PTK				*e*Sg	Sg	17 06 46.5	+1.2
MALT	**Malatya**	0.66	264	PG	Pg	17 06 39.5	-1.8
MALT				SG	Sg	17 06 50.0	+0.2
MALT	**Malatya**	0.66	264	*e*Pg	Pg	17 06 39.5	-1.8
MALT				*e*Sg	Sg	17 06 50.0	+0.2
MYA	**Malataya**	0.66	265	PG	Pg	17 06 40.5	-0.8
MYA				SG	Sg	17 06 50.0	+0.2
MYA	**Malataya**	0.66	265	*e*Pg	Pg	17 06 40.5	-0.8
MYA				*e*Sg	Sg	17 06 50.0	+0.2
DIY	**Diyarbakir**	0.91	122	PG	Pg	17 06 45.9	-0.3
DIY	**Diyarbakir**	0.91	122	*e*Pg	Pg	17 06 45.9	-0.3
URFA	**Urfa**	1.01	200	PG	Pg	17 06 47.9	-0.1
URFA	**Urfa**	1.01	200	*e*Pg	Pg	17 06 47.9	-0.1
BINT	**Bingol**	1.08	63	PN	Pn	17 06 48.9	-1.6
BINT	**Bingol**	1.08	63	*e*Pn	Pn	17 06 48.9	-1.6
ATAB	**Bozova**	1.19	220	*i* P	Pg	17 06 50.6	-1.0
ATAB				*i* S	Sg	17 07 08.2	+1.2
EZC	**Erzincan**	1.43	18	PN	Pn	17 06 54.4	-0.9
BNGL	**BINGOL**	1.59	69	*i* P	Pn	17 06 58.5	+1.1
BNGL				*i* S	Sn	17 07 21.9	+3.6
MARD	**Mardin**	1.61	131	*i* P	Pn	17 06 56.4	-1.4
MARD				*i* S	Sn	17 07 19.1	+0.1
BEST	**Besiri**	1.66	107	*i* P	Pn	17 06 57.5	-1.0
BEST				*i* S	Sn	17 07 21.4	+1.2
GZT	**Gaziantep**	1.69	233	*i* P	Pn	17 06 57.4	-1.5
GZT				*i* S	Sn	17 07 23.6	+2.7
BTMT	**Batman**	1.77	96	PN	Pn	17 06 59.1	-0.8
GAZ	**Gaziantep**	2.02	234	PN	Pn	17 07 03.9	+0.4
GAZ	**Gaziantep**	2.02	234	*e*Pn	Pn	17 07 03.9	+0.4
SVSK	**Karacayir**	2.33	312	*e*PN	Pn	17 07 08.0	+0.4
SVSK	**Karacayir**	2.33	312	*e*Pn	Pn	17 07 08.0	+0.4
SIRT	**Sirnak**	2.67	108	*e*PN	Pn	17 07 13.3	+1.0
SIRT	**Sirnak**	2.67	108	*e*Pn	Pn	17 07 13.3	+1.0
KOZT	**Kozan**	2.86	253	*e*PN	Pn	17 07 15.6	+0.7
CUKT	**Cukurca**	3.63	107	*e*PN	Pn	17 07 27.0	+1.5
CUKT	**Cukurca**	3.63	107	*e*Pn	Pn	17 07 27.0	+1.5

MEX 23 17:22:49.2±0.7**, 16.70N×99.16W, h10^{km}**±14^{km}**, MD3.7, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	**Acapulco**	0.74	283	*i* P	Pg	17 23 00.0	-3.5
ACX				*i* S	Sg	17 23 10.0	-3.2
CAIG	**El Cayaco**	1.11	288	*i* P	Pb	17 23 07.4	-3.1
CAIG				*i* S	Sg	17 23 20.5	-4.6
MEIG	**Mezcala**	1.29	340	*i* P	Pn	17 23 10.0	-3.3
MEIG				*i* S	Sb	17 23 25.5	-4.8
PLIG	**Platanillo**	1.71	349	*i* P	Pn	17 23 15.7	-3.4
PLIG				*i* S	Sn	17 23 37.1	-4.0
UTMO	**Huajuapan**	1.72	49	*i* P	Pn	17 23 15.0	-4.2
UTMO				*i* S	Sn	17 23 37.2	-4.0
TPIG	**Tehuac#an**	2.42	45	*i* P	Pn	17 23 25.8	-3.1
TPIG				*i* S	Sn	17 23 55.3	-3.4

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*NEIC **23** 17:41:08.3, 15.95N×98.91W, h5^{km}, MD4.1(MEX), After MEX.*

MEX 23 17:41:11.4±0.8**, 16.21N×98.92W, h14^{km}**±13^{km}**, MD4.1, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	0.79	77	*i* P	Pg	17 41 24.3	-2.4
PNIG				*i* S	Sg	17 41 33.9	-3.2
ACX	**Acapulco**	1.15	304	*i* P	Pn	17 41 26.9	-6.2
ACX				*i* S	Sb	17 41 45.0	-2.9
ACX	**Acapulco**	1.15	304	*i* P	Pn	17 41 26.9	-6.2
ACX				*i* S	Sb	17 41 43.0	-4.9
CAIG	**El Cayaco**	1.53	303	*e*P	Pn	17 41 35.1	-3.2
CAIG				*i* S	Sn	17 41 56.0	-2.1
CAIG	**El Cayaco**	1.53	303	*e*P	Pn	17 41 35.2	-3.1
CAIG				*i* S	Sn	17 41 53.0	-5.0
MEIG	**Mezcala**	1.83	339	*i* P	Pn	17 41 39.0	-3.4
MEIG				*i* S	Sn	17 42 01.7	-3.7
UTMO	**Huajuapan**	1.93	33	*e*P	Pn	17 41 39.8	-4.0
UTMO				*i* S	Sn	17 42 04.3	-3.6

PLIG	Platanillo	2.24	346	*e*P	Pn	17 41 44.8	-3.2
PLIG				*i* S	Sn	17 42 16.9	+1.4
PLIG	Platanillo	2.24	346	*e*P	Pn	17 41 44.8	-3.2
PLIG				*i* S	Sn	17 42 09.9	-5.6
YAIG	Yautepec	2.64	357	*i* P	Pn	17 41 50.8	-2.8
YAIG				*i* S	Sn	17 42 28.0	+2.6
YAIG	Yautepec	2.64	357	*e*P	Pn	17 41 52.3	-1.3
YAIG				*i* S	Sn	17 42 22.0	-3.3
TPIG	Tehuac#an	2.65	34	*i* P	Pn	17 41 50.0	-3.7
TPIG				*i* S	Sn	17 42 22.7	-3.0
HUIG	Huatulco	2.74	99	*e*P	Pn	17 41 51.8	-3.2
HUIG				*i* S	Sn	17 42 22.3	-5.6
PPM	Popocatepetl	2.85	6	*i* P	Pn	17 41 57.6	+1.1
PPM				*i* S	Sn	17 42 29.3	-1.4
SZVM	Salazar	3.12	352	*e*P	Pn	17 41 57.8	-2.5
SZVM				*i* S	Sn	17 42 34.6	-2.7
PTVM	Pico Tres Padr	3.37	357	*i* P	Pn	17 42 05.5	+2.0
PTVM				*i* S	Sn	17 42 42.4	-0.9
MOIG	Morelia	4.07	328	*i* P	Pn	17 42 16.2	+3.1
LVIG	Laguna Verde	4.23	34	*i* S	Sn	17 43 06.1	+1.5
MMIG	Aquila	4.70	297	*i* S	Sn	17 43 10.1	-6.2

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*CSEM **23** 17:45:51.8±0.1, 38.40N×39.24E, h5^{km}, MD3.3, Error ellipse: s-maj=2.1km s-min=1.6km az=160.0*
*ISCJB **23** 17:45:52.5±0.4, 38.38N±0.03×39.26E±0.03, h5^{km}, Error ellipse: s-maj=4.4km s-min=3.1km az=177.3*
*ISK **23** 17:45:52.1, 38.38N×39.23E, h5^{km}, MD3.3*
*DDA **23** 17:45:52.9, 38.38N×39.24E, h1^{km}, Md3.3*
ISC 23 17:45:53.0±0.4, **38.38N**±0.03×**39.26E**±0.03, **h5**^{km}, **n34, $\sigma0^{s}.93$**/49, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.25	298	*i* P	Pg	17 45 57.3	-0.6
ELZG				*i* S	Sg	17 46 03.6	+2.5
PTK	Pertek	0.52	11	PG	Pg	17 46 02.4	-0.6
PTK				SG	Sg	17 46 09.7	-0.1
PTK	Pertek	0.52	11	*e*Pg	Pg	17 46 02.4	-0.6
PTK				*e*Sg	Sg	17 46 09.7	-0.1
MALT	Malatya	0.66	264	PG	Pg	17 46 03.9	-1.8
MALT				SG	Sg	17 46 13.4	-0.9
MALT	Malatya	0.66	264	*e*Pg	Pg	17 46 03.9	-1.8
MALT				*e*Sg	Sg	17 46 13.4	-0.9
MYA	Malataya	0.66	265	PG	Pg	17 46 04.6	-1.1
MYA				SG	Sg	17 46 13.9	-0.4
MYA	Malataya	0.66	265	*e*Pg	Pg	17 46 04.6	-1.1
MYA				*e*Sg	Sg	17 46 13.9	-0.4
DIY	Diyarbakir	0.90	122	PG	Pg	17 46 10.0	-0.3
DIY				SG	Sg	17 46 22.8	+0.8
DIY	Diyarbakir	0.90	122	*e*Pg	Pg	17 46 10.0	-0.3
DIY				*e*Sg	Sg	17 46 22.8	+0.8
URFA	Urfa	1.00	201	PG	Pg	17 46 11.8	-0.4
URFA	Urfa	1.00	201	*e*Pg	Pg	17 46 11.8	-0.4
BINT	Bingol	1.08	62	PN	Pn	17 46 14.3	-0.5
BINT	Bingol	1.08	62	*e*Pn	Pn	17 46 14.3	-0.5
ATAB	Bozova	1.19	220	*i* P	Pg	17 46 15.6	-0.3
ATAB				*i* S	Sg	17 46 31.8	+0.6
EZC	Erzincan	1.43	17	PN	Pn	17 46 19.2	-0.4
BNGL	BINGOL	1.58	68	*i* P	Pn	17 46 21.8	+0.1
BNGL				*i* S	Sn	17 46 46.7	+4.1
BEST	Besiri	1.66	107	*i* P	Pn	17 46 21.8	-0.9
BEST				*i* S	Sn	17 46 44.6	+0.2
GZT	Gaziantep	1.69	233	*i* P	Pn	17 46 22.3	-0.9
GZT				*i* S	Sn	17 46 48.4	+3.2
BTMT	Batman	1.76	95	PN	Pn	17 46 23.4	-0.8
GAZ	Gaziantep	2.03	234	*e*PN	Pn	17 46 27.9	+0.1
GAZ	Gaziantep	2.03	234	*e*Pn	Pn	17 46 27.9	+0.1
GUMT	Gumushane	2.08	5	*e*PN	Pn	17 46 29.3	+0.7
GUMT	Gumushane	2.08	5	*e*Pn	Pn	17 46 29.3	+0.7
SVSK	Karacayir	2.33	312	*e*PN	Pn	17 46 32.8	+0.7
SVSK	Karacayir	2.33	312	*e*Pn	Pn	17 46 32.8	+0.7
ANDN	Andirin	2.44	252	*i* P	Pn	17 46 37.0	+3.5
ANDN				*i* S	Sn	17 47 11.2	+7.5
SIRT	Sirnak	2.66	108	*e*PN	Pn	17 46 37.3	+0.8
SIRT	Sirnak	2.66	108	*e*Pn	Pn	17 46 37.3	+0.8
BNN	Bunyan	2.72	281	*e*PN	Pn	17 46 37.9	+0.6
BNN	Bunyan	2.72	281	*e*Pn	Pn	17 46 37.9	+0.6
KOZT	Kozan	2.86	253	*e*PN	Pn	17 46 39.7	+0.4
HAKT	HAKKARI	3.61	102	*i* P	Pn	17 46 56.1	+6.6
HAKT				*i* S	Sn	17 47 51.7	+19
NIG	Nigde	3.67	267	*e*PN	Pn	17 46 51.7	+1.2
NIG	Nigde	3.67	267	*e*Pn	Pn	17 46 51.7	+1.2

BJI 23 18:00:14.6, 34.26N×108.96E, h18^{km}, ML3.4, Ms3.5, Msz3.7, Southeastern China

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XAN	Xi'an	0.22	188	PG	Pg	18 00 21.0	+1.1
XAN				SG	Sg	18 00 26.3	+2.9
LZH	Lanzhou	4.57	295	P	Pn	18 01 19.1	-3.7
LZH				PG	Pg	18 01 38.3	-3.8
LZH				S	Sn	18 02 27.5	+12
LZH				SG	Sg	18 02 35.3	-6.0
LZH				Smax			
	comp=N,123nm,0.9s						
LZH				Smax			
	comp=E,73nm,0.4s						
LZH				LR	LR		
	comp=N,319nm,5.2s						
LZH				LR	LR		
	comp=Z,529nm,6.6s						
WHN	Wuhan	5.87	128	PG	Pg	18 01 58.0	-9.1
WHN				SG	Sg	18 03 19.8	-3.3
WHN				Smax			
	comp=N,22nm,0.7s						
WHN				Smax			
	comp=E,20nm,0.7s						

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*CSEM **23** 18:07:23.8±0.1, 38.41N×39.22E, h9^{km}±1^{km}, MD2.8, Error ellipse: s-maj=2.6km s-min=2.2km az=118.0*
*ISCJB **23** 18:07:24.1±0.6, 38.38N±0.03×39.27E±0.05, h10^{km}±8^{km}, Error ellipse: s-maj=7.1km s-min=5.5km az=23.8*
*ISK **23** 18:07:24.0, 38.40N×39.22E, h10^{km}, MD2.8*
*DDA **23** 18:07:24.6, 38.48N×39.26E, h16^{km}, Md2.6*
ISC 23 18:07:24.7±0.5, **38.40N**±0.04×**39.25E**±0.06, **h15**^{km}±7^{km}, **n17, $\sigma0^{s}.58$**/26, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.23	295	*i* P	Pg	18 07 29.4	-0.3
ELZG				*i* S	Sg	18 07 33.8	+0.6
PTK	Pertek	0.50	13	PG	Pg	18 07 34.2	-0.4
PTK				SG	Sg	18 07 42.2	+0.8
PTK	Pertek	0.50	13	*e*Pg	Pg	18 07 34.2	-0.4
PTK				*e*Sg	Sg	18 07 42.2	+0.8
MALT	Malatya	0.65	263	PG	Pg	18 07 36.3	-1.1
MALT				SG	Sg	18 07 46.5	+0.5
MALT	Malatya	0.65	263	*e*Pg	Pg	18 07 36.3	-1.1
MALT				*e*Sg	Sg	18 07 46.5	+0.5
MYA	Malataya	0.65	264	PG	Pg	18 07 36.5	-0.9
MYA	Malataya	0.65	264	*e*Pg	Pg	18 07 36.5	-0.9
DIY	Diyarbakir	0.92	123	PG	Pg	18 07 42.4	-0.1
DIY	Diyarbakir	0.92	123	*e*Pg	Pg	18 07 42.4	-0.1
URFA	Urfa	1.02	199	*e*PG	Pg	18 07 44.0	-0.3
URFA				*e*SG	Sg	18 07 58.1	+0.5
URFA	Urfa	1.02	199	*e*Pg	Pg	18 07 44.0	-0.3
URFA				*e*Sg	Sg	18 07 58.1	+0.5
BINT	Bingol	1.08	64	*e*PN	Pn	18 07 45.8	+0.5
BINT	Bingol	1.08	64	*e*Pn	Pn	18 07 45.8	+0.5
EZC	Erzincan	1.42	18	*e*PN	Pn	18 07 49.3	-0.6
MARD	Mardin	1.63	131	*i* P	Pn	18 07 53.2	+0.5
MARD				*i* S	Sn	18 08 13.4	-0.1
GZT	Gaziantep	1.69	232	*i* P	Pn	18 07 54.4	+0.7
GZT				*i* S	Sn	18 08 20.0	+5.0
BTMT	Batman	1.78	96	*e*PN	Pn	18 07 54.4	-0.4

MAN 23 18:12:19, 12.50N×125.47E, h1^{km}, mb4.7, ML3.6, MS3.5, Samar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNP	Catarman	0.78	271	*e*P	Pg	18 12 34.8	+0.7
CNP				*e*S	Sg	18 12 45.6	+1.4
BESP	Borongan	0.90	182	*e*P	Pg	18 12 37.6	+1.4
BESP				*e*S	Sg	18 12 52.7	+4.8
PLP	Palo	1.41	200	*e*P	Pn	18 12 44.8	-1.1
PLP				*i* S	Sg	18 13 08.3	+3.9
OCLP	Ormoc	1.67	210	*e*P	Pn	18 12 50.4	+1.0
OCLP				*e*S	Sn	18 13 15.1	+3.6
PVCP	Virac	1.68	310	*e*P	Pn	18 12 49.9	+0.4
PVCP				*e*S	Sn	18 13 17.1	+5.4
MSLP	Maasin	2.43	194	*e*P	Pn	18 13 02.7	+2.8
MSLP				*e*S	Sn	18 13 37.7	+7.5
SCPH	Surigao	2.70	180	*e*P	Pn	18 13 04.3	+0.6
SCPH				*e*S	Sn	18 13 29.0	-8.0
GUIM	Jordan	3.38	237	*e*P	Pn	18 13 15.6	+2.7
GUIM				*e*S	Sn	18 13 54.4	+0.7

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*NNC **23** 18:26:24.9±9.0, 37.08N×70.43E, h0^{km}, mb3.5, mpv3.0, Error ellipse: s-maj=90.3km s-min=47.9km az=174.0*
ISC 23 18:26:29.7±2.6, **37.0N**±0.2×**70.9E**±0.2, **h218**^{km}±39^{km}, **n8, $\sigma0^{s}.82$**/11, **4C-1D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	5.59	22	P	Pn	18 27 51.2	-0.7
	SNR=16						
UCH	Uchtor	5.95	27	P	Pn	18 27 57.0	+0.6
	SNR=18						
EKS2	Erkin-Say	6.10	20	P	Pn	18 27 58.0	-0.4
	SNR=7.8						
KK31	Karatay Array	6.14	357	P	Pn	18 27 58.0	-0.8
	1.3nm,0.3s,baz=175,slow=12,SNR=21						
KK31				⇑S	S	18 29 10.3	+0.5
	2.9nm,0.4s,baz=182,slow=20,SNR=13						
AAK	Ala-Archa	6.30	25	P	Pn	18 28 01.1	+0.2
	SNR=13						
CHMS	Chumysh	6.71	25	P	Pn	18 28 06.3	+0.2
	SNR=5.1						
TKM2	Tokmak 2	6.95	30	⇑P	Pn	18 28 08.5	-0.8
	0.2nm,0.5s						
TKM2				⇓S	S	18 29 29.2	+0.4
	0.5nm,0.8s						
AB31	Akbulak array	14.64	330	⇑P	Pn	18 29 48.5	+2.0
	0.7nm,0.3s,baz=149,slow=12,SNR=37						
AB31				⇑S	S	18 32 27.8	-0.9
	0.4nm,0.5s						

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*ISCJB **23** 18:31:22.7±0.6, 39.12N±0.03×28.10E±0.04, h4^{km}±6^{km}, Error ellipse: s-maj=5.3km s-min=4.0km az=44.7*
*ISK **23** 18:31:22.4, 39.12N×28.12E, h6^{km}, MD2.9*
*CSEM **23** 18:31:22.1±0.1, 39.12N×28.11E, h10^{km}, MD2.9, Error ellipse: s-maj=3.0km s-min=1.9km az=137.0*
*DDA **23** 18:31:24.0, 39.11N×28.08E, h11^{km}, Md2.6*
ISC 23 18:31:23.1±0.5, **39.13N**±0.03×**28.10E**±0.03, **h3**^{km}±8^{km}, **n21, $\sigma0^{s}.77$**/34, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKS	Akhisar	0.34	222	PG	Pg	18 31 29.6	+0.1
AKS				SG	Sg	18 31 34.9	+1.1
AKS	Akhisar	0.34	222	*e*Pg	Pg	18 31 29.6	+0.1
AKS				*e*Sg	Sg	18 31 34.9	+1.1
BALB	Balikesir	0.54	342	PG	Pg	18 31 33.5	+0.1
BALB				SG	Sg	18 31 41.1	+0.7
BALB	Balikesir	0.54	342	*e*Pg	Pg	18 31 33.5	+0.1
BALB				*e*Sg	Sg	18 31 41.1	+0.7
DST	Dursunbey	0.63	40	PG	Pg	18 31 35.1	0.0
DST				SG	Sg	18 31 43.3	0.0
DST	Dursunbey	0.63	40	*e*Pg	Pg	18 31 35.1	0.0
DST				*e*Sg	Sg	18 31 43.3	0.0
KULA	Kula-Manisa	0.75	144	PG	Pg	18 31 37.8	+0.3
KULA				SG	Sg	18 31 47.0	-0.2
KULA	Kula-Manisa	0.75	144	*e*Pg	Pg	18 31 37.8	+0.3
KULA				*e*Sg	Sg	18 31 47.0	-0.2
KDAG	Bornova	0.97	222	*i* P	Pg	18 31 41.0	-0.7
KDAG				*i* S	Sg	18 31 54.1	-0.3
GDZ	Gediz	1.07	92	*i* P	Pg	18 31 43.5	-0.1
GDZ				*i* S	Sg	18 31 58.1	+0.6
AYVA	Ayvalik	1.11	280	*i* P	Pg	18 31 43.7	-0.7
AYVA				*i* S	Sg	18 31 59.4	+0.7
BLCB	Balcova	1.11	228	*e*PN	Pn	18 31 43.8	-1.7
BLCB	Balcova	1.11	228	*e*Pn	Pn	18 31 43.8	-1.7
ULDT	Uludag	1.29	38	*i* P	Pg	18 31 46.9	-0.9
ULDT				*i* S	Sg	18 32 03.6	-0.9
IZI	Iznik	1.60	41	*e*PN	Pn	18 31 52.4	+0.1
IZI	Iznik	1.60	41	*e*Pn	Pn	18 31 52.4	+0.1
YLV	Yalova	1.74	34	*e*PN	Pn	18 31 54.1	-0.1
YLV	Yalova	1.74	34	*e*Pn	Pn	18 31 54.1	-0.1
ESKT	Eskisehir	2.17	79	*e*P	Pn	18 32 03.2	+3.1
ESKT				*i* S	Sn	18 32 33.8	+6.3
GULT	Gulveren	2.27	54	*e*PN	Pn	18 32 02.3	+0.8
GULT	Gulveren	2.27	54	*e*Pn	Pn	18 32 02.3	+0.8

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*ATH **23** 18:49:49.6, 39.38N×26.33E, h28^{km}±3^{km}, MD3.4/6*
*ISK **23** 18:49:49.5, 39.43N×26.12E, h8^{km}, MD3.0, ML3.2*
*ISCJB **23** 18:49:49.2±0.5, 39.41N±0.02×26.05E±0.03, h5^{km}±4^{km}, Error ellipse: s-maj=4.1km s-min=2.9km az=157.2*
*CSEM **23** 18:49:50.1±0.1, 39.43N×26.18E, h12^{km}, MD3.4, Error ellipse: s-maj=2.0km s-min=1.4km az=93.0*
*DDA **23** 18:49:50.8, 39.44N×26.16E, h2^{km}, Md2.7*
*SOF **23** 18:49:52.3, 39.74N×26.10E, h10^{km}, MD2.6*
*THE **23** 18:49:52.4, 39.40N×26.06E, h21^{km}, ML3.6*
ISC 23 18:49:49.9±0.4, **39.42N**±0.02×**26.06E**±0.03, **h7**^{km}±3^{km}, **n68, $\sigma0^{s}.96$**/90, **4C-2D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	Paraskevi	0.24	136	⇑*i*PB	Pg	18 49 54.8	+0.2
PRK	Paraskevi	0.24	136	⇑*i*Pb	Pg	18 49 54.8	+0.2
BOZC	Bozcaada	0.42	359	*i* P	Pg	18 49 58.6	+0.4
BOZC				*i* S	Sg	18 50 04.3	+0.7
EZN	Ezine	0.46	27	*i* PG	Pg	18 49 58.3	-0.4
EZN				*i* SG	Sg	18 50 05.1	+0.4
EZN	Ezine	0.46	27	*i* Pg	Pg	18 49 58.3	-0.4
EZN				*i* Sg	Sg	18 50 05.1	+0.4
AYVA	Ayvalik	0.50	102	*i* P	Pg	18 49 59.0	-0.6
AYVA				*i* S	Sg	18 50 05.5	-0.6
GADA	Gvkgeada	0.78	351	PG	Pg	18 50 05.0	+0.1
GADA				SG	Sg	18 50 15.6	+0.5
GADA	Gvkgeada	0.78	351	*e*Pg	Pg	18 50 05.0	+0.1
GADA				*e*Sg	Sg	18 50 15.6	+0.5
LIA	Limnos Island	0.83	306	⇑*i*PN	Pn	18 50 09.9	+2.0
LIA	Limnos Island	0.83	306	⇑*i*Pn	Pn	18 50 09.9	+2.0
LOS	Limnos	0.91	305	*e*Pg	Pg	18 50 09.5	+2.0
LOS	Limnos	0.91	305	*e*Pg	Pg	18 50 09.5	+2.1
CHOS	Chios island	1.03	180	*e*Pg	Pg	18 50 09.9	+0.3
CHOS				*e*Sg	Sg	18 50 24.9	+2.0
CHOS	Chios island	1.03	180	*e*Pg	Pg	18 50 09.9	+0.3
CHOS				*e*Sg	Sg	18 50 25.0	+2.0
URLA	Izmir	1.14	158	*i* P	Pg	18 50 11.3	-0.3
URLA				*i* S	Sg	18 50 26.8	+0.4
BLCB	Balcova	1.28	143	PN	Pn	18 50 14.7	+0.5
BLCB	Balcova	1.28	143	*e*Pg	Pg	18 50 14.4	-0.1
BLCB				*e*Sg	Sg	18 50 30.8	-0.3
BLCB	Balcova	1.28	143	*e*Pg	Pg	18 50 14.4	-0.1
BLCB	Balcova	1.28	143	*e*Pn	Pn	18 50 14.7	+0.5
BLCB				*e*Sg	Sg	18 50 30.8	-0.4
ENEZ	Enez	1.32	3	PN	Pn	18 50 14.9	+0.2
ENEZ	Enez	1.32	3	*e*Pn	Pn	18 50 14.9	+0.2
KDAG	Bornova	1.38	137	*i* P	Pn	18 50 15.1	-0.4
KDAG				*i* S	Sb	18 50 35.2	+1.4
BALB	Balikesir	1.43	80	PN	Pn	18 50 15.2	-0.9
BALB	Balikesir	1.43	80	*e*Pn	Pn	18 50 15.2	-0.9
AKS	Akhisar	1.47	111	*e*PN	Pn	18 50 15.7	-1.0
AKS	Akhisar	1.47	111	*e*Pn	Pn	18 50 15.7	-1.0
ALN	Alexandroupoli	1.48	360	*e*Pg	Pg	18 50 16.7	-1.5
ALN				*e*Sg	Sg	18 50 36.1	-1.3
ALN	Alexandroupoli	1.48	360	*e*Pg	Pg	18 50 16.7	-1.5
ALN				*e*Sg	Sg	18 50 36.1	-1.3
RKY	Sarkoy-Tekirda	1.53	34	*e*PN	Pn	18 50 17.4	-0.2
RKY	Sarkoy-Tekirda	1.53	34	*e*Pn	Pn	18 50 17.4	-0.2
SART	Tekirdag	1.53	34	*i* P	Pn	18 50 17.5	-0.1
SART				*i* S	Sn	18 50 39.1	+1.3
MFT	Murefte	1.66	34	*e*PN	Pn	18 50 18.8	-0.5
MFT	Murefte	1.66	34	*e*Pn	Pn	18 50 18.8	-0.5
MRMT	Marmara Adasi	1.67	44	*e*PN	Pn	18 50 19.2	-0.3
MRMT	Marmara Adasi	1.67	44	*e*Pn	Pn	18 50 19.2	-0.3
AOS	Alonnisos	1.71	262	*e*Pb	Pb	18 50 20.5	-1.1
AOS	Alonnisos	1.71	262	*e*Pb	Pb	18 50 20.5	-1.0
RDO	Rodhopi	1.77	347	*e*PN	Pn	18 50 21.9	+1.0
RDO	Rodhopi	1.77	347	*e*Pn	Pn	18 50 21.9	+1.0
SMG	Samos	1.81	160	*e*PN	Pn	18 50 20.0	-1.4
SMG	Samos	1.81	160	*e*Pn	Pn	18 50 20.9	-0.5
OUR	Ouranopolis	1.84	300	*e*Pb	Pb	18 50 21.9	-1.9
OUR	Ouranopolis	1.84	300	*e*Pb	Pb	18 50 21.9	-1.9
PAIG	Paliouri	1.91	286	*e*Pb	Pb	18 50 23.0	-1.9
PAIG				*e*Sb	Sb	18 50 46.6	-2.3
PAIG	Paliouri	1.91	286	*e*Pb	Pb	18 50 23.0	-1.9
PAIG				*e*Sb	Sb	18 50 46.6	-2.3
DST	Dursunbey	2.00	84	*e*PN	Pn	18 50 23.4	-0.5
DST	Dursunbey	2.00	84	*e*Pn	Pn	18 50 23.4	-0.5
KULA	Kula-Manisa	2.22	113	*e*PN	Pn	18 50 27.1	+0.1
KULA	Kula-Manisa	2.22	113	*e*Pn	Pn	18 50 27.1	+0.1
XOR	Xorichti	2.22	270	*e*Pn	Pn	18 50 27.1	+0.1
XOR	Xorichti	2.22	270	*e*Pn	Pn	18 50 27.1	0.0
KDZ	Kurdzhali	2.28	348	P	Pn	18 50 27.6	-0.3
APE	Apeiranthos	2.38	190	*e*Pn	Pn	18 50 28.8	-0.4
APE				*e*Sn	Sn	18 50 57.9	-0.8
APE	Apeiranthos	2.38	190	⇓*i*PN	Pn	18 50 29.1	-0.1
APE	Apeiranthos	2.38	190	⇓*i*Pn	Pn	18 50 29.1	-0.1
APE				*e*Sn	Sn	18 50 57.9	-0.7
ULDT	Uludag	2.48	72	*i* P	Pn	18 50 35.3	+4.7
ULDT				*i* S	Sn	18 51 07.7	+6.6
EDRB	Edirne	2.48	12	*e*PN	Pn	18 50 31.2	+0.6
EDRB	Edirne	2.48	12	*e*Pn	Pn	18 50 31.2	+0.6
RZN	Rozhen	2.49	336	P	Pn	18 50 33.0	+2.3
NVR	Nevrokopi	2.56	320	*e*PN	Pn	18 50 32.9	+1.2
NVR	Nevrokopi	2.56	320	*e*Pn	Pn	18 50 32.9	+1.2
IZI	Iznik	2.78	70	*e*PN	Pn	18 50 34.6	-0.2
IZI	Iznik	2.78	70	*e*Pn	Pn	18 50 34.6	-0.2
YLV	Yalova	2.79	65	*e*PN	Pn	18 50 34.7	-0.2
YLV	Yalova	2.79	65	*e*Pn	Pn	18 50 34.7	-0.2
MMB	Musomiste	2.81	321	*i* P	Pn	18 50 35.4	+0.3
AGG	Agios Georgios	2.92	263	*e*Pn	Pn	18 50 37.7	+1.0
AGG				*e*Sn	Sn	18 51 12.1	+0.1
AGG	Agios Georgios	2.92	263	*e*Pn	Pn	18 50 37.7	+1.0
AGG				*e*Sn	Sn	18 51 12.1	+0.1

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*ISCJB **23** 19:26:27.0±2.1, 46.5N±0.1×153.2E±0.1, h48^{km}±18^{km}, mb3.8/15, MS3.5/4, Error ellipse: s-maj=19.9km s-min=14.4km az=137.8*
*MOS **23** 19:26:28.0±1.3, 46.46N×153.10E, h62^{km}, mb4.1/12, Error ellipse: s-maj=14.7km s-min=13.4km az=33.5*
*IDC **23** 19:26:30.9±4.6, 46.49N×153.14E, h65^{km}±41^{km}, mb3.5/14, mb1 3.7/15, mb1mx3.6/23, mbtmp3.5/15, ML3.7/1, MS3.4/5, Ms1 3.4/5, ms1mx3.1/40, Error ellipse: s-maj=22.0km s-min=20.4km az=131.0*
ISC 23 19:26:30.2±2.0, **46.5N**±0.1×**153.2E**±0.2, **h58**^{km}±17^{km}, **n34, $\sigma1^{s}.06$**/34, **mb3.8**/15, **MS3.5**/4, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	3.91	253	*e*PN	Pn	19 27 24.5	-3.1
KUR				*e*S	Sn	19 28 12.0	-0.2
KUR				pmax	pmax		
	comp=Z,190nm,0.7s						
KUR				smax			
	comp=N,110nm,0.8s						
KUR				smax			
	comp=E,220nm,0.8s						
YUK	Yuzh-Kuril'sk	5.71	247	PN	Pn	19 27 51.0	-1.3
YUK				S	Sn	19 28 57.5	+1.0
YUK				smax			
	comp=E,370nm,0.8s						
YSS	Yuzh-Sakhalins	7.16	277	*e*PN	Pn	19 28 12.0	-0.2
ASAJ	Asahikawa	7.82	256	P	Pn	19 28 21.5	+0.3
	comp=E,1.1nm,0.3s,baz=82,slow=19,SNR=9.3						
ASAJ				LR	LR	19 31 14.0	
	comp=E,118nm,19.9s,baz=359,slow=36						
UGL	Uglegorsk	7.90	293	*e*PN	Pn	19 28 25.0	+2.8
UGL				pmax	pmax		
	comp=Z,45nm,1.0s						
UGL				MLR	MLR		
	comp=N,400nm,16.0s						
UGL				MLR	MLR		
	comp=E,300nm,16.0s						
UGL				MLR	MLR		
	comp=Z,500nm,16.0s						
KSRS	Korea Array	20.75	253	P	P	19 31 07.8	+1.8
	comp=Z,1.3nm,0.6s,baz=54,slow=12,SNR=4.4						
JNU	Nakatsue	21.62	240	LR	LR	19 39 47.2	
	comp=Z,57nm,20.8s,MS3.0,baz=350,slow=37						
SONM	Songino Array	31.44	290	P	P	19 32 45.8	+0.1
	comp=Z,0.2nm,0.4s,mb3.3,baz=91,slow=10,SNR=3.5						
SONM				LR	LR	19 46 48.0	
	comp=Z,112nm,19.3s,MS3.5,baz=352,slow=39						
ZAK	Zakamensk	32.80	295	*e*P	P	19 32 55.7	-1.9
ZAK				*e*		19 34 02.5	
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.3s,mb3.6						
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.4s,mb3.5						
ZALV	Zalesovo Beam	42.77	306	P	P	19 34 20.2	-1.4
	comp=Z,0.3nm,0.4s,mb3.4,baz=54,slow=7.8,SNR=2.3						
ZALV				PcP	PcP	19 36 11.1	-0.8
	comp=Z,0.2nm,0.3s,baz=92,slow=4.3,SNR=3.5						
MKAR	Makanchi Array	47.08	298	P	P	19 34 55.6	-0.2
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MKAR				MLR	MLR		
	comp=Z,104nm,19.4s						
MKAR	Makanchi Array	47.08	298	P	P	19 34 55.6	-0.2
	comp=Z,1.9nm,0.8s,mb4.1,baz=61,slow=7.5,SNR=20						
MKAR				LR	LR	19 55 46.3	
	comp=Z,104nm,19.4s,MS3.8,baz=352,slow=37						
YKA	Yellowknife Ar	51.10	37	P	P	19 35 26.2	-0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	51.10	37	P	P	19 35 26.2	-0.1
	comp=Z,0.9nm,0.7s,mb3.8,baz=295,slow=7.0,SNR=7.7						
HNR	Honiara	56.02	172	LR	LR	20 01 05.9	
	comp=Z,41nm,18.2s,MS3.5,baz=179,slow=37						
KEV	Kevo	57.58	341	*e*P	P	19 36 12.2	-1.1
KEV				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
ARCES	ARCESS Array B	58.09	341	P	P	19 36 16.9	0.0
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	58.09	341	P	P	19 36 16.9	+0.1
	comp=Z,2.6nm,0.9s,mb4.3,baz=43,slow=7.3,SNR=5.1						
FINES	FINESS Array B	64.27	335	P	P	19 36 58.8	0.0
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	64.27	335	P	P	19 36 58.8	0.0
	comp=Z,0.8nm,0.4s,mb4.2,baz=44,slow=6.2,SNR=12						
PDAR	Pinedale Array	64.87	54	P	P	19 37 04.0	+1.1
	comp=Z,0.9nm,1.1s,mb3.7,baz=277,slow=1.2,SNR=3.8						
WRA	Warramunga Arr	68.29	199	P	P	19 37 24.8	-0.1
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA	Warramunga Arr	68.29	199	P	P	19 37 24.8	-0.1
	comp=Z,0.5nm,0.8s,mb3.6,baz=29,slow=7.4,SNR=3.8						
NB2	NORSAR Subarra	68.47	341	P	P	19 37 26.2	+0.6
	comp=Z,1.0nm,0.6s,mb4.0,baz=28,slow=6.2						
NOA	NORSAR Array B	68.47	341	P	P	19 37 26.3	+0.7
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	68.47	341	P	P	19 37 26.3	+0.7
	comp=Z,1.0nm,0.6s,mb4.0,baz=28,slow=6.4,SNR=4.5						
AKASG	Malin Array Be	71.76	326	P	P	19 37 45.8	-0.1
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	Malin Array Be	71.76	326	P	P	19 37 45.8	-0.2
	comp=Z,1.7nm,0.5s,mb4.2,baz=34,slow=6.4,SNR=11						
ASAR	Alice Springs	71.99	199	P	P	19 37 47.2	-0.2
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ASAR	Alice Springs	71.99	199	P	P	19 37 47.2	-0.2
	comp=Z,0.5nm,0.9s,mb3.5,baz=18,slow=4.5,SNR=4.0						
TXAR	Lajitas Array	77.59	61	P	P	19 38 19.8	-0.2
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
TXAR	Lajitas Array	77.59	61	P	P	19 38 19.8	-0.2
	comp=Z,1.1nm,0.8s,mb3.8,baz=295,slow=4.0,SNR=8.6						
GERES	GERESS Array B	78.68	334	P	P	19 38 27.4	+1.7
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	GERESS Array B	78.68	334	P	P	19 38 27.4	+1.7
	comp=Z,0.6nm,0.7s,mb3.6,baz=38,slow=5.0,SNR=3.9						

MAN 23 19:49:02, 8.15N×126.74E, h1^{km}, mb3.6, ML2.3, MS1.9, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	**Bislig**	**0.37**	**275**	*i* P	Pg	19 49 11.3	+2.2
BIPH				*i* S	Sg	19 49 17.2	+3.3
MATI	**Mati**	**1.29**	**202**	*e*P	Pg	19 49 27.1	+0.4
MATI				*e*S	Sg	19 49 46.0	+2.6
BUKP	**Musuan**	**1.68**	**261**	*e*P	Pn	19 49 33.8	+1.3
BUKP				*e*S	Sn	19 49 57.6	+2.9
SCPH	**Surigao**	**2.04**	**323**	*e*P	Pn	19 49 35.5	-1.9
SCPH				*e*S	Sn	19 50 00.9	-2.6
MSLP	**Maasin**	**2.70**	**317**	*e*P	Pn	19 49 47.7	+1.1
MSLP				*e*S	Sn	19 50 22.7	+2.6

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*IDC **23** 19:55:44.0±0.3, 45.31S×72.37W, h0^{km}, mb5.0/19, mb1 5.1/20, mb1mx5.1/23, mbtmp5.0/20, ML3.6/2, MS5.3/15, Ms1 5.3/15, ms1mx5.1/19, Error ellipse: s-maj=15.5km s-min=8.0km az=84.0*

*GUC **23** 19:55:44.6±0.4, 45.40S×73.06W, h7^{km}±3^{km}, ML5.3*

*ISCJB **23** 19:55:46.1±1.3, 45.28S±0.03×72.15W±0.07, h15^{km}±8^{km}, mb5.4/66, MS5.5/169, Error ellipse: s-maj=8.9km s-min=5.0km az=167.8*

*BJI **23** 19:55:46.7, 44.98S×72.86W, h25^{km}, mB5.5, Ms5.7, Msz5.6*

*GCMT **23** 19:55:48.6±0.1, 45.51S×73.08W, h17^{km}, MW5.7/92, Moment Tensor Solution. s81,c140; s92,c233; Duration: 1^{s}7 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.45±.05; $M_{\theta\theta}$0.15±.05; $M_{\phi\phi}$0.29±.05; $M_{r\theta}$-0.79±.14; $M_{\theta\phi}$3.79±.04; $M_{\phi r}$1.35±.16; Best double couple: $M_0$4.11800×10^{17} NP1:ϕ_s87.00000°,δ70.00000°, λ-12.00000°. NP2:ϕ_s181.00000°,δ79.00000°, λ-160.00000°. Principal axes: T 4.0550, Plg6.0000°, Azm313.0000°; N 0.1260, Plg67.0000°, Azm210.0000°; P -4.1810, Plg22.0000°, Azm46.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC **23** 19:55:48.6±0.2, 45.34S×72.32W, mb5.6/53, MS5.5/158, ML5.2(GUC) Error ellipse: s-maj=10.4km s-min=5.3km az=70.0*

NEIC Felt [VI] at Puerto Aisen and Puerto Chacabuco; [V] at Coihaique; [III] at Chile Chico and Cochrane.

*MOS **23** 19:55:50.9±1.2, 45.13S×72.17W, h42^{km}, mb5.8/30, MS5.4/26, Error ellipse: s-maj=23.8km s-min=8.9km az=102.9*

ISC 23 19:55:48.2±1.0, **45.29S**±0.03×**72.26W**±0.07, **h17**^{km}±6^{km}, **h20**^{km}±.0^{km}**:pP-P, n579,** σ0^{s}**81**/295, **mb5.4**/66, **MS5.5**/169, **72C-70D, Southern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COYC	**Coyhaique**	**0.31**	**156**	*e*P	**Pg**	**19 55 56.3**	**+1.4**
COYC				*i* S	**Sg**	**19 56 06.4**	**+8.0**
COYC	**Coyhaique**	**0.31**	**156**	⇑*e*P	**Pg**	**19 55 56.3**	**+1.4**
COYC				*i* S	**Sg**	**19 56 07.0**	**+8.5**
COYC				AML	AML	19 56 08.1	
	comp=N,226µm,0.5s						
USHA	**Ushuaia**	**9.87**	**167**	Pn	**Pn**	**19 58 07.9**	**-1.2**
USHA				Sn	**Sn**	**20 00 01.7**	**+2.4**
USHA				LR	LR	20 02 02.9	
USHA	**Ushuaia**	**9.87**	**167**	Pn	**Pn**	**19 58 07.9**	**-1.2**
	comp=N,0.8nm,0.3s,baz=302,slow=8.4,SNR=9.1						
USHA				Sn	**Sn**	**20 00 01.7**	**+2.4**
	comp=N,3.2nm,0.3s,baz=270,slow=2.1,SNR=3.1						
USHA				LR	LR	20 02 02.9	
	comp=N,33µm,18.1s,baz=320,slow=38						
EFI	**East Falkland**	**11.38**	**129**	*e*Pn	**Pn**	**19 58 28.5**	**-1.2**
	comp=N,134nm,0.9s						
EFI	**East Falkland**	**11.38**	**129**	*e*P	**Pn**	**19 58 32.3**	**+2.5**
FCH	**Farellones**	**12.04**	**8**	*e*P	**Pn**	**19 58 39.6**	**+0.7**
CFAA	**Coronel Fontan**	**14.02**	**14**	Pn	**Pn**	**19 59 05.0**	**-0.9**
CFAA				Sn	**Sn**	**20 01 42.7**	**+1.6**
CFAA				LR	LR	20 04 13.2	
CFAA	**Coronel Fontan**	**14.02**	**14**	Pn	**Pn**	**19 59 05.0**	**-0.9**
	comp=N,0.2nm,0.3s,baz=198,slow=11,SNR=13						
CFAA				Sn	**Sn**	**20 01 42.7**	**+1.6**
	comp=N,0.1nm,0.3s,baz=168,slow=23,SNR=2.1						
CFAA				LR	LR	20 04 13.2	
	comp=N,5µm,20.6s,baz=187,slow=36						
LPA	**La Plata**	**15.07**	**52**	*de*P	**Pn**	**19 59 18.0**	**-2.2**
LPA	**La Plata**	**15.07**	**52**	*e*P	**Pn**	**19 59 23.0**	**+2.8**
LPA				*e*pP	pP	19 59 30.0	-0.1
LPA				*e*sP	sP	19 59 34.0	+1.7
LPA				*e*S	**Sn**	**20 02 04.0**	**-2.6**
LPA				*e*sS	sS	20 02 17.0	-14
LPA				*e*S	**Sn**	**20 02 23.0**	**+16**
LPA				*e*SS		20 03 18.0	
TLL	**Tololo Astrono**	**15.14**	**5**	*e*P	**Pn**	**19 59 21.8**	**+0.6**
LCO	**Las Campanas**	**16.29**	**5**	*e*P	**Pn**	**19 59 35.9**	**-0.2**
	comp=N,273nm,1.3s						
PMSA	**Palmer Station**	**20.06**	**170**	*e*P	**P**	**20 00 18.6**	**-1.5**
	comp=N,478nm,1.4s						
PMSA				LR	LR		
	comp=Z,9µm,20.0s,MS5.1						
PMSA	**Palmer Station**	**20.06**	**170**	P	**P**	**20 00 18.2**	**-2.0**
	comp=Z,98nm,1.1s,baz=347,slow=8.3,SNR=6.2						
PMSA				S	**S**	**20 04 06.0**	**+1.3**
	comp=Z,27nm,1.1s,baz=332,slow=12,SNR=1.9						
PMSA				LR	LR	20 07 23.7	
	comp=Z,8µm,18.1s,MS5.1,baz=336,slow=35						
CEN1	**Los Morros**	**21.91**	**5**	*i* P	**P**	**20 00 36.7**	**-3.7**
ARE	**Arequipa**	**28.74**	**2**	*e*P	**P**	**20 01 45.0**	**+0.3**
LPAZ	**La Paz**	**29.12**	**8**	*e*P	**P**	**20 01 47.8**	**-0.2**
	comp=Z,89nm,1.3s,mb5.3						
LPAZ				*e*ScP	ScP	20 08 35.9	-0.4
LPAZ				LR	LR		
	comp=Z,7µm,21.0s,MS5.2						
LPAZ	**La Paz**	**29.12**	**8**	*e*P	**P**	**20 01 47.8**	**-0.3**
LPAZ				pmax	pmax		
	comp=Z,89nm,1.3s						
LPAZ				MLR	MLR		
	comp=Z,7µm,21.0s						
LPAZ	**La Paz**	**29.12**	**8**	P	**P**	**20 01 48.2**	**+0.1**
	comp=Z,24nm,0.8s,mb5.0,baz=164,slow=7.7,SNR=55						
LPAZ				S	**S**	**20 06 40.8**	**+1.6**
	comp=Z,2.5nm,1.0s,baz=142,slow=9.1,SNR=2.3						
LPAZ				ScP	ScP	20 08 35.7	-0.6
	comp=Z,3.1nm,1.0s,baz=156,slow=5.6,SNR=4.4						
LPAZ				LR	LR	20 15 22.0	
	comp=Z,6µm,20.3s,MS5.2,baz=158,slow=40						
SIV	**San Ignacio**	**30.69**	**21**	P	**P**	**20 02 00.6**	**-1.4**
	comp=Z,16nm,0.7s,mb5.0,baz=211,slow=9.5,SNR=72						
SIV				S	**S**	**20 07 03.7**	**-0.1**
	comp=Z,1.0nm,0.8s,baz=296,slow=20,SNR=2.1						
NNA	**Nana**	**33.41**	**352**	*e*P	**P**	**20 02 24.3**	**-1.6**
	comp=Z,46nm,1.4s,mb5.2						
NNA				LR	LR		
	comp=Z,4µm,19.0s,MS5.2						
RPN	**Rapa Nui**	**34.59**	**289**	PFAKE		20 02 50.0	+14
RPN				LR	LR		
	comp=Z,2µm,22.0s,MS4.9						
VNA3	**Neumayer Olymp**	**39.17**	**153**	*e*P	**P**	**20 03 14.0**	**-0.5**
VNA3				*e*		20 03 24.3	
VNA1	**Neumayer--Stat**	**39.56**	**152**	*e*P	**P**	**20 03 19.2**	**+1.4**
VNA1				*e*		20 03 30.0	
VNA2	**Neumayer--Watz**	**39.87**	**152**	*e*P	**P**	**20 03 20.0**	**-0.4**
	baz=275,slow=9.0						
VNA2				*e*		20 03 30.5	
SNAA	**Sanae**	**41.38**	**153**	P	**P**	**20 03 32.1**	**-0.7**
	comp=Z,37nm,1.1s,mb4.9,baz=269,slow=7.9,SNR=38						
SNAA				S	**S**	**20 09 45.9**	**-0.5**
	comp=Z,0.8nm,1.0s,baz=336,slow=23,SNR=1.8						
TRIS	**Tristan da Cun**	**44.94**	**101**	PFAKE		20 04 10.0	+8.0
TRIS				LR	LR		
	comp=Z,3µm,21.0s,MS5.2						
MAIT	**Maitri**	**46.15**	**153**	*e*P	**P**	**20 04 08.1**	**-3.1**
NVL	**N'lazarevskaya**	**46.19**	**153**	*i* P	**P**	**20 04 12.7**	**+1.2**
NVL				*i* S	**S**	**20 11 04.4**	**+7.9**
NVL				pmax	pmax		
	comp=Z,97nm,1.1s,mb5.7						
NVL				pmax	pmax		
	comp=N,4.0nm,0.6s						
NVL				pmax	pmax		
	comp=E,48nm,1.1s						
NVL				smax			
	comp=N,690nm,8.6s						
NVL				smax			
	comp=E,100nm,4.3s						
NVL				pmax	pmax		
	comp=N,487nm,11.1s						
NVL				pmax	pmax		
	comp=E,2µm,11.1s						
NVL				pmax	pmax		
	comp=Z,2µm,11.1s						
PAYG	**Puerto Ayora**	**47.19**	**335**	PFAKE		20 04 30.0	+10
PAYG				LR	LR		
	comp=Z,7µm,20.0s,MS5.7						
ROSC	**El Rosal**	**49.95**	**357**	*e*P	**P**	**20 04 41.6**	**+0.4**
ROSC	**El Rosal**	**49.95**	**357**	P	**P**	**20 04 41.6**	**+0.5**
	comp=Z,14nm,0.7s,mb5.1,baz=112,slow=21,SNR=18						
ROSC				S	**S**	**20 11 55.7**	**+4.8**
	comp=Z,5.0nm,0.4s,baz=261,slow=23,SNR=1.7						
ROSC				LR	LR	20 25 32.1	
	comp=Z,5µm,19.1s,MS5.5,baz=188,slow=36						
RCBR	**Riachuelo**	**50.43**	**50**	PFAKE		20 05 00.0	+15
RCBR				LR	LR		
	comp=Z,8µm,20.0s,MS5.7						
VNDA	**Vanda**	**53.04**	**193**	*e*P	**P**	**20 05 02.6**	**-0.9**
	comp=Z,34nm,1.2s,mb5.2						
VNDA				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
VNDA	**Vanda**	**53.04**	**193**	*e*P	**P**	**20 05 02.7**	**-0.9**
VNDA				pmax	pmax		
	comp=Z,34nm,1.2s						
VNDA				MLR	MLR		
	comp=Z,3µm,19.0s						
VNDA	**Vanda**	**53.04**	**193**	P	**P**	**20 05 02.4**	**-1.2**
	comp=Z,28nm,1.1s,mb5.1,baz=140,slow=7.8,SNR=7.3						
VNDA				S	**S**	**20 12 36.7**	**+4.5**
	comp=Z,3.4nm,1.2s,baz=7.4,slow=9.6,SNR=1.9						
VNDA				LR	LR	20 25 44.1	
	comp=Z,2µm,18.1s,MS5.3,baz=138,slow=34						
SDV	**Santo Domingo**	**53.94**	**2**	*e*P	**P**	**20 05 09.0**	**-1.8**
	comp=Z,31nm,1.0s,mb5.2						
SDV				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
RKT	**Rikitea**	**54.94**	**272**	*e*S	**S**	**20 12 58.2**	**-0.9**
	comp=Z,923nm,28.5s						
RKT				*e*LQ		20 18 48.5	
	comp=Z,4µm,31.5s						
RKT				*e*LR	LR	20 21 07.3	
	comp=Z,2µm,28.2s						
SYO	**Syowa Base**	**55.53**	**156**	⇓*e*P	**P**	**20 05 20.0**	**-1.8**
JTS	**JuntasAbangare**	**56.49**	**345**	P	**P**	**20 05 28.5**	**-0.7**
	comp=Z,222nm,1.5s,mb6.0,SNR=5.6						
JTS	**JuntasAbangare**	**56.49**	**345**	*e*P	**P**	**20 05 27.9**	**-1.4**
	comp=Z,83nm,1.4s,mb5.6						
JTS				*e*		20 05 39.3	
JTS				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
JTS	**JuntasAbangare**	**56.49**	**345**	*e*P	**P**	**20 05 28.3**	**-0.9**
BBGH	**Gun Hill**	**59.28**	**14**	PFAKE		20 06 00.0	+11
BBGH				LR	LR		
	comp=Z,5µm,21.0s,MS5.6						
TGUH	**Tegucigalpa,Un**	**60.61**	**343**	*e*P	**P**	**20 05 57.1**	**-0.8**
	comp=Z,69nm,1.1s,mb5.7						
TGUH				*e*		20 06 06.0	
TGUH				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
ASCN	**Ascension**	**62.05**	**72**	PFAKE		20 06 20.0	+12
ASCN				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
MAW	**Mawson**	**62.45**	**162**	S	**S**	**20 14 36.2**	**+0.5**
	comp=Z,2.5nm,0.8s,baz=62,slow=15,SNR=1.9						
MAW				LR	LR	20 33 37.5	
	comp=Z,4µm,19.4s,MS5.6,baz=84,slow=36						
SJG	**San Juan**	**63.34**	**7**	*e*P	**P**	**20 06 13.8**	**-2.4**
	comp=Z,18nm,0.3s,mb5.7						
SJG				*e*		20 06 22.7	
SJG				LR	LR		
	comp=Z,4µm,20.0s,MS5.6						
SJG	**San Juan**	**63.34**	**7**	*e*P	**P**	**20 06 13.8**	**-2.4**
SJG				*e*		20 06 22.7	
SJG				pmax	pmax		
	comp=Z,18nm,0.3s						
SJG				MLR	MLR		
	comp=Z,4µm,20.0s						
SDDR	**Presa de Saban**	**63.96**	**1**	*e*P	**P**	**20 06 17.8**	**-2.5**
	comp=Z,42nm,1.3s,mb5.3						
SDDR				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
CMIG	**Matias Romero**	**65.39**	**336**	P	**P**	**20 06 28.1**	**-1.6**
CMIG				S	S	20 15 13.8	+0.6
CMIG				LR	LR	20 28 30.9	
CMIG	**Matias Romero**	**65.39**	**336**	P	**P**	**20 06 28.1**	**-1.6**
	comp=Z,8.2nm,0.9s,mb4.8,baz=185,slow=5.2,SNR=11						
CMIG				S	S	20 15 13.8	+0.6
	comp=Z,0.7nm,0.5s,baz=55,slow=21,SNR=2.2						
CMIG				LR	LR	20 28 30.9	
	comp=Z,4µm,20.9s,MS5.6,baz=136,slow=30						
TEIG	**Tepich**	**66.81**	**344**	*e*P	**P**	**20 06 37.1**	**-1.6**
	comp=Z,39nm,1.0s,mb5.4						
TEIG				LR	LR		
	comp=Z,955nm,20.0s,MS5.0						
TEIG	**Tepich**	**66.81**	**344**	P	**P**	**20 06 37.3**	**-1.4**
	comp=Z,13nm,0.7s,mb5.0,baz=128,slow=2.9,SNR=6.1						
TAOE	**Nuku Hiva Isla**	**68.22**	**280**	*e*LQ		20 24 42.8	
	comp=Z,20µm,29.9s						
TAOE				*e*LR	LR	20 27 30.4	
	comp=Z,4µm,22.1s						
CASY	**Casey**	**68.75**	**181**	*e*P	**P**	**20 06 48.0**	**-2.5**
	comp=Z,73nm,0.9s,mb5.6						
CASY				*e*		20 06 56.5	
CASY				LR	LR		
	comp=Z,5µm,19.0s,MS5.7						
PPT	**Papeete**	**68.88**	**266**	*e*S	S	20 15 53.9	-1.6
	comp=Z,1µm,28.8s						
PPT				*e*LQ		20 24 50.9	
	comp=Z,2µm,25.8s						
PPT				*e*LR	LR	20 27 37.4	
	comp=Z,920nm,24.5s						
VAH	**Vaihoa**	**69.07**	**269**	*e*P	**P**	**20 06 51.2**	**-2.1**
	comp=Z,101nm,1.1s,mb5.7						
PMOR	**Pomariorio Ree**	**69.42**	**269**	*e*P	**P**	**20 06 53.4**	**-2.0**
	comp=Z,168nm,1.5s,mb5.8						
SUR	**Sutherland**	**69.79**	**116**	*e*P	**P**	**20 06 59.0**	**+1.4**
	comp=Z,50nm,1.2s,mb5.3						
SUR				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
DWPF	**Disney**	**73.52**	**352**	PFAKE		20 07 30.0	+10
DWPF				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
RAR	**Rarotonga**	**73.54**	**256**	S	S	20 16 53.7	+4.2
	comp=Z,8.2nm,0.5s,baz=86,slow=19,SNR=2.5						
RPZ	**Rata Peaks**	**75.06**	**222**	P	**P**	**20 07 26.5**	**-2.2**
	comp=Z,9.9nm,0.8s,mb4.8,baz=165,slow=20,SNR=4.2						
RPZ				S	S	20 17 08.4	+2.6
	comp=Z,3.0nm,0.7s,baz=291,slow=20,SNR=1.6						
SNZO	**South Karori**	**75.07**	**226**	PFAKE		20 07 40.0	+11
SNZO				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
BOSA	**Boshof**	**75.16**	**116**	*e*P	**P**	**20 07 29.0**	**-0.6**
	comp=Z,70nm,1.2s,mb5.5						
BOSA				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
BOSA	**Boshof**	**75.16**	**116**	P	**P**	**20 07 29.4**	**-0.1**
BOSA				pmax	pmax		
	comp=Z,70nm,1.2s,mb5.5						
BOSA	**Boshof**	**75.16**	**116**	P	**P**	**20 07 29.2**	**-0.4**
	comp=Z,50nm,1.1s,mb5.3,baz=219,slow=5.6,SNR=16						
BOSA				S	S	20 17 11.4	+4.0
	comp=Z,2.1nm,1.0s,baz=263,slow=4.3,SNR=1.4						
BOSA				LR	LR	20 37 36.3	
	comp=Z,2µm,19.0s,MS5.5,baz=228,slow=33						
URZ	**Urewera**	**76.06**	**229**	P	**P**	**20 07 31.1**	**-3.4**
	comp=Z,15nm,0.8s,mb5.0,baz=324,slow=7.7,SNR=6.4						
KVTX	**Kingsville**	**76.15**	**337**	PFAKE		20 07 50.0	+15
KVTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
TSUM	**Tsumeb**	**76.51**	**104**	*e*P	**P**	**20 07 37.5**	**+0.2**
	comp=Z,30nm,1.3s,mb5.1						
TSUM				*e*		20 07 46.5	
TSUM				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
BRAL	**Brewton**	**77.12**	**347**	*e*P	**P**	**20 07 41.5**	**+1.1**
	comp=Z,52nm,0.6s,mb5.6						
BRAL				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
BBSR	**BB Station**	**77.60**	**7**	PFAKE		20 07 50.0	+7.0
BBSR				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
LBTB	**Lobatse**	**77.86**	**113**	*e*P	**P**	**20 07 44.4**	**-0.5**
	comp=Z,99nm,1.2s,mb5.6						
LBTB				*e*		20 07 54.0	
LBTB				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
LBTB	**Lobatse**	**77.86**	**113**	*e*P	**P**	**20 07 44.4**	**-0.5**
LBTB				*e*		20 07 54.0	
LBTB				pmax	pmax		
	comp=Z,99nm,1.2s,mb5.6						
LBTB				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
NHSC	**New Hope**	**78.35**	**353**	PFAKE		20 08 00.0	+13
NHSC				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
LIC	**Lamto**	**78.74**	**69**	*e*P	**P**	**20 07 50.3**	**+0.5**
	comp=Z,121nm,1.3s,mb5.7						
GOGA	**Godfrey**	**78.98**	**350**	*e*P	**P**	**20 07 49.5**	**-1.1**
	comp=Z,136nm,1.5s,mb5.7						
GOGA				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
GOGA	**Godfrey**	**78.98**	**350**	P	**P**	**20 07 50.1**	**-0.5**
GOGA				pmax	pmax		
	comp=Z,140nm,1.5s,mb5.7						
KIC	**Kosan Boka**	**79.03**	**69**	*e*P	**P**	**20 07 53.4**	**+2.0**
	comp=Z,282nm,1.7s,mb5.9						
TIC	**Toumodi**	**79.06**	**69**	*e*P	**P**	**20 07 53.5**	**+1.9**
	comp=Z,395nm,1.6s,mb6.1						
LRAL	**Lakeview Retre**	**79.09**	**347**	*e*P	**P**	**20 07 50.5**	**-0.7**
	comp=Z,77nm,1.4s,mb5.4						
LRAL				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
NATX	**Nacogdoches**	**79.34**	**341**	PFAKE		20 08 00.0	+7.4
NATX				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
JCT	**Junction City**	**79.46**	**336**	*e*P	**P**	**20 07 52.4**	**-0.9**
	comp=Z,126nm,1.4s,mb5.7						
JCT	**Junction City**	**79.46**	**336**	*e*P	**P**	**20 07 52.4**	**-0.9**
JCT				pmax	pmax		
	comp=Z,126nm,1.4s,mb5.7						
LTX	**Lajitas**	**79.58**	**332**	*e*P	**P**	**20 07 53.8**	**-0.1**
	comp=Z,111nm,1.7s,mb5.5						
LTX				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
LTX	**Lajitas**	**79.58**	**332**	*e*P	**P**	**20 07 53.8**	**-0.2**
LTX				pmax	pmax		
	comp=Z,111nm,1.7s,mb5.5						
LTX				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.5						
TXAR	**Lajitas Array**	**79.58**	**332**	P	**P**	**20 07 53.2**	**-0.8**
TXAR				S	S	20 17 59.9	+5.0
TXAR	**Lajitas Array**	**79.58**	**332**	P	**P**	**20 07 53.2**	**-0.8**
	comp=Z,8.5nm,1.0s,mb4.6,baz=106,slow=8.0,SNR=16						
TXAR				S	S	20 17 59.9	+5.0
	comp=Z,0.1nm,0.4s,baz=12,slow=14,SNR=3.1						
TXAR				LR	LR	20 36 42.9	
	comp=Z,2µm,21.4s,MS5.5,baz=15,slow=31						
CNNC	**Cliffs of the**	**80.31**	**355**	PFAKE		20 08 10.0	+12
CNNC				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
OXF	**Oxford**	**80.93**	**346**	*e*P	**P**	**20 08 00.2**	**-0.9**
	comp=Z,90nm,1.2s,mb5.6						
OXF				LR	LR		
	comp=Z,838nm,20.0s,MS5.1						
OXF	**Oxford**	**80.93**	**346**	P	**P**	**20 08 01.2**	**0.0**
OXF				pmax	pmax		
	comp=Z,90nm,1.1s,mb5.6						
SWET	**Sewanee**	**81.08**	**349**	*e*P	**P**	**20 08 00.9**	**-1.0**
CPCT	**Cooper Cave**	**81.12**	**350**	*e*P	**P**	**20 08 00.7**	**-1.5**
PLAL	**Pickwick Lake**	**81.17**	**347**	*e*P	**P**	**20 08 01.5**	**-0.9**
	comp=Z,86nm,1.4s,mb5.5						
PLAL				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
TKL	**Tuckaleechee C**	**81.24**	**351**	P	**P**	**20 08 02.1**	**-0.6**
	comp=Z,9.8nm,1.0s,mb4.7,baz=168,slow=3.3,SNR=6.7						
TKL				S	S	20 18 14.1	+2.0
	comp=Z,2.1nm,0.7s,baz=120,slow=21,SNR=3.1						
MIAR	**Mount Ida**	**81.77**	**342**	*e*P	**P**	**20 08 04.4**	**-1.2**
MIAR				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
MIAR	**Mount Ida**	**81.77**	**342**	*e*P	**P**	**20 08 06.0**	**+0.4**
TZTN	**Tazewell**	**82.09**	**351**	PFAKE		20 08 20.0	+13
TZTN				LR	LR		
	comp=Z,3µm,22.0s,MS5.5						
MNTX	**Cornudas Mount**	**82.32**	**332**	*e*P	**P**	**20 08 07.5**	**-1.1**
	comp=Z,59nm,1.4s,mb5.3						
MNTX				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
BLA	**Blacksburg**	**82.45**	**353**	PFAKE		20 08 20.0	+11
BLA				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
ELN	**Prospectdale**	**82.49**	**353**	*e*P	**P**	**20 08 08.2**	**-1.1**
ELN				*e*	pP	20 08 14.2	-0.7
GLAT	**Glass**	**82.63**	**346**	*e*P	**P**	**20 08 10.2**	**+0.1**
PARMO	**Parma**	**83.09**	**346**	*e*P	**P**	**20 08 12.8**	**+0.3**
WMOK	**Wichita Mounta**	**83.19**	**338**	*e*P	**P**	**20 08 11.9**	**-1.2**
WMOK				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
WMOK	**Wichita Mounta**	**83.19**	**338**	*e*P	**P**	**20 08 12.5**	**-0.5**
CBN	**Corbin**	**83.24**	**356**	PFAKE		20 08 20.0	+6.8
CBN				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
SIUC	**Southern Illin**	**84.03**	**347**	*e*P	**P**	**20 08 16.0**	**-1.2**
	comp=Z,24nm,0.8s,mb5.4						
USIN	**University of**	**84.03**	**348**	*e*P	**P**	**20 08 15.6**	**-1.6**
	comp=Z,108nm,1.1s,mb5.9						
WCI	**Wyandotte Cave**	**84.09**	**349**	PFAKE		20 08 30.0	+12
WCI				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
FVM	**French Village**	**84.49**	**346**	*e*P	**P**	**20 08 18.6**	**-1.0**
	comp=Z,51nm,1.4s,mb5.5						
FVM	**French Village**	**84.49**	**346**	P	**P**	**20 08 19.2**	**-0.4**
FVM				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.5						
TUC	**Tucson**	**84.78**	**328**	*e*P	**P**	**20 08 21.1**	**-0.1**
	comp=Z,49nm,1.5s,mb5.4						
TUC				*e*		20 08 29.9	
TUC				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
TUC	**Tucson**	**84.78**	**328**	*e*P	**P**	**20 08 21.1**	**-0.1**
TUC				*e*		20 08 29.9	
TUC				pmax	pmax		
	comp=Z,49nm,1.5s,mb5.4						
TUC				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.4						
MCWV	**Mont Chateau**	**84.84**	**354**	PFAKE		20 08 30.0	+8.7
MCWV				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
BNM	**Barren Site**	**84.98**	**332**	*e*P	**P**	**20 08 22.7**	**+0.6**
BLO	**Bloomington**	**85.05**	**349**	*e*P	**P**	**20 08 20.9**	**-1.5**
	comp=Z,75nm,1.3s,mb5.7						
BLO	**Bloomington**	**85.05**	**349**	P	**P**	**20 08 21.6**	**-0.8**
BLO				pmax	pmax		
	comp=Z,75nm,1.3s,mb5.7						
LENM	**Lemitar**	**85.11**	**332**	*e*P	**P**	**20 08 23.7**	**+0.9**
LPM	**Los Pinos Moun**	**85.13**	**332**	*e*P	**P**	**20 08 23.5**	**+0.7**
LPM				*e*	pP	20 08 29.6	+1.0
116A	**Eloy**	**85.35**	**327**	⇑P	**P**	**20 08 24.4**	**+0.3**
	baz=86						
TAU	**Tasmania Unive**	**85.37**	**208**	PFAKE		20 08 30.0	+5.7
TAU				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
LAZ	**Ladron**	**85.38**	**332**	*e*P	**P**	**20 08 24.8**	**+0.7**
ANMO	**Albuquerque**	**85.66**	**332**	*e*P	**P**	**20 08 25.8**	**+0.3**
	comp=Z,87nm,1.4s,mb5.8						
ANMO				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
ANMO	**Albuquerque**	**85.66**	**332**	P	**P**	**20 08 26.2**	**+0.7**
ANMO				pmax	pmax		
	comp=Z,87nm,1.4s						
ANMO	**Albuquerque**	**85.66**	**332**	P	**P**	**20 08 25.9**	**+0.4**
	comp=Z,30nm,1.1s,mb5.4,baz=147,slow=8.7,SNR=25						
115A	**Sonoran Desert**	**85.68**	**327**	⇓P	**P**	**20 08 26.1**	**+0.4**
	baz=86						
ACSO	**Alum Creek Sta**	**85.68**	**352**	PFAKE		20 08 40.0	+15
ACSO				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
SSPA	**Standing Stone**	**85.69**	**356**	PFAKE		20 08 40.0	+15
SSPA				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
LSZ	**Lusaka**	**86.45**	**108**	*e*P	**P**	**20 08 30.7**	**+0.7**
	comp=Z,32nm,1.0s,mb5.5						
LSZ				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
LSZ	**Lusaka**	**86.45**	**108**	P	**P**	**20 08 30.6**	**+0.5**
LSZ				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.5						
LSZ	**Lusaka**	**86.45**	**108**	⇓P	**P**	**20 08 30.2**	**+0.2**
	SNR=10						
Z14A	**Wintersburg**	**86.54**	**327**	⇑P	**P**	**20 08 30.0**	**+0.1**
	baz=87						
HDIL	**Hopedale**	**86.81**	**347**	PFAKE		20 08 40.0	+8.9
HDIL				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
KSU1	**Kansas State U**	**86.81**	**341**	*e*P	**P**	**20 08 30.3**	**-0.8**
	comp=Z,40nm,1.1s,mb5.6						

KSU1				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
GLA	Glamis	87.01	325	⇓P	P	20 08 32.5	+0.3
	baz=87						
Y14A	Wickenburg	87.07	327	⇑P	P	20 08 32.8	+0.3
	baz=87						
BINY	Binghamton	87.16	357	PFAKE		20 08 40.0	+7.3
BINY				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
DVTC	Desert V Tower	87.18	324	⇓P	P	20 08 33.6	+0.6
	baz=88						
X15A	Humboldt	87.27	328	⇓P	P	20 08 34.0	+0.5
	baz=88						
Y13A	Salome	87.28	326	⇑P	P	20 08 33.8	+0.3
	baz=88						
WES	Weston	87.29	1	PFAKE		20 08 40.0	+6.7
WES				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
CBKS	Cedar Bluff	87.29	339	*e*P	P	20 08 33.4	-0.1
	comp=Z,174nm,1.5s,mb6.1						
CBKS				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
CBKS	Cedar Bluff	87.29	339	*e*P	P	20 08 33.4	0.0
CBKS				pmax	pmax		
	comp=Z,174nm,1.5s,mb6.1						
CBKS				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.2						
SWSC	Sam W. Stewart	87.30	325	⇓P	P	20 08 34.0	+0.4
	baz=88						
HRV	Harvard--Oak R	87.41	1	PFAKE		20 08 40.0	+6.1
HRV				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
X14A	Yava	87.50	327	⇑P	P	20 08 35.1	+0.6
	baz=88						
Y12C	Blythe	87.50	326	⇑P	P	20 08 35.1	+0.5
	baz=88,SNR=10						
BC3	Big Chuckw Mtn	87.79	325	⇓P	P	20 08 36.4	+0.5
	baz=88,SNR=10						
AAM	Ann Arbor	87.79	352	PFAKE		20 08 50.0	+14
AAM				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
109C	Camp Elliot, M	87.80	324	⇑P	P	20 08 36.5	+0.4
	baz=88						
PDMCI	Parker Dam,Lak	87.83	326	⇓P	P	20 08 36.9	+0.7
	baz=88						
WUAZ	Wupatki	87.87	329	*e*P	P	20 08 37.2	+0.9
	comp=Z,174nm,1.8s,mb6.0						
WUAZ				*e*		20 08 45.9	
WUAZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
WUAZ	Wupatki	87.87	329	⇓P	P	20 08 36.8	+0.5
	baz=88						
W15A	Williams	87.89	328	⇓P	P	20 08 36.9	+0.5
	baz=88						
SDCO	Great Sand Dun	87.92	334	*e*P	P	20 08 36.5	+0.1
	comp=Z,26nm,1.4s,mb5.3						
SDCO				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
X13A	Yucca	87.97	327	⇑P	P	20 08 37.2	+0.4
	baz=88						
IRM	Iron Mountain	88.11	326	⇓P	P	20 08 37.7	+0.3
	baz=88						
PFO	Pinyon Flat Ob	88.15	324	P	P	20 08 38.3	+0.6
	comp=Z,348nm,1.3s,mb6.4,SNR=9.7						
PFO	Pinyon Flat Ob	88.15	324	*e*P	P	20 08 38.7	+1.0
	comp=Z,155nm,1.4s,mb6.0						
PFO				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
PFO	Pinyon Flat Ob	88.15	324	*e*P	P	20 08 38.7	+1.0
PFO				pmax	pmax		
	comp=Z,155nm,1.4s,mb6.0						
PFO				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
PFO	Pinyon Flat Ob	88.15	324	P	P	20 08 37.4	-0.3
	comp=Z,44nm,1.1s,mb5.6,baz=144,slow=4.9,SNR=20						
PFO	Pinyon Flat Ob	88.15	324	⇑P	P	20 08 38.1	+0.4
	baz=88,SNR=15						
W14A	Seligman	88.23	328	⇑P	P	20 08 38.3	+0.3
	baz=89						
TOA0	Torodi Ar. Sit	88.28	69	*e*P	P	20 08 37.8	-1.0
TORD	Torodi Ar. Bea	88.28	69	P	P	20 08 38.0	-0.8
	comp=Z,8.9nm,0.8s,mb5.1,baz=234,slow=3.9,SNR=31						
TORD				S	S	20 19 14.1	-8.9
	comp=Z,0.1nm,0.4s,baz=103,slow=36,SNR=2.6						
TORD				LR	LR	20 46 03.0	
	comp=Z,2µm,18.1s,MS5.5,baz=215,slow=34						
ACCN	Adirondack Com	88.29	359	*e*P	P	20 08 39.0	+1.0
BELC	Belle Mtn.	88.31	325	⇑P	P	20 08 38.8	+0.4
	baz=89,SNR=7.7						
MVCO	Mesa Verde	88.39	332	*e*P	P	20 08 39.2	+0.5
	comp=Z,59nm,1.4s,mb5.6						
MVCO				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
MVCO	Mesa Verde	88.39	332	⇓P	P	20 08 38.8	+0.1
	baz=89						
NEE2	Needles Airpor	88.43	326	⇑P	P	20 08 39.0	0.0
	baz=89						
W13A	Hualapai Mount	88.43	327	⇓P	P	20 08 39.4	+0.4
	baz=89						
MURC	Murrieta	88.45	324	⇑P	P	20 08 39.4	+0.3
	baz=89,SNR=7.9						
CIS	Catalina Islan	88.79	323	⇓P	P	20 08 40.6	-0.1
	baz=89						
SCIA	State Center	88.81	345	PFAKE		20 08 50.0	+9.5
SCIA				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
GMRC	Granite Mounta	88.85	326	⇑P	P	20 08 41.3	+0.3
	baz=89,SNR=20						
NCB	Newcomb	88.89	359	PFAKE		20 08 50.0	+9.1
NCB				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
W12A	Cal Nev Ari	88.99	326	⇓P	P	20 08 41.5	-0.1
	baz=89						
HEC	Hector,Ludlow	89.16	325	⇓P	P	20 08 42.8	+0.4
	baz=90						
BFSC	Mount Baldy St	89.20	324	⇓P	P	20 08 42.7	+0.1
	baz=90,SNR=9.6						
JFWS	Jewell Farm	89.27	347	*e*P	P	20 08 42.1	-0.6
	comp=Z,126nm,1.5s,mb6.0						
JFWS				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
JFWS	Jewell Farm	89.27	347	*e*P	P	20 08 42.1	-0.6
JFWS				pmax	pmax		
	comp=Z,126nm,1.5s,mb6.0						
JFWS				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.5						
V12A	Nelson	89.36	327	P	P	20 08 43.4	+0.1
	baz=90,SNR=18						
RRX	Edison Barstow	89.48	325	⇓P	P	20 08 44.0	+0.1
	baz=90						
DECC	Green Verdugo	89.49	323	⇓P	P	20 08 44.2	+0.3
	baz=90						
TUQ	Turquoise Mtn.	89.53	326	P	P	20 08 44.8	+0.7
	baz=90,SNR=41						
LONY	Lake Ozonia	89.54	358	PFAKE		20 08 50.0	+6.1
LONY				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
T15A	Red Dirt Ranch	89.57	329	⇑P	P	20 08 44.9	+0.6
	baz=90						
PV10	Paradox Valley	89.62	332	*e*P	P	20 08 45.1	+0.6
V11A	Goodsprings	89.68	326	⇑P	P	20 08 45.2	+0.3
	baz=90,SNR=12						
SMCO	Snowmass	89.69	334	*e*P	P	20 08 45.5	+0.8
	comp=Z,105nm,1.4s,mb6.0						
GSC	Goldstone	89.77	325	P	P	20 08 45.7	+0.5
	baz=90,SNR=15						
ISCO	Idaho Springs	89.84	335	*e*P	P	20 08 46.1	+0.7
	comp=Z,68nm,1.8s,mb5.7						
ISCO				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
ISCO	Idaho Springs	89.84	335	*e*P	P	20 08 46.2	+0.7
ISCO				pmax	pmax		
	comp=Z,68nm,1.8s,mb5.7						
ISCO				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.3						
U12A	Valley of Fire	89.86	327	⇑P	P	20 08 45.8	+0.1
	baz=90						
T14A	Hurricane	89.87	328	⇓P	P	20 08 45.8	+0.2
	baz=90						
SADO	Sadowa	89.88	355	P	P	20 08 44.3	-1.2
EDW2	Edwards Air Fo	89.89	324	⇑P	P	20 08 45.8	0.0
	baz=90						
T13A	Saint George	90.14	328	⇓P	P	20 08 47.2	+0.3
	baz=90						
U11A	Corn Creek	90.18	327	⇓P	P	20 08 47.5	+0.3
	baz=90						
PKME	Peaks-Kenny Pk	90.20	2	PFAKE		20 09 00.0	+13
PKME				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
LRMC	Laurel Mountai	90.28	324	⇑P	P	20 08 48.0	+0.4
	baz=91						
GLMI	Grayling	90.39	351	PFAKE		20 09 00.0	+12
GLMI				LR	LR		
	comp=Z,3µm,22.0s,MS5.7						
ARVC	Arvin	90.45	323	⇑P	P	20 08 49.0	+0.5
	baz=91						
S14A	Cedar City	90.52	329	⇑P	P	20 08 49.2	+0.5
	baz=91						
U10A	Ash Meadows, A	90.54	326	⇑P	P	20 08 49.4	+0.5
	baz=91,SNR=10						
S13A	Holt Ranch, En	90.61	328	⇓P	P	20 08 49.6	+0.4
	baz=91						
ARUT	Antelope Range	90.64	329	*e*P	P	20 08 50.0	+0.8
ARUT				*e*		20 08 57.4	
PKM	Peak Mountain	90.67	323	⇑P	P	20 08 49.9	+0.4
	baz=91						
MPMC	Manual Prospec	90.70	325	⇓P	P	20 08 49.9	+0.3
	baz=91,SNR=9.5						
ISA	Isabella	90.76	324	⇑P	P	20 08 50.4	+0.5
	baz=91						
FURC	Furnace Creek,	90.80	326	⇑P	P	20 08 50.5	+0.5
	baz=91,SNR=6.1						
MSU	Marysvale	90.83	330	*e*P	P	20 08 50.5	+0.4
T11A	Corn Creek, Al	90.83	327	⇓P	P	20 08 50.8	+0.7
	baz=91						
DAC	Darwin (Calif)	90.93	325	*e*P	P	20 08 51.2	+0.6
	comp=Z,76nm,1.5s,mb5.8						
DAC				*e*		20 08 58.6	
DAC				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
DAC	Darwin (Calif)	90.93	325	*e*P	P	20 08 51.2	+0.6
DAC				*e*		20 08 58.6	
DAC				pmax	pmax		
	comp=Z,76nm,1.5s,mb5.8						
DAC				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.3						
TPNV	Topopah Spring	90.97	326	*e*P	P	20 08 51.4	+0.5
	comp=Z,35nm,1.4s,mb5.5						
TPNV				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
TPNV	Topopah Spring	90.97	326	*e*P	P	20 08 51.4	+0.6
TPNV				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.5						
TPNV				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.5						
TPNV	Topopah Spring	90.97	326	⇑P	P	20 08 51.4	+0.6
	baz=91						
S12A	Delamar Landin	91.01	327	⇑P	P	20 08 51.6	+0.7
	baz=91						
PHWY	Pilot Hill	91.18	336	*e*P	P	20 08 51.7	0.0
PHWY				*e*		20 08 58.8	
ECSD	EROS,Sioux Fal	91.24	343	PFAKE		20 09 00.0	+8.1
ECSD				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
S11A	Rachel	91.38	327	⇓P	P	20 08 53.4	+0.7
	baz=92						
GRAC	Grapevine Rang	91.46	325	⇑P	P	20 08 54.0	+0.9
	baz=92,SNR=7.1						
R12A	Pony Springs,	91.55	328	⇓P	P	20 08 54.1	+0.6
	baz=92,SNR=13						
TIN	Tinemaha	91.86	325	⇓P	P	20 08 55.6	+0.7
	baz=92						
HELL	Mitchell Peak,	91.86	324	⇑P	P	20 08 55.8	+0.9
	baz=92						
S10A	Tonopah Range,	91.95	326	⇑P	P	20 08 55.0	-0.4
	baz=92,SNR=7.4						
MPU	Maple Canyon	91.97	331	PFAKE		20 09 10.0	+15
MPU				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
RWWY	Rawlins	92.06	335	*e*P	P	20 08 55.3	-0.4
	comp=Z,114nm,1.4s,mb6.0						
NLU	North Lily Min	92.07	330	*e*P	P	20 08 55.4	-0.5
R10A	Warm Springs	92.16	327	⇑P	P	20 08 55.8	-0.5
	baz=92						
COWI	Conover	92.21	348	PFAKE		20 09 10.0	+14
COWI				LR	LR		
	comp=Z,688nm,20.0s,MS5.1						
S08C	White Mtn Res	92.22	325	⇓P	P	20 08 56.6	0.0
	baz=93						
Q12A	Willow Creek R	92.26	328	⇓P	P	20 08 56.8	+0.1
	baz=93						
TPH	Tonopah	92.33	326	*e*P	P	20 08 57.4	+0.3
	comp=Z,28nm,1.2s,mb5.5						
TPH				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
TPH	Tonopah	92.33	326	*e*P	P	20 08 57.4	+0.3
TPH				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.5						
TPH				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.3						
Q11A	Duckwater	92.40	328	P	P	20 08 57.7	+0.3
	baz=93,SNR=6.9						
T06C	Millerton Lake	92.42	324	⇓P	P	20 08 58.0	+0.4
	baz=93						
DUG	Dugway	92.55	330	*e*P	P	20 08 58.0	0.0
	comp=Z,16nm,1.1s,mb5.4						
DUG				*e*	pP	20 09 04.0	+0.3
DUG				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
DUG	Dugway	92.55	330	*e*P	P	20 08 58.0	0.0
DUG				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.4						
DUG				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.6						
DUG	Dugway	92.55	330	⇓P	P	20 08 58.0	0.0
	baz=93						
Q10A	Clear Creek Ra	92.66	327	⇑P	P	20 08 58.7	+0.1
	baz=93,SNR=8.4						
P12A	McGill	92.67	328	⇓P	P	20 08 59.0	+0.4
	baz=93,SNR=6.0						
SAO	San Andreas Ge	92.95	323	PFAKE		20 09 10.0	+10
SAO				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
Q09A	Carvers	92.97	326	⇓P	P	20 09 00.7	+0.6
	baz=93						
P11A	Circle Ranch,	93.05	328	⇓P	P	20 09 01.3	+0.9
	baz=93						
NVAR	Mina Array Bea	93.07	326	P	P	20 09 00.8	+0.3
NVAR	Mina Array Bea	93.07	326	P	P	20 09 00.8	+0.3
	comp=Z,0.7nm,0.5s,mb4.3,baz=132,slow=4.3,SNR=5.7						
Q08A	Gabbs	93.29	326	⇑P	P	20 09 02.0	+0.5
	baz=94						
HWUT	Hardware Ranch	93.37	332	*e*P	P	20 09 01.1	-0.7
	comp=Z,50nm,1.4s,mb5.8						
HWUT				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
P10A	Eureka	93.38	327	⇓P	P	20 09 02.0	+0.1
	baz=94						
RSSD	Black Hills	93.39	338	PFAKE		20 09 10.0	+8.2
RSSD				LR	LR		
	comp=Z,598nm,20.0s,MS5.0						
O11A	Cowboy Ranch,	93.52	328	P	P	20 09 02.9	+0.3
	baz=94,SNR=14						
S04C	Ingram Canyon,	93.53	323	⇓P	P	20 09 02.5	-0.2
	baz=94						
M15A	Larsen Ranch,	93.55	331	⇓P	P	20 09 02.1	-0.4
	baz=94						
CMB	Columbia Colle	93.58	324	*e*P	P	20 09 03.7	+0.9
	comp=Z,2.7nm,0.9s,mb4.7						
CMB				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
CMB	Columbia Colle	93.58	324	*e*P	P	20 09 03.7	+0.8
CMB				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.7						
CMB				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.4						
BW06	Boulder Array	93.76	333	PFAKE		20 09 10.0	+6.4
BW06				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
PDAR	Pinedale Array	93.76	333	P	P	20 09 02.8	-0.8
	comp=Z,5.8nm,1.0s,mb5.0,baz=169,slow=3.0,SNR=27						
PDAR				LR	LR	20 46 07.9	
	comp=Z,1µm,19.2s,MS5.5,baz=143,slow=32						
M14A	Sheep Mountain	93.89	330	P	P	20 09 03.5	-0.7
	baz=94,SNR=13						
N12A	Clover Valley,	93.92	329	⇓P	P	20 09 03.9	-0.5
	baz=94,SNR=5.1						
HVU	Hansel Valley	93.94	331	*e*P	P	20 09 04.2	-0.2
	comp=Z,14nm,0.9s,mb5.4						
HVU	Hansel Valley	93.94	331	*e*P	P	20 09 04.2	-0.2
HVU				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.4						
M13A	Montello	94.05	330	⇓P	P	20 09 04.0	-0.9
	baz=94						
O09A	Fish Creek Ran	94.13	327	⇓P	P	20 09 05.3	-0.1
	baz=94						
AHID	Auburn Hatcher	94.26	332	PFAKE		20 09 20.0	+14
AHID				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
EYMN	Ely	94.37	347	PFAKE		20 09 20.0	+14
EYMN				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
BMN	Battle Mountai	94.37	327	PFAKE		20 09 20.0	+14
BMN				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
M12A	Wells	94.37	329	⇑P	P	20 09 06.3	-0.1
	baz=95						
L13A	Double Diamond	94.62	330	P	P	20 09 07.7	+0.2
	baz=95,SNR=8.9						
M11A	Holland Ranch,	94.70	329	P	P	20 09 08.2	+0.2
	baz=95,SNR=11						
MCCM	Marconi Confer	94.73	322	PFAKE		20 09 20.0	+12
MCCM				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
K14A	Jones Ranch, D	94.75	331	⇑P	P	20 09 08.1	0.0
	baz=95						
O07A	Toulon	94.78	326	⇑P	P	20 09 08.1	-0.3
	baz=95						
N09A	Rock Creek Ran	94.85	327	⇑P	P	20 09 08.7	+0.1
	baz=95						
LOHW	Long Hollow	94.86	333	*e*P	P	20 09 07.6	-1.0
	comp=Z,16nm,1.4s,mb5.2						
N08A	GE Springer Mi	95.02	327	⇓P	P	20 09 09.6	+0.2
	baz=95,SNR=6.7						
M10A	I.L. Ranch, Tu	95.06	328	⇑P	P	20 09 09.8	+0.2
	baz=95						
BEKR	Beckwourth	95.12	325	⇓P	P	20 09 10.3	+0.4
	baz=96						
ORV	Oroville	95.33	324	⇑P	P	20 09 11.0	+0.1
	baz=96						
L11A	Cat Creek Ranc	95.33	329	P	P	20 09 10.9	+0.1
	baz=96,SNR=7.2						
N07B	Gerlach	95.35	326	⇓P	P	20 09 11.5	+0.6
	baz=96						
K12A	Draper Farm, C	95.44	330	⇓P	P	20 09 11.0	-0.2
	baz=96						
AGMN	Agassiz Refuge	95.47	344	PFAKE		20 09 20.0	+8.8
AGMN				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
L10A	Juniper Basin	95.52	329	⇑P	P	20 09 11.1	-0.5
	baz=96						
HOPS	Hopland	95.52	323	PFAKE		20 09 20.0	+8.3
HOPS				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
LKWY	Lake	95.65	334	PFAKE		20 09 20.0	+7.9
LKWY				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
M08A	Happy Creek Ra	95.69	327	⇓P	P	20 09 12.5	0.0
	baz=96						
RLMT	Red Lodge	95.80	335	PFAKE		20 09 20.0	+7.2
RLMT				LR	LR		
	comp=Z,664nm,21.0s,MS5.1						
J13A	Cove Ranch, Pi	95.85	331	P	P	20 09 13.4	+0.3
	baz=96,SNR=12						
YMR	Madison River	95.92	333	PFAKE		20 09 20.0	+6.6
YMR				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
HLID	Hailey	96.08	331	*e*P	P	20 09 13.9	-0.2
	comp=Z,13nm,1.4s,mb5.2						
HLID				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
HLID	Hailey	96.08	331	⇓P	P	20 09 14.4	+0.2
	baz=96						
QLMT	Earthquake Lak	96.21	333	*e*P	P	20 09 15.2	+0.5
K10A	MacKenzie Ranc	96.27	329	⇓P	P	20 09 14.7	-0.4
	baz=97						
I13A	Wildhorse Cree	96.29	331	P	P	20 09 15.5	+0.4
	baz=97,SNR=10						
L08A	Fields	96.31	327	⇓P	P	20 09 15.4	+0.2
	baz=97						
LAO	LASA Array	96.35	337	PFAKE		20 09 30.0	+15
LAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
HATC	Hat Creek Radi	96.38	325	⇑P	P	20 09 15.5	0.0
	baz=97						
MFID	Camas Ranch	96.45	330	⇑P	P	20 09 15.4	-0.4
	baz=97						
K09A	Rome	96.52	328	⇓P	P	20 09 16.2	0.0
	baz=97						
WDC	Whiskeytown Da	96.62	324	PFAKE		20 09 30.0	+13
WDC				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
WDC	Whiskeytown Da	96.62	324	⇓P	P	20 09 17.1	+0.4
	baz=97						
WVOR	Wild Horse Val	96.64	327	PFAKE		20 09 30.0	+13
WVOR				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
MCMT	McKenzie Canyo	96.67	332	*e*P	P	20 09 16.4	-0.4
MCMT				*e*		20 09 24.4	
FUNA	Funafuti	96.76	251	PFAKE		20 09 30.0	+12
FUNA				LR	LR		
	comp=Z,9µm,19.0s,MS6.3						
O01C	Eel River Cons	96.79	323	⇑P	P	20 09 17.8	+0.3
	baz=97						
MOD	Modoc	96.83	326	PFAKE		20 09 30.0	+12
MOD				LR	LR		
	comp=Z,809nm,19.0s,MS5.2						
K08A	Mann Creek Ran	96.83	328	⇓P	P	20 09 17.9	+0.3
	baz=97						
G15A	Dillon	96.85	333	⇑P	P	20 09 17.7	+0.1
	baz=97,SNR=5.6						
H13A	Challis	96.91	331	P	P	20 09 17.8	0.0
	baz=97,SNR=10						
I11A	Placerville	96.93	330	⇓P	P	20 09 17.7	-0.2
	baz=97						
BOZ	Bozeman (W)	97.00	333	PFAKE		20 09 30.0	+12
BOZ				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
BOZ	Bozeman (W)	97.00	333	⇑P	P	20 09 18.2	-0.1
	baz=97						
J09A	Fry Pan Ranch,	97.09	328	⇑P	P	20 09 19.2	+0.4
	baz=98						
K07A	Rock Creek Ran	97.09	327	⇑P	P	20 09 19.0	+0.3
	baz=98						
H12A	Diamond D Ranc	97.10	331	⇓P	P	20 09 19.4	+0.6
	baz=98						
G14A	Jackson	97.24	332	⇓P	P	20 09 19.8	+0.5
	baz=98						
STKA	Stephens Creek	97.27	209	P	P	20 09 16.9	-3.3
	comp=Z,3.6nm,0.8s,mb4.8,baz=162,slow=4.7,SNR=6.6						
STKA				LR	LR	20 47 03.2	
	comp=Z,964nm,19.3s,MS5.3,baz=77,slow=32						
ULM	Lac du Bonnet	97.34	345	PFAKE		20 09 30.0	+10
ULM				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
G13A	Cobalt	97.36	331	P	P	20 09 20.5	+0.6
	baz=98,SNR=5.8						
J08A	Circle Bar Ran	97.37	328	⇓P	P	20 09 20.4	+0.4
	baz=98						
F15A	Butte	97.45	333	P	P	20 09 20.4	+0.1
	baz=98,SNR=7.2						
DGMT	Dagmar	97.47	339	PFAKE		20 09 30.0	+10
DGMT				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
I09A	Lost Marbles R	97.62	329	⇓P	P	20 09 21.4	+0.3
	baz=98						
H11A	Donnelly	97.63	330	⇓P	P	20 09 21.3	+0.2
	baz=98						
YBH	Yreka Blue Hor	97.66	324	PFAKE		20 09 30.0	+8.7
YBH				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
H10A	Noah's Angus R	97.80	330	⇑P	P	20 09 21.0	-0.9
	baz=98						
F13A	Darby	98.01	332	⇓P	P	20 09 22.3	-0.5
	baz=98						
E15A	Deer Lodge	98.02	333	⇓P	P	20 09 22.4	-0.4
	baz=98						
BMO	Blue Mountains	98.22	329	PFAKE		20 09 30.0	+6.2
BMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
F12A	Elk City	98.29	331	P	P	20 09 23.8	-0.3
	baz=99,SNR=5.4						
I07A	Izee	98.37	328	⇓P	P	20 09 25.2	+0.7
	baz=99						
HUMO	Hull Mountain	98.48	325	PFAKE		20 09 40.0	+15
HUMO				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
D15A	Lincoln	98.53	333	⇑P	P	20 09 25.6	+0.5
	baz=99						
E13A	Victor	98.53	332	⇑P	P	20 09 25.2	0.0
	baz=99						

EGMT	**Eagleton**	**98.56**	**336**	PFAKE		20 09 40.0	+15
EGMT				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
CHMT	**Chamberlain Mo**	**98.65**	**333**	*e*P	**P**	**20 09 25.8**	**+0.2**
CHMT				*e*		20 09 34.9	
MDT	**Midelt**	**98.97**	**52**	LR	LR	20 54 12.8	
	comp=Z,2µm,21.2s,MS5.5,baz=238,slow=35						
D13A	**Huson**	**99.20**	**332**	⇓P	**P**	**20 09 28.1**	**0.0**
	baz=100						
G08A	**Pilot Rock**	**99.20**	**329**	⇓P	**P**	**20 09 28.3**	**+0.1**
	baz=100						
C14A	**Swan Lake**	**99.56**	**333**	⇑P	**P**	**20 09 29.4**	**-0.3**
	baz=100						
SCHQ	**Schefferville**	**99.85**	**3**	PFAKE		20 09 40.0	+8.3
SCHQ				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
SCHQ	**Schefferville**	**99.85**	**3**	LR	LR	20 55 43.7	
	comp=Z,896nm,21.0s,MS5.2,baz=164,slow=36						
D10A	**Wagner Farm, O**	**100.11**	**331**	⇑P	Pdif	20 09 32.2	-0.7
	baz=100						
COR	**Corvallis**	**100.27**	**326**	PFAKE		20 09 40.0	+6.4
COR				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
HAWA	**Hanford**	**100.35**	**329**	PFAKE		20 09 40.0	+6.1
HAWA				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
WALA	**Waterton Lakes**	**100.75**	**334**	*e*Pdif	Pdif	20 09 34.6	-1.1
	comp=Z,13nm,1.5s						
NEW	**Newport**	**101.10**	**331**	PFAKE		20 09 50.0	+13
NEW				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
NWAO	**Narrogin (SRO)**	**101.68**	**188**	PFAKE		20 09 50.0	+10
NWAO				LR	LR		
	comp=Z,990nm,19.0s,MS5.3						
NLWA	**Neilton Lookou**	**102.81**	**327**	PFAKE		20 10 00.0	+15
NLWA				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
KMBO	**Kilima Mbogo**	**102.82**	**105**	PFAKE		20 10 00.0	+15
KMBO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
PAB	**San Pablo**	**104.12**	**48**	PFAKE		20 10 00.0	+9.3
PAB				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
ESLA	**Sonseca Array**	**104.41**	**48**	PFAKE		20 10 00.0	+8.0
ESLA				LR	LR		
	comp=Z,8µm,20.0s,MS6.3						
CTAO	**Charters Tower**	**106.10**	**218**	PFAKE		20 14 20.0	+8.4
CTAO				LR	LR		
	comp=Z,937nm,20.0s,MS5.3						
ASAR	**Alice Springs**	**107.35**	**205**	Pdif	Pdif	20 10 02.2	-2.9
ASAR				PKPdf	PKiKP	20 14 10.8	-3.1
ASAR				PKKPbc	PKKPbc	20 25 27.4	-0.5
ASAR	**Alice Springs**	**107.35**	**205**	Pdiff	Pdif	20 10 02.2	-2.9
	comp=Z,0.7nm,0.8s,baz=142,slow=4.7,SNR=5.9						
ASAR				PKiKP	PKiKP	20 14 10.8	-3.1
	comp=Z,1.1nm,0.9s,baz=129,slow=1.6,SNR=6.5						
ASAR				PKKPbc	PKKPbc	20 25 27.4	-0.5
	comp=Z,0.5nm,0.7s,baz=336,slow=2.7,SNR=7.4						
HNR	**Honiara**	**108.15**	**235**	PFAKE		20 14 30.0	+14
HNR				LR	LR		
	comp=Z,538nm,19.0s,MS5.1						
WRA	**Warramunga Arr**	**110.71**	**207**	Pdif	Pdif	20 10 19.8	-0.2
WRA				PKPdf	PKiKP	20 14 17.0	-3.2
WRA				PKKPbc	PKKPbc	20 25 17.5	+0.4
WRA	**Warramunga Arr**	**110.71**	**207**	P	Pdif	20 10 19.8	-0.2
WRA						20 14 17.0	
WRA	**Warramunga Arr**	**110.71**	**207**	Pdiff	Pdif	20 10 19.8	-0.2
	comp=Z,0.7nm,0.8s,baz=172,slow=3.9,SNR=5.7						
WRA				PKiKP	PKiKP	20 14 17.0	-3.2
	comp=Z,1.7nm,0.8s,baz=165,slow=1.4,SNR=13						
WRA				PKKPbc	PKKPbc	20 25 17.5	+0.4
	comp=Z,0.5nm,0.7s,baz=343,slow=3.1,SNR=6.9						
YKA	**Yellowknife Ar**	**112.64**	**340**	Pdif	Pdif	20 10 28.8	+0.2
YKA				PKPdf	PKiKP	20 14 19.6	-2.8
YKA				PP	PP	20 15 05.1	-5.3
YKA				PKKPbc	PKKPbc	20 25 08.1	-3.7
YKA	**Yellowknife Ar**	**112.64**	**340**	P	Pdif	20 10 28.8	+0.2
YKA						20 14 19.6	
YKA	**Yellowknife Ar**	**112.64**	**340**	Pdiff	Pdif	20 10 28.8	+0.2
	comp=Z,0.1nm,0.4s,baz=144,slow=5.3,SNR=3.6						
YKA				PKiKP	PKiKP	20 14 19.6	-2.8
	comp=Z,1.1nm,0.8s,baz=139,slow=2.5,SNR=17						
YKA				PP	PP	20 15 05.1	-5.3
	comp=Z,0.4nm,0.9s,baz=140,slow=7.1,SNR=3.0						
YKA				PKKPbc	PKKPbc	20 25 08.1	-3.7
	comp=Z,0.4nm,0.7s,baz=324,slow=3.1,SNR=8.1						
MBWA	**Marble Bar**	**112.98**	**192**	PFAKE		20 14 40.0	+15
MBWA				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
WRAK	**Wrangell Islan**	**113.15**	**328**	PFAKE		20 14 30.0	+6.5
WRAK				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
SIT	**Sitka**	**114.74**	**328**	PFAKE		20 14 40.0	+13
SIT				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
PMG	**Port Moresby**	**115.03**	**224**	PFAKE		20 14 40.0	+11
PMG				LR	LR		
	comp=Z,990nm,20.0s,MS5.4						
ESK	**Eskdalemuir**	**115.91**	**36**	PFAKE		20 14 40.0	+11
ESK				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
BFO	**Black Forest**	**116.78**	**48**	PFAKE		20 14 40.0	+9.2
BFO				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
GRFO	**Grafenberg**	**119.11**	**48**	PFAKE		20 14 50.0	+15
GRFO				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
GERES	**GERESS Array B**	**119.93**	**49**	PKP	PKPdf	20 14 34.7	-2.1
GERES	**GERESS Array B**	**119.93**	**49**	PKIKP	PKPdf	20 14 34.7	-2.1
GERES	**GERESS Array B**	**119.93**	**49**	PKP	PKPdf	20 14 34.7	-2.1
	comp=Z,3.0nm,0.8s,baz=222,slow=1.8,SNR=16						
KHC	**Kasperske Hory**	**120.03**	**49**	*e*PKP	PKPdf	20 14 38.0	+1.0
KHC	**Kasperske Hory**	**120.03**	**49**	*e*PKIKP	PKPdf	20 14 38.0	+1.0
KHC	**Kasperske Hory**	**120.03**	**49**	*e*PKPdf	PKPdf	20 14 38.0	+1.0
NKC	**Novy Kostel**	**120.07**	**48**	*e*PKP	PKPdf	20 14 40.6	+3.6
NKC	**Novy Kostel**	**120.07**	**48**	*e*PKIKP	PKPdf	20 14 40.6	+3.6
NKC	**Novy Kostel**	**120.07**	**48**	*e*PKPdf	PKPdf	20 14 40.6	+3.6
CLL	**Collm**	**120.98**	**47**	*e*PKP	PKPdf	20 14 41.0	+2.2
CLL				*e*		20 14 52.0	
CLL				LR	LR		
	comp=Z,3µm,19.6s,MS5.9						
CLL	**Collm**	**120.98**	**47**	*e*PKIKP	PKPdf	20 14 41.0	+2.2
CLL				*e*		20 14 52.0	
CLL				MLR	MLR		
	comp=Z,3µm,19.6s,MS5.9						
PRU	**Pruhonice**	**121.03**	**49**	*e*PKP	PKPdf	20 14 40.1	+1.2
PRU				LR	LR		
	comp=Z,2µm,23.6s,MS5.6						
PRU	**Pruhonice**	**121.03**	**49**	*e*PKIKP	PKPdf	20 14 40.1	+1.2
PRU				MLR	MLR		
	comp=Z,2µm,23.6s,MS5.6						
PRU	**Pruhonice**	**121.03**	**49**	*e*PKPdf	PKPdf	20 14 40.1	+1.2
PRU				AMS	AMS	21 01 30.0	
	comp=Z,2µm,23.6s						
TREC	**Trest**	**121.15**	**50**	*e*PKIKP	PKPdf	20 14 39.1	0.0
TREC	**Trest**	**121.15**	**50**	*e*PKPdf	PKPdf	20 14 39.1	0.0
PKSM	**Moragy**	**121.16**	**54**	⇑P	PKPdf	20 14 40.9	+1.7
PKSM	**Moragy**	**121.16**	**54**	⇑PKIKP	PKPdf	20 14 40.9	+1.6
BRG	**Berggiesshubel**	**121.22**	**48**	*e*PKIKP	PKPdf	20 14 40.2	+1.0
BRG				pmax	pmax		
	comp=Z,25nm,2.0s						
BRG				MLR	MLR		
	comp=N,1µm,26.6s						
BRG				MLR	MLR		
	comp=E,438nm,20.4s						
BRG				MLR	MLR		
	comp=Z,858nm,17.7s						
PVCC	**Panska Ves**	**121.36**	**48**	*e*PKP	PKPdf	20 14 40.8	+1.3
PVCC				LR	LR		
	comp=Z,2µm,20.6s,MS5.7						
PVCC	**Panska Ves**	**121.36**	**48**	*e*PKIKP	PKPdf	20 14 40.8	+1.3
PVCC				MLR	MLR		
	comp=Z,2µm,20.6s,MS5.7						
PVCC	**Panska Ves**	**121.36**	**48**	*e*PKPdf	PKPdf	20 14 40.8	+1.3
PVCC				AMS	AMS	21 05 30.0	
	comp=Z,2µm,20.6s						
VRAC	**Vranov**	**121.75**	**50**	PKP	PKPdf	20 14 38.9	-1.5
VRAC	**Vranov**	**121.75**	**50**	PKIKP	PKPdf	20 14 38.9	-1.4
VRAC	**Vranov**	**121.75**	**50**	PKP	PKPdf	20 14 38.9	-1.4
	comp=Z,2.9nm,0.8s,baz=247,slow=9.7,SNR=4.0						
EIL	**Elat**	**122.05**	**79**	PKP	PKPdf	20 14 40.3	-1.2
EIL	**Elat**	**122.05**	**79**	PKP	PKPdf	20 14 40.3	-1.2
	comp=Z,4.3nm,0.6s,baz=325,slow=1.6,SNR=6.0						
EGAK	**Eagle**	**122.08**	**332**	*e*PKPdf	PKPdf	20 14 39.1	-1.3
EGAK				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
INK	**Inuvik**	**122.09**	**337**	*e*PKPdf	PKPdf	20 14 39.6	-0.7
INK	**Inuvik**	**122.09**	**337**	*e*PKIKP	PKPdf	20 14 39.7	-0.7
INK	**Inuvik**	**122.09**	**337**	PKKPbc	PKKPbc	20 24 35.9	-2.1
	comp=Z,3.6nm,1.1s,baz=254,slow=2.2,SNR=3.1						
UPC	**Upice**	**122.11**	**49**	*e*PKP	PKPdf	20 14 41.9	+1.0
UPC	**Upice**	**122.11**	**49**	*e*PKIKP	PKPdf	20 14 41.9	+1.0
UPC	**Upice**	**122.11**	**49**	*e*PKPdf	PKPdf	20 14 41.9	+1.0
DPC	**Dobruska-Polom**	**122.19**	**49**	*e*PKP	PKPdf	20 14 42.8	+1.7
DPC	**Dobruska-Polom**	**122.19**	**49**	*e*PKIKP	PKPdf	20 14 42.8	+1.7
DPC	**Dobruska-Polom**	**122.19**	**49**	*e*PKPdf	PKPdf	20 14 42.8	+1.7
KDAK	**Kodiak Island**	**122.31**	**321**	PFAKE		20 14 50.0	+8.9
KDAK				LR	LR		
	comp=Z,348nm,20.0s,MS5.0						
MORC	**Moravsky Berou**	**122.53**	**50**	⇑P	PKPdf	20 14 40.6	-1.1
MORC	**Moravsky Berou**	**122.53**	**50**	⇑PKIKP	PKPdf	20 14 40.7	-1.1
VYHS	**Vyhne**	**122.54**	**52**	*e*PKP	PKPdf	20 14 43.2	+1.4
VYHS	**Vyhne**	**122.54**	**52**	*e*PKIKP	PKPdf	20 14 43.2	+1.4
BZS	**Buzias**	**122.55**	**56**	⇑P	PKPdf	20 14 43.8	+1.8
BZS	**Buzias**	**122.55**	**56**	⇑PKIKP	PKPdf	20 14 43.8	+1.8
OKC	**Ostrava-Krasne**	**122.89**	**50**	*e*PKP	PKPdf	20 14 43.9	+1.4
OKC	**Ostrava-Krasne**	**122.89**	**50**	*e*PKIKP	PKPdf	20 14 43.9	+1.4
OKC	**Ostrava-Krasne**	**122.89**	**50**	*e*PKPdf	PKPdf	20 14 43.9	+1.4
PMR	**Palmer**	**123.05**	**326**	PFAKE		20 14 50.0	+7.6
PMR				LR	LR		
	comp=Z,992nm,19.0s,MS5.5						
GZR	**Gura Zlata**	**123.11**	**57**	⇑P	PKPdf	20 14 42.1	-0.9
GZR	**Gura Zlata**	**123.11**	**57**	⇑PKIKP	PKPdf	20 14 42.1	-0.9
DRGR		**123.83**	**55**	⇑P	PKPdf	20 14 43.4	-1.0
DRGR		**123.83**	**55**	⇑PKIKP	PKPdf	20 14 43.4	-1.0
KONO	**Kongsberg**	**124.01**	**37**	PFAKE		20 15 00.0	+16
KONO				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
CSS	**Prodhromos**	**124.05**	**73**	*e*PKPdf	PKPdf	20 14 44.5	-0.7
MCK	**McKinley**	**124.19**	**328**	*e*PKPdf	PKPdf	20 14 43.6	-0.9
MCK				LR	LR		
	comp=Z,659nm,22.0s,MS5.2						
MCK	**McKinley**	**124.19**	**328**	*e*PKIKP	PKPdf	20 14 43.6	-0.9
MCK				MLR	MLR		
	comp=Z,659nm,22.0s,MS5.2						
MMAI	**Mount Meron Ar**	**124.34**	**76**	PKP	PKPdf	20 14 44.5	-1.3
	comp=Z,1.4nm,0.6s,baz=50,slow=1.3,SNR=10						
COLA	**College**	**124.43**	**330**	*e*PKPdf	PKPdf	20 14 45.2	+0.2
COLA				LR	LR		
	comp=Z,814nm,19.0s,MS5.4						
COLA	**College**	**124.43**	**330**	PKIKP	PKPdf	20 14 45.6	+0.6
ASF	**Jabal al Asfar**	**124.88**	**78**	PKP	PKPdf	20 14 45.9	-1.0
ASF	**Jabal al Asfar**	**124.88**	**78**	PKIKP	PKPdf	20 14 45.9	-1.0
ASF	**Jabal al Asfar**	**124.88**	**78**	PKP	PKPdf	20 14 45.9	-1.0
	comp=Z,4.7nm,1.0s,baz=71,slow=0.4,SNR=9.8						
MLR	**Muntele Rosu**	**125.05**	**58**	⇓P	PKPdf	20 14 44.8	-1.9
MLR	**Muntele Rosu**	**125.05**	**58**	⇓PKIKP	PKPdf	20 14 44.8	-2.0
MLR	**Muntele Rosu**	**125.05**	**58**	PKP	PKPdf	20 14 44.2	-2.6
	comp=Z,11nm,1.2s,baz=216,slow=21,SNR=2.6						
NAO01	**NORSAR Array S**	**125.19**	**37**	PFAKE		20 15 00.0	+13
NAO01				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
NB2	**NORSAR Subarra**	**125.43**	**36**	PKPd	PKPdf	20 14 45.1	-1.9
	comp=Z,10.0nm,1.2s,baz=241,slow=1.9						
NB2	**NORSAR Subarra**	**125.43**	**36**	PKPdf	PKPdf	20 14 45.1	-1.9
NB2	**NORSAR Subarra**	**125.43**	**36**	PKPd	PKPdf	20 14 45.1	-1.9
	baz=241,slow=1.9						
NB2	**NORSAR Subarra**	**125.43**	**36**	PKIKP	PKPdf	20 14 45.1	-1.9
NOA	**NORSAR Array B**	**125.43**	**36**	PKP	PKPdf	20 14 46.0	-1.0
NOA	**NORSAR Array B**	**125.43**	**36**	PKIKP	PKPdf	20 14 46.0	-1.0
NOA	**NORSAR Array B**	**125.43**	**36**	PKP	PKPdf	20 14 46.0	-1.0
	comp=Z,8.0nm,1.0s,baz=239,slow=2.0,SNR=6.9						
BURAR	**Bucovina Array**	**125.71**	**56**	⇑P	PKPdf	20 14 48.9	+1.0
BURAR	**Bucovina Array**	**125.71**	**56**	⇑PKIKP	PKPdf	20 14 48.9	+0.9
VRI	**Vrincioaia**	**125.72**	**58**	⇑PKIKP	PKPdf	20 14 43.4	-4.6
HFS	**Hagfors**	**126.03**	**38**	PKP	PKPdf	20 14 46.0	-2.1
HFS	**Hagfors**	**126.03**	**38**	PKIKP	PKPdf	20 14 46.0	-2.2
HFS	**Hagfors**	**126.03**	**38**	PKP	PKPdf	20 14 46.0	-2.1
	comp=Z,3.8nm,0.7s,baz=159,slow=4.6,SNR=9.9						
LVV	**L'vov**	**126.14**	**53**	*e*PKHKP		20 14 25.0	
DAG	**Danmarks Havn**	**126.35**	**13**	⇑*e*PKIKP	PKPdf	20 14 49.1	+0.7
DAG				pmax	pmax		
	comp=Z,10.0nm,0.9s						
ANTO	**Ankara**	**126.40**	**67**	PFAKE		20 15 00.0	+10
ANTO				LR	LR		
	comp=Z,766nm,21.0s,MS5.3						
TTA	**Tatalina**	**126.48**	**326**	*e*PKPdf	PKPdf	20 14 49.6	+0.7
TTA	**Tatalina**	**126.48**	**326**	*e*PKIKP	PKPdf	20 14 49.6	+0.7
BR131	**Keskin Array S**	**126.87**	**68**	PFAKE		20 15 00.0	+10
BR131				LR	LR		
	comp=Z,933nm,21.0s,MS5.4						
BRTR	**Keskin Array B**	**126.87**	**68**	PKP	PKPdf	20 14 49.7	-0.7
BRTR	**Keskin Array B**	**126.87**	**68**	PKIKP	PKPdf	20 14 49.7	-0.7
BRTR	**Keskin Array B**	**126.87**	**68**	PKP	PKPdf	20 14 49.7	-0.7
	comp=Z,5.7nm,1.0s,baz=193,slow=5.1,SNR=9.1						
IMA2	**Indian Mountai**	**127.14**	**330**	*e*PKPdf	PKPdf	20 14 49.2	-0.9
MALT	**Malatya**	**129.31**	**72**	*e*PKPdf	PKPdf	20 14 54.6	-0.6
MALT	**Malatya**	**129.31**	**72**	*e*PKIKP	PKPdf	20 14 54.6	-0.5
KIEV	**Kiev**	**129.48**	**54**	PFAKE		20 15 10.0	+15
KIEV				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
AKASG	**Malin Array Be**	**129.50**	**54**	PKP	PKPdf	20 14 51.7	-3.4
AKASG	**Malin Array Be**	**129.50**	**54**	PKIKP	PKPdf	20 14 51.7	-3.4
AKASG	**Malin Array Be**	**129.50**	**54**	PKP	PKPdf	20 14 51.7	-3.4
	comp=Z,2.3nm,0.6s,baz=267,slow=1.9,SNR=6.1						
ANN	**Anapa**	**131.82**	**64**	*i* PKIKP	PKPdf	20 14 54.0	-5.7
ANN				*e*		20 17 25.1	
ANN				pmax	pmax		
	comp=Z,136nm,2.1s						
FINES	**FINESS Array B**	**132.09**	**40**	PKP	PKPdf	20 14 58.1	-1.5
FINES	**FINESS Array B**	**132.09**	**40**	PKIKP	PKPdf	20 14 58.1	-1.6
FINES	**FINESS Array B**	**132.09**	**40**	PKP	PKPdf	20 14 58.1	-1.5
	comp=Z,2.9nm,0.8s,baz=241,slow=2.0,SNR=6.2						
TNA	**Tin City**	**132.30**	**326**	*e*PKPdf	PKPdf	20 14 59.7	-0.2
TNA				LR	LR		
	comp=Z,568nm,21.0s,MS5.2						
KAF	**Kangasniemi**	**132.42**	**39**	*e*PKIKP	PKPdf	20 14 57.7	-2.5
KBS	**Kingsbay**	**132.93**	**15**	PFAKE		20 15 10.0	+9.1
KBS				LR	LR		
	comp=Z,992nm,20.0s,MS5.5						
KEV	**Kevo**	**134.71**	**29**	PFAKE		20 15 20.0	+16
KEV				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
KIV	**Kislovodsk**	**134.83**	**67**	*e*PKP	PKPdf	20 15 04.7	-0.7
KIV				*e*PKPdf	PKPdf	20 15 08.0	+2.6
KIV				LR	LR		
	comp=Z,577nm,20.0s,MS5.3						
KIV	**Kislovodsk**	**134.83**	**67**	*e*PKIKP	PKPdf	20 15 04.7	-0.7
KIV				MLR	MLR		
	comp=Z,577nm,20.0s,MS5.3						
JOF	**Joensuu**	**134.88**	**39**	*e*PKHKP		20 14 55.8	
ZEI	**Tsey**	**135.10**	**69**	*e*PKIKP	PKPdf	20 15 05.7	-0.2
OBN	**Obninsk**	**135.29**	**51**	⇑*e*PKP	PKPdf	20 15 06.3	+0.5
OBN				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
OBN	**Obninsk**	**135.29**	**51**	⇑*i*PKIKP	PKPdf	20 15 06.2	+0.4
OBN				*e*		20 15 16.5	
OBN				pmax	pmax		
	comp=Z,34nm,1.6s						
OBN				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.8						
PALK	**Pallekele**	**135.47**	**140**	PFAKE		20 15 20.0	+12
PALK				LR	LR		
	comp=Z,935nm,22.0s,MS5.5						
GOF	**Gofitskoye**	**135.52**	**66**	*e*PKIKP	PKPdf	20 15 08.6	+2.0
GOF				pmax	pmax		
	comp=Z,40nm,1.0s						
LVZ	**Lovozero**	**137.16**	**32**	PFAKE		20 15 20.0	+11
LVZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
DAV	**Davao City (W)**	**138.90**	**208**	PFAKE		20 15 20.0	+6.1
DAV				LR	LR		
	comp=Z,554nm,21.0s,MS5.3						
BILL	**Bilibino**	**142.64**	**328**	*e*PKPdf	PKPdf	20 15 17.6	-1.3
BILL				LR	LR		
	comp=Z,951nm,22.0s,MS5.5						
BILL	**Bilibino**	**142.64**	**328**	*i* PKIKP	PKPdf	20 15 17.0	-1.9
BILL				pmax	pmax		
	comp=Z,29nm,1.4s						
HYB	**Hyderabad**	**143.05**	**129**	*e*P	PKPdf	20 15 18.5	-2.7
HYB	**Hyderabad**	**143.05**	**129**	*e*PKIKP	PKPdf	20 15 18.5	-2.7
HYB	**Hyderabad**	**143.05**	**129**	*i* PKP	PKPdf	20 15 18.5	-2.7
QUE	**Quetta**	**144.80**	**101**	*e*P	PKPdf	20 15 22.0	-1.9
QUE	**Quetta**	**144.80**	**101**	*e*PKIKP	PKPdf	20 15 22.0	-1.9
ORR	**Orenburg**	**144.96**	**60**	*e*PKIKP	PKPdf	20 15 21.2	-2.3
ORR				pmax	pmax		
	comp=Z,200nm,1.0s						
PET	**Petropavlovsk**	**146.44**	**302**	⇑*e*PKP	PKPdf	20 15 26.9	+1.0
PET				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
PET	**Petropavlovsk**	**146.44**	**302**	*e*PKIKP	PKPdf	20 15 25.5	-0.4
PET				*e*		20 19 00.3	
PET				*e*SS	SS	20 37 51.6	+3.7
PET				pmax	pmax		
	comp=Z,75nm,2.3s						
PET				pmax	pmax		
	comp=Z,100nm,2.4s						
PET				MLR	MLR		
	comp=Z,800nm,20.0s,MS5.5						
SOKR	**Solikamsk**	**146.73**	**46**	*d i*PKP2	PKPab	20 15 28.8	-0.4
SOKR				pmax	pmax		
	comp=Z,110nm,1.2s						
SOKR				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.9						
AKTO	**Aktyubinsk**	**146.76**	**63**	PKPbc	PKPbc	20 15 26.5	-1.8
	comp=Z,19nm,0.7s,baz=228,slow=2.4,SNR=38						
ARU	**Arti**	**147.71**	**52**	*e*PKPdf	PKPdf	20 15 27.5	-0.4
ARU				*e*PKPbc	PKPbc	20 15 29.6	-1.1
ARU				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
ARU	**Arti**	**147.71**	**52**	*i* PKIKP	PKPdf	20 15 26.9	-1.1
AB31	**Akbulak array**	**147.76**	**65**	*i* PKIKP	PKPdf	20 15 27.4	-0.9
AB31				pmax	pmax		
	comp=Z,27nm,0.8s						
KBL	**Kabul**	**148.72**	**96**	*e*PKPdf	PKPdf	20 15 31.8	+1.4
MA2	**Magadan**	**150.73**	**315**	*e*PKPbc	PKPbc	20 15 36.1	-2.2
MA2				LR	LR		
	comp=Z,815nm,21.0s,MS5.5						
MA2	**Magadan**	**150.73**	**315**	*e*PKIKP	PKPdf	20 15 30.5	-2.2
MA2				pmax	pmax		
	comp=Z,80nm,1.2s						
TIXI	**Tiksi**	**151.69**	**346**	*e*PKPdf	PKPdf	20 15 31.6	-2.2
TIXI				*e*PKPbc	PKPbc	20 15 38.6	-1.5
TIXI				LR	LR		
	comp=Z,917nm,22.0s,MS5.5						
TIXI	**Tiksi**	**151.69**	**346**	*i* PKIKP	PKPdf	20 15 37.5	+3.6
TIXI				pmax	pmax		
	comp=Z,41nm,1.3s						
CM31	**Chiang Mai Arr**	**152.26**	**162**	PFAKE		20 15 50.0	+14
CM31				LR	LR		
	comp=Z,766nm,19.0s,MS5.5						
CHTO	**Chiang Mai**	**152.61**	**162**	*e*PKPdf	PKPdf	20 15 35.1	-1.8
CHTO				*e*PKPbc	PKPbc	20 15 42.4	-1.4
CHTO				LR	LR		
	comp=Z,540nm,20.0s,MS5.4						
CHTO	**Chiang Mai**	**152.61**	**162**	*e*PKIKP	PKPdf	20 15 35.1	-1.7
CHTO				*e*		20 15 42.4	
CHTO				MLR	MLR		
	comp=Z,540nm,20.0s,MS5.4						
CHTO	**Chiang Mai**	**152.61**	**162**	P	PKPdf	20 15 35.5	-1.3
	SNR=20						
KKAR	**Karatay Array**	**153.37**	**81**	*i* PKIKP	PKPdf	20 15 41.1	+3.9
KKAR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
QIZ	**Qiongzhong**	**153.76**	**185**	PKP	PKPdf	20 15 36.3	-2.2
QIZ				PP	PP	20 19 38.3	+5.9
QIZ				LR	LR		
	comp=N,404nm,19.9s						
QIZ				LR	LR		
	comp=Z,455nm,18.8s,MS5.3						
QIZ	**Qiongzhong**	**153.76**	**185**	PFAKE		20 15 50.0	+11
QIZ				LR	LR		
	comp=Z,517nm,21.0s,MS5.3						
ERM	**Erimo**	**154.29**	**275**	PFAKE		20 15 50.0	+11
ERM				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
BRVK	**Borovoye**	**154.55**	**59**	*e*PKPdf	PKPdf	20 15 37.2	-1.3
BRVK				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
BRVK	**Borovoye**	**154.55**	**59**	PKIKP	PKPdf	20 15 37.5	-1.0
BRVK				pmax	pmax		
	comp=Z,22nm,1.6s						
BRVK	**Borovoye**	**154.55**	**59**	⇑P	PKPdf	20 15 38.6	+0.1
	SNR=11						
AML	**Almayashu**	**155.30**	**85**	*e*PKPdf	PKPdf	20 15 39.3	-0.6
AML				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
MJAR	**Matsushiro Arr**	**155.49**	**260**	PKPab	PKPab	20 16 02.9	-3.4
	comp=Z,11nm,0.8s,baz=152,slow=3.8,SNR=10.0						
EKS2	**Erkin-Say**	**155.52**	**84**	*e*PKPdf	PKPdf	20 15 39.4	-0.9
EKS2				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
YSS	**Yuzh-Sakhalins**	**155.79**	**287**	PFAKE		20 15 50.0	+10
YSS				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
UCH	**Uchtor**	**155.91**	**85**	*e*PKPdf	PKPdf	20 15 40.7	-0.1
UCH				*e*PKPab	PKPab	20 16 09.8	+2.0
UCH				LR	LR		
	comp=Z,898nm,21.0s,MS5.6						
KSH	**Kashi**	**155.94**	**93**	*e*PKP	PKPdf	20 15 40.4	-0.5
KSH				*e*APKP		20 15 52.1	
KSH				*e*PKS		20 19 14.3	
KSH				*e*PP	PP	20 19 46.8	+0.9
KSH				*e*SKS	SKSdf	20 22 43.3	-2.9
KSH				PP	PP		
	comp=Z,740nm,5.6s						
KSH				LR	LR		
	comp=Z,882nm,8.9s						
AAK	**Ala-Archa**	**156.02**	**84**	*e*PKPdf	PKPdf	20 15 39.0	-1.9
AAK				LR	LR		
	comp=Z,1µm,20.0s,MS5.8						
AAK	**Ala-Archa**	**156.02**	**84**	⇑*i*PKIKP	PKPdf	20 15 39.9	-1.0
AAK	**Ala-Archa**	**156.02**	**84**	⇓P	PKPdf	20 15 39.6	-1.3
	SNR=5.5						
FRU	**Bishkek**	**156.16**	**84**	*e*PKIKP	PKPdf	20 15 42.0	+0.9
FRU				pmax	pmax		
	comp=Z,62nm,2.2s						
TKM2	**Tokmak 2**	**156.88**	**84**	*e*PKPdf	PKPdf	20 15 40.6	-1.4
TKM2				*e*PKPab	PKPab	20 16 13.1	+1.0
TKM2				LR	LR		
	comp=Z,923nm,20.0s,MS5.6						
TKM2	**Tokmak 2**	**156.88**	**84**	PKIKP	PKPdf	20 15 41.0	-1.0
TATO	**Taipei**	**156.89**	**213**	PFAKE		20 15 50.0	+7.4
TATO				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
YAK	**Yakutsk**	**158.96**	**331**	PFAKE		20 15 50.0	+6.1
YAK				LR	LR		
	comp=Z,736nm,20.0s,MS5.5						
KMI	**Kunming**	**159.48**	**167**	PKP	PKPdf	20 15 45.1	-0.6
KMI				XPKP		20 15 56.3	
KMI				PKP2	PKPab	20 16 25.8	+2.2
KMI				PKS		20 19 18.3	
KMI				PP	PP	20 20 08.5	+4.4
KMI				SKS	SKSdf	20 22 46.4	-4.0
KMI				PPP		20 23 50.8	
KMI				SKKS	SKKSac	20 26 53.5	+0.6
KMI				SS	SS	20 40 13.5	+4.3
KMI				SSS		20 46 16.5	
KMI				PP	PP		
	comp=Z,108nm,6.2s						
KMI				LR	LR		
	comp=N,652nm,19.8s,MS5.5						
KMI				LR	LR		
	comp=E,459nm,20.9s,MS5.5						
KMI				LR	LR		
	comp=Z,959nm,22.4s,MS5.6						
KMI	**Kunming**	**159.48**	**167**	PKP	PKPdf	20 15 45.1	-0.6
KMI				sPKP		20 15 56.2	
KMI	**Kunming**	**159.48**	**167**	PKIKP	PKPdf	20 15 45.1	-0.6
KMI						20 15 56.2	
LSA	**Lhasa**	**159.68**	**134**	PKP	PKPdf	20 15 46.6	+0.8
LSA	**Lhasa**	**159.68**	**134**	*e*PKPdf	PKPdf	20 15 45.4	-0.5
LSA				*e*PKPab	PKPab	20 16 23.0	-1.4
LSA				LR	LR		
	comp=Z,686nm,20.0s,MS5.5						
LSA	**Lhasa**	**159.68**	**134**	*e*PKIKP	PKPdf	20 15 45.4	-0.4
LSA				*e*		20 16 23.0	
LSA				MLR	MLR		
	comp=Z,686nm,20.0s,MS5.5						
KURK	**Kurchatov**	**159.85**	**64**	*e*PKPdf	PKPdf	20 15 44.5	-0.8
KURK				*e*PKPab	PKPab	20 16 25.7	+1.0
KURK				*e*PP	PP	20 20 08.3	+1.2
KURK				LR	LR		
	comp=Z,1µm,20.0s,MS5.8						
KURK	**Kurchatov**	**159.85**	**64**	*e*PKIKP	PKPdf	20 15 44.5	-0.8
KURK				*e*		20 20 08.3	
KURK				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.8						
KURK	**Kurchatov**	**159.85**	**64**	⇓P	PKPdf	20 15 45.2	-0.1
	SNR=9.3						
NVS	**Novosibirsk**	**161.68**	**50**	*i* PKIKP	PKPdf	20 15 47.3	+0.1
NVS				*i*		20 20 19.5	

NVS				pmax	pmax		
	comp=Z,42nm,1.6s						
NVS				pmax	pmax		
	comp=N,7.0nm,1.5s						
NVS				pmax	pmax		
	comp=E,25nm,1.7s						
MK31	**Makanchi Array**	**162.29**	**76**	*e*PKPdf	PKPdf	20 15 46.6	-1.4
MK31				*e*PKPab	PKPab	20 16 33.9	-1.6
MK31	**Makanchi Array**	**162.29**	**76**	*e*PKIKP	PKPdf	20 15 46.7	-1.4
MK31				*e*		20 16 33.9	
MKAR	**Makanchi Array**	**162.29**	**76**	PKP	PKPdf	20 15 45.8	-2.2
MKAR				PKPab	PKPab	20 16 34.1	-1.3
MKAR				PP	PP	20 20 21.9	+1.5
MKAR	**Makanchi Array**	**162.29**	**76**	PKIKP	PKPdf	20 15 45.8	-2.3
MKAR						20 16 34.1	
MKAR						20 20 21.9	
MKAR	**Makanchi Array**	**162.29**	**76**	*i* PKIKP	PKPdf	20 15 46.7	-1.4
MKAR				pmax	pmax		
	comp=Z,24nm,1.3s						
MKAR	**Makanchi Array**	**162.29**	**76**	PKP	PKPdf	20 15 45.8	-2.2
	comp=Z,6.8nm,1.1s,baz=316,slow=0.9,SNR=28						
MKAR				PKPab	PKPab	20 16 34.1	-1.3
	comp=Z,3.3nm,0.6s,baz=258,slow=2.6,SNR=14						
MKAR				PP	PP	20 20 21.9	+1.5
	comp=Z,1.9nm,1.0s,baz=270,slow=4.4,SNR=4.3						
ZAL	**Zalesovo**	**162.86**	**51**	PKIKP	PKPdf	20 15 46.7	-1.7
ZAL						20 16 37.6	
ZAL						20 20 22.0	
ZALV	**Zalesovo Beam**	**162.87**	**51**	PKP	PKPdf	20 15 46.7	-1.7
ZALV				PKPab	PKPab	20 16 37.6	-0.2
ZALV				PP	PP	20 20 22.0	-1.0
ZALV	**Zalesovo Beam**	**162.87**	**51**	PKP	PKPdf	20 15 46.7	-1.7
	comp=Z,13nm,1.2s,baz=277,slow=2.4,SNR=26						
ZALV				PKPab	PKPab	20 16 37.6	-0.2
	comp=Z,3.3nm,0.7s,baz=294,slow=4.7,SNR=6.7						
ZALV				PP	PP	20 20 22.0	-1.1
	comp=Z,0.3nm,0.3s,baz=278,slow=4.2,SNR=2.9						
KSRS	**Korea Array**	**162.97**	**250**	PKP	PKPdf	20 15 47.0	-2.0
	comp=Z,3.0nm,0.9s,baz=130,slow=0.2,SNR=8.0						
KSRS				PKPab	PKPab	20 16 35.7	-3.1
	comp=Z,3.5nm,1.0s,baz=141,slow=4.8,SNR=5.4						
KLR	**Kul'dur**	**163.25**	**292**	*e*PKIKP	PKPdf	20 15 42.8	-6.1
INCN	**Inchon**	**163.84**	**248**	PFAKE		20 16 00.0	+10
INCN				LR	LR		
	comp=Z,687nm,19.0s						
NJ2	**Nanjing**	**164.21**	**217**	*e*PKP	PKPdf	20 15 48.3	-2.1
NJ2				APKP		20 15 58.9	
NJ2				XPKP		20 16 02.6	
NJ2				PKS		20 19 21.0	
NJ2				PP	PP	20 20 35.0	+5.2
NJ2				SKS	SKSdf	20 22 49.0	-4.9
NJ2				SS	SS	20 40 59.0	-0.2
NJ2				PP	PP		
	comp=Z,460nm,10.4s						
NJ2				LR	LR		
	comp=N,1µm,26.8s						
NJ2				LR	LR		
	comp=E,1µm,22.3s						
NJ2				LR	LR		
	comp=Z,1µm,22.3s						
MDJ	**Mudanjiang**	**164.51**	**275**	PKP	PKPdf	20 15 49.3	-0.9
MDJ				APKP		20 15 57.4	
MDJ				XPKP		20 16 00.3	
MDJ				PP	PP	20 20 29.8	-2.4
MDJ				SKS	SKSdf	20 22 52.1	-1.4
MDJ				PP	PP		
	comp=Z,141nm,7.3s						
MDJ				LR	LR		
	comp=N,198nm,21.0s						
MDJ				LR	LR		
	comp=E,325nm,21.0s						
MDJ				LR	LR		
	comp=Z,627nm,23.6s						
MDJ	**Mudanjiang**	**164.51**	**275**	*e*PKPdf	PKPdf	20 15 48.1	-2.1
MDJ				*e*PKPab	PKPab	20 16 43.6	-1.7
MDJ				LR	LR		
	comp=Z,948nm,22.0s						
CD2	**Chengdu**	**165.31**	**166**	*e*PKP	PKPdf	20 15 49.3	-2.1
CD2				APKP		20 16 00.5	
CD2				PKP2	PKPab	20 16 49.5	+0.5
CD2				PP	PP	20 20 37.5	+2.4
CD2				SKS	SKSdf	20 22 48.1	-6.6
CD2				SKKS	SKKSac	20 27 19.4	-3.1
CD2				SS	SS	20 41 08.5	-1.3
CD2				PP	PP		
	comp=Z,80nm,8.4s						
CD2				LR	LR		
	comp=N,650nm,24.0s						
CD2				LR	LR		
	comp=E,380nm,22.8s						
CD2				LR	LR		
	comp=Z,590nm,22.8s						
WMQ	**Urumqi**	**165.63**	**89**	*e*PKP	PKPdf	20 15 51.3	+0.1
WMQ				LR	LR		
	comp=N,2µm,23.0s						
WMQ				LR	LR		
	comp=Z,1µm,24.6s						
BOD	**Bodaibo**	**166.87**	**345**	*e*PKIKP	PKPdf	20 15 46.1	-5.6
BOD				pmax	pmax		
	comp=Z,7.0nm,1.4s						
CN2	**Changchun**	**167.27**	**270**	*e*PKP	PKPdf	20 15 51.4	-1.1
CN2				PKP2	PKPab	20 16 59.6	+2.1
CN2				LR	LR		
	comp=N,200nm,18.0s						
CN2				LR	LR		
	comp=E,410nm,18.0s						
CN2				LR	LR		
	comp=Z,520nm,19.0s						
XAN	**Xi'an**	**168.73**	**185**	PKP	PKPdf	20 15 50.1	-3.7
LZH	**Lanzhou**	**170.35**	**161**	*e*PKP	PKPdf	20 15 52.5	-2.2
LZH				APKP		20 15 58.5	
LZH				XPKP		20 16 01.5	
LZH				PP	PP	20 21 01.1	+0.2
LZH				SS	SS	20 41 58.0	-2.5
LZH				PP	PP		
	comp=Z,224nm,4.2s						
LZH				LR	LR		
	comp=E,685nm,19.8s						
LZH				LR	LR		
	comp=Z,1µm,20.3s						
LZH	**Lanzhou**	**170.35**	**161**	*e*PKP	PKPdf	20 15 52.5	-2.2
LZH				pPKP	pPKPdf	20 15 58.5	-2.0
LZH				sPKP		20 16 01.5	
LZH	**Lanzhou**	**170.35**	**161**	*e*PKIKP	PKPdf	20 15 52.5	-2.2
LZH						20 16 01.5	
HIA	**Hailar**	**170.92**	**300**	PFAKE		20 16 00.0	+5.4
HIA				LR	LR		
	comp=Z,2µm,21.0s						
GTA	**Gaotai**	**171.70**	**132**	PKP	PKPdf	20 15 54.8	-0.5
GTA				APKP		20 16 05.8	
GTA				XPKP		20 16 09.3	
GTA				PKP2	PKPab	20 17 16.6	-0.6
GTA				PKS		20 19 26.1	
GTA				PP	PP	20 21 08.4	+0.2
GTA				SKS	SKSdf	20 22 53.4	-4.2
GTA				PPP		20 25 15.6	
GTA				SKKS	SKKSac	20 27 50.3	-3.6
GTA				LR	LR		
	comp=N,860nm,21.3s						
GTA				LR	LR		
	comp=E,661nm,20.5s						
GTA				LR	LR		
	comp=Z,1µm,22.0s						
BJT	**Baijiatuau**	**171.86**	**233**	PFAKE		20 16 10.0	+15
BJT				LR	LR		
	comp=Z,2µm,21.0s						
BJI	**Beijing**	**171.87**	**233**	PKP	PKPdf	20 15 55.8	+0.4
BJI				SS	SS	20 42 15.1	-1.7
BJI				LR	LR		
	comp=N,937nm,20.4s						
BJI				LR	LR		
	comp=E,767nm,22.3s						
BJI				LR	LR		
	comp=Z,1µm,21.4s						
BJI	**Beijing**	**171.87**	**233**	PKP	PKPdf	20 15 55.8	+0.4
BJI				SS	SS	20 42 15.1	-1.7
BJI				LR	LR		
	comp=Z,1µm,21.4s						
BJI	**Beijing**	**171.87**	**233**	PKIKP	PKPdf	20 15 55.8	+0.4
BJI				SS	SS	20 42 15.1	-1.7
BJI				MLR	MLR		
	comp=Z,1µm,21.4s						
MOY	**Mondy**	**172.20**	**33**	*e*PKIKP	PKPdf	20 15 53.1	-2.0
MOY				pmax	pmax		
	comp=Z,33nm,2.1s						
IRK	**Irkutsk**	**172.67**	**17**	*e*PKIKP	PKPdf	20 15 53.0	-2.3
IRK				*e*		20 17 20.2	
IRK				pmax	pmax		
	comp=Z,51nm,2.6s						
TLY	**Talaya**	**173.05**	**22**	PFAKE		20 16 10.0	+15
TLY				LR	LR		
	comp=Z,1µm,20.0s						
TLY	**Talaya**	**173.05**	**22**	*i* PKIKP	PKPdf	20 15 55.0	-0.5
TLY				*e*SS	SS	20 42 19.5	-7.5
TLY				pmax	pmax		
	comp=Z,21nm,1.6s						
ZAK	**Zakamensk**	**174.09**	**29**	*e*PKIKP	PKPdf	20 15 53.5	-2.4
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.5s						
HHC	**Hu-ho-hao-te**	**174.75**	**214**	*e*PKP	PKPdf	20 15 55.3	-1.2
HHC				APKP		20 16 03.9	
HHC				XPKP		20 16 08.1	
HHC				PKS		20 19 24.3	
HHC				PP	PP	20 21 25.6	+2.7
HHC				SKS	SKSdf	20 22 56.0	-2.5
HHC				SKKS	SKKSac	20 28 02.8	-5.5
HHC				LR	LR		
	comp=N,1µm,23.8s						
HHC				LR	LR		
	comp=E,848nm,22.6s						
HHC				LR	LR		
	comp=Z,2µm,23.2s						
SONM	**Songino Array**	**177.29**	**19**	PKP	PKPdf	20 15 55.8	-1.0
SONM				PKPab	PKPab	20 17 40.5	-1.2
SONM				PP	PP	20 21 36.4	+1.8
SONM	**Songino Array**	**177.29**	**19**	PKIKP	PKPdf	20 15 55.8	-1.0
SONM						20 17 40.5	
SONM						20 21 36.4	
SONM	**Songino Array**	**177.29**	**19**	PKP	PKPdf	20 15 55.8	-1.0
	comp=Z,2.3nm,1.1s,baz=200,slow=0.6,SNR=11						
SONM				PKPab	PKPab	20 17 40.5	-1.2
	comp=Z,7.7nm,1.2s,baz=334,slow=3.1,SNR=12						
SONM				PP	PP	20 21 36.4	+1.8
	comp=Z,2.0nm,1.1s,baz=345,slow=3.2,SNR=5.8						
ULN	**Ulaanbaatar**	**177.38**	**10**	*e*PKPdf	PKPdf	20 15 56.5	-0.3
ULN				*e*PKPab	PKPab	20 17 42.6	+0.6
ULN				*e*PP	PP	20 21 35.9	+1.0
ULN				LR	LR		
	comp=Z,1µm,20.0s						
ULN	**Ulaanbaatar**	**177.38**	**10**	*e*PKIKP	PKPdf	20 15 56.6	-0.2
ULN				*e*		20 21 35.9	
ULN				MLR	MLR		
	comp=Z,1µm,20.0s						

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*ISK **23** 20:02:58.9, 37.34N×35.82E, h21^{km}, MD3.2*

*CSEM **23** 20:02:58.9±0.2, 37.52N×35.93E, h25^{km}, MD3.2, Error ellipse: s-maj=5.6km s-min=4.4km az=14.0*

*ISCJB **23** 20:03:00.3±0.5, 37.39N±0.04×35.87E±0.05, h20^{km}±5^{km}, Error ellipse: s-maj=6.7km s-min=6.2km az=29.5*

*DDA **23** 20:03:01.6, 37.45N×35.99E, h15^{km}, Md2.6*

ISC 23 20:03:00.4±0.5, **37.38N**±0.03×**35.83E**±0.04, **h16**^{km}±4^{km}, **n16**, σ**1^{s}24**/25, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KOZT	**Kozan**	**0.10**	**359**	*i* PG	**Pg**	**20 03 03.7**	**-0.2**
KOZT				*i* SG	**Sg**	**20 03 07.1**	**+0.8**
CEYT	**Ceyhan**	**0.37**	**190**	PG	**Pg**	**20 03 06.6**	**-1.5**
ANDN	**Andirin**	**0.46**	**63**	*i* P	**Pg**	**20 03 08.1**	**-1.5**
ANDN				*i* S	**Sg**	**20 03 15.5**	**-0.4**
ANDN	**Andirin**	**0.46**	**63**	*i* P	**Pg**	**20 03 08.0**	**-1.7**
ANDN				*i* S	**Sg**	**20 03 14.9**	**-0.9**
ANDN	**Andirin**	**0.46**	**63**	*i* P	**Pg**	**20 03 08.0**	**-1.6**
ANDN				*i* S	**Sg**	**20 03 15.5**	**-0.4**
KARA	**Karaisali**	**0.63**	**260**	PG	**Pg**	**20 03 11.7**	**-1.1**
KARA	**Karaisali**	**0.63**	**260**	*e*Pg	**Pg**	**20 03 11.7**	**-1.1**
GULE	**Gulek**	**0.84**	**264**	*i* P	**Pg**	**20 03 16.5**	**-0.3**
GULE				*i* S	**Sg**	**20 03 30.1**	**+2.1**
COBT	**Iskenderun**	**0.92**	**158**	*i* P	**Pb**	**20 03 18.5**	**+0.6**
COBT				*i* S	**Sg**	**20 03 32.3**	**+1.9**
MERS	**Mersin**	**1.16**	**245**	*e*PN	**Pn**	**20 03 20.8**	**-1.1**
MERS	**Mersin**	**1.16**	**245**	*e*Pn	**Pn**	**20 03 20.8**	**-1.1**
NIG	**Nigde**	**1.21**	**308**	*e*PN	**Pn**	**20 03 21.3**	**-1.3**
NIG	**Nigde**	**1.21**	**308**	*e*Pn	**Pn**	**20 03 21.3**	**-1.3**
YAYL	**Yayladag**	**1.36**	**170**	*i* P	**Pn**	**20 03 25.0**	**+0.3**
YAYL				*i* S	**Sn**	**20 03 42.3**	**+0.1**
GZT	**Gaziantep**	**1.38**	**90**	*i* P	**Pn**	**20 03 23.4**	**-1.6**
GZT				*i* S	**Sg**	**20 03 47.0**	**+1.9**
AVNT	**Avonos**	**1.60**	**332**	*i* P	**Pn**	**20 03 28.4**	**+0.5**
AVNT				*i* S	**Sn**	**20 03 50.3**	**+2.1**

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*ISCJB **23** 20:33:46.5±0.6, 28.72N±0.06×51.87E±0.05, h10^{km}, mb3.5/8, Error ellipse: s-maj=8.2km s-min=5.7km az=6.7*

*IDC **23** 20:33:46.4±2.2, 28.72N×51.78E, h0^{km}, mb3.6/8, mb1 3.7/8, mb1mx3.6/22, mbtmp3.6/8, Error ellipse: s-maj=51.5km s-min=26.3km az=164.0*

*KISR **23** 20:33:48.8±0.7, 28.72N×51.43E, h34^{km}±237^{km}, ML2.6*

*CSEM **23** 20:33:49.0±0.3, 28.56N×51.69E, h10^{km}, ML2.6, Error ellipse: s-maj=9.3km s-min=2.4km az=49.0*

*NAO **23** 20:34:22.2, 32.14N×49.85E, h33^{km}, mb3.6*

ISC 23 20:33:50.4±2.8, **28.68N**±0.08×**51.88E**±0.05, **h27**^{km}±23^{km}, **n25**, σ**0^{s}45**/35, **mb3.5**/8, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KFJS		**3.50**	**263**	P	**Pn**	**20 34 42.3**	**-0.7**
BOQSS		**3.58**	**219**	P	**Pn**	**20 34 44.1**	**0.0**
KBD	**Kabd**	**3.70**	**279**	*e*P	**Pn**	**20 34 45.4**	**-0.3**
KBD				AML	AML	20 35 28.0	
	comp=Z,19nm,0.3s						
KBD				*e*S	**Sn**	**20 35 28.3**	**-0.1**
KBD	**Kabd**	**3.70**	**279**	*e*P	**Pn**	**20 34 45.4**	**-0.3**
KBD				*e*S	**Sn**	**20 35 28.3**	**-0.2**
	comp=Z,19nm,0.3s						
UMR	**Umm Al-Rimmam**	**3.74**	**284**	*e*P	**Pn**	**20 34 46.3**	**0.0**
UMR				*e*S	**Sn**	**20 35 29.7**	**+0.2**
UMR				AML	AML	20 35 31.4	
	comp=Z,21nm,0.4s						
UMR	**Umm Al-Rimmam**	**3.74**	**284**	*e*P	**Pn**	**20 34 46.3**	**0.0**
UMR				*e*S	**Sn**	**20 35 29.7**	**+0.2**
	comp=Z,21nm,0.4s						
RDF	**Al-Radifah**	**3.81**	**275**	*e*P	**Pn**	**20 34 47.6**	**+0.5**
RDF				*e*S	**Sn**	**20 35 31.1**	**+0.1**
RDF				AML	AML	20 35 33.5	
	comp=Z,17nm,0.4s						
RDF	**Al-Radifah**	**3.81**	**275**	*e*P	**Pn**	**20 34 47.6**	**+0.4**
RDF				*e*S	**Sn**	**20 35 31.1**	**0.0**
SLWS		**4.02**	**196**	P	**Pn**	**20 34 50.3**	**+0.1**
NAY	**Al-Naaiem**	**4.10**	**279**	*e*P	**Pn**	**20 34 51.8**	**+0.5**
NAY				*e*S	**Sn**	**20 35 38.5**	**+0.2**
NAY				AML	AML	20 35 40.0	
	comp=Z,4.9nm,0.3s						
NAY	**Al-Naaiem**	**4.10**	**279**	*e*P	**Pn**	**20 34 51.8**	**+0.6**
NAY				*e*S	**Sn**	**20 35 38.5**	**+0.2**
	comp=Z,4.9nm,0.3s						
MIB	**Mutribah**	**4.12**	**287**	*e*P	**Pn**	**20 34 51.8**	**+0.3**
MIB				*e*S	**Sn**	**20 35 39.3**	**+0.5**
MIB				AML	AML	20 35 39.6	
	comp=Z,12nm,0.4s						
MIB	**Mutribah**	**4.12**	**287**	*e*P	**Pn**	**20 34 51.8**	**+0.3**
MIB				*e*S	**Sn**	**20 35 39.3**	**+0.5**
	comp=Z,12nm,0.4s						
BTHS		**4.71**	**192**	P	**Pn**	**20 34 59.7**	**+0.1**
HRDDS		**6.13**	**201**	P	**Pn**	**20 35 19.3**	**+0.1**
ASYS		**6.76**	**262**	P	**Pn**	**20 35 27.3**	**-0.5**
MKAR	**Makanchi Array**	**29.82**	**44**	P	**P**	**20 39 56.1**	**+1.1**
	comp=Z,0.2nm,0.7s,mb3.0,baz=242,slow=6.7,SNR=4.4						
ZALV	**Zalesovo Beam**	**34.81**	**34**	P	**P**	**20 40 38.3**	**-0.3**
	comp=Z,0.2nm,0.3s,mb3.5,baz=250,slow=8.6,SNR=2.4						
FINES	**FINESS Array B**	**36.98**	**340**	P	**P**	**20 40 56.5**	**-0.5**
	comp=Z,0.9nm,0.6s,mb3.8,baz=145,slow=10,SNR=6.9						
HFS	**Hagfors**	**40.62**	**332**	P	**P**	**20 41 27.2**	**-0.4**
	comp=Z,2.7nm,0.5s,mb4.1,baz=128,slow=9.6,SNR=15						
NB2	**NORSAR Subarra**	**42.14**	**332**	P	**P**	**20 41 39.1**	**-1.0**
	comp=Z,0.5nm,0.5s,mb3.4,baz=121,slow=8.6						
NOA	**NORSAR Array B**	**42.14**	**332**	P	**P**	**20 41 39.4**	**-0.6**
	comp=Z,1.3nm,0.9s,mb3.6,baz=120,slow=8.3,SNR=3.4						
SONM	**Songino Array**	**45.86**	**50**	P	**P**	**20 42 10.2**	**+0.1**
	comp=Z,0.2nm,0.6s,mb3.2,baz=255,slow=9.9,SNR=2.6						
TORD	**Torodi Ar. Bea**	**49.01**	**262**	P	**P**	**20 42 34.4**	**-0.6**
	comp=Z,0.6nm,0.7s,mb3.8,baz=58,slow=8.2,SNR=5.4						
YKA	**Yellowknife Ar**	**88.50**	**354**	P	**P**	**20 46 40.5**	**+0.6**
	comp=Z,0.1nm,0.7s,mb3.2,baz=16,slow=5.0,SNR=4.0						

IDC 23 20:46:03.3±9.2, **22.81S**×**65.97W**, **h240**^{km}±64^{km}, **mb3.1**/2, **mb1 3.2**/4, **mb1mx3.1**/16, **mbtmp3.0**/4, **Error ellipse: s-maj=114.3km s-min=33.1km az=11.0, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	**La Paz**	**6.80**	**342**	P	Pn	20 47 42.0	+0.6
	0.4nm,0.3s,baz=162,slow=11,SNR=12						
LPAZ				S	S	20 48 57.5	-2.5
	0.1nm,0.3s,baz=317,slow=18,SNR=5.2						
SIV	**San Ignacio**	**8.21**	**35**	P	Pn	20 48 00.1	+0.8
	0.4nm,0.3s,baz=243,slow=12,SNR=9.3						
TORD	**Torodi Ar. Bea**	**75.26**	**69**	P	P	20 57 19.8	-0.6
	0.6nm,0.4s,baz=257,slow=5.8,SNR=17						
PDAR	**Pinedale Array**	**76.62**	**329**	P	P	20 57 27.0	-0.4
	0.1nm,0.3s,baz=146,slow=6.6,SNR=2.1						
WRA	**Warramunga Arr**	**133.11**	**207**	PKP	PKPdf	21 04 51.5	+0.4
	0.1nm,0.3s,baz=153,slow=1.9,SNR=4.9						
MKAR	**Makanchi Array**	**145.01**	**39**	PKPbc	PKPbc	21 05 12.5	+0.7
	0.5nm,0.8s,baz=327,slow=3.4,SNR=7.4						

IDC 23 21:08:04.7±2.4, **6.82S**×**129.37E**, **h0**^{km}, **mb3.2**/1, **mb1 3.6**/4, **mb1mx3.5**/15, **mbtmp3.4**/4, **ML3.6**/3, **Error ellipse: s-maj=90.5km s-min=29.9km az=76.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**11.78**	**198**	Pn	Pn	21 10 52.8	-1.3
	0.1nm,0.3s,baz=359,slow=11,SNR=12						
FITZ				Sn	Sn	21 12 46.2	-20
	0.4nm,0.3s,baz=83,slow=17,SNR=7.2						
WRA	**Warramunga Arr**	**13.90**	**160**	Pn	Pn	21 11 23.3	+0.2
	0.6nm,0.3s,baz=345,slow=13,SNR=41						
WRA				Sn	Sn	21 13 45.1	-13
	0.5nm,0.3s,baz=334,slow=22,SNR=9.7						
ASAR	**Alice Springs**	**17.30**	**166**	P	Pn	21 12 08.9	+1.1
	0.2nm,0.3s,baz=340,slow=10,SNR=19						
ASAR				S	Sn	21 15 04.8	-16
	0.1nm,0.3s,baz=348,slow=26,SNR=3.9						
MKAR	**Makanchi Array**	**67.73**	**327**	P	P	21 19 04.2	+0.1
	0.2nm,0.7s,baz=124,slow=7.8,SNR=2.3						

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*IDC **23** 21:17:32.7±0.9, 7.05N×127.43E, h0^{km}, mb3.9/9, mb1 4.0/9, mb1mx3.9/22, mbtmp3.9/9, Error ellipse: s-maj=60.9km s-min=15.7km az=74.0*

*ISCJB **23** 21:17:35.9±2.1, 7.07N±0.08×127.5E±0.1, h34^{km}±19^{km}, mb3.8/9, Error ellipse: s-maj=21.5km s-min=11.3km az=161.6*

*MAN **23** 21:17:39, 7.36N×127.11E, h1^{km}, mb4.9, ML3.9, MS3.9*

ISC 23 21:17:33.8±2.6, **7.08N**±0.09×**127.51E**±0.09, **h6**^{km}±15^{km}, **n13**, σ**0^{s}89**/17, **mb3.8**/9, **1D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	**Mati**	**1.25**	**264**	*e*P	**Pg**	**21 17 57.5**	**-0.2**
MATI				*e*S	**Sg**	**21 18 13.5**	**-0.4**
BIPH	**Bislig**	**1.58**	**314**	*i* P	**Pn**	**21 18 01.9**	**-0.4**
BIPH				*i* S	**Sn**	**21 18 20.7**	**-2.4**
BUKP	**Musuan**	**2.55**	**288**	*e*P	**Pn**	**21 18 17.4**	**+1.7**
BUKP				*e*S	**Sn**	**21 18 52.6**	**+5.5**
CGP	**Cagayan de Oro**	**3.10**	**296**	⇓*e*P	**Pn**	**21 18 24.5**	**+1.2**
CGP				*e*S	**Sn**	**21 19 01.6**	**+0.8**
FITZ	**Fitzroy Crossi**	**25.09**	**184**	P	**P**	**21 22 59.8**	**+0.4**
	1.5nm,0.9s,mb3.5,baz=16,slow=12,SNR=5.8						
WRA	**Warramunga Arr**	**27.68**	**166**	P	**P**	**21 23 21.8**	**-1.0**
	1.2nm,0.6s,mb3.7,baz=342,slow=10,SNR=19						
ASAR	**Alice Springs**	**31.19**	**169**	P	**P**	**21 23 53.7**	**-0.2**
	0.3nm,0.3s,mb3.6,baz=341,slow=7.5,SNR=7.5						
ASAR				PcP	PcP	21 26 48.1	-0.8
	0.3nm,0.4s,baz=347,slow=2.4,SNR=4.9						
NWAO	**Narrogin (SRO)**	**40.96**	**193**	P	**P**	**21 25 17.4**	**0.0**
	8.7nm,0.9s,mb4.4,baz=28,slow=9.4,SNR=7.5						
STKA	**Stephens Creek**	**41.00**	**162**	P	**P**	**21 25 17.7**	**-0.1**
	1.2nm,0.3s,mb3.9,baz=338,slow=9.0,SNR=4.1						
SONM	**Songino Array**	**44.42**	**340**	P	**P**	**21 25 45.8**	**+0.5**
	0.2nm,0.5s,mb3.1,baz=155,slow=8.7,SNR=6.0						
MKAR	**Makanchi Array**	**55.30**	**324**	P	**P**	**21 27 07.8**	**-0.4**
	0.6nm,0.6s,mb3.8,baz=117,slow=7.7,SNR=19						
AKTO	**Aktyubinsk**	**71.55**	**321**	P	**P**	**21 28 54.8**	**-1.0**
	1.0nm,0.5s,mb4.0,baz=80,slow=10,SNR=5.9						
YKA	**Yellowknife Ar**	**96.15**	**24**	P	**P**	**21 31 03.2**	**+0.8**
	0.4nm,0.9s,mb3.9,baz=294,slow=4.0,SNR=3.9						

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*ISCJB **23** 21:26:24.5±0.8, 48.30N±0.03×142.22E±0.07, h11^{km}±5^{km}, mb3.6/10, Error ellipse: s-maj=8.4km s-min=4.2km az=174.4*

*SKHL **23** 21:26:24.1±1.0, 48.30N×142.12E, h10^{km}, mb4.0/4, Ms3.3/1*

SKHL Felt (II) at Krasnogorsk.

*MOS **23** 21:26:25.8±2.1, 48.33N×142.20E, h18^{km}, mb3.9/5, Error ellipse: s-maj=19.1km s-min=9.2km az=102.2*

MOS Felt (II) at Krasnogorsk.

*NEIC **23** 21:26:25.6±0.6, 48.34N×142.20E, h10^{km}, mb3.9/3, Error ellipse: s-maj=16.4km s-min=10.8km az=78.0*

NEIC Felt [II] at Krasnogorsk.

*IDC **23** 21:26:29.6±6.2, 48.27N×142.12E, h35^{km}±51^{km}, mb3.4/8, mb1 3.7/9, mb1mx3.6/21, mbtmp3.5/9, ML4.2/1, MS3.1/1, Ms1 3.1/1, ms1mx3.0/35, Error ellipse: s-maj=23.6km s-min=21.6km az=77.0*

ISC 23 21:26:25.3±0.9, **48.30N**±0.03×**142.07E**±0.08, **h5**^{km}±6^{km}, **n37**, σ**1^{s}11**/49, **mb3.6**/10, **4C-3D, Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UGL	**Uglegorsk**	**0.78**	**360**	⇓*i*Pn	**Pg**	**21 26 40.2**	**-0.1**
UGL				*e*S	**Sg**	**21 26 50.6**	**+0.2**
UGL	**Uglegorsk**	**0.78**	**360**	⇓*i*PN	**Pg**	**21 26 40.2**	**-0.1**
UGL				*e*S	**Sg**	**21 26 50.6**	**+0.2**
UGL				pmax	pmax		
	comp=Z,146nm,0.5s						
UGL				pmax	pmax		
	comp=N,111nm,0.3s						
UGL				pmax	pmax		
	comp=E,77nm,0.5s						
UGL				smax			
	comp=N,1µm,0.5s						
UGL				smax			
	comp=E,2µm,0.5s						
UGL				smax			
	comp=Z,1µm,0.5s						
UGL	**Uglegorsk**	**0.78**	**360**	⇓*i*Pg	**Pg**	**21 26 40.2**	**-0.1**
UGL				AMB	AMB	21 26 41.5	
	comp=Z,111nm,0.3s						
UGL				AMB	AMB	21 26 41.5	
	comp=Z,77nm,0.5s						
UGL				AMB	AMB	21 26 41.5	
	comp=Z,146nm,0.5s						
UGL				*e*Sg	**Sg**	**21 26 51.0**	**+0.6**
UGL				A		21 26 52.9	
	comp=Z,1µm,0.5s						
UGL				A		21 26 52.9	
	comp=Z,2µm,0.5s						
UGL				A		21 26 52.9	
	comp=Z,1µm,0.5s						
YSS	**Yuzh-Sakhalins**	**1.42**	**161**	⇑*i*Pn	**Pn**	**21 26 51.0**	**-0.8**
YSS				*i*		21 27 10.9	
YSS	**Yuzh-Sakhalins**	**1.42**	**161**	⇑*i*PN	**Pn**	**21 26 51.0**	**-0.8**
YSS				*i*		21 27 10.9	
YSS				pmax	pmax		
	comp=Z,45nm,0.3s						
YSS				smax			
	comp=N,560nm,0.3s						
YSS				smax			
	comp=E,1µm,0.5s						
YSS	**Yuzh-Sakhalins**	**1.42**	**161**	⇑*i*Pg	**Pn**	**21 26 51.0**	**-0.8**
YSS				AMB	AMB	21 26 52.9	
	comp=E,50nm,0.3s						
YSS				*i* Sg	**Sg**	**21 27 11.0**	**+0.1**
YSS				A		21 27 18.0	
	comp=E,780nm,0.4s						
YSS				A		21 27 18.0	
	comp=E,680nm,0.4s						
YSS				AMS	AMS	21 27 44.0	
	comp=E,800nm,5.0s						
YSS				AMS	AMS	21 27 44.0	
	comp=E,1µm,5.0s						
ASAJ	**Asahikawa**	**4.20**	**175**	PN	**Pn**	**21 27 30.8**	**+0.9**
ASAJ				pmax	pmax		
	comp=Z,11nm,0.3s						
ASAJ	**Asahikawa**	**4.20**	**175**	Pn	**Pn**	**21 27 30.8**	**+0.8**
	comp=Z,11nm,0.3s,baz=30,slow=15,SNR=17						

ASAJ				Sn	Sn	21 28 19.9	+0.5
	comp=Z,3.2nm,0.3s,baz=90,slow=20,SNR=3.3						
ASAJ				LR	LR	21 29 35.2	
	comp=Z,224nm,20.5s,baz=321,slow=44						
GRNR	Gornyy	4.43	306	*e*P	Pn	21 27 34.0	+0.8
GRNR				AMB	AMB	21 27 36.0	
	comp=Z,24nm,0.5s						
GRNR				*e*Pb	Pb	21 27 43.0	-0.6
GRNR				*e*Sb	Sb	21 28 34.0	-3.3
GRNR				A		21 28 37.4	
	comp=Z,76nm,0.5s						
HABR	Khabarovsk	4.68	275	⇑*i*PN	Pn	21 27 34.9	-1.7
HABR				*e*S	Sn	21 28 45.6	+14
HABR				pmax	pmax		
	comp=Z,27nm,1.9s						
HABR				MLR	MLR		
	comp=Z,300nm,15.0s						
TEY	Ternei	4.98	231	*e*S	Sn	21 28 37.2	-1.5
TEY				*e*Sg	Sg	21 29 12.8	+7.6
OKH	Okha	5.29	6	*e*S	Sn	21 28 45.0	-1.1
OKH				*e*Sg	Sg	21 29 25.0	+10
OKH				A		21 29 32.0	
	comp=Z,67nm,0.6s						
ERM	Erimo	6.33	173	*e*PN	Pn	21 28 04.0	+4.8
EKMR	Ekimchan	7.51	313	*e*P	Pn	21 28 16.5	+1.2
EKMR				*e*Pg	Pg	21 28 47.0	-2.0
EKMR				AMB	AMB	21 28 50.2	
	comp=Z,2.0nm,0.5s						
EKMR				AMB	AMB	21 28 50.2	
	comp=Z,3.0nm,0.5s						
EKMR				*e*S	Sn	21 29 46.5	+5.7
EKMR				*e*Sg	Sg	21 30 26.5	+0.3
EKMR				A		21 30 31.0	
	comp=Z,21nm,0.6s						
EKMR				A		21 30 31.0	
	comp=Z,16nm,0.6s						
EKMR				A		21 30 31.0	
	comp=Z,6.0nm,0.6s						
HIA	Hailar	14.75	282	*e*P	Pn	21 30 00.3	+5.9
YAK	Yakutsk	15.43	338	*e*P	Pn	21 30 06.3	+2.9
	comp=Z,13nm,1.5s						
YAK	Yakutsk	15.43	338	*e*P	Pn	21 30 06.3	+2.9
YAK				pmax	pmax		
	comp=Z,13nm,1.5s						
ULN	Ulaanbaatar	23.28	282	*e*P	P	21 31 36.2	+2.5
SONM	Songino Array	23.72	282	P	P	21 31 38.7	+0.6
SONM				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	23.72	282	P	P	21 31 38.7	+0.6
	comp=Z,0.6nm,0.5s,mb3.3,baz=76,slow=7.6,SNR=4.5						
TIXI	Tiksi	24.22	350	*e*P	P	21 31 41.4	-1.1
	comp=Z,2.0nm,1.0s,mb3.5						
TIXI	Tiksi	24.22	350	*e*P	P	21 31 41.4	-1.1
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.5						
ZAK	Zakamensk	25.17	289	*e*P	P	21 31 52.7	+1.4
	comp=Z,3.0nm,1.0s,mb3.8						
ZAK	Zakamensk	25.17	289	*e*P	P	21 31 52.7	+1.4
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.8						
ZALV	Zalesovo Beam	35.52	301	PcP	PcP	21 35 50.9	-0.9
	comp=Z,0.5nm,0.3s,baz=99,slow=4.5,SNR=3.0						
MKAR	Makanchi Array	39.49	291	P	P	21 33 56.6	+0.1
MKAR				*e*		21 36 03.6	
MKAR	Makanchi Array	39.49	291	P	P	21 33 56.6	+0.1
MKAR						21 36 03.6	
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	39.49	291	P	P	21 33 56.6	+0.2
	comp=Z,0.7nm,0.6s,mb3.6,baz=71,slow=8.5,SNR=7.9						
MKAR				PcP	PcP	21 36 03.6	-0.5
	comp=Z,0.4nm,0.8s,baz=53,slow=4.7,SNR=3.9						
YKA	Yellowknife Ar	54.00	34	P	P	21 35 49.6	-0.2
YKA	Yellowknife Ar	54.00	34	P	P	21 35 49.6	-0.1
	comp=Z,0.3nm,0.6s,mb3.4,baz=304,slow=6.6,SNR=7.4						
FINES	FINESS Array B	59.19	330	*i* P	P	21 36 26.6	-0.1
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
FINES	FINESS Array B	59.19	330	P	P	21 36 26.6	-0.2
	comp=Z,1.8nm,0.7s,mb4.2,baz=59,slow=8.8,SNR=7.8						
WRA	Warramunga Arr	68.28	188	P	P	21 37 25.7	-1.4
WRA	Warramunga Arr	68.28	188	P	P	21 37 25.7	-1.4
	comp=Z,0.3nm,0.8s,mb3.4,baz=4.5,slow=6.1,SNR=3.9						
PDAR	Pinedale Array	69.59	48	P	P	21 37 34.3	-0.9
	comp=Z,0.8nm,0.8s,mb3.7,baz=323,slow=2.2,SNR=6.3						
ASAR	Alice Springs	72.00	188	P	P	21 37 50.0	+0.2
	comp=Z,0.2nm,0.4s,mb3.4,baz=3.4,slow=5.8,SNR=4.4						
TXAR	Lajitas Array	82.92	53	P	P	21 38 51.7	+0.6
	comp=Z,0.4nm,0.6s,mb3.6,baz=302,slow=4.1,SNR=5.3						

MAN 23 21:42:27, 12.22N×125.13E, h39^{km}, mb4.4, ML3.3, MS3.2, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNP	Catarman	0.54	302	*e*P	Pn	21 42 39.5	+1.3
CNP				*e*S	Sn	21 42 50.0	+3.8
BESP	Borongan	0.69	154	*e*P	Pn	21 42 41.8	+1.5
BESP				*e*S	Sn	21 42 53.3	+3.6
PLP	Palo	1.06	188	*e*P	Pn	21 42 46.4	+1.0
PLP				*e*S	Sn	21 43 02.2	+3.3
OCLP	Ormoc	1.27	204	*e*P	Pn	21 42 50.2	+2.0
PVCP	Virac	1.67	325	*e*P	Pn	21 42 55.9	+2.2

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*ISCJB **23** 21:53:13.0±1.2, 39.21N±0.10×73.1E±0.1, h10^{km}, mb3.5/4, Error ellipse: s-maj=14.0km s-min=11.2km az=5.4*
*IDC **23** 21:53:12.4±2.1, 39.03N×73.26E, h0^{km}, mb3.6/4, mb1 3.6/6, mb1mx3.4/23, mbtmp3.5/6, ML2.8/2, Error ellipse: s-maj=43.5km s-min=22.1km az=164.0*
ISC 23 21:53:14.7±1.2, **39.2N**±0.1×**73.1E**±0.1, **h10^{km}, n16, σ0.92**/19, **mb3.5**/4, **4C-1D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	2.93	8	P	Pn	21 54 00.6	-0.8
	SNR=50						
UCH	Uchtor	3.17	19	P	Pn	21 54 04.3	-0.3
	SNR=38						
KZA	Kyzart	3.27	29	P	Pn	21 54 06.3	+0.3
	SNR=8.4						
EKS2	Erkin-Say	3.46	8	P	Pn	21 54 08.7	+0.1
	SNR=13						
KBK	Karagaybulak	3.69	21	P	Pn	21 54 10.8	-0.9
	SNR=16						
CHMS	Chumysh	3.96	17	P	Pn	21 54 15.3	-0.2
	SNR=12						
TKM2	Tokmak 2	4.13	26	P	Pn	21 54 17.6	-0.2
	SNR=5.2						
USP	Ospenovka	4.16	14	P	Pn	21 54 17.7	-0.6
	SNR=9.0						
KK31	Karatay Array	4.35	334	Pn	Pn	21 54 22.0	+1.1
	0.8nm,0.3s,baz=133,slow=12,SNR=47						
KK31				⇓Pg	Pg	21 54 31.4	-6.7
	5.5nm,0.5s,baz=138,slow=14,SNR=7.6						
KK31				⇑Sn	Sn	21 55 12.6	+0.9
	4.6nm,0.3s,baz=143,slow=24,SNR=5.7						
KK31				⇑Lg		21 55 25.9	
	7.3nm,0.4s,baz=139,slow=28,SNR=3.9						
MKAR	Makanchi Array	10.10	39	Pn	Pn	21 55 41.5	+1.8
	0.0nm,0.3s,baz=212,slow=10,SNR=3.3						
MKAR				Lg		21 58 24.6	
	0.0nm,0.3s,baz=237,slow=24,SNR=3.8						
AB31	Akbulak array	13.77	321	⇑Pn	Pn	21 56 27.3	-2.4
	0.5nm,0.7s,baz=151,slow=29,SNR=4.2						
AB31				⇑Sn	Sn	21 58 56.4	-6.2
	1.6nm,0.9s,baz=151,slow=29,SNR=2.5						
AKTO	Aktyubinsk	15.48	321	Pn	Pn	21 56 53.5	+0.6
	0.1nm,0.3s,baz=119,slow=13,SNR=2.4						
SONM	Songino Array	25.44	59	P	P	21 58 43.1	+0.6
	0.4nm,0.7s,mb3.1,baz=275,slow=8.2,SNR=4.2						
FINES	FINESS Array B	36.24	323	P	P	22 00 17.6	+0.1
	2.0nm,1.1s,mb4.0,baz=110,slow=8.7,SNR=4.5						
TORD	Torodi Ar. Bea	67.48	269	P	P	22 04 11.7	+0.7
	0.7nm,1.0s,mb3.6,baz=44,slow=5.4,SNR=3.6						
YKA	Yellowknife Ar	78.44	4	P	P	22 05 14.0	-1.2
	0.3nm,0.6s,mb3.4,baz=350,slow=5.7,SNR=6.5						

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*IDC **23** 22:03:56.8±1.9, 1.22N×97.09E, h0^{km}, mb3.6/4, mb1 3.6/5, mb1mx3.4/22, mbtmp3.5/5, ML2.8/1, MS3.0/1, Ms1 3.0/1, ms1mx2.9/31, Error ellipse: s-maj=51.0km s-min=28.9km az=52.0*
*ISCJB **23** 22:03:59.8±1.5, 1.3N±0.2×97.1E±0.2, h33^{km}, mb3.6/4, Error ellipse: s-maj=29.8km s-min=21.6km az=39.8*
*NEIC **23** 22:04:01.3±1.2, 1.24N×97.13E, h30^{km}, Error ellipse: s-maj=25.6km s-min=17.8km az=219.0*
ISC 23 22:04:02.4±1.5, **1.3N**±0.2×**97.2E**±0.2, **h35^{km}, n8, σ0.32**/8, **mb3.6**/4, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.27	49	Pn	Pn	22 04 37.4	0.0
PSI				LR	LR	22 05 46.4	
PSI	Prapat	2.27	49	Pn	Pn	22 04 37.4	0.0
	2.2nm,0.3s,baz=256,slow=8.3,SNR=9.2						
PSI				LR	LR	22 05 46.4	
	comp=Z,336nm,20.9s,baz=296,slow=47						
WRA	Warramunga Arr	42.07	122	P	P	22 11 51.2	0.0
	0.3nm,0.6s,mb3.1,baz=302,slow=9.1,SNR=5.2						
SONM	Songino Array	47.03	8	P	P	22 12 30.3	0.0
	0.6nm,0.7s,mb3.6,baz=189,slow=8.3,SNR=6.6						
SONM				PcP	PcP	22 14 02.5	+0.5
	0.2nm,0.8s,baz=166,slow=3.7,SNR=2.8						
MK31	Makanchi Array	47.15	346	*e*P	P	22 12 30.8	-0.5
MKAR	Makanchi Array	47.15	346	P	P	22 12 31.8	+0.6
	0.3nm,0.5s,mb3.5,baz=161,slow=8.7,SNR=7.5						
ZALV	Zalesovo Beam	53.46	351	P	P	22 13 18.8	-0.1
ZALV	Zalesovo Beam	53.46	351	P	P	22 13 18.8	-0.1
	1.1nm,0.5s,mb4.1,baz=183,slow=7.4,SNR=5.4						

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*CSEM **23** 22:13:54.2, 39.62N×38.41E, h8^{km}, MD3.2, After ISK*
ISK 23 22:13:54.2, 39.62N×38.41E, h8^{km}, MD3.2, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTK	Pertek	1.05	133	PG	Pg	22 14 14.2	-0.2
PTK				SG	Sg	22 14 30.3	+2.3
PTK	Pertek	1.05	133	*e*Pg	Pg	22 14 14.2	-0.2
PTK				*e*Sg	Sg	22 14 30.3	+2.3
EZC	Erzincan	1.09	83	*i* PG	Pg	22 14 09.0	-6.2
SVSK	Karacayir	1.13	286	PN	Pn	22 14 15.8	-0.5
SVSK				SN	Sn	22 14 32.8	+0.9
SVSK	Karacayir	1.13	286	*e*Pn	Pn	22 14 15.8	-0.5
SVSK				*e*Sn	Sn	22 14 32.8	+0.9
GUMT	Gumushane	1.18	44	PN	Pn	22 14 16.8	-0.2
GUMT	Gumushane	1.18	44	*e*Pn	Pn	22 14 16.8	-0.2
MYA	Malataya	1.29	179	PN	Pn	22 14 18.9	+0.4
MYA	Malataya	1.29	179	*e*Pn	Pn	22 14 18.9	+0.4
MALT	Malatya	1.30	179	PN	Pn	22 14 18.5	-0.1
MALT	Malatya	1.30	179	*e*Pn	Pn	22 14 18.5	-0.1
KTUT	Trabzon	1.72	37	*e*PN	Pn	22 14 25.4	+1.0
KTUT	Trabzon	1.72	37	*e*Pn	Pn	22 14 25.4	+1.0
BINT	Bingol	1.78	114	*e*PN	Pn	22 14 26.7	+1.5
BINT	Bingol	1.78	114	*e*Pn	Pn	22 14 26.7	+1.5
BNN	Bunyan	2.13	250	*e*PN	Pn	22 14 31.2	+1.1
BNN	Bunyan	2.13	250	*e*Pn	Pn	22 14 31.2	+1.1
EZM	Erzurum	2.29	82	*e*PN	Pn	22 14 34.2	+1.9
YOZ	Yozgat	2.39	272	*e*PN	Pn	22 14 35.3	+1.7
YOZ	Yozgat	2.39	272	*e*Pn	Pn	22 14 35.3	+1.7

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*MOS **23** 22:13:53.0±0.7, 53.04N×170.38W, h33^{km}, mb4.9/3, Error ellipse: s-maj=31.5km s-min=17.3km az=86.0*
*IDC **23** 22:14:00.3±3.4, 53.07N×170.26W, h82^{km}±28^{km}, mb3.6/16, mb1 3.8/17, mb1mx3.7/26, mbtmp3.6/17, Error ellipse: s-maj=23.3km s-min=16.1km az=3.0*
*ISCJB **23** 22:14:01.4±0.9, 53.1N±0.1×170.22W±0.10, h106^{km}±8^{km}, mb4.0/20, Error ellipse: s-maj=19.3km s-min=9.0km az=165.6*
*NEIC **23** 22:14:02.6±0.9, 53.06N×170.24W, h105^{km}±9^{km}, mb4.3/6, Error ellipse: s-maj=15.8km s-min=8.1km az=165.0*
ISC 23 22:14:02.4±0.9, **53.1N**±0.1×**170.2W**±0.1, **h100^{km}**±8^{km}, **n39, σ1.04**/35, **mb4.0**/20, **Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UNV	Unalaska Valle	2.36	69	*e*Pn	Pn	22 14 39.3	-0.2
UNV				*e*Sn	Sn	22 15 07.9	+0.7
ATKA	Atka Island	2.57	252	P	Pn	22 14 42.1	-0.2
KDAK	Kodiak Island	11.07	58	P	Pn	22 16 34.1	-3.2
	0.5nm,0.3s,baz=266,slow=15,SNR=6.3						
TNA	Tin City	12.60	4	*e*Pn	Pn	22 17 02.4	+4.8
	4.4nm,1.0s						
SLKM	Skilak Lake	13.22	48	*e*Pn	Pn	22 17 08.2	+2.4
BILL	Bilibino	18.75	332	*e*P	P	22 18 19.1	+6.1
	2.7nm,0.3s						
BILL	Bilibino	18.75	332	*e*P	P	22 18 16.7	+3.7
BILL				pmax	pmax		
	comp=Z,4.0nm,0.9s						
EGAK	Eagle	18.83	40	*e*P	P	22 18 14.1	+0.2
	comp=Z,3.1nm,0.6s						
DLBC	Dease Lake	22.98	60	P	P	22 18 56.4	-1.6
DLBC	Dease Lake	22.98	60	P	P	22 18 56.4	-1.6
	baz=315,slow=8.6						
INK	Inuvik	23.06	35	P	P	22 18 57.6	-1.0
	comp=Z,1.4nm,0.5s,mb3.5,baz=230,slow=10.0,SNR=5.4						
YKA	Yellowknife Ar	30.18	50	P	P	22 20 02.5	-0.1
	comp=Z,0.2nm,0.4s,mb3.1,baz=266,slow=7.7,SNR=6.6						
YKA				PcP	PcP	22 23 01.2	+0.2
	comp=Z,0.1nm,0.4s,baz=293,slow=3.0,SNR=3.1						
WVOR	Wild Horse Val	35.54	86	*e*P	P	22 20 50.1	+0.6
	comp=Z,8.8nm,1.0s,mb4.6						
WVOR	Wild Horse Val	35.54	86	*e*P	P	22 20 50.1	+0.6
WVOR				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
NVAR	Mina Array Bea	38.19	91	P	P	22 21 13.5	+1.5
	comp=Z,2.1nm,0.7s,mb4.0,baz=314,slow=8.2,SNR=4.0						
PDAR	Pinedale Array	40.78	79	P	P	22 21 34.4	+1.0
	comp=Z,0.9nm,0.8s,mb3.7,baz=301,slow=4.7,SNR=6.9						
HIA	Hailar	42.49	294	*e*P	P	22 21 49.2	+2.0
	comp=Z,28nm,2.3s,mb4.6						
HIA	Hailar	42.49	294	*e*P	P	22 21 49.2	+1.9
HIA				pmax	pmax		
	comp=Z,28nm,2.3s						
ULM	Lac du Bonnet	44.28	62	P	P	22 22 01.4	-0.2
	comp=Z,0.8nm,0.5s,mb3.7,baz=291,slow=8.8,SNR=3.8						
SONM	Songino Array	50.51	300	P	P	22 22 50.0	+0.1
SONM						22 24 07.0	
SONM	Songino Array	50.51	300	P	P	22 22 50.0	+0.2
	comp=Z,0.4nm,0.5s,mb3.7,baz=46,slow=5.4,SNR=4.6						
SONM				PcP	PcP	22 24 07.0	+0.6
	comp=Z,1.5nm,0.6s,baz=67,slow=2.6,SNR=13						
SONM				ScP	ScP	22 27 53.1	+0.2
	comp=Z,0.3nm,0.5s,baz=58,slow=2.8,SNR=4.0						
TXAR	Lajitas Array	53.25	89	P	P	22 23 10.8	+0.4
	comp=Z,1.7nm,0.8s,mb4.1,baz=298,slow=5.1,SNR=13						
SCHQ	Schefferville	55.29	43	P	P	22 23 23.5	-1.3
	comp=Z,2.4nm,0.8s,mb4.2,baz=260,slow=11,SNR=3.0						
ZALV	Zalesovo Beam	56.57	317	P	P	22 23 34.1	+0.1
	comp=Z,0.4nm,0.3s,mb3.9,baz=12,slow=7.5,SNR=3.0						
ZAL	Zalesovo	56.59	317	P	P	22 23 34.1	0.0
ARCES	ARCESS Array B	57.18	353	P	P	22 23 38.3	+0.2
	comp=Z,1.9nm,0.8s,mb4.2,baz=18,slow=5.8,SNR=5.4						
KAF	Kangasniemi	64.44	351	*e*P	P	22 24 24.6	-2.7
KAF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.5						
FINES	FINESS Array B	65.12	351	P	P	22 24 31.9	+0.1
	comp=Z,1.5nm,0.6s,mb4.0,baz=6.2,slow=6.8,SNR=9.0						
NOA	NORSAR Array B	66.25	359	P	P	22 24 39.9	+0.9
	comp=Z,1.1nm,0.6s,mb3.9,baz=1.2,slow=6.7,SNR=3.1						
AKASG	Malin Array Be	75.33	347	P	P	22 25 33.5	-0.6
	comp=Z,1.1nm,0.5s,mb3.9,baz=14,slow=5.5,SNR=4.9						
GERES	GERESS Array B	78.42	357	P	P	22 25 51.3	-0.2
	comp=Z,0.6nm,0.7s,mb3.5,baz=15,slow=5.5,SNR=4.8						
WRA	Warramunga Arr	87.03	231	P	P	22 26 35.1	-1.2
	comp=Z,0.2nm,0.5s,mb3.3,baz=34,slow=5.5,SNR=5.6						
PSI	Prapat	88.30	272	P	P	22 26 43.2	+0.5
	comp=Z,4.7nm,0.4s,mb4.8,baz=325,slow=5.3,SNR=6.5						
ASAR	Alice Springs	90.45	229	P	P	22 26 51.8	-0.6
	comp=Z,0.3nm,0.5s,mb3.7,baz=28,slow=5.1,SNR=4.8						
TSUM	Tsumeb	145.67	347	PKPbc	PKPbc	22 33 28.9	-0.4
TSUM	Tsumeb	145.67	347	PKPbc	PKPbc	22 33 28.9	-0.4
	comp=Z,0.8nm,0.3s,baz=72,slow=3.2,SNR=4.0						
BOSA	Boshof	153.04	329	PKPbc	PKPbc	22 33 47.6	0.0
BOSA	Boshof	153.04	329	PKIKP	PKPdf	22 33 47.7	+7.4
BOSA	Boshof	153.04	329	PKPbc	PKPbc	22 33 47.6	0.0
	comp=Z,1.7nm,0.5s,baz=33,slow=1.6,SNR=8.5						

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*IDC **23** 22:30:29.4±1.7, 1.14N×97.03E, h0^{km}, mb3.8/5, mb1 3.8/6, mb1mx3.6/22, mbtmp3.7/6, Error ellipse: s-maj=49.6km s-min=22.2km az=57.0*
*ISCJB **23** 22:30:32.9±1.2, 1.2N±0.1×97.1E±0.1, h33^{km}, mb3.7/5, Error ellipse: s-maj=22.3km s-min=17.1km az=154.5*
*NEIC **23** 22:30:34.2±0.9, 1.21N×97.14E, h30^{km}, Error ellipse: s-maj=17.4km s-min=13.2km az=62.0*
ISC 23 22:30:35.2±1.2, **1.2N**±0.1×**97.2E**±0.2, **h35^{km}, n10, σ0.24**/10, **mb3.7**/5, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.31	48	Pn	Pn	22 31 11.2	+0.3
PSI	Prapat	2.31	48	Pn	Pn	22 31 11.2	+0.3
	3.5nm,0.3s,baz=256,slow=6.0,SNR=15						
KULM	Kulim	5.29	40	*e*Pn	Pn	22 31 51.5	-0.4
WRA	Warramunga Arr	42.05	122	P	P	22 38 23.7	-0.2
	0.5nm,0.9s,mb3.1,baz=301,slow=9.1,SNR=7.0						
ASAR	Alice Springs	43.42	127	P	P	22 38 35.1	+0.2
	0.3nm,0.5s,mb3.3,baz=297,slow=8.2,SNR=3.4						
SONM	Songino Array	47.09	8	P	P	22 39 03.9	+0.3
	0.9nm,0.7s,mb3.8,baz=189,slow=9.1,SNR=11						
SONM				PcP	PcP	22 40 35.4	+0.3
	0.3nm,0.4s,baz=195,slow=4.2,SNR=3.9						
MK31	Makanchi Array	47.20	346	*e*P	P	22 39 04.4	-0.1
MKAR	Makanchi Array	47.20	346	P	P	22 39 04.6	+0.1
	0.6nm,0.5s,mb3.8,baz=160,slow=8.7,SNR=19						
ZALV	Zalesovo Beam	53.52	351	P	P	22 39 52.0	-0.2
ZALV	Zalesovo Beam	53.52	351	P	P	22 39 52.0	-0.2
	1.8nm,0.4s,mb4.4,baz=178,slow=6.6,SNR=11						

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*ISCJB **23** 22:33:04.8±0.6, 38.0N±0.1×46.9E±0.1, h10^{km}, Error ellipse: s-maj=19.9km s-min=5.1km az=37.6*
*CSEM **23** 22:33:05.9±0.1, 38.00N×47.02E, h16^{km}, ML3.2, Error ellipse: s-maj=6.8km s-min=2.0km az=38.0*
*THR **23** 22:33:06.0±0.3, 37.86N×46.88E, h15^{km}±4^{km}, ML3.2*
*TEH **23** 22:33:15.8, 37.74N×47.16E, h29^{km}, ML3.5*
ISC 23 22:33:07.2±1.1, **38.0N**±0.1×**46.8E**±0.1, **h17^{km}**±12^{km}, **n23, σ1.04**/25, **Northwestern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAKU	Maku	2.16	310	*e*Pg	Pg	22 33 47.4	-1.2
	SNR=90						
MAKU				*e*Sg	Sg	22 34 17.7	+1.2
	SNR=90						
MAKU	Maku	2.16	310	*e*Pg	Pg	22 33 47.4	-1.2
MAKU				*e*Sg	Sg	22 34 17.7	+1.1
MAKU				AML	AML	22 34 23.9	
	comp=E,106nm,0.4s						
IRAZ	Razeghan	3.59	135	*e*Pn	Pn	22 34 01.2	-0.9
IRAZ				*e*		22 35 02.8	
	comp=Z,934nm,0.3s						
IRAZ	Razeghan	3.59	135	*e*Pn	Pn	22 34 01.2	-0.9
IGHG	Ghaleghazi	3.66	183	*e*Pn	Pn	22 34 04.4	+1.4
IGHG	Ghaleghazi	3.66	183	*e*Pn	Pn	22 34 04.4	+1.4
IMHD	Mahdasht	3.85	126	*e*Pn	Pn	22 34 04.7	-1.0
IMHD				*e*		22 35 03.9	
	comp=Z,1μm,0.2s						
IMHD	Mahdasht	3.85	126	*e*Pn	Pn	22 34 04.7	-1.0
THKV	Tehran--Karaj	3.86	121	*e*Sg	Sb	22 35 02.7	+1.5
	SNR=90						
THKV	Tehran--Karaj	3.86	121	*e*Sg	Sb	22 35 02.6	+1.5
CHTH	Charan	4.03	120	*e*Pn	Pn	22 34 08.1	0.0
	SNR=52						
CHTH	Charan	4.03	120	*e*Pn	Pn	22 34 08.1	-0.1
CHTH				AML	AML	22 35 15.4	
	comp=N,28nm,0.5s						
ASAO	Ashtian	4.30	142	*e*Pn	Pn	22 34 11.6	-0.3
	SNR=52						
ASAO	Ashtian	4.30	142	*e*Pn	Pn	22 34 11.6	-0.3
IPRN	Paran-Amol	4.67	110	*e*Pn	Pn	22 34 16.5	-0.5
IPRN				*e*		22 35 39.6	
	comp=Z,489nm,0.2s						
DAMV	Damavand	4.76	118	*e*Pn	Pn	22 34 18.2	0.0
	SNR=52						
DAMV	Damavand	4.76	118	*e*Pn	Pn	22 34 18.2	+0.1
DAMV				AML	AML	22 35 32.9	
	comp=E,19nm,0.4s						
DAMV				AML	AML	22 35 34.6	
	comp=N,24nm,0.6s						
IVRN	Varamin	4.96	126	*e*Pn	Pn	22 34 20.0	-0.9
IVRN				*e*		22 35 39.3	
	comp=Z,387nm,0.2s						
IVRN	Varamin	4.96	126	*e*Pn	Pn	22 34 20.0	-0.9
GHVR	GHOM	5.04	133	*e*Pn	Pn	22 34 21.0	-1.0
	SNR=52						
GHVR	GHOM	5.04	133	*e*Pn	Pn	22 34 21.0	-1.0
IGLO	Galoogah	5.59	105	*e*Pn	Pn	22 34 32.0	+2.4
IGLO				*e*		22 36 19.7	
	comp=Z,137nm,0.2s						
ISFB	Sefidab	5.69	128	*e*	Sg	22 36 09.8	+0.1
	comp=Z,189nm,0.4s						

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*IDC **23** 22:38:32.6±2.3, 35.11N×81.35E, h0^{km}, mb3.5/5, mb1 3.7/7, mb1mx3.5/23, mbtmp3.6/7, ML3.5/2, MS3.4/1, Ms1 3.4/1, ms1mx2.9/21, Error ellipse: s-maj=48.7km s-min=29.5km az=151.0*
*ISCJB **23** 22:38:35.2±5.8, 35.52N±0.10×81.4E±0.1, h6^{km}±40^{km}, mb3.5/6, Error ellipse: s-maj=18.7km s-min=15.2km az=34.2*
*BJI **23** 22:38:38.0, 35.53N×81.56E, h22^{km}, mb4.0, ML3.7*
*NEIC **23** 22:38:41.1±1.2, 35.52N×81.38E, h35^{km}, mb3.8/1, Error ellipse: s-maj=21.0km s-min=12.4km az=45.0*
ISC 23 22:38:41.0±1.4, **35.55N**±0.08×**81.3E**±0.1, **h37^{km}**±16^{km}, **n16, σ1.01**/18, **mb3.5**/6, **Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THN	Thein Dam	5.61	238	*e*P	Pn	22 40 01.5	-0.4
KSH	Kashi	5.81	314	PG	Pn	22 40 22.8	+18
KSH				S	Sn	22 41 19.6	+10
KSH				Smax			
	comp=N,304nm,0.6s						
KSH				Smax			
	comp=E,529nm,0.5s						
MK31	Makanchi Array	11.25	3	*e*Pn	Pn	22 41 19.4	+0.2
MKAR	Makanchi Array	11.25	3	Pn	Pn	22 41 19.3	+0.1
MKAR				Sn	Sn	22 43 21.8	-1.8
MKAR	Makanchi Array	11.25	3	Pn	Pn	22 41 19.3	+0.1
	comp=E,0.4nm,0.3s,baz=179,slow=13,SNR=18						
MKAR				Sn	Sn	22 43 21.8	-1.8
	comp=E,0.1nm,0.3s,baz=186,slow=25,SNR=3.5						
ZALV	Zalesovo Beam	18.55	6	P	Pn	22 42 55.4	+0.6
	comp=E,0.1nm,0.3s,baz=195,slow=12,SNR=7.9						
KMI	Kunming	21.15	114	P	P	22 43 22.8	-0.1
KMI				AMB	AMB		
	comp=Z,3.0nm,0.7s,mb3.7						
KMI	Kunming	21.15	114	P	P	22 43 22.7	-0.2
	comp=Z,3.0nm,0.7s,mb3.7						
SONM	Songino Array	22.27	49	P	P	22 43 35.4	+0.8
	comp=Z,0.9nm,1.0s,mb3.2,baz=247,slow=11,SNR=6.1						
AKTK	Aktyubinsk	22.50	319	P	P	22 43 38.1	+1.0
AKTO	Aktyubinsk	22.50	319	P	P	22 43 38.1	+1.0
	comp=Z,1.1nm,0.6s,mb3.5,baz=127,slow=10,SNR=5.5						
KSRS	Korea Array	37.20	73	LR	LR	23 03 18.6	
	comp=Z,52nm,19.1s,baz=340,slow=40						
FINES	FINESS Array B	43.04	325	P	P	22 46 37.2	+0.6
FINES	FINESS Array B	43.04	325	P	P	22 46 37.2	+0.6
	comp=Z,1.5nm,0.8s,mb3.8,baz=111,slow=10,SNR=4.4						
TORD	Torodi Ar. Bea	74.12	275	P	P	22 50 11.1	-2.6
	comp=Z,0.4nm,0.8s,mb3.4,baz=46,slow=6.1,SNR=6.0						
YKA	Yellowknife Ar	81.45	7	P	P	22 50 52.9	-0.8
	comp=Z,0.2nm,0.5s,mb3.3,baz=339,slow=5.1,SNR=6.2						

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*IDC **23** 22:38:51.5±1.2, 45.37S×72.64W, h0^{km}, mb4.3/7, mb1 4.4/7, mb1mx4.3/17, mbtmp4.3/7, ML3.2/1, MS4.1/13, Ms1 4.1/13, ms1mx3.9/24, Error ellipse: s-maj=46.8km s-min=22.8km az=72.0*
*ISCJB **23** 22:38:52.9±7.9, 45.3S±0.1×72.6W±0.4, h18^{km}±55^{km}, mb4.3/8, MS4.1/11, Error ellipse: s-maj=43.3km s-min=17.6km az=170.8*
*NEIC **23** 22:38:56.8±0.5, 45.33S×72.59W, h35^{km}, mb4.6/2, Error ellipse: s-maj=22.5km s-min=8.6km az=86.0*
ISC 23 22:38:56.1±7.2, **45.4S**±0.1×**72.6W**±0.4, **h28^{km}**±50^{km}, **n27, σ0.39**/13, **mb4.3**/8, **MS4.1**/11, **Southern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
USHA	Ushuaia	9.86	166	LR	LR	22 45 09.6	
	comp=Z,1μm,19.0s,baz=312,slow=38						
CFAA	Coronel Fontan	14.14	15	Pn	Pn	22 42 14.3	-0.1
CFAA				LR	LR	22 47 21.7	
CFAA	Coronel Fontan	14.14	15	Pn	Pn	22 42 14.3	-0.1
	0.1nm,0.3s,baz=197,slow=11,SNR=7.4						
CFAA				LR	LR	22 47 21.7	

	comp=Z,203nm,19.9s,baz=184,slow=36						
PMSA	Palmer Station	20.04	169	LR	LR	22 49 58.3	
	comp=Z,658nm,19.4s,MS4.0,baz=314,slow=33						
ARE	Arequipa	28.81	2	eP	P	22 44 52.0	+0.2
LPAZ	La Paz	29.21	9	eP	P	22 44 55.3	-0.1
	7.5nm,1.0s,mb4.4						
LPAZ				LR	LR	22 58 32.3	
LPAZ	La Paz	29.21	9	P	P	22 44 56.5	+1.2
	4.3nm,0.8s,mb4.2,baz=174,slow=6.0,SNR=13						
LPAZ				LR	LR	22 58 32.3	
	comp=Z,384nm,21.0s,MS4.0,baz=300,slow=40						
SIV	San Ignacio	30.83	22	P	P	22 45 09.2	-0.4
	2.4nm,0.6s,mb4.2,baz=218,slow=8.9,SNR=13						
SNAA	Sanae	41.43	153	P	P	22 46 39.8	+0.1
	1.4nm,0.8s,mb3.6,baz=279,slow=9.3,SNR=4.0						
SNAA				LR	LR	23 01 32.8	
	comp=Z,91nm,18.5s,MS3.7,baz=271,slow=33						
QSPA	South Pole Qui	44.90	180	eP	P	22 47 07.4	-0.2
	20nm,1.3s,mb4.8						
ROSC	El Rosal	50.00	358	LR	LR	23 08 50.2	
	comp=Z,230nm,19.8s,MS4.2,baz=200,slow=36						
VNDA	Vanda	52.93	193	LR	LR	23 09 43.2	
	comp=Z,130nm,19.0s,MS4.0,baz=38,slow=35						
MAW	Mawson	62.47	162	LR	LR	23 17 02.3	
	comp=Z,194nm,18.5s,MS4.3,baz=135,slow=37						
SUR	Sutherland	69.97	116	P	P	22 50 05.5	+0.5
	18nm,1.2s,mb4.9,baz=234,slow=8.7,SNR=3.2						
RPZ	Rata Peaks	74.85	222	LR	LR	23 16 51.1	
	comp=Z,78nm,18.4s,MS4.0,baz=290,slow=30						
BOSA	Boshof	75.34	116	LR	LR	23 20 59.3	
	comp=Z,127nm,18.4s,MS4.2,baz=226,slow=34						
TXAR	Lajitas Array	79.52	333	P	P	22 50 59.9	-0.1
TXAR				LR	LR	23 19 19.3	
TXAR	Lajitas Array	79.52	333	P	P	22 50 59.9	-0.1
	0.9nm,0.9s,mb3.7,baz=141,slow=8.1,SNR=6.6						
TXAR				LR	LR	23 19 19.3	
	comp=Z,152nm,20.0s,MS4.3,baz=350,slow=30						
ANMO	Albuquerque	85.60	333	P	P	22 51 31.6	0.0
	4.1nm,0.9s,mb4.6,baz=154,slow=6.0,SNR=4.8						
TORD	Torodi Ar. Bea	88.52	70	P	P	22 51 45.6	-0.5
	1.0nm,0.7s,mb4.2,baz=220,slow=4.3,SNR=8.6						
PDAR	Pinedale Array	93.71	334	LR	LR	23 29 05.2	
	comp=Z,155nm,18.9s,MS4.5,baz=78,slow=32						
DZM	Mont Dzumac	94.11	233	LR	LR	23 26 20.9	
	comp=Z,102nm,19.8s,MS4.3,baz=16,slow=30						
AKTK	Aktyubinsk	147.00	63	PKPbc	PKPbc	22 58 34.7	-0.6
AKTO	Aktyubinsk	147.00	63	PKPbc	PKPbc	22 58 34.7	-0.6
	2.8nm,0.7s,baz=240,slow=2.0,SNR=11						
ARU	Arti	147.93	52	ePKPbc	PKPbc	22 58 37.0	-0.7
MKAR	Makanchi Array	162.53	76	PKPab	PKPab	22 59 42.0	-0.8
	0.3nm,0.7s,baz=259,slow=4.1,SNR=3.2						
SONM	Songino Array	177.42	15	PKPab	PKPab	23 00 48.6	+0.1
	0.7nm,1.1s,baz=351,slow=1.8,SNR=4.6						

MAN 23 22:49:13,1232N×12569E,h70^{km},mb4.5,ML3.3,MS3.2, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	0.75	199	eP	Pn	22 49 30.2	+1.7
BESP				eS	Sn	22 49 43.4	+3.5
CNP	Catarman	1.02	281	eP	Pn	22 49 32.5	+0.8
CNP				eS	Sn	22 49 47.8	+2.2
PLP	Palo	1.34	211	eP	Pn	22 49 38.0	+2.1
PLP				i S	Sn	22 49 55.2	+2.3
PVCP	Virac	1.96	311	eP	Pn	22 49 46.1	+2.0
MSLP	Maasin	2.31	201	eP	Pn	22 49 50.8	+1.9

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*IDC **23** 23:14:27.7±3.1,3433S×17954W,h0^{km},mb3.9/2, mb1 4.1/3,mb1mx3.9/13,mbtmp3.9/3,ML3.6/1,MS2.8/1, Ms1 2.8/1,ms1mx2.5/24,Error ellipse: s-maj=68.7km s-min=36.2km az=115.0*

ISC 23 23:14:36.6±2.2,**3445S**±008×**1799E**±04,**h35^{km},n11, σ0^{s}99**/17,**mb3.7**/2,**South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	3.37	202	ePN	Pn	23 15 27.6	+0.9
MXZ				eSN	Sn	23 16 05.6	+0.1
PUZ	Puketiti	3.86	200	PN	Pn	23 15 33.4	0.0
PUZ				SN	Sn	23 16 15.2	-2.3
MWZ	Matawai	4.33	206	ePN	Pn	23 15 41.0	+1.1
MWZ				SN	Sn	23 16 30.0	+0.8
URZ	Urewera	4.43	210	Pn	Pn	23 15 41.9	+0.6
	2.7nm,0.3s,baz=151,slow=11,SNR=11						
URZ				Sn	Sn	23 16 35.6	+4.0
	4.6nm,0.3s,baz=308,slow=19,SNR=4.7						
URZ				LR	LR	23 17 30.2	
	comp=Z,95nm,19.6s,baz=10,slow=38						
URZ	Urewera	4.43	210	ePN	Pn	23 15 41.9	+0.6
URZ				eSN	Sn	23 16 32.0	+0.4
BKZ	Black Stump Fm	5.45	209	ePN	Pn	23 15 55.5	+0.1
BFZ	Birch Farm	6.87	204	ePN	Pn	23 16 14.4	-0.4
BFZ				eSN	Sn	23 17 25.6	-6.1
MRZ	Mangatainoka R	7.09	208	ePN	Pn	23 16 14.8	-3.1
MRZ				eSN	Sn	23 17 32.0	-5.2
ASAR	Alice Springs	41.33	272	P	P	23 22 18.9	-0.2
	0.8nm,0.5s,mb3.6,baz=114,slow=8.2,SNR=13						
WRA	Warramunga Arr	42.70	278	P	P	23 22 29.8	-0.4
	0.6nm,0.3s,mb3.8,baz=119,slow=7.5,SNR=29						
FINES	FINESS Array B	148.24	336	PKPbc	PKPbc	23 34 14.3	-3.8
	0.8nm,0.7s,baz=35,slow=5.1,SNR=4.8						

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*IDC **23** 23:39:07.4±1.2,833S×15704E,h0^{km},mb3.8/5,mb1 3.9/6, mb1mx3.8/15,mbtmp3.8/6,ML4.3/1,Error ellipse: s-maj=28.6km s-min=25.9km az=19.0*

*ISCJB **23** 23:39:10.8±0.9,84S±02×15699E±007,h33^{km},mb3.8/6, Error ellipse: s-maj=22.7km s-min=9.1km az=8.1*

*NEIC **23** 23:39:12.2±0.9,842S×15709E,h35^{km},mb4.4/1,Error ellipse: s-maj=23.1km s-min=15.6km az=178.0*

ISC 23 23:39:12.6±0.9,**84S**±02×**15700E**±007,**h35^{km},n10, σ1^{s}13**/12,**mb3.8**/6,**Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	3.09	110	Pn	Pn	23 39 57.0	-2.1
HNR				Sn	Sn	23 40 35.8	+1.0
HNR	Honiara	3.09	110	Pn	Pn	23 39 57.0	-2.1
	39nm,0.3s,baz=280,slow=2.8,SNR=4.6						
HNR				Sn	Sn	23 40 35.8	+1.0
	32nm,0.3s,baz=90,slow=20,SNR=7.3						
WB2	Warramunga Arr	24.75	240	eP	P	23 44 29.6	-1.6
WRA	Warramunga Arr	24.76	240	P	P	23 44 30.4	-0.8
	1.5nm,0.8s,mb3.6,baz=66,slow=9.1,SNR=5.4						
ASAR	Alice Springs	26.84	233	P	P	23 44 51.5	+1.5
	0.4nm,0.8s,mb3.0,baz=52,slow=9.8,SNR=3.7						
STKA	Stephens Creek	27.42	209	eP	P	23 44 55.3	+0.1
STKA	Stephens Creek	27.42	209	P	P	23 44 55.7	+0.6
	1.4nm,0.5s,mb3.8,baz=30,slow=8.1,SNR=3.7						
NWAO	Narrogin (SRO)	44.11	231	P	P	23 47 18.5	+0.7
	6.6nm,1.0s,mb4.3						
SONM	Songino Array	71.57	327	P	P	23 50 31.2	+1.0
	0.9nm,0.8s,mb3.8,baz=138,slow=6.1,SNR=7.7						
MKAR	Makanchi Array	85.75	318	P	P	23 51 47.9	-0.3
	1.0nm,0.8s,mb4.1,baz=100,slow=5.8,SNR=10						

TRN 23 23:43:39.4,1609N×6123W,h22^{km},MD3.3,M2.8(FDF), **M3.1**(FDF),**2C-2D,Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SFG	Saint Francois	0.17	12	⇓eP	Pb	23 43 45.8	+1.4
MGG	Marie-Galante	0.19	206	⇑eP	Pb	23 43 46.1	+1.4
MGG				eS	Sb	23 43 48.3	+0.1
DEG	La Desirade	0.28	37	eP	Pb	23 43 47.6	+1.7
DEG				eS	Sb	23 43 52.0	+1.8
DOG	Dongo Capester	0.38	261	eP	Pb	23 43 49.6	+2.1
SCG	Saint Claude	0.44	262	eP	Pb	23 43 50.3	+1.9
TBG	Guadaloupe-3	0.46	239	⇑eP	Pb	23 43 50.2	+1.3
LZG	Guadaloupe-1	0.53	275	eP	Pb	23 43 51.3	+1.4
BPA	Boggy Peak	1.12	328	eP	Pn	23 44 02.5	+2.7
BPA				eS	Sb	23 44 17.1	+2.8
FDF	Fort de France	1.35	177	⇓iP	Pn	23 44 04.7	+1.8
FDF				eS	Sn	23 44 22.1	+1.9
MVM	Montagne Vaucl	1.56	168	eP	Pn	23 44 07.9	+2.1
MVM				eS	Sn	23 44 28.0	+2.6
BIM	Bigot	1.57	174	eP	Pn	23 44 08.4	+2.5

MAN 23 23:47:55,1232N×12565E,h58^{km},mb4.5,ML3.3,MS3.2, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	0.75	196	eP	Pn	23 48 11.6	+1.9
BESP				eS	Sn	23 48 24.3	+3.8
CNP	Catarman	0.98	281	eP	Pn	23 48 14.0	+1.2
CNP				eS	Sn	23 48 28.5	+2.6
PLP	Palo	1.32	210	i P	Pn	23 48 19.3	+2.0
PLP				eS	Sn	23 48 36.6	+2.7
PVCP	Virac	1.93	311	eP	Pn	23 48 27.7	+2.2

IDC 23 23:52:09.1±6.5,**3049S**×**17820W,h0^{km},mb3.9**/2, **mb1 4.1**/2,**mb1mx3.8**/12,**mbtmp3.9**/2,**Error ellipse: s-maj=258.3km s-min=57.8km az=155.0,Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	42.94	267	P	P	00 00 10.1	+0.2
	0.7nm,0.5s,baz=104,slow=7.3,SNR=17						
WRA	Warramunga Arr	43.93	272	P	P	00 00 17.6	-0.3
	1.1nm,0.5s,baz=113,slow=7.8,SNR=20						
FINES	FINESS Array B	145.17	340	PKPbc	PKPbc	00 11 46.6	-0.9
	2.8nm,1.1s,baz=22,slow=4.5,SNR=5.0						

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*TEH **24** 00:18:42.2,2802N×5166E,h5^{km},ML4.2*

*BJI **24** 00:18:46.8,2850N×5143E,h13^{km},mb4.7*

*ISCJB **24** 00:18:47.5±0.2,2809N±002×5183E±002,h10^{km}, mb4.3/56,Error ellipse: s-maj=3.1km s-min=3.0km az=33.4*

*IDC **24** 00:18:47.3±0.7,2809N×5192E,h0^{km},mb4.3/20, mb1 4.3/23,mb1mx4.3/29,mbtmp4.3/23,ML3.7/3,MS3.4/2, Ms1 3.4/2,ms1mx2.9/28,Error ellipse: s-maj=18.3km s-min=13.5km az=22.0*

*NEIC **24** 00:18:49.5,2810N×5171E,h4^{km},mb4.2/27,MN4.2(TEH), After TEH.*

*CSEM **24** 00:18:50.9±0.1,2812N×5187E,h35^{km},mb4.3/24,Error ellipse: s-maj=2.0km s-min=1.7km az=24.0*

*MOS **24** 00:18:50.3±0.7,2804N×5181E,h33^{km},mb4.5/27,Error ellipse: s-maj=8.5km s-min=4.9km az=116.5*

ISC 24 00:18:49.5±0.2,**2811N**±002×**5183E**±002,**h10^{km},n225, σ1^{s}01**/233,**mb4.3**/56,**17C-3D,Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMOK	Mook	1.21	40	Pg	Pg	00 19 12.5	-0.3
IMOK				Sg	Sg	00 19 29.3	+0.8
IMOK	Mook	1.21	40	eSg	Sg	00 19 32.1	+3.6
IMOK				e		00 19 33.5	
	comp=Z,55μm,0.3s						
IMOK	Mook	1.21	40	Pg	Pg	00 19 12.5	-0.3
IMOK				Sg	Sg	00 19 29.3	+0.8
SHI	Shiraz	1.64	21	Pg	Pg	00 19 19.9	-1.0
SHI				Sg	Sg	00 19 42.5	+0.3
SHI	Shiraz	1.64	21	ePg	Pg	00 19 20.3	-0.6
SHI				eSg	Sg	00 19 43.5	+1.3
SHI				e		00 19 47.0	
	comp=Z,36μm,0.3s						
SHI	Shiraz	1.64	21	ePg	Pg	00 19 20.3	-0.6
SHI				Sg	Sg	00 19 42.5	+0.3
BOQSS		3.13	225	P	Pg	00 19 47.9	-1.6
KFJS		3.44	272	P	Pg	00 19 58.2	+2.9
SLWS		3.47	198	P	Pn	00 19 45.8	+2.3
QRN	Al-Qurain	3.51	281	eP	Pn	00 19 45.4	+1.3
QRN				AML	AML	00 20 24.8	
	comp=Z,65nm,0.3s						
KBD	Kabd	3.79	287	eP	Pn	00 19 49.1	+1.2
KBD				AML	AML	00 20 34.6	
	comp=Z,180nm,0.4s						
RDF	Al-Radifah	3.86	283	eP	Pn	00 19 50.1	+1.3
RDF				AML	AML	00 20 35.1	
	comp=Z,66nm,0.5s						
UMR	Umm Al-Rimmam	3.89	293	eP	Pn	00 19 51.1	+1.9
UMR				AML	AML	00 20 35.9	
	comp=Z,71nm,0.4s						
IMEH	Mehriz	4.06	36	Pn	Pn	00 19 53.5	+1.8
IMEH	Mehriz	4.06	36	ePn	Pn	00 19 53.6	+1.9
IMEH				e		00 19 54.9	
	comp=Z,4μm,0.2s						
IMEH	Mehriz	4.06	36	Pn	Pn	00 19 53.5	+1.8
IGAR	Garneh	4.13	4	ePn	Pn	00 19 55.6	+3.0
IGAR				e		00 20 47.1	
	comp=Z,1μm,0.3s						
IGAR	Garneh	4.13	4	ePn	Pn	00 19 55.6	+3.0
BTHS		4.14	193	P	Pn	00 19 54.4	+1.6
NAY	Al-Naaiem	4.19	287	eP	Pn	00 19 54.9	+1.5
NAY				AML	AML	00 20 44.2	
	comp=Z,54nm,0.6s						
MIB	Mutribah	4.28	294	eP	Pn	00 19 56.5	+1.8
MIB				AML	AML	00 20 48.3	
	comp=Z,92nm,0.5s						
BANOM	Banah	4.54	118	P	Pn	00 19 58.2	-0.1
	SNR=119						
NAZ	Nazwa, Dubai	4.63	131	P	Pn	00 20 00.4	+0.9
IPIR	Pirpir	4.63	350	Pn	Pn	00 19 59.6	+0.1
IPIR	Pirpir	4.63	350	ePn	Pn	00 20 00.3	+0.8
IPIR				e		00 20 58.8	
	comp=Z,1μm,0.5s						
IPIR	Pirpir	4.63	350	ePn	Pn	00 20 00.3	+0.8
ASUD	Al Ashush, Dub	4.68	137	P	Pn	00 20 01.4	+1.3
	SNR=71						
ICHK	Chekchek	4.68	28	Pn	Pn	00 20 01.5	+1.3
ICHK	Chekchek	4.68	28	e	Sx	00 20 58.7	
	comp=Z,2μm,0.2s						
ICHK	Chekchek	4.68	28	Pn	Pn	00 20 01.5	+1.3
IBAF	Bafgh	4.75	42	Pn	Pn	00 20 02.1	+1.0
IBAF	Bafgh	4.75	42	ePn	Pn	00 20 02.2	+1.1
IBAF				e		00 20 03.2	
	comp=Z,2μm,0.1s						
IBAF	Bafgh	4.75	42	Pn	Pn	00 20 02.1	+1.0
FAQ	Al Faqa, Dubai	4.75	134	P	Pn	00 20 02.1	+0.9
IZEF	Zefreh	4.79	5	Pn	Pn	00 20 01.7	0.0
IZEF				Sn	Sn	00 20 55.9	-1.3
IZEF	Zefreh	4.79	5	ePn	Pn	00 20 02.1	+0.4
IZEF				eSn	Sn	00 20 57.5	+0.3
IZEF	Zefreh	4.79	5	ePn	Pn	00 20 02.1	+0.4
IZEF				Sn	Sn	00 20 55.9	-1.3
HATD	Hatta, Dubai	5.05	129	⇓P	Pn	00 20 06.3	+0.9
	SNR=6.0						
ASHO	Ashiyiah	5.10	131	P	Pn	00 20 06.4	+0.4
	SNR=62						
ASHO	Ashiyiah	5.10	131	P	Pn	00 20 06.5	+0.6
	SNR=62						
IKLH	Kalahroud	5.20	358	Pn	Pn	00 20 06.8	-0.5
IKLH	Kalahroud	5.20	358	ePn	Pn	00 20 07.6	+0.3
IKLH				e		00 22 10.4	
	comp=Z,1μm,0.5s						
IKLH	Kalahroud	5.20	358	ePn	Pn	00 20 07.6	+0.3
HRDDS		5.59	203	S	Sn	00 21 14.1	-2.8
HRDDS		5.59	203	P	Pn	00 20 15.1	+2.4
ARQ	Araqi	6.36	137	⇑P	Pn	00 20 23.5	+0.2
	SNR=16						
HOQ	Hoqain	6.68	131	⇑P	Pn	00 20 27.8	0.0
	SNR=13						
BSY	Bisya	7.22	137	⇓P	Pn	00 20 35.3	+0.3
	SNR=14						
BSYO	Bisya	7.25	136	P	Pn	00 20 35.3	-0.2
	SNR=14						
SMDO	Samad	7.54	130	P	Pn	00 20 39.9	+0.5
	SNR=14						
WHFO	Wadi Hawf	10.30	170	⇑P	Pn	00 21 17.3	-0.1
	SNR=5.1						
ABTO	Aybut	10.79	173	⇑P	Pn	00 21 24.3	+0.2
	SNR=6.1						
ASF	Jabal al Asfar	13.54	291	Pn	Pn	00 22 01.0	-0.6
ASF				Sn	Sn	00 24 24.9	-7.3
ASF				Lg		00 26 09.8	
ASF	Jabal al Asfar	13.54	291	P	Pn	00 22 01.0	-0.7
ASF						00 24 24.9	
ASF	Jabal al Asfar	13.54	291	Pn	Pn	00 22 01.0	-0.6
	comp=Z,0.3nm,0.3s,baz=295,slow=5.0,SNR=4.2						
ASF				Sn	Sn	00 24 24.9	-7.3
	comp=Z,0.1nm,0.3s,baz=321,slow=16,SNR=2.7						
ASF				Lg		00 26 09.8	
	comp=Z,0.1nm,0.3s,baz=85,slow=18,SNR=2.3						
MUKL	Al Mukalla	13.81	191	eP	Pn	00 22 05.2	-0.3
HAJJ	Hajjah	14.52	213	eP	Pn	00 22 13.5	-1.5
EIL	Elat	14.87	280	Pn	Pn	00 22 18.2	-1.7
EIL				Lg		00 26 56.7	
EIL	Elat	14.87	280	Pn	Pn	00 22 18.2	-1.6
	comp=Z,0.2nm,0.3s,baz=43,slow=8.2,SNR=2.4						
EIL				Lg		00 26 56.7	
	comp=Z,0.1nm,0.3s,baz=72,slow=8.8,SNR=3.6						
MMAI	Mount Meron Ar	14.97	293	Pn	Pn	00 22 18.7	-2.5
	comp=Z,0.4nm,0.3s,baz=98,slow=18,SNR=5.9						
MMAI				Lg		00 26 59.9	
	baz=265,slow=40,SNR=2.1						
MALT	Malatya	15.13	316	ePn	Pn	00 22 21.8	-1.4
	comp=Z,15nm,1.0s						
MALT				eP		00 22 30.3	
MALT	Malatya	15.13	316	eP	Pn	00 22 21.8	-1.4
MALT				pmax	pmax		
	comp=Z,15nm,1.0s						
ZEI	Tsey	15.98	338	eP	Pn	00 22 35.6	+1.3
KBL	Kabul	16.03	62	ePn	Pn	00 22 35.3	+0.2
KBL	Kabul	16.03	62	ePn	Pn	00 22 35.3	+0.2
DRP	Derazinda	16.33	73	P	Pn	00 22 42.5	+3.6
SBDP	Sheikh Budin	16.92	71	P	Pn	00 22 45.9	-0.5
CSS	Prodhromos	17.18	298	ePn	Pn	00 22 47.0	-2.5
	comp=Z,8.3nm,0.8s						
KIV	Kislovodsk	17.44	337	ePn	Pn	00 22 53.3	+0.6
	comp=Z,12nm,0.9s						
KIV	Kislovodsk	17.44	337	⇑eP	Pn	00 22 53.7	+1.0
KIV				pmax	pmax		
	comp=Z,13nm,1.1s						
KIV	Kislovodsk	17.44	337	ePn	Pn	00 22 53.3	+0.6
THW	Thamme Wali	17.78	70	P	Pn	00 22 56.2	-0.9
CEP	Cherat	18.12	67	P	Pn	00 23 00.3	-1.0
CEP				S	Sn	00 26 00.0	-24
GOF	Gofitskoye	18.31	340	eP	Pn	00 23 03.0	-0.5
ATD	Arta Tunnel	18.52	209	Lg		00 28 48.9	
	comp=Z,0.2nm,0.3s,baz=79,slow=21,SNR=2.5						
ATD				LR	LR	00 29 42.0	
	comp=Z,92nm,19.0s,baz=5.1,slow=35						
BRTR	Keskin Array B	18.99	312	P	Pn	00 23 12.4	+0.6
	comp=Z,0.6nm,0.3s,baz=131,slow=13,SNR=33						
CHCP	Chirah Chowk	19.20	68	P	Pn	00 23 12.6	-1.7
ANN	Anapa	20.23	329	eP	P	00 23 25.9	+1.2
ANN				e*PP		00 23 44.0	
ANN				eS	S	00 27 06.0	-5.6
ANN				pmax	pmax		
	comp=Z,130nm,1.6s						
THN	Thein Dam	21.06	72	eP	P	00 23 32.8	-0.9
AML	Almayashu	22.62	46	P	P	00 23 50.1	-0.2
	SNR=22						
AML	Almayashu	22.62	46	eP	P	00 23 50.3	0.0
	comp=Z,20nm,0.8s,mb4.6						
AML	Almayashu	22.62	46	eP	P	00 23 50.3	0.0
	comp=Z,20nm,0.8s,mb4.6						
AKTK	Aktyubinsk	22.79	10	P	P	00 23 52.3	+0.3
AKTK	Aktyubinsk	22.79	10	P	P	00 23 52.3	+0.3
AKTO	Aktyubinsk	22.79	10	P	P	00 23 52.3	+0.3
	comp=Z,7.8nm,0.9s,mb4.1,baz=193,slow=12,SNR=22						
EKS2	Erkin-Say	22.95	45	P	P	00 23 55.2	+1.3
	SNR=8.6						
EKS2	Erkin-Say	22.95	45	eP	P	00 23 54.8	+1.0
	comp=Z,4.8nm,0.8s,mb4.0						
EKS2	Erkin-Say	22.95	45	eP	P	00 23 54.8	+1.0
	comp=Z,4.8nm,0.8s,mb4.0						
UCH	Uchtor	23.19	47	P	P	00 23 56.5	+0.1
	SNR=9.3						
UCH	Uchtor	23.19	47	eP	P	00 23 56.3	-0.1
	comp=Z,727nm,0.8s						
UCH	Uchtor	23.19	47	eP	P	00 23 56.3	-0.1
	comp=Z,727nm,0.8s						
AAK	Ala-Archa	23.38	46	eP	P	00 23 58.5	0.0
	comp=Z,5.2nm,0.6s,mb4.1						
AAK	Ala-Archa	23.38	46	⇑eP	P	00 23 57.4	-1.0
AAK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb3.8						
AAK	Ala-Archa	23.38	46	eP	P	00 23 58.5	+0.1
	comp=Z,5.2nm,0.6s,mb4.1						
ORR	Orenburg	23.58	5	eP	P	00 24 00.7	+0.4
ORR				pmax	pmax		
	comp=Z,30nm,0.9s,mb4.7						
KZA	Kyzart	23.59	48	P	P	00 24 02.9	+2.3
	SNR=5.0						
KBK	Karagaybulak	23.68	46	P	P	00 24 03.5	+2.2
	SNR=8.2						
USP	Ospenovka	23.72	44	P	P	00 24 02.2	+0.6
	SNR=16						
IDI	Anoyia	23.97	294	P	P	00 24 05.3	+1.2
	comp=Z,15nm,0.9s,mb4.4,baz=90,slow=5.0,SNR=7.9						
VRHR	Novokhopersk	24.22	344	eP	P	00 24 05.9	-0.3
VRHR				pmax	pmax		
	comp=N,20nm,1.0s						
VRHR				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.7						
VRHR				pmax	pmax		
	comp=E,6.0nm,0.6s						
TKM2	Tokmak 2	24.23	46	P	P	00 24 06.6	+0.3
	SNR=6.6						
TKM2	Tokmak 2	24.23	46	eP	P	00 24 06.3	0.0
	comp=E,4.2nm,0.8s,mb3.9						
TKM2	Tokmak 2	24.23	46	eP	P	00 24 06.3	-0.1
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb3.9						
TKM2	Tokmak 2	24.23	46	eP	P	00 24 06.3	-0.1
	comp=Z,4.2nm,0.8s,mb3.9						
GVD	Gavdhos	24.55	293	eP	P	00 24 10.0	+0.7
	comp=Z,14nm,0.6s,mb4.7						
GVD	Gavdhos	24.55	293	eP	P	00 24 10.0	+0.6
	comp=Z,14nm,0.6s,mb4.7						
VRSR	Storozhevoye	24.97	341	eP	P	00 24 12.9	-0.1
VRSR				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.8						
VRSR				pmax	pmax		
	comp=N,7.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.8s						
MLR	Muntele Rosu	26.85	317	P	P	00 24 31.0	+0.9
	comp=E,2.7nm,0.5s,mb4.0,baz=194,slow=19,SNR=5.6						
MLR	Muntele Rosu	26.85	317	⇑iP	P	00 24 33.3	+3.2
AKASG	Malin Array Be	28.32	329	i P	P	00 24 42.7	-0.5
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.9s						
AKASG	Malin Array Be	28.32	329	P	P	00 24 42.0	-1.2
	comp=Z,2.1nm,0.8s,mb3.8,baz=135,slow=8.1,SNR=5.8						
BURAR	Bucovina Array	28.42	320	⇑iP	P	00 24 45.7	+1.5
ARU	Arti	28.71	8	eP	P	00 24 47.8	+1.3
	comp=Z,2.0nm,0.6s,mb4.0						
ARU	Arti	28.71	8	eP	P	00 24 47.8	+1.2
ARU				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
ARU	Arti	28.71	8	eP	P	00 24 47.8	+1.2
	comp=Z,2.0nm,0.6s,mb4.0						
OBN	Obninsk	29.16	342	eP	P	00 24 49.8	-0.9
	comp=Z,7.8nm,0.5s,mb4.7						
OBN	Obninsk	29.16	342	⇑eP	P	00 24 49.6	-1.0
OBN				e		00 25 44.2	
OBN				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.2						
OBN	Obninsk	29.16	342	eP	P	00 24 49.8	-0.8
	comp=Z,7.8nm,0.5s,mb4.7						
MKAR	Makanchi Array	30.26	44	P	P	00 25 00.2	-0.3
	comp=Z,3.6nm,0.6s,mb4.3,baz=233,slow=7.9,SNR=62						
KURK	Kurchatov	30.33	35	⇑eP	P	00 25 01.6	+0.5
KOLS	Kolonicke sedl	30.79	321	eP	P	00 25 06.3	+1.2
KWP	Kalwaria	30.92	322	P	P	00 25 06.9	+0.6
	comp=Z,7.4nm,0.8s,mb4.6						
KWP	Kalwaria	30.92	322	P	P	00 25 06.9	+0.6
KWP				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
KWP	Kalwaria	30.92	322	P	P	00 25 06.9	+0.6
	comp=Z,7.4nm,0.8s,mb4.6						
CRVS	Cervenica-Dubn	31.23	320	eP	P	00 25 06.0	-3.0
KECS	Kecovo	31.59	319	eP	P	00 25 11.4	-0.8
	comp=Z,3.6nm,1.2s,mb4.1						
KECS	Kecovo	31.59	319	eP	P	00 25 11.4	-0.8
KECS				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.1						
PKSM	Moragy	31.72	314	⇓iP	P	00 25 13.9	+0.5
VYHS	Vyhne	32.56	318	eP	P	00 25 21.0	+0.3
OJC	Ojcow	32.83	321	eP	P	00 25 23.6	+0.5
KOLL	Kolacno	32.86	318	eP	P	00 25 23.9	+0.6
MORC	Moravsky Berou	33.90	319	eP	P	00 25 32.2	-0.2
	comp=Z,1.7nm,0.6s,mb4.2						
MORC	Moravsky Berou	33.90	319	eP	P	00 25 32.2	-0.2
MORC				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
MORC	Moravsky Berou	33.90	319	⇑iP	P	00 25 32.5	+0.1
MORC	Moravsky Berou	33.90	319	eP	P	00 25 32.2	-0.2
	comp=Z,1.7nm,0.6s,mb4.2						
LSA	Lhasa	34.34	78	eP	P	00 25 36.1	-0.4
	comp=Z,2.5nm,0.6s,mb4.3						

LSA	**Lhasa**	**34.34**	**78**	eP	**P**	**00 25 36.1**	**-0.4**
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
LSA	**Lhasa**	**34.34**	**78**	eP	**P**	**00 25 36.1**	**-0.4**
	comp=Z,2.5nm,0.6s,mb4.3						
ZAL	**Zalesovo**	**35.29**	**34**	P	**P**	**00 25 43.7**	**-0.7**
ZAA0	**Zalesovo Array**	**35.31**	**34**	eP	**P**	**00 25 43.4**	**-1.1**
ZALV	**Zalesovo Beam**	**35.31**	**34**	P	**P**	**00 25 43.7**	**-0.8**
	comp=Z,6.0nm,0.8s,mb4.6,baz=244,slow=9.1,SNR=18						
GERES	**GERESS Array B**	**35.82**	**316**	P	**P**	**00 25 48.7**	**-0.3**
	comp=Z,0.5nm,0.7s,mb3.6,baz=99,slow=6.9,SNR=4.6						
KHC	**Kasperske Hory**	**36.00**	**316**	⇑eP	**P**	**00 25 50.9**	**+0.4**
JOF	**Joensuu**	**37.31**	**345**	ep	**P**	**00 26 00.1**	**-1.4**
	comp=Z,11nm,0.8s,mb4.8						
PGF	**Pioggiola**	**37.39**	**304**	eP	**P**	**00 26 02.6**	**+0.1**
	comp=Z,4.6nm,0.7s,mb4.1						
PGF	**Pioggiola**	**37.39**	**304**	eP	**P**	**00 26 02.6**	**+0.1**
PGF				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.1						
PGF	**Pioggiola**	**37.39**	**304**	eP	**P**	**00 26 02.6**	**+0.1**
	comp=Z,2.3nm,0.7s,mb4.1						
FINES	**FINESS Array B**	**37.50**	**340**	P	**P**	**00 26 02.6**	**-0.5**
	comp=Z,3.3nm,0.7s,mb4.2,baz=142,slow=9.9,SNR=12						
KAF	**Kangasniemi**	**37.96**	**341**	ep	**P**	**00 26 06.5**	**-0.5**
	comp=Z,1.1nm,0.4s,mb3.9						
KAF	**Kangasniemi**	**37.96**	**341**	eP	**P**	**00 26 06.5**	**-0.5**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
SBF	**Sospel**	**38.72**	**306**	eP	**P**	**00 26 13.2**	**-0.5**
	comp=Z,27nm,0.9s,mb4.7						
SBF	**Sospel**	**38.72**	**306**	eP	**P**	**00 26 13.2**	**-0.5**
SBF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.7						
SBF	**Sospel**	**38.72**	**306**	eP	**P**	**00 26 13.2**	**-0.5**
	comp=Z,13nm,0.9s,mb4.7						
FRF	**La Foret Royal**	**39.24**	**305**	eP	**P**	**00 26 17.9**	**-0.2**
	comp=Z,3.9nm,0.7s,mb3.9						
FRF	**La Foret Royal**	**39.24**	**305**	eP	**P**	**00 26 17.9**	**-0.2**
FRF				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
FRF	**La Foret Royal**	**39.24**	**305**	eP	**P**	**00 26 17.9**	**-0.2**
	comp=Z,2.0nm,0.7s,mb3.9						
LMR	**La Mourre**	**39.31**	**305**	eP	**P**	**00 26 18.3**	**-0.3**
	comp=Z,4.9nm,0.8s,mb4.0						
LMR	**La Mourre**	**39.31**	**305**	eP	**P**	**00 26 18.3**	**-0.3**
LMR				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
LMR	**La Mourre**	**39.31**	**305**	eP	**P**	**00 26 18.3**	**-0.3**
	comp=Z,2.5nm,0.8s,mb4.0						
MBDF	**Montbardon**	**39.33**	**307**	eP	**P**	**00 26 18.6**	**-0.2**
	comp=Z,10nm,0.6s,mb4.5						
MBDF	**Montbardon**	**39.33**	**307**	eP	**P**	**00 26 18.6**	**-0.2**
MBDF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
MBDF	**Montbardon**	**39.33**	**307**	eP	**P**	**00 26 18.6**	**-0.2**
	comp=Z,5.2nm,0.6s,mb4.5						
LPG	**La Plagne**	**39.48**	**308**	eP	**P**	**00 26 19.7**	**-0.3**
	comp=Z,6.7nm,0.6s,mb4.2						
LPG	**La Plagne**	**39.48**	**308**	eP	**P**	**00 26 19.7**	**-0.3**
LPG				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
LPG	**La Plagne**	**39.48**	**308**	eP	**P**	**00 26 19.7**	**-0.3**
	comp=Z,3.3nm,0.6s,mb4.2						
LPL	**La Plagne**	**39.49**	**308**	eP	**P**	**00 26 19.7**	**-0.4**
	comp=Z,12nm,0.8s,mb4.4						
LPL	**La Plagne**	**39.49**	**308**	eP	**P**	**00 26 19.7**	**-0.4**
LPL				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
LPL	**La Plagne**	**39.49**	**308**	eP	**P**	**00 26 19.7**	**-0.4**
	comp=Z,5.8nm,0.8s,mb4.4						
CDF	**Champ du Feu**	**39.74**	**313**	eP	**P**	**00 26 22.1**	**-0.1**
HINF	**Hinteralfeld**	**39.88**	**312**	eP	**P**	**00 26 22.5**	**-0.8**
CABF	**La Chapelle**	**40.14**	**310**	eP	**P**	**00 26 24.4**	**-1.1**
	comp=Z,24nm,1.1s,mb4.5						
CABF	**La Chapelle**	**40.14**	**310**	eP	**P**	**00 26 24.4**	**-1.1**
CABF				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.5						
CABF	**La Chapelle**	**40.14**	**310**	eP	**P**	**00 26 24.4**	**-1.1**
	comp=Z,12nm,1.1s,mb4.5						
HAU	**Haudompre**	**40.25**	**312**	eP	**P**	**00 26 25.4**	**-1.0**
VIVF	**Saint-Julien-l**	**40.83**	**307**	eP	**P**	**00 26 30.5**	**-0.7**
GTA	**Gaotai**	**41.02**	**61**	eP	**P**	**00 26 33.3**	**+0.4**
GTA				AP	pP	00 26 37.6	+1.6
GTA				XP	sP	00 26 40.0	+2.8
GTA				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.3						
MEZF	**Maizieres J'vi**	**41.21**	**313**	eP	**P**	**00 26 33.9**	**-0.4**
LASF	**Ste Croix**	**41.31**	**306**	eP	**P**	**00 26 34.9**	**-0.3**
SMF	**Signal de Mont**	**41.67**	**310**	eP	**P**	**00 26 37.4**	**-0.7**
	comp=Z,11nm,0.7s,mb4.3						
SMF	**Signal de Mont**	**41.67**	**310**	eP	**P**	**00 26 37.4**	**-0.7**
SMF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.3						
SMF	**Signal de Mont**	**41.67**	**310**	eP	**P**	**00 26 37.4**	**-0.7**
	comp=Z,5.7nm,0.7s,mb4.3						
LOR	**Lormes**	**41.76**	**311**	eP	**P**	**00 26 38.0**	**-0.8**
MTLF	**Montolieu**	**42.43**	**305**	eP	**P**	**00 26 44.0**	**-0.3**
	comp=Z,4.0nm,0.7s,mb3.9						
MTLF	**Montolieu**	**42.43**	**305**	eP	**P**	**00 26 44.0**	**-0.3**
MTLF				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.9						
MTLF	**Montolieu**	**42.43**	**305**	eP	**P**	**00 26 44.0**	**-0.3**
	comp=Z,2.0nm,0.7s,mb3.9						
NB2	**NORSAR Subarra**	**42.63**	**332**	P	**P**	**00 26 44.7**	**-1.0**
	comp=Z,1.7nm,0.5s,mb4.0,baz=122,slow=7.9						
NOA	**NORSAR Array B**	**42.63**	**332**	P	**P**	**00 26 44.9**	**-0.7**
NOA	**NORSAR Array B**	**42.63**	**332**	P	**P**	**00 26 44.9**	**-0.7**
	comp=Z,2.2nm,0.5s,mb4.1,baz=121,slow=8.2,SNR=9.7						
CAF	**Calviac**	**42.68**	**307**	eP	**P**	**00 26 45.7**	**-0.6**
EPF	**Esparros**	**43.78**	**304**	eP	**P**	**00 26 55.7**	**+0.4**
ARCES	**ARCESS Array B**	**44.17**	**347**	P	**P**	**00 26 57.6**	**-0.5**
	comp=Z,4.6nm,0.9s,mb4.2,baz=150,slow=7.9,SNR=9.1						
ETSF	**Etsaut**	**44.44**	**304**	eP	**P**	**00 27 01.1**	**+0.6**
ZAK	**Zakamensk**	**44.56**	**46**	eP	**P**	**00 27 01.4**	**0.0**
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
TLY	**Talaya**	**45.02**	**44**	eP	**P**	**00 27 04.5**	**-0.6**
	comp=Z,3.5nm,0.8s,mb4.2						
TLY	**Talaya**	**45.02**	**44**	eP	**P**	**00 27 04.5**	**-0.6**
TLY				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
TLY	**Talaya**	**45.02**	**44**	eP	**P**	**00 27 04.5**	**-0.6**
	comp=Z,3.5nm,0.8s,mb4.2						
SONM	**Songino Array**	**46.26**	**49**	P	**P**	**00 27 14.9**	**0.0**
	comp=Z,2.2nm,0.7s,mb4.2,baz=260,slow=9.1,SNR=25						
ULN	**Ulaanbaatar**	**46.70**	**49**	⇑eP	**P**	**00 27 17.4**	**-1.0**
TOA0	**Torodi Ar. Sit**	**48.89**	**263**	eP	**P**	**00 27 35.5**	**-0.3**
TOA0	**Torodi Ar. Sit**	**48.89**	**263**	eP	**P**	**00 27 35.5**	**-0.3**
TORD	**Torodi Ar. Bea**	**48.89**	**263**	P	**P**	**00 27 35.8**	**0.0**
	comp=Z,3.9nm,0.7s,mb4.6,baz=62,slow=7.4,SNR=42						
PSI	**Prapat**	**51.43**	**111**	P	**P**	**00 27 54.0**	**-1.1**
	comp=Z,7.5nm,0.7s,mb4.8,baz=281,slow=4.9,SNR=10						
BOD	**Bodaibo**	**51.93**	**37**	eP	**P**	**00 27 57.1**	**-1.1**
BOD				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
HIA	**Hailar**	**55.13**	**48**	eP	**P**	**00 28 21.1**	**-0.7**
NJ2	**Nanjing**	**57.29**	**68**	eP	**P**	**00 28 38.6**	**+1.0**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb5.0						
KIC	**Kosan Boka**	**57.64**	**259**	eP	**P**	**00 28 40.4**	**+0.1**
	comp=Z,32nm,0.7s,mb5.4						
TIC	**Toumodi**	**57.75**	**260**	eP	**P**	**00 28 41.1**	**+0.1**
	comp=Z,12nm,0.2s,mb5.5						
LIC	**Lamto**	**57.96**	**259**	⇑iP	**P**	**00 28 42.6**	**+0.1**
	comp=Z,22nm,0.6s,mb5.0						
LIC	**Lamto**	**57.96**	**259**	eP	**P**	**00 28 42.4**	**-0.1**
	comp=Z,110nm,1.8s,mb5.6						
LIC	**Lamto**	**57.96**	**259**	⇑iP	**P**	**00 28 42.6**	**+0.1**
	comp=Z,11nm,0.6s,mb5.0						
YAK	**Yakutsk**	**59.93**	**32**	⇑eP	**P**	**00 28 53.0**	**-2.5**
YAK				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
BOSA	**Boshof**	**61.88**	**206**	P	**P**	**00 29 09.4**	**+0.3**
	comp=Z,3.7nm,1.0s,mb4.5,baz=358,slow=13,SNR=2.7						
KSRS	**Korea Array**	**63.08**	**60**	P	**P**	**00 29 15.0**	**-2.1**
	comp=Z,1.8nm,0.6s,mb4.4,baz=275,slow=6.5,SNR=6.1						
VLA	**Vladivostok**	**64.48**	**53**	i P	**P**	**00 29 26.0**	**-0.3**
BILL	**Bilibino**	**72.73**	**21**	eP	**P**	**00 30 16.9**	**-0.5**
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
SCHQ	**Schefferville**	**82.12**	**329**	P	**P**	**00 31 09.7**	**-0.4**
	comp=Z,1.4nm,0.6s,mb4.1,baz=158,slow=12,SNR=4.7						
FITZ	**Fitzroy Crossi**	**84.86**	**113**	P	**P**	**00 31 24.0**	**-0.8**
	comp=Z,2.1nm,0.7s,mb4.4,baz=288,slow=20,SNR=10						
YKA	**Yellowknife Ar**	**89.06**	**354**	P	**P**	**00 31 44.0**	**-0.5**
YKA	**Yellowknife Ar**	**89.06**	**354**	⇑eP	**P**	**00 31 44.5**	**0.0**
YKA	**Yellowknife Ar**	**89.06**	**354**	P	**P**	**00 31 44.0**	**-0.5**
	comp=Z,1.4nm,0.8s,mb4.4,baz=6.9,slow=5.0,SNR=25						
YKA	**Yellowknife Ar**	**89.06**	**354**	P	**P**	**00 31 44.0**	**-0.5**
WRA	**Warramunga Arr**	**92.90**	**111**	i P	**P**	**00 32 02.4**	**-0.6**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	**Warramunga Arr**	**92.90**	**111**	P	**P**	**00 32 03.2**	**+0.2**
	comp=Z,0.5nm,0.6s,mb4.1,baz=310,slow=3.9,SNR=11						
ASAR	**Alice Springs**	**94.32**	**114**	P	**P**	**00 32 07.8**	**-1.7**
	comp=Z,0.3nm,0.3s,mb4.2,baz=311,slow=4.6,SNR=5.9						
BOZ	**Bozeman (W)**	**105.07**	**348**	ePKPdf	PKiKP	00 37 13.4	+1.5

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*IDC **24** 01:16:04.8±1.4, 3491N×2471E, h0km, mb3.6/4, mb1 3.7/6, mb1mx3.5/21, mbtmp3.5/6, ML3.7/2, Error ellipse: s-maj=40.1km s-min=24.7km az=133.0*

*ISCJB **24** 01:16:05.8±1.6, 3504N±006×2459E±005, h12km±11km, mb3.5/4, Error ellipse: s-maj=9.4km s-min=6.2km az=172.8*

*ATH **24** 01:16:06.7, 3506N×2454E, h25km±3km, MD3.5/7*

*CSEM **24** 01:16:07.5, 3509N×2458E, h19km, MD3.5/7, After ATH*

*NEIC **24** 01:16:07.5, 3509N×2458E, h19km, MD3.5(ATH), After ATH.*

ISC 24 01:16:06.1±1.2, **3505N**±005×**2464E**±007, **h6**km±10km, **n28**, σ**0s89**/35, **mb3.5**/4, **3C, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GVD	**Gavdhos**	**0.50**	**245**	eP	**Pg**	**01 16 15.2**	**-0.5**
GVD				eS	**Sg**	**01 16 22.3**	**+0.1**
VAM	**Vamos**	**0.51**	**315**	⇑iPb	**Pg**	**01 16 15.7**	**-0.2**
VAM				eSb	**Sg**	**01 16 23.4**	**+0.9**
VAM	**Vamos**	**0.51**	**315**	⇑iPB	**Pg**	**01 16 15.7**	**-0.2**
VAM				eSB	**Sg**	**01 16 23.4**	**+0.9**
VAM	**Vamos**	**0.51**	**315**	⇑iPb	**Pg**	**01 16 15.7**	**-0.2**
VAM				eSb	**Sg**	**01 16 23.4**	**+0.9**
NPS	**Neapolis**	**0.82**	**75**	ePn	**Pn**	**01 16 24.6**	**+0.4**
NPS				eSn	**Sn**	**01 16 35.7**	**-0.9**
NPS	**Neapolis**	**0.82**	**75**	ePN	**Pn**	**01 16 24.6**	**+0.4**
NPS				eSN	**Sn**	**01 16 35.7**	**-0.9**
NPS	**Neapolis**	**0.82**	**75**	ePn	**Pn**	**01 16 24.6**	**+0.4**
NPS				eSn	**Sn**	**01 16 35.7**	**-0.9**
XRY	**Khrisi**	**0.88**	**101**	ePn	**Pn**	**01 16 25.5**	**+0.5**
XRY	**Khrisi**	**0.88**	**101**	ePN	**Pn**	**01 16 25.5**	**+0.5**
XRY	**Khrisi**	**0.88**	**101**	ePn	**Pn**	**01 16 25.5**	**+0.5**
KYTH	**Kithira**	**1.79**	**314**	ePn	**Pg**	**01 16 40.5**	**0.0**
KYTH	**Kithira**	**1.79**	**314**	ePN	**Pn**	**01 16 37.0**	**-0.5**
KYTH	**Kithira**	**1.79**	**314**	ePn	**Pg**	**01 16 40.5**	**0.0**
KARP	**Karpathos**	**2.12**	**76**	ePb	**Pn**	**01 16 43.0**	**+1.0**
KARP	**Karpathos**	**2.12**	**76**	ePN	**Pn**	**01 16 43.0**	**+1.0**
KARP	**Karpathos**	**2.12**	**76**	ePb	**Pn**	**01 16 43.0**	**+1.0**
APE	**Apeiranthos**	**2.14**	**19**	ePb	**Pb**	**01 16 44.0**	**-1.2**
APE	**Apeiranthos**	**2.14**	**19**	ePB	**Pb**	**01 16 44.0**	**-1.2**
APE	**Apeiranthos**	**2.14**	**19**	ePb	**Pb**	**01 16 44.0**	**-1.2**
VLI	**Veliai**	**2.16**	**321**	ePn	**Pn**	**01 16 44.3**	**+1.7**
VLI	**Veliai**	**2.16**	**321**	ePB	**Pb**	**01 16 43.0**	**-2.6**
VLI	**Veliai**	**2.16**	**321**	ePn	**Pn**	**01 16 44.3**	**+1.7**
GERES	**GERESS Array B**	**15.98**	**333**	Pn	**Pn**	**01 19 55.2**	**+3.9**
	0.1nm,0.3s,baz=146,slow=12,SNR=7.6						
AKASG	**Malin Array Be**	**15.99**	**11**	Pn	**Pn**	**01 19 51.8**	**+0.4**
	0.6nm,0.3s,baz=198,slow=10,SNR=5.1						
TORD	**Torodi Ar. Bea**	**30.09**	**229**	P	**P**	**01 22 16.0**	**-0.4**
	0.2nm,0.3s,mb3.3,baz=32,slow=8.6,SNR=8.3						
MKAR	**Makanchi Array**	**44.19**	**56**	P	**P**	**01 24 16.4**	**+0.7**
	0.2nm,0.3s,mb3.4,baz=267,slow=8.3,SNR=5.5						
ZALV	**Zalesovo Beam**	**45.39**	**46**	P	**P**	**01 24 24.8**	**-0.3**
	1.2nm,0.4s,mb4.1,baz=273,slow=9.5,SNR=5.0						
YKA	**Yellowknife Ar**	**77.42**	**342**	P	**P**	**01 28 01.5**	**-0.2**
	0.1nm,0.4s,mb3.1,baz=36,slow=5.4,SNR=3.3						

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*IDC **24** 01:16:52.8±2.0, 28.10N×5190E, h0km, mb3.7/9, mb1 3.8/10, mb1mx3.6/23, mbtmp3.7/10, Error ellipse: s-maj=45.4km s-min=23.2km az=164.0*

*ISCJB **24** 01:16:53.7±0.5, 28.11N±004×5186E±003, h10km, mb3.6/8, Error ellipse: s-maj=6.1km s-min=3.7km az=153.2*

*KISR **24** 01:16:55.5±0.9, 2776N×5125E, h34km±638km, ML2.7*

*CSEM **24** 01:16:56.4±0.2, 28.14N×5185E, h30km, ML3.8, Error ellipse: s-maj=5.4km s-min=3.2km az=146.0*

*NEIC **24** 01:16:56.0, 28.10N×5182E, h12km, MN3.5(TEH), After TEH.*

ISC 24 01:16:55.5±0.4, **2812N**±004×**5185E**±004, **h10**km, **n39**, σ**1s21**/53, **mb3.6**/8, **Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMOK	**Mook**	**1.19**	**39**	Pg	**Pg**	**01 17 17.8**	**-0.6**
IMOK				Sg	**Sg**	**01 17 35.1**	**+1.1**
IMOK	**Mook**	**1.19**	**39**	Pg	**Pg**	**01 17 17.8**	**-0.6**
IMOK				Sg	**Sg**	**01 17 35.1**	**+1.1**
ISRV	**Sarvestan**	**1.68**	**41**	Pn	**Pn**	**01 17 26.2**	**+1.3**
ISRV				Sn	**Sn**	**01 17 48.4**	**+2.0**
ISRV	**Sarvestan**	**1.68**	**41**	Pn	**Pn**	**01 17 26.2**	**+1.3**
ISRV				Sn	**Sn**	**01 17 48.4**	**+2.0**
BOQSS		**3.15**	**225**	P	**Pg**	**01 17 52.8**	**-3.1**
KFJS		**3.46**	**272**	S	**Sg**	**01 18 51.4**	**+4.9**
KFJS		**3.46**	**272**	P	**Pg**	**01 18 03.7**	**+1.9**
SLWS		**3.48**	**198**	P	**Pn**	**01 17 51.9**	**+2.2**
RDF	**Al-Radifah**	**3.87**	**283**	eP	**Pn**	**01 17 54.7**	**-0.4**
RDF				eS	**Sn**	**01 18 39.2**	**-1.4**
RDF				AML	AML	01 18 42.8	
	comp=Z,12nm,0.4s						
RDF	**Al-Radifah**	**3.87**	**283**	eP	**Pn**	**01 17 54.7**	**-0.4**
RDF				eS	**Sn**	**01 18 39.2**	**-1.4**
	comp=Z,12nm,0.4s						
UMR	**Umm Al-Rimmam**	**3.90**	**292**	eP	**Pn**	**01 17 56.0**	**+0.5**
UMR				eS	**Sn**	**01 18 42.2**	**+0.8**
UMR				AML	AML	01 18 44.5	
	comp=Z,11nm,0.4s						
UMR	**Umm Al-Rimmam**	**3.90**	**292**	eP	**Pn**	**01 17 56.0**	**+0.5**
UMR				eS	**Sn**	**01 18 42.2**	**+0.9**
IMEH	**Mehriz**	**4.05**	**36**	Pn	**Pn**	**01 17 57.8**	**+0.3**
IMEH	**Mehriz**	**4.05**	**36**	Pn	**Pn**	**01 17 57.8**	**+0.3**
BTHS		**4.16**	**193**	P	**Pn**	**01 17 59.7**	**+0.7**
NAY	**Al-Naaiem**	**4.21**	**287**	eP	**Pn**	**01 18 00.5**	**+0.8**
NAY				eS	**Sn**	**01 18 47.9**	**-0.9**
NAY				AML	AML	01 18 50.2	
	comp=Z,6.5nm,0.5s						
NAY	**Al-Naaiem**	**4.21**	**287**	eP	**Pn**	**01 18 00.5**	**+0.8**
NAY				eS	**Sn**	**01 18 47.9**	**-0.9**
	comp=Z,6.5nm,0.5s						
MIB	**Mutribah**	**4.30**	**294**	eP	**Pn**	**01 18 02.2**	**+1.3**
MIB				eS	**Sn**	**01 18 52.5**	**+1.4**
MIB				AML	AML	01 18 53.5	
	comp=Z,22nm,0.6s						
MIB	**Mutribah**	**4.30**	**294**	eP	**Pn**	**01 18 02.2**	**+1.3**
MIB				eS	**Sn**	**01 18 52.5**	**+1.4**
	comp=Z,22nm,0.6s						
ICHK	**Chekchek**	**4.67**	**28**	Pn	**Pn**	**01 18 06.2**	**+0.2**
ICHK				Sn	**Sn**	**01 18 58.0**	**-2.2**
ICHK	**Chekchek**	**4.67**	**28**	Pn	**Pn**	**01 18 06.2**	**+0.2**
ICHK				Sn	**Sn**	**01 18 58.0**	**-2.2**
IBAF	**Bafgh**	**4.73**	**42**	Pn	**Pn**	**01 18 07.3**	**+0.4**
IBAF	**Bafgh**	**4.73**	**42**	Pn	**Pn**	**01 18 07.3**	**+0.4**
IZEF	**Zefreh**	**4.78**	**5**	Pn	**Pn**	**01 18 08.3**	**+0.8**
IZEF	**Zefreh**	**4.78**	**5**	Pn	**Pn**	**01 18 08.3**	**+0.8**
IKLH	**Kalahroud**	**5.19**	**357**	Pn	**Pn**	**01 18 13.6**	**+0.4**
IKLH	**Kalahroud**	**5.19**	**357**	Pn	**Pn**	**01 18 13.6**	**+0.4**
HRDDS		**5.60**	**203**	S	**Sn**	**01 19 22.5**	**-0.8**
HRDDS		**5.60**	**203**	P	**Pn**	**01 18 20.9**	**+2.1**
BRTR	**Keskin Array B**	**19.00**	**312**	P	**Pn**	**01 21 17.8**	**-0.2**
	comp=Z,0.1nm,0.3s,baz=132,slow=13,SNR=7.1						
MKAR	**Makanchi Array**	**30.24**	**44**	P	**P**	**01 23 05.5**	**-0.8**
	comp=Z,0.4nm,0.6s,mb3.4,baz=241,slow=7.5,SNR=6.3						
ZALV	**Zalesovo Beam**	**35.29**	**34**	P	**P**	**01 23 48.9**	**-1.5**
	comp=Z,0.4nm,0.4s,mb3.7,baz=250,slow=11,SNR=2.9						
FINES	**FINESS Array B**	**37.50**	**340**	P	**P**	**01 24 07.9**	**-1.2**
	comp=Z,0.5nm,0.6s,mb3.6,baz=153,slow=9.4,SNR=3.6						
HFS	**Hagfors**	**41.11**	**332**	P	**P**	**01 24 38.1**	**-1.1**
	comp=Z,1.0nm,0.3s,mb3.9,baz=138,slow=8.7,SNR=11						
NOA	**NORSAR Array B**	**42.63**	**332**	P	**P**	**01 24 49.8**	**-1.9**
	comp=Z,0.7nm,0.8s,mb3.5,baz=118,slow=7.7,SNR=2.4						
ARCES	**ARCESS Array B**	**44.17**	**347**	P	**P**	**01 25 03.7**	**-0.3**
	comp=Z,4.5nm,1.1s,mb4.1,baz=155,slow=6.7,SNR=2.9						
SONM	**Songino Array**	**46.24**	**49**	P	**P**	**01 25 19.4**	**-1.4**
	comp=Z,0.2nm,0.7s,mb3.2,baz=248,slow=8.2,SNR=2.4						
TORD	**Torodi Ar. Bea**	**48.91**	**263**	P	**P**	**01 25 41.1**	**-0.9**
	comp=Z,0.9nm,0.6s,mb4.0,baz=63,slow=8.2,SNR=17						
YKA	**Yellowknife Ar**	**89.05**	**354**	P	**P**	**01 29 49.9**	**-0.6**
	comp=Z,0.0nm,0.3s,baz=11,slow=5.7,SNR=4.2						

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*ISCJB **24** 01:23:02.6±1.4, 700S±008×810W±0.1, h33km, mb3.8/2, Error ellipse: s-maj=16.2km s-min=11.8km az=170.0*

*NEIC **24** 01:23:07.1±4.1, 695S×8062W, h35km, mb3.3/1, Error ellipse: s-maj=89.5km s-min=13.3km az=76.0*

*IDC **24** 01:23:09.1±5.9, 735S×8067W, h59km±42km, mb3.5/2, mb1 3.6/5, mb1mx3.5/17, mbtmp3.6/5, ML3.5/2, MS3.2/3, Ms1 3.2/3, ms1mx2.7/27, Error ellipse: s-maj=45.9km s-min=22.4km az=114.0*

ISC 24 01:23:05.3±1.5, **697S**±006×**809W**±01, **h35**km, **n11**, σ**0s70**/13, **mb3.8**/2, **Near coast of northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATAH	**Atahualpa**	**2.49**	**91**	P	**Pn**	**01 23 43.5**	**+0.2**
	34nm,0.3s,baz=296,slow=11,SNR=78						
ATAH				S	**Sn**	**01 24 12.5**	**0.0**
	79nm,0.3s,baz=154,slow=16,SNR=11						
NNA	**Nana**	**6.39**	**142**	ePn	**Pn**	**01 24 37.4**	**+0.4**
	43nm,0.8s						
NNA				eSn	**Sn**	**01 25 40.1**	**-8.8**
NNA	**Nana**	**6.39**	**142**	P	**Pn**	**01 24 36.3**	**-0.7**
	2.2nm,0.3s,baz=343,slow=8.2,SNR=3.7						
NNA				S	**Sn**	**01 25 41.0**	**-7.9**
	3.2nm,0.3s,baz=293,slow=18,SNR=1.6						
OTAV	**Otavalo**	**7.56**	**19**	ePn	**Pn**	**01 24 54.5**	**+1.3**
	6.5nm,0.7s						
OTAV				eSn	**Sn**	**01 26 17.0**	**-0.7**
LPAZ	**La Paz**	**15.55**	**128**	ePn	**Pn**	**01 26 41.8**	**-0.2**
	1.4nm,0.6s						
LPAZ				eS	**S**	**01 29 48.7**	**+0.7**
LPAZ	**La Paz**	**15.55**	**128**	P	**Pn**	**01 26 42.1**	**+0.1**
	0.1nm,0.3s,baz=342,slow=13,SNR=2.1						
LPAZ				LR	LR	01 33 20.3	
	comp=Z,33nm,19.7s,baz=134,slow=40						
SDV	**Santo Domingo**	**18.78**	**33**	LR	LR	01 35 42.7	
	comp=Z,125nm,18.1s,baz=186,slow=40						
SIV	**San Ignacio**	**21.38**	**117**	P	**P**	**01 27 48.8**	**-1.2**
	2.5nm,0.9s,mb3.5,baz=298,slow=12,SNR=12						
PCRV	**Puerto La Cruz**	**23.51**	**44**	LR	LR	01 38 59.7	
	comp=Z,88nm,18.7s,baz=356,slow=40						
TORD	**Torodi Ar. Bea**	**84.41**	**76**	P	**P**	**01 35 34.8**	**0.0**
	1.1nm,0.8s,mb4.0,baz=262,slow=4.5,SNR=8.9						
MKAR	**Makanchi Array**	**137.78**	**17**	PKP	PKPdf	01 42 27.7	+1.6
	0.4nm,0.8s,baz=338,slow=1.3,SNR=4.0						

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*IDC **24** 01:25:58.5±2.2, 669S×12926E, h0km, mb3.2/1, mb1 3.5/4, mb1mx3.4/15, mbtmp3.4/4, ML3.3/3, Error ellipse: s-maj=101.0km s-min=27.7km az=75.0*

*ISCJB **24** 01:26:01.1±1.5, 68S±02×1293E±03, h33km, mb3.2/1, Error ellipse: s-maj=42.5km s-min=17.4km az=160.4*

*NEIC **24** 01:26:03.2±1.4, 671S×12942E, h35km, Error ellipse: s-maj=38.7km s-min=15.8km az=70.0*

ISC 24 01:26:03.3±1.5, **67S**±01×**1294E**±03, **h35**km, **n7**, σ**0s62**/9, **mb3.2**/1, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**11.90**	**198**	Pn	**Pn**	**01 28 50.6**	**0.0**
FITZ				Sn	Sx	01 30 48.9	
FITZ	**Fitzroy Crossi**	**11.90**	**198**	Pn	**Pn**	**01 28 50.6**	**0.0**
	0.1nm,0.3s,baz=21,slow=16,SNR=3.4						
FITZ				Sn	Sx	01 30 48.9	
	0.2nm,0.3s,baz=317,slow=18,SNR=5.1						
WRA	**Warramunga Arr**	**13.99**	**160**	Pn	**Pn**	**01 29 18.1**	**-1.0**
WRA				Sn	**Sn**	**01 31 43.2**	**-10**
WRA	**Warramunga Arr**	**13.99**	**160**	Pn	**Pn**	**01 29 18.1**	**-1.0**
	0.2nm,0.3s,baz=330,slow=14,SNR=14						
WRA				Sn	**Sn**	**01 31 43.2**	**-10**
	0.3nm,0.3s,baz=338,slow=22,SNR=6.5						
WB2	**Warramunga Arr**	**13.99**	**160**	ePn	**Pn**	**01 29 20.1**	**+0.9**
ASAR	**Alice Springs**	**17.40**	**166**	P	**Pn**	**01 30 03.4**	**+0.1**
	0.3nm,0.3s,baz=342,slow=10,SNR=22						
MKAR	**Makanchi Array**	**67.67**	**327**	P	**P**	**01 36 56.9**	**0.0**
	0.1nm,0.4s,mb3.2,baz=126,slow=7.2,SNR=3.7						

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*IDC **24** 01:30:49.8±1.4, 3071S×17739W, h0km, mb4.1/5, mb1 4.2/6, mb1mx4.1/15, mbtmp4.1/6, ML3.8/1, MS3.3/2, Ms1 3.3/2, ms1mx2.7/24, Error ellipse: s-maj=33.6km s-min=21.6km az=95.0*

*ISCJB **24** 01:30:50.3±5.3, 3084S±009×177.1W±08, h33km, mb4.1/5, Error ellipse: s-maj=97.0km s-min=11.6km az=177.6*

*NEIC **24** 01:30:53.4±1.3, 3077S×17720W, h35km, mb4.5/1, Error ellipse: s-maj=28.2km s-min=14.7km az=104.0*

ISC 24 01:30:54.2±3.8, **3081S**±009×**1774W**±06, **h35**km, **n18**, σ**1s18**/16, **mb4.1**/5, **Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**1.62**	**343**	ePn	**Pn**	**01 31 19.3**	**-1.0**
RAO				eSn	**Sn**	**01 31 44.1**	**+4.2**
RAO	**Raoul Island**	**1.62**	**343**	Pn	**Pn**	**01 31 19.0**	**-1.2**
	402nm,0.3s,baz=94,slow=5.3,SNR=11						
RAO				Sn	**Sn**	**01 31 39.2**	**-0.6**
	596nm,0.3s,baz=279,slow=23,SNR=9.4						
URZ	**Urewera**	**8.71**	**210**	Pn	**Pn**	**01 32 58.1**	**+0.5**
URZ				Sn	**Sn**	**01 34 31.7**	**-2.8**
URZ	**Urewera**	**8.71**	**210**	Pn	**Pn**	**01 32 58.1**	**+0.5**
	1.0nm,0.3s,baz=319,slow=9.0,SNR=3.4						
URZ				Sn	**Sn**	**01 34 31.7**	**-2.8**
	1.4nm,0.3s,baz=170,slow=22,SNR=4.6						
DZM	**Mont Dzumac**	**16.88**	**297**	LR	LR	01 38 58.9	
	comp=Z,56nm,19.3s,baz=38,slow=29						
CTA	**Charters Tower**	**34.39**	**279**	P	**P**	**01 37 40.5**	**+2.4**
	3.0nm,0.6s,mb4.4,baz=115,slow=10,SNR=4.4						
CTAO	**Charters Tower**	**34.39**	**279**	eP	**P**	**01 37 39.3**	**+1.2**
	3.8nm,0.6s,mb4.5						
STKA	**Stephens Creek**	**34.91**	**257**	eP	**P**	**01 37 44.0**	**+1.5**
STKA	**Stephens Creek**	**34.91**	**257**	P	**P**	**01 37 44.3**	**+1.8**
	2.2nm,0.5s,mb4.4,baz=108,slow=9.6,SNR=5.2						
ASAR	**Alice Springs**	**43.62**	**267**	P	**P**	**01 38 55.8**	**+0.5**
	1.0nm,0.6s,mb3.7,baz=102,slow=7.4,SNR=15						
WB2	**Warramunga Arr**	**44.63**	**272**	eP	**P**	**01 39 03.0**	**-0.5**
WRA	**Warramunga Arr**	**44.65**	**272**	P	**P**	**01 39 02.9**	**-0.6**
	1.9nm,0.5s,mb4.2,baz=110,slow=8.1,SNR=27						
FITZ	**Fitzroy Crossi**	**52.89**	**270**	P	**P**	**01 40 06.6**	**-0.3**
	0.7nm,0.6s,mb3.7,baz=141,slow=7.2,SNR=3.5						
FITZ				LR	LR	02 02 00.7	
	comp=Z,54nm,18.2s,baz=116,slow=35						
FINES	**FINESS Array B**	**145.71**	**340**	PKPbc	PKPbc	01 50 29.2	+0.7
FINES	**FINESS Array B**	**145.71**	**340**	PKPbc	PKPbc	01 50 29.2	+0.7
	2.4nm,0.3s,baz=60,slow=3.8,SNR=23						
AKASG	**Malin Array Be**	**151.95**	**323**	PKPbc	PKPbc	01 50 44.6	-0.4
AKASG				PKPab	PKPab	01 50 54.7	+0.3
AKASG	**Malin Array Be**	**151.95**	**323**	PKPbc	PKPbc	01 50 44.6	-0.4
	0.3nm,0.3s,baz=50,slow=2.9,SNR=4.9						
AKASG				PKPab	PKPab	01 50 54.7	+0.3
	0.9nm,0.5s,baz=46,slow=3.5,SNR=5.4						
TORD	**Torodi Ar. Bea**	**162.40**	**177**	PKPab	PKPab	01 51 42.1	+2.0
	0.4nm,0.7s,baz=191,slow=2.6,SNR=5.8						

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*ISK **24** 01:34:04.2, 3847N×3927E, h5km, MD2.9*

*CSEM **24** 01:34:04.6±0.1, 3845N×3930E, h5km, MD3.2, Error ellipse: s-maj=2.3km s-min=2.2km az=160.0*

*ISCJB **24** 01:34:05.4±0.6, 3847N±004×3932E±003, h4km±7km, Error ellipse: s-maj=6.2km s-min=4.5km az=178.8*

*DDA **24** 01:34:05.3, 3855N×3936E, h5km±2km, Md3.2*

ISC 24 01:34:05.9±0.5, **3848N**±004×**3931E**±004, **h9**km±6km, **n17**, σ**0s79**/28, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.26**	**275**	i P	**Pg**	**01 34 10.7**	**-0.4**
ELZG				i S	**Sg**	**01 34 15.9**	**+1.4**
PTK	**Pertek**	**0.42**	**9**	PG	**Pg**	**01 34 13.8**	**-0.4**
PTK				SG	**Sg**	**01 34 20.8**	**+1.0**
PTK	**Pertek**	**0.42**	**9**	ePg	**Pg**	**01 34 13.8**	**-0.4**
PTK				eSg	**Sg**	**01 34 20.8**	**+1.0**
MYA	**Malataya**	**0.71**	**258**	PG	**Pg**	**01 34 17.8**	**-1.8**
MYA				SG	**Sg**	**01 34 28.9**	**0.0**
MYA	**Malataya**	**0.71**	**258**	ePg	**Pg**	**01 34 17.8**	**-1.8**
MYA				eSg	**Sg**	**01 34 28.9**	**0.0**
MALT	**Malatya**	**0.71**	**257**	PG	**Pg**	**01 34 18.6**	**-1.0**
MALT				SG	**Sg**	**01 34 29.3**	**+0.4**
MALT	**Malatya**	**0.71**	**257**	ePg	**Pg**	**01 34 18.6**	**-1.0**
MALT				eSg	**Sg**	**01 34 29.3**	**+0.4**
DIYA	**Diyarbakir**	**0.84**	**130**	i P	**Pg**	**01 34 21.8**	**-0.5**
DIYA				i S	**Sg**	**01 34 34.4**	**+1.2**
DIY	**Diyarbakir**	**0.93**	**128**	ePG	**Pg**	**01 34 23.2**	**-0.6**

DIY	Diyarbakir	0.93	128	*e*Pg	Pg	01 34 23.2	-0.6
URFA	Urfa	1.10	201	*e*PN	Pn	01 34 26.9	-0.6
URFA	Urfa	1.10	201	*e*Pn	Pn	01 34 26.9	-0.6
ATAB	Bozova	1.28	219	*i* P	Pn	01 34 29.7	-0.3
ATAB				*i* S	Sb	01 34 48.1	+1.3
EZC	Erzincan	1.33	17	*e*PN	Pn	01 34 30.6	0.0
MARD	Mardin	1.64	134	*i* P	Pn	01 34 34.4	-0.5
MARD				*i* S	Sn	01 34 56.6	+0.5
BTMT	Batman	1.74	99	*e*PN	Pn	01 34 36.0	-0.2
GZT	Gaziantep	1.78	231	*i* P	Pn	01 34 37.0	+0.3
GZT				*i* S	Sn	01 35 07.2	+7.9

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*ISCJB **24** 01:35:31.5±0.6, 58.54N±0.05×155.8W±0.1, h160^{km}±7^{km}, mb3.6/4, Error ellipse: s-maj=10.2km s-min=7.7km az=25.0*

*NEIC **24** 01:35:31.8, 58.51N×155.76W, h168^{km}, mb4.6/4, After AEIC.*

*IDC **24** 01:35:31.7±2.0, 58.73N×155.79W, h133^{km}±30^{km}, mb3.5/5, mb1 3.6/6, mb1mx3.3/23, mbtmp3.5/6, Error ellipse: s-maj=50.9km s-min=21.8km az=178.0*

ISC 24 01:35:32.6±0.6, **58.53N**±0.05×**155.83W**±0.10, **h152**^{km}±7^{km}, **n26**, σ**1**^{s}**15**/32, **mb3.6**/4, **1D**, **Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDAK	Kodiak Island	1.88	112	P	Pn	01 36 06.8	+0.5
	baz=307,slow=6.7						
KDAK				S	Sn	01 36 30.5	-1.7
	10.0nm,0.3s,baz=173,slow=23,SNR=6.0						
SVW2	Sparrevohn	2.58	3	⇓*i*P	Pn	01 36 16.1	+1.5
SVW2				*e*S	Sn	01 36 46.0	-1.1
SLKM	Skilak Lake	3.48	53	P	Pn	01 36 27.2	+1.3
SEW	Seward	3.63	62	P	Pn	01 36 29.3	+1.4
FIB	Fire Island	3.89	45	P	Pn	01 36 32.9	+1.6
RC01	Rabbit Creek A	4.00	48	P	Pn	01 36 33.4	+0.6
SDPT	Sand Point	4.08	221	*e*P	Pn	01 36 33.6	-0.3
TT01	Tatalina	4.39	359	P	Pn	01 36 39.4	+1.5
TTA	Tatalina	4.41	359	*e*Pn	Pn	01 36 39.3	+1.2
TTA				*e*Sn	Sn	01 37 21.2	-8.0
PMR	Palmer	4.55	45	*e*Pn	Pn	01 36 39.0	-0.9
PMR				*e*Sn	Sn	01 37 26.8	-5.5
MCK	McKinley	6.19	30	*e*Pn	Pn	01 37 00.5	-1.1
	9.0nm,0.4s						
MCK				*e*Sn	Sn	01 38 11.4	+0.1
MENT	Mentasta	7.39	48	*e*P	Pn	01 37 17.5	-0.1
COLA	College	7.40	27	*e*Pn	Pn	01 37 15.9	-1.8
	18nm,0.5s						
COLA				*e*Sn	Sn	01 38 38.5	-1.8
UNV	Unalaska Valle	7.58	236	*e*Pn	Pn	01 37 19.5	-0.7
	45nm,0.4s						
IMA2	Indian Mountai	7.63	7	*e*P	Pn	01 37 21.9	+1.2
EGAK	Eagle	9.36	42	*e*Pn	Pn	01 37 42.8	-0.9
	5.5nm,0.5s						
SIT	Sitka	11.03	89	*e*P	Pn	01 38 05.5	-0.4
	46nm,1.4s						
DLBC	Dease Lake	13.47	79	*e*Pn	Pn	01 38 45.2	+7.8
DLBC	Dease Lake	13.47	79	S	Sn	01 41 08.0	+1.7
	baz=216,slow=19						
INK	Inuvik	13.89	36	P	Pn	01 38 40.6	-1.9
	1.1nm,0.3s,baz=220,slow=12,SNR=18						
YKA	Yellowknife Ar	20.41	61	P	P	01 39 56.2	-1.0
YKA	Yellowknife Ar	20.41	61	P	P	01 39 56.2	-1.0
	3.0nm,0.4s,baz=277,slow=9.9,SNR=38						
ULM	Lac du Bonnet	34.78	77	P	P	01 42 09.2	+1.2
	2.5nm,1.1s,mb3.8,baz=315,slow=8.6,SNR=3.0						
SCHQ	Schefferville	45.59	54	P	P	01 43 36.6	-0.2
	1.4nm,0.7s,mb3.7,baz=308,slow=9.7,SNR=7.9						
SONM	Songino Array	54.46	305	P	P	01 44 44.4	+0.7
	1.1nm,0.6s,mb3.8,baz=43,slow=7.2,SNR=9.5						
MKAR	Makanchi Array	64.65	320	P	P	01 45 52.8	-0.7
	0.2nm,0.4s,mb3.3,baz=33,slow=6.0,SNR=4.1						

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*ISCJB **24** 01:37:29.0±0.4, 39.71N±0.05×139.6E±0.1, h188^{km}±4^{km}, mb3.5/8, Error ellipse: s-maj=13.9km s-min=7.3km az=21.6*

*IDC **24** 01:37:29.1±1.5, 39.74N×139.60E, h172^{km}±14^{km}, mb3.3/8, mb1 3.4/10, mb1mx3.3/23, mbtmp3.3/10, Error ellipse: s-maj=19.6km s-min=13.7km az=110.0*

*JMA **24** 01:37:30.3±0.1, 39.65N×139.62E, h182^{km}±1^{km}, M3.1*

*NEIC **24** 01:37:30.4, 39.65N×139.62E, h182^{km}, MG3.1(JMA), After JMA.*

ISC 24 01:37:30.1±0.4, **39.69N**±0.05×**139.6E**±0.1, **h184**^{km}±4^{km}, **n28**, σ**0**^{s}**44**/37, **mb3.5**/8, **Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOG2	Oga 2	0.27	34	P	Pn	01 37 54.8	+0.3
JOG2				*e*S	Sn	01 38 13.9	+0.4
JYW	Yuwa	0.49	107	P	Pn	01 37 55.7	+0.4
JYW				S	Sn	01 38 15.0	+0.4
JTB	Tobi-shima	0.50	184	P	Pn	01 37 55.2	-0.1
JTB				S	Sn	01 38 14.0	-0.7
JAH	Hinai	0.94	58	P	Pn	01 37 58.1	+0.4
JAH				*e*S	Sn	01 38 19.0	-0.1
JIW	Iwasaki	0.95	19	P	Pn	01 37 58.3	+0.5
JIW				*e*S	Sn	01 38 19.4	+0.1
JYK	Kaneyama	0.97	142	P	Pn	01 37 58.0	0.0
JYK				*e*S	Sn	01 38 19.7	+0.3
JYA	Atsumi	1.10	175	P	Pn	01 37 59.0	0.0
JYA				*e*S	Sn	01 38 20.9	-0.2
JOM	Ohasama	1.33	99	P	Pn	01 38 00.7	-0.1
JMK	Ichinoseki	1.46	120	P	Pn	01 38 01.8	-0.2
JANG	Nango	1.62	65	P	Pn	01 38 03.4	-0.1
JANG				*e*S	Sn	01 38 28.7	-0.7
JNS	Sasagawa	1.88	187	P	Pn	01 38 06.1	-0.1
JSD	Sado	1.95	213	P	Pn	01 38 06.8	-0.1
JMM	Marumori	2.05	152	P	Pn	01 38 07.4	-0.6
MAJO	Matsushiro	3.33	200	*e*Pn	Pn	01 38 23.1	+0.1
MAT	Matsushiro	3.33	200	P	Pn	01 38 23.2	+0.2
MJAR	Matsushiro Arr	3.33	200	P	Pn	01 38 23.4	+0.5
	3.8nm,0.3s,baz=10.0,slow=14,SNR=20						
ASAJ	Asahikawa	4.96	26	P	Pn	01 38 42.6	-0.8
	2.0nm,0.3s,baz=257,slow=14,SNR=6.0						
ASAJ				S	Sn	01 39 36.9	-4.2
	1.2nm,0.3s,baz=115,slow=20,SNR=3.2						
SONM	Songino Array	25.17	300	P	P	01 42 38.2	-0.1
	0.6nm,0.4s,mb3.5,baz=97,slow=8.8,SNR=12						
ZALV	Zalesovo Beam	39.09	310	P	P	01 44 39.1	0.0
	1.2nm,0.3s,mb3.9,baz=92,slow=7.3,SNR=7.4						
MK31	Makanchi Array	41.54	299	*e*P	P	01 44 58.8	-0.5
MKAR	Makanchi Array	41.54	299	P	P	01 44 59.2	-0.1
	0.7nm,0.6s,mb3.5,baz=85,slow=11,SNR=14						
WRA	Warramunga Arr	59.52	186	P	P	01 47 13.5	-0.5
	0.6nm,0.8s,mb3.5,baz=2.1,slow=7.0,SNR=7.9						
YKA	Yellowknife Ar	62.23	30	P	P	01 47 32.3	+0.5
	0.1nm,0.4s,mb3.0,baz=300,slow=7.7,SNR=3.7						
FINES	FINESS Array B	65.80	331	P	P	01 47 54.5	-0.6
	1.0nm,0.6s,mb3.8,baz=33,slow=7.7,SNR=6.6						
NB2	NORSAR Subarra	71.19	336	P	P	01 48 28.4	0.0
	comp=Z,2.5nm,0.9s,mb3.9,baz=40,slow=6.2						
NOA	NORSAR Array B	71.19	336	P	P	01 48 28.8	+0.4
NOA	NORSAR Array B	71.19	336	P	P	01 48 28.8	+0.4
	comp=Z,1.2nm,0.7s,mb3.7,baz=39,slow=6.1,SNR=3.9						
PDAR	Pinedale Array	76.81	45	P	P	01 49 02.7	+1.3
	comp=Z,0.3nm,0.5s,mb3.2,baz=289,slow=0.4,SNR=5.9						

IDC 24 01:37:44.8±1.7, **26.32N**×**110.54W**, **h0**^{km}, **mb3.0**/1, **mb1 3.6**/5, **mb1mx3.5**/21, **mbtmp3.2**/5, **ML3.3**/3, **MS3.5**/1, **Ms1 3.4**/1, **ms1mx2.5**/13, **Error ellipse: s-maj=29.0km s-min=13.9km az=97.0**, **Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	2.22	175	Pn	Pn	01 38 24.8	+1.9
	9.7nm,0.3s,baz=0.0,slow=5.1,SNR=3.2						
LPIG				Lg		01 38 54.5	
	12nm,0.3s,baz=227,slow=19,SNR=7.4						
TXAR	Lajitas Array	6.79	62	Pn	Pn	01 39 25.4	-0.2
	0.3nm,0.3s,baz=239,slow=15,SNR=9.6						
TXAR				Lg		01 41 19.3	
	0.3nm,0.3s,baz=253,slow=27,SNR=3.6						
ANMO	Albuquerque	9.29	21	Pn	Pn	01 40 01.7	+1.7
	0.1nm,0.3s,baz=186,slow=7.6,SNR=3.8						
PDAR	Pinedale Array	16.43	3	Pn	Pn	01 41 41.0	+4.3
PDAR	Pinedale Array	16.43	3	Pn	Pn	01 41 41.0	+4.3
	0.0nm,0.3s,baz=182,slow=14,SNR=5.8						
YKA	Yellowknife Ar	36.27	357	P	P	01 44 48.1	-1.4
	0.1nm,0.5s,baz=176,slow=8.7,SNR=3.0						
YKA				LR	LR	01 59 59.9	
	comp=Z,69nm,20.3s,baz=215,slow=37						

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*UCR **24** 01:49:17.7, 9.53N×84.19W, h13^{km}, MD3.9*

*UPA **24** 01:49:17.8, 9.58N×84.20W, h10^{km}, MW4.6*

CASC 24 01:49:18.0±2.1, **9.56N**×**84.19W**, **h12**^{km}±6^{km}, **MD4.0**, **10C-4D**, **Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QCR	Quepos	0.14	170	⇑*e*P	Pg	01 49 20.9	-0.5
LCR2	La Lucha 2	0.26	46	⇑*i*P	Pg	01 49 24.2	+0.8
LAJ	Bijagual	0.31	13	⇓*e*P	Pg	01 49 25.8	+1.5
SJS	Escuela Geolog	0.40	20	⇑*e*P	Pg	01 49 26.6	+0.7
SJS				*e*S	Sg	01 49 32.9	+1.6
BUS	Buena Vista	0.43	91	⇑*e*P	Pg	01 49 26.9	+0.5
PRS1	Puriscal	0.44	344	⇓*e*P	Pg	01 49 25.6	-1.0
URSC	Urasca	0.49	56	⇑*i*P	Pg	01 49 28.1	+0.5
CGA2	Cerro Gallo 2	0.53	329	⇓*e*P	Pg	01 49 28.3	0.0
CGA2				*e*S	Sg	01 49 36.9	+1.6
ICR	Volcan Irazu	0.55	40	⇓*e*P	Pg	01 49 29.4	+0.7
ICR				*e*S	Sg	01 49 37.9	+1.9
BAR1		0.92	110	*e*P	Pg	01 49 34.3	-1.6
JCR	Jicaral	0.95	288	⇑*e*P	Pg	01 49 34.6	-1.8
JCR				*e*S	Sg	01 49 48.9	+0.1
CTCR	Cotoan	1.56	115	*e*P	Pn	01 49 45.2	-0.4
CTCR				*e*S	Sn	01 50 04.5	-1.2
CNI	Changuinola	1.66	95	⇑*i*P	Pn	01 49 47.0	+0.1
BRU2	Volcan	1.67	117	⇑*i*P	Pn	01 49 47.2	+0.2
BRU2				*e*S	Sn	01 50 09.0	+0.7
TBS2		1.69	117	*e*P	Pn	01 49 48.0	+0.6
TBS2				*e*S	Sn	01 50 10.4	+1.3
BRU	Baru	1.77	115	⇑*i*P	Pn	01 49 49.7	+1.2
BRU				*e*S	Sn	01 50 12.7	+1.6
PTP	Ponta Puerca	19.97	62	⇑*i*P		01 49 51.5	
PTP				*e*S		01 50 14.8	

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*IDC **24** 01:53:55.4±3.0, 41.57S×86.20W, h0^{km}, mb4.1/4, mb1 4.3/4, mb1mx4.1/13, mbtmp4.0/4, MS4.3/6, Ms1 4.4/6, ms1mx3.9/23, Error ellipse: s-maj=82.2km s-min=52.5km az=17.0*

*ISCJB **24** 01:53:56.4±1.8, 41.2S±0.3×86.1W±0.2, h10^{km}, mb4.0/6, MS4.3/6, Error ellipse: s-maj=45.7km s-min=18.6km az=168.6*

*GCMT **24** 01:53:57.7±0.3, 41.41S×86.36W, h18^{km}±1^{km}, MW5.1/61, Moment Tensor Solution. s35,c51; s61,c89; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.32±.22; $M_{\theta\theta}$1.75±.21; $M_{\phi\phi}$-1.43±.21; $M_{r\theta}$1.53±.50; $M_{\theta\phi}$-5.75±.20; $M_{\phi r}$1.41±.49; Best double couple: $M_0$6.31700×10^{16} NP1:ϕ_s171.00000°, δ75.00000°, λ-11.00000°. NP2: ϕ_s264.00000°, δ80.00000°, λ-164.00000°. Principal axes: T 6.1470, Plg3.0000°, Azm37.0000°; N 0.3440, Plg71.0000°, Azm297.0000°; P -6.4870, Plg18.0000°, Azm128.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **24** 01:53:57.7±2.0, 41.24S×85.98W, h10^{km}, mb4.3/3 Error ellipse: s-maj=51.7km s-min=43.7km az=160.0*

ISC 24 01:53:57.3±1.8, **41.3S**±0.3×**86.2W**±0.2, **h10**^{km}, **n16**, σ**1**^{s}**33**/9, **mb4.0**/6, **MS4.3**/6, **West Chile Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	29.42	37	*e*P	P	02 00 01.5	+0.5
	4.8nm,1.1s,mb4.1						
LPAZ				LR	LR	02 09 36.3	
LPAZ	La Paz	29.42	37	P	P	02 00 02.9	+1.8
	2.4nm,0.9s,mb3.9,baz=184,slow=14,SNR=5.9						
LPAZ				LR	LR	02 09 36.3	
	comp=Z,278nm,18.6s,MS3.9,baz=14,slow=32						
NNA	Nana	30.35	18	*e*P	P	02 00 08.6	-0.6
	16nm,1.3s,mb4.6						
ATAH	Atahualpa	34.87	14	LR	LR	02 11 26.2	
	comp=Z,712nm,20.9s,MS4.4,baz=200,slow=30						
RKT	Rikitea	44.43	279	*e*LR	LR	02 14 32.6	
	500nm,27.8s						
ROSC	El Rosal	47.21	16	LR	LR	02 19 42.0	
	comp=Z,544nm,20.7s,MS4.5,baz=13,slow=33						
SDV	Santo Domingo	51.97	20	*e*P	P	02 03 04.4	-2.2
	1.1nm,0.5s,mb4.0						
VNDA	Vanda	54.50	194	LR	LR	02 21 23.0	
	comp=Z,246nm,20.4s,MS4.3,baz=127,slow=30						
TAOE	Nuku Hiva Isla	57.38	289	*e*S	S	02 11 43.8	+0.9
	531nm,27.0s						
TAOE				*e*LR	LR	02 20 39.6	
	552nm,24.4s						
PPT	Papeete	58.69	274	*e*S	S	02 11 58.7	-1.2
	82nm,25.5s						
PPT				*e*LQ		02 18 46.2	
	528nm,27.8s						
PPT				*e*LR	LR	02 20 59.7	
	366nm,26.5s						
URZ	Urewera	70.32	236	LR	LR	02 27 50.7	
	comp=Z,261nm,21.3s,MS4.5,baz=128,slow=29						
RPZ	Rata Peaks	70.57	229	LR	LR	02 27 54.3	
	comp=Z,272nm,19.4s,MS4.5,baz=155,slow=29						
TXAR	Lajitas Array	72.12	344	P	P	02 05 24.2	+2.5
	1.2nm,0.9s,mb3.8,baz=181,slow=9.0,SNR=2.9						
PDAR	Pinedale Array	86.30	343	P	P	02 06 38.5	-0.4
	0.5nm,1.0s,mb3.7,baz=168,slow=4.6,SNR=3.8						
TORD	Torodi Ar. Bea	97.01	79	P	P	02 07 29.6	+0.1
	0.8nm,1.0s,mb4.1,baz=224,slow=7.6,SNR=3.1						
TIXI	Tiksi	144.98	341	*e*PKP	PKPdf	02 13 32.9	-0.5

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*ISCJB **24** 02:07:58.5±1.0, 14.23N±0.08×91.11W±0.06, h82^{km}±9^{km}, mb4.0/9, Error ellipse: s-maj=14.2km s-min=8.3km az=28.1*

*IDC **24** 02:07:59.6±1.9, 14.23N×91.04W, h76^{km}±17^{km}, mb3.8/10, mb1 4.0/13, mb1mx3.8/23, mbtmp3.8/13, MS3.4/2, Ms1 3.4/2, ms1mx2.7/33, Error ellipse: s-maj=23.6km s-min=11.7km az=39.0*

*NEIC **24** 02:08:00.2±1.0, 14.19N×91.06W, h84^{km}±9^{km}, Error ellipse: s-maj=17.9km s-min=9.4km az=217.0*

*MEX **24** 02:08:07.3±1.0, 14.74N×91.24W, h110^{km}±30^{km}, MD4.6*

ISC 24 02:08:00.2±0.9, **14.29N**±0.07×**91.06W**±0.06, **h79**^{km}±8^{km}, **n29**, σ**1**^{s}**25**/37, **mb4.0**/9, **Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CCIG	Comitan	2.24	332	*i* P	Pn	02 08 36.9	+1.6
CCIG				*i* S	Sn	02 09 03.5	+1.3
CCIG	Comitan	2.24	332	*i* P	Pn	02 08 36.9	+1.6
CCIG				*i* S	Sn	02 08 58.9	-3.2
SCX	San Cristobal	2.87	328	*i* P	Pn	02 08 42.7	-1.1
SCX				*i* S	Sn	02 09 15.8	-1.6
SCX	San Cristobal	2.87	328	*i* P	Pn	02 08 43.0	-0.8
SCX				*i* S	Sn	02 09 14.0	-3.4
CMIG	Matias Romero	4.62	308	P	Pn	02 09 06.4	-1.2
	8.5nm,0.3s,baz=103,slow=10,SNR=71						
CMIG				S	Sn	02 09 59.9	-0.2
	13nm,0.3s,baz=273,slow=21,SNR=8.9						
CMIG				LR	LR	02 10 20.4	
	comp=Z,112nm,22.0s,baz=170,slow=30						
SCIG	Sabancuy	4.65	358	*e*P	Pn	02 09 09.1	+1.1
SCIG				*i* S	Sn	02 09 55.9	-5.0
HUIG	Huatulco	5.10	287	*i* S	Sn	02 10 10.2	-1.6
OXX	Oaxaca	6.12	298	*i* P	Pn	02 09 29.0	+0.9
VHO	Vista Hermosa	6.13	298	*i* P	Pn	02 09 30.4	+2.2
VHO				*i* S	Sn	02 10 27.1	-10
VHO	Vista Hermosa	6.13	298	*i* P	Pn	02 09 29.9	+1.7
VHO				*i* S	Sn	02 10 34.2	-2.7
TEIG	Tepich	6.47	24	P	Pn	02 09 34.9	+2.0
	47nm,0.3s,baz=202,slow=3.0,SNR=200						
TEIG	Tepich	6.47	24	*i* P	Pn	02 09 36.0	+3.1
TEIG				*i* S	Sn	02 10 42.2	-3.1
JTS	JuntasAbangare	7.17	123	P	Pn	02 09 42.4	0.0
	3.1nm,0.3s,baz=307,slow=21,SNR=7.1						
JTS				S	Sn	02 10 55.8	-6.6
	baz=320,slow=23,SNR=1.8						
TPIG	Tehuac#an	7.32	305	*i* P	Pn	02 09 45.1	+0.7
TPIG				*i* S	Sn	02 11 01.5	-4.4
TXAR	Lajitas Array	18.98	324	P	Pn	02 12 17.4	+0.5
	0.3nm,0.3s,baz=151,slow=12,SNR=10						
SDV	Santo Domingo	20.71	103	P	P	02 12 32.9	-1.4
	5.2nm,0.6s,baz=324,slow=10,SNR=6.5						
TKL	Tuckaleechee C	22.26	16	P	P	02 12 51.5	+0.9
	6.0nm,0.5s,mb4.2,baz=181,slow=12,SNR=16						
ANMO	Albuquerque	24.82	329	P	P	02 13 16.1	+1.0
	0.6nm,0.6s,mb3.2,baz=147,slow=12,SNR=4.5						
PCRV	Puerto La Cruz	26.13	96	LR	LR	02 24 20.6	
	comp=Z,314nm,21.0s,baz=207,slow=38						
SADO	Sadowa	32.03	16	P	P	02 14 19.1	0.0
	baz=223,slow=10						
PDAR	Pinedale Array	32.55	334	P	P	02 14 24.4	+0.7
	0.3nm,0.7s,mb3.2,baz=102,slow=11,SNR=3.1						
PDAR				PcP	PcP	02 17 08.1	-0.6
	0.3nm,0.8s,baz=152,slow=4.1,SNR=3.1						
NVAR	Mina Array Bea	34.03	320	P	P	02 14 38.8	+2.1
	4.7nm,0.8s,mb4.4,baz=130,slow=9.7,SNR=20						
NVAR				PcP	PcP	02 17 14.9	+2.0
	1.2nm,0.7s,baz=145,slow=4.0,SNR=4.9						
SIV	San Ignacio	42.23	134	P	P	02 15 45.1	-0.7
	4.2nm,0.6s,mb4.3,baz=309,slow=7.9,SNR=29						
SIV				PcP	PcP	02 17 37.1	-1.5
	0.7nm,0.6s,baz=292,slow=5.1,SNR=3.9						
SCHQ	Schefferville	44.64	20	P	P	02 16 03.8	-0.9
	2.1nm,0.5s,mb4.2,baz=256,slow=8.3,SNR=9.4						
YKA	Yellowknife Ar	50.96	346	P	P	02 16 52.8	-0.6
	1.5nm,0.6s,mb4.2,baz=148,slow=7.7,SNR=35						
YKA				PcP	PcP	02 18 07.5	-1.1
	0.9nm,0.7s,baz=151,slow=3.8,SNR=13						
KDAK	Kodiak Island	62.96	328	P	P	02 18 17.9	-0.3
	8.1nm,0.9s,mb4.7,baz=72,slow=3.2,SNR=5.6						
NOA	NORSAR Array B	83.46	29	P	P	02 20 18.1	-0.7
	1.0nm,0.8s,mb3.7,baz=345,slow=5.6,SNR=2.9						
WRA	Warramunga Arr	136.35	256	PKP	PKPdf	02 27 12.8	-0.8
WRA	Warramunga Arr	136.35	256	PKP	PKPdf	02 27 12.8	-0.8
	0.9nm,0.8s,baz=85,slow=2.1,SNR=8.0						

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*ISCJB **24** 02:09:20.3±1.2, 17.8S±0.2×178.6W±0.1, h554^{km}±17^{km}, mb4.3/18, Error ellipse: s-maj=30.4km s-min=11.4km az=151.3*

*NEIC **24** 02:09:21.0±0.8, 17.77S×178.58W, h550^{km}±10^{km}, mb4.4/9, Error ellipse: s-maj=21.2km s-min=7.7km az=151.0*

*IDC **24** 02:09:21.4±1.9, 17.81S×178.57W, h550^{km}±21^{km}, mb3.6/8, mb1 3.8/10, mb1mx3.6/17, mbtmp3.6/10, Error ellipse: s-maj=50.3km s-min=12.3km az=155.0*

ISC 24 02:09:21.0±1.1, **17.8S**±0.2×**178.6W**±0.1, **h548**^{km}±15^{km}, **n36**, σ**0**^{s}**76**/29, **mb4.3**/18, **3D**, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.61	60	P	P	02 11 14.1	-0.7
	4.2nm,0.3s,baz=30,slow=23,SNR=6.9						
DZM	Mont Dzumac	14.70	251	P	P	02 12 28.2	+0.8
	2.2nm,0.3s,baz=97,slow=15,SNR=20						
CTA	Charters Tower	33.30	260	*e*P	P	02 15 14.0	+0.2
	5.8nm,0.7s,mb4.2						
CTA	Charters Tower	33.30	260	P	P	02 15 14.1	+0.2
	6.1nm,0.6s,mb4.3,baz=81,slow=11,SNR=6.8						
CTAO	Charters Tower	33.30	260	*e*P	P	02 15 13.9	+0.1
	7.7nm,0.7s,mb4.3						
CNB	Canberra Magne	33.36	232	*e*P	P	02 15 14.9	+0.8
	16nm,0.5s,mb4.8						
PMG	Port Moresby	34.27	280	*e*P	P	02 15 23.3	+1.2
	7.5nm,0.4s,mb4.6						
PMG	Port Moresby	34.27	280	P	P	02 15 23.4	+1.3
	24nm,0.8s,mb4.8,baz=99,slow=3.5,SNR=7.8						
TOO	Toolangi	37.11	231	*e*P	P	02 15 45.7	+0.5
	12nm,0.6s,mb4.6						
STKA	Stephens Creek	38.53	241	⇓*i*P	P	02 15 57.8	+0.8
	14nm,0.6s,mb4.7						
STKA	Stephens Creek	38.53	241	P	P	02 15 57.9	+0.9
	16nm,0.5s,mb4.8,baz=93,slow=10.0,SNR=71						
WB2	Warramunga Arr	44.47	259	⇓*i*P	P	02 16 43.4	-0.7
WRA	Warramunga Arr	44.48	259	P	P	02 16 43.5	-0.7
	7.2nm,0.5s,mb4.5,baz=96,slow=7.4,SNR=249						
WRA				PcP	PcP	02 18 15.0	-0.7
	0.9nm,0.4s,baz=89,slow=3.5,SNR=4.8						
ASAR	Alice Springs	44.66	254	P	P	02 16 45.6	+0.2
	77nm,0.6s,mb5.4,baz=88,slow=8.3,SNR=1010						
ASAR				PcP	PcP	02 18 15.7	-0.6
	1.6nm,0.4s,baz=94,slow=3.7,SNR=4.3						
KAKA	Kakadu	47.41	269	*e*P	P	02 17 06.6	+0.1
	15nm,0.4s,mb4.9						
FORT	Forrest	49.90	245	*e*P	P	02 17 23.7	-1.0
	20nm,0.6s,mb4.7						
FITZ	Fitzroy Crossi	52.88	260	⇓*i*P	P	02 17 46.4	0.0
	3.8nm,0.3s,mb4.2						
FITZ	Fitzroy Crossi	52.88	260	P	P	02 17 46.3	-0.1
	baz=102,slow=2.8						
MBWA	Marble Bar	57.93	256	*e*P	P	02 18 20.5	-1.0
	6.7nm,0.3s,mb4.3						
KLBR	Kellerberrin	58.72	243	*e*P	P	02 18 25.7	-1.0
	16nm,0.8s,mb4.3						
MUN	Mundaring	60.02	243	*e*P	P	02 18 34.8	-0.5
QSPA	South Pole Qui	72.26	180	*e*P	P	02 19 50.2	-0.2
	5.2nm,0.8s,mb4.0						
KSM	Kuching	72.50	277	*e*P	P	02 19 53.0	0.0
NVAR	Mina Array Bea	79.46	44	P	P	02 20 31.9	+1.0
NVAR	Mina Array Bea	79.46	44	P	P	02 20 31.9	+1.0
	1.0nm,0.6s,mb3.3,baz=230,slow=10,SNR=5.7						
MCK	McKinley	84.47	13	*e*P	P	02 20 54.8	-0.9
	2.3nm,0.9s,mb3.7						
TXAR	Lajitas Array	86.08	58	P	P	02 21 05.9	+1.6
	1.4nm,0.7s,mb3.7,baz=218,slow=7.5,SNR=8.7						
PDAR	Pinedale Array	87.39	44	P	P	02 21 10.4	+0.2
	0.9nm,0.6s,mb3.6,baz=218,slow=3.5,SNR=9.8						
YKA	Yellowknife Ar	94.30	25	P	P	02 21 41.1	-0.5
	0.2nm,0.5s,mb3.5,baz=239,slow=4.5,SNR=4.5						
MKAR	Makanchi Array	108.93	314	PKPdf	PKiKP	02 26 46.7	-1.6
MKAR	Makanchi Array	108.93	314	PKiKP	PKiKP	02 26 46.7	-1.6
	0.2nm,0.3s,baz=99,slow=0.8,SNR=3.5						
LSZ	Lusaka	137.85	220	*e*PKPdf	PKPdf	02 27 45.2	+1.0
BRTR	Keskin Array B	144.58	315	PKP	PKPdf	02 27 55.6	0.0
BRTR	Keskin Array B	144.58	315	PKP	PKPdf	02 27 55.6	0.0
	1.3nm,0.7s,baz=129,slow=2.7,SNR=8.4						
GERES	GERESS Array B	147.46	345	PKPbc	PKPbc	02 28 03.2	-0.3
GERES	GERESS Array B	147.46	345	PKPbc	PKPbc	02 28 03.2	-0.3
	1.0nm,0.6s,baz=27,slow=3.5,SNR=9.4						

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*CASC **24** 02:23:53.6±2.9, 8.25N×82.76W, h9^{km}±10^{km}, MD4.4, ML3.5, mb4.2(NEIC)*

*ISCJB **24** 02:23:54.7±0.6, 8.28N±0.06×82.75W±0.03, h45^{km}±5^{km}, mb4.0/15, Error ellipse: s-maj=10.9km s-min=4.3km az=21.6*

*NEIC **24** 02:23:56.1±0.8, 8.33N×82.81W, h43^{km}±8^{km}, mb4.2/14, Error ellipse: s-maj=11.4km s-min=5.5km az=212.0*

NEIC Felt at David, Panama.

*IDC **24** 02:23:57.6±2.4, 8.63N×82.65W, h46^{km}±17^{km}, mb3.7/5, mb1 4.1/9, mb1mx3.8/20, mbtmp4.0/9, ML4.3/4, MS3.4/3, Ms1 3.4/3, ms1mx2.9/33, Error ellipse: s-maj=64.1km s-min=13.1km az=27.0*

ISC 24 02:23:56.4±0.6, **8.34N**±0.06×**82.73W**±0.03, **h41**^{km}±5^{km}, **n68**, σ**1**^{s}**27**/75, **mb4.0**/16, **10C-14D**, **Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVD	David	0.29	71	⇓*i*P	Pn	02 24 02.4	-2.3
BRU2	Volcan	0.45	5	⇓*i*P	Pn	02 24 04.7	-1.9
BRU2				*e*S	Sn	02 24 12.7	-1.0
TBS2		0.45	9	⇓*i*P	Pn	02 24 06.5	-0.1
TBS2				*e*S	Sn	02 24 13.6	-0.2
BRU	Baru	0.49	20	⇑*i*P	Pn	02 24 05.6	-1.5
CTCR	Cotoan	0.55	357	⇓*i*P	Pn	02 24 06.0	-1.9
BAR1		1.06	327	⇓*i*P	Pn	02 24 12.8	-2.1
BAR1				⇓*i*P		02 24 12.8	
CNI	Changuinola	1.09	11	⇓*i*P	Pn	02 24 14.3	-0.9
BUS	Buena Vista	1.58	320	*e*P	Pn	02 24 20.9	-1.0
BUS				⇑*i*P		02 24 20.9	
QCR	Quepos	1.78	307	⇑*e*P	Pn	02 24 23.0	-1.7
QCR				⇑*i*P		02 24 23.1	
URSC	Urasca	1.81	325	⇑*i*P	Pn	02 24 24.3	-0.8
URSC				⇑*i*P		02 24 24.3	
ICR	Volcan Irazu	1.96	326	⇓*e*P	Pn	02 24 27.1	-0.1
ICR				⇓*i*P		02 24 27.1	
ICR				*e*S	Sn	02 24 52.1	+1.6
LAJ	Bijagual	2.04	318	⇓*i*P	Pn	02 24 29.9	+1.6
LAJ				⇓*e*P		02 24 29.9	
LAJ				*e*S	Sn	02 25 01.7	+9.0
SJS	Escuela Geolog	2.06	321	⇑*e*P	Pn	02 24 28.9	+0.4
SJS				⇑*e*P		02 24 29.6	
SJS				*e*S	Sn	02 24 55.8	+2.9
PRS1	Puriscal	2.26	316	⇓*e*P	Pn	02 24 30.1	-1.1
PRS1				⇓*i*P		02 24 30.3	
CGA2	Cerro Gallo 2	2.39	314	*e*P	Pn	02 24 32.8	-0.3
CGA2				⇓*i*P		02 24 32.8	
CGA2				*e*S	Sn	02 25 04.0	+2.9
AZU	Azuero	2.49	103	⇑*e*P	Pn	02 24 34.5	+0.1
JCR	Jicaral	2.79	303	*e*P	Pn	02 24 37.0	-1.6

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JCR                                  eS     Sn      02 25 10.9  -0.1
FORC  Fortuna             2.85 318  i P     Pn      02 24 39.5   0.0
FORC                                i S     Sn      02 25 17.8  +5.2
JTS   JuntasAbangare      2.93 312   P      Pn      02 24 38.4  -2.1
JTS                                  S      Sn      02 25 13.8  -0.6
JTS                                  LR     LR      02 25 42.6
JTS   JuntasAbangare      2.93 312   P      Pn      02 24 38.4  -2.0
      121nm,0.3s,baz=118,slow=21,SNR=165
JTS                                  S      Sn      02 25 13.8  -0.6
      118nm,0.3s,baz=288,slow=18,SNR=4.0
JTS                                  LR     LR      02 25 42.6
      comp=Z,239nm,20.3s,baz=204,slow=37
BCIP  Isla Barro Col      2.97  74  ePn     Pn      02 24 40.7  -0.4
BCIP                                eSg     Sn      02 25 28.3   +13
BCIP  Isla Barro Col      2.97  74⇑iP       Pn      02 24 41.3  +0.3
BCIP                                eS      Sn      02 25 24.0  +8.5
UPIG                      3.22  78  eP      Pn      02 24 45.0  +0.4
UPIG                                eS      Sn      02 25 24.2  +2.5
2RIO  Dos Rios de Up      3.29 312  i P     Pn      02 24 51.2  +5.8
CUI                       3.34 314  i P     Pn      02 24 46.8  +0.7
VCR   Vista de Mar        3.37 302  eP      Pn      02 24 45.5  -1.0
MADN  Villa Maderas       4.11 318  eP      Pn      02 24 58.8  +2.0
CONN  Concepcion          4.29 319  eP      Pn      02 25 00.8  +1.6
TICN  Ticuantepe          5.04 317  eP      Pn      02 25 11.4  +2.0
TICN                                eS      Sn      02 26 15.5  +9.1
MGAN  Managua             5.13 318  eP      Pn      02 25 12.8  +2.2
MGAN                                eS      Sn      02 26 14.7  +6.0
HUEN                      5.22 320  eP      Pn      02 25 13.6  +1.6
COPN  Copaltepe           5.38 315  eP      Pn      02 25 15.7  +1.5
COPN                                i               02 26 25.2
      comp=Z,87nm,0.5s
TEL3  Telica 3            5.84 316  eP      Pn      02 25 22.5  +2.1
TELN  Telica              5.85 317  eP      Pn      02 25 23.4  +2.8
TGUH  Tegucigalpa,Un      7.22 322  ePn     Pn      02 25 40.2  +0.7
      comp=Z,137nm,0.8s
BLLM  Bellamira           7.41 314  eP      x       02 25 48.7
BLLM                                eS      x       02 27 13.9
LCBS  La Ceiba            8.09 311  eP      x       02 25 57.6
LCBS                                eS      x       02 27 29.6
ROSC  El Rosal            9.03 112  ePn     Pn      02 26 06.9  +2.6
ROSC  El Rosal            9.03 112   P      Pn      02 26 06.8  +2.5
      comp=Z,1.4nm,0.3s,baz=97,slow=16,SNR=12
SDV   Santo Domingo      11.97  87   P      Pn      02 26 44.5  -0.1
      comp=Z,0.4nm,0.3s,baz=291,slow=7.0,SNR=15
TEIG  Tepich             12.98 336   LR     LR      02 31 36.8
      comp=Z,269nm,21.6s,baz=174,slow=36
CMIG  Matias Romero      14.70 307   P      Pn      02 27 19.9  -1.8
      comp=Z,1.0nm,0.3s,baz=115,slow=10,SNR=17
SDDR  Presa de Saban     15.33  45  ePn     Pn      02 27 30.3  +0.3
      comp=Z,32nm,0.9s
PCRV  Puerto La Cruz     17.95  83   P      Pn      02 28 04.8  +1.8
      comp=Z,2.1nm,0.3s,baz=300,slow=4.9,SNR=6.5
SJG   San Juan           18.82  57  eP      Pn      02 28 14.6  +1.0
      comp=Z,39nm,1.0s
SJG   San Juan           18.82  57   LR     LR      02 34 58.2
      comp=Z,229nm,18.2s,baz=268,slow=36
NNA   Nana               21.03 164  eP      P       02 28 36.5  -0.2
      comp=Z,23nm,1.0s,mb4.5
LPAZ  La Paz             28.42 149  eP      P       02 29 47.2   0.0
      comp=Z,2.6nm,1.1s,mb3.8
SDCO  Great Sand Dun     35.79 328  eP      P       02 30 51.4  -0.3
      comp=Z,1.1nm,0.7s,mb3.9
DUG   Dugway             41.54 325  eP      P       02 31 39.4  -0.4
      comp=Z,2.2nm,1.0s,mb3.7
BW06  Boulder Array      41.60 330  eP      P       02 31 40.0  -0.3
      comp=Z,1.4nm,0.8s,mb3.6
PDAR  Pinedale Array     41.60 330   P      P       02 31 39.6  -0.7
      comp=Z,0.7nm,0.6s,mb3.5,baz=128,slow=9.4,SNR=7.3
HWUT  Hardware Ranch     41.80 327  eP      P       02 31 41.4  -0.6
      comp=Z,7.0nm,1.2s,mb4.2
LOHW  Long Hollow        42.74 330  eP      P       02 31 49.3  -0.3
      comp=Z,4.3nm,1.2s,mb4.0
MOOW  Moose Ponds        42.91 330  eP      P       02 31 50.4  -0.6
      comp=Z,1.2nm,0.6s,mb3.8
ULM   Lac du Bonnet      43.19 348  eP      P       02 31 52.3  -0.8
      comp=Z,6.0nm,0.9s,mb4.3
ULM   Lac du Bonnet      43.19 348   P      P       02 31 50.7  -2.4
      comp=Z,1.5nm,0.5s,mb4.0,baz=166,slow=9.9,SNR=5.9
NVAR  Mina Array Bea     43.83 319   P      P       02 31 59.8  +1.3
      comp=Z,1.1nm,0.7s,mb3.7,baz=128,slow=9.3,SNR=8.3
HLID  Hailey             44.68 327  eP      P       02 32 04.9  -0.2
      comp=Z,1.8nm,0.9s,mb3.9
BOZ   Bozeman (W)        44.73 331  eP      P       02 32 04.7  -0.9
      comp=Z,52nm,2.6s,mb4.9
WVOR  Wild Horse Val     46.35 323  eP      P       02 32 18.3  -0.2
      comp=Z,7.2nm,1.1s,mb4.5
YKA   Yellowknife Ar     58.81 343   P      P       02 33 49.1  -1.2
      comp=Z,1.7nm,1.0s,mb4.0,baz=133,slow=7.4,SNR=20
TOA0  Torodi Ar. Sit     82.75  78  eP      P       02 36 16.4  -0.3
TORD  Torodi Ar. Bea     82.75  78   P      P       02 36 16.5  -0.2
      comp=Z,1.4nm,0.8s,mb4.0,baz=292,slow=5.0,SNR=11
ASAR  Alice Springs     141.78 242   PKP    PKPdf   02 43 23.9  -0.5
ASAR  Alice Springs     141.78 242   PKhKP          02 43 17.7
      comp=Z,0.3nm,0.5s,baz=107,slow=4.4,SNR=4.3
ASAR                                 PKP    PKPdf   02 43 23.9  -0.5
      comp=Z,0.5nm,0.6s,baz=126,slow=2.8,SNR=6.0
WRA   Warramunga Arr    142.34 248   PKP    PKPdf   02 43 25.0  -0.5
WRA   Warramunga Arr    142.34 248   PKhKP          02 43 19.5
      comp=Z,1.2nm,0.8s,baz=100,slow=2.2,SNR=7.0
WRA                                  PKP    PKPdf   02 43 25.0  -0.5
      comp=Z,1.2nm,0.9s,baz=95,slow=2.4,SNR=8.0
```

ISCJB 24 02:36:19.8±0.1, 7.08S±0.02×80.52W±0.02, h10^{km}, mb5.8/261, MS6.1/238, Error ellipse: s-maj=4.0km s-min=1.9km az=35.8

IDC 24 02:36:19.2±0.4, 6.94S×80.67W, h0^{km}, mb5.3/25, mb1 5.4/29, mb1mx5.4/29, mbtmp5.2/29, ML4.7/4, MS6.1/21, Ms1 6.1/21, ms1mx5.8/27, Error ellipse: s-maj=10.3km s-min=7.1km az=72.0

CRAAG 24 02:36:20.7, 6.92S×80.51W, Mw6.3

BJI 24 02:36:22.0, 7.00S×80.50W, h23^{km}, mB6.3, Ms6.4, Msz6.3

MOS 24 02:36:22.9±0.9, 6.95S×80.57W, h27^{km}, mb6.0/94, MS6.1/69, Error ellipse: s-maj=6.6km s-min=4.5km az=86.2

GCMT 24 02:36:23.6±0.1, 7.03S×80.71W, h24^{km}, MW6.3/106, Moment Tensor Solution. s106,c245; s102,c379; Duration: 3^{s}6 Moment tensor: Scale 10^{18}Nm; M_{rr}2.11±.02; $M_{\theta\theta}$-0.25±.01; $M_{\phi\phi}$-1.86±.02; $M_{r\theta}$0.69±.03; $M_{\theta\phi}$0.69±.01; $M_{\phi r}$-3.42±.06; Best double couple: $M_0$4.07800×10^{18} NP1:ϕ_s333.00000°, δ16.00000°, λ76.00000°. NP2:ϕ_s167.00000°, δ75.00000°, λ94.00000°. Principal axes: T 4.0950, Plg60.0000°, Azm83.0000°; N -0.0350, Plg4.0000°, Azm346.0000°; P -4.0610, Plg29.0000°, Azm254.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.

IGIL 24 02:36:23.0, 6.92S×80.32W, h15^{km}, MS6.5

NEIC 24 02:36:23.6±0.2, 7.01S×80.49W, h23^{km}, mb5.9/203, ME6.3, MS6.1/187, MW6.3, ML6.2(LIM), Error ellipse: s-maj=5.1km s-min=3.4km az=41.0 Broadband fault plane solution: P waves. NP1:ϕ_s170.00000°, δ75.00000°, λ90.00000°. NP2:ϕ_s350.00000°, δ15.00000°, λ90.00000°. Principal axes: T Plg60.0000°, Azm80.0000°; N Plg0.0000°, Azm0.0000°; P Plg30.0000°, Azm260.0000°; Moment Tensor Solution. s69 Moment tensor: Scale 10^{18} Nm; M_{rr}1.95; $M_{\theta\theta}$0.13; $M_{\phi\phi}$-2.08; $M_{r\theta}$0.46; $M_{\theta\phi}$-0.15; $M_{\phi r}$-2.82; Best double couple: $M_0$3.50000×10^{18} NP1:ϕ_s15.00000°, δ19.00000°, λ111.00000°. NP2:ϕ_s173.00000°, δ73.00000°, λ83.00000°. Principal axes: T 3.4700, Plg62.0000°, Azm73.0000°; N 0.0600, Plg7.0000°, Azm175.0000°; P -3.5300, Plg27.0000°, Azm269.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.

NEIC Felt [IV] at Chiclayo and Pimentel. Also felt at Cajamarca, Eten and Jaen.

BGS 24 02:36:33.0, 4.53S×80.46W, h25^{km}, mb5.9, MS6.1

ISC 24 02:36:22.1±0.3, 6.97S±0.03×80.45W±0.02, h10^{km}±2^{km}, h21^{km}±3.0^{km}:pP-P, n1329, σ0^{s}94/1310, mb5.8/260, MS6.1/238, 362C-304D, Near coast of northern Peru

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Code  Station Name          Δ°   AZ°    Phase ID          Time     Res
                                     Op     ISC        h  m  s     ISC
ATAH  Atahualpa           2.04  91   Pn     Pn      02 37 00.0  +3.6
      425nm,0.3s,baz=283,slow=11,SNR=389
ATAH                                 Sn     Sn      02 37 29.4  +7.4
      8µm,0.3s,baz=174,slow=13,SNR=24
NNA   Nana                6.13 145   Pn     Pn      02 37 53.0  +0.3
      8µm,0.5s,SNR=18
NNA   Nana                6.13 145  ePn     Pn      02 37 50.7  -2.0
NNA                                 eSn     Sn      02 38 57.9  -5.0
NNA   Nana                6.13 145   Pn     Pn      02 37 52.7   0.0
      20nm,0.3s,baz=307,slow=11,SNR=26
NNA                                  Sn     Sn      02 39 05.5  +2.6
      292nm,0.3s,baz=208,slow=8.0,SNR=4.3
NNA                                  LR     LR      02 40 20.4
      comp=Z,187µm,19.4s,baz=309,slow=38
PAYG  Puerto Ayora       11.63 302  ePn     Pn      02 39 07.5  -0.8
ARE   Arequipa           12.88 138  eP      Pn      02 39 28.0  +2.7
ARE                                 i               02 39 39.4
ARE                                 i               02 42 12.2
ROSC  El Rosal           13.23  28  ePn     Pn      02 39 37.5  +7.3
ROSC                                 Sn     Sn      02 42 01.5  +3.9
ROSC  El Rosal           13.23  28   Pn     Pn      02 39 31.9  +1.7
      0.7nm,0.3s,baz=198,slow=6.4,SNR=2.8
ROSC                                 Sn     Sn      02 42 01.5  +3.9
      6.7nm,0.3s,baz=109,slow=21,SNR=2.5
LPAZ  La Paz             15.20 129   Pn     Pn      02 39 55.2  -1.8
LPAZ  La Paz             15.20 129  ePn     Pn      02 39 58.9  +1.9
LPAZ                                 Sn     Sn      02 42 55.1   +10
LPAZ                                 LR     LR      02 46 41.9
LPAZ  La Paz             15.20 129  eP      Pn      02 39 58.9  +2.0
LPAZ                                                02 42 55.2
LPAZ  La Paz             15.20 129   Pn     Pn      02 39 55.1  -1.8
      0.9nm,0.3s,baz=312,slow=12,SNR=28
LPAZ                                 Sn     Sn      02 42 55.1   +10
      0.8nm,0.3s,baz=140,slow=13,SNR=2.6
LPAZ                                 LR     LR      02 46 41.8
      comp=Z,59µm,20.5s,baz=112,slow=40
BCIP  Isla Barro Col     16.04   2  ePn     Pn      02 40 07.8   0.0
      1µm,1.4s
JTS   JuntasAbangare     17.72 345   P      Pn      02 40 31.9  +2.8
      2µm,2.0s,SNR=29
JTS   JuntasAbangare     17.72 345⇑iP       Pn      02 40 30.7  +1.6
      1µm,1.5s
JTS   JuntasAbangare     17.72 345⇑iP       Pn      02 40 29.9  +0.8
JTS   JuntasAbangare     17.72 345   P      Pn      02 40 27.8  -1.3
      0.7nm,0.3s,baz=167,slow=6.2,SNR=29
JTS                                  S      Sn      02 43 50.1  +3.3
      0.4nm,0.3s,baz=243,slow=15,SNR=1.7
JTS                                  LR     LR      02 45 57.4
      comp=Z,80µm,20.1s,baz=174,slow=33
SDV   Santo Domingo      18.54  32⇑iP       Pn      02 40 36.7  -2.4
SDV   Santo Domingo      18.54  32   P      Pn      02 40 38.4  -0.7
      2.3nm,0.3s,baz=237,slow=8.5,SNR=37
SDV                                  S      Sn      02 44 11.2  +4.7
      2.1nm,0.3s,baz=85,slow=21,SNR=2.1
CEN1  Los Morros         19.07 150⇓iP       Pn      02 40 47.7  +2.2
SIV   San Ignacio        20.98 117   P      P       02 41 05.5  -0.2
      162nm,1.0s,baz=297,slow=11,SNR=371
SIV                                  S      S       02 45 05.6  +6.0
      90nm,0.9s,baz=11,slow=15,SNR=2.4
TGUH  Tegucigalpa,Un     21.96 342  eP      P       02 41 17.3  +1.2
      2µm,1.3s,mb6.4
TGUH                                 LR     LR
      comp=Z,42µm,20.0s,MS5.8
PCRV  Puerto La Cruz     23.19  43   P      P       02 41 28.8  -0.5
      comp=Z,401nm,0.9s,mb5.9,baz=211,slow=2.5,SNR=42
PCRV                                 S      S       02 45 43.3  +2.1
      comp=Z,43nm,1.0s,baz=260,slow=22,SNR=1.9
PCRV                                 LR     LR      02 52 00.2
      comp=Z,142µm,19.6s,MS6.4,baz=210,slow=40
LCO   Las Campanas       23.78 158  eP      P       02 41 35.4  +0.3
      comp=Z,328nm,1.3s,mb5.6
LCO                                  LR     LR
      comp=Z,18µm,22.0s,MS5.5
PCJ   Portland Cotta     24.76   8⇓eP       P       02 41 45.5  +1.4
TLL   Tololo Astrono     24.80 160⇑iP       P       02 41 43.3  -1.0
MCJ   Malvern            24.88   6⇓eP       P       02 41 46.8  +1.6
STH   Stony Hill         25.14   8⇓eP       P       02 41 48.7  +1.2
CVJ   Coleyville         25.20   7⇓eP       P       02 41 49.4  +1.4
CMJ   Castle Mountai     25.26   9⇓eP       P       02 41 53.3  +4.7
ALNG  Atlantic LNG       25.28  48⇓eP       P       02 41 51.8  +2.9
BBJ   Bamboo Saint A     25.38   7⇓eP       P       02 41 52.9  +3.2
TPP   Pointe-a-Pierr     25.55  48  eP      P       02 41 52.3  +1.0
TCE   Chacachacare       25.58  47  eP      P       02 41 52.5  +1.0
TRN   Trinidad (W)       25.80  47  eP      P       02 41 54.7  +1.1
TBH   Brigand Hill       25.94  48  eP      P       02 41 57.8  +3.0
TPR   Prospect           26.61  47  eP      P       02 42 01.7  +0.8
GRGR  Grenville          26.63  45  eP      P       02 41 58.9  -2.1
      comp=Z,572nm,0.9s,mb6.1
CFAA  Coronel Fontan     27.04 157   P      P       02 42 04.0  -0.6
      comp=Z,12nm,0.9s,baz=334,slow=7.8,SNR=119
CFAA                                 S      S       02 46 43.8  +1.3
      comp=Z,0.5nm,0.7s,baz=317,slow=20,SNR=1.7
CFAA                                 LR     LR      02 51 30.6
      comp=Z,3µm,19.6s,baz=104,slow=34
LMGC  Las Mercedes       27.07   7  eP      P       02 42 00.1  -4.9
LMGC                                eS      S       02 46 33.1   -10
      comp=N,15µm,21.1s
LMGC                                e
      comp=E,26µm,23.4s
RCC   Rio Carpintero     27.19  10  eP      P       02 42 06.6  +0.5
      baz=188
RCC                                 eS      S       02 45 53.7   -51
      comp=N,2µm,19.7s
RCC                                 e
      comp=E,3µm,19.7s
SDDR  Presa de Saban     27.32  19⇑iP       P       02 42 07.9  +0.7
      comp=E,332nm,1.0s,mb5.8
SDDR                                 LR     LR
      comp=Z,29µm,19.0s,MS5.9
CMIG  Matias Romero      27.84 329   P      P       02 42 11.1  -0.8
      comp=Z,7.6nm,0.8s,baz=146,slow=5.0,SNR=16
CMIG                                 S      S       02 46 48.5  -6.8
      comp=Z,1.5nm,0.4s,baz=225,slow=15,SNR=3.1
CMIG                                 LR     LR      02 51 02.8
      comp=Z,35µm,21.5s,MS5.9,baz=151,slow=32
FCH   Farellones         27.87 162⇑iP       P       02 42 13.5  +1.4
MDZ   Mendoza            27.95 159  eP      P       02 42 14.1  +1.3
MDZ                                  PP             02 42 54.2
MDZ                                  PPP            02 43 16.4
MDZ                                  S      S       02 47 16.4   +20
MDZ                                  SSS            02 48 51.1
MDZ                                  LR     LR      02 49 48.8
MDZ   Mendoza            27.95 159  eP      P       02 42 14.1  +1.3
MDZ                                  PPP            02 43 16.4
TEIG  Tepich             28.10 344⇑iP       P       02 42 13.7  -0.5
TEIG                                 LR     LR
      comp=Z,44µm,20.0s,MS6.0
TEIG  Tepich             28.10 344   P      P       02 42 13.1  -1.0
      comp=Z,34nm,0.7s,mb5.1,baz=191,slow=5.6,SNR=22
TEIG                                 S      S       02 46 57.7  -1.5
      comp=Z,13nm,1.1s,baz=328,slow=22,SNR=1.5
TEIG                                 LR     LR      02 52 21.4
      comp=Z,45µm,19.9s,MS6.1,baz=160,slow=34
MPR   Mayaguez           28.25  28  eP      P       02 42 15.9  +0.3
SJG   San Juan           28.64  29  eP      P       02 42 18.6  -0.4
      comp=Z,530nm,0.9s,mb6.3
SJG                                  LR     LR
      comp=Z,55µm,20.0s,MS6.2
SJG   San Juan           28.64  29  eP      P       02 42 18.6  -0.4
SJG                                  pmax   pmax
      comp=Z,530nm,0.9s
SJG                                  MLR    MLR
      comp=Z,55µm,20.0s
SJG   San Juan           28.64  29   P      P       02 42 18.7  -0.3
      comp=Z,302nm,0.8s,mb6.1,baz=215,slow=3.9,SNR=102
SJG                                  S      S       02 47 09.1  +1.3
      comp=Z,10nm,0.8s,baz=356,slow=23,SNR=2.4
SJG                                  LR     LR      02 55 26.5
      comp=Z,40µm,18.1s,MS6.1,baz=235,slow=40
CPD   Cerro la Pandu     28.69  30  eP      P       02 42 18.9  -0.6
BIM   Bigot              28.72  42  eP      P       02 42 23.6  +3.8
BBGH  Gun Hill           28.80  46   PFAKE          02 42 30.0  +9.4
BBGH                                 LR     LR
      comp=Z,81µm,21.0s,MS6.3
HUMP  Col San Antoni     28.81  30  eP      P       02 42 20.3  -0.2
FDF   Fort de France     28.83  42  eP      P       02 42 20.0  -0.7
MGV   Manicaragua        28.90   1  eP      P       02 42 22.6  +1.3
      baz=162
MGV                                 eS      S       02 46 53.1   -19
      comp=N,33nm,1.8s
MGV                                 e
      comp=E,51nm,1.8s
CBYP  Canovanas          28.92  30  eP      P       02 42 21.1  -0.4
MTP   Monte Pirata       28.92  30  eP      P       02 42 20.8  -0.8
BBL   Barber's Block     29.20  40  eP      P       02 42 24.0  -0.1
TBG   Guadaloupe-3       29.34  39  eP      P       02 42 24.0  -1.2
HMG   Houelmont          29.40  39  eP      P       02 42 25.9  +0.1
MGG   Marie-Galante      29.59  40  eP      P       02 42 26.1  -1.4
SOR   Soroa              29.68 355  eP      P       02 42 28.4  +0.2
      baz=168
SOR                                 eS      S       02 47 01.3   -23
      comp=N,8µm,7.2s
SOR                                 e
      comp=E,8µm,7.2s
DEG   La Desirade        30.05  40  eP      P       02 42 29.4  -2.2
BPA   Boggy Peak         30.12  37  eP      P       02 42 32.0  -0.2
RPN   Rapa Nui           33.97 230   PFAKE          02 43 20.0   +14
RPN                                  LR     LR
      comp=Z,61µm,20.0s,MS6.3
LPA   La Plata           34.68 146ceP       P       02 43 10.0  -2.0
LPA                                 epP     pP      02 43 18.0  +2.9
LPA                                 esP     sP      02 43 24.0  +7.7
LPA                                 ePP     PP      02 44 24.0  -6.7
LPA                                 eS      S       02 48 40.0  -1.9
LPA
      comp=Z,38µm,20.0s
DWPF  Disney             34.88 358  eP      P       02 43 13.4  -0.4
      comp=Z,110nm,0.8s,mb5.8
DWPF                                 LR     LR
      comp=Z,16µm,20.0s,MS5.8
CJM   Chamela            35.75 318  i P     P       02 43 22.1  +0.6
ZAIG  Zacatecas          36.63 324  i P     P       02 43 30.3  +1.4
KVTX  Kingsville         38.23 335  eP      P       02 43 45.8  +3.4
      comp=Z,988nm,1.3s,mb6.4
KVTX                                 LR     LR
      comp=Z,19µm,20.0s,MS5.9
BRAL  Brewton            38.29 351   PFAKE          02 43 50.0  +7.2
BRAL                                 LR     LR
      comp=Z,14µm,21.0s,MS5.8
HKT   Hockley            39.57 339⇑iP       P       02 43 54.2  +0.6
      comp=Z,385nm,1.4s,mb5.9
HKT                                  LR     LR
      comp=Z,10µm,19.0s,MS5.7
HKT   Hockley            39.57 339⇑iP       P       02 43 54.2  +0.6
HKT                                  pmax   pmax
      comp=Z,385nm,1.4s,mb5.9
HKT                                  MLR    MLR
      comp=Z,10µm,19.0s,MS5.7
NHSC  New Hope           39.85   0  eP      P       02 43 55.4  -0.4
      comp=Z,318nm,1.2s,mb5.9
NHSC                                 LR     LR
      comp=Z,24µm,20.0s,MS6.0
GOGA  Godfrey            40.26 356⇑iP       P       02 43 58.2  -1.1
      comp=Z,134nm,1.0s,mb5.6
GOGA                                 LR     LR
      comp=Z,17µm,20.0s,MS5.9
GOGA  Godfrey            40.26 356⇑iP       P       02 43 58.2  -1.0
GOGA                                 pmax   pmax
      comp=Z,134nm,1.0s,mb5.6
GOGA                                 MLR    MLR
      comp=Z,17µm,20.0s,MS5.9
LRAL  Lakeview Retre     40.26 351  eP      P       02 43 58.1  -1.2
      comp=Z,445nm,1.4s,mb6.0
LRAL                                 LR     LR
      comp=Z,13µm,21.0s,MS5.8
NATX  Nacogdoches        40.83 341⇓eP       P       02 44 04.8  +0.8
      comp=Z,415nm,1.4s,mb5.9
NATX                                 LR     LR
      comp=Z,9µm,21.0s,MS5.6
JCT   Junction City      41.60 334  eP      P       02 44 10.4   0.0
      comp=Z,372nm,1.4s,mb5.8
JCT                                  LR     LR
      comp=Z,8µm,20.0s,MS5.6
JCT   Junction City      41.60 334  eP      P       02 44 10.4   0.0
JCT                                  pmax   pmax
      comp=Z,372nm,1.4s,mb5.8
JCT                                  MLR    MLR
      comp=Z,8µm,20.0s,MS5.6
BBSR  BB Station         41.90  20  eP      P       02 44 12.9  +0.1
      comp=Z,162nm,1.1s,mb5.6
BBSR                                 LR     LR
      comp=Z,16µm,21.0s,MS5.9
CNNC  Cliffs of the      42.05   3   PFAKE          02 44 30.0   +16
CNNC                                 LR     LR
      comp=Z,17µm,21.0s,MS5.9
OXF   Oxford             42.11 349⇑iP       P       02 44 13.5  -1.0
      comp=Z,362nm,1.3s,mb5.8
OXF                                  LR     LR
      comp=Z,12µm,21.0s,MS5.7
OXF   Oxford             42.11 349⇑iP       P       02 44 13.5  -1.0
OXF                                  pmax   pmax
      comp=Z,362nm,1.3s,mb5.8
OXF                                  MLR    MLR
      comp=Z,12µm,21.0s,MS5.7
SWET  Sewanee            42.27 353⇑iP       P       02 44 14.3  -1.4
PLAL  Pickwick Lake      42.34 351⇑iP       P       02 44 15.0  -1.3
      comp=Z,149nm,1.2s,mb5.5
PLAL                                 LR     LR
      comp=Z,8µm,20.0s,MS5.6
CPCT  Cooper Cave        42.36 355  eP      P       02 44 15.7  -0.8
LTX   Lajitas            42.45 329  eP      P       02 44 18.5  +1.2
      comp=Z,72nm,1.4s,mb5.1
LTX                                  LR     LR
      comp=Z,20µm,20.0s,MS6.0
LTX   Lajitas            42.45 329  eP      P       02 44 18.5  +1.2
LTX                                  pmax   pmax
      comp=Z,72nm,1.4s,mb5.1
LTX                                  MLR    MLR
      comp=Z,20µm,20.0s,MS6.0
TXAR  Lajitas Array      42.45 329   P      P       02 44 16.6  -0.7
TXAR                                                02 46 11.0
TXAR                                 S      S       02 50 38.0  -1.3
TXAR  Lajitas Array      42.45 329   P      P       02 44 16.6  -0.8
      comp=Z,10nm,0.9s,baz=152,slow=7.8,SNR=40
TXAR                                 PcP    PcP     02 46 11.0  +0.7
      comp=Z,6.7nm,0.7s,baz=142,slow=4.5,SNR=3.1
TXAR                                 S      S       02 50 38.0  -1.3
      comp=Z,0.5nm,0.7s,baz=76,slow=8.6,SNR=2.2
TXAR                                 LR     LR      03 00 18.6
      comp=Z,17µm,19.7s,MS5.9,baz=130,slow=34
TXAR                                 PKKP           03 07 54.2
      comp=Z,0.4nm,0.5s,baz=4.0,slow=9.0,SNR=3.9
TKL   Tuckaleechee C     42.51 356   P      P       02 44 16.2  -1.5
TKL                                  S      S       02 50 35.7  -4.3
TKL   Tuckaleechee C     42.51 356   P      P       02 44 16.2  -1.5
      comp=Z,66nm,1.1s,mb5.3,baz=173,slow=5.3,SNR=18
TKL                                  S      S       02 50 35.7  -4.3
      comp=Z,6.0nm,0.9s,baz=236,slow=18,SNR=3.5
MET   Memphis--Engin     42.81 349  eP      P       02 44 19.4  -0.7
UALR  University of      43.01 346  eP      P       02 44 21.1  -0.6
      comp=Z,396nm,1.3s,mb6.0
MIAR  Mount Ida          43.11 344  eP      P       02 44 21.8  -0.9
      comp=Z,499nm,1.5s,mb6.0
MIAR                                 LR     LR
      comp=Z,11µm,20.0s,MS5.8
MIAR  Mount Ida          43.11 344   P      P       02 44 22.0  -0.6
MIAR                                 pmax   pmax
      comp=Z,500nm,1.5s,mb6.0
HBAR  Harrisburg         43.37 348  eP      P       02 44 23.4  -1.3
TZTN  Tazewell           43.38 356  eP      P       02 44 22.9  -1.8
      comp=Z,237nm,1.4s,mb5.7
TZTN                                 LR     LR
      comp=Z,19µm,19.0s,MS6.0
HALT  Halls              43.46 349  eP      P       02 44 25.9  +0.5
GNAR  Gosnell            43.64 349  eP      P       02 44 24.7  -2.2
      comp=Z,8µm,1.4s
UTMT  University of      43.80 350  eP      P       02 44 30.5  +2.4
      comp=Z,390nm,1.0s,mb6.1
GLAT  Glass              43.80 350  eP      P       02 44 28.1   0.0
BLA   Blacksburg         43.95   0  eP      P       02 44 28.9  -0.3
      comp=Z,375nm,1.6s,mb5.9
BLA                                  LR     LR
      comp=Z,17µm,21.0s,MS5.9
BLA   Blacksburg         43.95   0  eP      P       02 44 29.0  -0.3
BLA                                  pmax   pmax
      comp=Z,375nm,1.6s,mb5.9
BLA                                  MLR    MLR
      comp=Z,17µm,21.0s,MS5.9
PARMO Parma              44.27 349  eP      P       02 44 30.7  -1.2
RCBR  Riachuelo          44.27  91  eP      P       02 44 31.2  -1.2
      comp=Z,426nm,1.6s,mb5.9
RCBR                                 LR     LR
      comp=Z,87µm,19.0s,MS6.7
WMOK  Wichita Mounta     44.95 338⇑iP       P       02 44 36.8  -0.6
      comp=Z,235nm,1.4s,mb5.8
WMOK                                 LR     LR
      comp=Z,7µm,20.0s,MS5.6
WMOK  Wichita Mounta     44.95 338⇑iP       P       02 44 36.8  -0.6
WMOK                                 pmax   pmax
      comp=Z,235nm,1.4s,mb5.8
WMOK                                 MLR    MLR
      comp=Z,7µm,20.0s,MS5.6
CBN   Corbin             45.03   3  eP      P       02 44 37.6  -0.3
      comp=Z,190nm,1.0s,mb5.9
CBN                                  LR     LR
      comp=Z,13µm,21.0s,MS5.8
GDL2  Guadalupe Moun     45.13 331  eP      P       02 44 40.9  +2.0
SIUC  Southern Illin     45.20 350  eP      P       02 44 38.0  -1.3
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USIN	University of	45.20	352	*e*P	P	02 44 37.4	-1.9
MNTX	Cornudas Mount	45.23	330	*e*P	P	02 44 39.0	-0.7
	comp=Z,229nm,1.4s,mb5.8						
MNTX				LR	LR		
	comp=Z,14µm,19.0s,MS5.9						
WCI	Wyandotte Cave	45.29	354	⇑*i*P	P	02 44 38.2	-1.8
	comp=Z,92nm,0.8s,mb5.7						
WCI				LR	LR		
	comp=Z,14µm,20.0s,MS5.9						
WCI	Wyandotte Cave	45.29	354	⇑*i*P	P	02 44 38.2	-1.8
WCI				pmax	pmax		
	comp=Z,92nm,0.8s,mb5.7						
WCI				MLR	MLR		
	comp=Z,14µm,20.0s,MS5.9						
FVM	French Village	45.67	349	*e*P	P	02 44 41.3	-1.8
AMTX	Amarillo	46.20	336	PFAKE		02 45 00.0	+13
AMTX				LR	LR		
	comp=Z,8µm,22.0s,MS5.6						
BLO	Bloomington	46.25	353	*e*P	P	02 44 46.5	-1.1
	comp=Z,239nm,1.4s,mb5.9						
BLO	Bloomington	46.25	353	*e*P	P	02 44 46.5	-1.1
BLO				pmax	pmax		
	comp=Z,239nm,1.4s,mb5.9						
SDMD	Soldier's Deli	46.26	4	*e*P	P	02 44 46.9	-0.8
SLM	Saint Louis	46.27	349	*e*P	P	02 44 46.5	-1.2
	comp=Z,134nm,0.7s,mb6.0						
SLM	Saint Louis	46.27	349	*e*P	P	02 44 46.5	-1.3
SLM				pmax	pmax		
	comp=Z,134nm,0.7s,mb6.0						
MCWV	Mont Chateau	46.39	1	*e*P	P	02 44 49.6	+0.9
	comp=Z,338nm,1.9s,mb6.0						
MCWV				LR	LR		
	comp=Z,14µm,20.0s,MS5.9						
MVL	Millersville	46.88	4	*e*P	P	02 44 53.2	+0.7
ACSO	Alum Creek Sta	47.02	357	*e*P	P	02 44 51.8	-1.9
	comp=Z,122nm,0.8s,mb5.9						
ACSO				LR	LR		
	comp=Z,20µm,20.0s,MS6.1						
SSPA	Standing Stone	47.42	3	*e*P	P	02 44 56.5	-0.3
	comp=Z,824nm,2.0s,mb6.3						
SSPA				LR	LR		
	comp=Z,11µm,19.0s,MS5.8						
BNM	Barren Site	47.82	330	*e*P	P	02 45 02.2	+2.2
Y22C	IRIS PASSCAL I	47.90	330	⇓P	P	02 45 00.7	+0.1
	baz=48						
Y22C				⇑S	S	02 51 59.2	+1.1
	baz=48						
LPM	Los Pinos Moun	47.95	331	*e*P	P	02 45 02.9	+2.0
HDIL	Hopedale	47.98	351	⇑*i*P	P	02 44 59.6	-1.5
	comp=Z,891nm,1.6s,mb6.5						
HDIL				LR	LR		
	comp=Z,13µm,21.0s,MS5.9						
LENM	Lemitar	48.00	330	*e*P	P	02 45 03.3	+2.0
KSU1	Kansas State U	48.22	343	⇑*i*P	P	02 45 02.3	-0.7
	comp=Z,303nm,0.9s,mb6.3						
KSU1				LR	LR		
	comp=Z,9µm,20.0s,MS5.7						
EFI	East Falkland	48.25	161	P	P	02 45 03.0	-0.1
	comp=Z,931nm,0.9s,mb6.8,SNR=5.2						
EFI	East Falkland	48.25	161	*e*P	P	02 45 03.0	-0.1
	comp=Z,159nm,1.0s,mb6.0						
EFI				LR	LR		
	comp=Z,19µm,20.0s,MS6.1						
EFI	East Falkland	48.25	161	*e*P	P	02 45 03.0	-0.1
EFI				pmax	pmax		
	comp=Z,159nm,1.0s,mb6.0						
EFI				MLR	MLR		
	comp=Z,19µm,20.0s,MS6.1						
ALLY	Alegheny Colle	48.38	0	*e*P	P	02 45 03.5	-0.6
ANMO	Albuquerque	48.38	331	⇑*e*P	P	02 45 04.8	+0.5
	comp=Z,147nm,1.1s,mb5.9						
ANMO				LR	LR		
	comp=Z,11µm,19.0s,MS5.9						
ANMO	Albuquerque	48.38	331	⇑*e*P	P	02 45 04.4	+0.1
TUC	Tucson	48.59	325	*e*P	P	02 45 05.5	-0.5
	comp=Z,32nm,0.8s,mb5.4						
TUC				LR	LR		
	comp=Z,29µm,21.0s,MS6.2						
TUC	Tucson	48.59	325	P	P	02 45 05.6	-0.4
TUC				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.3						
USHA	Ushuaia	48.70	171	P	P	02 45 06.6	+0.1
	comp=Z,40nm,0.8s,mb5.5,baz=313,slow=4.9,SNR=17						
USHA				S	S	02 52 10.2	+1.4
	comp=Z,10nm,1.1s,baz=297,slow=3.2,SNR=2.4						
USHA				LR	LR	03 03 14.4	
	comp=Z,23µm,18.0s,MS6.2,baz=345,slow=33						
CBKS	Cedar Bluff	48.94	340	*e*P	P	02 45 08.9	+0.4
CBKS				LR	LR		
	comp=Z,12µm,22.0s,MS5.8						
AAM	Ann Arbor	49.12	357	⇑*i*P	P	02 45 08.6	-1.2
	comp=Z,201nm,1.1s,mb6.1						
AAM				LR	LR		
	comp=Z,19µm,20.0s,MS6.1						
AAM	Ann Arbor	49.12	357	⇑*i*P	P	02 45 08.6	-1.2
AAM				pmax	pmax		
	comp=Z,201nm,1.1s,mb6.1						
AAM				MLR	MLR		
	comp=Z,19µm,20.0s,MS6.1						
116A	Eloy	49.30	325	P	P	02 45 11.4	0.0
	baz=50,SNR=44						
116A				⇓S	S	02 52 18.3	+0.4
	baz=50						
115A	Sonoran Desert	49.70	324	⇑P	P	02 45 14.2	-0.3
	baz=50,SNR=21						
115A				⇓S	S	02 52 23.8	+0.2
	baz=50						
WES	Weston	49.81	9	*e*P	P	02 45 17.9	+2.8
WES				LR	LR		
	comp=Z,7µm,19.0s,MS5.7						
HRV	Harvard--Oak R	49.90	9	*e*P	P	02 45 18.4	+2.6
	comp=Z,562nm,1.7s,mb6.3						
HRV				LR	LR		
	comp=Z,10µm,20.0s,MS5.8						
HRV	Harvard--Oak R	49.90	9	*e*P	P	02 45 18.4	+2.6
HRV				pmax	pmax		
	comp=Z,562nm,1.7s,mb6.3						
HRV				MLR	MLR		
	comp=Z,10µm,20.0s,MS5.8						
SCIA	State Center	50.02	348	*e*P	P	02 45 16.2	-0.5
	comp=Z,863nm,1.2s,mb6.7						
SCIA				LR	LR		
	comp=Z,7µm,20.0s,MS5.7						
SDCO	Great Sand Dun	50.25	334	*e*P	P	02 45 18.2	-0.3
	comp=Z,96nm,1.0s,mb5.8						
SDCO				LR	LR		
	comp=Z,14µm,19.0s,MS6.0						
JFWS	Jewell Farm	50.44	351	*e*P	P	02 45 18.9	-0.9
	comp=Z,58nm,0.6s,mb5.8						
JFWS				LR	LR		
	comp=Z,7µm,20.0s,MS5.7						
JFWS	Jewell Farm	50.44	351	*e*P	P	02 45 18.9	-0.9
JFWS				pmax	pmax		
	comp=Z,58nm,0.6s,mb5.8						
JFWS				MLR	MLR		
	comp=Z,7µm,20.0s,MS5.7						
ACCN	Adirondack Com	50.49	6	*e*P	P	02 45 20.9	+0.6
Z14A	Wintersburg	50.60	324	⇓P	P	02 45 21.7	+0.4
	baz=51,SNR=16						
Z14A				⇓S	S	02 52 36.0	+0.1
	baz=51						
PTCN	Pitcairn Islan	50.68	243	PFAKE		02 45 30.0	+7.9
PTCN				LR	LR		
	comp=Z,36µm,22.0s,MS6.3						
HNH	Hanover	50.97	8	*e*P	P	02 45 25.0	+1.1
NCB	Newcomb	51.01	6	*e*P	P	02 45 25.0	+0.9
	comp=Z,376nm,1.6s,mb6.1						
NCB				LR	LR		
	comp=Z,10µm,21.0s,MS5.8						
X15A	Humboldt	51.02	326	⇓P	P	02 45 25.2	+0.8
	baz=51,SNR=31						
X15A				⇑S	S	02 52 41.3	-0.4
	baz=51						
Y14A	Wickenburg	51.05	325	P	P	02 45 24.6	-0.1
	baz=51,SNR=28						
Y14A				⇓S	S	02 52 42.2	0.0
	baz=51						
MVCO	Mesa Verde	51.18	331	*e*P	P	02 45 24.9	-0.6
	comp=Z,86nm,1.0s,mb5.6						
MVCO				LR	LR		
	comp=Z,17µm,20.0s,MS6.0						
MVCO	Mesa Verde	51.18	331	⇑P	P	02 45 26.2	+0.6
	baz=51						
MVCO				⇓S	S	02 52 44.2	+0.3
	baz=51						
WUAZ	Wupatki	51.32	328	*e*P	P	02 45 27.5	+0.9
	comp=Z,95nm,0.8s,mb5.8						
WUAZ				LR	LR		
	comp=Z,24µm,19.0s,MS6.2						
WUAZ	Wupatki	51.32	328	⇑P	P	02 45 27.7	+1.0
	baz=52						
WUAZ				⇑S	S	02 52 46.4	+0.6
	baz=52						
X14A	Yava	51.37	325	P	P	02 45 27.7	+0.7
	baz=52,SNR=32						
X14A				⇑S	S	02 52 47.4	+0.8
	baz=52						
Y13A	Salome	51.43	324	⇑P	P	02 45 27.7	+0.1
	baz=52,SNR=25						
Y13A				⇓S	S	02 52 47.8	+0.3
	baz=52						
GLA	Glamis	51.49	323	⇑P	P	02 45 28.0	0.0
	baz=52,SNR=20						
GLA				⇓S	S	02 52 48.8	+0.5
	baz=52						
LBNH	Lisbon	51.55	8	*e*P	P	02 45 29.2	+1.0
	comp=Z,285nm,1.6s,mb6.0						
LBNH				LR	LR		
	comp=Z,11µm,19.0s,MS5.9						
LBNH	Lisbon	51.55	8	*e*P	P	02 45 29.2	+1.0
LBNH				pmax	pmax		
	comp=Z,285nm,1.6s,mb6.0						
LBNH				MLR	MLR		
	comp=Z,11µm,19.0s,MS5.9						
W15A	Williams	51.55	327	⇑P	P	02 45 29.7	+1.3
	baz=52,SNR=15						
W15A				⇓S	S	02 52 49.8	+0.8
	baz=52						
LONY	Lake Ozonia	51.62	5	*e*P	P	02 45 28.1	-0.6
	comp=Z,461nm,1.6s,mb6.2						
LONY				LR	LR		
	comp=Z,7µm,20.0s,MS5.7						
GLMI	Grayling	51.69	356	PFAKE		02 45 40.0	+11
GLMI				LR	LR		
	comp=Z,9µm,19.0s,MS5.8						
Y12C	Blythe	51.80	324	P	P	02 45 31.6	+1.4
	baz=52,SNR=26						
Y12C				⇑S	S	02 52 53.2	+0.7
	baz=52						
FRNY	Flat Rock	51.93	6	*e*P	P	02 45 31.3	+0.3
PDMCI	Parker Dam,Lak	51.96	324	⇑P	P	02 45 32.4	+0.9
	baz=52,SNR=8.1						
PDMCI				⇑S	S	02 52 54.2	-0.6
	baz=52						
X13A	Yucca	51.99	325	⇑P	P	02 45 32.1	+0.4
	baz=52,SNR=22						
X13A				⇑S	S	02 52 54.8	-0.4
	baz=52						
DVTC	Desert V Tower	51.99	321	⇓P	P	02 45 31.9	+0.1
	baz=52						
DVTC				⇓S	S	02 52 56.7	+1.4
	baz=52						
SWSC	Sam W. Stewart	52.00	322	⇑P	P	02 45 31.7	-0.1
	baz=52						
SWSC				⇑S	S	02 52 57.4	+2.1
	baz=52						
ISCO	Idaho Springs	52.02	335	*e*P	P	02 45 31.8	0.0
	comp=Z,63nm,1.1s,mb5.5						
ISCO				LR	LR		
	comp=Z,12µm,20.0s,MS5.9						
ISCO	Idaho Springs	52.02	335	*e*P	P	02 45 31.8	0.0
ISCO				pmax	pmax		
	comp=Z,63nm,1.1s,mb5.5						
ISCO				MLR	MLR		
	comp=Z,12µm,20.0s,MS5.9						
W14A	Seligman	52.02	326	⇓P	P	02 45 32.6	+0.7
	baz=52,SNR=18						
W14A				⇓S	S	02 52 56.8	+1.2
	baz=52						
SMCO	Snowmass	52.08	334	*e*P	P	02 45 33.8	+1.5
	comp=Z,216nm,1.5s,mb5.9						
WVL	Waterville	52.21	10	*e*P	P	02 45 34.4	+1.4
	comp=Z,322nm,1.5s,mb6.0						
BC3	Big Chuckw Mtn	52.28	323	P	P	02 45 34.7	+0.8
	baz=52,SNR=20						
BC3				⇑S	S	02 53 01.0	+1.7
	baz=52						
MONP	Monument Peak	52.35	321	⇑P	P	02 45 35.0	+0.6
	baz=53						
MONP				⇓S	S	02 53 01.1	+0.9
	baz=53						
W13A	Hualapai Mount	52.39	325	P	P	02 45 35.0	+0.4
	baz=53,SNR=36						
W13A				⇑S	S	02 53 01.9	+1.3
	baz=53						
IRM	Iron Mountain	52.45	323	⇓P	P	02 45 35.6	+0.5
	baz=53,SNR=26						
IRM				⇓S	S	02 53 01.5	0.0
	baz=53						
ECSD	EROS,Sioux Fal	52.54	345	*e*P	P	02 45 33.2	-2.4
	comp=Z,74nm,0.8s,mb5.7						
ECSD				LR	LR		
	comp=Z,10µm,20.0s,MS5.8						
NEE2	Needles Airpor	52.57	324	⇓P	P	02 45 36.6	+0.6
	baz=53						
NEE2				⇓S	S	02 53 04.2	+1.1
	baz=53						
109C	Camp Elliot, M	52.77	321	⇓P	P	02 45 38.1	+0.6
	baz=53						
109C				⇓S	S	02 53 06.6	+0.6
	baz=53						
BELC	Belle Mtn.	52.85	323	P	P	02 45 39.4	+1.3
	baz=53,SNR=10						
BELC				⇑S	S	02 53 08.2	+1.3
	baz=53						
PFO	Pinyon Flat Ob	52.86	322	*e*P	P	02 45 39.4	+1.2
PFO				LR	LR		
	comp=Z,21µm,19.0s,MS6.2						
PFO	Pinyon Flat Ob	52.86	322	⇑P	P	02 45 38.6	+0.5
	baz=53,SNR=6.5						
PFO				⇓S	S	02 53 09.0	+1.9
	baz=53						
PKME	Peaks-Kenny Pk	52.95	10	*e*P	P	02 45 38.5	0.0
	comp=Z,700nm,1.7s,mb6.3						
PKME				LR	LR		
	comp=Z,13µm,19.0s,MS6.0						
T15A	Red Dirt Ranch	52.98	328	⇑P	P	02 45 39.8	+0.8
	baz=53,SNR=16						
T15A				⇑S	S	02 53 09.9	+1.2
	baz=53						
W12A	Cal Nev Ari	53.09	325	⇑P	P	02 45 40.6	+0.8
	baz=53						
W12A				⇑S	S	02 53 11.2	+0.9
	baz=53						
GMRC	Granite Mounta	53.19	324	⇑P	P	02 45 41.4	+0.8
	baz=53,SNR=13						
GMRC				⇑S	S	02 53 12.2	+0.6
	baz=53						
PHWY	Pilot Hill	53.23	337	*e*P	P	02 45 41.4	+0.7
MURC	Murrieta	53.31	321	⇑P	P	02 45 41.6	+0.1
	baz=54,SNR=6.2						
MURC				⇓S	S	02 53 14.3	+1.0
	baz=54						
T14A	Hurricane	53.39	327	P	P	02 45 43.0	+1.0
	baz=54,SNR=21						
T14A				⇓S	S	02 53 16.6	+2.4
	baz=54						
V12A	Nelson	53.39	325	P	P	02 45 42.3	+0.3
	baz=54,SNR=25						
V12A				⇑S	S	02 53 13.4	-0.9
	baz=54						
COWI	Conover	53.40	352	*e*P	P	02 45 40.4	-1.5
	comp=Z,1µm,2.5s,mb6.4						
COWI				LR	LR		
	comp=Z,13µm,20.0s,MS6.0						
BBRC	Big Bear Sol-O	53.59	322	⇓P	P	02 45 44.7	+1.3
	baz=54						
BBRC				⇑S	S	02 53 17.4	+0.4
	baz=54						
HEC	Hector,Ludlow	53.62	323	⇓P	P	02 45 44.7	+1.0
	baz=54,SNR=18						
HEC				⇓S	S	02 53 18.8	+1.4
	baz=54						
SRU	San Rafael	53.66	331	*e*P	P	02 45 44.1	+0.2
	comp=Z,184nm,1.3s,mb5.8						
SRU	San Rafael	53.66	331	P	P	02 45 45.1	+1.2
SRU				pmax	pmax		
	comp=Z,180nm,1.3s,mb5.8						
U12A	Valley of Fire	53.72	326	⇓P	P	02 45 45.3	+0.9
	baz=54,SNR=15						
U12A				⇓S	S	02 53 19.3	+0.6
	baz=54						
SCI	San Clemente I	53.75	320	⇑P	P	02 45 45.8	+1.1
	baz=54						
SCI				⇑S	S	02 53 19.9	+0.6
	baz=54						
V11A	Goodsprings	53.80	325	⇓P	P	02 45 46.1	+1.1
	baz=54,SNR=19						
V11A				⇓S	S	02 53 19.8	0.0
	baz=54						
T13A	Saint George	53.80	327	⇑P	P	02 45 45.5	+0.5
	baz=54,SNR=22						
T13A				⇓S	S	02 53 22.4	+2.6
	baz=54						
TUQ	Turquoise Mtn.	53.80	324	⇑P	P	02 45 45.8	+0.8
	baz=54,SNR=31						
TUQ				⇓S	S	02 53 19.8	-0.1
	baz=54						
CCUT	Cedar City	53.90	328	*e*P	P	02 45 46.3	+0.6
CIS	Catalina Islan	53.93	320	⇑P	P	02 45 45.3	-0.7
	baz=54						
CIS				⇑S	S	02 53 22.0	+0.2
	baz=54						
S14A	Cedar City	53.95	328	⇓P	P	02 45 46.6	+0.5
	baz=54,SNR=15						
S14A				⇓S	S	02 53 24.2	+2.4
	baz=54						
MSU	Marysvale	54.01	329	*e*P	P	02 45 47.3	+0.8
BFSC	Mount Baldy St	54.02	322	⇓P	P	02 45 46.5	-0.2
	baz=54,SNR=5.7						
BFSC				⇓S	S	02 53 25.1	+2.2
	baz=54						
T12A	Moapa	54.03	326	⇑P	P	02 45 47.3	+0.7
	baz=54						
T12A				⇑S	S	02 53 23.6	+0.7
	baz=54						
RRX	Edison Barstow	54.05	323	⇓P	P	02 45 48.1	+1.2
	baz=54						
RRX				⇓S	S	02 53 24.3	+1.0
	baz=54						
FMP	Fort Macarthur	54.06	321	⇓P	P	02 45 46.8	-0.2
	baz=54						
FMP				⇑S	S	02 53 25.0	+1.5
	baz=54						
ARUT	Antelope Range	54.12	328	*e*P	P	02 45 47.6	+0.3
ARUT	Antelope Range	54.12	328	P	P	02 45 48.0	+0.7
SHPR	Sheep Range	54.12	326	*e*P	P	02 45 47.9	+0.6
TMUT	Trail Mountain	54.13	331	*e*P	P	02 45 49.2	+1.8
S13A	Holt Ranch, En	54.19	327	P	P	02 45 48.4	+0.5
	baz=54,SNR=40						
S13A				⇓S	S	02 53 28.3	+3.3
	baz=54						
U11A	Corn Creek	54.19	325	⇑P	P	02 45 48.2	+0.3
	baz=54						
U11A				⇓S	S	02 53 26.1	+1.1
	baz=54						
GSC	Goldstone	54.23	323	⇓P	P	02 45 48.1	-0.1
	baz=54,SNR=12						
GSC				⇑S	S	02 53 26.3	+0.7
	baz=54						
RWWY	Rawlins	54.26	335	*e*P	P	02 45 47.8	-0.5
	comp=Z,351nm,1.4s,mb6.1						
SHOC	Shoshone	54.33	324	⇓P	P	02 45 49.4	+0.5
	baz=55						
SHOC				⇓S	S	02 53 28.1	+1.1
	baz=55						
DECC	Green Verdugo	54.44	321	⇑P	P	02 45 50.4	+0.6
	baz=55						
DECC				⇓S	S	02 53 30.9	+2.3
	baz=55						
SNCC	San Nicolas Is	54.55	320	⇑P	P	02 45 51.2	+0.7
	baz=55						
SNCC				⇑S	S	02 53 31.5	+1.5
	baz=55						
EDW2	Edwards Air Fo	54.65	322	⇓P	P	02 45 51.4	+0.1
	baz=55,SNR=7.9						
EDW2				⇑S	S	02 53 31.1	-0.3
	baz=55						
T11A	Corn Creek, Al	54.68	326	⇑P	P	02 45 52.0	+0.6
	baz=55						
T11A				⇓S	S	02 53 32.2	+0.5
	baz=55						
U10A	Ash Meadows, A	54.72	325	⇑P	P	02 45 52.3	+0.5
	baz=55,SNR=6.7						
U10A				⇓S	S	02 53 34.1	+1.8
	baz=55						
RKT	Rikitea	54.73	247	*e*S	S	02 53 28.9	-4.0
	comp=Z,24µm,27.2s						
RKT				*e*SS	SS	02 57 13.8	-2.3
	comp=Z,6µm,27.5s						
RKT				*e*LQ		02 59 29.2	
	comp=Z,9µm,33.5s						
RKT				*e*LR	LR	03 01 49.6	
	comp=Z,55µm,26.5s,baz=82						
RKT	Rikitea	54.73	247	*e*P	P	02 45 52.0	-0.1
	comp=Z,163nm,1.1s,mb6.0						
RKT				*e*S	S	02 53 28.9	-4.0
RKT				*e*SS	SS	02 57 13.8	-2.3
RKT				*e*LQ		02 59 29.2	
RKT	Rikitea	54.73	247	*e*P	P	02 45 52.0	-0.1
RKT				*e*S	S	02 53 28.9	-4.0
RKT				*e*SS	SS	02 57 13.8	-2.3
RKT				pmax	pmax		
	comp=Z,163nm,1.1s,mb6.0						
S12A	Delamar Landin	54.74	327	⇓P	P	02 45 52.8	+0.9
	baz=55						
S12A				⇑S	S	02 53 34.4	+1.9
	baz=55						
BLG	Laguna Peak	54.81	321	⇓P	P	02 45 51.9	-0.5
	baz=55						
BLG				⇓S	S	02 53 32.4	-1.1
	baz=55						
LRMC	Laurel Mountai	54.87	323	⇑P	P	02 45 52.5	-0.4
	baz=55,SNR=15						
LRMC				⇓S	S	02 53 34.0	-0.3
	baz=55						
MPU	Maple Canyon	54.90	331	*e*P	P	02 45 53.6	+0.6
	comp=Z,38nm,0.9s,mb5.4						
MPU				LR	LR		
	comp=Z,29µm,22.0s,MS6.3						
OSI	Osito Adit	54.93	321	⇑P	P	02 45 53.3	0.0
	baz=55						
OSI				⇓S	S	02 53 34.4	-0.7
	baz=55						
DAU	Daniels Canyon	55.02	331	*e*P	P	02 45 54.9	+1.1
DAU	Daniels Canyon	55.02	331	*e*P	P	02 45 57.3	+3.4
TPNV	Topopah Spring	55.05	325	*e*P	P	02 45 55.5	+1.4
	comp=Z,37nm,0.9s,mb5.4						
TPNV				LR	LR		
	comp=Z,11µm,22.0s,MS5.9						
TPNV	Topopah Spring	55.05	325	*e*P	P	02 45 55.5	+1.4
TPNV				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.4						
TPNV				MLR	MLR		
	comp=Z,11µm,22.0s,MS5.9						
TPNV	Topopah Spring	55.05	325	⇑P	P	02 45 54.2	+0.1
	baz=55						
TPNV				⇑S	S	02 53 36.8	+0.2
	baz=55						
FURC	Furnace Creek,	55.06	324	⇓P	P	02 45 53.9	-0.3
	baz=55,SNR=18						
FURC				⇓S	S	02 53 36.6	-0.3
	baz=55						
NLU	North Lily Min	55.06	331	*e*P	P	02 45 54.0	-0.2
BSC	Santa Cruz Isl	55.09	320	⇓P	P	02 45 53.9	-0.6
	baz=55						
R12A	Pony Springs,	55.13	327	⇑P	P	02 45 56.2	+1.5
	baz=55,SNR=21						
R12A				⇑S	S	02 53 40.4	+2.6
	baz=55						
MPMC	Manual Prospec	55.15	324	⇑P	P	02 45 55.3	+0.4
	baz=55,SNR=18						
MPMC				⇓S	S	02 53 39.5	+1.5
	baz=55						
S11A	Rachel	55.26	326	⇓P	P	02 45 56.5	+0.9
	baz=56,SNR=17						
S11A				⇑S	S	02 53 41.2	+1.7
	baz=56						
JLU	Jordanelle	55.27	331	*e*P	P	02 45 55.9	+0.3
ARVC	Arvin	55.33	322	⇓P	P	02 45 57.0	+0.8
	baz=56,SNR=8.5						
ARVC				⇓S	S	02 53 40.8	+0.3
	baz=56						
DAC	Darwin (Calif)	55.36	324	*e*P	P	02 45 56.8	+0.4
	comp=Z,18nm,0.8s,mb5.2						
DAC				LR	LR		
	comp=Z,15µm,19.0s,MS6.1						
DAC	Darwin (Calif)	55.36	324	*e*P	P	02 45 56.8	+0.4
DAC				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
DAC				MLR	MLR		
	comp=Z,15µm,19.0s,MS6.1						

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SBC   Santa Barbara     55.43 321 ⇑P      P     02 45 58.4 +1.5
      baz=56
SBC                               ⇓S      S     02 53 42.1 +0.2
      baz=56
ISA   Isabella          55.47 322 ⇓P      P     02 45 58.0 +0.9
      baz=56,SNR=11
ISA                               ⇑S      S     02 53 42.8 +0.5
      baz=56
CTU   Camp Tracy        55.48 331 eP      P     02 45 59.5 +2.3
EYMN  Ely               55.54 351 eP      P     02 45 56.0 -1.4
      comp=Z,181nm,1.3s,mb5.9
EYMN                               LR     LR
      comp=Z,10µm,20.0s,MS5.9
DUG   Dugway            55.61 330 eP      P     02 45 58.1  0.0
      comp=Z,222nm,1.5s,mb6.0
DUG                                LR     LR
      comp=Z,16µm,19.0s,MS6.1
DUG   Dugway            55.61 330 eP      P     02 45 58.1  0.0
DUG                                pmax   pmax
      comp=Z,222nm,1.5s,mb6.0
DUG                                MLR    MLR
      comp=Z,16µm,19.0s,MS6.1
DUG   Dugway            55.61 330 ⇓P      P     02 45 59.2 +1.1
      baz=56
DUG                               ⇓S      S     02 53 44.3 +0.2
      baz=56
NOQ   North Oquirrh     55.62 331 eP      P     02 46 00.9 +2.7
TRCR  Troy Canyon       55.68 327 eP      P     02 45 59.0 +0.4
GRAC  Grapevine Rang    55.73 324 ⇓P      P     02 45 59.7 +0.7
      baz=56
GRAC                              ⇑S      S     02 53 46.5 +0.8
      baz=56
CWC   Cottonwood Cre    55.76 323 ⇑P      P     02 45 59.6 +0.4
      baz=56,SNR=11
CWC                               ⇑S      S     02 53 47.7 +1.6
      baz=56
Q12A  Willow Creek R    55.77 328 ⇓P      P     02 45 60.0 +0.7
      baz=56,SNR=12
Q12A                              ⇓S      S     02 53 47.4 +1.1
      baz=56
PKM   Peak Mountain     55.79 321 ⇑P      P     02 45 59.9 +0.4
      baz=56
PKM                               ⇓S      S     02 53 46.4 -0.3
      baz=56
S10A  Tonopah Range,    55.93 326  P      P     02 46 00.7 +0.2
      baz=56,SNR=32
S10A                              ⇓S      S     02 53 48.7 +0.3
      baz=56
VES   Vestal, Richgr    55.95 322 ⇓P      P     02 46 00.7 +0.1
      baz=56,SNR=16
VES                               ⇑S      S     02 53 49.8 +1.0
      baz=56
R10A  Warm Springs      56.03 326 ⇓P      P     02 46 01.7 +0.6
      baz=56,SNR=18
R10A                              ⇓S      S     02 53 50.8 +1.2
      baz=56
Q11A  Duckwater         56.07 327  P      P     02 46 01.5 +0.1
      baz=56,SNR=44
Q11A                              ⇓S      S     02 53 52.2 +2.0
      baz=56
HWUT  Hardware Ranch    56.11 332 eP      P     02 46 00.6 -1.0
      comp=Z,195nm,1.1s,mb6.0
HWUT                               LR     LR
      comp=Z,24µm,21.0s,MS6.3
P12A  McGill            56.13 328  P      P     02 46 02.3 +0.4
      baz=56,SNR=25
P12A                              ⇓S      S     02 53 52.0 +1.0
      baz=56
BW06  Boulder Array     56.14 334 eP      P     02 46 00.8 -1.1
      comp=Z,90nm,1.4s,mb5.6
BW06                               LR     LR
      comp=Z,21µm,20.0s,MS6.2
PDAR  Pinedale Array    56.14 334  P      P     02 46 00.5 -1.3
PDAR                               S      S     02 53 47.2 -3.7
PDAR                               LR     LR    03 09 46.6
PDAR                              ⇑e            03 16 06.1
PDAR  Pinedale Array    56.14 334  P      P     02 46 00.5 -1.3
      comp=Z,12nm,0.9s,mb4.9,baz=131,slow=8.3,SNR=51
PDAR                               S      S     02 53 47.2 -3.7
      comp=Z,0.5nm,0.9s,baz=103,slow=6.7,SNR=2.5
PDAR                               LR     LR    03 09 46.6
      comp=Z,19µm,18.9s,MS6.2,baz=149,slow=36
PDAR                               PKP2bc       03 16 06.1
      comp=Z,1.2nm,1.0s,baz=20,slow=4.7,SNR=5.4
S09A  Goldfield         56.15 325 ⇓P      P     02 46 01.7 -0.3
      baz=56,SNR=23
S09A                              ⇓S      S     02 53 53.0 +1.7
      baz=56
SMMC  Simmler           56.17 321 ⇓P      P     02 46 02.2  0.0
      baz=56,SNR=7.0
SMMC                              ⇑S      S     02 53 52.6 +0.9
      baz=56
TIN   Tinemaha          56.26 324 ⇓P      P     02 46 02.5 -0.4
      baz=56
TIN                               ⇑S      S     02 53 52.7 -0.1
      baz=56
BGU   Big Grassy Mou    56.27 331 eP      P     02 46 03.7 +0.9
SPUT  South Promonto    56.29 331 eP      P     02 46 04.3 +1.4
RCTC  Rector, Farmer    56.36 323 ⇑P      P     02 46 03.4 -0.2
      baz=57
RCTC                              ⇑S      S     02 53 54.0 -0.2
      baz=57
TPH   Tonopah           56.39 325 eP      P     02 46 03.6 -0.1
      comp=Z,66nm,1.1s,mb5.6
TPH                                LR     LR
      comp=Z,12µm,21.0s,MS6.0
TPH   Tonopah           56.39 325 eP      P     02 46 07.0 +3.3
M15A  Larsen Ranch,     56.41 331 ⇑P      P     02 46 04.2 +0.4
      baz=57,SNR=9.0
M15A                              ⇓S      S     02 53 55.2 +0.6
      baz=57
R09A  Tonopah           56.42 326 ⇑P      P     02 46 04.5 +0.5
      baz=57,SNR=22
R09A                              ⇓S      S     02 53 54.3 -0.6
      baz=57
Q10A  Clear Creek Ra    56.46 327  P      P     02 46 04.6 +0.4
      baz=57,SNR=30
Q10A                              ⇓S      S     02 53 57.4 +2.0
      baz=57
V05C  Boulder Hill,     56.48 322 ⇓P      P     02 46 04.6 +0.2
      baz=57
V05C                              ⇑S      S     02 53 56.9 +1.2
      baz=57
HELL  Mitchell Peak,    56.48 323 ⇓P      P     02 46 04.5 +0.1
      baz=57,SNR=22
HELL                              ⇓S      S     02 53 55.6 -0.1
      baz=57
S08C  White Mtn Res     56.53 324 ⇓P      P     02 46 04.7 -0.1
      baz=57,SNR=27
S08C                              ⇑S      S     02 53 57.4 +1.0
      baz=57
O12A  Currie            56.64 329 ⇓P      P     02 46 05.9 +0.5
      baz=57,SNR=16
O12A                              ⇓S      S     02 53 59.8 +2.1
      baz=57
P11A  Circle Ranch,     56.64 328 ⇑P      P     02 46 05.6 +0.1
      baz=57
P11A                              ⇑S      S     02 53 58.7 +1.0
      baz=57
MTUM  Tungsten Hills    56.66 324 eP      P     02 46 07.4 +1.8
AGMN  Agassiz Refuge    56.68 348 eP      P     02 46 03.9 -1.7
      comp=Z,140nm,0.7s,mb6.1
AGMN                               LR     LR
      comp=Z,12µm,21.0s,MS6.0
N13A  Wendover, West    56.80 330 ⇑P      P     02 46 06.6  0.0
      baz=57,SNR=14
N13A                              ⇓S      S     02 54 00.3 +0.5
      baz=57
HVU   Hansel Valley     56.81 331 eP      P     02 46 05.9 -0.7
      comp=Z,58nm,0.9s,mb5.6
HVU   Hansel Valley     56.81 331  P      P     02 46 06.4 -0.2
HVU                                pmax   pmax
      comp=Z,58nm,0.9s,mb5.6
AHID  Auburn Hatcher    56.81 333 eP      P     02 46 05.7 -0.9
      comp=Z,219nm,1.5s,mb6.0
AHID                               LR     LR
      comp=Z,20µm,20.0s,MS6.2
M14A  Sheep Mountain    56.87 331  P      P     02 46 06.2 -0.8
      baz=57,SNR=34
M14A                              ⇓S      S     02 54 01.2 +0.5
      baz=57
Q09A  Carvers           56.90 326 ⇑P      P     02 46 07.6 +0.3
      baz=57
Q09A                              ⇓S      S     02 54 03.2 +2.0
      baz=57
U05C  Westside ANR,     56.91 322 ⇓P      P     02 46 06.5 -1.0
      baz=57
U05C                              ⇑S      S     02 54 02.4 +0.9
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      baz=57
PKD   Parkfield         56.92 321 ⇑P      P     02 46 07.5 -0.1
      baz=57,SNR=6.9
PKD                               ⇓S      S     02 54 02.1 +0.5
      baz=57
V04C  Ramage Ranch,     56.93 321 ⇓P      P     02 46 08.5 +0.9
      baz=57
V04C                              ⇑S      S     02 54 02.8 +1.1
      baz=57
MLAC  Mammoth Lakes     57.01 324 ⇓P      P     02 46 08.8 +0.6
      baz=57
MLAC                              ⇑S      S     02 54 02.8 +0.1
      baz=57
O11A  Cowboy Ranch,     57.01 328 ⇑P      P     02 46 08.7 +0.7
      baz=57,SNR=18
O11A                              ⇓S      S     02 54 03.8 +1.2
      baz=57
P10A  Eureka            57.07 327  P      P     02 46 09.3 +0.8
      baz=57,SNR=15
P10A                              ⇓S      S     02 54 04.8 +1.4
      baz=57
R08A  Mina              57.08 325 ⇓P      P     02 46 08.3 -0.3
      baz=57
R08A                              ⇓S      S     02 54 03.8 +0.1
      baz=57
KCC   Kaiser Creek      57.09 323 ⇑P      P     02 46 08.0 -0.7
      baz=57,SNR=9.3
KCC                               ⇑S      S     02 54 02.3 -1.4
      baz=57
T06C  Millerton Lake    57.11 323 ⇓P      P     02 46 07.9 -1.0
      baz=57,SNR=8.6
T06C                              ⇓S      S     02 54 01.7 -2.3
      baz=57
M13A  Montello          57.16 330 ⇑P      P     02 46 08.9 -0.3
      baz=57,SNR=14
M13A                              ⇑S      S     02 54 04.9 +0.3
      baz=57
REDW  Red Top Meadow    57.18 334 eP      P     02 46 08.6 -0.6
N12A  Clover Valley,    57.22 329 ⇑P      P     02 46 09.8 +0.2
      baz=58,SNR=16
N12A                              ⇓S      S     02 54 06.0 +0.6
      baz=58
ELK   Elko              57.24 329 eP      P     02 46 09.6 -0.1
      comp=Z,57nm,0.8s,mb5.7
ELK                                LR     LR
      comp=Z,23µm,20.0s,MS6.3
ELK   Elko              57.24 329  P      P     02 46 10.2 +0.5
ELK                                pmax   pmax
      comp=Z,57nm,0.8s
NVAR  Mina Array Bea    57.25 325  P      P     02 46 09.3 -0.5
NVAR                               S      S     02 54 06.0 +0.2
NVAR                              ⇑e            03 16 08.7
NVAR  Mina Array Bea    57.25 325  P      P     02 46 09.3 -0.5
      comp=Z,16nm,1.0s,mb5.0,baz=136,slow=7.4,SNR=27
NVAR                               S      S     02 54 06.0 +0.2
      comp=Z,0.5nm,0.5s,baz=352,slow=40,SNR=2.4
NVAR                               PKP2bc       03 16 08.7
      comp=Z,0.8nm,0.7s,baz=336,slow=2.3,SNR=3.6
LOHW  Long Hollow       57.27 334 eP      P     02 46 08.8 -1.1
      comp=Z,32nm,0.8s,mb5.4
Q08A  Gabbs             57.34 326  P      P     02 46 10.1 -0.3
      baz=58,SNR=20
Q08A                              ⇓S      S     02 54 08.0 +1.0
      baz=58
U04C  Hernandez Rese    57.34 322 ⇓P      P     02 46 10.2 -0.3
      baz=58,SNR=12
U04C                              ⇑S      S     02 54 06.8 -0.3
      baz=58
P09A  Austin            57.38 327 ⇓P      P     02 46 11.0 +0.3
      baz=58
P09A                              ⇓S      S     02 54 07.7 +0.1
      baz=58
V03C  Hunter Liggett    57.40 321 ⇑P      P     02 46 11.1 +0.2
      baz=58,SNR=7.1
V03C                              ⇑S      S     02 54 08.6 +0.6
      baz=58
R07C  Lee Vining        57.44 324 ⇓P      P     02 46 11.8 +0.6
      baz=58
R07C                              ⇓S      S     02 54 09.7 +1.3
      baz=58
MOOW  Moose Ponds       57.44 334 eP      P     02 46 10.6 -0.5
DCID1 Drake Creek       57.51 334 eP      P     02 46 11.4 -0.2
N11A  Elko Archery C    57.55 329 ⇓P      P     02 46 12.1 +0.2
      baz=58
N11A                              ⇑S      S     02 54 10.7 +1.0
      baz=58
O10A  Cortez Mining,    57.57 328 ⇓P      P     02 46 12.4 +0.4
      baz=58,SNR=28
O10A                              ⇑S      S     02 54 10.4 +0.5
      baz=58
M12A  Wells             57.58 330 ⇓P      P     02 46 12.0  0.0
      baz=58,SNR=20
M12A                              ⇓S      S     02 54 09.6 -0.5
      baz=58
K14A  Jones Ranch, D    57.59 332 ⇑P      P     02 46 11.4 -0.7
      baz=58,SNR=28
K14A                              ⇓S      S     02 54 09.7 -0.4
      baz=58
L13A  Double Diamond    57.60 331 ⇑P      P     02 46 12.3  0.0
      baz=58,SNR=17
L13A                              ⇑S      S     02 54 10.9 +0.5
      baz=58
T05C  Eagle Field, D    57.62 322 ⇓P      P     02 46 12.2 -0.3
      baz=58
T05C                              ⇑S      S     02 54 09.8 -1.0
      baz=58
S05C  Merced            57.70 323 ⇓P      P     02 46 12.8 -0.2
      baz=58
S05C                              ⇑S      S     02 54 10.4 -1.4
      baz=58
S06C  San Francisco     57.77 324 ⇑P      P     02 46 14.1 +0.6
      baz=58,SNR=21
S06C                              ⇓S      S     02 54 12.0 -0.8
      baz=58
HAST  UC Hastings Re    57.83 321 ⇓P      P     02 46 14.4 +0.4
      baz=58,SNR=10
HAST                              ⇑S      S     02 54 14.0 +0.4
      baz=58
O09A  Fish Creek Ran    57.85 327 ⇑P      P     02 46 14.1 +0.1
      baz=58,SNR=22
O09A                              ⇓S      S     02 54 13.8 +0.1
      baz=58
N10A  Dunphy            57.88 328 ⇓P      P     02 46 14.1 -0.1
      baz=58,SNR=12
N10A                              ⇓S      S     02 54 15.8 +1.7
      baz=58
Q07A  Schurz            57.88 325 ⇓P      P     02 46 15.0 +0.7
      baz=58
Q07A                              ⇓S      S     02 54 13.5 -0.6
      baz=58
RLMT  Red Lodge         57.95 336 eP      P     02 46 13.4 -1.2
      comp=Z,64nm,1.0s,mb5.6
RLMT                               LR     LR
      comp=Z,14µm,19.0s,MS6.1
WAKR  Walker            57.95 324 eP      P     02 46 15.4 +0.6
LKWY  Lake              57.96 335 eP      P     02 46 15.9 +1.2
      comp=Z,236nm,1.8s,mb5.9
LKWY                               LR     LR
      comp=Z,29µm,20.0s,MS6.4
LKWY  Lake              57.96 335  P      P     02 46 16.8 +2.1
LKWY                               pmax   pmax
      comp=Z,240nm,1.7s,mb6.0
R06C  Coleville         57.97 324 ⇑P      P     02 46 15.3 +0.4
      baz=58,SNR=15
R06C                              ⇑S      S     02 54 15.5 +0.2
      baz=58
P08A  Dixie Valley      58.00 326 ⇑P      P     02 46 15.6 +0.5
      baz=58
P08A                              ⇓S      S     02 54 15.8 +0.1
      baz=58
SAO   San Andreas Ge    58.01 322 eP      P     02 46 16.8 +1.6
      comp=Z,102nm,1.4s,mb5.7
SAO                                LR     LR
      comp=Z,10µm,20.0s,MS5.9
SAO   San Andreas Ge    58.01 322 eP      P     02 46 16.8 +1.6
SAO                                pmax   pmax
      comp=Z,102nm,1.4s,mb5.7
SAO                                MLR    MLR
      comp=Z,10µm,20.0s,MS5.9
M11A  Holland Ranch,    58.03 329 ⇑P      P     02 46 14.9 -0.3
      baz=58,SNR=23
M11A                              ⇓S      S     02 54 15.5 -0.5
      baz=58
YFT   Old Faithful      58.05 335 eP      P     02 46 16.5 +1.2
BMN   Battle Mountai    58.05 327 eP      P     02 46 15.4 -0.1
      comp=Z,123nm,1.4s,mb5.7
BMN                                LR     LR
      comp=Z,18µm,21.0s,MS6.2
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BMN   Battle Mountai    58.05 327  P      P     02 46 15.8 +0.4
BMN                                pmax   pmax
      comp=Z,120nm,1.3s,mb5.8
PACP  Pacheco Peak      58.06 322 ⇓P      P     02 46 14.8 -0.8
      baz=58,SNR=12
PACP                              ⇓S      S     02 54 17.4 +0.8
      baz=58
K13A  Stover Farm, H    58.10 331 ⇓P      P     02 46 15.7  0.0
      baz=58,SNR=14
K13A                              ⇑S      S     02 54 17.8 +0.9
      baz=58
LAO   LASA Array        58.13 339 eP      P     02 46 16.1 +0.2
      comp=Z,264nm,1.6s,mb6.0
LAO                                LR     LR
      comp=Z,12µm,20.0s,MS6.0
L12A  House Creek Ra    58.17 330 ⇑P      P     02 46 16.2  0.0
      baz=58,SNR=14
L12A                              ⇓S      S     02 54 17.9 +0.1
      baz=58
CMB   Columbia Colle    58.19 323 eP      P     02 46 17.4 +0.9
      comp=Z,48nm,1.2s,mb5.4
CMB                                LR     LR
      comp=Z,11µm,22.0s,MS5.9
CMB   Columbia Colle    58.19 323  P      P     02 46 17.5 +1.1
CMB                                pmax   pmax
      comp=Z,48nm,1.2s,mb5.4
CMB   Columbia Colle    58.19 323 ⇓P      P     02 46 16.2 -0.2
      baz=58
CMB                               ⇓S      S     02 54 17.7 -0.6
      baz=58
YNR   Norris Junctio    58.19 335 eP      P     02 46 18.8 +2.5
YMR   Madison River     58.28 335 eP      P     02 46 18.1 +1.2
      comp=Z,68nm,0.8s,mb5.7
YMR                                LR     LR
      comp=Z,19µm,20.0s,MS6.2
P07A  Fallon            58.34 326 ⇓P      P     02 46 17.4 -0.1
      baz=59
P07A                              ⇑S      S     02 54 20.9 +0.8
      baz=59
S04C  Ingram Canyon,    58.41 322 ⇑P      P     02 46 18.2 +0.2
      baz=59
S04C                              ⇑S      S     02 54 21.6 +0.5
      baz=59
R05C  Kirkwood Meado    58.45 324 ⇓P      P     02 46 18.6 +0.3
      baz=59,SNR=23
R05C                              ⇑S      S     02 54 22.6 +1.0
      baz=59
O08A  Rochester Mine    58.46 327 ⇑P      P     02 46 18.0 -0.3
      baz=59
O08A                              ⇑S      S     02 54 21.4 -0.2
      baz=59
M10A  I.L. Ranch, Tu    58.48 329 ⇑P      P     02 46 18.3 -0.1
      baz=59,SNR=13
M10A                              ⇓S      S     02 54 22.4 +0.5
      baz=59
K12A  Draper Farm, C    58.48 331  P      P     02 46 18.0 -0.4
      baz=59,SNR=40
K12A                              ⇑S      S     02 54 23.2 +1.3
      baz=59
N09A  Rock Creek Ran    58.51 328 ⇓P      P     02 46 19.0 +0.3
      baz=59
N09A                              ⇑S      S     02 54 22.6 +0.2
      baz=59
ULM   Lac du Bonnet     58.53 348 eP      P     02 46 16.4 -2.2
      comp=Z,118nm,0.9s,mb5.9
ULM                                LR     LR
      comp=Z,17µm,22.0s,MS6.1
ULM   Lac du Bonnet     58.53 348  P      P     02 46 16.4 -2.2
      comp=Z,28nm,0.8s,mb5.4,baz=159,slow=7.1,SNR=39
ULM                                S      S     02 54 18.3 -3.9
      comp=Z,3.5nm,1.1s,baz=56,slow=22,SNR=3.0
L11A  Cat Creek Ranc    58.55 330  P      P     02 46 18.6 -0.3
      baz=59,SNR=36
L11A                              ⇓S      S     02 54 24.3 +1.5
      baz=59
QLMT  Earthquake Lak    58.60 335 eP      P     02 46 20.6 +1.4
R04C  Big Horse Ranc    58.66 323 ⇑P      P     02 46 19.2 -0.5
      baz=59,SNR=14
R04C                              ⇑S      S     02 54 25.8 +1.4
      baz=59
WCN   Washoe City       58.67 325 ⇓P      P     02 46 20.7 +0.9
      baz=59
WCN                               ⇓S      S     02 54 24.5 +0.1
      baz=59
BNLO  Ben Lomond (Sa    58.69 321 ⇑P      P     02 46 19.1 -0.9
      baz=59
BNLO                              ⇑S      S     02 54 25.2 +0.4
      baz=59
J13A  Cove Ranch, Pi    58.71 332  P      P     02 46 19.6 -0.4
      baz=59,SNR=36
J13A                              ⇑S      S     02 54 25.5 +0.7
      baz=59
PAHR  Pah Rah Range     58.73 325 eP      P     02 46 22.7 +2.4
WENL  Wente Brothers    58.74 322 ⇑P      P     02 46 20.0 -0.3
      baz=59
WENL                              ⇓S      S     02 54 25.6 +0.1
      baz=59
O07A  Toulon            58.76 326  P      P     02 46 20.4 -0.1
      baz=59,SNR=21
O07A                              ⇓S      S     02 54 25.3 -0.4
      baz=59
N08A  GE Springer Mi    58.79 327 ⇑P      P     02 46 19.8 -0.8
      baz=59,SNR=15
N08A                              ⇓S      S     02 54 25.1 -0.8
      baz=59
L10A  Juniper Basin     58.85 329  P      P     02 46 20.7 -0.2
      baz=59,SNR=35
L10A                              ⇑S      S     02 54 27.0 +0.4
      baz=59
PMSA  Palmer Station    58.87 172  PFAKE        02 46 30.0 +9.2
PMSA                               LR     LR
      comp=Z,10µm,19.0s,MS6.0
LAVA  Lava Cap Winer    58.87 324 ⇑P      P     02 46 21.0 -0.2
      baz=59,SNR=8.1
LAVA                              ⇑S      S     02 54 26.6 -0.5
      baz=59
M09A  Marrel Ranch,     58.88 328 ⇓P      P     02 46 21.3 +0.1
      baz=59,SNR=17
M09A                              ⇑S      S     02 54 27.9 +0.8
      baz=59
JRSC  Jasper Ridge      58.90 322 ⇓P      P     02 46 21.1 -0.4
      baz=59
JRSC                              ⇓S      S     02 54 26.6 -0.8
      baz=59
HLID  Hailey            58.95 332 eP      P     02 46 21.6  0.0
      comp=Z,103nm,1.1s,mb5.8
HLID                               LR     LR
      comp=Z,9µm,21.0s,MS5.8
HLID  Hailey            58.95 332 ⇑P      P     02 46 22.4 +0.8
      baz=59
HLID                              ⇑S      S     02 54 28.9 +1.0
      baz=59
P06A  Stead Airport,    59.01 325 ⇑P      P     02 46 21.7 -0.4
      baz=59
P06A                              ⇓S      S     02 54 29.3 +0.5
      baz=59
DGMT  Dagmar            59.02 342 eP      P     02 46 22.5 +0.6
      comp=Z,690nm,1.9s,mb6.4
DGMT                               LR     LR
      comp=Z,6µm,20.0s,MS5.7
BDM   Black Diamond     59.02 322 ⇓P      P     02 46 22.5 +0.2
      baz=59
BDM                               ⇓S      S     02 54 29.3 +0.2
      baz=59
J12A  Stokes Ranch,     59.04 331  P      P     02 46 22.4 +0.2
      baz=59,SNR=25
J12A                              ⇑S      S     02 54 29.5 +0.4
      baz=59
I13A  Wildhorse Cree    59.08 332  P      P     02 46 22.4 -0.1
      baz=59,SNR=55
I13A                              ⇑S      S     02 54 29.8 +0.2
      baz=59
TAOE  Nuku Hiva Isla    59.11 264 ePP     PP    02 48 32.2 -1.9
      comp=Z,3µm,27.5s
TAOE  Nuku Hiva Isla    59.11 264 eS      S     02 54 26.6 -4.5
      comp=Z,99µm,25.7s
TAOE                              eLR     LR    03 03 46.6
      comp=Z,114µm,25.3s,baz=91
K11A  Parker Ranch,     59.14 330 ⇑P      P     02 46 23.4 +0.4
      baz=59,SNR=43
K11A                              ⇑S      S     02 54 30.5 +0.1
      baz=59
P05C  Yuba Gap, Truc    59.16 324 ⇓P      P     02 46 23.8 +0.6
      baz=59,SNR=21
P05C                              ⇓S      S     02 54 31.4 +0.6
      baz=59
N07B  Gerlach           59.24 327 ⇑P      P     02 46 23.2 -0.6
      baz=60,SNR=14
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N07B				⇑S	**S**	**02 54 31.7**	**-0.1**
	baz=60						
O06A	**Flanigan**	**59.30**	**326**	⇓P	**P**	**02 46 24.0**	**-0.1**
	baz=60,SNR=16						
O06A				⇓S	**S**	**02 54 32.0**	**-0.5**
	baz=60						
Q04C	**Lincoln**	**59.30**	**323**	⇓P	**P**	**02 46 24.7**	**+0.5**
	baz=60						
Q04C				⇑S	**S**	**02 54 32.3**	**-0.4**
	baz=60						
G15A	**Dillon**	**59.33**	**334**	⇑P	**P**	**02 46 23.8**	**-0.4**
	baz=60,SNR=20						
G15A				⇓S	**S**	**02 54 31.9**	**-0.8**
	baz=60						
BOZ	**Bozeman (W)**	**59.34**	**335**	*e*P	**P**	**02 46 23.0**	**-1.3**
	comp=Z,124nm,1.3s,mb5.8						
BOZ				LR	LR		
	comp=Z,15µm,19.0s,MS6.1						
BOZ	**Bozeman (W)**	**59.34**	**335**	*e*P	**P**	**02 46 23.0**	**-1.3**
BOZ				pmax	pmax		
	comp=Z,124nm,1.3s,mb5.8						
BOZ				MLR	MLR		
	comp=Z,15µm,19.0s,MS6.1						
BOZ	**Bozeman (W)**	**59.34**	**335**	⇓P	**P**	**02 46 24.4**	**+0.1**
	baz=60						
BOZ				⇑S	**S**	**02 54 30.7**	**-2.2**
	baz=60						
M08A	**Happy Creek Ra**	**59.39**	**328**	⇑P	**P**	**02 46 24.2**	**-0.5**
	baz=60,SNR=24						
M08A				⇓S	**S**	**02 54 33.1**	**-0.6**
	baz=60						
BEKR	**Beckwourth**	**59.39**	**325**	P	**P**	**02 46 24.9**	**+0.1**
	baz=60,SNR=30						
BEKR				⇑S	**S**	**02 54 33.7**	**-0.1**
	baz=60						
L09A	**Wilkinson Ranc**	**59.42**	**328**	P	**P**	**02 46 24.4**	**-0.6**
	baz=60,SNR=47						
L09A				⇑S	**S**	**02 54 33.4**	**-0.7**
	baz=60						
MFID	**Camas Ranch**	**59.52**	**331**	P	**P**	**02 46 25.2**	**-0.4**
	baz=60,SNR=57						
MFID				⇓S	**S**	**02 54 35.5**	**+0.3**
	baz=60						
DLMT	**Dillon**	**59.53**	**334**	*e*P	**P**	**02 46 26.5**	**+0.9**
	comp=Z,131nm,1.2s,mb5.8						
FARB	**Farallon Islan**	**59.55**	**322**	⇑P	**P**	**02 46 25.5**	**-0.4**
	baz=60						
FARB				⇓S	**S**	**02 54 34.6**	**-1.4**
	baz=60						
K10A	**MacKenzie Ranc**	**59.56**	**330**	P	**P**	**02 46 25.4**	**-0.5**
	baz=60,SNR=41						
K10A				⇓S	**S**	**02 54 35.1**	**-0.8**
	baz=60						
CVS	**Carmenet Viney**	**59.63**	**322**	⇑P	**P**	**02 46 23.8**	**-2.7**
	baz=60						
CVS				⇓S	**S**	**02 54 37.3**	**+0.3**
	baz=60						
H13A	**Challis**	**59.64**	**333**	⇑P	**P**	**02 46 25.9**	**-0.5**
	baz=60,SNR=30						
H13A				⇑S	**S**	**02 54 35.1**	**-1.8**
	baz=60						
OHCM	**Honcut**	**59.69**	**324**	*e*P	**P**	**02 46 27.2**	**+0.4**
N06A	**Buffalo Meadow**	**59.70**	**326**	P	**P**	**02 46 26.6**	**-0.3**
	baz=60,SNR=58						
N06A				⇓S	**S**	**02 54 38.6**	**+0.9**
	baz=60						
MCCM	**Marconi Confer**	**59.76**	**322**	PFAKE		02 46 40.0	+13
MCCM				LR	LR		
	comp=Z,10µm,20.0s,MS6.0						
MCCM	**Marconi Confer**	**59.76**	**322**	⇓P	**P**	**02 46 26.5**	**-0.9**
	baz=60						
MCCM				⇓S	**S**	**02 54 37.4**	**-1.2**
	baz=60						
M07A	**Soldier Meadow**	**59.77**	**327**	⇓P	**P**	**02 46 26.8**	**-0.6**
	baz=60,SNR=15						
M07A				⇑S	**S**	**02 54 37.8**	**-0.9**
	baz=60						
O05C	**Quincy**	**59.78**	**325**	⇑P	**P**	**02 46 27.0**	**-0.5**
	baz=60,SNR=15						
O05C				⇓S	**S**	**02 54 39.1**	**+0.3**
	baz=60						
G14A	**Jackson**	**59.81**	**334**	⇓P	**P**	**02 46 26.9**	**-0.7**
	baz=60,SNR=11						
G14A				⇓S	**S**	**02 54 36.6**	**-2.4**
	baz=60						
LRM	**Limekiln Ridge**	**59.83**	**335**	*e*P	**P**	**02 46 27.6**	**-0.1**
ORV	**Oroville**	**59.84**	**324**	P	**P**	**02 46 28.0**	**+0.1**
	baz=60,SNR=40						
ORV				⇑S	**S**	**02 54 40.2**	**+0.6**
	baz=60						
F15A	**Butte**	**59.86**	**335**	⇑P	**P**	**02 46 27.8**	**-0.1**
	baz=60,SNR=16						
F15A				⇑S	**S**	**02 54 37.7**	**-1.9**
	baz=60						
L08A	**Fields**	**59.90**	**328**	P	**P**	**02 46 27.8**	**-0.4**
	baz=60,SNR=43						
L08A				⇑S	**S**	**02 54 39.7**	**-0.5**
	baz=60						
H12A	**Diamond D Ranc**	**59.91**	**332**	⇑P	**P**	**02 46 28.0**	**-0.3**
	baz=60,SNR=34						
H12A				⇑S	**S**	**02 54 40.3**	**+0.1**
	baz=60						
K09A	**Rome**	**59.94**	**329**	P	**P**	**02 46 28.1**	**-0.4**
	baz=60,SNR=94						
K09A				⇑S	**S**	**02 54 41.1**	**+0.4**
	baz=60						
I11A	**Placerville**	**59.95**	**331**	⇑P	**P**	**02 46 28.2**	**-0.3**
	baz=60,SNR=31						
I11A				⇑S	**S**	**02 54 41.3**	**+0.4**
	baz=60						
MNRC	**McLaughlin Nat**	**59.96**	**323**	⇑P	**P**	**02 46 28.1**	**-0.6**
	baz=60						
MNRC				⇓S	**S**	**02 54 42.3**	**+1.1**
	baz=60						
J10A	**Berg Farm, Mel**	**59.99**	**330**	⇑P	**P**	**02 46 28.4**	**-0.4**
	baz=60						
J10A				⇑S	**S**	**02 54 41.5**	**+0.2**
	baz=60						
G13A	**Cobalt**	**60.04**	**333**	P	**P**	**02 46 28.9**	**-0.3**
	baz=60,SNR=27						
G13A				⇑S	**S**	**02 54 40.9**	**-1.0**
	baz=60						
ELFS	**Eagle Lake Fie**	**60.11**	**325**	⇓P	**P**	**02 46 29.3**	**-0.4**
	baz=60						
ELFS				⇑S	**S**	**02 54 43.1**	**+0.1**
	baz=60						
O04C	**Chester**	**60.11**	**325**	⇑P	**P**	**02 46 29.8**	**+0.1**
	baz=60,SNR=18						
O04C				⇓S	**S**	**02 54 42.4**	**-0.6**
	baz=60						
F14A	**Wisdom**	**60.22**	**334**	⇓P	**P**	**02 46 30.7**	**+0.3**
	baz=60,SNR=14						
F14A				⇓S	**S**	**02 54 43.5**	**-0.6**
	baz=60						
WVOR	**Wild Horse Val**	**60.22**	**328**	*e*P	**P**	**02 46 29.8**	**-0.6**
	comp=Z,147nm,1.4s,mb5.8						
WVOR				LR	LR		
	comp=Z,18µm,21.0s,MS6.2						
WVOR	**Wild Horse Val**	**60.22**	**328**	*e*P	**P**	**02 46 29.8**	**-0.6**
WVOR				pmax	pmax		
	comp=Z,147nm,1.4s,mb5.8						
WVOR				MLR	MLR		
	comp=Z,18µm,21.0s,MS6.2						
L07A	**Adell**	**60.30**	**327**	⇑P	**P**	**02 46 30.4**	**-0.6**
	baz=61,SNR=12						
L07A				⇑S	**S**	**02 54 43.8**	**-1.6**
	baz=61						
K08A	**Mann Creek Ran**	**60.35**	**329**	⇓P	**P**	**02 46 31.4**	**0.0**
	baz=61,SNR=18						
K08A				⇓S	**S**	**02 54 45.6**	**-0.4**
	baz=61						
M06C	**Likely Place G**	**60.36**	**326**	⇓P	**P**	**02 46 31.8**	**+0.4**
	baz=61,SNR=11						
M06C				⇓S	**S**	**02 54 45.6**	**-0.7**
	baz=61						
E15A	**Deer Lodge**	**60.39**	**335**	⇑P	**P**	**02 46 30.8**	**-0.7**
	baz=61,SNR=14						
E15A				⇑S	**S**	**02 54 45.1**	**-1.3**
	baz=61						
HOPS	**Hopland**	**60.41**	**323**	*e*P	**P**	**02 46 33.9**	**+2.0**
	comp=Z,130nm,1.3s,mb5.8						
HOPS				LR	LR		
	comp=Z,13µm,20.0s,MS6.1						
HOPS	**Hopland**	**60.41**	**323**	⇑P	**P**	**02 46 32.2**	**+0.4**
	baz=61						
HOPS				⇑S	**S**	**02 54 48.5**	**+1.5**
	baz=61						
J09A	**Fry Pan Ranch,**	**60.42**	**329**	⇑P	**P**	**02 46 31.6**	**-0.2**
	baz=61,SNR=25						
J09A				⇑S	**S**	**02 54 46.1**	**-0.8**
	baz=61						
O03C	**Acorn Hollow,**	**60.44**	**324**	⇑P	**P**	**02 46 32.0**	**0.0**
	baz=61						
O03C				⇓S	**S**	**02 54 45.0**	**-2.4**
	baz=61						
I10A	**Payette**	**60.49**	**331**	⇑P	**P**	**02 46 32.4**	**+0.1**
	baz=61,SNR=14						
I10A				⇓S	**S**	**02 54 47.3**	**-0.4**
	baz=61						
EGMT	**Eagleton**	**60.54**	**338**	*e*P	**P**	**02 46 32.1**	**-0.4**
	comp=Z,120nm,1.1s,mb5.9						
EGMT				LR	LR		
	comp=Z,9µm,20.0s,MS5.9						
EGMT	**Eagleton**	**60.54**	**338**	⇑P	**P**	**02 46 32.0**	**-0.5**
	baz=61						
EGMT				⇑S	**S**	**02 54 46.2**	**-2.0**
	baz=61						
H11A	**Donnelly**	**60.57**	**332**	⇑P	**P**	**02 46 32.4**	**-0.3**
	baz=61,SNR=16						
H11A				⇑S	**S**	**02 54 47.9**	**-0.8**
	baz=61						
F13A	**Darby**	**60.62**	**333**	⇑P	**P**	**02 46 33.1**	**0.0**
	baz=61,SNR=26						
F13A				⇓S	**S**	**02 54 48.0**	**-1.4**
	baz=61						
GASB	**Alder Springs**	**60.62**	**323**	⇓P	**P**	**02 46 32.9**	**-0.3**
	baz=61,SNR=13						
GASB				⇓S	**S**	**02 54 48.6**	**-1.1**
	baz=61						
HATC	**Hat Creek Radi**	**60.66**	**325**	⇑P	**P**	**02 46 33.7**	**+0.3**
	baz=61,SNR=10						
HATC				⇓S	**S**	**02 54 49.6**	**-0.4**
	baz=61						
K07A	**Rock Creek Ran**	**60.72**	**328**	⇓P	**P**	**02 46 34.1**	**+0.2**
	baz=61,SNR=10						
K07A				⇓S	**S**	**02 54 49.1**	**-1.7**
	baz=61						
MOD	**Modoc**	**60.74**	**327**	*e*P	**P**	**02 46 33.5**	**-0.5**
	comp=Z,170nm,1.4s,mb6.0						
MOD				LR	LR		
	comp=Z,7µm,20.0s,MS5.8						
MOD	**Modoc**	**60.74**	**327**	⇑P	**P**	**02 46 32.4**	**-1.6**
	baz=61,SNR=43						
MOD				⇓S	**S**	**02 54 50.9**	**-0.1**
	baz=61						
E14A	**Clinton**	**60.74**	**334**	P	**P**	**02 46 33.5**	**-0.4**
	baz=61,SNR=20						
E14A				⇑S	**S**	**02 54 49.9**	**-1.0**
	baz=61						
J08A	**Circle Bar Ran**	**60.80**	**329**	⇓P	**P**	**02 46 33.6**	**-0.7**
	baz=61,SNR=13						
J08A				⇓S	**S**	**02 54 51.1**	**-0.6**
	baz=61						
D15A	**Lincoln**	**60.83**	**335**	⇑P	**P**	**02 46 33.3**	**-1.2**
	baz=61						
D15A				⇓S	**S**	**02 54 51.2**	**-0.8**
	baz=61						
H10A	**Noah's Angus R**	**60.83**	**331**	⇑P	**P**	**02 46 33.9**	**-0.6**
	baz=61,SNR=15						
H10A				⇓S	**S**	**02 54 50.0**	**-2.1**
	baz=61						
M05C	**Lookout**	**60.84**	**326**	P	**P**	**02 46 34.2**	**-0.5**
	baz=61,SNR=38						
M05C				⇓S	**S**	**02 54 52.6**	**+0.3**
	baz=61						
I09A	**Lost Marbles R**	**60.87**	**330**	⇓P	**P**	**02 46 33.9**	**-0.9**
	baz=61,SNR=8.4						
I09A				⇑S	**S**	**02 54 51.6**	**-1.0**
	baz=61						
P01C	**Double 8 Ranch**	**60.88**	**323**	⇓P	**P**	**02 46 33.3**	**-1.7**
	baz=61						
P01C				⇓S	**S**	**02 54 53.7**	**+0.9**
	baz=61						
O02C	**Red Bluff**	**61.00**	**324**	⇓P	**P**	**02 46 35.2**	**-0.6**
	baz=61						
O02C				⇑S	**S**	**02 54 51.5**	**-2.9**
	baz=61						
F12A	**Elk City**	**61.01**	**333**	⇑P	**P**	**02 46 35.5**	**-0.3**
	baz=61,SNR=37						
F12A				⇑S	**S**	**02 54 51.6**	**-2.7**
	baz=61						
CHMT	**Chamberlain Mo**	**61.03**	**335**	*e*P	**P**	**02 46 36.6**	**+0.8**
E13A	**Victor**	**61.06**	**334**	⇑P	**P**	**02 46 35.4**	**-0.7**
	baz=61,SNR=20						
E13A				⇓S	**S**	**02 54 53.8**	**-1.2**
	baz=61						
WDC	**Whiskeytown Da**	**61.12**	**324**	*e*P	**P**	**02 46 35.0**	**-1.6**
	comp=Z,63nm,1.4s,mb5.5						
WDC				LR	LR		
	comp=Z,6µm,21.0s,MS5.7						
WDC	**Whiskeytown Da**	**61.12**	**324**	P	**P**	**02 46 36.4**	**-0.2**
WDC				pmax	pmax		
	comp=Z,63nm,1.3s,mb5.6						
WDC	**Whiskeytown Da**	**61.12**	**324**	⇓P	**P**	**02 46 34.5**	**-2.1**
	baz=61						
WDC				⇑S	**S**	**02 54 50.9**	**-5.0**
	baz=61						
L05A	**Lakeview**	**61.13**	**327**	⇓P	**P**	**02 46 35.7**	**-0.9**
	baz=61,SNR=26						
L05A				⇑S	**S**	**02 54 55.6**	**-0.4**
	baz=61						
J07A	**Hines**	**61.24**	**329**	⇓P	**P**	**02 46 37.3**	**0.0**
	baz=62						
J07A				⇓S	**S**	**02 54 56.4**	**-0.9**
	baz=62						
I08A	**Drewsey**	**61.24**	**329**	⇑P	**P**	**02 46 36.6**	**-0.7**
	baz=62,SNR=14						
I08A				⇑S	**S**	**02 54 56.5**	**-0.8**
	baz=62						
MSO	**Missoula**	**61.26**	**334**	*e*P	**P**	**02 46 36.9**	**-0.5**
	comp=Z,127nm,1.3s,mb5.9						
MSO				LR	LR		
	comp=Z,9µm,20.0s,MS5.9						
D14A	**Greenough**	**61.27**	**335**	⇑P	**P**	**02 46 37.0**	**-0.4**
	baz=62,SNR=10						
D14A				⇓S	**S**	**02 54 55.9**	**-1.7**
	baz=62						
BMO	**Blue Mountains**	**61.30**	**331**	*e*P	**P**	**02 46 37.0**	**-0.7**
	comp=Z,85nm,1.5s,mb5.7						
BMO				LR	LR		
	comp=Z,9µm,22.0s,MS5.9						
K06A	**Valley Falls**	**61.33**	**328**	⇓P	**P**	**02 46 37.6**	**-0.3**
	baz=62,SNR=20						
K06A				⇓S	**S**	**02 54 58.1**	**-0.5**
	baz=62						
M03C	**McCloud**	**61.33**	**325**	⇓P	**P**	**02 46 37.0**	**-1.0**
	baz=62						
M03C				⇓S	**S**	**02 54 55.9**	**-2.7**
	baz=62						
H09A	**Durkee**	**61.33**	**331**	⇓P	**P**	**02 46 37.3**	**-0.7**
	baz=62,SNR=13						
H09A				⇓S	**S**	**02 54 56.8**	**-1.7**
	baz=62						
M04C	**Macdoel**	**61.51**	**326**	⇑P	**P**	**02 46 38.2**	**-1.0**
	baz=62,SNR=15						
M04C				⇓S	**S**	**02 55 00.2**	**-0.6**
	baz=62						
F11A	**Grangeville**	**61.52**	**332**	⇑P	**P**	**02 46 38.4**	**-0.8**
	baz=62,SNR=25						
F11A				⇓S	**S**	**02 54 57.1**	**-3.7**
	baz=62						
O01C	**Eel River Cons**	**61.59**	**323**	⇑P	**P**	**02 46 39.1**	**-0.6**
	baz=62						
O01C				⇓S	**S**	**02 55 02.0**	**+0.1**
	baz=62						
J06A	**Christmas Vall**	**61.59**	**328**	⇓P	**P**	**02 46 39.4**	**-0.3**
	baz=62,SNR=20						
J06A				⇓S	**S**	**02 55 01.6**	**-0.3**
	baz=62						
D13A	**Huson**	**61.69**	**334**	⇓P	**P**	**02 46 40.6**	**+0.3**
	baz=62,SNR=15						
D13A				⇓S	**S**	**02 55 01.8**	**-1.1**
	baz=62						
H08A	**Prairie City**	**61.72**	**330**	P	**P**	**02 46 41.0**	**+0.4**
	baz=62,SNR=34						
H08A				⇑S	**S**	**02 55 02.5**	**-0.9**
	baz=62						
HOG	**Hogback Mounta**	**61.74**	**326**	P	**P**	**02 46 42.6**	**+1.9**
L04A	**Klamath Falls**	**61.80**	**326**	⇓P	**P**	**02 46 40.5**	**-0.7**
	baz=62,SNR=13						
L04A				⇓S	**S**	**02 55 03.2**	**-1.3**
	baz=62						
M02C	**Callahan**	**61.83**	**325**	⇑P	**P**	**02 46 40.6**	**-0.8**
	baz=62,SNR=10.0						
M02C				⇑S	**S**	**02 55 00.9**	**-4.0**
	baz=62						
I07A	**Izee**	**61.83**	**329**	⇑P	**P**	**02 46 41.9**	**+0.5**
	baz=62,SNR=17						
I07A				⇑S	**S**	**02 55 03.6**	**-1.3**
	baz=62						
E11A	**Bogner Ranch,**	**61.90**	**333**	⇓P	**P**	**02 46 40.6**	**-1.1**
	baz=62,SNR=25						
E11A				⇑S	**S**	**02 55 01.8**	**-3.9**
	baz=62						
YBH	**Yreka Blue Hor**	**61.97**	**325**	*e*P	**P**	**02 46 40.0**	**-2.3**
	comp=Z,39nm,0.9s,mb5.5						
YBH				LR	LR		
	comp=Z,10µm,19.0s,MS6.0						
YBH	**Yreka Blue Hor**	**61.97**	**325**	P	**P**	**02 46 40.9**	**-1.4**
YBH				pmax	pmax		
	comp=Z,39nm,0.9s						
YBH	**Yreka Blue Hor**	**61.97**	**325**	⇑P	**P**	**02 46 40.8**	**-1.5**
	baz=62,SNR=11						
YBH				⇓S	**S**	**02 55 03.6**	**-3.0**
	baz=62						
K04A	**Chilquin**	**62.00**	**327**	⇓P	**P**	**02 46 42.9**	**+0.3**
	baz=62						
K04A				⇑S	**S**	**02 55 06.0**	**-1.1**
	baz=62						
F10A	**Beach Ranch, E**	**62.09**	**332**	⇑P	**P**	**02 46 43.1**	**+0.1**
	baz=62,SNR=39						
F10A				⇑S	**S**	**02 55 07.5**	**-0.5**
	baz=62						
I06A	**Prineville**	**62.10**	**328**	P	**P**	**02 46 43.0**	**-0.1**
	baz=62,SNR=38						
I06A				⇓S	**S**	**02 55 09.2**	**+0.9**
	baz=62						
JCC	**Jacoby Creek**	**62.14**	**324**	⇑P	**P**	**02 46 42.1**	**-1.4**
	baz=62						
JCC				⇓S	**S**	**02 55 07.8**	**-1.1**
	baz=62						
J05A	**Fort Rock**	**62.19**	**327**	⇑P	**P**	**02 46 44.1**	**+0.4**
	baz=62,SNR=16						
J05A				⇑S	**S**	**02 55 08.6**	**-0.7**
	baz=62						
C13A	**Hot Springs**	**62.19**	**335**	⇑P	**P**	**02 46 44.0**	**+0.3**
	baz=62,SNR=17						
C13A				⇓S	**S**	**02 55 08.3**	**-1.0**
	baz=62						
F09A	**S2 Ranch, Elgi**	**62.21**	**331**	P	**P**	**02 46 44.3**	**+0.4**
	baz=62,SNR=19						
F09A				⇑S	**S**	**02 55 09.3**	**-0.3**
	baz=62						
E10A	**Myers Farm, Un**	**62.41**	**332**	⇓P	**P**	**02 46 45.1**	**-0.1**
	baz=63,SNR=13						
E10A				⇓S	**S**	**02 55 09.3**	**-2.8**
	baz=63						
BSMT	**Bassoo Peak**	**62.42**	**335**	P	**P**	**02 46 46.7**	**+1.5**
G08A	**Pilot Rock**	**62.42**	**330**	P	**P**	**02 46 45.1**	**-0.2**
	baz=63,SNR=41						
G08A				⇑S	**S**	**02 55 11.0**	**-1.2**
	baz=63						
D11A	**Klaveano Farm,**	**62.48**	**333**	P	**P**	**02 46 46.0**	**+0.4**
	baz=63,SNR=8.5						
D11A				⇓S	**S**	**02 55 10.1**	**-2.8**
	baz=63						
SCHQ	**Schefferville**	**62.62**	**9**	*e*P	**P**	**02 46 44.2**	**-2.2**
	comp=Z,365nm,1.7s,mb6.2						
SCHQ				LR	LR		
	comp=Z,8µm,19.0s,MS5.9						
SCHQ	**Schefferville**	**62.62**	**9**	P	**P**	**02 46 44.3**	**-2.0**
	comp=Z,14nm,0.8s,mb5.2,baz=186,slow=5.1,SNR=18						
SCHQ				S	**S**	**02 55 08.9**	**-5.4**
	comp=Z,2.4nm,0.9s,baz=258,slow=18,SNR=2.8						
SCHQ				LR	LR	03 12 46.5	
	comp=Z,5µm,21.8s,MS5.7,baz=191,slow=35						
J04A	**Umpqua Nationa**	**62.63**	**327**	⇑P	**P**	**02 46 47.0**	**+0.3**
	baz=63,SNR=12						
J04A				⇑S	**S**	**02 55 14.7**	**-0.3**
	baz=63						
HUMO	**Hull Mountain**	**62.68**	**326**	*e*P	**P**	**02 46 46.5**	**-0.5**
	comp=Z,16nm,0.8s,mb5.2						
HUMO				LR	LR		
	comp=Z,9µm,19.0s,MS5.9						
HUMO	**Hull Mountain**	**62.68**	**326**	⇑P	**P**	**02 46 46.0**	**-1.0**
	baz=63						
HUMO				⇓S	**S**	**02 55 10.8**	**-4.8**
	baz=63						
B13A	**Whitefish**	**62.69**	**335**	⇓P	**P**	**02 46 46.8**	**-0.2**
	baz=63,SNR=13						
B13A				⇑S	**S**	**02 55 14.0**	**-1.5**
	baz=63						
VIPM	**Ingram Point**	**62.70**	**329**	P	**P**	**02 46 48.7**	**+1.5**
H06A	**Lindquist Farm**	**62.72**	**329**	⇓P	**P**	**02 46 47.7**	**+0.5**
	baz=63						
H06A				⇓S	**S**	**02 55 16.4**	**+0.4**
	baz=63						
L02A	**Cave Junction**	**62.75**	**325**	⇓P	**P**	**02 46 45.7**	**-1.8**
	baz=63						
L02A				⇓S	**S**	**02 55 15.0**	**-1.5**
	baz=63						
G07A	**Ruggs Ranch, H**	**62.75**	**330**	⇑P	**P**	**02 46 47.5**	**0.0**
	baz=63,SNR=13						
G07A				⇑S	**S**	**02 55 15.3**	**-1.1**
	baz=63						
I05A	**Bend**	**62.80**	**328**	⇓P	**P**	**02 46 48.3**	**+0.4**
	baz=63						
I05A				⇓S	**S**	**02 55 18.3**	**+1.2**
	baz=63						
M01C	**Crescent City**	**62.85**	**325**	⇑P	**P**	**02 46 46.3**	**-1.9**
	baz=63						
M01C				⇑S	**S**	**02 55 16.3**	**-1.4**
	baz=63						
D10A	**Wagner Farm, O**	**62.91**	**333**	P	**P**	**02 46 47.6**	**-0.9**
	baz=63,SNR=16						
D10A				⇑S	**S**	**02 55 17.8**	**-0.5**
	baz=63						
E09A	**Wood Farm, Sta**	**62.91**	**332**	⇑P	**P**	**02 46 48.4**	**-0.2**
	baz=63,SNR=15						
E09A				⇑S	**S**	**02 55 17.5**	**-0.9**
	baz=63						
K02A	**Glendale**	**63.08**	**326**	⇑P	**P**	**02 46 49.7**	**0.0**
	baz=63,SNR=14						
K02A				⇓S	**S**	**02 55 18.6**	**-2.0**
	baz=63						
H05A	**Madras**	**63.12**	**328**	⇓P	**P**	**02 46 50.1**	**+0.2**
	baz=63						
H05A				⇓S	**S**	**02 55 21.4**	**+0.4**
	baz=63						
I04A	**Tendick Farm,**	**63.16**	**327**	⇑P	**P**	**02 46 49.8**	**-0.4**
	baz=63						
I04A				⇑S	**S**	**02 55 18.9**	**-2.7**
	baz=63						
J03A	**Ideyld Park**	**63.18**	**326**	⇓P	**P**	**02 46 49.9**	**-0.5**
	baz=63						
J03A				⇓S	**S**	**02 55 18.7**	**-3.2**
	baz=63						
G06A	**Carlson Farm,**	**63.22**	**329**	⇓P	**P**	**02 46 50.3**	**-0.3**
	baz=64,SNR=12						
G06A				⇓S	**S**	**02 55 23.2**	**+0.9**
	baz=64						
B12A	**Libby**	**63.23**	**335**	⇑P	**P**	**02 46 50.8**	**+0.2**
	baz=64,SNR=9.4						
B12A				⇓S	**S**	**02 55 21.4**	**-0.9**
	baz=64						
F07A	**Phinny Hill Vi**	**63.33**	**330**	⇓P	**P**	**02 46 52.3**	**+1.0**
	baz=64						
F07A				⇓S	**S**	**02 55 23.6**	**0.0**
	baz=64						
E08A	**Dider Farm, El**	**63.33**	**331**	⇓P	**P**	**02 46 50.3**	**-1.0**
	baz=64						
E08A				⇑S	**S**	**02 55 23.0**	**-0.7**
	baz=64						
D09A	**Jones Farm, Ri**	**63.39**	**332**	⇑P	**P**	**02 46 52.0**	**+0.3**
	baz=64,SNR=10						
D09A				⇑S	**S**	**02 55 23.4**	**-1.0**
	baz=64						
HAWA	**Hanford**	**63.49**	**331**	*e*P	**P**	**02 46 52.0**	**-0.4**
	comp=Z,239nm,1.8s,mb6.0						
HAWA				LR	LR		
	comp=Z,10µm,19.0s,MS6.0						
C10A	**Spilker Farm,**	**63.49**	**333**	⇑P	**P**	**02 46 52.5**	**+0.1**
	baz=64						
C10A				⇓S	**S**	**02 55 25.1**	**-0.4**
	baz=64						
J02A	**Umpqua**	**63.52**	**326**	⇓P	**P**	**02 46 52.1**	**-0.5**
	baz=64,SNR=12						
J02A				⇓S	**S**	**02 55 25.0**	**-1.1**
	baz=64						
B11A	**Sandpoint**	**63.55**	**334**	⇓P	**P**	**02 46 52.3**	**-0.3**
	baz=64,SNR=18						
B11A				⇑S	**S**	**02 55 26.6**	**+0.4**
	baz=64						
G05A	**Wamic**	**63.57**	**329**	⇓P	**P**	**02 46 53.1**	**+0.2**

	baz=64						
G05A				⇑S	S	02 55 27.9	+1.2
	baz=64						
A12A	Yaak River Ran	63.62	335	⇑P	P	02 46 53.6	+0.5
	baz=64,SNR=14						
A12A				⇑S	S	02 55 25.7	-1.4
	baz=64						
H04A	Detroit Lake	63.64	328	⇑P	P	02 46 53.0	-0.4
	baz=64,SNR=14						
H04A				⇓S	S	02 55 25.9	-1.7
	baz=64						
K01A	Sixes	63.66	325	⇑S	S	02 55 26.9	-0.9
	baz=64						
F06A	Goldendale	63.66	330	⇑P	P	02 46 53.5	-0.1
	baz=64,SNR=9.2						
F06A				⇓S	S	02 55 28.9	+1.1
	baz=64						
D08A	Wollman Farm,	63.67	332	⇑P	P	02 46 54.1	+0.6
	baz=64,SNR=9.0						
D08A				⇓S	S	02 55 28.4	+0.5
	baz=64						
NEW	Newport	63.74	334	*e*P	P	02 46 53.2	-0.8
	comp=Z,220nm,1.7s,mb5.9						
NEW				LR	LR		
	comp=Z,13µm,19.0s,MS6.1						
NEW	Newport	63.74	334	*e*P	P	02 46 53.2	-0.8
NEW				pmax	pmax		
	comp=Z,220nm,1.7s						
NEW				MLR	MLR		
	comp=Z,13µm,19.0s						
I03A	Eugene	63.75	327	⇓P	P	02 46 53.9	-0.2
	baz=64						
I03A				⇑S	S	02 55 27.6	-1.4
	baz=64						
E07A	Sunnyside	63.76	331	⇑P	P	02 46 54.4	+0.3
	baz=64,SNR=16						
E07A				⇓S	S	02 55 27.9	-1.1
	baz=64						
B10A	Chitwood Farm,	63.82	334	⇑P	P	02 46 54.9	+0.4
	baz=64						
B10A				⇓S	S	02 55 27.3	-2.3
	baz=64						
OD2	Odessa Site #2	63.82	332	P	P	02 46 55.6	+1.1
A11A	Hall Mountain,	63.94	335	P	P	02 46 55.5	+0.2
	baz=64,SNR=25						
A11A				⇓S	S	02 55 31.2	+0.1
	baz=64						
FFC	Flin Flon	64.05	346	P	P	02 46 55.6	-0.3
	comp=Z,181nm,1.4s,mb5.9,SNR=8.3						
FFC	Flin Flon	64.05	346	*e*P	P	02 46 53.8	-2.0
	comp=Z,13nm,2.0s,mb4.6						
FFC				LR	LR		
	comp=Z,15µm,21.0s,MS6.2						
FFC	Flin Flon	64.05	346	*e*P	P	02 46 53.8	-2.1
FFC				pmax	pmax		
	comp=Z,13nm,2.0s,mb4.6						
FFC				MLR	MLR		
	comp=Z,15µm,21.0s,MS6.2						
I02A	Mapleton	64.07	327	⇓P	P	02 46 53.9	-2.3
	baz=64						
I02A				⇓S	S	02 55 32.5	-0.5
	baz=64						
F05A	White Salmon	64.08	329	⇑P	P	02 46 55.4	-0.9
	baz=64						
F05A				⇑S	S	02 55 34.4	+1.4
	baz=64						
G04A	Mulino	64.15	328	⇑P	P	02 46 55.3	-1.5
	baz=64,SNR=7.6						
G04A				⇑S	S	02 55 32.0	-1.8
	baz=64						
COR	Corvallis	64.17	327	PFAKE		02 47 10.0	+13
COR				LR	LR		
	comp=Z,11µm,21.0s,MS6.0						
H03A	Soap Creek Ran	64.22	327	⇑P	P	02 46 57.5	+0.3
	baz=64						
H03A				⇑S	S	02 55 33.5	-1.3
	baz=64						
C08A	Higginbotham F	64.26	332	P	P	02 46 58.1	+0.7
	baz=64,SNR=15						
C08A				⇑S	S	02 55 35.7	+0.5
	baz=64						
D07A	Quincy	64.27	331	⇑P	P	02 46 57.5	0.0
	baz=64,SNR=17						
D07A				⇓S	S	02 55 35.7	+0.4
	baz=64						
E06A	Yakima	64.30	330	⇑P	P	02 46 57.1	-0.6
	baz=65,SNR=14						
E06A				⇑S	S	02 55 37.2	+1.5
	baz=65						
B09A	Rice	64.32	333	⇓P	P	02 46 57.6	-0.2
	baz=65,SNR=17						
B09A				⇓S	S	02 55 35.7	-0.1
	baz=65						
A10A	Northport	64.47	334	⇑P	P	02 46 58.6	-0.1
	baz=65						
A10A				⇓S	S	02 55 37.8	+0.1
	baz=65						
H02A	Toledo	64.60	327	⇓P	P	02 46 59.5	-0.3
	baz=65						
F04A	Amboy	64.61	329	⇑P	P	02 46 58.5	-1.2
	baz=65,SNR=9.7						
F04A				⇑S	S	02 55 39.2	-0.3
	baz=65						
G03A	Yamhill	64.64	328	⇑P	P	02 47 00.5	+0.6
	baz=65						
G03A				⇓S	S	02 55 39.0	-0.9
	baz=65						
C07A	Waterville	64.67	332	⇓P	P	02 46 59.8	-0.3
	baz=65,SNR=15						
C07A				⇓S	S	02 55 39.3	-0.9
	baz=65						
D06A	Cle Elum	64.69	331	⇓P	P	02 46 59.9	-0.3
	baz=65						
D06A				⇓S	S	02 55 41.5	+1.0
	baz=65						
E05A	Randle	64.70	330	⇑P	P	02 47 00.5	+0.2
	baz=65						
E05A				⇑S	S	02 55 40.9	+0.2
	baz=65						
B08A	Colville Reser	64.81	332	P	P	02 47 01.4	+0.4
	baz=65,SNR=13						
B08A				⇑S	S	02 55 39.6	-2.3
	baz=65						
A09A	Danville	64.92	333	⇓P	P	02 47 01.5	-0.2
	baz=65,SNR=14						
A09A				⇑S	S	02 55 41.7	-1.5
	baz=65						
F03A	Seaside	65.20	328	⇑P	P	02 47 03.6	0.0
	baz=65						
F03A				⇓S	S	02 55 45.4	-1.4
	baz=65						
E04A	Onalaska	65.21	329	⇑P	P	02 47 04.2	+0.6
	baz=66						
E04A				⇑S	S	02 55 46.2	-0.7
	baz=66						
A08A	Turner Farm, O	65.22	333	⇓P	P	02 47 03.7	0.0
	baz=66,SNR=18						
A08A				⇓S	S	02 55 46.0	-0.8
	baz=66						
C06A	Tall Timber Ra	65.23	331	⇑P	P	02 47 03.9	+0.2
	baz=66						
C06A				⇑S	S	02 55 45.4	-1.7
	baz=66						
B07A	Winthrop	65.25	332	⇑P	P	02 47 03.8	0.0
	baz=66,SNR=11						
B07A				⇓S	S	02 55 44.5	-2.8
	baz=66						
D05A	Enumclaw	65.25	330	⇓P	P	02 47 03.2	-0.6
	baz=66						
D05A				⇓S	S	02 55 45.4	-1.9
	baz=66						
C05A	Tolt Reservoir	65.45	331	⇓P	P	02 47 04.1	-1.1
	baz=66						
C05A				⇑S	S	02 55 47.5	-2.4
	baz=66						
ASCN	Ascension	65.47	96	*e*P	P	02 47 05.4	-0.6
	comp=Z,278nm,1.0s,mb6.2						
ASCN				LR	LR		
	comp=Z,50µm,20.0s,MS6.7						
D04A	Dobbs Creek Ra	65.60	330	⇑P	P	02 47 06.8	+0.6
	baz=66						
D04A				⇑S	S	02 55 50.8	-0.9
	baz=66						
E03A	Lebam	65.61	329	⇓P	P	02 47 06.3	+0.1
	baz=66						
E03A				⇓S	S	02 55 51.8	+0.1
	baz=66						
A07A	Ashnola River,	65.79	332	⇓P	P	02 47 06.8	-0.5
	baz=66,SNR=29						
A07A				⇓S	S	02 55 54.9	+1.0
	baz=66						
B06A	Marblemount	65.93	331	⇑P	P	02 47 07.1	-1.1
	baz=66						
B06A				⇑S	S	02 55 53.6	-2.0
	baz=66						
B05A	Bryant	66.05	331	⇑P	P	02 47 08.1	-0.9
	baz=66						
B05A				⇑S	S	02 55 54.0	-3.0
	baz=66						
D03A	Wishkah Elem.	66.09	329	⇓P	P	02 47 08.6	-0.7
	baz=66						
D03A				⇓S	S	02 55 57.0	-0.6
	baz=66						
C04A	Brinnon	66.10	330	⇑P	P	02 47 08.7	-0.7
	baz=66						
C04A				⇑S	S	02 55 56.7	-0.9
	baz=66						
VAH	Vaihoa	66.23	256	*e*P	P	02 47 10.9	+0.1
	comp=Z,134nm,1.3s,mb5.8						
NLWA	Neilton Lookou	66.33	329	*e*P	P	02 47 10.7	-0.2
	comp=Z,306nm,1.7s,mb6.0						
NLWA				LR	LR		
	comp=Z,24µm,19.0s,MS6.4						
A06A	Chilliwack	66.33	332	⇓P	P	02 47 10.2	-0.6
	baz=67						
A06A				⇓S	S	02 55 59.4	-1.2
	baz=67						
PMOR	Pomariorio Ree	66.49	257	*e*P	P	02 47 12.6	+0.1
	comp=Z,104nm,1.1s,mb5.8						
A05A	Maple Falls	66.55	332	⇓P	P	02 47 12.1	-0.1
	baz=67,SNR=11						
A05A				⇓S	S	02 56 01.1	-2.1
	baz=67						
B04A	Port Angeles	66.59	330	⇑P	P	02 47 12.6	+0.1
	baz=67						
B04A				⇓S	S	02 56 04.4	+0.7
	baz=67						
A04A	Legoe Bay, Lum	66.65	331	⇓P	P	02 47 12.7	-0.1
	baz=67						
A04A				⇑S	S	02 56 04.5	+0.1
	baz=67						
C03A	Quillayute Air	67.05	329	⇑P	P	02 47 14.9	-0.5
	baz=67						
C03A				⇑S	S	02 56 12.5	+3.2
	baz=67						
PDA	Ponta Delgada	67.64	44	*i* LR	LR	03 08 22.0	
TVO	Taravao	67.76	254	*e*P	P	02 47 20.7	+0.1
	comp=Z,223nm,1.3s,mb6.0						
TVO	Taravao	67.76	254	*e*P	P	02 47 20.7	+0.1
TVO				pmax	pmax		
	comp=Z,223nm,1.3s,mb6.0						
PPT	Papeete	68.07	254	*e*PP	PP	02 49 50.2	-2.5
	comp=Z,1µm,26.8s						
PPT	Papeete	68.07	254	*e*S	S	02 56 17.2	-5.4
	comp=Z,33µm,27.2s						
PPT				*e*LR	LR	03 07 55.3	
	comp=Z,61µm,25.0s,baz=91						
PPT	Papeete	68.07	254	*e*P	P	02 47 23.0	+0.5
	comp=Z,104nm,1.5s,mb5.6						
PPT				P	pP	02 47 26.5	+0.7
PPT				*e*PP	PP	02 49 50.2	-2.5
PPT				*e*S	S	02 56 17.2	-5.4
PPT				S	S	02 56 19.2	-3.5
PPT				LR	LR	03 09 29.2	
PPT	Papeete	68.07	254	*e*P	P	02 47 23.0	+0.5
PPT					pP	02 47 26.5	+0.7
PPT				*e*		02 49 50.2	
PPT				*e*S	S	02 56 17.2	-5.4
PPT				S	S	02 56 19.2	-3.4
PPT				pmax	pmax		
	comp=Z,104nm,1.5s						
PPT	Papeete	68.07	254	P	P	02 47 26.5	+3.9
	comp=Z,12nm,0.3s,mb5.4,baz=25,slow=17,SNR=2.3						
PPT				S	S	02 56 19.2	-3.5
	comp=Z,13nm,0.7s,baz=20,slow=20,SNR=1.8						
PPT				LR	LR	03 09 29.2	
	comp=Z,24µm,19.9s,MS6.4,baz=23,slow=29						
PAE	Paea	68.07	254	*e*P	P	02 47 22.7	+0.2
	comp=Z,216nm,1.1s,mb6.1						
PAE	Paea	68.07	254	*e*P	P	02 47 22.7	+0.2
PAE				pmax	pmax		
	comp=Z,216nm,1.1s,mb6.1						
TRIS	Tristan da Cun	68.40	127	PFAKE		02 47 40.0	+16
TRIS				LR	LR		
	comp=Z,13µm,21.0s,MS6.1						
EGOM	La Gomera	70.24	57	P	P	02 47 36.1	+0.4
	comp=Z,1µm,2.0s,mb6.5						
CCAN	Las Canadas	70.76	57	P	P	02 47 39.7	+0.7
	comp=Z,64nm,0.8s,mb5.6						
EOSO	Osorio	71.59	57	P	P	02 47 45.4	+1.4
	comp=Z,3µm,3.2s						
PMAR	Madeira	72.05	52	*e*P	P	02 47 47.7	+1.0
	comp=Z,142nm,2.5s,mb5.5						
CFTV	Fuerteventura	72.93	58	P	P	02 47 52.7	+0.7
	comp=Z,77nm,1.2s,mb5.5						
YKA	Yellowknife Ar	74.06	344	P	P	02 47 55.7	-2.1
YKA				S	S	02 57 24.1	-6.3
YKA				LR	LR	03 22 55.9	
YKA	Yellowknife Ar	74.06	344	P	P	02 47 55.7	-2.2
YKA				S	S	02 57 24.1	-6.3
YKA	Yellowknife Ar	74.06	344	P	P	02 47 55.7	-2.1
	comp=Z,10nm,0.7s,mb4.9,baz=139,slow=5.5,SNR=71						
YKA				S	S	02 57 24.1	-6.3
	comp=Z,0.8nm,0.9s,baz=129,slow=5.6,SNR=2.8						
YKA				LR	LR	03 22 55.9	
	comp=Z,9µm,21.4s,MS6.0,baz=160,slow=38						
WRAK	Wrangell Islan	76.10	333	PFAKE		02 48 20.0	+10
WRAK				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
DLBC	Dease Lake	76.34	336	*e*P	P	02 48 10.9	-0.3
LIC	Lamto	76.38	82	*e*P	P	02 48 11.5	-0.8
	comp=Z,259nm,1.0s,mb5.8,baz=264						
LIC				*e*MLR	MLR		
	comp=Z,103µm,19.8s,MS6.8						
LIC	Lamto	76.38	82	*e*P	P	02 48 11.5	-0.8
	comp=Z,129nm,1.0s,mb5.8						
LIC				LR	LR		
	comp=Z,51µm,19.8s,MS6.8						
TIC	Toumodi	76.45	81	*e*P	P	02 48 11.9	-0.8
	comp=Z,659nm,1.0s,mb6.5						
KIC	Kosan Boka	76.68	82	*e*P	P	02 48 13.4	-0.7
	comp=Z,1µm,0.9s,mb6.7						
SFJD	Kangerlussuaq	76.84	12	*e*P	P	02 48 11.1	-2.7
	comp=Z,189nm,1.4s,mb5.8						
SFJD				LR	LR		
	comp=Z,11µm,22.0s,MS6.1						
SFJD	Kangerlussuaq	76.84	12	⇑*i*P	P	02 48 11.8	-2.0
SFJD				*i* S	S	02 57 56.9	-4.2
SFJD				pmax	pmax		
	comp=Z,76nm,1.1s,mb5.5						
SFJD				MLR	MLR		
	comp=Z,8µm,22.0s,MS6.0						
SFJD	Kangerlussuaq	76.84	12	S	S	02 57 58.8	-2.3
	comp=Z,5.1nm,1.0s,baz=73,slow=12,SNR=2.8						
SFJD	Kangerlussuaq	76.84	12	⇑*i*P	P	02 48 11.8	-2.0
	comp=Z,76nm,1.1s,mb5.5						
SFJD				*i* S	S	02 57 56.9	-4.2
SFJD							
	comp=Z,8µm,22.0s						
VNA3	Neumayer Olymp	77.31	162	*e*P	P	02 48 15.6	-0.9
VNA3				*e*	pP	02 48 20.3	+0.6
VNA3				*e*		02 48 24.9	
VNA3				*e*		02 48 30.8	
VNA3				*e*		02 48 40.0	
VNA3				*e*		02 48 55.1	
VNA1	Neumayer--Stat	77.59	161	*e*P	P	02 48 16.3	-1.8
VNA1				*e*		02 48 21.7	
VNA1				*e*		02 48 27.5	
VNA1				*e*		02 48 33.5	
VNA1				*e*		02 48 41.7	
VNA1				*e*		02 48 57.0	
SIT	Sitka	77.81	333	PFAKE		02 48 30.0	+11
SIT				LR	LR		
	comp=Z,15µm,20.0s,MS6.3						
VNA2	Neumayer--Watz	77.94	161	*e*P	P	02 48 18.7	-1.3
	baz=295,slow=5.0						
VNA2				*e*	pP	02 48 23.2	-0.1
VNA2				*e*		02 48 27.9	
VNA2				*e*		02 48 34.2	
VNA2				*e*		02 48 43.3	
VNA2				*e*		02 48 58.5	
POHA	Pohakuloa	78.45	292	PFAKE		02 48 40.0	+16
POHA				LR	LR		
	comp=Z,14µm,20.0s,MS6.3						
SNAA	Sanae	79.53	162	⇑*e*P	P	02 48 27.3	-1.4
PFVI	Vila Bisbo	79.76	50	*e*P	P	02 48 32.3	+1.7
	comp=Z,406nm,1.2s,mb6.2						
PFVI	Vila Bisbo	79.76	50	*e*S	S	02 58 41.8	+8.1
PFVI	Vila Bisbo	79.76	50	*e*LQ		03 11 28.6	
PFVI				*e*LR	LR	03 14 19.9	
	comp=Z,18µm,18.5s						
MORF	Marmelete	79.94	50	*e*P	P	02 48 33.0	+1.4
	comp=Z,293nm,1.1s,mb6.1						
MORF	Marmelete	79.94	50	*e*S	S	02 58 49.6	+14
MORF	Marmelete	79.94	50	*e*LR	LR	03 16 50.1	
	comp=Z,17µm,21.5s						
PMAFR	Mafra	79.95	49	*e*P	P	02 48 33.7	+2.1
	comp=Z,235nm,1.1s,mb6.0						
PMAFR	Mafra	79.95	49	*e*S	S	02 58 44.1	+8.4
PMAFR	Mafra	79.95	49	*e*LQ		03 10 10.0	
PMAFR				*e*LR	LR	03 15 10.6	
	comp=Z,15µm,19.0s						
PTEO	Sao Teotonio	79.96	50	*e*P	P	02 48 33.3	+1.6
	comp=Z,135nm,1.2s,mb5.8						
LIS	Lisbon	79.98	49	*e*P	P	02 48 30.4	-1.4
LIS				*e*S	S	02 58 35.3	-0.7
LIS				*e*S	S	02 58 35.4	-0.5
LIS				AMS	AMS	03 24 10.7	
	comp=Z,18µm,16.1s,MS6.5						
LIS	Lisbon	79.98	49	*e*S	S	02 58 35.3	-0.7
LIS				A		03 24 10.7	
	comp=Z,18µm,16.1s						
PBDV	Barranco-do-Ve	80.48	51	*e*P	P	02 48 36.2	+1.7
	comp=Z,132nm,1.2s,mb5.7						
PBDV	Barranco-do-Ve	80.48	51	*e*S	S	02 58 48.7	+7.4
PBDV	Barranco-do-Ve	80.48	51	*e*LQ		03 10 35.6	
PBDV				*e*LR	LR	03 14 33.6	
	comp=Z,13µm,18.8s						
PVAQ	Vaqueiros	80.69	50	*e*P	P	02 48 37.1	+1.5
	comp=Z,117nm,1.6s,mb5.6						
PVAQ	Vaqueiros	80.69	50	*e*S	S	02 58 47.1	+3.7
PVAQ	Vaqueiros	80.69	50	*e*LQ		03 10 59.6	
PVAQ				*e*LR	LR	03 14 39.6	
PVAQ				A		03 26 58.3	
	comp=Z,11µm,7.1s						
PBEJ	Beja	80.75	50	*e*P	P	02 48 36.9	+1.0
	comp=Z,98nm,1.3s,mb5.6						
EVO	Evora	80.78	49	*e*P	P	02 48 35.8	-0.3
PTOM	Tomar	80.79	48	*e*P	P	02 48 37.5	+1.4
	comp=Z,130nm,1.2s,mb5.7						
EGRO	El Granado	80.90	50	P	P	02 48 38.0	+1.2
	comp=Z,3µm,4.0s						
KIP	Kipapa	81.06	293	PFAKE		02 48 50.0	+12
KIP				LR	LR		
	comp=Z,13µm,21.0s,MS6.2						
PBAR	Barrancos	81.42	50	*e*P	P	02 48 39.9	+0.4
	comp=Z,50nm,2.2s,mb5.1						
PBAR	Barrancos	81.42	50	*e*S	S	02 59 00.1	+9.1
PBAR				A		03 25 27.6	
	comp=Z,18µm,16.5s						
PVIS	Viseu	81.49	47	*e*P	P	02 48 41.1	+1.3
	comp=Z,150nm,1.0s,mb5.9						
PCBR	Castelo Branco	81.55	48	*e*P	P	02 48 41.6	+1.4
	comp=Z,62nm,1.1s,mb5.5						
EMIN	Mina Concepcio	81.58	50	P	P	02 48 41.6	+1.2
	comp=Z,3µm,3.9s						
EBAD	Badajoz	81.59	49	P	P	02 48 41.0	+0.6
	comp=Z,16nm,0.8s,mb5.0						
MTE	Manteigas	81.66	48	*e*P	P	02 48 41.6	+0.9
	comp=Z,73nm,1.3s,mb5.5						
MTE	Manteigas	81.66	48	*e*S	S	02 59 01.3	+7.9
MTE	Manteigas	81.66	48	*e*LQ		03 10 44.0	
MTE				*e*LR	LR	03 15 54.7	
	comp=Z,9µm,19.0s						
MTE	Manteigas	81.66	48	*e*P	P	02 48 40.5	-0.2
	comp=Z,32nm,0.8s,mb5.3						
PVRL	Vila Real	81.78	47	*e*P	P	02 48 42.8	+1.4
	comp=Z,91nm,2.1s,mb5.3						
MDT	Midelt	81.97	56	P	P	02 48 43.0	+0.4
	comp=Z,33nm,0.9s,mb5.3,baz=268,slow=5.3,SNR=49						
MDT				S	S	02 59 02.7	+5.7
	comp=Z,1.1nm,0.7s,baz=320,slow=18,SNR=2.3						
ESPR	Espera	81.98	51	P	P	02 48 43.7	+1.2
	comp=Z,35nm,0.9s,mb5.3						
EJIF	Jimena Fronter	82.17	52	P	P	02 48 45.8	+2.3
	comp=Z,286nm,1.4s,mb6.0						
EJIF	Jimena Fronter	82.17	52	P	P	02 48 45.8	+2.3
EJIF				pmax	pmax		
	comp=Z,286nm,1.4s,mb6.0						
MVO	Moncorvo	82.25	47	*e*P	P	02 48 43.9	+0.1
	comp=Z,121nm,2.0s,mb5.5						
MVO	Moncorvo	82.25	47	*e*S	S	02 58 57.7	-1.8
MVO	Moncorvo	82.25	47	*e*LQ		03 11 07.1	
MVO				*e*LR	LR	03 15 23.3	
	comp=Z,9µm,16.4s						
ERUA	La Rua	82.51	46	P	P	02 48 47.2	+2.1
	comp=Z,242nm,1.6s,mb6.0						
ERUA	La Rua	82.51	46	P	P	02 48 47.2	+2.0
ERUA				pmax	pmax		
	comp=Z,242nm,1.6s,mb6.0						
PBRG	Braganca	82.63	46	*e*P	P	02 48 46.9	+1.1
	comp=Z,102nm,2.0s,mb5.5						
ECAL	Calabor	82.67	46	P	P	02 48 47.3	+1.2
	comp=Z,42nm,1.3s,mb5.3						
EMIJ	Mijas	82.74	52	P	P	02 48 47.2	+0.7
	comp=Z,3µm,3.4s						
EPON	Pontenova	82.77	45	P	P	02 48 48.1	+1.6
	comp=Z,5µm,4.0s						
QSPA	South Pole Qui	83.13	180	PFAKE		02 49 00.0	+12
QSPA				LR	LR		
	comp=Z,9µm,19.0s,MS6.2						
EADA	Adamuz	83.29	50	P	P	02 48 50.1	+0.9
	comp=Z,25nm,1.1s,mb5.2						
ELOJ	Sierra Loja	83.37	51	P	P	02 48 50.5	+0.7
	comp=Z,121nm,1.0s,mb5.9						
ELOJ	Sierra Loja	83.37	51	P	P	02 48 50.5	+0.8
ELOJ				pmax	pmax		
	comp=Z,121nm,1.0s,mb5.9						
ELUQ	Luque	83.38	51	P	P	02 48 50.7	+1.0
	comp=Z,60nm,0.9s,mb5.6						
ELUQ	Luque	83.38	51	P	P	02 48 50.7	+0.9
ELUQ				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.6						
ERON	Agron	83.61	52	P	P	02 48 51.5	+0.5
	comp=Z,54nm,0.7s,mb5.8						
INK	Inuvik	83.69	343	S	S	02 59 10.7	-2.4
	comp=Z,3.2nm,1.2s,baz=187,slow=32,SNR=3.2						
INK				LR	LR	03 28 16.8	
	comp=Z,18µm,21.3s,MS6.4,baz=130,slow=37						
BORG	Borgarnes	83.70	22	P	P	02 48 51.2	+0.4
	comp=Z,1µm,0.8s,mb7.1,SNR=13						
BORG	Borgarnes	83.70	22	*e*P	P	02 48 50.7	-0.1
	comp=Z,165nm,0.8s,mb6.2						
BORG				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
BORG	Borgarnes	83.70	22	P	P	02 48 50.9	+0.1
	comp=Z,150nm,0.8s,mb6.2,baz=209,slow=3.0,SNR=17						
BORG				S	S	02 59 14.8	+1.5
	comp=Z,17nm,1.0s,baz=296,slow=4.1,SNR=3.4						
EGUA	Guajares	83.75	52	P	P	02 48 54.3	+2.6
	comp=Z,5.5nm,1.1s,mb4.6						
EGUA	Guajares	83.75	52	P	P	02 48 54.3	+2.6
EGUA				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.6						
PAB	San Pablo	83.80	49	*e*P	P	02 48 51.8	-0.1
	comp=Z,200nm,1.4s,mb6.1						
PAB				LR	LR		
	comp=Z,23µm,19.0s,MS6.6						
PAB	San Pablo	83.80	49	*e*P	P	02 48 51.8	-0.1
PAB				pmax	pmax		
	comp=Z,200nm,1.4s,mb6.0						
PAB				MLR	MLR		
	comp=Z,23µm,19.0s,MS6.6						
ECOG	Cogollos-Vega	83.85	51	P	P	02 48 52.5	+0.3
	comp=Z,67nm,1.0s,mb5.7						
ECOG	Cogollos-Vega	83.85	51	P	P	02 48 52.5	+0.3
ECOG				pmax	pmax		
	comp=Z,67nm,1.0s,mb5.7						
EBAN	Banos Encina	83.89	50	P	P	02 48 52.4	0.0
	comp=Z,28nm,0.7s,mb5.5						
EBAN	Banos Encina	83.89	50	P	P	02 48 52.4	0.0
EBAN				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.5						
TOA0	Torodi Ar. Sit	83.97	76	*e*P	P	02 48 52.1	-1.2
TORD	Torodi Ar. Bea	83.97	76	P	P	02 48 52.2	-1.1
TORD				S	S	02 59 13.4	-4.6
TORD				LR	LR	03 24 46.0	
TORD	Torodi Ar. Bea	83.97	76	P	P	02 48 52.2	-1.1
	comp=Z,78nm,0.8s,mb5.9,baz=287,slow=4.7,SNR=213						
TORD				S	S	02 59 13.4	-4.6

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       comp=Z,0.5nm,1.0s,baz=285,slow=3.9,SNR=2.5
TORD                              LR      LR       03 24 46.0
       comp=Z,42µm,21.2s,MS6.8,baz=265,slow=34
ESDC  Sonseca Array   84.12  49   P       P        02 48 53.5  -0.1
       comp=Z,24nm,0.8s,mb5.4,baz=269,slow=4.6,SNR=53
ESDC                              S       S        02 59 19.4  +0.9
       comp=Z,0.2nm,0.3s,baz=70,slow=39,SNR=2.5
ESDC                              LR      LR       03 25 35.7
       comp=Z,8µm,18.8s,MS6.1,baz=255,slow=35
ESLA  Sonseca Array   84.12  49  eP       P        02 48 53.3  -0.3
       comp=Z,334nm,1.9s,mb6.1
ESLA                              LR      LR
       comp=Z,108µm,19.0s,MS7.2
EARI  Arriondas       84.12  45   P       P        02 48 54.5  +1.0
       comp=Z,26nm,0.8s,mb5.4
MAIT  Maitri          84.19 161  eP       P        02 48 49.4  -3.9
GUD   Guadarrama      84.21  48   P       P        02 48 53.7  -0.2
       comp=Z,314nm,1.8s,mb6.1
GUD   Guadarrama      84.21  48   P       P        02 48 53.7  -0.3
GUD                               pmax    pmax
       comp=Z,314nm,1.8s,mb6.1
NVL   N'lazarevskaya  84.23 161d iP       P        02 48 53.5   0.0
NVL                          i S          S        02 59 08.6   -10
NVL                               pmax    pmax
       comp=N,9.0nm,1.0s
NVL                               pmax    pmax
       comp=E,20nm,1.0s
NVL                               pmax    pmax
       comp=Z,50nm,1.0s,mb5.6
NVL                               smax
       comp=E,2µm,12.5s
NVL                               smax
       comp=Z,350nm,6.3s
NVL                               smax
       comp=N,2µm,12.5s
NVL                               MLR     MLR
       comp=N,3µm,22.0s,MS6.2
NVL                               MLR     MLR
       comp=E,12µm,22.0s,MS6.2
NVL                               MLR     MLR
       comp=Z,18µm,22.0s,MS6.4
EYAK  Cordova Ski Ar  84.25 333  eP       P        02 48 54.5  +0.8
EBER  Berja           84.29  52   P       P        02 48 54.4  -0.1
       comp=Z,35nm,0.7s,mb5.6
EGAK  Eagle           84.31 338  eP       P        02 48 52.4  -1.5
       comp=Z,247nm,1.1s,mb6.2
EGAK                              LR      LR
       comp=Z,7µm,20.0s,MS6.0
EQES  Quesada         84.36  51   P       P        02 48 55.2  +0.4
       comp=Z,44nm,0.9s,mb5.6
ENIJ  Nijar           84.84  52   P       P        02 48 58.0  +0.8
       comp=Z,16nm,0.6s,mb5.3
ENIJ  Nijar           84.84  52   P       P        02 48 58.0  +0.8
ENIJ                              pmax    pmax
       comp=Z,16nm,0.6s,mb5.3
EVIA  Vianos          84.98  50   P       P        02 48 59.1  +1.2
       comp=Z,40nm,0.8s,mb5.6
EVIA  Vianos          84.98  50   P       P        02 48 59.1  +1.2
EVIA                              pmax    pmax
       comp=Z,40nm,0.8s,mb5.6
ELAN  Lanestosa       85.36  46   P       P        02 49 01.4  +1.7
       comp=Z,25nm,1.1s,mb5.3
DCN   Croghan         85.64  35⇑iP       P        02 48 59.6  -1.3
ETOB  Tobarra         85.71  50   P       P        02 49 02.2  +0.7
       comp=Z,17nm,0.7s,mb5.4
EMUR  La Murta        85.78  51   P       P        02 49 01.3  -0.6
       comp=Z,17nm,0.6s,mb5.5
ETOR  Torete          85.80  48   P       P        02 49 03.4  +1.4
       comp=Z,15nm,0.7s,mb5.3
ETOR  Torete          85.80  48   P       P        02 49 03.4  +1.4
ETOR                              pmax    pmax
       comp=Z,15nm,0.7s,mb5.3
ECRI  Cripan          85.88  46   P       P        02 49 03.2  +0.9
       comp=Z,12nm,0.6s,mb5.3
ECRI  Cripan          85.88  46   P       P        02 49 03.2  +0.9
ECRI                              pmax    pmax
       comp=Z,12nm,0.6s,mb5.3
SML   Sawmill         85.90 334  eP       P        02 49 02.3  +0.4
CCA1  Carnmenellis    85.95  39  eP       P        02 49 01.9  -0.6
CRQ2  Rosemanowes 2   85.99  39⇑eP       P        02 49 01.9  -0.8
DLF   Lyons Farm      86.06  35⇑iP       P        02 49 01.4  -1.5
DSB   Dublin          86.13  35  eP       P        02 49 03.0  -0.3
       comp=Z,321nm,2.0s,mb6.2
PMR   Palmer          86.17 333  eP       P        02 49 03.2  -0.1
       comp=Z,126nm,1.9s,mb5.8
PMR                               LR      LR
       comp=Z,7µm,20.0s,MS6.1
PMR   Palmer          86.17 333  eP       P        02 49 03.2  -0.1
PMR                               pmax    pmax
       comp=Z,125nm,1.9s,mb5.8
PMR                               MLR     MLR
       comp=Z,7µm,20.0s,MS6.1
SLKM  Skilak Lake     86.27 332  eP       P        02 49 02.0  -1.8
SLKM  Skilak Lake     86.27 332  eP       P        02 49 02.9  -0.9
ECHE  Chera           86.35  50   P       P        02 49 05.7  +1.0
       comp=Z,226nm,2.2s,mb6.0
ECHE  Chera           86.35  50   P       P        02 49 05.7  +1.0
ECHE                              pmax    pmax
       comp=Z,226nm,2.2s,mb6.0
KDAK  Kodiak Island   86.48 329  eP       P        02 49 05.4  +0.5
       comp=Z,74nm,1.3s,mb5.8
KDAK                              LR      LR
       comp=Z,1µm,19.0s,MS5.3
KDAK  Kodiak Island   86.48 329   S       S        02 59 29.3   -12
       comp=Z,7.6nm,0.9s,baz=309,slow=23,SNR=1.9
KDAK                              LR      LR       03 28 16.3
       comp=Z,5µm,19.3s,MS6.0,baz=82,slow=36
HTL   Hartland        86.63  38   AMS     AMS      03 24 30.9
       comp=Z,7µm,21.0s,MS6.0
GMM   Mts of Mourne   86.66  35⇑eP       P        02 49 05.3  -0.5
QUIF  Quistinic       86.68  41  eP       P        02 49 05.8  -0.3
ELIZ  Elizondo        86.70  46   P       P        02 49 09.1  +2.7
       comp=Z,19nm,0.9s,mb5.3
ELIZ  Elizondo        86.70  46   P       P        02 49 09.1  +2.8
ELIZ                              pmax    pmax
       comp=Z,19nm,0.9s,mb5.3
ROSF  Rostrenen       86.71  41  eP       P        02 49 04.5  -1.8
       comp=Z,416nm,1.9s,mb6.0
ROSF  Rostrenen       86.71  41  eP       P        02 49 04.5  -1.8
       comp=Z,208nm,1.9s,mb6.0
ROSF  Rostrenen       86.71  41  eP       P        02 49 04.5  -1.8
ROSF                              pmax    pmax
       comp=Z,208nm,1.9s,mb6.0
GCL   Cushendall      86.80  34  eP       P        02 49 05.8  -0.7
DYA   Yadsworthy      86.82  39   AMS     AMS      03 25 46.3
       comp=Z,7µm,19.8s,MS6.1
EMOS  Mosqueruela     86.89  49   P       P        02 49 08.0  +0.7
       comp=Z,23nm,0.8s,mb5.5
MCK   McKinley        86.90 336  eP       P        02 49 05.5  -1.3
       comp=Z,1.7nm,0.3s,mb4.8
MCK                               LR      LR
       comp=Z,5µm,22.0s,MS5.8
MCK   McKinley        86.90 336  eP       P        02 49 06.1  -0.7
SJPF  Ste Jean        86.91  46  eP       P        02 49 06.5  -0.9
       comp=Z,408nm,1.5s,mb6.1
SJPF  Ste Jean        86.91  46  eP       P        02 49 06.5  -0.9
       comp=Z,204nm,1.5s,mb6.1
SJPF  Ste Jean        86.91  46  eP       P        02 49 06.5  -0.9
SJPF                              pmax    pmax
       comp=Z,204nm,1.5s,mb6.1
COLA  College         86.91 337  eP       P        02 49 05.2  -1.6
       comp=Z,538nm,2.1s,mb6.4
COLA                              LR      LR
       comp=Z,7µm,19.0s,MS6.1
COLA  College         86.91 337c iP       P        02 49 04.4  -2.4
COLA  College         86.91 337   P       P        02 49 05.6  -1.2
COLA                              pmax    pmax
       comp=Z,540nm,2.1s,mb6.4
HEX   Exmoor          87.06  38⇑eP       P        02 49 07.2  -0.8
SGMF  Saint Gilles    87.16  41  eP       P        02 49 06.8  -1.6
       comp=Z,400nm,1.9s,mb6.0
SGMF  Saint Gilles    87.16  41  eP       P        02 49 06.8  -1.6
       comp=Z,200nm,1.9s,mb6.0
SGMF  Saint Gilles    87.16  41  eP       P        02 49 06.8  -1.6
SGMF                              pmax    pmax
       comp=Z,200nm,1.9s,mb6.0
ESAC  San Caprasio    87.16  48   P       P        02 49 09.9  +1.2
       comp=Z,12nm,0.6s,mb5.3
GMK   Mull of Kintyr  87.17  34  eP       P        02 49 07.7  -0.6
EANR  'Ain N'Sour     87.25  53   P       P        02 49 10.8  +1.6
ATE   Arette          87.28  46  eP       P        02 49 09.8  +0.6
ETRT  Tiaret          87.31  54   P       P        02 49 11.0  +1.5
ETSF  Etsaut          87.34  46  eP       P        02 49 07.8  -1.7
       comp=Z,116nm,1.4s,mb5.6
ETSF  Etsaut          87.34  46  eP       P        02 49 07.8  -1.7
       comp=Z,58nm,1.4s,mb5.6
ETSF  Etsaut          87.34  46  eP       P        02 49 07.8  -1.7
ETSF                              pmax    pmax
       comp=Z,58nm,1.4s,mb5.6
RRH   Rhenigidale     87.35  31⇑eP       P        02 49 08.2  -0.9
ECHA  Ech Chlef       87.50  53   P       P        02 49 12.5  +2.1
GIM   North Isle of   87.51  35⇑eP       P        02 49 09.1  -0.9
GAL1  Galloway        87.53  34⇑eP       P        02 49 08.4  -1.7
GAL1                              AMb     AMB      02 49 09.1
       comp=Z,215nm,1.6s,mb6.1
GAL1                              AMS     AMS      03 25 14.1
       comp=Z,9µm,20.5s,MS6.1
GAL1  Galloway        87.53  34   P       P        02 49 08.4  -1.7
GAL1                              AMb     AMB      02 49 09.1
       comp=Z,215nm,1.6s,mb6.1
ERTA  Horta de San J  87.60  48   P       P        02 49 11.0  +0.2
       comp=Z,18nm,0.9s,mb5.3
EBNR  Beni Rached     87.65  53   P       P        02 49 14.0  +2.9
KPL   Plockton        87.71  32  eP       P        02 49 09.2  -1.7
KPL                               AMb     AMB      02 49 13.8
       comp=Z,279nm,0.9s,mb6.5
KPL                               AMS     AMS      03 23 47.9
       comp=Z,4µm,21.4s,MS5.8
KPL   Plockton        87.71  32   P       P        02 49 09.2  -1.7
KPL                               AMb     AMB      02 49 13.8
       comp=Z,279nm,0.9s,mb6.5
RTO   Tolsta          87.72  30⇑eP       P        02 49 09.3  -1.6
RRR   Rubha Reidh     87.78  31  eP       P        02 49 09.4  -1.8
MCH1  Michaelchurch   87.78  37⇑eP       P        02 49 10.4  -0.9
MCH1                              AMb     AMB      02 49 16.1
       comp=Z,155nm,1.9s,mb5.9
EBIE  Bielsa          87.80  47   P       P        02 49 13.2  +1.5
       comp=Z,7.3nm,0.7s,mb5.0
HGH   Gray Hill       87.81  38⇑eP       P        02 49 11.4   0.0
SBD1  Bryn Du         87.85  36⇑eP       P        02 49 10.7  -0.9
PGBU  Glenifferbraes  87.91  33⇑eP       P        02 49 11.1  -0.8
PGBU                              AMb     AMB      02 49 15.5
       comp=Z,307nm,1.8s,mb6.2
SBA   Scott Base      87.92 191   PFAKE            02 49 20.0  +8.4
SBA                               LR      LR
       comp=Z,8µm,22.0s,MS6.1
GCD   Castle Douglas  87.96  34⇑eP       P        02 49 11.3  -0.8
HLM1  Long Mynd       87.98  37⇑eP       P        02 49 11.6  -0.7
EIBI  Ibiza           88.00  50   P       P        02 49 10.8  -1.9
       comp=Z,55nm,1.1s,mb5.7
EPF   Esparros        88.01  46  eP       P        02 49 11.4  -1.3
       comp=Z,240nm,1.8s,mb5.8
EPF   Esparros        88.01  46  eP       P        02 49 11.4  -1.3
       comp=Z,120nm,1.8s,mb5.8
EPF   Esparros        88.01  46  eP       P        02 49 11.4  -1.3
EPF                               pmax    pmax
       comp=Z,120nm,1.8s,mb5.8
EAB   Aberfoyle       88.09  33⇑eP       P        02 49 11.8  -0.9
EPOB  Poblet          88.23  48   P       P        02 49 13.4  -0.3
       comp=Z,6.5nm,1.1s,mb4.8
GRR   Gorron          88.29  41  eP       P        02 49 13.4  -0.5
       comp=Z,401nm,1.7s,mb6.1
GRR   Gorron          88.29  41  eP       P        02 49 13.4  -0.5
       comp=Z,201nm,1.7s,mb6.1
GRR   Gorron          88.29  41  eP       P        02 49 13.4  -0.5
GRR                               pmax    pmax
       comp=Z,201nm,1.7s,mb6.1
CKE   Keswick         88.36  35⇑eP       P        02 49 13.3  -0.7
MFF   Saint Martin d  88.39  43  eP       P        02 49 13.6  -0.8
SWN1  Swindon         88.39  38  eP       P        02 49 14.4  +0.2
MDO   Dochfour        88.41  32⇑eP       P        02 49 12.7  -1.5
SSW   Stow on the Wo  88.47  37⇑eP       P        02 49 14.1  -0.5
EAU   Auchinoon       88.48  33⇑eP       P        02 49 13.9  -0.7
ESK   Eskdalemuir     88.48  34   P       P        02 49 14.6   0.0
       comp=Z,389nm,1.0s,mb6.6,SNR=5.3
ESK   Eskdalemuir     88.48  34⇑eP       P        02 49 12.9  -1.7
ESK                               AMb     AMB      02 49 18.2
       comp=Z,181nm,1.4s,mb6.1
ESK                               AMS     AMS      03 27 41.6
       comp=Z,10µm,19.1s,MS6.3
ESK   Eskdalemuir     88.48  34   P       P        02 49 12.9  -1.7
ESK                               AMb     AMB      02 49 18.2
       comp=Z,181nm,1.4s,mb6.1
ESK   Eskdalemuir     88.48  34  eP       P        02 49 13.2  -1.4
       comp=Z,74nm,1.0s,mb5.9
ESK                               LR      LR
       comp=Z,11µm,20.0s,MS6.3
ESK   Eskdalemuir     88.48  34   P       P        02 49 13.6  -1.0
ESK                               pmax    pmax
       comp=Z,74nm,1.0s,mb5.9
EKA   Eskdalemuir Ar  88.51  34   P       P        02 49 13.7  -1.1
       comp=Z,48nm,0.9s,mb5.8,baz=242,slow=4.7,SNR=46
FLN   La Foliniere    88.62  41  eP       P        02 49 14.2  -1.2
       comp=Z,73nm,0.9s,mb5.7
FLN                              eMLR     MLR
       comp=Z,8µm,19.2s,MS5.8
FLN   La Foliniere    88.62  41  eP       P        02 49 14.2  -1.2
       comp=Z,37nm,0.9s,mb5.7
FLN                               LR      LR
       comp=Z,8µm,19.3s,MS6.1
FLN   La Foliniere    88.62  41  eP       P        02 49 14.2  -1.2
FLN                               pmax    pmax
       comp=Z,37nm,0.9s,mb5.7
FLN                               MLR     MLR
       comp=Z,8µm,19.3s,MS6.1
MVH1  Achvaich        88.63  31⇑eP       P        02 49 13.8  -1.4
EDI   Edinburgh       88.64  33⇑eP       P        02 49 15.3  -0.1
EDI                               AMb     AMB      02 49 18.1
       comp=Z,167nm,1.6s,mb6.1
EDI                               AMS     AMS      03 27 47.8
       comp=Z,8µm,19.0s,MS6.2
EDI   Edinburgh       88.64  33   P       P        02 49 15.3  -0.1
EDI                               AMb     AMB      02 49 18.1
       comp=Z,167nm,1.6s,mb6.1
EMIR  Miracle         88.67  48   P       P        02 49 16.8  +1.1
       comp=Z,8.6nm,0.8s,mb5.1
LFF   La Frestale     88.67  45  eP       P        02 49 15.2  -0.5
       comp=Z,192nm,1.4s,mb6.0
LFF   La Frestale     88.67  45  eP       P        02 49 15.2  -0.5
       comp=Z,96nm,1.4s,mb5.9
LFF   La Frestale     88.67  45  eP       P        02 49 15.2  -0.5
LFF                               pmax    pmax
       comp=Z,96nm,1.4s,mb5.9
EBL   Broad Law       88.69  33⇑eP       P        02 49 15.3  -0.2
KWE   Weaver Farm     88.71  36⇑eP       P        02 49 15.4  -0.3
EMHD  Djebel Mahouad  88.77  53   P       P        02 49 19.0  +2.6
LDF   La Druitiere    88.81  41  eP       P        02 49 15.2  -1.1
       comp=Z,104nm,1.1s,mb5.8
LDF   La Druitiere    88.81  41  eP       P        02 49 15.2  -1.1
       comp=Z,52nm,1.1s,mb5.8
LDF   La Druitiere    88.81  41  eP       P        02 49 15.2  -1.1
LDF                               pmax    pmax
       comp=Z,52nm,1.1s,mb5.8
LHO   Holmfirth       88.82  36⇑eP       P        02 49 15.9  -0.3
XAL   Allendale       88.92  34  eP       P        02 49 16.6  -0.1
SVW2  Sparrevohn      88.94 332  eP       P        02 49 14.9  -1.7
KBI1  Birley Grange   88.95  36  eP       P        02 49 15.5  -1.3
ESY   Stoneypath      88.95  33⇑eP       P        02 49 16.3  -0.5
CWF   Charnwood Fore  88.96  37⇑eP       P        02 49 16.2  -0.7
CWF                               AMb     AMB      02 49 20.1
       comp=Z,120nm,2.3s,mb5.8
VNDA  Vanda           89.02 191  eP       P        02 49 16.3  -0.5
       comp=Z,15nm,0.9s,mb5.3
VNDA                              LR      LR
       comp=Z,8µm,22.0s,MS6.1
VNDA  Vanda           89.02 191  eP       P        02 49 16.3  -0.5
VNDA                              pmax    pmax
       comp=Z,15nm,0.9s
VNDA                              MLR     MLR
       comp=Z,8µm,22.0s
VNDA  Vanda           89.02 191   P       P        02 49 16.1  -0.7
       comp=Z,9.4nm,0.8s,mb5.2,baz=107,slow=3.1,SNR=11
VNDA                              PP      PP       02 52 46.5  +0.3
       comp=Z,3.8nm,1.1s,baz=311,slow=9.7,SNR=2.2
VNDA                              S       S        02 59 44.5   -20
       comp=Z,1.7nm,0.8s,baz=193,slow=2.8,SNR=2.1
VNDA                              LR      LR       03 20 38.7
       comp=Z,7µm,21.7s,MS6.1,baz=126,slow=30
MCD   Coleburn Disti  89.02  32⇑eP       P        02 49 16.3  -0.8
SKP1  Kophill         89.04  38⇑eP       P        02 49 16.4  -0.9
HPK   Haverah Park    89.05  35⇑eP       P        02 49 17.5  +0.2
HPK                               AMb     AMB      02 49 20.5
       comp=Z,132nm,1.5s,mb6.0
HPK                               AMS     AMS      03 26 13.5
       comp=Z,6µm,20.8s,MS6.0
HPK   Haverah Park    89.05  35   P       P        02 49 17.5  +0.2
HPK                               AMb     AMB      02 49 20.5
       comp=Z,132nm,1.5s,mb6.0
MME1  Meikle Cairn    89.11  32⇑eP       P        02 49 17.1  -0.4
VALF  Valcebollere    89.11  47  eP       P        02 49 19.2  +1.3
MLA1  Latheron        89.15  31⇑eP       P        02 49 17.0  -0.7
ADJB  Djebel Djouab   89.15  54   P       P        02 49 17.8  -0.4
RJF   Les Rejaudoux   89.28  44  eP       P        02 49 17.9  -0.7
       comp=Z,271nm,1.8s,mb6.0
RJF                              eMLR     MLR
       comp=Z,14µm,19.5s,MS6.1
RJF   Les Rejaudoux   89.28  44  eP       P        02 49 17.9  -0.7
       comp=Z,135nm,1.8s,mb6.0
RJF                               LR      LR
       comp=Z,14µm,19.5s,MS6.4
RJF   Les Rejaudoux   89.28  44  eP       P        02 49 17.9  -0.7
RJF                               pmax    pmax
       comp=Z,135nm,1.8s,mb6.0
RJF                               MLR     MLR
       comp=Z,14µm,19.5s,MS6.4
MTLF  Montolieu       89.42  46  eP       P        02 49 18.6  -0.7
       comp=Z,134nm,1.6s,mb5.7
MTLF  Montolieu       89.42  46  eP       P        02 49 18.6  -0.7
       comp=Z,67nm,1.6s,mb5.7
MTLF  Montolieu       89.42  46  eP       P        02 49 18.6  -0.7
MTLF                              pmax    pmax
       comp=Z,67nm,1.6s,mb5.7
AKET  Djebel Ketaf    89.49  54   P       P        02 49 19.8   0.0
CAF   Calviac         89.59  45  eP       P        02 49 19.2  -0.9
       comp=Z,229nm,1.7s,mb5.9
CAF   Calviac         89.59  45  eP       P        02 49 19.2  -0.9
       comp=Z,114nm,1.7s,mb5.9
CAF   Calviac         89.59  45  eP       P        02 49 19.2  -0.9
CAF                               pmax    pmax
       comp=Z,114nm,1.7s,mb5.9
IMA2  Indian Mountai  89.61 337  eP       P        02 49 17.8  -1.9
AFI   Afiamalu        89.63 256   PP      PP       02 52 52.0  -0.8
       comp=Z,7.1nm,0.4s,baz=36,slow=23,SNR=1.7
AFI                               S       SKSac    02 59 49.0  -3.2
       comp=Z,4.4nm,0.3s,baz=244,slow=18,SNR=1.9
TTA   Tatalina        89.65 334  eP       P        02 49 20.5  +0.6
ALE   Alert           89.74   2   P       P        02 49 18.4  -1.7
       comp=Z,414nm,1.5s,mb6.5,SNR=8.0
EJON  La Jonquera     89.75  47   P       P        02 49 21.5  +0.6
       comp=Z,8.7nm,0.8s,mb5.1
ATAF  Djebel Tarf     89.78  54   P       P        02 49 20.8  -0.4
TCF   Toulx Ste Croi  89.93  43  eP       P        02 49 20.9  -0.7
PYM   Petit Puy Mans  90.39  44  eP       P        02 49 23.2  -0.6
LBL   Lubilhac        90.47  45  eP       P        02 49 24.3  +0.1
AGO   Saint Agoulin   90.52  44  eP       P        02 49 24.6  +0.2
DAG   Danmarks Havn   90.53  12⇓iP       P        02 49 23.0  -0.8
DAG                               pmax    pmax
       comp=Z,46nm,0.5s,mb6.1
DAG                               MLR     MLR
       comp=Z,23µm,23.0s,MS6.5
DAG                               MLR     MLR
       comp=N,11µm,21.0s,MS6.4
DAG                               MLR     MLR
       comp=E,13µm,23.0s,MS6.4
DAG   Danmarks Havn   90.53  12⇓iP       P        02 49 23.0  -0.8
       comp=E,46nm,0.5s,mb6.1
DAG
       comp=Z,23µm,23.0s
LASF  Ste Croix       90.72  46  eP       P        02 49 25.3   0.0
       comp=Z,254nm,1.9s,mb5.9
SET   Setif           90.73  54   P       P        02 49 27.0  +1.4
JMIC  Jan Mayen       90.74  18  eP       P        02 49 19.5  -5.3
JMIC                             eSKSa             02 59 52.3
JMIC                              AMS     AMS      03 25 50.5
       comp=Z,5µm,24.8s,MS5.9
AVF   Avril sur Loir  90.79  43  eP       P        02 49 24.6  -1.0
SSF   Saint Saulge    90.94  43  eP       P        02 49 25.2  -1.1
       comp=Z,147nm,1.6s,mb5.8
SSF   Saint Saulge    90.94  43  eP       P        02 49 25.2  -1.1
       comp=Z,74nm,1.6s,mb5.8
SSF   Saint Saulge    90.94  43  eP       P        02 49 25.2  -1.1
SSF                               pmax    pmax
       comp=Z,74nm,1.6s,mb5.8
CMER  Merouana        91.05  54   P       P        02 49 29.0  +1.9
SMF   Signal de Mont  91.10  43  eP       P        02 49 26.3  -0.8
DFRA  Djebel Bou Aff  91.16  53   P       P        02 49 30.0  +2.4
LOR   Lormes          91.21  43  eP       P        02 49 26.6  -1.0
       comp=Z,177nm,1.7s,mb5.8
LOR                              eMLR     MLR
       comp=Z,10µm,19.5s,MS5.9
LOR   Lormes          91.21  43  eP       P        02 49 26.6  -1.0
       comp=Z,88nm,1.7s,mb5.8
LOR                               LR      LR
       comp=Z,10µm,19.5s,MS6.2
LOR   Lormes          91.21  43  eP       P        02 49 26.6  -1.0
LOR                               pmax    pmax
       comp=Z,88nm,1.7s,mb5.8
LOR                               MLR     MLR
       comp=Z,10µm,19.5s,MS6.2
VIVF  Saint-Julien-l  91.41  45  eP       P        02 49 28.3  -0.2
       comp=Z,172nm,1.8s,mb5.8
VIVF  Saint-Julien-l  91.41  45  eP       P        02 49 28.3  -0.2
       comp=Z,86nm,1.8s,mb5.8
VIVF  Saint-Julien-l  91.41  45  eP       P        02 49 28.3  -0.2
VIVF                              pmax    pmax
       comp=Z,86nm,1.8s,mb5.8
CTEI  Djebel Teioual  91.52  54   P       P        02 49 30.0  +0.8
CASM  Ain Smara       91.61  54   P       P        02 49 31.0  +1.3
PRAF  Pradon          91.61  46  eP       P        02 49 29.4  -0.1
GELF  Grande-Etoile   91.74  47  eP       P        02 49 29.4  -0.7
CKFL  Kef-Lekhel      91.81  54   P       P        02 49 32.0  +1.4
BAIF  Baives          91.86  40  eP       P        02 49 29.2  -1.3
       comp=Z,247nm,1.9s,mb5.9
BAIF  Baives          91.86  40  eP       P        02 49 29.2  -1.3
       comp=Z,124nm,1.9s,mb5.9
BAIF  Baives          91.86  40  eP       P        02 49 29.2  -1.3
BAIF                              pmax    pmax
       comp=Z,124nm,1.9s,mb5.9
SMRF  Simiane la Rot  91.93  46  eP       P        02 49 31.2  +0.2
       comp=Z,267nm,1.9s,mb6.0
SMRF  Simiane la Rot  91.93  46  eP       P        02 49 31.2  +0.2
       comp=Z,267nm,1.9s,mb6.2
CAEH  'Ain El Ouahch  91.96  53   P       P        02 49 33.0  +1.7
SNF   Seneffe         91.98  40   P       P        02 49 31.9  +0.8
UCC   Uccle           92.07  39   P       P        02 49 32.1  +0.7
       comp=Z,112nm,3.0s
DOU   Dourbes         92.11  40   P       P        02 49 31.2  -0.5
MEZF  Maizieres J'vi  92.19  42  eP       P        02 49 31.7  -0.3
       comp=Z,274nm,1.7s,mb6.0
MEZF  Maizieres J'vi  92.19  42  eP       P        02 49 31.7  -0.3
       comp=Z,274nm,1.7s,mb6.3
GRN   Grenoble        92.22  45  eP       P        02 49 33.6  +1.3
TAVF  Tavernes        92.23  47  eP       P        02 49 32.3  -0.1
GIVF  Givet           92.26  40  eP       P        02 49 32.2  -0.1
ORIF  Oris-en-Rattie  92.27  45  eP       P        02 49 32.9  +0.4
       comp=Z,232nm,1.7s,mb5.9
ORIF                             eMLR     MLR
       comp=Z,19µm,19.0s,MS6.2
ORIF  Oris-en-Rattie  92.27  45  eP       P        02 49 32.9  +0.4
       comp=Z,116nm,1.7s,mb5.9
ORIF  Oris-en-Rattie  92.27  45  eP       P        02 49 32.9  +0.4
ORIF                              pmax    pmax
       comp=Z,116nm,1.7s,mb5.9
CGMA  Guelma          92.37  54   P       P        02 49 34.0  +0.8
CMAH  Djebel Manchou  92.40  54   P       P        02 49 34.0  +0.7
LMR   La Mourre       92.52  47  eP       P        02 49 33.3  -0.4
       comp=Z,393nm,1.9s,mb6.2
LMR   La Mourre       92.52  47  eP       P        02 49 33.3  -0.4
       comp=Z,196nm,1.9s,mb6.2
LMR   La Mourre       92.52  47  eP       P        02 49 33.3  -0.4
LMR                               pmax    pmax
       comp=Z,196nm,1.9s,mb6.2
BCLA  Clavier         92.61  40   P       P        02 49 35.8  +1.8
       comp=Z,72nm,2.7s,mb5.6
CABF  La Chapelle     92.63  44  eP       P        02 49 33.8  -0.3
FRF   La Foret Royal  92.64  47  eP       P        02 49 33.9  -0.4
       comp=Z,103nm,1.4s,mb5.8
FRF   La Foret Royal  92.64  47  eP       P        02 49 33.9  -0.4
       comp=Z,52nm,1.4s,mb5.8
FRF   La Foret Royal  92.64  47  eP       P        02 49 33.9  -0.4
FRF                               pmax    pmax
       comp=Z,52nm,1.4s,mb5.8
THEF  They Montfort   92.77  42  eP       P        02 49 34.5  -0.2
CALN  Calern          92.84  46  eP       P        02 49 34.7  -0.5
BNI   Bardonecchia    92.85  45  eP       P        02 49 34.8  -0.4
       comp=Z,83nm,1.8s,mb5.9
BNI   Bardonecchia    92.85  45   P       P        02 49 37.0  +1.8
BNI                               pmax    pmax
       comp=Z,83nm,1.8s,mb5.9
MBDF  Montbardon      92.87  45  eP       P        02 49 35.4  +0.1
       comp=Z,216nm,1.9s,mb6.0
MBDF  Montbardon      92.87  45  eP       P        02 49 35.4  +0.1
       comp=Z,108nm,1.9s,mb6.0
MBDF  Montbardon      92.87  45  eP       P        02 49 35.4  +0.1
MBDF                              pmax    pmax
       comp=Z,108nm,1.9s,mb6.0
SURF  Saint Ours      92.87  46  eP       P        02 49 35.3   0.0
BEBN  Eben Emael      92.89  39   P       P        02 49 34.8  -0.5
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LPL   La Plagne        92.94  45  eP       P        02 49 36.1 +0.5
            comp=Z,175nm,1.7s,mb5.9
LPL   La Plagne        92.94  45  eP       P        02 49 36.1 +0.5
            comp=Z,87nm,1.7s,mb5.9
LPL   La Plagne        92.94  45  eP       P        02 49 36.1 +0.5
LPL                                pmax    pmax
            comp=Z,87nm,1.7s,mb5.9
LPG   La Plagne        92.95  45  eP       P        02 49 36.4 +0.7
            comp=Z,141nm,1.8s,mb5.8
LPG   La Plagne        92.95  45  eP       P        02 49 36.4 +0.7
            comp=Z,71nm,1.8s,mb5.8
LPG   La Plagne        92.95  45  eP       P        02 49 36.4 +0.7
LPG                                pmax    pmax
            comp=Z,71nm,1.8s,mb5.8
HAU   Haudompre        92.98  42  eP       P        02 49 35.2  -0.5
            comp=Z,161nm,1.7s,mb5.9
HAU                               eMLR     MLR
            comp=Z,10µm,20.8s,MS5.9
HAU   Haudompre        92.98  42  eP       P        02 49 35.2  -0.5
            comp=Z,81nm,1.7s,mb5.9
HAU                                LR      LR
            comp=Z,10µm,20.8s,MS6.2
HAU   Haudompre        92.98  42  eP       P        02 49 35.2  -0.5
HAU                                pmax    pmax
            comp=Z,81nm,1.7s,mb5.9
HAU                                MLR     MLR
            comp=Z,10µm,20.8s,MS6.2
MVIF  Mont Vial        93.05  46  eP       P        02 49 36.3 +0.2
WLF   Walferdange      93.06  41  eP       P        02 49 35.9  -0.2
            comp=Z,60nm,1.1s,mb5.9
WLF   Walferdange      93.06  41   P       P        02 49 36.4 +0.4
WLF                                pmax    pmax
            comp=Z,60nm,1.1s,mb5.9
WLF   Walferdange      93.06  41   P       P        02 49 35.4  -0.7
            comp=Z,64nm,2.2s,mb5.7
WLF   Walferdange      93.06  41  eP       P        02 49 35.8  -0.2
            comp=Z,66nm,1.2s,mb5.9
MEM   Membach          93.08  40   P       P        02 49 35.1  -1.0
            comp=Z,30nm,2.6s,mb5.3
RAO   Raoul Island     93.11 240   PFAKE            02 49 50.0  +13
RAO                                LR      LR
            comp=Z,11µm,22.0s,MS6.3
TOUF  Mont Tournerai   93.13  46  eP       P        02 49 36.5   0.0
REVF  Revere           93.18  47  eP       P        02 49 37.0 +0.2
DOI   San Damiano      93.19  46   P       P        02 49 37.5 +0.7
LUCF  Luceram          93.19  46  eP       P        02 49 36.7  -0.1
LOMF  Lomont           93.22  43  eP       P        02 49 37.1 +0.2
UNV   Unalaska Valle   93.24 324   PFAKE            02 49 50.0  +13
UNV                                LR      LR
            comp=Z,14µm,20.0s,MS6.4
SBF   Sospel           93.25  46  eP       P        02 49 36.7  -0.4
SAOF  Saorge           93.35  46  eP       P        02 49 37.3  -0.2
MOF   Molkenrain       93.49  42  eP       P        02 49 37.1  -1.0
ECH   Echery           93.54  42  eP       P        02 49 38.0  -0.3
CDF   Champ du Feu     93.64  42  eP       P        02 49 38.4  -0.4
RUP   Ruppelstein      93.64  41  eP       P        02 49 39.3 +0.6
BBS   Basel-Blauen     93.70  43  eP       P        02 49 38.9  -0.1
WTSB  Winterswijk      93.73  38  eP       P        02 49 39.7 +0.6
            comp=Z,157nm,2.3s,mb6.0
WTSB                              eP                19 59 29.2
            comp=Z,74nm,0.8s
WIT   Witteveen        93.75  37  eP       P        02 49 40.3 +1.1
WIT                               eP                19 59 26.2
SYO   Syowa Base       93.82 162⇓eP       P        02 49 36.8  -2.4
SYO   Syowa Base       93.82 162⇓epP      pP       02 49 42.2  -0.4
ORO   Oropa            93.83  45   P       P        02 49 39.7   0.0
KEST  Kesra            93.85  55   P       P        02 49 39.0  -1.1
            comp=Z,3.8nm,0.8s,mb4.9,baz=278,slow=4.7,SNR=11
KEST                               PP      PP       02 53 26.1 +0.4
            comp=Z,2.8nm,0.9s,baz=322,slow=3.0,SNR=2.9
KEST                               S       SKSac    03 00 16.5 +1.3
            comp=Z,4.7nm,1.3s,baz=118,slow=19,SNR=2.4
KEST                               LR      LR       03 31 02.9
            comp=Z,5µm,20.5s,MS5.9,baz=12,slow=35
BER   Bergen           93.92  30  eSS      SS       03 07 09.2 +0.3
BER                                AMS     AMS      03 29 35.7
            comp=Z,6µm,21.8s,MS6.0
BUG   Bochum--Univer   93.97  39  eP       P        02 49 39.8  -0.4
            comp=Z,254nm,2.0s,mb6.3
ABH   Alteburg         93.98  40  eP       P        02 49 40.6 +0.3
LANF  Langenberg       94.05  41  eP       P        02 49 40.8 +0.2
FELD  Feldberg im Sc   94.07  42  eP       P        02 49 40.4  -0.4
VSL   Villasalto       94.24  51  eP       P        02 49 41.6  -0.2
            comp=Z,72nm,1.8s,mb5.8
PGF   Pioggiola        94.25  48  eP       P        02 49 41.4  -0.3
            comp=Z,190nm,1.8s,mb5.9
PGF   Pioggiola        94.25  48  eP       P        02 49 41.4  -0.3
            comp=Z,95nm,1.8s,mb5.9
PGF   Pioggiola        94.25  48  eP       P        02 49 41.4  -0.3
PGF                                pmax    pmax
            comp=Z,95nm,1.8s,mb5.9
BFO   Black Forest     94.33  42  eP       P        02 49 40.8  -1.1
            comp=Z,88nm,2.3s,mb5.8
BFO                                LR      LR
            comp=Z,7µm,20.0s,MS6.1
IBBN  Ibbenburen       94.36  38  eP       P        02 49 41.6  -0.4
            comp=Z,140nm,1.7s,mb6.1
VAI   Varese           94.40  44   P       P        02 49 42.4 +0.1
TNS   Taunus Mts       94.59  40  eP       P        02 49 42.7  -0.4
TNS                                pmax    pmax
            comp=Z,45nm,1.4s,mb5.7
TNS   Taunus Mts       94.59  40  eP       P        02 49 42.7  -0.4
            comp=Z,45nm,1.4s,mb5.7
STU   Stuttgart        94.95  42  eP       P        02 49 44.0  -0.7
            comp=Z,152nm,1.9s,mb6.1
DAVOS Davos            95.19  44   P       P        02 49 45.3  -0.6
DAVOS                                               02 53 34.4
MOL   Molde            95.20  28   AMS     AMS      03 28 56.2
            comp=Z,4µm,20.2s,MS5.9
TNA   Tin City         95.24 335  eP       P        02 49 44.9  -0.8
            comp=Z,21nm,1.2s,mb5.4
TNA                                LR      LR
            comp=Z,4µm,20.0s,MS5.9
DAVOX Davos/Dischmat   95.24  44   P       P        02 49 45.3  -0.8
            comp=Z,3.2nm,0.8s,mb4.8,baz=191,slow=4.7,SNR=9.8
DAVOX                              PP      PP       02 53 34.4  -1.9
            comp=Z,8.9nm,1.0s,baz=325,slow=14,SNR=3.1
DAVOX                              S       SKSac    03 00 31.8  +10
            comp=Z,0.4nm,0.3s,baz=328,slow=22,SNR=2.6
TSUM  Tsumeb           95.26 110  eP       P        02 49 46.1  -0.8
            comp=Z,32nm,1.0s,mb5.7
TSUM                               LR      LR
            comp=Z,42µm,19.0s,MS6.9
TSUM  Tsumeb           95.26 110   PP      PP       02 53 37.3 +0.3
            comp=Z,3.5nm,0.8s,baz=306,slow=7.3,SNR=2.6
TSUM                               S       SKSac    03 00 25.1 +1.6
            comp=Z,0.8nm,0.8s,baz=90,slow=18,SNR=1.8
DAVA  Damuels          95.28  43⇑iP       P        02 49 46.9 +0.6
            comp=Z,15nm,1.1s,mb5.3
DAVA  Damuels          95.28  43⇑iPcP     PcP      02 49 46.9 +0.3
            comp=Z,15nm,1.1s
MUD   Monsted U'grnd   95.54  34  eP       P        02 49 47.3   0.0
MUD                               e                 02 53 36.2
MUD                                pmax    pmax
            comp=Z,58nm,1.2s,mb5.9
MUD                                MLR     MLR
            comp=Z,8µm,20.0s,MS6.2
MUD   Monsted U'grnd   95.54  34  i P      P        02 49 47.3   0.0
            comp=Z,58nm,1.2s,mb5.9
MUD                               e                 02 53 36.2
MUD                               eS       S        03 00 43.0  -21
MUD                               e                 03 01 11.9
MUD                               e                 03 02 34.6
MUD
            comp=Z,8µm,20.0s
BRMO  Bormio           95.56  44   P       P        02 49 48.1 +0.5
UBBA  Unterbreizbach   95.63  40  eP       P        02 49 47.6  -0.2
            comp=Z,431nm,3.2s
SUR   Sutherland       95.73 123   PFAKE            02 50 00.0  +11
SUR                                LR      LR
            comp=Z,15µm,20.0s,MS6.5
NRDL  Niedersach Rie   95.81  38  eP       P        02 49 48.7 +0.1
            comp=Z,245nm,2.5s,mb6.2
RETA  Reutte           95.90  43⇑iPcP     PcP      02 49 49.4 +0.1
            comp=Z,20nm,1.9s
FNVD  Fontana Vidola   95.92  46   P       P        02 49 50.3 +1.0
            comp=Z,131nm,1.7s,mb6.1
CLZ   Clausthal        95.93  39  eP       P        02 49 49.1  -0.1
CLZ                                pmax    pmax
            comp=Z,42nm,1.1s,mb5.8
CLZ   Clausthal        95.93  39  eP       P        02 49 49.1  -0.1
            comp=Z,42nm,1.1s,mb5.8
KONO  Kongsberg        95.98  31   PFAKE            02 50 00.0  +11
KONO                               LR      LR
            comp=Z,9µm,21.0s,MS6.2
KONO  Kongsberg        95.98  31  ePP      PP       02 53 40.3  -1.3
KONO                              eSKS              03 01 02.1
KONO                              e                 03 02 45.4
BSEG  Bad Segeberg     96.03  36  eP       P        02 49 49.4  -0.1
BSEG                               pmax    pmax
            comp=Z,47nm,1.0s,mb5.9
BSEG  Bad Segeberg     96.03  36  eP       P        02 49 49.4  -0.1
            comp=Z,47nm,1.0s,mb5.9
MOTA  Moosalm          96.12  43⇑iP       P        02 49 49.4  -0.7
            comp=Z,241nm,2.8s,mb6.1
MOTA  Moosalm          96.12  43⇑iP       P        02 49 49.5  -0.6
MOTA                               pmax    pmax
            comp=Z,241nm,2.8s,mb6.1
FUR   Furstenfeldbru   96.28  42  eP       P        02 49 50.3  -0.6
FUR                                pmax    pmax
            comp=Z,60nm,1.3s,mb5.9
FUR   Furstenfeldbru   96.28  42  eP       P        02 49 50.3  -0.6
            comp=Z,60nm,1.3s,mb5.9
GRFO  Grafenberg       96.34  41   PFAKE            02 50 00.0 +8.9
GRFO                               LR      LR
            comp=Z,6µm,19.0s,MS6.1
GRA1  Grafenberg Arr   96.34  41  eP       P        02 49 51.0  -0.1
            comp=Z,76nm,1.6s,mb5.9
GRA1                               LR      LR
            comp=Z,8µm,18.7s,MS6.2
GRF   Grafenberg Arr   96.34  41  eP       P        02 49 51.0  -0.1
GRF                                pmax    pmax
            comp=Z,76nm,1.6s,mb5.9
GRF                                MLR     MLR
            comp=Z,8µm,18.7s,MS6.2
GRF   Grafenberg Arr   96.34  41  eP       P        02 49 51.0  -0.1
GRF                                pmax    pmax
            comp=Z,76nm,1.6s,mb5.9
GRF                                MLR     MLR
            comp=Z,8µm,18.7s,MS6.2
GRF   Grafenberg Arr   96.34  41  eP       P        02 49 51.0  -0.1
            comp=Z,76nm,1.6s,mb5.9
GRF                               eL                03 36 39.8
            comp=Z,8µm,18.7s
TOLF  Tolfa            96.43  48   P       P        02 49 53.4 +1.7
SNZO  South Karori     96.46 227   PFAKE            02 50 00.0 +8.1
SNZO                               LR      LR
            comp=Z,18µm,22.0s,MS6.5
WTTA  Wattenberg       96.47  43⇑iP       P        02 49 52.4 +0.6
            comp=Z,38nm,1.8s,mb5.5
WTTA  Wattenberg       96.47  43⇑iPcP     PcP      02 49 52.4 +0.5
            comp=Z,38nm,1.8s
WTTA  Wattenberg       96.47  43⇑iP       P        02 49 52.4 +0.6
WTTA                               pmax    pmax
            comp=Z,38nm,1.8s,mb5.5
MOX   Moxa             96.64  40  eP       P        02 49 52.8 +0.4
            comp=Z,68nm,1.9s,mb5.8
MOX                               ePP      PP       02 53 49.0 +2.0
MOX                               eSKS              03 00 44.0
MOX                               eSS      SS       03 07 54.0 +5.9
MOX   Moxa             96.64  40  eP       P        02 49 52.8 +0.4
            comp=Z,68nm,1.9s,mb5.8
MOX
            comp=Z,4µm,22.0s
MOX   Moxa             96.64  40  eP       P        02 49 52.8 +0.4
MOX                                pmax    pmax
            comp=Z,68nm,1.9s,mb5.8
MOX                                MLR     MLR
            comp=Z,4µm,22.0s,MS5.9
MOX   Moxa             96.64  40  eP       P        02 49 52.3  -0.1
            comp=Z,69nm,1.9s,mb5.8
NAO01 NORSAR Array S   96.68  30   PFAKE            02 50 00.0 +7.6
NAO01                              LR      LR
            comp=Z,5µm,21.0s,MS6.0
GAMB  Gambell          96.75 333  eP       P        02 49 52.3  -0.3
NB2   NORSAR Subarra   96.85  29   P       P        02 49 52.2  -0.9
            comp=Z,130nm,2.5s,mb5.9,baz=267,slow=4.8
NOA   NORSAR Array B   96.85  29   P       P        02 49 52.1  -1.0
NOA                                S       SKSac    03 00 28.9  -1.1
NOA   NORSAR Array B   96.85  29   P       P        02 49 52.0  -1.1
            comp=Z,5.1nm,0.8s,mb5.0,baz=268,slow=4.6,SNR=12
NOA                                S       SKSac    03 00 28.9  -1.1
            comp=Z,1.3nm,0.9s,baz=308,slow=15,SNR=2.3
NOA                                LR      LR       03 30 47.4
            comp=Z,4µm,21.5s,MS5.9,baz=275,slow=34
MANZ  Manzenberg       96.92  41  eP       P        02 49 53.9 +0.2
            comp=Z,206nm,2.3s,mb6.2
ROTZ  Rotzenmuhle      96.98  41  eP       P        02 49 54.0   0.0
            comp=Z,150nm,2.2s,mb6.0
ABTA  Abfaltersbach    97.05  44⇑iP       P        02 49 53.6  -0.8
            comp=Z,26nm,2.1s,mb5.3
WERD  Werda            97.07  40  eP       P        02 49 54.3  -0.1
            comp=Z,95nm,2.1s,mb5.9
GUNZ  Gunzen           97.08  40  eP       P        02 49 54.6 +0.2
            comp=Z,83nm,2.1s,mb5.8
CLTB  Caltabellotta    97.10  53   P       P        02 49 55.4 +0.6
WERN  Wernitzgruen     97.11  40  eP       P        02 49 54.7 +0.1
            comp=Z,39nm,1.4s,mb5.6
CERT  Cerreto          97.15  49   P       P        02 49 55.0   0.0
            comp=Z,569nm,4.1s
NKC   Novy Kostel      97.15  40  ePdif    P        02 49 55.3 +0.5
NKC                               eSKS              03 00 36.1
NKC   Novy Kostel      97.15  40  eP       P        02 49 55.3 +0.5
NKC                               eSKS              03 00 36.1
NKC                                AMS     AMS      03 32 50.0
            comp=Z,8µm,19.6s
TANN  Tannenbergstha   97.17  40  eP       P        02 49 54.9 +0.1
            comp=Z,34nm,1.3s,mb5.6
KBS   Kingsbay         97.25  11   PFAKE            02 50 10.0  +15
KBS                                LR      LR
            comp=Z,7µm,21.0s,MS6.1
KBS   Kingsbay         97.25  11  eP       P        02 49 55.0 +0.4
KBS                               ePP      PP       02 53 48.9  -2.0
KBS                               eSKS              03 01 10.0
KBS                               eSS      SS       03 07 56.2 +0.7
KBS                                AMS     AMS      03 31 58.6
            comp=Z,4µm,25.0s,MS5.8
COP   Copenhagen       97.33  35  eP       P        02 49 55.8 +0.4
COP                               i                 03 01 19.5
COP                               i                 03 02 52.2
COP                                pmax    pmax
            comp=Z,71nm,1.0s,mb6.0
COP                                MLR     MLR
            comp=Z,4µm,21.0s,MS5.8
COP   Copenhagen       97.33  35  i P      P        02 49 55.8 +0.4
            comp=Z,71nm,1.0s,mb6.0
COP                               i                 02 54 11.9
COP                               i S      S        03 00 52.6  -27
COP                               i                 03 01 19.5
COP                               i                 03 02 52.2
COP
            comp=Z,3µm,21.0s
WET   Wettzell         97.39  41  eP       P        02 49 55.8  -0.1
WET                                pmax    pmax
            comp=Z,137nm,2.1s,mb6.0
WET   Wettzell         97.39  41  eP       P        02 49 55.8  -0.1
            comp=Z,137nm,2.1s,mb6.0
AQU   L'Aquila         97.48  48  eP       P        02 49 55.4  -1.0
            comp=Z,18nm,1.1s,mb5.4
AQU   L'Aquila         97.48  48   P       P        02 49 57.2 +0.8
AQU                                pmax    pmax
            comp=Z,30nm,1.2s,mb5.6
CLL   Collm            97.54  39  i Pdif   P        02 49 57.0 +0.5
            comp=Z,158nm,2.4s,mb6.1
CLL                               e                 02 50 05.0
CLL                               i PP     PP       02 53 51.8  -2.1
CLL                               eSKKS    SKKSac   03 00 56.0  -5.8
CLL                               eSdif    S        03 01 23.0 +1.5
CLL                                LR      LR
            comp=Z,9µm,23.4s,MS6.2
CLL   Collm            97.54  39  i P      P        02 49 57.0 +0.5
CLL                               e                 02 50 05.0
CLL                               i                 02 53 51.8
CLL                               eS       S        03 01 23.0 +1.5
CLL                                pmax    pmax
            comp=Z,158nm,2.4s,mb6.1
CLL                                pmax    pmax
            comp=Z,100nm,2.2s,mb6.0
CLL                                MLR     MLR
            comp=Z,9µm,23.4s,MS6.2
CLL   Collm            97.54  39  eP       P        02 49 57.1 +0.6
            comp=Z,159nm,2.4s,mb6.1
CLL                               ePP      PP       02 53 52.3  -1.6
CLL                               eSKSac   SKSac    03 00 35.7 +1.7
CLL                               eS       S        03 01 23.5 +2.0
CLL                               ePS      PS       03 02 46.7 +1.5
CLL                               ePPS              03 03 32.4
CLL                               eSS      SS       03 08 03.2 +2.4
CLL                               eSSS              03 12 04.8
CLL                               eLR      LR       03 23 25.1
CLL                               eL                03 29 09.0
            comp=Z,9µm,22.0s
CLL   Collm            97.54  39  i Pdif   P        02 49 57.0 +0.5
            comp=Z,158nm,2.4s,mb6.1
CLL                               ePdifflp pP       02 50 00.0 +0.2
            comp=Z,1µm,21.1s
CLL                               esPdif            02 50 05.0
CLL                               i PP     PP       02 53 51.8  -2.1
            comp=Z,100nm,2.2s
CLL                               ePPlp             02 53 54.0
            comp=Z,2µm,22.0s
CLL                               ePPP              02 56 12.0
CLL                               eSKKSac  SKKSac   03 00 56.0  -5.8
CLL                               eSdif    S        03 01 23.0 +1.5
CLL                               ePS      PS       03 02 50.0 +4.8
CLL                               ePPS              03 03 32.0
CLL                               eSS      SS       03 08 18.0  +17
CLL                               eSSS              03 11 55.0
CLL                               eSKKSacre         03 13 50.0
FBE   Freiberg         97.75  40  eP       P        02 49 57.5 +0.1
            comp=Z,187nm,2.4s,mb6.2
KHC   Kasperske Hory   97.85  41  eP       P        02 49 58.2 +0.3
KHC                               epP      pP       02 50 06.6 +5.3
KHC                               ePP      PP       02 53 57.7 +1.4
KHC                               eSKS              03 00 38.4
KHC                                AMS     AMS      03 36 30.0
            comp=Z,6µm,18.8s
GEC2  GERESS Array S   97.92  42  eP       P        02 49 58.1  -0.2
GEC2                               pmax    pmax
            comp=Z,126nm,2.6s,mb6.0
GEC2  GERESS Array S   97.92  42  eP       P        02 49 58.1  -0.2
            comp=Z,126nm,2.6s,mb6.0
GERES GERESS Array B   97.92  42   P       P        02 49 57.6  -0.7
GERES                                               02 53 56.0
GERES                              S       SKSac    03 00 38.2 +2.1
GERES GERESS Array B   97.92  42   P       P        02 49 57.6  -0.7
            comp=Z,1.9nm,0.9s,mb4.6,baz=249,slow=3.7,SNR=12
GERES                              PP      PP       02 53 56.0  -0.9
            comp=Z,2.0nm,0.9s,baz=215,slow=6.5,SNR=4.0
GERES                              S       SKSac    03 00 38.2 +2.1
            comp=Z,0.2nm,0.2s,baz=242,slow=2.9,SNR=2.8
GERES                              LR      LR       03 30 34.4
            comp=Z,5µm,21.5s,MS6.0,baz=263,slow=33
VAE   Valguarnera      98.04  53   P       P        02 49 58.9  -0.2
            comp=Z,9.7nm,0.9s,mb5.3,baz=56,slow=23,SNR=2.1
VAE                                PP      PP       02 53 59.0 +0.9
            comp=Z,2.0nm,0.4s,baz=75,slow=13,SNR=3.0
JAVS  Javornik         98.09  45  i P      P        02 49 59.7 +0.6
BRG   Berggiesshubel   98.12  40  eP       P        02 49 59.5 +0.4
            comp=Z,19nm,1.5s,mb5.4
BRG                               ePP      PP       02 54 13.2  +15
BRG                                SKS              03 00 50.0
BRG                                S       S        03 01 28.0 +1.6
BRG                                PS      PS       03 02 56.0 +4.5
BRG                                SS      SS       03 08 11.0 +2.0
BRG                                LR      LR
            comp=Z,4µm,22.6s,MS5.8
BRG   Berggiesshubel   98.12  40  eP       P        02 49 59.5 +0.4
BRG                                S       S        03 01 28.0 +1.6
BRG                                PS      PS       03 02 56.0 +4.5
BRG                                SS      SS       03 08 11.0 +2.0
BRG                                pmax    pmax
            comp=Z,19nm,1.5s,mb5.4
BRG                                pmax    pmax
            comp=Z,72nm,2.3s,mb5.8
BRG                                MLR     MLR
            comp=N,3µm,21.8s,MS5.9
BRG                                MLR     MLR
            comp=E,3µm,22.1s,MS5.9
BRG                                MLR     MLR
            comp=Z,4µm,22.6s,MS5.8
BRG   Berggiesshubel   98.12  40  eP       P        02 49 59.2 +0.1
            comp=Z,114nm,2.2s,mb6.0
BRG   Berggiesshubel   98.12  40  eP       P        02 49 59.5 +0.4
            comp=Z,31nm,1.5s,mb5.6
BRG                               ePP      PP       02 54 13.2  +15
            comp=Z,120nm,2.3s
BRG                                SKS              03 00 50.0
BRG                                S       S        03 01 28.0 +1.6
BRG                                PS      PS       03 02 56.0 +4.5
BRG                                SS      SS       03 08 11.0 +2.0
BRG
            comp=N,4µm,21.8s
BRG
            comp=E,5µm,22.1s
BRG
            comp=Z,6µm,22.6s
MOA   Molln            98.28  43⇑iP       P        02 49 57.1  -2.8
            comp=Z,35nm,2.4s,mb5.5
MOA   Molln            98.28  43⇑iPdiff   P        02 49 59.2  -0.7
            comp=Z,35nm,2.4s,mb5.5
PRA   Prague           98.43  40   P       P        02 50 01.0 +0.5
PRA                                PP      PP       02 54 00.0  -0.7
PRU   Pruhonice        98.50  41  eP       P        02 50 01.0 +0.2
PRU                               epP      pP       02 50 09.0 +4.9
PRU                               ePP      PP       02 54 00.8  -0.4
PRU                               eSKS              03 00 43.5
PRU                                AMS     AMS      03 27 30.0
            comp=Z,10µm,24.4s
PVCC  Panska Ves       98.52  40  eP       P        02 50 01.5 +0.6
PVCC                              ex       x        02 54 11.4
PVCC                               AMS     AMS      03 34 30.0
            comp=Z,8µm,16.6s
CSSN  Cassano Irpino   98.64  50   P       P        02 50 02.7 +1.0
BSD   Bornholm Skovb   98.74  35  eP       P        02 50 06.7 +5.0
BSD                               e                 02 54 07.0
BSD                                MLR     MLR
            comp=Z,6µm,22.0s,MS6.1
BSD   Bornholm Skovb   98.74  35  i P      P        02 50 06.7 +5.0
BSD                               e                 02 54 07.0
BSD                               eS       S        03 00 58.8  -33
BSD
            comp=Z,6µm,22.0s
PERS  Pernice          98.84  44  i P      P        02 50 02.5 +0.1
MGR   Morigerati       99.03  51   P       P        02 50 00.4  -3.0
TREC  Trest            99.11  41  eP       P        02 50 04.1 +0.6
TREC                              epP      pP       02 50 12.9 +6.0
TREC                              eSKS              03 00 45.7
TREC                               AMS     AMS      03 40 10.0
            comp=Z,9µm,19.2s
FUNA  Funafuti         99.14 260   PFAKE            02 50 10.0 +5.5
FUNA                               LR      LR
            comp=Z,18µm,20.0s,MS6.6
BJO   Bjornoya         99.25  16   AMS     AMS      03 29 36.1
            comp=Z,5µm,27.9s,MS5.9
CONA  Conrad Observa   99.35  43⇑iPdiff   P        02 50 04.4  -0.3
            comp=Z,29nm,2.1s,mb5.4
UPC   Upice            99.44  40  ePdif    P        02 50 05.6 +0.6
UPC                               epP      pP       02 50 13.8 +5.5
UPC   Upice            99.44  40  ePDIF    P        02 50 05.6 +0.6
UPC                               epP      pP       02 50 13.8 +5.5
KSP   Ksiaz            99.61  40  eP       P        02 50 06.8 +1.0
KSP                               ePP      PP       02 54 08.0  -1.7
KSP                               eSKS              03 00 42.5
KSP                               eS       S        03 01 39.0   0.0
KSP                               eSP      SP       03 03 06.0 +0.1
KSP                               eSS      SS       03 08 25.0  -4.9
KSP                                LR      LR
            comp=Z,16µm,18.5s,MS6.6
DPC   Dobruska-Polom   99.64  40  eP       Pdif     02 50 06.0 +0.2
DPC                               epP      pP       02 50 13.3 +4.1
DPC                               ePP      PP       02 54 09.8  -0.1
DPC                               eSKS              03 00 43.9
DPC                                AMS     AMS      03 34 40.0
            comp=Z,8µm,18.7s
TRO   Tromso           99.76  21  ePP      PP       02 54 08.1  -2.1
TRO                               eSKSa             03 00 39.2
TRO                               eSS      SS       03 08 24.8  -6.1
TRO                                AMS     AMS      03 30 14.8
            comp=Z,2µm,23.8s,MS5.6
SOP   Sopron           99.82  43⇓eP       Pdif     02 50 08.0 +1.4
VRAC  Vranov           99.83  41   P       Pdif     02 50 04.3  -2.3
            comp=Z,1.6nm,0.3s,baz=246,slow=6.5,SNR=7.3
TIP   Timpagrande      99.94  52  ePdif    Pdif     02 50 06.8  -0.3
ZST   Bratislava      100.18  42  eP       Pdif     02 50 06.4  -1.8
            comp=Z,69nm,2.0s
ZST                               ePP      PP       02 54 24.4  +10
ZST                                LR      LR
            comp=Z,10µm,18.4s,MS6.3
ZST   Bratislava      100.18  42   PDIF    Pdif     02 50 06.4  -1.8
ZST                               e                 02 54 24.4
BOSA  Boshof          100.30 121   P       Pdif     02 50 06.8  -2.0
BOSA                               PP      PP       02 54 17.4 +2.0
BOSA                               S       Sdif     03 00 52.5  -52
BOSA                               PKKPbc  PKKPbc   03 06 24.6  -2.0
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BOSA                               LR        LR
      comp=Z,15µm,19.0s,MS6.5
BOSA  Boshof            100.30 121 P         Pdif      02 50 06.8  -2.0
BOSA                                                   02 54 17.4
BOSA                               MLR       MLR
      comp=Z,15µm,19.0s,MS6.5
BOSA  Boshof            100.30 121 P         Pdif      02 50 06.8  -2.0
      comp=Z,4.6nm,1.0s,baz=276,slow=10,SNR=2.7
BOSA                               PP        PP        02 54 17.4  +2.0
      comp=Z,6.0nm,0.9s,baz=163,slow=11,SNR=4.1
BOSA                               S         SKSac     03 00 52.5  +3.5
      comp=Z,1.6nm,0.9s,baz=134,slow=18,SNR=1.5
BOSA                               PKKPbc    PKKPbc    03 06 24.6  -2.0
      comp=Z,3.3nm,1.0s,baz=263,slow=11,SNR=3.6
MORC  Moravsky Berou    100.44  41 ePdif     Pdif      02 50 09.7  +0.4
      comp=Z,118nm,2.3s
MORC  Moravsky Berou    100.44  41 P         Pdif      02 50 10.3  +0.9
MORC                               pmax      pmax
      comp=Z,120nm,2.3s
OKC   Ostrava-Krasne    100.83  41 ePdif     Pdif      02 50 12.2  +1.1
OKC                                epP                 02 50 21.1
OKC                                ePP       PP        02 54 12.7  -6.3
OKC   Ostrava-Krasne    100.83  41 ePDIF     Pdif      02 50 12.2  +1.1
OKC                                epP                 02 50 21.1
OKC                                ePP       PP        02 54 12.7  -6.3
OKC                                AMS       AMS       03 37 10.0
      comp=Z,5µm,19.0s
DRV   Dumont d’Urvil    100.98 195 Pdif      Pdif      02 50 10.0  -1.8
MAW   Mawson            101.17 167 P         Pdif      02 50 08.5  -4.1
MAW                                LR        LR
      comp=Z,9µm,22.0s,MS6.2
MAW   Mawson            101.17 167 P         Pdif      02 50 08.5  -4.1
      comp=Z,5.6nm,0.9s,baz=297,slow=5.6,SNR=4.4
VYHS  Vyhne             101.33  42 eP        Pdif      02 50 14.4  +1.1
      comp=Z,25nm,1.8s
VYHS                               ePP       PP        02 54 21.1  -1.7
VYHS                               LR        LR
      comp=Z,4µm,21.5s,MS5.8
VYHS  Vyhne             101.33  42 PDIF      Pdif      02 50 14.4  +1.1
VYHS                               ePP       PP        02 54 21.1  -1.7
LBTB  Lobatse           101.44 117 PFAKE               02 50 30.0   +16
LBTB                               LR        LR
      comp=Z,16µm,21.0s,MS6.5
BUD   Budapest          101.50  43⇓ eP       Pdif      02 50 15.2  +1.1
OJC   Ojcow             101.87  40 ePdif     Pdif      02 50 16.4  +0.6
OJC                                ePP       PP        02 54 26.2  -0.6
OJC                                eSKSac    SKSac     03 00 58.7  +3.2
OJC                                LR        LR
      comp=Z,7µm,19.8s,MS6.2
ARCES ARCESS Array B    102.05  20 P         Pdif      02 50 14.7  -1.8
      comp=Z,2.9nm,0.7s,baz=306,slow=6.3,SNR=4.9
PSZ   Piszkesteto       102.06  43⇑ eP       Pdif      02 50 17.1  +0.5
KECS  Kecovo            102.43  42 eP        Pdif      02 50 18.0  -0.2
      comp=Z,6.3nm,1.5s
KECS  Kecovo            102.43  42 eP        Pdif      02 50 18.0  -0.2
KECS                               pmax      pmax
      comp=Z,6.0nm,1.5s
KECS  Kecovo            102.43  42 PDIF      Pdif      02 50 18.0  -0.2
KEV   Kevo              102.51  20 PFAKE               02 50 30.0   +11
KEV                                LR        LR
      comp=Z,3µm,20.0s,MS5.8
STHS  Stebnicka Huta    102.86  41 eP        Pdif      02 50 21.4  +1.2
STHS                               ePP       PP        02 54 33.4  -0.9
STHS  Stebnicka Huta    102.86  41 PDIF      Pdif      02 50 21.4  +1.2
STHS                               ePP       PP        02 54 33.4  -0.9
UZH   Uzhgorod          103.61  42 eP        Pdif      02 50 24.4  +0.9
UZH                                i                   03 01 05.0
UZH                                eS        Sdif      03 02 09.8  -2.5
UZH                                i PS      PS        03 03 43.0  -7.3
UZH                                MLR       MLR
      comp=Z,3µm,18.0s,MS5.8
KAF   Kangasniemi       103.94  28 epkp      Pdif      02 50 21.8  -3.1
KAF   Kangasniemi       103.94  28 ePKP      Pdif      02 50 21.8  -3.1
FINES FINESS Array B    103.96  28 Pdif      Pdif      02 50 23.1  -2.0
FINES FINESS Array B    103.96  28 Pdiff     Pdif      02 50 23.1  -2.0
      comp=Z,4.1nm,0.8s,baz=306,slow=4.5,SNR=11
SMY   Shemya            104.86 323 PFAKE               02 50 40.0   +11
SMY                                LR        LR
      comp=Z,3µm,20.0s,MS5.8
BILL  Bilibino          105.02 339 ePdif     Pdif      02 50 29.6  -0.1
      comp=Z,82nm,1.9s
BILL                               LR        LR
      comp=Z,5µm,21.0s,MS6.0
BILL  Bilibino          105.02 339 eP        Pdif      02 50 28.1  -1.7
BILL                               e                   03 01 06.0
BILL                               pmax      pmax
      comp=Z,3.0nm,0.7s
BILL                               MLR       MLR
      comp=Z,4µm,21.0s,MS5.9
APA   Apatity           105.39  21 eP        Pdif      02 50 23.0  -8.4
APA                                i                   02 54 49.0
APA                                ePPP                02 57 15.0
APA                                eS        Sdif      03 02 13.0   -14
APA                                i PPS               03 05 13.0
LVZ   Lovozero          105.72  21 PFAKE               02 55 00.0   +15
LVZ                                LR        LR
      comp=Z,4µm,21.0s,MS5.9
LSZ   Lusaka            105.94 108 ePKP      PKiKP     02 54 47.6  +0.3
LSZ                                LR        LR
      comp=Z,24µm,19.0s,MS6.8
LSZ   Lusaka            105.94 108 PP        PP        02 54 57.1  -1.0
      comp=Z,6.2nm,1.0s,baz=236,slow=9.4,SNR=5.3
LSZ                                PKKPbc    PKKPbc    03 06 08.4  -1.3
      comp=Z,2.2nm,0.7s,baz=78,slow=4.8,SNR=6.1
JOF   Joensuu           105.99  26 epkp      Pdif      02 50 30.3  -3.8
JOF   Joensuu           105.99  26 ePKP      Pdif      02 50 30.3  -3.8
MLR   Muntele Rosu      106.42  45 PP        PP        02 54 59.9  -0.9
      comp=Z,4.3nm,0.9s,baz=327,slow=5.4,SNR=2.8
IDI   Anoyia            106.50  55 PP        PP        02 55 00.6  -1.3
      comp=Z,15nm,1.1s,baz=328,slow=14,SNR=1.7
CASY  Casey             106.50 185 PFAKE               02 55 00.0   +13
CASY                               LR        LR
      comp=Z,7µm,19.0s,MS6.2
KIEV  Kiev              107.78  39 ePKP      PKiKP     02 54 47.8  -1.9
KIEV                               ePP       PP        02 55 07.7  -2.9
KIEV                               LR        LR
      comp=Z,6µm,21.0s,MS6.2
AKASG Malin Array Be    107.79  39 PP        PP        02 55 09.3  -1.3
      comp=Z,1.5nm,0.8s,baz=274,slow=7.2,SNR=7.1
AKBB  Malin Array Si    107.79  39 ePKP      PKiKP     02 54 48.4  -1.3
AKBB                               ePP       PP        02 55 07.6  -3.0
KIS   Kishinev          108.18  43 eP        Pdif      02 50 44.0  +0.2
KIS                                e                   02 55 12.0
KIS                                eSS       SKSac     03 01 19.0  -5.2
OBN   Obninsk           110.96  33 ePKP      PKiKP     02 54 53.3  -2.2
OBN                                LR        LR
      comp=Z,12µm,21.0s,MS6.4
OBN   Obninsk           110.96  33 i PKIKP   PKiKP     02 54 53.3  -2.2
OBN                                e                   02 55 31.4
OBN                                pmax      pmax
      comp=Z,5.0nm,1.0s
OBN                                MLR       MLR
      comp=Z,11µm,21.0s,MS6.4
MOS   Moscow            111.32  32 ePKIKP    PKiKP     02 55 04.2  +8.0
MOS                                e                   03 05 05.1
SIM   Simferopol’       112.20  44 eP        Pdif      02 51 05.0  +3.3
SIM                                e                   02 55 41.0
SIM                                pmax      pmax
      comp=Z,2µm,18.0s
ANTO  Ankara            112.23  50 PFAKE               02 55 10.0   +12
ANTO                               LR        LR
      comp=Z,8µm,21.0s,MS6.3
TIXI  Tiksi             112.86 350 ePdif     Pdif      02 51 04.2  -0.4
TIXI                               LR        LR
      comp=Z,5µm,19.0s,MS6.1
TIXI  Tiksi             112.86 350 eP        Pdif      02 51 02.6  -2.0
TIXI                               e                   02 55 44.2
TIXI                               ePPP                02 58 09.6
TIXI                               eSP       SP        03 05 13.2  -6.0
TIXI                               ePS       PS        03 05 24.2  +2.7
TIXI                               eSS       SS        03 11 22.8  -5.8
TIXI                               pmax      pmax
      comp=Z,181nm,14.5s
TIXI                               pmax      pmax
      comp=Z,3.0nm,0.7s
TIXI                               pmax      pmax
      comp=N,1.0nm,0.8s
TIXI                               pmax      pmax
      comp=E,1.0nm,0.7s
BR131 Keskin Array S    112.90  50 PFAKE               02 55 10.0   +10
BR131                              LR        LR
      comp=Z,4µm,19.0s,MS6.0
BRTR  Keskin Array B    112.90  50 PKPdf     PKiKP     02 54 58.2  -1.5
BRTR                               PP        PP        02 55 45.4  -2.6
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BRTR  Keskin Array B    112.90  50 PKIKP     PKiKP     02 54 58.3  -1.4
BRTR                                                   02 55 45.4
BRTR  Keskin Array B    112.90  50 PKiKP     PKiKP     02 54 58.2  -1.5
      comp=Z,1.7nm,0.9s,baz=299,slow=1.5,SNR=5.8
BRTR                               PP        PP        02 55 45.4  -2.6
      comp=Z,0.4nm,0.7s,baz=130,slow=39,SNR=2.2
CSS   Prodhromos        113.42  55 ePKP      PKiKP     02 55 00.6  -0.3
PET   Petropavlovsk     113.83 325 PFAKE               02 55 10.0  +8.9
PET                                LR        LR
      comp=Z,4µm,21.0s,MS6.0
PET   Petropavlovsk     113.83 325 eP        Pdif      02 51 08.8  -0.1
PET                                e                   02 55 55.2
PET                                e                   03 01 47.7
PET                                pmax      pmax
      comp=Z,300nm,16.6s
PET                                pmax      pmax
      comp=Z,1µm,14.6s
TAU   Tasmania Unive    114.11 217 PFAKE               02 55 10.0  +8.0
TAU                                LR        LR
      comp=Z,6µm,20.0s,MS6.2
ANN   Anapa             114.53  44 i PKIKP   PKiKP     02 55 01.4  -1.3
ANN                                e                   02 55 07.6
ANN                                e                   02 55 56.2
ANN                                eSP       SP        03 05 32.8  -3.2
ANN                                pmax      pmax
      comp=Z,76nm,1.9s
ANN                                MLR       MLR
      comp=N,3µm,22.0s,MS6.0
ANN                                MLR       MLR
      comp=E,4µm,22.0s,MS6.0
ANN                                MLR       MLR
      comp=Z,4µm,22.0s,MS6.0
MA2   Magadan           114.85 334 PFAKE               02 55 10.0  +7.2
MA2                                LR        LR
      comp=Z,6µm,22.0s,MS6.2
VRHR  Novokhopersk      115.21  36 ePKIKP    PKiKP     02 54 56.4  -7.4
VRHR                               pmax      pmax
      comp=Z,3.0nm,0.7s
VRHR                               pmax      pmax
      comp=N,1.0nm,0.5s
VRHR                               pmax      pmax
      comp=E,8.0nm,0.7s
GZT   Gaziantep         116.38  52 i P       PKPdf     02 55 05.9  -0.5
SOC   Sochi             116.44  45 eP        Pdif      02 51 17.6  -2.9
SOC                                i                   02 55 01.1
SOC                                e                   02 56 11.5
SOC                                ePPP                02 58 37.5
MALT  Malatya           116.84  51 ePKPdf    PKPdf     02 55 05.9  -1.4
MALT  Malatya           116.84  51 ePKIKP    PKPdf     02 55 05.9  -1.4
KMBO  Kilima Mbogo      117.32  95 ePKPdf    PKPdf     02 55 08.9  -0.1
KMBO                               LR        LR
      comp=Z,34µm,20.0s,MS7.0
KMBO  Kilima Mbogo      117.32  95 ePKIKP    PKPdf     02 55 08.9  -0.1
KMBO                               MLR       MLR
      comp=Z,34µm,20.0s
KMBO  Kilima Mbogo      117.32  95 PKP       PKPdf     02 55 08.6  -0.4
      comp=Z,2.3nm,0.9s,baz=211,slow=6.6,SNR=6.5
KMBO                               PP        PP        02 56 20.4  +0.4
      comp=Z,1.2nm,0.6s,baz=59,slow=7.7,SNR=3.1
HNR   Honiara           117.67 256 PFAKE               02 55 20.0   +10
HNR                                LR        LR
      comp=Z,8µm,22.0s,MS6.3
HNR   Honiara           117.67 256 PP        PP        02 56 20.0  -2.3
      comp=Z,88nm,0.7s,baz=277,slow=7.5,SNR=1.9
KIV   Kislovodsk        118.37  43 PFAKE               02 55 20.0   +10
KIV                                LR        LR
      comp=Z,3µm,22.0s,MS5.8
KIV   Kislovodsk        118.37  43 ePKIKP    PKPdf     02 55 05.7  -4.4
KIV                                pmax      pmax
      comp=Z,8.0nm,1.1s
KIV                                MLR       MLR
      comp=Z,3µm,21.0s,MS5.9
ZEI   Tsey              119.60  44 ePKIKP    PKPdf     02 55 11.7  -0.8
ZEI                                e                   02 56 31.9
YAK   Yakutsk           120.73 344⇑ ePKP     PKPdf     02 55 11.7  -2.4
YAK                                LR        LR
      comp=Z,4µm,21.0s,MS6.0
YAK   Yakutsk           120.73 344⇑ ePKIKP   PKPdf     02 55 11.7  -2.4
YAK                                MLR       MLR
      comp=Z,4µm,21.0s,MS6.0
ARU   Arti              121.09  25 ePKPdf    PKPdf     02 55 13.3  -1.7
ARU                                LR        LR
      comp=Z,7µm,22.0s,MS6.3
ARU   Arti              121.09  25 ePKIKP    PKPdf     02 55 13.3  -1.6
ARU                                MLR       MLR
      comp=Z,7µm,22.0s,MS6.3
MAK   Makhachkala       122.00  43 eP        Pdif      02 51 47.3  +2.0
MAK                                e                   02 55 15.6
MAK                                i                   02 56 50.5
MAK                                i                   03 02 25.0
MAK                                ePS       PS        03 06 44.6  -0.9
MAK                                pmax      pmax
      comp=Z,1µm,1.7s
MAK                                MLR       MLR
      comp=Z,6µm,20.0s,MS6.2
ORR   Orenburg          122.23  31 ePKIKP    PKPdf     02 55 15.4  -1.9
ORR                                i                   02 56 55.5
ORR                                pmax      pmax
      comp=Z,10.0nm,1.1s
ORR                                pmax      pmax
      comp=Z,9µm,18.3s
ATD   Arta Tunnel       123.92  81 PKP       PKPdf     02 55 20.8  -0.8
ATD                                PP        PP        02 57 05.0  -0.2
ATD   Arta Tunnel       123.92  81 PKP       PKPdf     02 55 20.8  -0.8
      comp=Z,9.7nm,0.8s,baz=336,slow=8.9,SNR=6.4
ATD                                PP        PP        02 57 05.0  -0.2
      comp=Z,2.8nm,0.5s,baz=199,slow=19,SNR=2.5
STKA  Stephens Creek    124.33 224 ePKP      PKPdf     02 55 19.6  -2.4
      comp=Z,6.5nm,0.9s
STKA                               ePP       PP        02 57 03.7  -3.0
STKA                               eSKS      SKSdf     03 02 20.3   -14
STKA                               eSKKS     SKKSac    03 04 00.1  -6.3
STKA  Stephens Creek    124.33 224 ePKP      PKPdf     02 55 19.6  -2.4
STKA                               ePP       PP        02 57 03.7  -3.0
STKA                               eSKS      SKSdf     03 02 20.3   -14
STKA                               eSKKS     SKKSac    03 04 00.1  -6.3
STKA  Stephens Creek    124.33 224 PKP       PKPdf     02 55 20.2  -1.8
      comp=Z,6.4nm,0.8s,baz=135,slow=2.2,SNR=15
STKA                               PP        PP        02 57 04.6  -2.1
      comp=Z,6.1nm,1.1s,baz=216,slow=2.3,SNR=2.0
AKTK  Aktyubinsk        124.60  31 PKP       PKPdf     02 55 20.8  -1.1
AKTK                               PP        PP        02 57 05.6  -2.5
AKTO  Aktyubinsk        124.60  31 PKIKP     PKPdf     02 55 20.8  -1.1
AKTO                                                   02 57 05.6
AKTO  Aktyubinsk        124.60  31 PKP       PKPdf     02 55 20.8  -1.1
      comp=Z,11nm,0.8s,baz=308,slow=2.2,SNR=42
AKTO                               PP        PP        02 57 05.6  -2.5
      comp=Z,2.4nm,0.9s,baz=116,slow=12,SNR=2.0
YSS   Yuzh-Sakhalins    125.70 325 ePKPdf    PKPdf     02 55 22.6  -1.5
YSS                                LR        LR
      comp=Z,4µm,20.0s,MS6.1
YSS   Yuzh-Sakhalins    125.70 325 e         PKPdf     02 55 22.0  -2.1
YSS                                e                   02 57 15.0
YSS                                e                   03 02 23.0
YSS                                eSS       SS        03 14 16.0  +0.6
YSS                                eSSS                03 18 56.0
YSS   Yuzh-Sakhalins    125.70 325 i PKIKP   PKPdf     02 55 12.0   -12
MIB   Mutribah          126.03  58 eP        PKPdf     02 55 23.6  -1.7
MIB                                AMb       AMB       02 55 25.9
      comp=Z,55nm,0.8s
NAY   Al-Naaiem         126.08  59 eP        PKPdf     02 55 24.0  -1.3
NAY                                AMb       AMB       02 55 25.5
      comp=Z,18nm,1.0s
AB31  Akbulak array     126.31  31⇑ ePKP     PKPdf     02 55 24.1  -1.1
AB31  Akbulak array     126.31  31 i PKIKP   PKPdf     02 55 24.1  -1.1
AB31                               pmax      pmax
      comp=Z,31nm,0.8s
UMR   Umm Al-Rimmam126.41  58 eP             PKPdf     02 55 24.8  -1.1
UMR                                AMb       AMB       02 55 26.4
      comp=Z,66nm,0.7s
RDF   Al-Radifah        126.42  59 eP        PKPdf     02 55 24.8  -1.2
RDF                                AMb       AMB       02 55 26.1
      comp=Z,35nm,0.8s
CLNS  Chul’man          126.42 343 ePKIKP    PKPdf     02 55 22.8  -2.4
CLNS                               pmax      pmax
      comp=Z,15nm,0.7s
CLNS                               pmax      pmax
      comp=N,9.0nm,0.9s
CLNS                               pmax      pmax
      comp=E,6.0nm,0.8s
QRN   Al-Qurain         126.78  59 eP        PKPdf     02 55 25.5  -1.2
QRN                                AMb       AMB       02 55 29.2
      comp=Z,42nm,1.1s
CTA   Charters Tower    126.78 239 ePKP      PKPdf     02 55 26.1  -0.9
      comp=Z,12nm,0.9s
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CTA                                ePP       PP        02 57 27.3  +3.6
CTA                                e                   02 58 36.7
CTA                                eSKS      SKSdf     03 02 30.1  -9.2
CTA                                eSKKS     SKKSac    03 04 21.9  -0.6
CTA   Charters Tower    126.78 239 ePKP      PKPdf     02 55 26.1  -0.9
CTA                                ePP       PP        02 57 27.3  +3.6
CTA                                e                   02 58 36.7
CTA                                eSKS      SKSdf     03 02 30.1  -9.2
CTA                                eSKKS     SKKSac    03 04 21.9  -0.6
CTA   Charters Tower    126.78 239 ePKIKP    PKPdf     02 55 26.1  -0.9
CTA                                e                   02 57 27.3
CTA                                e                   03 02 30.1
CTAO  Charters Tower    126.78 239 ePKPdf    PKPdf     02 55 26.3  -0.7
CTAO                               LR        LR
      comp=Z,9µm,22.0s,MS6.4
CTAO  Charters Tower    126.78 239 ePKIKP    PKPdf     02 55 26.3  -0.7
CTAO                               MLR       MLR
      comp=Z,9µm,22.0s,MS6.4
ASAJ  Asahikawa         127.31 322 PKP       PKPdf     02 55 25.6  -1.6
      comp=Z,16nm,0.8s,baz=295,slow=13,SNR=7.9
ASAJ                               PP        PP        02 57 23.6  -2.8
      comp=Z,7.2nm,0.8s,baz=246,slow=34,SNR=3.1
ERM   Erimo             128.03 319 PFAKE               02 55 40.0   +11
ERM                                LR        LR
      comp=Z,6µm,21.0s,MS6.2
BOD   Bodaibo           128.04 350 ePKIKP    PKPdf     02 55 26.2  -2.0
BOD                                pmax      pmax
      comp=Z,14nm,2.2s
BRVK  Borovoye          128.22  22 ePKPdf    PKPdf     02 55 27.1  -1.6
BRVK                               LR        LR
      comp=Z,7µm,19.0s,MS6.4
BRVK  Borovoye          128.22  22 ePKIKP    PKPdf     02 55 27.1  -1.6
BRVK                               MLR       MLR
      comp=Z,7µm,19.0s,MS6.4
BRVK  Borovoye          128.22  22 PKPdf     PKPdf     02 55 28.7   0.0
      SNR=9.7
HABR  Khabarovsk        128.89 330 eP        Pdif      02 52 12.3  -3.6
HABR                               e                   02 57 37.1
HABR                               eSS       SS        03 14 53.9  -0.9
PMG   Port Moresby      129.86 252 PFAKE               02 55 40.0  +7.0
PMG                                LR        LR
      comp=Z,8µm,20.0s,MS6.4
PMG   Port Moresby      129.86 252 PP        PP        02 57 43.4  -0.9
      comp=Z,2.1nm,0.3s,baz=184,slow=20,SNR=2.1
KLR   Kul’dur           129.92 333 ePKIKP    PKPdf     02 55 26.0  -6.0
KLR                                e                   02 57 38.5
KLR                                e                   03 15 07.5
KLR                                pmax      pmax
      comp=Z,100nm,2.0s
KLR                                pmax      pmax
      comp=N,1µm,10.5s
KLR                                pmax      pmax
      comp=Z,2µm,10.5s
KLR                                MLR       MLR
      comp=E,1µm,18.0s
KLR                                MLR       MLR
      comp=Z,2µm,18.0s,MS5.8
NVS   Novosibirsk       130.49  12 i PKIKP   PKPdf     02 55 31.9  -1.1
NVS                                pmax      pmax
      comp=E,58nm,2.0s
NVS                                pmax      pmax
      comp=Z,21nm,2.0s
ZALV  Zalesovo Beam     131.66  12 PKP                 02 55 17.6
ZALV                               PKP       PKPdf     02 55 33.0  -2.2
ZALV                               PP        PP        02 57 47.7  -6.2
ZALV  Zalesovo Beam     131.66  12 PKhKP               02 55 17.6
      comp=Z,1.8nm,0.6s,baz=333,slow=1.7,SNR=4.3
ZALV                               PKP       PKPdf     02 55 33.0  -2.2
      comp=Z,32nm,0.9s,baz=352,slow=3.0,SNR=47
ZALV                               PP        PP        02 57 47.7  -6.2
      comp=Z,8.4nm,1.0s,baz=282,slow=2.9,SNR=2.2
ZAL   Zalesovo          131.66  12 PKHKP               02 55 17.6
ZAL                                                    02 55 33.0
COEN  Coen              131.98 244 ePKPdf    PKPdf     02 55 36.8  -0.1
KURK  Kurchatov         133.03  18 ePKPdf    PKPdf     02 55 36.1  -1.8
KURK                               eSKPbc    SKPbc     02 59 05.3  -0.6
KURK                               LR        LR
      comp=Z,5µm,22.0s,MS6.2
KURK  Kurchatov         133.03  18 PKIKP     PKPdf     02 55 36.3  -1.6
KURK                               pmax      pmax
      comp=Z,216nm,2.4s
KURK  Kurchatov         133.03  18 PKPdf     PKPdf     02 55 36.8  -1.1
      SNR=27
CIT   Chita             133.63 348 ePKIKP    PKPdf     02 55 39.2  +0.2
CIT                                e                   02 55 46.4
CIT                                pmax      pmax
      comp=Z,106nm,2.3s
ABTO  Aybut             133.73  73 PKPdf     PKPdf     02 55 40.4  +0.2
      SNR=8.5
MAJO  Matsushiro        134.09 316 ePKPdf    PKPdf     02 55 39.4  -1.0
MAJO                               LR        LR
      comp=Z,12µm,22.0s,MS6.6
MAJO  Matsushiro        134.09 316 ePKIKP    PKPdf     02 55 39.4  -0.9
MAJO                               MLR       MLR
      comp=Z,12µm,22.0s,MS6.6
MAT   Matsushiro        134.09 316 PKP       PKPdf     02 55 38.8  -1.5
MJAR  Matsushiro Arr    134.09 316 PKP                 02 55 29.2
MJAR                               PKP       PKPdf     02 55 39.2  -1.1
MJAR  Matsushiro Arr    134.09 316 PKHKP               02 55 29.2
MJAR                                                   02 55 39.2
MJAR  Matsushiro Arr    134.09 316 PKhKP               02 55 29.2
      comp=Z,1.4nm,0.6s,baz=72,slow=0.4,SNR=5.1
MJAR                               PKP       PKPdf     02 55 39.2  -1.1
      comp=Z,5.0nm,0.8s,baz=89,slow=1.5,SNR=9.8
WHFO  Wadi Hawf         134.10  72 PKPdf     PKPdf     02 55 40.5  -0.3
      SNR=5.1
MDJ   Mudanjiang        134.27 330 PKP       PKPdf     02 55 39.1  -1.3
MDJ                                SS        SS        03 16 00.3  -0.2
MDJ                                LR        LR
      comp=N,3µm,22.0s,MS6.1
MDJ                                LR        LR
      comp=E,2µm,22.6s,MS6.1
MDJ                                LR        LR
      comp=Z,4µm,22.6s,MS6.1
MDJ   Mudanjiang        134.27 330 ePKPdf    PKPdf     02 55 40.6  +0.1
MDJ                                LR        LR
      comp=Z,5µm,21.0s,MS6.2
HIA   Hailar            134.54 342 ePKPdf    PKPdf     02 55 39.6  -1.1
HIA                                LR        LR
      comp=Z,6µm,19.0s,MS6.3
HIA   Hailar            134.54 342 ePKIKP    PKPdf     02 55 39.6  -1.2
HIA                                MLR       MLR
      comp=Z,6µm,19.0s
IRK   Irkutsk           134.70 356 ePKIKP    PKPdf     02 55 39.6  -1.4
IRK                                e                   02 58 10.5
IRK                                pmax      pmax
      comp=Z,148nm,2.3s
ASAR  Alice Springs     134.70 227 PKP                 02 55 34.5
ASAR                               PKP       PKPdf     02 55 40.2  -1.6
ASAR  Alice Springs     134.70 227 PKIKP               02 55 34.5
ASAR                                                   02 55 40.3
ASAR  Alice Springs     134.70 227 PKhKP               02 55 34.5
      comp=Z,1.3nm,0.8s,baz=134,slow=3.5,SNR=9.4
ASAR                               PKP       PKPdf     02 55 40.2  -1.6
      comp=Z,12nm,0.8s,baz=118,slow=1.4,SNR=13
ASHO  Ashiyiah          134.84  62 PKPdf     PKPdf     02 55 42.3  +0.2
      SNR=8.5
HATD  Hatta, Dubai      134.87  62 PKPdf     PKPdf     02 55 42.1  -0.1
      SNR=7.0
GUMO  Guam              134.99 282 PFAKE               02 55 50.0  +7.4
GUMO                               LR        LR
      comp=Z,6µm,20.0s,MS6.3
GUMO  Guam              134.99 282 PP        PP        02 58 16.1  -1.4
      comp=Z,17nm,0.5s,baz=204,slow=22,SNR=1.6
TLY   Talaya            135.30 356 ePKP      PKPdf     02 55 40.9  -1.2
TLY                                LR        LR
      comp=Z,4µm,21.0s,MS6.1
TLY   Talaya            135.30 356 i PKIKP   PKPdf     02 55 42.2  +0.1
TLY                                e                   02 58 15.3
TLY                                pmax      pmax
      comp=Z,27nm,1.3s
TLY                                MLR       MLR
      comp=Z,4µm,24.0s,MS6.1
TLY   Talaya            135.30 356 PKPdf     PKPdf     02 55 43.1  +1.0
      SNR=7.7
MOY   Mondy             135.43 359 ePKIKP    PKPdf     02 55 43.0  +0.6
MOY                                pmax      pmax
      comp=Z,192nm,2.2s
ARQ   Araqi             135.60  64 PKPdf     PKPdf     02 55 43.0  -0.5
      SNR=5.9
KKAR  Karatay Array     135.86  31 i PKIKP   PKPdf     02 55 43.1  -0.4
KKAR                               pmax      pmax
      comp=Z,63nm,1.4s
HOQ   Hoqain            136.24  63 PKPdf     PKPdf     02 55 42.9  -1.8
      SNR=9.2
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BSY	**Bisya**	**136.35**	**64**	PKPdf	PKPdf	02 55 43.6	-1.3
	SNR=12						
WB2	**Warramunga Arr**	**136.56**	**231**	*e*PKP	PKPdf	02 55 43.1	-2.3
WB2				*e*PP	PP	02 58 27.1	+0.6
WB2				*e*SKKS	SKKSac	03 05 19.3	-3.2
WB2	**Warramunga Arr**	**136.56**	**231**	*e*PKP	PKPdf	02 55 43.1	-2.3
WB2				*e*PP	PP	02 58 27.1	+0.6
WB2				*e*SKKS	SKKSac	03 05 19.3	-3.2
WRA	**Warramunga Arr**	**136.57**	**231**	PKP		02 55 34.8	
WRA				PKP	PKPdf	02 55 43.4	-2.1
WRA				PP	PP	02 58 26.0	-0.5
WRA	**Warramunga Arr**	**136.57**	**231**	PKHKP		02 55 34.8	
WRA						02 55 43.4	
WRA						02 58 26.0	
WRA	**Warramunga Arr**	**136.57**	**231**	PKhKP		02 55 34.8	
	comp=Z,4.3nm,0.9s,baz=135,slow=2.1,SNR=7.4						
WRA				PKP	PKPdf	02 55 43.4	-2.1
	comp=Z,15nm,0.7s,baz=126,slow=1.6,SNR=53						
WRA				PP	PP	02 58 26.0	-0.5
	comp=Z,3.9nm,0.9s,baz=121,slow=1.9,SNR=3.0						
ZAK	**Zakamensk**	**136.62**	**357**	*e*PKHKP		02 55 30.0	
ZAK				*e*		02 55 44.6	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.8s						
ZAK				pmax	pmax		
	comp=Z,13nm,2.1s						
CN2	**Changchun**	**136.86**	**332**	*e*PKP	PKPdf	02 55 44.1	-1.2
CN2				PPP		03 01 34.4	
CN2				PP	PP		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,2µm,20.0s,MS6.0						
CN2				LR	LR		
	comp=E,2µm,20.0s,MS6.0						
CN2				LR	LR		
	comp=Z,4µm,22.0s,MS6.1						
NWAO	**Narrogin (SRO)**	**136.91**	**202**	PFAKE		02 56 00.0	+14
NWAO				LR	LR		
	comp=Z,4µm,21.0s,MS6.1						
SMDO	**Samad**	**137.03**	**64**	PKPdf	PKPdf	02 55 44.2	-2.0
	SNR=13						
MK31	**Makanchi Array**	**137.64**	**18**	*e*PKPpre		02 55 37.1	
MK31				*e*PKPdf	PKPdf	02 55 45.5	-1.1
MK31	**Makanchi Array**	**137.64**	**18**	*e*PKHKP		02 55 37.1	
MK31				*e*		02 55 45.5	
MKAR	**Makanchi Array**	**137.64**	**18**	PKP		02 55 35.7	
MKAR				PKP	PKPdf	02 55 45.3	-1.3
MKAR				SKKPbc		03 08 06.7	
MKAR	**Makanchi Array**	**137.64**	**18**	PKHKP		02 55 35.7	
MKAR						02 55 45.3	
MKAR	**Makanchi Array**	**137.64**	**18**	PKhKP		02 55 35.7	
	comp=Z,3.7nm,0.7s,baz=347,slow=3.7,SNR=20						
MKAR				PKP	PKPdf	02 55 45.3	-1.3
	comp=Z,19nm,0.8s,baz=9.3,slow=1.4,SNR=35						
MKAR				SKKPbc		03 08 06.7	
	comp=Z,1.6nm,1.0s,baz=136,slow=4.2,SNR=4.3						
EKS2	**Erkin-Say**	**137.79**	**29**	*e*PKPpre		02 55 41.6	
EKS2				*e*PKPdf	PKPdf	02 55 46.9	-0.2
EKS2				LR	LR		
	comp=Z,5µm,21.0s,MS6.2						
FRU	**Bishkek**	**138.06**	**28**	*i* PKIKP	PKPdf	02 55 47.0	-0.5
FRU				*e*		02 58 32.0	
FRU				pmax	pmax		
	comp=Z,420nm,2.8s						
MUN	**Mundaring**	**138.14**	**201**	*e*PKP	PKPdf	02 55 46.4	-1.7
MUN	**Mundaring**	**138.14**	**201**	*e*PKP	PKPdf	02 55 46.4	-1.7
MUN	**Mundaring**	**138.14**	**201**	*e*PKIKP	PKPdf	02 55 46.4	-1.7
AAK	**Ala-Archa**	**138.15**	**28**	*e*PKPpre		02 55 37.0	
AAK				*i* PKP	PKPdf	02 55 46.6	-1.1
AAK				*e*PKPdf	PKPdf	02 55 47.0	-0.7
AAK				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
AAK	**Ala-Archa**	**138.15**	**28**	*e*PKHKP		02 55 37.0	
AAK				*i*		02 55 46.6	
AAK				MLR	MLR		
	comp=Z,4µm,20.0s,MS6.2						
AAK	**Ala-Archa**	**138.15**	**28**	PKPdf	PKPdf	02 55 47.5	-0.2
	SNR=15						
AML	**Almayashu**	**138.16**	**29**	*e*PKPpre		02 55 37.0	
AML				LR	LR		
	comp=Z,5µm,20.0s,MS6.3						
TKM2	**Tokmak 2**	**138.43**	**27**	*e*PKPpre		02 55 36.5	
TKM2				*e*PKPdf	PKPdf	02 55 47.9	-0.4
TKM2				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
TKM2	**Tokmak 2**	**138.43**	**27**	*e*PKHKP		02 55 36.5	
TKM2				*e*		02 55 47.9	
TKM2				MLR	MLR		
	comp=Z,4µm,20.0s,MS6.2						
UCH	**Uchtor**	**138.48**	**28**	*e*PKPdf	PKPdf	02 55 48.0	-0.4
UCH				LR	LR		
	comp=Z,5µm,21.0s,MS6.3						
ULN	**Ulaanbaatar**	**138.75**	**352**	*e*PKPpre		02 55 36.8	
ULN				LR	LR		
	comp=Z,5µm,22.0s,MS6.2						
ULN	**Ulaanbaatar**	**138.75**	**352**	*i* PKHKP		02 55 37.1	
SONM	**Songino Array**	**138.86**	**353**	PKP		02 55 36.7	
SONM				PKP	PKPdf	02 55 48.1	-0.7
SONM				PP	PP	02 58 37.2	-2.1
SONM	**Songino Array**	**138.86**	**353**	PKHKP		02 55 36.7	
SONM						02 55 48.1	
SONM						02 58 37.2	
SONM	**Songino Array**	**138.86**	**353**	PKhKP		02 55 36.7	
	comp=Z,6.1nm,0.7s,baz=354,slow=3.0,SNR=42						
SONM				PKP	PKPdf	02 55 48.1	-0.7
	comp=Z,8.1nm,0.8s,baz=332,slow=1.6,SNR=12						
SONM				PP	PP	02 58 37.2	-2.1
	comp=Z,4.4nm,1.0s,baz=288,slow=4.1,SNR=3.2						
KSRS	**Korea Array**	**140.18**	**324**	PKhKP		02 55 42.4	
	comp=Z,1.6nm,0.8s,baz=314,slow=38,SNR=4.7						
KSRS				PKP	PKPdf	02 55 51.0	-0.5
	comp=Z,11nm,0.8s,baz=6.0,slow=1.4,SNR=19						
KSRS				PP	PP	02 58 45.5	-2.8
	comp=Z,1.0nm,0.3s,baz=87,slow=33,SNR=4.5						
KBL	**Kabul**	**140.72**	**41**	*e*PKPpre		02 55 45.7	
KBL				*e*PKPdf	PKPdf	02 55 52.2	-0.4
INCN	**Inchon**	**140.91**	**325**	PFAKE		02 56 00.0	+7.1
INCN				LR	LR		
	comp=Z,4µm,21.0s,MS6.2						
JNU	**Nakatsue**	**141.00**	**316**	PKP	PKPdf	02 55 46.7	-6.5
JNU				PKP	PKPdf	02 55 52.0	-1.2
JNU				PP	PP	02 58 49.5	-4.2
JNU	**Nakatsue**	**141.00**	**316**	PKhKP		02 55 46.7	
	comp=Z,7.0nm,0.7s,baz=124,slow=14,SNR=3.6						
JNU				PKP	PKPdf	02 55 52.0	-1.2
	comp=Z,9.4nm,0.8s,baz=50,slow=17,SNR=4.5						
JNU				PP	PP	02 58 49.5	-4.2
	comp=Z,5.5nm,0.8s,baz=5.0,slow=33,SNR=2.0						
KSH	**Kashi**	**141.27**	**30**	*i* PKP	PKPdf	02 55 47.0	-6.5
KSH				*e*XPKP		02 56 01.1	
KSH				PP	PP		
	comp=Z,2µm,4.4s						
KSH				LR	LR		
	comp=N,2µm,5.8s						
KSH				LR	LR		
	comp=E,2µm,9.6s						
KSH				LR	LR		
	comp=Z,17µm,24.4s,MS6.7						
WMQ	**Urumqi**	**141.85**	**14**	PKP	PKPdf	02 55 48.5	-5.9
WMQ				PKS		02 59 22.8	
WMQ				SKS	SKSdf	03 02 56.9	-7.7
WMQ				SKKS	SKKSac	03 05 46.6	-5.8
WMQ				SS	SS	03 17 27.4	-1.9
WMQ				PP	PP		
	comp=Z,1µm,9.3s						
WMQ				LR	LR		
	comp=N,4µm,30.0s,MS6.2						
WMQ				LR	LR		
	comp=E,5µm,28.3s,MS6.2						
WMQ				LR	LR		
	comp=Z,6µm,28.0s,MS6.2						
KAKA	**Kakadu**	**141.92**	**239**	*e*PKP	PKPdf	02 55 48.2	-7.1
	comp=Z,70nm,1.5s						
KAKA	**Kakadu**	**141.92**	**239**	*e*PKP	PKPdf	02 55 48.2	-7.1
DL2	**Dalian**	**142.48**	**331**	⇑*i*PKP	PKPdf	02 55 48.3	-7.4
DL2				PP	PP	02 59 04.4	+2.3
DL2				PP	PP		
	comp=Z,970nm,9.5s						
DL2				LR	LR		
	comp=N,1µm,21.6s,MS5.9						
DL2				LR	LR		
	comp=E,2µm,20.8s,MS5.9						
DL2				LR	LR		
	comp=Z,3µm,21.8s,MS6.0						
BJI	**Beijing**	**143.85**	**338**	PKP	PKPdf	02 55 52.6	-5.4
BJI				PP	PP	02 59 09.9	-0.2
BJI				LR	LR		
	comp=N,3µm,22.3s,MS6.1						
BJI				LR	LR		
	comp=E,3µm,23.5s,MS6.1						
BJI				LR	LR		
	comp=Z,6µm,23.7s,MS6.3						
BJI	**Beijing**	**143.85**	**338**	PKP	PKPdf	02 55 52.6	-5.4
BJI				PP	PP	02 59 09.9	-0.2
BJI				SKS	SKSdf	03 02 37.8	-30
BJI				SKKS	SKKSdf	03 12 21.0	-1.5
BJI				SS	SS	03 17 41.9	-11
BJI				LR	LR		
	comp=Z,6µm,23.7s,MS6.3						
BJI	**Beijing**	**143.85**	**338**	PKHKP		02 55 52.6	
BJI						02 59 09.9	
BJI				MLR	MLR		
	comp=Z,6µm,23.7s,MS6.3						
BJT	**Baijiatuau**	**143.87**	**338**	*e*PKPpre		02 55 50.0	
BJT				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
BJT	**Baijiatuau**	**143.87**	**338**	*e*PKHKP		02 55 50.0	
BJT				MLR	MLR		
	comp=Z,7µm,19.0s						
FITZ	**Fitzroy Crossi**	**144.18**	**226**	*e*PKP	PKPdf	02 55 55.6	-3.6
	comp=Z,82nm,0.8s						
FITZ				*e*PP	PP	02 59 18.6	+5.6
FITZ				*e*SKKS	SKKSac	03 06 01.1	-5.9
FITZ	**Fitzroy Crossi**	**144.18**	**226**	*e*PKP	PKPdf	02 55 55.6	-3.6
FITZ				*e*PP	PP	02 59 18.6	+5.6
FITZ				*e*SKKS	SKKSac	03 06 01.1	-5.9
HHC	**Hu-ho-hao-te**	**144.60**	**344**	*e*PKP	PKPdf	02 55 56.4	-2.9
HHC				APKP		02 56 03.0	
HHC				XPKP		02 56 08.9	
HHC				PP	PP	02 59 13.9	-0.5
HHC				SKS	SKSdf	03 03 01.0	-8.0
HHC				SKKS	SKKSac	03 06 02.0	-6.3
HHC				LR	LR		
	comp=N,3µm,20.2s,MS6.2						
HHC				LR	LR		
	comp=E,3µm,23.8s,MS6.2						
HHC				LR	LR		
	comp=Z,5µm,21.4s,MS6.3						
BTO	**Baotou**	**145.22**	**346**	*e*PKP	PKPdf	02 55 57.9	-2.5
BTO				LR	LR		
	comp=N,280nm,14.7s,MS5.4						
BTO				LR	LR		
	comp=E,371nm,14.7s,MS5.4						
MBWA	**Marble Bar**	**145.74**	**215**	*e*PKPbc	PKPbc	02 56 00.1	-2.1
MBWA				LR	LR		
	comp=Z,6µm,20.0s,MS6.4						
MBWA	**Marble Bar**	**145.74**	**215**	PKPdf	PKPdf	02 56 00.8	-1.0
	SNR=16						
JOW	**Kunigami**	**146.31**	**309**	PKPbc	PKPbc	02 56 00.6	-3.3
JOW	**Kunigami**	**146.31**	**309**	PKPbc	PKPbc	02 56 00.6	-3.3
	comp=Z,54nm,0.9s,baz=276,slow=3.5,SNR=6.4						
THN	**Thein Dam**	**146.32**	**38**	*e*P	PKPdf	02 56 01.6	-0.9
TIY	**Taiyuan**	**147.23**	**341**	PKP	PKPdf	02 56 05.3	+1.4
TIY				PP	PP		
	comp=Z,5µm,7.4s						
TIY				LR	LR		
	comp=N,8µm,25.3s,MS6.5						
TIY				LR	LR		
	comp=E,4µm,20.8s,MS6.5						
GTA	**Gaotai**	**147.70**	**360**	PKP	PKPdf	02 56 05.5	+0.9
GTA				PKP2	PKPab	02 56 13.8	+4.3
GTA				PP	PP	02 59 32.6	0.0
GTA				SKS	SKSdf	03 03 08.9	-4.6
GTA				SKKS	SKKSac	03 06 26.3	+0.5
GTA				PP	PP		
	comp=Z,2µm,9.1s						
GTA				LR	LR		
	comp=N,3µm,22.8s,MS6.2						
GTA				LR	LR		
	comp=E,3µm,18.6s,MS6.2						
GTA				LR	LR		
	comp=Z,6µm,22.8s,MS6.3						
SDNR	**Sundarnagar**	**147.74**	**38**	*e*P	PKPdf	02 56 04.6	-0.3
SSE	**Sheshan**	**148.60**	**323**	PKP	PKPdf	02 56 04.9	-1.5
SSE				XPKP		02 56 16.8	
SSE				LR	LR		
	comp=N,3µm,19.0s,MS6.1						
SSE				LR	LR		
	comp=E,2µm,19.0s,MS6.1						
SSE				LR	LR		
	comp=Z,5µm,19.8s,MS6.3						
SSE	**Sheshan**	**148.60**	**323**	PKP	PKPdf	02 56 04.9	-1.5
SSE				sPKP		02 56 16.8	
SSE				SS	SS	03 18 52.7	+4.8
SSE				LR	LR		
	comp=Z,5µm,19.8s,MS6.3						
NJ2	**Nanjing**	**149.23**	**327**	*e*PKP	PKPdf	02 56 10.3	+2.9
NJ2				PKS		02 59 38.0	
NJ2				PP	PP	02 59 42.0	-0.3
NJ2				SKKS	SKKSac	03 06 30.0	-4.8
NJ2				SS	SS	03 18 51.0	-3.7
NJ2				PP	PP		
	comp=Z,1µm,8.4s						
NJ2				LR	LR		
	comp=N,7µm,23.6s,MS6.5						
NJ2				LR	LR		
	comp=E,5µm,27.0s,MS6.5						
NJ2				LR	LR		
	comp=Z,5µm,27.0s,MS6.2						
AJM	**Ajmer**	**149.36**	**48**	*i* P	PKPdf	02 56 08.0	+0.3
NDI	**New Delhi**	**149.81**	**42**	*e*P	PKPdf	02 56 07.0	-1.4
LZH	**Lanzhou**	**150.75**	**353**	*e*PKP	PKPdf	02 56 08.3	-1.3
LZH				APKP		02 56 13.0	
LZH				XPKP		02 56 15.9	
LZH				PP	PP	02 59 52.0	+1.7
LZH				SKKS	SKKSac	03 06 36.4	-6.5
LZH				SS	SS	03 19 07.0	-3.3
LZH				PP	PP		
	comp=Z,1µm,8.9s						
LZH				LR	LR		
	comp=N,4µm,18.1s						
LZH				LR	LR		
	comp=Z,5µm,21.0s,MS6.3						
LZH	**Lanzhou**	**150.75**	**353**	*e*PKP	PKPdf	02 56 08.3	-1.3
LZH				pPKP	pPKPdf	02 56 13.0	-0.1
LZH				sPKP		02 56 15.9	
LZH				PKP	PKPdf	02 56 22.4	+13
LZH				PP	PP	02 59 52.0	+1.7
LZH				SKKS	SKKSac	03 06 36.4	-6.5
LZH				SS	SS	03 19 07.0	-3.3
LZH				LR	LR		
	comp=Z,5µm,21.0s,MS6.3						
LZH	**Lanzhou**	**150.75**	**353**	*e*PKIKP	PKPdf	02 56 08.3	-1.3
LZH						02 56 13.0	
LZH						02 56 15.9	
LZH						02 56 22.4	
LZH						02 59 52.0	
LZH				SS	SS	03 19 07.0	-3.3
LZH				MLR	MLR		
	comp=Z,5µm,21.0s,MS6.3						
XAN	**Xi'an**	**151.70**	**343**	PKP	PKPdf	02 56 10.1	-1.1
XAN				LR	LR		
	comp=N,2µm,23.0s,MS6.2						
XAN				LR	LR		
	comp=E,4µm,22.0s,MS6.2						
XAN				LR	LR		
	comp=Z,4µm,26.0s,MS6.1						
TATO	**Taipei**	**152.42**	**313**	PFAKE		02 56 20.0	+7.5
TATO				LR	LR		
	comp=Z,5µm,21.0s,MS6.3						
KAD	**Karad**	**153.19**	**65**	*i* P	PKPdf	02 56 12.9	-0.9
DAV	**Davao City (W)**	**154.17**	**272**	PFAKE		02 56 30.0	+15
DAV				LR	LR		
	comp=Z,6µm,21.0s,MS6.4						
QZH	**Quanzhou**	**154.48**	**317**	⇑*i*PKP	PKPdf	02 56 15.0	-0.4
QZH				PP	PP	03 00 14.4	+1.7
QZH				PP	PP		
	comp=Z,3µm,6.3s						
QZH				LR	LR		
	comp=N,9µm,22.4s,MS6.7						
QZH				LR	LR		
	comp=E,8µm,20.3s,MS6.7						
QZH				LR	LR		
	comp=Z,11µm,22.8s,MS6.6						
GKN	**Gorkha**	**154.75**	**32**	*e*P	PKPdf	02 56 14.2	-1.5
LATR	**Latur**	**154.88**	**61**	*e*x	x	02 56 20.3	
MNGI	**Mangalore**	**154.94**	**74**	*e*P	PKPdf	02 56 13.7	-2.7
ALBI	**Allahabad**	**155.09**	**41**	*e*P	PKPdf	02 56 13.0	-3.3
JBP	**Jabalpur**	**155.22**	**47**	⇑*i*P	PKPdf	02 56 16.2	-0.3
JBP				*e*x	x	02 56 29.4	
	comp=Z,77nm,1.9s						
KKN	**Kakani**	**155.26**	**31**	*e*P	PKPdf	02 56 14.9	-1.5
JIRN	**Jiri**	**155.83**	**30**	*e*P	PKPdf	02 56 16.2	-1.0
CD2	**Chengdu**	**155.86**	**351**	PKP	PKPdf	02 56 15.8	-1.4
CD2				PKP2	PKPab	02 56 42.1	-1.6
CD2				SKS	SKSdf	03 03 16.9	-7.0
CD2				SKKS	SKKSac	03 07 07.4	-3.2
CD2				PP	PP		
	comp=Z,1µm,10.8s						
CD2				LR	LR		
	comp=N,2µm,19.2s,MS6.1						
CD2				LR	LR		
	comp=E,2µm,21.6s,MS6.1						
CD2				LR	LR		
	comp=Z,3µm,21.6s,MS6.1						
LSA	**Lhasa**	**156.04**	**18**	PKP	PKPdf	02 56 16.0	-1.4
LSA				PP	PP		
	comp=Z,3µm,11.0s						
LSA				LR	LR		
	comp=N,600nm,26.0s,MS5.8						
LSA				LR	LR		
	comp=E,2µm,22.0s,MS5.8						
LSA				LR	LR		
	comp=Z,650nm,26.0s,MS5.3						
LSA	**Lhasa**	**156.04**	**18**	*e*PKPdf	PKPdf	02 56 17.0	-0.4
LSA				LR	LR		
	comp=Z,9µm,20.0s,MS6.6						
LSA	**Lhasa**	**156.04**	**18**	*e*PKIKP	PKPdf	02 56 17.0	-0.4
LSA				MLR	MLR		
	comp=Z,9µm,20.0s,MS6.6						
TAPN	**Taplejung**	**156.82**	**28**	*e*P	PKPdf	02 56 17.8	-0.7
HYB	**Hyderabad**	**157.02**	**61**	*e*P	PKPdf	02 56 18.0	-1.0
HYB				*e*		02 56 48.5	
HYB				*e*S		03 00 26.0	
HYB	**Hyderabad**	**157.02**	**61**	*e*PKIKP	PKPdf	02 56 18.0	-1.0
HYB				*e*S		03 00 26.0	
HYB	**Hyderabad**	**157.02**	**61**	*i* PKP	PKPdf	02 56 18.0	-1.0
HYB				*e*		03 00 18.0	
HYB				*e*SKS	SKSdf	03 03 20.0	-5.6
HYB				*e*PPS		03 13 36.0	
ODAN	**Odare**	**157.08**	**29**	*e*P	PKPdf	02 56 16.7	-2.2
TRD	**Trivandrum**	**157.56**	**85**	⇓*e*x	x	02 56 26.0	
GZH	**Guangzhou**	**159.19**	**322**	PKP	PKPdf	02 56 20.8	-0.7
GZH				LR	LR		
	comp=N,3µm,18.2s,MS6.3						
GZH				LR	LR		
	comp=E,3µm,16.9s,MS6.3						
GZH				LR	LR		
	comp=Z,5µm,20.7s,MS6.4						
HKC	**Hong Kong Obse**	**159.23**	**319**	PKPdf	PKPdf	02 56 20.0	-1.6
GYA	**Guiyang**	**159.47**	**342**	⇑*i*PKP	PKPdf	02 56 21.3	-0.5
GYA				APKP		02 56 23.3	
GYA				XPKP		02 56 26.0	
GYA				PKP2	PKPab	02 56 58.1	-1.3
GYA				PKS		02 59 52.8	
GYA				SKS	SKSdf	03 03 23.3	-4.4
GYA				SKKS	SKKSac	03 07 23.3	-6.6
GYA				PP	PP		
	comp=Z,1µm,10.2s						
GYA				LR	LR		
	comp=N,3µm,24.6s,MS6.2						
GYA				LR	LR		
	comp=E,3µm,22.6s,MS6.2						
GYA				LR	LR		
	comp=Z,2µm,21.3s,MS6.0						
MDRS	**Chennai**	**160.05**	**71**	⇑*e*P	PKPdf	02 56 19.5	-3.2
MDRS				*e*x	x	02 57 02.5	
MDRS				*e*x	x	03 00 45.5	
SHL	**Shillong**	**160.10**	**21**	*e*x	x	02 57 01.0	
COCO	**West Island**	**160.78**	**172**	PFAKE		02 56 30.0	+6.5
COCO				LR	LR		
	comp=Z,5µm,20.0s						
PALK	**Pallekele**	**161.29**	**88**	*e*PKPab	PKPab	02 57 07.9	-0.1
PALK				LR	LR		
	comp=Z,10µm,20.0s						
AGT	**Agartala**	**161.38**	**24**	*i* P	PKPdf	02 56 25.0	+1.0
AGT				*i* x	x	02 57 06.0	
IMP	**Imphal**	**161.48**	**16**	*e*P	PKPdf	02 56 25.0	+1.0
IMP				*e*x	x	03 01 57.0	
KMI	**Kunming**	**161.69**	**351**	PKP	PKPdf	02 56 23.3	-0.9
KMI				APKP		02 56 31.8	
KMI				XPKP		02 56 35.3	
KMI				PKP2	PKPab	02 57 08.5	-0.5
KMI				PKS		02 59 55.3	
KMI				PP	PP	03 00 49.4	-1.6
KMI				PPP		03 04 33.6	
KMI				SKKS	SKKSac	03 07 36.3	-5.0
KMI				PP	PP		
	comp=Z,2µm,11.1s						
KMI				LR	LR		
	comp=N,3µm,22.3s						
KMI				LR	LR		
	comp=E,5µm,16.4s						
KMI				LR	LR		
	comp=Z,6µm,23.2s						
KMI	**Kunming**	**161.69**	**351**	PKP	PKPdf	02 56 23.3	-0.9
KMI				pPKP	pPKPdf	02 56 31.7	+4.0
KMI				sPKP		02 56 35.2	
KMI	**Kunming**	**161.69**	**351**	PKIKP	PKPdf	02 56 23.3	-0.9
KMI						02 56 31.7	
KMI						02 56 35.2	
QIZ	**Qiongzhong**	**164.38**	**321**	PKP	PKPdf	02 56 25.0	-2.0
QIZ				PKP2	PKPab	02 57 20.6	-0.5
QIZ				PP	PP	03 01 05.3	-1.0
QIZ				SS	SS	03 21 31.8	-6.0
QIZ				LR	LR		
	comp=N,3µm,18.1s						
QIZ				LR	LR		
	comp=E,3µm,22.9s						
QIZ				LR	LR		
	comp=Z,6µm,21.9s						
QIZ	**Qiongzhong**	**164.38**	**321**	PFAKE		02 56 40.0	+13
QIZ				LR	LR		
	comp=Z,6µm,19.0s						
CHRT	**Chiangrai**	**167.17**	**359**	⇓P	PKPdf	02 56 28.0	-1.2
KSM	**Kuching**	**167.97**	**244**	*e*PKPdf	PKPdf	02 56 29.2	-0.8
KSM				*e*PKPab	PKPab	02 57 37.1	-0.2
CHG	**Chiang Mai**	**168.21**	**3**	⇑P	PKPdf	02 56 29.2	-0.8
	comp=Z,90nm,1.1s						
CHTO	**Chiang Mai**	**168.21**	**3**	*e*PKPdf	PKPdf	02 56 27.9	-2.1
CHTO				*e*PKPab	PKPab	02 57 35.9	-1.9
CHTO				*e*PP	PP	03 01 22.6	-2.4
CHTO				LR	LR		
	comp=Z,10µm,21.0s						
CHTO	**Chiang Mai**	**168.21**	**3**	*e*PKIKP	PKPdf	02 56 27.9	-2.1
CHTO				*e*		02 57 35.9	
CHTO				*e*		03 01 22.6	
CHTO				MLR	MLR		
	comp=Z,10µm,21.0s						
CHTO	**Chiang Mai**	**168.21**	**3**	PKPdf	PKPdf	02 56 30.0	0.0
	SNR=15						
CM31	**Chiang Mai Arr**	**168.56**	**3**	PFAKE		02 56 40.0	+10
CM31				LR	LR		
	comp=Z,7µm,19.0s						
BDT	**Bhumibol Dam**	**169.77**	**3**	P	PKPdf	02 56 30.0	-1.0
KKTK	**Khon Kaen**	**170.15**	**341**	PN	PKPdf	02 56 31.0	-0.2
KKTK				SG	PKPab	02 57 45.0	-1.5
NST	**Nakhon Sawan**	**171.33**	**356**	P	PKPdf	02 56 30.0	-1.9
PSI	**Prapat**	**175.82**	**171**	PKP	PKPdf	02 56 31.1	-2.6
PSI				PKPab	PKPab	02 58 10.1	-1.6
PSI				PP	PP	03 02 02.4	-0.3
PSI	**Prapat**	**175.82**	**171**	PKIKP	PKPdf	02 56 31.1	-2.6
PSI						02 58 10.1	
PSI						03 02 02.4	
PSI	**Prapat**	**175.82**	**171**	PKP	PKPdf	02 56 31.1	-2.6
	comp=Z,8.0nm,0.7s,baz=358,slow=23,SNR=6.3						
PSI				PKPab	PKPab	02 58 10.1	-1.6
	comp=Z,13nm,0.8s,baz=214,slow=5.4,SNR=5.5						
PSI				PP	PP	03 02 02.4	-0.3
	comp=Z,6.7nm,0.9s,baz=189,slow=5.9,SNR=3.7						

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*ISCJB **24** 02:53:33.6±1.2, 1.0N±0.2×97.4E±0.1, h33km, mb3.9/7, Error ellipse: s-maj=22.1km s-min=19.4km az=172.1*

*NEIC **24** 02:53:34.9±0.9, 1.00N×97.37E, h30km, mb3.8/1, Error ellipse: s-maj=16.2km s-min=14.1km az=180.0*

*IDC **24** 02:53:40.5±6.1, 1.20N×97.70E, h72km±44km, mb3.6/6, mb1 3.8/6, mb1mx3.5/21, mbtmp3.6/6, Error ellipse: s-maj=66.4km s-min=28.9km az=54.0*

ISC 24 02:53:35.8±1.2**, 1.0N**±0.2×**97.5E**±0.1**, h35km, n11, σ0.71**/12,

mb3.9/7**,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.28	40	P	Pn	02 54 11.2	+0.3
	6.8nm,0.3s,baz=332,slow=7.4,SNR=42						
PSI				S	Sn	02 54 47.5	+10
	6.1nm,0.3s,baz=168,slow=7.4,SNR=7.1						
KULM	Kulim	5.29	37	*e*Pn	Pn	02 54 52.6	+0.3
WRA	Warramunga Arr	41.73	122	P	P	03 01 22.0	+0.2
	0.6nm,0.6s,mb3.4,baz=302,slow=9.0,SNR=2.9						
KSRS	Korea Array	45.83	34	P	P	03 01 52.0	-2.4
	1.1nm,0.7s,mb3.9,baz=219,slow=6.9,SNR=3.8						
AAK	Ala-Archa	46.25	337	*e*P	P	03 01 57.4	-0.3
	1.3nm,1.0s,mb3.8						
SONM	Songino Array	47.25	8	P	P	03 02 05.9	+0.5
	2.1nm,0.8s,mb4.1,baz=189,slow=9.5,SNR=5.8						
MK31	Makanchi Array	47.46	346	*e*P	P	03 02 07.2	+0.2
MKAR	Makanchi Array	47.46	346	P	P	03 02 07.0	0.0
	2.0nm,0.6s,mb4.2,baz=158,slow=9.2,SNR=7.8						
ZALV	Zalesovo Beam	53.76	351	P	P	03 02 54.5	0.0
ZALV	Zalesovo Beam	53.76	351	P	P	03 02 54.5	+0.1
	3.0nm,0.4s,mb4.6,baz=170,slow=7.5,SNR=6.0						
GERES	GERESS Array B	85.11	319	P	P	03 06 08.5	+0.3
	0.3nm,0.7s,mb3.5,baz=90,slow=6.1,SNR=3.5						

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*ISCJB **24** 03:22:42.5±1.0, 1.1S±0.3×127.5E±0.7, h10^{km}, mb4.0/8, Error ellipse: s-maj=105.4km s-min=13.8km az=158.1*

*IDC **24** 03:22:43.3±1.4, 1.15S×127.56E, h0^{km}, mb3.8/3, mb1 4.0/4, mb1mx3.7/16, mbtmp3.8/4, ML3.9/1, Error ellipse: s-maj=123.6km s-min=21.3km az=69.0*

*NEIC **24** 03:22:44.7±0.6, 1.16S×127.48E, h10^{km}, mb4.3/5, Error ellipse: s-maj=68.8km s-min=7.6km az=68.0*

ISC 24 03:22:44.4±1.0**, 1.2S**±0.3×**127.6E**±0.7**, h10**^{km}**, n10,** σ**0**^{s}**55**/10**, mb4.0**/8**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.78	161	P	Pn	03 27 15.5	-0.9
	0.3nm,0.3s,baz=340,slow=11,SNR=12						
ASAR	Alice Springs	23.17	165	P	P	03 27 52.4	+1.0
	1.4nm,0.8s,mb3.5,baz=343,slow=9.8,SNR=15						
ULN	Ulaanbaatar	52.03	343	*e*P	P	03 31 54.2	+0.2
	0.9nm,0.5s,mb4.0						
SONM	Songino Array	52.20	342	P	P	03 31 55.7	+0.4
	0.6nm,0.6s,mb3.7,baz=150,slow=8.3,SNR=6.2						
MK31	Makanchi Array	62.08	326	*e*P	P	03 33 05.3	0.0
MKAR	Makanchi Array	62.08	326	P	P	03 33 05.5	+0.2
	1.0nm,0.4s,mb4.3,baz=122,slow=8.6,SNR=20						
TKM2	Tokmak 2	64.01	320	*e*P	P	03 33 18.4	+0.3
	1.2nm,0.7s,mb4.0						
EKS2	Erkin-Say	65.07	319	*e*P	P	03 33 25.1	0.0
	1.6nm,0.8s,mb4.1						
KURK	Kurchatov	66.33	328	*e*P	P	03 33 32.3	-0.8
	3.9nm,0.8s,mb4.5						
BRVK	Borovoye	71.97	328	*e*P	P	03 34 07.6	-0.4
	2.5nm,0.8s,mb4.2						

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*FUNV **24** 03:41:49.6, 6.84N×73.24W, h183^{km}, MW3.2*

*ISCJB **24** 03:41:51.3±0.8, 7.00N±0.07×72.99W±0.08, h176^{km}±8^{km}, mb3.3/2, Error ellipse: s-maj=13.2km s-min=10.0km az=34.9*

*IDC **24** 03:41:53.7±4.7, 6.69N×73.36W, h176^{km}±31^{km}, mb3.0/2, mb1 3.4/3, mb1mx3.1/18, mbtmp3.1/3, Error ellipse: s-maj=109.0km s-min=33.8km az=88.0*

ISC 24 03:41:52.2±0.8**, 6.98N**±0.07×**73.00W**±0.08**, h167**^{km}±8^{km}**, n15,** σ**1**^{s}**11**/23**, mb3.3**/2**, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	Capacho	1.11	38	*e*P	Pn	03 42 20.0	+0.5
CAPV				*e*S	Sn	03 42 42.3	+1.8
VIGV	El Vigia	2.45	41	*e*P	Pn	03 42 34.4	+0.8
VIGV				*e*S	Sn	03 43 07.6	+1.9
SOCV	Socops	2.48	58	*e*P	Pn	03 42 34.5	+0.6
SOCV				*e*S	Sn	03 43 07.7	+1.4
ROSC	El Rosal	2.50	212	P	Pn	03 42 32.8	-1.4
	11nm,0.3s,baz=49,slow=4.0,SNR=42						
ROSC				S	Sn	03 43 01.1	-5.6
	27nm,0.3s,baz=110,slow=16,SNR=11						
ELOV	Elorza	3.49	89	*e*P	Pn	03 42 45.4	-1.0
ELOV				*e*S	Sn	03 43 28.4	-0.1
VIRV	Villa del Rosa	3.55	9	*e*P	Pn	03 42 46.4	-0.7
VIRV				*e*S	Sn	03 43 27.6	-2.3
QARV	Quebrada Arrib	4.03	37	*e*P	Pn	03 42 53.8	+0.5
QARV				*e*S	Sn	03 43 40.5	-0.5
SANV	Sanarito	4.24	54	*e*P	Pn	03 42 56.0	-0.1
CURV	Curarigua	4.25	45	*e*P	Pn	03 42 55.8	-0.4
CURV				*e*S	Sn	03 43 44.4	-1.7
DABV	Dabajuro	4.55	31	*e*P	Pn	03 42 59.3	-0.8
TEPV	Terepaima	4.79	52	*e*P	Pn	03 43 03.1	0.0
SIQV	Siquisique	4.82	41	*e*P	Pn	03 43 03.3	-0.2
SIQV				*e*S	Sn	03 43 57.7	-1.6
PDAR	Pinedale Array	48.02	324	P	P	03 50 15.9	+1.5
	0.2nm,0.4s,mb3.1,baz=109,slow=9.7,SNR=2.7						
YKA	Yellowknife Ar	63.16	340	P	P	03 52 03.0	+1.1
	0.4nm,0.6s,mb3.5,baz=130,slow=6.8,SNR=11						
WRA	Warramunga Arr	150.52	241	PKPbc	PKPbc	04 01 24.2	-0.8
	0.3nm,0.8s,baz=108,slow=2.3,SNR=3.3						

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*BJI **24** 03:46:30.0, 79.60N×0.60E, h10^{km}, mb4.5*

*MOS **24** 03:46:30.4±1.4, 79.66N×0.70E, h10^{km}, mb4.6/11, Error ellipse: s-maj=45.0km s-min=10.5km az=95.1*

*ISCJB **24** 03:46:31.1±0.4, 79.70N±0.07×1.3E±0.3, h10^{km}, mb4.1/27, MS4.8/1, Error ellipse: s-maj=10.2km s-min=5.9km az=23.7*

*CSEM **24** 03:46:31.1±0.1, 79.96N×1.03E, h14^{km}, mb4.4/9, Error ellipse: s-maj=7.1km s-min=2.8km az=35.0*

*NEIC **24** 03:46:32.0±0.5, 79.55N×0.57E, h10^{km}, mb4.3/10, Error ellipse: s-maj=15.0km s-min=7.3km az=202.0*

*IDC **24** 03:46:32.0±0.7, 79.94N×1.20E, h0^{km}, mb3.8/11, mb1 4.0/14, mb1mx3.9/24, mbtmp3.9/14, ML3.5/3, Error ellipse: s-maj=22.8km s-min=13.9km az=47.0*

*BER **24** 03:46:33.4±2.6, 79.98N×1.90E, h15^{km}±285^{km}, ML3.1, ML3.2(NAO)*

*NAO **24** 03:46:36.3±4.1, 79.86N×3.96E, ML3.2*

ISC 24 03:46:33.2±0.4**, 79.77N**±0.06×**1.3E**±0.3**, h10**^{km}**, n89,** σ**1**^{s}**22**/101**, mb4.1**/27**, MS4.8**/1**, 5C-2D, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBS	Kingsbay	2.14	108	Pg	Pn	03 47 06.3	-2.6
KBS				Lg		03 47 30.6	
KBS	Kingsbay	2.14	108	*e*Pn	Pn	03 47 06.3	-2.7
KBS				*e*Sn	Sn	03 47 30.9	-4.7
KBS	Kingsbay	2.14	108	*e*P	Pn	03 47 06.3	-2.7
KBS				*e*S	Sn	03 47 32.0	-3.6
KBS				AML	AML	03 47 44.5	
	comp=Z,235nm,0.5s						
KBS	Kingsbay	2.14	108	*e*P	Pn	03 47 06.3	-2.7
KBS				*e*		03 47 30.9	
SPB4	Spitsbergen Ar	3.29	111	*e*Pn	Pn	03 47 22.8	-1.9
SPB4				*e*Sn	Sn	03 48 00.5	-3.3
SPB4	Spitsbergen Ar	3.29	111	*e*Pn	Pn	03 47 22.8	-1.9
SPA0	Spitsbergen Ar	3.29	111	Pn	Pn	03 47 23.1	-1.6
	baz=313,slow=8.6						
SPA0				Sn	Sn	03 47 58.8	-5.1
SPA0	Spitsbergen Ar	3.29	111	Pn	Pn	03 47 23.1	-1.6
	baz=313,slow=8.6						
SPA0				Sn	Sn	03 47 58.8	-5.1
SPA0	Spitsbergen Ar	3.29	111	Pn	Pn	03 47 23.1	-1.6
	SNR=999						
DAG	Danmarks Havn	5.04	244	⇓*i*P	Pn	03 47 46.8	-1.9
DAG				*i*		03 48 41.0	
DAG				pmax	pmax		
	comp=Z,60nm,0.3s						
DAG	Danmarks Havn	5.04	244	⇓*i*P	Pn	03 47 46.8	-1.9
	comp=Z,60nm,0.3s						
DAG				*i*		03 48 41.0	
ARA0	ARCESS Array S	11.93	136	Pn	Pn	03 49 22.3	-0.7
	baz=344,slow=12						
ARA0				Sn	Sn	03 51 28.3	-7.6
	baz=353,slow=16						
ARA0	ARCESS Array S	11.93	136	Pn	Pn	03 49 22.3	-0.7
	baz=344,slow=12						
ARA0				Sn	Sn	03 51 28.3	-7.6
	baz=353,slow=16						
ARA0	ARCESS Array S	11.93	136	Pn	Pn	03 49 22.3	-0.7
	SNR=8.5						
ARA0				Sn	Sn	03 51 28.3	-7.6
	SNR=0.2						
ARCES	ARCESS Array B	11.93	136	Pn	Pn	03 49 21.8	-1.3
ARCES				Sn	Sn	03 51 27.7	-8.2
ARCES	ARCESS Array B	11.93	136	Pn	Pn	03 49 21.8	-1.3
	comp=Z,0.6nm,0.3s,baz=348,slow=11,SNR=29						
ARCES				Sn	Sn	03 51 27.7	-8.2
	comp=Z,0.8nm,0.3s,baz=356,slow=15,SNR=5.6						
ARCES	ARCESS Array B	11.93	136	Pn	Pn	03 49 21.8	-1.2
ARCES				Sn	Sn	03 51 27.7	-8.2
ARE0	ARCESS Array S	11.93	136	*e*Pn	Pn	03 49 23.9	+0.8
ARE0	ARCESS Array S	11.93	136	*e*Pn	Pn	03 49 23.9	+0.9
SFJD	Kangerlussuaq	18.55	257	P	Pn	03 50 44.3	-5.5
	comp=Z,3.4nm,0.3s,baz=358,slow=14,SNR=14						
SFJD				S	Sn	03 53 54.9	-22
	comp=Z,1.2nm,0.3s,baz=81,slow=13,SNR=3.6						
SFJD	Kangerlussuaq	18.55	257	*i* P	Pn	03 50 44.7	-5.1
SFJD				*i* S	Sn	03 54 02.6	-14
JOF	Joensuu	18.97	135	*e*p	Pn	03 50 51.5	-3.4
	comp=Z,18nm,0.8s						
NB2	NORSAR Subarra	19.05	165	P	Pn	03 50 58.8	+3.0
	comp=Z,14nm,1.7s,baz=356,slow=11						
NOA	NORSAR Array B	19.05	165	P	Pn	03 50 58.0	+2.1
NOA	NORSAR Array B	19.05	165	P	Pn	03 50 58.0	+2.1
	comp=Z,0.1nm,0.3s,baz=350,slow=12,SNR=3.6						
KAF	Kangasniemi	19.17	143	*e*p	Pn	03 50 54.8	-2.4
	comp=Z,11nm,0.7s						
KAF	Kangasniemi	19.17	143	*e*P	Pn	03 50 54.8	-2.4
KAF				pmax	pmax		
	comp=Z,11nm,0.7s						
FIA0	FINESS Array S	19.80	144	P	Pn	03 51 05.3	+0.5
	baz=352,slow=10						
FINES	FINESS Array B	19.80	144	P	Pn	03 51 06.0	+1.2
	comp=Z,0.3nm,0.3s,baz=356,slow=10,SNR=17						
FINES	FINESS Array B	19.80	144	P	Pn	03 51 05.9	+1.1
HFS	Hagfors	20.08	162	P	P	03 51 08.8	+2.5
	baz=27,slow=14						
HFS	Hagfors	20.08	162	P	P	03 51 08.9	+2.5
	comp=Z,6.1nm,0.9s,baz=32,slow=8.7,SNR=5.3						
TIXI	Tiksi	26.01	35	⇑*e*P	P	03 52 13.1	+7.4
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.8s,mb3.6						
OBN	Obninsk	27.23	134	*e*P	P	03 52 17.6	+0.9
OBN				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.0						
OBN				MLR	MLR		
	comp=Z,2µm,17.0s,MS4.8						
ARU	Arti	29.32	107	⇑*e*P	P	03 52 35.5	+0.1
ARU				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.0						
INK	Inuvik	29.95	328	P	P	03 52 39.5	-1.3
	comp=Z,2.1nm,0.8s,mb3.9,baz=16,slow=12,SNR=4.8						
INK	Inuvik	29.95	328	P	P	03 52 39.5	-1.4
AKASG	Malin Array Be	30.70	144	P	P	03 52 48.1	+0.4
	comp=Z,1.1nm,0.6s,mb3.9,baz=352,slow=9.5,SNR=4.5						
GERES	GERESS Array B	31.35	164	P	P	03 52 56.5	+3.2
	comp=Z,0.8nm,0.9s,mb3.6,baz=8.7,slow=9.7,SNR=4.8						
YKA	Yellowknife Ar	33.38	311	P	P	03 53 10.1	-0.9
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	33.38	311	P	P	03 53 10.1	-0.8
	comp=Z,0.7nm,0.8s,mb3.6,baz=11,slow=8.7,SNR=9.8						
BRVK	Borovoye	34.59	97	*e*P	P	03 53 21.9	+0.2
	comp=Z,5.4nm,1.1s,mb4.4						
BRVK	Borovoye	34.59	97	*e*P	P	03 53 21.9	+0.3
BRVK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
BRVK	Borovoye	34.59	97	*e*P	P	03 53 21.9	+0.3
	comp=Z,5.4nm,1.1s,mb4.4						
ZALV	Zalesovo Beam	36.33	82	P	P	03 53 36.8	+0.2
	comp=Z,2.7nm,0.9s,mb4.2,baz=342,slow=9.3,SNR=9.2						
ZAL	Zalesovo	36.34	82	P	P	03 53 36.8	+0.2
BOD	Bodaibo	37.42	54	*e*P	P	03 53 43.7	-2.0
BOD				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.3						
KURK	Kurchatov	38.33	90	*e*P	P	03 53 53.0	-0.5
	comp=Z,12nm,0.9s,mb4.6						
KURK	Kurchatov	38.33	90	⇑*e*P	P	03 53 54.5	+1.0
KURK	Kurchatov	38.33	90	*e*P	P	03 53 53.0	-0.5
	comp=Z,12nm,0.9s,mb4.6						
KIV	Kislovodsk	38.97	131	⇑*e*P	P	03 54 04.7	+5.7
KIV				*e*		03 55 35.4	
KIV				pmax	pmax		
	comp=Z,21nm,1.8s,mb4.6						
MA2	Magadan	39.78	24	⇑*e*P	P	03 54 19.0	+13
MA2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
MK31	Makanchi Array	42.76	88	*e*P	P	03 54 30.8	+0.6
MK31	Makanchi Array	42.76	88	*e*P	P	03 54 30.8	+0.6
MKAR	Makanchi Array	42.76	88	P	P	03 54 31.0	+0.8
MKAR	Makanchi Array	42.76	88	P	P	03 54 31.0	+0.8
	comp=Z,3.4nm,0.7s,mb4.2,baz=347,slow=7.2,SNR=50						
MALT	Malatya	43.98	137	*e*P	P	03 54 39.5	-0.6
	comp=Z,4.8nm,0.8s,mb4.3						
MALT	Malatya	43.98	137	*e*P	P	03 54 39.5	-0.6
MALT				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
MALT	Malatya	43.98	137	*e*P	P	03 54 39.5	-0.6
	comp=Z,4.8nm,0.8s,mb4.3						
EKS2	Erkin-Say	45.24	98	*e*P	P	03 54 50.4	+0.2
	comp=Z,1.9nm,0.8s,mb4.0						
EKS2	Erkin-Say	45.24	98	*e*P	P	03 54 50.4	+0.3
	comp=Z,1.9nm,0.8s,mb4.0						
TKM2	Tokmak 2	45.31	96	*e*P	P	03 54 51.3	+0.6
	comp=Z,4.8nm,1.2s,mb4.2						
TKM2	Tokmak 2	45.31	96	*e*P	P	03 54 51.3	+0.6
TKM2				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.2						
TKM2	Tokmak 2	45.31	96	*e*P	P	03 54 51.3	+0.6
	comp=Z,4.8nm,1.2s,mb4.2						
AAK	Ala-Archa	45.40	97	*e*P	P	03 54 52.2	+0.9
	comp=Z,4.1nm,1.0s,mb4.2						
AAK	Ala-Archa	45.40	97	*e*P	P	03 54 52.2	+0.8
AAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.2						
AAK	Ala-Archa	45.40	97	*e*P	P	03 54 52.2	+0.8
	comp=Z,4.1nm,1.0s,mb4.2						
UCH	Uchtor	45.80	97	*e*P	P	03 54 57.4	+2.9
	comp=Z,5.9nm,1.1s,mb4.4						
UCH	Uchtor	45.80	97	*e*P	P	03 54 57.4	+2.9
	comp=Z,5.9nm,1.1s,mb4.4						
SONM	Songino Array	45.91	65	P	P	03 54 55.5	+0.1
	comp=Z,1.2nm,1.0s,mb3.8,baz=331,slow=8.8,SNR=8.9						
ULN	Ulaanbaatar	45.99	64	*e*P	P	03 54 56.5	+0.5
	comp=Z,5.5nm,0.9s,mb4.5						
ULN	Ulaanbaatar	45.99	64	*e*P	P	03 54 56.5	+0.5
ULN				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
ULN	Ulaanbaatar	45.99	64	*e*P	P	03 54 56.5	+0.5
	comp=Z,5.5nm,0.9s,mb4.5						
MOOW	Moose Ponds	51.01	300	*e*P	P	03 55 33.6	-1.0
	comp=Z,0.9nm,0.9s,mb3.7						
KBL	Kabul	52.32	105	*e*P	P	03 55 45.6	+1.1
KBL	Kabul	52.32	105	*e*P	P	03 55 45.6	+1.1
GTA	Gaotai	53.01	74	*e*P	P	03 55 50.3	+0.7
GTA				AP	pP	03 55 54.1	+1.3
GTA				XP	sP	03 55 56.1	+2.1
GTA				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb4.5						
LZH	Lanzhou	56.94	71	*e*P	P	03 56 18.3	+0.3
LZH				AP	pP	03 56 22.3	+1.1
LZH				XP	sP	03 56 24.5	+2.1
LZH				AMB	AMB		
	comp=Z,16nm,1.4s,mb4.9						
LZH	Lanzhou	56.94	71	*e*P	P	03 56 18.2	+0.2
	comp=Z,16nm,1.4s,mb4.9						
LZH				pP	pP	03 56 22.3	+1.1
LZH				sP	sP	03 56 24.5	+2.1
LZH	Lanzhou	56.94	71	*e*P	P	03 56 18.2	+0.2
LZH				*PP	pP	03 56 22.3	+1.1
LZH				*SP	sP	03 56 24.5	+2.1
LZH				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.9						
LZH	Lanzhou	56.94	71	*e*P	P	03 56 18.2	+0.2
	comp=Z,16nm,1.4s,mb4.9						
LZH				pP	pP	03 56 22.3	+1.1
NVAR	Mina Array Bea	57.35	306	P	P	03 56 21.1	+0.2
	comp=Z,0.4nm,0.7s,mb3.5,baz=359,slow=4.9,SNR=3.8						
GKN	Gorkha	61.45	91	*e*P	P	03 56 49.7	+0.3
KKN	Kakani	61.77	91	*e*P	P	03 56 51.7	+0.2
JIRN	Jiri	62.06	90	*e*P	P	03 56 53.9	+0.4
TAPN	Taplejung	62.63	88	*e*P	P	03 56 58.3	+1.0
ODAN	Odare	63.06	89	*e*P	P	03 57 01.5	+1.4
TXAR	Lajitas Array	63.95	290	P	P	03 57 05.7	-0.3
	comp=Z,0.5nm,0.8s,mb3.6,baz=46,slow=3.6,SNR=3.5						
TORD	Torodi Ar. Bea	66.64	180	P	P	03 57 24.6	+1.1
	comp=Z,0.9nm,0.9s,mb3.8,baz=358,slow=5.9,SNR=6.4						

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*ISK **24** 03:55:46.9, 38.37N×39.23E, h5^{km}, MD3.0*

*ISCJB **24** 03:55:47.9±0.5, 38.36N±0.04×39.28E±0.03, h7^{km}±6^{km}, Error ellipse: s-maj=6.2km s-min=4.3km az=3.5*

*DDA **24** 03:55:47.4, 38.36N×39.29E, h2^{km}±4^{km}, Md3.1*

*CSEM **24** 03:55:47.4±0.1, 38.39N×39.27E, h5^{km}, MD3.1, Error ellipse: s-maj=2.2km s-min=1.8km az=121.0*

ISC 24 03:55:48.4±0.5**, 38.37N**±0.04×**39.27E**±0.03**, h11**^{km}±5^{km}**, n19,** σ**0**^{s}**85**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.26	301	*i* P	Pg	03 55 53.5	-0.2
ELZG				*i* S	Sg	03 55 57.8	+0.4
PTK	Pertek	0.54	10	PG	Pg	03 55 58.3	-0.5
PTK				SG	Sg	03 56 07.4	+1.5
PTK	Pertek	0.54	10	*e*Pg	Pg	03 55 58.3	-0.5
PTK				*e*Sg	Sg	03 56 07.4	+1.5
MALT	Malatya	0.67	266	PG	Pg	03 55 59.6	-1.7
MALT				SG	Sg	03 56 10.6	+0.6
MALT	Malatya	0.67	266	*e*Pg	Pg	03 55 59.6	-1.7
MALT				*e*Sg	Sg	03 56 10.6	+0.6
MYA	Malataya	0.67	267	PG	Pg	03 56 00.6	-0.7
MYA				SG	Sg	03 56 09.6	-0.4
MYA	Malataya	0.67	267	*e*Pg	Pg	03 56 00.6	-0.7
MYA				*e*Sg	Sg	03 56 09.6	-0.4
DIYA	Diyarbakir	0.80	123	*i* P	Pg	03 56 03.4	-0.4
DIYA				*i* S	Sg	03 56 14.7	+0.3
DIY	Diyarbakir	0.89	122	PG	Pg	03 56 05.1	-0.4
DIY	Diyarbakir	0.89	122	*e*Pg	Pg	03 56 05.1	-0.4
URFA	Urfa	0.99	201	*e*PG	Pg	03 56 07.7	+0.3
URFA	Urfa	0.99	201	*e*Pg	Pg	03 56 07.7	+0.3
ATAB	Bozova	1.18	221	*i* P	Pb	03 56 11.1	+0.3
ATAB				*i* S	Sb	03 56 28.0	+1.9
EZC	Erzincan	1.45	17	*e*PN	Pn	03 56 13.9	-0.6
MARD	Mardin	1.59	131	*i* P	Pn	03 56 16.4	-0.1
MARD				*i* S	Sn	03 56 37.0	+0.1
GZT	Gaziantep	1.69	234	*i* P	Pn	03 56 18.2	+0.4
GZT				*i* S	Sn	03 56 37.6	-1.8
BTMT	Batman	1.75	95	*e*PN	Pn	03 56 18.4	-0.3
GAZ	Gaziantep	2.02	235	*e*PN	Pn	03 56 23.6	+1.2
GAZ	Gaziantep	2.02	235	*e*Pn	Pn	03 56 23.6	+1.2

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*ISCJB **24** 04:05:28.6±0.2, 1.67N±0.03×116.24E±0.03, h16^{km}, mb4.8/80, MS5.2/10, Error ellipse: s-maj=4.9km s-min=3.9km az=164.1*

*IDC **24** 04:05:28.8±0.5, 1.52N×116.27E, h0^{km}, mb4.8/18, mb1 4.8/19, mb1mx4.8/23, mbtmp4.8/19, ML4.0/1, MS5.1/1, Ms1 5.0/1, ms1mx4.3/23, Error ellipse: s-maj=16.8km s-min=11.0km az=61.0*

*NEIC **24** 04:05:29.7±3.3, 1.63N×116.14E, h11^{km}±21^{km}, mb5.0/32, Error ellipse: s-maj=8.9km s-min=5.4km az=67.0*

NEIC Felt [III] at Tanjungselor and [II] at Tarakan.

*GCMT **24** 04:05:29.7±0.4, 1.68N×116.30E, h12^{km}, MW5.3/72, Moment Tensor Solution. s14,c16; s72,c114; Duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}0.15±.05; $M_{\theta\theta}$0.38±.04; $M_{\phi\phi}$-0.52±.05; $M_{r\theta}$0.10±.12; $M_{\theta\phi}$0.82±.03; $M_{\phi r}$0.63±.11; Best double couple: $M_0$1.13200×10^{17} NP1:ϕ_s105.00000°,δ55.00000°,λ4.00000°. NP2: ϕ_s12.00000°,δ86.00000°,λ145.00000°. Principal axes: T 1.0650, Plg27.0000°, Azm323.0000°; N 0.1350, Plg55.0000°, Azm187.0000°; P -1.2000, Plg21.0000°, Azm64.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **24** 04:05:30.9±1.6, 1.78N×116.24E, h33^{km}, mb5.0/26, MS5.2/4 Error ellipse: s-maj=12.4km s-min=6.2km az=112.9*

*BJI **24** 04:05:31.3, 2.02N×116.04E, h12^{km}, mB5.5, mb4.8, Ms5.2, Msz5.1*

ISC 24 04:05:30.5±0.2**, 1.68N**±0.03×**116.23E**±0.03**, h16**^{km}**, h16**^{km}±3.2^{km}**:pP-P, n190,** σ**1**^{s}**35**/185**, mb4.8**/80**, MS5.2**/10**, 15C-9D, Borneo**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TARAI	Tarakan	2.11	39	P	Pn	04 06 04.8	-0.3
	18µm,1.0s						
TSM	Tawau	3.07	32	⇓P	Pn	04 06 18.1	-0.2
BTM	Bintulu	3.49	296	⇓P	Pn	04 06 23.2	-0.8
SDKM	Sandakan	4.05	14	⇓P	Pn	04 06 33.6	+1.8
SBUM	Sibu	4.08	281	⇓P	Pn	04 06 31.6	-0.6
MYLDM	Lahad Datu	4.15	33	⇑P	Pn	04 06 35.3	+2.1
KKM	Kota Kinabalu	4.33	360	*e*Pn	Pn	04 06 35.7	0.0
KKM	Kota Kinabalu	4.33	360	⇑P	Pn	04 06 36.1	+0.4
PCI	Palu	4.43	125	P	Pn	04 06 34.0	-3.0
	774nm,1.5s						
KDM	Kudat	5.24	7	⇑P	Pn	04 06 50.3	+2.2
KSM	Kuching	5.92	268	*e*Pn	Pn	04 06 57.5	0.0
KSM	Kuching	5.92	268	⇓P	Pn	04 06 58.3	+0.7
KMMI	Kalianget	8.96	195	P	Pn	04 07 43.3	+4.0
	72nm,0.9s						
NBBI	Negara	10.11	189	P	Pn	04 07 57.9	+2.8
	140nm,0.9s						
KRKI	Karangkates	10.47	201	P	Pn	04 08 06.0	+6.0
	209nm,1.2s						
BJII	Banjamegara	11.07	216	P	Pn	04 08 10.9	+2.7
	140nm,1.7s						
MYKOM	Kota Tinggi	12.37	271	⇑P	Pn	04 08 30.9	+4.8
KGM	Kluang	12.91	272	⇑P	Pn	04 08 37.1	+3.7
KTGM	Kuala Trenggan	13.56	286	⇑P	Pn	04 08 51.4	+9.1
FRIM	Kepong	14.67	276	⇓P	Pn	04 09 01.4	+4.0
IPM	Ipoh	15.43	281	⇓P	Pn	04 09 08.8	+1.2
KULM	Kulim	15.96	283	*e*Pn	Pn	04 09 14.5	+0.1
KULM	Kulim	15.96	283	⇑P	Pn	04 09 15.6	+1.2
PPI	Padang Panjang	15.97	262	P	Pn	04 09 16.3	+1.7
	83nm,1.6s						
XMIS	Christmas Isla	16.02	221	*e*Pn	Pn	04 09 14.2	-1.1
SNG	Songkhla	16.49	290	P	Pn	04 09 24.0	+2.7
PSI	Prapat	17.33	274	P	Pn	04 09 32.2	+0.3
PSI				S	Sn	04 12 49.4	+4.9
PSI				Lg		04 14 50.2	
PSI	Prapat	17.33	274	P	Pn	04 09 32.2	+0.4
PSI				S	Sn	04 12 49.4	+4.9
PSI	Prapat	17.33	274	P	Pn	04 09 32.2	+0.3
	0.5nm,0.3s,baz=78,slow=11,SNR=24						
PSI				S	Sn	04 12 49.4	+4.9
	1.7nm,0.3s,baz=229,slow=8.5,SNR=4.3						
PSI				Lg		04 14 50.2	
	baz=276,slow=14,SNR=2.3						
QIZ	Qiongzhong	18.34	340	*e*P	Pn	04 09 45.4	+1.2
	40nm,1.0s						
NNT	Nongplab	19.61	304	P	Pn	04 09 59.8	+0.1
KKTK	Khon Kaen	19.66	319	P	Pn	04 10 00.0	-0.2
	309nm,0.9s						
NST	Nakhon Sawan	21.10	312	P	P	04 10 15.0	+0.6
BSI	Banda Aceh	21.23	281	P	P	04 10 17.5	+1.6
	84nm,1.3s,mb4.9						
KAKA	Kakadu	21.53	132	*e*P	P	04 10 17.0	-2.1
	52nm,0.7s,mb5.1						
FITZ	Fitzroy Crossi	21.73	155	*e*P	P	04 10 19.7	-1.5
	29nm,0.9s,mb4.7						
FITZ	Fitzroy Crossi	21.73	155	P	P	04 10 20.6	-0.6
	11nm,0.8s,mb4.3,baz=354,slow=11,SNR=16						
BDT	Bhumibol Dam	22.94	313	P	P	04 10 34.0	-0.1
MBWA	Marble Bar	22.96	172	*e*P	P	04 10 32.1	-2.1
	64nm,1.0s,mb5.0						
YHNB	Yeheng	23.39	12	*e*P	P	04 10 40.8	+2.0
CM31	Chiang Mai Arr	23.78	316	*e*P	P	04 10 42.9	+0.4
	49nm,1.0s,mb4.9						
CHG	Chiang Mai	24.02	316	⇓P	P	04 10 44.5	-0.3
	41nm,1.4s,mb4.7						
CHTO	Chiang Mai	24.02	316	*e*P	P	04 10 45.0	+0.2
	43nm,1.5s,mb4.7						
CHTO	Chiang Mai	24.02	316	*e*P	P	04 10 45.0	+0.2
CHTO				pmax	pmax		
	comp=Z,43nm,1.5s,mb4.7						
CHRT	Chiangrai	24.20	319	⇑P	P	04 10 45.0	-1.4
	comp=Z,263nm,1.0s,mb5.6						
GYA	Guiyang	26.30	340	P	P	04 11 02.6	-2.8
GYA				AP	pP	04 11 12.4	+2.0
GYA				XP	sP	04 11 16.3	+3.9
GYA				PCP	PcP	04 14 34.8	+3.2
GYA				S	S	04 15 40.8	+3.3
GYA				SCP	ScP	04 18 13.3	+2.3
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.6						

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GYA                                AMB      AMB
         comp=Z,140nm,4.9s
GYA                                LR       LR
         comp=N,570nm,16.4s,MS4.4
GYA                                LR       LR
         comp=E,780nm,16.2s,MS4.4
GYA                                LR       LR
         comp=Z,940nm,15.4s,MS4.4
KMI      Kunming          26.70 332  P        P          04 11 09.3 +0.3
KMI                                AP       pP         04 11 14.9 +0.9
KMI                                XP       sP         04 11 17.6 +1.5
KMI                                PP                  04 11 55.6
KMI                                AMB      AMB
         comp=Z,11nm,1.3s,mb4.2
KMI      Kunming          26.70 332  P        P          04 11 09.2 +0.2
         comp=Z,11nm,1.3s,mb4.2
KMI                                pP       pP         04 11 14.9 +0.9
KMI                                sP       sP         04 11 17.6 +1.5
KMI                                PP                  04 11 55.6
KMI      Kunming          26.70 332  P        P          04 11 09.2 +0.2
KMI                                *SP      sP         04 11 17.6 +1.5
KMI                                                    04 11 55.6
KMI                                pmax     pmax
         comp=Z,11nm,1.3s,mb4.2
JOW      Kunigami         27.55  24  P        P          04 11 19.9 +3.2
         comp=Z,34nm,0.9s,mb5.0,baz=205,slow=8.3,SNR=4.3
WRA      Warramunga Arr   27.88 141  P        P          04 11 18.8  -0.9
         comp=Z,18nm,0.6s,mb4.9,baz=317,slow=9.8,SNR=94
WRA                                S        S          04 16 00.6  -2.2
         comp=Z,1.7nm,1.0s,baz=319,slow=16,SNR=4.8
WB2      Warramunga Arr   27.89 141 eP        P          04 11 18.7  -1.1
WHN      Wuhan            28.76 357 eP        P          04 11 29.5 +2.1
NJ2      Nanjing          30.31   4 eP        P          04 11 43.8 +2.7
NJ2                                AP       pP         04 11 48.0 +1.8
NJ2                                XP       sP         04 11 50.6 +2.4
NJ2                                PP       PP         04 12 43.3  -6.5
NJ2                                S        S          04 16 43.0 +2.4
NJ2                                XS       sS         04 16 50.0 +1.0
NJ2                                AMB      AMB
         comp=Z,20nm,0.7s,mb5.0
NJ2                                AMB      AMB
         comp=Z,1µm,7.6s
NJ2                                LR       LR
         comp=N,6µm,19.8s,MS5.4
NJ2                                LR       LR
         comp=E,7µm,20.4s,MS5.4
NJ2                                LR       LR
         comp=Z,7µm,20.4s,MS5.3
ASAR     Alice Springs    30.50 147  P        P          04 11 42.4  -0.5
         comp=Z,11nm,0.5s,mb5.0,baz=326,slow=8.1,SNR=84
ASAR                               PcP      PcP        04 14 42.5 +0.4
         comp=Z,4.0nm,0.8s,baz=325,slow=2.4,SNR=6.3
CD2      Chengdu          31.38 339 eP        P          04 11 48.3  -2.3
CD2                                XP       sP         04 11 56.5  -1.2
CD2                                PP       PP         04 12 53.0  -8.6
CD2                                S        S          04 16 56.3  -1.1
CD2                                AMB      AMB
         comp=Z,20nm,1.0s,mb4.9
PMG      Port Moresby     32.72 110 eP        P          04 12 03.3 +0.6
         comp=Z,32nm,0.9s,mb5.2
PMG      Port Moresby     32.72 110 eP        P          04 12 03.1 +0.5
PMG      Port Moresby     32.72 110  P        P          04 12 03.5 +0.9
         comp=Z,18nm,0.6s,mb5.2,baz=303,slow=6.6,SNR=8.1
XAN      Xi'an            32.91 349  P        P          04 12 03.8  -0.2
XAN                                AMB      AMB
         comp=Z,3.0nm,1.1s,mb4.1
KLBR     Kellerberrin     33.12 178 eP        P          04 12 06.2 +0.3
         comp=Z,68nm,1.3s,mb5.4
MUN      Mundaring        33.47 180 eP        P          04 12 08.8  -0.1
JNU      Nakatsue         34.17  22  P        P          04 12 18.7 +3.7
         comp=Z,20nm,0.8s,mb5.1,baz=158,slow=3.0,SNR=6.3
FORT     Forrest          34.19 162 eP        P          04 12 14.4  -0.8
         comp=Z,32nm,1.3s,mb5.1
NWAO     Narrogin (SRO)   34.43 179  P        P          04 12 17.7 +0.4
NWAO     Narrogin (SRO)   34.43 179  P        P          04 12 17.7 +0.4
         comp=Z,36nm,0.9s,mb5.3,baz=2.0,slow=10,SNR=17
LZH      Lanzhou          36.11 343 eP        P          04 12 31.3  -0.4
LZH                                AP       pP         04 12 34.1  -2.7
LZH                                PP       PP         04 13 54.5 +0.6
LZH                               eS        S          04 18 12.0 +1.5
LZH                                XS       sS         04 18 17.0  -1.9
LZH                                AMB      AMB
         comp=Z,39nm,1.5s,mb5.1
LZH                                AMB      AMB
         comp=Z,120nm,4.3s
LZH                                LR       LR
         comp=E,5µm,18.3s
LZH                                LR       LR
         comp=Z,9µm,21.0s,MS5.5
LZH      Lanzhou          36.11 343 eP        P          04 12 31.3  -0.4
         comp=Z,39nm,1.5s,mb5.1
LZH                                pP       pP         04 12 34.1  -2.7
LZH                                sP       sP         04 12 35.8  -3.0
LZH                                PP       PP         04 13 54.5 +0.6
LZH                               eS        S          04 18 12.0 +1.5
LZH                                sS       sS         04 18 17.0  -1.9
LZH                                SS       SS         04 20 34.0   -14
LZH                                LR       LR
         comp=Z,9µm,21.0s,MS5.5
LZH      Lanzhou          36.11 343 eP        P          04 12 31.3  -0.4
LZH                                                    04 13 54.5
LZH                               eS        S          04 18 12.0 +1.5
LZH                                SS       SS         04 20 34.0   -14
LZH                                pmax     pmax
         comp=Z,39nm,1.5s,mb5.1
LZH                                MLR      MLR
         comp=Z,9µm,21.0s,MS5.5
CTA      Charters Tower   36.54 128  P        P          04 12 36.1 +0.5
         comp=Z,9.6nm,1.0s,mb4.6,baz=304,slow=9.7,SNR=4.0
CTAO     Charters Tower   36.54 128 eP        P          04 12 37.3 +1.8
LSA      Lhasa            36.67 322  P        P          04 12 37.6 +1.0
LSA                                AMB      AMB
         comp=Z,10.0nm,1.0s,mb4.6
LSA      Lhasa            36.67 322 eP        P          04 12 37.1 +0.5
         comp=Z,12nm,0.8s,mb4.8
LSA      Lhasa            36.67 322 eP        P          04 12 37.1 +0.5
LSA                                pmax     pmax
         comp=Z,12nm,0.8s,mb4.8
KSRS     Korea Array      37.19  15  P        P          04 12 42.4 +1.5
         comp=Z,0.9nm,0.5s,mb3.9,baz=182,slow=7.1,SNR=7.8
KSRS                               PcP      PcP        04 15 01.8 +1.0
         comp=Z,0.9nm,0.6s,baz=182,slow=3.8,SNR=4.4
ODAN     Odare            37.32 315 eP        P          04 12 41.7  -0.4
         comp=Z,67nm,1.0s,mb5.4
TAPN     Taplejung        37.39 316 eP        P          04 12 42.5  -0.2
         comp=Z,70nm,0.9s,mb5.5
BJT      Baijiatuau       38.16 360 eP        P          04 12 47.9  -1.1
         comp=Z,66nm,1.3s,mb5.2
BJT      Baijiatuau       38.16 360 eP        P          04 12 47.9  -1.1
BJT                                pmax     pmax
         comp=Z,66nm,1.3s
BJI      Beijing          38.18 360  P        P          04 12 48.4  -0.8
BJI                                AMB      AMB
         comp=Z,35nm,1.3s,mb4.9
BJI                                LR       LR
         comp=N,5µm,18.6s,MS5.3
BJI                                LR       LR
         comp=E,2µm,19.6s,MS5.3
BJI                                LR       LR
         comp=Z,5µm,23.6s,MS5.2
JIRN     Jiri             38.65 315 eP        P          04 12 53.3  -0.1
         comp=Z,34nm,0.6s,mb5.3
BTO      Baotou           39.15 353 eP        P          04 12 55.8  -1.6
HHC      Hu-ho-hao-te     39.22 354 eP        P          04 12 56.8  -1.1
HHC                                XP       sP         04 13 03.4  -1.7
HHC                                PP       PP         04 14 32.0 +4.0
HHC                                S        S          04 18 56.6  -1.0
HHC                                XS       sS         04 19 02.6  -3.4
HHC                                SCS      ScS        04 23 02.8  -3.7
HHC                                AMB      AMB
         comp=Z,12nm,1.3s,mb4.5
HHC                                LR       LR
         comp=N,3µm,19.0s,MS5.3
HHC                                LR       LR
         comp=E,2µm,19.0s,MS5.3
HHC                                LR       LR
         comp=Z,2µm,19.0s,MS5.0
KKN      Kakani           39.38 314 eP        P          04 12 59.8 +0.3
         comp=Z,45nm,0.8s,mb5.2
GKN      Gorkha           39.96 314 eP        P          04 13 03.8  -0.5
         comp=Z,33nm,0.5s,mb5.3
MAJO     Matsushiro       40.20  28 eP        P          04 13 08.2 +2.0
         comp=Z,27nm,1.0s,mb4.9
MAJO     Matsushiro       40.20  28 eP        P          04 13 08.2 +2.0
MAJO                               pmax     pmax
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         comp=Z,27nm,1.0s,mb4.9
MAT      Matsushiro       40.20  28  P        P          04 13 05.6  -0.6
MJAR     Matsushiro Arr   40.20  28  P        P          04 13 07.7 +1.5
         comp=Z,13nm,0.9s,mb4.7,baz=205,slow=8.0,SNR=14
GTA      Gaotai           40.43 340⇑ P        P          04 13 07.6  -0.4
GTA                                AP       pP         04 13 11.1  -2.0
GTA                                PP       PP         04 14 44.0 +2.8
GTA                                PPP                 04 15 09.8
GTA                                PCP      PcP        04 15 14.3 +3.4
GTA                                S        S          04 19 12.8  -3.0
GTA                                XS       sS         04 19 20.8  -3.4
GTA                                SS       SS         04 22 04.6   -11
GTA                                AMB      AMB
         comp=Z,14nm,1.2s,mb4.6
GTA                                AMB      AMB
         comp=Z,2µm,9.1s
GTA                                LR       LR
         comp=N,3µm,18.2s,MS5.4
GTA                                LR       LR
         comp=E,4µm,19.0s,MS5.4
GTA                                LR       LR
         comp=Z,5µm,19.0s,MS5.3
STKA     Stephens Creek   41.14 146 eP        P          04 13 13.5  -0.5
         comp=Z,33nm,0.8s,mb5.0
STKA     Stephens Creek   41.14 146  P        P          04 13 13.8  -0.2
         comp=Z,42nm,0.8s,mb5.1,baz=318,slow=8.2,SNR=59
STKA                               LR       LR         04 33 01.2
         comp=Z,2µm,18.7s,MS5.1,baz=291,slow=40
CN2      Changchun        42.73  10 eP        P          04 13 30.5 +3.7
CN2                               eXP       sP         04 13 37.5 +3.5
CN2                                AMB      AMB
         comp=Z,10.0nm,0.7s,mb4.7
CN2                                AMB      AMB
         comp=Z,200nm,4.0s
MDJ      Mudanjiang       44.36  14  P        P          04 13 41.1 +1.2
MDJ                                AP       pP         04 13 44.1  -1.0
MDJ                                XP       sP         04 13 45.5  -1.6
MDJ                                PP       PP         04 15 24.8 +1.2
MDJ                                SCP      ScP        04 19 16.4 +1.0
MDJ                                PCS      PcS        04 19 17.9 +1.0
MDJ                                S        S          04 20 16.9 +3.3
MDJ                                AMB      AMB
         comp=Z,23nm,1.5s,mb4.7
MDJ                                AMB      AMB
         comp=Z,226nm,5.9s
MDJ                                LR       LR
         comp=N,2µm,22.1s,MS5.1
MDJ                                LR       LR
         comp=E,1µm,21.7s,MS5.1
MDJ                                LR       LR
         comp=Z,2µm,22.1s,MS4.9
MDJ      Mudanjiang       44.36  14 eP        P          04 13 40.4 +0.5
         comp=Z,23nm,0.9s,mb4.9
POO      Poona            44.78 295⇓iP        P          04 13 43.0  -0.8
         comp=Z,20nm,1.0s,mb4.9
NDI      New Delhi        45.87 310 eP        P          04 13 45.0  -7.2
ARMA     Armidale         46.44 136 eP        P          04 13 59.3 +2.6
ULN      Ulaanbaatar      46.69 352 eP        P          04 13 57.2  -1.1
         comp=Z,9.5nm,0.9s,mb4.7
ULN      Ulaanbaatar      46.69 352 eP        P          04 13 57.2  -1.1
ULN                                pmax     pmax
         comp=Z,9.0nm,0.9s,mb4.7
SONM     Songino Array    46.76 351  P        P          04 13 58.2  -0.7
         comp=Z,6.8nm,0.7s,mb4.7,baz=169,slow=8.7,SNR=13
SONM                               PcP      PcP        04 15 33.0 +0.9
         comp=Z,4.1nm,0.9s,baz=170,slow=4.2,SNR=5.8
TOO      Toolangi         47.53 148 eP        P          04 14 06.1 +1.0
         comp=Z,15nm,1.2s,mb4.9
TOO      Toolangi         47.53 148 eP        P          04 14 06.1 +1.0
TOO                                pmax     pmax
         comp=Z,15nm,1.2s,mb4.9
WMQ      Urumqi           49.02 333  P        P          04 14 16.8 +0.3
WMQ                                AP       pP         04 14 24.3 +2.6
WMQ                                XP       sP         04 14 27.5 +3.7
WMQ                                AMB      AMB
         comp=Z,31nm,1.0s,mb5.3
KLR      Kul'dur          49.20  13 eP        P          04 14 14.3  -3.5
ZAK      Zakamensk        49.76 349 eP        P          04 14 19.6  -2.4
ZAK                               e                    04 15 42.5
ZAK                                pmax     pmax
         comp=Z,2.0nm,1.1s,mb4.1
ZAK                                pmax     pmax
         comp=Z,3.0nm,1.0s,mb4.3
ZAK                                pmax     pmax
         comp=Z,5.0nm,1.2s,mb4.4
CIT      Chita            50.21 358 eP        P          04 14 27.4 +2.0
CIT                               e                    04 14 39.6
YSS      Yuzh-Sakhalins   50.66  23 eP        P          04 14 30.5 +1.6
         comp=Z,16nm,0.8s,mb5.0
YSS      Yuzh-Sakhalins   50.66  23⇑eP        P          04 14 26.2  -2.7
YSS                                pmax     pmax
         comp=Z,23nm,1.9s,mb4.8
TLY      Talaya           50.94 350 eP        P          04 14 26.6  -4.3
TLY                                pmax     pmax
         comp=Z,10.0nm,1.3s,mb4.6
MK31     Makanchi Array   53.78 332 eP        P          04 14 51.3  -0.8
MKAR     Makanchi Array   53.78 332 i P       P          04 14 50.9  -1.2
MKAR                               pmax     pmax
         comp=Z,29nm,0.9s
MKAR     Makanchi Array   53.78 332  P        P          04 14 51.8  -0.2
         comp=Z,11nm,0.8s,mb4.9,baz=131,slow=9.1,SNR=39
KBL      Kabul            54.74 312 eP        P          04 14 57.8  -1.6
TKM2     Tokmak 2         54.76 324 eP        P          04 14 58.6  -0.7
         comp=Z,6.7nm,0.8s,mb4.7
TKM2     Tokmak 2         54.76 324 eP        P          04 14 58.6  -0.7
TKM2                               pmax     pmax
         comp=Z,7.0nm,0.8s,mb4.7
UCH      Uchtor           54.99 323 eP        P          04 15 01.1 +0.1
         comp=Z,25nm,1.5s,mb5.0
AAK      Ala-Archa        55.24 323 eP        P          04 15 01.7  -1.1
CLNS     Chul'man         55.43   6 eP        P          04 14 59.3  -4.6
CLNS                               pmax     pmax
         comp=Z,14nm,0.7s,mb5.1
CLNS                               pmax     pmax
         comp=N,15nm,0.9s
CLNS                               pmax     pmax
         comp=E,4.0nm,0.9s
EKS2     Erkin-Say        55.69 323 eP        P          04 15 05.6  -0.4
         comp=E,7.6nm,1.1s,mb4.6
BOD      Bodaibo          56.00 359 eP        P          04 15 06.9  -1.1
BOD                                pmax     pmax
         comp=Z,7.0nm,0.9s,mb4.7
KK31     Karatay Array    57.93 322 i P       P          04 15 19.9  -2.0
KK31                               pmax     pmax
         comp=Z,2.0nm,0.7s,mb4.3
KKAR     Karatay Array    57.93 322 i P       P          04 15 19.9  -2.0
KKAR                               pmax     pmax
         comp=Z,2.0nm,0.8s,mb4.2
ZAL      Zalesovo         58.14 339  P        P          04 15 21.9  -1.3
ZALV     Zalesovo Beam    58.15 339  P        P          04 15 21.8  -1.4
         comp=Z,19nm,0.9s,mb5.1,baz=123,slow=5.5,SNR=30
KURK     Kurchatov        58.27 333 eP        P          04 15 23.1  -1.1
         comp=Z,30nm,1.0s,mb5.3
KURK     Kurchatov        58.27 333⇑eP        P          04 15 23.4  -0.8
NVS      Novosibirsk      59.42 339 i P       P          04 15 29.6  -2.5
NVS                               e                    04 16 17.7
NVS                                pmax     pmax
         comp=Z,31nm,1.8s,mb5.0
NVS                                pmax     pmax
         comp=N,16nm,1.7s
NVS                                pmax     pmax
         comp=E,14nm,1.7s
YAK      Yakutsk          61.05   7 eP        P          04 15 44.4 +1.3
YAK                                pmax     pmax
         comp=Z,21nm,1.0s,mb5.2
YAK                                pmax     pmax
         comp=N,12nm,1.4s
PET      Petropavlovsk    62.03  27 eP        P          04 15 57.8 +7.9
MA2      Magadan          63.63  19 eP        P          04 15 55.7  -4.7
MA2                                pmax     pmax
         comp=Z,7.0nm,1.6s,mb4.4
BRVK     Borovoye         63.72 331 eP        P          04 15 59.6  -1.5
         comp=Z,9.2nm,0.8s,mb4.9
BRVK     Borovoye         63.72 331 eP        P          04 15 59.6  -1.6
BRVK                               pmax     pmax
         comp=Z,9.0nm,0.8s,mb4.8
AB31     Akbulak array    67.32 324  P        P          04 16 22.7  -1.9
AB31                               pmax     pmax
         comp=Z,4.0nm,0.8s,mb4.5
AKTK     Aktyubinsk       68.95 324  P        P          04 16 33.1  -1.6
AKTO     Aktyubinsk       68.95 324  P        P          04 16 33.1  -1.6
         comp=Z,1.7nm,0.5s,mb4.2,baz=94,slow=11,SNR=5.7
TIXI     Tiksi            70.33   4 eP        P          04 16 41.0  -1.9
         comp=Z,18nm,0.9s,mb5.0
TIXI     Tiksi            70.33   4 eP        P          04 16 39.5  -3.4
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TIXI                               pmax     pmax
         comp=Z,17nm,0.9s,mb5.0
ARU      Arti             71.26 330 eP        P          04 16 50.2 +1.4
         comp=Z,12nm,1.0s,mb4.8
ARU      Arti             71.26 330⇑eP        P          04 16 45.5  -3.3
ARU                                pmax     pmax
         comp=Z,7.0nm,1.1s,mb4.5
ORR      Orenburg         71.31 325 eP        P          04 16 48.4  -0.8
BILL     Bilibino         74.43  17 eP        P          04 17 04.8  -2.6
BILL                               pmax     pmax
         comp=Z,4.0nm,1.3s,mb4.2
BILL                               MLR      MLR
         comp=Z,1µm,19.0s,MS5.2
MAW      Mawson           78.36 198  P        P          04 17 31.1 +1.4
         comp=Z,9.8nm,1.2s,mb4.6,baz=41,slow=9.3,SNR=3.1
KMBO     Kilima Mbogo     79.02 269  P        P          04 17 35.4 +0.9
         comp=Z,1.4nm,0.7s,mb4.0,baz=53,slow=18,SNR=3.0
GAMB     Gambell          80.63  25 eP        P          04 17 43.4 +1.3
TNA      Tin City         82.64  24 eP        P          04 17 55.1 +2.5
OBN      Obninsk          82.71 325⇑eP        P          04 17 54.8 +1.5
OBN                               e                    04 21 02.0
OBN                               eSS       SS         04 33 27.4  -5.1
OBN                                pmax     pmax
         comp=Z,8.0nm,1.4s,mb4.6
OBN                                MLR      MLR
         comp=Z,700nm,16.0s,MS5.1
VNDA     Vanda            82.90 171 eP        P          04 17 54.2 +0.4
         comp=Z,6.0nm,0.8s,mb4.7
VNDA     Vanda            82.90 171 eP        P          04 17 54.2 +0.3
VNDA                               pmax     pmax
         comp=Z,6.0nm,0.8s
VNDA     Vanda            82.90 171  P        P          04 17 55.2 +1.4
         comp=Z,3.6nm,0.9s,mb4.4,baz=310,slow=6.3,SNR=3.8
BRTR     Keskin Array B   83.22 310  P        P          04 17 58.0 +1.6
         comp=Z,1.3nm,0.8s,mb4.0,baz=119,slow=4.4,SNR=5.4
TMCR     Tamitsa          83.35 334 eP        P          04 18 01.4 +5.0
TMCR                               pmax     pmax
         comp=Z,21nm,1.2s,mb5.0
JOF      Joensuu          86.19 333 ep        P          04 18 09.2  -1.6
         comp=Z,5.0nm,0.6s,mb4.9
SYO      Syowa Base       86.79 201⇑eP        P          04 18 14.6 +1.1
SYO      Syowa Base       86.79 201⇑epP       pP         04 18 20.0 +1.0
AKASG    Malin Array Be   86.81 321  P        P          04 18 14.4 +0.4
         comp=Z,1.1nm,0.5s,mb4.3,baz=87,slow=3.6,SNR=5.2
AKBB     Malin Array Si   86.81 321 eP        P          04 18 13.9  -0.2
KIEV     Kiev             86.82 320 eP        P          04 18 14.4 +0.3
         comp=Z,5.8nm,0.8s,mb4.9
KIEV     Kiev             86.82 320 eP        P          04 18 14.4 +0.3
KIEV                               pmax     pmax
         comp=Z,6.0nm,0.8s,mb4.9
KEV      Kevo             88.16 340 ep        P          04 18 19.7  -0.5
         comp=Z,8.3nm,0.9s,mb5.0
KEV      Kevo             88.16 340 eP        P          04 18 19.7  -0.5
KEV                                pmax     pmax
         comp=Z,8.0nm,0.9s,mb5.0
KAF      Kangasniemi      88.49 332 ep        P          04 18 21.2  -0.7
         comp=Z,1.7nm,0.5s,mb4.5
KAF      Kangasniemi      88.49 332 eP        P          04 18 21.2  -0.7
KAF                                pmax     pmax
         comp=Z,2.0nm,0.5s,mb4.6
IMA2     Indian Mountai   88.51  24 eP        P          04 18 24.3 +2.4
LSZ      Lusaka           88.55 255 eP        P          04 18 23.2 +0.1
         comp=Z,15nm,1.4s,mb5.1
LSZ      Lusaka           88.55 255 eP        P          04 18 23.2 +0.1
LSZ                                pmax     pmax
         comp=Z,15nm,1.4s,mb5.1
FINES    FINESS Array B   88.61 331  P        P          04 18 23.2 +0.7
FINES    FINESS Array B   88.61 331  P        P          04 18 23.2 +0.7
         comp=Z,2.0nm,0.7s,mb4.6,baz=208,slow=7.8,SNR=6.9
ARCES    ARCESS Array B   88.69 339  P        P          04 18 23.7 +1.0
         comp=Z,11nm,0.9s,mb5.2,baz=95,slow=6.1,SNR=11
MCK      McKinley         90.65  26 eP        P          04 18 32.8 +0.9
         comp=Z,6.5nm,0.9s,mb5.0
MCK      McKinley         90.65  26 eP        P          04 18 32.8 +0.8
MCK                                pmax     pmax
         comp=Z,7.0nm,0.9s,mb5.0
SML      Sawmill          91.11  28 eP        P          04 18 38.7 +4.6
INK      Inuvik           95.83  21 eP        P          04 18 57.4 +1.7
         comp=Z,190nm,1.0s
YKA      Yellowknife Ar  105.50  22  Pdif     Pdif       04 19 42.4 +3.2
YKA                                PKKPbc   PKKPbc     04 35 18.6  -1.2
YKA      Yellowknife Ar  105.50  22  Pdiff    Pdif       04 19 42.4 +3.2
         comp=Z,0.2nm,0.5s,baz=309,slow=4.2,SNR=5.0
YKA                                PKKPbc   PKKPbc     04 35 18.6  -1.2
         comp=Z,0.2nm,0.6s,baz=109,slow=2.7,SNR=4.0
TORD     Torodi Ar. Bea  113.44 285  PKPdf    PKiKP      04 24 07.8  -0.9
TORD     Torodi Ar. Bea  113.44 285  PKiKP    PKiKP      04 24 07.8  -0.9
         comp=Z,0.8nm,0.9s,baz=60,slow=1.1,SNR=7.0
PDAR     Pinedale Array  119.58  37  PKP      PKPdf      04 24 20.8 +0.9
PDAR     Pinedale Array  119.58  37  PKP      PKPdf      04 24 20.8 +0.9
         comp=Z,0.4nm,0.6s,baz=296,slow=0.8,SNR=3.8
ULM      Lac du Bonnet   121.42  24  PKP      PKPdf      04 24 23.9 +0.8
ULM      Lac du Bonnet   121.42  24  PKP      PKPdf      04 24 23.9 +0.8
         comp=Z,1.0nm,0.7s,baz=339,slow=3.4,SNR=3.0
SCHQ     Schefferville   123.62   2  PKP      PKPdf      04 24 28.6 +1.4
SCHQ     Schefferville   123.62   2  PKP      PKPdf      04 24 28.6 +1.4
         comp=Z,3.2nm,0.8s,baz=322,slow=9.1,SNR=5.8
TXAR     Lajitas Array   130.95  48  PKP      PKPdf      04 24 44.5 +2.6
TXAR     Lajitas Array   130.95  48  PKIKP    PKPdf      04 24 44.5 +2.5
TXAR     Lajitas Array   130.95  48  PKP      PKPdf      04 24 44.5 +2.5
         comp=Z,0.7nm,0.8s,baz=117,slow=1.4,SNR=2.6
LCO      Las Campanas    152.03 167 ePKPbc    PKPbc      04 25 26.8 +1.1
LPAZ     La Paz          164.86 164 ePKPdf    PKPdf      04 25 37.0 +2.2
LPAZ     La Paz          164.86 164 ePKIKP    PKPdf      04 25 37.0 +2.2
LPAZ     La Paz          164.86 164  PKP      PKPdf      04 25 38.1 +3.3
         comp=Z,0.9nm,0.5s,baz=279,slow=7.0,SNR=3.8
LPAZ                               PKPab    PKPab      04 26 33.3 +2.8
         comp=Z,2.0nm,0.7s,baz=201,slow=8.6,SNR=3.7
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*ISCJB **24** 04:09:41.6±0.6, 40.56N±0.03×35.12E±0.04, h2^{km}±6^{km},*
Error ellipse: s-maj=5.0km s-min=4.5km az=6.1
*ISK **24** 04:09:41.0, 40.56N×35.08E, h6^{km}, MD2.9*
*CSEM **24** 04:09:41.0±0.1, 40.58N×35.12E, h5^{km}, MD3.1, Error*
ellipse: s-maj=2.4km s-min=2.2km az=97.0
*DDA **24** 04:09:43.8, 40.58N×35.10E, h10^{km}, Md3.1*
ISC 24 04:09:42.5±0.5**, 40.56N**±0.03×**35.12E**±0.04**, h9**^{km}±5^{km}**, n26,**
σ**1^{s}02**/38**, Turkey**

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Code   Station Name          Δ°   AZ°    Phase ID          Time      Res
                                         Op      ISC      h  m  s    ISC
CTKT   Corum               0.26 285  i P      Pg       04 09 48.3 +0.7
CTKT                                 i S      Sg       04 09 53.3 +2.1
CORM   Corum               0.53 225  i PG     Pg       04 09 50.0  -2.8
CORM                                 i SG     Sg       04 09 58.6  -1.2
CORM   Corum               0.53 225  i Pg     Pg       04 09 50.0  -2.8
CORM                                 i Sg     Sg       04 09 58.6  -1.2
KVT    Kavak               0.88  53    PG     Pg       04 09 58.5  -0.8
KVT                                    SG     Sg       04 10 10.9 +0.2
KVT    Kavak               0.88  53   ePg     Pg       04 09 58.5  -0.8
KVT                                   eSg     Sg       04 10 10.9 +0.2
BOYT   Boyabat             0.88 349  i P      Pg       04 09 58.9  -0.4
BOYT                                 i S      Sg       04 10 11.3 +0.5
YOZ    Yozgat              0.93 170    PG     Pg       04 10 00.3   0.0
YOZ                                    SG     Sg       04 10 13.1 +0.7
YOZ    Yozgat              0.93 170   ePg     Pg       04 10 00.3   0.0
YOZ                                   eSg     Sg       04 10 13.1 +0.7
TOS    Tosya               0.96 300    PG     Pg       04 10 00.1  -0.8
TOS    Tosya               0.96 300   ePg     Pg       04 10 00.1  -0.8
DIKM   Dikmen              1.09   5   ePN     Pn       04 10 02.8  -1.1
DIKM   Dikmen              1.09   5   ePn     Pn       04 10 02.8  -1.1
CDAG   Cicekdag            1.10 212  i P      Pg       04 10 03.4  -0.1
CDAG                                 i S      Sg       04 10 21.5 +3.8
TOKT   Tokat               1.11 102   ePN     Pn       04 10 03.6  -0.6
TOKT   Tokat               1.11 102   ePn     Pn       04 10 03.6  -0.6
CANT   Cankiri             1.14 273   ePN     Pn       04 10 03.0  -1.6
ELDT   Eldivan             1.29 268  i P      Pn       04 10 06.1  -0.5
ELDT                                 i S      Sb       04 10 23.2  -0.4
SVSK   Karacayir           1.57 113   ePN     Pn       04 10 11.3 +0.8
SVSK   Karacayir           1.57 113   ePn     Pn       04 10 11.3 +0.8
KAMT   Kaman               1.61 223   ePN     Pn       04 10 10.7  -0.2
KAMT   Kaman               1.61 223   ePn     Pn       04 10 10.7  -0.2
BALT   Daday               1.64 307  i P      Pn       04 10 12.4 +1.1
BALT                                 i S      Sn       04 10 33.2 +0.7
AVNT   Avonos              1.79 187  i P      Pn       04 10 15.2 +1.8
AVNT                                 i S      Sn       04 10 42.0 +5.7
AVNT   Avonos              1.79 187  i P      Pn       04 10 15.2 +1.8
BNN    Bunyan              1.79 162   ePN     Pn       04 10 14.1 +0.6
BNN    Bunyan              1.79 162   ePn     Pn       04 10 14.1 +0.6
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TRN 24 04:18:26.5, 10.91N×61.37W, h35^{km}, MD2.3, 1D, Trinidad

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRN	Trinidad (W)	0.26	188	⇓iP	Pb	04 18 34.2	+0.2
TRN				eS	Sb	04 18 39.4	+0.4
TCE	Chacachacare	0.43	241	eP	Pb	04 18 36.5	+0.3
TCE				eS	Sb	04 18 43.3	+0.4
TBH	Brigand Hill	0.51	145	eP	Pn	04 18 37.5	+0.2
TBH				eS	Sn	04 18 48.4	+3.5
TPP	Pointe-a-Pierr	0.59	188	eP	Pn	04 18 38.5	+0.1
TPR	Prospect	0.64	64	eP	Pn	04 18 39.1	0.0
TPR				eS	Sn	04 18 51.9	+3.8

BJI ***24*** *04:41:20.7, 4342N×14773E, h31^{km}, mb4.6*
JMA ***24*** *04:41:25.3±0.2, 4325N×14738E, h38^{km}, M4.5*
MOS ***24*** *04:41:25.7±1.0, 4346N×14744E, h60^{km}, mb4.3/10, Error ellipse: s-maj=15.4km s-min=9.3km az=126.0*
ISCJB ***24*** *04:41:25.4±0.9, 4333N±006×14739E±007, h60^{km}±6^{km}, mb4.2/26, Error ellipse: s-maj=12.0km s-min=5.9km az=145.5*
NEIC ***24*** *04:41:25.8±0.5, 4432N×14739E, h10^{km}, mb4.3/10, Error ellipse: s-maj=10.6km s-min=8.2km az=171.0*
SKHL ***24*** *04:41:26.4±0.7, 4344N×14735E, h95^{km}±13^{km}, mb5.9/1, msh5.9/1*
IDC ***24*** *04:41:28.0±1.0, 4488N×147.11E, h0^{km}, mb4.1/12, mb1 4.3/13, mb1mx4.1/21, mbtmp4.1/13, ML3.7/1, Error ellipse: s-maj=24.1km s-min=19.3km az=137.0*

ISC 24 04:41:26.5±0.9, 4334N±006×14739E±007, h52^{km}±6^{km}, n68, σ0^{s}99/83, mb4.2/26, 2D, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	1.20	272	P	Pn	04 41 46.3	-0.6
NEM2				eS	Sn	04 42 02.1	-0.1
YUK	Yuzh-Kuril'sk	1.31	303	⇓iPN	Pn	04 41 47.9	-0.5
YUK				i S	Sn	04 42 04.5	-0.2
YUK				pmax	pmax		
	comp=Z,1µm,0.2s						
YUK				pmax	pmax		
	comp=N,250µm,0.3s						
YUK				pmax	pmax		
	comp=E,460µm,0.3s						
YUK				pmax	pmax		
	comp=Z,4µm,0.8s						
YUK				smax			
	comp=N,4µm,0.4s						
YUK				smax			
	comp=E,20µm,0.6s						
YUK	Yuzh-Kuril'sk	1.31	303	i P	Pn	04 41 47.9	-0.5
YUK				AMB	AMB	04 41 48.5	
	comp=E,250nm,0.2s						
YUK				AMB	AMB	04 41 48.5	
	comp=E,460nm,0.2s						
YUK				AMB	AMB	04 41 48.5	
	comp=E,1µm,0.2s						
YUK				AMB	AMB	04 41 48.6	
	comp=E,4µm,0.8s						
YUK				i S	Sn	04 42 04.5	-0.2
YUK				A		04 42 05.0	
	comp=E,4µm,0.4s						
YUK				A		04 42 05.0	
	comp=E,10µm,0.4s						
YUK				A		04 42 05.0	
	comp=E,20µm,0.6s						
JRA	Rausu	1.75	291	P	Pn	04 41 54.6	+0.2
JRA				eS	Sn	04 42 16.1	+0.5
KUR	Kuril'sk	1.92	10	ePN	Pn	04 41 55.7	-1.1
KUR				eS	Sn	04 42 17.0	-2.8
KUR				pmax	pmax		
	comp=E,80nm,0.4s						
KUR				pmax	pmax		
	comp=Z,120nm,0.4s						
KUR				smax			
	comp=N,990nm,0.3s						
KUR				smax			
	comp=E,720nm,0.3s						
KUR	Kuril'sk	1.92	10	eP	Pn	04 41 55.7	-1.1
KUR				AMB	AMB	04 41 57.0	
	comp=E,80nm,0.4s						
KUR				AMB	AMB	04 41 57.0	
	comp=E,120nm,0.4s						
KUR				eS	Sn	04 42 17.0	-2.8
KUR				A		04 42 22.3	
	comp=E,990nm,0.3s						
KUR				A		04 42 22.3	
	comp=E,720nm,0.3s						
JNK	Nakash	1.96	278	P	Pn	04 41 56.9	-0.4
JNK				eS	Sn	04 42 20.3	-0.4
JAK	Akkeshi	2.00	261	P	Pn	04 41 57.4	-0.4
JAK				eS	Sn	04 42 20.7	-0.9
JTKR	Abashiri--Toko	2.60	285	P	Pn	04 42 07.2	+1.1
JTKR				eS	Sn	04 42 38.1	+1.6
JOB	Onbets	2.64	262	P	Pn	04 42 06.5	-0.1
JOB				eS	Sn	04 42 36.6	-0.7
JAR	Ashorobuto	2.64	270	P	Pn	04 42 06.9	+0.3
JAR				eS	Sn	04 42 37.7	+0.3
JMP	Maruseppu	3.00	284	P	Pn	04 42 12.7	+1.2
JCH	Churui	3.04	258	P	Pn	04 42 11.6	-0.5
JCH				eS	Sn	04 42 45.3	-2.0
JEM	Erimo	3.39	248	eS	Sn	04 42 55.9	+0.1
ERM	Erimo	3.39	248	ePn	Pn	04 42 18.1	+1.2
ERM				eSn	Sn	04 42 54.0	-1.8
ERM	Erimo	3.39	248	⇓iPN	Pn	04 42 18.3	+1.5
JKK2	Kamakawa 2	3.41	281	P	Pn	04 42 18.7	+1.5
JFR	Furan	3.51	269	P	Pn	04 42 19.5	+1.0
JFR				eS	Sn	04 42 59.3	+0.6
ASAJ	Asahikawa	3.56	284	P	Pn	04 42 21.2	+2.0
ASAJ	Asahikawa	3.56	284	PN	Pn	04 42 21.4	+2.2
ASAJ						04 43 04.3	
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.3s						
ASAJ	Asahikawa	3.56	284	Pn	Pn	04 42 21.4	+2.2
	comp=Z,6.4nm,0.3s,baz=114,slow=9.2,SNR=18						
ASAJ				Sn	Sn	04 43 04.3	+4.3
	baz=191,slow=32,SNR=2.8						
JNBK	Urakawa-nobuka	3.57	254	P	Pn	04 42 19.3	0.0
JNBK				eS	Sn	04 42 58.1	-2.2
JSE	Soyaes	3.82	297	P	Pn	04 42 23.9	+1.2
YSS	Yuzh-Sakhalins	4.88	319	ePg	Pn	04 42 46.6	+9.4
YSS	Yuzh-Sakhalins	4.88	319	ePN	Pn	04 42 38.3	+1.1
YSS	Yuzh-Sakhalins	4.88	319	eP	Pn	04 42 38.3	+1.1
YSS				eS	Sn	04 43 26.0	-6.3
NJ2	Nanjing	25.12	253	eP	P	04 46 46.3	-0.1
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.8						
ULN	Ulaanbaatar	28.35	293	eP	P	04 47 16.3	+1.0
	comp=Z,2.3nm,0.7s,mb3.9						
ULN	Ulaanbaatar	28.35	293	eP	P	04 47 16.3	+1.0
ULN				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.9						
SONM	Songino Array	28.79	293	P	P	04 47 20.5	+1.3
	comp=Z,3.2nm,0.7s,mb4.2,baz=87,slow=8.4,SNR=31						
ZAK	Zakamensk	30.60	299	eP	P	04 47 33.5	-1.7
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.7						
TNA	Tin City	33.10	32	eP	P	04 47 57.6	+0.6
	comp=Z,8.4nm,1.0s,mb4.6						
IMA2	Indian Mountai	38.92	34	eP	P	04 48 47.5	+0.8
ZALV	Zalesovo Beam	41.39	307	P	P	04 49 06.0	-1.2
	comp=Z,0.8nm,0.4s,mb3.7,baz=78,slow=7.7,SNR=5.4						
ZAL	Zalesovo	41.40	307	P	P	04 49 06.1	-1.3
EGAK	Eagle	44.16	36	eP	P	04 49 29.7	+0.1
	comp=Z,4.2nm,1.1s,mb4.1						
MK31	Makanchi Array	44.93	298	eP	P	04 49 36.6	+0.6
MKAR	Makanchi Array	44.93	298	P	P	04 49 36.7	+0.7
MKAR	Makanchi Array	44.93	298	i P	P	04 49 36.4	+0.4
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	Makanchi Array	44.93	298	P	P	04 49 36.7	+0.7
	comp=Z,4.2nm,0.7s,mb4.4,baz=80,slow=8.3,SNR=39						
KURK	Kurchatov	45.91	304	eP	P	04 49 44.2	+0.6
	comp=Z,3.9nm,0.8s,mb4.4						
KURK	Kurchatov	45.91	304	eP	P	04 49 44.2	+0.6
KURK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
INK	Inuvik	46.67	30	P	P	04 49 47.5	-1.9
	comp=Z,1.2nm,0.5s,mb4.0,baz=282,slow=9.3,SNR=2.3						
TKM2	Tokmak 2	50.84	296	eP	P	04 50 22.7	+1.0
	comp=Z,3.0nm,0.7s,mb4.3						
TKM2	Tokmak 2	50.84	296	eP	P	04 50 22.7	+1.0
TKM2				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
EKS2	Erkin-Say	52.15	296	eP	P	04 50 32.3	+0.8
	comp=Z,1.0nm,0.6s,mb3.9						
KKAR	Karatay Array	54.06	298	i P	P	04 50 45.5	0.0
KKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
ARU	Arti	54.77	317	eP	P	04 50 49.7	-0.8
	comp=Z,3.4nm,0.6s,mb4.5						
ARU	Arti	54.77	317	eP	P	04 50 49.7	-0.7
ARU				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
YKA	Yellowknife Ar	56.05	34	P	P	04 50 59.7	+0.1
YKA	Yellowknife Ar	56.05	34	P	P	04 50 59.7	+0.1
	comp=Z,1.3nm,0.7s,mb4.1,baz=298,slow=6.7,SNR=22						
AB31	Akbulak array	57.46	309	i P	P	04 51 10.1	+0.3
AB31				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
KEV	Kevo	59.16	340	eP	P	04 51 20.0	-1.3
KEV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
ARCES	ARCESS Array B	59.69	340	P	P	04 51 24.6	-0.5
	comp=Z,1.9nm,0.7s,mb4.2,baz=55,slow=6.3,SNR=7.5						
WB2	Warramunga Arr	64.10	194	eP	P	04 52 06.0	+11
WRA	Warramunga Arr	64.10	194	P	pP	04 52 12.3	+2.8
	comp=Z,0.7nm,0.9s,baz=12,slow=6.9,SNR=2.7						
KAF	Kangasniemi	64.76	334	eP	P	04 51 57.2	-1.8
KAF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
FIA1	FINESS Array S	65.32	333	eP	P	04 52 02.1	-0.5
FINES	FINESS Array B	65.32	333	P	P	04 52 02.6	-0.1
	comp=Z,4.9nm,0.6s,mb4.7,baz=43,slow=8.1,SNR=30						
BOZ	Bozeman (W)	67.05	48	eP	P	04 52 14.7	+0.7
	comp=Z,0.4nm,0.5s,mb3.7						
NVAR	Mina Array Bea	67.65	58	P	P	04 52 19.6	+1.7
	comp=Z,0.9nm,0.7s,mb3.9,baz=281,slow=9.3,SNR=4.8						
ASAR	Alice Springs	67.82	193	P	pP	04 52 37.9	+4.5
	comp=Z,0.6nm,0.8s,baz=47,slow=2.2,SNR=4.4						
PDAR	Pinedale Array	70.04	50	P	P	04 52 32.4	-0.3
	comp=Z,0.3nm,0.6s,mb3.4,baz=274,slow=4.4,SNR=2.8						
NB2	NORSAR Subarra	70.05	339	P	P	04 52 32.1	-0.3
	comp=Z,4.4nm,0.6s,mb4.6,baz=31,slow=6.5						
NOA	NORSAR Array B	70.05	339	P	P	04 52 32.1	-0.3
	comp=Z,5.0nm,0.7s,mb4.5,baz=32,slow=6.2,SNR=13						
AKASG	Malin Array Be	72.02	324	P	P	04 52 44.5	0.0
	comp=Z,2.3nm,0.6s,mb4.3,baz=35,slow=8.2,SNR=7.6						
AKBB	Malin Array Si	72.02	324	eP	P	04 52 44.8	+0.3
GERES	GERESS Array B	79.60	331	P	P	04 53 28.1	+0.3
	comp=Z,0.4nm,0.6s,mb3.5,baz=29,slow=6.4,SNR=4.7						

IDC 24 05:01:46.4±4.8, 1533S×17350W, h0^{km}, mb4.0/3, mb1 4.4/4, mb1mx3.9/16, mbtmp4.1/4, Error ellipse: s-maj=323.5km s-min=22.8km az=149.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.18	50	Pn	Pn	05 02 23.6	-0.3
	154nm,0.3s,baz=80,slow=0.2,SNR=69						
AFI				Sn	Sn	05 02 43.8	-7.9
	380nm,0.3s,baz=119,slow=23,SNR=5.9						
WRA	Warramunga Arr	49.77	257	P	P	05 10 40.8	-0.4
	0.6nm,0.5s,baz=91,slow=7.0,SNR=5.0						
ASAR	Alice Springs	50.04	252	P	P	05 10 43.1	0.0
	3.3nm,0.7s,baz=85,slow=8.2,SNR=35						
NVAR	Mina Array Bea	74.34	42	P	P	05 13 26.4	+0.4
	0.2nm,0.4s,baz=230,slow=8.1,SNR=3.8						
GERES	GERESS Array B	146.06	351	PKPbc	PKPbc	05 21 28.1	-0.2
	0.2nm,0.5s,baz=343,slow=2.4,SNR=2.8						

CASC 24 05:18:23.2±1.9, 1178N×8650W, h137^{km}±11^{km}, MD3.9, ML3.2, 7C-2D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TICN	Ticuantepe	0.37	46	⇑eP	Pn	05 18 42.4	-0.1
TICN				eS	Sn	05 18 59.5	+2.5
XAVN	Gruta Xavier	0.41	25	⇑eP	Pn	05 18 42.3	-0.3
COPN	Copaltepe	0.41	348	⇓iP	Pn	05 18 42.4	-0.2
TISN	Laguna Tiscapa	0.43	32	⇓iP	Pn	05 18 42.5	-0.2
MGAN	Managua	0.44	34	⇑eP	Pn	05 18 42.5	-0.3
MGAN				eS	Sn	05 18 58.3	+0.6
MGAN				i		05 19 00.1	
	comp=N,181nm,0.5s						
APON	Apoyo	0.45	72	⇑iP	Pn	05 18 42.6	-0.2
APON				eS	Sn	05 18 58.5	+0.9
MOMJ	Momotombo	0.63	357	eP	Pn	05 18 43.3	-0.5
HUEN		0.64	30	⇑iP	Pn	05 18 43.5	-0.4
SSNN	San Juan del S	0.81	127	eP	Pn	05 18 45.4	+0.3
SSNN				eS	Sn	05 19 02.1	+0.4
SSNN				i		05 19 03.3	
	comp=Z,925nm,0.1s						
TEL3	Telica 3	0.86	337	eP	Pn	05 18 45.5	0.0
CONN	Concepcion	0.89	104	⇑iP	Pn	05 18 45.6	-0.1
MADN	Villa Maderas	1.02	111	⇑eP	Pn	05 18 46.8	-0.2
JCR	Jicaral	2.35	144	eP	Pn	05 19 03.2	+1.3
CGA2	Cerro Gallo 2	2.66	131	eP	Pn	05 19 07.0	+1.3
CGA2				eS	Sn	05 19 39.2	+0.7
PRS1	Puriscal	2.80	129	eP	Pn	05 19 09.4	+1.9
PRS1				eS	Sn	05 19 43.3	+1.7
LAJ	Bijagual	3.02	129	eP	Pn	05 19 08.7	-1.6
LCR2	La Lucha 2	3.18	129	eP	Pn	05 19 13.7	+1.2
LCR2				eS	Sn	05 19 51.2	+0.7
URSC	Urasca	3.30	126	eP	Pn	05 19 16.8	+2.8
URSC				eS	Sn	05 19 55.5	+2.2
BAR1		4.03	128	eP	Pn	05 19 24.5	+1.0
BAR1				eS	Sn	05 20 13.1	+2.8

IDC 24 05:40:18.3±28.0, 2346S×17172W, h0^{km}, mb3.9/4, mb1 4.0/4, mb1mx3.9/16, mbtmp3.9/4, Error ellipse: s-maj=517.0km s-min=159.0km az=78.0, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	39.07	267	P	P	05 47 48.1	+0.8
	2.2nm,0.5s,baz=110,slow=12,SNR=2.6						
STKA	Stephens Creek	41.92	248	P	P	05 48 10.2	-0.7
	1.4nm,0.6s,baz=81,slow=9.4,SNR=5.0						
ASAR	Alice Springs	49.57	258	P	P	05 49 11.8	+0.3
	0.5nm,0.4s,baz=93,slow=7.0,SNR=12						
WRA	Warramunga Arr	50.00	263	P	P	05 49 14.0	-0.7
	0.4nm,0.3s,baz=102,slow=8.3,SNR=3.9						

DDA ***24*** *06:05:42.1, 3437N×2705E, h11^{km}, Md3.7*
ISCJB ***24*** *06:05:47.0±0.4, 3457N±004×2751E±003, h59^{km}±8^{km}, mb3.9/8, Error ellipse: s-maj=6.9km s-min=4.2km az=17.4*
CSEM ***24*** *06:05:48.7±0.2, 3474N×2741E, h67^{km}±1^{km}, MD3.7, Error ellipse: s-maj=7.1km s-min=3.0km az=161.0*
IDC ***24*** *06:05:49.0±1.1, 3470N×2747E, h46^{km}±13^{km}, mb3.7/8, mb1 3.7/17, mb1mx3.6/27, mbtmp3.6/17, ML3.5/7, MS3.0/1, Ms1 3.0/1, ms1mx2.5/38, Error ellipse: s-maj=17.8km s-min=8.7km az=5.0*
HLW ***24*** *06:05:53.6, 3433N×2790E, h33^{km}, Mb3.8*
NEIC ***24*** *06:05:57.1, 3534N×2672E, h27^{km}, ML3.2(ATH), After ATH.*
ATH ***24*** *06:05:57.1, 3534N×2672E, h27^{km}±4^{km}, MD3.7/7*

ISC 24 06:05:48.7±0.4, 3460N±004×2746E±003, h50^{km}±7^{km}, n57, σ0^{s}89/69, mb3.9/8, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	Karpathos	0.98	346	ePb	Pn	06 06 05.9	-0.3
KARP	Karpathos	0.98	346	ePB	Pn	06 06 05.9	-0.3
KARP	Karpathos	0.98	346	ePb	Pn	06 06 05.9	-0.3
NPS	Neapolis	1.66	294	ePn	Pn	06 06 15.7	+0.4
NPS	Neapolis	1.66	294	ePN	Pn	06 06 15.7	+0.4
NPS	Neapolis	1.66	294	ePn	Pn	06 06 15.7	+0.4
ARG	Arkhangelos	1.71	18	ePn	Pn	06 06 23.8	+7.8
ARG	Arkhangelos	1.71	18	ePN	Pn	06 06 23.8	+7.8
ARG	Arkhangelos	1.71	18	ePn	Pn	06 06 23.8	+7.8
IDI	Anoyia	2.22	289	P	Pn	06 06 23.6	+0.6
	8.7nm,0.3s,baz=112,slow=14,SNR=29						
IDI				S	Sn	06 06 49.6	+0.3
	21nm,0.3s,baz=9.0,slow=20,SNR=5.2						
IDI				LR	LR	06 07 25.9	
	comp=Z,273nm,18.1s,baz=23,slow=44						
IDI	Anoyia	2.22	289	P	Pn	06 06 23.6	+0.5
IDI				S	Sn	06 06 49.6	+0.3
BDRM	Kayabasi	2.46	360	i P	Pn	06 06 25.8	-0.6
BDRM				i S	Sn	06 07 03.9	+8.7
GVD	Gavdhos	2.79	276	ePn	Pn	06 06 31.2	+0.4
GVD	Gavdhos	2.79	276	ePn	Pn	06 06 31.2	+0.4
VAM	Vamos	2.79	288	ePn	Pn	06 06 31.7	+0.8
VAM	Vamos	2.79	288	ePN	Pn	06 06 31.7	+0.8
VAM	Vamos	2.79	288	ePn	Pn	06 06 31.7	+0.8
APE	Apeiranthos	2.92	328	ePn	Pn	06 06 31.8	-0.9
APE	Apeiranthos	2.92	328	ePN	Pn	06 06 31.8	-0.9
APE	Apeiranthos	2.92	328	ePn	Pn	06 06 31.8	-0.9
GOLH	Golhisar	3.14	32	i P	Pn	06 06 36.9	+1.2
GOLH				i S	Sn	06 07 12.9	+1.1
GOLH	Golhisar	3.14	32	i P	Pn	06 06 36.8	+1.2
GOLH				i S	Sn	06 07 12.9	+1.1
KYTH	Kithira	3.98	296	ePn	Pn	06 06 46.0	-1.2
KYTH	Kithira	3.98	296	ePN	Pn	06 06 46.0	-1.2
KYTH	Kithira	3.98	296	ePn	Pn	06 06 46.0	-1.2
VLI	Veliai	4.25	301	ePn	Pn	06 06 49.9	-0.9
VLI	Veliai	4.25	301	ePN	Pn	06 06 49.9	-0.9
VLI	Veliai	4.25	301	ePn	Pn	06 06 49.9	-0.9
ERMK	Ermenek	4.89	64	i P	Pn	06 07 01.5	+1.8
ERMK				i S	Sn	06 07 55.6	+0.7
ITM	Ithomi	5.18	301	ePn	Pn	06 07 02.7	-0.9
ITM	Ithomi	5.18	301	ePN	Pn	06 07 02.7	-0.9
ITM	Ithomi	5.18	301	ePn	Pn	06 07 02.7	-0.9
HHAG	Hagoal	6.07	138	P	Pn	06 07 15.3	-0.6
AMAG	Maghara	6.25	128	P	Pn	06 07 17.2	-1.2
SUZ		6.57	135	P	Pn	06 07 22.3	-0.4
MMAI	Mount Meron Ar	6.80	101	P	Pn	06 07 26.5	+0.7
	1.5nm,0.3s,baz=299,slow=10,SNR=8.0						
MMAI				S	Sn	06 08 41.3	-0.5
	3.8nm,0.3s,baz=312,slow=12,SNR=3.9						
BRTR	Keskin Array B	7.11	42	P	Pn	06 07 30.3	+0.3
	0.1nm,0.3s,baz=220,slow=15,SNR=3.0						
BRTR				S	Sn	06 08 48.2	-1.2
	0.3nm,0.3s,baz=285,slow=23,SNR=6.5						
HNKL	Nakhl	7.22	128	P	Pn	06 07 31.3	-0.4
EIL	Elat	8.03	126	P	Pn	06 07 42.7	0.0
	1.2nm,0.3s,baz=228,slow=1.7,SNR=7.6						
EIL				S	Sn	06 09 07.0	-5.2
	3.5nm,0.3s,baz=116,slow=23,SNR=8.2						
HKAT	Jabal Katrina	8.23	136	P	Pn	06 07 45.6	+0.2
ASF	Jabal al Asfar	8.25	104	P	Pn	06 07 47.1	+1.3
	0.4nm,0.3s,baz=157,slow=1.8,SNR=3.1						
ASF				S	Sn	06 09 16.4	-1.3
	0.5nm,0.3s,baz=234,slow=4.8,SNR=4.0						
VAE	Valguarnera	10.95	289	P	Pn	06 08 23.9	+1.3
VAE				S	Sn	06 10 19.1	-4.5
VAE	Valguarnera	10.95	289	P	Pn	06 08 23.9	+1.3
	3.1nm,0.3s,baz=271,slow=17,SNR=3.2						
VAE				S	Sn	06 10 19.1	-4.5
	3.0nm,0.3s,baz=108,slow=13,SNR=3.0						
KEST	Kesra	14.86	280	P	Pn	06 09 16.3	+0.6
	0.1nm,0.3s,baz=82,slow=14,SNR=2.2						
AKASG	Malin Array Be	16.15	4	P	Pn	06 09 31.4	-0.6
AKASG	Malin Array Be	16.15	4	P	Pn	06 09 31.4	-0.6
	0.7nm,0.3s,baz=194,slow=12,SNR=4.2						
GERES	GERESS Array B	17.51	329	P	Pn	06 09 48.2	-0.9
	0.1nm,0.3s,baz=150,slow=11,SNR=3.6						
ESDC	Sonseca Array	25.48	291	P	P	06 11 11.2	-0.9
	0.8nm,0.3s,mb3.7,baz=79,slow=6.7,SNR=10						
ESDC	Sonseca Array	25.48	291	P	P	06 11 11.1	-1.0
FINES	FINESS Array B	26.88	359	P	P	06 11 23.6	-0.9
	1.8nm,0.7s,mb3.7,baz=158,slow=13,SNR=8.6						
FINES	FINESS Array B	26.88	359	P	P	06 11 23.5	-0.9
NOA	NORSAR Array B	28.45	343	P	P	06 11 38.4	-0.1
	1.6nm,0.9s,mb3.7,baz=148,slow=11,SNR=2.7						
EKA	Eskdalemuir Ar	29.60	324	P	P	06 11 48.3	-0.4
	1.9nm,1.0s,mb3.8,baz=121,slow=11,SNR=3.6						
TORD	Torodi Ar. Bea	31.63	234	P	P	06 12 08.8	+1.7
	1.7nm,0.9s,mb3.9,baz=37,slow=10,SNR=10						
ARCES	ARCESS Array B	35.01	359	P	P	06 12 35.4	-0.5
	4.1nm,1.0s,mb4.3,baz=169,slow=8.0,SNR=6.9						
MKAR	Makanchi Array	42.51	56	P	P	06 13 40.9	+2.0
	0.9nm,0.7s,mb3.6,baz=276,slow=6.3,SNR=7.2						
SCHQ	Schefferville	64.83	320	P	P	06 16 22.5	+0.4
	2.4nm,0.7s,mb4.3,baz=71,slow=5.1,SNR=5.9						

ISCJB ***24*** *06:49:54.9±0.5, 1471N±004×9077W±003, h2^{km}, Error ellipse: s-maj=6.6km s-min=3.9km az=23.4*
CASC ***24*** *06:49:54.6±2.6, 1468N×9078W, h2^{km}±6^{km}, MD4.2*
NEIC ***24*** *06:50:02.4±1.7, 1502N×9088W, h35^{km}, Error ellipse: s-maj=32.9km s-min=12.9km az=207.0*
NEIC Felt at Antigua Guatemala, Guatemala and Santiago Sacatepequez.

ISC 24 06:49:56.0±0.5, 1469N±004×9079W±003, h2^{km}, n22, σ1^{s}19/16, 6C-6D, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUG	Fuego 3	0.24	193	⇓eP	Pg	06 49 59.6	-1.1
GCG	Guatemala City	0.27	112	⇓eP	Pg	06 50 00.6	-0.5
GCG				eP		06 50 01.6	
GCG				eS	Sg	06 50 05.4	+0.9
PCG	Pacaya	0.34	149	⇑iP	Pg	06 50 02.3	-0.2
JAT	Jato	0.90	246	eP	Pg	06 50 13.0	-0.3
JAT				eS	Sg	06 50 25.2	+0.2
RBDL	Robledal	1.21	118	⇑eP	x	06 50 24.8	
RBDL				eS	x	06 50 41.2	
RTR	El Retiro	1.36	125	⇑eP	x	06 50 27.4	
RTR				eS	x	06 50 46.6	
SNJE	San Jose	1.40	125	⇑eP	x	06 50 28.2	
SNJE				eS	x	06 50 46.8	
MTO2	Montecristo 2	1.41	102	⇑eP	x	06 50 28.1	
MTO2				eS	x	06 50 49.0	
SBLS	San Blas	1.41	127	⇑eP	x	06 50 28.2	
SBLS				eS	x	06 50 47.6	
BOQS	Boqueron	1.74	123	⇓eP	x	06 50 33.5	
BOQS				eS	x	06 50 56.9	
SNET	Serv Nac Est T	1.81	123	eP	x	06 50 19.0	
SNET				eS	x	06 50 43.3	
LBRS	Las Brisas	1.94	119	⇓eP	x	06 50 35.7	
LBRS				eS	x	06 51 02.9	
LFRS	El Faro	1.98	122	⇓eP	x	06 50 36.2	
LFRS				eS	x	06 51 03.6	
LCBS	La Ceiba	2.03	120	⇓eP	x	06 50 38.6	
LCBS				eS	x	06 51 06.0	
CCIG	Comitan	2.05	321	i P	Pn	06 50 31.3	-0.2
CCIG				i S	Sn	06 50 59.6	+1.9
SNVI	San Vicente	2.17	119	eP	x	06 50 37.9	
SNVI				eS	x	06 51 05.4	
SCX	San Cristobal	2.71	319	i P	Pn	06 50 38.3	-2.2
SCX				i S	Sn	06 51 14.0	+0.2
BLLM	Bellamira	2.77	116	eP	x	06 50 57.2	
BLLM				eS	x	06 51 32.5	
CNCH	Conchagua	3.19	116	eP	x	06 50 59.6	
CNCH				eS	x	06 51 38.8	
TGUH	Tegucigalpa,Un	3.46	100	ePn	Pn	06 50 56.1	+5.2
TGUH				eSg	Sg	06 51 48.7	+1.4
TEIG	Tepich	6.01	23	ePn	Pn	06 51 25.1	-0.7
	108nm,0.6s						
TEIG				i S	Sn	06 52 32.4	-2.9
VHO	Vista Hermosa	6.20	293	i P	Pn	06 51 32.6	+4.1
VHO				i S	Sn	06 52 41.4	+1.4

IDC ***24*** *07:07:24.0±1.7, 205N×12795E, h0^{km}, mb4.2/5, mb1 4.4/5, mb1mx4.0/17, mbtmp4.2/5, Error ellipse: s-maj=89.0km s-min=23.0km az=69.0*
ISCJB ***24*** *07:07:48.5±5.0, 14N±03×1271E±05, h234^{km}±49^{km}, mb4.2/4, Error ellipse: s-maj=95.5km s-min=29.9km az=157.0*

ISC 24 07:07:50.5±5.8, 14N±03×1271E±05, h238^{km}±58^{km}, n9, σ0^{s}31/9, mb4.2/4, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	14.98	159	eP	Pn	07 11 11.1	+0.1
	5.3nm,0.6s						
FITZ	Fitzroy Crossi	19.43	184	eP	P	07 11 59.3	-0.1
	3.1nm,0.6s						
FITZ	Fitzroy Crossi	19.43	184	P	P	07 11 59.5	+0.1
	1.5nm,0.5s,baz=17,slow=12,SNR=13						
WRA	Warramunga Arr	22.36	162	P	P	07 12 28.5	-0.4
	9.5nm,0.5s,mb4.6,baz=345,slow=11,SNR=62						
WB2	Warramunga Arr	22.36	162	eP	P	07 12 28.5	-0.4
ASAR	Alice Springs	25.77	166	P	P	07 13 00.0	+0.2
	4.1nm,0.5s,mb4.3,baz=346,slow=7.5,SNR=111						
STKA	Stephens Creek	35.83	159	eP	P	07 14 28.2	+0.6
	4.7nm,0.9s,mb4.0						
STKA	Stephens Creek	35.83	159	P	P	07 14 28.1	+0.5
	5.1nm,0.7s,mb4.2,baz=345,slow=7.9,SNR=11						
MKAR	Makanchi Array	59.68	326	P	P	07 17 30.0	0.0
	0.5nm,0.3s,mb3.6,baz=115,slow=7.9,SNR=6.4						

CASC 24 07:10:19.5±1.6, 8.34N×82.77W, h23^{km}±5^{km}, MD3.9, 7C-5D, Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRU2	**Volcan**	**0.46**	**10**	⇑iP	Pb	07 10 29.1	+0.1
BRU2				eS	Sb	07 10 37.0	+1.6
TBS2		**0.46**	**14**	eP	Pb	07 10 35.1	+6.1
TBS2				eS	Sb	07 10 43.0	+7.5
BRU	**Baru**	**0.51**	**24**	⇓iP	Pb	07 10 30.1	+0.3
CTCR	**Cotoan**	**0.55**	**1**	⇓iP	Pb	07 10 30.4	-0.1
BAR1		**1.04**	**329**	⇓eP	Pn	07 10 37.3	-1.5
BAR1				eS	Sb	07 10 52.0	-0.2
CNI	**Changuinola**	**1.10**	**13**	⇓iP	Pn	07 10 38.8	-0.7
BUS	**Buena Vista**	**1.55**	**321**	eP	Pn	07 10 45.1	-0.6
BUS				eS	Sn	07 11 08.4	+3.2
QCR	**Quepos**	**1.75**	**308**	⇑eP	Pn	07 10 48.2	-0.3
QCR				eS	Sn	07 11 11.2	+1.1
URSC	**Urasca**	**1.79**	**326**	⇑eP	Pn	07 10 48.9	-0.1
URSC				eS	Sn	07 11 12.4	+1.3
LCR2	**La Lucha 2**	**1.85**	**319**	⇑eP	Pn	07 10 49.3	-0.5
LCR2				eS	Sn	07 11 14.7	+2.1
LAJ	**Bijagual**	**2.02**	**319**	⇑eP	Pn	07 10 54.7	+2.6
PRS1	**Puriscal**	**2.23**	**317**	⇑eP	Pn	07 10 54.8	-0.3
PRS1				eS	Sn	07 11 21.3	-0.7
CGA2	**Cerro Gallo 2**	**2.36**	**315**	⇑eP	Pn	07 10 58.1	+1.2
CGA2				eS	Sn	07 11 26.9	+1.8
AZU	**Azuero**	**2.53**	**102**	eP	Pn	07 10 59.5	+0.3
PTP	**Ponta Puerca**	**19.36**	**58**	⇓iP		07 10 25.0	

MEX 24 07:23:03.0±0.5, 16.19N×92.24W, h7^{km}±999^{km}, MD4.1, Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CCIG	**Comitan**	**0.13**	**49**	i P	Pg	07 23 05.7	-0.2
CCIG				i S	Sg	07 23 07.4	-0.4
SCX	**San Cristobal**	**0.66**	**325**	i P	Pg	07 23 14.0	-1.7
SCX				i S	Sg	07 23 25.0	+0.7
VHO	**Vista Hermosa**	**4.39**	**282**	i P	Pn	07 24 06.7	-3.5
VHO				i S	Sn	07 24 59.2	-2.5

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*ISCJB **24** 07:29:34.9±1.4, 3.87S±0.09×136.4E±0.2, h10^{km}, mb3.5/2, Error ellipse: s-maj=32.8km s-min=12.8km az=8.7*

*IDC **24** 07:29:36.9±1.9, 4.00S×136.16E, h0^{km}, mb3.7/2, mb1 3.8/5, mb1mx3.6/13, mbtmp3.6/5, ML3.4/2, Error ellipse: s-maj=67.4km s-min=24.1km az=79.0*

*NEIC **24** 07:29:38.4±1.5, 4.01S×136.20E, h10^{km}, Error ellipse: s-maj=39.2km s-min=18.5km az=88.0*

ISC 24 07:29:37.5±1.6, 3.92S±0.10×136.3E±0.3, h10^{km}, n7, σ1^{s}19/10, mb3.5/2, Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.53**	**203**	ePn	**Pn**	**07 31 55.5**	**+0.7**
KAKA				eSn	**Sn**	**07 33 46.7**	**+4.6**
WRA	**Warramunga Arr**	**16.04**	**187**	Pn	**Pn**	**07 33 21.6**	**-1.6**
WRA				Sn	**Sn**	**07 36 22.7**	**+1.4**
WRA	**Warramunga Arr**	**16.04**	**187**	Pn	**Pn**	**07 33 21.7**	**-1.6**
	0.1nm,0.3s,baz=7.9,slow=13,SNR=7.4						
WRA				Sn	**Sn**	**07 36 22.7**	**+1.4**
	0.3nm,0.3s,baz=8.4,slow=22,SNR=3.8						
FITZ	**Fitzroy Crossi**	**17.53**	**216**	P	**Pn**	**07 33 40.8**	**-1.3**
	0.2nm,0.3s,baz=36,slow=14,SNR=5.5						
ASAR	**Alice Springs**	**19.77**	**186**	P	**Pn**	**07 34 08.1**	**-1.2**
	0.2nm,0.3s,baz=10,slow=10,SNR=14						
STKA	**Stephens Creek**	**28.26**	**170**	P	**P**	**07 35 31.5**	**+0.6**
	1.8nm,0.9s,mb3.7,baz=318,slow=14,SNR=2.8						
MKAR	**Makanchi Array**	**69.29**	**324**	P	**P**	**07 40 46.1**	**+1.1**
	0.2nm,0.5s,mb3.3,baz=111,slow=5.4,SNR=3.6						

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*IDC **24** 07:33:29.3±0.6, 1.06N×85.19W, h0^{km}, mb4.4/13, mb1 4.6/18, mb1mx4.6/24, mbtmp4.4/18, ML4.1/5, MS5.0/19, Ms1 4.9/19, ms1mx4.8/28, Error ellipse: s-maj=15.2km s-min=9.7km az=48.0*

*ISCJB **24** 07:33:31.4±0.2, 1.13N±0.03×85.19W±0.03, h23^{km}, mb5.1/78, MS5.1/24, Error ellipse: s-maj=5.9km s-min=3.8km az=44.2*

*MOS **24** 07:33:33.1±1.0, 1.21N×85.18W, h33^{km}, mb5.4/31, Error ellipse: s-maj=14.2km s-min=5.6km az=105.7*

*NEIC **24** 07:33:33.0±0.2, 1.10N×85.21W, mb5.2/70, Error ellipse: s-maj=6.3km s-min=4.1km az=46.0*

*BJI **24** 07:33:33.0, 1.10N×85.20W, h23^{km}, mB5.6, Ms5.6, Msz5.3*

*GCMT **24** 07:33:33.0±0.1, 0.99N×85.38W, h12^{km}, MW5.5/88, Moment Tensor Solution. s77,c127; s88,c160; Duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.04±.03; M$_{\theta\theta}$0.67±.03; M$_{\phi\phi}$-0.63±.04; M$_{r\theta}$0.08±.07; M$_{\theta\phi}$2.04±.03; M$_{\phi r}$0.28±.08; Best double couple: M$_{0}$2.16200×10^{17} NP1:φ$_{s}$99.00000°, δ82.00000°, λ1.00000°. NP2:φ$_{s}$9.00000°, δ89.00000°, λ172.00000°. Principal axes: T 2.1860, Plg6.0000°, Azm324.0000°; N -0.0470, Plg82.0000°, Azm184.0000°; P -2.1380, Plg5.0000°, Azm54.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 24 07:33:33.4±0.2, 1.08N±0.03×85.21W±0.03, h25^{km}, h25^{km}±.3^{km}:pP-P, n461, σ0^{s}73/407, mb5.1/78, MS5.1/24, 100C-80D, Off coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAYG	**Puerto Ayora**	**5.36**	**251**	ePn	**Pn**	**07 34 49.6**	**-2.4**
	49nm,0.6s						
OTAV	**Otavalo**	**6.81**	**97**	ePn	**Pn**	**07 35 11.8**	**-0.2**
JTS	**JuntasAbangare**	**9.15**	**2**	Pn	**Pn**	**07 35 44.3**	**+0.3**
	1μm,1.2s,SNR=14						
JTS	**JuntasAbangare**	**9.15**	**2**	ePn	**Pn**	**07 35 42.3**	**-1.7**
JTS	**JuntasAbangare**	**9.15**	**2**	⇑iP	**Pn**	**07 35 42.5**	**-1.5**
JTS	**JuntasAbangare**	**9.15**	**2**	Pn	**Pn**	**07 35 42.8**	**-1.3**
	3.0nm,0.3s,baz=179,slow=7.7,SNR=16						
JTS				Sn	**Sn**	**07 37 29.2**	**+2.9**
	0.6nm,0.3s,baz=210,slow=19,SNR=3.5						
JTS				LR	LR	07 38 30.4	
	comp=Z,6μm,20.1s,baz=8.6,slow=33						
ATAH	**Atahualpa**	**10.52**	**140**	Pn	**Pn**	**07 36 04.2**	**+1.4**
	3.8nm,0.3s,baz=335,slow=7.1,SNR=33						
ATAH				Sn	**Sn**	**07 38 11.4**	**+11**
	0.6nm,0.3s,baz=304,slow=23,SNR=1.3						
ROSC	**El Rosal**	**11.50**	**71**	ePn	**Pn**	**07 36 17.7**	**+1.5**
ROSC	**El Rosal**	**11.50**	**71**	Pn	**Pn**	**07 36 18.0**	**+1.9**
	0.6nm,0.3s,baz=125,slow=12,SNR=8.9						
ROSC				Sn	**Sn**	**07 38 30.4**	**+6.5**
	0.4nm,0.3s,baz=266,slow=22,SNR=1.7						
ROSC				LR	LR	07 40 20.1	
	comp=Z,8μm,20.6s,baz=213,slow=36						
NNA	**Nana**	**15.42**	**148**	ePn	**Pn**	**07 37 11.0**	**+1.6**
	88nm,1.1s						
SDV	**Santo Domingo**	**16.45**	**61**	ePn	**Pn**	**07 37 21.8**	**-1.1**
	24nm,0.7s						
SDV	**Santo Domingo**	**16.45**	**61**	Pn	**Pn**	**07 37 21.6**	**-1.3**
	0.7nm,0.3s,baz=262,slow=9.5,SNR=9.4						
SDV				Sn	**Sn**	**07 40 27.5**	**+2.6**
	0.1nm,0.3s,baz=344,slow=14,SNR=1.7						
SDV				LR	LR	07 43 15.3	
	comp=Z,9μm,19.9s,baz=263,slow=36						
CMIG	**Matias Romero**	**18.54**	**330**	P	**Pn**	**07 37 48.1**	**-0.6**
	0.1nm,0.3s,baz=145,slow=8.8,SNR=31						
CMIG				S	**Sn**	**07 41 19.1**	**+3.7**
	0.1nm,0.3s,baz=260,slow=17,SNR=1.3						
CMIG				LR	LR	07 43 28.8	
	comp=Z,7μm,19.9s,baz=134,slow=32						
TEIG	**Tepich**	**19.26**	**351**	eP	**Pn**	**07 37 56.0**	**-1.4**
	67nm,1.1s						
TEIG	**Tepich**	**19.26**	**351**	P	**Pn**	**07 37 57.0**	**-0.4**
	0.4nm,0.3s,baz=172,slow=13,SNR=5.7						
TEIG				LR	LR	07 44 38.8	
	comp=Z,5μm,19.8s,baz=277,slow=35						
RCC	**Rio Carpintero**	**20.98**	**26**	eP	**P**	**07 38 14.0**	**-1.0**
	baz=187						
RCC				eS	**S**	**07 42 09.4**	**+1.8**
	comp=N,281nm,1.3s						
RCC				e			
	comp=E,176nm,5.9s						
CCCC	**Cccc**	**21.28**	**19**	eP	**P**	**07 38 20.3**	**+2.1**
MGV	**Manicaragua**	**21.51**	**13**	eP	**P**	**07 38 22.8**	**+2.0**
	baz=166						
MGV				eS	ScP	07 45 53.7	-5.1
	comp=N,2μm,19.7s						
MGV				e			
	comp=N,25nm,2.1s						
ARE	**Arequipa**	**22.07**	**143**	eP	**P**	**07 38 28.0**	**+1.2**
PCRV	**Puerto La Cruz**	**22.36**	**65**	P	**P**	**07 38 29.5**	**-0.4**
	comp=N,16nm,1.0s,mb4.4,baz=161,slow=6.0,SNR=5.9						
PCRV				S	**S**	**07 42 37.7**	**+2.8**
	comp=N,17nm,1.2s,baz=53,slow=8.8,SNR=2.1						
LPAZ	**La Paz**	**24.13**	**136**	P	**P**	**07 38 48.3**	**+0.7**
LPAZ	**La Paz**	**24.13**	**136**	eP	**P**	**07 38 48.4**	**+0.8**
	comp=N,138nm,1.3s,mb5.2						
LPAZ	**La Paz**	**24.13**	**136**	eP	**P**	**07 38 48.4**	**+0.8**
LPAZ				pmax	pmax		
	comp=Z,138nm,1.3s						
LPAZ	**La Paz**	**24.13**	**136**	P	**P**	**07 38 48.2**	**+0.6**
	comp=Z,20nm,0.7s,mb4.6,baz=326,slow=8.3,SNR=34						
SJG	**San Juan**	**25.24**	**47**	eP	**P**	**07 38 57.7**	**0.0**
	comp=Z,100nm,1.3s,mb5.2						
SJG	**San Juan**	**25.24**	**47**	eP	**P**	**07 38 57.7**	**0.0**
SJG				pmax	pmax		
	comp=Z,100nm,1.3s						
SJG	**San Juan**	**25.24**	**47**	P	**P**	**07 38 58.1**	**+0.4**
	comp=Z,5.8nm,0.3s,mb4.6,baz=217,slow=5.8,SNR=9.7						
SJG				LR	LR	07 48 17.3	
	comp=Z,4μm,21.5s,MS4.9,baz=242,slow=35						
CPD	**Cerro la Pandu**	**25.36**	**47**	eP	**P**	**07 38 58.6**	**-0.2**
HUMP	**Col San Antoni**	**25.48**	**47**	eP	**P**	**07 39 00.8**	**+0.9**
CBYP	**Canovanas**	**25.55**	**47**	eP	**P**	**07 38 59.5**	**-1.1**
MTP	**Monte Pirata**	**25.67**	**48**	eP	**P**	**07 39 00.9**	**-0.7**
SIV	**San Ignacio**	**29.26**	**126**	P	**P**	**07 39 33.6**	**-0.3**
	comp=Z,1.3nm,0.8s,baz=312,slow=11,SNR=6.9						
BRAL	**Brewton**	**29.82**	**357**	P	**P**	**07 39 40.3**	**+1.6**
	comp=Z,50nm,1.4s,mb5.1						
HKT	**Hockley**	**30.43**	**342**	eP	**P**	**07 39 43.5**	**-0.6**
	comp=Z,147nm,1.9s,mb5.4						
HKT				epP	pP	07 39 51.0	-0.4
HKT	**Hockley**	**30.43**	**342**	eP	**P**	**07 39 43.5**	**-0.6**
HKT				e*PP	pP	07 39 51.0	-0.5
HKT				pmax	pmax		
	comp=Z,147nm,1.9s,mb5.4						
NATX	**Nacogdoches**	**31.79**	**345**	eP	**P**	**07 39 55.5**	**-0.5**
	comp=Z,30nm,0.9s,mb5.1						
NATX				epP	pP	07 40 02.9	-0.6
LRAL	**Lakeview Retre**	**31.83**	**357**	eP	**P**	**07 39 55.6**	**-0.7**
	comp=Z,42nm,1.1s,mb5.2						
LRAL				epP	pP	07 40 02.6	-1.1
GOGA	**Godfrey**	**32.20**	**3**	eP	**P**	**07 39 59.5**	**-0.1**
	comp=Z,21nm,1.1s,mb4.9						
GOGA				epP	pP	07 40 05.8	-1.2
GOGA	**Godfrey**	**32.20**	**3**	eP	**P**	**07 39 59.5**	**-0.1**
GOGA				e*PP	pP	07 40 05.8	-1.2
GOGA				pmax	pmax		
	comp=Z,21nm,1.1s,mb4.9						
JCT	**Junction City**	**32.35**	**336**	eP	**P**	**07 40 01.0**	**0.0**
	comp=Z,24nm,0.9s,mb5.0						
JCT				epP	pP	07 40 08.1	-0.2
JCT	**Junction City**	**32.35**	**336**	eP	**P**	**07 40 01.0**	**0.0**
JCT				e*PP	pP	07 40 08.1	-0.3
JCT				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.0						
LTX	**Lajitas**	**33.15**	**330**	eP	**P**	**07 40 07.9**	**-0.1**
	comp=Z,216nm,2.7s,mb5.6						
LTX	**Lajitas**	**33.15**	**330**	eP	**P**	**07 40 07.9**	**-0.1**
LTX				pmax	pmax		
	comp=Z,216nm,2.7s,mb5.6						
TXAR	**Lajitas Array**	**33.15**	**330**	P	**P**	**07 40 08.4**	**+0.4**
TXAR						07 42 55.0	
TXAR	**Lajitas Array**	**33.15**	**330**	P	**P**	**07 40 08.3**	**+0.4**
	comp=Z,1.4nm,0.8s,mb4.0,baz=141,slow=8.1,SNR=9.3						
TXAR				PcP	PcP	07 42 55.0	+4.2
	comp=Z,1.0nm,0.8s,baz=142,slow=6.2,SNR=4.6						
TXAR				LR	LR	07 52 24.9	
	comp=Z,3μm,19.7s,MS5.0,baz=280,slow=34						
OXF	**Oxford**	**33.49**	**354**	eP	**P**	**07 40 09.1**	**-1.7**
	comp=Z,86nm,1.1s,mb5.6						
OXF				epP	pP	07 40 16.6	-1.7
OXF	**Oxford**	**33.49**	**354**	eP	**P**	**07 40 09.1**	**-1.8**
OXF				e*PP	pP	07 40 16.6	-1.6
OXF				pmax	pmax		
	comp=Z,85nm,1.1s,mb5.6						
PLAL	**Pickwick Lake**	**33.83**	**356**	eP	**P**	**07 40 12.4**	**-1.5**
	comp=Z,44nm,1.4s,mb5.2						
SWET	**Sewanee**	**33.97**	**359**	eP	**P**	**07 40 14.6**	**-0.4**
SWET				epP	pP	07 40 20.9	-1.5
MIAR	**Mount Ida**	**34.20**	**348**	eP	**P**	**07 40 16.7**	**-0.3**
	comp=Z,0.4nm,1.1s						
MIAR				epP	pP	07 40 22.7	-1.7
CPCT	**Cooper Cave**	**34.20**	**1**	eP	**P**	**07 40 17.2**	**+0.2**
HBAR	**Harrisburg**	**34.67**	**352**	eP	**P**	**07 40 20.7**	**-0.4**
PARMO	**Parma**	**35.65**	**354**	eP	**P**	**07 40 28.7**	**-0.8**
PARMO				epP	pP	07 40 35.3	-1.7
WMOK	**Wichita Mounta**	**35.80**	**341**	eP	**P**	**07 40 30.5**	**-0.4**
	comp=Z,57nm,1.5s,mb5.3						
WMOK				epP	pP	07 40 37.1	-1.2
WMOK	**Wichita Mounta**	**35.80**	**341**	eP	**P**	**07 40 30.5**	**-0.4**
WMOK				e*PP	pP	07 40 37.1	-1.2
WMOK				pmax	pmax		
	comp=Z,57nm,1.5s,mb5.3						
GDL2	**Guadalupe Moun**	**35.84**	**332**	epP	pP	07 40 39.7	+1.1
MNTX	**Cornudas Mount**	**35.92**	**330**	eP	**P**	**07 40 31.3**	**-0.7**
	comp=Z,53nm,1.5s,mb5.2						
MNTX				epP	pP	07 40 38.1	-1.3
ELN	**Prospectdale**	**36.20**	**6**	eP	**P**	**07 40 33.7**	**-0.6**
ELN				epP	pP	07 40 40.8	-0.9
BLA	**Blacksburg**	**36.22**	**6**	eP	**P**	**07 40 34.3**	**-0.1**
	comp=Z,39nm,0.9s,mb5.3						
BLA				epP	pP	07 40 40.6	-1.3
BLA	**Blacksburg**	**36.22**	**6**	eP	**P**	**07 40 34.3**	**-0.1**
BLA				e*PP	pP	07 40 40.6	-1.3
BLA				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.3						
CFAA	**Coronel Fontan**	**36.28**	**155**	P	**P**	**07 40 34.6**	**-0.4**
	comp=Z,0.5nm,0.8s,baz=356,slow=7.0,SNR=7.5						
SIUC	**Southern Illin**	**36.64**	**355**	eP	**P**	**07 40 36.8**	**-1.2**
	comp=Z,57nm,1.0s,mb5.4						
SIUC				epP	pP	07 40 43.6	-1.8
USIN	**University of**	**36.77**	**357**	eP	**P**	**07 40 38.0**	**-1.1**
	comp=Z,44nm,1.1s,mb5.2						
USIN				epP	pP	07 40 45.0	-1.6
WCI	**Wyandotte Cave**	**36.98**	**359**	eP	**P**	**07 40 39.2**	**-1.7**
	comp=Z,59nm,1.2s,mb5.3						
WCI				epP	pP	07 40 46.7	-1.6
WCI	**Wyandotte Cave**	**36.98**	**359**	eP	**P**	**07 40 39.2**	**-1.7**
WCI				e*PP	pP	07 40 46.7	-1.6
WCI				pmax	pmax		
	comp=Z,59nm,1.2s,mb5.3						
FVM	**French Village**	**37.03**	**353**	eP	**P**	**07 40 39.5**	**-1.9**
	comp=Z,59nm,1.6s,mb5.2						
FVM	**French Village**	**37.03**	**353**	eP	**P**	**07 40 39.5**	**-1.8**
FVM				pmax	pmax		
	comp=Z,59nm,1.6s,mb5.2						
SLM	**Saint Louis**	**37.66**	**354**	eP	**P**	**07 40 46.2**	**-0.5**
	comp=Z,38nm,0.6s,mb5.3						
SLM	**Saint Louis**	**37.66**	**354**	eP	**P**	**07 40 46.2**	**-0.4**
SLM				pmax	pmax		
	comp=Z,38nm,0.6s,mb5.3						
BLO	**Bloomington**	**37.93**	**358**	eP	**P**	**07 40 47.2**	**-1.7**
	comp=Z,39nm,0.8s,mb5.2						
BLO				epP	pP	07 40 54.2	-2.1
BLO	**Bloomington**	**37.93**	**358**	eP	**P**	**07 40 47.2**	**-1.7**
BLO				e*PP	pP	07 40 54.2	-2.1
BLO				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.2						
BNM	**Barren Site**	**38.52**	**331**	eP	**P**	**07 40 55.6**	**+1.6**
BNM				epP	pP	07 41 02.2	+0.7
Y22C	**IRIS PASSCAL I**	**38.60**	**331**	⇓P	**P**	**07 40 55.6**	**+0.9**
	baz=39						
LPM	**Los Pinos Moun**	**38.65**	**331**	eP	**P**	**07 40 56.1**	**+1.0**
LENM	**Lemitar**	**38.70**	**331**	eP	**P**	**07 40 56.3**	**+0.8**
LENM				epP	pP	07 41 03.6	+0.6
LAZ	**Ladron**	**38.97**	**331**	eP	**P**	**07 40 58.7**	**+1.0**
ACSO	**Alum Creek Sta**	**39.02**	**3**	eP	**P**	**07 40 56.3**	**-1.8**
	comp=Z,36nm,1.3s,mb5.0						
ACSO				epP	pP	07 41 03.7	-1.9
ANMO	**Albuquerque**	**39.09**	**332**	eP	**P**	**07 40 59.5**	**+0.8**
	comp=Z,7.3nm,0.9s,mb4.4						
ANMO				epP	pP	07 41 06.0	-0.2
ANMO				esP	sP	07 41 09.3	+0.1
ANMO	**Albuquerque**	**39.09**	**332**	eP	**P**	**07 40 59.5**	**+0.8**
ANMO				e*SP	sP	07 41 09.3	+0.1
ANMO				pmax	pmax		
	comp=Z,7.0nm,0.9s						
KSU1	**Kansas State U**	**39.25**	**346**	eP	**P**	**07 40 59.2**	**-0.8**
	comp=Z,46nm,1.0s,mb5.2						
KSU1				epP	pP	07 41 06.5	-1.0
TUC	**Tucson**	**39.31**	**325**	eP	**P**	**07 41 00.1**	**-0.5**
	comp=Z,13nm,1.6s,mb4.4						
TUC				epP	pP	07 41 07.8	-0.3
TUC	**Tucson**	**39.31**	**325**	eP	**P**	**07 41 00.1**	**-0.6**
TUC				e*PP	pP	07 41 07.8	-0.3
TUC				pmax	pmax		
	comp=Z,13nm,1.6s,mb4.4						
HDIL	**Hopedale**	**39.47**	**355**	eP	**P**	**07 41 00.9**	**-0.9**
	comp=Z,121nm,1.2s,mb5.5						
HDIL				epP	pP	07 41 08.0	-1.3
CBKS	**Cedar Bluff**	**39.84**	**342**	eP	**P**	**07 41 04.6**	**-0.3**
	comp=Z,73nm,1.5s,mb5.2						
CBKS	**Cedar Bluff**	**39.84**	**342**	eP	**P**	**07 41 04.6**	**-0.3**
CBKS				pmax	pmax		
	comp=Z,73nm,1.5s,mb5.2						
116A	**Eloy**	**40.03**	**324**	⇓P	**P**	**07 41 06.7**	**+0.1**
	baz=40						
115A	**Sonoran Desert**	**40.44**	**324**	⇑P	**P**	**07 41 10.2**	**+0.2**
	baz=40						
SDCO	**Great Sand Dun**	**40.99**	**335**	eP	**P**	**07 41 15.3**	**+0.9**
	comp=Z,88nm,1.6s,mb5.1						
SDCO				epP	pP	07 41 22.2	+0.3
Z14A	**Wintersburg**	**41.33**	**324**	⇑P	**P**	**07 41 17.7**	**+0.3**
	baz=41						
X15A	**Humboldt**	**41.73**	**326**	⇑P	**P**	**07 41 21.0**	**+0.4**
	baz=42						
Y14A	**Wickenburg**	**41.78**	**324**	⇓P	**P**	**07 41 21.1**	**+0.1**
	baz=42,SNR=8.9						
MVCO	**Mesa Verde**	**41.88**	**332**	eP	**P**	**07 41 22.7**	**+0.8**
	comp=Z,203nm,2.0s,mb5.4						
MVCO				epP	pP	07 41 29.3	-0.1
MVCO	**Mesa Verde**	**41.88**	**332**	⇑P	**P**	**07 41 22.3**	**+0.4**
	baz=42						
JFWS	**Jewell Farm**	**41.89**	**354**	eP	**P**	**07 41 20.9**	**-0.9**
WUAZ	**Wupatki**	**42.02**	**327**	eP	**P**	**07 41 22.7**	**-0.3**
	comp=Z,99nm,2.0s,mb5.1						
WUAZ				epP	pP	07 41 30.2	-0.3
WUAZ	**Wupatki**	**42.02**	**327**	⇑P	**P**	**07 41 23.3**	**+0.4**
	baz=42						
X14A	**Yava**	**42.09**	**325**	⇑P	**P**	**07 41 23.7**	**+0.2**
	baz=42						
Y13A	**Salome**	**42.17**	**324**	⇓P	**P**	**07 41 24.5**	**+0.2**
	baz=42						
GLA	**Glamis**	**42.25**	**322**	⇓P	**P**	**07 41 25.0**	**+0.1**
	baz=42						
W15A	**Williams**	**42.25**	**326**	⇑P	**P**	**07 41 25.5**	**+0.6**
	baz=42						
Y12C	**Blythe**	**42.54**	**323**	⇓P	**P**	**07 41 27.4**	**+0.1**
	baz=43						
PV01	**Paradox Valley**	**42.66**	**333**	eP	**P**	**07 41 28.3**	**+0.2**
PDMCI	**Parker Dam,Lak**	**42.70**	**324**	⇑P	**P**	**07 41 28.7**	**+0.2**
	baz=43						
X13A	**Yucca**	**42.72**	**324**	⇑P	**P**	**07 41 28.8**	**+0.1**
	baz=43						
W14A	**Seligman**	**42.74**	**326**	⇓P	**P**	**07 41 29.2**	**+0.4**
	baz=43						
SWSC	**Sam W. Stewart**	**42.78**	**321**	⇑P	**P**	**07 41 29.5**	**+0.3**
	baz=43						
ISCO	**Idaho Springs**	**42.78**	**337**	eP	**P**	**07 41 29.6**	**+0.5**
	comp=Z,54nm,1.6s,mb5.0						
ISCO				epP	pP	07 41 36.7	0.0
ISCO	**Idaho Springs**	**42.78**	**337**	eP	**P**	**07 41 29.6**	**+0.5**
ISCO				e*PP	pP	07 41 36.7	+0.1
ISCO				pmax	pmax		
	comp=Z,54nm,1.6s,mb5.0						
DVTC	**Desert V Tower**	**42.79**	**320**	⇑P	**P**	**07 41 29.9**	**+0.6**
	baz=43						
SMCO	**Snowmass**	**42.81**	**335**	eP	**P**	**07 41 30.4**	**+1.1**
	comp=Z,64nm,1.4s,mb5.2						
SMCO				epP	pP	07 41 36.9	0.0
BC3	**Big Chuckw Mtn**	**43.05**	**322**	⇓P	**P**	**07 41 31.6**	**+0.3**
	baz=43						
PV10	**Paradox Valley**	**43.08**	**332**	eP	**P**	**07 41 30.9**	**-0.5**
PV10				epP	pP	07 41 38.0	-1.0
W13A	**Hualapai Mount**	**43.11**	**325**	⇓P	**P**	**07 41 32.5**	**+0.6**
	baz=43						
MONP	**Monument Peak**	**43.14**	**320**	⇓P	**P**	**07 41 32.6**	**+0.5**
	baz=43						
IRM	**Iron Mountain**	**43.20**	**323**	⇑P	**P**	**07 41 33.1**	**+0.5**
	baz=43						
109C	**Camp Elliot, M**	**43.58**	**320**	⇓P	**P**	**07 41 36.0**	**+0.3**
	baz=44						
BELC	**Belle Mtn.**	**43.61**	**322**	⇓P	**P**	**07 41 36.1**	**+0.2**
	baz=44						
PFO	**Pinyon Flat Ob**	**43.64**	**321**	⇑P	**P**	**07 41 36.5**	**+0.4**
	baz=44						
ECSD	**EROS,Sioux Fal**	**43.67**	**348**	eP	**P**	**07 41 34.6**	**-1.5**
	comp=Z,70nm,1.5s,mb5.2						
ECSD				epP	pP	07 41 41.9	-1.8
T15A	**Red Dirt Ranch**	**43.68**	**328**	⇓P	**P**	**07 41 36.9**	**+0.5**
	baz=44						
GMRC	**Granite Mounta**	**43.93**	**323**	⇑P	**P**	**07 41 38.7**	**+0.2**
	baz=44						
LPA	**La Plata**	**43.98**	**147**	ceP	**P**	**07 41 38.0**	**-0.8**
LPA				ePCP	PcP	07 43 23.0	-1.4
LPA				eS	**S**	**07 48 09.0**	**-0.3**
LPA				epS		07 48 15.0	
PHWY	**Pilot Hill**	**44.02**	**338**	eP	**P**	**07 41 38.8**	**-0.3**
PHWY				epP	pP	07 41 46.4	-0.2
T14A	**Hurricane**	**44.09**	**327**	⇓P	**P**	**07 41 39.6**	**0.0**
	baz=44						
V12A	**Nelson**	**44.11**	**325**	⇑P	**P**	**07 41 40.2**	**+0.3**
	baz=44						
SRU	**San Rafael**	**44.36**	**332**	eP	**P**	**07 41 41.7**	**-0.1**
	comp=Z,46nm,1.5s,mb5.0						
SRU				epP	pP	07 41 48.7	-0.7
SRU	**San Rafael**	**44.36**	**332**	eP	**P**	**07 41 41.7**	**-0.1**
SRU				e*PP	pP	07 41 48.7	-0.7
SRU				pmax	pmax		
	comp=Z,46nm,1.5s,mb5.0						
T13A	**Saint George**	**44.50**	**327**	⇓P	**P**	**07 41 43.6**	**+0.6**
	baz=45						
V11A	**Goodsprings**	**44.53**	**324**	⇑P	**P**	**07 41 43.6**	**+0.4**
	baz=45						
TUQ	**Turquoise Mtn.**	**44.54**	**324**	⇑P	**P**	**07 41 43.8**	**+0.5**
	baz=45						
S14A	**Cedar City**	**44.65**	**328**	⇑P	**P**	**07 41 44.7**	**+0.6**
	baz=45						
MSNY	**Massena**	**44.68**	**10**	eP	**P**	**07 41 44.1**	**-0.2**
MSU	**Marysvale**	**44.71**	**330**	eP	**P**	**07 41 45.1**	**+0.5**
MSU				epP	pP	07 41 52.1	-0.1
BFSC	**Mount Baldy St**	**44.80**	**321**	⇑P	**P**	**07 41 45.9**	**+0.4**
	baz=45						
ARUT	**Antelope Range**	**44.82**	**328**	eP	**P**	**07 41 46.8**	**+1.3**
SHPR	**Sheep Range**	**44.84**	**325**	eP	**P**	**07 41 46.0**	**+0.3**
S13A	**Holt Ranch, En**	**44.89**	**327**	⇓P	**P**	**07 41 46.8**	**+0.8**
	baz=45,SNR=12						
T11A	**Corn Creek, Al**	**45.39**	**326**	⇑P	**P**	**07 41 51.0**	**+1.0**
	baz=46						
EDW2	**Edwards Air Fo**	**45.43**	**321**	⇓P	**P**	**07 41 51.5**	**+1.1**
	baz=46						
S12A	**Delamar Landin**	**45.45**	**327**	⇓P	**P**	**07 41 51.5**	**+1.0**
	baz=46						
MPU	**Maple Canyon**	**45.60**	**331**	eP	**P**	**07 41 52.1**	**+0.4**
LRMC	**Laurel Mountai**	**45.63**	**322**	⇓P	**P**	**07 41 52.9**	**+0.9**
	baz=46						
NLU	**North Lily Min**	**45.77**	**331**	eP	**P**	**07 41 55.0**	**+2.0**
TPNV	**Topopah Spring**	**45.77**	**325**	eP	**P**	**07 41 56.1**	**+3.0**
	comp=Z,49nm,1.8s,mb5.1						
TPNV				epP	pP	07 42 01.9	+1.2
TPNV	**Topopah Spring**	**45.77**	**325**	eP	**P**	**07 41 56.1**	**+3.0**
TPNV				e*PP	pP	07 42 01.9	+1.2
TPNV				pmax	pmax		
	comp=Z,49nm,1.8s,mb5.1						
TPNV	**Topopah Spring**	**45.77**	**325**	⇓P	**P**	**07 41 53.6**	**+0.5**
	baz=46						
FURC	**Furnace Creek,**	**45.80**	**324**	⇑P	**P**	**07 41 53.4**	**+0.1**
	baz=46						
R12A	**Pony Springs,**	**45.84**	**327**	P	**P**	**07 41 54.8**	**+1.2**
	baz=46,SNR=6.4						
MPMC	**Manual Prospec**	**45.90**	**323**	⇓P	**P**	**07 41 54.4**	**+0.3**
	baz=46						
JLU	**Jordanelle**	**45.97**	**332**	eP	**P**	**07 41 55.2**	**+0.6**
JLU				epP	pP	07 42 02.4	+0.2
S11A	**Rachel**	**45.97**	**326**	⇓P	**P**	**07 41 55.8**	**+1.2**
	baz=46						
DAC	**Darwin (Calif)**	**46.10**	**323**	eP	**P**	**07 41 56.0**	**+0.3**
ARVC	**Arvin**	**46.11**	**321**	⇑P	**P**	**07 41 56.9**	**+1.1**
	baz=46						
CTU	**Camp Tracy**	**46.19**	**332**	eP	**P**	**07 41 56.4**	**+0.1**
ISA	**Isabella**	**46.24**	**322**	⇓P	**P**	**07 41 57.7**	**+0.9**
	baz=46						
DUG	**Dugway**	**46.31**	**331**	eP	**P**	**07 41 57.8**	**+0.5**
	comp=Z,13nm,1.3s,mb4.7						
DUG				ePcP	PcP	07 43 32.4	+0.1
DUG	**Dugway**	**46.31**	**331**	eP	**P**	**07 41 57.8**	**+0.5**
DUG				e		07 43 32.4	
DUG				pmax	pmax		

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      comp=Z,13nm,1.3s,mb4.7
DUG   Dugway           46.31 331 ⇑P     P      07 41 57.9 +0.6
      baz=46
Q12A  Willow Creek R   46.48 328 ⇑P     P      07 41 59.0 +0.4
      baz=47
CWC   Cottonwood Cre   46.51 323 ⇑P     P      07 41 59.4 +0.5
      baz=47
S10A  Tonopah Range,   46.65 326  P     P      07 42 00.8 +0.9
      baz=47,SNR=6.5
VES   Vestal, Richgr   46.73 322 ⇑P     P      07 42 00.5 -0.2
      baz=47
R10A  Warm Springs     46.74 326 ⇓P     P      07 42 00.8 +0.1
      baz=47
Q11A  Duckwater        46.78 327 ⇓P     P      07 42 01.3 +0.3
      baz=47
HWUT  Hardware Ranch   46.82 333 eP     P      07 42 01.3 +0.1
      comp=Z,16nm,0.8s,mb5.0
P12A  McGill           46.83 328 ⇑P     P      07 42 01.3 -0.1
      baz=47
S09A  Goldfield        46.87 325 ⇓P     P      07 42 01.8 +0.1
      baz=47
BW06  Boulder Array    46.88 335 eP     P      07 42 01.4 -0.3
      comp=Z,34nm,1.7s,mb5.0
PDAR  Pinedale Array   46.88 335  P     P      07 42 01.1 -0.6
      comp=Z,2.6nm,0.9s,mb4.2,baz=133,slow=9.2,SNR=14
PDAR                              PcP   PcP    07 43 34.0 -0.3
      comp=Z,0.8nm,0.7s,baz=134,slow=5.2,SNR=2.8
PDAR                              LR    LR     08 02 07.7
      comp=Z,4μm,18.9s,MS5.4,baz=146,slow=37
SMMC  Simmler          46.97 320 ⇑P     P      07 42 03.0 +0.4
      baz=47
TPH   Tonopah          47.11 325 eP     P      07 42 03.9 +0.3
      comp=Z,16nm,1.3s,mb4.8
TPH                              epP    pP     07 42 11.0 -0.2
TPH   Tonopah          47.11 325 eP     P      07 42 03.9 +0.3
TPH                              e*PP   pP     07 42 11.0 -0.2
TPH                               pmax  pmax
      comp=Z,16nm,1.3s,mb4.8
M15A  Larsen Ranch,    47.12 332 ⇑P     P      07 42 03.6  0.0
      baz=47
R09A  Tonopah          47.14 325  P     P      07 42 04.5 +0.7
      baz=47,SNR=6.5
Q10A  Clear Creek Ra   47.17 327 ⇑P     P      07 42 05.0 +1.0
      baz=47,SNR=6.8
HELL  Mitchell Peak,   47.24 322 ⇓P     P      07 42 04.6  0.0
      baz=47
S08C  White Mtn Res    47.27 324 ⇑P     P      07 42 05.1 +0.3
      baz=47,SNR=7.4
O12A  Currie           47.34 329 ⇓P     P      07 42 05.7 +0.4
      baz=48
MTUM  Tungsten Hills   47.40 323 eP     P      07 42 06.4 +0.6
N13A  Wendover, West   47.50 330 ⇓P     P      07 42 06.8 +0.2
      baz=48
M14A  Sheep Mountain   47.57 331 ⇑P     P      07 42 07.5 +0.4
      baz=48
O11A  Cowboy Ranch,    47.71 328 ⇓P     P      07 42 09.2 +1.0
      baz=48
P10A  Eureka           47.77 327 ⇑P     P      07 42 09.0 +0.3
      baz=48
KCC   Kaiser Creek     47.83 323 ⇓P     P      07 42 09.5 +0.3
      baz=48
M13A  Montello         47.86 331 ⇑P     P      07 42 09.3  0.0
      baz=48
T06C  Millerton Lake   47.87 322 ⇓P     P      07 42 09.7 +0.3
      baz=48
REDW  Red Top Meadow   47.91 335 eP     P      07 42 09.0 -0.8
      comp=Z,82nm,1.6s,mb5.5
REDW                             epP    pP     07 42 16.7 -0.7
N12A  Clover Valley,   47.92 329 ⇑P     P      07 42 09.8  0.0
      baz=48
AGMN  Agassiz Refuge   47.93 350 eP     P      07 42 09.2 -0.6
      comp=Z,22nm,0.8s,mb5.2
NVAR  Mina Array Bea   47.97 325  P     P      07 42 11.0 +0.7
      comp=Z,3.9nm,0.9s,mb4.4,baz=125,slow=7.0,SNR=20
NVAR                              PcP   PcP    07 43 38.4 +0.1
      comp=Z,2.2nm,0.8s,baz=147,slow=3.8,SNR=3.9
LOHW  Long Hollow      48.01 335 eP     P      07 42 10.2 -0.3
      comp=Z,51nm,1.6s,mb5.3
Q08A  Gabbs            48.05 325  P     P      07 42 11.4 +0.6
      baz=48,SNR=5.5
U04C  Hernandez Rese   48.12 321 ⇑P     P      07 42 11.7 +0.2
      baz=48
R07C  Lee Vining       48.18 324 ⇑P     P      07 42 11.9 +0.1
      baz=48
MOOW  Moose Ponds      48.19 335 eP     P      07 42 11.8 -0.1
DCID1 Drake Creek      48.24 335 eP     P      07 42 12.4 +0.1
DCID1                            epP    pP     07 42 19.1 -0.8
O10A  Cortez Mining,   48.27 328 ⇓P     P      07 42 12.9 +0.4
      baz=48
M12A  Wells            48.27 330 ⇑P     P      07 42 13.0 +0.4
      baz=48
K14A  Jones Ranch, D   48.30 332 ⇓P     P      07 42 12.3 -0.4
      baz=48
S06C  San Francisco    48.52 323 ⇓P     P      07 42 15.0 +0.5
      baz=49
O09A  Fish Creek Ran   48.55 327 ⇑P     P      07 42 14.9 +0.1
      baz=49
HAST  UC Hastings Re   48.63 320 ⇑P     P      07 42 15.8 +0.4
      baz=49
R06C  Coleville        48.70 324 ⇑P     P      07 42 16.4 +0.5
      baz=49
LKWY  Lake             48.71 336 eP     P      07 42 17.1 +1.2
      comp=Z,57nm,1.9s,mb5.3
LKWY                             epP    pP     07 42 23.8 +0.3
LKWY  Lake             48.71 336 eP     P      07 42 17.1 +1.2
LKWY                             e*PP   pP     07 42 23.8 +0.3
LKWY                              pmax  pmax
      comp=Z,57nm,1.9s,mb5.3
M11A  Holland Ranch,   48.73 329 ⇓P     P      07 42 16.2 +0.2
      baz=49
BMN   Battle Mountai   48.76 327 eP     P      07 42 17.6 +1.3
      comp=Z,9.1nm,1.1s,mb4.7
BMN   Battle Mountai   48.76 327 eP     P      07 42 17.6 +1.3
BMN                               pmax  pmax
      comp=Z,9.0nm,1.1s,mb4.7
YFT   Old Faithful     48.80 336 epP    pP     07 42 23.8 -0.4
K13A  Stover Farm, H   48.80 332 ⇑P     P      07 42 16.6  0.0
      baz=49
L12A  House Creek Ra   48.87 331 ⇓P     P      07 42 17.3 +0.2
      baz=49
CMB   Columbia Colle   48.94 323 eP     P      07 42 17.2 -0.5
      comp=Z,11nm,1.4s,mb4.7
CMB                              epP    pP     07 42 24.5 -0.9
CMB   Columbia Colle   48.94 323 eP     P      07 42 17.2 -0.6
CMB                              e*PP   pP     07 42 24.5 -0.9
CMB                               pmax  pmax
      comp=Z,11nm,1.4s,mb4.7
LAO   LASA Array       48.99 341 eP     P      07 42 18.5 +0.5
      comp=Z,16nm,0.8s,mb5.1
M10A  I.L. Ranch, Tu   49.18 329 ⇓P     P      07 42 19.9 +0.4
      baz=49
S04C  Ingram Canyon,   49.18 322 ⇑P     P      07 42 19.8 +0.2
      baz=49
K12A  Draper Farm, C   49.19 331 ⇓P     P      07 42 19.3 -0.2
      baz=49
R05C  Kirkwood Meado   49.19 324 ⇑P     P      07 42 20.1 +0.5
      baz=49
L11A  Cat Creek Ranc   49.25 330 ⇓P     P      07 42 20.0  0.0
      baz=49
QLMT  Earthquake Lak   49.35 336 eP     P      07 42 21.3 +0.6
WCN   Washoe City      49.40 325 ⇓P     P      07 42 21.5 +0.3
      baz=50
J13A  Cove Ranch, Pi   49.42 332 ⇑P     P      07 42 21.8 +0.4
      baz=50
GCMT  Greycliff        49.44 338 eP     P      07 42 21.3 -0.2
O07A  Toulon           49.48 326 ⇓P     P      07 42 21.9 +0.1
      baz=50
L10A  Juniper Basin    49.55 329 ⇑P     P      07 42 22.5 +0.2
      baz=50
M09A  Marrel Ranch,    49.58 328 ⇑P     P      07 42 22.5 -0.1
      baz=50
LAVA  Lava Cap Winer   49.62 323 ⇑P     P      07 42 22.3 -0.6
      baz=50
HLID  Hailey           49.66 332 eP     P      07 42 22.7 -0.5
      comp=Z,57nm,1.7s,mb5.3
HLID  Hailey           49.66 332  P     P      07 42 22.9 -0.3
      baz=50,SNR=11
J12A  Stokes Ranch,    49.74 332 ⇑P     P      07 42 24.0 +0.2
      baz=50
I13A  Wildhorse Cree   49.80 333  P     P      07 42 24.8 +0.6
      baz=50,SNR=9.2
ULM   Lac du Bonnet    49.82 351 eP     P      07 42 22.4 -1.9
      comp=Z,98nm,1.4s,mb5.6
ULM                              epP    pP     07 42 30.1 -1.8
ULM   Lac du Bonnet    49.82 351  P     P      07 42 22.6 -1.6
      comp=Z,14nm,0.7s,mb5.1,baz=164,slow=7.0,SNR=37
ULM                               LR    LR     08 06 53.9
      comp=Z,536nm,18.2s,MS4.6,baz=349,slow=40
K11A  Parker Ranch,    49.84 330 ⇑P     P      07 42 24.7 +0.2
      baz=50
P05C  Yuba Gap, Truc   49.89 324 ⇓P     P      07 42 25.1 +0.1
      baz=50
MCMT  McKenzie Canyo   49.95 334 epP    pP     07 42 33.1 +0.1
DGMT  Dagmar           49.97 344 eP     P      07 42 25.0 -0.4
      comp=Z,54nm,1.6s,mb5.3
DGMT                             ePcP   PcP    07 43 45.2 -0.1
O06A  Flanigan         50.01 325 ⇑P     P      07 42 26.2 +0.3
      baz=50
Q04C  Lincoln          50.05 323 ⇓P     P      07 42 26.5 +0.3
      baz=50
G15A  Dillon           50.06 335 ⇑P     P      07 42 25.4 -0.8
      baz=50
M08A  Happy Creek Ra   50.09 328 ⇑P     P      07 42 25.1 -1.4
      baz=50
BOZ   Bozeman (W)      50.10 336 eP     P      07 42 26.3 -0.1
      comp=Z,46nm,1.7s,mb5.2
BOZ   Bozeman (W)      50.10 336 eP     P      07 42 26.3 -0.1
BOZ                               pmax  pmax
      comp=Z,46nm,1.7s,mb5.2
BOZ   Bozeman (W)      50.10 336  P     P      07 42 26.4  0.0
      baz=50,SNR=11
L09A  Wilkinson Ranc   50.12 329 ⇓P     P      07 42 27.1 +0.4
      baz=50
MFID  Camas Ranch      50.22 331 ⇓P     P      07 42 28.2 +0.8
      baz=50,SNR=8.3
K10A  MacKenzie Ranc   50.26 330 ⇑P     P      07 42 28.1 +0.4
      baz=50
H13A  Challis          50.36 333 ⇓P     P      07 42 28.5  0.0
      baz=50
N06A  Buffalo Meadow   50.41 326  P     P      07 42 29.2 +0.3
      baz=50,SNR=7.9
M07A  Soldier Meadow   50.48 327 ⇑P     P      07 42 29.8 +0.3
      baz=51
MCCM  Marconi Confer   50.54 321 ⇑P     P      07 42 30.4 +0.5
      baz=51
G14A  Jackson          50.54 334 ⇑P     P      07 42 29.8  0.0
      baz=51
LRM   Limekiln Ridge   50.58 336 eP     P      07 42 31.3 +1.3
ORV   Oroville         50.58 324 ⇓P     P      07 42 30.3 +0.1
      baz=51
L08A  Fields           50.60 328  P     P      07 42 30.2 -0.1
      baz=51,SNR=7.7
F15A  Butte            50.61 336 ⇓P     P      07 42 30.1 -0.2
      baz=51
H12A  Diamond D Ranc   50.62 333  P     P      07 42 29.9 -0.5
      baz=51,SNR=6.2
K09A  Rome             50.64 329  P     P      07 42 31.0 +0.4
      baz=51,SNR=20
I11A  Placerville      50.65 331 ⇓P     P      07 42 30.7  0.0
      baz=51,SNR=8.2
O04C  Chester          50.84 325 ⇑P     P      07 42 32.0 -0.1
      baz=51
WVOR  Wild Horse Val   50.92 328 eP     P      07 42 32.2 -0.5
      comp=Z,25nm,1.1s,mb5.1
WVOR                             epP    pP     07 42 39.2 -1.1
WVOR  Wild Horse Val   50.92 328 eP     P      07 42 32.3 -0.4
WVOR                             e*PP   pP     07 42 39.2 -1.2
WVOR                              pmax  pmax
      comp=Z,25nm,1.1s,mb5.1
F14A  Wisdom           50.95 335 ⇑P     P      07 42 32.3 -0.6
      baz=51
HRY   Holter Researc   51.05 337 eP     P      07 42 36.2 +2.6
K08A  Mann Creek Ran   51.05 329  P     P      07 42 34.0 +0.2
      baz=51,SNR=12
J09A  Fry Pan Ranch,   51.12 330  P     P      07 42 34.2  0.0
      baz=51,SNR=6.8
E15A  Deer Lodge       51.14 336  P     P      07 42 34.1 -0.2
      baz=51,SNR=7.0
I10A  Payette          51.19 331 ⇑P     P      07 42 34.3 -0.5
      baz=51
H11A  Donnelly         51.27 332  P     P      07 42 35.0 -0.3
      baz=51,SNR=6.9
F13A  Darby            51.35 334 ⇓P     P      07 42 35.3 -0.6
      baz=52
EGMT  Eagleton         51.36 339 eP     P      07 42 35.0 -0.9
      comp=Z,77nm,1.6s,mb5.4
EGMT                             epP    pP     07 42 42.4 -1.2
EGMT  Eagleton         51.36 339  P     P      07 42 35.1 -0.8
      baz=52,SNR=8.3
GASB  Alder Springs    51.37 323 ⇓P     P      07 42 36.4 +0.3
      baz=52
K07A  Rock Creek Ran   51.42 328 ⇓P     P      07 42 36.6 +0.1
      baz=52
MOD   Modoc            51.45 327 eP     P      07 42 38.5 +1.8
MOD   Modoc            51.45 327 ⇓P     P      07 42 36.6 -0.1
      baz=52
E14A  Clinton          51.49 335  P     P      07 42 37.0 +0.1
      baz=52,SNR=8.4
J08A  Circle Bar Ran   51.49 329 ⇑P     P      07 42 36.5 -0.5
      baz=52
H10A  Noah's Angus R   51.54 331 ⇓P     P      07 42 36.6 -0.7
      baz=52
M05C  Lookout          51.55 326 ⇓P     P      07 42 37.4 -0.1
      baz=52
I09A  Lost Marbles R   51.57 330 ⇓P     P      07 42 37.1 -0.5
      baz=52
D15A  Lincoln          51.59 336 ⇑P     P      07 42 37.3 -0.4
      baz=52
F12A  Elk City         51.73 333  P     P      07 42 38.5 -0.2
      baz=52,SNR=6.6
CHMT  Chamberlain Mo   51.78 336 eP     P      07 42 38.5 -0.6
CHMT                             epP    pP     07 42 46.2 -0.5
E13A  Victor           51.80 335 ⇑P     P      07 42 38.8 -0.4
      baz=52
L05A  Lakeview         51.84 327 ⇓P     P      07 42 39.3 -0.3
      baz=52
I08A  Drewsey          51.94 330 ⇓P     P      07 42 40.3  0.0
      baz=52
BMO   Blue Mountains   52.00 331 eP     P      07 42 41.5 +0.8
MSO   Missoula         52.00 335 eP     P      07 42 40.3 -0.4
MSO                              epP    pP     07 42 47.5 -0.8
D14A  Greenough        52.02 336 ⇑P     P      07 42 40.7 -0.2
      baz=52
M03C  McCloud          52.05 325 ⇑P     P      07 42 40.9 -0.3
      baz=52
M04C  Macdoel          52.23 326 ⇑P     P      07 42 42.2 -0.3
      baz=52
F11A  Grangeville      52.24 333 ⇓P     P      07 42 42.3 -0.2
      baz=52
J06A  Christmas Vall   52.29 328 ⇑P     P      07 42 43.1 +0.1
      baz=52
H08A  Prairie City     52.42 330 ⇑P     P      07 42 43.7 -0.3
      baz=52
D13A  Huson            52.43 335 ⇓P     P      07 42 43.5 -0.4
      baz=53
I07A  Izee             52.53 329 ⇑P     P      07 42 44.9 +0.2
      baz=53
M02C  Callahan         52.55 325 ⇑P     P      07 42 43.9 -1.0
      baz=53
E11A  Bogner Ranch,    52.62 333 ⇓P     P      07 42 44.5 -0.8
      baz=53
C14A  Swan Lake        52.67 336 ⇓P     P      07 42 45.5 -0.2
      baz=53
YBH   Yreka Blue Hor   52.69 325 ⇓P     P      07 42 45.6 -0.3
      baz=53
D12A  Red Ives Fores   52.78 334 ⇓P     P      07 42 45.7 -0.8
      baz=53
F10A  Beach Ranch, E   52.80 332  P     P      07 42 46.5 -0.2
      baz=53,SNR=7.5
I06A  Prineville       52.80 329 ⇑P     P      07 42 46.4 -0.3
      baz=53
J05A  Fort Rock        52.89 327 ⇑P     P      07 42 47.1 -0.3
      baz=53
F09A  S2 Ranch, Elgi   52.92 332 ⇑P     P      07 42 47.3 -0.2
      baz=53
H07A  Lands Inn, Kim   52.92 330 ⇓P     P      07 42 47.1 -0.5
      baz=53
C13A  Hot Springs      52.94 335 ⇓P     P      07 42 47.1 -0.6
      baz=53
G08A  Pilot Rock       53.12 331 ⇑P     P      07 42 48.4 -0.7
      baz=53
E10A  Myers Farm, Un   53.12 333 ⇑P     P      07 42 49.1  0.0
      baz=53
BSMT  Bassoo Peak      53.16 335 eP     P      07 42 48.7 -0.6
D11A  Klaveano Farm,   53.20 334 ⇑P     P      07 42 49.0 -0.6
      baz=53
H06A  Lindquist Farm   53.41 329 ⇓P     P      07 42 50.7 -0.5
      baz=54
B13A  Whitefish        53.45 336 ⇑P     P      07 42 51.6 +0.3
      baz=54
G07A  Ruggs Ranch, H   53.45 330 ⇑P     P      07 42 51.3 -0.3
      baz=54
I05A  Bend             53.50 328 ⇓P     P      07 42 51.2 -0.7
      baz=54
E09A  Wood Farm, Sta   53.62 332 ⇑P     P      07 42 52.7  0.0
      baz=54
D10A  Wagner Farm, O   53.63 333  P     P      07 42 52.3 -0.4
      baz=54,SNR=6.6
WALA  Waterton Lakes   53.77 337 eP     P      07 42 53.9 +0.2
      comp=Z,59nm,1.7s,mb5.2
WALA                             epP    pP     07 43 00.6 -0.8
A13A  Flathead Natio   53.87 337 ⇑P     P      07 42 54.3 -0.2
      baz=54
G06A  Carlson Farm,    53.92 330 ⇑P     P      07 42 55.1 +0.2
      baz=54
B12A  Libby            53.98 335 ⇑P     P      07 42 55.1 -0.2
      baz=54
F07A  Phinny Hill Vi   54.03 331 ⇑P     P      07 42 55.7  0.0
      baz=54
RKT   Rikitea          54.03 240 eS     S      07 50 29.3 -1.9
      comp=Z,1μm,28.8s
RKT                              eLR    LR     07 58 35.6
      comp=Z,3μm,28.0s,baz=70
E08A  Dider Farm, El   54.04 332 ⇑P     P      07 42 54.9 -0.9
      baz=54
D09A  Jones Farm, Ri   54.10 333 ⇑P     P      07 42 55.8 -0.4
      baz=54
HAWA  Hanford          54.19 331 eP     P      07 43 03.4 +6.5
B11A  Sandpoint        54.28 335 ⇓P     P      07 42 57.7 +0.2
      baz=54
A12A  Yaak River Ran   54.37 336 ⇑P     P      07 42 58.2  0.0
      baz=54
E07A  Sunnyside        54.47 331 ⇓P     P      07 42 58.6 -0.2
      baz=55
NEW   Newport          54.48 334 eP     P      07 42 58.3 -0.6
A11A  Hall Mountain,   54.68 335 ⇑P     P      07 43 00.4  0.0
      baz=55
G04A  Mulino           54.85 328 ⇓P     P      07 43 01.4 -0.3
      baz=55
C08A  Higginbotham F   54.98 333 ⇓P     P      07 43 02.7 +0.2
      baz=55
D07A  Quincy           54.98 332 ⇑P     P      07 43 02.6  0.0
      baz=55
B09A  Rice             55.04 334 ⇑P     P      07 43 02.8 -0.2
      baz=55
FFC   Flin Flon        55.21 348 eP     P      07 43 03.5 -0.6
A10A  Northport        55.21 335 ⇓P     P      07 43 04.0 -0.2
      baz=55
C07A  Waterville       55.38 332 ⇓P     P      07 43 05.4  0.0
      baz=56
D06A  Cle Elum         55.40 331 ⇑P     P      07 43 05.8 +0.2
      baz=56
E05A  Randle           55.40 330 ⇓P     P      07 43 05.4 -0.3
      baz=56
B08A  Colville Reser   55.53 333 ⇑P     P      07 43 06.3 -0.2
      baz=56
TAOE  Nuku Hiva Isla   55.61 259 eS     S      07 50 51.0 -1.7
      comp=Z,1μm,27.4s
TAOE                             eSS    SS     07 54 38.9 +0.7
      comp=Z,555nm,24.9s
TAOE                             eLR    LR     07 59 20.3
      comp=Z,12μm,25.0s,baz=73
A09A  Danville         55.65 334 ⇓P     P      07 43 07.2 -0.2
      baz=56
SCHQ  Schefferville    55.65  13  P     P      07 43 05.8 -1.5
      comp=Z,3.3nm,0.8s,mb4.4,baz=228,slow=9.9,SNR=3.8
SCHQ                              LR    LR     08 08 24.6
      comp=Z,840nm,20.1s,MS4.8,baz=208,slow=38
A08A  Turner Farm, O   55.94 334 ⇓P     P      07 43 09.4  0.0
      baz=56
B07A  Winthrop         55.96 333 ⇑P     P      07 43 09.4 -0.2
      baz=56
C05A  Tolt Reservoir   56.16 331 ⇓P     P      07 43 09.5 -1.5
      baz=56
A07A  Ashnola River,   56.51 333  P     P      07 43 14.4 +0.9
      baz=57,SNR=7.9
B05A  Bryant           56.75 331 ⇓P     P      07 43 14.8 -0.5
      baz=57
EDM   Edmonton         56.97 340 eP     P      07 43 15.9 -0.8
EDM                              epP    pP     07 43 22.9 -1.6
A05A  Maple Falls      57.26 332 ⇑P     P      07 43 18.2 -0.7
      baz=57
EFI   East Falkland    57.36 160 eP     P      07 43 20.1 +0.6
      comp=Z,113nm,1.3s,mb5.7
EFI   East Falkland    57.36 160 eP     P      07 43 20.1 +0.6
EFI                               pmax  pmax
      comp=Z,113nm,1.3s,mb5.7
FCC   Fort Churchill   57.94 355 eP     P      07 43 22.5 -0.9
      comp=Z,38nm,1.1s,mb5.3
FCC   Fort Churchill   57.94 355 eP     P      07 43 22.5 -0.9
FCC                               pmax  pmax
      comp=Z,38nm,1.1s,mb5.3
YKA   Yellowknife Ar   65.10 345  P     P      07 44 10.0 -1.7
      comp=Z,4.7nm,0.7s,mb4.6,baz=140,slow=6.3,SNR=95
YKA                               LR    LR     08 14 14.0
      comp=Z,1μm,19.7s,MS5.1,baz=160,slow=38
PPT   Papeete          65.98 250 eS     S      07 53 02.5 -2.5
      comp=Z,2μm,30.0s
PPT                              eSS    SS     07 57 19.3 -1.4
      comp=Z,291nm,27.0s
PPT                              eLQ           08 01 21.2
      comp=Z,2μm,33.2s
PPT                              eLR    LR     08 04 08.9
      comp=Z,4μm,26.8s,baz=84
RES   Resolute Bay     73.74 357 eP     P      07 45 03.9 -1.1
      comp=Z,554nm,1.3s
DAWY  Dawson           74.09 338 eP     P      07 45 06.3 -0.9
INK   Inuvik           74.65 343 eP     P      07 45 10.3 -0.1
      comp=Z,1μm,1.3s
INK   Inuvik           74.65 343  LR    LR     08 21 32.3
      comp=Z,3μm,18.2s,MS5.6,baz=121,slow=39
EGAK  Eagle            75.12 338 eP     P      07 45 12.4 -0.7
      comp=Z,40nm,1.6s,mb5.1
COLA  College          77.69 337 i P    P      07 45 27.3 -0.4
COLA  College          77.69 337 i P    P      07 45 27.2 -0.5
LIC   Lamto            80.13  84 eP     P      07 45 41.9 -0.3
      comp=Z,46nm,1.2s,mb5.0
LIC   Lamto            80.13  84 eP     P      07 45 41.9 -0.3
      comp=Z,23nm,1.2s,mb5.0
TTA   Tatalina         80.38 334 eP     P      07 45 41.0 -1.5
      comp=Z,26nm,1.7s,mb4.9
TTA   Tatalina         80.38 334 eP     P      07 45 41.0 -1.5
TTA                               pmax  pmax
      comp=Z,25nm,1.7s,mb4.9
IMA2  Indian Mountai   80.40 337 eP     P      07 45 41.5 -1.1
ALE   Alert            81.98   3  P     P      07 45 50.0 -0.7
      comp=Z,83nm,1.2s,mb5.5,SNR=6.4
ESDC  Sonseca Array    82.57  50  P     P      07 45 55.2 +0.6
      comp=Z,1.3nm,0.6s,mb4.2,baz=283,slow=5.0,SNR=7.6
ESDC                              LR    LR     08 16 00.9
      comp=Z,299nm,20.1s,MS4.7,baz=250,slow=31
ESLA  Sonseca Array    82.57  50 eP     P      07 45 55.4 +0.8
      comp=Z,10nm,1.4s,mb4.7
DAG   Danmarks Havn    83.69  12⇑iP     P      07 45 58.6 -1.1
DAG                               pmax  pmax
      comp=Z,6.0nm,0.8s,mb4.8
DAG   Danmarks Havn    83.69  12⇑iP     P      07 45 58.6 -1.1
      comp=Z,6.0nm,0.8s,mb4.8
ESK   Eskdalemuir      84.56  35 eP     P      07 46 03.9 -0.6
      comp=Z,72nm,1.7s,mb5.5
ESK   Eskdalemuir      84.56  35 eP     P      07 46 03.9 -0.6
ESK                               pmax  pmax
      comp=Z,72nm,1.7s,mb5.5
SJPF  Ste Jean         84.87  47 eP     P      07 46 05.9 -0.4
      comp=Z,75nm,1.2s,mb5.4
SJPF  Ste Jean         84.87  47 eP     P      07 46 05.9 -0.4
      comp=Z,38nm,1.2s,mb5.4
SJPF  Ste Jean         84.87  47 eP     P      07 46 05.9 -0.4
SJPF                              pmax  pmax
      comp=Z,38nm,1.2s,mb5.4
FLN   La Foliniere     85.71  41 eP     P      07 46 09.2 -1.2
      comp=Z,220nm,1.6s,mb5.8
FLN   La Foliniere     85.71  41 eP     P      07 46 09.2 -1.2
      comp=Z,110nm,1.6s,mb5.8
FLN   La Foliniere     85.71  41 eP     P      07 46 09.2 -1.2
FLN                               pmax  pmax
      comp=Z,110nm,1.6s,mb5.8
LDF   La Druitiere     85.94  42 eP     P      07 46 11.1 -0.4
      comp=Z,137nm,1.5s,mb5.7
LDF   La Druitiere     85.94  42 eP     P      07 46 11.1 -0.4
      comp=Z,69nm,1.5s,mb5.7
LDF   La Druitiere     85.94  42 eP     P      07 46 11.1 -0.4
LDF                               pmax  pmax
      comp=Z,69nm,1.5s,mb5.7
EPF   Esparros         86.01  47 eP     P      07 46 12.2 +0.2
      comp=Z,68nm,1.5s,mb5.4
EPF   Esparros         86.01  47 eP     P      07 46 12.2 +0.2
      comp=Z,34nm,1.5s,mb5.4
EPF   Esparros         86.01  47 eP     P      07 46 12.2 +0.2
EPF                               pmax  pmax
      comp=Z,34nm,1.5s,mb5.4
VNA3  Neumayer Olymp   86.39 162 eP     P      07 46 13.1 -0.2
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VNA3				*e*	pP	07 46 20.0	-1.3
VNA3				*e*		07 46 30.9	
VNA1	**Neumayer--Stat**	**86.70**	**161**	*e*P	**P**	**07 46 14.9**	**+0.1**
VNA1				*e*	pP	07 46 21.8	-1.1
VNA1				*e*		07 46 33.1	
TORD	**Torodi Ar. Bea**	**86.75**	**77**	P	**P**	**07 46 16.9**	**+0.7**
	comp=Z,1.6nm,1.1s,mb4.2,baz=231,slow=3.9,SNR=4.7						
TORD				LR	LR	08 24 35.3	
	comp=Z,437nm,19.2s,MS4.9,baz=265,slow=35						
AFI	**Afiamalu**	**86.92**	**256**	LR	LR	08 16 40.3	
	comp=Z,3µm,21.7s,MS5.6,baz=274,slow=30						
VNA2	**Neumayer--Watz**	**87.04**	**161**	*e*P	**P**	**07 46 16.0**	**-0.5**
	baz=298,slow=5.7						
VNA2				*e*	pP	07 46 23.0	-1.5
VNA2				*e*		07 46 33.7	
SSF	**Saint Saulge**	**88.34**	**43**	*e*P	**P**	**07 46 23.9**	**+0.7**
	comp=Z,44nm,1.6s,mb5.1						
SSF	**Saint Saulge**	**88.34**	**43**	*e*P	**P**	**07 46 23.9**	**+0.7**
	comp=Z,22nm,1.6s,mb5.1						
SSF	**Saint Saulge**	**88.34**	**43**	*e*P	**P**	**07 46 23.9**	**+0.7**
SSF				pmax	pmax		
	comp=Z,22nm,1.6s,mb5.1						
SNAA	**Sanae**	**88.61**	**162**	⇑*i*P	**P**	**07 46 22.7**	**-1.3**
ORIF	**Oris-en-Rattie**	**90.02**	**45**	*e*P	**P**	**07 46 34.6**	**+3.5**
	comp=Z,39nm,1.4s,mb5.2						
ORIF	**Oris-en-Rattie**	**90.02**	**45**	*e*P	**P**	**07 46 34.6**	**+3.5**
	comp=Z,20nm,1.4s,mb5.2						
ORIF	**Oris-en-Rattie**	**90.02**	**45**	*e*P	**P**	**07 46 34.6**	**+3.5**
ORIF				pmax	pmax		
	comp=Z,20nm,1.4s,mb5.2						
QSPA	**South Pole Qui**	**91.12**	**180**	*e*P	**P**	**07 46 35.6**	**+0.1**
	comp=Z,71nm,1.7s,mb5.7						
QSPA				*e*pP	pP	07 46 44.0	+0.3
NOA	**NORSAR Array B**	**92.18**	**29**	LR	LR	08 23 47.4	
	comp=Z,366nm,19.6s,MS4.8,baz=265,slow=33						
KEST	**Kesra**	**93.08**	**54**	LR	LR	08 22 11.9	
	comp=Z,112nm,21.1s,MS4.3,baz=250,slow=31						
NKC	**Novy Kostel**	**94.08**	**40**	AMS	AMS	08 22 20.0	
	comp=Z,2µm,24.1s						
KHC	**Kasperske Hory**	**94.95**	**41**	AMS	AMS	08 21 50.0	
	comp=Z,900nm,10.6s						
GERES	**GERESS Array B**	**95.06**	**41**	P	**P**	**07 46 55.0**	**+0.6**
	comp=Z,0.4nm,0.7s,mb4.0,baz=324,slow=6.6,SNR=3.5						
GERES				LR	LR	08 21 48.6	
	comp=Z,501nm,21.1s,MS5.0,baz=280,slow=30						
PVCC	**Panska Ves**	**95.39**	**39**	AMS	AMS	08 22 50.0	
	comp=Z,1µm,16.8s						
PRU	**Pruhonice**	**95.45**	**40**	AMS	AMS	08 22 30.0	
	comp=Z,1µm,21.3s						
BILL	**Bilibino**	**95.86**	**339**	⇑*i*P	**P**	**07 46 58.1**	**+0.5**
BILL	**Bilibino**	**95.86**	**339**	⇑*i*P	**P**	**07 46 58.0**	**+0.4**
BILL				*e*		07 47 09.1	
BILL				*e*		07 50 50.2	
BILL				*e*		07 57 28.8	
BILL				pmax	pmax		
	comp=Z,20nm,2.5s,mb5.1						
BILL				MLR	MLR		
	comp=Z,500nm,20.0s,MS5.0						
DPC	**Dobruska-Polom**	**96.53**	**39**	AMS	AMS	08 22 50.0	
	comp=Z,1µm,21.0s						
OKC	**Ostrava-Krasne**	**97.78**	**39**	AMS	AMS	08 23 50.0	
	comp=Z,1µm,15.6s						
FINES	**FINESS Array B**	**99.09**	**27**	LR	LR	08 27 47.4	
	comp=Z,390nm,19.5s,MS4.9,baz=101,slow=33						
LBTB	**Lobatse**	**109.28**	**116**	*e*PKPdf	PKiKP	07 52 01.0	-1.3
ANN	**Anapa**	**111.77**	**40**	*i* PKIKP	PKiKP	07 52 02.1	-4.3
ANN				pmax	pmax		
	comp=Z,127nm,2.1s						
ANN				MLR	MLR		
	comp=Z,474nm,14.0s,MS5.2						
ZALV	**Zalesovo Beam**	**124.54**	**7**	PKP	PKPdf	07 52 32.9	+2.2
ZALV	**Zalesovo Beam**	**124.54**	**7**	PKP	PKPdf	07 52 32.9	+2.2
	comp=Z,1.5nm,0.4s,baz=270,slow=4.2,SNR=6.3						
ZAL	**Zalesovo**	**124.55**	**7**	PKIKP	PKPdf	07 52 32.9	+2.2
MDJ	**Mudanjiang**	**124.97**	**330**	PKP	PKPdf	07 52 29.3	-2.5
KURK	**Kurchatov**	**126.58**	**13**	*i* PKP	PKPdf	07 52 31.5	-3.2
KURK	**Kurchatov**	**126.58**	**13**	*i* PKIKP	PKPdf	07 52 31.5	-3.2
TLY	**Talaya**	**126.90**	**353**	*i* PKIKP	PKPdf	07 52 40.2	+5.0
TLY				*e*SS	SS	08 11 32.3	-4.3
TLY				pmax	pmax		
	comp=Z,2.0nm,1.2s						
ZAK	**Zakamensk**	**128.22**	**353**	*e*PKIKP	PKPdf	07 52 43.0	+5.2
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s						
ZAK				pmax	pmax		
	comp=Z,2.0nm,2.0s						
SONM	**Songino Array**	**130.24**	**350**	PKP	PKPdf	07 52 39.9	-1.8
SONM				PP	PP	07 55 05.4	+12
SONM	**Songino Array**	**130.24**	**350**	PKIKP	PKPdf	07 52 39.9	-1.8
SONM	**Songino Array**	**130.24**	**350**	PKP	PKPdf	07 52 39.9	-1.8
	comp=Z,0.5nm,0.8s,baz=353,slow=3.0,SNR=4.1						
SONM				PP	PP	07 55 05.4	+12
	comp=Z,1.6nm,1.1s,baz=10,slow=3.4,SNR=4.4						
KSRS	**Korea Array**	**130.91**	**325**	PKP	PKPdf	07 52 47.9	+4.6
	comp=Z,2.2nm,0.9s,baz=48,slow=1.9,SNR=6.7						
MK31	**Makanchi Array**	**131.08**	**11**	*e*PKPdf	PKPdf	07 52 42.8	-0.6
MK31	**Makanchi Array**	**131.08**	**11**	*e*PKIKP	PKPdf	07 52 42.8	-0.5
MKAR	**Makanchi Array**	**131.08**	**11**	PKP	PKPdf	07 52 42.2	-1.1
MKAR	**Makanchi Array**	**131.08**	**11**	PKIKP	PKPdf	07 52 42.3	-1.0
MKAR	**Makanchi Array**	**131.08**	**11**	PKP	PKPdf	07 52 42.2	-1.1
	comp=Z,0.1nm,0.4s,baz=340,slow=1.0,SNR=6.3						
AAK	**Ala-Archa**	**132.80**	**20**	*i* PKP	PKPdf	07 52 43.9	-2.8
AAK	**Ala-Archa**	**132.80**	**20**	*i* PKIKP	PKPdf	07 52 43.9	-2.8
WMQ	**Urumqi**	**134.85**	**7**	*e*PKP	PKPdf	07 52 50.1	-0.4
WMQ				LR	LR		
	comp=N,629nm,21.6s,MS5.3						
WMQ				LR	LR		
	comp=E,306nm,20.8s,MS5.3						
WMQ				LR	LR		
	comp=Z,544nm,23.0s,MS5.2						
HHC	**Hu-ho-hao-te**	**135.56**	**342**	*e*PKP	PKPdf	07 52 48.9	-3.1
HHC				XPKP		07 53 02.0	
HHC				PP	PP	07 55 29.4	+1.4
HHC				PKS		07 56 23.0	
HHC				SKS	SKSdf	07 59 54.8	-6.8
HHC				SS	SS	08 13 20.5	-2.3
HHC				PP	PP		
	comp=Z,162nm,11.3s						
HHC				LR	LR		
	comp=N,469nm,25.0s,MS5.3						
HHC				LR	LR		
	comp=E,585nm,25.0s,MS5.3						
HHC				LR	LR		
	comp=Z,825nm,25.6s,MS5.3						
ASAR	**Alice Springs**	**135.95**	**236**	PKP	PKPdf	07 52 51.7	-1.5
ASAR	**Alice Springs**	**135.95**	**236**	PKIKP	PKPdf	07 52 51.7	-1.5
ASAR	**Alice Springs**	**135.95**	**236**	PKP	PKPdf	07 52 51.7	-1.5
	comp=Z,1.2nm,0.9s,baz=109,slow=1.6,SNR=8.6						
WB2	**Warramunga Arr**	**137.01**	**241**	*e*PKPdf	PKPdf	07 52 51.6	-3.6
WRA	**Warramunga Arr**	**137.02**	**241**	PKP	PKPdf	07 52 54.1	-1.1
WRA	**Warramunga Arr**	**137.02**	**241**	PKIKP	PKPdf	07 52 54.1	-1.1
WRA	**Warramunga Arr**	**137.02**	**241**	PKP	PKPdf	07 52 54.1	-1.1
	comp=Z,3.9nm,1.0s,baz=107,slow=1.3,SNR=7.4						
GTA	**Gaotai**	**139.44**	**354**	*e*PKP	PKPdf	07 53 01.3	+2.1
GTA				PKS		07 56 35.8	
GTA				PPP		07 58 46.9	
GTA				SKS	SKSdf	08 00 06.5	-1.8
GTA				PP	PP		
	comp=Z,172nm,6.5s						
GTA				LR	LR		
	comp=N,448nm,20.5s,MS5.4						
GTA				LR	LR		
	comp=E,462nm,20.2s,MS5.4						
GTA				LR	LR		
	comp=Z,435nm,18.6s,MS5.2						
NJ2	**Nanjing**	**139.94**	**327**	*e*PKP	PKPdf	07 52 58.1	-2.2
NJ2				XPKP		07 53 12.6	
NJ2				PP	PP	07 55 58.0	+2.3
NJ2				SKS	SKSdf	08 00 03.0	-6.4
NJ2				SKKS	SKKSac	08 02 45.0	-4.3
NJ2				SS	SS	08 14 16.0	+0.4
NJ2				PP	PP		
	comp=Z,380nm,6.5s						
NJ2				LR	LR		
	comp=N,590nm,24.0s,MS5.4						
NJ2				LR	LR		
	comp=E,660nm,22.4s,MS5.4						
NJ2				LR	LR		
	comp=Z,870nm,22.7s,MS5.5						
LZH	**Lanzhou**	**142.07**	**348**	*e*PKP	PKPdf	07 53 03.0	-1.0
LZH				APKP		07 53 12.0	
LZH				XPKP		07 53 15.8	
LZH				PP	PP	07 56 12.0	+3.8
LZH				SKKS	SKKSac	08 02 57.0	-4.4
LZH				PP	PP		
	comp=Z,360nm,5.7s						
LZH				LR	LR		
	comp=E,574nm,17.5s						
LZH				LR	LR		
	comp=Z,657nm,20.0s,MS5.4						
LZH	**Lanzhou**	**142.07**	**348**	*e*PKP	PKPdf	07 53 03.0	-1.0
LZH				pPKP	pPKPdf	07 53 12.0	-0.3
LZH				sPKP		07 53 15.7	
LZH				PP	PP	07 56 12.0	+3.8
LZH				SKKS	SKKSac	08 02 57.0	-4.4
LZH				SS	SS	08 14 40.0	+0.6
LZH	**Lanzhou**	**142.07**	**348**	*e*PKIKP	PKPdf	07 53 03.0	-1.0
LZH						07 53 12.0	
LZH						07 53 15.7	
LZH						07 56 12.0	
LZH				SS	SS	08 14 40.0	+0.6
XAN	**Xi’an**	**142.62**	**340**	PKP	PKPdf	07 53 07.6	+2.5
FITZ	**Fitzroy Crossi**	**145.30**	**239**	*e*PKPdf	PKPdf	07 53 08.7	-1.4
FITZ	**Fitzroy Crossi**	**145.30**	**239**	PKPbc	PKPbc	07 53 09.4	-0.6
	comp=Z,12nm,1.0s,baz=84,slow=3.8,SNR=9.9						
CD2	**Chengdu**	**147.06**	**346**	*e*PKP	PKPdf	07 53 10.4	-2.4
CD2				PKP2	PKPab	07 53 15.6	-0.7
CD2				APKP		07 53 21.3	
CD2				XPKP		07 53 25.9	
CD2				PP	PP	07 56 40.3	+2.3
CD2				SKS	SKSdf	08 00 13.8	-6.6
CD2				SKKS	SKKSac	08 03 25.3	-4.7
CD2				PP	PP		
	comp=Z,280nm,10.2s						
CD2				LR	LR		
	comp=N,300nm,16.8s,MS5.3						
CD2				LR	LR		
	comp=E,440nm,20.4s,MS5.3						
CD2				LR	LR		
	comp=Z,310nm,18.0s,MS5.1						
MBWA	**Marble Bar**	**148.53**	**229**	*e*PKPdf	PKPdf	07 53 16.7	+1.2
LSA	**Lhasa**	**149.20**	**6**	PKP	PKPdf	07 53 20.4	+4.0
LSA	**Lhasa**	**149.20**	**6**	*e*PKPbc	PKPbc	07 53 20.3	-0.3
LSA	**Lhasa**	**149.20**	**6**	*e*PKP2	PKPab	07 53 20.3	-4.5
GYA	**Guiyang**	**150.32**	**338**	PKP	PKPdf	07 53 16.4	-1.8
GYA				APKP		07 53 24.6	
GYA				XPKP		07 53 27.4	
GYA				PKP2	PKPab	07 53 30.8	+1.3
GYA				PKS		07 56 50.0	
GYA				PP	PP	07 57 00.0	+2.8
GYA				SKS	SKSdf	08 00 20.3	-4.6
GYA				PPP		08 00 24.6	
GYA				SKKS	SKKSac	08 03 45.8	-2.5
GYA				SS	SS	08 16 13.8	+0.2
GYA				LR	LR		
	comp=N,1µm,21.9s,MS6.0						
GYA				LR	LR		
	comp=E,2µm,22.0s,MS6.0						
GYA				LR	LR		
	comp=Z,1µm,22.8s,MS5.7						
KMI	**Kunming**	**152.84**	**344**	PKP	PKPdf	07 53 22.8	+0.7
KMI				APKP		07 53 28.3	
KMI				XPKP		07 53 32.1	
KMI				PKP2	PKPab	07 53 40.6	+0.6
KMI				PP	PP	07 57 15.3	+3.9
KMI				SS	SS	08 16 41.9	+0.8
KMI				LR	LR		
	comp=N,237nm,23.0s,MS5.3						
KMI				LR	LR		
	comp=E,439nm,19.7s,MS5.3						
KMI				LR	LR		
	comp=Z,393nm,31.2s						
KMI	**Kunming**	**152.84**	**344**	PKP	PKPdf	07 53 22.7	+0.6
KMI				pPKP	pPKPdf	07 53 28.2	-2.2
KMI				sPKP		07 53 32.1	
KMI	**Kunming**	**152.84**	**344**	PKIKP	PKPdf	07 53 22.7	+0.6
KMI						07 53 32.1	

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*ISCJB **24** 07:59:17.1±0.7, 8.26N±0.06×82.75W±0.04, h44^{km}±8^{km}, mb3.6/4, Error ellipse: s-maj=11.3km s-min=4.5km az=23.4*

*CASC **24** 07:59:17.7±2.3, 8.34N×82.74W, h18^{km}±6^{km}, MD4.5, ML3.2*

*NEIC **24** 07:59:18.9±1.1, 8.35N×82.77W, h49^{km}±15^{km}, Error ellipse: s-maj=19.5km s-min=10.4km az=206.0*

*IDC **24** 07:59:18.3±2.4, 9.34N×82.49W, h0^{km}, mb3.7/4, mb1 4.0/8, mb1mx3.8/20, mbtmp3.9/8, ML3.4/4, MS3.5/2, Ms1 3.5/2, ms1mx3.0/30, Error ellipse: s-maj=63.5km s-min=16.5km az=17.0*

ISC 24 07:59:18.9±0.6**, 8.29N**±0.07×**82.75W**±0.04**, h45**^{km}±8^{km}**, n48, σ1^{s}45**/62**, mb3.6**/4**, 18C-7D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVD	**David**	**0.33**	**65**	⇑*i*P	**Pn**	**07 59 25.0**	**-2.9**
BRU2	**Volcan**	**0.50**	**7**	⇑*e*P	**Pn**	**07 59 27.3**	**-2.7**
BRU2				*e*S	**Sn**	**07 59 35.3**	**-2.4**
TBS2		**0.51**	**11**	⇑*i*P	**Pn**	**07 59 33.6**	**+3.6**
TBS2				*e*S	**Sn**	**07 59 40.2**	**+2.4**
BRU	**Baru**	**0.55**	**21**	⇓*i*P	**Pn**	**07 59 28.2**	**-2.2**
CTCR	**Cotoan**	**0.60**	**359**	⇑*i*P	**Pn**	**07 59 28.6**	**-2.6**
BAR1		**1.09**	**330**	⇓*i*P	**Pn**	**07 59 35.4**	**-2.4**
CNI	**Changuinola**	**1.14**	**12**	⇓*i*P	**Pn**	**07 59 37.0**	**-1.5**
BUS	**Buena Vista**	**1.60**	**322**	⇑*i*P	**Pn**	**07 59 43.5**	**-1.3**
QCR	**Quepos**	**1.79**	**309**	⇑*e*P	**Pn**	**07 59 45.7**	**-1.7**
URSC	**Urasca**	**1.83**	**327**	⇑*i*P	**Pn**	**07 59 47.0**	**-1.0**
LCR2	**La Lucha 2**	**1.90**	**319**	⇑*i*P	**Pn**	**07 59 47.5**	**-1.3**
ICR	**Volcan Irazu**	**1.98**	**328**	⇑*i*P	**Pn**	**07 59 49.8**	**-0.2**
ICR				*e*S	**Sn**	**08 00 15.8**	**+2.1**
LAJ	**Bijagual**	**2.06**	**319**	⇑*e*P	**Pn**	**07 59 52.5**	**+1.3**
LAJ				*e*S	**Sn**	**08 00 24.1**	**+8.4**
SJS	**Escuela Geolog**	**2.08**	**322**	⇑*i*P	**Pn**	**07 59 51.0**	**-0.3**
SJS				*e*S	**Sn**	**08 00 19.2**	**+3.1**
PRS1	**Puriscal**	**2.28**	**318**	⇓*i*P	**Pn**	**07 59 52.9**	**-1.2**
CGA2	**Cerro Gallo 2**	**2.41**	**315**	⇑*i*P	**Pn**	**07 59 55.3**	**-0.5**
CGA2				*e*S	**Sn**	**08 00 27.1**	**+3.0**
AZU	**Azuero**	**2.51**	**101**	⇓*i*P	**Pn**	**07 59 57.1**	**-0.1**
AZU				*e*S	**Sn**	**08 00 29.1**	**+2.5**
JCR	**Jicaral**	**2.79**	**304**	*e*P	**Pn**	**08 00 00.7**	**-0.5**
JCR				*e*S	**Sn**	**08 00 35.3**	**+1.7**
FORC	**Fortuna**	**2.87**	**319**	*e*P	**Pn**	**08 00 02.4**	**+0.2**
FORC				*e*S	**Sn**	**08 00 36.7**	**+1.1**
JTS	**JuntasAbangare**	**2.94**	**313**	Pn	**Pn**	**08 00 00.9**	**-2.3**
JTS				Sn	**Sn**	**08 00 35.5**	**-1.8**
JTS				Lg		08 00 41.4	
JTS				LR	LR	08 01 13.6	
JTS	**JuntasAbangare**	**2.94**	**313**	Pn	**Pn**	**08 00 00.9**	**-2.3**
	50nm,0.3s,baz=102,slow=12,SNR=137						
JTS				Sn	**Sn**	**08 00 35.5**	**-1.8**
	181nm,0.3s,baz=326,slow=22,SNR=14						
JTS				Lg		08 00 41.4	
	138nm,0.3s,baz=185,slow=24,SNR=11						
JTS				LR	LR	08 01 13.6	
	comp=Z,583nm,18.3s,baz=158,slow=44						
BCIP	**Isla Barro Col**	**3.01**	**73**	*e*Pn	**Pn**	**08 00 03.8**	**-0.4**
BCIP				*e*Sg	**Sn**	**08 00 50.0**	**+11**
BCIP	**Isla Barro Col**	**3.01**	**73**	⇑*e*P	**Pn**	**08 00 03.9**	**-0.2**
UPIG		**3.26**	**77**	⇑*e*P	**Pn**	**08 00 08.3**	**+0.8**
UPIG				*e*S	**Sn**	**08 00 46.0**	**+1.0**
2RIO	**Dos Rios de Up**	**3.30**	**312**	*e*P	**Pn**	**08 00 14.3**	**+6.1**
CUI		**3.36**	**315**	⇓*e*P	**Pn**	**08 00 09.6**	**+0.7**
LIM1	**Limonal**	**3.44**	**314**	*e*P	**Pn**	**08 00 10.6**	**+0.7**
MADN	**Villa Maderas**	**4.13**	**319**	⇑*i*P	**Pn**	**08 00 20.3**	**+0.7**
SSNN	**San Juan del S**	**4.26**	**315**	*e*P	**Pn**	**08 00 21.9**	**+0.5**
CONN	**Concepcion**	**4.31**	**319**	⇑*e*P	**Pn**	**08 00 22.5**	**+0.5**
BOAB	**BOACO BROADBAN**	**5.03**	**325**	⇑*e*P	**Pn**	**08 00 30.9**	**-1.0**
BOAB				*e*S	**Sn**	**08 01 31.2**	**+2.6**
MGAN	**Managua**	**5.15**	**318**	⇓*e*P	**Pn**	**08 00 34.4**	**+0.9**
COPN	**Copaltepe**	**5.40**	**316**	⇑*e*P	**Pn**	**08 00 37.8**	**+0.8**
MOMJ	**Momotombo**	**5.53**	**318**	*e*P	**Pn**	**08 00 40.2**	**+1.5**
TGUH	**Tegucigalpa,Un**	**7.24**	**323**	*e*Pn	**Pn**	**08 01 03.2**	**+1.0**
	11nm,0.6s						
ROSC	**El Rosal**	**9.04**	**112**	Pn	**Pn**	**08 01 33.1**	**+6.2**
ROSC				LR	LR	08 05 13.9	
ROSC	**El Rosal**	**9.04**	**112**	Pn	**Pn**	**08 01 33.1**	**+6.2**
	0.8nm,0.3s,baz=89,slow=20,SNR=4.3						
ROSC				LR	LR	08 05 14.0	
	comp=Z,407nm,18.9s,baz=18,slow=38						
OTAV	**Otavalo**	**9.08**	**152**	*e*Pn	**Pn**	**08 01 28.5**	**+1.0**
	16nm,1.1s						
SDV	**Santo Domingo**	**12.00**	**86**	Pn	**Pn**	**08 02 08.3**	**+0.8**
SDV	**Santo Domingo**	**12.00**	**86**	Pn	**Pn**	**08 02 08.3**	**+0.8**
	0.3nm,0.3s,baz=310,slow=7.8,SNR=8.7						
CMIG	**Matias Romero**	**14.71**	**308**	Pn	**Pn**	**08 02 43.5**	**-0.6**
CMIG	**Matias Romero**	**14.71**	**308**	Pn	**Pn**	**08 02 43.5**	**-0.6**
	0.5nm,0.3s,baz=130,slow=11,SNR=9.4						
SDDR	**Presa de Saban**	**15.38**	**45**	*e*Pn	**Pn**	**08 02 52.8**	**-0.3**
PDAR	**Pinedale Array**	**41.63**	**330**	P	**P**	**08 07 02.2**	**-0.5**
	0.6nm,0.6s,mb3.4,baz=127,slow=9.1,SNR=6.2						
ULM	**Lac du Bonnet**	**43.23**	**348**	P	**P**	**08 07 13.4**	**-2.2**
	2.4nm,0.8s,mb4.0,baz=169,slow=11,SNR=6.1						
NVAR	**Mina Array Bea**	**43.85**	**319**	P	**P**	**08 07 22.5**	**+1.7**
NVAR	**Mina Array Bea**	**43.85**	**319**	P	**P**	**08 07 22.5**	**+1.7**
	0.5nm,0.5s,mb3.5,baz=128,slow=7.8,SNR=5.4						
YKA	**Yellowknife Ar**	**58.85**	**343**	P	**P**	**08 09 11.1**	**-1.6**
	0.3nm,0.7s,mb3.5,baz=139,slow=6.9,SNR=8.3						

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*BJI **24** 08:00:18.5, 0.90S×128.00E, h10^{km}, mB5.1, mb4.7*

*ISCJB **24** 08:00:19.1±0.5, 1.06S±0.09×127.5E±0.2, h10^{km}, mb4.4/14, Error ellipse: s-maj=26.2km s-min=7.2km az=155.5*

*IDC **24** 08:00:19.6±0.8, 0.88S×127.96E, h0^{km}, mb4.3/8, mb1 4.3/10, mb1mx4.2/19, mbtmp4.3/10, ML4.0/2, Error ellipse: s-maj=34.0km s-min=15.0km az=67.0*

*NEIC **24** 08:00:20.6±0.5, 0.89S×127.96E, h10^{km}, mb4.5/6, Error ellipse: s-maj=23.8km s-min=8.6km az=64.0*

ISC 24 08:00:20.5±0.5**, 1.01S**±0.08×**127.7E**±0.1**, h10**^{km}**, n33, σ1^{s}15**/31**, mb4.4**/14**, 1C, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**12.53**	**158**	*e*P	**Pn**	**08 03 20.6**	**+1.6**
	17nm,0.6s						
FITZ	**Fitzroy Crossi**	**17.10**	**187**	*e*P	**Pn**	**08 04 20.2**	**+0.4**
	13nm,1.2s						
FITZ	**Fitzroy Crossi**	**17.10**	**187**	P	**Pn**	**08 04 20.8**	**+0.9**
	0.2nm,0.3s,baz=27,slow=12,SNR=4.1						
WRA	**Warramunga Arr**	**19.90**	**161**	P	**Pn**	**08 04 53.0**	**-1.0**
	0.8nm,0.3s,baz=342,slow=12,SNR=20						
WB2	**Warramunga Arr**	**19.91**	**161**	*e*P	**Pn**	**08 04 52.6**	**-1.4**
COEN	**Coen**	**19.99**	**131**	*e*P	**Pn**	**08 04 59.2**	**+4.1**
	17nm,0.9s						
PMG	**Port Moresby**	**21.08**	**114**	P	**P**	**08 05 02.8**	**-2.4**
	7.5nm,1.0s,mb4.0,baz=219,slow=13,SNR=1.6						
ASAR	**Alice Springs**	**23.31**	**166**	P	**P**	**08 05 29.0**	**+0.1**
	6.1nm,0.7s,mb4.1,baz=347,slow=12,SNR=64						
ASAR				PcP	PcP	08 09 18.9	+2.7
	0.5nm,0.6s,baz=2.9,slow=1.9,SNR=2.6						
CTA	**Charters Tower**	**26.24**	**137**	*e*P	**P**	**08 06 01.9**	**+5.9**
	6.9nm,1.1s,mb4.1						
PSI	**Prapat**	**29.02**	**278**	P	**P**	**08 06 25.0**	**+4.0**
	13nm,0.8s,mb4.7,baz=104,slow=4.7,SNR=10.0						
STKA	**Stephens Creek**	**33.38**	**158**	*e*P	**P**	**08 07 01.4**	**+2.2**
	6.5nm,1.0s,mb4.5						
STKA	**Stephens Creek**	**33.38**	**158**	P	**P**	**08 07 01.8**	**+2.6**
	6.0nm,0.9s,mb4.5,baz=302,slow=9.9,SNR=6.6						
KSRS	**Korea Array**	**38.27**	**0**	P	**P**	**08 07 41.8**	**+0.8**
	1.9nm,0.8s,mb3.9,baz=167,slow=10,SNR=5.9						
XAN	**Xi’an**	**39.08**	**335**	P	**P**	**08 07 47.9**	**0.0**
XAN				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.6						
LZH	**Lanzhou**	**43.08**	**331**	*e*P	**P**	**08 08 22.8**	**+2.0**
LZH				AP	pP	08 08 30.0	+6.0
LZH				XP	sP	08 08 35.1	+10
LZH				AMB	AMB		
	comp=Z,29nm,1.2s,mb4.9						
LZH				AMB	AMB		
	comp=Z,90nm,4.0s						
LZH	**Lanzhou**	**43.08**	**331**	*e*P	**P**	**08 08 22.8**	**+2.0**
	comp=Z,29nm,1.2s,mb4.9						
LZH				pP	pP	08 08 30.0	+6.0
LZH				sP	sP	08 08 35.1	+10
LSA	**Lhasa**	**46.36**	**314**	*e*P	**P**	**08 08 47.2**	**+0.1**
	comp=Z,3.9nm,0.6s,mb4.5						
GTA	**Gaotai**	**47.66**	**331**	*e*P	**P**	**08 08 58.3**	**+1.2**
GTA				AP	pP	08 09 05.8	+5.5
GTA				XP	sP	08 09 08.5	+7.0
GTA				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.5						
TAPN	**Taplejung**	**47.68**	**309**	*e*P	**P**	**08 08 56.3**	**-1.2**
ODAN	**Odare**	**47.69**	**309**	*e*P	**P**	**08 08 58.7**	**+1.2**
JIRN	**Jiri**	**49.01**	**309**	*e*P	**P**	**08 09 06.3**	**-1.4**
KKN	**Kakani**	**49.78**	**308**	*e*P	**P**	**08 09 12.0**	**-1.6**
DMN	**Daman**	**49.83**	**308**	*e*P	**P**	**08 09 14.1**	**+0.1**
GKN	**Gorkha**	**50.38**	**308**	*e*P	**P**	**08 09 16.8**	**-1.4**
SONM	**Songino Array**	**52.08**	**342**	P	**P**	**08 09 31.8**	**+1.3**
	comp=Z,3.4nm,0.9s,mb4.3,baz=152,slow=8.8,SNR=24						
NGP	**Nagpur**	**52.39**	**298**	⇑*i*P	**P**	**08 09 33.3**	**-0.1**
NGP				*e*S	Px	08 09 36.1	
NGP				*e*x	Px	08 09 36.2	
	comp=E,97nm,0.2s						
WMQ	**Urumqi**	**57.17**	**326**	*e*P	**P**	**08 10 08.0**	**+0.4**
MK31	**Makanchi Array**	**62.00**	**326**	*e*P	**P**	**08 10 40.8**	**-0.1**
MKAR	**Makanchi Array**	**62.00**	**326**	P	**P**	**08 10 40.3**	**-0.6**
	comp=E,1.1nm,0.5s,mb4.3,baz=124,slow=8.2,SNR=19						
ZALV	**Zalesovo Beam**	**65.24**	**334**	P	**P**	**08 11 01.9**	**-0.2**
	comp=E,1.4nm,0.6s,mb4.2,baz=120,slow=5.8,SNR=5.5						
KURK	**Kurchatov**	**66.25**	**328**	*e*P	**P**	**08 11 08.2**	**-0.6**
	comp=E,4.3nm,0.6s,mb4.7						
TORD	**Torodi Ar. Bea**	**125.21**	**285**	PKP	PKPdf	08 19 22.9	+0.4
TORD	**Torodi Ar. Bea**	**125.21**	**285**	PKP	PKPdf	08 19 22.9	+0.4
	comp=E,0.3nm,0.7s,baz=63,slow=2.3,SNR=2.5						

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*IDC **24** 08:07:53.8±0.5, 20.00S×173.03E, h0^{km}, mb4.8/21, mb1 4.9/25, mb1mx4.9/26, mbtmp4.9/25, ML3.9/3, MS4.9/15, Ms1 4.9/15, ms1mx4.7/20, Error ellipse: s-maj=18.0km s-min=11.6km az=162.0*

*BJI **24** 08:07:56.8, 19.76S×172.73E, h13^{km}, mB5.4, mb4.9, Ms5.2, Msz4.9*

*ISCJB **24** 08:07:57.2±0.2, 20.19S±0.05×173.00E±0.03, h30^{km}, mb5.0/71, MS5.0/28, Error ellipse: s-maj=7.7km s-min=3.7km az=161.2*

*MOS **24** 08:07:58.3±1.4, 19.98S×173.05E, h33^{km}, mb5.3/24, MS4.9/5, Error ellipse: s-maj=11.3km s-min=8.9km az=3.8*

*NEIC **24** 08:07:58.6±0.2, 20.14S×173.08E, mb5.2/43, Error ellipse: s-maj=8.2km s-min=4.6km az=161.0*

*GCMT **24** 08:07:58.6±0.2, 20.16S×173.08E, h16^{km}, MW5.5/94, Moment Tensor Solution. s68,c101; s94,c172; Duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.02±.04; M$_{\theta\theta}$-1.77±.04; M$_{\phi\phi}$1.79±.04; M$_{r\theta}$0.09±.10; M$_{\theta\phi}$-0.77±.03; M$_{\phi r}$0.35±.10; Best double couple: M$_0$1.97300×10^{17} NP1:φ$_s$303.00000°, δ80.00000°, λ177.00000°. NP2:φ$_s$34.00000°, δ87.00000°, λ10.00000°. Principal axes: T 2.0020, Plg9.0000°, Azm259.0000°; N -0.0560, Plg80.0000°, Azm51.0000°; P -1.9430, Plg5.0000°, Azm168.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 24 08:07:59.2±0.2**, 20.16S**±0.05×**173.04E**±0.03**, h32**^{km}**, h32**^{km}±1.4^{km}**:pP-P, n489, σ0^{s}71**/383**, mb5.0**/70**, MS5.0**/28**, 90C-59D, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**6.45**	**252**	*e*P	**Pn**	**08 09 30.5**	**-1.4**
DZM	**Mont Dzumac**	**6.45**	**252**	*e*P	**Pn**	**08 09 30.5**	**-1.5**
DZM	**Mont Dzumac**	**6.45**	**252**	Pn	**Pn**	**08 09 31.9**	**0.0**
	3.8nm,0.3s,baz=76,slow=15,SNR=30						
DZM				Sn	**Sn**	**08 10 45.7**	**+1.2**
	0.2nm,0.3s,baz=272,slow=21,SNR=1.2						
NOUC	**Port Laguerre**	**6.58**	**252**	*e*P	**Pn**	**08 09 34.9**	**+1.1**
RAO	**Raoul Island**	**12.21**	**140**	LR	LR	08 14 09.7	
	comp=Z,5µm,21.9s,baz=16,slow=30						
AFI	**Afiamalu**	**15.79**	**69**	*e*Pn	**Pn**	**08 11 36.0**	**-3.2**
	222nm,1.1s						
AFI	**Afiamalu**	**15.79**	**69**	*e*P	**Pn**	**08 11 36.1**	**-3.2**
AFI				pmax	pmax		
	comp=Z,222nm,1.1s						
AFI	**Afiamalu**	**15.79**	**69**	Pn	**Pn**	**08 11 38.1**	**-1.2**
	comp=Z,0.9nm,0.3s,baz=280,slow=19,SNR=9.3						
HNR	**Honiara**	**16.54**	**308**	*e*Pn	**Pn**	**08 11 49.0**	**+0.1**
	comp=Z,568nm,1.4s						
HNR	**Honiara**	**16.54**	**308**	*e*P	**Pn**	**08 11 49.0**	**0.0**
HNR				pmax	pmax		
	comp=Z,568nm,1.4s						
HNR	**Honiara**	**16.54**	**308**	Pn	**Pn**	**08 11 47.0**	**-1.9**
	comp=Z,0.3nm,0.3s,baz=97,slow=5.6,SNR=2.0						
HNR				LR	LR	08 17 09.1	
	comp=Z,1µm,20.1s,baz=177,slow=34						
URZ	**Urewera**	**18.38**	**170**	P	**Pn**	**08 12 13.2**	**+1.7**
	comp=Z,0.5nm,0.3s,baz=38,slow=6.4,SNR=14						
EIDS	**Eidsvold**	**20.89**	**252**	*e*P	**P**	**08 12 40.5**	**+1.5**
SNZO	**South Karori**	**21.13**	**177**	*e*P	**P**	**08 12 40.8**	**-0.5**
	comp=Z,124nm,1.0s,mb5.2						
ARMA	**Armidale**	**21.85**	**238**	*e*P	**P**	**08 12 50.4**	**+1.2**
ARMA				*e*S	**S**	**08 16 58.8**	**+10**

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RPZ   Rata Peaks        23.54 184   P      P      08 13 08.1 +1.3
      comp=Z,5.6nm,0.5s,mb4.2,baz=105,slow=1.1,SNR=4.2
RPZ                                 LR     LR     08 21 08.7
      comp=Z,5µm,20.4s,MS5.0,baz=357,slow=34
CTA   Charters Tower    25.15 266⇑iP     P      08 13 22.1 +0.4
      comp=Z,26nm,1.0s,mb4.7
CTA                                eS     S      08 17 43.9 -0.9
CTA   Charters Tower    25.15 266⇑iP     P      08 13 22.1 +0.4
CTA                                eS     S      08 17 43.9 -0.9
CTA                                 pmax   pmax
      comp=Z,26nm,1.0s
CTA   Charters Tower    25.15 266   P      P      08 13 22.9 +1.2
      comp=Z,17nm,0.7s,mb4.7,baz=81,slow=12,SNR=11
CTAO  Charters Tower    25.15 266  eP     P      08 13 22.6 +1.0
      comp=Z,70nm,1.3s,mb5.0
CTAO  Charters Tower    25.15 266  eP     P      08 13 22.6 +0.9
CTAO                                pmax   pmax
      comp=Z,70nm,1.3s,mb5.0
RAR   Rarotonga         25.44  97   P      P      08 13 23.5 -0.8
      comp=Z,85nm,1.2s,mb5.2,baz=175,slow=6.1,SNR=3.9
RAR                                 LR     LR     08 21 08.0
      comp=Z,2µm,20.7s,MS4.6,baz=259,slow=31
PMG   Port Moresby      27.17 289  eP     P      08 13 40.3 +0.3
      comp=Z,63nm,1.1s,mb5.1
PMG   Port Moresby      27.17 289  eP     P      08 13 40.4 +0.4
PMG   Port Moresby      27.17 289   P      P      08 13 38.5 -1.5
      comp=Z,40nm,1.1s,mb4.9,baz=107,slow=5.6,SNR=6.9
PMG                                 LR     LR     08 21 50.3
      comp=Z,3µm,19.5s,MS4.9,baz=93,slow=31
COEN  Coen              29.18 277  eP     P      08 13 58.5 +0.5
      comp=Z,21nm,1.2s,mb4.8
COEN                               eS     S      08 18 58.2  +10
STKA  Stephens Creek    30.46 241⇑iP     P      08 14 09.3 +0.1
      comp=Z,9.4nm,0.9s,mb4.5
STKA                               eS     S      08 19 13.9 +5.5
STKA  Stephens Creek    30.46 241   P      P      08 14 08.8 -0.4
      comp=Z,12nm,0.9s,mb4.6,baz=70,slow=8.3,SNR=13
STKA                                LR     LR     08 25 36.0
      comp=Z,5µm,18.4s,MS5.2,baz=70,slow=35
PPT   Papeete           35.42  92  eS     S      08 20 21.3 -4.3
      comp=Z,560nm,25.0s
PPT                                eLQ           08 22 24.5
      comp=Z,3µm,31.2s
PPT                                eLR    LR     08 24 22.4
      comp=Z,5µm,26.5s,baz=254
PPT   Papeete           35.42  92   P      P      08 14 51.6 -1.0
      comp=Z,32nm,0.7s,mb5.3,baz=54,slow=19,SNR=3.0
PPT                                 LR     LR     08 25 33.4
      comp=Z,2µm,19.2s,MS4.8,baz=264,slow=30
WB2   Warramunga Arr    36.29 264⇑iP     P      08 14 58.3 -1.8
WRA   Warramunga Arr    36.30 264   P      P      08 14 58.7 -1.5
WRA                                               08 16 27.8
WRA   Warramunga Arr    36.30 264   P      P      08 14 58.7 -1.5
      comp=Z,16nm,1.1s,mb4.8,baz=96,slow=8.5,SNR=37
WRA                                 PP     PP     08 16 27.8 +4.8
      comp=Z,5.1nm,1.2s,baz=97,slow=10,SNR=4.8
WRA                                 LR     LR     08 29 02.0
      comp=Z,3µm,20.6s,MS5.0,baz=115,slow=35
ASAR  Alice Springs     36.40 257   P      P      08 14 60.0 -1.0
      comp=Z,16nm,0.6s,mb5.2,baz=92,slow=8.9,SNR=130
PMOR  Pomariorio Ree    37.53  89  eP     P      08 15 08.4 -2.2
      comp=Z,83nm,1.3s,mb5.3
KAKA  Kakadu            39.56 274  eP     P      08 15 26.9 -0.8
      comp=Z,25nm,1.3s,mb4.8
FORT  Forrest           41.72 246  eP     P      08 15 42.1 -3.3
      comp=Z,68nm,1.9s,mb5.0
FITZ  Fitzroy Crossi    44.72 264⇑iP     P      08 16 09.5 -0.2
      comp=Z,62nm,1.0s,mb5.4
FITZ                               eS     S      08 22 46.8 +2.1
FITZ  Fitzroy Crossi    44.72 264   P      P      08 16 09.7 -0.1
      comp=Z,40nm,1.1s,mb5.2,baz=102,slow=9.4,SNR=31
FITZ                                LR     LR     08 34 15.3
      comp=Z,2µm,20.2s,MS5.0,baz=269,slow=35
TAOE  Nuku Hiva Isla    46.54  83  eS     S      08 23 05.1 -6.0
      comp=Z,2µm,26.2s
TAOE                               eLR    LR     08 29 30.3
      comp=Z,7µm,26.1s,baz=252
RKT   Rikitea           48.21 103  eS     S      08 23 30.8 -3.8
      comp=Z,745nm,29.8s
RKT                                eLR    LR     08 30 17.5
      comp=Z,2µm,30.5s,baz=269
MBWA  Marble Bar        49.70 259  eP     P      08 16 48.1 -0.4
      comp=Z,57nm,1.2s,mb5.5
KLBR  Kellerberrin      50.57 245  eP     P      08 16 53.9 -1.1
      comp=Z,82nm,1.2s,mb5.5
NWAO  Narrogin (SRO)    51.00 244  eP     P      08 16 58.0 -0.2
      comp=Z,37nm,1.0s,mb5.3
NWAO  Narrogin (SRO)    51.00 244  eP     P      08 16 58.0 -0.2
NWAO                                pmax   pmax
      comp=Z,37nm,1.0s
NWAO  Narrogin (SRO)    51.00 244   P      P      08 16 58.0 -0.2
      comp=Z,20nm,0.8s,mb5.1,baz=91,slow=7.9,SNR=15
VNDA  Vanda             57.66 183   LR     LR     08 38 27.4
      comp=Z,2µm,20.8s,MS5.2,baz=18,slow=32
KKM   Kota Kinabalu     61.62 289  eP     P      08 18 14.7 +0.4
JOW   Kunigami          63.76 315   LR     LR     08 42 01.2
      comp=Z,802nm,21.5s,MS4.9,baz=347,slow=32
KSM   Kuching           65.07 282  eP     P      08 18 37.3 +0.2
MJAR  Matsushiro Arr    65.30 330   P      P      08 18 37.8 -0.2
      comp=Z,7.3nm,0.9s,mb4.7,baz=159,slow=6.4,SNR=12
MAT   Matsushiro        65.30 330   P      P      08 18 38.0 -0.1
MAT                                eS     S      08 27 30.0  +10
YHNB  Yeheng            67.18 309  eP     P      08 18 50.4  0.0
QSPA  South Pole Qui    69.90 180  eP     P      08 19 05.8 -0.8
      comp=Z,22nm,1.1s,mb5.0
SSE   Sheshan           71.24 315   P      P      08 19 14.4 -1.0
SSE                                 S      S      08 28 35.4 +4.6
SSE                                 AMB    AMB
      comp=Z,13nm,0.8s,mb4.9
SSE                                 AMB    AMB
      comp=Z,118nm,3.5s
SSE                                 LR     LR
      comp=N,216nm,32.8s,MS4.4
SSE                                 LR     LR
      comp=E,257nm,33.2s,MS4.4
SSE                                 LR     LR
      comp=Z,326nm,24.4s
SSE   Sheshan           71.24 315   P      P      08 19 14.4 -1.0
      comp=Z,13nm,0.8s,mb4.9
SSE                                 S      S      08 28 35.4 +4.6
SSE                                 LR     LR
      comp=Z,330nm,24.4s,MS4.5
KSRS  Korea Array       71.33 323   P      P      08 19 13.0 -2.9
      comp=Z,0.4nm,0.3s,baz=103,slow=7.0,SNR=3.1
KSRS                                LR     LR     08 44 58.4
      comp=Z,254nm,21.1s,baz=75,slow=31
YSS   Yuzh-Sakhalins    72.17 339  eP     P      08 19 22.6 +1.9
      comp=Z,40nm,1.2s,mb5.2
YSS   Yuzh-Sakhalins    72.17 339  eP     P      08 19 20.7  0.0
YSS                                e              08 19 33.0
YSS                                e              08 19 38.6
YSS                                 S      S      08 28 40.0 -0.9
YSS                                ePPS           08 29 22.0
YSS                                 pmax   pmax
      comp=Z,80nm,1.3s,mb5.5
YSS                                 MLR    MLR
      comp=Z,900nm,19.0s,MS5.1
QIZ   Qiongzhong        73.16 298   P      P      08 19 27.8 +0.6
QIZ                                 S      S      08 28 56.4 +3.1
QIZ                                 LR     LR
      comp=E,312nm,20.1s
QIZ                                 LR     LR
      comp=Z,450nm,23.6s,MS4.7
NJ2   Nanjing           73.39 314  eP     P      08 19 29.3 +1.0
NJ2                                 AP     pP     08 19 39.8 +1.6
NJ2                                 PP     PP     08 22 14.8 +2.4
NJ2                                 S      S      08 28 55.0 -0.4
NJ2                                 AMB    AMB
      comp=Z,20nm,0.9s,mb5.0
NJ2                                 AMB    AMB
      comp=Z,560nm,7.2s
NJ2                                 LR     LR
      comp=N,440nm,17.2s
NJ2                                 LR     LR
      comp=E,430nm,24.8s
NJ2                                 LR     LR
      comp=Z,550nm,20.0s,MS4.8
WHN   Wuhan             75.65 310  eP     P      08 19 41.0 -0.4
WHN                                 LR     LR
      comp=Z,1µm,24.6s,MS5.2
MDJ   Mudanjiang        75.69 330   P      P      08 19 42.8 +1.5
MDJ                                 AP     pP     08 19 52.3 +1.1
MDJ                                 XP     sP     08 19 55.8 +0.9
MDJ                                 S      S      08 29 24.0 +3.5
MDJ                                 SCS    ScS    08 29 54.6 +1.8
MDJ                                 AMB    AMB
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      comp=Z,9.0nm,1.1s,mb4.6
MDJ                                 AMB    AMB
      comp=Z,40nm,3.3s
MDJ                                 LR     LR
      comp=N,634nm,37.9s,MS4.8
MDJ                                 LR     LR
      comp=E,602nm,35.1s,MS4.8
MDJ                                 LR     LR
      comp=Z,610nm,33.6s,MS4.7
PSI   Prapat            76.11 278   P      P      08 19 42.5 -2.0
      comp=Z,4.4nm,0.8s,mb4.4,baz=208,slow=5.9,SNR=9.7
HABR  Khabarovsk        76.29 335  eP     P      08 19 45.0 +0.3
HABR                               e      pP     08 19 53.8 -0.8
HABR                               eS     S      08 29 29.5 +2.4
HABR                               eSS    SS     08 34 25.9 +3.8
CN2   Changchun         77.15 327  eP     P      08 19 49.8 +0.2
CN2                                eXP    sP     08 19 56.8 -6.4
CN2                                eS     S      08 29 38.4 +1.8
CN2                                 AMB    AMB
      comp=Z,10.0nm,1.2s,mb4.6
CN2                                 AMB    AMB
      comp=Z,200nm,5.0s
CN2                                 LR     LR
      comp=N,270nm,14.0s,MS5.0
CN2                                 LR     LR
      comp=E,410nm,14.0s,MS5.0
CN2                                 LR     LR
      comp=Z,530nm,14.0s,MS5.0
KLR   Kul'dur           78.23 334  eP     P      08 19 52.8 -2.7
MAW   Mawson            78.91 202  eP     P      08 20 01.0 +1.9
      comp=Z,3.9nm,0.4s,mb4.7
MAW   Mawson            78.91 202  eP     P      08 20 01.0 +1.9
MAW                                 pmax   pmax
      comp=Z,4.0nm,0.4s
MAW   Mawson            78.91 202   P      P      08 19 58.9 -0.2
      comp=Z,11nm,1.0s,mb4.7,baz=115,slow=7.3,SNR=3.9
MAW                                 LR     LR     08 49 19.9
      comp=Z,377nm,18.7s,MS4.8,baz=105,slow=31
GYA   Guiyang           79.30 303   P      P      08 20 02.0  0.0
GYA                                 PCP    PcP    08 20 12.6 +2.5
GYA                                 AP     pP     08 20 14.6 +2.6
GYA                                 PP     PP     08 23 06.9 +4.6
GYA                                 S      S      08 30 02.8 +2.3
GYA                                 SKS           08 30 13.8
GYA                                 SCS    ScS    08 30 22.6 -0.4
GYA                                 AMB    AMB
      comp=Z,40nm,1.0s,mb5.3
GYA                                 AMB    AMB
      comp=Z,670nm,7.4s
GYA                                 LR     LR
      comp=N,2µm,18.9s,MS5.7
GYA                                 LR     LR
      comp=E,3µm,19.0s,MS5.7
GYA                                 LR     LR
      comp=Z,2µm,19.8s,MS5.5
BJI   Beijing           79.94 319   P      P      08 20 05.5 +0.4
BJI                                 AMB    AMB
      comp=Z,19nm,1.4s,mb4.8
BJI                                 LR     LR
      comp=N,654nm,15.0s,MS5.2
BJI                                 LR     LR
      comp=E,419nm,15.0s,MS5.2
BJI                                 LR     LR
      comp=Z,645nm,31.9s
XAN   Xi'an             81.40 311   P      P      08 20 13.1  0.0
XAN                                 AMB    AMB
      comp=Z,10.0nm,1.1s,mb4.7
KMI   Kunming           81.82 300   P      P      08 20 16.8 +1.3
KMI                                 AP     pP     08 20 21.6 -3.9
KMI                                 XP     sP     08 20 23.3 -5.8
KMI                                 PP     PP     08 23 27.6 +4.4
KMI                                 PPP           08 25 18.0
KMI                                 S      S      08 30 32.8 +5.9
KMI                                 AMB    AMB
      comp=Z,14nm,1.6s,mb4.6
KMI                                 AMB    AMB
      comp=Z,23nm,3.1s
KMI                                 LR     LR
      comp=N,237nm,25.8s
KMI                                 LR     LR
      comp=E,439nm,20.7s
KMI                                 LR     LR
      comp=Z,393nm,24.9s,MS4.7
KMI   Kunming           81.82 300   P      P      08 20 16.8 +1.3
      comp=Z,14nm,1.6s,mb4.6
KMI                                 pP     pP     08 20 21.6 -3.9
KMI                                 sP     sP     08 20 23.2 -5.9
KMI                                 PP     PP     08 23 27.6 +4.4
KMI                                 PPP           08 25 18.0
KMI                                 S      S      08 30 32.8 +5.9
KMI                                 SS     SS     08 35 52.1 +6.2
KMI                                 LR     LR
      comp=Z,390nm,24.9s,MS4.7
KMI   Kunming           81.82 300   P      P      08 20 16.8 +1.3
KMI                                 *SP    sP     08 20 23.2 -5.9
KMI                                               08 23 27.6
KMI                                 PPP           08 25 18.0
KMI                                 S      S      08 30 32.8 +5.9
KMI                                 SS     SS     08 35 52.1 +6.2
KMI                                 pmax   pmax
      comp=Z,14nm,1.6s,mb4.6
KMI                                 MLR    MLR
      comp=Z,390nm,24.9s,MS4.7
CHRT  Chiangrai         82.02 294  ⇑P     P      08 20 17.5 +0.9
      comp=Z,263nm,1.0s
CHG   Chiang Mai        82.30 293  ⇑P     P      08 20 18.7 +0.6
      comp=Z,42nm,0.9s,mb5.4
CHTO  Chiang Mai        82.30 293  eP     P      08 20 18.7 +0.5
      comp=Z,24nm,1.1s,mb5.0
CHTO  Chiang Mai        82.30 293  eP     P      08 20 18.7 +0.6
CHTO                                pmax   pmax
      comp=Z,24nm,1.1s,mb5.0
HHC   Hu-ho-hao-te      83.28 318  eP     P      08 20 23.3 +0.6
HHC                                 AP     pP     08 20 32.3 -0.5
HHC                                 XP     sP     08 20 37.1 +0.7
HHC                                 PP     PP     08 23 37.9 +3.0
HHC                                 S      S      08 30 41.3 +0.1
HHC                                 XS     sS     08 30 57.3 -0.5
HHC                                 AMB    AMB
      comp=Z,14nm,1.2s,mb4.9
HHC                                 AMB    AMB
      comp=Z,211nm,5.6s
HHC                                 LR     LR
      comp=N,390nm,22.6s,MS5.0
HHC                                 LR     LR
      comp=E,585nm,23.8s,MS5.0
HHC                                 LR     LR
      comp=Z,813nm,25.0s,MS5.0
BNLO  Ben Lomond (Sa    83.46  47  ⇓P     P      08 20 23.3 -0.5
      baz=84
HAST  UC Hastings Re    83.50  48  ⇑P     P      08 20 23.5 -0.5
      baz=84
CD2   Chengdu           83.66 306  eP     P      08 20 25.5 +0.6
CD2                                 AP     pP     08 20 36.0 +1.0
CD2                                 XP     sP     08 20 39.9 +1.3
CD2                                 PP     PP     08 23 41.3 +3.1
CD2                                 SKS           08 30 42.1
CD2                                 S      S      08 30 45.9 +0.4
CD2                                 AMB    AMB
      comp=Z,10.0nm,0.9s,mb5.0
CD2                                 LR     LR
      comp=N,140nm,18.0s,MS4.8
CD2                                 LR     LR
      comp=E,320nm,20.4s,MS4.8
CD2                                 LR     LR
      comp=Z,240nm,24.0s,MS4.5
HIA   Hailar            83.75 328  i P    P      08 20 24.9  0.0
HOPS  Hopland           83.83  45  ⇓P     P      08 20 26.5 +0.9
      baz=84
PACP  Pacheco Peak      84.00  47   P      P      08 20 27.3 +0.8
      baz=84,SNR=5.4
U04C  Hernandez Rese    84.03  48  ⇑P     P      08 20 28.1 +1.4
      baz=84
MNRC  McLaughlin Nat    84.18  45  ⇑P     P      08 20 27.3 -0.1
      baz=84
S04C  Ingram Canyon,    84.23  47  ⇑P     P      08 20 27.5 -0.2
      baz=84
T05C  Eagle Field, D    84.37  48  ⇑P     P      08 20 28.5 +0.1
      baz=84
GAMB  Gambell           84.51   7  eP     P      08 20 28.9 +0.5
O02C  Red Bluff         84.64  44  ⇑P     P      08 20 30.3 +0.6
      baz=85
ARVC  Arvin             84.80  50  ⇓P     P      08 20 30.3 -0.3
      baz=85
S05C  Merced            84.83  47   P      P      08 20 30.9 +0.2
      baz=85,SNR=9.5
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VES   Vestal, Richgr    84.97  49  ⇓P     P      08 20 30.8 -0.6
      baz=85
WDC   Whiskeytown Da    85.01  44  ⇑P     P      08 20 31.5  0.0
      baz=85
SYO   Syowa Base        85.02 195⇓eP     P      08 20 30.6 -0.6
SYO   Syowa Base        85.02 195⇓ePcP   PcP    08 20 33.6 -0.8
SYO   Syowa Base        85.02 195⇑epP    pP     08 20 41.2 -0.1
O03C  Acorn Hollow,     85.04  44  ⇑P     P      08 20 31.6 -0.1
      baz=85
OHCM  Honcut            85.06  45  eP     P      08 20 31.8  0.0
T06C  Millerton Lake    85.09  48   P      P      08 20 32.1 +0.1
      baz=85,SNR=9.2
CMB   Columbia Colle    85.14  47  eP     P      08 20 31.8 -0.5
      comp=Z,19nm,1.3s,mb5.1
CMB                                epP    pP     08 20 41.7 -0.6
CMB   Columbia Colle    85.14  47  eP     P      08 20 31.8 -0.5
CMB                                e*PP   pP     08 20 41.7 -0.6
CMB                                 pmax   pmax
      comp=Z,19nm,1.3s,mb5.1
CMB   Columbia Colle    85.14  47   P      P      08 20 32.4 +0.1
      baz=85,SNR=8.0
ORV   Oroville          85.16  45   P      P      08 20 32.5 +0.1
      baz=85,SNR=9.4
BFSC  Mount Baldy St    85.22  51  ⇓P     P      08 20 32.4 -0.4
      baz=85
M02C  Callahan          85.24  43  ⇑P     P      08 20 34.0 +1.3
      baz=85
LAVA  Lava Cap Winer    85.26  46  ⇓P     P      08 20 33.0 +0.2
      baz=85
MURC  Murrieta          85.26  52  ⇑P     P      08 20 33.2 +0.2
      baz=85
EDW2  Edwards Air Fo    85.29  50   P      P      08 20 33.4 +0.3
      baz=85,SNR=5.9
ISA   Isabella          85.31  49   P      P      08 20 33.6 +0.5
      baz=86,SNR=16
HELL  Mitchell Peak,    85.42  48   P      P      08 20 33.3 -0.4
      baz=86,SNR=8.6
S06C  San Francisco     85.43  47   P      P      08 20 33.9 +0.2
      baz=86,SNR=9.9
YBH   Yreka Blue Hor    85.51  43  eP     P      08 20 34.8 +0.8
      comp=Z,18nm,1.2s,mb5.2
YBH   Yreka Blue Hor    85.51  43  eP     P      08 20 34.8 +0.8
YBH                                 pmax   pmax
      comp=Z,18nm,1.2s
YBH   Yreka Blue Hor    85.51  43  ⇑P     P      08 20 34.7 +0.6
      baz=86
MONP  Monument Peak     85.52  53  ⇑P     P      08 20 33.8 -0.5
      baz=86
KCC   Kaiser Creek      85.52  48   P      P      08 20 34.1  0.0
      baz=86,SNR=5.2
P05C  Yuba Gap, Truc    85.63  45  ⇓P     P      08 20 35.2 +0.5
      baz=86
M03C  McCloud           85.64  43   P      P      08 20 35.2 +0.5
      baz=86,SNR=5.4
R05C  Kirkwood Meado    85.68  46   P      P      08 20 35.4 +0.5
      baz=86,SNR=7.7
O05C  Quincy            85.75  45  ⇓P     P      08 20 34.5 -0.8
      baz=86
BBRC  Big Bear Sol-O    85.78  51  ⇑P     P      08 20 34.8 -0.7
      baz=86
LRMC  Laurel Mountai    85.79  50   P      P      08 20 35.7 +0.1
      baz=86,SNR=7.2
HUMO  Hull Mountain     85.82  42  ⇓P     P      08 20 36.5 +1.0
      baz=86
O04C  Chester           85.83  44   P      P      08 20 36.2 +0.6
      baz=86,SNR=6.6
HATC  Hat Creek Radi    85.83  44  ⇑P     P      08 20 36.2 +0.6
      baz=86
CWC   Cottonwood Cre    85.96  49  ⇓P     P      08 20 36.1 -0.3
      baz=86,SNR=6.8
R06C  Coleville         86.02  47  ⇑P     P      08 20 36.4 -0.2
      baz=86,SNR=7.3
WAKR  Walker            86.02  47  eP     P      08 20 37.2 +0.6
LZH   Lanzhou           86.03 311  eP     P      08 20 37.6 +0.9
LZH                                 AP     pP     08 20 46.4 -0.4
LZH                                 XP     sP     08 20 50.8 +0.4
LZH                                 PP     PP     08 23 50.5 -6.9
LZH                                 AMB    AMB
      comp=Z,71nm,1.7s,mb5.6
LZH                                 AMB    AMB
      comp=Z,170nm,5.1s
LZH                                 LR     LR
      comp=E,565nm,17.0s
LZH                                 LR     LR
      comp=Z,635nm,17.4s,MS5.1
LZH   Lanzhou           86.03 311  eP     P      08 20 37.6 +0.9
      comp=Z,71nm,1.7s,mb5.6
LZH                                 pP     pP     08 20 46.4 -0.4
LZH                                 sP     sP     08 20 50.7 +0.3
LZH                                 PP     PP     08 23 50.5 -6.9
LZH                                 SKS           08 30 58.0
LZH                                eS     S      08 31 10.0 +1.2
LZH                                 sS     sS     08 31 23.0 -2.4
LZH                                 SS     SS     08 36 52.0 +4.2
LZH                                 LR     LR
      comp=Z,640nm,17.4s,MS5.1
LZH   Lanzhou           86.03 311  eP     P      08 20 37.6 +0.9
LZH                                 *PP    pP     08 20 46.4 -0.4
LZH                                 *SP    sP     08 20 50.7 +0.3
LZH                                               08 23 50.5
LZH                                               08 30 58.0
LZH                                eS     S      08 31 10.0 +1.2
LZH                                 SS     SS     08 36 52.0 +4.2
LZH                                 pmax   pmax
      comp=Z,71nm,1.7s,mb5.6
LZH                                 MLR    MLR
      comp=Z,640nm,17.4s,MS5.1
MTUM  Tungsten Hills    86.06  48  eP     P      08 20 37.5 +0.6
BEKR  Beckwourth        86.08  45   P      P      08 20 37.3 +0.4
      baz=86,SNR=8.9
R07C  Lee Vining        86.08  47  ⇓P     P      08 20 37.1 +0.1
      baz=86
M04C  Macdoel           86.09  43  ⇓P     P      08 20 37.2 +0.3
      baz=86
WCN   Washoe City       86.20  46   P      P      08 20 37.6 +0.1
      baz=86,SNR=5.6
MPMC  Manual Prospec    86.20  50   P      P      08 20 38.0 +0.4
      baz=86,SNR=8.3
DAC   Darwin (Calif)    86.23  49  eP     P      08 20 38.0 +0.2
L04A  Klamath Falls     86.26  42  ⇓P     P      08 20 37.7  0.0
      baz=86
P06A  Stead Airport,    86.29  45  ⇓P     P      08 20 38.1 +0.2
      baz=86
M05C  Lookout           86.32  43   P      P      08 20 38.5 +0.5
      baz=86,SNR=5.0
BELC  Belle Mtn.        86.34  52   P      P      08 20 38.3  0.0
      baz=86,SNR=7.5
GSC   Goldstone         86.34  50  ⇑P     P      08 20 38.6 +0.3
      baz=86
S08C  White Mtn Res     86.41  48   P      P      08 20 39.2 +0.6
      baz=87,SNR=9.1
HEC   Hector,Ludlow     86.47  51  ⇑P     P      08 20 38.5 -0.4
      baz=87
O06A  Flanigan          86.58  45   P      P      08 20 39.8 +0.5
      baz=87,SNR=9.5
BC3   Big Chuckw Mtn    86.58  52  ⇑P     P      08 20 40.0 +0.5
      baz=87
CLNS  Chul'man          86.66 336  eP     P      08 20 33.7 -5.6
CLNS                                pmax   pmax
      comp=Z,13nm,1.0s,mb5.1
CLNS                                pmax   pmax
      comp=N,6.0nm,0.9s
CLNS                                pmax   pmax
      comp=E,4.0nm,0.6s
M06C  Likely Place G    86.67  44  ⇑P     P      08 20 40.0 +0.2
      baz=87
TNA   Tin City          86.68   8  eP     P      08 20 41.3 +2.1
      comp=E,20nm,1.5s,mb5.1
GRAC  Grapevine Rang    86.73  49  ⇑P     P      08 20 40.5 +0.3
      baz=87
NVAR  Mina Array Bea    86.76  47   P      P      08 20 40.1 -0.1
      comp=E,4.5nm,1.0s,mb4.7,baz=215,slow=6.4,SNR=24
GLA   Glamis            86.78  53   P      P      08 20 40.9 +0.4
      baz=87,SNR=8.6
I04A  Tendick Farm,     86.78  41  ⇑P     P      08 20 40.0 -0.3
      baz=87
FURC  Furnace Creek,    86.85  49  ⇓P     P      08 20 41.0 +0.3
      baz=87
N06A  Buffalo Meadow    86.86  45   P      P      08 20 41.1 +0.4
      baz=87,SNR=7.0
L05A  Lakeview          86.87  43  ⇑P     P      08 20 41.0 +0.3
      baz=87
GMRC  Granite Mounta    86.94  51   P      P      08 20 40.9 -0.4
      baz=87,SNR=6.9
IRM   Iron Mountain     87.03  52   P      P      08 20 42.2 +0.5
      baz=87,SNR=5.9
TUQ   Turquoise Mtn.    87.04  51   P      P      08 20 42.0 +0.3
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	baz=87,SNR=5.5						
MOD	Modoc	87.14	43	*e*P	P	08 20 42.0	0.0
	comp=E,4.4nm,0.8s,mb4.7						
MOD	Modoc	87.14	43	⇑P	P	08 20 41.9	-0.1
	baz=87						
S09A	Goldfield	87.17	48	P	P	08 20 42.4	+0.1
	baz=87,SNR=5.5						
U10A	Ash Meadows, A	87.20	50	⇑P	P	08 20 42.4	0.0
	baz=87						
O07A	Toulon	87.21	45	P	P	08 20 42.8	+0.4
	baz=87,SNR=8.6						
Q08A	Gabbs	87.22	47	P	P	08 20 42.4	-0.1
	baz=87,SNR=8.1						
J05A	Fort Rock	87.25	42	P	P	08 20 43.3	+0.8
	baz=87,SNR=9.6						
Y12C	Blythe	87.32	53	⇓P	P	08 20 42.9	-0.2
	baz=87,SNR=5.2						
H04A	Detroit Lake	87.39	40	⇑P	P	08 20 42.6	-0.6
	baz=88						
N07B	Gerlach	87.45	45	⇓P	P	08 20 43.1	-0.5
	baz=88						
G04A	Mulino	87.49	40	⇑P	P	08 20 44.4	+0.7
	baz=88						
TPNV	Topopah Spring	87.50	49	*e*P	P	08 20 44.0	0.0
	comp=E,12nm,0.8s,mb5.2						
TPNV	Topopah Spring	87.50	49	*e*P	P	08 20 44.0	+0.1
TPNV				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.2						
TPNV	Topopah Spring	87.50	49	P	P	08 20 43.6	-0.3
	baz=88,SNR=13						
P08A	Dixie Valley	87.52	46	⇓P	P	08 20 44.4	+0.4
	baz=88						
R09A	Tonopah	87.52	48	P	P	08 20 43.9	-0.1
	baz=88,SNR=8.3						
M07A	Soldier Meadow	87.62	44	P	P	08 20 45.0	+0.7
	baz=88,SNR=8.7						
K06A	Valley Falls	87.62	43	⇑P	P	08 20 44.9	+0.6
	baz=88						
I05A	Bend	87.68	41	⇑P	P	08 20 44.9	+0.3
	baz=88						
S10A	Tonopah Range,	87.71	48	P	P	08 20 44.9	0.0
	baz=88,SNR=16						
Q09A	Carvers	87.73	47	⇓P	P	08 20 45.6	+0.7
	baz=88						
L07A	Adell	87.82	44	⇓P	P	08 20 44.9	-0.4
	baz=88,SNR=6.0						
PDMCI	Parker Dam,Lak	87.85	52	⇓P	P	08 20 45.1	-0.5
	baz=88,SNR=5.8						
Y13A	Salome	87.87	53	⇑P	P	08 20 45.2	-0.5
	baz=88,SNR=7.8						
F04A	Amboy	87.91	39	⇑P	P	08 20 45.1	-0.6
	baz=88						
J06A	Christmas Vall	87.91	42	⇑P	P	08 20 45.0	-0.7
	baz=88						
V12A	Nelson	87.95	51	⇓P	P	08 20 45.7	-0.4
	baz=88						
N08A	GE Springer Mi	88.01	45	⇓P	P	08 20 45.4	-0.8
	baz=88						
SHPR	Sheep Range	88.08	50	*e*P	P	08 20 47.0	+0.3
R10A	Warm Springs	88.08	48	P	P	08 20 47.0	+0.4
	baz=88,SNR=9.5						
BILL	Bilibino	88.08	357	*e*P	P	08 20 44.6	-1.3
BILL				*e*SS	SS	08 37 17.4	+0.8
BILL				pmax	pmax		
	comp=Z,16nm,1.9s,mb4.9						
M08A	Happy Creek Ra	88.17	44	P	P	08 20 47.9	+0.9
	baz=88,SNR=6.7						
S11A	Rachel	88.18	49	⇑P	P	08 20 47.7	+0.6
	baz=88						
X13A	Yucca	88.20	52	P	P	08 20 47.3	0.0
	baz=88,SNR=6.8						
K07A	Rock Creek Ran	88.21	43	P	P	08 20 47.8	+0.7
	baz=88,SNR=5.7						
I06A	Prineville	88.22	42	P	P	08 20 48.0	+0.8
	baz=88,SNR=6.5						
Q10A	Clear Creek Ra	88.26	47	P	P	08 20 47.5	0.0
	baz=88,SNR=8.7						
Z14A	Wintersburg	88.34	54	⇑P	P	08 20 47.9	-0.1
	baz=88						
O09A	Fish Creek Ran	88.35	46	⇑P	P	08 20 47.9	0.0
	baz=88,SNR=6.1						
SNAA	Sanae	88.36	181	*i* P	P	08 20 43.7	-3.8
T11A	Corn Creek, Al	88.37	49	⇑P	P	08 20 47.6	-0.4
	baz=88						
W13A	Hualapai Mount	88.39	52	⇓P	P	08 20 48.6	+0.5
	baz=88						
N09A	Rock Creek Ran	88.45	45	⇑P	P	08 20 48.8	+0.5
	baz=89						
BMN	Battle Mountai	88.45	46	*e*P	P	08 20 48.9	+0.6
	comp=Z,16nm,1.1s,mb5.2						
BMN	Battle Mountai	88.45	46	*e*P	P	08 20 48.9	+0.6
BMN				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.2						
WVOR	Wild Horse Val	88.48	43	*e*P	P	08 20 48.3	-0.1
	comp=Z,42nm,1.6s,mb5.4						
WVOR	Wild Horse Val	88.48	43	*e*P	P	08 20 48.3	-0.1
WVOR				pmax	pmax		
	comp=Z,42nm,1.6s,mb5.4						
U12A	Valley of Fire	88.50	50	⇓P	P	08 20 48.7	+0.1
	baz=89,SNR=6.0						
J07A	Hines	88.51	42	⇓P	P	08 20 48.1	-0.4
	baz=89						
Y14A	Wickenburg	88.54	53	⇓P	P	08 20 48.4	-0.5
	baz=89						
H06A	Lindquist Farm	88.55	41	P	P	08 20 48.3	-0.4
	baz=89,SNR=7.3						
L08A	Fields	88.55	44	⇓P	P	08 20 48.9	+0.1
	baz=89,SNR=9.5						
CIT	Chita	88.55	328	*e*P	P	08 20 47.0	-1.5
CIT				pmax	pmax		
	comp=Z,68nm,2.2s,mb5.6						
P10A	Eureka	88.59	47	⇓P	P	08 20 49.4	+0.4
	baz=89						
115A	Sonoran Desert	88.60	54	⇑P	P	08 20 48.6	-0.6
	baz=89						
TRCR	Troy Canyon	88.61	48	P	P	08 20 45.9	-3.3
G06A	Carlson Farm,	88.62	40	⇑P	P	08 20 49.0	0.0
	baz=89						
E05A	Randle	88.63	39	⇓P	P	08 20 48.8	-0.2
	baz=89						
K08A	Mann Creek Ran	88.72	43	P	P	08 20 49.6	+0.1
	baz=89,SNR=12						
I07A	Izee	88.73	42	⇓P	P	08 20 49.2	-0.4
	baz=89						
M09A	Marrel Ranch,	88.77	45	⇓P	P	08 20 49.9	+0.1
	baz=89,SNR=5.9						
Q11A	Duckwater	88.79	48	P	P	08 20 50.5	+0.5
	baz=89,SNR=9.8						
S12A	Delamar Landin	88.80	49	⇓P	P	08 20 50.0	-0.1
	baz=89						
F06A	Goldendale	88.80	40	⇑P	P	08 20 49.7	-0.2
	baz=89						
VNA3	Neumayer Olymp	88.82	179	*e*P	P	08 20 47.4	-2.2
VNA3				*e*		08 20 51.4	
VNA3				*e*		08 20 53.9	
VNA3				*e*		08 21 02.6	
VNA3				*e*		08 21 04.6	
D05A	Enumclaw	88.82	38	⇓P	P	08 20 50.0	+0.1
	baz=89						
X14A	Yava	88.85	53	⇑P	P	08 20 50.6	+0.3
	baz=89,SNR=12						
YAK	Yakutsk	88.86	341	⇑*e*P	P	08 20 47.0	-2.7
YAK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb5.1						
O10A	Cortez Mining,	88.87	46	⇑P	P	08 20 50.9	+0.6
	baz=89						
L09A	Wilkinson Ranc	88.91	44	P	P	08 20 50.8	+0.3
	baz=89,SNR=7.1						
116A	Eloy	88.94	55	⇑P	P	08 20 51.0	+0.2
	baz=89,SNR=6.9						
H07A	Lands Inn, Kim	88.95	41	⇑P	P	08 20 50.6	0.0
	baz=89						
W14A	Seligman	89.03	52	P	P	08 20 51.7	+0.5
	baz=89,SNR=10						
J08A	Circle Bar Ran	89.03	43	P	P	08 20 51.4	+0.4
	baz=89,SNR=10						
P11A	Circle Ranch,	89.04	47	⇑P	P	08 20 51.1	0.0
	baz=89						
N10A	Dunphy	89.06	46	⇓P	P	08 20 51.8	+0.6
	baz=89						
E06A	Yakima	89.08	39	⇓P	P	08 20 51.6	+0.4
	baz=89						
VNA2	Neumayer--Watz	89.16	180	*e*P	P	08 20 49.3	-1.9
VNA2				*e*		08 20 52.3	
VNA2				*e*		08 20 55.2	
VNA2				*e*		08 21 04.3	
VNA2				*e*		08 21 06.2	
K09A	Rome	89.19	44	P	P	08 20 51.9	+0.1
	baz=89,SNR=13						
T13A	Saint George	89.21	50	⇓P	P	08 20 52.2	+0.2
	baz=89,SNR=6.1						
G07A	Ruggs Ranch, H	89.22	41	P	P	08 20 52.0	+0.2
	baz=89,SNR=6.1						
I08A	Drewsey	89.24	42	P	P	08 20 52.1	+0.1
	baz=89,SNR=6.7						
C05A	Tolt Reservoir	89.26	38	⇓P	P	08 20 51.8	-0.2
	baz=90						
R12A	Pony Springs,	89.29	49	P	P	08 20 52.7	+0.4
	baz=89,SNR=12						
B05A	Bryant	89.33	37	⇑P	P	08 20 52.4	+0.2
	baz=90						
X15A	Humboldt	89.35	53	P	P	08 20 53.1	+0.4
	baz=90,SNR=11						
O11A	Cowboy Ranch,	89.37	47	P	P	08 20 53.4	+0.8
	baz=90,SNR=12						
F07A	Phinny Hill Vi	89.38	40	⇓P	P	08 20 52.2	-0.4
	baz=90						
M10A	I.L. Ranch, Tu	89.42	45	P	P	08 20 53.8	+0.9
	baz=90,SNR=17						
Q12A	Willow Creek R	89.45	48	P	P	08 20 53.6	+0.6
	baz=90,SNR=13						
H08A	Prairie City	89.47	42	⇓P	P	08 20 53.0	0.0
	baz=90						
J09A	Fry Pan Ranch,	89.48	43	P	P	08 20 53.2	+0.1
	baz=90,SNR=16						
S13A	Holt Ranch, En	89.49	49	P	P	08 20 54.1	+0.8
	baz=90,SNR=9.9						
D06A	Cle Elum	89.49	39	⇓P	P	08 20 53.3	+0.2
	baz=90						
P12A	McGill	89.59	47	P	P	08 20 54.4	+0.7
	baz=90,SNR=10						
W15A	Williams	89.62	52	⇑P	P	08 20 54.8	+0.9
	baz=90						
N11A	Elko Archery C	89.63	46	P	P	08 20 54.5	+0.6
	baz=90,SNR=5.5						
G08A	Pilot Rock	89.67	41	P	P	08 20 54.3	+0.4
	baz=90,SNR=14						
A05A	Maple Falls	89.72	37	⇑P	P	08 20 53.7	-0.4
	baz=90						
L10A	Juniper Basin	89.72	45	P	P	08 20 54.8	+0.6
	baz=90,SNR=16						
E07A	Sunnyside	89.76	39	⇑P	P	08 20 54.5	+0.2
	baz=90,SNR=8.2						
ULN	Ulaanbaatar	89.77	322	*e*P	P	08 20 54.5	+0.1
	comp=Z,21nm,1.6s,mb5.2						
ULN	Ulaanbaatar	89.77	322	⇑*e*P	P	08 20 54.6	+0.3
K10A	MacKenzie Ranc	89.79	44	P	P	08 20 54.6	+0.1
	baz=90,SNR=11						
I09A	Lost Marbles R	89.79	42	⇓P	P	08 20 54.3	-0.3
	baz=90						
B06A	Marblemount	89.81	37	⇑P	P	08 20 54.2	-0.3
	baz=90						
T14A	Hurricane	89.82	50	P	P	08 20 55.0	+0.1
	baz=90,SNR=8.8						
HAWA	Hanford	89.87	40	*e*P	P	08 20 55.1	+0.2
	comp=Z,20nm,1.0s,mb5.4						
HAWA				*e*pP	pP	08 21 04.6	-0.4
M11A	Holland Ranch,	89.88	45	P	P	08 20 56.0	+1.0
	baz=90,SNR=15						
ARUT	Antelope Range	89.88	49	*e*P	P	08 20 55.7	+0.6
ELK	Elko	89.94	46	*e*P	P	08 20 56.0	+0.7
	comp=Z,15nm,0.9s,mb5.3						
ELK	Elko	89.94	46	*e*P	P	08 20 56.0	+0.7
ELK				pmax	pmax		
	comp=Z,15nm,0.9s						
D07A	Quincy	90.00	39	⇑P	P	08 20 55.2	-0.2
	baz=90						
O12A	Currie	90.06	47	P	P	08 20 56.0	+0.2
	baz=90,SNR=11						
S14A	Cedar City	90.06	50	P	P	08 20 56.8	+0.8
	baz=90,SNR=7.5						
A06A	Chilliwack	90.11	37	⇓P	P	08 20 56.1	+0.2
	baz=90						
N12A	Clover Valley,	90.12	46	P	P	08 20 56.9	+0.7
	baz=90,SNR=13						
SONM	Songino Array	90.13	322	P	P	08 20 56.0	0.0
	comp=Z,2.3nm,1.0s,mb4.5,baz=138,slow=2.1,SNR=12						
J10A	Berg Farm, Mel	90.16	43	P	P	08 20 56.5	+0.3
	baz=90,SNR=5.4						
H09A	Durkee	90.17	42	P	P	08 20 56.5	+0.2
	baz=90,SNR=6.3						
E08A	Dider Farm, El	90.20	40	⇑P	P	08 20 56.4	+0.1
	baz=90						
C07A	Waterville	90.20	38	⇑P	P	08 20 55.9	-0.4
	baz=90						
L11A	Cat Creek Ranc	90.24	45	P	P	08 20 57.4	+0.7
	baz=90,SNR=12						
T15A	Red Dirt Ranch	90.31	50	P	P	08 20 57.5	+0.4
	baz=90,SNR=12						
K11A	Parker Ranch,	90.33	44	P	P	08 20 57.7	+0.6
	baz=90,SNR=7.9						
GTA	Gaotai	90.38	312	P	P	08 20 58.4	+1.0
GTA				AP	pP	08 21 02.1	-5.4
GTA				XP	sP	08 21 03.8	-7.4
GTA				AMB	AMB		
	comp=Z,13nm,1.1s,mb5.2						
GTA				AMB	AMB		
	comp=Z,159nm,5.3s						
GTA				LR	LR		
	comp=N,448nm,20.1s,MS5.0						
GTA				LR	LR		
	comp=E,460nm,19.8s,MS5.0						
GTA				LR	LR		
	comp=Z,435nm,18.6s,MS4.9						
WUAZ	Wupatki	90.42	52	*e*P	P	08 20 58.4	+0.7
	comp=Z,21nm,1.0s,mb5.4						
WUAZ				*e*pP	pP	08 21 07.8	0.0
WUAZ				*e*sP	sP	08 21 11.9	+0.5
WUAZ	Wupatki	90.42	52	P	P	08 20 58.5	+0.8
	baz=90,SNR=9.7						
I10A	Payette	90.44	43	P	P	08 20 58.0	+0.5
	baz=91,SNR=5.2						
M12A	Wells	90.45	46	P	P	08 20 58.4	+0.6
	baz=91,SNR=8.4						
BMO	Blue Mountains	90.48	42	*e*P	P	08 20 57.5	-0.3
	comp=Z,13nm,1.4s,mb5.1						
BMO	Blue Mountains	90.48	42	*e*P	P	08 20 57.5	-0.3
BMO				pmax	pmax		
	comp=Z,13nm,1.4s,mb5.1						
F09A	S2 Ranch, Elgi	90.52	41	⇑P	P	08 20 58.0	+0.1
	baz=91						
B07A	Winthrop	90.56	38	P	P	08 20 57.8	-0.2
	baz=91,SNR=8.7						
D08A	Wollman Farm,	90.56	39	P	P	08 20 58.3	+0.2
	baz=91,SNR=6.9						
N13A	Wendover, West	90.69	46	P	P	08 20 59.4	+0.6
	baz=91,SNR=6.3						
A07A	Ashnola River,	90.70	37	⇑P	P	08 20 58.6	-0.1
	baz=91						
H10A	Noah’s Angus R	90.71	42	P	P	08 20 58.3	-0.5
	baz=91,SNR=18						
L12A	House Creek Ra	90.72	45	⇓P	P	08 20 59.4	+0.5
	baz=91,SNR=11						
MFID	Camas Ranch	90.76	44	⇓P	P	08 20 59.2	+0.1
	baz=91						
E09A	Wood Farm, Sta	90.76	40	⇑P	P	08 20 58.9	-0.1
	baz=91						
C08A	Higginbotham F	90.84	39	⇓P	P	08 20 59.3	0.0
	baz=91						
I11A	Placerville	90.90	43	P	P	08 20 60.0	+0.2
	baz=91,SNR=10						
D09A	Jones Farm, Ri	90.93	40	P	P	08 20 59.8	0.0
	baz=91,SNR=7.3						
M13A	Montello	90.94	46	P	P	08 21 00.1	+0.2
	baz=91,SNR=17						
B08A	Colville Reser	90.96	38	P	P	08 20 59.5	-0.4
	baz=91,SNR=6.4						
K12A	Draper Farm, C	91.01	45	P	P	08 21 00.7	+0.5
	baz=91,SNR=9.1						
F10A	Beach Ranch, E	91.06	41	P	P	08 21 00.1	-0.3
	baz=91,SNR=9.5						
MSU	Marysvale	91.09	49	*e*P	P	08 21 01.4	+0.6
MSU				*e*pP	pP	08 21 12.1	+1.2
J12A	Stokes Ranch,	91.16	44	P	P	08 21 01.5	+0.6
	baz=91,SNR=10						
H11A	Donnelly	91.23	42	P	P	08 21 01.4	+0.1
	baz=91,SNR=13						
DLBC	Dease Lake	91.25	26	P	P	08 21 00.2	-0.7
DLBC	Dease Lake	91.25	26	P	P	08 21 00.2	-0.7
	baz=203,slow=13						
A08A	Turner Farm, O	91.29	38	⇑P	P	08 21 00.7	-0.7
	baz=92						
DUG	Dugway	91.36	47	*e*P	P	08 21 01.7	-0.2
	comp=Z,11nm,1.2s,mb5.0						
DUG	Dugway	91.36	47	*e*P	P	08 21 01.7	-0.2
DUG				pmax	pmax		
	comp=Z,11nm,1.2s,mb5.1						
DUG	Dugway	91.36	47	P	P	08 21 02.2	+0.3
	baz=92,SNR=5.9						
L13A	Double Diamond	91.40	45	⇓P	P	08 21 02.3	+0.2
	baz=92,SNR=6.5						
D10A	Wagner Farm, O	91.55	40	P	P	08 21 02.1	-0.5
	baz=92,SNR=6.4						
M14A	Sheep Mountain	91.55	46	P	P	08 21 03.2	+0.4
	baz=92,SNR=12						
K13A	Stover Farm, H	91.56	45	⇓P	P	08 21 03.2	+0.4
	baz=92						
EGAK	Eagle	91.66	18	*e*P	P	08 21 01.8	-0.9
	comp=Z,15nm,1.3s,mb5.2						
EGAK				*e*pP	pP	08 21 10.9	-2.0
EGAK				*e*sP	sP	08 21 15.4	-1.1
DAWY	Dawson	91.66	19	*e*P	P	08 21 02.0	-0.7
B09A	Rice	91.68	38	⇑P	P	08 21 02.5	-0.7
	baz=92						
F11A	Grangeville	91.69	41	⇓P	P	08 21 02.0	-1.3
	baz=92						
A09A	Danville	91.70	38	⇑P	P	08 21 02.9	-0.3
	baz=92						
HLID	Hailey	91.74	44	*e*P	P	08 21 03.4	-0.3
HLID	Hailey	91.74	44	P	P	08 21 04.1	+0.4
	baz=92,SNR=5.7						
BOD	Bodaibo	91.77	333	*e*P	P	08 21 01.0	-2.4
BOD				pmax	pmax		
	comp=Z,4.0nm,1.8s,mb4.5						
NLU	North Lily Min	91.77	48	*e*P	P	08 21 01.9	-1.9
NLU				*e*pP	pP	08 21 10.6	-3.4
J13A	Cove Ranch, Pi	91.83	44	⇑P	P	08 21 04.3	+0.3
	baz=92						
E11A	Bogner Ranch,	91.87	41	⇓P	P	08 21 03.2	-0.9
	baz=92						
H12A	Diamond D Ranc	91.90	43	P	P	08 21 04.3	0.0
	baz=92,SNR=8.5						
HVU	Hansel Valley	92.06	46	*e*P	P	08 21 04.7	-0.5
	comp=Z,12nm,1.0s,mb5.2						
HVU				*e*pP	pP	08 21 14.6	-0.7
HVU	Hansel Valley	92.06	46	*e*P	P	08 21 04.7	-0.4
HVU				*e**PP	pP	08 21 14.6	-0.7
HVU				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.2						
I13A	Wildhorse Cree	92.09	44	⇑P	P	08 21 05.2	0.0
	baz=92						
MPU	Maple Canyon	92.10	48	*e*P	P	08 21 05.7	+0.4
D11A	Klaveano Farm,	92.11	40	P	P	08 21 04.6	-0.7
	baz=92,SNR=5.7						
K14A	Jones Ranch, D	92.12	45	P	P	08 21 05.5	+0.1
	baz=92,SNR=8.1						
M15A	Larsen Ranch,	92.14	46	⇑P	P	08 21 05.2	-0.4
	baz=92						
F12A	Elk City	92.19	42	⇑P	P	08 21 05.0	-0.6
	baz=92						
NEW	Newport	92.21	39	P	P	08 21 04.6	-1.0
	comp=Z,1.2nm,0.7s,mb4.4,baz=251,slow=3.5,SNR=3.7						
H13A	Challis	92.29	43	⇓P	P	08 21 06.1	0.0
	baz=92						
CTU	Camp Tracy	92.30	47	*e*P	P	08 21 06.1	-0.2
SRU	San Rafael	92.51	49	*e*P	P	08 21 07.1	-0.2
	comp=Z,11nm,0.9s,mb5.3						
SRU	San Rafael	92.51	49	*e*P	P	08 21 07.1	-0.2
SRU				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.3						
G13A	Cobalt	92.53	43	⇑P	P	08 21 06.9	-0.3
	baz=93						
D12A	Red Ives Fores	92.71	41	⇓P	P	08 21 07.3	-0.7
	baz=93						
F13A	Darby	92.78	42	P	P	08 21 07.9	-0.5
	baz=93,SNR=7.4						
HWUT	Hardware Ranch	92.81	47	*e*P	P	08 21 08.4	-0.2
	comp=Z,6.2nm,0.9s,mb5.0						
A11A	Hall Mountain,	92.98	39	⇑P	P	08 21 08.8	-0.4
	baz=93						
G14A	Jackson	93.09	43	⇑P	P	08 21 09.6	-0.2
	baz=93						
E13A	Victor	93.16	41	⇑P	P	08 21 08.8	-1.3
	baz=93						
ZAK	Zakamensk	93.16	323	*e*P	P	08 21 09.0	-1.0
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.7						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.5s,mb4.3						
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.5						
PV10	Paradox Valley	93.28	50	*e*P	P	08 21 11.3	+0.4
F14A	Wisdom	93.39	42	⇑P	P	08 21 11.2	0.0
	baz=94						
PV01	Paradox Valley	93.53	51	*e*P	P	08 21 12.0	0.0
PV01				*e*pP	pP	08 21 21.2	-0.9
MNTX	Cornudas Mount	93.55	58	*e*P	P	08 21 12.3	0.0
	comp=Z,11nm,1.1s,mb5.2						
TLY	Talaya	93.57	324	*e*P	P	08 21 10.0	-1.9
TLY				*e*		08 24 54.0	
TLY				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb5.0						
E14A	Clinton	93.58	42	⇓P	P	08 21 11.4	-0.7
	baz=94						
G15A	Dillon	93.68	43	⇑P	P	08 21 12.0	-0.5
	baz=94						
D14A	Greenough	93.86	41	⇑P	P	08 21 12.2	-1.1
	baz=94						
ANMO	Albuquerque	93.90	54	P	P	08 21 13.0	-0.8
ANMO	Albuquerque	93.90	54	⇑*i*P	P	08 21 12.6	-1.2
ANMO	Albuquerque	93.90	54	P	P	08 21 13.0	-0.8
	comp=Z,2.7nm,0.8s,mb4.7,baz=235,slow=5.2,SNR=15						
F15A	Butte	93.96	42	⇓P	P	08 21 13.2	-0.6
	baz=94						
LRM	Limekiln Ridge	93.98	42	*e*P	P	08 21 12.3	-1.6
REDW	Red Top Meadow	94.01	45	*e*P	P	08 21 14.2	+0.1
	comp=Z,16nm,1.4s,mb5.2						
LTX	Lajitas	94.08	60	*e*P	P	08 21 14.7	0.0
	comp=Z,3.9nm,0.8s,mb4.9						
LTX	Lajitas	94.08	60	*e*P	P	08 21 14.7	-0.1
LTX				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.9						
TXAR	Lajitas Array	94.08	60	P	P	08 21 15.1	+0.3
	comp=Z,3.5nm,0.8s,mb4.8,baz=228,slow=5.6,SNR=33						
TXAR				LR	LR	08 55 59.6	
	comp=Z,1µm,19.7s,MS5.4,baz=250,slow=31						
E15A	Deer Lodge	94.11	42	⇓P	P	08 21 13.9	-0.6
	baz=94						
BOZ	Bozeman (W)	94.43	43	⇓P	P	08 21 15.2	-0.7
	baz=95						
D15A	Lincoln	94.45	41	⇑P	P	08 21 15.6	-0.4
	baz=95						
PDAR	Pinedale Array	94.64	46	P	P	08 21 16.3	-0.7
	comp=Z,1.4nm,0.8s,mb4.4,baz=215,slow=1.7,SNR=7.0						
PDAR				PP	PP	08 25 04.6	-1.1
	comp=Z,0.7nm,1.1s,baz=236,slow=1.6,SNR=4.0						
SMCO	Snowmass	95.08	50	*e*P	P	08 21 18.7	-0.4
	comp=Z,4.0nm,0.8s,mb4.9						
INK	Inuvik	96.32	17	P	P	08 21 22.1	-1.9
	comp=Z,1.5nm,0.6s,mb4.6,baz=194,slow=3.0,SNR=4.6						
YKA	Yellowknife Ar	99.86	27	P	Pdif	08 21 39.8	-0.7
	comp=Z,0.2nm,0.4s,baz=250,slow=4.8,SNR=4.4						
YKA				LR	LR	09 03 34.0	
	comp=Z,246nm,18.4s,MS4.7,baz=205,slow=34						
WMQ	Urumqi	100.44	313	*e*P	Pdif	08 21 43.3	+0.2
WMQ				LR	LR		
	comp=N,601nm,24.0s,MS5.1						
WMQ				LR	LR		
	comp=E,301nm,22.0s,MS5.1						
WMQ				LR	LR		
	comp=Z,504nm,23.0s,MS5.0						
MIAR	Mount Ida	103.84	58	*e*Pdif	Pdif	08 22 05.7	+7.5
TEIG	Tepich	104.53	74	Pdif	Pdif	08 21 59.6	-1.7
TEIG	Tepich	104.53	74	Pdiff	Pdif	08 21 59.6	-1.7
	comp=Z,4.9nm,0.3s,baz=198,slow=9.6,SNR=5.0						
MK31	Makanchi Array	104.92	315	*e*Pdif	Pdif	08 22 01.6	-1.4
AML	Almayashu	110.03	309	*e*PKPdf	PKiKP	08 26 35.0	+7.5
EKS2	Erkin-Say	110.06	309	*e*PKPdf	PKiKP	08 26 35.9	+8.3
LVZ	Lovozero	125.66	342	⇑*i*PKIKP	PKPdf	08 26 52.9	-3.9
KOLS	Kolonicke sedl	142.96	328	*e*PKIKP	PKPdf	08 27 35.9	+6.3
KECS	Kecovo	144.15	328	*e*PKP	PKPdf	08 27 31.0	-0.7
KECS	Kecovo	144.15	328	*e*PKIKP	PKPdf	08 27 31.0	-0.7
KSP	Ksiaz	144.31	335	*e*PKP	PKPdf	08 27 29.5	-2.4
KSP	Ksiaz	144.31	335	*e*PKIKP	PKPdf	08 27 29.5	-2.4
MORC	Moravsky Berou	144.60	332	*e*PKPdf	PKPdf	08 27 30.7	-1.7
MORC	Moravsky Berou	144.60	332	*e*PKIKP	PKPdf	08 27 30.7	-1.7
DPC	Dobruska-Polom	144.68	334	*e*PKP	PKPdf	08 27 30.7	-1.8
DPC	Dobruska-Polom	144.68	334	*e*PKIKP	PKPdf	08 27 30.7	-1.8
DPC	Dobruska-Polom	144.68	334	*e*PKP	PKPdf	08 27 30.7	-1.8
UPC	Upice	144.69	334	*e*PKP	PKPdf	08 27 30.9	-1.6
UPC	Upice	144.69	334	*e*PKIKP	PKPdf	08 27 30.9	-1.6

UPC	Upice	144.69	334	ePKP	PKPdf	08 27 30.9	-1.6
PSZ	Piszkesteto	144.82	328	ePKPdf	PKPdf	08 27 31.1	-1.8
PSZ	Piszkesteto	144.82	328	⇓PKHKP		08 27 27.7	
VYHS	Vyhne	144.94	330	ePKP	PKPdf	08 27 31.8	-1.2
VYHS	Vyhne	144.94	330	ePKIKP	PKPdf	08 27 31.8	-1.2
KOLL	Kolacno	145.08	330	ePKP	PKPdf	08 27 32.7	-0.6
KOLL	Kolacno	145.08	330	ePKIKP	PKPdf	08 27 32.7	-0.6
CLL	Collm	145.19	338	i PKP	PKPdf	08 27 32.0	-1.4
CLL				i pPKP	pPKPdf	08 27 37.2	-6.6
CLL				LR	LR		
	comp=Z,500nm,23.6s,MS5.2						
CLL	Collm	145.19	338	i PKIKP	PKPdf	08 27 32.0	-1.4
CLL				i		08 27 37.2	
CLL				pmax	pmax		
	comp=Z,42nm,1.0s						
CLL				MLR	MLR		
	comp=Z,500nm,23.6s,MS5.2						
CLL	Collm	145.19	338	ePKP	PKPdf	08 27 31.6	-1.8
BRG	Berggiesshubel	145.20	337	ePKP	PKPdf	08 27 32.2	-1.2
BRG				i		08 27 36.8	
BRG	Berggiesshubel	145.20	337	ePKIKP	PKPdf	08 27 32.2	-1.2
BRG				i		08 27 36.8	
BRG				pmax	pmax		
	comp=Z,16nm,1.0s						
BRG				pmax	pmax		
	comp=Z,25nm,1.1s						
BRG	Berggiesshubel	145.20	337	ePKP	PKPdf	08 27 31.8	-1.6
PVCC	Panska Ves	145.24	336	ePKP	PKPdf	08 27 32.4	-1.1
PVCC	Panska Ves	145.24	336	ePKIKP	PKPdf	08 27 32.4	-1.1
PVCC	Panska Ves	145.24	336	ePKP	PKPdf	08 27 32.4	-1.1
VRAC	Vranov	145.36	333	⇑P	PKPbc	08 27 33.3	-0.3
VRAC	Vranov	145.36	333	⇑PKIKP	PKPdf	08 27 33.3	-0.4
BZS	Buzias	145.40	324	⇑P	PKPbc	08 27 33.7	-0.2
BZS	Buzias	145.40	324	⇑PKIKP	PKPdf	08 27 33.7	-0.2
CLZ	Clausthal	145.60	341	ePKP	PKPdf	08 27 33.1	-1.0
CLZ	Clausthal	145.60	341	ePKIKP	PKPdf	08 27 33.1	-1.0
CLZ	Clausthal	145.60	341	ePKP	PKPdf	08 27 33.1	-1.0
PRA	Prague	145.66	335	PKP	PKPdf	08 27 33.0	-1.2
PRU	Pruhonice	145.68	335	ePKP	PKPdf	08 27 34.1	-0.2
PRU				e		08 27 43.3	
PRU	Pruhonice	145.68	335	ePKP2	PKPab	08 27 34.1	-0.8
PRU	Pruhonice	145.68	335	ePKP	PKPdf	08 27 34.1	-0.2
PRU				epPKP	pPKPdf	08 27 43.3	-1.4
TREC	Trest	145.84	334	ePKP2	PKPab	08 27 34.4	-1.2
TREC	Trest	145.84	334	ePKP	PKPdf	08 27 34.4	-0.2
TREC				epPKP	pPKPdf	08 27 43.3	-1.7
IBBN	Ibbenburen	145.93	344	ePKP	PKPdf	08 27 34.0	-0.6
ZST	Bratislava	145.96	331	ePKP	PKPdf	08 27 35.6	+0.8
ZST	Bratislava	145.96	331	ePKP2	PKPab	08 27 35.6	-0.4
TANN	Tannenbergstha	146.12	338	ePKP	PKPdf	08 27 34.9	-0.1
MOX	Moxa	146.22	339	ePKP	PKPdf	08 27 36.3	+1.1
MOX	Moxa	146.22	339	ePKP2	PKPab	08 27 36.3	-0.7
MOX	Moxa	146.22	339	ePKP	PKPdf	08 27 35.2	0.0
NKC	Novy Kostel	146.28	337	ePKP	PKPdf	08 27 36.1	+0.8
NKC	Novy Kostel	146.28	337	ePKP2	PKPab	08 27 36.1	-1.1
NKC	Novy Kostel	146.28	337	ePKP	PKPdf	08 27 36.1	+0.8
CONA	Conrad Observa	146.72	332	⇑iPKPdf	PKPdf	08 27 32.7	-3.4
	comp=Z,13nm,1.1s						
KHC	Kasperske Hory	146.75	335	ePKP	PKPdf	08 27 37.2	+1.1
KHC				e		08 27 46.0	
KHC	Kasperske Hory	146.75	335	⇑iPKP2	PKPab	08 27 37.9	-1.1
KHC	Kasperske Hory	146.75	335	ePKP	PKPdf	08 27 37.2	+1.1
KHC				epPKP	pPKPdf	08 27 46.0	-0.5
GEC2	GERESS Array S	146.92	335	ePKPbc	PKPbc	08 27 37.7	-0.7
GEC2	GERESS Array S	146.92	335	ePKP2	PKPab	08 27 37.7	-2.0
GERES	GERESS Array B	146.92	335	PKPbc	PKPbc	08 27 37.7	-0.6
	comp=Z,7.8nm,1.0s,baz=60,slow=3.2,SNR=16						
GRA1	Grafenberg Arr	147.16	338	ePKP	PKPdf	08 27 38.0	+1.2
GRF	Grafenberg Arr	147.16	338	ePKP	PKPdf	08 27 38.0	+1.2
GRF	Grafenberg Arr	147.16	338	ePKP2	PKPdf	08 27 38.0	+1.2
GRF	Grafenberg Arr	147.16	338	ePKP2	PKPdf	08 27 38.0	+1.2
GRF	Grafenberg Arr	147.16	338	ePKP	PKPdf	08 27 38.0	+1.2
PERS	Pernice	148.02	331	ePKPdf	PKPbc	08 27 43.2	+1.7
KBA	Koelnbreinsper	148.47	333	⇑iPKPbc	PKPdf	08 27 40.1	+1.0
	comp=Z,9.1nm,1.3s						
KBA	Koelnbreinsper	148.47	333	⇑iPKIKP	PKPdf	08 27 40.1	+1.1
WLF	Walferdange	148.76	343	ePKPbc	PKPbc	08 27 42.7	-0.5
WLF	Walferdange	148.76	343	ePKP2	PKPbc	08 27 42.7	-0.6
BOJS	Bojanci	148.79	329	ePKPdf	PKPbc	08 27 43.0	-0.5
BFO	Black Forest	149.31	340	ePKPbc	PKPbc	08 27 43.5	-1.2
BFO				ePKPab	PKPab	08 27 48.7	-0.6
BFO	Black Forest	149.31	340	ePKP2	PKPbc	08 27 43.5	-1.2
CDF	Champ du Feu	149.57	341	ePKPdf	PKPbc	08 27 42.9	-2.4
CDF	Champ du Feu	149.57	341	ePKHKP	PKPbc	08 27 42.9	-2.4
MEZF	Maizieres J'vi	150.12	344	ePKPdf	PKPbc	08 27 45.5	-1.1
HAU	Haudompre	150.21	342	ePKPdf	PKPbc	08 27 45.6	-1.3
HAU	Haudompre	150.21	342	ePKIKP	PKPbc	08 27 45.6	-1.3
HINF	Hinteralfeld	150.23	341	ePKPdf	PKPbc	08 27 45.8	-1.1
HINF	Hinteralfeld	150.23	341	ePKIKP	PKPbc	08 27 45.8	-1.1
CABF	La Chapelle	151.54	341	ePKPdf	PKPbc	08 27 47.8	-2.3
CABF	La Chapelle	151.54	341	ePKIKP	PKPbc	08 27 47.8	-2.3
LOR	Lormes	151.56	344	ePKPdf	PKPbc	08 27 48.2	-1.9
LOR	Lormes	151.56	344	ePKIKP	PKPbc	08 27 48.2	-1.9
AVF	Avril sur Loir	152.13	345	ePKPdf	PKPbc	08 27 48.5	-2.9
AVF	Avril sur Loir	152.13	345	ePKIKP	PKPbc	08 27 48.5	-2.9
SMF	Signal de Mont	152.15	344	ePKPdf	PKPbc	08 27 48.8	-2.6
SMF	Signal de Mont	152.15	344	ePKIKP	PKPbc	08 27 48.8	-2.6
LPG	La Plagne	152.31	339	ePKPdf	PKPbc	08 27 49.2	-2.7
LPG	La Plagne	152.31	339	ePKIKP	PKPbc	08 27 49.2	-2.7
BNI	Bardonecchia	152.73	339	ePKPab	PKPbc	08 28 06.4	+14
BNI	Bardonecchia	152.73	339	ePKP2	PKPbc	08 28 06.4	+14
TCF	Toulx Ste Croi	152.88	346	ePKPdf	PKPbc	08 27 50.2	-2.9
TCF	Toulx Ste Croi	152.88	346	ePKIKP	PKPbc	08 27 50.2	-2.9
MBDF	Montbardon	152.98	338	ePKPdf	PKPbc	08 27 50.1	-3.3
MBDF	Montbardon	152.98	338	ePKIKP	PKPbc	08 27 50.1	-3.3
FRF	La Foret Royal	154.04	337	ePKPdf	PKPbc	08 27 51.6	-4.1
FRF	La Foret Royal	154.04	337	ePKIKP	PKPbc	08 27 51.6	-4.1
ESDC	Sonseca Array	160.38	353	PKPab	PKPab	08 28 35.7	-0.8
	comp=Z,0.5nm,0.4s,baz=4.3,slow=3.1,SNR=5.4						
TORD	Torodi Ar. Bea	169.17	231	PKP	PKPdf	08 28 02.8	-1.4
TORD				PKPab	PKPab	08 29 15.2	-0.8
TORD	Torodi Ar. Bea	169.17	231	PKP	PKPdf	08 28 02.8	-1.4
	comp=Z,2.5nm,1.1s,baz=150,slow=0.3,SNR=10						
TORD				PKPab	PKPab	08 29 15.2	-0.8
	comp=Z,0.6nm,0.7s,baz=137,slow=2.3,SNR=3.9						

IDC 24 08:15:45.8±1.2, 1.15S×127.43E, h0^{km}, mb3.8/5, mb1 3.9/6, mb1mx3.8/16, mbtmp3.8/6, Error ellipse: s-maj=202.3km s-min=18.8km az=69.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	19.86	161	P	Pn	08 20 18.4	-1.8
	0.4nm,0.3s,baz=339,slow=11,SNR=5.8						
ASAR	Alice Springs	23.24	165	P	P	08 20 54.7	-0.3
	1.3nm,0.8s,baz=345,slow=11,SNR=12						
STKA	Stephens Creek	33.36	158	P	P	08 22 26.4	+0.6
	0.7nm,0.3s,baz=315,slow=5.7,SNR=3.0						
SONM	Songino Array	52.12	342	P	P	08 24 57.8	0.0
	0.6nm,0.6s,baz=148,slow=6.7,SNR=3.7						
SONM				PcP	PcP	08 26 09.8	+0.1
	0.4nm,0.7s,baz=153,slow=4.1,SNR=2.3						
MKAR	Makanchi Array	61.96	327	P	P	08 26 07.9	+0.4
	0.8nm,0.4s,baz=119,slow=7.8,SNR=17						
ZALV	Zalesovo Beam	65.24	334	P	P	08 26 28.7	-0.3
	0.6nm,0.5s,baz=106,slow=5.2,SNR=3.0						
KURK	Kurchatov	66.22	328	eP	P	08 26 35.4	-0.1
	13nm,0.8s						

BJI ***24*** *08:15:53.6, 0.90S×128.10E, h17^{km}, mB5.0, mb5.0*

IDC ***24*** *08:15:53.1±1.0, 0.98S×127.74E, h0^{km}, mb4.3/5, mb1 4.5/7, mb1mx4.2/17, mbtmp4.3/7, ML4.1/2, Error ellipse: s-maj=113.7km s-min=16.6km az=71.0*

ISCJB ***24*** *08:15:55.6±0.6, 0.9S±0.1×128.2E±0.3, h33^{km}, mb4.5/11, Error ellipse: s-maj=45.1km s-min=8.0km az=160.5*

NEIC ***24*** *08:15:55.7±0.6, 0.94S×128.05E, mb4.7/5, Error ellipse: s-maj=38.2km s-min=7.1km az=70.0*

ISC 24 08:15:57.7±0.7, 1.0S±0.1×128.2E±0.3, h35^{km}, (h10^{km}±8.9^{km}:pP-P), n20, $\sigma 0^{s}84$/20, mb4.5/11, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	12.40	160	ePn	Pn	08 18 51.9	+0.1
	27nm,0.8s						
FITZ	Fitzroy Crossi	17.21	188	P	Pn	08 19 56.1	+0.6
	0.2nm,0.3s,baz=23,slow=7.5,SNR=5.5						
WRA	Warramunga Arr	19.79	163	P	Pn	08 20 26.0	-0.8
	1.1nm,0.3s,baz=344,slow=12,SNR=31						
WB2	Warramunga Arr	19.79	163	eP	Pn	08 20 25.5	-1.4
ASAR	Alice Springs	23.23	167	P	P	08 21 02.3	+0.3
	6.8nm,0.7s,mb4.2,baz=346,slow=10,SNR=38						
STKA	Stephens Creek	33.24	159	P	P	08 22 34.4	+2.7
	6.9nm,0.9s,mb4.6,baz=328,slow=10.0,SNR=5.7						
XAN	Xi'an	39.26	334	P	P	08 23 22.8	-0.2
XAN				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.7						
LZH	Lanzhou	43.29	331	eP	P	08 23 56.5	+0.4
LZH				AP	pP	08 24 03.3	-3.1
LZH				XP	sP	08 24 05.5	-5.1
LZH				AMB	AMB		
	comp=Z,23nm,1.0s,mb4.9						
LZH				AMB	AMB		
	comp=Z,90nm,4.0s						
LZH	Lanzhou	43.29	331	eP	P	08 23 56.5	+0.4
	comp=Z,23nm,1.0s,mb4.9						
LZH				pP	pP	08 24 03.2	-3.2
LZH				sP	sP	08 24 05.5	-5.1
LSA	Lhasa	46.69	314	eP	P	08 24 23.4	+0.1
LSA	Lhasa	46.69	314	eP	P	08 24 23.1	-0.2
	comp=Z,5.1nm,0.6s,mb4.6						
GTA	Gaotai	47.87	330	eP	P	08 24 32.8	+0.5
GTA				AP	pP	08 24 36.4	-6.4
GTA				XP	sP	08 24 37.8	-9.1
GTA				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.8						
ULN	Ulaanbaatar	52.01	342	eP	P	08 25 04.5	+0.9
	comp=Z,2.3nm,0.7s,mb4.2						
SONM	Songino Array	52.19	342	P	P	08 25 05.5	+0.5
SONM				PcP	PcP	08 26 17.2	+0.9
SONM	Songino Array	52.19	342	P	P	08 25 05.5	+0.5
	comp=Z,2.2nm,0.8s,mb4.1,baz=150,slow=8.7,SNR=10						
SONM				PcP	PcP	08 26 17.2	+0.9
	comp=Z,1.1nm,0.8s,baz=161,slow=2.4,SNR=4.9						
WMQ	Urumqi	57.41	326	eP	P	08 25 42.5	-0.3
MKAR	Makanchi Array	62.24	326	P	P	08 26 15.1	-0.9
MKAR				PcP	PcP	08 26 54.9	-0.8
MKAR	Makanchi Array	62.24	326	P	P	08 26 15.1	-0.9
	comp=Z,3.9nm,0.6s,mb4.7,baz=123,slow=8.0,SNR=29						
MKAR				PcP	PcP	08 26 54.9	-0.8
	comp=Z,2.4nm,0.8s,baz=132,slow=5.1,SNR=4.1						
UCH	Uchtor	64.63	319	eP	P	08 26 31.9	0.0
	comp=Z,3.7nm,0.8s,mb4.5						
UCH				epP	pP	08 26 35.9	-6.8
ZALV	Zalesovo Beam	65.42	333	P	P	08 26 35.6	-1.2
	comp=Z,1.3nm,0.4s,mb4.3,baz=104,slow=6.3,SNR=7.6						

ISCJB ***24*** *08:17:20.7±1.9, 20.17S±0.09×173.01E±0.07, h42^{km}±18^{km}, mb4.5/20, MS4.7/10, Error ellipse: s-maj=15.9km s-min=10.8km az=172.8*

MOS ***24*** *08:17:22.4±3.1, 20.28S×172.91E, h33^{km}, mb5.1/3, Error ellipse: s-maj=17.6km s-min=13.4km az=10.3*

BJI ***24*** *08:17:23.0, 19.54S×172.76E, h29^{km}, mB5.5, mb4.5*

IDC ***24*** *08:17:23.2±3.3, 20.14S×173.01E, h54^{km}±30^{km}, mb4.2/14, mb1 4.4/17, mb1mx4.3/22, mbtmp4.3/17, ML3.6/2, MS4.8/13, Ms1 4.8/13, ms1mx4.5/24, Error ellipse: s-maj=25.0km s-min=15.1km az=167.0*

NEIC ***24*** *08:17:23.3±1.3, 20.13S×173.03E, h57^{km}±12^{km}, mb5.0/7, Error ellipse: s-maj=12.1km s-min=7.7km az=166.0*

GCMT ***24*** *08:17:23.3±0.2, 20.05S×173.06E, h15^{km}±1^{km}, MW5.3/85, Moment Tensor Solution. s40,c49; s85,c151; Duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.07±.03; $M_{\theta\theta}$-0.87±.03; $M_{\phi\phi}$0.94±.03; $M_{r\theta}$-0.07±.09; $M_{\theta\phi}$-0.71±.03; $M_{\phi r}$0.15±.09; Best double couple: $M_0$1.16600×10^{17} NP1:ϕ_s26.00000°,δ84.00000°,λ4.00000°. NP2: ϕ_s296.00000°,δ86.00000°,λ174.00000°. Principal axes: T 1.2110, Plg7.0000°, Azm251.0000°; N -0.0910, Plg83.0000°, Azm81.0000°; P -1.1200, Plg1.0000°, Azm341.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SZGRF ***24*** *08:17:24.7, 20.53S×169.20E, h33^{km}, Vanuatu Islands*

ISC 24 08:17:23.1±1.5, 20.16S±0.10×173.03E±0.07, h50^{km}±15^{km}, n89, $\sigma 0^{s}78$/31, mb4.5/20, MS4.7/10, 1C-1D, Vanuatu Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	6.43	252	P	Pn	08 18 55.6	+0.4
	1.8nm,0.3s,baz=84,slow=16,SNR=15						
RAO	Raoul Island	12.23	140	P	Pn	08 20 14.5	0.0
	186nm,0.3s,baz=30,slow=22,SNR=4.3						
RAO				LR	LR	08 23 54.4	
	comp=Z,4µm,18.4s,baz=212,slow=32						
AFI	Afiamalu	15.80	69	P	Pn	08 21 01.8	-0.5
	0.7nm,0.3s,baz=283,slow=21,SNR=3.9						
AFI				LR	LR	08 25 40.5	
	comp=Z,4µm,21.7s,baz=245,slow=32						
HNR	Honiara	16.53	308	LR	LR	08 26 27.6	
	comp=Z,1µm,19.9s,baz=178,slow=33						
URZ	Urewera	18.38	170	P	Pn	08 21 34.9	+0.7
	0.1nm,0.3s,baz=353,slow=9.2,SNR=6.3						
RPZ	Rata Peaks	23.55	184	P	P	08 22 29.5	+0.6
	6.7nm,0.9s,mb4.1,baz=21,slow=16,SNR=3.3						
RPZ				LR	LR	08 30 20.8	
	comp=Z,3µm,20.6s,MS4.7,baz=358,slow=33						
CTA	Charters Tower	25.13	266	eP	P	08 22 43.5	-0.1
CTA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
CTA	Charters Tower	25.13	266	P	P	08 22 43.6	0.0
	comp=Z,10nm,0.7s,mb4.4,baz=91,slow=11,SNR=10.0						
CTA				LR	LR	08 31 38.8	
	comp=Z,2µm,20.3s,MS4.7,baz=87,slow=34						
RAR	Rarotonga	25.46	97	LR	LR	08 30 30.6	
	comp=Z,992nm,20.0s,MS4.3,baz=244,slow=31						
PMG	Port Moresby	27.16	289	LR	LR	08 31 00.8	
	comp=Z,1µm,19.5s,MS4.5,baz=89,slow=30						
STKA	Stephens Creek	30.45	241	P	P	08 23 30.8	-0.3
	comp=Z,6.9nm,0.9s,mb4.4,baz=39,slow=3.7,SNR=5.6						
STKA				LR	LR	08 34 48.1	
	comp=Z,3µm,18.4s,MS5.0,baz=67,slow=34						
PPT	Papeete	35.43	92	eLQ		08 31 47.3	
	comp=Z,2µm,30.2s						
PPT				eLR	LR	08 33 48.6	
	comp=Z,3µm,26.8s,baz=257						
PPT	Papeete	35.43	92	LR	LR	08 35 09.6	
	comp=Z,770nm,21.0s,MS4.4,baz=262,slow=30						
WRA	Warramunga Arr	36.29	264	P	P	08 24 20.4	-1.6
	comp=Z,6.2nm,0.9s,mb4.5,baz=93,slow=8.6,SNR=9.8						
WRA				LR	LR	08 38 13.3	
	comp=Z,2µm,21.1s,MS4.8,baz=110,slow=34						
ASAR	Alice Springs	36.39	257	P	P	08 24 21.9	-0.9
	comp=Z,11nm,1.0s,mb4.8,baz=91,slow=9.1,SNR=42						
FITZ	Fitzroy Crossi	44.70	264	P	P	08 25 31.4	-0.1
	comp=Z,8.9nm,0.8s,mb4.6,baz=331,slow=19,SNR=14						
FITZ				LR	LR	08 43 37.6	
	comp=Z,1µm,19.3s,MS4.9,baz=270,slow=35						
TAOE	Nuku Hiva Isla	46.55	83	eLR	LR	08 38 53.6	
	comp=Z,4µm,26.2s,baz=254						
RKT	Rikitea	48.22	103	eLR	LR	08 39 40.7	
	comp=Z,1µm,30.2s						
MBWA	Marble Bar	49.68	259	eP	P	08 26 10.2	-0.1
	comp=Z,23nm,1.0s,mb5.2						
NWAO	Narrogin (SRO)	50.98	244	P	P	08 26 19.3	-0.7
	comp=Z,16nm,0.7s,mb5.0,baz=110,slow=5.6,SNR=6.5						
VNDA	Vanda	57.66	183	LR	LR	08 47 18.5	
	comp=Z,993nm,20.2s,MS4.9,baz=18,slow=31						
MJAR	Matsushiro Arr	65.29	330	P	P	08 27 59.9	+0.1
	comp=Z,5.9nm,1.1s,mb4.5,baz=160,slow=7.7,SNR=7.4						
QSPA	South Pole Qui	69.90	180	eP	P	08 28 28.1	-0.2
	comp=Z,15nm,1.1s,mb4.8						
YSS	Yuzh-Sakhalins	72.17	339	⇑iP	P	08 28 45.9	+3.5
XAN	Xi'an	81.39	311	P	P	08 29 35.1	+0.4
XAN				AMB	AMB		
	comp=Z,4.0nm,1.1s,mb4.3						
CHTO	Chiang Mai	82.29	293	eP	P	08 29 40.3	+0.5
	comp=Z,11nm,1.0s,mb4.7						
CHTO	Chiang Mai	82.29	293	eP	P	08 29 40.3	+0.5
CHTO				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
LZH	Lanzhou	86.01	311	eP	P	08 30 02.1	+3.8
LZH				AP	pP	08 30 09.3	-3.5
LZH				XP	sP	08 30 12.9	-5.4
LZH				AMB	AMB		
	comp=Z,16nm,1.0s,mb5.2						
LZH	Lanzhou	86.01	311	eP	P	08 30 02.1	+3.8
	comp=Z,16nm,1.0s,mb5.2						
LZH				pP	pP	08 30 09.2	-3.6
LZH				sP	sP	08 30 12.9	-5.4
NVAR	Mina Array Bea	86.77	47	P	P	08 30 01.2	-0.8
	comp=Z,2.2nm,1.1s,mb4.3,baz=211,slow=6.1,SNR=7.6						
CIT	Chita	88.54	328	eP	P	08 30 10.4	+0.3
SONM	Songino Array	90.12	322	P	P	08 30 18.3	+0.7
	comp=Z,0.6nm,0.8s,mb4.0,baz=106,slow=3.9,SNR=4.5						
GTA	Gaotai	90.37	312	eP	P	08 30 20.8	+1.8
GTA				AP	pP	08 30 27.1	-6.5
GTA				XP	sP	08 30 29.8	-9.3
GTA				AMB	AMB		
	comp=Z,4.0nm,0.9s,mb4.8						
ANMO	Albuquerque	93.91	54	P	P	08 30 35.7	+0.2
ANMO	Albuquerque	93.91	54	P	P	08 30 35.7	+0.2
	comp=Z,1.3nm,0.9s,mb4.3,baz=270,slow=8.1,SNR=2.7						
TXAR	Lajitas Array	94.09	60	P	P	08 30 36.9	+0.4
TXAR	Lajitas Array	94.09	60	P	P	08 30 36.9	+0.4
	comp=Z,0.8nm,0.6s,mb4.3,baz=216,slow=5.8,SNR=10						
PDAR	Pinedale Array	94.65	46	P	P	08 30 37.9	-0.8
	comp=Z,0.3nm,0.6s,mb3.9,baz=197,slow=4.6,SNR=3.7						
PDAR				LR	LR	09 05 11.2	
	comp=Z,314nm,20.4s,MS4.8,baz=262,slow=30						
INK	Inuvik	96.32	17	P	P	08 30 44.8	-0.9
	comp=Z,2.2nm,0.6s,mb4.8,baz=175,slow=11,SNR=12						
MAK	Makhachkala	129.30	309	eP	Pdif	08 33 10.1	-2.9
CLL	Collm	145.18	338	⇓iPKP2	PKPab	08 36 54.3	-0.3
CLL				pmax	pmax		
	comp=Z,13nm,0.8s						
CLL	Collm	145.18	338	ePKPab	PKPab	08 36 54.7	+0.1
BRG	Berggiesshubel	145.19	337	ePKP	PKPdf	08 36 54.1	-0.8
BRG				e		08 37 02.2	
BRG	Berggiesshubel	145.19	337	ePKPab	PKPab	08 36 53.4	-1.3
CLZ	Clausthal	145.59	341	ePKIKP	PKPdf	08 36 56.1	+0.5
CLZ	Clausthal	145.59	341	ePKPab	PKPab	08 36 56.1	-0.1
CLZ	Clausthal	145.59	341	ePKPab	PKPab	08 36 56.1	-0.1
IBBN	Ibbenburen	145.93	344	ePKPab	PKPab	08 36 58.7	+1.3
TANN	Tannenbergstha	146.11	338	ePKPab	PKPab	08 36 58.6	+0.4
MOX	Moxa	146.22	339	ePKP	PKPab	08 37 00.2	+1.6
MOX	Moxa	146.22	339	ePKP2	PKPab	08 37 00.2	+1.6
MOX	Moxa	146.22	339	ePKPab	PKPab	08 36 59.5	+0.9
ROTZ	Rotzenmuhle	146.74	337	ePKPab	PKPab	08 37 01.5	+0.9
GEC2	GERESS Array S	146.92	335	ePKPab	PKPbc	08 36 59.4	-0.5
GEC2	GERESS Array S	146.92	335	ePKIKP	PKPbc	08 36 59.4	-0.5
GEC2	GERESS Array S	146.92	335	ePKPab	PKPab	08 36 59.4	-1.9
GERES	GERESS Array B	146.92	335	PKPbc	PKPbc	08 36 58.8	-1.1
GERES	GERESS Array B	146.92	335	PKIKP	PKPbc	08 36 58.8	-1.1
GERES	GERESS Array B	146.92	335	PKPbc	PKPbc	08 36 58.8	-1.1
	comp=Z,1.5nm,0.8s,baz=349,slow=1.4,SNR=10						
GRA1	Grafenberg Arr	147.16	338	ePKPab	PKPab	08 37 01.3	-0.9
GRF	Grafenberg Arr	147.16	338	ePKP	PKPbc	08 37 01.3	+0.8
GRF	Grafenberg Arr	147.16	338	ePKIKP	PKPbc	08 37 01.3	+0.8
GRF	Grafenberg Arr	147.16	338	ePKIKP	PKPbc	08 37 01.3	+0.8
GRF	Grafenberg Arr	147.16	338	ePKPab	PKPab	08 37 01.3	-0.9
TNS	Taunus Mts	147.60	341	ePKPab	PKPbc	08 37 05.1	+3.4
TNS	Taunus Mts	147.60	341	ePKP2	PKPbc	08 37 05.1	+3.4
TNS	Taunus Mts	147.60	341	ePKPab	PKPab	08 37 05.1	+1.1
CDF	Champ du Feu	149.56	341	ePKPdf	PKPbc	08 37 05.9	-1.0
CDF	Champ du Feu	149.56	341	ePKHKP	PKPbc	08 37 05.9	-1.0
HAU	Haudompre	150.20	342	ePKPdf	PKPbc	08 37 08.5	+0.1
HAU	Haudompre	150.20	342	ePKIKP	PKPbc	08 37 08.5	+0.1
HINF	Hinteralfeld	150.22	341	ePKPdf	PKPbc	08 37 08.4	-0.1
HINF	Hinteralfeld	150.22	341	ePKIKP	PKPbc	08 37 08.4	-0.1
LOR	Lormes	151.56	344	ePKPdf	PKPbc	08 37 11.5	-0.1
LOR	Lormes	151.56	344	ePKIKP	PKPbc	08 37 11.5	-0.1
SSF	Saint Saulge	151.84	345	ePKPdf	PKPbc	08 37 12.5	+0.2
SSF	Saint Saulge	151.84	345	ePKIKP	PKPbc	08 37 12.5	+0.2
AVF	Avril sur Loir	152.13	345	ePKPdf	PKPbc	08 37 11.3	-1.7
AVF	Avril sur Loir	152.13	345	ePKIKP	PKPbc	08 37 11.3	-1.7
SMF	Signal de Mont	152.14	344	ePKPdf	PKPbc	08 37 11.5	-1.5
SMF	Signal de Mont	152.14	344	ePKIKP	PKPbc	08 37 11.5	-1.5
LPG	La Plagne	152.31	339	ePKPdf	PKPbc	08 37 13.2	-0.2
LPG	La Plagne	152.31	339	ePKIKP	PKPbc	08 37 13.2	-0.2
MBDF	Montbardon	152.97	338	ePKPdf	PKPbc	08 37 13.2	-1.7
MBDF	Montbardon	152.97	338	ePKIKP	PKPbc	08 37 13.2	-1.7
ORIF	Oris-en-Rattie	153.11	340	ePKPdf	PKPbc	08 37 16.1	+0.9
ORIF	Oris-en-Rattie	153.11	340	ePKIKP	PKPbc	08 37 16.1	+0.9
TORD	Torodi Ar. Bea	169.16	231	PKP	PKPdf	08 37 22.7	-2.9
TORD				PKPab	PKPab	08 38 38.0	+0.4
TORD	Torodi Ar. Bea	169.16	231	PKP	PKPdf	08 37 22.7	-2.9
	comp=Z,0.7nm,0.9s,baz=18,slow=0.5,SNR=2.9						
TORD				PKPab	PKPab	08 38 38.0	+0.4
	comp=Z,0.9nm,0.8s,baz=108,slow=3.8,SNR=3.9						

IDC ***24*** *08:19:03.2±1.1, 1.30S×127.24E, h0^{km}, mb4.1/5, mb1 4.1/7, mb1mx3.9/17, mbtmp4.0/7, ML3.7/2, Error ellipse: s-maj=122.7km s-min=13.7km az=71.0*

ISCJB ***24*** *08:19:04.4±0.8, 1.2S±0.1×127.5E±0.4, h18^{km}, mb4.3/11, Error ellipse: s-maj=53.3km s-min=9.6km az=161.7*

BJI ***24*** *08:19:06.4, 1.20S×127.40E, h18^{km}, mb4.7*

NEIC ***24*** *08:19:06.5±0.6, 1.23S×127.41E, mb4.5/4, Error ellipse: s-maj=44.0km s-min=7.8km az=70.0*

ISC 24 08:19:04.6±4.3, 1.2S±0.1×127.5E±0.4, h7^{km}±26^{km}, h18^{km}±1.1^{km}:pP-P, n18, $\sigma 0^{s}93$/20, mb4.3/11, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	16.89	186	Pn	Pn	08 23 01.4	-0.2
FITZ	Fitzroy Crossi	16.89	186	Pn	Pn	08 23 01.4	-0.2
	0.1nm,0.3s,baz=148,slow=15,SNR=1.8						
WRA	Warramunga Arr	19.77	161	P	Pn	08 23 35.8	-1.2
	0.5nm,0.3s,baz=343,slow=12,SNR=7.0						
ASAR	Alice Springs	23.16	165	P	P	08 24 12.5	+0.6
ASAR				S	S	08 28 23.7	-0.2
ASAR	Alice Springs	23.16	165	P	P	08 24 12.5	+0.6
	2.1nm,0.5s,mb3.9,baz=344,slow=12,SNR=12						
ASAR				S	S	08 28 23.7	-0.2
	0.9nm,0.9s,baz=343,slow=22,SNR=5.2						
STKA	Stephens Creek	33.26	158	P	P	08 25 44.1	+1.3
	3.8nm,0.9s,mb4.3,baz=331,slow=10,SNR=3.1						
XAN	Xi'an	39.19	335	P	P	08 26 33.0	-0.4
XAN				AMB	AMB		
	comp=Z,8.0nm,0.7s,mb4.6						
LZH	Lanzhou	43.17	332	eP	P	08 27 07.5	+1.3
LZH				AP	pP	08 27 12.6	+4.3
LZH				XP	sP	08 27 15.0	+5.9
LZH				AMB	AMB		
	comp=Z,15nm,1.3s,mb4.6						
LZH	Lanzhou	43.17	332	eP	P	08 27 07.5	+1.3
	comp=Z,15nm,1.3s,mb4.6						
LZH				pP	pP	08 27 12.6	+4.3
LZH				sP	sP	08 27 15.0	+5.9
GTA	Gaotai	47.75	331	eP	P	08 27 43.8	+1.3
GTA				AP	pP	08 27 48.3	+3.8
GTA				XP	sP	08 27 50.8	+5.5
GTA				AMB	AMB		
	comp=Z,5.0nm,0.8s,mb4.6						
SONM	Songino Array	52.21	342	P	P	08 28 16.2	0.0
	comp=Z,1.3nm,0.7s,mb4.0,baz=151,slow=8.1,SNR=9.2						
MK31	Makanchi Array	62.07	326	eP	P	08 29 25.8	-0.3
MKAR	Makanchi Array	62.07	326	P	P	08 29 25.7	-0.4
MKAR	Makanchi Array	62.07	326	P	P	08 29 25.7	-0.4
	comp=Z,2.9nm,0.6s,mb4.6,baz=120,slow=8.7,SNR=20						
UCH	Uchtor	64.37	319	eP	P	08 29 41.9	+0.5
	comp=Z,3.1nm,0.9s,mb4.3						
UCH				epP	pP	08 29 47.8	+4.3
EKS2	Erkin-Say	65.05	319	eP	P	08 29 46.2	+0.3
	comp=Z,2.4nm,0.9s,mb4.2						
ZALV	Zalesovo Beam	65.34	334	P	P	08 29 45.3	-2.2
	comp=Z,0.8nm,0.5s,mb4.0,baz=120,slow=5.2,SNR=4.1						
KURK	Kurchatov	66.33	328	eP	P	08 29 53.0	-0.9
	comp=Z,7.7nm,0.8s,mb4.8						

IDC 24 08:33:21.7±1.2, 0.95S×127.76E, h0^{km}, mb3.8/4, mb1 3.9/6, mb1mx3.7/17, mbtmp3.7/6, ML3.7/2, Error ellipse: s-maj=96.5km s-min=19.0km az=71.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	17.17	187	P	Pn	08 37 22.9	-0.3
	0.1nm,0.3s,baz=37,slow=5.1,SNR=3.5						
WRA	Warramunga Arr	19.94	162	P	Pn	08 37 55.5	-1.5
	0.4nm,0.3s,baz=341,slow=12,SNR=7.1						
ASAR	Alice Springs	23.35	166	P	P	08 38 31.9	-0.1
	1.6nm,0.7s,baz=344,slow=11,SNR=18						
STKA	Stephens Creek	33.42	158	P	P	08 40 02.4	+0.1
	2.1nm,0.8s,baz=329,slow=8.9,SNR=4.1						
SONM	Songino Array	52.03	342	P	P	08 42 33.2	+0.2
	0.6nm,0.6s,baz=153,slow=7.6,SNR=6.2						
MKAR	Makanchi Array	61.98	326	P	P	08 43 43.6	0.0
	0.5nm,0.4s,baz=122,slow=7.8,SNR=7.5						

NEIC ***24*** *08:44:57.1, 37.66N×16.12W, h0^{km}, MG4.4(MDD), After MDD.*

IGIL ***24*** *08:44:57.8, 37.66N×16.12W, h2^{km}, ML3.6*

CSEM ***24*** *08:44:59.7±0.3, 37.73N×15.77W, h2^{km}, ML4.1/13, Error ellipse: s-maj=5.5km s-min=3.7km az=48.0*

*INMG **24** 08:44:59.9±2.1, 3740N×1636W, h10^{km}, Mb4.2, ML3.4, Error ellipse: s-maj=8.9km s-min=4.6km az=123.0*

MDD 24 08:44:55.4±1.2**, 3745N×1616W, h0^{km}, mb4.4**/20**, Error ellipse: s-maj=15.2km s-min=10.1km az=136.0, PRXIMO, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMPS	**Porto Santo**	**4.38**	**182**	*e*Pn	Pn	08 46 01.4	-1.8
PMPS				*e*Sn	Sx	08 46 44.9	
PMPS				A		08 46 46.9	
	57nm,0.2s						
PMPS	**Porto Santo**	**4.38**	**182**	Pn	Pn	08 46 01.4	-1.8
PMAR	**Madeira**	**4.75**	**188**	*e*Pn	Pn	08 46 05.3	-3.0
PMAR				*e*Sn	Sx	08 46 53.0	
PMAR				A		08 46 57.9	
	94nm,0.2s						
PMAR	**Madeira**	**4.75**	**188**	Pn	Pn	08 46 05.3	-3.0
PMAR	**Madeira**	**4.75**	**188**	Sn	Sx	08 46 52.9	
PMAFR	**Mafra**	**5.62**	**72**	*e*Pn	Pn	08 46 20.4	+0.2
PMAFR				*e*Sn	Sn	08 47 20.6	-4.9
PMAFR				A		08 47 23.1	
	78nm,0.2s						
PMAFR	**Mafra**	**5.62**	**72**	Pn	Pn	08 46 20.4	+0.2
PMAFR				Sn	Sn	08 47 20.6	-4.9
	39nm,0.2s						
PFVI	**Vila Bisbo**	**5.86**	**91**	*e*Pn	Pn	08 46 22.7	-0.7
PFVI				*e*Sn	Sn	08 47 24.1	-7.2
PFVI				A		08 47 30.6	
	15nm,0.2s						
PFVI	**Vila Bisbo**	**5.86**	**91**	Pn	Pn	08 46 22.8	-0.6
PFVI				Sn	Sn	08 47 24.6	-6.7
PFVI	**Vila Bisbo**	**5.86**	**91**	Pn	Pn	08 46 22.8	-0.6
PFVI				Sn	Sn	08 47 24.6	-6.7
PFVI	**Vila Bisbo**	**5.86**	**91**	Pn	Pn	08 46 22.8	-0.6
PFVI				Sn	Sn	08 47 24.6	-6.7
PTEO	**Sao Teotonio**	**5.92**	**87**	*e*Pn	Pn	08 46 23.4	-0.8
PTEO				*e*Sn	Sn	08 47 24.7	-8.0
PTEO				A		08 47 30.1	
	20nm,0.2s						
PTEO	**Sao Teotonio**	**5.92**	**87**	Pn	Pn	08 46 23.3	-0.9
PTEO				Sn	Sn	08 47 25.4	-7.3
PTEO	**Sao Teotonio**	**5.92**	**87**	Pn	Pn	08 46 23.4	-0.8
PTEO				Sn	Sn	08 47 25.4	-7.3
PTEO	**Sao Teotonio**	**5.92**	**87**	Pn	Pn	08 46 23.3	-0.9
PTEO				Sn	Sn	08 47 25.4	-7.3
MORF	**Marmelete**	**5.98**	**89**	*e*Pn	Pn	08 46 24.3	-0.9
MORF				*e*Sn	Sn	08 47 29.3	-5.1
MORF				A		08 47 31.8	
	27nm,0.2s						
MORF	**Marmelete**	**5.98**	**89**	Pn	Pn	08 46 24.2	-1.0
MORF				Sn	Sn	08 47 27.9	-6.5
MORF	**Marmelete**	**5.98**	**89**	Pn	Pn	08 46 24.3	-0.9
MORF				Sn	Sn	08 47 29.3	-5.1
	27nm,0.2s						
MORF	**Marmelete**	**5.98**	**89**	Pn	Pn	08 46 24.2	-1.0
MORF				Sn	Sn	08 47 27.9	-6.5
ALMR	**Almeirim**	**6.20**	**72**	*e*P	Pn	08 46 27.6	-0.6
ALMR				*e*S	Sn	08 47 31.3	-8.5
ALMR				*e*S	Sn	08 47 31.3	-8.5
ALMR				AML	AML	08 47 36.5	
	comp=E,77nm,0.2s						
ALMR	**Almeirim**	**6.20**	**72**	*e*P	Pn	08 46 27.6	-0.6
ALMR				*e*S	Sn	08 47 31.3	-8.5
MOE	**Montemor**	**6.26**	**78**	*e*Pn	Pn	08 46 28.2	-0.8
MOE				*e*Sn	Sn	08 47 34.0	-7.3
MOE	**Montemor**	**6.26**	**78**	Pn	Pn	08 46 28.2	-0.8
MOE				Sn	Sn	08 47 34.0	-7.3
PTOM	**Tomar**	**6.45**	**68**	*e*Sn	Sn	08 47 38.8	-7.1
PTOM				A		08 47 44.7	
	comp=E,34nm,0.1s						
PTOM	**Tomar**	**6.45**	**68**	Sn	Sn	08 47 38.8	-7.1
PTOM	**Tomar**	**6.45**	**68**	Sn	Sn	08 47 38.8	-7.1
EVO	**Evora**	**6.53**	**78**	*e*Pn	Pn	08 46 31.8	-0.8
EVO				*e*Sn	Sn	08 47 41.3	-6.5
EVO				A		08 47 43.5	
	comp=E,24nm,0.1s						
EVO	**Evora**	**6.53**	**78**	Pn	Pn	08 46 31.8	-0.8
EVO				Sn	Sn	08 47 41.3	-6.5
	comp=E,12nm,0.1s						
EVO	**Evora**	**6.53**	**78**	*e*Pn	Pn	08 46 31.8	-0.8
PBDV	**Barranco-do-Ve**	**6.56**	**89**	*e*Pn	Pn	08 46 32.5	-0.6
PBDV				*e*Sn	Sn	08 47 42.1	-6.5
PBDV				A		08 47 47.6	
	comp=E,20nm,0.2s						
PBDV	**Barranco-do-Ve**	**6.56**	**89**	Pn	Pn	08 46 32.5	-0.6
PBDV				Sn	Sn	08 47 42.1	-6.5
	comp=E,10nm,0.2s						
PBDV	**Barranco-do-Ve**	**6.56**	**89**	*e*Pn	Pn	08 46 32.5	-0.6
PBEJ	**Beja**	**6.60**	**82**	*e*Pn	Pn	08 46 32.9	-0.7
PBEJ				*e*Sn	Sn	08 47 42.6	-7.0
PBEJ				A		08 47 47.7	
	comp=E,11nm,0.2s						
PBEJ	**Beja**	**6.60**	**82**	Pn	Pn	08 46 32.6	-1.0
PBEJ				Sn	Sn	08 47 42.4	-7.2
PBEJ	**Beja**	**6.60**	**82**	Pn	Pn	08 46 32.6	-1.0
PBEJ				Sn	Sn	08 47 42.4	-7.2
PBEJ	**Beja**	**6.60**	**82**	Pn	Pn	08 46 32.6	-1.0
PVAQ	**Vaqueiros**	**6.72**	**88**	*e*Pn	Pn	08 46 34.4	-0.9
PVAQ				*e*Sn	Sn	08 47 46.2	-6.4
PVAQ				A		08 47 52.3	
	comp=E,20nm,0.1s						
PVAQ	**Vaqueiros**	**6.72**	**88**	Pn	Pn	08 46 34.4	-0.9
PVAQ				Sn	Sn	08 47 46.2	-6.4
	comp=E,9.9nm,0.1s						
PVAQ	**Vaqueiros**	**6.72**	**88**	*e*Pn	Pn	08 46 34.4	-0.9
EGRO	**El Granado**	**6.90**	**87**	Pn	Pn	08 46 37.0	-0.8
EGRO				Sn	Sn	08 47 50.5	-6.5
EGRO	**El Granado**	**6.90**	**87**	Pn	Pn	08 46 37.0	-0.8
	comp=E,6.4nm,0.3s,SNR=17						
EGRO				Sn	Sn	08 47 50.5	-6.5
	comp=E,14nm,0.3s,SNR=5.5						
EGRO	**El Granado**	**6.90**	**87**	Pn	Pn	08 46 37.0	-0.8
	comp=E,6.4nm,0.3s,SNR=17						
EGRO				Sn	Sn	08 47 50.5	-6.5
	comp=E,14nm,0.3s,SNR=5.5						
PCBR	**Castelo Branco**	**7.20**	**68**	*e*Pn	Pn	08 46 41.0	-0.9
PCBR				*e*Sn	Sn	08 47 56.5	-7.9
PCBR				A		08 48 00.5	
	comp=E,9.7nm,0.1s						
PCBR	**Castelo Branco**	**7.20**	**68**	Pn	Pn	08 46 41.0	-0.9
PCBR	**Castelo Branco**	**7.20**	**68**	Pn	Pn	08 46 41.0	-0.9
PCBR				Sn	Sn	08 47 56.5	-7.9
	comp=E,4.8nm,0.1s						
PCBR	**Castelo Branco**	**7.20**	**68**	*e*Pn	Pn	08 46 41.0	-0.9
PVIS	**Viseu**	**7.21**	**61**	*e*Pn	Pn	08 46 41.2	-0.8
PVIS				*e*Sn	Sn	08 47 55.8	-8.8
PVIS	**Viseu**	**7.21**	**61**	Pn	Pn	08 46 41.1	-0.9
PVIS	**Viseu**	**7.21**	**61**	Pn	Pn	08 46 41.1	-0.9
PBAR	**Barrancos**	**7.26**	**81**	*e*Pn	Pn	08 46 41.8	-0.9
PBAR				*e*Sn	Sn	08 47 58.1	-7.7
PBAR				A		08 48 04.4	
	comp=E,9.2nm,0.2s						
PBAR	**Barrancos**	**7.26**	**81**	Pn	Pn	08 46 41.8	-0.9
PBAR				Sn	Sn	08 47 58.1	-7.7
	comp=E,4.6nm,0.2s						
EBAD	**Badajoz**	**7.33**	**77**	Pn	Pn	08 46 43.5	-0.2
EBAD				Sn	Sn	08 48 00.3	-7.3
EBAD	**Badajoz**	**7.33**	**77**	Pn	Pn	08 46 42.9	-0.8
	comp=E,2.7nm,0.3s,SNR=18						
EBAD				Sn	Sn	08 48 00.3	-7.3
	comp=E,5.4nm,0.3s,SNR=6.8						
EBAD	**Badajoz**	**7.33**	**77**	Pn	Pn	08 46 43.5	-0.2
	comp=E,2.7nm,0.3s,SNR=18						
EBAD				Sn	Sn	08 48 00.3	-7.3
	comp=E,5.4nm,0.3s,SNR=6.8						
MTE	**Manteigas**	**7.34**	**64**	*e*Pn	Pn	08 46 46.0	+2.3
MTE				*e*Sn	Sn	08 48 00.5	-7.2
MTE				A		08 48 06.4	
	comp=E,17nm,0.1s						
MTE	**Manteigas**	**7.34**	**64**	Sn	Sn	08 48 00.5	-7.2
	comp=E,8.7nm,0.1s						
EMIN	**Mina Concepcio**	**7.54**	**85**	Pn	Pn	08 46 45.8	-0.7
EMIN				Sn	Sn	08 48 05.3	-7.4
EMIN	**Mina Concepcio**	**7.54**	**85**	Pn	Pn	08 46 45.8	-0.7
	comp=E,3.9nm,0.3s,SNR=22						
EMIN				Sn	Sn	08 48 05.3	-7.4
	comp=E,3.9nm,0.3s,SNR=5.5						
EMIN	**Mina Concepcio**	**7.54**	**85**	Pn	Pn	08 46 45.8	-0.7
	comp=E,3.9nm,0.3s,SNR=22						
EMIN				Sn	Sn	08 48 05.3	-7.4
	comp=E,3.9nm,0.3s,SNR=5.5						
PVRL	**Vila Real**	**7.58**	**57**	*e*Sn	Sn	08 48 04.4	-9.2
PVRL				A		08 48 09.3	
	comp=E,29nm,0.1s						
PCAB	**Cabril**	**7.59**	**53**	*e*Sn	Sn	08 48 03.9	-10
PCAB				A		08 48 07.0	
	comp=E,26nm,0.1s						
ELOB	**Lobios**	**7.65**	**52**	Pn	Pn	08 46 47.1	-0.9
ELOB				Sn	Sn	08 48 05.3	-10
ELOB	**Lobios**	**7.65**	**52**	Pn	Pn	08 46 47.1	-0.9
	comp=E,4.6nm,0.5s,SNR=9.1						
ELOB				Sn	Sn	08 48 06.9	-8.4
	comp=E,13nm,0.3s,SNR=7.2						
ELOB	**Lobios**	**7.65**	**52**	Pn	Pn	08 46 47.1	-0.9
	comp=E,4.6nm,0.5s,SNR=9.1						
ELOB				Sn	Sn	08 48 05.3	-10
	comp=E,13nm,0.3s,SNR=7.2						
EMAZ	**Mazaricos**	**7.77**	**43**	Pn	Pn	08 46 47.2	-2.5
EMAZ				Sn	Sn	08 48 07.7	-11
EMAZ	**Mazaricos**	**7.77**	**43**	Pn	Pn	08 46 48.5	-1.2
	comp=E,0.4nm,0.1s,SNR=7.9						
EMAZ	**Mazaricos**	**7.77**	**43**	Pn	Pn	08 46 47.2	-2.5
	comp=E,0.4nm,0.1s,SNR=7.9						
EMAZ				Sn	Sn	08 48 07.7	-11
	comp=E,17nm,0.3s,SNR=9.2						
STS	**Santiago**	**7.96**	**45**	Pn	Pn	08 46 49.9	-2.5
STS				Sn	Sn	08 48 12.3	-11
STS	**Santiago**	**7.96**	**45**	Pn	Pn	08 46 49.9	-2.5
	comp=E,1.6nm,0.1s,SNR=7.9						
STS	**Santiago**	**7.96**	**45**	Pn	Pn	08 46 49.9	-2.4
	comp=E,1.6nm,0.1s,SNR=7.9						
STS				Sn	Sn	08 48 12.3	-11
	comp=E,16nm,0.1s,SNR=7.9						
MVO	**Moncorvo**	**7.99**	**60**	*e*Pn	Pn	08 46 52.0	-0.8
MVO				*e*Sn	Sn	08 48 13.7	-10
MVO				A		08 48 19.8	
	comp=E,19nm,0.1s						
MVO	**Moncorvo**	**7.99**	**60**	Pn	Pn	08 46 52.0	-0.8
MVO	**Moncorvo**	**7.99**	**60**	Pn	Pn	08 46 52.0	-0.8
ESPR	**Espera**	**8.25**	**91**	Pn	Pn	08 46 55.0	-1.3
ESPR				Sn	Sn	08 48 22.4	-7.7
ESPR	**Espera**	**8.25**	**91**	Pn	Pn	08 46 55.8	-0.5
	comp=E,7.7nm,0.2s,SNR=8.3						
ESPR				Sn	Sn	08 48 22.4	-7.7
	comp=E,4.0nm,0.3s,SNR=4.8						
ESPR	**Espera**	**8.25**	**91**	Pn	Pn	08 46 56.3	0.0
	comp=E,7.7nm,0.2s,SNR=8.3						
ESPR				Sn	Sn	08 48 22.4	-7.8
	comp=E,4.0nm,0.3s,SNR=4.8						
PBRG	**Braganca**	**8.47**	**56**	*e*Pn	Pn	08 46 58.9	-0.4
PBRG				*e*Sn	Sn	08 48 25.0	-11
PBRG				A		08 48 27.9	
	comp=E,11nm,0.2s						
PBRG	**Braganca**	**8.47**	**56**	Pn	Pn	08 46 58.5	-0.8
PBRG	**Braganca**	**8.47**	**56**	Pn	Pn	08 46 58.5	-0.8
ERUA	**La Rua**	**8.51**	**52**	Pn	Pn	08 46 59.0	-0.8
ERUA				Sn	Sn	08 48 25.3	-11
ERUA	**La Rua**	**8.51**	**52**	Pn	Pn	08 46 59.0	-0.8
	comp=E,3.4nm,0.1s,SNR=7.9						
ERUA	**La Rua**	**8.51**	**52**	Pn	Pn	08 46 59.0	-0.8
	comp=E,3.4nm,0.1s,SNR=7.9						
ERUA				Sn	Sn	08 48 25.3	-11
	comp=E,14nm,0.4s,SNR=7.4						
ECAL	**Calabor**	**8.54**	**55**	Pn	Pn	08 46 58.9	-1.3
ECAL				Sn	Sn	08 48 26.2	-11
ECAL	**Calabor**	**8.54**	**55**	Pn	Pn	08 46 58.9	-1.3
	comp=E,4.7nm,0.3s,SNR=7.2						
ECAL	**Calabor**	**8.54**	**55**	Pn	Pn	08 46 58.9	-1.3
	comp=E,4.7nm,0.3s,SNR=7.2						
ECAL				Sn	Sn	08 48 26.2	-11
	comp=E,26nm,0.3s,SNR=9.6						
EJIF	**Jimena Fronter**	**8.62**	**93**	Pn	Pn	08 47 01.1	-0.2
EJIF				Sn	Sn	08 48 30.0	-9.2
EJIF	**Jimena Fronter**	**8.62**	**93**	Pn	Pn	08 47 01.1	-0.2
	comp=E,0.5nm,0.1s,SNR=7.9						
EJIF				Sn	Sn	08 48 31.5	-7.7
	comp=E,1.4nm,0.5s,SNR=7.9						
EJIF	**Jimena Fronter**	**8.62**	**93**	Pn	Pn	08 47 01.1	-0.3
	comp=E,0.5nm,0.1s,SNR=7.9						
EPON	**Pontenova**	**9.04**	**47**	Pn	Pn	08 47 05.1	-2.0
EPON				Sn	Sn	08 48 37.6	-12
EPON	**Pontenova**	**9.04**	**47**	Pn	Pn	08 47 05.1	-2.0
	comp=E,0.0nm,0.1s,SNR=7.9						
EPON	**Pontenova**	**9.04**	**47**	Pn	Pn	08 47 05.1	-2.0
EPON				Sn	Sn	08 48 37.6	-12
	comp=E,6.1nm,0.3s,SNR=140						
EMIJ	**Mijas**	**9.15**	**92**	Pn	Pn	08 47 08.4	-0.2
EMIJ				Sn	Sn	08 48 44.7	-7.7
EMIJ	**Mijas**	**9.15**	**92**	Pn	Pn	08 47 08.1	-0.6
	comp=E,2.4nm,0.3s,SNR=7.9						
EMIJ				Sn	Sn	08 48 44.7	-7.7
	comp=E,6.8nm,0.4s,SNR=7.9						
EMIJ	**Mijas**	**9.15**	**92**	Pn	Pn	08 47 08.4	-0.3
	comp=E,2.4nm,0.3s,SNR=7.9						
EMIJ				Sn	Sn	08 48 44.7	-7.7
	comp=E,6.8nm,0.4s,SNR=7.9						
EADA	**Adamuz**	**9.20**	**82**	Pn	Pn	08 47 09.3	+0.1
EADA				Sn	Sn	08 48 45.4	-8.1
EADA	**Adamuz**	**9.20**	**82**	Pn	Pn	08 47 08.7	-0.6
	comp=E,2.4nm,0.1s,SNR=7.9						
EADA				Sn	Sn	08 48 45.4	-8.1
	comp=E,4.0nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**9.20**	**82**	Pn	Pn	08 47 09.3	0.0
	comp=E,2.4nm,0.1s,SNR=7.9						
EADA				Sn	Sn	08 48 45.4	-8.1
	comp=E,4.0nm,0.1s,SNR=7.9						
ESDC	**Sonseca Array**	**9.81**	**73**	Pn	Pn	08 47 16.9	-0.8
ESDC				Sn	Sn	08 48 59.5	-9.0
ESDC	**Sonseca Array**	**9.81**	**73**	Pn	Pn	08 47 16.9	-0.8
	comp=E,1.8nm,0.3s,baz=261,slow=13,SNR=20						
ESDC				Sn	Sn	08 48 59.5	-9.0
	comp=E,1.0nm,0.2s,baz=262,slow=23,SNR=7.5						
ESDC	**Sonseca Array**	**9.81**	**73**	Pn	Pn	08 47 16.9	-0.8
	comp=E,1.8nm,0.3s,SNR=20						
ESDC				Sn	Sn	08 48 59.5	-9.0
	comp=E,1.0nm,0.2s,SNR=7.5						
EBAN	**Banos Encina**	**9.82**	**82**	Pn	Pn	08 47 16.9	-0.9
EBAN				Sn	Sn	08 48 59.0	-10
EBAN	**Banos Encina**	**9.82**	**82**	Pn	Pn	08 47 16.9	-0.9
	comp=E,3.6nm,0.2s,SNR=7.9						
EBAN				Sn	Sn	08 48 60.0	-8.8
	comp=E,5.6nm,0.3s,SNR=7.9						
EBAN	**Banos Encina**	**9.82**	**82**	Pn	Pn	08 47 16.9	-0.9
	comp=E,3.6nm,0.2s,SNR=7.9						
EBAN				Sn	Sn	08 48 59.0	-10
	comp=E,5.6nm,0.3s,SNR=7.9						
GUD	**Guadarrama**	**9.87**	**67**	Pn	Pn	08 47 17.4	-1.1
GUD				Sn	Sn	08 49 00.2	-10
GUD	**Guadarrama**	**9.87**	**67**	Pn	Pn	08 47 17.4	-1.1
	comp=E,0.6nm,0.1s,SNR=7.9						
GUD				Sn	Sn	08 49 01.1	-8.9
	comp=E,3.5nm,0.3s,SNR=7.9						
GUD	**Guadarrama**	**9.87**	**67**	Pn	Pn	08 47 17.4	-1.1
	comp=E,0.6nm,0.1s,SNR=7.9						
GUD				Sn	Sn	08 49 00.2	-10
	comp=E,3.5nm,0.3s,SNR=7.9						
EQUE	**Quentar**	**10.14**	**88**	Pn	Pn	08 47 21.6	-0.6
	comp=E,1.4nm,0.4s,SNR=6.1						
EQUE				Sn	Sn	08 49 07.9	-8.6
	comp=E,12nm,0.7s,SNR=7.9						
EQUE	**Quentar**	**10.14**	**88**	Pn	Pn	08 47 21.9	-0.3
	comp=E,1.4nm,0.4s,SNR=6.1						
EQUE				Sn	Sn	08 49 07.9	-8.6
	comp=E,12nm,0.7s,SNR=7.9						
EARI	**Arriondas**	**10.19**	**52**	Pn	Pn	08 47 21.4	-1.5
	comp=E,0.4nm,0.2s						
EARI				Sn	Sn	08 49 07.7	-10
EARI	**Arriondas**	**10.19**	**52**	Pn	Pn	08 47 21.4	-1.5
	comp=E,0.4nm,0.2s,SNR=7.6						
EARI				Sn	Sn	08 49 08.3	-10
	comp=E,129nm,1.4s						
EARI	**Arriondas**	**10.19**	**52**	Pn	Pn	08 47 21.4	-1.5
	comp=E,0.4nm,0.2s,SNR=7.6						
EARI				Sn	Sn	08 49 07.7	-10
	comp=E,129nm,1.4s						
EQES	**Quesada**	**10.39**	**84**	Pn	Pn	08 47 25.0	-0.6
	comp=E,1.6nm,0.4s						
EQES				Sn	Sn	08 49 14.2	-8.6
EQES	**Quesada**	**10.39**	**84**	Pn	Pn	08 47 25.0	-0.6
	comp=E,1.6nm,0.4s,SNR=5.6						
EQES				Sn	Sn	08 49 14.2	-8.6
	comp=E,3.1nm,0.3s,SNR=5.2						
EQES	**Quesada**	**10.39**	**84**	Pn	Pn	08 47 25.0	-0.6
	comp=E,1.6nm,0.4s,SNR=5.6						
EQES				Sn	Sn	08 49 14.2	-8.6
	comp=E,3.1nm,0.3s,SNR=5.2						
ELAN	**Lanestosa**	**11.30**	**55**	Pn	Pn	08 47 37.0	-1.0
	comp=E,22nm,1.2s						
ELAN	**Lanestosa**	**11.30**	**55**	Pn	Pn	08 47 37.0	-1.0
	comp=E,22nm,1.2s,SNR=4.2						
ELAN				Sn	Sn	08 49 34.4	-11
	comp=E,5.5nm,2.8s,SNR=7.9						
ELAN	**Lanestosa**	**11.30**	**55**	Pn	Pn	08 47 37.0	-1.0
	comp=E,22nm,1.2s,SNR=4.2						
ETOR	**Torete**	**11.46**	**69**	Pn	Pn	08 47 39.6	-0.7
	comp=E,4.5nm,0.3s						
ETOR				Sn	Sn	08 49 39.2	-10
ETOR	**Torete**	**11.46**	**69**	Pn	Pn	08 47 39.6	-0.7
	comp=E,4.5nm,0.3s,SNR=9.6						
ETOR				Sn	Sn	08 49 39.2	-10
	comp=E,6.6nm,0.9s						
ETOR	**Torete**	**11.46**	**69**	Pn	Pn	08 47 39.6	-0.7
	comp=E,4.5nm,0.3s,SNR=9.6						
ETOR				Sn	Sn	08 49 39.2	-10
	comp=E,6.6nm,0.9s						
ETOB	**Tobarra**	**11.59**	**80**	Pn	Pn	08 47 41.2	-0.8
ETOB	**Tobarra**	**11.59**	**80**	Pn	Pn	08 47 41.2	-0.8
	comp=E,5.1nm,0.1s,SNR=7.9						
ETOB				Sn	Sn	08 49 42.6	-10
	comp=E,5.8nm,2.4s,SNR=7.9						
ETOB	**Tobarra**	**11.59**	**80**	Pn	Pn	08 47 41.2	-0.8
ECRI	**Cripan**	**11.66**	**60**	Pn	Pn	08 47 41.2	-1.8
	comp=E,1.3nm,0.1s						
ECRI	**Cripan**	**11.66**	**60**	Pn	Pn	08 47 41.2	-1.8
	comp=E,1.3nm,0.1s,SNR=7.9						
ECRI				Sn	Sn	08 49 43.8	-10
	comp=E,7.8nm,3.1s,SNR=7.9						
ECRI	**Cripan**	**11.66**	**60**	Pn	Pn	08 47 41.2	-1.8
	comp=E,1.3nm,0.1s,SNR=7.9						
EMOS	**Mosqueruela**	**12.56**	**72**	Pn	Pn	08 47 54.4	-1.0
	comp=E,1.4nm,0.4s						
EMOS	**Mosqueruela**	**12.56**	**72**	Pn	Pn	08 47 54.3	-1.0
	comp=E,1.4nm,0.4s,SNR=4.0						
EMOS				Sn	Sn	08 50 04.6	-11
	comp=E,134nm,3.5s,SNR=7.9						
EMOS	**Mosqueruela**	**12.56**	**72**	Pn	Pn	08 47 54.3	-1.1
	comp=E,1.4nm,0.4s,SNR=4.0						
ESAC	**San Caprasio**	**12.83**	**66**	Pn	Pn	08 47 56.9	-2.2
	comp=E,29nm,1.1s,SNR=7.9						
ESAC				Sn	Sn	08 50 12.0	-11
	comp=E,56nm,0.6s,SNR=7.9						
EBIE	**Bielsa**	**13.53**	**62**	Pn	Pn	08 48 08.2	-0.3
EBIE				Sn	Sn	08 50 28.7	-11
EBIE	**Bielsa**	**13.53**	**62**	Pn	Pn	08 48 08.2	-0.3
	comp=E,0.1nm,0.1s,SNR=7.9						
EBIE				Sn	Sn	08 50 28.7	-11
	comp=E,1.5nm,0.9s,SNR=7.9						
EBIE	**Bielsa**	**13.53**	**62**	Pn	Pn	08 48 08.2	-0.4
	comp=E,0.1nm,0.1s,SNR=7.9						
EBIE				Sn	Sn	08 50 28.7	-11
	comp=E,1.5nm,0.9s,SNR=7.9						

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*MOS **24** 08:47:20.9±1.2, 4261N×4345E, h15^{km}, mb3.7/1, Error ellipse: s-maj=39.5km s-min=10.8km az=56.6*

*TIF **24** 08:47:21.1, 4255N×4352E, h12^{km}±4^{km}*

ISC 24 08:47:21.4±1.5**, 4256N**±004×**434E**±01**, h10^{km}, n10,** σ**0^{s}80**/18**, 5C-2D, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DIGR	**Digorskoe uzhe**	**0.36**	**17**	⇓*i*PG	**Pg**	**08 47 27.9**	**-0.7**
DIGR				*i* S	**Sg**	**08 47 33.1**	**-0.3**
ZEI	**Tsey**	**0.40**	**58**	*e*PG	**Pg**	**08 47 29.0**	**-0.4**
ZEI				*e*		08 47 34.9	
LACR	**Lac**	**0.69**	**67**	⇑*i*PG	**Pg**	**08 47 33.9**	**-0.9**
LACR				*i* S	**Sg**	**08 47 43.5**	**-0.3**
KORR	**Kora**	**0.71**	**41**	⇑*i*PG	**Pg**	**08 47 34.9**	**-0.2**
KORR				*i* S	**Sg**	**08 47 44.8**	**+0.5**
LSNR	**Lesken**	**0.77**	**21**	⇑*i*PG	**Pg**	**08 47 36.6**	**+0.3**
LSNR				*i* S	**Sg**	**08 47 47.2**	**+0.8**
ARNR	**Ardon**	**0.89**	**44**	⇓*i*PG	**Pg**	**08 47 37.5**	**-1.0**
ARNR				*i* S	**Sg**	**08 47 49.7**	**-0.4**
KMSR	**Komsomolskaya**	**1.03**	**37**	⇑*i*PG	**Pg**	**08 47 42.3**	**+1.1**
KMSR				*i* S	**Sg**	**08 47 56.5**	**+1.9**
BTKR	**Batakoyurt**	**1.15**	**44**	⇑*i*PG	**Pg**	**08 47 42.3**	**-1.3**
BTKR				*i* S	**Sb**	**08 47 58.0**	**-0.4**
MTA	**Mtatsminda**	**1.33**	**130**	P	**Sb**	**08 48 03.7**	**+0.3**
DGRG	**David-gareji**	**1.82**	**127**	P	**Pn**	**08 47 53.9**	**+1.1**
DGRG				S	**Sn**	**08 48 23.0**	**+7.2**

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*MOS **24** 08:57:45.2±1.9, 4261N×4624E, h16^{km}, mb3.9/1, Error ellipse: s-maj=64.5km s-min=11.1km az=24.4*

*TIF **24** 08:57:47.1, 4274N×4620E, h13^{km}±5^{km}*

ISC 24 08:57:44.7±1.9**, 4287N**±009×**465E**±01**, h6^{km}**±6^{km}**, n10,** σ**1^{s}07**/18**, 4C-5D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SNJR	**Sundja**	**1.23**	**280**	⇓*i*PG	**Pg**	**08 58 08.8**	**+0.5**
SNJR				*i* S	**Sg**	**08 58 25.8**	**+1.5**
VLKR	**Vladikavkaz**	**1.33**	**278**	⇑*i*PG	**Pg**	**08 58 10.1**	**0.0**
VLKR				*i* S	**Sg**	**08 58 28.2**	**+0.9**
BTKR	**Batakoyurt**	**1.50**	**290**	⇓*i*PG	**Pg**	**08 58 13.4**	**0.0**
BTKR				*i* S	**Sn**	**08 58 33.7**	**+1.7**
LACR	**Lac**	**1.60**	**269**	⇑*i*PG	**Pg**	**08 58 13.1**	**-2.2**
LACR				*i* S	**Sn**	**08 58 33.2**	**-1.3**
DGRG	**David-gareji**	**1.63**	**210**	P	**Pn**	**08 58 15.4**	**+1.5**
DGRG				S	**Sn**	**08 58 35.8**	**+0.5**
ARNR	**Ardon**	**1.64**	**282**	⇑*i*PG	**Pg**	**08 58 14.6**	**-1.4**
ARNR				*i* S	**Sn**	**08 58 35.8**	**+0.4**
KORR	**Kora**	**1.78**	**278**	⇓*i*PN	**Pn**	**08 58 16.2**	**+0.3**
KORR				*i* S	**Sn**	**08 58 38.5**	**-0.3**
ZEI	**Tsey**	**1.90**	**268**	⇑*i*PN	**Pn**	**08 58 16.9**	**-0.6**
ZEI				*i* S	**Sn**	**08 58 39.8**	**-1.9**
LSNR	**Lesken**	**1.99**	**283**	⇓*i*PN	**Pn**	**08 58 19.2**	**+0.4**
DIGR	**Digorskoe uzhe**	**2.12**	**272**	⇓*i*PN	**Pn**	**08 58 20.4**	**-0.3**

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*MOS **24** 09:01:52.0±1.7, 3431N×2752E, h29^{km}, mb4.2/5, Error ellipse: s-maj=13.5km s-min=7.2km az=104.1*

*HLW **24** 09:01:55.9, 3481N×2754E, h33^{km}, Mb4.2*

*ISCJB **24** 09:01:56.9±0.3, 3459N±003×2754E±003, h65^{km}±5^{km}, mb3.8/14, Error ellipse: s-maj=5.1km s-min=3.7km az=42.7*

*CSEM **24** 09:01:56.7±0.1, 3463N×2757E, h60^{km}, mb4.0/4, Error ellipse: s-maj=1.8km s-min=1.2km az=67.0*

*ISK **24** 09:01:57.2, 3473N×2776E, h6^{km}, MD3.8, ML3.7*

*IDC **24** 09:01:57.5±1.1, 3461N×2754E, h47^{km}±12^{km}, mb3.6/10, mb1 3.7/17, mb1mx3.6/25, mbtmp3.6/17, ML3.6/7, MS2.8/1, Ms1 2.8/1, ms1mx2.2/35, Error ellipse: s-maj=16.5km s-min=8.4km az=11.0*

*NEIC **24** 09:02:01.1, 3496N×2720E, h72^{km}, mb4.0/4, After ATH.*

*ATH **24** 09:02:01.1, 3496N×2720E, h72^{km}±6^{km}*

ISC 24 09:01:58.4±0.3**, 3461N**±003×**2750E**±003**, h57^{km}**±5^{km}**, n79,** σ**0^{s}95**/87**, mb3.8**/14**, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KARP	**Karpathos**	**0.97**	**343**	*e*P	**Pn**	**09 02 15.5**	**-0.5**
ZKR	**Zakros**	**1.17**	**296**	P	**Pn**	**09 02 18.9**	**+0.3**
ARG	**Arkhangelos**	**1.68**	**18**	*e*P	**Pn**	**09 02 26.8**	**+1.3**
NPS	**Neapolis**	**1.68**	**293**	*e*P	**Pn**	**09 02 25.0**	**-0.5**
DAT	**Datca**	**2.11**	**2**	*e*PN	**Pn**	**09 02 31.9**	**+0.6**
DAT	**Datca**	**2.11**	**2**	*e*Pn	**Pn**	**09 02 31.9**	**+0.6**
IDI	**Anoyia**	**2.25**	**288**	P	**Pn**	**09 02 33.5**	**+0.3**
	6.1nm,0.3s,baz=115,slow=16,SNR=18						
IDI				S	**Sn**	**09 02 59.9**	**+0.1**
	12nm,0.3s,baz=248,slow=19,SNR=5.5						
DALT	**Dalyan (Mudla)**	**2.34**	**23**	PN	**Pn**	**09 02 35.4**	**+0.9**
DALT	**Dalyan (Mudla)**	**2.34**	**23**	*e*Pn	**Pn**	**09 02 35.4**	**+0.9**
FETY	**Fethiye**	**2.39**	**32**	PN	**Pn**	**09 02 35.3**	**+0.1**
FETY				SN	**Sn**	**09 03 02.6**	**-0.7**
FETY	**Fethiye**	**2.39**	**32**	*e*Pn	**Pn**	**09 02 35.3**	**+0.1**
FETY				*e*Sn	**Sn**	**09 03 02.6**	**-0.7**
BODT	**Bodrum**	**2.45**	**356**	PN	**Pn**	**09 02 37.9**	**+2.0**
BODT	**Bodrum**	**2.45**	**356**	*e*Pn	**Pn**	**09 02 37.9**	**+2.0**
YER	**Yerkesik**	**2.59**	**14**	PN	**Pn**	**09 02 38.5**	**+0.6**
YER	**Yerkesik**	**2.59**	**14**	*e*Pn	**Pn**	**09 02 38.5**	**+0.6**
MLSB	**Milas**	**2.69**	**5**	PN	**Pn**	**09 02 39.7**	**+0.5**
MLSB	**Milas**	**2.69**	**5**	*e*Pn	**Pn**	**09 02 39.7**	**+0.5**
VAM	**Vamos**	**2.82**	**287**	*e*P	**Pn**	**09 02 41.7**	**+0.6**
APE	**Apeiranthos**	**2.93**	**327**	*e*P	**Pn**	**09 02 41.6**	**-0.9**
SMG	**Samos**	**3.13**	**350**	*e*P	**Pn**	**09 02 45.0**	**-0.3**
HMAT	**Matruh**	**3.53**	**186**	P	**Pn**	**09 02 51.2**	**+0.5**
HMAT	**Matruh**	**3.53**	**186**	P	**Pn**	**09 02 51.2**	**+0.5**
SLUM		**3.66**	**212**	P	**Pn**	**09 02 52.4**	**-0.2**
KYTH	**Kithira**	**4.01**	**296**	*e*P	**Pn**	**09 02 56.0**	**-1.3**

VLI	Veliai	4.27	301	eP	Pn	09 02 59.4	-1.4
ITM	Ithomi	5.20	301	eP	Pn	09 03 12.7	-0.9
IKL	Isikli	5.30	70	PN	Pn	09 03 15.8	+0.8
IKL	Isikli	5.30	70	ePn	Pn	09 03 15.8	+0.8
HNAT	Natroun	5.63	151	P	Pn	09 03 19.8	+0.3
AYT	Al ‘Ayyat	5.79	147	P	Pn	09 03 22.1	+0.3
KOT	Kottamia	5.94	141	P	Pn	09 03 22.8	-1.0
HSAF	As Saff	6.05	144	P	Pn	09 03 26.2	+0.9
HHAG	Hagoal	6.06	139	P	Pn	09 03 25.3	-0.2
GLL	Jalalah	6.16	143	P	Pn	09 03 26.8	0.0
AMAG	Maghara	6.23	128	P	Pn	09 03 26.9	-0.9
HBNS	Bani Suwayf	6.47	150	P	Pn	09 03 31.3	+0.3
SUZ		6.56	135	P	Pn	09 03 32.5	+0.2
MMAI	Mount Meron Ar	6.77	101	P	Pn	09 03 35.5	+0.4
	1.7nm,0.3s,baz=266,slow=12,SNR=8.8						
MMAI				S	Sn	09 04 50.4	-0.3
	6.8nm,0.3s,baz=244,slow=18,SNR=6.8						
HWQ	Hawqa	6.99	90	ePn	Pn	09 03 39.4	+1.3
HWQ				Sn	Sn	09 04 53.4	-2.7
RCY	Rachaya	7.00	97	Sn	Sn	09 04 54.8	-1.6
BRTR	Keskin Array B	7.07	42	P	Pn	09 03 39.9	+0.7
	0.2nm,0.3s,baz=206,slow=10,SNR=7.8						
BRTR				S	Sn	09 04 58.3	+0.2
	0.5nm,0.3s,baz=210,slow=21,SNR=7.3						
HNKL	Nakhl	7.20	129	P	Pn	09 03 41.0	-0.1
HFRF	Wahat Farafira	7.47	174	P	Pn	09 03 45.6	+0.8
EIL	Elat	8.01	126	P	Pn	09 03 51.6	-0.5
EIL				S	Sn	09 05 16.2	-5.1
EIL				LR	LR	09 08 25.6	
EIL	Elat	8.01	126	P	Pn	09 03 51.6	-0.5
	1.2nm,0.3s,baz=326,slow=9.9,SNR=20						
EIL				S	Sn	09 05 16.2	-5.1
	2.7nm,0.3s,baz=86,slow=20,SNR=6.4						
EIL				LR	LR	09 08 25.6	
	comp=Z,66nm,20.1s,baz=250,slow=49						
HHRG	Al Ghardaqah	9.03	143	P	Pn	09 04 05.8	-0.2
MLR	Muntele Rosu	10.93	354	P	Pn	09 04 33.0	+1.0
	0.1nm,0.3s,baz=172,slow=14,SNR=3.2						
AKASG	Malin Array Be	16.13	4	P	Pn	09 05 40.6	-0.6
	1.2nm,0.3s,baz=195,slow=11,SNR=4.6						
GERES	GERESS Array B	17.52	328	P	Pn	09 05 57.0	-1.5
	0.1nm,0.3s,baz=152,slow=12,SNR=4.5						
SBF	Sospel	18.04	307	eP	Pn	09 06 00.1	-4.9
	14nm,0.8s						
SBF	Sospel	18.04	307	eP	Pn	09 06 00.1	-4.9
	7.0nm,0.8s						
SBF	Sospel	18.04	307	eP	Pn	09 06 00.1	-4.9
SBF				pmax	pmax		
	comp=Z,7.0nm,0.8s						
MBDF	Montbardon	18.84	309	eP	Pn	09 06 12.2	-2.4
	comp=Z,8.6nm,0.9s						
MBDF	Montbardon	18.84	309	eP	Pn	09 06 12.2	-2.4
MBDF				pmax	pmax		
	comp=Z,4.0nm,0.9s						
MBDF	Montbardon	18.84	309	eP	Pn	09 06 12.2	-2.4
	comp=Z,4.3nm,0.9s						
CLL	Collm	19.71	332	eP	Pn	09 06 24.0	-0.9
CABF	La Chapelle	20.12	313	eP	P	09 06 29.7	+2.2
OBN	Obninsk	21.45	14	eP	P	09 06 46.0	+4.3
OBN				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb3.9						
SMF	Signal de Mont	21.52	311	eP	P	09 06 42.4	-0.1
AVF	Avril sur Loir	21.88	311	eP	P	09 06 45.2	-1.2
	comp=Z,20nm,1.1s,mb4.2						
AVF	Avril sur Loir	21.88	311	eP	P	09 06 45.2	-1.2
	comp=Z,9.9nm,1.1s,mb4.2						
AVF	Avril sur Loir	21.88	311	eP	P	09 06 45.2	-1.2
AVF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.2						
SSF	Saint Saulge	21.90	312	eP	P	09 06 46.7	+0.1
	comp=Z,25nm,1.1s,mb4.3						
SSF	Saint Saulge	21.90	312	eP	P	09 06 46.7	+0.1
	comp=Z,12nm,1.0s,mb4.3						
SSF	Saint Saulge	21.90	312	eP	P	09 06 46.7	+0.1
SSF				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.3						
ESDC	Sonseca Array	25.51	291	P	P	09 07 21.5	+0.1
	comp=Z,1.1nm,0.6s,mb3.6,baz=87,slow=10,SNR=3.8						
FINES	FINESS Array B	26.86	358	P	P	09 07 33.5	+0.1
	comp=Z,0.5nm,0.3s,mb3.5,baz=166,slow=13,SNR=7.4						
HFS	Hagfors	27.07	345	P	P	09 07 33.8	-1.5
	comp=Z,5.8nm,1.0s,mb4.1,baz=218,slow=34,SNR=3.2						
KAF	Kangasniemi	27.53	359	ep	P	09 07 42.6	+3.3
JOF	Joensuu	28.43	4	ep	P	09 07 47.0	-0.3
EKA	Eskdalemuir Ar	29.61	324	P	P	09 07 57.5	-0.4
	comp=Z,1.8nm,0.8s,mb3.9,baz=122,slow=9.8,SNR=4.0						
TORD	Torodi Ar. Bea	31.67	234	P	P	09 08 17.4	+1.0
	comp=Z,0.5nm,0.6s,mb3.5,baz=33,slow=8.7,SNR=5.5						
ARCES	ARCESS Array B	34.99	359	P	P	09 08 44.8	-0.1
	comp=Z,1.8nm,0.8s,mb4.1,baz=170,slow=8.2,SNR=8.3						
ZAL	Zalesovo	43.99	46	P	P	09 09 59.1	-0.7
ZALV	Zalesovo Beam	44.00	46	P	P	09 09 59.1	-0.8
	comp=Z,0.9nm,0.4s,mb3.8,baz=269,slow=13,SNR=3.5						
SONM	Songino Array	58.34	51	P	P	09 11 47.3	-0.2
	comp=Z,0.2nm,0.4s,mb3.5,baz=276,slow=9.6,SNR=2.0						
BOD	Bodaibo	59.70	38	eP	P	09 11 59.2	+2.5
BOD				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
SCHQ	Schefferville	64.84	320	P	P	09 12 32.7	+1.5
	comp=Z,3.0nm,0.8s,mb4.4,baz=194,slow=8.5,SNR=10.0						
YKA	Yellowknife Ar	78.55	343	P	P	09 13 54.3	+1.1
	comp=Z,0.1nm,0.5s,mb3.0,baz=281,slow=6.7,SNR=3.2						

*IDC **24** 09:06:12.2±0.9, 33.21N×75.66E, h0^{km}, mb3.9/10, mb1 4.0/11, mb1mx3.8/24, mbtmp3.9/11, ML3.2/1, Error ellipse: s-maj=25.2km s-min=19.6km az=58.0*

*ISCJB **24** 09:06:16.9±0.6, 33.34N±0.03×75.63E±0.07, h41^{km}±8^{km}, mb3.8/10, Error ellipse: s-maj=10.1km s-min=4.8km az=160.5*

*MOS **24** 09:06:16.0±0.6, 33.30N×75.72E, h33^{km}, mb4.1/8, Error ellipse: s-maj=33.6km s-min=13.5km az=91.6*

*NDI **24** 09:06:17.2±4.1, 33.46N×75.70E, h33^{km}, ML3.5*

*NEIC **24** 09:06:19.1±1.4, 33.32N×75.74E, h47^{km}±12^{km}, Error ellipse: s-maj=14.1km s-min=10.4km az=152.0*

ISC 24 09:06:19.1±0.4, **33.26N**±0.03×**75.61E**±0.07, **h48**^{km}±7^{km}, **n43**, σ1^{s}02/56, **mb3.8**/10, **Eastern Kashmir**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DLH	Dalhousie	0.78	157	eP	Pn	09 06 27.0	-6.8
DLH				eS	Sn	09 06 40.0	-4.5
JMU	Jammu	0.81	228	eP	Pn	09 06 33.5	-0.7
JMU				eS	Sn	09 06 51.5	+6.4
THN	Thein Dam	0.83	174	eP	Pn	09 06 30.7	-3.8
THN				eS	Sn	09 06 44.8	-0.9
PONG	Pong	1.34	167	ex	x	09 06 15.5	
PONG				ex	x	09 07 35.5	
SDNR	Sundarnagar	2.10	146	eP	Pn	09 06 51.5	-0.3
SDNR				eS	Sn	09 07 19.5	+2.8
SMLA	Simla	2.51	148	eP	Pn	09 06 58.7	+1.4
SMLA				eS	Sn	09 07 28.6	+2.0
KLP	Kalpa	2.82	127	eP	Pn	09 07 02.5	+0.8
KLP				eS	Sn	09 07 34.7	+0.2
KLP				AML	AML	09 07 47.9	
	comp=E,1µm,0.6s						
KLP				AML	AML	09 07 49.1	
	comp=N,746nm,0.5s						
DDI	Dehra Dun	3.60	144	eP	Pn	09 07 11.8	-0.5
JOSI	Joshimath	4.31	128	eP	Pn	09 07 21.8	-0.2
JOSI				eS	Sn	09 08 07.0	-4.0
JOSI				AML	AML	09 08 27.6	
	comp=N,305nm,0.6s						
JOSI				AML	AML	09 08 30.0	
	comp=E,276nm,0.8s						
SONA	Sohna	5.16	165	eP	Pn	09 07 33.7	0.0
SONA				eS	Sn	09 08 28.6	-3.3
SONA				AML	AML	09 09 06.5	
	comp=E,43nm,0.4s						
SONA				AML	AML	09 09 10.1	
	comp=N,26nm,0.4s						
KUDL	Kundal	5.16	171	eP	Pn	09 07 34.6	+0.8
KUDL				eS	Sn	09 08 28.5	-3.5
KUDL				AML	AML	09 09 07.0	
	comp=N,37nm,0.3s						
KUDL				AML	AML	09 09 07.5	
	comp=E,33nm,0.6s						
KHET	Khetri	5.18	178	eP	Pn	09 07 34.0	0.0
KHET				eS	Sn	09 08 31.0	-1.5
KHET				AML	AML	09 09 00.8	
	comp=E,40nm,0.3s						
KHET				AML	AML	09 09 01.0	
	comp=N,34nm,0.5s						
KBL	Kabul	5.61	285	ePn	Pn	09 07 41.8	+1.9
AJM	Ajmer	6.81	187	ex	x	09 08 02.0	
AML	Almayashu	8.98	351	ePn	Pn	09 08 26.2	+0.1
	comp=N,6.8nm,0.6s						
AML				eSn	Sn	09 10 06.4	+0.7
UCH	Uchtor	8.99	355	ePn	Pn	09 08 26.7	+0.5
UCH				eSn	Sn	09 10 04.2	-1.8
AAK	Ala-Archa	9.39	355	ePn	Pn	09 08 30.6	-1.1
	comp=N,2.0nm,0.6s						
AAK				eSn	Sn	09 10 17.2	+1.3
AAK	Ala-Archa	9.39	355	eP	Pn	09 08 30.6	-1.1
AAK				e		09 10 17.2	
AAK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MK31	Makanchi Array	14.44	19	eP	Pn	09 09 46.8	+6.3
MKAR	Makanchi Array	14.44	19	Pn	Pn	09 09 39.2	-1.3
MKAR				Sn	Sn	09 12 13.3	-5.8
MKAR	Makanchi Array	14.44	19	Pn	Pn	09 09 39.2	-1.3
	comp=Z,0.1nm,0.3s,baz=199,slow=13,SNR=4.3						
MKAR				Sn	Sn	09 12 13.3	-5.9
	comp=Z,0.1nm,0.3s,baz=190,slow=22,SNR=2.6						
AKTK	Aktyubinsk	21.50	328	P	P	09 11 03.8	+0.2
AKTO	Aktyubinsk	21.50	328	P	P	09 11 03.8	+0.2
AKTO				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.0						
AKTO	Aktyubinsk	21.50	328	P	P	09 11 03.8	+0.2
	comp=Z,5.6nm,0.7s,mb4.0,baz=132,slow=9.9,SNR=20						
ZAL	Zalesovo	21.67	15	P	P	09 11 04.8	-0.6
ZALV	Zalesovo Beam	21.69	15	P	P	09 11 04.8	-0.8
	comp=Z,0.9nm,0.3s,mb3.6,baz=217,slow=9.3,SNR=3.2						
SONM	Songino Array	27.33	49	P	P	09 11 58.4	-0.9
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM	Songino Array	27.33	49	P	P	09 11 58.4	-0.8
	comp=Z,0.7nm,0.8s,mb3.3,baz=280,slow=7.2,SNR=5.9						
FINES	FINESS Array B	42.26	327	P	P	09 14 08.0	+0.6
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	42.26	327	P	P	09 14 08.0	+0.6
	comp=Z,0.6nm,0.5s,mb3.5,baz=139,slow=13,SNR=4.2						
ARCES	ARCESS Array B	45.57	338	P	P	09 14 34.2	+0.4
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES	ARCESS Array B	45.57	338	P	P	09 14 34.1	+0.4
	comp=Z,2.0nm,0.7s,mb4.1,baz=110,slow=9.2,SNR=5.8						
TORD	Torodi Ar. Bea	69.54	273	P	P	09 17 23.0	-0.2
TORD	Torodi Ar. Bea	69.54	273	P	P	09 17 23.0	-0.2
	comp=Z,0.5nm,0.4s,mb3.8,baz=47,slow=6.0,SNR=17						
INK	Inuvik	76.43	11	P	P	09 18 03.2	+0.2
INK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	Inuvik	76.43	11	P	P	09 18 03.2	+0.2
	comp=Z,1.0nm,0.7s,mb3.8,baz=259,slow=4.3,SNR=3.3						
WRA	Warramunga Arr	77.05	124	P	P	09 18 07.3	0.0
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	Warramunga Arr	77.05	124	P	P	09 18 07.3	0.0
	comp=Z,0.9nm,0.6s,mb3.9,baz=324,slow=5.5,SNR=7.8						
ASAR	Alice Springs	79.29	127	P	P	09 18 19.7	+0.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	79.29	127	P	P	09 18 19.7	+0.1
	comp=Z,0.9nm,0.7s,mb3.8,baz=315,slow=5.4,SNR=13						
YKA	Yellowknife Ar	84.22	5	P	P	09 18 45.4	+0.4
YKA	Yellowknife Ar	84.22	5	P	P	09 18 45.4	+0.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	84.22	5	P	P	09 18 45.4	+0.4
	comp=Z,0.7nm,0.5s,mb4.0,baz=345,slow=5.2,SNR=24						

*BJI **24** 09:19:32.0, 8.20S×157.10E, h33^{km}, mB5.5, mb5.0*

*IDC **24** 09:19:32.3±0.6, 8.11S×156.40E, h0^{km}, mb4.6/13, mb1 4.7/17, mb1mx4.6/20, mbtmp4.6/17, ML4.0/3, MS3.8/7, Ms1 3.8/7, ms1mx3.5/23, Error ellipse: s-maj=19.1km s-min=15.8km az=109.0*

*ISCJB **24** 09:19:34.7±0.3, 8.11S±0.05×156.44E±0.06, h27^{km}, mb4.8/37, MS3.9/4, Error ellipse: s-maj=8.8km s-min=6.7km az=11.6*

*MOS **24** 09:19:36.1±1.1, 8.06S×156.39E, h33^{km}, mb5.2/11, Error ellipse: s-maj=10.9km s-min=9.6km az=99.3*

*NEIC **24** 09:19:36.5±0.3, 8.13S×156.45E, mb4.9/14, Error ellipse: s-maj=7.7km s-min=6.0km az=119.0*

ISC 24 09:19:36.6±2.9, **8.13S**±0.07×**156.47E**±0.06, **h28**^{km}±21^{km}, **h29**^{km}±2.4^{km}**:pP-P, n114,** σ0^{s}**87**/80, **mb4.8**/37, **MS3.9**/4, **7C-5D, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	3.68	111	ePn	Pn	09 20 31.6	0.0
HNR				Sn	Sn	09 21 22.8	+8.8
HNR				LR	LR	09 21 56.2	
HNR	Honiara	3.68	111	eP	Pn	09 20 31.7	+0.1
HNR						09 21 22.8	
HNR	Honiara	3.68	111	Pn	Pn	09 20 29.5	-2.1
	17nm,0.3s,baz=86,slow=6.6,SNR=4.5						
HNR				Sn	Sn	09 21 22.8	+8.8
	39nm,0.3s,baz=198,slow=1.1,SNR=4.9						
HNR				LR	LR	09 21 56.2	
	comp=Z,1µm,20.0s,baz=353,slow=38						
PMG	Port Moresby	9.29	261	Pn	Pn	09 21 49.0	+0.3
PMG	Port Moresby	9.29	261	Pn	Pn	09 21 49.0	+0.3
	baz=136,slow=8.6,SNR=2.2						
COEN	Coen	14.27	245	ePn	Pn	09 22 59.1	+2.2
CTA	Charters Tower	15.46	219	eP	Pn	09 23 18.6	+5.8
	25nm,0.9s						
CTA	Charters Tower	15.46	219	Pn	Pn	09 23 13.2	+0.4
CTA				LR	LR	09 27 05.0	
CTA	Charters Tower	15.46	219	Pn	Pn	09 23 13.2	+0.4
	0.5nm,0.3s,baz=42,slow=14,SNR=3.2						
CTA				LR	LR	09 27 05.0	
	comp=Z,143nm,20.7s,baz=50,slow=29						
CTAO	Charters Tower	15.46	219	ePn	Pn	09 23 13.3	+0.5
	34nm,0.9s						
CTAO	Charters Tower	15.46	219	eP	Pn	09 23 13.3	+0.5
CTAO				pmax	pmax		
	comp=Z,34nm,0.9s						
DZM	Mont Dzumac	16.87	146	Pn	Pn	09 23 31.6	+0.8
DZM				LR	LR	09 28 02.8	
DZM	Mont Dzumac	16.87	146	Pn	Pn	09 23 31.6	+0.8
	comp=Z,0.2nm,0.3s,baz=343,slow=17,SNR=3.0						
DZM				LR	LR	09 28 02.8	
	comp=Z,194nm,18.7s,baz=358,slow=30						
EIDS	Eidsvold	17.90	196	ePn	Pn	09 23 42.7	-0.9
ARMA	Armidale	22.63	191	eP	P	09 24 35.9	+0.5
ARMA	Armidale	22.63	191	eP	P	09 24 36.0	+0.6
KAKA	Kakadu	24.06	257	eP	P	09 24 49.0	-0.7
	comp=Z,33nm,0.7s,mb4.9						
KAKA	Kakadu	24.06	257	eP	P	09 24 48.6	-1.1
WB2	Warramunga Arr	24.42	239	eP	P	09 24 52.4	-0.6
	comp=Z,58nm,0.6s,mb5.2						
WRA	Warramunga Arr	24.43	239	P	P	09 24 52.6	-0.4
	comp=Z,50nm,0.8s,mb5.0,baz=65,slow=9.8,SNR=102						
WRA				LR	LR	09 33 56.9	
	comp=Z,577nm,20.7s,MS4.0,baz=60,slow=36						
ASAR	Alice Springs	26.57	232	P	P	09 25 11.0	-1.4
	comp=Z,3.0nm,0.9s,mb3.8,baz=66,slow=8.8,SNR=20						
STKA	Stephens Creek	27.38	208	eP	P	09 25 20.7	+1.0
	comp=Z,9.5nm,0.8s,mb4.4						
STKA	Stephens Creek	27.38	208	P	P	09 25 20.8	+1.1
	comp=Z,2.4nm,0.5s,mb4.0,baz=32,slow=12,SNR=6.8						
STKA				LR	LR	09 35 31.9	
	comp=Z,388nm,18.6s,MS4.0,baz=23,slow=35						
FITZ	Fitzroy Crossi	31.57	249	⇓iP	P	09 25 55.7	-1.3
	comp=Z,10nm,0.9s,mb4.7						
FITZ	Fitzroy Crossi	31.57	249	P	P	09 25 55.8	-1.2
	comp=Z,2.9nm,0.5s,mb4.4,baz=81,slow=9.0,SNR=24						
FITZ				LR	LR	09 37 58.2	
	comp=Z,273nm,20.5s,MS3.9,baz=59,slow=35						
AFI	Afiamalu	31.68	103	LR	LR	09 36 28.1	
	comp=Z,170nm,21.2s,MS3.7,baz=279,slow=32						
FORT	Forrest	34.81	226	eP	P	09 26 30.7	+5.6
	comp=Z,28nm,0.7s,mb5.3						
RPZ	Rata Peaks	37.67	163	P	P	09 26 49.7	+0.3
	comp=Z,16nm,0.9s,mb4.8,baz=315,slow=1.4,SNR=4.6						
KLBR	Kellerberrin	42.90	232	eP	P	09 27 31.6	-1.3
	comp=Z,42nm,1.5s,mb4.9						
MJAR	Matsushiro Arr	47.63	340	P	P	09 28 09.0	-1.2
MJAR	Matsushiro Arr	47.63	340	P	P	09 28 09.0	-1.2
	comp=Z,4.6nm,0.7s,mb4.6,baz=162,slow=8.1,SNR=14						
MAT	Matsushiro	47.63	340	P	P	09 28 09.2	-1.0
KSRS	Korea Array	52.62	331	P	P	09 28 48.0	-0.1
	comp=Z,6.4nm,0.8s,mb4.6,baz=149,slow=7.7,SNR=20						
NJ2	Nanjing	53.71	320	eP	P	09 28 56.8	+0.5
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
YSS	Yuzh-Sakhalins	56.18	349	⇓eP	P	09 29 14.7	+0.9
YSS				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
HABR	Khabarovsk	59.43	344	eP	P	09 29 35.2	-1.4
HABR				e		09 30 21.8	
HABR				eS	S	09 37 44.9	+1.0
HABR				eSS	SS	09 41 43.1	+3.6
HIA	Hailar	65.56	335	eP	P	09 30 17.8	+0.3
	comp=Z,24nm,0.8s,mb5.3						
HIA	Hailar	65.56	335	eP	P	09 30 17.8	+0.2
HIA				pmax	pmax		
	comp=Z,24nm,0.8s						
LZH	Lanzhou	66.14	315	eP	P	09 30 23.0	+1.4
LZH				AP	pP	09 30 30.0	-0.5
LZH				XP	sP	09 30 35.0	+1.1
LZH				AMB	AMB		
	comp=Z,26nm,1.2s,mb5.1						
LZH				AMB	AMB		
	comp=Z,120nm,4.5s						
LZH	Lanzhou	66.14	315	eP	P	09 30 23.0	+1.4
	comp=Z,26nm,1.2s,mb5.1						
LZH				pP	pP	09 30 30.0	-0.5
LZH				sP	sP	09 30 35.0	+1.1
MA2	Magadan	67.64	357	⇑eP	P	09 30 29.9	-0.7
MA2				pmax	pmax		
	comp=Z,29nm,2.8s,mb4.8						
CLNS	Chul’man	69.74	342	eP	P	09 30 43.1	-0.7
CLNS				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.0						
CLNS				pmax	pmax		
	comp=N,13nm,0.9s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.8s						
CIT	Chita	70.27	333	eP	P	09 30 47.8	+0.7
CIT				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
GTA	Gaotai	70.56	317	eP	P	09 30 49.9	+0.7
GTA				AP	pP	09 30 58.4	+0.2
GTA				XP	sP	09 31 02.8	+1.3
GTA				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.4						
ULN	Ulaanbaatar	70.74	327	eP	P	09 30 51.2	+1.1
	comp=Z,4.5nm,0.6s,mb4.6						
ULN	Ulaanbaatar	70.74	327	eP	P	09 30 51.2	+1.1
ULN				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
SONM	Songino Array	71.07	327	P	P	09 30 53.2	+1.1
	comp=Z,8.8nm,0.9s,mb4.7,baz=135,slow=5.7,SNR=50						
YAK	Yakutsk	72.97	347	eP	P	09 31 03.5	+0.3
	comp=Z,12nm,0.7s,mb4.9						
YAK	Yakutsk	72.97	347	⇑eP	P	09 31 03.1	-0.1
YAK				pmax	pmax		
	comp=Z,45nm,1.5s,mb5.2						
BOD	Bodaibo	74.20	338	⇑iP	P	09 31 10.3	-0.2
BOD				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.4						
ZAK	Zakamensk	74.22	328	eP	P	09 31 11.2	+0.4
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
TLY	Talaya	74.78	329	eP	P	09 31 14.3	+0.3
	comp=Z,4.3nm,0.8s,mb4.4						
TLY	Talaya	74.78	329	⇑iP	P	09 31 14.1	+0.1
TAPN	Taplejung	75.23	301	eP	P	09 31 17.9	+0.7
ODAN	Odare	75.36	300	eP	P	09 31 18.5	+0.6
	comp=Z,29nm,0.8s,mb5.3						
BILL	Bilibino	76.30	4	eP	P	09 31 22.4	+0.1
	comp=Z,15nm,1.0s,mb4.9						
BILL	Bilibino	76.30	4	⇓iP	P	09 31 22.8	+0.4
BILL				e*PP	pP	09 31 31.9	+0.4
BILL				eSS	SS	09 45 58.9	-0.6
BILL				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
JIRN	Jiri	76.61	301	eP	P	09 31 25.3	+0.2
KKN	Kakani	77.42	301	eP	P	09 31 30.0	+0.4
GKN	Gorkha	78.03	301	eP	P	09 31 32.8	-0.2
	comp=Z,19nm,0.9s,mb5.0						
WMQ	Urumqi	80.64	317	eP	P	09 31 47.5	+0.6
TIXI	Tiksi	81.68	351	⇑eP	P	09 31 51.5	-0.3
TIXI				pmax	pmax		
	comp=Z,12nm,2.3s,mb4.4						
MCK	McKinley	82.56	21	eP	P	09 31 56.0	-0.5
	comp=Z,3.9nm,0.8s,mb4.5						
MCK	McKinley	82.56	21	eP	P	09 31 56.1	-0.5
MCK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
COLA	College	83.61	21	i P	P	09 32 00.0	-2.0
KAD	Karad	85.10	288	i P	P	09 32 10.4	-0.2
MK31	Makanchi Array	85.21	318	eP	P	09 32 10.6	+0.1
MK31				epP	pP	09 32 20.9	+1.2
MKAR	Makanchi Array	85.21	318	P	P	09 32 10.6	+0.1
MKAR	Makanchi Array	85.21	318	P	P	09 32 10.6	+0.1
	comp=Z,10nm,0.8s,mb5.0,baz=103,slow=5.8,SNR=100						
ZALV	Zalesovo Beam	85.93	326	P	P	09 32 13.0	-0.9
	comp=Z,2.8nm,0.6s,mb4.7,baz=114,slow=6.6,SNR=8.8						
ZAL	Zalesovo	85.94	326	P	P	09 32 13.0	-0.9
EGAK	Eagle	86.00	22	eP	P	09 32 08.4	-5.6
	comp=Z,7.7nm,1.3s,mb4.8						
KURK	Kurchatov	88.62	322	⇑eP	P	09 32 26.3	-0.7
AAK	Ala-Archa	89.58	313	⇑eP	P	09 32 31.2	-0.5
AAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.5						
NVAR	Mina Array Bea	91.28	52	P	P	09 32 42.0	+2.3
NVAR	Mina Array Bea	91.28	52	P	P	09 32 42.0	+2.3
	comp=Z,3.2nm,1.0s,mb4.6,baz=244,slow=3.7,SNR=15						
YKA	Yellowknife Ar	96.65	28	P	P	09 33 04.0	+0.2
	comp=Z,1.5nm,0.9s,mb4.4,baz=263,slow=4.6,SNR=22						
PDAR	Pinedale Array	98.37	48	P	P	09 33 12.6	+0.5
	comp=Z,0.7nm,0.8s,mb4.2,baz=207,slow=1.3,SNR=4.3						
SOC	Sochi	114.86	314	eP	Pdif	09 34 24.2	-0.9
SOC				e		09 41 41.8	
FINES	FINESS Array B	115.56	336	PKP	PKPdf	09 38 15.5	-0.2
FINES	FINESS Array B	115.56	336	PKIKP	PKPdf	09 38 15.5	-0.2
FINES	FINESS Array B	115.56	336	PKP	PKPdf	09 38 15.5	-0.2
	comp=Z,2.6nm,1.0s,baz=125,slow=6.0,SNR=2.8						
AKASG	Malin Array Be	119.30	325	PKP	PKPdf	09 38 22.6	-0.6
AKASG	Malin Array Be	119.30	325	PKIKP	PKPdf	09 38 22.6	-0.6
AKASG	Malin Array Be	119.30	325	PKP	PKPdf	09 38 22.6	-0.6
	comp=Z,1.0nm,0.4s,baz=67,slow=1.9,SNR=5.8						
BRTR	Keskin Array B	120.22	311	PKP	PKPdf	09 38 25.0	-0.3
BRTR	Keskin Array B	120.22	311	PKIKP	PKPdf	09 38 25.0	-0.3
BRTR	Keskin Array B	120.22	311	PKP	PKPdf	09 38 25.0	-0.3
	comp=Z,0.6nm,0.6s,baz=135,slow=4.2,SNR=4.9						
KOLS	Kolonicke sedl	124.11	325	ePKP	PKPdf	09 38 30.8	-1.7
KOLS	Kolonicke sedl	124.11	325	ePKIKP	PKPdf	09 38 30.8	-1.7
PVCC	Panska Ves	127.26	330	ePKP	PKPdf	09 38 39.1	+0.6
PVCC	Panska Ves	127.26	330	ePKIKP	PKPdf	09 38 39.1	+0.6
PVCC	Panska Ves	127.26	330	ePKPdf	PKPdf	09 38 39.1	+0.6
BRG	Berggiesshubel	127.34	331	ePKIKP	PKPdf	09 38 39.0	+0.4
CLL	Collm	127.50	332	⇓iP	PKPdf	09 38 39.3	+0.4
CLL	Collm	127.50	332	⇓iPKIKP	PKPdf	09 38 39.3	+0.4
PRU	Pruhonice	127.62	330	ePKP	PKPdf	09 38 40.0	+0.8
PRU	Pruhonice	127.62	330	ePKIKP	PKPdf	09 38 40.0	+0.8
PRU	Pruhonice	127.62	330	ePKPdf	PKPdf	09 38 40.0	+0.8
KHC	Kasperske Hory	128.65	330	ePKP	PKPdf	09 38 42.2	+1.0
KHC	Kasperske Hory	128.65	330	ePKIKP	PKPdf	09 38 42.2	+1.0
KHC	Kasperske Hory	128.65	330	ePKPdf	PKPdf	09 38 42.2	+1.0
GERES	GERESS Array B	128.77	329	PKP	PKPdf	09 38 41.8	+0.4
GERES	GERESS Array B	128.77	329	PKIKP	PKPdf	09 38 41.8	+0.4
GERES	GERESS Array B	128.77	329	PKP	PKPdf	09 38 41.8	+0.4
	comp=Z,2.5nm,0.8s,baz=90,slow=1.3,SNR=15						
LPAZ	La Paz	129.64	119	PKP	PKPdf	09 38 44.5	+0.5
LPAZ	La Paz	129.64	119	PKIKP	PKPdf	09 38 44.5	+0.5
LPAZ	La Paz	129.64	119	PKP	PKPdf	09 38 44.5	+0.5
	comp=Z,2.0nm,0.8s,baz=336,slow=1.6,SNR=6.2						
ESDC	Sonseca Array	144.03	334	PKP	PKPdf	09 39 09.0	-0.9
ESDC	Sonseca Array	144.03	334	PKP	PKPdf	09 39 09.0	-0.9
	comp=Z,0.9nm,0.6s,baz=82,slow=3.0,SNR=3.9						
MDT	Midelt	149.82	327	PKPbc	PKPbc	09 39 25.7	+1.1
MDT	Midelt	149.82	327	PKPbc	PKPbc	09 39 25.7	+1.1
	comp=Z,8.1nm,0.9s,baz=18,slow=3.8,SNR=11						
TORD	Torodi Ar. Bea	154.72	284	PKP	PKPdf	09 39 27.8	+0.2
TORD				PKPbc	PKPbc	09 39 35.6	-0.5
TORD				PKPab	PKPab	09 39 50.4	-0.7
TORD	Torodi Ar. Bea	154.72	284	PKP	PKPdf	09 39 27.8	+0.2
	comp=Z,0.7nm,0.8s,baz=10,slow=1.2,SNR=4.1						
TORD				PKPbc	PKPbc	09 39 35.6	-0.5
	comp=Z,1.2nm,1.0s,baz=70,slow=2.3,SNR=4.3						
TORD				PKPab	PKPab	09 39 50.4	-0.7
	comp=Z,3.0nm,1.0s,baz=74,slow=4.0,SNR=9.0						

*ISK **24** 09:39:36.7, 37.44N×35.75E, h24^{km}, MD3.1*

CSEM ***24*** *09:39:36.8±0.1, 3741N×3576E, h25km, MD3.1, Error ellipse: s-maj=2.3km s-min=2.1km az=73.0*
ISCJB ***24*** *09:39:37.2±0.5, 3741N±003×3577E±004, h22km±4km, Error ellipse: s-maj=6.1km s-min=4.8km az=163.5*
DDA ***24*** *09:39:37.1, 3744N×3578E, h4km, Md2.9*
NSSC ***24*** *09:39:39.7, 3724N×3587E, h15km±6km*
ISC 24 09:39:37.3±0.5, **3740N**±003×**3577E**±004, **h18**km±3km, **n32, σ1^{s}05**/46, **2D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KOZT	Kozan	0.09	30	*i* PG	Pg	09 39 41.2	+0.3
KOZT				*i* SG	Sg	09 39 44.5	+1.1
CEYT	Ceyhan	0.39	182	PG	Pg	09 39 46.0	+0.6
CEYT	Ceyhan	0.39	182	*e*Pg	Pg	09 39 46.0	+0.6
ANDN	Andirin	0.49	69	*i* P	Pg	09 39 45.4	-1.9
ANDN				*i* S	Sg	09 39 53.0	-0.9
KARA	Karaisali	0.59	256	PG	Pg	09 39 49.1	+0.2
KARA	Karaisali	0.59	256	*e*Pg	Pg	09 39 49.1	+0.2
COBT	Iskenderun	0.96	156	*i* P	Pb	09 39 55.2	-0.1
COBT				*i* S	Sb	09 40 09.9	+2.2
COBT	Iskenderun	0.96	156	*i* P	Pb	09 39 55.2	-0.2
COBT				*i* S	Sb	09 40 09.9	+2.2
DRWC	Darouich	1.06	137	⇑P	Pb	09 39 56.6	-0.4
DRWC				⇑S	Sb	09 40 09.3	-1.2
DRWC	Darouich	1.06	137	⇑*i*P	Pb	09 39 56.6	-0.4
DRWC				⇑*i*S	Sb	09 40 09.3	-1.2
MERS	Mersin	1.13	242	*e*PN	Pn	09 39 57.6	-0.5
MERS	Mersin	1.13	242	*e*Pn	Pn	09 39 57.6	-0.5
NIG	Nigde	1.16	308	PN	Pn	09 39 57.3	-1.3
NIG	Nigde	1.16	308	*e*Pn	Pn	09 39 57.3	-1.3
GAZ	Gaziantep	1.17	101	*e*PN	Pn	09 39 59.4	+0.7
GAZ	Gaziantep	1.17	101	*e*Pn	Pn	09 39 59.4	+0.7
HTY	Hatay	1.31	167	*e*PN	Pn	09 40 00.8	+0.2
HTY	Hatay	1.31	167	*e*Pn	Pn	09 40 00.8	+0.2
GZT	Gaziantep	1.43	91	*i* P	Pn	09 40 00.8	-1.5
GZT				*i* S	Sn	09 40 22.4	+1.8
BNN	Bunyan	1.45	2	*e*PN	Pn	09 40 01.1	-1.5
BNN	Bunyan	1.45	2	*e*Pn	Pn	09 40 01.1	-1.5
BTCH	Batrach	1.47	158	⇑P	Pn	09 40 02.4	-0.4
BTCH				⇑S	Sn	09 40 21.0	-0.6
BTCH	Batrach	1.47	158	⇑*i*P	Pn	09 40 02.4	-0.4
BTCH				⇑*i*S	Sn	09 40 21.0	-0.5
ARNB	Al Arnab	1.55	174	⇓P	Pn	09 40 04.4	+0.5
ARNB				⇓S	Sn	09 40 23.1	-0.3
AVNT	Avonos	1.55	333	*i* P	Pn	09 40 03.5	-0.5
AVNT				*i* S	Sn	09 40 25.6	+2.0
SLNF	Slenfeh	1.84	168	⇑P	Pn	09 40 08.1	+0.2
SLNF				⇑S	Sn	09 40 30.2	-0.4
SLNF	Slenfeh	1.84	168	⇑*i*P	Pn	09 40 08.1	+0.2
SLNF				⇑*i*S	Sn	09 40 30.2	-0.5
ATAB	Bozova	2.01	87	*i* P	Pn	09 40 12.7	+2.5
ATAB				*i* S	Sn	09 40 40.5	+5.6
MALT	Malatya	2.29	66	*e*PN	Pn	09 40 14.1	0.0
MALT	Malatya	2.29	66	*e*Pn	Pn	09 40 14.1	0.0
URFA	Urfa	2.43	88	*e*PN	Pn	09 40 16.6	+0.6
URFA	Urfa	2.43	88	*e*Pn	Pn	09 40 16.6	+0.6

NEIC ***24*** *09:56:40.7, 1937N×6454W, h80km, MD3.5(RSPR), After RSPR.*
RSPR 24 09:56:40.7, 1937N×6454W, h80km±17km, **MD3.5**/5, **MD3.5**/5, **3C-2D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBVI	Tortola	0.95	185	⇑*e*P	Pn	09 56 59.1	-0.1
TBVI				*e*S	Sn	09 57 12.3	-0.6
STVI	Saint Thomas	1.08	201	⇑*e*P	Pn	09 57 00.1	-0.8
STVI				*e*S	Sn	09 57 15.2	-0.6
MTP	Monte Pirata	1.59	218	⇓*e*P	Pn	09 57 06.6	-0.6
MTP				*e*S	Sn	09 57 27.2	0.0
CPD	Cerro la Pandu	1.86	225	⇓*e*P	Pn	09 57 09.7	-1.0
CRPR	Cabo Rojo, PR	2.79	241	⇑*e*P	Pn	09 57 23.0	-0.2

TRN 24 09:57:52.5, 1685N×6163W, h34km, **M2.9**(FDF), **2D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BPA	Boggy Peak	0.30	312	*e*P	Pb	09 58 02.6	+2.3
BPA				*e*S	Sb	09 58 07.3	+1.7
LZG	Guadaloupe-1	0.72	191	*e*P	Pn	09 58 07.7	+1.5
DEG	La Desirade	0.76	134	⇓*e*P	Pn	09 58 08.3	+1.5
DEG				*e*S	Sn	09 58 18.8	+1.7
SCG	Saint Claude	0.81	184	⇓*e*P	Pn	09 58 09.2	+1.6
SCG				*e*S	Sn	09 58 20.4	+2.0
MGG	Marie-Galante	0.97	162	*e*P	Pn	09 58 12.1	+2.4
TBG	Guadaloupe-3	0.99	181	*e*P	Pn	09 58 11.9	+2.0

ISK ***24*** *10:02:08.7, 3840N×3921E, h5km, MD2.8*
DDA ***24*** *10:02:09.6, 3871N×3918E, h14km, Md3.0*
CSEM ***24*** *10:02:09.7±0.1, 3842N×3921E, h8km, MD2.8, Error ellipse: s-maj=3.9km s-min=2.2km az=126.0*
ISCJB ***24*** *10:02:10.1±0.6, 3841N±004×3923E±004, h14km, Error ellipse: s-maj=5.8km s-min=4.3km az=0.3*
ISC 24 10:02:10.2±0.8, **3838N**±005×**3927E**±004, **h1**km±9km, **n14, σ0^{s}86**/23, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.25	298	*i* P	Pg	10 02 14.9	-0.1
ELZG				*i* S	Sg	10 02 18.2	-0.1
PTK	Pertek	0.52	11	PG	Pg	10 02 20.0	-0.2
PTK				SG	Sg	10 02 27.8	+0.9
PTK	Pertek	0.52	11	*e*Pg	Pg	10 02 20.0	-0.2
PTK				*e*Sg	Sg	10 02 27.8	+0.9
MALT	Malatya	0.67	265	PG	Pg	10 02 21.3	-1.6
MALT				SG	Sg	10 02 31.4	-0.1
MALT	Malatya	0.67	265	*e*Pg	Pg	10 02 21.3	-1.6
MALT				*e*Sg	Sg	10 02 31.4	-0.1
MYA	Malataya	0.67	266	PG	Pg	10 02 22.1	-0.8
MYA				SG	Sg	10 02 32.2	+0.7
MYA	Malataya	0.67	266	*e*Pg	Pg	10 02 22.1	-0.8
MYA				*e*Sg	Sg	10 02 32.2	+0.7
DIY	Diyarbakir	0.90	122	*e*PG	Pg	10 02 27.7	+0.4
DIY	Diyarbakir	0.90	122	*e*Pg	Pg	10 02 27.7	+0.4
URFA	Urfa	1.00	201	*e*PG	Pg	10 02 30.0	+0.7
URFA	Urfa	1.00	201	*e*Pg	Pg	10 02 30.0	+0.7
MARD	Mardin	1.60	131	*i* P	Pn	10 02 41.3	+1.7
MARD				*i* S	Sn	10 02 59.7	-1.1
GZT	Gaziantep	1.69	233	*i* P	Pn	10 02 41.0	+0.2
GZT				*i* S	Sn	10 03 03.9	+0.8
BTMT	Batman	1.76	95	*e*PN	Pn	10 02 40.5	-1.2

KRSC 24 10:17:27.4±0.2, **5449N×16364E, h43**km±42km, **ML3.6, Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	1.79	345	*e*P	Pn	10 17 55.6	-0.1
KBTR				*e*S	Sn	10 18 16.9	-0.2
TUMR	Tumrok	2.17	293	*e*P	Pn	10 18 04.5	+3.6
TUMR				S	Sn	10 18 30.6	+4.0
ZLN	Zelenaya	2.23	314	P	Pn	10 18 04.7	+2.9
KMNR	Kamenistaya	2.33	304	*e*P	Pn	10 18 06.1	+3.0
KPT	Kopyto	2.45	308	P	Pn	10 18 07.6	+2.8
KRSR	Krestovskiy	2.46	316	P	Pn	10 18 07.4	+2.4
KLY	Klyuchi	2.50	318	*e*P	Pn	10 18 06.7	+1.2
KLY				*e*S	Sn	10 18 35.5	+0.8
KII	Karymskiy	2.50	261	*e*S	Sn	10 18 36.5	+1.8
SPN	Mys Shipunski	2.56	238	P	Pn	10 18 07.8	+1.5
SPN				S	Sn	10 18 36.8	+0.7
SRKR	Sorokina	2.58	328	*e*P	Pn	10 18 08.8	+2.2
SRKR				*e*S	Sn	10 18 38.3	+1.6
KOZ	Kozyrevsk	2.67	308	P	Pn	10 18 11.5	+3.7
NLC	Nalytchevo	2.87	244	*e*P	Pn	10 18 13.4	+2.9
NLC				*e*S	Sn	10 18 45.7	+1.9
SRDR	Sredinnyy	2.89	311	P	Pn	10 18 13.9	+3.1
AVH	Avacha	3.15	249	*e*P	Pn	10 18 17.8	+3.4
AVH				S	Sn	10 18 53.8	+3.1
PET	Petropavlovsk	3.31	246	*e*P	Pn	10 18 19.9	+3.4
PET				*e*S	Sn	10 18 56.8	+2.3
GNL	Ganaly	3.45	259	*e*P	Pn	10 18 22.6	+4.1
RUS	Russkaya	3.69	238	*e*P	Pn	10 18 23.8	+1.9
RUS				*e*S	Sn	10 19 04.8	+0.7
GRL	Gorelyy	3.85	242	P	Pn	10 18 26.5	+2.5

ISCJB ***24*** *10:31:32.7±0.4, 1.14N±005×8525W±005, h10km, mb4.4/30, MS4.4/21, Error ellipse: s-maj=7.7km s-min=5.7km az=140.2*
IDC ***24*** *10:31:32.3±0.7, 1.19N×8524W, h0km, mb4.2/11, mb1 4.4/18, mb1mx4.3/27, mbtmp4.3/18, ML3.6/7, MS4.3/23, Ms1 4.3/23, ms1mx4.2/27, Error ellipse: s-maj=23.1km s-min=13.1km az=54.0*
BJI ***24*** *10:31:33.9, 1.10N×8530W, h10km, mB5.6, Ms5.2, Msz4.9*
NEIC ***24*** *10:31:34.0±0.3, 1.05N×8526W, h10km, mb4.7/25, Error ellipse: s-maj=7.6km s-min=5.5km az=219.0*
GCMT ***24*** *10:31:34.0±0.2, 1.09N×8546W, h18km±1km, MW5.1/74, Moment Tensor Solution. s32,c46; s74,c103; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.12±.17; $M_{\theta\theta}$1.73±.14; $M_{\phi\phi}$-1.61±.19; $M_{r\theta}$0.38±.32; $M_{\theta\phi}$4.81±.15; $M_{\phi r}$-0.26±.40; Best double couple: $M_0$5.11200×10^{16} NP1:ϕ_s10.00000°,δ85.00000°,λ-178.00000°. NP2: ϕ_s279.00000°,δ88.00000°,λ-5.00000°. Principal axes: T 5.1560, Plg2.0000°, Azm325.0000°; N -0.0900, Plg85.0000°, Azm74.0000°; P -5.0680, Plg5.0000°, Azm234.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
ISC 24 10:31:33.0±2.6, **109N**±005×**8528W**±005, **h1**km±16km, **n99, σ1^{s}06**/80, **mb4.5**/30, **MS4.4**/21, **Off coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAYG	Puerto Ayora	5.30	251	*e*Pn	Pn	10 32 53.7	+0.2
OTAV	Otavalo	6.88	97	*e*Pn	Pn	10 33 15.9	+0.7
BAR1		8.33	14	*e*P	Pn	10 33 35.8	+0.7
LCR2	La Lucha 2	8.69	8	*e*P	Pn	10 33 38.9	-1.1
URSC	Urasca	8.82	10	*e*P	Pn	10 33 42.2	+0.5
JTS	JuntasAbangare	9.15	2	*e*Pn	Pn	10 33 46.6	+0.3
JTS	JuntasAbangare	9.15	2	Pn	Pn	10 33 45.8	-0.4
	0.9nm,0.3s,baz=172,slow=16,SNR=7.9						
JTS				Sn	Sn	10 35 34.3	+4.3
	0.3nm,0.3s,baz=201,slow=23,SNR=1.8						
JTS				LR	LR	10 36 30.9	
	comp=Z,2µm,20.1s,baz=304,slow=33						
BCIP	Isla Barro Col	9.68	34	*e*Pn	Pn	10 33 54.3	+0.6
ATAH	Atahualpa	10.57	140	Pn	Pn	10 34 09.2	+3.4
	3.0nm,0.3s,baz=316,slow=12,SNR=15						
ATAH				Sn	Sn	10 36 18.7	+14
	0.3nm,0.3s,baz=8.6,slow=21,SNR=1.7						
ROSC	El Rosal	11.56	71	*e*Pn	Pn	10 34 20.0	+0.6
ROSC	El Rosal	11.56	71	Pn	Pn	10 34 17.2	-2.1
	1.1nm,0.3s,baz=287,slow=19,SNR=2.5						
ROSC				LR	LR	10 38 22.1	
	comp=Z,2µm,20.8s,baz=210,slow=36						
TGUH	Tegucigalpa,Un	13.03	351	*e*Pn	Pn	10 34 39.5	-0.1
	37nm,1.0s						
NNA	Nana	15.46	147	*e*Pn	Pn	10 35 12.6	+0.1
	35nm,1.1s						
NNA	Nana	15.46	147	Pn	Pn	10 35 13.7	+1.2
	1.4nm,0.3s,baz=339,slow=8.7,SNR=6.4						
SDV	Santo Domingo	16.51	62	*e*Pn	Pn	10 35 25.3	-0.8
	14nm,1.1s						
SDV	Santo Domingo	16.51	62	Pn	Pn	10 35 25.1	-1.0
	0.2nm,0.3s,baz=268,slow=8.1,SNR=6.3						
SDV				Sn	Sn	10 38 32.9	+2.8
	0.1nm,0.3s,baz=239,slow=23,SNR=1.9						
SDV				LR	LR	10 41 16.9	
	comp=Z,2µm,20.0s,baz=190,slow=36						
CMIG	Matias Romero	18.50	330	P	Pn	10 35 50.3	-0.5
	0.1nm,0.3s,baz=152,slow=9.8,SNR=7.0						
CMIG				LR	LR	10 41 29.9	
	comp=Z,1µm,20.2s,baz=131,slow=32						
TEIG	Tepich	19.24	351	*e*P	Pn	10 35 59.4	-0.5
	10nm,0.9s						
TEIG	Tepich	19.24	351	P	Pn	10 35 58.6	-1.3
	0.2nm,0.3s,baz=214,slow=15,SNR=2.1						
TEIG				LR	LR	10 42 48.9	
	comp=Z,1µm,18.9s,baz=198,slow=35						
PCRV	Puerto La Cruz	22.42	66	P	P	10 36 32.9	-0.6
	21nm,1.0s,mb4.5,baz=48,slow=1.9,SNR=4.1						
LPAZ	La Paz	24.18	136	*e*P	P	10 36 51.6	+0.4
	44nm,1.2s,mb4.9						
LPAZ	La Paz	24.18	136	P	P	10 36 52.6	+1.4
	14nm,1.0s,mb4.5,baz=326,slow=10,SNR=23						
SJG	San Juan	25.28	47	*e*P	P	10 37 01.2	0.0
	18nm,0.9s,mb4.8						
SJG	San Juan	25.28	47	P	P	10 37 00.8	-0.4
	7.4nm,0.3s,mb4.8,baz=350,slow=18,SNR=5.8						
SJG				LR	LR	10 46 18.8	
	comp=Z,854nm,21.8s,MS4.2,baz=266,slow=35						
CPD	Cerro la Pandu	25.41	47	*e*P	P	10 37 02.7	+0.4
HUMP	Col San Antoni	25.52	47	*e*P	P	10 37 03.6	+0.2
SIV	San Ignacio	29.32	126	P	P	10 37 36.6	-0.9
	2.9nm,1.1s,mb4.0,baz=314,slow=12,SNR=3.1						
GOGA	Godfrey	32.20	3	*e*P	P	10 38 03.6	+0.9
JCT	Junction City	32.32	336	*e*P	P	10 38 07.1	+3.3
	14nm,1.4s,mb4.7						
LTX	Lajitas	33.10	330	*e*P	P	10 38 10.9	+0.2
	6.8nm,1.3s,mb4.4						
TXAR	Lajitas Array	33.10	330	P	P	10 38 09.1	-1.6
TXAR				PcP	PcP	10 40 55.4	+1.2
TXAR				LR	LR	10 50 25.6	
TXAR	Lajitas Array	33.10	330	P	P	10 38 09.1	-1.6
	0.7nm,0.9s,mb3.6,baz=145,slow=9.0,SNR=5.9						
TXAR				PcP	PcP	10 40 55.4	+1.2
	0.4nm,0.8s,baz=133,slow=5.5,SNR=3.5						
TXAR				LR	LR	10 50 25.6	
	comp=Z,708nm,18.9s,MS4.4,baz=275,slow=34						
OXF	Oxford	33.47	354	*e*P	P	10 38 13.4	-0.5
	0.6nm,1.0s,mb3.5						
MIAR	Mount Ida	34.17	348	*e*P	P	10 38 20.2	+0.2
	6.0nm,1.3s,mb4.4						
WVT	Waverly	34.94	356	P	P	10 38 26.7	+0.1
	0.2nm,1.0s						
WMOK	Wichita Mounta	35.77	341	*e*P	P	10 38 33.8	0.0
	7.9nm,1.3s,mb4.4						
CFAA	Coronel Fontan	36.31	155	P	P	10 38 37.5	-0.9
	0.5nm,0.9s,baz=344,slow=4.6,SNR=3.7						
CFAA				LR	LR	10 50 29.7	
	comp=Z,74nm,18.9s,MS3.5,baz=352,slow=31						
SIUC	Southern Illin	36.63	355	*e*P	P	10 38 40.6	-0.4
	17nm,0.8s,mb4.8						
BBSR	BB Station	36.67	30	*e*P	P	10 38 41.7	+0.2
	34nm,0.9s,mb5.1						
ACSO	Alum Creek Sta	39.02	3	*e*P	P	10 38 60.0	-1.3
	4.2nm,0.7s,mb4.2						
ANMO	Albuquerque	39.05	332	*e*P	P	10 39 02.0	+0.4
KSU1	Kansas State U	39.22	346	*e*P	P	10 39 03.1	+0.1
BRNJ	Basking Ridge	40.59	13	*e*P	P	10 39 12.0	-2.4
SDCO	Great Sand Dun	40.95	335	*e*P	P	10 39 17.8	+0.4
	29nm,1.6s,mb4.8						
PV01	Paradox Valley	42.62	333	*e*P	P	10 39 31.8	+0.7
ISCO	Idaho Springs	42.75	337	*e*P	P	10 39 33.5	+1.5
SMCO	Snowmass	42.78	335	*e*P	P	10 39 33.3	+1.0
	30nm,1.5s,mb4.8						
PV10	Paradox Valley	43.04	332	*e*P	P	10 39 34.8	+0.4
ECSD	EROS,Sioux Fal	43.65	348	*e*P	P	10 39 38.3	-0.9
	13nm,1.4s,mb4.5						
SRU	San Rafael	44.32	332	*e*P	P	10 39 45.1	+0.4
	1.7nm,0.5s,mb4.0						
ARUT	Antelope Range	44.77	328	*e*P	P	10 39 49.7	+1.3
RSSD	Black Hills	45.98	341	*e*P	P	10 39 51.9	-5.9
	8.5nm,0.9s,mb4.8						
HWUT	Hardware Ranch	46.78	333	*e*P	P	10 40 07.1	+2.9
	25nm,1.6s,mb5.1						
PDAR	Pinedale Array	46.85	335	P	P	10 40 02.9	-1.8
	1.0nm,1.0s,mb3.9,baz=132,slow=4.4,SNR=6.0						
PDAR				LR	LR	11 00 09.3	
	comp=Z,826nm,19.4s,MS4.7,baz=145,slow=37						
REDW	Red Top Meadow	47.88	335	*e*P	P	10 40 12.5	-0.2
NVAR	Mina Array Bea	47.92	325	P	P	10 40 12.5	-0.7
NVAR				PcP	PcP	10 41 41.3	-0.4
NVAR	Mina Array Bea	47.92	325	P	P	10 40 12.5	-0.6
	5.1nm,1.2s,mb4.5,baz=129,slow=7.1,SNR=7.2						
NVAR				PcP	PcP	10 41 41.3	-0.4
	0.5nm,0.5s,baz=134,slow=3.9,SNR=3.6						
LOHW	Long Hollow	47.98	335	*e*P	P	10 40 17.7	+4.3
	24nm,1.9s,mb5.0						
DCID1	Drake Creek	48.21	335	*e*P	P	10 40 18.4	+3.2
CMB	Columbia Colle	48.89	323	*e*P	P	10 40 21.7	+1.0
	5.9nm,1.5s,mb4.4						
HLID	Hailey	49.62	332	*e*P	P	10 40 26.3	+0.2
ULM	Lac du Bonnet	49.80	351	*e*P	P	10 40 25.6	-1.8
	25nm,1.2s,mb5.0						
ULM	Lac du Bonnet	49.80	351	P	P	10 40 26.0	-1.4
	5.9nm,0.6s,mb4.7,baz=163,slow=7.4,SNR=20						
ULM				LR	LR	11 00 34.2	
	comp=Z,175nm,21.5s,MS4.0,baz=132,slow=35						
MCMT	McKenzie Canyo	49.91	335	*e*P	P	10 40 29.5	+1.2
BOZ	Bozeman (W)	50.06	336	*e*P	P	10 40 31.6	+2.2
EGMT	Eagleton	51.33	339	*e*P	P	10 40 38.8	-0.2
	37nm,1.8s,mb5.0						
RKT	Rikitea	53.98	240	*e*S	S	10 48 31.7	-4.4
	293nm,29.0s						
RKT				*e*LR	LR	10 56 38.9	
	380nm,27.5s						
TAOE	Nuku Hiva Isla	55.55	259	*e*LR	LR	10 57 22.2	
	3µm,25.2s,baz=88						
SCHQ	Schefferville	55.66	13	LR	LR	11 05 01.5	
	comp=Z,221nm,19.8s,MS4.2,baz=204,slow=36						
EDM	Edmonton	56.94	340	*e*P	P	10 41 19.0	-0.8
USHA	Ushuaia	57.44	169	LR	LR	11 01 40.5	
	comp=Z,620nm,18.6s,MS4.7,baz=324,slow=31						
FCC	Fort Churchill	57.92	355	*e*P	P	10 41 25.9	-0.8
	8.0nm,1.1s,mb4.7						
YKA	Yellowknife Ar	65.07	345	P	P	10 42 13.2	-1.7
YKA				LR	LR	11 12 24.9	
YKA	Yellowknife Ar	65.07	345	P	P	10 42 13.2	-1.7
	1.3nm,0.6s,mb4.4,baz=143,slow=6.0,SNR=38						
YKA				LR	LR	11 12 24.9	
	comp=Z,250nm,18.7s,MS4.4,baz=155,slow=38						
PPT	Papeete	65.92	250	*e*S	S	10 51 05.1	-5.0
	113nm,29.2s						
PPT				*e*LR	LR	11 02 10.9	
	736nm,26.8s,baz=86						
PPT	Papeete	65.92	250	LR	LR	11 03 29.5	
	comp=Z,321nm,18.6s,MS4.6,baz=86,slow=29						
DLBC	Dease Lake	67.07	336	*e*P	P	10 42 28.4	+0.5
PMSA	Palmer Station	67.52	170	LR	LR	11 03 59.3	
	comp=Z,281nm,20.0s,MS4.5,baz=345,slow=29						
RES	Resolute Bay	73.73	357	*e*P	P	10 43 08.6	+0.2
	686nm,1.9s						
INK	Inuvik	74.63	343	*e*P	P	10 43 13.7	0.0
	246nm,1.2s						
COLA	College	77.66	337	*e*P	P	10 43 30.8	-0.2
	0.8nm,0.3s,mb4.3						
MDT	Midelt	81.56	57	P	P	10 43 51.5	-1.4
	2.4nm,0.9s,mb4.3,baz=270,slow=2.0,SNR=2.8						
MDT				LR	LR	11 12 56.1	
	comp=Z,154nm,21.4s,MS4.3,baz=241,slow=30						
ESDC	Sonseca Array	82.62	50	LR	LR	11 12 49.1	
	comp=Z,178nm,19.9s,MS4.4,baz=255,slow=30						
TORD	Torodi Ar. Bea	86.81	77	P	P	10 44 17.9	-2.1
	1.5nm,1.1s,mb4.1,baz=244,slow=3.9,SNR=3.7						
TORD				LR	LR	11 19 35.5	
	comp=Z,139nm,19.3s,MS4.4,baz=340,slow=33						
NOA	NORSAR Array B	92.21	29	LR	LR	11 19 14.3	
	comp=Z,125nm,19.3s,MS4.4,baz=0.0,slow=31						
KEST	Kesra	93.13	54	LR	LR	11 20 42.5	
	comp=Z,50nm,18.4s,MS4.0,baz=234,slow=32						
GERES	GERESS Array B	95.10	41	LR	LR	11 21 11.2	
	comp=Z,166nm,19.9s,MS4.5,baz=93,slow=31						
URZ	Urewera	96.65	232	LR	LR	11 20 14.4	
	comp=Z,172nm,18.0s,MS4.6,baz=34,slow=30						
FINES	FINESS Array B	99.11	27	LR	LR	11 29 23.2	
	comp=Z,13nm,19.1s,MS3.5,baz=288,slow=35						
HHC	Hu-ho-hao-te	135.53	342	*e*PKP	PKPdf	10 50 54.0	-1.5
HHC				PP	PP	10 53 34.3	+3.1
HHC				PKS		10 54 29.6	
HHC				SKS	SKSdf	10 57 58.9	-9.1
HHC				SKKS	SKKSac	11 00 21.6	-7.4
HHC				SS	SS	11 11 25.9	-2.5
HHC				PP	PP		
	comp=Z,162nm,8.3s						
HHC				LR	LR		
	comp=N,241nm,23.8s,MS5.1						
HHC				LR	LR		
	comp=E,344nm,20.2s,MS5.1						
HHC				LR	LR		
	comp=Z,210nm,19.0s,MS4.9						
ASAR	Alice Springs	135.90	236	PKP	PKPdf	10 50 54.2	-2.4
ASAR	Alice Springs	135.90	236	PKP	PKPdf	10 50 54.2	-2.4
	comp=Z,0.3nm,0.9s,baz=154,slow=2.6,SNR=2.6						
WRA	Warramunga Arr	136.96	242	PKP	PKPdf	10 50 57.9	-0.8
WRA	Warramunga Arr	136.96	242	PKP	PKPdf	10 50 57.9	-0.8
	comp=Z,1.4nm,1.1s,baz=136,slow=1.3,SNR=5.4						
NJ2	Nanjing	139.89	327	*e*PKP	PKPdf	10 51 00.3	-3.5
LZH	Lanzhou	142.05	348	*e*PKP	PKPdf	10 51 01.5	-6.1
FITZ	Fitzroy Crossi	145.25	239	PKPbc	PKPbc	10 51 13.4	+0.1
	comp=Z,4.1nm,1.0s,baz=128,slow=1.1,SNR=5.0						
GYA	Guiyang	150.29	338	PKP	PKPdf	10 51 20.4	-1.4
GYA				PKP2	PKPab	10 51 34.3	+1.4
GYA				PKS		10 54 54.0	
GYA				PP	PP	10 55 04.3	+3.9
GYA				SKS	SKSdf	10 58 26.0	-5.2
GYA				SKKS	SKKSac	11 01 51.4	-3.0
GYA				PP	PP		
	comp=Z,110nm,7.8s						
GYA				LR	LR		
	comp=N,170nm,20.4s,MS5.0						
GYA				LR	LR		
	comp=E,180nm,21.2s,MS5.0						
GYA				LR	LR		
	comp=Z,240nm,22.4s,MS4.9						
KMI	Kunming	152.81	344	PKP	PKPdf	10 51 22.8	-2.8
KMI				APKP		10 51 27.8	
KMI				XPKP		10 51 31.8	
KMI				PP	PP	10 55 18.3	+3.6
KMI				LR	LR		
	comp=N,122nm,17.6s,MS4.9						
KMI				LR	LR		
	comp=E,123nm,16.9s,MS4.9						
KMI				LR	LR		
	comp=Z,177nm,22.4s						

IDC 24 10:32:06.7±45.0, **1935S×17936W, h638**km±399km, **mb2.2**/2, **mb1 2.5**/2, **mb1mx2.4**/13, **mbtmp2.2**/2, **Error ellipse: s-maj=398.1km s-min=203.2km az=100.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	43.50	261	P	P	10 39 16.7	+0.3
	0.2nm,0.4s,baz=96,slow=7.5,SNR=24						
WRA				PcP	PcP	10 40 49.4	-0.1
	0.3nm,0.9s,baz=96,slow=4.1,SNR=4.4						
ASAR	Alice Springs	43.55	256	P	P	10 39 16.4	-0.3
	0.2nm,0.3s,baz=90,slow=8.5,SNR=5.2						
ASAR				PcP	PcP	10 40 49.5	-0.1
	0.4nm,0.5s,baz=94,slow=3.8,SNR=7.6						
AKASG	Malin Array Be	141.39	331	PKP	PKPdf	10 50 25.1	-1.2
	2.6nm,0.4s,baz=41,slow=3.9,SNR=8.3						

IPEC ***24*** *10:47:00.9±0.3, 5155N×1614E, h0km, ML2.3/3, Error ellipse: s-maj=2.0km s-min=1.5km az=32.0*
ISCJB ***24*** *10:47:01.8±0.6, 5139N±003×1600E±003, h0km, Error ellipse: s-maj=4.7km s-min=2.8km az=20.3*
NEIC ***24*** *10:47:01.8±0.5, 5154N×1609E, h5km, ML2.8(SZGRF), Error ellipse: s-maj=6.2km s-min=4.3km az=65.0*
CSEM ***24*** *10:47:01.8±0.1, 5152N×1608E, h1km, ML3.2/8, Error ellipse: s-maj=2.0km s-min=1.3km az=75.0*
PRU ***24*** *10:47:02.9, 5145N×1607E, h0km*
IDC ***24*** *10:47:02.6±0.8, 5145N×1611E, h0km, mb1 3.4/6, mb1mx3.2/22, mbtmp3.3/6, ML2.8/6, Error ellipse: s-maj=18.1km s-min=6.7km az=103.0*
WAR ***24*** *10:47:03.2, 5148N×1604E, ML2.6, Mining Induced*
VIE ***24*** *10:47:04.1±0.5, 5132N×1606E, h0km, mb2.1/2, ML2.7/5, Error ellipse: s-maj=3.2km s-min=2.9km az=88.0, Suspected Mining induced.*
ISC 24 10:47:01.1±0.5, **5152N**±002×**1609E**±004, **h0**km, **n72, σ0^{s}97**/129, **9C-3D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.69	169	*e*Pg	Pg	10 47 15.2	+1.0
KSP				*e*Sg	Sg	10 47 24.5	+1.3
KSP	Ksiaz	0.69	169	*e*Pg	Pg	10 47 15.2	+1.0
KSP				*e*Sg	Sg	10 47 23.9	+0.7
KSP				*e*		10 47 24.5	
KSP	Ksiaz	0.69	169	*e*Pg	Pg	10 47 15.2	+1.0
KSP				*e*Sg	Sg	10 47 23.9	+0.7
UPC	Upice	1.01	183	*e*Pg	Pg	10 47 20.9	+0.4
UPC	Upice	1.01	183	*e*PG	Pg	10 47 20.9	+0.4
UPC	Upice	1.01	183	*e*Pg	Pg	10 47 20.9	+0.4
DPC	Dobruska-Polom	1.18	173	*e*Pg	Pg	10 47 24.0	+0.4
DPC				*e*Sg	Sg	10 47 38.5	-0.4
DPC	Dobruska-Polom	1.18	173	*e*PG	Pg	10 47 24.0	+0.4
DPC				*e*SG	Sg	10 47 38.5	-0.4
	37nm,0.3s						
DPC	Dobruska-Polom	1.18	173	*e*Pg	Pg	10 47 24.0	+0.4

DPC				eSg	Sg	10 47 38.7	-0.2
PVCC	Panska Ves	1.38	225	ePg	Pg	10 47 27.8	+0.3
PVCC				eSg	Sg	10 47 46.0	+0.7
PVCC	Panska Ves	1.38	225	ePG	Pg	10 47 27.8	+0.3
PVCC				eSG	Sg	10 47 46.0	+0.7
	117nm,0.2s						
PVCC	Panska Ves	1.38	225	ePg	Pg	10 47 27.8	+0.3
PVCC				eSg	Sg	10 47 45.7	+0.4
BRG	Berggiesshubel	1.50	245	Pn	Pn	10 47 29.4	+0.2
BRG				Pg	Pg	10 47 30.1	+0.4
BRG				Sg	Sg	10 47 49.9	+0.9
BRG	Berggiesshubel	1.50	245	Pn	Pn	10 47 29.4	+0.3
BRG	Berggiesshubel	1.50	245	Pg	Pg	10 47 30.1	+0.4
BRG	Berggiesshubel	1.50	245	PN	Pn	10 47 29.4	+0.2
BRG				PG	Pg	10 47 30.1	+0.4
BRG				SG	Sg	10 47 49.9	+0.9
	50nm,0.4s						
PRU	Pruhonice	1.82	213	ePn	Pn	10 47 33.4	-0.2
PRU				ePg	Pg	10 47 35.1	-0.8
PRU				eSg	Sg	10 47 58.6	-0.9
PRU	Pruhonice	1.82	213	ePN	Pn	10 47 33.4	-0.2
PRU				ePG	Pg	10 47 35.1	-0.8
PRU				eSG	Sg	10 47 58.6	-0.9
	16nm,0.5s						
PRU	Pruhonice	1.82	213	ePn	Pn	10 47 33.4	-0.2
CLL	Collm	1.94	265	ePn	Pn	10 47 35.0	-0.3
CLL				ePg	Pg	10 47 38.0	-0.3
CLL				eSg	Sg	10 48 03.0	-0.4
CLL	Collm	1.94	265	ePn	Pn	10 47 35.0	-0.3
CLL				ePg	Pg	10 47 38.0	-0.3
CLL				eSg	Sg	10 48 03.0	-0.4
	comp=Z,19nm,0.6s						
CLL	Collm	1.94	265	ePn	Pn	10 47 35.0	-0.3
CLL	Collm	1.94	265	ePg	Pg	10 47 38.0	-0.3
MORC	Moravsky Berou	1.98	151	ePn	Pn	10 47 36.3	+0.6
MORC	Moravsky Berou	1.98	151	ePn	Pn	10 47 36.0	+0.3
MORC				eSg	Sg	10 48 03.1	-1.4
	comp=Z,18nm,0.3s						
OKC	Ostrava-Krasne	2.13	141	ePg	Pg	10 47 43.1	+1.2
OKC				eSg	Sg	10 48 09.1	-0.5
OKC	Ostrava-Krasne	2.13	141	ePG	Pg	10 47 43.1	+1.2
OKC				eSG	Sg	10 48 09.1	-0.5
OKC	Ostrava-Krasne	2.13	141	ePg	Pg	10 47 43.1	+1.2
OKC				eSg	Sg	10 48 09.1	-0.5
VRAC	Vranov	2.24	171	Pn	Pn	10 47 40.0	+0.7
VRAC				Lg		10 48 10.2	
VRAC	Vranov	2.24	171	Pn	Pn	10 47 40.0	+0.7
	comp=Z,1.2nm,0.3s,baz=336,slow=18,SNR=5.2						
VRAC				Lg		10 48 10.2	
	comp=Z,4.6nm,0.3s,baz=90,slow=20,SNR=11						
VRAC	Vranov	2.24	171	ePn	Pn	10 47 39.7	+0.4
VRAC				eSg	Sg	10 48 11.9	-1.0
	comp=Z,16nm,0.4s						
KRUC	Moravsky	2.47	175	ePn	Pn	10 47 42.9	+0.4
KRUC				eSg	Sg	10 48 19.1	-1.2
	comp=Z,18nm,0.6s						
NKC	Novy Kostel	2.64	242	ePn	Pn	10 47 45.8	+0.9
NKC				ePg	Pg	10 47 51.3	-0.3
NKC				eSg	Sg	10 48 25.9	+0.1
NKC	Novy Kostel	2.64	242	ePN	Pn	10 47 45.8	+0.9
NKC				ePG	Pg	10 47 51.3	-0.3
NKC				eSG	Sg	10 48 25.9	+0.1
	comp=Z,26nm,0.3s						
NKC	Novy Kostel	2.64	242	ePn	Pn	10 47 45.8	+0.9
KHC	Kasperske Hory	2.88	215	ePn	Pn	10 47 48.2	0.0
KHC				ePg	Pg	10 47 54.3	-1.9
KHC				eSn	Sn	10 48 22.4	-1.1
KHC				eSg	Sg	10 48 32.2	-1.3
KHC	Kasperske Hory	2.88	215	ePN	Pn	10 47 48.2	0.0
KHC				ePG	Pg	10 47 54.3	-1.9
KHC				eSN	Sn	10 48 22.4	-1.1
KHC				eSG	Sg	10 48 32.2	-1.3
KHC	Kasperske Hory	2.88	215	ePn	Pn	10 47 48.2	0.0
MOX	Moxa	2.95	255	ePn	Pn	10 47 49.8	+0.7
MOX				ePg	Pg	10 47 57.3	-0.3
MOX				eSg	Sg	10 48 37.4	+1.6
MOX	Moxa	2.95	255	ePN	Pn	10 47 49.8	+0.7
MOX				ePG	Pg	10 47 57.3	-0.3
MOX				eSG	Sg	10 48 37.4	+1.6
MOX	Moxa	2.95	255	ePn	Pn	10 47 49.8	+0.7
MOX	Moxa	2.95	255	ePg	Pg	10 47 57.3	-0.3
GEC2	GERESS Array S	3.08	211	ePn	Pn	10 47 52.2	+1.2
GEC2				eSg	Sg	10 48 37.5	-2.6
GEC2	GERESS Array S	3.08	211	ePn	Pn	10 47 52.2	+1.2
GEC2				eSg	Sg	10 48 37.5	-2.6
GERES	GERESS Array B	3.08	211	Pn	Pn	10 47 52.1	+1.1
GERES				Pg	Pg	10 47 58.1	-2.0
GERES				Sn	Sn	10 48 28.7	+0.3
GERES				Lg		10 48 39.2	
GERES	GERESS Array B	3.08	211	Pn	Pn	10 47 52.1	+1.1
	comp=Z,0.6nm,0.3s,baz=28,slow=12,SNR=14						
GERES				Pg	Pg	10 47 58.1	-2.1
	comp=Z,2.8nm,0.3s,baz=30,slow=17,SNR=30						
GERES				Sn	Sn	10 48 28.7	+0.3
	comp=Z,1.1nm,0.3s,baz=25,slow=16,SNR=7.5						
GERES				Lg		10 48 39.2	
	comp=Z,3.6nm,0.3s,baz=33,slow=27,SNR=12						
GERES	GERESS Array B	3.08	211	Pn	Pn	10 47 52.1	+1.1
GERES	GERESS Array B	3.08	211	Pg	Pg	10 47 58.1	-2.0
WET	Wettzell	3.14	222	ePn	Pn	10 47 52.1	+0.3
WET	Wettzell	3.14	222	ePn	Pn	10 47 52.1	+0.3
CONA	Conrad Observa	3.60	182	⇑iPn	Pn	10 47 58.4	+0.4
CONA				⇓iSg	Sg	10 48 56.7	+0.1
	comp=Z,5.1nm,0.3s						
CONA	Conrad Observa	3.60	182	Pn	Pn	10 47 58.4	+0.4
CONA				Sg	Sg	10 48 56.7	+0.1
	comp=Z,5.1nm,0.3s						
MOA	Molln	3.86	199	⇑iPn	Pn	10 48 02.4	+0.8
MOA	Molln	3.86	199	⇓iSg	Sg	10 49 05.7	+0.8
	comp=Z,7.8nm,0.5s						
MOA	Molln	3.86	199	⇑iPn	Pn	10 48 02.4	+0.8
MOA				i Sg	Sg	10 49 05.7	+0.8
MOA	Molln	3.86	199	⇑iPn	Pn	10 48 02.4	+0.8
MOA				⇓iSg	Sg	10 49 05.7	+0.8
	comp=Z,7.8nm,0.5s						
MOA	Molln	3.86	199	Pn	Pn	10 48 02.4	+0.8
MOA				Sg	Sg	10 49 05.7	+0.8
	comp=Z,7.8nm,0.5s						
STHS	Stebnicka Huta	3.91	121	ePG	Pg	10 48 17.8	+1.8
STHS				eSG	Sg	10 49 11.9	+5.3
STHS	Stebnicka Huta	3.91	121	ePg	Pg	10 48 17.8	+1.8
STHS				eSg	Sg	10 49 11.9	+5.3
KBA	Koelnbreinsper	4.79	203	⇑iPn	Pn	10 48 15.7	+1.3
KBA	Koelnbreinsper	4.79	203	⇑iSg	Sg	10 49 35.9	+1.0
	comp=Z,4.1nm,0.6s						
KBA	Koelnbreinsper	4.79	203	⇑iPn	Pn	10 48 15.7	+1.3
KBA				i Sg	Sg	10 49 35.9	+1.0
KBA	Koelnbreinsper	4.79	203	⇑iPn	Pn	10 48 15.7	+1.3
KBA				⇑iSg	Sg	10 49 35.9	+1.0
	comp=Z,4.1nm,0.6s						
KBA	Koelnbreinsper	4.79	203	Pn	Pn	10 48 15.7	+1.3
KBA				Sg	Sg	10 49 35.9	+1.0
	comp=Z,4.1nm,0.6s						
HFS	Hagfors	8.74	352	Pn	Pn	10 49 08.0	-0.5
HFS	Hagfors	8.74	352	Pn	Pn	10 49 08.0	-0.6
	comp=Z,0.1nm,0.3s,baz=174,slow=16,SNR=4.4						
HFS	Hagfors	8.74	352	Pn	Pn	10 49 08.0	-0.5
NOA	NORSAR Array B	9.92	346	Pn	Pn	10 49 24.6	-0.1
NOA	NORSAR Array B	9.92	346	Pn	Pn	10 49 24.6	-0.1
	comp=Z,0.1nm,0.3s,baz=159,slow=12,SNR=2.6						
NOA	NORSAR Array B	9.92	346	Pn	Pn	10 49 24.6	-0.1
FINES	FINESS Array B	11.36	25	Pn	Pn	10 49 42.8	-1.7
	comp=Z,0.2nm,0.3s,baz=214,slow=12,SNR=10						
ARCES	ARCESS Array B	18.62	10	Pn	Pn	10 51 17.0	-2.9
	comp=Z,0.1nm,0.3s,baz=200,slow=12,SNR=5.4						

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*ISCJB **24** 10:49:29.1±1.0, 28.27S±0.04×67.8W±0.1, h141^{km}±18^{km}, mb4.0/1, Error ellipse: s-maj=16.8km s-min=6.1km az=174.9*

*NEIC **24** 10:49:30.6, 28.25S×67.84W, h130^{km}, MG4.4(GUC), After GUC.*

*GUC **24** 10:49:30.6±0.8, 28.25S×67.84W, h130^{km}, ML4.4*

*IDC **24** 10:49:35.1±5.1, 28.79S×67.16W, h166^{km}±43^{km}, mb4.0/1, mb1 3.6/2, mb1mx3.2/15, mbtmp3.6/2, Error ellipse: s-maj=101.5km s-min=35.6km az=137.0*

ISC 24 10:49:30.1±0.9**, 28.26S**±0.04×**67.8W**±0.1**, h136**^{km}±18^{km}**, n19, σ0^{s}.91**/27**, mb4.0**/1**, 2C-6D, La Rioja Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPCH	Copiapo	2.47	291	⇓iP	Pn	10 50 11.6	+1.4
CPCH				i S	Sn	10 50 41.3	+0.4
CPCH	Copiapo	2.47	291	⇓iP	Pn	10 50 11.6	+1.4
CPCH				i S	Sn	10 50 41.3	+0.4
CPCH				AML	AML	10 50 46.9	
	comp=E,3μm,0.1s						
VACH	Vallenar	2.66	263	⇑eP	Pn	10 50 13.6	+1.0
VACH				i S	Sn	10 50 45.4	+0.1
VACH	Vallenar	2.66	263	⇑eP	Pn	10 50 13.6	+1.0
VACH				i S	Sn	10 50 45.4	+0.1
VACH				AML	AML	10 50 49.5	
	comp=N,2μm,0.1s						
CDCH	Caldera	2.97	293	eP	Pn	10 50 16.7	+0.2
CDCH				i S	Sn	10 50 51.0	-1.3
TLL	Tololo Astrono	3.27	234	⇓iP	Pn	10 50 21.5	+1.1
TLL				S	Sn	10 51 00.8	+1.5
TLL	Tololo Astrono	3.27	234	⇓iP	Pn	10 50 21.5	+1.1
TLL				i S	Sn	10 51 00.8	+1.5
TLL				AML	AML	10 51 03.5	
	comp=E,250nm,0.4s						
CFAA	Coronel Fontan	3.36	187	P	Pn	10 50 21.2	-0.3
	comp=E,2.4nm,0.3s,baz=358,slow=11,SNR=115						
CFAA				S	Sn	10 51 00.3	-1.1
	comp=E,6.3nm,0.3s,baz=209,slow=17,SNR=22						
LSCH	La Serena	3.47	241	i S	Sn	10 51 02.8	-1.0
OVCH	Ovalle	3.81	231	i S	Sn	10 51 10.9	-1.0
CMCH	Combarbala	4.05	223	eP	Pn	10 50 30.0	-0.6
CMCH				i S	Sn	10 51 17.2	-0.3
CPN1	Cerro Paranal	4.33	326	⇓iP	Pn	10 50 35.6	+1.3
CPN1				i S	Sn	10 51 23.5	-0.8
CEN1	Los Morros	5.33	335	⇓iP	Pn	10 50 46.3	-1.4
CEN1				i S	Sn	10 51 42.1	-6.0
FCH	Farellones	5.50	203	eP	Pn	10 50 50.6	+0.7
FCH				i S	Sn	10 51 52.6	+0.4
TORD	Torodi Ar. Bea	78.75	68	P	P	11 01 17.8	-0.2
	comp=E,2.4nm,0.6s,mb4.0,baz=256,slow=5.2,SNR=22						
ASAR	Alice Springs	124.31	204	PKP	PKPdf	11 08 13.4	-0.1
	comp=E,0.3nm,0.6s,baz=139,slow=2.1,SNR=5.6						
WRA	Warramunga Arr	127.53	207	PKP	PKPdf	11 08 20.0	+0.3
	comp=E,0.2nm,0.5s,baz=157,slow=1.9,SNR=4.9						
ZALV	Zalesovo Beam	147.43	30	PKPbc	PKPbc	11 08 59.1	+1.6
	comp=E,2.2nm,0.6s,baz=305,slow=3.4,SNR=9.1						
MKAR	Makanchi Array	150.15	44	PKPbc	PKPbc	11 09 05.9	+1.2
	comp=E,1.6nm,0.7s,baz=301,slow=2.3,SNR=15						
MKAR				PKPab	PKPab	11 09 12.9	+1.7
	comp=E,0.2nm,0.3s,baz=298,slow=3.9,SNR=4.3						

CASC 24 10:51:10.2±2.2**, 15.33N×90.52W, h150**^{km}±41^{km}**, MD4.2, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUG	Fuego 3	0.93	199	eP	Pn	10 51 35.3	+1.0
FUG				eS	Sn	10 51 53.7	+0.9
JAT	Jato	1.47	227	eP	Pn	10 51 40.2	+0.7
RTR	El Retiro	1.66	149	eP	x	10 51 52.8	
RTR				eS	x	10 52 17.1	
SNJE	San Jose	1.70	148	eP	x	10 51 53.0	
SNJE				eS	x	10 52 19.2	
SBLS	San Blas	1.72	149	eP	x	10 51 53.0	
SBLS				eS	x	10 52 18.4	
BOQS	Boqueron	1.99	143	eP	x	10 51 56.6	
BOQS				eS	x	10 52 24.6	
SNET	Serv Nac Est T	2.06	142	eP	x	10 51 57.3	
SNET				eS	x	10 52 16.6	
LFRS	El Faro	2.21	140	eP	x	10 51 59.1	
LFRS				eS	x	10 52 30.0	
SNVI	San Vicente	2.36	136	eP	x	10 52 01.6	
SNVI				eS	x	10 52 32.9	
VSM	San Miguel	2.88	131	eP	x	10 52 08.5	
VSM				eS	x	10 52 44.0	
BLLM	Bellamira	2.90	130	eP	x	10 52 17.1	
BLLM				eS	x	10 52 53.2	
JCR	Jicaral	7.58	135	eP	Pn	10 53 00.1	+2.0
JCR				eS	Sn	10 54 25.5	+2.6
PRS1	Puriscal	8.06	130	eP	Pn	10 53 07.8	+3.3
LCR2	La Lucha 2	8.45	130	eP	Pn	10 53 12.3	+2.7
LCR2				eS	Sn	10 54 49.5	+5.9
QCR	Quepos	8.54	133	eP	Pn	10 53 13.2	+2.3
URSC	Urasca	8.55	129	eP	Pn	10 53 14.3	+3.3
URSC				eS	Sn	10 54 49.8	+3.7
BAR1		9.29	130	eP	Pn	10 53 22.9	+2.1

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*ISCJB **24** 10:51:52.7±0.8, 3.0S±0.1×128.2E±0.2, h82^{km}, mb4.4/5, Error ellipse: s-maj=28.3km s-min=12.2km az=154.6*

*IDC **24** 10:51:53.4±3.6, 2.92S×128.10E, h70^{km}±33^{km}, mb4.2/4, mb1 4.4/6, mb1mx3.9/19, mbtmp4.3/6, ML4.6/2, MS3.7/2, Ms1 3.7/2, ms1mx3.1/27, Error ellipse: s-maj=57.9km s-min=13.1km az=68.0*

*NEIC **24** 10:51:54.6±2.4, 2.99S×128.18E, h82^{km}±24^{km}, mb4.3/3, Error ellipse: s-maj=24.0km s-min=13.6km az=61.0*

ISC 24 10:51:53.1±2.4**, 2.9S**±0.1×**128.2E**±0.2**, h65**^{km}±24^{km}**, n11, σ0^{s}.92**/13**, mb4.4**/5**, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	15.29	189	P	Pn	10 55 25.9	+0.7
	1.0nm,0.3s,baz=31,slow=12,SNR=30						
FITZ				LR	LR	11 02 00.6	
	comp=Z,41nm,21.4s,baz=139,slow=40						
WRA	Warramunga Arr	17.93	161	P	Pn	10 55 57.3	-0.8
WRA				S	S	10 59 19.8	-0.5
WRA	Warramunga Arr	17.93	161	P	Pn	10 55 57.3	-0.8
	2.7nm,0.3s,baz=341,slow=12,SNR=176						
WRA				S	S	10 59 19.8	-0.5
	0.2nm,0.3s,baz=346,slow=21,SNR=3.8						
COEN	Coen	18.38	127	eP	Pn	10 56 03.5	-0.1
ASAR	Alice Springs	21.33	166	P	P	10 56 35.1	+0.3
	26nm,0.7s,mb4.7,baz=343,slow=11,SNR=276						
ASAR				S	S	11 00 29.9	+1.8
	2.8nm,1.0s,baz=349,slow=18,SNR=12						
STKA	Stephens Creek	31.42	158	P	P	10 58 09.1	+0.9
	3.6nm,0.5s,mb4.4,baz=339,slow=8.6,SNR=16						
NWAO	Narrogin (SRO)	31.57	198	P	P	10 58 07.7	-1.8
	12nm,1.0s,mb4.6,baz=3.0,slow=6.0,SNR=4.9						
LSA	Lhasa	48.07	315	eP	P	11 00 27.6	+1.2
	5.0nm,0.8s,mb4.4						
MK31	Makanchi Array	63.88	327	eP	P	11 02 18.3	-0.7
MKAR	Makanchi Array	63.88	327	P	P	11 02 18.7	-0.2
	1.4nm,0.7s,mb3.9,baz=122,slow=8.4,SNR=16						
KMBO	Kilima Mbogo	90.92	269	LR	LR	11 41 34.9	
	comp=Z,232nm,20.7s,baz=274,slow=33						

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*ISCJB **24** 11:13:32.1±2.8, 5.3S±0.2×147.0E±0.5, h102^{km}±41^{km}, mb3.7/4, Error ellipse: s-maj=79.7km s-min=20.3km az=12.6*

*NEIC **24** 11:13:36.7±2.3, 5.41S×147.07E, h136^{km}±28^{km}, mb4.2/2, Error ellipse: s-maj=37.4km s-min=19.5km az=122.0*

*IDC **24** 11:13:36.6±1.9, 5.55S×147.36E, h148^{km}±28^{km}, mb3.5/4, mb1 3.7/6, mb1mx3.4/15, mbtmp3.6/6, Error ellipse: s-maj=76.0km s-min=15.0km az=102.0*

ISC 24 11:13:36.9±2.1**, 5.5S**±0.2×**147.3E**±0.6**, h147**^{km}±36^{km}**, n6, σ1^{s}.11**/8**, mb3.7**/4**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.85	183	P	Pn	11 14 36.2	+1.1
	12nm,0.3s,baz=350,slow=5.6,SNR=52						
PMG				S	Sn	11 15 19.5	-0.9
	9.7nm,0.3s,baz=232,slow=22,SNR=12						
WRA	Warramunga Arr	19.11	220	P	P	11 17 48.6	+0.1
	0.8nm,0.3s,baz=38,slow=11,SNR=70						
ASAR	Alice Springs	22.19	214	P	P	11 18 21.8	+0.4
	1.0nm,0.4s,mb3.6,baz=48,slow=8.1,SNR=33						
ASAR				S	S	11 22 15.8	+0.6
	1.5nm,0.8s,baz=29,slow=22,SNR=8.8						
FITZ	Fitzroy Crossi	24.60	238	P	P	11 18 43.1	-0.5
	4.2nm,0.4s,mb4.3,baz=59,slow=11,SNR=30						
SONM	Songino Array	64.16	331	P	P	11 23 56.4	+0.8
	0.3nm,0.5s,mb3.4,baz=150,slow=5.8,SNR=3.7						
ZALV	Zalesovo Beam	78.80	328	P	P	11 25 21.9	-1.2
	0.7nm,0.4s,mb3.6,baz=106,slow=5.9,SNR=4.0						

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*UPA **24** 11:37:14.8, 8.58N×82.22W, h3^{km}, MW3.6*

*UCR **24** 11:37:15.8, 8.53N×82.25W, h1^{km}, MD3.8*

CASC 24 11:37:15.7±3.0**, 8.58N×82.19W, h8**^{km}±11^{km}**, MD3.8, 2C-1D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRU	Baru	0.43	301	⇓iP	Pg	11 37 24.0	-0.1
BRU				eS	Sg	11 37 32.9	+3.1
TBS2		0.51	294	eP	Pg	11 37 30.7	+5.1
TBS2				eS	Sg	11 37 37.6	+5.3
BRU2	Volcan	0.54	293	⇑iP	Pg	11 37 26.5	+0.3
BRU2				eS	Sg	11 37 34.4	+1.1
CTCR	Cotoan	0.65	299	eP	Pg	11 37 28.1	-0.2
CTCR				eS	Sg	11 37 36.8	+0.1
CNI	Changuinola	0.89	339	⇑eP	Pg	11 37 32.2	-0.7
CNI				eS	Sg	11 37 45.3	+0.8
BAR1		1.29	301	eP	Pn	11 37 38.9	-1.1
BAR1				eS	Sb	11 37 56.6	-0.5
URSC	Urasca	2.00	309	eP	Pn	11 37 50.6	+0.7
URSC				eS	Sn	11 38 16.3	+1.1
AZU	Azuero	2.05	112	eS	Sn	11 38 16.6	+0.4
LCR2	La Lucha 2	2.13	303	eP	Pn	11 37 52.6	+1.0
LCR2				eS	Sn	11 38 19.4	+1.1
PRS1	Puriscal	2.52	304	eP	Pn	11 37 57.3	+0.3
PRS1				eS	Sn	11 38 27.9	+0.1

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*ISCJB **24** 11:42:32.1±0.9, 15.8S±0.1×71.53W±0.07, h150^{km}±9^{km}, mb3.9/6, Error ellipse: s-maj=20.3km s-min=7.9km az=25.4*

*IDC **24** 11:42:33.4±1.3, 15.68S×71.50W, h140^{km}±11^{km}, mb3.9/7, mb1 3.9/10, mb1mx3.7/19, mbtmp3.8/10, Error ellipse: s-maj=18.8km s-min=10.3km az=37.0*

ISC 24 11:42:33.1±0.9**, 15.8S**±0.1×**71.57W**±0.07**, h144**^{km}±9^{km}**, n17, σ1^{s}.00**/15**, mb3.9**/6**, Southern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	3.34	99	P	Pn	11 43 25.6	+1.0
	14nm,0.3s,baz=293,slow=8.6,SNR=247						
LPAZ				S	Sn	11 44 05.1	+0.6
	7.6nm,0.3s,baz=173,slow=22,SNR=13						
NNA	Nana	6.36	306	P	Pn	11 44 04.8	+0.2
	16nm,0.3s,baz=127,slow=11,SNR=7.4						
NNA				S	Sn	11 45 15.3	-0.9
SIV	San Ignacio	10.10	93	P	Pn	11 44 51.7	-2.9
	1.1nm,0.3s,baz=267,slow=12,SNR=15						
SIV				S	Sn	11 46 42.3	-4.0
	0.3nm,0.3s,baz=178,slow=6.5,SNR=5.6						
CFAA	Coronel Fontan	16.04	170	P	Pn	11 46 10.8	+0.2
	0.1nm,0.3s,baz=348,slow=9.6,SNR=16						
ROSC	El Rosal	20.68	352	P	P	11 47 03.3	+1.4
	9.4nm,0.3s,baz=93,slow=20,SNR=11						
ROSC				S	S	11 50 45.5	+0.4
	12nm,0.3s,baz=103,slow=20,SNR=9.6						
SDV	Santo Domingo	24.52	2	P	P	11 47 39.0	-0.3
	25nm,0.8s,mb4.8,baz=224,slow=9.8,SNR=27						
ULM	Lac du Bonnet	69.14	344	P	P	11 53 22.4	-1.2
	1.0nm,0.6s,mb3.7,baz=155,slow=10,SNR=3.2						
NVAR	Mina Array Bea	69.45	322	P	P	11 53 26.3	+0.6
	0.2nm,0.5s,mb3.1,baz=144,slow=2.0,SNR=2.7						
TORD	Torodi Ar. Bea	77.93	73	P	P	11 54 14.7	-1.0
	6.1nm,0.7s,mb4.3,baz=257,slow=5.0,SNR=36						
ESDC	Sonseca Array	83.61	46	P	P	11 54 45.7	+0.3
	1.4nm,0.7s,mb3.8,baz=257,slow=4.9,SNR=5.2						
YKA	Yellowknife Ar	84.99	341	P	P	11 54 52.9	+1.1
	0.8nm,0.8s,mb3.5,baz=134,slow=5.1,SNR=17						
ASAR	Alice Springs	133.56	213	PKP	PKPdf	12 01 34.0	+0.8
	0.3nm,0.7s,baz=147,slow=2.6,SNR=7.1						
WRA	Warramunga Arr	136.31	217	PKP	PKPdf	12 01 39.3	+0.8
	0.9nm,0.7s,baz=135,slow=1.6,SNR=14						
ZALV	Zalesovo Beam	137.68	21	PKP	PKPdf	12 01 39.2	-0.6
	0.4nm,0.4s,baz=253,slow=1.5,SNR=4.9						
MJAR	Matsushiro Arr	146.43	314	PKPbc	PKPbc	12 01 58.3	+0.7
	0.8nm,0.8s,baz=292,slow=1.9,SNR=5.7						
SONM	Songino Array	147.99	3	PKPbc	PKPbc	12 02 02.3	+0.8
	1.1nm,0.6s,baz=314,slow=1.7,SNR=9.3						
KSRS	Korea Array	152.37	325	PKPbc	PKPbc	12 02 14.1	+1.8
	1.4nm,0.9s,baz=292,slow=34,SNR=4.1						

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*IDC **24** 12:11:33.8±0.9, 0.63N×118.61E, h0^{km}, mb4.2/7, mb1 4.3/8, mb1mx4.1/20, mbtmp4.1/8, ML3.6/1, MS3.3/2, Ms1 3.3/2, ms1mx2.9/30, Error ellipse: s-maj=60.6km s-min=15.1km az=67.0*

*ISCJB **24** 12:11:36.7±2.3, 0.63N±0.10×118.6E±0.2, h35^{km}±21^{km}, mb4.3/19, MS3.1/2, Error ellipse: s-maj=31.3km s-min=10.3km az=155.7*

*MOS **24** 12:11:36.3±0.6, 0.60N×118.57E, h33^{km}, mb4.6/9, Error ellipse: s-maj=37.4km s-min=12.5km az=113.2*

*BJI **24** 12:11:36.0, 0.31N×118.35E, h43^{km}, mb4.8*

*NEIC **24** 12:11:38.2±0.3, 0.64N×118.63E, h30^{km}, mb4.4/9, Error ellipse: s-maj=21.4km s-min=6.0km az=64.0*

ISC 24 12:11:38.5±4.6**, 0.60N**±0.09×**118.6E**±0.2**, h34**^{km}±33^{km}**, n33, σ0^{s}.67**/32**, mb4.3**/19**, MS3.1**/2**, 1C-1D, Borneo**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KKM	Kota Kinabalu	5.92	336	ePn	Pn	12 13 03.4	-0.5
FITZ	Fitzroy Crossi	19.82	160	P	Pn	12 16 07.7	-0.5
	0.1nm,0.3s,baz=325,slow=3.2,SNR=6.2						
WRA	Warramunga Arr	25.58	144	P	P	12 17 05.0	+0.3
	2.6nm,0.6s,mb3.9,baz=322,slow=9.7,SNR=26						
WRA				LR	LR	12 28 55.1	
	comp=Z,50nm,19.2s,MS3.0,baz=35,slow=41						
ASAR	Alice Springs	28.33	149	P	P	12 17 29.4	0.0
	0.9nm,0.6s,mb3.6,baz=333,slow=9.4,SNR=9.5						
ASAR				PcP	PcP	12 20 41.6	-0.3
	0.9nm,0.6s,baz=340,slow=2.4,SNR=10						
NJ2	Nanjing	31.29	0	eP	P	12 17 55.6	+0.1
CTA	Charters Tower	34.00	129	LR	LR	12 34 17.1	
	comp=Z,47nm,18.2s,MS3.2,baz=54,slow=40						
STKA	Stephens Creek	38.94	148	eP	P	12 19 02.4	+0.9
STKA	Stephens Creek	38.94	148	P	P	12 19 02.3	+0.9
	4.3nm,0.5s,mb4.5,baz=332,slow=9.2,SNR=15						
LSA	Lhasa	39.01	320	eP	P	12 19 02.7	+0.6
	2.8nm,0.6s,mb4.2						
LSA	Lhasa	39.01	320	eP	P	12 19 02.7	+0.7
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
MJAR	Matsushiro Arr	40.11	25	P	P	12 19 11.2	+0.1
	comp=Z,1.9nm,0.8s,mb3.9,baz=199,slow=8.5,SNR=4.8						
ULN	Ulaanbaatar	48.14	350	eP	P	12 20 15.2	-0.1
	comp=Z,3.8nm,1.3s,mb4.3						
ULN	Ulaanbaatar	48.14	350	⇓eP	P	12 20 15.7	+0.4
SONM	Songino Array	48.23	349	P	P	12 20 16.4	+0.4
	comp=Z,0.4nm,0.5s,mb3.7,baz=160,slow=8.8,SNR=5.5						
MK31	Makanchi Array	55.87	331	eP	P	12 21 13.5	+0.6
MKAR	Makanchi Array	55.87	331	P	P	12 21 13.7	+0.8
	comp=Z,4.9nm,0.7s,mb4.6,baz=139,slow=7.8,SNR=63						
TKM2	Tokmak 2	57.04	323	eP	P	12 21 21.8	+0.6
	comp=Z,4.6nm,1.0s,mb4.5						
TKM2				e		12 21 28.5	
TKM2	Tokmak 2	57.04	323	eP	P	12 21 21.8	+0.5
TKM2				e		12 21 28.5	
TKM2				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
AAK	Ala-Archa	57.54	322	eP	P	12 21 24.8	0.0
	comp=Z,3.6nm,0.9s,mb4.4						
AAK	Ala-Archa	57.54	322	eP	P	12 21 24.8	0.0
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
AML	Almayashu	57.75	322	eP	P	12 21 27.3	+1.0
	comp=Z,4.2nm,1.0s,mb4.4						
ZAL	Zalesovo	60.03	338	P	P	12 21 41.4	-0.5
ZALV	Zalesovo Beam	60.03	338	P	P	12 21 41.4	-0.5
	comp=Z,2.7nm,0.7s,mb4.4,baz=130,slow=6.6,SNR=14						
KURK	Kurchatov	60.33	332	eP	P	12 21 44.0	0.0
	comp=Z,12nm,0.9s,mb4.9						
KURK				e	pP	12 21 50.9	-3.4
KURK	Kurchatov	60.33	332	eP	P	12 21 44.0	0.0
KURK				e	pP	12 21 50.9	-3.4
KURK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
YAK	Yakutsk	61.85	6	⇑eP	P	12 21 54.7	+0.6
YAK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
BRVK	Borovoye	65.83	330	eP	P	12 22 19.6	-0.8
	comp=Z,1.8nm,0.8s,mb4.2						
BRVK	Borovoye	65.83	330	eP	P	12 22 19.6	-0.9
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
TIXI	Tiksi	71.25	3	eP	P	12 22 53.1	-0.8
	comp=Z,7.0nm,1.3s,mb4.4						
TIXI	Tiksi	71.25	3	eP	P	12 22 53.2	-0.8
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
BILL	Bilibino	74.76	17	eP	P	12 23 14.3	-0.5
BILL				e		12 23 27.9	

BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
OBN	**Obninsk**	**84.95**	**325**	*e*P	**P**	**12 24 08.1**	**-2.1**
OBN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.4						
QSPA	**South Pole Qui**	**90.53**	**180**	*e*P	**P**	**12 24 36.2**	**-0.4**
	comp=Z,7.8nm,1.1s,mb5.0						

NIED ***24*** *12:39:00, 37.10N×141.70E, h38^{km}, Mw3.6 Best double couple: $M_0$3.21000×10^{14} NP1:ϕ_s267.00000°, δ9.00000°, λ170.00000°. NP2:ϕ_s7.00000°, δ88.00000°, λ81.00000°.*

IDC ***24*** *12:39:35.8±1.3, 37.02N×141.88E, h0^{km}, mb3.5/5, mb1 3.6/7, mb1mx3.5/23, mbtmp3.5/7, ML3.4/2, Error ellipse: s-maj=28.6km s-min=24.2km az=138.0*

ISCJB ***24*** *12:39:37.6±1.3, 37.11N±0.05×141.84E±0.07, h18^{km}±7^{km}, mb3.4/5, Error ellipse: s-maj=9.9km s-min=6.6km az=34.7*

JMA ***24*** *12:39:40.8±0.2, 37.11N×141.66E, h46^{km}±3^{km}, M3.9*

JMA Felt I J1.

ISC 24 12:39:39.4±1.4, **37.13N**±0.05×**141.73E**±0.06, **h18**^{km}±6^{km}, **n17**, σ**0^{s}84**/27, **mb3.4**/5, **5D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JFK	**Kawauchi**	**0.72**	**289**	⇓P	**Pg**	**12 39 54.0**	**+0.4**
JFK				S	**Sg**	**12 40 03.1**	**-0.1**
ONAJ	**Iwakimizuishiy**	**0.75**	**268**	⇓P	**Pb**	**12 39 54.2**	**+0.3**
ONAJ				S	**Sg**	**12 40 03.5**	**-0.5**
JMM	**Marumori**	**1.05**	**315**	⇓P	**Pb**	**12 39 58.7**	**-0.3**
JMM				S	**Sb**	**12 40 12.1**	**-0.3**
JHO	**Hitachi**	**1.07**	**241**	P	**Pb**	**12 39 58.2**	**-1.1**
JHO				*e*S	**Sb**	**12 40 11.4**	**-1.5**
JFT	**Otama**	**1.18**	**290**	⇓P	**Pn**	**12 40 01.3**	**+0.3**
JFT				*e*S	**Sb**	**12 40 15.7**	**-0.4**
JIO	**Ouri**	**1.36**	**347**	⇓P	**Pn**	**12 40 03.1**	**-0.3**
JIO				*e*S	**Sn**	**12 40 19.0**	**-1.9**
JOU	**Okura**	**1.50**	**326**	P	**Pn**	**12 40 05.8**	**+0.5**
JOU				S	**Sn**	**12 40 24.8**	**+0.4**
JFY	**Yanaizu**	**1.64**	**280**	P	**Pn**	**12 40 07.9**	**+0.6**
JFY				*e*S	**Sn**	**12 40 28.2**	**+0.2**
MJAR	**Matsushiro Arr**	**2.89**	**259**	Pn	**Pn**	**12 40 25.7**	**+1.2**
	7.6nm,0.3s,baz=84,slow=16,SNR=70						
MJAR				Sn	**Sn**	**12 41 02.6**	**+3.9**
	5.5nm,0.3s,baz=77,slow=26,SNR=5.7						
MAT	**Matsushiro**	**2.89**	**259**	P	**Pn**	**12 40 26.0**	**+1.5**
MAT				*e*S	**Sn**	**12 40 59.1**	**+0.4**
ASAJ	**Asahikawa**	**7.01**	**5**	Pn	**Pn**	**12 41 21.8**	**+0.7**
	0.5nm,0.3s,baz=230,slow=18,SNR=7.0						
KSRS	**Korea Array**	**11.01**	**276**	Pn	**Pn**	**12 42 19.8**	**+3.9**
	0.1nm,0.3s,baz=87,slow=16,SNR=2.8						
SONM	**Songino Array**	**27.94**	**304**	P	**P**	**12 45 28.3**	**-0.3**
	0.4nm,0.5s,mb3.3,baz=102,slow=8.5,SNR=3.9						
ZALV	**Zalesovo Beam**	**42.04**	**312**	P	**P**	**12 47 30.4**	**+0.8**
	0.4nm,0.3s,mb3.5,baz=81,slow=8.9,SNR=2.7						
MKAR	**Makanchi Array**	**44.28**	**302**	P	**P**	**12 47 47.6**	**-0.2**
	0.2nm,0.3s,mb3.4,baz=85,slow=10,SNR=5.7						
WRA	**Warramunga Arr**	**57.19**	**188**	P	**P**	**12 49 23.7**	**-1.6**
	0.4nm,0.8s,mb3.5,baz=6.9,slow=7.5,SNR=5.9						
YKA	**Yellowknife Ar**	**63.60**	**30**	P	**P**	**12 50 08.5**	**-0.1**
	0.2nm,0.8s,mb3.2,baz=304,slow=6.2,SNR=3.4						

CSEM ***24*** *12:52:17.7±0.1, 44.29N×12.00E, h12^{km}, MD2.6/17, Error ellipse: s-maj=1.8km s-min=1.6km az=45.0*

ISCJB ***24*** *12:52:18.6±0.4, 44.31N±0.03×12.04E±0.05, h19^{km}±7^{km}, Error ellipse: s-maj=5.7km s-min=4.6km az=1.4*

ROM ***24*** *12:52:19.2±0.2, 44.20N×11.97E, h5^{km}±2^{km}, Md2.6/17, Ml2.0/11, Error ellipse: s-maj=2.4km s-min=1.8km az=173.0*

VIE ***24*** *12:52:21.2±0.7, 44.42N×12.44E, h10^{km}, mb2.0/1, ML2.3/3, Error ellipse: s-maj=5.2km s-min=5.2km az=43.0*

ISC 24 12:52:18.3±0.4, **44.30N**±0.03×**12.04E**±0.04, **h15**^{km}±5^{km}, **n48**, σ**0^{s}85**/67, **12C-7D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRSN	**Barisano**	**0.03**	**119**	⇑*i*Pg	**Pg**	**12 52 22.2**	**+1.3**
BRSN	**Barisano**	**0.03**	**119**	⇑*i*Pg	**Pg**	**12 52 22.2**	**+1.3**
SFI	**Santa Sofia**	**0.42**	**199**	⇓Pg	**Pg**	**12 52 26.4**	**-0.3**
SFI				Sg	**Sg**	**12 52 31.8**	**-0.5**
	160nm,0.2s						
RSM	**Repubblica di**	**0.47**	**141**	Pg	**Pg**	**12 52 28.9**	**+1.2**
	153nm,2.3s						
RSM	**Repubblica di**	**0.47**	**141**	Pg	**Pg**	**12 52 28.9**	**+1.2**
	153nm,2.3s						
VMG	**Vicchio**	**0.49**	**227**	⇑Pg	**Pg**	**12 52 27.4**	**-0.6**
VMG				Sg	**Sg**	**12 52 34.1**	**-0.5**
	56nm,0.2s						
VMG	**Vicchio**	**0.49**	**227**	⇑Pg	**Pg**	**12 52 27.4**	**-0.6**
VMG				Sg	**Sg**	**12 52 34.1**	**-0.5**
	56nm,0.2s						
SEI	**Scarperia**	**0.55**	**244**	⇑Pg	**Pg**	**12 52 28.6**	**-0.5**
SEI				Sg	**Sg**	**12 52 36.3**	**-0.1**
	241nm,0.3s						
SEI	**Scarperia**	**0.55**	**244**	⇑Pg	**Pg**	**12 52 28.6**	**-0.5**
SEI				Sg	**Sg**	**12 52 36.3**	**-0.1**
	241nm,0.3s						
FNVD	**Fontana Vidola**	**0.67**	**259**	Pg	**Pg**	**12 52 31.3**	**-0.1**
FNVD				Sg	**Sg**	**12 52 42.4**	**+2.1**
	153nm,0.6s						
FNVD	**Fontana Vidola**	**0.67**	**259**	Pg	**Pg**	**12 52 31.3**	**-0.1**
FNVD				Sg	**Sg**	**12 52 42.4**	**+2.1**
	153nm,0.6s						
CRE	**Caprese Michel**	**0.68**	**185**	Pg	**Pg**	**12 52 31.1**	**-0.5**
CRE				Sg	**Sg**	**12 52 41.5**	**+0.9**
	57nm,0.6s						
CRE	**Caprese Michel**	**0.68**	**185**	Pg	**Pg**	**12 52 31.1**	**-0.5**
CRE				Sg	**Sg**	**12 52 41.5**	**+0.9**
	57nm,0.6s						
BADI	**Badiali**	**0.80**	**169**	Pg	**Pg**	**12 52 33.8**	**-0.1**
	88nm,0.4s						
BADI	**Badiali**	**0.80**	**169**	Pg	**Pg**	**12 52 33.8**	**-0.1**
	88nm,0.4s						
FSSB	**Fossombrone**	**0.81**	**138**	Pg	**Pg**	**12 52 34.3**	**+0.3**
	156nm,0.3s						
FSSB	**Fossombrone**	**0.81**	**138**	Pg	**Pg**	**12 52 34.3**	**+0.3**
	156nm,0.3s						
PZZT	**Monte Pizzetto**	**0.86**	**259**	Pg	**Pg**	**12 52 34.8**	**-0.3**
	149nm,0.6s						
PZZT	**Monte Pizzetto**	**0.86**	**259**	Pg	**Pg**	**12 52 34.8**	**-0.3**
	149nm,0.6s						
CRMI	**Carmignano**	**0.92**	**237**	Pg	**Pg**	**12 52 36.3**	**+0.1**
	21nm,0.7s						
CRMI	**Carmignano**	**0.92**	**237**	Pg	**Pg**	**12 52 36.3**	**+0.1**
	21nm,0.7s						
CSNT	**Castellina Chi**	**0.99**	**213**	Pg	**Pg**	**12 52 37.5**	**+0.1**
	57nm,0.5s						
CSNT	**Castellina Chi**	**0.99**	**213**	Pg	**Pg**	**12 52 37.5**	**+0.1**
	57nm,0.5s						
ARVD	**Arcevia**	**1.03**	**141**	Pg	**Pg**	**12 52 38.4**	**+0.1**
	65nm,1.0s						
ARVD	**Arcevia**	**1.03**	**141**	Pg	**Pg**	**12 52 38.4**	**+0.1**
	65nm,1.0s						
BDI	**Bagni Di Lucca**	**1.06**	**258**	Pg	**Pg**	**12 52 39.1**	**+0.2**
	92nm,0.8s						
BDI	**Bagni Di Lucca**	**1.06**	**258**	Pg	**Pg**	**12 52 39.1**	**+0.2**
	92nm,0.8s						
TEOL	**Teolo**	**1.09**	**346**	⇑*i*Pg	**Pg**	**12 52 38.8**	**-0.6**
TEOL				*i* Sg	**Sg**	**12 52 52.6**	**-1.1**
TEOL	**Teolo**	**1.09**	**346**	*i* Pg	**Pg**	**12 52 38.8**	**-0.6**
TEOL				*i* Sg	**Sg**	**12 52 52.6**	**-1.1**
MAIM		**1.18**	**252**	Pg	**Pg**	**12 52 40.3**	**-0.8**
	44nm,1.0s						
MAIM		**1.18**	**252**	Pg	**Pg**	**12 52 40.3**	**-0.8**
	44nm,1.0s						
SNTG	**Esanatoglia**	**1.23**	**148**	Pg	**Pg**	**12 52 41.7**	**-0.3**
	22nm,0.3s						
SNTG	**Esanatoglia**	**1.23**	**148**	Pg	**Pg**	**12 52 41.7**	**-0.3**
	22nm,0.3s						
NRCA	**Norcia**	**1.66**	**152**	Pg	**Pg**	**12 52 49.0**	**-1.2**
	13nm,0.6s						
NRCA	**Norcia**	**1.66**	**152**	Pg	**Pg**	**12 52 49.0**	**-1.2**
	13nm,0.6s						
MLNI	**Malnisio**	**1.90**	**12**	⇓*i*Pg	**Pn**	**12 52 49.4**	**-0.7**
MLNI				*i* Sg	**Sn**	**12 53 14.0**	**+0.3**
MLNI	**Malnisio**	**1.90**	**12**	*i* Pg	**Pn**	**12 52 49.4**	**-0.7**
VOY	**Vojsko**	**2.17**	**36**	*e*	**Pn**	**12 52 54.5**	**+0.5**
VOY				*e*		12 52 59.2	
VOY				*e*	**Sn**	**12 53 20.1**	**-0.5**
ABTA	**Abfaltersbach**	**2.47**	**8**	⇑*i*Pn	**Pn**	**12 52 59.6**	**+1.6**
ABTA				⇓*i*Sn	**Sn**	**12 53 29.3**	**+1.4**
ABTA	**Abfaltersbach**	**2.47**	**8**	Pn	**Pn**	**12 52 59.6**	**+1.5**
ABTA				Sn	**Sn**	**12 53 29.3**	**+1.3**
OBKA	**Obir**	**2.83**	**38**	⇓*i*Pn	**Pn**	**12 53 02.4**	**-0.6**
OBKA	**Obir**	**2.83**	**38**	⇑*i*Sn	**Sn**	**12 53 35.0**	**-1.8**
OBKA	**Obir**	**2.83**	**38**	⇓*i*Pn	**Pn**	**12 53 02.4**	**-0.6**
OBKA				⇑*i*Sn	**Sn**	**12 53 35.0**	**-1.8**
OBKA	**Obir**	**2.83**	**38**	Pn	**Pn**	**12 53 02.4**	**-0.6**
OBKA				Sn	**Sn**	**12 53 35.0**	**-1.8**
KBA	**Koelnbreinsper**	**2.93**	**18**	⇑*i*Pn	**Pn**	**12 53 06.0**	**+1.7**
KBA	**Koelnbreinsper**	**2.93**	**18**	⇓*i*Sn	**Sn**	**12 53 39.1**	**0.0**
KBA	**Koelnbreinsper**	**2.93**	**18**	⇑*i*Pn	**Pn**	**12 53 06.0**	**+1.7**
KBA				⇓*i*Sn	**Sn**	**12 53 39.1**	**0.0**
KBA	**Koelnbreinsper**	**2.93**	**18**	Pn	**Pn**	**12 53 06.0**	**+1.7**
KBA				Sn	**Sn**	**12 53 39.1**	**-0.1**

ISCJB ***24*** *12:59:27.7±1.4, 20.4S±0.2×178.1W±0.2, h491^{km}±20^{km}, mb3.5/6, Error ellipse: s-maj=39.2km s-min=14.4km az=137.6*

IDC ***24*** *12:59:30.3±2.2, 20.42S×178.03W, h520^{km}±27^{km}, mb3.1/6, mb1 3.5/8, mb1mx3.3/15, mbtmp3.2/8, Error ellipse: s-maj=36.4km s-min=14.4km az=149.0*

ISC 24 12:59:29.0±1.6, **20.5S**±0.2×**178.0W**±0.2, **h497**^{km}±22^{km}, **n11**, σ**0^{s}49**/9, **mb3.5**/6, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**8.84**	**43**	P	**P**	**13 01 34.7**	**+0.5**
	4.8nm,0.3s,baz=28,slow=8.7,SNR=7.0						
AFI				S	**S**	**13 03 12.5**	**-4.5**
	1.0nm,0.3s,baz=338,slow=19,SNR=2.0						
URZ	**Urewera**	**18.21**	**192**	P	**P**	**13 03 11.0**	**-0.4**
	1.7nm,0.3s,baz=164,slow=23,SNR=11						
STKA	**Stephens Creek**	**37.80**	**244**	P	**P**	**13 06 03.0**	**+0.7**
	2.7nm,0.8s,mb3.7,baz=95,slow=10.0,SNR=5.3						
ASAR	**Alice Springs**	**44.52**	**257**	P	**P**	**13 06 56.0**	**+0.1**
	1.3nm,0.5s,mb3.6,baz=96,slow=7.6,SNR=26						
WRA	**Warramunga Arr**	**44.60**	**262**	P	**P**	**13 06 56.0**	**-0.7**
	0.4nm,0.3s,mb3.4,baz=97,slow=7.4,SNR=38						
NVAR	**Mina Array Bea**	**81.01**	**43**	P	**P**	**13 10 51.4**	**-0.1**
	0.9nm,0.7s,mb3.4,baz=233,slow=11,SNR=8.1						
TXAR	**Lajitas Array**	**87.05**	**57**	P	**P**	**13 11 22.1**	**+0.6**
	0.5nm,0.6s,mb3.4,baz=211,slow=12,SNR=3.3						
PDAR	**Pinedale Array**	**88.95**	**43**	P	**P**	**13 11 29.9**	**-0.3**
	0.7nm,0.6s,mb3.7,baz=213,slow=5.3,SNR=8.8						
MKAR	**Makanchi Array**	**111.19**	**313**	PKiKP	PKiKP	13 17 03.6	-2.1
	0.2nm,0.3s,baz=124,slow=1.0,SNR=3.2						
BRTR	**Keskin Array B**	**146.83**	**312**	PKPbc	PKPbc	13 18 11.4	-3.9
	0.5nm,0.4s,baz=72,slow=4.7,SNR=3.6						
GERES	**GERESS Array B**	**150.19**	**344**	PKPbc	PKPbc	13 18 21.5	-1.8
	0.5nm,0.6s,baz=0.0,slow=1.6,SNR=5.1						

IDC 24 13:14:22.9±2.3, **2.86S**×**136.71E**, **h0**^{km}, **mb3.5**/3, **mb1 3.6**/4, **mb1mx3.5**/13, **mbtmp3.5**/4, **ML3.5**/1, **MS3.7**/2, **Ms1 3.7**/2, **ms1mx3.0**/17, **Error ellipse: s-maj=103.3km s-min=22.1km az=83.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**17.14**	**188**	P	Pn	13 18 24.3	+0.3
	0.2nm,0.3s,baz=13,slow=12,SNR=17						
WRA				S	Sn	13 21 37.6	+2.3
	0.3nm,0.3s,baz=7.8,slow=22,SNR=7.2						
ASAR	**Alice Springs**	**20.87**	**187**	P	P	13 19 05.0	-1.6
	0.2nm,0.3s,baz=18,slow=9.3,SNR=3.4						
ASAR				S	S	13 23 04.7	+4.4
	0.7nm,0.8s,baz=8.8,slow=19,SNR=4.2						
STKA	**Stephens Creek**	**29.23**	**171**	P	P	13 20 27.3	+0.7
	3.0nm,1.1s,baz=344,slow=15,SNR=4.1						
NWAO	**Narrogin (SRO)**	**35.05**	**209**	LR	LR	13 37 25.1	
	comp=Z,106nm,18.6s,baz=197,slow=39						
RPZ	**Rata Peaks**	**50.80**	**148**	LR	LR	13 42 52.0	
	comp=Z,74nm,19.8s,baz=3.3,slow=34						
MKAR	**Makanchi Array**	**68.70**	**323**	P	P	13 25 28.6	+0.2
	0.5nm,0.6s,baz=118,slow=7.8,SNR=6.0						

IDC 24 13:31:03.1±1.2, **2.37S**×**124.04E**, **h0**^{km}, **mb3.8**/4, **mb1 4.1**/5, **mb1mx3.9**/18, **mbtmp3.9**/5, **ML3.3**/1, **Error ellipse: s-maj=117.3km s-min=20.6km az=68.0, Ceram Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**15.71**	**174**	Pn	Pn	13 34 46.5	+0.5
	0.1nm,0.3s,baz=24,slow=8.4,SNR=3.8						
WRA	**Warramunga Arr**	**20.16**	**151**	P	P	13 35 38.6	-0.6
	22nm,0.8s,baz=326,slow=12,SNR=41						
ASAR	**Alice Springs**	**23.23**	**157**	P	P	13 36 12.3	+0.3
	7.6nm,0.8s,baz=335,slow=9.6,SNR=59						
SONM	**Songino Array**	**52.33**	**345**	P	P	13 40 16.5	0.0
	0.4nm,0.6s,baz=152,slow=9.8,SNR=3.0						
MKAR	**Makanchi Array**	**61.16**	**329**	P	P	13 41 19.7	+0.3
	0.2nm,0.4s,baz=126,slow=8.1,SNR=4.5						

MOS ***24*** *13:33:02.2±1.1, 21.34S×68.07W, h111^{km}, mb5.1/20, Error ellipse: s-maj=34.6km s-min=7.3km az=116.3*

ISCJB ***24*** *13:33:03.9±0.3, 21.41S±0.05×67.98W±0.06, h126^{km}, mb5.0/83, Error ellipse: s-maj=7.5km s-min=6.4km az=12.3*

BJI ***24*** *13:33:03.8, 21.97S×68.32W, h127^{km}, mB5.3*

NEIC ***24*** *13:33:04.8±0.2, 21.49S×68.03W, mb5.0/68, Error ellipse: s-maj=8.3km s-min=5.1km az=72.0*

IDC ***24*** *13:33:05.3±0.7, 21.51S×68.19W, h130^{km}±5^{km}, mb4.4/18, mb1 4.5/21, mb1mx4.5/24, mbtmp4.4/21, MS3.6/2, Ms1 3.6/2, ms1mx2.9/19, Error ellipse: s-maj=17.8km s-min=10.6km az=67.0*

ISC 24 13:33:05.7±0.3, **21.43S**±0.04×**67.96W**±0.06, **h128**^{km}, **h128**^{km}±1.0^{km}**:pP-P**, **n475**, σ**0^{s}65**/426, **mb4.8**/83, **99C-88D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	**La Paz**	**5.12**	**358**	*e*Pn	**Pn**	**13 34 23.0**	**+2.6**
LPAZ				*e*Sn	**Sn**	**13 35 18.9**	**+0.3**
LPAZ	**La Paz**	**5.12**	**358**	P	**Pn**	**13 34 22.9**	**+2.5**
	7.6nm,0.3s,baz=174,slow=7.7,SNR=104						
LPAZ				S	**Sn**	**13 35 16.9**	**-1.7**
	1.5nm,0.3s,baz=216,slow=21,SNR=3.6						
LCO	**Las Campanas**	**7.94**	**198**	Pn	**Pn**	**13 34 56.5**	**-1.8**
SIV	**San Ignacio**	**8.48**	**51**	P	**Pn**	**13 35 06.6**	**+1.0**
	31nm,0.3s,baz=242,slow=12,SNR=506						
SIV				S	**Sn**	**13 36 40.0**	**+0.3**
	0.7nm,0.3s,baz=308,slow=22,SNR=7.7						
CFAA	**Coronel Fontan**	**10.13**	**181**	P	**Pn**	**13 35 18.8**	**-9.0**
CFAA	**Coronel Fontan**	**10.13**	**181**	P	**Pn**	**13 35 18.8**	**-9.0**
	0.3nm,0.3s,baz=349,slow=12,SNR=15						
NNA	**Nana**	**12.67**	**316**	Pn	**Pn**	**13 36 00.6**	**-0.7**
ATAH	**Atahualpa**	**17.54**	**323**	P	**Pn**	**13 36 59.7**	**-2.6**
	0.6nm,0.3s,baz=204,slow=5.0,SNR=5.2						
OTAV	**Otavalo**	**23.85**	**333**	*e*P	**P**	**13 38 07.5**	**+0.2**
	13nm,0.7s,mb4.6						
OTAV				*e*		13 38 22.1	
ROSC	**El Rosal**	**26.86**	**346**	P	**P**	**13 38 35.7**	**+1.2**
	5.6nm,0.4s,mb4.5,baz=83,slow=17,SNR=3.6						
ROSC				LR	LR	13 50 38.2	
	comp=Z,105nm,20.4s,baz=211,slow=39						
SDV	**Santo Domingo**	**30.24**	**355**	*e*P	**P**	**13 39 03.1**	**-1.4**
	19nm,0.9s,mb4.8						
SDV				*e*		13 39 20.3	
SDV	**Santo Domingo**	**30.24**	**355**	P	**P**	**13 39 03.3**	**-1.1**
	12nm,0.7s,mb4.8,baz=282,slow=21,SNR=13						
SDV				LR	LR	13 53 51.2	
	comp=Z,133nm,18.1s,baz=194,slow=41						
PCRV	**Puerto La Cruz**	**31.58**	**6**	P	**P**	**13 39 16.6**	**+0.4**
	8.9nm,0.5s,mb4.7,baz=325,slow=8.5,SNR=5.5						
USHA	**Ushuaia**	**33.35**	**180**	P	**P**	**13 39 29.9**	**-1.4**
	8.3nm,0.9s,mb4.5,baz=344,slow=15,SNR=2.8						
JTS	**JuntasAbangare**	**35.67**	**330**	*e*P	**P**	**13 39 51.4**	**-0.3**
	7.1nm,0.8s,mb4.3						
JTS				*e*	pP	13 40 20.3	+0.5
JTS	**JuntasAbangare**	**35.67**	**330**	*e*P	**P**	**13 39 51.4**	**-0.3**
JTS				*e*	pP	13 40 20.3	+0.4
JTS				pmax	pmax		
	comp=Z,7.0nm,0.8s						
SJG	**San Juan**	**39.34**	**3**	*e*P	**P**	**13 40 20.6**	**-1.9**
	comp=Z,20nm,0.3s,mb5.2						
SJG	**San Juan**	**39.34**	**3**	*e*P	**P**	**13 40 20.6**	**-1.9**
SJG				pmax	pmax		
	comp=Z,20nm,0.3s						
SJG	**San Juan**	**39.34**	**3**	P	**P**	**13 40 20.6**	**-1.9**
	comp=Z,17nm,0.5s,mb4.9,baz=346,slow=20,SNR=9.5						
MTP	**Monte Pirata**	**39.36**	**4**	*e*P	**P**	**13 40 20.3**	**-2.3**
SDDR	**Presa de Saban**	**40.30**	**355**	*e*P	**P**	**13 40 28.2**	**-2.2**
	comp=Z,2.6nm,0.4s,mb4.2						
TEIG	**Tepich**	**45.92**	**333**	*e*P	**P**	**13 41 14.2**	**-1.4**
	comp=Z,18nm,0.6s,mb4.9						
TEIG	**Tepich**	**45.92**	**333**	P	**P**	**13 41 14.3**	**-1.4**
	comp=Z,21nm,0.8s,mb4.8,baz=147,slow=8.1,SNR=12						
CMIG	**Matias Romero**	**46.50**	**323**	P	**P**	**13 41 19.0**	**-1.2**
	comp=Z,14nm,0.7s,mb4.7,baz=124,slow=5.5,SNR=33						
DWPF	**Disney**	**50.94**	**345**	*e*P	**P**	**13 41 54.0**	**0.0**
	comp=Z,78nm,0.7s,mb5.5						
NHSC	**New Hope**	**55.47**	**348**	*e*P	**P**	**13 42 27.1**	**+0.1**
	comp=Z,160nm,1.0s,mb5.7						
GOGA	**Godfrey**	**56.51**	**344**	*e*P	**P**	**13 42 33.4**	**-1.0**
	comp=Z,16nm,0.8s,mb4.9						
GOGA	**Godfrey**	**56.51**	**344**	*e*P	**P**	**13 42 33.4**	**-1.0**
GOGA				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.9						
LRAL	**Lakeview Retre**	**57.13**	**341**	*e*P	**P**	**13 42 37.6**	**-1.2**
	comp=Z,24nm,0.9s,mb5.0						
CPCT	**Cooper Cave**	**58.71**	**344**	*e*P	**P**	**13 42 49.0**	**-0.8**
NATX	**Nacogdoches**	**58.75**	**333**	*e*P	**P**	**13 42 50.2**	**+0.1**
	comp=Z,62nm,0.6s,mb5.6						
SWET	**Sewanee**	**58.86**	**343**	*e*P	**P**	**13 42 50.0**	**-0.8**
OXF	**Oxford**	**59.26**	**339**	*e*P	**P**	**13 42 52.1**	**-1.5**
	comp=Z,135nm,1.4s,mb5.6						
OXF	**Oxford**	**59.26**	**339**	*e*P	**P**	**13 42 52.1**	**-1.5**
OXF				pmax	pmax		
	comp=Z,135nm,1.4s,mb5.6						
PLAL	**Pickwick Lake**	**59.27**	**341**	*e*P	**P**	**13 42 51.7**	**-2.0**
	comp=Z,49nm,1.2s,mb5.2						
BLA	**Blacksburg**	**59.50**	**348**	*e*P	**P**	**13 42 55.0**	**-0.2**
	comp=Z,47nm,1.0s,mb5.3						
BLA	**Blacksburg**	**59.50**	**348**	*e*P	**P**	**13 42 55.0**	**-0.2**
BLA				pmax	pmax		
	comp=Z,47nm,1.0s,mb5.3						
TZTN	**Tazewell**	**59.51**	**345**	*e*P	**P**	**13 42 54.5**	**-0.8**
	comp=Z,19nm,0.8s,mb5.0						
ELN	**Prospectdale**	**59.58**	**348**	*e*P	**P**	**13 42 56.0**	**+0.2**
JCT	**Junction City**	**60.00**	**328**	*e*P	**P**	**13 42 57.8**	**-1.0**
	comp=Z,39nm,0.8s,mb5.3						
JCT	**Junction City**	**60.00**	**328**	*e*P	**P**	**13 42 57.8**	**-1.0**
JCT				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.3						
UALR	**University of**	**60.51**	**337**	*e*P	**P**	**13 43 00.7**	**-1.4**
	comp=Z,20nm,0.8s,mb5.0						
MIAR	**Mount Ida**	**60.76**	**336**	*e*P	**P**	**13 43 02.6**	**-1.3**
	comp=Z,31nm,0.5s,mb5.4						
MIAR	**Mount Ida**	**60.76**	**336**	*e*P	**P**	**13 43 02.6**	**-1.3**
MIAR				pmax	pmax		
	comp=Z,31nm,0.5s,mb5.4						
LTX	**Lajitas**	**61.08**	**324**	*e*P	**P**	**13 43 04.8**	**-1.4**
	comp=Z,5.8nm,0.8s,mb4.5						
LTX	**Lajitas**	**61.08**	**324**	*e*P	**P**	**13 43 04.8**	**-1.4**
LTX				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
TXAR	**Lajitas Array**	**61.08**	**324**	P	**P**	**13 43 04.7**	**-1.5**
	comp=Z,3.6nm,0.6s,mb4.4,baz=150,slow=8.7,SNR=22						
PARMO	**Parma**	**61.34**	**340**	*e*P	**P**	**13 43 06.7**	**-1.0**
WCI	**Wyandotte Cave**	**61.79**	**344**	*e*P	**P**	**13 43 09.2**	**-1.5**
	comp=Z,42nm,0.6s,mb5.5						
WCI	**Wyandotte Cave**	**61.79**	**344**	*e*P	**P**	**13 43 09.2**	**-1.5**
WCI				pmax	pmax		
	comp=Z,42nm,0.6s,mb5.5						
SNAA	**Sanae**	**62.05**	**161**	P	**P**	**13 43 11.0**	**-1.1**
	comp=Z,0.9nm,0.5s,mb3.9,baz=193,slow=14,SNR=16						
SIUC	**Southern Illin**	**62.14**	**341**	*e*P	**P**	**13 43 11.9**	**-1.2**
	comp=Z,28nm,0.5s,mb5.3						
BLO	**Bloomington**	**62.74**	**344**	*e*P	**P**	**13 43 15.7**	**-1.3**
	comp=Z,43nm,0.5s,mb5.5						
BLO	**Bloomington**	**62.74**	**344**	*e*P	**P**	**13 43 15.7**	**-1.3**
BLO				pmax	pmax		
	comp=Z,43nm,0.5s,mb5.5						
FVM	**French Village**	**62.76**	**340**	*e*P	**P**	**13 43 16.1**	**-1.1**
	comp=Z,57nm,0.5s,mb5.7						
FVM	**French Village**	**62.76**	**340**	*e*P	**P**	**13 43 16.1**	**-1.1**
FVM				pmax	pmax		
	comp=Z,57nm,0.5s,mb5.7						
ACSO	**Alum Creek Sta**	**62.92**	**347**	*e*P	**P**	**13 43 17.4**	**-0.8**
	comp=Z,46nm,0.9s,mb5.3						
WMOK	**Wichita Mounta**	**63.07**	**332**	*e*P	**P**	**13 43 17.3**	**-2.0**
	comp=Z,5.5nm,0.9s,mb4.4						
WMOK	**Wichita Mounta**	**63.07**	**332**	*e*P	**P**	**13 43 17.3**	**-2.0**
WMOK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.3						
ALLY	**Alegheny Colle**	**63.77**	**350**	*e*P	**P**	**13 43 23.3**	**-0.5**
ALLY				*e*	pP	13 43 55.5	+0.7
MNTX	**Cornudas Mount**	**63.85**	**325**	*e*P	**P**	**13 43 22.8**	**-1.7**
	comp=Z,15nm,1.0s,mb4.8						
KSU1	**Kansas State U**	**65.92**	**336**	*e*P	**P**	**13 43 36.0**	**-1.8**
	comp=Z,9.3nm,0.6s,mb4.8						
BNM	**Barren Site**	**66.40**	**326**	*e*P	**P**	**13 43 41.1**	**+0.2**
MSNY	**Massena**	**66.41**	**355**	*e*P	**P**	**13 43 41.1**	**+0.4**
MSNY				*e*	pP	13 44 13.1	+1.0
LPM	**Los Pinos Moun**	**66.53**	**326**	*e*P	**P**	**13 43 41.8**	**+0.1**
LENM	**Lemitar**	**66.60**	**325**	*e*P	**P**	**13 43 42.2**	**0.0**
CBKS	**Cedar Bluff**	**66.92**	**333**	*e*P	**P**	**13 43 43.6**	**-0.5**
	comp=Z,42nm,0.7s,mb5.4						
CBKS				*e*	pP	13 44 14.2	-1.3
CBKS	**Cedar Bluff**	**66.92**	**333**	*e*P	**P**	**13 43 43.6**	**-0.5**
CBKS				*e*	pP	13 44 14.2	-1.3
CBKS				pmax	pmax		
	comp=Z,42nm,0.7s,mb5.4						
ANMO	**Albuquerque**	**66.93**	**326**	*e*P	**P**	**13 43 43.9**	**-0.4**
	comp=Z,13nm,0.8s,mb4.8						
ANMO	**Albuquerque**	**66.93**	**326**	*e*P	**P**	**13 43 43.9**	**-0.4**
ANMO				pmax	pmax		
	comp=Z,13nm,0.8s						
JFWS	**Jewell Farm**	**67.24**	**342**	*e*P	**P**	**13 43 45.1**	**-1.0**
	comp=Z,33nm,0.5s,mb5.4						
JFWS	**Jewell Farm**	**67.24**	**342**	*e*P	**P**	**13 43 45.1**	**-1.0**
JFWS				pmax	pmax		
	comp=Z,33nm,0.5s,mb5.4						
116A	**Eloy**	**68.05**	**321**	P	**P**	**13 43 51.6**	**+0.2**
	baz=68,SNR=6.0						
115A	**Sonoran Desert**	**68.46**	**321**	⇓P	**P**	**13 43 54.4**	**+0.4**
	baz=69						
SDCO	**Great Sand Dun**	**68.64**	**329**	*e*P	**P**	**13 43 55.1**	**+0.2**
	comp=Z,24nm,0.7s,mb5.0						
QSPA	**South Pole Qui**	**68.76**	**180**	*e*P	**P**	**13 43 54.1**	**-1.0**
	comp=Z,19nm,0.5s,mb5.1						
Z14A	**Wintersburg**	**69.35**	**321**	⇓P	**P**	**13 43 59.3**	**-0.1**
	baz=70						
MVCO	**Mesa Verde**	**69.72**	**326**	*e*P	**P**	**13 44 01.8**	**+0.1**
	comp=Z,18nm,0.6s,mb5.0						
MVCO	**Mesa Verde**	**69.72**	**326**	P	**P**	**13 44 01.9**	**+0.3**
	baz=70,SNR=15						
X15A	**Humboldt**	**69.74**	**322**	⇑P	**P**	**13 44 02.2**	**+0.4**
	baz=70,SNR=25						
Y14A	**Wickenburg**	**69.79**	**321**	P	**P**	**13 44 02.3**	**+0.2**
	baz=70,SNR=13						
ECSD	**EROS,Sioux Fal**	**69.98**	**338**	*e*P	**P**	**13 44 01.8**	**-1.3**
	comp=Z,5.6nm,0.6s,mb4.5						
WUAZ	**Wupatki**	**70.00**	**323**	*e*P	**P**	**13 44 04.0**	**+0.6**
	comp=Z,24nm,0.8s,mb5.0						
WUAZ	**Wupatki**	**70.00**	**323**	P	**P**	**13 44 03.8**	**+0.4**
	baz=70,SNR=28						
X14A	**Yava**	**70.10**	**322**	P	**P**	**13 44 04.6**	**+0.6**
	baz=70,SNR=17						
Y13A	**Salome**	**70.19**	**321**	⇓P	**P**	**13 44 04.7**	**+0.1**
	baz=70,SNR=17						
W15A	**Williams**	**70.26**	**323**	⇓P	**P**	**13 44 05.4**	**+0.5**
	baz=70,SNR=8.9						
GLA	**Glamis**	**70.26**	**319**	⇑P	**P**	**13 44 05.2**	**+0.2**
	baz=70						
ISCO	**Idaho Springs**	**70.33**	**330**	*e*P	**P**	**13 44 05.6**	**+0.3**
	comp=Z,10.0nm,0.6s,mb4.7						
ISCO	**Idaho Springs**	**70.33**	**330**	*e*P	**P**	**13 44 05.6**	**+0.3**
ISCO				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
PV01	**Paradox Valley**	**70.47**	**327**	*e*P	**P**	**13 44 06.5**	**+0.3**
SMCO	**Snowmass**	**70.48**	**329**	*e*P	**P**	**13 44 07.0**	**+0.8**
	comp=Z,20nm,0.6s,mb5.0						
Y12C	**Blythe**	**70.56**	**320**	⇑P	**P**	**13 44 07.0**	**+0.2**
	baz=71,SNR=12						
PDMCI	**Parker Dam,Lak**	**70.71**	**321**	⇑P	**P**	**13 44 07.6**	**-0.2**
	baz=71,SNR=5.7						
X13A	**Yucca**	**70.74**	**321**	⇑P	**P**	**13 44 08.0**	**+0.2**
	baz=71,SNR=15						
W14A	**Seligman**	**70.75**	**322**	P	**P**	**13 44 08.6**	**+0.6**
	baz=71,SNR=15						
DVTC	**Desert V Tower**	**70.77**	**318**	⇑P	**P**	**13 44 08.5**	**+0.3**
	baz=71						
PV10	**Paradox Valley**	**70.89**	**327**	*e*P	**P**	**13 44 08.2**	**-0.5**
BC3	**Big Chuckw Mtn**	**71.05**	**319**	⇓P	**P**	**13 44 09.8**	**0.0**
	baz=71,SNR=8.9						
MONP	**Monument Peak**	**71.12**	**318**	⇓P	**P**	**13 44 10.6**	**+0.4**
	baz=71,SNR=5.3						
W13A	**Hualapai Mount**	**71.13**	**321**	⇑P	**P**	**13 44 10.7**	**+0.5**

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      baz=71,SNR=9.5
IRM   Iron Mountain    71.22 320 ⇓P     P      13 44 11.1 +0.3
      baz=72,SNR=13
NEE2  Needles Airpor   71.32 321 ⇓P     P      13 44 11.7 +0.3
      baz=72
BELC  Belle Mtn.       71.62 319 ⇑P     P      13 44 13.7 +0.4
      baz=72
PFO   Pinyon Flat Ob   71.63 319  P     P      13 44 12.9 -0.3
      comp=Z,10.0nm,0.8s,mb4.6,baz=146,slow=4.7,SNR=8.4
PFO   Pinyon Flat Ob   71.63 319 ⇓P     P      13 44 13.8 +0.5
      baz=72
T15A  Red Dirt Ranch   71.65 324  P     P      13 44 14.3 +1.0
      baz=72,SNR=36
W12A  Cal Nev Ari      71.84 321 ⇑P     P      13 44 14.4 -0.1
      baz=72,SNR=9.9
GMRC  Granite Mounta   71.95 320  P     P      13 44 15.7 +0.6
      baz=72,SNR=27
T14A  Hurricane        72.07 323 ⇓P     P      13 44 16.4 +0.6
      baz=72,SNR=28
MURC  Murrieta         72.08 318 ⇓P     P      13 44 16.2 +0.2
      baz=72
V12A  Nelson           72.13 321  P     P      13 44 16.5 +0.3
      baz=72,SNR=15
SRU   San Rafael       72.20 326 eP     P      13 44 16.7 +0.2
      comp=Z,42nm,0.6s,mb5.3
SRU                              e      pP     13 44 47.9 -0.5
SRU   San Rafael       72.20 326 eP     P      13 44 16.7 +0.1
SRU                              e      pP     13 44 47.9 -0.4
SRU                               pmax  pmax
      comp=Z,42nm,0.6s,mb5.3
EYMN  Ely              72.22 344 eP     P      13 44 15.2 -1.3
      comp=Z,11nm,0.6s,mb4.8
BBRC  Big Bear Sol-O   72.36 319 ⇑P     P      13 44 18.3 +0.7
      baz=73
HEC   Hector,Ludlow    72.38 320 ⇓P     P      13 44 18.2 +0.5
      baz=73,SNR=12
U12A  Valley of Fire   72.44 322 ⇓P     P      13 44 18.4 +0.3
      baz=73,SNR=16
T13A  Saint George     72.50 323 ⇑P     P      13 44 19.0 +0.6
      baz=73,SNR=15
V11A  Goodsprings      72.54 321  P     P      13 44 18.9 +0.2
      baz=73,SNR=7.2
TUQ   Turquoise Mtn.   72.56 321  P     P      13 44 19.5 +0.7
      baz=73,SNR=5.4
CCUT  Cedar City       72.58 324 eP     P      13 44 19.8 +1.0
CCUT                             e      pP     13 44 50.6  0.0
S14A  Cedar City       72.62 324 ⇓P     P      13 44 20.0 +1.0
      baz=73,SNR=13
MSU   Marysvale        72.63 325 eP     P      13 44 19.8 +0.7
MSU                              e      pP     13 44 51.1 +0.2
TMUT  Trail Mountain   72.69 326 eP     P      13 44 19.8 +0.3
ARUT  Antelope Range   72.79 324 eP     P      13 44 21.0 +0.9
ARUT                             e      pP     13 44 51.9 +0.1
BFSC  Mount Baldy St   72.80 319 ⇓P     P      13 44 20.2  0.0
      baz=73
SHPR  Sheep Range      72.85 322 eP     P      13 44 20.9 +0.4
S13A  Holt Ranch, En   72.87 323 ⇑P     P      13 44 21.4 +0.9
      baz=73,SNR=30
U11A  Corn Creek       72.92 322 ⇑P     P      13 44 21.3 +0.4
      baz=73
GSC   Goldstone        72.99 320 ⇓P     P      13 44 21.6 +0.3
      baz=73,SNR=5.8
SHOC  Shoshone         73.08 321 ⇓P     P      13 44 22.1 +0.2
      baz=73
DECC  Green Verdugo    73.22 318 ⇑P     P      13 44 22.8 +0.1
      baz=74
T11A  Corn Creek, Al   73.40 322 ⇑P     P      13 44 24.0 +0.4
      baz=74
EDW2  Edwards Air Fo   73.42 319 ⇑P     P      13 44 23.6 -0.3
      baz=74,SNR=8.3
S12A  Delamar Landin   73.44 323 ⇑P     P      13 44 24.6 +0.6
      baz=74
MPU   Maple Canyon     73.45 326 eP     P      13 44 24.2 +0.3
      comp=Z,23nm,0.9s,mb4.9
MPU                              e      pP     13 44 54.9 -0.8
U10A  Ash Meadows, A   73.47 321 ⇓P     P      13 44 24.5 +0.4
      baz=74,SNR=5.5
DAU   Daniels Canyon   73.55 327 eP     P      13 44 24.9 +0.4
BLG   Laguna Peak      73.58 318 ⇑P     P      13 44 24.5 -0.3
      baz=74
NLU   North Lily Min   73.63 326 eP     P      13 44 25.9 +0.9
LRMC  Laurel Mountai   73.64 320 ⇑P     P      13 44 25.3 +0.1
      baz=74,SNR=6.7
OSI   Osito Adit       73.70 318 ⇓P     P      13 44 25.4 -0.1
      baz=74
AGMN  Agassiz Refuge   73.78 341 eP     P      13 44 24.5 -1.1
      comp=Z,11nm,0.7s,mb4.7
TPNV  Topopah Spring   73.79 321 eP     P      13 44 26.6 +0.6
      comp=Z,21nm,0.9s,mb4.9
TPNV  Topopah Spring   73.79 321 eP     P      13 44 26.6 +0.6
TPNV                              pmax  pmax
      comp=Z,21nm,0.9s,mb4.9
TPNV  Topopah Spring   73.79 321 ⇑P     P      13 44 26.6 +0.7
      baz=74,SNR=22
JLU   Jordanelle       73.79 327 eP     P      13 44 26.4 +0.5
FURC  Furnace Creek,   73.82 321 ⇑P     P      13 44 26.4 +0.2
      baz=74,SNR=9.5
R12A  Pony Springs,    73.82 323 ⇓P     P      13 44 26.8 +0.7
      baz=74,SNR=30
BSC   Santa Cruz Isl   73.87 317 ⇑P     P      13 44 27.0 +0.5
      baz=74
MPMC  Manual Prospec   73.91 320 ⇑P     P      13 44 26.5 -0.2
      baz=74,SNR=9.0
S11A  Rachel           73.98 322  P     P      13 44 28.1 +1.0
      baz=74,SNR=7.0
CTU   Camp Tracy       74.01 327 eP     P      13 44 26.8 -0.4
      comp=Z,8.3nm,0.6s,mb4.6
ARVC  Arvin            74.10 319 ⇑P     P      13 44 28.9 +1.1
      baz=74
DAC   Darwin (Calif)   74.12 320 eP     P      13 44 28.1 +0.2
      comp=Z,18nm,0.8s,mb4.8
DAC   Darwin (Calif)   74.12 320 eP     P      13 44 28.1 +0.2
DAC                               pmax  pmax
      comp=Z,17nm,0.8s,mb4.8
DUG   Dugway           74.19 326 eP     P      13 44 28.6 +0.4
      comp=Z,33nm,1.3s,mb4.9
DUG   Dugway           74.19 326 eP     P      13 44 28.6 +0.4
DUG                               pmax  pmax
      comp=Z,33nm,1.3s,mb4.9
DUG   Dugway           74.19 326 ⇓P     P      13 44 28.6 +0.3
      baz=74,SNR=16
ISA   Isabella         74.24 319 ⇓P     P      13 44 28.8 +0.2
      baz=74,SNR=17
TRCR  Troy Canyon      74.38 323 eP     P      13 44 30.0 +0.6
Q12A  Willow Creek R   74.44 324 ⇓P     P      13 44 30.0 +0.3
      baz=75,SNR=8.1
GRAC  Grapevine Rang   74.48 321 ⇑P     P      13 44 30.3 +0.4
      baz=75
BW06  Boulder Array    74.50 330 eP     P      13 44 29.6 -0.3
PDAR  Pinedale Array   74.50 330  P     P      13 44 29.5 -0.4
      comp=Z,4.7nm,0.7s,mb4.3,baz=128,slow=7.5,SNR=46
CWC   Cottonwood Cre   74.52 320  P     P      13 44 30.7 +0.5
      baz=75,SNR=11
PKM   Peak Mountain    74.57 318 ⇓P     P      13 44 30.7 +0.1
      baz=75,SNR=7.1
HWUT  Hardware Ranch   74.60 328 eP     P      13 44 30.4 -0.1
      comp=Z,18nm,0.6s,mb4.9
S10A  Tonopah Range,   74.66 322  P     P      13 44 31.5 +0.5
      baz=75,SNR=15
VES   Vestal, Richgr   74.73 319 ⇑P     P      13 44 31.3 -0.1
      baz=75,SNR=10
R10A  Warm Springs     74.74 322 ⇑P     P      13 44 32.3 +0.8
      baz=75,SNR=24
Q11A  Duckwater        74.76 323  P     P      13 44 31.9 +0.3
      baz=75,SNR=20
P12A  McGill           74.79 324  P     P      13 44 32.4 +0.7
      baz=75,SNR=9.2
BGU   Big Grassy Mou   74.84 326 eP     P      13 44 31.9 -0.1
S09A  Goldfield        74.88 322  P     P      13 44 32.6 +0.3
      baz=75,SNR=9.3
M15A  Larsen Ranch,    74.93 327 ⇑P     P      13 44 32.2 -0.3
      baz=75,SNR=9.4
SMMC  Simmler          74.95 318 ⇓P     P      13 44 32.8 +0.1
      baz=75,SNR=8.7
TIN   Tinemaha         75.02 320 ⇓P     P      13 44 33.4 +0.3
      baz=75,SNR=5.4
TPH   Tonopah          75.12 322 eP     P      13 44 34.0 +0.3
      comp=Z,9.6nm,0.6s,mb4.6
TPH   Tonopah          75.12 322 eP     P      13 44 34.0 +0.3
TPH                               pmax  pmax
      comp=Z,10.0nm,0.6s,mb4.6
RCTC  Rector, Farmer   75.13 319 ⇓P     P      13 44 33.4 -0.4
      baz=75
R09A  Tonopah          75.15 322  P     P      13 44 34.1 +0.3
      baz=75,SNR=12
Q10A  Clear Creek Ra   75.17 323 ⇑P     P      13 44 34.4 +0.5
      baz=75,SNR=10
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AHID  Auburn Hatcher   75.23 329 eP     P      13 44 34.1 -0.1
      comp=Z,34nm,0.8s,mb5.0
HELL  Mitchell Peak,   75.25 320  P     P      13 44 34.2 -0.2
      baz=76,SNR=22
V05C  Boulder Hill,    75.25 319 ⇑P     P      13 44 34.7 +0.3
      baz=76
O12A  Currie           75.27 325 ⇓P     P      13 44 34.7 +0.3
      baz=76,SNR=21
S08C  White Mtn Res    75.28 321 ⇓P     P      13 44 35.2 +0.6
      baz=76,SNR=9.2
P11A  Circle Ranch,    75.31 324 ⇓P     P      13 44 35.0 +0.3
      baz=76
HVU   Hansel Valley    75.33 327 eP     P      13 44 34.6 -0.2
      comp=Z,18nm,0.9s,mb4.7
HVU   Hansel Valley    75.33 327 eP     P      13 44 34.6 -0.2
HVU                               pmax  pmax
      comp=Z,18nm,0.9s,mb4.7
N13A  Wendover, West   75.40 326 ⇑P     P      13 44 35.0 -0.1
      baz=76
M14A  Sheep Mountain   75.42 326  P     P      13 44 35.4 +0.1
      baz=76,SNR=23
ULM   Lac du Bonnet    75.52 342 eP     P      13 44 34.5 -1.1
      comp=Z,22nm,0.6s,mb5.0
ULM   Lac du Bonnet    75.52 342  P     P      13 44 34.6 -1.1
      comp=Z,17nm,0.5s,mb4.9,baz=152,slow=6.2,SNR=69
REDW  Red Top Meadow   75.56 329 eP     P      13 44 36.2 +0.2
      comp=Z,20nm,0.8s,mb4.8
Q09A  Carvers          75.62 322 ⇑P     P      13 44 36.7 +0.2
      baz=76
LOHW  Long Hollow      75.64 329 eP     P      13 44 36.6 +0.2
      comp=Z,17nm,0.7s,mb4.8
O11A  Cowboy Ranch,    75.67 324 ⇓P     P      13 44 37.0 +0.3
      baz=76,SNR=7.5
PKD   Parkfield        75.69 318 ⇓P     P      13 44 36.7 -0.3
      baz=76
V04C  Ramage Ranch,    75.70 318 ⇓P     P      13 44 38.1 +1.1
      baz=76
M13A  Montello         75.74 326  P     P      13 44 37.0 -0.1
      baz=76,SNR=8.8
P10A  Eureka           75.75 323 ⇓P     P      13 44 37.8 +0.5
      baz=76,SNR=7.7
MLAC  Mammoth Lakes    75.77 321 ⇑P     P      13 44 37.7 +0.4
      baz=76,SNR=6.8
MOOW  Moose Ponds      75.81 329 eP     P      13 44 37.5 +0.1
N12A  Clover Valley,   75.84 325 ⇑P     P      13 44 37.7  0.0
      baz=76
KCC   Kaiser Creek     75.85 320 ⇑P     P      13 44 37.4 -0.4
      baz=76
T06C  Millerton Lake   75.88 320 ⇑P     P      13 44 38.1 +0.1
      baz=76
DCID1 Drake Creek      75.90 329 eP     P      13 44 38.6 +0.6
SCHQ  Schefferville    75.96   1 eP     P      13 44 37.7 -0.3
      comp=Z,8.6nm,0.7s,mb4.5
SCHQ  Schefferville    75.96   1  P     P      13 44 37.9 -0.1
      comp=Z,9.7nm,0.7s,mb4.5,baz=185,slow=4.6,SNR=18
NVAR  Mina Array Bea   75.99 321  P     P      13 44 38.5 -0.1
NVAR  Mina Array Bea   75.99 321  P     P      13 44 38.5 -0.1
      comp=Z,4.5nm,0.6s,mb4.3,baz=181,slow=7.0,SNR=43
Q08A  Gabbs            76.06 322 ⇑P     P      13 44 38.7 -0.3
      baz=76,SNR=19
P09A  Austin           76.08 323 ⇓P     P      13 44 39.5 +0.4
      baz=76
K14A  Jones Ranch, D   76.10 327  P     P      13 44 39.2 +0.2
      baz=76,SNR=5.2
LAO   LASA Array       76.11 334 eP     P      13 44 39.0 -0.1
U04C  Hernandez Rese   76.11 319  P     P      13 44 39.7 +0.3
      baz=76,SNR=7.6
L13A  Double Diamond   76.16 327  P     P      13 44 40.0 +0.5
      baz=76,SNR=26
RLMT  Red Lodge        76.18 331 eP     P      13 44 39.8 +0.4
      comp=Z,20nm,0.8s,mb4.8
M12A  Wells            76.18 326 ⇓P     P      13 44 39.4 -0.1
      baz=76,SNR=12
N11A  Elko Archery C   76.19 325 ⇑P     P      13 44 40.4 +0.7
      baz=76
R07C  Lee Vining       76.19 321 ⇑P     P      13 44 40.2 +0.4
      baz=76
O10A  Cortez Mining,   76.24 324 ⇑P     P      13 44 40.2 +0.2
      baz=76,SNR=5.7
LKWY  Lake             76.27 330 eP     P      13 44 41.4 +1.4
      comp=Z,14nm,0.8s,mb4.6
LKWY  Lake             76.27 330 eP     P      13 44 41.4 +1.4
LKWY                              pmax  pmax
      comp=Z,14nm,0.8s,mb4.6
YFT   Old Faithful     76.38 330 eP     P      13 44 42.3 +1.6
T05C  Eagle Field, D   76.39 319 ⇑P     P      13 44 41.2 +0.3
      baz=77
S05C  Merced           76.47 320 ⇑P     P      13 44 41.3  0.0
      baz=77,SNR=11
TOA0  Torodi Ar. Sit   76.50  70 eP     P      13 44 42.6 +0.6
TORD  Torodi Ar. Bea   76.50  70  P     P      13 44 42.9 +0.8
      comp=Z,13nm,0.5s,mb4.8,baz=255,slow=5.3,SNR=111
TORD                              pP    pP     13 45 15.1 +1.1
      comp=Z,6.8nm,0.8s,baz=254,slow=5.1,SNR=3.2
YNR   Norris Junctio   76.51 330 eP     P      13 44 42.6 +1.2
S06C  San Francisco    76.53 320  P     P      13 44 41.9 +0.2
      baz=77,SNR=13
O09A  Fish Creek Ran   76.54 323 ⇓P     P      13 44 42.2 +0.5
      baz=77
N10A  Dunphy           76.54 324 ⇑P     P      13 44 41.7 +0.1
      baz=77
HAST  UC Hastings Re   76.61 318 ⇑P     P      13 44 42.0 -0.1
      baz=77,SNR=5.1
YMR   Madison River    76.61 330 eP     P      13 44 42.9 +1.0
      comp=Z,43nm,1.1s,mb5.0
YMR                              e             13 45 21.6
K13A  Stover Farm, H   76.63 327 ⇑P     P      13 44 42.3 +0.2
      baz=77,SNR=8.2
M11A  Holland Ranch,   76.65 325 ⇑P     P      13 44 42.6 +0.3
      baz=77,SNR=13
WAKR  Walker           76.70 321 eP     P      13 44 42.8 +0.2
P08A  Dixie Valley     76.71 323 ⇑P     P      13 44 42.9 +0.2
      baz=77,SNR=8.4
R06C  Coleville        76.72 321 ⇑P     P      13 44 43.3 +0.6
      baz=77,SNR=7.0
L12A  House Creek Ra   76.75 326  P     P      13 44 43.5 +0.7
      baz=77,SNR=12
DGMT  Dagmar           76.76 336 eP     P      13 44 42.5 -0.2
      comp=Z,30nm,0.8s,mb5.0
PACP  Pacheco Peak     76.84 319 ⇑P     P      13 44 43.0 -0.4
      baz=77
QLMT  Earthquake Lak   76.94 330 eP     P      13 44 45.2 +1.4
CMB   Columbia Colle   76.95 320 eP     P      13 44 43.2 -0.8
      comp=Z,9.4nm,1.1s,mb4.3
CMB   Columbia Colle   76.95 320 eP     P      13 44 43.2 -0.8
CMB                               pmax  pmax
      comp=Z,9.0nm,1.1s,mb4.3
CMB   Columbia Colle   76.95 320 ⇑P     P      13 44 44.0  0.0
      baz=77
K12A  Draper Farm, C   77.04 326 ⇓P     P      13 44 44.9 +0.4
      baz=77,SNR=26
P07A  Fallon           77.07 322 ⇓P     P      13 44 45.0 +0.4
      baz=77
M10A  I.L. Ranch, Tu   77.12 325 ⇓P     P      13 44 45.3 +0.4
      baz=77
L11A  Cat Creek Ranc   77.15 326  P     P      13 44 45.6 +0.5
      baz=77,SNR=12
S04C  Ingram Canyon,   77.18 319 ⇑P     P      13 44 45.0 -0.3
      baz=77
N09A  Rock Creek Ran   77.19 324  P     P      13 44 44.9 -0.4
      baz=78,SNR=6.7
R05C  Kirkwood Meado   77.21 321 ⇓P     P      13 44 45.7 +0.2
      baz=78,SNR=10
J13A  Cove Ranch, Pi   77.22 327 ⇑P     P      13 44 45.8 +0.5
      baz=78,SNR=17
WCN   Washoe City      77.41 321 ⇑P     P      13 44 47.0 +0.4
      baz=78,SNR=6.3
HLID  Hailey           77.46 327 eP     P      13 44 47.4 +0.6
      comp=Z,33nm,0.9s,mb5.0
HLID                             e      pP     13 45 19.3 +0.5
HLID  Hailey           77.46 327  P     P      13 44 47.6 +0.9
      baz=78,SNR=38
L10A  Juniper Basin    77.47 325 ⇑P     P      13 44 47.2 +0.4
      baz=78,SNR=42
O07A  Toulon           77.48 322 ⇓P     P      13 44 46.7 -0.2
      baz=78,SNR=14
N08A  GE Springer Mi   77.48 323  P     P      13 44 46.3 -0.6
      baz=78,SNR=8.4
M09A  Marrel Ranch,    77.54 324 ⇓P     P      13 44 47.2  0.0
      baz=78,SNR=12
I13A  Wildhorse Cree   77.56 328 ⇑P     P      13 44 48.0 +0.7
      baz=78,SNR=25
J12A  Stokes Ranch,    77.58 327  P     P      13 44 47.9 +0.4
      baz=78,SNR=14
MCMT  McKenzie Canyo   77.61 329 eP     P      13 44 48.3 +0.7
LAVA  Lava Cap Winer   77.63 320  P     P      13 44 47.6 -0.2
      baz=78,SNR=5.3
BOZ   Bozeman (W)      77.65 330 eP     P      13 44 47.5 -0.3
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      comp=Z,2.5nm,0.7s,mb4.0
BOZ   Bozeman (W)      77.65 330 eP     P      13 44 47.5 -0.2
BOZ                               pmax  pmax
      comp=Z,2.0nm,0.7s,mb3.9
BOZ   Bozeman (W)      77.65 330 ⇓P     P      13 44 47.8  0.0
      baz=78
G15A  Dillon           77.69 329 ⇓P     P      13 44 48.1 +0.2
      baz=78,SNR=14
K11A  Parker Ranch,    77.72 326  P     P      13 44 48.6 +0.4
      baz=78,SNR=14
P06A  Stead Airport,   77.74 322 ⇑P     P      13 44 48.7 +0.3
      baz=78
BDM   Black Diamond    77.80 319 ⇓P     P      13 44 49.1 +0.4
      baz=78
P05C  Yuba Gap, Truc   77.91 321 ⇓P     P      13 44 49.7 +0.4
      baz=78,SNR=7.6
N07B  Gerlach          77.95 323  P     P      13 44 49.5  0.0
      baz=78,SNR=28
O06A  Flanigan         78.03 322 ⇑P     P      13 44 49.7 -0.2
      baz=78
Q04C  Lincoln          78.07 320 ⇓P     P      13 44 50.4 +0.2
      baz=78
L09A  Wilkinson Ranc   78.07 324 ⇑P     P      13 44 50.1  0.0
      baz=78,SNR=10.0
M08A  Happy Creek Ra   78.07 324 ⇑P     P      13 44 50.2 +0.1
      baz=78
MFID  Camas Ranch      78.07 326  P     P      13 44 50.6 +0.5
      baz=78,SNR=14
H13A  Challis          78.10 328  P     P      13 44 51.0 +0.7
      baz=78,SNR=35
BEKR  Beckwourth       78.14 321 ⇓P     P      13 44 50.7 +0.2
      baz=78,SNR=11
LRM   Limekiln Ridge   78.17 330 eP     P      13 44 51.3 +0.7
K10A  MacKenzie Ranc   78.17 325 ⇑P     P      13 44 50.6 -0.1
      baz=78,SNR=14
F15A  Butte            78.20 330  P     P      13 44 51.2 +0.4
      baz=78,SNR=13
G14A  Jackson          78.21 329  P     P      13 44 51.5 +0.6
      baz=78,SNR=5.9
Q03C  Winters          78.32 320 ⇑P     P      13 44 52.1 +0.5
      baz=79,SNR=5.2
H12A  Diamond D Ranc   78.39 328 ⇑P     P      13 44 52.5 +0.6
      baz=79,SNR=18
CVS   Carmenet Viney   78.40 319 ⇑P     P      13 44 51.7 -0.4
      baz=79
N06A  Buffalo Meadow   78.42 322 ⇓P     P      13 44 52.0 -0.1
      baz=79,SNR=18
OHCM  Honcut           78.45 320 eP     P      13 44 52.1 -0.2
M07A  Soldier Meadow   78.47 323  P     P      13 44 52.4  0.0
      baz=79,SNR=20
G13A  Cobalt           78.48 329 ⇑P     P      13 44 53.0 +0.7
      baz=79,SNR=69
I11A  Placerville      78.49 327  P     P      13 44 52.5 +0.1
      baz=79,SNR=9.7
O05C  Quincy           78.52 321  P     P      13 44 52.9 +0.2
      baz=79,SNR=7.1
L08A  Fields           78.56 324 ⇑P     P      13 44 52.6 -0.3
      baz=79,SNR=14
J10A  Berg Farm, Mel   78.57 326 ⇑P     P      13 44 52.5 -0.3
      baz=79
K09A  Rome             78.57 325 ⇓P     P      13 44 52.6 -0.2
      baz=79,SNR=10
F14A  Wisdom           78.59 329 ⇓P     P      13 44 53.6 +0.7
      baz=79
ORV   Oroville         78.60 321 ⇓P     P      13 44 53.0 -0.2
      baz=79,SNR=17
EGMT  Eagleton         78.64 333 eP     P      13 44 52.6 -0.5
      comp=Z,22nm,1.2s,mb4.7
EGMT  Eagleton         78.64 333 ⇓P     P      13 44 52.7 -0.4
      baz=79,SNR=6.5
E15A  Deer Lodge       78.70 330  P     P      13 44 53.9 +0.4
      baz=79,SNR=11
O04C  Chester          78.85 321 ⇓P     P      13 44 54.3 -0.2
      baz=79,SNR=7.1
WVOR  Wild Horse Val   78.88 324 eP     P      13 44 54.1 -0.5
      comp=Z,4.2nm,0.8s,mb4.1
WVOR  Wild Horse Val   78.88 324 eP     P      13 44 54.1 -0.5
WVOR                              pmax  pmax
      comp=Z,4.0nm,0.8s,mb4.1
L07A  Adell            78.98 324  P     P      13 44 55.6 +0.5
      baz=79,SNR=5.5
K08A  Mann Creek Ran   79.00 325 ⇑P     P      13 44 55.1 -0.2
      baz=79
J09A  Fry Pan Ranch,   79.03 325  P     P      13 44 55.4  0.0
      baz=79,SNR=5.6
F13A  Darby            79.03 329 ⇑P     P      13 44 55.6 +0.3
      baz=79,SNR=45
I10A  Payette          79.05 326 ⇓P     P      13 44 55.7 +0.3
      baz=79,SNR=7.2
H11A  Donnelly         79.08 327 ⇑P     P      13 44 55.5 -0.1
      baz=79,SNR=10
M06C  Likely Place G   79.08 322  P     P      13 44 56.0 +0.3
      baz=79,SNR=18
E14A  Clinton          79.09 330 ⇓P     P      13 44 56.1 +0.5
      baz=79,SNR=11
D15A  Lincoln          79.11 331  P     P      13 44 56.3 +0.6
      baz=79,SNR=8.9
O03C  Acorn Hollow,    79.20 321 ⇓P     P      13 44 55.6 -0.8
      baz=80
TSUM  Tsumeb           79.21 106 eP     P      13 44 58.8 +1.8
      comp=Z,12nm,0.7s,mb4.6
LBCM  Butte Creek Ri   79.34 322  P     P      13 44 56.6 -0.5
H10A  Noah's Angus R   79.37 327  P     P      13 44 57.0 -0.2
      baz=80,SNR=13
K07A  Rock Creek Ran   79.39 324 ⇑P     P      13 44 57.6 +0.3
      baz=80,SNR=6.3
GASB  Alder Springs    79.39 320 ⇑P     P      13 44 57.9 +0.5
      baz=80,SNR=5.0
HATC  Hat Creek Radi   79.39 322 ⇓P     P      13 44 57.2 -0.2
      baz=80,SNR=5.1
J08A  Circle Bar Ran   79.42 325  P     P      13 44 57.6 +0.1
      baz=80,SNR=13
E13A  Victor           79.44 329 ⇓P     P      13 44 58.0 +0.5
      baz=80,SNR=20
MOD   Modoc            79.44 323 eP     P      13 44 57.9 +0.2
      comp=Z,14nm,1.0s,mb4.5
MOD   Modoc            79.44 323 ⇓P     P      13 44 57.5 -0.1
      baz=80,SNR=8.9
F12A  Elk City         79.45 328 ⇓P     P      13 44 57.8 +0.1
      baz=80
I09A  Lost Marbles R   79.45 326 ⇑P     P      13 44 57.8 +0.1
      baz=80,SNR=16
M05C  Lookout          79.56 322 ⇓P     P      13 44 58.1 -0.2
      baz=80,SNR=5.1
D14A  Greenough        79.59 330 ⇓P     P      13 44 58.5 +0.1
      baz=80
P01C  Double 8 Ranch   79.64 320 ⇓P     P      13 44 58.8  0.0
      baz=80
O02C  Red Bluff        79.76 320 ⇑P     P      13 44 58.8 -0.7
      baz=80
L05A  Lakeview         79.84 323 ⇑P     P      13 45 00.1 +0.3
      baz=80,SNR=6.8
I08A  Drewsey          79.85 325 ⇓P     P      13 45 00.0 +0.2
      baz=80,SNR=32
J07A  Hines            79.88 325 ⇓P     P      13 45 00.3 +0.3
      baz=80,SNR=12
F11A  Grangeville      79.99 328  P     P      13 45 00.3 -0.2
      baz=80,SNR=18
K06A  Valley Falls     80.01 324 ⇑P     P      13 45 01.2 +0.5
      baz=80,SNR=8.9
D13A  Huson            80.04 330  P     P      13 45 01.0 +0.2
      baz=80,SNR=15
M03C  McCloud          80.07 322  P     P      13 45 00.3 -0.7
      baz=80,SNR=6.4
C14A  Swan Lake        80.20 331 ⇑P     P      13 45 01.8 +0.1
      baz=80
M04C  Macdoel          80.23 322 ⇓P     P      13 45 01.5 -0.4
      baz=80,SNR=6.9
J06A  Christmas Vall   80.25 324 ⇑P     P      13 45 02.0  0.0
      baz=80,SNR=16
H08A  Prairie City     80.31 326 ⇑P     P      13 45 02.5 +0.2
      baz=81,SNR=7.9
E11A  Bogner Ranch,    80.35 328  P     P      13 45 01.9 -0.5
      baz=81,SNR=7.4
D12A  Red Ives Fores   80.43 329 ⇑P     P      13 45 02.7 -0.2
      baz=81
I07A  Izee             80.46 325 ⇑P     P      13 45 03.3 +0.2
      baz=81,SNR=8.6
L04A  Klamath Falls    80.52 322 ⇓P     P      13 45 03.0 -0.5
      baz=81
C13A  Hot Springs      80.52 330  P     P      13 45 03.6 +0.3
      baz=81,SNR=12
M02C  Callahan         80.57 321 ⇓P     P      13 45 03.2 -0.5
      baz=81
F10A  Beach Ranch, E   80.58 328 ⇑P     P      13 45 03.7  0.0
      baz=81,SNR=10.0
YBH   Yreka Blue Hor   80.70 322 ⇑P     P      13 45 03.0 -1.5
      baz=81
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K04A	**Chilquin**	80.71	323	⇓P	P	13 45 04.4	-0.1
	baz=81						
F09A	**S2 Ranch, Elgi**	80.74	327	P	P	13 45 04.8	+0.3
	baz=81,SNR=7.4						
BSMT	**Bassoo Peak**	80.74	330	*e*P	P	13 45 05.1	+0.6
I06A	**Prineville**	80.75	325	⇓P	P	13 45 05.0	+0.4
	baz=81,SNR=10						
H07A	**Lands Inn, Kim**	80.83	325	⇓P	P	13 45 05.4	+0.3
	baz=81						
J05A	**Fort Rock**	80.87	324	P	P	13 45 05.5	+0.3
	baz=81,SNR=6.7						
E10A	**Myers Farm, Un**	80.88	328	⇓P	P	13 45 05.0	-0.3
	baz=81,SNR=13						
D11A	**Klaveano Farm,**	80.90	329	P	P	13 45 04.9	-0.5
	baz=81,SNR=6.2						
B13A	**Whitefish**	80.98	331	P	P	13 45 05.7	-0.1
	baz=81,SNR=9.5						
G08A	**Pilot Rock**	80.99	326	P	P	13 45 06.0	+0.1
	baz=81,SNR=8.2						
WALA	**Waterton Lakes**	81.23	331	*e*P	P	13 45 06.8	-0.2
	comp=Z,12nm,0.7s,mb4.6						
FFC	**Flin Flon**	81.25	341	P	P	13 45 06.8	-0.2
	comp=Z,64nm,1.3s,mb5.1,SNR=5.3						
H06A	**Lindquist Farm**	81.34	325	P	P	13 45 08.3	+0.6
	baz=82,SNR=9.2						
G07A	**Ruggs Ranch, H**	81.34	326	⇓P	P	13 45 08.0	+0.3
	baz=82,SNR=7.3						
A13A	**Flathead Natio**	81.36	331	⇑P	P	13 45 08.1	+0.4
	baz=82						
D10A	**Wagner Farm, O**	81.36	328	P	P	13 45 07.3	-0.5
	baz=82,SNR=13						
E09A	**Wood Farm, Sta**	81.42	328	⇓P	P	13 45 07.9	-0.2
	baz=82						
I05A	**Bend**	81.46	324	P	P	13 45 09.1	+0.7
	baz=82,SNR=6.5						
B12A	**Libby**	81.56	330	P	P	13 45 09.1	+0.3
	baz=82,SNR=11						
H05A	**Madras**	81.76	325	⇑P	P	13 45 10.1	+0.2
	baz=82						
K02A	**Glendale**	81.81	322	⇓P	P	13 45 10.5	+0.2
	baz=82						
G06A	**Carlson Farm,**	81.83	325	⇓P	P	13 45 10.7	+0.4
	baz=82						
I04A	**Tendick Farm,**	81.85	323	⇓P	P	13 45 09.7	-0.7
	baz=82						
E08A	**Dider Farm, El**	81.86	327	⇑P	P	13 45 10.0	-0.4
	baz=82						
D09A	**Jones Farm, Ri**	81.88	328	⇑P	P	13 45 10.2	-0.2
	baz=82,SNR=12						
F07A	**Phinny Hill Vi**	81.90	326	⇑P	P	13 45 10.7	+0.1
	baz=82						
B11A	**Sandpoint**	81.90	330	⇑P	P	13 45 10.5	-0.1
	baz=82						
A12A	**Yaak River Ran**	81.93	330	P	P	13 45 10.9	+0.2
	baz=82,SNR=16						
HAWA	**Hanford**	82.03	327	*e*P	P	13 45 11.1	-0.2
	comp=Z,14nm,0.9s,mb4.6						
RSW	**Rattlesnake Hi**	82.06	327	P	P	13 45 11.8	+0.3
NEW	**Newport**	82.14	329	*e*P	P	13 45 10.7	-1.1
	comp=Z,10nm,1.3s,mb4.3						
NEW	**Newport**	82.14	329	*e*P	P	13 45 10.7	-1.1
NEW				pmax	pmax		
	comp=Z,10.0nm,1.3s						
D08A	**Wollman Farm,**	82.18	328	⇑P	P	13 45 11.8	-0.2
	baz=82,SNR=7.1						
G05A	**Wamic**	82.20	325	⇓P	P	13 45 12.2	0.0
	baz=82						
J02A	**Umpqua**	82.23	323	⇓P	P	13 45 12.2	-0.3
	baz=82						
F06A	**Goldendale**	82.26	326	⇓P	P	13 45 12.6	0.0
	baz=82						
A11A	**Hall Mountain,**	82.27	330	P	P	13 45 12.4	-0.1
	baz=82,SNR=15						
OD2	**Odessa Site #2**	82.30	328	P	P	13 45 12.6	-0.1
H04A	**Detroit Lake**	82.30	324	⇑P	P	13 45 12.0	-0.8
	baz=83						
E07A	**Sunnyside**	82.31	327	⇑P	P	13 45 12.7	0.0
	baz=83						
BOSA	**Boshof**	82.70	118	P	P	13 45 15.7	+0.3
	comp=Z,2.2nm,0.4s,mb4.2,baz=91,slow=2.0,SNR=15						
C08A	**Higginbotham F**	82.73	328	⇑P	P	13 45 14.4	-0.6
	baz=83						
B09A	**Rice**	82.74	329	P	P	13 45 14.5	-0.4
	baz=83,SNR=7.4						
FCC	**Fort Churchill**	82.77	347	*e*P	P	13 45 14.6	-0.2
	comp=Z,20nm,0.7s,mb5.0						
FCC	**Fort Churchill**	82.77	347	*e*P	P	13 45 14.6	-0.2
FCC				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.0						
D07A	**Quincy**	82.80	327	⇑P	P	13 45 15.2	-0.1
	baz=83						
A10A	**Northport**	82.85	330	⇑P	P	13 45 14.8	-0.6
	baz=83						
E06A	**Yakima**	82.88	326	⇑P	P	13 45 15.5	-0.2
	baz=83						
WTV	**Waterville**	83.13	328	P	P	13 45 16.7	-0.3
C07A	**Waterville**	83.17	328	P	P	13 45 17.0	-0.2
	baz=83,SNR=15						
F04A	**Amboy**	83.23	325	⇓P	P	13 45 17.1	-0.5
	baz=84						
D06A	**Cle Elum**	83.24	327	⇓P	P	13 45 17.4	-0.1
	baz=84						
B08A	**Colville Reser**	83.27	328	⇓P	P	13 45 17.2	-0.5
	baz=84						
E05A	**Randle**	83.30	326	⇑P	P	13 45 16.8	-1.0
	baz=84						
G03A	**Yamhill**	83.30	324	⇑P	P	13 45 17.6	-0.3
	baz=84						
A09A	**Danville**	83.33	329	P	P	13 45 17.4	-0.5
	baz=84,SNR=6.2						
A08A	**Turner Farm, O**	83.64	329	P	P	13 45 19.3	-0.3
	baz=84,SNR=13						
B07A	**Winthrop**	83.72	328	P	P	13 45 19.5	-0.5
	baz=84,SNR=12						
D05A	**Enumclaw**	83.82	326	⇑P	P	13 45 20.1	-0.5
	baz=84						
EDM	**Edmonton**	84.08	335	*e*P	P	13 45 19.9	-1.7
EDM				*e*	pP	13 45 52.5	-1.8
MAW	**Mawson**	84.14	163	P	P	13 45 21.0	-0.9
	comp=Z,3.3nm,0.6s,mb4.3,baz=190,slow=6.1,SNR=8.2						
A07A	**Ashnola River,**	84.25	328	P	P	13 45 22.6	0.0
	baz=84,SNR=9.8						
B06A	**Marblemount**	84.44	328	⇓P	P	13 45 22.5	-1.1
	baz=85						
B05A	**Bryant**	84.58	327	⇓P	P	13 45 23.4	-1.0
	baz=85						
CMW	**Cultus Mountai**	84.70	327	P	P	13 45 24.1	-0.8
A05A	**Maple Falls**	85.05	328	⇑P	P	13 45 25.6	-1.1
	baz=85						
ESDC	**Sonseca Array**	85.17	44	P	P	13 45 28.9	+1.4
	comp=Z,6.7nm,1.1s,mb4.3,baz=236,slow=6.1,SNR=12						
YKA	**Yellowknife Ar**	91.42	340	P	P	13 45 56.0	-0.7
YKA				pP	pP	13 46 28.9	-0.8
YKA	**Yellowknife Ar**	91.42	340	P	P	13 45 56.0	-0.7
	comp=Z,24nm,0.7s,mb5.4,baz=133,slow=4.5,SNR=576						
YKA				pP	pP	13 46 28.9	-0.8
	comp=Z,3.4nm,0.9s,baz=135,slow=4.5,SNR=2.5						
MCK	**McKinley**	105.09	333	*e*PKPdf	PKiKP	13 51 11.4	-0.7
CTA	**Charters Tower**	126.88	221	PKP	PKPdf	13 51 53.6	-1.4
CTA	**Charters Tower**	126.88	221	PKIKP	PKPdf	13 51 53.6	-1.4
CTA	**Charters Tower**	126.88	221	PKP	PKPdf	13 51 53.6	-1.4
	comp=Z,4.1nm,0.8s,baz=236,slow=3.6,SNR=3.4						
ARU	**Arti**	127.60	34	*i* PKIKP	PKPdf	13 51 55.5	+0.3
ARU				*e*		13 53 54.3	
ARU				*e*SS	SS	14 11 02.8	+4.1
TIXI	**Tiksi**	128.83	353	*e*PKPdf	PKPdf	13 51 56.6	-0.6
TIXI	**Tiksi**	128.83	353	*i* PKIKP	PKPdf	13 51 56.1	-1.1
AKTK	**Aktyubinsk**	129.00	42	PKP	PKPdf	13 51 57.9	-0.1
AKTO	**Aktyubinsk**	129.00	42	PKIKP	PKPdf	13 51 57.9	-0.2
AKTO	**Aktyubinsk**	129.00	42	PKP	PKPdf	13 51 57.9	-0.1
	comp=Z,2.0nm,0.8s,baz=334,slow=4.3,SNR=7.3						
ASAR	**Alice Springs**	130.37	207	PKP	PKPdf	13 52 00.0	-1.6
ASAR	**Alice Springs**	130.37	207	PKIKP	PKPdf	13 52 00.0	-1.6
ASAR	**Alice Springs**	130.37	207	PKP	PKPdf	13 52 00.0	-1.6
	comp=Z,2.9nm,0.5s,baz=130,slow=1.8,SNR=35						
WRA	**Warramunga Arr**	133.45	209	PKP	PKPdf	13 52 06.1	-1.4
WRA	**Warramunga Arr**	133.45	209	PKIKP	PKPdf	13 52 06.1	-1.4
WRA	**Warramunga Arr**	133.45	209	PKP	PKPdf	13 52 06.1	-1.4
	comp=Z,3.8nm,0.6s,baz=153,slow=1.8,SNR=5.6						
NVS	**Novosibirsk**	140.23	26	*e*PKIKP	PKPdf	13 52 17.8	-1.1
KURK	**Kurchatov**	140.79	34	*i* PKIKP	PKPdf	13 52 19.9	-0.1
ZAL	**Zalesovo**	141.51	26	PKHKP		13 52 15.8	
ZAL						13 52 20.7	
ZALV	**Zalesovo Beam**	141.51	26	PKP	PKPdf	13 52 15.8	-5.4
ZALV				PKP	PKPdf	13 52 20.7	-0.6
ZALV	**Zalesovo Beam**	141.51	26	PKhKP		13 52 15.8	
	comp=Z,1.2nm,0.4s,baz=294,slow=5.2,SNR=9.7						
ZALV				PKP	PKPdf	13 52 20.7	-0.6
	comp=Z,5.1nm,0.5s,baz=305,slow=2.6,SNR=26						
AAK	**Ala-Archa**	142.22	47	*e*PKPdf	PKPdf	13 52 20.3	-2.5
AAK	**Ala-Archa**	142.22	47	*e*PKIKP	PKPdf	13 52 20.3	-2.6
UCH	**Uchtor**	142.38	48	*e*PKPdf	PKPdf	13 52 22.6	-0.5
BOD	**Bodaibo**	143.63	358	⇓*i*PKIKP	PKPdf	13 52 21.4	-3.5
BOD				pmax	pmax		
	comp=Z,8.0nm,1.1s						
MK31	**Makanchi Array**	145.06	37	*e*PKPdf	PKPdf	13 52 28.1	+0.3
MK31	**Makanchi Array**	145.06	37	*e*PKIKP	PKPdf	13 52 28.1	+0.4
MKAR	**Makanchi Array**	145.06	37	PKPbc	PKPbc	13 52 28.1	+0.7
	comp=Z,7.7nm,0.6s,baz=324,slow=3.5,SNR=184						
MKAR				pPKPbc		13 53 01.6	
	comp=Z,4.8nm,0.7s,baz=318,slow=3.3,SNR=5.3						
HABR	**Khabarovsk**	147.33	331	*e*PKP2	PKPdf	13 52 33.6	+2.1
GUMO	**Guam**	147.78	261	PKPbc	PKPdf	13 52 34.2	+1.0
	comp=Z,82nm,0.7s,baz=148,slow=4.9,SNR=4.7						
KLR	**Kul'dur**	148.14	335	*e*PKIKP	PKPdf	13 52 32.5	-0.3
MOY	**Mondy**	148.62	13	*e*PKP2	PKPbc	13 52 38.6	+1.2
MOY				pmax	pmax		
	comp=Z,20nm,1.6s						
TLY	**Talaya**	149.11	10	*e*PKPdf	PKPdf	13 52 34.9	+0.6
TLY				*e*PKPbc	PKPbc	13 52 39.0	+0.5
TLY	**Talaya**	149.11	10	*e*PKIKP	PKPdf	13 52 34.9	+0.6
TLY				*e*		13 52 39.0	
CIT	**Chita**	149.45	358	*e*PKP2	PKPbc	13 52 39.4	0.0
WMQ	**Urumqi**	149.89	36	*e*PKP	PKPdf	13 52 34.1	-1.7
HIA	**Hailar**	151.56	349	*e*PKPbc	PKPbc	13 52 43.9	-0.6
HIA	**Hailar**	151.56	349	*e*PKIKP	PKPbc	13 52 43.9	-0.6
MDJ	**Mudanjiang**	152.71	332	PKP	PKPdf	13 52 37.9	-2.2
MJAR	**Matsushiro Arr**	152.72	309	PKPbc	PKPbc	13 52 46.1	-1.4
	comp=Z,6.4nm,0.8s,baz=80,slow=1.5,SNR=15						
MJAR				PKPab	PKPab	13 52 57.8	-1.0
	comp=Z,1.2nm,0.6s,baz=80,slow=5.7,SNR=4.6						
MJAR				pPKPbc	pPKPbc	13 53 21.5	-0.4
	comp=Z,3.7nm,1.1s,baz=77,slow=2.8,SNR=3.0						
SONM	**Songino Array**	153.27	8	PKP	PKPdf	13 52 41.2	+0.4
SONM				PKPbc	PKPbc	13 52 48.5	+0.1
SONM				PKPab	PKPab	13 53 01.2	+0.6
SONM	**Songino Array**	153.27	8	PKIKP	PKPdf	13 52 41.2	+0.4
SONM	**Songino Array**	153.27	8	PKP	PKPdf	13 52 41.2	+0.4
	comp=Z,1.9nm,0.8s,baz=290,slow=1.4,SNR=11						
SONM				PKPbc	PKPbc	13 52 48.5	+0.1
	comp=Z,2.2nm,0.5s,baz=320,slow=1.4,SNR=13						
SONM				PKPab	PKPab	13 53 01.2	+0.6
	comp=Z,2.3nm,0.9s,baz=328,slow=5.1,SNR=5.6						
KSRS	**Korea Array**	158.93	323	PKP	PKPdf	13 52 48.4	-0.1
	comp=Z,3.1nm,0.8s,baz=144,slow=0.8,SNR=10						
KSRS				PKPab	PKPab	13 53 24.4	-0.9
	comp=Z,1.8nm,0.7s,baz=45,slow=4.8,SNR=6.4						
GTA	**Gaotai**	159.25	28	*e*PKP	PKPdf	13 52 49.4	+0.5
HHC	**Hu-ho-hao-te**	160.64	1	*e*PKP	PKPdf	13 52 50.5	+0.1
HHC				PKS		13 56 25.0	
HHC				PP	PP	13 57 17.4	+3.0
HHC				PP	PP		
	comp=Z,141nm,10.7s						
NJ2	**Nanjing**	167.80	332	*e*PKP	PKPdf	13 52 56.3	-0.8
CD2	**Chengdu**	167.99	37	*e*PKP	PKPdf	13 52 56.0	-1.2
CD2				PKP2	PKPab	13 54 04.9	-0.4
CD2				PP	PP	13 57 54.5	+0.8
CD2				PP	PP		
	comp=Z,350nm,10.8s						
CD2				LR	LR		
	comp=N,120nm,19.2s						
CD2				LR	LR		
	comp=Z,50nm,16.8s						
KMI	**Kunming**	170.70	65	PKP	PKPdf	13 52 57.3	-1.7
KMI				PKP2	PKPab	13 54 17.4	-0.2
KMI				PP	PP	13 58 06.9	-1.5
KMI				SS	SS	14 19 02.1	+0.9
KMI				PP	PP		
	comp=Z,184nm,4.9s						
KMI	**Kunming**	170.70	65	PKP	PKPdf	13 52 57.3	-1.7
KMI				sPKP		13 53 16.0	
KMI	**Kunming**	170.70	65	PKIKP	PKPdf	13 52 57.3	-1.7
GYA	**Guiyang**	172.99	43	PKP	PKPdf	13 52 58.0	-2.1
GYA				PKP2	PKPab	13 54 26.4	-1.2
GYA				PKS		13 56 29.0	
GYA				PP	PP	13 58 18.8	-0.1
GYA				SS	SS	14 19 25.0	+2.9
GYA				PP	PP		
	comp=Z,160nm,8.4s						
GYA				LR	LR		
	comp=N,570nm,20.4s						
GYA				LR	LR		
	comp=E,780nm,21.2s						
GYA				LR	LR		
	comp=Z,640nm,20.4s						

IDC 24 13:51:04.0±27.0**,1869S×17269W,h0^{km},mb4.2**/4**,**
mb1 4.3/4**,mb1mx3.9**/16**,mbtmp4.2**/4**,Error ellipse:**
s-maj=498.5km s-min=160.6km az=73.0,Tonga Islands
region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	38.69	261	P	P	13 58 29.8	-0.1
	4.6nm,0.8s,baz=87,slow=13,SNR=4.0						
STKA	**Stephens Creek**	43.08	243	P	P	13 59 05.6	-0.3
	2.0nm,0.5s,baz=107,slow=10,SNR=6.5						
ASAR	**Alice Springs**	49.82	254	P	P	13 59 59.0	+0.1
	2.8nm,0.7s,baz=90,slow=8.2,SNR=48						
WRA	**Warramunga Arr**	49.84	259	P	P	13 59 59.2	+0.1
	0.8nm,0.5s,baz=97,slow=7.0,SNR=15						

IDC 24 13:55:33.8±1.8**,196S×13336E,h0^{km},mb3.8**/4**,mb1 4.0**/6**,**
mb1mx3.8/16**,mbtmp3.8**/6**,ML4.0**/2**,MS4.8**/1**,Ms1 4.8**/1**,**
ms1mx3.0/32**,Error ellipse: s-maj=86.8km**
s-min=20.4km az=82.0,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	17.74	205	P	Pn	13 59 41.8	-0.6
	0.4nm,0.3s,baz=34,slow=13,SNR=12						
FITZ				S	Sn	14 02 47.0	-14
	0.2nm,0.3s,baz=103,slow=19,SNR=4.7						
WRA	**Warramunga Arr**	17.90	177	P	Pn	13 59 44.1	-0.2
	0.5nm,0.3s,baz=356,slow=12,SNR=27						
WRA				S	Sn	14 02 53.7	-11
	0.1nm,0.3s,baz=360,slow=23,SNR=4.0						
ASAR	**Alice Springs**	21.58	179	P	P	14 00 25.7	+0.5
	1.4nm,0.5s,baz=8.6,slow=13,SNR=21						
DZM	**Mont Dzumac**	37.86	124	LR	LR	14 15 02.8	
	comp=Z,1µm,19.9s,baz=272,slow=31						
SONM	**Songino Array**	54.90	338	P	P	14 05 06.1	0.0
	0.6nm,0.7s,baz=133,slow=8.1,SNR=3.3						
MKAR	**Makanchi Array**	66.00	324	P	P	14 06 22.9	+0.8
	1.6nm,0.5s,baz=114,slow=8.4,SNR=23						
ZALV	**Zalesovo Beam**	68.67	332	P	P	14 06 38.3	-0.6
	0.5nm,0.5s,baz=116,slow=6.6,SNR=3.7						

IDC 24 14:10:54.3±8.2**,1983S×17373E,h0^{km},mb4.1**/4**,**
mb1 4.2/5**,mb1mx3.9**/15**,mbtmp4.1**/5**,ML3.5**/1**,MS3.9**/15**,**
Ms1 3.9/15**,ms1mx3.7**/26**,Error ellipse: s-maj=136.0km**
s-min=105.6km az=100.0,Vanuatu Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	7.17	251	Pn	Pn	14 12 40.3	-0.1
	0.7nm,0.3s,baz=88,slow=19,SNR=9.2						
HNR	**Honiara**	16.86	306	LR	LR	14 19 33.3	
	comp=Z,104nm,21.2s,baz=180,slow=31						
RPZ	**Rata Peaks**	23.93	185	LR	LR	14 23 54.5	
	comp=Z,254nm,20.5s,baz=21,slow=33						
RAR	**Rarotonga**	24.85	98	LR	LR	14 24 27.6	
	comp=Z,198nm,19.8s,baz=256,slow=33						
CTA	**Charters Tower**	25.82	265	P	P	14 16 28.3	+0.9
	5.3nm,0.7s,baz=95,slow=14,SNR=4.3						
CTA				LR	LR	14 25 12.9	
	comp=Z,230nm,21.7s,baz=81,slow=33						
PMG	**Port Moresby**	27.68	288	LR	LR	14 24 55.8	
	comp=Z,179nm,18.5s,baz=87,slow=30						
STKA	**Stephens Creek**	31.19	241	P	P	14 17 16.1	+0.8
	1.9nm,0.8s,baz=79,slow=16,SNR=2.7						
STKA				LR	LR	14 28 33.4	
	comp=Z,318nm,19.2s,baz=287,slow=34						
PPT	**Papeete**	34.79	92	*e*LR	LR	14 27 21.0	
	246nm,27.2s						
PPT	**Papeete**	34.79	92	LR	LR	14 29 41.5	
	comp=Z,151nm,20.1s,baz=138,slow=32						
WRA	**Warramunga Arr**	36.98	263	P	P	14 18 04.7	-1.1
	1.1nm,0.9s,baz=98,slow=8.8,SNR=10						
WRA				LR	LR	14 32 08.5	
	comp=Z,127nm,21.1s,baz=80,slow=34						
ASAR	**Alice Springs**	37.11	257	P	P	14 18 06.5	-0.2
	4.3nm,1.0s,baz=91,slow=9.3,SNR=25						
FITZ	**Fitzroy Crossi**	45.39	264	LR	LR	14 36 46.5	
	comp=Z,86nm,20.8s,baz=360,slow=34						
NWAO	**Narrogin (SRO)**	51.72	243	LR	LR	14 39 45.2	
	comp=Z,268nm,21.2s,baz=286,slow=34						
VNDA	**Vanda**	58.03	183	LR	LR	14 40 39.8	
	comp=Z,138nm,19.1s,baz=326,slow=31						
MJAR	**Matsushiro Arr**	65.34	329	LR	LR	14 46 57.1	
	comp=Z,107nm,18.6s,baz=5.0,slow=33						
KSRS	**Korea Array**	71.45	323	LR	LR	14 49 03.5	
	comp=Z,38nm,21.0s,baz=340,slow=32						
TXAR	**Lajitas Array**	93.35	60	LR	LR	14 59 43.2	
	comp=Z,111nm,18.0s,baz=350,slow=31						
PDAR	**Pinedale Array**	93.94	46	LR	LR	14 58 04.1	
	comp=Z,87nm,20.0s,baz=180,slow=30						

IDC 24 14:38:09.3±2.7**,513S×13144E,h0^{km},mb3.0**/1**,mb1 3.4**/4**,**
mb1mx3.3/14**,mbtmp3.2**/4**,ML3.3**/2**,Error ellipse:**
s-maj=123.9km s-min=28.3km az=78.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	14.08	203	Pn	Pn	14 41 29.0	-1.2
	0.1nm,0.3s,baz=31,slow=13,SNR=4.8						
FITZ				Sn	Sn	14 43 49.4	-18
	0.3nm,0.3s,baz=220,slow=19,SNR=7.1						
WRA	**Warramunga Arr**	14.99	169	Pn	Pn	14 41 42.8	+0.2
	0.1nm,0.3s,baz=356,slow=13,SNR=14						
WRA				Sn	Sn	14 44 18.7	-11
	0.3nm,0.3s,baz=329,slow=22,SNR=8.3						
ASAR	**Alice Springs**	18.58	173	P	Pn	14 42 28.4	+0.2
	0.1nm,0.3s,baz=349,slow=10.0,SNR=8.1						
MKAR	**Makanchi Array**	67.48	326	P	P	14 49 07.2	+0.1
	0.1nm,0.2s,baz=108,slow=4.7,SNR=2.0						

TRN 24 14:45:08.8,1647N×6054W,h13^{km},MD3.6,M3.1(FDF)**,**
4D,Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DEG	**La Desirade**	0.52	253	*e*P	Sg	14 45 35.1	+9.1
MGG	**Marie-Galante**	0.93	234	⇓*e*P	Pg	14 45 34.1	+7.4
DOG	**Dongo Capester**	1.12	247	*e*P	Pb	14 45 33.1	+3.0
SCG	**Saint Claude**	1.18	248	⇓*e*P	Pn	14 45 33.1	+2.0
TBG	**Guadaloupe-3**	1.23	240	⇓*e*P	Pn	14 45 33.3	+1.6
BPA	**Boggy Peak**	1.38	295	*e*P	Pn	14 45 35.8	+1.9
BPA				*e*S	Sn	14 45 54.6	+2.5
CPB	**Codrington**	1.69	314	*e*S	Sn	14 46 03.5	+3.8
FDF	**Fort de France**	1.82	199	*e*P	Pn	14 45 41.0	+1.1
FDF				*e*S	Sn	14 46 06.4	+3.4
MVM	**Montagne Vaucl**	1.94	190	⇓*i*P	Pn	14 45 44.1	+2.6
MVM				*e*S	Sn	14 46 10.9	+5.2
BIM	**Bigot**	2.01	195	*e*P	Pn	14 45 43.7	+1.2

SOF ***24*** *14:46:55.4,4034N×2236E,h2^{km},MD3.7*
IDC ***24*** *14:46:57.1±1.1,4042N×2233E,h0^{km},mb3.8/10,*
mb1 3.9/13,mb1mx3.9/22,mbtmp3.8/13,ML3.6/3,MS3.1/6,
Ms1 3.1/6,ms1mx2.8/36,Error ellipse: s-maj=21.9km
s-min=17.2km az=25.0
ISCJB ***24*** *14:46:58.1±0.3,4050N±001×2234E±002,h4^{km}±2^{km},*
mb3.8/11,MS3.3/1,Error ellipse: s-maj=2.4km
s-min=2.2km az=32.8
NEIC ***24*** *14:46:58.8,4056N×2235E,h14^{km},MD3.7(SOF),*
ML3.8(ATH),ML3.7(PDG),After ATH.
ATH ***24*** *14:46:58.8,4056N×2235E,h14^{km}±3^{km},MD3.8/14,ML3.8*
SKO ***24*** *14:46:59.4,4049N×2237E,h3^{km},M3.2,ML3.5*
THE ***24*** *14:46:59.4,4050N×2236E,h3^{km},ML4.3*
CSEM ***24*** *14:46:59.9±0.1,4054N×2239E,h12^{km},ML3.8,Error*
ellipse: s-maj=1.8km s-min=1.3km az=169.0
PDG ***24*** *14:46:59.2±0.5,4053N×2234E,h5^{km}±1^{km},ML3.7/10,*
Error ellipse: s-maj=0.9km s-min=1.1km az=0.0
MOS ***24*** *14:47:00.4±2.0,4053N×2225E,h21^{km},mb3.9/7,Error*
ellipse: s-maj=6.3km s-min=4.2km az=84.0
NAO ***24*** *14:47:03.5,4053N×2176E,h33^{km},mb3.8*
ISC 24 14:46:59.2±0.3**,4048N**±001×**2238E**±002**,h3**^{km}±2^{km}**,n234,**
σ**1^{s}16**/311**,mb3.8**/11**,MS3.3**/1**,41C-9D,Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LIT	**Litokhoron**	0.39	167	*e*Pg	Pg	14 47 06.9	+0.2
LIT				*e*Sg	Sg	14 47 13.9	+2.1
LIT	**Litokhoron**	0.39	167	*e*Pg	Pg	14 47 06.9	+0.2
LIT				*e*Sg	Sg	14 47 13.9	+2.1
THE	**Thessaloniki**	0.47	72	*e*Pg	Pg	14 47 08.2	-0.1
THE				*e*Sg	Sg	14 47 16.1	+1.7
THE	**Thessaloniki**	0.47	72	*e*Pg	Pg	14 47 08.2	-0.1
THE				*e*Sg	Sg	14 47 16.1	+1.7
GRG	**Griva**	0.47	2	*e*Pg	Pg	14 47 07.4	-0.9
GRG				*e*Sg	Sg	14 47 15.4	+1.0
GRG	**Griva**	0.47	2	*e*Pg	Pg	14 47 07.4	-0.9
GRG				*e*Sg	Sg	14 47 15.4	+1.0
KZN	**Kozani**	0.49	249	*e*Pb	Pg	14 47 08.0	-0.7
KZN				*e*Sb	Sg	14 47 15.5	+0.4
KZN	**Kozani**	0.49	249	*e*PB	Pg	14 47 08.0	-0.7
KZN				*e*SB	Sg	14 47 15.5	+0.4
KZN	**Kozani**	0.49	249	*e*Pb	Pg	14 47 08.0	-0.7
KZN				*e*Sb	Sg	14 47 15.5	+0.4
HORT	**Hortiatis**	0.56	78	*e*Pg	Pg	14 47 10.9	+0.9
HORT				*e*Sg	Sg	14 47 19.8	+2.5
HORT	**Hortiatis**	0.56	78	*e*Pg	Pg	14 47 10.9	+0.9
HORT				*e*Sg	Sg	14 47 19.8	+2.5
KNT	**Kendrikon**	0.78	30	*e*Pg	Pg	14 47 14.1	-0.1
KNT				*e*Sg	Sg	14 47 26.3	+1.9
KNT	**Kendrikon**	0.78	30	*e*Pg	Pg	14 47 14.1	-0.2
KNT				*e*Sg	Sg	14 47 26.3	+1.9
SOH	**Sokhos**	0.82	65	*e*Pg	Pg	14 47 14.9	+0.1
SOH				*e*Sg	Sg	14 47 27.7	+2.2
SOH	**Sokhos**	0.82	65	*e*Pg	Pg	14 47 14.9	0.0
SOH				*e*Sg	Sg	14 47 27.7	+2.2
FNA	**Florina**	0.82	292	*e*Pg	Pg	14 47 13.4	-1.5
FNA				*e*Sg	Sg	14 47 27.2	+1.7
FNA	**Florina**	0.82	292	*e*Pg	Pg	14 47 13.4	-1.5
FNA				*e*Sg	Sg	14 47 27.2	+1.7
PLG	**Polygyros**	0.82	97	*e*Pg	Pg	14 47 15.1	+0.1
PLG				*e*Sb	Sb	14 47 26.8	-0.9
PLG	**Polygyros**	0.82	97	*e*Pg	Pg	14 47 15.3	+0.4
PLG				*e*Sg	Sg	14 47 27.3	+1.7
PLG	**Polygyros**	0.82	97	*e*PG	Pg	14 47 15.1	+0.1
PLG				*e*SB	Sb	14 47 26.8	-0.9
PLG	**Polygyros**	0.82	97	*e*Pg	Pg	14 47 15.1	+0.1
PLG				*e*Sb	Sb	14 47 26.8	-0.9
PLG				*e*Sg	Sg	14 47 27.3	+1.6
VAY	**Valandovo**	0.85	10	*e*Pg	Pg	14 47 13.8	-1.7
VAY	**Valandovo**	0.85	10	*e*Pg	Pg	14 47 13.8	-1.6
VAY				*e*Sg	Sg	14 47 26.5	0.0
	comp=E,2µm,0.7s						
VAY				*e*Lg		14 47 30.9	
VAY				*e*Lg		14 47 33.4	
VAY	**Valandovo**	0.85	10	*e*Pg	Pg	14 47 13.8	-1.7
THL	**Klokotos Trika**	0.96	197	*e*PG	Pg	14 47 17.7	+0.1
THL				*e*SB	Sb	14 47 31.8	+0.2
THL	**Klokotos Trika**	0.96	197	*e*Pg	Pg	14 47 17.7	+0.1
THL				*e*Sb	Sb	14 47 31.8	+0.2
BIA	**Bitola**	0.96	304	*e*Pg	Pg	14 47 15.9	-1.8
BIA				*e*Sg	Sg	14 47 30.6	+0.4
	comp=N,793nm,0.4s						
BIA				*e*Lg		14 47 33.3	
BIA				*e*Lg		14 47 33.5	
STIP	**Stip**	1.22	353	*e*Pg	Pg	14 47 20.8	-1.8
STIP				*e*Sg	Sg	14 47 40.9	+2.6
	comp=E,637nm,0.9s						
STIP				*e*Lg		14 47 42.7	
STIP				*e*Lg		14 47 44.8	
KBN	**Korca**	1.22	277	*e*PN	Pn	14 47 21.4	-1.8
KBN				*i* SN	Sn	14 47 39.7	-0.5
KBN	**Korca**	1.22	277	*e*Pn	Pn	14 47 21.4	-1.8
KBN				*i* Sn	Sn	14 47 39.7	-0.5
KRUS	**Krusevo**	1.23	316	*e*Pg	Pg	14 47 21.4	-1.4
OUR	**Ouranopolis**	1.23	96	*e*Pg	Pg	14 47 22.4	-0.5
OUR	**Ouranopolis**	1.23	96	*e*Pg	Pg	14 47 22.4	-0.5
XOR	**Xorichti**	1.28	150	*e*Pg	Pg	14 47 23.2	-0.5
XOR	**Xorichti**	1.28	150	*e*Pg	Pg	14 47 23.2	-0.5
NEO	**Neokhori**	1.34	151	*e*Pn	Pn	14 47 24.2	-0.7
NEO	**Neokhori**	1.34	151	*e*PN	Pn	14 47 24.2	-0.7

NEO	Neokhori	1.34	151	*e*Pn	Pn	14 47 24.2	-0.7
OHR	Ohrid	1.35	298	*e*Pg	Pg	14 47 22.9	-2.2
OHR				*e*Sg	Sg	14 47 42.2	-0.4
	comp=N,1µm,0.7s						
OHR				*e*Lg		14 47 44.0	
OHR				*e*Lg		14 47 45.3	
NVR	Nevrokopi	1.42	52	*e*Pb	Pb	14 47 25.0	-1.3
NVR				*e*Sb	Sb	14 47 44.0	-0.8
NVR	Nevrokopi	1.42	52	*e*PB	Pb	14 47 25.0	-1.3
NVR				*e*SB	Sb	14 47 44.0	-0.8
NVR	Nevrokopi	1.42	52	*e*Pb	Pb	14 47 25.0	-1.3
NVR				*e*Sb	Sb	14 47 44.0	-0.8
JAN	Janina	1.43	235	*e*Pb	Pb	14 47 26.7	+0.1
JAN	Janina	1.43	235	*e*PB	Pb	14 47 26.7	+0.1
JAN	Janina	1.43	235	*e*Pb	Pb	14 47 26.7	+0.1
AGG	Agios Georgios	1.46	181	*e*Pg	Pg	14 47 26.2	-1.0
AGG				*e*Sg	Sg	14 47 47.8	+1.7
AGG	Agios Georgios	1.46	181	*e*Pg	Pg	14 47 26.2	-1.0
AGG				*e*Sg	Sg	14 47 47.8	+1.7
KKB	Krupnik	1.48	21	P	Pn	14 47 26.3	-0.5
MMB	Musomiste	1.50	42	P	Pn	14 47 26.6	-0.5
EVR	Evrytania	1.62	196	*e*Pb	Pb	14 47 29.3	-0.5
EVR	Evrytania	1.62	196	*e*PB	Pb	14 47 29.3	-0.5
EVR	Evrytania	1.62	196	*e*Pb	Pb	14 47 29.3	-0.5
SKO	Skopje	1.65	335	*e*Pn	Pn	14 47 28.6	-0.5
SKO				*e*Sn	Sn	14 47 50.6	-0.1
AOS	Alonnisos	1.75	138	*e*Pb	Pb	14 47 29.8	-2.2
AOS	Alonnisos	1.75	138	*e*Pb	Pb	14 47 29.8	-2.2
PHP	Peshkopia	1.89	310	*e*PN	Pn	14 47 32.1	-0.3
PHP				*i* SN	Sn	14 47 52.7	-4.1
PHP	Peshkopia	1.89	310	*e*Pn	Pn	14 47 32.1	-0.3
LKR	Lokris	1.89	165	*e*Pn	Pn	14 47 33.4	+1.0
LKR	Lokris	1.89	165	*e*PN	Pn	14 47 33.4	+1.0
LKR	Lokris	1.89	165	*e*Pn	Pn	14 47 33.4	+1.0
SRN	Sarande	1.92	252	*e*PN	Pn	14 47 34.8	+2.0
SRN				*i* SN	Sn	14 48 00.5	+3.1
SRN	Sarande	1.92	252	*e*Pn	Pn	14 47 34.8	+2.0
SRN				*i* Sn	Sn	14 48 00.5	+3.1
KEK	Kerkira	2.12	250	*e*Pn	Pn	14 47 36.5	+0.9
KEK	Kerkira	2.12	250	*e*PN	Pn	14 47 36.5	+0.9
KEK	Kerkira	2.12	250	*e*Pn	Pn	14 47 36.5	+0.9
RZN	Rozhen	2.14	55	P	Pn	14 47 35.7	-0.1
VTS	Vitosha	2.20	16	⇑*i*P	Pn	14 47 37.0	+0.4
VTS	Vitosha	2.20	16	P	Pn	14 47 36.9	+0.3
LKD	Levkas	2.22	217	*e*Pn	Pn	14 47 38.9	+2.0
LKD	Levkas	2.22	217	*e*Pn	Pn	14 47 38.9	+2.0
BARS	Barje	2.37	350	Pn	Pn	14 47 38.9	-0.1
PLD	Plovdiv	2.39	47	*e*P	Pn	14 47 43.5	+4.3
PGB	Panagyurishte	2.46	32	P	Pn	14 47 40.1	-0.2
RDO	Rodhopi	2.49	74	*e*Pn	Pn	14 47 39.7	-0.9
RDO	Rodhopi	2.49	74	*e*PN	Pn	14 47 39.7	-0.9
RDO	Rodhopi	2.49	74	*e*Pn	Pn	14 47 39.7	-0.9
RLS	Riolos of Patr	2.52	197	*e*Pn	Pn	14 47 44.5	+3.4
RLS	Riolos of Patr	2.52	197	*e*PN	Pn	14 47 44.5	+3.4
RLS	Riolos of Patr	2.52	197	*e*Pn	Pn	14 47 44.5	+3.4
KDZ	Kurdzhali	2.58	62	Pg	Pg	14 47 47.0	-1.6
KDZ	Kurdzhali	2.58	62	P	Pg	14 47 47.0	-1.6
KDZ	Kurdzhali	2.58	62	P	Pn	14 47 40.0	-1.8
KDZ				Pg	Pg	14 47 47.0	-1.6
VLS	Valsamata	2.69	212	*e*Pb	Pb	14 47 44.9	-3.1
VLS	Valsamata	2.69	212	*e*PB	Pb	14 47 44.9	-3.1
VLS	Valsamata	2.69	212	*e*Pb	Pb	14 47 44.9	-3.1
ATH	Athens Observa	2.72	157	*e*Pn	Pn	14 47 45.2	+1.5
ATH	Athens Observa	2.72	157	*e*PN	Pn	14 47 45.2	+1.5
ATH	Athens Observa	2.72	157	*e*Pn	Pn	14 47 45.2	+1.5
PVY	Plav	2.77	320	⇑*i*Pn	Pn	14 47 44.9	+0.3
PVY				*e*Sn	Sn	14 48 20.3	+1.7
PVY	Plav	2.77	320	⇑*i*Pn	Pn	14 47 44.9	+0.3
PVY				*e*Sn	Sn	14 48 20.3	+1.7
PVY	Plav	2.77	320	⇑*i*Pn	Pn	14 47 44.9	+0.3
PVY				*e*Sn	Sn	14 48 20.3	+1.7
ULC	Ulcinj	2.78	303	⇑*i*Pn	Pn	14 47 45.1	+0.4
ULC				*e*Sn	Sn	14 48 20.3	+1.5
ULC	Ulcinj	2.78	303	⇑*i*Pn	Pn	14 47 45.1	+0.4
ULC				*e*Sn	Sn	14 48 20.3	+1.5
ULC	Ulcinj	2.78	303	⇑*i*Pn	Pn	14 47 45.1	+0.4
ULC				*e*Sn	Sn	14 48 20.3	+1.5
ALN	Alexandroupoli	2.82	80	*e*Pn	Pn	14 47 44.6	-0.5
ALN	Alexandroupoli	2.82	80	*e*Pn	Pn	14 47 44.6	-0.6
DIM	Dimitrovgrad	2.85	56	*e*P	Pn	14 47 53.6	+8.0
BEY	Berane	3.02	323	⇑*i*Pn	Pn	14 47 48.6	+0.6
BEY				*e*Sn	Sn	14 48 25.9	+1.2
IVA	Berane	3.02	323	⇑*i*Pn	Pn	14 47 48.6	+0.6
IVA				*e*Sn	Sn	14 48 25.9	+1.2
IVA	Berane	3.02	323	⇑*i*Pn	Pn	14 47 48.6	+0.6
IVA				*e*Sn	Sn	14 48 25.9	+1.2
IVA	Berane	3.02	323	⇑*i*Pn	Pn	14 47 48.6	+0.6
IVA				*e*Sn	Sn	14 48 25.9	+1.2
PDG	Podgorica	3.04	311	⇑*i*Pn	Pn	14 47 49.0	+0.8
PDG				*e*Sn	Sn	14 48 26.6	+1.4
TTG	Podgorica	3.04	311	⇑*i*Pn	Pn	14 47 49.0	+0.8
TTG				*e*Sn	Sn	14 48 26.6	+1.4
TTG	Podgorica	3.04	311	⇑*i*Pn	Pn	14 47 49.0	+0.8
TTG				*e*Sn	Sn	14 48 26.6	+1.4
TTG	Podgorica	3.04	311	⇑*i*Pn	Pn	14 47 49.0	+0.8
TTG				*e*Sn	Sn	14 48 26.6	+1.4
BUM	Brajici-Budva	3.18	306	⇑*i*Pn	Pn	14 47 50.3	+0.1
BUM				*e*Sn	Sn	14 48 30.5	+1.8
BUM	Brajici-Budva	3.18	306	⇑*i*Pn	Pn	14 47 50.3	+0.1
BUM				*e*Sn	Sn	14 48 30.5	+1.8
BUM	Brajici-Budva	3.18	306	⇑*i*Pn	Pn	14 47 50.3	+0.1
BUM				*e*Sn	Sn	14 48 30.5	+1.8
LCI	Lecce	3.26	269	Pn	Pn	14 47 50.8	-0.4
LCI	Lecce	3.26	269	Pn	Pn	14 47 50.8	-0.4
SJES	Sjenica	3.32	328	Pn	Pn	14 47 52.8	+0.7
NKY	Niksic	3.44	314	⇑*i*Pn	Pn	14 47 54.1	+0.4
NKY				*e*Sn	Sn	14 48 36.1	+1.2
NKY	Niksic	3.44	314	⇑*i*Pn	Pn	14 47 54.1	+0.4
NKY				*e*Sn	Sn	14 48 36.1	+1.2
NKY	Niksic	3.44	314	⇑*i*Pn	Pn	14 47 54.1	+0.4
NKY				*e*Sn	Sn	14 48 36.1	+1.2
PVL	Pavlikeni	3.51	38	*e*P	Pn	14 47 53.0	-1.7
HCY	Herceg Novi	3.51	305	⇑*i*Pn	Pn	14 47 54.5	-0.2
HCY				*e*Sn	Sn	14 48 38.1	+1.3
HCY	Herceg Novi	3.51	305	⇑*i*Pn	Pn	14 47 54.5	-0.2
HCY				*e*Sn	Sn	14 48 38.1	+1.3
HCY	Herceg Novi	3.51	305	⇑*i*Pn	Pn	14 47 54.5	-0.2
HCY				*e*Sn	Sn	14 48 38.1	+1.3
PLE	Pljevlja	3.61	323	⇑*i*Pn	Pn	14 47 56.3	+0.3
PLE				*e*Sn	Sn	14 48 40.6	+1.4
PLE	Pljevlja	3.61	323	⇑*i*Pn	Pn	14 47 56.3	+0.3
PLE				*e*Sn	Sn	14 48 40.6	+1.4
PLE	Pljevlja	3.61	323	⇑*i*Pn	Pn	14 47 56.3	+0.3
PLE				*e*Sn	Sn	14 48 40.6	+1.4
BRY	Bratogost	3.75	311	⇑*i*Pn	Pn	14 47 58.5	+0.5
BRY				*e*Sn	Sn	14 48 43.5	+0.9
BRY	Bratogost	3.75	311	⇑*i*Pn	Pn	14 47 58.5	+0.5
BRY				*e*Sn	Sn	14 48 43.5	+0.9
BRY	Bratogost	3.75	311	⇑*i*Pn	Pn	14 47 58.5	+0.5
BRY				*e*Sn	Sn	14 48 43.5	+0.9
UPM	Unac-Piva	3.75	318	⇑*i*Pn	Pn	14 47 58.8	+0.8
UPM				*e*Sn	Sn	14 48 43.6	+0.9
UPM	Unac-Piva	3.75	318	⇑*i*Pn	Pn	14 47 58.8	+0.8
UPM				*e*Sn	Sn	14 48 43.6	+0.9
UPM	Unac-Piva	3.75	318	⇑*i*Pn	Pn	14 47 58.8	+0.8
UPM				*e*Sn	Sn	14 48 43.6	+0.9
PE1	Pezze di Greco	3.78	276	*e*Pn	Pn	14 47 57.7	-0.7
VLI	Veliai	3.79	173	*e*Pn	Pn	14 47 58.8	+0.3
VLI	Veliai	3.79	173	*e*PN	Pn	14 47 58.8	+0.3
VLI	Veliai	3.79	173	*e*Pn	Pn	14 47 58.8	+0.3
SZH	Strazhica	3.84	43	P	Pn	14 47 59.3	0.0
SVIS	Svilajnac	3.91	348	Pn	Pn	14 47 59.6	-0.5
DIVS	Divcibare	4.02	335	Pn	Pn	14 48 01.0	-0.7
BBLS	Bajina Basta -	4.04	328	Pn	Pn	14 48 02.7	+0.8
BAI	Bari	4.22	280	*e*Pn	Pn	14 48 03.1	-1.3
STON	Ston	4.24	306	*e*Pn	Pn	14 48 04.6	0.0
STON				Sn	Sn	14 49 01.9	+7.2
STON				Sg	Sg	14 49 16.0	+0.7
STON	Ston	4.24	306	*e*Pn	Pn	14 48 04.6	-0.1
STON				Sg	Sg	14 49 15.9	+0.6
SG1	Sgolgore (BA)	4.35	277	*e*Pn	Pn	14 48 05.5	-0.7
TIP	Timpagrande	4.52	255	*e*Pn	Pn	14 48 07.8	-0.7
TIP	Timpagrande	4.52	255	*e*Pn	Pn	14 48 07.8	-0.7
CDT	Castel del Mon	4.67	279	*e*Pn	Pn	14 48 09.7	-0.9
GZR	Gura Zlata	4.92	3	⇑*i*P	Pn	14 48 12.5	-1.5
GZR	Gura Zlata	4.92	3	P	Pn	14 48 13.4	-0.6
FGMS	Monte Sant’Ang	5.00	286	Pn	Pn	14 48 14.0	-1.2
FGMS	Monte Sant’Ang	5.00	286	Pn	Pn	14 48 14.0	-1.2
MS1	Monte Sant’Ang	5.01	286	*e*Pn	Pn	14 48 13.9	-1.4
FGSL	Fruska Gora	5.04	339	Pn	Pn	14 48 14.6	-1.0
BZS	Buzias	5.16	354	⇑P	Pn	14 48 16.4	-0.9
BZS	Buzias	5.16	354	⇓*i*P	Pn	14 48 16.3	-1.0
MGR	Morigerati	5.23	268	Pn	Pn	14 48 18.5	+0.2
	comp=N,122nm,0.7s						
MGR	Morigerati	5.23	268	Pn	Pn	14 48 18.5	+0.2
	comp=N,122nm,0.7s						
RGNG	Rignano Grg	5.27	285	Pn	Pn	14 48 17.4	-1.4
RGNG	Rignano Grg	5.27	285	Pn	Pn	14 48 17.4	-1.4
VOIR		5.33	21	P	Pn	14 48 19.9	+0.3
VOIR		5.33	21	⇑*i*P	Pn	14 48 19.8	+0.2
SGO	Sicignano	5.39	273	Pn	Pn	14 48 20.6	+0.1
	comp=N,40nm,0.2s						
SGO	Sicignano	5.39	273	P	Pn	14 48 20.6	+0.1
SGO				pmax	pmax		
	comp=Z,40nm,0.2s						
SGO	Sicignano	5.39	273	Pn	Pn	14 48 20.6	+0.1
	comp=Z,40nm,0.2s						
IDI	Anoyia	5.55	158	Pn	Pn	14 48 25.1	+2.3
IDI				Sn	Sn	14 49 35.2	+8.1
IDI				LR	LR	14 50 59.6	
IDI	Anoyia	5.55	158	Pn	Pn	14 48 25.1	+2.3
	comp=Z,2.4nm,0.3s,baz=354,slow=9.0,SNR=6.5						
IDI				Sn	Sn	14 49 35.2	+8.1
	comp=Z,1.0nm,0.3s,baz=250,slow=12,SNR=1.8						
IDI				LR	LR	14 50 59.6	
	comp=Z,166nm,18.6s,baz=180,slow=44						
CSSN	Cassano Irpino	5.60	276	Pn	Pn	14 48 24.3	+0.9
	comp=Z,28nm,0.6s						
CSSN	Cassano Irpino	5.60	276	Pn	Pn	14 48 24.3	+0.9
	comp=Z,28nm,0.6s						
GVD	Gavdhos	5.80	166	*e*Pn	Pn	14 48 29.1	+3.0
SGG	Gregorio Mates	6.12	281	Pn	Pn	14 48 30.7	+0.1
	comp=Z,66nm,0.6s						
SGG	Gregorio Mates	6.12	281	Pn	Pn	14 48 30.7	+0.1
	comp=Z,66nm,0.6s						
PLOR	Plostina	6.21	29	P	Pn	14 48 32.9	+1.2
PLOR	Plostina	6.21	29	⇓*i*P	Pn	14 48 32.6	+0.9
VRI	Vrincioaia	6.25	29	⇓P	Pn	14 48 33.5	+1.2
VRI	Vrincioaia	6.25	29	⇓*i*P	Pn	14 48 33.5	+1.2
PKSM	Moragy	6.34	336	P	Pn	14 48 33.1	-0.4
PKSM	Moragy	6.34	336	⇑*i*P	Pn	14 48 33.0	-0.5
SDI	San Donato	6.59	283	Pn	Pn	14 48 37.2	+0.3
	comp=Z,7.4nm,0.3s						
SDI	San Donato	6.59	283	P	Pn	14 48 37.2	+0.3
SDI				pmax	pmax		
	comp=Z,7.0nm,0.3s						
SDI	San Donato	6.59	283	Pn	Pn	14 48 37.2	+0.3
	comp=Z,7.4nm,0.3s						
VVLD	Villa Vallelon	6.75	285	Pn	Pn	14 48 38.7	-0.5
	comp=Z,37nm,0.8s						
VVLD	Villa Vallelon	6.75	285	Pn	Pn	14 48 38.7	-0.5
	comp=Z,37nm,0.8s						
NVLJ	Novalja	6.88	309	*e*Pn	Pn	14 48 40.0	-0.9
NVLJ				Sn	Sn	14 49 57.4	-2.3
NRCA	Norcia	7.32	292	Pn	Pn	14 48 46.6	-0.4
	comp=Z,13nm,0.7s						
NRCA	Norcia	7.32	292	Pn	Pn	14 48 46.6	-0.4
	comp=Z,13nm,0.7s						
BURAR	Bucovina Array	7.42	15	⇓P	Pn	14 48 49.3	+1.0
BURAR	Bucovina Array	7.42	15	⇑*i*P	Pn	14 48 49.3	+1.0
PSZ	Piszkesteto	7.64	347	*e*Pn	Pn	14 48 50.1	-1.3
PSZ	Piszkesteto	7.64	347	⇓*e*P	Pn	14 48 52.1	+0.7
PSZ	Piszkesteto	7.64	347	⇓*i*P	Pn	14 48 52.2	+0.8
PSZ	Piszkesteto	7.64	347	*e*Pn	Pn	14 48 50.1	-1.3
PSZ	Piszkesteto	7.64	347	⇓*e*P	Pn	14 48 52.1	+0.7
MURB	Monte Urbino	7.86	294	Pn	Pn	14 48 54.2	-0.2
	comp=Z,30nm,0.3s						
MURB	Monte Urbino	7.86	294	Pn	Pn	14 48 54.2	-0.2
	comp=Z,30nm,0.3s						
KECS	Kecovo	8.11	351	*e*Pn	Pn	14 49 02.9	+5.1
KECS	Kecovo	8.11	351	*e*PN	Pn	14 49 02.9	+5.1
ARSA	Arzberg	8.38	326	⇑*i*P	Pn	14 49 01.7	+0.2
	comp=Z,9.3nm,0.4s						
VYHS	Vyhne	8.40	344	*e*Pn	Pn	14 49 02.1	+0.4
VYHS	Vyhne	8.40	344	*e*PN	Pn	14 49 02.1	+0.4
VYHS	Vyhne	8.40	344	*e*Pn	Pn	14 49 02.1	+0.4
KOLS	Kolonicke sedl	8.45	360	*e*Pn	Pn	14 49 02.9	+0.5
KOLS				*e*Sg	Sg	14 51 38.9	+8.6
KOLS	Kolonicke sedl	8.45	360	*e*PN	Pn	14 49 02.9	+0.5
KOLS				*e*SG	Sg	14 51 38.9	+8.6
KOLS	Kolonicke sedl	8.45	360	*e*Pn	Pn	14 49 02.9	+0.5
BRTR	Keskin Array B	8.67	91	Pn	Pn	14 49 06.5	+1.0
BRTR	Keskin Array B	8.67	91	Pn	Pn	14 49 06.5	+1.0
	comp=Z,0.2nm,0.3s,baz=270,slow=13,SNR=5.1						
BRTR	Keskin Array B	8.67	91	Pn	Pn	14 49 06.5	+1.0
PTCC	Patocco-Chiusa	8.83	315	Pn	Pn	14 49 06.8	-0.9
	comp=Z,3.7nm,0.3s						
PTCC	Patocco-Chiusa	8.83	315	Pn	Pn	14 49 06.8	-0.9
	comp=Z,3.7nm,0.3s						
KBA	Koelnbreinsper	9.28	318	⇑*i*P	Pn	14 49 14.2	+0.5
	comp=Z,7.2nm,0.7s						
KBA	Koelnbreinsper	9.28	318	⇑*i*P	Pn	14 49 14.3	+0.5
KBA				pmax	pmax		
	comp=Z,7.0nm,0.7s						
VRAC	Vranov	9.73	337	LR	LR	14 52 51.5	
	comp=Z,72nm,21.2s,baz=47,slow=36						
GERES	GERESS Array B	10.39	326	Pn	Pn	14 49 29.7	+0.7
GERES				LR	LR	14 53 47.1	
GERES	GERESS Array B	10.39	326	P	Pn	14 49 29.7	+0.7
GERES				MLR	MLR		
	comp=Z,163nm,20.7s						
GERES	GERESS Array B	10.39	326	Pn	Pn	14 49 29.7	+0.7
	comp=Z,0.3nm,0.3s,baz=153,slow=14,SNR=11						
GERES				LR	LR	14 53 47.1	
	comp=Z,163nm,20.7s,baz=339,slow=39						
KHC	Kasperske Hory	10.66	327	*e*P	Pn	14 49 35.3	+2.6
DAVOX	Davos/Dischmat	11.02	309	Pn	Pn	14 49 38.5	+0.8
	comp=Z,0.5nm,0.3s,baz=123,slow=12,SNR=5.9						
ASF	Jabal al Asfar	14.33	121	LR	LR	14 57 10.3	
	comp=Z,71nm,18.6s,baz=208,slow=43						
EIL	Elat	14.89	133	LR	LR	14 56 21.7	
	comp=Z,41nm,19.4s,baz=130,slow=38						
GOF	Gofitskoye	15.83	66	⇓*i*P	Pn	14 50 48.0	+5.0
GOF				pmax	pmax		
	comp=Z,40nm,1.7s						
ESDC	Sonseca Array	20.15	276	P	P	14 51 38.1	+3.6
	comp=Z,1.3nm,0.6s,baz=72,slow=9.5,SNR=7.0						
FINES	FINESS Array B	21.11	5	P	P	14 51 43.4	-1.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES				MLR	MLR		
	comp=Z,137nm,19.7s						
FINES	FINESS Array B	21.11	5	P	P	14 51 43.4	-1.3
	comp=Z,0.8nm,0.4s,mb3.4,baz=169,slow=12,SNR=9.4						
FINES				LR	LR	14 59 06.9	
	comp=Z,137nm,19.7s,MS3.3,baz=318,slow=34						
NB2	NORSAR Subarra	21.70	345	P	P	14 51 49.5	-1.5
	comp=Z,5.2nm,0.9s,mb4.0,baz=158,slow=11						
NOA	NORSAR Array B	21.70	345	P	P	14 51 49.9	-1.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA	NORSAR Array B	21.70	345	P	P	14 51 49.9	-1.1
	comp=Z,2.0nm,0.7s,mb3.6,baz=162,slow=11,SNR=5.8						
KAF	Kangasniemi	21.79	5	*e*P	P	14 51 52.9	+0.9
KAF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.1						
EKA	Eskdalemuir Ar	22.48	320	P	P	14 51 57.4	-2.1
EKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
EKA	Eskdalemuir Ar	22.48	320	P	P	14 51 57.4	-2.1
	comp=Z,2.0nm,0.7s,mb3.7,baz=117,slow=9.7,SNR=5.6						
ARCES	ARCESS Array B	29.16	2	P	P	14 53 00.0	-1.2
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ARCES	ARCESS Array B	29.16	2	P	P	14 52 60.0	-1.3
	comp=Z,3.2nm,0.7s,mb4.2,baz=192,slow=9.6,SNR=14						
TORD	Torodi Ar. Bea	32.72	220	P	P	14 53 31.1	-2.0
	comp=Z,1.0nm,0.4s,mb4.1,baz=33,slow=9.2,SNR=17						
MKAR	Makanchi Array	42.90	61	P	P	14 54 58.0	-0.8
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	Makanchi Array	42.90	61	P	P	14 54 58.0	-0.8
	comp=Z,0.8nm,0.6s,mb3.6,baz=280,slow=6.6,SNR=10.0						
ZALV	Zalesovo Beam	43.10	50	P	P	14 54 59.7	-0.7
	comp=Z,1.3nm,0.5s,mb3.9,baz=274,slow=8.4,SNR=8.4						
SONM	Songino Array	57.90	52	P	P	14 56 50.9	-1.4
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	Songino Array	57.90	52	P	P	14 56 50.9	-1.4
	comp=Z,0.6nm,0.7s,mb3.7,baz=282,slow=6.5,SNR=5.2						
YKA	Yellowknife Ar	71.71	341	P	P	14 58 19.7	-2.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	71.71	341	P	P	14 58 19.7	-2.4
	comp=Z,0.5nm,0.6s,mb3.6,baz=34,slow=5.5,SNR=16						
ULM	Lac du Bonnet	74.69	324	P	P	14 58 38.2	-1.7
	comp=Z,1.7nm,0.6s,mb4.1,baz=75,slow=2.8,SNR=4.4						

IDC 24 15:01:02.3±1.3**, 2568N**×**11010W, h0^{km}, mb2.9**/1**, mb1 3.4**/4**, mb1mx3.4**/20**, mbtmp3.0**/4**, ML3.8**/2**, Error ellipse: s-maj=25.1km s-min=12.0km az=104.0, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	1.58	187	Pn	Pn	15 01 33.3	+1.7
	15nm,0.3s,baz=194,slow=3.9,SNR=6.9						
LPIG				Lg		15 01 51.1	
	34nm,0.3s,baz=176,slow=16,SNR=8.2						
TXAR	Lajitas Array	6.77	56	Pn	Pn	15 02 43.7	+0.7
	0.4nm,0.3s,baz=226,slow=14,SNR=8.5						
TXAR				Pg	Pg	15 03 00.3	-12
	0.4nm,0.3s,baz=225,slow=15,SNR=5.1						
TXAR				Lg		15 04 34.3	
	1.2nm,0.3s,baz=251,slow=24,SNR=5.1						
NVAR	Mina Array Bea	14.48	333	Pn	Pn	15 04 29.5	+1.0
	baz=112,slow=14,SNR=2.3						
PDAR	Pinedale Array	17.05	1	P	Pn	15 05 02.3	+0.3
	0.0nm,0.3s,baz=153,slow=10.0,SNR=2.6						
YKA	Yellowknife Ar	36.93	357	P	P	15 08 13.3	+0.6
	0.1nm,0.7s,baz=180,slow=8.6,SNR=3.1						

IDC 24 15:20:07.3±1.1**, 1533N**×**14479E, h0^{km}, mb3.9**/6**, mb1 4.1**/6**, mb1mx3.8**/18**, mbtmp3.9**/6**, MS3.5**/3**, Ms1 3.5**/3**, ms1mx3.0**/36**, Error ellipse: s-maj=54.0km s-min=19.9km az=85.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.73	178	Pn	Pn	15 20 38.8	+0.1
	33nm,0.3s,baz=340,slow=4.4,SNR=33						
GUMO				Sn	Sn	15 20 59.1	-2.5
	35nm,0.3s,baz=112,slow=19,SNR=13						
JOW	Kunigami	19.17	309	LR	LR	15 30 13.6	
	comp=Z,114nm,19.5s,baz=109,slow=32						
JNU	Nakatsue	21.75	327	LR	LR	15 31 06.9	
	comp=Z,72nm,20.3s,baz=182,slow=30						
KSRS	Korea Array	26.63	329	P	P	15 25 47.9	+0.3
	1.5nm,0.8s,baz=143,slow=9.5,SNR=5.0						
WRA	Warramunga Arr	36.53	197	P	P	15 27 14.7	-0.1
	0.7nm,0.7s,baz=17,slow=9.8,SNR=8.9						
SONM	Songino Array	45.28	324	P	P	15 28 32.0	+5.3
	0.5nm,0.9s,baz=130,slow=5.8,SNR=3.2						
PSI	Prapat	46.86	259	LR	LR	15 46 53.4	
	comp=Z,88nm,18.3s,baz=238,slow=34						
MKAR	Makanchi Array	60.20	315	P	P	15 30 17.0	-0.1
	0.3nm,0.2s,baz=89,slow=8.8,SNR=4.7						
YKA	Yellowknife Ar	81.36	27	P	P	15 32 25.6	0.0
	0.3nm,0.9s,baz=280,slow=4.9,SNR=2.8						
ARCES	ARCESS Array B	85.41	342	P	P	15 32 46.4	+0.1
	3.6nm,0.9s,baz=22,slow=6.9,SNR=3.6						
FINES	FINESS Array B	89.56	335	P	P	15 33 06.5	0.0
	3.2nm,1.1s,baz=260,slow=11,SNR=4.0						

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*SOF **24** 15:22:34.3, 4079N×2277E, h3^{km}, MD3.1*
*SKO **24** 15:22:35.5, 4080N×2283E, h21^{km}, M3.0, ML2.9*
*NEIC **24** 15:22:36.9, 4083N×2282E, h27^{km}, MD3.5(ATH), MD3.1(SOF), After ATH.*
*ATH **24** 15:22:36.8, 4084N×2282E, h28^{km}±2^{km}, MD3.5/6*
*ISCJB **24** 15:22:36.2±0.3, 4083N±002×2281E±002, h10^{km}±3^{km}, Error ellipse: s-maj=3.1km s-min=2.5km az=152.6*
*CSEM **24** 15:22:36.8±0.1, 4085N×2283E, h15^{km}, ML3.4, Error ellipse: s-maj=1.7km s-min=1.2km az=57.0*
*THE **24** 15:22:37.0, 4083N×2282E, h3^{km}, ML3.4*
ISC 24 15:22:36.9±0.3**, 4082N**±002×**2281E**±002**, h10^{km}**±3^{km}**, n78,** σ**0^{s}96**/117**, 1C-3D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THE	Thessaloniki	0.22	148	*e*Pg	Pg	15 22 41.7	+0.2
THE				*e*Sg	Sg	15 22 45.1	+0.5
THE	Thessaloniki	0.22	148	*e*Pg	Pg	15 22 41.7	+0.2
THE				*e*Sg	Sg	15 22 45.2	+0.6
HORT	Hortiatis	0.31	136	*e*Pg	Pg	15 22 43.3	+0.1
HORT				*e*Sg	Sg	15 22 47.8	+0.5
HORT	Hortiatis	0.31	136	*e*Pg	Pg	15 22 43.3	+0.1
HORT				*e*Sg	Sg	15 22 47.8	+0.4
GRG	Griva	0.34	293	*e*Pg	Pg	15 22 43.7	+0.1
GRG				*e*Sg	Sg	15 22 49.0	+0.8
GRG	Griva	0.34	293	*e*Pg	Pg	15 22 43.7	+0.1
GRG				*e*Sg	Sg	15 22 49.0	+0.8
KNT	Kendrikon	0.34	11	*e*Pg	Pg	15 22 43.5	-0.3
KNT				*e*Sg	Sg	15 22 48.5	+0.1
KNT	Kendrikon	0.34	11	*e*Pg	Pg	15 22 43.5	-0.3
KNT				*e*Sg	Sg	15 22 48.5	+0.1
SOH	Sokhos	0.41	90	*e*Pg	Pg	15 22 45.1	+0.2
SOH				*e*Sg	Sg	15 22 50.9	+0.4
SOH	Sokhos	0.41	90	*e*Pg	Pg	15 22 45.1	+0.1
SOH				*e*Sg	Sg	15 22 50.9	+0.4
VAY	Valandovo	0.53	340	*e*Pg	Pg	15 22 46.5	-0.7
VAY				*e*Sg	Sg	15 22 54.3	+0.1
VAY	Valandovo	0.53	340	*e*Pg	Pg	15 22 46.5	-0.7
VAY				*e*Sg	Sg	15 22 53.3	-0.9
VAY				*e*Lg		15 22 54.0	
	comp=E,1µm,0.3s						
VAY				*e*Lg		15 22 54.1	
	comp=N,1µm,0.3s						
VAY	Valandovo	0.53	340	*e*Pg	Pg	15 22 46.5	-0.7
VAY				*e*Sg	Sg	15 22 54.3	+0.1
PLG	Polygyros	0.66	133	*e*Pn	Pn	15 22 49.6	-2.6
PLG				*e*Sn	Sg	15 22 59.5	+1.2
PLG	Polygyros	0.66	133	*e*Pg	Pg	15 22 49.3	-0.4
PLG				*e*Sg	Sg	15 22 59.4	+1.1
PLG	Polygyros	0.66	133	*e*PN	Pn	15 22 49.6	-2.6
PLG				*e*SN	Sg	15 22 59.5	+1.2
PLG	Polygyros	0.66	133	*e*Pg	Pg	15 22 49.3	-0.4
PLG				*e*Sg	Sg	15 22 59.4	+1.1
LIT	Litokhoron	0.76	199	*e*Pg	Pg	15 22 52.1	+0.5
LIT				*e*Sg	Sg	15 23 02.9	+1.3
LIT	Litokhoron	0.76	199	*e*Pg	Pg	15 22 52.1	+0.5
LIT				*e*Sg	Sg	15 23 02.9	+1.4
KZN	Kozani	0.95	237	*e*Pn	Pn	15 22 55.2	-1.0
KZN				*e*Sn	Sn	15 23 09.7	0.0
KZN	Kozani	0.95	237	*e*PN	Pn	15 22 55.2	-1.0
KZN				*e*SN	Sn	15 23 09.7	0.0
KZN	Kozani	0.95	237	*e*Pn	Pn	15 22 55.2	-1.0
KZN				*e*Sn	Sn	15 23 09.7	0.0
NVR	Nevrokopi	0.95	56	*e*Pn	Pn	15 22 54.7	-1.6
NVR	Nevrokopi	0.95	56	*e*PN	Pn	15 22 54.7	-1.6
NVR	Nevrokopi	0.95	56	*e*Pn	Pn	15 22 54.7	-1.6
STIP	Stip	0.99	332	*e*Pg	Pg	15 22 55.4	-0.6
STIP				*e*Sg	Sg	15 23 10.2	+1.3
STIP	Stip	0.99	332	*e*Pg	Pg	15 22 55.6	-0.4
STIP				*e*Sg	Sg	15 23 08.7	-0.2
STIP				*e*Lg		15 23 10.7	
	comp=N,157nm,0.4s						
STIP				*e*Lg		15 23 11.7	
	comp=E,170nm,0.4s						
STIP	Stip	0.99	332	*e*Pg	Pg	15 22 55.4	-0.6
STIP				*e*Sg	Sg	15 23 10.2	+1.4
OUR	Ouranopolis	1.02	118	*e*Pg	Pg	15 22 56.0	-0.4
OUR	Ouranopolis	1.02	118	*e*Pg	Pg	15 22 56.0	-0.4
MMB	Musomiste	1.03	42	Pg	Pg	15 22 55.6	-1.1
MMB	Musomiste	1.03	42	Pg	Pg	15 22 55.6	-1.1
MMB	Musomiste	1.03	42	Pg	Pg	15 22 55.6	-1.1
KKB	Krupnik	1.06	11	Pg	Pg	15 22 56.6	-0.7
KKB	Krupnik	1.06	11	Pg	Pg	15 22 56.6	-0.7
KKB	Krupnik	1.06	11	Pg	Pg	15 22 56.6	-0.7
FNA	Florina	1.09	268	*e*Pg	Pg	15 22 57.4	-0.5
FNA				*e*Sg	Sg	15 23 13.7	+1.7
FNA	Florina	1.09	268	*e*Pg	Pg	15 22 57.4	-0.5
FNA				*e*Sg	Sg	15 23 13.7	+1.7
BIA	Bitola	1.14	280	*e*Pg	Pg	15 22 59.0	+0.1
BIA				*e*Sg	Sg	15 23 14.9	+1.2
BIA	Bitola	1.14	280	*e*Pg	Pg	15 22 58.0	-0.9
BIA				*e*Sg	Sg	15 23 13.6	-0.2
BIA				*e*Lg		15 23 14.6	
	comp=N,94nm,0.3s						
BIA				*e*Lg		15 23 14.6	
	comp=E,104nm,0.4s						
BIA	Bitola	1.14	280	*e*Pg	Pg	15 22 59.0	+0.1
BIA				*e*Sg	Sg	15 23 14.9	+1.1
KRUS	Krusevo	1.30	295	*e*Pg	Pg	15 23 01.5	-0.3

KRUS				eSg	Sg	15 23 17.7	-1.0
THL	Klokotos Trika	1.40	206	ePN	Pn	15 23 03.1	+0.7
THL	Klokotos Trika	1.40	206	ePn	Pn	15 23 03.1	+0.7
XOR	Xorichti	1.48	169	ePg	Pg	15 23 04.6	-0.8
XOR	Xorichti	1.48	169	ePg	Pg	15 23 04.6	-0.8
NEO	Neokhori	1.55	168	ePn	Pn	15 23 04.4	-0.1
NEO				eSn	Sn	15 23 24.6	+0.1
NEO	Neokhori	1.55	168	ePN	Pn	15 23 04.4	-0.1
NEO				eSN	Sn	15 23 24.6	+0.1
NEO	Neokhori	1.55	168	ePn	Pn	15 23 04.4	-0.1
NEO				eSn	Sn	15 23 24.6	+0.1
MEV	Metsovon	1.59	230	ePg	Pg	15 23 05.5	-2.0
MEV	Metsovon	1.59	230	ePg	Pg	15 23 05.5	-2.0
RZN	Rozhen	1.68	58	P	Pn	15 23 07.5	+1.3
VTS	Vitosha	1.79	9	Pg	Pg	15 23 11.0	-0.3
VTS	Vitosha	1.79	9	ePb	Pb	15 23 08.8	-1.0
VTS				eSb	Sb	15 23 33.2	+1.0
VTS	Vitosha	1.79	9	P	Pn	15 23 08.5	+0.7
VTS				Pg	Pg	15 23 11.0	-0.3
VTS	Vitosha	1.79	9	⇓iP	Sg	15 23 35.9	+1.4
VTS	Vitosha	1.79	9	Pg	Pg	15 23 11.0	-0.3
AGG	Agios Georgios	1.84	192	ePb	Pb	15 23 08.8	-1.7
AGG				eSb	Sb	15 23 34.6	+1.1
AGG	Agios Georgios	1.84	192	ePb	Pb	15 23 08.8	-1.7
AGG				eSb	Sb	15 23 34.6	+1.1
AOS	Alonnisos	1.84	153	ePb	Pb	15 23 09.6	-1.0
AOS	Alonnisos	1.84	153	ePb	Pb	15 23 09.6	-1.1
PLD	Plovdiv	1.91	47	eP	Pn	15 23 12.2	+2.7
PGB	Panagyurishte	2.00	30	Pg	Pg	15 23 13.8	-1.5
PGB	Panagyurishte	2.00	30	P	Pn	15 23 11.4	+0.7
PGB				Pg	Pg	15 23 13.8	-1.5
RDO	Rodhopi	2.09	80	ePb	Pb	15 23 15.1	+0.3
RDO	Rodhopi	2.09	80	ePB	Pb	15 23 13.1	-1.7
RDO	Rodhopi	2.09	80	ePb	Pb	15 23 15.1	+0.3
BARS	Barje	2.13	340	Pn	Pn	15 23 13.0	+0.6
KDZ	Kurdzhali	2.13	66	P	Pn	15 23 12.0	-0.5
DIM	Dimitrovgrad	2.38	58	P	Pn	15 23 24.0	+8.0
PVL	Pavlikeni	3.04	37	P	Pn	15 23 32.0	+7.0
SZH	Strazhica	3.37	43	P	Pn	15 23 30.6	+1.1
GRUS	Gruza	3.44	334	Pn	Pn	15 23 29.8	-0.6
DIVS	Divcibare	3.88	328	Pn	Pn	15 23 36.7	+0.2
FGSL	Fruska Gora	4.86	334	Pn	Pn	15 23 50.0	0.0
BZS	Buzias	4.87	350	⇓iP	Pn	15 23 49.4	-0.7
VRI	Vrincioaia	5.79	28	⇑iP	Pn	15 24 05.4	+2.6
PKSM	Moragy	6.18	332	⇓iP	Pn	15 24 08.0	-0.1

IDC 24 15:25:59.5±2.5**,1002S**×**16542E,h0**^{km}**,mb3.9**/4**, mb1 4.1**/5**,mb1mx3.8**/16**,mbtmp4.0**/5**,ML4.3**/1**,MS3.8**/1**, Ms1 3.8**/1**,ms1mx2.8**/27**,Error ellipse: s-maj=62.1km s-min=33.2km az=101.0,Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	12.03	175	Pn	Pn	15 28 53.6	+1.4
	1.8nm,0.3s,baz=36,slow=17,SNR=19						
DZM				Sn	Sn	15 30 54.1	-13
	0.5nm,0.3s,baz=306,slow=22,SNR=7.3						
WRA	Warramunga Arr	31.55	248	P	P	15 32 24.4	+0.6
	1.6nm,0.6s,baz=82,slow=8.8,SNR=26						
ASAR	Alice Springs	32.98	242	P	P	15 32 35.8	-0.6
	1.1nm,0.8s,baz=62,slow=10,SNR=15						
RAR	Rarotonga	35.24	113	LR	LR	15 42 58.5	
	comp=Z,138nm,20.6s,baz=268,slow=29						
SONM	Songino Array	77.65	324	P	P	15 37 58.7	+0.9
	0.3nm,0.5s,baz=129,slow=4.7,SNR=3.7						
MKAR	Makanchi Array	92.56	317	P	P	15 39 12.0	-0.9
	0.6nm,0.7s,baz=103,slow=5.8,SNR=9.0						

SOF ***24*** *15:32:43.0,4032N×2241E,h2*^{km}*,MD2.5*
NEIC ***24*** *15:32:46.3,4052N×2230E,h24*^{km}*,MD3.2(ATH), MD2.5(SOF),After ATH.*
ATH ***24*** *15:32:46.3,4052N×2230E,h24*^{km}*±1*^{km}*,MD3.2/5*
CSEM ***24*** *15:32:46.9±0.1,4050N×2231E,h15*^{km}*,ML3.2,Error ellipse: s-maj=1.6km s-min=1.2km az=133.0*
THE ***24*** *15:32:47.4,4051N×2235E,h6*^{km}*,ML3.2*
SKO ***24*** *15:32:47.2,4049N×2236E,h19*^{km}
ISCJB ***24*** *15:32:47.5±0.4,4048N±002×2235E±003,h16*^{km}*±6*^{km}*, Error ellipse: s-maj=3.8km s-min=3.5km az=167.4*
ISC 24 15:32:46.9±0.3**,4049N**±002×**2233E**±003**,h16**^{km}±4^{km}**,n44, σ0**^{s}**81**/73**,Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIT	Litokhoron	0.41	163	ePg	Pg	15 32 55.2	0.0
LIT				eSg	Sg	15 33 01.6	+0.9
LIT	Litokhoron	0.41	163	ePg	Pg	15 32 55.2	+0.1
LIT				eSg	Sg	15 33 01.6	+1.0
KZN	Kozani	0.47	247	ePb	Pb	15 32 55.9	-0.8
KZN				eSb	Sb	15 33 02.9	-0.5
KZN	Kozani	0.47	247	ePB	Pb	15 32 55.9	-0.8
KZN				eSB	Sb	15 33 02.9	-0.5
KZN	Kozani	0.47	247	ePb	Pb	15 32 55.9	-0.8
KZN				eSb	Sb	15 33 02.9	-0.5
GRG	Griva	0.47	6	ePg	Pg	15 32 55.7	-0.6
GRG				eSg	Sg	15 33 02.8	+0.2
GRG	Griva	0.47	6	ePg	Pg	15 32 55.7	-0.6
GRG				eSg	Sg	15 33 02.8	+0.2
THE	Thessaloniki	0.50	73	ePg	Pg	15 32 56.6	-0.3
THE				eSg	Sg	15 33 04.1	+0.5
THE	Thessaloniki	0.50	73	ePg	Pg	15 32 56.6	-0.3
THE				eSg	Sg	15 33 04.1	+0.5
HORT	Hortiatis	0.59	79	ePg	Pg	15 32 58.5	-0.1
HORT				eSg	Sg	15 33 07.0	+0.5
HORT	Hortiatis	0.59	79	ePg	Pg	15 32 58.5	-0.1
HORT				eSg	Sg	15 33 07.0	+0.5
FNA	Florina	0.79	292	ePg	Pg	15 33 01.6	-0.5
FNA				eSg	Sg	15 33 14.0	+1.5
FNA	Florina	0.79	292	ePg	Pg	15 33 01.6	-0.6
FNA				eSg	Sg	15 33 14.0	+1.5
KNT	Kendrikon	0.80	32	ePg	Pg	15 33 02.0	-0.4
KNT				eSg	Sg	15 33 13.1	+0.2
KNT	Kendrikon	0.80	32	ePg	Pg	15 33 02.0	-0.4
KNT				eSg	Sg	15 33 13.1	+0.2
SOH	Sokhos	0.84	67	ePg	Pg	15 33 03.0	-0.3
SOH				eSg	Sg	15 33 15.3	+0.9
SOH	Sokhos	0.84	67	ePg	Pg	15 33 03.0	-0.3
SOH				eSg	Sg	15 33 15.3	+0.9
VAY	Valandovo	0.85	12	ePg	Pg	15 33 02.4	-1.0
VAY				eSg	Sg	15 33 14.7	+0.1
PLG	Polygyros	0.86	97	ePn	Pg	15 33 03.2	-0.3
PLG				eSn	Sn	15 33 15.2	-1.3
PLG	Polygyros	0.86	97	ePg	Pg	15 33 03.2	-0.3
PLG				eSg	Sg	15 33 15.5	+0.7
PLG	Polygyros	0.86	97	ePN	Pg	15 33 03.2	-0.3
PLG				eSN	Sn	15 33 15.2	-1.3
PLG	Polygyros	0.86	97	ePg	Pg	15 33 03.2	-0.3
PLG				eSg	Sg	15 33 15.5	+0.7
BIA	Bitola	0.93	305	ePg	Pg	15 33 05.0	+0.1
BIA				eSg	Sg	15 33 18.1	+0.9
THL	Klokotos Trika	0.95	195	ePN	Pn	15 33 05.6	0.0
THL				eSN	Sn	15 33 18.5	-0.4
THL	Klokotos Trika	0.95	195	ePn	Pn	15 33 05.6	0.0
THL				eSn	Sn	15 33 18.5	-0.4
MEV	Metsovon	1.10	231	ePg	Pg	15 33 08.7	+0.6
MEV	Metsovon	1.10	231	ePg	Pg	15 33 08.7	+0.6
KRUS	Krusevo	1.20	317	ePg	Pg	15 33 09.5	-0.6
KRUS				eSg	Sg	15 33 25.2	-0.6
STIP	Stip	1.21	355	ePg	Pg	15 33 09.2	-1.0
STIP				eSg	Sg	15 33 25.9	0.0
OUR	Ouranopolis	1.27	96	ePg	Pg	15 33 10.1	-1.3
OUR	Ouranopolis	1.27	96	ePg	Pg	15 33 10.1	-1.2
NEO	Neokhori	1.37	150	ePn	Pn	15 33 12.4	+1.1
NEO	Neokhori	1.37	150	ePN	Pn	15 33 12.4	+1.1
NEO	Neokhori	1.37	150	ePn	Pn	15 33 12.4	+1.1
NVR	Nevrokopi	1.44	53	ePn	Pn	15 33 12.9	+0.5
NVR	Nevrokopi	1.44	53	ePN	Pn	15 33 12.9	+0.5
NVR	Nevrokopi	1.44	53	ePn	Pn	15 33 12.9	+0.5
AGG	Agios Georgios	1.47	180	ePg	Pg	15 33 14.1	-1.0
AGG				eSg	Sg	15 33 34.5	+0.4
AGG	Agios Georgios	1.47	180	ePg	Pg	15 33 14.1	-1.0
AGG				eSg	Sg	15 33 34.5	+0.4
KKB	Krupnik	1.49	22	P	Pn	15 33 14.2	+1.2
MMB	Musomiste	1.52	43	P	Pn	15 33 14.0	+0.5
VTS	Vitosha	2.20	17	P	Pn	15 33 24.6	+1.8
KDZ	Kurdzhali	2.60	63	ePg	Pg	15 33 34.0	-2.8
KDZ	Kurdzhali	2.60	63	ePg	Pg	15 33 34.0	-2.8

IDC 24 15:43:35.4±2.7**,805S**×**15107E,h0**^{km}**,mb3.0**/2**,mb1 3.5**/3**, mb1mx3.3**/14**,mbtmp3.3**/3**,ML2.8**/1**,Error ellipse: s-maj=77.2km s-min=40.1km az=143.0, D'Entrecasteaux Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.09	251	Pn	Pn	15 44 39.0	-0.2
	4.4nm,0.3s,baz=48,slow=12,SNR=32						
PMG				Sn	Sn	15 45 30.8	+2.9
	4.1nm,0.3s,baz=90,slow=20,SNR=4.4						
WRA	Warramunga Arr	20.06	232	P	P	15 48 09.0	-1.3
	1.0nm,0.6s,baz=58,slow=11,SNR=19						
ASAR	Alice Springs	22.62	225	P	P	15 48 38.7	+0.8
	0.1nm,0.3s,baz=53,slow=9.1,SNR=9.7						
TORD	Torodi Ar. Bea	149.49	282	PKPbc	PKPbc	16 03 27.5	-0.2
	0.4nm,0.3s,baz=89,slow=2.8,SNR=5.8						

IDC 24 15:47:20.9±0.9**,137N**×**12808E,h0**^{km}**,mb3.8**/7**,mb1 3.9**/8**, mb1mx3.8**/17**,mbtmp3.7**/8**,ML3.2**/1**,Error ellipse: s-maj=57.9km s-min=15.4km az=80.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.49	187	P	Pn	15 51 49.2	-1.6
	0.1nm,0.3s,baz=45,slow=11,SNR=3.4						
WRA	Warramunga Arr	22.05	164	P	P	15 52 18.0	+0.6
	2.0nm,0.7s,baz=342,slow=10,SNR=14						
ASAR	Alice Springs	25.52	168	P	P	15 52 51.4	+0.1
	0.9nm,0.9s,baz=352,slow=8.1,SNR=8.8						
STKA	Stephens Creek	35.46	160	P	P	15 54 18.9	-0.2
	1.7nm,0.9s,baz=341,slow=15,SNR=3.1						
KSRS	Korea Array	35.91	360	P	P	15 54 24.0	+1.1
	0.7nm,0.4s,baz=174,slow=9.9,SNR=5.8						
MJAR	Matsushiro Arr	36.24	14	P	P	15 54 24.9	-0.9
	0.4nm,0.4s,baz=194,slow=9.2,SNR=2.9						
SONM	Songino Array	49.95	341	P	P	15 56 16.4	-0.2
	0.5nm,0.7s,baz=142,slow=6.9,SNR=3.6						
MKAR	Makanchi Array	60.25	325	P	P	15 57 31.1	+0.1
	1.1nm,0.3s,baz=114,slow=7.9,SNR=33						

IDC 24 15:47:47.1±2.6**,780S**×**10683E,h0**^{km}**,mb3.6**/6**,mb1 3.8**/6**, mb1mx3.6**/19**,mbtmp3.6**/6**,Error ellipse: s-maj=112.6km s-min=20.2km az=54.0,Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	20.98	121	P	P	15 52 32.9	+0.8
	2.0nm,0.7s,baz=329,slow=12,SNR=3.8						
WRA	Warramunga Arr	29.25	117	P	P	15 53 50.0	-1.2
	0.5nm,0.8s,baz=287,slow=12,SNR=5.1						
ASAR	Alice Springs	30.38	124	P	P	15 54 01.1	0.0
	0.4nm,0.7s,baz=302,slow=8.4,SNR=5.1						
STKA	Stephens Creek	40.24	131	P	P	15 55 26.3	+0.5
	2.6nm,0.6s,baz=312,slow=9.8,SNR=7.2						
SONM	Songino Array	55.39	360	P	P	15 57 23.5	+0.6
	0.2nm,0.5s,baz=188,slow=7.3,SNR=2.2						
MKAR	Makanchi Array	58.57	340	P	P	15 57 45.2	-0.3
	0.3nm,0.3s,baz=146,slow=7.5,SNR=7.3						

IDC 24 15:56:20.5±2.1**,111S**×**12757E,h0**^{km}**,mb3.3**/2**,mb1 3.5**/3**, mb1mx3.3**/16**,mbtmp3.3**/3**,ML3.4**/1**,Error ellipse: s-maj=151.8km s-min=27.1km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.86	161	P	Pn	16 00 53.2	-1.5
	0.1nm,0.3s,baz=340,slow=11,SNR=13						
ASAR	Alice Springs	23.25	165	P	P	16 01 29.8	+0.1
	0.6nm,0.7s,baz=345,slow=10,SNR=6.6						
MKAR	Makanchi Array	62.00	326	P	P	16 06 42.6	+0.1
	0.2nm,0.4s,baz=115,slow=6.8,SNR=4.5						

IDC 24 16:07:22.2±3.2**,1001S**×**11621E,h0**^{km}**,mb3.2**/4**, mb1 3.5**/5**,mb1mx3.4**/18**,mbtmp3.4**/5**,ML3.5**/1**,Error ellipse: s-maj=168.8km s-min=21.4km az=51.0,South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.18	132	Pn	Pn	16 10 15.3	-1.7
	0.2nm,0.3s,baz=308,slow=11,SNR=11						
FITZ				Sn	Sn	16 12 19.1	-15
	0.1nm,0.3s,baz=180,slow=20,SNR=2.9						
WRA	Warramunga Arr	20.09	122	P	P	16 11 57.5	0.0
	0.5nm,0.9s,baz=294,slow=12,SNR=6.8						
ASAR	Alice Springs	21.67	131	P	P	16 12 15.5	+0.9
	0.5nm,0.5s,baz=303,slow=8.6,SNR=16						
SONM	Songino Array	58.24	352	P	P	16 17 18.0	-0.2
	0.4nm,0.8s,baz=150,slow=6.1,SNR=2.6						
MKAR	Makanchi Array	64.14	335	P	P	16 17 58.8	+0.4
	0.3nm,0.4s,baz=152,slow=6.6,SNR=5.6						

IDC ***24*** *16:11:31.2±2.0,382S×13862E,h0*^{km}*,mb3.4/2,mb1 4.0/5, mb1mx3.7/13,mbtmp3.8/5,ML3.6/3,Error ellipse: s-maj=45.5km s-min=31.2km az=79.0*
ISCJB ***24*** *16:11:39.2±1.2,427S±010×13903E±007,h100*^{km}*,Error ellipse: s-maj=14.1km s-min=10.0km az=174.3*
NEIC ***24*** *16:11:42.3±3.0,428S×13916E,h126*^{km}*±30*^{km}*,mb4.5/2, Error ellipse: s-maj=30.1km s-min=17.8km az=156.0*
ISC 24 16:11:40.4±1.3**,44S**±01×**13889E**±007**,h100**^{km}**,n9, σ1**^{s}**13**/15**,Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	9.60	122	ePn	Pn	16 13 55.3	-0.5
PMG				Sn	Sn	16 15 41.5	-0.3
PMG	Port Moresby	9.60	122	Pn	Pn	16 13 59.3	+3.6
	0.6nm,0.3s,baz=299,slow=10,SNR=5.3						
PMG				Sn	Sn	16 15 41.5	-0.3
	0.3nm,0.3s,baz=201,slow=22,SNR=3.4						
WRA	Warramunga Arr	16.07	196	Pn	Pn	16 15 23.2	+2.6
WRA				Sn	Sn	16 18 17.7	-1.0
WRA	Warramunga Arr	16.07	196	Pn	Pn	16 15 23.2	+2.6
	0.3nm,0.3s,baz=20,slow=13,SNR=19						
WRA				Sn	Sn	16 18 17.7	-1.0
	0.3nm,0.3s,baz=17,slow=22,SNR=5.0						
FITZ	Fitzroy Crossi	18.80	223	P	P	16 15 56.8	+4.7
	0.2nm,0.3s,baz=53,slow=10,SNR=5.7						
FITZ				S	S	16 19 20.1	-0.8
	0.4nm,0.3s,baz=180,slow=16,SNR=5.9						
ASAR	Alice Springs	19.75	194	P	P	16 16 07.7	+5.2
	1.3nm,0.7s,baz=23,slow=9.4,SNR=16						
ASAR				S	S	16 19 47.6	+8.0
	0.9nm,0.6s,baz=17,slow=24,SNR=4.8						
CASY	Casey	64.87	192	P	P	16 22 07.7	-0.8
	57nm,1.1s						
MKAR	Makanchi Array	71.23	323	P	P	16 22 48.3	-0.4
MKAR	Makanchi Array	71.23	323	P	P	16 22 48.3	-0.4
	0.1nm,0.4s,baz=119,slow=5.1,SNR=3.0						

BJI ***24*** *16:19:24.7,812S×15653E,h16*^{km}*,mB5.3,mb4.8,Ms4.2, Msz4.2*
ISCJB ***24*** *16:19:25.3±0.3,808S±004×15639E±005,h10*^{km}*, mb5.0/65,MS4.4/20,Error ellipse: s-maj=6.9km s-min=6.0km az=0.7*
IDC ***24*** *16:19:25.1±0.5,810S×15639E,h0*^{km}*,mb4.6/14, mb1 4.7/17,mb1mx4.6/20,mbtmp4.6/17,ML3.9/2,MS4.4/16, Ms1 4.4/16,ms1mx4.3/21,Error ellipse: s-maj=17.8km s-min=15.3km az=84.0*
GCMT ***24*** *16:19:26.8±0.2,831S×15638E,h12*^{km}*,MW5.1/79, Moment Tensor Solution. s43,c58; s79,c123; Duration: 0 Moment tensor: Scale* 10^{16}*Nm;* M_{rr}*5.72±.10;* $M_{\theta\theta}$*-2.38±.10;* $M_{\phi\phi}$*-3.34±.10;* $M_{r\theta}$*1.98±.32;* $M_{\theta\phi}$*2.83±.08;* $M_{\phi r}$*-1.52±.32; Best double couple:* M_0*6.24600×*10^{16} *NP1:*ϕ_s*325.00000°,δ34.00000°,λ98.00000°. NP2:* ϕ_s*135.00000°,δ57.00000°,λ85.00000°. Principal axes: T 6.2610, Plg78.0000°, Azm27.0000°; N -0.0310, Plg4.0000°, Azm138.0000°; P -6.2300, Plg12.0000°, Azm229.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
NEIC ***24*** *16:19:26.8±0.2,815S×15631E,h10*^{km}*,mb5.1/36 Error ellipse: s-maj=7.0km s-min=6.7km az=75.0*
MOS ***24*** *16:19:30.9±0.9,768S×15632E,h33*^{km}*,mb5.3/28,Error ellipse: s-maj=14.1km s-min=8.3km az=108.3*
ISC 24 16:19:25.9±1.9**,813S**±004×**15639E**±005**,h4**^{km}±11^{km}**, h19**^{km}±3.2^{km}**:pP-P,n217,**σ**1**^{s}**06**/145**,mb5.0**/65**,MS4.4**/20**, 6C-3D,Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	3.75	111	ePn	Pn	16 20 22.1	-2.5
HNR				eS	Sn	16 21 24.2	+15
HNR	Honiara	3.75	111	Pn	Pn	16 20 23.5	-1.1
	28nm,0.3s,baz=270,slow=15,SNR=11						
HNR				Sn	Sn	16 21 14.9	+5.7
	38nm,0.3s,baz=268,slow=11,SNR=4.2						
HNR				LR	LR	16 21 51.1	
	comp=Z,4µm,20.4s,baz=352,slow=39						
PMG	Port Moresby	9.21	261	ePn	Pn	16 21 35.8	-3.8
	38nm,0.9s						
PMG				Sn	Sn	16 23 29.3	+5.4
PMG	Port Moresby	9.21	261	eP	Pn	16 21 35.8	-3.9
PMG						16 23 29.3	
PMG				pmax	pmax		
	comp=Z,38nm,0.9s						
PMG	Port Moresby	9.21	261	Pn	Pn	16 21 40.5	+0.8
	comp=Z,0.8nm,0.3s,baz=69,slow=8.6,SNR=5.0						
PMG				Sn	Sn	16 23 29.3	+5.4
	baz=215,slow=16,SNR=2.2						
COEN	Coen	14.20	245	ePn	Pn	16 22 53.4	+5.4
	comp=Z,22nm,1.1s						
CTA	Charters Tower	15.42	218	eP	Pn	16 23 11.3	+6.9
	comp=Z,55nm,1.1s						
CTA	Charters Tower	15.42	218	eP	Pn	16 23 11.3	+6.9
CTA				pmax	pmax		
	comp=Z,55nm,1.1s						
CTA	Charters Tower	15.42	218	Pn	Pn	16 23 08.1	+3.8
	comp=Z,0.7nm,0.3s,baz=49,slow=15,SNR=9.5						
CTAO	Charters Tower	15.42	218	ePn	Pn	16 23 11.2	+6.8
	comp=Z,157nm,1.3s						
CTAO	Charters Tower	15.42	218	eP	Pn	16 23 11.2	+6.8
CTAO				pmax	pmax		
	comp=Z,157nm,1.3s						
DZM	Mont Dzumac	16.91	146	eP	Pn	16 23 24.2	+0.6
DZM	Mont Dzumac	16.91	146	Pn	Pn	16 23 24.7	+1.1
DZM				LR	LR	16 28 08.5	
DZM	Mont Dzumac	16.91	146	Pn	Pn	16 23 24.7	+1.1
	comp=Z,0.1nm,0.3s,baz=358,slow=13,SNR=5.1						
DZM				LR	LR	16 28 08.5	
	comp=Z,623nm,21.3s,baz=27,slow=31						
EIDS	Eidsvold	17.88	196	eP	Pn	16 23 38.5	+2.8
	comp=Z,33nm,1.4s						
ARMA	Armidale	22.62	191	eP	P	16 24 27.9	+0.1
ARMA				eS	S	16 28 40.8	+4.1
KAKA	Kakadu	23.98	257	eP	P	16 24 41.5	-0.3
	comp=Z,43nm,1.1s,mb4.8						
KAKA				e		16 24 48.0	
WB2	Warramunga Arr	24.36	239	⇑iP	P	16 24 45.2	0.0
WB2				e		16 24 51.5	
WB2				eS	S	16 29 04.3	-1.1
WRA	Warramunga Arr	24.37	239	P	P	16 24 45.3	0.0
WRA						16 28 25.3	
WRA	Warramunga Arr	24.37	239	P	P	16 24 45.3	0.0
	comp=Z,16nm,0.7s,mb4.5,baz=63,slow=9.3,SNR=80						
WRA				PcP	PcP	16 28 25.3	+0.3
	comp=Z,1.7nm,0.8s,baz=61,slow=2.9,SNR=5.3						
WRA				LR	LR	16 33 48.1	
	comp=Z,3µm,20.7s,MS4.7,baz=65,slow=35						
GUMO	Guam	24.42	332	eP	P	16 24 43.5	-2.2
	comp=Z,172nm,1.2s,mb5.4						
GUMO	Guam	24.42	332	eP	P	16 24 43.5	-2.2
GUMO				pmax	pmax		
	comp=Z,172nm,1.2s,mb5.4						
ASAR	Alice Springs	26.51	232	P	P	16 25 03.8	-1.0
	comp=Z,2.8nm,0.8s,mb3.9,baz=62,slow=9.0,SNR=18						
STKA	Stephens Creek	27.35	208	eP	P	16 25 13.3	+1.1
	comp=Z,13nm,0.9s,mb4.5						
STKA				eS	S	16 29 51.2	-1.5
STKA	Stephens Creek	27.35	208	P	P	16 25 13.6	+1.4
	comp=Z,6.1nm,0.6s,mb4.3,baz=15,slow=13,SNR=8.6						
STKA				LR	LR	16 35 23.2	
	comp=Z,2µm,20.2s,MS4.6,baz=26,slow=35						
FITZ	Fitzroy Crossi	31.50	249	⇑iP	P	16 25 48.5	-0.7
	comp=Z,18nm,1.5s,mb4.7						
FITZ				eS	S	16 30 50.2	-8.0
FITZ	Fitzroy Crossi	31.50	249	P	P	16 25 48.6	-0.6
	comp=Z,3.9nm,0.7s,mb4.4,baz=74,slow=11,SNR=14						
FORT	Forrest	34.76	226	eP	P	16 26 21.9	+4.4
	comp=Z,35nm,0.7s,mb5.4						
URZ	Urewera	35.35	151	P	P	16 26 21.5	-1.0
	comp=Z,11nm,1.1s,mb4.7,baz=333,slow=4.5,SNR=3.9						
TAU	Tasmania Unive	35.55	191	P	P	16 26 25.1	+0.9
	comp=Z,80nm,1.4s,mb5.5						
TAU	Tasmania Unive	35.55	191	P	P	16 26 25.1	+0.9
TAU				pmax	pmax		
	comp=Z,80nm,1.4s,mb5.5						
MBWA	Marble Bar	37.65	246	P	P	16 26 41.5	-0.9
	comp=Z,34nm,1.3s,mb4.9						
RPZ	Rata Peaks	37.70	163	P	P	16 26 42.7	+0.2
	comp=Z,26nm,0.9s,mb5.0,baz=1.3,slow=8.7,SNR=6.5						
KKM	Kota Kinabalu	42.47	288	eP	P	16 27 21.1	-1.5
KLBR	Kellerberrin	42.85	232	eP	P	16 27 23.6	-1.8
	comp=Z,19nm,0.7s,mb4.9						
KSM	Kuching	46.92	280	eP	P	16 27 57.8	-0.4
KSM				e		16 28 04.2	
MJAR	Matsushiro Arr	47.60	340	P	P	16 28 02.0	-0.9
	comp=Z,4.3nm,0.8s,mb4.5,baz=158,slow=7.0,SNR=11						
MAJO	Matsushiro	47.60	340	eP	P	16 27 57.9	-5.1
	comp=Z,18nm,0.9s,mb5.1						
MAJO	Matsushiro	47.60	340	eP	P	16 27 57.9	-5.1
MAJO				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
MAT	Matsushiro	47.60	340	P	P	16 28 01.9	-1.1
SSE	Sheshan	51.55	321	P	P	16 28 34.8	+1.6
SSE				S	S	16 35 58.5	+3.9
SSE				AMB	AMB		
	comp=Z,16nm,1.2s,mb4.8						
SSE				AMB	AMB		
	comp=Z,143nm,3.7s						
SSE				LR	LR		
	comp=N,57nm,16.1s,MS3.8						
SSE				LR	LR		
	comp=E,51nm,16.4s,MS3.8						
SSE				LR	LR		
	comp=Z,113nm,20.7s,MS3.9						
SSE	Sheshan	51.55	321	P	P	16 28 34.7	+1.5
	comp=Z,16nm,1.2s,mb4.8						
SSE				S	S	16 35 58.5	+3.9
SSE				LR	LR		
	comp=Z,110nm,20.7s,MS3.9						
KSRS	Korea Array	52.58	331	P	P	16 28 41.0	+0.2
	comp=Z,5.8nm,0.9s,mb4.5,baz=149,slow=8.4,SNR=20						
KSRS				LR	LR	16 46 55.8	
	comp=Z,132nm,20.7s,MS4.0,baz=234,slow=31						
QIZ	Qiongzhong	53.22	301	P	P	16 28 46.4	+0.5
QIZ				S	S	16 36 19.8	+1.8
QIZ				AMB	AMB		
	comp=Z,24nm,2.0s,mb4.8						
QIZ				LR	LR		
	comp=Z,283nm,19.3s,MS4.3						
PPT	Papeete	53.36	106	eS	S	16 36 17.2	-2.7
	comp=Z,179nm,33.5s						
PPT				eSS	SS	16 39 59.6	-0.3
	comp=Z,75nm,25.5s						
PPT				eLQ		16 41 53.0	
	comp=Z,390nm,23.5s						
PPT				eLR	LR	16 44 08.0	
	comp=Z,1µm,31.5s						
PPT	Papeete	53.36	106	LR	LR	16 47 03.5	
	comp=Z,298nm,18.4s,MS4.4,baz=272,slow=31						
NJ2	Nanjing	53.66	320	eP	P	16 28 51.4	+2.5
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
YSS	Yuzh-Sakhalins	56.16	349	eP	P	16 29 07.6	+0.9
	comp=Z,22nm,0.9s,mb5.2						
YSS	Yuzh-Sakhalins	56.16	349	eP	P	16 29 07.3	+0.6
KULM	Kulim	57.17	282	eP	P	16 29 11.2	-3.3
CN2	Changchun	58.80	334	eP	P	16 29 25.6	+0.2
CN2				AMB	AMB		
	comp=Z,10.0nm,1.4s,mb4.7						
HABR	Khabarovsk	59.41	344	⇑eP	P	16 29 29.3	-0.2
HABR				e		16 31 40.7	
HABR				eS	S	16 37 38.8	-0.3
HABR				pmax	pmax		
	comp=Z,75nm,2.4s,mb5.3						
NST	Nakhon Sawan	60.52	293	P	P	16 29 38.0	+0.2
BJI	Beijing	60.63	325	P	P	16 29 38.1	0.0
BJI				AMB	AMB		
	comp=Z,11nm,2.0s,mb4.6						
BJI				LR	LR		

	comp=Z,187nm,29.1s,MS4.1						
KLR	Kul'dur	61.06	342	eP	P	16 29 37.7	-3.1
KLR				pmax	pmax		
	comp=Z,100nm,2.0s,mb5.6						
XAN	Xi'an	61.47	316	P	P	16 29 42.9	-1.0
XAN				AMB	AMB		
	comp=Z,4.0nm,1.5s,mb4.3						
KMI	Kunming	61.79	304	P	P	16 29 46.8	+0.5
KMI				AP	pP	16 29 52.8	+5.3
KMI				XP	sP	16 29 55.3	+7.4
KMI				PP	PP	16 32 07.1	+4.7
KMI				S	S	16 38 13.6	+3.1
KMI				XS	sS	16 38 24.6	+12
KMI				AMB	AMB		
	comp=Z,8.0nm,1.5s,mb4.6						
KMI				AMB	AMB		
	comp=Z,83nm,3.7s						
KMI				LR	LR		
	comp=N,150nm,26.1s						
KMI				LR	LR		
	comp=E,135nm,17.8s						
KMI				LR	LR		
	comp=Z,144nm,21.9s,MS4.1						
KMI	Kunming	61.79	304	P	P	16 29 46.7	+0.4
	comp=Z,8.0nm,1.5s,mb4.6						
KMI				pP	pP	16 29 52.7	+5.2
KMI				sP	sP	16 29 55.2	+7.3
KMI				PP	PP	16 32 07.1	+4.7
KMI				S	S	16 38 13.6	+3.1
KMI				sS	sS	16 38 24.6	+12
KMI				SS	SS	16 42 20.6	+8.0
KMI				SSS		16 45 04.6	
KMI				LR	LR		
	comp=Z,140nm,21.9s,MS4.1						
KMI	Kunming	61.79	304	P	P	16 29 46.7	+0.4
KMI				*SP	sP	16 29 55.2	+7.3
KMI						16 32 07.1	
KMI				S	S	16 38 13.6	+3.1
KMI				*SS	sS	16 38 24.6	+12
KMI				pmax	pmax		
	comp=Z,8.0nm,1.5s,mb4.6						
KMI				MLR	MLR		
	comp=Z,140nm,21.9s,MS4.1						
CM31	Chiang Mai Arr	62.52	296	eP	P	16 29 51.0	-0.2
	comp=Z,18nm,1.0s,mb5.2						
CHG	Chiang Mai	62.64	296	⇑P	P	16 29 52.3	+0.3
	comp=Z,32nm,1.4s,mb5.3						
CHTO	Chiang Mai	62.64	296	eP	P	16 29 52.0	-0.1
	comp=Z,18nm,1.3s,mb5.0						
CHTO	Chiang Mai	62.64	296	eP	P	16 29 52.0	0.0
CHTO				pmax	pmax		
	comp=Z,18nm,1.3s,mb5.0						
TAOE	Nuku Hiva Isla	62.70	96	eLR	LR	16 48 30.7	
	comp=Z,2µm,24.8s						
HHC	Hu-ho-hao-te	63.82	323	eP	P	16 30 00.3	+0.8
HHC				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.7						
HHC				AMB	AMB		
	comp=Z,207nm,5.7s						
HIA	Hailar	65.53	335	eP	P	16 30 10.6	+0.2
	comp=Z,32nm,0.9s,mb5.3						
HIA				e		16 30 16.9	
HIA	Hailar	65.53	335	eP	P	16 30 10.6	+0.2
HIA				e		16 30 16.9	
HIA				pmax	pmax		
	comp=Z,32nm,0.9s						
LZH	Lanzhou	66.08	315	eP	P	16 30 15.5	+1.2
LZH				AP	pP	16 30 20.5	+5.0
LZH				AMB	AMB		
	comp=Z,26nm,1.2s,mb5.1						
LZH				AMB	AMB		
	comp=Z,140nm,4.9s						
LZH	Lanzhou	66.08	315	eP	P	16 30 15.5	+1.2
	comp=Z,26nm,1.2s,mb5.1						
LZH				pP	pP	16 30 20.5	+5.0
LZH				sP	sP	16 30 23.0	+7.0
RKT	Rikitea	67.24	112	eLR	LR	16 50 34.0	
	comp=Z,477nm,27.2s						
MA2	Magadan	67.63	357	eP	P	16 30 22.9	-0.8
	comp=Z,22nm,1.0s,mb5.2						
MA2				e		16 30 29.4	
MA2	Magadan	67.63	357	⇑eP	P	16 30 23.4	-0.2
MA2				pmax	pmax		
	comp=Z,22nm,1.5s,mb5.0						
VNDA	Vanda	69.42	179	LR	LR	16 55 00.9	
	comp=Z,324nm,19.1s,MS4.6,baz=354,slow=31						
NRGR	Nerungri	69.62	342	eP	P	16 30 37.5	+1.4
NRGR				S	S	16 39 43.4	-1.5
NRGR				smax			
	comp=N,82nm,0.8s						
CLNS	Chul'man	69.71	342	eP	P	16 30 36.4	-0.3
CLNS				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
CLNS				pmax	pmax		
	comp=N,11nm,1.0s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.9s						
CIT	Chita	70.23	333	eP	P	16 30 40.0	0.0
CIT				pmax	pmax		
	comp=Z,82nm,1.9s,mb5.3						
GTA	Gaotai	70.50	317	⇓P	P	16 30 43.3	+1.3
GTA				AP	pP	16 30 48.0	+4.8
GTA				AMB	AMB		
	comp=Z,9.0nm,1.2s,mb4.6						
ULN	Ulaanbaatar	70.69	327	eP	P	16 30 43.7	+0.8
	comp=Z,56nm,1.4s,mb5.3						
ULN				e		16 30 50.0	
ULN	Ulaanbaatar	70.69	327	⇓eP	P	16 30 44.5	+1.6
SONM	Songino Array	71.03	327	P	P	16 30 45.8	+0.8
	comp=Z,7.4nm,0.9s,mb4.6,baz=131,slow=5.5,SNR=40						
SONM				LR	LR	16 58 53.8	
	comp=Z,157nm,21.1s,MS4.2,baz=8.7,slow=33						
YAK	Yakutsk	72.95	347	eP	P	16 30 56.0	-0.2
	comp=Z,42nm,0.9s,mb5.4						
YAK				e		16 31 02.3	
YAK	Yakutsk	72.95	347	eP	P	16 30 56.5	+0.3
YAK				e		16 31 10.1	
YAK				e		16 33 38.3	
YAK				eS	S	16 40 26.2	+2.8
YAK				e		16 40 58.5	
YAK				e*SS	sS	16 41 09.9	+45
YAK				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
YAK				pmax	pmax		
	comp=N,17nm,1.6s						
YAK				pmax	pmax		
	comp=E,14nm,1.7s						
YAK				pmax	pmax		
	comp=Z,219nm,6.1s						
YAK				pmax	pmax		
	comp=N,176nm,4.6s						
YAK				pmax	pmax		
	comp=E,203nm,5.2s						
YAK				smax			
	comp=E,127nm,4.4s						
YAK				smax			
	comp=N,231nm,5.6s						
LSA	Lhasa	73.05	304	eP	P	16 30 58.4	+0.9
LSA	Lhasa	73.05	304	eP	P	16 30 58.8	+1.3
	comp=N,13nm,1.1s,mb4.8						
LSA	Lhasa	73.05	304	eP	P	16 30 58.8	+1.3
LSA				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
BOD	Bodaibo	74.17	338	eP	P	16 31 03.4	-0.1
BOD				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
TLY	Talaya	74.73	329	eP	P	16 31 07.1	+0.2
	comp=Z,38nm,1.8s,mb5.0						
TLY				e		16 31 12.8	
TLY	Talaya	74.73	329	eP	P	16 31 07.3	+0.4
TLY				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
TLY				MLR	MLR		
	comp=Z,71nm,13.0s,MS4.2						
IRK	Irkutsk	74.75	330	eP	P	16 31 06.3	-0.6
IRK				e		16 40 31.5	
IRK				pmax	pmax		
	comp=Z,43nm,1.8s,mb5.1						
TAPN	Taplejung	75.17	301	eP	P	16 31 10.3	+0.4
	comp=Z,72nm,1.4s,mb5.4						
ODAN	Odare	75.29	300	eP	P	16 31 10.6	-0.1
	comp=Z,178nm,1.7s,mb5.7						
MOY	Mondy	76.09	328	eP	P	16 31 15.3	+0.6
MOY				pmax	pmax		
	comp=Z,61nm,2.7s,mb5.0						
BILL	Bilibino	76.30	4	eP	P	16 31 15.3	-0.3
	comp=Z,39nm,1.2s,mb5.2						
BILL				e		16 31 21.7	
BILL	Bilibino	76.30	4	⇓eP	P	16 31 14.9	-0.6
BILL				e		16 31 22.2	
BILL				e		16 34 05.4	
BILL				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
JIRN	Jiri	76.55	301	eP	P	16 31 18.3	+0.5
	comp=Z,161nm,2.1s,mb5.6						
KKN	Kakani	77.36	301	eP	P	16 31 22.4	0.0
	comp=Z,30nm,1.1s,mb5.2						
GKN	Gorkha	77.96	301	eP	P	16 31 25.7	-0.1
	comp=Z,196nm,1.8s,mb5.7						
WMQ	Urumqi	80.59	317	eP	P	16 31 40.0	+0.2
WMQ				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.7						
HYB	Hyderabad	80.94	289	eP	P	16 31 42.5	+0.3
HYB	Hyderabad	80.94	289	i P	P	16 31 42.5	+0.3
HYB				esP	sP	16 31 48.0	+4.1
TIXI	Tiksi	81.67	351	eP	P	16 31 44.6	-0.3
	comp=Z,26nm,1.6s,mb4.9						
TIXI				e		16 31 51.3	
TIXI	Tiksi	81.67	351	eP	P	16 31 44.5	-0.4
TIXI				pmax	pmax		
	comp=Z,21nm,2.0s,mb4.7						
TIXI				MLR	MLR		
	comp=Z,94nm,20.0s,MS4.2						
QSPA	South Pole Qui	81.86	180	eP	P	16 31 46.0	+0.1
	comp=Z,16nm,1.0s,mb4.9						
IMA2	Indian Mountai	82.42	18	eP	P	16 31 50.1	+1.1
IMA2				e		16 31 54.8	
MCK	McKinley	82.59	21	eP	P	16 31 48.6	-1.3
	comp=Z,23nm,1.4s,mb5.0						
MCK	McKinley	82.59	21	eP	P	16 31 48.6	-1.3
MCK				pmax	pmax		
	comp=Z,23nm,1.4s,mb5.0						
COLA	College	83.63	21	P	P	16 31 53.0	-2.3
	comp=Z,20nm,1.5s,mb5.0						
COLA	College	83.63	21	P	P	16 31 53.0	-2.3
COLA				pmax	pmax		
	comp=Z,20nm,1.5s,mb5.0						
MAW	Mawson	83.89	203	LR	LR	17 02 39.7	
	comp=Z,297nm,21.7s,MS4.6,baz=71,slow=31						
MK31	Makanchi Array	85.16	318	eP	P	16 32 03.3	-0.1
MK31				e		16 32 09.2	
MKAR	Makanchi Array	85.16	318	P	P	16 32 03.5	+0.1
	comp=Z,8.4nm,0.8s,mb4.9,baz=102,slow=6.1,SNR=82						
MKAR				LR	LR	17 11 12.2	
	comp=Z,74nm,18.6s,MS4.1,baz=348,slow=36						
ZALV	Zalesovo Beam	85.88	326	P	P	16 32 05.7	-1.2
	comp=Z,2.3nm,0.6s,mb4.6,baz=113,slow=5.8,SNR=16						
ZALV				LR	LR	17 08 06.6	
	comp=Z,76nm,19.4s,MS4.1,baz=137,slow=34						
ZAL	Zalesovo	85.89	326	P	P	16 32 05.7	-1.2
BBB	Bella Bella	87.59	37	LR	LR	17 05 08.1	
	comp=Z,665nm,18.9s,MS5.1,baz=261,slow=31						
KSH	Kashi	87.79	310	eP	P	16 32 18.4	+1.9
KSH				eAP	pP	16 32 29.0	+11
KSH				ePPP		16 37 49.5	
KSH				eSKS		16 42 43.0	
KSH				eS	S	16 43 00.6	+0.6
KSH				AMB	AMB		
	comp=Z,481nm,3.2s						
KURK	Kurchatov	88.57	322	eP	P	16 32 18.5	-1.4
	comp=Z,3.2nm,1.1s,mb4.6						
KURK	Kurchatov	88.57	322	eP	P	16 32 18.5	-1.5
KURK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.5						
TKM2	Tokmak 2	88.79	314	eP	P	16 32 21.0	-0.2
	comp=Z,4.8nm,0.9s,mb4.8						
TKM2	Tokmak 2	88.79	314	eP	P	16 32 21.0	-0.2
TKM2				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.8						
AAK	Ala-Archa	89.53	313	eP	P	16 32 23.8	-0.9
	comp=Z,3.6nm,0.9s,mb4.7						
AAK	Ala-Archa	89.53	313	⇑eP	P	16 32 22.7	-2.0
AAK				pmax	pmax		
	comp=Z,8.0nm,2.0s,mb4.7						
MTUM	Tungsten Hills	90.96	53	eP	P	16 32 33.4	+1.9
NVAR	Mina Array Bea	91.33	52	P	P	16 32 33.6	+0.4
	comp=Z,4.2nm,1.1s,mb4.7,baz=237,slow=4.2,SNR=18						
DAC	Darwin (Calif)	91.55	54	eP	P	16 32 35.4	+1.1
	comp=Z,28nm,1.3s,mb5.4						
DAC				e		16 32 41.8	
DAC	Darwin (Calif)	91.55	54	eP	P	16 32 35.4	+1.1
DAC				e		16 32 41.8	
DAC				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.4						
PFO	Pinyon Flat Ob	92.08	57	LR	LR	17 06 14.7	
	comp=Z,440nm,21.5s,MS4.9,baz=289,slow=30						
KBL	Kabul	92.37	304	eP	P	16 32 37.7	-0.4
TPNV	Topopah Spring	92.72	53	eP	P	16 32 41.0	+1.4
	comp=Z,30nm,1.5s,mb5.5						
TPNV				e		16 32 46.5	
TPNV	Topopah Spring	92.72	53	eP	P	16 32 41.0	+1.3
TPNV				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.5						
NEW	Newport	93.67	42	LR	LR	17 06 37.7	
	comp=Z,335nm,21.4s,MS4.8,baz=217,slow=30						
BRVK	Borovoye	94.09	323	eP	P	16 32 44.3	-1.3
	comp=Z,5.6nm,1.0s,mb5.0						
BRVK				e		16 32 50.1	
BRVK	Borovoye	94.09	323	eP	P	16 32 44.3	-1.3
BRVK				e		16 32 50.1	
BRVK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb5.0						
HLID	Hailey	94.95	47	eP	P	16 32 50.0	+0.2
	comp=Z,26nm,2.1s,mb5.3						
MSU	Marysvale	96.11	52	eP	P	16 32 53.6	-1.5
YKA	Yellowknife Ar	96.68	28	P	P	16 32 56.6	-0.6
	comp=Z,2.2nm,1.0s,mb4.5,baz=263,slow=4.7,SNR=16						
YKA				LR	LR	17 11 15.2	
	comp=Z,155nm,19.2s,MS4.5,baz=155,slow=32						
JLU	Jordanelle	96.86	50	eP	P	16 33 00.6	+2.1
PDAR	Pinedale Array	98.42	48	P	P	16 33 05.6	+0.1
PDAR				LR	LR	17 12 05.3	
PDAR	Pinedale Array	98.42	48	P	P	16 33 05.6	+0.1
	comp=Z,0.7nm,0.9s,mb4.2,baz=285,slow=2.9,SNR=3.7						
PDAR				LR	LR	17 12 05.3	
	comp=Z,258nm,21.1s,MS4.7,baz=249,slow=32						
OBN	Obninsk	113.44	327	ePKIKP	PKiKP	16 38 03.3	-1.8
OBN				eSS	SS	16 54 53.9	+11
OBN				pmax	pmax		
	comp=Z,4.0nm,0.9s						
FINES	FINESS Array B	115.53	336	PKP	PKPdf	16 38 07.5	-1.5
FINES	FINESS Array B	115.53	336	PKIKP	PKPdf	16 38 07.5	-1.4
FINES	FINESS Array B	115.53	336	PKP	PKPdf	16 38 07.5	-1.4
	comp=Z,4.6nm,1.1s,baz=19,slow=4.7,SNR=3.3						
AKASG	Malin Array Be	119.26	324	PKP	PKPdf	16 38 16.1	-0.3
AKASG	Malin Array Be	119.26	324	PKIKP	PKPdf	16 38 16.1	-0.3
AKASG	Malin Array Be	119.26	324	PKP	PKPdf	16 38 16.1	-0.3
	comp=Z,4.1nm,0.9s,baz=63,slow=2.2,SNR=4.9						
BRTR	Keskin Array B	120.16	311	PKP	PKPdf	16 38 17.8	-0.7
BRTR	Keskin Array B	120.16	311	PKIKP	PKPdf	16 38 17.8	-0.7
BRTR	Keskin Array B	120.16	311	PKP	PKPdf	16 38 17.8	-0.7
	comp=Z,1.7nm,0.9s,baz=83,slow=5.1,SNR=5.0						
KOLS	Kolonicke sedl	124.06	325	ePKP	PKPdf	16 38 26.5	+0.8
KOLS	Kolonicke sedl	124.06	325	ePKIKP	PKPdf	16 38 26.5	+0.8
STHS	Stebnicka Huta	124.38	326	ePKP	PKPdf	16 38 25.6	-0.7
STHS	Stebnicka Huta	124.38	326	ePKIKP	PKPdf	16 38 25.6	-0.7
CRVS	Cervenica-Dubn	124.53	325	ePKP	PKPdf	16 38 25.8	-0.8
CRVS	Cervenica-Dubn	124.53	325	ePKIKP	PKPdf	16 38 25.8	-0.8
OKC	Ostrava-Krasne	125.82	328	ePKP	PKPdf	16 38 29.7	+0.6
OKC				e		16 38 35.7	
OKC	Ostrava-Krasne	125.82	328	ePKIKP	PKPdf	16 38 29.7	+0.6
OKC				e		16 38 35.7	
OKC	Ostrava-Krasne	125.82	328	ePKPdf	PKPdf	16 38 29.7	+0.6
OKC				epPKP	pPKPdf	16 38 35.7	+5.3
DPC	Dobruska-Polom	126.45	329	ePKP	PKPdf	16 38 31.1	+0.8
DPC	Dobruska-Polom	126.45	329	ePKIKP	PKPdf	16 38 31.1	+0.8
DPC	Dobruska-Polom	126.45	329	ePKPdf	PKPdf	16 38 31.1	+0.8
PVCC	Panska Ves	127.22	330	ePKP	PKPdf	16 38 32.5	+0.8
PVCC				e		16 38 38.5	
PVCC	Panska Ves	127.22	330	ePKIKP	PKPdf	16 38 32.5	+0.8
PVCC				e		16 38 38.5	
PVCC	Panska Ves	127.22	330	ePKPdf	PKPdf	16 38 32.5	+0.8
PVCC				epPKP	pPKPdf	16 38 38.5	+5.5
BRG	Berggiesshubel	127.30	331	ePKP	PKPdf	16 38 32.3	+0.4
BRG				e		16 38 38.3	
BRG	Berggiesshubel	127.30	331	ePKIKP	PKPdf	16 38 32.3	+0.4
BRG				e		16 38 38.3	
BRG				pmax	pmax		
	comp=Z,6.0nm,1.2s						
BRG				pmax	pmax		
	comp=Z,12nm,1.4s						
BRG	Berggiesshubel	127.30	331	ePKPdf	PKPdf	16 38 32.3	+0.4
CLL	Collm	127.46	332	i PKIKP	PKPdf	16 38 32.2	0.0
CLL				i		16 38 38.4	
CLL				pmax	pmax		
	comp=Z,9.0nm,1.0s						
CLL	Collm	127.46	332	ePKPdf	PKPdf	16 38 32.6	+0.4
PRU	Pruhonice	127.58	330	ePKP	PKPdf	16 38 33.1	+0.7
PRU				e		16 38 38.6	
PRU	Pruhonice	127.58	330	ePKIKP	PKPdf	16 38 33.1	+0.7
PRU				e		16 38 38.6	
PRU	Pruhonice	127.58	330	ePKPdf	PKPdf	16 38 33.1	+0.7
PRU				epPKP	pPKPdf	16 38 38.6	+4.9
TANN	Tannenbergstha	128.31	331	ePKPdf	PKPdf	16 38 34.6	+0.8
WERD	Werda	128.36	331	ePKPdf	PKPdf	16 38 34.1	+0.2
GUNZ	Gunzen	128.41	331	ePKPdf	PKPdf	16 38 34.7	+0.7
KHC	Kasperske Hory	128.61	329	ePKP	PKPdf	16 38 34.9	+0.5
KHC				e		16 38 40.1	
KHC	Kasperske Hory	128.61	329	ePKIKP	PKPdf	16 38 34.9	+0.5
KHC				e		16 38 40.1	
KHC	Kasperske Hory	128.61	329	ePKPdf	PKPdf	16 38 34.9	+0.5
KHC				pPKP	pPKPdf	16 38 40.1	+4.4
GEC2	GERESS Array S	128.73	329	ePKPdf	PKPdf	16 38 35.0	+0.3
GEC2	GERESS Array S	128.73	329	ePKIKP	PKPdf	16 38 35.0	+0.3
GEC2	GERESS Array S	128.73	329	ePKPdf	PKPdf	16 38 35.0	+0.3
GERES	GERESS Array B	128.73	329	PKP	PKPdf	16 38 35.2	+0.6
GERES	GERESS Array B	128.73	329	PKIKP	PKPdf	16 38 35.2	+0.5
GERES	GERESS Array B	128.73	329	PKP	PKPdf	16 38 35.2	+0.6
	comp=Z,3.4nm,1.0s,baz=48,slow=1.5,SNR=16						
MANZ	Manzenberg	128.76	331	ePKPdf	PKPdf	16 38 35.8	+1.1
ROTZ	Rotzenmuhle	128.87	331	ePKPdf	PKPdf	16 38 35.7	+0.8
WET	Wettzell	128.95	330	ePKPdf	PKPdf	16 38 35.4	+0.3
WET	Wettzell	128.95	330	ePKIKP	PKPdf	16 38 35.4	+0.3
WET	Wettzell	128.95	330	ePKPdf	PKPdf	16 38 35.4	+0.3
GRA1	Grafenberg Arr	129.39	331	ePKPdf	PKPdf	16 38 37.0	+1.1
GRF	Grafenberg Arr	129.39	331	ePKP	PKPdf	16 38 37.0	+1.1
GRF	Grafenberg Arr	129.39	331	ePKIKP	PKPdf	16 38 37.0	+1.1
GRF	Grafenberg Arr	129.39	331	ePKIKP	PKPdf	16 38 37.0	+1.1
GRF	Grafenberg Arr	129.39	331	ePKPdf	PKPdf	16 38 37.0	+1.1
LPAZ	La Paz	129.70	119	PKP	PKPdf	16 38 38.7	+1.3
LPAZ	La Paz	129.70	119	PKIKP	PKPdf	16 38 38.7	+1.2
LPAZ	La Paz	129.70	119	PKP	PKPdf	16 38 38.7	+1.3
	comp=Z,3.8nm,1.1s,baz=255,slow=4.8,SNR=11						
BOJS	Bojanci	129.94	325	i PKPdf	PKPdf	16 38 37.9	+0.8
BOJS				i PKPbc	PKPdf	16 38 45.1	+8.0
VISS	Visnje	130.00	325	i PKPdf	PKPdf	16 38 38.4	+1.2
VISS				i PKPbc	PKPdf	16 38 44.6	+7.4
GIVF	Givet	131.92	336	ePKP	PKPdf	16 38 41.0	+0.3
GIVF	Givet	131.92	336	ePKIKP	PKPdf	16 38 41.0	+0.3
DAVOX	Davos/Dischmat	132.03	329	PKP	PKPdf	16 38 40.8	-0.2
DAVOX	Davos/Dischmat	132.03	329	PKP	PKPdf	16 38 40.8	-0.2
	comp=Z,2.3nm,0.6s,baz=344,slow=12,SNR=3.3						
DAVOS	Davos	132.03	329	PKIKP	PKPdf	16 38 40.8	-0.2
HINF	Hinteralfeld	132.76	332	ePKP	PKPdf	16 38 42.3	0.0
HINF	Hinteralfeld	132.76	332	ePKIKP	PKPdf	16 38 42.3	0.0
LPG	La Plagne	134.48	330	ePKP	PKPdf	16 38 47.1	+1.4
LPG	La Plagne	134.48	330	ePKIKP	PKPdf	16 38 47.1	+1.4
LOR	Lormes	134.51	334	ePKP	PKPdf	16 38 45.6	-0.1
LOR	Lormes	134.51	334	ePKIKP	PKPdf	16 38 45.6	-0.1
SSF	Saint Saulge	134.83	334	ePKP	PKPdf	16 38 46.6	+0.3
SSF	Saint Saulge	134.83	334	ePKIKP	PKPdf	16 38 46.6	+0.3
TCF	Toulx Ste Croi	135.99	334	ePKP	PKPdf	16 38 48.3	-0.1
TCF	Toulx Ste Croi	135.99	334	ePKIKP	PKPdf	16 38 48.3	-0.1
ESDC	Sonseca Array	143.99	334	PKP	PKPdf	16 39 01.3	-1.9
ESDC	Sonseca Array	143.99	334	PKP	PKPdf	16 39 01.3	-1.9
	comp=Z,1.5nm,0.9s,baz=32,slow=1.7,SNR=3.8						
TORD	Torodi Ar. Bea	154.64	284	PKP	PKPdf	16 39 19.9	-0.9
TORD				PKPbc	PKPbc	16 39 29.0	-0.3
TORD				PKPab	PKPab	16 39 43.7	-0.3
TORD	Torodi Ar. Bea	154.64	284	PKP	PKPdf	16 39 19.9	-0.9
	comp=Z,1.8nm,1.1s,baz=76,slow=1.7,SNR=6.2						
TORD				PKPbc	PKPbc	16 39 29.0	-0.3
	comp=Z,1.2nm,0.7s,baz=58,slow=2.4,SNR=5.3						
TORD				PKPab	PKPab	16 39 43.7	-0.3
	comp=Z,5.1nm,1.0s,baz=71,slow=3.1,SNR=11						

VIE ***24*** *16:35:16.0*±*0.4, 46.46N*×*13.10E,* $h8^{km}\pm11^{km}$*, mb1.3/1, ML1.8/4, Error ellipse: s-maj=2.1km s-min=1.1km az=34.0*
8 km NE of Tolmezzo

ISCJB ***24*** *16:35:16.2*±*0.4, 46.46N*±*0.02*×*13.10E*±*0.03,* $h8^{km}$*, Error ellipse: s-maj=3.7km s-min=2.8km az=145.1*

ISC 24 16:35:16.4±0.8**, 46.46N**±0.02×**13.09E**±0.04**,** $h11^{km}\pm8^{km}$**, n17,** σ**0.46**/29**, 14C-6D, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLRO	Paularo	0.10	24	⇑iPg	Pg	16 35 18.9	-0.3
PLRO				i Sg	Sg	16 35 20.9	-0.2
ZOU	Zoufplan	0.13	322	⇓iPg	Pg	16 35 19.4	-0.1
ZOU				i Sg	Sg	16 35 21.7	-0.1
BOO	Bordano	0.14	177	⇑iPg	Pg	16 35 19.1	-0.5
MPRI	Monte Prat	0.23	198	⇑iPg	Pg	16 35 20.6	-0.6
MPRI				i Sg	Sg	16 35 24.6	+0.3
BUA	Buia	0.24	174	⇑iPg	Pg	16 35 20.9	-0.4
BUA				i Sg	Sg	16 35 25.0	+0.3
BAD	Bernadia	0.24	154	⇓iPg	Pg	16 35 20.9	-0.6
BAD				i Sg	Sg	16 35 24.9	0.0
LSR	Lussari	0.30	86	⇑iPg	Pg	16 35 22.2	-0.3
LSR				i Sg	Sg	16 35 27.3	+0.6
CSMI	Casera Mimoias	0.31	281	⇓iPg	Pg	16 35 22.5	-0.1
CSMI				i Sg	Sg	16 35 27.5	+0.8
COLI	Coloredo	0.38	148	⇑iPg	Pg	16 35 23.6	-0.3
COLI				i Sg	Sg	16 35 29.7	+0.7
DRE	Drenchia	0.48	126	⇑iPg	Pg	16 35 25.0	-0.7
DRE				i Sg	Sg	16 35 33.1	+1.1
ABTA	Abfaltersbach	0.49	306	⇓iPg	Pg	16 35 25.9	-0.1
ABTA				⇑iSg	Sg	16 35 33.0	+0.4
KBA	Koelnbreinsper	0.65	16	⇓iPg	Pg	16 35 29.1	+0.2
KBA	Koelnbreinsper	0.65	16	⇑eSg	Sg	16 35 37.8	+0.3
	comp=E,1.6nm,0.1s						
KBA	Koelnbreinsper	0.65	16	⇓iPg	Pg	16 35 29.1	+0.2
KBA				⇑eSg	Sg	16 35 37.8	+0.3
	1.6nm,0.1s						
OBKA	Obir	1.01	86	⇑iPg	Pg	16 35 35.5	-0.4
OBKA	Obir	1.01	86	⇑iSg	Sg	16 35 49.0	+0.1
	comp=E,5.6nm,0.3s						
OBKA	Obir	1.01	86	⇑iPg	Pg	16 35 35.5	-0.4
OBKA				⇑iSg	Sg	16 35 49.0	+0.1
	5.6nm,0.3s						

ISCJB ***24*** *16:44:33.3*±*0.5, 57.35S*±*0.09*×*25.0W*±*0.1,* $h10^{km}$*, mb4.5/13, Error ellipse: s-maj=12.6km s-min=11.5km az=179.7*

IDC ***24*** *16:44:33.2*±*0.6, 57.34S*×*24.95W,* $h0^{km}$*, mb4.4/9, mb1 4.5/10, mb1mx4.4/15, mbtmp4.4/10, ML4.0/1, MS3.6/2, Ms1 3.6/2, ms1mx3.3/16, Error ellipse: s-maj=21.4km s-min=19.9km az=63.0*

NEIC ***24*** *16:44:38.4*±*0.3, 57.35S*×*24.93W,* $h35^{km}$*, mb4.6/10, Error ellipse: s-maj=9.5km s-min=9.1km az=179.0*

ISC 24 16:44:35.0±0.5**, 57.38S**±0.09×**25.0W**±0.1**,** $h10^{km}$**, n38,** σ**0.64**/21**, mb4.5**/13**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNAA	Sanae	17.04	156	P	Pn	16 48 32.9	0.0
	0.5nm,0.3s,baz=332,slow=14,SNR=33						
SNAA				LR	LR	16 53 51.4	
	comp=Z,88nm,19.0s,baz=231,slow=33						
EFI	East Falkland	19.87	273	eP	Pn	16 49 07.1	-0.6
	41nm,0.9s						
PMSA	Palmer Station	19.98	232	eP	Pn	16 49 08.3	-0.5
	97nm,1.5s						
PMSA	Palmer Station	19.98	232	P	Pn	16 49 08.2	-0.6
	9.9nm,0.7s,baz=81,slow=4.5,SNR=5.2						
USHA	Ushuaia	24.05	257	P	P	16 49 50.2	+0.3
	6.6nm,0.9s,mb4.1,baz=109,slow=12,SNR=3.6						
USHA				LR	LR	16 57 08.5	
	comp=Z,296nm,18.3s,baz=46,slow=31						
QSPA	South Pole Qui	32.87	180	eP	P	16 51 08.4	+0.1
	3.3nm,0.5s,mb4.5						
MAW	Mawson	38.36	142	eP	P	16 51 56.2	+0.6
	7.3nm,1.0s,mb4.4						
MAW	Mawson	38.36	142	P	P	16 51 55.8	+0.3
	3.9nm,0.9s,mb4.1,baz=247,slow=13,SNR=2.9						
BOSA	Boshof	45.18	72	eP	P	16 52 50.6	-1.1
	10nm,1.3s,mb4.5						
BOSA	Boshof	45.18	72	P	P	16 52 51.5	-0.2
	3.4nm,1.0s,mb4.2,baz=202,slow=8.3,SNR=3.6						
VNDA	Vanda	45.29	182	P	P	16 52 52.4	+0.3
	4.6nm,0.8s,mb4.3,baz=174,slow=7.9,SNR=2.8						

LBTB	Lobatse	48.29	70	P	P	16 53 15.4	-0.7
	3.9nm,0.9s,mb4.4						
LPAZ	La Paz	52.12	304	*e*P	P	16 53 45.3	+0.1
	5.0nm,0.6s,mb4.6						
LPAZ	La Paz	52.12	304	P	P	16 53 46.0	+0.8
	6.8nm,0.8s,mb4.7,baz=167,slow=6.2,SNR=28						
LSZ	Lusaka	57.77	66	*e*P	P	16 54 26.3	+0.2
	8.1nm,1.2s,mb4.6						
TOA0	Torodi Ar. Sit	73.66	27	*e*P	P	16 56 08.7	+0.2
TORD	Torodi Ar. Bea	73.66	27	P	P	16 56 09.1	+0.5
	3.6nm,0.7s,mb4.4,baz=196,slow=6.3,SNR=19						
SDV	Santo Domingo	75.80	313	*e*P	P	16 56 21.0	+0.1
	4.2nm,0.7s,mb4.5						
NWAO	Narrogin (SRO)	84.57	149	P	P	16 57 08.1	-0.1
	45nm,1.4s,mb5.4						
STKA	Stephens Creek	90.37	169	P	P	16 57 37.8	+1.6
	3.8nm,1.1s,mb4.7,baz=188,slow=4.7,SNR=3.5						
ASAR	Alice Springs	97.34	161	P	P	16 58 07.0	-1.3
	1.4nm,0.8s,mb4.4,baz=181,slow=3.9,SNR=20						
WRA	Warramunga Arr	101.06	160	P	Pdif	16 58 22.8	-2.3
	0.6nm,0.8s,baz=199,slow=4.2,SNR=4.3						
FINES	FINESS Array B	125.01	27	PKP	PKPdf	17 03 31.6	-2.2
FINES	FINESS Array B	125.01	27	PKP	PKPdf	17 03 31.6	-2.2
	1.5nm,0.7s,baz=217,slow=1.7,SNR=5.5						
ARCES	ARCESS Array B	131.74	21	PKP	PKPdf	17 03 45.7	-0.7
ARCES	ARCESS Array B	131.74	21	PKP	PKPdf	17 03 45.7	-0.7
	1.8nm,0.8s,baz=212,slow=0.9,SNR=5.1						
MKAR	Makanchi Array	136.17	71	PKP	PKPdf	17 03 55.6	+0.2
MKAR	Makanchi Array	136.17	71	PKP	PKPdf	17 03 55.6	+0.2
	0.1nm,0.2s,baz=186,slow=2.4,SNR=2.3						
YKA	Yellowknife Ar	137.97	316	PKP	PKPdf	17 03 58.0	-0.2
YKA				PP	PP	17 06 46.3	-1.0
YKA	Yellowknife Ar	137.97	316	PKP	PKPdf	17 03 58.0	-0.2
	1.5nm,0.8s,baz=128,slow=2.2,SNR=14						
YKA				PP	PP	17 06 46.3	-1.0
	0.3nm,0.7s,baz=124,slow=6.2,SNR=3.7						
ZALV	Zalesovo Beam	141.87	64	PKP	PKPdf	17 03 59.6	-5.9
ZALV				PKP	PKPdf	17 04 05.5	0.0
ZALV	Zalesovo Beam	141.87	64	PKhKP		17 03 59.6	
	0.3nm,0.4s,baz=250,slow=3.0,SNR=2.5						
ZALV				PKP	PKPdf	17 04 05.5	0.0
	0.3nm,0.3s,baz=228,slow=1.7,SNR=2.7						
INK	Inuvik	147.59	319	PKPbc	PKPbc	17 04 17.6	-0.2
INK	Inuvik	147.59	319	PKPbc	PKPbc	17 04 17.6	-0.2
	5.1nm,1.1s,baz=66,slow=0.4,SNR=6.5						
SONM	Songino Array	149.60	87	PKPbc	PKPbc	17 04 22.8	-0.7
SONM	Songino Array	149.60	87	PKPbc	PKPbc	17 04 22.8	-0.7
	1.5nm,0.6s,baz=226,slow=3.2,SNR=14						
KDAK	Kodiak Island	152.47	293	PKPbc	PKPbc	17 04 27.9	-2.0
KDAK	Kodiak Island	152.47	293	PKPbc	PKPbc	17 04 27.9	-2.0
	15nm,0.9s,baz=122,slow=2.1,SNR=5.6						

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*IDC **24** 16:56:49.6±1.2, 8.11S×156.09E, h0^{km}, mb3.9/8, mb1 4.0/10, mb1mx4.0/16, mbtmp3.9/10, ML3.9/2, MS3.8/2, Ms1 3.8/2, ms1mx3.1/23, Error ellipse: s-maj=32.0km s-min=20.4km az=108.0*

*NEIC **24** 16:56:52.3±5.2, 8.23S×156.48E, h29^{km}±39^{km}, mb4.5/7, Error ellipse: s-maj=21.3km s-min=10.8km az=148.0*

*ISCJB **24** 16:56:53.4±3.0, 8.1S±0.1×156.2E±0.2, h44^{km}±31^{km}, mb4.0/15, MS4.3/1, Error ellipse: s-maj=30.3km s-min=15.0km az=39.6*

ISC 24 16:56:55.3±2.7**, 8.2S**±0.1×**156.2E**±0.2**, h46**^{km}±28^{km}**, n23,** σ**$0^{s}.92$**/24**, mb4.0**/15**, MS4.3**/1**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	3.90	109	*e*Pn	Pn	16 57 46.1	-6.7
HNR				*e*Sn	Sn	16 58 47.3	+10
HNR	Honiara	3.90	109	Pn	Pn	16 57 53.2	+0.4
	7.8nm,0.3s,baz=265,slow=7.7,SNR=11						
HNR				Sn	Sn	16 58 47.8	+10
	7.4nm,0.3s,baz=270,slow=17,SNR=4.5						
CTA	Charters Tower	15.29	218	Pn	Pn	17 00 27.4	-0.7
CTA				LR	LR	17 05 21.6	
CTA	Charters Tower	15.29	218	Pn	Pn	17 00 27.4	-0.7
	0.3nm,0.3s,baz=63,slow=9.0,SNR=2.5						
CTA				LR	LR	17 05 21.6	
	comp=Z,137nm,18.6s,baz=48,slow=34						
CTAO	Charters Tower	15.29	218	Pn	Pn	17 00 29.6	+1.5
	17nm,1.0s						
WB2	Warramunga Arr	24.19	239	*e*P	P	17 02 07.8	+0.1
WRA	Warramunga Arr	24.20	239	P	P	17 02 08.5	+0.8
	3.6nm,0.8s,mb3.9,baz=62,slow=8.9,SNR=44						
ASAR	Alice Springs	26.36	232	P	P	17 02 26.9	-0.4
	0.7nm,0.7s,mb3.3,baz=64,slow=8.6,SNR=13						
STKA	Stephens Creek	27.25	208	P	P	17 02 34.6	-0.5
	2.9nm,0.9s,mb3.8,baz=32,slow=13,SNR=2.6						
FITZ	Fitzroy Crossi	31.32	249	P	P	17 03 10.8	-0.7
	1.5nm,0.8s,mb3.9,baz=72,slow=11,SNR=4.7						
MJAR	Matsushiro Arr	47.56	340	P	P	17 05 31.1	+4.8
	0.7nm,0.6s,mb3.9,baz=160,slow=6.6,SNR=4.5						
KSRS	Korea Array	52.52	332	P	P	17 06 03.1	-0.8
	0.8nm,0.8s,mb3.7,baz=141,slow=7.7,SNR=3.6						
HIA	Hailar	65.47	335	P	P	17 07 37.9	+4.4
	4.0nm,0.8s,mb4.5						
MA2	Magadan	67.64	357	*e*P	P	17 07 46.3	-0.8
	3.3nm,0.6s,mb4.5						
ULN	Ulaanbaatar	70.62	327	P	P	17 08 06.7	+0.8
	6.1nm,1.2s,mb4.4						
SONM	Songino Array	70.95	327	P	P	17 08 09.8	+1.9
	0.4nm,0.6s,mb3.5,baz=133,slow=6.0,SNR=3.7						
YAK	Yakutsk	72.94	347	P	P	17 08 17.0	-2.4
	7.2nm,0.8s,mb4.7						
BILL	Bilibino	76.34	4	P	P	17 08 39.1	+0.1
	2.8nm,0.9s,mb4.2						
KDAK	Kodiak Island	77.68	25	LR	LR	17 36 57.4	
	comp=Z,163nm,20.4s,MS4.3,baz=89,slow=31						
QSPA	South Pole Qui	81.83	180	*e*P	P	17 09 09.2	+0.2
	2.8nm,0.8s,mb4.2						
MK31	Makanchi Array	85.06	318	*e*P	P	17 09 26.7	+0.6
MK31				*e*		17 09 32.8	
MKAR	Makanchi Array	85.06	318	P	P	17 09 27.1	+0.9
	0.7nm,0.6s,mb4.0,baz=98,slow=6.3,SNR=12						
ZALV	Zalesovo Beam	85.81	326	P	P	17 09 29.4	-0.3
	0.2nm,0.3s,mb3.8,baz=96,slow=4.3,SNR=2.7						

MAN 24 17:00:38, 6.78N×125.02E, h41^{km}, mb4.6, ML3.5, MS3.5, Mindanao

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MAN 24 17:06:52, 12.60N×123.50E, h15^{km}, mb4.1, ML2.9, MS2.6, Luzon

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*ISCJB **24** 17:07:47.4±0.7, 4.1N±0.1×93.24E±0.08, h24^{km}, mb4.0/19, Error ellipse: s-maj=17.4km s-min=7.1km az=31.6*

*NEIC **24** 17:07:48.7±0.7, 4.07N×93.14E, mb4.2/8, Error ellipse: s-maj=16.7km s-min=9.3km az=211.0*

*IDC **24** 17:07:49.3±0.9, 4.11N×93.17E, h23^{km}±4^{km}, mb3.8/11, mb1 3.9/12, mb1mx3.8/23, mbtmp3.8/12, ML4.3/1, MS2.8/1, Ms1 2.8/1, ms1mx2.7/32, Error ellipse: s-maj=36.0km s-min=12.3km az=48.0*

ISC 24 17:07:49.5±0.7**, 4.1N**±0.1×**93.20E**±0.08**, h25**^{km}**, h25**^{km}±.5^{km}**:pP-P, n26,** σ**$0^{s}.91$**/29**, mb4.0**/19**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	5.86	103	Pn	Pn	17 09 14.4	-0.4
PSI				Sn	Sn	17 10 22.3	+1.1
PSI				LR	LR	17 11 43.1	
PSI	Prapat	5.86	103	Pn	Pn	17 09 14.4	-0.4
	7.2nm,0.3s,baz=283,slow=13,SNR=21						
PSI				Sn	Sn	17 10 22.3	+1.1
	3.7nm,0.3s,baz=233,slow=18,SNR=4.5						
PSI				LR	LR	17 11 43.1	
	comp=Z,101nm,21.2s,baz=148,slow=40						
KULM	Kulim	7.51	81	*e*Pn	Pn	17 09 36.4	-1.1
KULM				*e*Sn	Sn	17 10 55.9	-6.0
PALK	Pallekele	12.82	285	Pn	Pn	17 10 46.2	-4.1
	11nm,1.0s						
CM31	Chiang Mai Arr	15.30	21	*e*Pn	Pn	17 11 24.3	+0.4
CM31				*e*		17 11 29.6	
LSA	Lhasa	25.50	356	*e*P	P	17 13 17.6	+1.7
	3.1nm,0.4s,mb4.2						
LSA				*e*pP	pP	17 13 24.7	+1.2
FITZ	Fitzroy Crossi	38.87	126	P	P	17 15 12.4	-0.7
	0.9nm,0.6s,mb3.7,baz=300,slow=9.5,SNR=4.2						
AAK	Ala-Archa	41.80	339	P	P	17 15 36.4	-0.6
	2.2nm,1.1s,mb3.7						
EKS2	Erkin-Say	42.08	339	P	P	17 15 39.5	+0.1
	2.1nm,1.0s,mb3.7						
MK31	Makanchi Array	43.54	349	*e*P	P	17 15 50.9	-0.2
MK31				*e*pP	pP	17 15 58.0	-0.8
MKAR	Makanchi Array	43.54	349	P	P	17 15 51.1	0.0
	1.1nm,0.5s,mb3.9,baz=166,slow=8.5,SNR=15						
MKAR				pP	pP	17 15 58.1	-0.7
	1.0nm,0.4s,baz=166,slow=9.0,SNR=5.0						
SONM	Songino Array	44.99	13	P	P	17 16 03.4	+0.7
	0.2nm,0.3s,mb3.4,baz=201,slow=7.7,SNR=2.7						
SONM				pP	pP	17 16 10.9	+0.4
	0.3nm,0.5s,baz=197,slow=7.5,SNR=3.7						
SONM				PcP	PcP	17 17 44.2	+0.7
	0.6nm,0.6s,baz=208,slow=3.8,SNR=5.3						
SONM				pPcP		17 17 51.4	
	0.6nm,0.5s,baz=188,slow=2.8,SNR=5.4						
ULN	Ulaanbaatar	45.17	13	*e*P	P	17 16 03.2	-0.9
	0.7nm,0.7s,mb3.6						
WRA	Warramunga Arr	46.96	122	P	P	17 16 18.9	+0.2
	1.7nm,0.7s,mb4.1,baz=299,slow=9.1,SNR=13						
WRA				pP	pP	17 16 26.0	-0.5
	1.3nm,0.7s,baz=302,slow=9.5,SNR=5.1						
KURK	Kurchatov	48.02	348	*e*P	P	17 16 26.4	0.0
	4.0nm,0.7s,mb4.6						
ASAR	Alice Springs	48.33	127	P	P	17 16 29.6	+0.4
	0.3nm,0.7s,mb3.4,baz=295,slow=7.5,SNR=6.4						
ASAR				pP	pP	17 16 37.8	+0.7
	0.5nm,0.8s,baz=298,slow=7.9,SNR=2.6						
ASAR				PcP	PcP	17 17 56.7	+0.8
	0.5nm,0.7s,baz=285,slow=3.8,SNR=4.8						
ASAR				pPcP		17 18 03.2	
	0.4nm,0.7s,baz=295,slow=3.4,SNR=3.3						
ZALV	Zalesovo Beam	50.13	354	P	P	17 16 42.9	+0.4
ZALV				pP	pP	17 16 49.9	-0.5
ZALV	Zalesovo Beam	50.13	354	P	P	17 16 42.9	+0.4
	3.2nm,0.4s,mb4.7,baz=175,slow=6.8,SNR=30						
ZALV				pP	pP	17 16 49.9	-0.5
	3.3nm,0.4s,baz=176,slow=7.1,SNR=15						
BRVK	Borovoye	52.30	343	P	P	17 16 56.2	-2.6
	2.4nm,0.7s,mb4.2						
KIV	Kislovodsk	59.50	320	P	P	17 17 52.4	+1.8
	7.3nm,0.7s,mb4.8						
BRTR	Keskin Array B	64.20	312	P	P	17 18 22.1	-0.2
	0.8nm,0.7s,mb3.9,baz=117,slow=7.1,SNR=4.0						
AKASG	Malin Array Be	70.52	323	P	P	17 19 03.6	+1.4
	0.4nm,0.3s,mb3.8,baz=100,slow=4.8,SNR=4.1						
TIXI	Tiksi	71.06	11	P	P	17 19 03.7	-1.3
	3.0nm,0.5s,mb4.5						
FINES	FINESS Array B	75.58	333	P	P	17 19 31.1	-0.7
	1.9nm,0.8s,mb4.1,baz=116,slow=3.2,SNR=3.5						
ARCES	ARCESS Array B	78.46	341	P	P	17 19 47.8	-0.1
	2.5nm,0.9s,mb4.1,baz=92,slow=6.5,SNR=3.0						
GERES	GERESS Array B	79.99	319	P	P	17 19 56.8	+0.1
	1.3nm,0.8s,mb3.9,baz=100,slow=5.5,SNR=9.1						
GERES				pP	pP	17 20 03.9	-1.0
	1.2nm,0.8s,baz=100,slow=5.8,SNR=5.4						

JMA 24 17:17:14.4±0.4**, 36.99N×141.73E, h32**^{km}**, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONAJ	Iwakimizuishiy	0.75	279	P	Pn	17 17 29.8	+1.0
JFK	Kawauchi	0.78	299	P	Pn	17 17 29.5	+0.3
JFK	Kawauchi	0.78	299	P	Pn	17 17 29.0	-0.2
JFK				S	Sn	17 17 39.5	-0.2
JHO	Hitachi	1.01	248	*e*S	Sn	17 17 50.6	+5.3
JMM	Marumori	1.15	320	P	Pn	17 17 35.6	+1.4
JMM	Marumori	1.15	320	P	Pn	17 17 34.7	+0.5
JMM				*e*S	Sn	17 17 49.1	+0.2
JFT	Otama	1.23	296	P	Pn	17 17 36.8	+1.4
JFT	Otama	1.23	296	P	Pn	17 17 36.8	+1.4
JIO	Ouri	1.49	348	P	Pn	17 17 38.9	-0.1
JIO	Ouri	1.49	348	P	Pn	17 17 38.7	-0.3
JOU	Okura	1.61	329	P	Pn	17 17 43.0	+2.4
JOU				*e*S	Sn	17 18 08.3	+8.0
JMK	Ichinoseki	2.00	349	P	Pn	17 17 46.5	+0.6

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*ISCJB **24** 17:24:42.4±0.5, 37.99N±0.04×39.65E±0.04, h10^{km}, Error ellipse: s-maj=5.6km s-min=4.0km az=24.2*

*ISK **24** 17:24:42.1, 37.99N×39.63E, h5^{km}, MD2.9*

*CSEM **24** 17:24:42.0±0.1, 38.01N×39.64E, h2^{km}, MD3.4, Error ellipse: s-maj=4.3km s-min=3.1km az=174.0*

*DDA **24** 17:24:43.7, 38.03N×39.71E, h5^{km}, Md3.4*

ISC 24 17:24:42.7±0.5**, 37.99N**±0.04×**39.67E**±0.04**, h10**^{km}**, n15,** σ**$0^{s}.98$**/23**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DIYA	Diyarbakir	0.36	100	*i* P	Pg	17 24 50.1	+0.2
DIYA				*i* S	Sg	17 24 55.9	+1.2
ELZG	Elazig	0.74	314	*i* P	Pg	17 24 55.1	-2.0
ELZG				*i* S	Sg	17 25 07.1	+0.3
URFA	Urfa	0.86	231	PG	Pg	17 24 59.8	+0.4
URFA				SG	Sg	17 25 12.3	+1.7
URFA	Urfa	0.86	231	*e*Pg	Pg	17 24 59.8	+0.4
URFA				*e*Sg	Sg	17 25 12.3	+1.7
PTK	Pertek	0.93	347	PG	Pg	17 25 00.7	0.0
PTK				SG	Sg	17 25 15.3	+2.5
PTK	Pertek	0.93	347	*e*Pg	Pg	17 25 00.7	0.0
PTK				*e*Sg	Sg	17 25 15.3	+2.5
MALT	Malatya	1.03	289	PG	Pg	17 25 01.7	-0.9
MALT	Malatya	1.03	289	*e*Pg	Pg	17 25 01.7	-0.9
MYA	Malataya	1.04	290	PG	Pg	17 25 02.3	-0.4
MYA	Malataya	1.04	290	*e*Pg	Pg	17 25 02.3	-0.4
BINT	Bingol	1.10	36	*e*PN	Pn	17 25 04.0	-0.2
BINT	Bingol	1.10	36	*e*Pn	Pn	17 25 04.0	-0.2
MARD	Mardin	1.11	127	*i* P	Pb	17 25 03.4	-0.6
MARD				*i* S	Sg	17 25 17.9	-0.5
BTMT	Batman	1.45	81	*e*PN	Pn	17 25 08.5	-0.5
GZT	Gaziantep	1.78	250	*i* P	Pn	17 25 13.0	-0.6
GZT				*i* S	Sn	17 25 41.7	+5.4

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*WEL **24** 17:31:14.6±0.5, 36.57S×179.98W, h12^{km}, ML3.9/18, Error ellipse: s-maj=6.3km s-min=4.8km az=90.0*

*NEIC **24** 17:31:14.7, 36.60S×179.96W, h12^{km}, ML3.9(WEL), After WEL.*

*IDC **24** 17:31:16.9±3.0, 36.08S×178.95E, h0^{km}, mb3.7/2, mb1 3.9/3, mb1mx3.7/12, mbtmp3.6/3, ML3.2/1, Error ellipse: s-maj=65.3km s-min=32.4km az=110.0*

ISC 24 17:31:10.6±1.4**, 36.6S**±0.1×**179.8W**±0.2**, h10**^{km}**, n23,** σ**$1^{s}.09$**/29**, mb3.5**/2**, East of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	1.83	237	P	Pn	17 31 43.0	+0.9
MXZ				S	Sn	17 32 04.5	-0.9
MXZ	Matakaoa Point	1.83	237	PN	Pn	17 31 43.0	+0.9
MXZ				SN	Sn	17 32 04.5	-0.9
PUZ	Puketiti	2.17	226	P	Pn	17 31 48.6	+1.7
PUZ				S	Sn	17 32 13.5	-0.3
PUZ	Puketiti	2.17	226	PN	Pn	17 31 48.6	+1.8
PUZ				SN	Sn	17 32 13.9	+0.1
MWZ	Matawai	2.78	230	P	Pn	17 31 56.3	+1.1
MWZ				S	Sn	17 32 28.7	-0.1
MWZ	Matawai	2.78	230	PN	Pn	17 31 56.3	+1.1
MWZ				SN	Sn	17 32 27.9	-0.9
URZ	Urewera	3.00	235	*e*P	Pn	17 31 59.4	+1.1
URZ	Urewera	3.00	235	Pn	Pn	17 31 59.6	+1.3
	4.1nm,0.3s,baz=14,slow=14,SNR=25						
URZ				Sn	Sn	17 32 34.4	+0.1
	7.0nm,0.3s,baz=285,slow=23,SNR=14						
URZ	Urewera	3.00	235	PN	Pn	17 31 59.4	+1.2
URZ				SN	Sn	17 32 34.3	0.0
KNZ	Kokohu	3.18	219	*e*P	Pn	17 32 01.2	+0.6
KNZ	Kokohu	3.18	219	PN	Pn	17 32 01.2	+0.5
KUZ	Kuaotunu	3.63	266	*e*P	Pn	17 32 07.9	+1.0
KUZ	Kuaotunu	3.63	266	PN	Pn	17 32 07.9	+1.0
BKZ	Black Stump Fm	3.93	228	*e*P	Pn	17 32 11.8	+0.8
BKZ	Black Stump Fm	3.93	228	PN	Pn	17 32 11.8	+0.7
PXZ	Pawanui	4.36	216	PN	Pn	17 32 17.7	+0.9
TSZ	Takapari Road	4.84	223	PN	Pn	17 32 21.9	-1.6
BFZ	Birch Farm	5.16	216	PN	Pn	17 32 26.2	-1.6
MRZ	Mangatainoka R	5.47	220	*e*PN	Pn	17 32 30.8	-1.4
ASAR	Alice Springs	41.71	275	P	P	17 38 59.2	-0.5
	0.7nm,0.5s,mb3.5,baz=116,slow=7.8,SNR=17						
WRA	Warramunga Arr	43.26	280	P	P	17 39 10.7	-1.7
	0.4nm,0.5s,mb3.4,baz=120,slow=7.7,SNR=7.4						
FINES	FINESS Array B	150.27	335	PKPbc	PKPbc	17 51 06.5	+5.4
FINES	FINESS Array B	150.27	335	PKPbc	PKPbc	17 51 06.5	+5.4
	1.5nm,0.9s,baz=75,slow=5.9,SNR=4.5						

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*IDC **24** 17:36:54.8±1.0, 8.16S×156.42E, h0^{km}, mb4.1/8, mb1 4.2/9, mb1mx4.1/15, mbtmp4.1/9, ML3.9/1, MS3.5/4, Ms1 3.4/4, ms1mx3.0/23, Error ellipse: s-maj=29.8km s-min=23.3km az=112.0*

*ISCJB **24** 17:36:57.8±0.5, 8.2S±0.1×156.49E±0.08, h33^{km}, mb4.2/11, MS3.4/3, Error ellipse: s-maj=15.1km s-min=10.9km az=22.5*

*NEIC **24** 17:36:59.6±0.4, 8.19S×156.49E, h35^{km}, mb4.5/4, Error ellipse: s-maj=12.3km s-min=11.1km az=175.0*

ISC 24 17:36:59.7±0.6**, 8.2S**±0.1×**156.5E**±0.1**, h35**^{km}**, n23,** σ**$0^{s}.78$**/17**, mb4.2**/11**, MS3.4**/3**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	3.63	110	*e*P	Pn	17 37 52.7	-0.8
HNR	Honiara	3.63	110	Pn	Pn	17 37 53.1	-0.4
	9.6nm,0.3s,baz=72,slow=1.5,SNR=8.7						
HNR				Sn	Sn	17 38 44.8	+10
	10nm,0.3s,baz=266,slow=14,SNR=2.3						
CTA	Charters Tower	15.43	219	LR	LR	17 45 38.9	
	comp=Z,137nm,18.6s,baz=50,slow=34						
WB2	Warramunga Arr	24.41	239	*e*P	P	17 42 14.9	-0.2
WRA	Warramunga Arr	24.42	239	P	P	17 42 15.2	0.0
	3.9nm,0.5s,mb4.1,baz=63,slow=9.5,SNR=70						
WRA				PcP	PcP	17 45 55.1	+1.2
	0.5nm,0.7s,baz=64,slow=2.9,SNR=4.5						
WRA				LR	LR	17 51 17.9	
	comp=Z,83nm,19.6s,MS3.2,baz=130,slow=35						
ASAR	Alice Springs	26.55	232	P	P	17 42 33.8	-0.8
	0.9nm,0.7s,mb3.4,baz=62,slow=9.1,SNR=12						
STKA	Stephens Creek	27.35	208	LR	LR	17 52 17.9	
	comp=Z,121nm,19.1s,MS3.5,baz=205,slow=34						
FITZ	Fitzroy Crossi	31.57	249	LR	LR	17 55 08.5	
	comp=Z,75nm,21.1s,MS3.3,baz=122,slow=35						
MJAR	Matsushiro Arr	47.69	340	P	P	17 45 31.5	-1.4
	1.7nm,0.7s,mb4.2,baz=163,slow=9.1,SNR=8.0						
KSRS	Korea Array	52.68	331	P	P	17 46 10.9	+0.2
	1.5nm,0.6s,mb4.1,baz=146,slow=7.3,SNR=11						
HIA	Hailar	65.62	335	P	P	17 47 39.2	-0.9
	4.6nm,0.8s,mb4.6						
ULN	Ulaanbaatar	70.80	327	*e*P	P	17 48 13.4	+0.8
	3.5nm,1.1s,mb4.2						
SONM	Songino Array	71.13	327	P	P	17 48 15.7	+1.1
	1.8nm,0.8s,mb4.1,baz=142,slow=6.5,SNR=17						
QSPA	South Pole Qui	81.80	180	*e*P	P	17 49 15.8	+1.2
	22nm,1.5s,mb4.9						
MK31	Makanchi Array	85.27	318	*e*P	P	17 49 33.0	+0.1
MKAR	Makanchi Array	85.27	318	P	P	17 49 33.6	+0.7
	2.9nm,0.7s,mb4.5,baz=104,slow=6.1,SNR=39						
MKAR				LR	LR	18 23 49.1	
	comp=Z,2µm,21.8s,baz=212,slow=33						
ZALV	Zalesovo Beam	85.99	326	P	P	17 49 35.5	-0.8
ZALV	Zalesovo Beam	85.99	326	P	P	17 49 35.5	-0.8
	0.9nm,0.6s,mb4.2,baz=113,slow=3.9,SNR=5.2						
YKA	Yellowknife Ar	96.69	28	P	P	17 50 26.8	+0.7
	0.1nm,0.3s,mb3.7,baz=265,slow=5.4,SNR=4.3						
GERES	GERESS Array B	128.83	329	PKP	PKPdf	17 56 04.1	+0.5
GERES	GERESS Array B	128.83	329	PKP	PKPdf	17 56 04.1	+0.5
	0.5nm,0.4s,baz=177,slow=1.7,SNR=8.4						
TORD	Torodi Ar. Bea	154.75	283	PKPbc	PKPbc	17 56 58.6	+0.3
TORD				PKPab	PKPab	17 57 13.7	+0.4
TORD	Torodi Ar. Bea	154.75	283	PKPbc	PKPbc	17 56 58.6	+0.3
	0.4nm,0.5s,baz=76,slow=2.6,SNR=3.8						
TORD				PKPab	PKPab	17 57 13.7	+0.4
	0.4nm,0.7s,baz=97,slow=4.5,SNR=3.4						

IDC 24 17:44:55.0±5.7**, 4.38S×152.24E, h146**^{km}±47^{km}**, mb3.0**/3**, mb1 3.4**/4**, mb1mx3.1**/15**, mbtmp3.2**/4**, Error ellipse: s-maj=154.4km s-min=36.5km az=127.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	7.10	225	P	Pn	17 46 36.5	+0.1
	3.5nm,0.3s,baz=27,slow=12,SNR=19						
PMG				S	Sn	17 47 46.0	-10
	1.5nm,0.3s,baz=22,slow=19,SNR=3.6						
WRA	Warramunga Arr	23.31	227	P	P	17 49 49.7	-0.4
	0.3nm,0.4s,baz=52,slow=9.9,SNR=9.2						
ASAR	Alice Springs	26.09	221	P	P	17 50 15.7	+0.5
	0.3nm,0.8s,baz=52,slow=8.7,SNR=7.7						
YKA	Yellowknife Ar	95.32	28	P	P	17 58 01.9	-0.2
	0.3nm,0.7s,baz=264,slow=5.5,SNR=5.4						

IDC 24 17:57:57.7±4.9**, 3.69S×139.40E, h0**^{km}**, mb3.2**/3**, mb1 3.3**/4**, mb1mx3.2**/11**, mbtmp3.2**/4**, ML3.1**/1**, Error ellipse: s-maj=208.8km s-min=28.2km az=89.0, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	16.89	197	Pn	Pn	18 01 55.6	-0.1
	0.1nm,0.3s,baz=18,slow=12,SNR=8.9						
ASAR	Alice Springs	20.56	194	P	P	18 02 38.0	0.0
	0.2nm,0.5s,baz=14,slow=12,SNR=3.7						
SONM	Songino Array	58.89	335	P	P	18 07 57.7	-0.6
	0.2nm,0.4s,baz=136,slow=5.7,SNR=4.3						
MKAR	Makanchi Array	70.98	322	P	P	18 09 18.2	+1.0
	0.5nm,0.9s,baz=100,slow=5.3,SNR=4.0						

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*IDC **24** 18:05:29.4±10.0, 7.49S×117.38E, h314^{km}±113^{km}, mb3.2/6, mb1 3.2/7, mb1mx3.1/18, mbtmp3.1/7, Error ellipse: s-maj=103.2km s-min=25.1km az=60.0*

*ISCJB **24** 18:05:31.1±1.6, 7.4S±0.2×117.6E±0.3, h347^{km}±20^{km}, mb3.5/6, Error ellipse: s-maj=57.0km s-min=11.4km az=146.7*

*NEIC **24** 18:05:31.9±1.2, 7.63S×117.36E, h346^{km}±17^{km}, mb3.9/3, Error ellipse: s-maj=29.8km s-min=7.4km az=59.0*

ISC 24 18:05:32.2±1.5**, 7.3S**±0.1×**117.7E**±0.2**, h336**^{km}±19^{km}**, n13,** σ**$0^{s}.97$**/16**, mb3.5**/6**, Bali Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSM	Kuching	11.43	320	*e*P	Pn	18 08 08.0	+0.5
FITZ	Fitzroy Crossi	13.22	145	P	Pn	18 08 27.0	-1.7
	0.4nm,0.3s,baz=350,slow=15,SNR=15						
FITZ				S	S	18 10 56.3	+2.7
	0.2nm,0.3s,baz=300,slow=20,SNR=6.0						
KKM	Kota Kinabalu	13.35	354	*e*P	Pn	18 08 31.3	+1.0
MBWA	Marble Bar	13.90	172	*e*P	Pn	18 08 30.8	-5.9
MBWA				*e*S	S	18 11 07.8	+0.3
WRA	Warramunga Arr	20.44	130	P	P	18 09 44.7	-0.7
	0.8nm,0.7s,baz=318,slow=10,SNR=23						
WRA				S	S	18 13 30.9	+18
	0.2nm,0.8s,baz=305,slow=16,SNR=2.7						
ASAR	Alice Springs	22.50	138	P	P	18 10 04.0	-0.1
	1.3nm,0.4s,mb3.5,baz=310,slow=8.7,SNR=59						
STKA	Stephens Creek	33.06	141	P	P	18 11 37.1	-0.3
	2.2nm,0.9s,mb3.4						
STKA	Stephens Creek	33.06	141	P	P	18 11 37.3	-0.1
	2.4nm,1.0s,mb3.4,baz=300,slow=15,SNR=4.7						
SONM	Songino Array	55.81	351	P	P	18 14 36.2	+0.9
	0.9nm,0.6s,mb3.3,baz=169,slow=7.8,SNR=11						
MK31	Makanchi Array	62.38	333	*e*P	P	18 15 19.6	-0.5
MKAR	Makanchi Array	62.38	333	P	P	18 15 19.5	-0.6
	0.3nm,0.3s,mb3.3,baz=142,slow=6.1,SNR=8.9						
UCH	Uchtor	63.10	325	*e*P	P	18 15 25.3	+0.5
	2.5nm,0.6s,mb3.9						
ZALV	Zalesovo Beam	67.02	340	P	P	18 15 48.5	-1.1
	1.1nm,0.6s,mb3.8,baz=122,slow=6.0,SNR=5.6						

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*IDC **24** 18:24:43.6±1.5, 1.22N×126.33E, h0^{km}, mb3.9/5, mb1 4.0/6, mb1mx3.7/18, mbtmp3.9/6, ML3.2/1, Error ellipse: s-maj=110.5km s-min=19.0km az=66.0*

*NEIC **24** 18:24:44.9±0.8, 1.16N×126.19E, h10^{km}, mb4.6/3, Error ellipse: s-maj=57.1km s-min=10.4km az=68.0*

*ISCJB **24** 18:24:46.7±1.0, 1.1N±0.2×126.1E±0.5, h33^{km}, mb4.0/8, Error ellipse: s-maj=69.5km s-min=12.5km az=159.2*

ISC 24 18:24:48.9±1.0**, 1.1N**±0.2×**126.1E**±0.4**, h35**^{km}**, n10,** σ**$0^{s}.58$**/10**, mb4.0**/8**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.05	181	P	Pn	18 29 09.8	+0.6
	0.1nm,0.3s,baz=12,slow=9.3,SNR=3.5						
WRA	Warramunga Arr	22.40	159	P	P	18 29 44.2	-0.2
	2.7nm,0.6s,mb3.9,baz=338,slow=11,SNR=31						

ASAR	Alice Springs	25.74	163	P	P	18 30 16.2	0.0
	0.5nm,0.5s,mb3.3,baz=344,slow=6.9,SNR=18						
STKA	Stephens Creek	35.92	157	P	P	18 31 46.3	+0.3
	1.7nm,0.7s,mb4.1,baz=344,slow=6.3,SNR=3.6						
MKAR	Makanchi Array	59.37	326	P	P	18 34 47.9	+0.2
	0.4nm,0.5s,mb3.7,baz=121,slow=7.9,SNR=8.9						
KURK	Kurchatov	63.63	328	*e*P	P	18 35 16.1	-0.2
	2.0nm,0.6s,mb4.3						
AKTK	Aktyubinsk	75.33	322	P	P	18 36 29.2	+0.6
AKTO	Aktyubinsk	75.33	322	P	P	18 36 29.2	+0.6
	0.9nm,0.6s,mb3.9,baz=108,slow=9.1,SNR=4.7						
ARU	Arti	76.82	328	P	P	18 36 36.1	-0.9
	6.0nm,1.2s,mb4.4						
MAW	Mawson	81.04	200	P	P	18 36 58.7	-1.1
	10nm,1.0s,mb4.7						

GUC 24 18:26:27.1±0.8, 33.17S×70.27W, h2^{km}±7^{km}, MD3.5, ML1.8, 2C-6D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FCH	Farellones	0.16	188	⇑*i*P	Pg	18 26 30.6	+0.4
FCH				*i* S	Sg	18 26 33.7	+1.4
FCH				AML	AML	18 26 34.1	
	comp=E,513nm,0.2s						
CLCH	Cerro Calan	0.32	225	*e*P	Pg	18 26 34.8	+1.5
CLCH				*i* S	Sg	18 26 40.1	+2.7
CLCH				AML	AML	18 26 43.7	
	comp=N,304nm,0.3s						
PEL	Peldehue	0.35	274	⇓*i*P	Pg	18 26 33.9	0.0
PEL				*i* S	Sg	18 26 39.3	+0.8
PEL				AML	AML	18 26 45.1	
	comp=N,93nm,0.6s						
PCH	Pirque	0.49	205	⇓*i*P	Pg	18 26 37.2	+0.6
RCDM	Rinconada Maip	0.55	235	⇑*i*P	Pg	18 26 38.1	+0.4
TACH	Talagante	0.74	229	⇓*i*P	Pg	18 26 41.6	+0.3
TACH				*i* S	Sg	18 26 52.0	+1.1
CHCH	Chadas Angostu	0.83	203	⇓*i*P	Pg	18 26 43.2	+0.2
CICH	Cipreses	1.15	186	⇓*i*P	Pg	18 26 49.3	+0.1
CICH				*i* S	Sg	18 27 05.5	+1.3
LNV	Longovilo	1.24	230	⇓*i*P	Pg	18 26 49.8	-1.1
SFDO	San Fernando	1.57	203	*i* P	Pn	18 26 56.0	-0.1
SFDO				*i* S	Sn	18 27 17.8	+0.8

*IDC **24** 18:26:59.4±20.0, 36.61N×71.65E, h60^{km}±101^{km}, mb3.6/3, mb1 3.5/6, mb1mx3.2/23, mbtmp3.5/6, ML3.2/2, Error ellipse: s-maj=227.5km s-min=56.4km az=174.0*

*ISCJB **24** 18:27:05.8±0.8, 37.00N±0.06×71.6E±0.1, h118^{km}±11^{km}, mb3.8/3, Error ellipse: s-maj=14.9km s-min=7.7km az=23.2*

*MOS **24** 18:27:05.7±0.9, 36.99N×71.64E, h117^{km}, mb4.2/1, Error ellipse: s-maj=24.3km s-min=12.2km az=88.6*

*NEIC **24** 18:27:06.1±1.1, 36.90N×71.74E, h114^{km}±12^{km}, mb4.0/4, Error ellipse: s-maj=29.5km s-min=9.5km az=130.0*

*NNC **24** 18:27:10.6±8.8, 37.75N×71.05E, h0^{km}, mb3.7, mpv3.2, Error ellipse: s-maj=68.2km s-min=60.9km az=16.0*

ISC 24 18:27:07.1±0.8, 37.03N±0.05×71.5E±0.1, h107^{km}±10^{km}, n31, σ1^{s}02/40, mb3.8/3, 2C-3D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	Kabul	3.19	220	*e*Pn	Pn	18 27 55.4	-0.1
KBL				*e*Sn	Sn	18 28 22.3	-11
AML	Almayashu	5.37	18	P	Pn	18 28 25.8	+1.0
	SNR=22						
UCH	Uchtor	5.69	23	P	Pn	18 28 30.1	+1.0
	SNR=7.2						
UCH	Uchtor	5.69	23	*e*Pn	Pn	18 28 29.7	+0.6
	2.5nm,0.4s						
UCH				*e*Sn	Sn	18 29 32.7	-0.4
THN	Thein Dam	5.74	142	*e*P	Pn	18 28 27.9	-2.0
THN				*e*S	Sn	18 29 27.6	-6.8
KZA	Kyzart	5.81	29	P	Pn	18 28 32.0	+1.2
	SNR=5.9						
EKS2	Erkin-Say	5.89	17	P	Pn	18 28 33.1	+1.2
	SNR=19						
EKS2	Erkin-Say	5.89	17	*e*Pn	Pn	18 28 32.7	+0.9
	3.0nm,0.4s						
EKS2				*e*Sn	Sn	18 29 38.6	+0.6
AAK	Ala-Archa	6.05	21	P	Pn	18 28 34.9	+0.8
	SNR=16						
AAK	Ala-Archa	6.05	21	*e*Pn	Pn	18 28 33.9	-0.1
	9.9nm,0.4s						
AAK				*e*Sn	Sn	18 29 40.3	-1.5
AAK	Ala-Archa	6.05	21	*e*PN	Pn	18 28 33.9	-0.1
AAK				pmax	pmax		
	comp=Z,10.0nm,0.4s						
KK31	Karatay Array	6.12	353	⇑Pn	Pn	18 28 35.2	+0.3
	comp=Z,5.5nm,0.3s,baz=187,slow=16						
KK31				⇑Sn	Sn	18 29 41.3	-2.2
	comp=Z,4.9nm,0.3s,baz=170,slow=22						
CHMS	Chumysh	6.46	22	P	Pn	18 28 40.6	+1.0
	SNR=6.3						
USP	Ospenovka	6.64	19	P	Pn	18 28 43.2	+1.2
	SNR=5.6						
TKM2	Tokmak 2	6.67	27	P	Pn	18 28 43.3	+0.9
	SNR=6.3						
TKM2	Tokmak 2	6.67	27	⇓Pn	Pn	18 28 43.1	+0.7
	comp=Z,0.2nm,0.5s						
TKM2				⇓Sn	Sn	18 29 56.5	-0.3
	comp=Z,1.3nm,1.2s						
TKM2	Tokmak 2	6.67	27	*e*Pn	Pn	18 28 43.0	+0.6
	comp=Z,4.2nm,0.4s						
TKM2				*e*Sn	Sn	18 29 55.9	-1.0
TKM2	Tokmak 2	6.67	27	*e*PN	Pn	18 28 43.0	+0.6
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.4s						
MKAR	Makanchi Array	12.62	36	P	Pn	18 29 59.5	-3.2
MKAR	Makanchi Array	12.62	36	P	Pn	18 29 59.5	-3.2
	comp=Z,0.0nm,0.3s,baz=225,slow=12,SNR=5.4						
AB31	Akbulak array	14.83	329	Pn	Pn	18 30 29.2	-1.9
	comp=Z,0.5nm,0.3s,baz=138,slow=12,SNR=31						
AB31				⇓Sn	Sn	18 33 03.7	-11
	comp=Z,2.4nm,0.9s,baz=156,slow=24,SNR=5.2						
AKTK	Aktyubinsk	16.54	328	P	Pn	18 30 52.4	0.0
AKTO	Aktyubinsk	16.54	328	P	Pn	18 30 52.4	0.0
	comp=Z,0.4nm,0.3s,baz=138,slow=11,SNR=10						
ZAL	Zalesovo	19.25	24	P	P	18 31 22.6	-0.2
ZALV	Zalesovo Beam	19.27	24	P	P	18 31 22.6	-0.4
	comp=Z,0.2nm,0.3s,baz=217,slow=11,SNR=5.0						
MALT	Malatya	26.15	283	P	P	18 32 31.6	+0.4
FINES	FINESS Array B	37.28	326	P	P	18 34 08.6	+0.4
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	37.28	326	P	P	18 34 08.6	+0.4
	comp=Z,0.6nm,0.4s,mb3.9,baz=121,slow=10.0,SNR=10						
ARCES	ARCESS Array B	40.82	337	P	P	18 34 38.2	+0.7
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	ARCESS Array B	40.82	337	P	P	18 34 38.2	+0.7
	comp=Z,2.3nm,0.8s,mb4.0,baz=119,slow=9.4,SNR=3.3						
NOA	NORSAR Array B	44.21	323	P	P	18 35 05.2	+0.1
	comp=Z,0.4nm,0.4s,mb3.5,baz=96,slow=7.7,SNR=2.9						

SKHL 24 18:31:32.3±0.3, 56.12N×130.28E, h23^{km}±1^{km}, mb3.5/3, 1D, Southeastern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BMKR	Bomnak	1.63	211	*e*Pn	Pn	18 32 00.5	+0.9
BMKR				*e*Pg	Pn	18 32 01.8	+2.2
BMKR				AMB	AMB	18 32 02.0	
	26nm,0.4s						
BMKR				pPg		18 32 08.5	
BMKR				*e*Sn	Sn	18 32 21.1	+1.3
BMKR				*e*Sg	Sn	18 32 23.4	+3.6
BMKR				A		18 32 24.3	
	125nm,0.3s						
KROS	Kirovskiy	2.54	230	⇓*i*Pn	Pn	18 32 12.0	0.0
KROS				*e*Pg	Pn	18 32 17.3	+5.3
KROS				AMB	AMB	18 32 18.8	
	10.0nm,0.5s						
KROS				pPg		18 32 23.2	
KROS				*e*Sn	Sn	18 32 42.5	+0.4
KROS				*e*Sg	Sn	18 32 50.7	+8.6
KROS				A		18 32 52.0	
	23nm,0.4s						
ZEA	Zeya	2.96	217	*e*Pg	Pn	18 32 25.1	+7.3
ZEA				*e*Sg	Sn	18 33 03.4	+11
ZEA				A		18 33 07.7	
	39nm,0.4s						
CLNS	Chul'man	3.07	286	*e*Sg	Sn	18 33 07.5	+12
EKMR	Ekimchan	3.43	152	*e*Pg	Pn	18 32 34.5	+10
EKMR				AMB	AMB	18 32 35.9	
	3.0nm,0.2s						
EKMR				pPg		18 32 39.4	
EKMR				*e*Sg	Sn	18 33 20.3	+16
EKMR				A		18 33 25.5	
	16nm,0.5s						
TUP	Tupik	6.14	258	*e*rx	rx	18 33 27.5	
TUP				*e*Sg	Sn	18 34 43.1	+32
TUP				A		18 35 00.2	
	12nm,0.9s						
NKL	Nikolayevsk	6.73	112	*e*Sg	Sn	18 35 00.5	+35

*IDC **24** 18:37:42.8±1.5, 28.32N×130.88E, h0^{km}, mb4.0/4, mb1 4.1/4, mb1mx3.6/21, mbtmp4.0/4, Error ellipse: s-maj=34.0km s-min=28.5km az=71.0*

*JMA **24** 18:37:43.8±0.1, 28.32N×131.08E, h80^{km}±3^{km}, M2.7*

*ISCJB **24** 18:37:44.2±0.5, 28.33N±0.03×131.05E±0.05, h33^{km}, mb3.9/4, Error ellipse: s-maj=6.3km s-min=3.4km az=19.2*

ISC 24 18:37:45.6±0.6, 28.33N±0.03×131.04E±0.05, h35^{km}, n18, σ0^{s}97/30, mb3.9/4, Southeast of Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JZK	Kikaishima	0.94	269	P	Pn	18 38 02.9	+0.5
JAM	Amami Oshima	1.27	274	P	Pn	18 38 06.9	0.0
JAM				*e*S	Sn	18 38 23.7	+1.0
JNN	Nakanoshima	1.82	326	P	Pn	18 38 14.2	-0.3
JNN				*e*S	Sn	18 38 36.3	-0.1
JTK	Tokunoshima	1.93	254	P	Pn	18 38 16.0	+0.1
JTK				*e*S	Sn	18 38 40.1	+1.2
JKC	Kuchinoerabu	2.25	341	*e*S	Sn	18 38 46.7	-0.3
JTN	Tanegashima 3	2.32	359	P	Pn	18 38 20.9	-0.4
JTN				*e*S	Sn	18 38 48.4	-0.2
JMZ	Minamidaito 2	2.50	176	P	Pn	18 38 22.6	-1.3
JMZ				*e*S	Sn	18 38 51.4	-1.8
JTSR	Tashiro 2	2.83	358	P	Pn	18 38 28.4	0.0
JTSR				*e*S	Sn	18 39 00.6	-0.6
JOW	Kunigami	2.87	239	P	Pn	18 38 28.5	-0.5
JOW				*e*S	Sn	18 39 01.7	-0.6
JOW	Kunigami	2.87	239	Pn	Pn	18 38 28.7	-0.2
	4.5nm,0.3s,baz=76,slow=8.3,SNR=22						
JOW				Sn	Sn	18 39 01.6	-0.7
	3.6nm,0.3s,baz=93,slow=28,SNR=7.3						
JIH	Iheya	3.02	245	P	Pn	18 38 30.5	-0.4
JIH				*e*S	Sn	18 39 05.3	-0.5
JTZ	Takazaki	3.56	1	P	Pn	18 38 38.4	0.0
JTZ				*e*S	Sn	18 39 19.2	-0.1
JIU2	Izumi 2	4.21	357	P	Pn	18 38 47.2	-0.1
JIU2				*e*S	Sn	18 39 34.6	-0.6
JKE	Kume jima 2	4.28	243	P	Pn	18 38 47.3	-1.0
JKE				*e*S	Sn	18 39 36.7	-0.3
PMG	Port Moresby	40.62	155	P	P	18 45 24.6	+2.3
	9.5nm,0.5s,mb4.7,baz=343,slow=8.5,SNR=4.1						
WRA	Warramunga Arr	48.09	176	P	P	18 46 23.9	+1.9
	0.5nm,0.6s,mb3.8,baz=354,slow=8.5,SNR=6.6						
ASAR	Alice Springs	51.76	177	P	P	18 46 52.8	+3.0
	0.3nm,0.7s,mb3.4,baz=335,slow=9.3,SNR=2.9						
FINES	FINESS Array B	72.27	331	P	P	18 49 09.3	+2.2
	1.5nm,0.8s,mb4.0,baz=77,slow=7.3,SNR=4.7						

*ISCJB **24** 18:47:06.7±0.6, 28.8N±0.1×43.64W±0.10, h10^{km}, mb4.0/15, MS3.3/3, Error ellipse: s-maj=17.5km s-min=12.1km az=179.4*

*IDC **24** 18:47:07.0±0.7, 28.74N×43.65W, h0^{km}, mb3.9/13, mb1 4.1/13, mb1mx3.9/24, mbtmp3.9/13, MS3.4/3, Ms1 3.4/3, ms1mx3.0/37, Error ellipse: s-maj=23.7km s-min=16.7km az=170.0*

*NEIC **24** 18:47:08.3±0.5, 28.74N×43.62W, h10^{km}, mb4.9/2, Error ellipse: s-maj=15.1km s-min=10.7km az=184.0*

ISC 24 18:47:08.8±0.5, 28.8N±0.1×43.62W±0.10, h10^{km}, n21, σ1^{s}04/19, mb4.0/15, MS3.3/3, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SJG	San Juan	23.19	248	LR	LR	18 58 10.4	
	comp=Z,49nm,20.4s,MS3.0,baz=126,slow=29						
PCRV	Puerto La Cruz	27.02	231	P	P	18 52 54.6	+3.4
	14nm,0.9s,mb4.5,baz=29,slow=13,SNR=3.0						
MDT	Midelt	33.62	73	LR	LR	19 03 44.9	
	comp=Z,55nm,18.0s,MS3.3,baz=156,slow=30						
ACSO	Alum Creek Sta	34.14	300	P	P	18 53 52.6	-1.3
TKL	Tuckaleechee C	34.48	292	P	P	18 53 55.3	-1.6
	3.9nm,0.5s,mb4.6,baz=153,slow=9.0,SNR=4.3						
TKL				LR	LR	19 05 05.9	
	comp=Z,102nm,21.7s,MS3.5,baz=9.4,slow=31						
BORG	Borgarnes	38.65	15	*e*P	P	18 54 26.6	-5.5
	143nm,1.4s						
TOA0	Torodi Ar. Sit	44.80	101	*e*P	P	18 55 22.4	-0.7
TORD	Torodi Ar. Bea	44.80	101	P	P	18 55 22.5	-0.6
	2.1nm,1.0s,mb3.9,baz=298,slow=7.6,SNR=8.9						
KEST	Kesra	44.88	67	P	P	18 55 24.9	+1.4
	1.8nm,0.9s,mb3.9,baz=277,slow=12,SNR=3.1						
FCC	Fort Churchill	45.58	326	P	P	18 55 32.0	+3.3
	5.7nm,1.3s,mb4.3						
SIV	San Ignacio	47.59	203	P	P	18 55 44.0	-0.8
	1.2nm,0.9s,mb3.9,baz=2.2,slow=7.7,SNR=4.9						
LPAZ	La Paz	50.67	211	P	P	18 56 09.0	+0.5
	2.1nm,1.1s,mb4.0,baz=9.8,slow=8.8,SNR=5.5						
TXAR	Lajitas Array	51.97	286	P	P	18 56 18.9	+0.7
	0.7nm,0.9s,mb3.6,baz=93,slow=6.7,SNR=4.1						
PDAR	Pinedale Array	54.02	304	P	P	18 56 32.9	-0.3
	3.2nm,1.1s,mb4.2,baz=95,slow=6.4,SNR=10.0						
FINES	FINESS Array B	55.51	33	P	P	18 56 43.7	0.0
	2.6nm,1.0s,mb4.2,baz=247,slow=5.6,SNR=3.0						
YKA	Yellowknife Ar	56.16	328	P	P	18 56 48.1	-0.2
	0.2nm,0.7s,mb3.2,baz=94,slow=7.5,SNR=6.0						
AKASG	Malin Array Be	57.71	46	P	P	18 56 58.5	-1.0
	0.4nm,0.4s,mb3.8,baz=273,slow=5.5,SNR=2.8						
NVAR	Mina Array Bea	61.41	300	P	P	18 57 26.2	+1.0
	0.2nm,0.3s,mb3.7,baz=84,slow=6.9,SNR=4.3						
BRTR	Keskin Array B	62.99	58	P	P	18 57 35.7	-0.2
	1.5nm,1.0s,mb4.1,baz=291,slow=5.2,SNR=3.8						
MKAR	Makanchi Array	90.34	34	P	P	19 00 11.3	+1.2
MKAR	Makanchi Array	90.34	34	P	P	19 00 11.3	+1.2
	0.1nm,0.3s,mb3.6,baz=282,slow=2.8,SNR=4.7						

*IDC **24** 18:51:13.1±0.6, 8.12S×156.33E, h0^{km}, mb4.7/13, mb1 4.7/15, mb1mx4.7/19, mbtmp4.6/15, ML3.1/1, MS4.2/5, Ms1 4.2/5, ms1mx3.8/27, Error ellipse: s-maj=20.1km s-min=15.1km az=77.0*

*BJI **24** 18:51:15.1, 7.95S×156.21E, h22^{km}, mB5.3, mb5.1, Ms4.8, Msz4.2*

*ISCJB **24** 18:51:16.2±0.3, 8.07S±0.05×156.35E±0.05, h33^{km}, mb4.8/31, MS4.2/3, Error ellipse: s-maj=8.0km s-min=6.6km az=42.6*

*NEIC **24** 18:51:17.3±0.3, 8.10S×156.40E, h30^{km}, mb5.0/20, Error ellipse: s-maj=10.0km s-min=7.5km az=83.0*

ISC 24 18:51:20.1±1.3, 8.12S±0.06×156.34E±0.06, h53^{km}±13^{km}, n72, σ1^{s}00/53, mb4.8/31, MS4.2/3, 1D, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	Honiara	3.80	110	*e*P	Pn	18 52 10.2	-6.0
HNR	Honiara	3.80	110	Pn	Pn	18 52 11.1	-5.1
	7.4nm,0.3s,baz=274,slow=1.1,SNR=13						
HNR				Sn	Sn	18 52 59.6	0.0
	22nm,0.3s,baz=279,slow=4.8,SNR=5.3						
HNR				LR	LR	18 53 40.0	
	comp=Z,3µm,22.0s,baz=359,slow=39						
PMG	Port Moresby	9.16	261	*e*Pn	Pn	18 53 29.8	0.0
PMG	Port Moresby	9.16	261	Pn	Pn	18 53 30.4	+0.6
	0.0nm,0.3s,baz=87,slow=21,SNR=2.6						
CTA	Charters Tower	15.39	218	*e*P	Pn	18 54 59.4	+5.4
	13nm,0.9s						
CTA				*e*		18 55 04.5	
CTA	Charters Tower	15.39	218	Pn	Pn	18 54 57.1	+3.2
	0.3nm,0.3s,baz=46,slow=13,SNR=6.1						
CTAO	Charters Tower	15.39	218	*e*P	Pn	18 54 57.8	+3.8
	81nm,1.0s						
DZM	Mont Dzumac	16.94	146	Pn	Pn	18 55 12.2	-1.4
DZM				LR	LR	19 00 32.0	
DZM	Mont Dzumac	16.94	146	Pn	Pn	18 55 12.2	-1.4
	0.1nm,0.3s,baz=216,slow=8.6,SNR=2.5						
DZM				LR	LR	19 00 32.0	
	comp=Z,456nm,18.0s,baz=235,slow=33						
ARMA	Armidale	22.62	191	*e*P	P	18 56 17.4	+1.0
KAKA	Kakadu	23.94	257	*e*P	P	18 56 29.5	0.0
	40nm,0.3s,mb5.3						
KAKA	Kakadu	23.94	257	*e*P	P	18 56 28.5	-1.0
	12nm,0.3s,mb4.8						
WB2	Warramunga Arr	24.32	239	⇓*i*P	P	18 56 32.8	-0.1
WB2				*e*		18 56 38.7	
WRA	Warramunga Arr	24.33	239	P	P	18 56 32.7	-0.4
	14nm,0.6s,mb4.5,baz=64,slow=9.4,SNR=123						
WRA				LR	LR	19 05 23.1	
	comp=Z,760nm,21.7s,MS4.2,baz=25,slow=35						
ASAR	Alice Springs	26.48	232	P	P	18 56 51.3	-1.2
	2.6nm,0.7s,mb3.9,baz=64,slow=8.7,SNR=39						
STKA	Stephens Creek	27.33	208	*e*P	P	18 57 01.3	+1.2
	12nm,0.8s,mb4.5						
STKA	Stephens Creek	27.33	208	P	P	18 57 01.5	+1.4
	4.6nm,0.8s,mb4.1,baz=22,slow=14,SNR=7.5						
AFI	Afiamalu	31.80	103	LR	LR	19 07 59.7	
	comp=Z,645nm,20.6s,MS4.3,baz=262,slow=32						
FORT	Forrest	34.73	226	*e*P	P	18 58 01.9	-3.3
	44nm,0.9s,mb5.4						
TAU	Tasmania Unive	35.55	191	P	P	18 58 12.2	+0.1
	71nm,1.4s,mb5.4						
RPZ	Rata Peaks	37.72	162	P	P	18 58 30.2	-0.4
	23nm,0.8s,mb5.0,baz=73,slow=2.9,SNR=7.6						
KKM	Kota Kinabalu	42.42	288	P	P	18 59 07.6	-2.4
NWAO	Narrogin (SRO)	43.77	230	P	P	18 59 21.9	+1.2
	17nm,0.9s,mb4.8						
MJAR	Matsushiro Arr	47.58	340	P	P	18 59 49.7	-0.9
	5.5nm,0.7s,mb4.7,baz=166,slow=9.0,SNR=18						
MAJO	Matsushiro	47.58	340	*e*P	P	18 59 49.7	-0.9
	10nm,0.7s,mb5.0						
MAT	Matsushiro	47.58	340	P	P	18 59 49.6	-1.0
JNU	Nakatsue	47.63	331	P	P	18 59 51.1	0.0
	31nm,0.8s,mb5.4,baz=126,slow=5.0,SNR=17						
KSRS	Korea Array	52.55	332	P	P	19 00 28.6	+0.3
	4.9nm,0.7s,mb4.6,baz=144,slow=6.8,SNR=28						
PPT	Papeete	53.41	106	*e*S	S	19 08 01.4	-2.3
	109nm,31.0s						
PPT				*e*LR	LR	19 15 55.8	
	547nm,30.2s						
PPT	Papeete	53.41	106	LR	LR	19 18 48.7	
	comp=Z,171nm,21.1s,MS4.1,baz=98,slow=31						
ASAJ	Asahikawa	53.46	348	P	P	19 00 35.4	+0.5
	7.2nm,0.8s,mb4.7,baz=209,slow=9.1,SNR=5.6						
YSS	Yuzh-Sakhalins	56.15	349	*e*P	P	19 00 54.1	-0.1
	9.1nm,0.8s,mb4.9						
CN2	Changchun	58.77	334	*e*P	P	19 01 12.1	-0.7
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
CM31	Chiang Mai Arr	62.47	296	P	P	19 01 34.2	-4.3
	comp=Z,3.8nm,0.8s,mb4.6						
HIA	Hailar	65.50	335	*e*P	P	19 01 58.4	+0.6
	comp=Z,24nm,0.9s,mb5.2						
HIA				*e*		19 02 04.1	
RKT	Rikitea	67.29	112	*e*LR	LR	19 22 19.3	
	comp=Z,297nm,27.0s						
MA2	Magadan	67.62	357	*e*P	P	19 02 10.4	-0.6
	comp=Z,8.1nm,0.8s,mb4.8						
ULN	Ulaanbaatar	70.66	327	*e*P	P	19 02 31.2	+1.0
	comp=Z,32nm,1.3s,mb5.1						
SONM	Songino Array	71.00	327	P	P	19 02 33.8	+1.6
	comp=Z,5.5nm,0.8s,mb4.5,baz=137,slow=6.2,SNR=46						
YAK	Yakutsk	72.94	347	*e*P	P	19 02 43.7	+0.2
	comp=Z,33nm,1.0s,mb5.2						
TLY	Talaya	74.70	329	*e*P	P	19 02 54.4	+0.3
	comp=Z,15nm,1.2s,mb4.8						
BILL	Bilibino	76.30	4	*e*P	P	19 03 02.8	-0.1
	comp=Z,28nm,1.3s,mb5.0						
BILL				*e*		19 03 09.0	
TIXI	Tiksi	81.65	352	*e*P	P	19 03 31.3	-0.8
	comp=Z,23nm,1.8s,mb4.8						
QSPA	South Pole Qui	81.86	180	*e*P	P	19 03 33.2	0.0
	comp=Z,24nm,0.9s,mb5.1						
QSPA				*e*		19 03 38.7	
MCK	McKinley	82.60	21	*e*P	P	19 03 36.4	-0.9
	comp=Z,15nm,1.4s,mb4.8						
MK31	Makanchi Array	85.12	318	*e*P	P	19 03 50.7	+0.2
MKAR	Makanchi Array	85.12	318	P	P	19 03 51.1	+0.6
	comp=Z,9.1nm,0.7s,mb5.0,baz=103,slow=5.9,SNR=121						
ZALV	Zalesovo Beam	85.85	326	P	P	19 03 53.5	-0.5
ZALV	Zalesovo Beam	85.85	326	P	P	19 03 53.5	-0.5
	comp=Z,3.2nm,0.7s,mb4.7,baz=114,slow=5.6,SNR=20						
DAWY	Dawson	86.39	23	*e*P	P	19 03 57.4	+1.0
MTUM	Tungsten Hills	90.99	53	*e*P	P	19 04 20.3	+1.5
NVAR	Mina Array Bea	91.37	52	P	P	19 04 22.8	+2.2
	comp=Z,1.4nm,0.8s,mb4.3,baz=243,slow=4.3,SNR=10						
QUE	Quetta	93.50	300	*e*P	P	19 04 34.0	+3.4
BRVK	Borovoye	94.06	323	*e*P	P	19 04 31.4	-1.2
	comp=Z,13nm,1.6s,mb5.1						
YKA	Yellowknife Ar	96.70	28	P	P	19 04 44.8	+0.4
	comp=Z,1.0nm,0.8s,mb4.3,baz=266,slow=4.8,SNR=18						
AKASG	Malin Array Be	119.22	324	PKP	PKPdf	19 10 03.8	+0.5
AKASG	Malin Array Be	119.22	324	PKP	PKPdf	19 10 03.8	+0.5
	comp=Z,2.8nm,0.7s,baz=61,slow=1.9,SNR=4.9						
CLL	Collm	127.43	332	*i*	PKPdf	19 10 20.2	+1.2
KHC	Kasperske Hory	128.58	329	*e*P	PKPdf	19 10 22.5	+1.2
KHC				*e*		19 10 28.0	
KHC	Kasperske Hory	128.58	329	*e*PKPdf	PKPdf	19 10 22.5	+1.2
KHC				x	x	19 10 28.0	
GERES	GERESS Array B	128.70	329	PKP	PKPdf	19 10 23.3	+1.8
GERES	GERESS Array B	128.70	329	PKP	PKPdf	19 10 23.3	+1.8
	comp=Z,1.3nm,0.7s,baz=90,slow=1.3,SNR=13						
LPAZ	La Paz	129.75	119	PKP	PKPdf	19 10 26.5	+2.0
LPAZ	La Paz	129.75	119	PKP	PKPdf	19 10 26.5	+2.0
	comp=Z,0.8nm,0.6s,baz=162,slow=1.9,SNR=4.7						
DAVOX	Davos/Dischmat	132.00	329	PKP	PKPdf	19 10 29.2	+1.3
DAVOX	Davos/Dischmat	132.00	329	PKP	PKPdf	19 10 29.2	+1.3
	comp=Z,3.0nm,0.7s,baz=63,slow=2.5,SNR=4.8						
SJG	San Juan	137.54	72	PKP	PKPdf	19 10 39.7	+0.7
SJG	San Juan	137.54	72	PKP	PKPdf	19 10 39.7	+0.7
	comp=Z,3.4nm,0.3s,baz=286,slow=1.9,SNR=2.4						
ESDC	Sonseca Array	143.97	334	PKP	PKPdf	19 10 48.6	-1.4
ESDC	Sonseca Array	143.97	334	PKP	PKPdf	19 10 48.6	-1.4
	comp=Z,0.9nm,0.7s,baz=59,slow=3.5,SNR=3.5						
TORD	Torodi Ar. Bea	154.59	284	PKP	PKPdf	19 11 08.1	+0.4
TORD				PKPbc	PKPbc	19 11 16.1	0.0
TORD				PKPab	PKPab	19 11 30.6	-0.3
TORD	Torodi Ar. Bea	154.59	284	PKP	PKPdf	19 11 08.1	+0.4
	comp=Z,0.8nm,1.0s,baz=27,slow=1.7,SNR=3.9						
TORD				PKPbc	PKPbc	19 11 16.1	0.0
	comp=Z,1.3nm,0.7s,baz=59,slow=0.9,SNR=24						
TORD				PKPab	PKPab	19 11 30.6	-0.3
	comp=Z,2.4nm,0.8s,baz=73,slow=3.1,SNR=4.5						

*BJI **24** 18:53:35.6, 1.70S×127.35E, h38^{km}, mB5.4, mb5.2, Ms4.6, Msz4.4*

*ISCJB **24** 18:53:40.5±0.9, 0.98S±0.02×126.97E±0.03, h28^{km}±6^{km}, mb5.3/110, MS4.2/24, Error ellipse: s-maj=5.3km s-min=3.9km az=159.7*

*MOS **24** 18:53:41.7±1.3, 0.93S×126.86E, h33^{km}, mb5.3/36, Error ellipse: s-maj=10.7km s-min=6.1km az=111.8*

*GCMT **24** 18:53:43.5±0.2, 1.01S×126.97E, h24^{km}±1^{km}, MW5.2/74, Moment Tensor Solution. s39,c51; s74,c120; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.15±.24; M$_{\theta\theta}$-1.00±.15; M$_{\phi\phi}$1.15±.20; M$_{r\theta}$3.00±.33; M$_{\theta\phi}$6.18±.17; M$_{\phi r}$-2.95±.34; Best double couple: M$_0$7.35800×10^{16} NP1:φ$_s$261.00000°,δ68.00000°,λ-17.00000°. NP2: φ$_s$358.00000°,δ74.00000°,λ-158.00000°. Principal axes: T 6.3700, Plg4.0000°, Azm129.0000°; N 1.9770, Plg63.0000°, Azm32.0000°; P -8.3450, Plg27.0000°, Azm221.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **24** 18:53:43.7±1.4, 1.07S×126.90E, h39^{km}±11^{km}, mb5.0/27, mb1 4.9/28, mb1mx4.9/30, mbtmp4.9/28, ML4.1/1, MS4.2/10, Ms1 4.2/10, ms1mx4.0/26 Error ellipse: s-maj=14.9km s-min=7.3km az=71.0*

*NEIC **24** 18:53:43.5±0.1, 0.99S×126.91E, mb5.2/52, Error ellipse: s-maj=5.8km s-min=3.8km az=71.0*

NEIC Felt [IV] at Labuha, Indonesia.

ISC 24 18:53:44.1±0.6, 1.00S±0.03×126.97E±0.03, h42^{km}±5^{km}, h45^{km}±4.2^{km}:pP-P, n366, σ1^{s}05/320, mb5.3/110, MS4.2/24, 22C-48D, Southern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAI	Ambon	2.94	155	P	Pn	18 54 28.8	+0.5
	3µm,0.8s						
PCI	Palu	7.13	271	P	Pn	18 55 24.6	-1.3
	996nm,0.9s						

DAV	**Davao City (W)**	**8.14**	**350**	*e*Pn	**Pn**	**18 55 43.8**	**+4.1**
	256nm,0.7s						
MYLDM	**Lahad Datu**	**10.45**	**306**	⇓P	**Pn**	**18 56 14.5**	**+3.0**
TSM	**Tawau**	**10.50**	**300**	⇑P	**Pn**	**18 56 10.9**	**-1.2**
WSI	**Waingapu**	**10.87**	**217**	P	**Pn**	**18 56 19.4**	**+2.2**
	811nm,1.2s						
SDKM	**Sandakan**	**11.78**	**304**	⇑P	**Pn**	**18 56 33.2**	**+3.5**
KDM	**Kudat**	**12.81**	**308**	⇓P	**Pn**	**18 56 42.8**	**-1.0**
KKM	**Kota Kinabalu**	**12.81**	**303**	*e*Pn	**Pn**	**18 56 42.7**	**-1.1**
KKM	**Kota Kinabalu**	**12.81**	**303**	⇑P	**Pn**	**18 56 44.2**	**+0.4**
KAKA	**Kakadu**	**12.84**	**155**	*e*Pn	**Pn**	**18 56 42.6**	**-1.5**
KAKA				*e*Sn	**Sn**	**18 58 59.3**	**-6.4**
BTM	**Bintulu**	**14.49**	**287**	⇓P	**Pn**	**18 57 07.1**	**+0.4**
SBUM	**Sibu**	**15.14**	**283**	⇑P	**Pn**	**18 57 16.0**	**+0.9**
KRKI	**Karangkates**	**16.11**	**243**	P	**Pn**	**18 57 30.0**	**+2.2**
	443nm,0.8s						
KSM	**Kuching**	**16.84**	**278**	*e*Pn	**Pn**	**18 57 35.2**	**-1.7**
KSM	**Kuching**	**16.84**	**278**	⇑P	**Pn**	**18 57 35.7**	**-1.2**
FITZ	**Fitzroy Crossi**	**17.04**	**184**	*e*P	**Pn**	**18 57 35.9**	**-3.5**
	67nm,0.6s						
FITZ				*e*S	**S**	**19 00 47.5**	**-8.8**
FITZ	**Fitzroy Crossi**	**17.04**	**184**	Pn	**Pn**	**18 57 36.2**	**-3.2**
	0.6nm,0.3s,baz=19,slow=12,SNR=24						
FITZ				LR	LR	19 04 32.6	
	comp=Z,598nm,21.4s,baz=11,slow=38						
BJII	**Banjamegara**	**18.32**	**249**	P	**Pn**	**18 57 56.6**	**+1.4**
	808nm,1.9s						
TPI	**Tanjungpandan**	**19.38**	**265**	P	**Pn**	**18 58 06.7**	**-1.3**
	269nm,1.1s						
LEM	**Lembang**	**20.14**	**253**	P	**P**	**18 58 14.8**	**-0.1**
	247nm,1.2s						
WRA	**Warramunga Arr**	**20.16**	**159**	P	**P**	**18 58 14.0**	**-1.0**
WRA				S	**S**	**19 01 54.9**	**-4.3**
WRA	**Warramunga Arr**	**20.16**	**159**	P	**P**	**18 58 14.0**	**-1.0**
	42nm,0.7s,baz=342,slow=11,SNR=111						
WRA				S	**S**	**19 01 54.9**	**-4.3**
	17nm,1.0s,baz=341,slow=23,SNR=8.2						
WRA				ScP	ScP	19 06 03.0	+1.1
	2.0nm,0.9s,baz=322,slow=2.6,SNR=5.7						
WB2	**Warramunga Arr**	**20.16**	**159**	*e*P	**P**	**18 58 13.9**	**-1.1**
WB2				*e*S	**S**	**19 01 51.7**	**-7.6**
MBWA	**Marble Bar**	**21.24**	**199**	⇓*i*P	**P**	**18 58 25.9**	**-0.8**
	284nm,0.9s,mb5.6						
MBWA	**Marble Bar**	**21.24**	**199**	P	**P**	**18 58 25.9**	**-0.7**
	SNR=40						
SBJI	**Serang**	**21.40**	**256**	P	**P**	**18 58 28.6**	**+0.1**
	770nm,1.6s,mb5.8						
PMG	**Port Moresby**	**21.76**	**113**	*e*P	**P**	**18 58 34.8**	**+2.5**
	73nm,0.8s,mb5.2						
PMG	**Port Moresby**	**21.76**	**113**	⇑*e*P	**P**	**18 58 35.4**	**+3.1**
PMG	**Port Moresby**	**21.76**	**113**	P	**P**	**18 58 34.4**	**+2.1**
	48nm,0.8s,mb5.0,baz=308,slow=5.9,SNR=16						
GUMO	**Guam**	**22.91**	**50**	*e*P	**P**	**18 58 45.3**	**+0.7**
	117nm,1.0s,mb5.3						
GUMO	**Guam**	**22.91**	**50**	*e*P	**P**	**18 58 45.3**	**+0.7**
GUMO				pmax	pmax		
	comp=Z,117nm,1.0s,mb5.3						
GUMO	**Guam**	**22.91**	**50**	LR	LR	19 05 59.5	
	comp=Z,517nm,21.2s,MS4.0,baz=338,slow=32						
XMIS	**Christmas Isla**	**23.18**	**245**	⇓*i*P	**P**	**18 58 44.8**	**-2.7**
MYKOM	**Kota Tinggi**	**23.28**	**277**	⇑P	**P**	**18 58 49.5**	**+1.0**
ASAR	**Alice Springs**	**23.51**	**164**	P	**P**	**18 58 49.7**	**-0.8**
ASAR				S	**S**	**19 03 00.6**	**-0.7**
ASAR	**Alice Springs**	**23.51**	**164**	P	**P**	**18 58 49.7**	**-0.8**
	comp=Z,56nm,0.8s,mb5.1,baz=343,slow=11,SNR=147						
ASAR				S	**S**	**19 03 00.6**	**-0.7**
	comp=Z,8.0nm,0.9s,baz=347,slow=24,SNR=4.2						
ASAR				ScP	ScP	19 06 11.7	+1.3
	comp=Z,1.9nm,0.5s,baz=354,slow=2.9,SNR=5.3						
KGM	**Kluang**	**23.83**	**277**	⇓P	**P**	**18 58 53.4**	**-0.2**
KSI	**Kapahiang**	**24.49**	**263**	P	**P**	**18 58 59.7**	**+0.1**
	comp=Z,771nm,0.8s,mb6.2						
KTGM	**Kuala Trenggan**	**24.62**	**285**	⇓P	**P**	**18 59 01.9**	**+1.1**
NACB	**Ninganchiao**	**25.56**	**349**	*e*P	**P**	**18 59 08.3**	**-0.8**
FRIM	**Kepong**	**25.68**	**280**	⇓P	**P**	**18 59 11.5**	**+1.1**
QIZ	**Qiongzhong**	**26.06**	**321**	P	**P**	**18 59 13.8**	**0.0**
QIZ				S	**S**	**19 03 42.3**	**+0.1**
QIZ				XS	sS	19 04 04.8	+3.5
QIZ				LR	LR		
	comp=N,328nm,16.0s						
QIZ				LR	LR		
	comp=Z,424nm,19.4s,MS4.0						
QIZ	**Qiongzhong**	**26.06**	**321**	*e*P	**P**	**18 59 14.0**	**+0.2**
	comp=Z,50nm,1.3s,mb4.9						
YHNB	**Yeheng**	**26.09**	**348**	*e*P	**P**	**18 59 13.7**	**-0.3**
IPM	**Ipoh**	**26.48**	**282**	⇑P	**P**	**18 59 18.2**	**+0.4**
PPI	**Padang Panjang**	**26.57**	**271**	P	**P**	**18 59 18.9**	**+0.4**
	comp=Z,134nm,1.1s,mb5.4						
CTA	**Charters Tower**	**26.75**	**136**	*e*P	**P**	**18 59 24.3**	**+4.3**
	comp=Z,28nm,0.9s,mb4.8						
CTA	**Charters Tower**	**26.75**	**136**	*e*P	**P**	**18 59 24.3**	**+4.3**
CTA				pmax	pmax		
	comp=Z,28nm,0.9s						
CTA	**Charters Tower**	**26.75**	**136**	P	**P**	**18 59 24.1**	**+4.0**
	comp=Z,24nm,0.8s,mb4.8,baz=311,slow=11,SNR=11						
CTAO	**Charters Tower**	**26.75**	**136**	⇑*e*P	**P**	**18 59 23.5**	**+3.5**
	comp=Z,52nm,1.0s,mb5.0						
CTAO	**Charters Tower**	**26.75**	**136**	⇑*e*P	**P**	**18 59 23.5**	**+3.5**
CTAO				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.0						
KULM	**Kulim**	**27.02**	**284**	⇓*e*P	**P**	**18 59 21.5**	**-1.0**
KULM				*e*PcP	PcP	19 02 44.4	+1.0
KULM	**Kulim**	**27.02**	**284**	⇓P	**P**	**18 59 22.6**	**+0.1**
QZH	**Quanzhou**	**27.04**	**343**	⇑*i*P	**P**	**18 59 25.1**	**+2.6**
QZH				S	**S**	**19 03 58.0**	**+0.5**
QZH				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.1						
JOW	**Kunigami**	**27.70**	**3**	P	**P**	**18 59 29.3**	**+0.9**
	comp=Z,142nm,0.8s,mb5.6,baz=184,slow=8.1,SNR=31						
JOW				LR	LR	19 09 44.3	
	comp=Z,324nm,21.9s,baz=81,slow=35						
PSI	**Prapat**	**28.29**	**278**	P	**P**	**18 59 33.6**	**-0.3**
PSI				PcP	PcP	19 02 46.9	+0.4
PSI				ScP	ScP	19 06 25.0	+0.6
PSI	**Prapat**	**28.29**	**278**	P	**P**	**18 59 33.6**	**-0.3**
PSI						19 02 46.9	
PSI	**Prapat**	**28.29**	**278**	P	**P**	**18 59 33.6**	**-0.3**
	comp=Z,91nm,0.8s,mb5.5,baz=111,slow=5.1,SNR=15						
PSI				PcP	PcP	19 02 46.9	+0.4
	comp=Z,9.8nm,0.8s,baz=91,slow=4.9,SNR=3.6						
PSI				ScP	ScP	19 06 25.0	+0.6
	comp=Z,4.6nm,0.9s,baz=134,slow=3.2,SNR=4.0						
KKTK	**Khon Kaen**	**29.41**	**307**	⇑P	**P**	**18 59 43.5**	**-0.3**
	comp=Z,247nm,0.6s,mb6.1						
FORT	**Forrest**	**29.63**	**178**	*e*P	**P**	**18 59 45.6**	**0.0**
	comp=Z,103nm,0.6s,mb5.7						
NST	**Nakhon Sawan**	**31.27**	**303**	P	**P**	**19 00 00.0**	**-0.2**
CBIJ	**Chichi jima**	**31.54**	**27**	LR	LR	19 10 18.1	
	comp=Z,553nm,21.3s,MS4.2,baz=294,slow=31						
KLBR	**Kellerberrin**	**31.65**	**195**	*e*P	**P**	**19 00 02.3**	**-1.1**
	comp=Z,21nm,0.6s,mb5.1						
BSI	**Banda Aceh**	**32.28**	**282**	P	**P**	**19 00 07.6**	**-1.6**
	comp=Z,32nm,1.1s,mb5.1						
SSE	**Sheshan**	**32.39**	**351**	P	**P**	**19 00 11.0**	**+1.1**
SSE				S	**S**	**19 05 26.0**	**+4.7**
SSE				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.0						
SSE				AMB	AMB		
	comp=Z,135nm,5.3s						
SSE				LR	LR		
	comp=N,69nm,31.4s						
SSE				LR	LR		
	comp=E,267nm,31.0s						
SSE				LR	LR		
	comp=Z,224nm,25.7s,MS3.8						
SSE	**Sheshan**	**32.39**	**351**	P	**P**	**19 00 11.0**	**+1.1**
	comp=Z,20nm,0.8s						
SSE				S	**S**	**19 05 26.0**	**+4.7**
SSE				LR	LR		
	comp=Z,220nm,25.7s						
MUN	**Mundaring**	**32.44**	**197**	*e*P	**P**	**19 00 09.4**	**-0.9**
BDT	**Bhumibol Dam**	**32.99**	**305**	P	**P**	**19 00 15.0**	**-0.3**
NWAO	**Narrogin (SRO)**	**33.05**	**195**	*e*P	**P**	**19 00 14.3**	**-1.4**
	comp=Z,29nm,1.0s,mb5.2						
NWAO	**Narrogin (SRO)**	**33.05**	**195**	*e*P	**P**	**19 00 14.3**	**-1.3**
NWAO				pmax	pmax		
	comp=Z,29nm,1.0s						
NWAO	**Narrogin (SRO)**	**33.05**	**195**	P	**P**	**19 00 13.5**	**-2.1**
	comp=Z,27nm,0.8s,mb5.2,baz=13,slow=8.9,SNR=7.5						
WHN	**Wuhan**	**33.59**	**340**	⇓P	**P**	**19 00 22.0**	**+1.6**
GYA	**Guiyang**	**33.60**	**326**	P	**P**	**19 00 21.6**	**+1.1**
GYA				AP	pP	19 00 36.6	+4.6
GYA				PP	PP	19 01 37.0	-0.2
GYA				PPP		19 01 54.8	
GYA				S	**S**	**19 05 41.3**	**+1.0**
GYA				XS	sS	19 06 04.8	+5.3
GYA				SCP	ScP	19 06 41.3	-0.4
GYA				PCS	PcS	19 06 47.0	+0.8
GYA				SCS	ScS	19 10 40.9	-2.2
GYA				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.3						
GYA				AMB	AMB		
	comp=Z,180nm,8.0s						
GYA				LR	LR		
	comp=N,870nm,18.4s,MS4.6						
GYA				LR	LR		
	comp=E,680nm,17.2s,MS4.6						
GYA				LR	LR		
	comp=Z,740nm,17.4s,MS4.5						
CM31	**Chiang Mai Arr**	**33.66**	**306**	*e*P	**P**	**19 00 20.1**	**-1.1**
	comp=Z,5.9nm,0.8s,mb4.6						
CM31				*e*PcP	PcP	19 03 02.0	+1.3
STKA	**Stephens Creek**	**33.67**	**157**	⇓*i*P	**P**	**19 00 22.0**	**+0.9**
	comp=Z,71nm,0.6s,mb5.8						
STKA				*e*pP	pP	19 00 32.1	-0.5
STKA				*e*S	**S**	**19 05 42.0**	**+0.7**
STKA	**Stephens Creek**	**33.67**	**157**	P	**P**	**19 00 22.1**	**+1.0**
	comp=Z,101nm,0.7s,mb5.8,baz=328,slow=8.9,SNR=132						
STKA				LR	LR	19 15 31.3	
	comp=Z,770nm,18.3s,MS4.5,baz=229,slow=39						
NJ2	**Nanjing**	**33.76**	**348**	*e*P	**P**	**19 00 23.3**	**+1.5**
NJ2				AP	pP	19 00 35.3	+1.9
NJ2				XP	sP	19 00 40.8	+2.4
NJ2				PP	PP	19 01 37.6	-1.3
NJ2				S	**S**	**19 05 44.0**	**+1.4**
NJ2				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,250nm,5.1s						
NJ2				LR	LR		
	comp=N,570nm,22.7s,MS4.3						
NJ2				LR	LR		
	comp=E,470nm,23.8s,MS4.3						
NJ2				LR	LR		
	comp=Z,470nm,23.8s,MS4.1						
CHG	**Chiang Mai**	**33.85**	**307**	⇓P	**P**	**19 00 22.4**	**-0.4**
	comp=Z,47nm,1.0s,mb5.4						
CHTO	**Chiang Mai**	**33.85**	**307**	⇓*i*P	**P**	**19 00 22.2**	**-0.6**
	comp=Z,20nm,0.9s,mb5.0						
CHTO				*e*PP	PP	19 01 37.9	-2.2
CHTO				*e*PcP	PcP	19 03 02.0	+0.8
CHTO	**Chiang Mai**	**33.85**	**307**	⇓*i*P	**P**	**19 00 22.3**	**-0.5**
CHTO				*e*		19 01 37.9	
CHTO				*e*		19 03 02.0	
CHTO				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
HNR	**Honiara**	**33.86**	**105**	*e*P	**P**	**19 00 23.9**	**+0.9**
	comp=Z,172nm,1.0s,mb5.9						
HNR	**Honiara**	**33.86**	**105**	*e*P	**P**	**19 00 23.9**	**+0.9**
HNR				pmax	pmax		
	comp=Z,172nm,1.0s,mb5.9						
HNR	**Honiara**	**33.86**	**105**	P	**P**	**19 00 24.4**	**+1.4**
	comp=Z,69nm,0.6s,mb5.8,baz=272,slow=9.6,SNR=5.5						
JNU	**Nakatsue**	**34.14**	**6**	P	**P**	**19 00 23.9**	**-1.3**
	comp=Z,9.7nm,0.5s,mb5.0,baz=143,slow=8.5,SNR=7.5						
KMI	**Kunming**	**34.99**	**320**	P	**P**	**19 00 34.3**	**+1.7**
KMI				AP	pP	19 00 40.3	-3.9
KMI				PP	PP	19 01 50.1	-2.5
KMI				S	**S**	**19 06 02.8**	**+0.9**
KMI				AMB	AMB		
	comp=Z,13nm,1.3s,mb4.7						
KMI				AMB	AMB		
	comp=Z,64nm,3.7s						
KMI				LR	LR		
	comp=N,256nm,15.7s,MS4.2						
KMI				LR	LR		
	comp=E,302nm,20.3s,MS4.2						
KMI				LR	LR		
	comp=Z,241nm,29.5s						
KMI	**Kunming**	**34.99**	**320**	P	**P**	**19 00 34.2**	**+1.6**
	comp=Z,13nm,1.3s,mb4.7						
KMI				pP	pP	19 00 40.3	-3.9
KMI				sP	sP	19 00 42.0	-7.3
KMI				PP	PP	19 01 50.1	-2.5
KMI				S	**S**	**19 06 02.7**	**+0.8**
KMI				sS	sS	19 06 12.7	-8.5
KMI				SS	SS	19 08 17.0	-18
KMI				SSS		19 08 43.0	
KMI				LR	LR		
	comp=Z,240nm,29.5s						
KMI	**Kunming**	**34.99**	**320**	P	**P**	**19 00 34.2**	**+1.6**
KMI				*SP	sP	19 00 42.0	-7.3
KMI						19 01 50.1	
KMI				S	**S**	**19 06 02.7**	**+0.8**
KMI				SS	SS	19 08 17.0	-18
KMI				SSS		19 08 43.0	
KMI				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
KMI				MLR	MLR		
	comp=Z,240nm,29.5s						
JWT	**Wachi**	**36.95**	**12**	P	**P**	**19 00 49.3**	**+0.1**
ARMA	**Armidale**	**37.47**	**144**	*e*P	**P**	**19 00 55.3**	**+1.6**
KS15	**Wonju Array Si**	**38.26**	**1**	*e*P	**P**	**19 01 01.1**	**+0.8**
KSRS	**Korea Array**	**38.27**	**1**	P	**P**	**19 01 00.7**	**+0.3**
	comp=Z,29nm,0.6s,mb5.2,baz=179,slow=9.8,SNR=100						
KSRS				PcP	PcP	19 03 14.7	+0.7
	comp=Z,6.2nm,0.7s,baz=186,slow=2.5,SNR=12						
KSRS				ScP	ScP	19 07 00.1	+1.6
	comp=Z,4.2nm,0.9s,baz=181,slow=4.6,SNR=11						
KSRS				LR	LR	19 14 24.9	
	comp=Z,224nm,20.6s,MS4.0,baz=191,slow=32						
JRY	**Ryogami san**	**38.47**	**16**	P	**P**	**19 01 01.0**	**-1.1**
CD2	**Chengdu**	**38.65**	**327**	⇑*i*P	**P**	**19 01 04.4**	**+0.7**
CD2				AP	pP	19 01 18.6	+3.3
CD2				XP	sP	19 01 24.3	+3.9
CD2				PP	PP	19 02 38.1	+5.3
CD2				PCP	PcP	19 03 14.3	-1.0
CD2				S	**S**	**19 06 58.6**	**+1.1**
CD2				XS	sS	19 07 19.1	+2.2
CD2				SCS	ScS	19 11 08.3	-2.5
CD2				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
CD2				AMB	AMB		
	comp=Z,220nm,9.4s						
CD2				LR	LR		
	comp=N,210nm,20.4s,MS4.6						
CD2				LR	LR		
	comp=E,810nm,18.0s,MS4.6						
CD2				LR	LR		
	comp=Z,210nm,16.8s,MS4.0						
XAN	**Xi’an**	**38.76**	**336**	P	**P**	**19 01 04.8**	**+0.3**
XAN				AP	pP	19 01 13.3	-2.9
XAN				S	**S**	**19 06 56.0**	**-3.0**
XAN				AMB	AMB		
	comp=Z,44nm,0.8s,mb5.2						
XAN				LR	LR		
	comp=N,161nm,15.5s,MS4.2						
XAN				LR	LR		
	comp=E,210nm,15.9s,MS4.2						
XAN				LR	LR		
	comp=Z,294nm,20.5s,MS4.1						
MJAR	**Matsushiro Arr**	**38.79**	**15**	P	**P**	**19 01 03.5**	**-1.2**
MJAR						19 03 15.9	
MJAR						19 07 01.6	
MJAR	**Matsushiro Arr**	**38.79**	**15**	P	**P**	**19 01 03.5**	**-1.2**
	comp=Z,13nm,0.5s,mb4.9,baz=191,slow=8.4,SNR=64						
MJAR				PcP	PcP	19 03 15.9	+0.4
	comp=Z,5.3nm,0.8s,baz=179,slow=2.9,SNR=5.4						
MJAR				ScP	ScP	19 07 01.6	+1.0
	comp=Z,7.6nm,1.1s,baz=198,slow=4.6,SNR=12						
MJAR				LR	LR	19 17 28.9	
	comp=Z,563nm,19.3s,MS4.4,baz=195,slow=37						
MAJO	**Matsushiro**	**38.79**	**15**	*e*P	**P**	**19 01 03.2**	**-1.5**
	comp=Z,17nm,0.5s,mb5.0						
MAJO	**Matsushiro**	**38.79**	**15**	*e*P	**P**	**19 01 03.2**	**-1.5**
MAJO				pmax	pmax		
	comp=Z,17nm,0.5s,mb5.0						
MAT	**Matsushiro**	**38.79**	**15**	P	**P**	**19 01 03.2**	**-1.5**
MAT	**Matsushiro**	**38.79**	**15**	P	**P**	**19 01 03.3**	**-1.4**
JYT	**Yasato**	**39.03**	**17**	P	**P**	**19 01 04.4**	**-2.4**
CNB	**Canberra Magne**	**40.00**	**151**	*e*P	**P**	**19 01 17.4**	**+2.5**
	comp=Z,57nm,1.5s,mb5.1						
DL2	**Dalian**	**40.01**	**354**	P	**P**	**19 01 15.4**	**+0.5**
DL2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.0						
TOO	**Toolangi**	**40.20**	**157**	*e*P	**P**	**19 01 19.1**	**+2.6**
	comp=Z,21nm,1.5s,mb4.7						
TOO	**Toolangi**	**40.20**	**157**	*e*P	**P**	**19 01 19.1**	**+2.6**
TOO				pmax	pmax		
	comp=Z,21nm,1.5s,mb4.7						
JSD	**Sado**	**40.22**	**14**	P	**P**	**19 01 15.7**	**-0.9**
JMM	**Marumori**	**40.73**	**17**	P	**P**	**19 01 20.5**	**-0.3**
JYA	**Atsumi**	**41.11**	**15**	P	**P**	**19 01 24.7**	**+0.7**
BJT	**Baijiatuau**	**42.00**	**348**	⇓*i*P	**P**	**19 01 31.0**	**-0.2**
	comp=Z,46nm,0.9s,mb5.1						
BJT				*e*PcP	PcP	19 03 25.9	+0.1
BJT	**Baijiatuau**	**42.00**	**348**	⇓*i*P	**P**	**19 01 31.0**	**-0.2**
BJT				*e*		19 03 25.9	
BJT				pmax	pmax		
	comp=Z,46nm,0.9s						
BJI	**Beijing**	**42.02**	**348**	P	**P**	**19 01 31.3**	**-0.1**
BJI				XP	sP	19 01 50.9	+2.7
BJI				PCP	PcP	19 03 26.1	+0.2
BJI				S	**S**	**19 07 50.0**	**+2.5**
BJI				SS	SS	19 10 55.1	-0.8
BJI				AMB	AMB		
	comp=Z,44nm,1.1s,mb5.0						
BJI				LR	LR		
	comp=N,259nm,14.2s,MS4.4						
BJI				LR	LR		
	comp=E,305nm,14.2s,MS4.4						
BJI				LR	LR		
	comp=Z,313nm,26.2s						
BJI	**Beijing**	**42.02**	**348**	P	**P**	**19 01 31.3**	**-0.1**
BJI				sP	sP	19 01 50.9	+2.7
BJI				PcP	PcP	19 03 26.1	+0.2
BJI				ScP	ScP	19 07 15.1	+1.9
BJI				S	**S**	**19 07 50.0**	**+2.5**
BJI				SS	SS	19 10 55.1	-0.8
BJI				LR	LR		
	comp=Z,310nm,26.2s,MS4.1						
JOM	**Ohasama**	**42.37**	**17**	P	**P**	**19 01 34.2**	**0.0**
LZH	**Lanzhou**	**42.72**	**332**	⇓P	**P**	**19 01 38.6**	**+1.4**
LZH				AP	pP	19 01 50.4	+1.4
LZH				XP	sP	19 01 55.0	+1.0
LZH				PP	PP	19 03 20.0	+3.1
LZH				PCP	PcP	19 03 29.3	+1.0
LZH				PCS	PcS	19 07 22.0	+1.5
LZH				*e*S	**S**	**19 07 59.0**	**+1.0**
LZH				XS	sS	19 08 22.1	+4.5
LZH				AMB	AMB		
	comp=Z,111nm,1.5s,mb5.4						
LZH				AMB	AMB		
	comp=Z,350nm,5.3s						
LZH				LR	LR		
	comp=E,685nm,14.0s						
LZH				LR	LR		
	comp=Z,972nm,14.8s,MS4.8						
LZH	**Lanzhou**	**42.72**	**332**	⇓P	**P**	**19 01 38.6**	**+1.4**
	comp=Z,111nm,1.5s,mb5.4						
LZH				pP	pP	19 01 50.4	+1.4
LZH				sP	sP	19 01 55.0	+1.0
LZH				PP	PP	19 03 20.0	+3.1
LZH				PcP	PcP	19 03 29.2	+0.9
LZH				ScP	ScP	19 07 18.3	+2.2
LZH				PcS	PcS	19 07 22.0	+1.5
LZH				*e*S	**S**	**19 07 59.0**	**+1.0**
LZH				sS	sS	19 08 22.1	+4.5
LZH				SS	SS	19 11 03.0	-6.9
LZH				LR	LR		
	comp=Z,970nm,14.8s,MS4.8						
LZH	**Lanzhou**	**42.72**	**332**	⇓P	**P**	**19 01 38.6**	**+1.4**
LZH				*PP	pP	19 01 50.4	+1.4
LZH				*SP	sP	19 01 55.0	+1.0
LZH						19 03 20.0	
LZH						19 03 29.2	
LZH				*e*S	**S**	**19 07 59.0**	**+1.0**
LZH				SS	SS	19 11 03.0	-6.9
LZH				pmax	pmax		
	comp=Z,111nm,1.5s,mb5.4						
LZH				MLR	MLR		
	comp=Z,970nm,14.8s,MS4.8						
SNY	**Shenyang**	**42.74**	**356**	⇓P	**P**	**19 01 37.1**	**-0.1**
SNY				AMB	AMB		
	comp=Z,80nm,0.5s,mb5.7						
SHL	**Shillong**	**42.98**	**310**	*e*P	**P**	**19 01 40.0**	**+0.5**
JTM	**Tenmabayashi**	**43.53**	**16**	P	**P**	**19 01 43.7**	**+0.1**
DZM	**Mont Dzumac**	**43.75**	**121**	P	**P**	**19 01 45.9**	**+0.1**
	comp=Z,4.5nm,0.8s,mb4.3,baz=278,slow=8.0,SNR=2.9						
HHC	**Hu-ho-hao-te**	**43.95**	**343**	*e*P	**P**	**19 01 47.3**	**+0.3**
HHC				AP	pP	19 02 01.0	+2.2
HHC				XP	sP	19 02 07.0	+3.2
HHC				PP	PP	19 03 31.4	+1.4
HHC				PCS	PcS	19 07 23.0	-2.3
HHC				S	**S**	**19 08 15.1**	**-0.7**
HHC				XS	sS	19 08 41.5	+6.0
HHC				SCS	ScS	19 11 39.9	-2.6
HHC				AMB	AMB		
	comp=Z,20nm,1.3s,mb4.7						
HHC				AMB	AMB		
	comp=Z,186nm,5.8s						
HHC				LR	LR		
	comp=N,440nm,14.9s,MS4.5						
HHC				LR	LR		
	comp=E,146nm,16.6s,MS4.5						
HHC				LR	LR		
	comp=Z,421nm,20.2s,MS4.3						
JOT	**Ohata**	**44.08**	**15**	P	**P**	**19 01 48.5**	**+0.5**
CN2	**Changchun**	**44.62**	**358**	*e*P	**P**	**19 01 51.3**	**-1.0**
CN2				*e*AP	pP	19 02 07.0	+2.8
CN2				*e*S	**S**	**19 08 23.6**	**-1.9**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,370nm,13.0s,MS4.5						
CN2				LR	LR		
	comp=E,210nm,13.0s,MS4.5						
CN2				LR	LR		
	comp=Z,400nm,15.0s,MS4.5						
MDJ	**Mudanjiang**	**45.48**	**3**	P	**P**	**19 01 58.8**	**-0.3**
MDJ				AP	pP	19 02 12.1	+1.1
MDJ				XP	sP	19 02 18.4	+2.5
MDJ				PP	PP	19 03 46.0	-0.2
MDJ				SCP	ScP	19 07 25.5	-1.6
MDJ				PCS	PcS	19 07 31.1	-0.3
MDJ				S	**S**	**19 08 37.3**	**-0.5**
MDJ				XS	sS	19 09 00.5	+2.9
MDJ				AMB	AMB		
	comp=Z,60nm,1.2s,mb5.3						
MDJ				AMB	AMB		
	comp=Z,86nm,4.8s						
MDJ				LR	LR		
	comp=N,273nm,24.6s,MS4.3						
MDJ				LR	LR		
	comp=E,287nm,24.6s,MS4.3						
MDJ				LR	LR		
	comp=Z,307nm,30.9s						
TAU	**Tasmania Unive**	**45.53**	**159**	P	**P**	**19 01 60.0**	**+0.4**
	comp=Z,20nm,0.8s,mb5.1						
TAU	**Tasmania Unive**	**45.53**	**159**	P	**P**	**19 02 00.0**	**+0.4**
TAU				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
JEW	**Eniwo**	**45.55**	**15**	P	**P**	**19 01 59.9**	**+0.2**
LSA	**Lhasa**	**45.82**	**315**	P	**P**	**19 02 03.4**	**+1.3**
LSA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
LSA	**Lhasa**	**45.82**	**315**	*e*P	**P**	**19 02 03.5**	**+1.4**
	comp=Z,32nm,0.7s,mb5.4						
LSA				*e*		19 02 27.0	
LSA				*e*PcP	PcP	19 03 40.7	+1.6
LSA	**Lhasa**	**45.82**	**315**	*e*P	**P**	**19 02 03.5**	**+1.4**
LSA				*e*		19 03 40.7	
LSA				pmax	pmax		
	comp=Z,32nm,0.7s,mb5.4						
PALK	**Pallekele**	**46.88**	**281**	P	**P**	**19 02 10.6**	**-0.1**
	comp=Z,250nm,0.8s,mb6.2,SNR=11						
PALK	**Pallekele**	**46.88**	**281**	⇓*i*P	**P**	**19 02 10.4**	**-0.3**
	comp=Z,32nm,0.8s,mb5.3						
PALK				PcP	PcP	19 03 43.5	+0.4
ASAJ	**Asahikawa**	**47.04**	**15**	P	**P**	**19 02 11.8**	**+0.4**
ASAJ	**Asahikawa**	**47.04**	**15**	P	**P**	**19 02 12.0**	**+0.6**
	comp=Z,19nm,0.4s,mb5.4,baz=242,slow=8.7,SNR=46						
TAPN	**Taplejung**	**47.10**	**310**	*e*P	**P**	**19 02 12.5**	**+0.3**
	comp=Z,53nm,0.5s,mb5.7						
ODAN	**Odare**	**47.10**	**309**	*e*P	**P**	**19 02 13.0**	**+0.8**
	comp=Z,62nm,0.6s,mb5.7						
GTA	**Gaotai**	**47.29**	**331**	⇓P	**P**	**19 02 14.8**	**+1.3**
GTA				AP	pP	19 02 22.3	-3.1
GTA				XP	sP	19 02 25.8	-4.5
GTA				PCP	PcP	19 03 45.8	+1.7
GTA				PP	PP	19 04 05.6	+0.7
GTA				PCS	PcS	19 07 39.4	+0.2

GTA				S	**S**	**19 09 06.0**	**+2.0**
GTA				SCS	ScS	19 12 04.8	+0.7
GTA				SS	SS	19 12 27.5	-4.6
GTA				AMB	AMB		
	comp=Z,26nm,1.2s,mb5.0						
GTA				AMB	AMB		
	comp=Z,139nm,4.9s						
GTA				LR	LR		
	comp=N,134nm,18.2s,MS4.2						
GTA				LR	LR		
	comp=E,188nm,19.0s,MS4.2						
GTA				LR	LR		
	comp=Z,343nm,19.8s,MS4.3						
JIRN	**Jiri**	**48.43**	**309**	*e*P	**P**	**19 02 22.0**	**-0.5**
	comp=Z,135nm,0.8s,mb6.0						
KKN	**Kakani**	**49.20**	**309**	*e*P	**P**	**19 02 28.8**	**+0.4**
	comp=Z,113nm,0.9s,mb5.9						
YSS	**Yuzh-Sakhalins**	**49.73**	**14**⇓	*e*P	**P**	**19 02 31.6**	**-0.4**
	comp=Z,21nm,0.6s,mb5.3						
YSS	**Yuzh-Sakhalins**	**49.73**	**14**⇑	*e*P	**P**	**19 02 31.6**	**-0.4**
YSS				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.3						
HABR	**Khabarovsk**	**49.77**	**7**⇓	*i*P	**P**	**19 02 32.7**	**+0.3**
HABR				*e*S	**S**	**19 09 38.4**	**-0.3**
HABR				*e*SS	SS	19 13 09.9	-1.9
HABR				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.5						
GKN	**Gorkha**	**49.80**	**309**	*e*P	**P**	**19 02 33.0**	**0.0**
	comp=Z,160nm,0.8s,mb6.1						
HIA	**Hailar**	**50.46**	**354**	*e*P	**P**	**19 02 37.5**	**-0.1**
	comp=Z,21nm,1.2s,mb5.0						
HIA				*e*PcP	PcP	19 03 55.8	+0.5
HIA	**Hailar**	**50.46**	**354**	*e*P	**P**	**19 02 37.5**	**0.0**
HIA				*e*		19 03 55.8	
HIA				pmax	pmax		
	comp=Z,21nm,1.2s						
ALBI	**Allahabad**	**50.89**	**304**	*e*P	**P**	**19 02 39.0**	**-2.3**
HYB	**Hyderabad**	**51.06**	**293**	*e*P	**P**	**19 02 43.0**	**+0.3**
	comp=Z,169nm,0.8s,mb6.0						
HYB				*e*		19 03 04.5	
HYB	**Hyderabad**	**51.06**	**293**	*e*P	**P**	**19 02 43.0**	**+0.3**
HYB				pmax	pmax		
	comp=Z,169nm,0.8s,mb6.0						
HYB	**Hyderabad**	**51.06**	**293**	*i* P	**P**	**19 02 43.0**	**+0.3**
	comp=Z,169nm,0.8s,mb6.0						
HYB				*e*sP	sP	19 03 00.0	+0.3
HYB				*e*PcP	PcP	19 03 58.0	-0.2
HYB				*e*PP	PP	19 04 42.0	+2.3
ULN	**Ulaanbaatar**	**51.67**	**343**⇓	*i*P	**P**	**19 02 47.2**	**+0.5**
	comp=Z,23nm,0.7s,mb5.2						
ULN				*e*PcP	PcP	19 03 59.8	-0.1
ULN				*e*ScP	ScP	19 07 54.8	+1.5
ULN	**Ulaanbaatar**	**51.67**	**343**⇓	*i*P	**P**	**19 02 47.2**	**+0.5**
ULN				*e*		19 03 59.8	
ULN				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.2						
SONM	**Songino Array**	**51.84**	**342**	P	**P**	**19 02 48.2**	**+0.2**
	comp=Z,14nm,0.7s,mb5.0,baz=130,slow=7.1,SNR=6.0						
SONM				PcP	PcP	19 04 01.0	+0.5
	comp=Z,7.6nm,0.7s,baz=162,slow=4.8,SNR=3.8						
LATR	**Latur**	**53.16**	**294**	*e*P	**P**	**19 02 55.7**	**-2.6**
LGTI	**Lohaghat**	**53.89**	**308**	*e*P	**P**	**19 03 02.0**	**-1.4**
AGRA	**Agra**	**54.84**	**305**	*e*P	**P**	**19 03 09.4**	**-0.9**
JOSI	**Joshimath**	**54.91**	**309**	*e*P	**P**	**19 03 11.5**	**+0.7**
KAD	**Karad**	**55.07**	**292**	*e*P	**P**	**19 03 11.0**	**-1.2**
POO	**Poona**	**55.68**	**293**⇑	*i*P	**P**	**19 03 16.0**	**-0.6**
	comp=Z,80nm,1.0s,mb5.7						
BISR	**Bishrakh**	**55.77**	**306**	*e*P	**P**	**19 03 15.8**	**-1.2**
BISR				AMb	AMB	19 03 17.8	
	comp=Z,1.3nm,0.6s,mb4.1						
SONA	**Sohna**	**55.93**	**305**	*e*P	**P**	**19 03 17.9**	**-0.3**
SONA				AMb	AMB	19 03 18.7	
	comp=Z,154nm,0.6s,mb6.2						
TLY	**Talaya**	**56.08**	**343**	*e*P	**P**	**19 03 19.2**	**+0.4**
	comp=Z,14nm,0.8s,mb5.0						
TLY	**Talaya**	**56.08**	**343**	*e*P	**P**	**19 03 18.4**	**-0.4**
TLY				*e*S	**S**	**19 11 08.1**	**+3.6**
TLY				*e*SS	SS	19 14 52.1	+0.7
TLY				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
TLY				MLR	MLR		
	comp=Z,191nm,23.0s,MS4.1						
BHGR	**Bahadurgarh**	**56.22**	**306**	*e*P	**P**	**19 03 19.4**	**-0.8**
BHGR				AMb	AMB	19 03 20.3	
	comp=Z,192nm,0.9s,mb6.1						
KUDL	**Kundal**	**56.38**	**305**	*e*P	**P**	**19 03 20.9**	**-0.5**
KUDL				AMb	AMB	19 03 22.5	
	comp=Z,127nm,0.9s,mb5.9						
WMQ	**Urumqi**	**56.75**	**327**	P	**P**	**19 03 24.6**	**+0.8**
WMQ				AP	pP	19 03 34.8	-1.1
WMQ				XP	sP	19 03 38.6	-2.2
WMQ				PCP	PcP	19 04 20.3	+0.9
WMQ				PP	PP	19 05 32.1	+1.7
WMQ				SCP	ScP	19 08 15.6	-0.1
WMQ				S	**S**	**19 11 13.1**	**-0.6**
WMQ				SKS		19 13 07.6	
WMQ				AMB	AMB		
	comp=Z,58nm,0.8s,mb5.7						
WMQ				LR	LR		
	comp=N,218nm,26.0s,MS4.3						
WMQ				LR	LR		
	comp=E,193nm,22.8s,MS4.3						
WMQ				LR	LR		
	comp=Z,209nm,22.4s,MS4.2						
RTK	**Rohtak**	**56.77**	**306**	*e*P	**P**	**19 03 17.9**	**-6.4**
RTK				AMb	AMB	19 03 19.7	
	comp=Z,97nm,0.9s,mb5.8						
KKR	**Kurukshetra**	**56.81**	**307**	*e*P	**P**	**19 03 24.3**	**-0.2**
KHET	**Khetri**	**56.91**	**305**	*e*P	**P**	**19 03 24.2**	**-1.0**
KHET				AMb	AMB	19 03 25.3	
	comp=Z,86nm,1.4s,mb5.6						
AJM	**Ajmer**	**57.31**	**303**	*i* P	**P**	**19 03 28.0**	**-0.1**
SDNR	**Sundarnagar**	**57.32**	**309**	*e*P	**P**	**19 03 29.5**	**+1.5**
RPZ	**Rata Peaks**	**57.81**	**143**	P	**P**	**19 03 32.3**	**+1.0**
	comp=Z,12nm,0.9s,mb5.0,baz=323,slow=7.7,SNR=4.6						
DLH	**Dalhousie**	**58.52**	**310**	*e*P	**P**	**19 03 35.0**	**-1.5**
THN	**Thein Dam**	**58.67**	**309**	*e*P	**P**	**19 03 36.7**	**-0.8**
URZ	**Urewera**	**58.99**	**135**	P	**P**	**19 03 40.6**	**+1.0**
	comp=Z,13nm,0.5s,mb5.2,baz=284,slow=4.2,SNR=18						
PET	**Petropavlovsk**	**59.99**	**21**⇑	*e*P	**P**	**19 03 46.8**	**+0.6**
PET				pmax	pmax		
	comp=Z,83nm,1.3s,mb5.6						
MK31	**Makanchi Array**	**61.58**	**327**⇓	*e*P	**P**	**19 03 56.7**	**-0.5**
MK31	**Makanchi Array**	**61.58**	**327**⇓	*e*P	**P**	**19 03 56.7**	**-0.5**
MKAR	**Makanchi Array**	**61.58**	**327**	P	**P**	**19 03 57.4**	**+0.2**
MKAR				S	**S**	**19 12 18.1**	**+2.0**
MKAR	**Makanchi Array**	**61.58**	**327**	P	**P**	**19 03 57.4**	**+0.2**
MKAR				S	**S**	**19 12 18.1**	**+2.0**
MKAR	**Makanchi Array**	**61.58**	**327**	P	**P**	**19 03 57.4**	**+0.2**
	comp=Z,10nm,0.3s,mb5.4,baz=114,slow=8.2,SNR=90						
MKAR				S	**S**	**19 12 18.1**	**+2.0**
	comp=Z,0.9nm,0.9s,baz=148,slow=12,SNR=4.0						
KSH	**Kashi**	**61.59**	**317**	*e*P	**P**	**19 03 59.0**	**+1.6**
KSH				*e*PCP	PcP	19 04 39.1	+0.4
KSH				*e*PP	PP	19 06 17.1	+3.7
KSH				*e*PPP		19 07 47.1	
KSH				*e*SCP	ScP	19 08 34.1	-3.2
KSH				*e*PCS	PcS	19 08 41.3	-0.3
KSH				*e*S	**S**	**19 12 13.5**	**-3.0**
KSH				*e*XS	sS	19 12 43.1	+6.2
KSH				*e*SCS	ScS	19 13 41.3	-4.4
KSH				*e*SS	SS	19 16 20.3	+1.8
KSH				AMB	AMB		
	comp=Z,506nm,2.7s,mb6.2						
YAK	**Yakutsk**	**62.90**	**1**⇓	*i*P	**P**	**19 04 05.4**	**-0.2**
	comp=Z,199nm,0.7s,mb6.3						
YAK	**Yakutsk**	**62.90**	**1**	*e*P	**P**	**19 04 06.6**	**+0.9**
YAK				*e*		19 04 50.5	
YAK				*e*		19 06 31.3	
YAK				*e**SS	sS	19 12 55.5	+2.8
YAK				*e*		19 13 46.4	
YAK				pmax	pmax		
	comp=Z,109nm,0.7s,mb6.1						
YAK				pmax	pmax		
	comp=N,44nm,1.1s						
YAK				pmax	pmax		
	comp=E,21nm,1.2s						
YAK				pmax	pmax		
	comp=Z,200nm,4.3s						
YAK				pmax	pmax		
	comp=N,159nm,5.1s						
YAK				pmax	pmax		
	comp=E,265nm,4.6s						
MA2	**Magadan**	**63.21**	**13**⇓	*i*P	**P**	**19 04 08.4**	**+0.6**
	comp=E,40nm,0.8s,mb5.6						
MA2				*e*ScP	ScP	19 08 43.5	-0.5
MA2	**Magadan**	**63.21**	**13***d*	*i*P	**P**	**19 04 08.7**	**+0.9**
MA2				pmax	pmax		
	comp=Z,58nm,1.0s,mb5.7						
KZA	**Kyzart**	**63.28**	**319**	P	**P**	**19 04 10.5**	**+1.9**
	SNR=15						
TKM2	**Tokmak 2**	**63.47**	**320**	P	**P**	**19 04 10.9**	**+1.1**
	SNR=14						
TKM2	**Tokmak 2**	**63.47**	**320**⇓	*i*P	**P**	**19 04 09.5**	**-0.3**
	comp=Z,20nm,0.8s,mb5.3						
TKM2	**Tokmak 2**	**63.47**	**320**⇓	*i*P	**P**	**19 04 09.5**	**-0.3**
TKM2				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.3						
KBK	**Karagaybulak**	**63.76**	**320**	P	**P**	**19 04 15.8**	**+4.1**
	SNR=9.9						
UCH	**Uchtor**	**63.84**	**319**	P	**P**	**19 04 14.5**	**+2.2**
	SNR=20						
UCH	**Uchtor**	**63.84**	**319**⇓	*i*P	**P**	**19 04 13.3**	**+1.0**
	comp=Z,25nm,0.8s,mb5.3						
AAK	**Ala-Archa**	**64.04**	**319**	P	**P**	**19 04 13.7**	**+0.1**
	comp=Z,86nm,1.1s,mb5.7,SNR=6.2						
AAK	**Ala-Archa**	**64.04**	**319**	*e*P	**P**	**19 04 12.9**	**-0.7**
AAK	**Ala-Archa**	**64.04**	**319**⇑	*e*P	**P**	**19 04 13.9**	**+0.3**
AAK				pmax	pmax		
	comp=Z,27nm,1.6s,mb5.0						
AAK	**Ala-Archa**	**64.04**	**319**	P	**P**	**19 04 13.8**	**+0.2**
	SNR=9.4						
FRU	**Bishkek**	**64.05**	**320**	*e*P	**P**	**19 04 12.0**	**-1.7**
AML	**Almayashu**	**64.33**	**319**	P	**P**	**19 04 17.2**	**+1.6**
	SNR=16						
AML	**Almayashu**	**64.33**	**319**⇓	*i*P	**P**	**19 04 16.8**	**+1.3**
	comp=Z,42nm,0.8s,mb5.5						
USP	**Ospenovka**	**64.34**	**320**	P	**P**	**19 04 16.2**	**+0.7**
	SNR=14						
EKS2	**Erkin-Say**	**64.52**	**319**	P	**P**	**19 04 18.1**	**+1.3**
	SNR=18						
EKS2	**Erkin-Say**	**64.52**	**319**	*e*P	**P**	**19 04 17.2**	**+0.5**
	comp=Z,22nm,0.8s,mb5.2						
KBL	**Kabul**	**64.63**	**309**⇓	*i*P	**P**	**19 04 17.9**	**+0.2**
ZALV	**Zalesovo Beam**	**64.90**	**334**	P	**P**	**19 04 17.9**	**-1.0**
	comp=Z,6.4nm,0.8s,mb4.7,baz=118,slow=5.4,SNR=12						
ZALV				S	**S**	**19 12 56.6**	**-0.7**
	comp=Z,0.4nm,0.5s,baz=138,slow=13,SNR=2.7						
ZALV				LR	LR	19 35 55.8	
	comp=Z,89nm,19.4s,MS4.0,baz=248,slow=39						
ZAL	**Zalesovo**	**64.90**	**334**	P	**P**	**19 04 18.0**	**-1.0**
ZAL				S	**S**	**19 12 56.6**	**-0.7**
KURK	**Kurchatov**	**65.85**	**329**	P	**P**	**19 04 25.0**	**-0.2**
	comp=Z,318nm,0.6s,SNR=10						
KURK	**Kurchatov**	**65.85**	**329**⇓	*i*P	**P**	**19 04 25.1**	**-0.1**
KURK	**Kurchatov**	**65.85**	**329**	P	**P**	**19 04 25.5**	**+0.3**
	SNR=23						
CASY	**Casey**	**66.18**	**187**	*e*P	**P**	**19 04 27.6**	**+0.6**
	comp=Z,78nm,1.1s,mb5.7						
KK31	**Karatay Array**	**66.87**	**318**	*i* P	**P**	**19 04 31.7**	**-0.2**
KKAR	**Karatay Array**	**66.87**	**318**	P	**P**	**19 04 31.6**	**-0.3**
KKAR				pmax	pmax		
	comp=Z,71nm,1.3s,mb5.5						
WBK	**Wadi Bani Khal**	**70.15**	**294**	P	**P**	**19 04 53.8**	**+1.0**
	SNR=6.6						
JMDO	**Jabal Madar**	**70.90**	**294**	P	**P**	**19 04 57.8**	**+0.4**
	SNR=13						
SMDO	**Samad**	**71.06**	**295**	P	**P**	**19 04 58.8**	**+0.5**
	SNR=12						
BIDO	**Bidbid**	**71.07**	**295**	P	**P**	**19 04 59.1**	**+0.7**
	SNR=12						
BRVK	**Borovoye**	**71.48**	**328**	P	**P**	**19 05 00.4**	**+0.2**
	comp=Z,83nm,0.6s,mb5.8,SNR=12						
BRVK	**Borovoye**	**71.48**	**328**⇓	*i*P	**P**	**19 04 59.7**	**-0.6**
	comp=Z,16nm,0.6s,mb5.1						
BRVK	**Borovoye**	**71.48**	**328**⇓	*i*P	**P**	**19 04 59.7**	**-0.5**
BRVK				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.1						
BRVK	**Borovoye**	**71.48**	**328**	P	**P**	**19 05 00.4**	**+0.2**
	SNR=5.4						
BSY	**Bisya**	**71.79**	**294**	P	**P**	**19 05 03.3**	**+0.5**
	SNR=24						
HOQ	**Hoqain**	**71.82**	**295**	P	**P**	**19 05 03.7**	**+0.8**
	SNR=11						
ARQ	**Araqi**	**72.50**	**295**	P	**P**	**19 05 07.4**	**+0.4**
	SNR=15						
TIXI	**Tiksi**	**72.54**	**1**⇑	*i*P	**P**	**19 05 05.6**	**-0.6**
	comp=Z,42nm,0.5s,mb5.6						
TIXI	**Tiksi**	**72.54**	**1**	*e*P	**P**	**19 05 04.8**	**-1.4**
TIXI				pmax	pmax		
	comp=Z,25nm,0.5s,mb5.4						
HATD	**Hatta, Dubai**	**73.08**	**296**	P	**P**	**19 05 11.0**	**+0.6**
	SNR=10						
ASHO	**Ashiyiah**	**73.12**	**296**	P	**P**	**19 05 11.4**	**+0.7**
	SNR=11						
RBK	**Rabkut**	**73.89**	**288**	P	**P**	**19 05 15.2**	**-0.1**
	SNR=8.4						
BILL	**Bilibino**	**74.04**	**14**	*e*P	**P**	**19 05 14.8**	**-0.4**
	comp=Z,6.3nm,0.9s,mb4.5						
BILL	**Bilibino**	**74.04**	**14**	*i* P	**P**	**19 05 16.4**	**+1.2**
BILL				pmax	pmax		
	comp=Z,13nm,2.0s,mb4.5						
BILL				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.2						
ABKT	**Ailbek**	**74.06**	**310**	P	**P**	**19 05 16.6**	**+0.7**
	comp=Z,99nm,0.7s,mb5.8,SNR=8.4						
WHFO	**Wadi Hawf**	**74.34**	**289**	P	**P**	**19 05 17.4**	**-0.5**
	SNR=18						
ABTO	**Aybut**	**74.73**	**288**	P	**P**	**19 05 20.2**	**0.0**
	SNR=14						
AB31	**Akbulak array**	**75.96**	**322**	*i* P	**P**	**19 05 26.0**	**-0.6**
AB31				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GAMB	**Gambell**	**78.61**	**23**	*e*P	**P**	**19 05 40.4**	**-0.7**
VNDA	**Vanda**	**78.73**	**173**	P	**P**	**19 05 41.3**	**-0.3**
VNDA				LR	LR	19 38 36.8	
VNDA	**Vanda**	**78.73**	**173**	P	**P**	**19 05 45.5**	**+3.9**
	comp=Z,4.6nm,0.9s,mb4.4,baz=59,slow=7.0,SNR=3.5						
VNDA				LR	LR	19 38 36.8	
	comp=Z,263nm,18.2s,MS4.6,baz=334,slow=34						
ARU	**Arti**	**79.05**	**328**	P	**P**	**19 05 42.7**	**-1.0**
	comp=Z,97nm,0.5s,mb6.0,SNR=5.7						
ARU	**Arti**	**79.05**	**328**⇓	*e*P	**P**	**19 05 42.4**	**-1.3**
	comp=Z,10nm,0.6s,mb4.9						
ARU	**Arti**	**79.05**	**328***d*	*i*P	**P**	**19 05 42.9**	**-0.8**
ARU				*e*		19 08 40.9	
ARU				*e*S	S	19 15 38.3	-1.3
ARU				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
MAW	**Mawson**	**79.43**	**201**	*e*P	**P**	**19 05 46.4**	**+0.8**
	comp=Z,11nm,0.9s,mb4.8						
MAW	**Mawson**	**79.43**	**201**	*e*P	**P**	**19 05 46.4**	**+0.8**
MAW				pmax	pmax		
	comp=Z,11nm,0.9s						
MAW	**Mawson**	**79.43**	**201**	P	**P**	**19 05 46.1**	**+0.6**
	comp=Z,14nm,0.9s,mb4.9,baz=48,slow=8.3,SNR=8.4						
ORR	**Orenburg**	**79.81**	**323**	*e*P	**P**	**19 05 46.9**	**-1.1**
OPO	**Ambohidratompo**	**79.99**	**251**	P	**P**	**19 05 50.6**	**+1.0**
	comp=Z,31nm,0.7s,mb5.3,baz=80,slow=4.3,SNR=26						
TNA	**Tin City**	**80.83**	**22**	*e*P	**P**	**19 05 53.8**	**+0.6**
PPT	**Papeete**	**83.46**	**107**	LR	LR	19 41 46.2	
	comp=Z,119nm,18.7s,MS4.3,baz=276,slow=34						
SVW2	**Sparrevohn**	**84.82**	**28**	*e*P	**P**	**19 06 14.9**	**+1.0**
TTA	**Tatalina**	**84.99**	**27**	*e*P	**P**	**19 06 15.4**	**+0.6**
ZEI	**Tsey**	**85.58**	**313**	*e*P	**P**	**19 06 18.5**	**+0.4**
ZEI				*i*		19 06 37.5	
ZEI				*e*		19 09 36.1	
ZEI				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.5						
KDAK	**Kodiak Island**	**85.74**	**32**	P	**P**	**19 06 19.1**	**+0.5**
	comp=Z,16nm,0.6s,mb5.4,baz=288,slow=7.2,SNR=15						
KIV	**Kislovodsk**	**86.56**	**314**	*e*P	**P**	**19 06 22.7**	**-0.3**
	comp=Z,25nm,1.1s,mb5.3						
KIV	**Kislovodsk**	**86.56**	**314**	*e*P	**P**	**19 06 23.1**	**+0.1**
KIV				*e*SS	SS	19 22 42.0	+4.0
KIV				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb5.0						
IMA2	**Indian Mountai**	**86.59**	**24**	*e*P	**P**	**19 06 22.4**	**-0.1**
SLKM	**Skilak Lake**	**87.32**	**29**	*e*P	**P**	**19 06 25.0**	**-1.3**
PMR	**Palmer**	**87.96**	**28**	*e*P	**P**	**19 06 27.1**	**-2.2**
	comp=Z,17nm,1.0s,mb5.2						
PMR	**Palmer**	**87.96**	**28**	*e*P	**P**	**19 06 27.1**	**-2.2**
PMR				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.2						
SYO	**Syowa Base**	**88.13**	**201**⇑	*e*P	**P**	**19 06 30.0**	**0.0**
SYO	**Syowa Base**	**88.13**	**201**⇓	*e*PcP	PcP	19 06 31.5	-0.2
MCK	**McKinley**	**88.27**	**26**	*e*P	**P**	**19 06 29.3**	**-1.4**
	comp=Z,4.6nm,0.9s,mb4.7						
MCK	**McKinley**	**88.27**	**26**	*e*P	**P**	**19 06 29.3**	**-1.4**
MCK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.7						
QSPA	**South Pole Qui**	**88.94**	**180**⇓	*i*P	**P**	**19 06 34.1**	**+0.5**
	comp=Z,25nm,0.6s,mb5.7						
QSPA				*e*		19 06 50.7	
MALT	**Malatya**	**89.47**	**308**	*e*P	**P**	**19 06 37.0**	**0.0**
	comp=Z,4.7nm,0.8s,mb4.9						
MALT	**Malatya**	**89.47**	**308**	*e*P	**P**	**19 06 37.0**	**0.0**
MALT				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.9						
MALT	**Malatya**	**89.47**	**308**⇓	*i*P	**P**	**19 06 37.2**	**+0.2**
KMBO	**Kilima Mbogo**	**89.69**	**269**⇑	*e*P	**P**	**19 06 39.4**	**+0.8**
	comp=Z,16nm,1.1s,mb5.3						
KMBO	**Kilima Mbogo**	**89.69**	**269**⇑	*e*P	**P**	**19 06 39.4**	**+0.8**
KMBO				pmax	pmax		
	comp=Z,16nm,1.1s						
KMBO	**Kilima Mbogo**	**89.69**	**269**	P	**P**	**19 06 39.3**	**+0.7**
	comp=Z,7.9nm,0.9s,mb5.1,baz=66,slow=7.8,SNR=19						
OBN	**Obninsk**	**91.04**	**325**	*e*P	**P**	**19 06 42.1**	**-1.9**
	comp=Z,14nm,0.6s,mb5.5						
OBN	**Obninsk**	**91.04**	**325**	*e*P	**P**	**19 06 42.3**	**-1.6**
OBN				*e*		19 10 19.4	
OBN				*e*		19 17 11.3	
OBN				*e*SS	SS	19 23 43.1	+0.6
OBN				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb5.1						
APA	**Apatity**	**92.28**	**337**⇑	*e*P	**P**	**19 06 51.4**	**+2.0**
APA				pmax	pmax		
	comp=Z,38nm,1.6s,mb5.5						
DAWY	**Dawson**	**92.49**	**26**	*e*P	**P**	**19 06 49.4**	**-1.0**
BRTR	**Keskin Array B**	**93.20**	**310**	P	**P**	**19 06 52.9**	**-1.4**
	comp=Z,2.0nm,0.9s,mb4.6,baz=116,slow=6.0,SNR=8.8						
BRTR				PP	PP	19 10 33.6	-4.5
	comp=Z,1.7nm,0.9s,baz=87,slow=10.0,SNR=4.3						
JOF	**Joensuu**	**93.47**	**333**	*e*p	**P**	**19 06 52.2**	**-2.8**
	comp=Z,2.1nm,0.5s,mb4.8						
JOF	**Joensuu**	**93.47**	**333**	*e*P	**P**	**19 06 52.2**	**-2.8**
JOF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.8						
KEV	**Kevo**	**94.39**	**340**	*e*p	**P**	**19 06 57.9**	**-1.1**
	comp=Z,3.3nm,0.7s,mb4.9						
KEV	**Kevo**	**94.39**	**340**	*e*P	**P**	**19 06 57.9**	**-1.1**
KEV				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.8						
INK	**Inuvik**	**94.45**	**22**	P	**P**	**19 06 58.6**	**-0.8**
	comp=Z,4.5nm,1.0s,mb4.9,baz=270,slow=5.2,SNR=2.8						
ARCES	**ARCESS Array B**	**94.94**	**340**	P	**P**	**19 07 00.2**	**-1.4**
	comp=Z,6.3nm,0.7s,mb5.1,baz=80,slow=6.1,SNR=20						
KAF	**Kangasniemi**	**95.87**	**332**	*e*p	**P**	**19 07 03.0**	**-3.0**
	comp=Z,2.3nm,0.4s,mb5.0,baz=77,slow=4.2						
KAF	**Kangasniemi**	**95.87**	**332**	*e*P	**P**	**19 07 03.0**	**-3.0**
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.9						
FINES	**FINESS Array B**	**96.08**	**332**	*i* P	**P**	**19 07 04.5**	**-2.5**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
FINES	**FINESS Array B**	**96.08**	**332**	P	**P**	**19 07 05.2**	**-1.8**
	comp=Z,2.3nm,0.7s,mb4.7,baz=66,slow=5.2,SNR=16						
FINES				PKiKP	PKiKP	19 11 45.3	-0.1
	comp=Z,0.6nm,0.7s,baz=90,slow=1.9,SNR=2.9						
DLBC	**Dease Lake**	**97.65**	**31**	P	**P**	**19 07 13.5**	**-0.6**
	baz=172,slow=7.1						
LSZ	**Lusaka**	**98.21**	**255**⇓	*e*P	**P**	**19 07 17.8**	**+0.2**
	comp=Z,16nm,0.8s,mb5.6						
LSZ	**Lusaka**	**98.21**	**255**⇓	*e*P	**P**	**19 07 17.8**	**+0.2**
LSZ				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.6						
BURAR	**Bucovina Array**	**98.66**	**318**⇓	*i*P	**P**	**19 07 18.5**	**-0.4**
BOSA	**Boshof**	**99.80**	**241**	*e*Pdif	Pdif	19 07 24.5	+0.7
	comp=Z,12nm,1.2s						
BOSA	**Boshof**	**99.80**	**241**	*e*P	Pdif	19 07 24.5	+0.7
BOSA				pmax	pmax		
	comp=Z,12nm,1.2s,mb5.2						
BOSA	**Boshof**	**99.80**	**241**	P	Pdif	19 07 24.8	+1.0
	comp=Z,3.7nm,0.9s,baz=104,slow=5.8,SNR=3.4						
LBTB	**Lobatse**	**99.88**	**245**	*e*Pdif	Pdif	19 07 24.8	+0.6
	comp=Z,3.4nm,0.7s						
LBTB	**Lobatse**	**99.88**	**245**	*e*P	Pdif	19 07 24.8	+0.6
LBTB				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.8						
NB2	**NORSAR Subarra**	**103.10**	**333**	P	Pdif	19 07 36.5	-2.0
	comp=Z,0.2nm,0.6s,baz=70,slow=5.6						
NOA	**NORSAR Array B**	**103.10**	**333**	Pdif	Pdif	19 07 37.0	-1.5
NOA	**NORSAR Array B**	**103.10**	**333**	Pdiff	Pdif	19 07 37.0	-1.5
	comp=Z,1.7nm,0.8s,baz=67,slow=4.5,SNR=4.3						
YKA	**Yellowknife Ar**	**103.67**	**25**	Pdif	Pdif	19 07 40.4	-0.6
YKA	**Yellowknife Ar**	**103.67**	**25**	Pdiff	Pdif	19 07 40.4	-0.6
	comp=Z,0.3nm,0.5s,baz=292,slow=4.5,SNR=4.7						
YKA				PKiKP	PKiKP	19 11 58.5	-0.4
	comp=Z,0.4nm,0.5s,baz=301,slow=1.7,SNR=7.6						
YKA				PKKPbc	PKKPbc	19 23 32.2	-3.0
	comp=Z,0.8nm,0.5s,baz=114,slow=2.9,SNR=14						
CLL	**Collm**	**105.57**	**323**	*e*PKiKP	PKiKP	19 12 03.0	+0.3
CLL				*e*PP	PP	19 12 14.0	+2.2
GERES	**GERESS Array B**	**105.90**	**321**	PKPdf	PKiKP	19 12 03.7	+0.3
GERES	**GERESS Array B**	**105.90**	**321**	PKiKP	PKiKP	19 12 03.7	+0.3
	comp=Z,0.9nm,0.5s,baz=70,slow=1.7,SNR=11						
DAVOX	**Davos/Dischmat**	**109.00**	**320**	PKPdf	PKiKP	19 12 09.2	-0.1
DAVOX	**Davos/Dischmat**	**109.00**	**320**	PKiKP	PKiKP	19 12 09.2	-0.1
	comp=Z,2.7nm,0.6s,baz=28,slow=2.1,SNR=4.6						
NVAR	**Mina Array Bea**	**109.83**	**49**	PKPdf	PKiKP	19 12 12.6	+1.5
NVAR				PP	PP	19 12 47.2	+3.8
NVAR	**Mina Array Bea**	**109.83**	**49**	PKiKP	PKiKP	19 12 12.6	+1.5
	comp=Z,0.2nm,0.5s,baz=298,slow=1.9,SNR=3.1						
NVAR				PP	PP	19 12 47.2	+3.8
	comp=Z,0.7nm,0.8s,baz=266,slow=9.9,SNR=4.5						
HINF	**Hinteralfeld**	**110.54**	**321**	*e*PKIKP	PKiKP	19 12 11.7	-0.4
HINF	**Hinteralfeld**	**110.54**	**321**	*e*PKPdf	PKiKP	19 12 11.7	-0.4
HINF	**Hinteralfeld**	**110.54**	**321**	*e*PKIKP	PKiKP	19 12 11.7	-0.4
LPG	**La Plagne**	**111.48**	**319**	*e*PKIKP	PKiKP	19 12 14.4	+0.4
	comp=Z,7.7nm,0.7s						
LPG	**La Plagne**	**111.48**	**319**	*e*PKPdf	PKiKP	19 12 14.4	+0.4
LPG	**La Plagne**	**111.48**	**319**	*e*PKIKP	PKiKP	19 12 14.4	+0.4
LPL	**La Plagne**	**111.49**	**319**	*e*PKIKP	PKiKP	19 12 14.3	+0.3
	comp=Z,9.7nm,0.8s						
LPL	**La Plagne**	**111.49**	**319**	*e*PKPdf	PKiKP	19 12 14.3	+0.3
LPL	**La Plagne**	**111.49**	**319**	*e*PKIKP	PKiKP	19 12 14.3	+0.3
CABF	**La Chapelle**	**111.49**	**321**	*e*PKIKP	PKiKP	19 12 14.3	+0.3
	comp=Z,16nm,0.8s						
CABF	**La Chapelle**	**111.49**	**321**	*e*PKPdf	PKiKP	19 12 14.3	+0.3
CABF	**La Chapelle**	**111.49**	**321**	*e*PKIKP	PKiKP	19 12 14.3	+0.3
EKA	**Eskdalemuir Ar**	**112.48**	**332**	PKPdf	PKiKP	19 12 16.0	+0.4
EKA	**Eskdalemuir Ar**	**112.48**	**332**	PKIKP	PKiKP	19 12 16.0	+0.4
EKA	**Eskdalemuir Ar**	**112.48**	**332**	PKiKP	PKiKP	19 12 16.0	+0.4
	comp=Z,0.5nm,0.5s,baz=26,slow=2.5,SNR=6.8						
SMF	**Signal de Mont**	**112.89**	**321**	*e*PKIKP	PKiKP	19 12 16.7	+0.1
SMF	**Signal de Mont**	**112.89**	**321**	*e*PKPdf	PKiKP	19 12 16.7	+0.1
SMF	**Signal de Mont**	**112.89**	**321**	*e*PKIKP	PKiKP	19 12 16.7	+0.1
SSF	**Saint Saulge**	**112.93**	**322**	*e*PKIKP	PKiKP	19 12 17.3	+0.6
	comp=Z,8.3nm,0.7s						
SSF	**Saint Saulge**	**112.93**	**322**	*e*PKPdf	PKiKP	19 12 17.3	+0.6
SSF	**Saint Saulge**	**112.93**	**322**	*e*PKIKP	PKiKP	19 12 17.3	+0.6
AVF	**Avril sur Loir**	**113.14**	**322**	*e*PKIKP	PKiKP	19 12 16.7	-0.4
	comp=Z,3.4nm,0.6s						
AVF	**Avril sur Loir**	**113.14**	**322**	*e*PKPdf	PKiKP	19 12 16.7	-0.4
AVF	**Avril sur Loir**	**113.14**	**322**	*e*PKIKP	PKiKP	19 12 16.7	-0.4
BGF	**Bois d’Agland**	**113.55**	**321**	*e*PKIKP	PKiKP	19 12 18.1	+0.2
BGF	**Bois d’Agland**	**113.55**	**321**	*e*PKPdf	PKiKP	19 12 18.1	+0.2
BGF	**Bois d’Agland**	**113.55**	**321**	*e*PKIKP	PKiKP	19 12 18.1	+0.2
TCF	**Toulx Ste Croi**	**114.07**	**321**	*e*PKIKP	PKiKP	19 12 19.0	+0.1
	comp=Z,12nm,0.8s						
TCF	**Toulx Ste Croi**	**114.07**	**321**	*e*PKPdf	PKiKP	19 12 19.0	+0.1
TCF	**Toulx Ste Croi**	**114.07**	**321**	*e*PKIKP	PKiKP	19 12 19.0	+0.1
PDAR	**Pinedale Array**	**114.70**	**43**	PKP	PKiKP	19 12 20.0	-0.2
PDAR				PKKPbc	PKKPbc	19 22 58.4	-1.0
PDAR	**Pinedale Array**	**114.70**	**43**	PKP	PKiKP	19 12 20.0	-0.2
	comp=Z,0.4nm,0.4s,baz=132,slow=2.2,SNR=4.9						
PDAR				PKKPbc	PKKPbc	19 22 58.4	-1.0
	comp=Z,1.5nm,0.6s,baz=110,slow=5.1,SNR=14						
MFF	**Saint Martin d**	**115.38**	**323**	*e*PKIKP	PKPdf	19 12 21.3	-0.1
MFF	**Saint Martin d**	**115.38**	**323**	*e*PKPdf	PKPdf	19 12 21.3	-0.1
MFF	**Saint Martin d**	**115.38**	**323**	*e*PKIKP	PKPdf	19 12 21.3	-0.1
LFF	**La Frestale**	**115.59**	**321**	*e*PKIKP	PKPdf	19 12 22.2	+0.3
LFF	**La Frestale**	**115.59**	**321**	*e*PKPdf	PKPdf	19 12 22.2	+0.3
LFF	**La Frestale**	**115.59**	**321**	*e*PKIKP	PKPdf	19 12 22.2	+0.3
ETSF	**Etsaut**	**117.34**	**319**	*e*PKIKP	PKPdf	19 12 26.2	+0.9
ETSF	**Etsaut**	**117.34**	**319**	*e*PKPdf	PKPdf	19 12 26.2	+0.9
ETSF	**Etsaut**	**117.34**	**319**	*e*PKIKP	PKPdf	19 12 26.2	+0.9
ESDC	**Sonseca Array**	**121.10**	**317**	PKP	PKPdf	19 12 33.1	+0.4
ESDC				PP	PP	19 14 03.7	+1.3
ESDC	**Sonseca Array**	**121.10**	**317**	PKP	PKPdf	19 12 33.1	+0.4
	comp=Z,0.5nm,0.5s,baz=30,slow=2.3,SNR=6.0						
ESDC				PP	PP	19 14 03.7	+1.3
	comp=Z,1.3nm,0.8s,baz=36,slow=7.7,SNR=4.4						
TXAR	**Lajitas Array**	**124.21**	**55**	PKP	PKPdf	19 12 39.2	+0.2
TXAR	**Lajitas Array**	**124.21**	**55**	PKIKP	PKPdf	19 12 39.2	+0.3

TXAR	Lajitas Array	124.21	55	PKP	PKPdf	19 12 39.2	+0.2
	comp=Z,0.3nm,0.6s,baz=119,slow=1.1,SNR=3.0						
TOA0	Torodi Ar. Sit	124.50	285	*e*PKPdf	PKPdf	19 12 39.8	0.0
TORD	Torodi Ar. Bea	124.50	285	PKP	PKPdf	19 12 39.9	0.0
TORD				PP	PP	19 14 25.4	-1.1
TORD	Torodi Ar. Bea	124.50	285	PKP	PKPdf	19 12 39.9	0.0
	comp=Z,11nm,0.7s,baz=39,slow=2.0,SNR=35						
TORD				PP	PP	19 14 25.3	-1.1
	comp=Z,2.6nm,1.0s,baz=63,slow=6.4,SNR=4.4						
KSU1	Kansas State U	125.07	41	*e*PKPdf	PKPdf	19 12 39.4	-0.9
SCHQ	Schefferville	125.17	10	PKP	PKPdf	19 12 40.3	+0.3
SCHQ	Schefferville	125.17	10	PKP	PKPdf	19 12 40.3	+0.3
	comp=Z,2.9nm,0.7s,baz=331,slow=1.7,SNR=6.2						
SADO	Sadowa	130.67	24	PKP	PKPdf	19 12 51.2	+0.4
SADO	Sadowa	130.67	24	PKP	PKPdf	19 12 51.2	+0.4
	baz=323,slow=5.1						
PLAL	Pickwick Lake	133.01	40	*e*Pdif	Pdif	19 09 50.9	-0.6
PLAL				*e*PKPdf	PKPdf	19 12 52.0	-3.5
LCO	Las Campanas	145.70	152	*e*PKPdf	PKPdf	19 13 20.1	+1.3
JTS	JuntasAbangare	146.96	73	*e*PKPbc	PKPbc	19 13 22.4	-0.8
JTS	JuntasAbangare	146.96	73	*e*PKP2	PKPab	19 13 22.5	-2.2
SDDR	Presa de Saban	154.71	44	*e*PKPbc	PKPbc	19 13 41.5	-0.1
SDDR				*e*PKPab	PKPab	19 13 56.4	-0.1
LPAZ	La Paz	157.26	140	PKP	PKPdf	19 13 37.0	+0.5
LPAZ				PKPab	PKPab	19 14 08.1	+0.7
LPAZ	La Paz	157.26	140	PKIKP	PKPdf	19 13 37.0	+0.5
LPAZ	La Paz	157.26	140	PKP	PKPdf	19 13 37.0	+0.5
	comp=Z,0.9nm,0.7s,baz=80,slow=2.3,SNR=3.8						
LPAZ				PKPab	PKPab	19 14 08.1	+0.7
	comp=Z,3.7nm,0.6s,baz=182,slow=3.1,SNR=8.5						

IDC ***24*** *19:00:45.5±2.3, 4331N×10522W, $h0^{km}$, mb1 3.7/3, mb1mx3.4/21, mbtmp3.5/3, ML3.4/2, Error ellipse: s-maj=48.6km s-min=8.4km az=154.0*
ISCJB ***24*** *19:00:47.4±0.5, 4371N±004×10524W±006, $h0^{km}$, Error ellipse: s-maj=6.6km s-min=5.5km az=44.3*
NEIC ***24*** *19:00:48.6±0.4, 4370N×10523W, $h0^{km}$, ML3.1, Error ellipse: s-maj=6.3km s-min=4.7km az=142.0, Suspected Mining explosion.*
NEIC 70 km [45 miles] SSE of Gillette.
ISC 24 19:00:48.8±0.4, **4370N**±004×**10523W**±006, **$h0^{km}$, n36,** σ**$1^{s}08$**/38, **Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.96	64	*e*Pg	Pg	19 01 07.3	+0.1
PHWY	Pilot Hill	2.41	184	*e*Pn	Pn	19 01 28.9	-0.5
RWWY	Rawlins	2.49	217	*e*Pn	Pn	19 01 31.2	+0.6
LAO	LASA Array	3.07	347	*e*Pn	Pn	19 01 38.2	-0.3
RLMT	Red Lodge	3.22	298	*e*Pn	Pn	19 01 40.7	+0.1
PDAR	Pinedale Array	3.30	255	Pn	Pn	19 01 41.4	-0.3
PDAR				Pg	Pg	19 01 46.5	-5.5
PDAR				Lg		19 02 25.7	
PDAR	Pinedale Array	3.30	255	Pn	Pn	19 01 41.4	-0.3
	2.1nm,0.3s,baz=81,slow=16,SNR=38						
PDAR				Pg	Pg	19 01 46.5	-5.5
	8.3nm,0.3s,baz=83,slow=15,SNR=67						
PDAR				Lg		19 02 25.7	
	3.1nm,0.3s,baz=82,slow=23,SNR=7.6						
GCMT	Greycliff	3.79	305	*e*Pn	Pn	19 01 48.8	+0.4
LKWY	Lake	3.82	285	*e*Pn	Pn	19 01 50.3	+1.5
LOHW	Long Hollow	3.90	271	*e*Pn	Pn	19 01 48.9	-1.1
ISCO	Idaho Springs	3.91	184	*e*Pn	Pn	19 01 50.8	+0.7
MOOW	Moose Ponds	4.00	273	*e*Pn	Pn	19 01 51.1	-0.2
REDW	Red Top Meadow	4.10	267	*e*Pn	Pn	19 01 53.4	+0.7
YFT	Old Faithful	4.11	282	*e*Pn	Pn	19 01 55.6	+2.8
YMR	Madison River	4.24	285	*e*Pn	Pn	19 01 55.3	+0.7
DCID1	Drake Creek	4.32	271	*e*Pn	Pn	19 01 55.9	+0.1
AHID	Auburn Hatcher	4.39	260	*e*Pn	Pn	19 01 55.0	-1.7
SMCO	Snowmass	4.71	197	*e*Pn	Pn	19 02 04.2	+3.1
DGMT	Dagmar	4.82	8	*e*Pn	Pn	19 02 03.6	+1.0
BOZ	Bozeman (W)	4.96	295	*e*Pn	Pn	19 02 03.8	-0.8
HWUT	Hardware Ranch	5.12	248	*e*Pn	Pn	19 02 05.4	-1.3
	204nm,0.9s						
EGMT	Eagleton	5.35	325	*e*Pn	Pn	19 02 09.0	-0.9
	9.1nm,0.7s						
DAU	Daniels Canyon	5.56	236	*e*Pn	Pn	19 02 14.6	+1.8
JLU	Jordanelle	5.57	238	*e*Pn	Pn	19 02 12.3	-0.6
MCMT	McKenzie Canyo	5.59	284	Pn	Pn	19 02 17.9	+4.8
HVU	Hansel Valley	5.88	253	*e*Pn	Pn	19 02 17.3	+0.2
	237nm,1.1s						
MPU	Maple Canyon	6.04	235	*e*Pn	Pn	19 02 19.3	0.0
	9.3nm,0.8s						
SRU	San Rafael	6.07	223	*e*Pn	Pn	19 02 18.4	-1.4
	7.7nm,0.7s						
PV01	Paradox Valley	6.11	206	*e*Pn	Pn	19 02 21.2	+0.9
ECSD	EROS,Sioux Fal	6.24	87	*e*Pn	Pn	19 02 22.7	+0.6
	4.5nm,0.6s						
CHMT	Chamberlain Mo	6.50	302	*e*Pn	Pn	19 02 25.7	0.0
MSU	Marysvale	7.38	228	*e*Pn	Pn	19 02 35.4	-2.3
AGMN	Agassiz Refuge	7.97	52	*e*Pn	Pn	19 02 45.2	-0.7
	6.5nm,0.6s						
ULM	Lac du Bonnet	9.15	41	Pn	Pn	19 02 59.9	-2.1
ULM				Lg		19 05 36.7	
ULM	Lac du Bonnet	9.15	41	Pn	Pn	19 02 59.9	-2.1
	1.5nm,0.3s,baz=238,slow=12,SNR=17						
ULM				Lg		19 05 36.7	
	0.2nm,0.3s,baz=323,slow=6.3,SNR=5.0						
YKA	Yellowknife Ar	19.61	347	P	Pn	19 05 21.0	+1.4
	0.1nm,0.3s,baz=155,slow=8.9,SNR=6.0						

ISCJB ***24*** *19:26:25.2±1.5, 449N±02×1510E±02, $h33^{km}$, mb3.8/5, Error ellipse: s-maj=28.8km s-min=13.5km az=147.7*
MOS ***24*** *19:26:31.3±1.6, 4653N×14959E, $h42^{km}$, mb4.2/4, Error ellipse: s-maj=36.0km s-min=16.0km az=57.3*
IDC ***24*** *19:26:31.2±1.4, 47.14N×14931E, $h0^{km}$, mb3.8/6, mb1 4.0/7, mb1mx3.7/22, mbtmp3.8/7, ML3.7/1, MS3.0/1, Ms1 3.0/1, ms1mx2.6/39, Error ellipse: s-maj=38.7km s-min=28.1km az=123.0*
JMA ***24*** *19:26:37.2±0.6, 4478N×14990E, $h118^{km}$, M3.6*
ISC 24 19:26:28.2±1.5, **450N**±02×**1509E**±02, **$h35^{km}$, n41,** σ**$0^{s}78$**/39, **mb3.8**/5, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	2.16	276	PN	Pn	19 27 00.5	-1.1
KUR				*e*S	Sn	19 27 20.0	-7.2
KUR				pmax	pmax		
	comp=N,160nm,0.4s						
KUR				pmax	pmax		
	comp=E,80nm,0.4s						
KUR				pmax	pmax		
	comp=Z,240nm,0.4s						
KUR				smax			
	comp=N,2µm,0.5s						
KUR				smax			
	comp=E,610nm,0.5s						
YUK	Yuzh-Kuril'sk	3.74	256	*e*PN	Pn	19 27 24.0	+0.6
NEM2	Nemuro 2	4.07	248	P	Pn	19 27 28.1	+0.2
NEM2				*e*S	Sx	19 28 07.3	
JRA	Rausu	4.28	257	P	Pn	19 27 31.9	+1.1
JNK	Nakash	4.67	254	P	Pn	19 27 36.7	+0.6
JAK	Akkeshi	4.92	248	P	Pn	19 27 39.5	-0.1
JAK				*e*S	Sx	19 28 28.4	
JTKR	Abashiri--Toko	5.12	261	P	Pn	19 27 42.3	0.0
JAR	Ashorobuto	5.42	254	P	Pn	19 27 47.1	+0.7
JOB	Onbets	5.53	250	P	Pn	19 27 48.3	+0.4
JOB				*e*S	Sn	19 28 43.5	-6.7
JSE	Soyaes	5.90	272	P	Pn	19 27 52.9	-0.2
JKK2	Kamakawa 2	5.96	262	P	Pn	19 27 53.6	-0.2
JCH	Churui	5.97	249	P	Pn	19 27 53.8	-0.2
JCH				*e*S	Sn	19 28 53.1	-7.9
ASAJ	Asahikawa	6.01	264	P	Pn	19 27 54.9	+0.4
ASAJ	Asahikawa	6.01	264	PN	Pn	19 27 54.5	0.0
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	6.01	264	Pn	Pn	19 27 54.5	0.0
	comp=Z,1.8nm,0.3s,baz=243,slow=29,SNR=20						
ASAJ				Sn	Sn	19 29 12.2	+10
	comp=Z,0.3nm,0.3s,baz=175,slow=25,SNR=2.5						
ASAJ				LR	LR	19 30 31.2	
	comp=Z,138nm,19.6s,baz=208,slow=43						
JFR	Furan	6.27	256	P	Pn	19 27 58.7	+0.6
JEM	Erimo	6.39	245	P	Pn	19 28 01.5	+1.8
JAB	Ashibetsu	6.42	259	P	Pn	19 28 01.4	+1.3
JNBK	Urakawa-nobuka	6.52	248	P	Pn	19 28 00.8	-0.8
JNBK				*e*S	Sx	19 29 05.9	
JBT2	Biratori 2	6.57	253	P	Pn	19 28 01.7	-0.5
JNB	Noboribetsu	7.59	254	P	Pn	19 28 15.1	-1.1
JNB				*e*S	Sn	19 29 31.1	-10
JKB	Kayabe	7.84	250	P	Pn	19 28 18.8	-0.8
JKB				*e*S	Sx	19 29 35.7	
JYM2	Yakumo 2	8.19	253	P	Pn	19 28 23.3	-1.1
JSH	Shimam	8.21	257	P	Pn	19 28 24.7	0.0
JANG	Nango	8.34	239	P	Pn	19 28 25.0	-1.4
JANG				*e*S	Sx	19 29 47.9	
JTM	Tenmabayashi	8.37	243	*e*S	Sx	19 29 48.3	
JTH	Tanohata	8.40	236	*e*S	Sx	19 29 50.1	
OFUJ	Ofunato	9.08	232	*e*S	Sx	19 30 09.1	
JRG	Rokugo	9.47	237	*e*S	Sx	19 30 18.5	
JIO	Ouri	9.70	231	*e*S	Sx	19 30 22.6	
MJAR	Matsushiro Arr	12.81	233	PN	Px	19 29 38.4	
MJAR	Matsushiro Arr	12.81	233	Pn	Px	19 29 38.4	
	comp=Z,0.1nm,0.3s,baz=39,slow=9.2,SNR=4.5						
MKAR	Makanchi Array	46.37	298	P	P	19 34 44.1	-6.6
	comp=Z,0.3nm,0.6s,mb3.4,baz=74,slow=5.9,SNR=4.8						
YKA	Yellowknife Ar	53.22	35	P	P	19 35 42.6	+0.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	Yellowknife Ar	53.22	35	P	P	19 35 42.6	+0.1
	comp=Z,0.6nm,0.5s,mb3.8,baz=299,slow=7.0,SNR=7.5						
FINES	FINESS Array B	64.93	334	P	P	19 36 55.9	-7.7
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	FINESS Array B	64.93	334	P	P	19 36 55.9	-7.7
	comp=Z,1.7nm,0.9s,mb4.1,baz=292,slow=7.4,SNR=3.2						
NOA	NORSAR Array B	69.34	340	P	P	19 37 25.6	-6.0
NOA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
NOA	NORSAR Array B	69.34	340	P	P	19 37 25.6	-6.0
	comp=Z,2.1nm,1.0s,mb4.0,baz=326,slow=9.1,SNR=2.9						
GERES	GERESS Array B	79.30	333	P	P	19 38 24.9	-4.9
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GERES	GERESS Array B	79.30	333	P	P	19 38 24.9	-4.9
	comp=Z,0.6nm,0.5s,mb3.8,baz=29,slow=6.1,SNR=7.1						

IGQ 24 19:29:22.1, 000S×8115W, $h10^{km}\pm5^{km}$, Mb4.4, Ms4.2, 7C-7D, Error ellipse: s-maj=5.8km s-min=4.1km az=8.1, Off coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAMA	Jama	0.98	105	⇓P	Pg	19 29 41.0	0.0
JAMA	Jama	0.98	105	⇓S	Sg	19 29 52.1	-1.6
CHIS	Cerro-Chispas-	1.12	158	⇑P	Pb	19 29 43.9	+0.2
CHIS	Cerro-Chispas-	1.12	158	⇑S	Sb	19 29 56.5	-1.8
MAG1	Magdalena	1.38	93	P	Pn	19 29 48.8	+1.3
PINO	Pino	2.55	93	⇓P	Pn	19 30 04.9	+1.3
TERV	Terraza Guagua	2.55	94	⇑P	Pn	19 30 05.6	+2.0
TERV	Terraza Guagua	2.55	94	⇑S	Sn	19 30 38.9	+4.2
JUA2	San Juan 2	2.55	95	P	Pn	19 30 04.8	+1.1
JUA2	San Juan 2	2.55	95	S	Sn	19 30 33.3	-1.5
GGP	Refugio Guagua	2.56	94	⇑P	Pn	19 30 04.9	+1.2
YANA	Yana	2.58	93	⇑P	Pn	19 30 05.5	+1.4
YANA	Yana	2.58	93	⇑S	Sn	19 30 37.4	+1.9
CAMI	Rancho Maria	2.73	104	P	Pn	19 30 08.6	+2.6
CAMI	Rancho Maria	2.73	104	S	Sn	19 30 42.3	+3.2
VC1	Cotopaxi 1	2.82	103	⇓P	Pn	19 30 10.3	+3.0
VC1	Cotopaxi 1	2.82	103	⇓S	Sn	19 30 44.7	+3.4
COTA	Cotacachi	2.83	83	P	Pn	19 30 10.8	+3.3
TAMB	Tambo	2.87	104	P	Pn	19 30 10.5	+2.5
TAMB	Tambo	2.87	104	S	Sn	19 30 45.4	+2.9
IGUA	Igualata	2.91	120	P	Pn	19 30 12.0	+3.4
PISA	Pisayambo	2.96	111	P	Pn	19 30 12.0	+2.8
ARRY	Arrayan	3.08	119	⇓P	Pn	19 30 15.1	+4.2
ARRY	Arrayan	3.08	119	⇓S	Sn	19 30 49.0	+1.1
ULBA	Ulba	3.10	118	P	Pn	19 30 14.2	+3.1
PATA	Patacocha	3.10	119	P	Pn	19 30 15.8	+4.7
CAYR	Refugio Cayamb	3.14	90	P	Pn	19 30 15.5	+3.8
CAYR	Refugio Cayamb	3.14	90	S	Sn	19 30 53.5	+4.1
CAYA	Cayambe	3.16	89	P	Pn	19 30 15.4	+3.4
CONE	Cono NE Rev Vo	3.51	91	P	Pn	19 30 26.5	+10

IDC ***24*** *19:36:02.4±0.5, 4680N×15591E, $h0^{km}$, mb4.3/23, mb1 4.4/24, mb1mx4.4/28, mbtmp4.3/24, ML4.3/1, Error ellipse: s-maj=14.6km s-min=12.7km az=138.0*
NEIC ***24*** *19:36:04.1±0.4, 4689N×15590E, $h10^{km}$, mb4.6/21, Error ellipse: s-maj=10.0km s-min=7.9km az=131.0*
BJI ***24*** *19:36:06.5, 47.16N×155.18E, $h10^{km}$, mB5.0, mb4.5, Ms4.6, Msz4.4*
ISCJB ***24*** *19:36:06.1±0.4, 4663N±005×15551E±006, $h33^{km}$, mb4.5/66, MS4.3/2, Error ellipse: s-maj=8.7km s-min=3.7km az=144.7*
SKHL ***24*** *19:36:06.3±1.1, 4699N×15566E, $h39^{km}\pm8^{km}$, mb5.4/4*
MOS ***24*** *19:36:07.3±1.5, 4670N×15565E, $h49^{km}$, mb4.5/30, Error ellipse: s-maj=9.4km s-min=8.0km az=130.5*
SZGRF ***24*** *19:36:22.4, 4757N×15542E, $h33^{km}$, mb4.3, East of Kuril Islands, Russia*
ISC 24 19:36:08.0±0.3, **4668N**±005×**15561E**±006, **$h35^{km}$, ($h12^{km}$**±7.8^{km}**:pP-P), n169,** σ**$1^{s}36$**/192, **mb4.5**/66, **MS4.3**/2, **3C-4D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	4.03	5	*e*P	Pn	19 36 59.2	-7.8
SKR				AMB	AMB	19 37 02.5	
	50nm,0.5s						
SKR				AMB	AMB	19 37 02.5	
	60nm,0.5s						
SKR				*e*S	Sn	19 37 39.4	-14
SKR				A		19 37 43.1	
	530nm,0.3s						
SKR				A		19 37 43.1	
	450nm,0.3s						
KUR	Kuril'sk	5.59	258	⇓*i*PN	Pn	19 37 29.5	+1.0
KUR				pmax	pmax		
	comp=N,340nm,0.6s						
KUR				pmax	pmax		
	comp=E,150nm,0.6s						
KUR				pmax	pmax		
	comp=Z,2µm,0.6s						
KUR	Kuril'sk	5.59	258	*i* P	Pn	19 37 29.5	+1.0
KUR				AMB	AMB	19 37 30.2	
	comp=Z,340nm,0.6s						
KUR				AMB	AMB	19 37 30.2	
	comp=Z,150nm,0.6s						
KUR				AMB	AMB	19 37 30.2	
	comp=Z,2µm,0.6s						
KUR				*e*S	Sn	19 38 31.0	-0.5
KUR				A		19 38 36.0	
	comp=Z,990nm,0.6s						
KUR				A		19 38 36.0	
	comp=Z,300nm,0.6s						
PET	Petropavlovsk	6.65	16	*e*Pn	Pn	19 37 34.8	-8.3
PET				*e*Sn	Sn	19 38 42.5	-15
PET	Petropavlovsk	6.65	16	*e*PN	Pn	19 37 35.5	-7.6
PET				pmax	pmax		
	comp=Z,24nm,0.6s						
YUK	Yuzh-Kuril'sk	7.36	252	⇓*i*PN	Pn	19 37 53.5	+0.7
YUK				pmax	pmax		
	comp=Z,710nm,0.4s						
YUK				pmax	pmax		
	comp=E,320µm,0.4s						
YUK	Yuzh-Kuril'sk	7.36	252	*e*P	Pn	19 37 53.5	+0.7
YUK				AMB	AMB	19 37 54.0	
	comp=E,320nm,0.4s						
YUK				AMB	AMB	19 37 54.0	
	comp=E,710nm,0.4s						
YUK				*e*S	Sn	19 39 14.3	-0.7
YUK				A		19 39 21.5	
	comp=E,390nm,0.6s						
YUK				A		19 39 21.5	
	comp=E,620nm,0.6s						
NEM2	Nemuro 2	7.73	248	P	Pn	19 37 57.0	-1.0
NEM2				*e*S	Sn	19 39 20.1	-4.2
JRA	Rausu	7.88	253	P	Pn	19 38 00.9	+0.9
JNK	Nakash	8.30	252	P	Pn	19 38 06.2	+0.5
JNK				*e*S	Sn	19 39 36.1	-2.0
JAK	Akkeshi	8.58	249	P	Pn	19 38 08.5	-1.1
JAK				*e*S	Sn	19 39 40.6	-4.5
JTKR	Abashiri--Toko	8.68	256	P	Pn	19 38 12.1	+1.2
YSS	Yuzh-Sakhalins	8.82	276	*e*Pn	Pn	19 38 15.0	+2.1
	comp=E,2µm,0.7s						
YSS	Yuzh-Sakhalins	8.82	276	⇑*i*PN	Pn	19 38 16.0	+3.1
YSS				pmax	pmax		
	comp=Z,60nm,1.0s						
YSS	Yuzh-Sakhalins	8.82	276	*i* P	Pn	19 38 16.0	+3.1
YSS				AMB	AMB	19 38 17.0	
	comp=Z,60nm,1.0s						
JMP	Maruseppu	9.03	257	P	Pn	19 38 17.0	+1.2
JAR	Ashorobuto	9.04	252	P	Pn	19 38 16.6	+0.7
JAR				*e*S	Sn	19 39 55.0	-1.5
JOB	Onbets	9.18	250	P	Pn	19 38 17.5	-0.3
JOB				*e*S	Sn	19 39 54.9	-4.9
JKK2	Kamakawa 2	9.49	257	P	Pn	19 38 23.6	+1.5
ASAJ	Asahikawa	9.51	259	P	Pn	19 38 24.3	+2.0
ASAJ	Asahikawa	9.51	259	PN	Pn	19 38 23.9	+1.6
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ	Asahikawa	9.51	259	Pn	Pn	19 38 23.9	+1.6
	comp=Z,3.6nm,0.3s,baz=90,slow=17,SNR=35						
JCH	Churui	9.63	249	P	Pn	19 38 23.5	-0.4
JCH				*e*S	Sn	19 40 06.9	-3.8
JFR	Furan	9.88	254	P	Pn	19 38 29.1	+1.8
JAB	Ashibetsu	9.98	256	P	Pn	19 38 30.9	+2.1
JEM	Erimo	10.06	247	P	Pn	19 38 30.6	+0.7
JEM				*e*S	Sn	19 40 20.1	-1.3
ERM	Erimo	10.06	247	*e*Pn	Pn	19 38 30.4	+0.5
	comp=Z,51nm,0.6s						
ERM	Erimo	10.06	247	*i* PN	Pn	19 38 30.5	+0.6
JNBK	Urakawa-nobuka	10.18	249	P	Pn	19 38 30.4	-1.1
JNBK				*e*S	Sn	19 40 18.3	-6.1
JEW	Eniwo	10.77	254	P	Pn	19 38 40.5	+0.9
JNB	Noboribetsu	11.21	253	P	Pn	19 38 45.3	-0.3
JNB				*e*S	Sn	19 40 45.0	-4.6
JKB	Kayabe	11.49	251	P	Pn	19 38 47.5	-1.9
JKB				*e*S	Sn	19 40 48.3	-8.1
JSH	Shimam	11.79	256	P	Pn	19 38 53.6	0.0
JYM2	Yakumo 2	11.81	253	P	Pn	19 38 52.7	-1.1
JYM2				*e*S	Sn	19 40 59.6	-4.7
JANG	Nango	12.01	243	P	Pn	19 38 53.9	-2.6
JANG				*e*S	Sn	19 40 57.5	-12
JTM	Tenmabayashi	12.05	246	P	Pn	19 38 55.2	-1.8
JTM				*e*S	Sn	19 41 00.7	-9.3
JSR	Shiriuchi	12.07	250	P	Pn	19 38 55.7	-1.6
JSR				*e*S	Sn	19 41 03.4	-7.1
JOSM	Okushiri--Mats	12.42	254	P	Pn	19 39 00.8	-1.3
OFUJ	Ofunato	12.72	238	P	Pn	19 39 04.1	-2.2
OFUJ				*e*S	Sn	19 41 20.0	-6.6
JRG	Rokugo	13.14	242	P	Pn	19 39 10.8	-1.1
JRG				*e*S	Sn	19 41 31.9	-4.8
MA2	Magadan	13.24	349	P	Pn	19 39 08.9	-4.3
MA2	Magadan	13.24	349	PN	Pn	19 39 08.9	-4.3
JIO	Ouri	13.33	237	P	Pn	19 39 12.1	-2.4
JIO				*e*S	Sn	19 41 33.9	-7.4
JYA	Atsumi	14.20	241	P	Pn	19 39 25.1	-1.3
MAJO	Matsushiro	16.45	238	*e*P	Pn	19 39 55.0	-1.0
	comp=Z,24nm,0.8s						
MAJO	Matsushiro	16.45	238	*e*P	Pn	19 39 55.0	-1.0
MAJO				pmax	pmax		
	comp=Z,25nm,0.8s						
MJAR	Matsushiro Arr	16.45	238	Pn	Pn	19 39 54.6	-1.4
MJAR	Matsushiro Arr	16.45	238	P	Pn	19 39 54.7	-1.3
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	16.45	238	Pn	Pn	19 39 54.6	-1.4
	comp=Z,0.7nm,0.3s,baz=28,slow=13,SNR=33						
MAT	Matsushiro	16.45	238	P	Pn	19 39 54.8	-1.2
YAK	Yakutsk	21.34	325	*e*P	P	19 40 47.6	-4.0
	comp=Z,15nm,0.6s,mb4.5						
YAK	Yakutsk	21.34	325	*e*P	P	19 40 49.4	-2.2
YAK				*e*		19 44 38.3	
YAK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.1						
YAK				pmax	pmax		
	comp=N,8.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,11nm,1.4s						
YAK				smax			
	comp=N,440nm,5.5s						
YAK				smax			
	comp=E,353nm,5.1s						
CN2	Changchun	21.37	273	*e*P	P	19 40 50.4	-1.8
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.2						
CLNS	Chul'man	21.38	310	*e*P	P	19 40 47.3	-4.9
CLNS				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.2						
CLNS				pmax	pmax		
	comp=N,3.0nm,0.7s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.8s						
CLNS				pmax	pmax		
	comp=N,9.0nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.4						
CLNS				pmax	pmax		
	comp=E,7.0nm,0.8s						
BILL	Bilibino	22.11	11	*e*P	P	19 40 56.2	-3.7
	comp=E,9.4nm,0.8s,mb4.3						
BILL	Bilibino	22.11	11	⇓*e*P	P	19 40 58.7	-1.2
BILL				*e*		19 41 14.5	
BILL				*e*S	S	19 44 57.8	-3.5
BILL				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.2						
KSRS	Korea Array	22.43	256	P	P	19 41 06.5	+3.0
	comp=Z,8.3nm,0.8s,mb4.2,baz=55,slow=10,SNR=23						
INCN	Inchon	23.28	257	P	P	19 41 11.6	-0.8
	comp=Z,16nm,0.7s,mb4.5						
SNY	Shenyang	23.35	270	⇑P	P	19 41 14.1	+0.9
SNY				S	S	19 45 18.3	-4.9
SNY				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.7						
SNY				LR	LR		
	comp=E,640nm,10.2s						
SNY				LR	LR		
	comp=Z,650nm,12.2s,MS4.3						
BOD	Bodaibo	27.36	309	*e*P	P	19 41 41.9	-7.6
BOD				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb3.8						
CIT	Chita	27.62	297	*e*P	P	19 41 51.9	+0.1
CIT				*e*		19 47 51.2	
TIXI	Tiksi	28.04	342	*e*P	P	19 41 53.7	-1.7
	comp=Z,4.2nm,0.6s,mb4.2						
TIXI	Tiksi	28.04	342	*e*P	P	19 41 53.2	-2.2
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.2						
BJT	Baijiatuau	29.21	271	*e*P	P	19 42 09.4	+3.3
	comp=Z,4.8nm,0.5s,mb4.5						
BJT	Baijiatuau	29.21	271	*e*P	P	19 42 09.4	+3.3
BJT				pmax	pmax		
	comp=Z,5.0nm,0.5s						
KDAK	Kodiak Island	32.82	51	P	P	19 42 34.2	-3.4
KDAK	Kodiak Island	32.82	51	P	P	19 42 34.2	-3.4
	comp=Z,9.7nm,0.6s,mb4.9,baz=314,slow=15,SNR=7.9						
SONM	Songino Array	32.98	290	P	P	19 42 39.4	+0.2
SONM				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SONM	Songino Array	32.98	290	P	P	19 42 39.4	+0.3
	comp=Z,2.2nm,0.7s,mb4.2,baz=67,slow=8.8,SNR=18						
TLY	Talaya	33.74	298	*e*P	P	19 42 45.1	-0.7
TLY				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
XAN	Xi'an	37.23	267	P	P	19 43 17.3	+1.4
XAN				AP	pP	19 43 27.6	+1.5
XAN				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.6						
LZH	Lanzhou	39.61	274	*e*P	P	19 43 39.5	+3.6
LZH				AP	pP	19 43 44.3	-1.8
LZH				XP	sP	19 43 47.5	-2.8
LZH				AMB	AMB		
	comp=Z,23nm,1.0s,mb4.9						
LZH				AMB	AMB		
	comp=Z,102nm,4.3s						
LZH	Lanzhou	39.61	274	*e*P	P	19 43 39.5	+3.6
	comp=Z,23nm,1.0s,mb4.9						
LZH				pP	pP	19 43 44.3	-1.8
LZH				sP	sP	19 43 47.5	-2.8
GTA	Gaotai	40.68	281	*e*P	P	19 43 47.4	+2.7
GTA				AP	pP	19 43 50.8	-4.2
GTA				XP	sP	19 43 52.3	-6.9
GTA				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.0						
INK	Inuvik	40.79	33	P	P	19 43 43.0	-2.3
INK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
INK	Inuvik	40.79	33	P	P	19 43 43.0	-2.3
	comp=Z,2.9nm,0.6s,mb4.1,baz=306,slow=5.7,SNR=3.5						
GYA	Guiyang	43.38	260	P	P	19 44 08.8	+1.8
GYA				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.4						
ZALV	Zalesovo Beam	44.04	307	P	P	19 44 11.6	-0.3

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ZALV  Zalesovo Beam     44.04 307   P       P        19 44 11.6 -0.3
      comp=Z,3.1nm,0.6s,mb4.2,baz=69,slow=7.3,SNR=15
ZAL   Zalesovo          44.06 307   P       P        19 44 11.6 -0.4
KMI   Kunming           46.92 262   P       P        19 44 37.8 +2.7
KMI                                 AP      pP       19 44 42.3 -3.2
KMI                                 XP      sP       19 44 44.8 -4.8
KMI                                 PP      PP       19 46 31.1 +5.4
KMI                                 AMB     AMB
      comp=Z,8.0nm,1.4s,mb4.5
KMI                                 AMB     AMB
      comp=Z,94nm,4.1s
KMI                                 LR      LR
      comp=N,330nm,15.9s,MS4.5
KMI                                 LR      LR
      comp=E,310nm,18.3s,MS4.5
KMI                                 LR      LR
      comp=Z,349nm,20.0s,MS4.3
KMI   Kunming           46.92 262   P       P        19 44 37.7 +2.6
      comp=Z,8.0nm,1.4s,mb4.5
KMI                                 pP      pP       19 44 42.3 -3.2
KMI                                 sP      sP       19 44 44.7 -4.9
KMI                                 PP      PP       19 46 31.1 +5.4
KMI                                 S       S        19 51 39.5  +16
KMI                                 sS      sS       19 51 47.4 +6.6
KMI                                 SS      SS       19 55 05.4  +15
KMI                                 LR      LR
      comp=Z,350nm,20.0s,MS4.3
KMI   Kunming           46.92 262   P       P        19 44 37.7 +2.6
KMI                                                  19 46 31.1
KMI                                 S       S        19 51 39.5  +16
KMI                                 pmax    pmax
      comp=Z,8.0nm,1.4s,mb4.5
KMI                                 MLR     MLR
      comp=Z,350nm,20.0s,MS4.3
MK31  Makanchi Array    48.49 298  eP       P        19 44 47.3 +0.3
MK31  Makanchi Array    48.49 298   P       P        19 44 46.7 -0.3
MK31                                pmax    pmax
      comp=Z,1.0nm,0.6s,mb4.0
MKAR  Makanchi Array    48.49 298   P       P        19 44 46.9 -0.1
MKAR                                pmax    pmax
      comp=Z,3.0nm,0.8s
MKAR  Makanchi Array    48.49 298   P       P        19 44 46.9 -0.1
      comp=Z,2.7nm,0.8s,mb4.3,baz=70,slow=7.4,SNR=28
KURK  Kurchatov         48.83 305  eP       P        19 44 49.3 -0.2
      comp=Z,12nm,0.8s,mb5.0
KURK  Kurchatov         48.83 305⇑iP       P        19 44 49.9 +0.4
YKA   Yellowknife Ar    49.95  37   P       P        19 44 56.2 -1.6
YKA   Yellowknife Ar    49.95  37   P       P        19 44 56.2 -1.7
YKA                                 pmax    pmax
      comp=Z,2.0nm,0.9s
YKA   Yellowknife Ar    49.95  37   P       P        19 44 56.2 -1.6
      comp=Z,1.5nm,0.9s,mb4.0,baz=298,slow=7.5,SNR=9.7
LSA   Lhasa             51.99 275  eP       P        19 45 16.6 +2.9
      comp=Z,3.6nm,0.6s,mb4.5
LSA   Lhasa             51.99 275  eP       P        19 45 16.6 +2.9
LSA                                 pmax    pmax
      comp=Z,4.0nm,0.6s,mb4.5
BRVK  Borovoye          52.26 310  eP       P        19 45 15.6 +0.2
      comp=Z,12nm,0.7s,mb4.9
BRVK  Borovoye          52.26 310  eP       P        19 45 15.6 +0.2
BRVK                                pmax    pmax
      comp=Z,12nm,0.7s,mb4.9
CM31  Chiang Mai Arr    54.03 258  eP       P        19 45 31.7 +2.9
TKM2  Tokmak 2          54.57 297  eP       P        19 45 33.3 +0.9
      comp=Z,1.6nm,0.7s,mb4.2
TKM2  Tokmak 2          54.57 297  eP       P        19 45 33.3 +0.9
TKM2                                pmax    pmax
      comp=Z,2.0nm,0.7s,mb4.3
AAK   Ala-Archa         55.40 298  eP       P        19 45 38.6 +0.1
      comp=Z,6.7nm,0.8s,mb4.7
AAK   Ala-Archa         55.40 298  i P      P        19 45 38.5  0.0
AAK                                 pmax    pmax
      comp=Z,7.0nm,0.8s,mb4.7
TAPN  Taplejung         55.82 275  eP       P        19 45 44.4 +2.7
      comp=Z,11nm,1.0s,mb4.8
EKS2  Erkin-Say         55.82 298  eP       P        19 45 42.9 +1.4
      comp=Z,3.8nm,0.8s,mb4.5
AML   Almayashu         56.17 298   P       P        19 45 46.1 +2.1
      comp=Z,2.6nm,0.8s,mb4.3
ARU   Arti              56.22 318  eP       P        19 45 42.4 -1.7
      comp=Z,6.9nm,0.7s,mb4.8
ARU   Arti              56.22 318d iP       P        19 45 43.8 -0.3
ARU                                eS       S        19 53 35.5 +4.6
ARU                                eSS      SS       19 57 21.0 +4.0
ARU                                 pmax    pmax
      comp=Z,12nm,1.4s,mb4.7
ODAN  Odare             56.35 275  eP       P        19 45 46.1 +0.6
JIRN  Jiri              56.66 276  eP       P        19 45 49.9 +2.2
      comp=Z,10nm,0.6s,mb5.0
KKN   Kakani            57.20 277  eP       P        19 45 54.2 +2.7
      comp=Z,16nm,1.0s,mb5.0
GKN   Gorkha            57.51 278  eP       P        19 45 55.7 +2.0
      comp=Z,26nm,1.0s,mb5.2
KK31  Karatay Array     57.53 300  i P      P        19 45 53.7 +0.1
KK31                                pmax    pmax
      comp=Z,3.0nm,0.8s,mb4.4
KKAR  Karatay Array     57.53 300  i P      P        19 45 53.7 +0.1
KKAR                                pmax    pmax
      comp=Z,3.0nm,0.9s,mb4.3
KEV   Kevo              57.98 341  ep       P        19 45 54.3 -2.0
      comp=Z,3.1nm,0.7s,mb4.5
KEV   Kevo              57.98 341  eP       P        19 45 54.3 -2.0
KEV                                 pmax    pmax
      comp=Z,3.0nm,0.7s,mb4.4
ARCES ARCESS Array B    58.48 342   P       P        19 45 58.6 -1.2
ARCES                               pmax    pmax
      comp=Z,5.0nm,1.1s
ARCES ARCESS Array B    58.48 342   P       P        19 45 58.6 -1.2
      comp=Z,4.9nm,1.1s,mb4.5,baz=27,slow=5.0,SNR=5.6
AB31  Akbulak array     59.78 311  i P      P        19 46 09.1 -0.1
AKTK  Aktyubinsk        60.05 313   P       P        19 46 11.2 +0.3
AKTO  Aktyubinsk        60.05 313   P       P        19 46 11.2 +0.2
AKTO                                pmax    pmax
      comp=Z,2.0nm,0.5s,mb4.4
AKTO  Aktyubinsk        60.05 313   P       P        19 46 11.2 +0.3
      comp=Z,1.5nm,0.5s,mb4.3,baz=22,slow=2.1,SNR=6.5
NVAR  Mina Array Bea    60.94  64   P       P        19 46 16.6 -0.7
      comp=Z,1.5nm,0.8s,mb4.2,baz=285,slow=7.2
JOF   Joensuu           62.15 335  ep       P        19 46 23.4 -1.6
      comp=Z,1.2nm,0.4s,mb4.4
JOF   Joensuu           62.15 335  eP       P        19 46 23.4 -1.6
JOF                                 pmax    pmax
      comp=Z,1.0nm,0.4s,mb4.3
KAKA  Kakadu            62.67 206  eP       P        19 46 30.5 +1.5
      comp=Z,8.8nm,0.6s,mb5.1
PDAR  Pinedale Array    63.39  55   P       P        19 46 32.1 -1.5
      comp=Z,1.4nm,0.8s,mb4.1,baz=306,slow=3.5,SNR=9.7
KAF   Kangasniemi       64.22 336  ep       P        19 46 34.7 -4.0
FINES FINESS Array B    64.83 336  i P      P        19 46 43.2 +0.5
FINES                               pmax    pmax
      comp=Z,1.0nm,0.7s
FINES FINESS Array B    64.83 336   P       P        19 46 41.6 -1.1
      comp=Z,1.4nm,0.7s,mb4.1,baz=51,slow=7.9,SNR=15
ULM   Lac du Bonnet     65.44  42   P       P        19 46 45.3 -1.6
      comp=Z,1.9nm,0.9s,mb4.1,baz=321,slow=7.0,SNR=3.9
OBN   Obninsk           66.33 327  eP       P        19 46 53.6 +1.1
OBN                                 pmax    pmax
      comp=Z,4.0nm,0.9s,mb4.5
AFI   Afiamalu          67.05 145   P       P        19 46 55.7 -1.8
AFI                                 pmax    pmax
      comp=Z,5.0nm,0.3s,mb5.0
AFI   Afiamalu          67.05 145   P       P        19 46 55.7 -1.8
      comp=Z,4.6nm,0.3s,mb5.0,baz=115,slow=19,SNR=2.6
NB2   NORSAR Subarra    68.84 342   P       P        19 47 09.6 +1.4
      comp=Z,2.7nm,1.0s,mb4.1,baz=24,slow=6.5
NOA   NORSAR Array B    68.84 342   P       P        19 47 08.9 +0.7
NOA                                 pmax    pmax
      comp=Z,1.0nm,0.8s
NOA   NORSAR Array B    68.84 342   P       P        19 47 08.9 +0.7
      comp=Z,0.9nm,0.8s,mb3.8,baz=150,slow=13,SNR=3.1
WB2   Warramunga Arr    69.03 201  eP       P        19 47 11.1 +1.2
WRA   Warramunga Arr    69.03 201   P       P        19 47 10.9 +1.0
WRA                                 pmax    pmax
      comp=Z,7.0nm,0.8s
WRA   Warramunga Arr    69.03 201   P       P        19 47 10.9 +1.1
      comp=Z,6.8nm,0.8s,mb4.6,baz=21,slow=6.9,SNR=41
FITZ  Fitzroy Crossi    69.92 210  eP       P        19 47 17.4 +2.0
      comp=Z,7.0nm,0.6s,mb4.8
FITZ  Fitzroy Crossi    69.92 210   P       P        19 47 17.5 +2.1
      comp=Z,4.0nm,0.6s,mb4.5,baz=26,slow=6.7,SNR=19
KIV   Kislovodsk        72.07 316  eP       P        19 47 30.6 +2.3
KIV                                 pmax    pmax
      comp=Z,8.0nm,1.1s,mb4.6
AKASG Malin Array Be    72.55 328   P       P        19 47 32.5 +1.5
      comp=Z,1.2nm,0.5s,mb4.0,baz=32,slow=6.0,SNR=2.5
ASAR  Alice Springs     72.71 201   P       P        19 47 34.1 +1.9
ASAR                                pmax    pmax
      comp=Z,5.0nm,0.8s
ASAR  Alice Springs     72.71 201   P       P        19 47 34.1 +1.9
      comp=Z,4.5nm,0.8s,mb4.5,baz=16,slow=5.5,SNR=52
LTX   Lajitas           76.02  62  eP       P        19 47 50.6 -1.0
      comp=Z,5.3nm,0.6s,mb4.7
LTX   Lajitas           76.02  62  eP       P        19 47 50.6 -1.0
LTX                                 pmax    pmax
      comp=Z,5.0nm,0.6s,mb4.6
TXAR  Lajitas Array     76.02  62   P       P        19 47 50.9 -0.7
TXAR                                PP      PP       19 50 35.8 -6.2
TXAR  Lajitas Array     76.02  62   P       P        19 47 50.9 -0.7
TXAR                                pmax    pmax
      comp=Z,6.0nm,0.6s
TXAR                                pmax    pmax
      comp=Z,1.0nm,0.7s
TXAR  Lajitas Array     76.02  62   P       P        19 47 50.9 -0.7
      comp=Z,6.0nm,0.6s,mb4.7,baz=302,slow=4.1,SNR=52
TXAR                                PP      PP       19 50 35.8 -6.2
      comp=Z,0.7nm,0.7s,baz=308,slow=4.6,SNR=4.4
CLL   Collm             77.23 337  e(PcP)   PcP      19 48 05.0 -3.6
CLL                                i sPcP            19 48 12.5
      comp=Z,8.0nm,0.8s
KHC   Kasperske Hory    79.03 336  eP       P        19 48 16.5 +8.4
KHC                                 x       x        19 48 24.0
GRF   Grafenberg Arr    79.17 337  eP       P        19 48 17.6 +8.8
      comp=Z,2.0nm,0.8s,mb4.1
GRF                                ePP      PP       19 50 56.0  -12
STKA  Stephens Creek    79.20 192   P       P        19 48 09.2 +0.3
      comp=Z,1.1nm,0.7s,mb3.9,baz=270,slow=19,SNR=3.2
GERES GERESS Array B    79.26 335   P       P        19 48 08.1 -1.2
      comp=Z,0.3nm,0.5s,mb3.5,baz=39,slow=6.8,SNR=4.9
BRTR  Keskin Array B    79.61 318   P       P        19 48 11.9 +0.5
BRTR                                pmax    pmax
      comp=Z,1.0nm,0.7s
BRTR  Keskin Array B    79.61 318   P       P        19 48 11.8 +0.5
      comp=Z,1.0nm,0.7s,mb3.8,baz=64,slow=1.3,SNR=5.0
MIB   Mutribah          80.16 303  eP       P        19 48 14.9 +0.4
MIB                                 AMb     AMB      19 48 16.5
      comp=Z,34nm,0.8s,mb5.3
QRN   Al-Qurain         80.61 302  eP       P        19 48 17.4 +0.5
QRN                                 AMb     AMB      19 48 18.2
      comp=Z,19nm,0.6s,mb5.2
NAY   Al-Naaiem         80.63 303  eP       P        19 48 17.5 +0.5
NAY                                 AMb     AMB      19 48 18.9
      comp=Z,15nm,0.7s,mb5.0
RDF   Al-Radifah        80.69 302  eP       P        19 48 18.1 +0.7
RDF                                 AMb     AMB      19 48 19.1
      comp=Z,28nm,0.7s,mb5.3
LPL   La Plagne         84.19 339  eP       P        19 48 35.7 +0.3
      comp=Z,5.7nm,0.6s,mb4.6
LPL   La Plagne         84.19 339  eP       P        19 48 35.7 +0.3
      comp=Z,2.8nm,0.6s,mb4.6
LPL   La Plagne         84.19 339  eP       P        19 48 35.7 +0.3
LPL                                 pmax    pmax
      comp=Z,3.0nm,0.6s,mb4.6
LPG   La Plagne         84.20 339  eP       P        19 48 35.5 +0.1
      comp=Z,5.5nm,0.6s,mb4.6
LPG   La Plagne         84.20 339  eP       P        19 48 35.5 +0.1
      comp=Z,2.8nm,0.6s,mb4.6
LPG   La Plagne         84.20 339  eP       P        19 48 35.5 +0.1
LPG                                 pmax    pmax
      comp=Z,3.0nm,0.6s,mb4.6
MBDF  Montbardon        84.92 338  eP       P        19 48 39.5 +0.4
SNAA  Sanae            152.94 195   PKPbc   PKPbc    19 55 59.3 -0.7
SNAA  Sanae            152.94 195   PKPbc   PKPbc    19 55 59.3 -0.7
      comp=Z,1.2nm,0.9s,baz=299,slow=4.4,SNR=11
```

IDC ***24*** *19:38:10.0±0.7, 4887N×142.19E, h0^{km}, mb4.0/11, mb1 4.2/12, mb1mx4.1/24, mbtmp4.0/12, ML3.7/1, MS3.4/1, Ms1 3.4/1, ms1mx2.8/43, Error ellipse: s-maj=21.7km s-min=17.5km az=101.0*

ISCJB ***24*** *19:38:11.2±0.8, 4885N±003×14224E±007, h19^{km}±6^{km}, mb4.1/20, Error ellipse: s-maj=7.6km s-min=4.8km az=170.0*

SKHL ***24*** *19:38:11.4±0.6, 4882N×14226E, h5^{km}, mb4.6/5, Ms4.4/2, Ol'khovka, (II-III) at Krasnogorsk*

SKHL Felt (IV-V) at Uglegorsk, Shakhtersk, Makarov, (III-IV) at Krasnopol'e, Porech'ye.

MOS ***24*** *19:38:11.3±2.5, 4894N×14203E, h13^{km}, mb4.4/12, Error ellipse: s-maj=14.8km s-min=7.1km az=92.2*

MOS Felt (IV-V) at Uglegorsk, Makarov, Shakhtersk; (III-IV) at Krasnopol'e, Porech'e, Ol'khovka; (II-III) at Krasnogorsk.

NEIC ***24*** *19:38:12.7±5.4, 4889N×142.18E, h18^{km}±35^{km}, mb4.2/7, Error ellipse: s-maj=11.2km s-min=9.2km az=124.0*

NEIC Felt [V] at Makarov, Shakhtersk and Uglegorsk; [IV] at Krasnopol'ye, Ol'khovka and Porech'ye; [III] at Krasnogorsk.

ISC 24 19:38:12.1±0.7**, 4886N**±002×**14223E**±006**, h11**^{km}±4^{km}**, n57,** σ1^{s}**27**/72**, mb4.1**/20**, 2C-3D, Sakhalin Island**

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Code  Station Name       Δ°   AZ°    Phase ID          Time     Res
                                    Op      ISC       h  m  s   ISC
UGL   Uglegorsk          0.25 334⇓iPN      Pg       19 38 16.8 -0.5
UGL                                eS       Sg       19 38 20.5 -0.2
UGL                                 pmax    pmax
      comp=N,730nm,0.4s
UGL                                 pmax    pmax
      comp=E,980nm,0.4s
UGL                                 pmax    pmax
      comp=Z,3μm,0.4s
UGL   Uglegorsk          0.25 334⇓iPg      Pg       19 38 16.9 -0.4
UGL                                 AMB     AMB      19 38 18.0
      comp=Z,730nm,0.4s
UGL                                 AMB     AMB      19 38 18.0
      comp=Z,3μm,0.4s
UGL                                 AMB     AMB      19 38 18.2
      comp=Z,7μm,0.2s
UGL                                 AMB     AMB      19 38 18.2
      comp=Z,8μm,0.2s
UGL                                 AMB     AMB      19 38 18.2
      comp=Z,18μm,0.2s
UGL                                eSg      Sg       19 38 21.0 +0.3
UGL                                 A                19 38 21.1
      comp=Z,258μm,0.4s
UGL                                 A                19 38 21.1
      comp=Z,253μm,0.2s
UGL                                 A                19 38 21.1
      comp=Z,69μm,0.2s
YSS   Yuzh-Sakhalins     1.93 169  ePn      Pn       19 38 44.6 -0.3
YSS   Yuzh-Sakhalins     1.93 169αePN      Pn       19 38 44.2 -0.6
YSS                                e                 19 39 14.9
YSS                                 smax
      comp=N,5μm,0.5s
YSS                                 smax
      comp=E,3μm,0.5s
YSS                                 MLR     MLR
      comp=N,3μm,8.0s
YSS                                 MLR     MLR
      comp=E,4μm,8.0s
YSS                                 MLR     MLR
      comp=Z,3μm,8.0s
YSS   Yuzh-Sakhalins     1.93 169  i P      Pn       19 38 44.0 -0.8
YSS                                ePg      Pg       19 38 48.8 -0.4
YSS                                eS       Sn       19 39 07.6 -1.5
YSS                                eSg      Sg       19 39 14.9 +0.7
YSS                                 A                19 39 16.1
      comp=Z,5μm,0.5s
YSS                                 A                19 39 16.1
      comp=Z,3μm,0.5s
YSS                                 AMS     AMS      19 39 44.0
      comp=Z,3μm,8.0s
YSS                                 AMS     AMS      19 39 44.0
      comp=Z,3μm,8.0s
YSS                                 AMS     AMS      19 39 44.0
      comp=Z,4μm,8.0s
OKH   Okha               4.72   5  ePN      Pn       19 39 20.0 -3.1
OKH   Okha               4.72   5  eP       Pn       19 39 26.8 +3.7
OKH                                ePg      Pg       19 39 46.2 +3.7
OKH                                eS       Sn       19 40 20.0 +2.2
OKH                                eSg      Sg       19 40 52.5 +8.9
OKH                                 A                19 40 54.0
      comp=Z,114nm,0.7s
OKH                                 AMS     AMS      19 43 20.0
      comp=Z,4μm,6.0s
OKH                                 AMS     AMS      19 43 20.0
      comp=Z,2μm,10.0s
ASAJ  Asahikawa          4.75 177   PN      Pn       19 39 24.0 +0.5
ASAJ                                pmax    pmax
      comp=Z,3.0nm,0.3s
ASAJ  Asahikawa          4.75 177   Pn      Pn       19 39 23.9 +0.5
      comp=Z,2.9nm,0.3s,baz=24,slow=15,SNR=7.0
ASAJ                                Sn      Sn       19 40 16.4 -2.1
      comp=Z,2.6nm,0.3s,baz=94,slow=23,SNR=2.5
HABR  Khabarovsk         4.77 268  ePN      Pn       19 39 25.4 +1.6
HABR                                pmax    pmax
      comp=Z,27nm,2.3s
KUR   Kuril'sk           5.29 131   PN      Pn       19 39 40.0 +9.1
KUR                                 pmax    pmax
      comp=Z,140nm,0.9s
KUR   Kuril'sk           5.29 131  eP       Pn       19 39 32.2 +1.3
KUR                                 AMB     AMB      19 39 34.0
      comp=Z,68nm,0.5s
KUR                                eS       Sn       19 40 32.1 +0.4
KUR                                 A                19 40 36.0
      comp=Z,430nm,0.9s
KUR                                 A                19 40 36.0
      comp=Z,510nm,0.9s
TEY   Ternei             5.42 227  eP       Pn       19 39 35.0 +2.2
TEY                                ePg      Pg       19 39 56.3 +0.4
TEY                                eS       Sn       19 40 36.0 +0.8
TEY                                eSg      Sg       19 41 12.0 +5.8
YUK   Yuzh-Kuril'sk      5.43 151  eS       Sn       19 40 35.5 +0.1
YUK                                 A                19 40 40.0
      comp=Z,400nm,0.6s
YUK                                 A                19 40 40.0
      comp=Z,360nm,0.5s
ERM   Erimo              6.87 174  ePn      Pn       19 39 53.5 +0.8
      comp=Z,77nm,0.7s
ERM   Erimo              6.87 174  i PN     Pn       19 39 56.0 +3.3
KLR   Kul'dur            6.90 277  ePN      Pn       19 39 51.7 -1.4
KLR                                 MLR     MLR
      comp=E,2μm,8.5s
KLR                                 MLR     MLR
      comp=Z,2μm,8.5s
EKMR  Ekimchan           7.22 309  eP       Pn       19 39 59.0 +1.6
EKMR                               ePg      Pg       19 40 26.0 -4.2
EKMR                                AMB     AMB      19 40 34.3
      comp=Z,7.0nm,0.3s
EKMR                               eSg      Sg       19 42 01.5 -2.1
EKMR                                A                19 42 04.0
      comp=Z,230nm,1.0s
EKMR                                A                19 42 04.0
      comp=Z,56nm,1.0s
EKMR                                A                19 42 04.0
      comp=Z,25nm,1.0s
MA2   Magadan           11.83  22   P       Pn       19 41 05.9 +5.4
MA2   Magadan           11.83  22   PN      Pn       19 41 05.9 +5.4
KSRS  Korea Array       15.42 228   LR      LR       19 48 36.1
      comp=Z,138nm,18.3s,baz=241,slow=40
BJT   Baijiatuau        20.52 254   P       P        19 42 49.0 -1.1
      comp=Z,7.5nm,0.8s
BJT   Baijiatuau        20.52 254   P       P        19 42 49.0 -1.1
BJT                                 pmax    pmax
      comp=Z,8.0nm,0.8s
BILL  Bilibino          22.69  23  eP       P        19 43 13.9 +0.8
      comp=Z,7.7nm,1.0s,mb4.1
BILL  Bilibino          22.69  23⇓eP       P        19 43 13.6 +0.4
BILL                               e                 19 43 34.7
BILL                                pmax    pmax
      comp=Z,3.0nm,0.9s,mb3.7
TIXI  Tiksi             23.69 350  eP       P        19 43 21.1 -2.4
      comp=Z,2.4nm,0.8s,mb3.7
TIXI  Tiksi             23.69 350  eP       P        19 43 20.6 -2.8
TIXI                                pmax    pmax
      comp=Z,5.0nm,1.0s,mb3.9
SONM  Songino Array     23.71 281   P       P        19 43 24.7 +0.9
SONM                                pmax    pmax
      comp=Z,2.0nm,1.1s
SONM  Songino Array     23.71 281   P       P        19 43 24.7 +0.9
      comp=Z,1.9nm,1.1s,mb3.5,baz=56,slow=7.7,SNR=2.4
TLY   Talaya            24.63 291  eP       P        19 43 34.9 +2.7
TLY                                e                 19 43 59.6
TLY                                eS       S        19 47 40.5  -13
TLY                                 pmax    pmax
      comp=Z,9.0nm,1.7s,mb4.0
TLY                                 MLR     MLR
      comp=Z,266nm,14.0s
KDAK  Kodiak Island     38.51  51   P       P        19 45 33.9  0.0
      comp=Z,10nm,1.0s,mb4.5,baz=290,slow=12,SNR=3.4
MCK   McKinley          38.87  41   P       P        19 45 40.2 +3.3
      comp=Z,6.4nm,1.3s,mb4.2
MCK   McKinley          38.87  41   P       P        19 45 40.2 +3.3
MCK                                 pmax    pmax
      comp=Z,6.0nm,1.3s,mb4.2
EGAK  Eagle             41.93  39  eP       P        19 46 00.9 -1.2
      comp=Z,8.5nm,0.9s,mb4.4
INK   Inuvik            43.81  32   P       P        19 46 16.8 -0.6
INK   Inuvik            43.81  32   P       P        19 46 16.8 -0.6
INK                                 pmax    pmax
      comp=Z,1.0nm,0.5s
INK   Inuvik            43.81  32   P       P        19 46 16.8 -0.6
      comp=Z,1.1nm,0.5s,mb3.8,baz=311,slow=9.3,SNR=2.4
EKS2  Erkin-Say         46.70 289  eP       P        19 46 40.2 -0.3
      comp=Z,2.4nm,0.9s,mb4.1
RES   Resolute Bay      51.05  17  eP       P        19 47 12.6 -1.0
      comp=Z,322nm,1.3s
YKA   Yellowknife Ar    53.48  34   P       P        19 47 31.0 -0.7
      comp=Z,0.3nm,0.4s,mb3.6,baz=307,slow=7.2,SNR=5.9
JOF   Joensuu           55.97 329  eP       P        19 47 49.2 -0.6
JOF                                 pmax    pmax
      comp=Z,2.0nm,0.5s,mb4.4
KAF   Kangasniemi       58.20 330  eP       P        19 48 03.9 -1.7
KAF                                 pmax    pmax
      comp=Z,2.0nm,0.5s,mb4.4
FINES FINESS Array B    58.76 330   P       P        19 48 09.1 -0.4
FINES FINESS Array B    58.76 330   P       P        19 48 09.1 -0.4
FINES                               pmax    pmax
      comp=Z,4.0nm,0.6s
FINES FINESS Array B    58.76 330   P       P        19 48 09.1 -0.4
      comp=Z,4.4nm,0.6s,mb4.6,baz=54,slow=8.1,SNR=15
NOA   NORSAR Array B    63.58 336   P       P        19 48 41.6 -0.6
NOA   NORSAR Array B    63.58 336   P       P        19 48 41.6 -0.6
NOA                                 pmax    pmax
      comp=Z,2.0nm,1.1s
NOA   NORSAR Array B    63.58 336   P       P        19 48 41.6 -0.6
      comp=Z,2.3nm,1.1s,mb4.1,baz=44,slow=5.6,SNR=3.1
KIV   Kislovodsk        63.88 308  eP       P        19 48 47.1 +2.7
KIV                                 pmax    pmax
      comp=Z,11nm,0.9s,mb4.9
AKASG Malin Array Be    65.46 320  i P      P        19 48 58.0 +3.4
AKASG                               pmax    pmax
      comp=Z,2.0nm,0.7s
AKASG Malin Array Be    65.46 320   P       P        19 48 53.1 -1.5
      comp=Z,2.0nm,0.7s,mb4.3,baz=42,slow=7.2,SNR=3.4
NVAR  Mina Array Bea    67.70  57   P       P        19 49 10.0 +0.8
      comp=Z,0.8nm,0.7s,mb3.9,baz=299,slow=6.1,SNR=4.6
WRA   Warramunga Arr    68.84 188  i P      P        19 49 16.2 -0.1
WRA                                 pmax    pmax
      comp=Z,3.0nm,1.0s
WRA   Warramunga Arr    68.84 188   P       P        19 49 15.4 -0.9
      comp=Z,2.9nm,1.0s,mb4.2,baz=0.4,slow=6.7,SNR=8.1
ASAR  Alice Springs     72.57 188   P       P        19 49 39.0 +0.1
ASAR                                pmax    pmax
      comp=Z,7.0nm,1.1s
ASAR  Alice Springs     72.57 188   P       P        19 49 39.0 +0.1
      comp=Z,6.5nm,1.1s,mb4.5,baz=2.1,slow=5.5,SNR=10
GERES GERESS Array B    73.03 327   P       P        19 49 42.0 +0.4
      comp=Z,0.2nm,0.5s,mb3.4,baz=243,slow=37,SNR=2.8
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ISCJB ***24*** *19:42:28.9±0.4, 2874N±008×4361W±006, h10^{km}, mb4.5/47, MS4.1/9, Error ellipse: s-maj=11.2km s-min=6.8km az=169.7*

IDC ***24*** *19:42:28.9±0.6, 2869N×4364W, h0^{km}, mb4.1/20, mb1 4.3/20, mb1mx4.2/26, mbtmp4.1/20, MS4.2/9, Ms1 4.2/9, ms1mx3.8/31, Error ellipse: s-maj=17.7km s-min=13.7km az=151.0*

NEIC ***24*** *19:42:30.5±0.3, 2873N×4356W, h10^{km}, mb4.8/27, Error ellipse: s-maj=9.8km s-min=6.2km az=168.0*

ISC 24 19:42:30.8±0.4**, 2874N**±008×**4357W**±006**, h10**^{km}**, n77,** σ0^{s}**91**/69**, mb4.5**/47**, MS4.1**/9**, 1C, Northern Mid-Atlantic Ridge**

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Code  Station Name       Δ°   AZ°    Phase ID          Time     Res
                                    Op      ISC       h  m  s   ISC
SJG   San Juan          23.22 248   LR      LR       19 55 07.2
      comp=Z,211nm,18.1s,MS3.6,baz=274,slow=33
BRYW  Bryant College    26.20 308   P       P        19 48 13.9 +8.3
      257nm,1.4s,mb5.6
PCRV  Puerto La Cruz    27.03 231   LR      LR       19 56 59.5
      comp=Z,129nm,21.5s,MS3.5,baz=45,slow=32
SCHQ  Schefferville     31.03 334   LR      LR       20 00 21.3
      comp=Z,362nm,18.5s,MS4.1,baz=74,slow=34
SDV   Santo Domingo     32.20 238  eP       P        19 48 59.7 +0.5
      8.2nm,1.0s,mb4.5
DWPF  Disney            33.21 278   P       P        19 48 59.3 -8.7
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	32nm,0.9s,mb5.2						
ESDC	Sonseca Array	34.28	61	LR	LR	19 59 08.1	
	comp=Z,202nm,19.6s,MS3.9,baz=330,slow=29						
OTAV	Otavalo	43.75	236	eP	P	19 50 38.2	+1.6
	17nm,1.5s,mb4.6						
ULM	Lac du Bonnet	44.65	314	P	P	19 50 42.0	-1.4
	2.8nm,0.9s,mb4.1,baz=92,slow=7.9,SNR=4.7						
KSU1	Kansas State U	44.66	298	P	P	19 50 42.3	-1.4
	21nm,1.3s,mb4.8						
TOA0	Torodi Ar. Sit	44.75	101	eP	P	19 50 43.7	-1.0
TORD	Torodi Ar. Bea	44.75	101	P	P	19 50 43.8	-1.0
	4.5nm,1.0s,mb4.2,baz=301,slow=6.8,SNR=17						
TORD				LR	LR	20 07 24.5	
	comp=Z,418nm,19.6s,MS4.4,baz=270,slow=33						
KEST	Kesra	44.85	67	P	P	19 50 46.5	+1.2
	3.0nm,1.0s,mb4.1,baz=176,slow=4.4,SNR=4.9						
FCC	Fort Churchill	45.63	326	eP	P	19 50 51.1	0.0
	40nm,1.7s,mb5.1						
CLL	Collm	47.47	45	eP	P	19 51 06.0	+0.3
	comp=Z,24nm,1.7s,mb4.8						
SIV	San Ignacio	47.58	203	P	P	19 51 06.0	-0.8
	comp=Z,2.2nm,0.8s,mb4.3,baz=16,slow=6.9,SNR=12						
KHC	Kasperske Hory	47.66	48	eP	P	19 51 07.0	-0.2
GERES	GERESS Array B	47.72	49	P	P	19 51 06.8	-0.9
	comp=Z,0.9nm,0.9s,mb3.8,baz=237,slow=4.6,SNR=8.8						
NB2	NORSAR Subarra	48.37	32	P	P	19 51 13.4	+0.9
	comp=Z,1.1nm,0.7s,mb4.0,baz=255,slow=7.9						
NOA	NORSAR Array B	48.37	32	P	P	19 51 12.7	+0.2
	comp=Z,1.8nm,0.8s,mb4.1,baz=255,slow=7.8,SNR=4.6						
DAG	Danmarks Havn	49.54	7	⇑iP	P	19 51 21.6	+0.3
	comp=Z,12nm,1.2s,mb4.8						
LPAZ	La Paz	50.67	211	eP	P	19 51 30.0	-0.5
	comp=Z,7.6nm,1.0s,mb4.6						
LPAZ	La Paz	50.67	211	P	P	19 51 30.1	-0.4
	comp=Z,2.9nm,0.8s,mb4.3,baz=6.0,slow=12,SNR=9.1						
LPAZ				LR	LR	20 11 44.0	
	comp=Z,113nm,20.6s,MS3.9,baz=154,slow=35						
VYHS	Vyhne	51.12	49	eP	P	19 51 33.0	-0.6
SDCO	Great Sand Dun	51.75	297	P	P	19 51 40.7	+2.2
	comp=Z,3.8nm,1.0s,mb4.3						
LTX	Lajitas	52.02	286	eP	P	19 51 39.9	-0.7
	comp=Z,11nm,1.3s,mb4.6						
TXAR	Lajitas Array	52.02	286	P	P	19 51 39.9	-0.8
	comp=Z,2.3nm,0.7s,mb4.2,baz=98,slow=8.2,SNR=16						
RES	Resolute Bay	52.63	345	eP	P	19 51 43.6	-0.9
	comp=Z,609nm,1.5s						
STHS	Stebnicka Huta	52.68	48	eP	P	19 51 42.4	-2.8
CRVS	Cervenica-Dubn	52.84	49	eP	P	19 51 46.7	+0.2
ANMO	Albuquerque	53.02	294	eP	P	19 51 49.4	+1.4
	comp=Z,29nm,1.7s,mb4.9						
BNM	Barren Site	53.33	293	eP	P	19 51 52.2	+1.9
KOLS	Kolonicke sedl	53.38	49	eP	P	19 51 51.8	+1.4
PDAR	Pinedale Array	54.07	304	P	P	19 51 55.4	-0.2
	comp=Z,7.8nm,0.8s,mb4.7,baz=92,slow=7.5,SNR=31						
REDW	Red Top Meadow	54.93	305	eP	P	19 52 02.5	+0.7
	comp=Z,25nm,1.5s,mb5.0						
FINES	FINESS Array B	55.51	33	P	P	19 52 05.8	+0.1
	comp=Z,2.7nm,0.6s,mb4.5,baz=229,slow=5.1,SNR=15						
EDM	Edmonton	55.62	317	eP	P	19 52 06.0	-0.6
HWUT	Hardware Ranch	55.72	303	eP	P	19 52 07.4	-0.2
	comp=Z,5.5nm,0.9s,mb4.6						
JLU	Jordanelle	55.81	301	eP	P	19 52 07.7	-0.6
ARCES	ARCESS Array B	56.08	23	P	P	19 52 10.2	+0.6
	comp=Z,5.5nm,0.8s,mb4.6,baz=306,slow=4.2,SNR=8.4						
YKA	Yellowknife Ar	56.21	328	P	P	19 52 10.6	-0.1
	comp=Z,1.6nm,0.8s,mb4.1,baz=91,slow=7.5,SNR=19						
YKA				LR	LR	20 16 09.5	
	comp=Z,371nm,18.7s,MS4.5,baz=155,slow=36						
WALA	Waterton Lakes	56.32	312	P	P	19 52 10.5	-1.2
	comp=Z,9.4nm,1.1s,mb4.7						
MSU	Marysvale	56.77	299	P	P	19 52 16.1	+0.9
DUG	Dugway	56.91	301	eP	P	19 52 14.1	-2.0
	comp=Z,20nm,1.4s,mb5.0						
BGU	Big Grassy Mou	56.93	302	eP	P	19 52 16.4	+0.1
HLID	Hailey	57.45	305	eP	P	19 52 19.4	-0.5
	comp=Z,2.6nm,1.0s,mb4.2						
AKASG	Malin Array Be	57.70	46	P	P	19 52 21.2	-0.3
	comp=Z,0.5nm,0.4s,mb3.9,baz=276,slow=6.6,SNR=7.9						
CCUT	Cedar City	57.90	298	eP	P	19 52 23.8	+0.7
JOF	Joensuu	57.99	31	ep	P	19 52 21.6	-1.7
	comp=Z,1.8nm,0.5s,mb4.4						
NEW	Newport	58.53	311	eP	P	19 52 26.9	-0.4
	comp=Z,15nm,1.1s,mb4.9						
OBN	Obninsk	61.45	40	P	P	19 52 47.1	-0.2
	comp=Z,26nm,1.1s,mb5.3						
NVAR	Mina Array Bea	61.47	300	P	P	19 52 47.5	-0.2
	comp=Z,1.4nm,0.7s,mb4.2,baz=78,slow=7.7,SNR=10						
PAHR	Pah Rah Range	61.94	302	eP	P	19 52 51.2	+0.3
	comp=Z,12nm,0.9s,mb5.0						
BR131	Keskin Array S	62.97	58	P	P	19 52 54.4	-3.3
	comp=Z,11nm,1.2s,mb4.8						
BRTR	Keskin Array B	62.97	58	P	P	19 52 58.5	+0.7
	comp=Z,1.8nm,0.7s,mb4.3,baz=252,slow=5.3,SNR=7.9						
INK	Inuvik	63.62	335	eP	P	19 53 00.8	-0.7
	comp=Z,159nm,0.8s,mb6.1						
INK	Inuvik	63.62	335	P	P	19 53 01.3	-0.2
	comp=Z,3.8nm,0.8s,mb4.5,baz=62,slow=9.6,SNR=10						
CFAA	Coronel Fontan	64.44	203	P	P	19 53 07.2	-0.1
	comp=Z,0.2nm,0.3s,mb3.6,baz=352,slow=6.7,SNR=6.0						
MALT	Malatya	66.95	58	eP	P	19 53 23.8	+0.1
	comp=Z,11nm,1.2s,mb4.8						
DAWY	Dawson	67.02	332	eP	P	19 53 23.8	+0.2
COLA	College	70.12	334	P	P	19 53 43.0	0.0
	comp=Z,3.3nm,0.6s,mb4.4						
IMA2	Indian Mountai	71.73	336	P	P	19 53 53.7	+1.0
AKTK	Aktyubinsk	75.23	40	P	P	19 54 14.2	+0.6
AKTO	Aktyubinsk	75.23	40	P	P	19 54 14.2	+0.6
	comp=Z,3.7nm,0.7s,mb4.5,baz=297,slow=5.3,SNR=21						
KDAK	Kodiak Island	75.48	328	LR	LR	20 27 01.5	
	comp=Z,336nm,20.3s,MS4.6,baz=84,slow=35						
BRVK	Borovoye	80.39	34	eP	P	19 54 43.0	+0.7
	comp=Z,7.6nm,1.3s,mb4.5						
KMBO	Kilima Mbogo	82.49	95	LR	LR	20 30 24.4	
	comp=Z,357nm,19.1s,MS4.8,baz=98,slow=35						
KURK	Kurchatov	85.88	33	eP	P	19 55 10.8	+0.1
	comp=Z,23nm,1.6s,mb5.2						
ZALV	Zalesovo Beam	86.36	28	P	P	19 55 14.0	+0.9
	comp=Z,0.6nm,0.6s,mb4.0,baz=289,slow=4.5,SNR=7.7						
AML	Almayashu	88.83	41	eP	P	19 55 26.1	+0.9
	comp=Z,3.2nm,0.8s,mb4.7						
AAK	Ala-Archa	88.98	41	P	P	19 55 24.2	-1.6
	comp=Z,1.9nm,0.8s,mb4.5						
UCH	Uchtor	89.24	41	eP	P	19 55 28.5	+1.4
	comp=Z,2.8nm,1.0s,mb4.5						
MK31	Makanchi Array	90.34	34	eP	P	19 55 32.4	+0.3
MKAR	Makanchi Array	90.34	34	P	P	19 55 32.4	+0.3
MKAR	Makanchi Array	90.34	34	P	P	19 55 32.4	+0.3
	comp=Z,0.6nm,0.7s,mb4.0,baz=318,slow=3.3,SNR=7.5						
URZ	Urewera	145.01	243	PKP	PKPdf	20 02 07.6	-0.8
URZ	Urewera	145.01	243	PKP	PKPdf	20 02 07.6	-0.8
	comp=Z,6.8nm,0.8s,baz=100,slow=6.1,SNR=3.9						

IDC 24 19:46:03.2±55.0, 15.54S×171.74W, h0^{km}, mb4.4/3, mb1 4.6/3, mb1mx4.0/16, mbtmp4.4/3, Error ellipse: s-maj=1083.0km s-min=173.6km az=79.0, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	45.36	240	P	P	19 54 23.9	+0.5
	2.1nm,0.5s,baz=101,slow=9.9,SNR=12						
WRA	Warramunga Arr	51.37	257	P	P	19 55 09.3	-0.8
	1.1nm,0.5s,baz=97,slow=7.0,SNR=40						
ASAR	Alice Springs	51.59	252	P	P	19 55 11.8	+0.2
	10.0nm,0.5s,baz=89,slow=7.8,SNR=242						

NIED **24** *19:47:00, 46.60N×152.90E, h35^{km}, Mw5.1 Best double couple: M$_0$5.95000×10^{16} NP1:ϕ$_s$230.00000°, δ51.00000°, λ137.00000°. NP2:ϕ$_s$350.00000°, δ58.00000°, λ48.00000°.*

ISCJB **24** *19:47:33.3±0.8, 46.67N±0.02×152.59E±0.02, h12^{km}±5^{km}, mb5.3/259, MS4.7/62, Error ellipse: s-maj=4.2km s-min=1.9km az=158.8*

BJI **24** *19:47:33.4, 46.79N×152.76E, h22^{km}, mB5.3, mb5.3, Ms4.8, Msz4.7*

GCMT **24** *19:47:34.7±0.2, 46.60N×152.90E, h52^{km}, MW5.3/93, Moment Tensor Solution. s72,c131; s93,c177; Duration: 1.1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.93±.02; M$_{θθ}$-0.34±.02; M$_{ϕϕ}$-0.59±.02; M$_{rθ}$0.15±.01; M$_{θϕ}$-0.48±.01; M$_{ϕr}$0.44±.01; Best double couple: M$_0$1.05400×10^{17} NP1:ϕ$_s$226.00000°, δ33.00000°, λ104.00000°. NP2:ϕ$_s$29.00000°, δ58.00000°, λ81.00000°. Principal axes: T 1.0490, Plg75.0000°, Azm274.0000°; N 0.0100, Plg7.0000°, Azm34.0000°; P -1.0600, Plg12.0000°, Azm126.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC **24** *19:47:34.7±0.1, 46.74N×152.52E, mb5.4/174, MS4.9/10 Error ellipse: s-maj=4.4km s-min=2.8km az=160.0*

BGS **24** *19:47:37.9, 47.36N×153.63E, h10^{km}, mb5.5*

JMA **24** *19:47:37.0±0.7, 46.62N×152.90E, h30^{km}, M5.7*

MOS **24** *19:47:38.6±1.4, 46.64N×152.58E, h62^{km}, mb5.5/108, MS4.8/34, Error ellipse: s-maj=7.5km s-min=6.6km az=78.6*

SKHL **24** *19:47:39.6±2.7, 46.66N×152.66E, h67^{km}±10^{km}, mb6.1/1, mbh5.8/1, Ms5.0/4, msh5.9/2*

IDC **24** *19:47:39.0±1.8, 46.71N×152.55E, h43^{km}±15^{km}, mb4.9/29, mb1 4.9/29, mb1mx4.9/30, mbtmp4.9/29, MS4.5/28, Ms1 4.5/28, ms1mx4.3/45, Error ellipse: s-maj=13.4km s-min=10.1km az=133.0*

SZGRF **24** *19:47:46.2, 48.18N×151.14E, h33^{km}, mb5.6, Kuril Islands, Russia*

ISC 24 19:47:38.9±0.3, 46.70N±0.02×152.52E±0.02, h38^{km}±3^{km}, h8^{km}±4.0^{km}:pP-P, n1070, σ0.95/1087, mb5.3/259, MS4.7/62, 272C-90D, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KUR	Kuril'sk	3.56	247	i PN	Pn	19 48 33.0	+1.5
KUR				eS	Sn	19 49 16.0	+3.7
KUR				pmax	pmax		
	comp=N,760nm,0.5s						
KUR				pmax	pmax		
	comp=E,300nm,0.5s						
KUR				pmax	pmax		
	comp=Z,2μm,0.5s						
KUR				pmax	pmax		
	comp=N,2μm,1.0s						
KUR				pmax	pmax		
	comp=E,10μm,1.0s						
KUR				pmax	pmax		
	comp=Z,8μm,1.0s						
KUR				smax			
	comp=N,12μm,0.5s						
KUR				smax			
	comp=E,10μm,0.5s						
KUR				smax			
	comp=N,26μm,2.0s						
KUR				smax			
	comp=E,38μm,2.0s						
KUR	Kuril'sk	3.56	247	i P	Pn	19 48 33.0	+1.5
KUR				AMB	AMB	19 48 36.5	
	comp=E,760nm,0.5s						
KUR				AMB	AMB	19 48 36.5	
	comp=E,300nm,0.5s						
KUR				AMB	AMB	19 48 36.5	
	comp=E,2μm,0.5s						
KUR				AMB	AMB	19 48 49.0	
	comp=E,2μm,1.0s						
KUR				AMB	AMB	19 48 49.0	
	comp=E,10μm,1.0s						
KUR				AMB	AMB	19 48 49.0	
	comp=E,8μm,1.0s						
KUR				eS	Sn	19 49 16.0	+3.7
KUR				A		19 49 26.0	
	comp=E,12μm,0.5s						
KUR				A		19 49 26.0	
	comp=E,10μm,0.5s						
KUR				A		19 49 26.0	
	comp=E,26μm,2.0s						
KUR				A		19 49 26.0	
	comp=E,38μm,2.0s						
SKR	Severo-Kuril's	4.65	30	eP	Pn	19 48 46.0	-0.5
SKR	Severo-Kuril's	4.65	30	ePN	Pn	19 48 47.0	+0.5
SKR				eS	Sn	19 49 37.0	-2.1
SKR				pmax	pmax		
	comp=N,230nm,0.5s						
SKR				pmax	pmax		
	comp=Z,620nm,0.5s						
SKR				pmax	pmax		
	comp=E,240nm,0.3s						
SKR				smax			
	comp=E,8μm,8.0s						
SKR				smax			
	comp=N,850nm,0.5s						
SKR				smax			
	comp=E,1μm,0.5s						
SKR				MLR	MLR		
	comp=N,5μm,14.0s						
SKR				MLR	MLR		
	comp=E,8μm,14.0s						
SKR				MLR	MLR		
	comp=Z,5μm,14.0s						
SKR	Severo-Kuril's	4.65	30	eP	Pn	19 48 47.0	+0.5
SKR				AMB	AMB	19 48 51.0	
	comp=Z,230nm,0.5s						
SKR				AMB	AMB	19 48 51.0	
	comp=Z,240nm,0.5s						
SKR				AMB	AMB	19 48 51.0	
	comp=Z,620nm,0.5s						
SKR				eS	Sn	19 49 37.0	-2.1
SKR				A		19 49 47.0	
	comp=Z,8μm,8.0s						
SKR				A		19 50 05.0	
	comp=Z,850nm,0.5s						
SKR				A		19 50 05.0	
	comp=Z,1μm,0.5s						
SKR				AMS	AMS	19 50 44.0	
	comp=Z,5μm,14.0s						
SKR				AMS	AMS	19 50 44.0	
	comp=Z,8μm,14.0s						
SKR				AMS	AMS	19 50 44.0	
	comp=Z,5μm,14.0s						
YUK	Yuzh-Kuril'sk	5.39	243	eP	Pn	19 48 59.0	+2.3
YUK	Yuzh-Kuril'sk	5.39	243	i PN	Pn	19 48 58.7	+2.0
YUK				S	Sn	19 50 05.3	+7.9
YUK				pmax	pmax		
	comp=Z,2μm,0.5s						
YUK				pmax	pmax		
	comp=N,740nm,0.4s						
YUK				pmax	pmax		
	comp=E,810nm,0.4s						
YUK				pmax	pmax		
	comp=Z,4μm,0.6s						
YUK				smax			
	comp=E,7μm,0.6s						
YUK				smax			
	comp=N,16μm,0.5s						
YUK				smax			
	comp=N,47μm,1.2s						
YUK				smax			
	comp=E,25μm,0.8s						
YUK				MLR	MLR		
	comp=Z,6μm,14.0s						
YUK	Yuzh-Kuril'sk	5.39	243	i P	Pn	19 48 58.7	+2.0
YUK				AMB	AMB	19 49 02.5	
	comp=Z,740nm,0.5s						
YUK				AMB	AMB	19 49 02.5	
	comp=Z,810nm,0.5s						
YUK				AMB	AMB	19 49 02.5	
	comp=Z,2μm,0.5s						
YUK				AMB	AMB	19 49 03.2	
	comp=Z,4μm,0.6s						
YUK				eS	Sn	19 50 05.3	+7.9
YUK				A		19 50 23.0	
	comp=Z,16μm,0.6s						
YUK				A		19 50 23.0	
	comp=Z,7μm,0.6s						
YUK				A		19 50 36.0	
	comp=Z,47μm,1.2s						
YUK				A		19 50 36.0	
	comp=Z,25μm,1.2s						
YUK				AMS	AMS	19 51 12.0	
	comp=Z,6μm,14.0s						
NEM2	Nemuro 2	5.84	238	⇑P	Pn	19 49 03.1	+0.2
NEM2				eS	Sn	19 50 07.3	-1.2
JRA	Rausu	5.90	245	P	Pn	19 49 06.7	+3.0
JNK	Nakash	6.33	243	P	Pn	19 49 11.8	+2.2
JNK				eS	Sn	19 50 24.3	+3.7
JTKR	Abashiri--Toko	6.65	249	⇑P	Pn	19 49 17.5	+3.5
JAK	Akkeshi	6.67	239	P	Pn	19 49 14.5	+0.2
JAK				eS	Sn	19 50 26.3	-2.8
YSS	Yuzh-Sakhalins	6.70	276	i P	Pn	19 49 12.4	-2.3
YSS				⇓ePn	Pn	19 49 19.5	+4.8
YSS				eSn	Sn	19 50 31.1	+1.4
YSS	Yuzh-Sakhalins	6.70	276κ	iPN	Pn	19 49 19.0	+4.3
YSS				MLR	MLR		
	comp=Z,8μm,16.0s						
YSS				MLR	MLR		
	comp=N,4μm,17.0s						
YSS				MLR	MLR		
	comp=E,7μm,17.0s						
YSS	Yuzh-Sakhalins	6.70	276	i P	Pn	19 49 19.0	+4.3
YSS				eS	Sn	19 50 32.0	+2.3
YSS				AMS	AMS	19 51 48.0	
	comp=E,4μm,17.0s						
YSS				AMS	AMS	19 51 48.0	
	comp=E,7μm,17.0s						
YSS				AMS	AMS	19 51 48.0	
	comp=E,8μm,17.0s						
JMP	Maruseppu	6.99	251	⇑P	Pn	19 49 22.5	+3.9
JAR	Ashorobuto	7.07	244	⇑P	Pn	19 49 22.3	+2.6
JAR				eS	Sn	19 50 43.9	+5.1
JSE	Soyaes	7.15	260	P	Pn	19 49 26.3	+5.4
JOB	Onbets	7.24	242	P	Pn	19 49 23.4	+1.3
UGL	Uglegorsk	7.42	293κ	iPN	Pn	19 49 30.3	+5.8
UGL				eS	Sn	19 50 52.5	+5.2
UGL				pmax	pmax		
	comp=Z,1μm,1.0s						
UGL				pmax	pmax		
	comp=Z,3μm,2.0s						
UGL				smax			
	comp=N,263nm,0.9s						
UGL				smax			
	comp=E,362nm,0.9s						
UGL				MLR	MLR		
	comp=E,7μm,17.0s						
UGL				MLR	MLR		
	comp=Z,7μm,17.0s						
UGL				MLR	MLR		
	comp=N,3μm,15.0s						
UGL	Uglegorsk	7.42	293	i P	Pn	19 49 30.3	+5.8
UGL				eS	Sn	19 50 52.5	+5.2
UGL				A		19 50 56.0	
	comp=N,260nm,0.9s						
UGL				A		19 50 56.0	
	comp=N,360nm,0.9s						
UGL				AMS	AMS	19 52 16.0	
	comp=N,3μm,17.0s						
UGL				AMS	AMS	19 52 16.0	
	comp=N,7μm,17.0s						
ASAJ	Asahikawa	7.44	253	PN	Pn	19 49 29.7	+4.9
ASAJ				S	Sn	19 50 59.8	+12
ASAJ				pmax	pmax		
	comp=Z,37nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,5μm,20.4s						
ASAJ	Asahikawa	7.44	253	P	Pn	19 49 29.7	+4.9
	comp=Z,37nm,0.3s,baz=84,slow=12,SNR=217						
ASAJ				S	Sn	19 50 59.8	+12
	baz=131,slow=25,SNR=1.5						
ASAJ				LR	LR	19 52 12.6	
	comp=Z,5μm,20.4s,baz=69,slow=37						
JKK2	Kamakawa 2	7.44	251	P	Pn	19 49 29.0	+4.1
PET	Petropavlovsk	7.47	30	ePn	Pn	19 49 26.7	+1.5
PET				eSn	Sn	19 50 47.2	-1.4
PET	Petropavlovsk	7.47	30	ePN	Pn	19 49 27.8	+2.6
PET				pmax	pmax		
	comp=Z,192nm,0.5s						
PET				MLR	MLR		
	comp=Z,2μm,13.0s						
PET				MLR	MLR		
	comp=Z,2μm,15.0s						
JWK2	Keihoku	7.52	263	P	Pn	19 49 33.2	+7.3
JCH	Churui	7.70	241	P	Pn	19 49 29.2	+0.9
JCH				eS	Sn	19 50 51.6	-2.6
JFR	Furan	7.88	247	P	Pn	19 49 36.1	+5.3
JAB	Ashibetsu	7.95	250	P	Pn	19 49 36.1	+4.3
JHR	Hokuryu	8.17	253	P	Pn	19 49 40.1	+5.3
ERM	Erimo	8.17	238	Pn	Pn	19 49 37.6	+2.7
	comp=Z,3μm,0.4s,SNR=68						
ERM	Erimo	8.17	238	ePn	Pn	19 49 36.4	+1.5
	comp=Z,566nm,0.5s						
ERM	Erimo	8.17	238	ePN	Pn	19 49 36.4	+1.5
ERM				pmax	pmax		
	comp=Z,566nm,0.5s						
JEM	Erimo	8.17	238	P	Pn	19 49 36.3	+1.4
JBT2	Biratori 2	8.22	245	P	Pn	19 49 38.3	+2.8
JNBK	Urakawa-nobuka	8.26	241	P	Pn	19 49 36.4	+0.4
JEW	Eniwo	8.76	248	P	Pn	19 49 45.7	+2.7
JSK	Shakotan	9.16	253	P	Pn	19 49 52.0	+3.6
OKH	Okha	9.21	322	eP	Pn	19 49 49.3	+0.3
OKH				AMB	AMB	19 49 52.0	
	comp=Z,2μm,5.0s						
OKH				AMB	AMB	19 49 52.0	
	comp=Z,2μm,5.0s						
OKH				AMB	AMB	19 49 52.0	
	comp=Z,3μm,5.0s						
OKH				eS	Sn	19 51 33.3	+2.0
OKH				AMS	AMS	19 54 34.4	
	comp=Z,3μm,14.0s						
OKH				AMS	AMS	19 54 34.4	
	comp=Z,5μm,14.0s						
OKH				AMS	AMS	19 54 34.4	
	comp=Z,5μm,14.0s						
JNB	Noboribetsu	9.21	247	P	Pn	19 49 50.9	+1.8
JNB				eS	Sn	19 51 31.3	-0.2
JKB	Kayabe	9.53	244	P	Pn	19 49 53.1	-0.4
JKB				eS	Sn	19 51 35.0	-4.2
JSH	Shimam	9.76	250	P	Pn	19 49 59.3	+2.7
JOT	Ohata	9.81	241	P	Pn	19 49 56.3	-1.1
JYM2	Yakumo 2	9.82	247	P	Pn	19 49 58.5	+1.1
JSR	Shiriuchi	10.11	244	P	Pn	19 50 01.6	+0.2
JTM	Tenmabayashi	10.17	239	P	Pn	19 50 01.2	-1.0
JTM				eS	Sn	19 51 47.9	-7.0
JANG	Nango	10.18	236	P	Pn	19 50 00.0	-2.4
JANG				eS	Sn	19 51 45.1	-10
JTH	Tanohata	10.28	233	eS	Sn	19 51 48.2	-9.5
JOSM	Okushiri--Mats	10.41	248	P	Pn	19 50 06.8	+1.3
JAH	Hinai	10.80	237	P	Pn	19 50 09.2	-1.7
JOM	Ohasama	10.92	233	P	Pn	19 50 10.7	-1.8
OFUJ	Ofunato	11.00	230	P	Pn	19 50 11.0	-2.6
JRG	Rokugo	11.34	234	P	Pn	19 50 16.4	-1.8
JRG				eS	Sn	19 52 18.4	-5.2
JYW	Yuwa	11.48	236	P	Pn	19 50 19.0	-1.2
JIO	Ouri	11.63	229	P	Pn	19 50 20.1	-2.2
JIO				eS	Sn	19 52 22.5	-8.3
HABR	Khabarovsk	11.93	285	ePN	Pn	19 50 20.9	-5.3
HABR				pmax	pmax		
	comp=Z,30nm,2.7s						
JMM	Marumori	12.37	229	P	Pn	19 50 29.0	-3.3
JYA	Atsumi	12.41	234	P	Pn	19 50 31.4	-1.5
JFK	Kawauchi	12.71	227	P	Pn	19 50 34.4	-2.5
JFK				eS	Sn	19 52 46.7	-10
MA2	Magadan	12.95	356	ePn	Pn	19 50 42.0	+2.0
MA2	Magadan	12.95	356	i PN	Pn	19 50 42.8	+2.8
JFY	Yanaizu	13.28	230	P	Pn	19 50 42.9	-1.8
JSD	Sado	13.62	236	P	Pn	19 50 47.2	-2.2
JYT	Yasato	13.94	226	P	Pn	19 50 50.6	-3.1
KLR	Kul'dur	14.14	288	eP	Pn	19 50 59.7	+3.3
KLR				MLR	MLR		
	comp=Z,4μm,14.0s						
MJAR	Matsushiro Arr	14.72	232	P	Pn	19 51 02.2	-2.2
MJAR				S	Sn	19 53 47.5	+1.4
MJAR				LR	LR	19 56 59.2	
MJAR	Matsushiro Arr	14.72	232	P	Pn	19 51 02.2	-2.2
MJAR				S	Sn	19 53 47.6	+1.5
MJAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MJAR				smax			
	comp=N,1.0nm,0.3s						
MJAR				MLR	MLR		
	comp=Z,1μm,21.1s						
MJAR	Matsushiro Arr	14.72	232	P	Pn	19 51 02.2	-2.2
	comp=Z,2.4nm,0.3s,baz=24,slow=15,SNR=47						
MJAR				S	Sn	19 53 47.5	+1.4
	comp=Z,0.6nm,0.3s,baz=6.8,slow=13,SNR=3.0						
MJAR				LR	LR	19 56 59.2	
	comp=Z,1μm,21.1s,baz=45,slow=38						
MAJO	Matsushiro	14.72	232	ePn	Pn	19 51 01.6	-2.8
	comp=Z,101nm,0.5s						
MAJO				e		19 51 11.4	
MAJO				e		19 51 18.8	
MAJO	Matsushiro	14.72	232	eP	Pn	19 51 01.6	-2.8
MAJO				pmax	pmax		
	comp=Z,101nm,0.5s						
MAT	Matsushiro	14.72	232	P	Pn	19 51 02.1	-2.3
JRY	Ryogami san	14.75	229	P	Pn	19 51 02.9	-1.9
JNG	Nsakai	14.88	231	P	Pn	19 51 04.6	-1.9
SMY	Shemya	15.18	59	ePn	Pn	19 51 07.8	-2.5
	comp=Z,64nm,0.5s						
SMY				eSn	Sn	19 53 46.2	-11

SMY	**Shemya**	**15.18**	**59**	*e*P	**Pn**	**19 51 07.8**	**-2.5**
SMY				pmax	pmax		
	comp=Z,64nm,0.5s						
JOD2	**Odawara 2**	**15.25**	**226**	P	**Pn**	**19 51 10.0**	**-1.3**
MDJ	**Mudanjiang**	**16.15**	**271**	P	**Pn**	**19 51 19.0**	**-3.9**
MDJ				S	**S**	**19 54 16.9**	**-16**
MDJ				SCP	ScP	19 59 50.9	+3.3
MDJ				PCS	PcS	19 59 52.1	+0.2
MDJ				SCS	ScS	20 03 30.0	+3.6
MDJ				AMB	AMB		
	comp=Z,201nm,5.4s						
MDJ				LR	LR		
	comp=N,1µm,22.4s						
MDJ				LR	LR		
	comp=E,1µm,24.5s						
MDJ				LR	LR		
	comp=Z,3µm,19.0s						
JAO	**Obara**	**16.19**	**231**	P	**Pn**	**19 51 22.8**	**-0.6**
JHJ	**Hachijo jima 2**	**16.68**	**220**	LR	LR	19 57 19.2	
	comp=Z,438nm,21.3s,baz=80,slow=35						
JWT	**Wachi**	**17.19**	**235**	P	**Pn**	**19 51 35.4**	**-0.6**
JAD	**Aida**	**18.14**	**236**	P	**Pn**	**19 51 47.4**	**-0.2**
JWZ	**Kozaga**	**18.33**	**230**	P	**Pn**	**19 51 44.8**	**-5.3**
JHS	**Saijyo**	**18.70**	**238**	P	**Pn**	**19 51 52.0**	**-2.5**
JMN	**Monobe**	**19.18**	**234**	P	**Pn**	**19 51 56.6**	**-3.7**
CN2	**Changchun**	**19.24**	**271**	*e*P	**Pn**	**19 51 58.8**	**-2.1**
CN2				*e*S	**S**	**19 55 27.0**	**-8.5**
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,1µm,18.0s						
CN2				LR	LR		
	comp=E,2µm,18.0s						
CN2				LR	LR		
	comp=Z,3µm,16.0s						
CLNS	**Chul'man**	**19.74**	**311**	*e*P	**Pn**	**19 52 07.1**	**+0.3**
CLNS				*e*S	**S**	**19 55 49.7**	**+4.4**
CLNS				pmax	pmax		
	comp=Z,45nm,0.7s						
CLNS				pmax	pmax		
	comp=N,15nm,1.0s						
CLNS				pmax	pmax		
	comp=E,23nm,1.0s						
CLNS				smax			
	comp=N,62nm,1.1s						
CLNS				smax			
	comp=E,40nm,1.1s						
CLNS				smax			
	comp=Z,25nm,1.2s						
CLNS				MLR	MLR		
	comp=N,400nm,12.0s						
CLNS				MLR	MLR		
	comp=E,2µm,12.0s						
NRGR	**Nerungri**	**19.77**	**310**	*e*P	**Pn**	**19 52 07.4**	**+0.2**
YAK	**Yakutsk**	**20.15**	**328**	*e*P	**P**	**19 52 10.8**	**+1.4**
	comp=E,536nm,0.8s						
YAK				*e*		19 52 15.6	
YAK				*e*S	**S**	**19 55 53.2**	**-0.1**
YAK	**Yakutsk**	**20.15**	**328**	*e*P	**P**	**19 52 11.1**	**+1.7**
YAK				*e*		19 52 27.2	
YAK				*e*S	**S**	**19 55 54.5**	**+1.2**
YAK				*e*		19 56 26.2	
YAK				*e*SSS		19 56 28.2	
YAK				pmax	pmax		
	comp=Z,464nm,0.9s						
YAK				pmax	pmax		
	comp=N,102nm,1.0s						
YAK				pmax	pmax		
	comp=E,163nm,1.1s						
YAK				pmax	pmax		
	comp=N,360nm,1.6s						
YAK				pmax	pmax		
	comp=Z,454nm,1.6s						
YAK				pmax	pmax		
	comp=E,425nm,1.7s						
YAK				smax			
	comp=N,307nm,2.2s						
YAK				smax			
	comp=E,636nm,7.6s						
YAK				MLR	MLR		
	comp=E,2µm,22.0s,MS4.6						
YAK				MLR	MLR		
	comp=Z,2µm,22.0s,MS4.5						
YAK				MLR	MLR		
	comp=N,2µm,19.0s,MS4.6						
KSRS	**Korea Array**	**20.39**	**252**	P	**P**	**19 52 14.3**	**+2.0**
	comp=N,73nm,0.9s,baz=56,slow=10,SNR=49						
KSRS				PcP	PcP	19 56 24.2	+0.6
	comp=N,5.2nm,0.7s,baz=347,slow=2.5,SNR=7.9						
KSRS				LR	LR	19 59 02.7	
	comp=N,1µm,20.5s,MS4.3,baz=50,slow=33						
KSRS				ScP	ScP	19 59 55.9	-1.0
	comp=N,2.6nm,0.9s,baz=196,slow=0.9,SNR=6.8						
KS15	**Wonju Array Si**	**20.42**	**252**	*e*Pn	**P**	**19 52 15.1**	**+2.5**
CBIJ	**Chichi jima**	**21.20**	**206**	P	**P**	**19 52 21.1**	**0.0**
	comp=N,97nm,0.6s,mb5.3,baz=106,slow=20,SNR=3.1						
INCN	**Inchon**	**21.22**	**254**	*e*P	**P**	**19 52 22.0**	**+0.8**
	comp=N,68nm,0.6s,mb5.2						
SNY	**Shenyang**	**21.22**	**267**	⇑P	**P**	**19 52 21.3**	**0.0**
SNY				XP	sP	19 52 28.3	-7.5
SNY				PP		19 52 44.3	
SNY				S	**S**	**19 56 13.4**	**-1.5**
SNY				XS	sS	19 56 20.3	-10
SNY				AMB	AMB		
	comp=Z,410nm,2.4s,mb5.3						
SNY				LR	LR		
	comp=E,1µm,22.7s						
SNY				LR	LR		
	comp=Z,2µm,22.6s,MS4.5						
JNU	**Nakatsue**	**21.34**	**238**	P	**P**	**19 52 23.7**	**+1.1**
JNU	**Nakatsue**	**21.34**	**238**	P	**P**	**19 52 23.6**	**+1.0**
	comp=Z,55nm,0.7s,mb5.0,baz=52,slow=4.8						
JNU				LR	LR	20 01 25.3	
	comp=Z,706nm,18.8s,MS4.1,baz=36,slow=39						
HIA	**Hailar**	**21.99**	**289**	⇓*i*P	**P**	**19 52 27.6**	**-1.9**
	comp=Z,73nm,1.1s,mb5.0						
HIA	**Hailar**	**21.99**	**289**	⇓*i*P	**P**	**19 52 27.6**	**-1.8**
HIA				pmax	pmax		
	comp=Z,73nm,1.1s						
BILL	**Bilibino**	**22.54**	**13**	*e*P	**P**	**19 52 34.5**	**-0.5**
	comp=Z,21nm,0.5s,mb4.8						
BILL				*e*S	**S**	**19 56 40.9**	**+1.0**
BILL	**Bilibino**	**22.54**	**13**	⇓*e*P	**P**	**19 52 34.5**	**-0.5**
BILL				*e*		19 52 54.9	
BILL				*e*S	**S**	**19 56 39.2**	**-0.7**
BILL				*e*SS		19 57 07.5	
BILL				pmax	pmax		
	comp=Z,23nm,0.8s,mb4.7						
BILL				MLR	MLR		
	comp=Z,900nm,15.0s,MS4.3						
JFU	**Fukue jima 2**	**22.93**	**241**	P	**P**	**19 52 39.9**	**+0.4**
DL2	**Dalian**	**23.85**	**262**	⇑P	**P**	**19 52 49.8**	**+1.4**
DL2				S	**S**	**19 57 05.8**	**+4.2**
DL2				AMB	AMB		
	comp=Z,60nm,1.2s,mb4.9						
DL2				AMB	AMB		
	comp=Z,200nm,3.7s						
DL2				LR	LR		
	comp=N,440nm,15.9s,MS4.1						
DL2				LR	LR		
	comp=E,370nm,16.5s,MS4.1						
DL2				LR	LR		
	comp=Z,530nm,16.3s,MS4.1						
JAM	**Amami Oshima**	**25.60**	**233**	P	**P**	**19 53 05.8**	**+1.4**
CIT	**Chita**	**25.70**	**296**	*e*P	**P**	**19 53 05.3**	**+0.1**
CIT				*e*	pP	19 53 15.5	-0.2
CIT				*e*		19 53 25.6	
CIT				*e*		19 53 56.5	
CIT				*e*		19 57 26.4	
CIT				pmax	pmax		
	comp=Z,66nm,1.0s,mb5.1						
BOD	**Bodaibo**	**25.71**	**310**	*e*P	**P**	**19 53 03.4**	**-1.7**
BOD				pmax	pmax		
	comp=Z,42nm,1.4s,mb4.8						
GAMB	**Gambell**	**26.11**	**36**	*e*P	**P**	**19 53 08.3**	**-0.5**
BJI	**Beijing**	**27.07**	**269**	P	**P**	**19 53 19.1**	**+1.5**
BJI				S	**S**	**19 58 03.9**	**+11**
BJI				AMB	AMB		
	comp=Z,72nm,1.0s,mb5.2						
BJI				LR	LR		
	comp=N,1µm,15.5s,MS4.8						
BJI				LR	LR		
	comp=E,2µm,19.7s,MS4.8						
BJI				LR	LR		
	comp=Z,2µm,20.4s,MS4.7						
BJI	**Beijing**	**27.07**	**269**	P	**P**	**19 53 19.1**	**+1.5**
	comp=Z,0.1nm,1.0s						
BJI				S	**S**	**19 58 03.9**	**+11**
BJI				LR	LR		
	comp=Z,2µm,20.4s						
BJT	**Baijiatuau**	**27.08**	**269**	⇑*e*P	**P**	**19 53 17.3**	**-0.4**
	comp=Z,84nm,0.8s,mb5.3						
BJT	**Baijiatuau**	**27.08**	**269**	⇑*e*P	**P**	**19 53 17.3**	**-0.4**
BJT				pmax	pmax		
	comp=Z,84nm,0.8s						
TIXI	**Tiksi**	**27.41**	**344**	*e*P	**P**	**19 53 18.1**	**-2.2**
	comp=Z,11nm,0.8s,mb4.4						
TIXI				*e*PcP	PcP	19 56 35.6	-2.5
TIXI	**Tiksi**	**27.41**	**344**	*e*P	**P**	**19 53 17.6**	**-2.7**
TIXI				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.3						
TIXI				MLR	MLR		
	comp=Z,984nm,14.0s,MS4.5						
JOW	**Kunigami**	**27.56**	**232**	P	**P**	**19 53 22.5**	**+0.3**
JOW	**Kunigami**	**27.56**	**232**	P	**P**	**19 53 21.6**	**-0.5**
	comp=Z,29nm,0.7s,mb5.0,baz=23,slow=9.6,SNR=10.0						
TIA	**Tai'an**	**28.30**	**261**	*e*P	**P**	**19 53 29.0**	**+0.3**
TIA				AMB	AMB		
	comp=Z,21nm,1.0s,mb4.7						
TNA	**Tin City**	**28.31**	**34**	⇑*e*P	**P**	**19 53 29.2**	**+0.8**
SSE	**Sheshan**	**28.70**	**248**	P	**P**	**19 53 33.3**	**+1.1**
SSE				S	**S**	**19 58 28.1**	**+9.5**
SSE				AMB	AMB		
	comp=Z,23nm,1.0s,mb4.9						
SSE				AMB	AMB		
	comp=Z,155nm,4.1s						
SSE				LR	LR		
	comp=N,442nm,23.8s,MS4.2						
SSE				LR	LR		
	comp=E,523nm,23.8s,MS4.2						
SSE				LR	LR		
	comp=Z,836nm,28.6s,MS4.2						
SSE	**Sheshan**	**28.70**	**248**	P	**P**	**19 53 33.3**	**+1.1**
	comp=Z,23nm,1.0s,mb4.9						
SSE				S	**S**	**19 58 28.1**	**+9.5**
SSE				LR	LR		
	comp=Z,840nm,28.6s,MS4.2						
NJ2	**Nanjing**	**29.59**	**252**	*e*P	**P**	**19 53 41.1**	**+1.0**
NJ2				AP	pP	19 53 45.4	-5.4
NJ2				XP	sP	19 53 48.1	-7.2
NJ2				PP	PP	19 54 37.3	-10
NJ2				S	**S**	**19 58 37.0**	**+4.4**
NJ2				XS	sS	19 58 44.0	-6.3
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,490nm,4.9s						
NJ2				LR	LR		
	comp=N,5µm,22.4s,MS5.3						
NJ2				LR	LR		
	comp=E,6µm,22.0s,MS5.3						
NJ2				LR	LR		
	comp=Z,5µm,25.5s,MS5.0						
HHC	**Hu-ho-hao-te**	**29.89**	**274**	*e*P	**P**	**19 53 43.6**	**+0.9**
HHC				PP	PP	19 54 40.9	-10
HHC				PCP	PcP	19 56 47.0	+2.2
HHC				S	**S**	**19 58 38.3**	**+1.2**
HHC				PCS	PcS	20 00 31.0	+2.9
HHC				AMB	AMB		
	comp=Z,99nm,0.9s,mb5.5						
HHC				AMB	AMB		
	comp=Z,218nm,5.1s						
HHC				LR	LR		
	comp=N,1µm,19.6s,MS4.7						
HHC				LR	LR		
	comp=E,1µm,17.8s,MS4.7						
HHC				LR	LR		
	comp=Z,1µm,19.0s,MS4.6						
ULN	**Ulaanbaatar**	**30.53**	**289**	*e*P	**P**	**19 53 48.2**	**-0.1**
	comp=Z,86nm,0.9s,mb5.6						
ULN				*e*		19 53 54.2	
ULN	**Ulaanbaatar**	**30.53**	**289**	⇑*e*P	**P**	**19 53 48.5**	**+0.2**
ULN	**Ulaanbaatar**	**30.53**	**289**	P	**P**	**19 53 48.3**	**0.0**
	SNR=23						
SONM	**Songino Array**	**30.96**	**289**	P	**P**	**19 53 52.3**	**+0.1**
	comp=Z,11nm,0.7s,mb4.8,baz=77,slow=4.7,SNR=28						
SONM				ScP	ScP	20 00 26.0	-1.1
	comp=Z,1.9nm,0.7s,baz=73,slow=2.3,SNR=5.0						
SONM				LR	LR	20 07 24.6	
	comp=Z,2µm,18.8s,MS4.9,baz=43,slow=38						
BTO	**Baotou**	**31.05**	**274**	*e*P	**P**	**19 53 55.1**	**+2.1**
TLY	**Talaya**	**31.84**	**297**	P	**P**	**19 53 59.9**	**+0.1**
	comp=Z,218nm,0.8s,SNR=11						
TLY	**Talaya**	**31.84**	**297**	⇓*i*P	**P**	**19 53 59.5**	**-0.3**
	comp=Z,32nm,0.8s,mb5.2						
TLY				*e*PcP	PcP	19 56 50.1	+0.3
TLY	**Talaya**	**31.84**	**297**	*e*P	**P**	**19 53 59.4**	**-0.4**
TLY				*e*SS	SS	20 01 30.3	+5.7
TLY				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.1						
TLY				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.0						
TLY	**Talaya**	**31.84**	**297**	P	**P**	**19 54 00.2**	**+0.4**
	SNR=7.8						
TTA	**Tatalina**	**32.73**	**41**	*e*P	**P**	**19 54 08.0**	**+0.5**
SVW2	**Sparrevohn**	**32.82**	**45**	*e*P	**P**	**19 54 09.3**	**+1.0**
YHNB	**Yeheng**	**33.17**	**239**	*e*P	**P**	**19 54 13.9**	**+2.2**
NACB	**Ninganchiao**	**33.41**	**238**	*e*P	**P**	**19 54 08.9**	**-4.9**
MOY	**Mondy**	**33.46**	**298**	*e*P	**P**	**19 54 13.7**	**-0.2**
GUMO	**Guam**	**33.62**	**194**	LR	LR	20 07 38.1	
	comp=Z,646nm,19.5s,MS4.3,baz=25,slow=36						
IMA2	**Indian Mountai**	**34.09**	**36**	*e*P	**P**	**19 54 19.4**	**+0.1**
KDAK	**Kodiak Island**	**34.46**	**51**	P	**P**	**19 54 22.0**	**-0.5**
	comp=Z,367nm,0.7s,SNR=13						
KDAK	**Kodiak Island**	**34.46**	**51**	*e*P	**P**	**19 54 21.6**	**-0.9**
	comp=Z,47nm,0.8s,mb5.5						
KDAK	**Kodiak Island**	**34.46**	**51**	P	**P**	**19 54 20.7**	**-1.8**
	comp=Z,36nm,0.6s,mb5.5,baz=284,slow=4.3,SNR=38						
KDAK				LR	LR	20 07 37.9	
	comp=Z,738nm,21.3s,MS4.4,baz=256,slow=35						
QZH	**Quanzhou**	**34.64**	**243**	P	**P**	**19 54 27.3**	**+2.8**
QZH				S	**S**	**19 59 59.0**	**+7.6**
QZH				AMB	AMB		
	comp=Z,100nm,1.1s,mb5.7						
QZH				LR	LR		
	comp=Z,1µm,25.7s,MS4.6						
XAN	**Xi'an**	**35.10**	**265**	P	**P**	**19 54 28.8**	**+0.4**
XAN				AMB	AMB		
	comp=Z,73nm,0.8s,mb5.7						
XAN				LR	LR		
	comp=N,519nm,16.8s,MS4.5						
XAN				LR	LR		
	comp=E,536nm,16.8s,MS4.5						
XAN				LR	LR		
	comp=Z,1µm,16.8s,MS4.7						
SLKM	**Skilak Lake**	**35.46**	**46**	*e*P	**P**	**19 54 28.8**	**-2.3**
PMR	**Palmer**	**35.92**	**44**	*e*P	**P**	**19 54 35.8**	**+0.7**
	comp=Z,18nm,0.9s,mb5.0						
PMR	**Palmer**	**35.92**	**44**	*e*P	**P**	**19 54 35.8**	**+0.7**
PMR				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
MCK	**McKinley**	**35.96**	**40**	*e*P	**P**	**19 54 34.9**	**-0.5**
	comp=Z,10nm,0.9s,mb4.8						
MCK	**McKinley**	**35.96**	**40**	*e*P	**P**	**19 54 34.9**	**-0.5**
MCK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
SML	**Sawmill**	**36.29**	**44**	*e*P	**P**	**19 54 38.5**	**+0.3**
COLA	**College**	**36.44**	**38**	⇑*e*P	**P**	**19 54 39.3**	**-0.1**
	comp=Z,34nm,0.6s,mb5.5						
COLA	**College**	**36.44**	**38**	*c i*P	**P**	**19 54 40.4**	**+1.0**
LZH	**Lanzhou**	**37.48**	**271**	⇑P	**P**	**19 54 49.6**	**+1.0**
LZH				AP	pP	19 54 52.8	-6.6
LZH				PP	PP	19 56 17.0	+2.5
LZH				*e*S	**S**	**20 00 32.0**	**-2.6**
LZH				SS	SS	20 03 06.0	-14
LZH				AMB	AMB		
	comp=Z,156nm,1.2s,mb5.7						
LZH				AMB	AMB		
	comp=Z,320nm,4.0s						
LZH				LR	LR		
	comp=E,1µm,15.1s						
LZH				LR	LR		
	comp=Z,2µm,17.2s,MS4.9						
LZH	**Lanzhou**	**37.48**	**271**	⇑P	**P**	**19 54 49.6**	**+1.0**
	comp=Z,156nm,1.2s,mb5.7						
LZH				pP	pP	19 54 52.7	-6.7
LZH				sP	sP	19 54 54.6	-9.4
LZH				PP	PP	19 56 17.0	+2.5
LZH				*e*S	**S**	**20 00 32.0**	**-2.6**
LZH				sS	sS	20 00 40.0	-12
LZH				SS	SS	20 03 06.0	-14
LZH				LR	LR		
	comp=Z,2µm,17.2s,MS4.9						
LZH	**Lanzhou**	**37.48**	**271**	⇑P	**P**	**19 54 49.6**	**+1.0**
LZH						19 56 17.0	
LZH				*e*S	**S**	**20 00 32.0**	**-2.6**
LZH				SS	SS	20 03 06.0	-14
LZH				pmax	pmax		
	comp=Z,156nm,1.2s,mb5.7						
LZH				MLR	MLR		
	comp=Z,2µm,17.2s,MS4.9						
GTA	**Gaotai**	**38.57**	**279**	⇑P	**P**	**19 54 58.3**	**+0.5**
GTA				AP	pP	19 55 02.8	-5.8
GTA				XP	sP	19 55 05.4	-7.8
GTA				PP	PP	19 56 31.3	+4.9
GTA				PPP		19 56 54.0	
GTA				PCP	PcP	19 57 10.3	+0.6
GTA				S	**S**	**20 00 55.3**	**+4.2**
GTA				XS	sS	20 01 02.8	-6.2
GTA				SS	SS	20 03 37.6	-4.0
GTA				SCS	ScS	20 05 05.9	+1.0
GTA				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.6						
GTA				AMB	AMB		
	comp=Z,208nm,5.7s						
GTA				LR	LR		
	comp=N,641nm,15.2s,MS4.7						
GTA				LR	LR		
	comp=E,576nm,16.4s,MS4.7						
GTA				LR	LR		
	comp=Z,1µm,17.1s,MS4.8						
EGAK	**Eagle**	**39.30**	**38**	⇑*i*P	**P**	**19 55 02.9**	**-0.7**
	comp=Z,26nm,0.7s,mb5.1						
EGAK				*e*	pP	19 55 13.3	-1.1
DAWY	**Dawson**	**40.14**	**39**	*e*P	**P**	**19 55 10.2**	**-0.4**
CD2	**Chengdu**	**40.46**	**265**	*e*P	**P**	**19 55 14.3**	**+0.6**
CD2				AP	pP	19 55 18.8	-5.7
CD2				XP	sP	19 55 21.5	-7.6
CD2				PCP	PcP	19 57 16.0	+0.1
CD2				S	**S**	**20 01 23.3**	**+3.6**
CD2				XS	sS	20 01 30.6	-7.0
CD2				SS	SS	20 04 15.1	-4.6
CD2				SCS	ScS	20 05 18.0	+1.7
CD2				AMB	AMB		
	comp=Z,110nm,1.1s,mb5.5						
CD2				AMB	AMB		
	comp=Z,120nm,9.6s						
CD2				LR	LR		
	comp=N,420nm,18.0s,MS4.5						
CD2				LR	LR		
	comp=E,400nm,14.4s,MS4.5						
CD2				LR	LR		
	comp=Z,560nm,15.6s,MS4.5						
GYA	**Guiyang**	**41.30**	**257**	⇑*i*P	**P**	**19 55 19.9**	**-0.7**
GYA				AP	pP	19 55 23.9	-7.6
GYA				PP	PP	19 57 00.3	+4.0
GYA				PCP	PcP	19 57 21.3	+2.7
GYA				PPP		19 57 29.3	
GYA				SCP	ScP	20 01 09.9	+4.5
GYA				S	**S**	**20 01 35.5**	**+3.3**
GYA				SS	SS	20 04 31.8	-4.7
GYA				SCS	ScS	20 05 24.0	+2.6
GYA				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.1						
GYA				AMB	AMB		
	comp=Z,260nm,4.1s						
GYA				LR	LR		
	comp=N,590nm,17.9s,MS4.6						
GYA				LR	LR		
	comp=E,420nm,17.6s,MS4.6						
GYA				LR	LR		
	comp=Z,610nm,16.1s,MS4.6						
INK	**Inuvik**	**41.92**	**32**	⇑*e*P	**P**	**19 55 25.4**	**+0.2**
	comp=Z,786nm,0.8s						
INK	**Inuvik**	**41.92**	**32**	*e*P	**P**	**19 55 25.7**	**+0.6**
INK	**Inuvik**	**41.92**	**32**	P	**P**	**19 55 25.4**	**+0.2**
	comp=Z,18nm,0.6s,mb4.9,baz=275,slow=6.6,SNR=47						
INK				ScP	ScP	20 01 05.2	-1.9
	comp=Z,1.4nm,0.3s,baz=182,slow=17,SNR=8.8						
ZALV	**Zalesovo Beam**	**42.31**	**306**	P	**P**	**19 55 27.1**	**-1.5**
ZALV				PcP	PcP	19 57 21.3	-0.2
ZALV	**Zalesovo Beam**	**42.31**	**306**	P	**P**	**19 55 27.1**	**-1.5**
	comp=Z,11nm,0.5s,mb4.7,baz=63,slow=6.6,SNR=46						
ZALV				PcP	PcP	19 57 21.3	-0.2
	comp=Z,14nm,0.6s,baz=68,slow=3.6,SNR=15						
ZALV				PKiKP	PKiKP	20 04 24.5	-1.8
	comp=Z,0.9nm,0.7s,baz=65,slow=1.6,SNR=3.6						
ZALV				LR	LR	20 14 16.6	
	comp=Z,3µm,19.1s,MS5.1,baz=79,slow=38						
ZAL	**Zalesovo**	**42.32**	**306**	P	**P**	**19 55 27.1**	**-1.5**
ZAL						19 57 21.3	
SIT	**Sitka**	**43.72**	**49**	*e*P	**P**	**19 55 41.4**	**+1.5**
	comp=Z,18nm,0.7s,mb4.9						
SIT	**Sitka**	**43.72**	**49**	*e*P	**P**	**19 55 41.4**	**+1.6**
SIT				pmax	pmax		
	comp=Z,18nm,0.7s,mb4.9						
QIZ	**Qiongzhong**	**44.45**	**246**	P	**P**	**19 55 46.3**	**+0.1**
QIZ				S	**S**	**20 02 18.8**	**+0.3**
QIZ				AMB	AMB		
	comp=Z,27nm,1.6s,mb4.7						
QIZ				AMB	AMB		
	comp=Z,314nm,6.3s						
QIZ				LR	LR		
	comp=E,643nm,15.8s						
QIZ				LR	LR		
	comp=Z,518nm,16.6s,MS4.5						
QIZ	**Qiongzhong**	**44.45**	**246**	*e*P	**P**	**19 55 47.4**	**+1.2**
	comp=Z,38nm,1.4s,mb4.9						
WMQ	**Urumqi**	**44.56**	**291**	P	**P**	**19 55 48.3**	**+1.5**
WMQ				PP	PP	19 57 33.8	+2.8
WMQ				SCP	ScP	20 01 16.8	-1.5
WMQ				S	**S**	**20 02 18.4**	**-1.3**
WMQ				SCS	ScS	20 05 37.9	-3.3
WMQ				AMB	AMB		
	comp=Z,28nm,0.6s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,95nm,12.0s						
WMQ				LR	LR		
	comp=N,876nm,19.0s,MS4.8						
WMQ				LR	LR		
	comp=E,818nm,20.2s,MS4.8						
WMQ				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
KMI	**Kunming**	**44.83**	**259**	P	**P**	**19 55 49.8**	**+0.7**
KMI				AP	pP	19 55 52.8	-7.3
KMI				PP	PP	19 57 35.1	+0.9
KMI				S	**S**	**20 02 26.6**	**+2.7**
KMI				SS	SS	20 05 38.8	-6.8
KMI				AMB	AMB		
	comp=Z,32nm,1.1s,mb5.1						
KMI				AMB	AMB		
	comp=Z,367nm,4.6s						
KMI				LR	LR		
	comp=N,636nm,17.0s,MS4.6						
KMI				LR	LR		
	comp=E,286nm,19.9s,MS4.6						
KMI				LR	LR		
	comp=Z,463nm,18.4s,MS4.4						
KMI	**Kunming**	**44.83**	**259**	P	**P**	**19 55 49.7**	**+0.6**
	comp=Z,32nm,1.1s,mb5.1						
KMI				pP	pP	19 55 52.7	-7.4
KMI				sP	sP	19 55 54.3	-10
KMI				PP	PP	19 57 35.1	+0.9
KMI				S	**S**	**20 02 26.6**	**+2.7**
KMI				SS	SS	20 05 38.7	-6.9
KMI				LR	LR		
	comp=Z,460nm,18.4s,MS4.4						
KMI	**Kunming**	**44.83**	**259**	P	**P**	**19 55 49.7**	**+0.6**
KMI						19 57 35.1	
KMI				S	**S**	**20 02 26.6**	**+2.7**
KMI				SS	SS	20 05 38.7	-6.9
KMI				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.1						
KMI				MLR	MLR		
	comp=Z,460nm,18.4s,MS4.4						
DLBC	**Dease Lake**	**45.93**	**46**	⇑*e*P	**P**	**19 55 58.6**	**+1.1**
MK31	**Makanchi Array**	**46.60**	**297**	*e*P	**P**	**19 56 01.2**	**-1.6**
MK31				*e*PcP	PcP	19 57 36.0	-0.3
MK31	**Makanchi Array**	**46.60**	**297**	P	**P**	**19 56 02.1**	**-0.8**
MK31				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.1						
MKAR	**Makanchi Array**	**46.60**	**297**	P	**P**	**19 56 02.2**	**-0.7**
MKAR				PcP	PcP	19 57 36.9	+0.6
MKAR				ScP	ScP	20 01 24.7	-2.0

MKAR				LR	LR	20 16 49.4	
MKAR	**Makanchi Array**	**46.60**	**297**	P	**P**	**19 56 02.2**	**-0.7**
	comp=Z,28nm,0.7s,mb5.3,baz=63,slow=6.2,SNR=180						
MKAR				PcP	PcP	19 57 36.9	+0.6
	comp=Z,10nm,0.6s,baz=61,slow=2.4,SNR=9.0						
MKAR				ScP	ScP	20 01 24.7	-2.0
	comp=Z,2.0nm,0.8s,baz=55,slow=4.6,SNR=5.2						
MKAR				LR	LR	20 16 49.4	
	comp=Z,3µm,18.8s,MS5.3,baz=67,slow=38						
KURK	**Kurchatov**	**47.05**	**303**	P	**P**	**19 56 05.7**	**-0.6**
	comp=Z,385nm,0.8s,SNR=29						
KURK	**Kurchatov**	**47.05**	**303**	⇑*e*P	**P**	**19 56 04.4**	**-2.0**
	comp=Z,42nm,0.7s,mb5.5						
KURK				*e*PcP	PcP	19 57 37.9	+0.1
KURK				*e*S	**S**	**20 02 53.9**	**-1.4**
KURK	**Kurchatov**	**47.05**	**303**	P	**P**	**19 56 05.0**	**-1.3**
KURK				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.0						
KURK	**Kurchatov**	**47.05**	**303**	P	**P**	**19 56 05.8**	**-0.5**
	SNR=7.5						
BBB	**Bella Bella**	**49.48**	**53**	LR	LR	20 14 08.5	
	comp=Z,264nm,21.9s,MS4.2,baz=283,slow=32						
ALE	**Alert**	**49.84**	**6**	P	**P**	**19 56 26.6**	**-0.8**
	comp=Z,146nm,0.6s,SNR=15						
LSA	**Lhasa**	**49.87**	**273**	P	**P**	**19 56 30.9**	**+2.6**
LSA				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.3						
LSA	**Lhasa**	**49.87**	**273**	⇑*i*P	**P**	**19 56 30.3**	**+2.0**
	comp=Z,117nm,0.9s,mb5.9						
LSA	**Lhasa**	**49.87**	**273**	⇑*i*P	**P**	**19 56 30.3**	**+2.0**
LSA				pmax	pmax		
	comp=Z,117nm,0.9s,mb5.9						
BRVK	**Borovoye**	**50.62**	**309**	P	**P**	**19 56 32.8**	**-0.8**
	comp=Z,273nm,0.6s,SNR=33						
BRVK	**Borovoye**	**50.62**	**309**	*e*P	**P**	**19 56 32.2**	**-1.4**
	comp=Z,23nm,0.5s,mb5.4						
BRVK				*e*PcP	PcP	19 57 50.5	-0.2
BRVK	**Borovoye**	**50.62**	**309**	*e*P	**P**	**19 56 32.2**	**-1.4**
BRVK				*e*		19 57 50.5	
BRVK				pmax	pmax		
	comp=Z,23nm,0.5s,mb5.4						
BRVK	**Borovoye**	**50.62**	**309**	P	**P**	**19 56 33.3**	**-0.3**
	SNR=9.2						
RES	**Resolute Bay**	**51.02**	**18**	*e*P	**P**	**19 56 36.4**	**0.0**
	comp=Z,671nm,0.9s						
RES				*e*PcP	PcP	19 57 51.5	-0.4
RES	**Resolute Bay**	**51.02**	**18**	*e*P	**P**	**19 56 36.4**	**0.0**
RES				*e*		19 57 52.5	
KKM	**Kota Kinabalu**	**51.13**	**229**	*e*P	**P**	**19 56 38.9**	**+0.9**
YKW3	**Yellowknife Ar**	**51.18**	**36**	*e*P	**P**	**19 56 37.5**	**-0.2**
YKA	**Yellowknife Ar**	**51.21**	**37**	P	**P**	**19 56 37.8**	**-0.1**
	comp=Z,6.2nm,0.7s,mb4.7,baz=296,slow=6.9,SNR=44						
YKA				PcP	PcP	19 57 52.8	+0.1
	comp=Z,3.9nm,0.4s,baz=303,slow=3.7,SNR=16						
CHTO	**Chiang Mai**	**51.71**	**256**	⇑*i*P	**P**	**19 56 43.1**	**+0.9**
	comp=Z,43nm,0.9s,mb5.4						
CHTO	**Chiang Mai**	**51.71**	**256**	⇑*i*P	**P**	**19 56 43.1**	**+0.9**
CHTO				pmax	pmax		
	comp=Z,43nm,0.9s,mb5.4						
CHTO	**Chiang Mai**	**51.71**	**256**	P	**P**	**19 56 43.2**	**+1.0**
	SNR=28						
CM31	**Chiang Mai Arr**	**51.96**	**256**	⇑*i*P	**P**	**19 56 45.0**	**+0.9**
	comp=Z,12nm,0.6s,mb5.0						
CM31				*e*PcP	PcP	19 57 56.9	+0.7
SHL	**Shillong**	**51.96**	**268**	*e*P	**P**	**19 56 46.0**	**+1.9**
SHL				*e*S	**S**	**20 04 06.0**	**+1.5**
KBS	**Kingsbay**	**52.49**	**351**	*e*P	**P**	**19 56 46.6**	**-0.7**
	comp=Z,20nm,0.6s,mb5.2						
KBS	**Kingsbay**	**52.49**	**351**	*e*P	**P**	**19 56 46.6**	**-0.7**
KBS				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.2						
SPB4	**Spitsbergen Ar**	**52.59**	**350**	*e*P	**P**	**19 56 46.6**	**-1.5**
TKM2	**Tokmak 2**	**52.65**	**296**	⇑*i*P	**P**	**19 56 48.5**	**-0.5**
	comp=Z,24nm,1.0s,mb5.1						
TKM2				*e*PcP	PcP	19 57 58.9	+0.4
TKM2	**Tokmak 2**	**52.65**	**296**	P	**P**	**19 56 49.3**	**+0.3**
TKM2				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
FRU	**Bishkek**	**53.31**	**296**	*e*P	**P**	**19 56 52.0**	**-1.8**
FRU				*e*		19 57 12.0	
FRU				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.2						
FRU				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.3						
AAK	**Ala-Archa**	**53.49**	**296**	P	**P**	**19 56 54.6**	**-0.6**
	comp=Z,217nm,1.0s,SNR=33						
AAK	**Ala-Archa**	**53.49**	**296**	⇑*i*P	**P**	**19 56 53.6**	**-1.5**
	comp=Z,34nm,0.9s,mb5.3						
AAK	**Ala-Archa**	**53.49**	**296**	⇑*i*P	**P**	**19 56 53.7**	**-1.5**
AAK				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.2						
AAK	**Ala-Archa**	**53.49**	**296**	P	**P**	**19 56 54.1**	**-1.1**
	SNR=12						
SVE	**Sverdlovsk**	**53.59**	**317**	*e*P	**P**	**19 56 55.0**	**-0.7**
UCH	**Uchtor**	**53.70**	**296**	*e*P	**P**	**19 56 57.5**	**+0.8**
	comp=Z,7.9nm,1.0s,mb4.6						
EKS2	**Erkin-Say**	**53.92**	**296**	⇑*e*P	**P**	**19 56 57.8**	**-0.5**
	comp=Z,33nm,0.9s,mb5.3						
EKS2				*e*PcP	PcP	19 58 03.1	-0.2
AML	**Almayashu**	**54.26**	**296**	⇑*e*P	**P**	**19 57 01.0**	**+0.2**
	comp=Z,18nm,0.9s,mb5.0						
AML				*e*PcP	PcP	19 58 04.4	-0.2
KSH	**Kashi**	**54.29**	**292**	*e*P	**P**	**19 57 02.1**	**+1.0**
KSH				*e*AP	pP	19 57 06.0	-6.3
KSH				*e*XP	sP	19 57 09.0	-7.7
KSH				*e*PCP	PcP	19 58 06.1	+1.3
KSH				*e*PP	PP	19 59 05.1	+2.2
KSH				*e*SCP	ScP	20 02 02.5	+2.7
KSH				*e*PCS	PcS	20 02 04.0	-0.3
KSH				*e*S	**S**	**20 04 36.5**	**+0.5**
KSH				*e*SCS	ScS	20 06 47.0	-0.1
KSH				*e*SS	SS	20 08 18.3	+0.5
KSH				AMB	AMB		
	comp=Z,652nm,3.5s						
ARU	**Arti**	**54.77**	**317**	P	**P**	**19 57 03.5**	**-0.8**
	comp=Z,416nm,0.4s,SNR=18						
ARU	**Arti**	**54.77**	**317**	⇑*e*P	**P**	**19 57 02.8**	**-1.5**
	comp=Z,35nm,0.4s,mb5.8						
ARU				*e*PcP	PcP	19 58 06.0	-0.3
ARU	**Arti**	**54.77**	**317**	⇑*i*P	**P**	**19 57 03.7**	**-0.6**
ARU				pmax	pmax		
	comp=Z,19nm,0.5s,mb5.4						
B05A	**Bryant**	**54.78**	**55**	⇓P	**P**	**19 57 04.1**	**-0.4**
	baz=54						
A07A	**Ashnola River,**	**55.31**	**53**	⇓P	**P**	**19 57 07.9**	**-0.4**
	baz=55,SNR=6.8						
KKAR	**Karatay Array**	**55.66**	**299**	*e*P	**P**	**19 57 10.0**	**-0.9**
KKAR				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.5						
B07A	**Winthrop**	**55.78**	**54**	P	**P**	**19 57 12.0**	**+0.3**
	baz=56,SNR=5.4						
F04A	**Amboy**	**55.89**	**57**	⇑P	**P**	**19 57 11.7**	**-0.8**
	baz=56						
A08A	**Turner Farm, O**	**55.97**	**53**	P	**P**	**19 57 13.2**	**+0.2**
	baz=56,SNR=9.1						
D06A	**Cle Elum**	**56.08**	**55**	⇓P	**P**	**19 57 13.8**	**-0.1**
	baz=56						
C07A	**Waterville**	**56.24**	**54**	⇑P	**P**	**19 57 14.2**	**-0.8**
	baz=56						
B08A	**Colville Reser**	**56.27**	**53**	P	**P**	**19 57 15.9**	**+0.8**
	baz=56,SNR=8.1						
A09A	**Danville**	**56.33**	**52**	P	**P**	**19 57 16.7**	**+1.1**
	baz=56,SNR=16						
D07A	**Quincy**	**56.57**	**55**	⇓P	**P**	**19 57 16.2**	**-1.1**
	baz=56						
EDM	**Edmonton**	**56.65**	**46**	⇑*i*P	**P**	**19 57 17.4**	**-0.4**
LVZ	**Lovozero**	**56.65**	**336**	⇑*e*P	**P**	**19 57 16.8**	**-0.8**
J02A	**Umpqua**	**56.66**	**60**	⇑P	**P**	**19 57 16.2**	**-1.8**
	baz=56						
DAG	**Danmarks Havn**	**56.68**	**358**	⇓*e*P	**P**	**19 57 16.5**	**-1.2**
DAG				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.2						
DAG	**Danmarks Havn**	**56.68**	**358**	⇓*i*P	**P**	**19 57 16.5**	**-1.2**
	comp=Z,26nm,1.0s,mb5.2						
H04A	**Detroit Lake**	**56.73**	**58**	⇑P	**P**	**19 57 17.7**	**-0.8**
	baz=56						
C08A	**Higginbotham F**	**56.75**	**54**	P	**P**	**19 57 18.6**	**0.0**
	baz=56,SNR=5.4						
B09A	**Rice**	**56.88**	**53**	⇓P	**P**	**19 57 18.4**	**-1.1**
	baz=57						
A10A	**Northport**	**56.89**	**52**	⇓P	**P**	**19 57 19.1**	**-0.4**
	baz=57,SNR=8.3						
G05A	**Wamic**	**56.92**	**57**	⇓P	**P**	**19 57 18.7**	**-1.1**
	baz=57						
E07A	**Sunnyside**	**57.00**	**55**	⇑P	**P**	**19 57 20.6**	**+0.3**
	baz=57						
APA	**Apatity**	**57.22**	**336**	⇓*i*P	**P**	**19 57 22.7**	**+1.1**
APA				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb5.0						
D08A	**Wollman Farm,**	**57.24**	**54**	⇓P	**P**	**19 57 21.6**	**-0.4**
	baz=57						
BOK	**Bokaro**	**57.24**	**271**	*i* P	**P**	**19 57 22.3**	**-0.1**
BOK				*i* x	x	19 57 31.3	
JOSI	**Joshimath**	**57.25**	**281**	*e*P	**P**	**19 57 23.1**	**+0.7**
KEV	**Kevo**	**57.26**	**340**	*e*p	**P**	**19 57 20.4**	**-1.4**
	comp=Z,4.3nm,0.4s,mb4.8						
KEV	**Kevo**	**57.26**	**340**	*e*P	**P**	**19 57 20.4**	**-1.4**
KEV				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.8						
H05A	**Madras**	**57.31**	**58**	⇑P	**P**	**19 57 22.2**	**-0.4**
	baz=57						
F07A	**Phinny Hill Vi**	**57.34**	**56**	⇓P	**P**	**19 57 23.0**	**+0.3**
	baz=57						
NEW	**Newport**	**57.53**	**52**	*e*P	**P**	**19 57 23.9**	**-0.2**
	comp=Z,7.4nm,0.8s,mb4.8						
NEW	**Newport**	**57.53**	**52**	*e*P	**P**	**19 57 23.9**	**-0.2**
NEW				pmax	pmax		
	comp=Z,7.0nm,0.8s						
A11A	**Hall Mountain,**	**57.55**	**51**	P	**P**	**19 57 26.0**	**+1.8**
	baz=57,SNR=10						
D09A	**Jones Farm, Ri**	**57.58**	**54**	⇑P	**P**	**19 57 24.4**	**-0.1**
	baz=57						
C10A	**Spilker Farm,**	**57.69**	**53**	⇑P	**P**	**19 57 25.9**	**+0.6**
	baz=57						
ARCES	**ARCESS Array B**	**57.77**	**341**	P	**P**	**19 57 25.2**	**-0.3**
ARCES						19 58 17.6	
ARCES				pmax	pmax		
	comp=Z,10.0nm,0.6s						
ARCES				MLR	MLR		
	comp=Z,775nm,19.3s						
ARCES	**ARCESS Array B**	**57.77**	**341**	P	**P**	**19 57 25.2**	**-0.3**
	comp=Z,9.7nm,0.6s,mb5.0,baz=25,slow=6.4,SNR=66						
ARCES				PcP	PcP	19 58 17.6	-0.2
	comp=Z,7.3nm,0.7s,baz=56,slow=6.5,SNR=7.4						
ARCES				LR	LR	20 28 09.6	
	comp=Z,775nm,19.3s,MS4.8,baz=23,slow=42						
ARE0	**ARCESS Array S**	**57.77**	**341**	*e*P	**P**	**19 57 24.8**	**-0.6**
H06A	**Lindquist Farm**	**57.78**	**57**	⇑P	**P**	**19 57 25.4**	**-0.4**
	baz=58						
B11A	**Sandpoint**	**57.84**	**52**	P	**P**	**19 57 27.5**	**+1.2**
	baz=58,SNR=8.0						
G07A	**Ruggs Ranch, H**	**57.85**	**56**	⇑P	**P**	**19 57 27.0**	**+0.6**
	baz=58						
A12A	**Yaak River Ran**	**57.94**	**51**	⇓P	**P**	**19 57 27.6**	**+0.6**
	baz=58						
E09A	**Wood Farm, Sta**	**57.99**	**55**	P	**P**	**19 57 28.2**	**+0.9**
	baz=58,SNR=7.2						
KSM	**Kuching**	**58.12**	**232**	⇑*i*P	**P**	**19 57 29.3**	**+0.7**
AB31	**Akbulak array**	**58.15**	**310**	⇑*e*P	**P**	**19 57 27.6**	**-0.8**
D10A	**Wagner Farm, O**	**58.16**	**54**	P	**P**	**19 57 29.4**	**+0.8**
	baz=58,SNR=8.3						
TMCR	**Tamitsa**	**58.19**	**332**	*e*P	**P**	**19 57 25.1**	**-3.4**
G08A	**Pilot Rock**	**58.24**	**56**	⇑P	**P**	**19 57 29.4**	**+0.2**
	baz=58						
SDNR	**Sundarnagar**	**58.40**	**284**	*e*P	**P**	**19 57 31.0**	**+0.5**
DLH	**Dalhousie**	**58.43**	**285**	*e*P	**P**	**19 57 30.0**	**-0.6**
AKTK	**Aktyubinsk**	**58.45**	**312**	P	**P**	**19 57 29.6**	**-1.0**
AKTK				PcP	PcP	19 58 21.1	+0.3
AKTO	**Aktyubinsk**	**58.45**	**312**	P	**P**	**19 57 29.6**	**-0.9**
AKTO						19 58 21.1	
AKTO				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb5.0						
AKTO	**Aktyubinsk**	**58.45**	**312**	P	**P**	**19 57 29.6**	**-1.0**
	comp=Z,8.9nm,0.6s,mb5.0,baz=51,slow=8.0,SNR=33						
AKTO				PcP	PcP	19 58 21.1	+0.3
	comp=Z,13nm,0.8s,baz=36,slow=3.5,SNR=6.0						
E10A	**Myers Farm, Un**	**58.58**	**54**	⇓P	**P**	**19 57 31.4**	**-0.1**
	baz=58,SNR=6.6						
A13A	**Flathead Natio**	**58.60**	**50**	P	**P**	**19 57 31.9**	**+0.3**
	baz=58,SNR=23						
THN	**Thein Dam**	**58.66**	**285**	*e*P	**P**	**19 57 32.1**	**-0.1**
D11A	**Klaveano Farm,**	**58.68**	**53**	P	**P**	**19 57 32.5**	**+0.3**
	baz=58,SNR=8.7						
KTK1	**Kautokeino**	**58.69**	**341**	*e*P	**P**	**19 57 32.0**	**+0.1**
KTK1				AMb	AMB	19 57 35.5	
	comp=Z,25nm,0.8s,mb5.3						
J06A	**Christmas Vall**	**58.76**	**59**	⇓P	**P**	**19 57 32.3**	**-0.5**
	baz=58						
WALA	**Waterton Lakes**	**58.79**	**50**	⇑*e*P	**P**	**19 57 32.8**	**-0.1**
	comp=Z,30nm,0.6s,mb5.5						
F10A	**Beach Ranch, E**	**58.82**	**55**	⇑P	**P**	**19 57 33.4**	**+0.2**
	baz=59						
H08A	**Prairie City**	**58.87**	**57**	⇓P	**P**	**19 57 33.7**	**+0.2**
	baz=59						
B13A	**Whitefish**	**58.91**	**51**	P	**P**	**19 57 34.3**	**+0.6**
	baz=59,SNR=24						
WDC	**Whiskeytown Da**	**58.92**	**62**	⇓P	**P**	**19 57 34.8**	**+0.9**
	baz=59						
G09A	**Cove**	**58.92**	**56**	⇑P	**P**	**19 57 34.8**	**+0.9**
	baz=59						
K06A	**Valley Falls**	**58.97**	**59**	⇓P	**P**	**19 57 35.2**	**+0.9**
	baz=59						
BSMT	**Bassoo Peak**	**59.05**	**52**	*e*P	**P**	**19 57 36.1**	**+1.4**
ALBI	**Allahabad**	**59.05**	**275**	*e*P	**P**	**19 57 33.0**	**-2.1**
L05A	**Lakeview**	**59.07**	**60**	⇓P	**P**	**19 57 36.2**	**+1.3**
	baz=59						
TRO	**Tromso**	**59.11**	**343**	*e*P	**P**	**19 57 34.0**	**-0.8**
TRO				AMb	AMB	19 57 36.1	
	comp=Z,49nm,1.4s,mb5.4						
TRO				*e*pP	pP	19 57 37.4	-8.7
E11A	**Bogner Ranch,**	**59.16**	**54**	P	**P**	**19 57 36.1**	**+0.6**
	baz=59,SNR=5.6						
D12A	**Red Ives Fores**	**59.22**	**53**	⇑P	**P**	**19 57 35.8**	**-0.1**
	baz=59						
C13A	**Hot Springs**	**59.26**	**52**	⇓P	**P**	**19 57 36.8**	**+0.6**
	baz=59						
I08A	**Drewsey**	**59.29**	**57**	⇑P	**P**	**19 57 36.3**	**-0.1**
	baz=59						
M05C	**Lookout**	**59.30**	**61**	⇑P	**P**	**19 57 37.8**	**+1.3**
	baz=59						
H09A	**Durkee**	**59.35**	**56**	⇓P	**P**	**19 57 38.5**	**+1.6**
	baz=59						
GASB	**Alder Springs**	**59.37**	**63**	⇓P	**P**	**19 57 38.0**	**+0.9**
	baz=59						
ORR	**Orenburg**	**59.39**	**314**	*e*P	**P**	**19 57 36.0**	**-1.0**
HATC	**Hat Creek Radi**	**59.43**	**62**	⇓P	**P**	**19 57 37.0**	**-0.5**
	baz=59						
BMO	**Blue Mountains**	**59.45**	**56**	*e*P	**P**	**19 57 38.2**	**+0.7**
	comp=Z,10nm,0.9s,mb4.8						
KKR	**Kurukshetra**	**59.47**	**283**	*e*P	**P**	**19 57 37.5**	**-0.4**
KKR				AMb	AMB	19 57 39.1	
	comp=Z,175nm,0.8s						
F11A	**Grangeville**	**59.47**	**54**	⇑P	**P**	**19 57 37.6**	**-0.1**
	baz=59						
MOD	**Modoc**	**59.48**	**60**	⇓P	**P**	**19 57 39.0**	**+1.3**
	baz=59						
K07A	**Rock Creek Ran**	**59.62**	**59**	⇑P	**P**	**19 57 39.3**	**+0.6**
	baz=59						
C14A	**Swan Lake**	**59.66**	**51**	⇑P	**P**	**19 57 39.2**	**+0.3**
	baz=59						
D13A	**Huson**	**59.68**	**52**	P	**P**	**19 57 39.5**	**+0.5**
	baz=59,SNR=6.2						
H10A	**Noah's Angus R**	**59.92**	**56**	P	**P**	**19 57 40.9**	**+0.1**
	baz=60,SNR=13						
BISR	**Bishrakh**	**59.93**	**281**	*e*P	**P**	**19 57 41.0**	**-0.1**
BISR				AMb	AMB	19 57 43.0	
	comp=Z,1.1nm,0.8s,mb4.0						
NDI	**New Delhi**	**60.01**	**281**	*e*P	**P**	**19 57 40.0**	**-1.6**
K08A	**Mann Creek Ran**	**60.05**	**58**	P	**P**	**19 57 43.1**	**+1.5**
	baz=60,SNR=9.3						
F12A	**Elk City**	**60.05**	**54**	⇑P	**P**	**19 57 42.2**	**+0.6**
	baz=60,SNR=11						
J09A	**Fry Pan Ranch,**	**60.10**	**57**	⇑P	**P**	**19 57 41.6**	**-0.5**
	baz=60						
MSO	**Missoula**	**60.12**	**52**	*e*P	**P**	**19 57 42.1**	**0.0**
	comp=Z,11nm,0.9s,mb4.9						
WVOR	**Wild Horse Val**	**60.14**	**59**	*e*P	**P**	**19 57 42.9**	**+0.6**
	comp=Z,14nm,0.9s,mb5.0						
WVOR	**Wild Horse Val**	**60.14**	**59**	*e*P	**P**	**19 57 42.9**	**+0.6**
WVOR				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
ORV	**Oroville**	**60.17**	**63**	⇑P	**P**	**19 57 42.1**	**-0.5**
	baz=60						
BHGR	**Bahadurgarh**	**60.19**	**281**	*e*P	**P**	**19 57 42.6**	**-0.3**
BHGR				AMb	AMB	19 57 45.8	
	comp=Z,223nm,0.3s						
I10A	**Payette**	**60.20**	**56**	⇑P	**P**	**19 57 43.9**	**+1.3**
	baz=60						
D14A	**Greenough**	**60.20**	**52**	P	**P**	**19 57 42.8**	**+0.2**
	baz=60,SNR=26						
E13A	**Victor**	**60.22**	**53**	P	**P**	**19 57 44.5**	**+1.6**
	baz=60,SNR=7.9						
H11A	**Donnelly**	**60.27**	**55**	P	**P**	**19 57 44.1**	**+0.9**
	baz=60,SNR=12						
SONA	**Sohna**	**60.38**	**281**	*e*P	**P**	**19 57 44.2**	**+0.1**
SONA				AMb	AMB	19 57 45.4	
	comp=Z,94nm,1.4s,mb5.6						
CHMT	**Chamberlain Mo**	**60.44**	**52**	*e*P	**P**	**19 57 43.8**	**-0.5**
AGRA	**Agra**	**60.45**	**279**	*e*P	**P**	**19 57 44.9**	**+0.3**
AGRA				AMb	AMB	19 57 46.0	
	comp=Z,77nm,0.4s						
N06A	**Buffalo Meadow**	**60.45**	**61**	⇑P	**P**	**19 57 44.0**	**-0.5**
	baz=60						
L08A	**Fields**	**60.46**	**59**	⇓P	**P**	**19 57 44.7**	**+0.2**
	baz=60						
M07A	**Soldier Meadow**	**60.46**	**60**	P	**P**	**19 57 45.6**	**+1.1**
	baz=60,SNR=9.6						
F13A	**Darby**	**60.54**	**53**	P	**P**	**19 57 45.8**	**+0.8**
	baz=60,SNR=9.2						
E14A	**Clinton**	**60.62**	**52**	P	**P**	**19 57 46.5**	**+1.0**
	baz=60,SNR=18						
BEKR	**Beckwourth**	**60.68**	**62**	⇓P	**P**	**19 57 45.2**	**-0.8**
	baz=60						
KULM	**Kulim**	**60.68**	**244**	⇑*i*P	**P**	**19 57 47.1**	**+0.8**
D15A	**Lincoln**	**60.76**	**51**	P	**P**	**19 57 47.6**	**+1.1**
	baz=60,SNR=8.2						
O06A	**Flanigan**	**60.82**	**61**	⇓P	**P**	**19 57 47.2**	**+0.2**
	baz=61						
KUDL	**Kundal**	**60.85**	**281**	*e*P	**P**	**19 57 47.0**	**-0.4**
KUDL				AMb	AMB	19 57 48.5	
	comp=Z,125nm,1.4s,mb5.8						
M08A	**Happy Creek Ra**	**60.89**	**59**	⇓P	**P**	**19 57 47.7**	**+0.2**
	baz=61						
N07B	**Gerlach**	**60.95**	**60**	⇑P	**P**	**19 57 48.5**	**+0.6**
	baz=61						
K10A	**MacKenzie Ranc**	**60.96**	**57**	P	**P**	**19 57 49.4**	**+1.5**
	baz=61,SNR=6.0						
L09A	**Wilkinson Ranc**	**60.96**	**58**	⇓P	**P**	**19 57 48.5**	**+0.6**
	baz=61						
H12A	**Diamond D Ranc**	**61.02**	**55**	⇓P	**P**	**19 57 47.8**	**-0.5**
	baz=61						
G13A	**Cobalt**	**61.03**	**54**	P	**P**	**19 57 48.3**	**0.0**
	baz=61,SNR=19						
FFC	**Flin Flon**	**61.05**	**40**	P	**P**	**19 57 48.7**	**+0.4**
	comp=Z,131nm,0.6s,SNR=9.1						
F14A	**Wisdom**	**61.06**	**53**	P	**P**	**19 57 49.6**	**+1.1**
	baz=61,SNR=8.0						
E15A	**Deer Lodge**	**61.08**	**52**	P	**P**	**19 57 49.6**	**+1.0**
	baz=61,SNR=9.9						
LAVA	**Lava Cap Winer**	**61.13**	**63**	⇓P	**P**	**19 57 48.3**	**-0.8**
	baz=61						
MFID	**Camas Ranch**	**61.17**	**56**	⇓P	**P**	**19 57 49.5**	**+0.2**
	baz=61						
JOF	**Joensuu**	**61.20**	**333**	*e*p	**P**	**19 57 47.5**	**-1.7**
	comp=Z,16nm,0.4s,mb5.5						
JOF	**Joensuu**	**61.20**	**333**	*e*P	**P**	**19 57 47.5**	**-1.7**
JOF				pmax	pmax		
	comp=Z,16nm,0.4s,mb5.5						
H13A	**Challis**	**61.34**	**54**	⇑P	**P**	**19 57 50.4**	**-0.1**
	baz=61						
KHET	**Khetri**	**61.35**	**281**	*e*P	**P**	**19 57 49.8**	**-1.0**
KHET				AMb	AMB	19 57 51.9	
	comp=Z,46nm,0.9s,mb5.6						
PAHR	**Pah Rah Range**	**61.37**	**61**	*e*P	**P**	**19 57 52.0**	**+1.3**
O07A	**Toulon**	**61.39**	**61**	⇓P	**P**	**19 57 51.8**	**+0.9**
	baz=61						
K11A	**Parker Ranch,**	**61.45**	**57**	P	**P**	**19 57 51.8**	**+0.6**
	baz=61,SNR=10						
N08A	**GE Springer Mi**	**61.45**	**60**	⇑P	**P**	**19 57 51.5**	**+0.2**
	baz=61						
M09A	**Marrel Ranch,**	**61.46**	**59**	⇓P	**P**	**19 57 51.5**	**+0.2**
	baz=61						
F15A	**Butte**	**61.52**	**52**	P	**P**	**19 57 52.5**	**+0.8**
	baz=61,SNR=16						
FCC	**Fort Churchill**	**61.53**	**33**	*e*P	**P**	**19 57 49.2**	**-2.3**
	comp=Z,33nm,0.5s,mb5.7						
FCC	**Fort Churchill**	**61.53**	**33**	*e*P	**P**	**19 57 49.2**	**-2.3**
FCC				pmax	pmax		
	comp=Z,33nm,0.5s,mb5.7						
LRM	**Limekiln Ridge**	**61.56**	**52**	*e*P	**P**	**19 57 52.6**	**+0.7**
EGMT	**Eagleton**	**61.61**	**49**	⇑*e*P	**P**	**19 57 52.0**	**-0.2**
	comp=Z,23nm,0.8s,mb5.4						
EGMT	**Eagleton**	**61.61**	**49**	P	**P**	**19 57 52.4**	**+0.2**
	baz=61,SNR=13						
L10A	**Juniper Basin**	**61.62**	**58**	⇑P	**P**	**19 57 53.3**	**+0.9**
	baz=61						
J12A	**Stokes Ranch,**	**61.69**	**56**	P	**P**	**19 57 53.6**	**+0.8**
	baz=61,SNR=11						
KBL	**Kabul**	**61.70**	**291**	*e*P	**P**	**19 57 52.2**	**-0.8**
N09A	**Rock Creek Ran**	**61.77**	**59**	⇓P	**P**	**19 57 54.0**	**+0.6**
	baz=62						
CMB	**Columbia Colle**	**61.80**	**63**	*e*P	**P**	**19 57 53.5**	**-0.1**
	comp=Z,15nm,1.1s,mb5.0						
CMB	**Columbia Colle**	**61.80**	**63**	*e*P	**P**	**19 57 53.6**	**0.0**
CMB				pmax	pmax		
	comp=Z,15nm,1.1s,mb5.0						
CMB	**Columbia Colle**	**61.80**	**63**	⇓P	**P**	**19 57 53.5**	**-0.1**
	baz=62						
KAKA	**Kakadu**	**61.82**	**202**	*e*P	**P**	**19 57 53.9**	**0.0**
	comp=Z,15nm,1.2s,mb5.0						
I13A	**Wildhorse Cree**	**61.83**	**55**	P	**P**	**19 57 55.5**	**+1.8**
	baz=62,SNR=16						
HLID	**Hailey**	**61.88**	**55**	*e*P	**P**	**19 57 54.4**	**+0.3**
	comp=Z,5.7nm,0.8s,mb4.8						
HLID	**Hailey**	**61.88**	**55**	⇑P	**P**	**19 57 54.7**	**+0.6**
	baz=62						
PACP	**Pacheco Peak**	**61.88**	**65**	⇓P	**P**	**19 57 54.1**	**-0.1**
	baz=62						
M10A	**I.L. Ranch, Tu**	**61.93**	**58**	P	**P**	**19 57 56.1**	**+1.7**
	baz=62,SNR=8.8						
G15A	**Dillon**	**61.95**	**53**	P	**P**	**19 57 55.6**	**+1.1**
	baz=62,SNR=19						
MCMT	**McKenzie Canyo**	**61.96**	**53**	*e*P	**P**	**19 57 55.0**	**+0.4**
L11A	**Cat Creek Ranc**	**61.98**	**57**	P	**P**	**19 57 55.8**	**+1.0**
	baz=62,SNR=11						
R06C	**Coleville**	**62.07**	**63**	⇓P	**P**	**19 57 56.4**	**+0.9**
	baz=62						
WAKR	**Walker**	**62.09**	**63**	*e*P	**P**	**19 57 57.3**	**+1.7**
BOZ	**Bozeman (W)**	**62.11**	**52**	*e*P	**P**	**19 57 55.9**	**+0.3**
	comp=Z,11nm,0.7s,mb5.1						
BOZ	**Bozeman (W)**	**62.11**	**52**	*e*P	**P**	**19 57 55.9**	**+0.3**
BOZ				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.1						
BOZ	**Bozeman (W)**	**62.11**	**52**	P	**P**	**19 57 57.3**	**+1.6**
	baz=62,SNR=16						
J13A	**Cove Ranch, Pi**	**62.12**	**55**	P	**P**	**19 57 56.6**	**+0.9**
	baz=62,SNR=8.1						
K12A	**Draper Farm, C**	**62.18**	**56**	⇓P	**P**	**19 57 56.4**	**+0.2**
	baz=62						
BMN	**Battle Mountai**	**62.21**	**60**	*e*P	**P**	**19 57 56.4**	**0.0**
	comp=Z,11nm,0.8s,mb5.0						
BMN	**Battle Mountai**	**62.21**	**60**	*e*P	**P**	**19 57 56.4**	**0.0**
BMN				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.0						
S06C	**San Francisco**	**62.22**	**63**	⇑P	**P**	**19 57 56.4**	**-0.1**
	baz=62						
S05C	**Merced**	**62.26**	**64**	⇑P	**P**	**19 57 56.7**	**-0.1**
	baz=62						
O09A	**Fish Creek Ran**	**62.40**	**60**	⇑P	**P**	**19 57 58.5**	**+0.9**
	baz=62						
L12A	**House Creek Ra**	**62.42**	**57**	⇑P	**P**	**19 57 58.0**	**+0.2**
	baz=62						
R07C	**Lee Vining**	**62.59**	**63**	⇓P	**P**	**19 57 59.8**	**+0.9**
	baz=62						
O10A	**Cortez Mining,**	**62.73**	**59**	⇑P	**P**	**19 57 59.4**	**-0.5**
	baz=62						
QLMT	**Earthquake Lak**	**62.74**	**53**	*e*P	**P**	**19 58 00.9**	**+1.1**
NVAR	**Mina Array Bea**	**62.82**	**62**	P	**P**	**19 58 00.0**	**-0.5**
	comp=Z,2.9nm,0.6s,mb4.6,baz=286,slow=7.9,SNR=19						
T06C	**Millerton Lake**	**62.86**	**64**	⇑P	**P**	**19 58 00.3**	**-0.5**
	baz=63						
M12A	**Wells**	**62.95**	**58**	⇑P	**P**	**19 58 00.4**	**-0.8**
	baz=63						
MOR8	**Moi Rana**	**62.95**	**342**	*e*P	**P**	**19 57 59.0**	**-1.9**
	comp=Z,65nm,0.4s						
MOR8	**Moi Rana**	**62.95**	**342**	*e*P	**P**	**19 57 59.2**	**-1.6**
MOR8				AMb	AMB	19 58 00.4	
	comp=Z,65nm,0.4s						
L13A	**Double Diamond**	**63.08**	**56**	⇓P	**P**	**19 58 01.3**	**-0.8**
	baz=63						
STOK	**Stokkvaagen**	**63.10**	**343**	*e*P	**P**	**19 58 01.6**	**-0.2**
AJM	**Ajmer**	**63.17**	**281**	*i* P	**P**	**19 58 03.0**	**0.0**
P10A	**Eureka**	**63.17**	**60**	⇑P	**P**	**19 58 02.7**	**-0.1**
	baz=63						
K14A	**Jones Ranch, D**	**63.23**	**56**	⇓P	**P**	**19 58 03.0**	**-0.1**
	baz=63						
YNR	**Norris Junctio**	**63.23**	**52**	*e*P	**P**	**19 58 05.9**	**+2.9**
N12A	**Clover Valley,**	**63.23**	**58**	⇓P	**P**	**19 58 02.7**	**-0.5**
	baz=63						
YFT	**Old Faithful**	**63.31**	**53**	*e*P	**P**	**19 58 07.1**	**+3.5**

KAF	**Kangasniemi**	63.32	335	*e*p	P	19 58 02.1	-1.3
	comp=Z,27nm,0.4s,mb5.7,baz=37,slow=6.2						
KAF	**Kangasniemi**	63.32	335	*e*P	P	19 58 02.1	-1.3
KAF				pmax	pmax		
	comp=Z,27nm,0.4s,mb5.7						
O11A	**Cowboy Ranch,**	63.33	59	⇓P	P	19 58 03.7	-0.1
	baz=63						
PTRM	**Twissleman Ran**	63.41	65	P	P	19 58 05.0	+0.6
M13A	**Montello**	63.42	57	P	P	19 58 05.2	+0.8
	baz=63,SNR=12						
HELL	**Mitchell Peak,**	63.49	64	P	P	19 58 04.9	-0.1
	baz=63,SNR=8.2						
S08C	**White Mtn Res**	63.49	63	⇓P	P	19 58 05.2	+0.2
	baz=63						
IMW	**Indian Meadow**	63.61	53	*e*P	P	19 58 05.6	0.0
	comp=Z,6.3nm,0.4s,mb5.0						
P11A	**Circle Ranch,**	63.64	60	⇓P	P	19 58 05.4	-0.5
	baz=63						
DCID1	**Drake Creek**	63.67	54	*e*P	P	19 58 07.4	+1.4
R09A	**Tonopah**	63.69	61	P	P	19 58 06.7	+0.4
	baz=64,SNR=7.6						
N13A	**Wendover, West**	63.72	58	⇑P	P	19 58 07.3	+0.9
	baz=64						
RLMT	**Red Lodge**	63.73	51	*e*P	P	19 58 07.0	+0.6
	comp=Z,7.5nm,0.6s,mb4.9						
O12A	**Currie**	63.78	58	⇑P	P	19 58 06.3	-0.5
	baz=64,SNR=8.4						
M14A	**Sheep Mountain**	63.80	57	⇓P	P	19 58 07.1	+0.2
	baz=64						
MOOW	**Moose Ponds**	63.81	53	*e*P	P	19 58 08.2	+1.2
FIA1	**FINESS Array S**	63.91	335	⇓*i*P	P	19 58 06.7	-0.6
FINES	**FINESS Array B**	63.91	335	P	P	19 58 06.3	-1.0
FINES				PcP	PcP	19 58 42.2	-0.4
FINES				LR	LR	20 28 49.7	
FINES	**FINESS Array B**	63.91	335	⇑*e*P	P	19 58 06.3	-1.0
FINES	**FINESS Array B**	63.91	335	P	P	19 58 06.3	-1.0
	comp=Z,46nm,0.4s,mb5.8,baz=39,slow=7.2,SNR=616						
FINES				PcP	PcP	19 58 42.2	-0.4
	comp=Z,7.0nm,0.6s,baz=56,slow=5.1,SNR=4.1						
FINES				LR	LR	20 28 49.7	
	comp=Z,527nm,19.7s,MS4.7,baz=221,slow=39						
S09A	**Goldfield**	63.93	62	⇑P	P	19 58 07.4	-0.5
	baz=64						
HVU	**Hansel Valley**	63.95	56	P	P	19 58 07.4	-0.4
	comp=Z,7.3nm,0.8s,mb4.8						
HVU	**Hansel Valley**	63.95	56	P	P	19 58 07.4	-0.5
HVU				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
VES	**Vestal, Richgr**	64.00	65	⇑P	P	19 58 07.5	-0.8
	baz=64						
REDW	**Red Top Meadow**	64.00	54	*e*P	P	19 58 09.0	+0.8
	comp=Z,40nm,1.2s,mb5.3						
PKM	**Peak Mountain**	64.14	66	⇑P	P	19 58 09.9	+0.7
	baz=64						
DGMT	**Dagmar**	64.14	46	*e*P	P	19 58 07.9	-1.2
	comp=Z,51nm,0.6s,mb5.7						
S10A	**Tonopah Range,**	64.18	61	⇓P	P	19 58 08.3	-1.1
	baz=64						
P12A	**McGill**	64.19	59	⇑P	P	19 58 09.7	+0.2
	baz=64						
LAO	**LASA Array**	64.30	49	*e*P	P	19 58 08.3	-1.8
	comp=Z,32nm,0.8s,mb5.4						
GRAC	**Grapevine Rang**	64.31	63	⇑P	P	19 58 09.9	-0.4
	baz=64						
M15A	**Larsen Ranch,**	64.34	56	⇑P	P	19 58 09.7	-0.7
	baz=64,SNR=9.6						
SPUT	**South Promonto**	64.44	56	*e*P	P	19 58 11.1	+0.1
Q12A	**Willow Creek R**	64.52	60	⇑P	P	19 58 11.2	-0.5
	baz=64						
DAC	**Darwin (Calif)**	64.64	63	*e*P	P	19 58 13.6	+1.1
HWUT	**Hardware Ranch**	64.75	56	*e*P	P	19 58 13.0	-0.1
	comp=Z,14nm,1.0s,mb5.0						
MPMC	**Manual Prospec**	64.84	64	P	P	19 58 14.3	+0.5
	baz=65,SNR=6.3						
S11A	**Rachel**	64.87	61	⇓P	P	19 58 13.9	-0.1
	baz=65						
NSS	**Namsos**	64.90	342	*e*P	P	19 58 12.2	-1.5
	comp=Z,66nm,1.0s,mb5.6						
NSS	**Namsos**	64.90	342	*e*P	P	19 58 12.2	-1.5
NSS				AMb	AMB	19 58 13.3	
	comp=Z,66nm,1.0s,mb5.6						
DUG	**Dugway**	64.95	57	⇑*e*P	P	19 58 14.5	0.0
	comp=Z,9.6nm,0.8s,mb4.9						
DUG	**Dugway**	64.95	57	⇑*e*P	P	19 58 14.5	0.0
DUG				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
DUG	**Dugway**	64.95	57	⇓P	P	19 58 15.0	+0.6
	baz=65,SNR=14						
FURC	**Furnace Creek,**	64.96	63	⇑P	P	19 58 14.8	+0.2
	baz=65						
TPNV	**Topopah Spring**	65.02	62	*e*P	P	19 58 15.2	+0.3
	comp=Z,16nm,0.9s,mb5.0						
TPNV	**Topopah Spring**	65.02	62	⇑P	P	19 58 14.9	-0.1
	baz=65						
NOQ	**North Oquirrh**	65.05	57	*e*P	P	19 58 15.1	0.0
	comp=Z,23nm,0.8s,mb5.3						
LRMC	**Laurel Mountai**	65.09	64	⇓P	P	19 58 15.7	+0.3
	baz=65						
BW06	**Boulder Array**	65.11	54	*e*P	P	19 58 15.7	+0.3
	comp=Z,13nm,0.8s,mb5.0						
PDAR	**Pinedale Array**	65.11	54	P	P	19 58 15.7	+0.3
	comp=Z,11nm,0.8s,mb4.9,baz=275,slow=1.2,SNR=44						
R12A	**Pony Springs,**	65.11	60	P	P	19 58 15.9	+0.4
	baz=65,SNR=5.4						
OBN	**Obninsk**	65.12	325	*e*P	P	19 58 14.3	-0.9
	comp=Z,19nm,0.4s,mb5.5						
OBN	**Obninsk**	65.12	325	⇑*e*P	P	19 58 15.8	+0.5
OBN				*e*		19 58 47.2	
OBN				*e*S	S	20 06 51.9	-3.0
OBN				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.2						
OBN				MLR	MLR		
	comp=Z,800nm,23.0s,MS4.8						
SFJD	**Kangerlussuaq**	65.28	10	*e*P	P	19 58 15.5	-0.6
	comp=Z,23nm,0.9s,mb5.2						
SFJD	**Kangerlussuaq**	65.28	10	P	P	19 58 15.7	-0.4
SFJD				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
SFJD	**Kangerlussuaq**	65.28	10	P	P	19 58 15.7	-0.4
	comp=Z,19nm,0.8s,mb5.2,baz=331,slow=7.1,SNR=15						
SFJD	**Kangerlussuaq**	65.28	10	⇑*i*P	P	19 58 15.6	-0.5
	comp=Z,24nm,0.9s,mb5.2						
SFJD				*e*		20 01 14.6	
EDW2	**Edwards Air Fo**	65.30	65	⇑P	P	19 58 16.7	-0.1
	baz=65						
T11A	**Corn Creek, Al**	65.45	61	⇓P	P	19 58 17.0	-0.8
	baz=65						
JLU	**Jordanelle**	65.47	56	*e*P	P	19 58 19.9	+2.1
NLU	**North Lily Min**	65.54	57	*e*P	P	19 58 19.1	+0.9
DAU	**Daniels Canyon**	65.71	56	*e*P	P	19 58 17.1	-2.2
MPU	**Maple Canyon**	65.75	57	*e*P	P	19 58 19.8	+0.1
	comp=Z,13nm,0.8s,mb5.0						
GSC	**Goldstone**	65.75	64	⇓P	P	19 58 19.6	-0.1
	baz=66						
VRHR	**Novokhopersk**	65.91	320	*e*P	P	19 58 18.0	-2.4
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
VRHR				pmax	pmax		
	comp=N,7.0nm,0.4s						
VRHR				pmax	pmax		
	comp=E,7.0nm,0.7s						
SHPR	**Sheep Range**	65.97	62	*e*P	P	19 58 22.4	+1.3
S13A	**Holt Ranch, En**	66.05	60	⇓P	P	19 58 21.1	-0.5
	baz=66						
ARUT	**Antelope Range**	66.16	60	*e*P	P	19 58 22.4	0.0
TUQ	**Turquoise Mtn.**	66.21	63	⇓P	P	19 58 21.7	-1.0
	baz=66						
V11A	**Goodsprings**	66.25	63	⇓P	P	19 58 21.8	-1.1
	baz=66						
ABKT	**Ailbek**	66.28	301	P	P	19 58 23.1	+0.1
	comp=E,259nm,0.6s,SNR=12						
S14A	**Cedar City**	66.34	60	⇓P	P	19 58 22.3	-1.2
	baz=66						
MSU	**Marysvale**	66.43	58	*e*P	P	19 58 24.7	+0.7
TMUT	**Trail Mountain**	66.47	57	*e*P	P	19 58 24.3	+0.1
HYB	**Hyderabad**	66.59	271	*e*P	P	19 58 25.5	+0.2
	comp=E,60nm,0.6s,mb5.8						
HYB	**Hyderabad**	66.59	271	*e*P	P	19 58 25.5	+0.2
HYB				pmax	pmax		
	comp=Z,60nm,0.6s,mb5.8						
HYB	**Hyderabad**	66.59	271	*i* P	P	19 58 25.5	+0.2
	comp=Z,60nm,0.6s,mb5.8						
MURC	**Murrieta**	66.63	65	⇓P	P	19 58 24.3	-1.1
	baz=66						
V12A	**Nelson**	66.67	62	⇑P	P	19 58 24.5	-1.1
	baz=66						
CTA	**Charters Tower**	66.71	186	*e*P	P	19 58 25.6	-0.2
	comp=Z,9.7nm,1.0s,mb4.8						
CTA	**Charters Tower**	66.71	186	*e*P	P	19 58 25.6	-0.2
CTA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
CTA	**Charters Tower**	66.71	186	LR	LR	20 22 22.2	
	comp=Z,218nm,19.8s,MS4.4,baz=6.6,slow=31						
CTAO	**Charters Tower**	66.71	186	*e*P	P	19 58 25.5	-0.3
	comp=Z,15nm,0.8s,mb5.1						
CTAO	**Charters Tower**	66.71	186	*e*P	P	19 58 25.5	-0.3
CTAO				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
GMRC	**Granite Mounta**	66.81	64	⇑P	P	19 58 25.5	-1.0
	baz=67						
ULM	**Lac du Bonnet**	66.83	40	*e*P	P	19 58 25.2	-1.2
	comp=Z,13nm,0.6s,mb5.2						
ULM	**Lac du Bonnet**	66.83	40	P	P	19 58 25.1	-1.3
	comp=Z,14nm,0.7s,mb5.1,baz=310,slow=6.8,SNR=33						
ULM				LR	LR	20 27 41.6	
	comp=Z,188nm,18.5s,MS4.3,baz=354,slow=36						
T14A	**Hurricane**	66.86	60	⇑P	P	19 58 26.1	-0.7
	baz=67						
VRSR	**Storozhevoye**	66.89	321	*e*P	P	19 58 26.3	-0.4
VRSR				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
VRSR				pmax	pmax		
	comp=N,10.0nm,2.3s						
VRSR				pmax	pmax		
	comp=E,5.0nm,0.9s						
VRSR				MLR	MLR		
	comp=Z,220nm,21.0s,MS4.3						
VRSR				MLR	MLR		
	comp=N,170nm,22.0s,MS4.3						
VRSR				MLR	MLR		
	comp=E,110nm,22.0s,MS4.3						
SRU	**San Rafael**	66.99	57	*e*P	P	19 58 28.2	+0.6
	comp=E,23nm,0.9s,mb5.2						
SRU	**San Rafael**	66.99	57	*e*P	P	19 58 28.2	+0.6
SRU				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.2						
BELC	**Belle Mtn.**	67.11	64	⇑P	P	19 58 27.3	-1.1
	baz=67						
LATR	**Latur**	67.27	273	*e*P	P	19 58 29.2	-0.4
T15A	**Red Dirt Ranch**	67.30	60	⇓P	P	19 58 29.5	-0.1
	baz=67						
BC3	**Big Chuckw Mtn**	67.68	64	⇓P	P	19 58 30.9	-1.1
	baz=68						
W13A	**Hualapai Mount**	67.68	62	⇑P	P	19 58 30.9	-1.1
	baz=68						
DOMB	**Dombas**	67.72	342	*e*P	P	19 58 31.7	-0.1
	comp=Z,74nm,0.8s,mb5.8						
DOMB	**Dombas**	67.72	342	*e*P	P	19 58 31.7	-0.1
DOMB				AMb	AMB	19 58 32.7	
	comp=Z,74nm,0.8s,mb5.8						
X13A	**Yucca**	68.05	63	⇓P	P	19 58 34.2	-0.1
	baz=68						
PDMCI	**Parker Dam,Lak**	68.06	63	⇓P	P	19 58 34.6	+0.2
	baz=68						
W14A	**Seligman**	68.09	62	⇑P	P	19 58 33.8	-0.8
	baz=68,SNR=9.6						
NB2	**NORSAR Subarra**	68.15	341	P	P	19 58 34.0	-0.5
	comp=Z,46nm,0.6s,mb5.7,baz=28,slow=6.2						
NOA	**NORSAR Array B**	68.15	341	P	P	19 58 34.1	-0.4
NOA				pmax	pmax		
	comp=Z,46nm,0.5s						
NOA				MLR	MLR		
	comp=Z,484nm,18.6s						
NOA	**NORSAR Array B**	68.15	341	P	P	19 58 34.1	-0.4
	comp=Z,46nm,0.5s,mb5.8,baz=28,slow=6.4,SNR=151						
NOA				LR	LR	20 32 44.4	
	comp=Z,484nm,18.6s,MS4.8,baz=20,slow=40						
Y12C	**Blythe**	68.19	64	⇓P	P	19 58 34.1	-1.1
	baz=68						
AGMN	**Agassiz Refuge**	68.25	42	*e*P	P	19 58 34.1	-1.2
	comp=Z,12nm,0.7s,mb5.0						
WB2	**Warramunga Arr**	68.33	198	*e*P	P	19 58 34.8	-1.2
WRA	**Warramunga Arr**	68.33	198	P	P	19 58 34.8	-1.2
	comp=Z,8.7nm,0.8s,mb4.8,baz=20,slow=6.8,SNR=47						
WRA				PKPPKP		20 26 52.1	
	comp=Z,0.8nm,0.8s,baz=197,slow=2.6,SNR=5.1						
WRA				LR	LR	20 28 38.8	
	comp=Z,90nm,19.2s,MS4.0,baz=335,slow=36						
PV10	**Paradox Valley**	68.34	57	*e*P	P	19 58 36.9	+0.8
NAO01	**NORSAR Array S**	68.39	341	⇑*e*P	P	19 58 35.1	-0.9
	comp=Z,41nm,0.7s,mb5.6						
IZAR	**Zarasai**	68.40	331	*e*P	P	19 58 35.7	-0.4
IZAR				AMb	AMB	19 58 37.2	
	comp=Z,17nm,0.6s,mb5.3						
GLA	**Glamis**	68.47	64	⇓P	P	19 58 36.9	-0.1
	baz=68						
Y13A	**Salome**	68.58	63	⇑P	P	19 58 37.6	-0.1
	baz=68						
IDID	**Didziasalis**	68.58	330	*e*P	P	19 58 37.0	-0.4
IDID				AMb	AMB	19 58 38.5	
	comp=Z,15nm,0.7s,mb5.0						
W15A	**Williams**	68.61	61	⇑P	P	19 58 38.1	+0.2
	baz=68						
X14A	**Yava**	68.71	62	⇓P	P	19 58 37.3	-1.1
	baz=68						
IIGN	**Ignalina**	68.73	330	*e*P	P	19 58 37.9	-0.3
PV01	**Paradox Valley**	68.78	57	*e*P	P	19 58 39.8	+0.9
BORG	**Borgarnes**	68.79	357	P	P	19 58 39.0	+0.5
	comp=Z,28nm,0.9s,mb5.2,baz=321,slow=2.7,SNR=7.0						
FITZ	**Fitzroy Crossi**	68.90	207	*e*P	P	19 58 39.4	-0.3
	comp=Z,21nm,0.9s,mb5.1						
FITZ	**Fitzroy Crossi**	68.90	207	LR	LR	20 25 41.4	
	comp=Z,90nm,19.7s,MS4.0,baz=22,slow=33						
WUAZ	**Wupatki**	68.92	60	*e*P	P	19 58 41.0	+1.3
WUAZ	**Wupatki**	68.92	60	⇑P	P	19 58 40.0	+0.2
	baz=69						
SMCO	**Snowmass**	68.97	55	*e*P	P	19 58 40.0	0.0
	comp=Z,18nm,0.8s,mb5.0						
Y14A	**Wickenburg**	69.00	63	⇓P	P	19 58 39.8	-0.4
	baz=69						
POO	**Poona**	69.05	275	⇓*i*P	P	19 58 41.0	+0.2
	comp=Z,80nm,1.0s,mb5.6						
X15A	**Humboldt**	69.09	62	⇑P	P	19 58 41.5	+0.6
	baz=69,SNR=8.3						
ISCO	**Idaho Springs**	69.31	54	*e*P	P	19 58 43.3	+1.2
	comp=Z,14nm,0.8s,mb4.9						
ISCO	**Idaho Springs**	69.31	54	*e*P	P	19 58 43.3	+1.2
ISCO				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
MVCO	**Mesa Verde**	69.45	57	*e*P	P	19 58 42.8	-0.2
	comp=Z,12nm,0.8s,mb4.9						
MVCO	**Mesa Verde**	69.45	57	⇑P	P	19 58 42.9	-0.1
	baz=69						
DZM	**Mont Dzumac**	69.59	166	LR	LR	20 25 05.8	
	comp=Z,393nm,20.3s,MS4.7,baz=64,slow=32						
KAD	**Karad**	69.67	274	*i* P	P	19 58 44.8	+0.2
KONO	**Kongsberg**	69.75	341	*e*P	P	19 58 44.0	-0.5
	comp=Z,65nm,0.9s,mb5.6						
KONO	**Kongsberg**	69.75	341	*e*P	P	19 58 44.0	-0.5
KONO				pmax	pmax		
	comp=Z,65nm,0.9s,mb5.6						
RUND	**Rundenannen**	69.95	343	*e*P	P	19 58 48.3	+2.6
	comp=Z,200nm,0.9s						
RUND	**Rundenannen**	69.95	343	*e*P	P	19 58 48.3	+2.6
RUND				AMb	AMB	19 58 49.3	
	comp=Z,200nm,0.9s						
ODD1	**Odda**	70.16	343	*e*P	P	19 58 46.3	-0.7
EYMN	**Ely**	70.48	40	*e*P	P	19 58 47.7	-1.4
	comp=Z,17nm,0.7s,mb5.1						
KIV	**Kislovodsk**	70.54	314	*e*P	P	19 58 47.1	-2.5
	comp=Z,30nm,0.8s,mb5.3						
KIV	**Kislovodsk**	70.54	314	*i* P	P	19 58 49.4	-0.2
KIV				*e*		19 59 12.1	
KIV				*e*		20 01 24.2	
KIV				*e*S	S	20 07 59.8	-0.3
KIV				*e*SS	SS	20 12 27.3	-3.6
KIV				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
KIV				MLR	MLR		
	comp=Z,1µm,15.0s,MS5.2						
BLS5	**Blasjo**	70.64	342	*e*P	P	19 58 50.3	+0.4
ZEI	**Tsey**	70.79	312	*e*P	P	19 58 51.6	+0.5
ZEI				*e*		19 59 11.5	
ZEI				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.1						
SDCO	**Great Sand Dun**	70.80	55	*e*P	P	19 58 51.8	+0.6
SUW	**Suwalki**	70.85	331	*e*P	P	19 58 51.0	-0.3
MTA	**Mtatsminda**	71.11	311	P	P	19 58 54.7	+1.6
TBLG	**Delisi**	71.11	311	*e*P	P	19 58 54.9	+1.8
TBLG	**Delisi**	71.11	311	P	P	19 58 54.9	+1.8
ECSD	**EROS,Sioux Fal**	71.22	46	*e*P	P	19 58 52.5	-1.2
	comp=Z,19nm,0.8s,mb5.1						
AKASG	**Malin Array Be**	71.36	326	P	P	19 58 53.6	-0.8
AKASG				pmax	pmax		
	comp=Z,59nm,0.3s						
AKASG				MLR	MLR		
	comp=Z,902nm,19.2s						
AKASG	**Malin Array Be**	71.36	326	P	P	19 58 53.6	-0.9
	comp=Z,59nm,0.3s,baz=34,slow=6.4,SNR=10						
AKASG				LR	LR	20 32 27.7	
	comp=Z,902nm,19.2s,MS5.0,baz=35,slow=38						
AKBB	**Malin Array Si**	71.36	326	⇑*e*P	P	19 58 53.4	-1.0
KIEV	**Kiev**	71.37	326	*e*P	P	19 58 53.4	-1.1
	comp=Z,64nm,0.5s,mb5.8						
KIEV	**Kiev**	71.37	326	*e*P	P	19 58 53.4	-1.1
KIEV				pmax	pmax		
	comp=Z,64nm,0.5s,mb5.8						
TUC	**Tucson**	71.47	62	*e*P	P	19 58 54.6	-0.8
	comp=Z,7.1nm,0.9s,mb4.6						
TUC	**Tucson**	71.47	62	*e*P	P	19 58 54.6	-0.8
TUC				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
SNART	**Snartemo**	71.47	342	*e*P	P	19 58 55.2	+0.2
ASAR	**Alice Springs**	72.03	198	P	P	19 58 58.6	0.0
ASAR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
ASAR	**Alice Springs**	72.03	198	P	P	19 58 58.6	0.0
	comp=Z,10nm,0.6s,mb4.9,baz=12,slow=5.5,SNR=112						
ANMO	**Albuquerque**	72.21	58	*e*P	P	19 59 01.2	+1.4
ANMO	**Albuquerque**	72.21	58	⇑*e*P	P	19 59 00.3	+0.5
SOC	**Sochi**	72.27	315	*e*P	P	19 58 56.7	-3.3
SOC				*e*S	S	20 08 09.6	-10
SOC				*e*SS	SS	20 12 55.3	-2.1
SOC				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.5						
SOC				MLR	MLR		
	comp=Z,997nm,18.0s,MS5.1						
PALK	**Pallekele**	72.28	262	P	P	19 59 00.8	+0.3
	comp=Z,219nm,0.7s,SNR=6.5						
PALK	**Pallekele**	72.28	262	*e*P	P	19 59 00.4	-0.1
	comp=Z,33nm,0.9s,mb5.3						
BSD	**Bornholm Skovb**	72.44	336	*i* P	P	19 59 01.0	+0.2
BSD				*i* S	tx	19 59 24.6	
ANN	**Anapa**	72.44	317	*e*P	P	19 59 00.9	-0.1
ANN				*e*S	S	20 08 20.6	-1.4
ANN				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
ORE	**Reay**	73.31	347	*e*P	P	19 59 06.1	+0.2
GKP	**Gorka Klasztor**	73.37	334	*e*P	P	19 59 06.8	+0.4
SCHQ	**Schefferville**	73.52	22	P	P	19 59 06.3	-0.9
	comp=Z,6.9nm,0.6s,mb4.8,baz=2.1,slow=4.8,SNR=24						
SCHQ				LR	LR	20 32 45.6	
	comp=Z,392nm,18.4s,MS4.7,baz=91,slow=37						
RSC	**Scourie**	73.70	348	*e*P	P	19 59 08.4	+0.2
MBWA	**Marble Bar**	73.75	212	*e*P	P	19 59 07.9	-1.0
	comp=Z,9.7nm,0.8s,mb4.8						
SIM	**Simferopol’**	73.84	319	*e*P	P	19 59 02.0	-7.3
SIM				*e*S	S	20 08 36.0	-1.9
SIM				MLR	MLR		
	comp=Z,800nm,16.0s,MS5.1						
MVH1	**Achvaich**	73.97	347	*e*P	P	19 59 09.9	+0.1
LVV	**L’vov**	74.03	328	*e*P	P	19 59 09.4	-0.9
MCD	**Coleburn Disti**	74.15	347	⇑*e*P	P	19 59 11.3	+0.4
ERZM	**Erzurum**	74.19	312	*i* P	P	19 59 12.7	+1.3
RRR	**Rubha Reidh**	74.27	348	*e*P	P	19 59 11.7	+0.1
RRH	**Rhenigidale**	74.33	349	⇑*e*P	P	19 59 12.2	+0.3
MME1	**Meikle Cairn**	74.36	346	*e*P	P	19 59 11.9	-0.2
MDO	**Dochfour**	74.46	347	⇑*e*P	P	19 59 12.7	+0.1
KIS	**Kishinev**	74.49	324	*e*P	P	19 59 11.0	-2.0
KIS				*e*		20 08 45.0	
KIS				MLR	MLR		
	comp=Z,800nm,17.0s,MS5.1						
KSU1	**Kansas State U**	74.64	49	*e*P	P	19 59 12.0	-2.1
KSU1				*e*	pP	19 59 25.8	+0.1
KWP	**Kalwaria**	74.66	329	*e*P	P	19 59 15.0	+1.0
KWP	**Kalwaria**	74.66	329	⇑*i*P	P	19 59 14.4	+0.4
BSEG	**Bad Segeberg**	74.73	338	*e*P	P	19 59 13.5	-0.8
BSEG				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.3						
BSEG	**Bad Segeberg**	74.73	338	*e*P	P	19 59 13.5	-0.8
	comp=Z,44nm,1.0s,mb5.3						
KSB	**Sheil Bridge**	74.84	348	*e*P	P	19 59 15.0	+0.2
RUE	**Ruedersdorf**	75.08	335	*e*P	P	19 59 16.4	+0.1
	comp=Z,79nm,0.8s,mb5.7						
MNTX	**Cornudas Mount**	75.15	60	*e*P	P	19 59 17.3	+0.2
OJC	**Ojcow**	75.17	331	*e*P	P	19 59 16.7	-0.2
KAR1	**Arisaig**	75.18	348	*e*P	P	19 59 16.6	-0.3
STHS	**Stebnicka Huta**	75.36	330	*e*P	P	19 59 18.7	+0.7
	comp=Z,41nm,0.7s,mb5.5						
STHS	**Stebnicka Huta**	75.36	330	*e*P	P	19 59 18.7	+0.7
STHS				pmax	pmax		
	comp=Z,41nm,0.7s,mb5.5						
KOLS	**Kolonicke sedl**	75.40	329	*e*P	P	19 59 18.2	0.0
BURAR	**Bucovina Array**	75.41	326	⇑*i*P	P	19 59 18.4	+0.1
BANOM	**Banah**	75.62	292	P	P	19 59 20.6	+0.7
	SNR=22						
ESY	**Stoneypath**	75.64	346	*e*P	P	19 59 19.8	+0.3
UZH	**Uzhgorod**	75.65	328	⇑*i*P	P	19 59 19.0	-0.7
UZH				*e*	pP	19 59 32.0	+0.7
UZH				MLR	MLR		
	comp=Z,740nm,18.0s,MS5.0						
EAB	**Aberfoyle**	75.66	347	*e*P	P	19 59 19.8	+0.1
NIE	**Niedzica**	75.68	330	*e*P	P	19 59 20.5	+0.7
CRVS	**Cervenica-Dubn**	75.71	329	*e*P	P	19 59 20.0	0.0
KSP	**Ksiaz**	75.77	333	*e*P	P	19 59 20.9	+0.6
KSP	**Ksiaz**	75.77	333	*e*P	P	19 59 20.4	+0.1
KSP				MLR	MLR		
	comp=Z,3µm,20.4s,MS5.6						
EAU	**Auchinoon**	75.85	346	*e*P	P	19 59 21.1	+0.5
TRPA	**Tarpa**	75.98	328	⇓*i*P	P	19 59 22.8	+1.2
XSO	**Sourhope Farm**	75.99	346	*e*P	P	19 59 22.2	+0.7
OKC	**Ostrava-Krasne**	76.05	332	⇑*i*P	P	19 59 21.9	0.0
PGBU	**Glenifferbraes**	76.05	347	*e*P	P	19 59 21.5	-0.3
PGBU				AMb	AMB	19 59 23.2	
	comp=Z,147nm,1.6s,mb5.7						
NRDL	**Niedersach Rie**	76.08	337	*e*P	P	19 59 21.6	-0.5
	comp=Z,45nm,1.0s,mb5.3						
BIDO	**Bidbid**	76.14	290	P	P	19 59 24.7	+1.8
	SNR=6.6						
UPC	**Upice**	76.15	333	⇑*i*P	P	19 59 22.3	-0.2
DPC	**Dobruska-Polom**	76.19	333	⇑*i*P	P	19 59 22.7	0.0
DPC				AMS	AMS	20 37 10.0	
	comp=Z,800nm,17.4s						
BOYT	**Boyabat**	76.22	317	*i* P	P	19 59 24.9	+1.8
WBK	**Wadi Bani Khal**	76.23	288	P	P	19 59 25.5	+2.1
	SNR=15						
CFR	**Carcaliu**	76.24	323	P	P	19 59 29.8	+6.7
VRI	**Vrincioaia**	76.25	324	P	P	19 59 24.2	+1.0
VRI	**Vrincioaia**	76.25	324	⇓*i*P	P	19 59 25.0	+1.8
PLOR	**Plostina**	76.29	324	P	P	19 59 24.1	+0.7
PLOR	**Plostina**	76.29	324	⇓*i*P	P	19 59 24.2	+0.8
MORC	**Moravsky Berou**	76.30	332	⇑*e*P	P	19 59 23.0	-0.3
	comp=Z,46nm,0.7s,mb5.5						
MORC	**Moravsky Berou**	76.30	332	P	P	19 59 23.5	+0.2
MORC	**Moravsky Berou**	76.30	332	⇑*i*P	P	19 59 23.4	+0.1
ESK	**Eskdalemuir**	76.32	346	P	P	19 59 23.4	0.0
	comp=Z,124nm,0.5s,SNR=13						
ESK	**Eskdalemuir**	76.32	346	⇑*e*P	P	19 59 23.5	+0.1
ESK				AMb	AMB	19 59 25.2	
	comp=Z,54nm,1.6s,mb5.2						
CLL	**Collm**	76.34	335	⇑*i*P	P	19 59 23.0	-0.6
	comp=Z,84nm,0.7s,mb5.8						
CLL				LR	LR		
	comp=Z,500nm,19.9s,MS4.8						
CLL	**Collm**	76.34	335	⇑*i*P	P	19 59 23.0	-0.6
CLL				pmax	pmax		
	comp=Z,84nm,0.7s,mb5.8						
CLL				MLR	MLR		
	comp=Z,500nm,19.9s,MS4.8						
CLL	**Collm**	76.34	335	*e*P	P	19 59 22.7	-0.9
	comp=Z,84nm,0.7s,mb5.8						
LIKS	**Likavka**	76.40	331	*e*P	P	19 59 23.4	-0.6
KECS	**Kecovo**	76.41	329	*e*P	P	19 59 23.9	-0.1
	comp=Z,20nm,1.0s,mb5.0						
KECS	**Kecovo**	76.41	329	*e*P	P	19 59 23.9	-0.1
KECS				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
BRG	**Berggiesshubel**	76.45	334	*i* P	P	19 59 23.7	-0.5
BRG				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
BRG				MLR	MLR		
	comp=N,633nm,26.0s						
BRG				MLR	MLR		
	comp=E,445nm,16.9s						
BRG				MLR	MLR		
	comp=Z,503nm,19.5s						
BRG	**Berggiesshubel**	76.45	334	*e*P	P	19 59 23.5	-0.7
	comp=Z,33nm,1.0s,mb5.2						

BRG	Berggiesshubel	76.45	334	*i* P	P	19 59 23.7	-0.6
	comp=Z,33nm,1.0s,mb5.2						
BRG							
	comp=N,1µm,26.0s						
BRG							
	comp=E,743nm,16.9s						
BRG							
	comp=Z,840nm,19.5s						
HATD	Hatta, Dubai	76.51	292	P	P	19 59 25.6	+0.7
	SNR=36						
SMDO	Samad	76.52	289	P	P	19 59 26.4	+1.3
	SNR=12						
BWH	Wardlaw	76.53	346	*e*P	P	19 59 25.0	+0.4
PVCC	Panska Ves	76.57	334	⇑*i*P	P	19 59 24.8	-0.1
XAL	Allendale	76.58	345	*e*P	P	19 59 25.1	+0.2
FBE	Freiberg	76.58	335	*e*P	P	19 59 23.9	-1.1
	comp=Z,53nm,0.8s,mb5.5						
CLZ	Clausthal	76.60	337	*e*P	P	19 59 25.1	+0.1
CLZ				pmax	pmax		
	comp=Z,147nm,1.9s,mb5.6						
CLZ	Clausthal	76.60	337	*e*P	P	19 59 25.1	+0.1
	comp=Z,147nm,1.9s,mb5.6						
HOQ	Hoqain	76.63	290	P	P	19 59 26.0	+0.3
	SNR=25						
ASHO	Ashiyiah	76.65	292	P	P	19 59 26.3	+0.5
	SNR=29						
TIRR	Tirgusor	76.70	322	⇑*i*P	P	19 59 25.4	-0.4
BALT	Daday	76.84	318	*i* P	P	19 59 27.9	+1.3
IBBN	Ibbenburen	76.86	339	*e*P	P	19 59 26.3	-0.2
	comp=Z,68nm,0.8s,mb5.6						
MLR	Muntele Rosu	76.87	325	P	P	19 59 28.2	+1.6
MLR	Muntele Rosu	76.87	325	⇓*i*P	P	19 59 26.4	-0.3
GCD	Castle Douglas	76.87	346	*e*P	P	19 59 26.3	-0.2
MALT	Malatya	76.89	312	⇑*i*P	P	19 59 28.1	+1.2
	comp=Z,38nm,0.8s,mb5.4						
MALT	Malatya	76.89	312	⇑*i*P	P	19 59 28.1	+1.2
MALT				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.4						
MALT	Malatya	76.89	312	⇓*i*P	P	19 59 27.8	+0.9
CTKT	Corum	76.90	316	*i* P	P	19 59 27.7	+0.8
JMDO	Jabal Madar	76.97	289	P	P	19 59 28.8	+1.2
	SNR=23						
VYHS	Vyhne	76.97	330	*i* P	P	19 59 27.3	+0.1
	comp=Z,24nm,0.9s,mb5.1						
VYHS	Vyhne	76.97	330	*i* P	P	19 59 27.3	+0.1
VYHS				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
GAL1	Galloway	77.00	347	*e*P	P	19 59 27.6	+0.4
GAL1				AMb	AMB	19 59 29.0	
	comp=Z,67nm,1.4s,mb5.4						
CKE	Keswick	77.00	346	*e*P	P	19 59 27.9	+0.7
VRAC	Vranov	77.01	332	P	P	19 59 27.7	+0.3
VRAC	Vranov	77.01	332	⇑*i*P	P	19 59 27.5	+0.1
PRA	Prague	77.02	334	⇑P	P	19 59 28.0	+0.6
DRGR		77.04	327	P	P	19 59 27.9	+0.3
KOLL	Kolacno	77.05	331	*e*P	P	19 59 28.0	+0.4
PRU	Pruhonice	77.06	334	⇑*i*P	P	19 59 27.6	0.0
PRU				AMS	AMS	20 36 50.0	
	comp=Z,1µm,21.4s						
PSZ	Piszkesteto	77.10	329	*e*P	P	19 59 27.7	-0.2
	comp=Z,42nm,1.0s,mb5.3						
PSZ	Piszkesteto	77.10	329	*e*P	P	19 59 27.7	-0.2
PSZ				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
PSZ	Piszkesteto	77.10	329	⇑*e*P	P	19 59 28.1	+0.2
PSZ	Piszkesteto	77.10	329	⇑*i*P	P	19 59 27.9	0.0
HDIL	Hopedale	77.17	44	*e*P	P	19 59 27.1	-1.4
	comp=Z,49nm,0.7s,mb5.5						
VOIR		77.27	325	P	P	19 59 29.6	+0.7
VOIR		77.27	325	⇓*i*P	P	19 59 29.9	+1.0
BSY	Bisya	77.29	290	P	P	19 59 30.1	+0.7
	SNR=27						
TANN	Tannenbergstha	77.30	335	*e*P	P	19 59 28.2	-0.8
	comp=Z,47nm,1.5s,mb5.2						
ARQ	Araqi	77.31	290	P	P	19 59 29.9	+0.4
	SNR=16						
WERD	Werda	77.31	335	*e*P	P	19 59 28.6	-0.5
	comp=Z,42nm,1.1s,mb5.3						
MOX	Moxa	77.33	336	*e*P	P	19 59 29.1	-0.1
	comp=Z,133nm,1.7s,mb5.6						
MOX	Moxa	77.33	336	*e*P	P	19 59 29.1	-0.1
MOX				pmax	pmax		
	comp=Z,133nm,1.7s,mb5.6						
MOX	Moxa	77.33	336	*e*P	P	19 59 28.7	-0.5
	comp=Z,52nm,1.0s,mb5.4						
HPK	Haverah Park	77.34	345	⇑*e*P	P	19 59 29.8	+0.7
HPK				AMb	AMB	19 59 30.7	
	comp=Z,135nm,1.4s,mb5.7						
TREC	Trest	77.37	333	⇑*i*P	P	19 59 29.3	-0.1
TREC				AMS	AMS	20 38 10.0	
	comp=Z,800nm,18.1s						
GUNZ	Gunzen	77.38	335	*e*P	P	19 59 29.1	-0.3
	comp=Z,37nm,0.8s,mb5.4						
WERN	Wernitzgruen	77.43	335	*e*P	P	19 59 29.4	-0.3
	comp=Z,42nm,0.7s,mb5.5						
NKC	Novy Kostel	77.46	335	⇑*i*P	P	19 59 29.8	-0.1
GIM	North Isle of	77.51	346	*e*P	P	19 59 30.5	+0.4
LPIG	La Paz	77.53	68	LR	LR	20 26 37.4	
	comp=Z,137nm,20.8s,MS4.2,baz=326,slow=30						
BUG	Bochum--Univer	77.77	339	*e*P	P	19 59 31.2	-0.4
	comp=Z,83nm,1.1s,mb5.6						
BUD	Budapest	77.78	330	⇓*e*P	P	19 59 32.7	+1.0
LHO	Holmfirth	77.78	345	*e*P	P	19 59 31.4	-0.2
MANZ	Manzenberg	77.78	335	*e*P	P	19 59 31.0	-0.7
	comp=Z,31nm,1.0s,mb5.2						
ZST	Bratislava	77.81	331	*i* P	P	19 59 32.8	+0.9
	comp=Z,40nm,1.0s,mb5.3						
ZST				LR	LR		
	comp=Z,600nm,20.4s,MS4.9						
LTX	Lajitas	77.88	60	*e*P	P	19 59 31.8	-0.8
	comp=Z,11nm,0.7s,mb4.9						
LTX	Lajitas	77.88	60	*e*P	P	19 59 31.8	-0.8
LTX				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
TXAR	Lajitas Array	77.88	60	P	P	19 59 32.4	-0.2
	comp=Z,15nm,0.8s,mb5.0,baz=298,slow=4.6,SNR=67						
TXAR				PKKPbc	PKKPbc	20 18 33.5	+2.4
	comp=Z,0.6nm,0.9s,baz=157,slow=3.5,SNR=3.5						
ROTZ	Rotzenmuhle	77.95	335	*e*P	P	19 59 32.5	-0.1
	comp=Z,62nm,1.2s,mb5.4						
KBI1	Birley Grange	78.00	344	*e*P	P	19 59 33.2	+0.4
GZT	Gaziantep	78.06	312	*i* P	P	19 59 34.7	+1.3
KHC	Kasperske Hory	78.11	334	⇑*i*P	P	19 59 33.7	+0.2
KHC				*e*		19 59 38.0	
KHC				LR	LR		
	comp=Z,900nm,17.4s,MS5.2						
KHC	Kasperske Hory	78.11	334	*c* *i*P	P	19 59 33.6	+0.1
KHC	Kasperske Hory	78.11	334	⇑*i*P	P	19 59 33.7	+0.2
KHC				pP	pP	19 59 38.0	-7.2
KHC				AMS	AMS	20 37 20.0	
	comp=Z,900nm,17.4s						
BR131	Keskin Array S	78.15	316	*e*P	P	19 59 34.3	+0.4
	comp=Z,7.8nm,0.4s,mb5.0						
BRTR	Keskin Array B	78.15	316	P	P	19 59 34.5	+0.6
BRTR				pmax	pmax		
	comp=Z,20nm,0.7s						
BRTR	Keskin Array B	78.15	316	P	P	19 59 34.5	+0.5
	comp=Z,20nm,0.7s,mb5.2,baz=65,slow=3.8,SNR=70						
GZR	Gura Zlata	78.19	326	P	P	19 59 34.3	+0.3
GZR	Gura Zlata	78.19	326	⇑*i*P	P	19 59 34.7	+0.7
KWE	Weaver Farm	78.28	345	*e*P	P	19 59 35.2	+0.9
GRA1	Grafenberg Arr	78.30	335	*e*P	P	19 59 34.7	+0.1
	comp=Z,102nm,0.8s,mb5.8						
GRF	Grafenberg Arr	78.30	335	*e*P	P	19 59 34.7	+0.1
GRF				pmax	pmax		
	comp=Z,102nm,0.8s,mb5.8						
GRF	Grafenberg Arr	78.30	335	*e*P	P	19 59 34.7	+0.1
GRF				pmax	pmax		
	comp=Z,102nm,0.8s,mb5.8						
GRF	Grafenberg Arr	78.30	335	*e*P	P	19 59 34.7	+0.1
	comp=Z,102nm,0.8s,mb5.8						
GRFO	Grafenberg	78.30	335	⇑*i*P	P	19 59 34.4	-0.2
	comp=Z,102nm,1.0s,mb5.7						
GRFO	Grafenberg	78.30	335	⇑*i*P	P	19 59 34.4	-0.2
GRFO				pmax	pmax		
	comp=Z,102nm,1.0s,mb5.7						
WET	Wettzell	78.31	334	*e*P	P	19 59 34.7	+0.1
WET				pmax	pmax		
	comp=Z,66nm,1.0s,mb5.5						
WET	Wettzell	78.31	334	*e*P	P	19 59 34.7	+0.1
	comp=Z,66nm,1.0s,mb5.5						
GEC2	GERESS Array S	78.32	334	*e*P	P	19 59 34.1	-0.6
GEC2				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.2						
GEC2	GERESS Array S	78.32	334	*e*P	P	19 59 34.1	-0.6
	comp=Z,24nm,0.7s,mb5.2						
GERES	GERESS Array B	78.32	334	P	P	19 59 34.7	0.0
GERES				pmax	pmax		
	comp=Z,14nm,0.5s						
GERES				MLR	MLR		
	comp=Z,980nm,18.3s						
GERES	GERESS Array B	78.32	334	P	P	19 59 34.7	0.0
	comp=Z,14nm,0.5s,mb5.1,baz=36,slow=6.0,SNR=166						
GERES				LR	LR	20 38 16.9	
	comp=Z,980nm,18.2s,MS5.2,baz=44,slow=39						
AAM	Ann Arbor	78.34	39	*e*P	P	19 59 34.1	-0.8
	comp=Z,23nm,0.7s,mb5.2						
AAM	Ann Arbor	78.34	39	*e*P	P	19 59 34.1	-0.8
AAM				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.2						
MIB	Mutribah	78.34	301	*e*P	P	19 59 35.2	+0.1
MIB				AMb	AMB	19 59 37.1	
	comp=Z,367nm,0.7s						
ANTO	Ankara	78.43	317	⇑*e*P	P	19 59 35.8	+0.4
	comp=Z,44nm,0.5s,mb5.6						
ANTO	Ankara	78.43	317	⇑*e*P	P	19 59 35.8	+0.3
ANTO				pmax	pmax		
	comp=Z,44nm,0.5s,mb5.6						
ANTO	Ankara	78.43	317	⇑*i*P	P	19 59 36.9	+1.4
BZS	Buzias	78.44	327	P	P	19 59 35.2	-0.2
BZS	Buzias	78.44	327	⇓*i*P	P	19 59 34.9	-0.5
CWF	Charnwood Fore	78.44	344	*e*P	P	19 59 35.9	+0.6
CWF				AMb	AMB	19 59 37.2	
	comp=Z,104nm,1.6s,mb5.5						
CONA	Conrad Observa	78.45	332	*i* pP	P	19 59 35.9	+0.5
	comp=Z,51nm,0.7s,mb5.6,SNR=53						
TNS	Taunus Mts	78.58	337	*e*P	P	19 59 35.4	-0.7
TNS				pmax	pmax		
	comp=Z,58nm,0.9s,mb5.5						
TNS	Taunus Mts	78.58	337	*e*P	P	19 59 35.4	-0.7
	comp=Z,58nm,0.9s,mb5.5						
KBD	Kabd	78.59	300	*e*P	P	19 59 36.9	+0.4
KBD				AMb	AMB	19 59 38.0	
	comp=Z,448nm,0.6s						
FVM	French Village	78.63	46	*e*P	P	19 59 35.6	-1.0
	comp=Z,14nm,0.6s,mb5.1						
FVM	French Village	78.63	46	*e*P	P	19 59 35.6	-1.0
FVM				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
SBD1	Bryn Du	78.64	345	*e*P	P	19 59 37.0	+0.6
CRAR	CRAIOVA	78.69	325	P	P	19 59 37.7	+0.9
SZH	Strazhica	78.71	323	P	P	19 59 37.3	+0.3
BEBN	Eben Emael	78.76	339	P	P	19 59 36.8	-0.3
	comp=Z,34nm,1.3s,mb5.1						
QRN	Al-Qurain	78.77	300	*e*P	P	19 59 37.8	+0.2
QRN				AMb	AMB	19 59 39.6	
	comp=Z,220nm,0.6s						
DLF	Lyons Farm	78.80	347	*e*P	P	19 59 37.4	+0.2
NAY	Al-Naaiem	78.80	301	*e*P	P	19 59 37.8	0.0
NAY				AMb	AMB	19 59 39.8	
	comp=Z,151nm,1.0s,mb5.9						
STKA	Stephens Creek	78.83	189	*e*P	P	19 59 37.3	-0.2
	comp=Z,2.6nm,0.7s,mb4.3						
STKA	Stephens Creek	78.83	189	P	P	19 59 37.1	-0.4
	comp=Z,3.5nm,0.8s,mb4.3,baz=345,slow=5.6,SNR=7.3						
STKA				LR	LR	20 32 12.9	
	comp=Z,178nm,18.9s,MS4.4,baz=141,slow=34						
MEM	Membach	78.85	339	P	P	19 59 37.7	+0.2
	comp=Z,54nm,1.0s,mb5.4						
DCN	Croghan	78.86	348	*e*P	P	19 59 39.0	+1.4
RDF	Al-Radifah	78.86	300	*e*P	P	19 59 38.2	+0.2
RDF				AMb	AMB	19 59 41.0	
	comp=Z,396nm,1.2s						
HLM1	Long Mynd	78.94	345	*e*P	P	19 59 38.7	+0.6
PVL	Pavlikeni	79.00	324	*e*P	P	19 59 39.0	+0.5
PKSM	Moragy	79.01	329	P	P	19 59 37.6	-0.9
PKSM	Moragy	79.01	329	⇓*i*P	P	19 59 37.9	-0.6
MOA	Molln	79.03	333	⇓*i*P	P	19 59 37.9	-0.7
	comp=Z,30nm,1.0s,mb5.2,SNR=12						
TOD	Tromm	79.05	337	*e*P	P	19 59 38.4	-0.3
UCC	Uccle	79.07	340	P	P	19 59 38.2	-0.5
	comp=Z,38nm,1.3s,mb5.2						
ARSA	Arzberg	79.16	332	*i* P	P	19 59 39.5	+0.2
	comp=Z,46nm,1.2s,mb5.3,SNR=20						
ARSA	Arzberg	79.16	332	*i* pP	P	19 59 39.5	+0.2
	comp=Z,46nm,1.2s,mb5.3,SNR=20						
BCLA	Clavier	79.20	339	P	P	19 59 39.2	-0.3
	comp=Z,44nm,1.2s,mb5.3						
JCT	Junction City	79.30	57	*e*P	P	19 59 40.1	-0.3
	comp=Z,11nm,0.6s,mb5.0						
JCT	Junction City	79.30	57	*e*P	P	19 59 40.1	-0.3
JCT				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
SNF	Seneffe	79.36	340	P	P	19 59 39.6	-0.7
	comp=Z,30nm,1.3s,mb5.1						
COBT	Iskenderun	79.37	313	*i* P	P	19 59 41.9	+1.2
RUP	Ruppelstein	79.42	338	*e*P	P	19 59 40.3	-0.4
HTR	Trewern Hill	79.43	345	⇑*e*P	P	19 59 41.2	+0.5
SIUC	Southern Illin	79.43	45	*e*P	P	19 59 36.5	-4.6
	comp=Z,20nm,0.6s,mb5.2						
MCH1	Michaelchurch	79.46	345	⇑*e*P	P	19 59 41.9	+1.0
MCH1				AMb	AMB	19 59 43.6	
	comp=Z,82nm,1.6s,mb5.4						
BGY	Belgrade	79.54	327	⇑*i*P	P	19 59 50.1	+8.6
BLO	Bloomington	79.57	43	*e*P	P	19 59 40.3	-1.4
	comp=Z,25nm,0.6s,mb5.3						
BLO	Bloomington	79.57	43	*e*P	P	19 59 40.3	-1.4
BLO				pmax	pmax		
	comp=Z,25nm,0.6s,mb5.3						
GIVF	Givet	79.61	340	⇑*i*P	P	19 59 41.3	-0.4
	comp=Z,148nm,1.3s,mb5.5						
GIVF	Givet	79.61	340	⇑*i*P	P	19 59 41.3	-0.4
	comp=Z,74nm,1.3s,mb5.5						
GIVF	Givet	79.61	340	⇑*i*P	P	19 59 41.3	-0.4
GIVF				pmax	pmax		
	comp=Z,74nm,1.3s,mb5.5						
ESKT	Eskisehir	79.61	318	*i* P	P	19 59 42.4	+0.4
FUR	Furstenfeldbru	79.66	335	*e*P	P	19 59 42.1	+0.1
FUR				pmax	pmax		
	comp=Z,102nm,1.1s,mb5.7						
FUR	Furstenfeldbru	79.66	335	*e*P	P	19 59 42.1	+0.1
	comp=Z,102nm,1.1s,mb5.7						
DOU	Dourbes	79.67	340	P	P	19 59 42.1	0.0
	comp=Z,24nm,1.4s,mb4.9						
MIAR	Mount Ida	79.68	50	*e*P	P	19 59 41.9	-0.5
	comp=Z,12nm,0.8s,mb4.9						
MIAR	Mount Ida	79.68	50	*e*P	P	19 59 41.9	-0.5
MIAR				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
WLF	Walferdange	79.69	339	*e*P	P	19 59 40.9	-1.3
	comp=Z,64nm,1.4s,mb5.4						
WLF	Walferdange	79.69	339	*e*P	P	19 59 40.9	-1.3
WLF				pmax	pmax		
	comp=Z,64nm,1.4s,mb5.4						
WLF	Walferdange	79.69	339	P	P	19 59 41.1	-1.1
	comp=Z,36nm,1.8s,mb5.0						
WLF	Walferdange	79.69	339	*e*P	P	19 59 42.3	+0.1
	comp=Z,52nm,1.2s,mb5.3						
STU	Stuttgart	79.70	336	*e*P	P	19 59 41.8	-0.5
	comp=Z,65nm,1.0s,mb5.5						
SWN1	Swindon	79.71	344	*e*P	P	19 59 43.2	+1.0
HGH	Gray Hill	79.77	345	*e*P	P	19 59 42.6	0.0
BAIF	Baives	79.80	340	⇑*i*P	P	19 59 42.5	-0.3
	comp=Z,141nm,1.3s,mb5.4						
BAIF	Baives	79.80	340	⇑*i*P	P	19 59 42.5	-0.3
	comp=Z,70nm,1.3s,mb5.4						
BAIF	Baives	79.80	340	⇑*i*P	P	19 59 42.5	-0.3
BAIF				pmax	pmax		
	comp=Z,70nm,1.3s,mb5.4						
MENF	Mencas	79.80	341	*e*P	P	19 59 42.5	-0.3
PERS	Pernice	79.83	332	*e*P	P	19 59 42.6	-0.4
DIM	Dimitrovgrad	79.88	323	*e*P	P	19 59 43.5	+0.1
LANF	Langenberg	79.89	337	*e*P	P	19 59 43.1	-0.2
ULDT	Uludag	79.89	319	*i* P	P	19 59 42.6	-0.9
USIN	University of	79.99	44	P	P	19 59 43.5	-0.5
	comp=Z,39nm,0.7s,mb5.5						
PARMO	Parma	80.00	46	*e*P	P	19 59 43.9	-0.2
KBA	Koelnbreinsper	80.00	333	⇑*i*P	P	19 59 44.4	+0.5
	comp=Z,105nm,0.9s,mb5.8,SNR=45						
KBA	Koelnbreinsper	80.00	333	⇑*i*pP	P	19 59 44.4	+0.5
	comp=Z,105nm,0.9s,mb5.8,SNR=45						
KBA	Koelnbreinsper	80.00	333	⇑*i*P	P	19 59 44.4	+0.5
KBA				pmax	pmax		
	comp=Z,105nm,0.9s,mb5.8						
OBKA	Obir	80.13	332	⇑*i*P	P	19 59 44.3	-0.3
	comp=Z,25nm,1.0s,mb5.1,SNR=13						
PLD	Plovdiv	80.18	323	*e*P	P	19 59 43.5	-1.5
FORT	Forrest	80.22	201	*e*P	P	19 59 45.4	+0.3
	comp=Z,64nm,0.7s,mb5.7						
KDZ	Kurdzhali	80.26	323	P	P	19 59 45.0	-0.4
MYKA	Terra Mystica	80.31	333	⇑*i*P	P	19 59 45.4	-0.2
	comp=Z,48nm,1.0s,mb5.4						
WATA	Walderalm	80.31	334	⇑*i*P	P	19 59 46.0	+0.4
	comp=Z,50nm,1.0s,mb5.4,SNR=34						
WATA	Walderalm	80.31	334	⇑*i*pP	P	19 59 46.0	+0.4
	comp=Z,50nm,1.0s,mb5.4,SNR=34						
WATA	Walderalm	80.31	334	⇑*i*P	P	19 59 46.0	+0.4
WATA				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.4						
ACSO	Alum Creek Sta	80.32	40	*e*P	P	19 59 44.4	-1.3
	comp=Z,36nm,0.6s,mb5.5						
BFO	Black Forest	80.34	337	P	P	19 59 45.8	+0.1
	comp=Z,351nm,0.9s,SNR=16						
BFO	Black Forest	80.34	337	*e*P	P	19 59 45.3	-0.4
BFO				pmax	pmax		
	comp=Z,58nm,0.9s,mb5.5						
BFO	Black Forest	80.34	337	*e*P	P	19 59 45.3	-0.4
	comp=Z,58nm,0.9s,mb5.5						
WTTA	Wattenberg	80.36	334	*i* P	P	19 59 46.5	+0.6
	comp=Z,123nm,0.9s,mb5.8,SNR=33						
WTTA	Wattenberg	80.36	334	*i* pP	P	19 59 46.5	+0.6
	comp=Z,123nm,0.9s,mb5.8,SNR=33						
WTTA	Wattenberg	80.36	334	*i* P	P	19 59 46.5	+0.7
WTTA				pmax	pmax		
	comp=Z,123nm,0.9s,mb5.8						
ALLY	Alegheny Colle	80.36	37	*e*P	P	19 59 45.5	-0.4
VTS	Vitosha	80.38	325	P	P	19 59 46.0	0.0
VTS	Vitosha	80.38	325	⇑*i*P	P	19 59 46.1	+0.1
RETA	Reutte	80.42	335	⇑*i*pP	P	19 59 46.4	+0.3
	comp=Z,46nm,0.9s,mb5.4,SNR=28						
SPAK	Spaichingen-Ko	80.42	336	*e*P	P	19 59 46.2	0.0
WCI	Wyandotte Cave	80.43	43	*e*P	P	19 59 45.4	-1.0
	comp=Z,24nm,0.6s,mb5.3						
WCI	Wyandotte Cave	80.43	43	*e*P	P	19 59 45.4	-1.0
WCI				pmax	pmax		
	comp=Z,24nm,0.6s,mb5.3						
MOTA	Moosalm	80.45	335	⇑*i*P	P	19 59 46.5	+0.2
	comp=Z,79nm,1.1s,mb5.6,SNR=54						
MOTA	Moosalm	80.45	335	⇑*i*pP	P	19 59 46.5	+0.2
	comp=Z,79nm,1.1s,mb5.6,SNR=54						
MOTA	Moosalm	80.45	335	⇑*i*P	P	19 59 46.5	+0.2
MOTA				pmax	pmax		
	comp=Z,79nm,1.1s,mb5.6						
SQTA	Sankt Quirin	80.53	334	⇓*i*P	P	19 59 47.2	+0.5
	comp=Z,66nm,1.1s,mb5.5,SNR=29						
SQTA	Sankt Quirin	80.53	334	⇓*i*pP	P	19 59 47.2	+0.5
	comp=Z,66nm,1.1s,mb5.5,SNR=29						
SQTA	Sankt Quirin	80.53	334	⇓*i*P	P	19 59 47.2	+0.5
SQTA				pmax	pmax		
	comp=Z,66nm,1.1s,mb5.5						
LJU	Ljubljana	80.54	332	*e*P	P	19 59 46.7	-0.2
CDF	Champ du Feu	80.55	337	⇑*i*P	P	19 59 46.6	-0.2
	comp=Z,114nm,0.9s,mb5.5						
CDF	Champ du Feu	80.55	337	⇑*i*P	P	19 59 46.6	-0.2
	comp=Z,57nm,0.9s,mb5.5						
CDF	Champ du Feu	80.55	337	⇑*i*P	P	19 59 46.6	-0.2
CDF				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.5						
ABTA	Abfaltersbach	80.56	333	⇑*i*P	P	19 59 46.4	-0.5
	comp=Z,27nm,1.2s,mb5.1						
PTCC	Patocco-Chiusa	80.60	333	P	P	19 59 46.0	-1.1
	comp=Z,16nm,0.6s,mb5.1						
RDO	Rodhopi	80.63	322	*e*P	P	19 59 48.0	+0.6
ECH	Echery	80.76	337	*e*P	P	19 59 47.7	-0.3
BOJS	Bojanci	80.78	331	*i* P	P	19 59 47.5	-0.6
JAVS	Javornik	80.83	332	*i* P	P	19 59 47.2	-1.1
FELD	Feldberg im Sc	80.85	337	*e*P	P	19 59 48.1	-0.3
CEY	Cerknica	80.85	332	*i* P	P	19 59 47.7	-0.8
FETA	Feichten	80.85	335	*i* pP	P	19 59 48.9	+0.5
	comp=Z,45nm,1.1s,mb5.3,SNR=12						
DAVA	Damuels	80.86	335	⇑*i*P	P	19 59 48.8	+0.3
	comp=Z,51nm,0.9s,mb5.5,SNR=22						
DAVA	Damuels	80.86	335	⇑*i*pP	P	19 59 48.8	+0.3
	comp=Z,51nm,0.9s,mb5.5,SNR=22						
MMB	Musomiste	81.01	324	P	P	19 59 49.9	+0.5
KKB	Krupnik	81.04	324	*e*P	P	19 59 50.4	+0.8
MEZF	Maizieres J'vi	81.04	339	⇑*i*P	P	19 59 49.5	0.0
	comp=Z,288nm,1.2s,mb5.8						
MEZF	Maizieres J'vi	81.04	339	⇑*i*P	P	19 59 49.5	0.0
	comp=Z,288nm,1.2s						
MOF	Molkenrain	81.10	337	*e*P	P	19 59 49.4	-0.4
NVR	Nevrokopi	81.16	323	P	P	19 59 51.6	+1.4
HAU	Haudompre	81.17	338	⇑*i*P	P	19 59 49.7	-0.4
	comp=Z,126nm,1.2s,mb5.4						
HAU				*e*MLR	MLR		
	comp=Z,752nm,20.5s,MS4.7						
HAU	Haudompre	81.17	338	⇑*i*P	P	19 59 49.7	-0.4
	comp=Z,63nm,1.2s,mb5.4						
HAU				LR	LR		
	comp=Z,750nm,20.5s,MS5.0						
HAU	Haudompre	81.17	338	⇑*i*P	P	19 59 49.7	-0.4
HAU				pmax	pmax		
	comp=Z,63nm,1.2s,mb5.4						
HAU				MLR	MLR		
	comp=Z,750nm,20.5s,MS5.0						
APPI	Appiano	81.19	334	P	P	19 59 49.9	-0.4
HINF	Hinteralfeld	81.21	337	⇑*i*P	P	19 59 49.9	-0.5
	comp=Z,68nm,1.1s,mb5.2						
HINF	Hinteralfeld	81.21	337	⇑*i*P	P	19 59 49.9	-0.5
	comp=Z,34nm,1.1s,mb5.2						
HINF	Hinteralfeld	81.21	337	⇑*i*P	P	19 59 49.9	-0.5
HINF				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.2						
PLE	Pljevlja	81.22	327	⇑*i*P	P	19 59 50.8	+0.3
NATX	Nacogdoches	81.23	53	*e*P	P	19 59 51.8	+1.1
BBS	Basel-Blauen	81.36	337	*e*P	P	19 59 50.9	-0.3
IVA	Berane	81.42	327	⇑*i*P	P	19 59 50.1	-1.5
CTI	Castel Tesino	81.45	334	P	P	19 59 50.8	-0.9
	comp=Z,35nm,1.0s,mb5.2						
CTI	Castel Tesino	81.45	334	P	P	19 59 50.8	-0.9
CTI				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.2						
UPM	Unac-Piva	81.51	328	⇑*i*P	P	19 59 51.1	-0.9
STIP	Stip	81.54	325	*e*P	P	19 59 48.6	-3.6
SKO	Skopje	81.60	325	*e*P	P	19 59 48.7	-3.8
PVY	Plav	81.63	327	⇑*i*P	P	19 59 50.9	-1.8
LOMF	Lomont	81.64	337	*e*P	P	19 59 52.6	-0.1
VAY	Valandovo	81.70	324	*e*P	P	19 59 49.6	-3.5
TUE	Stuetta	81.75	335	P	P	19 59 53.8	+0.5
MABI	Malga Bissina	81.79	334	P	P	19 59 54.1	+0.6
NKY	Niksic	81.81	327	⇑*i*P	P	19 59 52.3	-1.3
PRK	Paraskevi	81.89	321	*e*P	P	19 59 55.5	+1.4
BRY	Bratogost	81.90	328	⇑*i*P	P	19 59 53.0	-1.1
TTG	Podgorica	82.04	327	⇑*i*P	P	19 59 53.9	-1.0
CSS	Prodhromos	82.06	314	⇑*e*P	P	19 59 54.7	-0.4
	comp=Z,65nm,0.7s,mb5.7						
FLN	La Foliniere	82.06	342	⇑*i*P	P	19 59 54.5	-0.4
	comp=Z,70nm,1.0s,mb5.2						
FLN				*e*MLR	MLR		
	comp=Z,704nm,22.0s,MS4.7						
FLN	La Foliniere	82.06	342	⇑*i*P	P	19 59 54.5	-0.4
	comp=Z,35nm,1.0s,mb5.2						
FLN				LR	LR		
	comp=Z,700nm,22.0s,MS5.0						
FLN	La Foliniere	82.06	342	⇑*i*P	P	19 59 54.5	-0.4
FLN				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.2						
FLN				MLR	MLR		
	comp=Z,700nm,22.0s,MS5.0						
SSPA	Standing Stone	82.14	36	*e*P	P	19 59 53.7	-1.8
	comp=Z,13nm,0.6s,mb5.0						
LDF	La Druitiere	82.15	342	⇑*i*P	P	19 59 54.7	-0.6
	comp=Z,133nm,1.4s,mb5.4						
LDF	La Druitiere	82.15	342	⇑*i*P	P	19 59 54.7	-0.6
	comp=Z,67nm,1.4s,mb5.4						
LDF	La Druitiere	82.15	342	⇑*i*P	P	19 59 54.7	-0.6
LDF				pmax	pmax		
	comp=Z,67nm,1.4s,mb5.4						
PLG	Polygyros	82.15	323	*e*P	P	19 59 55.0	-0.5
KRUS	Krusevo	82.19	325	*e*P	P	19 59 53.3	-2.4
BUM	Brajici-Budva	82.29	327	⇑*i*P	P	19 59 54.3	-1.9
HCY	Herceg Novi	82.31	328	⇑*i*P	P	19 59 54.6	-1.7
ULC	Ulcinj	82.45	327	⇑*i*P	P	19 59 56.1	-0.9
PPT	Papeete	82.46	125	*e*S	S	20 10 01.6	-9.3
	comp=Z,118nm,29.0s						
PPT				*e*LR	LR	20 25 53.5	
	comp=Z,1µm,24.5s,baz=326						
PPT	Papeete	82.46	125	LR	LR	20 27 50.4	
	comp=Z,576nm,21.2s,MS4.9,baz=350,slow=29						
VAI	Varese	82.47	335	P	P	19 59 56.6	-0.4
	comp=Z,244nm,1.7s,mb5.9						
VAI	Varese	82.47	335	P	P	19 59 56.6	-0.4
VAI				pmax	pmax		
	comp=Z,245nm,1.7s,mb5.9						
LOR	Lormes	82.48	339	⇑*i*P	P	19 59 56.8	-0.3
	comp=Z,155nm,1.0s,mb5.6						
LOR				*e*MLR	MLR		
	comp=Z,1µm,22.8s,MS4.8						

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LOR   Lormes            82.48 339⇑iP     P       19 59 56.8 -0.3
      comp=Z,77nm,1.0s,mb5.6
LOR                               LR     LR
      comp=Z,1µm,22.8s,MS5.2
LOR   Lormes            82.48 339⇑iP     P       19 59 56.8 -0.3
LOR                               pmax   pmax
      comp=Z,77nm,1.0s,mb5.6
LOR                               MLR    MLR
      comp=Z,1µm,22.8s,MS5.2
GRR   Gorron            82.50 342⇑iP     P       19 59 56.9 -0.2
      comp=Z,263nm,1.4s,mb5.7
GRR   Gorron            82.50 342⇑iP     P       19 59 56.9 -0.2
      comp=Z,131nm,1.4s,mb5.7
GRR   Gorron            82.50 342⇑iP     P       19 59 56.9 -0.2
GRR                               pmax   pmax
      comp=Z,131nm,1.4s,mb5.7
CABF  La Chapelle       82.52 337⇑iP     P       19 59 57.4 +0.1
      comp=Z,37nm,0.9s,mb5.1
CABF  La Chapelle       82.52 337⇑iP     P       19 59 57.4 +0.1
      comp=Z,19nm,0.9s,mb5.1
CABF  La Chapelle       82.52 337⇑iP     P       19 59 57.4 +0.1
CABF                              pmax   pmax
      comp=Z,19nm,0.9s,mb5.1
OHR   Ohrid             82.58 325 eP     P       19 59 55.0 -2.8
SSF   Saint Saulge      82.76 339⇑iP     P       19 59 58.3 -0.2
      comp=Z,68nm,1.0s,mb5.3
SSF   Saint Saulge      82.76 339⇑iP     P       19 59 58.3 -0.2
      comp=Z,34nm,1.0s,mb5.3
SSF   Saint Saulge      82.76 339⇑iP     P       19 59 58.3 -0.2
SSF                               pmax   pmax
      comp=Z,34nm,1.0s,mb5.3
ORO   Oropa             82.91 336  P     P       20 00 00.0 +0.7
      comp=Z,5.8nm,0.4s,mb5.0
ORO   Oropa             82.91 336  P     P       20 00 00.0 +0.7
ORO                               pmax   pmax
      comp=Z,6.0nm,0.4s,mb5.0
SGMF  Saint Gilles      82.97 344⇑iP     P       19 59 59.5 -0.1
      comp=Z,40nm,0.6s,mb5.3
SGMF  Saint Gilles      82.97 344⇑iP     P       19 59 59.5 -0.1
      comp=Z,20nm,0.6s,mb5.3
SGMF  Saint Gilles      82.97 344⇑iP     P       19 59 59.5 -0.1
SGMF                              pmax   pmax
      comp=Z,20nm,0.6s,mb5.3
WHFO  Wadi Hawf         82.98 289  P     P       20 00 00.1 -0.1
      SNR=34
RBK   Rabkut            83.00 288  P     P       20 00 00.6 +0.3
      SNR=7.4
SWET  Sewanee           83.02  45 eP     P       19 59 58.4 -1.7
ROSF  Rostrenen         83.03 344⇑iP     P       20 00 00.6 +0.7
      comp=Z,53nm,0.7s,mb5.4
ROSF  Rostrenen         83.03 344⇑iP     P       20 00 00.6 +0.7
      comp=Z,26nm,0.7s,mb5.4
ROSF  Rostrenen         83.03 344⇑iP     P       20 00 00.6 +0.7
ROSF                              pmax   pmax
      comp=Z,26nm,0.7s,mb5.4
AVF   Avril sur Loir    83.05 339⇑iP     P       20 00 00.0  0.0
      comp=Z,271nm,1.3s,mb5.8
AVF   Avril sur Loir    83.05 339⇑iP     P       20 00 00.0  0.0
      comp=Z,136nm,1.3s,mb5.8
AVF   Avril sur Loir    83.05 339⇑iP     P       20 00 00.0  0.0
AVF                               pmax   pmax
      comp=Z,136nm,1.3s,mb5.8
SMF   Signal de Mont    83.07 339⇑iP     P       20 00 00.0 -0.1
      comp=Z,378nm,1.3s
SMF   Signal de Mont    83.07 339⇑iP     P       20 00 00.0 -0.1
      comp=Z,189nm,1.3s
SMF   Signal de Mont    83.07 339⇑iP     P       20 00 00.0 -0.1
SMF                               pmax   pmax
      comp=Z,189nm,1.3s
TZTN  Tazewell          83.07  42 eP     P       19 59 59.2 -1.2
RSL   Roselend          83.23 337 eP     P       20 00 01.0  0.0
ERBM  Eremo             83.30 334  P     P       20 00 02.7 +1.4
      comp=Z,72nm,1.1s,mb5.6
FNVD  Fontana Vidola    83.30 333  P     P       20 00 04.1 +2.7
GSCL  Gusciola          83.30 334  P     P       20 00 01.9 +0.5
      comp=Z,77nm,1.2s,mb5.6
MVL   Millersville      83.30  36 eP     P       19 59 58.5 -3.0
LPL   La Plagne         83.36 337⇑iP     P       20 00 02.3 +0.6
      comp=Z,93nm,1.1s,mb5.4
LPL   La Plagne         83.36 337⇑iP     P       20 00 02.3 +0.6
      comp=Z,46nm,1.1s,mb5.4
LPL   La Plagne         83.36 337⇑iP     P       20 00 02.3 +0.6
LPL                               pmax   pmax
      comp=Z,47nm,1.1s,mb5.4
LPG   La Plagne         83.37 337⇑iP     P       20 00 02.5 +0.8
      comp=Z,136nm,1.1s,mb5.6
LPG   La Plagne         83.37 337⇑iP     P       20 00 02.5 +0.8
      comp=Z,68nm,1.1s,mb5.6
LPG   La Plagne         83.37 337⇑iP     P       20 00 02.5 +0.8
LPG                               pmax   pmax
      comp=Z,68nm,1.1s,mb5.6
BGF   Bois d’Agland     83.39 339⇑iP     P       20 00 01.8  0.0
      comp=Z,55nm,0.7s,mb5.4
BGF   Bois d’Agland     83.39 339⇑iP     P       20 00 01.8  0.0
      comp=Z,27nm,0.7s,mb5.4
BGF   Bois d’Agland     83.39 339⇑iP     P       20 00 01.8  0.0
BGF                               pmax   pmax
      comp=Z,27nm,0.7s,mb5.4
CPCT  Cooper Cave       83.51  44 eP     P       20 00 01.0 -1.6
VLC   Villacollemand    83.54 334 eP     P       20 00 03.1 +0.5
      comp=Z,73nm,1.2s,mb5.7
MURB  Monte Urbino      83.67 332  P     P       20 00 04.9 +1.6
TKL   Tuckaleechee C    83.69  43  LR    LR      20 36 21.1
      comp=Z,528nm,21.5s,MS4.9,baz=340,slow=35
ABTO  Aybut             83.70 288  P     P       20 00 04.1 +0.3
      SNR=19
PLDF  La Plantade       83.75 339 eP     P       20 00 03.9 +0.2
AGO   Saint Agoulin     83.80 339 eP     P       20 00 04.8 +0.9
TCF   Toulx Ste Croi    83.80 340⇑iP     P       20 00 03.9  0.0
      comp=Z,125nm,1.4s,mb5.6
TCF   Toulx Ste Croi    83.80 340⇑iP     P       20 00 03.9  0.0
      comp=Z,62nm,1.4s,mb5.5
TCF   Toulx Ste Croi    83.80 340⇑iP     P       20 00 03.9  0.0
TCF                               pmax   pmax
      comp=Z,63nm,1.4s,mb5.5
BNI   Bardonecchia      83.80 336 eP     P       20 00 04.9 +1.0
      comp=Z,34nm,1.1s,mb5.4
BNI   Bardonecchia      83.80 336 eP     P       20 00 04.2 +0.3
BNI                               pmax   pmax
      comp=Z,34nm,1.1s,mb5.4
JAN   Janina            83.81 325 eP     P       20 00 05.0 +0.9
KLBR  Kellerberrin      84.01 209 eP     P       20 00 04.7 -0.2
      comp=Z,15nm,0.7s,mb5.2
MFF   Saint Martin d    84.04 341⇑iP     P       20 00 04.9 -0.2
EVR   Evrytania         84.05 324 eP     P       20 00 04.9 -0.4
ATH   Athens Observa    84.05 322 eP     P       20 00 05.0 -0.4
MBDF  Montbardon        84.08 336⇑iP     P       20 00 05.3  0.0
      comp=Z,24nm,0.5s,mb5.2
MBDF  Montbardon        84.08 336⇑iP     P       20 00 05.3  0.0
      comp=Z,12nm,0.5s,mb5.3
MBDF  Montbardon        84.08 336⇑iP     P       20 00 05.3  0.0
MBDF                              pmax   pmax
      comp=Z,12nm,0.5s,mb5.3
PYM   Petit Puy Mans    84.11 339 eP     P       20 00 06.5 +1.0
ORIF  Oris-en-Rattie    84.14 337⇑iP     P       20 00 06.3 +0.6
      comp=Z,118nm,1.0s,mb5.7
ORIF                             eMLR    MLR
      comp=Z,709nm,20.2s,MS4.7
ORIF  Oris-en-Rattie    84.14 337⇑iP     P       20 00 06.3 +0.6
      comp=Z,59nm,1.0s,mb5.7
ORIF  Oris-en-Rattie    84.14 337⇑iP     P       20 00 06.3 +0.6
ORIF                              pmax   pmax
      comp=Z,59nm,1.0s,mb5.7
KEK   Kerkira           84.18 325 eP     P       20 00 06.5 +0.6
AQU   L’Aquila          84.19 331 eP     P       20 00 06.4 +0.4
      comp=Z,60nm,0.9s,mb5.7
AQU   L’Aquila          84.19 331 eP     P       20 00 05.8 -0.2
AQU   L’Aquila          84.19 331⇑iP     P       20 00 06.0  0.0
GRFL  Gerfalco          84.27 333  P     P       20 00 05.8 -0.6
      comp=Z,22nm,1.0s,mb5.2
VIVF  Saint-Julien-l    84.52 338⇑iP     P       20 00 08.0 +0.4
      comp=Z,164nm,1.3s,mb5.7
VIVF  Saint-Julien-l    84.52 338⇑iP     P       20 00 08.0 +0.4
      comp=Z,82nm,1.3s,mb5.7
VIVF  Saint-Julien-l    84.52 338⇑iP     P       20 00 08.0 +0.4
VIVF                              pmax   pmax
      comp=Z,82nm,1.3s,mb5.7
LBL   Lubilhac          84.54 339 eP     P       20 00 07.6 -0.1
KARP  Karpathos         84.55 318 eP     P       20 00 07.5 -0.4
AUTN  L’Aution          84.56 335 eP     P       20 00 08.8 +1.0
OG25  Le Caire          84.60 337 eP     P       20 00 08.0  0.0
OCF   Saint Nazaire     84.61 337 eP     P       20 00 08.7 +0.6
OG26  St.-Nazaire-De    84.61 337 eP     P       20 00 08.7 +0.6
SBF   Sospel            84.68 335⇑iP     P       20 00 07.9 -0.5
      comp=Z,76nm,0.8s,mb5.6
SBF   Sospel            84.68 335⇑iP     P       20 00 07.9 -0.5
      comp=Z,38nm,0.8s,mb5.6
SBF   Sospel            84.68 335⇑iP     P       20 00 07.9 -0.5
SBF                               pmax   pmax
      comp=Z,38nm,0.8s,mb5.6
URVA  University of     84.88  38 eP     P       20 00 08.8 -0.8
RJF   Les Rejaudoux     84.89 340⇑iP     P       20 00 09.5 +0.1
      comp=Z,32nm,0.9s,mb5.1
RJF                              eMLR    MLR
      comp=Z,876nm,21.5s,MS4.8
RJF   Les Rejaudoux     84.89 340⇑iP     P       20 00 09.5 +0.1
      comp=Z,16nm,0.9s,mb5.2
RJF                               LR     LR
      comp=Z,880nm,21.5s,MS5.1
RJF   Les Rejaudoux     84.89 340⇑iP     P       20 00 09.5 +0.1
RJF                               pmax   pmax
      comp=Z,16nm,0.9s,mb5.2
RJF                               MLR    MLR
      comp=Z,880nm,21.5s,MS5.1
TOLF  Tolfa             84.92 332  P     P       20 00 09.1 -0.5
RLS   Riolos of Patr    84.92 323  P     P       20 00 11.4 +1.6
SMRF  Simiane la Rot    85.10 337⇑iP     P       20 00 11.0 +0.5
      comp=Z,139nm,1.3s,mb5.6
SMRF  Simiane la Rot    85.10 337⇑iP     P       20 00 11.0 +0.5
      comp=Z,139nm,1.3s,mb5.9
CAF   Calviac           85.11 339⇑iP     P       20 00 11.3 +0.7
      comp=Z,24nm,0.6s,mb5.2
CAF   Calviac           85.11 339⇑iP     P       20 00 11.3 +0.7
      comp=Z,12nm,0.6s,mb5.2
CAF   Calviac           85.11 339⇑iP     P       20 00 11.3 +0.7
CAF                               pmax   pmax
      comp=Z,12nm,0.6s,mb5.2
VLS   Valsamata         85.18 324  P     P       20 00 13.0 +2.0
VLS   Valsamata         85.18 324 eP     P       20 00 10.0 -1.0
FRF   La Foret Royal    85.19 336⇑iP     P       20 00 10.6 -0.4
      comp=Z,158nm,1.6s,mb5.6
FRF   La Foret Royal    85.19 336⇑iP     P       20 00 10.6 -0.4
      comp=Z,79nm,1.6s,mb5.6
FRF   La Foret Royal    85.19 336⇑iP     P       20 00 10.6 -0.4
FRF                               pmax   pmax
      comp=Z,79nm,1.6s,mb5.6
ZKR   Zakros            85.33 318  P     P       20 00 13.2 +1.3
NWAO  Narrogin (SRO)    85.40 209 eP     P       20 00 11.8 -0.1
      comp=Z,18nm,0.7s,mb5.3
NWAO  Narrogin (SRO)    85.40 209 eP     P       20 00 11.9  0.0
NWAO                              pmax   pmax
      comp=Z,19nm,0.7s
LFF   La Frestale       85.42 340⇑iP     P       20 00 11.5 -0.6
PGF   Pioggiola         85.42 334⇑iP     P       20 00 11.8 -0.4
      comp=Z,43nm,0.9s,mb5.3
PGF   Pioggiola         85.42 334⇑iP     P       20 00 11.8 -0.4
      comp=Z,22nm,0.9s,mb5.3
PGF   Pioggiola         85.42 334⇑iP     P       20 00 11.8 -0.4
PGF                               pmax   pmax
      comp=Z,22nm,0.9s,mb5.3
LMR   La Mourre         85.43 336⇑iP     P       20 00 12.0 -0.2
      comp=Z,252nm,1.3s,mb5.9
LMR   La Mourre         85.43 336⇑iP     P       20 00 12.0 -0.2
      comp=Z,126nm,1.3s,mb5.9
LMR   La Mourre         85.43 336⇑iP     P       20 00 12.0 -0.2
LMR                               pmax   pmax
      comp=Z,126nm,1.3s,mb5.9
VLI   Veliai            85.44 322  P     P       20 00 11.9 -0.5
VLI   Veliai            85.44 322 eP     P       20 00 11.5 -0.9
LASF  Ste Croix         85.46 338⇑iP     P       20 00 13.1 +0.8
      comp=Z,40nm,1.0s,mb5.2
ITM   Ithomi            85.48 323  P     P       20 00 12.2 -0.3
ITM   Ithomi            85.48 323 eP     P       20 00 12.0 -0.6
NPS   Neapolis          85.49 319  P     P       20 00 13.9 +1.3
LAST  Lasithi           85.63 319  P     P       20 00 14.2 +0.9
GOGA  Godfrey           85.67  44 eP     P       20 00 12.5 -1.1
      comp=Z,12nm,0.7s,mb5.2
GOGA  Godfrey           85.67  44 eP     P       20 00 12.5 -1.1
GOGA                              pmax   pmax
      comp=Z,12nm,0.7s,mb5.2
IDI   Anoyia            85.79 319  P     P       20 00 14.7 +0.6
TIP   Timpagrande       85.81 327⇑iP     P       20 00 13.6 -0.5
OSPF  L’Ospedale        86.17 333 eP     P       20 00 15.3 -0.6
MTLF  Montolieu         86.57 339⇑iP     P       20 00 18.2 +0.4
      comp=Z,45nm,1.2s,mb5.3
MTLF  Montolieu         86.57 339⇑iP     P       20 00 18.2 +0.4
      comp=Z,22nm,1.2s,mb5.3
MTLF  Montolieu         86.57 339⇑iP     P       20 00 18.2 +0.4
MTLF                              pmax   pmax
      comp=Z,22nm,1.2s,mb5.3
EPF   Esparros          87.31 340 eP     P       20 00 20.2 -1.2
      comp=Z,11nm,0.6s,mb5.0
EPF   Esparros          87.31 340 eP     P       20 00 20.2 -1.2
      comp=Z,5.7nm,0.6s,mb5.0
EPF   Esparros          87.31 340 eP     P       20 00 20.2 -1.2
EPF                               pmax   pmax
      comp=Z,6.0nm,0.6s,mb5.0
SJPF  Ste Jean          87.59 341⇑iP     P       20 00 23.2 +0.4
ETSF  Etsaut            87.65 341⇑iP     P       20 00 22.4 -0.7
      comp=Z,13nm,0.7s,mb5.0
ETSF  Etsaut            87.65 341⇑iP     P       20 00 22.4 -0.7
      comp=Z,6.5nm,0.7s,mb5.0
ETSF  Etsaut            87.65 341⇑iP     P       20 00 22.4 -0.7
ETSF                              pmax   pmax
      comp=Z,7.0nm,0.7s,mb5.0
PBRG  Braganca          89.97 345 eP     P       20 00 33.6 -0.4
MVO   Moncorvo          90.65 345 eP     P       20 00 36.5 -0.7
PVRL  Vila Real         90.66 345 eP     P       20 00 36.2 -1.0
      comp=Z,63nm,1.9s,mb5.6
PTO   Porto             90.95 346 eP     P       20 00 38.1 -0.5
PVIS  Viseu             91.24 345 eP     P       20 00 36.9 -3.0
ESDC  Sonseca Array     91.48 342  P     P       20 00 40.2 -0.9
      comp=Z,2.7nm,0.6s,mb4.8,baz=5.4,slow=3.5,SNR=15
ESDC                              LR     LR      20 43 17.9
      comp=Z,357nm,20.8s,MS4.8,baz=70,slow=36
MTE   Manteigas         91.48 345 eP     P       20 00 41.7 +0.6
      comp=Z,73nm,2.0s,mb5.7
KEST  Kesra             91.52 331  P     P       20 00 41.0 -0.3
      comp=Z,2.9nm,0.5s,mb4.8,baz=274,slow=2.0,SNR=25
KEST                              LR     LR      20 49 19.8
      comp=Z,123nm,18.8s,MS4.4,baz=185,slow=40
PCBR  Castelo Branco    92.01 345 eP     P       20 00 42.6 -0.9
      comp=Z,44nm,1.7s,mb5.5
EVO   Evora             93.38 345 eP     P       20 00 49.1 -0.8
PBAR  Barrancos         93.55 344 eP     P       20 00 49.1 -1.5
      comp=Z,22nm,1.8s,mb5.3
PBEJ  Beja              93.84 345 eP     P       20 00 51.5 -0.5
      comp=Z,22nm,1.2s,mb5.5
PTEO  Sao Teotonio      94.47 345 eP     P       20 00 54.9  0.0
SJG   San Juan         106.68  38 ePdif  Pdif    20 01 54.1 +4.4
TOA0  Torodi Ar. Sit   114.93 328 ePKPdf PKiKP   20 06 14.5 -1.3
TORD  Torodi Ar. Bea   114.93 328  PKP   PKiKP   20 06 14.6 -1.2
TORD                               PKKPbc PKKPbc 20 16 49.8 -0.6
TORD  Torodi Ar. Bea   114.93 328  PKP   PKiKP   20 06 14.6 -1.2
      comp=Z,2.4nm,0.5s,baz=25,slow=2.0,SNR=52
TORD                               PKKPbc PKKPbc 20 16 49.8 -0.6
      comp=Z,0.4nm,0.6s,baz=204,slow=2.7,SNR=5.6
TIC   Toumodi          123.26 333 ePKIKP PKPdf   20 06 31.2 -0.7
      comp=Z,63nm,0.9s
KIC   Kosan Boka       123.44 333 ePKIKP PKPdf   20 06 30.9 -1.3
      comp=Z,42nm,0.6s
LIC   Lamto            123.66 333 ePKIKP PKPdf   20 06 31.6 -1.1
      comp=Z,17nm,0.7s
LIC                               eMLR   MLR
      comp=Z,435nm,22.8s,MS4.8
LIC   Lamto            123.66 333 ePKIKP PKPdf   20 06 30.8 -1.9
      comp=Z,28nm,0.7s
LIC   Lamto            123.66 333 ePKPdf PKPdf   20 06 31.6 -1.1
LIC                                LR    LR
      comp=Z,220nm,22.8s,MS4.8
VNDA  Vanda            124.08 178  PKP   PKPdf   20 06 31.5  0.0
VNDA  Vanda            124.08 178  PKIKP PKPdf   20 06 31.5  0.0
VNDA                               pmax  pmax
      comp=Z,4.0nm,0.6s
VNDA  Vanda            124.08 178  PKP   PKPdf   20 06 31.5  0.0
      comp=Z,3.8nm,0.6s,baz=339,slow=3.3,SNR=3.7
MAW   Mawson           131.94 211  PKP   PKPdf   20 06 46.6 -0.1
MAW   Mawson           131.94 211  PKIKP PKPdf   20 06 46.6 -0.1
MAW                                pmax  pmax
      comp=Z,7.0nm,0.9s
MAW   Mawson           131.94 211  PKP   PKPdf   20 06 46.6 -0.1
      comp=Z,7.1nm,0.9s,baz=292,slow=3.7,SNR=4.6
LBTB  Lobatse          132.86 278 ePKPdf PKPdf   20 06 49.1 -0.6
LBTB                              ePP    PP      20 09 10.0 -5.5
LBTB  Lobatse          132.86 278  PKIKP PKPdf   20 06 49.9 +0.1
TSUM  Tsumeb           134.15 291 ePKPpre        20 06 43.8
TSUM                              eSKP           20 10 18.0
LPAZ  La Paz           134.73  62 ePKPdf PKPdf   20 06 54.6 +1.1
LPAZ  La Paz           134.73  62  PKIKP PKPdf   20 06 54.6 +1.1
LPAZ                               pmax  pmax
      comp=Z,2.0nm,0.7s
LPAZ  La Paz           134.73  62  PKP   PKPdf   20 06 54.5 +1.1
      comp=Z,2.0nm,0.7s,baz=25,slow=4.2,SNR=7.4
BOSA  Boshof           135.40 275  PKP           20 06 43.1
BOSA                               PKP   PKPdf   20 06 52.0 -2.4
BOSA  Boshof           135.40 275  PKHKP         20 06 43.1
BOSA                                             20 06 52.0
BOSA  Boshof           135.40 275  PKhKP         20 06 43.1
      comp=Z,1.1nm,0.6s,baz=212,slow=7.6,SNR=3.8
BOSA                               PKP   PKPdf   20 06 52.0 -2.4
      comp=Z,2.2nm,0.7s,baz=325,slow=4.3,SNR=5.7
QSPA  South Pole Qui   136.43 180 ePKPpre        20 06 45.1
QSPA                              ePKPdf PKPdf   20 06 54.9 +0.1
QSPA                              eSKP           20 10 18.9
MAIT  Maitri           149.44 204 ePKPdf PKPdf   20 07 19.1 +1.3
SNAA  Sanae            152.38 197  PKPbc PKPbc   20 07 28.1 -1.1
SNAA  Sanae            152.38 197  PKIKP PKPbc   20 07 28.1 -1.1
SNAA                               pmax  pmax
      comp=Z,4.0nm,0.6s
SNAA  Sanae            152.38 197  PKPbc PKPbc   20 07 28.1 -1.1
      comp=Z,4.0nm,0.6s,baz=202,slow=6.1,SNR=45
USHA  Ushuaia          153.18 123  PKPbc PKPbc   20 07 30.7 -0.8
USHA  Ushuaia          153.18 123  PKPbc PKPbc   20 07 30.7 -0.7
      comp=Z,3.4nm,0.5s,baz=0.0,slow=4.0,SNR=3.7
VNA2  Neumayer--Watz   153.85 195 ePKPdf PKPdf   20 07 31.8 +7.3
      baz=58,slow=0.6
VNA2                              e              20 07 36.1
VNA2                              e              20 07 47.4
VNA2                              e              20 08 01.3
VNA3  Neumayer Olymp   153.95 193 ePKPdf PKPdf   20 07 32.0 +7.4
VNA3                              e              20 07 36.4
VNA3                              e              20 07 46.6
VNA3                              e              20 08 01.2
VNA1  Neumayer--Stat   154.23 195 ePKPdf PKPdf   20 07 33.4 +8.4
VNA1                              e              20 07 37.6
VNA1                              e              20 07 48.5
VNA1                              e              20 08 04.4
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SKHL ***24*** *19:59:49.5±0.7, 48.80N×142.28E, h10^{km}, mb4.7/3*
SKHL Felt (IV) at Uglegorsk, Shakhtersk.
MOS ***24*** *19:59:49.4±1.0, 48.86N×142.13E, h14^{km}, mb4.2/3, Error ellipse: s-maj=99.9km s-min=17.4km az=97.2*
MOS Felt (IV) at Uglegorsk, Shakhtersk.
ISCJB ***24*** *19:59:50.1±0.7, 48.76N±0.03×142.13E±0.10, h9^{km}±6^{km}, mb3.9/3, Error ellipse: s-maj=11.1km s-min=4.3km az=162.8*
IDC ***24*** *19:59:51.3±3.6, 48.59N×140.86E, h0^{km}, mb3.9/3, mb1 3.9/4, mb1mx3.5/23, mbtmp3.8/4, ML3.5/1, Error ellipse: s-maj=242.9km s-min=23.2km az=73.0*
ISC 24 19:59:51.1±0.8**, 48.79N**±0.04×**142.13E**±0.09**, h6^{km}**±6^{km}**, n16,** σ**0^{s}93**/29**, mb3.9**/3**, 4D, Sakhalin Island**

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Code  Station Name        Δ°  AZ°    Phase ID           Time       Res
                                    Op     ISC        h  m  s     ISC
UGL   Uglegorsk          0.29 351κ iPN    Pg       19 59 56.0 -0.8
UGL                                S      Sg       20 00 00.5 -0.1
UGL                                pmax   pmax
      comp=Z,4µm,0.5s
UGL                                pmax   pmax
      comp=N,1µm,0.3s
UGL                                pmax   pmax
      comp=E,1µm,0.3s
UGL   Uglegorsk          0.29 351⇓iPg     Pg       19 59 56.0 -0.8
UGL                                AMB    AMB      19 59 58.0
      comp=E,1µm,0.4s
UGL                                AMB    AMB      19 59 58.0
      comp=E,1µm,0.4s
UGL                                AMB    AMB      19 59 58.0
      comp=E,4µm,0.4s
UGL                               eSg     Sg       20 00 00.5 -0.1
UGL                                A               20 00 01.6
      comp=E,27µm,0.3s
UGL                                A               20 00 01.6
      comp=E,56µm,0.4s
UGL                                A               20 00 01.6
      comp=E,116µm,0.4s
YSS   Yuzh-Sakhalins     1.88 167⇓iP      Pn       20 00 23.5 -0.3
YSS                               ePg     Pg       20 00 27.0 -0.2
YSS                               eS      Sn       20 00 46.7 -1.1
YSS                               eSg     Sg       20 00 52.0 +0.4
YSS                                A               20 00 54.6
      comp=E,280nm,0.3s
YSS                                A               20 00 54.6
      comp=E,230nm,0.3s
GRNR  Gornyy             4.20 300 eP      Pn       20 00 57.3 +1.8
GRNR                              ePb     Pb       20 01 04.5 -0.8
GRNR                              eSb     Sb       20 01 55.5 -0.6
ASAJ  Asahikawa          4.69 176  PN     Pn       20 01 02.7 +0.4
ASAJ                               pmax   pmax
      comp=Z,2.0nm,0.3s
ASAJ  Asahikawa          4.69 176  Pn     Pn       20 01 02.6 +0.4
      comp=Z,1.8nm,0.3s,baz=227,slow=0.4,SNR=14
ASAJ                               Sn     Sn       20 01 56.8 -0.1
      comp=Z,0.7nm,0.3s,baz=20,slow=24,SNR=3.3
OKH   Okha               4.79   6 ePb     Pb       20 01 16.5 +1.1
OKH                               ePg     Pg       20 01 26.0 +3.1
OKH                                AMB    AMB      20 01 28.0
      comp=Z,40nm,0.2s
OKH                               eSg     Sg       20 02 31.8 +6.9
OKH                                A               20 02 32.6
      comp=Z,60nm,0.3s
TEY   Ternei             5.33 227 eS      Sn       20 02 14.3 +1.4
TEY                               eSg     Sg       20 02 53.5  +11
EKMR  Ekimchan           7.21 310 eP      Pn       20 01 37.5 +0.6
EKMR                              ePg     Pg       20 02 05.5 -3.6
EKMR                               AMB    AMB      20 02 56.5
      comp=Z,4.0nm,0.6s
EKMR                              eSg     Sg       20 03 42.0 -0.4
EKMR                               A               20 03 42.4
      comp=Z,40nm,0.8s
EKMR                               A               20 03 42.4
      comp=Z,20nm,0.8s
EKMR                               A               20 03 42.4
      comp=Z,10.0nm,0.8s
BMKR  Bomnak            10.14 311 eS      Sn       20 04 20.0 +9.0
BMKR                              eSg     Sn       20 05 10.0  +59
BMKR                               A               20 05 40.2
      comp=Z,7.0nm,0.8s
FINES FINESS Array B    58.79 330  P      P        20 09 48.7 -0.8
FINES                              pmax   pmax
      comp=Z,2.0nm,0.6s
FINES FINESS Array B    58.79 330  P      P        20 09 48.7 -0.8
      comp=Z,1.9nm,0.6s,mb4.3,baz=54,slow=9.3,SNR=12
WRA   Warramunga Arr    68.77 188  P      P        20 10 55.1 -0.6
WRA                                pmax   pmax
      comp=Z,1.0nm,1.0s
WRA   Warramunga Arr    68.77 188  P      P        20 10 55.1 -0.6
      comp=Z,0.9nm,1.0s,mb3.7,baz=4.7,slow=6.5,SNR=6.2
ASAR  Alice Springs     72.50 188  P      P        20 11 18.1 -0.3
ASAR                               pmax   pmax
      comp=Z,1.0nm,1.0s
ASAR  Alice Springs     72.50 188  P      P        20 11 18.1 -0.3
      comp=Z,1.0nm,1.0s,mb3.7,baz=356,slow=6.2,SNR=5.9
```

ISCJB ***24*** *20:27:59.9±0.6, 0.9S±0.1×127.9E±0.2, h10^{km}, mb4.1/9, Error ellipse: s-maj=27.6km s-min=10.0km az=155.7*
IDC ***24*** *20:28:00.7±1.2, 0.98S×127.67E, h0^{km}, mb3.8/4, mb1 3.9/6, mb1mx3.7/17, mbtmp3.8/6, ML3.7/2, Error ellipse: s-maj=91.9km s-min=18.5km az=71.0*
NEIC ***24*** *20:28:02.0±0.5, 0.91S×127.80E, h10^{km}, mb4.3/5, Error ellipse: s-maj=23.9km s-min=7.6km az=65.0*
ISC 24 20:28:02.0±0.6**, 1.0S**±0.1×**127.8E**±0.2**, h10^{km}, n15,** σ**0^{s}97**/15**, mb4.1**/9**, Halmahera**

```
Code  Station Name        Δ°  AZ°    Phase ID           Time       Res
                                    Op     ISC        h  m  s     ISC
FITZ  Fitzroy Crossi    17.18 187  P      Pn       20 32 03.3 +1.0
      0.1nm,0.3s,baz=19,slow=12,SNR=4.3
WRA   Warramunga Arr    19.93 162  P      Pn       20 32 33.6 -2.2
      0.3nm,0.3s,baz=340,slow=11,SNR=32
PMG   Port Moresby      21.00 114  P      P        20 32 46.2 +0.4
ASAR  Alice Springs     23.34 166  P      P        20 33 09.9 -0.8
      1.1nm,0.7s,mb3.4,baz=347,slow=12,SNR=16
STKA  Stephens Creek    33.40 158  P      P        20 34 42.4 +1.5
STKA  Stephens Creek    33.40 158  P      P        20 34 42.4 +1.6
      2.3nm,1.0s,mb4.1,baz=315,slow=13,SNR=2.9
LSA   Lhasa             46.40 314 eP      P        20 36 28.4 -0.5
      1.4nm,0.6s,mb4.1
ULN   Ulaanbaatar       51.88 342 eP      P        20 37 10.8 +0.2
      2.6nm,0.9s,mb4.2
SONM  Songino Array     52.05 342  P      P        20 37 12.0 +0.2
      1.1nm,0.7s,mb3.9,baz=154,slow=8.2,SNR=6.3
TLY   Talaya            56.28 342  P      P        20 37 48.7 +6.0
```

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	2.7nm,0.9s,mb4.3						
MK31	**Makanchi Array**	**62.01**	**326**	*e*P	**P**	**20 38 21.5**	**-1.0**
MKAR	**Makanchi Array**	**62.01**	**326**	P	**P**	**20 38 22.4**	**-0.1**
	0.9nm,0.5s,mb4.2,baz=116,slow=8.2,SNR=8.6						
EKS2	**Erkin-Say**	**65.04**	**319**	P	**P**	**20 38 44.1**	**+1.4**
	3.0nm,1.1s,mb4.2						
KBL	**Kabul**	**65.26**	**309**	P	**P**	**20 38 44.6**	**+0.4**
KURK	**Kurchatov**	**66.26**	**328**	*e*P	**P**	**20 38 49.5**	**-0.8**
	2.6nm,0.8s,mb4.3						

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*ISCJB **24** 20:32:49.0±1.3, 1.4N±0.4×127.2E±0.8, h33^{km}, mb3.9/8, Error ellipse: s-maj=126.2km s-min=11.9km az=154.7*

*IDC **24** 20:32:48.1±1.0, 0.39N×125.08E, h0^{km}, mb3.7/6, mb1 3.9/6, mb1mx3.8/17, mbtmp3.8/6, MS3.8/1, Ms1 3.7/1, ms1mx3.0/24, Error ellipse: s-maj=208.6km s-min=17.1km az=67.0*

*NEIC **24** 20:32:49.2±0.8, 0.78N×126.03E, h10^{km}, mb4.1/3, Error ellipse: s-maj=96.9km s-min=11.0km az=65.0*

ISC 24 20:32:51.7±1.2**, 1.2N**±0.4×**126.9E**±0.8**, h35^{km}, n12,** σ**0^{s}.49**/12**, mb3.9**/8**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**22.25**	**161**	P	**P**	**20 37 45.3**	**-0.3**
	3.4nm,0.6s,mb3.9,baz=340,slow=11,SNR=22						
WB2	**Warramunga Arr**	**22.25**	**161**	*e*P	**P**	**20 37 45.4**	**-0.2**
ASAR	**Alice Springs**	**25.64**	**165**	P	**P**	**20 38 18.4**	**+0.2**
	1.4nm,0.5s,mb3.8,baz=347,slow=13,SNR=28						
STKA	**Stephens Creek**	**35.73**	**158**	*e*P	**P**	**20 39 47.5**	**+0.4**
	1.9nm,0.6s,mb4.2						
STKA	**Stephens Creek**	**35.73**	**158**	P	**P**	**20 39 47.7**	**+0.6**
	1.8nm,0.7s,mb4.1,baz=340,slow=19,SNR=5.8						
STKA				LR	LR	20 53 29.2	
	comp=Z,143nm,18.7s,baz=204,slow=35						
LSA	**Lhasa**	**44.24**	**313**	*e*P	**P**	**20 40 58.3**	**+0.5**
	1.1nm,0.6s,mb3.8						
SONM	**Songino Array**	**49.73**	**342**	P	**P**	**20 41 44.8**	**+4.4**
	0.2nm,0.4s,mb3.5,baz=163,slow=6.3,SNR=2.6						
MK31	**Makanchi Array**	**59.71**	**326**	P	**P**	**20 42 52.5**	**-0.4**
MKAR	**Makanchi Array**	**59.71**	**326**	P	**P**	**20 42 52.7**	**-0.1**
MKAR	**Makanchi Array**	**59.71**	**326**	P	**P**	**20 42 52.7**	**-0.1**
	0.3nm,0.3s,mb3.7,baz=121,slow=7.8,SNR=5.9						
ZALV	**Zalesovo Beam**	**62.90**	**334**	P	**P**	**20 43 14.8**	**+0.5**
	0.4nm,0.4s,mb3.9,baz=105,slow=9.5,SNR=3.1						
KURK	**Kurchatov**	**63.95**	**328**	*e*P	**P**	**20 43 20.3**	**-0.9**
	1.7nm,0.6s,mb4.2						

IDC 24 20:56:24.9±4.8**, 29.61S**×**137.75E, h0^{km}, mb1 2.8**/3**, mb1mx2.8**/13**, mbtmp2.6**/3**, ML2.4**/3**, Error ellipse: s-maj=134.4km s-min=17.1km az=47.0, South Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**4.01**	**125**	Pn	Pn	20 57 26.8	-0.9
	0.1nm,0.3s,baz=312,slow=15,SNR=2.6						
STKA				Sn	Sn	20 58 17.1	+1.7
	0.5nm,0.3s,baz=346,slow=19,SNR=6.2						
STKA				Lg		20 58 33.2	
	1.2nm,0.3s,baz=349,slow=13,SNR=7.5						
ASAR	**Alice Springs**	**6.84**	**329**	Pn	Pn	20 58 06.8	+0.3
	0.1nm,0.3s,baz=155,slow=12,SNR=8.8						
ASAR				Sn	Sn	20 59 27.7	+2.6
	0.1nm,0.3s,baz=160,slow=22,SNR=3.7						
WRA	**Warramunga Arr**	**10.11**	**341**	Pn	Pn	20 58 51.4	0.0
	0.1nm,0.3s,baz=160,slow=12,SNR=3.0						
WRA				Sn	Sn	21 00 45.9	+0.4
	0.0nm,0.3s,baz=155,slow=24,SNR=2.2						

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*IDC **24** 21:07:37.2±0.9, 21.71N×120.39E, h0^{km}, mb3.8/8, mb1 3.9/8, mb1mx3.8/20, mbtmp3.8/8, Error ellipse: s-maj=66.9km s-min=18.3km az=66.0*

*BJI **24** 21:07:40.5, 21.75N×120.55E, h36^{km}, mB4.6, mb3.9, ML3.7, Ms4.2, Msz3.9*

*ISCJB **24** 21:07:41.6±1.8, 21.74N±0.09×120.5E±0.1, h40^{km}±15^{km}, mb3.9/11, Error ellipse: s-maj=16.8km s-min=14.6km az=178.4*

*NEIC **24** 21:07:43.4±1.9, 21.73N×120.53E, h44^{km}±18^{km}, mb4.1/4, Error ellipse: s-maj=21.6km s-min=12.7km az=56.0*

ISC 24 21:07:43.2±1.7**, 21.74N**±0.09×**120.6E**±0.1**, h38^{km}**±16^{km}**, n21,** σ**1^{s}.11**/24**, mb3.9**/11**, 1C, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NACB	**Ninganchiao**	**2.60**	**21**	*e*Pn	**Pn**	**21 08 22.9**	**+0.2**
NACB				*e*Sn	**Sn**	**21 08 51.0**	**-2.1**
YHNB	**Yeheng**	**3.01**	**14**	*e*Pn	**Pn**	**21 08 28.0**	**-0.4**
YHNB				*e*Sn	**Sn**	**21 09 04.4**	**+1.2**
TATO	**Taipei**	**3.33**	**15**	*e*Pn	**Pn**	**21 08 34.7**	**+1.9**
QZH	**Quanzhou**	**3.67**	**331**	⇑*i*P	**Pn**	**21 08 36.3**	**-1.1**
QZH				S	**Sn**	**21 09 14.8**	**-4.6**
QZH				Smax			
	comp=N,210nm,0.4s						
QZH				Smax			
	comp=E,200nm,0.7s						
LZH	**Lanzhou**	**20.41**	**318**	*e*P	**P**	**21 12 18.0**	**+1.0**
LZH				AP		21 12 24.3	
LZH				XP	sP	21 12 27.5	-4.1
LZH				AMB	AMB		
	comp=Z,19nm,1.4s						
LZH				AMB	AMB		
	comp=Z,86nm,4.2s						
LZH	**Lanzhou**	**20.41**	**318**	*e*P	**P**	**21 12 18.0**	**+1.0**
	comp=Z,19nm,1.4s						
LZH				pP		21 12 24.3	
LZH				sP	sP	21 12 27.5	-4.1
GTA	**Gaotai**	**24.98**	**319**	*e*P	**P**	**21 13 03.8**	**+0.6**
GTA				AP		21 13 09.9	
GTA				XP	sP	21 13 12.8	-5.7
GTA				AMB	AMB		
	comp=Z,4.0nm,1.3s,mb3.8						
LSA	**Lhasa**	**27.60**	**293**	*e*P	**P**	**21 13 26.9**	**0.0**
	comp=Z,1.3nm,0.7s,mb3.7						
SONM	**Songino Array**	**28.42**	**340**	P	**P**	**21 13 33.0**	**-1.1**
	comp=Z,1.1nm,1.1s,mb3.4,baz=163,slow=10,SNR=4.9						
MKAR	**Makanchi Array**	**39.73**	**318**	P	**P**	**21 15 11.4**	**-0.5**
	comp=Z,0.6nm,0.6s,mb3.5,baz=111,slow=9.6,SNR=12						
ZALV	**Zalesovo Beam**	**42.00**	**329**	P	**P**	**21 15 28.9**	**-1.7**
	comp=Z,2.2nm,1.0s,mb3.8,baz=125,slow=7.4,SNR=8.7						
UCH	**Uchtor**	**43.46**	**309**	*e*P	**P**	**21 15 43.9**	**+1.3**
	comp=Z,2.4nm,0.8s,mb4.0						
WRA	**Warramunga Arr**	**43.56**	**161**	P	**P**	**21 15 42.2**	**-1.3**
	comp=Z,1.4nm,0.6s,mb3.9,baz=343,slow=8.9,SNR=16						
KBL	**Kabul**	**46.73**	**297**	P	**P**	**21 16 08.8**	**+0.2**
ASAR	**Alice Springs**	**46.97**	**163**	P	**P**	**21 16 11.1**	**+0.7**
	comp=Z,0.3nm,0.6s,baz=351,slow=8.5,SNR=5.7						
BRVK	**Borovoye**	**49.29**	**322**	P	**P**	**21 16 26.8**	**-1.3**
KIV	**Kislovodsk**	**66.69**	**310**	P	**P**	**21 18 32.6**	**+2.4**
	comp=Z,17nm,1.2s,mb5.0						
FINES	**FINESS Array B**	**73.26**	**330**	P	**P**	**21 19 09.5**	**-0.7**
	comp=Z,1.4nm,0.9s,mb3.9,baz=57,slow=10,SNR=2.7						
RES	**Resolute Bay**	**81.15**	**9**	*e*P	**P**	**21 19 54.7**	**+0.5**
	comp=Z,94nm,1.1s						
GERES	**GERESS Array B**	**84.36**	**321**	P	**P**	**21 20 11.2**	**-0.2**
	comp=Z,0.9nm,1.1s,mb3.8,baz=17,slow=1.0,SNR=3.5						
YKA	**Yellowknife Ar**	**85.44**	**22**	P	**P**	**21 20 17.3**	**+0.8**
	comp=Z,0.5nm,0.8s,mb3.7,baz=315,slow=4.5,SNR=8.3						

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*NEIC **24** 21:11:36.1±0.7, 28.13S×69.96W, h56^{km}±8^{km}, MD3.9(GUC), Error ellipse: s-maj=18.7km s-min=7.4km az=102.0*

*ISCJB **24** 21:11:37.2±0.5, 28.18S±0.03×70.4W±0.1, h87^{km}±5^{km}, mb3.6/4, Error ellipse: s-maj=15.6km s-min=4.7km az=1.2*

*GUC **24** 21:11:37.6±0.9, 28.18S×70.41W, h83^{km}±8^{km}, MD3.9, ML4.4*

*IDC **24** 21:11:38.6±0.8, 27.98S×70.04W, h72^{km}±6^{km}, mb3.5/4, mb1 3.7/7, mb1mx3.5/18, mbtmp3.6/7, Error ellipse: s-maj=38.3km s-min=12.6km az=75.0*

ISC 24 21:11:38.3±0.5**, 28.17S**±0.03×**70.5W**±0.1**, h81^{km}**±5^{km}**, n30,** σ**0^{s}.83**/37**, mb3.6**/4**, 8C-5D, Central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VACH	**Vallenar**	**0.48**	**212**	⇑*i*P	**Pn**	**21 11 52.6**	**+0.6**
VACH				*i* S	**Sn**	**21 12 02.5**	**+0.4**
VACH	**Vallenar**	**0.48**	**212**	⇑*i*P	**Pn**	**21 11 52.6**	**+0.6**
VACH				*i* S	**Sn**	**21 12 02.5**	**+0.4**
VACH				AML	AML	21 12 04.5	
	comp=N,94μm,0.1s						
CPCH	**Copiapo**	**0.81**	**7**	⇑*i*P	**Pn**	**21 11 55.1**	**-0.2**
CPCH				*i* S	**Sn**	**21 12 08.2**	**+0.3**
LCO	**Las Campanas**	**0.86**	**194**	*e*Pn	**Pn**	**21 11 55.3**	**-0.6**
LCO				*e*Sn	**Sn**	**21 12 09.0**	**+0.1**
CDCH	**Caldera**	**1.14**	**344**	⇓*i*P	**Pn**	**21 11 59.4**	**+0.3**
CDCH				*i* S	**Sn**	**21 12 14.7**	**+0.1**
CDCH	**Caldera**	**1.14**	**344**	⇓*i*P	**Pn**	**21 11 59.4**	**+0.3**
CDCH				*i* S	**Sn**	**21 12 14.7**	**+0.1**
CDCH				AML	AML	21 12 15.1	
	comp=N,4μm,0.5s						
LSCH	**La Serena**	**1.86**	**201**	⇓*i*P	**Pn**	**21 12 08.1**	**-0.4**
LSCH				*i* S	**Sn**	**21 12 31.6**	**+0.3**
LSCH	**La Serena**	**1.86**	**201**	⇓*i*P	**Pn**	**21 12 08.1**	**-0.4**
LSCH				*i* S	**Sn**	**21 12 31.6**	**+0.3**
LSCH				AML	AML	21 12 37.9	
	comp=N,1μm,0.3s						
TLL	**Tololo Astrono**	**2.01**	**188**	⇑*i*P	**Pn**	**21 12 10.7**	**+0.3**
TLL				*i* S	**Sn**	**21 12 35.8**	**+0.9**
TLL	**Tololo Astrono**	**2.01**	**188**	⇑*i*P	**Pn**	**21 12 10.7**	**+0.3**
TLL				*i* S	**Sn**	**21 12 35.8**	**+0.9**
TLL				AML	AML	21 12 39.0	
	comp=N,3μm,0.7s						
OVCH	**Ovalle**	**2.52**	**195**	AMP		21 11 14.4	
OVCH				⇑*i*P		21 12 16.1	
OVCH				*i* S	**Sn**	**21 12 45.9**	**-1.0**
OVCH				AML	AML	21 13 03.0	
	comp=N,4μm,0.6s						
CMCH	**Combarbala**	**3.03**	**189**	⇑*i*P	**Pn**	**21 12 23.2**	**-0.9**
CMCH				*i* S	**Sn**	**21 12 58.2**	**-1.2**
CHNG	**Los Chungos**	**3.81**	**193**	AML	AML	21 13 23.3	
	comp=E,819nm,0.1s						
CFAA	**Coronel Fontan**	**3.94**	**151**	P	**Pn**	**21 12 37.2**	**+0.8**
CFAA				S	**Sn**	**21 13 21.5**	**+0.2**
CFAA	**Coronel Fontan**	**3.94**	**151**	P	**Pn**	**21 12 37.2**	**+0.8**
	comp=E,4.4nm,0.3s,baz=330,slow=12,SNR=467						
CFAA				S	**Sn**	**21 13 21.5**	**+0.2**
	comp=E,5.9nm,0.3s,baz=71,slow=22,SNR=5.5						
PEL	**Peldehue**	**4.96**	**182**	⇓*i*P	**Pn**	**21 12 49.5**	**-0.8**
FCH	**Farellones**	**5.15**	**178**	⇑*i*P	**Pn**	**21 12 53.2**	**+0.4**
FCH				*i* S	**Sn**	**21 13 51.0**	**+0.1**
LPAZ	**La Paz**	**12.02**	**11**	P	**Pn**	**21 14 23.8**	**-2.9**
LPAZ	**La Paz**	**12.02**	**11**	P	**Pn**	**21 14 23.8**	**-2.9**
	comp=E,0.2nm,0.3s,baz=170,slow=12,SNR=3.6						
SIV	**San Ignacio**	**14.91**	**38**	P	**Pn**	**21 14 59.2**	**-5.7**
	comp=E,0.5nm,0.3s,baz=236,slow=9.8,SNR=9.3						
SNAA	**Sanae**	**56.51**	**159**	P	**P**	**21 21 13.6**	**+1.9**
	comp=E,0.6nm,0.9s,mb3.6,baz=288,slow=14,SNR=4.4						
SNAA				pP	pP	21 21 31.7	-0.3
	comp=E,1.2nm,0.8s,baz=240,slow=12,SNR=3.1						
PDAR	**Pinedale Array**	**79.23**	**332**	P	**P**	**21 23 35.5**	**+1.0**
	comp=E,0.3nm,0.7s,mb3.3,baz=128,slow=7.0,SNR=2.5						
TORD	**Torodi Ar. Bea**	**80.95**	**70**	P	**P**	**21 23 43.1**	**-1.3**
	comp=E,1.8nm,0.9s,mb3.9,baz=266,slow=4.7,SNR=17						
ULM	**Lac du Bonnet**	**81.26**	**344**	P	**P**	**21 23 45.3**	**+0.1**
	comp=E,0.6nm,0.5s,mb3.7,baz=179,slow=6.2,SNR=3.8						
WRA	**Warramunga Arr**	**126.49**	**209**	PKP	PKPdf	21 30 34.4	+1.7
WRA				pPKP	pPKPdf	21 30 54.5	-0.9
WRA	**Warramunga Arr**	**126.49**	**209**	PKP	PKPdf	21 30 34.4	+1.7
	comp=E,0.5nm,0.6s,baz=163,slow=1.7,SNR=8.5						
WRA				pPKP	pPKPdf	21 30 54.5	-0.9
	comp=E,0.6nm,0.9s,baz=160,slow=1.6,SNR=2.3						
ZALV	**Zalesovo Beam**	**148.52**	**28**	PKP	PKPdf	21 31 12.1	+0.4
ZALV				PKPbc	PKPbc	21 31 16.1	+0.7
ZALV				pPKPbc	pPKPbc	21 31 35.3	-2.6
ZALV	**Zalesovo Beam**	**148.52**	**28**	PKP	PKPdf	21 31 12.1	+0.4
	comp=E,7.4nm,0.8s,baz=253,slow=1.5,SNR=6.2						
ZALV				PKPbc	PKPbc	21 31 16.1	+0.7
	comp=E,7.6nm,0.8s,baz=301,slow=3.4,SNR=32						
ZALV				pPKPbc	pPKPbc	21 31 35.3	-2.6
	comp=E,2.6nm,0.8s,baz=304,slow=3.2,SNR=3.4						
MKAR	**Makanchi Array**	**151.71**	**42**	PKPbc	PKPbc	21 31 23.5	+0.2
MKAR				PKPab	PKPab	21 31 32.8	+0.5
MKAR				pPKPbc	pPKPbc	21 31 44.9	-1.0
MKAR	**Makanchi Array**	**151.71**	**42**	PKPbc	PKPbc	21 31 23.5	+0.2
	comp=E,2.4nm,0.7s,baz=326,slow=1.8,SNR=35						
MKAR				PKPab	PKPab	21 31 32.8	+0.5
	comp=E,0.6nm,0.8s,baz=313,slow=2.8,SNR=3.5						
MKAR				pPKPbc	pPKPbc	21 31 44.9	-1.0
	comp=E,1.1nm,0.8s,baz=328,slow=2.4,SNR=4.4						

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*CSEM **24** 21:31:15.3, 38.40N×39.24E, h3^{km}, MD2.8, After ISK*

ISK 24 21:31:15.3, 38.40N×39.24E, h3^{km}, MD2.8, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTK	**Pertek**	**0.50**	**14**	PG	Pg	21 31 25.9	+0.9
PTK				SG	Sg	21 31 33.8	+2.3
PTK	**Pertek**	**0.50**	**14**	*e*Pg	Pg	21 31 25.9	+0.9
PTK				*e*Sg	Sg	21 31 33.8	+2.3
MALT	**Malatya**	**0.64**	**262**	PG	Pg	21 31 28.2	+0.6
MALT				SG	Sg	21 31 37.8	+1.8
MALT	**Malatya**	**0.64**	**262**	*e*Pg	Pg	21 31 28.2	+0.6
MALT				*e*Sg	Sg	21 31 37.8	+1.8
MYA	**Malataya**	**0.64**	**263**	PG	Pg	21 31 28.8	+1.2
MYA				SG	Sg	21 31 38.7	+2.7
MYA	**Malataya**	**0.64**	**263**	*e*Pg	Pg	21 31 28.8	+1.2
MYA				*e*Sg	Sg	21 31 38.7	+2.7
DIY	**Diyarbakir**	**0.93**	**123**	*e*PG	Pg	21 31 33.4	+0.3
DIY	**Diyarbakir**	**0.93**	**123**	*e*Pg	Pg	21 31 33.4	+0.3
URFA	**Urfa**	**1.01**	**199**	*e*PG	Pg	21 31 36.5	+1.8
URFA	**Urfa**	**1.01**	**199**	*e*Pg	Pg	21 31 36.5	+1.8
EZC	**Erzincan**	**1.42**	**18**	*e*PN	Pn	21 31 41.6	-0.4
BTMT	**Batman**	**1.78**	**96**	*e*PN	Pn	21 31 46.6	-0.4

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*ISCJB **24** 21:47:14.3±0.4, 60.05N±0.04×153.04W±0.08, h131^{km}±4^{km}, mb3.9/6, Error ellipse: s-maj=7.1km s-min=5.5km az=135.8*

*IDC **24** 21:47:15.4±2.0, 60.01N×152.93W, h123^{km}±29^{km}, mb3.7/6, mb1 3.8/9, mb1mx3.5/25, mbtmp3.7/9, Error ellipse: s-maj=31.0km s-min=20.1km az=138.0*

*NEIC **24** 21:47:16.9, 60.03N×152.91W, h120^{km}, MG3.6(AEIC), After AEIC.*

ISC 24 21:47:15.5±0.4**, 60.06N**±0.04×**153.03W**±0.08**, h123^{km}**±4^{km}**, n45,** σ**0^{s}.84**/53**, mb4.1**/6**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AUL	**Augustine Lava**	**0.70**	**197**	P	**Pn**	**21 47 35.9**	**+0.7**
AUL				S	**Sn**	**21 47 50.9**	**+0.9**
SLKM	**Skilak Lake**	**1.47**	**71**	P	**Pn**	**21 47 43.0**	**+0.2**
SVW2	**Sparrevohn**	**1.64**	**311**	P	**Pn**	**21 47 44.6**	**-0.1**
FIB	**Fire Island**	**1.80**	**50**	P	**Pn**	**21 47 48.0**	**+1.4**
FIB				S	**Sn**	**21 48 12.5**	**+2.2**
SEW	**Seward**	**1.80**	**87**	P	**Pn**	**21 47 46.6**	**0.0**
SEW				S	**Sn**	**21 48 09.4**	**-0.9**
RC01	**Rabbit Creek A**	**1.93**	**56**	P	**Pn**	**21 47 48.5**	**+0.3**
KDAK	**Kodiak Island**	**2.29**	**174**	P	**Pn**	**21 47 52.1**	**-0.6**
KDAK	**Kodiak Island**	**2.29**	**174**	P	**Pn**	**21 47 52.1**	**-0.7**
	48nm,0.3s,baz=15,slow=8.2,SNR=476						
KDAK				S	**Sn**	**21 48 20.5**	**-0.7**
	88nm,0.3s,baz=311,slow=23,SNR=71						
PMR	**Palmer**	**2.46**	**49**	P	**Pn**	**21 47 53.7**	**-1.1**
GHO	**Glory Hole Cre**	**2.65**	**48**	P	**Pn**	**21 47 56.7**	**-0.5**
SML	**Sawmill**	**2.89**	**50**	*e*Pn	**Pn**	**21 47 59.0**	**-1.4**
SML				*e*Sn	**Sn**	**21 48 26.4**	**-8.5**
TT01	**Tatalina**	**3.20**	**335**	P	**Pn**	**21 48 04.4**	**0.0**
TTA	**Tatalina**	**3.22**	**335**	*e*P	**Pn**	**21 48 04.3**	**-0.4**
MID	**Middleton Isla**	**3.45**	**98**	P	**Pn**	**21 48 07.9**	**+0.2**
TRF	**Thorofare Moun**	**3.65**	**20**	P	**Pn**	**21 48 10.4**	**+0.1**
KTH	**Kantishna Hill**	**3.65**	**15**	P	**Pn**	**21 48 10.5**	**+0.1**
EYAK	**Cordova Ski Ar**	**3.66**	**79**	P	**Pn**	**21 48 10.1**	**-0.4**
MCK	**McKinley**	**4.17**	**26**	P	**Pn**	**21 48 17.4**	**+0.2**
PAX	**Paxson**	**4.66**	**48**	P	**Pn**	**21 48 23.8**	**+0.1**
CHGN	**Chignik**	**4.72**	**219**	*e*P	**Pn**	**21 48 24.3**	**-0.4**
MENT	**Mentasta**	**5.32**	**53**	*e*P	**Pn**	**21 48 32.8**	**+0.2**
COLA	**College**	**5.40**	**24**	P	**Pn**	**21 48 33.3**	**-0.4**
IL1	**Eielson Array**	**5.53**	**28**	P	**Pn**	**21 48 35.0**	**-0.4**
DOT	**Dot Lake**	**5.57**	**46**	P	**Pn**	**21 48 35.8**	**-0.3**
IM3	**Indian Mountai**	**5.96**	**357**	P	**Pn**	**21 48 41.7**	**+0.4**
IMA2	**Indian Mountai**	**6.04**	**357**	P	**Pn**	**21 48 42.5**	**+0.1**
BCA3	**Beaver Creek A**	**6.16**	**56**	P	**Pn**	**21 48 43.8**	**-0.2**
EGAK	**Eagle**	**7.26**	**44**	P	**Pn**	**21 48 57.6**	**-1.2**
COLD	**Coldfoot**	**7.31**	**9**	P	**Pn**	**21 48 59.6**	**+0.2**
DAWY	**Dawson**	**7.56**	**52**	P	**Pn**	**21 49 02.9**	**0.0**
BM3	**Burnt Mountain**	**8.27**	**23**	P	**Pn**	**21 49 11.2**	**-1.3**
SKAG	**Skagway**	**8.96**	**86**	*e*P	**Pn**	**21 49 24.2**	**+2.5**
UNV	**Unalaska Valle**	**9.62**	**236**	*e*Pn	**Pn**	**21 49 30.0**	**-0.7**
UNV				*e*Sn	**Sn**	**21 51 09.1**	**-7.8**
INK	**Inuvik**	**11.81**	**37**	P	**Pn**	**21 49 59.0**	**-0.6**
	0.5nm,0.3s,baz=226,slow=16,SNR=14						
DLBC	**Dease Lake**	**11.87**	**88**	P	**Pn**	**21 50 03.2**	**+2.6**
DLBC				S	**Sn**	**21 52 10.2**	**-1.0**
DLBC	**Dease Lake**	**11.87**	**88**	P	**Pn**	**21 50 03.2**	**+2.6**
	baz=258,slow=8.1						
DLBC				S	**Sn**	**21 52 10.2**	**-1.0**
YKA	**Yellowknife Ar**	**18.44**	**66**	P	**P**	**21 51 22.4**	**+1.3**
YKA				PcP	PcP	21 55 44.6	-1.1
YKA	**Yellowknife Ar**	**18.44**	**66**	P	**P**	**21 51 22.4**	**+1.3**
	0.6nm,0.3s,baz=277,slow=10.0,SNR=68						
YKA				PcP	PcP	21 55 44.6	-1.1
	0.1nm,0.3s,baz=272,slow=1.3,SNR=5.9						
KSRS	**Korea Array**	**53.15**	**282**	P	**P**	**21 56 21.5**	**+1.2**
	1.4nm,0.7s,mb4.1,baz=39,slow=6.4,SNR=5.4						
SONM	**Songino Array**	**54.75**	**306**	P	**P**	**21 56 33.0**	**+1.3**
	3.6nm,0.8s,mb4.5,baz=43,slow=6.6,SNR=16						
ZALV	**Zalesovo Beam**	**57.32**	**324**	P	**P**	**21 56 50.0**	**0.0**
	2.3nm,0.5s,mb4.5,baz=31,slow=6.8,SNR=16						
NOA	**NORSAR Array B**	**58.62**	**9**	P	**P**	**21 56 59.0**	**+0.1**
	1.3nm,0.8s,mb4.0,baz=52,slow=3.7,SNR=3.3						
MKAR	**Makanchi Array**	**64.38**	**321**	P	**P**	**21 57 36.6**	**-1.1**
	0.3nm,0.3s,mb3.7,baz=44,slow=8.1,SNR=4.1						
AKTK	**Aktyubinsk**	**67.04**	**339**	P	**P**	**21 57 54.4**	**-0.3**
AKTO	**Aktyubinsk**	**67.04**	**339**	P	**P**	**21 57 54.4**	**-0.3**
	0.8nm,0.4s,mb3.9,baz=36,slow=4.8,SNR=4.5						

IDC 24 21:47:38.7±33.0**, 5.40N**×**124.27E, h0^{km}, mb3.9**/4**, mb1 4.1**/4**, mb1mx3.6**/20**, mbtmp3.9**/4**, Error ellipse: s-maj=562.4km s-min=120.6km az=146.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**23.39**	**177**	P	P	21 52 50.2	+0.7
	1.9nm,0.7s,baz=2.1,slow=13,SNR=4.6						
WRA	**Warramunga Arr**	**27.06**	**159**	P	P	21 53 22.8	-0.3
	3.9nm,0.8s,baz=336,slow=10.0,SNR=17						
ASAR	**Alice Springs**	**30.38**	**162**	P	P	21 53 52.1	-0.5
	0.5nm,0.6s,baz=348,slow=7.1,SNR=6.7						
STKA	**Stephens Creek**	**40.58**	**157**	P	P	21 55 20.3	+0.2
	3.1nm,0.9s,baz=342,slow=12,SNR=3.8						

IDC 24 22:23:39.1±6.0**, 32.65S**×**58.04E, h0^{km}, mb3.7**/3**, mb1 3.9**/3**, mb1mx3.5**/18**, mbtmp3.7**/3**, Error ellipse: s-maj=318.0km s-min=31.9km az=38.0, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**66.22**	**104**	P	P	22 34 28.9	-0.2
	0.5nm,0.7s,baz=238,slow=5.5,SNR=6.5						
WRA	**Warramunga Arr**	**68.29**	**100**	P	P	22 34 42.6	+0.3
	0.6nm,0.6s,baz=242,slow=5.8,SNR=11						
BRTR	**Keskin Array B**	**75.47**	**341**	P	P	22 35 25.0	+0.1
	0.7nm,0.7s,baz=169,slow=8.5,SNR=3.1						
YKA	**Yellowknife Ar**	**149.77**	**353**	PKPbc	PKPbc	22 43 30.0	-0.1
	0.5nm,0.8s,baz=359,slow=2.7,SNR=6.6						

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*SGS **24** 22:28:35.0, 29.10N×34.83E, h17^{km}*

CSEM 24 22:28:34.1±0.2**, 29.03N**×**34.90E, h12^{km}, ML2.9, Error ellipse: s-maj=7.5km s-min=2.9km az=105.0, Egypt**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HQLS		**0.30**	**28**	P	Pg	22 28 41.4	+1.1
HQLS				S	Sg	22 28 46.0	+1.5
HQLS		**0.30**	**28**	S	Sg	22 28 46.0	+1.6
HQLS		**0.30**	**28**	P	Pg	22 28 41.4	+1.1
GLFJ		**0.48**	**12**	*e*P	Pg	22 28 44.5	+0.9
	SNR=101						
JLOS		**0.60**	**119**	P	Pg	22 28 48.3	+2.5
JLOS				S	Sg	22 28 57.7	+4.0
JLOS		**0.60**	**119**	S	Sg	22 28 57.7	+4.0
JLOS		**0.60**	**119**	P	Pg	22 28 48.3	+2.5
RSHS		**0.73**	**187**	P	Pg	22 28 49.5	+1.2
WJHS		**2.65**	**150**	P	Pn	22 29 17.3	+0.7

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*CSEM **24** 22:33:04.7, 38.35N×39.32E, h5^{km}, MD2.8, After ISK*

ISK 24 22:33:04.7, 38.35N×39.32E, h5^{km}, MD2.8, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTK	**Pertek**	**0.54**	**6**	PG	Pg	22 33 16.0	+0.9
PTK				SG	Sg	22 33 25.4	+3.3
PTK	**Pertek**	**0.54**	**6**	*e*Pg	Pg	22 33 16.0	+0.9
PTK				*e*Sg	Sg	22 33 25.4	+3.3
MALT	**Malatya**	**0.70**	**267**	PG	Pg	22 33 18.9	+0.7
MALT				SG	Sg	22 33 30.6	+3.3
MALT	**Malatya**	**0.70**	**267**	*e*Pg	Pg	22 33 18.9	+0.7
MALT				*e*Sg	Sg	22 33 30.6	+3.3
MYA	**Malataya**	**0.70**	**268**	PG	Pg	22 33 19.3	+1.1
MYA	**Malataya**	**0.70**	**268**	*e*Pg	Pg	22 33 19.3	+1.1
DIY	**Diyarbakir**	**0.85**	**122**	*e*PG	Pg	22 33 21.8	+0.8
DIY	**Diyarbakir**	**0.85**	**122**	*e*Pg	Pg	22 33 21.8	+0.8
URFA	**Urfa**	**0.99**	**204**	*e*PG	Pg	22 33 25.8	+2.1
URFA	**Urfa**	**0.99**	**204**	*e*Pg	Pg	22 33 25.8	+2.1
BTMT	**Batman**	**1.71**	**95**	*e*PN	Pn	22 33 35.1	-0.1

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*IDC **24** 22:46:05.5±1.2, 1.12S×127.24E, h0^{km}, mb3.8/4, mb1 3.9/5, mb1mx3.7/17, mbtmp3.7/5, ML3.6/1, Error ellipse: s-maj=127.5km s-min=19.1km az=68.0*

NEIC 24 22:46:07.1±0.9**, 1.20S**×**127.12E, h10^{km}, Error ellipse: s-maj=152.0km s-min=12.2km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.92**	**160**	P	Pn	22 50 37.9	-2.9
	0.2nm,0.3s,baz=339,slow=11,SNR=12						
WB2	**Warramunga Arr**	**19.93**	**160**	*e*P	Pn	22 50 39.1	-1.8
ASAR	**Alice Springs**	**23.28**	**164**	P	P	22 51 15.3	+0.2
	1.5nm,0.7s,baz=344,slow=9.9,SNR=19						
STKA	**Stephens Creek**	**33.44**	**157**	P	P	22 52 48.0	+1.7
	1.6nm,0.6s,baz=314,slow=12,SNR=2.8						
SONM	**Songino Array**	**52.07**	**342**	P	P	22 55 16.9	-0.2
	0.3nm,0.6s,baz=151,slow=7.6,SNR=3.4						
MK31	**Makanchi Array**	**61.83**	**327**	*e*P	P	22 56 26.6	+0.3
MKAR	**Makanchi Array**	**61.83**	**327**	P	P	22 56 26.5	+0.2
MKAR	**Makanchi Array**	**61.83**	**327**	P	P	22 56 26.5	+0.2
	0.9nm,0.4s,baz=114,slow=8.0,SNR=22						

IDC 24 23:03:55.0±1.9**, 0.48N**×**126.84E, h0^{km}, mb3.7**/4**, mb1 3.9**/4**, mb1mx3.6**/17**, mbtmp3.7**/4**, Error ellipse: s-maj=176.0km s-min=22.0km az=65.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**21.59**	**161**	P	P	23 08 45.7	-0.8
	1.0nm,0.6s,baz=339,slow=10,SNR=18						
ASAR	**Alice Springs**	**24.97**	**165**	P	P	23 09 21.0	+0.6
	0.7nm,0.3s,baz=346,slow=11,SNR=28						
MKAR	**Makanchi Array**	**60.28**	**326**	P	P	23 14 05.1	-0.3
	0.3nm,0.4s,baz=124,slow=8.2,SNR=6.5						
AKTO	**Aktyubinsk**	**76.26**	**322**	P	P	23 15 46.0	+0.5
	0.5nm,0.3s,baz=90,slow=10,SNR=5.1						

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*ISCJB **24** 23:31:52.0±1.1, 38.70N±0.03×44.40E±0.09, h2^{km}, Error ellipse: s-maj=10.5km s-min=4.7km az=170.8*

*CSEM **24** 23:31:51.9±0.2, 38.67N×44.22E, h2^{km}, MD3.3, Error ellipse: s-maj=5.6km s-min=2.5km az=90.0*

*ISK **24** 23:31:53.8, 38.69N×44.13E, h4^{km}, MD3.3*

*DDA **24** 23:31:53.9, 38.64N×44.16E, h2^{km}, Md3.1*

ISC 24 23:31:52.2±1.6**, 38.69N**±0.03×**44.4E**±0.1**, h2^{km}**±9^{km}**, n21,** σ**1^{s}.03**/29**, Turkey-Iran border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CLDR	**Caldiran**	**0.60**	**319**	PG	**Pg**	**23 32 03.9**	**+0.3**
CLDR				SG	**Sg**	**23 32 11.2**	**-0.1**
CLDR	**Caldiran**	**0.60**	**319**	*e*Pg	**Pg**	**23 32 03.9**	**+0.3**
CLDR				*e*Sg	**Sg**	**23 32 11.2**	**-0.1**
TVAN	**Van**	**0.81**	**259**	*i* P	**Pg**	**23 32 05.7**	**-1.9**
TVAN				*i* S	**Sg**	**23 32 19.4**	**+1.3**
VANB	**Van**	**0.81**	**264**	PG	**Pg**	**23 32 05.6**	**-2.1**
VANB	**Van**	**0.81**	**264**	*e*Pg	**Pg**	**23 32 05.6**	**-2.1**
VANT	**Van**	**0.84**	**253**	PG	**Pg**	**23 32 08.6**	**+0.3**
DYDN	**Diyadin**	**1.02**	**327**	*i* P	**Pg**	**23 32 12.0**	**+0.2**
DYDN				*i* S	**Sg**	**23 32 26.9**	**+1.9**
HKR	**Hakkari**	**1.23**	**206**	PN	**Pn**	**23 32 15.9**	**-0.5**
HKR	**Hakkari**	**1.23**	**206**	*e*Pn	**Pn**	**23 32 15.9**	**-0.5**
HAKT	**HAKKARI**	**1.26**	**207**	*i* P	**Pg**	**23 32 15.8**	**-0.6**

HAKT				i S	Sg	23 32 33.6	+0.9
AGRB	Hanur-Agry	1.42	309	PN	Pn	23 32 18.5	-0.4
AGRB	Hanur-Agry	1.42	309	ePn	Pn	23 32 18.5	-0.4
TUTA	Tutak	1.44	300	i P	Pn	23 32 18.1	-1.0
TUTA				i S	Sg	23 32 37.8	-0.5
CUKT	Cukurca	1.58	204	ePN	Pn	23 32 22.6	+1.5
CUKT	Cukurca	1.58	204	ePn	Pn	23 32 22.6	+1.5
SIRT	Sirnak	1.96	233	ePN	Pn	23 32 26.9	+0.5
SIRT	Sirnak	1.96	233	ePn	Pn	23 32 26.9	+0.5
BTMT	Batman	2.35	259	ePN	Pn	23 32 32.9	+1.1
BEST	Besiri	2.60	253	i P	Pn	23 32 34.1	-1.1
BEST				i S	Sn	23 33 01.4	-5.9
ERZM	Erzurum	2.66	298	i P	Pn	23 32 40.8	+4.8
ERZM				i S	Sn	23 33 14.9	+6.1
EZM	Erzurum	2.66	298	ePN	Pn	23 32 35.9	-0.1

IDC 24 23:38:08.2±2.1**, 1.05S×127.55E, h0^{km}, mb3.2**/2**, mb1 3.3**/3**,**
mb1mx3.2/16**, mbtmp3.2**/3**, ML3.3**/1**, Error ellipse:**
s-maj=154.6km s-min=27.8km az=67.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	19.91	161	P	Pn	23 42 41.8	-1.3
	0.1nm,0.3s,baz=340,slow=11,SNR=4.8						
ASAR	Alice Springs	23.31	165	P	P	23 43 17.9	-0.1
	0.3nm,0.5s,baz=346,slow=11,SNR=5.1						
MKAR	Makanchi Array	61.95	326	P	P	23 48 29.9	+0.1
	0.2nm,0.2s,baz=121,slow=7.6,SNR=4.4						

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*PDG **24** 23:43:35.8, 51.40N×178.60W, h26^{km}, mb5.6/9*
*ISCJB **24** 23:43:39.9±0.1, 51.43N±0.03×178.59W±0.02, h29^{km}, mb5.3/264, MS4.7/161, Error ellipse: s-maj=4.4km s-min=1.7km az=6.0*
*BJI **24** 23:43:39.8, 51.63N×178.67W, h30^{km}, mB5.4, mb5.4, Ms5.0, Msz4.7*
*MOS **24** 23:43:40.5±1.1, 51.36N×178.54W, h33^{km}, mb5.6/108, MS4.7/37, Error ellipse: s-maj=10.0km s-min=7.7km az=149.3*
*IDC **24** 23:43:41.6±2.1, 51.47N×178.47W, h33^{km}±15^{km}, mb4.9/30, mb1 5.0/31, mb1mx5.0/33, mbtmp4.9/31, ML5.4/1, MS4.6/38, Ms1 4.6/38, ms1mx4.5/43, Error ellipse: s-maj=14.6km s-min=9.1km az=158.0*
*GCMT **24** 23:43:42.0±0.2, 51.21N×178.34W, h40^{km}, MW5.3/86, Moment Tensor Solution. s84,c144; s86,c157; Duration: $1\overset{s}{.}1$ Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.86±.02; M$_{\theta\theta}$-0.82±.02; M$_{\phi\phi}$-0.04±.02; M$_{r\theta}$0.36±.02; M$_{\theta\phi}$-0.41±.01; M$_{\phi r}$0.35±.01; Best double couple: M$_0$1.05500×10^{17} NP1:ϕ_s259.00000°,δ33.00000°, λ109.00000°. NP2:ϕ_s56.00000°,δ59.00000°,λ78.00000°. Principal axes: T 1.0030, Plg73.0000°, Azm296.0000°; N 0.1040, Plg10.0000°, Azm62.0000°; P -1.1070, Plg14.0000°, Azm155.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*SZGRF **24** 23:43:42.1, 51.27N×178.56W, h33^{km}, mb5.3, Andreanof Islands, Aleutian Islands, United States*
*NEIC **24** 23:43:42.0±0.1, 51.45N×178.59W, h35^{km}, mb5.4/171, MS4.7/107, ML5.4(AEIC), Error ellipse: s-maj=4.2km s-min=2.0km az=185.0*

ISC 24 23:43:42.0±0.1**, 51.50N**±0.03×**178.61W**±0.02**, h31^{km},**
h31^{km}±.6^{km}**:pP-P, n1059, σ0$\overset{s}{.}$78**/1008**, mb5.3**/264**,**
MS4.7/161**, 239C-125D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AMKA	Amchitka	1.31	265	P	Pn	23 44 04.7	+0.6
AMKA				S	Sn	23 44 24.6	+4.1
ATKA	Atka Island	2.82	74	P	Pn	23 44 24.5	-0.3
ATKA				S	Sn	23 45 01.1	+3.4
SMY	Shemya	4.66	288	P	Pn	23 44 53.4	+3.3
SMY	Shemya	4.66	288	eP	Pn	23 44 54.0	+3.9
SPIA	Saint Paul Isl	7.49	37	P	Pn	23 45 33.4	+4.5
UNV	Unalaska Valle	7.72	68	P	Pn	23 45 34.0	+1.9
UNV				S	Sn	23 47 04.0	+5.6
AKGG	Akutan Green G	8.10	66	P	Pn	23 45 40.6	+3.4
AKLV	Akutan Long Va	8.11	66	P	Pn	23 45 40.9	+3.5
AKUT	Akutan	8.21	66	ePn	Pn	23 45 42.2	+3.5
	611nm,1.0s						
AKUT				eSn	Sn	23 47 17.5	+7.2
FALS	False Pass	9.72	64	ePn	Pn	23 46 02.7	+3.3
SDPT	Sand Point	11.47	63	ePn	Pn	23 46 24.2	+0.8
CHGN	Chignik	12.82	60	eP	Pn	23 46 43.1	+1.3
GAMB	Gambell	12.84	14	ePn	Pn	23 46 43.7	+1.7
PET	Petropavlovsk	14.00	285	eP	Pn	23 47 02.7	+4.8
PET				eS	Sn	23 49 38.0	+6.0
PET				pmax	pmax		
	comp=Z,400nm,15.6s						
PET				pmax	pmax		
	comp=Z,71nm,1.1s						
PET				MLR	MLR		
	comp=Z,4µm,18.0s						
PET				MLR	MLR		
	comp=Z,3µm,20.0s						
TNA	Tin City	15.12	17	eP	Pn	23 47 18.8	+5.8
SKR	Severo-Kuril's	15.88	277	eP	Pn	23 47 22.0	-0.9
SKR				pmax	pmax		
	comp=Z,220nm,1.0s						
SKR				MLR	MLR		
	comp=E,4µm,26.0s						
SKR				MLR	MLR		
	comp=Z,4µm,26.0s						
SVW2	Sparrevohn	15.90	44	eP	Pn	23 47 25.3	+2.2
KDAK	Kodiak Island	16.25	57	Pn	Pn	23 47 26.7	-1.0
	comp=Z,589nm,0.4s,SNR=25						
KDAK	Kodiak Island	16.25	57	ePn	Pn	23 47 26.2	-1.5
KDAK	Kodiak Island	16.25	57	Pn	Pn	23 47 25.1	-2.5
	comp=Z,14nm,0.3s,baz=282,slow=6.0,SNR=49						
KDAK				Sn	Sn	23 50 27.1	+0.3
	comp=Z,2.4nm,0.3s,baz=360,slow=17,SNR=8.7						
TTA	Tatalina	16.64	38	eP	Pn	23 47 35.9	+3.4
SLKM	Skilak Lake	18.12	49	ePn	Pn	23 47 51.8	+1.0
SLKM				eSn	Sn	23 51 08.6	-3.2
BILL	Bilibino	18.15	342	ePn	Pn	23 47 54.9	+3.7
	comp=Z,82nm,1.0s						
BILL	Bilibino	18.15	342	c iP	Pn	23 47 55.0	+3.8
BILL				pmax	pmax		
	comp=Z,135nm,1.6s						
BILL				MLR	MLR		
	comp=Z,3µm,21.0s						
PMR	Palmer	18.96	46	eP	Pn	23 47 57.9	-3.1
MA2	Magadan	18.97	307	ePn	Pn	23 48 05.8	+4.5
MA2	Magadan	18.97	307	eP	Pn	23 48 05.4	+4.2
MA2				eS	Sn	23 51 38.9	+6.4
MA2				pmax	pmax		
	comp=Z,60nm,1.1s						
MA2				MLR	MLR		
	comp=Z,2µm,16.8s						
IMA2	Indian Mountai	19.28	31	eP	Pn	23 48 05.4	+0.6
SML	Sawmill	19.39	46	eP	Pn	23 48 06.9	+0.8
SML	Sawmill	19.39	46	eP	Pn	23 47 57.2	-8.9
SML	Sawmill	19.39	46	eP	Pn	23 48 06.9	+0.8
MCK	McKinley	19.83	40	eP	Pn	23 48 10.5	-0.9
EYAK	Cordova Ski Ar	20.27	51	eP	P	23 48 15.7	+1.2
COLA	College	20.74	38	eP	P	23 48 19.9	+0.4
	comp=Z,109nm,0.9s						
COLA				LR	LR		
	comp=Z,2µm,19.0s,MS4.4						
COLA	College	20.74	38	d iP	P	23 48 21.2	+1.6
MENT	Mentasta	21.77	45	eP	P	23 48 32.0	+1.3
EGAK	Eagle	23.38	41	⇑eP	P	23 48 46.5	-1.1
	comp=Z,116nm,1.0s,mb5.3						
EGAK				LR	LR		
	comp=Z,2µm,20.0s,MS4.6						
DAWY	Dawson	23.93	43	eP	P	23 48 52.1	-0.7
YSS	Yuzh-Sakhalins	25.43	275	eP	P	23 49 08.1	+1.6
YSS				LR	LR		
	comp=Z,1µm,21.0s,MS4.4						
YSS	Yuzh-Sakhalins	25.43	275	α iP	P	23 49 07.8	+1.3
YSS				eS	S	23 53 30.0	-1.2
YSS				pmax	pmax		
	comp=Z,210nm,1.0s,mb5.6						
YSS				pmax	pmax		
	comp=N,70nm,0.9s						
YSS				pmax	pmax		
	comp=E,190nm,1.0s						
YSS				MLR	MLR		
	comp=Z,500nm,16.0s,MS4.1						
YSS				MLR	MLR		
	comp=N,500nm,18.0s						
SIT	Sitka	25.52	60	PFAKE		23 49 20.0	+13
SIT				LR	LR		
	comp=Z,1µm,19.0s,MS4.4						
ASAJ	Asahikawa	26.83	269	P	P	23 49 19.7	+0.5
ASAJ				pmax	pmax		
	comp=Z,142nm,1.0s						
ASAJ				MLR	MLR		
	comp=Z,888nm,21.7s						
ASAJ	Asahikawa	26.83	269	P	P	23 49 19.7	+0.5
	comp=Z,142nm,1.0s,mb5.5,baz=20,slow=5.9,SNR=32						
ASAJ				LR	LR	23 58 02.4	
	comp=Z,888nm,21.7s,MS4.3,baz=32,slow=32						
INK	Inuvik	27.29	35	eP	P	23 49 23.1	0.0
	comp=Z,636nm,0.4s						
INK	Inuvik	27.29	35	P	P	23 49 22.6	-0.5
INK						23 52 41.3	
INK				pmax	pmax		
	comp=Z,9.0nm,0.4s						
INK				pmax	pmax		
	comp=Z,19nm,0.9s						
INK				pmax	pmax		
	comp=N,4.0nm,0.9s						
INK				MLR	MLR		
	comp=Z,1µm,19.4s						
INK	Inuvik	27.29	35	P	P	23 49 22.6	-0.5
	comp=Z,8.8nm,0.4s,mb4.7,baz=246,slow=7.3,SNR=57						
INK				PcP	PcP	23 52 41.3	-0.5
	comp=Z,19nm,0.9s,baz=263,slow=3.6,SNR=7.3						
INK				ScP	ScP	23 56 17.6	-2.0
	comp=Z,4.1nm,0.9s,baz=75,slow=31,SNR=5.0						
INK				LR	LR	00 02 14.3	
	comp=Z,1µm,19.4s,MS4.5,baz=1.3,slow=41						
ERM	Erimo	27.58	265	PFAKE		23 49 40.0	+14
ERM				LR	LR		
	comp=Z,2µm,22.0s,MS4.5						
ERM	Erimo	27.58	265	i P	P	23 49 25.8	-0.2
YAK	Yakutsk	29.43	311	PFAKE		23 49 50.0	+7.8
YAK				LR	LR		
	comp=Z,2µm,19.0s,MS4.8						
YAK	Yakutsk	29.43	311	eP	P	23 49 42.4	+0.2
YAK				e		23 52 47.4	
YAK				eS	S	23 54 32.3	-1.6
YAK				eSS	SS	23 56 16.1	-23
YAK				e		23 56 28.2	
YAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.5						
YAK				pmax	pmax		
	comp=N,3.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,30nm,1.4s,mb4.8						
YAK				pmax	pmax		
	comp=N,18nm,1.5s						
YAK				pmax	pmax		
	comp=E,68nm,2.0s						
YAK				smax			
	comp=N,150nm,3.6s						
YAK				smax			
	comp=Z,165nm,4.2s						
YAK				smax			
	comp=E,97nm,4.5s						
YAK				MLR	MLR		
	comp=Z,2µm,21.0s,MS4.8						
YAK				MLR	MLR		
	comp=N,625nm,17.0s,MS4.7						
YAK				MLR	MLR		
	comp=E,2µm,22.0s,MS4.7						
HABR	Khabarovsk	29.57	283	⇓iP	P	23 49 44.0	+0.4
HABR				e		23 50 42.0	
HABR				eS	S	23 54 37.3	+1.0
HABR				pmax	pmax		
	comp=Z,81nm,1.5s,mb5.2						
TIXI	Tiksi	30.59	330	eP	P	23 49 50.6	-1.8
TIXI				LR	LR		
	comp=Z,2µm,20.0s,MS4.7						
TIXI	Tiksi	30.59	330	eP	P	23 49 50.4	-2.0
TIXI				e		23 50 54.5	
TIXI				eS	S	23 54 49.0	-2.9
TIXI				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.6						
KLR	Kul'dur	31.26	286	κ iP	P	23 49 56.2	-2.4
KLR				pmax	pmax		
	comp=N,24nm,1.4s						
KLR				pmax	pmax		
	comp=E,90nm,1.4s						
KLR				pmax	pmax		
	comp=Z,140nm,1.4s,mb5.6						
KLR				MLR	MLR		
	comp=Z,900nm,15.0s,MS4.6						
MJAR	Matsushiro Arr	33.92	261	P	P	23 50 22.7	+0.7
MJAR						23 52 59.0	
MJAR				pmax	pmax		
	comp=Z,19nm,0.8s						
MJAR				pmax	pmax		
	comp=Z,11nm,0.9s						
MJAR	Matsushiro Arr	33.92	261	P	P	23 50 22.7	+0.7
	comp=Z,19nm,0.8s,mb5.1,baz=51,slow=8.0,SNR=56						
MJAR				PcP	PcP	23 52 59.0	-0.7
	comp=Z,10nm,0.9s,baz=80,slow=1.1,SNR=15						
MJAR				LR	LR	00 02 16.7	
	comp=Z,988nm,20.4s,MS4.5,baz=80,slow=33						
MAJO	Matsushiro	33.92	261	eP	P	23 50 22.9	+1.0
MAJO				LR	LR		
	comp=Z,2µm,22.0s,MS4.7						
MAT	Matsushiro	33.92	261	P	P	23 50 22.7	+0.7
VLA	Vladivostok	34.02	276	i P	P	23 50 24.8	+2.1
MDJ	Mudanjiang	34.67	279	P	P	23 50 28.0	-0.4
MDJ				AP	pP	23 50 36.8	-0.7
MDJ				XP	sP	23 50 40.6	-0.7
MDJ				PP	PP	23 51 46.3	-0.8
MDJ				S	S	23 55 55.1	-0.8
MDJ				XS	sS	23 56 10.3	-0.6
MDJ				SCP	ScP	23 56 45.5	+1.0
MDJ				PCS	PcS	23 56 49.0	+0.8
MDJ				AMB	AMB		
	comp=Z,37nm,1.1s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,165nm,4.6s						
MDJ				LR	LR		
	comp=N,469nm,23.7s						
MDJ				LR	LR		
	comp=E,165nm,8.9s						
MDJ				LR	LR		
	comp=Z,364nm,14.3s						
YKW3	Yellowknife Ar	35.04	46	eP	P	23 50 30.6	-0.7
YKA	Yellowknife Ar	35.06	47	P	P	23 50 30.8	-0.7
YKA				PcP	PcP	23 53 02.7	+0.1
YKA				ScP	ScP	23 56 44.5	-1.1
YKA				LR	LR	00 06 22.1	
YKA	Yellowknife Ar	35.06	47	P	P	23 50 30.8	-0.7
YKA						23 53 02.7	
YKA	Yellowknife Ar	35.06	47	P	P	23 50 30.7	-0.7
	comp=Z,15nm,0.8s,mb5.0,baz=283,slow=8.1,SNR=120						
YKA				PcP	PcP	23 53 02.7	+0.1
	comp=Z,13nm,0.8s,baz=288,slow=2.7,SNR=18						
YKA				ScP	ScP	23 56 44.5	-1.1
	comp=Z,1.4nm,0.7s,baz=291,slow=3.4,SNR=5.8						
YKA				LR	LR	00 06 22.1	
	comp=Z,629nm,18.5s,MS4.4,baz=220,slow=39						
NLWA	Neilton Lookou	35.12	75	eP	P	23 50 33.1	+0.9
	comp=Z,95nm,1.3s,mb5.6						
NLWA				LR	LR		
	comp=Z,2µm,22.0s,MS4.8						
JHJ	Hachijo jima 2	35.25	255	LR	LR	00 06 40.9	
	comp=Z,470nm,18.1s,MS4.3,baz=38,slow=39						
A05A	Maple Falls	35.47	71	⇓P	P	23 50 35.6	+0.5
	baz=35,SNR=13						
C04A	Brinnon	35.51	74	⇑P	P	23 50 36.6	+1.0
	baz=35,SNR=9.6						
MBW	Mount Baker	35.67	71	P	P	23 50 37.7	+0.8
GNW	Green Mountain	35.67	74	eP	P	23 50 38.1	+1.2
E03A	Lebam	35.71	76	⇑P	P	23 50 37.9	+0.6
	baz=36,SNR=6.6						
A06A	Chilliwack	35.78	71	⇓P	P	23 50 37.9	+0.1
	baz=36,SNR=8.7						
B05A	Bryant	35.79	72	⇑P	P	23 50 38.6	+0.7
	baz=36,SNR=18						
D04A	Dobbs Creek Ra	35.90	74	⇑P	P	23 50 39.9	+1.1
	baz=36						
F03A	Seaside	36.01	77	⇓P	P	23 50 40.7	+0.8
	baz=36						
B06A	Marblemount	36.03	72	⇓P	P	23 50 40.5	+0.4
	baz=36,SNR=6.8						
E04A	Onalaska	36.19	75	⇑P	P	23 50 42.5	+1.1
	baz=36,SNR=6.7						
C05A	Tolt Reservoir	36.29	73	⇑P	P	23 50 42.6	+0.4
	baz=36,SNR=7.6						
D05A	Enumclaw	36.35	74	⇓P	P	23 50 43.8	+1.1
	baz=36,SNR=15						
A07A	Ashnola River,	36.45	70	P	P	23 50 44.2	+0.7
	baz=36,SNR=66						
G03A	Yamhill	36.48	77	⇑P	P	23 50 44.7	+0.8
	baz=36						
C06A	Tall Timber Ra	36.66	72	⇑P	P	23 50 45.9	+0.6
	baz=36,SNR=7.9						
LON	Longmire	36.67	74	eP	P	23 50 46.3	+0.9
F04A	Amboy	36.70	76	⇓P	P	23 50 46.1	+0.4
	baz=36,SNR=13						
E05A	Randle	36.79	75	⇓P	P	23 50 46.6	+0.2
	baz=37,SNR=7.0						
H03A	Soap Creek Ran	36.80	78	⇑P	P	23 50 47.5	+0.9
	baz=37						
I02A	Mapleton	36.82	80	⇓P	P	23 50 47.5	+0.7
	baz=37						
COR	Corvallis	36.84	78	eP	P	23 50 47.8	+0.9
	comp=Z,91nm,1.0s,mb5.6						
COR				LR	LR		
	comp=Z,1µm,21.0s,MS4.7						
COR	Corvallis	36.84	78	eP	P	23 50 47.8	+0.9
COR				pmax	pmax		
	comp=Z,91nm,1.0s,mb5.6						
COR				MLR	MLR		
	comp=Z,1µm,21.0s,MS4.7						
B07A	Winthrop	36.87	71	P	P	23 50 47.8	+0.7
	baz=37,SNR=48						
NLW	Nelson Butte	36.92	72	P	P	23 50 48.2	+0.6
G04A	Mulino	37.03	77	⇓P	P	23 50 49.1	+0.6
	baz=37,SNR=14						
D06A	Cle Elum	37.03	73	P	P	23 50 49.3	+0.8
	baz=37,SNR=16						
A08A	Turner Farm, O	37.14	70	⇓P	P	23 50 49.5	+0.1
	baz=37,SNR=44						
I03A	Eugene	37.17	79	⇑P	P	23 50 50.5	+0.7
	baz=37						
TBM	Table Mountain	37.19	73	P	P	23 50 50.7	+0.8
C07A	Waterville	37.26	72	⇑P	P	23 50 50.5	0.0
	baz=37,SNR=22						
E06A	Yakima	37.27	74	⇑P	P	23 50 51.1	+0.5
	baz=37,SNR=12						
F05A	White Salmon	37.30	76	⇓P	P	23 50 51.5	+0.6
	baz=37						
J02A	Umpqua	37.31	80	⇑P	P	23 50 51.8	+0.9
	baz=37,SNR=5.0						
WTV	Waterville	37.32	72	P	P	23 50 51.1	+0.1
EBG	Ellensburg	37.34	74	P	P	23 50 51.9	+0.8
B08A	Colville Reser	37.38	71	P	P	23 50 51.9	+0.4
	baz=37,SNR=72						
HOOD	Mount Hood Mea	37.47	76	eP	P	23 50 53.5	+1.2
H04A	Detroit Lake	37.47	78	P	P	23 50 53.1	+0.8
	baz=37,SNR=23						
BROR	Big Rock Looko	37.53	78	P	P	23 50 53.7	+1.0
A09A	Danville	37.54	70	P	P	23 50 53.2	+0.4
	baz=37,SNR=46						
D07A	Quincy	37.55	73	P	P	23 50 53.4	+0.4
	baz=37,SNR=16						
CN2	Changchun	37.64	281	eP	P	23 50 53.3	-0.5
CN2				eAP	pP	23 51 03.8	+0.9
CN2				eS	S	23 56 40.5	-0.8
CN2				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
CN2				AMB	AMB		
	comp=Z,310nm,5.0s						
CN2				LR	LR		
	comp=N,600nm,21.0s,MS4.5						
CN2				LR	LR		
	comp=E,600nm,21.0s,MS4.5						
CN2				LR	LR		
	comp=Z,590nm,23.0s,MS4.3						
J03A	Ideyld Park	37.69	80	⇑P	P	23 50 55.0	+0.9
	baz=38,SNR=5.4						
K02A	Glendale	37.69	81	⇓P	P	23 50 54.8	+0.6
	baz=38						
G05A	Wamic	37.72	76	⇑P	P	23 50 55.1	+0.8
	baz=38,SNR=9.4						
F06A	Goldendale	37.77	75	P	P	23 50 55.6	+0.7
	baz=38,SNR=10						
I04A	Tendick Farm,	37.80	79	⇓P	P	23 50 55.6	+0.6
	baz=38,SNR=19						
C08A	Higginbotham F	37.82	71	⇑P	P	23 50 55.1	-0.1
	baz=38,SNR=9.1						
E07A	Sunnyside	37.94	74	⇑P	P	23 50 56.4	+0.2
	baz=38,SNR=16						
BOD	Bodaibo	38.00	307	eP	P	23 50 55.6	-1.0
BOD				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.5						
B09A	Rice	38.05	70	⇑P	P	23 50 57.2	0.0
	baz=38,SNR=35						
H05A	Madras	38.08	77	⇓P	P	23 50 58.0	+0.6
	baz=38,SNR=9.0						
G06A	Carlson Farm,	38.13	76	⇑P	P	23 50 58.2	+0.3
	baz=38,SNR=7.9						
A10A	Northport	38.13	69	P	P	23 50 58.0	+0.2
	baz=38,SNR=40						
HAWA	Hanford	38.21	74	eP	P	23 50 58.9	+0.3
	comp=Z,81nm,0.7s,mb5.6						
F07A	Phinny Hill Vi	38.22	75	⇓P	P	23 50 59.1	+0.5
	baz=38,SNR=25						
CBIJ	Chichi jima	38.24	246	LR	LR	00 03 02.8	
	comp=Z,798nm,20.2s,MS4.5,baz=31,slow=30						
D08A	Wollman Farm,	38.25	72	P	P	23 50 58.9	+0.1
	baz=38,SNR=31						
J04A	Umpqua Nationa	38.28	80	⇓P	P	23 50 59.9	+0.8
	baz=38,SNR=11						
I05A	Bend	38.31	78	⇑P	P	23 50 60.0	+0.6
	baz=38,SNR=15						
E08A	Dider Farm, El	38.45	73	⇑P	P	23 51 00.7	+0.2
	baz=38						
H06A	Lindquist Farm	38.57	76	⇑P	P	23 51 01.8	+0.2
	baz=38,SNR=14						
D09A	Jones Farm, Ri	38.61	72	P	P	23 51 01.7	-0.1
	baz=38,SNR=14						
EDM	Edmonton	38.65	61	eP	P	23 51 01.3	-0.8
B10A	Chitwood Farm,	38.65	70	⇓P	P	23 51 02.2	0.0
	baz=38,SNR=11						
G07A	Ruggs Ranch, H	38.70	75	P	P	23 51 03.0	+0.3
	baz=38,SNR=6.5						
NEW	Newport	38.73	70	eP	P	23 51 02.8	0.0
NEW				LR	LR		
	comp=Z,783nm,19.0s,MS4.5						
YBH	Yreka Blue Hor	38.74	82	eP	P	23 51 04.2	+1.2
	comp=Z,46nm,1.1s,mb5.1						
YBH				LR	LR		
	comp=Z,1µm,20.0s,MS4.7						
YBH	Yreka Blue Hor	38.74	82	⇓P	P	23 51 03.9	+0.9
	baz=38,SNR=5.7						
J05A	Fort Rock	38.80	79	⇓P	P	23 51 04.4	+0.9
	baz=39,SNR=20						
C10A	Spilker Farm,	38.83	71	⇑P	P	23 51 03.5	-0.2
	baz=39,SNR=13						
A11A	Hall Mountain,	38.84	68	P	P	23 51 04.5	+0.7
	baz=39,SNR=75						
O01C	Eel River Cons	38.97	85	⇑P	P	23 51 05.5	+0.6
	baz=39						
E09A	Wood Farm, Sta	38.98	73	P	P	23 51 05.0	+0.1
	baz=39,SNR=24						
L04A	Klamath Falls	39.00	81	⇓P	P	23 51 05.9	+0.7
	baz=39,SNR=9.4						
I06A	Prineville	39.07	77	P	P	23 51 06.4	+0.7
	baz=39,SNR=10						
B11A	Sandpoint	39.09	69	⇓P	P	23 51 05.8	0.0
	baz=39,SNR=22						
G08A	Pilot Rock	39.12	75	⇓P	P	23 51 06.1	0.0
	baz=39,SNR=13						
D10A	Wagner Farm, O	39.23	72	P	P	23 51 06.7	-0.3
	baz=39,SNR=55						
M04C	Macdoel	39.25	81	⇓P	P	23 51 08.0	+0.7
	baz=39,SNR=7.9						
A12A	Yaak River Ran	39.27	68	P	P	23 51 07.8	+0.4
	baz=39,SNR=14						
M03C	McCloud	39.37	82	⇑P	P	23 51 08.6	+0.3
	baz=39						
I07A	Izee	39.42	77	⇑P	P	23 51 09.2	+0.5
	baz=39,SNR=33						
J06A	Christmas Vall	39.48	78	⇑P	P	23 51 09.9	+0.8
	baz=39,SNR=20						
WDC	Whiskeytown Da	39.51	83	eP	P	23 51 09.7	+0.3
	comp=Z,23nm,0.9s,mb4.9						
WDC				e	pP	23 51 18.3	-0.3
WDC	Whiskeytown Da	39.51	83	eP	P	23 51 09.7	+0.3
WDC				e	pP	23 51 18.3	-0.3
WDC				pmax	pmax		
	comp=Z,23nm,0.9s,mb4.9						

WDC	Whiskeytown Da	39.51	83	P	P	23 51 10.3	+0.9
WDC				pmax	pmax		
	comp=Z,23nm,0.9s,mb4.9						
WDC	Whiskeytown Da	39.51	83	⇑P	P	23 51 09.8	+0.4
	baz=39,SNR=5.8						
B12A	Libby	39.52	69	⇓P	P	23 51 09.9	+0.4
	baz=39						
F09A	S2 Ranch, Elgi	39.53	74	⇓P	P	23 51 09.9	+0.3
	baz=39,SNR=16						
RES	Resolute Bay	39.58	24	eP	P	23 51 10.0	+0.3
O02C	Red Bluff	39.59	84	⇑P	P	23 51 10.8	+0.7
	baz=39,SNR=7.6						
E10A	Myers Farm, Un	39.61	72	P	P	23 51 10.2	0.0
	baz=39,SNR=18						
P01C	Double 8 Ranch	39.66	85	⇓P	P	23 51 11.0	+0.3
	baz=39						
K06A	Valley Falls	39.66	79	⇓P	P	23 51 11.6	+0.9
	baz=39,SNR=17						
H08A	Prairie City	39.70	76	⇑P	P	23 51 10.8	-0.1
	baz=40,SNR=10						
L05A	Lakeview	39.73	80	⇓P	P	23 51 11.9	+0.7
	baz=40,SNR=10						
KSRS	Korea Array	39.76	271	P	P	23 51 12.8	+1.2
	comp=Z,31nm,0.9s,mb5.0,baz=60,slow=7.9,SNR=63						
KSRS				PcP	PcP	23 53 17.9	+0.6
	comp=Z,5.5nm,1.0s,baz=72,slow=3.7,SNR=6.4						
KSRS				LR	LR	00 06 58.6	
	comp=Z,299nm,19.9s,MS4.1,baz=59,slow=35						
D11A	Klaveano Farm,	39.79	71	P	P	23 51 11.1	-0.6
	baz=40,SNR=45						
KS15	Wonju Array Si	39.79	271	eP	P	23 51 13.2	+1.4
F10A	Beach Ranch, E	39.80	73	⇑P	P	23 51 11.8	0.0
	baz=40,SNR=19						
SNY	Shenyang	39.88	279	⇑P	P	23 51 13.5	+1.0
SNY				S	S	23 57 11.3	-3.7
SNY				AMB	AMB		
	comp=Z,83nm,1.2s,mb5.3						
SNY				AMB	AMB		
	comp=Z,570nm,3.0s						
SNY				LR	LR		
	comp=N,628nm,20.5s						
SNY				LR	LR		
	comp=Z,963nm,19.6s,MS4.7						
M05C	Lookout	39.92	81	⇑P	P	23 51 13.4	+0.5
	baz=40,SNR=13						
J07A	Hines	39.92	78	⇑P	P	23 51 13.6	+0.8
	baz=40,SNR=9.6						
GASB	Alder Springs	39.94	85	⇑P	P	23 51 13.8	+0.8
	baz=40						
HATC	Hat Creek Radi	40.04	82	⇑P	P	23 51 14.3	+0.4
	baz=40,SNR=7.3						
I08A	Drewsey	40.09	77	⇓P	P	23 51 14.7	+0.5
	baz=40,SNR=27						
HOPS	Hopland	40.11	86	PFAKE		23 51 30.0	+16
HOPS				LR	LR		
	comp=Z,1µm,22.0s,MS4.8						
HOPS	Hopland	40.11	86	⇓P	P	23 51 14.5	+0.1
	baz=40						
MOD	Modoc	40.13	80	eP	P	23 51 15.2	+0.6
MOD				LR	LR		
	comp=Z,798nm,20.0s,MS4.6						
MOD	Modoc	40.13	80	⇓P	P	23 51 14.7	+0.1
	baz=40,SNR=13						
WALA	Waterton Lakes	40.21	67	eP	P	23 51 14.9	-0.2
	comp=Z,139nm,1.4s,mb5.5						
E11A	Bogner Ranch,	40.22	72	P	P	23 51 14.6	-0.7
	baz=40,SNR=15						
B13A	Whitefish	40.22	68	P	P	23 51 15.3	0.0
	baz=40,SNR=32						
H09A	Durkee	40.23	75	⇓P	P	23 51 15.6	+0.3
	baz=40,SNR=9.2						
BSMT	Bassoo Peak	40.30	69	eP	P	23 51 16.1	+0.2
K07A	Rock Creek Ran	40.34	79	⇑P	P	23 51 17.0	+0.7
	baz=40,SNR=38						
BMO	Blue Mountains	40.34	75	eP	P	23 51 16.4	+0.1
BMO				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
M06C	Likely Place G	40.42	81	⇑P	P	23 51 17.7	+0.7
	baz=40,SNR=6.6						
J08A	Circle Bar Ran	40.44	77	P	P	23 51 17.8	+0.6
	baz=40,SNR=30						
F11A	Grangeville	40.49	73	P	P	23 51 17.1	-0.4
	baz=40,SNR=21						
C13A	Hot Springs	40.51	69	⇑P	P	23 51 17.3	-0.3
	baz=40,SNR=34						
INCN	Inchon	40.55	272	eP	P	23 51 19.4	+1.4
	comp=Z,111nm,1.1s,mb5.4						
INCN				LR	LR		
	comp=Z,370nm,20.0s,MS4.2						
I09A	Lost Marbles R	40.55	76	⇑P	P	23 51 18.2	+0.1
	baz=40,SNR=7.4						
O04C	Chester	40.56	83	⇓P	P	23 51 18.9	+0.7
	baz=40,SNR=11						
MNRC	McLaughlin Nat	40.57	85	⇓P	P	23 51 18.6	+0.4
	baz=40						
CIT	Chita	40.59	298	eP	P	23 51 18.6	+0.3
CIT				e	pP	23 51 28.0	+0.5
CIT				e		23 51 34.9	
CIT				pmax	pmax		
	comp=Z,95nm,1.7s,mb5.2						
L07A	Adell	40.66	79	⇓P	P	23 51 19.6	+0.6
	baz=40,SNR=7.8						
NSHM	Saint Helena R	40.68	86	eP	P	23 51 19.4	+0.1
JNU	Nakatsue	40.71	263	P	P	23 51 20.6	+1.2
	comp=Z,89nm,1.0s,mb5.4,baz=38,slow=12,SNR=22						
JNU				LR	LR	00 06 44.0	
	comp=Z,906nm,21.5s,MS4.6,baz=44,slow=34						
MCCM	Marconi Confer	40.74	87	PFAKE		23 51 30.0	+10
MCCM				LR	LR		
	comp=Z,907nm,19.0s,MS4.7						
ORV	Oroville	40.75	84	⇓P	P	23 51 19.2	-0.5
	baz=40,SNR=6.3						
K08A	Mann Creek Ran	40.78	78	⇓P	P	23 51 20.3	+0.3
	baz=41,SNR=19						
H10A	Noah’s Angus R	40.82	75	P	P	23 51 20.4	+0.2
	baz=41,SNR=40						
WVOR	Wild Horse Val	40.86	78	⇑eP	P	23 51 20.9	+0.3
	comp=Z,61nm,0.8s,mb5.3						
WVOR				e	pP	23 51 28.3	-1.5
WVOR				LR	LR		
	comp=Z,1µm,22.0s,MS4.7						
WVOR	Wild Horse Val	40.86	78	⇑eP	P	23 51 20.9	+0.3
WVOR				e	pP	23 51 28.3	-1.5
WVOR				pmax	pmax		
	comp=Z,61nm,0.8s,mb5.3						
WVOR				MLR	MLR		
	comp=Z,1µm,22.0s,MS4.7						
D13A	Huson	40.87	70	P	P	23 51 20.2	-0.4
	baz=41,SNR=20						
O05C	Quincy	40.87	83	⇑P	P	23 51 20.8	+0.1
	baz=41,SNR=6.6						
CVS	Carmenet Viney	40.88	86	⇑P	P	23 51 20.6	-0.2
	baz=41						
J09A	Fry Pan Ranch,	40.89	77	⇑P	P	23 51 21.0	+0.2
	baz=41,SNR=30						
OHCM	Honcut	40.89	84	eP	P	23 51 20.9	0.0
OHCM				epP	pP	23 51 28.9	-1.2
Q03C	Winters	40.98	85	⇑P	P	23 51 22.0	+0.3
	baz=41						
I10A	Payette	41.06	75	⇓P	P	23 51 22.7	+0.5
	baz=41,SNR=16						
N06A	Buffalo Meadow	41.08	81	P	P	23 51 23.0	+0.5
	baz=41,SNR=20						
F12A	Elk City	41.09	72	P	P	23 51 22.4	-0.1
	baz=41,SNR=60						
M07A	Soldier Meadow	41.12	80	⇑P	P	23 51 23.5	+0.7
	baz=41,SNR=14						
L08A	Fields	41.17	79	⇑P	P	23 51 23.5	+0.3
	baz=41,SNR=36						
H11A	Donnelly	41.20	74	P	P	23 51 23.4	0.0
	baz=41,SNR=25						
Q04C	Lincoln	41.26	85	⇓P	P	23 51 23.4	-0.5
	baz=41						
K09A	Rome	41.27	78	⇓P	P	23 51 23.8	-0.2
	baz=41,SNR=14						
BEKR	Beckwourth	41.28	83	⇑P	P	23 51 24.0	-0.1
	baz=41,SNR=5.6						
MSO	Missoula	41.31	70	eP	P	23 51 24.0	-0.3
	comp=Z,52nm,0.9s,mb5.2						
E13A	Victor	41.37	71	P	P	23 51 24.4	-0.3
	baz=41,SNR=27						
O06A	Flanigan	41.43	82	⇑P	P	23 51 25.6	+0.3
	baz=41,SNR=14						
D14A	Greenough	41.44	70	P	P	23 51 25.0	-0.3
	baz=41,SNR=78						
J10A	Berg Farm, Mel	41.44	76	⇓P	P	23 51 25.0	-0.4
	baz=41,SNR=6.0						
P05C	Yuba Gap, Truc	41.46	84	⇓P	P	23 51 25.1	-0.5
	baz=41,SNR=5.7						
BDM	Black Diamond	41.49	86	⇓P	P	23 51 25.3	-0.5
	baz=41						
M08A	Happy Creek Ra	41.58	80	⇓P	P	23 51 26.9	+0.4
	baz=41,SNR=24						
N07B	Gerlach	41.60	81	⇓P	P	23 51 26.9	+0.2
	baz=41,SNR=20						
F13A	Darby	41.62	72	P	P	23 51 26.8	-0.1
	baz=41,SNR=32						
I11A	Placerville	41.67	75	P	P	23 51 27.2	0.0
	baz=41,SNR=28						
CHMT	Chamberlain Mo	41.67	70	eP	P	23 51 26.7	-0.5
P06A	Stead Airport,	41.67	83	⇑P	P	23 51 27.5	+0.2
	baz=42						
L09A	Wilkinson Ranc	41.69	78	⇑P	P	23 51 27.5	+0.1
	baz=42,SNR=16						
LAVA	Lava Cap Winer	41.70	84	⇓P	P	23 51 27.3	-0.3
	baz=42,SNR=10						
K10A	MacKenzie Ranc	41.74	77	P	P	23 51 28.4	+0.6
	baz=42,SNR=55						
E14A	Clinton	41.79	70	P	P	23 51 28.2	0.0
	baz=42,SNR=36						
R04C	Big Horse Ranc	41.88	85	⇑P	P	23 51 28.5	-0.6
	baz=42						
PAHR	Pah Rah Range	41.98	82	eP	P	23 51 30.4	+0.6
	comp=Z,64nm,1.1s,mb5.2						
H12A	Diamond D Ranc	41.98	73	⇑P	P	23 51 29.4	-0.4
	baz=42,SNR=30						
WCN	Washoe City	41.99	83	⇑P	P	23 51 30.2	+0.3
	baz=42						
MFID	Camas Ranch	42.02	75	⇓P	P	23 51 29.9	-0.2
	baz=42,SNR=18						
O07A	Toulon	42.02	81	⇑P	P	23 51 30.5	+0.4
	baz=42,SNR=23						
D15A	Lincoln	42.03	69	P	P	23 51 29.9	-0.2
	baz=42,SNR=61						
G13A	Cobalt	42.06	72	P	P	23 51 30.3	-0.1
	baz=42,SNR=60						
N08A	GE Springer Mi	42.11	80	P	P	23 51 31.3	+0.4
	baz=42,SNR=18						
R05C	Kirkwood Meado	42.15	84	P	P	23 51 31.6	+0.3
	baz=42,SNR=10						
M09A	Marrel Ranch,	42.16	79	⇓P	P	23 51 31.7	+0.4
	baz=42,SNR=7.9						
F14A	Wisdom	42.18	71	P	P	23 51 31.6	+0.2
	baz=42,SNR=34						
K11A	Parker Ranch,	42.26	76	P	P	23 51 32.2	+0.2
	baz=42,SNR=27						
E15A	Deer Lodge	42.29	70	P	P	23 51 31.9	-0.3
	baz=42,SNR=49						
H13A	Challis	42.33	73	P	P	23 51 32.4	-0.3
	baz=42,SNR=25						
CMB	Columbia Colle	42.36	85	eP	P	23 51 33.1	+0.1
	comp=Z,32nm,1.2s,mb4.8						
CMB				LR	LR		
	comp=Z,1µm,22.0s,MS4.7						
CMB	Columbia Colle	42.36	85	P	P	23 51 33.3	+0.3
CMB				pmax	pmax		
	comp=Z,32nm,1.2s,mb4.8						
CMB	Columbia Colle	42.36	85	⇓P	P	23 51 32.9	-0.1
	baz=42,SNR=13						
P07A	Fallon	42.38	82	⇑P	P	23 51 33.2	+0.1
	baz=42						
L10A	Juniper Basin	42.38	78	⇓P	P	23 51 33.2	+0.1
	baz=42,SNR=35						
PACP	Pacheco Peak	42.44	87	⇓P	P	23 51 33.6	0.0
	baz=42						
N09A	Rock Creek Ran	42.45	80	⇓P	P	23 51 33.7	+0.1
	baz=42,SNR=11						
ALE	Alert	42.48	10	P	P	23 51 33.0	-0.5
	comp=Z,57nm,1.0s,mb5.2,SNR=5.4						
SAO	San Andreas Ge	42.49	87	eP	P	23 51 34.1	+0.1
	comp=Z,86nm,1.5s,mb5.2						
SAO	San Andreas Ge	42.49	87	eP	P	23 51 34.2	+0.2
SAO				pmax	pmax		
	comp=Z,86nm,1.5s,mb5.2						
J12A	Stokes Ranch,	42.55	75	P	P	23 51 34.9	+0.4
	baz=42,SNR=37						
HRY	Holter Researc	42.61	69	eP	P	23 51 34.7	-0.2
R06C	Coleville	42.65	84	P	P	23 51 35.6	+0.3
	baz=42,SNR=9.6						
M10A	I.L. Ranch, Tu	42.66	78	P	P	23 51 35.9	+0.5
	baz=42,SNR=27						
HAST	UC Hastings Re	42.66	88	⇓P	P	23 51 35.1	-0.3
	baz=42						
WAKR	Walker	42.67	84	eP	P	23 51 36.4	+0.9
F15A	Butte	42.69	71	⇑P	P	23 51 35.1	-0.4
	baz=42,SNR=17						
LRM	Limekiln Ridge	42.72	71	eP	P	23 51 35.4	-0.4
L11A	Cat Creek Ranc	42.77	77	⇑P	P	23 51 36.6	+0.4
	baz=42,SNR=60						
I13A	Wildhorse Cree	42.77	74	P	P	23 51 36.5	+0.2
	baz=42,SNR=95						
P08A	Dixie Valley	42.79	81	⇑P	P	23 51 36.5	+0.1
	baz=43						
HLID	Hailey	42.79	74	eP	P	23 51 36.6	+0.3
	comp=Z,113nm,1.3s,mb5.4						
HLID				LR	LR		
	comp=Z,1µm,22.0s,MS4.8						
HLID	Hailey	42.79	74	P	P	23 51 36.7	+0.3
	baz=43,SNR=73						
S06C	San Francisco	42.79	85	P	P	23 51 36.5	+0.1
	baz=43,SNR=24						
DL2	Dalian	42.79	277	P	P	23 51 36.5	0.0
DL2				eS	S	23 57 57.8	-0.5
DL2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.0						
DL2				AMB	AMB		
	comp=Z,120nm,4.8s						
DL2				LR	LR		
	comp=N,240nm,18.6s,MS4.3						
DL2				LR	LR		
	comp=E,290nm,15.4s,MS4.3						
DL2				LR	LR		
	comp=Z,340nm,15.6s,MS4.3						
Q07A	Schurz	42.79	83	⇑P	P	23 51 36.7	+0.2
	baz=43						
S05C	Merced	42.83	86	⇑P	P	23 51 36.2	-0.5
	baz=43,SNR=5.5						
BMN	Battle Mountai	42.88	80	eP	P	23 51 37.5	+0.4
BMN				LR	LR		
	comp=Z,899nm,20.0s,MS4.7						
DLMT	Dillon	42.88	71	eP	P	23 51 37.0	-0.1
	comp=Z,76nm,1.4s,mb5.2						
K12A	Draper Farm, C	43.02	76	P	P	23 51 38.7	+0.5
	baz=43,SNR=60						
MCMT	McKenzie Canyo	43.02	72	eP	P	23 51 37.9	-0.4
MCMT				e	pP	23 51 46.1	-1.4
J13A	Cove Ranch, Pi	43.03	74	P	P	23 51 38.7	+0.4
	baz=43,SNR=107						
G15A	Dillon	43.05	71	P	P	23 51 38.0	-0.4
	baz=43,SNR=40						
O09A	Fish Creek Ran	43.06	80	P	P	23 51 38.7	+0.2
	baz=43,SNR=5.7						
V03C	Hunter Liggett	43.09	88	⇓P	P	23 51 38.6	-0.3
	baz=43						
EGMT	Eagleton	43.12	66	eP	P	23 51 37.8	-1.1
	comp=Z,72nm,0.8s,mb5.5						
EGMT				LR	LR		
	comp=Z,610nm,19.0s,MS4.5						
EGMT	Eagleton	43.12	66	⇑P	P	23 51 38.4	-0.5
	baz=43,SNR=57						
N10A	Dunphy	43.15	79	⇓P	P	23 51 39.5	+0.1
	baz=43						
U04C	Hernandez Rese	43.16	87	⇓P	P	23 51 39.6	+0.1
	baz=43						
R07C	Lee Vining	43.16	84	⇑P	P	23 51 39.9	+0.4
	baz=43,SNR=7.7						
M11A	Holland Ranch,	43.17	78	⇓P	P	23 51 40.0	+0.5
	baz=43,SNR=26						
L12A	House Creek Ra	43.23	77	⇓P	P	23 51 40.5	+0.5
	baz=43,SNR=87						
BOZ	Bozeman (W)	43.30	70	eP	P	23 51 40.4	-0.1
	comp=Z,58nm,0.8s,mb5.4						
BOZ				LR	LR		
	comp=Z,573nm,19.0s,MS4.5						
BOZ	Bozeman (W)	43.30	70	P	P	23 51 40.6	+0.1
	baz=43,SNR=35						
Q08A	Gabbs	43.38	82	P	P	23 51 41.4	+0.2
	baz=43,SNR=22						
O10A	Cortez Mining,	43.41	80	⇑P	P	23 51 42.0	+0.6
	baz=43,SNR=17						
NVAR	Mina Array Bea	43.42	83	P	P	23 51 41.2	-0.3
NVAR				ScP	ScP	23 57 18.1	-0.1
NVAR	Mina Array Bea	43.42	83	P	P	23 51 41.2	-0.3
	comp=Z,11nm,0.8s,mb4.6,baz=300,slow=6.7,SNR=49						
NVAR				ScP	ScP	23 57 18.1	-0.1
	comp=Z,0.5nm,0.6s,baz=284,slow=5.4,SNR=3.0						
T06C	Millerton Lake	43.42	86	P	P	23 51 41.1	-0.5
	baz=43,SNR=11						
P09A	Austin	43.46	81	⇑P	P	23 51 42.1	+0.3
	baz=43						
KCC	Kaiser Creek	43.47	85	⇑P	P	23 51 41.7	-0.2
	baz=43,SNR=8.2						
K13A	Stover Farm, H	43.51	75	⇓P	P	23 51 42.2	+0.1
	baz=43,SNR=14						
N11A	Elko Archery C	43.57	79	⇓P	P	23 51 43.0	+0.3
	baz=43,SNR=6.5						
PKD	Parkfield	43.58	87	⇑P	P	23 51 42.3	-0.5
	baz=43						
MLAC	Mammoth Lakes	43.58	84	⇑P	P	23 51 43.2	+0.4
	baz=43						
R08A	Mina	43.59	83	⇑P	P	23 51 42.8	-0.1
	baz=43,SNR=8.2						
U05C	Westside ANR,	43.59	87	⇑P	P	23 51 43.0	+0.1
	baz=43						
M12A	Wells	43.72	77	⇑P	P	23 51 44.3	+0.4
	baz=44,SNR=38						
P10A	Eureka	43.83	80	⇑P	P	23 51 45.2	+0.3
	baz=44,SNR=11						
Q09A	Carvers	43.87	82	⇓P	P	23 51 45.2	+0.1
	baz=44,SNR=9.5						
QLMT	Earthquake Lak	43.87	71	eP	P	23 51 45.0	0.0
ELK	Elko	43.91	78	eP	P	23 51 45.4	-0.1
	comp=Z,49nm,0.8s,mb5.3						
ELK				LR	LR		
	comp=Z,882nm,20.0s,MS4.7						
L13A	Double Diamond	43.91	76	⇓P	P	23 51 45.7	+0.3
	baz=44,SNR=29						
MTUM	Tungsten Hills	43.92	84	eP	P	23 51 46.1	+0.5
FFC	Flin Flon	43.97	54	P	P	23 51 44.8	-1.0
	comp=Z,51nm,1.1s,mb5.2,SNR=5.3						
FFC	Flin Flon	43.97	54	eP	P	23 51 43.9	-1.9
	comp=Z,6.5nm,0.8s,mb4.4						
FFC				ePcP	PcP	23 53 30.3	-0.7
FFC				LR	LR		
	comp=Z,535nm,19.0s,MS4.5						
FFC	Flin Flon	43.97	54	eP	P	23 51 43.9	-1.9
FFC				e		23 53 30.3	
FFC				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
FFC				MLR	MLR		
	comp=Z,535nm,19.0s,MS4.5						
N12A	Clover Valley,	43.97	78	⇓P	P	23 51 46.4	+0.4
	baz=44,SNR=51						
O11A	Cowboy Ranch,	44.02	79	P	P	23 51 46.8	+0.5
	baz=44,SNR=31						
V05C	Boulder Hill,	44.02	87	⇓P	P	23 51 46.5	+0.1
	baz=44						
HELL	Mitchell Peak,	44.06	86	P	P	23 51 46.1	-0.5
	baz=44,SNR=15						
S08C	White Mtn Res	44.07	84	⇑P	P	23 51 47.1	+0.4
	baz=44,SNR=13						
K14A	Jones Ranch, D	44.12	75	P	P	23 51 47.4	+0.3
	baz=44,SNR=18						
RCTC	Rector, Farmer	44.16	86	⇓P	P	23 51 46.9	-0.5
	baz=44						
M13A	Montello	44.20	77	⇓P	P	23 51 47.9	+0.1
	baz=44,SNR=18						
YMR	Madison River	44.23	71	eP	P	23 51 47.8	-0.1
	comp=Z,88nm,0.9s,mb5.5						
YMR				e	pP	23 51 56.5	-0.7
YMR				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
R09A	Tonopah	44.30	82	P	P	23 51 48.5	-0.1
	baz=44,SNR=39						
TPH	Tonopah	44.30	83	eP	P	23 51 49.1	+0.4
	comp=Z,82nm,1.4s,mb5.3						
TPH				LR	LR		
	comp=Z,718nm,20.0s,MS4.6						
P11A	Circle Ranch,	44.31	80	⇑P	P	23 51 48.9	+0.3
	baz=44,SNR=7.2						
Q10A	Clear Creek Ra	44.35	81	P	P	23 51 49.4	+0.3
	baz=44,SNR=35						
GCMT	Greycliff	44.37	69	eP	P	23 51 48.9	-0.2
GCMT				e	pP	23 51 57.0	-1.4
YNR	Norris Junctio	44.37	71	eP	P	23 51 50.2	+1.1
YFT	Old Faithful	44.43	71	eP	P	23 51 51.1	+1.6
N13A	Wendover, West	44.48	78	P	P	23 51 50.4	+0.4
	baz=44,SNR=21						
O12A	Currie	44.50	79	P	P	23 51 50.4	+0.3
	baz=44,SNR=84						
S09A	Goldfield	44.52	83	P	P	23 51 50.4	0.0
	baz=44,SNR=14						
VES	Vestal, Richgr	44.55	87	⇑P	P	23 51 49.6	-1.0
	baz=44						
M14A	Sheep Mountain	44.62	76	P	P	23 51 51.5	+0.3
	baz=44,SNR=39						
LKWY	Lake	44.62	71	eP	P	23 51 52.5	+1.4
	comp=Z,47nm,0.8s,mb5.4						
LKWY				LR	LR		
	comp=Z,501nm,19.0s,MS4.5						
IMW	Indian Meadow	44.68	72	eP	P	23 51 52.0	+0.4
PKM	Peak Mountain	44.70	88	⇓P	P	23 51 51.9	+0.1
	baz=44						
DCID1	Drake Creek	44.71	72	eP	P	23 51 52.0	+0.2
R10A	Warm Springs	44.74	82	⇑P	P	23 51 52.0	-0.1
	baz=44,SNR=20						
S10A	Tonopah Range,	44.79	82	P	P	23 51 52.5	0.0
	baz=45,SNR=32						
Q11A	Duckwater	44.80	81	P	P	23 51 52.6	0.0
	baz=45,SNR=18						
HVU	Hansel Valley	44.80	76	⇑eP	P	23 51 52.7	+0.1
	comp=Z,59nm,0.8s,mb5.5						
HVU	Hansel Valley	44.80	76	P	P	23 51 52.9	+0.3
HVU				pmax	pmax		
	comp=Z,59nm,0.8s,mb5.5						
P12A	McGill	44.88	80	P	P	23 51 53.5	+0.3
	baz=45,SNR=35						
MOOW	Moose Ponds	44.88	72	eP	P	23 51 53.1	0.0
	comp=Z,46nm,1.3s,mb5.2						
GRAC	Grapevine Rang	44.88	84	⇑P	P	23 51 53.4	+0.2
	baz=45						
RLMT	Red Lodge	44.98	70	eP	P	23 51 53.7	-0.2
	comp=Z,151nm,1.0s,mb5.8						
RLMT				e	pP	23 52 02.5	-0.7
REDW	Red Top Meadow	45.04	73	eP	P	23 51 55.1	+0.7
	comp=Z,82nm,1.4s,mb5.4						
LOHW	Long Hollow	45.04	72	eP	P	23 51 54.7	+0.2
	comp=Z,57nm,1.4s,mb5.2						
ISA	Isabella	45.05	86	⇓P	P	23 51 54.6	+0.1
	baz=45,SNR=6.8						
TRCR	Troy Canyon	45.15	81	eP	P	23 51 55.1	-0.3
BGU	Big Grassy Mou	45.15	77	eP	P	23 51 55.0	-0.3
BGU				e	pP	23 52 04.9	+0.2
M15A	Larsen Ranch,	45.19	76	P	P	23 51 55.9	+0.3
	baz=45,SNR=29						
Q12A	Willow Creek R	45.19	80	P	P	23 51 56.0	+0.3
	baz=45,SNR=24						
DAC	Darwin (Calif)	45.20	85	eP	P	23 51 55.9	+0.1
DAC				LR	LR		
	comp=Z,847nm,22.0s,MS4.6						
AHID	Auburn Hatcher	45.24	73	eP	P	23 51 56.8	+0.8
AHID				LR	LR		
	comp=Z,1µm,22.0s,MS4.8						
SPUT	South Promonto	45.28	76	eP	P	23 51 57.1	+0.7
MPMC	Manual Prospec	45.41	85	P	P	23 51 57.3	-0.1
	baz=45,SNR=7.6						
BJI	Beijing	45.47	282	P	P	23 51 58.5	+0.6
BJI				XP	sP	23 52 09.1	-1.8
BJI				S	S	23 58 39.8	+2.6
BJI				AMB	AMB		
	comp=Z,37nm,1.0s,mb5.2						
BJI				AMB	AMB		
	comp=Z,483nm,5.2s						
BJI				LR	LR		
	comp=N,338nm,15.8s,MS4.6						
BJI				LR	LR		
	comp=E,572nm,19.5s,MS4.6						
BJI				LR	LR		
	comp=Z,769nm,27.0s						
S11A	Rachel	45.49	82	⇑P	P	23 51 58.0	-0.1
	baz=45,SNR=12						
FURC	Furnace Creek,	45.54	84	⇑P	P	23 51 58.1	-0.3
	baz=45,SNR=7.6						
OSI	Osito Adit	45.57	88	⇓P	P	23 51 57.9	-0.8
	baz=45						
TPNV	Topopah Spring	45.61	83	eP	P	23 51 58.9	-0.2
	comp=Z,47nm,0.8s,mb5.5						
TPNV				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
TPNV	Topopah Spring	45.61	83	⇑P	P	23 51 58.7	-0.4
	baz=45						
HWUT	Hardware Ranch	45.64	75	eP	P	23 51 59.3	+0.1

Sta	Name	Dist	Az	Phase	ID	Time	Res
	comp=Z,41nm,1.0s,mb5.3						
BLG	Laguna Peak	45.69	88	⇓P	P	23 51 59.8	+0.1
	baz=46						
DUG	Dugway	45.72	77	*e*P	P	23 52 00.1	+0.2
DUG				LR	LR		
	comp=Z,956nm,19.0s,MS4.8						
DUG	Dugway	45.72	77	⇓P	P	23 51 59.9	+0.1
	baz=46,SNR=115						
R12A	Pony Springs,	45.77	81	P	P	23 52 00.1	-0.1
	baz=46,SNR=21						
FCC	Fort Churchill	45.79	46	*e*P	P	23 51 59.1	-1.0
EDW2	Edwards Air Fo	45.85	87	⇓P	P	23 52 00.0	-0.9
	baz=46,SNR=5.0						
LAO	LASA Array	45.86	66	*e*P	P	23 52 00.9	0.0
LAO				LR	LR		
	comp=Z,727nm,21.0s,MS4.6						
NOQ	North Oquirrh	45.87	76	*e*P	P	23 52 01.4	+0.3
U10A	Ash Meadows, A	45.90	84	⇑P	P	23 52 00.9	-0.4
	baz=46,SNR=8.6						
DGMT	Dagmar	46.02	63	*e*P	P	23 52 01.8	-0.3
	comp=Z,95nm,1.3s,mb5.6						
S12A	Delamar Landin	46.06	82	⇑P	P	23 52 03.0	+0.4
	baz=46						
T11A	Corn Creek, Al	46.07	82	⇓P	P	23 52 02.7	+0.1
	baz=46						
CTU	Camp Tracy	46.07	76	*e*P	P	23 52 02.8	+0.1
TLY	Talaya	46.10	302	*e*P	P	23 52 05.0	+2.3
TLY				LR	LR		
	comp=Z,553nm,19.0s,MS4.5						
TLY	Talaya	46.10	302	*e*P	P	23 52 04.3	+1.6
TLY				*e*S	S	23 59 00.4	+14
TLY				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
TLY				MLR	MLR		
	comp=Z,504nm,19.0s,MS4.5						
BW06	Boulder Array	46.16	72	*e*P	P	23 52 03.2	0.0
BW06				LR	LR		
	comp=Z,654nm,20.0s,MS4.6						
PDAR	Pinedale Array	46.16	72	P	P	23 52 03.1	-0.1
	comp=Z,54nm,0.7s,mb5.6,baz=307,slow=3.5,SNR=308						
PDAR				LR	LR	00 08 53.3	
	comp=Z,497nm,21.2s,MS4.4,baz=310,slow=33						
SHOC	Shoshone	46.26	84	⇑P	P	23 52 03.6	-0.6
	baz=46,SNR=8.1						
JLU	Jordanelle	46.31	76	*e*P	P	23 52 04.7	+0.2
ULN	Ulaanbaatar	46.31	296	PFAKE		23 52 20.0	+16
ULN				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
GSC	Goldstone	46.32	85	P	P	23 52 04.1	-0.5
	baz=46,SNR=14						
NLU	North Lily Min	46.32	77	*e*P	P	23 52 04.8	+0.3
BFSC	Mount Baldy St	46.48	87	⇑P	P	23 52 05.4	-0.5
	baz=46						
U11A	Corn Creek	46.48	83	⇑P	P	23 52 05.4	-0.5
	baz=46						
DAU	Daniels Canyon	46.54	76	*e*P	P	23 52 07.0	+0.7
MPU	Maple Canyon	46.55	77	*e*P	P	23 52 06.5	+0.1
SHPR	Sheep Range	46.57	83	*e*P	P	23 52 06.1	-0.5
S13A	Holt Ranch, En	46.69	81	⇓P	P	23 52 07.1	-0.4
	baz=46,SNR=27						
SONM	Songino Array	46.70	297	P	P	23 52 08.5	+1.0
SONM						23 53 40.7	
SONM				pmax	pmax		
	comp=Z,16nm,0.9s						
SONM				pmax	pmax		
	comp=Z,9.0nm,0.7s						
SONM				pmax	pmax		
	comp=N,2.0nm,0.9s						
SONM				MLR	MLR		
	comp=Z,2µm,19.3s						
SONM	Songino Array	46.70	297	P	P	23 52 08.5	+1.0
	comp=Z,16nm,0.9s,mb4.9,baz=53,slow=8.3,SNR=102						
SONM				PcP	PcP	23 53 40.7	+0.1
	comp=Z,8.6nm,0.7s,baz=117,slow=1.4,SNR=11						
SONM				ScP	ScP	23 57 30.7	-0.9
	comp=Z,1.9nm,0.9s,baz=117,slow=3.1,SNR=5.7						
SONM				LR	LR	00 12 54.1	
	comp=Z,2µm,19.3s,MS5.0,baz=52,slow=38						
JOW	Kunigami	46.71	259	P	P	23 52 07.8	-0.1
	comp=Z,57nm,0.9s,mb5.5,baz=22,slow=3.8,SNR=8.7						
JOW				LR	LR	00 11 00.0	
	comp=Z,214nm,18.4s,MS4.1,baz=60,slow=35						
TUQ	Turquoise Mtn.	46.78	85	⇓P	P	23 52 07.5	-0.8
	baz=47,SNR=11						
ARUT	Antelope Range	46.82	80	*e*P	P	23 52 08.5	0.0
ARUT				*e*	pP	23 52 17.0	-0.9
V11A	Goodsprings	46.83	84	P	P	23 52 08.5	-0.1
	baz=47,SNR=8.6						
HEC	Hector,Ludlow	46.92	86	⇓P	P	23 52 08.7	-0.6
	baz=47						
U12A	Valley of Fire	47.00	83	⇓P	P	23 52 09.7	-0.3
	baz=47,SNR=8.7						
S14A	Cedar City	47.01	80	⇓P	P	23 52 09.8	-0.2
	baz=47,SNR=7.2						
T13A	Saint George	47.02	82	⇓P	P	23 52 09.8	-0.3
	baz=47,SNR=26						
CCUT	Cedar City	47.02	81	⇑*e*P	P	23 52 09.9	-0.2
MSU	Marysvale	47.15	79	*e*P	P	23 52 11.5	+0.4
TMUT	Trail Mountain	47.25	77	*e*P	P	23 52 12.1	+0.2
V12A	Nelson	47.26	84	⇓P	P	23 52 11.6	-0.4
	baz=47,SNR=11						
TIA	Tai’an	47.27	277	⇑P	P	23 52 12.0	-0.1
TIA				AMB	AMB		
	comp=Z,62nm,1.1s,mb5.5						
GMRC	Granite Mounta	47.37	85	⇑P	P	23 52 12.2	-0.7
	baz=47,SNR=10						
MOY	Mondy	47.50	304	*e*P	P	23 52 14.2	+0.6
T14A	Hurricane	47.50	81	⇑P	P	23 52 13.7	-0.2
	baz=47,SNR=30						
W12A	Cal Nev Ari	47.52	84	⇑P	P	23 52 13.4	-0.6
	baz=47,SNR=5.3						
PFO	Pinyon Flat Ob	47.64	87	*e*P	P	23 52 14.1	-0.9
	comp=Z,11nm,0.4s,mb5.2						
PFO				LR	LR		
	comp=Z,713nm,19.0s,MS4.7						
PFO	Pinyon Flat Ob	47.64	87	⇓P	P	23 52 14.1	-0.9
	baz=47						
BELC	Belle Mtn.	47.67	86	⇓P	P	23 52 14.1	-1.1
	baz=48						
HHC	Hu-ho-hao-te	47.77	286	*e*P	P	23 52 17.3	+1.4
HHC				AP	pP	23 52 27.9	+2.6
HHC				XP	sP	23 52 31.5	+2.5
HHC				PCP	PcP	23 53 47.0	+2.5
HHC				PP	PP	23 54 09.0	+1.5
HHC				PCS	PcS	23 57 41.3	+1.3
HHC				S	S	23 59 10.5	+0.4
HHC				XS	sS	23 59 26.9	+1.3
HHC				AMB	AMB		
	comp=Z,55nm,1.7s,mb5.3						
HHC				AMB	AMB		
	comp=Z,521nm,4.4s						
HHC				LR	LR		
	comp=N,761nm,19.0s,MS4.9						
HHC				LR	LR		
	comp=E,972nm,20.2s,MS4.9						
HHC				LR	LR		
	comp=Z,1µm,22.0s,MS4.8						
SRU	San Rafael	47.78	77	*e*P	P	23 52 16.1	+0.1
T15A	Red Dirt Ranch	47.96	80	⇑P	P	23 52 17.3	-0.1
	baz=48,SNR=50						
IRM	Iron Mountain	48.09	85	⇓P	P	23 52 17.6	-0.9
	baz=48,SNR=16						
SSE	Sheshan	48.12	269	P	P	23 52 19.3	+0.6
SSE				S	S	23 59 09.8	-5.5
SSE				AMB	AMB		
	comp=Z,54nm,1.2s,mb5.5						
SSE				AMB	AMB		
	comp=Z,224nm,5.2s						
SSE				LR	LR		
	comp=N,162nm,25.6s,MS4.0						
SSE				LR	LR		
	comp=E,165nm,26.0s,MS4.0						
SSE				LR	LR		
	comp=Z,487nm,30.7s,MS4.3						
SSE	Sheshan	48.12	269	P	P	23 52 19.3	+0.6
	comp=Z,54nm,1.2s,mb5.5						
SSE				S	S	23 59 09.8	-5.5
SSE				LR	LR		
	comp=Z,490nm,30.7s,MS4.3						
MONP	Monument Peak	48.15	88	⇓P	P	23 52 18.3	-0.6
	baz=48						
RWWY	Rawlins	48.20	72	*e*P	P	23 52 18.7	-0.5
BC3	Big Chuckw Mtn	48.24	86	⇑P	P	23 52 18.7	-0.9
	baz=48						
W13A	Hualapai Mount	48.27	84	⇓P	P	23 52 19.1	-0.7
	baz=48,SNR=15						
DVTC	Desert V Tower	48.50	88	⇓P	P	23 52 20.9	-0.7
	baz=48						
SWSC	Sam W. Stewart	48.50	87	⇓P	P	23 52 21.0	-0.7
	baz=48						
PDMCI	Parker Dam,Lak	48.63	84	⇓P	P	23 52 21.9	-0.7
	baz=48						
X13A	Yucca	48.63	84	⇑P	P	23 52 21.6	-1.0
	baz=48,SNR=9.4						
W14A	Seligman	48.69	83	⇓P	P	23 52 22.5	-0.6
	baz=48,SNR=14						
Y12C	Blythe	48.76	85	⇑P	P	23 52 22.8	-0.8
	baz=48,SNR=12						
BTO	Baotou	48.85	287	*i* P	P	23 52 26.0	+1.8
NJ2	Nanjing	48.93	272	*e*P	P	23 52 25.3	+0.4
NJ2				AP	pP	23 52 35.0	+0.7
NJ2				XP	sP	23 52 38.9	+0.9
NJ2				PP	PP	23 54 18.8	+0.5
NJ2				S	S	23 59 29.0	+2.3
NJ2				XS	sS	23 59 46.0	+3.9
NJ2				AMB	AMB		
	comp=Z,70nm,1.1s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,220nm,6.6s						
NJ2				LR	LR		
	comp=Z,5µm,16.7s,MS5.6						
GLA	Glamis	49.03	86	P	P	23 52 24.9	-0.8
	baz=49,SNR=8.9						
Y13A	Salome	49.15	85	⇓P	P	23 52 25.6	-1.0
	baz=49,SNR=6.3						
PV10	Paradox Valley	49.15	77	*e*P	P	23 52 26.3	-0.3
PV10				*e*pP	pP	23 52 34.5	-1.5
W15A	Williams	49.22	82	⇑P	P	23 52 27.1	0.0
	baz=49,SNR=6.6						
X14A	Yava	49.30	83	⇑P	P	23 52 27.1	-0.6
	baz=49,SNR=22						
ULM	Lac du Bonnet	49.52	57	P	P	23 52 28.2	-1.0
	comp=Z,9.6nm,0.6s,mb5.0,baz=300,slow=7.7,SNR=30						
ULM				LR	LR	00 13 02.8	
	comp=Z,523nm,21.4s,MS4.5,baz=87,slow=36						
WUAZ	Wupatki	49.55	81	*e*P	P	23 52 29.3	-0.3
	comp=Z,55nm,1.0s,mb5.5						
WUAZ				LR	LR		
	comp=Z,399nm,19.0s,MS4.4						
WUAZ	Wupatki	49.55	81	P	P	23 52 29.7	+0.1
	baz=49,SNR=28						
Y14A	Wickenburg	49.58	84	⇓P	P	23 52 29.0	-0.8
	baz=49,SNR=7.0						
PV01	Paradox Valley	49.59	77	*e*P	P	23 52 29.4	-0.5
PV01				*e*pP	pP	23 52 38.1	-1.2
KBS	Kingsbay	49.68	357	*e*P	P	23 52 31.4	+1.3
KBS				LR	LR		
	comp=Z,748nm,19.0s,MS4.7						
X15A	Humboldt	49.69	83	⇓P	P	23 52 30.4	-0.3
	baz=50,SNR=14						
SMCO	Snowmass	49.89	75	*e*P	P	23 52 31.9	-0.3
	comp=Z,26nm,0.8s,mb5.3						
Z14A	Wintersburg	49.99	85	⇑P	P	23 52 32.0	-1.0
	baz=50						
MVCO	Mesa Verde	50.22	78	*e*P	P	23 52 34.1	-0.6
	comp=Z,94nm,1.3s,mb5.7						
MVCO				LR	LR		
	comp=Z,947nm,19.0s,MS4.8						
MVCO	Mesa Verde	50.22	78	P	P	23 52 34.3	-0.4
	baz=50,SNR=17						
SPB4	Spitsbergen Ar	50.26	356	*e*P	P	23 52 34.9	+0.5
SPB4				*e*pP	pP	23 52 41.8	-2.1
ISCO	Idaho Springs	50.32	73	*e*P	P	23 52 35.6	+0.2
ISCO				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
AGMN	Agassiz Refuge	50.67	59	*e*P	P	23 52 36.4	-1.6
	comp=Z,38nm,1.0s,mb5.3						
AGMN				*e*	pP	23 52 44.5	-2.8
115A	Sonoran Desert	50.89	85	⇓P	P	23 52 39.4	-0.4
	baz=51						
116A	Eloy	51.30	84	⇓P	P	23 52 42.5	-0.5
	baz=51						
SDCO	Great Sand Dun	51.70	75	*e*P	P	23 52 45.9	+0.1
	comp=Z,55nm,1.1s,mb5.4						
TUC	Tucson	52.05	84	*e*P	P	23 52 47.7	-0.7
	comp=Z,20nm,0.9s,mb5.0						
TUC				*e*pP	pP	23 52 56.4	-1.5
TUC				LR	LR		
	comp=Z,417nm,19.0s,MS4.5						
TUC	Tucson	52.05	84	P	P	23 52 47.9	-0.6
TUC				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
TATO	Taipei	52.25	263	PFAKE		23 53 00.0	+10
TATO				LR	LR		
	comp=Z,1µm,22.0s,MS4.9						
WHN	Wuhan	52.77	274	*e*P	P	23 52 53.0	-0.9
LAZ	Ladron	52.90	79	*e*P	P	23 52 55.0	+0.3
LAZ				*e*	pP	23 53 03.7	-0.5
ANMO	Albuquerque	52.95	78	*e*P	P	23 52 54.9	-0.2
ANMO				LR	LR		
	comp=Z,778nm,21.0s,MS4.7						
ECSD	EROS,Sioux Fal	53.07	64	PFAKE		23 53 10.0	+14
ECSD				LR	LR		
	comp=Z,755nm,19.0s,MS4.8						
LENM	Lemitar	53.16	80	*e*P	P	23 52 57.1	+0.5
EYMN	Ely	53.20	57	*e*P	P	23 52 56.3	-0.5
Y22C	IRIS PASSCAL I	53.25	80	⇑P	P	23 52 56.9	-0.4
	baz=53						
LPM	Los Pinos Moun	53.27	79	*e*P	P	23 52 54.4	-3.1
BNM	Barren Site	53.38	79	*e*P	P	23 52 58.4	+0.1
XAN	Xi’an	53.76	281	P	P	23 53 00.9	-0.2
XAN				AP	pP	23 53 09.0	-1.5
XAN				AMB	AMB		
	comp=Z,49nm,1.0s,mb5.4						
ZALV	Zalesovo Beam	54.03	313	P	P	23 53 03.4	+0.6
	comp=Z,1.9nm,0.8s,mb4.1,baz=52,slow=7.2,SNR=9.3						
ZALV				PcP	PcP	23 54 07.9	+0.4
	comp=Z,26nm,0.9s,baz=32,slow=3.9,SNR=27						
ZALV				LR	LR	00 17 39.5	
	comp=Z,506nm,19.9s,MS4.6,baz=53,slow=38						
ZAL	Zalesovo	54.05	313	P	P	23 53 03.4	+0.5
ZAL						23 54 07.9	
QZH	Quanzhou	54.08	266	⇑*i*P	P	23 53 05.4	+1.9
QZH				AMB	AMB		
	comp=Z,120nm,1.1s,mb5.7						
CBKS	Cedar Bluff	54.44	70	*e*P	P	23 53 05.2	-0.8
	comp=Z,123nm,0.8s,mb5.9						
CBKS				*e*	pP	23 53 14.1	-1.4
LZH	Lanzhou	55.47	286	⇑P	P	23 53 15.0	+1.6
LZH				AP	pP	23 53 25.8	+2.8
LZH				XP	sP	23 53 30.5	+3.9
LZH				PCP	PcP	23 54 14.0	+0.7
LZH				PP	PP	23 55 20.0	+2.8
LZH				AMB	AMB		
	comp=Z,239nm,1.3s,mb6.1						
LZH				AMB	AMB		
	comp=Z,592nm,4.0s						
LZH				LR	LR		
	comp=E,935nm,16.3s						
LZH				LR	LR		
	comp=Z,1µm,18.0s,MS5.1						
LZH	Lanzhou	55.47	286	⇑P	P	23 53 15.0	+1.6
	comp=Z,239nm,1.3s,mb6.1						
LZH				pP	pP	23 53 25.8	+2.8
LZH				sP	sP	23 53 30.5	+3.9
LZH				PcP	PcP	23 54 14.0	+0.7
LZH				PP	PP	23 55 20.0	+2.8
LZH				LR	LR		
	comp=Z,1µm,18.0s,MS5.1						
LZH	Lanzhou	55.47	286	⇑P	P	23 53 15.0	+1.6
LZH				*PP	pP	23 53 25.8	+2.8
LZH				*SP	sP	23 53 30.5	+3.9
LZH						23 54 14.0	
LZH						23 55 20.0	
LZH				pmax	pmax		
	comp=Z,239nm,1.3s,mb6.1						
LZH				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.1						
SFJD	Kangerlussuaq	55.49	22	PFAKE		23 53 30.0	+17
SFJD				LR	LR		
	comp=Z,704nm,20.0s,MS4.7						
SFJD	Kangerlussuaq	55.49	22	LR	LR	00 16 55.5	
	comp=Z,495nm,20.4s,MS4.6,baz=298,slow=36						
COWI	Conover	55.62	57	*e*P	P	23 53 13.4	-1.0
	comp=Z,44nm,0.9s,mb5.5						
COWI				*e*	pP	23 53 21.1	-2.8
GTA	Gaotai	55.63	292	⇑*i*P	P	23 53 15.8	+1.2
GTA				AP	pP	23 53 27.6	+3.5
GTA				XP	sP	23 53 31.5	+3.7
GTA				PCP	PcP	23 54 13.3	-0.6
GTA				PPP		23 56 39.3	
GTA				AMB	AMB		
	comp=Z,124nm,0.9s,mb5.9						
GTA				AMB	AMB		
	comp=Z,519nm,7.2s						
GTA				LR	LR		
	comp=N,815nm,20.5s,MS4.9						
GTA				LR	LR		
	comp=E,615nm,19.0s,MS4.9						
GTA				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
MNTX	Cornudas Mount	55.81	81	*e*P	P	23 53 15.1	-0.8
MNTX				LR	LR		
	comp=Z,556nm,20.0s,MS4.6						
KSU1	Kansas State U	56.08	68	*e*P	P	23 53 17.0	-0.8
GDL2	Guadalupe Moun	56.09	79	*e*P	P	23 53 17.7	-0.2
SCIA	State Center	56.16	64	PFAKE		23 53 30.0	+12
SCIA				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
JFWS	Jewell Farm	57.13	61	*e*P	P	23 53 23.8	-1.4
JFWS				LR	LR		
	comp=Z,875nm,20.0s,MS4.9						
JMIC	Jan Mayen	57.61	4	LR	LR	00 21 43.3	
	comp=Z,1µm,18.9s,MS5.0,baz=83,slow=40						
KEV	Kevo	57.62	350	*e*P	P	23 53 26.1	-2.1
	comp=Z,2.7nm,0.3s,mb4.8						
KEV				LR	LR		
	comp=Z,657nm,20.0s,MS4.7						
WMOK	Wichita Mounta	57.74	73	*e*P	P	23 53 29.2	-0.5
WMOK				LR	LR		
	comp=Z,735nm,19.0s,MS4.8						
ARCES	ARCESS Array B	57.99	350	P	P	23 53 30.4	-0.5
ARCES						23 54 22.3	
ARCES				pmax	pmax		
	comp=Z,11nm,0.7s						
ARCES				pmax	pmax		
	comp=Z,22nm,0.9s						
ARCES				MLR	MLR		
	comp=Z,509nm,19.2s						
ARCES	ARCESS Array B	57.99	350	P	P	23 53 30.4	-0.5
	comp=Z,11nm,0.7s,mb5.0,baz=26,slow=7.9,SNR=65						
ARCES				PcP	PcP	23 54 22.2	-0.3
	comp=Z,22nm,0.9s,baz=18,slow=4.3,SNR=8.6						
ARCES				LR	LR	00 21 25.7	
	comp=Z,509nm,19.2s,MS4.7,baz=12,slow=39						
LVZ	Lovozero	58.35	346	PFAKE		23 53 50.0	+17
LVZ				LR	LR		
	comp=Z,753nm,22.0s,MS4.8						
TRO	Tromso	58.50	353	*e*P	P	23 53 33.5	-1.0
LTX	Lajitas	58.52	81	*e*P	P	23 53 34.3	-0.9
LTX				LR	LR		
	comp=Z,683nm,19.0s,MS4.8						
TXAR	Lajitas Array	58.52	81	P	P	23 53 33.9	-1.3
	comp=Z,18nm,0.9s,mb5.1,baz=298,slow=5.3,SNR=44						
TXAR				LR	LR	00 15 39.0	
	comp=Z,304nm,21.4s,MS4.4,baz=0.0,slow=33						
KTK1	Kautokeino	58.73	351	*e*P	P	23 53 37.0	+1.0
KTK1				AMb	AMB	23 53 38.8	
	comp=Z,29nm,1.1s,mb5.2						
KTK1				*e*pP	pP	23 53 47.4	+1.8
APA	Apatity	58.84	346	⇑*e*P	P	23 53 38.3	+1.5
APA				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.1						
APA				MLR	MLR		
	comp=Z,800nm,18.0s,MS4.9						
KURK	Kurchatov	59.02	314	P	P	23 53 37.5	-0.8
	comp=Z,126nm,0.7s,mb6.0,SNR=8.2						
KURK	Kurchatov	59.02	314	*e*PcP	PcP	23 54 26.8	-0.2
KURK				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
KURK	Kurchatov	59.02	314	⇑*e*P	P	23 53 37.1	-1.2
CD2	Chengdu	59.07	282	*e*P	P	23 53 39.4	+0.5
CD2				AP	pP	23 53 49.5	+1.0
CD2				XP	sP	23 53 53.4	+1.2
CD2				PP	PP	23 55 51.6	+2.2
CD2				PCS	PcS	23 58 28.3	-1.2
CD2				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.5						
CD2				AMB	AMB		
	comp=Z,120nm,8.4s						
CD2				LR	LR		
	comp=N,240nm,16.8s,MS4.7						
CD2				LR	LR		
	comp=E,510nm,20.4s,MS4.7						
CD2				LR	LR		
	comp=Z,340nm,19.2s,MS4.5						
HDIL	Hopedale	59.25	62	*e*P	P	23 53 37.2	-2.9
	comp=Z,152nm,0.9s,mb6.0						
HDIL				LR	LR		
	comp=Z,943nm,19.0s,MS4.9						
WMQ	Urumqi	59.38	303	P	P	23 53 44.3	+3.4
WMQ				AP	pP	23 53 54.3	+3.8
WMQ				XP	sP	23 53 58.3	+4.2
WMQ				PCP	PcP	23 54 31.4	+2.9
WMQ				PP	PP	23 55 57.3	+5.5
WMQ				AMB	AMB		
	comp=Z,32nm,0.8s,mb5.4						
WMQ				AMB	AMB		
	comp=Z,113nm,9.0s						
WMQ				LR	LR		
	comp=N,771nm,22.1s,MS4.9						
WMQ				LR	LR		
	comp=E,702nm,21.4s,MS4.9						
WMQ				LR	LR		
	comp=Z,928nm,19.3s,MS4.9						
SCHQ	Schefferville	59.83	38	P	P	23 53 42.6	-1.3
	comp=Z,6.7nm,0.9s,mb4.7,baz=324,slow=7.9,SNR=11						
SCHQ				LR	LR	00 21 34.2	
	comp=Z,616nm,18.5s,MS4.8,baz=134,slow=38						
SLM	Saint Louis	60.05	65	*e*P	P	23 53 44.7	-0.9
MK31	Makanchi Array	60.05	308	P	P	23 53 43.9	-1.6
MK31				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
MKAR	Makanchi Array	60.05	308	P	P	23 53 44.1	-1.4
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
MKAR	Makanchi Array	60.05	308	P	P	23 53 44.1	-1.4
	comp=Z,7.8nm,0.9s,mb4.7,baz=56,slow=7.5,SNR=32						
JCT	Junction City	60.08	78	*e*P	P	23 53 44.3	-1.7
	comp=Z,32nm,0.7s,mb5.5						
JCT				*e*pP	pP	23 53 53.5	-2.1
JCT				LR	LR		
	comp=Z,976nm,20.0s,MS4.9						
FVM	French Village	60.39	65	*e*P	P	23 53 46.5	-1.4
GYA	Guiyang	60.43	276	⇑*i*P	P	23 53 46.6	-1.8
GYA				AP	pP	23 53 55.8	-2.2
GYA				XP	sP	23 53 59.9	-1.7
GYA				PCP	PcP	23 54 35.8	+2.8
GYA				PP	PP	23 56 06.8	+5.3
GYA				PPP		23 57 32.8	
GYA				SCP	ScP	23 58 32.6	+0.9
GYA				PCS	PcS	23 58 38.4	+2.8
GYA				AMB	AMB		
	comp=Z,50nm,1.2s,mb5.4						
GYA				AMB	AMB		
	comp=Z,320nm,4.7s						
GYA				LR	LR		
	comp=N,990nm,18.9s,MS5.1						
GYA				LR	LR		
	comp=E,720nm,19.6s,MS5.1						
GYA				LR	LR		
	comp=Z,610nm,18.1s,MS4.8						
BRVK	Borovoye	60.89	320	P	P	23 53 50.5	-0.6
	comp=Z,73nm,1.3s,mb5.7,SNR=5.3						
BRVK	Borovoye	60.89	320	*e*P	P	23 53 49.0	-2.1
	comp=Z,13nm,0.8s,mb5.1						
BRVK				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
BRVK	Borovoye	60.89	320	*e*P	P	23 53 49.1	-2.0
BRVK				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.1						
BRVK				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
MIAR	Mount Ida	60.97	70	*e*P	P	23 53 51.2	-0.8
TMCR	Tamitsa	61.19	343	*e*P	P	23 53 51.6	-1.4
TMCR				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.3						
SIUC	Southern Illin	61.26	65	*e*P	P	23 53 52.8	-1.1
UALR	University of	61.53	69	*e*P	P	23 53 54.3	-1.4
BLO	Bloomington	61.75	62	*e*P	P	23 53 55.7	-1.4
USIN	University of	61.96	64	*e*P	P	23 53 57.7	-0.8
NATX	Nacogdoches	62.29	73	*e*P	P	23 54 00.9	0.0
UTMT	University of	62.43	66	*e*P	P	23 54 01.7	-0.1
WCI	Wyandotte Cave	62.54	62	⇑*e*P	P	23 54 01.6	-0.9
	comp=Z,140nm,0.8s,mb6.1						
WCI				*e*	pP	23 54 10.2	-1.8
ARU	Arti	62.56	328	P	P	23 54 02.9	+0.6

	comp=Z,112nm,1.0s,mb6.0,SNR=8.0						
ARU	**Arti**	**62.56**	**328**	*e*P	**P**	**23 54 02.1**	**-0.2**
	comp=Z,24nm,1.0s,mb5.3						
ARU				LR	LR		
	comp=Z,805nm,20.0s,MS4.9						
ARU	**Arti**	**62.56**	**328**	⇓*i*P	**P**	**23 54 02.0**	**-0.3**
ARU				pmax	pmax		
	comp=Z,36nm,1.5s,mb5.3						
HKT	**Hockley**	**62.87**	**75**	*e*P	**P**	**23 54 03.8**	**-1.0**
	comp=Z,75nm,1.4s,mb5.6						
HKT				*e*	pP	23 54 13.0	-1.4
ACSO	**Alum Creek Sta**	**62.92**	**59**	*e*P	**P**	**23 54 03.6**	**-1.3**
	comp=Z,38nm,0.9s,mb5.5						
ACSO				*e*	pP	23 54 12.7	-1.8
WVT	**Waverly**	**63.17**	**65**	PFAKE		23 54 20.0	+13
WVT				LR	LR		
	comp=Z,4.0nm,21.0s						
ALLY	**Alegheny Colle**	**63.39**	**56**	*e*P	**P**	**23 54 07.8**	**-0.3**
OXF	**Oxford**	**63.42**	**67**	⇑*i*P	**P**	**23 54 07.4**	**-0.9**
	comp=Z,511nm,1.3s						
OXF				*e*	pP	23 54 15.8	-2.2
OXF				LR	LR		
	comp=Z,657nm,21.0s,MS4.8						
OXF	**Oxford**	**63.42**	**67**	P	**P**	**23 54 07.6**	**-0.7**
OXF				pmax	pmax		
	comp=Z,510nm,1.2s						
HNR	**Honiara**	**63.45**	**204**	PFAKE		23 54 20.0	+11
HNR				LR	LR		
	comp=Z,465nm,22.0s,MS4.6						
HNR	**Honiara**	**63.45**	**204**	LR	LR	00 18 22.0	
	comp=Z,319nm,19.4s,MS4.5,baz=360,slow=33						
JOF	**Joensuu**	**63.51**	**345**	*e*p	**P**	**23 54 07.3**	**-1.2**
	comp=Z,8.4nm,0.5s,mb5.0						
JOF	**Joensuu**	**63.51**	**345**	*e*P	**P**	**23 54 07.3**	**-1.2**
JOF				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb5.0						
MSNY	**Massena**	**63.59**	**50**	*e*P	**P**	**23 54 07.4**	**-1.9**
DAV	**Davao City (W)**	**63.64**	**246**	PFAKE		23 54 20.0	+10
DAV				LR	LR		
	comp=Z,619nm,22.0s,MS4.7						
KMI	**Kunming**	**63.83**	**278**	P	**P**	**23 54 11.6**	**+0.4**
KMI				AP	pP	23 54 21.3	+0.5
KMI				XP	sP	23 54 25.3	+0.8
KMI				PP	PP	23 56 37.4	+5.9
KMI				AMB	AMB		
	comp=Z,45nm,1.0s,mb5.5						
KMI				AMB	AMB		
	comp=Z,290nm,5.4s						
KMI				LR	LR		
	comp=N,334nm,20.8s						
KMI				LR	LR		
	comp=E,276nm,27.8s						
KMI				LR	LR		
	comp=Z,387nm,32.4s						
KMI	**Kunming**	**63.83**	**278**	P	**P**	**23 54 11.6**	**+0.4**
	comp=Z,45nm,1.0s,mb5.5						
KMI				pP	pP	23 54 21.3	+0.5
KMI				sP	sP	23 54 25.3	+0.8
KMI				PP	PP	23 56 37.4	+5.9
KMI				S	**S**	**00 02 45.1**	**+0.9**
KMI				sS	sS	00 03 01.3	+1.2
KMI				SS	SS	00 06 52.7	+0.5
KMI				LR	LR		
	comp=Z,390nm,32.4s,MS4.4						
PLAL	**Pickwick Lake**	**63.85**	**66**	*e*P	**P**	**23 54 09.9**	**-1.3**
	comp=Z,122nm,0.8s,mb6.0						
PLAL				*e*	pP	23 54 19.0	-1.8
QIZ	**Qiongzhong**	**63.89**	**268**	P	**P**	**23 54 13.1**	**+1.5**
QIZ				PP	PP	23 56 36.0	+3.9
QIZ				LR	LR		
	comp=N,312nm,18.8s						
QIZ				LR	LR		
	comp=Z,312nm,22.6s,MS4.4						
SWET	**Sewanee**	**64.90**	**65**	*e*P	**P**	**23 54 17.0**	**-1.1**
KAF	**Kangasniemi**	**65.02**	**347**	*e*p	**P**	**23 54 16.8**	**-1.6**
	comp=Z,10.0nm,0.5s,mb5.1,baz=13,slow=6.0						
KAF	**Kangasniemi**	**65.02**	**347**	*e*P	**P**	**23 54 16.8**	**-1.6**
KAF				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
TZTN	**Tazewell**	**65.27**	**62**	*e*P	**P**	**23 54 19.9**	**-0.6**
	comp=Z,257nm,1.5s,mb6.0						
TZTN				LR	LR		
	comp=Z,538nm,19.0s,MS4.8						
SSPA	**Standing Stone**	**65.30**	**55**	*e*P	**P**	**23 54 19.4**	**-1.1**
	comp=Z,22nm,0.9s,mb5.2						
AFI	**Afiamalu**	**65.41**	**173**	LR	LR	00 17 57.0	
	comp=Z,364nm,18.4s,MS4.6,baz=59,slow=31						
CPCT	**Cooper Cave**	**65.52**	**63**	*e*P	**P**	**23 54 21.3**	**-0.8**
FINES	**FINESS Array B**	**65.69**	**347**	P	**P**	**23 54 21.9**	**-0.8**
FINES				PcP	PcP	23 54 51.3	-2.6
FINES				LR	LR	00 29 02.5	
FINES	**FINESS Array B**	**65.69**	**347**	*i* P	**P**	**23 54 21.8**	**-0.9**
FINES				pmax	pmax		
	comp=Z,12nm,0.8s						
FINES	**FINESS Array B**	**65.69**	**347**	P	**P**	**23 54 21.9**	**-0.8**
	comp=Z,12nm,0.8s,mb5.0,baz=22,slow=7.0,SNR=52						
FINES				PcP	PcP	23 54 51.3	-2.6
	comp=Z,8.1nm,0.8s,baz=46,slow=5.5,SNR=6.4						
FINES				LR	LR	00 29 02.5	
	comp=Z,243nm,18.7s,MS4.4,baz=209,slow=41						
LRAL	**Lakeview Retre**	**65.87**	**67**	*e*P	**P**	**23 54 22.4**	**-2.0**
	comp=Z,78nm,1.1s,mb5.7						
TKM2	**Tokmak 2**	**66.13**	**309**	P	**P**	**23 54 28.3**	**+2.4**
	SNR=18						
TKM2	**Tokmak 2**	**66.13**	**309**	*e*P	**P**	**23 54 27.1**	**+1.2**
	comp=Z,35nm,1.1s,mb5.3						
TKM2				LR	LR		
	comp=Z,500nm,21.0s,MS4.7						
ELN	**Prospectdale**	**66.29**	**60**	*e*P	**P**	**23 54 26.1**	**-1.0**
ULHL	**Ulahol**	**66.33**	**309**	P	**P**	**23 54 28.9**	**+1.8**
	SNR=14						
USP	**Ospenovka**	**66.40**	**310**	P	**P**	**23 54 27.4**	**-0.1**
	SNR=36						
CHMS	**Chumysh**	**66.48**	**310**	P	**P**	**23 54 30.7**	**+2.6**
	SNR=9.0						
BLA	**Blacksburg**	**66.48**	**60**	*e*P	**P**	**23 54 27.5**	**-0.7**
	comp=Z,25nm,0.8s,mb5.3						
KBK	**Karagaybulak**	**66.64**	**310**	P	**P**	**23 54 31.6**	**+2.5**
	SNR=23						
FRU	**Bishkek**	**66.67**	**310**	*e*P	**P**	**23 54 30.0**	**+0.7**
FRU				*e*		23 55 00.0	
FRU				pmax	pmax		
	comp=Z,80nm,1.6s,mb5.5						
AAK	**Ala-Archa**	**66.88**	**310**	P	**P**	**23 54 30.3**	**-0.4**
	comp=Z,138nm,1.0s,mb5.9,SNR=9.9						
AAK	**Ala-Archa**	**66.88**	**310**	P	**P**	**23 54 33.4**	**+2.7**
	SNR=16						
AAK	**Ala-Archa**	**66.88**	**310**	*e*P	**P**	**23 54 29.9**	**-0.8**
	comp=Z,48nm,1.3s,mb5.4						
AAK				LR	LR		
	comp=Z,697nm,21.0s,MS4.8						
AAK	**Ala-Archa**	**66.88**	**310**	⇓*i*P	**P**	**23 54 29.4**	**-1.3**
AAK				pmax	pmax		
	comp=Z,41nm,1.4s,mb5.3						
KZA	**Kyzart**	**66.94**	**309**	P	**P**	**23 54 34.0**	**+3.0**
	SNR=6.8						
CPNY	**Central Park**	**67.17**	**53**	*e*P	**P**	**23 54 31.8**	**-0.7**
UCH	**Uchtor**	**67.18**	**310**	P	**P**	**23 54 35.5**	**+2.9**
	SNR=15						
UCH	**Uchtor**	**67.18**	**310**	*e*P	**P**	**23 54 34.5**	**+1.9**
	comp=Z,793nm,0.9s						
UCH				LR	LR		
	comp=Z,1μm,21.0s						
EKS2	**Erkin-Say**	**67.20**	**310**	P	**P**	**23 54 33.3**	**+0.6**
	SNR=23						
EKS2	**Erkin-Say**	**67.20**	**310**	*e*P	**P**	**23 54 33.1**	**+0.4**
	comp=Z,48nm,1.3s,mb5.4						
EKS2				*e*	pP	23 54 43.6	+1.2
EKS2				LR	LR		
	comp=Z,732nm,19.0s,MS4.9						
WES	**Weston**	**67.25**	**50**	PFAKE		23 54 40.0	+7.0
WES				LR	LR		
	comp=Z,1μm,21.0s,MS5.1						
BRAL	**Brewton**	**67.31**	**68**	PFAKE		23 54 50.0	+16
BRAL				LR	LR		
	comp=Z,494nm,21.0s,MS4.7						
PMG	**Port Moresby**	**67.47**	**217**	PFAKE		23 54 50.0	+15
PMG				LR	LR		
	comp=Z,492nm,21.0s,MS4.7						
PMG	**Port Moresby**	**67.47**	**217**	LR	LR	00 18 25.8	
	comp=Z,399nm,20.3s,MS4.6,baz=222,slow=31						
LSA	**Lhasa**	**67.51**	**290**	P	**P**	**23 54 37.3**	**+2.4**
LSA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
NB2	**NORSAR Subarra**	**67.53**	**355**	P	**P**	**23 54 33.9**	**-0.6**
	comp=Z,11nm,0.9s,mb4.9,baz=7.4,slow=6.5						
NOA	**NORSAR Array B**	**67.53**	**355**	P	**P**	**23 54 33.8**	**-0.7**
NOA						23 54 59.8	
NOA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
NOA				pmax	pmax		
	comp=Z,11nm,0.9s						
NOA				MLR	MLR		
	comp=Z,293nm,18.2s						
NOA	**NORSAR Array B**	**67.53**	**355**	P	**P**	**23 54 33.8**	**-0.7**
	comp=Z,7.1nm,0.8s,mb4.8,baz=6.0,slow=6.3,SNR=18						
NOA				PcP	PcP	23 54 59.8	-1.7
	comp=Z,11nm,0.9s,baz=1.5,slow=3.0,SNR=9.7						
NOA				LR	LR	00 25 46.1	
	comp=Z,293nm,18.2s,MS4.5,baz=0.0,slow=37						
GOGA	**Godfrey**	**67.61**	**64**	*e*P	**P**	**23 54 34.3**	**-1.2**
	comp=Z,148nm,0.9s,mb6.0						
GOGA				*e*	pP	23 54 42.9	-2.3
GOGA				LR	LR		
	comp=Z,663nm,19.0s,MS4.9						
AML	**Almayashu**	**67.65**	**310**	P	**P**	**23 54 38.9**	**+3.4**
	SNR=17						
AML	**Almayashu**	**67.65**	**310**	*e*P	**P**	**23 54 36.5**	**+1.0**
	comp=Z,33nm,1.1s,mb5.3						
AML				LR	LR		
	comp=Z,751nm,19.0s,MS4.9						
AKTO	**Aktyubinsk**	**67.66**	**325**	LR	LR	00 26 39.6	
	comp=Z,880nm,18.7s,MS5.0,baz=220,slow=38						
URVA	**University of**	**67.75**	**57**	*e*P	**P**	**23 54 35.4**	**-0.9**
ORR	**Orenburg**	**67.81**	**327**	*e*P	**P**	**23 54 36.4**	**0.0**
AB31	**Akbulak array**	**67.91**	**323**	P	**P**	**23 54 36.6**	**-0.5**
AB31				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
HFS	**Hagfors**	**68.28**	**353**	LR	LR	00 24 25.4	
	comp=Z,404nm,20.1s,MS4.7,baz=27,slow=36						
KK31	**Karatay Array**	**68.39**	**313**	*i* P	**P**	**23 54 39.7**	**-0.5**
KK31				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.2						
KKAR	**Karatay Array**	**68.39**	**313**	*i* P	**P**	**23 54 39.7**	**-0.5**
KKAR				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.1						
KSH	**Kashi**	**68.52**	**307**	*e*P	**P**	**23 54 42.5**	**+1.4**
KSH				*e*AP	pP	23 54 52.5	+1.7
KSH				*e*XP	sP	23 54 56.4	+1.9
KSH				*e*PCP	PcP	23 55 07.5	+1.4
KSH				*e*PP	PP	23 57 15.4	+3.4
KSH				*e*PPP		23 58 52.4	
KSH				*e*SCP		23 59 06.9	
KSH				*e*PCS		23 59 11.6	
KSH				AMB	AMB		
	comp=Z,556nm,1.9s						
KSH				LR	LR		
	comp=N,1μm,6.1s						
KSH				LR	LR		
	comp=E,1μm,6.6s						
KSH				LR	LR		
	comp=Z,1μm,5.0s						
MOS	**Moscow**	**68.99**	**339**	*e*P	**P**	**23 54 43.2**	**-0.5**
MOS				*e*		23 55 05.8	
MOS				*e*		23 57 16.9	
MOS				pmax	pmax		
	comp=Z,71nm,1.1s,mb5.5						
KONO	**Kongsberg**	**69.01**	**356**	PFAKE		23 55 00.0	+16
KONO				LR	LR		
	comp=Z,647nm,19.0s,MS4.9						
CNNC	**Cliffs of the**	**69.31**	**59**	PFAKE		23 55 00.0	+14
CNNC				LR	LR		
	comp=Z,370nm,19.0s,MS4.7						
IMP	**Imphal**	**69.48**	**284**	*e*P	**P**	**23 54 47.0**	**-0.2**
NHSC	**New Hope**	**69.67**	**62**	*e*P	**P**	**23 54 48.1**	**-0.1**
	comp=Z,306nm,1.0s						
NHSC				*e*pP	pP	23 54 57.0	-1.0
NHSC				LR	LR		
	comp=Z,754nm,19.0s,MS5.0						
OBN	**Obninsk**	**69.80**	**339**	P	**P**	**23 54 48.1**	**-0.6**
	comp=Z,255nm,0.6s,SNR=5.3						
OBN	**Obninsk**	**69.80**	**339**	*e*P	**P**	**23 54 48.3**	**-0.4**
	comp=Z,69nm,1.1s,mb5.5						
OBN				LR	LR		
	comp=Z,705nm,21.0s,MS4.9						
OBN	**Obninsk**	**69.80**	**339**	⇓*i*P	**P**	**23 54 48.4**	**-0.3**
OBN				*e*		23 57 22.7	
OBN				pmax	pmax		
	comp=Z,84nm,1.3s,mb5.5						
OBN				MLR	MLR		
	comp=Z,600nm,16.0s,MS4.9						
SHL	**Shillong**	**70.13**	**286**	*e*P	**P**	**23 54 53.0**	**+1.8**
KKTK	**Khon Kaen**	**70.30**	**272**	P	**P**	**23 54 51.5**	**-0.8**
	comp=Z,494nm,0.6s						
CHG	**Chiang Mai**	**70.85**	**276**	⇑P	**P**	**23 54 55.4**	**-0.3**
	comp=Z,46nm,1.3s,mb5.2						
CHTO	**Chiang Mai**	**70.85**	**276**	*e*P	**P**	**23 54 54.9**	**-0.8**
	comp=Z,32nm,1.3s,mb5.1						
CHTO				*e*	pP	23 55 04.0	-1.5
CHTO				LR	LR		
	comp=Z,266nm,22.0s,MS4.5						
CHTO	**Chiang Mai**	**70.85**	**276**	*e*P	**P**	**23 54 54.9**	**-0.8**
CHTO				*e*	pP	23 55 04.0	-1.4
CHTO				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.1						
CHTO				MLR	MLR		
	comp=Z,266nm,22.0s,MS4.5						
CM31	**Chiang Mai Arr**	**71.12**	**276**	PFAKE		23 55 10.0	+13
CM31				LR	LR		
	comp=Z,457nm,19.0s,MS4.8						
TAPN	**Taplejung**	**71.28**	**290**	*e*P	**P**	**23 54 59.6**	**+1.4**
	comp=Z,1μm,1.0s						
ODAN	**Odare**	**71.83**	**290**	*e*P	**P**	**23 55 02.7**	**+1.2**
	comp=Z,749nm,1.5s						
JIRN	**Jiri**	**71.93**	**292**	*e*P	**P**	**23 55 03.8**	**+1.7**
	comp=Z,1μm,0.9s						
VRHR	**Novokhopersk**	**72.25**	**335**	*e*P	**P**	**23 55 03.7**	**+0.1**
VRHR				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.4						
VRHR				pmax	pmax		
	comp=N,70nm,0.9s						
VRHR				pmax	pmax		
	comp=E,40nm,1.1s						
KKN	**Kakani**	**72.36**	**292**	*e*P	**P**	**23 55 05.8**	**+1.1**
	comp=E,481nm,0.8s						
GKN	**Gorkha**	**72.57**	**293**	*e*P	**P**	**23 55 06.7**	**+0.8**
	comp=E,693nm,1.0s						
VRSR	**Storozhevoye**	**72.77**	**336**	*e*P	**P**	**23 55 06.6**	**-0.1**
VRSR				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
VRSR				pmax	pmax		
	comp=N,4.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,3.0nm,0.9s						
CMIG	**Matias Romero**	**72.94**	**84**	P	**P**	**23 55 07.1**	**-1.1**
	comp=E,6.8nm,0.8s,mb4.6,baz=346,slow=8.3,SNR=5.0						
VORD	**Divnogorie**	**72.97**	**336**	*e*P	**P**	**23 55 07.3**	**-0.6**
VORD				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.2						
VORD				pmax	pmax		
	comp=N,30nm,0.8s						
VORD				pmax	pmax		
	comp=E,20nm,0.9s						
VORD				MLR	MLR		
	comp=Z,860nm,19.0s,MS5.0						
VORD				MLR	MLR		
	comp=N,500nm,16.0s						
VORD				MLR	MLR		
	comp=E,580nm,22.0s						
COEN	**Coen**	**73.16**	**219**	*e*P	**P**	**23 55 07.7**	**-1.7**
	comp=E,16nm,1.2s,mb4.8						
COEN				*e*		23 55 23.2	
PPT	**Papeete**	**73.31**	**151**	*e*S	S	00 04 29.8	-6.8
	comp=E,285nm,30.0s						
PPT				*e*SS	SS	00 09 18.9	-0.6
	comp=E,226nm,27.5s						
PPT				*e*LR	LR	00 17 23.2	
	comp=E,1μm,28.2s,baz=348						
PPT	**Papeete**	**73.31**	**151**	LR	LR	00 23 13.5	
	comp=E,384nm,18.0s,MS4.7,baz=326,slow=32						
JOSI	**Joshimath**	**73.49**	**298**	*e*P	**P**	**23 55 12.0**	**+0.6**
JOSI				AMb	AMB	23 55 14.2	
	comp=Z,186nm,1.0s,mb6.0						
THN	**Thein Dam**	**74.11**	**302**	*e*P	**P**	**23 55 15.0**	**+0.1**
RAR	**Rarotonga**	**74.26**	**162**	PFAKE		23 55 30.0	+14
RAR				LR	LR		
	comp=Z,2.0nm,20.0s						
RAR	**Rarotonga**	**74.26**	**162**	LR	LR	00 20 17.6	
	comp=Z,701nm,20.2s,MS5.0,baz=48,slow=30						
TEIG	**Tepich**	**74.64**	**77**	P	**P**	**23 55 17.1**	**-1.1**
TEIG				LR	LR		
	comp=Z,353nm,20.0s,MS4.7						
TEIG	**Tepich**	**74.64**	**77**	P	**P**	**23 55 17.1**	**-1.1**
	comp=Z,18nm,0.8s,mb5.0,baz=327,slow=7.6,SNR=6.2						
BSEG	**Bad Segeberg**	**74.67**	**355**	*e*P	**P**	**23 55 18.0**	**+0.2**
BSEG				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.3						
BSEG	**Bad Segeberg**	**74.67**	**355**	*e*P	**P**	**23 55 18.0**	**+0.2**
	comp=Z,43nm,1.0s,mb5.3						
KKR	**Kurukshetra**	**75.44**	**300**	*e*P	**P**	**23 55 23.0**	**+0.3**
KKR				AMb	AMB	23 55 24.0	
	comp=Z,85nm,0.1s						
AKASG	**Malin Array Be**	**75.47**	**342**	P	**P**	**23 55 21.6**	**-0.9**
AKASG				pmax	pmax		
	comp=Z,9.0nm,0.5s						
AKASG				MLR	MLR		
	comp=Z,377nm,20.0s						
AKASG	**Malin Array Be**	**75.47**	**342**	P	**P**	**23 55 21.6**	**-0.9**
	comp=Z,8.5nm,0.5s,mb4.9,baz=17,slow=5.9,SNR=37						
AKASG				LR	LR	00 32 10.3	
	comp=Z,377nm,20.0s,MS4.7,baz=25,slow=38						
AKBB	**Malin Array Si**	**75.47**	**342**	*e*P	**P**	**23 55 21.1**	**-1.3**
KIEV	**Kiev**	**75.48**	**342**	*e*P	**P**	**23 55 21.8**	**-0.8**
	comp=Z,15nm,0.6s,mb5.1						
KIEV				LR	LR		
	comp=Z,588nm,20.0s,MS4.9						
KIEV	**Kiev**	**75.48**	**342**	*e*P	**P**	**23 55 21.8**	**-0.7**
KIEV				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
KIEV				MLR	MLR		
	comp=Z,588nm,20.0s,MS4.9						
SOR	**Soroa**	**75.86**	**71**	*e*P	**P**	**23 55 22.7**	**-2.4**
KBL	**Kabul**	**75.86**	**308**	*e*P	**P**	**23 55 24.1**	**-0.9**
ALBI	**Allahabad**	**76.25**	**293**	*e*P	**P**	**23 55 25.5**	**-1.9**
BHGR	**Bahadurgarh**	**76.37**	**299**	*e*P	**P**	**23 55 28.4**	**+0.4**
RTK	**Rohtak**	**76.39**	**299**	*e*P	**P**	**23 55 27.5**	**-0.6**
RTK				AMb	AMB	23 55 29.4	
	comp=Z,26nm,0.7s,mb5.2						
IBBN	**Ibbenburen**	**76.43**	**356**	*e*P	**P**	**23 55 29.1**	**+1.2**
	comp=Z,83nm,1.1s,mb5.6						
SONA	**Sohna**	**76.63**	**299**	*e*P	**P**	**23 55 29.0**	**-0.4**
SONA				AMb	AMB	23 55 30.7	
	comp=Z,34nm,1.4s,mb5.1						
KAKA	**Kakadu**	**76.71**	**229**	*e*P	**P**	**23 55 28.5**	**-1.4**
	comp=Z,39nm,0.9s,mb5.3						
CLZ	**Clausthal**	**76.75**	**354**	*e*P	**P**	**23 55 30.1**	**+0.3**
CLZ				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.4						
CLZ	**Clausthal**	**76.75**	**354**	*e*P	**P**	**23 55 30.1**	**+0.3**
	comp=Z,45nm,0.9s,mb5.4						
AGRA	**Agra**	**76.95**	**297**	*e*P	**P**	**23 55 31.6**	**+0.3**
AGRA				AMb	AMB	23 55 32.5	
	comp=Z,69nm,0.5s,mb5.8						
KUDL	**Kundal**	**77.04**	**299**	*e*P	**P**	**23 55 31.1**	**-0.6**
KUDL				AMb	AMB	23 55 34.4	
	comp=Z,81nm,1.2s,mb5.5						
CLL	**Collm**	**77.10**	**353**	⇓*i*P	**P**	**23 55 31.4**	**-0.3**
	comp=Z,26nm,1.2s,mb5.0						
CLL				*i* pP	pP	23 55 41.9	+0.4
CLL				LR	LR		
	comp=Z,400nm,21.5s,MS4.7						
CLL	**Collm**	**77.10**	**353**	⇓*i*P	**P**	**23 55 31.4**	**-0.3**
CLL				*i* *PP	pP	23 55 41.9	+0.4
CLL				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.0						
CLL				MLR	MLR		
	comp=Z,400nm,21.5s,MS4.7						
CLL	**Collm**	**77.10**	**353**	*e*P	**P**	**23 55 30.9**	**-0.8**
	comp=Z,26nm,1.2s,mb5.0						
CLL	**Collm**	**77.10**	**353**	⇓*i*P	**P**	**23 55 31.4**	**-0.3**
	comp=Z,26nm,1.2s,mb5.0						
CLL				*i* pP	pP	23 55 41.9	+0.4
CLL				*e*PPS		00 06 18.0	
CLL				*e*SS	SS	00 10 30.0	+16
CLL				Lm		00 33 00.0	
	comp=N,300nm,21.2s						
CLL				Lm		00 33 00.0	
	comp=E,400nm,18.2s						
CLL				Lm		00 33 00.0	
	comp=Z,400nm,21.5s						
KSM	**Kuching**	**77.14**	**256**	*e*P	**P**	**23 55 32.1**	**-0.4**
LVV	**L’vov**	**77.23**	**345**	*e*P	**P**	**23 55 32.8**	**+0.3**
BUG	**Bochum--Univer**	**77.31**	**356**	*e*P	**P**	**23 55 32.5**	**-0.4**
	comp=Z,38nm,1.1s,mb5.2						
BRG	**Berggiesshubel**	**77.45**	**352**	*i* P	**P**	**23 55 33.1**	**-0.6**
BRG				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
BRG	**Berggiesshubel**	**77.45**	**352**	*e*P	**P**	**23 55 33.2**	**-0.5**
	comp=Z,19nm,1.1s,mb4.9						
BRG	**Berggiesshubel**	**77.45**	**352**	*i* P	**P**	**23 55 33.1**	**-0.6**
	comp=Z,19nm,1.1s,mb4.9						
OJC	**Ojcow**	**77.45**	**348**	*e*P	**P**	**23 55 33.5**	**-0.2**
KHET	**Khetri**	**77.47**	**299**	*e*P	**P**	**23 55 33.1**	**-1.1**
KHET				AMb	AMB	23 55 37.0	
	comp=Z,33nm,1.1s,mb5.2						
UPC	**Upice**	**77.61**	**351**	⇓*i*P	**P**	**23 55 35.0**	**+0.4**
UPC				*e*pP	pP	23 55 42.7	-1.8
KWP	**Kalwaria**	**77.62**	**346**	*e*P	**P**	**23 55 35.0**	**+0.4**
KWP	**Kalwaria**	**77.62**	**346**	⇑*i*P	**P**	**23 55 35.1**	**+0.4**
CTA	**Charters Tower**	**77.65**	**214**	*e*P	**P**	**23 55 34.2**	**-0.8**
	comp=Z,18nm,0.9s,mb5.0						
CTA	**Charters Tower**	**77.65**	**214**	*e*P	**P**	**23 55 34.2**	**-0.8**
CTA				pmax	pmax		
	comp=Z,18nm,0.9s						
CTA	**Charters Tower**	**77.65**	**214**	P	**P**	**23 55 34.1**	**-0.9**
	comp=Z,20nm,0.9s,mb5.0,baz=16,slow=6.5,SNR=10						
CTA				LR	LR	00 26 21.4	
	comp=Z,285nm,20.2s,MS4.6,baz=46,slow=33						
CTAO	**Charters Tower**	**77.65**	**214**	PFAKE		23 55 50.0	+15
CTAO				LR	LR		
	comp=Z,408nm,20.0s,MS4.8						
PVCC	**Panska Ves**	**77.73**	**351**	⇓*i*P	**P**	**23 55 35.4**	**+0.1**
	comp=Z,193nm,0.5s						
PVCC				*e*	pP	23 55 44.9	-0.2
PVCC	**Panska Ves**	**77.73**	**351**	⇓*i*P	**P**	**23 55 35.4**	**+0.1**
PVCC				*e*pP	pP	23 55 44.9	-0.2
DPC	**Dobruska-Polom**	**77.73**	**350**	⇓*i*P	**P**	**23 55 35.4**	**+0.1**
DPC				*e*pP	pP	23 55 46.5	+1.4
MOX	**Moxa**	**77.86**	**353**	*e*P	**P**	**23 55 36.0**	**0.0**
	comp=Z,71nm,1.7s,mb5.3						
MOX	**Moxa**	**77.86**	**353**	*e*P	**P**	**23 55 36.0**	**0.0**
MOX				pmax	pmax		
	comp=Z,71nm,1.7s,mb5.3						
MOX	**Moxa**	**77.86**	**353**	*e*P	**P**	**23 55 35.6**	**-0.4**
	comp=Z,33nm,1.2s,mb5.1						
BEBN	**Eben Emael**	**78.01**	**357**	P	**P**	**23 55 37.6**	**+0.7**
TANN	**Tannenbergstha**	**78.03**	**353**	*e*P	**P**	**23 55 36.8**	**-0.1**
	comp=Z,41nm,1.6s,mb5.1						
OKC	**Ostrava-Krasne**	**78.03**	**349**	⇓*i*P	**P**	**23 55 37.0**	**0.0**
STHS	**Stebnicka Huta**	**78.04**	**347**	*e*P	**P**	**23 55 37.4**	**+0.4**
	comp=Z,28nm,1.3s,mb5.0						
STHS	**Stebnicka Huta**	**78.04**	**347**	*e*P	**P**	**23 55 37.4**	**+0.4**
STHS				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.0						
UCC	**Uccle**	**78.05**	**358**	P	**P**	**23 55 37.5**	**+0.5**
ABKT	**Ailbek**	**78.08**	**317**	P	**P**	**23 55 38.6**	**+1.2**
	comp=Z,106nm,0.9s,mb5.8,SNR=5.5						
MGV	**Manicaragua**	**78.16**	**70**	*e*P	**P**	**23 55 39.0**	**+0.9**
MORC	**Moravsky Berou**	**78.17**	**349**	⇑P	**P**	**23 55 38.5**	**+0.8**
MORC	**Moravsky Berou**	**78.17**	**349**	⇑*i*P	**P**	**23 55 38.5**	**+0.8**
MEM	**Membach**	**78.19**	**357**	P	**P**	**23 55 38.9**	**+1.1**
	comp=Z,28nm,1.3s,mb5.0						
NKC	**Novy Kostel**	**78.21**	**353**	⇓*i*P	**P**	**23 55 38.1**	**+0.2**
PRU	**Pruhonice**	**78.27**	**351**	⇓*e*P	**P**	**23 55 37.9**	**-0.4**
SNF	**Seneffe**	**78.34**	**358**	P	**P**	**23 55 39.0**	**+0.3**
	comp=Z,27nm,1.7s,mb4.9						
KOLS	**Kolonicke sedl**	**78.37**	**346**	*e*P	**P**	**23 55 38.9**	**+0.1**
BCLA	**Clavier**	**78.40**	**357**	P	**P**	**23 55 39.4**	**+0.4**
KIV	**Kislovodsk**	**78.42**	**331**	P	**P**	**23 55 40.0**	**+0.8**
	comp=Z,253nm,1.1s,mb6.1,SNR=5.8						
KIV	**Kislovodsk**	**78.42**	**331**	*e*P	**P**	**23 55 39.8**	**+0.6**
	comp=Z,32nm,0.9s,mb5.2						
KIV				*e*		23 55 47.0	
KIV				LR	LR		
	comp=Z,704nm,20.0s,MS5.0						
KIV	**Kislovodsk**	**78.42**	**331**	*c* *i*P	**P**	**23 55 39.7**	**+0.5**
KIV				*e*		23 58 38.1	
KIV				pmax	pmax		
	comp=Z,65nm,1.2s,mb5.4						
TNS	**Taunus Mts**	**78.48**	**355**	*e*P	**P**	**23 55 39.4**	**0.0**
TNS				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
TNS	**Taunus Mts**	**78.48**	**355**	*e*P	**P**	**23 55 39.4**	**0.0**
	comp=Z,32nm,0.9s,mb5.2						
CRVS	**Cervenica-Dubn**	**78.52**	**347**	*e*P	**P**	**23 55 39.9**	**+0.3**
UZH	**Uzhgorod**	**78.66**	**346**	⇓*i*P	**P**	**23 55 40.0**	**-0.4**
UZH				*i*	pP	23 55 48.8	-1.5

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UZH                               eS     S         00 05 35.0  0.0
UZH                                MLR   MLR
      comp=Z,600nm,18.0s,MS5.0
ROTZ  Rotzenmuhle      78.69 353  eP     P         23 55 40.6  0.0
      comp=Z,30nm,1.3s,mb5.1
GIVF  Givet            78.73 358  eP     P         23 55 40.6 -0.2
      comp=Z,174nm,1.5s,mb5.5
GIVF  Givet            78.73 358  eP     P         23 55 40.6 -0.2
      comp=Z,87nm,1.5s,mb5.5
GIVF  Givet            78.73 358  eP     P         23 55 40.6 -0.2
GIVF                               pmax  pmax
      comp=Z,87nm,1.5s,mb5.5
VRAC  Vranov           78.73 350   P     P         23 55 41.7 +0.9
VRAC  Vranov           78.73 350   LR    LR        00 37 27.6
      comp=Z,670nm,18.4s,MS5.0,baz=12,slow=41
VRAC  Vranov           78.73 350⇑iP     P         23 55 40.8  0.0
DOU   Dourbes          78.74 358   P     P         23 55 41.2 +0.3
BAIF  Baives           78.79 358⇑iP     P         23 55 41.2 +0.1
      comp=Z,161nm,1.3s,mb5.5
BAIF  Baives           78.79 358⇑iP     P         23 55 41.2 +0.1
      comp=Z,80nm,1.3s,mb5.5
BAIF  Baives           78.79 358⇑iP     P         23 55 41.2 +0.1
BAIF                               pmax  pmax
      comp=Z,81nm,1.3s,mb5.5
GRA1  Grafenberg Arr   78.84 354  eP     P         23 55 41.5 +0.1
      comp=Z,45nm,1.1s,mb5.3
GRF   Grafenberg Arr   78.84 354  eP     P         23 55 41.5 +0.1
GRF                                pmax  pmax
      comp=Z,45nm,1.1s,mb5.3
GRF   Grafenberg Arr   78.84 354  eP     P         23 55 41.5 +0.1
GRF                                pmax  pmax
      comp=Z,45nm,1.1s,mb5.3
GRF   Grafenberg Arr   78.84 354  eP     P         23 55 41.5 +0.1
      comp=Z,45nm,1.1s,mb5.3
GRFO  Grafenberg       78.84 354  eP     P         23 55 41.7 +0.3
      comp=Z,20nm,0.9s,mb5.0
GRFO                               LR    LR
      comp=Z,294nm,19.0s,MS4.6
GRFO  Grafenberg       78.84 354  eP     P         23 55 41.7 +0.3
GRFO                               pmax  pmax
      comp=Z,20nm,0.9s,mb5.0
GRFO                               MLR   MLR
      comp=Z,294nm,19.0s,MS4.6
ABH   Alteburg         78.86 356  eP     P         23 55 41.2 -0.3
RUP   Ruppelstein      79.06 356  eP     P         23 55 42.3 -0.3
KECS  Kecovo           79.06 347  eP     P         23 55 42.7  0.0
      comp=Z,11nm,0.9s,mb4.8
KECS  Kecovo           79.06 347  eP     P         23 55 42.7  0.0
KECS                               pmax  pmax
      comp=Z,11nm,0.9s,mb4.8
TOD   Tromm            79.07 355  eP     P         23 55 42.1 -0.6
KIS   Kishinev         79.09 341⇓iP     P         23 55 41.0 -1.8
KIS                                pmax  pmax
      comp=Z,200nm,1.0s,mb6.0
KIS                                MLR   MLR
      comp=Z,900nm,17.0s,MS5.2
KIS                                MLR   MLR
      comp=N,500nm,16.0s
KIS   Kishinev         79.09 341⇓iP     P         23 55 41.0 -1.8
      comp=N,200nm,1.0s,mb6.0
KIS                                LRM             00 35 40.0
      comp=N,500nm,16.0s
TRPA  Tarpa            79.11 346⇑iP     P         23 55 43.4 +0.5
ZEI   Tsey             79.12 330  eP     P         23 55 43.2 +0.1
ZEI                               i                23 56 00.2
ZEI                                pmax  pmax
      comp=Z,61nm,1.0s,mb5.5
WLF   Walferdange      79.13 357   P     P         23 55 44.1 +1.1
ANN   Anapa            79.15 335  eP     P         23 55 42.2 -1.0
ANN                               eS     S         00 05 41.5 +1.2
ANN                                pmax  pmax
      comp=Z,46nm,1.2s,mb5.3
IAS   Iasi             79.15 342   P     P         23 55 43.4 +0.2
BURAR Bucovina Array   79.17 344 ⇑P     P         23 55 43.5 +0.3
BURAR Bucovina Array   79.17 344⇑iP     P         23 55 43.5 +0.2
KHC   Kasperske Hory   79.21 352⇓eP     P         23 55 43.4  0.0
KHC                               epP    pP        23 55 51.1 -2.2
KOLL  Kolacno          79.24 349  eP     P         23 55 43.9 +0.3
WET   Wettzell         79.25 352  eP     P         23 55 43.6 -0.1
WET                                pmax  pmax
      comp=Z,22nm,1.3s,mb4.9
WET   Wettzell         79.25 352  eP     P         23 55 43.6 -0.1
      comp=Z,22nm,1.3s,mb4.9
VYHS  Vyhne            79.27 348  eP     P         23 55 44.7 +0.9
      comp=Z,14nm,1.3s,mb4.7
VYHS  Vyhne            79.27 348  eP     P         23 55 44.7 +0.9
VYHS                               pmax  pmax
      comp=Z,14nm,1.3s,mb4.7
AJM   Ajmer            79.36 299  i P    P         23 55 44.0 -0.6
ONI   Oni              79.43 330   P     P         23 55 49.6 +4.8
GEC2  GERESS Array S   79.48 352  eP     P         23 55 44.5 -0.4
GEC2                               pmax  pmax
      comp=Z,56nm,1.9s,mb5.2
GEC2  GERESS Array S   79.48 352  eP     P         23 55 44.5 -0.4
      comp=Z,56nm,1.9s,mb5.2
GERES GERESS Array B   79.48 352   P     P         23 55 44.8 -0.1
GERES                              pmax  pmax
      comp=Z,6.0nm,0.6s
GERES                              MLR   MLR
      comp=Z,315nm,20.6s
GERES GERESS Array B   79.48 352   P     P         23 55 44.8 -0.1
      comp=Z,5.6nm,0.6s,mb4.6,baz=26,slow=5.3,SNR=29
GERES                              LR    LR        00 30 42.6
      comp=Z,315nm,20.6s,MS4.6,baz=181,slow=36
SOC   Sochi            79.64 333  eP     P         23 55 38.2 -7.7
SOC                               e                23 58 46.6
SOC                               e                00 05 57.4
SOC                                MLR   MLR
      comp=Z,1μm,19.0s,MS5.3
PSZ   Piszkesteto      79.70 347   P     P         23 55 47.5 +1.4
PSZ   Piszkesteto      79.70 347⇓eP     P         23 55 47.3 +1.2
PSZ   Piszkesteto      79.70 347⇑iP     P         23 55 47.7 +1.6
LANF  Langenberg       79.75 356  eP     P         23 55 46.2 -0.2
ZST   Bratislava       79.77 349  eP     P         23 55 48.4 +1.9
      comp=Z,22nm,1.0s,mb5.0
ZST                                LR    LR
      comp=Z,400nm,18.7s,MS4.8
TBLG  Delisi           79.78 329  eP     P         23 55 47.2 +0.5
TBLG  Delisi           79.78 329   P     P         23 55 47.2 +0.5
MTA   Mtatsminda       79.80 328   P     P         23 55 47.2 +0.4
SIM   Simferopol’      79.85 337  eP     P         23 55 43.6 -3.4
SIM                                S     S         00 05 50.0 +2.2
SIM                                MLR   MLR
      comp=Z,1μm,17.0s,MS5.2
STU   Stuttgart        79.88 355  eP     P         23 55 46.9 -0.2
      comp=Z,30nm,1.1s,mb5.1
TGUH  Tegucigalpa,Un   79.96  80  eP     P         23 55 48.5 +0.4
      comp=Z,79nm,1.0s,mb5.6
TGUH                               LR    LR
      comp=Z,235nm,22.0s,MS4.5
FLN   La Foliniere     80.10   1  eP     P         23 55 47.7 -0.6
      comp=Z,214nm,1.4s,mb5.6
FLN                               eMLR   MLR
      comp=Z,379nm,20.5s,MS4.4
FLN   La Foliniere     80.10   1  eP     P         23 55 47.7 -0.6
      comp=Z,107nm,1.4s,mb5.6
FLN                                LR    LR
      comp=Z,380nm,20.5s,MS4.7
FLN   La Foliniere     80.10   1  eP     P         23 55 47.7 -0.6
FLN                                pmax  pmax
      comp=Z,107nm,1.4s,mb5.6
FLN                                MLR   MLR
      comp=Z,380nm,20.5s,MS4.7
CCCC  Cccc             80.16  68  eP     P         23 55 53.3 +4.2
CONA  Conrad Observa   80.18 350⇑iP     P         23 55 49.3 +0.5
      comp=Z,27nm,1.1s,mb5.1,SNR=18
BUD   Budapest         80.24 348⇓eP     P         23 55 50.2 +1.1
LDF   La Druitiere     80.28   1⇑iP     P         23 55 48.6 -0.6
      comp=Z,52nm,0.7s,mb5.2
LDF   La Druitiere     80.28   1⇑iP     P         23 55 48.6 -0.6
      comp=Z,26nm,0.7s,mb5.3
LDF   La Druitiere     80.28   1⇑iP     P         23 55 48.6 -0.6
LDF                                pmax  pmax
      comp=Z,26nm,0.7s,mb5.3
MEZF  Maizieres J’vi   80.33 358  eP     P         23 55 49.5  0.0
      comp=Z,174nm,1.3s,mb5.5
MEZF  Maizieres J’vi   80.33 358  eP     P         23 55 49.5  0.0
      comp=Z,174nm,1.3s,mb5.8
CDF   Champ du Feu     80.34 356⇑iP     P         23 55 49.3 -0.3
      comp=Z,69nm,1.4s,mb5.1
CDF   Champ du Feu     80.34 356⇑iP     P         23 55 49.3 -0.3
      comp=Z,34nm,1.4s,mb5.1
CDF   Champ du Feu     80.34 356⇑iP     P         23 55 49.3 -0.3
CDF                                pmax  pmax
      comp=Z,34nm,1.4s,mb5.1
SOP   Sopron           80.34 350⇓eP     P         23 55 50.9 +1.3
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FUR   Furstenfeldbru   80.35 353  eP     P         23 55 49.6 -0.1
FUR                                pmax  pmax
      comp=Z,47nm,1.2s,mb5.3
FUR   Furstenfeldbru   80.35 353  eP     P         23 55 49.6 -0.1
      comp=Z,47nm,1.2s,mb5.3
BFO   Black Forest     80.37 355  eP     P         23 55 49.6 -0.2
BFO                                pmax  pmax
      comp=Z,18nm,1.1s,mb4.9
BFO   Black Forest     80.37 355  eP     P         23 55 49.6 -0.2
      comp=Z,18nm,1.1s,mb4.9
DRGR                   80.38 345   P     P         23 55 50.3 +0.5
DRGR                   80.38 345⇓iP     P         23 55 49.7 -0.2
RAO   Raoul Island     80.40 179   PFAKE           23 56 00.0  +10
RAO                                LR    LR
      comp=Z,1μm,19.0s,MS5.3
RAO   Raoul Island     80.40 179   LR    LR        00 25 55.6
      comp=Z,544nm,19.6s,MS4.9,baz=102,slow=32
ROSF  Rostrenen        80.46   3  eP     P         23 55 50.0 -0.2
      comp=Z,156nm,1.4s,mb5.5
ROSF  Rostrenen        80.46   3  eP     P         23 55 50.0 -0.2
      comp=Z,78nm,1.4s,mb5.5
ROSF  Rostrenen        80.46   3  eP     P         23 55 50.0 -0.2
ROSF                               pmax  pmax
      comp=Z,78nm,1.4s,mb5.5
GRR   Gorron           80.47   2⇑iP     P         23 55 50.0 -0.3
      comp=Z,137nm,1.1s,mb5.5
GRR   Gorron           80.47   2⇑iP     P         23 55 50.0 -0.3
      comp=Z,69nm,1.1s,mb5.5
GRR   Gorron           80.47   2⇑iP     P         23 55 50.0 -0.3
GRR                                pmax  pmax
      comp=Z,69nm,1.1s,mb5.5
ECH   Echery           80.54 356  eP     P         23 55 50.3 -0.4
SGMF  Saint Gilles     80.57   3⇑iP     P         23 55 50.5 -0.3
      comp=Z,140nm,1.2s,mb5.5
SGMF  Saint Gilles     80.57   3⇑iP     P         23 55 50.5 -0.3
      comp=Z,70nm,1.2s,mb5.5
SGMF  Saint Gilles     80.57   3⇑iP     P         23 55 50.5 -0.3
SGMF                               pmax  pmax
      comp=Z,70nm,1.2s,mb5.5
SPAK  Spaichingen-Ko   80.57 355  eP     P         23 55 50.8 -0.1
PLOR  Plostina         80.61 342   P     P         23 55 52.0 +0.9
PLOR  Plostina         80.61 342⇓iP     P         23 55 53.6 +2.5
HAU   Haudompre        80.78 357⇑iP     P         23 55 51.6 -0.4
      comp=Z,76nm,1.2s,mb5.2
HAU                               eMLR   MLR
      comp=Z,365nm,22.0s,MS4.4
HAU   Haudompre        80.78 357⇑iP     P         23 55 51.6 -0.4
      comp=Z,38nm,1.2s,mb5.2
HAU                                LR    LR
      comp=Z,370nm,22.0s,MS4.7
HAU   Haudompre        80.78 357⇑iP     P         23 55 51.6 -0.4
HAU                                pmax  pmax
      comp=Z,38nm,1.2s,mb5.2
HAU                                MLR   MLR
      comp=Z,370nm,22.0s,MS4.7
FELD  Feldberg im Sc   80.84 355  eP     P         23 55 51.4 -0.9
ARSA  Arzberg          80.88 350⇑iP     P         23 55 53.0 +0.5
      comp=Z,25nm,1.2s,mb5.0,SNR=17
QUIF  Quistinic        80.89   3  eP     P         23 55 52.1 -0.4
      comp=Z,99nm,1.2s,mb5.3
QUIF  Quistinic        80.89   3  eP     P         23 55 52.1 -0.4
      comp=Z,50nm,1.2s,mb5.3
QUIF  Quistinic        80.89   3  eP     P         23 55 52.1 -0.4
QUIF                               pmax  pmax
      comp=Z,50nm,1.2s,mb5.3
MOF   Molkenrain       80.91 356  eP     P         23 55 51.8 -0.8
HINF  Hinteralfeld     80.95 356  eP     P         23 55 52.3 -0.6
      comp=Z,16nm,1.0s,mb4.6
HINF  Hinteralfeld     80.95 356  eP     P         23 55 52.3 -0.6
      comp=Z,7.9nm,1.0s,mb4.6
HINF  Hinteralfeld     80.95 356  eP     P         23 55 52.3 -0.6
HINF                               pmax  pmax
      comp=Z,8.0nm,1.0s,mb4.6
MLR   Muntele Rosu     81.09 343   P     P         23 55 55.1 +1.5
MLR   Muntele Rosu     81.09 343⇑iP     P         23 55 54.9 +1.2
WATA  Walderalm        81.16 353⇑iP     P         23 55 53.9 -0.1
      comp=Z,30nm,1.1s,mb5.1,SNR=10
WATA  Walderalm        81.16 353⇑iP     P         23 55 53.9 -0.1
WATA                               pmax  pmax
      comp=Z,30nm,1.1s,mb5.1
MOTA  Moosalm          81.18 353⇑iP     P         23 55 53.9 -0.2
      comp=Z,39nm,1.3s,mb5.2,SNR=21
MOTA  Moosalm          81.18 353⇑iP     P         23 55 53.9 -0.2
MOTA                               pmax  pmax
      comp=Z,39nm,1.3s,mb5.2
WTTA  Wattenberg       81.22 353⇑iP     P         23 55 54.7 +0.4
      comp=Z,36nm,0.8s,mb5.3,SNR=20
WTTA  Wattenberg       81.22 353⇑iP     P         23 55 54.7 +0.4
WTTA                               pmax  pmax
      comp=Z,36nm,0.8s,mb5.3
KBA   Koelnbreinsper   81.26 352⇑iP     P         23 55 55.4 +0.9
      comp=Z,80nm,0.8s,mb5.7,SNR=85
KBA   Koelnbreinsper   81.26 352⇑iP     P         23 55 55.4 +0.8
KBA                                pmax  pmax
      comp=Z,80nm,0.8s,mb5.7
SQTA  Sankt Quirin     81.30 353⇓iP     P         23 55 55.0 +0.2
      comp=Z,24nm,1.1s,mb5.0,SNR=14
SQTA  Sankt Quirin     81.30 353⇓iP     P         23 55 55.0 +0.3
SQTA                               pmax  pmax
      comp=Z,24nm,1.1s,mb5.0
VOIR                   81.31 343   P     P         23 55 55.6 +0.8
VOIR                   81.31 343⇓iP     P         23 55 55.8 +1.0
LOMF  Lomont           81.42 356  eP     P         23 55 54.4 -1.0
FETA  Feichten         81.53 354⇑iP     P         23 55 56.2 +0.3
      comp=Z,39nm,1.1s,mb5.2,SNR=12
PERS  Pernice          81.53 350  eP     P         23 55 56.1 +0.1
PKSM  Moragy           81.54 348   P     P         23 55 55.9 -0.1
PKSM  Moragy           81.54 348⇑iP     P         23 55 56.3 +0.3
LOR   Lormes           81.59 358⇑iP     P         23 55 56.0 -0.3
      comp=Z,64nm,1.2s,mb5.1
LOR                               eMLR   MLR
      comp=Z,448nm,18.8s,MS4.5
LOR   Lormes           81.59 358⇑iP     P         23 55 56.0 -0.3
      comp=Z,32nm,1.2s,mb5.1
LOR                                LR    LR
      comp=Z,450nm,18.8s,MS4.8
LOR   Lormes           81.59 358⇑iP     P         23 55 56.0 -0.3
LOR                                pmax  pmax
      comp=Z,32nm,1.2s,mb5.1
LOR                                MLR   MLR
      comp=Z,450nm,18.8s,MS4.8
ABTA  Abfaltersbach    81.67 352⇑iP     P         23 55 56.7  0.0
      comp=Z,41nm,1.2s,mb5.2
BZS   Buzias           81.70 346   P     P         23 55 57.1 +0.2
BZS   Buzias           81.70 346⇓iP     P         23 55 56.8 -0.1
OBKA  Obir             81.72 351⇑iP     P         23 55 57.2 +0.2
      comp=Z,24nm,0.8s,mb5.2,SNR=13
GZR   Gura Zlata       81.73 345   P     P         23 55 57.6 +0.5
GZR   Gura Zlata       81.73 345⇑iP     P         23 55 57.3 +0.2
FVI   Forni Avoltri    81.79 352   P     P         23 55 57.6 +0.2
      comp=Z,27nm,1.3s,mb5.0
FVI   Forni Avoltri    81.79 352   P     P         23 55 57.6 +0.2
FVI                                pmax  pmax
      comp=Z,27nm,1.3s,mb5.0
SSF   Saint Saulge     81.80 359⇑iP     P         23 55 57.2 -0.2
      comp=Z,100nm,1.3s,mb5.3
SSF   Saint Saulge     81.80 359⇑iP     P         23 55 57.2 -0.2
      comp=Z,50nm,1.3s,mb5.3
SSF   Saint Saulge     81.80 359⇑iP     P         23 55 57.2 -0.2
SSF                                pmax  pmax
      comp=Z,50nm,1.3s,mb5.3
PTCC  Patocco-Chiusa   81.93 352   P     P         23 55 57.5 -0.6
      comp=Z,8.8nm,0.6s,mb4.9
AVF   Avril sur Loir   82.07 359⇑iP     P         23 55 58.4 -0.4
      comp=Z,82nm,1.0s,mb5.3
AVF   Avril sur Loir   82.07 359⇑iP     P         23 55 58.4 -0.4
      comp=Z,41nm,1.0s,mb5.3
AVF   Avril sur Loir   82.07 359⇑iP     P         23 55 58.4 -0.4
AVF                                pmax  pmax
      comp=Z,41nm,1.0s,mb5.3
BRMO  Bormio           82.10 354   P     P         23 56 00.1 +1.1
      comp=Z,11nm,0.8s,mb4.8
VNDS  Vrh nad Dolski   82.10 351  i P    P         23 55 59.2 +0.2
BUC1  Bucharest        82.18 342   P     P         23 55 59.8 +0.4
WB2   Warramunga Arr   82.18 224  eP     P         23 55 57.6 -1.9
CABF  La Chapelle      82.19 357⇑iP     P         23 55 59.6 +0.2
      comp=Z,70nm,1.1s,mb5.2
CABF  La Chapelle      82.19 357⇑iP     P         23 55 59.6 +0.2
      comp=Z,35nm,1.1s,mb5.2
CABF  La Chapelle      82.19 357⇑iP     P         23 55 59.6 +0.2
CABF                               pmax  pmax
      comp=Z,35nm,1.1s,mb5.2
WRA   Warramunga Arr   82.19 224   P     P         23 55 57.9 -1.7
      comp=Z,9.6nm,0.8s,mb4.8,baz=36,slow=6.0,SNR=50
WRA                                LR    LR        00 30 25.9
      comp=Z,157nm,19.9s,MS4.4,baz=10.0,slow=34
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SMF   Signal de Mont   82.21 358⇑iP     P         23 55 59.2 -0.4
      comp=Z,144nm,1.1s,mb5.5
SMF   Signal de Mont   82.21 358⇑iP     P         23 55 59.2 -0.4
      comp=Z,72nm,1.1s,mb5.5
SMF   Signal de Mont   82.21 358⇑iP     P         23 55 59.2 -0.4
SMF                                pmax  pmax
      comp=Z,72nm,1.1s,mb5.5
MFF   Saint Martin d   82.27   1  eP     P         23 55 58.9 -0.9
      comp=Z,142nm,1.1s,mb5.5
MFF   Saint Martin d   82.27   1  eP     P         23 55 58.9 -0.9
      comp=Z,71nm,1.1s,mb5.5
MFF   Saint Martin d   82.27   1  eP     P         23 55 58.9 -0.9
MFF                                pmax  pmax
      comp=Z,71nm,1.1s,mb5.5
BGF   Bois d’Agland    82.31 359  eP     P         23 55 59.8 -0.3
      comp=Z,97nm,1.1s,mb5.3
BGF   Bois d’Agland    82.31 359  eP     P         23 55 59.8 -0.3
      comp=Z,48nm,1.1s,mb5.3
BGF   Bois d’Agland    82.31 359  eP     P         23 55 59.8 -0.3
BGF                                pmax  pmax
      comp=Z,48nm,1.1s,mb5.3
JAVS  Javornik         82.37 351  i P    P         23 55 59.3 -1.1
VISS  Visnje           82.38 351  i P    P         23 56 00.6 +0.1
TCF   Toulx Ste Croi   82.59 359⇑iP     P         23 56 01.1 -0.4
      comp=Z,64nm,1.1s,mb5.3
TCF   Toulx Ste Croi   82.59 359⇑iP     P         23 56 01.1 -0.4
      comp=Z,32nm,1.1s,mb5.3
TCF   Toulx Ste Croi   82.59 359⇑iP     P         23 56 01.1 -0.4
TCF                                pmax  pmax
      comp=Z,32nm,1.1s,mb5.3
CRAR  CRAIOVA          82.60 344   P     P         23 56 02.5 +0.9
BOJS  Bojanci          82.64 350  i P    P         23 56 01.5 -0.3
BGY   Belgrade         82.66 346⇑iP     pP        23 56 12.3 +0.5
AGO   Saint Agoulin    82.82 359  eP     P         23 56 02.3 -0.4
PLDF  La Plantade      82.89 358  eP     P         23 56 03.2 +0.1
PSI   Prapat           83.12 266   P     P         23 56 04.3 -0.5
PSI                                pmax  pmax
      comp=Z,47nm,0.9s,mb5.5
PSI   Prapat           83.12 266   P     P         23 56 04.2 -0.5
      comp=Z,47nm,0.9s,mb5.5,baz=13,slow=4.1,SNR=35
SZH   Strazhica        83.24 342   P     P         23 56 04.5 -0.5
LPL   La Plagne        83.25 356⇑iP     P         23 56 05.9 +0.9
      comp=Z,18nm,1.1s,mb4.7
LPL   La Plagne        83.25 356⇑iP     P         23 56 05.9 +0.9
      comp=Z,9.1nm,1.1s,mb4.7
LPL   La Plagne        83.25 356⇑iP     P         23 56 05.9 +0.9
LPL                                pmax  pmax
      comp=Z,9.0nm,1.1s,mb4.7
LPG   La Plagne        83.27 356⇑iP     P         23 56 06.1 +1.0
      comp=Z,80nm,1.5s,mb5.2
LPG   La Plagne        83.27 356⇑iP     P         23 56 06.1 +1.0
      comp=Z,40nm,1.5s,mb5.2
LPG   La Plagne        83.27 356⇑iP     P         23 56 06.1 +1.0
LPG                                pmax  pmax
      comp=Z,40nm,1.5s,mb5.2
RJF   Les Rejaudoux    83.58 360⇑iP     P         23 56 06.3 -0.3
      comp=Z,120nm,1.2s,mb5.6
RJF                               eMLR   MLR
      comp=Z,551nm,21.0s,MS4.6
RJF   Les Rejaudoux    83.58 360⇑iP     P         23 56 06.3 -0.3
      comp=Z,60nm,1.2s,mb5.6
RJF                                LR    LR
      comp=Z,550nm,21.0s,MS4.9
RJF   Les Rejaudoux    83.58 360⇑iP     P         23 56 06.3 -0.3
RJF                                pmax  pmax
      comp=Z,60nm,1.2s,mb5.6
RJF                                MLR   MLR
      comp=Z,550nm,21.0s,MS4.9
RKT   Rikitea          83.58 140  eSS    SS        00 11 46.9 -7.0
      comp=Z,260nm,42.2s
RKT                               eLR    LR        00 22 11.3
      comp=Z,1μm,25.0s,baz=330
NVLJ  Novalja          83.61 350   iP    P         23 56 05.7 -1.1
LBL   Lubilhac         83.63 359  eP     P         23 56 07.2 +0.2
BNI   Bardonecchia     83.72 356  eP     P         23 56 08.6 +1.2
      comp=Z,45nm,1.0s,mb5.5
BNI   Bardonecchia     83.72 356  eP     P         23 56 08.6 +1.2
BNI                                pmax  pmax
      comp=Z,45nm,1.0s,mb5.5
ORIF  Oris-en-Rattie   83.88 357⇑iP     P         23 56 08.8 +0.6
      comp=Z,65nm,1.0s,mb5.4
ORIF                              eMLR   MLR
      comp=Z,318nm,20.0s,MS4.4
ORIF  Oris-en-Rattie   83.88 357⇑iP     P         23 56 08.8 +0.6
      comp=Z,32nm,1.0s,mb5.4
ORIF  Oris-en-Rattie   83.88 357⇑iP     P         23 56 08.8 +0.6
ORIF                               pmax  pmax
      comp=Z,32nm,1.0s,mb5.4
LFF   La Frestale      83.94   0  eP     P         23 56 08.3 -0.2
      comp=Z,256nm,1.2s,mb5.9
LFF   La Frestale      83.94   0  eP     P         23 56 08.3 -0.2
      comp=Z,128nm,1.2s,mb5.9
LFF   La Frestale      83.94   0  eP     P         23 56 08.3 -0.2
LFF                                pmax  pmax
      comp=Z,128nm,1.2s,mb5.9
CAF   Calviac          83.95 360⇑iP     P         23 56 08.5 -0.1
      comp=Z,184nm,1.3s,mb5.8
CAF   Calviac          83.95 360⇑iP     P         23 56 08.5 -0.1
      comp=Z,92nm,1.3s,mb5.8
CAF   Calviac          83.95 360⇑iP     P         23 56 08.5 -0.1
CAF                                pmax  pmax
      comp=Z,92nm,1.3s,mb5.8
VIVF  Saint-Julien-l   83.98 358⇑iP     P         23 56 08.8 +0.1
      comp=Z,78nm,1.2s,mb5.4
VIVF  Saint-Julien-l   83.98 358⇑iP     P         23 56 08.8 +0.1
      comp=Z,39nm,1.2s,mb5.4
VIVF  Saint-Julien-l   83.98 358⇑iP     P         23 56 08.8 +0.1
VIVF                               pmax  pmax
      comp=Z,39nm,1.2s,mb5.4
MBDF  Montbardon       84.04 356⇑iP     P         23 56 09.5 +0.5
      comp=Z,52nm,0.9s,mb5.4
MBDF  Montbardon       84.04 356⇑iP     P         23 56 09.5 +0.5
      comp=Z,26nm,0.9s,mb5.4
MBDF  Montbardon       84.04 356⇑iP     P         23 56 09.5 +0.5
MBDF                               pmax  pmax
      comp=Z,26nm,0.9s,mb5.4
PLE   Pljevlja         84.27 347⇑iP     P         23 56 11.0 +0.8
HYB   Hyderabad        84.28 291  eP     P         23 56 10.5 -0.2
      comp=Z,125nm,1.0s,mb6.0
HYB   Hyderabad        84.28 291  eP     P         23 56 10.5 -0.2
HYB                                pmax  pmax
      comp=Z,125nm,1.0s,mb6.0
HYB   Hyderabad        84.28 291  i P    P         23 56 10.5 -0.2
      comp=Z,125nm,1.0s,mb6.0
HYB                               esP    sP        23 56 27.0 +2.8
JTS   JuntasAbangare   84.30  81   PFAKE           23 56 20.0 +9.2
JTS                                LR    LR
      comp=Z,270nm,22.0s,MS4.6
FNVD  Fontana Vidola   84.34 353   P     P         23 56 12.4 +1.8
VTS   Vitosha          84.39 344  eP     P         23 56 10.0 -0.8
UPM   Unac-Piva        84.46 347⇑iP     P         23 56 00.0  -11
FITZ  Fitzroy Crossi   84.64 232⇑iP     P         23 56 11.5 -0.7
      comp=Z,57nm,0.9s,mb5.7
FITZ  Fitzroy Crossi   84.64 232   P     P         23 56 11.6 -0.6
      comp=Z,31nm,0.9s,mb5.5,baz=41,slow=5.1,SNR=40
IVA   Berane           84.64 346⇑iP     P         23 56 12.3 +0.2
FSSB  Fossombrone      84.67 352   P     P         23 56 12.6 +0.3
      comp=Z,37nm,0.8s,mb5.6
TOUF  Mont Tournerai   84.73 356  eP     P         23 56 12.6 +0.1
AUTN  L’Aution         84.74 356  eP     P         23 56 12.5 -0.1
SAOF  Saorge           84.74 356  eP     P         23 56 12.5 -0.1
LASF  Ste Croix        84.78 358  eP     P         23 56 12.8  0.0
      comp=Z,94nm,1.2s,mb5.5
STOF  St-Etienne Org   84.80 357  eP     P         23 56 12.8 -0.1
BRY   Bratogost        84.80 347⇑iP     P         23 56 12.5 -0.4
CRE   Caprese Michel   84.82 352   P     P         23 56 13.6 +0.6
      comp=Z,42nm,1.1s,mb5.5
CRE   Caprese Michel   84.82 352   P     P         23 56 13.6 +0.6
CRE                                pmax  pmax
      comp=Z,42nm,1.1s,mb5.5
NKY   Niksic           84.83 347  eP     P         23 56 11.8 -1.3
SMRF  Simiane la Rot   84.83 357⇑iP     P         23 56 13.7 +0.6
      comp=Z,116nm,1.0s,mb5.7
SMRF  Simiane la Rot   84.83 357⇑iP     P         23 56 13.7 +0.6
      comp=Z,116nm,1.0s,mb6.0
LUCF  Luceram          84.85 356  eP     P         23 56 12.8 -0.3
MVIF  Mont Vial        84.85 356  eP     P         23 56 13.3 +0.1
MALT  Malatya          84.87 332 ⇑P     P         23 56 14.1 +0.7
SBF   Sospel           84.87 356  eP     P         23 56 12.8 -0.5
      comp=Z,141nm,0.9s,mb5.8
SBF   Sospel           84.87 356  eP     P         23 56 12.8 -0.5
      comp=Z,70nm,0.9s,mb5.8
SBF   Sospel           84.87 356  eP     P         23 56 12.8 -0.5
SBF                                pmax  pmax
      comp=Z,70nm,0.9s,mb5.8
BR131 Keskin Array S   84.88 336  eP     P         23 56 13.3 -0.1
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      comp=Z,24nm,0.8s,mb5.4
BRTR  Keskin Array B   84.89 336  P        P        23 56 13.4  0.0
      comp=Z,28nm,0.9s,mb5.4,baz=45,slow=3.6,SNR=83
BRTR                              LR       LR       00 39 13.7
      comp=Z,199nm,19.2s,MS4.5,baz=317,slow=39
PVY   Plav             84.90 346⇑iP        P        23 56 11.9 -1.5
STON  Ston             84.94 348 iP        P        23 56 12.5 -1.1
ANTO  Ankara           84.97 336 ⇑P        P        23 56 14.1 +0.3
ANTO                              LR       LR
      comp=Z,545nm,21.0s,MS4.9
REVF  Revere           85.00 356 eP        P        23 56 13.8 -0.1
CALN  Calern           85.01 356 eP        P        23 56 13.6 -0.3
PRAF  Pradon           85.02 357 eP        P        23 56 14.1 +0.1
SNTG  Esanatoglia      85.09 352  P        P        23 56 14.7 +0.3
      comp=Z,45nm,0.6s,mb5.8
MURB  Monte Urbino     85.12 352  P        P        23 56 15.0 +0.5
TTG   Podgorica        85.17 347⇑iP        P        23 56 12.1 -2.7
TAVF  Tavernes         85.18 357 eP        P        23 56 14.5 -0.3
FRF   La Foret Royal   85.21 356⇑iP        P        23 56 14.5 -0.5
      comp=Z,81nm,1.0s,mb5.5
FRF   La Foret Royal   85.21 356⇑iP        P        23 56 14.5 -0.5
      comp=Z,40nm,1.0s,mb5.5
FRF   La Foret Royal   85.21 356⇑iP        P        23 56 14.5 -0.5
FRF                               pmax     pmax
      comp=Z,40nm,1.0s,mb5.5
HCY   Herceg Novi      85.26 347⇑iP        P        23 56 14.0 -1.2
EPON  Pontenova        85.26   6  P        P        23 56 15.0 -0.3
      comp=Z,3.7nm,0.5s,mb4.8
MMB   Musomiste        85.27 343 eP        P        23 56 16.0 +0.7
ASS   Assisi           85.31 352  P        P        23 56 16.1 +0.6
      comp=Z,4.6nm,0.6s,mb4.8
ASS   Assisi           85.31 352  P        P        23 56 16.1 +0.6
ASS                               pmax     pmax
      comp=Z,5.0nm,0.6s,mb4.8
BUM   Brajici-Budva    85.34 347⇑iP        P        23 56 13.1 -2.6
EARI  Arriondas        85.40   5  P        P        23 56 15.9  0.0
      comp=Z,0.9nm,0.4s,mb4.2
GELF  Grande-Etoile    85.43 357 eP        P        23 56 14.7 -1.4
LMR   La Mourre        85.44 356⇑iP        P        23 56 15.9 -0.2
      comp=Z,111nm,1.1s,mb5.6
LMR   La Mourre        85.44 356⇑iP        P        23 56 15.9 -0.2
      comp=Z,55nm,1.1s,mb5.6
LMR   La Mourre        85.44 356⇑iP        P        23 56 15.9 -0.2
LMR                               pmax     pmax
      comp=Z,55nm,1.1s,mb5.6
NRCA  Norcia           85.50 351  P        P        23 56 16.7 +0.3
      comp=Z,43nm,0.8s,mb5.6
MTLF  Montolieu        85.53 359⇑iP        P        23 56 16.4 -0.2
      comp=Z,66nm,1.1s,mb5.5
MTLF  Montolieu        85.53 359⇑iP        P        23 56 16.4 -0.2
      comp=Z,33nm,1.1s,mb5.5
MTLF  Montolieu        85.53 359⇑iP        P        23 56 16.4 -0.2
MTLF                              pmax     pmax
      comp=Z,33nm,1.1s,mb5.5
ELAN  Lanestosa        85.55   4  P        P        23 56 16.4 -0.3
      comp=Z,4.4nm,0.6s,mb4.9
SDDR  Presa de Saban   85.62  65 eP        P        23 56 16.8 -0.7
      comp=Z,12nm,0.7s,mb5.2
SDDR                              LR       LR
      comp=Z,450nm,20.0s,MS4.9
ULC   Ulcinj           85.63 347⇑iP        P        23 56 16.0 -1.1
ASAR  Alice Springs    85.66 223  P        P        23 56 16.3 -1.0
ASAR                              pmax     pmax
      comp=Z,11nm,0.8s
ASAR  Alice Springs    85.66 223  P        P        23 56 16.2 -1.0
      comp=Z,11nm,0.8s,mb5.2,baz=28,slow=5.1,SNR=75
ARMA  Armidale         85.67 205⇑iP        P        23 56 17.3 +0.2
SJPF  Ste Jean         85.74   2 eP        P        23 56 16.8 -0.8
      comp=Z,72nm,1.3s,mb5.5
SJPF  Ste Jean         85.74   2 eP        P        23 56 16.8 -0.8
      comp=Z,36nm,1.3s,mb5.4
SJPF  Ste Jean         85.74   2 eP        P        23 56 16.8 -0.8
SJPF                              pmax     pmax
      comp=Z,36nm,1.3s,mb5.4
EPF   Esparros         85.84   1⇑iP        P        23 56 17.0 -1.1
      comp=Z,57nm,1.3s,mb5.3
EPF   Esparros         85.84   1⇑iP        P        23 56 17.0 -1.1
      comp=Z,29nm,1.3s,mb5.3
EPF   Esparros         85.84   1⇑iP        P        23 56 17.0 -1.1
EPF                               pmax     pmax
      comp=Z,29nm,1.3s,mb5.3
AQU   L'Aquila         85.94 351 ⇑P        P        23 56 18.7 +0.1
ETSF  Etsaut           85.97   1⇑iP        P        23 56 18.9 +0.2
      comp=Z,58nm,1.0s,mb5.4
ETSF  Etsaut           85.97   1⇑iP        P        23 56 18.9 +0.2
      comp=Z,29nm,1.0s,mb5.5
ETSF  Etsaut           85.97   1⇑iP        P        23 56 18.9 +0.2
ETSF                              pmax     pmax
      comp=Z,29nm,1.0s,mb5.5
PGF   Pioggiola        86.10 354⇑iP        P        23 56 19.0 -0.4
      comp=Z,221nm,1.1s,mb6.0
PGF   Pioggiola        86.10 354⇑iP        P        23 56 19.0 -0.4
      comp=Z,110nm,1.1s,mb6.0
PGF   Pioggiola        86.10 354⇑iP        P        23 56 19.0 -0.4
PGF                               pmax     pmax
      comp=Z,110nm,1.1s,mb6.0
POO   Poona            86.11 295⇑iP        P        23 56 19.5 -0.3
      comp=Z,100nm,1.0s,mb6.0
EBIE  Bielsa           86.19   1  P        P        23 56 20.3 +0.4
      comp=Z,1.1nm,0.6s,mb4.3
INTR  Introdacqua      86.23 351  P        P        23 56 18.6 -1.5
PTQR  Pietraquaria     86.27 351  P        P        23 56 20.3  0.0
      comp=Z,174nm,1.2s,mb6.2
FG2   Serracapriola    86.30 350  P        P        23 56 20.8 +0.4
      comp=Z,146nm,0.9s
FGMS  Monte Sant'Ang   86.31 349  P        P        23 56 20.2 -0.2
      comp=Z,120nm,1.0s,mb6.1
RGNG  Rignano Grg      86.38 349  P        P        23 56 20.3 -0.5
KAD   Karad            86.90 294 i P       P        23 56 23.0 -0.7
FG4   Candela          86.93 349  P        P        23 56 23.2 -0.3
      comp=Z,130nm,1.0s,mb6.1
FG4   Candela          86.93 349  P        P        23 56 23.2 -0.3
FG4                               pmax     pmax
      comp=Z,130nm,1.0s,mb6.1
RFI   Roccamonfina     86.93 351  P        P        23 56 23.7 +0.2
      comp=Z,7.4nm,1.0s,mb4.9
ESAC  San Caprasio     87.14   1  P        P        23 56 24.5  0.0
      comp=Z,29nm,0.6s,mb5.7
CSSN  Cassano Irpino   87.25 350  P        P        23 56 24.3 -0.8
      comp=Z,27nm,0.8s,mb5.5
MVO   Moncorvo         87.42   6 eP        P        23 56 25.0 -0.9
EPOB  Poblet           87.53   0  P        P        23 56 26.1 -0.3
      comp=Z,18nm,0.8s,mb5.4
PVIS  Viseu            87.81   7 eP        P        23 56 27.1 -0.6
      comp=Z,44nm,1.3s,mb5.5
ETOR  Torete           88.01   3  P        P        23 56 28.3 -0.4
      comp=Z,1.7nm,0.3s,mb4.8
ETOR  Torete           88.01   3  P        P        23 56 28.3 -0.4
ETOR                              pmax     pmax
      comp=Z,2.0nm,0.3s,mb4.8
GUD   Guadarrama       88.11   4  P        P        23 56 29.0 -0.1
      comp=Z,14nm,0.8s,mb5.2
GUD   Guadarrama       88.11   4  P        P        23 56 29.0 -0.2
GUD                               pmax     pmax
      comp=Z,14nm,0.8s,mb5.2
MTE   Manteigas        88.14   7 eP        P        23 56 30.8 +1.5
TDS   Terranova Siba   88.28 349  P        P        23 56 30.1 +0.1
      comp=Z,79nm,0.9s,mb5.9
TDS   Terranova Siba   88.28 349  P        P        23 56 30.1 +0.1
TDS                               pmax     pmax
      comp=Z,79nm,0.9s,mb5.9
TIP   Timpagrande      88.70 348 eP        P        23 56 31.3 -0.7
PCBR  Castelo Branco   88.71   7 eP        P        23 56 31.1 -0.9
      comp=Z,19nm,0.9s,mb5.4
ESDC  Sonseca Array    89.08   4 ⇑P        P        23 56 32.7 -1.1
      comp=Z,16nm,0.6s,mb5.5
ESDC  Sonseca Array    89.08   4  P        P        23 56 32.8 -0.9
      comp=Z,7.7nm,0.7s,mb5.2,baz=354,slow=4.4,SNR=41
GRI   Girifalco        89.10 348  P        P        23 56 33.3 -0.6
SJG   San Juan         89.19  62 eP        P        23 56 34.1 -0.5
      comp=Z,74nm,1.4s,mb5.8
SJG                               LR       LR
      comp=Z,476nm,19.0s,MS4.9
SJG   San Juan         89.19  62 eP        P        23 56 34.1 -0.5
SJG                               pmax     pmax
      comp=Z,74nm,1.4s
SJG                               MLR      MLR
      comp=Z,476nm,19.0s
ECHE  Chera            89.26   2  P        P        23 56 34.1 -0.5
      comp=Z,4.9nm,0.6s,mb5.0
ECHE  Chera            89.26   2  P        P        23 56 34.1 -0.5
ECHE                              pmax     pmax
      comp=Z,5.0nm,0.6s,mb5.0
CPD   Cerro la Pandu   89.38  61 eP        P        23 56 35.4 -0.1
URZ   Urewera          89.47 183  LR       LR       00 31 17.2
      comp=Z,342nm,18.2s,MS4.8,baz=233,slow=32
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MIB   Mutribah          89.53 321 eP        P        23 56 34.5 -1.5
MIB                                AMb      AMB      23 56 36.7
      comp=Z,71nm,0.8s,mb6.0
MTP   Monte Pirata      89.53  61⇑iP        P        23 56 35.8 -0.5
MTP                               e         pP       23 56 44.7 -1.5
NAY   Al-Naaiem         90.06 321 eP        P        23 56 37.2 -1.3
NAY                                AMb      AMB      23 56 39.1
      comp=Z,22nm,1.0s,mb5.4
STKA  Stephens Creek    90.09 213⇑iP        P        23 56 37.7 -0.6
      comp=Z,21nm,0.9s,mb5.5
STKA  Stephens Creek    90.09 213  P        P        23 56 37.9 -0.4
      comp=Z,24nm,0.8s,mb5.6,baz=359,slow=6.5,SNR=30
STKA                               LR       LR       00 33 36.3
      comp=Z,499nm,20.4s,MS4.9,baz=22,slow=33
EVIA  Vianos            90.17   3  P        P        23 56 39.1 +0.2
      comp=Z,9.0nm,0.8s,mb5.2
EVIA  Vianos            90.17   3  P        P        23 56 39.1 +0.2
EVIA                               pmax     pmax
      comp=Z,9.0nm,0.8s,mb5.2
MBWA  Marble Bar        90.18 235  PFAKE             23 56 50.0  +11
MBWA                               LR       LR
      comp=Z,155nm,19.0s,MS4.5
ETOB  Tobarra           90.19   2  P        P        23 56 39.1 +0.1
      comp=Z,19nm,0.9s,mb5.4
RDF   Al-Radifah        90.23 321 eP        P        23 56 38.2 -1.1
RDF                                AMb      AMB      23 56 40.1
      comp=Z,52nm,1.1s,mb5.8
PBAR  Barrancos         90.39   7 eP        P        23 56 38.9 -1.0
      comp=Z,39nm,1.3s,mb5.6
PBEJ  Beja              90.48   7 eP        P        23 56 39.8 -0.5
      comp=Z,29nm,1.7s,mb5.3
EADA  Adamuz            90.55   5  P        P        23 56 40.2 -0.5
      comp=Z,0.7nm,0.4s,mb4.3
EBAN  Banos Encina      90.59   4  P        P        23 56 40.5 -0.3
      comp=Z,7.1nm,0.7s,mb5.1
EBAN  Banos Encina      90.59   4  P        P        23 56 40.5 -0.4
EBAN                               pmax     pmax
      comp=Z,7.0nm,0.7s,mb5.1
EMIN  Mina Concepcio    90.83   6  P        P        23 56 41.3 -0.6
      comp=Z,1.2nm,0.4s,mb4.6
PALK  Pallekele         90.97 283  PFAKE             23 56 50.0 +7.0
PALK                               LR       LR
      comp=Z,196nm,21.0s,MS4.5
EQES  Quesada           90.98   4  P        P        23 56 43.8 +1.1
      comp=Z,0.3nm,0.3s,mb4.1
EMUR  La Murta          91.00   2  P        P        23 56 41.2 -1.5
      comp=Z,13nm,1.0s,mb5.2
PVAQ  Vaqueiros         91.11   7 eP        P        23 56 42.6 -0.7
      comp=Z,28nm,1.5s,mb5.4
ESPR  Espera            91.77   6  P        P        23 56 45.6 -0.8
      comp=Z,11nm,1.0s,mb5.1
EMIJ  Mijas             92.14   5  P        P        23 56 48.3 +0.2
      comp=Z,1.6nm,0.4s,mb4.7
SNZO  South Karori      92.62 185  PFAKE             23 57 00.0  +10
SNZO                               LR       LR
      comp=Z,576nm,22.0s,MS5.0
KEST  Kesra             92.86 354  P        P        23 56 50.9 -0.5
      comp=Z,5.1nm,0.9s,mb5.0,baz=334,slow=1.8,SNR=12
SDV   Santo Domingo     94.06  70 eP        P        23 56 56.8 -0.4
      comp=Z,8.5nm,0.8s,mb5.2
SDV                                LR       LR
      comp=Z,86nm,20.0s,MS4.2
ROSC  El Rosal          95.05  76  LR       LR       00 44 00.4
      comp=Z,140nm,19.1s,MS4.5,baz=183,slow=38
RPZ   Rata Peaks        95.26 188  LR       LR       00 36 33.9
      comp=Z,562nm,19.6s,MS5.0,baz=287,slow=33
OTAV  Otavalo           96.14  82 eP        P        23 57 06.8 +0.1
      comp=Z,2.7nm,0.9s,mb4.7
OTAV                               LR       LR
      comp=Z,198nm,21.0s,MS4.6
NNA   Nana             106.61  88  PFAKE             00 02 20.0  +16
NNA                                LR       LR
      comp=Z,185nm,20.0s,MS4.6
LPAZ  La Paz           115.31  84  PFAKE             00 02 30.0  +10
LPAZ                               LR       LR
      comp=Z,155nm,20.0s,MS4.6
TOA0  Torodi Ar. Sit   115.62 360 ePKPdf    PKPdf    00 02 19.6 -1.5
TORD  Torodi Ar. Bea   115.62 360  PKP      PKPdf    00 02 19.9 -1.2
TORD                               PKKPbc   PKKPbc   00 12 49.8 -1.9
TORD  Torodi Ar. Bea   115.62 360  PKP      PKPdf    00 02 19.9 -1.2
      comp=Z,4.2nm,0.8s,baz=356,slow=2.3,SNR=41
TORD                               PKKPbc   PKKPbc   00 12 49.8 -1.9
      comp=Z,2.9nm,0.9s,baz=174,slow=3.2,SNR=8.3
KMBO  Kilima Mbogo     121.45 317  PKP      PKPdf    00 02 32.2 -0.1
KMBO                               LR       LR
      comp=Z,373nm,20.0s,MS5.0
KMBO  Kilima Mbogo     121.45 317  PKIKP    PKPdf    00 02 32.2 -0.1
KMBO                               pmax     pmax
      comp=Z,5.0nm,1.0s
KMBO  Kilima Mbogo     121.45 317  PKP      PKPdf    00 02 32.2  0.0
      comp=Z,4.5nm,1.0s,baz=20,slow=6.4,SNR=8.8
TIC   Toumodi          121.82   8 ePKIKP    PKPdf    00 02 31.6 -1.4
      comp=Z,36nm,0.3s
KIC   Kosan Boka       122.13   7 ePKIKP    PKPdf    00 02 32.2 -1.4
      comp=Z,94nm,0.9s
LIC   Lamto            122.24   8⇑iPKIKP    PKPdf    00 02 32.4 -1.4
      comp=Z,40nm,0.7s
LIC                               eMLR      MLR
      comp=Z,438nm,20.8s,MS4.8
LIC   Lamto            122.24   8 ePKIKP    PKPdf    00 02 32.4 -1.4
      comp=Z,65nm,0.7s
LIC   Lamto            122.24   8⇑iPKPdf    PKPdf    00 02 32.4 -1.4
LIC                                LR       LR
      comp=Z,220nm,20.8s,MS4.8
LSZ   Lusaka           137.98 319  PFAKE             00 03 20.0  +17
LSZ                                LR       LR
      comp=Z,420nm,20.0s,MS5.2
TSUM  Tsumeb           145.33 332  PFAKE             00 03 30.0  +14
TSUM                               LR       LR
      comp=Z,347nm,19.0s,MS5.2
MAW   Mawson           146.65 218  PKPbc    PKPbc    00 03 17.4 -1.5
MAW                                LR       LR
      comp=Z,2μm,22.0s,MS5.9
MAW   Mawson           146.65 218  PKP2     PKPab    00 03 17.4 -2.7
MAW                                pmax     pmax
      comp=Z,30nm,0.9s
MAW   Mawson           146.65 218  PKPbc    PKPbc    00 03 17.4 -1.5
      comp=Z,30nm,0.9s,baz=42,slow=2.7,SNR=13
LBTB  Lobatse          147.72 316 ePKPbc    PKPbc    00 03 23.4 +0.2
LBTB  Lobatse          147.72 316 ePKP2     PKPab    00 03 23.4 -2.1
BOSA  Boshof           150.98 313 ePKPdf    PKPdf    00 03 24.9 -0.6
BOSA                              ePKPbc    PKPbc    00 03 31.1 -0.1
BOSA                               PKPbc    PKPbc    00 03 31.2  0.0
BOSA  Boshof           150.98 313  PKIKP    PKPbc    00 03 31.2  0.0
BOSA                               pmax     pmax
      comp=Z,30nm,0.8s
BOSA  Boshof           150.98 313  PKPbc    PKPbc    00 03 31.2  0.0
      comp=Z,30nm,0.8s,baz=40,slow=2.3,SNR=44
SYO   Syowa Base       154.84 212⇑ePKPdf    PKPdf    00 03 28.8 -1.0
SYO   Syowa Base       154.84 212⇓epPKPbc   pPKPbc   00 03 51.0 +2.3
HOPE  Hope Point       157.16 112  PFAKE             00 03 40.0 +6.7
HOPE                               LR       LR
      comp=Z,34nm,19.0s,MS4.2
SNAA  Sanae            159.67 176  PKPab    PKPab    00 04 11.9 -2.7
      comp=Z,1.4nm,0.9s,baz=233,slow=1.3,SNR=3.5
```

ISCJB ***25*** *00:01:28.6±0.4, 51.45N±0.02×16.14E±0.03, h0^{km}, Error ellipse: s-maj=3.3km s-min=2.1km az=24.0*

NEIC ***25*** *00:01:29.9±0.4, 51.53N×16.21E, h5^{km}, ML2.8(SZGRF), Error ellipse: s-maj=5.1km s-min=3.9km az=55.0*

CSEM ***25*** *00:01:30.4±0.1, 51.48N×16.15E, h1^{km}, ML3.4/8, Error ellipse: s-maj=1.4km s-min=1.2km az=41.0*

IPEC ***25*** *00:01:30.8±0.3, 51.47N×16.21E, h5^{km}±1^{km}, ML2.4/3, Error ellipse: s-maj=2.2km s-min=0.8km az=30.0*

IDC ***25*** *00:01:31.8±0.7, 51.49N×15.87E, h0^{km}, mb1 3.4/7, mb1mx3.2/23, mbtmp3.3/7, ML2.8/7, Error ellipse: s-maj=16.8km s-min=6.4km az=96.0*

WAR ***25*** *00:01:31.9, 51.44N×16.12E, ML2.7, Mining Induced*

PRU ***25*** *00:01:32.1, 51.39N×16.13E, h0^{km}*

VIE ***25*** *00:01:32.3±0.6, 51.32N×16.12E, h0^{km}, mb2.5/4, ML2.9/4, Error ellipse: s-maj=4.4km s-min=3.6km az=73.0, Suspected Mining induced.*

ISC 25 00:01:30.0±0.3**, 51.48N**±0.02×**16.14E**±0.03**, h0^{km}, n94, σ1^{s}10**/178**, 6C-2D, Poland**

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Code  Station Name        Δ°  AZ°   Phase ID          Time      Res
                                  Op       ISC       h  m  s    ISC
KSP   Ksiaz              0.64 171 ePg      Pg       00 01 43.0 +0.8
KSP                               eSg      Sg       00 01 50.9 +0.3
KSP   Ksiaz              0.64 171⇓iPg      Pg       00 01 43.0 +0.8
KSP                               eSg      Sg       00 01 50.5  0.0
KSP   Ksiaz              0.64 171 ePg      Pg       00 01 43.0 +0.8
KSP                               eSg      Sg       00 01 50.5  0.0
UPC   Upice              0.97 185 ePg      Pg       00 01 49.0 +0.4
UPC   Upice              0.97 185 ePG      Pg       00 01 49.0 +0.4
UPC   Upice              0.97 185 ePg      Pg       00 01 49.0 +0.4
DPC   Dobruska-Polom     1.13 174 ePg      Pg       00 01 51.8 +0.1
DPC                               eSg      Sg       00 02 06.1 -0.2
DPC   Dobruska-Polom     1.13 174 ePG      Pg       00 01 51.8 +0.1
DPC                               eSG      Sg       00 02 06.1 -0.2
      46nm,0.3s
DPC   Dobruska-Polom     1.13 174 ePg      Pg       00 01 51.8 +0.1
DPC                               eSg      Sg       00 02 06.1 -0.2
PVCC  Panska Ves         1.37 227 eSG      Sg       00 02 14.6 +0.6
      193nm,0.5s
PVCC  Panska Ves         1.37 227 ePn      Pn       00 01 56.5 +0.2
PVCC                              eSg      Sg       00 02 15.1 +1.1
BRG   Berggiesshubel     1.51 247  Pn      Pn       00 01 57.8 -0.4
BRG                                Pg      Pg       00 01 58.8 -0.1
BRG                                Sg      Sg       00 02 19.3 +0.9
BRG   Berggiesshubel     1.51 247 ePn      Pn       00 01 57.8 -0.4
BRG   Berggiesshubel     1.51 247  Pg      Pg       00 01 58.8 -0.1
BRG                               eSg      Sg       00 02 18.9 +0.5
BRG   Berggiesshubel     1.51 247  PN      Pn       00 01 57.8 -0.4
BRG                                PG      Pg       00 01 58.8 -0.1
BRG                                SG      Sg       00 02 19.3 +0.9
      53nm,0.3s
RUE   Ruedersdorf        1.77 305 ePn      Pn       00 02 01.6 -0.3
RUE                               eSn      Sn       00 02 27.9 +2.8
RUE   Ruedersdorf        1.77 305 ePn      Pn       00 02 01.6 -0.2
RUE                               eSn      Sn       00 02 27.9 +2.9
PRU   Pruhonice          1.80 215 ePn      Pn       00 02 02.1 -0.1
PRU                               ePg      Pg       00 02 03.8 -0.7
PRU                               eSg      Sg       00 02 26.1 -1.7
PRU   Pruhonice          1.80 215 ePN      Pn       00 02 02.1 -0.1
PRU                               ePG      Pg       00 02 03.8 -0.7
PRU                               eSG      Sg       00 02 26.1 -1.7
      40nm,0.5s
PRU   Pruhonice          1.80 215 ePn      Pn       00 02 02.1 -0.1
RAC   Raciborz           1.91 136 ePg      Pg       00 02 06.4 -0.1
RAC                               eSg      Sg       00 02 31.6 +0.3
RAC   Raciborz           1.91 136 ePg      Pg       00 02 06.4 -0.1
RAC                               eSg      Sg       00 02 31.6 +0.3
MORC  Moravsky Berou     1.92 152 ePn      Pn       00 02 03.6 -0.3
MORC                              eSn      Sn       00 02 30.6 +1.9
MORC  Moravsky Berou     1.92 152 ePn      Pn       00 02 03.6 -0.3
MORC                              eSg      Sg       00 02 29.8 -1.9
      25nm,0.5s
MORC                              eSn      Sn       00 02 30.6 +1.9
CLL   Collm              1.97 266 ePn      Pn       00 02 05.0 +0.4
CLL                               ePg      Pg       00 02 07.0 -0.7
CLL                               eSg      Sg       00 02 34.0 +0.7
CLL   Collm              1.97 266 ePn      Pn       00 02 05.0 +0.4
CLL                               ePg      Pg       00 02 07.0 -0.7
CLL                               eSg      Sg       00 02 34.0 +0.7
      comp=Z,23nm,0.4s
CLL   Collm              1.97 266 ePn      Pn       00 02 04.4 -0.2
OKC   Ostrava-Krasne     2.08 141 ePg      Pg       00 02 09.2 -0.6
OKC                               eSg      Sg       00 02 35.3 -1.4
OKC   Ostrava-Krasne     2.08 141 ePG      Pg       00 02 09.2 -0.6
OKC                               eSG      Sg       00 02 35.3 -1.4
      comp=Z,21nm,0.4s
OKC   Ostrava-Krasne     2.08 141 ePg      Pg       00 02 09.2 -0.6
OKC                               eSg      Sg       00 02 35.3 -1.4
      comp=Z,21nm,0.4s
VRAC  Vranov             2.19 172  Pn      Pn       00 02 08.9 +1.4
VRAC                               Sn      Sn       00 02 39.3 +4.0
VRAC  Vranov             2.19 172  Pn      Pn       00 02 08.9 +1.4
      comp=Z,2.0nm,0.3s,baz=336,slow=12,SNR=21
VRAC                               Sn      Sn       00 02 39.3 +4.0
      comp=Z,9.9nm,0.3s,baz=88,slow=17,SNR=13
VRAC  Vranov             2.19 172 ePn      Pn       00 02 08.7 +1.1
VRAC                              eSg      Sg       00 02 39.1 -1.2
      comp=Z,22nm,0.3s
VRAC                               Sn      Sn       00 02 39.3 +4.0
TREC  Trest              2.22 191 ePN      Pn       00 02 08.8 +0.8
TREC                              ePG      Pg       00 02 11.7 -0.9
TREC  Trest              2.22 191 ePn      Pn       00 02 09.1 +1.1
KRUC  Moravsky           2.42 176 ePn      Pn       00 02 12.1 +1.3
KRUC  Moravsky           2.42 176 ePg      Pg       00 02 15.1 -1.3
KRUC                              eSg      Sg       00 02 47.0 -0.8
      comp=Z,14nm,0.3s
OJC   Ojcow              2.64 117 ePg      Pg       00 02 19.9 -0.6
OJC                               eSg      Sg       00 02 55.6 +0.9
OJC   Ojcow              2.64 117 ePg      Pg       00 02 19.9 -0.6
OJC                               eSg      Sg       00 02 55.6 +0.9
NKC   Novy Kostel        2.65 243 ePn      Pn       00 02 14.4 +0.5
NKC                               ePg      Pg       00 02 20.5 -0.2
NKC                               eSg      Sg       00 02 55.6 +0.6
NKC   Novy Kostel        2.65 243 ePN      Pn       00 02 14.4 +0.5
NKC                               ePG      Pg       00 02 20.5 -0.2
NKC                               eSG      Sg       00 02 55.6 +0.6
      comp=Z,45nm,0.4s
NKC   Novy Kostel        2.65 243 ePn      Pn       00 02 14.4 +0.5
KHC   Kasperske Hory     2.87 216 ePn      Pn       00 02 17.0 +0.2
KHC                               ePg      Pg       00 02 23.4 -1.4
KHC                               eSn      Sn       00 02 49.5 -2.5
KHC                               eSg      Sg       00 02 59.8 -2.2
KHC   Kasperske Hory     2.87 216 ePN      Pn       00 02 17.0 +0.2
KHC                               ePG      Pg       00 02 23.4 -1.4
KHC                               eSN      Sn       00 02 49.5 -2.5
KHC                               eSG      Sg       00 02 59.8 -2.2
      comp=Z,15nm,0.5s
KHC   Kasperske Hory     2.87 216 ePn      Pn       00 02 17.6 +0.8
MOX   Moxa               2.97 255 ePn      Pn       00 02 19.4 +1.1
MOX                               ePg      Pg       00 02 27.4 +0.5
MOX                               eSg      Sg       00 03 06.7 +1.3
MOX   Moxa               2.97 255 ePN      Pn       00 02 19.4 +1.1
MOX                               ePG      Pg       00 02 27.4 +0.5
MOX                               eSG      Sg       00 03 06.7 +1.3
MOX   Moxa               2.97 255 ePn      Pn       00 02 19.4 +1.1
MOX   Moxa               2.97 255 ePg      Pg       00 02 26.8 -0.1
MOX                               eSg      Sg       00 03 05.5 +0.1
GEC2  GERESS Array S     3.07 212 ePn      Pn       00 02 20.0 +0.4
GEC2                              eSn      Sn       00 02 54.1 -2.8
GEC2  GERESS Array S     3.07 212 ePn      Pn       00 02 20.0 +0.4
GEC2                              eSn      Sn       00 02 54.2 -2.7
GERES GERESS Array B     3.07 212  Pn      Pn       00 02 20.8 +1.2
GERES                              Pg      Pg       00 02 26.5 -2.2
GERES                              Sn      Sn       00 02 53.9 -3.0
GERES                              Lg               00 03 04.7
GERES GERESS Array B     3.07 212  Pn      Pn       00 02 20.8 +1.2
      comp=Z,0.9nm,0.3s,baz=27,slow=13,SNR=22
GERES                              Pg      Pg       00 02 26.5 -2.2
      comp=Z,3.8nm,0.3s,baz=30,slow=17,SNR=51
GERES                              Sn      Sn       00 02 53.9 -3.0
      comp=Z,1.8nm,0.3s,baz=31,slow=24,SNR=6.2
GERES                              Lg               00 03 04.7
      comp=Z,3.3nm,0.3s,baz=30,slow=26,SNR=4.8
GERES GERESS Array B     3.07 212  Pn      Pn       00 02 20.8 +1.2
GERES GERESS Array B     3.07 212  Pg      Pg       00 02 26.5 -2.2
SMOL  Smolenice          3.08 164 ePg      Pg       00 02 30.0 +1.0
SMOL                              eSg      Sg       00 03 12.7 +3.8
SMOL  Smolenice          3.08 164 ePg      Pg       00 02 30.0 +1.0
SMOL                              eSg      Sg       00 03 12.7 +3.8
WET   Wettzell           3.13 223 ePn      Pn       00 02 21.1 +0.6
WET   Wettzell           3.13 223 ePn      Pn       00 02 21.1 +0.6
KOLL  Kolacno            3.25 152 ePg      Pg       00 02 32.1 -0.1
KOLL                              eSg      Sg       00 03 15.5 +1.3
KOLL  Kolacno            3.25 152 ePG      Pg       00 02 32.1 -0.1
KOLL                              eSG      Sg       00 03 15.5 +1.3
KOLL  Kolacno            3.25 152 ePg      Pg       00 02 32.1 -0.1
KOLL                              eSg      Sg       00 03 15.5 +1.3
NIE   Niedzica           3.37 126 eP       Pg       00 02 33.0 -1.5
NIE                               eS       Sg       00 03 17.6 -0.6
VYHS  Vyhne              3.46 149 ePg      Pg       00 02 36.0 -0.2
VYHS                              eSg      Sg       00 03 21.2 +0.3
VYHS  Vyhne              3.46 149 ePG      Pg       00 02 36.0 -0.2
VYHS                              eSG      Sg       00 03 21.2 +0.3
VYHS  Vyhne              3.46 149 ePg      Pg       00 02 36.0 -0.2
VYHS                              eSg      Sg       00 03 21.2 +0.3
CONA  Conrad Observa     3.56 183⇑iPn      Pn       00 02 27.3 +1.0
CONA                             ⇓iSg      Sg       00 03 24.1 -0.1
      comp=Z,13nm,0.3s
CONA  Conrad Observa     3.56 183  Pn      Pn       00 02 27.3 +0.9
CONA                               Sg      Sg       00 03 24.1 -0.1
      comp=Z,13nm,0.3s
CLZ   Clausthal          3.61 278 ePn      Pn       00 02 28.4 +1.3
BSD   Bornholm Skovb     3.72 349 i P      Pn       00 02 28.3 -0.2
BSD                               i S      Sn       00 03 11.0 -2.0
MOA   Molln              3.83 199⇑iPn      Pn       00 02 30.6 +0.5
MOA                              ⇑iSg      Sg       00 03 34.0 +1.1
      comp=Z,7.5nm,0.3s
MOA   Molln              3.83 199⇑iPn      Pn       00 02 30.6 +0.5
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MOA				*i* Sg	Sg	00 03 34.0	+1.1
MOA	Molln	3.83	199	⇑*i*Pn	Pn	00 02 30.6	+0.5
MOA				⇑*i*Sg	Sg	00 03 34.0	+1.1
	comp=Z,7.5nm,0.3s						
MOA	Molln	3.83	199	Pn	Pn	00 02 30.5	+0.4
MOA				Sg	Sg	00 03 34.0	+1.1
	comp=Z,7.5nm,0.3s						
STHS	Stebnicka Huta	3.86	120	*e*Pn	Pn	00 02 31.5	+1.0
STHS				*e*Pg	Pg	00 02 46.2	+2.3
STHS				*e*Sg	Sg	00 03 39.3	+5.4
STHS	Stebnicka Huta	3.86	120	*e*PN	Pn	00 02 31.5	+1.0
STHS				*e*PG	Pg	00 02 46.2	+2.3
STHS				*e*SG	Sg	00 03 39.3	+5.4
STHS	Stebnicka Huta	3.86	120	*e*Pn	Pn	00 02 31.5	+1.0
CRVS	Cervenica-Dubn	4.28	125	*e*Pg	Pg	00 02 53.7	+1.7
CRVS				*e*Sg	Sg	00 03 52.6	+5.2
CRVS	Cervenica-Dubn	4.28	125	*e*PG	Pg	00 02 53.7	+1.7
CRVS				*e*SG	Sg	00 03 52.6	+5.2
CRVS	Cervenica-Dubn	4.28	125	*e*Pg	Pg	00 02 53.7	+1.7
DAVOX	Davos/Dischmat	6.24	224	Pn	Pn	00 03 04.2	+1.0
DAVOX				Lg		00 04 46.6	
DAVOX	Davos/Dischmat	6.24	224	Pn	Pn	00 03 04.2	+1.0
	comp=Z,0.2nm,0.3s,baz=18,slow=13,SNR=6.1						
DAVOX				Lg		00 04 46.6	
	comp=Z,0.3nm,0.3s,baz=197,slow=20,SNR=2.7						
DAVOX	Davos/Dischmat	6.24	224	Pn	Pn	00 03 04.2	+1.0
HFS	Hagfors	8.79	352	Pn	Pn	00 03 37.4	-0.7
HFS				Sn	Sn	00 05 12.4	-5.3
HFS	Hagfors	8.79	352	Pn	Pn	00 03 37.4	-0.7
	comp=Z,0.1nm,0.3s,baz=138,slow=12,SNR=3.7						
HFS				Sn	Sn	00 05 12.4	-5.3
	comp=Z,0.2nm,0.3s,baz=183,slow=27,SNR=2.8						
HFS	Hagfors	8.79	352	Pn	Pn	00 03 37.3	-0.8
HFS				Sn	Sn	00 05 12.4	-5.3
NOA	NORSAR Array B	9.97	346	Pn	Pn	00 03 52.4	-1.8
NOA	NORSAR Array B	9.97	346	Pn	Pn	00 03 52.4	-1.8
	comp=Z,0.1nm,0.3s,baz=166,slow=12,SNR=2.9						
NOA	NORSAR Array B	9.97	346	Pn	Pn	00 03 52.4	-1.8
FINES	FINESS Array B	11.38	25	Pn	Pn	00 04 12.8	-0.9
FINES	FINESS Array B	11.38	25	Pn	Pn	00 04 12.8	-0.9
	comp=Z,0.1nm,0.3s,baz=220,slow=11,SNR=5.8						
FINES	FINESS Array B	11.38	25	Pn	Pn	00 04 12.8	-0.8
ARCES	ARCESS Array B	18.65	10	Pn	Pn	00 05 45.3	-3.9
ARCES	ARCESS Array B	18.65	10	Pn	Pn	00 05 45.3	-3.9
	comp=Z,0.2nm,0.3s,baz=197,slow=12,SNR=7.3						

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*BJI **25** 00:23:45.3, 39.39N×72.90E, h8^{km}, mB4.9, mb4.7, ML3.9, Ms4.2, Msz4.2*

*IDC **25** 00:23:48.0±1.2, 39.16N×73.42E, h0^{km}, mb4.0/13, mb1 4.2/16, mb1mx4.0/26, mbtmp4.0/16, ML3.5/3, MS3.9/1, Ms1 3.9/1, ms1mx3.2/27, Error ellipse: s-maj=25.8km s-min=11.8km az=172.0*

*MOS **25** 00:23:49.4±1.2, 39.15N×73.29E, h33^{km}, mb4.4/12, Error ellipse: s-maj=14.4km s-min=9.0km az=91.7*

*ISCJB **25** 00:23:49.2±0.3, 39.43N±0.03×73.50E±0.05, h10^{km}, mb4.1/19, MS3.9/1, Error ellipse: s-maj=5.2km s-min=3.7km az=9.7*

*NNC **25** 00:23:51.0±3.1, 39.44N×73.59E, h0^{km}, mb4.4, mpv4.4, Error ellipse: s-maj=25.2km s-min=13.8km az=179.0*

*NEIC **25** 00:23:54.1±0.8, 39.36N×73.40E, h35^{km}, mb4.5/5, Error ellipse: s-maj=14.6km s-min=9.8km az=140.0*

ISC 25 00:23:51.3±0.3**, 39.47N**±0.02×**73.48E**±0.04**, h10^{km}, n101, σ1^{s}54**/124**, mb4.1**/19**, MS3.9**/1**, 12C-8D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSH	Kashi	1.93	88	⇑P	Pn	00 24 26.3	+2.2
KSH				S	Sg	00 24 54.8	+1.5
KSH				Smax			
	comp=N,3μm,0.9s						
KSH				Smax			
	comp=E,3μm,0.6s						
AML	Almayashu	2.67	3	P	Pn	00 24 38.0	+3.7
	SNR=141						
AML	Almayashu	2.67	3	*e*Pn	Pn	00 24 38.1	+3.8
AML				*e*Sn	Sg	00 25 14.2	-2.8
UCH	Uchtor	2.87	16	P	Pn	00 24 41.1	+4.1
	SNR=232						
UCH	Uchtor	2.87	16	*e*Pn	Pn	00 24 41.1	+4.1
UCH				*e*Sn	Sg	00 25 20.9	-2.4
KZA	Kyzart	2.93	27	P	Pn	00 24 42.1	+4.2
	SNR=30						
EKS2	Erkin-Say	3.20	4	P	Pn	00 24 45.6	+4.0
	SNR=38						
EKS2	Erkin-Say	3.20	4	*e*Pn	Pn	00 24 45.4	+3.8
EKS2				*e*Sn	Sg	00 25 28.4	-5.6
AAK	Ala-Archa	3.25	13	P	Pn	00 24 46.5	+4.1
	SNR=181						
AAK	Ala-Archa	3.25	13	*e*Pn	Pn	00 24 45.7	+3.3
AAK				*e*Sn	Sn	00 25 23.4	+2.3
AAK	Ala-Archa	3.25	13	⇓*i*PN	Pn	00 24 45.8	+3.4
KBK	Karagaybulak	3.37	19	P	Pn	00 24 48.5	+4.5
	SNR=64						
ULHL	Ulahol	3.48	36	P	Pn	00 24 49.4	+3.9
	SNR=13						
CHMS	Chumysh	3.66	15	P	Pn	00 24 52.1	+4.2
	SNR=52						
TKM2	Tokmak 2	3.80	24	P	Pn	00 24 53.9	+4.0
	SNR=47						
TKM2	Tokmak 2	3.80	24	⇑*i*Pn	Pn	00 24 54.1	+4.3
TKM2				*e*Sn	Sg	00 25 46.4	-6.9
TKM2	Tokmak 2	3.80	24	PN	Pn	00 24 54.1	+4.2
TKM2				pmax	pmax		
	comp=Z,24nm,0.6s						
USP	Ospenovka	3.87	11	P	Pn	00 24 55.1	+4.3
	SNR=15						
KK31	Karatay Array	4.26	329	⇓Pn	Pn	00 24 58.6	+2.3
	comp=Z,33nm,0.6s,baz=138,slow=13,SNR=277						
KK31				⇑Pg	Pg	00 25 08.5	-4.5
	comp=Z,33nm,0.6s,baz=140,slow=16						
KK31				⇓Sn	Sn	00 25 51.2	+5.1
	comp=Z,18nm,0.4s,baz=148,slow=23						
KK31				⇑Lg		00 26 08.1	
	comp=Z,159nm,0.8s,baz=144,slow=29						
KK31	Karatay Array	4.26	329	*i* PN	Pn	00 24 58.8	+2.6
KK31				pmax	pmax		
	comp=Z,12nm,0.2s						
KKAR	Karatay Array	4.26	329	*e*PN	Pn	00 24 58.8	+2.6
KKAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
KNDC	Almaty	4.57	34	⇓Pg	Pg	00 25 15.3	-3.5
	comp=Z,99nm,0.7s						
KNDC				⇓Lg		00 26 15.7	
	comp=Z,790nm,1.0s						
AAA	Alma-Ata	4.61	33	*e*PN	Pg	00 25 15.6	-4.0
AAA				*i* S	Sg	00 26 17.5	-1.7
CEP	Cherat	5.77	193	P	Pn	00 25 18.9	+1.9
CEP				S	Sn	00 26 27.0	+3.7
CHCP	Chirah Chowk	5.80	182	P	Pn	00 25 19.5	+2.1
KBL	Kabul	6.07	217	*e*Pn	Pn	00 25 21.6	+0.6
KBL				*e*Sn	Sn	00 26 32.7	+2.3
THW	Thamme Wali	6.81	192	P	Pn	00 25 32.5	+1.3
THW				S	Sn	00 26 50.0	+1.3
DLH	Dalhousie	7.20	163	*e*P	Pn	00 25 37.0	+0.4
DLH				*e*x	x	00 27 03.0	
THN	Thein Dam	7.25	165	*e*P	Pn	00 25 37.4	+0.1
THN				*e*x	x	00 27 03.1	
SBDP	Sheikh Budin	7.47	198	P	Pn	00 25 40.0	-0.4
DRP	Derazinda	8.15	200	P	Pn	00 25 50.6	+0.9
SDNR	Sundarnagar	8.44	159	*e*P	Pn	00 25 53.9	+0.2
SDNR				*e*x	Sn	00 27 29.5	+0.5
MKAR	Makanchi Array	9.74	38	Pn	Pn	00 26 14.1	+2.6
MKAR	Makanchi Array	9.74	38	Pn	Pn	00 26 14.1	+2.6
	comp=Z,0.1nm,0.3s,baz=197,slow=11,SNR=11						
MK05	Makanchi Array	9.75	38	⇑Pn	Pn	00 26 12.8	+1.4
	comp=Z,4.6nm,0.9s						
MK05				⇓Lg		00 28 58.8	
	comp=Z,7.1nm,0.9s						
JOSI	Joshimath	10.19	149	*e*P	Pn	00 26 15.9	-1.6
JOSI				*e*S	Sn	00 27 57.7	-14
NDI	New Delhi	11.19	163	*e*S	Sn	00 28 26.0	-11
KHET	Khetri	11.53	170	*e*P	Pn	00 26 32.3	-3.6
KHET				AMb	AMB	00 26 33.7	
	comp=Z,6.7nm,0.7s						
KHET				*e*S	Sn	00 28 33.1	-12
KUDL	Kundal	11.57	167	*e*P	Pn	00 26 34.3	-2.2
KUDL				AMb	AMB	00 26 36.1	
	comp=Z,15nm,0.5s						
KUDL				*e*S	Sn	00 28 35.4	-10
SONA	Sohna	11.58	164	*e*P	Pn	00 26 33.8	-2.8
SONA				AMb	AMB	00 26 35.8	
	comp=Z,8.4nm,0.3s						
SONA				*e*S	Sn	00 28 31.5	-15
KURK	Kurchatov	11.81	16	⇑Pn	Pn	00 26 38.9	-0.8
	comp=Z,2.4nm,1.4s						
KURK				⇓Lg		00 30 06.5	
	comp=Z,52nm,2.1s						
KURK	Kurchatov	11.81	16	*i* P	Pn	00 26 42.2	+2.5
AB31	Akbulak array	13.75	320	⇑Pn	Pn	00 27 04.6	-1.5
	comp=Z,1.5nm,0.5s,baz=132,slow=13,SNR=29						
AB31	Akbulak array	13.75	320	*i* P	Pn	00 27 04.2	-1.9
AB31						00 29 32.1	
AB31				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AB31				smax			
	comp=Z,1.0nm,0.4s						
BRVK	Borovoye	13.77	352	⇓Pn	Pn	00 27 09.2	+2.8
	comp=Z,3.3nm,0.8s						
BRVK				⇑Lg		00 31 08.6	
	comp=Z,9.1nm,1.2s						
BRVK	Borovoye	13.77	352	*e*Pn	Pn	00 27 06.1	-0.3
	comp=Z,9.1nm,0.7s						
BRVK	Borovoye	13.77	352	P	Pn	00 27 15.7	+9.3
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
GKN	Gorkha	14.71	138	*e*P	Pn	00 27 13.1	-6.3
	comp=Z,11nm,0.4s						
GKN				*e*S	Sn	00 29 52.4	-10
KKN	Kakani	15.22	136	*e*P	Pn	00 27 19.7	-6.6
AKTK	Aktyubinsk	15.46	320	Pn	Pn	00 27 28.2	-1.0
AKTK				Sn	Sn	00 30 15.4	-5.0
AKTO	Aktyubinsk	15.46	320	P	Pn	00 27 28.2	-1.1
AKTO						00 30 15.5	
AKTO	Aktyubinsk	15.46	320	Pn	Pn	00 27 28.2	-1.0
	comp=Z,0.3nm,0.3s,baz=125,slow=12,SNR=12						
AKTO				Sn	Sn	00 30 15.4	-5.0
	comp=Z,0.1nm,0.3s,baz=342,slow=21,SNR=4.9						
JIRN	Jiri	15.82	134	*e*P	Pn	00 27 28.1	-6.0
	comp=Z,14nm,0.5s						
ZAL	Zalesovo	16.39	24	P	Pn	00 27 41.5	+0.2
ZAA0	Zalesovo Array	16.41	24	*e*Pn	Pn	00 27 40.6	-0.9
ZALV	Zalesovo Beam	16.41	24	Pn	Pn	00 27 41.5	0.0
ZALV	Zalesovo Beam	16.41	24	Pn	Pn	00 27 41.5	0.0
	comp=Z,0.4nm,0.3s,baz=209,slow=9.8,SNR=19						
NVS	Novosibirsk	16.72	20	*e*P	Pn	00 27 47.8	+2.4
NVS				pmax	pmax		
	comp=N,15nm,1.0s						
NVS				pmax	pmax		
	comp=Z,11nm,1.0s						
TAPN	Taplejung	16.92	131	*e*P	Pn	00 27 41.9	-6.3
ODAN	Odare	17.11	133	*e*P	Pn	00 27 44.6	-5.9
ARU	Arti	19.62	335	*e*P	Pn	00 28 21.0	+0.1
	comp=Z,4.7nm,0.8s						
ARU	Arti	19.62	335	⇑*e*P	Pn	00 28 21.7	+0.7
ARU				pmax	pmax		
	comp=Z,12nm,1.6s						
MAK	Makhachkala	19.82	289	*e*P	Pn	00 28 19.5	-4.0
MAK				MLR	MLR		
	comp=Z,1μm,16.0s						
GTA	Gaotai	20.32	82	*e*P	P	00 28 28.3	+0.9
GTA				AP		00 28 38.6	
GTA				XP	sP	00 28 42.9	+11
GTA				AMB	AMB		
	comp=Z,13nm,1.0s						
KIV	Kislovodsk	23.35	291	P	P	00 28 53.6	-6.1
	comp=Z,7.4nm,0.6s,mb4.3						
KIV	Kislovodsk	23.35	291	*e*P	P	00 28 53.5	-6.3
KIV				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.2						
LZH	Lanzhou	24.18	88	*e*P	P	00 29 08.1	+0.4
LZH				AP		00 29 17.3	
LZH				XP	sP	00 29 21.5	+9.5
LZH				AMB	AMB		
	comp=Z,25nm,1.5s,mb4.4						
LZH				AMB	AMB		
	comp=Z,125nm,4.0s						
LZH	Lanzhou	24.18	88	*e*P	P	00 29 08.1	+0.4
	comp=Z,25nm,1.5s,mb4.4						
LZH				pP		00 29 17.3	
LZH				sP	sP	00 29 21.5	+9.5
LZH	Lanzhou	24.18	88	*e*P	P	00 29 08.1	+0.4
LZH				*PP		00 29 17.3	
LZH				*SP	sP	00 29 21.5	+9.5
LZH				pmax	pmax		
	comp=Z,25nm,1.5s,mb4.4						
SONM	Songino Array	25.09	60	P	P	00 29 16.3	+0.4
SONM				S	S	00 33 46.3	+6.1
SONM	Songino Array	25.09	60	P	P	00 29 16.3	+0.4
SONM				S	S	00 33 46.3	+6.1
SONM				pmax	pmax		
	comp=Z,4.0nm,0.9s						
SONM				smax			
	comp=N,1.0nm,0.8s						
SONM	Songino Array	25.09	60	P	P	00 29 16.3	+0.4
	comp=N,3.6nm,0.9s,mb3.9,baz=265,slow=9.4,SNR=25						
SONM				S	S	00 33 46.3	+6.1
	comp=N,0.5nm,0.8s,baz=274,slow=23,SNR=3.6						
ULN	Ulaanbaatar	25.53	60	⇑*e*P	P	00 29 18.2	-1.7
OBN	Obninsk	29.10	315	P	P	00 29 47.9	-3.9
	comp=N,7.6nm,0.5s,mb4.7						
BRTR	Keskin Array B	30.53	283	P	P	00 30 04.9	+0.2
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
BRTR	Keskin Array B	30.53	283	P	P	00 30 04.8	+0.2
	comp=Z,2.1nm,0.8s,mb4.0,baz=85,slow=9.2,SNR=12						
BOD	Bodaibo	31.82	41	*e*P	P	00 30 14.0	-1.8
AKASG	Malin Array Be	32.74	305	P	P	00 30 24.1	+0.1
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	32.74	305	P	P	00 30 24.1	+0.2
	comp=Z,0.9nm,0.5s,mb4.0,baz=79,slow=7.6,SNR=4.7						
FINES	FINESS Array B	36.20	323	⇑*e*P	P	00 30 53.5	-0.3
FINES	FINESS Array B	36.20	323	P	P	00 30 53.6	-0.2
	comp=Z,2.9nm,0.7s,mb4.3,baz=114,slow=8.5,SNR=9.5						
KWP	Kalwaria	36.94	303	P	P	00 30 57.8	-2.5
	comp=Z,4.9nm,0.7s,mb4.5						
KWP	Kalwaria	36.94	303	P	P	00 30 57.8	-2.4
KWP				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
NJ2	Nanjing	37.24	87	*e*P	P	00 31 01.1	-1.9
NJ2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
ARCES	ARCESS Array B	39.20	336	P	P	00 31 17.8	-1.3
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES	ARCESS Array B	39.20	336	P	P	00 31 17.8	-1.3
	comp=Z,3.7nm,0.9s,mb4.1,baz=104,slow=7.6,SNR=6.4						
HFS	Hagfors	42.01	320	P	P	00 31 41.6	-0.8
HFS				pmax	pmax		
	comp=Z,5.0nm,0.6s						
HFS	Hagfors	42.01	320	P	P	00 31 41.6	-0.8
	comp=Z,4.9nm,0.6s,mb4.3,baz=102,slow=12,SNR=11						
TIXI	Tiksi	42.29	23	⇑*e*P	P	00 31 43.5	-1.0
TIXI				pmax	pmax		
	comp=Z,9.0nm,2.4s,mb4.0						
GERES	GERESS Array B	42.89	303	P	P	00 31 49.5	-0.1
	comp=Z,0.3nm,0.6s,mb3.2,baz=150,slow=28,SNR=3.0						
NB2	NORSAR Subarra	43.25	321	P	P	00 31 51.3	-1.1
	comp=Z,3.7nm,0.7s,mb4.2,baz=91,slow=8.6						
NOA	NORSAR Array B	43.25	321	P	P	00 31 51.5	-0.9
NOA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
NOA	NORSAR Array B	43.25	321	P	P	00 31 51.5	-1.0
	comp=Z,3.1nm,0.7s,mb4.2,baz=92,slow=8.0,SNR=12						
MJAR	Matsushiro Arr	50.10	72	P	P	00 32 44.8	-1.7
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MJAR				MLR	MLR		
	comp=Z,138nm,21.6s						
MJAR	Matsushiro Arr	50.10	72	P	P	00 32 44.8	-1.6
	comp=Z,1.2nm,0.5s,mb4.2,baz=283,slow=10,SNR=5.5						
MJAR				LR	LR	00 54 41.2	
	comp=Z,138nm,21.6s,MS3.9,baz=125,slow=37						
EKA	Eskdalemuir Ar	51.55	315	P	P	00 32 58.5	+1.4
EKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
EKA	Eskdalemuir Ar	51.55	315	P	P	00 32 58.5	+1.3
	comp=Z,1.8nm,0.8s,mb4.1,baz=79,slow=7.0,SNR=6.2						
ESDC	Sonseca Array	57.83	297	P	P	00 33 43.2	+0.3
	comp=Z,0.8nm,0.5s,mb4.0,baz=56,slow=7.0,SNR=7.1						
TORD	Torodi Ar. Bea	67.74	269	P	P	00 34 46.5	-2.8
TORD	Torodi Ar. Bea	67.74	269	P	P	00 34 46.5	-2.8
	comp=Z,0.9nm,0.7s,mb3.9,baz=50,slow=6.0,SNR=12						
YKA	Yellowknife Ar	78.18	4	P	P	00 35 49.3	-1.0
	comp=Z,0.8nm,0.8s,mb3.7,baz=349,slow=5.8,SNR=12						

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*IDC **25** 00:27:53.3±1.9, 6.18S×130.71E, h0^{km}, mb3.9/2, mb1 4.5/4, mb1mx4.0/13, mbtmp4.3/4, ML2.3/1, Error ellipse: s-maj=139.4km s-min=25.7km az=68.0*

*NEIC **25** 00:28:00.6±1.3, 6.76S×129.32E, h35^{km}, mb4.1/1, Error ellipse: s-maj=25.8km s-min=14.9km az=68.0*

*ISCJB **25** 00:28:02.8±6.9, 7.0S±0.3×129.4E±0.2, h83^{km}±66^{km}, mb3.6/2, Error ellipse: s-maj=53.2km s-min=22.7km az=22.8*

ISC 25 00:28:03.5±4.9**, 6.9S**±0.3×**129.4E**±0.2**, h70^{km}**±46^{km}**, n9, σ0^{s}75**/10**, mb3.6**/2**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	6.52	152	*e*Pn	Pn	00 29 43.1	+6.4
KAKA				*e*Sn	Sn	00 30 49.7	+0.1
FITZ	Fitzroy Crossi	11.69	198	*e*Pn	Pn	00 30 47.4	-0.1
FITZ				*e*Sn	Sx	00 32 48.6	
WRA	Warramunga Arr	13.83	160	Pn	Pn	00 31 15.8	-0.5
WRA	Warramunga Arr	13.83	160	Pn	Pn	00 31 15.8	-0.5
	0.0nm,0.3s,baz=348,slow=14,SNR=36						
WB2	Warramunga Arr	13.83	160	*e*Pn	Pn	00 31 15.9	-0.4
WB2				*e*Sn	Sx	00 33 39.7	
MBWA	Marble Bar	16.95	212	*e*Pn	Pn	00 31 55.9	-0.2
	18nm,1.1s						
MBWA				*e*Sn	Sx	00 34 50.6	
ASAR	Alice Springs	17.22	166	P	Pn	00 32 01.4	+2.0
	2.7nm,0.3s,baz=346,slow=11,SNR=200						
STKA	Stephens Creek	27.34	157	P	P	00 33 41.1	-0.8
	2.6nm,0.6s,mb3.9,baz=322,slow=12,SNR=3.3						
MKAR	Makanchi Array	67.80	327	P	P	00 38 54.1	+0.2
	0.2nm,0.4s,mb3.3,baz=115,slow=7.2,SNR=8.5						

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*CSEM **25** 00:32:42.6±0.1, 38.40N×39.27E, h5^{km}, MD2.9, Error ellipse: s-maj=1.5km s-min=1.1km az=169.0*

*DDA **25** 00:32:42.5, 38.52N×39.36E, h3^{km}, Md3.2*

*ISK **25** 00:32:42.2, 38.42N×39.23E, h5^{km}, MD2.9*

*ISCJB **25** 00:32:43.2±0.7, 38.40N±0.04×39.29E±0.05, h5^{km}±11^{km}, Error ellipse: s-maj=7.4km s-min=5.6km az=40.4*

ISC 25 00:32:43.8±0.7**, 38.41N**±0.04×**39.30E**±0.05**, h7^{km}**±9^{km}**, n16, σ0^{s}85**/26**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	Elazig	0.26	289	*i* P	Pg	00 32 48.4	-0.5
ELZG				*i* S	Sg	00 32 52.9	+0.6
PTK	Pertek	0.48	9	PG	Pg	00 32 52.9	-0.3
PTK				SG	Sg	00 33 00.9	+1.4
PTK	Pertek	0.48	9	*e*Pg	Pg	00 32 52.9	-0.3
PTK				*e*Sg	Sg	00 33 00.9	+1.4
MALT	Malatya	0.69	262	PG	Pg	00 32 55.2	-1.8
MALT				SG	Sg	00 33 05.8	-0.2
MALT	Malatya	0.69	262	*e*Pg	Pg	00 32 55.2	-1.8
MALT				*e*Sg	Sg	00 33 05.8	-0.2
MYA	Malataya	0.69	263	PG	Pg	00 32 56.1	-0.9
MYA				SG	Sg	00 33 05.9	-0.1
MYA	Malataya	0.69	263	*e*Pg	Pg	00 32 56.1	-0.9
MYA				*e*Sg	Sg	00 33 05.9	-0.1
DIY	Diyarbakir	0.90	125	*e*PG	Pg	00 33 00.7	-0.3
DIY	Diyarbakir	0.90	125	*e*Pg	Pg	00 33 00.7	-0.3
URFA	Urfa	1.04	201	*e*PG	Pg	00 33 03.7	0.0
URFA	Urfa	1.04	201	*e*Pg	Pg	00 33 03.7	0.0
EZC	Erzincan	1.39	17	*e*PN	Pn	00 33 09.6	-0.1
MARD	Mardin	1.61	133	*i* P	Pn	00 33 11.9	-0.7
MARD				*i* S	Sn	00 33 34.3	+0.7
BEST	Besiri	1.64	108	*i* P	Pn	00 33 12.3	-0.8
BEST				*i* S	Sn	00 33 35.2	+0.8
GZT	Gaziantep	1.73	233	*i* P	Pg	00 33 17.9	+1.0
GZT				*i* S	Sg	00 33 41.1	+1.8
BTMT	Batman	1.74	97	*e*PN	Pn	00 33 13.9	-0.5

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*IDC **25** 00:37:09.5±0.6, 51.39N×178.60W, h0^{km}, mb4.2/22, mb1 4.4/23, mb1mx4.3/28, mbtmp4.2/23, ML4.6/1, MS3.6/3, Ms1 3.6/3, ms1mx3.1/34, Error ellipse: s-maj=20.6km s-min=12.0km az=165.0*

*MOS **25** 00:37:12.9±1.1, 51.37N×178.51W, h33^{km}, mb4.9/8, Error ellipse: s-maj=12.5km s-min=11.0km az=64.1*

*BJI **25** 00:37:12.5, 51.20N×178.50W, h35^{km}, mB5.2, mb4.7, Ms4.5, Msz4.2*

*ISCJB **25** 00:37:13.7±0.9, 51.26N±0.08×178.49W±0.05, h40^{km}±7^{km}, mb4.4/37, MS3.7/5, Error ellipse: s-maj=13.4km s-min=4.7km az=168.9*

*NEIC **25** 00:37:14.6±0.4, 51.19N×178.50W, h35^{km}, mb4.5/13, ML4.4(AEIC), Error ellipse: s-maj=11.9km s-min=5.8km az=167.0*

ISC 25 00:37:15.4±0.8**, 51.27N**±0.08×**178.51W**±0.05**, h39^{km}**±7^{km}**, h18^{km}**±6.6^{km}**:pP-P, n97, σ1^{s}17**/94**, mb4.4**/37**, MS3.7**/5**, 3D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AMKA	Amchitka	1.38	275	⇓*i*Pn	Pn	00 37 37.0	-1.1
AMKA				*e*Sn	Sn	00 37 53.9	-1.2
ATKA	Atka Island	2.84	69	P	Pn	00 37 57.7	-0.4
ATKA				S	Sn	00 38 30.7	-0.3
SMY	Shemya	4.80	291	P	Pn	00 38 26.1	+1.1
SMY				*e*Sn	Sn	00 39 26.1	+6.8
UNV	Unalaska Valle	7.76	66	P	Pn	00 39 07.3	+1.7
GAMB	Gambell	13.05	13	*e*Pn	Pn	00 40 20.2	+2.3
PET	Petropavlovsk	14.12	286	Pn	Pn	00 40 30.4	-2.2
	116nm,1.8s						
PET	Petropavlovsk	14.12	286	P	Pn	00 40 30.4	-2.2
PET				pmax	pmax		
	comp=Z,116nm,1.8s						
TNA	Tin City	15.33	17	*e*Pn	Pn	00 40 50.5	+2.0
	comp=Z,11nm,1.3s						
SVW2	Sparrevohn	16.02	43	*e*Pn	Pn	00 40 58.6	+1.1
KDAK	Kodiak Island	16.33	56	Pn	Pn	00 40 59.7	-1.7
KDAK	Kodiak Island	16.33	56	Pn	Pn	00 40 59.7	-1.7
	comp=Z,2.1nm,0.3s,baz=287,slow=9.9,SNR=13						
TTA	Tatalina	16.79	37	*e*Pn	Pn	00 41 06.6	-0.5
	comp=Z,44nm,1.5s						
TTA	Tatalina	16.79	37	*e*P	Pn	00 41 06.6	-0.6
TTA				pmax	pmax		
	comp=Z,43nm,1.5s						
SLKM	Skilak Lake	18.22	49	*e*P	Pn	00 41 25.2	+0.3
BILL	Bilibino	18.39	342	*e*P	Pn	00 41 29.0	+2.0
	comp=Z,20nm,1.1s						
BILL	Bilibino	18.39	342	⇓*e*P	Pn	00 41 30.4	+3.5
BILL				pmax	pmax		
	comp=Z,9.0nm,0.8s						
BILL				MLR	MLR		
	comp=Z,100nm,17.0s						
IMA2	Indian Mountai	19.44	31	*e*P	Pn	00 41 41.1	+1.6
MCK	McKinley	19.96	40	*e*P	Pn	00 41 44.1	-1.7
	comp=Z,4.2nm,0.9s						
MCK	McKinley	19.96	40	*e*P	Pn	00 41 44.1	-1.7
MCK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
COLA	College	20.88	38	*e*P	P	00 41 56.7	+2.9
	comp=Z,8.8nm,0.8s						
COLA	College	20.88	38	*e*P	P	00 41 56.7	+2.9
COLA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
EGAK	Eagle	23.51	41	*e*P	P	00 42 20.2	-1.3
	comp=Z,7.4nm,0.7s,mb4.2						
DAWY	Dawson	24.06	43	*e*P	P	00 42 24.2	-2.3
YSS	Yuzh-Sakhalins	25.51	276	*e*P	P	00 42 40.9	+1.0
	comp=Z,23nm,0.7s,mb4.8						
YSS	Yuzh-Sakhalins	25.51	276	⇓*i*P	P	00 42 41.0	+1.1
YSS				pmax	pmax		
	comp=Z,30nm,0.7s,mb4.9						
ASAJ	Asahikawa	26.89	270	P	P	00 42 51.1	-1.2
ASAJ				pmax	pmax		
	comp=Z,14nm,1.0s						
ASAJ	Asahikawa	26.89	270	P	P	00 42 51.1	-1.2
	comp=Z,14nm,0.9s,mb4.5,baz=336,slow=20,SNR=4.0						
INK	Inuvik	27.44	35	P	P	00 42 56.3	-0.7
INK				PcP	PcP	00 46 13.0	-1.5
INK	Inuvik	27.44	35	P	P	00 42 56.3	-0.7
	comp=Z,0.9nm,0.5s,mb3.6,baz=228,slow=6.3,SNR=5.6						
INK				PcP	PcP	00 46 13.0	-1.5
	comp=Z,1.1nm,0.6s,baz=194,slow=3.5,SNR=4.4						
KLR	Kul'dur	31.39	286	*e*P	P	00 43 29.1	-3.1
MJAR	Matsushiro Arr	33.95	261	P	P	00 43 55.1	+0.4
	comp=Z,3.2nm,0.6s,mb4.4,baz=52,slow=8.5,SNR=12						
MAJO	Matsushiro	33.95	261	*e*P	P	00 43 55.2	+0.4
	comp=Z,6.7nm,0.7s,mb4.7						
MAJO	Matsushiro	33.95	261	*e*P	P	00 43 55.2	+0.4

MAJO				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
MAT	Matsushiro	33.95	261	P	P	00 43 55.8	+1.0
YKA	Yellowknife Ar	35.17	46	P	P	00 44 04.2	-0.8
YKA				PcP	PcP	00 46 35.5	+0.2
YKA				ScP	ScP	00 50 19.3	+1.7
YKA				LR	LR	00 59 44.0	
YKA	Yellowknife Ar	35.17	46	P	P	00 44 04.2	-0.8
YKA						00 46 35.5	
YKA	Yellowknife Ar	35.17	46	P	P	00 44 04.2	-0.8
	comp=Z,1.5nm,0.7s,mb4.0,baz=284,slow=8.0,SNR=14						
YKA				PcP	PcP	00 46 35.5	+0.2
	comp=Z,1.0nm,0.8s,baz=285,slow=2.8,SNR=9.6						
YKA				ScP	ScP	00 50 19.3	+1.7
	comp=Z,0.1nm,0.5s,baz=294,slow=3.0,SNR=4.7						
YKA				LR	LR	00 59 44.0	
	comp=Z,65nm,19.5s,MS3.4,baz=110,slow=39						
CN2	Changchun	37.75	281	*e*P	P	00 44 24.0	-3.2
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
EDM	Edmonton	38.70	61	*e*P	P	00 44 34.3	-0.8
EDM				*e*	pP	00 44 43.4	-2.7
NEW	Newport	38.75	70	P	P	00 44 36.0	+0.5
	comp=Z,5.3nm,0.7s,mb4.4,baz=302,slow=6.6,SNR=11						
KSRS	Korea Array	39.82	271	P	P	00 44 43.5	-1.2
	comp=Z,3.5nm,0.9s,mb4.1,baz=50,slow=8.3,SNR=9.0						
KSRS				LR	LR	00 59 44.0	
	comp=Z,39nm,18.4s,MS3.3,baz=50,slow=34						
CIT	Chita	40.75	299	*e*P	P	00 44 52.2	0.0
CIT				*e*		00 46 29.5	
MCMT	McKenzie Canyo	43.04	72	*e*P	P	00 45 10.7	-0.2
NVAR	Mina Array Bea	43.38	83	P	P	00 45 14.8	+1.0
NVAR	Mina Array Bea	43.38	83	P	P	00 45 14.8	+1.0
	comp=Z,0.3nm,0.5s,baz=275,slow=12,SNR=3.1						
QLMT	Earthquake Lak	43.88	71	*e*P	P	00 45 17.1	-0.5
BJI	Beijing	45.58	282	P	P	00 45 31.6	+0.3
BJI				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.7						
DUG	Dugway	45.71	77	*e*P	P	00 45 31.7	-0.6
	comp=Z,12nm,1.2s,mb4.7						
DUG	Dugway	45.71	77	*e*P	P	00 45 31.7	-0.6
DUG				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
PDAR	Pinedale Array	46.17	72	P	P	00 45 36.1	+0.3
	comp=Z,3.7nm,0.6s,mb4.5,baz=303,slow=3.6,SNR=25						
ULN	Ulaanbaatar	46.47	297	*e*P	P	00 45 39.0	+0.8
	comp=Z,2.7nm,0.6s,mb4.3						
ULN	Ulaanbaatar	46.47	297	*e*P	P	00 45 39.0	+0.8
ULN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
DAU	Daniels Canyon	46.53	76	*e*P	P	00 45 40.0	+1.2
SONM	Songino Array	46.86	297	P	P	00 45 42.0	+0.8
SONM						00 47 14.5	
SONM	Songino Array	46.86	297	P	P	00 45 42.0	+0.8
	comp=Z,2.2nm,0.6s,mb4.2,baz=61,slow=8.0,SNR=22						
SONM				PcP	PcP	00 47 14.5	+1.0
	comp=Z,0.7nm,0.5s,baz=74,slow=1.9,SNR=5.0						
SONM				LR	LR	01 06 16.2	
	comp=Z,140nm,18.6s,MS4.0,baz=353,slow=37						
MSU	Marysvale	47.13	79	*e*P	P	00 45 43.2	-0.3
NJ2	Nanjing	49.00	272	*e*P	P	00 46 02.4	+4.4
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
PV01	Paradox Valley	49.58	77	*e*P	P	00 46 02.5	+0.2
LAZ	Ladron	52.88	79	*e*P	P	00 46 27.9	+0.7
XAN	Xi'an	53.86	281	P	P	00 46 34.0	-0.3
XAN				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.6						
ZALV	Zalesovo Beam	54.24	314	P	P	00 46 35.7	-1.1
	comp=Z,0.3nm,0.4s,mb3.6,baz=44,slow=6.4,SNR=2.6						
ZALV				PcP	PcP	00 47 40.8	+0.1
	comp=Z,3.3nm,0.8s,baz=42,slow=4.6,SNR=14						
ZAL	Zalesovo	54.25	314	P	P	00 46 35.7	-1.2
ZAL						00 47 40.8	
LZH	Lanzhou	55.59	286	*e*P	P	00 46 48.0	+1.2
LZH				AP	pP	00 46 53.8	-4.4
LZH				AMB	AMB		
	comp=Z,26nm,1.2s,mb5.1						
LZH				AMB	AMB		
	comp=Z,130nm,5.3s						
LZH	Lanzhou	55.59	286	*e*P	P	00 46 48.0	+1.2
	comp=Z,26nm,1.2s,mb5.1						
LZH				pP	pP	00 46 53.7	-4.5
LZH				sP	sP	00 46 56.8	-5.9
GTA	Gaotai	55.78	292	P	P	00 46 48.9	+0.8
GTA				PP	PP	00 48 54.9	+2.4
GTA				S	S	00 54 33.8	+1.7
GTA				PS		00 54 46.6	
GTA				SS	SS	00 58 19.5	+2.1
GTA				AMB	AMB		
	comp=Z,23nm,0.9s,mb5.2						
GTA				AMB	AMB		
	comp=Z,290nm,6.5s						
GTA				LR	LR		
	comp=N,128nm,15.6s,MS4.2						
GTA				LR	LR		
	comp=E,92nm,16.3s,MS4.2						
GTA				LR	LR		
	comp=Z,156nm,17.5s,MS4.2						
ARCES	ARCESS Array B	58.23	350	P	P	00 47 03.0	-2.1
	comp=Z,4.1nm,0.9s,mb4.5,baz=28,slow=7.5,SNR=9.0						
TXAR	Lajitas Array	58.49	81	P	P	00 47 07.1	-0.3
	comp=Z,0.7nm,0.7s,mb3.8,baz=305,slow=4.8,SNR=5.4						
MKAR	Makanchi Array	60.24	309	P	P	00 47 18.0	-1.3
	comp=Z,0.9nm,0.7s,mb3.9,baz=44,slow=6.7,SNR=11						
GYA	Guiyang	60.52	276	P	P	00 47 25.0	+3.6
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb5.0						
KMI	Kunming	63.92	278	P	P	00 47 45.6	+1.3
KMI				AP	pP	00 47 50.4	-5.4
KMI				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.7						
KMI				LR	LR		
	comp=Z,47nm,19.0s,MS3.7						
KMI	Kunming	63.92	278	P	P	00 47 45.6	+1.3
	comp=Z,7.0nm,0.9s,mb4.7						
KMI				pP	pP	00 47 50.4	-5.4
KMI				sP	sP	00 47 52.8	-7.5
KMI				LR	LR		
	comp=Z,50nm,19.0s,MS3.7						
KMI	Kunming	63.92	278	P	P	00 47 45.6	+1.3
KMI				*SP	sP	00 47 52.8	-7.5
KMI				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
KMI				MLR	MLR		
	comp=Z,50nm,19.0s,MS3.7						
FINES	FINESS Array B	65.93	347	P	P	00 47 54.9	-1.9
	comp=Z,1.6nm,0.6s,mb4.2,baz=33,slow=4.5,SNR=7.8						
LSA	Lhasa	67.65	290	P	P	00 48 09.8	+1.6
LSA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
NOA	NORSAR Array B	67.77	355	P	P	00 48 08.8	+0.3
	comp=Z,0.8nm,0.8s,mb3.8,baz=320,slow=14,SNR=3.3						
TAPN	Taplejung	71.42	291	*e*P	P	00 48 32.6	+1.1
	comp=Z,111nm,1.0s						
ODAN	Odare	71.97	290	*e*P	P	00 48 35.6	+0.8
	comp=Z,29nm,0.9s,mb5.2						
JIRN	Jiri	72.07	292	*e*P	P	00 48 36.8	+1.4
	comp=Z,125nm,0.7s						
KKN	Kakani	72.51	293	*e*P	P	00 48 38.9	+0.9
	comp=Z,74nm,0.6s						
GKN	Gorkha	72.72	293	*e*P	P	00 48 40.0	+0.7
	comp=Z,87nm,0.8s						
AKASG	Malin Array Be	75.71	342	P	P	00 48 54.9	-1.4
AKASG	Malin Array Be	75.71	342	P	P	00 48 54.9	-1.4
	comp=Z,0.3nm,0.3s,mb3.6,baz=0.0,slow=2.1,SNR=4.4						
KWP	Kalwaria	77.86	346	*e*P	P	00 49 07.7	-0.8
	comp=Z,5.3nm,0.6s,mb4.7						
KWP	Kalwaria	77.86	346	*e*P	P	00 49 07.7	-0.7
KWP				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
GERES	GERESS Array B	79.72	352	P	P	00 49 18.4	-0.3
	comp=Z,0.5nm,0.6s,mb3.7,baz=27,slow=6.3,SNR=6.2						
WRA	Warramunga Arr	82.06	224	P	P	00 49 30.9	-0.6
	comp=Z,1.2nm,0.8s,mb3.9,baz=43,slow=6.2,SNR=7.0						
BRTR	Keskin Array B	85.12	336	P	P	00 49 46.7	-0.3
	comp=Z,3.7nm,0.9s,mb4.5,baz=45,slow=2.8,SNR=12						
ASAR	Alice Springs	85.53	223	P	P	00 49 49.0	-0.1
	comp=Z,1.8nm,0.6s,mb4.5,baz=24,slow=5.7,SNR=21						
ESDC	Sonseca Array	89.31	4	P	P	00 50 05.7	-1.6
	comp=Z,0.4nm,0.5s,mb4.0,baz=349,slow=3.7,SNR=4.2						
STKA	Stephens Creek	89.94	213	P	P	00 50 10.7	+0.7
	comp=Z,4.7nm,0.8s,mb4.9,baz=335,slow=5.5,SNR=6.6						
TORD	Torodi Ar. Bea	115.85	360	PKPdf	PKPdf	00 55 52.1	-1.8
TORD	Torodi Ar. Bea	115.85	360	PKiKP	PKiKP	00 55 52.1	-1.8
	comp=Z,0.3nm,0.5s,baz=349,slow=2.5,SNR=4.8						
LBTB	Lobatse	147.93	316	*e*PKPbc	PKPbc	00 56 56.5	+0.4
LBTB	Lobatse	147.93	316	*e*PKP2	PKPbc	00 56 56.5	+0.4
BOSA	Boshof	151.18	313	PKPbc	PKPbc	00 57 04.3	+0.2
BOSA	Boshof	151.18	313	PKIKP	PKPbc	00 57 04.3	+0.2
BOSA	Boshof	151.18	313	PKPbc	PKPbc	00 57 04.3	+0.2
	comp=Z,2.6nm,0.6s,baz=50,slow=2.9,SNR=12						

BJI ***25*** *01:18:30.4, 26.28N×109.67W, h14^{km}, mB5.5, mb4.9, Ms4.9, Msz4.4*

ISCJB ***25*** *01:18:31.9±0.3, 26.01N±0.03×110.44W±0.03, h10^{km}, mb4.5/39, MS4.3/19, Error ellipse: s-maj=5.1km s-min=2.3km az=42.4*

IDC ***25*** *01:18:32.3±0.8, 26.21N×110.53W, h0^{km}, mb4.3/18, mb1 4.3/25, mb1mx4.3/30, mbtmp4.2/25, ML3.6/7, MS4.4/19, Ms1 4.4/19, ms1mx4.2/40, Error ellipse: s-maj=17.7km s-min=11.9km az=51.0*

GCMT ***25*** *01:18:33.7±0.3, 26.33N×110.76W, h12^{km}, MW5.2/77, Moment Tensor Solution. s34,c42; s77,c122; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-5.29±.13; $M_{\theta\theta}$0.28±.13; $M_{\phi\phi}$5.01±.13; $M_{r\theta}$2.16±.48; $M_{\theta\phi}$-0.36±.12; $M_{\phi r}$3.84±.41; Best double couple: $M_0$6.74800×10^{16} NP1:ϕ_s341.00000°, δ29.00000°, λ-120.00000°. NP2: ϕ_s195.00000°, δ65.00000°, λ-74.00000°. Principal axes: T 6.3040, Plg19.0000°, Azm274.0000°; N 0.8880, Plg14.0000°, Azm9.0000°; P -7.1910, Plg66.0000°, Azm133.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***25*** *01:18:33.7±0.4, 26.00N×110.46W, h10^{km}, mb4.7/37 Error ellipse: s-maj=7.3km s-min=4.2km az=223.0*

MOS ***25*** *01:18:34.9±1.2, 26.03N×110.45W, h33^{km}, mb4.9/10, Error ellipse: s-maj=8.7km s-min=4.7km az=88.3*

MEX ***25*** *01:18:34.7±4.3, 25.96N×110.64W, h12^{km}±37^{km}, MD5.0*

ISC 25 01:18:33.4±0.3, **25.96N**±0.03×**110.46W**±0.03, **h10^{km}, n392,** σ1.19/389, **mb4.5**/40, **MS4.3**/19, **87C-80D, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	La Paz	1.85	176	⇓*e*P	Pn	01 19 06.0	+0.9
LPIG				*e*S	Sn	01 19 25.1	-3.5
LPIG				*e*		01 19 45.1	
LPIG				*e*		01 19 47.1	
LPIG	La Paz	1.85	176	Pn	Pn	01 19 06.6	+1.4
	17nm,0.3s,baz=353,slow=4.9,SNR=12						
LPIG	La Paz	1.85	176	*e*P	Pn	01 19 05.0	-0.1
LPIG				*e*S	Sn	01 19 25.4	-3.2
MAIG	Mazatlaan	4.59	126	*e*S	Sg	01 20 59.6	-1.2
MAIG				*e*		01 21 39.2	
MAIG	Mazatlaan	4.59	126	*e*P	Pn	01 19 44.6	+1.8
MAIG				*e*S	Sn	01 20 37.2	+0.9
TUC	Tucson	6.34	357	*e*Pn	Pn	01 20 02.8	-4.1
	53nm,0.9s						
TUC				*e*Sn	Sn	01 21 22.1	+2.8
TUC	Tucson	6.34	357	*e*P	Pn	01 20 02.8	-4.1
TUC				*e*		01 21 22.1	
TUC				pmax	pmax		
	comp=Z,53nm,0.9s						
116A	Eloy	6.67	351	⇑P	Pn	01 20 08.4	-3.1
	baz=6.6,SNR=24						
LTX	Lajitas	6.90	59	*e*Pn	Pn	01 20 12.4	-2.2
LTX				*e*Sg	Sg	01 22 07.0	-7.9
TXAR	Lajitas Array	6.90	59	Pn	Pn	01 20 12.6	-2.0
TXAR				Pg	Pg	01 20 42.1	-3.4
TXAR				Lg		01 22 08.6	
TXAR				LR	LR	01 23 19.5	
TXAR	Lajitas Array	6.90	59	Pn	Pn	01 20 12.6	-2.0
	comp=Z,1.0nm,0.3s,baz=240,slow=12,SNR=46						
TXAR				Pg	Pg	01 20 42.1	-3.4
	comp=Z,1.1nm,0.3s,baz=232,slow=16,SNR=5.1						
TXAR				Lg		01 22 08.6	
	comp=Z,5.4nm,0.3s,baz=245,slow=33,SNR=7.4						
TXAR				LR	LR	01 23 19.5	
	comp=Z,3µm,19.5s,baz=305,slow=42						
MNTX	Cornudas Mount	7.25	37	*e*Pn	Pn	01 20 19.9	+0.5
MNTX				*e*Sg	Sg	01 22 16.4	-10
ANIG	Ahuacatlan	7.31	131	*e*P	Pn	01 20 20.5	+0.2
ANIG				*e*S	Sn	01 21 45.2	+1.8
Z14A	Wintersburg	7.69	344	⇓P	Pn	01 20 23.8	-1.7
	baz=7.6						
GLA	Glamis	8.03	333	⇑P	Pn	01 20 25.9	-4.2
	baz=8.0						
GDL2	Guadalupe Moun	8.19	39	*e*Pn	Pn	01 20 35.4	+3.1
GDL2				*e*Sn	Sn	01 22 46.8	+42
Y14A	Wickenburg	8.26	345	⇑P	Pn	01 20 30.4	-2.8
	baz=8.2						
DVTC	Desert V Tower	8.30	325	⇓P	Pn	01 20 33.2	-0.6
	baz=8.3						
Y13A	Salome	8.36	340	⇓P	Pn	01 20 31.3	-3.4
	baz=8.3						
Y12C	Blythe	8.53	337	⇓P	Pn	01 20 35.9	-1.1
	baz=8.5						
X15A	Humboldt	8.64	350	⇑P	Pn	01 20 36.7	-1.8
	baz=8.6						
LENM	Lemitar	8.72	19	*e*Pn	Pn	01 20 39.5	-0.1
LENM				*e*Sn	Sn	01 22 53.1	+35
SFJM	Santa Fe	8.72	127	*e*P	Pn	01 20 51.0	+11
X14A	Yava	8.74	347	⇑P	Pn	01 20 39.1	-0.7
	baz=8.7						
BNM	Barren Site	8.81	21	*e*Pn	Pn	01 20 41.2	+0.4
LAZ	Ladron	8.89	18	*e*Pn	Pn	01 20 40.6	-1.3
LAZ				*e*Sn	Sn	01 23 07.1	+45
PDMCI	Parker Dam,Lak	8.91	340	⇑P	Pn	01 20 41.1	-1.1
	baz=8.9						
LPM	Los Pinos Moun	8.96	21	*e*Pn	Pn	01 20 43.4	+0.5
LPM				*e*Pg	Pn	01 21 26.2	+43
LPM				*e*Sn	Sn	01 23 08.2	+44
X13A	Yucca	9.09	342	⇑P	Pn	01 20 42.5	-2.1
	baz=9.0						
IRM	Iron Mountain	9.13	335	⇑P	Pn	01 20 44.0	-1.2
	baz=9.1						
PFO	Pinyon Flat Ob	9.23	327	Pn	Pn	01 20 44.6	-2.0
PFO				*e*Sg	Sn	01 23 17.8	+47
PFO				Lg		01 23 20.6	
PFO	Pinyon Flat Ob	9.23	327	Pn	Pn	01 20 44.6	-2.0
	comp=Z,0.1nm,0.3s,baz=42,slow=14,SNR=2.3						
PFO				Lg		01 23 20.6	
	comp=Z,0.2nm,0.3s,baz=134,slow=19,SNR=2.0						
W15A	Williams	9.32	351	⇑P	Pn	01 20 49.6	+1.7
	baz=9.3						
BELC	Belle Mtn.	9.35	330	⇑P	Pn	01 20 49.9	+1.8
	baz=9.3						
W14A	Seligman	9.50	347	⇓P	Pn	01 20 50.4	+0.2
	baz=9.4,SNR=13						
WUAZ	Wupatki	9.56	355	*e*Pn	Pn	01 20 51.2	+0.1
WUAZ	Wupatki	9.56	355	⇑P	Pn	01 20 50.6	-0.5
	baz=9.5						
W13A	Hualapai Mount	9.58	343	⇑P	Pn	01 20 51.3	-0.1
	baz=9.5,SNR=9.9						
ANMO	Albuquerque	9.61	20	*e*Pn	Pn	01 20 51.6	-0.1
ANMO				*e*Sn	Sn	01 23 28.3	+49
ANMO	Albuquerque	9.61	20	*d i*P	Pn	01 20 50.4	-1.3
ANMO	Albuquerque	9.61	20	Pn	Pn	01 20 49.2	-2.5
	comp=Z,0.1nm,0.3s,baz=210,slow=12,SNR=13						
ANMO				Lg		01 23 30.2	
	comp=Z,0.9nm,0.3s,baz=335,slow=17,SNR=5.7						
LNIG	Linares	9.99	94	*e*P	Pn	01 21 00.5	+3.5
LNIG				*e*S	Sn	01 22 51.5	+2.2
MMIG	Aquila	10.08	138	*e*P	Pn	01 21 07.0	+8.7
MMIG				*e*S	Sn	01 22 55.7	+4.2
HEC	Hector,Ludlow	10.19	332	⇓P	Pn	01 21 00.9	+1.2
	baz=10						
JCT	Junction City	10.42	62	*e*Pn	Pn	01 21 05.4	+2.5
V12A	Nelson	10.45	340	⇑P	Pn	01 21 04.3	+1.1
	baz=10,SNR=8.3						
TUQ	Turquoise Mtn.	10.55	335	⇓P	Pn	01 21 06.8	+2.1
	baz=10						
V11A	Goodsprings	10.73	338	⇑P	Pn	01 21 08.7	+1.6
	baz=11						
GSC	Goldstone	10.80	331	⇑P	Pn	01 21 09.0	+0.9
	baz=11						
U12A	Valley of Fire	11.01	343	⇑P	Pn	01 21 11.1	+0.2
	baz=11						
EDW2	Edwards Air Fo	11.01	326	⇓P	Pn	01 21 14.1	+3.1
	baz=11						
T15A	Red Dirt Ranch	11.15	352	⇓P	Pn	01 21 15.2	+2.3
	baz=11,SNR=15						
U11A	Corn Creek	11.25	339	⇑P	Pn	01 21 16.1	+1.8
	baz=11						
SHPR	Sheep Range	11.26	340	*e*Pn	Pn	01 21 15.2	+0.8
MVCO	Mesa Verde	11.35	8	*e*Pn	Pn	01 21 15.6	+0.1
	comp=Z,79nm,1.2s						
MVCO	Mesa Verde	11.35	8	⇑P	Pn	01 21 16.5	+1.0
	baz=11,SNR=27						
T13A	Saint George	11.41	346	⇓P	Pn	01 21 15.9	-0.6
	baz=11						
U10A	Ash Meadows, A	11.58	336	⇑P	Pn	01 21 21.0	+2.3
	baz=12						
ARVC	Arvin	11.64	324	⇓P	Pn	01 21 19.2	-0.3
	baz=12						
MPMC	Manual Prospec	11.74	331	⇓P	Pn	01 21 21.2	+0.3
	baz=12						
CCUT	Cedar City	11.82	349	*e*Pn	Pn	01 21 22.9	+0.9
CCUT				*e*Sn	Sn	01 23 44.0	+10
ISA	Isabella	11.87	326	⇑P	Pn	01 21 22.0	-0.8
	baz=12						
S13A	Holt Ranch, En	11.95	347	⇓P	Pn	01 21 23.0	-0.8
	baz=12						
T11A	Corn Creek, Al	11.96	341	⇑P	Pn	01 21 24.6	+0.7
	baz=12						
S14A	Cedar City	11.99	350	⇑P	Pn	01 21 27.7	+3.3
	baz=12						
TPNV	Topopah Spring	12.02	337	*e*Pn	Pn	01 21 25.1	+0.4
TPNV	Topopah Spring	12.02	337	⇑P	Pn	01 21 25.9	+1.1
	baz=12						
ARUT	Antelope Range	12.07	349	*e*Pn	Pn	01 21 28.9	+3.6
S12A	Delamar Landin	12.20	343	⇓P	Pn	01 21 28.7	+1.5
	baz=12						
PV01	Paradox Valley	12.25	7	*e*Pn	Pn	01 21 27.1	-0.7
CWC	Cottonwood Cre	12.31	330	⇑P	Pn	01 21 29.2	+0.4
	baz=12						
VES	Vestal, Richgr	12.32	325	⇑P	Pn	01 21 34.7	+5.9
	baz=12,SNR=6.3						
PV10	Paradox Valley	12.44	5	*e*Pn	Pn	01 21 30.6	+0.1
SDCO	Great Sand Dun	12.48	18	*e*Pn	Pn	01 21 31.9	+0.8
S11A	Rachel	12.49	340	⇓P	Pn	01 21 32.6	+1.4
	baz=12						
MSU	Marysvale	12.61	354	*e*Pn	Pn	01 21 34.4	+1.7
R12A	Pony Springs,	12.83	345	⇑P	Pn	01 21 36.0	+0.2
	baz=13						
S10A	Tonopah Range,	13.02	338	⇑P	Pn	01 21 39.2	+0.8
	baz=13,SNR=16						
S09A	Goldfield	13.06	336	⇑P	Pn	01 21 39.6	+0.6
	baz=13,SNR=15						
TRCR	Troy Canyon	13.10	342	*e*Pn	Pn	01 21 40.0	+0.6
SRU	San Rafael	13.12	360	*e*Pn	Pn	01 21 40.6	+0.8
PKD	Parkfield	13.18	321	⇓P	Pn	01 21 40.0	-0.6
	baz=13						
S08C	White Mtn Res	13.24	332	⇓P	Pn	01 21 42.6	+1.1
	baz=13						
R10A	Warm Springs	13.25	340	⇑P	Pn	01 21 43.0	+1.4
	baz=13,SNR=8.8						
MTUM	Tungsten Hills	13.29	331	*e*Pn	Pn	01 21 42.3	+0.2
TMUT	Trail Mountain	13.32	357	*e*Pn	Pn	01 21 43.5	+1.0
WMOK	Wichita Mounta	13.34	46	*e*Pn	Pn	01 21 42.2	-0.7
TPH	Tonopah	13.37	336	*e*Pn	Pn	01 21 43.3	+0.1
R09A	Tonopah	13.46	337	⇑P	Pn	01 21 44.6	+0.1
	baz=13,SNR=12						
SMCO	Snowmass	13.51	12	*e*Pn	Pn	01 21 46.2	+1.1
HKT	Hockley	13.52	70	*e*Pn	Pn	01 21 44.4	-1.0
	comp=Z,131nm,1.4s						
HKT	Hockley	13.52	70	*e*P	Pn	01 21 44.4	-1.0
HKT				pmax	pmax		
	comp=Z,131nm,1.4s						
T06C	Millerton Lake	13.54	327	⇑P	Pn	01 21 48.0	+2.4
	baz=14						
Q12A	Willow Creek R	13.56	345	⇓P	Pn	01 21 46.7	+1.0
	baz=14						
Q11A	Duckwater	13.58	342	⇑P	Pn	01 21 45.6	-0.5
	baz=14,SNR=11						
KCC	Kaiser Creek	13.61	329	⇓P	Pn	01 21 47.1	+0.7
	baz=14						
Q10A	Clear Creek Ra	13.77	340	⇑P	Pn	01 21 48.7	0.0
	baz=14,SNR=9.0						
P12A	McGill	13.99	346	⇓P	Pn	01 21 52.5	+0.9
	baz=14,SNR=10						
NLU	North Lily Min	14.03	355	*e*Pn	Pn	01 21 51.5	-0.7
Q09A	Carvers	14.04	338	⇓P	Pn	01 21 52.6	+0.3
	baz=14						
MPU	Maple Canyon	14.06	356	*e*Pn	Pn	01 21 56.2	+3.7
NVAR	Mina Array Bea	14.09	334	Pn	Pn	01 21 54.2	+1.2
NVAR	Mina Array Bea	14.09	334	Pn	Pn	01 21 54.2	+1.2
	comp=Z,0.1nm,0.3s,baz=147,slow=14,SNR=13						
TPIG	Tehuac#an	14.25	119	*e*P	Pn	01 21 57.1	+1.8
Q08A	Gabbs	14.32	336	⇑P	Pn	01 21 58.0	+1.8
	baz=14						
DUG	Dugway	14.34	353	*e*Pn	Pn	01 21 57.4	+1.0
DUG	Dugway	14.34	353	⇑P	Pn	01 21 57.5	+1.1
	baz=14						
ISCO	Idaho Springs	14.39	15	*e*Pn	Pn	01 21 57.2	+0.1
DAU	Daniels Canyon	14.43	358	*e*Pn	Pn	01 21 58.9	+1.2
P10A	Eureka	14.53	341	⇓P	Pn	01 22 00.8	+1.8
	baz=14,SNR=6.5						
WAKR	Walker	14.63	331	*e*Pn	Pn	01 21 56.1	-4.3
JLU	Jordanelle	14.63	357	*e*Pn	Pn	01 22 02.0	+1.6
R06C	Coleville	14.65	331	⇑P	Pn	01 22 05.0	+4.4
	baz=15,SNR=6.5						
CMB	Columbia Colle	14.68	328	*e*Pn	Pn	01 22 01.4	+0.3
	comp=Z,11nm,1.0s						
CMB	Columbia Colle	14.68	328	*e*P	Pn	01 22 01.4	+0.3
CMB				pmax	pmax		
	comp=Z,11nm,1.0s						
O12A	Currie	14.72	347	⇑P	Pn	01 22 03.0	+1.5
	baz=15						
CTU	Camp Tracy	14.74	356	*e*P	Pn	01 22 07.4	+5.5
O11A	Cowboy Ranch,	14.79	344	⇑P	Pn	01 22 05.3	+2.8
	baz=15,SNR=11						
NATX	Nacogdoches	15.00	64	*e*Pn	Pn	01 22 03.1	-2.3
R05C	Kirkwood Meado	15.07	330	⇑P	Pn	01 22 10.9	+4.5
	baz=15						
BGU	Big Grassy Mou	15.08	352	*e*P	Pn	01 22 11.7	+5.1
P08A	Dixie Valley	15.12	337	⇑P	Pn	01 22 13.4	+6.4
	baz=15						
O10A	Cortez Mining,	15.16	342	⇓P	Pn	01 22 08.8	+1.2
	baz=15						
N13A	Wendover, West	15.18	349	⇓P	Pn	01 22 09.6	+1.8
	baz=15,SNR=8.8						
O09A	Fish Creek Ran	15.25	340	⇑P	Pn	01 22 11.0	+2.3
	baz=15,SNR=9.7						
ELK	Elko	15.28	346	*e*Pn	Pn	01 22 10.3	+1.2
	comp=Z,62nm,1.5s						
ELK	Elko	15.28	346	*e*P	Pn	01 22 10.3	+1.2
ELK				pmax	pmax		
	comp=Z,61nm,1.5s						
N12A	Clover Valley,	15.34	347	⇑P	Pn	01 22 11.8	+2.0
	baz=15,SNR=6.3						
SPUT	South Promonto	15.40	354	*e*P	Pn	01 22 15.9	+5.2
LAVA	Lava Cap Winer	15.42	328	⇓P	Pn	01 22 15.3	+4.3
	baz=15						
BMN	Battle Mountai	15.50	340	*e*Pn	Pn	01 22 11.9	-0.1
	comp=Z,33nm,1.0s						
BMN	Battle Mountai	15.50	340	*e*P	Pn	01 22 11.9	-0.1
BMN				pmax	pmax		
	comp=Z,33nm,1.0s						
VHO	Vista Hermosa	15.52	122	*e*P	Pn	01 22 21.4	+9.0
M15A	Larsen Ranch,	15.56	354	⇓P	Pn	01 22 17.2	+4.4
	baz=16,SNR=13						
PAHR	Pah Rah Range	15.62	334	*e*Pn	Pn	01 22 14.0	+0.4
	comp=Z,41nm,1.2s						
HWUT	Hardware Ranch	15.64	357	*e*Pn	Pn	01 22 14.3	+0.5
	comp=Z,45nm,1.2s						
M13A	Montello	15.67	350	⇓P	Pn	01 22 16.1	+1.9
	baz=16,SNR=7.2						
CBKS	Cedar Bluff	15.68	33	*e*Pn	Pn	01 22 14.0	-0.3
	comp=Z,123nm,1.3s						
CBKS	Cedar Bluff	15.68	33	*e*P	Pn	01 22 14.0	-0.4
CBKS				pmax	pmax		
	comp=Z,123nm,1.3s						
M14A	Sheep Mountain	15.69	352	⇑P	Pn	01 22 14.8	+0.3
	baz=16,SNR=13						
Q04C	Lincoln	15.80	327	⇑P	Pn	01 22 17.4	+1.5
	baz=16						
P05C	Yuba Gap, Truc	15.80	330	⇓P	Pn	01 22 16.8	+0.8
	baz=16						
O07A	Toulon	15.81	336	⇓P	Pn	01 22 17.7	+1.6
	baz=16,SNR=13						
M12A	Wells	15.86	348	⇑P	Pn	01 22 18.0	+1.3
	baz=16,SNR=11						
PHWY	Pilot Hill	15.86	14	*e*Pn	Pn	01 22 16.9	+0.2
HVU	Hansel Valley	15.90	354	*e*Pn	Pn	01 22 17.3	+0.1
	comp=Z,34nm,1.1s						
HVU	Hansel Valley	15.90	354	*e*P	Pn	01 22 17.3	+0.1
HVU				pmax	pmax		
	comp=Z,34nm,1.1s						
RWWY	Rawlins	15.92	9	*e*P	Pn	01 22 26.6	+9.2
	comp=Z,71nm,1.3s						
N09A	Rock Creek Ran	15.98	340	⇓P	Pn	01 22 20.1	+1.9

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      baz=16
M11A  Holland Ranch,     16.05 345 ⇑P     Pn      01 22 23.5 +4.2
      baz=16,SNR=9.2
N08A  GE Springer Mi     16.11 339 ⇑P     Pn      01 22 20.6 +0.7
      baz=16,SNR=12
BEKR  Beckwourth         16.16 332 ⇑P     Pn      01 22 21.2 +0.7
      baz=16
OHCM  Honcut             16.24 328 ePn    Pn      01 22 21.3 -0.3
M10A  I.L. Ranch, Tu     16.32 344 ⇓P     Pn      01 22 23.3 +0.6
      baz=16,SNR=6.0
L13A  Double Diamond     16.35 351 ⇓P     Pn      01 22 26.4 +3.4
      baz=16,SNR=9.2
N07B  Gerlach            16.39 337 ⇓P     Pn      01 22 24.3 +0.7
      baz=16,SNR=13
M09A  Marrel Ranch,      16.48 341 ⇑P     Pn      01 22 25.1 +0.4
      baz=16,SNR=7.0
O05C  Quincy             16.48 331 ⇓P     Pn      01 22 22.6 -2.1
      baz=16
L12A  House Creek Ra     16.58 348 ⇓P     Pn      01 22 26.7 +0.8
      baz=16,SNR=8.6
N06A  Buffalo Meadow     16.69 334 ⇓P     Pn      01 22 28.3 +1.0
      baz=17,SNR=10
K14A  Jones Ranch, D     16.70 353 ⇑P     Pn      01 22 28.4 +1.0
      baz=17,SNR=11
L11A  Cat Creek Ranc     16.75 346 ⇑P     Pn      01 22 28.6 +0.5
      baz=17,SNR=13
AHID  Auburn Hatcher     16.78 358 ePn    Pn      01 22 28.8 +0.3
      comp=Z,87nm,1.6s
BW06  Boulder Array      16.79   2 ePn    Pn      01 22 27.9 -0.7
      comp=Z,104nm,1.4s
M08A  Happy Creek Ra     16.79 339 ⇑P     Pn      01 22 29.1 +0.6
      baz=17
PDAR  Pinedale Array     16.79   2  Pn    Pn      01 22 27.9 -0.6
PDAR                                Lg            01 27 16.2
PDAR  Pinedale Array     16.79   2  Pn    Pn      01 22 27.9 -0.6
      comp=Z,0.1nm,0.3s,baz=179,slow=9.9,SNR=19
PDAR                                Lg            01 27 16.2
      comp=Z,0.1nm,0.3s,baz=74,slow=37,SNR=2.7
HUIG  Huatulco           16.79 124 eP     Pn      01 22 34.4 +5.6
L10A  Juniper Basin      16.83 344 ⇑P     Pn      01 22 29.0 -0.1
      baz=17,SNR=16
MIAR  Mount Ida          16.90  56 ePn    Pn      01 22 31.0 +1.0
CMIG  Matias Romero      16.95 118  P     Pn      01 22 33.9 +3.2
CMIG                                LR    LR      01 28 40.3
CMIG  Matias Romero      16.95 118  P     Pn      01 22 33.9 +3.2
      comp=Z,0.3nm,0.3s,baz=306,slow=8.8,SNR=18
CMIG                                LR    LR      01 28 40.3
      comp=Z,2µm,19.8s,baz=133,slow=36
M07A  Soldier Meadow     17.00 337 ⇓P     Pn      01 22 31.9 +0.7
      baz=17,SNR=11
K12A  Draper Farm, C     17.04 349 ⇑P     Pn      01 22 32.8 +1.1
      baz=17,SNR=10
L09A  Wilkinson Ranc     17.09 341 ⇓P     Pn      01 22 33.1 +0.7
      baz=17
M06C  Likely Place G     17.33 334 ⇑P     Pn      01 22 36.6 +1.3
      baz=17
REDW  Red Top Meadow     17.37 359 ePn    Pn      01 22 35.5 -0.3
K11A  Parker Ranch,      17.39 346 ⇑P     Pn      01 22 36.7 +0.6
      baz=17
HATC  Hat Creek Radi     17.41 331 ⇓P     Pn      01 22 36.8 +0.4
      baz=17
L08A  Fields             17.45 340 ⇓P     Pn      01 22 37.5 +0.7
      baz=17,SNR=9.0
KSU1  Kansas State U     17.53  38 ePn    Pn      01 22 37.7 -0.1
K10A  MacKenzie Ranc     17.59 344 ⇑P     Pn      01 22 38.8 +0.3
      baz=18
DCID1 Drake Creek        17.61 358 ePn    Pn      01 22 38.8  0.0
LOHW  Long Hollow        17.62 360 ePn    Pn      01 22 38.3 -0.6
J13A  Cove Ranch, Pi     17.66 351 ⇑P     Pn      01 22 40.0 +0.5
      baz=18
J12A  Stokes Ranch,      17.67 349  P     Pn      01 22 40.3 +0.8
      baz=18,SNR=9.0
K09A  Rome               17.74 342 ⇑P     Pn      01 22 40.8 +0.4
      baz=18,SNR=12
MOOW  Moose Ponds        17.75 359 ePn    Pn      01 22 40.8 +0.1
HLID  Hailey             17.86 351 ePn    Pn      01 22 42.7 +0.8
HLID  Hailey             17.86 351 ⇓P     Pn      01 22 42.8 +0.9
      baz=18
MOD   Modoc              17.86 335 ePn    Pn      01 22 43.1 +1.1
IMW   Indian Meadow      17.91 359 ePn    Pn      01 22 42.8 +0.3
      comp=Z,93nm,1.4s
UALR  University of      17.91  56 ePn    Pn      01 22 41.5 -1.1
      comp=Z,94nm,1.6s
MFID  Camas Ranch        17.96 347 ⇓P     Pn      01 22 43.5 +0.3
      baz=18
K08A  Mann Creek Ran     17.98 341 ⇓P     Pn      01 22 44.9 +1.5
      baz=18
I13A  Wildhorse Cree     18.16 351  P     Pn      01 22 46.9 +1.2
      baz=18,SNR=12
K07A  Rock Creek Ran     18.19 339 ⇑P     Pn      01 22 46.7 +0.7
      baz=18,SNR=10
L05A  Lakeview           18.19 335 ⇓P     Pn      01 22 46.5 +0.5
      baz=18
J09A  Fry Pan Ranch,     18.35 343 ⇑P     Pn      01 22 48.3 +0.4
      baz=18,SNR=14
M04C  Macdoel            18.37 332 ⇓P     Pn      01 22 48.6 +0.4
      baz=18
YFT   Old Faithful       18.46 359 eP     Pn      01 22 51.0 +1.8
I11A  Placerville        18.47 347 ⇓P     Pn      01 22 49.3  0.0
      baz=18
J08A  Circle Bar Ran     18.55 341  P     Pn      01 22 50.8 +0.4
      baz=18,SNR=8.0
LKWY  Lake               18.57   0 ePn    Pn      01 22 52.1 +1.5
      comp=Z,33nm,1.3s
LKWY  Lake               18.57   0 eP     Pn      01 22 52.1 +1.5
LKWY                                pmax  pmax
      comp=Z,33nm,1.3s
YMR   Madison River      18.68 359 eP     Pn      01 22 53.6 +1.7
      comp=Z,101nm,1.5s
L04A  Klamath Falls      18.72 333 ⇑P     Pn      01 22 56.0 +3.6
      baz=19
J07A  Hines              18.82 340 ⇓P     Pn      01 22 53.8 +0.1
      baz=19,SNR=9.7
H13A  Challis            18.82 352 ⇓P     Pn      01 22 53.5 -0.2
      baz=19,SNR=10.0
QLMT  Earthquake Lak     18.85 358 ePn    Pn      01 22 55.7 +1.7
H12A  Diamond D Ranc     18.89 350 ⇓P     Pn      01 22 54.1 -0.4
      baz=19,SNR=11
I09A  Lost Marbles R     18.93 344 ⇓P     Pn      01 22 54.9 -0.1
      baz=19
MCMT  McKenzie Canyo     18.93 355 ePn    Pn      01 22 54.8 -0.2
J06A  Christmas Vall     18.99 338 ⇑P     Pn      01 22 55.7  0.0
      baz=19,SNR=9.3
I08A  Drewsey            19.09 342 ⇓P     Pn      01 22 56.6 -0.3
      baz=19
RLMT  Red Lodge          19.15   3 ePn    Pn      01 22 57.9 +0.3
      comp=Z,72nm,1.6s
H11A  Donnelly           19.24 348 ⇓P     Pn      01 22 58.2 -0.5
      baz=19,SNR=8.4
G15A  Dillon             19.24 356 ⇓P     Pn      01 22 59.0 +0.3
      baz=19,SNR=9.8
H10A  Noah’s Angus R     19.28 346 ⇓P     Pn      01 22 57.9 -1.2
      baz=19,SNR=14
G13A  Cobalt             19.34 352 ⇑P     Pn      01 22 58.8 -1.1
      baz=19,SNR=13
G14A  Jackson            19.40 354 ⇓P     Pn      01 23 00.2 -0.4
      baz=19
J05A  Fort Rock          19.40 336 ⇓P     Pn      01 22 59.7 -0.9
      baz=19,SNR=11
DLMT  Dillon             19.44 355 ePn    Pn      01 23 02.4 +1.3
      comp=Z,71nm,1.4s
HBAR  Harrisburg         19.49  56 eP     Pn      01 23 00.5 -1.4
I07A  Izee               19.52 340 ⇑P     Pn      01 23 00.8 -1.3
      baz=20
CCIG  Comitan            19.59 116 eP     Pn      01 23 03.0 -0.2
CCIG  Comitan            19.59 116 eP     Pn      01 23 05.1 +1.9
I06A  Prineville         19.62 339 ⇑P     Pn      01 23 01.8 -1.5
      baz=20
BMO   Blue Mountains     19.65 345 eP     Pn      01 23 01.8 -1.9
BOZ   Bozeman (W)        19.67 358 ePn    Pn      01 23 02.8 -1.1
H08A  Prairie City       19.68 342 ⇓P     Pn      01 23 02.5 -1.4
      baz=20,SNR=12
GCMT  Greycliff          19.80   2 eP     Pn      01 23 04.7 -0.8
LRM   Limekiln Ridge     19.89 356 ePn    Pn      01 23 06.2 -0.3
F15A  Butte              19.91 356 ⇓P     Pn      01 23 06.1 -0.6
      baz=20,SNR=9.8
F14A  Wisdom             19.95 354 ⇑P     Pn      01 23 05.6 -1.6
      baz=20
G11A  Walters Elk Ra     19.96 348  P     Pn      01 23 03.5 -3.7
      baz=20
H07A  Lands Inn, Kim     20.00 341 ⇓P     Pn      01 23 05.6 -2.2
      baz=20
F13A  Darby              20.04 352 ⇑P     P       01 23 06.0 -0.4
      baz=20,SNR=16
F12A  Elk City           20.13 350 ⇓P     P       01 23 07.4 -0.1
      baz=20,SNR=9.6
GNAR  Gosnell            20.14  55  Pn    P       01 23 04.9 -2.7
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      comp=Z,1µm,1.6s
G09A  Cove               20.16 345 ⇑P     P       01 23 08.4 +0.6
      baz=20
F11A  Grangeville        20.41 349 ⇑P     P       01 23 09.8 -0.6
      baz=20,SNR=22
G08A  Pilot Rock         20.47 343 ⇓P     P       01 23 10.7 -0.5
      baz=20
E15A  Deer Lodge         20.50 356 ⇑P     P       01 23 11.2 -0.3
      baz=20,SNR=6.2
E14A  Clinton            20.56 354 ⇑P     P       01 23 11.7 -0.4
      baz=20,SNR=17
F09A  S2 Ranch, Elgi     20.60 345 ⇑P     P       01 23 12.6  0.0
      baz=21,SNR=12
HALT  Halls              20.62  56 eP     P       01 23 12.7 -0.1
HALT                               epP            01 23 19.0
G07A  Ruggs Ranch, H     20.65 341 ⇑P     P       01 23 12.6 -0.4
      baz=21,SNR=9.5
E13A  Victor             20.66 353 ⇓P     P       01 23 12.4 -0.8
      baz=21,SNR=15
F10A  Beach Ranch, E     20.70 347 ⇑P     P       01 23 12.9 -0.7
      baz=21,SNR=12
FVM   French Village     20.75  50 eP     P       01 23 13.3 -0.9
FVM                                epP            01 23 18.8
GLAT  Glass              20.80  55 eP     P       01 23 16.2 +1.4
E11A  Bogner Ranch,      20.87 349 ⇓P     P       01 23 14.3 -1.2
      baz=21,SNR=14
F08A  Pendleton          20.89 344 ⇑P     P       01 23 14.9 -0.8
      baz=21
LAO   LASA Array         20.96   8 eP     P       01 23 16.3 -0.2
      comp=Z,149nm,1.8s
ECSD  EROS,Sioux Fal     21.01  29 eP     P       01 23 16.2 -0.9
      comp=Z,26nm,1.2s,mb4.4
MSO   Missoula           21.02 353 eP     P       01 23 16.0 -1.0
MSO                                epP            01 23 21.8
CHMT  Chamberlain Mo     21.04 355 eP     P       01 23 16.6 -0.7
D15A  Lincoln            21.11 356 ⇓P     P       01 23 16.8 -1.2
      baz=21
UTMT  University of      21.14  55 ePn    P       01 23 19.7 +1.2
BRAL  Brewton            21.16  71 eP     P       01 23 23.7 +4.9
      comp=Z,340nm,1.3s,mb5.5
E10A  Myers Farm, Un     21.16 347 ⇑P     P       01 23 17.5 -1.2
      baz=21
TEIG  Tepich             21.18 101 eP     P       01 23 23.6 +4.6
      comp=Z,71nm,1.3s,mb4.8
TEIG  Tepich             21.18 101  P     P       01 23 21.5 +2.5
      comp=Z,17nm,0.9s,mb4.4,baz=276,slow=12,SNR=5.6
TEIG                                LR    LR      01 33 15.3
      comp=Z,1µm,18.7s,MS4.4,baz=95,slow=42
TEIG  Tepich             21.18 101 eP     P       01 23 23.5 +4.5
SLM   Saint Louis        21.21  48 eP     P       01 23 18.7 -0.5
D14A  Greenough          21.22 354 ⇑P     P       01 23 18.2 -1.1
      baz=21,SNR=35
PLAL  Pickwick Lake      21.25  60 ePn    P       01 23 22.7 +3.0
F07A  Phinny Hill Vi     21.30 342 ⇓P     P       01 23 19.2 -0.8
      baz=21
HOOD  Mount Hood Mea     21.32 338 ePn    P       01 23 24.8 +4.4
D13A  Huson              21.34 352 ⇓P     P       01 23 19.8 -0.7
      baz=21,SNR=9.4
D12A  Red Ives Fores     21.41 351 ⇓P     P       01 23 19.5 -1.9
      baz=21
E09A  Wood Farm, Sta     21.41 345 ⇑P     P       01 23 18.3 -3.0
      baz=21
SIUC  Southern Illin     21.47  52 eP     P       01 23 21.9 -0.1
D11A  Klaveano Farm,     21.56 349 ⇑P     P       01 23 21.4 -1.5
      baz=22,SNR=24
LRAL  Lakeview Retre     21.58  65 eP     P       01 23 23.7 +0.4
      comp=Z,87nm,1.4s,mb5.0
HAWA  Hanford            21.64 343 eP     P       01 23 21.9 -1.9
      comp=Z,20nm,1.0s,mb4.5
D10A  Wagner Farm, O     21.74 347 ⇓P     P       01 23 23.4 -1.5
      baz=22
E07A  Sunnyside          21.88 342 ⇑P     P       01 23 25.2 -1.2
      baz=22,SNR=7.2
MDW   Midway             21.91 343  P     P       01 23 25.8 -0.8
C13A  Hot Springs        21.93 353 ⇑P     P       01 23 24.8 -2.0
      baz=22
C14A  Swan Lake          21.93 354 ⇓P     P       01 23 25.0 -1.8
      baz=22
D09A  Jones Farm, Ri     21.97 346 ⇓P     P       01 23 25.5 -1.7
      baz=22
EGMT  Eagleton           22.04   1 eP     P       01 23 26.8 -1.2
EGMT  Eagleton           22.04   1 ⇓P     P       01 23 26.4 -1.6
      baz=22,SNR=14
D08A  Wollman Farm,      22.11 344 ⇓P     P       01 23 26.7 -2.0
      baz=22,SNR=11
BSMT  Bassoo Peak        22.12 352  P     P       01 23 28.4 -0.5
E05A  Randle             22.45 339 ⇓P     P       01 23 31.7 -0.7
      baz=22,SNR=12
D07A  Quincy             22.50 343 ⇑P     P       01 23 31.3 -1.7
      baz=22
WPW   White Pass         22.50 340  P     P       01 23 32.8 -0.2
B13A  Whitefish          22.60 353 ⇓P     P       01 23 34.0  0.0
      baz=23
LON   Longmire           22.63 339  P     P       01 23 33.7 -0.7
USIN  University of      22.68  53 eP     P       01 23 34.6 -0.3
FMW   Mount Fremont      22.75 340  P     P       01 23 34.8 -0.8
HDIL  Hopedale           22.84  45 eP     P       01 23 35.1 -1.5
      comp=Z,196nm,1.1s,mb5.5
NEW   Newport            22.88 348  P     P       01 23 34.6 -2.3
NEW                                 LR    LR      01 34 04.7
NEW   Newport            22.88 348  P     P       01 23 34.6 -2.3
      comp=Z,6.5nm,0.8s,mb4.1,baz=168,slow=12,SNR=19
NEW                                 LR    LR      01 34 04.7
      comp=Z,596nm,18.9s,MS4.1,baz=177,slow=41
SWET  Sewanee            23.00  60 eP     P       01 23 43.3 +4.9
DGMT  Dagmar             23.00  11 eP     P       01 23 37.6 -0.7
      comp=Z,88nm,1.3s,mb5.0
A13A  Flathead Natio     23.15 353 ⇓P     P       01 23 38.5 -1.3
      baz=23
WALA  Waterton Lakes     23.22 354 eP     P       01 23 39.8 -0.8
      comp=Z,46nm,1.5s,mb4.7
A12A  Yaak River Ran     23.30 351 ⇓P     P       01 23 39.2 -2.1
      baz=23
A11A  Hall Mountain,     23.42 350 ⇓P     P       01 23 40.4 -2.3
      baz=23,SNR=7.6
JFWS  Jewell Farm        23.65  39 eP     P       01 23 50.3 +5.3
A08A  Turner Farm, O     23.97 346 ⇑P     P       01 23 46.9 -0.9
      baz=24
BLO   Bloomington        24.01  51 eP     P       01 23 49.0 +0.7
CPCT  Cooper Cave        24.17  61 eP     P       01 23 49.6 -0.2
GOGA  Godfrey            24.55  66 eP     P       01 23 53.8 +0.4
TGUH  Tegucigalpa,Un     24.75 114 eP     P       01 23 58.0 +2.8
      comp=Z,68nm,1.1s,mb5.1
TKL   Tuckaleechee C     24.81  61  P     P       01 23 56.0 +0.3
TKL                                 LR    LR      01 34 25.9
TKL   Tuckaleechee C     24.81  61  P     P       01 23 56.0 +0.3
      comp=Z,11nm,0.9s,mb4.4,baz=221,slow=8.9,SNR=10.0
TKL                                 LR    LR      01 34 25.9
      comp=Z,2µm,20.1s,MS4.5,baz=252,slow=38
TZTN  Tazewell           25.23  59 eP     P       01 23 59.4 -0.1
ULM   Lac du Bonnet      26.73  21  P     P       01 24 10.1 -2.9
ULM                                 LR    LR      01 33 51.8
ULM   Lac du Bonnet      26.73  21  P     P       01 24 10.1 -2.9
      comp=Z,6.4nm,1.0s,mb4.1,baz=215,slow=12,SNR=5.2
ULM                                 LR    LR      01 33 51.8
      comp=Z,468nm,21.8s,MS4.0,baz=35,slow=35
ACSO  Alum Creek Sta     26.93  51 eP     P       01 24 14.4 -0.5
      comp=Z,102nm,1.4s,mb5.2
EDM   Edmonton           27.32 356 eP     P       01 24 17.2 -0.9
ELN   Prospectdale       27.58  59 eP     P       01 24 21.0 +0.3
JTS   JuntasAbangare     28.73 118 eP     P       01 24 33.8 +2.7
      comp=Z,7.2nm,0.8s,mb4.5
JTS   JuntasAbangare     28.73 118 eP     P       01 24 33.8 +2.7
JTS                                 pmax  pmax
      comp=Z,7.0nm,0.8s
JTS   JuntasAbangare     28.73 118  P     P       01 24 35.0 +3.9
      comp=Z,4.2nm,0.6s,mb4.3,baz=292,slow=19,SNR=3.9
JTS                                 LR    LR      01 36 02.1
      comp=Z,680nm,21.2s,MS4.2,baz=327,slow=36
BBB   Bella Bella        29.40 338  LR    LR      01 37 33.1
      comp=Z,479nm,18.9s,MS4.1,baz=312,slow=39
PAL   Palisades          33.71  54 eP     P       01 25 13.4 -1.4
NCB   Newcomb            34.36  49 eP     P       01 25 20.2 -0.2
FCC   Fort Churchill     34.75  15 eP     P       01 25 20.8 -2.8
      comp=Z,36nm,1.3s,mb5.1
FCC   Fort Churchill     34.75  15 eP     P       01 25 20.8 -2.7
FCC                                 pmax  pmax
      comp=Z,35nm,1.3s,mb5.1
DLBC  Dease Lake         35.27 342  P     P       01 25 26.4 -1.6
      baz=164,slow=7.6
YKA   Yellowknife Ar     36.64 357  P     P       01 25 37.2 -2.5
YKA                                 LR    LR      01 42 23.2
YKA   Yellowknife Ar     36.64 357  P     P       01 25 37.2 -2.5
      comp=Z,1.4nm,0.8s,mb3.9,baz=178,slow=8.6,SNR=30
YKA                                 LR    LR      01 42 23.2
      comp=Z,106nm,19.0s,MS3.6,baz=175,slow=39
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OTAV  Otavalo            40.07 125 eP     P       01 26 13.3 +4.0
      comp=Z,13nm,1.1s,mb4.6
ROSC  El Rosal           40.43 115 eP     P       01 26 16.1 +3.9
ROSC  El Rosal           40.43 115  P     P       01 26 16.0 +3.8
      comp=Z,1.8nm,0.4s,mb4.2,baz=105,slow=20,SNR=6.1
ROSC                                LR    LR      01 45 10.1
      comp=Z,303nm,18.5s,MS4.2,baz=199,slow=39
SDV   Santo Domingo      41.41 107 eP     P       01 26 22.0 +1.8
      comp=Z,11nm,0.9s,mb4.5
SJG   San Juan           41.65  92 eP     P       01 26 21.1 -1.1
CPD   Cerro la Pandu     41.89  92 eP     P       01 26 24.9 +0.8
MTP   Monte Pirata       42.19  91 eP     P       01 26 27.7 +1.1
MTP                                epP    pP      01 26 32.6 +2.8
DAWY  Dawson             42.49 342 eP     P       01 26 28.4  0.0
SCHQ  Schefferville      42.94  36  P     P       01 26 31.0 -1.2
SCHQ                                LR    LR      01 45 17.0
SCHQ  Schefferville      42.94  36  P     P       01 26 31.0 -1.2
      comp=Z,7.9nm,1.2s,mb4.3,baz=212,slow=9.5,SNR=3.3
SCHQ                                LR    LR      01 45 17.0
      comp=Z,1µm,19.2s,MS4.8,baz=250,slow=38
KDAK  Kodiak Island      43.51 329  P     P       01 26 35.7 -1.1
KDAK                                LR    LR      01 40 55.1
KDAK  Kodiak Island      43.51 329  P     P       01 26 35.7 -1.1
      comp=Z,12nm,1.0s,mb4.6,baz=114,slow=20,SNR=2.2
KDAK                                LR    LR      01 40 55.1
      comp=Z,201nm,20.8s,MS4.0,baz=95,slow=31
EGAK  Eagle              43.53 341 eP     P       01 26 36.9  0.0
      comp=Z,36nm,1.9s,mb4.8
EGAK                               epP    pP      01 26 43.2 +3.2
INK   Inuvik             44.60 348  P     P       01 26 44.9 -0.5
      comp=Z,2.5nm,0.9s,mb4.0,baz=153,slow=10,SNR=5.7
INK                                 LR    LR      01 47 13.2
      comp=Z,444nm,19.0s,MS4.4,baz=1.0,slow=39
TAOE  Nuku Hiva Isla     45.06 224 eLR    LR      01 39 25.2
      comp=Z,3µm,27.1s
COLA  College            45.65 339 eP     P       01 26 53.2 -0.6
      comp=Z,5.9nm,1.0s,mb4.5
COLA  College            45.65 339 eP     P       01 26 53.2 -0.6
COLA                                pmax  pmax
      comp=Z,6.0nm,1.0s,mb4.5
SVW2  Sparrevohn         46.44 332 eP     P       01 26 59.1 -1.0
TTA   Tatalina           47.51 334 eP     P       01 27 07.5 -0.9
      comp=Z,12nm,1.1s,mb4.8
TTA   Tatalina           47.51 334 eP     P       01 27 07.5 -0.9
TTA                                 pmax  pmax
      comp=Z,12nm,1.1s,mb4.8
IMA2  Indian Mountai     48.32 338 eP     P       01 27 14.3 -0.3
RES   Resolute Bay       49.45   5 eP     P       01 27 22.5 -0.7
TNA   Tin City           53.33 334 eP     P       01 27 53.9 +1.6
      comp=Z,7.5nm,1.2s,mb4.5
RKT   Rikitea            54.25 208 eLR    LR      01 43 49.3
      comp=Z,542nm,29.5s,baz=28
PPT   Papeete            57.61 225 eS     S       01 36 22.2 +0.1
      comp=Z,214nm,29.0s
PPT                                eLR    LR      01 45 27.2
      comp=Z,900nm,24.8s,baz=28
PPT   Papeete            57.61 225  LR    LR      01 46 40.9
      comp=Z,422nm,20.8s,MS4.5,baz=43,slow=29
LPAZ  La Paz             58.81 131 eP     P       01 28 33.6 +1.4
      comp=Z,7.5nm,1.4s,mb4.5
LPAZ  La Paz             58.81 131 eP     P       01 28 33.6 +1.4
LPAZ                                pmax  pmax
      comp=Z,7.0nm,1.4s
LPAZ  La Paz             58.81 131  P     P       01 28 33.6 +1.4
      comp=Z,0.8nm,0.6s,mb4.0,baz=349,slow=2.4,SNR=3.5
LPAZ                                LR    LR      01 52 29.5
      comp=Z,100nm,20.9s,MS3.9,baz=86,slow=34
BILL  Bilibino           63.70 335 eP     P       01 29 03.7 -1.0
      comp=Z,10nm,1.0s,mb4.8
BILL  Bilibino           63.70 335 ⇓P     P       01 29 04.0 -0.7
BILL                               e              01 29 09.4
BILL                                pmax  pmax
      comp=Z,16nm,2.1s,mb4.7
BILL                                MLR   MLR
      comp=Z,100nm,14.0s,MS4.2
DAG   Danmarks Havn      65.35  15⇑eP     P       01 29 12.7 -2.7
DAG                                 pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.9
DAG   Danmarks Havn      65.35  15⇑iP     P       01 29 12.7 -2.7
      comp=Z,9.7nm,0.8s,mb4.9
MA2   Magadan            72.25 328 eP     P       01 30 03.4 +4.8
MA2   Magadan            72.25 328⇑eP     P       01 29 58.6  0.0
MA2                                 pmax  pmax
      comp=Z,15nm,2.0s,mb4.6
TIXI  Tiksi              74.49 344 eP     P       01 30 09.2 -2.4
      comp=Z,4.5nm,0.9s,mb4.4
TIXI  Tiksi              74.49 344 eP     P       01 30 09.6 -2.0
TIXI                                pmax  pmax
      comp=Z,5.0nm,0.9s,mb4.4
ARCES ARCESS Array B     79.64  14 eP     P       01 30 39.5 -1.1
ARCES ARCESS Array B     79.64  14  P     P       01 30 39.5 -1.1
      comp=Z,4.7nm,0.8s,mb4.5,baz=339,slow=6.5,SNR=6.6
YAK   Yakutsk            80.06 335 i P    P       01 30 42.5 -0.5
YAK                                 pmax  pmax
      comp=Z,5.0nm,0.5s,mb4.7
NB2   NORSAR Subarra     81.36  25  P     P       01 30 50.6 +0.6
      comp=Z,11nm,1.1s,mb4.7,baz=309,slow=5.6
NOA   NORSAR Array B     81.36  25  P     P       01 30 49.7 -0.3
NOA                                 LR    LR      02 04 52.7
NOA   NORSAR Array B     81.36  25  P     P       01 30 49.7 -0.3
      comp=Z,1.2nm,0.8s,mb3.9,baz=306,slow=5.2,SNR=4.1
NOA                                 LR    LR      02 04 52.7
      comp=Z,265nm,19.9s,MS4.6,baz=90,slow=34
HFS   Hagfors            82.89  25  LR    LR      02 07 23.5
      comp=Z,302nm,18.1s,MS4.7,baz=257,slow=35
LVZ   Lovozero           82.91  13 i P    P       01 30 57.2 -0.8
ASAJ  Asahikawa          83.52 316  P     P       01 31 00.1 -1.4
      comp=Z,9.3nm,1.1s,mb4.8,baz=319,slow=20,SNR=2.7
ESDC  Sonseca Array      85.44  48  P     P       01 31 12.0 +0.5
      comp=Z,0.8nm,0.8s,mb3.9,baz=315,slow=6.1,SNR=4.0
FINES FINESS Array B     86.11  19  P     P       01 31 13.2 -1.2
      comp=Z,1.0nm,0.6s,mb4.2,baz=337,slow=4.4,SNR=4.7
MDT   Midelt             88.41  54  LR    LR      02 11 58.8
      comp=Z,340nm,18.1s,MS4.8,baz=3.6,slow=36
BOD   Bodaibo            88.64 338 eP     P       01 31 24.5 -2.1
GERES GERESS Array B     90.41  33  P     P       01 31 33.8 -1.3
      comp=Z,0.4nm,0.7s,mb3.9,baz=284,slow=6.0,SNR=2.8
KEST  Kesra              96.37  45  LR    LR      02 15 09.3
      comp=Z,194nm,19.6s,MS4.6,baz=336,slow=35
ULN   Ulaanbaatar        99.15 335 i P    P       01 32 15.1 +0.1
ZALV  Zalesovo Beam      99.34 351  P     P       01 32 15.0 -0.8
      comp=Z,0.3nm,0.5s,mb4.1,baz=23,slow=5.2,SNR=2.6
ZAL   Zalesovo           99.35 351  P     P       01 32 15.0 -0.8
SONM  Songino Array      99.42 336  P     P       01 32 15.6 -0.6
      comp=Z,0.6nm,1.0s,mb4.1,baz=352,slow=4.4,SNR=4.1
BJI   Beijing           101.28 325  P     Pdif    01 32 23.4 -1.1
BJI                                 AMB   AMB
      comp=Z,4.0nm,0.7s
HHC   Hu-ho-hao-te      102.93 329 eP     Pdif    01 32 32.4 +0.6
HHC                                 AP            01 32 36.8
HHC                                 PP    PP      01 36 48.3 +3.0
HHC                                 SKS           01 43 08.9
HHC                                 S     Sdif    01 44 13.1 -4.8
HHC                                 PS    PS      01 45 51.8 -1.7
HHC                                 SS    SS      01 51 24.8 -1.0
LZH   Lanzhou           110.31 331 eP     PKiKP   01 37 00.9 -5.1
LZH                                 pP            01 37 04.1
LZH                                 sP            01 37 05.5
LZH   Lanzhou           110.31 331 ePKIKP PKiKP   01 37 00.9 -5.1
LZH                                 *SP           01 37 05.5
CD2   Chengdu           114.67 328 ePKP   PKiKP   01 37 13.5 -1.0
GYA   Guiyang           116.78 323 ePDIF  Pdif    01 33 33.4  0.0
GYA                                 PKP   PKPdf   01 37 18.3 -0.4
GYA                                 PP    PP      01 38 29.5 +3.7
GYA                                 PKS           01 40 53.8
GYA                                 SKS   SKSdf   01 44 28.0 -3.2
GYA                                 SKKS  SKKSac  01 45 21.3 -6.9
GYA                                 S     Sdif    01 46 08.8 -4.7
GYA                                 PS    PS      01 48 07.8 -1.4
GYA                                 PP    PP
      comp=Z,110nm,7.8s
GYA                                 LR    LR
      comp=N,190nm,20.9s,MS4.8
GYA                                 LR    LR
      comp=E,120nm,21.6s,MS4.8
GYA                                 LR    LR
      comp=Z,110nm,20.1s,MS4.5
KMI   Kunming           119.94 325  PKP   PKPdf   01 37 22.8 -2.0
KMI   Kunming           119.94 325  PKIKP PKPdf   01 37 22.7 -2.1
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*IDC **25** 01:19:39.7±1.2, 39.11N×73.34E, $h0^{km}$, mb3.6/7, mb1 3.7/10, mb1mx3.5/24, mbtmp3.5/10, ML3.1/3, Error ellipse: s-maj=25.2km s-min=19.7km az=177.0*

MOS ***25*** *01:19:43.5±1.2, 39.23N×73.28E, h33^{km}, mb4.7/3, Error ellipse: s-maj=22.2km s-min=11.6km az=83.4*
BJI ***25*** *01:19:43.1, 39.27N×73.29E, h28^{km}, mb3.5, ML3.2*
NNC ***25*** *01:19:45.0±3.3, 39.38N×73.37E, h0^{km}, mb3.8, mpv3.4, Error ellipse: s-maj=27.5km s-min=14.9km az=178.0*
ISCJB ***25*** *01:19:47.0±0.7, 39.28N±0.04×73.36E±0.06, h68^{km}±8^{km}, mb3.5/8, Error ellipse: s-maj=7.9km s-min=6.4km az=20.9*
NEIC ***25*** *01:19:46.1±0.8, 39.28N×73.29E, h35^{km}, mb4.0/1, Error ellipse: s-maj=16.4km s-min=10.0km az=128.0*
ISC 25 01:19:47.7±0.8**, 39.23N**±0.05×**73.35E**±0.07**, h60**^{km}±9^{km}**, n41,** σ**1^{s}08**/50**, mb3.5**/8**, 3C-3D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	**Kashi**	**2.06**	**81**	PG	**Pn**	**01 20 19.3**	**-0.6**
KSH				SG	**Sn**	**01 20 45.6**	**+1.2**
KSH				Smax			
	comp=N,664nm,0.4s						
KSH				Smax			
	comp=E,1µm,0.5s						
AML	**Almayashu**	**2.91**	**5**	P	**Pn**	**01 20 30.6**	**-0.9**
	SNR=45						
AML	**Almayashu**	**2.91**	**5**	*e*Pn	**Pn**	**01 20 30.4**	**-1.2**
AML				*e*Sn	**Sn**	**01 21 06.9**	**+1.6**
UCH	**Uchtor**	**3.12**	**16**	P	**Pn**	**01 20 34.3**	**-0.2**
	SNR=54						
UCH	**Uchtor**	**3.12**	**16**	*e*Pn	**Pn**	**01 20 34.4**	**-0.1**
UCH				*e*Sn	**Sn**	**01 21 11.3**	**+0.8**
KZA	**Kyzart**	**3.19**	**26**	P	**Pn**	**01 20 35.3**	**-0.1**
	SNR=7.4						
EKS2	**Erkin-Say**	**3.44**	**5**	P	**Pn**	**01 20 38.6**	**-0.2**
	SNR=21						
EKS2	**Erkin-Say**	**3.44**	**5**	*e*Pn	**Pn**	**01 20 38.2**	**-0.6**
EKS2				*e*Sn	**Sn**	**01 21 18.9**	**+0.5**
AAK	**Ala-Archa**	**3.51**	**14**	P	**Pn**	**01 20 40.1**	**+0.4**
	SNR=36						
AAK	**Ala-Archa**	**3.51**	**14**	*e*Pn	**Pn**	**01 20 38.7**	**-1.0**
AAK				*e*Sn	**Sn**	**01 21 19.2**	**-0.7**
AAK	**Ala-Archa**	**3.51**	**14**	*e*PN	**Pn**	**01 20 38.7**	**-1.0**
AAK				*e*		01 21 19.2	
KBK	**Karagaybulak**	**3.63**	**19**	P	**Pn**	**01 20 41.9**	**+0.5**
	SNR=21						
ULHL	**Ulahol**	**3.73**	**35**	P	**Pn**	**01 20 48.0**	**+5.3**
	SNR=12						
CHMS	**Chumysh**	**3.91**	**15**	P	**Pn**	**01 20 44.8**	**-0.4**
	SNR=12						
TKM2	**Tokmak 2**	**4.06**	**24**	P	**Pn**	**01 20 47.3**	**+0.1**
	SNR=12						
TKM2	**Tokmak 2**	**4.06**	**24**	⇑Pn	**Pn**	**01 20 46.7**	**-0.6**
	comp=E,0.9nm,0.7s						
TKM2	**Tokmak 2**	**4.06**	**24**	*e*Pn	**Pn**	**01 20 45.8**	**-1.5**
TKM2				*e*Sn	**Sn**	**01 21 34.6**	**+1.1**
TKM2	**Tokmak 2**	**4.06**	**24**	*e*PN	**Pn**	**01 20 45.8**	**-1.5**
TKM2				*e*		01 21 34.6	
USP	**Ospenovka**	**4.12**	**12**	P	**Pn**	**01 20 47.9**	**-0.3**
	SNR=14						
KK31	**Karatay Array**	**4.42**	**332**	Pn	**Pn**	**01 20 52.1**	**-0.1**
	comp=E,1.4nm,0.3s,baz=146,slow=13,SNR=47						
KK31				Pg	**Pn**	**01 21 01.9**	**+10**
	comp=E,14nm,0.7s,baz=152,slow=17,SNR=15						
KK31				⇓Sn	**Sn**	**01 21 44.5**	**+2.2**
	comp=E,12nm,0.5s,baz=146,slow=25						
KK31				⇓Lg		01 22 01.0	
	comp=E,20nm,0.6s,baz=150,slow=31						
KNDC	**Almaty**	**4.83**	**33**	⇓Pg	**Pn**	**01 21 12.3**	**+15**
	comp=E,17nm,0.5s						
KNDC				⇑Lg		01 22 12.4	
	comp=E,139nm,0.9s						
KBL	**Kabul**	**5.82**	**218**	Pn	**Pn**	**01 21 12.5**	**+1.1**
KBL				*e*Sn	**Sn**	**01 22 21.4**	**+4.7**
MKAR	**Makanchi Array**	**9.99**	**38**	Pn	**Pn**	**01 22 07.6**	**-0.9**
MKAR	**Makanchi Array**	**9.99**	**38**	Pn	**Pn**	**01 22 07.6**	**-0.9**
	comp=E,0.1nm,0.3s,baz=205,slow=13,SNR=3.2						
AB31	**Akbulak array**	**13.86**	**321**	⇑P	**Pn**	**01 22 58.4**	**-2.6**
	comp=E,0.5nm,0.5s,baz=132,slow=14,SNR=7.5						
AKTK	**Aktyubinsk**	**15.58**	**321**	Pn	**Pn**	**01 23 19.9**	**-3.5**
AKTO	**Aktyubinsk**	**15.58**	**321**	P	**Pn**	**01 23 19.9**	**-3.4**
AKTO	**Aktyubinsk**	**15.58**	**321**	Pn	**Pn**	**01 23 19.9**	**-3.5**
	comp=E,0.1nm,0.3s,baz=122,slow=9.5,SNR=3.3						
ZAL	**Zalesovo**	**16.65**	**24**	P	**Pn**	**01 23 34.2**	**-2.6**
ZALV	**Zalesovo Beam**	**16.66**	**24**	Pn	**Pn**	**01 23 34.2**	**-2.8**
ZALV	**Zalesovo Beam**	**16.66**	**24**	Pn	**Pn**	**01 23 34.2**	**-2.8**
	comp=E,0.1nm,0.3s,baz=213,slow=11,SNR=7.1						
GTA	**Gaotai**	**20.46**	**81**	*e*P	**P**	**01 24 20.8**	**+0.6**
GTA				AMB	AMB		
	comp=Z,2.0nm,0.8s						
KIV	**Kislovodsk**	**23.34**	**292**	P	**P**	**01 24 51.0**	**+0.5**
	comp=Z,4.4nm,0.7s,mb4.0						
KIV	**Kislovodsk**	**23.34**	**292**	P	**P**	**01 24 51.0**	**+0.4**
KIV				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.0						
SONM	**Songino Array**	**25.30**	**59**	P	**P**	**01 25 08.9**	**+0.5**
	comp=Z,0.4nm,0.7s,mb3.1,baz=267,slow=9.0,SNR=6.2						
FINES	**FINESS Array B**	**36.33**	**323**	P	**P**	**01 26 45.1**	**-0.2**
	comp=Z,0.7nm,0.7s,mb3.7,baz=126,slow=9.7,SNR=4.1						
ARCES	**ARCESS Array B**	**39.38**	**336**	P	**P**	**01 27 11.2**	**+0.4**
	comp=Z,3.0nm,0.9s,mb4.0,baz=111,slow=9.8,SNR=2.9						
NOA	**NORSAR Array B**	**43.37**	**321**	P	**P**	**01 27 44.2**	**+0.6**
	comp=Z,0.8nm,0.8s,mb3.5,baz=90,slow=7.6,SNR=3.3						
TORD	**Torodi Ar. Bea**	**67.63**	**269**	P	**P**	**01 30 38.9**	**+0.4**
	comp=Z,0.3nm,0.6s,mb3.5,baz=52,slow=5.7,SNR=5.6						
YKA	**Yellowknife Ar**	**78.42**	**4**	P	**P**	**01 31 41.9**	**+0.5**
	comp=Z,0.1nm,0.4s,mb3.1,baz=180,slow=38,SNR=3.4						
WRA	**Warramunga Arr**	**81.91**	**124**	P	**P**	**01 32 01.0**	**+0.2**
	comp=Z,0.3nm,0.6s,mb3.4,baz=326,slow=4.6,SNR=3.1						

IDC ***25*** *01:29:53.6±6.7, 36.13N×71.12E, h89^{km}±63^{km}, mb3.6/8, mb1 3.7/10, mb1mx3.4/23, mbtmp3.6/10, ML3.8/2, MS4.4/1, Ms1 4.5/1, ms1mx3.0/40, Error ellipse: s-maj=27.4km s-min=23.2km az=17.0*
MOS ***25*** *01:30:00.0±1.9, 36.30N×71.19E, h177^{km}, mb4.0/1, Error ellipse: s-maj=28.8km s-min=13.5km az=87.8*
ISCJB ***25*** *01:30:04.4±0.4, 36.70N±0.03×71.25E±0.06, h193^{km}±6^{km}, mb3.6/8, Error ellipse: s-maj=8.3km s-min=5.4km az=164.9*
NEIC ***25*** *01:30:05.3±0.9, 36.62N×71.39E, h192^{km}±10^{km}, mb3.9/2, Error ellipse: s-maj=15.6km s-min=11.0km az=118.0*
NNC ***25*** *01:30:12.7±3.3, 37.36N×71.32E, h234^{km}±40^{km}, mb2.5, mpv3.4, Error ellipse: s-maj=48.0km s-min=19.6km az=41.0*
ISC 25 01:30:05.4±0.4**, 36.68N**±0.04×**71.28E**±0.06**, h187**^{km}±6^{km}**, n43,** σ**0^{s}86**/49**, mb3.7**/8**, 2C-4D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBL	**Kabul**	**2.81**	**221**	*e*Pn	**Pn**	**01 30 53.1**	**+1.0**
KBL				*e*Sn	**Sn**	**01 31 28.1**	**-0.4**
CEP	**Cherat**	**2.90**	**170**	⇓P	**Pn**	**01 30 54.3**	**+1.1**
CHCP	**Chirah Chowk**	**3.43**	**151**	P	**Pn**	**01 31 01.0**	**+1.4**
THW	**Thamme Wali**	**3.90**	**174**	⇓P	**Pn**	**01 31 06.4**	**+0.9**
SBDP	**Sheikh Budin**	**4.39**	**185**	P	**Pn**	**01 31 11.6**	**-0.1**
SBDP				S	**Sn**	**01 32 02.0**	**-1.7**
DRP	**Derazinda**	**5.01**	**191**	P	**Pn**	**01 31 20.4**	**+0.8**
THN	**Thein Dam**	**5.60**	**138**	*e*P	**Pn**	**01 31 26.7**	**-0.6**
THN				*e*S	**Sn**	**01 32 30.8**	**-0.9**
AML	**Almayashu**	**5.75**	**18**	P	**Pn**	**01 31 28.8**	**-0.4**
	SNR=74						
UCH	**Uchtor**	**6.07**	**23**	P	**Pn**	**01 31 33.1**	**-0.3**
	SNR=25						
EKS2	**Erkin-Say**	**6.27**	**17**	P	**Pn**	**01 31 36.0**	**+0.1**
	SNR=6.4						
AAK	**Ala-Archa**	**6.44**	**22**	P	**Pn**	**01 31 37.7**	**-0.4**
	SNR=12						
KK31	**Karatay Array**	**6.44**	**355**	⇓P	**Pn**	**01 31 37.3**	**-0.7**
	6.1nm,0.3s,baz=173,slow=12,SNR=188						
KK31				⇓S	**Sn**	**01 32 45.8**	**-5.5**
	9.0nm,0.3s,baz=180,slow=22						
USP	**Ospenovka**	**7.02**	**20**	P	**Pn**	**01 31 41.5**	**-4.2**
	SNR=7.0						
TKM2	**Tokmak 2**	**7.06**	**27**	P	**Pn**	**01 31 46.7**	**+0.6**
	SNR=12						
TKM2	**Tokmak 2**	**7.06**	**27**	⇑P	**Pn**	**01 31 46.4**	**+0.2**
	0.5nm,0.6s						
TKM2	**Tokmak 2**	**7.06**	**27**	*e*Pn	**Pn**	**01 31 45.5**	**-0.7**
	6.0nm,0.5s						
TKM2	**Tokmak 2**	**7.06**	**27**	*e*PN	**Pn**	**01 31 45.5**	**-0.7**
TKM2				pmax	pmax		
	comp=Z,6.0nm,0.5s						
MKAR	**Makanchi Array**	**13.01**	**36**	P	**Pn**	**01 33 03.5**	**+0.2**
MKAR	**Makanchi Array**	**13.01**	**36**	P	**Pn**	**01 33 03.5**	**+0.2**
	comp=Z,0.1nm,0.3s,baz=204,slow=11,SNR=4.1						
GKN	**Gorkha**	**14.21**	**124**	*e*P	**Pn**	**01 33 17.4**	**-1.1**
	comp=Z,16nm,0.3s						
KKN	**Kakani**	**14.78**	**123**	*e*P	**Pn**	**01 33 24.9**	**-0.6**
	comp=Z,20nm,0.5s						
AB31	**Akbulak array**	**15.04**	**330**	P	**Pn**	**01 33 27.5**	**-0.9**
	comp=Z,1.0nm,0.4s,baz=144,slow=12,SNR=40						
AB31				⇑S	**S**	**01 36 07.3**	**-8.2**
	comp=Z,1.4nm,0.5s						
JIRN	**Jiri**	**15.48**	**121**	*e*P	**Pn**	**01 33 34.2**	**+0.1**
	comp=Z,32nm,0.4s						
TAPN	**Taplejung**	**16.73**	**119**	*e*P	**Pn**	**01 33 51.2**	**+2.0**
	comp=Z,8.9nm,0.3s						
AKTK	**Aktyubinsk**	**16.74**	**329**	P	**Pn**	**01 33 48.7**	**-0.2**
AKTK				S	**S**	**01 36 53.3**	**+0.2**
AKTO	**Aktyubinsk**	**16.74**	**329**	P	**Pn**	**01 33 48.7**	**-0.2**
	comp=Z,1.4nm,0.3s,baz=135,slow=10,SNR=19						
AKTO				S	**S**	**01 36 53.3**	**+0.2**
	comp=Z,0.3nm,0.3s,baz=324,slow=22,SNR=5.8						
ODAN	**Odare**	**16.82**	**121**	*e*P	**Pn**	**01 33 51.5**	**+1.3**
	comp=Z,6.2nm,0.5s						
ZAL	**Zalesovo**	**19.64**	**24**	P	**P**	**01 34 19.7**	**+0.2**
ZALV	**Zalesovo Beam**	**19.65**	**24**	P	**P**	**01 34 19.7**	**0.0**
	comp=Z,1.9nm,0.6s,baz=221,slow=10,SNR=7.6						
ARU	**Arti**	**21.54**	**341**	P	**P**	**01 34 39.7**	**+0.1**
	comp=Z,1.2nm,0.6s,mb3.5						
ARU	**Arti**	**21.54**	**341**	P	**P**	**01 34 39.7**	**+0.1**
ARU				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.4						
FINES	**FINESS Array B**	**37.46**	**326**	P	**P**	**01 37 01.4**	**+1.0**
FINES	**FINESS Array B**	**37.46**	**326**	P	**P**	**01 37 01.4**	**+1.0**
	comp=Z,1.0nm,0.6s,mb3.6,baz=130,slow=10,SNR=8.5						
ARCES	**ARCESS Array B**	**41.06**	**337**	P	**P**	**01 37 31.3**	**+1.2**
	comp=Z,2.4nm,0.8s,mb3.9,baz=113,slow=8.5,SNR=6.3						
NOA	**NORSAR Array B**	**44.37**	**323**	P	**P**	**01 37 57.1**	**+0.3**
	comp=Z,1.4nm,0.8s,mb3.6,baz=254,slow=8.8,SNR=3.7						
KMBO	**Kilima Mbogo**	**49.12**	**228**	P	**P**	**01 38 28.2**	**-6.1**
KMBO	**Kilima Mbogo**	**49.12**	**228**	P	**P**	**01 38 28.2**	**-6.1**
	comp=Z,2.9nm,0.5s,mb4.1,baz=223,slow=19,SNR=9.8						
ESDC	**Sonseca Array**	**57.57**	**298**	LR	LR	02 08 25.1	
	comp=Z,334nm,19.1s,baz=300,slow=40						
TORD	**Torodi Ar. Bea**	**65.95**	**269**	P	**P**	**01 40 30.3**	**-1.5**
TORD	**Torodi Ar. Bea**	**65.95**	**269**	P	**P**	**01 40 30.3**	**-1.5**
	comp=Z,0.7nm,0.6s,mb3.7,baz=48,slow=5.9,SNR=19						
ASAR	**Alice Springs**	**84.17**	**125**	P	**P**	**01 42 13.8**	**-1.9**
	comp=Z,0.6nm,1.0s,mb3.3,baz=194,slow=21,SNR=3.3						
STKA	**Stephens Creek**	**94.71**	**127**	P	**P**	**01 43 05.2**	**-0.1**
STKA	**Stephens Creek**	**94.71**	**127**	P	**P**	**01 43 05.2**	**-0.1**
	comp=Z,1.2nm,0.7s,mb4.2,baz=95,slow=19,SNR=4.0						

MOS ***25*** *01:32:45.3±1.4, 47.25N×149.30E, h46^{km}, mb4.1/2, Error ellipse: s-maj=19.9km s-min=13.4km az=93.7*
ISCJB ***25*** *01:32:51.9±0.8, 46.0N±0.1×149.4E±0.1, h159^{km}±8^{km}, mb4.0/31, Error ellipse: s-maj=18.0km s-min=10.8km az=155.1*
JMA ***25*** *01:32:55.9±0.4, 45.26N×149.53E, h141^{km}, M3.3*
IDC ***25*** *01:32:55.9±2.7, 46.09N×149.27E, h178^{km}±25^{km}, mb3.5/19, mb1 3.6/21, mb1mx3.6/26, mbtmp3.5/21, Error ellipse: s-maj=18.4km s-min=12.2km az=167.0*
NEIC ***25*** *01:32:58.1±0.6, 46.13N×149.29E, h200^{km}, mb4.6/1, Error ellipse: s-maj=19.0km s-min=10.6km az=169.0*
ISC 25 01:32:52.6±0.9**, 46.1N**±0.1×**149.4E**±0.1**, h147**^{km}±9^{km}**, n62,** σ**1^{s}13**/66**, mb4.0**/31**, 1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	**1.36**	**232**	*e*PN	**Pn**	**01 33 20.5**	**0.0**
KUR				pmax	pmax		
	comp=E,80nm,0.5s						
KUR				pmax	pmax		
	comp=Z,210nm,0.5s						
NEM2	**Nemuro 2**	**3.76**	**225**	P	**Pn**	**01 33 47.6**	**-2.0**
NEM2				*e*S	**Sn**	**01 34 27.3**	**-6.5**
JTKR	**Abashiri--Toko**	**4.42**	**244**	P	**Pn**	**01 33 59.3**	**+1.0**
JAK	**Akkeshi**	**4.56**	**229**	P	**Pn**	**01 33 58.1**	**-1.9**
JAK				*e*S	**Sn**	**01 34 46.6**	**-5.9**
YSS	**Yuzh-Sakhalins**	**4.67**	**283**	⇓*i*PN	**Pn**	**01 34 04.9**	**+3.5**
JAR	**Ashorobuto**	**4.88**	**237**	P	**Pn**	**01 34 05.1**	**+0.8**
JOB	**Onbets**	**5.09**	**233**	P	**Pn**	**01 34 06.8**	**-0.2**
JOB				*e*S	**Sn**	**01 35 01.0**	**-4.1**
ASAJ	**Asahikawa**	**5.20**	**250**	P	**Pn**	**01 34 11.2**	**+2.7**
ASAJ	**Asahikawa**	**5.20**	**250**	PN	**Pn**	**01 34 10.8**	**+2.3**
ASAJ	**Asahikawa**	**5.20**	**250**	P	**Pn**	**01 34 10.8**	**+2.3**
	comp=Z,0.3nm,0.3s,baz=96,slow=9.2,SNR=5.8						
JKK2	**Kamakawa 2**	**5.21**	**247**	P	**Pn**	**01 34 10.4**	**+1.8**
JCH	**Churui**	**5.54**	**233**	P	**Pn**	**01 34 12.4**	**-0.7**
JCH				*e*S	**Sn**	**01 35 10.5**	**-5.4**
JBT2	**Biratori 2**	**6.02**	**239**	P	**Pn**	**01 34 20.5**	**+1.1**
JNBK	**Urakawa-nobuka**	**6.10**	**234**	P	**Pn**	**01 34 19.2**	**-1.3**
JNBK				*e*S	**Sn**	**01 35 22.8**	**-6.5**
JNB	**Noboribetsu**	**7.00**	**242**	P	**Pn**	**01 34 33.1**	**+0.6**
JKB	**Kayabe**	**7.34**	**238**	P	**Pn**	**01 34 36.7**	**-0.4**
JKB				*e*S	**Sn**	**01 35 52.9**	**-6.2**
JYM2	**Yakumo 2**	**7.61**	**242**	P	**Pn**	**01 34 39.6**	**-1.0**
JSR	**Shiriuchi**	**7.92**	**238**	P	**Pn**	**01 34 44.3**	**-0.6**
KSRS	**Korea Array**	**18.15**	**249**	P	**P**	**01 36 55.5**	**+2.0**
	comp=Z,0.3nm,0.3s,baz=61,slow=10,SNR=4.2						
BJI	**Beijing**	**24.89**	**268**	P	**P**	**01 38 03.7**	**+2.2**
SONM	**Songino Array**	**29.13**	**289**	P	**P**	**01 38 40.5**	**+1.2**
	comp=Z,0.3nm,0.6s,mb3.2,baz=76,slow=7.6,SNR=3.6						
IMA2	**Indian Mountai**	**35.86**	**36**	*e*P	**P**	**01 39 38.8**	**+1.3**
ZALV	**Zalesovo Beam**	**40.91**	**305**	P	**P**	**01 40 18.8**	**-1.1**
ZALV				PcP	PcP	01 42 17.4	0.0
ZALV	**Zalesovo Beam**	**40.91**	**305**	P	**P**	**01 40 18.8**	**-1.1**
	comp=Z,0.3nm,0.3s,mb3.4,baz=71,slow=7.7,SNR=2.8						
ZALV				PcP	PcP	01 42 17.4	0.0
	comp=Z,1.4nm,0.6s,baz=68,slow=2.3,SNR=9.6						
ZAL	**Zalesovo**	**40.93**	**305**	P	**P**	**01 40 18.8**	**-1.3**
ZAL						01 42 17.4	
INK	**Inuvik**	**43.59**	**32**	P	**P**	**01 40 42.8**	**+1.4**
	comp=Z,1.3nm,0.3s,mb4.0,baz=297,slow=6.6,SNR=17						
MKAR	**Makanchi Array**	**44.95**	**296**	P	**P**	**01 40 52.7**	**+0.2**
	comp=Z,0.8nm,0.5s,mb3.6,baz=74,slow=7.3,SNR=22						
MKAR				PcP	PcP	01 42 30.9	-0.2
	comp=Z,1.0nm,0.6s,baz=65,slow=3.8,SNR=11						
TAPN	**Taplejung**	**51.56**	**271**	*e*P	**P**	**01 41 44.1**	**+0.7**
	comp=Z,2.9nm,0.3s,mb4.3						
JIRN	**Jiri**	**52.42**	**272**	*e*P	**P**	**01 41 50.5**	**+0.7**
	comp=Z,12nm,0.4s,mb4.8						
KKN	**Kakani**	**52.97**	**273**	*e*P	**P**	**01 41 55.2**	**+1.4**
	comp=Z,12nm,0.5s,mb4.9						
YKA	**Yellowknife Ar**	**52.98**	**35**	P	**P**	**01 41 54.4**	**+1.1**
YKA	**Yellowknife Ar**	**52.98**	**35**	P	**P**	**01 41 54.4**	**+1.1**
	comp=Z,1.1nm,0.6s,mb3.8,baz=298,slow=6.9,SNR=17						
GKN	**Gorkha**	**53.29**	**274**	*e*P	**P**	**01 41 56.8**	**+0.7**
	comp=Z,9.3nm,0.4s,mb4.8						
KEV	**Kevo**	**57.09**	**340**	*e*p	**P**	**01 42 21.5**	**-1.3**
	comp=Z,0.6nm,0.4s,mb3.8						
KEV	**Kevo**	**57.09**	**340**	*e*P	**P**	**01 42 21.5**	**-1.3**
KEV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
AKTK	**Aktyubinsk**	**57.23**	**311**	P	**P**	**01 42 22.1**	**-1.9**
AKTO	**Aktyubinsk**	**57.23**	**311**	P	**P**	**01 42 22.1**	**-1.9**
	comp=Z,0.6nm,0.6s,mb3.6,baz=338,slow=5.4,SNR=2.5						
ARCES	**ARCESS Array B**	**57.62**	**340**	P	**P**	**01 42 25.2**	**-1.3**
	comp=Z,1.7nm,0.8s,mb3.9,baz=44,slow=6.8,SNR=5.7						
JOF	**Joensuu**	**60.77**	**332**	*e*p	**P**	**01 42 47.0**	**-1.2**
	comp=Z,1.1nm,0.3s,mb4.2						
KAF	**Kangasniemi**	**62.94**	**334**	*e*p	**P**	**01 43 01.1**	**-1.6**
	comp=Z,0.4nm,0.4s,mb3.6,baz=39,slow=6.2						
FINES	**FINESS Array B**	**63.52**	**333**	P	**P**	**01 43 05.6**	**-0.9**
	comp=Z,1.0nm,0.4s,mb4.0,baz=37,slow=8.7,SNR=27						
NVAR	**Mina Array Bea**	**65.01**	**60**	P	**P**	**01 43 17.6**	**+0.9**
	comp=Z,0.8nm,0.6s,mb3.7,baz=285,slow=9.3,SNR=6.4						
PDAR	**Pinedale Array**	**67.20**	**52**	P	**P**	**01 43 31.1**	**+0.6**
	comp=Z,0.9nm,0.7s,mb3.7,baz=306,slow=1.9,SNR=8.0						
NB2	**NORSAR Subarra**	**68.00**	**340**	P	**P**	**01 43 34.5**	**-0.7**
	comp=Z,1.2nm,0.7s,mb3.7,baz=29,slow=6.5						
NOA	**NORSAR Array B**	**68.00**	**340**	P	**P**	**01 43 34.5**	**-0.7**
NOA	**NORSAR Array B**	**68.00**	**340**	P	**P**	**01 43 34.5**	**-0.7**
	comp=Z,1.9nm,0.6s,mb4.0,baz=30,slow=6.4,SNR=5.4						
ULM	**Lac du Bonnet**	**68.68**	**39**	P	**P**	**01 43 38.9**	**-0.8**
	comp=Z,0.8nm,0.5s,mb3.7,baz=307,slow=5.1,SNR=2.7						
AKASG	**Malin Array Be**	**70.64**	**324**	P	**P**	**01 43 50.7**	**-0.9**
	comp=Z,0.8nm,0.4s,mb3.9,baz=35,slow=6.4,SNR=3.7						
ASAR	**Alice Springs**	**70.82**	**195**	P	**P**	**01 43 52.1**	**-0.8**
	comp=Z,0.6nm,0.7s,mb3.5,baz=10,slow=6.2,SNR=8.6						
SCHQ	**Schefferville**	**74.89**	**21**	P	**P**	**01 44 16.5**	**-0.1**
	comp=Z,1.4nm,0.8s,mb3.7,baz=0.0,slow=4.0,SNR=3.7						
CLL	**Collm**	**75.97**	**333**	*e*P	**P**	**01 44 22.0**	**-0.8**
MIB	**Mutribah**	**76.78**	**299**	*e*P	**P**	**01 44 28.2**	**+0.4**
MIB				AMb	AMB	01 44 29.5	
	comp=Z,12nm,0.8s,mb4.5						
BRTR	**Keskin Array B**	**77.07**	**315**	P	**P**	**01 44 30.3**	**+1.0**
	comp=Z,1.2nm,0.7s,mb3.6,baz=77,slow=3.7,SNR=6.1						
QRN	**Al-Qurain**	**77.18**	**298**	*e*P	**P**	**01 44 30.6**	**+0.5**
QRN				AMb	AMB	01 44 31.0	
	comp=Z,15nm,0.3s,mb5.1						
NAY	**Al-Naaiem**	**77.24**	**299**	*e*P	**P**	**01 44 30.5**	**+0.2**
NAY				AMb	AMB	01 44 31.2	
	comp=Z,6.6nm,0.8s,mb4.3						
RDF	**Al-Radifah**	**77.28**	**298**	*e*P	**P**	**01 44 31.1**	**+0.5**
RDF				AMb	AMB	01 44 31.7	
	comp=Z,16nm,0.5s,mb4.9						
GERES	**GERESS Array B**	**77.88**	**332**	P	**P**	**01 44 33.6**	**0.0**
	comp=Z,0.9nm,0.4s,mb3.7,baz=38,slow=5.3,SNR=20						
TXAR	**Lajitas Array**	**80.05**	**58**	P	**P**	**01 44 46.3**	**+0.6**
	comp=Z,1.2nm,0.5s,mb3.8,baz=298,slow=4.2,SNR=9.3						
MMAI	**Mount Meron Ar**	**81.29**	**309**	P	**P**	**01 44 53.1**	**+0.9**
	comp=Z,1.9nm,0.6s,mb3.9,baz=32,slow=6.9,SNR=4.9						
PLAL	**Pickwick Lake**	**84.12**	**44**	*e*P	**P**	**01 45 06.3**	**-0.6**
	comp=Z,11nm,0.8s,mb4.6						
TORD	**Torodi Ar. Bea**	**114.26**	**325**	PKPdf	PKiKP	01 51 13.1	-1.8
TORD	**Torodi Ar. Bea**	**114.26**	**325**	PKiKP	PKiKP	01 51 13.1	-1.8
	comp=Z,0.0nm,0.3s,baz=204,slow=0.3,SNR=9.2						

GUC ***25*** *01:42:00.1±0.9, 29.47S×67.50W, h145^{km}, ML4.4*
ISCJB ***25*** *01:42:02.0±1.1, 29.60S±0.07×67.52W±0.08, h33^{km}, mb4.3/1, Error ellipse: s-maj=10.8km s-min=8.2km az=140.1*
NEIC ***25*** *01:42:04.5±1.5, 29.59S×67.69W, h35^{km}, mb4.3/1, Error ellipse: s-maj=21.9km s-min=12.3km az=102.0*
ISC 25 01:42:03.8±1.2**, 29.62S**±0.07×**67.52W**±0.08**, h35**^{km}**, n14,** σ**1^{s}11**/22**, mb4.3**/1**, 8C-1D, La Rioja Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LCO	**Las Campanas**	**2.84**	**282**	⇓*e*Pn	**Pn**	**01 42 46.3**	**-0.4**
LCO				*e*Sn	**Sn**	**01 43 20.6**	**+0.8**
TLL	**Tololo Astrono**	**2.90**	**258**	⇑*i*P	**Pn**	**01 42 48.1**	**+0.5**
TLL				*i* S	**Sn**	**01 43 23.9**	**+2.7**
TLL	**Tololo Astrono**	**2.90**	**258**	⇑*i*P	**Pn**	**01 42 48.1**	**+0.5**
TLL				*i* S	**Sn**	**01 43 23.9**	**+2.7**
TLL				AML	AML	01 43 28.9	
	comp=N,696nm,0.6s						
VACH	**Vallenar**	**3.02**	**289**	⇑*i*P	**Pn**	**01 42 47.9**	**-1.2**
VACH				*i* S	**Sn**	**01 43 24.0**	**-0.1**
VACH	**Vallenar**	**3.02**	**289**	⇑*i*P	**Pn**	**01 42 47.9**	**-1.2**
VACH				*i* S	**Sn**	**01 43 24.0**	**-0.1**
VACH				AML	AML	01 43 26.3	
	comp=N,1µm,0.4s						
LSCH	**La Serena**	**3.25**	**264**	*i* S	**Sn**	**01 43 28.9**	**-0.9**
LSCH				AML	AML	01 43 29.5	
	comp=N,99nm,0.4s						
OVCH	**Ovalle**	**3.34**	**252**	*i* S	**Sn**	**01 43 31.5**	**-0.4**
OVCH				AML	AML	01 43 34.0	
	comp=N,452nm,0.6s						
CMCH	**Combarbala**	**3.38**	**242**	⇑*i*P	**Pn**	**01 42 52.5**	**-1.6**
CMCH				*i* S	**Sn**	**01 43 34.0**	**+1.0**
CMCH	**Combarbala**	**3.38**	**242**	⇑*i*P	**Pn**	**01 42 52.5**	**-1.6**
CMCH				*i* S	**Sn**	**01 43 34.0**	**+1.0**
CMCH				AML	AML	01 43 41.0	
	comp=N,1µm,0.7s						
MDZ	**Mendoza**	**3.44**	**199**	*e*P	**Pn**	**01 42 55.2**	**+0.2**
CDCH	**Caldera**	**3.87**	**310**	⇑*i*P	**Pn**	**01 42 57.6**	**-3.3**
CHNG	**Los Chungos**	**4.10**	**236**	⇑*i*P	**Pn**	**01 42 48.2**	**-16**
CHNG				*i* S	**Sn**	**01 43 35.9**	**-15**
LPAZ	**La Paz**	**13.29**	**357**	*e*Pn	**Pn**	**01 45 11.1**	**+1.1**
	comp=N,8.2nm,0.9s						
JTS	**JuntasAbangare**	**43.09**	**334**	P	**P**	**01 50 01.2**	**+0.5**
	comp=N,5.6nm,0.9s,mb4.3						

ISCJB ***25*** *01:48:40.0±0.7, 34.73N±0.08×27.61E±0.05, h60^{km}±8^{km}, mb3.8/8, Error ellipse: s-maj=13.4km s-min=6.2km az=16.9*
IDC ***25*** *01:48:40.6±2.7, 34.80N×27.57E, h35^{km}±26^{km}, mb3.8/8, mb1 3.8/14, mb1mx3.6/25, mbtmp3.8/14, ML3.6/6, Error ellipse: s-maj=19.4km s-min=14.9km az=174.0*
NEIC ***25*** *01:48:41.0, 34.67N×27.37E, h10^{km}, ML3.8(ATH), After ATH.*
ATH ***25*** *01:48:44.5, 34.81N×27.15E, h43^{km}, MD4.0/6*
CSEM ***25*** *01:48:45.0, 34.84N×27.15E, h44^{km}, MD4.0/6, After ATH*
ISC 25 01:48:42.0±0.6**, 34.75N**±0.07×**27.56E**±0.05**, h54**^{km}±8^{km}**, n37,** σ**1^{s}11**/43**, mb3.8**/8**, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	**Karpathos**	**0.86**	**338**	*e*P	**Pn**	**01 48 59.6**	**+1.7**
ARG	**Arkhangelos**	**1.54**	**17**	*e*P	**Pn**	**01 49 12.0**	**+5.0**
NPS	**Neapolis**	**1.68**	**288**	*e*P	**Pn**	**01 49 08.0**	**-0.9**
NPS	**Neapolis**	**1.68**	**288**	*e*P	**Pn**	**01 49 08.8**	**-0.1**
IDI	**Anoyia**	**2.26**	**285**	Pn	**Pn**	**01 49 16.9**	**+0.1**
IDI				Sn	**Sn**	**01 49 43.5**	**+0.1**
IDI	**Anoyia**	**2.26**	**285**	Pn	**Pn**	**01 49 16.9**	**+0.1**
	13nm,0.3s,baz=110,slow=14,SNR=67						
IDI				Sn	**Sn**	**01 49 43.5**	**+0.1**
	21nm,0.3s,baz=148,slow=22,SNR=6.8						
VAM	**Vamos**	**2.83**	**284**	*e*P	**Pn**	**01 49 24.5**	**-0.2**
SMG	**Samos**	**3.01**	**349**	P	**Pn**	**01 49 29.7**	**+2.6**
VLI	**Veliai**	**4.24**	**299**	*e*P	**Pn**	**01 49 42.7**	**-1.3**
ITM	**Ithomi**	**5.17**	**300**	*e*P	**Pn**	**01 49 56.1**	**-0.7**
LKR	**Lokris**	**5.34**	**318**	P	**Pn**	**01 50 02.0**	**+2.9**
RLS	**Riolos of Patr**	**5.92**	**306**	P	**Pn**	**01 50 08.4**	**+1.4**
VLS	**Valsamata**	**6.58**	**303**	P	**Pn**	**01 50 15.8**	**-0.2**
MMAI	**Mount Meron Ar**	**6.75**	**103**	Pn	**Pn**	**01 50 18.9**	**+0.5**
	1.0nm,0.3s,baz=280,slow=10,SNR=5.5						
MMAI				Sn	**Sn**	**01 51 33.4**	**-0.5**
	5.0nm,0.3s,baz=300,slow=20,SNR=6.2						
MMAI				Lg		01 52 14.3	
	5.3nm,0.3s,baz=251,slow=22,SNR=5.7						
BRTR	**Keskin Array B**	**6.94**	**43**	Pn	**Pn**	**01 50 19.9**	**-1.0**
BRTR				Lg		01 52 21.4	
BRTR	**Keskin Array B**	**6.94**	**43**	Pn	**Pn**	**01 50 20.0**	**-1.0**
	0.1nm,0.3s,baz=221,slow=13,SNR=2.3						
BRTR				Lg		01 52 21.3	
	0.4nm,0.3s,baz=199,slow=28,SNR=7.1						
JAN	**Janina**	**7.25**	**314**	P	**Pn**	**01 50 26.5**	**+1.2**
KEK	**Kerkira**	**7.93**	**311**	P	**Pn**	**01 50 32.3**	**-2.2**
EIL	**Elat**	**8.05**	**127**	Pn	**Pn**	**01 50 35.9**	**-0.4**
EIL				Sn	**Sn**	**01 52 00.0**	**-5.9**
EIL	**Elat**	**8.05**	**127**	Pn	**Pn**	**01 50 35.9**	**-0.4**
	0.5nm,0.3s,baz=314,slow=8.3,SNR=14						
EIL				Sn	**Sn**	**01 52 00.0**	**-5.9**
	3.1nm,0.3s,baz=282,slow=23,SNR=8.8						
ASF	**Jabal al Asfar**	**8.21**	**106**	Sn	**Sn**	**01 52 15.8**	**+6.0**
	0.4nm,0.3s,baz=267,slow=22,SNR=2.7						
KRUS	**Krusevo**	**8.27**	**325**	*e*Pn	**Pn**	**01 50 39.2**	**0.0**
KRUS				*e*Sn	**Sn**	**01 52 09.7**	**-1.4**
TIP	**Timpagrande**	**9.71**	**300**	P	**Pn**	**01 50 55.2**	**-3.6**
VAE	**Valguarnera**	**10.98**	**288**	Pn	**Pn**	**01 51 15.0**	**-1.2**
VAE	**Valguarnera**	**10.98**	**288**	Pn	**Pn**	**01 51 15.0**	**-1.2**
	1.7nm,0.3s,baz=292,slow=3.1,SNR=7.6						
KEST	**Kesra**	**14.92**	**279**	Pn	**Pn**	**01 52 10.8**	**+1.3**
	0.2nm,0.3s,baz=50,slow=10,SNR=12						
GERES	**GERESS Array B**	**17.43**	**328**	P	**Pn**	**01 52 39.9**	**-1.2**
	0.1nm,0.3s,baz=140,slow=13,SNR=3.8						
CLL	**Collm**	**19.61**	**332**	*e*(sP)	**Pn**	**01 53 13.0**	**+5.6**
ESDC	**Sonseca Array**	**25.51**	**290**	P	**P**	**01 54 05.1**	**-0.1**
	1.0nm,0.5s,mb3.6,baz=82,slow=9.5,SNR=9.7						
FINES	**FINESS Array B**	**26.73**	**358**	P	**P**	**01 54 16.2**	**+0.2**
	2.8nm,1.1s,mb3.7,baz=185,slow=11,SNR=6.2						
HFS	**Hagfors**	**26.96**	**345**	P	**P**	**01 54 18.8**	**+0.8**
	1.7nm,0.7s,mb3.7,baz=116,slow=17,SNR=2.9						
NOA	**NORSAR Array B**	**28.33**	**343**	P	**P**	**01 54 31.0**	**+0.7**
	1.2nm,0.8s,mb3.6,baz=113,slow=8.5,SNR=3.3						
EKA	**Eskdalemuir Ar**	**29.52**	**324**	P	**P**	**01 54 41.6**	**+0.6**
	0.7nm,0.5s,mb3.6,baz=122,slow=11,SNR=4.3						
TORD	**Torodi Ar. Bea**	**31.79**	**234**	P	**P**	**01 55 01.9**	**+0.5**
	2.0nm,0.8s,mb4.0,baz=31,slow=9.9,SNR=14						
ARCES	**ARCESS Array B**	**34.86**	**359**	P	**P**	**01 55 25.7**	**-1.8**
ARCES	**ARCESS Array B**	**34.86**	**359**	P	**P**	**01 55 25.7**	**-1.8**
	2.6nm,0.9s,mb4.2,baz=172,slow=9.7,SNR=3.2						
SCHQ	**Schefferville**	**64.77**	**320**	P	**P**	**01 59 14.8**	**+0.3**
	1.3nm,0.4s,mb4.3,baz=254,slow=4.0,SNR=7.7						

IDC ***25*** *01:49:35.9±0.4, 33.14N×90.69E, h0^{km}, mb4.8/33, mb1 4.9/35, mb1mx4.9/35, mbtmp4.8/35, ML4.0/2, MS4.7/23, Ms1 4.7/23, ms1mx4.5/36, Error ellipse: s-maj=14.6km s-min=9.5km az=32.0*
LDG ***25*** *01:49:36.2±0.2, 33.27N×90.28E, h10^{km}, Mb5.4/30, Ms4.7/8, Error ellipse: s-maj=11.2km s-min=4.5km az=124.0*
ISCJB ***25*** *01:49:37.4±0.8, 33.15N±0.02×90.59E±0.02, h20^{km}±5^{km}, mb5.0/182, MS4.9/58, Error ellipse: s-maj=4.0km*

s-min=2.9km az=8.9

BJI ***25*** *01:49:38.1, 3325N×9070E, h15^{km}, mB5.3, mb4.8, Ms5.4, Msz5.2*

MOS ***25*** *01:49:39.1±1.1, 33.16N×9062E, h33^{km}, mb5.2/82, MS4.9/30, Error ellipse: s-maj=7.1km s-min=3.5km az=128.2*

GCMT ***25*** *01:49:41.5±0.2, 33.10N×9063E, h20^{km}, MW5.4/81, Moment Tensor Solution. s45,c65; s81,c169; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.52±.04; $M_{\theta\theta}$-0.56±.02; $M_{\phi\phi}$1.07±.03; $M_{r\theta}$-0.28±.05; $M_{\theta\phi}$0.93±.02; $M_{\phi r}$0.27±.05; Best double couple: $M_0$1.34300×10^{17} NP1:ϕ_s66.00000°,δ67.00000°,λ-19.00000°. NP2: ϕ_s164.00000°,δ73.00000°,λ-156.00000°. Principal axes: T 1.5010, Plg4.0000°, Azm294.0000°; N -0.3150, Plg60.0000°, Azm197.0000°; P -1.1860, Plg29.0000°, Azm26.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***25*** *01:49:41.5±0.2, 33.19N×9066E, h35^{km}, mb5.0/105, MS5.0/11 Error ellipse: s-maj=7.1km s-min=4.5km az=215.0*

SZGRF ***25*** *01:49:45.8, 3368N×90.11E, h33^{km}, mb5.2, MS5.1, Qinghai, China*

ISC 25 01:49:41.5±0.8**, 3315N**±002×**9061E**±002**, h34**^{km}±5^{km}**, h31**^{km}±3.2^{km}**:pP-P, n511,** σ**1^{s}21**/533**, mb5.0**/182**, MS4.9**/58**, 31C-23D, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LSA	**Lhasa**	**3.47**	**172**	P	**Pn**	**01 50 36.8**	**+3.7**
LSA				SG	**Sn**	**01 51 27.1**	**+14**
LSA				LR	LR		
	comp=N,22μm,6.9s						
LSA				LR	LR		
	comp=E,82μm,6.9s						
LSA				LR	LR		
	comp=Z,47μm,6.9s						
GTK	**Gangtok**	**6.05**	**197**	*e*x	x	01 51 30.0	
TAPN	**Taplejung**	**6.30**	**204**	*e*P	**Pn**	**01 51 11.6**	**-0.4**
	comp=Z,3μm,1.6s						
JIRN	**Jiri**	**6.67**	**216**	*e*P	**Pn**	**01 51 16.7**	**-0.4**
	comp=Z,220nm,0.5s						
SLGI	**Shiliguri**	**6.71**	**197**	*e*x	x	01 51 44.8	
ODAN	**Odare**	**6.87**	**205**	*e*P	**Pn**	**01 51 18.5**	**-1.2**
	comp=Z,392nm,0.8s						
KKN	**Kakani**	**7.05**	**222**	*e*P	**Pn**	**01 51 21.0**	**-1.3**
	comp=Z,283nm,0.6s						
GKN	**Gorkha**	**7.27**	**227**	*e*P	**Pn**	**01 51 23.9**	**-1.4**
	comp=Z,206nm,0.4s						
SHL	**Shillong**	**7.64**	**171**	*e*P	**Pn**	**01 51 32.0**	**+1.6**
SHL				*e*x	x	01 52 00.0	
IMP	**Imphal**	**8.83**	**160**	*e*P	**Pn**	**01 51 49.0**	**+2.3**
IMP				*e*x	x	01 53 30.0	
AGT	**Agartala**	**9.25**	**176**	*i* P	**Pn**	**01 51 52.0**	**-0.5**
AGT				*i* x	x	01 53 11.0	
GTA	**Gaotai**	**9.70**	**47**	⇓P	**Pn**	**01 51 59.3**	**+0.7**
GTA				AP		01 52 06.4	
GTA				XP		01 52 11.3	
GTA				S	**Sn**	**01 53 47.0**	**+0.7**
GTA				XS		01 53 56.1	
GTA				LG1		01 54 46.9	
GTA				LG2		01 55 05.5	
GTA				AMB	AMB		
	comp=Z,26nm,1.4s						
GTA				AMB	AMB		
	comp=Z,510nm,5.3s						
GTA				LR	LR		
	comp=N,20μm,13.3s						
GTA				LR	LR		
	comp=E,11μm,14.4s						
GTA				LR	LR		
	comp=Z,9μm,11.0s						
BOK	**Bokaro**	**10.21**	**205**	*i* x	x	01 51 54.4	
BOK				*i* x	x	01 59 16.4	
WMQ	**Urumqi**	**10.89**	**349**	P	**Pn**	**01 52 15.4**	**+0.5**
WMQ				AP		01 52 22.5	
WMQ				PP		01 52 24.1	
WMQ				XP		01 52 27.3	
WMQ				S	**Sn**	**01 54 16.3**	**+0.8**
WMQ				XS		01 54 27.3	
WMQ				SS		01 54 30.0	
WMQ				AMB	AMB		
	comp=Z,23nm,1.0s						
WMQ				LR	LR		
	comp=N,5μm,19.2s						
WMQ				LR	LR		
	comp=E,20μm,20.2s						
WMQ				LR	LR		
	comp=Z,4μm,15.0s						
ALBI	**Allahabad**	**10.96**	**227**	*e*P	**Pn**	**01 52 11.0**	**-4.9**
LZH	**Lanzhou**	**11.29**	**71**	*e*P	**Pn**	**01 52 20.6**	**+0.3**
LZH				PP		01 52 29.5	
LZH				*e*S	**Sn**	**01 54 25.3**	**+0.1**
LZH				XS		01 54 35.0	
LZH				SS		01 54 42.0	
LZH				AMB	AMB		
	comp=Z,98nm,1.2s						
LZH				AMB	AMB		
	comp=Z,290nm,4.0s						
LZH				LR	LR		
	comp=N,16μm,9.8s						
LZH				LR	LR		
	comp=Z,12μm,10.3s						
LZH	**Lanzhou**	**11.29**	**71**	*e*P	**Pn**	**01 52 16.1**	**-4.2**
	comp=Z,15nm,1.0s						
LZH				pP		01 52 20.0	
LZH				sP		01 52 22.4	
LZH				pP		01 52 30.5	
LZH				sP		01 52 35.5	
LZH				*e*S	**Sn**	**01 54 25.3**	**+0.1**
LZH				sS		01 54 35.0	
LZH				SS		01 54 42.0	
LZH	**Lanzhou**	**11.29**	**71**	*e*P	**Pn**	**01 52 16.1**	**-4.2**
LZH				*e*S	**Sn**	**01 54 25.3**	**+0.1**
LZH				pmax	pmax		
	comp=Z,15nm,1.0s						
CD2	**Chengdu**	**11.38**	**98**	⇓*i*P	**Pn**	**01 52 23.9**	**+2.3**
CD2				AP		01 52 31.0	
CD2				XP		01 52 35.9	
CD2				S	**Sn**	**01 54 30.1**	**+2.6**
CD2				XS		01 54 42.4	
CD2				SS		01 54 45.9	
CD2				AMB	AMB		
	comp=Z,20nm,1.1s						
CD2				AMB	AMB		
	comp=Z,220nm,4.2s						
CD2				LR	LR		
	comp=N,12μm,12.6s						
CD2				LR	LR		
	comp=E,9μm,7.8s						
CD2				LR	LR		
	comp=Z,10μm,8.4s						
NDI	**New Delhi**	**12.33**	**252**	*e*P	**Pn**	**01 52 30.0**	**-4.7**
THN	**Thein Dam**	**12.56**	**271**	*e*P	**Pn**	**01 52 32.8**	**-4.9**
KMI	**Kunming**	**13.27**	**124**	P	**Pn**	**01 52 46.5**	**-1.0**
KMI				AP		01 52 50.6	
KMI				PP		01 52 55.8	
KMI				AMB	AMB		
	comp=Z,13nm,0.5s						
KMI				AMB	AMB		
	comp=Z,414nm,4.7s						
KMI				LR	LR		
	comp=N,12μm,12.2s						
KMI				LR	LR		
	comp=E,8μm,10.9s						
KMI				LR	LR		
	comp=Z,7μm,10.0s						
KMI	**Kunming**	**13.27**	**124**	P	**Pn**	**01 52 46.5**	**-1.0**
	comp=Z,13nm,0.5s						
KMI				pP		01 52 50.6	
KMI				sP		01 52 52.3	
KMI				PP		01 52 55.7	
KMI				PPP		01 53 03.9	
KMI				S	**Sn**	**01 55 05.8**	**-8.0**
KMI				sS		01 55 12.6	
KMI				SS		01 55 20.0	
KSH	**Kashi**	**13.40**	**302**	*e*P	**Pn**	**01 52 50.3**	**+1.2**
KSH				*e*AP		01 52 58.1	
KSH				*e*PP		01 53 02.1	
KSH				*e*XP		01 53 03.1	
KSH				*e*PPP		01 53 09.1	
KSH				*e*S	**Sn**	**01 55 17.0**	**+0.2**
KSH				*e*XS		01 55 31.0	
KSH				*e*SS		01 55 36.5	
KSH				AMB	AMB		
	comp=Z,2μm,5.2s						
KSH				LR	LR		
	comp=N,22μm,8.2s						
KSH				LR	LR		
	comp=E,24μm,7.4s						
KSH				LR	LR		
	comp=Z,16μm,7.8s						
JBP	**Jabalpur**	**13.66**	**226**	⇓*i*P	**Pn**	**01 52 51.8**	**-1.0**
JBP				*e*x	x	01 52 58.2	
	comp=Z,85nm,1.2s						
JBP				*i* S	**Sn**	**01 55 19.9**	**-3.5**
CHCP	**Chirah Chowk**	**14.51**	**277**	P	**Pn**	**01 53 00.0**	**-4.3**
ULHL	**Ulahol**	**14.54**	**313**	P	**Pn**	**01 53 02.5**	**-2.2**
	SNR=58						
AAA	**Alma-Ata**	**14.73**	**317**	*i* P	**Pn**	**01 53 09.5**	**+2.2**
AAA				*e*S	**Sn**	**01 55 55.3**	**+6.1**
AAA				pmax	pmax		
	comp=Z,3μm,4.2s						
AAA				smax			
	comp=E,1μm,7.1s						
AAA				MLR	MLR		
	comp=Z,8μm,15.4s						
MK31	**Makanchi Array**	**15.03**	**337**	P	**Pn**	**01 53 10.1**	**-1.1**
MK31				pmax	pmax		
	comp=Z,47nm,1.2s						
MKAR	**Makanchi Array**	**15.03**	**337**	Pn	**Pn**	**01 53 08.3**	**-2.9**
MKAR	**Makanchi Array**	**15.03**	**337**	Pn	**Pn**	**01 53 08.3**	**-2.9**
	comp=Z,0.4nm,0.3s,baz=148,slow=13,SNR=42						
KZA	**Kyzart**	**15.07**	**311**	P	**Pn**	**01 53 12.4**	**+0.6**
	SNR=8.2						
XAN	**Xi'an**	**15.29**	**82**	P	**Pn**	**01 53 12.1**	**-2.6**
XAN				AP	pP	01 53 22.1	-5.9
XAN				S	**Sn**	**01 56 10.8**	**+7.9**
XAN				AMB	AMB		
	comp=Z,7.0nm,1.1s						
XAN				LR	LR		
	comp=N,5μm,9.7s						
XAN				LR	LR		
	comp=E,6μm,8.5s						
XAN				LR	LR		
	comp=Z,6μm,9.1s						
TKM2	**Tokmak 2**	**15.31**	**314**	P	**Pn**	**01 53 17.8**	**+2.8**
	SNR=20						
AJM	**Ajmer**	**15.37**	**249**	*e*P	**Pn**	**01 53 11.0**	**-4.8**
GYA	**Guiyang**	**15.44**	**111**	⇑*i*P	**Pn**	**01 53 13.4**	**-3.3**
GYA				AP	pP	01 53 22.8	-7.0
GYA				XP	sP	01 53 25.8	-8.3
GYA				PPP		01 53 39.4	
GYA				S	**Sn**	**01 56 02.3**	**-4.4**
GYA				AMB	AMB		
	comp=Z,30nm,1.3s						
GYA				AMB	AMB		
	comp=Z,290nm,3.1s						
GYA				LR	LR		
	comp=N,5μm,7.0s						
GYA				LR	LR		
	comp=E,5μm,9.4s						
GYA				LR	LR		
	comp=Z,7μm,7.4s						
CHRT	**Chiangrai**	**15.55**	**146**	⇓P	**Pn**	**01 53 20.0**	**+1.8**
	comp=Z,171nm,0.9s						
KBK	**Karagaybulak**	**15.56**	**312**	P	**Pn**	**01 53 18.7**	**+0.4**
	SNR=28						
UCH	**Uchtor**	**15.62**	**310**	P	**Pn**	**01 53 20.8**	**+1.8**
	SNR=17						
CEP	**Cherat**	**15.62**	**278**	P	**Pn**	**01 53 14.5**	**-4.6**
AAK	**Ala-Archa**	**15.84**	**311**	Pn	**Pn**	**01 53 21.8**	**0.0**
	comp=Z,470nm,0.9s,SNR=17						
AAK	**Ala-Archa**	**15.84**	**311**	P	**Pn**	**01 53 25.9**	**+4.1**
	SNR=20						
AAK	**Ala-Archa**	**15.84**	**311**	*e*Pn	**Pn**	**01 53 21.2**	**-0.6**
AAK	**Ala-Archa**	**15.84**	**311**	*e*P	**Pn**	**01 53 21.2**	**-0.6**
AAK	**Ala-Archa**	**15.84**	**311**	Pn	**Pn**	**01 53 25.3**	**+3.5**
	SNR=60						
THW	**Thamme Wali**	**15.85**	**274**	P	**Pn**	**01 53 16.2**	**-5.8**
FRU	**Bishkek**	**15.87**	**312**	⇓*e*P	**Pn**	**01 53 25.0**	**+2.9**
FRU				pmax	pmax		
	comp=Z,710nm,2.5s						
CHMS	**Chumysh**	**15.87**	**313**	P	**Pn**	**01 53 27.6**	**+5.4**
	SNR=28						
AML	**Almayashu**	**16.10**	**309**	P	**Pn**	**01 53 28.7**	**+3.5**
	SNR=17						
CHG	**Chiang Mai**	**16.11**	**150**	⇑P	**Pn**	**01 53 26.7**	**+1.3**
	comp=Z,21nm,1.0s						
CHTO	**Chiang Mai**	**16.11**	**150**	*e*Pn	**Pn**	**01 53 26.3**	**+0.9**
	comp=Z,41nm,1.4s						
CHTO	**Chiang Mai**	**16.11**	**150**	*e*P	**Pn**	**01 53 26.3**	**+0.9**
CHTO				pmax	pmax		
	comp=Z,41nm,1.4s						
CHTO	**Chiang Mai**	**16.11**	**150**	Pn	**Pn**	**01 53 24.9**	**-0.5**
	SNR=16						
USP	**Ospenovka**	**16.17**	**313**	P	**Pn**	**01 53 30.9**	**+4.8**
	SNR=39						
EKS2	**Erkin-Say**	**16.31**	**310**	P	**Pn**	**01 53 31.4**	**+3.7**
	SNR=37						
EKS2	**Erkin-Say**	**16.31**	**310**	*e*Pn	**Pn**	**01 53 27.9**	**+0.1**
	comp=Z,115nm,1.5s						
SBDP	**Sheikh Budin**	**16.69**	**272**	P	**Pn**	**01 53 30.0**	**-2.7**
BTO	**Baotou**	**17.20**	**59**	*e*P	**Pn**	**01 53 40.1**	**+1.1**
DRP	**Derazinda**	**17.29**	**271**	P	**Pn**	**01 53 33.8**	**-6.4**
KBL	**Kabul**	**17.97**	**280**	*e*Pn	**Pn**	**01 53 44.8**	**-3.9**
TIY	**Taiyuan**	**18.34**	**69**	*e*P	**Pn**	**01 53 53.4**	**+0.2**
TIY				S	**Sn**	**01 57 16.5**	**-0.5**
TIY				LR	LR		
	comp=N,5μm,7.3s						
TIY				LR	LR		
	comp=E,4μm,8.9s						
HHC	**Hu-ho-hao-te**	**18.39**	**59**	*e*P	**Pn**	**01 53 52.9**	**-0.7**
HHC				AP	pP	01 54 00.9	-1.4
HHC				XP	sP	01 54 05.1	-1.5
HHC				PP		01 54 08.5	
HHC				S	**Sn**	**01 57 16.6**	**-1.3**
HHC				XS	sS	01 57 26.8	-9.0
HHC				PCP	PcP	01 58 23.8	+0.4
HHC				AMB	AMB		
	comp=Z,34nm,1.5s						
HHC				AMB	AMB		
	comp=Z,903nm,8.0s						
HHC				LR	LR		
	comp=N,5μm,16.7s						
HHC				LR	LR		
	comp=E,5μm,14.9s						
HHC				LR	LR		
	comp=Z,7μm,13.7s						
KK31	**Karatay Array**	**18.64**	**308**	*i* P	**Pn**	**01 53 56.9**	**+0.3**
KK31				pmax	pmax		
	comp=Z,21nm,0.7s						
KKAR	**Karatay Array**	**18.64**	**308**	*i* P	**Pn**	**01 53 56.9**	**+0.3**
KKAR				pmax	pmax		
	comp=Z,16nm,0.8s						
SONM	**Songino Array**	**18.90**	**34**	P	**Pn**	**01 53 59.0**	**-0.8**
	comp=Z,0.7nm,0.3s,baz=217,slow=11,SNR=66						
SONM				PcP	PcP	01 58 24.5	+0.3
	comp=Z,0.1nm,0.3s,baz=205,slow=2.3,SNR=6.5						
SONM				LR	LR	02 02 12.8	
	comp=Z,5μm,22.0s,baz=221,slow=40						
HYB	**Hyderabad**	**19.06**	**218**	*e*P	**Pn**	**01 53 57.5**	**-4.5**
	comp=Z,50nm,1.0s						
HYB	**Hyderabad**	**19.06**	**218**	*e*P	**Pn**	**01 53 57.5**	**-4.5**
HYB				pmax	pmax		
	comp=Z,50nm,1.0s						
HYB	**Hyderabad**	**19.06**	**218**	*i* P	**Pn**	**01 53 57.5**	**-4.5**
	comp=Z,50nm,1.0s						
HYB				*e*sP	sP	01 54 18.0	+3.8
HYB				*e*S	**Sn**	**01 57 36.0**	**+1.4**
ULN	**Ulaanbaatar**	**19.23**	**35**	⇑*e*P	**Pn**	**01 54 03.0**	**-0.8**
NST	**Nakhon Sawan**	**19.42**	**151**	P	**Pn**	**01 54 06.0**	**-0.3**
KURK	**Kurchatov**	**19.64**	**337**	Pn	**Pn**	**01 54 07.3**	**-1.3**
	comp=Z,214nm,1.1s,SNR=14						
KURK	**Kurchatov**	**19.64**	**337**	*e*P	**Pn**	**01 54 05.5**	**-3.1**
	comp=Z,103nm,1.4s						
KURK	**Kurchatov**	**19.64**	**337**	⇑*e*P	**Pn**	**01 54 05.4**	**-3.2**
KURK				pmax	pmax		
	comp=Z,121nm,2.3s						
KURK	**Kurchatov**	**19.64**	**337**	P	**Pn**	**01 54 08.7**	**0.0**
	SNR=36						
MOY	**Mondy**	**19.99**	**19**	*e*P	**Pn**	**01 54 12.3**	**-0.4**
MOY				pmax	pmax		
	comp=Z,118nm,1.9s						
KKTK	**Khon Kaen**	**20.05**	**144**	PG	**P**	**01 54 11.0**	**-0.8**
WHN	**Wuhan**	**20.32**	**91**	P	**P**	**01 54 14.5**	**-0.2**
WHN				S	**S**	**01 58 03.3**	**+2.6**
WHN				AMB	AMB		
	comp=Z,2μm,4.8s						
WHN				LR	LR		
	comp=Z,9μm,10.3s,MS5.4						
QUE	**Quetta**	**20.35**	**268**	*e*P	**P**	**01 54 14.0**	**-1.0**
QUE				*e*S	**S**	**01 57 54.0**	**-7.2**
TLY	**Talaya**	**20.81**	**23**	Pn	**P**	**01 54 21.6**	**+1.9**
	comp=Z,100nm,1.0s,SNR=5.1						
TLY	**Talaya**	**20.81**	**23**	*e*Pn	**P**	**01 54 21.2**	**+1.5**
TLY	**Talaya**	**20.81**	**23**	*e*P	**P**	**01 54 20.9**	**+1.2**
TLY				*e*		01 54 38.4	
TLY				*e*SS		01 58 39.6	
TLY				pmax	pmax		
	comp=Z,40nm,1.8s						
TLY				MLR	MLR		
	comp=Z,4μm,16.0s,MS4.9						
TLY	**Talaya**	**20.81**	**23**	P	**P**	**01 54 21.5**	**+1.8**
	SNR=12						
ZAL	**Zalesovo**	**21.19**	**350**	P	**P**	**01 54 22.9**	**-0.9**
ZAL						01 58 30.3	
ZALV	**Zalesovo Beam**	**21.19**	**350**	P	**P**	**01 54 22.9**	**-0.9**
ZALV				PcP	PcP	01 58 30.3	+2.0
ZALV				LR	LR	02 03 21.8	
ZALV	**Zalesovo Beam**	**21.19**	**350**	P	**P**	**01 54 22.9**	**-0.9**
	comp=Z,53nm,1.0s,mb4.8,baz=163,slow=11,SNR=58						
ZALV				PcP	PcP	01 58 30.3	+2.0
	comp=Z,2.3nm,0.9s,baz=207,slow=1.6,SNR=4.0						
ZALV				LR	LR	02 03 21.8	
	comp=Z,2μm,18.8s,MS4.5,baz=167,slow=39						
PBA	**Port Blair**	**21.48**	**174**	*e*P	**P**	**01 54 30.3**	**+3.1**
PBA				AMb	AMB	01 54 39.2	
	comp=Z,189nm,2.3s,mb5.0						
PBA				*e*S	**S**	**01 58 28.9**	**+5.2**
IRK	**Irkutsk**	**21.49**	**23**	*e*P	**P**	**01 54 28.1**	**+1.0**
IRK				*e*		01 54 47.3	
IRK				pmax	pmax		
	comp=Z,156nm,2.0s,mb5.0						
BJI	**Beijing**	**21.60**	**64**	P	**P**	**01 54 29.4**	**+1.0**
BJI				XP	sP	01 54 33.8	-7.9
BJI				AMB	AMB		
	comp=Z,75nm,1.2s,mb5.0						
BJI				LR	LR		
	comp=N,13μm,17.5s,MS5.4						
BJI				LR	LR		
	comp=E,3μm,15.4s,MS5.4						
BJI				LR	LR		
	comp=Z,3μm,21.0s						
BJI	**Beijing**	**21.60**	**64**	P	**P**	**01 54 29.4**	**+1.0**
	comp=Z,0.1nm,1.2s						
BJI				sP	sP	01 54 33.7	-8.0
BJI				PcP	PcP	01 58 13.7	-16
BJI				S	**S**	**01 58 37.7**	**+12**
BJI				LR	LR		
	comp=Z,3μm,21.0s						
TIA	**Tai'an**	**21.99**	**75**	*e*P	**P**	**01 54 32.8**	**+0.2**
TIA				LR	LR		
	comp=E,2μm,11.0s						
MDRS	**Chennai**	**22.12**	**208**	⇓*e*P	**P**	**01 54 36.5**	**+2.4**
MDRS				*e*x	x	01 54 40.5	
MDRS				*e*x	x	01 56 12.5	
QIZ	**Qiongzhong**	**22.22**	**125**	P	**P**	**01 54 37.3**	**+2.2**
QIZ				AP		01 54 45.1	
QIZ				XP	sP	01 54 49.3	+0.8
QIZ				S	**S**	**01 58 41.9**	**+3.9**
QIZ				AMB	AMB		
	comp=Z,33nm,1.4s,mb4.6						
QIZ				AMB	AMB		
	comp=Z,264nm,3.0s						
QIZ				LR	LR		
	comp=N,2μm,8.5s						
QIZ				LR	LR		
	comp=E,4μm,9.2s						
QIZ				LR	LR		
	comp=Z,5μm,10.8s,MS5.2						
NVS	**Novosibirsk**	**22.30**	**349**	*e*P	**P**	**01 54 35.9**	**+0.2**
NVS				pmax	pmax		
	comp=Z,166nm,2.1s,mb5.1						
NVS				pmax	pmax		
	comp=N,295nm,2.0s						
GZH	**Guangzhou**	**22.37**	**111**	P	**P**	**01 54 35.8**	**-1.0**
GZH				S	**S**	**01 58 44.3**	**+3.3**
GZH				LR	LR		
	comp=N,2μm,7.2s						
GZH				LR	LR		
	comp=E,4μm,7.9s						
HKC	**Hong Kong Obse**	**23.44**	**111**	P	**P**	**01 54 52.0**	**+4.1**
NJ2	**Nanjing**	**23.79**	**85**	*e*P	**P**	**01 54 52.5**	**+1.4**
NJ2				AP		01 55 01.8	
NJ2				XP	sP	01 55 05.6	+0.7
NJ2				PP		01 55 26.1	
NJ2				S	**S**	**01 59 03.0**	**-1.4**
NJ2				XS	sS	01 59 18.0	-2.3
NJ2				AMB	AMB		
	comp=Z,30nm,0.9s,mb4.7						
NJ2				AMB	AMB		
	comp=Z,500nm,6.8s						
NJ2				LR	LR		
	comp=N,11μm,21.9s,MS5.4						
NJ2				LR	LR		
	comp=E,7μm,22.3s,MS5.4						
NJ2				LR	LR		
	comp=Z,7μm,22.3s,MS5.1						
BRVK	**Borovoye**	**24.67**	**330**	P	**P**	**01 54 58.6**	**-0.3**
	comp=Z,180nm,1.0s,mb5.6,SNR=19						
BRVK	**Borovoye**	**24.67**	**330**	*e*P	**P**	**01 54 58.3**	**-0.6**
BRVK	**Borovoye**	**24.67**	**330**	P	**P**	**01 54 59.8**	**+1.0**
	SNR=20						
MNGI	**Mangalore**	**24.75**	**219**	*i* P	**P**	**01 55 00.4**	**+0.4**
MNGI				AMb	AMB	01 55 02.5	
	comp=Z,64nm,1.1s,mb5.1						
MNGI				*i* x	x	01 59 31.8	
CIT	**Chita**	**25.13**	**35**	*e*P	**P**	**01 55 02.7**	**-0.4**
CIT				*e*		01 55 09.0	
CIT				*e*		01 55 18.8	
CIT				*e*		01 55 52.9	
CIT				pmax	pmax		
	comp=Z,35nm,1.4s,mb4.7						
DL2	**Dalian**	**25.66**	**68**	P	**P**	**01 55 08.6**	**+0.6**
DL2				S	**S**	**01 59 35.4**	**+1.2**
DL2				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.7						
DL2				AMB	AMB		
	comp=Z,120nm,6.3s						
DL2				LR	LR		
	comp=N,1μm,12.1s,MS5.0						
DL2				LR	LR		
	comp=E,3μm,12.9s,MS5.0						
DL2				LR	LR		
	comp=Z,3μm,12.8s,MS5.0						
QZH	**Quanzhou**	**25.73**	**101**	P	**P**	**01 55 14.0**	**+5.1**
QZH				LR	LR		
	comp=N,6μm,8.5s						
QZH				LR	LR		
	comp=E,3μm,7.0s						
QZH				LR	LR		
	comp=Z,8μm,10.5s,MS5.5						
SSE	**Sheshan**	**25.93**	**86**	P	**P**	**01 55 11.3**	**+0.7**
SSE				S	**S**	**01 59 39.6**	**+0.9**
SSE				AMB	AMB		
	comp=Z,32nm,1.0s,mb4.8						
SSE				AMB	AMB		
	comp=Z,243nm,8.2s						
SSE				LR	LR		
	comp=N,2μm,11.0s,MS5.2						
SSE				LR	LR		
	comp=E,4μm,11.0s,MS5.2						
SSE				LR	LR		
	comp=Z,5μm,14.5s,MS5.2						
SSE	**Sheshan**	**25.93**	**86**	P	**P**	**01 55 11.3**	**+0.7**
	comp=Z,32nm,1.0s,mb4.8						
SSE				sP	sP	01 55 27.4	+3.0
SSE				S	**S**	**01 59 39.6**	**+0.9**
SSE				sS	sS	01 59 58.5	+3.8
SSE				LR	LR		
	comp=Z,5μm,14.5s,MS5.2						
ABKT	**Ailbek**	**26.79**	**290**	P	**P**	**01 55 20.5**	**+2.2**
	comp=Z,193nm,1.4s,mb5.4,SNR=5.6						
VAN	**Vannovskaya**	**26.80**	**290**	P	**P**	**01 55 18.6**	**+0.2**
VAN				*e*S	**S**	**01 59 50.6**	**-1.6**
PALK	**Pallekele**	**27.34**	**202**	*e*P	**P**	**01 55 26.5**	**+3.1**
	comp=Z,74nm,1.5s,mb5.0						
SNY	**Shenyang**	**27.42**	**62**	⇓P	**P**	**01 55 24.1**	**+0.2**
SNY				S	**S**	**02 00 09.8**	**+7.9**
SNY				AMB	AMB		
	comp=Z,22nm,1.0s,mb4.6						
SNY				LR	LR		

	comp=N,2µm,12.0s,MS5.1						
SNY				LR	LR		
	comp=E,2µm,15.0s,MS5.1						
SNY				LR	LR		
	comp=Z,3µm,11.1s,MS5.1						
AB31	**Akbulak array**	27.88	314	*i* P	P	01 55 28.1	+0.2
AB31				pmax	pmax		
	comp=Z,21nm,1.1s,mb4.7						
CN2	**Changchun**	29.07	58	*e*P	P	01 55 38.3	-0.3
CN2				*e*AP	pP	01 55 42.8	-5.6
CN2				*e*XP	sP	01 55 45.3	-7.2
CN2				*e*S	S	02 00 25.8	-2.1
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
CN2				AMB	AMB		
	comp=Z,400nm,7.0s						
CN2				LR	LR		
	comp=N,2µm,16.0s,MS5.1						
CN2				LR	LR		
	comp=E,3µm,16.0s,MS5.1						
CN2				LR	LR		
	comp=Z,5µm,17.0s,MS5.2						
BOD	**Bodaibo**	29.33	26	*e*P	P	01 55 39.6	-1.1
BOD				pmax	pmax		
	comp=Z,71nm,1.2s,mb5.3						
AKTK	**Aktyubinsk**	29.49	316	P	P	01 55 41.8	-0.5
AKTK				PcP	PcP	01 58 49.2	+2.2
AKTK				LR	LR	02 08 48.9	
AKTO	**Aktyubinsk**	29.49	316	P	P	01 55 41.8	-0.5
AKTO						01 58 49.2	
AKTO	**Aktyubinsk**	29.49	316	P	P	01 55 41.8	-0.5
	comp=Z,3.6nm,0.7s,mb4.2,baz=120,slow=8.7,SNR=5.9						
AKTO				PcP	PcP	01 58 49.2	+2.2
	comp=Z,4.1nm,0.8s,baz=190,slow=7.1,SNR=3.9						
AKTO				LR	LR	02 08 48.9	
	comp=Z,3µm,18.8s,MS5.0,baz=118,slow=39						
KSRS	**Korea Array**	30.62	71	P	P	01 55 51.2	-1.1
	comp=Z,6.0nm,0.8s,mb4.5,baz=267,slow=8.9,SNR=13						
KSRS				PcP	PcP	01 58 52.4	+2.2
	comp=Z,1.1nm,0.6s,baz=267,slow=2.5,SNR=4.2						
BSY	**Bisya**	31.17	259	P	P	01 56 00.8	+3.5
	SNR=6.7						
PSI	**Prapat**	31.18	164	LR	LR	02 08 39.4	
	comp=Z,1µm,21.5s,MS4.5,baz=329,slow=37						
ASHO	**Ashiyiah**	31.29	263	P	P	01 56 02.6	+4.2
	SNR=6.3						
SVE	**Sverdlovsk**	31.34	328	⇑*e*P	P	01 56 01.0	+2.6
SVE				*e*		01 57 01.0	
SVE				*e*		02 06 30.0	
SVE				pmax	pmax		
	comp=Z,140nm,2.0s,mb5.5						
SVE				MLR	MLR		
	comp=N,900nm,12.0s,MS4.9						
SVE				MLR	MLR		
	comp=E,1µm,12.0s,MS4.9						
SVE				MLR	MLR		
	comp=Z,2µm,12.0s,MS5.0						
ORR	**Orenburg**	31.85	316	*e*P	P	01 56 02.9	-0.1
ARU	**Arti**	32.05	326	*e*P	P	01 56 05.2	+0.5
	comp=Z,16nm,1.0s,mb4.8						
ARU	**Arti**	32.05	326	⇓*e*P	P	01 56 04.7	0.0
ARU				pmax	pmax		
	comp=Z,27nm,1.8s,mb4.8						
ARU				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.0						
MDJ	**Mudanjiang**	32.14	58	P	P	01 56 05.9	+0.2
MDJ				AP	pP	01 56 14.6	-0.9
MDJ				XP	sP	01 56 18.1	-1.5
MDJ				PCP	PcP	01 58 53.4	-0.7
MDJ				S	S	02 01 16.6	+0.6
MDJ				XS	sS	02 01 31.6	-0.5
MDJ				SCS	ScS	02 06 34.6	+0.8
MDJ				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,131nm,4.5s						
MDJ				LR	LR		
	comp=N,6µm,18.4s						
MDJ				LR	LR		
	comp=E,700nm,11.5s						
MDJ				LR	LR		
	comp=Z,4µm,13.8s,MS5.2						
JOW	**Kunigami**	33.09	91	LR	LR	02 10 05.4	
	comp=Z,2µm,20.6s,MS4.8,baz=200,slow=37						
VLA	**Vladivostok**	33.66	61	*e*P	P	01 56 17.6	-1.4
VLA				*e*S	S	02 01 39.0	-0.6
VLA				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.2						
VLA				MLR	MLR		
	comp=Z,2µm,12.3s,MS5.0						
KLR	**Kul'dur**	34.39	50	*e*P	P	01 56 22.8	-2.4
KLR				pmax	pmax		
	comp=E,43nm,1.4s						
KLR				pmax	pmax		
	comp=Z,43nm,1.4s,mb5.2						
KLR				MLR	MLR		
	comp=E,2µm,12.0s						
KLR				MLR	MLR		
	comp=Z,4µm,12.0s,MS5.4						
KKM	**Kota Kinabalu**	35.97	133	*e*P	P	01 56 39.4	+0.2
HABR	**Khabarovsk**	36.40	52	*e*P	P	01 56 42.2	-0.3
HABR				*e*S	S	02 02 23.6	+2.0
HABR				pmax	pmax		
	comp=Z,35nm,1.5s,mb5.1						
KSM	**Kuching**	36.54	146	*e*P	P	01 56 43.9	-0.1
KBD	**Kabd**	36.75	276	*e*P	P	01 56 43.5	-2.3
KBD				AMb	AMB	01 56 50.6	
	comp=Z,138nm,0.5s,mb6.0						
MIB	**Mutribah**	36.87	277	*e*P	P	01 56 45.3	-1.5
MIB				AMb	AMB	01 56 51.7	
	comp=Z,108nm,0.9s,mb5.7						
RDF	**Al-Radifah**	36.95	275	*e*P	P	01 56 45.3	-2.2
RDF				AMb	AMB	01 56 51.1	
	comp=Z,82nm,0.8s,mb5.6						
NAY	**Al-Naaiem**	37.11	276	*e*P	P	01 56 47.5	-1.3
NAY				AMb	AMB	01 56 53.6	
	comp=Z,64nm,1.3s,mb5.3						
ZEI	**Tsey**	37.65	299	*e*P	P	01 56 53.7	+0.5
ZEI				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.5						
YAK	**Yakutsk**	38.09	29	*e*P	P	01 56 57.5	+0.9
YAK				*e*		01 58 22.2	
YAK				*e*PPP		01 58 42.4	
YAK				*e*		01 59 14.1	
YAK				*e*S	S	02 02 47.4	+0.5
YAK				*e*		02 03 03.3	
YAK				*e*		02 07 07.7	
YAK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
YAK				pmax	pmax		
	comp=N,3.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,11nm,1.4s						
YAK				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.6						
YAK				pmax	pmax		
	comp=N,22nm,1.4s						
YAK				pmax	pmax		
	comp=E,11nm,1.0s						
YAK				smax			
	comp=N,225nm,5.1s						
YAK				smax			
	comp=Z,7.0nm,0.5s						
YAK				smax			
	comp=E,148nm,4.6s						
YAK				MLR	MLR		
	comp=Z,2µm,10.0s,MS5.3						
YAK				MLR	MLR		
	comp=N,524nm,11.0s,MS5.2						
YAK				MLR	MLR		
	comp=E,2µm,12.0s,MS5.2						
KIV	**Kislovodsk**	38.52	301	*e*P	P	01 56 57.5	-3.0
KIV				*e*S	S	02 02 52.2	-1.6
KIV				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.5						
KIV				MLR	MLR		
	comp=Z,528nm,14.0s,MS4.5						
MJAR	**Matsushiro Arr**	38.90	71	P	P	01 57 03.1	-0.7
	comp=Z,2.9nm,0.9s,mb4.0,baz=279,slow=8.7,SNR=6.5						
MJAR				LR	LR	02 13 52.0	
	comp=Z,668nm,19.7s,MS4.5,baz=305,slow=38						
VRHR	**Novokhopersk**	39.69	312	*e*P	P	01 57 10.9	+0.7
VRHR				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.3						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.3s						
VRHR				pmax	pmax		
	comp=E,30nm,0.5s						
SOC	**Sochi**	40.68	300	*e*P	P	01 57 13.1	-5.4
SOC				*e**SP	sP	01 57 31.9	-0.6
SOC				*e*		01 58 52.2	
SOC				*e*SSS		01 59 26.2	
SOC				*e*S	S	02 03 23.3	-3.0
JHJ	**Hachijo jima 2**	40.86	76	LR	LR	02 14 00.5	
	comp=E,975nm,19.9s,MS4.7,baz=355,slow=36						
VORD	**Divnogorie**	41.13	311	*e*P	P	01 57 20.9	-1.3
VORD				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.7						
VORD				pmax	pmax		
	comp=N,10.0nm,0.7s						
VORD				pmax	pmax		
	comp=E,20nm,0.6s						
VRSR	**Storozhevoye**	41.22	312	*e*P	P	01 57 23.1	+0.2
VRSR				pmax	pmax		
	comp=N,2.0nm,0.8s						
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.5						
VRSR				pmax	pmax		
	comp=E,30nm,0.9s						
VRSR				MLR	MLR		
	comp=Z,190nm,18.0s,MS4.0						
VRSR				MLR	MLR		
	comp=N,480nm,46.0s						
VRSR				MLR	MLR		
	comp=E,170nm,19.0s						
VOR	**Voronezh**	41.27	313	*e*P	P	01 57 26.0	+2.7
VOR				pmax	pmax		
	comp=Z,200nm,1.8s,mb5.5						
ASAJ	**Asahikawa**	41.44	59	LR	LR	02 15 43.2	
	comp=Z,556nm,19.4s,MS4.4,baz=149,slow=38						
YSS	**Yuzh-Sakhalins**	41.48	55	*e*P	P	01 57 25.8	+0.7
YSS	**Yuzh-Sakhalins**	41.48	55	⇑*i*P	P	01 57 25.3	+0.3
YSS				*e*		01 59 24.0	
YSS				pmax	pmax		
	comp=Z,190nm,1.9s,mb5.4						
YSS				MLR	MLR		
	comp=Z,4µm,15.0s,MS5.3						
YSS				MLR	MLR		
	comp=N,2µm,13.0s,MS5.5						
YSS				MLR	MLR		
	comp=E,4µm,15.0s,MS5.5						
MALT	**Malatya**	42.22	292	*e*P	P	01 57 32.5	+1.4
	comp=E,50nm,1.6s,mb4.9						
MALT	**Malatya**	42.22	292	*e*P	P	01 57 32.6	+1.4
MALT				pmax	pmax		
	comp=Z,50nm,1.6s,mb4.9						
ANN	**Anapa**	42.26	302	*e*P	P	01 57 31.3	-0.1
ANN				*e*S	S	02 03 50.6	+1.0
ANN				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.0						
MOS	**Moscow**	42.74	318	*e*P	P	01 57 35.2	0.0
MOS				*e*		01 59 15.3	
MOS				pmax	pmax		
	comp=Z,230nm,1.5s,mb5.7						
MOS				pmax	pmax		
	comp=Z,500nm,1.9s,mb5.9						
MOS				MLR	MLR		
	comp=E,2µm,17.0s						
MOS				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.1						
OBN	**Obninsk**	43.24	317	*e*P	P	01 57 39.6	+0.3
OBN	**Obninsk**	43.24	317	α*e*P	P	01 57 39.5	+0.2
OBN				*e*		01 59 27.1	
OBN				*e*S	S	02 04 06.2	+2.4
OBN				*e*SS	SS	02 07 10.8	-6.6
OBN				SSS		02 07 57.0	
OBN				pmax	pmax		
	comp=Z,150µm,2.0s						
OBN				MLR	MLR		
	comp=Z,2µm,17.0s						
TIXI	**Tiksi**	43.54	17	*e*P	P	01 57 40.5	-0.9
TIXI	**Tiksi**	43.54	17	*e*P	P	01 57 39.0	-2.4
TIXI				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,2µm,12.0s,MS5.2						
TMCR	**Tamitsa**	44.55	330	*e*P	P	01 57 49.0	-0.6
SIM	**Simferopol'**	44.60	303	*e*P	P	01 57 50.6	+0.3
SIM				S	S	02 04 36.0	+12
SIM				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.9						
SIM				MLR	MLR		
	comp=Z,750nm,19.0s,MS4.6						
CBIJ	**Chichi jima**	44.65	84	P	P	01 57 49.9	-1.1
	comp=Z,89nm,0.5s,mb5.8,baz=180,slow=20,SNR=2.6						
ASF	**Jabal al Asfar**	44.81	284	P	P	01 57 52.3	+0.1
	comp=Z,3.2nm,0.4s,mb4.5,baz=306,slow=2.9,SNR=6.2						
ASF				LR	LR	02 19 59.9	
	comp=Z,807nm,18.6s,MS4.7,baz=304,slow=41						
BR131	**Keskin Array S**	45.65	295	*e*P	P	01 57 59.4	+0.7
	comp=Z,14nm,0.8s,mb4.9						
BRTR	**Keskin Array B**	45.65	295	P	P	01 57 59.2	+0.5
	comp=Z,9.7nm,0.8s,mb4.8,baz=105,slow=6.8,SNR=26						
MMAI	**Mount Meron Ar**	45.79	286	P	P	01 58 00.6	+0.7
	comp=Z,1.1nm,0.5s,mb4.0,baz=74,slow=11,SNR=5.7						
MMAI				PcP	PcP	01 59 37.4	+0.2
	comp=Z,4.1nm,0.9s,baz=232,slow=1.6,SNR=3.5						
MMAI				LR	LR	02 20 08.5	
	comp=Z,656nm,18.7s,MS4.6,baz=75,slow=40						
ANTO	**Ankara**	46.26	296	⇓P	P	01 58 04.0	+0.5
ANTO	**Ankara**	46.26	296	P	P	01 58 03.5	-0.1
	SNR=6.1						
ANTO	**Ankara**	46.26	296	⇓*i*P	P	01 58 04.0	+0.4
MA2	**Magadan**	47.08	37	*e*P	P	01 58 10.1	+0.5
	comp=Z,7.8nm,0.8s,mb4.7						
MA2	**Magadan**	47.08	37	*d i*P	P	01 58 09.6	0.0
MA2				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.8						
MA2				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.0						
JOF	**Joensuu**	47.16	328	*e*p	P	01 58 09.0	-1.2
EIL	**Elat**	47.17	281	P	P	01 58 10.7	-0.1
	comp=Z,47nm,0.8s,mb5.5,baz=37,slow=4.4,SNR=15						
EIL				LR	LR	02 21 24.2	
	comp=Z,2µm,18.1s,MS5.0,baz=213,slow=40						
AKASG	**Malin Array Be**	47.51	311	P	P	01 58 12.9	-0.2
	comp=Z,24nm,0.7s,mb5.3,baz=78,slow=7.1,SNR=25						
AKASG				LR	LR	02 20 16.8	
	comp=Z,1µm,19.9s,MS4.9,baz=105,slow=39						
AKBB	**Malin Array Si**	47.51	311	*e*P	P	01 58 12.3	-0.8
KIEV	**Kiev**	47.52	311	*e*P	P	01 58 12.6	-0.6
	comp=Z,26nm,1.0s,mb5.2						
KIEV	**Kiev**	47.52	311	*e*P	P	01 58 12.6	-0.6
KIEV				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.2						
KIS	**Kishinev**	48.07	306	*e*P	P	01 58 15.0	-2.6
KIS				LRM		02 23 06.0	
	comp=Z,1µm,13.0s						
MNK	**Minsk**	48.25	316	*e*P	P	01 58 17.0	-1.8
ATD	**Arta Tunnel**	48.65	255	P	P	01 58 23.5	+1.1
	comp=Z,2.3nm,0.3s,mb4.6,baz=253,slow=19,SNR=3.5						
IDID	**Didziasalis**	48.87	317	*e*P	P	01 58 24.4	+0.8
IDID				AMb	AMB	01 58 29.6	
	comp=Z,12nm,1.1s,mb4.8						
IZAR	**Zarasai**	49.15	318	*e*P	P	01 58 27.7	+2.0
IZAR				AMb	AMB	01 58 31.7	
	comp=Z,17nm,1.1s,mb5.0						
IIGN	**Ignalina**	49.17	317	*e*P	P	01 58 26.8	+1.0
KAF	**Kangasniemi**	49.35	326	*e*p	P	01 58 26.2	-1.0
	comp=Z,17nm,1.1s,mb5.0,baz=96,slow=7.6						
KAF	**Kangasniemi**	49.35	326	*e*P	P	01 58 26.2	-1.0
KAF				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.0						
FINES	**FINESS Array B**	49.41	325	P	P	01 58 27.4	-0.2
FINES				LR	LR	02 19 01.6	
FINES	**FINESS Array B**	49.41	325	*i* P	P	01 58 29.3	+1.7
FINES				pmax	pmax		
	comp=Z,5.0nm,0.6s						
FINES	**FINESS Array B**	49.41	325	P	P	01 58 27.4	-0.2
	comp=Z,5.3nm,0.6s,mb4.8,baz=93,slow=7.0,SNR=21						
FINES				LR	LR	02 19 01.6	
	comp=Z,706nm,19.5s,MS4.7,baz=263,slow=36						
VRI	**Vrincioaia**	49.66	305	⇓P	P	01 58 30.8	+1.0
VRI	**Vrincioaia**	49.66	305	⇓*i*P	P	01 58 30.8	+1.1
PLOR	**Plostina**	49.71	305	⇑*i*P	P	01 58 32.2	+2.0
MLR	**Muntele Rosu**	50.26	304	P	P	01 58 36.2	+1.9
MLR	**Muntele Rosu**	50.26	304	P	P	01 58 36.0	+1.7
	comp=Z,84nm,0.8s,mb5.8,baz=117,slow=1.6,SNR=29						
MLR	**Muntele Rosu**	50.26	304	⇑*i*P	P	01 58 36.6	+2.3
JMB	**Yambol**	50.36	300	P	P	01 58 37.2	+2.1
BURAR	**Bucovina Array**	50.42	307	⇓P	P	01 58 35.1	-0.4
BURAR	**Bucovina Array**	50.42	307	⇓*i*P	P	01 58 36.5	+1.0
SZH	**Strazhica**	50.67	301	P	P	01 58 40.3	+2.8
ARCES	**ARCESS Array B**	50.68	336	P	P	01 58 36.8	-0.3
	comp=Z,4.9nm,0.9s,mb4.5,baz=102,slow=7.9,SNR=7.4						
ARCES				LR	LR	02 21 00.6	
	comp=Z,690nm,20.2s,MS4.7,baz=102,slow=37						
VOIR		50.89	304	P	P	01 58 41.7	+2.6
VOIR		50.89	304	⇑*i*P	P	01 58 41.1	+2.0
LVV	**L'vov**	50.90	310	*e*P	P	01 58 33.1	-6.0
LVV				*e*		02 00 34.5	
LVV				*e*S	S	02 05 53.9	+0.7
LVV				MLR	MLR		
	comp=Z,600nm,15.0s,MS4.7						
KWP	**Kalwaria**	51.78	310	⇑P	P	01 58 47.0	+1.3
KWP	**Kalwaria**	51.78	310	⇑*i*P	P	01 58 47.0	+1.3
TRPA	**Tarpa**	52.13	308	⇓*i*P	P	01 58 49.3	+1.0
KOLS	**Kolonicke sedl**	52.17	309	*e*P	P	01 58 48.6	0.0
UZH	**Uzhgorod**	52.20	309	⇓*i*P	P	01 58 48.8	0.0
UZH				*e*	pP	01 58 58.4	-0.6
UZH				*e*		02 00 52.0	
UZH				*e*S	S	02 06 07.8	-3.3
UZH				MLR	MLR		
	comp=Z,900nm,18.0s,MS4.8						
DRGR		52.24	306	P	P	01 58 50.1	+0.9
DRGR		52.24	306	⇓*i*P	P	01 58 50.0	+0.8
GZR	**Gura Zlata**	52.47	305	P	P	01 58 54.1	+3.2
GZR	**Gura Zlata**	52.47	305	⇓*i*P	P	01 58 52.6	+1.7
MMB	**Musomiste**	52.63	300	*e*P	P	01 58 51.0	-1.1
CRVS	**Cervenica-Dubn**	52.70	309	*e*P	P	01 58 52.4	-0.1
STHS	**Stebnicka Huta**	52.76	310	*e*P	P	01 58 53.3	+0.4
	comp=Z,9.4nm,0.8s,mb4.8						
STHS	**Stebnicka Huta**	52.76	310	*e*P	P	01 58 53.3	+0.4
STHS				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
VTS	**Vitosha**	52.77	301	P	P	01 58 56.0	+2.9
VTS	**Vitosha**	52.77	301	⇓*i*P	P	01 58 54.5	+1.4
BZS	**Buzias**	53.22	305	⇑P	P	01 58 56.4	0.0
BZS	**Buzias**	53.22	305	⇑*i*P	P	01 58 56.4	0.0
NIE	**Niedzica**	53.35	310	*e*P	P	01 58 59.6	+2.3
KECS	**Kecovo**	53.41	309	*e*P	P	01 58 58.3	+0.5
	comp=Z,13nm,1.0s,mb4.8						
KECS	**Kecovo**	53.41	309	*e*P	P	01 58 58.3	+0.5
KECS				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
IDI	**Anoyia**	53.48	292	P	P	01 58 58.1	-0.4
	comp=Z,25nm,0.8s,mb5.2,baz=36,slow=11,SNR=4.8						
VAY	**Valandovo**	53.54	300	*e*P	P	01 58 56.0	-2.8
OJC	**Ojcow**	53.54	311	*e*P	P	01 58 58.6	-0.1
STIP	**Stip**	53.73	300	*e*P	P	01 59 02.2	+2.1
PSZ	**Piszkesteto**	53.91	308	*e*P	P	01 59 02.0	+0.6
	comp=Z,15nm,0.9s,mb4.9						
PSZ	**Piszkesteto**	53.91	308	*e*P	P	01 59 02.0	+0.6
PSZ				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
PSZ	**Piszkesteto**	53.91	308	*e*P	P	01 59 02.4	+1.0
BILL	**Bilibino**	54.38	27	*e*P	P	01 59 04.6	+0.1
	comp=Z,21nm,1.1s,mb5.0						
BILL	**Bilibino**	54.38	27	⇓*e*P	P	01 59 05.2	+0.7
BILL				*e*	pP	01 59 16.4	+1.7
BILL						02 00 09.0	
BILL				pmax	pmax		
	comp=Z,25nm,1.6s,mb4.9						
BILL				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
VYHS	**Vyhne**	54.49	309	*e*P	P	01 59 05.0	-0.6
	comp=Z,51nm,2.3s,mb5.0						
VYHS	**Vyhne**	54.49	309	*e*P	P	01 59 05.0	-0.6
VYHS				pmax	pmax		
	comp=Z,51nm,2.3s,mb5.0						
KRUS	**Krusevo**	54.49	300	*e*P	P	01 59 05.4	-0.4
BUD	**Budapest**	54.58	308	⇑*e*P	P	01 59 09.0	+2.7
OKC	**Ostrava-Krasne**	54.66	311	*e*P	P	01 59 06.7	-0.1
OKC				AMS	AMS	02 24 00.0	
	comp=Z,1µm,20.9s						
KOLL	**Kolacno**	54.75	309	*e*P	P	01 59 10.1	+2.6
KOLL	**Kolacno**	54.75	309	*e*P	P	01 59 10.0	+2.5
MORC	**Moravsky Berou**	55.06	311	*e*P	P	01 59 10.3	+0.6
	comp=Z,12nm,0.8s,mb5.0						
MORC	**Moravsky Berou**	55.06	311	*e*P	P	01 59 10.4	+0.7
MORC				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
MORC	**Moravsky Berou**	55.06	311	⇑*i*P	P	01 59 10.2	+0.5
PKSM	**Moragy**	55.12	306	⇑P	P	01 59 10.0	-0.2
PKSM	**Moragy**	55.12	306	⇑*i*P	P	01 59 10.0	-0.2
HFS	**Hagfors**	55.51	324	P	P	01 59 11.1	-1.8
	comp=Z,17nm,0.8s,mb5.1,baz=89,slow=6.1,SNR=12						
KSP	**Ksiaz**	55.62	312	*e*P	P	01 59 13.4	-0.4
ZST	**Bratislava**	55.68	309	*e*P	P	01 59 13.4	-0.8
	comp=Z,8.5nm,0.8s,mb4.8						
ZST				LR	LR		
	comp=Z,900nm,17.8s,MS4.9						
DPC	**Dobruska-Polom**	55.71	312	*e*P	P	01 59 15.3	+0.9
DPC				AMS	AMS	02 24 40.0	
	comp=Z,2µm,18.3s						
VRAC	**Vranov**	55.76	310	P	P	01 59 15.9	+1.1
VRAC	**Vranov**	55.76	310	P	P	01 59 15.1	+0.3
	comp=Z,10nm,0.7s,mb4.9,baz=76,slow=8.3,SNR=20						
VRAC	**Vranov**	55.76	310	⇑*i*P	P	01 59 15.9	+1.1
UPC	**Upice**	55.87	312	*e*P	P	01 59 15.7	+0.2
SOP	**Sopron**	56.16	309	⇓*e*P	P	01 59 21.5	+3.9
TREC	**Trest**	56.47	311	*e*P	P	01 59 20.5	+0.7
TREC				AMS	AMS	02 24 50.0	
	comp=Z,1µm,18.9s						
CONA	**Conrad Observa**	56.55	309	⇑*i*P	P	01 59 20.1	-0.4
	comp=Z,32nm,0.8s,mb5.4,SNR=39						
NB2	**NORSAR Subarra**	56.59	325	P	P	01 59 19.3	-1.2
	comp=Z,18nm,0.8s,mb5.1,baz=80,slow=7.4						
NOA	**NORSAR Array B**	56.59	325	P	P	01 59 19.3	-1.3
NOA				LR	LR	02 23 03.4	
NOA	**NORSAR Array B**	56.59	325	P	P	01 59 19.3	-1.3
	comp=Z,10nm,0.8s,mb4.9,baz=81,slow=7.2,SNR=19						
NOA				LR	LR	02 23 03.4	
	comp=Z,655nm,20.9s,MS4.7,baz=85,slow=35						
PVCC	**Panska Ves**	56.76	312	*e*P	P	01 59 18.5	-3.4
PVCC				AMS	AMS	02 25 10.0	
	comp=Z,1µm,19.1s						
PRU	**Pruhonice**	56.90	312	*e*P	P	01 59 23.6	+0.7
PRU				AMS	AMS	02 25 20.0	
	comp=Z,1µm,16.8s						
PRA	**Prague**	56.95	312	P	P	01 59 23.0	-0.3
BRG	**Berggiesshubel**	57.07	313	*e*P	P	01 59 24.6	+0.6
	comp=Z,11nm,1.6s,mb4.7						
BRG				*i*		01 59 27.7	
BRG				LR	LR		
	comp=Z,970nm,18.6s,MS4.9						
BRG	**Berggiesshubel**	57.07	313	*e*P	P	01 59 24.6	+0.5
BRG				pmax	pmax		
	comp=Z,11nm,1.6s,mb4.6						
BRG				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.8						
BRG				MLR	MLR		
	comp=N,582nm,12.2s						
BRG				MLR	MLR		
	comp=E,673nm,18.0s						
BRG				MLR	MLR		
	comp=Z,966nm,18.7s						
BRG	**Berggiesshubel**	57.07	313	*e*P	P	01 59 24.6	+0.6
	comp=Z,19nm,1.6s,mb4.9						
BRG				*i*		01 59 27.7	
	comp=Z,18nm,1.1s						
BRG							
	comp=N,972nm,12.2s						
BRG							
	comp=E,1µm,18.0s						
BRG							
	comp=Z,2µm,18.6s						
GROS	**Grobnik**	57.16	307	*e*P	P	01 59 24.5	-0.3
GOLS	**Golise**	57.20	307	*e*P	P	01 59 25.1	+0.1
CRES	**Cresnjev**	57.36	307	*e*P	P	01 59 26.2	-0.1
PERS	**Pernice**	57.37	308	*e*P	P	01 59 26.1	-0.2
CLL	**Collm**	57.54	313	*i* P	P	01 59 26.9	-0.5
	comp=Z,74nm,2.2s,mb5.3						
CLL				*i*		01 59 29.8	
CLL				*e*pP	pP	01 59 36.0	-1.7
CLL				LR	LR		
	comp=Z,1µm,19.5s,MS5.0						
CLL	**Collm**	57.54	313	*i* P	P	01 59 26.9	-0.5
CLL				*e**PP	pP	01 59 36.0	-1.7
CLL				pmax	pmax		
	comp=Z,74nm,2.2s,mb5.3						
CLL				MLR	MLR		
	comp=Z,1µm,19.5s,MS5.0						
CLL	**Collm**	57.54	313	*i* P	P	01 59 26.9	-0.5
	comp=Z,10.0nm,1.2s,mb4.7						
CLL				Lm		01 12 00.0	
	comp=N,200nm,19.7s						

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CLL                               Lm               01 12 00.0
      comp=E,400nm,20.4s
CLL                               Lm               01 12 00.0
      comp=Z,400nm,18.9s
CLL                               Lm               01 25 00.0
      comp=N,900nm,19.1s
CLL                               Lm               01 25 00.0
      comp=E,800nm,20.4s
CLL                               Lm               01 25 00.0
      comp=Z,1μm,19.5s
CLL                              i Pmax            01 59 29.8
      comp=Z,74nm,2.2s
CLL                              epP      pP       01 59 36.0 -1.7
BOJS  Bojanci           57.59 306 eP      P        01 59 28.4 +0.6
MOA   Molln             57.61 309⇑iP      P        01 59 28.3 +0.3
      comp=Z,17nm,0.9s,mb5.1
GEC2  GERESS Array S    57.72 310 eP      P        01 59 28.8 +0.1
GEC2                              pmax    pmax
      comp=Z,23nm,1.0s,mb5.2
GEC2  GERESS Array S    57.72 310 eP      P        01 59 28.8 +0.1
      comp=Z,23nm,1.0s,mb5.2
GERES GERESS Array B    57.72 310  P      P        01 59 29.4 +0.8
      comp=Z,9.5nm,0.8s,mb4.9,baz=76,slow=5.6,SNR=34
GERES                             LR      LR       02 26 34.9
      comp=Z,1μm,18.6s,MS5.0,baz=78,slow=38
KHC   Kasperske Hory    57.72 311⇑eP      P        01 59 29.6 +0.9
KHC   Kasperske Hory    57.72 311 eP      P        01 59 28.8 +0.1
KHC                               AMS     AMS      02 26 00.0
      comp=Z,1μm,17.7s
VISS  Visnje            57.78 307 i P     P        01 59 29.3 +0.1
LJU   Ljubljana         57.92 307 eP      P        01 59 30.5 +0.3
CEY   Cerknica          58.08 307 eP      P        01 59 31.2 -0.1
NKC   Novy Kostel       58.15 312 eP      P        01 59 30.5 -1.2
NKC                               AMS     AMS      02 26 10.0
      comp=Z,2μm,17.1s
WET   Wettzell          58.16 311 eP      P        01 59 30.7 -1.1
WET                               pmax    pmax
      comp=Z,21nm,1.3s,mb5.0
WET   Wettzell          58.16 311 eP      P        01 59 30.7 -1.1
      comp=Z,21nm,1.3s,mb5.0
JAVS  Javornik          58.28 307 i P     P        01 59 32.3 -0.4
TIP   Timpagrande       58.42 299 eP      P        01 59 33.8  0.0
KBA   Koelnbreinsper    58.42 309⇑iP      P        01 59 33.8 +0.2
      comp=Z,12nm,0.8s,mb5.0
KBA   Koelnbreinsper    58.42 309⇑iP      P        01 59 33.8 +0.2
KBA                               pmax    pmax
      comp=Z,12nm,0.8s,mb5.0
TRI   Trieste           58.53 307  P      P        01 59 33.8 -0.6
MOX   Moxa              58.56 313 eP      P        01 59 33.7 -0.8
      comp=Z,55nm,2.1s,mb5.2
MOX                               eSS     SS       02 11 07.0  -21
MOX                               LR      LR
      comp=Z,900nm,19.0s,MS4.9
MOX   Moxa              58.56 313 eP      P        01 59 33.7 -0.8
MOX                               pmax    pmax
      comp=Z,55nm,2.1s,mb5.2
MOX                               MLR     MLR
      comp=Z,900nm,19.0s,MS4.9
CLZ   Clausthal         59.00 314 eP      P        01 59 38.2 +0.6
GRA1  Grafenberg Arr    59.06 312 eP      P        01 59 37.2 -0.8
      comp=Z,56nm,1.7s,mb5.3
GRA1                              LR      LR
      comp=Z,1μm,18.4s,MS5.1
GRF   Grafenberg Arr    59.06 312 eP      P        01 59 37.2 -0.8
GRF                               pmax    pmax
      comp=Z,56nm,1.7s,mb5.3
GRF                               MLR     MLR
      comp=Z,1μm,18.4s,MS5.1
GRF   Grafenberg Arr    59.06 312 eP      P        01 59 37.2 -0.8
GRF                               pmax    pmax
      comp=Z,56nm,1.7s,mb5.3
GRF                               MLR     MLR
      comp=Z,1μm,18.4s,MS5.1
GRF   Grafenberg Arr    59.06 312 eP      P        01 59 37.2 -0.8
      comp=Z,56nm,1.7s,mb5.3
GRF                               eL               02 27 03.2
      comp=Z,1μm,18.4s
GRFO  Grafenberg        59.06 312 eP      P        01 59 37.1 -0.9
      comp=Z,13nm,1.2s,mb4.8
GRFO  Grafenberg        59.06 312 eP      P        01 59 37.1 -0.9
GRFO                              pmax    pmax
      comp=Z,13nm,1.2s,mb4.8
SEST  Monte Rota        59.26 308  P      P        01 59 42.2 +2.7
FUR   Furstenfeldbru    59.45 310 eP      P        01 59 40.1 -0.7
FUR                               pmax    pmax
      comp=Z,47nm,1.2s,mb5.4
FUR   Furstenfeldbru    59.45 310 eP      P        01 59 40.1 -0.7
      comp=Z,47nm,1.2s,mb5.4
SDI   San Donato        59.72 302  P      P        01 59 41.8 -1.0
      comp=Z,9.9nm,0.7s,mb5.0
SDI   San Donato        59.72 302  P      P        01 59 41.8 -1.0
SDI                               pmax    pmax
      comp=Z,10.0nm,0.7s,mb5.0
SQTA  Sankt Quirin      59.78 309⇑iP      P        01 59 42.8 -0.2
      comp=Z,6.2nm,0.8s,mb4.7,SNR=5.6
SQTA  Sankt Quirin      59.78 309⇑iP      P        01 59 42.8 -0.2
SQTA                              pmax    pmax
      comp=Z,6.0nm,0.8s,mb4.7
AQU   L'Aquila          59.80 303 eP      P        01 59 42.1 -1.1
MOTA  Moosalm           59.81 309⇑iP      P        01 59 42.9 -0.3
      comp=Z,13nm,1.3s,mb4.8
MOTA  Moosalm           59.81 309⇑iP      P        01 59 42.9 -0.3
MOTA                              pmax    pmax
      comp=Z,13nm,1.3s,mb4.8
SNTG  Esanatoglia       59.84 304  P      P        01 59 43.2 -0.3
      comp=Z,20nm,0.8s,mb5.2
CTI   Castel Tesino     59.84 308  P      P        01 59 42.7 -0.8
      comp=Z,11nm,0.8s,mb4.9
CTI   Castel Tesino     59.84 308  P      P        01 59 42.7 -0.8
CTI                               pmax    pmax
      comp=Z,11nm,0.8s,mb4.9
NRCA  Norcia            59.85 304  P      P        01 59 43.7 +0.1
      comp=Z,11nm,0.6s,mb5.1
PTQR  Pietraquaria      59.91 303  P      P        01 59 44.1 +0.1
      comp=Z,27nm,0.9s,mb5.3
FETA  Feichten          60.15 309⇑iP      P        01 59 45.3 -0.2
      comp=Z,8.8nm,0.7s,mb4.9
BADI  Badiali           60.23 305  P      P        01 59 46.9 +0.7
SFI   Santa Sofia       60.38 305  P      P        01 59 48.0 +0.8
      comp=Z,29nm,0.8s,mb5.3
SFI   Santa Sofia       60.38 305  P      P        01 59 48.0 +0.8
SFI                               pmax    pmax
      comp=Z,29nm,0.8s,mb5.4
VMG   Vicchio           60.57 306  P      P        01 59 49.6 +1.1
      comp=Z,33nm,0.8s,mb5.5
KAKA  Kakadu            60.59 132 eP      P        01 59 48.5 -0.5
      comp=Z,51nm,1.9s,mb5.3
TNS   Taunus Mts        60.62 313 eP      P        01 59 49.0 +0.2
TNS                               pmax    pmax
      comp=Z,29nm,1.5s,mb5.2
TNS   Taunus Mts        60.62 313 eP      P        01 59 49.0 +0.2
      comp=Z,29nm,1.5s,mb5.2
KMBO  Kilima Mbogo      60.67 247  P      P        01 59 49.2 -0.4
KMBO                              LR      LR       02 26 43.2
KMBO  Kilima Mbogo      60.67 247  P      P        01 59 49.7 +0.2
      SNR=7.1
KMBO  Kilima Mbogo      60.67 247  P      P        01 59 49.2 -0.4
      comp=Z,11nm,0.8s,mb5.0,baz=43,slow=11,SNR=30
KMBO                              LR      LR       02 26 43.2
      comp=Z,325nm,19.0s,MS4.5,baz=260,slow=37
VAE   Valguarnera       60.73 298  P      P        01 59 50.8 +1.1
      comp=Z,9.1nm,0.8s,mb5.0,baz=101,slow=5.2,SNR=3.5
MBWA  Marble Bar        60.74 149 eP      P        01 59 49.5 -0.4
FITZ  Fitzroy Crossi    60.97 141 eP      P        01 59 50.7 -0.7
      comp=Z,9.5nm,0.8s,mb5.0
FITZ  Fitzroy Crossi    60.97 141  P      P        01 59 50.8 -0.6
      comp=Z,5.1nm,0.8s,mb4.7,baz=331,slow=4.4,SNR=7.3
VAI   Varese            61.80 308  P      P        01 59 55.7 -1.1
      comp=Z,14nm,0.6s,mb5.3
VAI   Varese            61.80 308  P      P        01 59 55.7 -1.1
VAI                               pmax    pmax
      comp=Z,14nm,0.6s,mb5.3
CDF   Champ du Feu      61.92 311 eP      P        01 59 56.5 -1.1
      comp=Z,69nm,1.5s,mb5.3
CDF   Champ du Feu      61.92 311 eP      P        01 59 56.5 -1.1
      comp=Z,34nm,1.5s,mb5.3
CDF   Champ du Feu      61.92 311 eP      P        01 59 56.5 -1.1
CDF                               pmax    pmax
      comp=Z,34nm,1.5s,mb5.3
DAG   Danmarks Havn     62.23 346 eP      P        01 59 59.0 -0.2
DAG   Danmarks Havn     62.23 346 i P     P        01 59 59.0 -0.2
HINF  Hinteralfeld      62.38 311 eP      P        01 59 59.6 -1.1
HAU   Haudompre         62.64 311 eP      P        02 00 01.1 -1.3
HAU                              eMLR     MLR
      comp=Z,925nm,18.2s,MS4.7
HAU   Haudompre         62.64 311 eP      P        02 00 01.1 -1.3
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HAU                               MLR     MLR
      comp=Z,930nm,18.3s,MS5.0
PGF   Pioggiola         62.80 305 eP      P        02 00 02.3 -1.3
      comp=Z,64nm,1.0s,mb5.4
PGF   Pioggiola         62.80 305 eP      P        02 00 02.3 -1.3
      comp=Z,32nm,1.0s,mb5.4
PGF   Pioggiola         62.80 305 eP      P        02 00 02.3 -1.3
PGF                               pmax    pmax
      comp=Z,32nm,1.0s,mb5.4
GIVF  Givet             62.87 314 eP      P        02 00 03.3 -0.6
LPG   La Plagne         63.26 308 eP      P        02 00 06.2 -0.4
      comp=Z,48nm,0.9s,mb5.3
LPG   La Plagne         63.26 308 eP      P        02 00 06.2 -0.4
      comp=Z,24nm,0.9s,mb5.3
LPG   La Plagne         63.26 308 eP      P        02 00 06.2 -0.4
LPG                               pmax    pmax
      comp=Z,24nm,0.9s,mb5.3
LPL   La Plagne         63.26 308 eP      P        02 00 06.2 -0.4
      comp=Z,101nm,1.2s,mb5.5
LPL   La Plagne         63.26 308 eP      P        02 00 06.2 -0.4
      comp=Z,50nm,1.2s,mb5.5
LPL   La Plagne         63.26 308 eP      P        02 00 06.2 -0.4
LPL                               pmax    pmax
      comp=Z,50nm,1.2s,mb5.5
MEZF  Maizieres J'vi    63.28 312 eP      P        02 00 06.1 -0.6
CABF  La Chapelle       63.29 310 eP      P        02 00 05.6 -1.2
      comp=Z,65nm,1.5s,mb5.2
CABF  La Chapelle       63.29 310 eP      P        02 00 05.6 -1.2
      comp=Z,32nm,1.5s,mb5.2
CABF  La Chapelle       63.29 310 eP      P        02 00 05.6 -1.2
CABF                              pmax    pmax
      comp=Z,32nm,1.5s,mb5.2
SBF   Sospel            63.39 307 eP      P        02 00 05.6 -1.9
      comp=Z,83nm,0.9s,mb5.6
SBF   Sospel            63.39 307 eP      P        02 00 05.6 -1.9
      comp=Z,42nm,0.9s,mb5.6
SBF   Sospel            63.39 307 eP      P        02 00 05.6 -1.9
SBF                               pmax    pmax
      comp=Z,42nm,0.9s,mb5.6
MBDF  Montbardon        63.52 308 eP      P        02 00 07.3 -1.0
      comp=Z,24nm,0.8s,mb5.0
MBDF  Montbardon        63.52 308 eP      P        02 00 07.3 -1.0
      comp=Z,12nm,0.8s,mb5.0
MBDF  Montbardon        63.52 308 eP      P        02 00 07.3 -1.0
MBDF                              pmax    pmax
      comp=Z,12nm,0.8s,mb5.0
FRF   La Foret Royal    64.03 306 eP      P        02 00 10.2 -1.5
      comp=Z,19nm,0.8s,mb4.9
FRF   La Foret Royal    64.03 306 eP      P        02 00 10.2 -1.5
      comp=Z,9.4nm,0.8s,mb4.9
FRF   La Foret Royal    64.03 306 eP      P        02 00 10.2 -1.5
FRF                               pmax    pmax
      comp=Z,9.0nm,0.8s,mb4.8
GAMB  Gambell           64.04  29 eP      P        02 00 13.8 +2.4
ORIF  Oris-en-Rattie    64.04 308 eP      P        02 00 11.1 -0.6
      comp=Z,20nm,0.8s,mb4.9
ORIF                             eMLR     MLR
      comp=Z,1μm,21.2s,MS4.8
ORIF  Oris-en-Rattie    64.04 308 eP      P        02 00 11.1 -0.6
      comp=Z,10.0nm,0.8s,mb4.9
ORIF  Oris-en-Rattie    64.04 308 eP      P        02 00 11.1 -0.6
ORIF                              pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.9
LMR   La Mourre         64.21 306 eP      P        02 00 11.5 -1.4
      comp=Z,54nm,1.3s,mb5.1
LMR   La Mourre         64.21 306 eP      P        02 00 11.5 -1.4
      comp=Z,27nm,1.3s,mb5.1
LMR   La Mourre         64.21 306 eP      P        02 00 11.5 -1.4
LMR                               pmax    pmax
      comp=Z,27nm,1.3s,mb5.1
LOR   Lormes            64.48 311 eP      P        02 00 12.9 -1.6
      comp=Z,28nm,1.1s,mb4.9
LOR                              eMLR     MLR
      comp=Z,791nm,18.0s,MS4.7
LOR   Lormes            64.48 311 eP      P        02 00 12.9 -1.6
      comp=Z,14nm,1.1s,mb4.9
LOR                               LR      LR
      comp=Z,790nm,18.0s,MS5.0
LOR   Lormes            64.48 311 eP      P        02 00 12.9 -1.6
LOR                               pmax    pmax
      comp=Z,14nm,1.1s,mb4.9
LOR                               MLR     MLR
      comp=Z,790nm,18.0s,MS5.0
SMRF  Simiane la Rot    64.60 307 eP      P        02 00 14.3 -1.1
SMF   Signal de Mont    64.72 310 eP      P        02 00 14.7 -1.4
      comp=Z,163nm,1.7s,mb5.5
SMF   Signal de Mont    64.72 310 eP      P        02 00 14.7 -1.4
      comp=Z,81nm,1.7s,mb5.5
SMF   Signal de Mont    64.72 310 eP      P        02 00 14.7 -1.4
SMF                               pmax    pmax
      comp=Z,81nm,1.7s,mb5.5
SSF   Saint Saulge      64.78 311 eP      P        02 00 14.9 -1.6
      comp=Z,19nm,0.8s,mb4.8
SSF   Saint Saulge      64.78 311 eP      P        02 00 14.9 -1.6
      comp=Z,9.4nm,0.8s,mb4.9
SSF   Saint Saulge      64.78 311 eP      P        02 00 14.9 -1.6
SSF                               pmax    pmax
      comp=Z,9.0nm,0.8s,mb4.8
TNA   Tin City          64.81  27 eP      P        02 00 16.6 +0.1
VIVF  Saint-Julien-l    64.86 308 eP      P        02 00 15.9 -1.2
      comp=Z,94nm,1.5s,mb5.3
VIVF  Saint-Julien-l    64.86 308 eP      P        02 00 15.9 -1.2
      comp=Z,47nm,1.5s,mb5.3
VIVF  Saint-Julien-l    64.86 308 eP      P        02 00 15.9 -1.2
VIVF                              pmax    pmax
      comp=Z,47nm,1.5s,mb5.3
AVF   Avril sur Loir    64.98 311 eP      P        02 00 16.4 -1.4
      comp=Z,49nm,1.3s,mb5.1
AVF   Avril sur Loir    64.98 311 eP      P        02 00 16.4 -1.4
      comp=Z,24nm,1.3s,mb5.1
AVF   Avril sur Loir    64.98 311 eP      P        02 00 16.4 -1.4
AVF                               pmax    pmax
      comp=Z,24nm,1.3s,mb5.1
KEST  Kesra             65.16 298  P      P        02 00 18.2 -1.0
      comp=Z,6.0nm,1.1s,mb4.5,baz=326,slow=1.3,SNR=7.7
BGF   Bois d'Agland     65.39 311 eP      P        02 00 19.0 -1.5
EKA   Eskdalemuir Ar    65.47 321  P      P        02 00 19.7 -1.2
      comp=Z,12nm,1.1s,mb4.8,baz=68,slow=5.7,SNR=13
LASF  Ste Croix         65.70 308 eP      P        02 00 21.6 -1.0
      comp=Z,37nm,0.9s,mb5.1
TCF   Toulx Ste Croi    65.90 311 eP      P        02 00 22.9 -0.9
      comp=Z,46nm,1.1s,mb5.1
TCF   Toulx Ste Croi    65.90 311 eP      P        02 00 22.9 -0.9
      comp=Z,23nm,1.1s,mb5.1
TCF   Toulx Ste Croi    65.90 311 eP      P        02 00 22.9 -0.9
TCF                               pmax    pmax
      comp=Z,23nm,1.1s,mb5.1
CAF   Calviac           66.54 309 eP      P        02 00 27.3 -0.6
      comp=Z,69nm,1.3s,mb5.2
CAF   Calviac           66.54 309 eP      P        02 00 27.3 -0.6
      comp=Z,34nm,1.3s,mb5.2
CAF   Calviac           66.54 309 eP      P        02 00 27.3 -0.6
CAF                               pmax    pmax
      comp=Z,35nm,1.3s,mb5.2
RJF   Les Rejaudoux     66.74 310 eP      P        02 00 28.7 -0.5
      comp=Z,71nm,1.2s,mb5.3
RJF                              eMLR     MLR
      comp=Z,779nm,22.5s,MS4.6
RJF   Les Rejaudoux     66.74 310 eP      P        02 00 28.7 -0.5
      comp=Z,36nm,1.2s,mb5.3
RJF                               LR      LR
      comp=Z,780nm,22.5s,MS4.9
RJF   Les Rejaudoux     66.74 310 eP      P        02 00 28.7 -0.5
RJF                               pmax    pmax
      comp=Z,36nm,1.2s,mb5.3
RJF                               MLR     MLR
      comp=Z,780nm,22.5s,MS4.9
GRR   Gorron            66.96 314 eP      P        02 00 28.9 -1.6
EJON  La Jonquera       67.01 307  P      P        02 00 32.3 +1.4
      comp=Z,2.5nm,0.6s,mb4.4
MTLF  Montolieu         67.09 308 eP      P        02 00 30.4 -1.0
      comp=Z,70nm,1.4s,mb5.2
MTLF  Montolieu         67.09 308 eP      P        02 00 30.4 -1.0
      comp=Z,35nm,1.4s,mb5.2
MTLF  Montolieu         67.09 308 eP      P        02 00 30.4 -1.0
MTLF                              pmax    pmax
      comp=Z,35nm,1.4s,mb5.2
WRA   Warramunga Arr    67.31 135 i P     P        02 00 35.0 +2.0
WRA                               pmax    pmax
      comp=Z,27nm,0.8s
WRA   Warramunga Arr    67.31 135  P      P        02 00 32.4 -0.6
      comp=Z,27nm,0.8s,mb5.3,baz=330,slow=6.5,SNR=33
WB2   Warramunga Arr    67.31 135 eP      P        02 00 32.3 -0.8
WB2                               e                02 00 36.8
LFF   La Frestale       67.39 310 eP      P        02 00 32.5 -0.8
      comp=Z,40nm,0.8s,mb5.2
LFF   La Frestale       67.39 310 eP      P        02 00 32.5 -0.8
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      comp=Z,20nm,0.8s,mb5.2
LFF   La Frestale       67.39 310 eP      P        02 00 32.5 -0.8
LFF                               pmax    pmax
      comp=Z,20nm,0.8s,mb5.2
EMIR  Miracle           68.15 306  P      P        02 00 40.5 +2.3
      comp=Z,7.1nm,0.7s,mb4.8
ETOS  Mallorca          68.19 304  P      P        02 00 40.1 +1.7
      comp=Z,15nm,1.1s,mb4.9
EPF   Esparros          68.46 308 eP      P        02 00 38.4 -1.7
EPOB  Poblet            68.69 306  P      P        02 00 40.6 -1.0
      comp=Z,12nm,0.8s,mb4.9
EBIE  Bielsa            68.74 308  P      P        02 00 42.7 +0.8
      comp=Z,7.5nm,0.8s,mb4.7
ETSF  Etsaut            69.11 308 eP      P        02 00 43.3 -0.9
      comp=Z,41nm,0.8s,mb5.1
ETSF  Etsaut            69.11 308 eP      P        02 00 43.3 -0.9
      comp=Z,21nm,0.8s,mb5.1
ETSF  Etsaut            69.11 308 eP      P        02 00 43.3 -0.9
ETSF                              pmax    pmax
      comp=Z,21nm,0.8s,mb5.1
MUN   Mundaring         69.14 157 eP      P        02 00 42.8 -1.4
KLBR  Kellerberrin      69.31 155 eP      P        02 00 43.5 -1.8
      comp=Z,26nm,0.8s,mb5.2
ERTA  Horta de San J    69.37 306  P      P        02 00 46.4 +0.6
      comp=Z,13nm,0.7s,mb5.0
SJPF  Ste Jean          69.46 309 eP      P        02 00 44.5 -1.8
ESAC  San Caprasio      69.58 307  P      P        02 00 47.8 +0.8
      comp=Z,20nm,0.8s,mb5.1
IMA2  Indian Mountai    69.60  23 eP      P        02 00 46.0 -0.8
ASAR  Alice Springs     69.96 138  P      P        02 00 49.5 -0.1
      comp=Z,22nm,0.8s,mb5.1,baz=325,slow=6.1,SNR=50
EMOS  Mosqueruela       70.19 306  P      P        02 00 52.4 +1.5
      comp=Z,18nm,0.8s,mb5.1
NWAO  Narrogin (SRO)    70.35 156  P      P        02 00 49.9 -1.8
      comp=Z,16nm,0.7s,mb5.1,baz=346,slow=9.3,SNR=4.2
ECHE  Chera             70.88 305  P      P        02 00 57.6 +2.6
      comp=Z,8.7nm,0.9s,mb4.7
ECHE  Chera             70.88 305  P      P        02 00 57.6 +2.5
ECHE                              pmax    pmax
      comp=Z,9.0nm,0.9s,mb4.7
ETOR  Torete            71.05 307  P      P        02 00 58.7 +2.6
      comp=Z,6.7nm,0.7s,mb4.7
ETOR  Torete            71.05 307  P      P        02 00 58.7 +2.6
ETOR                              pmax    pmax
      comp=Z,7.0nm,0.7s,mb4.7
ETOB  Tobarra           71.72 304  P      P        02 01 02.9 +2.8
      comp=Z,10.0nm,0.7s,mb4.8
EMUR  La Murta          71.88 304  P      P        02 01 01.9 +0.8
      comp=Z,10.0nm,1.0s,mb4.7
COLA  College           72.25  22 eP      P        02 01 02.2 -0.6
      comp=Z,14nm,0.9s,mb4.9
COLA  College           72.25  22⇓eP      P        02 01 02.6 -0.3
RES   Resolute Bay      72.38   2 eP      P        02 01 04.0 +0.5
EVIA  Vianos            72.38 305  P      P        02 01 06.5 +2.4
      comp=Z,5.6nm,0.6s,mb4.7
EVIA  Vianos            72.38 305  P      P        02 01 06.5 +2.4
EVIA                              pmax    pmax
      comp=Z,6.0nm,0.6s,mb4.7
GUD   Guadarrama        72.54 307  P      P        02 01 05.5 +0.4
      comp=Z,19nm,0.9s,mb5.0
GUD   Guadarrama        72.54 307  P      P        02 01 05.5 +0.5
GUD                               pmax    pmax
      comp=Z,19nm,0.9s,mb5.0
ESDC  Sonseca Array     72.88 306  P      P        02 01 06.4 -0.6
      comp=Z,8.9nm,0.8s,mb4.8
ESDC  Sonseca Array     72.88 306  P      P        02 01 06.5 -0.6
      comp=Z,9.0nm,0.8s,mb4.8,baz=54,slow=6.4,SNR=20
ESDC                              LR      LR       02 38 04.1
      comp=Z,304nm,19.5s,MS4.6,baz=340,slow=40
ESLA  Sonseca Array     72.88 306 eP      P        02 01 05.0 -2.1
      comp=Z,5.8nm,1.1s,mb4.4
ENIJ  Nijar             72.97 303  P      P        02 01 10.2 +2.6
      comp=Z,9.5nm,0.8s,mb4.8
ENIJ  Nijar             72.97 303  P      P        02 01 10.2 +2.5
ENIJ                              pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.8
EQES  Quesada           73.17 304  P      P        02 01 08.4 -0.4
      comp=Z,14nm,0.9s,mb4.9
EBER  Berja             73.48 303  P      P        02 01 12.1 +1.4
      comp=Z,11nm,0.7s,mb4.9
EBAN  Banos Encina      73.49 305  P      P        02 01 12.8 +2.1
      comp=Z,16nm,0.9s,mb4.9
EBAN  Banos Encina      73.49 305  P      P        02 01 12.8 +2.1
EBAN                              pmax    pmax
      comp=Z,16nm,0.9s,mb5.0
INK   Inuvik            73.66  16 eP      P        02 01 10.8 -0.3
      comp=Z,487nm,1.0s,mb6.4
PMR   Palmer            73.99  25 eP      P        02 01 13.1 -0.1
      comp=Z,17nm,1.2s,mb4.8
PMR   Palmer            73.99  25 eP      P        02 01 13.1 -0.1
PMR                               pmax    pmax
      comp=Z,17nm,1.2s,mb4.8
EGUA  Guajares          73.99 304  P      P        02 01 15.6 +1.9
      comp=Z,2.3nm,0.8s,mb4.2
EGUA  Guajares          73.99 304  P      P        02 01 15.6 +1.9
EGUA                              pmax    pmax
      comp=Z,2.0nm,0.8s,mb4.1
EADA  Adamuz            74.03 305  P      P        02 01 13.4 -0.5
      comp=Z,8.6nm,0.8s,mb4.7
ERON  Agron             74.06 304  P      P        02 01 15.6 +1.5
      comp=Z,9.4nm,0.8s,mb4.8
ELUQ  Luque             74.12 305  P      P        02 01 13.4 -1.0
      comp=Z,21nm,0.8s,mb5.1
ELUQ  Luque             74.12 305  P      P        02 01 13.4 -1.0
ELUQ                              pmax    pmax
      comp=Z,21nm,0.8s,mb5.1
MVO   Moncorvo          74.18 309 eP      P        02 01 14.5 -0.2
      comp=Z,63nm,1.8s,mb5.2
ELOJ  Sierra Loja       74.24 304  P      P        02 01 16.4 +1.2
      comp=Z,3.7nm,0.9s,mb4.3
ELOJ  Sierra Loja       74.24 304  P      P        02 01 16.4 +1.3
ELOJ                              pmax    pmax
      comp=Z,4.0nm,0.9s,mb4.3
EGAK  Eagle             74.38  20 eP      P        02 01 15.4 +0.1
      comp=Z,11nm,1.1s,mb4.7
EGAK                             ePP      PP       02 04 00.9 -0.2
MTE   Manteigas         74.90 308 eP      P        02 01 20.3 +1.4
EMIJ  Mijas             74.96 304  P      P        02 01 20.0 +0.7
      comp=Z,9.0nm,0.8s,mb4.8
PVIS  Viseu             74.97 309 eP      P        02 01 22.5 +3.2
CTA   Charters Tower    74.98 127 eP      P        02 01 19.5  0.0
      comp=Z,6.9nm,0.8s,mb4.6
CTA                               e                02 01 23.5
CTA   Charters Tower    74.98 127 eP      P        02 01 19.5  0.0
CTA                               pmax    pmax
      comp=Z,7.0nm,0.8s
CTA   Charters Tower    74.98 127  P      P        02 01 19.2 -0.3
      comp=Z,16nm,0.8s,mb5.0,baz=293,slow=8.6,SNR=3.1
CTAO  Charters Tower    74.98 127 eP      P        02 01 19.4 -0.1
      comp=Z,22nm,0.9s,mb5.1
CTAO  Charters Tower    74.98 127 eP      P        02 01 19.4 -0.1
CTAO                              pmax    pmax
      comp=Z,22nm,0.9s,mb5.1
PCBR  Castelo Branco    75.14 308 eP      P        02 01 23.6 +3.3
      comp=Z,38nm,1.6s,mb5.1
EBAD  Badajoz           75.39 307  P      P        02 01 22.8 +1.1
      comp=Z,5.6nm,0.9s,mb4.5
DAWY  Dawson            75.42  20 eP      P        02 01 21.2 -0.2
EJIF  Jimena Fronter    75.50 304  P      P        02 01 23.8 +1.4
      comp=Z,7.8nm,0.8s,mb4.7
EJIF  Jimena Fronter    75.50 304  P      P        02 01 23.8 +1.4
EJIF                              pmax    pmax
      comp=Z,8.0nm,0.8s,mb4.7
ESPR  Espera            75.56 305  P      P        02 01 24.4 +1.7
      comp=Z,9.0nm,0.8s,mb4.8
EMIN  Mina Concepcio    75.66 306  P      P        02 01 22.9 -0.5
      comp=Z,13nm,0.8s,mb4.9
PBAR  Barrancos         75.70 306 eP      P        02 01 23.2 -0.3
      comp=Z,36nm,1.6s,mb5.0
EGRO  El Granado        76.33 306  P      P        02 01 28.2 +1.0
      comp=Z,7.5nm,0.8s,mb4.7
PBEJ  Beja              76.34 307 eP      P        02 01 27.5 +0.3
      comp=Z,26nm,1.5s,mb5.0
MOE   Montemor          76.41 307 eP      P        02 01 29.9 +2.4
PVAQ  Vaqueiros         76.56 306 eP      P        02 01 29.0 +0.6
      comp=Z,35nm,1.3s,mb5.1
LSZ   Lusaka            76.57 242  P      P        02 01 29.5 +0.8
      comp=Z,12nm,0.8s,mb4.9,baz=47,slow=6.3,SNR=29
MDT   Midelt            76.75 301  P      P        02 01 30.6 +1.0
      comp=Z,6.9nm,0.9s,mb4.6,baz=65,slow=8.5,SNR=12
PBDV  Barranco-do-Ve    76.79 306 eP      P        02 01 29.2 -0.5
      comp=Z,48nm,1.2s,mb5.3
STKA  Stephens Creek    80.60 138 eP      P        02 01 49.9 -0.6
      comp=Z,1.1nm,0.5s,mb4.0
STKA                              eP               02 01 53.0
STKA                              e                02 01 53.4
STKA  Stephens Creek    80.60 138  P      P        02 01 49.5 -1.1
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	comp=Z,8.9nm,0.8s,mb4.7,baz=320,slow=6.7,SNR=12						
STKA				LR	LR	02 41 46.6	
	comp=Z,255nm,20.8s,MS4.5,baz=127,slow=39						
TOA0	Torodi Ar. Sit	82.04	280	eP	P	02 01 57.9	-0.8
TORD	Torodi Ar. Bea	82.04	280	P	P	02 01 57.4	-1.3
	comp=Z,10nm,0.9s,mb4.7,baz=48,slow=4.8,SNR=25						
TORD				LR	LR	02 44 04.3	
	comp=Z,389nm,18.4s,MS4.8,baz=10.0,slow=40						
YKA	Yellowknife Ar	82.55	12	P	P	02 01 59.6	-0.8
	comp=Z,4.0nm,0.7s,mb4.5,baz=330,slow=5.1,SNR=62						
YKA				LR	LR	02 38 55.8	
	comp=Z,245nm,21.6s,MS4.5,baz=195,slow=36						
LBTB	Lobatse	84.69	236	eP	P	02 02 11.8	-0.2
	comp=Z,38nm,1.3s,mb5.4						
LBTB	Lobatse	84.69	236	eP	P	02 02 11.8	-0.2
LBTB				pmax	pmax		
	comp=Z,38nm,1.3s,mb5.4						
PMAR	Madeira	85.42	306	eP	P	02 02 20.4	+4.7
	comp=Z,123nm,1.7s,mb5.8						
TOO	Toolangi	86.96	139	eP	P	02 02 26.8	+3.9
	comp=Z,6.0nm,0.9s,mb4.8						
TOO	Toolangi	86.96	139	eP	P	02 02 26.8	+3.9
TOO				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.8						
BOSA	Boshof	87.23	233	P	P	02 02 24.8	+0.3
	comp=Z,20nm,1.1s,mb5.3,baz=50,slow=6.8,SNR=13						
SCHQ	Schefferville	90.25	347	P	P	02 02 35.4	-3.0
SCHQ				LR	LR	02 45 05.8	
SCHQ	Schefferville	90.25	347	P	P	02 02 35.4	-3.0
	comp=Z,2.2nm,0.8s,mb4.5,baz=211,slow=5.9,SNR=2.5						
SCHQ				LR	LR	02 45 05.8	
	comp=Z,638nm,21.0s,MS5.0,baz=199,slow=37						
KIC	Kosan Boka	91.03	278	eP	P	02 02 44.7	+1.9
	comp=Z,85nm,0.9s,mb6.1						
TIC	Toumodi	91.10	279	eP	P	02 02 44.2	+1.1
	comp=Z,43nm,0.9s,mb5.8						
LIC	Lamto	91.34	278	eP	P	02 02 42.3	-1.9
	comp=Z,52nm,1.1s,mb5.5						
LIC				eMLR	MLR		
	comp=Z,548nm,20.9s,MS4.7						
LIC	Lamto	91.34	278	eP	P	02 02 46.1	+1.9
	comp=Z,63nm,1.1s,mb5.9						
LIC	Lamto	91.34	278	eP	P	02 02 42.3	-1.9
	comp=Z,26nm,1.1s,mb5.5						
LIC				LR	LR		
	comp=Z,270nm,20.9s,MS4.7						
EDM	Edmonton	91.49	14	eP	P	02 02 42.4	-1.8
FFC	Flin Flon	91.81	7	P	P	02 02 44.8	-0.9
	comp=Z,82nm,1.3s,mb5.9,SNR=6.3						
ULM	Lac du Bonnet	96.77	4	P	P	02 03 06.6	-1.8
	comp=Z,1.6nm,0.8s,mb4.5,baz=322,slow=6.9,SNR=2.1						
ULM				LR	LR	02 54 16.0	
	comp=Z,261nm,18.3s,MS4.8,baz=16,slow=40						
SYO	Syowa Base	108.52	197	⇑eX		02 04 08.0	
TXAR	Lajitas Array	116.40	14	PKPdf	PKPdf	02 08 24.0	+2.1
TXAR	Lajitas Array	116.40	14	PKIKP	PKPdf	02 08 24.0	+2.1
TXAR	Lajitas Array	116.40	14	PKiKP	PKiKP	02 08 24.0	+2.1
	comp=Z,2.1nm,0.8s,baz=328,slow=0.7,SNR=16						
ROSC	El Rosal	139.59	336	PKP	PKPdf	02 09 05.3	-1.0
ROSC	El Rosal	139.59	336	PKP	PKPdf	02 09 05.3	-1.0
	comp=Z,3.0nm,0.4s,baz=102,slow=20,SNR=2.7						
SIV	San Ignacio	149.24	297	PKPbc	PKPbc	02 09 26.4	-0.7
	comp=Z,14nm,0.9s,baz=83,slow=3.1,SNR=14						
ATAH	Atahualpa	152.05	336	PKP	PKPdf	02 09 27.3	+0.1
	comp=Z,2.2nm,0.4s,baz=74,slow=15,SNR=1.9						
ATAH				PKPbc	PKPbc	02 09 36.1	+2.3
	comp=Z,14nm,0.9s,baz=49,slow=5.4,SNR=6.7						
LPAZ	La Paz	154.50	306	PKP	PKPdf	02 09 29.5	-1.1
LPAZ				PKPbc	PKPbc	02 09 39.1	+0.1
LPAZ				PKPab	PKPab	02 09 55.4	+1.9
LPAZ	La Paz	154.50	306	PKIKP	PKPdf	02 09 29.5	-1.2
LPAZ						02 09 39.1	
LPAZ	La Paz	154.50	306	PKP	PKPdf	02 09 29.5	-1.1
	comp=Z,1.1nm,0.7s,baz=252,slow=3.2,SNR=4.6						
LPAZ				PKPbc	PKPbc	02 09 39.1	+0.1
	comp=Z,1.3nm,0.8s,baz=55,slow=14,SNR=3.9						
LPAZ				PKPab	PKPab	02 09 55.4	+1.9
	comp=Z,2.5nm,0.8s,baz=11,slow=15,SNR=5.6						

NEIC 25 01:52:31.5,3789S×17675E,h6^{km},ML3.7(WEL),After WEL.,North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MARZ	Manawahe	0.11	212	P	Pg	01 52 34.4	+0.5
MARZ				S	Sg	01 52 36.5	+0.9
EDRZ	Edgecumbe	0.22	182	P	Pg	01 52 36.8	+1.0
LIRZ	Lichensteins R	0.31	248	P	Pg	01 52 38.3	+0.7
LIRZ				S	Sg	01 52 42.8	+1.1
MKRZ	Makatiti	0.34	222	P	Pg	01 52 38.7	+0.7
TAZ	Tarawera	0.39	209	P	Pg	01 52 40.3	+1.2
URZ	Urewera	0.47	143	eP	Pg	01 52 40.9	+0.4
WHZ	Wether Hill Ro	10.34	217	eP	Pn	01 54 52.8	-7.5

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*ISCJB **25** 01:56:27.0±0.7,70N±0.1×733W±0.1,h150^{km}±11^{km}, mb3.5/5,Error ellipse: s-maj=23.0km s-min=8.6km az=41.8*

*IDC **25** 01:56:27.4±0.7,696N×7322W,h142^{km}±39^{km},mb3.3/5, mb1 3.5/7,mb1mx3.3/19,mbtmp3.3/7,Error ellipse: s-maj=85.7km s-min=8.0km az=133.0*

*NEIC **25** 01:56:28.1±0.7,705N×7333W,h140^{km}±10^{km},mb4.1/2, Error ellipse: s-maj=14.8km s-min=8.7km az=128.0*

ISC 25 01:56:28.1±0.7,705N±010×733W±01,h139^{km}±12^{km},n12, σ0^{s}48/14,mb3.5/5,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	El Rosal	2.40	205	P	Pn	01 57 07.7	+0.2
	27nm,0.3s,baz=281,slow=22,SNR=53						
ROSC				S	Sn	01 57 37.6	-0.2
	45nm,0.3s,baz=110,slow=19,SNR=8.4						
SDV	Santo Domingo	3.22	55	P	Pn	01 57 18.4	+0.5
	7.3nm,0.3s,baz=262,slow=6.2,SNR=34						
SDV				S	Sn	01 57 55.9	-0.5
	10nm,0.3s,baz=66,slow=22,SNR=17						
JTS	JuntasAbangare	11.95	286	Pn	Pn	01 59 13.9	-0.2
	2.7nm,0.5s						
CPD	Cerro la Pandu	13.09	33	Pn	Pn	01 59 29.0	+0.2
NNA	Nana	19.24	191	eP	P	02 00 41.7	0.0
	5.9nm,0.7s						
TXAR	Lajitas Array	36.17	312	P	P	02 03 17.9	+0.6
	0.3nm,0.6s,mb3.1,baz=115,slow=8.6,SNR=4.2						
ULM	Lac du Bonnet	47.01	340	P	P	02 04 44.2	-0.9
ULM	Lac du Bonnet	47.01	340	P	P	02 04 44.2	-0.9
	0.7nm,0.3s,mb3.7,baz=155,slow=12,SNR=5.0						
PDAR	Pinedale Array	47.78	324	P	P	02 04 51.8	+0.5
	0.2nm,0.6s,mb3.0,baz=124,slow=7.7,SNR=2.9						
SCHQ	Schefferville	47.93	5	P	P	02 04 52.5	+0.3
	3.7nm,1.0s,mb4.0,baz=256,slow=12,SNR=2.8						
YKA	Yellowknife Ar	62.98	340	P	P	02 06 39.0	-0.7
YKA	Yellowknife Ar	62.98	340	P	P	02 06 39.0	-0.7
	0.7nm,0.6s,mb3.7,baz=131,slow=6.7,SNR=16						

NNC 25 02:02:49.2±6.4,3694N×6605E,h33^{km}±85^{km},mb3.5, mpv3.4,2C-1D,Error ellipse: s-maj=47.3km s-min=37.8km az=3.0,Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	Karatay Array	7.04	28	Pn	Pn	02 04 31.1	+1.2
	0.7nm,0.2s,baz=214,slow=14,SNR=34						
KK31				⇓Sn	Sn	02 05 49.6	+0.8
	1.5nm,0.3s,baz=211,slow=22						
KK31				⇑Lg		02 06 33.0	
	5.3nm,0.6s,baz=211,slow=24						
TKM2	Tokmak 2	9.46	48	⇑P	Pn	02 05 01.6	-1.4
	0.2nm,0.6s						
AB31	Akbulak array	13.09	342	P	Pn	02 05 52.7	+0.2
	1.8nm,1.0s,baz=24,slow=78,SNR=9.2						

IDC 25 02:03:50.6±8.7,3330N×9011E,h69^{km}±79^{km},mb3.2/5, mb1 3.4/6,mb1mx3.2/21,mbtmp3.2/6,Error ellipse: s-maj=58.8km s-min=27.4km az=52.0,Qinghai

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	14.74	338	P	Pn	02 07 14.4	-0.7
	baz=159,slow=16,SNR=2.7						
ZALV	Zalesovo Beam	20.98	351	P	P	02 08 28.4	+0.5
	1.2nm,0.8s,baz=172,slow=11,SNR=5.1						
WRA	Warramunga Arr	67.71	135	P	P	02 14 41.1	+0.4
	0.3nm,0.6s,baz=335,slow=6.7,SNR=3.8						
ASAR	Alice Springs	70.35	138	P	P	02 14 57.0	-0.1
	0.7nm,0.8s,baz=319,slow=6.1,SNR=7.0						
TORD	Torodi Ar. Bea	81.60	280	P	P	02 16 01.5	+0.1
	0.3nm,0.6s,baz=36,slow=5.0,SNR=4.3						
YKA	Yellowknife Ar	82.49	11	P	P	02 16 05.0	-0.2
	0.2nm,0.7s,baz=333,slow=4.9,SNR=4.1						

IDC 25 02:18:16.2±2.1,1505S×17377W,h0^{km},mb3.8/6, mb1 4.2/6,mb1mx4.0/14,mbtmp3.8/6,MS3.8/5,Ms1 3.8/5, ms1mx3.5/30,Error ellipse: s-maj=142.1km s-min=22.6km az=152.0,Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.24	60	Pn	Pn	02 18 46.7	-7.9
	21nm,0.3s,baz=170,slow=2.9,SNR=20						
AFI				Sn	Sn	02 19 06.3	-17
	67nm,0.3s,baz=49,slow=19,SNR=10.0						
AFI				LR	LR	02 19 36.5	
	comp=Z,1µm,21.3s,baz=284,slow=36						
RAR	Rarotonga	14.65	117	LR	LR	02 25 47.1	
	comp=Z,305nm,19.2s,baz=262,slow=31						
WRA	Warramunga Arr	49.57	256	P	P	02 27 09.7	+0.2
	0.7nm,0.5s,baz=89,slow=7.2,SNR=4.0						
GUMO	Guam	49.84	303	LR	LR	02 43 24.9	
	comp=Z,108nm,21.4s,baz=142,slow=30						
ASAR	Alice Springs	49.88	252	P	P	02 27 11.2	-0.6
	4.9nm,0.7s,baz=86,slow=8.4,SNR=42						
MJAR	Matsushiro Arr	68.44	320	LR	LR	02 52 11.5	
	comp=Z,207nm,21.7s,baz=10.0,slow=30						
NVAR	Mina Array Bea	74.31	42	P	P	02 29 54.3	-1.3
	0.9nm,0.9s,baz=246,slow=12,SNR=3.8						
KSRS	Korea Array	75.66	316	LR	LR	02 55 39.1	
	comp=Z,62nm,21.2s,baz=85,slow=30						
TXAR	Lajitas Array	80.72	56	P	P	02 30 32.1	+0.5
	0.6nm,0.9s,baz=210,slow=7.0,SNR=6.5						
PDAR	Pinedale Array	82.25	42	P	P	02 30 41.2	+1.7
	0.2nm,0.6s,baz=251,slow=2.8,SNR=2.3						
YKA	Yellowknife Ar	89.92	23	P	P	02 31 15.9	-0.9
	0.2nm,0.6s,baz=240,slow=4.5,SNR=5.3						
BRTR	Keskin Array B	145.66	321	PKPbc	PKPbc	02 37 57.4	+0.2
	1.1nm,0.9s,baz=23,slow=5.2,SNR=3.0						
GERES	GERESS Array B	145.74	351	PKPbc	PKPbc	02 37 56.8	-0.3
	0.4nm,0.7s,baz=197,slow=1.4,SNR=3.7						

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*MOS **25** 02:35:15.4±0.6,4303N×4439E,h17^{km},mb3.5/1,Error ellipse: s-maj=13.8km s-min=11.7km az=82.9*

*TIF **25** 02:35:17.0,4302N×4435E,h9^{km}±1^{km}*

*ISCJB **25** 02:35:17.6±0.6,4303N±003×4436E±004,h12^{km}±6^{km}, Error ellipse: s-maj=5.0km s-min=4.3km az=155.0*

ISC 25 02:35:17.5±0.7,4303N±003×4437E±004,h16^{km}±6^{km},n11, σ0^{s}71/22,5C-4D,Western Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARNR	Ardon	0.17	338	⇓iPG	Pg	02 35 20.6	-1.3
ARNR				iS	Sg	02 35 24.2	-0.6
LACR	Lac	0.21	195	⇓iPG	Pg	02 35 22.0	-0.3
LACR				iS	Sg	02 35 26.3	+0.7
VLKR	Vladikavkaz	0.23	85	⇓iPG	Pg	02 35 22.2	-0.5
VLKR				iS	Sg	02 35 26.8	+0.6
KORR	Kora	0.23	285	⇑iPG	Pg	02 35 21.7	-1.0
KORR				iS	Sg	02 35 26.1	-0.1
SNJR	Sundja	0.33	83	iPG	Pg	02 35 23.3	-1.1
SNJR				eS	Sg	02 35 29.6	+0.6
KMSR	Komsomolskaya	0.35	351	⇑iPG	Pg	02 35 24.6	-0.1
KMSR				iS	Sg	02 35 31.0	+1.4
BTKR	Batakoyurt	0.37	20	⇓iPG	Pg	02 35 24.9	-0.2
BTKR				iS	Sg	02 35 31.2	+1.0
ZEI	Tsey	0.43	234	⇑iPG	Pg	02 35 25.7	-0.5
ZEI				iS	Sg	02 35 32.7	+0.7
LSNR	Lesken	0.47	302	⇑iPG	Pg	02 35 26.5	-0.5
LSNR				eS	Sg	02 35 34.0	+0.6
DIGR	Digorskoe uzhe	0.59	258	⇑iPG	Pg	02 35 28.8	-0.4
DIGR				iS	Sg	02 35 37.4	+0.3
ONI	Oni	0.81	237	P	Pb	02 35 32.8	-0.4
ONI				S	Sb	02 35 44.7	+0.9

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*IDC **25** 02:36:50.7±0.9,3654N×14162E,h0^{km},mb3.6/8, mb1 3.8/12,mb1mx3.7/25,mbtmp3.7/12,ML3.5/4,MS3.1/1, Ms1 3.1/1,ms1mx2.6/31,Error ellipse: s-maj=22.6km s-min=17.4km az=101.0*

*ISCJB **25** 02:36:54.5±0.8,3653N±003×14146E±006,h37^{km}±8^{km}, mb3.5/9,Error ellipse: s-maj=7.4km s-min=4.8km az=3.4*

*JMA **25** 02:36:55.4±0.1,3649N×14133E,h46^{km}±3^{km},M3.8*

JMA Felt I J1.

*NEIC **25** 02:36:58.4±1.4,3648N×14133E,h55^{km}±12^{km},mb4.2/1, Error ellipse: s-maj=17.4km s-min=10.5km az=134.0*

*NIED **25** 02:37:00,3650N×14140E,h26^{km},Mw3.8 Best double couple: $M_0$5.82000×10^{14} NP1:ϕ_s277.00000°,δ29.00000°, λ40.00000°. NP2:ϕ_s150.00000°,δ72.00000°,λ113.00000°.*

ISC 25 02:36:54.6±1.0,3653N±003×14144E±005,h22^{km}±7^{km}, n32,σ0^{s}97/44,mb3.5/9,2C,Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHO	Hitachi	0.70	277	⇑P	Pb	02 37 07.9	-0.2
JHO				S	Sb	02 37 17.4	0.0
ONAJ	Iwakimizuishiy	0.76	318	⇑P	Pb	02 37 09.2	0.0
ONAJ				eS	Sb	02 37 19.2	0.0
JFK	Kawauchi	0.94	332	S	Sb	02 37 23.8	-0.6
JFT	Otama	1.32	319	S	Sn	02 37 34.4	-0.1
JMM	Marumori	1.43	339	S	Sn	02 37 36.0	-1.1
JAG	Ashikaga	1.60	267	P	Pn	02 37 20.9	-0.6
JAG				S	Sn	02 37 39.6	-1.9
JFY	Yanaizu	1.64	303	eS	Sn	02 37 43.0	+0.6
JKT	Katashina	1.77	278	P	Pn	02 37 24.2	+0.3
JKT				S	Sn	02 37 45.8	+0.1
BSO3	Boso 3	1.89	204	P	Pn	02 37 25.4	0.0
BSO1	Boso 1	1.91	191	P	Pn	02 37 25.8	0.0
BSO1				eS	Sn	02 37 49.4	+0.3
MJAR	Matsushiro Arr	2.60	271	Pn	Pn	02 37 36.0	+0.8
MJAR				Sn	Sn	02 38 06.1	0.0
MJAR	Matsushiro Arr	2.60	271	Pn	Pn	02 37 36.0	+0.8
	29nm,0.3s,baz=93,slow=9.2,SNR=266						
MJAR				Sn	Sn	02 38 06.1	0.0
	21nm,0.3s,baz=70,slow=13,SNR=9.7						
MAJO	Matsushiro	2.60	271	ePn	Pn	02 37 36.1	+0.8
MAJO				eSn	Sn	02 38 08.4	+2.3
MAT	Matsushiro	2.60	271	P	Pn	02 37 35.6	+0.4
MAT				S	Sn	02 38 05.3	-0.8
JHJ	Hachijo jima 2	3.67	202	Pn	Pn	02 37 49.7	-0.2
	32nm,0.3s,baz=245,slow=20,SNR=3.7						
JHJ				Sn	Sn	02 38 30.8	-1.7
	99nm,0.3s,baz=94,slow=22,SNR=4.8						
ERM	Erimo	5.63	13	ePn	Pn	02 38 20.8	+3.8
ERM				eSn	Sn	02 39 21.3	+0.4
ASAJ	Asahikawa	7.63	6	Pn	Pn	02 38 41.1	-3.2
	0.3nm,0.3s,baz=37,slow=25,SNR=2.6						
ASAJ				Sn	Sn	02 40 09.1	-0.8
	0.4nm,0.3s,baz=317,slow=30,SNR=2.5						
JNU	Nakatsue	9.32	252	Pn	Pn	02 39 10.1	+2.5
JNU				LR	LR	02 42 57.6	
JNU	Nakatsue	9.32	252	Pn	Pn	02 39 10.1	+2.5
	0.3nm,0.3s,baz=126,slow=17,SNR=2.1						
JNU				LR	LR	02 42 57.6	
	comp=Z,100nm,18.9s,baz=138,slow=39						
SONM	Songino Array	28.08	305	P	P	02 42 45.3	+1.0
	0.6nm,0.8s,mb3.3,baz=108,slow=7.0,SNR=5.4						
ZALV	Zalesovo Beam	42.27	313	P	P	02 44 46.5	+0.5
	0.8nm,0.6s,mb3.5,baz=98,slow=6.4,SNR=4.7						
MKAR	Makanchi Array	44.40	303	P	P	02 45 03.4	0.0
	0.5nm,0.9s,mb3.2,baz=85,slow=11,SNR=4.4						
COLA	College	49.49	32	eP	P	02 45 43.3	+0.5
EKS2	Erkin-Say	51.24	299	eP	P	02 45 54.1	-2.3
	2.8nm,1.0s,mb4.2						
INK	Inuvik	54.83	27	eP	P	02 46 23.1	+0.7
WRA	Warramunga Arr	56.57	188	P	P	02 46 34.0	-1.4
	0.5nm,0.3s,mb4.0,baz=347,slow=7.9,SNR=3.6						
ASAR	Alice Springs	60.30	188	P	P	02 47 01.6	+0.2
	0.5nm,0.8s,mb3.6,baz=0.7,slow=7.6,SNR=3.4						
RES	Resolute Bay	63.08	14	eP	P	02 47 20.6	+1.0
YKA	Yellowknife Ar	64.23	30	P	P	02 47 26.3	-1.0
YKA	Yellowknife Ar	64.23	30	P	P	02 47 26.3	-1.0
	0.1nm,0.7s,mb3.0,baz=303,slow=6.8,SNR=7.7						
NVAR	Mina Array Bea	75.28	53	P	P	02 48 36.8	+1.0
	0.6nm,0.8s,mb3.6,baz=282,slow=7.5,SNR=4.1						
BRTR	Keskin Array B	79.20	312	P	P	02 48 58.1	+0.4
	0.6nm,0.8s,mb3.6,baz=26,slow=6.9,SNR=5.9						

MOS 25 02:39:32.3±0.6,4306N×4435E,h17^{km},mb3.5/1,2C-3D, Error ellipse: s-maj=21.3km s-min=15.3km az=65.7, Western Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARNR	Ardon	0.14	338	⇓iPG	Pg	02 39 37.5	+1.2
ARNR				iS	Sg	02 39 41.1	+2.1
KORR	Kora	0.21	278	⇓iPG	Pg	02 39 38.6	+1.3
KORR				iS	Sg	02 39 43.0	+2.3
LACR	Lac	0.24	190	⇓iPG	Pg	02 39 38.8	+1.1
LACR				iS	Sg	02 39 43.6	+2.3
SNJR	Sundja	0.34	88	ePG	Pg	02 39 41.1	+1.7
SNJR				iS	Sg	02 39 47.0	+2.9
BTKR	Batakoyurt	0.34	24	⇑iPG	Pg	02 39 41.3	+1.8
BTKR				eS	Sg	02 39 47.7	+3.3
ZEI	Tsey	0.44	229	⇑iPG	Pg	02 39 42.6	+1.4
ZEI				iS	Sg	02 39 49.5	+2.3
DIGR	Digorskoe uzhe	0.59	255	ePG	Pg	02 39 45.6	+1.7
DIGR				eS	Sg	02 39 54.6	+2.8

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*CSEM **25** 02:47:35.4±0.2,3847N×3929E,h1^{km}±1^{km},MD3.5,Error ellipse: s-maj=3.0km s-min=2.2km az=177.0*

*ISK **25** 02:47:35.6,3848N×3927E,h5^{km},MD3.3*

*ISCJB **25** 02:47:36.7±0.6,3845N±003×3931E±004,h5^{km}±7^{km}, Error ellipse: s-maj=6.1km s-min=4.1km az=139.6*

*DDA **25** 02:47:36.4,3843N×3938E,h2^{km},Md3.5*

ISC 25 02:47:37.3±0.7,3846N±003×3931E±004,h5^{km}±7^{km},n33, σ1^{s}23/47,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.26	278	iP	Pg	02 47 40.9	-1.5
ELZG				iS	Sg	02 47 46.4	+0.6
PTK	Pertek	0.43	8	PG	Pg	02 47 44.8	-0.8
PTK				SG	Sg	02 47 52.7	+1.4
PTK	Pertek	0.43	8	ePg	Pg	02 47 44.8	-0.8
PTK				eSg	Sg	02 47 52.7	+1.4
MYA	Malataya	0.71	259	PG	Pg	02 47 49.5	-1.4
MYA				SG	Sg	02 48 00.1	-0.1
MYA	Malataya	0.71	259	ePg	Pg	02 47 49.5	-1.4
MYA				eSg	Sg	02 48 00.1	-0.1
MALT	Malatya	0.71	258	PG	Pg	02 47 49.9	-1.1
MALT				SG	Sg	02 48 00.7	+0.5
MALT	Malatya	0.71	258	ePg	Pg	02 47 49.9	-1.1
MALT				eSg	Sg	02 48 00.7	+0.5
DIY	Diyarbakir	0.92	128	PG	Pg	02 47 54.2	-0.6
DIY	Diyarbakir	0.92	128	ePg	Pg	02 47 54.2	-0.6
URFA	Urfa	1.09	201	PN	Pn	02 47 58.0	-1.2
URFA	Urfa	1.09	201	ePn	Pn	02 47 58.0	-1.2
ATAB	Bozova	1.28	219	iP	Pg	02 48 00.8	-1.0
ATAB				iS	Sg	02 48 20.6	+2.2
ATAB	Bozova	1.28	219	iP	Pg	02 48 00.8	-1.0
ATAB				iS	Sg	02 48 20.5	+2.2
EZC	Erzincan	1.34	17	PN	Pn	02 48 00.6	-2.0
MARD	Mardin	1.63	134	iP	Pn	02 48 04.6	-2.0
MARD				iS	Sn	02 48 27.8	-0.1
BTMT	Batman	1.73	98	PN	Pn	02 48 07.2	-0.8
GZT	Gaziantep	1.77	232	iP	Pn	02 48 06.4	-2.1
GZT				iS	Sg	02 48 36.5	+2.3
GAZ	Gaziantep	2.11	233	ePN	Pn	02 48 13.7	+0.6
GAZ	Gaziantep	2.11	233	ePn	Pn	02 48 13.7	+0.6
EZM	Erzurum	2.15	47	ePN	Pn	02 48 14.4	+0.7
ERZM	Erzurum	2.15	47	iP	Pn	02 48 15.1	+1.4
ERZM				iS	Sg	02 48 52.2	+5.9
SVSK	Karacayir	2.31	310	ePN	Pn	02 48 16.7	+0.7
SVSK	Karacayir	2.31	310	ePn	Pn	02 48 16.7	+0.7
ANDN	Andirin	2.50	250	iP	Pn	02 48 22.9	+4.3
ANDN				iS	Sg	02 49 02.6	+4.9
SIRT	Sirnak	2.65	110	ePN	Pn	02 48 22.2	+1.6
SIRT	Sirnak	2.65	110	ePn	Pn	02 48 22.2	+1.6
BNN	Bunyan	2.74	279	ePN	Pn	02 48 21.8	-0.1
BNN	Bunyan	2.74	279	ePn	Pn	02 48 21.8	-0.1
COBT	Iskenderun	3.11	232	iP	Pn	02 48 31.5	+4.6
COBT				iS	Sg	02 49 17.7	+0.5
HKR	Hakkari	3.61	103	ePN	Pn	02 48 34.7	+1.0
HKR	Hakkari	3.61	103	ePn	Pn	02 48 34.7	+1.0
CUKT	Cukurca	3.61	108	ePN	Pn	02 48 35.1	+1.3
CUKT	Cukurca	3.61	108	ePn	Pn	02 48 35.1	+1.3

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*ISCJB **25** 02:56:16.3±1.3,179S±0.1×17952W±009,h620^{km}±17^{km}, mb4.0/23,Error ellipse: s-maj=19.3km s-min=10.4km az=147.8*

*NEIC **25** 02:56:16.9±0.9,1787S×17947W,h611^{km}±11^{km},mb4.1/16, Error ellipse: s-maj=15.7km s-min=7.3km az=149.0*

*IDC **25** 02:56:17.0±2.0,1773S×17956W,h605^{km}±26^{km},mb3.4/10, mb1 3.7/11,mb1mx3.6/16,mbtmp3.5/11,Error ellipse: s-maj=24.2km s-min=13.1km az=147.0*

ISC 25 02:56:17.0±1.2,179S±01×17947W±009,h612^{km}±15^{km}, n40,σ0^{s}87/34,mb4.0/23,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	8.39	63	P	P	02 58 19.9	-0.6
	3.2nm,0.3s,baz=62,slow=8.3,SNR=5.3						
CTA	Charters Tower	32.45	261	eP	P	03 01 59.6	+0.5
	7.7nm,1.5s,mb4.1						
CTAO	Charters Tower	32.45	261	eP	P	03 01 59.3	+0.2
	5.4nm,0.8s,mb4.2						
COEN	Coen	36.10	271	eP	P	03 02 30.4	+0.9
TOO	Toolangi	36.40	230	eP	P	03 02 32.6	+1.0
	8.5nm,0.9s,mb4.3						
STKA	Stephens Creek	37.76	241	eP	P	03 02 43.7	+1.0
	5.1nm,0.6s,mb4.2						
STKA	Stephens Creek	37.76	241	P	P	03 02 43.3	+0.6
	10nm,0.8s,mb4.4,baz=87,slow=9.8,SNR=15						
WB2	Warramunga Arr	43.63	260	eP	P	03 03 29.2	-0.2
WRA	Warramunga Arr	43.64	260	P	P	03 03 29.1	-0.3
	3.1nm,0.5s,mb4.1,baz=93,slow=7.3,SNR=22						
WRA				PcP	PcP	03 05 02.6	-0.1
	0.9nm,0.6s,baz=101,slow=2.8,SNR=5.0						
ASAR	Alice Springs	43.83	254	P	P	03 03 31.1	+0.3
	33nm,0.6s,mb5.0,baz=88,slow=8.2,SNR=442						
ASAR				PcP	PcP	03 05 03.0	-0.3
	1.0nm,0.6s,baz=97,slow=3.5,SNR=4.6						
KAKA	Kakadu	46.58	269	eP	P	03 03 51.8	0.0
	4.2nm,0.5s,mb4.2						
FORT	Forrest	49.10	245	eP	P	03 04 09.7	-0.7
	20nm,0.6s,mb4.7						
FITZ	Fitzroy Crossi	52.04	261	eP	P	03 04 31.4	-0.4
	6.1nm,1.3s,mb3.8						
MBWA	Marble Bar	57.10	256	eP	P	03 05 06.4	-0.7
	5.9nm,0.8s,mb3.9						
KLBR	Kellerberrin	57.93	244	eP	P	03 05 11.7	-0.8
	9.2nm,0.6s,mb4.1						
VNDA	Vanda	60.38	185	P	P	03 05 29.7	+1.8
	13nm,1.1s,mb4.1,baz=342,slow=3.2,SNR=2.6						
MJAR	Matsushiro Arr	67.30	324	P	P	03 06 12.2	-0.2
	2.1nm,0.6s,mb3.7,baz=160,slow=6.4,SNR=8.7						
QSPA	South Pole Qui	72.16	180	eP	P	03 06 40.5	0.0
	23nm,1.2s,mb4.6						
NVAR	Mina Array Bea	80.11	44	P	P	03 07 26.0	+1.3
NVAR	Mina Array Bea	80.11	44	P	P	03 07 26.0	+1.3
	1.4nm,0.7s,mb3.4,baz=230,slow=12,SNR=10						
WVOR	Wild Horse Val	82.05	41	eP	P	03 07 34.5	0.0
	3.6nm,0.9s,mb3.9						
MCK	McKinley	84.75	13	eP	P	03 07 46.8	-0.6
	2.3nm,1.0s,mb3.8						
HLID	Hailey	85.28	41	eP	P	03 07 51.2	+0.7
	1.8nm,0.8s,mb3.8						
COLA	College	85.98	13	eP	P	03 07 52.4	-0.9
	2.5nm,0.6s,mb4.0						
NEW	Newport	86.09	36	eP	P	03 07 53.9	-0.3
	2.8nm,1.0s,mb3.9						
NEW	Newport	86.09	36	P	P	03 07 53.6	-0.6
	0.9nm,0.5s,mb3.7,baz=135,slow=5.7,SNR=3.1						
BILL	Bilibino	86.32	355	eP	P	03 07 55.3	+0.5
	2.2nm,0.4s,mb4.1						
TXAR	Lajitas Array	86.84	58	P	P	03 07 59.2	+1.1
TXAR	Lajitas Array	86.84	58	P	P	03 07 59.2	+1.1
	0.6nm,0.8s,mb3.4,baz=221,slow=7.0,SNR=5.5						
PDAR	Pinedale Array	88.04	44	P	P	03 08 04.3	+0.9
	0.9nm,0.8s,mb3.5,baz=236,slow=2.4,SNR=6.5						
VNA3	Neumayer Olymp	90.81	177	e	P	03 08 13.5	-2.3
VNA2	Neumayer--Watz	91.24	177	e	P	03 08 15.9	-1.9
	baz=196,slow=2.7						
VNA1	Neumayer--Stat	91.47	177	e	P	03 08 19.5	+0.6

YKA	**Yellowknife Ar**	**94.74**	**25**	P	**P**	**03 08 33.1**	**-0.6**
	0.2nm,0.6s,mb3.5,baz=252,slow=4.6,SNR=3.7						
KIV	**Kislovodsk**	**136.14**	**316**	*e*PKPdf	PKPdf	03 14 31.1	+1.2
MALT	**Malatya**	**141.23**	**310**	*e*PKPdf	PKPdf	03 14 39.1	-0.2
CLL	**Collm**	**145.22**	**346**	*e*PKPbc	PKPbc	03 14 47.0	-0.1
MMAI	**Mount Meron Ar**	**145.29**	**302**	PKPbc	PKPbc	03 14 47.5	-0.4
	2.3nm,0.9s,baz=64,slow=4.0,SNR=3.4						
CART	**Cartagena**	**160.34**	**4**	*e*PKPdf	PKPdf	03 15 07.9	0.0
TOA0	**Torodi Ar. Sit**	**175.15**	**194**	*e*PKPab	PKPab	03 16 56.9	-1.8

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*IDC **25** 03:00:11.2±0.7,33.09N×90.37E,h0^{km},mb3.9/12,mb1 4.1/13,mb1mx4.0/21,mbtmp3.9/13,ML3.2/1,MS3.4/2,Ms1 3.4/2,ms1mx3.1/25,Error ellipse: s-maj=25.7km s-min=17.6km az=49.0*

*BJI **25** 03:00:14.6,33.24N×90.48E,h27^{km},mB5.1,mb4.4,ML4.2,Ms4.0,Msz4.0*

*ISCJB **25** 03:00:15.5±0.9,33.19N±0.05×90.37E±0.05,h40^{km}±10^{km},mb4.1/19,MS3.2/2,Error ellipse: s-maj=7.8km s-min=7.1km az=3.2*

*MOS **25** 03:00:15.4±1.3,33.25N×90.41E,h33^{km},mb4.3/6,Error ellipse: s-maj=15.3km s-min=8.5km az=98.3*

*NEIC **25** 03:00:18.1±1.9,33.21N×90.40E,h48^{km}±17^{km},mb4.2/6,Error ellipse: s-maj=10.6km s-min=8.0km az=208.0*

ISC 25 03:00:17.9±0.7**,33.21N**±0.04×**90.37E**±0.06**,h44**^{km}±8^{km}**,n60,**σ**0**^{s}**.94**/63**,mb4.1**/19**,MS3.2**/2**,2C,Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	**Lhasa**	**3.56**	**169**	P	**Pn**	**03 01 12.0**	**+1.4**
LSA				SG	**Sn**	**03 02 01.3**	**+10**
LSA				LR	LR		
	comp=N,820nm,6.8s						
LSA				LR	LR		
	comp=E,2µm,7.8s						
LSA				LR	LR		
	comp=Z,2µm,8.8s						
TAPN	**Taplejung**	**6.28**	**202**	*e*P	**Pn**	**03 01 48.0**	**+0.1**
	comp=Z,7.0nm,0.3s						
JIRN	**Jiri**	**6.60**	**214**	*e*P	**Pn**	**03 01 52.0**	**-0.4**
	comp=Z,11nm,0.3s						
ODAN	**Odare**	**6.83**	**203**	*e*P	**Pn**	**03 01 54.5**	**-1.1**
	comp=Z,20nm,0.5s						
GKN	**Gorkha**	**7.16**	**225**	*e*P	**Pn**	**03 01 59.5**	**-0.6**
	comp=Z,27nm,0.4s						
SHL	**Shillong**	**7.73**	**170**	*e*P	**Pn**	**03 02 07.5**	**-0.3**
SHL				*e*S	Sn	03 04 19.5	+45
GTA	**Gaotai**	**9.81**	**48**	*e*P	**Pn**	**03 02 35.8**	**-0.5**
GTA				AP		03 02 46.0	
GTA				AMB	AMB		
	comp=Z,4.0nm,0.9s						
CD2	**Chengdu**	**11.59**	**98**	*e*P	**Pn**	**03 03 01.3**	**+0.7**
CD2				PP		03 03 10.3	
CD2				S	**Sn**	**03 05 11.8**	**+3.2**
CD2				SS		03 05 25.8	
CD2				AMB	AMB		
	comp=Z,10.0nm,1.2s						
CD2				LR	LR		
	comp=N,300nm,9.6s						
CD2				LR	LR		
	comp=Z,310nm,8.4s						
MKAR	**Makanchi Array**	**14.90**	**338**	Pn	**Pn**	**03 03 44.4**	**-1.1**
MKAR	**Makanchi Array**	**14.90**	**338**	Pn	**Pn**	**03 03 44.4**	**-1.1**
	comp=Z,0.1nm,0.3s,baz=148,slow=14,SNR=16						
TKM2	**Tokmak 2**	**15.13**	**314**	*e*P	**Pn**	**03 03 55.5**	**+7.0**
	comp=Z,6.8nm,0.8s						
TKM2	**Tokmak 2**	**15.13**	**314**	*e*P	**Pn**	**03 03 55.6**	**+7.1**
TKM2				pmax	pmax		
	comp=Z,7.0nm,0.8s						
UCH	**Uchtor**	**15.43**	**310**	*e*P	**Pn**	**03 03 58.3**	**+5.9**
	comp=Z,4.5nm,0.9s						
GYA	**Guiyang**	**15.65**	**111**	P	**Pn**	**03 03 50.6**	**-4.8**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s						
AAK	**Ala-Archa**	**15.65**	**312**	*e*P	**Pn**	**03 03 59.5**	**+4.2**
	comp=Z,6.2nm,1.1s						
AAK	**Ala-Archa**	**15.65**	**312**	*i* P	**Pn**	**03 03 56.1**	**+0.8**
AAK				pmax	pmax		
	comp=Z,6.0nm,1.3s						
EKS2	**Erkin-Say**	**16.12**	**311**	*e*P	**Pn**	**03 04 06.8**	**+5.6**
	comp=Z,3.4nm,1.0s						
KBL	**Kabul**	**17.76**	**280**	*e*P	**Pn**	**03 04 23.9**	**+2.0**
SONM	**Songino Array**	**18.96**	**35**	P	**Pn**	**03 04 35.8**	**-0.6**
	comp=Z,0.1nm,0.3s,baz=218,slow=12,SNR=9.8						
SONM				LR	LR	03 12 47.4	
	comp=Z,186nm,21.8s,baz=277,slow=40						
ULN	**Ulaanbaatar**	**19.30**	**36**	*e*P	**Pn**	**03 04 38.7**	**-1.7**
	comp=Z,4.5nm,1.0s						
ULN	**Ulaanbaatar**	**19.30**	**36**	*i* P	**Pn**	**03 04 38.6**	**-1.8**
KURK	**Kurchatov**	**19.51**	**337**	*e*P	**Pn**	**03 04 40.9**	**-1.9**
	comp=Z,5.1nm,0.8s						
KURK	**Kurchatov**	**19.51**	**337**	⇑*e*P	**Pn**	**03 04 41.6**	**-1.2**
TLY	**Talaya**	**20.84**	**24**	*e*P	**P**	**03 04 56.9**	**+1.2**
TLY				*e*		03 08 57.1	
TLY				pmax	pmax		
	comp=Z,4.0nm,0.9s						
TLY				MLR	MLR		
	comp=Z,135nm,17.0s,MS3.4						
ZAL	**Zalesovo**	**21.10**	**351**	P	**P**	**03 04 58.5**	**+0.1**
ZALV	**Zalesovo Beam**	**21.11**	**351**	P	**P**	**03 04 58.5**	**-0.1**
	comp=Z,6.1nm,0.9s,mb3.9,baz=163,slow=11,SNR=15						
ZALV				LR	LR	03 14 04.6	
	comp=Z,66nm,19.5s,MS3.0,baz=68,slow=39						
NVS	**Novosibirsk**	**22.20**	**349**	*e*P	**P**	**03 05 11.1**	**+0.8**
NJ2	**Nanjing**	**23.99**	**85**	*e*P	**P**	**03 05 28.6**	**+0.2**
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.7						
BRVK	**Borovoye**	**24.52**	**330**	*e*P	**P**	**03 05 32.9**	**-0.1**
	comp=Z,5.9nm,1.1s,mb4.0						
BRVK	**Borovoye**	**24.52**	**330**	*e*P	**P**	**03 05 32.9**	**-0.1**
BRVK				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.0						
KKM	**Kota Kinabalu**	**36.16**	**133**	*e*P	**P**	**03 07 16.8**	**+0.6**
HABR	**Khabarovsk**	**36.53**	**52**	*e*P	**P**	**03 07 17.6**	**-1.4**
HABR				*e*S	**S**	**03 12 57.1**	**-1.1**
OBN	**Obninsk**	**43.06**	**317**	P	**P**	**03 08 16.0**	**+2.8**
TIXI	**Tiksi**	**43.54**	**17**	*i* P	**P**	**03 08 16.6**	**-0.3**
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.9						
BRTR	**Keskin Array B**	**45.44**	**295**	P	**P**	**03 08 33.5**	**+1.0**
	comp=Z,0.6nm,0.7s,mb3.5,baz=98,slow=9.0,SNR=3.6						
MA2	**Magadan**	**47.16**	**37**	⇑*e*P	**P**	**03 08 46.3**	**+0.7**
MA2				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
AKASG	**Malin Array Be**	**47.32**	**311**	*i* P	**P**	**03 08 46.7**	**-0.3**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	**Malin Array Be**	**47.32**	**311**	P	**P**	**03 08 46.8**	**-0.3**
	comp=Z,2.0nm,0.7s,mb4.2,baz=76,slow=7.7,SNR=4.1						
FINES	**FINESS Array B**	**49.25**	**325**	P	**P**	**03 09 02.4**	**+0.6**
	comp=Z,0.7nm,0.6s,mb3.9,baz=85,slow=7.0,SNR=7.1						
BILL	**Bilibino**	**54.42**	**27**	P	**P**	**03 09 41.0**	**+0.9**
NB2	**NORSAR Subarra**	**56.43**	**325**	P	**P**	**03 09 54.8**	**+0.1**
	comp=Z,1.1nm,0.7s,mb4.0,baz=81,slow=6.9						
NOA	**NORSAR Array B**	**56.43**	**325**	P	**P**	**03 09 54.8**	**+0.1**
	comp=Z,1.6nm,0.7s,mb4.2,baz=82,slow=7.0,SNR=4.4						
GERES	**GERESS Array B**	**57.53**	**310**	P	**P**	**03 10 03.9**	**+1.3**
	comp=Z,0.7nm,0.9s,mb3.7,baz=76,slow=7.0,SNR=3.7						
TIP	**Timpagrande**	**58.21**	**299**	*e*P	**P**	**03 10 07.4**	**-0.2**
KMBO	**Kilima Mbogo**	**60.50**	**247**	P	**P**	**03 10 23.3**	**-0.5**
KMBO	**Kilima Mbogo**	**60.50**	**247**	P	**P**	**03 10 23.3**	**-0.5**
	comp=Z,0.8nm,0.6s,mb4.0,baz=54,slow=19,SNR=2.9						
MBWA	**Marble Bar**	**60.89**	**148**	*e*P	**P**	**03 10 24.9**	**-1.3**
	comp=Z,10nm,1.0s,mb4.9						
WRA	**Warramunga Arr**	**67.49**	**135**	*i* P	**P**	**03 11 13.0**	**+3.5**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA	**Warramunga Arr**	**67.49**	**135**	P	**P**	**03 11 08.9**	**-0.6**
	comp=Z,2.1nm,0.7s,mb4.3,baz=331,slow=6.4,SNR=8.1						
COEN	**Coen**	**68.81**	**124**	*e*P	**P**	**03 11 18.1**	**+0.3**
ASAR	**Alice Springs**	**70.14**	**138**	P	**P**	**03 11 25.4**	**-0.5**
	comp=Z,2.5nm,0.7s,mb4.2,baz=320,slow=6.4,SNR=18						
COLA	**College**	**72.28**	**22**	*e*P	**P**	**03 11 38.9**	**+0.6**
	comp=Z,3.9nm,0.9s,mb4.3						
COLA	**College**	**72.28**	**22**	*e*P	**P**	**03 11 38.9**	**+0.6**
COLA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
ESDC	**Sonseca Array**	**72.68**	**306**	P	**P**	**03 11 40.9**	**-0.2**
	comp=Z,0.1nm,0.2s,mb3.3,baz=46,slow=5.5,SNR=5.3						
TOA0	**Torodi Ar. Sit**	**81.83**	**280**	*e*P	**P**	**03 12 31.9**	**-0.9**
TORD	**Torodi Ar. Bea**	**81.83**	**280**	P	**P**	**03 12 32.1**	**-0.8**
	comp=Z,0.5nm,0.6s,mb3.6,baz=49,slow=4.1,SNR=11						
YKA	**Yellowknife Ar**	**82.53**	**11**	P	**P**	**03 12 35.5**	**-0.2**
YKA	**Yellowknife Ar**	**82.53**	**11**	P	**P**	**03 12 35.5**	**-0.2**
	comp=Z,1.1nm,0.7s,mb4.0,baz=330,slow=5.2,SNR=21						
FFC	**Flin Flon**	**91.78**	**7**	*e*P	**P**	**03 13 20.6**	**-0.1**
	comp=Z,2.9nm,0.9s,mb4.6						
FFC	**Flin Flon**	**91.78**	**7**	*e*P	**P**	**03 13 20.7**	**-0.1**
FFC				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.6						

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*NIED **25** 03:46:00,43.20N×146.50E,h47^{km},Mw3.6 Best double couple: M$_0$3.13000×10^{14} NP1:ϕ_s45.00000°,δ45.00000°,λ-76.00000°. NP2:ϕ_s206.00000°,δ46.00000°,λ-104.00000°.*

*MOS **25** 03:46:36.5±1.8,43.01N×146.81E,h33^{km},mb4.2/1,Error ellipse: s-maj=41.5km s-min=20.2km az=100.8*

*ISCJB **25** 03:46:42.0±1.4,43.20N±0.09×146.5E±0.1,h59^{km}±9^{km},mb3.5/5,Error ellipse: s-maj=18.5km s-min=11.0km az=139.4*

*JMA **25** 03:46:42.5±0.1,43.19N×146.46E,h50^{km}±1^{km},M3.7*

*IDC **25** 03:46:45.1±13.0,44.72N×145.86E,h0^{km},mb3.6/5,mb1 3.7/5,mb1mx3.5/22,mbtmp3.6/5,Error ellipse: s-maj=319.1km s-min=36.5km az=163.0*

ISC 25 03:46:43.1±1.5**,43.19N**±0.10×**146.5E**±0.1**,h52**^{km}±11^{km}**,n17,**σ**0**^{s}**.57**/24**,mb3.5**/5**,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	**0.55**	**289**	P	**Pn**	**03 46 54.5**	**-0.6**
NEM2				*e*S	**Sn**	**03 47 03.0**	**-0.7**
JRA	**Rausu**	**1.23**	**308**	P	**Pn**	**03 47 03.8**	**-0.1**
JRA				*e*S	**Sn**	**03 47 19.4**	**0.0**
JAK	**Akkeshi**	**1.31**	**262**	P	**Pn**	**03 47 04.8**	**-0.2**
JAK				*e*S	**Sn**	**03 47 21.1**	**-0.3**
JNK	**Nakash**	**1.33**	**288**	P	**Pn**	**03 47 04.8**	**-0.5**
JNK				*e*S	**Sn**	**03 47 21.2**	**-0.7**
JOB	**Onbets**	**1.95**	**262**	P	**Pn**	**03 47 13.9**	**+0.2**
JOB				*e*S	**Sn**	**03 47 36.9**	**-0.1**
JAR	**Ashorobuto**	**1.97**	**274**	P	**Pn**	**03 47 14.2**	**+0.2**
JAR				*e*S	**Sn**	**03 47 38.2**	**+0.7**
JTKR	**Abashiri--Toko**	**2.01**	**294**	P	**Pn**	**03 47 15.4**	**+0.8**
KUR	**Kuril'sk**	**2.28**	**26**	*e*PN	**Pn**	**03 47 11.5**	**-6.7**
JCH	**Churui**	**2.35**	**257**	P	**Pn**	**03 47 19.5**	**+0.3**
JCH				*e*S	**Sn**	**03 47 47.0**	**+0.2**
JMP	**Maruseppu**	**2.40**	**291**	P	**Pn**	**03 47 20.9**	**+1.0**
YSS	**Yuzh-Sakhalins**	**4.59**	**326**	*e*PN	**Pn**	**03 47 51.0**	**+1.1**
SONM	**Songino Array**	**28.23**	**294**	P	**P**	**03 52 31.2**	**+0.3**
	0.4nm,0.5s,mb3.3,baz=86,slow=8.4,SNR=5.1						
MKAR	**Makanchi Array**	**44.40**	**298**	P	**P**	**03 54 48.0**	**-0.3**
	0.4nm,0.7s,mb3.3,baz=85,slow=6.6,SNR=4.0						
INK	**Inuvik**	**47.14**	**30**	P	**P**	**03 55 09.8**	**+0.1**
	0.3nm,0.4s,mb3.6,baz=290,slow=6.7,SNR=4.5						
FINES	**FINESS Array B**	**65.14**	**333**	P	**P**	**03 57 16.9**	**-1.2**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	**FINESS Array B**	**65.14**	**333**	P	**P**	**03 57 16.9**	**-1.3**
	comp=Z,1.1nm,0.8s,mb4.0,baz=36,slow=7.3,SNR=5.1						
NOA	**NORSAR Array B**	**69.94**	**339**	P	**P**	**03 57 48.2**	**-0.2**
	comp=Z,0.3nm,0.4s,mb3.6,baz=32,slow=6.4,SNR=2.4						

IDC 25 03:47:09.9±2.7**,5.83S×130.45E,h0**^{km}**,mb3.5**/1**,mb1 3.8**/3**,mb1mx3.5**/13**,mbtmp3.6**/3**,ML3.6**/1**,Error ellipse: s-maj=182.1km s-min=31.3km az=71.0,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**14.53**	**165**	Pn	Pn	03 50 36.7	-0.2
	0.3nm,0.3s,baz=348,slow=13,SNR=2.6						
WRA				Sn	Sn	03 53 05.9	-13
	0.3nm,0.3s,baz=335,slow=21,SNR=4.0						
ASAR	**Alice Springs**	**18.04**	**170**	P	Pn	03 51 22.3	+0.1
	0.2nm,0.3s,baz=346,slow=11,SNR=14						
MKAR	**Makanchi Array**	**67.50**	**326**	P	P	03 58 07.9	+0.1
	0.2nm,0.4s,baz=118,slow=8.0,SNR=5.6						

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*SZGRF **25** 03:46:55.7,17.66S×177.75W,h33^{km},Fiji Islands region*

*ISCJB **25** 03:47:54.9±0.8,18.25S±0.09×178.01W±0.08,h592^{km}±10^{km},mb4.1/27,Error ellipse: s-maj=16.2km s-min=8.2km az=145.3*

*NEIC **25** 03:47:55.7±0.7,18.25S×177.97W,h589^{km}±8^{km},mb4.2/15,Error ellipse: s-maj=11.6km s-min=6.2km az=147.0*

*IDC **25** 03:47:55.5±1.3,18.34S×177.98W,h586^{km}±16^{km},mb3.6/13,mb1 3.7/15,mb1mx3.7/20,mbtmp3.5/15,Error ellipse: s-maj=19.2km s-min=9.8km az=144.0*

ISC 25 03:47:55.3±0.8**,18.22S**±0.09×**177.98W**±0.08**,h581**^{km}±9^{km}**,n139,**σ**0**^{s}**.81**/42**,mb4.1**/27**,11C-16D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**7.34**	**55**	P	**P**	**03 49 49.1**	**+1.3**
	4.9nm,0.3s,baz=63,slow=11,SNR=5.5						
AFI				S	**S**	**03 51 18.7**	**-1.2**
	1.2nm,0.3s,baz=286,slow=23,SNR=3.6						
DZM	**Mont Dzumac**	**15.12**	**253**	P	**P**	**03 51 06.4**	**+1.1**
	0.6nm,0.3s,baz=252,slow=20,SNR=5.6						
URZ	**Urewera**	**20.42**	**191**	P	**P**	**03 51 51.5**	**-2.0**
	15nm,0.6s,baz=26,slow=4.1,SNR=18						
RPZ	**Rata Peaks**	**27.05**	**198**	P	**P**	**03 52 52.0**	**-0.2**
	8.2nm,0.7s,mb4.5,baz=0.0,slow=0.0,SNR=2.8						
CTAO	**Charters Tower**	**33.80**	**261**	*e*P	**P**	**03 53 50.9**	**+0.5**
	5.0nm,0.7s,mb4.2						
PMG	**Port Moresby**	**34.91**	**280**	P	**P**	**03 53 59.7**	**0.0**
	14nm,0.7s,mb4.7,baz=54,slow=3.3,SNR=4.2						
COEN	**Coen**	**37.52**	**271**	*e*P	**P**	**03 54 21.7**	**+0.6**
STKA	**Stephens Creek**	**38.84**	**242**	P	**P**	**03 54 31.2**	**-0.4**
	6.0nm,0.8s,mb4.2,baz=94,slow=8.6,SNR=6.4						
WRA	**Warramunga Arr**	**44.98**	**260**	P	**P**	**03 55 19.9**	**-0.1**
	2.5nm,0.5s,mb4.0,baz=96,slow=7.3,SNR=7.9						
WRA				PcP	PcP	03 56 47.6	-1.0
	0.6nm,0.3s,baz=92,slow=2.9,SNR=4.4						
ASAR	**Alice Springs**	**45.10**	**255**	P	**P**	**03 55 21.1**	**+0.2**
	2.4nm,0.4s,mb4.1,baz=88,slow=8.3,SNR=30						
ASAR				PcP	PcP	03 56 48.5	-0.5
	0.9nm,0.4s,baz=104,slow=4.1,SNR=7.6						
ASAR				S	**S**	**04 01 16.4**	**-2.2**
	2.9nm,0.9s,baz=91,slow=15,SNR=18						
MBWA	**Marble Bar**	**58.39**	**256**	*e*P	**P**	**03 56 55.4**	**-0.9**
	8.5nm,0.9s,mb3.9						
KKM	**Kota Kinabalu**	**69.21**	**284**	*e*P	**P**	**03 58 05.5**	**+0.3**
QSPA	**South Pole Qui**	**71.84**	**180**	*e*P	**P**	**03 58 20.3**	**+0.8**
	5.5nm,0.6s,mb4.3						
KSM	**Kuching**	**73.13**	**277**	*e*P	**P**	**03 58 28.4**	**+0.3**
YSS	**Yuzh-Sakhalins**	**73.88**	**333**	*e*P	**P**	**03 58 32.1**	**+0.6**
	8.4nm,0.7s,mb4.4						
KSRS	**Korea Array**	**75.20**	**318**	P	**P**	**03 58 40.0**	**+0.8**
	1.2nm,0.6s,mb3.6,baz=132,slow=6.1,SNR=4.1						
NVAR	**Mina Array Bea**	**79.36**	**44**	P	**P**	**03 59 02.7**	**+1.0**
	3.0nm,0.7s,mb3.7,baz=230,slow=11,SNR=9.3						
WVOR	**Wild Horse Val**	**81.38**	**40**	*e*P	**P**	**03 59 12.4**	**+0.3**
	7.7nm,1.0s,mb4.1						
TUC	**Tucson**	**81.57**	**52**	*e*P	**P**	**03 59 13.9**	**+0.6**
	3.7nm,1.0s,mb3.9						
GAMB	**Gambell**	**81.88**	**3**	*e*P	**P**	**03 59 13.9**	**-0.2**
TTA	**Tatalina**	**82.71**	**10**	*e*P	**P**	**03 59 17.7**	**-0.6**
	9.8nm,1.0s,mb4.3						
TNA	**Tin City**	**83.87**	**4**	*e*P	**P**	**03 59 22.8**	**-1.2**
	3.1nm,0.8s,mb3.9						
HLID	**Hailey**	**84.60**	**41**	*e*P	**P**	**03 59 29.0**	**+0.9**
	3.2nm,0.8s,mb4.0						
MCK	**McKinley**	**84.75**	**13**	*e*P	**P**	**03 59 27.3**	**-1.1**
	5.0nm,1.0s,mb4.1						
TXAR	**Lajitas Array**	**85.82**	**57**	P	**P**	**03 59 35.9**	**+1.6**
TXAR	**Lajitas Array**	**85.82**	**57**	P	**P**	**03 59 35.9**	**+1.6**
	2.7nm,0.7s,mb4.0,baz=221,slow=6.2,SNR=21						
DLBC	**Dease Lake**	**85.95**	**23**	P	**P**	**03 59 34.1**	**-0.1**
	baz=243,slow=2.3						
COLA	**College**	**85.99**	**12**	*e*P	**P**	**03 59 32.9**	**-1.4**
	5.5nm,0.6s,mb4.4						
MCMT	**McKenzie Canyo**	**86.21**	**40**	*e*P	**P**	**03 59 36.7**	**+0.9**
BW06	**Boulder Array**	**87.30**	**43**	*e*P	**P**	**03 59 40.7**	**-0.3**
	2.1nm,0.6s,mb4.0						
PDAR	**Pinedale Array**	**87.30**	**43**	P	**P**	**03 59 41.3**	**+0.3**
	1.7nm,0.7s,mb3.9,baz=243,slow=4.0,SNR=5.3						
BOZ	**Bozeman (W)**	**87.36**	**40**	*e*P	**P**	**03 59 40.4**	**-0.8**
	4.0nm,1.0s,mb4.1						
CHTO	**Chiang Mai**	**89.49**	**290**	*e*P	**P**	**03 59 52.0**	**+0.3**
	3.6nm,0.8s,mb4.2						
VNA3	**Neumayer Olymp**	**90.41**	**176**	*e*	**P**	**03 59 55.0**	**0.0**
VNA2	**Neumayer--Watz**	**90.85**	**177**	*e*	**P**	**03 59 57.5**	**+0.5**
	baz=206,slow=4.0						
INK	**Inuvik**	**92.08**	**15**	*e*P	**P**	**04 00 01.1**	**-1.4**
INK	**Inuvik**	**92.08**	**15**	P	**P**	**04 00 01.8**	**-0.8**
	3.5nm,0.9s,mb4.4,baz=237,slow=5.1,SNR=9.1						
ULN	**Ulaanbaatar**	**93.66**	**319**	*e*P	**P**	**04 00 10.2**	**0.0**
	1.0nm,0.5s,mb4.2						
SONM	**Songino Array**	**94.05**	**319**	P	**P**	**04 00 12.0**	**0.0**
	0.3nm,0.6s,mb3.6,baz=110,slow=3.4,SNR=3.0						
YKA	**Yellowknife Ar**	**94.44**	**25**	P	**P**	**04 00 12.6**	**-0.8**
	0.9nm,0.6s,mb4.1,baz=243,slow=4.4,SNR=14						
ARU	**Arti**	**123.33**	**326**	*e*PKPdf	PKPdf	04 05 46.0	-0.6
ARCES	**ARCESS Array B**	**126.69**	**350**	PKP	PKPdf	04 05 51.8	-0.8
ARCES	**ARCESS Array B**	**126.69**	**350**	PKP	PKPdf	04 05 51.8	-0.8
	1.9nm,0.6s,baz=80,slow=0.9,SNR=20						
FINES	**FINESS Array B**	**133.60**	**344**	PKP	PKPdf	04 06 04.8	-1.0
FINES	**FINESS Array B**	**133.60**	**344**	PKP	PKPdf	04 06 04.8	-1.0
	2.6nm,1.0s,baz=125,slow=2.7,SNR=7.5						
NOA	**NORSAR Array B**	**136.73**	**353**	PKP	PKPdf	04 06 12.3	+0.5
NOA	**NORSAR Array B**	**136.73**	**353**	PKP	PKPdf	04 06 12.3	+0.5
	0.7nm,0.7s,baz=15,slow=3.7,SNR=2.6						
KIV	**Kislovodsk**	**137.36**	**316**	*e*PKPdf	PKPdf	04 06 13.6	+0.2
AKASG	**Malin Array Be**	**141.02**	**332**	PKP	PKPdf	04 06 13.4	-6.4
AKASG	**Malin Array Be**	**141.02**	**332**	PKhKP		04 06 13.4	
	0.8nm,0.3s,baz=42,slow=4.1,SNR=5.7						
BSEG	**Bad Segeberg**	**143.78**	**352**	*e*PKPbc	PKPdf	04 06 23.2	-1.4
BSEG	**Bad Segeberg**	**143.78**	**352**	*e*PKPbc	PKPdf	04 06 23.2	-1.4
KWP	**Kalwaria**	**144.52**	**337**	⇓P	PKPdf	04 06 25.9	-0.2
KWP	**Kalwaria**	**144.52**	**337**	⇓*i*P	PKPdf	04 06 25.9	-0.1
RUE	**Ruedersdorf**	**144.59**	**348**	*e*PKPbc	PKPdf	04 06 25.8	-0.3
OJC	**Ojcow**	**145.04**	**340**	*e*P	PKPdf	04 06 27.3	+0.4
BURAR	**Bucovina Array**	**145.08**	**332**	⇑P	PKPdf	04 06 28.4	+1.4
BURAR	**Bucovina Array**	**145.08**	**332**	⇑*i*P	PKPdf	04 06 28.5	+1.4
STHS	**Stebnicka Huta**	**145.23**	**338**	*e*P	PKPdf	04 06 28.3	+1.0
STHS	**Stebnicka Huta**	**145.23**	**338**	*e*PKP	PKPdf	04 06 28.3	+1.0
KOLS	**Kolonicke sedl**	**145.25**	**336**	*e*P	PKPdf	04 06 28.1	+0.8
KOLS	**Kolonicke sedl**	**145.25**	**336**	*e*PKP	PKPdf	04 06 28.1	+0.8
BR131	**Keskin Array S**	**145.29**	**315**	*e*PKPbc	PKPbc	04 06 28.5	-0.4
BRTR	**Keskin Array B**	**145.29**	**315**	PKPbc	PKPbc	04 06 28.6	-0.3
BRTR	**Keskin Array B**	**145.29**	**315**	PKPbc	PKPbc	04 06 28.6	-0.3
	1.4nm,0.5s,baz=123,slow=3.8,SNR=19						
KSP	**Ksiaz**	**145.52**	**344**	*e*P	PKPdf	04 06 29.1	+1.4
NIE	**Niedzica**	**145.56**	**339**	*e*P	PKPdf	04 06 29.6	+1.8
CRVS	**Cervenica-Dubn**	**145.58**	**337**	*e*P	PKPdf	04 06 28.6	+0.7
CRVS	**Cervenica-Dubn**	**145.58**	**337**	*e*PKP	PKPdf	04 06 28.6	+0.7
TRPA	**Tarpa**	**145.80**	**335**	⇑*i*P	PKPdf	04 06 29.6	+1.3
CLZ	**Clausthal**	**145.81**	**351**	*e*PKPbc	PKPbc	04 06 29.8	-0.2
CLZ	**Clausthal**	**145.81**	**351**	*e*PKPbc	PKPbc	04 06 29.8	-0.2
CLL	**Collm**	**145.85**	**348**	⇓*i*PKP	PKPdf	04 06 29.7	+1.4
CLL				*i* PKP	PKPdf	04 06 31.4	+3.1
CLL	**Collm**	**145.85**	**348**	*e*PKPbc	PKPbc	04 06 29.6	-0.5
CLL	**Collm**	**145.85**	**348**	⇓*i*PKPbc	PKPbc	04 06 29.7	-0.4
	comp=Z,19nm,0.7s						
CLL				*i* PKPab	PKPab	04 06 31.4	-0.6
	comp=Z,6.0nm,0.7s						
UPC	**Upice**	**145.90**	**344**	*e*PKP	PKPdf	04 06 30.1	+1.7
UPC	**Upice**	**145.90**	**344**	*e*PKP	PKPdf	04 06 30.1	+1.7
DPC	**Dobruska-Polom**	**145.96**	**344**	*e*PKP	PKPdf	04 06 30.5	+2.0
DPC	**Dobruska-Polom**	**145.96**	**344**	*e*PKP	PKPdf	04 06 30.5	+2.0
BRG	**Berggiesshubel**	**146.06**	**346**	*e*PKPbc	PKPbc	04 06 30.3	-0.4
BRG	**Berggiesshubel**	**146.06**	**346**	*e*P	PKPdf	04 06 30.4	+1.8
	comp=Z,7.7nm,0.7s						
MORC	**Moravsky Berou**	**146.13**	**342**	*e*PKPbc	PKPbc	04 06 30.2	-0.7
MORC	**Moravsky Berou**	**146.13**	**342**	⇑*i*P	PKPdf	04 06 30.7	+1.9
FBE	**Freiberg**	**146.15**	**347**	*e*PKPbc	PKPbc	04 06 30.9	0.0
PVCC	**Panska Ves**	**146.24**	**346**	*e*PKP	PKPdf	04 06 30.8	+1.9
PVCC				*e*		04 06 33.6	
PVCC	**Panska Ves**	**146.24**	**346**	*e*PKP	PKPdf	04 06 30.8	+1.9
PVCC				*e*x	x	04 06 33.6	
KECS	**Kecovo**	**146.29**	**338**	*e*P	PKPdf	04 06 31.4	+2.3
KECS	**Kecovo**	**146.29**	**338**	*e*PKP	PKPdf	04 06 31.4	+2.3
PRU	**Pruhonice**	**146.75**	**345**	*e*PKP	PKPdf	04 06 31.2	+1.4
PRU				*e*		04 06 35.4	
PRU	**Pruhonice**	**146.75**	**345**	*e*PKP	PKPdf	04 06 31.2	+1.4
PRU				*e*x	x	04 06 35.4	
MOX	**Moxa**	**146.75**	**349**	*e*PKP	PKPdf	04 06 32.4	+2.6
MOX	**Moxa**	**146.75**	**349**	*e*PKP	PKPdf	04 06 32.4	+2.6
MOX	**Moxa**	**146.75**	**349**	*e*PKPbc	PKPbc	04 06 32.5	-0.1
DRGR		**146.80**	**334**	⇓P	PKPdf	04 06 32.8	+2.8
DRGR		**146.80**	**334**	⇓*i*P	PKPdf	04 06 32.8	+2.8
TANN	**Tannenbergstha**	**146.81**	**348**	*e*PKPbc	PKPbc	04 06 32.6	-0.2
WERD	**Werda**	**146.81**	**348**	*e*PKPbc	PKPbc	04 06 32.5	-0.3
VRAC	**Vranov**	**146.83**	**342**	⇓P	PKPdf	04 06 36.0	+6.0
VRAC	**Vranov**	**146.83**	**342**	⇓*i*P	PKPdf	04 06 36.0	+6.0
VYHS	**Vyhne**	**146.85**	**339**	*e*P	PKPdf	04 06 32.8	+2.8
VYHS	**Vyhne**	**146.85**	**339**	*e*PKP	PKPdf	04 06 32.8	+2.8
GUNZ	**Gunzen**	**146.89**	**348**	*e*PKPbc	PKPbc	04 06 32.9	-0.1
PSZ	**Piszkesteto**	**146.98**	**338**	*e*PKPbc	PKPbc	04 06 33.1	-0.2
TREC	**Trest**	**147.15**	**344**	*e*PKP	PKPdf	04 06 33.4	+2.9
MANZ	**Manzenberg**	**147.29**	**348**	*e*PKPbc	PKPbc	04 06 33.9	-0.1
ROTZ	**Rotzenmuhle**	**147.48**	**348**	*e*PKPbc	PKPbc	04 06 34.3	-0.2
TNS	**Taunus Mts**	**147.66**	**352**	*e*PKPbc	PKPbc	04 06 35.0	0.0
TNS	**Taunus Mts**	**147.66**	**352**	*e*PKPbc	PKPbc	04 06 35.0	0.0
GRA1	**Grafenberg Arr**	**147.74**	**349**	*e*PKPbc	PKPbc	04 06 35.0	-0.2
GRF	**Grafenberg Arr**	**147.74**	**349**	*e*PKPbc	PKPbc	04 06 35.0	-0.2
KHC	**Kasperske Hory**	**147.78**	**346**	*e*PKP	PKPdf	04 06 35.1	+3.6
KHC				*e*		04 06 39.7	
KHC	**Kasperske Hory**	**147.78**	**346**	*e*PKP	PKPdf	04 06 35.1	+3.6
KHC				*e*x	x	04 06 39.7	
GEC2	**GERESS Array S**	**148.02**	**345**	*e*PKPbc	PKPbc	04 06 35.6	-0.3
GEC2	**GERESS Array S**	**148.02**	**345**	*e*PKPbc	PKPbc	04 06 35.6	-0.3
GERES	**GERESS Array B**	**148.02**	**345**	PKPbc	PKPbc	04 06 35.6	-0.3
GERES	**GERESS Array B**	**148.02**	**345**	PKPbc	PKPbc	04 06 35.6	-0.3
	comp=Z,3.9nm,0.7s,baz=23,slow=3.0,SNR=26						
BZS	**Buzias**	**148.19**	**333**	⇑P	PKPdf	04 06 35.9	+3.6
BZS	**Buzias**	**148.19**	**333**	⇑*i*P	PKPdf	04 06 35.9	+3.6
CONA	**Conrad Observa**	**148.28**	**342**	⇑*i*PKiKP	PKiKP	04 06 36.9	-0.9
	comp=Z,9.0nm,1.1s						
WLF	**Walferdange**	**148.46**	**355**	*e*PKPbc	PKPbc	04 06 36.9	-0.1
WLF	**Walferdange**	**148.46**	**355**	*e*PKPbc	PKPbc	04 06 37.5	+0.5
PKSM	**Moragy**	**148.88**	**337**	⇑P	PKPdf	04 06 37.9	+4.5
PKSM	**Moragy**	**148.88**	**337**	⇑*i*P	PKPdf	04 06 37.9	+4.5
STU	**Stuttgart**	**148.97**	**351**	*e*PKPbc	PKPbc	04 06 38.5	+0.2
FUR	**Furstenfeldbru**	**149.19**	**348**	*e*PKPbc	PKPbc	04 06 39.1	+0.3
FUR	**Furstenfeldbru**	**149.19**	**348**	*e*PKPbc	PKPbc	04 06 39.1	+0.3
VTS	**Vitosha**	**149.77**	**328**	⇓*i*P	PKPdf	04 06 40.0	+5.1
WATA	**Walderalm**	**149.92**	**347**	⇓*i*P	PKPdf	04 06 40.0	+5.0
	comp=Z,4.1nm,0.6s						
WATA	**Walderalm**	**149.92**	**347**	⇓*i*PKPbc	PKPbc	04 06 40.0	-0.6
	comp=Z,4.1nm,0.6s						
WTTA	**Wattenberg**	**149.97**	**347**	⇓*i*P	PKPdf	04 06 40.5	+5.4
	comp=Z,7.8nm,0.5s						
WTTA	**Wattenberg**	**149.97**	**347**	⇓*i*PKPbc	PKPbc	04 06 40.5	-0.2
	comp=Z,7.8nm,0.5s						
MOTA	**Moosalm**	**150.01**	**348**	⇓*i*P	PKPdf	04 06 40.0	+4.9
	comp=Z,3.4nm,0.8s						
MOTA	**Moosalm**	**150.01**	**348**	⇓*i*PKPbc	PKPbc	04 06 40.0	-0.8
	comp=Z,3.4nm,0.8s						
SQTA	**Sankt Quirin**	**150.11**	**347**	⇑*i*P	PKPdf	04 06 40.7	+5.4
	comp=Z,5.8nm,0.6s						
SQTA	**Sankt Quirin**	**150.11**	**347**	⇑*i*PKPbc	PKPbc	04 06 40.7	-0.3
	comp=Z,5.8nm,0.6s						
ABTA	**Abfaltersbach**	**150.26**	**345**	⇓*i*PKPbc	PKPbc	04 06 40.3	-1.1
	comp=Z,7.9nm,0.6s						
BNI	**Bardonecchia**	**152.96**	**353**	*e*PKPbc	PKPbc	04 06 42.7	-4.8
KEST	**Kesra**	**161.39**	**341**	PKPab	PKPab	04 07 38.2	-0.3
	comp=Z,1.0nm,0.8s,baz=357,slow=17,SNR=4.1						
TORD	**Torodi Ar. Bea**	**174.95**	**176**	PKPab	PKPab	04 08 37.6	-1.2
	comp=Z,0.3nm,0.8s,baz=149,slow=1.1,SNR=4.3						

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*ISCJB **25** 03:52:19.5±0.2,42.45N±0.01×110.71W±0.02,h0^{km},mb3.9/1,Error ellipse: s-maj=2.6km s-min=1.6km az=10.0*

*NEIC **25** 03:52:20.0,42.45N×110.69W,h0^{km},ML3.4,ML3.8(SLC),MW3.9(SLM),After SLC.*

NEIC Felt at Big Piney, Green River, La Barge, Rock Springs and Smoot.

*IDC **25** 03:52:22.7±0.8,42.43N×110.62W,h0^{km},mb3.7/2,mb1 3.9/7,mb1mx3.6/25,mbtmp3.6/7,ML3.0/5,Error ellipse: s-maj=11.3km s-min=6.0km az=157.0*

ISC 25 03:52:20.8±0.2**,42.46N**±0.01×**110.72W**±0.02**,h0**^{km}**,n76,**σ**1**^{s}**.18**/160**,mb3.9**/1**,Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AHID	**Auburn Hatcher**	**0.42**	**317**	*e*Pg	**Pg**	**03 52 29.5**	**+0.8**
AHID				*e*Sg	**Sg**	**03 52 33.5**	**-0.6**
REDW	**Red Top Meadow**	**0.91**	**354**	*e*Pg	**Pg**	**03 52 38.0**	**-0.2**
REDW				*e*Sn	**Sn**	**03 52 53.8**	**-0.8**
BW06	**Boulder Array**	**0.91**	**70**	*e*Pg	**Pg**	**03 52 37.7**	**-0.5**
BW06				*e*Sg	**Sg**	**03 52 50.0**	**0.0**
PDAR	**Pinedale Array**	**0.91**	**70**	Pg	**Pg**	**03 52 38.0**	**-0.2**
PDAR				Lg		03 52 50.9	
PDAR	**Pinedale Array**	**0.91**	**70**	Pg	**Pg**	**03 52 38.0**	**-0.2**
	67nm,0.3s,baz=242,slow=13,SNR=3479						
PDAR				Lg		03 52 50.9	
	343nm,0.3s,baz=242,slow=26,SNR=86						

HWUT	**Hardware Ranch**	1.06	217	*e*Pg	Pg	03 52 41.0	-0.1
HWUT				*e*Sg	Sg	03 52 56.3	+1.3
LOHW	**Long Hollow**	1.15	4	*e*Pg	Pg	03 52 42.3	-0.6
LOHW				*e*Sg	Sg	03 52 58.8	+0.9
DCID1	**Drake Creek**	1.18	343	*e*Pg	Pg	03 52 43.8	+0.4
DCID1				*e*Sg	Sg	03 52 58.8	-0.1
MOOW	**Moose Ponds**	1.29	359	*e*Pn	Pn	03 52 44.7	-1.3
MOOW				*e*Sn	Sn	03 53 02.7	-1.2
IMW	**Indian Meadow**	1.44	354	*e*Pn	Pn	03 52 47.7	-0.5
IMW				*e*Sn	Sn	03 53 07.2	-0.6
HVU	**Hansel Valley**	1.68	247	*e*Pn	Pn	03 52 51.4	+0.1
HVU				*e*Pg	Pg	03 52 55.7	+2.8
HVU				*e*Sg	Sg	03 53 15.2	+0.5
SPUT	**South Promonto**	1.73	229	*e*Pn	Pn	03 52 52.6	+0.4
SPUT				*e*Pg	Pg	03 52 57.0	+2.9
SPUT				*e*Sg	Sg	03 53 16.5	0.0
CTU	**Camp Tracy**	1.93	204	*e*Pn	Pn	03 52 54.9	+0.1
CTU				*e*Pg	Pg	03 52 58.9	+1.1
CTU				*e*Sg	Sg	03 53 22.9	+0.1
JLU	**Jordanelle**	1.94	197	*e*Pn	Pn	03 52 55.2	+0.3
JLU				*e*Sg	Sg	03 53 22.5	-0.5
YFT	**Old Faithful**	1.99	358	*e*Pn	Pn	03 52 57.5	+1.9
YFT				*e*Pg	Pg	03 52 59.4	+0.4
DAU	**Daniels Canyon**	2.09	191	*e*Pn	Pn	03 52 57.3	+0.3
DAU				*e*Pg	Pg	03 52 59.8	-1.0
NOQ	**North Oquirrh**	2.09	211	*e*Pn	Pn	03 52 57.0	-0.1
NOQ				*e*Pg	Pg	03 53 00.9	0.0
NOQ				*e*Sg	Sg	03 53 27.3	-0.7
LKWY	**Lake**	2.12	6	*e*Pn	Pn	03 52 59.5	+2.1
LKWY				*e*Pg	Pg	03 53 00.9	-0.4
YMR	**Madison River**	2.21	355	*e*Pn	Pn	03 52 60.0	+1.2
YMR				*e*Pg	Pg	03 53 01.7	-1.5
YMR				*e*Sg	Sg	03 53 32.2	+0.3
YNR	**Norris Junctio**	2.25	1	*e*Pn	Pn	03 53 00.6	+1.3
BGU	**Big Grassy Mou**	2.32	229	*e*Pn	Pn	03 53 00.0	-0.1
BGU				*e*Pg	Pg	03 53 05.3	+0.1
BGU				*e*Sg	Sg	03 53 33.7	-1.5
QLMT	**Earthquake Lak**	2.42	348	*e*Pn	Pn	03 53 03.4	+1.8
QLMT				*e*Pg	Pg	03 53 07.4	+0.1
QLMT				*e*Sg	Sg	03 53 39.9	+1.2
MPU	**Maple Canyon**	2.54	196	*e*Pn	Pn	03 53 02.6	-0.6
MPU				*e*Pg	Pg	03 53 08.8	-0.7
MPU				*e*Sg	Sg	03 53 39.5	-2.9
NLU	**North Lily Min**	2.71	203	*e*Pn	Pn	03 53 04.8	-0.8
NLU				*e*Pg	Pg	03 53 11.3	-1.4
NLU				*e*Sg	Sg	03 53 45.9	-1.8
RWWY	**Rawlins**	2.72	105	*e*Pn	Pn	03 53 06.4	+0.7
RWWY				*e*Sg	Sg	03 53 44.3	-3.9
DUG	**Dugway**	2.76	216	*e*Pn	Pn	03 53 06.0	-0.2
DUG				*e*Pg	Pg	03 53 12.9	-0.8
MCMT	**McKenzie Canyo**	2.83	328	*e*Pg	Pg	03 53 13.1	-1.9
RLMT	**Red Lodge**	2.86	21	*e*Pn	Pn	03 53 08.3	+0.7
RLMT				*e*Pg	Pg	03 53 15.6	+0.1
RLMT				*e*Sg	Sg	03 53 52.7	+0.1
HLID	**Hailey**	2.93	293	*e*Pn	Pn	03 53 11.7	+3.2
TMUT	**Trail Mountain**	3.18	187	*e*Pn	Pn	03 53 12.3	+0.2
TMUT				*e*Pg	Pg	03 53 22.8	+0.9
TMUT				*e*Sg	Sg	03 54 01.3	-1.8
DLMT	**Dillon**	3.20	336	*e*Pn	Pn	03 53 16.7	+4.4
DLMT				*e*Sg	Sg	03 54 08.8	+5.1
BOZ	**Bozeman (W)**	3.25	349	*e*Pb	Pb	03 53 16.8	-2.6
BOZ				*e*Pg	Pg	03 53 21.7	-1.4
BOZ				*e*Sg	Sg	03 54 00.8	-4.4
SRU	**San Rafael**	3.35	177	*e*Pn	Pn	03 53 15.1	+0.7
SRU				*e*Pg	Pg	03 53 26.2	+1.2
SRU				*e*Sg	Sg	03 54 05.1	-3.4
GCMT	**Greycliff**	3.41	12	*e*Pn	Pn	03 53 16.2	+1.0
GCMT				*e*Pg	Pg	03 53 24.0	-2.2
GCMT				*e*Sg	Sg	03 54 05.7	-4.7
LRM	**Limekiln Ridge**	3.58	340	*e*Pb	Pb	03 53 24.4	-0.6
ELK	**Elko**	3.80	245	*e*Pb	Pb	03 53 28.3	-0.4
PHWY	**Pilot Hill**	4.09	105	*e*Pn	Pn	03 53 25.2	+0.7
PHWY				*e*Pg	Pg	03 53 39.8	+0.6
PHWY				*e*Sn	Sn	03 54 13.9	+0.8
MSU	**Marysvale**	4.10	196	*e*Pn	Pn	03 53 25.2	+0.5
MSU				*e*Pg	Pg	03 53 36.8	-2.6
PV10	**Paradox Valley**	4.28	162	*e*Pn	Pn	03 53 28.2	+1.1
PV10				*e*Pg	Pg	03 53 40.1	-2.6
SMCO	**Snowmass**	4.34	138	*e*Pn	Pn	03 53 28.5	+0.6
SMCO				*e*Pb	Pb	03 53 38.0	+0.1
SMCO				*e*Pg	Pg	03 53 42.4	-1.5
SMCO				*e*Sg	Sg	03 54 33.6	-6.5
PV01	**Paradox Valley**	4.62	159	*e*Pn	Pn	03 53 31.4	-0.4
PV01				*e*Pb	Pb	03 53 43.4	+0.7
PV01				*e*Pg	Pg	03 53 49.7	+0.3
PV01				*e*Sg	Sg	03 54 44.0	-5.3
ISCO	**Idaho Springs**	4.68	123	*e*Pn	Pn	03 53 34.2	+1.6
ISCO				*e*Pg	Pg	03 53 48.0	-2.4
ISCO				*e*Sg	Sg	03 54 46.8	-4.3
CHMT	**Chamberlain Mo**	4.80	339	*e*Pn	Pn	03 53 37.6	+3.3
CHMT				*e*Pb	Pb	03 53 43.3	-2.5
CHMT				*e*Pg	Pg	03 53 53.6	+0.8
CHMT				*e*Sg	Sg	03 54 54.2	-0.9
MSO	**Missoula**	4.94	333	*e*Pn	Pn	03 53 45.9	+10
MSO				*e*Pg	Pg	03 53 54.4	-1.0
MSO				*e*Sg	Sg	03 55 00.1	+0.8
ARUT	**Antelope Range**	5.11	205	*e*Pn	Pn	03 53 40.8	+2.2
ARUT				*e*Pg	Pg	03 54 01.8	+3.0
RSSD	**Black Hills**	5.15	69	*e*Pn	Pn	03 53 38.1	-0.9
	3.5nm,0.4s						
RSSD				*e*Sg	Sg	03 54 58.9	-7.2
BMN	**Battle Mountai**	5.29	250	*e*Pg	Pg	03 53 55.6	-6.6
LAO	**LASA Array**	5.30	36	*e*Pn	Pn	03 53 42.1	+0.9
LAO				*e*Pg	Pg	03 53 58.5	-4.0
LAO				*e*Sg	Sg	03 55 10.6	-0.6
CCUT	**Cedar City**	5.31	203	*e*Pn	Pn	03 53 45.0	+3.7
CCUT				*e*Pg	Pg	03 54 02.4	-0.1
BMO	**Blue Mountains**	5.34	299	*e*Pn	Pn	03 53 42.4	+0.7
BMO				*e*Pg	Pg	03 54 01.8	-1.4
MVCO	**Mesa Verde**	5.51	161	*e*Pn	Pn	03 53 44.5	+0.4
	51nm,0.5s						
MVCO				*e*Pg	Pg	03 54 05.3	-1.2
MVCO				*e*Sg	Sg	03 55 12.7	-5.2
TRCR	**Troy Canyon**	5.54	224	*e*Pn	Pn	03 53 44.6	+0.1
TRCR				*e*Pg	Pg	03 54 07.7	+0.8
TRCR				*e*Sg	Sg	03 55 09.9	-8.8
EGMT	**Eagleton**	5.60	7	*e*Pn	Pn	03 53 46.1	+0.8
EGMT				*e*Pg	Pg	03 54 06.5	-1.6
WVOR	**Wild Horse Val**	5.86	272	*e*Pn	Pn	03 53 52.6	+3.7
	34nm,1.1s						
WVOR				*e*Pb	Pb	03 54 03.4	-0.4
WVOR				*e*Pg	Pg	03 54 14.2	+1.1
WVOR				*e*Sg	Sg	03 55 28.5	-0.5
BSMT	**Bassoo Peak**	6.11	333	*e*Pb	Pb	03 54 02.3	-5.7
BSMT				*e*Sg	Sg	03 55 41.7	+4.7
SDCO	**Great Sand Dun**	6.18	138	*e*Pn	Pn	03 53 54.2	+1.1
SDCO				*e*Pg	Pg	03 54 14.9	-4.3
SHPR	**Sheep Range**	6.87	211	*e*Pn	Pn	03 54 04.9	+2.2
WUAZ	**Wupatki**	6.95	184	*e*Pn	Pn	03 54 04.7	+0.8
WUAZ				*e*Pg	Pg	03 54 27.6	-6.4
WUAZ				*e*Sg	Sg	03 55 58.8	-5.3
TPNV	**Topopah Spring**	6.96	220	*e*Pn	Pn	03 54 05.1	+1.1
WALA	**Waterton Lakes**	6.96	342	*e*Pn	Pn	03 54 09.8	+5.8
	4.3nm,0.8s						
WALA				*e*Pg	Pg	03 54 32.0	-2.2
WALA				*e*Sg	Sg	03 56 01.4	-3.0
NVAR	**Mina Array Bea**	7.05	238	Pn	Pn	03 54 09.5	+4.3
NVAR				Lg		03 56 06.2	
NVAR	**Mina Array Bea**	7.05	238	Pn	Pn	03 54 09.5	+4.3
	1.2nm,0.3s,baz=60,slow=13,SNR=41						
NVAR				Lg		03 56 06.2	
	1.4nm,0.3s,baz=58,slow=28,SNR=5.7						
NEW	**Newport**	7.35	324	Pn	Pn	03 54 13.6	+4.3
NEW				Lg		03 56 15.7	
NEW	**Newport**	7.35	324	Pn	Pn	03 54 13.6	+4.3
	0.2nm,0.3s,baz=146,slow=14,SNR=5.9						
NEW				Lg		03 56 15.7	
	0.2nm,0.3s,baz=78,slow=20,SNR=3.4						
DGMT	**Dagmar**	7.55	35	*e*Pn	Pn	03 54 14.4	+2.3
DGMT				*e*Pg	Pg	03 54 39.3	-6.1
ANMO	**Albuquerque**	8.20	155	Pn	Pn	03 54 20.9	-0.1
ANMO				*e*Pb	Pb	03 54 47.8	+4.1
ANMO				Pg	Pg	03 54 52.2	-5.7
ANMO				Lg		03 56 32.0	
ANMO	**Albuquerque**	8.20	155	Pn	Pn	03 54 20.9	-0.1
	0.1nm,0.3s,baz=333,slow=14,SNR=6.1						
ANMO				Pg	Pg	03 54 52.2	-5.7
	0.3nm,0.3s,baz=340,slow=11,SNR=3.6						
ANMO				Lg		03 56 32.0	
	1.2nm,0.3s,baz=240,slow=16,SNR=4.3						
CMB	**Columbia Colle**	8.62	242	*e*Pn	Pn	03 54 31.5	+4.9
ECSD	**EROS,Sioux Fal**	10.39	78	*e*Pn	Pn	03 54 50.4	-0.6
	4.9nm,0.7s						
ULM	**Lac du Bonnet**	12.86	48	Pn	Pn	03 55 23.5	-1.2
ULM				Pg	Pn	03 56 15.7	+51
ULM				Lg		03 58 59.9	
ULM	**Lac du Bonnet**	12.86	48	Pn	Pn	03 55 23.5	-1.2
	0.3nm,0.3s,baz=239,slow=13,SNR=8.8						
ULM				Pg	Pn	03 56 15.7	+51
	0.4nm,0.3s,baz=234,slow=16,SNR=2.0						
ULM				Lg		03 58 59.9	
	0.2nm,0.3s,baz=150,slow=20,SNR=3.8						
TXAR	**Lajitas Array**	14.28	154	Pn	Pn	03 55 48.5	+4.2
TXAR	**Lajitas Array**	14.28	154	Pn	Pn	03 55 48.5	+4.2
	0.0nm,0.3s,baz=347,slow=16,SNR=3.9						
JCT	**Junction City**	14.82	140	*e*P	Pn	03 55 58.2	+6.7
	6.2nm,0.3s						
YKA	**Yellowknife Ar**	20.20	355	P	P	03 56 59.1	+2.4
	1.9nm,0.7s,baz=170,slow=11,SNR=22						
TKL	**Tuckaleechee C**	21.94	99	P	P	03 57 16.6	+0.8
	4.8nm,0.9s,mb3.9,baz=164,slow=19,SNR=2.1						

MEX 25 03:59:39.6±0.5**,1688N**×**10005W,h16**^{km}±251^{km}**,MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	**Acapulco**	0.13	94	*i* P	Pg	03 59 47.0	+3.7
ACX				*i* S	Sg	03 59 55.0	+9.2
CAIG	**El Cayaco**	0.27	309	*i* P	Pg	03 59 44.5	-1.0
CAIG				*i* S	Sg	03 59 48.6	-0.8
MEIG	**Mezcala**	1.12	21	*i* P	Pb	03 59 56.9	-3.7
MEIG				*i* S	Sb	04 00 10.3	-4.7
PLIG	**Platanillo**	1.60	19	*i* P	Pn	04 00 04.2	-3.0
PLIG				*i* S	Sn	04 00 22.3	-5.2

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*IDC **25** 04:04:41.5±1.0, 102S×12741E, h0^{km}, mb4.1/6, mb1 4.1/8, mb1mx3.9/18, mbtmp4.0/8, ML3.7/2, Error ellipse: s-maj=107.5km s-min=16.3km az=70.0*

*NEIC **25** 04:04:43.2±0.5, 104S×12732E, h10^{km}, mb4.5/2, Error ellipse: s-maj=28.9km s-min=7.7km az=67.0*

*ISCJB **25** 04:04:47.4±7.7, 11S±02×1274E±02, h62^{km}±74^{km}, mb4.2/8, Error ellipse: s-maj=48.2km s-min=21.5km az=143.5*

ISC 25 04:04:47.9±6.1**,11S**±02×**1273E**±02**,h46**^{km}±61^{km}**,n17, σ1^{s}01**/15**,mb4.2**/8**,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	16.95	186	P	Pn	04 08 43.4	+1.6
	0.1nm,0.3s,baz=354,slow=9.2,SNR=4.0						
WRA	**Warramunga Arr**	19.91	160	P	Pn	04 09 15.3	-2.4
	0.5nm,0.3s,baz=345,slow=11,SNR=8.0						
WB2	**Warramunga Arr**	19.92	160	*e*P	Pn	04 09 15.5	-2.3
COEN	**Coen**	20.20	130	*e*P	P	04 09 20.2	+1.3
ASAR	**Alice Springs**	23.29	165	P	P	04 09 51.6	-0.3
	3.2nm,0.6s,mb4.0,baz=346,slow=11,SNR=32						
STKA	**Stephens Creek**	33.42	158	P	P	04 11 23.1	+0.8
	2.6nm,0.7s,mb4.3,baz=329,slow=12,SNR=5.9						
SONM	**Songino Array**	52.07	342	P	P	04 13 53.5	+0.4
	1.0nm,0.7s,mb3.9,baz=155,slow=6.5,SNR=7.4						
SONM				PcP	PcP	04 15 05.0	+0.4
	0.5nm,0.8s,baz=158,slow=4.2,SNR=2.8						
MK31	**Makanchi Array**	61.89	327	*e*P	P	04 15 02.4	-0.2
MKAR	**Makanchi Array**	61.89	327	P	P	04 15 02.5	-0.1
MKAR				PcP	PcP	04 15 43.1	0.0
MKAR	**Makanchi Array**	61.89	327	P	P	04 15 02.5	-0.1
	2.5nm,0.7s,mb4.5,baz=122,slow=8.5,SNR=29						
MKAR				PcP	PcP	04 15 43.1	0.0
	0.9nm,0.7s,baz=120,slow=4.5,SNR=4.1						
ZALV	**Zalesovo Beam**	65.18	334	P	P	04 15 23.8	-0.3
	0.3nm,0.3s,mb3.8,baz=116,slow=6.6,SNR=3.4						
KURK	**Kurchatov**	66.15	329	*e*P	P	04 15 30.1	-0.4
	6.7nm,0.9s,mb4.7						
BRVK	**Borovoye**	71.78	328	*e*P	P	04 16 05.2	-0.2
	1.9nm,0.7s,mb4.1						
AKTK	**Aktyubinsk**	77.83	322	P	P	04 16 40.6	+0.2
AKTO	**Aktyubinsk**	77.83	322	P	P	04 16 40.6	+0.2
	3.0nm,1.0s,mb4.2,baz=100,slow=10.0,SNR=6.2						
TORD	**Torodi Ar. Bea**	124.88	285	PKP	PKPdf	04 23 44.0	+0.1
TORD	**Torodi Ar. Bea**	124.88	285	PKP	PKPdf	04 23 44.0	+0.1
	0.4nm,0.9s,baz=92,slow=0.9,SNR=2.2						

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*CSEM **25** 04:09:21.2±0.7, 3833N×3943E, h25^{km}, MD2.7, Error ellipse: s-maj=15.7km s-min=6.9km az=126.0*

*ISCJB **25** 04:09:24.9±0.7, 3841N±004×3933E±004, h7^{km}, Error ellipse: s-maj=5.3km s-min=4.6km az=6.5*

*ISK **25** 04:09:24.0, 3840N×3934E, h6^{km}, MD2.7*

*DDA **25** 04:09:25.1, 3839N×3928E, h7^{km}±4^{km}, Md2.8*

ISC 25 04:09:25.6±0.7**,3843N**±004×**3932E**±005**,h7**^{km}±12^{km}**,n11, σ0^{s}85**/20**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.27	284	*i* P	Pg	04 09 30.4	-0.5
ELZG				*i* S	Sg	04 09 35.1	+0.5
PTK	**Pertek**	0.46	7	PG	Pg	04 09 34.0	-0.5
PTK				SG	Sg	04 09 41.5	+0.9
PTK	**Pertek**	0.46	7	*e*Pg	Pg	04 09 34.0	-0.5
PTK				*e*Sg	Sg	04 09 41.5	+0.9
MALT	**Malatya**	0.71	261	PG	Pg	04 09 37.9	-1.4
MALT				SG	Sg	04 09 48.9	+0.3
MALT	**Malatya**	0.71	261	*e*Pg	Pg	04 09 37.9	-1.4
MALT				*e*Sg	Sg	04 09 48.9	+0.3
MYA	**Malataya**	0.71	262	PG	Pg	04 09 38.7	-0.6
MYA				SG	Sg	04 09 48.9	+0.3
MYA	**Malataya**	0.71	262	*e*Pg	Pg	04 09 38.7	-0.6
MYA				*e*Sg	Sg	04 09 48.9	+0.3
URFA	**Urfa**	1.07	202	*e*PG	Pg	04 09 45.1	-1.0
URFA	**Urfa**	1.07	202	*e*Pg	Pg	04 09 45.1	-1.0
MARD	**Mardin**	1.60	134	*i* P	Pn	04 09 55.1	+0.7
MARD				*i* S	Sg	04 10 17.4	+0.2
GZT	**Gaziantep**	1.76	233	*i* P	Pn	04 09 56.0	-0.5
GZT				*i* S	Sg	04 10 24.1	+2.0

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*NEIC **25** 04:27:06.0, 1802N×10066W, h54^{km}, MD4.1(MEX), After MEX.*

MEX 25 04:27:06.1±0.4**,1802N**×**10066W,h52**^{km}±12^{km}**,MD4.1, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MEIG	**Mezcala**	0.99	95	*i* P	Pn	04 27 22.1	-1.6
MEIG				*i* S	Sn	04 27 35.1	-1.7
CAIG	**El Cayaco**	1.03	159	*e*P	Pn	04 27 22.6	-1.7
CAIG				*i* S	Sn	04 27 36.0	-1.9
PLIG	**Platanillo**	1.16	71	*i* P	Pn	04 27 24.5	-1.5
PLIG				*i* S	Sn	04 27 38.9	-2.0
ACX	**Acapulco**	1.35	148	*i* P	Pn	04 27 27.2	-1.4
ACX				*i* S	Sn	04 27 39.5	-5.9
ACX	**Acapulco**	1.35	148	*i* P	Pn	04 27 27.2	-1.4
ACX				*i* S	Sn	04 27 44.0	-1.4
MOIG	**Morelia**	1.73	343	*e*P	Pn	04 27 32.9	-0.9
MOIG				*i* S	Sn	04 27 53.5	-1.1
YAIG	**Yautepec**	1.73	61	*i* P	Pn	04 27 32.0	-1.8
YAIG				*i* S	Sn	04 27 52.4	-2.2
SZVM	**Salazar**	1.77	43	*e*P	Pn	04 27 33.5	-0.9
SZVM				*i* S	Sn	04 27 54.6	-1.2
IIO	**Organos**	2.41	49	*i* P	Pn	04 27 41.3	-1.7
IIO				*i* S	Sn	04 28 09.6	-1.8
MMIG	**Aquila**	2.57	276	*i* P	Pn	04 27 43.6	-1.6
MMIG				*i* S	Sn	04 28 13.3	-2.1
UTMO	**Huajuapan**	2.72	94	*i* P	Pn	04 27 47.0	-0.4
UTMO				*i* S	Sn	04 28 17.7	-1.4
TPIG	**Tehuac#an**	3.16	82	*i* P	Pn	04 27 52.6	-0.7
TPIG				*i* S	Sn	04 28 27.4	-2.4
VHO	**Vista Hermosa**	3.86	104	*i* P	Pn	04 28 03.3	+0.3
VHO				*i* S	Sn	04 28 45.4	-1.7

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*CSEM **25** 04:49:22.4±0.1, 3842N×3929E, h4^{km}, MD3.3, Error ellipse: s-maj=1.6km s-min=1.2km az=147.0*

*ISK **25** 04:49:22.0, 3842N×3926E, h5^{km}, MD3.4*

*ISCJB **25** 04:49:23.3±0.5, 3840N±003×3931E±003, h4^{km}±4^{km}, Error ellipse: s-maj=4.8km s-min=3.6km az=175.3*

*DDA **25** 04:49:23.3, 3835N×3930E, h5^{km}±2^{km}, Md3.3*

*NSSC **25** 04:49:31.4, 3801N×3950E, h35^{km}±4^{km}*

ISC 25 04:49:23.8±0.5**,3841N**±003×**3932E**±003**,h2**^{km}±4^{km}**,n54, σ1^{s}25**/77**,6D,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	0.28	289	*i* P	Pg	04 49 28.4	-0.8
ELZG				*i* S	Sg	04 49 35.3	+2.5
PTK	**Pertek**	0.49	6	*i* PG	Pg	04 49 32.5	-0.6
PTK				*i* SG	Sg	04 49 40.9	+1.5
PTK	**Pertek**	0.49	6	*i* Pg	Pg	04 49 32.5	-0.6
PTK				*i* Sg	Sg	04 49 40.9	+1.5
MALT	**Malatya**	0.71	263	*i* PG	Pg	04 49 35.8	-1.6
MALT				*i* SG	Sg	04 49 45.9	-0.7
MALT	**Malatya**	0.71	263	*i* Pg	Pg	04 49 35.8	-1.6
MALT				*i* Sg	Sg	04 49 45.9	-0.7
MYA	**Malataya**	0.71	264	*i* PG	Pg	04 49 35.9	-1.5
MYA	**Malataya**	0.71	264	*i* Pg	Pg	04 49 35.9	-1.5
DIYA	**Diyarbakir**	0.80	127	*i* P	Pg	04 49 39.0	-0.1
DIYA				*i* S	Sg	04 49 51.1	+1.8
DIY	**Diyarbakir**	0.88	125	*i* PG	Pg	04 49 40.8	+0.2
DIY	**Diyarbakir**	0.88	125	*i* Pg	Pg	04 49 40.8	+0.2
BINT	**Bingol**	1.03	63	*i* PG	Pg	04 49 43.1	-0.4
BINT	**Bingol**	1.03	63	*i* Pg	Pg	04 49 43.1	-0.4
URFA	**Urfa**	1.04	202	*i* PG	Pg	04 49 43.2	-0.6
URFA	**Urfa**	1.04	202	*i* Pg	Pg	04 49 43.2	-0.6
ATAB	**Bozova**	1.24	221	*i* P	Pg	04 49 46.6	-0.9
ATAB				*i* S	Sg	04 50 04.3	+0.7
EZC	**Erzincan**	1.39	16	PN	Pn	04 49 48.1	-2.1
MARD	**Mardin**	1.59	133	*i* P	Pn	04 49 51.0	-1.9
MARD				*i* S	Sn	04 50 12.6	-1.4
DRBT	**Darb Altahta**	1.60	166	⇑P	Pn	04 49 58.9	+5.9
DRBT				⇓S	Sn	04 50 20.5	+6.2
KBSD	**Kabsdagh**	1.71	145	⇑P	Pn	04 49 52.9	-1.6
KBSD				⇑S	Sn	04 50 10.9	-5.9
KBSD	**Kabsdagh**	1.71	145	⇑*i*P	Pn	04 49 52.9	-1.6
BTMT	**Batman**	1.72	97	PN	Pn	04 49 53.9	-0.8
GZT	**Gaziantep**	1.74	233	*i* P	Pn	04 49 53.3	-1.8
GZT				*i* S	Sn	04 50 19.0	+1.3
GUMT	**Gumushane**	2.05	3	PN	Pn	04 49 59.0	-0.3
GUMT	**Gumushane**	2.05	3	*e*Pn	Pn	04 49 59.0	-0.3
GAZ	**Gaziantep**	2.08	234	PN	Pn	04 49 59.3	-0.3
GAZ	**Gaziantep**	2.08	234	*e*Pn	Pn	04 49 59.3	-0.3
EZM	**Erzurum**	2.18	46	PN	Pn	04 50 01.2	+0.2
SVSK	**Karacayir**	2.35	311	PN	Pn	04 50 03.0	-0.4
SVSK	**Karacayir**	2.35	311	*e*Pn	Pn	04 50 03.0	-0.4
SLMH	**Al Salmeh**	2.46	207	⇓P	Pn	04 50 05.5	+0.7
SLMH				⇑S	Sn	04 50 32.3	-3.1
SLMH	**Al Salmeh**	2.46	207	⇓*i*P	Pn	04 50 05.6	+0.8
SLMH				⇑*i*S	Sn	04 50 32.3	-3.1
ANDN	**Andirin**	2.49	252	*i* P	Pn	04 50 07.5	+2.1
ANDN				*i* S	Sn	04 50 43.1	+6.8
SIRT	**Sirnak**	2.63	109	*e*PN	Pn	04 50 08.4	+1.2
SIRT	**Sirnak**	2.63	109	*e*Pn	Pn	04 50 08.4	+1.2
BNN	**Bunyan**	2.76	280	*e*PN	Pn	04 50 08.5	-0.5
BNN	**Bunyan**	2.76	280	*e*Pn	Pn	04 50 08.5	-0.5
DRWC	**Darouich**	2.76	231	⇓P	Pn	04 50 12.7	+3.6
DRWC				⇑S	Sn	04 50 43.1	+0.2
JHLN	**Al Jahlan**	2.82	195	⇑P	Pn	04 50 09.9	+0.1
JHLN	**Al Jahlan**	2.82	195	⇑*i*P	Pn	04 50 09.9	+0.1
KOZT	**Kozan**	2.91	253	*e*PN	Pn	04 50 11.1	0.0
BTCH	**Batrach**	3.29	225	⇑P	Pn	04 50 18.6	+2.3
BTCH				⇑S	Sn	04 50 55.8	-0.2
BTCH	**Batrach**	3.29	225	⇑*i*P	Pn	04 50 18.6	+2.3
BTCH				⇑*i*S	Sn	04 50 55.8	-0.1
CUKT	**Cukurca**	3.59	108	*e*PN	Pn	04 50 20.9	+0.5
CUKT	**Cukurca**	3.59	108	*e*Pn	Pn	04 50 20.9	+0.5
HKR	**Hakkari**	3.59	102	*e*PN	Pn	04 50 21.4	+1.0
HKR	**Hakkari**	3.59	102	*e*Pn	Pn	04 50 21.4	+1.0
ARNB	**Al Arnab**	3.69	227	⇑P	Pn	04 50 24.5	+2.7
ARNB				⇑S	Sn	04 51 06.2	+0.4
ARNB	**Al Arnab**	3.69	227	⇑*i*P	Pn	04 50 24.5	+2.7
ARNB				⇑*i*S	Sn	04 51 06.2	+0.3
WRDH	**Warideh**	3.72	220	⇑P	Pn	04 50 24.0	+1.9
WRDH				⇑S	Sn	04 51 05.2	-1.3
WRDH	**Warideh**	3.72	220	⇑*i*P	Pn	04 50 24.0	+1.8
WRDH				⇑*i*S	Sn	04 51 05.2	-1.3
NIG	**Nigde**	3.72	267	*e*PN	Pn	04 50 22.5	+0.3
NIG	**Nigde**	3.72	267	*e*Pn	Pn	04 50 22.5	+0.3
SLNF	**Slenfeh**	3.75	222	⇓P	Pn	04 50 25.0	+2.5
SLNF				⇑S	Sn	04 51 06.3	-0.9
SLNF	**Slenfeh**	3.75	222	⇓*i*P	Pn	04 50 25.0	+2.4
SLNF				⇑*i*S	Sn	04 51 06.3	-0.9

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*MOS **25** 05:02:52.3±1.0, 929S×7593W, h33^{km}, mb4.7/10, Error ellipse: s-maj=32.1km s-min=9.1km az=117.1*

*ISCJB **25** 05:02:54.6±0.9, 934S±004×7583W±007, h62^{km}±9^{km}, mb4.6/35, Error ellipse: s-maj=11.2km s-min=6.5km az=159.2*

*BJI **25** 05:02:55.2, 940S×7590W, h51^{km}, mB4.5, Ms5.1, Msz4.8*

*NEIC **25** 05:02:55.2±0.2, 941S×7587W, mb4.7/23, Error ellipse: s-maj=7.7km s-min=4.3km az=67.0*

NEIC Felt [III] at Tingo Maria.

*IDC **25** 05:02:56.2±1.6, 935S×7583W, h59^{km}±16^{km}, mb4.2/14, mb1 4.3/19, mb1mx4.3/26, mbtmp4.2/19, MS3.7/13, Ms1 3.7/13, ms1mx3.5/34, Error ellipse: s-maj=17.1km s-min=11.0km az=89.0*

ISC 25 05:02:56.3±0.8**,936S**±004×**7580W**±006**,h60**^{km}±8^{km}**, h59**^{km}±5.5^{km}**:pP-P,n130,σ0^{s}77**/91**,mb4.6**/35**,MS3.9**/10**,2C, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	2.80	201	*e*Pn	Pn	05 03 37.4	-1.2
NNA				*e*Sn	Sn	05 04 12.6	+1.3
NNA	**Nana**	2.80	201	P	Pn	05 03 37.9	-0.8
NNA				S	Sn	05 04 12.4	+1.2
	250nm,0.3s,baz=134,slow=22,SNR=13						
NNA				LR	LR	05 04 42.6	
	comp=Z,883nm,21.6s,baz=317,slow=38						
ATAH	**Atahualpa**	3.48	312	P	Pn	05 03 46.6	-1.3
	16nm,0.3s,baz=137,slow=7.8,SNR=64						
ATAH				S	Sn	05 04 32.9	+5.0
	52nm,0.3s,baz=131,slow=12,SNR=5.3						
ATAH				LR	LR	05 04 47.6	
	comp=Z,280nm,20.2s,baz=33,slow=33						
OTAV	**Otavalo**	9.89	344	*e*Pn	Pn	05 05 16.5	+0.6
LPAZ	**La Paz**	10.16	133	*e*Pn	Pn	05 05 20.9	+1.4
	15nm,1.1s						
LPAZ	**La Paz**	10.16	133	*e*P	Pn	05 05 21.0	+1.5
LPAZ				pmax	pmax		
	comp=Z,15nm,1.1s						
LPAZ	**La Paz**	10.16	133	P	Pn	05 05 19.8	+0.3
	comp=Z,0.1nm,0.3s,baz=334,slow=14,SNR=5.5						
ROSC	**El Rosal**	14.20	6	*e*Pn	Pn	05 06 15.0	+0.6
ROSC	**El Rosal**	14.20	6	P	Pn	05 06 10.3	-4.2
	comp=Z,0.5nm,0.3s,baz=88,slow=21,SNR=2.5						
SIV	**San Ignacio**	15.80	116	P	Pn	05 06 33.7	-1.5
	comp=Z,1.4nm,0.3s,baz=300,slow=13,SNR=15						
SDV	**Santo Domingo**	18.85	16	*e*P	Pn	05 07 12.5	-0.2
	comp=Z,13nm,0.8s						
SDV	**Santo Domingo**	18.85	16	P	Pn	05 07 12.0	-0.6
	comp=Z,1.2nm,0.3s,baz=199,slow=3.4,SNR=21						
SDV				LR	LR	05 15 49.2	
	comp=Z,316nm,18.1s,baz=9.3,slow=41						
LCO	**Las Campanas**	20.12	167	*e*P	P	05 07 25.1	-0.3
	comp=Z,11nm,0.9s						
JTS	**JuntasAbangare**	21.54	335	*e*P	P	05 07 42.0	+1.2
	comp=Z,26nm,1.1s,mb4.6						
JTS	**JuntasAbangare**	21.54	335	*e*P	P	05 07 42.0	+1.2
JTS				pmax	pmax		
	comp=Z,26nm,1.1s						
JTS	**JuntasAbangare**	21.54	335	P	P	05 07 40.7	-0.1
	comp=Z,9.0nm,0.9s,mb4.2,baz=135,slow=13,SNR=5.4						
JTS				LR	LR	05 14 29.9	
	comp=Z,50nm,21.6s,MS2.9,baz=93,slow=32						
PCRV	**Puerto La Cruz**	22.37	30	P	P	05 07 50.3	+0.7
	comp=Z,4.5nm,0.6s,mb4.0,baz=204,slow=12,SNR=3.0						
CFAA	**Coronel Fontan**	23.22	163	P	P	05 07 57.8	-0.6
	comp=Z,0.3nm,0.9s,baz=322,slow=9.4,SNR=5.2						
CFAA				LR	LR	05 16 01.3	
	comp=Z,24nm,18.5s,baz=28,slow=34						
SJG	**San Juan**	28.92	19	*e*P	P	05 08 50.0	+0.1
	comp=Z,9.9nm,0.6s,mb4.7						
SJG	**San Juan**	28.92	19	*e*P	P	05 08 50.0	+0.1
SJG				pmax	pmax		
	comp=Z,10.0nm,0.6s						
SJG	**San Juan**	28.92	19	P	P	05 08 49.3	-0.6
	comp=Z,10nm,0.7s,mb4.7,baz=188,slow=3.3,SNR=6.3						
MTP	**Monte Pirata**	29.10	20	*e*P	P	05 08 51.6	+0.1
TEIG	**Tepich**	31.86	337	P	P	05 09 16.2	+0.4
	comp=Z,9.1nm,0.5s,mb4.8,baz=166,slow=4.3,SNR=11						

TEIG				LR	LR	05 21 24.4	
	comp=Z,84nm,21.4s,MS3.4,baz=329,slow=35						
CMIG	Matias Romero	32.35	324	P	P	05 09 20.6	+0.4
CMIG				LR	LR	05 20 52.3	
CMIG	Matias Romero	32.35	324	P	P	05 09 20.6	+0.4
	comp=Z,2.8nm,0.9s,mb4.1,baz=149,slow=22,SNR=4.5						
CMIG				LR	LR	05 20 52.3	
	comp=Z,48nm,20.9s,MS3.2,baz=23,slow=33						
NATX	Nacogdoches	44.70	337	*e*P	P	05 11 04.8	+1.3
PLAL	Pickwick Lake	45.61	346	*e*P	P	05 11 09.2	-1.4
UALR	University of	46.61	341	*e*P	P	05 11 17.9	-0.6
	comp=Z,10nm,0.8s,mb4.8						
TXAR	Lajitas Array	46.92	326	P	P	05 11 21.1	0.0
TXAR				PcP	PcP	05 12 53.0	0.0
TXAR				LR	LR	05 31 43.7	
TXAR	Lajitas Array	46.92	326	P	P	05 11 21.1	0.0
TXAR						05 12 53.0	
TXAR	Lajitas Array	46.92	326	P	P	05 11 21.1	0.0
	comp=Z,2.9nm,0.9s,mb4.2,baz=150,slow=8.4,SNR=24						
TXAR				PcP	PcP	05 12 53.0	0.0
	comp=Z,1.0nm,0.7s,baz=138,slow=5.1,SNR=4.3						
TXAR				LR	LR	05 31 43.7	
	comp=Z,81nm,18.9s,MS3.7,baz=100,slow=37						
LTX	Lajitas	46.92	326	*e*P	P	05 11 20.8	-0.3
	comp=Z,2.7nm,0.8s,mb4.2						
LTX	Lajitas	46.92	326	*e*P	P	05 11 20.8	-0.3
LTX				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
SIUC	Southern Illin	48.48	346	*e*P	P	05 11 32.1	-1.0
WMOK	Wichita Mounta	48.96	335	*e*P	P	05 11 38.4	+1.6
	comp=Z,11nm,1.0s,mb4.8						
WMOK	Wichita Mounta	48.96	335	*e*P	P	05 11 38.4	+1.6
WMOK				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
FVM	French Village	49.04	345	*e*P	P	05 11 36.2	-1.1
MNTX	Cornudas Mount	49.68	327	*e*P	P	05 11 42.0	-0.4
	comp=Z,8.9nm,1.3s,mb4.6						
LAZ	Ladron	52.69	327	*e*P	P	05 12 05.4	+0.5
ANMO	Albuquerque	52.76	328	*e*P	P	05 12 05.8	+0.5
	comp=Z,7.4nm,1.1s,mb4.5						
ANMO	Albuquerque	52.76	328	*e*P	P	05 12 05.9	+0.6
TUC	Tucson	53.22	323	*e*P	P	05 12 08.6	-0.2
	comp=Z,3.3nm,0.8s,mb4.3						
TUC	Tucson	53.22	323	*e*P	P	05 12 08.6	-0.2
TUC				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
SDCO	Great Sand Dun	54.48	331	*e*P	P	05 12 18.3	+0.5
	comp=Z,14nm,0.8s,mb5.0						
WUAZ	Wupatki	55.85	325	*e*P	P	05 12 28.3	+0.5
	comp=Z,12nm,1.0s,mb4.9						
PV01	Paradox Valley	56.29	329	*e*P	P	05 12 31.1	+0.2
SMCO	Snowmass	56.31	331	*e*P	P	05 12 31.9	+0.9
	comp=Z,8.9nm,0.9s,mb4.8						
SRU	San Rafael	58.03	329	*e*P	P	05 12 43.5	+0.4
ARUT	Antelope Range	58.63	325	*e*P	P	05 12 48.1	+0.7
DAU	Daniels Canyon	59.37	329	*e*P	P	05 12 53.1	+0.7
JLU	Jordanelle	59.61	329	*e*P	P	05 12 54.9	+0.8
DUG	Dugway	60.02	328	*e*P	P	05 12 57.1	+0.2
	comp=Z,8.0nm,0.7s,mb4.9						
DUG	Dugway	60.02	328	*e*P	P	05 12 57.1	+0.2
DUG				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
BW06	Boulder Array	60.34	332	*e*P	P	05 12 58.8	-0.3
PDAR	Pinedale Array	60.34	332	P	P	05 12 58.6	-0.4
	comp=Z,2.4nm,0.9s,mb4.2,baz=131,slow=9.1,SNR=14						
HWUT	Hardware Ranch	60.42	330	*e*P	P	05 12 59.0	-0.6
	comp=Z,9.7nm,0.6s,mb5.0						
HWUT				*e*pP	pP	05 13 13.3	-2.3
NVAR	Mina Array Bea	61.87	323	P	P	05 13 10.0	+0.5
	comp=Z,2.4nm,0.8s,mb4.4,baz=141,slow=7.5,SNR=9.5						
ULM	Lac du Bonnet	61.89	346	*e*P	P	05 13 08.1	-1.3
	comp=Z,17nm,0.9s,mb5.2						
ULM	Lac du Bonnet	61.89	346	P	P	05 13 08.3	-1.1
	comp=Z,13nm,0.7s,mb5.2,baz=158,slow=6.9,SNR=33						
GCMT	Greycliff	62.75	334	*e*P	P	05 13 14.7	-0.6
GCMT				*e*pP	pP	05 13 29.6	-1.7
HLID	Hailey	63.28	329	*e*P	P	05 13 19.1	+0.2
	comp=Z,2.6nm,0.7s,mb4.5						
BOZ	Bozeman (W)	63.51	333	*e*P	P	05 13 19.9	-0.3
	comp=Z,4.5nm,1.0s,mb4.5						
BOZ				*e*pP	pP	05 13 33.6	-2.7
BOZ	Bozeman (W)	63.51	333	*e*P	P	05 13 19.9	-0.3
BOZ				*e**PP	pP	05 13 33.7	-2.6
BOZ				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
SCHQ	Schefferville	64.40	6	P	P	05 13 25.1	-0.8
	comp=Z,7.9nm,1.0s,mb4.7,baz=201,slow=4.2,SNR=6.8						
WVOR	Wild Horse Val	64.72	326	*e*P	P	05 13 28.2	-0.1
	comp=Z,4.2nm,1.0s,mb4.4						
WVOR	Wild Horse Val	64.72	326	*e*P	P	05 13 28.2	-0.1
WVOR				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
NEW	Newport	67.98	332	*e*P	P	05 13 49.0	0.0
	comp=Z,3.3nm,0.9s,mb4.4						
NEW	Newport	67.98	332	*e*P	P	05 13 49.0	0.0
NEW				pmax	pmax		
	comp=Z,3.0nm,0.9s						
FCC	Fort Churchill	69.49	350	*e*P	P	05 13 57.3	-0.8
	comp=Z,6.5nm,0.8s,mb4.6						
FCC	Fort Churchill	69.49	350	*e*P	P	05 13 57.3	-0.8
FCC				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
EDM	Edmonton	70.04	337	*e*P	P	05 14 00.6	-1.1
PPT	Papeete	71.85	255	LR	LR	05 40 21.1	
	comp=Z,252nm,18.2s,MS4.5,baz=143,slow=31						
LIC	Lamto	72.20	80	*e*P	P	05 14 20.1	+4.5
	comp=Z,40nm,1.5s,mb5.1						
TIC	Toumodi	72.30	80	*e*P	P	05 14 16.8	+0.6
	comp=Z,34nm,1.0s,mb5.2						
KIC	Kosan Boka	72.51	80	*e*P	P	05 14 17.6	+0.1
	comp=Z,33nm,0.8s,mb5.3						
VNA3	Neumayer Olymp	73.61	162	*e*P	P	05 14 22.7	-0.2
VNA3				*e*		05 14 33.5	
VNA3				*e*	pP	05 14 39.1	-0.2
VNA3				*e*	pP	05 14 42.4	+3.1
VNA3				*e*		05 14 48.0	
VNA2	Neumayer--Watz	74.22	161	*e*P	P	05 14 26.0	-0.4
VNA2				*e*		05 14 36.8	
VNA2				*e*	pP	05 14 43.1	+0.2
VNA2				*e*	pP	05 14 46.6	+3.7
VNA2				*e*		05 14 50.2	
SNAA	Sanae	75.83	162	*e*P	P	05 14 35.8	+0.1
YKA	Yellowknife Ar	77.65	343	P	P	05 14 45.4	-0.6
	comp=Z,2.6nm,0.6s,mb4.3,baz=141,slow=6.0,SNR=42						
MDT	Midelt	79.59	54	LR	LR	05 46 10.5	
	comp=Z,118nm,18.5s,MS4.3,baz=126,slow=33						
TOA0	Torodi Ar. Sit	80.12	75	*e*P	P	05 15 00.9	+0.3
TORD	Torodi Ar. Bea	80.12	75	P	P	05 15 01.0	+0.5
	comp=Z,3.1nm,1.0s,mb4.2,baz=272,slow=5.0,SNR=15						
TORD				LR	LR	05 50 06.4	
	comp=Z,97nm,19.4s,MS4.2,baz=290,slow=35						
ESDC	Sonseca Array	82.27	48	P	P	05 15 13.4	+2.0
	comp=Z,4.4nm,0.9s,mb4.4,baz=259,slow=6.1,SNR=12						
RES	Resolute Bay	84.72	355	*e*P	P	05 15 22.9	-0.4
	comp=Z,110nm,0.9s						
INK	Inuvik	87.37	342	*e*P	P	05 15 35.8	-0.6
INK	Inuvik	87.37	342	P	P	05 15 36.3	-0.1
	comp=Z,6.4nm,0.9s,mb4.8,baz=104,slow=5.2,SNR=12						
EGAK	Eagle	88.26	337	*e*P	P	05 15 40.4	-0.4
	comp=Z,8.0nm,0.9s,mb5.0						
SYO	Syowa Base	90.10	161⇈	*e*P	P	05 15 46.2	-3.2
SYO	Syowa Base	90.10	161⇈	*e*PcP	PcP	05 15 49.0	-1.6
TSUM	Tsumeb	90.13	109	*e*P	P	05 15 51.4	+0.8
	comp=Z,6.5nm,0.9s,mb5.0						
COLA	College	90.93	336	*e*P	P	05 15 53.7	+0.4
KEST	Kesra	91.50	54	LR	LR	05 55 28.0	
	comp=Z,48nm,19.3s,MS4.0,baz=209,slow=34						
VAE	Valguarnera	95.79	53	LR	LR	05 58 46.8	
	comp=Z,131nm,18.2s,MS4.5,baz=116,slow=35						
ZALV	Zalesovo Beam	132.90	16	PKP	PKPdf	05 22 05.4	+0.7
ZALV	Zalesovo Beam	132.90	16	PKP	PKPdf	05 22 05.4	+0.7
	comp=Z,4.0nm,0.7s,baz=275,slow=2.0,SNR=23						
ZAL	Zalesovo	132.90	16	PKIKP	PKPdf	05 22 05.4	+0.7
KURK	Kurchatov	133.68	22	*e*PKPdf	PKPdf	05 22 06.8	+0.6
KURK	Kurchatov	133.68	22	*i* PKIKP	PKPdf	05 22 07.0	+0.7
ASAR	Alice Springs	136.17	221	PKP	PKPdf	05 22 11.4	-0.3
ASAR	Alice Springs	136.17	221	PKIKP	PKPdf	05 22 11.5	-0.3
ASAR	Alice Springs	136.17	221	PKP	PKPdf	05 22 11.4	-0.3
	comp=Z,2.5nm,0.8s,baz=129,slow=1.9,SNR=20						
AAK	Ala-Archa	137.87	33	*e*PKPdf	PKPdf	05 22 15.2	+0.9
AAK	Ala-Archa	137.87	33	*i* PKIKP	PKPdf	05 22 15.3	+1.0
MKAR	Makanchi Array	138.29	23	PKP	PKPdf	05 22 15.4	+0.5
MKAR	Makanchi Array	138.29	23	PKIKP	PKPdf	05 22 15.4	+0.4
MKAR	Makanchi Array	138.29	23	PKP	PKPdf	05 22 15.4	+0.5
	comp=Z,1.0nm,0.7s,baz=1.0,slow=1.6,SNR=10.0						
WB2	Warramunga Arr	138.41	225	*e*P	PKPdf	05 22 15.7	-0.3
WRA	Warramunga Arr	138.42	225	PKP	PKPdf	05 22 15.3	-0.8
WRA	Warramunga Arr	138.42	225	PKIKP	PKPdf	05 22 15.3	-0.7
WRA	Warramunga Arr	138.42	225	PKP	PKPdf	05 22 15.3	-0.8
	comp=Z,3.7nm,0.8s,baz=135,slow=1.6,SNR=13						
MJAR	Matsushiro Arr	138.99	317	PKP	PKPdf	05 22 16.4	-0.2
MJAR	Matsushiro Arr	138.99	317	PKIKP	PKPdf	05 22 16.4	-0.2
MJAR	Matsushiro Arr	138.99	317	PKP	PKPdf	05 22 16.4	-0.2
	comp=Z,1.3nm,0.7s,baz=73,slow=1.3,SNR=3.8						
ULN	Ulaanbaatar	141.55	357	*i* PKIKP	PKPdf	05 22 22.3	+1.4
SONM	Songino Array	141.61	358	PKP		05 22 15.0	
SONM				PKP	PKPdf	05 22 21.5	+0.5
SONM	Songino Array	141.61	358	PKHKP		05 22 15.0	
SONM						05 22 21.5	
SONM	Songino Array	141.61	358	PKhKP		05 22 15.0	
	comp=Z,0.5nm,0.5s,baz=332,slow=2.9,SNR=6.7						
SONM				PKP	PKPdf	05 22 21.5	+0.5
	comp=Z,1.8nm,0.7s,baz=326,slow=2.0,SNR=11						
KSRS	Korea Array	144.77	326	PKP	PKPdf	05 22 25.8	-1.1
	comp=Z,7.1nm,0.7s,baz=54,slow=3.5,SNR=19						
FITZ	Fitzroy Crossi	145.46	218	*e*P	PKPdf	05 22 27.8	-0.8
	comp=Z,11nm,0.9s						
FITZ	Fitzroy Crossi	145.46	218	PKPbc	PKPbc	05 22 27.4	-1.2
	comp=Z,7.0nm,0.9s,baz=147,slow=5.8,SNR=11						
JNU	Nakatsue	145.88	318	PKPbc	PKPbc	05 22 28.1	-1.5
JNU	Nakatsue	145.88	318	PKPbc	PKPbc	05 22 28.1	-1.5
	comp=Z,12nm,0.9s,baz=116,slow=10,SNR=4.1						
MBWA	Marble Bar	146.04	207	*e*PKPbc	PKPbc	05 22 29.5	-0.9
BJI	Beijing	147.64	343	PKP	PKPdf	05 22 33.5	+1.9
HHC	Hu-ho-hao-te	147.97	349	*e*PKP	PKPdf	05 22 30.4	-1.8
HHC				APKP		05 22 45.1	
HHC				XPKP		05 22 52.9	
HHC				PKS		05 26 04.3	
HHC				SKS	SKSdf	05 29 33.8	-1.9
HHC				SKKS	SKKSac	05 32 48.8	-0.6
HHC				SS	SS	05 45 04.1	+1.8
HHC				LR	LR		
	comp=N,152nm,19.0s,MS5.0						
HHC				LR	LR		
	comp=E,232nm,22.6s,MS5.0						
HHC				LR	LR		
	comp=Z,208nm,20.8s,MS4.9						
GTA	Gaotai	149.82	7	*e*PKP	PKPdf	05 22 36.3	+1.1
GTA				APKP		05 22 47.0	
GTA				PKP2	PKPab	05 22 49.6	+4.1
NJ2	Nanjing	153.65	331	*e*PKP	PKPdf	05 22 41.9	+0.7
CD2	Chengdu	158.56	1	*e*PKP	PKPdf	05 22 46.3	-1.4
GYA	Guiyang	162.84	352	*e*PKP	PKPdf	05 22 50.4	-2.1
GYA				APKP		05 23 06.8	
GYA				XPKP		05 23 12.0	
GYA				PKP2	PKPab	05 23 42.3	+0.9
GYA				PKS		05 26 22.8	
GYA				PP	PP	05 27 27.8	+3.1
GYA				SKS	SKSdf	05 29 48.4	-4.0
GYA				PP	PP		
	comp=Z,100nm,7.9s						
GYA				LR	LR		
	comp=N,130nm,20.7s						
GYA				LR	LR		
	comp=E,180nm,21.9s						
GYA				LR	LR		
	comp=Z,140nm,20.5s						
KMI	Kunming	164.27	5	PKP	PKPdf	05 22 50.8	-3.0

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*IDC **25** 05:06:07.9±0.8, 25.36N×145.36E, h0^{km}, mb3.8/9, mb1 4.1/12, mb1mx3.9/22, mbtmp3.9/12, ML3.9/3, MS3.1/5, Ms1 3.1/5, ms1mx2.9/39, Error ellipse: s-maj=26.6km s-min=19.2km az=44.0*

*ISCJB **25** 05:06:08.1±0.7, 25.4N±0.1×145.35E±0.10, h10^{km}, mb3.9/12, MS4.0/1, Error ellipse: s-maj=17.1km s-min=10.0km az=32.2*

*NEIC **25** 05:06:09.3±0.5, 25.37N×145.50E, h10^{km}, mb4.4/3, Error ellipse: s-maj=17.0km s-min=9.8km az=49.0*

*MOS **25** 05:06:10.3±1.5, 25.52N×145.69E, h33^{km}, mb4.6/3, Error ellipse: s-maj=32.5km s-min=12.6km az=119.8*

ISC 25 05:06:10.1±0.7**, 25.44N**±0.09×**145.36E**±0.10**, h10**^{km}**, n36, σ0^{s}.99**/30**, mb3.9**/12**, MS4.0**/1**, North Pacific Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	3.29	301	Pn	Pn	05 06 59.8	-2.0
	11nm,0.3s,baz=268,slow=23,SNR=3.6						
CBIJ				Sn	Sn	05 07 41.0	+0.1
	66nm,0.3s,baz=266,slow=22,SNR=11						
GUMO	Guam	11.80	182	LR	LR	05 12 30.8	
	comp=Z,47nm,21.4s,baz=285,slow=33						
MJAR	Matsushiro Arr	12.64	333	Pn	Pn	05 09 10.2	+0.2
MJAR				Sn	Sn	05 11 28.2	-2.6
MJAR	Matsushiro Arr	12.64	333	Pn	Pn	05 09 10.2	+0.2
	1.8nm,0.3s,baz=152,slow=12,SNR=17						
MJAR				Sn	Sn	05 11 28.2	-2.6
	0.2nm,0.3s,baz=90,slow=11,SNR=5.1						
MAJO	Matsushiro	12.64	333	*e*Pn	Pn	05 09 10.6	+0.5
	6.0nm,0.4s						
MAJO	Matsushiro	12.64	333	*e*P	Pn	05 09 10.6	+0.6
MAJO				pmax	pmax		
	comp=Z,6.0nm,0.4s						
MAT	Matsushiro	12.64	333	P	Pn	05 09 10.3	+0.3
MAT				S	Sn	05 11 25.6	-5.3
JNU	Nakatsue	14.76	305	LR	LR	05 15 02.8	
	comp=Z,54nm,20.4s,baz=4.1,slow=36						
ASAJ	Asahikawa	18.77	354	P	Pn	05 10 30.9	+1.2
	comp=Z,0.6nm,0.3s,baz=223,slow=10,SNR=4.2						
ASAJ				LR	LR	05 15 59.6	
	comp=Z,53nm,21.6s,baz=235,slow=31						
KSRS	Korea Array	19.06	313	P	Pn	05 10 40.1	+6.8
	comp=Z,0.1nm,0.3s,baz=130,slow=11,SNR=3.5						
KSRS				LR	LR	05 16 39.9	
	comp=Z,27nm,18.8s,baz=330,slow=33						
LZH	Lanzhou	36.97	297	*e*P	P	05 13 21.1	+1.4
	comp=Z,18nm,1.4s,mb4.7						
LZH				pP	pP	05 13 26.3	+3.5
LZH				sP	sP	05 13 28.0	+4.0
LZH	Lanzhou	36.97	297	*e*P	P	05 13 21.1	+1.4
LZH				*SP	sP	05 13 28.0	+4.0
LZH				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.7						
ULN	Ulaanbaatar	37.47	317	*e*P	P	05 13 25.8	+2.0
	comp=Z,1.6nm,0.6s,mb4.0						
ULN	Ulaanbaatar	37.47	317	*e*P	P	05 13 25.8	+2.0
ULN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
SONM	Songino Array	37.87	316	P	P	05 13 26.9	-0.2
	comp=Z,0.7nm,0.7s,mb3.5,baz=116,slow=9.1,SNR=5.6						
WRA	Warramunga Arr	46.37	194	P	P	05 14 35.3	-1.4
	comp=Z,0.6nm,0.4s,mb3.9,baz=6.1,slow=8.4,SNR=3.4						
ZALV	Zalesovo Beam	52.59	320	P	P	05 15 24.4	+0.5
	comp=Z,0.3nm,0.4s,mb3.6,baz=92,slow=8.9,SNR=4.0						
ZALV				PcP	PcP	05 16 33.5	-0.5
	comp=Z,0.6nm,0.4s,baz=112,slow=4.0,SNR=3.8						
ZAL	Zalesovo	52.60	320	P	P	05 15 24.4	+0.4
ZAL						05 16 33.5	
MK31	Makanchi Array	53.71	311	*e*P	P	05 15 32.5	+0.3
MKAR	Makanchi Array	53.71	311	P	P	05 15 33.1	+0.8
	comp=Z,0.3nm,0.5s,mb3.5,baz=81,slow=8.9,SNR=5.4						
MKAR				PcP	PcP	05 16 37.6	-0.7
	comp=Z,0.5nm,0.7s,baz=69,slow=6.6,SNR=4.2						
KURK	Kurchatov	56.16	315	*e*P	P	05 15 50.3	+0.4
	comp=Z,6.8nm,1.4s,mb4.5						
KURK	Kurchatov	56.16	315	*e*P	P	05 15 50.3	+0.4
KURK				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.5						
YKA	Yellowknife Ar	72.23	29	P	P	05 17 34.9	-0.3
	comp=Z,0.6nm,0.7s,mb3.6,baz=290,slow=5.6,SNR=7.2						
NVAR	Mina Array Bea	79.28	53	P	P	05 18 15.7	-0.3
	comp=Z,0.9nm,0.7s,mb3.8,baz=277,slow=3.6,SNR=5.4						
FINES	FINESS Array B	80.66	335	P	P	05 18 22.7	-0.3
	comp=Z,1.7nm,0.6s,mb4.2,baz=62,slow=4.5,SNR=15						
FINES				LR	LR	05 57 24.7	
	comp=Z,77nm,19.9s,MS4.0,baz=180,slow=38						
PDAR	Pinedale Array	83.35	46	P	P	05 18 36.8	-0.8
	comp=Z,0.3nm,0.6s,mb3.5,baz=318,slow=2.4,SNR=2.5						
NB2	NORSAR Subarra	86.17	340	P	P	05 18 50.4	-1.0
	comp=Z,4.5nm,1.1s,mb4.6,baz=40,slow=5.1						
NOA	NORSAR Array B	86.17	340	P	P	05 18 50.4	-1.0
	comp=Z,1.7nm,0.8s,mb4.3,baz=44,slow=4.9,SNR=4.0						
TORD	Torodi Ar. Bea	127.80	313	PKP	PKPdf	05 25 15.8	-1.0
TORD	Torodi Ar. Bea	127.80	313	PKP	PKPdf	05 25 15.8	-1.0
	comp=Z,0.2nm,0.5s,baz=28,slow=2.5,SNR=6.2						
LPAZ	La Paz	147.49	80	*e*PKPbc	PKPbc	05 25 55.8	+0.6
LPAZ	La Paz	147.49	80	*e*PKP2	PKPbc	05 25 55.8	+0.6
LPAZ	La Paz	147.49	80	PKPbc	PKPbc	05 25 55.9	+0.7
	comp=Z,1.9nm,0.7s,baz=309,slow=4.0,SNR=7.1						
LCO	Las Campanas	147.82	105	*e*PKPbc	PKPbc	05 25 53.4	-2.4
CFAA	Coronel Fontan	149.93	110	PKPbc	PKPbc	05 26 00.4	-0.6
CFAA	Coronel Fontan	149.93	110	PKPbc	PKPbc	05 26 00.4	-0.7
	comp=Z,0.5nm,0.2s,baz=198,slow=9.5,SNR=45						

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*ISCJB **25** 05:09:07.8±2.9, 5.9S±0.1×128.7E±0.2, h301^{km}±31^{km}, mb3.4/2, Error ellipse: s-maj=37.9km s-min=13.3km az=161.9*

*IDC **25** 05:09:15.9±3.9, 6.20S×128.34E, h376^{km}±44^{km}, mb3.0/2, mb1 3.0/5, mb1mx2.9/15, mbtmp2.9/5, Error ellipse: s-maj=64.7km s-min=12.3km az=72.0*

ISC 25 05:09:14.0±2.9**, 6.14S**±0.09×**128.4E**±0.2**, h353**^{km}±34^{km}**, n5, σ0^{s}.52**/8**, mb3.4**/2**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	12.19	192	P	P	05 11 57.1	-0.4
	0.5nm,0.3s,baz=18,slow=13,SNR=23						
FITZ				S	S	05 14 13.2	+0.3
	0.2nm,0.3s,baz=48,slow=19,SNR=2.4						
WRA	Warramunga Arr	14.90	158	P	P	05 12 27.3	-0.2
	0.3nm,0.3s,baz=334,slow=12,SNR=5.5						
WRA				S	S	05 15 08.2	+0.4
	0.2nm,0.3s,baz=332,slow=21,SNR=3.3						
ASAR	Alice Springs	18.23	164	P	P	05 13 03.7	+0.5
	0.3nm,0.3s,baz=344,slow=12,SNR=14						
ASAR				S	S	05 16 12.6	-0.6
	0.1nm,0.3s,baz=342,slow=20,SNR=9.1						
SONM	Songino Array	57.12	343	P	P	05 18 24.6	-0.1
	0.2nm,0.5s,mb2.7,baz=156,slow=8.8,SNR=2.7						
MKAR	Makanchi Array	66.62	327	P	P	05 19 27.6	+0.1
	1.2nm,0.4s,mb4.0,baz=126,slow=7.6,SNR=23						

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*CSEM **25** 05:13:02.1±0.1, 38.36N×39.25E, h8^{km}, MD2.8, Error ellipse: s-maj=3.5km s-min=2.8km az=2.0*

*ISK **25** 05:13:02.3, 38.36N×39.24E, h12^{km}, MD2.8*

*ISCJB **25** 05:13:03.2±0.7, 38.44N±0.05×39.25E±0.04, h12^{km}, Error ellipse: s-maj=7.3km s-min=3.9km az=12.3*

*DDA **25** 05:13:03.1, 38.35N×39.24E, h2^{km}±4^{km}, Md2.8*

ISC 25 05:13:03.5±0.7**, 38.39N**±0.05×**39.26E**±0.04**, h2**^{km}±7^{km}**, n15, σ0^{s}.91**/24**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.24	297	*i* P	Pg	05 13 08.5	+0.3
ELZG				*i* S	Sg	05 13 12.6	+1.2
PTK	Pertek	0.51	11	PG	Pg	05 13 13.5	+0.1
PTK	Pertek	0.51	11	*e*Pg	Pg	05 13 13.5	+0.1
MALT	Malatya	0.66	264	PG	Pg	05 13 14.8	-1.3
MALT				SG	Sg	05 13 23.6	-1.1
MALT	Malatya	0.66	264	*e*Pg	Pg	05 13 14.8	-1.3
MALT				*e*Sg	Sg	05 13 23.6	-1.1
MYA	Malataya	0.66	265	PG	Pg	05 13 15.5	-0.6
MYA				SG	Sg	05 13 25.1	+0.4
MYA	Malataya	0.66	265	*e*Pg	Pg	05 13 15.5	-0.6
MYA				*e*Sg	Sg	05 13 25.1	+0.4
DIYA	Diyarbakir	0.82	124	*i* P	Pg	05 13 19.9	+0.7
DIYA				*i* S	Sg	05 13 31.5	+1.6
DIY	Diyarbakir	0.91	123	*e*PG	Pg	05 13 19.8	-1.0
DIY	Diyarbakir	0.91	123	*e*Pg	Pg	05 13 19.8	-1.0
URFA	Urfa	1.01	200	*e*PG	Pg	05 13 21.6	-1.2
URFA	Urfa	1.01	200	*e*Pg	Pg	05 13 21.6	-1.2
ATAB	Bozova	1.19	220	*i* P	Pg	05 13 26.1	-0.3
ATAB				*i* S	Sg	05 13 43.0	+1.2
MARD	Mardin	1.61	131	*i* P	Pn	05 13 32.4	-0.5
MARD				*i* S	Sn	05 13 53.4	-0.8
GZT	Gaziantep	1.69	233	*i* P	Pn	05 13 34.3	+0.3
GZT				*i* S	Sn	05 13 57.3	+1.0

MEX 25 05:20:15.1±0.4**, 16.99N**×**100.25W, h7**^{km}±6^{km}**, MD3.5, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.06	348	*i* P	Pg	05 20 16.5	-0.4
CAIG				*i* S	Sg	05 20 17.3	-0.7
ACX	Acapulco	0.34	110	*i* P	Pg	05 20 20.5	-1.3
ACX				*i* S	Sg	05 20 27.0	+0.7
MEIG	Mezcala	1.11	33	*e*P	Pg	05 20 33.5	-3.0
MEIG				*i* S	Sg	05 20 47.5	-3.5

IDC 25 05:24:29.5±7.5**, 18.21S**×**167.76E, h94**^{km}±67^{km}**, mb3.4**/3**, mb1 3.6**/4**, mb1mx3.4**/13**, mbtmp3.4**/4**, ML4.0**/1**, MS3.3**/1**, Ms1 3.3**/1**, ms1mx2.6**/16**, Error ellipse: s-maj=61.9km s-min=44.9km az=166.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	4.04	198	*e*P	Pn	05 25 28.7	-0.5
DZM				*e*S	Sn	05 26 16.4	+1.0
DZM	Mont Dzumac	4.04	198	P	Pn	05 25 28.8	-0.3
	10nm,0.3s,baz=36,slow=15,SNR=312						
DZM				S	Sn	05 26 16.3	+0.9
	18nm,0.3s,baz=127,slow=22,SNR=16						
NOUC	Port Laguerre	4.11	199	*e*P	Pn	05 25 29.6	-0.5
CTA	Charters Tower	20.40	261	LR	LR	05 35 01.4	
	comp=Z,82nm,20.5s,baz=50,slow=31						
STKA	Stephens Creek	27.24	235	P	P	05 30 04.8	0.0
	2.1nm,0.7s,baz=79,slow=7.3,SNR=3.0						
WRA	Warramunga Arr	31.60	261	P	P	05 30 42.8	-0.7
	0.4nm,0.3s,baz=93,slow=8.7,SNR=2.6						
ASAR	Alice Springs	32.03	254	P	P	05 30 47.7	+0.4
	0.8nm,0.7s,baz=83,slow=8.5,SNR=9.7						
ARCES	ARCESS Array B	123.71	345	PKP	PKPdf	05 43 15.7	+0.1
	1.4nm,0.8s,baz=51,slow=1.8,SNR=8.6						

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*ISCJB **25** 05:28:38.2±0.5, 0.97S±0.09×127.3E±0.2, h10^{km}, mb4.0/9, MS3.0/1, Error ellipse: s-maj=28.9km s-min=8.6km az=159.4*

*IDC **25** 05:28:38.4±1.1, 0.98S×127.16E, h0^{km}, mb3.8/7, mb1 4.0/8, mb1mx3.9/19, mbtmp3.9/8, ML3.3/1, MS3.1/1, Ms1 3.1/1, ms1mx2.8/25, Error ellipse: s-maj=113.9km s-min=16.8km az=70.0*

*NEIC **25** 05:28:40.4±0.5, 0.99S×127.20E, h10^{km}, mb4.1/4, Error ellipse: s-maj=27.4km s-min=8.5km az=70.0*

ISC 25 05:28:40.5±0.5**, 0.99S**±0.09×**127.2E**±0.2**, h10**^{km}**, n18, σ1^{s}.04**/17**, mb4.0**/9**, MS3.0**/1**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	12.75	156	*e*P	Pn	05 31 41.7	-0.3
	6.2nm,0.6s						
FITZ	Fitzroy Crossi	17.07	185	*e*P	Pn	05 32 39.6	+0.2
	8.6nm,2.0s						
FITZ	Fitzroy Crossi	17.07	185	P	Pn	05 32 39.9	+0.5
	0.1nm,0.3s,baz=15,slow=14,SNR=2.4						
WRA	Warramunga Arr	20.09	160	P	P	05 33 13.2	-1.1
	1.9nm,0.5s,baz=338,slow=11,SNR=5.9						
WB2	Warramunga Arr	20.09	160	*e*P	P	05 33 13.4	-1.0
COEN	Coen	20.39	130	*e*P	P	05 33 19.3	+1.6
MBWA	Marble Bar	21.33	199	*e*P	P	05 33 29.5	+1.7
	5.8nm,0.9s,mb3.9						
GUMO	Guam	22.73	50	LR	LR	05 41 40.8	
	comp=Z,57nm,21.4s,MS3.0,baz=133,slow=34						
ASAR	Alice Springs	23.46	164	P	P	05 33 49.2	-1.2
	2.1nm,0.6s,mb3.8,baz=344,slow=10,SNR=28						
STKA	Stephens Creek	33.60	158	P	P	05 35 21.9	+0.9
	1.7nm,0.5s,mb4.3,baz=326,slow=9.5,SNR=3.1						
ULN	Ulaanbaatar	51.73	343	*e*P	P	05 37 49.3	+1.4
	2.7nm,0.8s,mb4.2						
SONM	Songino Array	51.90	342	P	P	05 37 49.6	+0.4
	1.3nm,0.7s,mb4.0,baz=152,slow=8.0,SNR=8.9						
MK31	Makanchi Array	61.70	327	*e*P	P	05 38 60.0	+1.1
MKAR	Makanchi Array	61.70	327	P	P	05 38 58.9	0.0
	0.9nm,0.4s,mb4.3,baz=119,slow=8.1,SNR=13						
ZALV	Zalesovo Beam	64.99	334	P	P	05 39 18.7	-1.8
	0.3nm,0.4s,mb3.7,baz=125,slow=7.6,SNR=2.5						
BRVK	Borovoye	71.59	328	*e*P	P	05 40 01.6	-0.3
	2.1nm,0.7s,mb4.2						
AKTK	Aktyubinsk	77.64	322	P	P	05 40 36.3	-0.8
AKTO	Aktyubinsk	77.64	322	P	P	05 40 36.3	-0.8
	1.2nm,0.8s,mb3.9,baz=108,slow=9.6,SNR=5.4						

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*NNC **25** 05:32:21.7±1.8, 41.93N×76.43E, h0^{km}, mb2.6, mpv2.6, Error ellipse: s-maj=10.9km s-min=6.4km az=176.0*

*ISCJB **25** 05:32:23.5±1.3, 42.04N±0.06×76.46E±0.07, h10^{km}, Error*

ellipse: s-maj=8.7km s-min=6.8km az=153.0

*KNET **25** 05:32:23.4±0.6, 4194N×7623E, h3^{km}±3^{km}, ml2.1, Error ellipse: s-maj=4.0km s-min=2.3km az=125.0*

ISC 25 05:32:23.5±1.3, **4198N**±006×**7643E**±007, **h10^{km}, n13, σ1^{s}33**/22, **9C-14D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ULHL	Ulahol	0.30	333	P	Pg	05 32 28.9	-0.6
	38nm,0.1s,SNR=482						
ULHL				⇑S	Sg	05 32 34.4	+0.9
	314nm,0.1s						
TKM2	Tokmak 2	1.12	327	⇓P	Pg	05 32 43.7	-1.4
	9.2nm,0.1s,SNR=13						
TKM2				⇓S	Sg	05 33 00.3	+0.6
	61nm,0.1s						
TKM2	Tokmak 2	1.12	327	⇓P	Pg	05 32 43.7	-1.4
	0.1nm,0.2s						
TKM2				⇓S	Sg	05 33 00.1	+0.5
	1.3nm,0.3s						
KBK	Karagaybulak	1.29	302	⇑P	Pg	05 32 46.7	-1.5
	10nm,0.1s,SNR=35						
KBK				⇓S	Sg	05 33 04.9	0.0
	30nm,0.2s						
KNDC	Almaty	1.30	18	⇑P	Pg	05 32 46.8	-1.7
	27nm,0.2s						
KNDC				⇑S	Sg	05 33 05.5	+0.2
	47nm,0.3s						
UCH	Uchtor	1.45	281	⇑P	Pg	05 32 48.6	-2.6
	3.1nm,0.2s,SNR=13						
UCH				⇓S	Sg	05 33 07.6	-2.3
	11nm,0.2s						
AAK	Ala-Archa	1.57	295	⇓P	Pn	05 32 51.3	-0.2
	4.1nm,0.1s,SNR=14						
AAK				⇓S	Sn	05 33 13.0	+1.2
	16nm,0.2s						
CHMS	Chumysh	1.60	310	⇓P	Pn	05 32 51.9	+0.1
	4.9nm,0.1s,SNR=5.0						
CHMS				⇑S	Sn	05 33 14.8	+2.2
	17nm,0.2s						
USP	Ospenovka	1.92	313	⇓P	Pn	05 32 57.5	+1.3
	23nm,0.2s,SNR=18						
USP				⇑S	Sg	05 33 24.4	-0.7
	18nm,0.2s						
AML	Almayashu	2.04	275	⇓P	Pn	05 32 59.4	+1.6
	9.3nm,0.2s,SNR=8.5						
EKS2	Erkin-Say	2.08	290	⇑P	Pn	05 33 01.1	+2.7
	8.4nm,0.4s,SNR=10						
KK31	Karatay Array	4.51	286	⇓Pg	Pb	05 33 43.2	+0.5
	0.4nm,0.5s,baz=100,slow=16,SNR=5.8						
KK31				⇑Lg		05 34 46.2	
	5.9nm,0.8s,baz=97,slow=25						
MK31	Makanchi Array	6.39	39	⇓Pg	Pg	05 34 19.0	-6.8
	0.3nm,0.7s,baz=228,slow=16,SNR=3.6						
MK31				⇓Lg		05 35 45.2	
	0.7nm,0.6s						

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*SOF **25** 05:34:27.7, 4055N×2380E, h15^{km}, MD3.0*

*ISCJB **25** 05:34:29.8±0.4, 4059N±002×2386E±003, h1^{km}±4^{km}, Error ellipse: s-maj=3.3km s-min=2.8km az=12.5*

*ATH **25** 05:34:30.6, 4063N×2378E, h24^{km}±2^{km}, MD3.5/6*

*THE **25** 05:34:30.7, 4057N×2385E, h3^{km}, ML3.0*

*NEIC **25** 05:34:30.6, 4063N×2378E, h24^{km}, MD3.5(ATH), MD3.0(SOF), After ATH.*

*CSEM **25** 05:34:30.8±0.1, 4060N×2387E, h12^{km}, ML3.0, Error ellipse: s-maj=1.4km s-min=1.1km az=110.0*

ISC 25 05:34:30.7±0.4, **4057N**±002×**2387E**±003, **h5^{km}**±4^{km}, **n83, σ0^{s}96**/121, **9C-1D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OUR	Ouranopolis	0.25	160	ePg	Pg	05 34 36.4	+0.9
OUR	Ouranopolis	0.25	160	ePg	Pg	05 34 36.4	+0.9
PLG	Polygyros	0.38	239	⇑iPb	Pg	05 34 38.3	+0.4
PLG				eSb	Sg	05 34 43.4	+0.6
PLG	Polygyros	0.38	239	ePg	Pg	05 34 38.3	+0.3
PLG				eSg	Sg	05 34 43.5	+0.6
PLG	Polygyros	0.38	239	⇑iPB	Pg	05 34 38.3	+0.4
PLG				eSB	Sg	05 34 43.4	+0.6
PLG	Polygyros	0.38	239	ePg	Pg	05 34 38.3	+0.4
PLG				eSg	Sg	05 34 43.5	+0.7
SOH	Sokhos	0.46	303	ePg	Pg	05 34 39.3	-0.4
SOH				eSg	Sg	05 34 45.9	+0.3
SOH	Sokhos	0.46	303	ePg	Pg	05 34 39.3	-0.3
SOH				eSg	Sg	05 34 45.9	+0.2
HORT	Hortiatis	0.58	273	ePg	Pg	05 34 41.3	-0.6
HORT				eSg	Sg	05 34 50.0	+0.4
HORT	Hortiatis	0.58	273	ePg	Pg	05 34 41.3	-0.6
HORT				eSg	Sg	05 34 50.0	+0.5
PAIG	Paliouri	0.66	193	ePg	Pg	05 34 43.6	+0.3
PAIG				eSg	Sg	05 34 52.5	+0.6
PAIG	Paliouri	0.66	193	ePg	Pg	05 34 43.6	+0.3
PAIG				eSg	Sg	05 34 52.5	+0.7
THE	Thessaloniki	0.69	275	ePg	Pg	05 34 44.0	+0.1
THE				eSg	Sg	05 34 53.2	+0.4
THE	Thessaloniki	0.69	275	ePg	Pg	05 34 44.0	+0.1
THE				eSg	Sg	05 34 53.2	+0.3
NVR	Nevrokopi	0.78	360	⇑ePn	Pg	05 34 44.8	-0.9
NVR				eSn	Sg	05 34 55.3	-0.5
NVR	Nevrokopi	0.78	360	⇑ePN	Pg	05 34 44.8	-0.9
NVR				eSN	Sg	05 34 55.3	-0.5
NVR	Nevrokopi	0.78	360	⇑ePn	Pg	05 34 44.8	-0.9
NVR				eSn	Sg	05 34 55.3	-0.5
KNT	Kendrikon	0.94	309	ePg	Pg	05 34 48.0	-0.8
KNT				eSg	Sg	05 35 01.8	+0.7
KNT	Kendrikon	0.94	309	ePg	Pg	05 34 48.0	-0.8
KNT				eSg	Sg	05 35 01.8	+0.8
MMB	Musomiste	1.02	354	i Pg	Pg	05 34 48.6	-1.7
MMB	Musomiste	1.02	354	i Pg	Pg	05 34 48.6	-1.7
MMB	Musomiste	1.02	354	i Pg	Pg	05 34 48.6	-1.7
LIT	Litokhoron	1.15	246	ePg	Pg	05 34 52.4	-0.3
LIT				eSg	Sg	05 35 08.8	+1.1
LIT	Litokhoron	1.15	246	ePg	Pg	05 34 52.4	-0.4
LIT				eSg	Sg	05 35 08.8	+1.1
GRG	Griva	1.18	290	ePg	Pg	05 34 52.5	-0.7
GRG				eSg	Sg	05 35 10.3	+1.7
GRG	Griva	1.18	290	ePg	Pg	05 34 52.5	-0.8
GRG				eSg	Sg	05 35 10.3	+1.7
LIA	Limnos Island	1.21	123	ePn	Pg	05 34 55.8	+1.9
LIA	Limnos Island	1.21	123	ePN	Pg	05 34 55.8	+1.9
LIA	Limnos Island	1.21	123	ePn	Pg	05 34 55.8	+1.9
VAY	Valandovo	1.24	308	ePg	Pg	05 34 53.8	-0.6
VAY				eSg	Sg	05 35 11.3	+0.9
VAY	Valandovo	1.24	308	ePg	Pg	05 34 54.2	-0.2
VAY				eSg	Sg	05 35 10.0	-0.4
VAY	Valandovo	1.24	308	ePg	Pg	05 34 53.8	-0.6
VAY				eSg	Sg	05 35 11.4	+1.0
RZN	Rozhen	1.29	30	i Pg	Pg	05 34 55.5	+0.1
RZN	Rozhen	1.29	30	i Pg	Pg	05 34 55.5	+0.1
RZN	Rozhen	1.29	30	i Pg	Pg	05 34 55.5	+0.1
XOR	Xorichti	1.31	204	ePg	Pg	05 34 54.6	-1.2
XOR	Xorichti	1.31	204	ePg	Pg	05 34 54.6	-1.2
NEO	Neokhori	1.35	202	ePn	Pn	05 34 56.2	-0.1
NEO	Neokhori	1.35	202	ePN	Pn	05 34 56.2	-0.1
NEO	Neokhori	1.35	202	ePn	Pn	05 34 56.2	-0.1
RDO	Rodhopi	1.39	65	ePn	Pn	05 34 56.9	+0.1
RDO				eSn	Sn	05 35 15.7	+0.2
RDO	Rodhopi	1.39	65	ePN	Pn	05 34 56.9	+0.1
RDO				eSN	Sn	05 35 15.7	+0.2
RDO	Rodhopi	1.39	65	ePn	Pn	05 34 56.9	+0.1
RDO				eSn	Sn	05 35 15.7	+0.2
AOS	Alonnisos	1.40	180	ePg	Pg	05 34 56.6	-0.9
AOS	Alonnisos	1.40	180	ePg	Pg	05 34 56.6	-0.9
KKB	Krupnik	1.42	336	i Pg	Pn	05 34 54.9	-2.3
KKB	Krupnik	1.42	336	i Pg	Pn	05 34 54.9	-2.3
KKB	Krupnik	1.42	336	i Pg	Pn	05 34 54.9	-2.3
KDZ	Kurdzhali	1.59	47	i Pg	Pn	05 34 59.2	-0.3
KDZ	Kurdzhali	1.59	47	i Pg	Pn	05 34 59.2	-0.3
KDZ	Kurdzhali	1.59	47	i Pg	Pn	05 34 59.2	-0.3
PLD	Plovdiv	1.66	22	i Pg	Pg	05 35 02.4	-0.1
PLD	Plovdiv	1.66	22	ePb	Pb	05 35 00.9	-0.8
PLD				eSb	Sb	05 35 24.2	+1.3
PLD	Plovdiv	1.66	22	i Pg	Pg	05 35 02.4	-0.1
PLD	Plovdiv	1.66	22	i Pg	Pg	05 35 02.4	-0.1
ALN	Alexandroupoli	1.69	78	ePb	Pn	05 34 59.4	-1.5
ALN				eSb	Sb	05 35 25.1	+1.4
ALN	Alexandroupoli	1.69	78	ePb	Pn	05 34 59.4	-1.4
ALN				eSb	Sb	05 35 25.1	+1.3
STIP	Stip	1.69	312	ePb	Pb	05 35 00.7	-1.7
STIP				eSb	Sb	05 35 24.2	+0.2
STIP	Stip	1.69	312	ePn	Pg	05 35 02.8	-0.4
STIP				eSn	Sg	05 35 24.4	-0.7
THL	Klokotos Trika	1.74	235	ePN	Pn	05 35 01.6	0.0
THL	Klokotos Trika	1.74	235	ePn	Pn	05 35 01.6	0.0
FNA	Florina	1.91	277	ePb	Pn	05 35 03.1	-0.7
FNA	Florina	1.91	277	ePb	Pn	05 35 03.1	-0.7
AGG	Agios Georgios	1.95	218	ePb	Pn	05 35 04.2	-0.2
AGG				eSb	Sb	05 35 30.8	-0.4
AGG	Agios Georgios	1.95	218	ePb	Pn	05 35 04.2	-0.2
AGG				eSb	Sb	05 35 30.8	-0.4
PGB	Panagyurishte	1.99	6	i Pg	Pb	05 35 06.9	-0.5
PGB	Panagyurishte	1.99	6	i Pg	Pb	05 35 06.9	-0.5
PGB	Panagyurishte	1.99	6	i Pg	Pb	05 35 06.9	-0.5
VTS	Vitosha	2.08	346	i Pg	Pg	05 35 09.4	-1.1
VTS	Vitosha	2.08	346	ePn	Pn	05 35 06.0	-0.2
VTS				eSn	Sn	05 35 33.3	+0.7
VTS	Vitosha	2.08	346	i Pg	Pg	05 35 09.4	-1.1
VTS	Vitosha	2.08	346	ePn	Pn	05 35 06.0	-0.2
VTS	Vitosha	2.08	346	⇑iP	Pn	05 35 07.8	+1.6
VTS	Vitosha	2.08	346	i Pg	Pg	05 35 09.4	-1.1
VTS				eSn	Sn	05 35 33.3	+0.8
KRUS	Krusevo	2.14	293	ePn	Pn	05 35 06.8	-0.3
BARS	Barje	2.72	326	Pn	Pn	05 35 17.0	+2.0
BARS				Sg	Sg	05 35 58.4	+0.4
DID	Didima	3.10	189	ePn	Pn	05 35 19.2	-1.1
DID	Didima	3.10	189	ePn	Pn	05 35 19.2	-1.0
DIVS	Divcibare	4.55	322	Pn	Pn	05 35 39.2	-0.9
DIVS				Sg	Sg	05 36 58.6	+1.9
VOIR		4.94	10	⇑iP	Pn	05 35 47.5	+1.9
MLR	Muntele Rosu	5.15	17	⇓iP	Pn	05 35 50.1	+1.7
BZS	Buzias	5.31	343	⇑iP	Pn	05 35 49.3	-1.3
VRI	Vrincioaia	5.69	21	⇑iP	Pn	05 35 56.8	+0.9

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*ISCJB **25** 06:01:48.0±0.6, 3838N±003×3927E±003, h1^{km}±7^{km}, Error ellipse: s-maj=4.8km s-min=4.1km az=156.8*

*CSEM **25** 06:01:47.7±0.1, 3840N×3924E, h5^{km}, MD3.2*

*DDA **25** 06:01:47.7, 3844N×3939E, h2^{km}, Md3.2*

*ISK **25** 06:01:47.5, 3839N×3923E, h2^{km}, MD3.3*

ISC 25 06:01:48.9±0.5, **3839N**±003×**3926E**±003, **h8^{km}**±5^{km}, **n27, σ0^{s}93**/42, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.24	296	i P	Pg	06 01 53.2	-0.4
ELZG				i S	Sg	06 01 59.1	+2.2
ELZG	Elazig	0.24	296	i P	Pg	06 01 53.2	-0.5
PTK	Pertek	0.51	12	PG	Pg	06 01 58.2	-0.5
PTK				SG	Sg	06 02 05.8	+0.4
PTK	Pertek	0.51	12	ePg	Pg	06 01 58.2	-0.5
PTK				eSg	Sg	06 02 05.8	+0.4
MALT	Malatya	0.66	263	PG	Pg	06 02 00.3	-1.3
MALT				SG	Sg	06 02 10.4	+0.2
MALT	Malatya	0.66	263	ePg	Pg	06 02 00.3	-1.3
MALT				eSg	Sg	06 02 10.4	+0.2
MYA	Malataya	0.66	264	PG	Pg	06 02 00.6	-1.0
MYA				SG	Sg	06 02 10.8	+0.6
MYA	Malataya	0.66	264	ePg	Pg	06 02 00.6	-1.0
MYA				eSg	Sg	06 02 10.8	+0.6
DIY	Diyarbakir	0.91	123	PG	Pg	06 02 06.1	-0.2
DIY				SG	Sg	06 02 19.5	+1.4
DIY	Diyarbakir	0.91	123	ePg	Pg	06 02 06.1	-0.2
DIY				eSg	Sg	06 02 19.5	+1.4
URFA	Urfa	1.01	200	PG	Pg	06 02 07.2	-1.1
URFA				SG	Sg	06 02 22.0	+0.6
URFA	Urfa	1.01	200	ePg	Pg	06 02 07.2	-1.1
URFA				eSg	Sg	06 02 22.0	+0.6
BINT	Bingol	1.08	63	PN	Pn	06 02 09.5	-0.7
BINT	Bingol	1.08	63	ePn	Pn	06 02 09.5	-0.7
ATAB	Bozova	1.20	220	i P	Pb	06 02 11.2	-0.6
ATAB				i S	Sb	06 02 28.7	+1.3
EZC	Erzincan	1.42	18	PN	Pn	06 02 15.1	+0.1
MARD	Mardin	1.61	131	i P	Pn	06 02 16.5	-1.1
MARD				i S	Sn	06 02 39.0	+0.4
GZT	Gaziantep	1.70	233	i P	Pn	06 02 17.8	-0.9
GZT				i S	Sn	06 02 45.2	+4.5
BTMT	Batman	1.76	96	PN	Pn	06 02 18.9	-0.8
GAZ	Gaziantep	2.03	234	ePN	Pn	06 02 24.1	+0.7
GAZ	Gaziantep	2.03	234	ePn	Pn	06 02 24.1	+0.7
EZM	Erzurum	2.23	47	ePN	Pn	06 02 27.0	+1.0
SVSK	Karacayir	2.33	312	ePN	Pn	06 02 27.6	+0.2
SVSK	Karacayir	2.33	312	ePn	Pn	06 02 27.6	+0.2
SIRT	Sirnak	2.67	109	ePN	Pn	06 02 33.2	+1.1
SIRT	Sirnak	2.67	109	ePn	Pn	06 02 33.2	+1.1
COBT	Iskenderun	3.04	233	i P	Pg	06 02 45.4	-1.6
COBT				i S	Sg	06 03 26.9	+0.6

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*ISCJB **25** 06:11:03.3±0.6, 4558N±003×2125E±004, h7^{km}±6^{km}, Error ellipse: s-maj=5.5km s-min=3.9km az=156.9*

*BUC **25** 06:11:03.7±0.2, 4561N×2126E, h13^{km}, MD2.6/3, Error ellipse: s-maj=1.4km s-min=0.7km az=58.0*

*BEO **25** 06:11:04.0±0.4, 4562N×2133E, h15^{km}±3^{km}, ML2.4/6*

ISC 25 06:11:04.3±0.6, **4559N**±003×**2128E**±004, **h12^{km}**±5^{km}, **n14, σ0^{s}81**/26, **2C-2D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BZS	Buzias	0.24	83	⇑iP	Pg	06 11 09.3	0.0
BZS				i S	Sg	06 11 13.4	+0.7
BZS	Buzias	0.24	83	i Pg	Pg	06 11 09.3	0.0
BZS				eSg	Sg	06 11 13.3	+0.6
BEO	Belgrade	0.96	218	ePg	Pg	06 11 21.7	-1.1
BEO				eSg	Sg	06 11 36.9	+1.5
GZR	Gura Zlata	1.07	100	⇑iP	Pb	06 11 24.5	-0.3
GZR				i S	Sb	06 11 39.7	+0.9
FGSL	Fruska Gora	1.12	248	i Pg	Pg	06 11 25.5	-0.4
FGSL				eSg	Sg	06 11 41.2	+0.8
SVIS	Svilajnac	1.29	182	ePg	Pg	06 11 27.3	-1.8
SVIS				eSg	Sg	06 11 46.9	+1.0
DJES	Djerdap	1.30	137	ePg	Pg	06 11 28.0	-1.3
DJES				eSg	Sg	06 11 45.3	-0.8
DRGR		1.56	39	⇓iP	Pn	06 11 31.9	-0.1
DRGR				i S	Sn	06 11 52.4	+0.3
GRUS	Gruza	1.75	194	ePn	Pn	06 11 34.3	-0.1
GRUS				eSg	Sg	06 12 01.2	+0.8
DIVS	Divcibare	1.75	212	ePn	Pn	06 11 33.5	-1.0
DIVS				eSg	Sg	06 12 00.6	+0.1
PKSM	Moragy	1.94	290	ePn	Pn	06 11 36.6	-0.6
PKSM				eSg	Sg	06 12 06.8	0.0
BBLS	Bajina Basta -	2.17	218	ePn	Pn	06 11 40.1	-0.2
BBLS				eSg	Sg	06 12 14.2	0.0
BARS	Barje	2.79	172	ePn	Pn	06 11 49.4	+0.5
BURAR	Bucovina Array	3.39	52	⇓iP	Pn	06 11 58.2	+1.2

WEL 25 06:19:49.0±0.1, **3786S×17700E, h5^{km}, ML3.7**/12, **Error ellipse: s-maj=0.9km s-min=0.6km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MARZ	Manawahe	0.29	243	PG	Pg	06 19 54.9	+0.4
MARZ				SG	Sg	06 19 59.1	+0.9
EDRZ	Edgecumbe	0.32	219	PG	Pg	06 19 55.9	+0.7
EDRZ				SG	Sg	06 20 00.3	+0.9
OPRZ	Ohinepanea	0.35	272	PG	Pg	06 19 55.8	+0.1
WIZ	White Island	0.36	25	PG	Pg	06 19 56.5	+0.5
URZ	Urewera	0.41	168	PG	Pg	06 19 57.3	+0.4
URZ				SG	Sg	06 20 03.6	+1.3
MKRZ	Makatiti	0.51	236	PG	Pg	06 19 59.6	+0.9
LIRZ	Lichensteins R	0.51	253	PG	Pg	06 19 59.3	+0.6
LIRZ				SG	Sg	06 20 06.5	+1.1
TGRZ	Tauranga	0.60	282	PG	Pg	06 20 00.8	+0.4
KARZ	Kaharoa	0.62	254	P*	Pg	06 20 01.4	+0.5
MWZ	Matawai	0.63	139	P*	Pb	06 20 01.5	-1.0
MWZ				S*	Sg	06 20 10.6	+1.2
MYRZ	Mayor Island	0.83	314	P*	Pb	06 20 04.9	-1.0
BKZ	Black Stump Fm	1.37	197	eP*	Pb	06 20 13.3	-1.7
KUZ	Kuaotunu	1.51	317	PN	Pn	06 20 15.6	-1.0
BFZ	Birch Farm	2.88	191	PN	Pn	06 20 34.0	-1.5

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*IDC **25** 06:23:13.8±1.3, 1224N×4638E, h0^{km}, mb3.6/6, mb1 3.7/8, mb1mx3.5/21, mbtmp3.6/8, ML3.4/2, MS3.0/3, Ms1 3.0/3, ms1mx2.8/24, Error ellipse: s-maj=41.1km s-min=20.7km az=156.0*

*ISCJB **25** 06:23:14.0±0.7, 1233N±006×4627E±005, h10^{km}, mb3.6/6, Error ellipse: s-maj=8.0km s-min=7.5km az=13.5*

*CSEM **25** 06:23:16.9, 1244N×4608E, h11^{km}, ML3.6, After DHMR*

*DHMR **25** 06:23:16.9±1.1, 1244N×4608E, h11^{km}±11^{km}, ML3.6*

ISC 25 06:23:16.2±0.7, **1245N**±006×**4608E**±005, **h10^{km}, n16, σ1^{s}68**/25, **mb3.6**/6, **3C-5D, Western Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ADEN	Aden	1.11	287	⇑iP	Pb	06 23 37.6	0.0
ADEN				i S	Sg	06 23 53.6	+1.5
ADEN				AML	AML	06 23 57.0	
	comp=N,3µm,0.6s						
ADEN	Aden	1.11	287	⇑iP	Pb	06 23 37.6	0.0
ADEN				i S	Sg	06 23 53.6	+1.5
	comp=N,2µm,0.6s						
BDHA	Al Bayda’	1.59	342	⇓iP	Pn	06 23 45.9	+1.4
BDHA				i S	Sn	06 24 08.7	+3.6
BDHA				AML	AML	06 24 08.8	
	comp=E,1µm,0.7s						
BDHA				AML	AML	06 24 12.3	
	comp=N,1µm,0.4s						
BDHA	Al Bayda’	1.59	342	⇓iP	Pn	06 23 45.9	+1.4
BDHA				i S	Sn	06 24 08.7	+3.6
	comp=N,533nm,0.4s						
LBOS		1.62	330	⇓iP	Pn	06 23 46.4	+1.5
LBOS				i S	Sn	06 24 08.8	+2.9
TRBA	At Turbah	2.06	292	⇓iP	Pg	06 23 53.1	-2.7
TRBA				i S	Sg	06 24 21.2	-1.4
TRBA				AML	AML	06 24 22.8	
	comp=N,423nm,0.4s						
UDYN	Al ‘Udayn	2.55	307	⇓iP	Pg	06 24 00.8	-4.2
UDYN				i S	Sg	06 24 34.7	-3.4
UDYN				AML	AML	06 24 46.5	
	comp=Z,195nm,0.6s						
DHBB	Dhamar BB	2.67	322	⇑iP	Pg	06 24 02.8	-4.6
DHBB				i S	Sg	06 24 39.7	-2.4
ATD	Arta Tunnel	3.29	254	Pn	Pn	06 24 08.8	+1.0
	comp=Z,5.1nm,0.3s,baz=51,slow=13,SNR=8.3						
ATD				Sn	Sn	06 24 51.7	+4.7
	comp=Z,4.1nm,0.3s,baz=256,slow=24,SNR=2.9						
ATD				LR	LR	06 25 24.2	
	comp=Z,116nm,18.5s,baz=356,slow=37						
KMBO	Kilima Mbogo	16.08	214	Pn	Pn	06 27 02.0	-0.6
	comp=Z,0.1nm,0.3s,baz=46,slow=16,SNR=2.9						
KMBO				LR	LR	06 33 54.4	
	comp=Z,60nm,18.5s,baz=86,slow=40						
TORD	Torodi Ar. Bea	43.24	276	P	P	06 31 21.0	+2.8
	comp=Z,1.1nm,1.1s,mb3.5,baz=81,slow=7.1,SNR=4.5						
GERES	GERESS Array B	45.10	330	P	P	06 31 34.3	+1.8
	comp=Z,0.4nm,0.6s,mb3.4,baz=145,slow=9.3,SNR=3.0						
MKAR	Makanchi Array	45.80	34	P	P	06 31 37.0	-1.2
	comp=Z,0.5nm,0.7s,mb3.5,baz=224,slow=6.8,SNR=5.2						
ZALV	Zalesovo Beam	51.45	28	P	P	06 32 21.6	+0.1
	comp=Z,0.2nm,0.4s,mb3.4,baz=231,slow=9.1,SNR=2.6						
SONM	Songino Array	61.04	42	P	P	06 33 29.0	-1.2
	comp=Z,0.8nm,1.1s,mb3.8,baz=244,slow=7.5,SNR=4.3						
ASAR	Alice Springs	92.96	113	P	P	06 36 27.9	-2.4
	comp=Z,0.5nm,0.8s,mb4.0,baz=289,slow=5.6,SNR=4.2						

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*ISCJB **25** 06:30:59.6±0.6, 4606N±0.10×1548E±0.1, h10^{km}, mb3.8/13, Error ellipse: s-maj=15.1km s-min=9.9km az=152.3*

*IDC **25** 06:31:00.2±0.8, 4606N×15481E, h0^{km}, mb3.7/11, mb1 3.9/12, mb1mx3.8/23, mbtmp3.7/12, ML3.5/1, Error ellipse: s-maj=25.0km s-min=20.4km az=127.0*

*NEIC **25** 06:31:01.7±0.7, 4603N×15489E, h10^{km}, mb4.3/1, Error ellipse: s-maj=20.5km s-min=17.4km az=126.0*

*MOS **25** 06:31:05.6±1.4, 4614N×15454E, h53^{km}, mb4.4/1, Error ellipse: s-maj=17.9km s-min=15.6km az=83.8*

*SKHL **25** 06:31:07.4±1.0, 4647N×15422E, h33^{km}, mb4.7/3*

ISC 25 06:31:00.1±6.1, **461N**±01×**1549E**±02, **h0^{km}**±37^{km}, **n20, σ0^{s}91**/22, **mb3.9**/13, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril’s	4.70	10	eP	Pn	06 32 12.0	-0.2
SKR				AMB	AMB	06 32 14.2	
	80nm,0.5s						
SKR				eS	Sn	06 33 01.2	-6.1
SKR				A		06 33 05.5	
	200nm,0.3s						
SKR				A		06 33 05.5	
	290nm,0.3s						
KUR	Kuril’sk	4.97	263	eP	Pn	06 32 15.0	-0.9
KUR				AMB	AMB	06 32 19.5	
	80nm,0.5s						
KUR				eS	Sn	06 33 05.0	-9.1
KUR				A		06 33 08.5	
	300nm,0.5s						
KUR				A		06 33 08.5	
	150nm,0.5s						
YSS	Yuzh-Sakhalins	8.40	280	ePN	Pn	06 33 04.0	+1.1
YSS				pmax	pmax		
	comp=E,30nm,1.0s						
YSS				pmax	pmax		
	comp=Z,30nm,1.0s						
ASAJ	Asahikawa	8.89	262	PN	Pn	06 33 09.9	+0.2
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	8.89	262	Pn	Pn	06 33 09.9	+0.2
	comp=Z,0.6nm,0.3s,baz=112,slow=19,SNR=3.9						
SONM	Songino Array	32.70	291	P	P	06 37 34.5	+0.5
	comp=Z,0.1nm,0.4s,mb3.1,baz=84,slow=9.0,SNR=2.8						
ZALV	Zalesovo Beam	43.99	307	P	P	06 39 08.1	-0.7
	comp=Z,0.3nm,0.4s,mb3.4,baz=60,slow=6.2,SNR=2.7						
ZAL	Zalesovo	44.01	307	P	P	06 39 08.1	-0.8
YKA	Yellowknife Ar	50.75	37	P	P	06 40 01.0	-0.3
YKA				PcP	PcP	06 41 18.6	+0.3
YKA	Yellowknife Ar	50.75	37	P	P	06 40 01.0	-0.3
	comp=Z,0.3nm,0.9s,mb3.2,baz=299,slow=7.4,SNR=3.9						
YKA				PcP	PcP	06 41 18.6	+0.3
	comp=Z,0.2nm,0.5s,baz=302,slow=3.9,SNR=5.9						
ARCES	ARCESS Array B	58.89	341	P	P	06 41 02.1	+1.9
	comp=Z,5.3nm,1.1s,mb4.5,baz=39,slow=7.3,SNR=4.9						
EGMT	Eagleton	60.78	50	eP	P	06 41 12.4	-1.1
	comp=Z,1.0nm,0.4s,mb4.3						
PDAR	Pinedale Array	64.17	55	P	P	06 41 36.6	+0.4
	comp=Z,0.5nm,0.8s,mb3.8,baz=273,slow=2.8,SNR=3.6						
FINES	FINESS Array B	65.17	336	P	P	06 41 41.5	-0.9
	comp=Z,4.1nm,1.1s,mb4.6,baz=36,slow=7.6,SNR=5.9						
WRA	Warramunga Arr	68.28	201	P	P	06 42 02.2	-0.4
	comp=Z,0.7nm,0.6s,mb4.0,baz=19,slow=6.8,SNR=2.7						
FITZ	Fitzroy Crossi	69.13	210	P	P	06 42 08.2	+0.2
	comp=Z,1.3nm,0.9s,mb4.2,baz=99,slow=20,SNR=4.1						
NOA	NORSAR Array B	69.26	342	P	P	06 42 11.5	+3.1
	comp=Z,1.1nm,0.9s,mb4.1,baz=29,slow=6.5,SNR=2.5						
ASAR	Alice Springs	71.96	200	P	P	06 42 25.5	+0.3
	comp=Z,0.5nm,0.9s,mb3.6,baz=17,slow=6.0,SNR=4.4						
AKASG	Malin Array Be	72.78	327	P	P	06 42 29.1	-0.9
	comp=Z,0.6nm,0.4s,mb4.1,baz=34,slow=6.3,SNR=3.4						
TXAR	Lajitas Array	76.77	62	P	P	06 42 54.2	+0.8
	comp=Z,0.5nm,0.6s,mb3.8,baz=298,slow=2.7,SNR=5.0						

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*ISCJB **25** 06:35:12.9±0.8, 3784S±004×17699E±006, h10^{km}±5^{km}, mb3.6/3, Error ellipse: s-maj=8.1km s-min=6.1km az=147.8*

*IDC **25** 06:35:12.8±1.1, 3820S×17708E, h0^{km}, mb3.8/3, mb1 4.0/3, mb1mx3.9/11, mbtmp3.8/3, Error ellipse: s-maj=15.2km s-min=9.2km az=178.0*

*WEL **25** 06:35:13.2±0.1, 3786S×17698E, h5^{km}, ML3.7/8, Error ellipse: s-maj=1.3km s-min=1.1km az=90.0*

WEL Felt in the Bay of Plenty region, maximum reported intensity MM 5.

*NEIC **25** 06:35:13.1, 3786S×17699E, h5^{km}, ML3.8(WEL), After WEL.*

NEIC Felt in the Whakatane area.

ISC 25 06:35:13.2±0.8, **3784S**±004×**17700E**±005, **h6^{km}**±5^{km}, **n31, σ1^{s}01**/34, **mb3.6**/3, **Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MARZ	Manawahe	0.30	240	P	Pg	06 35 19.0	0.0
MARZ	Manawahe	0.30	240	PG	Pg	06 35 18.8	-0.3
EDRZ	Edgecumbe	0.34	218	P	Pg	06 35 19.9	+0.1
EDRZ				S	Sg	06 35 24.3	0.0
EDRZ	Edgecumbe	0.34	218	PG	Pg	06 35 19.9	+0.1
EDRZ				SG	Sg	06 35 24.2	-0.1
WIZ	White Island	0.34	26	P	Pg	06 35 20.9	+1.0
WIZ	White Island	0.34	26	PG	Pg	06 35 20.9	+1.0
OPRZ	Ohinepanea	0.35	269	PG	Pg	06 35 19.9	-0.2
OPRZ				SG	Sg	06 35 24.6	-0.1
URZ	Urewera	0.43	168	P	Pg	06 35 21.3	-0.2
URZ	Urewera	0.43	168	Pn	Pg	06 35 21.2	-0.4
	baz=344,slow=18						

URZ	Urewera	0.43	168	PG	Pg	06 35 21.3	-0.2
URZ				SG	Sg	06 35 27.6	+0.5
LIRZ	Lichensteins R	0.52	251	P	Pg	06 35 23.4	+0.3
LIRZ	Lichensteins R	0.52	251	PG	Pg	06 35 23.4	+0.2
MKRZ	Makatiti	0.52	234	P	Pg	06 35 23.7	+0.5
MKRZ	Makatiti	0.52	234	PG	Pg	06 35 23.7	+0.5
TAZ	Tarawera	0.55	225	P	Pg	06 35 24.6	+0.7
TAZ	Tarawera	0.55	225	PG	Pg	06 35 24.6	+0.7
KARZ	Kaharoa	0.62	253	P	Pg	06 35 25.3	0.0
KARZ	Kaharoa	0.62	253	P*	Pb	06 35 25.3	-1.2
MWZ	Matawai	0.65	140	P	Pg	06 35 25.7	0.0
MWZ	Matawai	0.65	140	P*	Pb	06 35 25.7	-1.2
MYRZ	Mayor Island	0.82	312	P*	Pb	06 35 28.4	-1.5
BKZ	Black Stump Fm	1.38	197	P	Pn	06 35 37.4	-1.6
BKZ	Black Stump Fm	1.38	197	P*	Pb	06 35 37.4	-2.0
TUVZ	Tukino	1.77	216	P	Pn	06 35 46.3	+1.9
MOVZ	Moawhango	1.85	212	P	Pn	06 35 45.5	+0.1
WNVZ	Wahianoa	1.85	216	P	Pn	06 35 46.6	+1.2
WCZ	Waipu Caves	2.85	311	*e*P	Pn	06 35 57.4	-1.8
STKA	Stephens Creek	29.54	271	P	P	06 41 19.4	+0.9
	2.3nm,1.0s,mb3.9,baz=148,slow=7.9,SNR=2.8						
ASAR	Alice Springs	39.30	278	P	P	06 42 43.7	+0.8
	0.7nm,0.8s,mb3.4,baz=118,slow=7.4,SNR=6.0						
WRA	Warramunga Arr	40.99	284	P	P	06 42 58.8	+1.8
	1.0nm,0.8s,mb3.5,baz=124,slow=7.4,SNR=3.9						
TORD	Torodi Ar. Bea	155.06	191	PKPab	PKPab	06 55 32.1	+0.3
	0.6nm,1.0s,baz=143,slow=3.1,SNR=2.7						

ISCJB ***25*** *06:37:43.2±0.7, 44.46N±0.08×87.2E±0.2, h10^{km}, mb3.1/1, Error ellipse: s-maj=20.2km s-min=5.2km az=150.6*

BJI ***25*** *06:37:45.6, 44.19N×86.91E, h16^{km}, ML3.2*

IDC ***25*** *06:37:48.3±3.5, 44.55N×86.40E, h0^{km}, mb3.1/1, mb1 3.4/4, mb1mx3.2/24, mbtmp3.3/4, ML2.6/3, Error ellipse: s-maj=60.6km s-min=33.8km az=15.0*

ISC 25 06:37:45.3±0.8**, 44.35N**±0.09×**87.1E**±0.2**, h10^{km}, n7, σ0^{s}.88**/10**, mb3.1**/1**, 6C, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	Urumqi	0.68	140	⇑*i*PG	Pg	06 37 57.0	-1.5
WMQ				SG	Sg	06 38 08.3	+0.9
WMQ				Smax			
	comp=N,338nm,0.5s						
WMQ				Smax			
	comp=E,354nm,0.5s						
MK31	Makanchi Array	4.17	308	⇑Pn	Pn	06 38 48.7	-0.2
	comp=E,0.4nm,0.3s,baz=128,slow=14,SNR=28						
MK31				⇑Lg		06 39 51.1	
	comp=E,12nm,0.4s,baz=127,slow=27						
MKAR	Makanchi Array	4.17	308	Pn	Pn	06 38 48.4	-0.5
	comp=E,0.5nm,0.3s,baz=128,slow=14,SNR=21						
MKAR				Lg		06 39 54.5	
	comp=E,8.4nm,0.3s,baz=133,slow=32,SNR=15						
KURK	Kurchatov	8.57	321	⇑Pn	Pn	06 39 49.0	-0.3
	comp=E,1.6nm,0.8s						
KURK				⇑Sn	Sn	06 41 26.8	+0.9
	comp=E,1.1nm,0.9s						
KURK				⇑Lg		06 42 12.8	
	comp=E,4.6nm,1.0s						
ZALV	Zalesovo Beam	9.73	352	Pn	Pn	06 40 05.5	+0.4
	comp=E,0.3nm,0.3s,baz=174,slow=14,SNR=5.5						
ZALV				Sn	Sn	06 41 53.7	-0.6
	comp=E,0.7nm,0.3s,baz=169,slow=26,SNR=8.3						
ZALV				Lg		06 42 59.0	
	baz=165,slow=30,SNR=2.5						
SONM	Songino Array	13.84	69	Pn	Pn	06 41 12.9	+11
	comp=E,0.0nm,0.3s,baz=267,slow=11,SNR=3.1						
SONM				Lg		06 45 31.5	
	comp=E,0.0nm,0.3s,baz=280,slow=28,SNR=5.6						
YKA	Yellowknife Ar	72.10	10	P	P	06 49 12.9	+3.6
	comp=E,0.2nm,0.8s,mb3.1,baz=336,slow=5.4,SNR=3.6						

WEL 25 06:49:59.5±0.3**, 38.19S×175.94E, h179^{km}±2^{km}, ML3.6**/6**, 1C-1D, Error ellipse: s-maj=3.6km s-min=3.5km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	0.93	95	⇓PN	Pn	06 50 26.5	0.0
URZ				SN	Sn	06 50 47.4	+0.1
BKZ	Black Stump Fm	1.07	156	⇑PN	Pn	06 50 27.8	+0.2
BKZ				SN	Sn	06 50 49.0	-0.3
TUVZ	Tukino	1.10	192	PN	Pn	06 50 27.9	+0.1
TUVZ				SN	Sn	06 50 50.4	+0.6
WNVZ	Wahianoa	1.17	193	PN	Pn	06 50 28.5	+0.2
MOVZ	Moawhango	1.23	187	PN	Pn	06 50 28.5	-0.3
MWZ	Matawai	1.26	97	PN	Pn	06 50 29.3	+0.2
MWZ				SN	Sn	06 50 51.8	-0.1
KNZ	Kokohu	1.59	122	PN	Pn	06 50 32.5	+0.3
PUZ	Puketiti	1.83	87	PN	Pn	06 50 34.5	-0.1
PXZ	Pawanui	1.98	159	PN	Pn	06 50 35.8	-0.4
MRZ	Mangatainoka R	2.49	186	PN	Pn	06 50 39.7	-2.1
BFZ	Birch Farm	2.50	175	PN	Pn	06 50 40.3	-1.7
KIW	Kapiti Island	2.79	196	PN	Pn	06 50 42.6	-2.7
CAW	Cannon Point	2.99	193	PN	Pn	06 50 45.1	-2.8
SNZO	South Karori	3.26	197	PN	Pn	06 50 47.7	-3.4
MSWZ	Moikau Station	3.27	189	PN	Pn	06 50 47.8	-3.4
TCW	Tory Channel	3.28	202	PN	Pn	06 50 48.3	-3.2
TUWZ	Tuamarina	3.58	205	PN	Pn	06 50 51.8	-3.4
NNZ	Nelson	3.61	212	PN	Pn	06 50 51.9	-3.6
BSWZ	Blackbirch Sta	3.86	204	PN	Pn	06 50 54.6	-4.0
THZ	Tophouse	4.26	212	PN	Pn	06 51 00.3	-3.5

NEIC ***25*** *07:10:16.1, 16.68N×99.73W, h6^{km}, MD3.6(MEX), After MEX.*

MEX 25 07:10:17.6±0.6**, 16.83N×99.69W, h10^{km}, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.22	280	*i* P	Pg	07 10 18.5	-3.6
ACX				*i* S	Sg	07 10 22.5	-2.7
ACX	Acapulco	0.22	280	*i* P	Pg	07 10 18.5	-3.6
ACX				*i* S	Sg	07 10 22.0	-3.2
CAIG	El Cayaco	0.59	292	*i* P	Pg	07 10 27.5	-1.6
CAIG				*i* S	Sg	07 10 36.6	-0.3
CAIG	El Cayaco	0.59	292	*i* P	Pg	07 10 27.6	-1.5
CAIG				*i* S	Sg	07 10 36.6	-0.3
MEIG	Mezcala	1.09	4	*e*P	Pb	07 10 35.7	-3.0
MEIG				*i* S	Sg	07 10 48.3	-4.6
PLIG	Platanillo	1.57	7	*i* P	Pn	07 10 44.0	-1.5
PLIG				*i* S	Sn	07 11 05.1	-0.8
PLIG	Platanillo	1.57	7	*i* P	Pn	07 10 41.5	-4.0
PLIG				*i* S	Sn	07 11 01.6	-4.3
TPIG	Tehuac#an	2.73	54	*i* P	Pn	07 10 59.4	-2.1
TPIG				*i* S	Sn	07 11 31.4	-3.2
VHO	Vista Hermosa	2.84	85	*i* P	Pn	07 10 58.0	-5.0
VHO				*i* S	Sn	07 11 34.2	-3.2
VHO	Vista Hermosa	2.84	85	*i* P	Pn	07 11 01.9	-1.2
VHO				*i* S	Sn	07 11 34.2	-3.2

WEL 25 07:17:20.9±0.1**, 45.77S×167.45E, h12^{km}, ML3.5**/10**, 1C-1D, Error ellipse: s-maj=1.5km s-min=0.9km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	Deep Cove	0.35	324	⇑P*	Pg	07 17 28.7	+0.8
DCZ				S*	Sg	07 17 33.7	+1.0
DCZ				S*	Sg	07 17 33.8	+1.1
WHZ	Wether Hill Ro	0.37	110	⇓P*	Pg	07 17 28.4	+0.2
WHZ				S*	Sg	07 17 33.6	+0.4
WHZ				S*	Sg	07 17 33.7	+0.4
MLZ	Mavora Lakes	0.66	51	P*	Pb	07 17 32.6	-1.7
MLZ				S*	Sb	07 17 41.5	-1.9
APZ	The Paps	1.13	161	P*	Pb	07 17 41.2	-1.1
MSZ	Milford Sound	1.15	17	P*	Pb	07 17 40.8	-1.7
MSZ				S*	Sb	07 17 55.8	-1.6
SYZ	Scrubby Hill	1.41	124	PN	Pn	07 17 45.6	-0.7
EAZ	Earnscleugh	1.41	68	PN	Pn	07 17 45.9	-0.4
WKZ	Wanaka	1.45	50	PN	Pn	07 17 46.6	-0.2
TUZ	Tuapeka	1.54	98	PN	Pn	07 17 47.6	-0.4
JCZ	Jackson Bay	1.93	29	PN	Pn	07 17 54.1	+0.6
ODZ	Otahua Downs	2.36	73	PN	Pn	07 17 58.9	-0.6
LBZ	Lake Benmore	2.38	56	PN	Pn	07 17 59.3	-0.4
RPZ	Rata Peaks	3.29	53	PN	Pn	07 18 10.6	-1.5

IDC 25 07:40:55.5±2.0**, 0.81N×125.52E, h0^{km}, mb3.2**/3**, mb1 3.4**/3**, mb1mx3.3**/17**, mbtmp3.2**/3**, Error ellipse: s-maj=194.8km s-min=26.2km az=64.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.36	158	P	P	07 45 54.1	-1.2
	0.3nm,0.3s,baz=336,slow=12,SNR=2.7						
ASAR	Alice Springs	25.66	162	P	P	07 46 28.6	+1.4
	0.3nm,0.7s,baz=345,slow=11,SNR=4.4						
MKAR	Makanchi Array	59.28	327	P	P	07 50 58.9	-0.1
	0.2nm,0.5s,baz=123,slow=7.5,SNR=5.6						

ISCJB ***25*** *07:44:11.3±1.3, 8.49S±0.09×75.94W±0.09, h55^{km}±14^{km}, mb3.7/9, Error ellipse: s-maj=18.9km s-min=9.7km az=43.7*

IDC ***25*** *07:44:14.3±2.0, 8.46S×75.98W, h66^{km}±19^{km}, mb3.7/9, mb1 3.8/13, mb1mx3.8/22, mbtmp3.7/13, MS3.1/3, Ms1 3.1/3, ms1mx2.8/16, Error ellipse: s-maj=22.6km s-min=14.7km az=37.0*

ISC 25 07:44:13.1±1.1**, 8.51S**±0.09×**75.97W**±0.09**, h55^{km}**±12^{km}**, n17, σ1^{s}.16**/16**, mb3.7**/9**, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATAH	Atahualpa	2.83	302	P	Pn	07 44 54.4	-1.5
	14nm,0.3s,baz=114,slow=15,SNR=51						
ATAH				S	Sn	07 45 29.5	+0.8
	14nm,0.3s,baz=148,slow=21,SNR=8.1						
LPAZ	La Paz	10.88	136	P	Pn	07 46 46.8	+0.5
	0.1nm,0.3s,baz=350,slow=12,SNR=5.0						
LPAZ				LR	LR	07 51 28.1	
	comp=Z,71nm,19.4s,baz=80,slow=40						
ROSC	El Rosal	13.38	7	P	Pn	07 47 21.1	+0.8
	0.3nm,0.3s,baz=252,slow=8.7,SNR=6.5						
ROSC				LR	LR	07 53 23.2	
	comp=Z,71nm,18.7s,baz=181,slow=41						
SIV	San Ignacio	16.34	118	P	Pn	07 47 56.8	-2.2
	0.6nm,0.3s,baz=300,slow=11,SNR=32						
SDV	Santo Domingo	18.08	17	P	Pn	07 48 19.5	-1.0
	0.6nm,0.3s,baz=286,slow=16,SNR=11						
SDV				LR	LR	07 56 32.9	
	comp=Z,90nm,19.9s,baz=206,slow=41						
JTS	JuntasAbangare	20.70	334	P	P	07 48 50.3	+1.3
	11nm,1.0s,baz=166,slow=4.2,SNR=4.4						
PCRV	Puerto La Cruz	21.72	32	P	P	07 49 01.9	+2.0
	4.9nm,0.6s,mb4.1,baz=259,slow=5.2,SNR=3.3						
CFAA	Coronel Fontan	24.08	164	P	P	07 49 24.9	+1.4
	0.1nm,0.7s,mb2.4,baz=280,slow=12,SNR=3.7						
SJG	San Juan	28.17	20	P	P	07 49 59.5	-1.0
	7.0nm,0.8s,mb4.3,baz=208,slow=8.6,SNR=3.2						
TXAR	Lajitas Array	46.12	326	P	P	07 52 31.6	-0.6
	0.7nm,0.6s,mb3.7,baz=150,slow=8.9,SNR=9.3						
PDAR	Pinedale Array	59.51	332	P	P	07 54 10.7	0.0
	0.2nm,0.5s,mb3.5,baz=163,slow=7.6,SNR=3.1						
ULM	Lac du Bonnet	61.02	346	P	P	07 54 19.8	-1.1
	1.7nm,0.5s,mb4.4,baz=167,slow=8.1,SNR=7.3						
YKA	Yellowknife Ar	76.78	343	P	P	07 55 57.3	-1.1
	0.4nm,0.6s,mb3.5,baz=138,slow=5.9,SNR=12						
TORD	Torodi Ar. Bea	80.06	75	P	P	07 56 17.8	+0.2
	2.2nm,1.1s,mb4.0,baz=264,slow=3.8,SNR=6.3						
ESDC	Sonseca Array	81.82	48	P	P	07 56 27.7	+1.3
	0.2nm,0.3s,mb3.5,baz=220,slow=9.3,SNR=4.7						
ZALV	Zalesovo Beam	132.12	15	PKP	PKPdf	08 03 20.6	0.0
	0.4nm,0.4s,baz=270,slow=1.4,SNR=3.5						
ASAR	Alice Springs	136.70	222	PKP	PKPdf	08 03 30.2	+0.1
	0.6nm,0.9s,baz=85,slow=2.6,SNR=4.0						

IDC 25 07:48:32.7±8.8**, 22.26N×144.18E, h143^{km}**±77^{km}**, mb3.0**/5**, mb1 3.1**/6**, mb1mx3.0**/21**, mbtmp3.0**/6**, Error ellipse: s-maj=116.0km s-min=21.4km az=80.0, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MJAR	Matsushiro Arr	15.15	341	P	Pn	07 51 58.7	-0.4
	0.2nm,0.3s,baz=134,slow=8.7,SNR=3.1						
SONM	Songino Array	39.51	320	P	P	07 55 49.7	+0.5
	0.3nm,0.3s,baz=124,slow=7.7,SNR=3.5						
WRA	Warramunga Arr	43.03	194	P	P	07 56 18.7	+0.5
	0.2nm,0.3s,baz=17,slow=9.3,SNR=3.0						
ASAR	Alice Springs	46.73	193	P	P	07 56 46.9	-0.6
	0.1nm,0.5s,baz=5.4,slow=6.1,SNR=2.9						
MKAR	Makanchi Array	55.00	312	P	P	07 57 48.8	-0.3
	0.3nm,0.6s,baz=90,slow=7.9,SNR=5.2						
FINES	FINESS Array B	83.07	335	P	P	08 00 42.0	+0.1
	0.6nm,0.6s,baz=69,slow=4.2,SNR=7.3						

WEL 25 07:52:35.7±0.7**, 37.96S×175.83E, h247^{km}±6^{km}, ML3.7**/8**, Error ellipse: s-maj=14.0km s-min=14.0km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	1.05	107	PN	Pn	07 53 10.4	-0.2
URZ				SN	S	07 53 38.0	-0.2
WPVZ	Whakapapa	1.27	190	PN	Pn	07 53 12.4	+0.5
BKZ	Black Stump Fm	1.31	157	PN	Pn	07 53 12.2	-0.1
TUVZ	Tukino	1.32	186	PN	Pn	07 53 12.9	+0.6
WNVZ	Wahianoa	1.38	188	PN	Pn	07 53 13.2	+0.5
MWZ	Matawai	1.39	106	PN	Pn	07 53 13.3	+0.4
MOVZ	Moawhango	1.45	182	PN	Pn	07 53 13.2	0.0
WAZ	Wanganui	1.91	200	PN	Pn	07 53 16.9	-0.1
WAZ				SN	S	07 53 49.7	-0.1
TSZ	Takapari Road	2.10	177	PN	Pn	07 53 17.9	-0.8
MRZ	Mangatainoka R	2.71	184	PN	Pn	07 53 23.2	-1.6
MRZ				SN	S	07 54 01.1	-2.5
BFZ	Birch Farm	2.74	173	PN	Pn	07 53 23.9	-1.2
KIW	Kapiti Island	2.99	194	PN	Pn	07 53 26.0	-1.8
DUWZ	D’Urville Isla	3.20	207	PN	Pn	07 53 28.2	-1.9
MTW	Mount Morrison	3.21	184	PN	Pn	07 53 27.8	-2.4
MRW	Makara Radio	3.38	195	PN	Pn	07 53 30.0	-2.1
SNZO	South Karori	3.46	194	PN	Pn	07 53 30.6	-2.4
TCW	Tory Channel	3.47	200	PN	Pn	07 53 30.9	-2.1
MSWZ	Moikau Station	3.48	187	PN	Pn	07 53 30.7	-2.6
TUWZ	Tuamarina	3.76	202	PN	Pn	07 53 34.1	-2.3
NNZ	Nelson	3.77	209	PN	Pn	07 53 33.7	-2.8
QRZ	Quartz Range	3.84	221	PN	Pn	07 53 34.0	-3.4
THZ	Tophouse	4.42	210	*e*PN	Pn	07 53 41.1	-3.1
DSZ	Denniston Nort	4.89	218	PN	Pn	07 53 45.3	-4.6

NEIC ***25*** *07:56:07.7, 31.57S×71.75W, h8^{km}, ML3.2(GUC), After GUC.*

GUC 25 07:56:07.7±1.0**, 31.57S×71.75W, h8^{km}±6^{km}, MD3.9, ML3.2, 6C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	Los Chungos	0.38	146	⇓*i*P	Pg	07 56 04.0	-11
CHNG				*i* S	Sg	07 56 10.7	-9.4
CHNG				AML	AML	07 56 11.6	
	comp=E,1µm,0.5s						
CMCH	Combarbala	0.75	59	⇑*i*P	Pg	07 56 22.3	+0.2
CMCH				*i* S	Sg	07 56 33.3	+1.5
CMCH	Combarbala	0.75	59	⇑*i*P	Pg	07 56 22.3	+0.2
CMCH				*i* S	Sg	07 56 33.3	+1.5
CMCH				AML	AML	07 56 39.2	
	comp=E,6µm,0.7s						
PACH	Papudo	1.00	165	⇑*i*P	Pg	07 56 26.7	-0.3
PACH				*i* S	Sg	07 56 41.0	+0.9
OVCH	Ovalle	1.06	26	*e*P	Pg	07 56 27.5	-0.6
OVCH				*i* S	Sg	07 56 42.5	+0.6
OVCH	Ovalle	1.06	26	*e*P	Pg	07 56 27.5	-0.6
OVCH				*i* S	Sg	07 56 42.5	+0.6
OVCH				AML	AML	07 56 43.4	
	comp=N,2µm,0.5s						
TLL	Tololo Astrono	1.61	30	⇑*i*P	Pn	07 56 37.0	+0.5
TLL				*i* S	Sn	07 56 58.5	+1.0
TLL	Tololo Astrono	1.61	30	⇑*i*P	Pn	07 56 37.0	+0.5
TLL				*i* S	Sn	07 56 58.5	+1.0
TLL				AML	AML	07 57 02.5	
	comp=E,1µm,0.5s						
LSCH	La Serena	1.71	15	*e*P	Pn	07 56 37.0	-0.8
LSCH				*i* S	Sn	07 56 59.7	-0.2
LSCH	La Serena	1.71	15	*e*P	Pn	07 56 37.0	-0.8
LSCH				*i* S	Sn	07 56 59.7	-0.2
LSCH				AML	AML	07 57 03.5	
	comp=N,138nm,0.6s						
PEL	Peldehue	1.81	151	*e*P	Pn	07 56 40.6	+1.4
PEL				*i* S	Sn	07 57 04.6	+2.1
PEL				AML	AML	07 57 09.1	
	comp=E,736nm,0.4s						
RCDM	Rinconada Maip	2.08	158	AML	AML	07 57 14.5	
	comp=E,156nm,0.3s						
FCH	Farellones	2.15	145	*e*P	Pn	07 56 44.9	+1.0
FCH				*i* S	Sn	07 57 13.4	+2.8
FCH				AML	AML	07 57 18.0	
	comp=E,171nm,0.2s						
TACH	Talagante	2.19	162	⇑*i*P	Pn	07 56 44.6	+0.1
PCH	Pirque	2.30	153	*e*P	Pn	07 56 47.0	+1.0
LCO	Las Campanas	2.70	20	*e*Pn	Pn	07 56 50.1	-1.3
VACH	Vallenar	3.10	16	*i* S	Sn	07 57 36.0	+1.7

ISCJB ***25*** *08:00:07.5±1.5, 5.57S±0.06×146.51E±0.08, h84^{km}±15^{km}, mb4.4/18, Error ellipse: s-maj=14.1km s-min=8.8km az=14.5*

BJI ***25*** *08:00:11.8, 5.60S×146.30E, h128^{km}, mB5.2, mb4.7*

IDC ***25*** *08:00:12.7±0.6, 5.80S×146.52E, h127^{km}±5^{km}, mb4.1/13, mb1 4.2/15, mb1mx4.2/18, mbtmp4.1/15, MS3.4/7, Ms1 3.4/7, ms1mx3.2/26, Error ellipse: s-maj=16.3km s-min=7.7km az=91.0*

NEIC ***25*** *08:00:13.8±0.5, 5.63S×146.33E, mb4.9/7, Error ellipse: s-maj=13.5km s-min=9.2km az=84.0*

ISC 25 08:00:11.9±1.4**, 5.65S**±0.05×**146.41E**±0.09**, h110^{km}**±14^{km}**, h130^{km}**±1.5^{km}**: pP-P, n35, σ0^{s}.93**/35**, mb4.4**/18**, 2D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.80	169	P	Pn	08 01 07.6	-1.1
	190nm,0.3s,baz=16,slow=4.9,SNR=501						
PMG				S	Sn	08 01 49.3	-3.3
	159nm,0.3s,baz=170,slow=21,SNR=19						
PMG				LR	LR	08 02 19.8	
	comp=Z,400nm,20.5s,baz=171,slow=35						
HNR	Honiara	13.93	106	P	Pn	08 03 29.3	+4.6
	29nm,0.3s,baz=255,slow=3.5,SNR=6.3						
CTA	Charters Tower	14.35	181	*e*P	Pn	08 03 34.0	+4.0
	48nm,0.4s						
CTA	Charters Tower	14.35	181	P	Pn	08 03 33.4	+3.3
	12nm,0.3s,baz=360,slow=14,SNR=117						
CTA				S	Sn	08 06 03.1	-5.3
	0.5nm,0.3s,baz=283,slow=19,SNR=3.1						
CTA				LR	LR	08 07 52.8	
	comp=Z,100nm,19.8s,baz=205,slow=32						
CTAO	Charters Tower	14.35	181	*e*P	Pn	08 03 32.9	+2.8
	65nm,0.6s						
KAKA	Kakadu	15.47	242	*e*P	Pn	08 03 44.2	0.0
	57nm,0.6s						
WB2	Warramunga Arr	18.42	218	⇓*i*P	P	08 04 18.8	0.0
WB2				*e*S	S	08 07 44.4	+0.9
WRA	Warramunga Arr	18.43	218	P	P	08 04 18.6	-0.3
	1.7nm,0.3s,baz=42,slow=12,SNR=36						
WRA				S	S	08 07 42.1	-1.5
	0.4nm,0.3s,baz=34,slow=23,SNR=3.5						
GUMO	Guam	19.18	355	LR	LR	08 10 33.4	
	comp=Z,125nm,18.4s,baz=324,slow=32						
EIDS	Eidsvold	20.11	168	*e*P	P	08 04 37.9	+0.8
ASAR	Alice Springs	21.58	213	P	P	08 04 53.1	+0.2
	15nm,0.7s,mb4.4,baz=44,slow=8.2,SNR=92						
ASAR				S	S	08 08 43.5	-2.4
	2.9nm,0.7s,baz=35,slow=19,SNR=7.3						
FITZ	Fitzroy Crossi	23.76	237	⇓*i*P	P	08 05 14.7	+0.3
	22nm,0.4s,mb4.8						
FITZ	Fitzroy Crossi	23.76	237	P	P	08 05 15.2	+0.7
	12nm,0.4s,mb4.6,baz=51,slow=10.0,SNR=94						
FITZ				LR	LR	08 16 04.3	
	comp=Z,48nm,20.0s,baz=301,slow=40						
ARMA	Armidale	25.12	169	*e*P	P	08 05 28.9	+2.3
DZM	Mont Dzumac	25.33	132	P	P	08 05 27.7	-1.0
	6.3nm,0.8s,mb4.1,baz=312,slow=14,SNR=4.9						
DZM				LR	LR	08 14 49.7	
	comp=Z,68nm,18.7s,baz=14,slow=35						
STKA	Stephens Creek	26.48	189	*e*P	P	08 05 39.7	+0.8
	3.0nm,0.3s,mb4.2						
STKA	Stephens Creek	26.48	189	P	P	08 05 38.9	0.0
	3.6nm,0.3s,mb4.2,baz=343,slow=9.3,SNR=13						
FORT	Forrest	30.37	212	*e*P	P	08 06 14.5	+1.0
	15nm,0.8s,mb4.7						
JOW	Kunigami	36.76	332	P	P	08 07 09.5	+0.6
	15nm,0.9s,mb4.9,baz=155,slow=17,SNR=3.3						
KLBR	Kellerberrin	37.23	223	*e*P	P	08 07 13.0	+0.1
	4.7nm,0.4s,mb4.8						
JNU	Nakatsue	41.28	340	P	P	08 07 46.7	+0.2
	14nm,1.1s,mb4.7,baz=177,slow=7.8,SNR=3.5						
MJAR	Matsushiro Arr	42.67	350	P	P	08 07 57.4	-0.3
	1.1nm,0.8s,mb3.6,baz=198,slow=6.8,SNR=4.1						
KSRS	Korea Array	46.22	340	P	P	08 08 26.4	+0.5
	3.8nm,0.7s,mb4.2,baz=157,slow=9.6,SNR=11						
KSRS				pP	pP	08 08 56.4	+4.7
	0.5nm,0.5s,baz=228,slow=13,SNR=1.4						
KSRS				LR	LR	08 27 14.6	
	comp=Z,60nm,19.0s,baz=160,slow=35						
PSI	Prapat	48.17	279	P	P	08 08 41.6	+0.1
	5.4nm,0.5s,mb4.7,baz=109,slow=7.8,SNR=8.2						
XAN	Xi’an	53.04	321	P	P	08 09 17.5	-0.3
XAN				AMB	AMB		
	comp=Z,13nm,1.3s,mb4.8						
HIA	Hailar	59.43	340	*e*P	P	08 10 03.2	+0.3
	comp=Z,7.1nm,0.9s,mb4.7						
SONM	Songino Array	63.82	331	P	P	08 10 32.7	+0.3
	comp=Z,1.5nm,0.7s,mb4.0,baz=139,slow=8.6,SNR=14						
SONM				pP	pP	08 11 04.7	+5.1
	comp=Z,1.4nm,0.7s,baz=154,slow=5.0,SNR=5.1						
SONM				LR	LR	08 35 38.8	
	comp=Z,56nm,19.8s,baz=11,slow=33						
MKAR	Makanchi Array	76.86	321	P	P	08 11 51.4	-0.5
	comp=Z,1.4nm,0.6s,mb3.9,baz=98,slow=8.2,SNR=23						
MKAR				pP	pP	08 12 22.9	+3.0
	comp=Z,5.9nm,1.0s,baz=107,slow=7.1,SNR=10						
ZALV	Zalesovo Beam	78.41	328	P	P	08 11 59.0	-1.3
	comp=Z,1.8nm,0.6s,mb4.0,baz=122,slow=6.2,SNR=11						
ZALV				pP	pP	08 12 31.1	+2.7
	comp=Z,1.6nm,0.6s,baz=101,slow=6.2,SNR=4.4						
NVAR	Mina Array Bea	97.62	52	P	P	08 13 34.0	-0.3
	comp=Z,1.8nm,0.8s,mb4.7,baz=244,slow=7.4,SNR=5.0						
YKA	Yellowknife Ar	99.14	28	P	P	08 13 39.6	-0.9
	comp=Z,0.4nm,0.8s,mb4.0,baz=274,slow=5.0,SNR=6.2						
PDAR	Pinedale Array	104.11	47	Pdif	Pdif	08 14 03.7	+0.8
PDAR	Pinedale Array	104.11	47	Pdiff	Pdif	08 14 03.7	+0.8
	comp=Z,0.6nm,0.8s,baz=240,slow=5.0,SNR=4.5						
TORD	Torodi Ar. Bea	144.44	285	PKP	PKPdf	08 19 34.4	-2.0
TORD				pPKP	pPKPdf	08 20 10.0	+3.6
TORD	Torodi Ar. Bea	144.44	285	PKP	PKPdf	08 19 34.4	-2.0
	comp=Z,1.1nm,0.4s,baz=63,slow=3.3,SNR=20						
TORD				pPKP	pPKPdf	08 20 10.0	+3.6
	comp=Z,1.9nm,0.6s,baz=66,slow=2.9,SNR=2.6						

ISCJB ***25*** *08:06:40.7±3.0, 18.4S±0.2×168.4E±0.2, h118^{km}±25^{km}, mb4.5/12, Error ellipse: s-maj=26.9km s-min=24.8km az=158.4*

LDG ***25*** *08:06:40.2±0.6, 18.18S×168.46E, h108^{km}±5^{km}, Mb4.4/2, Error ellipse: s-maj=17.5km s-min=12.5km az=99.0*

NEIC ***25*** *08:06:43.0±2.6, 18.44S×168.61E, h131^{km}±22^{km}, mb4.7/6, Error ellipse: s-maj=23.9km s-min=19.2km az=54.0*

IDC ***25*** *08:06:43.2±3.6, 18.42S×168.71E, h140^{km}±32^{km}, mb4.2/9, mb1 4.3/10, mb1mx4.1/17, mbtmp4.2/10, Error ellipse: s-maj=25.7km s-min=21.3km az=27.0*

ISC 25 08:06:42.8±2.6**, 18.5S**±0.1×**168.5E**±0.2**, h123^{km}**±22^{km}**, n44, σ1^{s}.01**/23**, mb4.5**/12**, 1D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	4.08	208	*e*P	Pn	08 07 44.1	+0.6
DZM				*e*S	Sn	08 08 28.6	-2.0
DZM	Mont Dzumac	4.08	208	*e*P	Pn	08 07 44.1	+0.6
DZM				*e*S	Sn	08 08 28.6	-2.0
DZM	Mont Dzumac	4.08	208	P	Pn	08 07 44.0	+0.5
	9.0nm,0.3s,baz=74,slow=21,SNR=18						
DZM				S	Sn	08 08 30.6	0.0
	11nm,0.3s,baz=295,slow=20,SNR=8.1						
CTA	Charters Tower	21.08	262	*e*P	P	08 11 20.4	+3.0
	6.0nm,0.6s,mb4.1						
CTA	Charters Tower	21.08	262	P	P	08 11 20.3	+2.9
	7.7nm,0.6s,mb4.2,baz=82,slow=11,SNR=9.4						
URZ	Urewera	21.10	161	P	P	08 11 18.1	+0.6
	3.2nm,0.4s,mb4.0,baz=16,slow=14,SNR=5.7						
PMG	Port Moresby	22.58	291	P	P	08 11 35.0	+1.7
	33nm,0.9s,mb4.7,baz=127,slow=5.6,SNR=7.7						
CNB	Canberra Magne	23.88	222	*e*P	P	08 11 45.8	+0.8
	58nm,1.4s,mb4.7						

STKA	Stephens Creek	27.70	236	*e*P	P	08 12 20.3	+0.9
	6.4nm,0.6s,mb4.3						
STKA	Stephens Creek	27.70	236	P	P	08 12 20.2	+0.8
	9.1nm,0.7s,mb4.5,baz=65,slow=8.3,SNR=16						
WB2	Warramunga Arr	32.27	262	*e*P	P	08 12 59.3	-0.7
WRA	Warramunga Arr	32.28	262	P	P	08 12 59.1	-0.9
	1.8nm,0.4s,mb4.1,baz=89,slow=8.5,SNR=11						
ASAR	Alice Springs	32.66	255	P	P	08 13 03.1	-0.3
	25nm,0.4s,mb5.3,baz=82,slow=8.6,SNR=334						
FORT	Forrest	38.57	244	*e*P	P	08 13 53.7	-0.1
	14nm,0.8s,mb4.9						
FITZ	Fitzroy Crossi	40.65	264	⇓*i*P	P	08 14 11.4	+0.3
	30nm,0.8s,mb5.2						
FITZ	Fitzroy Crossi	40.65	264	P	P	08 14 11.5	+0.4
	16nm,0.7s,mb4.9,baz=113,slow=7.3,SNR=22						
KLBR	Kellerberrin	47.44	244	*e*P	P	08 15 04.0	-1.1
	7.3nm,0.6s,mb4.6						
MJAR	Matsushiro Arr	61.75	333	P	P	08 16 47.0	-1.2
	3.5nm,0.8s,mb4.4,baz=170,slow=7.1,SNR=8.2						
BJI	Beijing	75.91	321	P	P	08 18 15.7	-0.2
SONM	Songino Array	86.19	323	P	P	08 19 09.6	-0.6
	2.1nm,0.6s,mb4.2,baz=95,slow=5.4,SNR=17						
YKA	Yellowknife Ar	100.30	27	P	Pdif	08 20 12.4	-2.8
	0.2nm,0.7s,baz=253,slow=4.7,SNR=5.0						
MKAR	Makanchi Array	100.71	316	P	Pdif	08 20 16.1	-1.0
	0.5nm,0.6s,baz=91,slow=6.4,SNR=8.5						
ARCES	ARCESS Array B	124.15	345	PKP	PKPdf	08 25 23.5	-2.6
	0.6nm,0.4s,baz=52,slow=1.8,SNR=12						
GERES	GERESS Array B	143.49	332	PKP	PKPdf	08 25 58.6	-4.1
	0.4nm,0.5s,baz=87,slow=0.8,SNR=4.0						
BAIF	Baives	146.06	342	*e*PKP1	PKPbc	08 26 06.4	-1.8
	5.4nm,0.6s						
CDF	Champ du Feu	146.47	337	*e*PKP1	PKPbc	08 26 07.6	-1.9
	9.6nm,0.7s						
HAU	Haudompre	147.15	338	*e*PKP1	PKPbc	08 26 09.4	-2.0
MEZF	Maizieres J'vi	147.17	340	*e*PKP1	PKPbc	08 26 09.5	-1.9
	3.5nm,0.4s						
CABF	La Chapelle	148.41	337	*e*PKP1	PKPbc	08 26 13.3	-1.5
	12nm,0.6s						
FLN	La Foliniere	148.49	346	*e*PKP1	PKPbc	08 26 12.6	-2.4
LOR	Lormes	148.64	340	*e*PKP1	PKPbc	08 26 13.3	-2.1
	9.8nm,0.6s						
GRR	Gorron	148.93	346	*e*PKP1	PKPbc	08 26 14.2	-1.9
SSF	Saint Saulge	148.94	340	*e*PKP1	PKPbc	08 26 14.2	-1.9
	5.9nm,0.5s						
LPL	La Plagne	149.07	335	*e*PKP1	PKPbc	08 26 15.0	-1.5
	6.1nm,0.8s						
LPG	La Plagne	149.07	335	*e*PKP1	PKPbc	08 26 15.2	-1.3
	12nm,0.8s						
MBDF	Montbardon	149.69	334	*e*PKP1	PKPbc	08 26 16.0	-2.1
ORIF	Oris-en-Rattie	149.90	335	*e*PKP1	PKPbc	08 26 16.7	-1.9
	11nm,0.7s						
TCF	Toulx Ste Croi	150.03	341	*e*PKP1	PKPbc	08 26 16.7	-2.2
PGF	Pioggiola	150.36	328	*e*PKP1	PKPbc	08 26 17.7	-2.1
	23nm,0.7s						
VIVF	Saint-Julien-l	150.43	336	*e*PKP1	PKPbc	08 26 17.9	-2.0
	2.6nm,0.6s						
FRF	La Foret Royal	150.68	332	*e*PKP1	PKPbc	08 26 18.1	-2.4
	5.3nm,0.5s						
SMRF	Simiane la Rot	150.80	334	*e*PKP1	PKPbc	08 26 19.1	-1.7
	4.9nm,0.6s						
LMR	La Mourre	150.92	332	*e*PKP1	PKPbc	08 26 18.8	-2.3
	4.8nm,0.6s						
TORD	Torodi Ar. Bea	166.27	249	PKP	PKPdf	08 26 31.9	-2.3
	0.8nm,1.0s,baz=21,slow=1.0,SNR=3.1						
TORD				PKPab	PKPab	08 27 34.6	-1.4
	0.8nm,0.9s,baz=95,slow=3.7,SNR=3.7						

CSEM ***25*** *08:09:16.5±0.1, 38.41N×39.23E, h5^{km}, MD3.7, Error ellipse: s-maj=2.0km s-min=1.3km az=125.0*

ISK ***25*** *08:09:16.0, 38.41N×39.21E, h5^{km}, MD3.2*

ISCJB ***25*** *08:09:17.0±0.5, 38.38N±0.02×39.24E±0.02, h2^{km}±5^{km}, Error ellipse: s-maj=4.1km s-min=3.2km az=168.8*

DDA ***25*** *08:09:17.9, 38.35N×39.25E, h3^{km}±2^{km}, Md3.7*

ISC 25 08:09:17.7±0.5**, 38.39N**±0.03×**39.25E**±0.02**, h4**^{km}±4^{km}**, n30, σ1^{s}02**/47**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.24	298	*i* P	Pg	08 09 22.1	-0.1
ELZG				*i* S	Sg	08 09 26.2	+0.9
PTK	Pertek	0.52	12	PG	Pg	08 09 26.8	-0.8
PTK				SG	Sg	08 09 34.6	+0.2
PTK	Pertek	0.52	12	*e*Pg	Pg	08 09 26.8	-0.8
PTK				*e*Sg	Sg	08 09 34.6	+0.2
MALT	Malatya	0.65	264	PG	Pg	08 09 28.9	-1.3
MALT				SG	Sg	08 09 38.8	+0.2
MYA	Malataya	0.65	265	PG	Pg	08 09 28.8	-1.4
MYA				SG	Sg	08 09 38.8	+0.2
DIYA	Diyarbakir	0.83	124	*i* P	Pg	08 09 32.9	-0.6
DIYA				*i* S	Sg	08 09 44.9	+0.6
DIY	Diyarbakir	0.91	122	PG	Pg	08 09 34.7	-0.5
DIY				SG	Sg	08 09 49.1	+2.1
URFA	Urfa	1.00	200	PG	Pg	08 09 36.6	-0.3
URFA				SG	Sg	08 09 51.4	+1.5
URFA	Urfa	1.00	200	*e*Pg	Pg	08 09 36.6	-0.3
URFA				*e*Sg	Sg	08 09 51.4	+1.5
BINT	Bingol	1.09	63	PN	Pn	08 09 39.0	-0.7
BINT	Bingol	1.09	63	*e*Pn	Pn	08 09 39.0	-0.7
ATAB	Bozova	1.19	220	*i* P	Pg	08 09 40.6	+0.2
ATAB				*i* S	Sg	08 09 56.5	+0.7
EZC	Erzincan	1.43	18	PN	Pn	08 09 43.1	-1.3
BNGL	BINGOL	1.59	69	*i* P	Pn	08 09 47.0	+0.3
BNGL				*i* S	Sn	08 10 09.8	+2.1
MARD	Mardin	1.62	131	*i* P	Pn	08 09 45.8	-1.1
MARD				*i* S	Sn	08 10 07.5	-0.8
GZT	Gaziantep	1.68	233	*i* P	Pn	08 09 46.6	-1.3
GZT				*i* S	Sn	08 10 09.8	-0.2
GAZ	Gaziantep	2.02	234	*e*PN	Pn	08 09 52.4	-0.1
GAZ	Gaziantep	2.02	234	*e*Pn	Pn	08 09 52.4	-0.1
GUMT	Gumushane	2.08	5	*e*PN	Pn	08 09 53.3	-0.1
GUMT	Gumushane	2.08	5	*e*Pn	Pn	08 09 53.3	-0.1
EZM	Erzurum	2.24	47	*e*PN	Pn	08 09 55.7	+0.2
ERZM	Erzurum	2.24	47	*i* P	Pn	08 09 57.1	+1.5
ERZM				*i* S	Sn	08 10 25.4	+1.7
SVSK	Karacayir	2.33	312	*e*PN	Pn	08 09 57.1	+0.4
SVSK	Karacayir	2.33	312	*e*Pn	Pn	08 09 57.1	+0.4
ANDN	Andirin	2.43	252	*i* P	Pn	08 09 59.6	+1.4
ANDN				*i* S	Sg	08 10 37.0	+1.2
BNN	Bunyan	2.71	281	*e*PN	Pn	08 10 01.7	-0.3
BNN	Bunyan	2.71	281	*e*Pn	Pn	08 10 01.7	-0.3
KOZT	Kozan	2.85	253	*e*PN	Pn	08 10 03.9	-0.1
COBT	Iskenderun	3.02	233	*i* P	Pn	08 10 04.9	-1.5
COBT				*i* S	Sg	08 10 48.7	-6.1
HAKT	HAKKARI	3.62	102	*i* P	Pn	08 10 13.8	-0.7
HAKT				*i* S	Sg	08 11 11.1	-2.8

MEX 25 08:12:29.8±0.8**, 16.56N×95.05W, h129**^{km}±24^{km}**, MD4.1, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	Huatulco	1.29	233	*e*P	Pn	08 12 53.9	-1.7
HUIG				*i* S	Sn	08 13 13.6	-1.4
VHO	Vista Hermosa	1.69	288	*e*P	Pn	08 12 59.7	-0.3
VHO				*i* S	Sn	08 13 21.2	-2.0
CCIG	Comitan	2.81	95	*e*P	Pn	08 13 13.1	-0.8
CCIG				*i* S	Sn	08 13 46.2	-1.6
TPIG	Tehuac#an	2.88	310	*i* P	Pn	08 13 13.8	-1.1
TPIG				*i* S	Sn	08 13 47.3	-2.3

IDC 25 08:30:37.2±1.8**, 26.17N×110.49W, h0**^{km}**, mb2.7**/1**, mb1 3.3**/4**, mb1mx3.2**/20**, mbtmp2.9**/4**, ML3.7**/3**, Error ellipse: s-maj=29.8km s-min=22.3km az=114.0, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	La Paz	2.06	176	Pn	Pn	08 31 12.7	-0.4
	11nm,0.3s,baz=359,slow=5.0,SNR=12						
LPIG				Sn	Sn	08 31 44.9	+5.4
	33nm,0.3s,baz=96,slow=14,SNR=7.3						
TXAR	Lajitas Array	6.81	61	Pn	Pn	08 32 19.4	+0.9
	0.4nm,0.3s,baz=242,slow=13,SNR=20						
TXAR				Lg		08 34 12.1	
	0.3nm,0.3s,baz=237,slow=22,SNR=3.6						
PDAR	Pinedale Array	16.58	2	Pn	Pn	08 34 32.2	+1.2
	0.0nm,0.3s,baz=165,slow=11,SNR=2.6						
YKA	Yellowknife Ar	36.42	357	P	P	08 37 44.3	+1.0
	0.3nm,1.0s,baz=176,slow=9.3,SNR=3.2						

IDC ***25*** *09:13:52.0±0.5, 73.19N×6.65E, h0^{km}, mb4.0/20, mb1 4.1/26, mb1mx4.1/28, mbtmp4.0/26, ML3.8/6, MS4.2/23, Ms1 4.2/23, ms1mx4.0/30, Error ellipse: s-maj=13.8km s-min=9.6km az=38.0*

BJI ***25*** *09:13:52.6, 73.20N×7.30E, h10^{km}, mB5.2, mb4.7, Ms4.9, Msz4.5*

MOS ***25*** *09:13:52.6±1.3, 73.31N×7.32E, h10^{km}, mb5.0/42, MS4.0/24, Error ellipse: s-maj=21.8km s-min=3.7km az=93.8*

ISCJB ***25*** *09:13:53.1±0.2, 73.28N±0.02×7.68E±0.09, h10^{km}, mb4.6/94, MS4.1/48, Error ellipse: s-maj=4.0km s-min=2.9km az=157.0*

CSEM ***25*** *09:13:53.9±0.1, 73.37N×7.62E, h19^{km}, mb4.9/47, Ms3.6, Mw4.9, Error ellipse: s-maj=3.3km s-min=1.5km az=64.0*

NAO ***25*** *09:13:53.3±2.0, 73.24N×7.54E, ML3.0*

GCMT ***25*** *09:13:54.7±0.2, 73.37N×7.21E, h12^{km}, MW4.9/73, Moment Tensor Solution. s11,c12; s73,c113; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.11±.07; M$_{\theta\theta}$0.80±.07; M$_{\phi\phi}$1.31±.06; M$_{r\theta}$0.74±.29; M$_{\theta\phi}$0.86±.06; M$_{\phi r}$-2.47±.27; Best double couple: M$_0$3.18000×10^{16} NP1:φ$_s$228.00000°, δ26.00000°, λ-45.00000°. NP2: φ$_s$0.00000°, δ72.00000°, λ-109.00000°. Principal axes: T 2.7040, Plg25.0000°, Azm105.0000°; N 0.9510, Plg18.0000°, Azm6.0000°; P -3.6560, Plg59.0000°, Azm243.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***25*** *09:13:54.7±0.2, 73.23N×7.32E, h10^{km}, mb4.9/49 Error ellipse: s-maj=5.7km s-min=3.4km az=65.0*

HEL ***25*** *09:13:55.2±0.5, 73.39N×7.60E, h10^{km}, ML4.0, mb4.9(NEIC), ML3.1(BER)*

BER ***25*** *09:13:56.7, 73.26N×7.77E, h10^{km}, MD3.1, ML3.1, ML3.0(NAO)*

SZGRF ***25*** *09:13:58.0, 73.20N×7.17E, h24^{km}, mb5.1, MS3.7, Greenland Sea*

ISC 25 09:13:54.0±1.2**, 73.25N**±0.02×**7.50E**±0.09**, h4**^{km}±7^{km}**, h21**^{km}±3.3^{km}**: pP-P, n394, σ1^{s}15**/413**, mb4.6**/94**, MS4.1**/48**, 19C-5D, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRO	Tromso	5.14	129	*e*P	Pn	09 15 11.2	-0.5
TRO				*e*S	Sn	09 16 03.5	-7.8
TRO				AML	AML	09 16 08.4	
	comp=Z,23nm,0.6s						
TRO	Tromso	5.14	129	*e*P	Pn	09 15 11.2	-0.5
TRO				*e*S	Sn	09 16 03.5	-7.8
JNW	Jan Mayen West	5.38	253	*e*	Pn	09 15 10.1	-4.7
JNW	Jan Mayen West	5.38	253	*e*	Pn	09 15 10.1	-4.7
SPB4	Spitsbergen Ar	5.41	20	*e*Pn	Pn	09 15 14.3	-1.0
SPB4	Spitsbergen Ar	5.41	20	*e*Pn	Pn	09 15 14.3	-0.9
SPA0	Spitsbergen Ar	5.41	20	Pn	Pn	09 15 14.0	-1.2
	baz=206,slow=12						
SPA0	Spitsbergen Ar	5.41	20	*e*P	Pn	09 15 14.0	-1.2
SPA0	Spitsbergen Ar	5.41	20	Pn	Pn	09 15 14.0	-1.2
	baz=206,slow=12						
SPA0	Spitsbergen Ar	5.41	20	Pn	Pn	09 15 14.0	-1.3
	SNR=50						
JMI	Jan Mayen	5.51	253	*e*	Pn	09 15 12.7	-4.0
JMI	Jan Mayen	5.51	253	*e*	Pn	09 15 12.7	-4.0
LOF	Lofoten	5.52	156	*e*P	Pn	09 15 17.2	+0.4
LOF				*e*S	Sn	09 16 14.5	-6.1
LOF				AML	AML	09 16 17.2	
	comp=Z,79nm,0.7s						
LOF	Lofoten	5.52	156	*e*P	Pn	09 15 17.2	+0.4
LOF				*e*S	Sn	09 16 14.5	-6.1
KBS	Kingsbay	5.80	9	Pn	Pn	09 15 18.4	-2.3
KBS	Kingsbay	5.80	9	*e*P	Pn	09 15 18.9	-1.7
KBS	Kingsbay	5.80	9	*e*Pn	Pn	09 15 18.9	-1.7
KBS	Kingsbay	5.80	9	*e*P	Pn	09 15 19.1	-1.6
KBS	Kingsbay	5.80	9	Pn	Pn	09 15 18.4	-2.3
KIF	Kilpisjarvi	6.06	128	*e*P	Pn	09 15 24.4	+0.2
KIF				MPN		09 15 26.4	
	comp=Z,28nm,0.3s						
KIF				*e*S	Sn	09 16 28.9	-4.9
KIF	Kilpisjarvi	6.06	128	P	Pn	09 15 24.3	+0.2
	comp=Z,28nm,0.3s						
KTK1	Kautokeino	6.63	122	*e*P	Pn	09 15 33.4	+1.5
ARA0	ARCESS Array S	6.84	114	Pn	Pn	09 15 34.9	-0.1
	baz=318,slow=14						
ARA0				Sn	Sn	09 16 48.0	-5.2
	baz=317,slow=18						
ARA0	ARCESS Array S	6.84	114	*e*P	Pn	09 15 34.9	-0.1
ARA0				*e*S	Sn	09 16 48.0	-5.2
ARA0	ARCESS Array S	6.84	114	Pn	Pn	09 15 34.9	-0.1
	baz=318,slow=14						
ARA0				Sn	Sn	09 16 48.0	-5.2
	baz=317,slow=18						
ARA0	ARCESS Array S	6.84	114	Pn	Pn	09 15 34.9	0.0
	SNR=50						
ARA0				Sn	Sn	09 16 48.0	-5.1
	SNR=50						
ARCES	ARCESS Array B	6.84	114	Pn	Pn	09 15 35.4	+0.5
ARCES				Sn	Sn	09 16 49.2	-3.9
ARCES	ARCESS Array B	6.84	114	Pn	Pn	09 15 35.4	+0.5
	comp=Z,3.7nm,0.3s,baz=326,slow=12,SNR=102						
ARCES				Sn	Sn	09 16 49.2	-3.9
	comp=Z,2.6nm,0.3s,baz=315,slow=20,SNR=7.6						
ARE0	ARCESS Array S	6.84	114	*e*Pn	Pn	09 15 35.3	+0.4
ARE0	ARCESS Array S	6.84	114	*e*Pn	Pn	09 15 35.3	+0.4
KEV	Kevo	7.10	110	*e*p	Pn	09 15 37.9	-0.6
	comp=Z,6.5nm,0.4s						
KEV	Kevo	7.10	110	*e*P	Pn	09 15 38.3	-0.2
KEV				MPN		09 15 41.5	
	comp=Z,9.1nm,0.4s						
KEV				*e*S	Sn	09 16 54.6	-4.9
KEV	Kevo	7.10	110	*e*P	Pn	09 15 37.9	-0.6
	comp=Z,6.5nm,0.4s						
KEV	Kevo	7.10	110	*e*P	Pn	09 15 37.9	-0.6
KEV				pmax	pmax		
	comp=Z,7.0nm,0.4s						
KEV	Kevo	7.10	110	P	Pn	09 15 38.3	-0.2
	comp=Z,9.1nm,0.4s						
HEF	Hetta	7.18	125	*e*P	Pn	09 15 40.6	+1.0
HEF				*e*S	Sn	09 16 58.0	-3.5
STOK	Stokkvaagen	7.21	162	*e*P	Pn	09 15 39.3	-0.7
STOK				*e*S	Sn	09 16 51.7	-10
STOK				AML	AML	09 16 60.0	
	comp=Z,31nm,0.7s						
STOK	Stokkvaagen	7.21	162	*e*P	Pn	09 15 39.3	-0.7
STOK				*e*S	Sn	09 16 51.7	-10
MOR8	Moi Rana	7.51	158	*e*P	Pn	09 15 42.7	-1.3
MOR8				*e*S	Sn	09 16 57.9	-12
MOR8				AML	AML	09 17 05.9	
	comp=Z,28nm,0.4s						
MOR8	Moi Rana	7.51	158	*e*P	Pn	09 15 42.7	-1.3
MOR8				*e*S	Sn	09 16 57.9	-12
DAG	Danmarks Havn	7.58	310	*e*P	Pn	09 15 42.1	-3.0
DAG	Danmarks Havn	7.58	310	⇑*i*P	Pn	09 15 42.1	-3.0
DAG				pmax	pmax		
	comp=Z,12nm,0.8s						
DAG	Danmarks Havn	7.58	310	⇑*i*P	Pn	09 15 42.1	-3.0
	comp=Z,12nm,0.8s						
DAG				*i*		09 16 54.4	
SGF	Sodankyl	8.62	123	*e*P	Pn	09 15 59.5	+0.2
SGF				MPN		09 16 06.0	
	comp=Z,13nm,0.5s						
SGF	Sodankyl	8.62	123	P	Pn	09 15 59.5	+0.2
	comp=Z,13nm,0.5s						
NSS	Namsos	8.91	167	*e*P	Pn	09 16 01.7	-1.6
NSS				*e*S	Sn	09 17 34.1	-10
NSS				AML	AML	09 17 44.4	
	comp=Z,18nm,0.6s						
NSS	Namsos	8.91	167	*e*P	Pn	09 16 01.7	-1.6
NSS				*e*S	Sn	09 17 34.1	-10
APA0	Apatity Array	10.17	111	Pn	Pn	09 16 21.4	+0.9
	baz=317,slow=12						
APA0	Apatity Array	10.17	111	*e*P	Pn	09 16 21.4	+0.9
APA0	Apatity Array	10.17	111	Pn	Pn	09 16 21.4	+0.9
	baz=317,slow=12						
APA0	Apatity Array	10.17	111	Pn	Pn	09 16 21.4	+0.9
	SNR=50						
APA	Apatity	10.31	110	⇓*i*P	Pn	09 16 21.0	-1.4
APA				pmax	pmax		
	comp=Z,13nm,0.9s						
APA				MLR	MLR		
	comp=Z,1μm,16.0s						
LVZ	Lovozero	10.42	107	⇑*e*P	Pn	09 16 22.6	-1.3
LVZ				pmax	pmax		
	comp=Z,62nm,1.1s						
OUL	Oulu	10.43	132	*e*P	Pn	09 16 24.9	+0.8
OUL	Oulu	10.43	132	P	Pn	09 16 24.8	+0.8
MSF	Maaselka	10.45	124	*e*P	Pn	09 16 25.0	+0.6
MSF				MPN		09 16 31.1	
	comp=Z,9.8nm,0.5s						
MSF	Maaselka	10.45	124	P	Pn	09 16 24.9	+0.6
	comp=Z,9.8nm,0.5s						
KU6	Riekki	10.57	122	*e*P	Pn	09 16 26.1	+0.1
KU6				*e*S	Sn	09 18 17.0	-7.5
KU6	Riekki	10.57	122	P	Pn	09 16 26.0	+0.1
VAF	Ylistaro	11.65	144	*e*P	Pn	09 16 41.1	+0.4
KJN	Kajaani	11.69	131	*e*P	Pn	09 16 41.5	+0.2
HYA	Hoyanger	12.15	183	*e*P	Pn	09 16 46.5	-1.1
NB2	NORSAR Subarra	12.35	172	Pn	Pn	09 16 49.4	-0.9
	baz=353,slow=14						
NB2	NORSAR Subarra	12.35	172	*e*P	Pn	09 16 49.4	-0.9
NB2	NORSAR Subarra	12.35	172	Pn	Pn	09 16 49.4	-0.9
	baz=353,slow=14						
NB2	NORSAR Subarra	12.35	172	Pn	Pn	09 16 49.3	-1.0
	SNR=50						
NOA	NORSAR Array B	12.35	172	Pn	Pn	09 16 48.2	-2.1
NOA				Sn	Sn	09 18 58.6	-10
NOA	NORSAR Array B	12.35	172	Pn	Pn	09 16 48.2	-2.1
	comp=Z,1.2nm,0.3s,baz=346,slow=12,SNR=9.0						
NOA				Sn	Sn	09 18 58.6	-10
	comp=Z,0.3nm,0.3s,baz=26,slow=9.8,SNR=3.3						
NOA	NORSAR Array B	12.35	172	Pn	Pn	09 16 48.2	-2.1
NOA				Sn	Sn	09 18 58.6	-10
SUF	Sumiainen	12.59	137	*e*P	Pn	09 16 52.7	-0.8
KEF	Keuruu	12.85	141	*e*P	Pn	09 16 57.1	0.0
KEF				MPN		09 16 59.6	
	comp=Z,4.2nm,0.3s						
KEF	Keuruu	12.85	141	P	Pn	09 16 57.1	0.0
	comp=Z,4.2nm,0.3s						
KAF	Kangasniemi	13.17	138	*e*p	Pn	09 17 00.5	-1.0
	comp=Z,17nm,0.9s,baz=340,slow=13						
KAF	Kangasniemi	13.17	138	*e*P	Pn	09 17 00.5	-1.0
KAF				pmax	pmax		
	comp=Z,17nm,0.9s						
HFS	Hagfors	13.39	167	Pn	Pn	09 17 03.6	-0.8
	baz=8.1,slow=14						
HFS	Hagfors	13.39	167	*e*P	Pn	09 17 03.6	-0.8
HFS	Hagfors	13.39	167	Pn	Pn	09 17 02.2	-2.3
HFS				Sn	Sn	09 19 24.3	-9.2
HFS	Hagfors	13.39	167	Pn	Pn	09 17 03.6	-0.8
	baz=8.1,slow=14						
HFS	Hagfors	13.39	167	Pn	Pn	09 17 02.2	-2.3
	comp=Z,1.2nm,0.3s,baz=9.7,slow=10,SNR=37						
HFS				Sn	Sn	09 19 24.3	-9.2
	comp=Z,0.5nm,0.3s,baz=353,slow=21,SNR=4.5						
HFS	Hagfors	13.39	167	Pn	Pn	09 17 03.7	-0.8
	SNR=50						
HFS				Sn	Sn	09 19 24.3	-9.2
RAF	Rauma	13.41	149	*e*P	Pn	09 17 03.5	-1.2
JOF	Joensuu	13.51	128	*e*p	Pn	09 17 03.1	-3.0
	comp=Z,25nm,1.2s						
FIA0	FINESS Array S	13.74	140	Pn	Pn	09 17 09.0	-0.3
	baz=342,slow=16						
FIA0	FINESS Array S	13.74	140	*e*P	Pn	09 17 09.0	-0.3
FIA0	FINESS Array S	13.74	140	Pn	Pn	09 17 09.0	-0.3
	baz=342,slow=16						
FIA0	FINESS Array S	13.74	140	Pn	Pn	09 17 09.0	-0.3
	SNR=50						
FIA1	FINESS Array S	13.74	140	*e*Pn	Pn	09 17 08.8	-0.4
FIA1	FINESS Array S	13.74	140	*e*Pn	Pn	09 17 08.9	-0.4
FINES	FINESS Array B	13.74	140	Pn	Pn	09 17 08.1	-1.2
FINES	FINESS Array B	13.74	140	Pn	Pn	09 17 08.1	-1.2
	comp=Z,0.5nm,0.3s,baz=348,slow=7.0,SNR=25						
FINES	FINESS Array B	13.74	140	Pn	Pn	09 17 08.1	-1.2
TMCR	Tamitsa	14.14	114	*e*P	Pn	09 17 21.3	+6.6
EKA	Eskdalemuir Ar	18.52	199	P	Pn	09 18 06.7	-4.3
	comp=Z,0.1nm,0.3s,baz=6.2,slow=10,SNR=6.4						
SFJD	Kangerlussuaq	19.91	282	P	Pn	09 18 21.8	-5.9
	comp=Z,0.2nm,0.3s,baz=163,slow=20,SNR=1.9						
SUW	Suwalki	20.39	153	*e*P	P	09 18 31.8	+0.4
SUW	Suwalki	20.39	153	*e*P	P	09 18 31.7	+0.3
WTSB	Winterswijk	21.37	181	*e*P	P	09 18 43.4	+1.4
	comp=Z,76nm,2.6s,mb4.6						
WTSB				*e*P		20 18 35.5	
	comp=Z,53nm,2.1s						
MOS	Moscow	21.39	129	*e*P	P	09 18 40.5	-1.7
MOS				*i*		09 18 47.2	
MOS				*e*		09 19 01.3	
MOS				pmax	pmax		
	comp=Z,54nm,0.8s,mb4.9						
CLZ	Clausthal	21.53	175	*e*P	P	09 18 43.6	-0.1
CLZ				*e**PP		09 18 52.1	
CLZ				pmax	pmax		
	comp=Z,137nm,1.8s,mb5.1						
CLZ	Clausthal	21.53	175	*e*P	P	09 18 43.6	-0.1
	comp=Z,137nm,1.8s,mb5.1						
CLZ				*e*pP		09 18 52.1	
OBN	Obninsk	21.73	131	*e*P	P	09 18 46.0	+0.1
	comp=Z,21nm,0.4s,mb4.9						
OBN	Obninsk	21.73	131	⇑*e*P	P	09 18 45.9	0.0
OBN				*e**SP	sP	09 18 49.5	+2.1
OBN				*e*		09 19 14.6	
OBN				*e*		09 19 15.1	
OBN				S	S	09 22 45.0	-1.4
OBN				pmax	pmax		
	comp=Z,149nm,1.8s,mb5.1						
OBN				MLR	MLR		
	comp=Z,200nm,14.0s,MS3.7						
OBN	Obninsk	21.73	131	*e*P	P	09 18 46.0	+0.1
	comp=Z,21nm,0.4s,mb4.9						
CLL	Collm	22.15	171	*i* P	P	09 18 51.4	+1.0
	comp=Z,56nm,1.6s,mb4.7						
CLL				*i*		09 18 55.7	
CLL				*e*S	S	09 22 58.0	+3.4
CLL				LR	LR		
	comp=Z,700nm,18.3s,MS4.1						
CLL	Collm	22.15	171	*i* P	P	09 18 51.4	+1.0
CLL				*i*		09 18 55.7	
CLL				*e*S	S	09 22 58.0	+3.4
CLL				pmax	pmax		
	comp=Z,56nm,1.6s,mb4.7						
CLL				MLR	MLR		
	comp=Z,700nm,18.3s,MS4.1						
CLL	Collm	22.15	171	*i* P	P	09 18 51.4	+1.0
	comp=Z,18nm,1.5s,mb4.3						
CLL				*i* sP	sP	09 18 55.7	+3.8
	comp=Z,56nm,1.6s						
CLL				*e*x	x	09 19 06.0	
CLL				*e*PPP		09 19 21.0	
CLL				*i* sPPP		09 19 26.5	
CLL				*e*S	S	09 22 58.0	+3.4
	comp=E,500nm,18.2s						
CLL				Lm		09 27 00.0	
	comp=N,500nm,19.1s						
CLL				Lm		09 27 00.0	
	comp=E,200nm,19.0s						
CLL				Lm		09 27 00.0	
	comp=Z,700nm,18.3s						
UCC	Uccle	22.58	185	P	P	09 18 57.4	+2.6
HGN	Heimansgroeve	22.58	183	*e*P	P	09 18 54.1	-0.8
	comp=Z,50nm,1.5s,mb4.7						
BRG	Berggiesshubel	22.63	169	*e*P	P	09 18 59.7	+4.2
BRG				pmax	pmax		
	comp=Z,61nm,2.2s,mb4.6						
BRG	Berggiesshubel	22.63	169	*e*P	P	09 18 59.7	+4.3
	comp=Z,101nm,2.2s,mb4.9						
MEM	Membach	22.73	182	P	P	09 18 56.7	+0.1
	comp=Z,12nm,1.6s,mb4.1						
MEM	Membach	22.73	182	P	P	09 18 56.6	+0.1
	comp=Z,12nm,1.6s,mb4.1						
MOX	Moxa	22.76	173	*e*P	P	09 18 57.6	+0.8
	comp=Z,52nm,1.5s,mb4.7						
MOX	Moxa	22.76	173	*e*P	P	09 18 57.6	+0.8
MOX				pmax	pmax		
	comp=Z,52nm,1.5s,mb4.7						
KSP	Ksiaz	22.81	166	*e*P	P	09 18 57.6	+0.2
KSP				*e*pP		09 19 02.4	
SNF	Seneffe	22.87	185	P	P	09 18 59.4	+1.5
	comp=Z,30nm,3.1s						
PVCC	Panska Ves	23.01	168	*e*P	P	09 19 01.9	+2.4
PVCC				AMS	AMS	09 27 50.0	
	comp=Z,700nm,11.1s						
SOKR	Solikamsk	23.07	100	⇑*i*P	P	09 19 04.6	+4.6
SOKR				pmax	pmax		
	comp=Z,40nm,1.4s,mb4.7						
SOKR				MLR	MLR		
	comp=Z,400nm,17.0s,MS3.9						
UPC	Upice	23.13	166	*e*P	P	09 19 03.9	+3.2
NKC	Novy Kostel	23.20	172	*e*P	P	09 19 01.8	+0.3
NKC				*e*		09 19 06.7	

NKC	Novy Kostel	23.20	172	eP	P	09 19 01.8	+0.3
NKC				epP		09 19 06.7	
NKC				AMS	AMS	09 28 20.0	
	comp=Z,800nm,14.9s						
GIVF	Givet	23.26	184	eP	P	09 18 59.1	-3.0
DOU	Dourbes	23.27	185	P	P	09 19 03.1	+0.8
DOU	Dourbes	23.27	185	P	P	09 19 03.0	+0.8
DPC	Dobruska-Polom	23.30	166	eP	P	09 19 03.3	+0.7
DPC				epP		09 19 08.3	
DPC				AMS	AMS	09 28 00.0	
	comp=Z,700nm,16.1s						
BAIF	Baives	23.32	185	eP	P	09 19 00.1	-2.6
	comp=Z,59nm,1.2s,mb4.6						
BAIF	Baives	23.32	185	eP	P	09 19 00.1	-2.6
	comp=Z,30nm,1.2s,mb4.6						
BAIF	Baives	23.32	185	eP	P	09 19 00.1	-2.6
BAIF				pmax	pmax		
	comp=Z,29nm,1.2s,mb4.6						
ABH	Alteburg	23.45	180	eP	P	09 19 05.3	+1.2
PRA	Prague	23.46	169	P	P	09 19 08.0	+3.8
PRU	Pruhonice	23.55	169	eP	P	09 19 05.2	+0.1
PRU				epP		09 19 11.1	
PRU				AMS	AMS	09 28 10.0	
	comp=Z,700nm,18.1s						
RUP	Ruppelstein	23.64	181	eP	P	09 19 06.3	+0.4
WLF	Walferdange	23.68	182	P	P	09 19 07.1	+0.7
	comp=Z,26nm,2.0s,mb4.3						
WLF	Walferdange	23.68	182	P	P	09 19 07.0	+0.7
	comp=Z,26nm,2.0s,mb4.3						
GRA1	Grafenberg Arr	23.70	174	eP	P	09 19 06.1	-0.4
	comp=Z,82nm,1.8s,mb4.9						
GRA1				epP		09 19 12.2	
GRA1				LR	LR		
	comp=Z,300nm,19.6s,MS3.8						
GRA1	Grafenberg Arr	23.70	174	eP	P	09 19 06.1	-0.4
	comp=Z,82nm,1.8s,mb4.9						
GRA1				epP		09 19 12.2	
GRF	Grafenberg Arr	23.70	174	eP	P	09 19 06.1	-0.4
GRF				e*PP		09 19 12.2	
GRF				pmax	pmax		
	comp=Z,82nm,1.8s,mb4.9						
GRF				MLR	MLR		
	comp=Z,300nm,19.6s,MS3.8						
GRF	Grafenberg Arr	23.70	174	eP	P	09 19 06.1	-0.4
GRF				e*PP		09 19 12.2	
GRF				pmax	pmax		
	comp=Z,82nm,1.8s,mb4.9						
GRF				pmax	pmax		
	comp=Z,82nm,1.8s,mb4.9						
GRF				MLR	MLR		
	comp=Z,300nm,19.6s,MS3.8						
GRF	Grafenberg Arr	23.70	174	eP	P	09 19 06.1	-0.4
	comp=Z,82nm,1.8s,mb4.9						
GRF				epP		09 19 12.2	
	comp=Z,82nm,1.8s						
GRF				eL		09 27 12.9	
	comp=Z,277nm,19.6s						
GRF	Grafenberg Arr	23.70	174	eP	P	09 19 06.1	-0.4
	comp=Z,82nm,1.8s,mb4.9						
GRF				epP		09 19 12.2	
OJC	Ojcow	23.73	160	eP	P	09 19 07.1	+0.3
TOD	Tromm	23.74	178	eP	P	09 19 07.6	+0.7
OKC	Ostrava-Krasne	23.96	163	eP	P	09 19 09.3	+0.4
OKC				AMS	AMS	09 28 10.0	
	comp=Z,900nm,16.9s						
MORC	Moravsky Berou	23.97	164	eP	P	09 19 09.2	+0.2
	comp=Z,107nm,1.8s,mb5.0						
MORC	Moravsky Berou	23.97	164	eP	P	09 19 09.2	+0.2
MORC				pmax	pmax		
	comp=Z,107nm,1.8s,mb5.0						
MORC	Moravsky Berou	23.97	164⇑	iP	P	09 19 09.1	+0.1
MORC	Moravsky Berou	23.97	164	eP	P	09 19 09.2	+0.2
	comp=Z,107nm,1.8s,mb5.0						
TREC	Trest	24.30	167	eP	P	09 19 12.8	+0.8
TREC				epP		09 19 17.7	
KHC	Kasperske Hory	24.36	170⇑	eP	P	09 19 13.7	+1.2
KHC	Kasperske Hory	24.36	170	eP	P	09 19 14.4	+1.9
KHC				ex	x	09 19 38.5	
KHC				AMS	AMS	09 28 40.0	
	comp=Z,800nm,16.3s						
LANF	Langenberg	24.36	180	eP	P	09 19 13.5	+1.0
VRAC	Vranov	24.36	165	P	P	09 19 12.6	0.0
	comp=Z,13nm,1.0s,mb4.3,baz=355,slow=12,SNR=13						
VRAC	Vranov	24.36	165⇑	iP	P	09 19 13.0	+0.4
AKASG	Malin Array Be	24.51	145	P	P	09 19 13.4	-0.5
AKASG				LR	LR	09 28 35.7	
AKASG	Malin Array Be	24.51	145	P	P	09 19 13.4	-0.5
	comp=Z,2.1nm,0.5s,mb3.9,baz=341,slow=8.5,SNR=7.7						
AKASG				LR	LR	09 28 35.7	
	comp=Z,1µm,20.1s,MS4.5,baz=335,slow=36						
AKASG	Malin Array Be	24.51	145	P	P	09 19 13.4	-0.5
AKBB	Malin Array Si	24.51	145	eP	P	09 19 13.9	0.0
KIEV	Kiev	24.51	145	eP	P	09 19 13.7	-0.3
	comp=Z,40nm,1.3s,mb4.8						
KIEV	Kiev	24.51	145	eP	P	09 19 13.7	-0.3
KIEV				pmax	pmax		
	comp=Z,40nm,1.3s,mb4.8						
KIEV	Kiev	24.51	145	eP	P	09 19 13.7	-0.3
	comp=Z,40nm,1.3s,mb4.8						
NIE	Niedzica	24.57	160	eP	P	09 19 15.4	+0.9
LVV	L'vov	24.61	154	eP	P	09 19 18.9	+4.1
LVV				MLR	MLR		
	comp=Z,700nm,16.0s,MS4.2						
KWP	Kalwaria	24.63	156	eP	P	09 19 21.1	+6.1
KWP	Kalwaria	24.63	156	eP	P	09 19 15.6	+0.5
	comp=Z,28nm,0.7s,mb4.9						
KWP	Kalwaria	24.63	156	eP	P	09 19 15.6	+0.6
KWP				pmax	pmax		
	comp=Z,28nm,0.7s,mb4.9						
KWP	Kalwaria	24.63	156	eP	P	09 19 15.6	+0.6
	comp=Z,28nm,0.7s,mb4.9						
GEC2	GERESS Array S	24.65	170	eP	P	09 19 17.2	+2.0
GEC2				e*PP		09 19 22.7	
GEC2				pmax	pmax		
	comp=Z,42nm,1.5s,mb4.8						
GEC2	GERESS Array S	24.65	170	eP	P	09 19 17.2	+2.0
	comp=Z,42nm,1.5s,mb4.8						
GEC2				epP		09 19 22.7	
GERES	GERESS Array B	24.65	170	P	P	09 19 14.9	-0.3
	comp=Z,4.8nm,1.0s,mb4.0,baz=352,slow=5.4,SNR=15						
STHS	Stebnicka Huta	24.67	158	eP	P	09 19 16.6	+1.2
STHS				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
STHS	Stebnicka Huta	24.67	158	eP	P	09 19 16.6	+1.2
	comp=Z,9.3nm,1.0s,mb4.3						
FLN	La Foliniere	24.83	193	eP	P	09 19 14.9	-1.9
FLN				eMLR	MLR		
	comp=Z,332nm,23.0s,MS3.5						
FLN	La Foliniere	24.83	193	eP	P	09 19 14.9	-1.9
FLN				MLR	MLR		
	comp=Z,330nm,23.0s,MS3.8						
MEZF	Maizieres J'vi	24.86	184	eP	P	09 19 15.5	-1.6
	comp=Z,49nm,1.2s,mb4.6						
MEZF	Maizieres J'vi	24.86	184	eP	P	09 19 15.5	-1.6
	comp=Z,24nm,1.2s,mb4.6						
CDF	Champ du Feu	24.93	180	eP	P	09 19 17.3	-0.4
	comp=Z,128nm,1.9s,mb4.8						
CDF	Champ du Feu	24.93	180	eP	P	09 19 17.3	-0.4
CDF				pmax	pmax		
	comp=Z,64nm,1.9s,mb4.8						
CDF	Champ du Feu	24.93	180	eP	P	09 19 17.3	-0.4
	comp=Z,64nm,1.9s,mb4.8						
LDF	La Druitiere	24.98	192	eP	P	09 19 16.4	-1.8
BFO	Black Forest	25.01	179	eP	P	09 19 19.5	+1.0
BFO				e*PP	pP	09 19 25.4	+5.8
BFO				pmax	pmax		
	comp=Z,75nm,1.5s,mb5.0						
BFO	Black Forest	25.01	179	eP	P	09 19 19.5	+1.0
	comp=Z,75nm,1.5s,mb5.0						
BFO				epP	pP	09 19 25.4	+5.8
ECH	Echery	25.12	181	eP	P	09 19 17.6	-1.9
CRVS	Cervenica-Dubn	25.21	158	eP	P	09 19 21.2	+0.9
CRVS				epP	pP	09 19 29.9	+8.5
SMOL	Smolenice	25.21	164	eP	P	09 19 27.1	+6.8
SMOL	Smolenice	25.21	164	epP	pP	09 19 27.1	+5.6
FUR	Furstenfeldbru	25.23	174	eP	P	09 19 20.8	+0.3
FUR				e*PP	pP	09 19 27.3	+5.7
FUR				pmax	pmax		
	comp=Z,107nm,1.5s,mb5.2						
FUR	Furstenfeldbru	25.23	174	eP	P	09 19 20.8	+0.3
	comp=Z,107nm,1.5s,mb5.2						
FUR				epP	pP	09 19 27.3	+5.7
KOLL	Kolacno	25.23	163	eP	P	09 19 20.7	+0.2
KOLS	Kolonicke sedl	25.27	157	eP	P	09 19 21.4	+0.6
KOLS				pmax	pmax		
	comp=Z,66nm,1.8s,mb4.9						
KOLS	Kolonicke sedl	25.27	157	eP	P	09 19 21.4	+0.6
	comp=Z,66nm,1.8s,mb4.9						
HAU	Haudompre	25.34	182	eP	P	09 19 20.2	-1.3
	comp=Z,184nm,1.6s,mb5.1						
HAU				eMLR	MLR		
	comp=Z,307nm,23.0s,MS3.5						
HAU	Haudompre	25.34	182	eP	P	09 19 20.2	-1.3
	comp=Z,92nm,1.6s,mb5.1						
HAU				LR	LR		
	comp=Z,310nm,23.0s,MS3.8						
HAU	Haudompre	25.34	182	eP	P	09 19 20.2	-1.3
HAU				pmax	pmax		
	comp=Z,92nm,1.6s,mb5.1						
HAU				MLR	MLR		
	comp=Z,310nm,23.0s,MS3.8						
VYHS	Vyhne	25.35	162	eP	P	09 19 21.9	+0.3
	comp=Z,29nm,1.6s,mb4.6						
VYHS				e		09 19 27.9	
VYHS	Vyhne	25.35	162	eP	P	09 19 21.9	+0.3
VYHS				e		09 19 27.9	
VYHS				pmax	pmax		
	comp=Z,29nm,1.6s,mb4.6						
FELD	Feldberg im Sc	25.46	179	eP	P	09 19 23.4	+0.8
VOR	Voronezh	25.46	131	eP	P	09 19 29.0	+6.4
VOR				pmax	pmax		
	comp=Z,200nm,2.0s,mb5.3						
ZST	Bratislava	25.50	165	eP	P	09 19 22.8	-0.2
	comp=Z,102nm,1.8s,mb5.0						
ZST				e		09 19 29.5	
ZST				LR	LR		
	comp=Z,600nm,17.4s,MS4.2						
ZST	Bratislava	25.50	165	eP	P	09 19 22.8	-0.2
ZST				e		09 19 29.5	
ZST				pmax	pmax		
	comp=Z,102nm,1.8s,mb5.0						
ZST				MLR	MLR		
	comp=Z,600nm,17.4s,MS4.2						
ZST	Bratislava	25.50	165	eP	P	09 19 22.8	-0.2
ZST				epP	pP	09 19 29.5	+5.4
ZST	Bratislava	25.50	165	eP	P	09 19 22.8	-0.2
	comp=Z,102nm,1.8s,mb5.0						
KECS	Kecovo	25.52	160	eP	P	09 19 23.8	+0.7
	comp=Z,8.0nm,1.2s,mb4.1						
KECS	Kecovo	25.52	160	eP	P	09 19 23.8	+0.7
KECS				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.1						
HINF	Hinteralfeld	25.52	181	eP	P	09 19 22.7	-0.4
	comp=Z,121nm,1.8s,mb4.8						
HINF	Hinteralfeld	25.52	181	eP	P	09 19 22.7	-0.4
HINF				pmax	pmax		
	comp=Z,61nm,1.8s,mb4.8						
HINF	Hinteralfeld	25.52	181	eP	P	09 19 22.7	-0.4
	comp=Z,61nm,1.8s,mb4.8						
UZH	Uzhgorod	25.57	157	eP	P	09 19 25.0	+1.5
UZH				e		09 19 29.6	
UZH				i		09 20 14.2	
UZH				eS	S	09 23 52.0	+0.5
UZH				eSS		09 24 53.0	
UZH				MLR	MLR		
	comp=Z,800nm,16.0s,MS4.3						
CONA	Conrad Observa	25.68	167⇑	iP	P	09 19 25.2	+0.6
	comp=Z,36nm,1.3s,mb4.8						
VRSR	Storozhevoye	25.95	131	eP	P	09 19 26.8	-0.1
VRSR				pmax	pmax		
	comp=N,3.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,3.0nm,0.9s						
VRSR				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.6						
SOP	Sopron	25.98	166	epP	pP	09 19 32.7	+4.3
PSZ	Piszkesteto	26.02	161	eP	P	09 19 27.8	+0.2
	comp=Z,75nm,1.7s,mb4.9						
PSZ	Piszkesteto	26.02	161	eP	P	09 19 27.8	+0.2
PSZ				pmax	pmax		
	comp=Z,75nm,1.7s,mb4.9						
PSZ	Piszkesteto	26.02	161	epP	pP	09 19 34.1	+5.3
PSZ	Piszkesteto	26.02	161	eP	P	09 19 27.8	+0.2
	comp=Z,75nm,1.7s,mb4.9						
DAVA	Damuels	26.07	176⇑	iP	P	09 19 30.1	+1.9
	comp=Z,48nm,1.5s,mb4.8						
DAVA	Damuels	26.07	176⇑	iP	P	09 19 30.0	+1.9
	comp=Z,48nm,1.5s,mb4.8						
TRPA	Tarpa	26.09	157⇑	iP	P	09 19 28.2	-0.1
LOR	Lormes	26.12	186	eP	P	09 19 27.0	-1.6
	comp=Z,80nm,1.4s,mb4.8						
LOR				eMLR	MLR		
	comp=Z,422nm,21.8s,MS3.6						
LOR	Lormes	26.12	186	eP	P	09 19 27.0	-1.6
	comp=Z,40nm,1.4s,mb4.8						
LOR				LR	LR		
	comp=Z,420nm,21.8s,MS3.9						
LOR	Lormes	26.12	186	eP	P	09 19 27.0	-1.6
LOR				pmax	pmax		
	comp=Z,40nm,1.4s,mb4.8						
LOR				MLR	MLR		
	comp=Z,420nm,21.8s,MS3.9						
ARU	Arti	26.23	102	eP	P	09 19 30.4	+0.9
	comp=Z,41nm,1.3s,mb4.8						
ARU	Arti	26.23	102d	iP	P	09 19 30.0	+0.5
ARU				ePPP		09 20 17.3	
ARU				eS	S	09 24 02.7	+0.8
ARU				pmax	pmax		
	comp=Z,48nm,1.2s,mb4.9						
ARU	Arti	26.23	102	eP	P	09 19 30.4	+0.9
	comp=Z,41nm,1.3s,mb4.8						
SSF	Saint Saulge	26.34	186	eP	P	09 19 29.8	-0.7
	comp=Z,39nm,1.3s,mb4.5						
SSF	Saint Saulge	26.34	186	eP	P	09 19 29.8	-0.7
SSF				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.5						
SSF	Saint Saulge	26.34	186	eP	P	09 19 29.8	-0.7
	comp=Z,20nm,1.3s,mb4.5						
BUD	Budapest	26.37	162⇓	esP	sP	09 19 41.4	+9.0
DAVOX	Davos/Dischmat	26.58	176	LR	LR	09 29 26.3	
	comp=Z,405nm,19.4s,MS4.0,baz=80,slow=35						
VRHR	Novokhopersk	26.60	128	eP	P	09 19 37.4	+4.5
VRHR				pmax	pmax		
	comp=N,7.0nm,0.5s						
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.6						
VRHR				pmax	pmax		
	comp=E,3.0nm,0.4s						
AVF	Avril sur Loir	26.61	186	eP	P	09 19 31.9	-1.1
	comp=E,90nm,1.5s,mb4.8						
AVF	Avril sur Loir	26.61	186	eP	P	09 19 31.9	-1.1
AVF				pmax	pmax		
	comp=Z,45nm,1.5s,mb4.8						
AVF	Avril sur Loir	26.61	186	eP	P	09 19 31.9	-1.1
	comp=Z,45nm,1.5s,mb4.8						
SMF	Signal de Mont	26.74	186	eP	P	09 19 33.2	-1.0
	comp=Z,136nm,1.6s,mb4.9						
SMF	Signal de Mont	26.74	186	eP	P	09 19 33.2	-1.0
SMF				pmax	pmax		
	comp=Z,68nm,1.6s,mb4.9						
SMF	Signal de Mont	26.74	186	eP	P	09 19 33.2	-1.0
	comp=Z,68nm,1.6s,mb4.9						
BGF	Bois d'Agland	26.86	187	eP	P	09 19 34.4	-0.9
BURAR	Bucovina Array	26.93	153⇓	iP	P	09 19 37.0	+1.2
PERS	Pernice	26.93	168	eP	P	09 19 36.2	+0.3
PERS				i		09 19 41.7	
TCF	Toulx Ste Croi	27.16	188	eP	P	09 19 36.8	-1.1
DRGR		27.43	157⇑	iP	P	09 19 42.3	+2.0
PKSM	Moragy	27.60	163⇓	iP	P	09 19 47.6	+5.7
JAVS	Javornik	27.61	170	i P	P	09 19 42.5	+0.5
JAVS				e		09 19 47.7	
VISS	Visnje	27.74	169	i P	P	09 19 43.7	+0.5
VISS				i		09 19 49.1	
VISS				i		09 19 52.4	
LPL	La Plagne	27.82	181	eP	P	09 19 43.5	-0.4
LPG	La Plagne	27.84	181	eP	P	09 19 43.7	-0.4
	comp=Z,29nm,1.4s,mb4.4						
LPG	La Plagne	27.84	181	eP	P	09 19 43.7	-0.4
LPG				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.4						
LPG	La Plagne	27.84	181	eP	P	09 19 43.7	-0.4
	comp=Z,14nm,1.4s,mb4.4						
KIS	Kishinev	28.04	148	eP	P	09 19 50.0	+4.2
KIS				LRM		09 30 25.0	
	comp=Z,1µm,18.0s						
BZS	Buzias	28.47	159⇑	iP	P	09 19 49.2	-0.4
ORR	Orenburg	29.43	111	eP	P	09 19 59.0	+0.9
FRF	La Foret Royal	29.78	181	eP	P	09 19 59.7	-1.6
	comp=Z,17nm,0.9s,mb4.5						
FRF	La Foret Royal	29.78	181	eP	P	09 19 59.7	-1.6
	comp=Z,8.4nm,0.9s,mb4.5						
FRF	La Foret Royal	29.78	181	eP	P	09 19 59.7	-1.6
FRF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
TIXI	Tiksi	30.69	32	eP	P	09 20 09.4	+0.3
TIXI	Tiksi	30.69	32	eP	P	09 20 09.1	0.0
TIXI				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,152nm,16.0s,MS3.8						
TIXI	Tiksi	30.69	32	eP	P	09 20 09.4	+0.3
AKTK	Aktyubinsk	31.39	109	P	P	09 20 16.1	+0.7
AKTK				LR	LR	09 33 18.6	
AKTK	Aktyubinsk	31.39	109	P	P	09 20 16.1	+0.7
AKTO	Aktyubinsk	31.39	109	P	P	09 20 16.1	+0.7
	comp=Z,4.0nm,1.0s,mb4.2,baz=345,slow=8.7,SNR=5.5						
AKTO				LR	LR	09 33 18.6	
	comp=Z,617nm,20.8s,MS4.3,baz=350,slow=37						
ANN	Anapa	31.68	137	eP	P	09 20 20.0	+1.9
ANN				pmax	pmax		
	comp=Z,45nm,1.2s,mb5.2						
ANN				MLR	MLR		
	comp=Z,577nm,16.0s,MS4.3						
KIV	Kislovodsk	33.58	131	eP	P	09 20 33.4	-1.3
KIV				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
KIV				MLR	MLR		
	comp=Z,397nm,15.0s,MS4.3						
ESDC	Sonseca Array	34.12	196	P	P	09 20 36.3	-3.1
	comp=Z,0.1nm,0.4s,baz=355,slow=24,SNR=3.1						
SCHQ	Schefferville	34.32	279	P	P	09 20 36.5	-4.5
	comp=Z,2.2nm,0.9s,mb4.1,baz=108,slow=11,SNR=2.5						
NVS	Novosibirsk	34.72	80	eP	P	09 20 46.3	+1.9
NVS				pmax	pmax		
	comp=Z,42nm,2.0s,mb5.0						
NVS				pmax	pmax		
	comp=N,62nm,2.6s						
BRTR	Keskin Array B	35.91	145	P	P	09 20 56.1	+1.3
	comp=N,1.1nm,0.8s,mb3.9,baz=329,slow=5.8,SNR=4.2						
BRTR				LR	LR	09 38 04.9	
	comp=N,276nm,18.3s,MS4.1,baz=320,slow=40						
ZALV	Zalesovo Beam	35.95	79	P	P	09 20 56.0	+1.0
	comp=N,0.7nm,0.5s,mb3.9,baz=339,slow=7.9,SNR=4.9						
ZALV				LR	LR	09 38 03.9	
	comp=N,203nm,20.9s,MS3.9,baz=201,slow=40						
ZAL	Zalesovo	35.95	79	P	P	09 20 56.0	+0.9
INK	Inuvik	36.42	337	eP	P	09 20 58.3	-0.7
KURK	Kurchatov	37.02	87	eP	P	09 21 04.6	+0.4
	comp=N,57nm,2.1s,mb5.0						
KURK	Kurchatov	37.02	87⇑	eP	P	09 21 04.8	+0.6
KURK	Kurchatov	37.02	87	eP	P	09 21 04.6	+0.4
	comp=N,57nm,2.1s,mb5.0						
KEST	Kesra	37.61	178	LR	LR	09 36 13.1	
	comp=N,74nm,20.4s,MS3.5,baz=26,slow=36						
MALT	Malatya	38.14	139	eP	P	09 21 15.2	+1.4
	comp=N,49nm,1.8s,mb4.9						
MALT	Malatya	38.14	139	eP	P	09 21 15.2	+1.4
MALT				pmax	pmax		
	comp=Z,49nm,1.8s,mb4.9						
MALT	Malatya	38.14	139⇑	iP	P	09 21 15.4	+1.6
MALT	Malatya	38.14	139	eP	P	09 21 15.2	+1.4
	comp=Z,49nm,1.8s,mb4.9						
FCC	Fort Churchill	38.15	304	eP	P	09 21 14.5	+0.9
BILL	Bilibino	38.27	13⇑	eP	P	09 21 14.7	+0.1
BILL				e		09 21 18.5	
BILL				e		09 21 20.1	
BILL				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.8						
BILL				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.0						
YKW3	Yellowknife Ar	39.04	321	eP	P	09 21 21.7	+0.6
YKW3	Yellowknife Ar	39.04	321	eP	P	09 21 21.7	+0.6
YKA	Yellowknife Ar	39.10	321	P	P	09 21 19.3	-2.3
YKA				PcP	PcP	09 23 29.4	-1.6
YKA				LR	LR	09 37 21.7	
YKA	Yellowknife Ar	39.10	321	i P	P	09 21 19.2	-2.4
YKA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
YKA	Yellowknife Ar	39.10	321	P	P	09 21 19.3	-2.3
	comp=Z,1.8nm,0.9s,mb3.8,baz=19,slow=8.7,SNR=21						
YKA				PcP	PcP	09 23 29.4	-1.6
	comp=Z,0.7nm,0.8s,baz=15,slow=2.9,SNR=9.8						
YKA				LR	LR	09 37 21.7	
	comp=Z,434nm,19.1s,MS4.3,baz=160,slow=36						
YKA	Yellowknife Ar	39.10	321	PcP	PcP	09 23 29.4	-1.6
BOD	Bodaibo	40.15	53	eP	P	09 21 28.2	-2.2
BOD				pmax	pmax		
	comp=Z,7.0nm,2.2s,mb4.0						
COLA	College	41.16	344	eP	P	09 21 39.1	+0.5
MKAR	Makanchi Array	41.62	87	P	P	09 21 43.4	+0.8
MKAR				LR	LR	09 41 51.5	
MKAR	Makanchi Array	41.62	87	P	P	09 21 43.4	+0.8
	comp=Z,0.6nm,0.6s,baz=329,slow=9.1,SNR=4.5						
MKAR				LR	LR	09 41 51.5	
	comp=Z,270nm,19.7s,baz=345,slow=40						
MMAI	Mount Meron Ar	42.75	145	LR	LR	09 41 16.3	
	comp=Z,179nm,19.0s,MS4.0,baz=315,slow=38						
IRK	Irkutsk	42.80	64	eP	P	09 21 52.4	+0.2
IRK				e		09 23 46.1	
IRK				pmax	pmax		
	comp=Z,38nm,1.9s,mb4.8						
TLY	Talaya	43.15	65	eP	P	09 21 52.6	-2.4
TLY	Talaya	43.15	65	eP	P	09 21 53.4	-1.6
TLY				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.3						
TLY				MLR	MLR		
	comp=Z,96nm,19.0s,MS3.7						
TLY	Talaya	43.15	65	eP	P	09 21 52.6	-2.4
CLNS	Chul'man	43.43	45	eP	P	09 21 55.1	-2.1
CLNS				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
CLNS				pmax	pmax		
	comp=N,5.0nm,0.7s						
CLNS				pmax	pmax		
	comp=N,162nm,13.0s						
CLNS				pmax	pmax		
	comp=Z,86nm,13.1s						
CLNS				pmax	pmax		
	comp=E,276nm,15.5s						
CLNS				MLR	MLR		
	comp=Z,200nm,14.0s,MS4.2						
CLNS				MLR	MLR		
	comp=N,100nm,13.0s,MS4.2						
CLNS				MLR	MLR		
	comp=E,200nm,14.0s,MS4.2						
FFC	Flin Flon	43.66	308	eP	P	09 21 58.6	-0.5
MA2	Magadan	45.13	25⇑	eP	P	09 22 10.9	+0.1
MA2				pmax	pmax		
	comp=Z,15nm,2.2s,mb4.4						
SVW2	Sparrevohn	45.43	349	eP	P	09 22 12.3	-0.8
SVW2	Sparrevohn	45.43	349	eP	P	09 22 12.3	-0.9
WMQ	Urumqi	45.89	83	P	P	09 22 18.8	+1.8
WMQ				AP	pP	09 22 26.3	+8.1
WMQ				XP	sP	09 22 29.5	+11
WMQ				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.7						
WMQ				LR	LR		
	comp=N,211nm,21.8s,MS4.3						
WMQ				LR	LR		
	comp=E,361nm,21.0s,MS4.3						
WMQ				LR	LR		
	comp=Z,219nm,17.0s,MS4.2						
ULM	Lac du Bonnet	46.31	300	P	P	09 22 17.0	-3.2
ULM				LR	LR	09 41 20.6	
ULM	Lac du Bonnet	46.31	300	P	P	09 22 17.0	-3.2
	comp=Z,4.4nm,1.0s,mb4.4,baz=29,slow=7.3,SNR=6.2						
ULM				LR	LR	09 41 20.6	
	comp=Z,478nm,18.5s,MS4.5,baz=166,slow=36						
SONM	Songino Array	47.39	65	P	P	09 22 30.2	+1.5
SONM				PcP	PcP	09 23 59.3	+0.2
SONM				LR	LR	09 49 59.1	
SONM	Songino Array	47.39	65	P	P	09 22 30.2	+1.5
SONM						09 23 59.3	
SONM	Songino Array	47.39	65	P	P	09 22 30.2	+1.5
	comp=Z,2.6nm,1.1s,mb4.1,baz=335,slow=5.7,SNR=9.0						
SONM				PcP	PcP	09 23 59.3	+0.2
	comp=Z,0.6nm,0.8s,baz=349,slow=4.4,SNR=2.7						
SONM				LR	LR	09 49 59.1	
	comp=Z,88nm,19.3s,MS3.7,baz=4.8,slow=46						
EDM	Edmonton	47.52	316	eP	P	09 22 29.9	+0.3
EDM	Edmonton	47.52	316	eP	P	09 22 29.9	+0.2
ULN	Ulaanbaatar	47.53	64	eP	P	09 22 30.4	+0.6
	comp=Z,3.5nm,0.6s,mb4.6						
ULN	Ulaanbaatar	47.53	64	eP	P	09 22 30.4	+0.6
ULN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						

ULN	**Ulaanbaatar**	**47.53**	**64**	*e*P	**P**	**09 22 30.4**	**+0.6**
	comp=Z,3.5nm,0.6s,mb4.6						
ALLY	**Alegheny Colle**	**50.02**	**282**	*e*P	**P**	**09 22 50.7**	**+1.7**
ALLY	**Alegheny Colle**	**50.02**	**282**	*e*P	**P**	**09 22 50.7**	**+1.7**
BBB	**Bella Bella**	**51.20**	**326**	LR	LR	09 45 52.9	
	comp=Z,577nm,18.4s,MS4.6,baz=354,slow=38						
WALA	**Waterton Lakes**	**51.58**	**314**	*e*P	**P**	**09 23 00.7**	**+0.1**
	comp=Z,16nm,1.3s,mb4.8						
ACSO	**Alum Creek Sta**	**52.13**	**284**	*e*P	**P**	**09 23 08.5**	**+3.6**
	comp=Z,19nm,1.0s,mb5.0						
ECSD	**EROS,Sioux Fal**	**52.55**	**298**	*e*P	**P**	**09 23 06.0**	**-1.9**
	comp=Z,22nm,1.3s,mb4.9						
ECSD	**EROS,Sioux Fal**	**52.55**	**298**	*e*P	**P**	**09 23 06.0**	**-2.0**
	comp=Z,22nm,1.3s,mb4.9						
BSMT	**Bassoo Peak**	**52.91**	**314**	*e*P	**P**	**09 23 10.9**	**+0.4**
BSMT	**Bassoo Peak**	**52.91**	**314**	*e*P	**P**	**09 23 10.9**	**+0.4**
NEW	**Newport**	**52.99**	**316**	*e*P	**P**	**09 23 14.4**	**+3.3**
GTA	**Gaotai**	**53.41**	**75**	*e*P	**P**	**09 23 16.3**	**+2.0**
GTA				AP	pP	09 23 20.0	+4.5
GTA				XP	sP	09 23 21.5	+5.5
GTA				PP	PP	09 25 19.0	+4.7
GTA				PPP		09 26 28.3	
GTA				S	**S**	**09 30 49.0**	**+2.3**
GTA				XS	sS	09 30 57.0	+8.3
GTA				PS		09 31 00.8	
GTA				SS	SS	09 34 28.5	+2.5
GTA				AMB	AMB		
	comp=Z,6.0nm,1.6s,mb4.3						
GTA				AMB	AMB		
	comp=Z,288nm,5.3s						
GTA				LR	LR		
	comp=N,126nm,14.8s,MS4.3						
GTA				LR	LR		
	comp=E,152nm,13.7s,MS4.3						
GTA				LR	LR		
	comp=Z,126nm,15.2s,MS4.1						
MSO	**Missoula**	**53.71**	**313**	*e*P	**P**	**09 23 17.5**	**+1.1**
	comp=Z,12nm,1.3s,mb4.7						
MSO	**Missoula**	**53.71**	**313**	*e*P	**P**	**09 23 17.5**	**+1.1**
	comp=Z,12nm,1.3s,mb4.7						
GCMT	**Greycliff**	**53.76**	**309**	*e*P	**P**	**09 23 17.6**	**+0.7**
GCMT	**Greycliff**	**53.76**	**309**	*e*P	**P**	**09 23 17.5**	**+0.7**
HHC	**Hu-ho-hao-te**	**55.24**	**64**	*e*P	**P**	**09 23 28.3**	**+0.6**
HHC				PP	PP	09 25 32.0	+1.3
HHC				S	**S**	**09 31 05.0**	**-6.4**
HHC				SCS	ScS	09 33 13.8	-3.3
HHC				AMB	AMB		
	comp=Z,8.0nm,0.5s,mb5.0						
HHC				LR	LR		
	comp=N,166nm,20.2s,MS4.4						
HHC				LR	LR		
	comp=E,258nm,20.2s,MS4.4						
HHC				LR	LR		
	comp=Z,194nm,16.6s,MS4.3						
MCMT	**McKenzie Canyo**	**55.38**	**312**	*e*P	**P**	**09 23 28.7**	**+0.1**
MCMT	**McKenzie Canyo**	**55.38**	**312**	*e*P	**P**	**09 23 28.7**	**+0.1**
USIN	**University of**	**55.55**	**287**	*e*P	**P**	**09 23 30.2**	**+0.3**
CN2	**Changchun**	**55.83**	**51**	*e*P	**P**	**09 23 31.8**	**0.0**
CN2				*e*S	**S**	**09 31 14.5**	**-4.6**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
CN2				AMB	AMB		
	comp=Z,130nm,4.0s						
CN2				LR	LR		
	comp=N,310nm,17.0s,MS4.7						
CN2				LR	LR		
	comp=E,440nm,17.0s,MS4.7						
CN2				LR	LR		
	comp=Z,370nm,19.0s,MS4.5						
IMW	**Indian Meadow**	**55.84**	**310**	*e*P	**P**	**09 23 31.7**	**-0.3**
	comp=Z,8.0nm,0.8s,mb4.8						
IMW	**Indian Meadow**	**55.84**	**310**	*e*P	**P**	**09 23 31.7**	**-0.2**
	comp=Z,8.0nm,0.8s,mb4.8						
MOOW	**Moose Ponds**	**55.94**	**310**	*e*P	**P**	**09 23 34.6**	**+1.9**
	comp=Z,19nm,1.8s,mb4.8						
MOOW	**Moose Ponds**	**55.94**	**310**	*e*P	**P**	**09 23 34.6**	**+2.0**
	comp=Z,19nm,1.8s,mb4.8						
LOHW	**Long Hollow**	**56.04**	**309**	*e*P	**P**	**09 23 33.2**	**-0.1**
LOHW	**Long Hollow**	**56.04**	**309**	*e*P	**P**	**09 23 33.2**	**-0.1**
DCID1	**Drake Creek**	**56.19**	**310**	*e*P	**P**	**09 23 40.1**	**+5.7**
YSS	**Yuzh-Sakhalins**	**56.21**	**35**⇑	*e*P	**P**	**09 23 34.1**	**-0.4**
YSS				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
BMO	**Blue Mountains**	**56.29**	**315**	*e*P	**P**	**09 23 39.4**	**+4.3**
REDW	**Red Top Meadow**	**56.33**	**310**	*e*P	**P**	**09 23 40.3**	**+4.9**
	comp=Z,17nm,1.4s,mb4.9						
PDAR	**Pinedale Array**	**56.61**	**308**	P	**P**	**09 23 35.1**	**-2.3**
	comp=Z,4.9nm,1.1s,mb4.4,baz=35,slow=9.0,SNR=10						
PDAR				LR	LR	09 47 25.2	
	comp=Z,147nm,21.5s,MS4.0,baz=49,slow=36						
BW06	**Boulder Array**	**56.61**	**308**	*e*P	**P**	**09 23 38.4**	**+1.0**
	comp=Z,15nm,1.4s,mb4.8						
TKL	**Tuckaleechee C**	**56.62**	**283**	LR	LR	09 47 37.3	
	comp=Z,305nm,19.1s,MS4.4,baz=96,slow=36						
HLID	**Hailey**	**56.92**	**313**	*e*P	**P**	**09 23 43.1**	**+3.5**
PHWY	**Pilot Hill**	**57.04**	**304**	*e*P	**P**	**09 23 39.6**	**-0.9**
BJI	**Beijing**	**57.18**	**60**	P	**P**	**09 23 40.3**	**-1.2**
BJI				S	**S**	**09 31 37.0**	**-0.2**
BJI				AMB	AMB		
	comp=Z,3.0nm,0.9s,mb4.3						
BJI				LR	LR		
	comp=Z,83nm,31.9s,MS3.6						
BJI	**Beijing**	**57.18**	**60**	P	**P**	**09 23 40.2**	**-1.3**
BJI				S	**S**	**09 31 37.1**	**-0.1**
BJI				LR	LR		
	comp=Z,80nm,31.9s,MS3.6						
LZH	**Lanzhou**	**57.64**	**72**	*e*P	**P**	**09 23 45.0**	**+0.2**
LZH				AP	pP	09 23 49.0	+3.0
LZH				XP	sP	09 23 51.0	+4.6
LZH				PP	PP	09 25 54.0	+1.9
LZH				*e*S	**S**	**09 31 39.0**	**-4.3**
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb5.0						
LZH				AMB	AMB		
	comp=Z,100nm,5.7s						
LZH				LR	LR		
	comp=N,280nm,11.0s						
LZH				LR	LR		
	comp=Z,315nm,13.0s,MS4.6						
LZH	**Lanzhou**	**57.64**	**72**	*e*P	**P**	**09 23 45.1**	**+0.3**
	comp=Z,15nm,1.0s,mb5.0						
LZH				pP	pP	09 23 49.0	+3.0
LZH				sP	sP	09 23 51.0	+4.6
LZH				PP	PP	09 25 54.0	+1.9
LZH				*e*S	**S**	**09 31 39.0**	**-4.3**
LZH				sS	sS	09 31 44.0	-1.2
LZH				SS	SS	09 35 29.5	-3.1
LZH				LR	LR		
	comp=Z,320nm,13.0s,MS4.6						
LZH	**Lanzhou**	**57.64**	**72**	*e*P	**P**	**09 23 45.1**	**+0.3**
LZH				*PP	pP	09 23 49.0	+3.0
LZH				*SP	sP	09 23 51.0	+4.6
LZH						09 25 54.0	
LZH				*e*S	**S**	**09 31 39.0**	**-4.3**
LZH				SS	SS	09 35 29.5	-3.1
LZH				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
LZH				MLR	MLR		
	comp=Z,320nm,13.0s,MS4.6						
LZH	**Lanzhou**	**57.64**	**72**	*e*P	**P**	**09 23 45.1**	**+0.3**
	comp=Z,15nm,1.0s,mb5.0						
LZH				pP	pP	09 23 49.0	+3.0
LZH				*e*S	**S**	**09 31 39.0**	**-4.3**
SMCO	**Snowmass**	**59.42**	**305**	*e*P	**P**	**09 23 59.0**	**+1.9**
	comp=Z,11nm,1.1s,mb4.8						
SMCO	**Snowmass**	**59.42**	**305**	*e*P	**P**	**09 23 59.0**	**+1.9**
	comp=Z,11nm,1.1s,mb4.8						
DUG	**Dugway**	**59.79**	**310**	*e*P	**P**	**09 24 04.1**	**+4.4**
TOA0	**Torodi Ar. Sit**	**60.18**	**187**	*e*P	**P**	**09 24 01.6**	**-1.0**
TOA0	**Torodi Ar. Sit**	**60.18**	**187**	*e*P	**P**	**09 24 01.6**	**-1.0**
TORD	**Torodi Ar. Bea**	**60.18**	**187**	P	**P**	**09 24 01.0**	**-1.6**
	comp=Z,2.9nm,0.7s,mb4.5,baz=359,slow=6.1,SNR=17						
TORD				LR	LR	09 51 26.9	
	comp=Z,96nm,18.7s,MS4.0,baz=335,slow=38						
MIAR	**Mount Ida**	**60.38**	**291**	*e*P	**P**	**09 24 08.1**	**+4.3**
SDCO	**Great Sand Dun**	**60.42**	**303**	*e*P	**P**	**09 24 04.1**	**0.0**
SDCO	**Great Sand Dun**	**60.42**	**303**	*e*P	**P**	**09 24 04.1**	**0.0**
PV01	**Paradox Valley**	**60.79**	**306**	*e*P	**P**	**09 24 06.0**	**-0.5**
PV01	**Paradox Valley**	**60.79**	**306**	*e*P	**P**	**09 24 06.0**	**-0.6**
MSU	**Marysvale**	**61.26**	**309**	*e*P	**P**	**09 24 10.5**	**+0.8**
MSU	**Marysvale**	**61.26**	**309**	*e*P	**P**	**09 24 10.5**	**+0.8**
MVCO	**Mesa Verde**	**61.65**	**305**	*e*P	**P**	**09 24 13.1**	**+0.7**
	comp=Z,38nm,1.6s,mb5.3						
KSRS	**Korea Array**	**62.44**	**51**	P	**P**	**09 24 17.4**	**-0.3**
	comp=Z,0.7nm,0.7s,mb3.9,baz=351,slow=7.0,SNR=3.4						
KSRS				LR	LR	09 54 43.3	
	comp=Z,113nm,18.4s,MS4.1,baz=237,slow=39						
CD2	**Chengdu**	**62.48**	**74**	*e*P	**P**	**09 24 18.5**	**+0.4**
CD2				PP	PP	09 26 37.5	+2.4
CD2				S	**S**	**09 32 42.0**	**-3.6**
CD2				SS	SS	09 36 46.8	-1.9
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb5.1						
CD2				AMB	AMB		
	comp=Z,30nm,5.8s						
CD2				LR	LR		
	comp=N,210nm,15.4s						
CD2				LR	LR		
	comp=Z,160nm,14.6s,MS4.3						
NVAR	**Mina Array Bea**	**62.67**	**314**	P	**P**	**09 24 18.5**	**-0.7**
	comp=Z,0.3nm,0.4s,mb3.8,baz=60,slow=15,SNR=2.4						
NJ2	**Nanjing**	**65.43**	**60**	*e*P	**P**	**09 24 39.3**	**+1.8**
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.3						
MJAR	**Matsushiro Arr**	**65.48**	**42**	P	**P**	**09 24 36.3**	**-1.4**
	comp=Z,0.4nm,0.5s,mb3.7,baz=351,slow=5.8,SNR=5.7						
PFO	**Pinyon Flat Ob**	**66.91**	**311**	LR	LR	09 54 57.7	
	comp=Z,318nm,20.9s,MS4.5,baz=323,slow=37						
LIC	**Lamto**	**67.39**	**194**	*e*P	**P**	**09 24 47.1**	**-3.0**
	comp=Z,23nm,1.2s,mb4.8						
LIC				*e*MLR	MLR		
	comp=Z,116nm,22.9s,MS3.7						
LIC	**Lamto**	**67.39**	**194**	*e*P	**P**	**09 24 47.1**	**-3.0**
	comp=Z,12nm,1.2s,mb4.8						
LIC				LR	LR		
	comp=Z,60nm,22.9s,MS3.8						
GYA	**Guiyang**	**67.50**	**73**	P	**P**	**09 24 51.3**	**+0.5**
GYA				PCP	PcP	09 25 19.5	+1.4
GYA				PP	PP	09 27 21.5	+2.4
GYA				SCP		09 29 21.5	
GYA				S	S	09 33 44.8	-2.6
GYA				PS		09 34 08.5	
GYA				SKS		09 34 45.0	
GYA				SS	SS	09 38 05.5	-1.4
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.1						
GYA				AMB	AMB		
	comp=Z,90nm,6.4s						
GYA				LR	LR		
	comp=N,430nm,19.7s,MS4.9						
GYA				LR	LR		
	comp=E,480nm,18.9s,MS4.9						
GYA				LR	LR		
	comp=Z,540nm,20.5s,MS4.8						
KMI	**Kunming**	**67.66**	**77**	P	**P**	**09 24 51.8**	**0.0**
KMI				AP	pP	09 24 56.0	+3.0
KMI				XP	sP	09 24 57.8	+4.3
KMI				PP	PP	09 27 19.8	-0.7
KMI				S	S	09 33 48.8	-0.6
KMI				AMB	AMB		
	comp=Z,5.0nm,1.5s,mb4.3						
KMI				AMB	AMB		
	comp=Z,114nm,4.8s						
KMI				LR	LR		
	comp=N,149nm,19.7s						
KMI				LR	LR		
	comp=E,197nm,26.7s						
KMI				LR	LR		
	comp=Z,149nm,23.9s,MS4.1						
KMI	**Kunming**	**67.66**	**77**	P	**P**	**09 24 51.8**	**0.0**
	comp=Z,5.0nm,1.5s,mb4.3						
KMI				pP	pP	09 24 56.0	+3.0
KMI				sP	sP	09 24 57.8	+4.3
KMI				PP	PP	09 27 19.8	-0.7
KMI				S	S	09 33 48.7	-0.7
KMI				LR	LR		
	comp=Z,150nm,23.9s,MS4.1						
KMI	**Kunming**	**67.66**	**77**	P	**P**	**09 24 51.8**	**0.0**
KMI				*PP	pP	09 24 56.0	+3.0
KMI				*SP	sP	09 24 57.8	+4.3
KMI						09 27 19.8	
KMI				S	S	09 33 48.7	-0.7
KMI				pmax	pmax		
	comp=Z,5.0nm,1.5s,mb4.3						
KMI				MLR	MLR		
	comp=Z,150nm,23.9s,MS4.1						
TXAR	**Lajitas Array**	**67.97**	**299**	P	**P**	**09 24 50.7**	**-3.1**
TXAR				LR	LR	09 54 37.5	
TXAR	**Lajitas Array**	**67.97**	**299**	P	**P**	**09 24 50.7**	**-3.0**
	comp=Z,0.6nm,0.7s,mb3.8,baz=36,slow=3.6,SNR=6.8						
TXAR				LR	LR	09 54 37.5	
	comp=Z,349nm,18.2s,MS4.6,baz=20,slow=36						
TEIG	**Tepich**	**72.45**	**281**	LR	LR	09 55 13.1	
	comp=Z,213nm,21.9s,MS4.4,baz=20,slow=34						
JOW	**Kunigami**	**72.72**	**54**	LR	LR	10 02 28.9	
	comp=Z,53nm,20.0s,MS3.8,baz=116,slow=40						
KMBO	**Kilima Mbogo**	**76.53**	**149**	LR	LR	10 03 32.1	
	comp=Z,88nm,19.1s,MS4.1,baz=84,slow=39						
SDV	**Santo Domingo**	**78.12**	**261**	P	**P**	**09 25 52.2**	**-1.7**
	comp=Z,2.9nm,0.7s,mb4.3,baz=357,slow=4.5						
ROSC	**El Rosal**	**83.02**	**264**	P	**P**	**09 26 18.4**	**-1.8**
	comp=Z,1.3nm,0.4s,mb4.3,baz=110,slow=18,SNR=3.5						
ROSC				LR	LR	09 57 34.0	
	comp=Z,82nm,21.1s,MS4.1,baz=153,slow=32						
PSI	**Prapat**	**87.75**	**88**	LR	LR	10 11 05.8	
	comp=Z,144nm,18.4s,MS4.4,baz=120,slow=39						
OTAV	**Otavalo**	**88.60**	**266**	*e*P	**P**	**09 26 48.2**	**+0.4**
	comp=Z,39nm,1.8s,mb5.4						
OTAV	**Otavalo**	**88.60**	**266**	*e*P	**P**	**09 26 48.2**	**+0.4**
	comp=Z,39nm,1.8s,mb5.4						
ASAR	**Alice Springs**	**122.67**	**61**	PKP	PKPdf	09 32 48.4	-1.8
ASAR	**Alice Springs**	**122.67**	**61**	PKIKP	PKPdf	09 32 48.4	-1.8
ASAR	**Alice Springs**	**122.67**	**61**	PKP	PKPdf	09 32 48.4	-1.8
	comp=Z,0.6nm,0.8s,baz=347,slow=1.8,SNR=5.5						
ASAR	**Alice Springs**	**122.67**	**61**	PKIKP	PKPdf	09 32 48.3	-1.9
SNAA	**Sanae**	**144.85**	**186**	PKP	PKPdf	09 33 28.2	-1.8
SNAA	**Sanae**	**144.85**	**186**	PKIKP	PKPdf	09 33 28.2	-1.7
SNAA	**Sanae**	**144.85**	**186**	PKP	PKPdf	09 33 28.2	-1.8
	comp=Z,2.4nm,1.1s,baz=160,slow=6.6,SNR=3.7						
SNAA	**Sanae**	**144.85**	**186**	PKIKP	PKPdf	09 33 28.2	-1.7

MOS ***25*** *09:21:50.5±0.9, 73.41N×6.67E, h10^{km}, mb4.5/18, Error ellipse: s-maj=31.8km s-min=5.7km az=95.0*

ISCJB ***25*** *09:21:50.4±0.3, 73.32N±0.03×7.3E±0.1, h10^{km}, mb4.2/33, MS3.6/3, Error ellipse: s-maj=6.4km s-min=4.5km az=154.1*

IDC ***25*** *09:21:50.5±0.5, 73.21N×6.72E, h0^{km}, mb3.9/16, mb1 4.2/22, mb1mx4.1/28, mbtmp4.0/22, ML3.7/6, MS3.7/2, Ms1 3.7/2, ms1mx3.1/27, Error ellipse: s-maj=15.7km s-min=10.2km az=37.0*

BJI ***25*** *09:21:50.0, 73.30N×6.90E, h10^{km}, mB5.2, mb4.8, Ms4.9, Msz4.6*

NAO ***25*** *09:21:51.5±2.0, 73.23N×7.70E, ML2.8*

CSEM ***25*** *09:21:51.0±0.1, 73.43N×6.67E, h17^{km}, mb4.5/11, Error ellipse: s-maj=3.9km s-min=2.6km az=72.0*

HEL ***25*** *09:21:52.8±0.6, 73.35N×7.61E, h10^{km}, ML3.7, mb4.4(NEIC), ML3.0(BER)*

NEIC ***25*** *09:21:52.2±0.3, 73.31N×6.91E, h10^{km}, mb4.4/12, Error ellipse: s-maj=7.9km s-min=5.5km az=65.0*

BER ***25*** *09:21:54.7±3.9, 73.27N×8.01E, h10^{km}, MD2.4, ML3.0, ML2.8(NAO)*

SZGRF ***25*** *09:21:57.2, 73.19N×7.14E, h33^{km}, mb4.3, Greenland Sea*

ISC 25 09:21:52.1±0.3**, 73.29N**±0.03×**7.1E**±0.1**, h10^{km}, n158, σ1^{s}23**/168**, mb4.2**/33**, MS3.6**/3**, 11C-4D, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRO	**Tromso**	**5.26**	**128**	*e*P	**Pn**	**09 23 08.6**	**-2.0**
TRO				*e*S	**Sn**	**09 24 00.1**	**-11**
TRO				AML	AML	09 24 08.2	
	comp=Z,29nm,0.5s						
SPA0	**Spitsbergen Ar**	**5.41**	**21**	Pn	**Pn**	**09 23 11.9**	**-0.8**
	baz=199,slow=10						
SPA0	**Spitsbergen Ar**	**5.41**	**21**	*e*P	**Pn**	**09 23 11.9**	**-0.8**
SPA0	**Spitsbergen Ar**	**5.41**	**21**	Pn	**Pn**	**09 23 11.9**	**-0.8**
	baz=199,slow=10						
SPA0	**Spitsbergen Ar**	**5.41**	**21**	Pn	**Pn**	**09 23 11.9**	**-0.8**
	SNR=50						
LOF	**Lofoten**	**5.61**	**154**	*e*P	**Pn**	**09 23 14.8**	**-0.5**
LOF				*e*S	**Sn**	**09 24 09.5**	**-10**
LOF				AML	AML	09 24 19.5	
	comp=Z,46nm,0.6s						
KBS	**Kingsbay**	**5.78**	**9**	Pn	**Pn**	**09 23 17.2**	**-0.6**
KBS	**Kingsbay**	**5.78**	**9**	*e*P	**Pn**	**09 23 17.1**	**-0.7**
KBS	**Kingsbay**	**5.78**	**9**	*e*Pn	**Pn**	**09 23 16.8**	**-0.9**
	comp=Z,13nm,0.4s						
KBS	**Kingsbay**	**5.78**	**9**	*e*P	**Pn**	**09 23 16.1**	**-1.7**
KBS	**Kingsbay**	**5.78**	**9**	*e*Pn	**Pn**	**09 23 16.8**	**-1.0**
	comp=Z,13nm,0.4s						
KIF	**Kilpisjarvi**	**6.18**	**127**	*e*P	**Pn**	**09 23 22.2**	**-1.0**
KIF				MPN		09 23 23.9	
	comp=Z,17nm,0.3s						
KIF				*e*S	**Sn**	**09 24 25.5**	**-8.2**
ARA0	**ARCESS Array S**	**6.97**	**114**	Pn	**Pn**	**09 23 33.0**	**-1.1**
	baz=323,slow=12						
ARA0				Sn	**Sn**	**09 24 45.5**	**-7.7**
	baz=316,slow=28						
ARA0	**ARCESS Array S**	**6.97**	**114**	*e*P	**Pn**	**09 23 33.0**	**-1.1**
ARA0				*e*S	**Sn**	**09 24 45.5**	**-7.7**
ARA0	**ARCESS Array S**	**6.97**	**114**	Pn	**Pn**	**09 23 33.0**	**-1.1**
	baz=323,slow=12						
ARA0				Sn	**Sn**	**09 24 45.5**	**-7.7**
	baz=316,slow=28						
ARA0	**ARCESS Array S**	**6.97**	**114**	Pn	**Pn**	**09 23 33.0**	**-1.0**
	SNR=50						
ARA0				Sn	**Sn**	**09 24 45.5**	**-7.7**
	SNR=50						
ARCES	**ARCESS Array B**	**6.97**	**114**	Pn	**Pn**	**09 23 33.5**	**-0.6**
ARCES				Sn	**Sn**	**09 24 44.9**	**-8.4**
ARCES	**ARCESS Array B**	**6.97**	**114**	Pn	**Pn**	**09 23 33.5**	**-0.6**
	comp=Z,2.6nm,0.3s,baz=320,slow=12,SNR=22						
ARCES				Sn	**Sn**	**09 24 44.9**	**-8.4**
	comp=Z,1.4nm,0.3s,baz=315,slow=22,SNR=6.2						
ARCES	**ARCESS Array B**	**6.97**	**114**	Pn	**Pn**	**09 23 33.5**	**-0.5**
KEV	**Kevo**	**7.23**	**110**	*e*p	**Pn**	**09 23 36.6**	**-1.0**
KEV	**Kevo**	**7.23**	**110**	*e*P	**Pn**	**09 23 36.0**	**-1.7**
KEV				MPN		09 23 39.7	
	comp=Z,3.6nm,0.3s						
KEV				*e*S	**Sn**	**09 24 50.8**	**-8.9**
KEV	**Kevo**	**7.23**	**110**	*e*P	**Pn**	**09 23 36.6**	**-1.0**
STOK	**Stokkvaagen**	**7.28**	**161**	*e*P	**Pn**	**09 23 37.1**	**-1.2**
STOK				*e*S	**Sn**	**09 24 50.0**	**-11**
STOK				AML	AML	09 24 58.9	
	comp=Z,28nm,0.5s						
HEF	**Hetta**	**7.31**	**124**	*e*P	**Pn**	**09 23 37.8**	**-0.9**
HEF				*e*S	**Sn**	**09 24 53.2**	**-8.3**
DAG	**Danmarks Havn**	**7.46**	**310**⇑	*e*P	**Pn**	**09 23 39.0**	**-1.8**
DAG				pmax	pmax		
	comp=Z,8.0nm,0.8s						
DAG	**Danmarks Havn**	**7.46**	**310**⇑	*i*P	**Pn**	**09 23 39.0**	**-1.8**
	comp=Z,8.2nm,0.8s						
DAG				*i*		09 24 52.0	
MOR8	**Moi Rana**	**7.59**	**157**	*e*P	**Pn**	**09 23 40.2**	**-2.3**
MOR8				AML	AML	09 25 04.6	
	comp=Z,22nm,0.4s						
SGF	**Sodankyl**	**8.75**	**122**	*e*P	**Pn**	**09 23 57.8**	**-0.6**
SGF				MPN		09 24 01.8	
	comp=Z,4.2nm,0.4s						
NSS	**Namsos**	**8.97**	**166**	*e*P	**Pn**	**09 23 59.1**	**-2.4**
NSS				*e*S	**Sn**	**09 25 33.1**	**-9.4**
NSS				AML	AML	09 25 42.0	
	comp=Z,13nm,0.7s						
APA0	**Apatity Array**	**10.30**	**111**	Pn	**Pn**	**09 24 18.2**	**-1.4**
	baz=318,slow=11						
APA0	**Apatity Array**	**10.30**	**111**	*e*P	**Pn**	**09 24 18.2**	**-1.4**
APA0	**Apatity Array**	**10.30**	**111**	Pn	**Pn**	**09 24 18.2**	**-1.4**
	baz=318,slow=11						
APA0	**Apatity Array**	**10.30**	**111**	Pn	**Pn**	**09 24 18.2**	**-1.5**
	SNR=50						
APA	**Apatity**	**10.44**	**110**⇑	*i*P	**Pn**	**09 24 19.2**	**-2.3**
APA				pmax	pmax		
	comp=Z,11nm,0.9s						
OUL	**Oulu**	**10.55**	**132**	*e*P	**Pn**	**09 24 22.9**	**-0.1**
MSF	**Maaselka**	**10.57**	**123**	*e*P	**Pn**	**09 24 22.8**	**-0.6**
MSF				MPN		09 24 25.3	
	comp=Z,4.0nm,0.4s						
KU6	**Riekki**	**10.69**	**121**	*e*P	**Pn**	**09 24 23.7**	**-1.3**
DOMB	**Dombas**	**11.33**	**175**	*e*P	**Pn**	**09 24 32.0**	**-1.7**
KJN	**Kajaani**	**11.81**	**131**	*e*P	**Pn**	**09 24 38.8**	**-1.4**
NB2	**NORSAR Subarra**	**12.41**	**171**	Pn	**Pn**	**09 24 48.0**	**-0.5**
	baz=347,slow=14						
NB2	**NORSAR Subarra**	**12.41**	**171**	*e*P	**Pn**	**09 24 48.0**	**-0.5**
NB2	**NORSAR Subarra**	**12.41**	**171**	Pn	**Pn**	**09 24 48.0**	**-0.5**
	baz=347,slow=14						
NB2	**NORSAR Subarra**	**12.41**	**171**	Pn	**Pn**	**09 24 48.0**	**-0.4**
	SNR=50						
NOA	**NORSAR Array B**	**12.41**	**171**	Pn	**Pn**	**09 24 46.8**	**-1.6**
NOA				Sn	**Sn**	**09 26 56.3**	**-10**
NOA	**NORSAR Array B**	**12.41**	**171**	Pn	**Pn**	**09 24 46.8**	**-1.6**
	comp=Z,1.0nm,0.3s,baz=353,slow=14,SNR=5.4						
NOA				Sn	**Sn**	**09 26 56.3**	**-10**
	comp=Z,0.2nm,0.3s,baz=352,slow=19,SNR=3.2						
NOA	**NORSAR Array B**	**12.41**	**171**	Pn	**Pn**	**09 24 46.8**	**-1.6**
NOA				Sn	**Sn**	**09 26 56.3**	**-10**
HFS	**Hagfors**	**13.46**	**166**	Pn	**Pn**	**09 25 02.2**	**-0.5**
	baz=353,slow=14						
HFS	**Hagfors**	**13.46**	**166**	*e*P	**Pn**	**09 25 02.2**	**-0.5**
HFS	**Hagfors**	**13.46**	**166**	Pn	**Pn**	**09 25 02.0**	**-0.8**
HFS	**Hagfors**	**13.46**	**166**	Pn	**Pn**	**09 25 02.2**	**-0.5**
	baz=353,slow=14						
HFS	**Hagfors**	**13.46**	**166**	Pn	**Pn**	**09 25 02.0**	**-0.8**
	comp=Z,1.7nm,0.3s,baz=5.2,slow=13,SNR=31						
HFS	**Hagfors**	**13.46**	**166**	Pn	**Pn**	**09 25 02.2**	**-0.6**
	SNR=50						
FIA0	**FINESS Array S**	**13.85**	**139**	Pn	**Pn**	**09 25 05.9**	**-2.2**
	baz=351,slow=18						
FIA0	**FINESS Array S**	**13.85**	**139**	*e*P	**Pn**	**09 25 05.9**	**-2.2**
FIA0	**FINESS Array S**	**13.85**	**139**	Pn	**Pn**	**09 25 05.9**	**-2.2**
	baz=351,slow=18						
FIA0	**FINESS Array S**	**13.85**	**139**	Pn	**Pn**	**09 25 05.9**	**-2.2**
	SNR=50						
FINES	**FINESS Array B**	**13.85**	**139**	Pn	**Pn**	**09 25 05.7**	**-2.4**
FINES	**FINESS Array B**	**13.85**	**139**	Pn	**Pn**	**09 25 05.7**	**-2.4**
	comp=Z,0.5nm,0.3s,baz=354,slow=12,SNR=15						
FINES	**FINESS Array B**	**13.85**	**139**	Pn	**Pn**	**09 25 05.7**	**-2.4**
TMCR	**Tamitsa**	**14.27**	**114**	*e*P	**Pn**	**09 25 20.7**	**+6.9**
EKA	**Eskdalemuir Ar**	**18.51**	**199**	P	**Pn**	**09 26 06.1**	**-2.2**
	comp=Z,0.1nm,0.3s,baz=2.2,slow=8.5,SNR=2.8						
SFJD	**Kangerlussuaq**	**19.79**	**281**	P	**Pn**	**09 26 22.6**	**-0.9**
	comp=Z,0.2nm,0.3s,baz=26,slow=8.6,SNR=2.4						
SUW	**Suwalki**	**20.48**	**152**	*e*P	**P**	**09 26 30.0**	**+0.4**
MOS	**Moscow**	**21.51**	**128**	*e*P	**P**	**09 26 39.6**	**-1.1**
MOS				*e*		09 26 45.6	
MOS				*e*		09 27 24.3	
MOS				pmax	pmax		
	comp=Z,49nm,1.1s,mb4.8						
OBN	**Obninsk**	**21.85**	**131**	*e*P	**P**	**09 26 44.5**	**+0.2**
	comp=Z,126nm,1.4s,mb5.2						
OBN	**Obninsk**	**21.85**	**131**	*ce*P	**P**	**09 26 46.9**	**+2.5**
OBN				*e*		09 26 49.8	
OBN				*e*		09 26 52.3	
OBN						09 27 10.0	
OBN				pmax	pmax		
	comp=Z,47nm,1.5s,mb4.7						
OBN				MLR	MLR		
	comp=Z,100nm,11.0s,MS3.5						
OBN	**Obninsk**	**21.85**	**131**	*e*P	**P**	**09 26 44.5**	**+0.1**
	comp=Z,125nm,1.4s,mb5.2						
CLL	**Collm**	**22.21**	**170**	*i* P	**P**	**09 26 49.7**	**+1.5**
CLL				*i*		09 26 51.6	
CLL				*i*		09 26 54.4	
CLL	**Collm**	**22.21**	**170**	*i* P	**P**	**09 26 49.7**	**+1.5**
CLL				*i* x	x	09 26 51.6	
CLL				*i* sP	sP	09 26 54.4	+2.0
	comp=Z,26nm,1.4s						
CLL				*e*PPP		09 27 20.0	
BRG	**Berggiesshubel**	**22.70**	**169**	*e*P	**P**	**09 26 59.2**	**+5.8**
BRG				pmax	pmax		
	comp=Z,16nm,1.7s,mb4.2						
BRG	**Berggiesshubel**	**22.70**	**169**	*e*P	**P**	**09 26 59.2**	**+5.8**
	comp=Z,27nm,1.7s,mb4.4						
MOX	**Moxa**	**22.81**	**173**	*e*P	**P**	**09 26 55.6**	**+1.0**
	comp=Z,38nm,1.7s,mb4.5						
MOX	**Moxa**	**22.81**	**173**	*e*P	**P**	**09 26 55.6**	**+1.0**
MOX				pmax	pmax		
	comp=Z,38nm,1.7s,mb4.5						
KSP	**Ksiaz**	**22.88**	**165**	*e*P	**P**	**09 26 56.9**	**+1.6**
KSP				*e*pP		09 27 01.6	
PVCC	**Panska Ves**	**23.08**	**168**	*e*P	**P**	**09 26 57.1**	**-0.3**
UPC	**Upice**	**23.20**	**165**	*e*P	**P**	**09 26 57.9**	**-0.7**
NKC	**Novy Kostel**	**23.26**	**171**	*e*P	**P**	**09 27 00.1**	**+0.8**
NKC				*e*pP		09 27 05.0	
DPC	**Dobruska-Polom**	**23.37**	**165**	*e*P	**P**	**09 27 01.1**	**+0.6**
DPC				*e*pP		09 27 06.7	
PRU	**Pruhonice**	**23.61**	**168**	*e*P	**P**	**09 27 04.4**	**+1.5**
PRU				*e*pP		09 27 09.1	
GRA1	**Grafenberg Arr**	**23.75**	**173**	*e*P	**P**	**09 27 05.3**	**+1.1**
	comp=Z,14nm,1.3s,mb4.2						
GRF	**Grafenberg Arr**	**23.75**	**173**	*e*P	**P**	**09 27 05.3**	**+1.1**
GRF				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.2						

GRF	Grafenberg Arr	23.75	173	*e*P	P	09 27 05.3	+1.1
GRF				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.2						
GRF	Grafenberg Arr	23.75	173	*e*P	P	09 27 05.3	+1.1
	comp=Z,14nm,1.3s,mb4.2						
OJC	Ojcow	23.81	159	*e*P	P	09 27 06.8	+2.1
OKC	Ostrava-Krasne	24.03	162	*e*P	P	09 27 11.8	+5.0
OKC				*e*x	x	09 27 18.1	
MORC	Moravsky Berou	24.04	163	⇑*i*P	P	09 27 11.8	+5.0
KHC	Kasperske Hory	24.41	170	*e*P	P	09 27 14.2	+3.9
KHC				*e*x	x	09 27 22.9	
VRAC	Vranov	24.43	165	P	P	09 27 11.6	+1.2
	comp=Z,9.5nm,0.9s,mb4.2,baz=356,slow=11,SNR=9.1						
VRAC	Vranov	24.43	165	⇓*i*P	P	09 27 11.7	+1.3
AKASG	Malin Array Be	24.61	145	*i* P	P	09 27 13.3	+1.3
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
AKASG	Malin Array Be	24.61	145	P	P	09 27 11.3	-0.7
	comp=Z,3.1nm,0.6s,mb4.0,baz=342,slow=9.5,SNR=5.8						
AKBB	Malin Array Si	24.61	145	*e*P	P	09 27 11.3	-0.7
AKBB	Malin Array Si	24.61	145	*e*P	P	09 27 11.3	-0.7
KIEV	Kiev	24.62	145	*e*P	P	09 27 12.8	+0.8
	comp=Z,18nm,1.3s,mb4.5						
KIEV	Kiev	24.62	145	*e*P	P	09 27 12.9	+0.8
KIEV				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.4						
KIEV	Kiev	24.62	145	*e*P	P	09 27 12.9	+0.8
	comp=Z,18nm,1.3s,mb4.5						
GERES	GERESS Array B	24.71	169	P	P	09 27 14.3	+1.4
	comp=Z,3.4nm,1.0s,mb3.8,baz=3.2,slow=7.1,SNR=10.0						
KWP	Kalwaria	24.71	155	*e*P	P	09 27 15.7	+2.7
KWP	Kalwaria	24.71	155	⇑*i*P	P	09 27 15.6	+2.6
STHS	Stebnicka Huta	24.76	158	*e*P	P	09 27 14.3	+0.9
STHS				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.1						
STHS	Stebnicka Huta	24.76	158	*e*P	P	09 27 14.3	+0.9
	comp=Z,7.9nm,1.3s,mb4.1						
BFO	Black Forest	25.05	178	*e*P	P	09 27 16.3	+0.2
	comp=Z,24nm,1.4s,mb4.5						
BFO	Black Forest	25.05	178	*e*P	P	09 27 16.3	+0.2
BFO				pmax	pmax		
	comp=Z,24nm,1.4s,mb4.5						
BFO	Black Forest	25.05	178	*e*P	P	09 27 16.3	+0.2
	comp=Z,24nm,1.4s,mb4.5						
CRVS	Cervenica-Dubn	25.29	157	*e*P	P	09 27 20.3	+2.1
KOLS	Kolonicke sedl	25.35	156	*e*P	P	09 27 20.2	+1.4
VYHS	Vyhne	25.43	162	*e*P	P	09 27 20.7	+1.2
VYHS				pmax	pmax		
	comp=Z,9.0nm,1.5s,mb4.1						
VYHS	Vyhne	25.43	162	*e*P	P	09 27 20.7	+1.2
	comp=Z,9.0nm,1.5s,mb4.1						
ZST	Bratislava	25.57	164	*e*pP	pP	09 27 28.6	+4.8
ZST	Bratislava	25.57	164	*e*	P	09 27 28.6	+7.8
KECS	Kecovo	25.60	159	*e*P	P	09 27 21.0	0.0
	comp=Z,3.7nm,1.2s,mb3.8						
KECS	Kecovo	25.60	159	*e*P	P	09 27 21.0	0.0
KECS				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb3.8						
UZH	Uzhgorod	25.65	156	*e*P	P	09 27 25.4	+3.9
UZH				*i*	pP	09 27 30.0	+5.5
TRPA	Tarpa	26.17	156	⇑*i*P	P	09 27 28.4	+2.2
ARU	Arti	26.36	102	*e*P	P	09 27 29.1	+1.2
	comp=Z,10nm,0.8s,mb4.4						
ARU	Arti	26.36	102	*d* *i*P	P	09 27 29.2	+1.3
ARU				*e*		09 28 08.7	
ARU				*e*S	S	09 32 05.1	+4.6
ARU				*e*SS		09 33 06.7	
ARU				pmax	pmax		
	comp=Z,29nm,1.5s,mb4.6						
ARU	Arti	26.36	102	*e*P	P	09 27 29.1	+1.2
	comp=Z,10nm,0.8s,mb4.4						
DAVOX	Davos/Dischmat	26.63	176	LR	LR	09 37 50.8	
	comp=Z,123nm,19.8s,MS3.5,baz=72,slow=36						
BURAR	Bucovina Array	27.02	152	⇓P	P	09 27 36.4	+2.6
BURAR	Bucovina Array	27.02	152	⇓*i*P	P	09 27 36.4	+2.6
BZS	Buzias	28.55	158	⇑*i*P	P	09 27 53.1	+5.5
TIXI	Tiksi	30.72	32	*e*P	P	09 28 06.8	+0.2
	comp=Z,5.3nm,1.0s,mb4.3						
TIXI	Tiksi	30.72	32	*e*P	P	09 28 06.4	-0.1
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.5						
TIXI	Tiksi	30.72	32	*e*P	P	09 28 06.8	+0.3
	comp=Z,5.2nm,1.0s,mb4.3						
AKTK	Aktyubinsk	31.52	108	P	P	09 28 15.1	+1.3
AKTK	Aktyubinsk	31.52	108	P	P	09 28 15.1	+1.4
AKTO	Aktyubinsk	31.52	108	P	P	09 28 15.1	+1.3
	comp=Z,2.7nm,1.0s,mb4.0,baz=350,slow=14,SNR=2.5						
KIV	Kislovodsk	33.70	131	*e*P	P	09 28 39.5	+6.6
KIV				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
BRTR	Keskin Array B	36.01	144	P	P	09 28 57.6	+4.7
	comp=Z,1.3nm,0.8s,mb3.9,baz=344,slow=6.7,SNR=4.2						
ZALV	Zalesovo Beam	36.06	79	P	P	09 28 53.8	+0.6
	comp=Z,1.7nm,0.8s,mb4.0,baz=328,slow=10,SNR=4.0						
ZAL	Zalesovo	36.06	79	P	P	09 28 53.8	+0.6
INK	Inuvik	36.34	337	LR	LR	09 45 45.2	
	comp=Z,146nm,19.7s,MS3.8,baz=65,slow=39						
KURK	Kurchatov	37.14	87	⇑*e*P	P	09 29 03.2	+0.8
BILL	Bilibino	38.26	12	*e*P	P	09 29 11.2	-0.5
BILL				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.2						
YKA	Yellowknife Ar	38.99	321	P	P	09 29 17.0	-0.9
	comp=Z,3.7nm,1.1s,mb4.0,baz=19,slow=8.8,SNR=27						
YKA				PcP	PcP	09 31 27.6	-0.1
	comp=Z,0.8nm,0.8s,baz=16,slow=2.9,SNR=8.8						
YKA	Yellowknife Ar	38.99	321	PcP	PcP	09 31 27.6	-0.2
MK31	Makanchi Array	41.73	86	*e*P	P	09 29 41.6	+0.9
MK31	Makanchi Array	41.73	86	*e*P	P	09 29 41.7	+1.0
MKAR	Makanchi Array	41.73	86	P	P	09 29 41.9	+1.1
	comp=Z,1.3nm,0.8s,mb3.6,baz=334,slow=7.2,SNR=8.9						
AAK	Ala-Archa	43.28	96	⇑*e*P	P	09 29 56.3	+2.9
MA2	Magadan	45.14	25	*e*P	P	09 30 07.7	-0.3
MA2				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb4.0						
ULM	Lac du Bonnet	46.19	300	P	P	09 30 15.5	-0.9
	comp=Z,3.0nm,1.0s,mb4.2,baz=14,slow=12,SNR=4.6						
EDM	Edmonton	47.41	315	*e*P	P	09 30 25.8	-0.1
EDM	Edmonton	47.41	315	*e*P	P	09 30 25.8	-0.1
SONM	Songino Array	47.48	64	P	P	09 30 27.8	+1.2
	comp=Z,0.6nm,0.9s,mb3.5,baz=339,slow=3.7,SNR=4.7						
SONM				PcP	PcP	09 31 56.9	+0.4
	comp=Z,0.8nm,1.0s,baz=27,slow=3.5,SNR=3.0						
CN2	Changchun	55.90	50	*e*P	P	09 31 29.8	+0.3
YSS	Yuzh-Sakhalins	56.25	35	⇑*e*P	P	09 31 33.0	+1.1
YSS				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
PDAR	Pinedale Array	56.49	308	P	P	09 31 33.2	-0.5
	comp=Z,1.6nm,1.1s,mb4.0,baz=42,slow=4.6,SNR=6.0						
TKL	Tuckaleechee C	56.49	282	P	P	09 31 33.1	-0.7
	comp=Z,3.6nm,0.8s,mb4.4,baz=46,slow=10,SNR=3.1						
TORD	Torodi Ar. Bea	60.20	186	P	P	09 31 59.6	-0.3
	comp=Z,2.0nm,0.7s,mb4.3,baz=358,slow=6.5,SNR=16						
KSRS	Korea Array	62.51	50	P	P	09 32 17.5	+2.2
	comp=Z,2.8nm,0.8s,mb4.4,baz=120,slow=36,SNR=5.3						
NVAR	Mina Array Bea	62.55	314	P	P	09 32 16.1	+0.5
	comp=Z,0.3nm,0.4s,mb3.8,baz=192,slow=31,SNR=2.6						
NJ2	Nanjing	65.52	60	*e*P	P	09 32 34.5	-0.7
TXAR	Lajitas Array	67.85	298	P	P	09 32 49.3	-0.7
	comp=Z,1.0nm,0.8s,mb3.9,baz=50,slow=5.0,SNR=5.7						
SDV	Santo Domingo	78.01	261	P	P	09 33 49.9	-0.5
	comp=Z,3.3nm,0.8s,mb4.3,baz=28,slow=5.8,SNR=6.6						
ASAR	Alice Springs	122.76	61	PKIKP	PKPdf	09 40 46.3	-1.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	122.76	61	PKP	PKPdf	09 40 46.3	-1.1
	comp=Z,0.5nm,0.6s,baz=359,slow=1.7,SNR=8.2						
SNAA	Sanae	144.88	185	PKP	PKPdf	09 41 26.0	-1.1
	comp=Z,1.0nm,0.9s,baz=329,slow=5.0,SNR=4.0						

IDC 25 09:24:46.0±9.7**, 325S**×**14136E, h0^{km}, mb3.3**/2**, mb1 3.5**/3**, mb1mx3.3**/12**, mbtmp3.4**/3**, ML3.2**/1**, MS4.0**/1**, Ms1 4.0**/1**, ms1mx2.8**/13**, Error ellipse: s-maj=368.7km s-min=32.5km az=91.0, New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	17.95	202	P	Pn	09 28 57.8	+0.7
	0.1nm,0.3s,baz=21,slow=12,SNR=4.3						
ASAR	Alice Springs	21.54	199	P	P	09 29 36.6	-0.3
	1.5nm,1.1s,baz=31,slow=11,SNR=4.8						
URZ	Urewera	47.73	142	LR	LR	09 53 03.6	
	comp=Z,148nm,18.1s,baz=13,slow=36						
MKAR	Makanchi Array	71.84	322	P	P	09 36 10.8	+0.1
	0.2nm,0.3s,baz=104,slow=6.4,SNR=4.8						

BJI ***25*** *09:40:30.9, 5280N×174.10W, h197^{km}, mB4.9, mb4.6*

ISCJB ***25*** *09:40:31.2±0.4, 5283N±006×174.16W±006, h196^{km}±4^{km}, mb4.0/35, Error ellipse: s-maj=10.7km s-min=5.3km az=166.9*

MOS ***25*** *09:40:31.8±1.1, 5285N×17421W, h207^{km}, mb4.3/11, Error ellipse: s-maj=17.5km s-min=10.4km az=67.5*

NEIC ***25*** *09:40:32.9±0.5, 5283N×17409W, h198^{km}±4^{km}, mb4.4/19, Error ellipse: s-maj=9.3km s-min=5.8km az=175.0*

IDC ***25*** *09:40:33.1±2.3, 5287N×17426W, h206^{km}±19^{km}, mb3.6/15, mb1 3.8/15, mb1mx3.6/26, mbtmp3.6/15, Error ellipse: s-maj=19.0km s-min=12.0km az=8.0*

ISC 25 09:40:32.2±0.4**, 5285N**±006×**17417W**±006**, h191**^{km}±4^{km}**, n92, σ1^{s}01**/100**, mb4.2**/35**, 1C-1D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATKA	Atka Island	0.64	181	P	Pn	09 40 59.3	+0.4
ATKA				S	Sn	09 41 19.8	+0.4
AMKA	Amchitka	4.28	253	P	Pn	09 41 37.5	+0.3
AMKA				S	Sn	09 42 25.4	-2.7
UNV	Unalaska Valle	4.70	75	P	Pn	09 41 43.0	+0.5
UNV				S	Sn	09 42 35.9	-1.8
AKUT	Akutan	5.18	72	*e*P	Pn	09 41 50.0	+1.4
SMY	Shemya	7.12	274	*e*P	Pn	09 42 18.0	+4.2
SDPT	Sand Point	8.43	67	*e*P	Pn	09 42 29.1	-1.8
SVW2	Sparrevohn	13.04	43	*e*P	Pn	09 43 31.7	+1.5
TNA	Tin City	13.14	11	*e*Pn	Pn	09 43 31.9	+0.6
KDAK	Kodiak Island	13.22	59	*e*Pn	Pn	09 43 31.6	-0.9
KDAK	Kodiak Island	13.22	59	P	Pn	09 43 29.4	-3.1
	8.7nm,0.3s,baz=253,slow=5.6,SNR=38						
KDAK				S	Sn	09 45 54.9	-4.7
	0.3nm,0.3s,baz=324,slow=23,SNR=2.5						
TTA	Tatalina	13.92	36	*e*Pn	Pn	09 43 41.3	+0.2
SLKM	Skilak Lake	15.16	50	*e*Pn	Pn	09 43 56.5	0.0
PMR	Palmer	16.05	47	*e*P	Pn	09 44 07.4	+0.3
	4.1nm,0.3s						
PMR	Palmer	16.05	47	*e*P	Pn	09 44 07.4	+0.3
PMR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
IMA2	Indian Mountai	16.73	30	*e*P	Pn	09 44 16.4	+1.1
BILL	Bilibino	17.89	336	⇓*e*P	Pn	09 44 29.3	+0.3
BILL				pmax	pmax		
	comp=Z,6.0nm,1.0s						
COLA	College	18.00	38	*e*P	Pn	09 44 27.7	-2.6
	comp=Z,19nm,0.6s						
COLA	College	18.00	38	*e*P	Pn	09 44 27.7	-2.6
COLA				pmax	pmax		
	comp=Z,19nm,0.6s						
MENT	Mentasta	18.89	46	*e*P	P	09 44 38.7	+0.9
EGAK	Eagle	20.56	42	*e*P	P	09 44 55.3	-0.4
	comp=Z,22nm,0.6s						
DAWY	Dawson	21.07	44	*e*P	P	09 45 01.3	+0.2
INK	Inuvik	24.61	36	*e*P	P	09 45 34.2	-0.2
	comp=Z,222nm,0.7s,mb5.8						
INK	Inuvik	24.61	36	P	P	09 45 34.1	-0.3
	comp=Z,8.3nm,0.8s,mb4.3,baz=239,slow=9.6,SNR=38						
DLBC	Dease Lake	25.16	60	P	P	09 45 39.7	+0.2
YKA	Yellowknife Ar	32.13	49	P	P	09 46 40.8	-0.3
YKA				PP	PP	09 47 59.1	+1.6
YKA				PcP	PcP	09 49 24.8	-0.3
YKA				ScP	ScP	09 52 46.7	-3.6
YKA	Yellowknife Ar	32.13	49	P	P	09 46 40.8	-0.3
YKA						09 47 59.2	
YKA						09 49 24.8	
YKA	Yellowknife Ar	32.13	49	P	P	09 46 40.8	-0.3
	comp=Z,1.4nm,0.5s,mb4.0,baz=284,slow=7.3,SNR=41						
YKA				PP	PP	09 47 59.1	+1.6
	comp=Z,0.4nm,0.7s,baz=276,slow=9.9,SNR=4.2						
YKA				PcP	PcP	09 49 24.8	-0.3
	comp=Z,0.1nm,0.4s,baz=288,slow=3.1,SNR=3.0						
YKA				ScP	ScP	09 52 46.7	-3.5
	comp=Z,0.1nm,0.5s,baz=287,slow=3.7,SNR=5.2						
EDM	Edmonton	35.60	64	*e*P	P	09 47 10.6	-0.5
NEW	Newport	35.71	74	*e*P	P	09 47 12.4	+0.3
	comp=Z,12nm,0.6s,mb4.7						
NEW	Newport	35.71	74	*e*P	P	09 47 12.4	+0.3
NEW				pmax	pmax		
	comp=Z,12nm,0.6s						
BSMT	Bassoo Peak	37.28	73	*e*P	P	09 47 26.0	+0.7
BMO	Blue Mountains	37.38	79	*e*P	P	09 47 26.5	+0.3
MSO	Missoula	38.30	74	*e*P	P	09 47 33.9	0.0
	comp=Z,4.8nm,0.6s,mb4.3						
CHMT	Chamberlain Mo	38.66	74	*e*P	P	09 47 36.4	-0.5
SAO	San Andreas Ge	39.75	92	*e*P	P	09 47 41.3	-4.8
	comp=Z,17nm,1.1s,mb4.6						
SAO	San Andreas Ge	39.75	92	*e*P	P	09 47 41.3	-4.8
SAO				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.6						
HLID	Hailey	39.82	79	*e*P	P	09 47 47.4	+0.8
	comp=Z,10nm,1.4s,mb4.3						
MCMT	McKenzie Canyo	40.03	76	*e*P	P	09 47 48.4	+0.2
CN2	Changchun	40.05	282	*e*P	P	09 47 49.3	+0.8
CN2				*e*S	S	09 53 39.3	-0.3
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.4						
EGMT	Eagleton	40.08	70	*e*P	P	09 47 48.3	-0.3
	comp=Z,2.9nm,0.5s,mb4.2						
BOZ	Bozeman (W)	40.29	74	*e*P	P	09 47 50.8	+0.4
	comp=Z,5.4nm,0.7s,mb4.3						
BOZ	Bozeman (W)	40.29	74	*e*P	P	09 47 50.8	+0.5
BOZ				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.2						
NVAR	Mina Array Bea	40.59	88	P	P	09 47 54.0	+1.1
	comp=Z,2.7nm,0.7s,mb4.0,baz=288,slow=9.2,SNR=10						
NVAR				ScP	ScP	09 53 20.2	-1.7
	comp=Z,0.5nm,0.6s,baz=304,slow=3.9,SNR=3.5						
QLMT	Earthquake Lak	40.86	75	*e*P	P	09 47 55.0	-0.1
LKWY	Lake	41.62	75	*e*P	P	09 48 03.0	+1.8
	comp=Z,3.7nm,0.7s,mb4.1						
LKWY	Lake	41.62	75	*e*P	P	09 48 03.0	+1.8
LKWY				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.2						
IMW	Indian Meadow	41.69	76	*e*P	P	09 48 02.7	+0.9
	comp=Z,9.8nm,1.3s,mb4.3						
TPNV	Topopah Spring	42.79	88	*e*P	P	09 48 10.0	-0.7
	comp=Z,5.8nm,0.6s,mb4.4						
TPNV	Topopah Spring	42.79	88	*e*P	P	09 48 10.0	-0.7
TPNV				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.4						
DUG	Dugway	42.79	82	*e*P	P	09 48 11.7	+0.9
LAO	LASA Array	42.83	70	*e*P	P	09 48 11.1	+0.2
	comp=Z,6.6nm,0.4s,mb4.6						
BW06	Boulder Array	43.17	77	*e*P	P	09 48 13.8	+0.1
	comp=Z,9.9nm,0.8s,mb4.5						
PDAR	Pinedale Array	43.17	77	P	P	09 48 13.8	+0.1
	comp=Z,8.0nm,0.7s,mb4.5,baz=314,slow=2.8,SNR=92						
TMUT	Trail Mountain	44.32	82	*e*P	P	09 48 22.6	-0.3
SRU	San Rafael	44.85	81	*e*P	P	09 48 27.9	+0.8
ULM	Lac du Bonnet	46.48	60	P	P	09 48 37.9	-1.8
ULM				PcP	PcP	09 50 09.3	-1.5
ULM	Lac du Bonnet	46.48	60	P	P	09 48 37.9	-1.8
	comp=Z,0.6nm,0.3s,mb3.7,baz=302,slow=9.2,SNR=7.7						
ULM				PcP	PcP	09 50 09.3	-1.5
	comp=Z,1.2nm,0.9s,baz=311,slow=4.4,SNR=3.1						
PV01	Paradox Valley	46.65	81	*e*P	P	09 48 41.1	-0.1
WUAZ	Wupatki	46.69	86	*e*P	P	09 48 41.5	0.0
	comp=Z,1.5nm,0.5s,mb3.9						
BJI	Beijing	47.83	284	P	P	09 48 48.0	-2.3
BJI				AMB	AMB		
	comp=Z,3.0nm,1.0s,mb3.9						
BJI	Beijing	47.83	284	P	P	09 48 48.1	-2.2
BJI				S	S	09 55 18.6	-14
SDCO	Great Sand Dun	48.74	79	*e*P	P	09 48 58.0	+0.8
SPB4	Spitsbergen Ar	49.08	357	P	P	09 48 59.5	+0.2
NJ2	Nanjing	51.59	274	*e*P	P	09 49 21.8	+3.1
NJ2				AP	pP	09 50 04.3	+3.0
NJ2				XP	sP	09 50 25.5	+3.1
NJ2				PP	PP	09 51 22.3	+4.4
NJ2				S	S	09 56 27.0	+2.6
NJ2				XS	sS	09 57 42.0	+3.2
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.9						
NJ2				AMB	AMB		
	comp=Z,170nm,6.4s						
NJ2				LR	LR		
	comp=N,280nm,27.3s						
NJ2				LR	LR		
	comp=E,330nm,24.2s						
NJ2				LR	LR		
	comp=Z,330nm,24.2s						
MNTX	Cornudas Mount	52.93	85	*e*P	P	09 49 28.3	-0.3
TXAR	Lajitas Array	55.65	86	P	P	09 49 48.0	-0.2
TXAR						09 50 44.6	
TXAR	Lajitas Array	55.65	86	P	P	09 49 48.0	-0.2
	comp=Z,1.4nm,0.6s,mb4.0,baz=301,slow=4.8,SNR=20						
TXAR				PcP	PcP	09 50 44.5	-0.8
	comp=Z,0.3nm,0.5s,baz=268,slow=2.2,SNR=4.5						
TXAR				ScP	ScP	09 54 23.8	-1.8
	comp=Z,0.8nm,0.7s,baz=293,slow=2.7,SNR=8.3						
SCHQ	Schefferville	57.05	41	P	P	09 49 56.6	-1.1
	comp=Z,4.4nm,1.1s,mb4.2,baz=311,slow=11,SNR=4.1						
ARCES	ARCESS Array B	57.09	352	P	P	09 49 57.8	0.0
	comp=Z,3.0nm,1.0s,mb4.1,baz=24,slow=6.9,SNR=4.3						
ARCES				PcP	PcP	09 50 48.7	-1.6
	comp=Z,2.7nm,0.8s,baz=44,slow=3.7,SNR=8.7						
MIAR	Mount Ida	57.96	74	*e*P	P	09 50 03.6	-0.7
KURK	Kurchatov	60.02	315	*e*P	P	09 50 19.9	+1.5
	comp=Z,50nm,3.0s						
KURK	Kurchatov	60.02	315	*e*P	P	09 50 19.9	+1.6
KURK				pmax	pmax		
	comp=Z,50nm,3.0s						
OXF	Oxford	60.39	71	*e*P	P	09 50 19.5	-1.6
	comp=Z,20nm,0.5s,mb5.2						
OXF	Oxford	60.39	71	*e*P	P	09 50 19.5	-1.6
OXF				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.2						
MKAR	Makanchi Array	61.31	310	P	P	09 50 25.6	-1.5
	comp=Z,0.2nm,0.2s,mb3.5,baz=64,slow=6.7,SNR=2.2						
GYA	Guiyang	62.97	279	⇑*i*P	P	09 50 40.8	+2.4
GYA				PCP	PcP	09 51 16.0	+1.4
GYA				AP	pP	09 51 26.5	+3.9
GYA				XP	sP	09 51 48.3	+5.0
GYA				PP	PP	09 53 03.0	+4.0
GYA				SCP	ScP	09 54 57.5	-0.6
GYA				PCS	PcS	09 55 18.3	-0.1
GYA				S	S	09 58 52.0	-1.0
GYA				PS		09 59 43.0	
GYA				SKS		10 00 08.5	
GYA				XS	sS	10 00 12.8	+2.8
GYA				SS	SS	10 03 02.5	+1.0
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.9						
GYA				AMB	AMB		
	comp=Z,120nm,6.8s						
GYA				LR	LR		
	comp=N,480nm,19.9s						
GYA				LR	LR		
	comp=E,460nm,19.2s						
GYA				LR	LR		
	comp=Z,510nm,20.6s						
FINES	FINESS Array B	64.92	349	P	P	09 50 49.7	-0.8
	comp=Z,1.8nm,1.0s,mb3.8,baz=54,slow=3.3,SNR=3.5						
FINES				PcP	PcP	09 51 20.4	-1.7
	comp=Z,3.1nm,1.1s,baz=14,slow=2.4,SNR=6.0						
KMI	Kunming	66.31	281	P	P	09 51 04.0	+4.0
KMI				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.6						
KMI	Kunming	66.31	281	P	P	09 51 04.0	+4.0
	comp=Z,10.0nm,1.0s,mb4.6						
AAK	Ala-Archa	68.06	312	*e*P	P	09 51 12.1	+1.3
	comp=Z,3.7nm,1.5s,mb3.9						
AAK	Ala-Archa	68.06	312	*e*P	P	09 51 12.1	+1.4
AAK				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb3.9						
AKTK	Aktyubinsk	68.07	327	P	P	09 51 10.4	-0.3
AKTO	Aktyubinsk	68.07	327	P	P	09 51 10.4	-0.3
	comp=Z,2.3nm,0.6s,mb4.1,baz=34,slow=7.2,SNR=10						
AKASG	Malin Array Be	74.95	345	P	P	09 51 50.3	-1.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG	Malin Array Be	74.95	345	P	P	09 51 50.3	-1.5
	comp=Z,0.7nm,0.3s,mb3.7,baz=17,slow=6.0,SNR=2.9						
BRG	Berggiesshubel	76.43	355	*e*P	P	09 51 59.8	-0.3
BRG				pmax	pmax		
	comp=Z,12nm,1.7s,mb4.2						
BRG	Berggiesshubel	76.43	355	*e*(P)	P	09 51 59.9	-0.3
	comp=Z,20nm,1.7s,mb4.5						
GERES	GERESS Array B	78.47	355	P	P	09 52 11.2	-0.3
	comp=Z,0.3nm,0.6s,mb3.1,baz=15,slow=5.1,SNR=4.3						
WRA	Warramunga Arr	85.08	228	P	P	09 52 44.8	-1.4
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA	Warramunga Arr	85.08	228	P	P	09 52 44.8	-1.4
	comp=Z,0.6nm,0.4s,mb3.7,baz=33,slow=5.8,SNR=13						
ASAR	Alice Springs	88.53	226	P	P	09 53 02.3	-0.5
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	88.53	226	P	P	09 53 02.3	-0.5
	comp=Z,1.1nm,0.6s,mb3.9,baz=28,slow=4.8,SNR=19						

ISCJB ***25*** *10:11:38.4±1.8, 4296N±005×444E±0.1, h25^{km}±11^{km}, Error ellipse: s-maj=14.5km s-min=6.7km az=19.4*

MOS ***25*** *10:11:38.0±0.6, 4298N×4439E, h9^{km}, mb3.5/1, Error ellipse: s-maj=22.8km s-min=16.1km az=88.9*

ISC 25 10:11:38.3±1.8**, 4296N**±005×**444E**±01**, h25**^{km}±10^{km}**, n7, σ0^{s}39**/14**, 4C-2D, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LACR	Lac	0.16	213	⇑*i*PG	Pb	10 11 43.7	+0.1
LACR				*i* S	Sb	10 11 47.0	-0.1
ARNR	Ardon	0.25	336	⇑*i*PG	Pb	10 11 44.4	-0.2
ARNR				*i* S	Sb	10 11 49.0	+0.1
KORR	Kora	0.28	296	⇓*i*PG	Pb	10 11 45.5	+0.4
KORR				*i* S	Sb	10 11 50.0	+0.3
KMSR	Komsomolskaya	0.42	348	⇓*i*PG	Pb	10 11 46.9	-0.3
KMSR				*i* S	Sb	10 11 53.2	0.0
ZEI	Tsey	0.43	243	⇑*i*PG	Pb	10 11 46.8	-0.5
ZEI				*i* S	Sb	10 11 52.8	-0.6
DIGR	Digorskoe uzhe	0.62	264	⇑*i*PG	Pb	10 11 50.3	-0.2
DIGR				*i* S	Sb	10 11 58.3	-0.4
ONI	Oni	0.81	242	P	Pb	10 11 54.3	+0.6
ONI				S	Sb	10 12 04.9	+0.7

ISCJB ***25*** *10:18:22.1±0.3, 7330N±003×76E±0.1, h10^{km}, mb4.0/23, MS3.8/17, Error ellipse: s-maj=6.3km s-min=3.9km az=163.4*

NAO ***25*** *10:18:22.4±2.1, 7321N×721E, ML2.4*

IDC ***25*** *10:18:22.7±0.6, 7311N×634E, h0^{km}, mb3.7/13, mb1 3.9/17, mb1mx3.9/24, mbtmp3.8/17, ML3.6/4, MS3.8/21, Ms1 3.8/21, ms1mx3.6/38, Error ellipse: s-maj=18.3km s-min=12.0km az=48.0*

MOS ***25*** *10:18:23.8±1.8, 7324N×779E, h10^{km}, mb4.4/10, Error ellipse: s-maj=31.5km s-min=6.2km az=97.7*

NEIC ***25*** *10:18:24.2±0.4, 7326N×717E, h10^{km}, mb4.4/7, Error ellipse: s-maj=11.1km s-min=6.7km az=63.0*

CSEM ***25*** *10:18:25.2±0.1, 7325N×662E, h30^{km}, mb4.4/6, Error ellipse: s-maj=2.8km s-min=2.1km az=76.0*

HEL ***25*** *10:18:26.2±0.7, 7331N×794E, h10^{km}, ML3.7, mb4.4(NEIC), ML2.6(BER)*

BER ***25*** *10:18:26.9±3.5, 7331N×776E, h10^{km}, ML2.6, ML2.4(NAO)*

SZGRF ***25*** *10:18:28.6, 7320N×725E, h33^{km}, mb4.4, Greenland Sea*

ISC 25 10:18:24.4±0.3**, 7323N**±003×**73E**±01**, h10**^{km}**, n138, σ1^{s}24**/149**, mb4.0**/23**, MS3.8**/17**, 2C, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRO	Tromso	5.18	129	*e*P	Pn	10 19 41.4	-0.3
TRO				*e*S	Sn	10 20 34.5	-7.0
TRO				AML	AML	10 20 39.0	
	comp=Z,11nm,0.5s						
TRO				*e*		10 24 19.9	
JMIC	Jan Mayen	5.36	253	LR	LR	10 20 31.2	
	comp=Z,537nm,18.2s,baz=83,slow=25						
SPB4	Spitsbergen Ar	5.45	20	*e*Pn	Pn	10 19 43.6	-1.7
SPB4				*e*S	Sg	10 21 19.7	+0.8
SPB4	Spitsbergen Ar	5.45	20	*e*Pn	Pn	10 19 43.7	-1.7
SPA0	Spitsbergen Ar	5.45	20	Pn	Pn	10 19 43.6	-1.8
	baz=202,slow=14						
SPA0	Spitsbergen Ar	5.45	20	*e*P	Pn	10 19 43.6	-1.8
SPA0	Spitsbergen Ar	5.45	20	Pn	Pn	10 19 43.6	-1.8
	baz=202,slow=14						
SPA0	Spitsbergen Ar	5.45	20	Pn	Pn	10 19 43.6	-1.8
	SNR=50						
LOF	Lofoten	5.53	155	*e*P	Pn	10 19 46.8	+0.3
LOF				*e*		10 24 37.1	
KBS	Kingsbay	5.83	9	Pn	Pn	10 19 49.1	-1.6
KBS	Kingsbay	5.83	9	*e*P	Pn	10 19 49.3	-1.4
KBS	Kingsbay	5.83	9	*e*Pn	Pn	10 19 49.3	-1.4
	comp=Z,9.9nm,0.4s						
KBS				*e*S	Sg	10 21 25.3	-5.9

KBS	Kingsbay	5.83	9	Pn	Pn	10 19 49.1	-1.6
KIF	Kilpisjarvi	6.09	127	*e*P	Pn	10 19 54.0	-0.2
KIF				MPN		10 19 56.0	
	comp=Z,12nm,0.3s						
KIF				*e*S	Sn	10 20 57.7	-6.2
KTK1	Kautokeino	6.67	122	*e*P	Pn	10 20 03.8	+1.6
KTK1				*e*		10 24 46.8	
ARA0	ARCESS Array S	6.89	114	Pn	Pn	10 20 05.4	+0.2
	baz=320,slow=14						
ARA0				Sn	Sn	10 21 19.4	-4.2
	baz=311,slow=22						
ARA0	ARCESS Array S	6.89	114	*e*P	Pn	10 20 05.4	+0.2
ARA0				*e*S	Sn	10 21 19.4	-4.2
ARA0	ARCESS Array S	6.89	114	Pn	Pn	10 20 05.4	+0.2
	baz=320,slow=14						
ARA0				Sn	Sn	10 21 19.4	-4.2
	baz=311,slow=22						
ARA0	ARCESS Array S	6.89	114	Pn	Pn	10 20 05.4	+0.2
	SNR=50						
ARA0				Sn	Sn	10 21 19.4	-4.1
	SNR=50						
ARCES	ARCESS Array B	6.89	114	Pn	Pn	10 20 05.3	+0.1
ARCES				Sn	Sn	10 21 18.9	-4.7
ARCES				LR	LR	10 23 25.7	
ARCES	ARCESS Array B	6.89	114	Pn	Pn	10 20 05.3	+0.1
	comp=Z,2.3nm,0.3s,baz=320,slow=12,SNR=107						
ARCES				Sn	Sn	10 21 18.9	-4.7
	comp=Z,1.4nm,0.3s,baz=317,slow=23,SNR=5.2						
ARCES				LR	LR	10 23 25.7	
	comp=Z,338nm,18.6s,baz=6.9,slow=43						
ARCES	ARCESS Array B	6.89	114	Pn	Pn	10 20 05.3	+0.1
ARCES				Sn	Sn	10 21 18.9	-4.6
ARE0	ARCESS Array S	6.89	114	*e*Pn	Pn	10 20 05.8	+0.6
ARE0				*e*Sn	Sn	10 21 19.1	-4.4
ARE0	ARCESS Array S	6.89	114	*e*Pn	Pn	10 20 05.8	+0.6
ARE0				*e*Sn	Sn	10 21 19.1	-4.4
KEV	Kevo	7.16	109	*e*p	Pn	10 20 09.2	+0.4
	comp=Z,8.2nm,0.5s						
KEV	Kevo	7.16	109	*e*P	Pn	10 20 07.8	-1.0
KEV				MPN		10 20 11.1	
	comp=Z,4.0nm,0.3s						
KEV				*e*S	Sn	10 21 23.2	-6.8
KEV	Kevo	7.16	109	*e*Pn	Pn	10 20 09.1	+0.2
KEV	Kevo	7.16	109	*e*P	Pn	10 20 09.2	+0.4
KEV				pmax	pmax		
	comp=Z,8.0nm,0.5s						
KEV	Kevo	7.16	109	*e*Pn	Pn	10 20 09.1	+0.3
STOK	Stokkvaagen	7.21	161	*e*P	Pn	10 20 09.7	+0.1
STOK				*e*S	Sn	10 21 22.6	-8.8
STOK				AML	AML	10 21 28.5	
	comp=Z,9.4nm,0.5s						
HEF	Hetta	7.22	124	*e*P	Pn	10 20 10.7	+0.9
HEF				*e*S	Sn	10 21 25.8	-6.0
MOR8	Moi Rana	7.51	157	*e*P	Pn	10 20 13.8	0.0
MOR8				*e*S	Sn	10 21 31.6	-7.2
MOR8				AML	AML	10 21 36.5	
	comp=Z,15nm,0.3s						
MOR8				*e*		10 25 08.2	
DAG	Danmarks Havn	7.55	310	*e*P	Pn	10 20 22.1	+7.9
DAG	Danmarks Havn	7.55	310	⇑*i*P	Pn	10 20 22.1	+7.9
DAG				pmax	pmax		
	comp=Z,9.0nm,1.1s						
DAG	Danmarks Havn	7.55	310	⇑*i*P	Pn	10 20 22.1	+7.9
	comp=Z,8.9nm,1.1s						
DAG				*i*		10 21 24.4	
SGF	Sodankyl	8.66	122	*e*P	Pn	10 20 29.6	+0.1
SGF				MPN		10 20 33.7	
	comp=Z,5.6nm,0.3s						
NSS	Namsos	8.90	167	*e*P	Pn	10 20 31.0	-1.8
NSS				*e*S	Sn	10 22 04.2	-8.8
NSS				AML	AML	10 22 11.2	
	comp=Z,5.8nm,0.4s						
APA0	Apatity Array	10.22	111	Pn	Pn	10 20 50.2	-0.6
	baz=316,slow=10						
APA0	Apatity Array	10.22	111	*e*P	Pn	10 20 50.2	-0.6
APA0	Apatity Array	10.22	111	Pn	Pn	10 20 50.2	-0.6
	baz=316,slow=10						
APA0	Apatity Array	10.22	111	Pn	Pn	10 20 50.2	-0.6
	SNR=50						
LVZ	Lovozero	10.48	107	*e*P	Pn	10 20 53.0	-1.3
MSF	Maaselka	10.49	123	*e*P	Pn	10 20 54.8	+0.3
MSF				MPN		10 20 58.8	
	comp=Z,4.3nm,0.4s						
KU6	Riekki	10.61	121	*e*P	Pn	10 20 56.5	+0.4
MOL	Molde	10.71	179	*e*	Pn	10 20 53.4	-4.1
MOL	Molde	10.71	179	*e*	Pn	10 20 53.4	-4.1
DOMB	Dombas	11.26	176	*e*P	Pn	10 21 03.7	-1.3
NB2	NORSAR Subarra	12.34	171	Pn	Pn	10 21 19.1	-0.7
	baz=350,slow=14						
NB2	NORSAR Subarra	12.34	171	*e*P	Pn	10 21 19.1	-0.7
NB2	NORSAR Subarra	12.34	171	P	Pn	10 21 19.1	-0.7
	baz=350,slow=14						
NB2	NORSAR Subarra	12.34	171	Pn	Pn	10 21 19.0	-0.8
	SNR=1.0						
NOA	NORSAR Array B	12.34	171	Pn	Pn	10 21 18.6	-1.2
NOA				LR	LR	10 25 55.8	
NOA	NORSAR Array B	12.34	171	Pn	Pn	10 21 18.6	-1.2
	comp=Z,0.6nm,0.3s,baz=355,slow=14,SNR=4.5						
NOA				LR	LR	10 25 55.8	
	comp=Z,154nm,19.8s,baz=355,slow=37						
NOA	NORSAR Array B	12.34	171	Pn	Pn	10 21 18.6	-1.2
NAO01	NORSAR Array S	12.52	172	*e*Pn	Pn	10 21 21.6	-0.6
NAO01	NORSAR Array S	12.52	172	*e*Pn	Pn	10 21 21.6	-0.6
SUF	Sumiainen	12.62	137	*e*P	Pn	10 21 23.0	-0.5
KEF	Keuruu	12.87	140	*e*P	Pn	10 21 26.4	-0.7
KAF	Kangasniemi	13.20	138	*e*p	Pn	10 21 30.0	-1.5
HFS	Hagfors	13.39	166	Pn	Pn	10 21 32.6	-1.5
	baz=352,slow=14						
HFS	Hagfors	13.39	166	*e*P	Pn	10 21 32.6	-1.5
HFS	Hagfors	13.39	166	Pn	Pn	10 21 33.3	-0.8
HFS				LR	LR	10 26 19.9	
HFS	Hagfors	13.39	166	P	Pn	10 21 32.6	-1.5
	baz=352,slow=14						
HFS	Hagfors	13.39	166	Pn	Pn	10 21 33.3	-0.8
	comp=Z,0.8nm,0.3s,baz=358,slow=12,SNR=22						
HFS				LR	LR	10 26 19.9	
	comp=Z,410nm,18.9s,baz=162,slow=36						
HFS	Hagfors	13.39	166	Pn	Pn	10 21 33.3	-0.7
JOF	Joensuu	13.55	127	*e*p	Pn	10 21 33.7	-2.6
FIA0	FINESS Array S	13.77	139	Pn	Pn	10 21 38.5	-0.8
	baz=341,slow=14						
FIA0	FINESS Array S	13.77	139	*e*P	Pn	10 21 38.5	-0.8
FIA0	FINESS Array S	13.77	139	Pn	Pn	10 21 38.5	-0.8
	baz=341,slow=14						
FIA0	FINESS Array S	13.77	139	Pn	Pn	10 21 38.5	-0.7
	SNR=50						
FINES	FINESS Array B	13.77	139	Pn	Pn	10 21 38.3	-0.9
FINES				LR	LR	10 26 39.1	
FINES	FINESS Array B	13.77	139	Pn	Pn	10 21 38.3	-0.9
	comp=Z,0.3nm,0.3s,baz=343,slow=11,SNR=15						
FINES				LR	LR	10 26 39.1	
	comp=Z,327nm,19.6s,baz=219,slow=36						
FINES	FINESS Array B	13.77	139	Pn	Pn	10 21 38.3	-0.9
TMCR	Tamitsa	14.19	114	*e*P	Pn	10 21 51.8	+6.8
SFJD	Kangerlussuaq	19.86	281	LR	LR	10 29 33.7	
	comp=Z,452nm,18.2s,baz=12,slow=34						
MOS	Moscow	21.43	129	*e*P	P	10 23 11.8	-0.3
MOS				pmax	pmax		
	comp=Z,37nm,1.1s,mb4.6						
OBN	Obninsk	21.77	131	P	P	10 23 17.0	+1.3
OBN				*e*		10 23 22.6	
OBN				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.0						
OBN				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.3						
CLL	Collm	22.14	170	*e*P	P	10 23 21.0	+1.2
	comp=Z,20nm,1.7s,mb4.3						
CLL				*e*		10 23 32.0	
CLL				LR	LR		
	comp=Z,200nm,17.8s,MS3.6						
CLL	Collm	22.14	170	*e*P	P	10 23 21.0	+1.2
CLL				pmax	pmax		
	comp=Z,20nm,1.7s,mb4.3						
CLL				MLR	MLR		
	comp=Z,200nm,17.8s,MS3.6						
CLL	Collm	22.14	170	*e*P	P	10 23 21.0	+1.2
	comp=Z,20nm,1.7s,mb4.3						
CLL				*e*x	x	10 23 32.0	
BRG	Berggiesshubel	22.63	169	*e*P	P	10 23 24.9	0.0
BRG				pmax	pmax		
	comp=Z,9.0nm,1.6s,mb4.0						
BRG	Berggiesshubel	22.63	169	*e*P	P	10 23 24.9	0.0
	comp=Z,9.2nm,1.6s,mb4.0						
UPC	Upice	23.12	166	*e*P	P	10 23 31.6	+1.5
NKC	Novy Kostel	23.19	172	*e*P	P	10 23 31.8	+0.9
NKC				*e*		10 23 40.6	
NKC	Novy Kostel	23.19	172	*e*P	P	10 23 31.8	+0.9
NKC				*e*x	x	10 23 40.6	
DPC	Dobruska-Polom	23.30	165	*e*P	P	10 23 32.1	+0.1
DPC				*e*pP		10 23 39.1	
PRU	Pruhonice	23.55	168	*e*P	P	10 23 35.5	+1.0
GRA1	Grafenberg Arr	23.69	174	*e*P	P	10 23 36.7	+0.8
	comp=Z,26nm,1.9s,mb4.3						
GRF	Grafenberg Arr	23.69	174	*e*P	P	10 23 36.7	+0.8
GRF				pmax	pmax		
	comp=Z,26nm,1.9s,mb4.3						
GRF	Grafenberg Arr	23.69	174	*e*P	P	10 23 36.7	+0.8
GRF				pmax	pmax		
	comp=Z,26nm,1.9s,mb4.3						
GRF	Grafenberg Arr	23.69	174	*e*P	P	10 23 36.7	+0.8
	comp=Z,26nm,1.9s,mb4.3						
OJC	Ojcow	23.74	160	*e*P	P	10 23 36.9	+0.6
MORC	Moravsky Berou	23.97	163	*e*P	P	10 23 38.5	+0.1
	comp=Z,51nm,2.2s,mb4.6						
MORC	Moravsky Berou	23.97	163	*e*P	P	10 23 38.5	+0.1
MORC				pmax	pmax		
	comp=Z,51nm,2.2s,mb4.6						
MORC	Moravsky Berou	23.97	163	*e*P	P	10 23 38.5	+0.1
	comp=Z,51nm,2.2s,mb4.6						
VRAC	Vranov	24.36	165	P	P	10 23 42.9	+0.9
	comp=Z,5.3nm,0.9s,mb4.0,baz=0.1,slow=12,SNR=5.0						
VRAC				LR	LR	10 32 59.7	
	comp=Z,199nm,19.1s,MS3.6,baz=347,slow=36						
VRAC	Vranov	24.36	165	P	P	10 23 42.8	+0.8
AKASG	Malin Array Be	24.53	145	*i* P	P	10 23 46.0	+2.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG	Malin Array Be	24.53	145	P	P	10 23 42.8	-0.7
	comp=Z,1.1nm,0.5s,mb3.7,baz=339,slow=8.6,SNR=4.7						
AKBB	Malin Array Si	24.53	145	*e*P	P	10 23 42.5	-1.0
AKBB	Malin Array Si	24.53	145	*e*P	P	10 23 42.5	-1.0
NIE	Niedzica	24.58	159	*e*P	P	10 23 46.8	+2.8
GERES	GERESS Array B	24.64	170	P	P	10 23 45.0	+0.5
	comp=Z,2.0nm,0.9s,mb3.6,baz=4.6,slow=6.7,SNR=11						
GERES				LR	LR	10 33 14.6	
	comp=Z,167nm,19.1s,MS3.5,baz=90,slow=36						
UZH	Uzhgorod	25.57	157	*e*P	P	10 23 49.4	-3.6
DAVOX	Davos/Dischmat	26.57	176	LR	LR	10 33 56.3	
	comp=Z,185nm,19.3s,MS3.6,baz=314,slow=35						
MLR	Muntele Rosu	29.12	152	LR	LR	10 36 25.9	
	comp=Z,317nm,19.3s,MS4.0,baz=335,slow=37						
TIXI	Tiksi	30.74	32	*e*P	P	10 24 38.9	0.0
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.4						
SCHQ	Schefferville	34.26	279	LR	LR	10 37 39.4	
	comp=Z,280nm,20.6s,MS4.0,baz=67,slow=34						
NVS	Novosibirsk	34.78	80	*e*P	P	10 25 13.7	-0.7
BRTR	Keskin Array B	35.93	144	P	P	10 25 26.8	+2.4
	comp=Z,0.6nm,0.6s,mb3.7,baz=2.7,slow=8.0,SNR=2.5						
BRTR				LR	LR	10 41 25.7	
	comp=Z,86nm,19.2s,MS3.5,baz=320,slow=38						
ZALV	Zalesovo Beam	36.01	79	P	P	10 25 27.3	+2.3
	comp=Z,0.4nm,0.6s,mb3.5,baz=324,slow=9.0,SNR=3.0						
ZALV				LR	LR	10 42 55.6	
	comp=Z,70nm,19.3s,MS3.4,baz=330,slow=41						
ZAL	Zalesovo	36.02	79	P	P	10 25 27.3	+2.3
KURK	Kurchatov	37.09	87	*e*P	P	10 25 37.2	+3.0
BILL	Bilibino	38.30	13	*e*P	P	10 25 43.5	-0.8
BILL				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb3.8						
YKA	Yellowknife Ar	39.07	321	*i* P	P	10 25 50.0	-0.8
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	Yellowknife Ar	39.07	321	P	P	10 25 48.8	-2.0
	comp=Z,1.3nm,0.9s,mb3.7,baz=15,slow=8.2,SNR=20						
YKA				PcP	PcP	10 27 59.6	-0.6
	comp=Z,0.5nm,0.8s,baz=14,slow=3.0,SNR=6.9						
YKA				LR	LR	10 42 01.9	
	comp=Z,138nm,19.4s,MS3.8,baz=175,slow=36						
YKA	Yellowknife Ar	39.07	321	PcP	PcP	10 27 59.6	-0.6
COLA	College	41.16	344	*e*P	P	10 26 09.5	+1.5
MKAR	Makanchi Array	41.68	86	P	P	10 26 14.4	+1.9
	comp=Z,0.2nm,0.2s,mb3.3,baz=337,slow=6.9,SNR=4.3						
MKAR				LR	LR	10 46 21.0	
	comp=Z,124nm,18.9s,MS3.8,baz=102,slow=40						
ULM	Lac du Bonnet	46.27	300	P	P	10 26 46.9	-2.4
ULM				LR	LR	10 46 00.0	
ULM	Lac du Bonnet	46.27	300	P	P	10 26 46.9	-2.4
	comp=Z,1.8nm,0.9s,mb4.0,baz=6.4,slow=6.1,SNR=3.0						
ULM				LR	LR	10 46 00.0	
	comp=Z,210nm,20.5s,MS4.1,baz=349,slow=36						
SONM	Songino Array	47.45	65	P	P	10 27 01.3	+2.7
	comp=Z,0.4nm,0.9s,mb3.3,baz=29,slow=3.4,SNR=2.8						
SONM				LR	LR	10 51 45.4	
	comp=Z,56nm,18.6s,MS3.6,baz=292,slow=42						
EDM	Edmonton	47.49	315	*e*P	P	10 26 58.1	-0.8
EDM	Edmonton	47.49	315	*e*P	P	10 26 58.1	-0.7
BBB	Bella Bella	51.18	326	LR	LR	10 48 15.2	
	comp=Z,276nm,19.9s,MS4.3,baz=317,slow=35						
ECSD	EROS,Sioux Fal	52.51	298	*e*P	P	10 27 36.4	-0.6
	comp=Z,5.1nm,1.0s,mb4.4						
ECSD	EROS,Sioux Fal	52.51	298	*e*P	P	10 27 36.4	-0.6
	comp=Z,5.1nm,1.0s,mb4.4						
PDAR	Pinedale Array	56.57	308	P	P	10 28 05.0	-1.5
	comp=Z,0.9nm,1.1s,mb3.7,baz=45,slow=6.9,SNR=4.5						
PDAR				LR	LR	10 53 34.6	
	comp=Z,116nm,18.4s,MS4.0,baz=200,slow=37						
SMCO	Snowmass	59.38	305	*e*P	P	10 28 29.1	+2.8
	comp=Z,5.0nm,1.1s,mb4.5						
SMCO	Snowmass	59.38	305	*e*P	P	10 28 29.0	+2.8
	comp=Z,5.0nm,1.1s,mb4.5						
TORD	Torodi Ar. Bea	60.15	186	P	P	10 28 31.2	-0.6
	comp=Z,0.9nm,0.7s,mb3.9,baz=357,slow=6.2,SNR=6.9						
TORD				LR	LR	10 55 59.5	
	comp=Z,54nm,20.8s,MS3.7,baz=60,slow=38						
PV10	Paradox Valley	60.63	306	P	P	10 28 34.7	-0.1
PV10	Paradox Valley	60.63	306	P	P	10 28 34.7	-0.1
PV01	Paradox Valley	60.75	306	*e*P	P	10 28 37.6	+1.9
PV01	Paradox Valley	60.75	306	*e*P	P	10 28 37.6	+1.9
KSRS	Korea Array	62.50	51	P	P	10 28 51.3	+3.8
	comp=Z,2.5nm,1.2s,mb4.2,baz=197,slow=26,SNR=3.5						
TXAR	Lajitas Array	67.93	298	P	P	10 29 21.7	-1.1
TXAR				LR	LR	10 58 39.2	
TXAR	Lajitas Array	67.93	298	P	P	10 29 21.7	-1.1
	comp=Z,0.8nm,1.1s,mb3.7,baz=56,slow=9.2,SNR=3.9						
TXAR				LR	LR	10 58 39.2	
	comp=Z,123nm,18.7s,MS4.2,baz=65,slow=36						

ISCJB ***25*** *10:19:53.7±0.6, 38.40N±0.03×39.30E±0.04, h6^{km}±8^{km}, Error ellipse: s-maj=5.8km s-min=5.5km az=20.0*

CSEM ***25*** *10:19:53.0±0.1, 38.39N×39.31E, h10^{km}, MD2.8, Error ellipse: s-maj=1.4km s-min=1.3km az=173.0*

ISK ***25*** *10:19:53.2, 38.39N×39.30E, h11^{km}, MD3.1*

DDA ***25*** *10:19:54.4, 38.37N×39.26E, h7^{km}±5^{km}, Md2.8*

ISC 25 10:19:54.4±0.5**, 38.42N**±0.03×**39.28E**±0.04**, h13**^{km}±5^{km}**, n20, $\sigma 0^{s}$91**/32**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.25	289	*i* P	Pg	10 19 59.9	+0.2
ELZG				*i* S	Sg	10 20 03.1	-0.1
PTK	Pertek	0.48	10	PG	Pg	10 20 03.2	-0.7
PTK				SG	Sg	10 20 11.8	+1.4
PTK	Pertek	0.48	10	*e*Pg	Pg	10 20 03.2	-0.7
PTK				*e*Sg	Sg	10 20 11.8	+1.4
MALT	Malatya	0.68	262	PG	Pg	10 20 07.0	-0.6
MALT				SG	Sg	10 20 17.2	+0.6
MALT	Malatya	0.68	262	*e*Pg	Pg	10 20 07.0	-0.6
MALT				*e*Sg	Sg	10 20 17.2	+0.6
MYA	Malataya	0.68	263	PG	Pg	10 20 07.1	-0.5
MYA				SG	Sg	10 20 17.1	+0.5
MYA	Malataya	0.68	263	*e*Pg	Pg	10 20 07.1	-0.5
MYA				*e*Sg	Sg	10 20 17.1	+0.5
DIYA	Diyarbakir	0.82	126	⇑*i*P	Pg	10 20 11.0	+0.6
DIYA				*i* S	Sg	10 20 22.4	+1.2
DIY	Diyarbakir	0.91	125	*e*PG	Pg	10 20 10.4	-1.5
DIY	Diyarbakir	0.91	125	*e*Pg	Pg	10 20 10.4	-1.5
URFA	Urfa	1.04	201	*e*PG	Pg	10 20 13.2	-1.3
URFA				*e*SG	Sg	10 20 28.1	+0.1
URFA	Urfa	1.04	201	*e*Pg	Pg	10 20 13.2	-1.3
URFA				*e*Sg	Sg	10 20 28.1	+0.1
EZC	Erzincan	1.39	17	*e*PN	Pn	10 20 18.9	-0.6
MARD	Mardin	1.62	132	*i* P	Pn	10 20 23.5	+0.9
MARD				*i* S	Sn	10 20 44.2	+1.0
GZT	Gaziantep	1.72	233	*i* P	Pn	10 20 24.8	+0.7
GZT				*i* S	Sn	10 20 51.2	+5.3
BTMT	Batman	1.75	97	*e*PN	Pn	10 20 22.3	-2.1
SVSK	Karacayir	2.32	311	*e*PN	Pn	10 20 32.7	+0.4
SVSK	Karacayir	2.32	311	*e*Pn	Pn	10 20 32.7	+0.4
SIRT	Sirnak	2.66	109	*e*PN	Pn	10 20 36.5	-0.4
SIRT	Sirnak	2.66	109	*e*Pn	Pn	10 20 36.5	-0.4

ISCJB ***25*** *10:19:57.1±0.6, 73.17N±0.07×6.9E±0.3, h10^{km}, mb3.5/9, Error ellipse: s-maj=14.5km s-min=8.8km az=151.2*

IDC ***25*** *10:19:57.6±0.8, 73.13N×6.62E, h0^{km}, mb3.6/8, mb1 3.7/12, mb1mx3.6/22, mbtmp3.6/12, ML3.4/4, Error ellipse: s-maj=21.7km s-min=14.0km az=41.0*

BER ***25*** *10:20:03.9±4.0, 73.26N×8.58E, h10^{km}, ML2.5*

ISC 25 10:19:57.9±5.3**, 73.20N**±0.08×**6.8E**±0.4**, h1**^{km}±35^{km}**, n17, $\sigma 0^{s}$96**/20**, mb3.5**/9**, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRO	Tromso	5.27	127	*e*P	Pn	10 21 17.0	-0.5
TRO				*e*S	Sn	10 22 08.3	-10
TRO				AML	AML	10 22 14.9	
	comp=Z,7.8nm,0.5s						
LOF	Lofoten	5.56	153	*e*P	Pn	10 21 25.2	+3.6
LOF				*e*S	Sn	10 22 19.0	-7.0
LOF				AML	AML	10 22 23.0	
	comp=Z,13nm,0.6s						
KBS	Kingsbay	5.88	10	*e*P	Pn	10 21 25.7	-0.3
ARCES	ARCESS Array B	7.00	112	Pn	Pn	10 21 41.5	+0.1
	comp=Z,1.2nm,0.3s,baz=327,slow=12,SNR=5.2						
ARCES				Sn	Sn	10 22 50.6	-11
	baz=4.7,slow=16,SNR=2.4						
STOK	Stokkvaagen	7.22	160	*e*S	Sn	10 22 58.8	-8.1
STOK				AML	AML	10 23 03.7	
	comp=Z,12nm,0.5s						
NOA	NORSAR Array B	12.33	170	Pn	Pn	10 22 55.4	+1.1
	comp=Z,0.3nm,0.3s,baz=328,slow=13,SNR=2.4						
HFS	Hagfors	13.39	165	Pn	Pn	10 23 09.1	+0.4
	comp=Z,0.6nm,0.3s,baz=360,slow=12,SNR=9.1						
FINES	FINESS Array B	13.83	139	Pn	Pn	10 23 13.6	-1.1
	comp=Z,0.1nm,0.3s,baz=344,slow=12,SNR=4.3						
AKASG	Malin Array Be	24.58	144	P	P	10 25 17.0	-1.8
	comp=Z,1.4nm,0.6s,mb3.9,baz=347,slow=9.7,SNR=2.4						
GERES	GERESS Array B	24.63	169	P	P	10 25 23.9	+4.5
	comp=Z,0.6nm,0.7s,mb3.5,baz=354,slow=7.9,SNR=3.8						
ZALV	Zalesovo Beam	36.15	79	P	P	10 27 00.4	-0.7
	comp=Z,0.3nm,0.4s,mb3.5,baz=322,slow=9.1,SNR=3.3						
YKA	Yellowknife Ar	39.02	321	P	P	10 27 25.5	+0.3
	comp=Z,0.5nm,0.9s,mb3.1,baz=16,slow=8.2,SNR=4.4						
MKAR	Makanchi Array	41.81	86	P	P	10 27 49.8	+1.3
	comp=Z,0.1nm,0.2s,mb3.1,baz=340,slow=8.0,SNR=2.5						
ULM	Lac du Bonnet	46.17	300	P	P	10 28 23.6	+0.2
	comp=Z,1.6nm,1.0s,mb4.0,baz=0.0,slow=7.1,SNR=1.9						
SONM	Songino Array	47.59	64	P	P	10 28 36.0	+1.4
	comp=Z,0.5nm,0.9s,mb3.6,baz=332,slow=4.9,SNR=2.6						
PDAR	Pinedale Array	56.49	308	P	P	10 29 40.0	-0.9
	comp=Z,0.1nm,0.4s,mb3.2,baz=134,slow=24,SNR=2.7						
TORD	Torodi Ar. Bea	60.11	186	P	P	10 30 06.4	0.0
	comp=Z,1.2nm,0.7s,mb4.1,baz=357,slow=6.6,SNR=6.6						

NEIC ***25*** *10:22:17.3, 14.76N×92.42W, h90^{km}, MD4.4(MEX), After MEX.*

MEX 25 10:22:21.6±1.0**, 15.11N×92.53W, h83**^{km}±45^{km}**, MD4.3, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CCIG	Comitan	1.23	18	*e*P	Pn	10 22 42.8	-0.8
CCIG				*i* S	Sn	10 23 02.0	+1.9
CCIG	Comitan	1.23	18	*e*P	Pn	10 22 42.8	-0.8
CCIG				*i* S	Sn	10 22 58.4	-1.7
SCX	San Cristobal	1.62	356	*i* P	Pn	10 22 46.8	-1.9
SCX				*i* S	Sn	10 23 11.3	+2.2
SCX	San Cristobal	1.62	356	*i* P	Pn	10 22 46.8	-1.9
SCX				*i* S	Sn	10 23 09.0	-0.1
HUIG	Huatulco	3.52	281	*i* P	Pn	10 23 10.9	-3.0
HUIG				*i* S	Sn	10 23 53.5	-1.0
HUIG	Huatulco	3.52	281	*i* P	Pn	10 23 11.9	-2.1
HUIG				*i* S	Sn	10 23 53.5	-1.0
VHO	Vista Hermosa	4.49	296	*i* P	Pn	10 23 27.6	+0.4
VHO				*i* S	Sn	10 24 20.2	+1.9
VHO	Vista Hermosa	4.49	296	*i* P	Pn	10 23 27.6	+0.4
VHO				*i* S	Sn	10 24 18.1	-0.2
TEIG	Tepich	6.51	38	*i* P	Pn	10 23 51.4	-3.3
TEIG				*i* S	Sn	10 25 06.0	-1.5
TEIG	Tepich	6.51	38	*i* P	Pn	10 23 51.8	-3.0
TEIG				*i* S	Sn	10 25 06.6	-0.9

IDC ***25*** *10:30:43.2±2.2, 19.06S×168.28E, h0^{km}, mb3.9/5, mb1 4.0/6, mb1mx3.9/14, mbtmp3.9/6, ML3.4/1, MS3.5/4, Ms1 3.5/4, ms1mx3.1/23, Error ellipse: s-maj=43.1km s-min=32.1km az=65.0*

ISCJB ***25*** *10:30:47.7±3.2, 19.3S±0.2×168.2E±0.2, h43^{km}±27^{km}, mb3.7/4, MS3.1/4, Error ellipse: s-maj=28.7km s-min=23.7km az=36.4*

ISC 25 10:30:48.7±5.1**, 19.21S**±0.10×**168.2E**±0.2**, h33**^{km}±39^{km}**, n13, $\sigma 0^{s}$64**/11**, mb3.7**/4**, MS3.1**/4**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	3.30	210	*e*P	Pn	10 31 37.3	-0.7
DZM				*e*S	Sn	10 32 15.6	-0.5
DZM	Mont Dzumac	3.30	210	Pn	Pn	10 31 38.0	0.0
	3.4nm,0.3s,baz=99,slow=14,SNR=56						
DZM				Sn	Sn	10 32 15.8	-0.3
	20nm,0.3s,baz=115,slow=23,SNR=13						
NOUC	Port Laguerre	3.39	212	*e*P	Pn	10 31 39.5	+0.2
NOUC				*e*S	Sn	10 32 18.5	+0.1
HNR	Honiara	12.59	319	LR	LR	10 37 29.8	
	comp=Z,129nm,18.5s,baz=179,slow=32						
URZ	Urewera	20.50	160	P	P	10 35 23.9	-0.1
	3.8nm,0.7s,baz=309,slow=0.8,SNR=3.7						
RPZ	Rata Peaks	24.55	175	LR	LR	10 43 35.6	
	comp=Z,95nm,20.6s,MS3.3,baz=5.3,slow=31						
STKA	Stephens Creek	27.05	237	P	P	10 36 29.6	+1.5
	0.7nm,0.4s,mb3.5,baz=55,slow=8.6,SNR=6.0						
RAR	Rarotonga	30.08	99	LR	LR	10 44 40.1	
	comp=Z,4.0nm,21.5s,MS2.0,baz=218,slow=28						
WRA	Warramunga Arr	31.90	263	P	P	10 37 10.3	-0.9
	0.3nm,0.5s,mb3.4,baz=94,slow=8.3,SNR=6.3						
ASAR	Alice Springs	32.20	256	P	P	10 37 14.0	+0.2
	1.6nm,0.4s,mb4.2,baz=81,slow=8.3,SNR=76						
FITZ	Fitzroy Crossi	40.28	264	LR	LR	10 52 31.0	
	comp=Z,43nm,18.5s,MS3.3,baz=137,slow=32						
JOW	Kunigami	59.96	318	LR	LR	11 03 01.9	
	comp=Z,73nm,21.5s,MS3.8,baz=358,slow=32						
SONM	Songino Array	86.61	323	P	P	10 43 28.4	-0.2
	0.4nm,0.6s,mb3.8,baz=134,slow=5.9,SNR=4.4						

WEL 25 10:34:11.1±0.2**, 44.26S×168.46E, h5**^{km}**, ML3.6**/14**, 2C, Error ellipse: s-maj=1.9km s-min=1.8km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JCZ	Jackson Bay	0.29	49	⇑PG	Pg	10 34 16.9	+0.3
JCZ				SG	Sg	10 34 20.4	0.0
MSZ	Milford Sound	0.56	222	⇑PG	Pg	10 34 22.0	+0.2
MSZ				SG	Sg	10 34 29.3	+0.2
WKZ	Wanaka	0.69	145	P*	Pb	10 34 24.6	-1.1
WKZ				SG	Sg	10 34 33.9	+0.4
MLZ	Mavora Lakes	1.10	190	P*	Pb	10 34 31.8	-0.9
FOZ	Fox Glacier	1.13	52	P*	Pb	10 34 32.7	-0.3
EAZ	Earnscleugh	1.15	148	P*	Pb	10 34 32.8	-0.5
EAZ				S*	Sb	10 34 47.7	-0.8
LBZ	Lake Benmore	1.25	96	P*	Pb	10 34 34.5	-0.6
DCZ	Deep Cove	1.53	217	PN	Pn	10 34 38.4	-0.6
WHZ	Wether Hill Ro	1.67	192	PN	Pn	10 34 41.2	+0.2
ODZ	Otahua Downs	1.75	117	PN	Pn	10 34 41.8	-0.2
WVZ	Waitaha Valley	2.04	55	PN	Pn	10 34 44.2	-1.8
SYZ	Scrubby Hill	2.33	168	PN	Pn	10 34 50.3	+0.3
DSZ	Denniston Nort	3.51	45	PN	Pn	10 35 04.8	-1.5
THZ	Tophouse	4.11	54	PN	Pn	10 35 13.6	-0.9
QRZ	Quartz Range	4.56	43	PN	Pn	10 35 19.5	-1.3
NNZ	Nelson	4.73	52	PN	Pn	10 35 22.5	-0.5

IDC ***25*** *10:56:11.0±0.7, 38.64S×46.29E, h0^{km}, mb4.1/11, mb1 4.2/11, mb1mx4.0/20, mbtmp4.1/11, MS3.3/3, Ms1 3.2/3, ms1mx3.0/28, Error ellipse: s-maj=32.8km s-min=17.1km az=27.0*

*ISCJB **25** 10:56:11.1±0.6, 38.6S±0.1×46.2E±0.1, h10^{km}, mb4.0/10, MS3.1/3, Error ellipse: s-maj=17.8km s-min=12.9km az=38.0*

ISC 25 10:56:12.7±0.6**, 38.6S**±0.1×**46.3E**±0.1**, h10**^{km}**, n15,** σ**0**$\overset{s}{.}$**61**/13**, mb4.0**/10**, MS3.1**/3**, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOSA	Boshof	20.11	294	P	P	11 00 46.8	+0.2
	11nm,0.9s,baz=130,slow=10,SNR=14						
BOSA				LR	LR	11 06 01.4	
	comp=Z,39nm,19.5s,MS2.8,baz=165,slow=29						
SUR	Sutherland	21.61	279	P	P	11 01 03.2	+0.4
	27nm,1.0s,mb4.6,baz=124,slow=8.6,SNR=9.7						
SUR				LR	LR	11 07 59.6	
	comp=Z,133nm,18.8s,MS3.4,baz=186,slow=33						
LBTB	Lobatse	22.13	302	P	P	11 01 08.2	-0.3
	18nm,0.8s,mb4.5,baz=143,slow=6.8,SNR=11						
LBTB				LR	LR	11 09 02.4	
	comp=Z,76nm,20.4s,MS3.1,baz=339,slow=35						
MATP	Matopo	23.76	315	P	P	11 01 24.1	-1.2
	4.2nm,0.9s,mb3.9,baz=164,slow=7.7,SNR=5.6						
SNAA	Sanae	41.23	201	P	P	11 03 57.2	-0.1
	0.9nm,0.8s,mb3.5,baz=328,slow=10,SNR=4.2						
VNA2	Neumayer--Watz	42.29	203	*e*	P	11 04 06.2	+0.3
	baz=58,slow=7.5						
VNA2				*e*		11 04 11.1	
VNA2				*e*		11 04 13.6	
VNA2				*e*		11 04 20.9	
VNA3	Neumayer Olymp	43.09	203	*e*	P	11 04 12.3	-0.2
VNA3				*e*		11 04 17.5	
VNA3				*e*		11 04 20.5	
VNA3				*e*		11 04 27.6	
TORD	Torodi Ar. Bea	66.24	312	P	P	11 07 01.6	+0.6
	4.5nm,1.0s,mb4.4,baz=130,slow=5.1,SNR=17						
ASAR	Alice Springs	73.87	108	P	P	11 07 48.9	+0.9
	0.5nm,1.0s,mb3.4,baz=224,slow=5.2,SNR=4.0						
STKA	Stephens Creek	74.64	119	P	P	11 07 51.4	-0.9
	1.4nm,0.8s,mb4.0,baz=30,slow=18,SNR=3.0						
WRA	Warramunga Arr	76.37	105	P	P	11 08 01.9	-0.5
	0.4nm,0.8s,mb3.4,baz=227,slow=5.0,SNR=4.7						
MKAR	Makanchi Array	90.94	24	P	P	11 09 16.9	+0.6
	0.2nm,0.5s,mb3.7,baz=194,slow=4.5,SNR=4.5						
ZALV	Zalesovo Beam	98.01	22	P	P	11 09 48.7	+0.2
	0.3nm,0.4s,mb4.1,baz=208,slow=2.9,SNR=3.9						
YKA	Yellowknife Ar	153.41	340	PKPbc	PKPbc	11 16 09.6	-0.6
	0.5nm,0.6s,baz=35,slow=2.0,SNR=8.8						
TXAR	Lajitas Array	153.50	259	PKPbc	PKPbc	11 16 11.8	+0.4
	1.7nm,0.9s,baz=131,slow=4.1,SNR=13						

IDC 25 10:56:17.4±5.3**, 28.22S×74.34E, h0**^{km}**, mb3.9**/5**, mb1 4.1**/5**, mb1mx3.8**/19**, mbtmp3.9**/5**, MS3.8**/2**, Ms1 3.8**/2**, ms1mx3.3**/32**, Error ellipse: s-maj=181.4km s-min=30.9km az=43.0, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOSA	Boshof	42.93	257	LR	LR	11 17 48.5	
	comp=Z,107nm,18.5s,baz=169,slow=30						
ASAR	Alice Springs	53.30	100	P	P	11 05 38.4	0.0
	1.2nm,0.7s,baz=249,slow=6.8,SNR=21						
WRA	Warramunga Arr	54.92	95	P	P	11 05 50.3	-0.1
	2.7nm,0.7s,baz=253,slow=7.2,SNR=18						
CTA	Charters Tower	65.28	100	LR	LR	11 34 57.2	
	comp=Z,83nm,19.4s,baz=229,slow=36						
MKAR	Makanchi Array	75.01	6	P	P	11 07 60.0	-0.4
	0.3nm,0.3s,baz=178,slow=6.1,SNR=5.7						
SONM	Songino Array	81.00	21	P	P	11 08 34.6	+1.0
	0.6nm,0.8s,baz=204,slow=6.3,SNR=5.4						
ZALV	Zalesovo Beam	82.33	6	P	P	11 08 40.5	0.0
	0.8nm,0.7s,baz=182,slow=5.1,SNR=3.8						
YKA	Yellowknife Ar	145.22	7	PKPbc	PKPbc	11 15 55.3	-0.7
	1.3nm,0.9s,baz=336,slow=3.9,SNR=18						

IDC 25 11:00:11.7±1.8**, 38.92S×46.11E, h0**^{km}**, mb4.0**/7**, mb1 4.1**/7**, mb1mx3.8**/18**, mbtmp4.1**/7**, MS3.4**/1**, Ms1 3.4**/1**, ms1mx2.9**/27**, Error ellipse: s-maj=69.2km s-min=30.7km az=4.0, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOSA	Boshof	20.11	294	P	P	11 04 46.8	-0.2
	2.3nm,0.6s,baz=105,slow=13,SNR=2.9						
SUR	Sutherland	21.53	280	P	P	11 05 03.7	+1.3
	17nm,1.1s,baz=128,slow=7.1,SNR=4.2						
LBTB	Lobatse	22.18	303	P	P	11 05 08.8	-0.6
	8.3nm,0.8s,baz=160,slow=12,SNR=4.4						
LSZ	Lusaka	28.34	321	LR	LR	11 16 47.8	
	comp=Z,77nm,20.4s,baz=0.4,slow=35						
TORD	Torodi Ar. Bea	66.34	312	P	P	11 11 02.8	+0.6
	2.7nm,1.1s,baz=127,slow=6.4,SNR=7.1						
MKAR	Makanchi Array	91.26	24	P	P	11 13 19.1	+0.8
	0.1nm,0.2s,baz=186,slow=2.9,SNR=3.0						
GERES	GERESS Array B	91.98	339	P	P	11 13 21.0	-0.7
	0.4nm,0.7s,baz=308,slow=13,SNR=3.4						
ZALV	Zalesovo Beam	98.32	22	P	P	11 13 50.6	+0.1
	0.3nm,0.3s,baz=18,slow=32,SNR=2.5						
TXAR	Lajitas Array	153.32	258	PKPbc	PKPbc	11 20 11.9	+0.2
	0.4nm,0.8s,baz=97,slow=6.4,SNR=4.4						
YKA	Yellowknife Ar	153.64	340	PKPbc	PKPbc	11 20 10.3	-1.0
	0.2nm,0.6s,baz=18,slow=3.2,SNR=4.4						

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*ISCJB **25** 11:19:52.5±0.8, 27.83S±0.03×67.51W±0.09, h133^{km}±11^{km}, mb3.8/4, Error ellipse: s-maj=12.7km s-min=5.6km az=0.2*

*NEIC **25** 11:19:52.7±0.7, 27.82S×67.38W, h124^{km}±8^{km}, MG5.0(GUC), Error ellipse: s-maj=13.0km s-min=6.8km az=101.0*

*GUC **25** 11:19:53.3±0.9, 27.81S×67.54W, h138^{km}±86^{km}, ML5.0*

*IDC **25** 11:19:54.5±0.8, 27.94S×67.49W, h140^{km}±6^{km}, mb3.8/4, mb1 3.9/6, mb1mx3.7/16, mbtmp3.7/6, Error ellipse: s-maj=30.9km s-min=12.2km az=101.0*

ISC 25 11:19:53.5±0.8**, 27.82S**±0.03×**67.50W**±0.08**, h129**^{km}±11^{km}**, n32,** σ**1**$\overset{s}{.}$**01**/39**, mb3.8**/4**, 3C-6D, Catamarca Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPCH	Copiapo	2.58	280	*i* P	Pn	11 20 35.0	+0.4
CPCH				*i* S	Sn	11 21 06.3	+0.1
CPCH	Copiapo	2.58	280	*i* P	Pn	11 20 35.0	+0.4
CPCH				*i* S	Sn	11 21 06.3	+0.1
CPCH				AML	AML	11 21 07.8	
	comp=E,10μm,0.1s						
VACH	Vallenar	2.98	255	⇑*i*P	Pn	11 20 40.5	+0.7
VACH				*i* S	Sn	11 21 15.8	+0.4
VACH	Vallenar	2.98	255	⇑*i*P	Pn	11 20 40.5	+0.7
VACH				*i* S	Sn	11 21 15.8	+0.4
VACH				AML	AML	11 21 17.5	
	comp=E,5μm,0.1s						
CDCH	Caldera	3.05	283	⇓*i*P	Pn	11 20 40.8	0.0
CDCH				S	Sn	11 21 15.0	-2.3
CDCH	Caldera	3.05	283	⇓*i*P	Pn	11 20 40.8	0.0
CDCH				*i* S	Sn	11 21 15.0	-2.3
CDCH				AML	AML	11 21 17.2	
	comp=N,745nm,0.7s						
LCO	Las Campanas	3.06	246	*e*Pn	Pn	11 20 41.8	+0.9
LCO				*e*Sn	Sn	11 21 18.1	+0.6
TLL	Tololo Astrono	3.73	230	*i* P	Pn	11 20 50.6	+1.0
TLL				*i* S	Sn	11 21 34.2	+1.2
CFAA	Coronel Fontan	3.83	190	P	Pn	11 20 51.4	+0.5
	comp=N,6.6nm,0.3s,baz=3.4,slow=10,SNR=788						
CFAA				S	Sn	11 21 34.4	-1.1
	comp=N,4.8nm,0.3s,baz=74,slow=21,SNR=8.8						
LSCH	La Serena	3.89	237	*i* P	Pn	11 20 51.3	-0.5
LSCH				*i* S	Sn	11 21 35.5	-1.4
CPN1	Cerro Paranal	4.12	320	⇓*i*P	Pn	11 20 56.2	+1.4
CPN1				*i* S	Sn	11 21 42.6	+0.3
OVCH	Ovalle	4.27	228	⇓*i*P	Pn	11 20 56.0	-0.8
OVCH				*i* S	Sn	11 21 44.7	-1.2
CMCH	Combarbala	4.53	222	⇑*i*P	Pn	11 20 59.5	-0.7
CMCH				*i* S	Sn	11 21 50.9	-1.3
ANCH	Antofagasta	4.89	327	⇓*i*P	Pn	11 21 06.0	+0.9
CEN1	Los Morros	5.04	330	*e*P	Pn	11 21 06.1	-1.1
CEN1				*i* S	Sn	11 22 00.1	-4.3
FCH	Farellones	6.00	203	⇓*i*P	Pn	11 21 21.2	+1.3
FCH				*i* S	Sn	11 22 28.9	+1.5
LPAZ	La Paz	11.49	357	*e*Pn	Pn	11 22 33.6	-0.1
LPAZ	La Paz	11.49	357	P	Pn	11 22 34.8	+1.1
	comp=N,0.5nm,0.3s,baz=158,slow=7.7,SNR=7.6						
SIV	San Ignacio	13.19	28	P	Pn	11 22 53.5	-2.4
	comp=N,0.2nm,0.3s,baz=217,slow=11,SNR=12						
TORD	Torodi Ar. Bea	78.37	68	P	P	11 31 39.7	-0.3
	comp=N,5.1nm,0.6s,mb4.3,baz=261,slow=5.5,SNR=28						
TORD				pP	pP	11 32 14.3	+1.8
	comp=N,0.7nm,0.7s,baz=241,slow=6.0,SNR=2.0						
BOSA	Boshof	79.41	117	P	P	11 31 45.4	-0.2
	comp=N,2.1nm,0.8s,mb3.8,baz=302,slow=11,SNR=3.9						
PDAR	Pinedale Array	80.20	330	P	P	11 31 49.8	+0.4
	comp=N,1.5nm,1.0s,mb3.6,baz=119,slow=8.0,SNR=6.1						
YKA	Yellowknife Ar	97.54	340	P	P	11 33 12.4	+0.2
YKA	Yellowknife Ar	97.54	340	P	P	11 33 12.4	+0.2
	comp=N,0.2nm,0.7s,mb3.6,baz=139,slow=3.4,SNR=3.9						
ASAR	Alice Springs	124.81	204	PKP	PKPdf	11 38 37.6	-0.9
ASAR	Alice Springs	124.81	204	PKP	PKPdf	11 38 37.6	-0.9
	comp=N,0.4nm,0.5s,baz=130,slow=1.7,SNR=8.5						
WRA	Warramunga Arr	128.03	206	PKP	PKPdf	11 38 44.2	-0.6
WRA	Warramunga Arr	128.03	206	PKP	PKPdf	11 38 44.2	-0.6
	comp=N,0.5nm,0.6s,baz=164,slow=1.9,SNR=11						
ZALV	Zalesovo Beam	146.94	30	PKPbc	PKPbc	11 39 20.7	+0.4
ZALV				pPKPbc	pPKPbc	11 39 57.3	+2.6
ZALV	Zalesovo Beam	146.94	30	PKPbc	PKPbc	11 39 20.7	+0.4
	comp=N,1.4nm,0.3s,baz=322,slow=2.5,SNR=8.2						
ZALV				pPKPbc	pPKPbc	11 39 57.3	+2.6
	comp=N,1.1nm,0.5s,baz=320,slow=4.6,SNR=3.5						
MKAR	Makanchi Array	149.68	43	PKPbc	PKPbc	11 39 28.0	+0.3
MKAR				pPKPbc	pPKPbc	11 40 04.4	+2.2
MKAR	Makanchi Array	149.68	43	PKPbc	PKPbc	11 39 28.0	+0.3
	comp=N,0.5nm,0.5s,baz=315,slow=2.5,SNR=6.0						
MKAR				pPKPbc	pPKPbc	11 40 04.4	+2.2
	comp=N,0.4nm,0.6s,baz=336,slow=1.7,SNR=1.7						

IDC 25 11:21:36.3±2.4**, 0.74S×127.94E, h0**^{km}**, mb3.4**/3**, mb1 3.7**/3**, mb1mx3.4**/16**, mbtmp3.4**/3**, Error ellipse: s-maj=201.6km s-min=25.0km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.09	162	P	P	11 26 11.6	0.0
	1.2nm,0.8s,baz=344,slow=12,SNR=14						
ASAR	Alice Springs	23.52	166	P	P	11 26 48.2	-0.1
	1.1nm,0.7s,baz=347,slow=11,SNR=20						
MKAR	Makanchi Array	61.90	326	P	P	11 31 57.7	+0.1
	0.1nm,0.3s,baz=132,slow=7.1,SNR=3.0						

IDC 25 11:26:43.3±2.3**, 5.19N×94.73E, h0**^{km}**, mb3.6**/6**, mb1 3.8**/6**, mb1mx3.6**/21**, mbtmp3.6**/6**, Error ellipse: s-maj=101.6km s-min=22.2km az=59.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	42.82	347	P	P	11 34 43.0	+0.1
	0.4nm,0.4s,baz=162,slow=7.7,SNR=7.0						
SONM	Songino Array	43.65	11	P	P	11 34 49.5	-0.1
	0.2nm,0.6s,baz=189,slow=7.3,SNR=3.0						
WRA	Warramunga Arr	46.26	124	P	P	11 35 10.9	+0.1
	0.4nm,0.9s,baz=301,slow=11,SNR=4.9						
ASAR	Alice Springs	47.77	129	P	P	11 35 22.4	-0.2
	0.2nm,0.5s,baz=296,slow=7.8,SNR=5.1						
ZALV	Zalesovo Beam	49.28	352	P	P	11 35 33.9	+0.1
	0.8nm,0.3s,baz=180,slow=6.2,SNR=7.2						
ARCES	ARCESS Array B	77.98	340	P	P	11 38 43.0	0.0
	2.8nm,1.0s,baz=103,slow=6.6,SNR=4.0						

IDC 25 11:38:01.5±2.3**, 28.19N×141.99E, h42**^{km}±24^{km}**, mb3.2**/2**, mb1 3.6**/3**, mb1mx3.2**/20**, mbtmp3.2**/3**, ML3.2**/1**, Error ellipse: s-maj=70.5km s-min=16.8km az=83.0, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	1.11	171	P	Pn	11 38 20.9	+0.3
	96nm,0.3s,baz=276,slow=16,SNR=24						
CBIJ				S	Sn	11 38 34.7	+0.1
	167nm,0.3s,baz=303,slow=22,SNR=17						
MJAR	Matsushiro Arr	8.91	340	P	Pn	11 40 07.2	-0.6
	0.3nm,0.3s,baz=164,slow=11,SNR=3.7						
WRA	Warramunga Arr	48.42	190	P	P	11 46 39.8	+0.1
	1.1nm,0.8s,baz=7.0,slow=7.9,SNR=14						
YKA	Yellowknife Ar	71.26	28	P	P	11 49 16.0	-0.2
	0.1nm,0.7s,baz=301,slow=6.4,SNR=3.0						

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*NIED **25** 11:41:00, 33.20N×136.90E, h11^{km}, Mw4.7 Best double couple: $M_0$1.21000×10^{16} NP1:ϕ_s80.00000°, δ41.00000°, λ83.00000°. NP2:ϕ_s269.00000°, δ50.00000°, λ96.00000°.*

*BJI **25** 11:41:17.1, 33.03N×137.82E, h41^{km}, mB5.1, mb4.8, Ms4.4, Msz4.2*

*IDC **25** 11:41:19.0±0.4, 33.09N×136.95E, h0^{km}, mb4.7/18, mb1 4.8/24, mb1mx4.7/29, mbtmp4.7/24, ML4.1/7, MS4.0/13, Ms1 4.0/13, ms1mx3.8/26, Error ellipse: s-maj=14.3km s-min=12.1km az=78.0*

*SZGRF **25** 11:41:19.7, 32.96N×138.50E, h33^{km}, mb5.4, Southeast of Honshu, Japan*

*ISCJB **25** 11:41:21.5±0.6, 33.19N±0.03×136.92E±0.02, h20^{km}±4^{km}, mb4.9/136, MS4.2/20, Error ellipse: s-maj=4.4km s-min=2.9km az=175.0*

*JMA **25** 11:41:21.7±0.1, 33.12N×136.95E, h39^{km}±3^{km}, M4.6*

JMA Felt II J1.

*GCMT **25** 11:41:25.3±0.4, 33.05N×136.70E, h30^{km}, MW4.9/56, Moment Tensor Solution. s22,c26; s56,c81; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.32±.18; $M_{\theta\theta}$-2.63±.12; $M_{\phi\phi}$0.31±.11; $M_{r\theta}$0.94±.13; $M_{\theta\phi}$-0.81±.09; $M_{\phi r}$-0.64±.16; Best double couple: $M_0$2.84900×10^{16} NP1:ϕ_s235.00000°, δ41.00000°, λ58.00000°. NP2: ϕ_s95.00000°, δ56.00000°, λ115.00000°. Principal axes: T 2.7480, Plg68.0000°, Azm56.0000°; N 0.2060, Plg20.0000°, Azm261.0000°; P -2.9500, Plg8.0000°, Azm168.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **25** 11:41:25.3±0.2, 33.09N×136.87E, mb5.0/88, MW4.7(NIED) Error ellipse: s-maj=4.7km s-min=3.3km az=176.0*

NEIC Recorded [2 JMA] in Wakayama and [1 JMA] in Aichi, Mie and Nara Prefectures.

*MOS **25** 11:41:26.4±0.7, 33.57N×136.90E, h45^{km}, mb5.2/58, MS4.0/11, Error ellipse: s-maj=8.4km s-min=4.5km az=108.2*

ISC 25 11:41:22.2±0.8**, 33.22N**±0.02×**136.90E**±0.02**, h14**^{km}±4^{km}**, h42**^{km}±1.2^{km}**:pP-P, n399,** σ**0**$\overset{s}{.}$**87**/421**, mb4.9**/136**, MS4.2**/20**, 29C-21D, Near south coast of western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK01	Tokai 1	0.79	47	P	Pg	11 41 36.9	-0.7
TK01				S	Sg	11 41 48.1	+0.1
TK02	Tokai 2	1.02	44	⇓P	Pb	11 41 40.4	-1.2
TK02				S	Sb	11 41 54.3	-0.5
JWZ	Kozaga	1.04	288	⇓P	Pb	11 41 41.1	-0.8
JWZ				S	Sb	11 41 54.6	-0.8
JKN2	Miekihoku	1.14	333	⇓P	Pn	11 41 43.3	-0.4
JKN2				S	Sb	11 41 57.9	-0.4
JIE	Ise	1.18	352	⇓P	Pn	11 41 44.1	-0.1
JIE				S	Sb	11 41 59.9	+0.5
TK04	Tokai 4	1.42	35	⇓P	Pn	11 41 46.5	-1.0
TK04				S	Sn	11 42 04.5	-1.4
JWM	Minabe	1.44	296	⇓P	Pn	11 41 47.0	-0.7
JWM				S	Sn	11 42 04.7	-1.6
JWY	Kouya	1.48	313	⇓P	Pn	11 41 48.4	+0.1
JWY				S	Sn	11 42 07.1	-0.2
TSUJ	Tsu 2	1.54	345	⇓P	Pn	11 41 49.2	+0.1
TSUJ				*e*S	Sn	11 42 08.7	-0.2
JHE	Heguri	1.75	325	⇓P	Pn	11 41 50.3	-1.7
JHE				S	Sn	11 42 14.1	0.0
JAJ2	Tsuna	2.06	306	⇓P	Pn	11 41 56.6	+0.3
JAJ2				S	Sn	11 42 21.4	-0.4
JAI	Aioi	2.12	286	P	Pn	11 41 56.8	-0.4
JAI				S	Sn	11 42 21.2	-2.1
SHZ3	Shizuoka 3	2.14	30	⇓P	Pn	11 41 56.2	-1.2
SHZ3				*e*S	Sn	11 42 20.8	-2.9
JWT	Wachi	2.40	329	⇓P	Pn	11 42 01.6	+0.6
JWT				S	Sn	11 42 30.3	+0.1
JHJ	Hachijo jima 2	2.42	92	Pn	Pn	11 41 60.0	-1.3
	46nm,0.3s,baz=60,slow=20,SNR=3.0						
JHJ				Sn	Sn	11 42 26.7	-3.9
	263nm,0.3s,baz=262,slow=23,SNR=11						
JHJ				LR	LR	11 42 47.4	
	comp=Z,1μm,21.2s,baz=352,slow=37						
JHJ2	Mitsune	2.45	92	P	Pn	11 42 00.0	-1.7
JHJ2				S	Sn	11 42 26.2	-5.1
MAJO	Matsushiro	3.48	18	*e*Pn	Pn	11 42 16.6	+0.7
MAJO				*e*Sn	Sn	11 42 56.6	-0.3
MAT	Matsushiro	3.48	18	P	Pn	11 42 16.3	+0.4
MAT				S	Sn	11 42 56.5	-0.4
MJAR	Matsushiro Arr	3.48	18	Pn	Pn	11 42 16.5	+0.6
MJAR				Sn	Sn	11 42 56.1	-0.8
MJAR				LR	LR	11 43 42.5	
MJAR	Matsushiro Arr	3.48	18	P	Pn	11 42 16.5	+0.6
MJAR						11 42 56.1	
MJAR	Matsushiro Arr	3.48	18	Pn	Pn	11 42 16.5	+0.6
	47nm,0.3s,baz=203,slow=14,SNR=623						
MJAR				Sn	Sn	11 42 56.1	-0.8
	42nm,0.3s,baz=354,slow=11,SNR=7.0						
MJAR				LR	LR	11 43 42.5	
	comp=Z,2μm,19.2s,baz=205,slow=40						
JNU	Nakatsue	5.05	271	Pn	Pn	11 42 37.1	-0.3
JNU				Sn	Sn	11 43 33.6	-1.9
JNU	Nakatsue	5.05	271	Pn	Pn	11 42 37.1	-0.3
	3.7nm,0.3s,baz=44,slow=6.9,SNR=38						
JNU				Sn	Sn	11 43 33.6	-1.9
	8.0nm,0.3s,baz=211,slow=29,SNR=7.3						
CBIJ	Chichi jima	7.63	142	Pn	Pn	11 43 10.3	-2.5
	16nm,0.3s,baz=304,slow=18,SNR=3.3						
CBIJ				LR	LR	11 45 43.4	
	comp=Z,1μm,21.3s,baz=355,slow=35						
KSRS	Korea Array	8.46	302	Pn	Pn	11 43 25.3	+1.0
	2.1nm,0.3s,baz=119,slow=14,SNR=32						
KSRS				Sn	Sn	11 44 58.0	-1.5
	1.3nm,0.3s,baz=119,slow=23,SNR=9.2						
KS15	Wonju Array Si	8.48	302	*e*Pn	Pn	11 43 25.6	+1.0
JOW	Kunigami	9.82	232	Pn	Pn	11 43 42.1	-0.8
JOW				LR	LR	11 47 18.5	
JOW	Kunigami	9.82	232	Pn	Pn	11 43 42.1	-0.8
	4.7nm,0.3s,baz=95,slow=14,SNR=17						
JOW				LR	LR	11 47 18.5	
	comp=Z,799nm,20.9s,baz=83,slow=37						
VLA	Vladivostok	10.64	340	P	Pn	11 43 53.0	-1.0
VLA				MLR	MLR		
	comp=Z,800nm,13.8s						
ASAJ	Asahikawa	11.75	21	P	Pn	11 44 08.4	-0.9
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,769nm,19.4s						
ASAJ	Asahikawa	11.75	21	Pn	Pn	11 44 08.4	-0.9
	comp=Z,1.2nm,0.3s,baz=232,slow=15,SNR=19						
ASAJ				LR	LR	11 49 14.7	
	comp=Z,769nm,19.4s,baz=210,slow=40						
MDJ	Mudanjiang	12.71	336	P	Pn	11 44 23.0	+0.6
MDJ				AMB	AMB		
	comp=Z,8.0nm,1.2s						
MDJ				AMB	AMB		
	comp=Z,218nm,5.4s						
MDJ				LR	LR		
	comp=N,311nm,15.0s						
MDJ				LR	LR		
	comp=E,169nm,13.4s						
MDJ				LR	LR		
	comp=Z,290nm,15.6s						
MDJ	Mudanjiang	12.71	336	*e*Pn	Pn	11 44 25.8	+3.4
	comp=Z,23nm,1.0s						
SSE	Sheshan	13.48	265	P	Pn	11 44 41.0	+8.0
SSE				S	Sn	11 47 10.8	+8.2
SSE				AMB	AMB		
	comp=Z,15nm,0.8s						
SSE				AMB	AMB		
	comp=Z,129nm,5.8s						
SSE				LR	LR		
	comp=N,363nm,12.2s						
SSE				LR	LR		
	comp=E,529nm,12.2s						
SSE				LR	LR		
	comp=Z,646nm,11.2s						
SSE	Sheshan	13.48	265	P	Pn	11 44 40.9	+7.9
	comp=Z,15nm,0.8s						
SSE				S	Sn	11 47 10.7	+8.1
CN2	Changchun	13.84	323	⇑P	Pn	11 44 41.0	+3.2
CN2				*e*AP		11 44 50.8	
CN2				*e*XP		11 45 00.0	
CN2				AMB	AMB		
	comp=Z,70nm,1.2s						
CN2				AMB	AMB		
	comp=Z,400nm,6.0s						
CN2				LR	LR		
	comp=N,1μm,15.0s						
CN2				LR	LR		
	comp=E,900nm,15.0s						
CN2				LR	LR		
	comp=Z,1μm,12.0s						
YSS	Yuzh-Sakhalins	14.42	16	*e*Pn	Pn	11 44 43.5	-2.2
YSS	Yuzh-Sakhalins	14.42	16	⇑*i*P	Pn	11 44 43.2	-2.5
YSS				pmax	pmax		
	comp=N,30nm,1.0s						
YSS				pmax	pmax		
	comp=Z,40nm,1.0s						
YSS				MLR	MLR		
	comp=N,600nm,12.0s						
YSS				MLR	MLR		
	comp=Z,600nm,12.0s						
NJ2	Nanjing	15.25	271	*e*P	Pn	11 45 03.5	+6.5
NJ2				AP	pP	11 45 15.3	+9.3
NJ2				PP		11 45 17.8	
NJ2				S	Sn	11 47 50.0	+4.3
NJ2				XS	sS	11 48 09.0	+0.2
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s						
NJ2				AMB	AMB		
	comp=Z,80nm,5.6s						
NJ2				LR	LR		
	comp=N,1μm,20.0s						
NJ2				LR	LR		
	comp=E,990nm,16.0s						
NJ2				LR	LR		
	comp=Z,990nm,16.0s						
HABR	Khabarovsk	15.30	355	*e*P	Pn	11 45 00.1	+2.6
HABR				*e*S	Sn	11 47 46.6	-0.1
HABR				pmax	pmax		
	comp=Z,31nm,1.0s						
UGL	Uglegorsk	16.31	12	P	Pn	11 45 13.5	+2.9
UGL				pmax	pmax		
	comp=Z,33nm,0.9s						
UGL				MLR	MLR		
	comp=Z,600nm,14.0s						
UGL				MLR	MLR		
	comp=N,800nm,16.0s						
UGL				MLR	MLR		
	comp=E,500nm,16.0s						
KLR	Kul'dur	16.45	348	*e*P	Pn	11 45 10.6	-1.8
KLR				pmax	pmax		
	comp=Z,85nm,1.8s						
KLR				MLR	MLR		
	comp=E,800nm,14.0s						
KLR				MLR	MLR		
	comp=Z,1μm,14.0s						
BJT	Baijiatuau	17.95	298	*e*P	Pn	11 45 33.1	+1.8
	comp=Z,44nm,1.0s						
BJT	Baijiatuau	17.95	298	*e*P	Pn	11 45 33.1	+1.9
BJT				pmax	pmax		
	comp=Z,44nm,1.0s						
BJI	Beijing	17.95	298	P	Pn	11 45 32.8	+1.5
BJI				XP	sP	11 45 54.0	+16
BJI				S	Sn	11 48 51.3	+0.1
BJI				XS	sS	11 49 14.0	+10
BJI				AMB	AMB		
	comp=Z,12nm,1.6s						
BJI				LR	LR		
	comp=N,892nm,22.6s						
BJI				LR	LR		
	comp=E,330nm,22.6s						
BJI				LR	LR		
	comp=Z,285nm,22.0s						
WHN	Wuhan	19.33	268	P	Pn	11 45 49.5	+1.4
WHN				AP	pP	11 46 04.8	+14
WHN				S	Sn	11 49 20.8	-3.8
WHN				LR	LR		
	comp=Z,2μm,11.9s						
TIY	Taiyuan	20.41	290	P	P	11 46 02.5	+3.8
TIY				S	S	11 49 54.0	+7.2
TIY				PCP	PcP	11 50 11.0	+0.1
TIY				LR	LR		
	comp=N,315nm,6.2s						
TIY				LR	LR		
	comp=E,628nm,12.9s						
HIA	Hailar	20.50	327	*e*P	P	11 46 01.1	+1.6
	comp=E,18nm,0.8s						
HIA	Hailar	20.50	327	*e*P	P	11 46 01.1	+1.5
HIA				pmax	pmax		

	comp=Z,18nm,0.8s						
GUMO	**Guam**	**20.85**	**158**	LR	LR	11 52 54.7	
	comp=Z,291nm,19.8s,MS3.7,baz=187,slow=34						
HHC	**Hu-ho-hao-te**	**21.56**	**298**	*e*P	**P**	**11 46 14.8**	**+3.7**
HHC				AP		11 46 26.0	
HHC				XP	sP	11 46 31.5	+14
HHC				PP		11 46 40.5	
HHC				S	**S**	**11 50 07.5**	**-2.1**
HHC				XS	sS	11 50 26.3	+10
HHC				AMB	AMB		
	comp=Z,26nm,0.8s,mb4.7						
HHC				LR	LR		
	comp=N,728nm,19.5s						
HHC				LR	LR		
	comp=E,528nm,12.5s						
HHC				LR	LR		
	comp=Z,538nm,11.8s						
BTO	**Baotou**	**22.66**	**297**	*e*P	**P**	**11 46 24.8**	**+1.9**
XAN	**Xi'an**	**23.29**	**280**	P	**P**	**11 46 29.8**	**+0.3**
XAN				AP		11 46 39.3	
XAN				S	**S**	**11 50 34.5**	**-6.7**
XAN				AMB	AMB		
	comp=Z,44nm,0.9s,mb4.9						
XAN				LR	LR		
	comp=N,216nm,11.1s,MS4.1						
XAN				LR	LR		
	comp=E,281nm,10.4s,MS4.1						
XAN				LR	LR		
	comp=Z,281nm,12.4s,MS3.9						
PET	**Petropavlovsk**	**25.20**	**32**	*e*P	**P**	**11 46 47.6**	**+0.5**
	comp=Z,51nm,1.1s,mb5.0						
PET	**Petropavlovsk**	**25.20**	**32**	⇑*e*P	**P**	**11 46 46.6**	**-0.4**
CIT	**Chita**	**25.27**	**325**	*e*P	**P**	**11 46 52.1**	**+4.4**
CIT				*e*		11 47 00.1	
CIT				*e*		11 47 10.3	
ULN	**Ulaanbaatar**	**26.78**	**312**	*e*P	**P**	**11 47 01.2**	**-0.3**
GYA	**Guiyang**	**27.02**	**264**	P	**P**	**11 47 06.5**	**+2.7**
GYA				PP		11 47 58.3	
GYA				S	**S**	**11 51 41.0**	**0.0**
GYA				SS		11 52 59.5	
GYA				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.8						
GYA				AMB	AMB		
	comp=Z,100nm,3.9s						
GYA				LR	LR		
	comp=N,470nm,19.8s,MS4.2						
GYA				LR	LR		
	comp=E,490nm,19.4s,MS4.2						
GYA				LR	LR		
	comp=Z,530nm,20.2s,MS4.1						
SONM	**Songino Array**	**27.18**	**312**	P	**P**	**11 47 05.7**	**+0.6**
SONM				PcP	PcP	11 50 24.5	-0.6
SONM	**Songino Array**	**27.18**	**312**	P	**P**	**11 47 05.7**	**+0.6**
	comp=Z,8.4nm,1.0s,mb4.2,baz=115,slow=8.3,SNR=45						
SONM				PcP	PcP	11 50 24.5	-0.6
	comp=Z,2.3nm,0.7s,baz=129,slow=1.7,SNR=11						
LZH	**Lanzhou**	**27.27**	**285**	*e*P	**P**	**11 47 06.0**	**0.0**
LZH				AP	pP	11 47 17.0	+6.6
LZH				XP	sP	11 47 21.0	+8.8
LZH				PCP	PcP	11 50 25.5	-0.1
LZH				*e*S	**S**	**11 51 38.0**	**-6.8**
LZH				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.7						
LZH				AMB	AMB		
	comp=Z,200nm,7.4s						
LZH				LR	LR		
	comp=N,724nm,13.9s						
LZH				LR	LR		
	comp=Z,952nm,14.1s,MS4.5						
LZH	**Lanzhou**	**27.27**	**285**	*e*P	**P**	**11 47 06.1**	**+0.1**
	comp=Z,25nm,1.0s,mb4.7						
LZH				pP	pP	11 47 17.0	+6.6
LZH				sP	sP	11 47 21.0	+8.8
LZH				PP		11 48 54.0	
LZH				PcP	PcP	11 50 25.5	-0.1
LZH				sS	sS	11 51 33.0	-19
LZH				*e*S	**S**	**11 51 38.0**	**-6.8**
LZH				SS		11 52 56.0	
LZH				LR	LR		
	comp=Z,950nm,14.1s,MS4.5						
LZH	**Lanzhou**	**27.27**	**285**	*e*P	**P**	**11 47 06.1**	**+0.1**
LZH				*PP	pP	11 47 17.0	+6.6
LZH				*SP	sP	11 47 21.0	+8.8
LZH						11 50 25.5	
LZH				*e*S	**S**	**11 51 38.0**	**-6.8**
LZH				SS		11 52 56.0	
LZH				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.7						
LZH				MLR	MLR		
	comp=Z,950nm,14.1s,MS4.5						
MA2	**Magadan**	**27.93**	**15**	*e*P	**P**	**11 47 12.2**	**+0.7**
	comp=Z,14nm,0.9s,mb4.6						
MA2	**Magadan**	**27.93**	**15**	*e*P	**P**	**11 47 09.8**	**-1.8**
MA2				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.6						
CD2	**Chengdu**	**28.12**	**274**	*e*P	**P**	**11 47 13.3**	**-0.3**
CD2				AP	pP	11 47 30.8	+13
CD2				PP	PP	11 48 05.8	-11
CD2				S	**S**	**11 51 50.5**	**-7.8**
CD2				XS	sS	11 52 21.0	+15
CD2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.4						
CD2				AMB	AMB		
	comp=Z,30nm,5.8s						
CD2				LR	LR		
	comp=N,250nm,14.4s,MS4.3						
CD2				LR	LR		
	comp=E,500nm,16.8s,MS4.3						
CD2				LR	LR		
	comp=Z,520nm,15.6s,MS4.2						
BOD	**Bodaibo**	**29.09**	**335**	*e*P	**P**	**11 47 22.4**	**+0.5**
BOD				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.0						
YAK	**Yakutsk**	**29.20**	**353**	*e*P	**P**	**11 47 23.3**	**+0.5**
	comp=Z,27nm,0.8s,mb5.0						
YAK	**Yakutsk**	**29.20**	**353**	*e*P	**P**	**11 47 23.2**	**+0.3**
YAK				*e*		11 48 13.1	
YAK				*e*S	**S**	**11 52 15.1**	**+0.5**
YAK				*e**SS	sS	11 52 33.3	+11
YAK				*e*SS	SS	11 54 05.5	-13
YAK				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.8						
YAK				pmax	pmax		
	comp=N,12nm,1.3s						
YAK				pmax	pmax		
	comp=E,2.0nm,0.8s						
YAK				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.4						
YAK				pmax	pmax		
	comp=N,38nm,2.3s						
YAK				pmax	pmax		
	comp=E,67nm,3.9s						
YAK				smax			
	comp=N,102nm,4.3s						
YAK				smax			
	comp=Z,27nm,1.8s						
YAK				smax			
	comp=E,49nm,2.8s						
YAK				MLR	MLR		
	comp=Z,418nm,13.0s,MS4.2						
YAK				MLR	MLR		
	comp=N,335nm,12.0s,MS4.2						
YAK				MLR	MLR		
	comp=E,257nm,17.0s,MS4.2						
ZAK	**Zakamensk**	**30.03**	**315**	*e*P	**P**	**11 47 31.7**	**+1.3**
ZAK				*e*		11 50 30.4	
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb3.6						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.7						
TLY	**Talaya**	**30.33**	**317**	*e*P	**P**	**11 47 35.1**	**+2.1**
	comp=Z,3.6nm,1.0s,mb4.1						
TLY				*e*		11 47 51.7	
TLY	**Talaya**	**30.33**	**317**	*e*P	**P**	**11 47 35.5**	**+2.5**
TLY				*e*		11 47 52.3	
TLY				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
TLY				MLR	MLR		
	comp=Z,374nm,14.0s,MS4.2						
GTA	**Gaotai**	**30.36**	**292**	P	**P**	**11 47 33.0**	**-0.5**
GTA				AP	pP	11 47 44.8	+6.9
GTA				XP	sP	11 47 50.8	+11
GTA				PP	PP	11 48 33.0	-9.0
GTA				PPP		11 48 47.3	
GTA				PCP	PcP	11 50 33.5	+0.3
GTA				S	**S**	**11 52 27.0**	**-6.4**
GTA				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.5						
GTA				AMB	AMB		
	comp=Z,114nm,4.9s						
GTA				LR	LR		
	comp=N,389nm,16.7s,MS4.3						
GTA				LR	LR		
	comp=E,461nm,15.6s,MS4.3						
GTA				LR	LR		
	comp=Z,550nm,16.4s,MS4.3						
TIXI	**Tiksi**	**38.73**	**356**	*e*P	**P**	**11 48 45.3**	**0.0**
	comp=Z,8.3nm,0.7s,mb4.6						
TIXI	**Tiksi**	**38.73**	**356**	*e*P	**P**	**11 48 44.4**	**-0.9**
TIXI				pmax	pmax		
	comp=Z,25nm,1.2s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,409nm,16.0s,MS4.3						
BILL	**Bilibino**	**38.74**	**17**	*e*P	**P**	**11 48 46.3**	**+0.9**
	comp=Z,7.1nm,0.8s,mb4.5						
BILL	**Bilibino**	**38.74**	**17**	⇓*e*P	**P**	**11 48 46.2**	**+0.7**
BILL				*PP	pP	11 49 00.0	+10
BILL				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.3						
BILL				MLR	MLR		
	comp=Z,200nm,19.0s,MS4.0						
LSA	**Lhasa**	**38.95**	**278**	P	**P**	**11 48 49.0**	**+1.3**
LSA	**Lhasa**	**38.95**	**278**	*e*P	**P**	**11 48 49.5**	**+1.7**
	comp=Z,27nm,0.9s,mb5.0						
LSA				*e*pP	pP	11 49 00.7	+8.5
LSA	**Lhasa**	**38.95**	**278**	*e*P	**P**	**11 48 49.5**	**+1.8**
LSA				*e**PP	pP	11 49 00.7	+8.5
LSA				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.0						
WMQ	**Urumqi**	**39.41**	**300**	P	**P**	**11 48 52.0**	**+0.6**
WMQ				AP	pP	11 49 04.3	+8.4
WMQ				XP	sP	11 49 09.5	+12
WMQ				PP	PP	11 50 27.5	+5.8
WMQ				PCP	PcP	11 50 59.0	-0.4
WMQ				AMB	AMB		
	comp=Z,16nm,1.0s,mb4.7						
WMQ				LR	LR		
	comp=N,535nm,21.8s,MS4.3						
WMQ				LR	LR		
	comp=E,137nm,22.0s,MS4.3						
WMQ				LR	LR		
	comp=Z,172nm,20.0s,MS3.9						
SHL	**Shillong**	**39.71**	**271**	*e*P	**P**	**11 48 54.0**	**-0.2**
ZALV	**Zalesovo Beam**	**41.90**	**316**	P	**P**	**11 49 12.0**	**+0.2**
	comp=Z,1.9nm,0.5s,mb4.0,baz=99,slow=7.7,SNR=14						
ZALV				PcP	PcP	11 51 06.2	-1.1
	comp=Z,11nm,0.7s,baz=96,slow=3.3,SNR=26						
ZAL	**Zalesovo**	**41.91**	**316**	P	**P**	**11 49 12.0**	**+0.1**
ZAL						11 51 06.2	
TAPN	**Taplejung**	**42.57**	**276**	*e*P	**P**	**11 49 17.9**	**+0.3**
	comp=Z,22nm,0.5s,mb5.2						
NVS	**Novosibirsk**	**42.94**	**317**	⇑*i*P	**P**	**11 49 20.2**	**-0.1**
NVS				*e*		11 51 08.9	
NVS				pmax	pmax		
	comp=E,27nm,1.8s						
NVS				pmax	pmax		
	comp=Z,27nm,1.8s,mb4.7						
ODAN	**Odare**	**43.01**	**275**	*e*P	**P**	**11 49 21.2**	**0.0**
	comp=Z,21nm,0.6s,mb5.0						
MK31	**Makanchi Array**	**43.13**	**305**	*e*P	**P**	**11 49 22.8**	**+0.8**
MK31				*e*pP	pP	11 49 34.3	+7.8
MKAR	**Makanchi Array**	**43.13**	**305**	P	**P**	**11 49 22.9**	**+0.9**
MKAR				PcP	PcP	11 51 10.5	-1.0
MKAR	**Makanchi Array**	**43.13**	**305**	P	**P**	**11 49 22.9**	**+1.0**
	comp=Z,12nm,0.8s,mb4.7,baz=91,slow=10,SNR=88						
MKAR				PcP	PcP	11 51 10.5	-1.0
	comp=Z,3.9nm,0.9s,baz=79,slow=6.3,SNR=5.7						
JIRN	**Jiri**	**43.73**	**277**	*e*P	**P**	**11 49 27.8**	**+0.8**
	comp=Z,59nm,0.7s,mb5.4						
GAMB	**Gambell**	**43.88**	**30**	*e*P	**P**	**11 49 29.1**	**+1.4**
KKN	**Kakani**	**44.44**	**277**	*e*P	**P**	**11 49 32.6**	**-0.1**
	comp=Z,35nm,0.9s,mb5.1						
GKN	**Gorkha**	**44.90**	**278**	*e*P	**P**	**11 49 36.1**	**-0.3**
	comp=Z,38nm,0.9s,mb5.2						
KURK	**Kurchatov**	**45.48**	**311**	*e*P	**P**	**11 49 41.0**	**+0.3**
	comp=Z,22nm,0.8s,mb5.0						
KURK				*e*PcP	PcP	11 51 18.1	-1.4
KURK	**Kurchatov**	**45.48**	**311**	*e*P	**P**	**11 49 41.0**	**+0.3**
KURK				*e*		11 51 18.1	
KURK				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.0						
ULHL	**Ulahol**	**47.91**	**299**	P	**P**	**11 50 00.7**	**+0.8**
	SNR=5.5						
TKM2	**Tokmak 2**	**48.27**	**300**	P	**P**	**11 50 04.0**	**+1.4**
	SNR=7.4						
KBK	**Karagaybulak**	**48.78**	**300**	P	**P**	**11 50 07.8**	**+1.2**
	SNR=7.1						
USP	**Ospenovka**	**49.00**	**301**	P	**P**	**11 50 08.8**	**+0.6**
	SNR=8.1						
AAK	**Ala-Archa**	**49.12**	**300**	P	**P**	**11 50 09.9**	**+0.7**
	SNR=5.5						
AAK	**Ala-Archa**	**49.12**	**300**	*e*P	**P**	**11 50 08.5**	**-0.7**
	comp=Z,3.8nm,0.6s,mb4.6						
AAK				*e*pP	pP	11 50 20.7	+6.9
AAK	**Ala-Archa**	**49.12**	**300**	*e*P	**P**	**11 50 08.5**	**-0.6**
AAK				*e**PP	pP	11 50 20.7	+7.0
AAK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
UCH	**Uchtor**	**49.18**	**300**	P	**P**	**11 50 11.3**	**+1.7**
	SNR=7.7						
AML	**Almayashu**	**49.80**	**300**	P	**P**	**11 50 16.1**	**+1.8**
	SNR=19						
BRVK	**Borovoye**	**50.54**	**314**	*e*P	**P**	**11 50 20.4**	**+0.6**
	comp=Z,14nm,0.9s,mb4.9						
BRVK				*e*PcP	PcP	11 51 37.2	-0.3
BRVK	**Borovoye**	**50.54**	**314**	*e*P	**P**	**11 50 20.4**	**+0.6**
BRVK				*e*		11 51 37.3	
BRVK				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
KK31	**Karatay Array**	**51.89**	**301**	*i* P	**P**	**11 50 30.3**	**+0.2**
KK31				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
FITZ	**Fitzroy Crossi**	**52.15**	**194**	*e*P	**P**	**11 50 31.0**	**-1.2**
	comp=Z,6.2nm,1.0s,mb4.5						
FITZ				*e*pP	pP	11 50 42.1	+5.3
FITZ	**Fitzroy Crossi**	**52.15**	**194**	P	**P**	**11 50 30.4**	**-1.8**
	comp=Z,2.3nm,0.8s,mb4.2,baz=79,slow=16,SNR=5.4						
KDAK	**Kodiak Island**	**52.40**	**40**	P	**P**	**11 50 33.1**	**-0.5**
	comp=Z,35nm,0.7s,mb5.4,baz=322,slow=4.2,SNR=18						
WB2	**Warramunga Arr**	**52.92**	**183**	*e*P	**P**	**11 50 35.7**	**-2.1**
WB2				*e*pP	pP	11 50 46.6	+4.2
WRA	**Warramunga Arr**	**52.92**	**183**	P	**P**	**11 50 35.8**	**-2.0**
WRA						11 51 45.6	
WRA	**Warramunga Arr**	**52.92**	**183**	P	**P**	**11 50 35.8**	**-2.0**
	comp=Z,4.1nm,0.9s,mb4.4,baz=360,slow=7.5,SNR=26						
WRA				PcP	PcP	11 51 45.6	-1.2
	comp=Z,3.7nm,0.7s,baz=354,slow=4.1,SNR=7.8						
WRA				LR	LR	12 13 44.3	
	comp=Z,80nm,18.9s,MS3.8,baz=170,slow=37						
PMR	**Palmer**	**53.87**	**35**	*e*P	**P**	**11 50 42.9**	**-1.5**
	comp=Z,19nm,1.1s,mb4.9						
PMR	**Palmer**	**53.87**	**35**	*e*P	**P**	**11 50 42.9**	**-1.5**
PMR				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.9						
COLA	**College**	**54.25**	**31**	*e*P	**P**	**11 50 48.1**	**+1.0**
	comp=Z,3.5nm,0.7s,mb4.4						
COLA	**College**	**54.25**	**31**	*e*P	**P**	**11 50 48.2**	**+1.0**
COLA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
MENT	**Mentasta**	**56.25**	**33**	*e*P	**P**	**11 51 01.9**	**+0.3**
ASAR	**Alice Springs**	**56.64**	**183**	P	**P**	**11 51 03.0**	**-1.8**
	comp=Z,2.7nm,0.8s,mb4.4,baz=14,slow=11,SNR=29						
ARU	**Arti**	**56.80**	**319**	*e*P	**P**	**11 51 05.0**	**-0.6**
	comp=Z,23nm,0.9s,mb5.2						
ARU				*e*pP	pP	11 51 16.6	+6.3
ARU	**Arti**	**56.80**	**319**	*d i*P	**P**	**11 51 04.0**	**-1.6**
ARU				*e*		11 51 58.5	
ARU				*e*S	**S**	**11 58 48.9**	**-9.2**
ARU				*e*SS	SS	12 02 37.4	-8.3
ARU				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
DAWY	**Dawson**	**57.99**	**31**	*e*P	**P**	**11 51 14.4**	**+0.6**
AKTO	**Aktyubinsk**	**58.50**	**313**	LR	LR	12 17 54.5	
	comp=Z,116nm,18.6s,MS4.0,baz=242,slow=38						
INK	**Inuvik**	**59.44**	**26**	*e*P	**P**	**11 51 23.8**	**-0.1**
	comp=Z,354nm,1.1s,mb6.3						
ORR	**Orenburg**	**60.15**	**315**	*e*P	**P**	**11 51 28.6**	**-0.5**
DLBC	**Dease Lake**	**63.89**	**36**	*e*P	**P**	**11 51 55.1**	**+1.0**
STKA	**Stephens Creek**	**64.90**	**176**	*e*P	**P**	**11 51 59.0**	**-1.9**
	comp=Z,4.9nm,0.8s,mb4.6						
STKA				*e*pP	pP	11 52 10.7	+5.2
STKA	**Stephens Creek**	**64.90**	**176**	P	**P**	**11 51 59.0**	**-1.9**
	comp=Z,5.9nm,0.8s,mb4.7,baz=354,slow=7.1,SNR=9.0						
STKA				LR	LR	12 19 23.2	
	comp=Z,104nm,19.1s,MS4.0,baz=209,slow=35						
KEV	**Kevo**	**65.68**	**339**	*e*p	**P**	**11 52 05.0**	**-0.5**
ARCES	**ARCESS Array B**	**66.24**	**339**	P	**P**	**11 52 09.6**	**+0.5**
	comp=Z,6.2nm,0.7s,mb4.8,baz=64,slow=9.1,SNR=28						
ARCES				LR	LR	12 25 34.6	
	comp=Z,228nm,18.9s,MS4.4,baz=25,slow=40						
RES	**Resolute Bay**	**67.18**	**13**	*e*P	**P**	**11 52 14.7**	**-0.3**
	comp=Z,1μm,1.7s						
JOF	**Joensuu**	**67.56**	**332**	*e*p	**P**	**11 52 17.1**	**-0.6**
MOS	**Moscow**	**68.08**	**323**	*e*P	**P**	**11 52 18.7**	**-2.4**
YKW3	**Yellowknife Ar**	**68.89**	**28**	*e*P	**P**	**11 52 25.8**	**-0.2**
OBN	**Obninsk**	**68.91**	**323**	⇓*e*P	**P**	**11 52 26.1**	**-0.1**
OBN				S	S	12 01 28.0	-1.8
OBN				SS	SS	12 05 57.0	+2.6
OBN				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
OBN				MLR	MLR		
	comp=Z,100nm,11.0s,MS4.3						
YKA	**Yellowknife Ar**	**68.93**	**28**	P	**P**	**11 52 26.0**	**-0.2**
	comp=Z,7.1nm,0.9s,mb4.6,baz=296,slow=6.2,SNR=83						
YKA				PcP	PcP	11 52 50.8	+0.3
	comp=Z,1.5nm,0.8s,baz=300,slow=4.3,SNR=7.2						
KAF	**Kangasniemi**	**69.97**	**332**	*e*p	**P**	**11 52 31.8**	**-0.9**
	comp=Z,6.3nm,0.7s,mb4.7,baz=54,slow=5.7						
KAF	**Kangasniemi**	**69.97**	**332**	*e*P	**P**	**11 52 31.8**	**-0.9**
KAF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
FINES	**FINESS Array B**	**70.43**	**332**	P	**P**	**11 52 35.6**	**+0.1**
	comp=Z,6.2nm,0.8s,mb4.6,baz=74,slow=6.8,SNR=19						
KIV	**Kislovodsk**	**70.57**	**310**	*e*P	**P**	**11 52 36.3**	**-0.4**
KIV				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
KIV				MLR	MLR		
	comp=Z,84nm,18.0s,MS4.0						
GNW	**Green Mountain**	**72.55**	**44**	*e*P	**P**	**11 52 49.4**	**+0.8**
UMR	**Umm Al-Rimmam**	**73.86**	**295**	*e*P	**P**	**11 52 54.5**	**-2.1**
UMR				AMb	AMB	11 52 56.9	
	comp=Z,28nm,0.8s,mb5.3						
MIB	**Mutribah**	**74.03**	**295**	*e*P	**P**	**11 52 55.9**	**-1.7**
MIB				AMb	AMB	11 52 57.4	
	comp=Z,27nm,0.8s,mb5.2						
KBD	**Kabd**	**74.06**	**295**	*e*P	**P**	**11 52 56.6**	**-1.2**
KBD				AMb	AMB	11 53 04.8	
	comp=Z,47nm,0.8s,mb5.5						
RDF	**Al-Radifah**	**74.29**	**294**	*e*P	**P**	**11 52 58.1**	**-1.0**
RDF				AMb	AMB	11 53 00.3	
	comp=Z,78nm,1.5s,mb5.4						
NAY	**Al-Naaiem**	**74.37**	**295**	*e*P	**P**	**11 52 58.5**	**-1.1**
NAY				AMb	AMB	11 53 00.5	
	comp=Z,35nm,1.3s,mb5.1						
EDM	**Edmonton**	**74.61**	**36**	*e*P	**P**	**11 53 00.5**	**0.0**
AKASG	**Malin Array Be**	**74.99**	**321**	P	**P**	**11 53 02.3**	**-0.5**
	comp=Z,13nm,0.7s,mb4.9,baz=50,slow=6.4,SNR=26						
KIEV	**Kiev**	**75.00**	**321**	*e*P	**P**	**11 53 02.3**	**-0.6**
	comp=Z,28nm,1.1s,mb5.1						
KIEV				*e*pP	pP	11 53 13.8	+6.1
KIEV	**Kiev**	**75.00**	**321**	*e*P	**P**	**11 53 02.3**	**-0.6**
KIEV				*e**PP	pP	11 53 13.8	+6.2
KIEV				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.1						
NEW	**Newport**	**75.43**	**42**	*e*P	**P**	**11 53 05.4**	**0.0**
	comp=Z,14nm,1.2s,mb4.8						
NEW	**Newport**	**75.43**	**42**	*e*P	**P**	**11 53 05.4**	**0.0**
NEW				pmax	pmax		
	comp=Z,14nm,1.2s						
SUW	**Suwalki**	**76.05**	**326**	*e*P	**P**	**11 53 09.0**	**+0.2**
MALT	**Malatya**	**76.14**	**307**	*e*P	**P**	**11 53 10.5**	**+0.9**
	comp=Z,3.4nm,0.8s,mb4.3						
MALT	**Malatya**	**76.14**	**307**	*e*P	**P**	**11 53 10.5**	**+0.8**
MALT				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
MALT	**Malatya**	**76.14**	**307**	⇑*i*P	**P**	**11 53 11.3**	**+1.6**
NB2	**NORSAR Subarra**	**76.21**	**336**	P	**P**	**11 53 08.9**	**-0.7**
	comp=Z,32nm,1.4s,mb5.1,baz=45,slow=5.9						
NOA	**NORSAR Array B**	**76.21**	**336**	P	**P**	**11 53 09.2**	**-0.4**
	comp=Z,8.6nm,1.0s,mb4.7,baz=45,slow=5.6,SNR=13						
NOA				LR	LR	12 30 58.2	
	comp=Z,61nm,18.8s,MS3.9,baz=295,slow=39						
WALA	**Waterton Lakes**	**76.73**	**40**	*e*P	**P**	**11 53 12.7**	**-0.1**
	comp=Z,14nm,1.1s,mb4.8						
BMO	**Blue Mountains**	**77.23**	**45**	*e*P	**P**	**11 53 16.0**	**+0.3**
	comp=Z,9.9nm,0.8s,mb4.8						
BMO	**Blue Mountains**	**77.23**	**45**	*e*P	**P**	**11 53 16.0**	**+0.3**
BMO				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
MSO	**Missoula**	**78.02**	**42**	*e*P	**P**	**11 53 19.8**	**-0.3**
LVV	**L'vov**	**78.20**	**322**	*i* P	**P**	**11 53 20.8**	**-0.2**
LVV				*e*		11 56 18.3	
LVV				*e*		12 03 22.5	
BR131	**Keskin Array S**	**78.53**	**310**	*e*P	**P**	**11 53 23.6**	**+0.6**
	comp=Z,8.8nm,1.0s,mb4.6						
BRTR	**Keskin Array B**	**78.53**	**310**	P	**P**	**11 53 23.1**	**0.0**
	comp=Z,7.0nm,0.9s,mb4.6,baz=91,slow=4.9,SNR=24						
FFC	**Flin Flon**	**78.88**	**30**	*e*P	**P**	**11 53 24.4**	**-0.3**
	comp=Z,17nm,0.8s,mb5.0						
FFC	**Flin Flon**	**78.88**	**30**	*e*P	**P**	**11 53 24.4**	**-0.3**
FFC				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
BURAR	**Bucovina Array**	**78.93**	**320**	⇑P	**P**	**11 53 25.6**	**+0.6**
BURAR	**Bucovina Array**	**78.93**	**320**	⇑*i*P	**P**	**11 53 25.6**	**+0.5**
KWP	**Kalwaria**	**79.00**	**323**	*e*P	**P**	**11 53 26.3**	**+0.9**
KWP	**Kalwaria**	**79.00**	**323**	⇑*i*P	**P**	**11 53 26.1**	**+0.7**
FCC	**Fort Churchill**	**79.03**	**24**	*e*P	**P**	**11 53 24.8**	**-0.6**
	comp=Z,9.9nm,0.7s,mb4.8						
FCC	**Fort Churchill**	**79.03**	**24**	*e*P	**P**	**11 53 24.8**	**-0.6**
FCC				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
CMB	**Columbia Colle**	**79.11**	**52**	*e*P	**P**	**11 53 26.0**	**-0.3**
	comp=Z,5.6nm,0.8s,mb4.5						
CMB	**Columbia Colle**	**79.11**	**52**	*e*P	**P**	**11 53 26.0**	**-0.3**
CMB				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
LRM	**Limekiln Ridge**	**79.45**	**42**	*e*P	**P**	**11 53 28.4**	**+0.4**
EGMT	**Eagleton**	**79.56**	**39**	*e*P	**P**	**11 53 29.0**	**+0.4**
DLMT	**Dillon**	**79.65**	**42**	*e*P	**P**	**11 53 29.3**	**+0.3**
	comp=Z,17nm,0.9s,mb5.0						
DLMT				*e*pP	pP	11 53 42.8	+9.0
DLMT				*e*		11 54 28.2	
KOLS	**Kolonicke sedl**	**79.66**	**322**	*e*P	**P**	**11 53 28.6**	**-0.4**
HLID	**Hailey**	**79.68**	**44**	*e*P	**P**	**11 53 29.3**	**+0.1**
	comp=Z,4.0nm,0.8s,mb4.4						
UZH	**Uzhgorod**	**79.84**	**322**	*e*P	**P**	**11 53 30.4**	**+0.4**
STHS	**Stebnicka Huta**	**79.87**	**323**	*e*P	**P**	**11 53 30.6**	**+0.4**
	comp=Z,6.3nm,0.9s,mb4.5						
STHS	**Stebnicka Huta**	**79.87**	**323**	*e*P	**P**	**11 53 30.6**	**+0.4**
STHS				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
BOZ	**Bozeman (W)**	**80.02**	**42**	*e*P	**P**	**11 53 31.5**	**+0.5**
TRPA	**Tarpa**	**80.03**	**322**	⇓*i*P	**P**	**11 53 32.0**	**+1.0**
OJC	**Ojcow**	**80.06**	**325**	*e*P	**P**	**11 53 31.6**	**+0.4**
CRVS	**Cervenica-Dubn**	**80.09**	**323**	*e*P	**P**	**11 53 31.6**	**+0.2**
NVAR	**Mina Array Bea**	**80.25**	**50**	P	**P**	**11 53 33.3**	**+0.9**
	comp=Z,6.5nm,0.7s,mb4.7,baz=308,slow=4.6,SNR=13						
NIE	**Niedzica**	**80.33**	**324**	*e*P	**P**	**11 53 33.7**	**+1.0**
QLMT	**Earthquake Lak**	**80.63**	**42**	*e*P	**P**	**11 53 34.5**	**+0.1**
DRGR		**80.78**	**321**	⇑P	**P**	**11 53 35.6**	**+0.5**
DRGR		**80.78**	**321**	⇑*i*P	**P**	**11 53 35.6**	**+0.5**
KECS	**Kecovo**	**80.85**	**323**	*e*P	**P**	**11 53 32.9**	**-2.6**
	comp=Z,2.8nm,0.9s,mb4.2						
KECS	**Kecovo**	**80.85**	**323**	*e*P	**P**	**11 53 32.9**	**-2.6**
KECS				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
OKC	**Ostrava-Krasne**	**81.11**	**325**	⇑*i*P	**P**	**11 53 36.8**	**0.0**
TPH	**Tonopah**	**81.15**	**50**	*e*P	**P**	**11 53 37.8**	**+0.5**
	comp=Z,16nm,0.9s,mb4.9						
TPH	**Tonopah**	**81.15**	**50**	*e*P	**P**	**11 53 37.8**	**+0.5**
TPH				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
LKWY	**Lake**	**81.37**	**42**	*e*P	**P**	**11 53 41.1**	**+2.8**
	comp=Z,6.5nm,0.8s,mb4.6						
LKWY	**Lake**	**81.37**	**42**	*e*P	**P**	**11 53 41.1**	**+2.8**
LKWY				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
MORC	**Moravsky Berou**	**81.45**	**325**	*e*P	**P**	**11 53 38.6**	**0.0**
	comp=Z,12nm,0.8s,mb4.9						
MORC	**Moravsky Berou**	**81.45**	**325**	*e*P	**P**	**11 53 38.6**	**0.0**
MORC				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
MORC	**Moravsky Berou**	**81.45**	**325**	⇓*i*P	**P**	**11 53 38.5**	**-0.1**
IMW	**Indian Meadow**	**81.48**	**43**	*e*P	**P**	**11 53 40.3**	**+1.4**
	comp=Z,9.6nm,0.9s,mb4.7						
PSZ	**Piszkesteto**	**81.52**	**323**	*e*P	**P**	**11 53 39.6**	**+0.5**

	comp=Z,43nm,1.5s,mb5.2						
PSZ	**Piszkesteto**	**81.52**	**323**	⇑*i*P	**P**	**11 53 39.7**	**+0.7**
DCID1	**Drake Creek**	**81.53**	**43**	*e*P	**P**	**11 53 40.7**	**+1.6**
GZR	**Gura Zlata**	**81.63**	**319**	⇑*i*P	**P**	**11 53 40.6**	**+0.9**
DPC	**Dobruska-Polom**	**81.63**	**326**	⇑*i*P	**P**	**11 53 40.2**	**+0.6**
UPC	**Upice**	**81.67**	**326**	⇑*e*P	**P**	**11 53 39.9**	**+0.1**
UPC				*e*pP	pP	11 53 52.0	+7.4
VYHS	**Vyhne**	**81.67**	**324**	*i* P	**P**	**11 53 40.4**	**+0.6**
	comp=Z,6.6nm,0.9s,mb4.6						
VYHS	**Vyhne**	**81.67**	**324**	*i* P	**P**	**11 53 40.4**	**+0.6**
VYHS				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
MOOW	**Moose Ponds**	**81.68**	**43**	*e*P	**P**	**11 53 40.8**	**+0.8**
BSEG	**Bad Segeberg**	**81.70**	**331**	*e*P	**P**	**11 53 39.7**	**-0.2**
BSEG				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.2						
BSEG	**Bad Segeberg**	**81.70**	**331**	*e*P	**P**	**11 53 39.7**	**-0.2**
	comp=Z,32nm,1.1s,mb5.2						
HVU	**Hansel Valley**	**81.71**	**45**	*e*P	**P**	**11 53 40.7**	**+0.5**
	comp=Z,5.8nm,0.7s,mb4.6						
HVU	**Hansel Valley**	**81.71**	**45**	*e*P	**P**	**11 53 40.7**	**+0.5**
HVU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
KOLL	**Kolacno**	**81.83**	**324**	*e*P	**P**	**11 53 41.2**	**+0.5**
LOHW	**Long Hollow**	**81.85**	**43**	*e*P	**P**	**11 53 41.6**	**+0.7**
REDW	**Red Top Meadow**	**81.86**	**43**	*e*P	**P**	**11 53 41.4**	**+0.5**
DAC	**Darwin (Calif)**	**81.94**	**52**	*e*P	**P**	**11 53 41.1**	**-0.4**
	comp=Z,6.3nm,0.4s,mb4.9						
DAC	**Darwin (Calif)**	**81.94**	**52**	*e*P	**P**	**11 53 41.1**	**-0.4**
DAC				pmax	pmax		
	comp=Z,6.0nm,0.4s,mb4.9						
DGMT	**Dagmar**	**82.11**	**36**	*e*P	**P**	**11 53 42.3**	**+0.2**
	comp=Z,21nm,0.9s,mb5.1						
BZS	**Buzias**	**82.12**	**320**	⇓P	**P**	**11 53 42.2**	**0.0**
BZS	**Buzias**	**82.12**	**320**	⇓*i*P	**P**	**11 53 42.2**	**0.0**
VRAC	**Vranov**	**82.22**	**325**	⇑P	**P**	**11 53 43.3**	**+0.6**
VRAC	**Vranov**	**82.22**	**325**	⇑*i*P	**P**	**11 53 43.3**	**+0.6**
LAO	**LASA Array**	**82.26**	**38**	*e*P	**P**	**11 53 43.4**	**+0.4**
	comp=Z,19nm,1.0s,mb5.0						
PVCC	**Panska Ves**	**82.32**	**327**	⇑*i*P	**P**	**11 53 43.7**	**+0.5**
PVCC				*e*PCP	PcP	11 53 51.0	+2.6
BRG	**Berggiesshubel**	**82.36**	**328**	*i* P	**P**	**11 53 42.7**	**-0.7**
BRG				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
BRG	**Berggiesshubel**	**82.36**	**328**	*e*P	**P**	**11 53 43.2**	**-0.2**
	comp=Z,11nm,0.8s,mb4.8						
BRG	**Berggiesshubel**	**82.36**	**328**	*i* P	**P**	**11 53 42.7**	**-0.7**
	comp=Z,11nm,0.8s,mb4.8						
TPNV	**Topopah Spring**	**82.43**	**51**	*e*P	**P**	**11 53 44.0**	**-0.1**
	comp=Z,18nm,0.9s,mb5.0						
TPNV	**Topopah Spring**	**82.43**	**51**	*e*P	**P**	**11 53 44.0**	**-0.1**
TPNV				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
CLL	**Collm**	**82.47**	**328**	⇑*i*P	**P**	**11 53 43.6**	**-0.4**
CLL				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
CLL	**Collm**	**82.47**	**328**	*e*P	**P**	**11 53 43.7**	**-0.3**
	comp=Z,19nm,0.9s,mb5.0						
CLL	**Collm**	**82.47**	**328**	⇑*i*P	**P**	**11 53 43.6**	**-0.4**
	comp=Z,19nm,0.9s,mb5.0						
CLL				*e*PP	PP	11 56 51.0	-1.4
HWUT	**Hardware Ranch**	**82.53**	**45**	*e*P	**P**	**11 53 44.5**	**+0.1**
	comp=Z,5.1nm,0.8s,mb4.6						
FBE	**Freiberg**	**82.59**	**328**	*e*P	**P**	**11 53 44.7**	**+0.1**
	comp=Z,74nm,1.7s,mb5.4						
DUG	**Dugway**	**82.65**	**46**	*e*P	**P**	**11 53 45.2**	**+0.1**
	comp=Z,17nm,1.3s,mb4.9						
DUG	**Dugway**	**82.65**	**46**	*e*P	**P**	**11 53 45.2**	**+0.1**
DUG				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.9						
PRU	**Pruhonice**	**82.71**	**327**	⇑*i*P	**P**	**11 53 45.4**	**+0.2**
PRU				*e*pP	pP	11 53 56.7	+6.7
ZST	**Bratislava**	**82.73**	**324**	*e*P	**P**	**11 53 46.0**	**+0.6**
	comp=Z,8.8nm,0.9s,mb4.8						
ZST	**Bratislava**	**82.73**	**324**	*e*P	**P**	**11 53 46.0**	**+0.6**
ZST				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
TREC	**Trest**	**82.75**	**326**	⇑*i*P	**P**	**11 53 45.8**	**+0.3**
NOQ	**North Oquirrh**	**82.79**	**46**	*e*P	**P**	**11 53 46.3**	**+0.5**
BW06	**Boulder Array**	**82.97**	**43**	*e*P	**P**	**11 53 46.5**	**-0.3**
	comp=Z,4.9nm,0.8s,mb4.6						
PDAR	**Pinedale Array**	**82.97**	**43**	P	**P**	**11 53 46.7**	**0.0**
	comp=Z,4.6nm,0.8s,mb4.6,baz=286,slow=2.8,SNR=39						
CTU	**Camp Tracy**	**82.99**	**46**	*e*P	**P**	**11 53 47.4**	**+0.6**
CLZ	**Clausthal**	**83.22**	**330**	*e*P	**P**	**11 53 48.0**	**+0.2**
CLZ				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.4						
CLZ	**Clausthal**	**83.22**	**330**	*e*P	**P**	**11 53 48.0**	**+0.2**
	comp=Z,41nm,1.1s,mb5.4						
JLU	**Jordanelle**	**83.22**	**45**	*e*P	**P**	**11 53 49.0**	**+0.9**
NLU	**North Lily Min**	**83.25**	**46**	*e*P	**P**	**11 53 49.3**	**+1.1**
PKSM	**Moragy**	**83.30**	**322**	⇓P	**P**	**11 53 48.4**	**+0.1**
PKSM	**Moragy**	**83.30**	**322**	⇓*i*P	**P**	**11 53 48.4**	**+0.1**
TANN	**Tannenbergstha**	**83.35**	**328**	*e*P	**P**	**11 53 48.5**	**0.0**
	comp=Z,23nm,1.4s,mb5.0						
WERD	**Werda**	**83.40**	**328**	*e*P	**P**	**11 53 48.8**	**0.0**
	comp=Z,20nm,1.2s,mb5.0						
SHPR	**Sheep Range**	**83.40**	**51**	*e*P	**P**	**11 53 49.6**	**+0.5**
GUNZ	**Gunzen**	**83.44**	**328**	*e*P	**P**	**11 53 49.3**	**+0.3**
	comp=Z,26nm,1.1s,mb5.2						
DAU	**Daniels Canyon**	**83.46**	**46**	*e*P	**P**	**11 53 50.2**	**+0.9**
MPU	**Maple Canyon**	**83.48**	**46**	*e*P	**P**	**11 53 49.9**	**+0.5**
	comp=Z,10nm,0.9s,mb4.9						
WERN	**Wernitzgruen**	**83.48**	**328**	*e*P	**P**	**11 53 49.4**	**+0.2**
	comp=Z,16nm,0.9s,mb5.0						
NKC	**Novy Kostel**	**83.49**	**328**	⇑*e*P	**P**	**11 53 49.7**	**+0.5**
NKC				*e*pP	pP	11 54 01.5	+7.5
CONA	**Conrad Observa**	**83.52**	**325**	⇑*i*PcP	PcP	11 53 50.2	-3.6
	comp=Z,32nm,1.0s						
MOX	**Moxa**	**83.56**	**328**	*e*P	**P**	**11 53 49.8**	**+0.2**
	comp=Z,41nm,1.6s,mb5.3						
MOX	**Moxa**	**83.56**	**328**	*e*P	**P**	**11 53 49.8**	**+0.2**
MOX				pmax	pmax		
	comp=Z,41nm,1.6s,mb5.3						
MOX	**Moxa**	**83.56**	**328**	*e*P	**P**	**11 53 49.5**	**-0.1**
	comp=Z,32nm,1.3s,mb5.3						
ARUT	**Antelope Range**	**83.73**	**49**	*e*P	**P**	**11 53 51.4**	**+0.6**
KHC	**Kasperske Hory**	**83.76**	**326**	⇑*i*P	**P**	**11 53 50.8**	**+0.1**
MANZ	**Manzenberg**	**83.82**	**328**	*e*P	**P**	**11 53 51.0**	**+0.1**
	comp=Z,19nm,1.0s,mb5.2						
GEC2	**GERESS Array S**	**83.91**	**326**	*e*P	**P**	**11 53 51.1**	**-0.3**
GEC2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.2						
GEC2	**GERESS Array S**	**83.91**	**326**	*e*P	**P**	**11 53 51.1**	**-0.3**
	comp=Z,20nm,1.0s,mb5.2						
GERES	**GERESS Array B**	**83.91**	**326**	P	**P**	**11 53 51.2**	**-0.2**
	comp=Z,11nm,0.7s,mb5.1,baz=40,slow=5.0,SNR=87						
GERES				LR	LR	12 36 14.0	
	comp=Z,124nm,18.4s,MS4.3,baz=57,slow=39						
ROTZ	**Rotzenmuhle**	**83.93**	**328**	*e*P	**P**	**11 53 51.8**	**+0.3**
	comp=Z,47nm,1.4s,mb5.4						
IBBN	**Ibbenburen**	**83.94**	**331**	*e*P	**P**	**11 53 51.2**	**-0.3**
	comp=Z,42nm,0.9s,mb5.6						
MSU	**Marysvale**	**84.07**	**47**	*e*P	**P**	**11 53 53.6**	**+1.2**
WET	**Wettzell**	**84.07**	**327**	*e*P	**P**	**11 53 52.5**	**+0.2**
WET				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.1						
WET	**Wettzell**	**84.07**	**327**	*e*P	**P**	**11 53 52.5**	**+0.2**
	comp=Z,16nm,1.1s,mb5.1						
PFO	**Pinyon Flat Ob**	**84.26**	**53**	*e*P	**P**	**11 53 53.3**	**-0.2**
	comp=Z,30nm,1.0s,mb5.4						
PFO				*e*pP	pP	11 54 08.0	+10
PFO	**Pinyon Flat Ob**	**84.26**	**53**	*e*P	**P**	**11 53 53.3**	**-0.2**
PFO				*e**PP	pP	11 54 08.0	+10
PFO				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
MOA	**Molln**	**84.34**	**325**	⇑*i*P	**P**	**11 53 53.8**	**+0.1**
	comp=Z,18nm,1.1s,mb5.1						
GRA1	**Grafenberg Arr**	**84.43**	**328**	*e*P	**P**	**11 53 54.6**	**+0.6**
	comp=Z,55nm,1.0s,mb5.6						
GRF	**Grafenberg Arr**	**84.43**	**328**	*e*P	**P**	**11 53 54.6**	**+0.6**
GRF				pmax	pmax		
	comp=Z,55nm,1.0s,mb5.6						
GRF	**Grafenberg Arr**	**84.43**	**328**	*e*P	**P**	**11 53 54.6**	**+0.6**
GRF				pmax	pmax		
	comp=Z,55nm,1.0s,mb5.6						
GRF	**Grafenberg Arr**	**84.43**	**328**	*e*P	**P**	**11 53 54.6**	**+0.6**
	comp=Z,55nm,1.0s,mb5.6						
GRFO	**Grafenberg**	**84.43**	**328**	*e*P	**P**	**11 53 54.1**	**0.0**
	comp=Z,66nm,1.2s,mb5.6						
GRFO	**Grafenberg**	**84.43**	**328**	*e*P	**P**	**11 53 54.1**	**0.0**
GRFO				pmax	pmax		
	comp=Z,66nm,1.2s,mb5.6						
ULM	**Lac du Bonnet**	**84.69**	**31**	P	**P**	**11 53 54.2**	**-1.2**
ULM	**Lac du Bonnet**	**84.69**	**31**	P	**P**	**11 53 54.2**	**-1.2**
	comp=Z,6.8nm,0.9s,mb4.8,baz=334,slow=9.0,SNR=12						
SRU	**San Rafael**	**84.71**	**46**	*e*P	**P**	**11 53 56.0**	**+0.3**
	comp=Z,12nm,0.7s,mb5.2						
SRU	**San Rafael**	**84.71**	**46**	*e*P	**P**	**11 53 56.0**	**+0.3**
SRU				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.2						
BUG	**Bochum--Univer**	**84.80**	**331**	*e*P	**P**	**11 53 55.3**	**-0.6**
	comp=Z,28nm,0.9s,mb5.4						
TNS	**Taunus Mts**	**85.24**	**330**	*e*P	**P**	**11 53 57.9**	**-0.2**
TNS				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.0						
TNS	**Taunus Mts**	**85.24**	**330**	*e*P	**P**	**11 53 57.9**	**-0.2**
	comp=Z,13nm,1.0s,mb5.0						
KBA	**Koelnbreinsper**	**85.33**	**325**	⇑*i*P	**P**	**11 53 59.0**	**+0.3**
	comp=Z,9.4nm,1.1s,mb4.8						
KBA	**Koelnbreinsper**	**85.33**	**325**	⇑*i*PcP	PcP	11 53 59.0	-2.8
	comp=Z,9.4nm,1.1s						
KBA	**Koelnbreinsper**	**85.33**	**325**	⇑*i*P	**P**	**11 53 59.0**	**+0.3**
KBA				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
FUR	**Furstenfeldbru**	**85.52**	**327**	*e*P	**P**	**11 53 59.5**	**-0.1**
FUR				pmax	pmax		
	comp=Z,48nm,1.1s,mb5.6						
FUR	**Furstenfeldbru**	**85.52**	**327**	*e*P	**P**	**11 53 59.5**	**-0.1**
	comp=Z,48nm,1.1s,mb5.6						
BEBN	**Eben Emael**	**85.94**	**331**	P	**P**	**11 54 01.4**	**-0.2**
MEM	**Membach**	**85.95**	**331**	P	**P**	**11 54 01.2**	**-0.4**
	comp=Z,16nm,1.4s,mb5.1						
STU	**Stuttgart**	**86.00**	**328**	*e*P	**P**	**11 54 01.4**	**-0.6**
	comp=Z,23nm,1.0s,mb5.4						
PV10	**Paradox Valley**	**86.07**	**46**	*e*P	**P**	**11 54 03.3**	**+0.8**
PV10				*e*pP	pP	11 54 16.6	+9.2
PHWY	**Pilot Hill**	**86.24**	**42**	*e*P	**P**	**11 54 04.1**	**+0.8**
BCLA	**Clavier**	**86.38**	**331**	P	**P**	**11 54 03.2**	**-0.6**
	comp=Z,14nm,1.3s,mb5.0						
WUAZ	**Wupatki**	**86.43**	**49**	*e*P	**P**	**11 54 05.1**	**+0.7**
UCC	**Uccle**	**86.46**	**332**	P	**P**	**11 54 03.5**	**-0.7**
PV01	**Paradox Valley**	**86.51**	**46**	*e*P	**P**	**11 54 04.7**	**0.0**
BFO	**Black Forest**	**86.71**	**328**	*e*P	**P**	**11 54 05.0**	**-0.5**
BFO				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.3						
BFO	**Black Forest**	**86.71**	**328**	*e*P	**P**	**11 54 05.0**	**-0.5**
	comp=Z,30nm,1.5s,mb5.3						
SNF	**Seneffe**	**86.72**	**332**	P	**P**	**11 54 05.0**	**-0.5**
	comp=Z,40nm,3.9s						
SMCO	**Snowmass**	**86.78**	**44**	*e*P	**P**	**11 54 07.0**	**+1.0**
	comp=Z,14nm,1.0s,mb5.2						
GIVF	**Givet**	**86.82**	**331**	*e*P	**P**	**11 54 05.5**	**-0.5**
	comp=Z,29nm,0.9s,mb5.2						
GIVF	**Givet**	**86.82**	**331**	*e*P	**P**	**11 54 05.5**	**-0.5**
	comp=Z,14nm,0.9s,mb5.2						
GIVF	**Givet**	**86.82**	**331**	*e*P	**P**	**11 54 05.5**	**-0.5**
GIVF				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.2						
BAIF	**Baives**	**87.10**	**332**	*e*P	**P**	**11 54 06.9**	**-0.4**
	comp=Z,15nm,0.9s,mb4.9						
BAIF	**Baives**	**87.10**	**332**	*e*P	**P**	**11 54 06.9**	**-0.4**
	comp=Z,7.6nm,0.9s,mb4.9						
BAIF	**Baives**	**87.10**	**332**	*e*P	**P**	**11 54 06.9**	**-0.4**
BAIF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.0						
CDF	**Champ du Feu**	**87.11**	**329**	*e*P	**P**	**11 54 07.1**	**-0.3**
ISCO	**Idaho Springs**	**87.16**	**43**	*e*P	**P**	**11 54 08.8**	**+1.0**
	comp=Z,2.3nm,0.7s,mb4.5						
ISCO	**Idaho Springs**	**87.16**	**43**	*e*P	**P**	**11 54 08.8**	**+1.0**
ISCO				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.5						
HINF	**Hinteralfeld**	**87.75**	**329**	*e*P	**P**	**11 54 09.6**	**-0.9**
	comp=Z,5.9nm,0.7s,mb4.6						
HINF	**Hinteralfeld**	**87.75**	**329**	*e*P	**P**	**11 54 09.6**	**-0.9**
	comp=Z,3.0nm,0.7s,mb4.6						
HINF	**Hinteralfeld**	**87.75**	**329**	*e*P	**P**	**11 54 09.6**	**-0.9**
HINF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.6						
HAU	**Haudompre**	**87.82**	**329**	*e*P	**P**	**11 54 10.6**	**-0.2**
	comp=Z,7.3nm,0.7s,mb4.7						
HAU	**Haudompre**	**87.82**	**329**	*e*P	**P**	**11 54 10.6**	**-0.2**
	comp=Z,3.7nm,0.7s,mb4.7						
HAU	**Haudompre**	**87.82**	**329**	*e*P	**P**	**11 54 10.6**	**-0.2**
HAU				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.8						
MEZF	**Maizieres J’vi**	**87.98**	**330**	*e*P	**P**	**11 54 11.2**	**-0.4**
SDCO	**Great Sand Dun**	**88.59**	**45**	*e*P	**P**	**11 54 15.3**	**+0.6**
	comp=Z,3.2nm,0.8s,mb4.7						
AQU	**L’Aquila**	**88.68**	**322**	*e*P	**P**	**11 54 15.0**	**0.0**
CABF	**La Chapelle**	**89.01**	**329**	*e*P	**P**	**11 54 15.8**	**-0.7**
LOR	**Lormes**	**89.45**	**330**	*e*P	**P**	**11 54 17.7**	**-0.8**
	comp=Z,18nm,0.9s,mb5.1						
LOR	**Lormes**	**89.45**	**330**	*e*P	**P**	**11 54 17.7**	**-0.8**
	comp=Z,9.1nm,0.9s,mb5.1						
LOR	**Lormes**	**89.45**	**330**	*e*P	**P**	**11 54 17.7**	**-0.8**
LOR				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.1						
LPL	**La Plagne**	**89.57**	**328**	*e*P	**P**	**11 54 18.9**	**-0.2**
	comp=Z,24nm,0.8s,mb5.3						
LPL	**La Plagne**	**89.57**	**328**	*e*P	**P**	**11 54 18.9**	**-0.2**
	comp=Z,12nm,0.8s,mb5.3						
LPL	**La Plagne**	**89.57**	**328**	*e*P	**P**	**11 54 18.9**	**-0.2**
LPL				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.3						
LPG	**La Plagne**	**89.57**	**327**	*e*P	**P**	**11 54 19.0**	**-0.1**
	comp=Z,22nm,0.8s,mb5.2						
LPG	**La Plagne**	**89.57**	**327**	*e*P	**P**	**11 54 19.0**	**-0.1**
	comp=Z,11nm,0.8s,mb5.2						
LPG	**La Plagne**	**89.57**	**327**	*e*P	**P**	**11 54 19.0**	**-0.1**
LPG				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.2						
SSF	**Saint Saulge**	**89.76**	**330**	*e*P	**P**	**11 54 19.2**	**-0.8**
	comp=Z,15nm,1.0s,mb5.0						
SSF	**Saint Saulge**	**89.76**	**330**	*e*P	**P**	**11 54 19.2**	**-0.8**
	comp=Z,7.4nm,1.0s,mb5.0						
SSF	**Saint Saulge**	**89.76**	**330**	*e*P	**P**	**11 54 19.2**	**-0.8**
SSF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
ANMO	**Albuquerque**	**89.87**	**47**	*e*P	**P**	**11 54 21.5**	**+0.7**
	comp=Z,5.1nm,0.8s,mb4.9						
ANMO	**Albuquerque**	**89.87**	**47**	*e*P	**P**	**11 54 21.5**	**+0.7**
ANMO				pmax	pmax		
	comp=Z,5.0nm,0.8s						
SMF	**Signal de Mont**	**89.95**	**330**	*e*P	**P**	**11 54 20.1**	**-0.8**
	comp=Z,26nm,1.1s,mb5.2						
SMF	**Signal de Mont**	**89.95**	**330**	*e*P	**P**	**11 54 20.1**	**-0.8**
	comp=Z,13nm,1.1s,mb5.2						
SMF	**Signal de Mont**	**89.95**	**330**	*e*P	**P**	**11 54 20.1**	**-0.8**
SMF				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.2						
SCHQ	**Schefferville**	**89.96**	**13**	LR	LR	12 37 32.4	
	comp=Z,177nm,18.3s,MS4.5,baz=303,slow=38						
AVF	**Avril sur Loir**	**90.04**	**330**	*e*P	**P**	**11 54 20.7**	**-0.6**
	comp=Z,20nm,0.9s,mb5.2						
AVF	**Avril sur Loir**	**90.04**	**330**	*e*P	**P**	**11 54 20.7**	**-0.6**
	comp=Z,10nm,0.9s,mb5.2						
AVF	**Avril sur Loir**	**90.04**	**330**	*e*P	**P**	**11 54 20.7**	**-0.6**
AVF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.2						
MBDF	**Montbardon**	**90.16**	**327**	*e*P	**P**	**11 54 20.8**	**-1.1**
	comp=Z,9.3nm,0.8s,mb4.9						
MBDF	**Montbardon**	**90.16**	**327**	*e*P	**P**	**11 54 20.8**	**-1.1**
	comp=Z,4.7nm,0.8s,mb4.9						
MBDF	**Montbardon**	**90.16**	**327**	*e*P	**P**	**11 54 20.8**	**-1.1**
MBDF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.9						
ORIF	**Oris-en-Rattie**	**90.41**	**328**	*e*P	**P**	**11 54 22.4**	**-0.7**
	comp=Z,14nm,1.0s,mb4.9						
ORIF	**Oris-en-Rattie**	**90.41**	**328**	*e*P	**P**	**11 54 22.4**	**-0.7**
	comp=Z,6.9nm,1.0s,mb4.9						
ORIF	**Oris-en-Rattie**	**90.41**	**328**	*e*P	**P**	**11 54 22.4**	**-0.7**
ORIF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
TCF	**Toulx Ste Croi**	**90.91**	**330**	*e*P	**P**	**11 54 24.4**	**-1.0**
VIVF	**Saint-Julien-l**	**91.00**	**328**	*e*P	**P**	**11 54 25.2**	**-0.6**
	comp=Z,25nm,1.0s,mb5.2						
VIVF	**Saint-Julien-l**	**91.00**	**328**	*e*P	**P**	**11 54 25.2**	**-0.6**
	comp=Z,12nm,1.0s,mb5.2						
VIVF	**Saint-Julien-l**	**91.00**	**328**	*e*P	**P**	**11 54 25.2**	**-0.6**
VIVF				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.2						
ROSF	**Rostrenen**	**91.34**	**335**	*e*P	**P**	**11 54 27.3**	**0.0**
	comp=Z,33nm,0.8s,mb5.4						
ROSF	**Rostrenen**	**91.34**	**335**	*e*P	**P**	**11 54 27.3**	**0.0**
	comp=Z,16nm,0.8s,mb5.4						
ROSF	**Rostrenen**	**91.34**	**335**	*e*P	**P**	**11 54 27.3**	**0.0**
ROSF				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.4						
LMR	**La Mourre**	**91.35**	**326**	*e*P	**P**	**11 54 26.5**	**-0.9**
	comp=Z,21nm,1.1s,mb5.1						
LMR	**La Mourre**	**91.35**	**326**	*e*P	**P**	**11 54 26.5**	**-0.9**
	comp=Z,11nm,1.1s,mb5.1						
LMR	**La Mourre**	**91.35**	**326**	*e*P	**P**	**11 54 26.5**	**-0.9**
LMR				pmax	pmax		
	comp=Z,11nm,1.1s,mb5.1						
MFF	**Saint Martin d**	**91.61**	**332**	*e*P	**P**	**11 54 28.4**	**-0.2**
RJF	**Les Rejaudoux**	**91.99**	**330**	*e*P	**P**	**11 54 30.3**	**-0.1**
CAF	**Calviac**	**92.07**	**330**	*e*P	**P**	**11 54 30.0**	**-0.8**
	comp=Z,22nm,1.1s,mb5.1						
CAF	**Calviac**	**92.07**	**330**	*e*P	**P**	**11 54 30.0**	**-0.8**
	comp=Z,11nm,1.0s,mb5.2						
CAF	**Calviac**	**92.07**	**330**	*e*P	**P**	**11 54 30.0**	**-0.8**
CAF				pmax	pmax		
	comp=Z,11nm,1.0s,mb5.1						
KSU1	**Kansas State U**	**92.60**	**39**	*e*P	**P**	**11 54 32.5**	**-0.8**
	comp=Z,14nm,0.9s,mb5.4						
LFF	**La Frestale**	**92.61**	**330**	*e*P	**P**	**11 54 33.3**	**0.0**
	comp=Z,34nm,0.8s,mb5.5						
LFF	**La Frestale**	**92.61**	**330**	*e*P	**P**	**11 54 33.3**	**0.0**
	comp=Z,17nm,0.8s,mb5.5						
LFF	**La Frestale**	**92.61**	**330**	*e*P	**P**	**11 54 33.3**	**0.0**
LFF				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.5						
MNTX	**Cornudas Mount**	**92.71**	**49**	*e*P	**P**	**11 54 33.8**	**-0.1**
	comp=Z,5.5nm,0.9s,mb5.0						
WMOK	**Wichita Mounta**	**94.58**	**43**	*e*P	**P**	**11 54 42.2**	**-0.3**
LTX	**Lajitas**	**95.39**	**50**	*e*P	**P**	**11 54 46.5**	**+0.2**
	comp=Z,43nm,1.4s,mb5.7						
LTX	**Lajitas**	**95.39**	**50**	*e*P	**P**	**11 54 46.5**	**+0.2**
LTX				pmax	pmax		
	comp=Z,43nm,1.4s,mb5.7						
TXAR	**Lajitas Array**	**95.39**	**50**	P	**P**	**11 54 46.5**	**+0.1**
TXAR	**Lajitas Array**	**95.39**	**50**	P	**P**	**11 54 46.5**	**+0.1**
	comp=Z,11nm,0.8s,mb5.3,baz=290,slow=3.3,SNR=119						
JCT	**Junction City**	**97.01**	**47**	*e*P	**P**	**11 54 53.2**	**-0.5**
SIUC	**Southern Illin**	**97.39**	**35**	*e*P	**P**	**11 54 55.7**	**+0.4**
KMBO	**Kilima Mbogo**	**98.69**	**274**	*i* P	**P**	**11 55 02.7**	**+1.2**
KMBO				pmax	pmax		
	comp=Z,10.0nm,0.2s						
TORD	**Torodi Ar. Bea**	**117.14**	**310**	PKP	PKPdf	12 00 05.2	-2.2
TORD	**Torodi Ar. Bea**	**117.14**	**310**	PKP	PKPdf	12 00 05.2	-2.2
	comp=Z,1.2nm,0.6s,baz=31,slow=0.9,SNR=16						
BOSA	**Boshof**	**122.11**	**255**	PKP	PKPdf	12 00 15.1	-1.4
BOSA	**Boshof**	**122.11**	**255**	PKIKP	PKPdf	12 00 15.1	-1.4
BOSA	**Boshof**	**122.11**	**255**	PKP	PKPdf	12 00 15.1	-1.4
	comp=Z,2.7nm,0.8s,baz=58,slow=22,SNR=3.8						
QSPA	**South Pole Qui**	**122.97**	**180**	*e*PKPdf	PKPdf	12 00 14.9	-1.7
LIC	**Lamto**	**126.68**	**310**	*e*PKIKP	PKPdf	12 00 22.6	-3.2
	comp=Z,31nm,1.2s						
LIC	**Lamto**	**126.68**	**310**	*e*PKPdf	PKPdf	12 00 22.6	-3.2
VNA2	**Neumayer--Watz**	**137.62**	**197**	*e*PKPdf	PKPdf	12 00 45.7	+1.1
	baz=5.8,slow=0.2						
VNA2				*e*		12 00 50.6	
VNA3	**Neumayer Olymp**	**137.93**	**195**	*e*PKPdf	PKPdf	12 00 46.4	+1.2
VNA3				*e*		12 00 51.0	
LPAZ	**La Paz**	**151.81**	**59**	PKP	PKPdf	12 01 10.3	-0.2
LPAZ				*e*PKPbc	PKPbc	12 01 16.7	-0.3
LPAZ	**La Paz**	**151.81**	**59**	PKIKP	PKPdf	12 01 10.3	-0.2
LPAZ	**La Paz**	**151.81**	**59**	PKP	PKPdf	12 01 10.3	-0.2
	comp=Z,2.6nm,0.8s,baz=67,slow=2.6,SNR=4.1						
LPAZ				PKPbc	PKPbc	12 01 16.6	-0.4
	comp=Z,3.9nm,0.8s,baz=256,slow=7.3,SNR=10						

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*NEIC **25** 11:59:41.5, 3265N×11601W, h1^{km}, ML3.1(PAS), After PAS.*

NEIC Felt at Ocotillo.

ECX 25 11:59:42.0±0.7, 3267N×11600W, h2^{km}, MD3.0, ML3.2, 6C-4D, California-Baja California border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YUH	**Yuha Desert**	**0.07**	**111**	⇑*e*P	Pg	11 59 42.7	-0.6
CRR	**Carrizo Plain**	**0.21**	**6**	⇓*e*P	Pg	11 59 46.1	-0.1
SGL	**Mount Signal**	**0.23**	**96**	⇑*e*P	Pg	11 59 46.2	-0.2
COK	**Cook Ranch**	**0.29**	**52**	⇑*e*P	Pg	11 59 47.8	+0.2
BAR	**Barrett**	**0.57**	**271**	⇓*e*P	Pg	11 59 52.4	-0.5
BAR				*e*S	Sg	12 00 00.2	-0.1
CBX	**Cerro Bola**	**0.67**	**238**	*e*P	Pg	11 59 54.2	-0.6
CBX				*e*S	Sg	12 00 03.2	-0.2
COA	**Coachella**	**0.76**	**75**	⇑*e*P	Pg	11 59 56.1	-0.4
EMX	**El Mayor**	**0.93**	**137**	*e*P	Pg	12 00 07.1	+7.2
EMX				*e*S	Sg	12 00 26.0	+14
ENX	**Ensenada**	**0.97**	**216**	*e*P	Pg	11 59 59.4	-1.2
ENX				*e*S	Sg	12 00 12.7	-0.5
ENX				*e*		12 00 14.6	
	comp=N,868nm,0.4s						
PFO	**Pinyon Flat Ob**	**1.01**	**338**	*e*P	Pg	12 00 00.2	-1.2
PFO				*e*S	Sg	12 00 13.3	-1.2
PBX	**Punta Banda**	**1.11**	**214**	⇑*e*P	Pg	12 00 02.1	-1.2
PBX				*e*S	Sg	12 00 16.9	-1.0
PBX				⇓*e*		12 00 17.3	
	comp=N,573nm,0.4s						
PBX				⇓*e*		12 00 19.6	
	comp=E,749nm,1.2s						
ECNX	**Esteban Cantu**	**1.13**	**207**	⇑*e*P	Pg	12 00 02.4	-1.3
ECNX				*e*P		11 59 59.6	
ECNX				*e*S	Sg	12 00 12.7	-5.7
ECNX				*e*S	Sg	12 00 17.4	-1.0
ECBX	**El Chinero**	**1.44**	**146**	*e*S	Sg	12 00 11.1	-17
DAC	**Darwin (Calif)**	**3.83**	**340**	*e*Pn	Pn	12 00 41.1	-0.8
DAC				*e*Pg	Pg	12 00 51.7	-3.7
DAC				*e*Sg	Sg	12 01 41.8	-3.2
TUC	**Tucson**	**4.42**	**93**	Pn	Pn	12 00 49.2	-0.8
TUC				*e*Pg	Pg	12 01 06.2	-0.5
TUC				*e*Sg	Sg	12 02 05.3	+1.3

IDC 25 12:45:09.9±1.3, 849S×7808W, h154^{km}±11^{km}, mb3.3/7, mb1 3.6/8, mb1mx3.6/17, mbtmp3.4/8, MS2.4/1, Ms1 2.4/1, ms1mx2.1/17, Error ellipse: s-maj=46.0km s-min=15.8km az=63.0, Near coast of northern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ATAH	**Atahualpa**	**1.51**	**348**	P	Pn	12 45 38.5	-1.4
	21nm,0.3s,baz=152,slow=6.6,SNR=107						
ATAH				S	Sn	12 46 11.7	+8.7
	66nm,0.3s,baz=126,slow=20,SNR=17						
NNA	**Nana**	**3.68**	**161**	P	Pn	12 46 07.5	+1.3
	baz=72,slow=20						
SIV	**San Ignacio**	**18.21**	**116**	P	P	12 49 00.7	-11
	0.2nm,0.3s,baz=292,slow=11,SNR=7.0						
CFAA	**Coronel Fontan**	**24.76**	**160**	P	P	12 50 16.5	-0.8
	0.4nm,0.9s,baz=1.1,slow=12,SNR=3.7						
CFAA				LR	LR	13 00 01.3	
	comp=Z,9.0nm,20.1s,baz=246,slow=36						
TXAR	**Lajitas Array**	**44.96**	**328**	P	P	12 53 10.2	+0.3
	0.6nm,0.7s,baz=150,slow=8.1,SNR=6.9						
PDAR	**Pinedale Array**	**58.53**	**333**	P	P	12 54 50.7	+0.5
	0.4nm,0.7s,baz=136,slow=6.2,SNR=4.4						
NVAR	**Mina Array Bea**	**59.84**	**324**	P	P	12 54 59.4	+0.2
	0.8nm,0.5s,baz=148,slow=5.2,SNR=3.2						
ULM	**Lac du Bonnet**	**60.51**	**347**	P	P	12 55 03.8	+0.2
	2.3nm,0.8s,baz=13,slow=2.6,SNR=4.2						
YKA	**Yellowknife Ar**	**76.16**	**343**	P	P	12 56 40.6	0.0
	0.6nm,0.6s,baz=140,slow=5.7,SNR=15						
TORD	**Torodi Ar. Bea**	**82.07**	**75**	P	P	12 57 14.0	+0.2
	0.5nm,0.8s,baz=256,slow=4.3,SNR=2.5						
WRA	**Warramunga Arr**	**137.38**	**228**	PKhKP		13 04 08.7	
	0.3nm,0.7s,baz=126,slow=1.8,SNR=4.4						

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*CSEM **25** 13:24:52.7±0.1, 38.41N×39.21E, h5^{km}, MD3.2, Error ellipse: s-maj=1.6km s-min=1.2km az=153.0*

*ISK **25** 13:24:52.8, 38.41N×39.22E, h6^{km}, MD3.3*

*NEIC **25** 13:24:52.8, 38.41N×39.23E, h6^{km}, MD3.0(ISK), After ISK.*

*ISCJB **25** 13:24:53.1±0.5, 38.39N±0.03×39.24E±0.03, h9^{km}±5^{km}, Error ellipse: s-maj=4.8km s-min=4.0km az=164.8*

*DDA **25** 13:24:53.6, 38.33N×39.21E, h3^{km}, Md3.2*

ISC 25 13:24:53.6±0.5, 38.40N±0.03×39.24E±0.03, h8^{km}±5^{km}, n39, σ0^{s}94/59, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.22**	**297**	*i* P	**Pg**	**13 24 57.9**	**-0.2**
ELZG				*i* S	**Sg**	**13 25 02.5**	**+1.3**
PTK	**Pertek**	**0.51**	**14**	PG	**Pg**	**13 25 02.8**	**-0.7**
PTK				SG	**Sg**	**13 25 10.7**	**+0.5**
PTK	**Pertek**	**0.51**	**14**	Pg	**Pg**	**13 25 02.8**	**-0.7**
PTK				Sg	**Sg**	**13 25 10.8**	**+0.6**
PTK	**Pertek**	**0.51**	**14**	*e*Pg	**Pg**	**13 25 02.8**	**-0.7**
PTK				*e*Sg	**Sg**	**13 25 10.7**	**+0.5**
MALT	**Malatya**	**0.64**	**263**	PG	**Pg**	**13 25 05.0**	**-1.0**

MALT				SG	Sg	13 25 14.9	+0.6
MALT	Malatya	0.64	263	Pg	Pg	13 25 05.0	-0.9
MALT				Sg	Sg	13 25 14.1	-0.3
MALT	Malatya	0.64	263	Pg	Pg	13 25 05.1	-0.9
MALT				Sg	Sg	13 25 14.1	-0.2
MYA	Malataya	0.64	264	PG	Pg	13 25 05.5	-0.5
MYA				SG	Sg	13 25 14.9	+0.5
MYA	Malataya	0.64	264	Pg	Pg	13 25 05.5	-0.4
MYA				Sg	Sg	13 25 14.5	+0.2
MYA	Malataya	0.64	264	ePg	Pg	13 25 05.5	-0.5
MYA				Sg	Sg	13 25 14.5	+0.1
DIY	Diyarbakir	0.93	122	PG	Pg	13 25 10.5	-0.8
DIY				SG	Sg	13 25 25.3	+1.9
DIY	Diyarbakir	0.93	122	Pg	Pg	13 25 10.5	-0.8
DIY				Sg	Sg	13 25 25.5	+2.2
DIY	Diyarbakir	0.93	122	ePg	Pg	13 25 10.5	-0.8
DIY				eSg	Sg	13 25 25.3	+1.9
URFA	Urfa	1.01	199	PG	Pg	13 25 12.8	-0.1
URFA				SG	Sg	13 25 27.2	+1.2
URFA	Urfa	1.01	199	Pg	Pg	13 25 12.8	-0.1
URFA				Sg	Sg	13 25 27.9	+1.8
URFA	Urfa	1.01	199	ePg	Pg	13 25 12.8	-0.1
URFA				eSg	Sg	13 25 27.2	+1.2
BINT	Bingol	1.09	64	PN	Pn	13 25 14.2	-0.9
BINT	Bingol	1.09	64	Pn	Pn	13 25 14.3	-0.9
BINT	Bingol	1.09	64	Pn	Pn	13 25 14.3	-0.8
ATAB	Bozova	1.19	219	iP	Pg	13 25 14.3	-2.1
ATAB				iS	Sg	13 25 31.2	-0.6
EZC	Erzincan	1.42	18	Pn	Pn	13 25 18.7	-1.0
BNGL	BINGOL	1.60	69	iP	Pn	13 25 23.4	+1.3
BNGL				iS	Sn	13 25 49.6	+6.8
MARD	Mardin	1.63	131	iP	Pn	13 25 21.6	-0.9
MARD				iS	Sn	13 25 43.7	0.0
GZT	Gaziantep	1.68	232	iP	Pn	13 25 22.7	-0.6
GZT				iS	Sn	13 25 49.1	+4.1
BTMT	Batman	1.78	96	PN	Pn	13 25 23.5	-1.1
GAZ	Gaziantep	2.02	233	ePN	Pn	13 25 28.5	+0.6
GAZ	Gaziantep	2.02	233	Pn	Pn	13 25 28.6	+0.7
GAZ	Gaziantep	2.02	233	ePn	Pn	13 25 28.5	+0.6
EZM	Erzurum	2.24	47	ePN	Pn	13 25 30.9	0.0
EZM	Erzurum	2.24	47	Pn	Pn	13 25 30.9	0.0
SVSK	Karacayir	2.31	312	ePN	Pn	13 25 32.3	+0.4
SVSK	Karacayir	2.31	312	Pn	Pn	13 25 32.3	+0.4
SVSK	Karacayir	2.31	312	ePn	Pn	13 25 32.3	+0.4
SIRT	Sirnak	2.68	108	ePN	Pn	13 25 38.4	+1.4
SIRT	Sirnak	2.68	108	ePn	Pn	13 25 38.4	+1.4
BNN	Bunyan	2.70	281	ePN	Pn	13 25 37.9	+0.7
BNN	Bunyan	2.70	281	Pn	Pn	13 25 38.0	+0.8
BNN	Bunyan	2.70	281	ePn	Pn	13 25 37.9	+0.7
KOZT	Kozan	2.85	252	ePN	Pn	13 25 39.8	+0.5

IDC 25 13:30:02.2±10.0**,5177S**×**14504W,h0**^{km}**,mb4.1**/2**, mb1 4.4**/2**,mb1mx4.0**/12**,mbtmp4.1**/2**,MS3.7**/2**,Ms1 3.7**/2**, ms1mx3.2**/17**,Error ellipse: s-maj=1031.0km s-min=102.6km az=161.0,South Pacific Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	29.61	282	LR	LR	13 44 39.7	
	comp=Z,63nm,19.1s,baz=197,slow=30						
ASAR	Alice Springs	66.34	261	P	P	13 40 53.0	+0.4
	1.9nm,0.8s,baz=138,slow=7.1,SNR=18						
WRA	Warramunga Arr	68.84	264	P	P	13 41 08.2	-0.2
	2.7nm,0.8s,baz=142,slow=5.4,SNR=16						
FITZ	Fitzroy Crossi	75.58	259	LR	LR	14 11 26.4	
	comp=Z,82nm,18.3s,baz=79,slow=33						
MKAR	Makanchi Array	149.17	280	PKPbc	PKPbc	13 49 51.2	-0.3
	0.6nm,0.7s,baz=130,slow=3.5,SNR=5.7						

IDC 25 13:47:09.9±3.2**,246S**×**13995E,h0**^{km}**,mb3.6**/3**,mb1 4.0**/4**, mb1mx3.7**/13**,mbtmp3.8**/4**,ML3.7**/1**,Error ellipse: s-maj=100.4km s-min=27.3km az=91.0,Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	12.61	216	eP	Pn	13 50 11.3	+0.6
	13nm,0.5s						
WB2	Warramunga Arr	18.21	197	eP	Pn	13 51 24.2	-0.2
WRA	Warramunga Arr	18.22	197	P	Pn	13 51 23.4	-1.0
	0.3nm,0.3s,baz=20,slow=11,SNR=24						
WRA				S	Sn	13 54 42.3	-6.2
	0.1nm,0.3s,baz=17,slow=19,SNR=4.5						
FITZ	Fitzroy Crossi	20.94	221	eP	P	13 51 55.1	+0.6
	5.5nm,0.9s						
FITZ	Fitzroy Crossi	20.94	221	P	P	13 51 54.6	+0.1
	4.9nm,1.0s,baz=50,slow=12,SNR=6.4						
ASAR	Alice Springs	21.88	195	P	P	13 52 05.1	+0.6
	1.1nm,0.5s,baz=25,slow=11,SNR=30						
MKAR	Makanchi Array	70.36	322	P	P	13 58 25.8	+0.1
	0.2nm,0.5s,baz=102,slow=7.1,SNR=7.9						

ISCJB ***25*** *14:01:09.6±0.5, 3842N±003×3931E±003, h5^{km}±5^{km}, Error ellipse: s-maj=4.7km s-min=3.7km az=160.4*
CSEM ***25*** *14:01:09.3±0.1, 3843N×3929E, h7^{km}±1^{km}, MD3.3, Error ellipse: s-maj=2.3km s-min=1.5km az=157.0*
ISK ***25*** *14:01:09.4, 3842N×3930E, h8^{km}, MD3.3*
DDA ***25*** *14:01:11.1, 3837N×3929E, h3^{km}, Md3.4*
ISC 25 14:01:10.3±0.5**,3843N**±003×**3931E**±003**,h7**^{km}±4^{km}**,n35,** σ**0**^{s}**74**/49**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.26	286	iP	Pg	14 01 15.7	+0.2
PTK	Pertek	0.47	8	iPG	Pg	14 01 19.5	+0.1
PTK				iSG	Sg	14 01 26.6	+1.0
PTK	Pertek	0.47	8	iPg	Pg	14 01 19.5	+0.1
PTK				iSg	Sg	14 01 26.6	+1.0
MALT	Malatya	0.70	261	iPG	Pg	14 01 22.9	-0.9
MALT				iSG	Sg	14 01 32.4	-0.5
MALT	Malatya	0.70	261	iPg	Pg	14 01 22.9	-0.9
MALT				iSg	Sg	14 01 32.4	-0.5
MYA	Malataya	0.70	262	iPG	Pg	14 01 23.4	-0.4
MYA				iSG	Sg	14 01 33.4	+0.5
MYA	Malataya	0.70	262	iPg	Pg	14 01 23.4	-0.4
MYA				iSg	Sg	14 01 33.4	+0.5
DIY	Diyarbakir	0.90	126	PG	Pg	14 01 26.6	-0.9
DIY				SG	Sg	14 01 39.7	+0.5
DIY	Diyarbakir	0.90	126	ePg	Pg	14 01 26.6	-0.9
DIY				eSg	Sg	14 01 39.7	+0.5
BINT	Bingol	1.03	64	PG	Pg	14 01 29.5	-0.6
BINT	Bingol	1.03	64	ePg	Pg	14 01 29.5	-0.6
URFA	Urfa	1.05	202	PG	Pg	14 01 30.6	0.0
URFA				SG	Sg	14 01 44.7	+0.5
URFA	Urfa	1.05	202	ePg	Pg	14 01 30.6	0.0
URFA				eSg	Sg	14 01 44.7	+0.5
ATAB	Bozova	1.25	220	iP	Pn	14 01 33.4	-0.6
ATAB				iS	Sb	14 01 51.6	+1.3
EZC	Erzincan	1.38	17	PN	Pn	14 01 34.7	-1.2
BNGL	BINGOL	1.54	69	iP	Pn	14 01 39.6	+1.5
BNGL				iS	Sn	14 02 02.4	+4.1
MARD	Mardin	1.61	133	iP	Pn	14 01 38.4	-0.6
MARD				iS	Sn	14 01 59.2	-0.8
BTMT	Batman	1.73	97	PN	Pn	14 01 39.3	-1.5
GZT	Gaziantep	1.75	233	iP	Pn	14 01 40.8	-0.1
GZT				iS	Sn	14 02 03.5	+0.1
GUMT	Gumushane	2.04	4	ePN	Pn	14 01 45.0	0.0
GUMT	Gumushane	2.04	4	ePn	Pn	14 01 45.0	0.0
GAZ	Gaziantep	2.08	234	ePN	Pn	14 01 45.5	0.0
GAZ	Gaziantep	2.08	234	ePn	Pn	14 01 45.5	0.0
EZM	Erzurum	2.18	47	ePN	Pn	14 01 46.9	0.0
SVSK	Karacayir	2.33	310	ePN	Pn	14 01 48.4	-0.6
SVSK	Karacayir	2.33	310	ePn	Pn	14 01 48.4	-0.6
SIRT	Sirnak	2.64	109	ePN	Pn	14 01 54.2	+0.9
SIRT	Sirnak	2.64	109	ePn	Pn	14 01 54.2	+0.9
BNN	Bunyan	2.74	280	ePN	Pn	14 01 54.7	0.0
BNN	Bunyan	2.74	280	ePn	Pn	14 01 54.7	0.0
KOZT	Kozan	2.91	252	ePN	Pn	14 01 57.6	+0.6
AGRB	Hanur-Agry	3.09	67	ePN	Pn	14 02 00.3	+0.8
AGRB	Hanur-Agry	3.09	67	ePn	Pn	14 02 00.3	+0.8
CUKT	Cukurca	3.60	108	ePN	Pn	14 02 07.1	+0.6
CUKT	Cukurca	3.60	108	ePn	Pn	14 02 07.1	+0.6

BJI ***25*** *14:32:33.6, 6088N×16665E, h12^{km}, mB5.1, mb4.8, Ms4.8, Msz4.5*
KRSC ***25*** *14:32:33.9±1.7, 6086N×16659E, h14^{km}±26^{km}, ML4.6*
IDC ***25*** *14:32:34.1±0.5, 6082N×16654E, h0^{km}, mb4.4/22, mb1 4.6/22, mb1mx4.6/26, mbtmp4.4/22, MS3.9/8, Ms1 3.9/8, ms1mx3.5/51, Error ellipse: s-maj=17.7km s-min=11.9km az=161.0*
MOS ***25*** *14:32:35.2±0.9, 6089N×16663E, h17^{km}, mb5.0/26, MS4.2/9, Error ellipse: s-maj=11.3km s-min=5.9km az=87.3*
NEIC ***25*** *14:32:35.8±0.2, 6080N×16657E, h10^{km}, mb5.0/31, Error ellipse: s-maj=7.4km s-min=3.8km az=172.0*
ISCJB ***25*** *14:32:37.9±0.6, 6085N±003×16658E±006, h36^{km}±5^{km}, mb4.7/72, MS4.2/23, Error ellipse: s-maj=6.1km s-min=3.6km az=145.7*
ISC 25 14:32:40.7±0.5**,6082N**±003×**16662E**±005**,h45**^{km}±5^{km}**, h16**^{km}±5.0^{km}**:pP-P,n197,**σ**0**^{s}**91**/214**,mb4.7**/72**,MS4.2**/23**, 8C-2D,Eastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	5.04	205	PN	Pn	14 33 52.4	-1.2
KBTR	Krutoberegovo	5.04	205	eP	Pn	14 33 52.4	-1.2
KBTR				eS	Sn	14 34 50.5	+0.1
SRKR	Sorokina	5.05	217	eP	Pn	14 33 53.6	-0.1
KLY	Klyuchi	5.49	217	PN	Pn	14 33 59.0	-0.8
KLY	Klyuchi	5.49	217	eP	Pn	14 33 59.0	-0.8
KRSR	Krestovskiy	5.60	217	eP	Pn	14 34 00.8	-0.5
BZMR	Bezymyannaya	5.86	216	eP	Pn	14 34 06.3	+1.4
KIRR	Kirishev	5.89	217	eP	Pn	14 34 05.7	+0.4
KMNR	Kamenistaya	6.09	216	eP	Pn	14 34 09.6	+1.6
MKZ	Mys Kozlova	6.81	205	PN	Pn	14 34 16.7	-1.1
MKZ	Mys Kozlova	6.81	205	eP	Pn	14 34 16.7	-1.1
MKZ				eS	Sn	14 35 33.6	-0.3
BILL	Bilibino	7.25	359	ePn	Pn	14 34 22.8	-1.0
	80nm,0.8s						
BILL				eS	Sn	14 36 00.9	+16
BILL	Bilibino	7.25	359α	iPN	Pn	14 34 23.0	-0.8
BILL				pmax	pmax		
	comp=Z,16nm,1.0s						
BILL				MLR	MLR		
	comp=Z,2µm,14.0s						
BILL	Bilibino	7.25	359	eP	Pn	14 34 23.2	-0.6
BILL				eS	Sn	14 35 44.2	-0.4
MA2	Magadan	7.99	268	ePn	Pn	14 34 32.9	-1.1
	comp=Z,27nm,0.3s						
MA2	Magadan	7.99	268⇑	ePN	Pn	14 34 33.2	-0.8
MA2				pmax	pmax		
	comp=Z,5.0nm,0.5s						
MA2	Magadan	7.99	268	eP	Pn	14 34 33.1	-0.9
MA2				eS	Sn	14 36 02.2	-0.8
SPN	Mys Shipunski	8.54	208	eS	Sn	14 36 13.7	-2.6
GNL	Ganaly	8.55	217	eP	Pn	14 34 43.0	+1.4
AVH	Avacha	8.70	213	eP	Pn	14 34 45.4	+1.6
PET	Petropavlovsk	8.94	213	ePN	Pn	14 34 45.8	-1.2
PET				eS	Sn	14 36 29.9	+3.6
PET				pmax	pmax		
	comp=Z,427nm,1.2s						
PET				MLR	MLR		
	comp=Z,160nm,11.0s						
PET	Petropavlovsk	8.94	213	eP	Pn	14 34 48.4	+1.4
TNA	Tin City	12.38	57	P	Pn	14 35 34.8	+0.9
	comp=Z,6.7nm,0.9s						
OKH	Okha	14.70	251	eP	Pn	14 36 04.0	-1.4
YAK	Yakutsk	17.56	290	ePn	Pn	14 36 42.6	+0.9
	comp=Z,147nm,0.8s						
YAK	Yakutsk	17.56	290	eP	Pn	14 36 43.4	+1.7
YAK				pmax	pmax		
	comp=Z,151nm,0.9s						
YAK				pmax	pmax		
	comp=N,30nm,1.0s						
YAK				pmax	pmax		
	comp=E,93nm,1.3s						
YAK				MLR	MLR		
	comp=N,270nm,12.0s						
YAK				MLR	MLR		
	comp=Z,849nm,12.0s						
YAK				MLR	MLR		
	comp=E,892nm,14.0s						
TTA	Tatalina	17.58	67	eP	Pn	14 36 43.8	+1.8
SVW2	Sparrevohn	18.19	73	eP	Pn	14 36 50.1	+0.6
IMA2	Indian Mountai	18.25	56	eP	Pn	14 36 50.8	+0.7
TIXI	Tiksi	18.28	322	eP	Pn	14 36 51.7	+1.3
	comp=E,12nm,1.0s						
TIXI	Tiksi	18.28	322	eP	Pn	14 36 50.8	+0.4
TIXI				eS	S	14 40 17.7	+1.2
TIXI				pmax	pmax		
	comp=Z,15nm,1.1s						
TIXI				MLR	MLR		
	comp=Z,2µm,12.0s						
YSS	Yuzh-Sakhalins	19.60	236	iP	Pn	14 37 08.0	+1.5
YSS				MLR	MLR		
	comp=N,500nm,15.0s						
YSS				MLR	MLR		
	comp=Z,800nm,15.0s						
COLA	College	20.80	59	eP	P	14 37 17.9	+0.2
	comp=Z,31nm,1.0s						
COLA	College	20.80	59	eP	P	14 37 17.9	+0.2
COLA				pmax	pmax		
	comp=Z,31nm,1.0s						
KDAK	Kodiak Island	20.81	80	P	P	14 37 15.7	-2.1
	comp=Z,24nm,1.1s,baz=288,slow=3.2,SNR=3.5						
PMR	Palmer	21.03	68	eP	P	14 37 21.0	+0.8
	comp=Z,23nm,1.2s,mb4.4						
PMR	Palmer	21.03	68	eP	P	14 37 21.0	+0.9
PMR				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.4						
SML	Sawmill	21.32	68	eP	P	14 37 22.1	-1.2
CLNS	Chul'man	21.68	278	eP	P	14 37 27.4	+0.2
CLNS				e*PP		14 37 33.9	
CLNS				ePPP		14 37 56.8	
CLNS				eS	S	14 41 13.6	-11
CLNS				e		14 41 30.7	
CLNS				pmax	pmax		
	comp=Z,21nm,0.9s,mb4.6						
CLNS				pmax	pmax		
	comp=N,9.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,12nm,0.8s						
CLNS				smax			
	comp=N,76nm,11.8s						
CLNS				smax			
	comp=E,175nm,14.5s						
CLNS				MLR	MLR		
	comp=E,800nm,11.0s,MS4.4						
CLNS				MLR	MLR		
	comp=Z,1µm,11.0s,MS4.5						
CLNS				MLR	MLR		
	comp=N,100nm,12.0s,MS4.4						
HABR	Khabarovsk	21.80	250	eP	P	14 37 27.7	-0.8
HABR				e		14 37 48.1	
HABR				eS	S	14 41 29.7	+3.1
HABR				pmax	pmax		
	comp=Z,51nm,1.4s,mb4.8						
KLR	Kul'dur	22.80	255	eP	P	14 37 36.5	-2.6
MENT	Mentasta	23.04	63	eP	P	14 37 40.7	-0.8
EGAK	Eagle	23.62	58	eP	P	14 37 45.0	-2.1
	comp=Z,75nm,1.0s,mb5.1						
DAWY	Dawson	24.55	59	eP	P	14 37 54.7	-1.0
INK	Inuvik	25.75	48	eP	P	14 38 06.1	-0.5
	comp=Z,986nm,1.0s,mb6.3						
INK	Inuvik	25.75	48	P	P	14 38 06.1	-0.4
	comp=Z,13nm,0.6s,mb4.6,baz=301,slow=8.1,SNR=35						
INK				PcP	PcP	14 41 35.5	+0.5
	comp=Z,3.6nm,1.1s,baz=284,slow=4.8,SNR=3.1						
INK				LR	LR	14 51 05.3	
	comp=Z,230nm,19.1s,MS3.7,baz=71,slow=43						
MDJ	Mudanjiang	27.18	250	P	P	14 38 19.5	-0.1
MDJ				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.1						
MDJ				AMB	AMB		
	comp=Z,120nm,6.6s						
MDJ				LR	LR		
	comp=N,300nm,17.9s,MS4.0						
MDJ				LR	LR		
	comp=E,221nm,17.4s,MS4.0						
MDJ				LR	LR		
	comp=Z,216nm,15.3s,MS3.8						
CN2	Changchun	29.73	254	eP	P	14 38 43.0	+0.7
CN2				eS	S	14 43 32.5	-2.6
CN2				AMB	AMB		
	comp=Z,20nm,1.5s,mb4.6						
CN2				AMB	AMB		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,400nm,14.0s,MS4.3						
CN2				LR	LR		
	comp=E,300nm,14.0s,MS4.3						
CN2				LR	LR		
	comp=Z,500nm,15.0s,MS4.3						
MAT	Matsushiro	30.24	230	P	P	14 38 46.7	-0.2
MJAR	Matsushiro Arr	30.24	230	P	P	14 38 45.8	-1.1
	comp=Z,7.8nm,0.9s,mb4.4,baz=22,slow=7.7,SNR=15						
MJAR				LR	LR	14 50 54.3	
	comp=Z,289nm,21.2s,MS3.9,baz=85,slow=36						
KSRS	Korea Array	33.67	244	P	P	14 39 15.8	-1.2
	comp=Z,4.1nm,0.9s,mb4.4,baz=26,slow=8.9,SNR=9.4						
KSRS				PcP	PcP	14 41 55.5	-0.3
	comp=Z,0.8nm,0.7s,baz=35,slow=4.5,SNR=5.1						
KSRS				LR	LR	14 54 29.4	
	comp=Z,117nm,20.8s,MS3.6,baz=194,slow=39						
TLY	Talaya	34.84	284	eP	P	14 39 27.0	+0.2
	comp=Z,8.5nm,0.8s,mb4.7						
TLY	Talaya	34.84	284	eP	P	14 39 27.1	+0.2
TLY				pmax	pmax		
	comp=Z,23nm,1.6s,mb4.9						
TLY				MLR	MLR		
	comp=Z,265nm,12.0s,MS4.2						
YKA	Yellowknife Ar	35.28	52	P	P	14 39 30.5	-0.1
YKA				PcP	PcP	14 42 00.1	+0.1
YKA				LR	LR	14 56 08.1	
YKA	Yellowknife Ar	35.28	52	P	P	14 39 30.5	-0.1
YKA						14 42 00.1	
YKA	Yellowknife Ar	35.28	52	P	P	14 39 30.5	-0.1
	comp=Z,8.4nm,0.7s,mb4.8,baz=304,slow=8.4,SNR=110						
YKA				PcP	PcP	14 42 00.1	+0.1
	comp=Z,2.2nm,1.1s,baz=300,slow=2.4,SNR=6.8						
YKA				LR	LR	14 56 08.1	
	comp=Z,127nm,18.9s,MS3.7,baz=220,slow=40						
ZAK	Zakamensk	35.86	282	eP	P	14 39 36.5	+0.8
ZAK				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.3						
SONM	Songino Array	36.09	277	P	P	14 39 37.6	0.0
	comp=Z,4.7nm,1.1s,mb4.3,baz=46,slow=8.3,SNR=11						
MOY	Mondy	36.10	286	eP	P	14 39 39.0	+1.3
MOY				pmax	pmax		
	comp=Z,69nm,1.0s,mb5.5						
BJI	Beijing	37.04	259	P	P	14 39 46.3	+0.4
BJI				PCP	PcP	14 42 06.5	+0.8
BJI				S	S	14 45 23.5	-4.8
BJI				AMB	AMB		
	comp=Z,17nm,1.1s,mb4.8						
BJI				LR	LR		
	comp=N,396nm,13.2s,MS4.6						
BJI				LR	LR		
	comp=E,481nm,11.7s,MS4.6						
BJT	Baijiatuau	37.06	259	eP	P	14 39 45.8	-0.3
	comp=E,4.5nm,0.6s,mb4.5						
BJT				e		14 39 51.4	
BJT	Baijiatuau	37.06	259	eP	P	14 39 45.8	-0.3
BJT				e		14 39 51.4	
BJT				pmax	pmax		
	comp=Z,5.0nm,0.6s						
HHC	Hu-ho-hao-te	38.66	265	eP	P	14 39 59.5	0.0
HHC				AP	pP	14 40 10.5	-1.1
HHC				S	S	14 46 02.0	+9.3
HHC				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.4						
HHC				LR	LR		
	comp=N,392nm,16.6s,MS4.4						
HHC				LR	LR		
	comp=E,287nm,16.6s,MS4.4						
HHC				LR	LR		
	comp=Z,412nm,16.6s,MS4.3						
SPB4	Spitsbergen Ar	40.07	351	eP	P	14 40 11.2	+0.3
EDM	Edmonton	41.63	63	eP	P	14 40 24.6	+0.7
ZALV	Zalesovo Beam	41.89	299	P	P	14 40 25.8	-0.2
	comp=Z,0.8nm,0.5s,mb3.6,baz=44,slow=8.7,SNR=6.1						
ZALV				PP	PP	14 42 07.1	+3.8
	comp=Z,2.4nm,1.0s,baz=54,slow=7.5,SNR=4.4						
ZALV				LR	LR	14 59 44.3	
	comp=Z,181nm,18.6s,MS4.0,baz=163,slow=39						
ZAL	Zalesovo	41.91	299	P	P	14 40 25.8	-0.4
ZAL						14 42 07.1	
NVS	Novosibirsk	41.95	301⇑	iP	P	14 40 25.1	-1.4
NVS				i		14 42 08.4	
NVS				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.5						
NVS				pmax	pmax		
	comp=N,16nm,1.7s						
NJ2	Nanjing	42.26	249	eP	P	14 40 30.5	+1.2
NJ2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,80nm,5.6s						
NJ2				LR	LR		
	comp=N,1µm,22.9s,MS4.7						
NJ2				LR	LR		
	comp=E,460nm,23.2s,MS4.7						
NJ2				LR	LR		
	comp=Z,450nm,23.1s,MS4.3						
DAG	Danmarks Havn	42.62	2⇓	eP	P	14 40 32.7	+1.0
DAG				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
DAG	Danmarks Havn	42.62	2⇓	iP	P	14 40 32.7	+1.0
	comp=Z,5.5nm,0.7s,mb4.4						
FCC	Fort Churchill	45.36	46	eP	P	14 40 53.1	-0.8
	comp=Z,28nm,0.8s,mb5.1						
FCC	Fort Churchill	45.36	46	eP	P	14 40 53.1	-0.7
FCC				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.1						
GTA	Gaotai	45.51	274	P	P	14 40 56.0	+0.7
GTA				AP	pP	14 41 01.5	-6.1
GTA				XP	sP	14 41 04.3	-8.6
GTA				PP	PP	14 42 43.0	+0.8
GTA				PPP		14 43 24.5	
GTA				S	S	14 47 35.5	+1.7
GTA				XS	sS	14 47 45.5	-8.8
GTA				SS	SS	14 50 50.3	-7.3
GTA				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.7						
GTA				AMB	AMB		
	comp=Z,103nm,6.2s						
GTA				LR	LR		
	comp=N,406nm,15.0s,MS4.5						
GTA				LR	LR		
	comp=E,164nm,16.2s,MS4.5						
GTA				LR	LR		
	comp=Z,426nm,15.1s,MS4.5						
WHN	Wuhan	45.61	253	P	P	14 40 56.5	+0.3
LZH	Lanzhou	46.15	267	eP	P	14 41 00.8	+0.4
LZH				AP	pP	14 41 06.5	-6.2
LZH				XP	sP	14 41 10.0	-7.9
LZH				PP	PP	14 42 49.0	0.0
LZH				eS	S	14 47 42.0	-1.0
LZH				SS	SS	14 50 59.0	-9.1
LZH				AMB	AMB		
	comp=Z,38nm,1.0s,mb5.3						
LZH				AMB	AMB		
	comp=Z,120nm,4.4s						
LZH				LR	LR		
	comp=E,610nm,13.3s						
LZH				LR	LR		
	comp=Z,966nm,14.2s,MS4.9						
LZH	Lanzhou	46.15	267	eP	P	14 41 00.8	+0.4
	comp=Z,38nm,1.0s,mb5.3						
LZH				pP	pP	14 41 06.5	-6.2
LZH				sP	sP	14 41 10.0	-7.9
LZH				PP	PP	14 42 49.0	0.0
LZH				eS	S	14 47 42.0	-1.0
LZH				sS	sS	14 48 02.0	-1.5
LZH				SS	SS	14 50 59.0	-9.1
LZH				LR	LR		
	comp=Z,970nm,14.2s,MS4.9						
LZH	Lanzhou	46.15	267	eP	P	14 41 00.8	+0.4
LZH				*PP	pP	14 41 06.5	-6.2
LZH				*SP	sP	14 41 10.0	-7.9
LZH						14 42 49.0	
LZH				eS	S	14 47 42.0	-1.0
LZH				*SS	sS	14 48 02.0	-1.5
LZH				SS	SS	14 50 59.0	-9.1
LZH				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
LZH				MLR	MLR		
	comp=Z,970nm,14.2s,MS4.9						
KEV	Kevo	46.59	342	ep	P	14 41 02.2	-1.2
KURK	Kurchatov	46.86	299	eP	P	14 41 05.6	-0.2
	comp=Z,60nm,1.4s,mb5.3						
KURK	Kurchatov	46.86	299	eP	P	14 41 05.6	-0.2
KURK				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.3						
EGMT	Eagleton	46.95	66	eP	P	14 41 06.4	-0.1

	comp=Z,20nm,0.9s,mb5.0						
ARCES	**ARCESS Array B**	**47.01**	**342**	P	**P**	**14 41 06.1**	**-0.6**
	comp=Z,1.7nm,0.3s,mb4.4,baz=32,slow=8.3,SNR=48						
ARCES				LR	LR	15 05 26.1	
	comp=Z,172nm,18.3s,MS4.0,baz=9.5,slow=42						
MCMT	**McKenzie Canyo**	**47.95**	**71**	*e*P	**P**	**14 41 14.3**	**0.0**
WMQ	**Urumqi**	**47.96**	**287**	P	**P**	**14 41 16.0**	**+1.6**
WMQ				AP	pP	14 41 20.5	-6.3
WMQ				XP	sP	14 41 23.0	-9.0
WMQ				PP	PP	14 43 07.5	+1.1
WMQ				AMB	AMB		
	comp=Z,12nm,0.8s,mb5.0						
WMQ				LR	LR		
	comp=N,143nm,21.0s,MS4.1						
WMQ				LR	LR		
	comp=E,148nm,20.0s,MS4.1						
WMQ				LR	LR		
	comp=Z,103nm,17.6s,MS3.9						
MK31	**Makanchi Array**	**48.19**	**293**	*e*P	**P**	**14 41 15.2**	**-0.9**
MKAR	**Makanchi Array**	**48.19**	**293**	P	**P**	**14 41 15.4**	**-0.7**
MKAR						14 43 09.3	
MKAR	**Makanchi Array**	**48.19**	**293**	P	**P**	**14 41 15.3**	**-0.8**
	comp=Z,1.6nm,0.4s,mb4.4,baz=45,slow=6.9,SNR=27						
MKAR				PP	PP	14 43 09.3	+0.9
	comp=Z,1.4nm,0.7s,baz=56,slow=11,SNR=3.7						
MKAR				LR	LR	15 03 12.9	
	comp=Z,128nm,20.2s,MS3.9,baz=201,slow=38						
BRVK	**Borovoye**	**48.52**	**307**	*e*P	**P**	**14 41 18.6**	**0.0**
	comp=Z,7.8nm,0.8s,mb4.8						
BRVK	**Borovoye**	**48.52**	**307**	*e*P	**P**	**14 41 18.6**	**0.0**
BRVK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
QLMT	**Earthquake Lak**	**48.60**	**70**	*e*P	**P**	**14 41 20.4**	**+1.0**
GCMT	**Greycliff**	**48.68**	**68**	*e*P	**P**	**14 41 21.0**	**+1.1**
DGMT	**Dagmar**	**49.06**	**62**	*e*P	**P**	**14 41 22.9**	**+0.1**
	comp=Z,16nm,0.7s,mb5.2						
ARU	**Arti**	**50.17**	**317**	*e*P	**P**	**14 41 31.1**	**-0.1**
	comp=Z,1.8nm,0.8s,mb4.2						
ARU				*e*		14 41 36.3	
ARU	**Arti**	**50.17**	**317**	⇑*e*P	**P**	**14 41 30.5**	**-0.6**
ARU				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.4						
NVAR	**Mina Array Bea**	**50.31**	**80**	P	**P**	**14 41 32.9**	**+0.4**
	comp=Z,1.5nm,0.5s,mb4.2,baz=310,slow=5.4,SNR=4.8						
PDAR	**Pinedale Array**	**51.06**	**70**	P	**P**	**14 41 38.6**	**+0.6**
	comp=Z,7.6nm,1.0s,mb4.6,baz=316,slow=3.3,SNR=32						
ULM	**Lac du Bonnet**	**51.15**	**55**	P	**P**	**14 41 38.6**	**0.0**
	comp=Z,8.3nm,0.8s,mb4.7,baz=316,slow=8.5,SNR=15						
JOF	**Joensuu**	**52.00**	**336**	*e*p	**P**	**14 41 43.6**	**-1.2**
GYA	**Guiyang**	**52.68**	**257**	⇑*i*P	**P**	**14 41 52.8**	**+2.5**
GYA				PCP	PcP	14 43 02.8	+3.2
GYA				PP	PP	14 43 53.0	+3.5
GYA				PPP		14 44 58.3	
GYA				SCP	ScP	14 46 55.0	+2.2
GYA				PCS	PcS	14 46 59.5	+1.2
GYA				S	**S**	**14 49 15.0**	**+0.4**
GYA				SCS	ScS	14 51 35.8	-0.1
GYA				SS	SS	14 52 52.3	-0.7
GYA				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
GYA				AMB	AMB		
	comp=Z,100nm,4.9s						
GYA				LR	LR		
	comp=N,480nm,19.6s,MS4.7						
GYA				LR	LR		
	comp=E,440nm,19.9s,MS4.7						
GYA				LR	LR		
	comp=Z,510nm,20.0s,MS4.6						
MSU	**Marysvale**	**53.18**	**76**	*e*P	**P**	**14 41 53.5**	**-0.3**
KAF	**Kangasniemi**	**53.70**	**338**	*e*p	**P**	**14 41 56.0**	**-1.3**
	comp=Z,3.2nm,0.5s,mb4.5,baz=25,slow=7.3						
KAF	**Kangasniemi**	**53.70**	**338**	*e*P	**P**	**14 41 56.0**	**-1.3**
KAF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
FINES	**FINESS Array B**	**54.36**	**338**	P	**P**	**14 42 01.1**	**-1.0**
	comp=Z,5.0nm,1.0s,mb4.4,baz=23,slow=8.5,SNR=17						
FINES				LR	LR	15 09 20.1	
	comp=Z,99nm,20.3s,MS3.9,baz=8.7,slow=41						
USP	**Ospenovka**	**54.40**	**296**	P	**P**	**14 42 03.4**	**+0.7**
	SNR=9.1						
KBK	**Karagaybulak**	**54.69**	**295**	P	**P**	**14 42 05.8**	**+1.0**
	SNR=5.3						
PV10	**Paradox Valley**	**54.77**	**73**	*e*P	**P**	**14 42 06.5**	**+1.1**
AAK	**Ala-Archa**	**54.91**	**296**	P	**P**	**14 42 07.1**	**+0.7**
	SNR=9.9						
AAK	**Ala-Archa**	**54.91**	**296**	*e*P	**P**	**14 42 05.8**	**-0.6**
	comp=Z,9.0nm,1.0s,mb4.8						
AAK				*e*		14 42 11.2	
AAK	**Ala-Archa**	**54.91**	**296**	⇑*e*P	**P**	**14 42 06.0**	**-0.4**
AAK				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
KZA	**Kyzart**	**55.02**	**295**	P	**P**	**14 42 08.5**	**+1.3**
	SNR=5.8						
PV01	**Paradox Valley**	**55.18**	**73**	*e*P	**P**	**14 42 08.9**	**+0.5**
EKS2	**Erkin-Say**	**55.20**	**296**	P	**P**	**14 42 09.4**	**+0.9**
	SNR=8.9						
KMI	**Kunming**	**55.69**	**260**	P	**P**	**14 42 12.5**	**+0.3**
KMI				AP	pP	14 42 18.0	-6.8
KMI				XP	sP	14 42 20.5	-9.5
KMI				PCP	PcP	14 43 16.5	+5.4
KMI				PP	PP	14 44 18.0	+1.4
KMI				PPP		14 45 26.5	
KMI				S	**S**	**14 49 55.0**	**-0.2**
KMI				XS	sS	14 50 04.5	-12
KMI				SS	SS	14 53 39.5	-1.0
KMI				SSS		14 55 45.8	
KMI				AMB	AMB		
	comp=Z,15nm,1.0s,mb5.0						
KMI				AMB	AMB		
	comp=Z,118nm,5.6s						
KMI				LR	LR		
	comp=N,158nm,15.6s,MS4.2						
KMI				LR	LR		
	comp=E,89nm,17.9s,MS4.2						
KMI				LR	LR		
	comp=Z,184nm,17.9s,MS4.2						
KMI	**Kunming**	**55.69**	**260**	P	**P**	**14 42 12.6**	**+0.4**
	comp=Z,15nm,1.0s,mb5.0						
KMI				pP	pP	14 42 18.1	-6.7
KMI				sP	sP	14 42 20.5	-9.5
KMI				PcP	PcP	14 43 16.4	+5.3
KMI				PP	PP	14 44 18.0	+1.4
KMI				PPP		14 45 26.5	
KMI				S	**S**	**14 49 55.1**	**-0.1**
KMI				sS	sS	14 50 04.4	-12
KMI				SS	SS	14 53 39.4	-1.1
KMI				SSS		14 55 45.7	
KMI				LR	LR		
	comp=Z,180nm,17.9s,MS4.2						
KMI	**Kunming**	**55.69**	**260**	P	**P**	**14 42 12.6**	**+0.4**
KMI				*PP	pP	14 42 18.1	-6.7
KMI				*SP	sP	14 42 20.5	-9.5
KMI						14 43 16.4	
KMI						14 44 18.0	
KMI				PPP		14 45 26.5	
KMI				S	**S**	**14 49 55.1**	**-0.1**
KMI				*SS	sS	14 50 04.4	-12
KMI				SS	SS	14 53 39.4	-1.1
KMI				SSS		14 55 45.7	
KMI				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
KMI				MLR	MLR		
	comp=Z,180nm,17.9s,MS4.2						
SDCO	**Great Sand Dun**	**56.93**	**71**	*e*P	**P**	**14 42 22.0**	**+1.1**
	comp=Z,14nm,1.4s,mb4.8						
NB2	**NORSAR Subarra**	**57.00**	**346**	P	**P**	**14 42 20.6**	**-0.4**
	comp=Z,5.1nm,0.5s,mb4.8,baz=15,slow=7.4						
NOA	**NORSAR Array B**	**57.00**	**346**	P	**P**	**14 42 21.0**	**0.0**
	comp=Z,4.9nm,0.6s,mb4.8,baz=14,slow=7.3,SNR=10.0						
SCHQ	**Schefferville**	**57.17**	**34**	P	**P**	**14 42 21.8**	**-0.5**
	comp=Z,7.7nm,0.6s,mb4.9,baz=338,slow=7.4,SNR=19						
LSA	**Lhasa**	**57.54**	**273**	P	**P**	**14 42 25.3**	**0.0**
LSA	**Lhasa**	**57.54**	**273**	*e*P	**P**	**14 42 26.6**	**+1.3**
	comp=Z,10nm,0.8s,mb4.9						
LSA				*e*		14 42 31.4	
LSA	**Lhasa**	**57.54**	**273**	*e*P	**P**	**14 42 26.6**	**+1.3**
LSA				*e*		14 42 31.4	
LSA				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
QIZ	**Qiongzhong**	**57.55**	**250**	P	**P**	**14 42 25.8**	**+0.3**
QIZ				*e*S	**S**	**14 50 20.0**	**+0.2**
QIZ				AMB	AMB		
	comp=Z,115nm,3.9s						
QIZ				LR	LR		
	comp=N,133nm,17.2s,MS4.4						
QIZ				LR	LR		
	comp=E,208nm,16.0s,MS4.4						
QIZ				LR	LR		
	comp=Z,220nm,14.8s,MS4.4						
OBN	**Obninsk**	**57.84**	**329**	P	**P**	**14 42 28.0**	**+1.0**
OBN				*e*		14 42 32.7	
OBN				MLR	MLR		
	comp=Z,300nm,16.0s,MS4.5						
ANMO	**Albuquerque**	**58.76**	**74**	*e*P	**P**	**14 42 34.7**	**+1.0**
	comp=Z,3.5nm,1.2s,mb4.3						
ANMO	**Albuquerque**	**58.76**	**74**	*e*P	**P**	**14 42 34.7**	**+1.0**
ANMO				pmax	pmax		
	comp=Z,3.0nm,1.2s						
KSU1	**Kansas State U**	**59.83**	**63**	*e*P	**P**	**14 42 39.3**	**-1.8**
	comp=Z,14nm,0.8s,mb5.0						
TAPN	**Taplejung**	**61.17**	**275**	*e*P	**P**	**14 42 49.9**	**-0.5**
	comp=Z,66nm,1.6s,mb5.5						
TAPN	**Taplejung**	**61.17**	**275**	*e*P	**P**	**14 42 50.1**	**-0.3**
	comp=Z,66nm,1.6s,mb5.5						
JIRN	**Jiri**	**61.65**	**276**	*e*P	**P**	**14 42 52.2**	**-1.4**
	comp=Z,38nm,1.4s,mb5.3						
JIRN	**Jiri**	**61.65**	**276**	*e*P	**P**	**14 42 54.1**	**+0.5**
	comp=Z,38nm,1.4s,mb5.3						
ODAN	**Odare**	**61.73**	**275**	*e*P	**P**	**14 42 52.8**	**-1.4**
	comp=Z,19nm,0.8s,mb5.3						
ODAN	**Odare**	**61.73**	**275**	*e*P	**P**	**14 42 54.6**	**+0.4**
	comp=Z,19nm,0.8s,mb5.3						
KKN	**Kakani**	**61.99**	**277**	*e*P	**P**	**14 42 54.0**	**-1.9**
	comp=Z,39nm,1.3s,mb5.4						
KKN	**Kakani**	**61.99**	**277**	*e*P	**P**	**14 42 55.0**	**-0.9**
	comp=Z,39nm,1.3s,mb5.4						
GKN	**Gorkha**	**62.12**	**278**	*e*P	**P**	**14 42 54.3**	**-2.5**
	comp=Z,48nm,1.2s,mb5.5						
GKN	**Gorkha**	**62.12**	**278**	*e*P	**P**	**14 42 56.6**	**-0.2**
	comp=Z,48nm,1.2s,mb5.5						
WMOK	**Wichita Mounta**	**62.48**	**68**	*e*P	**P**	**14 42 59.6**	**+0.5**
	comp=Z,24nm,1.2s,mb5.2						
WMOK	**Wichita Mounta**	**62.48**	**68**	*e*P	**P**	**14 42 59.6**	**+0.5**
WMOK				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.2						
CHG	**Chiang Mai**	**62.88**	**260**	⇑P	**P**	**14 43 02.0**	**+0.1**
	comp=Z,17nm,1.5s,mb5.0						
CHTO	**Chiang Mai**	**62.88**	**260**	*e*P	**P**	**14 43 01.9**	**-0.1**
	comp=Z,12nm,0.9s,mb5.0						
CHTO				*e*		14 43 07.2	
CHTO	**Chiang Mai**	**62.88**	**260**	*e*P	**P**	**14 43 01.9**	**0.0**
CHTO				*e*		14 43 07.2	
CHTO				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.0						
KKTK	**Khon Kaen**	**63.16**	**255**	P	**P**	**14 43 04.0**	**+0.2**
MSNY	**Massena**	**63.37**	**44**	*e*P	**P**	**14 43 03.6**	**-1.2**
FVM	**French Village**	**63.42**	**59**	*e*P	**P**	**14 43 04.5**	**-0.8**
	comp=Z,17nm,0.8s,mb5.2						
FVM	**French Village**	**63.42**	**59**	*e*P	**P**	**14 43 04.5**	**-0.8**
FVM				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.2						
AKASG	**Malin Array Be**	**63.68**	**331**	P	**P**	**14 43 06.1**	**-0.6**
	comp=Z,2.1nm,0.5s,mb4.5,baz=23,slow=7.3,SNR=7.7						
TXAR	**Lajitas Array**	**64.72**	**75**	P	**P**	**14 43 14.4**	**+0.4**
	comp=Z,2.2nm,1.0s,mb4.1,baz=316,slow=5.2,SNR=13						
KIV	**Kislovodsk**	**66.08**	**319**	*e*P	**P**	**14 43 23.8**	**+1.3**
KIV				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
OJC	**Ojcow**	**66.13**	**337**	*e*P	**P**	**14 43 23.2**	**+0.5**
CLL	**Collm**	**66.23**	**342**	*i* P	**P**	**14 43 22.8**	**-0.5**
	comp=Z,20nm,1.6s,mb4.9						
CLL				*i* pP	pP	14 43 38.3	+2.1
CLL	**Collm**	**66.23**	**342**	*i* P	**P**	**14 43 22.8**	**-0.5**
CLL				pmax	pmax		
	comp=Z,20nm,1.6s,mb4.9						
CLL	**Collm**	**66.23**	**342**	*i* P	**P**	**14 43 22.8**	**-0.5**
	comp=Z,20nm,1.6s,mb4.9						
CLL				*i* x	x	14 43 38.3	
CLL				*e*PP	PP	14 45 51.0	+2.2
ZEI	**Tsey**	**66.75**	**318**	*e*P	**P**	**14 43 26.6**	**-0.2**
ZEI				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
ANN	**Anapa**	**66.94**	**323**	*e*P	**P**	**14 43 29.9**	**+1.9**
ANN				pmax	pmax		
	comp=Z,57nm,1.4s,mb5.4						
SOC	**Sochi**	**67.35**	**321**	*e*P	**P**	**14 43 30.4**	**-0.2**
SOC				*e*		14 46 05.0	
SOC				*e*PPP		14 47 34.0	
SOC				*e*S	S	14 52 24.2	+1.8
SOC				*e*SS	SS	14 56 39.6	-2.2
SOC				MLR	MLR		
	comp=Z,177nm,14.0s,MS4.4						
MEM	**Membach**	**67.83**	**347**	P	**P**	**14 43 34.0**	**+0.5**
	comp=Z,7.3nm,1.4s,mb4.5						
BCLA	**Clavier**	**68.10**	**347**	P	**P**	**14 43 35.4**	**+0.2**
GIVF	**Givet**	**68.46**	**348**	*e*P	**P**	**14 43 37.1**	**-0.4**
DOU	**Dourbes**	**68.49**	**348**	P	**P**	**14 43 37.3**	**-0.3**
GERES	**GERESS Array B**	**68.52**	**341**	P	**P**	**14 43 37.6**	**-0.2**
	comp=Z,1.0nm,0.5s,mb4.0,baz=29,slow=6.1,SNR=6.2						
BAIF	**Baives**	**68.57**	**348**	*e*P	**P**	**14 43 38.1**	**0.0**
CDF	**Champ du Feu**	**69.85**	**345**	*e*P	**P**	**14 43 45.9**	**-0.2**
HAU	**Haudompre**	**70.36**	**346**	*e*P	**P**	**14 43 48.9**	**-0.3**
LDF	**La Druitiere**	**70.41**	**351**	*e*P	**P**	**14 43 49.0**	**-0.5**
	comp=Z,30nm,1.1s,mb4.8						
LDF	**La Druitiere**	**70.41**	**351**	*e*P	**P**	**14 43 49.0**	**-0.5**
	comp=Z,15nm,1.1s,mb4.8						
LDF	**La Druitiere**	**70.41**	**351**	*e*P	**P**	**14 43 49.0**	**-0.5**
LDF				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
LOR	**Lormes**	**71.36**	**348**	*e*P	**P**	**14 43 54.9**	**-0.4**
	comp=Z,15nm,0.8s,mb4.7						
LOR	**Lormes**	**71.36**	**348**	*e*P	**P**	**14 43 54.9**	**-0.4**
	comp=Z,7.7nm,0.8s,mb4.7						
LOR	**Lormes**	**71.36**	**348**	*e*P	**P**	**14 43 54.9**	**-0.4**
LOR				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
SSF	**Saint Saulge**	**71.60**	**348**	*e*P	**P**	**14 43 56.4**	**-0.4**
AVF	**Avril sur Loir**	**71.89**	**348**	*e*P	**P**	**14 43 58.3**	**-0.2**
	comp=Z,36nm,1.2s,mb4.9						
AVF	**Avril sur Loir**	**71.89**	**348**	*e*P	**P**	**14 43 58.3**	**-0.2**
	comp=Z,18nm,1.2s,mb4.9						
AVF	**Avril sur Loir**	**71.89**	**348**	*e*P	**P**	**14 43 58.3**	**-0.2**
AVF				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
SMF	**Signal de Mont**	**71.98**	**348**	*e*P	**P**	**14 43 58.6**	**-0.4**
TCF	**Toulx Ste Croi**	**72.50**	**349**	*e*P	**P**	**14 44 01.9**	**-0.2**
BRTR	**Keskin Array B**	**72.71**	**324**	P	**P**	**14 44 04.2**	**+0.8**
	comp=Z,1.4nm,0.7s,mb4.0,baz=21,slow=3.2,SNR=5.8						
LPL	**La Plagne**	**72.76**	**345**	*e*P	**P**	**14 44 03.5**	**-0.2**
LPG	**La Plagne**	**72.78**	**345**	*e*P	**P**	**14 44 03.8**	**0.0**
	comp=Z,20nm,1.1s,mb4.6						
LPG	**La Plagne**	**72.78**	**345**	*e*P	**P**	**14 44 03.8**	**0.0**
	comp=Z,9.8nm,1.1s,mb4.7						
LPG	**La Plagne**	**72.78**	**345**	*e*P	**P**	**14 44 03.8**	**0.0**
LPG				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
CAF	**Calviac**	**73.86**	**349**	*e*P	**P**	**14 44 09.5**	**-0.7**
	comp=Z,102nm,1.4s,mb5.2						
CAF	**Calviac**	**73.86**	**349**	*e*P	**P**	**14 44 09.5**	**-0.7**
	comp=Z,51nm,1.4s,mb5.3						
CAF	**Calviac**	**73.86**	**349**	*e*P	**P**	**14 44 09.5**	**-0.7**
CAF				pmax	pmax		
	comp=Z,51nm,1.4s,mb5.3						
HYB	**Hyderabad**	**74.03**	**277**	*e*P	**P**	**14 44 11.0**	**-0.5**
HYB	**Hyderabad**	**74.03**	**277**	*i* P	**P**	**14 44 11.0**	**-0.5**
HYB				*e*sP	pP	14 44 16.5	-8.1
MTLF	**Montolieu**	**75.42**	**348**	*e*P	**P**	**14 44 19.7**	**+0.5**
ESDC	**Sonseca Array**	**79.56**	**353**	P	**P**	**14 44 42.2**	**-0.2**
	comp=Z,3.2nm,0.8s,mb4.3,baz=1.5,slow=5.4,SNR=17						
WB2	**Warramunga Arr**	**84.59**	**210**	*e*P	**P**	**14 45 08.4**	**-0.4**
WRA	**Warramunga Arr**	**84.59**	**210**	P	**P**	**14 45 08.6**	**-0.2**
	comp=Z,4.2nm,1.0s,mb4.5,baz=14,slow=5.5,SNR=18						
FITZ	**Fitzroy Crossi**	**85.26**	**219**	*e*P	**P**	**14 45 12.3**	**+0.1**
	comp=Z,7.7nm,1.0s,mb4.8						
ASAR	**Alice Springs**	**88.28**	**210**	P	**P**	**14 45 26.4**	**-0.4**
	comp=Z,1.0nm,0.8s,mb4.1,baz=15,slow=4.4,SNR=7.7						
MAW	**Mawson**	**148.19**	**225**	*e*PKPbc	PKPbc	14 52 20.3	+0.5
MAW	**Mawson**	**148.19**	**225**	*e*PKP2	PKPbc	14 52 20.3	+0.5
MAW	**Mawson**	**148.19**	**225**	PKPbc	PKPbc	14 52 20.5	+0.7
	comp=Z,8.0nm,1.0s,baz=117,slow=5.7,SNR=4.7						
QSPA	**South Pole Qui**	**150.59**	**180**	*e*PKPbc	PKPbc	14 52 25.1	-0.3

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*BYKL **25** 14:36:45.1±0.3, 5435N×11726E, h14^{km}±10^{km}*

MOS 25 14:36:45.0±1.8**, 5439N×11721E, h14**^{km}**, mb4.4/**1**,4C,**

Error ellipse: s-maj=13.5km s-min=12.2km az=38.5,

East of Lake Baykal

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TUP	**Tupik**	**1.60**	**88**	*e*PN	Pn	14 37 13.9	+1.0
TUP				*e*		14 37 34.8	
TUP				pmax	pmax		
	comp=Z,83nm,0.3s						
TUP				smax			
	comp=N,2µm,0.5s						
TUP	**Tupik**	**1.60**	**88**	*e*Pg	Pg	14 37 13.6	-2.2
TUP				*e*Sg	Sg	14 37 34.8	-1.8
TUP				Pmax			
	comp=N,54nm,0.1s						
TUP				Smax			
	comp=N,2µm,0.5s						
NLYR	**Nelyaty**	**2.27**	**338**	*e*Pg	Pg	14 37 26.5	-2.1
NLYR				*e*Sg	Sg	14 37 57.6	-0.4
UKT	**Uakit**	**2.34**	**300**	*e*PN	Pn	14 37 27.5	+4.5
UKT				*e*		14 37 59.2	
UKT				pmax	pmax		
	comp=Z,45nm,0.5s						
UKT				smax			
	comp=E,185nm,0.5s						
UKT	**Uakit**	**2.34**	**300**	⇑*i*Pn	Pn	14 37 24.5	+1.5
UKT				*e*Pg	Pg	14 37 27.6	-2.3
UKT				*e*Sg	Sg	14 37 59.3	-0.9
UKT				*e*SgSg		14 38 03.7	
UKT				Pmax			
	comp=E,43nm,0.3s						
UKT				Smax			
	comp=E,185nm,0.4s						
CRS	**Chara**	**2.59**	**13**	*e*PN	Pn	14 37 31.9	+5.5
CRS				*e*		14 38 06.5	
CRS				pmax	pmax		
	comp=Z,50nm,0.7s						
CRS				smax			
	comp=E,327nm,0.9s						
CRS	**Chara**	**2.59**	**13**	*e*Pg	Pg	14 37 32.0	-2.5
CRS				*e*Sg	Sg	14 38 06.8	-1.2
CRS				Pmax			
	comp=E,51nm,0.6s						
CRS				Smax			
	comp=E,319nm,0.6s						
SVKR	**Severomuysk**	**2.71**	**311**	*e*PN	Pn	14 37 30.4	+2.3
SVKR				*e*		14 37 36.6	
SVKR				*e*S	Sn	14 38 03.0	+2.3
SVKR				*e*		14 38 12.4	
SVKR				smax			
	comp=N,700nm,0.5s						
SVKR	**Severomuysk**	**2.71**	**311**	*e*Pn	Pn	14 37 30.6	+2.5
SVKR				*e*		14 37 37.5	
SVKR				*e*Sg	Sg	14 38 12.3	+0.2
SVKR				Smax			
	comp=N,726nm,0.4s						
KHNR	**Khani**	**2.98**	**31**	*e*Pn	Pn	14 37 32.5	+0.7
KHNR				*e*Pg	Pg	14 37 38.5	-3.6
KHNR				*e*Sg	Sg	14 38 17.3	-3.4
CIT	**Chita**	**3.24**	**224**	*e*PN	Pn	14 37 43.4	+8.1
CIT				*e*		14 38 25.5	
CIT				pmax	pmax		
	comp=Z,54nm,0.8s						
CIT				smax			
	comp=N,177nm,0.9s						
CIT	**Chita**	**3.24**	**224**	*e*Pg	Pg	14 37 42.2	-4.7
CIT				*e*PgPg		14 37 43.9	
CIT				*e*		14 37 44.5	
CIT				*e*Sg	Sg	14 38 25.4	-3.4
CIT				max			
	comp=N,38nm,0.2s						
CIT				Smax			
	comp=N,166nm,0.4s						
YLYR	**Ulyunkhan**	**3.55**	**280**	⇑*i*PN	Pn	14 37 41.2	+1.6
YLYR				*e*		14 37 48.5	
YLYR				*e*S	Sn	14 38 23.4	+2.1
YLYR				*e*		14 38 36.4	
YLYR				pmax	pmax		
	comp=Z,21nm,0.2s						
YLYR				smax			
	comp=N,448nm,0.8s						
YLYR	**Ulyunkhan**	**3.55**	**280**	⇑*i*Pn	Pn	14 37 41.2	+1.6
YLYR				*e*Pg	Pg	14 37 48.7	-4.2
YLYR				*e*Sg	Sg	14 38 36.5	-2.4
YLYR				Pmax			
	comp=N,18nm,0.2s						
YLYR				Smax			
	comp=N,446nm,0.8s						
YOA	**Uoyan**	**3.59**	**301**	*e*PN	Pn	14 37 52.4	+12
KMO	**Kumora**	**3.76**	**296**	*e*PN	Pn	14 37 43.9	+1.4
KMO				*e*		14 37 53.6	
KMO				*e*S	Sn	14 38 28.4	+1.9
KMO				*e*		14 38 42.6	
KMO				pmax	pmax		
	comp=Z,56nm,0.4s						
KMO				smax			
	comp=N,231nm,1.3s						
KMO	**Kumora**	**3.76**	**296**	⇑*i*Pn	Pn	14 37 44.1	+1.6
KMO				*e*Pg	Pg	14 37 53.9	-3.1
KMO				*e*Sg	Sg	14 38 42.7	-3.0
KMO				Pmax			
	comp=N,56nm,0.5s						
KMO				Smax			
	comp=N,231nm,0.9s						
BOD	**Bodaibo**	**3.88**	**334**	*e*PN	Pn	14 37 44.4	+0.3
BOD				*e*		14 37 54.4	
BOD				*e*		14 38 45.0	
BOD				pmax	pmax		
	comp=Z,36nm,0.4s						
BOD				smax			
	comp=E,207nm,0.8s						
BOD	**Bodaibo**	**3.88**	**334**	*e*	Pn	14 37 51.7	+7.6
BOD				*e*Pg	Pg	14 37 55.5	-3.7
BOD				*e*Sg	Sg	14 38 45.5	-3.9
BOD				Pmax			
	comp=E,36nm,0.3s						
BOD				Smax			
	comp=E,205nm,0.8s						
SYVR	**Suvo**	**4.32**	**263**	*e*PN	Pn	14 37 52.0	+1.9
SYVR				*e*		14 38 03.0	
SYVR				*e*S	Sn	14 38 39.3	-0.9
SYVR				*e*		14 38 59.1	
SYVR				pmax	pmax		
	comp=Z,9.0nm,0.5s						
SYVR				smax			
	comp=E,182nm,0.5s						
SYVR	**Suvo**	**4.32**	**263**	*e*Pn	Pn	14 37 51.5	+1.4
SYVR				*e*Pg	Pg	14 38 02.9	-4.7
SYVR				*e*Sg	Sg	14 38 58.6	-4.8
SYVR				Pmax			
	comp=E,11nm,0.4s						
SYVR				Smax			
	comp=E,221nm,0.8s						
TNDR	**Tynda**	**4.42**	**77**	*e*Sg	Sg	14 39 00.1	-6.5
NIZ	**Nizh Angarsk**	**4.62**	**291**	*e*PN	Pn	14 37 55.7	+1.4
NIZ				*e*		14 38 09.7	
NIZ				*e*		14 39 11.7	
NIZ				pmax	pmax		
	comp=Z,10.0nm,0.5s						
NIZ				smax			
	comp=E,87nm,1.4s						
NIZ	**Nizh Angarsk**	**4.62**	**291**	*e*Pn	Pn	14 37 55.8	+1.5
NIZ				*e*Sn	Sn	14 38 49.2	+1.5
NIZ				*e*Sg	Sg	14 39 10.7	-2.5
NIZ				Smax			
	comp=E,74nm,0.7s						
CLNS	**Chul'man**	**5.00**	**58**	*e*PN	Pn	14 38 16.3	+17
CLNS				*e*		14 39 17.4	
CLNS				pmax	pmax		
	comp=N,3.0nm,0.3s						
CLNS				pmax	pmax		
	comp=Z,3.0nm,0.3s						
CLNS				pmax	pmax		
	comp=E,2.0nm,0.2s						
CLNS				smax			
	comp=N,98nm,0.5s						
CLNS				smax			
	comp=Z,20nm,0.3s						
CLNS				smax			
	comp=E,91nm,0.4s						
CLNS				MLR	MLR		
	comp=Z,100nm,12.0s						
KPC	**Khapcheranga**	**5.56**	**214**	*e*Pn	Pn	14 38 07.1	-0.1
KPC				*e*Pg	Pg	14 38 24.4	-7.0
KPC				*e*Sg	Sg	14 39 36.7	-6.6
KPC				Pmax			
	comp=Z,5.0nm,0.3s						
KPC				Smax			
	comp=Z,39nm,0.6s						
OGRR	**Ongureny**	**5.72**	**266**	*e*PN	Pn	14 38 10.6	+1.2

OGRR				*e*		14 38 28.1	
OGRR				*e*		14 39 42.6	
OGRR				pmax	pmax		
	comp=Z,2.0nm,0.4s						
OGRR				smax			
	comp=E,93nm,1.8s						
OGRR	**Ongureny**	**5.72**	**266**	*e*Pn	Pn	14 38 10.4	+1.0
OGRR				*e*Sg	Sg	14 39 42.4	-6.0
OGRR				Smax			
	comp=E,82nm,1.2s						
TRG	**Tyrgan**	**6.67**	**260**	*e*PN	Pn	14 38 23.2	+0.7
TRG				*e*		14 38 44.9	
TRG				*e*S	Sn	14 39 38.5	+0.3
TRG				*e*		14 40 12.2	
TRG				pmax	pmax		
	comp=Z,1.0nm,0.2s						
TRG				smax			
	comp=N,59nm,1.3s						
TRG	**Tyrgan**	**6.67**	**260**	*e*Pn	Pn	14 38 23.5	+1.0
TRG				*e*Sg	Sg	14 40 13.1	-5.8
TRG				Smax			
	comp=N,58nm,1.3s						
IRK	**Irkutsk**	**8.04**	**260**	*e*PG	Pn	14 39 21.6	+40
IRK				pmax	pmax		
	comp=Z,46nm,1.7s						
TLY	**Talaya**	**8.62**	**257**	*e*PG	Pn	14 39 27.5	+38
TLY				pmax	pmax		
	comp=Z,9.0nm,1.0s						
ARS	**Arshan**	**9.22**	**260**	*e*Pg	Pn	14 39 30.7	+33
ARS				*e*		14 39 36.3	
ARS				*e*Sg	Sn	14 41 30.2	+49
ARS				Pmax			
	comp=Z,41nm,0.8s						
ARS				Smax			
	comp=Z,106nm,0.8s						

ISCJB ***25*** *14:42:08.2±1.5, 20.6S±0.2×178.2W±0.1, h502^{km}±21^{km}, mb3.9/7, Error ellipse: s-maj=25.2km s-min=15.4km az=164.1*

NEIC ***25*** *14:42:08.7±1.0, 20.68S×178.16W, h499^{km}±14^{km}, mb4.1/4, Error ellipse: s-maj=21.9km s-min=11.0km az=153.0*

IDC ***25*** *14:42:09.3±2.1, 20.73S×178.19W, h505^{km}±24^{km}, mb3.5/5, mb1 3.6/8, mb1mx3.3/17, mbtmp3.4/8, Error ellipse: s-maj=34.2km s-min=16.8km az=153.0*

ISC 25 14:42:08.7±1.4**, 20.7S**±0.2×**178.2W**±0.1**, h496**^{km}±20^{km}**, n24, σ**$0\overset{s}{.}$**45**/19**, mb3.9**/7**, 1C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**9.14**	**43**	P	**P**	**14 44 16.5**	**-0.6**
AFI	**Afiamalu**	**9.14**	**43**	P	**P**	**14 44 17.5**	**+0.5**
	1.6nm,0.3s,baz=198,slow=9.6,SNR=3.9						
DZM	**Mont Dzumac**	**14.37**	**262**	P	**P**	**14 45 12.2**	**-0.2**
	0.3nm,0.3s,baz=84,slow=19,SNR=3.0						
URZ	**Urewera**	**17.94**	**192**	P	**P**	**14 45 48.5**	**-0.1**
	0.7nm,0.3s,baz=353,slow=13,SNR=6.5						
EIDS	**Eidsvold**	**28.61**	**255**	*e*P	**P**	**14 47 25.2**	**+0.9**
CTA	**Charters Tower**	**33.29**	**265**	*e*P	**P**	**14 48 05.4**	**+0.7**
	3.0nm,0.3s,mb4.2						
CTA	**Charters Tower**	**33.29**	**265**	P	**P**	**14 48 05.2**	**+0.5**
	4.9nm,0.4s,mb4.3,baz=114,slow=12,SNR=17						
CTAO	**Charters Tower**	**33.29**	**265**	*e*P	**P**	**14 48 05.3**	**+0.6**
	4.6nm,0.4s,mb4.3						
COEN	**Coen**	**37.41**	**274**	*e*P	**P**	**14 48 39.3**	**+0.2**
STKA	**Stephens Creek**	**37.52**	**244**	*e*P	**P**	**14 48 40.7**	**+0.8**
	1.6nm,0.4s,mb3.8						
STKA	**Stephens Creek**	**37.52**	**244**	P	**P**	**14 48 39.9**	**0.0**
	1.9nm,0.4s,mb3.9,baz=72,slow=9.5,SNR=17						
ASAR	**Alice Springs**	**44.29**	**257**	P	**P**	**14 49 34.0**	**0.0**
	6.4nm,0.5s,mb4.3,baz=89,slow=8.5,SNR=195						
ASAR				PcP	PcP	14 51 07.0	-0.8
	1.0nm,0.6s,baz=110,slow=3.6,SNR=8.7						
WB2	**Warramunga Arr**	**44.38**	**262**	⇑*i*P	**P**	**14 49 34.2**	**-0.5**
WRA	**Warramunga Arr**	**44.39**	**262**	P	**P**	**14 49 34.2**	**-0.6**
	5.0nm,0.7s,mb4.0,baz=97,slow=7.1,SNR=159						
WRA				PcP	PcP	14 51 07.4	-0.8
	0.7nm,0.7s,baz=96,slow=3.5,SNR=4.1						
KAKA	**Kakadu**	**47.80**	**271**	*e*P	**P**	**14 50 00.2**	**-0.6**
	4.1nm,0.4s,mb4.1						
FITZ	**Fitzroy Crossi**	**52.82**	**263**	*e*P	**P**	**14 50 37.5**	**-0.1**
	4.0nm,1.2s,mb3.6						
TXAR	**Lajitas Array**	**87.33**	**57**	P	**P**	**14 54 03.1**	**+0.4**
	0.4nm,0.9s,mb3.1,baz=238,slow=5.2,SNR=3.0						
VNA3	**Neumayer Olymp**	**87.93**	**176**	*e*PKPdf	**P**	**14 54 04.5**	**-0.2**
VNA2	**Neumayer--Watz**	**88.36**	**177**	*e*PKPdf	**P**	**14 54 06.8**	**0.0**
	baz=230,slow=2.8						
AKASG	**Malin Array Be**	**143.12**	**331**	PKP	PKPdf	15 00 41.2	-4.4
AKASG	**Malin Array Be**	**143.12**	**331**	PKhKP		15 00 41.2	
	2.1nm,0.5s,baz=42,slow=4.1,SNR=8.4						
BRTR	**Keskin Array B**	**146.86**	**312**	PKPbc	PKPbc	15 00 53.6	-1.5
BRTR	**Keskin Array B**	**146.86**	**312**	PKPbc	PKPbc	15 00 53.6	-1.5
	1.2nm,0.6s,baz=64,slow=6.6,SNR=6.6						
MMAI	**Mount Meron Ar**	**147.77**	**299**	PKPbc	PKPbc	15 00 57.2	-0.6
	1.8nm,0.5s,baz=61,slow=6.8,SNR=5.1						

ISCJB ***25*** *14:58:58.6±0.4, 41.86N±0.02×15.93E±0.03, h26^{km}±2^{km}, Error ellipse: s-maj=4.3km s-min=3.0km az=154.3*

ROM ***25*** *14:58:59.0±0.1, 41.80N×15.91E, h26^{km}±1^{km}, Md2.9/45, Ml3.1/35, Error ellipse: s-maj=2.2km s-min=1.6km az=46.0*

NEIC ***25*** *14:58:59.0, 41.80N×15.91E, h26^{km}, ML3.1(ROM), After ROM.*

CSEM ***25*** *14:59:00.0±0.1, 41.75N×15.82E, h20^{km}, ML4.2/11, Error ellipse: s-maj=1.7km s-min=1.2km az=39.0*

ISC 25 14:58:59.2±0.3**, 41.83N**±0.02×**15.91E**±0.03**, h25**^{km}±2^{km}**, n151, σ**$0\overset{s}{.}$**86**/207**, 14C, Southern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSAG	**Monte S. Angel**	**0.12**	**181**	⇑*i*Pg	**Pb**	**14 59 04.1**	**+0.2**
MSAG				Sg	**Sb**	**14 59 07.5**	**+0.4**
	13µm,0.1s						
MSAG	**Monte S. Angel**	**0.12**	**181**	⇑*i*Pg	**Pb**	**14 59 04.1**	**+0.2**
MSAG				Sg	**Sb**	**14 59 07.5**	**+0.4**
	13µm,0.1s						
FGMS	**Monte Sant'Ang**	**0.12**	**165**	⇑*i*Pg	**Pb**	**14 59 04.2**	**+0.2**
FGMS				Sg	**Sb**	**14 59 07.3**	**+0.1**
FGMS	**Monte Sant'Ang**	**0.12**	**165**	⇑*i*Pg	**Pb**	**14 59 04.2**	**+0.2**
FGMS				Sg	**Sb**	**14 59 07.3**	**+0.1**
FGMS	**Monte Sant'Ang**	**0.12**	**165**	⇑*i*Pg	**Pb**	**14 59 04.2**	**+0.2**
FGMS				Sg	**Sb**	**14 59 07.3**	**+0.1**
MS1	**Monte Sant'Ang**	**0.13**	**170**	⇑*i*Pg	**Pb**	**14 59 04.2**	**+0.2**
MS1				*e*Sg	**Sb**	**14 59 07.3**	**+0.1**
SGRT	**San Giovanni R**	**0.15**	**239**	⇑*i*Pg	**Pb**	**14 59 04.2**	**0.0**
SGRT				Sg	**Sb**	**14 59 07.5**	**-0.1**
	7µm,0.1s						
SGRT	**San Giovanni R**	**0.15**	**239**	⇑*i*Pg	**Pb**	**14 59 04.2**	**0.0**
SGRT				Sg	**Sb**	**14 59 07.5**	**-0.1**
	7µm,0.1s						
RGNG	**Rignano Grg**	**0.29**	**238**	⇑*i*Pg	**Pb**	**14 59 05.6**	**-0.4**
RGNG				Sg	**Sb**	**14 59 10.0**	**-0.6**
RGNG	**Rignano Grg**	**0.29**	**238**	⇑*i*Pg	**Pb**	**14 59 05.6**	**-0.4**
RGNG				Sg	**Sb**	**14 59 10.0**	**-0.6**
RGNG	**Rignano Grg**	**0.29**	**238**	⇑*i*Pg	**Pb**	**14 59 05.6**	**-0.4**
RGNG				Sg	**Sb**	**14 59 10.0**	**-0.6**
FG2	**Serracapriola**	**0.56**	**268**	Pg	**Pb**	**14 59 10.1**	**-0.3**
FG2				Sg	**Sb**	**14 59 17.4**	**-0.6**
FG2	**Serracapriola**	**0.56**	**268**	Pg	**Pb**	**14 59 10.1**	**-0.3**
FG2				Sg	**Sb**	**14 59 17.4**	**-0.6**
FG2	**Serracapriola**	**0.56**	**268**	Pg	**Pb**	**14 59 10.1**	**-0.3**
FG2				Sg	**Sb**	**14 59 17.4**	**-0.6**
FG5	**Orsara di Pugl**	**0.73**	**222**	⇑Pg	**Pb**	**14 59 13.2**	**0.0**
FG5				Sg	**Sb**	**14 59 21.8**	**-1.0**
FG5	**Orsara di Pugl**	**0.73**	**222**	⇑Pg	**Pb**	**14 59 13.2**	**0.0**
FG5				Sg	**Sb**	**14 59 21.8**	**-1.0**
	402nm,0.4s						
FG5	**Orsara di Pugl**	**0.73**	**222**	⇑Pg	**Pb**	**14 59 13.2**	**0.0**
FG5				Sg	**Sb**	**14 59 21.8**	**-1.0**
	402nm,0.4s						
FG4	**Candela**	**0.76**	**203**	Pg	**Pb**	**14 59 13.3**	**-0.4**
FG4				Sg	**Sb**	**14 59 23.4**	**-0.2**
FG4	**Candela**	**0.76**	**203**	Pg	**Pb**	**14 59 13.3**	**-0.4**
FG4				Sg	**Sb**	**14 59 23.4**	**-0.2**
FG4	**Candela**	**0.76**	**203**	Pg	**Pb**	**14 59 13.3**	**-0.4**
FG4				Sg	**Sb**	**14 59 23.4**	**-0.2**
CDT	**Castel del Mon**	**0.80**	**160**	*e*Pg	**Pb**	**14 59 13.8**	**-0.5**
CDT				*e*Sg	**Sb**	**14 59 25.4**	**+0.7**
SGTA	**Sant Agata di**	**0.81**	**211**	Pg	**Pb**	**14 59 14.1**	**-0.4**
SGTA				Sg	**Sb**	**14 59 24.7**	**-0.3**
	2µm,0.5s						
SGTA	**Sant Agata di**	**0.81**	**211**	Pg	**Pb**	**14 59 14.1**	**-0.4**
SGTA				Sg	**Sb**	**14 59 24.7**	**-0.3**
	2µm,0.5s						
PALZ	**Palazzo San Ge**	**0.89**	**178**	Pg	**Pb**	**14 59 15.2**	**-0.7**
PALZ				Sg	**Sb**	**14 59 28.0**	**+0.7**
	638nm,0.5s						
PALZ	**Palazzo San Ge**	**0.89**	**178**	Pg	**Pb**	**14 59 15.2**	**-0.7**
PALZ				Sg	**Sb**	**14 59 28.0**	**+0.7**
	638nm,0.5s						
VULT	**Monte Vulture**	**0.90**	**194**	Pg	**Pb**	**14 59 16.2**	**0.0**
VULT				Sg	**Sb**	**14 59 28.9**	**+1.2**
	1µm,0.3s						
VULT	**Monte Vulture**	**0.90**	**194**	Pg	**Pb**	**14 59 16.2**	**0.0**
VULT				Sg	**Sb**	**14 59 28.9**	**+1.2**
	1µm,0.3s						
FRES	**Fresagrandinar**	**0.94**	**279**	Pn	**Pn**	**14 59 16.3**	**-0.5**
	571nm,0.4s						
FRES	**Fresagrandinar**	**0.94**	**279**	Pn	**Pn**	**14 59 16.3**	**-0.5**
	571nm,0.4s						
CAFE	**Carife**	**0.95**	**213**	Pn	**Pn**	**14 59 16.8**	**-0.1**
CAFE				Sn	**Sn**	**14 59 29.8**	**+0.2**
	787nm,0.4s						
CAFE	**Carife**	**0.95**	**213**	Pn	**Pn**	**14 59 16.8**	**-0.1**
CAFE				Sn	**Sn**	**14 59 29.8**	**+0.2**
	787nm,0.4s						
MRB1	**Monte Rocchett**	**0.99**	**225**	Pn	**Pn**	**14 59 16.9**	**-0.7**
MRB1				Sn	**Sn**	**14 59 30.3**	**-0.5**
MRB1	**Monte Rocchett**	**0.99**	**225**	Pn	**Pn**	**14 59 16.9**	**-0.7**
MRB1				Sn	**Sn**	**14 59 30.3**	**-0.5**
	364nm,0.6s						
MRB1	**Monte Rocchett**	**0.99**	**225**	Pn	**Pn**	**14 59 16.9**	**-0.7**
MRB1				Sn	**Sn**	**14 59 30.3**	**-0.5**
	364nm,0.6s						
SACR	**S. Croce Del S**	**1.00**	**245**	Pn	**Pn**	**14 59 17.6**	**-0.1**
SACR				Sn	**Sn**	**14 59 30.9**	**-0.1**
	129nm,0.3s						
SACR	**S. Croce Del S**	**1.00**	**245**	Pn	**Pn**	**14 59 17.6**	**-0.1**
SACR				Sn	**Sn**	**14 59 30.9**	**-0.1**
	129nm,0.3s						
BAI	**Bari**	**1.02**	**134**	*e*Pg	**Pn**	**14 59 18.4**	**+0.4**
BAI				*e*Sg	**Sb**	**14 59 34.0**	**+2.7**
PSB1	**Pescosannita**	**1.02**	**234**	Pn	**Pn**	**14 59 17.6**	**-0.4**
PSB1	**Pescosannita**	**1.02**	**234**	Pn	**Pn**	**14 59 17.6**	**-0.4**
	109nm,0.3s						
PSB1	**Pescosannita**	**1.02**	**234**	Pn	**Pn**	**14 59 17.6**	**-0.4**
	109nm,0.3s						
BSSO	**Busso**	**1.03**	**254**	Pn	**Pn**	**14 59 18.6**	**+0.6**
BSSO	**Busso**	**1.03**	**254**	Pn	**Pn**	**14 59 18.6**	**+0.6**
SNAL	**S. Angelo Dei**	**1.05**	**211**	Pn	**Pn**	**14 59 17.6**	**-0.7**
SNAL				Sn	**Sn**	**14 59 32.2**	**+0.1**
	532nm,0.2s						
SNAL	**S. Angelo Dei**	**1.05**	**211**	Pn	**Pn**	**14 59 17.6**	**-0.7**
SNAL				Sn	**Sn**	**14 59 32.2**	**+0.1**
	532nm,0.2s						
AMUR	**Altamura**	**1.06**	**150**	Pn	**Pn**	**14 59 17.4**	**-1.0**
AMUR				Sn	**Sn**	**14 59 33.2**	**+0.8**
	524nm,0.2s						
AMUR	**Altamura**	**1.06**	**150**	Pn	**Pn**	**14 59 17.4**	**-1.0**
AMUR				Sn	**Sn**	**14 59 33.2**	**+0.8**
	524nm,0.2s						
MRLC	**Muro Lucano**	**1.12**	**197**	Pn	**Pn**	**14 59 17.8**	**-1.5**
MRLC				Sn	**Sn**	**14 59 34.8**	**+1.0**
MRLC	**Muro Lucano**	**1.12**	**197**	Pn	**Pn**	**14 59 17.8**	**-1.5**
MRLC				Sn	**Sn**	**14 59 34.8**	**+1.0**
MRLC	**Muro Lucano**	**1.12**	**197**	Pn	**Pn**	**14 59 17.8**	**-1.5**
MRLC				Sn	**Sn**	**14 59 34.8**	**+1.0**
PTRJ	**Pietraroja**	**1.14**	**246**	Pn	**Pn**	**14 59 19.7**	**+0.2**
	115nm,0.4s						
PTRJ	**Pietraroja**	**1.14**	**246**	Pn	**Pn**	**14 59 19.7**	**+0.2**
	115nm,0.4s						
SG1	**Sgolgore (BA)**	**1.15**	**149**	*e*Pg	**Pn**	**14 59 18.6**	**-1.0**
SG1				*e*Sg	**Sn**	**14 59 34.5**	**0.0**
CSSN	**Cassano Irpino**	**1.18**	**215**	Pn	**Pn**	**14 59 19.4**	**-0.7**
CSSN				Sn	**Sn**	**14 59 36.0**	**+0.7**
CSSN	**Cassano Irpino**	**1.18**	**215**	Pn	**Pn**	**14 59 19.4**	**-0.7**
CSSN				Sn	**Sn**	**14 59 36.0**	**+0.7**
	65nm,0.2s						
CSSN	**Cassano Irpino**	**1.18**	**215**	Pn	**Pn**	**14 59 19.4**	**-0.7**
CSSN				Sn	**Sn**	**14 59 36.0**	**+0.7**
	65nm,0.2s						
MCRV	**Calabrutti - M**	**1.19**	**208**	Pn	**Pn**	**14 59 19.2**	**-1.0**
MCRV				Sn	**Sn**	**14 59 35.5**	**0.0**
	398nm,0.2s						
MCRV	**Calabrutti - M**	**1.19**	**208**	Pn	**Pn**	**14 59 19.2**	**-1.0**
MCRV				Sn	**Sn**	**14 59 35.5**	**0.0**
	398nm,0.2s						
CAFR	**Castel Frentan**	**1.23**	**289**	Pn	**Pn**	**14 59 21.5**	**+0.7**
CAFR				Sn	**Sn**	**14 59 38.1**	**+1.4**
	767nm,0.4s						
CAFR	**Castel Frentan**	**1.23**	**289**	Pn	**Pn**	**14 59 21.5**	**+0.7**
CAFR				Sn	**Sn**	**14 59 38.1**	**+1.4**
	767nm,0.4s						
SGG	**Gregorio Mates**	**1.23**	**249**	Pn	**Pn**	**14 59 21.2**	**+0.4**
SGG	**Gregorio Mates**	**1.23**	**249**	Pn	**Pn**	**14 59 21.2**	**+0.4**
	111nm,0.5s						
SGG	**Gregorio Mates**	**1.23**	**249**	Pn	**Pn**	**14 59 21.2**	**+0.4**
	111nm,0.5s						
MIDA	**Miranda**	**1.25**	**262**	Pn	**Pn**	**14 59 21.0**	**-0.1**
MIDA	**Miranda**	**1.25**	**262**	Pn	**Pn**	**14 59 21.0**	**-0.1**
	92nm,0.3s						
MIDA	**Miranda**	**1.25**	**262**	Pn	**Pn**	**14 59 21.0**	**-0.1**
	92nm,0.3s						
MIGL	**Miglionico**	**1.29**	**162**	Pn	**Pn**	**14 59 20.7**	**-0.9**
	1µm,0.5s						
MIGL	**Miglionico**	**1.29**	**162**	Pn	**Pn**	**14 59 20.7**	**-0.9**
	1µm,0.5s						
RNI2	**Rionero Sannit**	**1.32**	**265**	Pn	**Pn**	**14 59 23.4**	**+1.3**
RNI2	**Rionero Sannit**	**1.32**	**265**	Pn	**Pn**	**14 59 23.4**	**+1.3**
RNI2	**Rionero Sannit**	**1.32**	**265**	Pn	**Pn**	**14 59 23.4**	**+1.3**
VAGA	**Valle Agricola**	**1.32**	**252**	Pn	**Pn**	**14 59 22.2**	**+0.1**
	132nm,0.3s						
VAGA	**Valle Agricola**	**1.32**	**252**	Pn	**Pn**	**14 59 22.2**	**+0.1**
	132nm,0.3s						
SGO	**Sicignano**	**1.35**	**200**	Pn	**Pn**	**14 59 20.9**	**-1.5**
SGO	**Sicignano**	**1.35**	**200**	Pn	**Pn**	**14 59 20.9**	**-1.5**
	58nm,0.2s						
SGO	**Sicignano**	**1.35**	**200**	Pn	**Pn**	**14 59 20.9**	**-1.5**
	58nm,0.2s						
NOCI	**Noci**	**1.35**	**140**	Pn	**Pn**	**14 59 21.6**	**-0.9**
	475nm,0.2s						
NOCI	**Noci**	**1.35**	**140**	Pn	**Pn**	**14 59 21.6**	**-0.9**
	475nm,0.2s						
CDRU	**Civita di Ruta**	**1.42**	**199**	Pn	**Pn**	**14 59 22.0**	**-1.3**
	130nm,0.2s						
CDRU	**Civita di Ruta**	**1.42**	**199**	Pn	**Pn**	**14 59 22.0**	**-1.3**
	130nm,0.2s						
CERA	**Filignano**	**1.44**	**261**	Pn	**Pn**	**14 59 24.8**	**+1.2**
	124nm,0.6s						
CERA	**Filignano**	**1.44**	**261**	Pn	**Pn**	**14 59 24.8**	**+1.2**
	124nm,0.6s						
MCEL	**Monticello**	**1.50**	**183**	Pn	**Pn**	**14 59 23.5**	**-1.1**
	127nm,0.3s						
MCEL	**Monticello**	**1.50**	**183**	Pn	**Pn**	**14 59 23.5**	**-1.1**
	127nm,0.3s						
INTR	**Introdacqua**	**1.51**	**278**	Pn	**Pn**	**14 59 23.2**	**-1.4**
INTR	**Introdacqua**	**1.51**	**278**	Pn	**Pn**	**14 59 23.2**	**-1.4**
	302nm,0.8s						
INTR	**Introdacqua**	**1.51**	**278**	Pn	**Pn**	**14 59 23.2**	**-1.4**
	302nm,0.8s						
CRAC	**Craco**	**1.52**	**165**	Pn	**Pn**	**14 59 26.6**	**+1.9**
	665nm,0.4s						
CRAC	**Craco**	**1.52**	**165**	Pn	**Pn**	**14 59 26.6**	**+1.9**
	665nm,0.4s						
PE1	**Pezze di Greco**	**1.53**	**131**	*e*Pg	**Pn**	**14 59 24.8**	**-0.1**
PE1				*e*Sg	**Sn**	**14 59 48.2**	**+4.2**
MTSN	**Montesano sull**	**1.57**	**184**	Pn	**Pn**	**14 59 25.0**	**-0.4**
	138nm,0.5s						
MTSN	**Montesano sull**	**1.57**	**184**	Pn	**Pn**	**14 59 25.0**	**-0.4**
	138nm,0.5s						
SDI	**San Donato**	**1.58**	**266**	Pn	**Pn**	**14 59 25.6**	**0.0**
SDI	**San Donato**	**1.58**	**266**	Pn	**Pn**	**14 59 25.6**	**0.0**
	37nm,0.3s						
SDI	**San Donato**	**1.58**	**266**	Pn	**Pn**	**14 59 25.6**	**0.0**
	37nm,0.3s						
CMPR	**Campora**	**1.58**	**197**	Pn	**Pn**	**14 59 24.1**	**-1.5**
	103nm,0.5s						
CMPR	**Campora**	**1.58**	**197**	Pn	**Pn**	**14 59 24.1**	**-1.5**
	103nm,0.5s						
SCHR	**S. Chirico Rap**	**1.63**	**176**	Pn	**Pn**	**14 59 28.1**	**+1.7**
	73nm,0.2s						
SCHR	**S. Chirico Rap**	**1.63**	**176**	Pn	**Pn**	**14 59 28.1**	**+1.7**
	73nm,0.2s						
VCEL	**Villa Celiera**	**1.64**	**291**	Pn	**Pn**	**14 59 28.3**	**+1.8**
	157nm,0.3s						
VCEL	**Villa Celiera**	**1.64**	**291**	Pn	**Pn**	**14 59 28.3**	**+1.8**
	157nm,0.3s						
SIRI	**Monte Sirino -**	**1.65**	**181**	Pn	**Pn**	**14 59 25.7**	**-0.8**
	168nm,0.2s						
SIRI	**Monte Sirino -**	**1.65**	**181**	Pn	**Pn**	**14 59 25.7**	**-0.8**
	168nm,0.2s						
STON	**Ston**	**1.69**	**51**	*e*Pn	**Pn**	**14 59 32.4**	**+5.4**
STON				Sn	**Sn**	**14 59 57.0**	**+9.2**
STON	**Ston**	**1.69**	**51**	*e*Pn	**Pn**	**14 59 32.4**	**+5.3**
STON				Sn	**Sn**	**14 59 57.0**	**+9.1**
VVLD	**Villa Vallelon**	**1.71**	**272**	Pn	**Pn**	**14 59 27.3**	**-0.1**
VVLD	**Villa Vallelon**	**1.71**	**272**	Pn	**Pn**	**14 59 27.3**	**-0.1**
	165nm,0.8s						
VVLD	**Villa Vallelon**	**1.71**	**272**	Pn	**Pn**	**14 59 27.3**	**-0.1**
	165nm,0.8s						
FAGN	**Fagnano**	**1.79**	**285**	Pn	**Pn**	**14 59 30.1**	**+1.6**
	240nm,0.4s						
FAGN	**Fagnano**	**1.79**	**285**	Pn	**Pn**	**14 59 30.1**	**+1.6**
	240nm,0.4s						
BULG	**Bulgheria - Ca**	**1.80**	**193**	Pn	**Pn**	**14 59 28.7**	**+0.1**
BULG	**Bulgheria - Ca**	**1.80**	**193**	Pn	**Pn**	**14 59 28.7**	**+0.1**
AQU	**L'Aquila**	**1.94**	**287**	Pn	**Pn**	**14 59 30.6**	**0.0**
AQU	**L'Aquila**	**1.94**	**287**	Pn	**Pn**	**14 59 30.5**	**-0.1**
CAMP	**Campotosto**	**1.99**	**292**	Pn	**Pn**	**14 59 32.8**	**+1.6**
	17nm,0.9s						
CAMP	**Campotosto**	**1.99**	**292**	Pn	**Pn**	**14 59 32.8**	**+1.6**
	17nm,0.9s						
FIAM	**Fiamignano**	**2.13**	**283**	Pn	**Pn**	**14 59 34.1**	**+1.0**
FIAM	**Fiamignano**	**2.13**	**283**	Pn	**Pn**	**14 59 34.1**	**+1.0**
FIAM	**Fiamignano**	**2.13**	**283**	Pn	**Pn**	**14 59 34.1**	**+1.0**
CERT	**Cerreto**	**2.19**	**274**	Pn	**Pn**	**14 59 34.9**	**+0.9**
CERT	**Cerreto**	**2.19**	**274**	Pn	**Pn**	**14 59 34.9**	**+0.9**
CERT	**Cerreto**	**2.19**	**274**	Pn	**Pn**	**14 59 34.9**	**+0.9**
LNSS	**Leonessa**	**2.27**	**291**	Pn	**Pn**	**14 59 36.0**	**+0.9**
	133nm,0.7s						
LNSS	**Leonessa**	**2.27**	**291**	Pn	**Pn**	**14 59 36.0**	**+0.9**
	133nm,0.7s						
NRCA	**Norcia**	**2.30**	**297**	Pn	**Pn**	**14 59 36.2**	**+0.6**
NRCA	**Norcia**	**2.30**	**297**	Pn	**Pn**	**14 59 36.2**	**+0.6**
	15nm,0.4s						
NRCA	**Norcia**	**2.30**	**297**	Pn	**Pn**	**14 59 36.2**	**+0.6**
	15nm,0.4s						
CESI	**CESI - Serrava**	**2.52**	**299**	Pn	**Pn**	**14 59 39.5**	**+1.0**
SNTG	**Esanatoglia**	**2.62**	**304**	Pn	**Pn**	**14 59 40.5**	**+0.6**
SNTG	**Esanatoglia**	**2.62**	**304**	Pn	**Pn**	**14 59 40.5**	**+0.6**
	9.0nm,0.2s						
SNTG	**Esanatoglia**	**2.62**	**304**	Pn	**Pn**	**14 59 40.5**	**+0.6**
	9.0nm,0.2s						
TIP	**Timpagrande**	**2.73**	**166**	*e*Pn	**Pn**	**14 59 42.0**	**+0.7**
TIP	**Timpagrande**	**2.73**	**166**	*e*Pn	**Pn**	**14 59 42.0**	**+0.6**
NVLJ	**Novalja**	**2.84**	**345**	*e*Pn	**Pn**	**14 59 43.3**	**+0.4**
NVLJ				Sn	**Sn**	**15 00 14.7**	**-1.5**
NVLJ	**Novalja**	**2.84**	**345**	*e*Pn	**Pn**	**14 59 43.2**	**+0.3**
NVLJ				Sn	**Sn**	**15 00 14.7**	**-1.5**
FSSB	**Fossombrone**	**2.96**	**310**	Pn	**Pn**	**14 59 43.5**	**-1.2**
FSSB	**Fossombrone**	**2.96**	**310**	Pn	**Pn**	**14 59 43.5**	**-1.2**
	9.0nm,0.2s						
FSSB	**Fossombrone**	**2.96**	**310**	Pn	**Pn**	**14 59 43.5**	**-1.2**
	9.0nm,0.2s						
BOJS	**Bojanci**	**3.70**	**353**	*i* Pn	**Pn**	**14 59 55.3**	**+0.5**
BOJS	**Bojanci**	**3.70**	**353**	*i* Pn	**Pn**	**14 59 55.3**	**+0.5**
BOJS	**Bojanci**	**3.70**	**353**	*i* Pn	**Pn**	**14 59 55.3**	**+0.5**
VISS	**Visnje**	**4.05**	**349**	*i* Pn	**Pn**	**14 59 59.5**	**0.0**
VISS	**Visnje**	**4.05**	**349**	*i* Pn	**Pn**	**14 59 59.5**	**0.0**
VISS	**Visnje**	**4.05**	**349**	*i* Pn	**Pn**	**14 59 59.5**	**0.0**
CEY	**Cerknica**	**4.05**	**345**	*i* Pn	**Pn**	**14 59 59.3**	**-0.3**
CEY	**Cerknica**	**4.05**	**345**	*i* Pn	**Pn**	**14 59 59.3**	**-0.3**
CEY	**Cerknica**	**4.05**	**345**	*i* Pn	**Pn**	**14 59 59.3**	**-0.3**
VOY	**Vojsko**	**4.45**	**342**	*e*Pn	**Pn**	**15 00 05.1**	**+0.1**
VOY				*e*Sn	**Sn**	**15 00 53.5**	**-2.4**
VOY	**Vojsko**	**4.45**	**342**	*e*Pn	**Pn**	**15 00 05.1**	**+0.1**
VOJS	**Vojsko**	**4.45**	**341**	*i* Pn	**Pn**	**15 00 04.3**	**-0.7**
VOJS	**Vojsko**	**4.45**	**341**	*i* Pn	**Pn**	**15 00 04.3**	**-0.7**
VOJS	**Vojsko**	**4.45**	**341**	*i* Pn	**Pn**	**15 00 04.3**	**-0.7**

MEX ***25*** *15:00:39.8±0.7, 26.14N×111.04W, h15^{km}±21^{km}, MD4.9*

ISCJB ***25*** *15:00:40.4±0.2, 26.24N±0.02×110.30W±0.02, h10^{km}, mb5.2/94, MS5.6/157, Error ellipse: s-maj=4.3km s-min=2.2km az=40.2*

MOS ***25*** *15:00:40.2±1.5, 26.27N×110.29W, h10^{km}, mb5.5/40, MS5.7/37, Error ellipse: s-maj=6.9km s-min=4.1km az=84.6*

GCMT ***25*** *15:00:41.2±0.1, 26.18N×110.65W, h19^{km}, MW5.9/96, Moment Tensor Solution. s92,c176; s96,c296; Duration:* $2\overset{s}{.}1$ *Moment tensor: Scale* 10^{18}*Nm;* M_{rr}*-0.13±.01;* $M_{\theta\theta}$*-0.77±.01;* $M_{\phi\phi}$*0.89±.01;* $M_{r\theta}$*-0.01±.01;* $M_{\theta\phi}$*-0.09±.01;* $M_{\phi r}$*0.05±.02; Best double couple:* M_0*0.83800×10*^{18} *NP1:*ϕ_s*42.00000°, δ87.00000°, λ1.00000°. NP2:*ϕ_s*312.00000°, δ89.00000°, λ177.00000°. Principal axes: T 0.9020, Plg3.0000°, Azm267.0000°; N -0.1300, Plg87.0000°, Azm105.0000°; P -0.7730, Plg1.0000°, Azm357.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

BJI ***25*** *15:00:41.1, 26.10N×110.40W, h10^{km}, mB5.8, mb5.3, Ms5.9, Msz5.6*

IDC ***25*** *15:00:41.5±0.7, 26.42N×110.35W, h0^{km}, mb4.5/21, mb1 4.6/26, mb1mx4.5/30, mbtmp4.4/26, ML4.1/5, MS5.6/32, Ms1 5.6/32, ms1mx5.5/37, Error ellipse: s-maj=17.0km s-min=11.6km az=38.0*

NEIC ***25*** *15:00:41.1±0.3, 26.15N×110.42W, h10^{km}, mb5.3/101, MS5.6/119, MW5.9, Error ellipse: s-maj=6.6km s-min=4.0km az=49.0, Moment Tensor Solution. s10 Moment tensor: Scale* 10^{17}*Nm;* M_{rr}*-0.53;* $M_{\theta\theta}$*-8.27;* $M_{\phi\phi}$*8.77;* $M_{r\theta}$*-0.36;* $M_{\theta\phi}$*-0.19;* $M_{\phi r}$*-1.65; Best double couple:* M_0*8.70000×10*^{17} *NP1:*ϕ_s*134.00000°, δ81.00000°, λ175.00000°. NP2:*ϕ_s*225.00000°, δ85.00000°, λ9.00000°. Principal axes: T 9.0600, Plg10.0000°, Azm90.0000°; N -0.7700, Plg80.0000°, Azm253.0000°; P -8.2900, Plg3.0000°, Azm359.0000°;*

NEIC Felt at Loreto, Mexico.

SZGRF ***25*** *15:00:54.3, 26.26N×110.17W, h33^{km}, mb5.4, MS5.9, Gulf of California, Mexico*

ISC 25 15:00:42.1±0.2**, 26.21N**±0.03×**110.29W**±0.02**, h10**^{km}**, n664, σ**$1\overset{s}{.}$**42**/555**, mb5.2**/94**, MS5.6**/157**, 97C-103D, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	**La Paz**	**2.09**	**180**	*e*P	**Pn**	**15 01 11.8**	**-5.4**
LPIG				*i* S	**Sn**	**15 01 37.1**	**-6.3**
LPIG	**La Paz**	**2.09**	**180**	Pn	**Pn**	**15 01 12.5**	**-4.8**
	143nm,0.3s,baz=354,slow=3.0,SNR=103						
LPIG				Sn	**Sn**	**15 01 50.0**	**+6.7**
	876nm,0.3s,baz=174,slow=22,SNR=8.6						
LPIG				LR	LR	15 02 07.4	
	comp=Z,215µm,18.2s,baz=358,slow=37						
LPIG	**La Paz**	**2.09**	**180**	*e*P	**Pn**	**15 01 12.1**	**-5.2**
LPIG				*i* S	**Sn**	**15 01 36.4**	**-7.0**
MAIG	**Mazatlaan**	**4.62**	**130**	*i* P	**Pn**	**15 01 57.2**	**+5.2**
MAIG				*e*P		15 02 12.5	
MAIG				*i* S	**Sn**	**15 02 55.6**	**+10**
MAIG				*i* S	**Sg**	**15 03 23.0**	**+12**
MAIG	**Mazatlaan**	**4.62**	**130**	*e*P	**Pn**	**15 01 54.2**	**+2.2**
MAIG				*i* S	**Sn**	**15 02 51.9**	**+6.1**
TUC	**Tucson**	**6.10**	**356**	*e*P	**Pn**	**15 02 07.5**	**-4.8**
	256nm,0.9s						
TUC	**Tucson**	**6.10**	**356**	*e*P	**Pn**	**15 02 07.5**	**-4.8**
TUC				pmax	pmax		
	comp=Z,256nm,0.9s						
116A	**Eloy**	**6.45**	**349**	⇓P	**Pn**	**15 02 12.8**	**-4.3**
	baz=6.5,SNR=40						
LTX	**Lajitas**	**6.64**	**61**	*e*P	**Pn**	**15 02 17.7**	**-2.1**
	comp=Z,373nm,1.0s						
LTX	**Lajitas**	**6.64**	**61**	*e*P	**Pn**	**15 02 17.7**	**-2.1**
LTX				pmax	pmax		
	comp=Z,373nm,1.0s						
TXAR	**Lajitas Array**	**6.64**	**61**	Pn	**Pn**	**15 02 18.4**	**-1.3**
TXAR				Pg	**Pg**	**15 02 48.2**	**-1.2**
TXAR				Sn	**Sn**	**15 03 37.0**	**+1.4**
TXAR				Lg		15 04 09.8	
TXAR	**Lajitas Array**	**6.64**	**61**	P	**Pn**	**15 02 18.5**	**-1.3**
TXAR						15 03 37.0	
TXAR	**Lajitas Array**	**6.64**	**61**	Pn	**Pn**	**15 02 18.4**	**-1.3**
	comp=Z,3.6nm,0.3s,baz=234,slow=12,SNR=101						
TXAR				Pg	**Pg**	**15 02 48.2**	**-1.2**
	comp=Z,5.7nm,0.3s,baz=241,slow=16,SNR=8.4						
TXAR				Sn	**Sn**	**15 03 37.0**	**+1.4**
	comp=Z,9.0nm,0.3s,baz=206,slow=27,SNR=3.7						
TXAR				Lg		15 04 09.8	

	comp=Z,9.9nm,0.3s,baz=218,slow=22,SNR=5.2						
115A	Sonoran Desert	6.69	346	⇑P	Pn	15 02 16.1	-4.3
	baz=6.7,SNR=17						
MNTX	Cornudas Mount	6.96	37	*e*P	Pn	15 02 23.5	-0.6
	comp=Z,415nm,1.1s						
Z14A	Wintersburg	7.50	343	⇓P	Pn	15 02 27.4	-4.1
	baz=7.5						
ZAIG	Zacatecas	7.82	114	*e*P	Pn	15 02 40.0	+4.1
ZAIG				*i* S	Sb	15 04 38.6	+7.5
ZAIG	Zacatecas	7.82	114	*e*P	Pn	15 02 40.0	+4.0
ZAIG				*i* S	Sn	15 04 13.4	+8.8
GLA	Glamis	7.88	331	⇓P	Pn	15 02 32.6	-4.2
	baz=7.9,SNR=34						
Y14A	Wickenburg	8.06	344	⇑P	Pn	15 02 35.6	-3.5
	baz=8.1,SNR=25						
Y13A	Salome	8.18	339	⇓P	Pn	15 02 36.2	-4.7
	baz=8.2						
CJM	Chamela	8.24	143	*i* P	Pn	15 02 43.5	+1.8
CJM				*i* S	Sn	15 04 18.0	+3.0
SWSC	Sam W. Stewart	8.25	326	⇑P	Pn	15 02 41.8	0.0
	baz=8.2,SNR=9.6						
Y12C	Blythe	8.37	335	⇓P	Pn	15 02 41.2	-2.2
	baz=8.4						
X15A	Humboldt	8.42	349	⇑P	Pn	15 02 41.6	-2.6
	baz=8.5,SNR=15						
LENM	Lemitar	8.44	19	*e*P	Pn	15 02 42.4	-1.9
BNM	Barren Site	8.53	21	*e*P	Pn	15 02 43.1	-2.5
MONP	Monument Peak	8.53	323	⇓P	Pn	15 02 47.2	+1.5
	baz=8.5,SNR=5.5						
X14A	Yava	8.54	345	⇑P	Pn	15 02 42.6	-3.1
	baz=8.6,SNR=12						
LAZ	Ladron	8.61	18	P	Pn	15 02 42.7	-4.0
BC3	Big Chuckw Mtn	8.67	330	⇓P	Pn	15 02 47.8	+0.2
	baz=8.7,SNR=18						
LPM	Los Pinos Moun	8.68	21	*e*P	Pn	15 02 47.1	-0.5
SFJM	Santa Fe	8.76	129	*i* P	Pn	15 02 50.0	+1.1
X13A	Yucca	8.90	341	⇓P	Pn	15 02 48.8	-1.9
	baz=8.9,SNR=15						
109C	Camp Elliot, M	8.92	320	⇓P	Pn	15 02 53.3	+2.3
	baz=8.9						
IRM	Iron Mountain	8.97	333	⇑P	Pn	15 02 53.4	+1.7
	baz=9.0						
W15A	Williams	9.10	350	⇑P	Pn	15 02 52.1	-1.4
	baz=9.2,SNR=20						
PFO	Pinyon Flat Ob	9.11	326	Pn	Pn	15 02 54.3	+0.7
	comp=Z,276nm,1.3s,SNR=5.2						
PFO	Pinyon Flat Ob	9.11	326	*e*P	Pn	15 02 53.6	0.0
	comp=Z,182nm,1.6s						
PFO	Pinyon Flat Ob	9.11	326	*e*P	Pn	15 02 53.6	0.0
PFO				pmax	pmax		
	comp=Z,182nm,1.6s						
PFO	Pinyon Flat Ob	9.11	326	Pn	Pn	15 02 52.2	-1.4
	comp=Z,0.1nm,0.3s,baz=156,slow=14,SNR=6.1						
PFO				Lg		15 05 20.3	
	comp=Z,0.2nm,0.3s,baz=158,slow=7.1,SNR=2.5						
PFO				LR	LR	15 05 56.7	
	comp=Z,20µm,18.9s,baz=149,slow=35						
BELC	Belle Mtn.	9.21	329	⇑P	Pn	15 02 54.9	0.0
	baz=9.2						
W14A	Seligman	9.29	346	⇓P	Pn	15 02 54.9	-1.2
	baz=9.3,SNR=19						
ANMO	Albuquerque	9.32	20	*e*P	Pn	15 02 57.0	+0.6
	comp=Z,73nm,1.0s						
ANMO	Albuquerque	9.32	20	*e*P	Pn	15 02 57.1	+0.6
ANMO				pmax	pmax		
	comp=Z,73nm,1.0s						
ANMO	Albuquerque	9.32	20	Pn	Pn	15 02 55.3	-1.1
	comp=Z,0.3nm,0.3s,baz=204,slow=12,SNR=16						
ANMO				Lg		15 05 23.9	
	comp=Z,1.0nm,0.3s,baz=182,slow=13,SNR=3.3						
ANMO				LR	LR	15 06 55.9	
	comp=Z,44µm,18.4s,baz=64,slow=41						
WUAZ	Wupatki	9.33	355	*e*P	Pn	15 02 55.2	-1.4
	comp=Z,107nm,1.0s						
WUAZ	Wupatki	9.33	355	⇓P	Pn	15 02 55.6	-1.0
	baz=9.4,SNR=19						
W13A	Hualapai Mount	9.39	342	⇓P	Pn	15 02 56.0	-1.5
	baz=9.4,SNR=18						
GMRC	Granite Mounta	9.72	333	⇓P	Pn	15 03 01.8	-0.2
	baz=9.7						
W12A	Cal Nev Ari	9.88	338	⇑P	Pn	15 03 06.2	+2.0
	baz=9.9						
JCT	Junction City	10.17	63	*e*P	Pn	15 03 10.7	+2.5
	comp=Z,143nm,1.1s						
JCT	Junction City	10.17	63	*e*P	Pn	15 03 10.7	+2.5
JCT				pmax	pmax		
	comp=Z,143nm,1.1s						
BFSC	Mount Baldy St	10.23	323	⇓P	Pn	15 03 10.8	+1.8
	baz=10						
V12A	Nelson	10.26	339	P	Pn	15 03 09.6	+0.2
	baz=10,SNR=16						
V11A	Goodsprings	10.56	337	⇑P	Pn	15 03 16.4	+2.9
	baz=11,SNR=5.9						
DECC	Green Verdugo	10.61	321	⇓P	Pn	15 03 15.5	+1.4
	baz=11						
U12A	Valley of Fire	10.82	341	⇓P	Pn	15 03 14.7	-2.4
	baz=11						
EDW2	Edwards Air Fo	10.89	324	⇑P	Pn	15 03 20.3	+2.3
	baz=11						
T15A	Red Dirt Ranch	10.93	351	⇑P	Pn	15 03 19.7	+1.2
	baz=11,SNR=34						
SHOC	Shoshone	10.94	333	⇑P	Pn	15 03 20.7	+2.1
	baz=11,SNR=7.4						
U11A	Corn Creek	11.07	338	⇑P	Pn	15 03 23.4	+2.9
	baz=11						
MVCO	Mesa Verde	11.08	7	*e*P	Pn	15 03 20.5	0.0
	comp=Z,210nm,1.1s						
MVCO	Mesa Verde	11.08	7	⇑P	Pn	15 03 21.4	+0.8
	baz=11,SNR=31						
T14A	Hurricane	11.08	348	⇓P	Pn	15 03 19.5	-1.1
	baz=11,SNR=14						
OSI	Osito Adit	11.10	321	⇑P	Pn	15 03 23.2	+2.4
	baz=11						
T12A	Moapa	11.14	341	⇓P	Pn	15 03 23.2	+1.8
	baz=11						
LRMC	Laurel Mountai	11.21	327	⇑P	Pn	15 03 22.1	-0.3
	baz=11						
T13A	Saint George	11.21	345	⇑P	Pn	15 03 21.1	-1.3
	baz=11,SNR=16						
AMTX	Amarillo	11.39	39	*e*P	Pn	15 03 25.4	+0.5
	comp=Z,99nm,0.9s						
U10A	Ash Meadows, A	11.41	335	⇓P	Pn	15 03 27.1	+2.0
	baz=11,SNR=6.2						
ARVC	Arvin	11.53	322	⇓P	Pn	15 03 28.1	+1.4
	baz=12,SNR=14						
MPMC	Manual Prospec	11.59	330	⇓P	Pn	15 03 28.9	+1.3
	baz=12						
CCUT	Cedar City	11.61	348	*e*P	Pn	15 03 28.9	+1.1
FURC	Furnace Creek,	11.67	333	⇓P	Pn	15 03 29.7	+1.1
	baz=12						
S13A	Holt Ranch, En	11.74	346	⇓P	Pn	15 03 31.1	+1.5
	baz=12,SNR=9.0						
ISA	Isabella	11.75	325	⇑P	Pn	15 03 29.4	-0.4
	baz=12						
T11A	Corn Creek, Al	11.77	340	⇓P	Pn	15 03 30.8	+0.7
	baz=12						
S14A	Cedar City	11.78	349	⇓P	Pn	15 03 32.5	+2.4
	baz=12,SNR=20						
DAC	Darwin (Calif)	11.82	330	*e*P	Pn	15 03 31.6	+0.9
	comp=Z,149nm,1.5s						
DAC	Darwin (Calif)	11.82	330	*e*P	Pn	15 03 31.6	+0.9
DAC				pmax	pmax		
	comp=Z,149nm,1.5s						
TPNV	Topopah Spring	11.85	336	*e*P	Pn	15 03 31.3	+0.2
	comp=Z,473nm,1.8s						
TPNV	Topopah Spring	11.85	336	*e*P	Pn	15 03 31.3	+0.2
TPNV				pmax	pmax		
	comp=Z,473nm,1.8s						
TPNV	Topopah Spring	11.85	336	⇓P	Pn	15 03 31.9	+0.7
	baz=12,SNR=19						
ARUT	Antelope Range	11.85	348	*e*P	Pn	15 03 32.2	+1.1
PKM	Peak Mountain	11.93	319	⇓P	Pn	15 03 33.4	+1.2
	baz=12						
PV01	Paradox Valley	11.98	7	*e*P	Pn	15 03 33.6	+0.6
SZVM	Salazar	12.17	122	*e*P	Pn	15 03 38.5	+3.0
PV10	Paradox Valley	12.18	5	*e*P	Pn	15 03 35.7	+0.1
SDCO	Great Sand Dun	12.20	18	*e*P	Pn	15 03 36.8	+0.9
	comp=Z,353nm,2.5s						
VES	Vestal, Richgr	12.20	324	⇓P	Pn	15 03 37.4	+1.5
	baz=12,SNR=17						
PTVM	Pico Tres Padr	12.22	120	*e*P	Pn	15 03 39.3	+3.1
PTVM	Pico Tres Padr	12.22	120	*e*P	Pn	15 03 40.2	+4.0
PTVM				*i* S	Sn	15 06 01.0	+8.3
S11A	Rachel	12.31	339	⇑P	Pn	15 03 38.7	+1.4
	baz=12,SNR=17						
SMMC	Simmler	12.32	320	⇑P	Pn	15 03 39.5	+1.9
	baz=12						
GRAC	Grapevine Rang	12.33	332	⇑P	Pn	15 03 39.1	+1.4
	baz=12,SNR=12						
MSU	Marysvale	12.37	353	*e*P	Pn	15 03 39.7	+1.4
R12A	Pony Springs,	12.62	344	⇓P	Pn	15 03 44.3	+2.6
	baz=13,SNR=12						
RCTC	Rector, Farmer	12.64	325	⇓P	Pn	15 03 43.4	+1.4
	baz=13						
HELL	Mitchell Peak,	12.82	327	⇑P	Pn	15 03 46.5	+2.1
	baz=13,SNR=11						
S10A	Tonopah Range,	12.84	337	P	Pn	15 03 45.5	+0.8
	baz=13,SNR=44						
SRU	San Rafael	12.87	359	*e*P	Pn	15 03 44.9	-0.1
	comp=Z,234nm,1.4s						
SRU	San Rafael	12.87	359	*e*P	Pn	15 03 44.9	-0.2
SRU				pmax	pmax		
	comp=Z,234nm,1.4s						
S09A	Goldfield	12.90	335	⇓P	Pn	15 03 45.6	+0.2
	baz=13,SNR=38						
TRCR	Troy Canyon	12.91	341	*e*P	Pn	15 03 45.2	-0.3
WMOK	Wichita Mounta	13.06	47	*e*P	Pn	15 03 48.2	+0.5
	comp=Z,117nm,0.4s						
WMOK	Wichita Mounta	13.06	47	*e*P	Pn	15 03 48.2	+0.5
WMOK				pmax	pmax		
	comp=Z,117nm,0.4s						
R10A	Warm Springs	13.07	339	⇑P	Pn	15 03 49.0	+1.1
	baz=13,SNR=32						
TMUT	Trail Mountain	13.08	357	*e*P	Pn	15 03 49.5	+1.6
S08C	White Mtn Res	13.09	331	⇓P	Pn	15 03 49.7	+1.6
	baz=13						
MTUM	Tungsten Hills	13.15	330	*e*P	Pn	15 03 49.2	+0.4
TPH	Tonopah	13.21	335	*e*P	Pn	15 03 50.2	+0.5
	comp=Z,301nm,1.5s						
TPH	Tonopah	13.21	335	*e*P	Pn	15 03 50.2	+0.6
TPH				pmax	pmax		
	comp=Z,301nm,1.5s						
SMCO	Snowmass	13.23	11	*e*P	Pn	15 03 52.0	+2.0
	comp=Z,5µm,1.3s						
R09A	Tonopah	13.29	336	⇓P	Pn	15 03 52.2	+1.3
	baz=13,SNR=28						
HKT	Hockley	13.30	70	*e*P	Pn	15 03 52.9	+2.0
	comp=Z,495nm,1.4s						
HKT	Hockley	13.30	70	*e*P	Pn	15 03 52.9	+1.9
HKT				pmax	pmax		
	comp=Z,495nm,1.4s						
Q12A	Willow Creek R	13.35	345	⇑P	Pn	15 03 53.1	+1.5
	baz=13,SNR=13						
Q11A	Duckwater	13.39	342	⇑P	Pn	15 03 53.2	+1.1
	baz=13,SNR=40						
T06C	Millerton Lake	13.42	326	P	Pn	15 03 54.1	+1.6
	baz=13,SNR=14						
KCC	Kaiser Creek	13.47	328	⇓P	Pn	15 03 54.1	+0.7
	baz=14,SNR=27						
Q10A	Clear Creek Ra	13.59	339	⇓P	Pn	15 03 55.7	+0.8
	baz=14,SNR=15						
P12A	McGill	13.79	345	⇓P	Pn	15 03 57.6	+0.1
	baz=14,SNR=32						
NLU	North Lily Min	13.79	354	*e*P	Pn	15 03 58.8	+1.2
MPU	Maple Canyon	13.82	356	*e*P	Pn	15 03 57.9	-0.1
	comp=Z,102nm,1.2s						
Q09A	Carvers	13.86	337	⇓P	Pn	15 04 01.4	+2.8
	baz=14,SNR=6.1						
NVAR	Mina Array Bea	13.94	333	Pn	Pn	15 03 58.9	-0.7
NVAR	Mina Array Bea	13.94	333	Pn	Pn	15 03 58.9	-0.7
	comp=Z,0.3nm,0.3s,baz=149,slow=13,SNR=16						
P11A	Circle Ranch,	14.07	342	⇓P	Pn	15 04 04.3	+2.8
	baz=14,SNR=7.3						
DUG	Dugway	14.11	352	*e*P	Pn	15 04 03.2	+1.3
	comp=Z,20nm,0.6s						
DUG	Dugway	14.11	352	*e*P	Pn	15 04 03.2	+1.2
DUG				pmax	pmax		
	comp=Z,20nm,0.6s						
DUG	Dugway	14.11	352	⇓P	Pn	15 04 03.4	+1.4
	baz=14,SNR=12						
ISCO	Idaho Springs	14.11	15	*e*P	Pn	15 04 02.7	+0.7
	comp=Z,64nm,0.9s						
ISCO	Idaho Springs	14.11	15	*e*P	Pn	15 04 02.7	+0.7
ISCO				pmax	pmax		
	comp=Z,64nm,0.9s						
Q08A	Gabbs	14.16	335	⇑P	Pn	15 04 04.8	+2.1
	baz=14,SNR=8.2						
DAU	Daniels Canyon	14.19	357	*e*P	Pn	15 04 03.5	+0.5
P10A	Eureka	14.34	340	⇓P	Pn	15 04 07.3	+2.2
	baz=14,SNR=9.7						
JLU	Jordanelle	14.39	356	*e*P	Pn	15 04 06.8	+1.0
NOQ	North Oquirrh	14.49	354	*e*P	Pn	15 04 08.6	+1.5
	comp=Z,94nm,1.2s						
CTU	Camp Tracy	14.50	356	*e*P	Pn	15 04 06.2	-1.1
	comp=Z,18nm,1.5s						
R06C	Coleville	14.51	330	⇓P	Pn	15 04 10.3	+2.9
	baz=14						
O12A	Currie	14.51	346	⇓P	Pn	15 04 08.5	+1.1
	baz=15,SNR=14						
CMB	Columbia Colle	14.56	327	*e*P	Pn	15 04 08.9	+0.9
	comp=Z,100nm,1.4s						
CMB	Columbia Colle	14.56	327	*e*P	Pn	15 04 08.9	+0.8
CMB				pmax	pmax		
	comp=Z,100nm,1.4s						
CMB	Columbia Colle	14.56	327	⇓P	Pn	15 04 11.8	+3.7
	baz=15,SNR=9.0						
O11A	Cowboy Ranch,	14.59	343	⇑P	Pn	15 04 10.6	+2.0
	baz=15,SNR=16						
NATX	Nacogdoches	14.75	64	*e*P	Pn	15 04 11.5	+0.7
	comp=Z,201nm,1.1s						
BGU	Big Grassy Mou	14.86	352	*e*P	Pn	15 04 11.6	-0.6
R05C	Kirkwood Meado	14.94	329	⇑P	Pn	15 04 16.5	+3.2
	baz=15,SNR=8.3						
WENL	Wente Brothers	14.96	322	⇑P	Pn	15 04 15.4	+1.8
	baz=15						
N13A	Wendover, West	14.97	348	⇓P	Pn	15 04 16.4	+2.7
	baz=15,SNR=9.2						
O10A	Cortez Mining,	14.97	341	⇑P	Pn	15 04 14.8	+1.1
	baz=15,SNR=8.8						
ELK	Elko	15.07	345	*e*P	Pn	15 04 15.9	+0.8
	comp=Z,221nm,1.5s						
ELK	Elko	15.07	345	*e*P	Pn	15 04 15.9	+0.8
ELK				pmax	pmax		
	comp=Z,221nm,1.5s						
N12A	Clover Valley,	15.13	346	⇑P	Pn	15 04 16.8	+1.0
	baz=15,SNR=19						
SPUT	South Promonto	15.17	354	*e*P	Pn	15 04 17.6	+1.2
WCN	Washoe City	15.28	331	⇑P	Pn	15 04 21.8	+4.0
	baz=15,SNR=12						
LAVA	Lava Cap Winer	15.29	327	⇓P	Pn	15 04 22.3	+4.3
	baz=15,SNR=5.2						
BMN	Battle Mountai	15.32	340	*e*P	Pn	15 04 18.2	-0.1
	comp=Z,208nm,1.3s						
BMN	Battle Mountai	15.32	340	*e*P	Pn	15 04 18.2	-0.1
BMN				pmax	pmax		
	comp=Z,208nm,1.3s						
M15A	Larsen Ranch,	15.32	354	⇑P	Pn	15 04 20.1	+1.7
	baz=15,SNR=19						
CBKS	Cedar Bluff	15.39	33	*e*P	Pn	15 04 22.3	+3.1
	comp=Z,177nm,1.0s						
CBKS	Cedar Bluff	15.39	33	*e*P	Pn	15 04 22.3	+3.0
CBKS				pmax	pmax		
	comp=Z,177nm,1.0s						
HWUT	Hardware Ranch	15.40	356	*e*P	Pn	15 04 20.2	+0.9
	comp=Z,268nm,1.3s						
M13A	Montello	15.45	349	⇓P	Pn	15 04 22.6	+2.5
	baz=16,SNR=25						
VHO	Vista Hermosa	15.53	123	*i* P	Pn	15 04 24.7	+3.5
PHWY	Pilot Hill	15.58	14	*e*P	Pn	15 04 22.9	+1.2
RWWY	Rawlins	15.65	9	*e*P	Pn	15 04 24.9	+2.2
	comp=Z,191nm,1.3s						
HVU	Hansel Valley	15.67	353	*e*P	Pn	15 04 24.0	+1.1
	comp=Z,166nm,1.2s						
HVU	Hansel Valley	15.67	353	*e*P	Pn	15 04 24.0	+1.1
HVU				pmax	pmax		
	comp=Z,166nm,1.2s						
N09A	Rock Creek Ran	15.79	339	⇓P	Pn	15 04 25.9	+1.4
	baz=16,SNR=9.1						
M11A	Holland Ranch,	15.85	345	⇓P	Pn	15 04 26.1	+0.8
	baz=16						
N08A	GE Springer Mi	15.93	338	⇓P	Pn	15 04 27.1	+0.9
	baz=16,SNR=24						
BEKR	Beckwourth	16.01	331	⇑P	Pn	15 04 27.1	-0.3
	baz=16						
O06A	Flanigan	16.03	333	⇑P	Pn	15 04 28.3	+0.7
	baz=16						
NSHM	Saint Helena R	16.07	323	P	Pn	15 04 21.8	-6.3
M10A	I.L. Ranch, Tu	16.13	343	⇓P	Pn	15 04 29.1	+0.3
	baz=16,SNR=14						
L13A	Double Diamond	16.13	350	⇑P	Pn	15 04 31.1	+2.3
	baz=16,SNR=27						
N07B	Gerlach	16.22	336	⇓P	Pn	15 04 29.9	-0.2
	baz=16,SNR=39						
ORV	Oroville	16.29	328	⇑P	Pn	15 04 32.9	+2.0
	baz=16,SNR=16						
M09A	Marrel Ranch,	16.29	340	⇓P	Pn	15 04 30.1	-0.8
	baz=16						
O05C	Quincy	16.34	330	⇑P	Pn	15 04 32.9	+1.4
	baz=16						
L12A	House Creek Ra	16.37	347	⇑P	Pn	15 04 33.2	+1.2
	baz=16						
K14A	Jones Ranch, D	16.47	352	⇓P	Pn	15 04 33.8	+0.6
	baz=17,SNR=12						
N06A	Buffalo Meadow	16.53	334	⇑P	Pn	15 04 34.7	+0.8
	baz=17						
BW06	Boulder Array	16.53	2	*e*P	Pn	15 04 32.3	-1.7
	comp=Z,240nm,1.3s						
PDAR	Pinedale Array	16.53	2	Pn	Pn	15 04 33.0	-1.0
PDAR				Lg		15 09 23.4	
PDAR				LR	LR	15 11 10.5	
PDAR	Pinedale Array	16.53	2	Pn	Pn	15 04 33.0	-1.0
	comp=Z,0.1nm,0.3s,baz=194,slow=7.2,SNR=7.9						
PDAR				Lg		15 09 23.4	
	comp=Z,0.0nm,0.3s,baz=199,slow=13,SNR=2.8						
PDAR				LR	LR	15 11 10.5	
	comp=Z,47µm,19.4s,baz=195,slow=38						
AHID	Auburn Hatcher	16.53	358	*e*P	Pn	15 04 33.8	-0.2
	comp=Z,155nm,1.4s						
L11A	Cat Creek Ranc	16.54	346	⇑P	Pn	15 04 35.1	+1.0
	baz=17,SNR=41						
M08A	Happy Creek Ra	16.61	338	⇓P	Pn	15 04 35.1	+0.1
	baz=17						
L10A	Juniper Basin	16.63	344	⇓P	Pn	15 04 35.6	+0.3
	baz=17,SNR=54						
MIAR	Mount Ida	16.64	56	*e*P	Pn	15 04 39.6	+4.3
	comp=Z,16nm,0.4s						
MIAR	Mount Ida	16.64	56	*e*P	Pn	15 04 39.6	+4.2
MIAR				pmax	pmax		
	comp=Z,16nm,0.4s						
K13A	Stover Farm, H	16.70	350	⇑P	Pn	15 04 37.5	+1.4
	baz=17,SNR=9.8						
O04C	Chester	16.70	330	⇑P	Pn	15 04 39.1	+3.0
	baz=17,SNR=14						
K12A	Draper Farm, C	16.82	348	P	Pn	15 04 39.3	+1.7
	baz=17,SNR=21						
M07A	Soldier Meadow	16.83	336	⇓P	Pn	15 04 38.3	+0.6
	baz=17,SNR=16						
L09A	Wilkinson Ranc	16.90	341	⇓P	Pn	15 04 40.2	+1.6
	baz=17,SNR=12						
CMIG	Matias Romero	16.94	119	P	Pn	15 04 41.3	+2.0
	comp=Z,0.9nm,0.3s,baz=306,slow=9.3,SNR=20						
GASB	Alder Springs	16.96	325	⇑P	Pn	15 04 42.4	+2.9
	baz=17						
REDW	Red Top Meadow	17.12	359	*e*P	Pn	15 04 41.2	-0.3
	comp=Z,5µm,1.3s						
P01C	Double 8 Ranch	17.15	324	⇑P	Pn	15 04 43.5	+1.7
	baz=17						
M06C	Likely Place G	17.17	333	⇓P	Pn	15 04 42.2	+0.2
	baz=17,SNR=19						
K11A	Parker Ranch,	17.18	346	⇓P	Pn	15 04 44.2	+2.1
	baz=17,SNR=14						
KSU1	Kansas State U	17.24	38	*e*P	Pn	15 04 43.7	+0.8
	comp=Z,352nm,1.2s						
L08A	Fields	17.27	339	⇑P	Pn	15 04 42.0	-1.2
	baz=17						
DCID1	Drake Creek	17.36	358	*e*P	Pn	15 04 43.9	-0.6
LOHW	Long Hollow	17.37	359	*e*P	Pn	15 04 43.6	-0.9
	comp=Z,7µm,1.3s						
K10A	MacKenzie Ranc	17.39	344	⇑P	Pn	15 04 45.2	+0.4
	baz=17,SNR=11						
O02C	Red Bluff	17.39	326	⇓P	Pn	15 04 46.7	+1.9
	baz=17						
KCPM	Cahto Peak	17.44	324	*e*P	Pn	15 04 44.2	-1.2
J13A	Cove Ranch, Pi	17.44	351	⇑P	Pn	15 04 46.1	+0.7
	baz=18,SNR=10						
L07A	Adell	17.44	337	⇓P	Pn	15 04 46.9	+1.4
	baz=18						
J12A	Stokes Ranch,	17.45	348	⇑P	Pn	15 04 46.2	+0.7
	baz=18,SNR=19						
MOOW	Moose Ponds	17.51	359	*e*P	Pn	15 04 46.0	-0.2
	comp=Z,124nm,1.4s						
K09A	Rome	17.55	342	⇓P	Pn	15 04 47.1	+0.4
	baz=18,SNR=44						
WVOR	Wild Horse Val	17.58	339	*e*P	Pn	15 04 45.5	-1.6
	comp=Z,216nm,1.5s						
WVOR	Wild Horse Val	17.58	339	*e*P	Pn	15 04 45.6	-1.5
WVOR				pmax	pmax		
	comp=Z,216nm,1.5s						
WDC	Whiskeytown Da	17.58	328	P	Pn	15 04 45.5	-1.7
	comp=Z,137nm,1.6s						
WDC	Whiskeytown Da	17.58	328	P	Pn	15 04 45.5	-1.7
WDC				pmax	pmax		
	comp=Z,137nm,1.6s						
HLID	Hailey	17.64	350	*e*P	Pn	15 04 47.3	-0.5
	comp=Z,74nm,1.3s						
HLID	Hailey	17.64	350	⇓P	Pn	15 04 48.1	+0.2
	baz=18						
UALR	University of	17.65	57	*e*P	Pn	15 04 47.6	-0.5
	comp=Z,123nm,1.1s						
IMW	Indian Meadow	17.66	358	*e*P	Pn	15 04 45.1	-3.0
	comp=Z,266nm,1.3s						
MOD	Modoc	17.70	335	*e*P	Pn	15 04 47.7	-0.9
	comp=Z,76nm,1.1s						
MOD	Modoc	17.70	335	⇓P	Pn	15 04 50.3	+1.7
	baz=18,SNR=5.2						
MFID	Camas Ranch	17.75	347	⇑P	Pn	15 04 50.9	+1.6
	baz=18,SNR=11						
M03C	McCloud	17.93	330	⇓P	Pn	15 04 53.7	+2.2
	baz=18						
I13A	Wildhorse Cree	17.94	351	⇑P	Pn	15 04 53.8	+2.2
	baz=18,SNR=22						
K07A	Rock Creek Ran	18.01	338	⇑P	Pn	15 04 52.1	-0.3
	baz=18,SNR=16						
L05A	Lakeview	18.03	334	⇑P	Pn	15 04 52.8	+0.2
	baz=18						
N02C	Big Bar	18.14	327	⇑P	Pn	15 04 55.0	+1.0
	baz=18						
J09A	Fry Pan Ranch,	18.15	342	⇓P	Pn	15 04 53.3	-0.9
	baz=18						
YFT	Old Faithful	18.21	359	*e*P	Pn	15 04 56.8	+1.9
M04C	Macdoel	18.22	331	⇓P	Pn	15 04 54.8	-0.3
	baz=18,SNR=9.2						
I11A	Placerville	18.26	347	⇑P	Pn	15 04 56.1	+0.6
	baz=18						
LKWY	Lake	18.32	360	*e*P	Pn	15 04 56.1	-0.1
	comp=Z,117nm,1.4s						
LKWY	Lake	18.32	360	*e*P	Pn	15 04 56.1	-0.1
LKWY				pmax	pmax		
	comp=Z,117nm,1.4s						
J08A	Circle Bar Ran	18.37	341	⇓P	Pn	15 04 57.7	+0.8
	baz=18,SNR=18						
YMR	Madison River	18.43	358	*e*P	Pn	15 04 57.8	+0.2
	comp=Z,226nm,1.4s						
K06A	Valley Falls	18.45	336	⇑P	Pn	15 04 57.9	0.0
	baz=18						
YNR	Norris Junctio	18.47	359	*e*P	Pn	15 04 59.4	+1.3
L04A	Klamath Falls	18.57	332	⇑P	Pn	15 04 58.8	-0.5
	baz=19						
H13A	Challis	18.60	351	⇓P	Pn	15 04 58.4	-1.2
	baz=19,SNR=18						
I10A	Payette	18.61	345	⇓P	Pn	15 05 01.6	+1.9
	baz=19						
QLMT	Earthquake Lak	18.61	357	*e*P	Pn	15 05 00.6	+0.9
K05A	Summer Lake	18.63	335	⇓P	Pn	15 04 58.2	-1.8
	baz=19						
J07A	Hines	18.64	339	⇓P	Pn	15 04 58.7	-1.4
	baz=19,SNR=14						
H12A	Diamond D Ranc	18.67	350	⇓P	Pn	15 04 59.4	-1.1
	baz=19,SNR=19						
MCMT	McKenzie Canyo	18.70	354	*e*P	Pn	15 05 01.6	+0.8
I09A	Lost Marbles R	18.73	343	⇓P	Pn	15 04 60.0	-1.3
	baz=19,SNR=6.6						
J06A	Christmas Vall	18.81	337	⇑P	Pn	15 05 00.7	-1.6
	baz=19,SNR=14						
RLMT	Red Lodge	18.89	2	*e*P	Pn	15 05 03.7	+0.5
	comp=Z,365nm,1.6s						
I08A	Drewsey	18.90	341	⇑P	Pn	15 05 03.6	+0.3
	baz=19						
G15A	Dillon	19.00	355	⇑P	Pn	15 05 05.5	+1.0
	baz=19,SNR=22						
H11A	Donnelly	19.03	347	⇓P	Pn	15 05 04.9	+0.1
	baz=19,SNR=13						
H10A	Noah’s Angus R	19.07	346	⇓P	Pn	15 05 03.4	-2.0
	baz=19						
G13A	Cobalt	19.11	351	⇑P	Pn	15 05 03.5	-2.3
	baz=19,SNR=14						
G14A	Jackson	19.17	353	⇓P	Pn	15 05 04.8	-1.7
	baz=19						
DLMT	Dillon	19.21	355	*e*P	Pn	15 05 06.1	-0.9
	comp=Z,273nm,1.5s						
HBAR	Harrisburg	19.23	56	*e*P	Pn	15 05 09.0	+1.6
J05A	Fort Rock	19.23	335	⇑P	Pn	15 05 05.3	-2.0

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      baz=19
H09A  Durkee            19.36 344 ⇑P    Pn     15 05 07.8 -1.0
      baz=19,SNR=9.7
BOZ   Bozeman (W)       19.43 357 eP    Pn     15 05 07.0 -2.7
      comp=Z,181nm,1.8s
BOZ   Bozeman (W)       19.43 357 eP    Pn     15 05 07.0 -2.7
BOZ                                pmax  pmax
      comp=Z,181nm,1.8s
BOZ   Bozeman (W)       19.43 357 ⇑P    Pn     15 05 08.8 -0.9
      baz=20,SNR=16
I06A  Prineville        19.44 338 ⇑P    Pn     15 05 08.9 -0.9
      baz=20,SNR=10
BMO   Blue Mountains    19.45 345 eP    Pn     15 05 08.2 -1.6
      comp=Z,116nm,1.5s
H08A  Prairie City      19.49 342 ⇑P    Pn     15 05 08.3 -2.1
      baz=20,SNR=20
GCMT  Greycliff         19.55   1 eP    Pn     15 05 11.5 +0.4
F15A  Butte             19.67 355 ⇓P    Pn     15 05 11.2 -1.4
      baz=20,SNR=15
OXF   Oxford            19.81  60 eP    Pn     15 05 14.8 +0.6
      comp=Z,266nm,1.3s
OXF   Oxford            19.81  60 eP    Pn     15 05 14.8 +0.5
OXF                                pmax  pmax
      comp=Z,266nm,1.3s
H07A  Lands Inn, Kim    19.82 340 ⇑P    Pn     15 05 11.9 -2.3
      baz=20
GNAR  Gosnell           19.87  56  P    Pn     15 05 15.1 +0.1
      comp=Z,1µm,0.9s
F12A  Elk City          19.91 350 ⇓P    Pn     15 05 12.6 -2.8
      baz=20
G09A  Cove              19.96 344 ⇓P    Pn     15 05 12.8 -3.2
      baz=20
F11A  Grangeville       20.20 348 ⇓P    P      15 05 14.6 -2.3
      baz=20,SNR=59
E15A  Deer Lodge        20.27 355 ⇓P    P      15 05 18.2 +0.6
      baz=20,SNR=18
G08A  Pilot Rock        20.28 342 ⇓P    P      15 05 17.7 -0.1
      baz=20,SNR=8.1
E14A  Clinton           20.33 354 ⇑P    P      15 05 17.0 -1.3
      baz=20,SNR=32
PARMO Parma             20.35  54 eP    P      15 05 20.7 +2.0
HALT  Halls             20.36  57  P    P      15 05 20.3 +1.6
F09A  S2 Ranch, Elgi    20.40 345 ⇓P    P      15 05 17.6 -1.5
      baz=20,SNR=46
E13A  Victor            20.43 352 ⇓P    P      15 05 17.6 -1.8
      baz=20
G07A  Ruggs Ranch, H    20.46 341 ⇑P    P      15 05 17.3 -2.4
      baz=20,SNR=9.8
FVM   French Village    20.48  50 eP    P      15 05 20.0  0.0
      comp=Z,434nm,1.4s
FVM   French Village    20.48  50 eP    P      15 05 20.0  0.0
FVM                                pmax  pmax
      comp=Z,434nm,1.4s
F10A  Beach Ranch, E    20.49 346 ⇑P    P      15 05 18.2 -1.9
      baz=21,SNR=33
HRY   Holter Researc    20.50 357 eP    P      15 05 18.6 -1.5
E11A  Bogner Ranch,     20.66 348 ⇓P    P      15 05 19.2 -2.7
      baz=21,SNR=29
LAO   LASA Array        20.70   8 eP    P      15 05 20.4 -1.8
      comp=Z,203nm,1.3s
LAO                                LR    LR
      comp=Z,25µm,22.0s,MS5.5
ECSD  EROS,Sioux Fal    20.72  29 eP    P      15 05 22.9 +0.3
      comp=Z,86nm,1.1s
MSO   Missoula          20.79 353 eP    P      15 05 21.5 -1.8
      comp=Z,98nm,1.2s
MSO                                LR    LR
      comp=Z,13µm,21.0s,MS5.3
CHMT  Chamberlain Mo    20.80 354 eP    P      15 05 21.6 -1.8
D15A  Lincoln           20.87 356 ⇑P    P      15 05 20.6 -3.6
      baz=21,SNR=18
UTMT  University of     20.88  56  P    P      15 05 24.4  0.0
      comp=Z,330nm,1.0s
SLM   Saint Louis       20.93  49 eP    P      15 05 24.9  0.0
      comp=Z,215nm,1.1s
SLM   Saint Louis       20.93  49 eP    P      15 05 24.9  0.0
SLM                                pmax  pmax
      comp=Z,215nm,1.1s
BRAL  Brewton           20.94  71 eP    P      15 05 26.2 +1.1
      comp=Z,928nm,1.3s
BRAL                               LR    LR
      comp=Z,13µm,19.0s,MS5.3
E10A  Myers Farm, Un    20.95 347 ⇑P    P      15 05 23.2 -1.9
      baz=21,SNR=23
D14A  Greenough         20.99 354  P    P      15 05 23.6 -1.8
      baz=21,SNR=82
PLAL  Pickwick Lake     21.00  60 eP    P      15 05 25.1 -0.5
      comp=Z,141nm,1.2s
PLAL                               LR    LR
      comp=Z,32µm,19.0s,MS5.7
SCIA  State Center      21.04  38 eP    P      15 05 27.5 +1.4
      comp=Z,445nm,1.1s,mb5.7
TEIG  Tepich            21.08 102 eP    P      15 05 28.1 +1.4
      comp=Z,103nm,1.0s,mb5.1
TEIG                               LR    LR
      comp=Z,18µm,20.0s,MS5.5
TEIG  Tepich            21.08 102  P    P      15 05 28.6 +2.0
      comp=Z,55nm,1.1s,mb4.8,baz=282,slow=8.3,SNR=8.2
TEIG                               LR    LR     15 14 42.8
      comp=Z,18µm,21.4s,MS5.4,baz=285,slow=40
F07A  Phinny Hill Vi    21.11 341 ⇑P    P      15 05 22.5 -4.2
      baz=21,SNR=10
D13A  Huson             21.11 352  P    P      15 05 26.9 +0.2
      baz=21,SNR=19
COR   Corvallis         21.14 334  PFAKE       15 05 40.0  +13
COR                                LR    LR
      comp=Z,22µm,19.0s,MS5.6
D12A  Red Ives Fores    21.19 350 ⇓P    P      15 05 25.9 -1.7
      baz=21
SIUC  Southern Illin    21.20  52 eP    P      15 05 28.3 +0.6
      comp=Z,502nm,1.2s,mb5.7
E09A  Wood Farm, Sta    21.21 345  P    P      15 05 26.8 -1.1
      baz=21,SNR=11
LRAL  Lakeview Retre    21.34  66 eP    P      15 05 30.1 +0.8
      comp=Z,182nm,1.1s,mb5.3
LRAL                               LR    LR
      comp=Z,29µm,19.0s,MS5.7
D11A  Klaveano Farm,    21.35 349 ⇓P    P      15 05 26.5 -2.8
      baz=21,SNR=79
HAWA  Hanford           21.45 342 eP    P      15 05 27.3 -3.1
      comp=Z,71nm,1.1s,mb4.9
HAWA                               LR    LR
      comp=Z,24µm,21.0s,MS5.6
D10A  Wagner Farm, O    21.53 347 ⇓P    P      15 05 29.2 -2.1
      baz=22,SNR=7.6
E07A  Sunnyside         21.69 342 ⇓P    P      15 05 30.2 -2.8
      baz=22,SNR=5.9
C14A  Swan Lake         21.70 354 ⇑P    P      15 05 31.9 -1.1
      baz=22
C13A  Hot Springs       21.70 352 ⇓P    P      15 05 33.2 +0.2
      baz=22,SNR=18
D09A  Jones Farm, Ri    21.76 345 ⇑P    P      15 05 32.1 -1.7
      baz=22
EGMT  Eagleton          21.78   1 eP    P      15 05 31.7 -2.3
      comp=Z,275nm,1.2s,mb5.6
EGMT                               LR    LR
      comp=Z,15µm,21.0s,MS5.4
EGMT  Eagleton          21.78   1 ⇑P    P      15 05 32.1 -1.9
      baz=22,SNR=19
D08A  Wollman Farm,     21.91 344 ⇑P    P      15 05 32.4 -2.9
      baz=22,SNR=25
F04A  Amboy             21.94 337 ⇓P    P      15 05 34.5 -1.3
      baz=22
E06A  Yakima            22.01 340 ⇑P    P      15 05 36.1 -0.3
      baz=22
E05A  Randle            22.27 339 ⇑P    P      15 05 36.9 -2.3
      baz=22,SNR=20
D07A  Quincy            22.30 342 ⇓P    P      15 05 36.8 -2.8
      baz=22
B13A  Whitefish         22.37 353 ⇑P    P      15 05 39.3 -0.9
      baz=22
USIN  University of     22.41  53 eP    P      15 05 41.0 +0.2
      comp=Z,327nm,1.4s,mb5.6
HDIL  Hopedale          22.56  45 eP    P      15 05 41.2 -1.1
      comp=Z,458nm,1.2s,mb5.8
HDIL                               LR    LR
      comp=Z,26µm,19.0s,MS5.7
B12A  Libby             22.61 351 ⇑P    P      15 05 40.8 -2.0
      baz=23
C08A  Higginbotham F    22.62 345 ⇑P    P      15 05 40.9 -1.9
      baz=23
NEW   Newport           22.66 348 eP    P      15 05 39.9 -3.4
      comp=Z,54nm,1.1s,mb4.9
NEW                                LR    LR
      comp=Z,23µm,20.0s,MS5.6
NEW   Newport           22.66 348 eP    P      15 05 39.9 -3.4
NEW                                pmax  pmax
      comp=Z,54nm,1.1s
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NEW                                MLR   MLR
      comp=Z,23µm,20.0s
NEW   Newport           22.66 348  P    P      15 05 41.4 -2.0
      comp=Z,4.8nm,0.6s,baz=181,slow=11,SNR=11
NEW                                LR    LR     15 15 11.5
      comp=Z,23µm,18.0s,MS5.7,baz=172,slow=39
B11A  Sandpoint         22.70 349 ⇓P    P      15 05 43.9 +0.2
      baz=23,SNR=14
B10A  Chitwood Farm,    22.71 348 ⇓P    P      15 05 43.6 -0.3
      baz=23
DGMT  Dagmar            22.73  11 eP    P      15 05 43.2 -0.9
      comp=Z,151nm,1.2s,mb5.3
DGMT                               LR    LR
      comp=Z,39µm,19.0s,MS5.9
SWET  Sewanee           22.74  61 eP    P      15 05 46.0 +1.7
C07A  Waterville        22.79 343 ⇑P    P      15 05 44.5 -0.1
      baz=23,SNR=8.4
E03A  Lebam             22.88 336 ⇓P    P      15 05 45.4 -0.2
      baz=23
D05A  Enumclaw          22.90 339 ⇑P    P      15 05 44.0 -1.8
      baz=23
A13A  Flathead Natio    22.92 353 ⇑P    P      15 05 44.8 -1.3
      baz=23
WALA  Waterton Lakes    22.99 354 eP    P      15 05 45.2 -1.6
      comp=Z,79nm,1.1s,mb5.1
B09A  Rice              23.02 347 ⇑P    P      15 05 46.8 -0.3
      baz=23
A12A  Yaak River Ran    23.07 351  P    P      15 05 47.0 -0.7
      baz=23,SNR=13
A11A  Hall Mountain,    23.20 350 ⇑P    P      15 05 45.9 -3.1
      baz=23,SNR=16
B08A  Colville Reser    23.22 345 ⇑P    P      15 05 49.0 -0.2
      baz=23,SNR=11
C06A  Tall Timber Ra    23.23 342 ⇓P    P      15 05 48.4 -0.9
      baz=23
C05A  Tolt Reservoir    23.25 340 ⇑P    P      15 05 49.6  0.0
      baz=23
JFWS  Jewell Farm       23.36  39 eP    P      15 05 49.9 -0.9
      comp=Z,164nm,1.1s,mb5.4
JFWS                               LR    LR
      comp=Z,17µm,19.0s,MS5.5
JFWS  Jewell Farm       23.36  39 eP    P      15 05 49.9 -0.9
JFWS                               pmax  pmax
      comp=Z,163nm,1.1s,mb5.4
JFWS                               MLR   MLR
      comp=Z,17µm,19.0s,MS5.5
A10A  Northport         23.43 348 ⇓P    P      15 05 50.1 -1.3
      baz=24
WCI   Wyandotte Cave    23.50  53 eP    P      15 05 51.6 -0.8
      comp=Z,80nm,1.1s,mb5.1
WCI                                LR    LR
      comp=Z,13µm,19.0s,MS5.4
WCI   Wyandotte Cave    23.50  53 eP    P      15 05 51.6 -0.8
WCI                                pmax  pmax
      comp=Z,80nm,1.1s,mb5.1
WCI                                MLR   MLR
      comp=Z,13µm,19.0s,MS5.4
B07A  Winthrop          23.51 343 ⇓P    P      15 05 50.9 -1.4
      baz=24
A09A  Danville          23.63 346 ⇓P    P      15 05 51.8 -1.6
      baz=24
C04A  Brinnon           23.68 338 ⇓P    P      15 05 52.6 -1.3
      baz=24
NLWA  Neilton Lookou    23.71 337  PFAKE       15 06 00.0 +5.8
NLWA                               LR    LR
      comp=Z,28µm,19.0s,MS5.8
BLO   Bloomington       23.74  51 eP    P      15 05 54.7 +0.2
      comp=Z,110nm,1.0s,mb5.2
BLO   Bloomington       23.74  51 eP    P      15 05 54.7 +0.2
BLO                                pmax  pmax
      comp=Z,110nm,1.0s,mb5.2
A08A  Turner Farm, O    23.76 345 ⇑P    P      15 05 53.3 -1.3
      baz=24
CPCT  Cooper Cave       23.91  61 eP    P      15 05 55.5 -0.7
GOGA  Godfrey           24.32  66 eP    P      15 05 59.0 -0.8
      comp=Z,182nm,1.3s,mb5.3
GOGA                               LR    LR
      comp=Z,20µm,21.0s,MS5.6
GOGA  Godfrey           24.32  66 eP    P      15 05 59.0 -0.9
GOGA                               pmax  pmax
      comp=Z,182nm,1.3s,mb5.3
GOGA                               MLR   MLR
      comp=Z,20µm,21.0s,MS5.6
A05A  Maple Falls       24.54 341 ⇑P    P      15 06 02.2 +0.5
      baz=25
TKL   Tuckaleechee C    24.56  61  P    P      15 06 02.5 +0.4
      comp=Z,19nm,1.2s,mb4.5,baz=263,slow=7.4,SNR=5.7
TKL                                LR    LR     15 16 25.2
      comp=Z,15µm,18.5s,MS5.5,baz=353,slow=38
TGUH  Tegucigalpa,Un    24.71 115 eP    P      15 06 05.0 +1.4
      comp=Z,186nm,1.1s,mb5.5
TGUH                               LR    LR
      comp=Z,21µm,21.0s,MS5.6
AGMN  Agassiz Refuge    24.78  23 eP    P      15 06 01.8 -2.1
      comp=Z,37nm,1.0s,mb4.9
AGMN                               LR    LR
      comp=Z,5µm,20.0s,MS5.0
TZTN  Tazewell          24.98  59 eP    P      15 06 06.6 +0.8
      comp=Z,98nm,1.1s,mb5.2
TZTN                               LR    LR
      comp=Z,11µm,22.0s,MS5.3
DWPF  Disney            25.72  79  PFAKE       15 06 20.0 +7.3
DWPF                               LR    LR
      comp=Z,11µm,19.0s,MS5.4
COWI  Conover           26.05  35 eP    P      15 06 16.0 +0.5
      comp=Z,56nm,1.1s,mb5.0
EYMN  Ely               26.25  29  P    P      15 06 18.5 +1.2
      comp=Z,50nm,1.0s,mb5.0
EYMN                               LR    LR
      comp=Z,12µm,20.0s,MS5.4
ULM   Lac du Bonnet     26.45  21 eP    P      15 06 15.8 -3.2
      comp=Z,80nm,1.4s,mb5.1
ULM                                LR    LR
      comp=Z,8µm,22.0s,MS5.2
ULM   Lac du Bonnet     26.45  21  P    P      15 06 16.7 -2.4
      comp=Z,5.5nm,1.1s,baz=243,slow=4.9,SNR=4.0
ULM                                LR    LR     15 15 42.8
      comp=Z,4µm,21.3s,MS4.9,baz=208,slow=34
ACSO  Alum Creek Sta    26.66  52 eP    P      15 06 20.3 -0.8
      comp=Z,160nm,1.3s,mb5.4
ACSO                               LR    LR
      comp=Z,20µm,20.0s,MS5.7
NHSC  New Hope          27.00  68  P    P      15 06 23.9 -0.3
      comp=Z,204nm,1.3s,mb5.5
NHSC                               LR    LR
      comp=Z,11µm,19.0s,MS5.4
EDM   Edmonton          27.08 356 eP    P      15 06 22.8 -1.9
AAM   Ann Arbor         27.09  47  PFAKE       15 06 40.0  +15
AAM                                LR    LR
      comp=Z,774nm,20.0s,MS4.3
ELN   Prospectdale      27.32  59  P    P      15 06 27.9 +0.8
BLA   Blacksburg        27.57  59 eP    P      15 06 30.2 +0.9
      comp=Z,46nm,1.1s,mb5.0
BLA                                LR    LR
      comp=Z,11µm,22.0s,MS5.4
BLA   Blacksburg        27.57  59 eP    P      15 06 30.2 +0.9
BLA                                pmax  pmax
      comp=Z,46nm,1.1s,mb5.0
BLA                                MLR   MLR
      comp=Z,11µm,22.0s,MS5.4
JTS   JuntasAbangare    28.71 119  P    P      15 06 40.0 +0.3
      comp=Z,46nm,1.2s,mb5.1
JTS                                LR    LR
      comp=Z,9µm,22.0s,MS5.3
JTS   JuntasAbangare    28.71 119  P    P      15 06 40.0 +0.3
JTS                                pmax  pmax
      comp=Z,46nm,1.2s
JTS                                MLR   MLR
      comp=Z,9µm,22.0s
JTS   JuntasAbangare    28.71 119  P    P      15 06 42.6 +2.9
      comp=Z,15nm,0.7s,mb4.8,baz=309,slow=9.8,SNR=6.3
CNNC  Cliffs of the     29.17  64  PFAKE       15 07 00.0  +16
CNNC                               LR    LR
      comp=Z,26µm,19.0s,MS5.9
BBB   Bella Bella       29.23 337  LR   LR     15 18 05.7
      comp=Z,13µm,20.1s,MS5.5,baz=165,slow=36
SSPA  Standing Stone    30.44  54 eP    P      15 06 54.3 -0.5
      comp=Z,112nm,1.4s,mb5.4
SSPA                               LR    LR
      comp=Z,13µm,19.0s,MS5.6
MSNY  Massena           34.02  47 eP    P      15 07 26.8 +0.7
LONY  Lake Ozonia       34.07  48 eP    P      15 07 25.6 -0.9
      comp=Z,74nm,1.3s,mb5.5
NCB   Newcomb           34.09  49 eP    P      15 07 25.8 -0.9
      comp=Z,86nm,1.2s,mb5.5
NCB                                LR    LR
      comp=Z,16µm,20.0s,MS5.8
WRAK  Wrangell Islan    34.12 338  PFAKE       15 07 40.0  +13
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WRAK                               LR    LR
      comp=Z,10µm,22.0s,MS5.5
FCC   Fort Churchill    34.47  15 eP    P      15 07 27.8 -2.0
      comp=Z,41nm,0.9s,mb5.4
FCC   Fort Churchill    34.47  15 eP    P      15 07 27.8 -2.0
FCC                                pmax  pmax
      comp=Z,41nm,0.9s,mb5.4
QUA2  Belchertown       34.90  53 eP    P      15 07 34.0 +0.3
      comp=Z,113nm,1.0s,mb5.8
DLBC  Dease Lake        35.08 342 eP    P      15 07 34.7 -0.4
BRYW  Bryant College    35.39  54 eP    P      15 07 37.1 -0.9
      comp=Z,196nm,1.3s,mb5.9
HRV   Harvard--Oak R    35.52  53 eP    P      15 07 39.7 +0.5
      comp=Z,111nm,1.1s,mb5.7
HRV                                LR    LR
      comp=Z,11µm,20.0s,MS5.6
HRV   Harvard--Oak R    35.52  53 eP    P      15 07 39.7 +0.6
HRV                                pmax  pmax
      comp=Z,111nm,1.1s,mb5.7
HRV                                MLR   MLR
      comp=Z,11µm,20.0s,MS5.6
SIT   Sitka             35.65 337  PFAKE       15 07 50.0  +10
SIT                                LR    LR
      comp=Z,7µm,22.0s,MS5.4
WES   Weston            35.66  53  PFAKE       15 07 50.0  +10
WES                                LR    LR
      comp=Z,11µm,21.0s,MS5.6
LBNH  Lisbon            35.74  50 eP    P      15 07 41.2 +0.2
      comp=Z,77nm,1.3s,mb5.5
LBNH                               LR    LR
      comp=Z,18µm,22.0s,MS5.8
LBNH  Lisbon            35.74  50 eP    P      15 07 41.2 +0.2
LBNH                               pmax  pmax
      comp=Z,77nm,1.3s,mb5.5
LBNH                               MLR   MLR
      comp=Z,18µm,22.0s,MS5.8
YKA   Yellowknife Ar    36.40 357  P    P      15 07 45.1 -1.2
      comp=Z,4.6nm,0.9s,mb4.4,baz=174,slow=8.0,SNR=24
YKA                                LR    LR     15 23 22.6
      comp=Z,25µm,18.2s,MS6.0,baz=180,slow=38
SDDR  Presa de Saban    36.62  93  PFAKE       15 08 00.0  +11
SDDR                               LR    LR
      comp=Z,5µm,19.0s,MS5.3
PKME  Peaks-Kenny Pk    37.84  49  PFAKE       15 08 10.0  +11
PKME                               LR    LR
      comp=Z,9µm,22.0s,MS5.5
BBSR  BB Station        40.01  70  PFAKE       15 08 30.0  +13
BBSR                               LR    LR
      comp=Z,4µm,20.0s,MS5.3
ROSC  El Rosal          40.40 115 eP    P      15 08 23.2 +2.6
ROSC  El Rosal          40.40 115  P    P      15 08 23.4 +2.8
      comp=Z,5.0nm,0.3s,mb4.7,baz=92,slow=18,SNR=10
ROSC                               LR    LR     15 27 16.0
      comp=Z,4µm,18.5s,MS5.3,baz=346,slow=39
SDV   Santo Domingo     41.34 107 eP    P      15 08 27.5 -0.9
      comp=Z,66nm,1.0s,mb5.2
SDV                                LR    LR
      comp=Z,3µm,19.0s,MS5.1
SJG   San Juan          41.51  92  P    P      15 08 30.1 +0.3
      comp=Z,9.2nm,1.2s,mb4.3
SJG                                LR    LR
      comp=Z,5µm,22.0s,MS5.4
SJG   San Juan          41.51  92  P    P      15 08 30.1 +0.4
SJG                                pmax  pmax
      comp=Z,9.0nm,1.2s
SJG                                MLR   MLR
      comp=Z,5µm,22.0s
SJG   San Juan          41.51  92  P    P      15 08 30.1 +0.3
      comp=Z,15nm,0.7s,mb4.8,baz=284,slow=7.4,SNR=6.6
CPD   Cerro la Pandu    41.74  92 eP    P      15 08 32.0 +0.3
POHA  Pohakuloa         41.98 271  PFAKE       15 08 40.0 +6.4
POHA                               LR    LR
      comp=Z,10µm,21.0s,MS5.7
MTP   Monte Pirata      42.05  92 eP    P      15 08 34.6 +0.4
DAWY  Dawson            42.30 341 eP    P      15 08 35.1 -0.5
SCHQ  Schefferville     42.65  36  P    P      15 08 42.5 +4.0
      comp=Z,8.4nm,0.8s,mb4.5,baz=250,slow=9.9,SNR=6.0
SCHQ                               LR    LR     15 27 21.6
      comp=Z,11µm,20.8s,MS5.7,baz=247,slow=38
EGAK  Eagle             43.34 341 eP    P      15 08 43.1 -0.9
      comp=Z,31nm,1.2s,mb4.9
EGAK                               LR    LR
      comp=Z,4µm,20.0s,MS5.3
KDAK  Kodiak Island     43.38 328  PFAKE       15 08 50.0 +5.6
KDAK                               LR    LR
      comp=Z,1µm,21.0s,MS4.7
KIP   Kipapa            43.73 274  PFAKE       15 09 00.0  +12
KIP                                LR    LR
      comp=Z,9µm,20.0s,MS5.7
PMR   Palmer            43.92 334  PFAKE       15 09 00.0  +11
PMR                                LR    LR
      comp=Z,5µm,19.0s,MS5.4
INK   Inuvik            44.39 348 eP    P      15 08 50.9 -1.5
      comp=Z,1µm,1.3s,mb6.4
INK   Inuvik            44.39 348  P    P      15 08 51.3 -1.1
      comp=Z,18nm,1.2s,mb4.7,baz=149,slow=9.3,SNR=12
TAOE  Nuku Hiva Isla    45.35 224 eS    S      15 15 39.1 -2.6
      comp=Z,4µm,27.6s
TAOE                              eLQ          15 19 44.6
      comp=Z,45µm,27.1s
TAOE                              eLR    LR     15 21 34.8
      comp=Z,17µm,24.7s
COLA  College           45.48 339 eP    P      15 09 00.5 -0.6
      comp=Z,42nm,1.4s,mb5.1
COLA                               LR    LR
      comp=Z,5µm,19.0s,MS5.5
COLA  College           45.48 339 eP    P      15 09 00.5 -0.6
COLA                               pmax  pmax
      comp=Z,42nm,1.4s,mb5.1
COLA                               MLR   MLR
      comp=Z,5µm,19.0s,MS5.5
SVW2  Sparrevohn        46.30 331 eP    P      15 09 06.6 -1.0
TBG   Guadaloupe-3      46.33  93 eP    P      15 09 11.6 +3.1
TTA   Tatalina          47.35 334 eP    P      15 09 15.0 -0.9
GRGR  Grenville         47.76  97  P    P      15 09 20.1 +0.4
      comp=Z,325nm,1.3s,mb6.2
IMA2  Indian Mountai    48.14 338 eP    P      15 09 20.6 -1.3
RES   Resolute Bay      49.19   5 eP    P      15 09 28.3 -1.6
      comp=Z,1µm,1.3s
BBGH  Gun Hill          49.22  95  PFAKE       15 09 40.0 +9.0
BBGH                               LR    LR
      comp=Z,9µm,22.0s,MS5.7
UNV   Unalaska Valle    49.47 320  PFAKE       15 09 40.0 +7.7
UNV                                LR    LR
      comp=Z,5µm,20.0s,MS5.5
NNA   Nana              50.00 135  PFAKE       15 09 50.0  +13
NNA                                LR    LR
      comp=Z,2µm,21.0s,MS5.2
RPN   Rapa Nui          53.03 179  PFAKE       15 10 10.0  +11
RPN                                LR    LR
      comp=Z,8µm,21.0s,MS5.8
TNA   Tin City          53.17 334 eP    P      15 09 57.9 -2.0
      comp=Z,11nm,1.1s,mb4.7
TNA                                LR    LR
      comp=Z,3µm,20.0s,MS5.3
SFJD  Kangerlussuaq     54.40  25  PFAKE       15 10 20.0  +11
SFJD                               LR    LR
      comp=Z,10µm,20.0s,MS5.9
PTCN  Pitcairn Islan    54.45 202  PFAKE       15 10 20.0  +10
PTCN                               LR    LR
      comp=Z,5µm,20.0s,MS5.6
RKT   Rikitea           54.55 208 eS    S      15 17 47.7 -2.1
      comp=Z,2µm,30.8s
RKT                               eSS    SS     15 21 30.9 -2.0
      comp=Z,769nm,27.0s
RKT                               eLR    LR     15 25 54.2
      comp=Z,6µm,26.8s
RKT   Rikitea           54.55 208 eP    P      15 10 10.3 -0.1
      comp=Z,107nm,1.4s,mb5.7
RKT                               eS     S      15 17 47.7 -2.1
RKT                               eSS    SS     15 21 30.9 -2.0
RKT   Rikitea           54.55 208 eP    P      15 10 10.3 -0.1
RKT                               eS     S      15 17 47.7 -2.1
RKT                               eSS    SS     15 21 30.9 -2.0
RKT                                pmax  pmax
      comp=Z,107nm,1.4s,mb5.7
PPT   Papeete           57.89 225 eS    S      15 18 32.1 -2.3
      comp=Z,3µm,27.0s
PPT                               eLQ          15 24 58.9
      comp=Z,5µm,23.0s
PPT                               eLR    LR     15 27 24.0
      comp=Z,6µm,23.5s
PPT   Papeete           57.89 225  LR   LR     15 28 57.1
      comp=Z,4µm,18.3s,MS5.5,baz=41,slow=29
LPAZ  La Paz            58.86 131 eP    P      15 10 41.1 -0.2
      comp=Z,18nm,1.5s,mb4.9
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LPAZ                                LR       LR
      comp=Z,2μm,22.0s,MS5.3
LPAZ  La Paz            58.86 131  eP       P        15 10 41.1  -0.2
LPAZ                                pmax     pmax
      comp=Z,18nm,1.5s
LPAZ                                MLR      MLR
      comp=Z,2μm,22.0s
LPAZ  La Paz            58.86 131   P       P        15 10 42.7  +1.5
      comp=Z,1.3nm,0.7s,baz=236,slow=6.3,SNR=3.9
ALE   Alert             59.04   7   P       P        15 10 40.0  -1.7
      comp=Z,118nm,1.0s,mb5.9,SNR=8.8
SMY   Shemya            61.02 318   PFAKE            15 11 10.0  +14
SMY                                 LR       LR
      comp=Z,2μm,21.0s,MS5.3
BILL  Bilibino          63.54 335  eP       P        15 11 06.1  -6.2
      comp=Z,28nm,1.0s,mb5.2
BILL                                LR       LR
      comp=Z,3μm,20.0s,MS5.4
BILL  Bilibino          63.54 335   P       P        15 11 11.0  -1.3
BILL                                *PP      pP       15 11 13.0  -2.5
BILL                                                  15 11 51.0
BILL                                                  15 13 33.0
BILL                               e                  15 14 59.9
BILL                               i S      S        15 19 46.1  +0.6
BILL                                SS       SS       15 23 52.0  -0.1
BILL                                pmax     pmax
      comp=Z,3.0nm,0.6s,mb4.5
BILL                                MLR      MLR
      comp=Z,4μm,15.0s,MS5.8
DAG   Danmarks Havn     65.07  15⇑eP       P        15 11 20.0  -2.2
DAG                                 pmax     pmax
      comp=Z,20nm,0.9s,mb5.2
DAG   Danmarks Havn     65.07  15⇑iP       P        15 11 20.0  -2.2
      comp=Z,20nm,0.9s,mb5.2
BORG  Borgarnes         66.19  28   PFAKE            15 11 40.0  +10
BORG                                LR       LR
      comp=Z,6μm,20.0s,MS5.8
LCO   Las Campanas      66.77 143   P       P        15 11 34.3  +0.6
      comp=Z,28nm,1.3s,mb5.1
LCO                                 LR       LR
      comp=Z,2μm,20.0s,MS5.3
RAR   Rarotonga         67.25 230   LR       LR       15 34 10.1
      comp=Z,4μm,18.4s,MS5.7,baz=60,slow=30
PET   Petropavlovsk     70.12 320   PFAKE            15 12 10.0  +15
PET                                 LR       LR
      comp=Z,2μm,22.0s,MS5.4
KBS   Kingsbay          70.23  10   PFAKE            15 12 10.0  +15
KBS                                 LR       LR
      comp=Z,5μm,20.0s,MS5.8
PDA   Ponta Delgada     70.46  57  i LR      LR       15 37 00.0
AFI   Afiamalu          71.85 244   PFAKE            15 12 20.0  +14
AFI                                 LR       LR
      comp=Z,5μm,20.0s,MS5.8
AFI   Afiamalu          71.85 244   LR       LR       15 35 58.2
      comp=Z,4μm,19.9s,MS5.7,baz=55,slow=29
MA2   Magadan           72.12 328  eP       P        15 12 04.0  -2.4
      comp=Z,79nm,1.8s,mb5.3
MA2                                 LR       LR
      comp=Z,1μm,20.0s,MS5.2
MA2   Magadan           72.12 328  eP       P        15 12 04.7  -1.8
MA2                                eS       S        15 21 22.9  -5.6
MA2                                eSS      SS       15 26 04.3  -0.7
MA2                                eSSS              15 29 12.6
MA2                                 pmax     pmax
      comp=Z,40nm,1.7s,mb5.1
MA2                                 MLR      MLR
      comp=Z,2μm,19.8s,MS5.4
TIXI  Tiksi             74.30 344  eP       P        15 12 14.8  -4.4
      comp=Z,54nm,1.4s,mb5.3
TIXI                                LR       LR
      comp=Z,3μm,20.0s,MS5.6
TIXI  Tiksi             74.30 344  eP       P        15 12 16.5  -2.6
TIXI                               ePPP              15 16 47.2
TIXI                               eS       S        15 21 50.2  -2.6
TIXI                               eSS      SS       15 26 42.2  +4.6
TIXI                                pmax     pmax
      comp=Z,41nm,1.3s,mb5.2
TIXI                                MLR      MLR
      comp=Z,3μm,18.0s,MS5.6
FUNA  Funafuti          76.60 253   PFAKE            15 12 40.0  +6.7
FUNA                                LR       LR
      comp=Z,2μm,19.0s,MS5.5
ESK   Eskdalemuir       77.91  34   PFAKE            15 12 50.0  +10
ESK                                 LR       LR
      comp=Z,6μm,19.0s,MS5.9
EKA   Eskdalemuir Ar    77.92  34   P       P        15 12 40.9  +0.8
      comp=Z,3.8nm,1.1s,mb4.2,baz=339,slow=5.6,SNR=3.1
RCBR  Riachuelo         78.68 102   PFAKE            15 13 00.0  +15
RCBR                                LR       LR
      comp=Z,3μm,21.0s,MS5.6
ARCES ARCESS Array B    79.36  14   P       P        15 12 48.8  +1.1
      comp=Z,7.6nm,0.9s,mb4.6,baz=345,slow=4.3,SNR=8.7
ARCES                               LR       LR       15 48 56.4
      comp=Z,5μm,20.1s,MS5.9,baz=331,slow=37
ARE0  ARCESS Array S    79.36  14  eP       P        15 12 48.7  +0.9
KEV   Kevo              79.52  14   PFAKE            15 13 00.0  +11
KEV                                 LR       LR
      comp=Z,5μm,19.0s,MS5.8
YAK   Yakutsk           79.90 336  eP       P        15 12 50.8   0.0
      comp=Z,31nm,1.0s,mb5.2
YAK                                 LR       LR
      comp=Z,2μm,20.0s,MS5.4
YAK   Yakutsk           79.90 336  eP       P        15 12 49.5  -1.3
YAK                                e                  15 12 55.5
YAK                                e*PP     pP       15 13 00.6  +6.5
YAK                                eS       S        15 22 50.5  -3.6
YAK                                e*SS     sS       15 23 10.1  +11
YAK                                e                  15 23 32.3
YAK                                eSS      SS       15 28 10.1  +7.7
YAK                                 pmax     pmax
      comp=Z,16nm,1.2s,mb4.8
YAK                                 pmax     pmax
      comp=N,7.0nm,1.7s
YAK                                 pmax     pmax
      comp=E,9.0nm,1.4s
YAK                                 pmax     pmax
      comp=Z,243nm,3.7s
YAK                                 pmax     pmax
      comp=N,159nm,4.1s
YAK                                 pmax     pmax
      comp=E,70nm,2.4s
YAK                                 smax
      comp=N,473nm,8.7s
YAK                                 smax
      comp=Z,341nm,8.2s
YAK                                 smax
      comp=E,506nm,7.7s
YAK                                 MLR      MLR
      comp=N,2μm,13.0s,MS5.7
YAK                                 MLR      MLR
      comp=Z,2μm,13.0s,MS5.6
YAK                                 MLR      MLR
      comp=E,2μm,17.0s,MS5.7
NAO01 NORSAR Array S    81.07  25   PFAKE            15 13 10.0  +13
NAO01                               LR       LR
      comp=Z,3μm,19.0s,MS5.7
NB2   NORSAR Subarra    81.07  25   P       P        15 12 59.1  +2.0
      comp=Z,37nm,1.7s,mb5.0,baz=310,slow=5.3
NOA   NORSAR Array B    81.07  25   P       P        15 12 59.4  +2.3
      comp=Z,5.0nm,1.1s,mb4.3,baz=310,slow=5.3,SNR=4.0
NOA                                 LR       LR       15 48 09.5
      comp=Z,4μm,18.4s,MS5.8,baz=325,slow=35
KONO  Kongsberg         81.32  26   PFAKE            15 13 10.0  +12
KONO                                LR       LR
      comp=Z,6μm,20.0s,MS6.0
QUIF  Quistinic         81.55  41  eP       P        15 12 57.6  -2.3
      comp=Z,251nm,1.4s,mb5.6
QUIF  Quistinic         81.55  41  eP       P        15 12 57.6  -2.3
      comp=Z,126nm,1.4s,mb5.7
QUIF  Quistinic         81.55  41  eP       P        15 12 57.6  -2.3
QUIF                                pmax     pmax
      comp=Z,126nm,1.4s,mb5.7
YSS   Yuzh-Sakhalins    81.92 319  eP       P        15 13 00.2  -1.7
      comp=Z,30nm,1.2s,mb5.1
YSS                                 LR       LR
      comp=Z,1μm,22.0s,MS5.2
YSS   Yuzh-Sakhalins    81.92 319ceP       P        15 13 04.0  +2.1
YSS                                eS       S        15 23 15.0  -0.7
YSS                                eSS      SS       15 28 36.0  +2.6
YSS                                 pmax     pmax
      comp=Z,20nm,1.0s,mb5.0
YSS                                 pmax     pmax
      comp=Z,900nm,6.0s
HFS   Hagfors           82.60  25   P       P        15 13 06.1  +1.0
      comp=Z,6.2nm,1.0s,mb4.6,baz=289,slow=4.4,SNR=3.8
HFS                                 LR       LR       15 48 48.3
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      comp=Z,4μm,18.3s,MS5.8,baz=206,slow=35
LVZ   Lovozero          82.63  13   PFAKE            15 13 20.0  +15
LVZ                                 LR       LR
      comp=Z,6μm,22.0s,MS5.9
GRR   Gorron            82.64  39  eP       P        15 13 04.0  -1.6
      comp=Z,228nm,1.5s,mb5.7
GRR   Gorron            82.64  39  eP       P        15 13 04.0  -1.6
      comp=Z,114nm,1.5s,mb5.7
GRR   Gorron            82.64  39  eP       P        15 13 04.0  -1.6
GRR                                 pmax     pmax
      comp=Z,114nm,1.5s,mb5.7
FLN   La Foliniere      82.66  39  eP       P        15 13 04.1  -1.6
      comp=Z,218nm,1.3s,mb5.7
FLN                                eMLR     MLR
      comp=Z,8μm,23.0s,MS5.7
FLN   La Foliniere      82.66  39  eP       P        15 13 04.1  -1.6
      comp=Z,109nm,1.3s,mb5.7
FLN                                 LR       LR
      comp=Z,8μm,23.0s,MS6.0
FLN   La Foliniere      82.66  39  eP       P        15 13 04.1  -1.6
FLN                                 pmax     pmax
      comp=Z,109nm,1.3s,mb5.7
FLN                                 MLR      MLR
      comp=Z,8μm,23.0s,MS6.0
APA   Apatity           82.66  13⇓iP       P        15 13 13.7  +8.3
APA                                eS       S        15 23 30.0  +7.4
APA                                i SS     SS       15 28 44.0  +0.7
APA                                 pmax     pmax
      comp=Z,76nm,1.4s,mb5.5
APA                                 MLR      MLR
      comp=Z,8μm,16.0s,MS6.2
LDF   La Druitiere      82.95  39  eP       P        15 13 05.4  -1.8
ASAJ  Asahikawa         83.44 316   P       P        15 13 10.0  +0.1
      comp=Z,9.1nm,0.9s,mb4.8,baz=337,slow=9.9,SNR=3.7
MFF   Saint Martin d    83.99  41  eP       P        15 13 10.5  -2.1
BAIF  Baives            84.51  36  eP       P        15 13 13.2  -2.0
      comp=Z,167nm,1.6s,mb5.6
BAIF  Baives            84.51  36  eP       P        15 13 13.2  -2.0
      comp=Z,84nm,1.6s,mb5.6
BAIF  Baives            84.51  36  eP       P        15 13 13.2  -2.0
BAIF                                pmax     pmax
      comp=Z,84nm,1.6s,mb5.6
DOU   Dourbes           84.69  36   P       P        15 13 15.4  -0.7
      comp=Z,14nm,1.3s,mb5.0
GIVF  Givet             84.81  36  eP       P        15 13 14.7  -2.0
      comp=Z,69nm,1.0s,mb5.4
GIVF  Givet             84.81  36  eP       P        15 13 14.7  -2.0
      comp=Z,35nm,1.0s,mb5.4
GIVF  Givet             84.81  36  eP       P        15 13 14.7  -2.0
GIVF                                pmax     pmax
      comp=Z,35nm,1.0s,mb5.4
BCLA  Clavier           84.88  35   P       P        15 13 16.8  -0.3
      comp=Z,28nm,2.5s,mb4.9
PAB   San Pablo         84.97  48   PFAKE            15 13 30.0  +12
PAB                                 LR       LR
      comp=Z,4μm,21.0s,MS5.8
ESDC  Sonseca Array     85.16  48   P       P        15 13 19.5  +0.8
      comp=Z,3.8nm,1.0s,mb4.5,baz=315,slow=3.9,SNR=6.7
ESDC                                LR       LR       15 50 32.3
      comp=Z,4μm,18.0s,MS5.8,baz=275,slow=35
ESLA  Sonseca Array     85.16  48   PFAKE            15 13 30.0  +11
ESLA                                LR       LR
      comp=Z,18μm,19.0s
BSEG  Bad Segeberg      85.20  31  eS       S        15 23 58.6  +10
HABR  Khabarovsk        85.50 323  eP       P        15 13 19.1  -1.1
HABR                               eS       S        15 23 43.9  -7.9
HABR                                pmax     pmax
      comp=Z,18nm,1.5s,mb5.1
TCF   Toulx Ste Croi    85.53  40  eP       P        15 13 18.1  -2.3
      comp=Z,97nm,1.3s,mb5.6
TCF   Toulx Ste Croi    85.53  40  eP       P        15 13 18.1  -2.3
      comp=Z,48nm,1.3s,mb5.6
TCF   Toulx Ste Croi    85.53  40  eP       P        15 13 18.1  -2.3
TCF                                 pmax     pmax
      comp=Z,49nm,1.3s,mb5.6
RJF   Les Rejaudoux     85.66  41  eP       P        15 13 18.9  -2.2
      comp=Z,108nm,1.5s,mb5.5
RJF                                eMLR     MLR
      comp=Z,5μm,18.5s,MS5.6
RJF   Les Rejaudoux     85.66  41  eP       P        15 13 18.9  -2.2
      comp=Z,54nm,1.5s,mb5.6
RJF                                 LR       LR
      comp=Z,5μm,18.5s,MS5.9
RJF   Les Rejaudoux     85.66  41  eP       P        15 13 18.9  -2.2
RJF                                 pmax     pmax
      comp=Z,54nm,1.5s,mb5.6
RJF                                 MLR      MLR
      comp=Z,5μm,18.5s,MS5.9
BGF   Bois d’Agland     85.74  40  eP       P        15 13 19.1  -2.4
      comp=Z,69nm,1.2s,mb5.5
BGF   Bois d’Agland     85.74  40  eP       P        15 13 19.1  -2.4
      comp=Z,35nm,1.2s,mb5.5
BGF   Bois d’Agland     85.74  40  eP       P        15 13 19.1  -2.4
BGF                                 pmax     pmax
      comp=Z,35nm,1.2s,mb5.5
FINES FINESS Array B    85.83  19   P       P        15 13 21.9  +0.3
FINES                               LR       LR       15 51 53.9
FINES FINESS Array B    85.83  19   P       P        15 13 21.9  +0.3
      comp=Z,8.3nm,1.1s,mb4.9,baz=7.6,slow=4.2,SNR=8.5
FINES                               LR       LR       15 51 53.9
      comp=Z,5μm,20.4s,MS5.9,baz=316,slow=36
SSF   Saint Saulge      85.83  39  eP       P        15 13 19.6  -2.3
      comp=Z,67nm,1.2s,mb5.4
SSF   Saint Saulge      85.83  39  eP       P        15 13 19.6  -2.3
      comp=Z,34nm,1.2s,mb5.5
SSF   Saint Saulge      85.83  39  eP       P        15 13 19.6  -2.3
SSF                                 pmax     pmax
      comp=Z,34nm,1.2s,mb5.5
MEZF  Maizieres J’vi    85.86  37  eP       P        15 13 19.9  -2.1
AVF   Avril sur Loir    85.90  39  eP       P        15 13 19.6  -2.6
      comp=Z,88nm,1.4s,mb5.5
AVF   Avril sur Loir    85.90  39  eP       P        15 13 19.6  -2.6
      comp=Z,44nm,1.4s,mb5.5
AVF   Avril sur Loir    85.90  39  eP       P        15 13 19.6  -2.6
AVF                                 pmax     pmax
      comp=Z,44nm,1.4s,mb5.5
LOR   Lormes            85.91  39  eP       P        15 13 20.2  -2.1
      comp=Z,42nm,1.1s,mb5.3
LOR                                eMLR     MLR
      comp=Z,7μm,22.2s,MS5.7
LOR   Lormes            85.91  39  eP       P        15 13 20.2  -2.1
      comp=Z,21nm,1.1s,mb5.3
LOR                                 LR       LR
      comp=Z,7μm,22.3s,MS6.0
LOR   Lormes            85.91  39  eP       P        15 13 20.2  -2.1
LOR                                 pmax     pmax
      comp=Z,21nm,1.1s,mb5.3
LOR                                 MLR      MLR
      comp=Z,7μm,22.3s,MS6.0
CAF   Calviac           86.20  41  eP       P        15 13 21.6  -2.1
      comp=Z,90nm,1.5s,mb5.5
CAF   Calviac           86.20  41  eP       P        15 13 21.6  -2.1
      comp=Z,45nm,1.5s,mb5.5
CAF   Calviac           86.20  41  eP       P        15 13 21.6  -2.1
CAF                                 pmax     pmax
      comp=Z,45nm,1.5s,mb5.5
SMF   Signal de Mont    86.26  39  eP       P        15 13 21.3  -2.7
      comp=Z,67nm,1.3s,mb5.4
SMF   Signal de Mont    86.26  39  eP       P        15 13 21.3  -2.7
      comp=Z,34nm,1.3s,mb5.4
SMF   Signal de Mont    86.26  39  eP       P        15 13 21.3  -2.7
SMF                                 pmax     pmax
      comp=Z,34nm,1.3s,mb5.4
CLZ   Clausthal         86.55  32  eS       S        15 24 13.2  +11
TMCR  Tamitsa           86.57  13  eP       P        15 13 26.8  +1.6
TNS   Taunus Mts        86.61  34  eS       S        15 24 18.5  +16
HAU   Haudompre         86.85  37  eP       P        15 13 24.8  -2.1
HAU                                eMLR     MLR
      comp=Z,14μm,17.0s,MS6.1
HAU   Haudompre         86.85  37  eP       P        15 13 24.8  -2.1
HAU                                 MLR      MLR
      comp=Z,14μm,17.0s,MS6.4
CDF   Champ du Feu      87.11  36  eP       P        15 13 26.0  -2.1
      comp=Z,55nm,1.5s,mb5.3
CDF   Champ du Feu      87.11  36  eP       P        15 13 26.0  -2.1
      comp=Z,28nm,1.5s,mb5.3
CDF   Champ du Feu      87.11  36  eP       P        15 13 26.0  -2.1
CDF                                 pmax     pmax
      comp=Z,27nm,1.5s,mb5.3
HINF  Hinteralfeld      87.24  37  eP       P        15 13 26.6  -2.2
CABF  La Chapelle       87.54  38  eP       P        15 13 28.4  -1.9
      comp=Z,96nm,1.4s,mb5.5
CABF  La Chapelle       87.54  38  eP       P        15 13 28.4  -1.9
      comp=Z,48nm,1.4s,mb5.5
CABF  La Chapelle       87.54  38  eP       P        15 13 28.4  -1.9
CABF                                pmax     pmax
      comp=Z,48nm,1.4s,mb5.5
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BFO   Black Forest      87.71  36   PFAKE            15 13 40.0  +8.9
BFO                                 LR       LR
      comp=Z,5μm,20.0s,MS5.9
BFO   Black Forest      87.71  36  eS       S        15 24 22.7  +9.5
MOX   Moxa              87.92  33  eP       P        15 13 35.7  +3.7
      comp=Z,45nm,1.9s,mb5.4
MOX                                eS       S        15 24 14.0  -1.1
MOX                                eSS      SS       15 30 04.0  +2.7
MOX                                eLQ               15 36 54.0
MOX   Moxa              87.92  33  eP       P        15 13 35.7  +3.7
      comp=Z,45nm,1.9s,mb5.4
MOX
      comp=Z,7μm,19.0s
MOX   Moxa              87.92  33  eP       P        15 13 35.7  +3.7
MOX                                 pmax     pmax
      comp=Z,45nm,1.9s,mb5.4
MOX                                 MLR      MLR
      comp=Z,7μm,19.0s,MS6.1
CLL   Collm             88.15  32  i P      P        15 13 37.0  +3.9
      comp=Z,13nm,1.4s,mb5.0
CLL                                i        pP       15 13 40.1  +3.7
CLL                                eS       S        15 24 16.0  -1.3
CLL                                 LR       LR
      comp=Z,6μm,17.2s,MS6.0
CLL   Collm             88.15  32  i P      P        15 13 37.0  +3.9
CLL                                i        pP       15 13 40.1  +3.7
CLL                                eS       S        15 24 16.0  -1.3
CLL                                 pmax     pmax
      comp=Z,13nm,1.4s,mb5.0
CLL                                 MLR      MLR
      comp=Z,6μm,17.2s,MS6.0
CLL   Collm             88.15  32  i (pP)   P        15 13 37.0  +3.9
      comp=Z,13nm,1.4s,mb5.0
CLL                                i x      x        15 13 40.1
CLL                                i x      x        15 13 57.1
CLL                                eS       S        15 24 16.0  -1.3
CLL                                ePS               15 25 20.0
CLL                                eSS      SS       15 30 11.0  +6.4
CLL                                eSSS              15 33 42.0
GRF   Grafenberg Arr    88.34  34  eP       P        15 13 41.3  +7.3
GRF                                eSS      SS       15 30 07.1  -0.4
GRF                                 pmax     pmax
      comp=Z,28nm,1.3s,mb5.3
GRF                                 MLR      MLR
      comp=Z,5μm,20.9s,MS5.9
GRF   Grafenberg Arr    88.34  34  eP       P        15 13 41.3  +7.3
      comp=Z,28nm,1.3s,mb5.3
GRF                                e                  15 13 58.0
GRF                                eS       S        15 24 26.7  +7.6
GRF                                eSS      SS       15 30 07.1  -0.4
GRF                                eL                 15 52 05.1
      comp=Z,5μm,20.9s
BOD   Bodaibo           88.46 338  eP       P        15 13 31.6  -2.8
BOD                                 pmax     pmax
      comp=Z,15nm,1.4s,mb5.0
NKC   Novy Kostel       88.59  33  eP       P        15 13 37.7  +2.5
NKC                                 AMS      AMS      15 51 50.0
      comp=Z,8μm,18.4s
BRG   Berggiesshubel    88.88  32  eP       P        15 13 40.3  +3.8
      comp=Z,9.9nm,1.7s,mb4.9
BRG                                e                  15 13 59.3
BRG                                e                  15 18 44.0
BRG                                 S        S        15 24 32.0  +7.8
BRG                                 LR       LR
      comp=Z,4μm,15.1s,MS5.9
BRG   Berggiesshubel    88.88  32  eP       P        15 13 40.3  +3.8
BRG                                 pmax     pmax
      comp=Z,10.0nm,1.7s,mb4.9
BRG                                 pmax     pmax
      comp=Z,14nm,1.6s,mb5.0
BRG                                 MLR      MLR
      comp=N,2μm,13.9s,MS5.8
BRG                                 MLR      MLR
      comp=E,2μm,15.6s,MS5.8
BRG                                 MLR      MLR
      comp=Z,4μm,15.1s,MS5.9
BRG   Berggiesshubel    88.88  32  eP       P        15 13 40.3  +3.8
      comp=Z,16nm,1.7s,mb5.1
BRG                                e                  15 13 59.3
      comp=Z,23nm,1.6s
BRG                                e                  15 18 44.0
BRG                                 S        S        15 24 32.0  +7.8
BRG
      comp=N,3μm,13.9s
BRG
      comp=E,3μm,15.6s
BRG
      comp=Z,6μm,15.1s
PVCC  Panska Ves        89.41  32   AMS      AMS      15 51 40.0
      comp=Z,6μm,16.3s
WET   Wettzell          89.52  33  eS       S        15 24 38.0  +7.7
PRU   Pruhonice         89.76  32  eP       P        15 13 41.7  +1.0
PRU                                 AMS      AMS      15 54 20.0
      comp=Z,6μm,15.4s
KHC   Kasperske Hory    89.87  33  eP       P        15 13 48.2  +7.0
KHC                                 MLR      MLR
      comp=Z,6μm,17.4s,MS6.1
KHC   Kasperske Hory    89.87  33  epP      pP       15 13 48.2  +3.7
KHC                                 AMS      AMS      15 52 40.0
      comp=Z,6μm,17.4s
EFI   East Falkland     90.06 151   PFAKE            15 13 50.0  +8.3
EFI                                 LR       LR
      comp=Z,2μm,20.0s,MS5.5
GEC2  GERESS Array S    90.12  33  eS       S        15 24 47.5  +12
GERES GERESS Array B    90.12  33   LR       LR       15 53 21.4
      comp=Z,4μm,18.6s,MS5.9,baz=300,slow=35
MJAR  Matsushiro Arr    90.28 311   P       P        15 13 44.7  +1.3
MJAR                                LR       LR       15 48 23.6
MJAR  Matsushiro Arr    90.28 311   P       P        15 13 44.7  +1.3
      comp=Z,1.2nm,0.9s,mb4.2,baz=72,slow=2.8,SNR=3.7
MJAR                                LR       LR       15 48 23.6
      comp=Z,2μm,19.1s,MS5.7,baz=70,slow=32
MAJO  Matsushiro        90.28 311   PFAKE            15 13 50.0  +6.6
MAJO                                LR       LR
      comp=Z,3μm,20.0s,MS5.8
DPC   Dobruska-Polom    90.35  31  eP       P        15 13 45.6  +2.2
DPC                                 AMS      AMS      15 54 40.0
      comp=Z,6μm,16.0s
TREC  Trest             90.68  32   AMS      AMS      15 53 20.0
      comp=Z,7μm,17.0s
MDJ   Mudanjiang        90.83 322   PFAKE            15 14 00.0  +14
MDJ                                 LR       LR
      comp=Z,1μm,21.0s,MS5.3
OKC   Ostrava-Krasne    91.54  30   AMS      AMS      15 57 10.0
      comp=Z,5μm,15.6s
HIA   Hailar            92.65 330   PFAKE            15 14 00.0  +5.9
HIA                                 LR       LR
      comp=Z,2μm,19.0s,MS5.6
URZ   Urewera           93.40 229   LR       LR       15 47 31.9
      comp=Z,3μm,20.1s,MS5.7,baz=36,slow=30
CN2   Changchun         93.63 323  eP       P        15 14 02.0  +3.3
CN2                                 AMB      AMB
      comp=Z,10.0nm,0.6s,mb5.4
CN2                                 AMB      AMB
      comp=Z,200nm,5.0s
CN2                                 LR       LR
      comp=N,700nm,21.0s,MS5.4
CN2                                 LR       LR
      comp=E,1μm,21.0s,MS5.4
CN2                                 LR       LR
      comp=Z,1μm,21.0s,MS5.3
DZM   Mont Dzumac       93.80 247   LR       LR       15 49 28.8
      comp=Z,3μm,18.9s,MS5.8,baz=126,slow=31
HNR   Honiara           93.89 261   PFAKE            15 14 10.0  +10
HNR                                 LR       LR
      comp=Z,6μm,21.0s,MS6.0
HNR   Honiara           93.89 261   LR       LR       15 47 44.9
      comp=Z,6μm,21.3s,MS6.0,baz=1.4,slow=30
OBN   Obninsk           94.17  18   PFAKE            15 14 10.0  +9.0
OBN                                 LR       LR
      comp=Z,6μm,20.0s,MS6.0
OBN   Obninsk           94.17  18   P       P        15 14 04.0  +3.0
OBN                                eSS      SS       15 31 40.5  +10
OBN                                 MLR      MLR
      comp=Z,6μm,15.0s,MS6.2
UZH   Uzhgorod          94.28  29  eP       P        15 13 59.0  -2.6
UZH                                eS       S        15 25 11.0  -2.2
UZH                                ePS      PS       15 26 37.0  +8.4
UZH                                i SS     SS       15 31 30.0  -3.0
UZH                                 MLR      MLR
      comp=Z,3μm,16.0s,MS5.8
KIEV  Kiev              95.48  25   PFAKE            15 14 20.0  +13
KIEV                                LR       LR
      comp=Z,4μm,20.0s,MS5.9
AKASG Malin Array Be    95.48  25   P       P        15 14 08.8  +1.8
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	comp=Z,2.3nm,0.8s,mb4.7,baz=329,slow=4.4,SNR=6.6						
AKASG				LR	LR	15 59 35.5	
	comp=Z,6µm,18.1s,MS6.1,baz=305,slow=37						
KEST	**Kesra**	**96.09**	**45**	LR	LR	15 57 27.5	
	comp=Z,2µm,19.6s,MS5.5,baz=266,slow=36						
IRK	**Irkutsk**	**96.23**	**339**	*e*P	**P**	**15 14 11.4**	**+0.9**
IRK				pmax	pmax		
	comp=Z,22nm,1.8s,mb5.3						
KSRS	**Korea Array**	**96.35**	**317**	LR	LR	15 54 44.0	
	comp=Z,1µm,21.3s,MS5.3,baz=50,slow=34						
SNZO	**South Karori**	**96.53**	**227**	PFAKE		15 14 20.0	+8.2
SNZO				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
TLY	**Talaya**	**96.92**	**340**	*e*P	**P**	**15 14 12.7**	**-0.9**
	comp=Z,10.0nm,1.4s,mb5.0						
TLY				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
TLY	**Talaya**	**96.92**	**340**	*e*P	**P**	**15 14 18.0**	**+4.4**
TLY				*e*		15 18 17.4	
TLY				*e*PPP		15 20 09.2	
TLY				*e*PS	PS	15 27 04.9	+7.7
TLY				*e*SS	SS	15 32 15.9	+6.0
TLY				pmax	pmax		
	comp=Z,12nm,1.7s,mb5.0						
TLY				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.6						
GUMO	**Guam**	**96.96**	**289**	PFAKE		15 14 20.0	+5.5
GUMO				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
GUMO	**Guam**	**96.96**	**289**	LR	LR	15 48 43.0	
	comp=Z,4µm,21.9s,MS5.8,baz=44,slow=30						
INCN	**Inchon**	**97.12**	**318**	PFAKE		15 14 20.0	+5.2
INCN				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
ARU	**Arti**	**97.15**	**6**	P	**P**	**15 14 15.1**	**+0.6**
	comp=Z,13nm,1.2s,mb5.2						
ARU				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
ARU	**Arti**	**97.15**	**6**	*c i*P	**P**	**15 14 14.8**	**+0.3**
ARU						15 14 23.1	
ARU				*e*		15 18 11.9	
ARU				*e*PPP		15 20 17.6	
ARU				*e*S	S	15 24 52.1	-46
ARU				*e*SP	SP	15 26 54.4	-3.5
ARU				*e*PS	PS	15 27 03.1	+3.5
ARU				*e*SS	SS	15 32 09.0	-3.9
ARU				*e*SSS		15 36 04.5	
ARU				pmax	pmax		
	comp=Z,15nm,1.7s,mb5.2						
PMSA	**Palmer Station**	**97.50**	**162**	PFAKE		15 14 30.0	+14
PMSA				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
PMSA	**Palmer Station**	**97.50**	**162**	LR	LR	15 48 33.6	
	comp=Z,891nm,19.5s,MS5.3,baz=14,slow=29						
ZAK	**Zakamensk**	**98.15**	**339**	*e*P	**P**	**15 14 19.6**	**+0.4**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.4s,mb4.5						
NVS	**Novosibirsk**	**98.45**	**352**	*e*P	**P**	**15 14 19.0**	**-1.4**
ASCN	**Ascension**	**98.75**	**95**	PFAKE		15 14 30.0	+7.5
ASCN				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
ULN	**Ulaanbaatar**	**98.99**	**336**	PFAKE		15 14 30.0	+7.0
ULN				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
ZALV	**Zalesovo Beam**	**99.12**	**351**	P	**P**	**15 14 24.5**	**+1.1**
	comp=Z,0.2nm,0.3s,mb4.1,baz=12,slow=7.5,SNR=3.1						
ZALV				LR	LR	16 02 10.6	
	comp=Z,1µm,18.9s,MS5.5,baz=15,slow=37						
ZAL	**Zalesovo**	**99.13**	**351**	P	**P**	**15 14 24.5**	**+1.0**
SONM	**Songino Array**	**99.26**	**336**	P	**P**	**15 14 25.0**	**+0.8**
	comp=Z,1.7nm,1.0s,mb4.5,baz=14,slow=1.9,SNR=9.0						
SONM				LR	LR	16 04 54.8	
	comp=Z,2µm,19.7s,MS5.5,baz=28,slow=39						
BRVK	**Borovoye**	**101.07**	**360**	PFAKE		15 14 40.0	+7.8
BRVK				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
BJT	**Baijiatuau**	**101.19**	**325**	PFAKE		15 14 40.0	+7.3
BJT				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
HHC	**Hu-ho-hao-te**	**102.80**	**329**	*e*P	Pdif	15 14 38.5	-1.4
HHC				AMB	AMB		
	comp=Z,10.0nm,0.5s						
HHC				LR	LR		
	comp=N,2µm,18.4s,MS5.8						
HHC				LR	LR		
	comp=E,2µm,16.1s,MS5.8						
KURK	**Kurchatov**	**103.02**	**354**	PFAKE		15 14 50.0	+9.1
KURK				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
SSE	**Sheshan**	**104.73**	**316**	P	Pdif	15 14 47.2	-1.3
	comp=Z,11nm,0.8s						
SSE				S	Sdif	15 26 35.6	-6.0
SSE				SS	SS	15 33 57.0	-3.0
SSE				LR	LR		
	comp=Z,2µm,15.4s,MS5.7						
PMG	**Port Moresby**	**105.30**	**267**	PFAKE		15 19 20.0	+14
PMG				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
ANTO	**Ankara**	**105.81**	**29**	PFAKE		15 19 20.0	+14
ANTO				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
KIV	**Kislovodsk**	**105.92**	**20**	PFAKE		15 19 20.0	+14
KIV				LR	LR		
	comp=Z,5µm,20.0s,MS6.0						
BR131	**Keskin Array S**	**106.29**	**28**	PFAKE		15 19 20.0	+13
BR131				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
WMQ	**Urumqi**	**108.39**	**346**	*e*PDIF	Pdif	15 15 06.0	+1.3
WMQ				PP	PP	15 19 39.5	+5.6
WMQ				S	Sdif	15 27 10.8	-1.3
WMQ				SS	SS	15 34 52.5	+4.3
WMQ				PP	PP		
	comp=Z,87nm,9.6s						
WMQ				LR	LR		
	comp=N,1µm,17.8s,MS5.8						
WMQ				LR	LR		
	comp=E,2µm,21.6s,MS5.8						
WMQ				LR	LR		
	comp=Z,2µm,20.6s,MS5.6						
TATO	**Taipei**	**108.67**	**311**	PFAKE		15 19 20.0	+8.1
TATO				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
LZH	**Lanzhou**	**110.17**	**331**	*e*PKP	PKiKP	15 19 08.8	-5.6
LZH				XPKP		15 19 15.5	
LZH				PP	PP	15 19 47.0	-0.2
LZH				PP	PP		
	comp=Z,200nm,4.5s						
LZH				LR	LR		
	comp=E,2µm,17.3s						
LZH				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
CTAO	**Charters Tower**	**110.27**	**257**	PFAKE		15 19 30.0	+15
CTAO				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
AAK	**Ala-Archa**	**111.36**	**356**	PFAKE		15 19 30.0	+13
AAK				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
CD2	**Chengdu**	**114.54**	**328**	*e*PDIF	Pdif	15 15 31.3	-0.8
CD2				PKP	PKiKP	15 19 21.3	-1.6
CD2				PP	PP	15 20 21.0	+2.5
CD2				PP	PP		
	comp=Z,90nm,10.2s						
CD2				LR	LR		
	comp=N,430nm,18.0s,MS5.5						
CD2				LR	LR		
	comp=E,980nm,19.2s,MS5.5						
CD2				LR	LR		
	comp=Z,550nm,20.4s,MS5.2						
VNDA	**Vanda**	**114.92**	**194**	PFAKE		15 19 30.0	+7.9
VNDA				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
QSPA	**South Pole Qui**	**116.07**	**180**	PFAKE		15 19 40.0	+16
QSPA				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
TAU	**Tasmania Unive**	**116.08**	**233**	PFAKE		15 19 40.0	+15
TAU				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
DAV	**Davao City (W)**	**116.52**	**293**	PFAKE		15 19 40.0	+13
DAV				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
GYA	**Guiyang**	**116.68**	**323**	PDIF	Pdif	15 15 40.0	-1.6
GYA				LR	LR		
	comp=N,2µm,24.0s,MS5.9						
GYA				LR	LR		
	comp=E,3µm,22.2s,MS5.9						
GYA				LR	LR		
	comp=Z,2µm,21.4s,MS5.8						
KMI	**Kunming**	**119.82**	**325**	PKP	PKPdf	15 19 30.3	-2.9
KMI				XPKP		15 19 38.5	
KMI				PP	PP	15 20 59.3	+3.8
KMI				PP	PP		
	comp=Z,140nm,4.6s						
KMI				LR	LR		
	comp=N,1µm,20.0s,MS5.6						
KMI				LR	LR		
	comp=E,858nm,20.0s,MS5.6						
KMI				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
KMI	**Kunming**	**119.82**	**325**	PKP	PKPdf	15 19 30.2	-3.0
KMI				pPKP	pPKPdf	15 19 36.5	-0.1
KMI				sPKP		15 19 38.6	
KMI				PP	PP	15 20 59.3	+3.8
KMI				PS	PS	15 30 47.0	+1.7
KMI				SS	SS	15 37 18.9	-1.2
KMI				SSS		15 41 46.3	
KMI				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
KMI	**Kunming**	**119.82**	**325**	PKIKP	PKPdf	15 19 30.2	-3.0
KMI						15 19 36.5	
KMI						15 20 59.3	
KMI				PS	PS	15 30 47.0	+1.7
KMI				SS	SS	15 37 18.9	-1.2
KMI				SSS		15 41 46.3	
KMI				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.5						
QIZ	**Qiongzhong**	**120.49**	**315**	PKP	PKPdf	15 19 27.3	-7.3
QIZ				LR	LR		
	comp=N,892nm,17.4s,MS5.6						
QIZ				LR	LR		
	comp=E,617nm,15.6s,MS5.6						
QIZ				LR	LR		
	comp=Z,2µm,17.4s,MS5.8						
QIZ	**Qiongzhong**	**120.49**	**315**	PFAKE		15 19 50.0	+15
QIZ				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
WRA	**Warramunga Arr**	**120.73**	**261**	PKP	PKPdf	15 19 34.8	-0.2
WRA	**Warramunga Arr**	**120.73**	**261**	PKIKP	PKPdf	15 19 34.8	-0.2
WRA	**Warramunga Arr**	**120.73**	**261**	PKP	PKPdf	15 19 34.8	-0.2
	comp=Z,1.4nm,1.0s,baz=66,slow=1.9,SNR=7.6						
LSA	**Lhasa**	**120.73**	**338**	PFAKE		15 19 50.0	+15
LSA				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
DRV	**Dumont d'Urvil**	**121.57**	**206**	Pdif	Pdif	15 16 25.0	+22
DRV				SKKS	SKKSac	15 27 56.0	-10
DRV				SS	SS	15 37 41.0	-1.8
DRV				L		15 51 00.0	
DRV				R		15 57 00.0	
ASAR	**Alice Springs**	**122.27**	**257**	PKP	PKPdf	15 19 37.6	-0.2
ASAR	**Alice Springs**	**122.27**	**257**	PKIKP	PKPdf	15 19 37.7	-0.1
ASAR	**Alice Springs**	**122.27**	**257**	PKP	PKPdf	15 19 37.6	-0.2
	comp=Z,1.2nm,1.0s,baz=112,slow=2.2,SNR=6.2						
CHTO	**Chiang Mai**	**127.00**	**325**	PFAKE		15 20 00.0	+13
CHTO				LR	LR		
	comp=Z,971nm,19.0s,MS5.5						
CM31	**Chiang Mai Arr**	**127.30**	**324**	PFAKE		15 20 00.0	+12
CM31				LR	LR		
	comp=Z,904nm,19.0s,MS5.5						
TSUM	**Tsumeb**	**131.67**	**93**	PFAKE		15 20 10.0	+14
TSUM				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
SYO	**Syowa Base**	**133.61**	**166**	⇓*e*pPdiff		15 16 57.0	
SYO	**Syowa Base**	**133.61**	**166**	⇑*e*PKPdf	PKPdf	15 19 56.2	-1.8
MBWA	**Marble Bar**	**134.14**	**265**	PFAKE		15 20 10.0	+10
MBWA				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
SUR	**Sutherland**	**137.21**	**110**	PFAKE		15 20 20.0	+14
SUR				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
MAW	**Mawson**	**138.37**	**176**	PKP	PKPdf	15 20 09.5	+2.5
MAW				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
MAW	**Mawson**	**138.37**	**176**	PKIKP	PKPdf	15 20 09.5	+2.6
MAW				MLR	MLR		
	comp=Z,2µm,20.0s						
MAW	**Mawson**	**138.37**	**176**	PKP	PKPdf	15 20 09.5	+2.5
	comp=Z,10nm,1.0s,baz=245,slow=5.9,SNR=4.8						
NWAO	**Narrogin (SRO)**	**138.40**	**249**	PFAKE		15 20 20.0	+12
NWAO				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
LSZ	**Lusaka**	**139.83**	**83**	*e*PKPpre		15 20 07.3	
LSZ				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
LSZ	**Lusaka**	**139.83**	**83**	PKhKP		15 20 07.6	
	comp=Z,9.4nm,1.1s,baz=328,slow=3.6,SNR=5.8						
KMBO	**Kilima Mbogo**	**140.04**	**57**	PKP	PKPdf	15 20 13.1	+1.4
KMBO				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
KMBO	**Kilima Mbogo**	**140.04**	**57**	PKIKP	PKPdf	15 20 13.1	+1.4
KMBO				MLR	MLR		
	comp=Z,2µm,19.0s						
KMBO	**Kilima Mbogo**	**140.04**	**57**	PKP	PKPdf	15 20 13.1	+1.4
	comp=Z,0.7nm,0.3s,baz=3.9,slow=3.5,SNR=4.4						
LBTB	**Lobatse**	**140.35**	**98**	PFAKE		15 20 20.0	+8.1
LBTB				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
BOSA	**Boshof**	**140.63**	**104**	PKP	PKPdf	15 20 14.4	+2.1
BOSA				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
BOSA	**Boshof**	**140.63**	**104**	PKIKP	PKPdf	15 20 14.4	+2.1
BOSA				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.7						
BOSA	**Boshof**	**140.63**	**104**	PKP	PKPdf	15 20 14.4	+2.1
	comp=Z,7.7nm,1.1s,baz=158,slow=3.8,SNR=3.9						
PALK	**Pallekele**	**145.05**	**341**	PFAKE		15 20 30.0	+10
PALK				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						

IDC 25 15:03:20.1±20.0, 17.78S×178.57W, h0km, mb4.2/4, mb1 4.4/4, mb1mx4.0/15, mbtmp4.2/4, Error ellipse: s-maj=382.3km s-min=49.3km az=57.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**20.75**	**190**	P	P	15 08 02.5	+0.1
	6.7nm,1.0s,baz=117,slow=16,SNR=5.6						
CTA	**Charters Tower**	**33.31**	**260**	*e*P	P	15 10 05.0	+5.2
	8.4nm,1.4s						
STKA	**Stephens Creek**	**38.55**	**241**	P	P	15 10 45.2	+0.5
	1.1nm,0.5s,baz=76,slow=8.3,SNR=5.7						
WB2	**Warramunga Arr**	**44.49**	**259**	*e*P	P	15 11 33.5	0.0
WRA	**Warramunga Arr**	**44.50**	**259**	P	P	15 11 33.6	0.0
	2.2nm,0.3s,baz=96,slow=8.0,SNR=150						
ASAR	**Alice Springs**	**44.67**	**254**	P	P	15 11 34.4	-0.6
	2.8nm,0.5s,baz=89,slow=8.0,SNR=115						
FITZ	**Fitzroy Crossi**	**52.89**	**260**	*e*P	P	15 12 35.5	-2.8
	4.9nm,1.1s						

BJI ***25*** *15:03:46.1, 26.00N×110.60W, h10km, mB5.5, mb5.1, Ms5.7, Msz5.3*

ISCJB ***25*** *15:03:48.5±0.4, 26.14N±0.04×110.63W±0.07, h10km, mb4.8/37, MS5.6/7, Error ellipse: s-maj=9.6km s-min=5.4km az=157.5*

MOS ***25*** *15:03:48.1±1.3, 26.11N×110.61W, h10km, mb5.3/14, Error ellipse: s-maj=13.7km s-min=7.1km az=87.3*

NEIC ***25*** *15:03:49.1±0.5, 26.03N×110.61W, h10km, mb5.2/13, Error ellipse: s-maj=11.4km s-min=7.9km az=61.0*

IDC ***25*** *15:03:50.6±0.7, 26.11N×110.79W, h18km±3km, mb4.3/13, mb1 4.5/17, mb1mx4.3/26, mbtmp4.3/17, ML3.9/4, Error ellipse: s-maj=22.9km s-min=11.5km az=71.0*

ISC 25 15:03:49.7±0.5, 26.09N±0.05×110.66W±0.07, h10km, (h19km±.6km:pP-P), n126, σ1ˢ29/109, mb4.8/37, MS5.6/7, 2C-2D, Gulf of California

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	**La Paz**	**2.00**	**171**	Pn	**Pn**	**15 04 23.9**	**+0.3**
LPIG				Pg	**Pg**	**15 04 34.5**	**+6.4**
LPIG				Lg		15 04 55.8	
LPIG	**La Paz**	**2.00**	**171**	Pn	**Pn**	**15 04 23.9**	**+0.3**
	20nm,0.3s,baz=48,slow=17,SNR=3.9						
LPIG				Pg	**Pg**	**15 04 34.5**	**+6.4**
	92nm,0.3s,baz=179,slow=7.9,SNR=6.3						
LPIG				Lg		15 04 55.8	
	132nm,0.3s,baz=82,slow=23,SNR=5.5						
TUC	**Tucson**	**6.20**	**359**	*e*Sg	**Sg**	**15 07 13.4**	**+4.6**
LTX	**Lajitas**	**6.99**	**61**	*e*Sg	**Sg**	**15 07 23.9**	**-10**
ANMO	**Albuquerque**	**9.54**	**21**	*e*P	**Pn**	**15 06 12.7**	**+5.5**
HKT	**Hockley**	**13.65**	**70**	P	**Pn**	**15 07 13.0**	**+10**
NVAR	**Mina Array Bea**	**13.89**	**334**	Pn	**Pn**	**15 07 09.2**	**+2.6**
NVAR	**Mina Array Bea**	**13.89**	**334**	Pn	**Pn**	**15 07 09.2**	**+2.6**
	0.3nm,0.3s,baz=178,slow=12,SNR=3.3						
ELK	**Elko**	**15.11**	**347**	*e*P	**Pn**	**15 07 26.1**	**+3.0**
SPUT	**South Promonto**	**15.25**	**355**	*e*P	**Pn**	**15 07 31.5**	**+6.4**
BMN	**Battle Mountai**	**15.31**	**341**	*e*P	**Pn**	**15 07 27.4**	**+1.5**
HWUT	**Hardware Ranch**	**15.50**	**357**	*e*P	**Pn**	**15 07 29.4**	**+1.1**
HVU	**Hansel Valley**	**15.75**	**354**	*e*P	**Pn**	**15 07 35.9**	**+4.3**
PHWY	**Pilot Hill**	**15.77**	**15**	P	**Pn**	**15 07 30.6**	**-1.3**
RWWY	**Rawlins**	**15.82**	**10**	*e*P	**Pn**	**15 07 37.9**	**+5.4**
	42nm,1.2s						
PDAR	**Pinedale Array**	**16.66**	**3**	Pn	**Pn**	**15 07 44.0**	**+0.8**
PDAR	**Pinedale Array**	**16.66**	**3**	Pn	**Pn**	**15 07 44.0**	**+0.8**
	0.1nm,0.3s,baz=170,slow=9.0,SNR=3.8						
CMIG	**Matias Romero**	**17.17**	**118**	P	**Pn**	**15 07 52.7**	**+2.8**
	0.2nm,0.3s,baz=303,slow=8.3,SNR=6.4						
DCID1	**Drake Creek**	**17.47**	**359**	*e*P	**Pn**	**15 07 54.3**	**+0.9**
KSU1	**Kansas State U**	**17.54**	**39**	*e*P	**Pn**	**15 07 54.0**	**-0.2**
	132nm,1.3s						
WVOR	**Wild Horse Val**	**17.57**	**340**	P	**Pn**	**15 07 60.0**	**+5.3**
YFT	**Old Faithful**	**18.32**	**360**	*e*P	**Pn**	**15 08 05.9**	**+2.0**
LKWY	**Lake**	**18.44**	**1**	*e*P	**Pn**	**15 08 06.0**	**+0.7**
QLMT	**Earthquake Lak**	**18.71**	**358**	*e*P	**Pn**	**15 08 10.7**	**+2.0**
MCMT	**McKenzie Canyo**	**18.78**	**355**	*e*P	**Pn**	**15 08 09.9**	**+0.4**
BOZ	**Bozeman (W)**	**19.53**	**358**	*e*P	**Pn**	**15 08 18.7**	**+0.2**
HBAR	**Harrisburg**	**19.57**	**56**	*e*P	**Pn**	**15 08 23.7**	**+4.6**
HRY	**Holter Researc**	**20.60**	**358**	*e*P	**P**	**15 08 29.1**	**+0.2**
FVM	**French Village**	**20.80**	**50**	*e*P	**P**	**15 08 30.4**	**-0.8**
LAO	**LASA Array**	**20.86**	**9**	P	**P**	**15 08 31.3**	**-0.4**
	402nm,2.0s						
MSO	**Missoula**	**20.86**	**354**	*e*P	**P**	**15 08 32.3**	**+0.6**
SLM	**Saint Louis**	**21.25**	**49**	*e*P	**P**	**15 08 35.4**	**-0.6**
	199nm,1.3s,mb5.3						
SLM	**Saint Louis**	**21.25**	**49**	*e*P	**P**	**15 08 35.4**	**-0.6**
SLM				pmax	pmax		
	comp=Z,199nm,1.3s,mb5.3						
BRAL	**Brewton**	**21.29**	**71**	*e*P	**P**	**15 08 40.3**	**+3.8**
	comp=Z,746nm,1.5s,mb5.8						
TEIG	**Tepich**	**21.38**	**101**	P	**P**	**15 08 39.0**	**+1.5**
	comp=Z,9.5nm,0.8s,mb4.2,baz=297,slow=12,SNR=2.7						
TEIG				pP		15 08 44.2	
	comp=Z,37nm,0.8s,baz=284,slow=10,SNR=6.2						
SIUC	**Southern Illin**	**21.53**	**52**	*e*P	**P**	**15 08 38.4**	**-0.6**
LRAL	**Lakeview Retre**	**21.69**	**66**	*e*P	**P**	**15 08 39.5**	**-1.3**
NEW	**Newport**	**22.71**	**349**	P	**P**	**15 08 50.5**	**-1.0**
	comp=Z,8.1nm,0.9s,mb4.1,baz=164,slow=13,SNR=4.3						
USIN	**University of**	**22.74**	**53**	*e*P	**P**	**15 08 54.6**	**+2.7**
HDIL	**Hopedale**	**22.87**	**46**	*e*P	**P**	**15 08 58.9**	**+5.6**
	comp=Z,358nm,1.3s,mb5.6						
DGMT	**Dagmar**	**22.91**	**11**	*e*P	**P**	**15 08 52.5**	**-1.1**
SWET	**Sewanee**	**23.09**	**61**	*e*P	**P**	**15 08 59.4**	**+3.8**
GOGA	**Godfrey**	**24.66**	**66**	*e*P	**P**	**15 09 09.7**	**-1.0**
TKL	**Tuckaleechee C**	**24.90**	**61**	P	**P**	**15 09 12.8**	**0.0**
	comp=Z,15nm,0.9s,mb4.5,baz=218,slow=7.5,SNR=4.2						
TGUH	**Tegucigalpa,Un**	**24.97**	**114**	*e*P	**P**	**15 09 16.3**	**+2.8**
EDM	**Edmonton**	**27.18**	**356**	*e*P	**P**	**15 09 32.1**	**-1.0**
JTS	**JuntasAbangare**	**28.95**	**118**	*e*P	**P**	**15 09 51.6**	**+2.2**
FCC	**Fort Churchill**	**34.67**	**15**	*e*P	**P**	**15 10 37.8**	**-1.3**
QUA2	**Belchertown**	**35.23**	**53**	*e*P	**P**	**15 10 42.9**	**-1.3**
	comp=Z,44nm,0.9s,mb5.4						
YKA	**Yellowknife Ar**	**36.49**	**357**	P	**P**	**15 10 54.0**	**-0.8**
YKA				pP	pP	15 10 59.8	+1.9
YKA	**Yellowknife Ar**	**36.49**	**357**	P	**P**	**15 10 54.0**	**-0.8**
	comp=Z,2.1nm,0.8s,mb4.1,baz=177,slow=8.8,SNR=6.4						
YKA				pP	pP	15 10 59.8	+1.9
	comp=Z,5.9nm,0.9s,baz=182,slow=8.1,SNR=12						
SJG	**San Juan**	**41.84**	**92**	P	**P**	**15 11 40.4**	**+0.3**
	comp=Z,9.3nm,0.5s,mb4.7,baz=320,slow=16,SNR=3.6						
INK	**Inuvik**	**44.43**	**348**	P	**P**	**15 11 59.3**	**-1.0**
	comp=Z,5.9nm,1.1s,mb4.2,baz=157,slow=7.6,SNR=3.6						
COLA	**College**	**45.46**	**339**	*e*P	**P**	**15 12 08.5**	**-0.1**
IMA2	**Indian Mountai**	**48.12**	**338**	*e*P	**P**	**15 12 29.3**	**-0.2**
TNA	**Tin City**	**53.13**	**334**	*e*P	**P**	**15 13 06.6**	**-0.6**
	comp=Z,5.1nm,1.1s,mb4.4						
BILL	**Bilibino**	**63.51**	**335**	*e*P	**P**	**15 14 19.3**	**-0.4**
	comp=Z,26nm,1.0s,mb5.2						
BILL	**Bilibino**	**63.51**	**335**	*de*P	**P**	**15 14 20.0**	**+0.3**
BILL				*e*		15 14 25.0	
BILL				pmax	pmax		
	comp=Z,48nm,2.5s,mb5.1						
DAG	**Danmarks Havn**	**65.27**	**15**	⇑*i*P	**P**	**15 14 29.9**	**-1.2**
DAG				pmax	pmax		
	comp=Z,18nm,0.5s,mb5.4						
DAG	**Danmarks Havn**	**65.27**	**15**	⇑*i*P	**P**	**15 14 29.9**	**-1.2**
	comp=Z,18nm,0.5s,mb5.3						
KBS	**Kingsbay**	**70.40**	**10**	*e*P	**P**	**15 15 05.2**	**+1.7**
MA2	**Magadan**	**72.05**	**328**	*e*P	**P**	**15 15 12.2**	**-1.4**
	comp=Z,25nm,1.3s,mb5.0						
MA2	**Magadan**	**72.05**	**328**	*e*P	**P**	**15 15 12.5**	**-1.2**
TIXI	**Tiksi**	**74.31**	**344**	*e*P	**P**	**15 15 24.4**	**-2.5**
TIXI	**Tiksi**	**74.31**	**344**	*e*P	**P**	**15 15 25.5**	**-1.4**
TIXI				pmax	pmax		
	comp=Z,25nm,1.7s,mb4.9						
EKA	**Eskdalemuir Ar**	**78.20**	**34**	P	**P**	**15 15 47.9**	**-1.4**
	comp=Z,3.4nm,0.9s,mb4.3,baz=302,slow=4.0,SNR=3.4						
ARCES	**ARCESS Array B**	**79.56**	**14**	P	**P**	**15 15 56.3**	**-0.1**
	comp=Z,5.4nm,0.9s,mb4.5,baz=328,slow=4.3,SNR=6.8						
ARCES				pP	pP	15 16 01.9	+2.2
	comp=Z,13nm,0.9s,baz=344,slow=6.6,SNR=9.7						
YAK	**Yakutsk**	**79.87**	**335**	*e*P	**P**	**15 15 57.6**	**-0.7**
	comp=Z,30nm,1.0s,mb5.2						
YAK	**Yakutsk**	**79.87**	**335**	*e*P	**P**	**15 15 58.2**	**-0.1**
YAK				pmax	pmax		
	comp=Z,39nm,1.7s,mb5.1						
NB2	**NORSAR Subarra**	**81.32**	**25**	P	**P**	**15 16 06.1**	**0.0**
	comp=Z,2.5nm,0.8s,mb4.2,baz=307,slow=5.3						
NOA	**NORSAR Array B**	**81.32**	**25**	P	**P**	**15 16 06.6**	**+0.6**
NOA				pP	pP	15 16 12.0	+2.6
NOA	**NORSAR Array B**	**81.32**	**25**	P	**P**	**15 16 06.6**	**+0.6**
	comp=Z,3.4nm,1.0s,mb4.2,baz=311,slow=5.3,SNR=5.0						
NOA				pP	pP	15 16 12.0	+2.6
	comp=Z,5.4nm,0.9s,baz=307,slow=5.2,SNR=8.5						
KONO	**Kongsberg**	**81.57**	**26**	*e*P	**P**	**15 16 06.9**	**-0.5**
YSS	**Yuzh-Sakhalins**	**81.79**	**318**	*e*P	**P**	**15 16 07.2**	**-1.7**
YSS				pmax	pmax		
	comp=Z,100nm,5.0s						
HFS	**Hagfors**	**82.84**	**25**	P	**P**	**15 16 14.7**	**+0.6**
	comp=Z,6.5nm,0.9s,mb4.7,baz=352,slow=2.1,SNR=3.9						
APA	**Apatity**	**82.85**	**13**	*e*P	**P**	**15 16 19.0**	**+5.0**
APA				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.9						
APA				MLR	MLR		
	comp=Z,4µm,15.0s,MS6.0						
BAIF	**Baives**	**84.80**	**36**	*e*P	**P**	**15 16 22.4**	**-1.9**
	comp=Z,42nm,1.2s,mb5.2						
BAIF	**Baives**	**84.80**	**36**	*e*P	**P**	**15 16 22.4**	**-1.9**
	comp=Z,21nm,1.2s,mb5.2						
BAIF	**Baives**	**84.80**	**36**	*e*P	**P**	**15 16 22.4**	**-1.9**
BAIF				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.1						
GIVF	**Givet**	**85.10**	**36**	*e*P	**P**	**15 16 24.0**	**-1.8**
	comp=Z,37nm,0.9s,mb5.2						
GIVF	**Givet**	**85.10**	**36**	*e*P	**P**	**15 16 24.0**	**-1.8**
	comp=Z,19nm,0.9s,mb5.2						
GIVF	**Givet**	**85.10**	**36**	*e*P	**P**	**15 16 24.0**	**-1.8**
GIVF				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.2						
ESDC	**Sonseca Array**	**85.49**	**48**	P	**P**	**15 16 27.8**	**-0.1**
	comp=Z,0.8nm,0.8s,mb3.9,baz=290,slow=3.7,SNR=4.3						
ESDC				pP	pP	15 16 33.6	+2.3
	comp=Z,1.5nm,0.8s,baz=317,slow=5.5,SNR=5.6						
TCF	**Toulx Ste Croi**	**85.83**	**40**	*e*P	**P**	**15 16 27.4**	**-2.1**
FINES	**FINESS Array B**	**86.05**	**19**	P	**P**	**15 16 30.7**	**+0.4**
	comp=Z,1.8nm,0.7s,mb4.4,baz=318,slow=2.6,SNR=6.1						
SSF	**Saint Saulge**	**86.13**	**39**	*e*P	**P**	**15 16 29.0**	**-2.0**
	comp=Z,58nm,1.5s,mb5.3						
SSF	**Saint Saulge**	**86.13**	**39**	*e*P	**P**	**15 16 29.0**	**-2.0**
	comp=Z,29nm,1.5s,mb5.3						
SSF	**Saint Saulge**	**86.13**	**39**	*e*P	**P**	**15 16 29.0**	**-2.0**
SSF				pmax	pmax		
	comp=Z,29nm,1.5s,mb5.3						
LOR	**Lormes**	**86.21**	**38**	*e*P	**P**	**15 16 29.5**	**-1.9**
	comp=Z,53nm,1.4s,mb5.3						
LOR	**Lormes**	**86.21**	**38**	*e*P	**P**	**15 16 29.5**	**-1.9**
	comp=Z,27nm,1.4s,mb5.3						
LOR	**Lormes**	**86.21**	**38**	*e*P	**P**	**15 16 29.5**	**-1.9**
LOR				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.3						
TMCR	**Tamitsa**	**86.76**	**13**	*e*P	**P**	**15 16 37.2**	**+3.4**
CLL	**Collm**	**88.42**	**32**	*e*P	**P**	**15 16 43.0**	**+1.0**
CLL				*e*	pP	15 16 48.0	+2.7
CLL	**Collm**	**88.42**	**32**	*e*(pP)	pP	15 16 48.0	+2.7

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BOD    Bodaibo             88.44 338 eP     P        15 16 40.2 -1.8
BOD                                   pmax   pmax
       comp=Z,14nm,1.1s,mb5.1
VLA    Vladivostok         90.32 319  P     P        15 16 58.0 +6.9
GERES  GERESS Array B      90.40  33  P     P        15 16 53.6 +2.3
       comp=Z,1.2nm,0.9s,mb4.2,baz=318,slow=5.3,SNR=3.0
CN2    Changchun           93.52 323 eP     P        15 17 05.8 -0.1
CN2                                  eS     S        15 28 11.5 -2.9
CN2                                   AMB   AMB
       comp=Z,10.0nm,0.5s,mb5.5
CN2                                   AMB   AMB
       comp=Z,100nm,5.0s
CN2                                   LR    LR
       comp=N,1µm,15.0s,MS5.5
CN2                                   LR    LR
       comp=E,600nm,15.0s,MS5.5
CN2                                   LR    LR
       comp=Z,1µm,18.0s,MS5.3
OBN    Obninsk             94.39  18⇓eP     P        15 17 09.5 -0.1
OBN                                   pmax   pmax
       comp=Z,4.0nm,0.8s,mb4.9
OBN                                   MLR   MLR
       comp=Z,3µm,16.0s,MS5.8
IRK    Irkutsk             96.22 339 eP     P        15 17 17.8 -0.3
IRK                                   pmax   pmax
       comp=Z,30nm,2.1s,mb5.3
TLY    Talaya              96.91 339 eP     P        15 17 21.8 +0.6
       comp=Z,2.3nm,0.8s,mb4.7
TLY    Talaya              96.91 339 eP     P        15 17 21.8 +0.6
TLY                                   pmax   pmax
       comp=Z,8.0nm,1.2s,mb5.0
ARU    Arti                97.30   6 eP     P        15 17 22.2 -0.6
       comp=Z,4.5nm,0.8s,mb5.0
ARU    Arti                97.30   6 eP     P        15 17 22.1 -0.7
ARU                                   pmax   pmax
       comp=Z,6.0nm,1.3s,mb4.9
ZAK    Zakamensk           98.14 339 eP     P        15 17 23.1 -3.7
ZAK                                   pmax   pmax
       comp=Z,2.0nm,1.9s,mb4.3
ZALV   Zalesovo Beam       99.18 351  P     P        15 17 33.1 +1.8
       comp=Z,1.4nm,0.7s,mb4.6,baz=19,slow=3.6,SNR=7.1
ZAL    Zalesovo            99.19 351  P     P        15 17 33.2 +1.8
SONM   Songino Array       99.23 336  P     P        15 17 32.7 +1.0
       comp=Z,4.3nm,1.1s,mb4.9,baz=81,slow=2.3,SNR=5.0
SONM                                  pP    pP       15 17 38.3 +3.3
       comp=Z,3.1nm,1.0s,baz=19,slow=6.1,SNR=12
HHC    Hu-ho-hao-te       102.72 328 eP     Pdif     15 17 44.5 -2.7
HHC                                   PP    PP       15 22 01.0 +1.0
HHC                                   SKS            15 28 21.5
HHC                                   S     Sdif     15 29 24.5 -8.0
HHC                                   SS    SS       15 36 38.5 -0.7
HHC                                   AMB   AMB
       comp=Z,10.0nm,0.7s
HHC                                   AMB   AMB
       comp=Z,262nm,7.6s
HHC                                   LR    LR
       comp=N,2µm,22.6s
HHC                                   LR    LR
       comp=E,2µm,16.6s
HHC                                   LR    LR
       comp=Z,1µm,20.2s,MS5.5
LZH    Lanzhou            110.11 331 ePKP   PKiKP    15 22 15.0 -7.0
LZH                                   PP    PP       15 22 53.3 -1.1
LZH                                   PP    PP
       comp=Z,200nm,5.1s
LZH                                   LR    LR
       comp=E,2µm,16.6s
LZH                                   LR    LR
       comp=Z,2µm,20.0s,MS5.8
CD2    Chengdu            114.46 328 ePKP   PKiKP    15 22 28.5 -1.9
CD2                                   PP    PP       15 23 29.0 +3.4
CD2                                   PKS            15 26 04.0
CD2                                   SKS   SKSdf    15 29 35.8 -7.1
CD2                                   SKKS  SKKSac   15 30 17.0  -12
CD2                                   SS    SS       15 39 14.0 -3.7
CD2                                   PP    PP
       comp=Z,80nm,8.2s
CD2                                   LR    LR
       comp=N,550nm,14.4s,MS5.5
CD2                                   LR    LR
       comp=E,720nm,15.6s,MS5.5
CD2                                   LR    LR
       comp=Z,700nm,18.0s,MS5.3
GYA    Guiyang            116.57 323  PDIF  Pdif     15 18 47.8 -0.9
GYA                                   PKP   PKPdf    15 22 32.5 -2.0
GYA                                   PP    PP       15 23 43.8 +3.2
GYA                                   PKS            15 26 07.8
GYA                                   PPP            15 26 12.0
GYA                                   SKS   SKSdf    15 29 42.3 -4.7
GYA                                   SKKS  SKKSac   15 30 35.5 -7.6
GYA                                   PS    PS       15 33 22.3 -1.3
GYA                                   SS    SS       15 39 45.5 -0.2
GYA                                   SSS            15 44 06.8
GYA                                   PP    PP
       comp=Z,130nm,9.2s
GYA                                   LR    LR
       comp=N,480nm,24.0s,MS5.3
GYA                                   LR    LR
       comp=E,640nm,22.2s,MS5.3
GYA                                   LR    LR
       comp=Z,330nm,21.4s,MS4.9
KMI    Kunming            119.73 325  PKP   PKPdf    15 22 38.5 -2.2
KMI    Kunming            119.73 325  PKIKP PKPdf    15 22 38.6 -2.1
KMI                                   *PP            15 22 41.9
WRA    Warramunga Arr     120.39 261  PKP   PKPdf    15 22 40.7 -1.2
WRA                                   pPKP  pPKPdf   15 22 46.7 +1.4
WRA    Warramunga Arr     120.39 261  PKIKP PKPdf    15 22 40.7 -1.2
WRA                                                  15 22 46.7
WRA    Warramunga Arr     120.39 261  PKP   PKPdf    15 22 40.7 -1.2
       comp=Z,1.0nm,0.9s,baz=62,slow=2.2,SNR=4.9
WRA                                   pPKP  pPKPdf   15 22 46.7 +1.4
       comp=Z,2.2nm,1.0s,baz=71,slow=1.6,SNR=8.6
ASAR   Alice Springs      121.92 257  PKP   PKPdf    15 22 43.4 -1.4
ASAR                                  pPKP  pPKPdf   15 22 49.2 +1.0
ASAR   Alice Springs      121.92 257  PKIKP PKPdf    15 22 43.4 -1.4
ASAR                                                 15 22 49.2
ASAR   Alice Springs      121.92 257  PKP   PKPdf    15 22 43.4 -1.4
       comp=Z,0.9nm,1.0s,baz=72,slow=2.6,SNR=3.7
ASAR                                  pPKP  pPKPdf   15 22 49.2 +1.0
       comp=Z,1.5nm,0.9s,baz=94,slow=2.0,SNR=6.6
LSZ    Lusaka             140.18  83  PKP            15 23 12.5
LSZ                                   PKP   PKPdf    15 23 18.1 -1.3
LSZ    Lusaka             140.18  83  PKHKP          15 23 12.5
LSZ                                                  15 23 18.1
LSZ    Lusaka             140.18  83  PKhKP          15 23 12.5
       comp=Z,3.9nm,0.8s,baz=266,slow=0.5,SNR=4.1
LSZ                                   PKP   PKPdf    15 23 18.1 -1.3
       comp=Z,4.5nm,0.8s,baz=251,slow=0.6,SNR=7.3
BOSA   Boshof             140.93 104  PKP            15 23 14.6
BOSA                                  PKP   PKPdf    15 23 19.2 -1.2
BOSA   Boshof             140.93 104  PKHKP          15 23 14.6
BOSA                                                 15 23 19.2
BOSA   Boshof             140.93 104  PKhKP          15 23 14.6
       comp=Z,2.6nm,0.8s,baz=260,slow=6.1,SNR=3.0
BOSA                                  PKP   PKPdf    15 23 19.2 -1.2
       comp=Z,3.7nm,1.0s,baz=270,slow=5.1,SNR=3.6
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*NSSC **25** 15:14:29.6, 38.57N×39.45E, h10^{km}±7^{km}*

*CSEM **25** 15:14:30.5±0.1, 38.43N×39.22E, h8^{km}, MD3.8, Error ellipse: s-maj=1.7km s-min=1.4km az=133.0*

*ISCJB **25** 15:14:30.7±0.5, 38.42N±0.02×39.25E±0.03, h5^{km}±4^{km}, mb3.3/3, Error ellipse: s-maj=4.1km s-min=3.5km az=40.7*

*ISK **25** 15:14:30.5, 38.40N×39.22E, h9^{km}, MD3.8, ML3.6*

*IDC **25** 15:14:33.6±1.4, 38.53N×39.07E, h0^{km}, mb3.4/3, mb1 3.5/6, mb1mx3.3/21, mbtmp3.4/6, ML3.3/3, Error ellipse: s-maj=28.8km s-min=19.8km az=108.0*

*NEIC **25** 15:14:35.0±1.1, 38.47N×39.02E, h10^{km}, ML3.5(ISK), Error ellipse: s-maj=16.5km s-min=13.8km az=148.0*

ISC 25 15:14:31.2±0.6, **38.43N**±0.02×**39.27E**±0.03, **h2**^{km}±4^{km}**, n76,** σ**1**^{s}**.02**/98**, mb3.3**/3**, 10D, Turkey**

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Code   Station Name        Δ°   AZ°   Phase ID           Time      Res
                                      Op     ISC         h  m  s   ISC
PTK    Pertek               0.47  12 i PG    Pg       15 14 40.9 +0.6
PTK                                  i SG    Sg       15 14 48.9 +2.4
PTK    Pertek               0.47  12 i Pg    Pg       15 14 40.9 +0.6
PTK                                  i Sg    Sg       15 14 48.9 +2.4
MYA    Malataya             0.67 261 i PG    Pg       15 14 42.7 -1.3
MYA                                  i SG    Sg       15 14 52.0 -0.7
MYA    Malataya             0.67 261 i Pg    Pg       15 14 42.7 -1.3
MYA                                  i Sg    Sg       15 14 52.0 -0.7
MALT   Malatya              0.67 260 i PG    Pg       15 14 42.5 -1.5
MALT                                 i SG    Sg       15 14 52.9 +0.2
MALT   Malatya              0.67 260 ePg     Pg       15 14 43.0 -1.0
MALT                                 eSg     Sg       15 14 53.4 +0.7
MALT   Malatya              0.67 260 ePg     Pg       15 14 43.0 -1.0
MALT                                 i Sg    Sg       15 14 52.9 +0.2
DIY    Diyarbakir           0.93 125 i PG    Pg       15 14 48.3 -0.7
DIY                                  i SG    Sg       15 15 02.5 +1.5
DIY    Diyarbakir           0.93 125 i Pg    Pg       15 14 48.3 -0.7
DIY                                  i Sg    Sg       15 15 02.5 +1.5
URFA   Urfa                 1.05 200   PG    Pg       15 14 51.0 -0.3
URFA                                   SG    Sg       15 15 05.4 +0.6
URFA   Urfa                 1.05 200 ePg     Pg       15 14 51.0 -0.3
URFA                                 eSg     Sg       15 15 05.4 +0.6
BINT   Bingol               1.06  65   PN    Pn       15 14 52.5 -0.5
BINT   Bingol               1.06  65 ePn     Pn       15 14 52.5 -0.5
EZC    Erzincan             1.39  18   PN    Pn       15 14 56.0 -1.6
DRBT   Darb Altahta         1.63 164 ⇑P      Pn       15 15 06.3 +5.4
DRBT                                 ⇑S      Sn       15 15 32.5  +10
DRBT   Darb Altahta         1.63 164⇑iP      Pn       15 15 06.3 +5.4
KBSD   Kabsdagh             1.75 144 ⇑P      Pn       15 15 00.4 -2.1
KBSD                                 ⇑S      Sn       15 15 22.6 -2.7
KBSD   Kabsdagh             1.75 144⇑iP      Pn       15 15 00.4 -2.1
KBSD                                ⇑iS      Sn       15 15 22.6 -2.7
BTMT   Batman               1.77  97   PN    Pn       15 15 01.1 -1.7
GUMT   Gumushane            2.04   5   PN    Pn       15 15 06.5  0.0
GUMT   Gumushane            2.04   5 ePn     Pn       15 15 06.5  0.0
GAZ    Gaziantep            2.05 233   PN    Pn       15 15 05.7 -1.0
GAZ    Gaziantep            2.05 233 ePn     Pn       15 15 05.7 -1.0
EZM    Erzurum              2.20  47   PN    Pn       15 15 08.9 +0.2
SVSK   Karacayir            2.31 311 ePN     Pn       15 15 10.5 +0.3
SVSK   Karacayir            2.31 311 ePn     Pn       15 15 10.5 +0.3
SLMH   Al Salmeh            2.45 206 ⇑P      Pn       15 15 12.3  0.0
SLMH                                 ⇑S      Sn       15 15 43.7 +1.0
SLMH   Al Salmeh            2.45 206⇑iP      Pn       15 15 12.3 +0.1
SLMH                                ⇑iS      Sn       15 15 43.7 +0.9
SIRT   Sirnak               2.67 109 ePN     Pn       15 15 15.6 +0.3
SIRT   Sirnak               2.67 109 ePn     Pn       15 15 15.6 +0.3
BNN    Bunyan               2.71 280 ePN     Pn       15 15 15.3 -0.5
BNN    Bunyan               2.71 280 ePn     Pn       15 15 15.3 -0.5
DRWC   Darouich             2.74 230 ⇓P      Pn       15 15 16.7 +0.5
DRWC                                 ⇓S      Sn       15 15 50.7 +0.8
DRWC   Darouich             2.74 230⇓iP      Pn       15 15 16.7 +0.5
DRWC                                ⇓iS      Sn       15 15 50.7 +0.8
JHLN   Al Jahlan            2.83 194 ⇓P      Pn       15 15 17.2 -0.2
JHLN                                 ⇓S      Sn       15 15 51.7 -0.3
JHLN   Al Jahlan            2.83 194⇓iP      Pn       15 15 17.2 -0.2
JHLN                                ⇓iS      Sn       15 15 51.7 -0.3
TOKT   Tokat                2.83 313 ePN     Pn       15 15 16.7 -0.7
TOKT   Tokat                2.83 313 ePn     Pn       15 15 16.7 -0.7
KOZT   Kozan                2.88 252 ePN     Pn       15 15 17.0 -1.1
BTCH   Batrach              3.27 224 ⇑P      Pn       15 15 23.2 -0.3
BTCH                                 ⇑S      Sn       15 16 03.5 +0.5
BTCH   Batrach              3.27 224⇑iP      Pn       15 15 23.2 -0.3
BTCH                                ⇑iS      Sn       15 16 03.5 +0.5
YOZ    Yozgat               3.30 293 ePN     Pn       15 15 23.5 -0.4
YOZ    Yozgat               3.30 293 ePn     Pn       15 15 23.5 -0.4
HTY    Hatay                3.40 228 ePN     Pn       15 15 24.8 -0.4
HTY    Hatay                3.40 228 ePn     Pn       15 15 24.8 -0.4
BCA    Borcka               3.52  30 ePN     Pn       15 15 27.0 +0.2
BCA    Borcka               3.52  30 ePn     Pn       15 15 27.0 +0.2
KVT    Kavak                3.63 318 ePN     Pn       15 15 27.6 -0.8
KVT    Kavak                3.63 318 ePn     Pn       15 15 27.6 -0.8
NIG    Nigde                3.68 266 ePN     Pn       15 15 29.5 +0.4
NIG    Nigde                3.68 266 ePn     Pn       15 15 29.5 +0.4
WRDH   Warideh              3.70 219 ⇓P      Pn       15 15 29.5 +0.1
WRDH   Warideh              3.70 219⇓iP      Pn       15 15 29.5 +0.1
MSL    Mosul                3.72 124 ePn     x        15 15 32.0
MSL                                  eSn     x        15 16 34.0
SLNF   Slenfeh              3.73 222 ⇑P      Pn       15 15 30.0 +0.2
SLNF                                 ⇑S      Sn       15 16 14.0 -0.3
SLNF   Slenfeh              3.73 222⇑iP      Pn       15 15 30.0 +0.2
SLNF                                ⇑iS      Sn       15 16 14.0 -0.3
CORM   Corum                4.00 297 ePN     Pn       15 15 33.5  0.0
CORM   Corum                4.00 297 ePn     Pn       15 15 33.5  0.0
KAMT   Kaman                4.43 284 ePN     Pn       15 15 39.3 -0.1
KAMT   Kaman                4.43 284 ePn     Pn       15 15 39.3 -0.1
BR131  Keskin Array S       4.57 288 ePn     Pn       15 15 42.1 +0.9
BR131  Keskin Array S       4.57 288 ePn     Pn       15 15 42.1 +0.8
BRTR   Keskin Array B       4.57 288   Pn    Pn       15 15 43.0 +1.8
BRTR   Keskin Array B       4.57 288   Pn    Pn       15 15 43.0 +1.8
       1.0nm,0.3s,baz=100,slow=18,SNR=24
BRTR   Keskin Array B       4.57 288   Pn    Pn       15 15 43.0 +1.7
FKH    Fakeheh              4.78 210 ePn     Pn       15 15 44.1 -0.1
FKH    Fakeheh              4.78 210 ePn     Pn       15 15 44.2  0.0
HWQ    Hawqa                4.93 214 ePn     Pn       15 15 49.7 +3.4
BHL    Bhannes              5.38 214 ePn     Pn       15 15 56.0 +3.5
MMAI   Mount Meron Ar       6.25 211   Pn    Pn       15 16 07.2 +2.8
       1.6nm,0.3s,baz=59,slow=14,SNR=6.5
ASF    Jabal al Asfar       6.54 198   Pn    Pn       15 16 11.6 +3.3
ASF                                    Lg             15 18 02.2
ASF    Jabal al Asfar       6.54 198   Pn    Pn       15 16 11.6 +3.3
       0.3nm,0.3s,baz=323,slow=5.1,SNR=2.6
ASF                                    Lg             15 18 02.2
       1.0nm,0.3s,baz=90,slow=20,SNR=4.1
BHD    Baghdad              6.61 140 ePn     x        15 16 42.0
BHD                                  eSn     x        15 18 27.0
GERES  GERESS Array B      21.14 308   P     P        15 19 18.4 +1.2
       0.8nm,0.9s,mb3.1,baz=134,slow=7.6,SNR=4.4
FINES  FINESS Array B      24.46 345   P     P        15 19 51.4 +0.3
       2.4nm,0.9s,mb3.6,baz=151,slow=10,SNR=6.9
MKAR   Makanchi Array      32.41  61   P     P        15 21 06.3 +4.0
       0.3nm,0.6s,mb3.3,baz=274,slow=7.9,SNR=2.7
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*ISCJB **25** 15:20:15.9±0.9, 25.97N±0.08×110.2W±0.1, h10^{km}, mb3.3/2, Error ellipse: s-maj=16.6km s-min=11.2km az=166.5*

*IDC **25** 15:20:15.3±1.6, 26.01N×110.32W, h0^{km}, mb3.4/2, mb1 3.9/6, mb1mx3.7/22, mbtmp3.5/6, ML3.7/4, Error ellipse: s-maj=34.8km s-min=20.6km az=76.0*

*NEIC **25** 15:20:17.0±1.0, 25.91N×110.30W, h10^{km}, Error ellipse: s-maj=19.3km s-min=12.7km az=73.0*

ISC 25 15:20:17.1±0.9, **25.91N**±0.08×**110.3W**±0.1, **h10**^{km}**, n15,** σ**1**^{s}**.35**/15**, mb3.3**/2**, Gulf of California**

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Code   Station Name        Δ°   AZ°   Phase ID           Time      Res
                                      Op     ISC         h  m  s   ISC
LPIG   La Paz               1.80 180   Pn    Pn       15 20 49.3 +1.1
LPIG   La Paz               1.80 180   Pn    Pn       15 20 49.3 +1.1
       7.8nm,0.3s,baz=4.9,slow=18,SNR=3.3
TUC    Tucson               6.39 356 ePn     Pn       15 21 47.7 -3.6
TXAR   Lajitas Array        6.80  58   Pn    Pn       15 21 57.9 +0.9
TXAR   Lajitas Array        6.80  58   Pn    Pn       15 21 57.9 +0.9
       0.5nm,0.3s,baz=236,slow=13,SNR=25
WMOK   Wichita Mounta      13.28  46 ePn     Pn       15 23 27.0 +1.3
       14nm,1.1s
NVAR   Mina Array Bea      14.19 334   Pn    Pn       15 23 39.6 +1.5
NVAR   Mina Array Bea      14.19 334   Pn    Pn       15 23 39.6 +1.5
       0.2nm,0.3s,baz=150,slow=10.0,SNR=2.1
DUG    Dugway              14.40 352 eP      Pn       15 23 47.1 +6.2
       6.7nm,1.1s
CMIG   Matias Romero       16.81 118   Pn    Pn       15 24 10.8 -1.8
CMIG   Matias Romero       16.81 118   Pn    Pn       15 24 10.8 -1.8
       0.2nm,0.3s,baz=291,slow=8.6,SNR=1.8
PDAR   Pinedale Array      16.83   2   Pn    Pn       15 24 12.8 +0.1
PDAR   Pinedale Array      16.83   2   Pn    Pn       15 24 12.8 +0.1
       0.0nm,0.3s,baz=170,slow=9.0,SNR=6.6
NEW    Newport             22.95 348   P     P        15 25 19.9 -1.5
       1.4nm,0.7s,mb3.5,baz=155,slow=14,SNR=3.3
YKA    Yellowknife Ar      36.69 357   P     P        15 27 22.5 -1.3
       0.1nm,0.3s,mb3.2,baz=184,slow=7.9,SNR=4.5
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*ISCJB **25** 15:20:51.0±0.7, 25.88N±0.07×110.44W±0.07, h10^{km}, mb4.2/5, Error ellipse: s-maj=10.1km s-min=8.4km az=39.9*

*IDC **25** 15:20:50.7±1.5, 25.90N×110.63W, h0^{km}, mb4.0/3, mb1 4.3/7, mb1mx4.0/23, mbtmp3.9/7, ML3.8/3, MS4.5/1, Ms1 4.5/1, ms1mx3.1/37, Error ellipse: s-maj=31.2km s-min=20.4km az=69.0*

*NEIC **25** 15:20:52.3±0.8, 25.85N×110.59W, h10^{km}, mb4.4/4, Error ellipse: s-maj=12.8km s-min=9.0km az=76.0*

ISC 25 15:20:52.2±0.8, **25.79N**±0.07×**110.44W**±0.07**, h10**^{km}**, n105,** σ**1**^{s}**.09**/108**, mb4.2**/5**, 33C-37D, Gulf of California**

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Code   Station Name        Δ°   AZ°   Phase ID           Time      Res
                                      Op     ISC         h  m  s   ISC
LPIG   La Paz               1.69 176   Pn    Pn       15 21 22.7 +0.9
LPIG                                   Sn    Sn       15 21 51.4 +8.0
LPIG                                   LR    LR       15 22 03.5
LPIG   La Paz               1.69 176   Pn    Pn       15 21 22.7 +0.9
       38nm,0.3s,baz=297,slow=9.1,SNR=8.0
LPIG                                   Sn    Sn       15 21 51.4 +8.0
       106nm,0.3s,baz=33,slow=0.4,SNR=6.3
LPIG                                   LR    LR       15 22 03.6
       comp=Z,2µm,21.9s,baz=266,slow=40
LTX    Lajitas              6.97  58   Pn    Pn       15 22 26.1 -8.2
       15nm,1.3s
TXAR   Lajitas Array        6.97  58   Pn    Pn       15 22 36.2 +1.9
TXAR                                   Sn    Sn       15 23 50.7 -3.0
TXAR   Lajitas Array        6.97  58   Pn    Pn       15 22 36.2 +1.9
       0.7nm,0.3s,baz=235,slow=14,SNR=7.5
TXAR                                   Sn    Sn       15 23 50.7 -3.0
       1.6nm,0.3s,baz=240,slow=24,SNR=6.3
MNTX   Cornudas Mount       7.37  36   Pn    Pn       15 22 30.6 -9.2
       43nm,1.1s
LENM   Lemitar              8.87  19 eP      Pn       15 23 01.0 +0.7
W15A   Williams             9.48 351 ⇓P      Pn       15 23 10.7 +1.8
       baz=10
W13A   Hualapai Mount       9.74 343 ⇓P      Pn       15 23 13.3 +1.0
       baz=10,SNR=5.3
MURC   Murrieta             9.74 325 ⇑P      Pn       15 23 11.4 -1.0
       baz=10
ANMO   Albuquerque          9.75  20   Pn    Pn       15 23 11.0 -1.5
ANMO   Albuquerque          9.75  20   Pn    Pn       15 23 11.0 -1.5
       baz=260,slow=14
T15A   Red Dirt Ranch      11.31 352 ⇑P      Pn       15 23 33.9  0.0
       baz=12,SNR=5.9
T14A   Hurricane           11.46 349 ⇓P      Pn       15 23 37.1 +1.3
       baz=12
MVCO   Mesa Verde          11.50   8 eP      Pn       15 23 35.3 -1.1
       15nm,1.0s
MVCO   Mesa Verde          11.50   8 ⇓P      Pn       15 23 36.3 -0.2
       baz=12
T13A   Saint George        11.57 346 ⇑P      Pn       15 23 36.6 -0.9
       baz=12
CCUT   Cedar City          11.98 349 eP      Pn       15 23 41.6 -1.4
T11A   Corn Creek, Al      12.11 342 ⇑P      Pn       15 23 45.8 +1.0
       baz=13
S14A   Cedar City          12.15 350 ⇑P      Pn       15 23 47.7 +2.3
       baz=13
ARUT   Antelope Range      12.22 349 ePn     Pn       15 23 44.7 -1.6
PV01   Paradox Valley      12.40   7   P     Pn       15 23 47.2 -1.6
SDCO   Great Sand Dun      12.63  18   P     Pn       15 23 53.1 +1.2
       49nm,1.9s
WMOK   Wichita Mounta      13.44  46 eP      Pn       15 24 03.7 +0.7
       30nm,1.0s
Q11A   Duckwater           13.73 343 ⇑P      Pn       15 24 08.0 +1.1
       baz=14
Q10A   Clear Creek Ra      13.93 340 ⇑P      Pn       15 24 10.5 +0.9
       baz=15
P12A   McGill              14.15 346 ⇑P      Pn       15 24 13.9 +1.4
       baz=15
NVAR   Mina Array Bea      14.24 334   Pn    Pn       15 24 13.1 -0.8
NVAR   Mina Array Bea      14.24 334   Pn    Pn       15 24 13.1 -0.8
       0.2nm,0.3s,baz=141,slow=16,SNR=2.6
DUG    Dugway              14.50 353 eP      Pn       15 24 24.8 +7.5
       20nm,1.0s
DUG    Dugway              14.50 353 ⇑P      Pn       15 24 25.1 +7.7
       baz=15
ISCO   Idaho Springs       14.54  15 eP      Pn       15 24 18.3 +0.4
       6.5nm,0.9s
P10A   Eureka              14.68 341 ⇓P      Pn       15 24 26.7 +6.8
       baz=16
O12A   Currie              14.88 347 ⇓P      Pn       15 24 23.9 +1.4
       baz=16
O11A   Cowboy Ranch,       14.95 344 ⇓P      Pn       15 24 27.6 +4.1
       baz=16
BGU    Big Grassy Mou      15.24 353 eP      Pn       15 24 32.1 +4.7
N12A   Clover Valley,      15.50 347 ⇓P      Pn       15 24 33.3 +2.5
       baz=16,SNR=5.6
M15A   Larsen Ranch,       15.72 354 ⇑P      Pn       15 24 37.9 +4.3
       baz=16,SNR=8.9
M13A   Montello            15.83 350 ⇑P      Pn       15 24 39.1 +4.0
       baz=17
M14A   Sheep Mountain      15.85 352 ⇑P      Pn       15 24 39.6 +4.2
       baz=17,SNR=6.5
O07A   Toulon              15.97 336 ⇓P      Pn       15 24 41.2 +4.4
       baz=17,SNR=5.8
M11A   Holland Ranch,      16.21 345 ⇓P      Pn       15 24 44.2 +4.2
       baz=17,SNR=5.2
N08A   GE Springer Mi      16.26 339 ⇑P      Pn       15 24 43.9 +3.3
       baz=17,SNR=6.6
L13A   Double Diamond      16.51 351 ⇑P      Pn       15 24 47.3 +3.5
       baz=17,SNR=6.2
N07B   Gerlach             16.54 337 ⇑P      Pn       15 24 45.6 +1.3
       baz=17
K14A   Jones Ranch, D      16.86 353 ⇑P      Pn       15 24 51.1 +2.8
       baz=18,SNR=5.2
CMIG   Matias Romero       16.86 118   P     Pn       15 24 57.5 +9.1
       0.1nm,0.3s,baz=292,slow=9.8,SNR=4.0
L11A   Cat Creek Ranc      16.91 346 ⇑P      Pn       15 24 52.0 +3.1
       baz=18,SNR=7.0
BW06   Boulder Array       16.95   2 eP      Pn       15 24 51.0 +1.6
       11nm,1.2s
PDAR   Pinedale Array      16.95   2   Pn    Pn       15 24 49.5 +0.1
PDAR   Pinedale Array      16.95   2   Pn    Pn       15 24 49.5 +0.1
       0.0nm,0.3s,baz=180,slow=12,SNR=9.8
K12A   Draper Farm, C      17.20 349 ⇓P      Pn       15 24 53.8 +1.4
       baz=18,SNR=5.2
L09A   Wilkinson Ranc      17.25 342 ⇓P      Pn       15 24 54.3 +1.2
       baz=18
L08A   Fields              17.60 340 ⇑P      Pn       15 24 57.7 +0.2
       baz=18
K09A   Rome                17.89 342 ⇓P      Pn       15 25 01.7 +0.6
       baz=19,SNR=6.0
K07A   Rock Creek Ran      18.34 339 ⇑P      Pn       15 25 07.2 +0.6
       baz=19
J07A   Hines               18.98 340 ⇓P      Pn       15 25 14.0 -0.3
       baz=20,SNR=6.8
H13A   Challis             18.98 352 ⇓P      Pn       15 25 14.5 +0.1
       baz=20
H12A   Diamond D Ranc      19.05 350 ⇓P      Pn       15 25 15.2  0.0
       baz=20
I09A   Lost Marbles R      19.08 344 ⇓P      Pn       15 25 15.6  0.0
       baz=20
MCMT   McKenzie Canyo      19.09 355 eP      Pn       15 25 16.3 +0.6
J06A   Christmas Vall      19.14 338 ⇑P      Pn       15 25 16.0 -0.2
       baz=20
I08A   Drewsey             19.25 342 ⇑P      Pn       15 25 17.2 -0.4
       baz=20
RLMT   Red Lodge           19.31   3 eP      Pn       15 25 18.1 -0.3
       17nm,1.4s
H11A   Donnelly            19.40 348 ⇑P      Pn       15 25 18.7 -0.7
       baz=20
G15A   Dillon              19.40 356 ⇑P      Pn       15 25 19.8 +0.4
       baz=20
H10A   Noah’s Angus R      19.43 346 ⇓P      Pn       15 25 18.6 -1.3
       baz=20
G13A   Cobalt              19.50 352 ⇓P      Pn       15 25 19.5 -1.1
       baz=20,SNR=7.5
I07A   Izee                19.68 340 ⇑P      Pn       15 25 21.2 -1.5
       baz=20
BOZ    Bozeman (W)         19.83 358 ⇓P      Pn       15 25 24.1 -0.4
       baz=21
H08A   Prairie City        19.84 342 ⇑P      Pn       15 25 23.4 -1.2
       baz=21
F15A   Butte               20.07 356 ⇓P      P        15 25 26.6 +1.0
       baz=21
F12A   Elk City            20.29 350 ⇓P      P        15 25 28.6 +0.7
       baz=21
G09A   Cove                20.32 345 ⇓P      P        15 25 28.7 +0.4
       baz=21
I04A   Tendick Farm,       20.43 335 ⇓P      P        15 25 29.0 -0.5
       baz=21
F11A   Grangeville         20.57 349 ⇓P      P        15 25 30.6 -0.4
       baz=21,SNR=7.0
E15A   Deer Lodge          20.66 356 ⇓P      P        15 25 32.0  0.0
       baz=22
E14A   Clinton             20.72 354 ⇓P      P        15 25 33.1 +0.5
       baz=22,SNR=9.1
F09A   S2 Ranch, Elgi      20.76 345 ⇑P      P        15 25 33.3 +0.2
       baz=22,SNR=7.7
G07A   Ruggs Ranch, H      20.80 341 ⇑P      P        15 25 33.3 -0.2
       baz=22,SNR=5.4
E13A   Victor              20.82 353 ⇓P      P        15 25 33.9 +0.1
       baz=22
F10A   Beach Ranch, E      20.86 347 ⇓P      P        15 25 34.0 -0.1
       baz=22,SNR=6.9
E11A   Bogner Ranch,       21.03 349 ⇑P      P        15 25 35.0 -1.0
       baz=22,SNR=7.5
E10A   Myers Farm, Un      21.32 347 ⇓P      P        15 25 38.0 -1.1
       baz=22
D14A   Greenough           21.39 354 ⇑P      P        15 25 39.5 -0.3
       baz=22,SNR=14
F07A   Phinny Hill Vi      21.45 342 ⇓P      P        15 25 40.0 -0.6
       baz=22
D12A   Red Ives Fores      21.57 351 ⇓P      P        15 25 41.2 -0.6
       baz=22
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D11A	**Klaveano Farm,**	**21.72**	**349**	⇓P	**P**	**15 25 42.9**	**-0.6**
	baz=22,SNR=8.9						
E07A	**Sunnyside**	**22.04**	**342**	⇓P	**P**	**15 25 46.0**	**-0.8**
	baz=23						
C14A	**Swan Lake**	**22.09**	**354**	⇓P	**P**	**15 25 46.9**	**-0.5**
	baz=23						
EGMT	**Eagleton**	**22.20**	**1**	*e*P	**P**	**15 25 47.7**	**-0.7**
	52nm,1.6s,mb4.7						
EGMT	**Eagleton**	**22.20**	**1**	⇑P	**P**	**15 25 48.0**	**-0.4**
	baz=23						
D08A	**Wollman Farm,**	**22.26**	**345**	⇑P	**P**	**15 25 47.3**	**-1.9**
	baz=23						
B12A	**Libby**	**22.99**	**351**	⇓P	**P**	**15 25 56.0**	**-1.0**
	baz=24						
NEW	**Newport**	**23.04**	**349**	P	**P**	**15 25 56.6**	**-0.8**
	4.7nm,0.8s,mb4.0,baz=169,slow=14,SNR=8.6						
B11A	**Sandpoint**	**23.07**	**350**	⇑P	**P**	**15 25 56.7**	**-1.1**
	baz=24						
C07A	**Waterville**	**23.14**	**343**	⇓P	**P**	**15 25 57.2**	**-1.2**
	baz=24						
DGMT	**Dagmar**	**23.16**	**11**	*e*P	**P**	**15 25 58.0**	**-0.6**
	27nm,1.1s,mb4.6						
A12A	**Yaak River Ran**	**23.45**	**351**	⇑P	**P**	**15 26 00.5**	**-1.3**
	baz=24						
TKL	**Tuckaleechee C**	**24.88**	**60**	P	**P**	**15 26 16.2**	**+1.2**
	5.9nm,0.7s,mb4.2,baz=223,slow=11,SNR=6.3						
EDM	**Edmonton**	**27.48**	**356**	*e*P	**P**	**15 26 36.8**	**-1.6**
DLBC	**Dease Lake**	**35.43**	**342**	P	**P**	**15 27 48.1**	**-0.1**
	baz=184,slow=13						
YKA	**Yellowknife Ar**	**36.80**	**357**	P	**P**	**15 27 58.7**	**-1.2**
YKA	**Yellowknife Ar**	**36.80**	**357**	P	**P**	**15 27 58.7**	**-1.2**
	1.2nm,0.8s,mb3.8,baz=181,slow=8.5,SNR=14						
ROSC	**El Rosal**	**40.35**	**115**	LR	LR	15 45 54.4	
	comp=Z,585nm,19.4s,baz=108,slow=37						

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*IDC **25** 15:35:13.3±2.1, 4.87S×151.72E, h62^{km}±7^{km}, mb3.6/6, mb1 3.8/6, mb1mx3.6/15, mbtmp3.6/6, MS4.0/2, Ms1 4.0/2, ms1mx3.2/24, Error ellipse: s-maj=70.1km s-min=20.9km az=112.0*

*NEIC **25** 15:35:20.1±3.7, 5.01S×151.64E, h124^{km}±23^{km}, mb4.3/2, Error ellipse: s-maj=60.4km s-min=19.5km az=107.0*

ISC 25 15:35:18.3±4.4**, 5.0S**±0.2×**151.8E**±0.4**, h112**^{km}±29^{km}**, n17, σ0**^{s}**60**/15**, mb3.7**/6**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**6.31**	**226**	*e*P	**Pn**	**15 36 49.6**	**+0.7**
	13nm,0.4s						
PMG				*e*Sn	**Sn**	**15 38 01.0**	**+1.3**
PMG	**Port Moresby**	**6.31**	**226**	P	**Pn**	**15 36 47.8**	**-1.1**
	1.4nm,0.3s,baz=158,slow=9.1,SNR=6.6						
PMG				S	**Sn**	**15 37 59.2**	**-0.5**
	1.9nm,0.3s,baz=144,slow=19,SNR=3.6						
KAKA	**Kakadu**	**20.55**	**247**	*e*P	**P**	**15 39 48.0**	**-0.2**
	6.1nm,0.6s						
WB2	**Warramunga Arr**	**22.52**	**227**	*e*P	**P**	**15 40 08.7**	**-0.4**
WRA	**Warramunga Arr**	**22.53**	**227**	P	**P**	**15 40 08.8**	**-0.4**
WRA				pP		15 40 23.5	
WRA				PcP	PcP	15 44 00.5	+1.5
WRA	**Warramunga Arr**	**22.53**	**227**	P	**P**	**15 40 08.8**	**-0.4**
	3.1nm,0.4s,mb4.0,baz=53,slow=9.6,SNR=54						
WRA				pP		15 40 23.5	
	8.2nm,0.7s,baz=53,slow=9.8,SNR=20						
WRA				PcP	PcP	15 44 00.5	+1.5
	0.9nm,0.7s,baz=50,slow=2.3,SNR=6.9						
ASAR	**Alice Springs**	**25.30**	**221**	P	**P**	**15 40 35.4**	**+0.8**
	1.7nm,0.6s,mb3.7,baz=54,slow=9.2,SNR=46						
ASAR				pP	pP	15 40 49.5	-9.3
	8.4nm,0.8s,baz=54,slow=9.4,SNR=23						
FITZ	**Fitzroy Crossi**	**28.65**	**241**	*e*P	**P**	**15 41 04.5**	**-0.2**
	9.5nm,1.2s,mb4.3						
FITZ	**Fitzroy Crossi**	**28.65**	**241**	P	**P**	**15 41 04.5**	**-0.2**
	2.6nm,0.9s,mb3.9,baz=89,slow=8.8,SNR=11						
FITZ				pP	pP	15 41 19.9	-9.3
	3.5nm,0.8s,baz=47,slow=9.0,SNR=7.3						
AFI	**Afiamalu**	**36.99**	**106**	LR	LR	15 55 08.0	
	comp=Z,393nm,19.1s,baz=91,slow=32						
NWAO	**Narrogin (SRO)**	**42.50**	**225**	LR	LR	15 59 41.1	
	comp=Z,135nm,21.8s,slow=34						
SONM	**Songino Array**	**65.96**	**328**	P	**P**	**15 45 53.2**	**+0.7**
	0.5nm,0.7s,mb3.5,baz=139,slow=6.8,SNR=3.7						
MKAR	**Makanchi Array**	**79.81**	**319**	P	**P**	**15 47 13.8**	**-0.6**
	0.1nm,0.3s,mb3.1,baz=111,slow=6.6,SNR=4.4						
ZALV	**Zalesovo Beam**	**80.76**	**327**	P	**P**	**15 47 19.4**	**+0.1**
ZALV	**Zalesovo Beam**	**80.76**	**327**	P	**P**	**15 47 19.4**	**+0.1**
	0.6nm,0.5s,mb3.7,baz=127,slow=6.0,SNR=4.9						
TORD	**Torodi Ar. Bea**	**149.39**	**287**	PKPbc	PKPbc	15 54 55.3	0.0
TORD				pPKPbc	pPKPbc	15 55 13.5	-12
TORD	**Torodi Ar. Bea**	**149.39**	**287**	PKPbc	PKPbc	15 54 55.3	0.0
	1.4nm,0.8s,baz=77,slow=2.4,SNR=7.9						
TORD				pPKPbc	pPKPbc	15 55 13.5	-12
	0.6nm,0.8s,baz=71,slow=2.7,SNR=2.6						

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*NSSC **25** 15:36:32.5, 38.61N×39.48E, h15^{km}±11^{km}*

*ISK **25** 15:36:33.4, 38.41N×39.24E, h5^{km}, MD3.1*

*ISCJB **25** 15:36:34.1±0.4, 38.37N±0.02×39.28E±0.03, h3^{km}, Error ellipse: s-maj=3.7km s-min=3.1km az=156.6*

*CSEM **25** 15:36:34.1±0.1, 38.39N×39.27E, h5^{km}, MD3.1, Error ellipse: s-maj=2.1km s-min=1.7km az=116.0*

*DDA **25** 15:36:35.5, 38.35N×39.24E, h3^{km}, Md3.1*

ISC 25 15:36:34.5±0.6**, 38.37N**±0.03×**39.29E**±0.04**, h2**^{km}±6^{km}**, n37, σ0**^{s}**90**/54**, 10D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.27**	**298**	*i* P	**Pg**	**15 36 39.7**	**0.0**
ELZG				*i* S	**Sg**	**15 36 42.7**	**-0.5**
PTK	**Pertek**	**0.53**	**9**	PG	**Pg**	**15 36 44.6**	**0.0**
PTK				SG	**Sg**	**15 36 51.8**	**+0.4**
PTK	**Pertek**	**0.53**	**9**	*e*Pg	**Pg**	**15 36 44.6**	**0.0**
PTK				*e*Sg	**Sg**	**15 36 51.8**	**+0.4**
MALT	**Malatya**	**0.68**	**265**	PG	**Pg**	**15 36 46.2**	**-1.3**
MALT				SG	**Sg**	**15 36 56.9**	**+0.5**
MALT	**Malatya**	**0.68**	**265**	*e*Pg	**Pg**	**15 36 46.2**	**-1.3**
MALT				*e*Sg	**Sg**	**15 36 56.9**	**+0.5**
MYA	**Malataya**	**0.68**	**267**	PG	**Pg**	**15 36 46.6**	**-0.9**
MYA	**Malataya**	**0.68**	**267**	*e*Pg	**Pg**	**15 36 46.6**	**-0.9**
DIY	**Diyarbakir**	**0.88**	**122**	PG	**Pg**	**15 36 52.0**	**+0.7**
DIY	**Diyarbakir**	**0.88**	**122**	*e*Pg	**Pg**	**15 36 52.0**	**+0.7**
URFA	**Urfa**	**1.00**	**202**	PG	**Pg**	**15 36 54.1**	**+0.5**
URFA	**Urfa**	**1.00**	**202**	*e*Pg	**Pg**	**15 36 54.1**	**+0.5**
BINT	**Bingol**	**1.06**	**61**	*e*PN	**Pn**	**15 36 55.3**	**-1.1**
BINT	**Bingol**	**1.06**	**61**	*e*Pn	**Pn**	**15 36 55.3**	**-1.1**
ATAB	**Bozova**	**1.20**	**222**	*i* P	**Pg**	**15 36 57.6**	**+0.2**
ATAB				*i* S	**Sg**	**15 37 12.6**	**-0.3**
EZC	**Erzincan**	**1.44**	**16**	*e*PN	**Pn**	**15 37 01.0**	**-0.5**
BNGL	**BINGOL**	**1.57**	**68**	*i* P	**Pn**	**15 37 04.9**	**+1.6**
BNGL				*i* S	**Sg**	**15 37 30.4**	**+5.6**
MARD	**Mardin**	**1.58**	**131**	*i* P	**Pn**	**15 37 03.2**	**-0.3**
MARD				*i* S	**Sn**	**15 37 24.4**	**-0.1**
KBSD	**Kabsdagh**	**1.69**	**144**	⇓P	**Pn**	**15 37 03.2**	**-1.8**
KBSD				⇓S	**Sn**	**15 37 26.7**	**-0.5**
KBSD	**Kabsdagh**	**1.69**	**144**	⇓*i*P	**Pn**	**15 37 03.2**	**-1.8**
KBSD				⇓*i*S	**Sn**	**15 37 26.7**	**-0.5**
GZT	**Gaziantep**	**1.70**	**234**	*i* P	**Pn**	**15 37 04.3**	**-0.9**
GZT				*i* S	**Sg**	**15 37 30.1**	**+1.0**
BTMT	**Batman**	**1.74**	**95**	*e*PN	**Pn**	**15 37 04.2**	**-1.5**
GAZ	**Gaziantep**	**2.04**	**235**	*e*PN	**Pn**	**15 37 10.4**	**+0.6**
GAZ	**Gaziantep**	**2.04**	**235**	*e*Pn	**Pn**	**15 37 10.4**	**+0.6**
EZM	**Erzurum**	**2.22**	**46**	*e*PN	**Pn**	**15 37 12.7**	**+0.4**
SVSK	**Karacayir**	**2.36**	**312**	*e*PN	**Pn**	**15 37 14.4**	**+0.2**
SVSK	**Karacayir**	**2.36**	**312**	*e*Pn	**Pn**	**15 37 14.4**	**+0.2**
SLMH	**Al Salmeh**	**2.41**	**207**	⇑P	**Pn**	**15 37 14.9**	**0.0**
SLMH				⇓S	**Sb**	**15 37 49.0**	**+0.3**
SLMH	**Al Salmeh**	**2.41**	**207**	⇑*i*P	**Pn**	**15 37 14.9**	**0.0**
SLMH				⇓*i*S	**Sb**	**15 37 49.0**	**+0.3**
SIRT	**Sirnak**	**2.64**	**108**	*e*PN	**Pn**	**15 37 19.7**	**+1.7**
SIRT	**Sirnak**	**2.64**	**108**	*e*Pn	**Pn**	**15 37 19.7**	**+1.7**
DRWC	**Darouich**	**2.72**	**231**	⇑P	**Pn**	**15 37 19.4**	**+0.3**
DRWC				⇓S	**Sb**	**15 37 56.0**	**-1.6**
DRWC	**Darouich**	**2.72**	**231**	⇑*i*P	**Pn**	**15 37 19.4**	**+0.2**
DRWC				⇓*i*S	**Sb**	**15 37 56.0**	**-1.7**
BNN	**Bunyan**	**2.74**	**281**	*e*PN	**Pn**	**15 37 19.8**	**+0.3**
BNN	**Bunyan**	**2.74**	**281**	*e*Pn	**Pn**	**15 37 19.8**	**+0.3**
KOZT	**Kozan**	**2.88**	**253**	*e*PN	**Pn**	**15 37 22.6**	**+1.2**
BTCH	**Batrach**	**3.25**	**225**	⇓P	**Pn**	**15 37 27.1**	**+0.7**
BTCH				⇑S	**Sn**	**15 38 08.9**	**+3.3**
BTCH	**Batrach**	**3.25**	**225**	⇓*i*P	**Pn**	**15 37 27.1**	**+0.7**
BTCH				⇑*i*S	**Sn**	**15 38 08.9**	**+3.3**

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*ISK **25** 15:38:07.9, 38.36N×39.23E, h5^{km}, MD3.2*

*ISCJB **25** 15:38:08.9±0.6, 38.35N±0.03×39.25E±0.02, h2^{km}±5^{km}, Error ellipse: s-maj=4.7km s-min=3.2km az=166.9*

*CSEM **25** 15:38:08.6±0.1, 38.36N×39.22E, h5^{km}, MD3.4, Error ellipse: s-maj=1.9km s-min=1.3km az=167.0*

*DDA **25** 15:38:10.2, 38.38N×39.23E, h6^{km}, Md3.4*

ISC 25 15:38:09.6±0.5**, 38.36N**±0.03×**39.25E**±0.03**, h3**^{km}±4^{km}**, n55, σ1**^{s}**07**/75**, 7D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.25**	**304**	*i* P	**Pg**	**15 38 14.2**	**-0.3**
ELZG				*i* S	**Sg**	**15 38 19.8**	**+1.9**
PTK	**Pertek**	**0.54**	**11**	*i* PG	**Pg**	**15 38 18.6**	**-1.5**
PTK				*i* SG	**Sg**	**15 38 28.5**	**+1.3**
PTK	**Pertek**	**0.54**	**11**	*i* Pg	**Pg**	**15 38 18.6**	**-1.5**
PTK				*i* Sg	**Sg**	**15 38 28.5**	**+1.3**
MALT	**Malatya**	**0.65**	**266**	*i* PG	**Pg**	**15 38 21.2**	**-0.9**
MALT				*i* SG	**Sg**	**15 38 30.3**	**-0.3**
MALT	**Malatya**	**0.65**	**266**	*i* Pg	**Pg**	**15 38 21.2**	**-0.9**
MALT				*i* Sg	**Sg**	**15 38 30.3**	**-0.3**
MYA	**Malataya**	**0.65**	**267**	*i* PG	**Pg**	**15 38 21.2**	**-0.9**
MYA				*i* SG	**Sg**	**15 38 30.8**	**+0.2**
MYA	**Malataya**	**0.65**	**267**	*i* Pg	**Pg**	**15 38 21.2**	**-0.9**
MYA				*i* Sg	**Sg**	**15 38 30.8**	**+0.2**
DIY	**Diyarbakir**	**0.90**	**121**	*i* PG	**Pg**	**15 38 26.6**	**-0.2**
DIY				*i* SG	**Sg**	**15 38 39.7**	**+1.3**
DIY	**Diyarbakir**	**0.90**	**121**	*i* Pg	**Pg**	**15 38 26.6**	**-0.2**
DIY				*i* Sg	**Sg**	**15 38 39.7**	**+1.3**
URFA	**Urfa**	**0.98**	**201**	PG	**Pg**	**15 38 27.6**	**-0.8**
URFA	**Urfa**	**0.98**	**201**	*e*Pg	**Pg**	**15 38 27.6**	**-0.8**
BINT	**Bingol**	**1.10**	**62**	PN	**Pn**	**15 38 29.4**	**-2.5**
BINT	**Bingol**	**1.10**	**62**	*e*Pn	**Pn**	**15 38 29.4**	**-2.5**
ATAB	**Bozova**	**1.17**	**221**	*i* P	**Pg**	**15 38 31.9**	**-0.1**
ATAB				*i* S	**Sg**	**15 38 48.4**	**+1.3**
EZC	**Erzincan**	**1.46**	**17**	PN	**Pn**	**15 38 35.1**	**-1.7**
DRBT	**Darb Altahta**	**1.57**	**163**	⇑P	**Pn**	**15 38 42.4**	**+4.0**
DRBT				⇓S	**Sn**	**15 39 05.2**	**+6.0**
DRBT	**Darb Altahta**	**1.57**	**163**	⇑*i*P	**Pn**	**15 38 42.3**	**+4.0**
MARD	**Mardin**	**1.60**	**130**	*i* P	**Pn**	**15 38 38.2**	**-0.5**
MARD				*i* S	**Sn**	**15 38 58.5**	**-1.4**
BNGL	**BINGOL**	**1.60**	**68**	*i* P	**Pn**	**15 38 39.2**	**+0.5**
BNGL				*i* S	**Sn**	**15 39 02.2**	**+2.3**
GZT	**Gaziantep**	**1.67**	**234**	*i* P	**Pn**	**15 38 39.2**	**-0.6**
GZT				*i* S	**Sn**	**15 39 01.6**	**-0.1**
KBSD	**Kabsdagh**	**1.70**	**143**	⇑P	**Pn**	**15 38 38.3**	**-1.8**
KBSD				⇑S	**Sn**	**15 38 58.6**	**-3.7**
KBSD	**Kabsdagh**	**1.70**	**143**	⇑*i*P	**Pn**	**15 38 38.3**	**-1.8**
KBSD				⇑*i*S	**Sn**	**15 38 58.6**	**-3.7**
BTMT	**Batman**	**1.77**	**95**	PN	**Pn**	**15 38 39.4**	**-1.7**
GUMT	**Gumushane**	**2.11**	**5**	PN	**Pn**	**15 38 45.5**	**-0.3**
GUMT	**Gumushane**	**2.11**	**5**	*e*Pn	**Pn**	**15 38 45.5**	**-0.3**
EZM	**Erzurum**	**2.25**	**46**	PN	**Pn**	**15 38 47.3**	**-0.5**
SVSK	**Karacayir**	**2.34**	**312**	PN	**Pn**	**15 38 49.2**	**+0.2**
SVSK	**Karacayir**	**2.34**	**312**	*e*Pn	**Pn**	**15 38 49.2**	**+0.2**
SLMH	**Al Salmeh**	**2.39**	**207**	⇑P	**Pn**	**15 38 49.3**	**-0.3**
SLMH	**Al Salmeh**	**2.39**	**207**	⇑*i*P	**Pn**	**15 38 49.3**	**-0.3**
SIRT	**Sirnak**	**2.66**	**108**	*e*PN	**Pn**	**15 38 54.2**	**+0.8**
SIRT	**Sirnak**	**2.66**	**108**	*e*Pn	**Pn**	**15 38 54.2**	**+0.8**
DRWC	**Darouich**	**2.69**	**231**	⇓P	**Pn**	**15 38 55.2**	**+1.5**
DRWC				⇓S	**Sn**	**15 39 28.1**	**+1.3**
DRWC	**Darouich**	**2.69**	**231**	⇓*i*P	**Pn**	**15 38 55.2**	**+1.4**
DRWC				⇓*i*S	**Sn**	**15 39 28.1**	**+1.3**
BNN	**Bunyan**	**2.71**	**282**	*e*PN	**Pn**	**15 38 52.9**	**-1.2**
BNN	**Bunyan**	**2.71**	**282**	*e*Pn	**Pn**	**15 38 52.9**	**-1.2**
JHLN	**Al Jahlan**	**2.76**	**194**	⇑P	**Pn**	**15 38 53.9**	**-0.8**
JHLN	**Al Jahlan**	**2.76**	**194**	⇑*i*P	**Pn**	**15 38 53.9**	**-0.8**
KOZT	**Kozan**	**2.85**	**253**	*e*PN	**Pn**	**15 38 55.8**	**-0.1**
AGRB	**Hanur-Agry**	**3.16**	**66**	*e*PN	**Pn**	**15 39 01.1**	**+0.9**
AGRB	**Hanur-Agry**	**3.16**	**66**	*e*Pn	**Pn**	**15 39 01.1**	**+0.9**
BTCH	**Batrach**	**3.22**	**225**	⇓P	**Pn**	**15 39 02.1**	**+1.1**
BTCH				⇑S	**Sn**	**15 39 40.2**	**+0.4**
BTCH	**Batrach**	**3.22**	**225**	⇓*i*P	**Pn**	**15 39 02.1**	**+1.1**
BTCH				⇑*i*S	**Sn**	**15 39 40.2**	**+0.4**
VANB	**Van**	**3.25**	**85**	*e*PN	**Pn**	**15 39 02.4**	**+0.9**
VANB	**Van**	**3.25**	**85**	*e*Pn	**Pn**	**15 39 02.4**	**+0.9**
HTY	**Hatay**	**3.34**	**229**	*e*PN	**Pn**	**15 39 03.1**	**+0.4**
HTY	**Hatay**	**3.34**	**229**	*e*Pn	**Pn**	**15 39 03.1**	**+0.4**
KARA	**Karaisali**	**3.50**	**253**	*e*PN	**Pn**	**15 39 04.5**	**-0.4**
KARA	**Karaisali**	**3.50**	**253**	*e*Pn	**Pn**	**15 39 04.5**	**-0.4**
CUKT	**Cukurca**	**3.62**	**106**	*e*PN	**Pn**	**15 39 07.6**	**+1.0**
CUKT	**Cukurca**	**3.62**	**106**	*e*Pn	**Pn**	**15 39 07.6**	**+1.0**
HKR	**Hakkari**	**3.63**	**101**	*e*PN	**Pn**	**15 39 08.2**	**+1.5**
HKR	**Hakkari**	**3.63**	**101**	*e*Pn	**Pn**	**15 39 08.2**	**+1.5**
NIG	**Nigde**	**3.67**	**268**	*e*PN	**Pn**	**15 39 07.3**	**+0.1**
NIG	**Nigde**	**3.67**	**268**	*e*Pn	**Pn**	**15 39 07.3**	**+0.1**

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*CSEM **25** 15:40:12.7±0.1, 38.39N×39.23E, h5^{km}, MD3.0, Error ellipse: s-maj=2.7km s-min=1.7km az=147.0*

*ISCJB **25** 15:40:13.3±0.4, 38.36N±0.03×39.26E±0.03, h4^{km}, Error ellipse: s-maj=4.7km s-min=3.5km az=173.0*

*ISK **25** 15:40:13.0, 38.38N×39.23E, h9^{km}, MD3.0*

*DDA **25** 15:40:14.7, 38.41N×39.24E, h4^{km}, Md2.9*

ISC 25 15:40:13.8±0.7**, 38.36N**±0.04×**39.27E**±0.05**, h5**^{km}±8^{km}**, n20, σ0**^{s}**85**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.26**	**301**	*i* P	**Pg**	**15 40 18.4**	**-0.4**
ELZG				*i* S	**Sg**	**15 40 22.8**	**+0.6**
PTK	**Pertek**	**0.54**	**10**	PG	**Pg**	**15 40 23.9**	**-0.2**
PTK				SG	**Sg**	**15 40 31.5**	**+0.4**
PTK	**Pertek**	**0.54**	**10**	*e*Pg	**Pg**	**15 40 23.9**	**-0.2**
PTK				*e*Sg	**Sg**	**15 40 31.5**	**+0.4**
MALT	**Malatya**	**0.66**	**266**	PG	**Pg**	**15 40 25.4**	**-1.1**
MALT				SG	**Sg**	**15 40 35.0**	**-0.1**
MALT	**Malatya**	**0.66**	**266**	*e*Pg	**Pg**	**15 40 25.4**	**-1.1**
MALT				*e*Sg	**Sg**	**15 40 35.0**	**-0.1**
MYA	**Malataya**	**0.66**	**267**	PG	**Pg**	**15 40 25.6**	**-0.9**
MYA				SG	**Sg**	**15 40 35.0**	**-0.1**
MYA	**Malataya**	**0.66**	**267**	*e*Pg	**Pg**	**15 40 25.6**	**-0.9**
MYA				*e*Sg	**Sg**	**15 40 35.0**	**-0.1**
DIY	**Diyarbakir**	**0.89**	**121**	PG	**Pg**	**15 40 30.5**	**-0.3**
DIY	**Diyarbakir**	**0.89**	**121**	*e*Pg	**Pg**	**15 40 30.5**	**-0.3**
URFA	**Urfa**	**0.98**	**201**	PG	**Pg**	**15 40 33.1**	**+0.5**
URFA	**Urfa**	**0.98**	**201**	*e*Pg	**Pg**	**15 40 33.1**	**+0.5**
BINT	**Bingol**	**1.09**	**61**	*e*PN	**Pn**	**15 40 35.2**	**-0.4**
BINT	**Bingol**	**1.09**	**61**	*e*Pn	**Pn**	**15 40 35.2**	**-0.4**
ATAB	**Bozova**	**1.18**	**221**	*i* P	**Pg**	**15 40 37.0**	**+0.6**
ATAB				*i* S	**Sg**	**15 40 52.9**	**+1.3**
BNGL	**BINGOL**	**1.59**	**68**	*i* P	**Pn**	**15 40 43.2**	**+0.7**
BNGL				*i* S	**Sn**	**15 41 05.7**	**+2.4**
MARD	**Mardin**	**1.59**	**131**	*i* P	**Pn**	**15 40 43.0**	**+0.5**
MARD				*i* S	**Sn**	**15 41 02.5**	**-0.9**
BTMT	**Batman**	**1.76**	**95**	*e*PN	**Pn**	**15 40 42.9**	**-1.9**
GAZ	**Gaziantep**	**2.02**	**235**	*e*PN	**Pn**	**15 40 48.3**	**-0.1**
GAZ	**Gaziantep**	**2.02**	**235**	*e*Pn	**Pn**	**15 40 48.3**	**-0.1**
EZM	**Erzurum**	**2.24**	**46**	*e*PN	**Pn**	**15 40 51.3**	**-0.2**

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*ISCJB **25** 15:41:08.6±1.4, 29.33S±0.09×177.2W±0.2, h10^{km}, mb4.6/8, Error ellipse: s-maj=27.2km s-min=12.6km az=170.8*

*IDC **25** 15:41:08.2±0.9, 29.13S×177.08W, h0^{km}, mb4.6/7, mb1 4.7/8, mb1mx4.5/15, mbtmp4.6/8, ML4.6/1, MS4.2/1, Ms1 4.2/1, ms1mx3.5/24, Error ellipse: s-maj=30.7km s-min=25.0km az=149.0*

*NEIC **25** 15:41:10.1±0.7, 29.12S×177.05W, h15^{km}, mb4.8/4, Error ellipse: s-maj=20.1km s-min=15.1km az=106.0*

ISC 25 15:41:11.3±1.5**, 29.37S**±0.09×**177.3W**±0.2**, h10**^{km}**, n49, σ1**^{s}**40**/24**, mb4.6**/8**, 1C, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MWZ	**Matawai**	**9.92**	**204**	PN	**Pn**	**15 43 33.7**	**-0.2**
MWZ				SN	Sx	15 45 26.2	
URZ	**Urewera**	**10.01**	**206**	Pn	**Pn**	**15 43 32.8**	**-2.3**
URZ				Sn	Sx	15 45 28.4	
URZ	**Urewera**	**10.01**	**206**	Pn	**Pn**	**15 43 32.8**	**-2.3**
	0.1nm,0.3s,baz=184,slow=19,SNR=6.6						
URZ				Sn	Sx	15 45 28.4	
	3.0nm,0.3s,baz=131,slow=23,SNR=9.3						
URZ	**Urewera**	**10.01**	**206**	PN	**Pn**	**15 43 32.7**	**-2.4**
URZ				SN	Sx	15 45 23.3	
MRZ	**Mangatainoka R**	**12.68**	**205**	SN	Sx	15 46 26.2	
SNZO	**South Karori**	**13.57**	**206**	*e*Pn	**Pn**	**15 44 26.3**	**+2.5**
SNZO				Sn	Sx	15 46 38.2	
TCW	**Tory Channel**	**13.66**	**208**	SN	Sx	15 46 48.9	
THZ	**Tophouse**	**14.70**	**210**	PN	**Pn**	**15 44 38.2**	**-1.0**
THZ				SN	Sx	15 47 13.4	
KHZ	**Kahutara**	**14.97**	**207**	PN	**Pn**	**15 44 42.5**	**-0.4**
KHZ				SN	Sx	15 47 19.5	
RPZ	**Rata Peaks**	**17.07**	**210**	P	**Pn**	**15 45 10.4**	**+0.4**
	2.2nm,0.3s,baz=91,slow=2.6,SNR=13						
ARMA	**Armidale**	**26.91**	**260**	*e*P	**P**	**15 46 56.9**	**+4.2**
PPT	**Papeete**	**27.94**	**71**	LR	LR	15 54 53.1	
	comp=Z,457nm,19.7s,baz=63,slow=30						
EIDS	**Eidsvold**	**28.31**	**270**	*e*P	**P**	**15 47 06.7**	**+1.5**
CTA	**Charters Tower**	**34.24**	**277**	*e*P	**P**	**15 47 57.1**	**-0.5**
	7.8nm,0.6s,mb4.8						
CTA	**Charters Tower**	**34.24**	**277**	P	**P**	**15 47 57.0**	**-0.5**
	11nm,0.8s,mb4.9,baz=100,slow=12,SNR=8.6						
CTAO	**Charters Tower**	**34.24**	**277**	P	**P**	**15 47 59.3**	**+1.7**
	10nm,0.7s,mb4.9						
STKA	**Stephens Creek**	**35.31**	**255**	*e*P	**P**	**15 48 08.0**	**+1.4**
	5.6nm,0.8s,mb4.5						
STKA	**Stephens Creek**	**35.31**	**255**	P	**P**	**15 48 08.2**	**+1.5**
	6.0nm,0.7s,mb4.7,baz=96,slow=10,SNR=14						
ASAR	**Alice Springs**	**43.77**	**266**	P	**P**	**15 49 16.9**	**-0.5**
	6.8nm,0.9s,mb4.4,baz=101,slow=6.3,SNR=53						
WB2	**Warramunga Arr**	**44.66**	**271**	*e*P	**P**	**15 49 24.2**	**-0.3**
WRA	**Warramunga Arr**	**44.67**	**271**	P	**P**	**15 49 24.4**	**-0.2**
	8.1nm,0.8s,mb4.6,baz=110,slow=7.8,SNR=48						
FITZ	**Fitzroy Crossi**	**52.97**	**269**	*e*P	**P**	**15 50 26.3**	**-2.0**
	7.9nm,0.9s,mb4.6						
FITZ	**Fitzroy Crossi**	**52.97**	**269**	P	**P**	**15 50 28.2**	**-0.1**
	1.5nm,0.6s,mb4.1,baz=165,slow=8.9,SNR=7.1						
QSPA	**South Pole Qui**	**60.74**	**180**	*e*P	**P**	**15 51 24.5**	**+1.9**
	18nm,0.9s,mb5.2						
MAW	**Mawson**	**73.48**	**200**	P	**P**	**15 52 44.8**	**+1.2**
	4.0nm,0.7s,mb4.5,baz=123,slow=8.8,SNR=4.1						
MJAR	**Matsushiro Arr**	**77.74**	**325**	P	**P**	**15 53 05.7**	**-2.7**
	2.5nm,0.8s,mb4.2,baz=165,slow=7.2,SNR=5.5						
SYO	**Syowa Base**	**78.25**	**193**	⇑*e*P	**P**	**15 53 08.5**	**-2.4**
MKAR	**Makanchi Array**	**117.57**	**310**	PKP	PKPdf	15 59 55.0	-2.2
MKAR	**Makanchi Array**	**117.57**	**310**	PKP	PKPdf	15 59 55.0	-2.2
	0.2nm,0.3s,baz=82,slow=1.0,SNR=6.1						
ZALV	**Zalesovo Beam**	**117.66**	**319**	PKP	PKPdf	15 59 54.4	-2.7
ZALV	**Zalesovo Beam**	**117.66**	**319**	PKP	PKPdf	15 59 54.4	-2.7
	0.3nm,0.4s,baz=178,slow=3.8,SNR=3.3						
ARCES	**ARCESS Array B**	**137.71**	**348**	PKP		16 00 27.4	
ARCES				PKP	PKPdf	16 00 34.9	+0.1
ARCES	**ARCESS Array B**	**137.71**	**348**	PKhKP		16 00 27.4	
	2.1nm,0.9s,baz=11,slow=1.8,SNR=3.3						
ARCES				PKP	PKPdf	16 00 34.9	+0.1
	3.4nm,0.9s,baz=74,slow=1.8,SNR=5.3						
DGRG	**David-gareji**	**143.53**	**301**	P	PKPdf	16 00 42.6	-3.6
FINES	**FINESS Array B**	**144.38**	**341**	PKP	PKPdf	16 00 42.4	-4.6
FINES	**FINESS Array B**	**144.38**	**341**	PKP	PKPdf	16 00 42.4	-4.6
	3.4nm,0.6s,baz=81,slow=2.8,SNR=17						
ONI	**Oni**	**144.81**	**303**	P	PKPdf	16 00 46.9	-1.5
KIV	**Kislovodsk**	**145.13**	**306**	*e*PKP	PKPdf	16 00 46.6	-2.2
NB2	**NORSAR Subarra**	**147.82**	**352**	PKPa	PKPdf	16 00 52.4	-0.5
	comp=Z,6.3nm,0.8s,baz=12,slow=3.0						
NOA	**NORSAR Array B**	**147.82**	**352**	PKPbc	PKPbc	16 00 52.9	-2.9
NOA	**NORSAR Array B**	**147.82**	**352**	PKPbc	PKPbc	16 00 52.9	-2.9
	comp=Z,4.9nm,0.8s,baz=16,slow=4.5,SNR=16						
MALT	**Malatya**	**149.16**	**296**	*e*PKPbc	PKPbc	16 00 59.5	-0.5
AKASG	**Malin Array Be**	**150.83**	**324**	PKPbc	PKPbc	16 01 01.6	-2.1
AKASG				PKPab	PKPab	16 01 09.7	-1.2
AKASG	**Malin Array Be**	**150.83**	**324**	PKPbc	PKPbc	16 01 01.6	-2.1
	comp=Z,9.4nm,0.7s,baz=45,slow=2.9,SNR=20						
AKASG				PKPab	PKPab	16 01 09.7	-1.2
	comp=Z,6.9nm,0.8s,baz=43,slow=2.7,SNR=6.1						
KIEV	**Kiev**	**150.84**	**324**	*e*PKPbc	PKPbc	16 01 00.6	-3.1
BRTR	**Keskin Array B**	**152.62**	**300**	PKPbc	PKPbc	16 01 08.6	+0.4
BRTR				PKPab	PKPab	16 01 19.1	+0.4
BRTR	**Keskin Array B**	**152.62**	**300**	PKPbc	PKPbc	16 01 08.6	+0.4
	comp=Z,1.2nm,0.7s,baz=97,slow=3.7,SNR=5.3						
BRTR				PKPab	PKPab	16 01 19.1	+0.4
	comp=Z,2.1nm,0.8s,baz=106,slow=2.5,SNR=6.6						
TORD	**Torodi Ar. Bea**	**163.83**	**177**	PKP	PKPdf	16 01 13.8	-1.6
TORD				PKPab	PKPab	16 02 06.2	-1.4
TORD	**Torodi Ar. Bea**	**163.83**	**177**	PKP	PKPdf	16 01 13.8	-1.6
	comp=Z,1.1nm,1.1s,baz=330,slow=2.6,SNR=4.7						
TORD				PKPab	PKPab	16 02 06.2	-1.4
	comp=Z,1.2nm,0.8s,baz=186,slow=3.8,SNR=4.7						

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*ISCJB **25** 15:48:48.8±1.5, 7.0S±0.1×156.14E±0.08, h199^{km}±16^{km}, mb3.8/9, Error ellipse: s-maj=23.5km s-min=12.9km az=169.9*

*IDC **25** 15:48:48.8±2.2, 6.88S×156.06E, h176^{km}±22^{km}, mb3.6/8, mb1 3.7/10, mb1mx3.6/17, mbtmp3.6/10, Error ellipse: s-maj=22.1km s-min=16.6km az=127.0*

*NEIC **25** 15:48:49.1±1.9, 6.80S×156.03E, h177^{km}±20^{km}, mb4.3/2, Error ellipse: s-maj=23.9km s-min=16.7km az=183.0*

ISC 25 15:48:49.2±1.5**, 6.9S**±0.1×**156.10E**±0.08**, h183**^{km}±14^{km}**, n15, σ0**^{s}**67**/17**, mb3.8**/9**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	**Honiara**	**4.56**	**124**	P	**Pn**	**15 49 57.2**	**-0.4**
	4.9nm,0.3s,baz=244,slow=1.9,SNR=9.5						
PMG	**Port Moresby**	**9.19**	**254**	*e*P	**Pn**	**15 50 59.4**	**+1.3**
PMG				S	**Sn**	**15 52 40.2**	**-0.6**
PMG	**Port Moresby**	**9.19**	**254**	P	**Pn**	**15 50 59.5**	**+1.4**
	2.8nm,0.3s,baz=41,slow=7.2,SNR=16						
PMG				S	**Sn**	**15 52 40.2**	**-0.6**
	0.4nm,0.3s,baz=233,slow=19,SNR=2.1						
DZM	**Mont Dzumac**	**18.08**	**148**	P	**P**	**15 52 51.8**	**+4.8**
	0.2nm,0.3s,baz=303,slow=16,SNR=3.3						
KAKA	**Kakadu**	**24.00**	**254**	*e*P	**P**	**15 53 46.4**	**-0.9**
	5.3nm,0.7s,mb4.2						
WB2	**Warramunga Arr**	**24.76**	**236**	*e*P	**P**	**15 53 54.4**	**+0.3**
WRA	**Warramunga Arr**	**24.77**	**236**	P	**P**	**15 53 54.6**	**+0.4**
	1.6nm,0.4s,mb3.9,baz=61,slow=9.8,SNR=32						
ASAR	**Alice Springs**	**27.05**	**230**	P	**P**	**15 54 14.8**	**+0.1**
	1.2nm,0.3s,mb4.0,baz=59,slow=9.6,SNR=46						
ASAR				PcP	PcP	15 57 33.4	+2.1
	0.3nm,0.5s,baz=73,slow=2.8,SNR=4.7						
STKA	**Stephens Creek**	**28.29**	**207**	P	**P**	**15 54 25.9**	**+0.4**
	2.5nm,1.1s,mb3.9,baz=53,slow=15,SNR=2.3						
FITZ	**Fitzroy Crossi**	**31.69**	**247**	*e*P	**P**	**15 54 54.9**	**-0.8**
	2.8nm,0.4s,mb4.3						
FITZ	**Fitzroy Crossi**	**31.69**	**247**	P	**P**	**15 54 54.8**	**-0.9**
	2.0nm,0.4s,mb4.2,baz=61,slow=18,SNR=14						
KSRS	**Korea Array**	**51.39**	**331**	P	**P**	**15 57 34.8**	**-0.4**
	0.9nm,0.7s,mb3.5,baz=150,slow=5.6,SNR=3.8						
SONM	**Songino Array**	**69.86**	**327**	P	**P**	**15 59 40.8**	**+0.8**
	0.8nm,0.4s,mb3.8,baz=134,slow=6.3,SNR=11						
MKAR	**Makanchi Array**	**84.07**	**318**	P	**P**	**16 00 59.8**	**+0.4**
	0.6nm,0.7s,mb3.4,baz=106,slow=5.7,SNR=5.3						
ZALV	**Zalesovo Beam**	**84.73**	**326**	P	**P**	**16 01 01.8**	**-0.6**
	0.6nm,0.6s,mb3.5,baz=106,slow=4.7,SNR=2.8						

IDC 25 15:52:34.1±59.0**, 15.06S**×**170.67W, h0**^{km}**, mb3.9**/3**, mb1 4.1**/3**, mb1mx3.7**/16**, mbtmp3.9**/3**, Error ellipse: s-maj=1168.0km s-min=206.0km az=79.0, Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**46.49**	**240**	P	P	16 01 03.4	+0.1
	2.1nm,1.0s,baz=73,slow=11,SNR=3.2						
WRA	**Warramunga Arr**	**52.49**	**256**	P	P	16 01 49.1	-0.2
	0.3nm,0.5s,baz=94,slow=6.9,SNR=9.9						
ASAR	**Alice Springs**	**52.72**	**252**	P	P	16 01 51.0	+0.1
	2.0nm,0.6s,baz=90,slow=7.7,SNR=65						

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*NEIC **25** 15:59:19.7, 32.81S×71.15W, h52^{km}, MD4.0(GUC), After GUC.*

GUC 25 15:59:19.7±0.8**, 32.81S**×**71.15W, h52**^{km}±4^{km}**, MD4.0, ML3.2, 10C-17D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROCH	**El Roble**	**0.20**	**145**	⇓*i*P	Pn	15 59 29.3	+1.0
PACH	**Papudo**	**0.36**	**318**	⇑*i*P	Pn	15 59 30.1	+0.5
PACH				*i* S	Sn	15 59 37.3	+0.5
IHA	**Instituto Hidr**	**0.47**	**242**	⇓*i*P	Pn	15 59 31.2	+0.5
IHA				*i* S	Sn	15 59 39.2	+0.5
PEL	**Peldehue**	**0.51**	**131**	⇓*i*P	Pn	15 59 31.9	+0.7
PEL				*i* S	Sn	15 59 40.8	+1.3
PEL				AML	AML	15 59 41.6	
	comp=E,9μm,0.2s						
RCDM	**Rinconada Maip**	**0.74**	**157**	⇓*i*P	Pn	15 59 34.4	+0.4
RCDM				*i* S	Sn	15 59 45.3	+0.9
RCDM	**Rinconada Maip**	**0.74**	**157**	⇓*i*P	Pn	15 59 34.4	+0.4

RCDM				iS	Sn	15 59 45.3	+0.9
RCDM				AML	AML	15 59 46.0	
	comp=E,6µm,0.1s						
STL	**Santa Lucia**	**0.76**	**146**	eP	Pn	15 59 33.7	-0.5
STL				iS	Sn	15 59 45.2	+0.3
STL				AML	AML	15 59 50.6	
	comp=N,204nm,0.3s						
SAN	**Santiago**	**0.76**	**148**	iS	Sn	15 59 45.8	+0.8
SAN				AML	AML	15 59 51.8	
	comp=N,755nm,0.3s						
DSCH	**Colegio Aleman**	**0.76**	**141**	⇓iP	Pn	15 59 34.1	-0.2
DSCH				iS	Sn	15 59 45.7	+0.7
DSCH	**Colegio Aleman**	**0.76**	**141**	⇓iP	Pn	15 59 34.1	-0.2
DSCH				iS	Sn	15 59 45.7	+0.7
DSCH				AML	AML	15 59 46.1	
	comp=E,378nm,0.1s						
CLCH	**Cerro Calan**	**0.78**	**139**	⇑iP	Pn	15 59 35.6	+1.1
CLCH				iS	Sn	15 59 47.2	+1.8
CLCH	**Cerro Calan**	**0.78**	**139**	⇑iP	Pn	15 59 35.6	+1.1
CLCH				iS	Sn	15 59 47.2	+1.8
CLCH				AML	AML	15 59 50.0	
	comp=E,2µm,0.3s						
FSR	**Penalolen**	**0.85**	**142**	eP	Pn	15 59 36.1	+0.7
FSR				iS	Sn	15 59 48.6	+1.6
FSR	**Penalolen**	**0.85**	**142**	eP	Pn	15 59 36.1	+0.7
FSR				iS	Sn	15 59 48.6	+1.6
FSR				AML	AML	15 59 49.1	
	comp=E,1µm,0.2s						
TACH	**Talagante**	**0.86**	**168**	⇓iP	Pn	15 59 36.1	+0.4
TACH				iS	Sn	15 59 48.5	+1.2
ANTU	**Antumapu**	**0.87**	**151**	⇓iP	Pn	15 59 36.1	+0.3
ANTU				iS	Sn	15 59 48.6	+1.0
ANTU	**Antumapu**	**0.87**	**151**	⇓iP	Pn	15 59 36.1	+0.3
ANTU				iS	Sn	15 59 48.6	+1.0
ANTU				AML	AML	15 59 49.5	
	comp=E,2µm,0.1s						
FCH	**Farellones**	**0.89**	**126**	⇑iP	Pn	15 59 36.5	+0.5
FCH				iS	Sn	15 59 49.1	+1.2
FCH				AML	AML	15 59 49.5	
	comp=E,979nm,0.2s						
PCH	**Pirque**	**0.97**	**147**	⇑iP	Pn	15 59 37.5	+0.4
PCH				iS	Sn	15 59 51.1	+1.2
CHNG	**Los Chungos**	**0.97**	**342**	⇑iP	Pn	15 59 24.8	-12
CHNG				iS	Sn	15 59 37.6	-12
CHNG				AML	AML	15 59 38.9	
	comp=N,846nm,0.4s						
SJCH	**San Jose de Ma**	**1.06**	**142**	⇓iP	Pn	15 59 38.1	-0.2
SJCH				iS	Sn	15 59 52.7	+0.6
SJCH	**San Jose de Ma**	**1.06**	**142**	⇓iP	Pn	15 59 38.1	-0.2
SJCH				iS	Sn	15 59 52.7	+0.6
SJCH				AML	AML	15 59 52.8	
	comp=N,585nm,0.1s						
LNV	**Longovilo**	**1.17**	**191**	⇓iP	Pn	15 59 40.0	+0.3
CHCH	**Chadas Angostu**	**1.20**	**160**	⇑iP	Pn	15 59 40.9	+0.8
CHCH				iS	Sn	15 59 57.1	+1.8
CACH	**El Canelo**	**1.38**	**161**	⇓iP	Pn	15 59 44.2	+1.5
CACH				iS	Sn	16 00 02.0	+2.1
CICH	**Cipreses**	**1.62**	**158**	⇑iP	Pn	15 59 47.4	+1.5
CMCH	**Combarbala**	**1.63**	**4**	⇓iP	Pn	15 59 46.3	+0.2
CMCH				iS	Sn	16 00 07.3	+1.4
CMCH	**Combarbala**	**1.63**	**4**	⇓iP	Pn	15 59 46.3	+0.2
CMCH				iS	Sn	16 00 07.3	+1.4
CMCH				AML	AML	16 00 12.2	
	comp=N,1µm,0.3s						
TLL	**Tololo Astrono**	**2.65**	**6**	⇑iP	Pn	16 00 01.2	+1.2
TLL				iS	Sn	16 00 32.6	+1.8
TLL	**Tololo Astrono**	**2.65**	**6**	⇑iP	Pn	16 00 01.2	+1.2
TLL				⇓iP		16 00 01.2	
TLL				iS	Sn	16 00 32.6	+1.8
TLL				AML	AML	16 00 40.7	
	comp=N,256nm,0.6s						

*NEIC **25** 16:00:26.4, 40.08S×176.87E, h46^{km}, ML3.8(WEL), After WEL.*

WEL 25 16:00:26.2±0.2**, 40.06S×176.80E, h49^{km}**±2^{km}**, ML3.5**/14**, 2C-2D, Error ellipse: s-maj=1.8km s-min=1.1km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PXZ	**Pawanui**	**0.06**	**55**	⇓PN	Pn	16 00 33.8	+0.1
PXZ				SN	Sn	16 00 39.1	0.0
PXZ				SN	Sn	16 00 39.1	+0.1
TSZ	**Takapari Road**	**0.65**	**270**	P	Pn	16 00 39.0	-0.2
TSZ				S	Sn	16 00 47.7	-0.9
TSZ	**Takapari Road**	**0.65**	**270**	⇑PN	Pn	16 00 39.0	-0.2
TSZ				SN	Sn	16 00 47.7	-0.9
TSZ				SN	Sn	16 00 47.9	-0.7
BFZ	**Birch Farm**	**0.75**	**214**	P	Pn	16 00 41.2	+0.6
BFZ	**Birch Farm**	**0.75**	**214**	⇓PN	Pn	16 00 41.2	+0.6
BFZ				eSN	Sn	16 00 51.5	+0.5
BKZ	**Black Stump Fm**	**0.93**	**345**	P	Pn	16 00 42.8	-0.1
BKZ				S	Sn	16 00 54.3	-0.8
BKZ	**Black Stump Fm**	**0.93**	**345**	⇑PN	Pn	16 00 42.8	-0.1
BKZ				SN	Sn	16 00 54.3	-0.8
TIWZ	**Tintock**	**1.00**	**224**	PN	Pn	16 00 44.3	+0.4
TIWZ				SN	Sn	16 00 57.5	+0.6
MOVZ	**Moawhango**	**1.04**	**309**	P	Pn	16 00 44.8	+0.3
MOVZ	**Moawhango**	**1.04**	**309**	PN	Pn	16 00 44.8	+0.3
MOVZ				SN	Sn	16 00 57.7	-0.2
MRZ	**Mangatainoka R**	**1.11**	**237**	P	Pn	16 00 45.6	+0.2
MRZ	**Mangatainoka R**	**1.11**	**237**	PN	Pn	16 00 45.6	+0.2
MRZ				SN	Sn	16 00 59.9	+0.3
WNVZ	**Wahianoa**	**1.19**	**308**	P	Pn	16 00 47.3	+0.9
WNVZ	**Wahianoa**	**1.19**	**308**	PN	Pn	16 00 47.3	+0.9
TUVZ	**Tukino**	**1.19**	**311**	P	Pn	16 00 47.4	+0.9
TUVZ	**Tukino**	**1.19**	**311**	PN	Pn	16 00 47.4	+0.9
MTVZ	**Mangateitei**	**1.23**	**303**	PN	Pn	16 00 48.0	+0.9
TRVZ	**Turoa**	**1.23**	**308**	PN	Pn	16 00 48.1	+1.0
DRZ	**Dome Shelter**	**1.24**	**309**	P	Pn	16 00 48.1	+1.0
KNZ	**Kokohu**	**1.24**	**33**	eP	Pn	16 00 46.9	-0.2
KNZ	**Kokohu**	**1.24**	**33**	PN	Pn	16 00 46.9	-0.3
OTVZ	**Oturere**	**1.26**	**315**	PN	Pn	16 00 48.1	+0.7
FWVZ	**Far West T-bar**	**1.26**	**309**	P	Pn	16 00 48.3	+0.9
FWVZ	**Far West T-bar**	**1.26**	**309**	PN	Pn	16 00 48.3	+0.9
NGZ	**Ngauruhoe**	**1.28**	**313**	P	Pn	16 00 48.5	+0.8
NGZ	**Ngauruhoe**	**1.28**	**313**	PN	Pn	16 00 48.5	+0.8
HATZ	**Hinemaiaia**	**1.29**	**335**	P	Pn	16 00 48.2	+0.3
HATZ				S	Sn	16 01 03.7	-0.3
HATZ	**Hinemaiaia**	**1.29**	**335**	PN	Pn	16 00 48.2	+0.3
HATZ				SN	Sn	16 01 03.7	-0.3
WPVZ	**Whakapapa**	**1.30**	**311**	P	Pn	16 00 48.7	+0.8
WPVZ	**Whakapapa**	**1.30**	**311**	PN	Pn	16 00 48.7	+0.8
RITZ	**Rihia Road**	**1.31**	**326**	P	Pn	16 00 47.6	-0.5
KRVZ	**Karewarewa**	**1.32**	**317**	PN	Pn	16 00 48.9	+0.7
WTVZ	**West Tongariro**	**1.33**	**315**	P	Pn	16 00 49.1	+0.7
WTVZ	**West Tongariro**	**1.33**	**315**	PN	Pn	16 00 49.1	+0.7
PKVZ	**Pokaka**	**1.36**	**304**	PN	Pn	16 00 49.6	+0.7
KATZ	**Kakaramea**	**1.38**	**321**	P	Pn	16 00 50.5	+1.4
KATZ	**Kakaramea**	**1.38**	**321**	PN	Pn	16 00 50.5	+1.4
WAZ	**Wanganui**	**1.43**	**282**	P	Pn	16 00 51.2	+1.4
WAZ	**Wanganui**	**1.43**	**282**	PN	Pn	16 00 51.0	+1.2
RATZ	**Rangitukua**	**1.44**	**326**	P	Pn	16 00 50.6	+0.8
TWVZ	**Taurewa**	**1.45**	**313**	P	Pn	16 00 50.6	+0.6
TWVZ	**Taurewa**	**1.45**	**313**	PN	Pn	16 00 50.6	+0.6
MTW	**Mount Morrison**	**1.48**	**222**	P	Pn	16 00 49.7	-0.7
MTW	**Mount Morrison**	**1.48**	**222**	PN	Pn	16 00 49.7	-0.7
WHTZ	**Whakaora**	**1.54**	**335**	P	Pn	16 00 51.8	+0.5
WHTZ	**Whakaora**	**1.54**	**335**	PN	Pn	16 00 51.8	+0.5
TRWZ	**Traveller**	**1.58**	**212**	PN	Pn	16 00 51.0	-0.8
WATZ	**Wairara**	**1.59**	**328**	P	Pn	16 00 51.9	0.0
WATZ	**Wairara**	**1.59**	**328**	PN	Pn	16 00 51.9	0.0
KIW	**Kapiti Island**	**1.65**	**241**	P	Pn	16 00 52.8	0.0
KIW	**Kapiti Island**	**1.65**	**241**	PN	Pn	16 00 52.8	0.0
PAWZ	**Paruwai Farm**	**1.68**	**218**	P	Pn	16 00 52.6	-0.6
PAWZ	**Paruwai Farm**	**1.68**	**218**	PN	Pn	16 00 52.6	-0.6
CAW	**Cannon Point**	**1.68**	**231**	P	Pn	16 00 52.7	-0.5
CAW	**Cannon Point**	**1.68**	**231**	PN	Pn	16 00 52.7	-0.5
MSWZ	**Moikau Station**	**1.79**	**221**	P	Pn	16 00 53.5	-1.2
MSWZ	**Moikau Station**	**1.79**	**221**	PN	Pn	16 00 53.5	-1.2
MWZ	**Matawai**	**1.81**	**18**	P	Pn	16 00 54.4	-0.6
MWZ	**Matawai**	**1.81**	**18**	PN	Pn	16 00 54.4	-0.6
URZ	**Urewera**	**1.82**	**8**	P	Pn	16 00 54.6	-0.4
URZ	**Urewera**	**1.82**	**8**	PN	Pn	16 00 54.6	-0.4
VRZ	**Vera Road**	**1.84**	**300**	eP	Pn	16 00 55.9	+0.6
VRZ	**Vera Road**	**1.84**	**300**	PN	Pn	16 00 55.4	+0.1
TAZ	**Tarawera**	**1.84**	**353**	P	Pn	16 00 55.6	+0.2
MRW	**Makara Radio**	**1.98**	**233**	P	Pn	16 00 56.9	-0.4
RAEZ	**Rainy Point**	**2.02**	**292**	P	Pn	16 00 59.5	+1.8
HIZ	**Hauiti**	**2.16**	**315**	P	Pn	16 01 00.1	+0.3
HIZ	**Hauiti**	**2.16**	**315**	PN	Pn	16 00 60.0	+0.2
NEZ	**North Egmont**	**2.23**	**290**	P	Pn	16 01 05.4	+4.7
TCW	**Tory Channel**	**2.24**	**238**	P	Pn	16 01 00.1	-0.7
TCW	**Tory Channel**	**2.24**	**238**	PN	Pn	16 01 00.1	-0.7
PUZ	**Puketiti**	**2.29**	**30**	eP	Pn	16 01 00.5	-1.0
PKE	**Pukeiti**	**2.34**	**291**	P	Pn	16 01 04.9	+2.7
TUWZ	**Tuamarina**	**2.57**	**237**	PN	Pn	16 01 04.2	-1.1
QRZ	**Quartz Range**	**3.35**	**255**	eP	Pn	16 01 15.2	-0.8
QRZ	**Quartz Range**	**3.35**	**255**	PN	Pn	16 01 15.2	-0.8
THZ	**Tophouse**	**3.41**	**239**	eP	Pn	16 01 15.7	-1.1
THZ	**Tophouse**	**3.41**	**239**	PN	Pn	16 01 15.7	-1.1
LTZ	**Lake Taylor**	**4.36**	**230**	eP	Pn	16 01 27.6	-2.3

*MOS **25** 16:04:17.7±0.2, 42.56N×46.62E, h14^{km}, mb3.9/1, Error ellipse: s-maj=45.4km s-min=10.2km az=29.0*

*TIF **25** 16:04:21.4, 42.80N×46.27E, h8^{km}±3^{km}*

ISC 25 16:04:20.0±1.8**, 42.91N**±0.06×**46.6E**±0.2**, h10^{km}, n12, σ1^{s}05**/16**, 2C-3D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTKR	**Batakoyurt**	**1.57**	**288**	⇓iPN	**Pn**	**16 04 48.0**	**0.0**
TRKR	**Terskaya**	**1.58**	**301**	ePN	**Pn**	**16 04 49.4**	**+1.3**
LACR	**Lac**	**1.70**	**268**	⇑iPN	**Pn**	**16 04 48.2**	**-1.4**
ARNR	**Ardon**	**1.72**	**280**	ePN	**Pn**	**16 04 49.7**	**-0.3**
DGRG	**David-gareji**	**1.72**	**212**	P	**Pg**	**16 04 51.4**	**-1.6**
DGRG				S	**Sg**	**16 05 16.8**	**+1.4**
KMSR	**Komsomolskaya**	**1.75**	**286**	ePN	**Pn**	**16 04 50.7**	**+0.3**
KORR	**Kora**	**1.87**	**276**	ePN	**Pn**	**16 04 51.9**	**-0.1**
PRTR	**Priterechnaya**	**1.89**	**297**	⇓iPN	**Pn**	**16 04 53.7**	**+1.4**
ZEI	**Tsey**	**1.99**	**267**	⇓iPN	**Pn**	**16 04 52.7**	**-1.0**
LSNR	**Lesken**	**2.07**	**281**	ePN	**Pn**	**16 04 54.7**	**-0.1**
LSNR				eS	**Sn**	**16 05 20.3**	**-0.3**
DIGR	**Digorskoe uzhe**	**2.22**	**271**	⇑ePN	**Pn**	**16 04 56.1**	**-0.7**
DIGR				iS	**Sn**	**16 05 22.7**	**-1.6**
ONI	**Oni**	**2.34**	**263**	P	**Pn**	**16 04 59.7**	**+1.2**
ONI				S	**Sn**	**16 05 28.8**	**+1.4**

*ISCJB **25** 16:05:39.4±0.9, 13.94N±0.06×92.37W±0.04, h36^{km}±10^{km}, mb3.8/8, Error ellipse: s-maj=11.2km s-min=5.4km az=27.3*

*MEX **25** 16:05:42.1±0.7, 13.91N×92.44W, h40^{km}, MD4.5*

*NEIC **25** 16:05:42.6±1.1, 14.11N×92.21W, h44^{km}±11^{km}, mb4.1/4, MD4.5(MEX), Error ellipse: s-maj=17.7km s-min=9.0km az=209.0*

*CASC **25** 16:05:46.3±1.4, 15.21N×91.41W, h0^{km}±68^{km}, MD4.2, mb4.1(NEIC)*

*IDC **25** 16:05:46.8±3.8, 14.32N×91.88W, h84^{km}±36^{km}, mb3.5/6, mb1 3.9/9, mb1mx3.7/21, mbtmp3.7/9, Error ellipse: s-maj=35.2km s-min=18.4km az=62.0*

ISC 25 16:05:41.2±0.8**, 13.97N**±0.06×**92.31W**±0.04**, h35^{km}**±10^{km}**, n43, σ1^{s}16**/42**, mb3.8**/8**, 2C, Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUG	**Fuego 3**	**1.50**	**71**	⇑iP	**Pn**	**16 06 04.8**	**-0.8**
FG6		**1.50**	**67**	eP	**Pn**	**16 06 05.0**	**-0.6**
PCG	**Pacaya**	**1.70**	**76**	⇑eP	**Pn**	**16 06 08.2**	**-0.2**
PCG				eS	**Sn**	**16 06 29.2**	**+0.2**
CCIG	**Comitan**	**2.30**	**4**	eP	**Pn**	**16 06 17.8**	**+1.1**
CCIG				iS	**Sn**	**16 06 44.8**	**+1.0**
RBDL	**Robledal**	**2.55**	**87**	eP	x	16 06 40.7	
RTR	**El Retiro**	**2.59**	**91**	eP	x	16 06 41.0	
RTR				eS	x	16 07 10.6	
SBLS	**San Blas**	**2.61**	**93**	eP	x	16 06 41.4	
SBLS				eS	x	16 07 11.3	
SNJE	**San Jose**	**2.63**	**92**	eP	x	16 06 41.6	
SNJE				eS	x	16 07 11.0	
SCX	**San Cristobal**	**2.76**	**354**	iP	**Pn**	**16 06 22.8**	**-0.3**
SCX				iS	**Sn**	**16 06 56.0**	**+0.8**
MTO2	**Montecristo 2**	**2.89**	**81**	eP	x	16 06 44.7	
BOQS	**Boqueron**	**2.95**	**94**	eP	x	16 06 46.0	
SNET	**Serv Nac Est T**	**3.00**	**95**	eP	x	16 06 25.8	
SNET				eS	x	16 06 59.0	
LFRS	**El Faro**	**3.17**	**96**	eP	x	16 06 49.4	
LFRS				eS	x	16 07 24.7	
LBRS	**Las Brisas**	**3.18**	**94**	eP	x	16 06 49.7	
LCBS	**La Ceiba**	**3.25**	**95**	eP	x	16 06 50.7	
LCBS				eS	x	16 07 26.9	
SNVI	**San Vicente**	**3.39**	**96**	eP	x	16 06 52.8	
SNVI				eS	x	16 07 31.1	
CMIG	**Matias Romero**	**3.97**	**322**	P	**Pn**	**16 06 39.9**	**+0.2**
	8.1nm,0.3s,baz=140,slow=11,SNR=41						
CMIG				S	**Sn**	**16 07 28.9**	**+3.9**
	54nm,0.3s,baz=95,slow=21,SNR=9.9						
CAHU	**Cacacuatique**	**3.99**	**92**	eP	x	16 06 59.9	
HUIG	**Huatulco**	**4.08**	**296**	iP	**Pn**	**16 06 41.5**	**+0.3**
HUIG				iS	**Sn**	**16 07 24.3**	**-3.5**
HUIG	**Huatulco**	**4.08**	**296**	iP	**Pn**	**16 06 40.4**	**-0.8**
HUIG				iS	**Sn**	**16 07 24.3**	**-3.5**
TUIG	**Tuzandepetl**	**4.52**	**334**	iP	**Pn**	**16 06 46.2**	**-1.0**
TUIG				iS	**Sn**	**16 07 39.2**	**+0.7**
TGUH	**Tegucigalpa,Un**	**4.89**	**88**	ePn	**Pn**	**16 06 51.4**	**-0.9**
OXX	**Oaxaca**	**5.26**	**307**	iP	**Pn**	**16 07 01.7**	**+4.4**
VHO	**Vista Hermosa**	**5.26**	**306**	iP	**Pn**	**16 06 57.2**	**-0.2**
VHO				iS	**Sn**	**16 07 56.3**	**-0.5**
TPIG	**Tehuac#an**	**6.56**	**313**	iP	**Pn**	**16 07 17.9**	**+2.5**
TPIG				iS	**Sn**	**16 08 28.2**	**-0.8**
TEIG	**Tepich**	**7.32**	**31**	eP	**Pn**	**16 07 24.6**	**-1.1**
TEIG				S	**Sn**	**16 08 41.2**	**-6.3**
TEIG	**Tepich**	**7.32**	**31**	P	**Pn**	**16 07 23.5**	**-2.1**
	12nm,0.3s,baz=228,slow=3.7,SNR=29						
TEIG				S	**Sn**	**16 08 41.2**	**-6.3**
	2.2nm,0.3s,baz=307,slow=19,SNR=4.0						
JTS	**JuntasAbangare**	**8.07**	**116**	eP	**Pn**	**16 07 38.1**	**+2.1**
JTS	**JuntasAbangare**	**8.07**	**116**	P	**Pn**	**16 07 38.3**	**+2.3**
	1.9nm,0.3s,baz=313,slow=19,SNR=6.6						
SZVM	**Salazar**	**8.61**	**309**	iS	**Sn**	**16 09 17.5**	**-1.9**
LTX	**Lajitas**	**18.55**	**327**	eP	**Pn**	**16 09 56.8**	**+1.3**
	13nm,1.5s						
TXAR	**Lajitas Array**	**18.55**	**327**	P	**Pn**	**16 09 56.8**	**+1.3**
	0.2nm,0.3s,baz=154,slow=13,SNR=28						
MNTX	**Cornudas Mount**	**21.33**	**328**	eP	**P**	**16 10 25.2**	**0.0**
	9.6nm,0.9s,mb4.1						
AMTX	**Amarillo**	**22.47**	**340**	eP	**P**	**16 10 36.7**	**-0.7**
	8.0nm,0.8s,mb4.2						
TKL	**Tuckaleechee C**	**22.92**	**18**	P	**P**	**16 10 40.0**	**-2.1**
	2.6nm,0.7s,mb3.8,baz=172,slow=7.1,SNR=4.0						
ANMO	**Albuquerque**	**24.48**	**331**	eP	**P**	**16 10 57.6**	**+0.6**
	3.8nm,0.7s,mb3.9						
ANMO	**Albuquerque**	**24.48**	**331**	P	**P**	**16 10 57.7**	**+0.6**
	3.8nm,0.7s,mb4.0,baz=142,slow=12,SNR=16						
PDAR	**Pinedale Array**	**32.32**	**336**	P	**P**	**16 12 07.8**	**+0.9**
	0.2nm,0.6s,mb3.1,baz=128,slow=12,SNR=3.7						
NVAR	**Mina Array Bea**	**33.50**	**321**	P	**P**	**16 12 18.4**	**+1.1**
NVAR	**Mina Array Bea**	**33.50**	**321**	P	**P**	**16 12 18.4**	**+1.1**
	2.0nm,0.7s,mb4.2,baz=141,slow=7.5,SNR=8.1						
SIV	**San Ignacio**	**42.89**	**133**	P	**P**	**16 13 36.9**	**+0.3**
	0.4nm,0.7s,mb3.3,baz=301,slow=12,SNR=3.5						
YKA	**Yellowknife Ar**	**50.98**	**347**	P	**P**	**16 14 36.9**	**-2.3**
YKA				PcP	PcP	16 15 53.7	-1.3
YKA	**Yellowknife Ar**	**50.98**	**347**	P	**P**	**16 14 36.8**	**-2.3**
	0.9nm,0.4s,mb4.0,baz=151,slow=7.5,SNR=17						
YKA				PcP	PcP	16 15 53.7	-1.3
	0.2nm,0.7s,baz=164,slow=3.2,SNR=4.5						

IDC 25 16:17:56.9±5.8**, 32.25N×88.61E, h0^{km}, mb3.4**/3**, mb1 3.6**/4**, mb1mx3.2**/22**, mbtmp3.4**/4**, ML2.9**/1**, Error ellipse: s-maj=330.1km s-min=27.1km az=68.0, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	**Makanchi Array**	**15.32**	**343**	Pn	Pn	16 21 33.1	-1.2
	0.1nm,0.3s,baz=159,slow=12,SNR=4.7						
ZALV	**Zalesovo Beam**	**21.86**	**354**	P	P	16 22 50.2	-0.7
	0.3nm,0.4s,baz=165,slow=12,SNR=3.6						
WRA	**Warramunga Arr**	**67.88**	**133**	P	P	16 28 57.3	-0.1
	0.5nm,0.6s,baz=323,slow=6.2,SNR=8.5						
ASAR	**Alice Springs**	**70.45**	**136**	P	P	16 29 13.5	+0.3
	0.3nm,0.7s,baz=328,slow=6.5,SNR=7.3						

*IDC **25** 16:19:30.5±1.0, 0.76N×121.62E, h0^{km}, mb3.8/5, mb1 4.0/6, mb1mx3.8/19, mbtmp3.8/6, ML3.9/1, Error ellipse: s-maj=124.5km s-min=17.0km az=66.0*

*NEIC **25** 16:19:32.0±0.7, 0.34N×120.99E, h10^{km}, mb4.1/2, Error ellipse: s-maj=35.1km s-min=10.7km az=54.0*

*ISCJB **25** 16:19:37.2±2.3, 0.3N±0.1×120.8E±0.2, h69^{km}±24^{km}, mb3.7/6, Error ellipse: s-maj=41.5km s-min=10.7km az=145.9*

ISC 25 16:19:38.8±1.9**, 0.3N**±0.1×**120.8E**±0.2**, h66^{km}**±21^{km}**, n13, σ0^{s}67**/13**, mb3.7**/6**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KKM	**Kota Kinabalu**	**7.32**	**321**	Pn	**Pn**	**16 21 22.6**	**-0.5**
KAKA	**Kakadu**	**17.33**	**139**	eP	**Pn**	**16 23 37.4**	**+1.0**
	11nm,0.9s						
FITZ	**Fitzroy Crossi**	**18.89**	**166**	eP	**Pn**	**16 23 55.5**	**+0.3**
	4.4nm,0.6s						
FITZ	**Fitzroy Crossi**	**18.89**	**166**	P	**Pn**	**16 23 55.8**	**+0.5**
	0.3nm,0.3s,baz=16,slow=4.4,SNR=10						
KULM	**Kulim**	**20.71**	**284**	eP	**P**	**16 24 13.8**	**-0.1**
WRA	**Warramunga Arr**	**24.09**	**147**	P	**P**	**16 24 47.7**	**-0.7**
	2.3nm,0.7s,mb3.6,baz=337,slow=9.4,SNR=24						
WB2	**Warramunga Arr**	**24.10**	**147**	eP	**P**	**16 24 47.6**	**-0.8**
ASAR	**Alice Springs**	**27.00**	**153**	P	**P**	**16 25 14.4**	**-0.2**
	0.9nm,0.7s,mb3.4,baz=338,slow=12,SNR=20						
LSA	**Lhasa**	**40.65**	**319**	eP	**P**	**16 27 14.2**	**+1.5**
	3.1nm,0.6s,mb4.3						
SONM	**Songino Array**	**48.98**	**347**	P	**P**	**16 28 18.7**	**+0.1**
	0.2nm,0.6s,mb3.2,baz=172,slow=7.3,SNR=4.6						
MK31	**Makanchi Array**	**57.23**	**329**	eP	**P**	**16 29 19.3**	**+0.1**
MKAR	**Makanchi Array**	**57.23**	**329**	P	**P**	**16 29 19.4**	**+0.1**
	0.8nm,0.3s,mb4.2,baz=129,slow=8.6,SNR=19						
ZALV	**Zalesovo Beam**	**61.16**	**337**	P	**P**	**16 29 45.5**	**-0.8**
	0.4nm,0.5s,mb3.7,baz=139,slow=4.8,SNR=3.2						

*DDA **25** 16:20:52.8, 38.73N×39.45E, h2^{km}, Md2.8*

*ISCJB **25** 16:20:53.9±0.7, 38.39N±0.04×39.34E±0.05, h2^{km}, Error ellipse: s-maj=5.3km s-min=5.1km az=16.7*

*CSEM **25** 16:20:53.4±0.3, 38.44N×39.25E, h17^{km}±3^{km}, MD2.8, Error ellipse: s-maj=9.1km s-min=4.4km az=124.0*

*ISK **25** 16:20:53.1, 38.44N×39.24E, h5^{km}, MD2.8*

ISC 25 16:20:54.7±1.1**, 38.41N**±0.07×**39.3E**±0.1**, h8^{km}**±20^{km}**, n9, σ0^{s}96**/16**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.28**	**287**	iP	**Pg**	**16 20 59.9**	**-0.4**
ELZG				iS	**Sg**	**16 21 04.4**	**+0.3**
PTK	**Pertek**	**0.48**	**6**	PG	**Pg**	**16 21 03.3**	**-0.7**
PTK				SG	**Sg**	**16 21 11.5**	**+1.2**
PTK	**Pertek**	**0.48**	**6**	ePg	**Pg**	**16 21 03.3**	**-0.7**
PTK				eSg	**Sg**	**16 21 11.5**	**+1.2**
MALT	**Malatya**	**0.72**	**262**	PG	**Pg**	**16 21 06.4**	**-2.1**
MALT				SG	**Sg**	**16 21 17.3**	**-0.5**
MALT	**Malatya**	**0.72**	**262**	ePg	**Pg**	**16 21 06.4**	**-2.1**
MALT				eSg	**Sg**	**16 21 17.3**	**-0.5**
URFA	**Urfa**	**1.05**	**203**	ePG	**Pg**	**16 21 14.4**	**-0.4**
URFA	**Urfa**	**1.05**	**203**	ePg	**Pg**	**16 21 14.4**	**-0.4**
MARD	**Mardin**	**1.59**	**133**	iP	**Pn**	**16 21 23.5**	**+0.5**
MARD				iS	**Sn**	**16 21 43.3**	**-0.4**
GZT	**Gaziantep**	**1.75**	**233**	iP	**Pg**	**16 21 28.8**	**+0.6**
GZT				iS	**Sg**	**16 21 52.8**	**+1.9**

MEX 25 16:45:02.9±1.0**, 16.18N×97.27W, h26^{km}**±36^{km}**, MD3.6, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.85**	**285**	iP	Pb	16 45 16.1	-3.0
PNIG				iS	Sb	16 45 27.8	-2.4
VHO	**Vista Hermosa**	**1.03**	**30**	iP	Pn	16 45 18.9	-2.7
VHO				iS	Sn	16 45 31.9	-3.2
OXX	**Oaxaca**	**1.04**	**30**	iP	Pn	16 45 17.0	-4.8
HUIG	**Huatulco**	**1.19**	**110**	iP	Pn	16 45 20.8	-3.0
HUIG				iS	Sn	16 45 36.7	-2.3
TPIG	**Tehuac#an**	**2.23**	**358**	iP	Pn	16 45 36.3	-1.9
TPIG				iS	Sn	16 46 03.2	-1.7

NEIC 25 17:02:27.5, 37.31N×121.08W, h7^{km}, ML3.5(NCEDC)**, After NCEDC., Central California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMB	**Columbia Colle**	**0.91**	**37**	ePg	Pg	17 02 44.3	-0.7
CMB				eSg	Sg	17 02 55.6	-1.1
MCCM	**Marconi Confer**	**1.66**	**301**	ePn	Pn	17 02 54.9	-2.1
NSHM	**Saint Helena R**	**1.71**	**315**	ePn	Pn	17 02 55.9	-1.9
MTUM	**Tungsten Hills**	**2.00**	**88**	ePn	Pn	17 03 03.1	+1.4
MTUM				eSg	Sg	17 03 29.8	-2.0
OHCM	**Honcut**	**2.05**	**351**	ePn	Pn	17 03 01.0	-1.4
OHCM				eS	Sn	17 03 25.3	-3.0
PAHR	**Pah Rah Range**	**2.74**	**28**	ePn	Pn	17 03 11.9	0.0
PAHR				ePg	Pg	17 03 16.6	-3.3
DAC	**Darwin (Calif)**	**2.98**	**109**	ePn	Pn	17 03 12.0	-3.2
DAC				ePg	Pg	17 03 21.9	-2.6
DAC				eSg	Sg	17 03 56.5	-6.6
TPH	**Tonopah**	**3.15**	**75**	ePg	Pg	17 03 24.2	-3.7
WDC	**Whiskeytown Da**	**3.46**	**341**	ePn	Pn	17 03 19.0	-2.8
TPNV	**Topopah Spring**	**3.87**	**94**	Pn	Pn	17 03 28.8	+1.3
TPNV				eS	Sn	17 04 24.7	+11
BMN	**Battle Mountai**	**4.33**	**43**	Pn	Pn	17 03 34.2	+0.5
BMN				ePg	Pg	17 03 49.1	-1.4
TRCR	**Troy Canyon**	**4.47**	**75**	Pg	Pg	17 03 50.3	-2.8
MOD	**Modoc**	**4.63**	**7**	ePg	Pg	17 03 50.2	-6.0
ARUT	**Antelope Range**	**6.09**	**83**	ePg	Pg	17 04 21.5	-2.6
CCUT	**Cedar City**	**6.14**	**85**	Pn	Pn	17 04 01.4	+2.8
CCUT				ePg	Pg	17 04 22.6	-2.5
MVU	**Marysvale**	**7.11**	**78**	ePn	Pn	17 04 06.3	-5.6
	3.8nm,0.8s						

*ISCJB **25** 17:24:17.1±0.9, 32.97N±0.05×140.70E±0.09, h70^{km}±9^{km}, mb3.6/3, Error ellipse: s-maj=12.7km s-min=8.0km az=5.4*

*JMA **25** 17:24:18.3±0.1, 33.04N×140.69E, h62^{km}±3^{km}, M3.5*

*IDC **25** 17:24:18.5±2.5, 32.85N×140.49E, h65^{km}±23^{km}, mb3.3/3, mb1 3.6/4, mb1mx3.3/21, mbtmp3.3/4, Error ellipse: s-maj=54.9km s-min=16.8km az=86.0*

ISC 25 17:24:18.0±1.0**, 32.96N**±0.05×**140.73E**±0.09**, h59^{km}**±11^{km}**, n16, σ0^{s}85**/26**, mb3.6**/3**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	**Mitsune**	**0.78**	**281**	P	**Pn**	**17 24 33.4**	**+0.3**
JHJ2				S	**Sn**	**17 24 44.3**	**0.0**
JHJ	**Hachijo jima 2**	**0.81**	**281**	P	**Pn**	**17 24 33.5**	**0.0**
	232nm,0.3s,baz=88,slow=23,SNR=30						
JHJ				S	**Sn**	**17 24 43.8**	**-1.2**
	232nm,0.3s,baz=67,slow=23,SNR=8.1						
BSO1	**Boso 1**	**1.70**	**7**	P	**Pn**	**17 24 45.0**	**-0.3**
BSO1				S	**Sn**	**17 25 05.0**	**-1.0**
JKO	**Kozu shima**	**1.81**	**313**	P	**Pn**	**17 24 46.8**	**+0.1**
JKO				S	**Sn**	**17 25 08.3**	**-0.2**
BSO3	**Boso 3**	**1.84**	**354**	P	**Pn**	**17 24 47.2**	**-0.1**
BSO3				S	**Sn**	**17 25 09.0**	**-0.5**
BSO4	**Boso 4**	**2.05**	**351**	P	**Pn**	**17 24 50.3**	**+0.3**
JIM2	**Oshima 3**	**2.06**	**329**	P	**Pn**	**17 24 50.0**	**-0.1**
JIM2				eS	**Sn**	**17 25 14.0**	**-0.7**
JIZS	**Izushimoda**	**2.33**	**319**	P	**Pn**	**17 24 54.3**	**+0.4**
JIZS				eS	**Sn**	**17 25 20.8**	**-0.6**
JOD2	**Odawara 2**	**2.67**	**330**	P	**Pn**	**17 24 58.6**	**+0.1**
JOD2				eS	**Sn**	**17 25 27.4**	**-2.2**
SHZ3	**Shizuoka 3**	**2.96**	**316**	P	**Pn**	**17 25 04.1**	**+1.6**
JYN	**Shimob**	**3.11**	**325**	P	**Pn**	**17 25 05.9**	**+1.4**
MJAR	**Matsushiro Arr**	**4.13**	**331**	P	**Pn**	**17 25 20.1**	**+1.7**
	2.5nm,0.3s,baz=154,slow=16,SNR=40						
MJAR				S	**Sn**	**17 26 06.5**	**+1.1**
	1.0nm,0.3s,baz=41,slow=26,SNR=4.0						
MAT	**Matsushiro**	**4.13**	**331**	P	**Pn**	**17 25 19.5**	**+1.0**
MAT				eS	**Sn**	**17 26 05.9**	**+0.4**
WRA	**Warramunga Arr**	**52.96**	**188**	P	**P**	**17 33 27.8**	**-0.6**
	0.3nm,0.4s,mb3.6,baz=4.6,slow=7.5,SNR=15						
ASAR	**Alice Springs**	**56.69**	**187**	P	**P**	**17 33 54.2**	**-1.1**
	0.2nm,0.5s,mb3.4,baz=2.7,slow=6.3,SNR=8.2						
TXAR	**Lajitas Array**	**93.06**	**52**	P	**P**	**17 37 25.4**	**0.0**
	0.6nm,1.1s,mb4.0,baz=276,slow=1.7,SNR=2.6						

*ISCJB **25** 17:36:42.7±3.1, 1.9S±0.1×152.05E±0.08, h101^{km}±29^{km}, mb3.7/8, Error ellipse: s-maj=23.3km s-min=13.8km az=8.2*

*IDC **25** 17:36:42.7±3.8, 1.79S×152.00E, h83^{km}±36^{km}, mb3.6/8, mb1 3.7/9, mb1mx3.6/17, mbtmp3.6/9, MS3.7/4, Ms1 3.7/4,* *ms1mx3.2/19, Error ellipse: s-maj=23.5km s-min=21.2km az=146.0*

*NEIC **25** 17:36:44.0±2.4, 178S×15204E, h98^{km}±22^{km}, Error ellipse: s-maj=22.4km s-min=16.0km az=157.0*

ISC 25 17:36:43.7±2.3, 18S±01×15206E±009, h94^{km}±22^{km}, n19, σ0^{s}90/18, mb3.7/8, New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	8.96	213	P	Pn	17 38 50.7	+0.3
PMG				LR	LR	17 42 11.6	
PMG	Port Moresby	8.96	213	P	Pn	17 38 50.4	0.0
	0.4nm,0.3s,baz=9.5,slow=7.1,SNR=3.4						
PMG				LR	LR	17 42 11.6	
	comp=Z,170nm,19.1s,baz=325,slow=37						
HNR	Honiara	10.88	134	*e*P	Pn	17 39 16.2	-0.3
HNR				S	Sn	17 41 15.7	-0.7
HNR	Honiara	10.88	134	P	Pn	17 39 16.5	0.0
	44nm,0.3s,baz=271,slow=2.2,SNR=39						
HNR				S	Sn	17 41 15.7	-0.7
	4.6nm,0.3s,baz=315,slow=1.4,SNR=5.1						
COEN	Coen	14.91	216	*e*P	Pn	17 40 12.9	+3.2
DZM	Mont Dzumac	24.50	146	P	P	17 41 56.4	+2.0
	5.1nm,0.6s,mb4.0,baz=107,slow=19,SNR=7.1						
DZM				LR	LR	17 49 06.4	
	comp=Z,131nm,18.3s,baz=0.0,slow=30						
WB2	Warramunga Arr	24.97	223	*e*P	P	17 41 58.0	-0.7
WRA	Warramunga Arr	24.98	223	P	P	17 41 58.2	-0.6
	2.0nm,0.5s,mb3.8,baz=46,slow=9.8,SNR=46						
ASAR	Alice Springs	27.93	218	P	P	17 42 24.6	-0.7
	0.8nm,0.8s,mb3.3,baz=56,slow=8.5,SNR=8.8						
FITZ	Fitzroy Crossi	30.55	236	*e*P	P	17 42 48.1	-0.6
FITZ	Fitzroy Crossi	30.55	236	P	P	17 42 49.9	+1.2
	1.7nm,0.9s,mb3.8,baz=56,slow=14,SNR=4.6						
STKA	Stephens Creek	31.47	197	P	P	17 42 56.4	-0.1
	1.9nm,0.9s,mb3.8,baz=32,slow=15,SNR=2.8						
STKA				LR	LR	17 53 53.0	
	comp=Z,141nm,20.1s,baz=91,slow=33						
AFI	Afiamalu	37.70	110	LR	LR	17 56 07.0	
	comp=Z,277nm,19.6s,baz=123,slow=31						
SONM	Songino Array	63.44	327	P	P	17 47 03.2	-0.4
	0.3nm,0.7s,mb3.4,baz=145,slow=6.6,SNR=3.5						
MKAR	Makanchi Array	77.62	319	P	P	17 48 29.6	-0.2
	0.2nm,0.2s,mb3.4,baz=83,slow=6.1,SNR=3.9						
YKA	Yellowknife Ar	93.16	28	P	P	17 49 47.5	+0.4
YKA	Yellowknife Ar	93.16	28	P	P	17 49 47.5	+0.4
	0.9nm,0.8s,mb4.2,baz=273,slow=4.8,SNR=12						
TORD	Torodi Ar. Bea	148.59	292	PKPbc	PKPbc	17 56 20.2	-0.7
TORD	Torodi Ar. Bea	148.59	292	PKPbc	PKPbc	17 56 20.2	-0.7
	0.3nm,0.5s,baz=42,slow=1.0,SNR=7.0						

*ISCJB **25** 18:03:26.5±2.5, 204S±02×1762W±03, h349^{km}±58^{km}, mb3.3/4, Error ellipse: s-maj=48.6km s-min=31.5km az=2.4*

*NEIC **25** 18:03:27.6±1.5, 2047S×17610W, h349^{km}±34^{km}, mb4.0/1, Error ellipse: s-maj=32.3km s-min=21.4km az=98.0*

*IDC **25** 18:03:27.1±2.5, 2041S×17602W, h351^{km}±63^{km}, mb3.1/3, mb1 3.3/6, mb1mx3.1/17, mbtmp3.2/6, Error ellipse: s-maj=62.5km s-min=26.0km az=97.0*

ISC 25 18:03:27.2±1.9, 204S±02×1760W±03, h355^{km}±45^{km}, n8, σ0^{s}84/9, mb3.3/4, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.61	33	P	Pn	18 05 18.6	+1.8
	2.4nm,0.3s,baz=143,slow=20,SNR=4.6						
AFI				S	S	18 06 45.0	-1.2
	1.3nm,0.3s,baz=72,slow=19,SNR=2.4						
DZM	Mont Dzumac	16.45	261	P	P	18 06 57.0	-0.4
	0.3nm,0.3s,baz=72,slow=19,SNR=3.2						
URZ	Urewera	18.78	197	P	P	18 07 21.8	-0.3
	2.0nm,0.3s,baz=354,slow=3.1,SNR=12						
CTAO	Charters Tower	35.36	264	*e*P	P	18 09 51.2	+0.5
	2.8nm,0.4s,mb3.9						
STKA	Stephens Creek	39.52	244	*e*P	P	18 10 24.5	-0.5
STKA	Stephens Creek	39.52	244	P	P	18 10 24.4	-0.6
	3.2nm,1.1s,mb3.5,baz=108,slow=3.2,SNR=4.1						
ASAR	Alice Springs	46.36	256	P	P	18 11 20.1	+0.6
	0.8nm,0.8s,mb2.9,baz=89,slow=8.7,SNR=21						
WRA	Warramunga Arr	46.47	262	P	P	18 11 20.0	-0.3
	0.4nm,0.3s,mb3.0,baz=98,slow=6.9,SNR=30						

*ISCJB **25** 18:46:12.4±1.1, 173S±01×1774W±01, h343^{km}±12^{km}, mb3.8/12, Error ellipse: s-maj=26.7km s-min=10.5km az=143.2*

*IDC **25** 18:46:13.2±1.6, 1723S×17735W, h343^{km}±17^{km}, mb3.5/9, mb1 3.7/11, mb1mx3.6/19, mbtmp3.5/11, Error ellipse: s-maj=24.9km s-min=11.2km az=141.0*

*NEIC **25** 18:46:14.0±1.0, 1724S×17741W, h351^{km}±10^{km}, mb4.1/3, Error ellipse: s-maj=18.2km s-min=8.6km az=142.0*

ISC 25 18:46:13.3±1.0, 173S±01×1774W±01, h338^{km}±11^{km}, n45, σ0^{s}78/22, mb3.8/12, 2C, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	6.33	59	*e*Pn	Pn	18 47 48.6	+0.9
AFI				*e*S	S	18 49 03.5	-0.6
AFI	Afiamalu	6.33	59	P	Pn	18 47 48.6	+0.9
	6.1nm,0.3s,baz=106,slow=1.5,SNR=9.2						
AFI				S	S	18 49 02.8	-1.3
	1.7nm,0.3s,baz=322,slow=19,SNR=2.1						
DZM	Mont Dzumac	15.98	250	P	P	18 49 40.4	+1.3
	0.3nm,0.3s,baz=98,slow=18,SNR=4.0						
URZ	Urewera	21.47	192	P	P	18 50 35.0	-0.4
	6.6nm,0.3s,mb4.4,baz=279,slow=2.2,SNR=8.1						
RPZ	Rata Peaks	28.13	198	P	P	18 51 34.7	-0.4
	5.3nm,0.8s,mb3.8,baz=293,slow=7.7,SNR=2.6						
STKA	Stephens Creek	39.81	241	*e*P	P	18 53 15.1	+0.2
	1.6nm,0.3s,mb3.7						
STKA	Stephens Creek	39.81	241	P	P	18 53 15.4	+0.6
	2.0nm,0.3s,mb3.8,baz=80,slow=10.0,SNR=18						
WRA	Warramunga Arr	45.73	259	P	P	18 54 01.0	-1.1
	0.3nm,0.3s,mb2.9,baz=97,slow=6.9,SNR=22						
ASAR	Alice Springs	45.92	254	P	P	18 54 03.1	-0.5
	7.3nm,0.5s,mb4.0,baz=88,slow=8.1,SNR=130						
FITZ	Fitzroy Crossi	54.12	260	P	P	18 55 04.4	-0.3
	0.5nm,0.5s,mb3.1,baz=180,slow=20,SNR=4.5						
QSPA	South Pole Qui	72.78	180	*e*P	P	18 57 04.8	-0.1
HLID	Hailey	83.50	41	*e*P	P	18 58 03.9	+0.2
	2.3nm,0.8s,mb4.1						
MNTX	Cornudas Mount	84.39	55	*e*P	P	18 58 09.0	+0.5
	4.1nm,1.0s,mb4.2						
LTX	Lajitas	84.81	57	*e*P	P	18 58 11.7	+1.1
	3.1nm,1.0s,mb4.1						
TXAR	Lajitas Array	84.81	57	P	P	18 58 11.8	+1.2
TXAR	Lajitas Array	84.81	57	P	P	18 58 11.8	+1.2
	2.4nm,0.8s,mb4.1,baz=222,slow=7.3,SNR=24						
BW06	Boulder Array	86.20	43	*e*P	P	18 58 17.2	+0.1
PDAR	Pinedale Array	86.20	43	P	P	18 58 16.5	-0.6
	0.5nm,0.7s,mb3.5,baz=195,slow=2.4,SNR=4.9						
YKA	Yellowknife Ar	93.34	24	P	P	18 58 48.5	-1.3
YKA	Yellowknife Ar	93.34	24	P	P	18 58 48.5	-1.3
	0.5nm,0.6s,mb3.7,baz=244,slow=4.6,SNR=13						
ARCES	ARCESS Array B	125.86	350	PKP	PKPdf	19 04 32.5	-1.9
ARCES	ARCESS Array B	125.86	350	PKP	PKPdf	19 04 32.5	-1.9
	2.0nm,0.7s,baz=16,slow=1.5,SNR=10						
KSP	Ksiaz	144.77	345	*e*P	PKPdf	19 05 08.8	-1.2
BRTR	Keskin Array B	145.03	316	PKPbc	PKPbc	19 05 10.0	-1.0
BRTR	Keskin Array B	145.03	316	PKPbc	PKPbc	19 05 10.0	-1.0
	1.4nm,0.8s,baz=88,slow=4.3,SNR=6.4						
CLL	Collm	145.05	349	⇑*i*P	PKPdf	19 05 09.3	-1.1
CLL				*i*		19 05 13.3	
CLL	Collm	145.05	349	⇑*i*PKPdf	PKPdf	19 05 09.3	-1.1
	comp=Z,13nm,1.0s						
CLL				*i* PKiKP	PKiKP	19 05 13.3	-1.1
BRG	Berggiesshubel	145.28	347	*e*P	PKPdf	19 05 10.3	-0.6
	comp=Z,5.5nm,1.0s						
GIVF	Givet	147.20	357	*e*PKP1	PKPbc	19 05 15.4	-1.5
GERES	GERESS Array B	147.24	346	PKPbc	PKPbc	19 05 15.7	-1.3
GERES	GERESS Array B	147.24	346	PKPbc	PKPbc	19 05 15.7	-1.3
	comp=Z,1.1nm,0.6s,baz=19,slow=3.4,SNR=11						
BAIF	Baives	147.26	358	*e*PKP1	PKPbc	19 05 15.8	-1.3
FLN	La Foliniere	148.49	4	*e*PKP1	PKPbc	19 05 18.5	-1.8
	comp=Z,11nm,0.6s						
LDF	La Druitiere	148.68	4	*e*PKP1	PKPbc	19 05 18.8	-1.9
	comp=Z,7.4nm,0.7s						
CDF	Champ du Feu	148.71	354	*e*PKP1	PKPbc	19 05 19.5	-1.3
	comp=Z,8.2nm,0.7s						
MEZF	Maizieres J’vi	148.79	357	*e*PKP1	PKPbc	19 05 19.8	-1.2
GRR	Gorron	148.83	5	*e*PKP1	PKPbc	19 05 19.5	-1.6
	comp=Z,14nm,0.6s						
HAU	Haudompre	149.19	355	*e*PKP1	PKPbc	19 05 20.5	-1.6
	comp=Z,6.1nm,0.6s						
HINF	Hinteralfeld	149.34	354	*e*PKP1	PKPbc	19 05 20.7	-1.7
LOR	Lormes	150.07	358	*e*PKP1	PKPbc	19 05 22.9	-1.3
	comp=Z,5.9nm,0.5s						
SSF	Saint Saulge	150.28	359	*e*PKP1	PKPbc	19 05 23.4	-1.3
	comp=Z,4.2nm,0.5s						
AVF	Avril sur Loir	150.56	359	*e*PKP1	PKPbc	19 05 23.6	-1.7
BGF	Bois d’Agland	150.79	360	*e*PKP1	PKPbc	19 05 24.5	-1.4
	comp=Z,8.6nm,0.5s						
TCF	Toulx Ste Croi	151.06	1	*e*PKP1	PKPbc	19 05 25.0	-1.5
MBDF	Montbardon	152.41	354	*e*PKP1	PKPbc	19 05 28.1	-1.5
	comp=Z,12nm,0.8s						

MAN 25 18:56:00, 1817N×12051E, h33^{km}, mb3.5, ML2.2, MS1.7, 1C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	Pasuquin	0.19	34	⇑*e*P	Pb	18 56 08.6	+2.1
PIP				*e*S	Sb	18 56 13.6	+2.8
ABRA	Dolores	0.55	159	*e*P	Pb	18 56 12.6	+1.2
ABRA				*e*S	Sb	18 56 20.3	+1.0
APYP	Conner	0.76	113	*e*P	Pn	18 56 15.4	+0.9
APYP				*e*S	Sn	18 56 26.3	+1.4

GUC 25 18:58:13.3±0.5, 3164S×7168W, h25^{km}±5^{km}, MD3.6, ML2.3, 2C-1D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHNG	Los Chungos	0.29	147	⇓*i*P	Pb	18 58 07.5	-13
CHNG				*i* S	Sb	18 58 12.8	-12
CHNG				AML	AML	18 58 13.1	
	comp=N,566nm,0.2s						
CHNG				AML	AML	18 58 13.2	
	comp=E,370nm,0.6s						
CMCH	Combarbala	0.74	52	⇑*i*P	Pb	18 58 27.0	-0.6
CMCH				*i* S	Sb	18 58 37.6	+0.3
CMCH				AML	AML	18 58 38.5	
	comp=E,615nm,0.7s						
CMCH				AML	AML	18 58 39.9	
	comp=N,480nm,0.5s						
TLL	Tololo Astrono	1.65	28	*e*P	Pn	18 58 41.8	+1.1
TLL				*i* S	Sn	18 59 03.8	+2.7
TLL				AML	AML	18 59 06.7	
	comp=E,40nm,0.5s						
TLL				AML	AML	18 59 08.3	
	comp=N,44nm,0.5s						
PEL	Peldehue	1.72	151	*e*P	Pn	18 58 42.8	+1.1
PEL				*i* S	Sn	18 59 04.7	+1.8
PEL				AML	AML	18 59 07.1	
	comp=N,72nm,0.3s						
PEL				AML	AML	18 59 08.6	
	comp=E,82nm,0.3s						
FCH	Farellones	2.06	145	⇑*i*P	Pn	18 58 48.4	+2.1
FCH				*i* S	Sn	18 59 14.9	+3.8
FCH				AML	AML	18 59 18.0	
	comp=E,34nm,0.3s						
FCH				AML	AML	18 59 21.7	
	comp=N,27nm,0.3s						

*IDC **25** 19:15:36.9±1.5, 4718N×15324E, h0^{km}, mb3.7/8, mb1 3.9/10, mb1mx3.7/25, mbtmp3.7/10, ML3.5/2, Error ellipse: s-maj=43.2km s-min=19.8km az=155.0*

*ISCJB **25** 19:15:39.5±2.8, 472N±01×1532E±02, h31^{km}±22^{km}, mb3.6/8, Error ellipse: s-maj=26.2km s-min=8.0km az=139.5*

*MOS **25** 19:15:39.6±1.7, 4713N×15319E, h35^{km}, mb3.7/3, Error ellipse: s-maj=18.4km s-min=9.8km az=60.1*

*NEIC **25** 19:15:39.0±1.0, 4726N×15315E, h10^{km}, mb3.9/1, Error ellipse: s-maj=32.9km s-min=12.8km az=134.0*

ISC 25 19:15:40.9±2.8, 471N±01×1533E±02, h29^{km}±22^{km}, n27, σ1^{s}23/28, mb3.6/9, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril’s	4.05	26	*e*PN	Pn	19 16 41.8	+1.0
SKR				*e*		19 17 29.5	
KUR	Kuril’sk	4.22	246	*e*PN	Pn	19 16 41.0	-2.2
KUR				*e*S	Sn	19 17 31.5	0.0
KUR				pmax	pmax		
	comp=Z,280nm,1.0s						
KUR				smax			
	comp=N,150nm,0.5s						
KUR				smax			
	comp=E,110nm,0.5s						
PET	Petropavlovsk	6.87	28	*e*PN	Pn	19 17 17.8	-1.7
YSS	Yuzh-Sakhalins	7.24	273	*e*PN	Pn	19 17 26.6	+2.0
ASAJ	Asahikawa	8.09	252	PN	Pn	19 17 36.2	-0.1
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	Asahikawa	8.09	252	Pn	Pn	19 17 36.1	-0.2
	comp=Z,0.5nm,0.3s,baz=75,slow=19,SNR=8.4						
ERM	Erimo	8.85	239	*e*PN	Pn	19 17 44.5	-2.2
MJAR	Matsushiro Arr	15.40	232	Pn	Pn	19 19 16.3	+0.4
MJAR	Matsushiro Arr	15.40	232	Pn	Pn	19 19 16.3	+0.4
	comp=Z,0.3nm,0.3s,baz=33,slow=8.9,SNR=9.1						
MAJO	Matsushiro	15.40	232	P	Pn	19 19 17.4	+1.5
	comp=Z,3.4nm,0.5s						
MAJO	Matsushiro	15.40	232	P	Pn	19 19 17.4	+1.5
MAJO				pmax	pmax		
	comp=Z,3.0nm,0.5s						
YAK	Yakutsk	20.13	327	*e*P	P	19 20 12.8	+0.6
YAK				pmax	pmax		
	comp=Z,2.0nm,1.0s						
KSRS	Korea Array	21.04	252	P	P	19 20 23.7	+1.5
	comp=Z,0.7nm,0.8s,mb3.0,baz=58,slow=29,SNR=3.1						
BILL	Bilibino	22.04	13	*e*P	P	19 20 32.3	-0.4
BILL				pmax	pmax		
	comp=Z,1.0nm,1.3s,mb3.1						
INK	Inuvik	41.30	33	*e*P	P	19 23 25.2	+2.0
INK	Inuvik	41.30	33	P	P	19 23 24.8	+1.7
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	Inuvik	41.30	33	P	P	19 23 24.8	+1.7
	comp=Z,1.1nm,0.6s,mb3.7,baz=286,slow=3.7,SNR=6.9						
MKAR	Makanchi Array	46.93	297	P	P	19 24 06.9	-1.7
	comp=Z,0.1nm,0.7s,mb2.9,baz=78,slow=9.0,SNR=2.4						
YKA	Yellowknife Ar	50.57	37	P	P	19 24 36.9	+0.7
YKA	Yellowknife Ar	50.57	37	P	P	19 24 36.9	+0.7
	comp=Z,0.4nm,0.5s,mb3.6,baz=296,slow=6.9,SNR=7.6						
ARCES	ARCESS Array B	57.60	341	P	P	19 25 27.4	+0.1
	comp=Z,1.3nm,0.7s,mb4.0,baz=15,slow=7.9,SNR=4.0						
FINES	FINESS Array B	63.81	335	*e*P	P	19 26 08.1	-1.7
FINES	FINESS Array B	63.81	335	P	P	19 26 08.9	-0.8
	comp=Z,1.0nm,0.4s,mb4.2,baz=37,slow=7.1,SNR=14						
NB2	NORSAR Subarra	67.97	341	P	P	19 26 36.3	-0.2
	comp=Z,0.7nm,0.5s,mb4.0,baz=28,slow=6.5						
NOA	NORSAR Array B	67.97	341	P	P	19 26 36.5	-0.1
NOA	NORSAR Array B	67.97	341	P	P	19 26 36.5	-0.1
	comp=Z,0.8nm,0.4s,mb4.1,baz=28,slow=6.4,SNR=3.7						
TXAR	Lajitas Array	77.20	61	P	P	19 27 31.5	-0.5
	comp=Z,0.4nm,0.5s,mb3.6,baz=310,slow=5.4,SNR=8.8						

*IDC **25** 19:31:24.3±5.5, 3021S×17935W, h338^{km}±49^{km}, mb3.6/3, mb1 3.7/4, mb1mx3.5/13, mbtmp3.5/4, Error ellipse: s-maj=51.0km s-min=26.2km az=18.0*

ISC 25 19:31:32.5±1.2, 3078S±007×1799E±02, h376^{km}±10^{km}, n33, σ1^{s}21/29, mb3.6/3, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	6.90	191	PN	Pn	19 33 16.3	+2.1
MXZ				SN	S	19 34 36.0	-1.1
PUZ	Puketiti	7.40	190	PN	Pn	19 33 21.6	+1.7
PUZ				SN	S	19 34 47.3	-0.4
MWZ	Matawai	7.79	194	PN	Pn	19 33 26.2	+1.7
MWZ				SN	S	19 34 56.9	+1.0
URZ	Urewera	7.81	196	P	Pn	19 33 24.5	-0.2
	2.6nm,0.3s,baz=317,slow=5.6,SNR=16						
URZ	Urewera	7.81	196	PN	Pn	19 33 25.1	+0.4
URZ				SN	S	19 34 57.7	+1.3
KNZ	Kokohu	8.43	192	SN	S	19 35 07.7	-1.8
BKZ	Black Stump Fm	8.82	198	PN	Pn	19 33 36.9	+0.4
PXZ	Pawanui	9.56	194	PN	Pn	19 33 42.8	-2.3
PXZ				SN	S	19 35 32.9	-1.1
MRZ	Mangatainoka R	10.47	198	SN	S	19 35 52.2	-1.5
TCW	Tory Channel	11.36	202	PN	Pn	19 34 05.9	-0.4
TUWZ	Tuamarina	11.67	203	PN	Pn	19 34 09.2	-0.6
NNZ	Nelson	11.68	205	SN	S	19 36 18.5	-0.4
THZ	Tophouse	12.32	205	PN	Pn	19 34 18.2	+0.7
THZ				SN	S	19 36 33.5	+1.4
KHZ	Kahutara	12.69	202	PN	Pn	19 34 20.6	-1.1
KHZ				SN	S	19 36 40.5	+1.1
RPZ	Rata Peaks	14.70	206	S	S	19 37 24.0	+4.2
	0.7nm,0.3s,baz=24,slow=17,SNR=5.7						
STKA	Stephens Creek	32.63	258	*e*P	P	19 37 33.3	+2.5
	1.7nm,0.3s,mb3.8						
STKA	Stephens Creek	32.63	258	P	P	19 37 33.4	+2.6
	2.8nm,0.4s,mb3.8,baz=111,slow=11,SNR=19						
ASAR	Alice Springs	41.28	268	P	P	19 38 42.7	-0.2
	1.1nm,0.5s,mb3.4,baz=104,slow=7.6,SNR=23						
ASAR				PcP	PcP	19 40 30.9	-2.4
	0.3nm,0.5s,baz=114,slow=3.8,SNR=4.6						
WB2	Warramunga Arr	42.30	274	*e*P	P	19 38 49.8	-1.2
WRA	Warramunga Arr	42.31	274	P	P	19 38 50.1	-1.0
	4.2nm,0.7s,mb3.7,baz=111,slow=6.3,SNR=78						
VNA3	Neumayer Olymp	78.04	177	*e*	P	19 42 49.5	-0.4
VNA3				*e*		19 42 58.7	
VNA3				*e*		19 43 04.6	
VNA2	Neumayer--Watz	78.45	178	*e*	P	19 42 52.2	0.0
	baz=196,slow=4.2						
VNA2				*e*		19 43 02.6	
VNA2				*e*		19 43 07.6	
MKAR	Makanchi Array	116.63	310	PKP	PKPdf	19 49 28.1	-4.0
	0.2nm,0.4s,baz=223,slow=1.4,SNR=11						
ARCES	ARCESS Array B	138.56	347	PKhKP		19 50 00.4	
	2.7nm,1.0s,baz=67,slow=1.9,SNR=9.9						
JOF	Joensuu	142.08	337	*e*pkp	PKPdf	19 50 10.5	-9.0
KAF	Kangasniemi	144.28	339	*e*pkp	PKPdf	19 50 16.8	-6.6
	baz=41,slow=3.3						
FINES	FINESS Array B	144.85	338	PKP	PKPdf	19 50 19.5	-4.9
	7.4nm,0.5s,baz=61,slow=4.2,SNR=88						
NB2	NORSAR Subarra	148.82	349	PKPa	PKPdf	19 50 30.3	-0.7
	comp=Z,1.7nm,0.5s,baz=17,slow=2.6						
NOA	NORSAR Array B	148.82	349	PKPbc	PKPbc	19 50 30.6	-4.8
	comp=Z,2.5nm,0.6s,baz=15,slow=4.2,SNR=9.9						
EIL	Elat	149.77	277	PKPbc	PKPbc	19 50 37.0	-1.8
	comp=Z,3.7nm,0.6s,baz=82,slow=5.4,SNR=3.7						
AKASG	Malin Array Be	150.47	321	PKPbc	PKPbc	19 50 35.4	-4.4
	comp=Z,3.6nm,0.6s,baz=50,slow=2.6,SNR=7.2						
BRTR	Keskin Array B	151.18	297	PKPbc	PKPbc	19 50 38.1	-3.6
	comp=Z,0.9nm,0.5s,baz=144,slow=4.8,SNR=7.9						
TORD	Torodi Ar. Bea	162.38	186	PKPab	PKPab	19 51 37.5	-2.4
	comp=Z,0.9nm,0.6s,baz=180,slow=4.7,SNR=7.5						

*ISCJB **25** 19:37:40.3±1.0, 4218N±007×8121E±006, h10^{km}, Error ellipse: s-maj=10.6km s-min=4.8km az=151.9*

*IDC **25** 19:37:49.0±5.2, 4236N×8139E, h0^{km}, mb1 3.2/3, mb1mx3.0/24, mbtmp3.2/3, ML3.1/3, Error ellipse: s-maj=73.8km s-min=33.7km az=76.0*

*BJI **25** 19:37:49.3, 4219N×8130E, h14^{km}, ML3.1*

*NNC **25** 19:37:49.7±3.2, 4238N×8109E, h0^{km}, mb3.8, mpv3.4, Error ellipse: s-maj=31.3km s-min=11.3km az=159.0*

*NEIC **25** 19:37:54.0±1.8, 4240N×8144E, h35^{km}, Error ellipse: s-maj=29.1km s-min=12.4km az=152.0*

ISC 25 19:37:44.7±0.9, 4223N±006×8113E±005, h10^{km}, n17, σ1^{s}34/26, 3C-5D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KNDC	Almaty	3.22	289	⇓Pg	Pg	19 38 46.6	+0.2
	29nm,0.6s						
KNDC				⇓Lg		19 39 30.2	
	61nm,0.3s						
TKM2	Tokmak 2	4.14	281	*e*Pn	Pb	19 38 56.8	-0.9
TKM2				*e*S	Sg	19 40 00.0	+2.3
MK31	Makanchi Array	4.64	10	⇓Pn	Pn	19 38 59.9	+5.2
	0.7nm,0.3s,baz=188,slow=13,SNR=44						
MK31				⇑Pg	Pg	19 39 11.7	-1.8
	4.6nm,0.5s,baz=190,slow=16,SNR=8.1						
MK31				⇑Lg		19 40 10.5	
	31nm,0.5s,baz=188,slow=28						
MK31	Makanchi Array	4.64	10	*e*Pn	Pn	19 38 59.4	+4.7
MKAR	Makanchi Array	4.64	10	Pn	Pn	19 38 59.8	+5.1
MKAR				Pg	Pg	19 39 11.6	-1.8
MKAR				Lg		19 40 10.1	
MKAR	Makanchi Array	4.64	10	Pn	Pn	19 38 59.8	+5.1
	1.0nm,0.3s,baz=192,slow=13,SNR=20						
MKAR				Pg	Pg	19 39 11.6	-1.8
	3.4nm,0.3s,baz=190,slow=16,SNR=24						
MKAR				Lg		19 40 10.1	
	9.8nm,0.3s,baz=198,slow=32,SNR=19						
KSH	Kashi	4.76	237	*e*PG	Pg	19 39 17.0	+1.2
KSH				SG	Sg	19 40 17.0	-0.3
KSH				Smax			
	comp=N,60nm,0.6s						
KSH				Smax			
	comp=E,88nm,0.8s						
UCH	Uchtor	4.91	272	*e*Pn	Pb	19 39 09.7	-1.1
	comp=E,4.6nm,1.3s						
AAK	Ala-Archa	4.93	277	*e*Pn	Pn	19 39 04.9	+6.2
	comp=E,5.4nm,0.6s						
AAK				*e*S	Sg	19 40 21.9	-0.9
WMQ	Urumqi	5.07	70	*e*PG	Pg	19 39 20.8	-0.9
WMQ				SG	Sg	19 40 21.0	-6.4
WMQ				Smax			
	comp=N,24nm,0.7s						
WMQ				Smax			
	comp=E,25nm,0.5s						
EKS2	Erkin-Say	5.46	277	*e*Pg	Pg	19 39 28.6	-0.5
EKS2				*e*Sg	Sg	19 40 39.9	+0.1
AML	Almayashu	5.53	271	*e*Pg	Pg	19 39 30.1	-0.4
AML				*e*Sg	Sg	19 40 47.5	+5.5
KK31	Karatay Array	7.87	280	⇓Lg		19 41 57.5	
	comp=E,6.7nm,0.8s						
KURK	Kurchatov	8.66	349	⇓Pg	Px	19 40 23.1	
	comp=E,1.2nm,0.8s						
KURK				⇑Lg		19 42 20.8	
	comp=E,8.4nm,0.9s						
ZALV	Zalesovo Beam	11.98	11	Pn	Pn	19 40 37.7	+2.4
ZALV				Sn	Sn	19 42 50.4	+1.5
ZALV				Lg		19 44 05.6	
ZALV	Zalesovo Beam	11.98	11	Pn	Pn	19 40 37.7	+2.4
	comp=E,0.1nm,0.3s,baz=186,slow=13,SNR=2.5						
ZALV				Sn	Sn	19 42 50.4	+1.5
	comp=E,0.2nm,0.3s,baz=190,slow=26,SNR=3.9						
ZALV				Lg		19 44 05.6	
	comp=E,0.1nm,0.3s,baz=191,slow=27,SNR=5.2						
SONM	Songino Array	18.68	64	P	Pn	19 42 05.9	+2.8
	comp=E,0.1nm,0.3s,baz=246,slow=11,SNR=4.1						

*TIF **25** 19:38:56.6, 4310N×4606E, h23^{km}±2^{km}*

*MOS **25** 19:38:59.4±0.3, 4306N×4592E, h18^{km}, mb3.7/1, Error ellipse: s-maj=35.4km s-min=9.9km az=7.2*

ISC 25 19:38:56.5±1.6, 4323N±008×4608E±010, h6^{km}±5^{km}, n13, σ1^{s}10/24, 2C-4D, Eastern Caucasus

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNJR	Sundja	0.94	261	*e*PG	Pg	19 39 15.2	+0.6
SNJR				*e*S	Sg	19 39 27.8	+0.9
VLKR	Vladikavkaz	1.04	260	*e*PG	Pg	19 39 16.8	+0.2
VLKR				*e*S	Sg	19 39 30.2	+0.1
BTKR	Batakoyurt	1.13	278	⇑*i*PG	Pg	19 39 19.2	+1.0
BTKR				*i* S	Sg	19 39 34.4	+1.5
KMSR	Komsomolskaya	1.31	277	*e*PG	Pg	19 39 21.8	+0.1
KMSR				*e*S	Sb	19 39 38.9	+0.2
ARNR	Ardon	1.32	269	⇓*i*PG	Pg	19 39 21.4	-0.4
ARNR				*i* S	Sb	19 39 38.5	-0.3
LACR	Lac	1.37	253	⇑*i*PG	Pg	19 39 21.5	-1.3
LACR				*i* S	Sb	19 39 38.6	-1.7
PRTR	Priterechnaya	1.41	292	⇓*i*PG	Pg	19 39 23.8	+0.3
PRTR				*i* S	Sb	19 39 42.5	+1.1
KORR	Kora	1.48	265	⇓*i*PG	Pg	19 39 23.7	-1.2
KORR				*i* S	Sn	19 39 42.5	-0.8
LSNR	Lesken	1.66	272	*e*PG	Pg	19 39 26.2	-2.1
LSNR				*e*S	Sn	19 39 47.1	-0.6
ZEI	Tsey	1.67	255	*e*PG	Pg	19 39 26.1	-2.4
ZEI				*e*		19 39 44.7	
ZEI				pmax	pmax		
	comp=Z,21nm,0.2s						
ZEI				smax			
	comp=E,79nm,0.2s						
DGRG	David-gareji	1.85	197	P	Pg	19 39 33.9	+1.9
DGRG				S	Sg	19 40 06.4	+10
DIGR	Digorskoe uzhe	1.86	261	⇓*i*PN	Pn	19 39 28.6	-0.3
ONI	Oni	2.04	252	P	Pn	19 39 32.1	+0.7
ONI				S	Sn	19 39 58.9	+1.8

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        MAN 25 19:49:30,5.49N×124.53E,h54km,mb4.2,ML3.0,MS2.7,
            Mindanao
Code   Station Name          Δ°   AZ°    Phase ID           Time      Res
                                        Op        ISC       h  m  s   ISC
MATI   Mati                 2.25   50  eP         Pn        19 50 06.1 +1.3
MATI                                   eS         Sn        19 50 32.7 +1.4
BUKP   Musuan               2.43   13  eP         Pn        19 50 07.8 +0.5
BUKP                                   eS         Sn        19 50 37.5 +1.6
PAGZ   Pagadian             2.60  334  eP         Pn        19 50 11.2 +1.5
PAGZ                                   eS         Sn        19 50 40.7 +0.6
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    IDC 25 20:13:40.4±0.5,73.14N×7.18E,h0km,mb4.1/16,
           mb1 4.2/22,mb1mx4.2/26,mbtmp4.1/22,ML3.8/6,MS4.6/25,
           Ms1 4.6/25,ms1mx4.5/36,Error ellipse: s-maj=13.5km
           s-min=10.0km az=42.0
    HEL 25 20:13:40.9±0.4,73.38N×7.15E,h10km,ML3.7,
           mb4.8(NEIC),MS4.4(NEIC)
    NAO 25 20:13:40.0±8.3,73.26N×6.96E,h10km±77km,ML3.0
  ISCJB 25 20:13:42.0±0.2,73.30N±0.02×8.10E±0.08,h10km,mb4.6/97,
           MS4.4/49,Error ellipse: s-maj=3.3km s-min=2.6km
           az=150.3
    BER 25 20:13:41.9±4.3,73.38N×6.89E,h10km,ML3.3,
           ML3.0(NAO)
    MOS 25 20:13:42.0±1.0,73.32N×7.94E,h10km,mb5.0/51,
           MS4.4/26,Error ellipse: s-maj=19.2km s-min=3.4km
           az=91.7
   GCMT 25 20:13:43.8±0.2,73.33N×6.96E,h12km,MW5.1/82,
           Moment Tensor Solution.   s24,c28;   s82,c143;   Duration:
           0   Moment tensor: Scale 10^16Nm; Mrr-5.62±.13;
           Mθθ1.78±.13; Mφφ3.84±.12; Mrθ0.19±.55; Mθφ2.45±.10;
           Mφr-2.86±.43;   Best double couple: M0 6.22300×10^16
           NP1:φs227.00000°,δ35.00000°,λ-66.00000°.   NP2:
           φs19.00000°,δ58.00000°,λ-106.00000°.   Principal axes:
            T  5.9380, Plg12.0000°, Azm120.0000°; N  0.5700,
           Plg13.0000°, Azm27.0000°; P  -6.5080, Plg72.0000°,
           Azm250.0000°;  nsta1 refers to body waves, cutoff=40s.
           nsta2 refers to surface waves, cutoff=50s.
   CSEM 25 20:13:43.1±0.0,73.31N×7.65E,h18km,mb4.8/41,Ms4.2,
           Mw5.1  Error ellipse: s-maj=2.0km s-min=1.4km az=88.0
    BJI 25 20:13:43.6,73.30N×7.90E,h10km,mB5.1,mb4.7,Ms4.9,
           Msz4.4
   NEIC 25 20:13:43.8±0.2,73.27N×7.88E,h10km,mb4.8/62,MS4.4/5,
           Error ellipse: s-maj=5.1km s-min=3.6km az=76.0
  SZGRF 25 20:13:45.0,73.18N×7.15E,h33km,mb5.0,MS3.8,
           Greenland Sea
    ISC 25 20:13:43.8±0.2,73.28N±0.02×7.95E±0.07,h10km,
           (h22km±6.4km:pP-P),n461,σ1s21/488,mb4.6/97,MS4.4/49,
           19C-5D,Greenland Sea
Code   Station Name          Δ°   AZ°    Phase ID           Time      Res
                                        Op        ISC       h  m  s   ISC
TRO    Tromso               5.07  131  eP         Pn        20 14 57.3 -2.3
TRO                                    i                    20 15 04.2
TRO                                    eS         Sn        20 15 56.5 -1.6
TRO                                     AML       AML       20 16 03.3
       comp=Z,58nm,0.6s
TRO                                    e                    20 19 39.1
TRO    Tromso               5.07  131  eP         Pn        20 14 57.3 -2.3
TRO                                    i                    20 15 04.2
TRO                                    eS         Sn        20 15 42.3  -16
TRO                                    e                    20 19 39.1
TRO    Tromso               5.07  131  eP         Pn        20 14 57.3 -2.4
TRO                                    eS         Sn        20 15 56.5 -1.6
       comp=Z,58nm,0.6s,SNR=49
SPB4   Spitsbergen Ar       5.33   19  ePn        Pn        20 15 00.3 -3.1
SPB4   Spitsbergen Ar       5.33   19  ePn        Pn        20 15 00.3 -3.0
SPA0   Spitsbergen Ar       5.34   19   Pn        Pn        20 15 00.0 -3.3
       baz=205,slow=12
SPA0   Spitsbergen Ar       5.34   19  eP         Pn        20 15 00.0 -3.3
SPA0   Spitsbergen Ar       5.34   19   Pn        Pn        20 15 00.0 -3.3
       baz=205,slow=12
SPA0   Spitsbergen Ar       5.34   19   Pn        Pn        20 15 00.0 -3.3
       SNR=50
LOF    Lofoten              5.50  158  eP         Pn        20 15 04.5 -1.0
LOF                                    eS         Sn        20 16 06.9 -1.8
LOF                                    e                    20 20 04.4
LOF    Lofoten              5.50  158  eP         Pn        20 15 04.5 -1.0
LOF                                    eS         Sn        20 16 01.4 -7.4
LOF                                    e                    20 20 04.4
JNW    Jan Mayen West       5.51  254  eP         Pn        20 14 56.9 -8.9
JMIC   Jan Mayen            5.56  254   Pn        Pn        20 15 00.4 -6.0
JMIC                                    LR        LR        20 16 39.7
JMIC   Jan Mayen            5.56  254   Pn        Pn        20 15 00.4 -6.0
       comp=Z,23nm,0.3s,baz=0.0,slow=4.0,SNR=3.0
JMIC                                    LR        LR        20 16 39.7
       comp=Z,5μm,18.1s,baz=86,slow=34
JMI    Jan Mayen            5.65  253  eP         Pn        20 15 00.8 -6.9
KBS    Kingsbay             5.75    8   Pn        Pn        20 15 05.9 -3.2
KBS    Kingsbay             5.75    8  eP         Pn        20 15 05.3 -3.8
KBS    Kingsbay             5.75    8  ePn        Pn        20 15 06.1 -3.0
       comp=Z,70nm,0.8s
KBS                                    eSn        Sn        20 16 14.9 -0.1
KBS    Kingsbay             5.75    8⇑eP         Pn        20 15 06.8 -2.3
KBS    Kingsbay             5.75    8  ePn        Pn        20 15 06.1 -3.0
       comp=Z,70nm,0.8s
KIF    Kilpisjarvi          5.97  130  eP         Pn        20 15 11.3 -0.8
KIF                                    eS         Sn        20 16 20.8 +0.3
KIF    Kilpisjarvi          5.97  130   P         Pn        20 15 11.3 -0.8
KIF                                     S         Sn        20 16 20.7 +0.3
KTK1   Kautokeino           6.54  123  eP         Pn        20 15 19.6 -0.2
KTK1                                   eS         Sn        20 16 36.3 +2.1
KTK1                                    AML       AML       20 16 46.4
       comp=Z,23nm,0.9s
KTK1                                   e                    20 20 11.1
KTK1   Kautokeino           6.54  123  eP         Pn        20 15 19.6 -0.2
KTK1                                   eS         Sn        20 16 36.3 +2.1
KTK1                                   e                    20 20 11.1
KTK1   Kautokeino           6.54  123   P         Pn        20 15 19.6 -0.2
KTK1                                    S         Sn        20 16 36.2 +2.0
       comp=Z,23nm,0.9s
ARA0   ARCESS Array S       6.74  115   Pn        Pn        20 15 21.8 -0.8
       baz=327,slow=14
ARA0                                    Sn        Sn        20 16 39.4 +0.2
       baz=314,slow=22
ARA0   ARCESS Array S       6.74  115  eP         Pn        20 15 21.8 -0.8
ARA0                                   eS         Sn        20 16 39.4 +0.2
ARA0   ARCESS Array S       6.74  115   Pn        Pn        20 15 21.8 -0.8
       baz=327,slow=14
ARA0                                    Sn        Sn        20 16 39.4 +0.2
       baz=314,slow=22
ARA0   ARCESS Array S       6.74  115   Pn        Pn        20 15 21.8 -0.8
       SNR=50
ARA0                                    S         Sn        20 16 39.4 +0.2
ARCES  ARCESS Array B       6.74  115   Pn        Pn        20 15 21.7 -0.9
ARCES                                   Sn        Sn        20 16 40.7 +1.5
ARCES  ARCESS Array B       6.74  115   Pn        Pn        20 15 21.7 -0.9
       comp=Z,2.7nm,0.3s,baz=319,slow=11,SNR=82
ARCES                                   Sn        Sn        20 16 40.7 +1.5
       comp=Z,3.5nm,0.3s,baz=312,slow=21,SNR=7.9
ARE0   ARCESS Array S       6.74  115  ePn        Pn        20 15 23.2 +0.6
ARE0                                   eSn        Sn        20 16 40.9 +1.7
KEV    Kevo                 6.99  111  ep         Pn        20 15 24.6 -1.5
KEV    Kevo                 6.99  111  eP         Pn        20 15 24.1 -2.0
KEV                                     MPN                 20 15 27.4
       comp=Z,3.3nm,0.3s
KEV                                    eS         Sn        20 16 43.6 -1.9
KEV    Kevo                 6.99  111  ePn        Pn        20 15 25.9 -0.2
KEV                                    eSn        Sn        20 16 47.9 +2.5
KEV    Kevo                 6.99  111  eP         Pn        20 15 25.9 -0.2
KEV                                    e                    20 16 47.9
HEF    Hetta                7.10  126  eP         Pn        20 15 26.9 -0.6
HEF                                    eS         Sn        20 16 48.6 +0.6
HEF    Hetta                7.10  126   P         Pn        20 15 26.8 -0.7
HEF                                     S         Sn        20 16 48.6 +0.6
MOR8   Moi Rana             7.49  159  eP         Pn        20 15 30.2 -2.6
MOR8                                   eS         Sn        20 16 51.1 -6.5
MOR8                                    AML       AML       20 16 58.5
       comp=Z,64nm,0.7s
MOR8                                   e                    20 20 22.1
MOR8   Moi Rana             7.49  159  eP         Pn        20 15 30.2 -2.6
MOR8                                   eS         Sn        20 16 51.1 -6.5
DAG    Danmarks Havn        7.66  309  eP         Pn        20 15 30.3 -4.9
DAG    Danmarks Havn        7.66  309⇑iP         Pn        20 15 30.3 -4.9
DAG                                     pmax      pmax
       comp=Z,17nm,0.6s
DAG                                     MLR       MLR
       comp=Z,25μm,18.0s
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DAG    Danmarks Havn        7.66  309⇑iP         Pn        20 15 30.3 -4.9
       comp=Z,17nm,0.6s
DAG                                    i                    20 17 46.5
DAG
       comp=Z,25μm,18.0s
SGF    Sodankyl             8.53  124  eP         Pn        20 15 46.0 -1.2
SGF                                     MPN                 20 15 49.5
       comp=Z,3.8nm,0.3s
SGF                                    eS         Sn        20 17 23.1 -0.2
NSS    Namsos               8.91  169  eP         Pn        20 15 48.7 -3.7
NSS                                    eS         Sn        20 17 26.6 -6.0
NSS                                     AML       AML       20 17 37.2
       comp=Z,39nm,0.5s
NSS                                    e                    20 21 04.2
NSS    Namsos               8.91  169  eP         Pn        20 15 48.7 -3.7
NSS                                    eS         Sn        20 17 26.6 -6.0
NSS    Namsos               8.91  169  eSn        Sn        20 17 26.6 -6.0
       comp=Z,39nm,0.5s,SNR=50
APA    Apatity             10.20  111⇓iP         Pn        20 16 12.4 +2.4
APA                                    i                    20 17 59.0
APA                                     pmax      pmax
       comp=Z,39nm,1.1s
APA                                     MLR       MLR
       comp=Z,3μm,16.0s
LVZ    Lovozero            10.31  108⇑eP         Pn        20 16 09.8 -1.7
OUL    Oulu                10.36  133  eP         Pn        20 16 10.5 -1.6
OUL                                     MPN                 20 16 15.0
       comp=Z,2.9nm,0.4s
OUL                                    eS         Sn        20 18 05.6 -2.4
MSF    Maaselka            10.36  125  eP         Pn        20 16 10.6 -1.6
MSF                                     MPN                 20 16 14.0
       comp=Z,4.2nm,0.3s
KU6    Riekki              10.47  123  eP         Pn        20 16 12.8 -1.0
KU6                                    eS         Sn        20 18 05.4 -5.5
DOMB   Dombas              11.30  177  eP         Pn        20 16 20.4 -4.7
VAF    Ylistaro            11.60  145  eP         Pn        20 16 27.8 -1.3
VAF                                     MPN                 20 16 29.2
       comp=Z,2.7nm,0.7s
FOO    Floro               11.79  187  eP         Pn        20 16 25.9 -5.8
HYA    Hoyanger            12.19  184  eP         Pn        20 16 33.1 -4.1
SUE    Sulen               12.34  187  e          Pn        20 16 39.3  0.0
SUE    Sulen               12.34  187  ePn        Pn        20 16 39.3  0.0
SUE    Sulen               12.34  187  ePn        Pn        20 16 39.3  0.0
       SNR=50
NB2    NORSAR Subarra      12.36  173   Pn        Pn        20 16 36.1 -3.4
       baz=354,slow=14
NB2    NORSAR Subarra      12.36  173  eP         Pn        20 16 36.1 -3.4
NB2    NORSAR Subarra      12.36  173   Pn        Pn        20 16 36.1 -3.4
       baz=354,slow=14
NB2    NORSAR Subarra      12.36  173   Pn        Pn        20 16 36.1 -3.4
       SNR=50
NOA    NORSAR Array B      12.36  173   Pn        Pn        20 16 35.7 -3.8
NOA                                     Sn        Sn        20 18 58.8 +1.7
NOA                                     LR        LR        20 21 09.1
NOA    NORSAR Array B      12.36  173   P         Pn        20 16 35.7 -3.8
NOA                                                         20 18 58.8
NOA    NORSAR Array B      12.36  173   Pn        Pn        20 16 35.7 -3.8
       comp=Z,2.0nm,0.3s,baz=354,slow=14,SNR=15
NOA                                     Sn        Sn        20 18 58.8 +1.7
       comp=Z,0.4nm,0.3s,baz=156,slow=20,SNR=3.8
NOA                                     LR        LR        20 21 09.1
       comp=Z,2μm,19.5s,baz=350,slow=37
NAO01  NORSAR Array S      12.55  173  ePn        Pn        20 16 42.5 +0.5
NAO01                                  eSn        Sn        20 19 03.7 +2.1
NAO01  NORSAR Array S      12.55  173  ePn        Pn        20 16 42.5 +0.4
RUND   Rundenannen         12.97  186  e          Pn        20 16 47.7 -0.1
RUND   Rundenannen         12.97  186  ePn        Pn        20 16 47.7 -0.1
RUND   Rundenannen         12.97  186  ePn        Pn        20 16 47.7 -0.1
       SNR=50
KAF    Kangasniemi         13.11  139  ep         Pn        20 16 47.1 -2.6
HFS    Hagfors             13.39  168   Pn        Pn        20 16 50.9 -2.7
       baz=351,slow=11
HFS    Hagfors             13.39  168  eP         Pn        20 16 50.9 -2.7
HFS    Hagfors             13.39  168   Pn        Pn        20 16 50.0 -3.6
HFS                                     Sn        Sn        20 19 17.1 -5.1
HFS                                     LR        LR        20 21 42.5
HFS    Hagfors             13.39  168   Pn        Pn        20 16 50.9 -2.7
       baz=351,slow=11
HFS    Hagfors             13.39  168   P         Pn        20 16 50.0 -3.6
HFS                                                         20 19 17.1
HFS    Hagfors             13.39  168   Pn        Pn        20 16 50.0 -3.6
       comp=Z,0.8nm,0.3s,baz=358,slow=11,SNR=32
HFS                                     Sn        Sn        20 19 17.1 -5.1
       comp=Z,0.6nm,0.3s,baz=346,slow=22,SNR=4.2
HFS                                     LR        LR        20 21 42.5
       comp=Z,3μm,19.6s,baz=351,slow=36
JOF    Joensuu             13.43  129  ep         Pn        20 16 50.9 -3.2
ODD1   Odda                13.44  183  eP         Pn        20 16 50.7 -3.5
ODD1   Odda                13.44  183  ePn        Pn        20 16 50.7 -3.5
ODD1   Odda                13.44  183  ePn        Pn        20 16 50.7 -3.6
       SNR=50
FIA0   FINESS Array S      13.68  141   Pn        Pn        20 16 55.6 -1.9
       baz=345,slow=14
FIA0   FINESS Array S      13.68  141  eP         Pn        20 16 55.6 -1.9
FIA0   FINESS Array S      13.68  141   Pn        Pn        20 16 55.6 -1.9
       baz=345,slow=14
FIA0   FINESS Array S      13.68  141   Pn        Pn        20 16 55.6 -1.9
       SNR=50
FIA1   FINESS Array S      13.68  141  ePn        Pn        20 16 56.3 -1.2
FIA1                                   eSn        Sn        20 19 27.6 -1.7
FIA1   FINESS Array S      13.68  141  ePn        Pn        20 16 56.3 -1.2
FINES  FINESS Array B      13.68  141   Pn        Pn        20 16 55.3 -2.2
FINES                                   Sn        Sn        20 19 24.1 -5.2
FINES                                   LR        LR        20 22 01.5
FINES  FINESS Array B      13.68  141   P         Pn        20 16 55.3 -2.2
FINES                                                       20 19 24.1
FINES  FINESS Array B      13.68  141   Pn        Pn        20 16 55.3 -2.2
       comp=Z,0.3nm,0.3s,baz=344,slow=11,SNR=20
FINES                                   Sn        Sn        20 19 24.1 -5.2
       comp=Z,0.2nm,0.3s,baz=352,slow=25,SNR=2.9
FINES                                   LR        LR        20 22 01.5
       comp=Z,3μm,20.6s,baz=342,slow=36
KONO   Kongsberg           13.71  176  ePn        Pn        20 16 57.9 -0.1
KONO                                   eSn        Sn        20 19 30.8 +0.8
KONO   Kongsberg           13.71  176  ePn        Pn        20 16 57.9  0.0
BLS5   Blasjo              13.94  183  e          Pn        20 16 59.0 -1.9
BLS5   Blasjo              13.94  183  ePn        Pn        20 16 59.0 -1.9
BLS5   Blasjo              13.94  183  ePn        Pn        20 16 59.0 -2.0
       SNR=50
EKA    Eskdalemuir Ar      18.59  200   P         Pn        20 17 54.6 -6.3
       comp=Z,0.1nm,0.3s,baz=355,slow=17,SNR=2.9
ESK    Eskdalemuir         18.61  200  eP         Pn        20 18 02.4 +1.2
ESK    Eskdalemuir         18.61  200  eP         Pn        20 18 02.3 +1.1
RGN    Rugen               18.94  170   P         Pn        20 18 05.0 -0.2
RGN    Rugen               18.94  170   P         Pn        20 18 05.0 -0.2
SFJD   Kangerlussuaq       20.04  282   LR        LR        20 24 55.1
       comp=Z,3μm,18.9s,MS4.7,baz=23,slow=34
MNK    Minsk               20.57  146  eP         P         20 18 19.0 -3.3
RUE    Ruedersdorf         21.03  170   P         P         20 18 27.6 +0.3
RUE    Ruedersdorf         21.03  170   P         P         20 18 27.6 +0.3
MOS    Moscow              21.31  130  eP         P         20 18 33.5 +3.2
MOS                                    i                    20 18 38.5
MOS                                    e                    20 18 55.7
MOS                                    eS         S         20 22 36.9  +10
MOS                                     pmax      pmax
       comp=Z,58nm,0.8s,mb5.0
MOS                                     MLR       MLR
       comp=Z,1μm,14.0s,MS4.4
OBN    Obninsk             21.66  132  eP         P         20 18 33.9 -0.1
       comp=Z,139nm,1.3s,mb5.2
OBN                                    e                    20 18 44.8
OBN                                    eS         S         20 22 33.8 +0.5
OBN    Obninsk             21.66  132⇑eP         P         20 18 33.6 -0.4
OBN                                    e                    20 18 39.8
OBN                                                         20 18 57.0
OBN                                     SS                  20 23 11.0
OBN                                     pmax      pmax
       comp=Z,17nm,1.5s,mb4.2
OBN                                     MLR       MLR
       comp=Z,600nm,14.0s,MS4.2
OBN    Obninsk             21.66  132  eP         P         20 18 33.9 -0.1
CLL    Collm               22.16  172  i P        P         20 18 45.6 +6.2
       comp=Z,29nm,1.4s,mb4.5
CLL                                    i                    20 18 52.9
CLL                                    eS         S         20 22 49.0 +5.7
CLL                                     LR        LR
       comp=Z,1μm,18.4s,MS4.4
CLL    Collm               22.16  172  i P        P         20 18 45.6 +6.2
CLL                                    i                    20 18 52.9
CLL                                     pmax      pmax
       comp=Z,29nm,1.4s,mb4.5
CLL                                     MLR       MLR
       comp=Z,1μm,18.4s,MS4.4
CLL    Collm               22.16  172  i (sP)     sP        20 18 45.6 +2.0
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       comp=Z,29nm,1.4s
CLL                                    i x        x         20 18 52.9
CLL                                    i x        x         20 18 57.7
CLL                                    eS         S         20 22 49.0 +5.7
CLL                                    e(SS)                20 23 13.0
BRG    Berggiesshubel      22.64  170  eP         P         20 18 44.4 -0.1
       comp=Z,4.4nm,1.1s,mb3.8
BRG                                    i                    20 18 50.9
BRG                                    i                    20 18 55.2
BRG                                    i                    20 19 04.0
BRG                                    e                    20 19 34.5
BRG                                     S         S         20 22 58.0 +5.5
BRG                                     LR        LR
       comp=Z,1μm,16.0s,MS4.4
BRG    Berggiesshubel      22.64  170  eP         P         20 18 44.4 -0.1
BRG                                    i                    20 18 50.9
BRG                                     pmax      pmax
       comp=Z,4.0nm,1.1s,mb3.8
BRG                                     pmax      pmax
       comp=Z,8.0nm,1.1s,mb4.1
BRG                                     pmax      pmax
       comp=Z,17nm,1.3s,mb4.3
BRG                                     pmax      pmax
       comp=Z,28nm,1.7s,mb4.4
BRG                                     pmax      pmax
       comp=Z,21nm,1.7s,mb4.3
BRG                                     MLR       MLR
       comp=N,668nm,17.3s,MS4.1
BRG                                     MLR       MLR
       comp=E,120nm,19.2s,MS4.1
BRG                                     MLR       MLR
       comp=Z,1μm,16.0s,MS4.4
BRG    Berggiesshubel      22.64  170  eP         P         20 18 44.4 -0.1
       comp=Z,7.3nm,1.1s,mb4.0
BRG                                    i                    20 18 50.9
       comp=Z,13nm,1.1s
BRG                                    i                    20 18 55.2
       comp=Z,29nm,1.3s
BRG                                    i                    20 19 04.0
       comp=Z,47nm,1.6s
BRG                                    e                    20 19 34.5
       comp=Z,35nm,1.6s
BRG                                     S         S         20 22 58.0 +5.5
BRG
       comp=N,1μm,17.3s
BRG
       comp=E,200nm,19.2s
BRG
       comp=Z,2μm,16.0s
MEM    Membach             22.77  183   P         P         20 18 50.9 +5.0
       comp=Z,13nm,1.0s,mb4.3
MOX    Moxa                22.78  174  eP         P         20 18 45.0 -0.9
       comp=Z,59nm,1.8s,mb4.7
MOX
       comp=Z,800nm,17.0s
MOX    Moxa                22.78  174  eP         P         20 18 45.0 -0.9
MOX                                     pmax      pmax
       comp=Z,59nm,1.8s,mb4.7
MOX                                     MLR       MLR
       comp=Z,800nm,17.0s,MS4.2
KSP    Ksiaz               22.81  166  eP         P         20 18 45.2 -1.1
KSP                                    epP                  20 18 51.1
KSP                                    eS         S         20 23 03.0 +7.6
KSP                                     LR        LR
       comp=Z,4μm,18.9s,MS4.8
KSP    Ksiaz               22.81  166  eP         P         20 18 45.2 -1.1
KSP                                    e*PP                 20 18 51.1
KSP                                     MLR       MLR
       comp=Z,4μm,18.9s,MS4.8
KSP    Ksiaz               22.81  166  eP         P         20 18 45.2 -1.1
KSP                                    epP                  20 18 51.1
SOKR   Solikamsk           22.95  101   P         P         20 18 54.6 +6.9
SOKR                                    MLR       MLR
       comp=Z,1μm,24.0s,MS4.2
BCLA   Clavier             22.98  184   P         P         20 18 44.5 -3.5
       comp=Z,35nm,2.1s,mb4.4
PVCC   Panska Ves          23.02  169  eP         P         20 18 53.8 +5.3
PVCC                                    AMS       AMS       20 27 20.0
       comp=Z,2μm,15.8s
UPC    Upice               23.13  167  eP         P         20 18 50.0 +0.4
NKC    Novy Kostel         23.22  173  eP         P         20 18 50.4 -0.2
NKC                                     AMS       AMS       20 28 10.0
       comp=Z,1μm,19.0s
DPC    Dobruska-Polom      23.30  166  eP         P         20 18 51.5  0.0
DPC                                     AMS       AMS       20 27 40.0
       comp=Z,2μm,17.8s
GIVF   Givet               23.30  185  eP         P         20 18 51.0 -0.5
BAIF   Baives              23.36  186  eP         P         20 18 51.0 -1.1
       comp=Z,51nm,1.1s,mb4.5
BAIF   Baives              23.36  186  eP         P         20 18 51.0 -1.1
BAIF                                    pmax      pmax
       comp=Z,25nm,1.1s,mb4.6
BAIF   Baives              23.36  186  eP         P         20 18 51.0 -1.1
       comp=Z,25nm,1.1s,mb4.5
ABH    Alteburg            23.49  181  eP         P         20 18 58.3 +4.9
PRU    Pruhonice           23.56  169  eP         P         20 18 53.8 -0.3
PRU                                     AMS       AMS       20 28 00.0
       comp=Z,2μm,17.6s
RUP    Ruppelstein         23.67  181  eP         P         20 18 59.6 +4.4
RAC    Raciborz            23.71  163  eP         P         20 18 55.9 +0.4
RAC                                     LR        LR
       comp=Z,2μm,18.3s,MS4.6
WLF    Walferdange         23.71  183  eP         P         20 18 54.3 -1.3
       comp=Z,55nm,1.6s,mb4.7
WLF    Walferdange         23.71  183  eP         P         20 18 54.3 -1.3
WLF                                     pmax      pmax
       comp=Z,55nm,1.6s,mb4.7
WLF    Walferdange         23.71  183   P         P         20 18 59.6 +4.0
       comp=Z,30nm,1.9s,mb4.4
WLF    Walferdange         23.71  183  eP         P         20 18 54.3 -1.3
       comp=Z,55nm,1.6s,mb4.7
OJC    Ojcow               23.72  161  eP         P         20 18 55.2 -0.4
GRA1   Grafenberg Arr      23.72  175  eP         P         20 18 53.1 -2.5
       comp=Z,74nm,1.6s,mb4.9
GRA1                                   e                    20 19 00.2
GRA1                                    LR        LR
       comp=Z,700nm,38.4s,MS3.8
GRF    Grafenberg Arr      23.72  175  eP         P         20 18 53.1 -2.5
GRF                                    e                    20 19 00.2
GRF                                     pmax      pmax
       comp=Z,74nm,1.6s,mb4.9
GRF                                     MLR       MLR
       comp=Z,700nm,38.4s,MS3.8
GRF    Grafenberg Arr      23.72  175  eP         P         20 18 53.1 -2.5
       comp=Z,74nm,1.6s,mb4.9
GRF                                    e                    20 19 00.2
GRF                                    eL                   20 25 54.0
       comp=Z,676nm,38.4s
TOD    Tromm               23.76  179  eP         P         20 19 01.2 +5.2
OKC    Ostrava-Krasne      23.95  164  eP         P         20 18 57.1 -0.6
OKC                                     AMS       AMS       20 28 20.0
       comp=Z,2μm,15.8s
MORC   Moravsky Berou      23.96  165  eP         P         20 18 57.6 -0.2
MORC                                   e                    20 19 03.0
MORC   Moravsky Berou      23.96  165⇓iP         P         20 18 57.8  0.0
MORC   Moravsky Berou      23.96  165  eP         P         20 18 57.6 -0.2
TREC   Trest               24.30  168  eP         P         20 19 00.7 -0.2
TREC                                    AMS       AMS       20 28 20.0
       comp=Z,2μm,17.7s
VRAC   Vranov              24.36  166 ⇑P         P         20 19 01.9 +0.4
VRAC   Vranov              24.36  166   P         P         20 19 00.1 -1.4
       comp=Z,13nm,1.0s,mb4.3,baz=359,slow=9.9,SNR=8.7
VRAC                                    LR        LR        20 28 51.7
       comp=Z,2μm,18.1s,MS4.5,baz=352,slow=38
VRAC   Vranov              24.36  166⇑iP         P         20 19 01.9 +0.4
KHC    Kasperske Hory      24.36  171  eP         P         20 19 01.5  0.0
KHC    Kasperske Hory      24.36  171  eP         P         20 19 01.4 -0.1
KHC                                    ex         x         20 19 11.0
KHC                                     AMS       AMS       20 28 30.0
       comp=Z,1μm,15.5s
AKASG  Malin Array Be      24.46  146   P         P         20 19 00.2 -2.2
AKASG                                   LR        LR        20 28 37.4
AKASG  Malin Array Be      24.46  146   P         P         20 19 00.2 -2.2
       comp=Z,6.0nm,0.7s,mb4.2,baz=343,slow=9.3,SNR=6.3
AKASG                                   LR        LR        20 28 37.4
       comp=Z,3μm,19.1s,MS4.8,baz=335,slow=37
AKBB   Malin Array Si      24.46  146  eP         P         20 19 02.2 -0.2
AKBB                                   eS         S         20 23 20.3 -1.8
AKBB   Malin Array Si      24.46  146  eP         P         20 19 02.2 -0.2
AKBB                                   eS         S         20 23 20.3 -1.8
KIEV   Kiev                24.47  146  eP         P         20 18 58.9 -3.5
       comp=Z,25nm,1.0s,mb4.6
KIEV                                   e                    20 19 11.3
KIEV                                   eS         S         20 23 21.2 -1.0
KIEV   Kiev                24.47  146  eP         P         20 18 58.9 -3.5
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KIEV				eS	**S**	**20 23 21.2**	**-1.0**
KIEV				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.6						
NIE	**Niedzica**	**24.56**	**160**	eP	**P**	**20 19 03.5**	**+0.2**
LVV	**L’vov**	**24.58**	**154**	eP	**P**	**20 19 08.0**	**+4.5**
LVV				eS	**S**	**20 23 28.0**	**+4.0**
LVV				MLR	MLR		
	comp=Z,1µm,15.0s,MS4.4						
KWP	**Kalwaria**	**24.60**	**157**	eP	**P**	**20 18 54.6**	**-9.1**
	comp=Z,104nm,1.4s,mb5.2						
KWP				e		20 19 09.6	
KWP	**Kalwaria**	**24.60**	**157**	eP	**P**	**20 18 54.6**	**-9.1**
KWP				pmax	pmax		
	comp=Z,104nm,1.4s,mb5.2						
GEC2	**GERESS Array S**	**24.66**	**171**	eP	**P**	**20 19 04.3**	**+0.1**
GEC2				e		20 19 11.4	
GEC2	**GERESS Array S**	**24.66**	**171**	eP	**P**	**20 19 04.3**	**+0.1**
GERES	**GERESS Array B**	**24.66**	**171**	P	**P**	**20 19 02.4**	**-1.7**
	comp=Z,1.9nm,0.8s,mb3.7,baz=9.6,slow=8.8,SNR=10						
GERES				LR	LR	20 29 06.5	
	comp=Z,1µm,18.2s,MS4.5,baz=348,slow=38						
STHS	**Stebnicka Huta**	**24.66**	**159**	eP	**P**	**20 19 05.3**	**+1.1**
STHS				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.5						
STHS	**Stebnicka Huta**	**24.66**	**159**	eP	**P**	**20 19 05.3**	**+1.1**
	comp=Z,15nm,0.9s,mb4.5						
FLN	**La Foliniere**	**24.89**	**193**	eP	**P**	**20 19 06.3**	**0.0**
	comp=Z,27nm,0.8s,mb4.5						
FLN				eMLR	MLR		
	comp=Z,484nm,19.0s,MS3.7						
FLN	**La Foliniere**	**24.89**	**193**	eP	**P**	**20 19 06.3**	**0.0**
	comp=Z,13nm,0.8s,mb4.5						
FLN				LR	LR		
	comp=Z,480nm,19.0s,MS4.0						
FLN	**La Foliniere**	**24.89**	**193**	eP	**P**	**20 19 06.3**	**0.0**
FLN				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.5						
FLN				MLR	MLR		
	comp=Z,480nm,19.0s,MS4.0						
MEZF	**Maizieres J’vi**	**24.90**	**185**	eP	**P**	**20 19 05.7**	**-0.7**
	comp=Z,42nm,0.9s,mb4.6						
MEZF	**Maizieres J’vi**	**24.90**	**185**	eP	**P**	**20 19 05.7**	**-0.7**
	comp=Z,21nm,0.9s,mb4.6						
CDF	**Champ du Feu**	**24.96**	**181**	eP	**P**	**20 19 07.1**	**+0.2**
	comp=Z,15nm,0.9s,mb4.2						
CDF	**Champ du Feu**	**24.96**	**181**	eP	**P**	**20 19 07.1**	**+0.2**
CDF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.2						
CDF	**Champ du Feu**	**24.96**	**181**	eP	**P**	**20 19 07.1**	**+0.2**
	comp=Z,7.4nm,0.9s,mb4.2						
LDF	**La Druitiere**	**25.03**	**193**	eP	**P**	**20 19 07.5**	**-0.1**
	comp=Z,76nm,1.2s,mb4.8						
LDF	**La Druitiere**	**25.03**	**193**	eP	**P**	**20 19 07.5**	**-0.1**
LDF				pmax	pmax		
	comp=Z,38nm,1.2s,mb4.8						
LDF	**La Druitiere**	**25.03**	**193**	eP	**P**	**20 19 07.5**	**-0.1**
	comp=Z,38nm,1.2s,mb4.8						
BFO	**Black Forest**	**25.04**	**179**	eP	**P**	**20 19 06.8**	**-0.9**
	comp=Z,21nm,1.1s,mb4.6						
BFO				e		20 19 12.8	
BFO	**Black Forest**	**25.04**	**179**	eP	**P**	**20 19 06.8**	**-0.8**
BFO				e		20 19 12.8	
BFO				pmax	pmax		
	comp=Z,21nm,1.1s,mb4.6						
BFO	**Black Forest**	**25.04**	**179**	eP	**P**	**20 19 06.8**	**-0.8**
RES	**Resolute Bay**	**25.09**	**322**	eP	**P**	**20 19 08.2**	**+0.3**
	comp=Z,294nm,1.0s,mb5.8						
RES				e		20 19 18.6	
RES	**Resolute Bay**	**25.09**	**322**	eP	**P**	**20 19 08.2**	**+0.3**
ECH	**Echery**	**25.16**	**181**	eP	**P**	**20 19 12.6**	**+3.9**
CRVS	**Cervenica-Dubn**	**25.19**	**159**	eP	**P**	**20 19 09.9**	**+0.9**
CRVS				e		20 19 20.3	
CRVS	**Cervenica-Dubn**	**25.19**	**159**	eP	**P**	**20 19 09.9**	**+0.9**
CRVS				epP	pP	20 19 20.2	+8.2
SMOL	**Smolenice**	**25.21**	**165**	eP	**P**	**20 19 09.8**	**+0.6**
KOLL	**Kolacno**	**25.22**	**164**	eP	**P**	**20 19 12.4**	**+3.1**
KOLS	**Kolonicke sedl**	**25.24**	**158**	eP	**P**	**20 19 09.6**	**+0.1**
GRR	**Gorron**	**25.29**	**194**	eP	**P**	**20 19 10.2**	**+0.3**
VYHS	**Vyhne**	**25.34**	**163**	eP	**P**	**20 19 10.0**	**-0.4**
VYHS				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.4						
VYHS	**Vyhne**	**25.34**	**163**	eP	**P**	**20 19 10.0**	**-0.4**
	comp=Z,18nm,1.4s,mb4.4						
HAU	**Haudompre**	**25.37**	**183**	eP	**P**	**20 19 11.3**	**+0.6**
HAU				eMLR	MLR		
	comp=Z,741nm,22.2s,MS3.9						
HAU	**Haudompre**	**25.37**	**183**	eP	**P**	**20 19 11.3**	**+0.6**
HAU				MLR	MLR		
	comp=Z,740nm,22.3s,MS4.2						
VOR	**Voronezh**	**25.39**	**131**	eP	**P**	**20 19 12.0**	**+1.2**
VOR				pmax	pmax		
	comp=Z,120nm,2.0s,mb5.1						
FELD	**Feldberg im Sc**	**25.49**	**180**	eP	**P**	**20 19 15.2**	**+3.4**
ZST	**Bratislava**	**25.50**	**166**	eP	**P**	**20 19 12.6**	**+0.7**
	comp=Z,19nm,1.2s,mb4.5						
ZST				LR	LR		
	comp=Z,2µm,17.4s,MS4.6						
KECS	**Kecovo**	**25.50**	**160**	eP	**P**	**20 19 11.6**	**-0.3**
	comp=Z,7.4nm,1.2s,mb4.1						
KECS	**Kecovo**	**25.50**	**160**	eP	**P**	**20 19 11.6**	**-0.3**
KECS				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.1						
ROSF	**Rostrenen**	**25.53**	**198**	eP	**P**	**20 19 12.4**	**+0.3**
	comp=Z,161nm,1.2s,mb5.1						
ROSF	**Rostrenen**	**25.53**	**198**	eP	**P**	**20 19 12.4**	**+0.3**
ROSF				pmax	pmax		
	comp=Z,81nm,1.2s,mb5.1						
ROSF	**Rostrenen**	**25.53**	**198**	eP	**P**	**20 19 12.4**	**+0.3**
	comp=Z,81nm,1.2s,mb5.1						
UZH	**Uzhgorod**	**25.54**	**158**	eP	**P**	**20 19 11.6**	**-0.6**
UZH				i		20 19 17.2	
UZH				e		20 19 56.4	
UZH				eS	**S**	**20 23 36.6**	**-2.8**
UZH				MLR	MLR		
	comp=Z,1µm,15.0s,MS4.6						
SGMF	**Saint Gilles**	**25.55**	**196**	eP	**P**	**20 19 12.5**	**+0.2**
	comp=Z,180nm,1.4s,mb5.1						
SGMF	**Saint Gilles**	**25.55**	**196**	eP	**P**	**20 19 12.5**	**+0.2**
SGMF				pmax	pmax		
	comp=Z,90nm,1.4s,mb5.1						
SGMF	**Saint Gilles**	**25.55**	**196**	eP	**P**	**20 19 12.5**	**+0.2**
	comp=Z,90nm,1.4s,mb5.1						
HINF	**Hinteralfeld**	**25.56**	**182**	eP	**P**	**20 19 12.9**	**+0.6**
	comp=Z,63nm,1.4s,mb4.7						
HINF	**Hinteralfeld**	**25.56**	**182**	eP	**P**	**20 19 12.9**	**+0.6**
HINF				pmax	pmax		
	comp=Z,31nm,1.4s,mb4.7						
HINF	**Hinteralfeld**	**25.56**	**182**	eP	**P**	**20 19 12.9**	**+0.6**
	comp=Z,31nm,1.4s,mb4.7						
VRSR	**Storozhevoye**	**25.87**	**132**	eP	**P**	**20 19 18.8**	**+3.7**
VRSR				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
VRSR				pmax	pmax		
	comp=N,5.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.8s						
VRSR				MLR	MLR		
	comp=Z,390nm,22.0s,MS3.9						
VRSR				MLR	MLR		
	comp=N,280nm,21.0s,MS3.9						
VRSR				MLR	MLR		
	comp=E,220nm,23.0s,MS3.9						
QUIF	**Quistinic**	**25.93**	**197**	eP	**P**	**20 19 16.1**	**+0.3**
	comp=E,272nm,1.6s,mb5.2						
QUIF	**Quistinic**	**25.93**	**197**	eP	**P**	**20 19 16.1**	**+0.3**
QUIF				pmax	pmax		
	comp=Z,136nm,1.5s,mb5.3						
QUIF	**Quistinic**	**25.93**	**197**	eP	**P**	**20 19 16.1**	**+0.3**
	comp=Z,136nm,1.6s,mb5.2						
SOP	**Sopron**	**25.98**	**167**	epP	pP	20 19 20.6	+1.4
PSZ	**Piszkesteto**	**26.01**	**161**	eP	**P**	**20 19 16.8**	**+0.4**
	comp=Z,72nm,1.8s,mb4.9						
PSZ				e		20 19 23.4	
PSZ	**Piszkesteto**	**26.01**	**161**	eP	**P**	**20 19 16.8**	**+0.4**
PSZ				e		20 19 23.4	
PSZ				pmax	pmax		
	comp=Z,72nm,1.8s,mb4.9						
PSZ	**Piszkesteto**	**26.01**	**161**	⇑epP	pP	20 19 23.5	+4.0
LOMF	**Lomont**	**26.02**	**182**	eP	**P**	**20 19 23.0**	**+6.4**
ARU	**Arti**	**26.11**	**103**	eP	**P**	**20 19 18.7**	**+1.4**
	comp=Z,52nm,1.2s,mb4.9						
ARU	**Arti**	**26.11**	**103**	⇑eP	**P**	**20 19 18.5**	**+1.2**
ARU				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.5						
ARU	**Arti**	**26.11**	**103**	eP	**P**	**20 19 18.7**	**+1.4**
	comp=Z,52nm,1.2s,mb4.9						
VORD	**Divnogorie**	**26.12**	**132**	eP	**P**	**20 19 17.3**	**-0.2**
VORD				pmax	pmax		
	comp=N,30nm,0.8s						
VORD				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.1						
VORD				pmax	pmax		
	comp=E,20nm,0.6s						
VORD				MLR	MLR		
	comp=Z,2µm,21.0s,MS4.6						
VORD				MLR	MLR		
	comp=N,2µm,23.0s,MS4.6						
VORD				MLR	MLR		
	comp=E,1µm,21.0s,MS4.6						
WTTA	**Wattenberg**	**26.16**	**174**	⇑iP	**P**	**20 19 21.0**	**+3.2**
	comp=E,36nm,1.9s,mb4.6						
WTTA	**Wattenberg**	**26.16**	**174**	⇑ipP	pP	20 19 21.0	+0.2
	comp=E,36nm,1.9s						
WTTA	**Wattenberg**	**26.16**	**174**	⇑iP	**P**	**20 19 21.0**	**+3.2**
WTTA				pmax	pmax		
	comp=Z,36nm,1.9s,mb4.6						
LOR	**Lormes**	**26.17**	**186**	eP	**P**	**20 19 17.8**	**-0.1**
	comp=Z,28nm,0.9s,mb4.5						
LOR				eMLR	MLR		
	comp=Z,570nm,19.0s,MS3.8						
LOR	**Lormes**	**26.17**	**186**	eP	**P**	**20 19 17.8**	**-0.1**
	comp=Z,14nm,0.9s,mb4.5						
LOR				LR	LR		
	comp=Z,570nm,19.0s,MS4.1						
LOR	**Lormes**	**26.17**	**186**	eP	**P**	**20 19 17.8**	**-0.1**
LOR				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.5						
LOR				MLR	MLR		
	comp=Z,570nm,19.0s,MS4.1						
SSF	**Saint Saulge**	**26.38**	**187**	eP	**P**	**20 19 19.3**	**-0.5**
	comp=Z,59nm,1.5s,mb4.6						
SSF	**Saint Saulge**	**26.38**	**187**	eP	**P**	**20 19 19.3**	**-0.5**
SSF				pmax	pmax		
	comp=Z,29nm,1.5s,mb4.6						
SSF	**Saint Saulge**	**26.38**	**187**	eP	**P**	**20 19 19.3**	**-0.5**
	comp=Z,29nm,1.5s,mb4.6						
DAVOX	**Davos/Dischmat**	**26.60**	**177**	LR	LR	20 29 18.3	
	comp=Z,691nm,22.0s,MS4.2,baz=292,slow=35						
AVF	**Avril sur Loir**	**26.66**	**187**	eP	**P**	**20 19 22.9**	**+0.6**
	comp=Z,98nm,1.6s,mb4.8						
AVF	**Avril sur Loir**	**26.66**	**187**	eP	**P**	**20 19 22.9**	**+0.6**
AVF				pmax	pmax		
	comp=Z,49nm,1.6s,mb4.8						
AVF	**Avril sur Loir**	**26.66**	**187**	eP	**P**	**20 19 22.9**	**+0.6**
	comp=Z,49nm,1.6s,mb4.8						
CABF	**La Chapelle**	**26.77**	**183**	eP	**P**	**20 19 24.6**	**+1.3**
	comp=Z,130nm,1.4s,mb5.0						
CABF	**La Chapelle**	**26.77**	**183**	eP	**P**	**20 19 24.6**	**+1.3**
CABF				pmax	pmax		
	comp=Z,65nm,1.4s,mb5.0						
CABF	**La Chapelle**	**26.77**	**183**	eP	**P**	**20 19 24.6**	**+1.3**
	comp=Z,65nm,1.4s,mb5.0						
SMF	**Signal de Mont**	**26.79**	**186**	eP	**P**	**20 19 24.0**	**+0.5**
	comp=Z,20nm,0.9s,mb4.3						
SMF	**Signal de Mont**	**26.79**	**186**	eP	**P**	**20 19 24.0**	**+0.5**
SMF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.3						
SMF	**Signal de Mont**	**26.79**	**186**	eP	**P**	**20 19 24.0**	**+0.5**
	comp=Z,9.9nm,0.9s,mb4.3						
BURAR	**Bucovina Array**	**26.89**	**154**	⇑P	**P**	**20 19 25.2**	**+0.8**
BURAR	**Bucovina Array**	**26.89**	**154**	⇑iP	**P**	**20 19 25.2**	**+0.8**
BGF	**Bois d’Agland**	**26.91**	**188**	eP	**P**	**20 19 25.5**	**+0.9**
	comp=Z,123nm,1.4s,mb4.9						
BGF	**Bois d’Agland**	**26.91**	**188**	eP	**P**	**20 19 25.5**	**+0.9**
BGF				pmax	pmax		
	comp=Z,61nm,1.4s,mb4.9						
BGF	**Bois d’Agland**	**26.91**	**188**	eP	**P**	**20 19 25.5**	**+0.9**
	comp=Z,62nm,1.4s,mb4.9						
MFF	**Saint Martin d**	**27.02**	**192**	eP	**P**	**20 19 26.3**	**+0.7**
TCF	**Toulx Ste Croi**	**27.21**	**189**	eP	**P**	**20 19 27.0**	**-0.3**
	comp=Z,121nm,1.7s,mb4.8						
TCF	**Toulx Ste Croi**	**27.21**	**189**	eP	**P**	**20 19 27.0**	**-0.3**
TCF				pmax	pmax		
	comp=Z,61nm,1.7s,mb4.8						
TCF	**Toulx Ste Croi**	**27.21**	**189**	eP	**P**	**20 19 27.0**	**-0.3**
	comp=Z,61nm,1.7s,mb4.8						
DRGR		**27.41**	**158**	⇑P	**P**	**20 19 35.8**	**+6.7**
DRGR		**27.41**	**158**	⇑iP	**P**	**20 19 35.8**	**+6.8**
LPL	**La Plagne**	**27.86**	**182**	eP	**P**	**20 19 34.5**	**+1.4**
LPG	**La Plagne**	**27.88**	**182**	eP	**P**	**20 19 34.8**	**+1.5**
KIS	**Kishinev**	**28.00**	**149**	eP	**P**	**20 19 40.0**	**+5.6**
KIS				eS	**S**	**20 24 20.0**	**+1.8**
KIS				MLR	MLR		
	comp=N,1µm,15.0s,MS4.8						
KIS				MLR	MLR		
	comp=Z,2µm,15.0s,MS4.9						
KIS				MLR	MLR		
	comp=E,1µm,12.0s,MS4.8						
KIS				MLR	MLR		
	comp=Z,2µm,14.0s						
KIS	**Kishinev**	**28.00**	**149**	eP	**P**	**20 19 40.0**	**+5.6**
KIS				eS	**S**	**20 24 20.0**	**+1.8**
KIS				LRM		20 30 10.0	
	comp=Z,2µm,14.0s						
BZS	**Buzias**	**28.45**	**160**	⇑P	**P**	**20 19 43.2**	**+4.8**
BZS	**Buzias**	**28.45**	**160**	⇑iP	**P**	**20 19 43.2**	**+4.8**
ORIF	**Oris-en-Rattie**	**28.47**	**183**	eP	**P**	**20 19 39.6**	**+1.1**
ORIF				eMLR	MLR		
	comp=Z,986nm,22.8s,MS4.0						
VIVF	**Saint-Julien-l**	**28.55**	**185**	eP	**P**	**20 19 40.4**	**+1.1**
MBDF	**Montbardon**	**28.65**	**182**	eP	**P**	**20 19 41.6**	**+1.5**
GZR	**Gura Zlata**	**28.80**	**158**	⇓P	**P**	**20 19 45.5**	**+4.0**
GZR	**Gura Zlata**	**28.80**	**158**	⇓iP	**P**	**20 19 45.5**	**+4.1**
MLR	**Muntele Rosu**	**29.07**	**153**	P	**P**	**20 19 46.3**	**+2.3**
	comp=Z,1.4nm,0.7s,mb3.8,baz=183,slow=22,SNR=2.2						
MLR				LR	LR	20 31 39.1	
	comp=Z,3µm,18.8s,MS4.9,baz=344,slow=37						
MLR	**Muntele Rosu**	**29.07**	**153**	P	**P**	**20 19 46.2**	**+2.3**
ORR	**Orenburg**	**29.32**	**112**	eP	**P**	**20 19 47.1**	**+1.1**
LASF	**Ste Croix**	**29.36**	**186**	eP	**P**	**20 19 47.5**	**+1.1**
SBF	**Sospel**	**29.51**	**181**	eP	**P**	**20 19 49.1**	**+1.3**
	comp=Z,112nm,1.2s,mb5.2						
SBF	**Sospel**	**29.51**	**181**	eP	**P**	**20 19 49.1**	**+1.3**
SBF				pmax	pmax		
	comp=Z,56nm,1.2s,mb5.2						
SBF	**Sospel**	**29.51**	**181**	eP	**P**	**20 19 49.1**	**+1.3**
	comp=Z,56nm,1.2s,mb5.2						
DIVS	**Divcibare**	**29.80**	**162**	P	**P**	**20 19 49.9**	**-0.5**
FRF	**La Foret Royal**	**29.82**	**182**	eP	**P**	**20 19 51.8**	**+1.3**
	comp=Z,38nm,1.1s,mb4.8						
FRF	**La Foret Royal**	**29.82**	**182**	eP	**P**	**20 19 51.8**	**+1.3**
FRF				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.7						
FRF	**La Foret Royal**	**29.82**	**182**	eP	**P**	**20 19 51.8**	**+1.3**
	comp=Z,19nm,1.1s,mb4.8						
LMR	**La Mourre**	**30.04**	**182**	eP	**P**	**20 19 53.7**	**+1.2**
	comp=Z,33nm,1.1s,mb4.7						
LMR	**La Mourre**	**30.04**	**182**	eP	**P**	**20 19 53.7**	**+1.2**
LMR				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.7						
LMR	**La Mourre**	**30.04**	**182**	eP	**P**	**20 19 53.7**	**+1.2**
	comp=Z,16nm,1.1s,mb4.7						
GRUS	**Gruza**	**30.08**	**161**	P	**P**	**20 19 51.6**	**-1.2**
MTLF	**Montolieu**	**30.15**	**188**	eP	**P**	**20 19 54.6**	**+1.2**
EPF	**Esparros**	**30.55**	**191**	eP	**P**	**20 19 58.3**	**+1.3**
	comp=Z,124nm,1.7s,mb5.2						
EPF	**Esparros**	**30.55**	**191**	eP	**P**	**20 19 58.3**	**+1.3**
EPF				pmax	pmax		
	comp=Z,62nm,1.7s,mb5.2						
EPF	**Esparros**	**30.55**	**191**	eP	**P**	**20 19 58.3**	**+1.3**
	comp=Z,62nm,1.7s,mb5.2						
SJPF	**Ste Jean**	**30.56**	**193**	eP	**P**	**20 19 57.9**	**+0.8**
TIXI	**Tiksi**	**30.59**	**32**	eP	**P**	**20 19 56.7**	**-0.4**
	comp=Z,23nm,1.0s,mb5.0						
TIXI				e		20 20 02.5	
TIXI	**Tiksi**	**30.59**	**32**	eP	**P**	**20 19 55.3**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.0						
TIXI				MLR	MLR		
	comp=Z,247nm,16.0s,MS4.0						
TIXI	**Tiksi**	**30.59**	**32**	eP	**P**	**20 19 56.7**	**-0.4**
ETSF	**Etsaut**	**30.73**	**192**	eP	**P**	**20 20 00.0**	**+1.4**
	comp=Z,94nm,1.6s,mb5.1						
ETSF	**Etsaut**	**30.73**	**192**	eP	**P**	**20 20 00.0**	**+1.4**
ETSF				pmax	pmax		
	comp=Z,47nm,1.6s,mb5.1						
ETSF	**Etsaut**	**30.73**	**192**	eP	**P**	**20 20 00.0**	**+1.4**
	comp=Z,47nm,1.6s,mb5.1						
AQU	**L’Aquila**	**31.12**	**172**	P	**P**	**20 20 02.5**	**+0.4**
AQU	**L’Aquila**	**31.12**	**172**	P	**P**	**20 20 02.5**	**+0.5**
AKTK	**Aktyubinsk**	**31.27**	**109**	P	**P**	**20 20 03.7**	**+0.4**
AKTK				LR	LR	20 33 10.7	
AKTK	**Aktyubinsk**	**31.27**	**109**	P	**P**	**20 20 03.7**	**+0.4**
AKTO	**Aktyubinsk**	**31.27**	**109**	P	**P**	**20 20 03.7**	**+0.4**
	comp=Z,4.3nm,1.1s,mb4.2,baz=300,slow=8.7,SNR=7.7						
AKTO				LR	LR	20 33 10.7	
	comp=Z,1µm,21.6s,MS4.6,baz=345,slow=37						
ANN	**Anapa**	**31.62**	**138**	eP	**P**	**20 19 59.1**	**-7.3**
ANN				pmax	pmax		
	comp=Z,62nm,1.3s,mb5.3						
ANN				MLR	MLR		
	comp=Z,1µm,17.0s,MS4.6						
CHKZ	**Chkalovo**	**31.96**	**93**	P	**P**	**20 20 11.1**	**+1.8**
CHKZ	**Chkalovo**	**31.96**	**93**	P	**P**	**20 20 11.1**	**+1.8**
BRVK	**Borovoye**	**32.41**	**94**	P	**P**	**20 20 15.3**	**+2.1**
BRVK	**Borovoye**	**32.41**	**94**	P	**P**	**20 20 15.3**	**+2.1**
SOC	**Sochi**	**33.24**	**136**	eP	**P**	**20 20 19.0**	**-1.6**
SOC				e		20 21 31.9	
SOC				eS	**S**	**20 25 38.4**	**-1.8**
SOC				eSS	SS	20 27 39.5	-24
SOC				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
SOC				MLR	MLR		
	comp=Z,1µm,17.0s,MS4.8						
KIV	**Kislovodsk**	**33.51**	**132**	eP	**P**	**20 20 26.5**	**+3.6**
	comp=Z,9.8nm,0.9s,mb4.7						
KIV				ePP	PP	20 21 41.3	+2.8
KIV	**Kislovodsk**	**33.51**	**132**	eP	**P**	**20 20 27.2**	**+4.3**
KIV				eS	**S**	**20 25 50.0**	**+5.7**
KIV				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
KIV				MLR	MLR		
	comp=Z,933nm,16.0s,MS4.6						
ESDC	**Sonseca Array**	**34.19**	**196**	P	**P**	**20 20 24.2**	**-4.6**
	comp=Z,0.6nm,0.7s,baz=343,slow=9.8,SNR=3.6						
SCHQ	**Schefferville**	**34.44**	**279**	LR	LR	20 32 49.2	
	comp=Z,1µm,20.2s,MS4.6,baz=72,slow=34						
NVS	**Novosibirsk**	**34.58**	**80**	eP	**P**	**20 20 31.3**	**-0.8**
NVS				pmax	pmax		
	comp=Z,33nm,2.2s,mb4.9						
NVS				pmax	pmax		
	comp=N,15nm,2.0s						
ZAA0	**Zalesovo Array**	**35.81**	**80**	eP	**P**	**20 20 44.2**	**+1.5**
ZAA0	**Zalesovo Array**	**35.81**	**80**	eP	**P**	**20 20 44.2**	**+1.5**
ZALV	**Zalesovo Beam**	**35.81**	**80**	P	**P**	**20 20 42.8**	**0.0**
	comp=N,0.2nm,0.3s,baz=352,slow=4.5,SNR=4.2						
ZALV				LR	LR	20 38 17.6	
	comp=N,498nm,21.4s,baz=328,slow=41						
ZAL	**Zalesovo**	**35.82**	**80**	P	**P**	**20 20 42.8**	**0.0**
BRTR	**Keskin Array B**	**35.86**	**145**	P	**P**	**20 20 43.5**	**+0.2**
	comp=N,1.4nm,0.7s,mb4.0,baz=341,slow=7.5,SNR=5.0						
BRTR				LR	LR	20 37 57.2	
	comp=N,719nm,18.3s,MS4.5,baz=317,slow=41						
VAE	**Valguarnera**	**36.03**	**171**	LR	LR	20 36 58.5	
	comp=N,1µm,18.3s,MS4.8,baz=292,slow=39						
INK	**Inuvik**	**36.45**	**337**	eP	**P**	**20 20 39.1**	**-8.9**
	comp=N,524nm,1.3s						
KURK	**Kurchatov**	**36.89**	**88**	eP	**P**	**20 20 51.9**	**-0.1**
	comp=N,9.0nm,1.1s,mb4.5						
KURK	**Kurchatov**	**36.89**	**88**	⇑eP	**P**	**20 20 51.6**	**-0.4**
KURK	**Kurchatov**	**36.89**	**88**	eP	**P**	**20 20 51.9**	**-0.1**
	comp=N,9.0nm,1.1s,mb4.5						
KEST	**Kesra**	**37.63**	**178**	LR	LR	20 36 05.5	
	comp=N,146nm,21.2s,MS3.8,baz=173,slow=36						
MALT	**Malatya**	**38.08**	**140**	eP	**P**	**20 21 03.4**	**+1.3**
MALT				e		20 21 08.9	
MALT	**Malatya**	**38.08**	**140**	⇓iP	**P**	**20 21 06.7**	**+4.6**
MALT	**Malatya**	**38.08**	**140**	eP	**P**	**20 21 03.4**	**+1.3**
BILL	**Bilibino**	**38.21**	**13**	eP	**P**	**20 21 05.5**	**+2.6**
	comp=N,22nm,1.3s,mb4.7						
BILL	**Bilibino**	**38.21**	**13**	P	**P**	**20 21 07.0**	**+4.0**
BILL				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.6						
BILL				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.2						
FCC	**Fort Churchill**	**38.23**	**305**	eP	**P**	**20 21 02.0**	**-1.3**
	comp=Z,5.9nm,0.8s,mb4.4						
FCC				e		20 21 09.3	
FCC	**Fort Churchill**	**38.23**	**305**	eP	**P**	**20 21 02.0**	**-1.3**
FCC				e		20 21 09.3	
FCC				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
FCC	**Fort Churchill**	**38.23**	**305**	eP	**P**	**20 21 02.0**	**-1.3**
YKA	**Yellowknife Ar**	**39.15**	**322**	P	**P**	**20 21 05.7**	**-5.2**
YKA						20 23 16.4	
YKA	**Yellowknife Ar**	**39.15**	**322**	P	**P**	**20 21 05.7**	**-5.2**
	comp=Z,4.3nm,1.2s,mb4.0,baz=18,slow=8.6,SNR=15						
YKA				PcP	PcP	20 23 16.4	-3.6
	comp=Z,0.5nm,0.7s,baz=16,slow=3.2,SNR=4.2						
YKA				LR	LR	20 37 32.3	
	comp=Z,1µm,18.3s,MS4.7,baz=160,slow=37						
YKA	**Yellowknife Ar**	**39.15**	**322**	PcP	PcP	20 23 16.4	-3.6
YAK	**Yakutsk**	**39.43**	**39**	eP	**P**	**20 21 12.8**	**-0.4**
	comp=Z,14nm,0.8s,mb4.7						
YAK	**Yakutsk**	**39.43**	**39**	eP	**P**	**20 21 12.1**	**-1.2**
YAK				pmax	pmax		
	comp=N,9.0nm,1.3s						
YAK				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.6						
YAK				pmax	pmax		
	comp=E,7.0nm,1.4s						
YAK	**Yakutsk**	**39.43**	**39**	eP	**P**	**20 21 12.9**	**-0.4**
	comp=E,14nm,0.8s,mb4.7						
BOD	**Bodaibo**	**40.03**	**53**	eP	**P**	**20 21 16.2**	**-2.0**
BOD				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.4						
COLA	**College**	**41.16**	**345**	eP	**P**	**20 21 29.2**	**+1.7**
	comp=Z,6.2nm,1.0s,mb4.2						
COLA	**College**	**41.16**	**345**	eP	**P**	**20 21 29.2**	**+1.7**
COLA				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.2						
COLA	**College**	**41.16**	**345**	eP	**P**	**20 21 29.2**	**+1.7**
	comp=Z,6.2nm,1.0s,mb4.2						
DAWY	**Dawson**	**41.19**	**339**	eP	**P**	**20 21 27.7**	**-0.1**
DAWY	**Dawson**	**41.19**	**339**	eP	**P**	**20 21 27.7**	**-0.1**
MK31	**Makanchi Array**	**41.48**	**87**	eP	**P**	**20 21 31.3**	**+0.9**
MK31				e		20 21 36.4	
MK31				ePP	PP	20 23 04.6	-1.3
MKAR	**Makanchi Array**	**41.48**	**87**	P	**P**	**20 21 30.0**	**-0.4**
	comp=Z,3.2nm,1.2s,mb3.8,baz=346,slow=4.4,SNR=11						
MKAR				LR	LR	20 41 42.9	
	comp=Z,718nm,19.4s,MS4.5,baz=349,slow=40						
MOY	**Mondy**	**42.33**	**67**	eP	**P**	**20 21 38.8**	**+1.6**
MOY				pmax	pmax		
	comp=Z,52nm,3.2s						
IRK	**Irkutsk**	**42.67**	**64**	eP	**P**	**20 21 39.2**	**-0.8**
IRK				pmax	pmax		
	comp=Z,35nm,4.3s						
TLY	**Talaya**	**43.02**	**65**	P	**P**	**20 21 44.1**	**+1.3**
TLY	**Talaya**	**43.02**	**65**	P	**P**	**20 21 44.1**	**+1.3**
AAK	**Ala-Archa**	**43.03**	**97**	eP	**P**	**20 21 44.2**	**+1.1**
	comp=Z,2.2nm,0.9s,mb3.9						
AAK	**Ala-Archa**	**43.03**	**97**	eP	**P**	**20 21 43.2**	**+0.1**
AAK	**Ala-Archa**	**43.03**	**97**	eP	**P**	**20 21 44.2**	**+1.1**
AAK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.9						
AAK	**Ala-Archa**	**43.03**	**97**	eP	**P**	**20 21 44.2**	**+1.1**
	comp=Z,2.2nm,0.9s,mb3.9						
AML	**Almayashu**	**43.27**	**98**	eP	**P**	**20 21 47.3**	**+2.3**
	comp=Z,6.0nm,0.8s,mb4.4						
AML				e		20 21 53.0	
AML				ePP	PP	20 23 26.4	+1.2
AML				ePcP	PcP	20 23 34.8	+1.0
AML	**Almayashu**	**43.27**	**98**	eP	**P**	**20 21 47.3**	**+2.4**
CLNS	**Chul’man**	**43.32**	**46**	eP	**P**	**20 21 41.2**	**-4.0**
CLNS				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.0						
CLNS				pmax	pmax		
	comp=N,14nm,1.0s						
CLNS				pmax	pmax		
	comp=E,4.0nm,0.9s						
CLNS				MLR	MLR		
	comp=Z,200nm,13.0s,MS4.2						
CLNS				MLR	MLR		
	comp=N,100nm,17.0s,MS4.0						
CLNS				MLR	MLR		
	comp=E,100nm,12.0s,MS4.0						
UCH	**Uchtor**	**43.41**	**97**	eP	**P**	**20 21 48.2**	**+2.1**
	comp=E,24nm,1.8s,mb4.6						
UCH				e		20 21 53.9	
UCH				ePP	PP	20 23 30.2	+3.5
UCH				ePcP	PcP	20 23 36.5	+2.3
UCH	**Uchtor**	**43.41**	**97**	eP	**P**	**20 21 48.2**	**+2.1**
ZAK	**Zakamensk**	**44.10**	**66**	eP	**P**	**20 21 51.6**	**0.0**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.7s						
MA2	**Magadan**	**45.04**	**26**	eP	**P**	**20 22 01.2**	**+2.3**

	comp=Z,22nm,1.4s,mb4.8						
MA2	Magadan	45.04	26	eP	P	20 21 55.7	-3.2
MA2				pmax	pmax		
	comp=Z,4.0nm,1.7s,mb4.0						
SVW2	Sparrevohn	45.43	349	eP	P	20 22 05.0	+3.0
MSNY	Massena	45.55	280	P	P	20 22 02.1	-1.1
MSNY	Massena	45.55	280	P	P	20 22 02.1	-1.1
SLKM	Skilak Lake	45.66	345	eP	P	20 22 05.3	+1.4
SLKM	Skilak Lake	45.66	345	eP	P	20 22 05.3	+1.4
WMQ	Urumqi	45.76	84	eP	P	20 22 05.3	+0.5
WMQ				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.7						
WMQ				LR	LR		
	comp=N,482nm,25.4s,MS4.7						
WMQ				LR	LR		
	comp=E,1µm,21.2s,MS4.7						
WMQ				LR	LR		
	comp=Z,446nm,26.0s,MS4.3						
ULM	Lac du Bonnet	46.41	301	eP	P	20 22 09.9	+0.1
ULM				PcP	PcP	20 23 43.1	-1.3
ULM				ePcP	PcP	20 23 44.7	+0.3
ULM				LR	LR	20 41 22.6	
ULM	Lac du Bonnet	46.41	301	P	P	20 22 07.2	-2.7
	comp=Z,9.2nm,0.9s,mb4.7,baz=29,slow=6.5,SNR=15						
ULM				PcP	PcP	20 23 43.1	-1.3
	comp=Z,3.8nm,0.8s,baz=17,slow=5.8,SNR=4.0						
ULM				LR	LR	20 41 22.7	
	comp=Z,1µm,18.6s,MS4.9,baz=30,slow=36						
ULM	Lac du Bonnet	46.41	301	eP	P	20 22 09.9	0.0
ULM	Lac du Bonnet	46.41	301	PcP	PcP	20 23 43.2	-1.2
SONM	Songino Array	47.26	65	P	P	20 22 15.8	-0.7
SONM						20 23 46.9	
SONM	Songino Array	47.26	65	P	P	20 22 15.8	-0.7
	comp=Z,1.2nm,1.0s,mb3.8,baz=328,slow=5.3,SNR=9.8						
SONM				PcP	PcP	20 23 46.9	-0.6
	comp=Z,0.8nm,1.0s,baz=339,slow=3.5,SNR=2.3						
SONM				LR	LR	20 47 18.4	
	comp=Z,297nm,19.7s,MS4.3,baz=182,slow=42						
ULN	Ulaanbaatar	47.40	65	eP	P	20 22 18.1	+0.5
	comp=Z,11nm,1.5s,mb4.6						
ULN				e		20 22 24.1	
ULN	Ulaanbaatar	47.40	65	eP	P	20 22 18.1	+0.4
ULN				e		20 22 24.1	
ULN				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.6						
ULN	Ulaanbaatar	47.40	65	eP	P	20 22 18.1	+0.4
EYMN	Ely	47.42	296	P	P	20 22 17.2	-0.5
EYMN	Ely	47.42	296	P	P	20 22 17.2	-0.6
EDM	Edmonton	47.59	316	eP	P	20 22 19.1	0.0
EDM				ePcP	PcP	20 23 49.9	+1.3
EDM	Edmonton	47.59	316	eP	P	20 22 19.1	0.0
KBL	Kabul	49.02	107	eP	P	20 22 31.6	+1.2
KBL				e		20 22 39.6	
KBL				ePP	PP	20 24 25.8	+2.2
KBL	Kabul	49.02	107	eP	P	20 22 31.5	+1.2
HIA	Hailar	49.24	53	eP	P	20 22 31.1	-0.7
	comp=Z,8.3nm,1.1s,mb4.7						
HIA				ePcP	PcP	20 23 56.6	+2.0
HIA	Hailar	49.24	53	eP	P	20 22 31.1	-0.7
HIA				e		20 23 56.6	
HIA				pmax	pmax		
	comp=Z,8.0nm,1.1s						
HIA	Hailar	49.24	53	eP	P	20 22 31.1	-0.7
	comp=Z,8.3nm,1.1s,mb4.7						
BRNJ	Basking Ridge	49.44	277	P	P	20 22 31.7	-1.8
BRNJ	Basking Ridge	49.44	277	P	P	20 22 31.7	-1.8
ALLY	Alegheny Colle	50.14	283	eP	P	20 22 38.9	+0.1
ALLY				e		20 22 45.3	
ALLY	Alegheny Colle	50.14	283	eP	P	20 22 38.8	+0.1
WALA	Waterton Lakes	51.65	315	eP	P	20 22 50.0	0.0
	comp=Z,13nm,1.1s,mb4.8						
WALA	Waterton Lakes	51.65	315	eP	P	20 22 50.0	0.0
	comp=Z,13nm,1.1s,mb4.8						
KLR	Kul'dur	51.88	44	eP	P	20 22 52.4	+0.7
ECSD	EROS,Sioux Fal	52.65	298	eP	P	20 22 55.6	-1.9
	comp=Z,20nm,1.1s,mb5.0						
ECSD	EROS,Sioux Fal	52.65	298	eP	P	20 22 55.6	-2.0
	comp=Z,20nm,1.1s,mb5.0						
GTA	Gaotai	53.28	75	eP	P	20 23 02.5	+0.3
GTA				AP	pP	20 23 08.5	+3.1
GTA				XP	sP	20 23 11.5	+4.9
GTA				PP	PP	20 25 11.0	+9.0
GTA				PPP		20 25 40.3	
GTA				AMB	AMB		
	comp=Z,5.0nm,1.8s,mb4.1						
GTA				AMB	AMB		
	comp=Z,216nm,6.5s						
GTA				LR	LR		
	comp=N,219nm,18.5s,MS4.5						
GTA				LR	LR		
	comp=E,322nm,20.0s,MS4.5						
GTA				LR	LR		
	comp=Z,319nm,17.7s,MS4.4						
CHMT	Chamberlain Mo	53.55	313	eP	P	20 23 03.0	-1.1
GCMT	Greycliff	53.84	310	eP	P	20 23 07.6	+1.4
GCMT				ePcP	PcP	20 24 11.2	-0.6
GCMT	Greycliff	53.84	310	eP	P	20 23 07.6	+1.3
GCMT	Greycliff	53.84	310	ePcP	PcP	20 24 11.2	-0.6
RLMT	Red Lodge	54.39	309	eP	P	20 23 10.9	+0.6
	comp=Z,22nm,1.6s,mb4.8						
RLMT	Red Lodge	54.39	309	eP	P	20 23 10.9	+0.6
	comp=Z,22nm,1.6s,mb4.8						
YMR	Madison River	55.20	310	eP	P	20 23 15.2	-0.9
	comp=Z,12nm,0.5s,mb5.2						
YMR	Madison River	55.20	310	eP	P	20 23 15.2	-0.9
	comp=Z,12nm,0.5s,mb5.2						
MCMT	McKenzie Canyo	55.45	312	eP	P	20 23 18.7	+0.7
MCMT	McKenzie Canyo	55.45	312	eP	P	20 23 18.7	+0.7
CN2	Changchun	55.71	51	eP	P	20 23 18.8	-1.0
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.2						
YSS	Yuzh-Sakhalins	56.11	36	P	P	20 23 16.8	-5.8
SIUC	Southern Illin	56.33	289	eP	P	20 23 23.7	-0.6
	comp=Z,17nm,0.8s,mb5.1						
SIUC	Southern Illin	56.33	289	eP	P	20 23 23.7	-0.6
	comp=Z,17nm,0.8s,mb5.1						
PDAR	Pinedale Array	56.69	309	P	P	20 23 24.3	-2.5
	comp=Z,2.5nm,1.0s,mb4.2,baz=117,slow=1.7,SNR=11						
PDAR				LR	LR	20 47 44.9	
	comp=Z,676nm,20.0s,MS4.7,baz=26,slow=36						
HLID	Hailey	57.00	313	eP	P	20 23 29.2	+0.3
	comp=Z,4.8nm,0.9s,mb4.5						
HLID				ePcP	PcP	20 24 23.3	-0.7
HLID	Hailey	57.00	313	eP	P	20 23 29.2	+0.2
	comp=Z,4.8nm,0.9s,mb4.5						
HLID	Hailey	57.00	313	ePcP	PcP	20 24 23.3	-0.7
LZH	Lanzhou	57.51	73	eP	P	20 23 32.5	-0.2
	comp=Z,18nm,1.6s,mb4.8						
LZH				pP	pP	20 23 37.1	+1.2
LZH				sP	sP	20 23 39.5	+2.4
LZH	Lanzhou	57.51	73	eP	P	20 23 32.5	-0.2
LZH				*PP	pP	20 23 37.1	+1.2
LZH				*SP	sP	20 23 39.5	+2.4
LZH				pmax	pmax		
	comp=Z,18nm,1.6s,mb4.8						
LZH	Lanzhou	57.51	73	eP	P	20 23 32.5	-0.2
	comp=Z,18nm,1.6s,mb4.8						
LZH				pP	pP	20 23 37.1	+1.2
GOGA	Godfrey	58.76	282	eP	P	20 23 41.1	-0.4
	comp=Z,18nm,1.1s,mb5.0						
GOGA				e		20 23 48.9	
GOGA	Godfrey	58.76	282	eP	P	20 23 41.1	-0.4
GOGA				e		20 23 48.9	
GOGA				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
GKN	Gorkha	59.60	94	eP	P	20 23 47.7	+0.3
	comp=Z,35nm,1.3s,mb5.2						
LSA	Lhasa	59.89	87	P	P	20 23 50.3	+0.9
LSA	Lhasa	59.89	87	eP	P	20 23 51.2	+1.8
	comp=Z,7.5nm,1.1s,mb4.6						
LSA				e		20 23 57.4	
LSA	Lhasa	59.89	87	eP	P	20 23 51.2	+1.8
LSA				e		20 23 57.4	
LSA				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
LSA	Lhasa	59.89	87	eP	P	20 23 51.2	+1.8
KKN	Kakani	59.99	93	eP	P	20 23 50.0	-0.1
	comp=Z,54nm,1.5s,mb5.3						
TOA0	Torodi Ar. Sit	60.23	187	eP	P	20 23 48.9	-2.9
TOA0				e		20 23 59.7	
TORD	Torodi Ar. Bea	60.23	187	P	P	20 23 48.5	-3.3
TORD				LR	LR	20 51 38.6	
TORD	Torodi Ar. Bea	60.23	187	P	P	20 23 48.5	-3.3
	comp=Z,1.6nm,0.8s,mb4.1,baz=358,slow=6.9,SNR=13						
TORD				LR	LR	20 51 38.6	
	comp=Z,196nm,18.7s,MS4.3,baz=310,slow=38						
JIRN	Jiri	60.38	93	eP	P	20 23 52.7	0.0
	comp=Z,51nm,1.5s,mb5.3						
TAPN	Taplejung	61.11	91	eP	P	20 23 57.6	-0.1
MSU	Marysvale	61.34	309	eP	P	20 23 59.8	+0.6
MSU	Marysvale	61.34	309	eP	P	20 23 59.8	+0.7
ODAN	Odare	61.48	92	eP	P	20 24 00.2	0.0
	comp=Z,38nm,1.3s,mb5.4						
WMOK	Wichita Mounta	61.68	296	eP	P	20 23 56.5	-5.0
	comp=Z,7.8nm,1.0s,mb4.8						
WMOK	Wichita Mounta	61.68	296	eP	P	20 23 56.5	-5.0
WMOK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.8						
MVCO	Mesa Verde	61.74	306	eP	P	20 24 02.5	+0.7
	comp=Z,25nm,1.3s,mb5.2						
MVCO	Mesa Verde	61.74	306	eP	P	20 24 02.5	+0.6
	comp=Z,25nm,1.3s,mb5.2						
KSRS	Korea Array	62.32	51	P	P	20 24 05.1	-0.6
	comp=Z,1.1nm,0.8s,mb4.0,baz=262,slow=34,SNR=3.6						
KSRS				LR	LR	20 54 51.7	
	comp=Z,148nm,18.6s,MS4.2,baz=345,slow=40						
NVAR	Mina Array Bea	62.74	315	P	P	20 24 06.7	-1.8
NVAR	Mina Array Bea	62.74	315	P	P	20 24 06.7	-1.8
	comp=Z,0.6nm,0.3s,mb4.2,baz=190,slow=18,SNR=2.3						
NJ2	Nanjing	65.30	61	eP	P	20 24 28.0	+2.5
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
MAJO	Matsushiro	65.37	43	P	P	20 24 27.4	+1.6
MAJO	Matsushiro	65.37	43	P	P	20 24 27.4	+1.6
MJAR	Matsushiro Arr	65.37	43	P	P	20 24 26.4	+0.5
	comp=Z,2.8nm,0.8s,mb4.3,baz=330,slow=6.1,SNR=8.3						
LIC	Lamto	67.45	194	eP	P	20 24 39.9	+0.5
LIC				eMLR	MLR		
	comp=Z,202nm,23.0s,MS4.0						
LIC	Lamto	67.45	194	eP	P	20 24 39.9	+0.5
LIC				LR	LR		
	comp=Z,100nm,23.0s,MS4.0						
LTX	Lajitas	68.07	299	eP	P	20 24 42.5	-0.6
LTX	Lajitas	68.07	299	eP	P	20 24 42.5	-0.7
TXAR	Lajitas Array	68.07	299	P	P	20 24 37.8	-5.4
	comp=Z,0.6nm,1.0s,baz=23,slow=4.0,SNR=3.0						
TXAR				LR	LR	20 54 38.3	
	comp=Z,853nm,18.3s,MS5.0,baz=205,slow=36						
QIZ	Qiongzhong	75.30	73	P	P	20 25 25.8	-1.0
QIZ				S	S	20 35 02.0	-3.8
QIZ				LR	LR		
	comp=E,354nm,8.4s						
QIZ				LR	LR		
	comp=Z,285nm,23.8s,MS4.5						
KMBO	Kilima Mbogo	76.49	150	LR	LR	21 02 37.3	
	comp=Z,119nm,21.3s,MS4.2,baz=160,slow=38						
SDV	Santo Domingo	78.26	262	P	P	20 25 41.8	-1.7
SDV	Santo Domingo	78.26	262	P	P	20 25 41.8	-1.7
	comp=Z,9.0nm,0.8s,mb4.8,baz=315,slow=7.1,SNR=3.9						
WRA	Warramunga Arr	119.08	60	PKP	PKPdf	20 32 32.6	+0.5
WRA	Warramunga Arr	119.08	60	PKIKP	PKPdf	20 32 32.6	+0.4
WRA	Warramunga Arr	119.08	60	PKP	PKPdf	20 32 32.6	+0.5
	comp=Z,0.5nm,0.9s,baz=335,slow=2.0,SNR=4.8						
WRA	Warramunga Arr	119.08	60	PKIKP	PKPdf	20 32 32.6	+0.4
ASAR	Alice Springs	122.54	62	PKP	PKPdf	20 32 35.0	-3.6
ASAR	Alice Springs	122.54	62	PKIKP	PKPdf	20 32 35.1	-3.6
ASAR	Alice Springs	122.54	62	PKP	PKPdf	20 32 35.0	-3.6
	comp=Z,0.4nm,0.6s,baz=345,slow=1.5,SNR=9.9						
ASAR	Alice Springs	122.54	62	PKIKP	PKPdf	20 32 35.0	-3.7
VNA2	Neumayer--Watz	144.31	189	ePKPdf	PKPdf	20 33 18.0	+0.2
	baz=347,slow=7.1						
VNA2				e		20 33 22.7	
VNA3	Neumayer Olymp	144.73	190	ePKPdf	PKPdf	20 33 19.9	+1.4
VNA3				e		20 33 24.2	
SNAA	Sanae	144.89	186	PKP	PKPdf	20 33 16.8	-2.0
SNAA	Sanae	144.89	186	PKIKP	PKPdf	20 33 16.8	-2.0
SNAA	Sanae	144.89	186	PKP	PKPdf	20 33 16.8	-2.0
	comp=Z,1.3nm,0.8s,baz=80,slow=1.8,SNR=7.7						
SNAA	Sanae	144.89	186	PKIKP	PKPdf	20 33 16.8	-2.0

IDC 25 20:19:05.6±0.8, 673N×7294W, h159^{km}±12^{km}, mb3.4/2, mb1 3.5/4, mb1mx3.2/19, mbtmp3.5/4, Error ellipse: s-maj=56.3km s-min=7.5km az=131.0, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	El Rosal	2.32	217	P	Pn	20 19 46.2	+1.1
	33nm,0.3s,baz=95,slow=22,SNR=48						
ROSC				S	Sn	20 20 16.6	+1.1
	30nm,0.3s,baz=93,slow=17,SNR=12						
SDV	Santo Domingo	3.13	47	P	Pn	20 19 56.3	+1.2
	5.8nm,0.3s,baz=214,slow=1.7,SNR=45						
SDV				S	Sn	20 20 33.7	+0.4
	26nm,0.3s,baz=266,slow=22,SNR=59						
SCHQ	Schefferville	48.21	5	P	P	20 27 30.4	+0.6
	5.1nm,1.0s,baz=344,slow=8.7,SNR=4.7						
YKA	Yellowknife Ar	63.41	340	P	P	20 29 17.5	-0.4
	0.1nm,0.5s,baz=133,slow=6.9,SNR=5.1						
ASAR	Alice Springs	149.20	234	PKPbc	PKPbc	20 38 35.7	-0.5
	0.3nm,0.5s,baz=121,slow=3.6,SNR=3.9						
WRA	Warramunga Arr	150.45	241	PKPbc	PKPbc	20 38 38.9	-0.4
	0.6nm,0.9s,baz=106,slow=2.2,SNR=5.0						

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*ISCJB **25** 20:37:37.3±0.4, 39.64N±0.05×106.85E±0.04, h10^{km}, mb3.6/4, Error ellipse: s-maj=7.0km s-min=3.9km az=158.3*

*IDC **25** 20:37:38.2±1.1, 39.63N×106.73E, h0^{km}, mb3.4/4, mb1 3.6/6, mb1mx3.4/22, mbtmp3.5/6, ML3.5/2, Error ellipse: s-maj=47.0km s-min=19.1km az=70.0*

*BJI **25** 20:37:42.3, 39.85N×106.73E, h27^{km}, mb4.0, ML4.2, Ms3.9, Msz3.6*

*NEIC **25** 20:37:43.6±0.5, 39.66N×106.65E, h35^{km}, mb3.5/1, Error ellipse: s-maj=10.8km s-min=9.1km az=203.0*

ISC 25 20:37:39.5±0.4, 3961N±004×10680E±004, h10^{km}, n27, σ1^{s}56/51, mb3.6/4, Western Nei Mongol

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BTO	Baotou	2.66	67	P	Pn	20 38 25.3	+2.8
BTO				PG	Pg	20 38 30.8	+0.2
BTO				SG	Sg	20 39 04.0	-1.1
BTO				Smax			
	comp=N,379nm,0.4s						
BTO				Smax			
	comp=E,214nm,0.3s						
HHC	Hu-ho-hao-te	3.85	70	eP	Pn	20 38 41.5	+2.7
HHC				PG	Pg	20 38 51.5	-1.8
HHC				S	Sn	20 39 26.5	+2.4
HHC				SG	Sg	20 39 41.5	-1.7
HHC				Smax			
	comp=N,1µm,0.3s						
HHC				Smax			
	comp=E,2µm,0.4s						
LZH	Lanzhou	4.22	215	P	Pb	20 38 52.5	-1.4
LZH				PG	Pg	20 39 01.3	+0.9
LZH				S	Sn	20 39 40.5	+7.2
LZH				SG	Sg	20 39 53.5	-1.6
LZH				Smax			
	comp=N,540nm,0.7s						
LZH				Smax			
	comp=E,378nm,0.7s						
LZH				LR	LR		
	comp=N,940nm,5.1s						
LZH				LR	LR		
	comp=Z,711nm,4.9s						
LZH	Lanzhou	4.22	215	Pn	Pb	20 38 52.5	-1.4
LZH				Pg	Pg	20 39 01.3	+0.9
LZH				Sn	Sn	20 39 40.5	+7.2
LZH				Sg	Sg	20 39 53.5	-1.6
GTA	Gaotai	5.41	270	PG	Pg	20 39 21.8	-1.2
GTA				S	Sn	20 40 05.0	+2.6
GTA				SG	Sg	20 40 25.0	-8.0
GTA				Smax			
	comp=N,150nm,0.9s						
GTA				Smax			
	comp=E,138nm,1.0s						
XAN	Xi'an	5.81	162	P	Pn	20 39 10.0	+4.2
XAN				PG	Pg	20 39 29.5	-1.4
XAN				S	Sn	20 40 13.3	+0.8
XAN				Smax			
	comp=N,159nm,0.6s						
XAN				Smax			
	comp=E,101nm,0.7s						
BJT	Baijiatuau	7.22	84	ePn	Pn	20 39 28.6	+3.4
	comp=E,14nm,0.6s						
BJT				ePg	Pg	20 39 55.3	-2.5
BJT				eSn	Sn	20 40 49.7	+2.5
BJT				eSg	Sg	20 41 25.7	-5.7
BJI	Beijing	7.23	84	PG	Pg	20 39 54.5	-3.4
BJI				SG	Sg	20 41 20.5	-11
BJI				Smax			
	comp=N,131nm,0.7s						
BJI				Smax			
	comp=E,63nm,0.7s						
BJI	Beijing	7.23	84	Pg	Pg	20 39 54.4	-3.5
BJI				Sg	Sg	20 41 20.5	-11
SONM	Songino Array	8.23	358	Pn	Pn	20 39 40.2	+1.4
SONM				Sn	Sn	20 41 06.9	-5.0
SONM				Lg		20 41 57.6	
SONM	Songino Array	8.23	358	Pn	Pn	20 39 40.2	+1.4
	comp=E,1.5nm,0.3s,baz=177,slow=14,SNR=95						
SONM				Sn	Sn	20 41 06.9	-5.0
	comp=E,2.1nm,0.3s,baz=187,slow=27,SNR=8.0						
SONM				Lg		20 41 57.6	
	comp=E,4.0nm,0.3s,baz=186,slow=29,SNR=7.7						
CD2	Chengdu	9.03	197	eP	Pn	20 39 56.8	+6.9
CD2				S	Sn	20 41 41.5	+10
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s						
CD2				LR	LR		
	comp=N,160nm,8.4s						
CD2				LR	LR		
	comp=Z,180nm,9.6s						
NJ2	Nanjing	12.34	124	eP	Pn	20 40 40.0	+4.7
LSA	Lhasa	16.21	237	P	Pn	20 41 34.5	+7.1
LSA	Lhasa	16.21	237	ePn	Pn	20 41 29.0	+1.7
	comp=Z,3.2nm,0.8s						
LSA				eSn	Sn	20 44 26.8	-0.4
MK31	Makanchi Array	19.21	300	eP	Pn	20 42 02.9	-1.4
MKAR	Makanchi Array	19.21	300	P	Pn	20 42 02.7	-1.7
MKAR	Makanchi Array	19.21	300	P	Pn	20 42 02.7	-1.7
	comp=Z,0.1nm,0.3s,baz=96,slow=12,SNR=3.6						
TAPN	Taplejung	20.03	238	eP	P	20 42 21.5	+9.0
	comp=Z,9.8nm,0.8s						
ODAN	Odare	20.57	238	eP	P	20 42 25.8	+7.4
	comp=Z,18nm,1.1s						
ZALV	Zalesovo Beam	20.67	321	P	P	20 42 19.2	-0.1
ZALV	Zalesovo Beam	20.67	321	P	P	20 42 19.2	-0.1
	comp=Z,0.6nm,0.5s,baz=135,slow=9.2,SNR=5.1						
JIRN	Jiri	20.84	241	eP	P	20 42 25.6	+4.3
	comp=Z,4.7nm,0.5s						
KKN	Kakani	21.38	243	eP	P	20 42 28.0	+0.8
	comp=Z,5.4nm,0.6s,mb4.0						
WRA	Warramunga Arr	64.59	151	P	P	20 48 17.7	+0.7
	comp=Z,0.4nm,0.8s,mb3.5,baz=338,slow=7.1,SNR=3.7						
ASAR	Alice Springs	67.85	153	P	P	20 48 38.5	+0.6
	comp=Z,0.3nm,0.5s,mb3.6,baz=339,slow=6.6,SNR=5.2						
YKA	Yellowknife Ar	72.94	19	P	P	20 49 08.6	+0.1
	comp=Z,0.3nm,0.8s,mb3.3,baz=326,slow=5.9,SNR=4.5						

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*BJI **25** 20:47:25.4, 28.58S×176.57W, h6^{km}, mB5.9, mb5.5, Ms5.5, Msz5.3*

*ISCJB **25** 20:47:26.1±0.2, 29.38S±0.03×177.25W±0.04, h13^{km}, mb5.4/71, MS5.5/200, Error ellipse: s-maj=5.6km s-min=3.3km az=28.6*

*GCMT **25** 20:47:27.2±0.1, 29.08S×176.79W, h30^{km}, MW5.7/88, Moment Tensor Solution. s88,c187; s85,c228; Duration: 1^{s}7 Moment tensor: Scale 10^{17}Nm; M_{rr}3.03±.04; $M_{\theta\theta}$-0.13±.04; $M_{\phi\phi}$-2.90±.04; $M_{r\theta}$0.79±.07; $M_{\theta\phi}$-0.86±.03; $M_{\phi r}$2.80±.08; Best double couple: $M_0$4.24200×10^{17} NP1:ϕ_s196.00000°, δ23.00000°, λ90.00000°. NP2:ϕ_s16.00000°, δ67.00000°, λ90.00000°. Principal axes: T 4.1850, Plg68.0000°, Azm286.0000°; N 0.1160, Plg0.0000°, Azm16.0000°; P -4.2980, Plg22.0000°, Azm106.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*NEIC **25** 20:47:27.2±0.2, 29.13S×177.13W, h10^{km}, mb5.5/40, MS5.5/156 Error ellipse: s-maj=8.6km s-min=5.6km az=147.0*

*MOS **25** 20:47:31.4±1.2, 28.56S×177.41W, h33^{km}, mb5.7/34, MS5.3/33, Error ellipse: s-maj=11.1km s-min=9.3km az=98.9*

*IDC **25** 20:47:32.1±1.8, 28.93S×177.20W, h39^{km}±14^{km}, mb5.1/20, mb1 5.1/20, mb1mx5.1/21, mbtmp5.1/20, MS5.2/27, Ms1 5.2/27, ms1mx5.1/30, Error ellipse: s-maj=17.4km s-min=11.8km az=164.0*

*BGS **25** 20:47:47.9, 29.13S×177.13W, h10^{km}, mb5.5(NEIC)*

ISC 25 20:47:28.0±0.2, 2931S±003×17723W±004, h15^{km}, h15^{km}±1.3^{km}:pP-P, n767, σ1^{s}21/228, mb5.4/71, MS5.5/200, 57C-31D, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	0.61	275	Pn	Sg	20 47 45.6	-2.3
RAO	Raoul Island	0.61	275	Pn	Sg	20 47 45.6	-2.3
	10µm,0.3s,baz=265,slow=0.8,SNR=170						
MXZ	Matakaoa Point	9.04	203	SN	Sn	20 51 20.6	+1.2
PUZ	Puketiti	9.51	202	PN	Pn	20 49 42.7	-1.7
PUZ				SN	Sn	20 51 28.5	-2.6
WCZ	Waipu Caves	9.70	225	PN	Pn	20 49 55.1	+8.1
OUZ	Omahuta	9.75	230	PN	Pn	20 49 56.0	+8.4
MWZ	Matawai	10.00	204	PN	Pn	20 49 52.3	+1.2
MWZ				SN	Sn	20 51 43.5	+0.5
URZ	Urewera	10.09	206	Pn	Pn	20 49 51.7	-0.6
URZ				Sn	Sn	20 51 45.7	+0.4
URZ	Urewera	10.09	206	Pn	Pn	20 49 51.7	-0.6
	1.8nm,0.3s,baz=250,slow=2.9,SNR=37						
URZ				Sn	Sn	20 51 45.7	+0.4
	22nm,0.3s,baz=219,slow=11,SNR=9.3						
URZ	Urewera	10.09	206	PN	Pn	20 49 50.1	-2.2
URZ				SN	Sn	20 51 42.8	-2.4
KNZ	Kokohu	10.56	202	SN	Sn	20 51 55.0	-1.9
BKZ	Black Stump Fm	11.12	206	PN	Pn	20 50 04.9	-1.4
BKZ				SN	Sn	20 52 10.1	-0.3
PXZ	Pawanui	11.75	203	SN	Sn	20 52 17.9	-7.9
MRZ	Mangatainoka R	12.76	206	PN	Pn	20 50 25.5	-3.4
MRZ				SN	Sn	20 52 41.6	-9.1
SNZO	South Karori	13.66	207	P	Pn	20 50 41.0	-0.1
	76nm,0.7s						
NNZ	Nelson	14.13	210	PN	Pn	20 50 47.2	-0.4
NNZ				SN	Sn	20 53 15.9	-8.1
THZ	Tophouse	14.78	210	PN	Pn	20 50 52.7	-3.7
THZ				SN	Sn	20 53 29.9	-10
DSZ	Denniston Nort	15.27	213	PN	Pn	20 51 01.1	-1.9
DSZ				SN	Sn	20 53 43.6	-8.2
LTZ	Lake Taylor	15.88	209	PN	Pn	20 51 10.9	0.0
AFI	Afiamalu	16.14	19	ePn	Pn	20 51 03.9	-10
AFI				eSn	Sn	20 53 46.8	-26
AFI	Afiamalu	16.14	19	P	Pn	20 51 04.2	-10
AFI						20 53 50.2	
AFI				pmax	pmax		
	comp=Z,6.0nm,0.3s						
AFI				smax			
	comp=N,6.0nm,0.3s						
AFI	Afiamalu	16.14	19	Pn	Pn	20 51 04.2	-10
	comp=N,6.4nm,0.3s,baz=222,slow=1.9,SNR=7.8						
AFI				Sn	Sn	20 53 50.2	-23
	comp=N,6.1nm,0.3s,baz=318,slow=19,SNR=4.6						
DZM	Mont Dzumac	16.38	292	eP	Pn	20 51 23.3	+5.9
DZM	Mont Dzumac	16.38	292	Pn	Pn	20 51 24.4	+7.0
	comp=N,2.7nm,0.3s,baz=106,slow=12,SNR=31						
DZM				LR	LR	20 56 30.8	
	comp=N,22µm,19.5s,baz=107,slow=33						
NOUC	Port Laguerre	16.48	292	eP	Pn	20 51 26.2	+7.5
MQZ	McQueen's Vall	16.49	207	SN	Sn	20 54 07.1	-14
WVZ	Waitaha Valley	16.80	212	PN	Pn	20 51 22.6	0.0
RPZ	Rata Peaks	17.16	210	P	Pn	20 51 27.6	+0.5
	comp=N,14nm,0.3s,baz=268,slow=1.9,SNR=39						
RPZ				S	Sn	20 54 26.5	-11
	comp=N,4.2nm,0.3s,baz=250,slow=23,SNR=7.0						
FOZ	Fox Glacier	17.66	213	PN	Pn	20 51 29.9	-3.5
RAR	Rarotonga	17.71	67	P	Pn	20 51 27.3	-6.9
	comp=N,5.8nm,0.3s,baz=295,slow=6.9,SNR=12						
RAR				S	Sn	20 54 24.7	-27
	comp=N,3.3nm,0.3s,baz=60,slow=19,SNR=3.9						
RAR				LR	LR	20 56 23.0	
	comp=N,10µm,21.9s,baz=251,slow=30						
LBZ	Lake Benmore	18.08	210	P*	Pn	20 51 37.4	-1.1
ODZ	Otahua Downs	18.41	208	P*	Pn	20 51 41.1	-1.5
JCZ	Jackson Bay	18.49	213	P*	Pn	20 51 41.1	-2.5
ARMA	Armidale	26.99	260	eP	P	20 53 14.3	+5.0
PPT	Papeete	27.86	71	eLQ		20 58 39.0	
	comp=N,10µm,25.2s						
PPT				eLR	LR	21 00 13.8	

	comp=N,16µm,25.8s,baz=240						
PPT	**Papeete**	**27.86**	**71**	LR	LR	21 01 26.4	
	comp=N,4µm,20.9s,MS5.0,baz=245,slow=30						
EIDS	**Eidsvold**	**28.38**	**270**	*e*P	**P**	**20 53 23.9**	**+2.1**
CNB	**Canberra Magne**	**28.78**	**249**	*e*P	**P**	**20 53 29.3**	**+4.1**
	comp=N,111nm,1.0s,mb5.5						
CNB				*e*		20 56 36.5	
HNR	**Honiara**	**29.13**	**308**	*e*P	**P**	**20 53 26.5**	**-1.9**
	comp=N,205nm,1.0s,mb5.8						
HNR				LR	LR		
	comp=Z,3µm,21.0s,MS4.9						
HNR	**Honiara**	**29.13**	**308**	*e*P	**P**	**20 53 26.5**	**-2.0**
HNR				pmax	pmax		
	comp=Z,205nm,1.0s,mb5.8						
HNR				MLR	MLR		
	comp=Z,3µm,21.0s,MS4.9						
HNR	**Honiara**	**29.13**	**308**	P	**P**	**20 53 27.7**	**-0.7**
	comp=Z,60nm,0.5s,mb5.6,baz=256,slow=4.2,SNR=4.4						
HNR				LR	LR	21 03 21.6	
	comp=Z,3µm,19.1s,MS5.0,baz=179,slow=33						
MCQ	**Macquarie Isla**	**30.50**	**208**	P	**P**	**20 53 41.6**	**+1.4**
TAU	**Tasmania Unive**	**31.45**	**235**	*e*P	**P**	**20 53 51.4**	**+2.6**
	comp=Z,174nm,1.0s,mb5.8						
TAU				LR	LR		
	comp=Z,8µm,22.0s,MS5.4						
TAU	**Tasmania Unive**	**31.45**	**235**	*e*P	**P**	**20 53 51.4**	**+2.6**
TAU				pmax	pmax		
	comp=Z,174nm,1.0s,mb5.8						
TAU				MLR	MLR		
	comp=Z,8µm,22.0s,MS5.4						
TOO	**Toolangi**	**32.02**	**245**	*e*P	**P**	**20 53 57.3**	**+3.5**
	comp=Z,28nm,0.7s,mb5.2						
TOO				*e*		20 56 44.9	
TOO	**Toolangi**	**32.02**	**245**	*e*P	**P**	**20 53 57.3**	**+3.5**
TOO				*e*		20 56 44.9	
TOO				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.2						
CTA	**Charters Tower**	**34.31**	**277**	*e*P	**P**	**20 54 16.3**	**+2.3**
	comp=Z,64nm,0.9s,mb5.5						
CTA				*e*S	**S**	**20 59 49.0**	**+8.0**
CTA	**Charters Tower**	**34.31**	**277**	P	**P**	**20 54 15.4**	**+1.4**
CTA				pmax	pmax		
	comp=Z,84nm,0.8s						
CTA				MLR	MLR		
	comp=Z,14µm,18.9s						
CTA	**Charters Tower**	**34.31**	**277**	P	**P**	**20 54 15.4**	**+1.4**
	comp=Z,84nm,0.8s,mb5.7,baz=103,slow=10,SNR=40						
CTA				LR	LR	21 06 59.2	
	comp=Z,14µm,18.9s,MS5.7,baz=114,slow=34						
CTAO	**Charters Tower**	**34.31**	**277**	*e*P	**P**	**20 54 15.8**	**+1.8**
	comp=Z,98nm,0.9s,mb5.7						
CTAO				LR	LR		
	comp=Z,13µm,19.0s,MS5.7						
CTAO	**Charters Tower**	**34.31**	**277**	*e*P	**P**	**20 54 15.8**	**+1.8**
CTAO				pmax	pmax		
	comp=Z,98nm,0.9s,mb5.7						
CTAO				MLR	MLR		
	comp=Z,13µm,19.0s,MS5.7						
STKA	**Stephens Creek**	**35.39**	**255**	*e*P	**P**	**20 54 25.2**	**+2.0**
	comp=Z,64nm,0.8s,mb5.6						
STKA	**Stephens Creek**	**35.39**	**255**⇓	*e*P	**P**	**20 54 26.9**	**+3.7**
STKA				*e*PP	PP	20 55 53.6	+10
STKA				S	**S**	**21 00 03.2**	**+5.7**
STKA				*e*ScP	ScP	21 00 44.1	+5.6
STKA	**Stephens Creek**	**35.39**	**255**	P	**P**	**20 54 24.9**	**+1.7**
	comp=Z,82nm,0.8s,mb5.7,baz=92,slow=9.2,SNR=60						
STKA				LR	LR	21 08 13.3	
	comp=Z,11µm,18.0s,MS5.7,baz=88,slow=35						
RKT	**Rikitea**	**38.25**	**91**	*e*S	**S**	**21 00 45.1**	**+3.9**
	comp=Z,2µm,30.5s						
RKT				*e*LR	LR	21 05 07.5	
	comp=Z,9µm,27.2s,baz=257						
PMG	**Port Moresby**	**38.77**	**293**	P	**P**	**20 54 52.4**	**+0.3**
PMG				LR	LR	21 08 12.3	
PMG	**Port Moresby**	**38.77**	**293**⇑	*e*P	**P**	**20 54 51.5**	**-0.6**
PMG	**Port Moresby**	**38.77**	**293**	P	**P**	**20 54 52.4**	**+0.3**
	comp=Z,10nm,0.8s,mb4.6,baz=97,slow=8.1,SNR=3.4						
PMG				LR	LR	21 08 12.3	
	comp=Z,6µm,19.9s,MS5.4,baz=130,slow=32						
TAOE	**Nuku Hiva Isla**	**40.26**	**67**	*e*S	**S**	**21 01 12.6**	**+1.0**
	comp=Z,3µm,25.5s						
TAOE				*e*LR	LR	21 05 54.4	
	comp=Z,21µm,25.8s,baz=242						
PTCN	**Pitcairn Islan**	**41.92**	**96**	PFAKE		20 55 30.0	+12
PTCN				LR	LR		
	comp=Z,5µm,21.0s,MS5.4						
ASAR	**Alice Springs**	**43.85**	**265**	P	**P**	**20 55 34.1**	**+0.3**
	comp=Z,86nm,0.9s,mb5.5,baz=112,slow=7.6,SNR=173						
ASAR				S	**S**	**21 02 05.8**	**+1.3**
	comp=Z,1.6nm,1.0s,baz=103,slow=16,SNR=2.7						
WB2	**Warramunga Arr**	**44.73**	**271**	*e*P	**P**	**20 55 40.8**	**-0.1**
WB2				*e*S	**S**	**21 02 14.2**	**-3.2**
WRA	**Warramunga Arr**	**44.74**	**271**	P	**P**	**20 55 41.0**	**0.0**
WRA						20 57 24.6	
WRA				S	**S**	**21 02 16.5**	**-1.0**
WRA	**Warramunga Arr**	**44.74**	**271**	P	**P**	**20 55 41.0**	**0.0**
	comp=Z,90nm,1.0s,mb5.6,baz=108,slow=7.9,SNR=161						
WRA				PcP	PcP	20 57 24.6	+1.4
	comp=Z,18nm,1.0s,baz=106,slow=4.2,SNR=5.6						
WRA				S	**S**	**21 02 16.5**	**-1.1**
	comp=Z,4.3nm,0.8s,baz=107,slow=14,SNR=5.0						
WRA				LR	LR	21 13 50.8	
	comp=Z,4µm,18.0s,MS5.4,baz=90,slow=35						
DRV	**Dumont d'Urvil**	**45.40**	**202**	PP	Px	20 57 42.0	
DRV				S	sS	21 02 47.0	+13
DRV				SS	SS	21 05 58.0	+8.6
DRV				R		21 09 00.0	
FORT	**Forrest**	**46.98**	**254**	*e*P	**P**	**20 55 58.9**	**+0.3**
	comp=Z,80nm,0.8s,mb5.7						
SBA	**Scott Base**	**49.17**	**184**	*e*P	**P**	**20 56 26.5**	**+12**
SBA				*e*PP	PP	20 58 07.2	-1.2
SBA				*e*ScP	ScP	21 01 36.0	+3.4
SBA				*e*S	**S**	**21 03 22.0**	**+2.6**
VNDA	**Vanda**	**49.24**	**186**	*e*P	**P**	**20 56 15.2**	**-0.2**
	comp=Z,21nm,0.9s,mb5.2						
VNDA				*e*PcP	PcP	20 57 40.6	+2.5
VNDA				LR	LR	21 14 20.9	
VNDA	**Vanda**	**49.24**	**186**	P	**P**	**20 56 19.4**	**+4.0**
VNDA				pmax	pmax		
	comp=Z,19nm,1.1s						
VNDA				MLR	MLR		
	comp=Z,1µm,19.1s						
VNDA	**Vanda**	**49.24**	**186**	P	**P**	**20 56 19.4**	**+4.0**
	comp=Z,19nm,1.1s,mb5.0,baz=359,slow=7.2,SNR=3.2						
VNDA				LR	LR	21 14 20.9	
	comp=Z,1µm,19.1s,MS4.9,baz=36,slow=32						
KAKA	**Kakadu**	**49.42**	**279**	*e*P	**P**	**20 56 17.2**	**-0.4**
	comp=Z,72nm,1.4s,mb5.5						
FITZ	**Fitzroy Crossi**	**53.04**	**269**	*e*P	**P**	**20 56 45.4**	**+0.6**
	comp=Z,101nm,1.0s,mb5.7						
FITZ				*e*S	**S**	**21 04 24.5**	**+10**
FITZ	**Fitzroy Crossi**	**53.04**	**269**	P	**P**	**20 56 45.1**	**+0.4**
	comp=Z,53nm,0.9s,mb5.5,baz=130,slow=6.6,SNR=52						
FITZ				LR	LR	21 18 50.9	
	comp=Z,3µm,18.8s,MS5.4,baz=278,slow=35						
POHA	**Pohakuloa**	**53.08**	**26**	P	**P**	**20 56 41.8**	**-3.0**
POHA				*e*PcP	PcP	20 58 00.1	+6.9
POHA				*e*S	**S**	**21 04 20.7**	**+6.1**
POHA				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
KIP	**Kipapa**	**53.73**	**22**	*e*P	**P**	**20 56 47.2**	**-2.3**
	comp=Z,196nm,1.1s,mb6.0						
KIP				*e*ScP	ScP	21 01 44.3	-8.7
KIP				*e*S	**S**	**21 04 33.9**	**+11**
KIP	**Kipapa**	**53.73**	**22**	*e*P	**P**	**20 56 48.3**	**-1.3**
KLBR	**Kellerberrin**	**55.34**	**250**	*e*P	**P**	**20 57 01.5**	**+0.1**
	comp=Z,143nm,1.0s,mb6.0						
NWAO	**Narrogin (SRO)**	**55.41**	**248**	P	**P**	**20 57 01.5**	**-0.4**
	comp=Z,25nm,1.0s,mb5.2,baz=131,slow=8.9,SNR=4.9						
GUMO	**Guam**	**56.19**	**314**	*e*P	**P**	**20 57 07.6**	**+0.1**
	comp=Z,148nm,0.8s,mb6.1						
GUMO				*e*PcP	PcP	20 58 05.3	+0.1
GUMO				*e*PP	PP	20 59 11.7	-1.3
GUMO				*e*S	**S**	**21 05 12.7**	**+16**
GUMO				LR	LR		
	comp=Z,3µm,21.0s,MS5.4						
GUMO	**Guam**	**56.19**	**314**	*e*P	**P**	**20 57 07.6**	**+0.1**
GUMO				*e*		20 58 05.3	
GUMO				*e*		20 59 11.7	
GUMO				*e*S	**S**	**21 05 12.7**	**+16**
GUMO				pmax	pmax		
	comp=Z,148nm,0.8s,mb6.1						
GUMO				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.4						
GUMO	**Guam**	**56.19**	**314**	P	**P**	**20 57 06.6**	**-0.9**
	comp=Z,134nm,0.8s,mb6.0,baz=181,slow=11,SNR=6.0						
GUMO				LR	LR	21 17 28.6	
	comp=Z,2µm,22.0s,MS5.1,baz=148,slow=32						
CASY	**Casey**	**56.41**	**208**	*e*P	**P**	**20 57 09.3**	**+0.8**
MUN	**Mundaring**	**56.50**	**249**	*e*P	**P**	**20 57 10.1**	**+0.4**
MUN				*e*S	**S**	**21 05 18.7**	**+18**
MBWA	**Marble Bar**	**57.02**	**263**	*e*P	**P**	**20 57 12.9**	**-0.6**
	comp=Z,149nm,1.2s,mb5.9						
MBWA				*e*PP	PP	20 59 22.6	+2.4
MBWA				*e*ScP	ScP	21 02 22.9	+15
MBWA				*e*S	**S**	**21 05 25.7**	**+18**
MBWA				LR	LR		
	comp=Z,8µm,20.0s,MS5.8						
RPN	**Rapa Nui**	**59.08**	**106**	PFAKE		20 57 40.0	+12
RPN				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
QSPA	**South Pole Qui**	**60.80**	**180**	*e*P	**P**	**20 57 41.6**	**+2.8**
	comp=Z,95nm,0.8s,mb6.0						
QSPA				*e*ScP	ScP	21 02 34.1	+11
QSPA				*e*S	**S**	**21 05 59.9**	**+4.8**
QSPA				LR	LR		
	comp=Z,4µm,20.0s,MS5.5						
DAV	**Davao City (W)**	**65.79**	**294**	PFAKE		20 58 30.0	+17
DAV				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
CBIJ	**Chichi jima**	**68.24**	**321**	LR	LR	21 25 06.9	
	comp=Z,1µm,19.9s,MS5.1,baz=112,slow=33						
PMSA	**Palmer Station**	**72.98**	**156**	P	**P**	**20 58 59.3**	**+2.8**
PMSA				*e*S	S	21 08 25.2	+2.6
PMSA				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
PMSA	**Palmer Station**	**72.98**	**156**	LR	LR	21 23 49.6	
	comp=Z,1µm,21.5s,MS5.2,baz=61,slow=30						
MAW	**Mawson**	**73.56**	**200**	*e*P	**P**	**20 59 02.3**	**+2.3**
	comp=Z,50nm,1.0s,mb5.4						
MAW				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
MAW	**Mawson**	**73.56**	**200**	*e*P	**P**	**20 59 02.3**	**+2.3**
MAW				pmax	pmax		
	comp=Z,50nm,1.0s						
MAW				MLR	MLR		
	comp=Z,3µm,20.0s						
MAW	**Mawson**	**73.56**	**200**	P	**P**	**20 59 02.8**	**+2.8**
	comp=Z,76nm,1.1s,mb5.5,baz=117,slow=6.5,SNR=23						
MAW				LR	LR	21 30 58.0	
	comp=Z,2µm,19.3s,MS5.5,baz=117,slow=35						
JHJ	**Hachijo jima 2**	**74.26**	**324**	LR	LR	21 24 58.5	
	comp=Z,1µm,21.7s,MS5.2,baz=122,slow=30						
KSM	**Kuching**	**75.48**	**280**	*e*P	**P**	**20 59 12.5**	**+0.4**
KSM				*e*PcP	PcP	20 59 23.0	-2.1
KSM				*e*PP	PP	21 02 02.1	+0.8
KSM				*e*S	ScS	21 09 29.6	+4.2
JOW	**Kunigami**	**76.43**	**312**	P	**P**	**20 59 17.2**	**+0.1**
	comp=Z,47nm,0.9s,mb5.4,baz=118,slow=8.4,SNR=7.9						
JOW				LR	LR	21 27 44.8	
	comp=Z,1µm,21.6s,MS5.2,baz=328,slow=32						
USHA	**Ushuaia**	**76.44**	**146**	LR	LR	21 25 34.3	
	comp=Z,1µm,20.5s,MS5.3,baz=222,slow=30						
MJAR	**Matsushiro Arr**	**77.73**	**325**	P	**P**	**20 59 22.3**	**-1.9**
	comp=Z,27nm,1.0s,mb5.1,baz=160,slow=5.6,SNR=36						
MJAR				LR	LR	21 29 46.0	
	comp=Z,775nm,21.3s,MS5.0,baz=140,slow=33						
MAJO	**Matsushiro**	**77.74**	**325**	*e*P	**P**	**20 59 23.6**	**-0.6**
	comp=Z,33nm,0.8s,mb5.3						
MAJO				*e*PcP	PcP	20 59 33.7	-0.5
MAJO				*e*PP	PP	21 02 20.5	+0.5
MAJO				*e*S	S	21 09 21.0	+5.0
MAJO				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
MAJO	**Matsushiro**	**77.74**	**325**	*e*P	**P**	**20 59 23.6**	**-0.6**
MAJO				*e*		20 59 33.7	
MAJO				*e*		21 02 20.5	
MAJO				*e*S	S	21 09 21.0	+5.0
MAJO				pmax	pmax		
	comp=Z,33nm,0.8s,mb5.3						
MAJO				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
MAT	**Matsushiro**	**77.74**	**325**	P	**P**	**20 59 23.3**	**-0.9**
MAT				*e*S	S	21 09 31.2	+15
SYO	**Syowa Base**	**78.33**	**193**⇓	*i*P	**P**	**20 59 28.6**	**+1.5**
SYO	**Syowa Base**	**78.33**	**193**⇓	*i*P	**P**	**20 59 35.6**	**+8.5**
JNU	**Nakatsue**	**79.20**	**318**	P	**P**	**20 59 32.1**	**-0.2**
	comp=Z,15nm,0.7s,mb5.0,baz=61,slow=7.5,SNR=8.6						
JNU				LR	LR	21 32 55.7	
	comp=Z,605nm,19.2s,MS5.0,baz=121,slow=34						
SNAA	**Sanae**	**79.22**	**178**⇑	*e*P	**P**	**20 59 31.0**	**-1.0**
SNAA	**Sanae**	**79.22**	**178**	LR	LR	21 32 14.1	
	comp=Z,580nm,19.3s,MS4.9,baz=33,slow=34						
VNA3	**Neumayer Olymp**	**79.34**	**176**	*e*P	**P**	**20 59 34.3**	**+1.6**
VNA3				*e*	pP	20 59 37.4	-0.2
VNA3				*e*	pP	20 59 40.7	+3.1
VNA3				*e*		20 59 44.1	
VNA3				*e*		20 59 55.4	
VNA2	**Neumayer--Watz**	**79.79**	**177**	*e*P	**P**	**20 59 36.5**	**+1.4**
VNA2				*e*	pP	20 59 39.5	-0.5
VNA2				*e*	pP	20 59 42.0	+2.0
VNA2				*e*		20 59 46.7	
VNA2				*e*		20 59 59.2	
ERM	**Erimo**	**79.83**	**331**	PFAKE		20 59 50.0	+14
ERM				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
TATO	**Taipei**	**79.84**	**306**	P	**P**	**20 59 36.0**	**-0.1**
TATO				*e*PcP	PcP	20 59 43.9	+0.2
TATO				*e*S	S	21 09 47.5	+8.6
TATO				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
MAIT	**Maitri**	**80.00**	**183**	*e*P	**P**	**20 59 35.9**	**-0.3**
NVL	**N'lazarevskaya**	**80.00**	**183***d*	*i*P	**P**	**20 59 37.7**	**+1.5**
NVL				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.2						
NVL				pmax	pmax		
	comp=N,9.0nm,0.6s						
NVL				pmax	pmax		
	comp=E,2.0nm,0.6s						
NVL				MLR	MLR		
	comp=Z,741nm,11.0s,MS5.3						
NVL				MLR	MLR		
	comp=N,105nm,5.0s						
NVL				MLR	MLR		
	comp=E,334nm,11.0s						
VNA1	**Neumayer--Stat**	**80.01**	**176**	*e*P	**P**	**20 59 38.7**	**+2.4**
VNA1				*e*		20 59 40.7	
VNA1				*e*	pP	20 59 43.9	+2.7
VNA1				*e*		20 59 48.3	
VNA1				*e*		21 00 00.7	
COCO	**West Island**	**80.64**	**261**	P	**P**	**20 59 41.2**	**+0.5**
COCO				S	S	21 09 45.1	-2.8
COCO				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
ASAJ	**Asahikawa**	**81.79**	**332**	P	**P**	**20 59 45.6**	**-0.4**
ASAJ				pmax	pmax		
	comp=Z,78nm,0.9s						
ASAJ	**Asahikawa**	**81.79**	**332**	P	**P**	**20 59 45.5**	**-0.4**
	comp=Z,78nm,0.9s,mb5.6,baz=223,slow=9.0,SNR=32						
QZH	**Quanzhou**	**81.89**	**304**	*e*P	**P**	**20 59 47.0**	**0.0**
QZH				LR	LR		
	comp=Z,2µm,18.0s,MS5.5						
SMY	**Shemya**	**82.04**	**355**	PFAKE		21 00 00.0	+13
SMY				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
UNV	**Unalaska Valle**	**83.33**	**6**	*e*P	**P**	**20 59 52.5**	**-1.3**
	comp=Z,153nm,1.2s,mb5.9						
UNV				*e*PP	PP	21 03 05.0	-1.1
UNV				*e*S	S	21 10 15.9	+2.2
UNV				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
EFI	**East Falkland**	**83.34**	**147**	*e*P	**P**	**20 59 56.3**	**+2.1**
	comp=Z,32nm,0.8s,mb5.4						
EFI				*e*PP	PP	21 03 13.3	+7.9
EFI				*e*S	S	21 10 17.2	+2.7
EFI				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
EFI	**East Falkland**	**83.34**	**147**	*e*P	**P**	**20 59 56.3**	**+2.1**
EFI				*e*		21 03 13.3	
EFI				*e*S	S	21 10 17.2	+2.7
EFI				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.4						
EFI				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.4						
LPIG	**La Paz**	**83.39**	**58**	LR	LR	21 29 06.3	
	comp=Z,529nm,21.2s,MS4.9,baz=221,slow=30						
SSE	**Sheshan**	**83.90**	**311**	P	**P**	**20 59 58.0**	**+0.7**
SSE				XP	sP	21 00 02.5	-1.5
SSE				S	S	21 10 22.8	+2.2
SSE				XS	sS	21 10 28.3	-0.4
SSE				SS	SS	21 15 52.8	+3.6
SSE				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.9						
SSE				AMB	AMB		
	comp=Z,424nm,12.0s						
SSE				LR	LR		
	comp=N,631nm,19.3s,MS5.2						
SSE				LR	LR		
	comp=E,732nm,19.3s,MS5.2						
SSE				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
SSE	**Sheshan**	**83.90**	**311**	P	**P**	**20 59 58.0**	**+0.7**
	comp=Z,13nm,1.2s,mb4.9						
SSE				sP	sP	21 00 02.6	-1.4
SSE				S	S	21 10 22.8	+2.2
SSE				sS	sS	21 10 28.3	-0.4
SSE				ScS	ScS	21 10 34.1	+0.9
SSE				SS	SS	21 15 52.7	+3.5
SSE				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
KSRS	**Korea Array**	**83.96**	**319**	P	**P**	**20 59 57.5**	**0.0**
	comp=Z,16nm,0.9s,mb5.1,baz=139,slow=5.8,SNR=34						
KSRS				LR	LR	21 36 00.2	
	comp=Z,962nm,19.1s,MS5.2,baz=136,slow=35						
SAO	**San Andreas Ge**	**84.02**	**42**	PFAKE		21 00 10.0	+12
SAO				LR	LR		
	comp=Z,4µm,19.0s,MS5.8						
YSS	**Yuzh-Sakhalins**	**84.06**	**334**⇑	*e*P	**P**	**20 59 58.5**	**+0.8**
YSS	**Yuzh-Sakhalins**	**84.06**	**334**⇑	*e*P	**P**	**20 59 56.4**	**-1.3**
YSS				*e*S	S	21 10 17.0	-4.5
YSS				pmax	pmax		
	comp=Z,190nm,1.0s,mb6.2						
YSS				MLR	MLR		
	comp=N,1µm,19.0s,MS5.4						
YSS				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
YSS				MLR	MLR		
	comp=E,900nm,18.0s,MS5.4						
MCCM	**Marconi Confer**	**84.16**	**40**	PFAKE		21 00 10.0	+12
MCCM				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
PET	**Petropavlovsk**	**84.64**	**346**	*e*P	**P**	**20 59 59.2**	**-1.3**
PET				*e*S	S	21 10 17.6	-9.4
PET				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
PET	**Petropavlovsk**	**84.64**	**346**⇑	*e*P	**P**	**20 59 59.3**	**-1.2**
PET				pmax	pmax		
	comp=Z,48nm,1.4s,mb5.4						
PET				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.2						
HOPS	**Hopland**	**84.64**	**39**	PFAKE		21 00 10.0	+9.1
HOPS				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
INCN	**Inchon**	**84.72**	**318**	PFAKE		21 00 10.0	+8.7
INCN				LR	LR		
	comp=Z,774nm,20.0s,MS5.1						
PFO	**Pinyon Flat Ob**	**84.97**	**47**	P	**P**	**21 00 02.3**	**-0.4**
PFO				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.6						
PFO	**Pinyon Flat Ob**	**84.97**	**47**	P	**P**	**21 00 02.3**	**-0.4**
	comp=Z,6.4nm,1.1s,mb4.7,baz=252,slow=2.6,SNR=4.2						
QIZ	**Qiongzhong**	**85.14**	**295**	P	**P**	**21 00 04.8**	**+1.0**
QIZ				AP	pP	21 00 08.8	0.0
QIZ				PP	PP	21 03 21.5	0.0
QIZ				S	S	21 10 34.8	+1.4
QIZ				XS	sS	21 10 44.0	+2.4
QIZ				SS	SS	21 16 08.0	+0.3
QIZ				AMB	AMB		
	comp=Z,18nm,1.0s,mb5.2						
QIZ				LR	LR		
	comp=N,285nm,19.2s,MS4.9						
QIZ				LR	LR		
	comp=E,415nm,17.4s,MS4.9						
QIZ				LR	LR		
	comp=Z,583nm,22.9s						
QIZ	**Qiongzhong**	**85.14**	**295**	PFAKE		21 00 20.0	+16
QIZ				LR	LR		
	comp=Z,641nm,21.0s,MS5.0						
CMB	**Columbia Colle**	**85.50**	**42**	*e*P	**P**	**21 00 04.6**	**-0.6**
	comp=Z,39nm,1.3s,mb5.5						
CMB				PP	PP	21 03 26.6	+2.4
CMB				*e*S	S	21 10 43.4	+7.2
CMB				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
CMB	**Columbia Colle**	**85.50**	**42**	*e*P	**P**	**21 00 04.6**	**-0.6**
CMB						21 03 26.6	
CMB				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.5						
CMB				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.7						
KULM	**Kulim**	**85.72**	**278**	*e*P	**P**	**21 00 06.6**	**-0.4**
KULM				*e*PP	PP	21 03 22.5	-3.7
KULM				*e*S		21 11 44.7	
VLA	**Vladivostok**	**85.88**	**325**	*e*P	**P**	**21 00 05.0**	**-2.0**
VLA				MLR	MLR		
	comp=Z,1µm,21.2s,MS5.2						
DAC	**Darwin (Calif)**	**85.99**	**44**	PFAKE		21 00 20.0	+12
DAC				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
PSI	**Prapat**	**86.00**	**275**	P	**P**	**21 00 07.9**	**-0.4**
	comp=Z,22nm,0.9s,mb5.4,baz=194,slow=5.4,SNR=18						
PSI				LR	LR	21 36 51.8	
	comp=Z,828nm,21.1s,MS5.1,baz=134,slow=34						
WDC	**Whiskeytown Da**	**86.05**	**39**	PFAKE		21 00 20.0	+12
WDC				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
NJ2	**Nanjing**	**86.05**	**310**	*e*P	**P**	**21 00 09.0**	**+0.9**
NJ2				AP	pP	21 00 14.0	+1.0
NJ2				XP	sP	21 00 17.3	+2.5
NJ2				PP	PP	21 03 30.5	+1.8
NJ2				SKS		21 10 31.0	
NJ2				S	S	21 10 41.0	-0.9
NJ2				XS	sS	21 10 50.0	0.0
NJ2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,610nm,6.5s						
NJ2				LR	LR		
	comp=N,2µm,24.3s,MS5.5						
NJ2				LR	LR		
	comp=E,2µm,21.3s,MS5.5						
NJ2				LR	LR		
	comp=Z,2µm,21.2s,MS5.4						
YBH	**Yreka Blue Hor**	**86.76**	**38**	PFAKE		21 00 20.0	+8.7
YBH				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
NVAR	**Mina Array Bea**	**86.98**	**42**	P	**P**	**21 00 12.6**	**0.0**
	comp=Z,8.5nm,1.0s,mb4.9						
TPNV	**Topopah Spring**	**87.25**	**45**	*e*P	**P**	**21 00 14.7**	**+0.8**
	comp=Z,18nm,0.8s,mb5.3						
TPNV				*e*S	S	21 10 15.1	-38
TPNV				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
TPNV	**Topopah Spring**	**87.25**	**45**	P	**P**	**21 00 14.8**	**+1.0**
TPNV				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.3						
TPH	**Tonopah**	**87.39**	**43**	*e*P	**P**	**21 00 14.3**	**-0.2**
	comp=Z,7.2nm,0.9s,mb4.9						
TPH				*e*S	S	21 11 03.2	+8.6
TPH				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
TPH	**Tonopah**	**87.39**	**43**	P	**P**	**21 00 15.3**	**+0.8**
TPH				*e*		21 00 25.6	
TPH				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.2						
TUC	**Tucson**	**87.91**	**51**	*e*P	**P**	**21 00 17.7**	**+0.6**
	comp=Z,18nm,1.0s,mb5.3						
TUC				*e*S	S	21 11 11.5	+12
TUC				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
TUC	**Tucson**	**87.91**	**51**	P	**P**	**21 00 17.9**	**+0.8**
TUC				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.3						
MDJ	**Mudanjiang**	**88.11**	**325**	P	**P**	**21 00 18.5**	**+0.7**
MDJ				AP	pP	21 00 22.0	-0.7
MDJ				XP	sP	21 00 23.3	-1.2
MDJ				PP	PP	21 03 43.5	-1.6
MDJ				S	S	21 10 54.8	-6.4
MDJ				AMB	AMB		
	comp=Z,68nm,0.9s,mb5.9						
MDJ				AMB	AMB		
	comp=Z,552nm,5.3s						
MDJ				LR	LR		
	comp=N,944nm,17.7s,MS5.2						
MDJ				LR	LR		
	comp=E,332nm,21.8s,MS5.2						

MDJ				LR	LR		
	comp=Z,1µm,18.6s,MS5.4						
MDJ	**Mudanjiang**	**88.11**	**325**	*e*P	**P**	**21 00 18.1**	**+0.3**
	comp=Z,79nm,1.1s,mb5.9						
MDJ				*e*S	S	21 11 17.1	+16
MDJ				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
MOD	**Modoc**	**88.18**	**39**	PFAKE		21 00 30.0	+12
MOD				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
WHN	**Wuhan**	**88.23**	**307**	⇓P	**P**	**21 00 19.0**	**+0.3**
WHN				S	S	21 10 55.5	-7.5
WHN				LR	LR		
	comp=Z,4µm,28.0s,MS5.7						
COR	**Corvallis**	**88.46**	**35**	PFAKE		21 00 30.0	+11
COR				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
DL2	**Dalian**	**88.61**	**317**	⇑P	**P**	**21 00 21.0**	**+0.7**
DL2				S	S	21 11 09.3	+3.1
DL2				PS		21 12 20.0	
DL2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.6						
DL2				AMB	AMB		
	comp=Z,340nm,6.8s						
DL2				LR	LR		
	comp=N,210nm,16.2s,MS5.0						
DL2				LR	LR		
	comp=E,520nm,19.6s,MS5.0						
DL2				LR	LR		
	comp=Z,440nm,17.7s,MS4.9						
BMN	**Battle Mountai**	**88.93**	**41**	PFAKE		21 00 30.0	+8.3
BMN				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
LCO	**Las Campanas**	**89.00**	**123**	PFAKE		21 00 30.0	+7.4
LCO				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
KDAK	**Kodiak Island**	**89.20**	**13**	PFAKE		21 00 30.0	+7.5
KDAK				LR	LR		
	comp=Z,513nm,20.0s,MS5.0						
CFAA	**Coronel Fontan**	**89.34**	**126**	LR	LR	21 31 54.8	
	comp=Z,52nm,18.7s,baz=258,slow=30						
SNY	**Shenyang**	**89.39**	**320**	P	**P**	**21 00 24.5**	**+0.7**
SNY				AMB	AMB		
	comp=Z,53nm,1.2s,mb5.8						
SNY				LR	LR		
	comp=N,462nm,21.9s						
SNY				LR	LR		
	comp=E,363nm,15.0s						
SNY				LR	LR		
	comp=Z,723nm,25.8s,MS5.0						
KKTK	**Khon Kaen**	**89.42**	**289**	P	**P**	**21 00 26.5**	**+1.9**
	comp=Z,370nm,0.6s						
WUAZ	**Wupatki**	**89.44**	**48**	PFAKE		21 00 40.0	+16
WUAZ				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
WVOR	**Wild Horse Val**	**89.45**	**39**	PFAKE		21 00 30.0	+5.9
WVOR				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
OKH	**Okha**	**89.46**	**338**	⇑*i*P	**P**	**21 00 20.2**	**-3.7**
OKH				pmax	pmax		
	comp=Z,1µm,6.0s						
CN2	**Changchun**	**89.68**	**322**	⇓P	**P**	**21 00 25.3**	**+0.1**
CN2				*e*AP	pP	21 00 30.0	-0.1
CN2				*e*XP	sP	21 00 32.0	+0.1
CN2				PP	PP	21 04 00.0	+2.3
CN2				*e*S	S	21 11 15.0	-1.0
CN2				AMB	AMB		
	comp=Z,130nm,1.2s,mb6.1						
CN2				AMB	AMB		
	comp=Z,700nm,3.0s						
CN2				LR	LR		
	comp=N,1µm,25.0s,MS5.3						
CN2				LR	LR		
	comp=E,900nm,25.0s,MS5.3						
CN2				LR	LR		
	comp=Z,1µm,25.0s,MS5.1						
CROR	**Criterion Ridg**	**89.92**	**36**	P	**P**	**21 00 26.7**	**+0.5**
HOPE	**Hope Point**	**90.12**	**158**	PFAKE		21 00 40.0	+13
HOPE				LR	LR		
	comp=Z,5.0nm,20.0s						
NLWA	**Neilton Lookou**	**90.18**	**33**	PFAKE		21 00 40.0	+13
NLWA				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
VTHM	**Trough**	**90.28**	**36**	P	**P**	**21 00 27.9**	**-0.1**
ELK	**Elko**	**90.28**	**42**	PFAKE		21 00 40.0	+12
ELK				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
KLR	**Kul’dur**	**90.44**	**329**	*e*P	**P**	**21 00 25.1**	**-3.5**
KLR				pmax	pmax		
	comp=E,56nm,1.8s						
KLR				pmax	pmax		
	comp=Z,120nm,1.8s,mb5.9						
KLR				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.3						
MVU	**Marysvale**	**90.72**	**45**	PFAKE		21 00 40.0	+10
MVU				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
MSU	**Marysvale**	**90.74**	**45**	*e*P	**P**	**21 00 31.0**	**+0.7**
HDW	**Hoodsport**	**90.75**	**33**	P	**P**	**21 00 30.7**	**+0.6**
LTX	**Lajitas**	**91.23**	**57**	PFAKE		21 00 40.0	+7.2
LTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
TXAR	**Lajitas Array**	**91.23**	**57**	P	**P**	**21 00 31.9**	**-0.8**
	comp=Z,4.1nm,1.1s,mb4.7,baz=205,slow=5.5,SNR=17						
TXAR				PKKPbc	PKKPbc	21 17 57.0	+1.7
	comp=Z,1.8nm,1.1s,baz=134,slow=3.6,SNR=6.5						
TXAR				LR	LR	21 38 38.2	
	comp=Z,875nm,18.0s,MS5.2,baz=115,slow=34						
MNTX	**Cornudas Mount**	**91.30**	**54**	PFAKE		21 00 40.0	+7.0
MNTX				LR	LR		
	comp=Z,686nm,19.0s,MS5.1						
NST	**Nakhon Sawan**	**91.32**	**287**	P	**P**	**21 00 35.3**	**+1.9**
DUG	**Dugway**	**91.38**	**44**	PFAKE		21 00 40.0	+6.8
DUG				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
GYA	**Guiyang**	**91.60**	**299**	⇓*i*P	**P**	**21 00 37.0**	**+2.5**
GYA				PP	PP	21 04 18.3	+5.1
GYA				PPP		21 06 19.8	
GYA				SKS		21 11 08.3	
GYA				S	S	21 11 35.5	+1.1
GYA				PS	PS	21 12 49.8	+4.5
GYA				SS	SS	21 17 46.5	+4.8
GYA				SSS		21 21 23.8	
GYA				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.9						
GYA				AMB	AMB		
	comp=Z,480nm,7.8s						
GYA				LR	LR		
	comp=N,2µm,21.0s,MS6.0						
GYA				LR	LR		
	comp=E,5µm,20.2s,MS6.0						
GYA				LR	LR		
	comp=Z,2µm,20.4s,MS5.6						
LAZ	**Ladron**	**91.60**	**51**	*e*P	**P**	**21 00 34.7**	**+0.3**
HAWA	**Hanford**	**91.63**	**36**	PFAKE		21 00 40.0	+5.8
HAWA				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
MDW	**Midway**	**91.66**	**36**	P	**P**	**21 00 34.4**	**+0.1**
H2OWA	**Water**	**91.69**	**36**	P	**P**	**21 00 35.0**	**+0.5**
BMO	**Blue Mountains**	**91.77**	**38**	PFAKE		21 00 50.0	+15
BMO				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
CMIG	**Matias Romero**	**91.77**	**71**	LR	LR	21 31 56.9	
	comp=Z,549nm,21.5s,MS5.0,baz=238,slow=29						
GBL	**Gable Mountain**	**91.81**	**36**	P	**P**	**21 00 35.0**	**+0.1**
BNM	**Barren Site**	**91.81**	**52**	*e*P	**P**	**21 00 35.5**	**+0.1**
TMUT	**Trail Mountain**	**91.82**	**45**	*e*P	**P**	**21 00 36.2**	**+0.9**
LPM	**Los Pinos Moun**	**91.89**	**51**	*e*P	**P**	**21 00 36.2**	**+0.5**
MPU	**Maple Canyon**	**91.99**	**44**	PFAKE		21 00 50.0	+14
MPU				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
SRU	**San Rafael**	**92.13**	**46**	*e*P	**P**	**21 00 35.4**	**-1.3**
	comp=Z,17nm,1.1s,mb5.3						
SRU				*e*		21 01 09.2	
SRU	**San Rafael**	**92.13**	**46**	*e*P	**P**	**21 00 35.4**	**-1.3**
SRU				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.3						
SLKM	**Skilak Lake**	**92.19**	**13**	*e*P	**P**	**21 00 35.8**	**-0.6**
MVCO	**Mesa Verde**	**92.31**	**48**	PFAKE		21 00 50.0	+12
MVCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
ANMO	**Albuquerque**	**92.37**	**51**	*e*P	**P**	**21 00 38.0**	**+0.1**
	comp=Z,6.2nm,1.0s,mb4.9						
ANMO				*e*S	S	21 11 42.3	+1.3
ANMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
ANMO	**Albuquerque**	**92.37**	**51**	⇑*e*P	**P**	**21 00 37.9**	**0.0**
MA2	**Magadan**	**92.42**	**344**	⇑*e*P	**P**	**21 00 35.1**	**-2.4**
MA2	**Magadan**	**92.42**	**344**	⇑*e*P	**P**	**21 00 35.0**	**-2.5**
MA2				pmax	pmax		
	comp=Z,9.0nm,1.6s,mb4.8						
MA2				MLR	MLR		
	comp=Z,600nm,19.0s,MS5.1						
HLID	**Hailey**	**92.54**	**40**	PFAKE		21 00 50.0	+12
HLID				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
BJT	**Baijiatuau**	**92.61**	**315**	*e*P	**P**	**21 00 39.3**	**+0.4**
	comp=Z,48nm,1.1s,mb5.8						
BJT				*e*S	S	21 11 41.9	-1.0
BJT				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
BJT	**Baijiatuau**	**92.61**	**315**	*e*P	**P**	**21 00 39.3**	**+0.4**
BJT				*e*S	S	21 11 41.9	-1.0
BJT				pmax	pmax		
	comp=Z,48nm,1.1s						
BJT				MLR	MLR		
	comp=Z,1µm,19.0s						
BJI	**Beijing**	**92.62**	**315**	P	**P**	**21 00 39.5**	**+0.6**
BJI				PP	PP	21 04 22.8	+1.7
BJI				SKS		21 11 07.5	
BJI				S	S	21 11 42.3	-0.7
BJI				PS	PS	21 13 05.0	+8.7
BJI				AMB	AMB		
	comp=Z,45nm,1.1s,mb5.8						
BJI				AMB	AMB		
	comp=Z,470nm,3.1s						
BJI				LR	LR		
	comp=N,542nm,25.5s,MS5.2						
BJI				LR	LR		
	comp=E,783nm,22.5s,MS5.2						
BJI				LR	LR		
	comp=Z,1µm,27.0s,MS5.2						
BJI	**Beijing**	**92.62**	**315**	P	**P**	**21 00 39.5**	**+0.6**
	comp=Z,0.1nm,1.1s						
BJI				PP	PP	21 04 22.7	+1.6
BJI				SKS		21 11 07.4	
BJI				S	S	21 11 42.3	-0.7
BJI				PS	PS	21 13 05.0	+8.7
BJI				SS	SS	21 17 55.3	-0.7
BJI				LR	LR		
	comp=Z,1µm,27.0s,MS5.2						
PV10	**Paradox Valley**	**92.64**	**47**	*e*P	**P**	**21 00 36.1**	**-3.0**
GAMB	**Gambell**	**92.87**	**2**	*e*P	**P**	**21 00 39.2**	**-0.3**
HWUT	**Hardware Ranch**	**92.99**	**43**	*e*P	**P**	**21 00 40.4**	**-0.3**
	comp=Z,6.5nm,1.0s,mb5.0						
HWUT				*e*S	S	21 11 48.1	+1.9
HWUT				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
SIT	**Sitka**	**93.02**	**21**	PFAKE		21 00 50.0	+10
SIT				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
NNA	**Nana**	**93.07**	**105**	P	**P**	**21 00 41.9**	**+0.2**
NNA				*e*S	SKSac	21 11 16.6	+0.8
NNA				LR	LR		
	comp=Z,730nm,21.0s,MS5.1						
PMR	**Palmer**	**93.40**	**13**	*e*P	**P**	**21 00 40.6**	**-1.3**
	comp=Z,21nm,1.0s,mb5.5						
PMR				*e*S	SKSac	21 11 22.2	+7.0
PMR				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
PMR	**Palmer**	**93.40**	**13**	*e*P	**P**	**21 00 40.6**	**-1.4**
PMR				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.5						
PMR				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.4						
TTA	**Tatalina**	**93.47**	**10**	*e*P	**P**	**21 00 41.9**	**-0.4**
TTA	**Tatalina**	**93.47**	**10**	P	**P**	**21 00 41.4**	**-0.9**
TTA				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.8						
WRAK	**Wrangell Islan**	**93.50**	**23**	PFAKE		21 00 50.0	+7.5
WRAK				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
CM31	**Chiang Mai Arr**	**93.68**	**289**	PFAKE		21 01 00.0	+16
CM31				LR	LR		
	comp=Z,957nm,20.0s,MS5.2						
CHG	**Chiang Mai**	**93.85**	**289**	P	**P**	**21 00 46.6**	**+1.5**
CHTO	**Chiang Mai**	**93.85**	**289**	*e*P	**P**	**21 00 46.0**	**+0.9**
	comp=Z,7.9nm,0.9s,mb5.1						
CHTO				*e*PP	PP	21 04 39.9	+8.8
CHTO				*e*S	S	21 12 08.9	+14
CHTO				LR	LR		
	comp=Z,851nm,20.0s,MS5.2						
CHTO	**Chiang Mai**	**93.85**	**289**	*e*P	**P**	**21 00 46.1**	**+1.0**
CHTO				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.2						
CHTO				MLR	MLR		
	comp=Z,851nm,20.0s,MS5.2						
KMI	**Kunming**	**93.93**	**297**	P	**P**	**21 00 47.0**	**+1.6**
KMI				AP	pP	21 00 51.8	+1.5
KMI				XP	sP	21 00 54.3	+2.2
KMI				SKS		21 11 22.8	
KMI				S	S	21 11 57.5	+2.3
KMI				XS	sS	21 12 04.3	+0.9
KMI				PS	PS	21 13 19.5	+8.2
KMI				SSS		21 22 07.8	
KMI				AMB	AMB		
	comp=Z,9.0nm,1.1s,mb5.1						
KMI				AMB	AMB		
	comp=Z,332nm,5.0s						
KMI				LR	LR		
	comp=N,521nm,20.4s,MS5.2						
KMI				LR	LR		
	comp=E,645nm,20.4s,MS5.2						
KMI				LR	LR		
	comp=Z,868nm,17.3s,MS5.3						
KMI	**Kunming**	**93.93**	**297**	P	**P**	**21 00 47.0**	**+1.6**
	comp=Z,9.0nm,1.1s,mb5.1						
KMI				pP	pP	21 00 51.8	+1.5
KMI				sP	sP	21 00 54.2	+2.1
KMI				PP	PP	21 04 41.4	+10
KMI				PPP		21 06 42.6	
KMI				SKS		21 11 22.8	
KMI				S	S	21 11 57.4	+2.2
KMI				sS	sS	21 12 04.3	+0.9
KMI				PS	PS	21 13 19.5	+8.2
KMI				SS	SS	21 18 24.9	+10
KMI				SSS		21 22 07.7	
KMI				LR	LR		
	comp=Z,870nm,17.3s,MS5.3						
AHID	**Auburn Hatcher**	**93.97**	**42**	PFAKE		21 01 00.0	+15
AHID				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
XAN	**Xi’an**	**93.99**	**307**	P	**P**	**21 00 46.5**	**+1.1**
XAN				AMB	AMB		
	comp=Z,12nm,1.3s,mb5.2						
XAN				LR	LR		
	comp=N,403nm,22.1s,MS5.1						
XAN				LR	LR		
	comp=E,708nm,24.8s,MS5.1						
XAN				LR	LR		
	comp=Z,1µm,22.1s,MS5.3						
NEW	**Newport**	**94.10**	**36**	PFAKE		21 01 00.0	+14
NEW				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
MCMT	**McKenzie Canyo**	**94.21**	**40**	P	**P**	**21 00 46.4**	**+0.3**
SMCO	**Snowmass**	**94.42**	**47**	P	**P**	**21 00 48.4**	**+1.1**
	comp=Z,11nm,0.9s,mb5.3						
SMCO				*e*S		21 12 36.5	
SDCO	**Great Sand Dun**	**94.58**	**49**	*e*P	**P**	**21 00 47.0**	**-1.0**
	comp=Z,6.3nm,1.1s,mb5.0						
SDCO				*e*S	SKSac	21 11 20.2	-2.6
SDCO				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
KVTX	**Kingsville**	**94.62**	**61**	PFAKE		21 01 00.0	+12
KVTX				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
JCT	**Junction City**	**94.68**	**58**	PFAKE		21 01 00.0	+11
JCT				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
LOHW	**Long Hollow**	**94.76**	**42**	*e*P	**P**	**21 00 46.6**	**-2.1**
	comp=Z,20nm,1.3s,mb5.4						
TNA	**Tin City**	**94.83**	**4**	*e*P	**P**	**21 00 47.8**	**-0.7**
	comp=Z,22nm,1.1s,mb5.5						
TNA				*e*S	SP	21 13 03.8	-14
TNA				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
MSO	**Missoula**	**94.85**	**38**	PFAKE		21 01 00.0	+11
MSO				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
BW06	**Boulder Array**	**94.88**	**43**	PFAKE		21 01 00.0	+11
BW06				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
PDAR	**Pinedale Array**	**94.88**	**43**	P	**P**	**21 00 48.5**	**-0.7**
	comp=Z,5.0nm,1.1s,mb4.8,baz=198,slow=4.2,SNR=11						
PDAR				PKKPbc	PKKPbc	21 17 47.0	+0.7
	comp=Z,1.7nm,0.9s,baz=90,slow=4.4,SNR=7.9						
PDAR				PKPPKP		21 26 01.1	
	comp=Z,0.6nm,1.0s,baz=64,slow=3.4,SNR=3.7						
PDAR				LR	LR	21 39 33.2	
	comp=Z,2µm,18.6s,MS5.5,baz=255,slow=33						
QLMT	**Earthquake Lak**	**95.01**	**41**	*e*P	**P**	**21 00 50.3**	**+0.5**
YMR	**Madison River**	**95.18**	**41**	PFAKE		21 01 00.0	+9.4
YMR				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
BOZ	**Bozeman (W)**	**95.39**	**40**	PFAKE		21 01 00.0	+8.5
BOZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
LKWY	**Lake**	**95.45**	**41**	PFAKE		21 01 00.0	+8.2
LKWY				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
ISCO	**Idaho Springs**	**95.64**	**47**	PFAKE		21 01 00.0	+7.2
ISCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
MENT	**Mentasta**	**95.74**	**15**	*e*P	**P**	**21 00 52.0**	**-0.7**
HHC	**Hu-ho-hao-te**	**95.96**	**314**	*e*P	**P**	**21 00 55.3**	**+1.0**
HHC				XP	sP	21 01 01.8	+0.8
HHC				PP	PP	21 04 50.3	+3.2
HHC				SKS		21 11 30.0	
HHC				S	S	21 12 10.3	-1.9
HHC				XS	sS	21 12 17.8	-2.6
HHC				PS	PS	21 13 37.5	+4.4
HHC				SS	SS	21 18 47.8	+4.1
HHC				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb5.0						
HHC				AMB	AMB		
	comp=Z,261nm,10.7s						
HHC				LR	LR		
	comp=N,783nm,23.8s,MS5.3						
HHC				LR	LR		
	comp=E,939nm,21.4s,MS5.3						
HHC				LR	LR		
	comp=Z,2µm,24.4s,MS5.4						
CD2	**Chengdu**	**96.08**	**302**	*e*P	**P**	**21 00 56.0**	**+1.0**
CD2				AP	pP	21 01 01.0	+1.0
CD2				XP	sP	21 01 03.8	+2.0
CD2				PP	PP	21 04 51.8	+3.6
CD2				SKS		21 11 30.8	
CD2				S	S	21 12 11.8	-1.8
CD2				XS	sS	21 12 19.8	-2.1
CD2				SS	SS	21 18 47.5	+1.8
CD2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb5.2						
CD2				LR	LR		
	comp=N,350nm,20.4s,MS5.1						
CD2				LR	LR		
	comp=E,570nm,21.6s,MS5.1						
CD2				LR	LR		
	comp=Z,530nm,20.4s,MS5.0						
HIA	**Hailar**	**96.23**	**324**	*e*P	**P**	**21 00 54.4**	**-0.8**
	comp=Z,13nm,1.4s,mb5.2						
HIA				*e*S	S	21 12 22.6	+8.6
HIA				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
HIA	**Hailar**	**96.23**	**324**	*e*P	**P**	**21 00 54.4**	**-0.8**
HIA				pmax	pmax		
	comp=Z,13nm,1.4s						
HIA				MLR	MLR		
	comp=Z,2µm,20.0s						
WALA	**Waterton Lakes**	**96.25**	**36**	*e*P	**P**	**21 00 54.6**	**-0.8**
RLMT	**Red Lodge**	**96.42**	**41**	PFAKE		21 01 10.0	+14
RLMT				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
COLA	**College**	**96.63**	**12**	*e*P	**P**	**21 00 55.5**	**-1.2**
TGUH	**Tegucigalpa,Un**	**96.71**	**78**	PFAKE		21 01 10.0	+12
TGUH				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
JTS	**JuntasAbangare**	**96.92**	**82**	P	**P**	**21 00 56.6**	**-2.7**
JTS				*e*S	SKSac	21 11 23.2	-13
JTS				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
HKT	**Hockley**	**97.38**	**60**	PFAKE		21 01 10.0	+9.0
HKT				LR	LR		
	comp=Z,905nm,21.0s,MS5.2						
WMOK	**Wichita Mounta**	**97.60**	**54**	PFAKE		21 01 10.0	+8.2
WMOK				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
DAWY	**Dawson**	**97.71**	**16**	*e*P	**P**	**21 01 01.2**	**-0.4**
OTAV	**Otavalo**	**97.77**	**94**	PFAKE		21 01 10.0	+6.8
OTAV				LR	LR		
	comp=Z,933nm,22.0s,MS5.2						
BILL	**Bilibino**	**97.83**	**354**	*e*P	**P**	**21 01 00.2**	**-1.8**
BILL	**Bilibino**	**97.83**	**354**	P	**P**	**21 01 02.0**	**0.0**
BILL						21 04 58.0	
BILL				PS	PS	21 13 42.0	-11
BILL				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb5.0						
BILL				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.4						
EGMT	**Eagleton**	**97.84**	**39**	PFAKE		21 01 10.0	+7.5
EGMT				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
EGAK	**Eagle**	**97.91**	**15**	PFAKE		21 01 10.0	+7.6
EGAK				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
LPAZ	**La Paz**	**97.97**	**114**	PKKPbc	PKKPbc	21 17 37.6	+1.0
	comp=Z,2.1nm,0.9s,baz=112,slow=3.6,SNR=4.4						
LPAZ				LR	LR	21 37 22.2	
	comp=Z,588nm,21.3s,MS5.0,baz=150,slow=30						
LZH	**Lanzhou**	**98.61**	**306**	*e*P	**P**	**21 01 08.5**	**+2.1**
LZH				AP	pP	21 01 12.0	+0.7
LZH				XP	sP	21 01 14.0	+0.9
LZH				PP	PP	21 05 12.3	+4.7
LZH				SKS		21 11 46.0	
LZH				*e*S	S	21 12 33.3	-1.8
LZH				AMB	AMB		
	comp=Z,23nm,1.2s,mb5.6						
LZH				AMB	AMB		
	comp=Z,160nm,6.0s						
LZH				LR	LR		
	comp=E,593nm,18.2s						
LZH				LR	LR		
	comp=Z,880nm,20.2s,MS5.2						
LZH	**Lanzhou**	**98.61**	**306**	*e*P	**P**	**21 01 08.4**	**+2.0**
	comp=Z,23nm,1.2s,mb5.6						
LZH				pP	pP	21 01 12.0	+0.7
LZH				sP	sP	21 01 13.9	+0.8
LZH				PP	PP	21 05 12.3	+4.7
LZH				SKS		21 11 46.0	
LZH				*e*S	S	21 12 33.2	-1.9
LZH				sS	sS	21 12 37.2	-6.1
LZH				SS	SS	21 19 25.2	+4.0
LZH				LR	LR		
	comp=Z,880nm,20.2s,MS5.2						
LZH	**Lanzhou**	**98.61**	**306**	*e*P	**P**	**21 01 08.4**	**+2.0**
LZH						21 05 12.3	
LZH						21 11 46.0	
LZH				*e*S	S	21 12 33.2	-1.9
LZH				SS	SS	21 19 25.2	+4.0
LZH				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.6						
LZH				MLR	MLR		
	comp=Z,880nm,20.2s,MS5.2						
CLNS	**Chul’man**	**98.72**	**332**	*e*P	**P**	**21 01 03.0**	**-3.3**
CLNS				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.3						
CLNS				pmax	pmax		
	comp=N,10.0nm,1.8s						
CLNS				pmax	pmax		
	comp=E,1.0nm,0.7s						
TEIG	**Tepich**	**98.76**	**72**	PFAKE		21 01 20.0	+13
TEIG				LR	LR		
	comp=Z,513nm,21.0s,MS5.0						
RSSD	**Black Hills**	**98.97**	**44**	*e*PcP	PcP	21 01 06.6	-1.1
	comp=Z,8.8nm,1.0s						
RSSD				LR	LR		
	comp=Z,371nm,20.0s,MS4.9						
RSSD	**Black Hills**	**98.97**	**44**	⇑*e*P	**P**	**21 01 06.6**	**-1.2**
RSSD				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.2						
RSSD				MLR	MLR		
	comp=Z,371nm,20.0s,MS4.9						
CBKS	**Cedar Bluff**	**98.99**	**51**	PFAKE		21 01 20.0	+12
CBKS				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
LAO	**LASA Array**	**99.06**	**41**	PFAKE		21 01 20.0	+12

LAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
NATX	**Nacogdoches**	**99.14**	**59**	PFAKE		21 01 20.0	+11
NATX				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
YAK	**Yakutsk**	**100.50**	**337**	*e*Pdif	Pdif	21 01 13.6	-1.1
YAK				*e*PP	PP	21 05 20.2	-1.1
YAK				LR	LR		
	comp=Z,987nm,22.0s,MS5.3						
YAK	**Yakutsk**	**100.50**	**337**	*e*P	Pdif	21 01 13.1	-1.6
YAK				*e**PP		21 01 21.2	
YAK				*e*		21 05 14.1	
YAK				*e*S	SKSac	21 11 48.4	-3.6
YAK				pmax	pmax		
	comp=Z,9.0nm,1.0s						
YAK				pmax	pmax		
	comp=N,3.0nm,1.4s						
YAK				pmax	pmax		
	comp=E,2.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,8.0nm,0.6s						
YAK				pmax	pmax		
	comp=N,17nm,1.8s						
YAK				pmax	pmax		
	comp=E,13nm,2.1s						
YAK				smax			
	comp=N,69nm,2.5s						
YAK				smax			
	comp=Z,5.0nm,0.5s						
YAK				smax			
	comp=E,45nm,2.1s						
YAK				MLR	MLR		
	comp=N,336nm,16.0s						
YAK				MLR	MLR		
	comp=Z,652nm,16.0s,MS5.2						
YAK				MLR	MLR		
	comp=E,946nm,25.0s						
DGMT	**Dagmar**	**101.18**	**40**	PFAKE		21 01 30.0	+12
DGMT				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
KSU1	**Kansas State U**	**101.25**	**52**	PFAKE		21 01 30.0	+12
KSU1				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
MIAR	**Mount Ida**	**101.26**	**57**	PFAKE		21 01 30.0	+12
MIAR				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
ULN	**Ulaanbaatar**	**102.42**	**318**	*e*Pdif	Pdif	21 01 22.9	-0.4
	comp=Z,5.8nm,1.0s						
ULN				*e*PP	PP	21 05 36.8	+0.6
ULN				LR	LR		
	comp=Z,665nm,20.0s,MS5.2						
ULN	**Ulaanbaatar**	**102.42**	**318**	*e*P	Pdif	21 01 22.9	-0.4
ULN				*e*		21 05 36.8	
ULN				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ULN				MLR	MLR		
	comp=Z,665nm,20.0s,MS5.2						
INK	**Inuvik**	**102.56**	**15**	*e*Pdif	Pdif	21 01 21.6	-2.3
	comp=Z,175nm,1.1s						
INK	**Inuvik**	**102.56**	**15**	*e*P	Pdif	21 01 21.6	-2.3
INK				pmax	pmax		
	comp=Z,175nm,1.1s						
INK	**Inuvik**	**102.56**	**15**	PKKPbc	PKKPbc	21 17 24.7	-0.8
	comp=Z,1.6nm,1.0s,baz=259,slow=6.8,SNR=3.2						
SONM	**Songino Array**	**102.78**	**318**	P	Pdif	21 01 25.5	+0.6
	comp=Z,1.8nm,0.9s,baz=127,slow=4.0,SNR=8.5						
SONM				PKiKP	PKiKP	21 05 43.0	-2.1
	comp=Z,0.9nm,0.8s,baz=137,slow=4.8,SNR=4.6						
SONM				PKKPbc	PKKPbc	21 17 24.6	+0.4
	comp=Z,1.3nm,1.1s,baz=278,slow=4.4,SNR=5.1						
GTA	**Gaotai**	**103.00**	**308**	*e*P	Pdif	21 01 27.0	+1.1
GTA				AP		21 01 32.0	
GTA				XP		21 01 34.0	
GTA				SKS		21 12 05.3	
GTA				S	Sdif	21 13 15.5	+3.8
GTA				XS		21 13 23.8	
GTA				LR	LR		
	comp=N,378nm,19.0s,MS5.3						
GTA				LR	LR		
	comp=E,742nm,19.8s,MS5.3						
GTA				LR	LR		
	comp=Z,947nm,20.5s,MS5.3						
ECSD	**EROS,Sioux Fal**	**103.43**	**47**	PFAKE		21 01 40.0	+12
ECSD				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
PALK	**Pallekele**	**104.03**	**271**	PFAKE		21 01 40.0	+10
PALK				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
YKA	**Yellowknife Ar**	**104.17**	**25**	Pdif	Pdif	21 01 28.3	-2.8
YKA				PP	PP	21 05 46.0	-3.0
YKA				PKKPbc	PKKPbc	21 17 18.9	-1.5
YKA	**Yellowknife Ar**	**104.17**	**25**	P	Pdif	21 01 28.3	-2.8
YKA						21 05 46.0	
YKA	**Yellowknife Ar**	**104.17**	**25**	Pdiff	Pdif	21 01 28.3	-2.8
	comp=Z,0.8nm,1.1s,baz=244,slow=3.9,SNR=5.1						
YKA				PP	PP	21 05 46.0	-3.0
	comp=Z,1.2nm,1.0s,baz=232,slow=7.8,SNR=6.5						
YKA				PKKPbc	PKKPbc	21 17 18.9	-1.5
	comp=Z,2.2nm,0.9s,baz=44,slow=3.4,SNR=3.9						
OXF	**Oxford**	**104.31**	**58**	PFAKE		21 01 40.0	+8.3
OXF				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
BRAL	**Brewton**	**104.59**	**63**	PFAKE		21 01 40.0	+7.1
BRAL				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
LSA	**Lhasa**	**105.16**	**296**	*e*PKiKP	PKiKP	21 05 52.1	+2.0
LSA				LR	LR		
	comp=Z,746nm,20.0s,MS5.2						
LRAL	**Lakeview Retre**	**105.50**	**61**	PFAKE		21 06 00.0	+9.4
LRAL				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
PLAL	**Pickwick Lake**	**105.51**	**58**	PFAKE		21 06 00.0	+9.4
PLAL				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
ZAK	**Zakamensk**	**105.79**	**319**	*e*P	Pdif	21 01 33.5	-4.8
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s						
AGMN	**Agassiz Refuge**	**105.96**	**43**	PFAKE		21 06 00.0	+9.0
AGMN				LR	LR		
	comp=Z,851nm,19.0s,MS5.3						
WVT	**Waverly**	**106.17**	**57**	PFAKE		21 06 00.0	+8.3
WVT				LR	LR		
	comp=Z,7.0nm,20.0s						
TLY	**Talaya**	**106.17**	**320**	PFAKE		21 06 00.0	+8.8
TLY				LR	LR		
	comp=Z,841nm,19.0s,MS5.3						
ULM	**Lac du Bonnet**	**106.80**	**42**	PFAKE		21 06 00.0	+7.5
ULM				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
ULM	**Lac du Bonnet**	**106.80**	**42**	PKKP	PKKPbc	21 17 25.0	+13
	comp=Z,5.1nm,0.9s,baz=40,slow=7.2,SNR=6.1						
TAPN	**Taplejung**	**106.92**	**292**	*e*P	PKiKP	21 05 53.6	+0.2
	comp=Z,14nm,1.2s						
ODAN	**Odare**	**106.98**	**292**	*e*P	PKiKP	21 05 53.9	+0.4
	comp=Z,20nm,1.3s						
JFWS	**Jewell Farm**	**107.25**	**50**	PFAKE		21 06 00.0	+6.5
JFWS				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
TIXI	**Tiksi**	**107.39**	**344**	*e*PKiKP	PKiKP	21 05 52.0	-1.0
TIXI				*e*PP	PP	21 06 07.1	-5.5
TIXI				LR	LR		
	comp=Z,712nm,20.0s,MS5.2						
DWPF	**Disney**	**107.83**	**67**	PFAKE		21 06 10.0	+15
DWPF				LR	LR		
	comp=Z,669nm,19.0s,MS5.2						
WCI	**Wyandotte Cave**	**108.14**	**56**	PFAKE		21 06 10.0	+15
WCI				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
JIRN	**Jiri**	**108.28**	**292**	*e*P	PKiKP	21 05 56.7	+0.8
	comp=Z,5.6nm,0.6s						
GOGA	**Godfrey**	**108.35**	**62**	PFAKE		21 06 10.0	+14
GOGA				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
EYMN	**Ely**	**108.47**	**45**	PFAKE		21 06 10.0	+14
EYMN				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
SDV	**Santo Domingo**	**108.74**	**90**	*e*PKiKP	PKiKP	21 05 57.1	-0.1
SDV				LR	LR		
	comp=Z,256nm,21.0s,MS4.8						
KKN	**Kakani**	**109.07**	**292**	*e*P	PKiKP	21 05 57.1	-0.3
	comp=Z,8.3nm,0.9s						
COWI	**Conover**	**109.24**	**47**	PFAKE		21 06 10.0	+13
COWI				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
TZTN	**Tazewell**	**109.50**	**58**	PFAKE		21 06 10.0	+12
TZTN				LR	LR		
	comp=Z,967nm,19.0s,MS5.4						
GKN	**Gorkha**	**109.68**	**292**	*e*P	PKiKP	21 05 58.3	-0.3
NHSC	**New Hope**	**110.78**	**63**	PFAKE		21 06 10.0	+10
NHSC				LR	LR		
	comp=Z,665nm,19.0s,MS5.2						
ACSO	**Alum Creek Sta**	**111.27**	**55**	PFAKE		21 06 10.0	+8.8
ACSO				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
AAM	**Ann Arbor**	**111.53**	**53**	PFAKE		21 06 10.0	+8.4
AAM				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
BLA	**Blacksburg**	**112.08**	**59**	PFAKE		21 06 10.0	+7.2
BLA				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
SDDR	**Presa de Saban**	**112.61**	**80**	PFAKE		21 06 20.0	+16
SDDR				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
WMQ	**Urumqi**	**113.08**	**308**	*e*PKP	PKiKP	21 06 04.5	0.0
WMQ				LR	LR		
	comp=N,295nm,23.0s,MS5.3						
WMQ				LR	LR		
	comp=E,825nm,24.0s,MS5.3						
WMQ				LR	LR		
	comp=Z,956nm,24.0s,MS5.3						
CBN	**Corbin**	**114.69**	**59**	PFAKE		21 06 20.0	+12
CBN				LR	LR		
	comp=Z,949nm,19.0s,MS5.4						
SSPA	**Standing Stone**	**115.08**	**56**	PFAKE		21 06 20.0	+12
SSPA				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
RES	**Resolute Bay**	**116.01**	**17**	*e*PKPdf	PKPdf	21 06 07.8	-1.5
RES	**Resolute Bay**	**116.01**	**17**	*e*PKIKP	PKPdf	21 06 07.8	-1.4
SUR	**Sutherland**	**116.30**	**197**	PFAKE		21 06 20.0	+8.8
SUR				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
SJG	**San Juan**	**116.69**	**83**	PFAKE		21 06 20.0	+7.8
SJG				LR	LR		
	comp=Z,659nm,19.0s,MS5.3						
MK31	**Makanchi Array**	**117.58**	**310**	*e*PKPdf	PKPdf	21 06 11.7	-1.4
MK31	**Makanchi Array**	**117.58**	**310**	*e*PKIKP	PKPdf	21 06 11.7	-1.3
MKAR	**Makanchi Array**	**117.58**	**310**	PKP	PKPdf	21 06 11.6	-1.4
MKAR				PKKP	PKKPbc	21 17 04.5	+29
MKAR	**Makanchi Array**	**117.58**	**310**	PKIKP	PKPdf	21 06 11.6	-1.4
MKAR						21 17 04.6	
MKAR	**Makanchi Array**	**117.58**	**310**	PKP	PKPdf	21 06 11.6	-1.4
	comp=Z,12nm,1.0s,baz=78,slow=2.9,SNR=38						
MKAR				PKKP	PKKPbc	21 17 04.5	+29
	comp=Z,1.0nm,0.9s,baz=255,slow=4.3,SNR=3.9						
ZAA0	**Zalesovo Array**	**117.66**	**319**	*e*PKPdf	PKPdf	21 06 11.5	-1.4
ZALV	**Zalesovo Beam**	**117.66**	**319**	PKP	PKPdf	21 06 11.1	-1.9
ZALV	**Zalesovo Beam**	**117.66**	**319**	PKP	PKPdf	21 06 11.1	-1.9
	comp=Z,7.6nm,1.0s,baz=210,slow=1.2,SNR=26						
ZAL	**Zalesovo**	**117.67**	**319**	PKIKP	PKPdf	21 06 11.1	-1.9
LONY	**Lake Ozonia**	**118.52**	**52**	PFAKE		21 06 30.0	+15
LONY				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
BOSA	**Boshof**	**118.52**	**202**	PKP	PKPdf	21 06 15.9	+0.3
BOSA				LR	LR		
	comp=Z,807nm,20.0s,MS5.3						
BOSA	**Boshof**	**118.52**	**202**	PKIKP	PKPdf	21 06 16.0	+0.4
BOSA				MLR	MLR		
	comp=Z,807nm,20.0s,MS5.3						
BOSA	**Boshof**	**118.52**	**202**	PKP	PKPdf	21 06 15.9	+0.3
	comp=Z,16nm,1.0s,baz=162,slow=3.4,SNR=14						
NCB	**Newcomb**	**118.61**	**53**	PFAKE		21 06 30.0	+15
NCB				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
NVS	**Novosibirsk**	**118.75**	**319**	*e*PKIKP	PKPdf	21 06 13.7	-1.3
NVS				pmax	pmax		
	comp=N,7.0nm,1.2s						
NVS				pmax	pmax		
	comp=Z,34nm,1.2s						
NVS				pmax	pmax		
	comp=E,15nm,1.3s						
HRV	**Harvard--Oak R**	**120.15**	**55**	PFAKE		21 06 30.0	+12
HRV				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
KSH	**Kashi**	**120.26**	**301**	*e*PKP	PKPdf	21 06 19.0	+0.6
KSH				*e*PP	PP	21 07 43.0	-1.7
KSH				*e*PKS		21 09 54.3	
KSH				*e*PPP		21 10 33.0	
KSH				*e*SKS	SKSdf	21 13 25.0	-5.0
KSH				*e*SKKS	SKKSac	21 14 45.3	+1.7
KSH				PP	PP		
	comp=Z,664nm,5.8s						
KSH				LR	LR		
	comp=N,1µm,7.2s						
KSH				LR	LR		
	comp=E,961nm,5.7s						
KSH				LR	LR		
	comp=Z,962nm,9.4s						
LBNH	**Lisbon**	**120.28**	**53**	PFAKE		21 06 30.0	+12
LBNH				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
WES	**Weston**	**120.29**	**56**	PFAKE		21 06 30.0	+12
WES				LR	LR		
	comp=Z,852nm,20.0s,MS5.4						
BBGH	**Gun Hill**	**120.34**	**92**	PFAKE		21 06 30.0	+11
BBGH				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
ULHL	**Ulahol**	**120.71**	**304**	P	PKPdf	21 06 20.7	+1.5
	SNR=11						
KURK	**Kurchatov**	**120.78**	**314**	*e*PKPdf	PKPdf	21 06 17.9	-1.2
KURK				⇑*e*PKP	PKPdf	21 06 18.2	-0.9
KURK				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
KURK	**Kurchatov**	**120.78**	**314**	⇑*i*PKIKP	PKPdf	21 06 18.2	-0.9
TKM2	**Tokmak 2**	**121.33**	**305**	P	PKPdf	21 06 20.3	-0.1
	SNR=5.7						
TKM2	**Tokmak 2**	**121.33**	**305**	PFAKE		21 06 30.0	+10
TKM2				LR	LR		
	comp=Z,637nm,20.0s,MS5.3						
KZA	**Kyzart**	**121.39**	**304**	P	PKPdf	21 06 20.6	0.0
	SNR=23						
LBTB	**Lobatse**	**121.71**	**204**	PFAKE		21 06 30.0	+8.2
LBTB				LR	LR		
	comp=Z,967nm,21.0s,MS5.4						
CHMS	**Chumysh**	**121.95**	**305**	P	PKPdf	21 06 21.5	-0.1
	SNR=8.0						
UCH	**Uchtor**	**121.96**	**304**	P	PKPdf	21 06 23.0	+1.4
	SNR=24						
UCH	**Uchtor**	**121.96**	**304**	*e*PKPdf	PKPdf	21 06 21.3	-0.3
UCH				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
AAK	**Ala-Archa**	**122.06**	**304**	P	PKPdf	21 06 19.7	-2.1
	SNR=6.3						
AAK	**Ala-Archa**	**122.06**	**304**	⇑*e*PKP	PKPdf	21 06 19.2	-2.6
AAK				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
AAK	**Ala-Archa**	**122.06**	**304**	⇑*i*PKIKP	PKPdf	21 06 19.1	-2.7
PKME	**Peaks-Kenny Pk**	**122.33**	**53**	PFAKE		21 06 30.0	+7.8
PKME				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
AML	**Almayashu**	**122.54**	**304**	P	PKPdf	21 06 23.0	+0.2
	SNR=18						
AML	**Almayashu**	**122.54**	**304**	*e*PKPdf	PKPdf	21 06 22.6	-0.1
AML				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
EKS2	**Erkin-Say**	**122.58**	**304**	P	PKPdf	21 06 23.2	+0.4
	SNR=15						
EKS2	**Erkin-Say**	**122.58**	**304**	*e*PKPdf	PKPdf	21 06 22.4	-0.4
EKS2				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
KBL	**Kabul**	**124.40**	**294**	*e*PKPdf	PKPdf	21 06 26.8	+0.2
QUE	**Quetta**	**124.96**	**288**	*e*P	PKPdf	21 06 28.0	+0.2
QUE	**Quetta**	**124.96**	**288**	*e*PKIKP	PKPdf	21 06 28.0	+0.2
SCHQ	**Schefferville**	**124.98**	**41**	PKP	PKPdf	21 06 26.1	-0.9
SCHQ				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
SCHQ	**Schefferville**	**124.98**	**41**	PKP	PKPdf	21 06 26.1	-0.9
	comp=Z,13nm,1.1s,baz=319,slow=1.6,SNR=5.6						
BRVK	**Borovoye**	**126.15**	**316**	⇑*e*PKP	PKPdf	21 06 26.2	-3.1
BRVK				*e*PKPdf	PKPdf	21 06 29.2	0.0
BRVK				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
BRVK	**Borovoye**	**126.15**	**316**	⇑*e*PKIKP	PKPdf	21 06 26.2	-3.1
BRVK				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.8						
RCBR	**Riachuelo**	**129.00**	**127**	*e*PKPdf	PKPdf	21 06 36.7	+0.7
RCBR				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
LSZ	**Lusaka**	**129.33**	**212**	*e*PKPdf	PKPdf	21 06 37.8	+1.2
LSZ				LR	LR		
	comp=Z,893nm,19.0s,MS5.5						
LSZ	**Lusaka**	**129.33**	**212**	*e*PKIKP	PKPdf	21 06 37.8	+1.2
LSZ				MLR	MLR		
	comp=Z,893nm,19.0s,MS5.5						
TSUM	**Tsumeb**	**129.70**	**198**	*e*PKPdf	PKPdf	21 06 38.4	+1.2
TSUM				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
KBS	**Kingsbay**	**130.13**	**358**	⇑*e*PKP	PKPdf	21 06 36.3	0.0
KBS				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
KBS	**Kingsbay**	**130.13**	**358**	⇑*i*PKIKP	PKPdf	21 06 36.2	-0.1
SPB4	**Spitsbergen Ar**	**130.66**	**356**	*e*PKPdf	PKPdf	21 06 36.9	-0.4
SFJD	**Kangerlussuaq**	**130.73**	**25**	PFAKE		21 06 50.0	+12
SFJD				LR	LR		
	comp=Z,8µm,22.0s,MS6.4						
DAG	**Danmarks Havn**	**131.39**	**6**	⇑*e*PKIKP	PKPdf	21 06 37.8	-0.9
DAG				*i*		21 08 53.8	
DAG				pmax	pmax		
	comp=Z,6.0nm,0.5s						
DAG	**Danmarks Havn**	**131.39**	**6**	⇑*i*P	PKPdf	21 06 37.8	-0.9
	comp=Z,5.6nm,0.5s						
DAG				*i*		21 55 13.7	
ARU	**Arti**	**132.67**	**321**	*e*PKPdf	PKPdf	21 06 41.7	+0.1
ARU				*i* PKPr	PKPdf	21 06 41.9	+0.3
ARU				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
ARU	**Arti**	**132.67**	**321**	*i* PKIKP	PKPdf	21 06 42.0	+0.4
ARU				*e*		21 09 04.0	
SOKR	**Solikamsk**	**132.88**	**326**	⇑*i*PKIKP	PKPdf	21 06 41.7	-0.2
SOKR				pmax	pmax		
	comp=Z,40nm,0.9s						
VAN	**Vannovskaya**	**133.71**	**296**	*e*PKIKP	PKPdf	21 06 45.3	+1.1
KMBO	**Kilima Mbogo**	**135.26**	**234**	PKP	PKPdf	21 06 49.5	+1.7
KMBO	**Kilima Mbogo**	**135.26**	**234**	PKIKP	PKPdf	21 06 49.6	+1.7
KMBO	**Kilima Mbogo**	**135.26**	**234**	PKP	PKPdf	21 06 49.5	+1.7
	comp=Z,5.1nm,1.0s,baz=36,slow=1.0,SNR=10						
ORR	**Orenburg**	**135.74**	**315**	*e*PKIKP	PKPdf	21 06 47.1	-0.4
LVZ	**Lovozero**	**137.01**	**343**	⇑*e*PKP	PKPdf	21 06 49.4	0.0
LVZ				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
LVZ	**Lovozero**	**137.01**	**343**	⇑*e*PKIKP	PKPdf	21 06 49.4	0.0
LVZ				MLR	MLR		
	comp=Z,7µm,21.0s,MS6.3						
KEV	**Kevo**	**137.21**	**348**	*e*pkp	PKPdf	21 06 47.9	-1.8
KEV	**Kevo**	**137.21**	**348**	*e*PKP	PKPdf	21 06 47.9	-1.8
KEV				LR	LR		
	comp=Z,10µm,22.0s,MS6.5						
KEV	**Kevo**	**137.21**	**348**	*e*PKIKP	PKPdf	21 06 47.9	-1.8
KEV				MLR	MLR		
	comp=Z,10µm,22.0s,MS6.5						
APA	**Apatity**	**137.57**	**343**	⇑*i*PKIKP	PKPdf	21 06 50.0	-0.4
APA				pmax	pmax		
	comp=Z,29nm,1.2s						
APA				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.6						
ARCES	**ARCESS Array B**	**137.66**	**348**	PKP	PKPdf	21 06 43.2	-7.3
ARCES	**ARCESS Array B**	**137.66**	**348**	PKHKP		21 06 43.3	
ARCES	**ARCESS Array B**	**137.66**	**348**	PKhKP		21 06 43.2	
	comp=Z,7.9nm,0.9s,baz=70,slow=1.4,SNR=13						
ARE0	**ARCESS Array S**	**137.66**	**348**	PKPdf	PKPdf	21 06 50.1	-0.4
TMCR	**Tamitsa**	**138.61**	**338**	*e*PKHKP		21 06 45.9	
KBD	**Kabd**	**140.99**	**281**	*e*P	PKPdf	21 06 52.4	-5.5
KBD				AMb	AMB	21 07 03.6	
	comp=Z,267nm,1.1s						
UMR	**Umm Al-Rimmam**	**141.04**	**282**	*e*P	PKPdf	21 06 52.4	-5.6
UMR				AMb	AMB	21 07 04.3	
	comp=Z,185nm,1.0s						
RDF	**Al-Radifah**	**141.06**	**281**	*e*P	PKPdf	21 06 51.8	-6.2
RDF				AMb	AMB	21 07 04.5	
	comp=Z,228nm,1.2s						
RDF	**Al-Radifah**	**141.06**	**281**	*e*P	PKPdf	21 06 51.2	-6.8
RDF				AMb	AMB	21 07 03.8	
	comp=Z,231nm,1.2s						
NAY	**Al-Naaiem**	**141.39**	**281**	*e*P	PKPdf	21 06 53.0	-5.6
NAY	**Al-Naaiem**	**141.39**	**281**	*e*P	PKPdf	21 06 53.3	-5.3
NAY				AMb	AMB	21 07 01.9	
	comp=Z,34nm,1.4s						
MIB	**Mutribah**	**141.41**	**282**	*e*P	PKPdf	21 06 52.8	-5.8
MIB				AMb	AMB	21 07 04.9	
	comp=Z,124nm,1.0s						
MIB	**Mutribah**	**141.41**	**282**	*e*P	PKPdf	21 06 53.2	-5.4
MIB				AMb	AMB	21 06 56.5	
	comp=Z,98nm,1.1s						
BORG	**Borgarnes**	**141.44**	**16**	PFAKE		21 07 10.0	+12
BORG				LR	LR		
	comp=Z,5µm,20.0s,MS6.3						
JOF	**Joensuu**	**141.65**	**339**	*e*pkp	PKPdf	21 06 52.7	-5.3
JOF	**Joensuu**	**141.65**	**339**	*e*PKP	PKPdf	21 06 52.7	-5.3
RST	**Umm Al-Ruwaisa**	**141.65**	**281**	*e*P	PKPdf	21 06 54.2	-4.9
RST				AMb	AMB	21 07 05.1	
	comp=Z,137nm,0.9s						
RST	**Umm Al-Ruwaisa**	**141.65**	**281**	*e*P	PKPdf	21 06 53.7	-5.3
RST				AMb	AMB	21 07 05.5	
	comp=Z,95nm,0.9s						
MAK	**Makhachkala**	**141.83**	**303**	*e*PKIKP	PKPdf	21 06 56.7	-2.2
MAK				*e*		21 10 01.1	
MAK				*e*PPP		21 13 14.0	
MAK				pmax	pmax		
	comp=Z,201nm,1.3s						
DGRG	**David-gareji**	**143.56**	**301**	P	PKPdf	21 06 59.1	-3.0
KAF	**Kangasniemi**	**143.74**	**341**	*e*pkp	PKPdf	21 06 57.4	-4.3
	baz=33,slow=3.3						
KAF	**Kangasniemi**	**143.74**	**341**	*e*PKP	PKPdf	21 06 57.4	-4.3
VRHR	**Novokhopersk**	**143.79**	**318**	*e*PKIKP	PKPdf	21 06 59.4	-2.7
VRHR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VRHR				pmax	pmax		
	comp=Z,10.0nm,0.8s						
VRHR				pmax	pmax		
	comp=E,3.0nm,0.4s						
MOS	**Moscow**	**143.80**	**327**	*e*PKIKP	PKPdf	21 06 58.9	-3.1
MOS				*e*		21 07 13.3	
MOS				*e*		21 10 14.9	
MOS				pmax	pmax		
	comp=Z,134nm,1.3s						
MTA	**Mtatsminda**	**143.97**	**302**	P	PKPdf	21 07 00.8	-2.0
TBLG	**Delisi**	**144.00**	**302**	*e*PKIKP	PKPdf	21 07 00.7	-2.1
TBLG	**Delisi**	**144.00**	**302**	P	PKPdf	21 07 00.7	-2.1
NSS	**Namsos**	**144.29**	**353**	*e*P	PKPdf	21 06 58.5	-4.1
FIA1	**FINESS Array S**	**144.34**	**341**	*e*PKPdf	PKPdf	21 06 59.5	-3.2
FINES	**FINESS Array B**	**144.34**	**341**	PKP	PKPdf	21 06 59.5	-3.3
FINES	**FINESS Array B**	**144.34**	**341**	PKIKP	PKPdf	21 06 59.5	-3.3
FINES	**FINESS Array B**	**144.34**	**341**	PKhKP		21 06 59.5	
	comp=Z,48nm,0.8s,baz=50,slow=3.0,SNR=85						
BHD	**Baghdad**	**144.39**	**287**	*e*PKP	x	21 07 01.5	
ZEI	**Tsey**	**144.49**	**304**	*e*PKIKP	PKPdf	21 07 03.1	-0.5
ZEI				*e*		21 10 17.4	
OBN	**Obninsk**	**144.65**	**326**	*e*PKPdf	PKPdf	21 07 01.3	-2.2
OBN				*e*PKPr	PKPdf	21 07 01.6	-1.9
OBN				*e*PP	PP	21 10 20.6	+0.3
OBN				LR	LR		
	comp=Z,8µm,22.0s,MS6.5						
OBN	**Obninsk**	**144.65**	**326**	*i* PKIKP	PKPdf	21 07 01.0	-2.5
OBN				*e*		21 07 10.2	
OBN				pmax	pmax		
	comp=Z,255nm,1.1s						
OBN				MLR	MLR		
	comp=Z,600nm,15.0s,MS5.5						
ONI	**Oni**	**144.84**	**303**	P	PKPdf	21 07 03.7	-0.6
CLDR	**Caldiran**	**144.85**	**297**	P	PKPdf	21 07 04.2	-0.1
VOR	**Voronezh**	**144.93**	**320**	*e*PKIKP	PKPdf	21 07 03.5	-0.6
VOR				pmax	pmax		
	comp=Z,260nm,1.6s						
HKR	**Hakkari**	**145.06**	**295**	P	PKPbc	21 07 04.8	+0.6
HAKT	**HAKKARI**	**145.08**	**295**	⇑*i*P	PKPbc	21 07 04.8	+0.5
KIV	**Kislovodsk**	**145.15**	**306**	⇑*e*PKP	PKPdf	21 07 03.8	-0.9
KIV	**Kislovodsk**	**145.15**	**306**	*i* PKIKP	PKPdf	21 07 03.9	-0.8
KIV				*e*		21 10 18.8	
KIV				*e*SS	SS	21 29 07.6	-6.6
KIV				pmax	pmax		
	comp=Z,162nm,1.1s						
KIV				MLR	MLR		
	comp=Z,4µm,23.0s,MS6.2						
VRSR	**Storozhevoye**	**145.15**	**319**	*e*PKIKP	PKPdf	21 07 03.3	-1.2
CUKT	**Cukurca**	**145.17**	**294**	P	PKPbc	21 07 04.7	+0.1
TVAN	**Van**	**145.28**	**296**	⇓*i*P	PKPbc	21 07 06.1	+1.2
VANB	**Van**	**145.29**	**296**	P	PKPbc	21 07 04.5	-0.4
KARS	**Kars**	**145.36**	**300**	P	PKPbc	21 07 05.6	+0.5
AGRB	**Hanur-Agry**	**145.53**	**298**	P	PKPdf	21 07 05.6	0.0
MSL	**Mosul**	**145.59**	**292**	*e*PKP	x	21 07 11.0	
TUTA	**Tutak**	**145.69**	**298**	⇑*i*P	PKPdf	21 07 06.7	+0.9
SIRT	**Sirnak**	**146.09**	**294**	P	PKPdf	21 07 08.6	+2.0
ARTV	**Artvin**	**146.17**	**301**	⇑*i*P	PKPdf	21 07 07.8	+1.2
BCA	**Borcka**	**146.36**	**302**	P	PKPdf	21 07 08.4	+1.5

VSU	**Vasula**	**146.49**	**337**	*e*PKP	PKPdf	21 07 05.3	-1.3
VSU	**Vasula**	**146.49**	**337**	*e*PKIKP	PKPdf	21 07 05.3	-1.3
MOL	**Molde**	**146.59**	**356**	*e*P	PKPdf	21 07 04.6	-2.0
ERZM	**Erzurum**	**146.75**	**299**	*i* P	PKPdf	21 07 10.4	+2.8
EZM	**Erzurum**	**146.75**	**299**	P	PKPdf	21 07 10.3	+2.7
BTMT	**Batman**	**146.81**	**296**	P	PKPdf	21 07 09.7	+1.9
DOMB	**Dombas**	**147.00**	**355**	*e*P	PKPdf	21 07 08.4	+1.1
DOMB				AMb	AMB	21 07 11.0	
	comp=Z,120nm,1.1s						
BNGL	**BINGOL**	**147.01**	**297**	⇑*i*P	PKPdf	21 07 10.7	+2.6
SOC	**Sochi**	**147.33**	**306**	*i* PKP2	PKPab	21 07 09.9	-2.8
SOC				*e*PPP		21 13 56.4	
SOC				pmax	pmax		
	comp=Z,213nm,1.1s						
SOC				MLR	MLR		
	comp=Z,5µm,21.0s,MS6.3						
MARD	**Mardin**	**147.42**	**294**	⇑*i*P	PKPdf	21 07 09.2	+0.4
NB2	**NORSAR Subarra**	**147.77**	**352**	PKPa	PKPdf	21 07 09.8	+1.2
	comp=Z,225nm,1.2s,baz=14,slow=3.0						
NB2	**NORSAR Subarra**	**147.77**	**352**	PKPab	PKPdf	21 07 09.8	+1.2
NB2	**NORSAR Subarra**	**147.77**	**352**	PKPa	PKPdf	21 07 09.8	+1.2
	baz=14,slow=3.0						
NB2	**NORSAR Subarra**	**147.77**	**352**	PKP2	PKPdf	21 07 09.8	+1.2
NOA	**NORSAR Array B**	**147.77**	**352**	PKPbc	PKPbc	21 07 09.4	-2.1
NOA	**NORSAR Array B**	**147.77**	**352**	PKIKP	PKPdf	21 07 09.4	+0.8
NOA	**NORSAR Array B**	**147.77**	**352**	PKPbc	PKPbc	21 07 09.4	-2.1
	comp=Z,88nm,1.0s,baz=14,slow=4.4,SNR=91						
KTUT	**Trabzon**	**147.81**	**301**	P	PKPbc	21 07 11.5	-0.8
MACK	**Trabzon**	**147.82**	**301**	*i* P	PKPbc	21 07 12.8	+0.5
DIY	**Diyarbakir**	**147.82**	**295**	P	PKPbc	21 07 12.8	+0.4
DIYA	**Diyarbakir**	**147.90**	**295**	*i* P	PKPbc	21 07 12.9	+0.3
EZC	**Erzincan**	**147.96**	**299**	P	PKPdf	21 07 12.1	+2.4
NAO01	**NORSAR Array S**	**148.00**	**353**	*e*PKPdf	PKPdf	21 07 10.3	+1.3
NAO01				LR	LR		
	comp=Z,6µm,19.0s,MS6.4						
GUMT	**Gumushane**	**148.11**	**300**	P	PKPbc	21 07 14.1	+1.0
PTK	**Pertek**	**148.38**	**297**	P	PKPbc	21 07 12.8	-1.0
ANN	**Anapa**	**148.59**	**309**	*i* PKP2	PKPbc	21 07 13.8	-0.4
ANN				pmax	pmax		
	comp=Z,309nm,0.9s						
IZAR	**Zarasai**	**148.72**	**334**	*e*P	PKPbc	21 07 14.2	0.0
IZAR				AMb	AMB	21 07 16.5	
	comp=Z,86nm,1.1s						
ELZG	**Elazig**	**148.74**	**297**	⇓*i*P	PKPbc	21 07 16.9	+2.2
RUND	**Rundenannen**	**148.85**	**358**	*e*P	PKPbc	21 07 15.4	+1.1
IDID	**Didziasalis**	**148.85**	**333**	*e*P	PKPbc	21 07 14.2	-0.3
IDID				AMb	AMB	21 07 16.7	
	comp=Z,52nm,1.2s						
BER	**Bergen**	**148.88**	**358**	*e*	PKPbc	21 07 17.8	+3.4
GRSN	**GIRESUNGRSN**	**148.94**	**301**	*i* P	PKPbc	21 07 14.7	-0.5
URFA	**Urfa**	**148.97**	**295**	P	PKPbc	21 07 15.9	+0.5
IIGN	**Ignalina**	**149.03**	**334**	*e*P	PKPbc	21 07 14.8	-0.1
IIGN				AMb	AMB	21 07 17.2	
	comp=Z,94nm,1.1s						
MALT	**Malatya**	**149.20**	**296**	P	PKPdf	21 07 12.9	+1.2
MALT	**Malatya**	**149.20**	**296**	*e*PKPdf	PKPdf	21 07 12.4	+0.7
MALT				*e*PKPbc	PKPbc	21 07 17.0	+1.1
MALT	**Malatya**	**149.20**	**296**	⇑PKP2	PKPab	21 07 17.9	-2.5
MALT	**Malatya**	**149.20**	**296**	⇑*i*P	PKPbc	21 07 17.9	+2.0
MYA	**Malataya**	**149.20**	**296**	P	PKPdf	21 07 13.9	+2.3
JAWL	**J.Aulia**	**149.25**	**249**	*i* P	PKPbc	21 07 18.1	+1.4
	baz=122,slow=4.1						
JAWL				AMb	AMB	21 07 20.6	
	comp=Z,219nm,1.1s						
KONO	**Kongsberg**	**149.31**	**353**	*e*PKPdf	PKPdf	21 07 10.8	-0.3
KONO				*e*PKPbc	PKPbc	21 07 15.2	-0.3
KONO				LR	LR		
	comp=Z,5µm,19.0s,MS6.3						
KONO	**Kongsberg**	**149.31**	**353**	*e*P	PKPdf	21 07 07.1	-4.1
KONO	**Kongsberg**	**149.31**	**353**	*e*PKIKP	PKPdf	21 07 10.8	-0.4
KONO				*e*		21 07 15.2	
KONO				MLR	MLR		
	comp=Z,5µm,19.0s,MS6.3						
MRKH	**Merkhyat**	**149.59**	**250**	*i* P	PKPbc	21 07 19.0	+1.4
	baz=121,slow=3.6						
MRKH				AMb	AMB	21 07 21.7	
	comp=Z,580nm,1.2s						
GZT	**Gaziantep**	**149.97**	**295**	⇓*i*P	PKPbc	21 07 19.2	+1.3
SVSK	**Karacayir**	**150.07**	**300**	P	PKPbc	21 07 17.2	-0.8
GAZ	**Gaziantep**	**150.27**	**294**	P	PKPbc	21 07 20.1	+1.5
KVT	**Kavak**	**150.55**	**302**	P	PKPbc	21 07 18.8	-0.3
SIM	**Simferopol’**	**150.76**	**311**	*c i*PKIKP	PKPbc	21 07 19.5	0.0
SIM				*e*		21 07 27.2	
SIM				*e*		21 07 36.0	
SIM				pmax	pmax		
	comp=Z,84nm,0.9s						
AKASG	**Malin Array Be**	**150.82**	**324**	PKPbc	PKPbc	21 07 18.2	-1.3
AKASG	**Malin Array Be**	**150.82**	**324**	PKIKP	PKPbc	21 07 18.2	-1.2
AKASG	**Malin Array Be**	**150.82**	**324**	PKPbc	PKPbc	21 07 18.2	-1.3
	comp=Z,134nm,0.9s,baz=44,slow=2.5,SNR=18						
AKBB	**Malin Array Si**	**150.82**	**324**	*e*PKPdf	PKPdf	21 07 13.7	-0.1
AKBB				*e*PKPbc	PKPbc	21 07 18.5	-0.9
AKBB	**Malin Array Si**	**150.82**	**324**	*e*PKIKP	PKPdf	21 07 13.7	-0.1
AKBB				*e*		21 07 18.5	
KIEV	**Kiev**	**150.84**	**324**	*e*PKPdf	PKPdf	21 07 13.3	-0.6
KIEV				*e*PKPbc	PKPbc	21 07 18.3	-1.1
KIEV				*e*PKPab	PKPab	21 07 26.5	-0.2
KIEV				LR	LR		
	comp=Z,10µm,20.0s,MS6.6						
KIEV	**Kiev**	**150.84**	**324**	*e*PKIKP	PKPdf	21 07 13.3	-0.5
KIEV				*e*		21 07 18.3	
KIEV				*e*		21 07 26.5	
KIEV				MLR	MLR		
	comp=Z,10µm,20.0s,MS6.6						
ANDN	**Andirin**	**150.91**	**295**	*i* P	PKPbc	21 07 20.2	0.0
DIKM	**Dikmen**	**151.00**	**304**	*e*P	PKPbc	21 07 18.0	-2.2
COBT	**Iskenderun**	**151.09**	**293**	⇓*i*P	PKPbc	21 07 21.5	+0.9
BNN	**Bunyan**	**151.13**	**298**	P	PKPbc	21 07 20.9	+0.3
SUW	**Suwalki**	**151.20**	**335**	*e*PKP	PKPbc	21 07 19.9	-0.3
SUW	**Suwalki**	**151.20**	**335**	*e*PKP	PKPbc	21 07 19.9	-0.3
SUW	**Suwalki**	**151.20**	**335**	*e*PKIKP	PKPbc	21 07 19.9	-0.3
HTY	**Hatay**	**151.22**	**292**	*e*P	PKPbc	21 07 21.9	+1.0
YAYL	**Yayladag**	**151.25**	**292**	*i* P	PKPbc	21 07 21.7	+0.7
BOYT	**Boyabat**	**151.31**	**304**	*i* P	PKPbc	21 07 22.1	+1.2
KOZT	**Kozan**	**151.34**	**295**	P	PKPbc	21 07 22.2	+1.1
CEYT	**Ceyhan**	**151.45**	**294**	P	PKPbc	21 07 21.6	+0.2
KSHT	**Keshet**	**151.55**	**286**	P	PKPbc	21 07 23.9	+2.2
RCY	**Rachaya**	**151.56**	**287**	*e*P	PKPbc	21 07 23.5	+1.7
KSDI	**Kefar Szold**	**151.69**	**286**	P	PKPbc	21 07 24.1	+2.1
BHL	**Bhannes**	**151.69**	**288**	*e*P	PKPbc	21 07 23.5	+1.5
HMDT	**Nahal Hemdat**	**151.77**	**284**	P	PKPbc	21 07 24.3	+2.0
CORM	**Corum**	**151.81**	**301**	*e*P	PKPbc	21 07 18.0	-4.1
DRGI	**Dragot**	**151.84**	**283**	P	PKPbc	21 07 23.9	+1.4
MZDA	**Masada**	**151.85**	**282**	P	PKPbc	21 07 23.9	+1.4
MMLI	**Mount Malkishu**	**151.86**	**285**	P	PKPbc	21 07 24.6	+2.1
AVNT	**Avonos**	**151.91**	**298**	*i* P	PKPbc	21 07 22.8	+0.4
ZFRI	**Zfri**	**151.94**	**281**	P	PKPbc	21 07 24.4	+1.7
KARA	**Karaisali**	**151.97**	**295**	P	PKPbc	21 07 23.0	+0.4
HRFI	**Mount Harif**	**152.00**	**280**	P	PKPbc	21 07 24.3	+1.4
EIL	**Elat**	**152.03**	**279**	P	PKPbc	21 07 24.6	+1.7
YTIR	**Yattir**	**152.06**	**282**	P	PKPbc	21 07 25.0	+2.0
PRNI	**Paran**	**152.07**	**280**	P	PKPbc	21 07 24.8	+1.8
CDAG	**Cicekdag**	**152.12**	**300**	⇓*i*P	PKPbc	21 07 21.0	-1.8
SLTI	**Sal’it**	**152.18**	**284**	P	PKPbc	21 07 25.1	+1.9
GULE	**Gulek**	**152.19**	**295**	⇑*i*P	PKPbc	21 07 23.5	+0.5
NIG	**Nigde**	**152.21**	**297**	P	PKPbc	21 07 24.3	+1.2
BALT	**Daday**	**152.38**	**304**	*i* P	PKPbc	21 07 23.0	-0.4
MERS	**Mersin**	**152.44**	**294**	P	PKPbc	21 07 24.1	+0.4
MUD	**Monsted U’grnd**	**152.49**	**352**	*i* P	PKPbc	21 07 23.2	+0.1
	comp=Z,98nm,1.1s						
ELDT	**Eldivan**	**152.63**	**302**	*i* P	PKPbc	21 07 23.7	-0.2
KZIT	**Kziot**	**152.64**	**281**	P	PKPbc	21 07 25.8	+1.5
BR131	**Keskin Array S**	**152.65**	**301**	*e*PKPdf	PKPdf	21 07 18.4	+1.5
BR131				*e*PKPbc	PKPbc	21 07 24.7	+0.7
BR131				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
BRTR	**Keskin Array B**	**152.65**	**301**	PKPbc	PKPbc	21 07 23.5	-0.5
BRTR	**Keskin Array B**	**152.65**	**301**	PKPbc	PKPbc	21 07 23.5	-0.5
	comp=Z,22nm,1.0s,baz=190,slow=2.3,SNR=6.1						
BSD	**Bornholm Skovb**	**152.77**	**345**	⇑*i*P	PKPbc	21 07 23.6	-0.1
	comp=Z,139nm,1.1s						
KIS	**Kishinev**	**153.15**	**318**	*e*PKIKP	PKPdf	21 07 12.0	-5.4
KIS	**Kishinev**	**153.15**	**318**	*e*PKP	PKPdf	21 07 12.0	-5.4
ANTO	**Ankara**	**153.25**	**301**	PFAKE		21 07 30.0	+12
ANTO				LR	LR		
	comp=Z,2µm,20.0s,MS6.0						
ANTO	**Ankara**	**153.25**	**301**	⇑*i*P	PKPbc	21 07 25.8	+0.5
CSS	**Prodhromos**	**153.58**	**290**	*e*PKPbc	PKPbc	21 07 26.2	0.0
ESK	**Eskdalemuir**	**153.66**	**8**	PFAKE		21 07 30.0	+12
ESK				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
GKP	**Gorka Klasztor**	**153.81**	**340**	*e*PKP	PKPbc	21 07 26.2	+0.1
GKP	**Gorka Klasztor**	**153.81**	**340**	*e*PKP	PKPbc	21 07 26.2	+0.1
LVV	**L’vov**	**153.93**	**328**	*i* PKIKP	PKPbc	21 07 26.9	+0.4
LVV				*e*		21 07 39.7	
KDHN	**Kadinhani**	**154.06**	**298**	*i* P	PKPbc	21 07 24.6	-2.5
KWP	**Kalwaria**	**154.67**	**329**	*e*PKPdf	PKPdf	21 07 19.5	0.0
KWP				*e*PKPbc	PKPbc	21 07 28.4	+0.3
KWP				*e*PKP	PKPdf	21 07 29.4	+10
KWP				*e*		21 07 43.5	
KWP	**Kalwaria**	**154.67**	**329**	*e*PKIKP	PKPdf	21 07 19.5	0.0
KWP				*e*		21 07 28.4	
KWP				*e*		21 07 29.4	
BSEG	**Bad Segeberg**	**154.78**	**350**	*e*PKPab	PKPab	21 07 43.0	-0.2
BSEG	**Bad Segeberg**	**154.78**	**350**	*e*PKP2	PKPab	21 07 43.0	-0.2
BSEG	**Bad Segeberg**	**154.78**	**350**	*e*PKPab	PKPab	21 07 43.0	-0.2
BURAR	**Bucovina Array**	**154.79**	**323**	⇑P	PKPbc	21 07 29.5	+1.2
BURAR	**Bucovina Array**	**154.79**	**323**	⇑PKIKP	PKPbc	21 07 29.5	+1.1
BURAR	**Bucovina Array**	**154.79**	**323**	⇑*i*P	PKPbc	21 07 29.5	+1.1
VRI	**Vrincioaia**	**154.97**	**318**	P	PKPab	21 07 46.2	+1.9
VRI	**Vrincioaia**	**154.97**	**318**	PKP2	PKPab	21 07 46.2	+1.9
PLOR	**Plostina**	**155.03**	**318**	⇓*i*P	PKPab	21 07 44.1	-0.4
KOLS	**Kolonicke sedl**	**155.37**	**328**	*e*PKP	PKPdf	21 07 20.7	+0.2
KOLS				*e*		21 07 30.3	
KOLS	**Kolonicke sedl**	**155.37**	**328**	*e*PKIKP	PKPdf	21 07 20.7	+0.2
KOLS				*e*		21 07 30.3	
KOLS	**Kolonicke sedl**	**155.37**	**328**	*e*PKP	PKPdf	21 07 20.7	+0.2
KOLS				*e*		21 07 30.3	
ISP	**Isparta**	**155.44**	**298**	⇑P	PKPab	21 07 47.6	+1.0
ISP	**Isparta**	**155.44**	**298**	⇑PKP2	PKPab	21 07 47.6	+1.0
ISP	**Isparta**	**155.44**	**298**	⇑*i*P	PKPab	21 07 47.6	+1.0
OJC	**Ojcow**	**155.47**	**333**	*e*PKPdf	PKPdf	21 07 21.1	+0.5
OJC	**Ojcow**	**155.47**	**333**	*e*PKIKP	PKPdf	21 07 21.1	+0.5
STHS	**Stebnicka Huta**	**155.48**	**330**	*e*PKP	PKPab	21 07 47.2	+0.9
STHS	**Stebnicka Huta**	**155.48**	**330**	*e*PKP2	PKPab	21 07 47.2	+0.9
STHS	**Stebnicka Huta**	**155.48**	**330**	*e*PKP	PKPab	21 07 47.2	+0.9
UZH	**Uzhgorod**	**155.58**	**328**	*e*PKIKP	PKPdf	21 07 31.4	+11
UZH				*e*		21 07 39.0	
UZH				*i*		21 07 47.0	
MLR	**Muntele Rosu**	**155.64**	**318**	⇑P	PKPdf	21 07 35.0	+14
MLR	**Muntele Rosu**	**155.64**	**318**	⇑*i*P	PKPdf	21 07 35.0	+14
CRVS	**Cervenica-Dubn**	**155.76**	**329**	*e*PKP	PKPdf	21 07 21.1	+0.1
CRVS				*e*		21 07 48.2	
CRVS	**Cervenica-Dubn**	**155.76**	**329**	*e*PKIKP	PKPdf	21 07 21.1	+0.1
CRVS	**Cervenica-Dubn**	**155.76**	**329**	*e*PKP	PKPdf	21 07 21.1	+0.1
CRVS				*e*		21 07 48.2	
NIE	**Niedzica**	**155.88**	**331**	*e*PKPdf	PKPdf	21 07 22.2	+1.0
NIE	**Niedzica**	**155.88**	**331**	*e*PKIKP	PKPdf	21 07 22.2	+1.0
LIC	**Lamto**	**155.89**	**161**	*e*PKIKP	PKPdf	21 07 21.9	-0.4
	comp=Z,68nm,1.3s						
LIC	**Lamto**	**155.89**	**161**	*e*P	PKPdf	21 07 21.8	-0.5
	comp=Z,73nm,0.9s						
LIC	**Lamto**	**155.89**	**161**	*e*PKPdf	PKPdf	21 07 21.9	-0.4
KIC	**Kosan Boka**	**156.10**	**161**	*e*P	PKPdf	21 07 23.5	+0.9
	comp=Z,124nm,0.9s						
VOIR		**156.19**	**319**	⇓P	PKPab	21 07 50.3	+0.8
VOIR		**156.19**	**319**	⇓PKP2	PKPab	21 07 50.3	+0.8
VOIR		**156.19**	**319**	⇓*i*P	PKPab	21 07 50.3	+0.8
KSP	**Ksiaz**	**156.21**	**338**	*e*PKP	PKPdf	21 07 22.0	+0.5
KSP				*e*		21 07 50.0	
KSP	**Ksiaz**	**156.21**	**338**	*e*PKPdf	PKPdf	21 07 21.8	+0.3
KSP				*e*pPKPdf	pPKPdf	21 07 31.2	+4.6
KSP				*e*PKPab	PKPab	21 07 48.6	-0.8
KSP	**Ksiaz**	**156.21**	**338**	*e*PKIKP	PKPdf	21 07 21.8	+0.3
KSP				*e*		21 07 31.2	
NRDL	**Niedersach Rie**	**156.21**	**349**	*e*PKPab	PKPab	21 07 52.0	+2.7
TIC	**Toumodi**	**156.29**	**160**	*e*P	PKPdf	21 07 23.8	+1.0
	comp=Z,24nm,0.3s						
OKC	**Ostrava-Krasne**	**156.41**	**335**	*e*PKP	PKPdf	21 07 22.1	+0.3
OKC				*e*		21 07 50.6	
OKC	**Ostrava-Krasne**	**156.41**	**335**	*e*PKIKP	PKPdf	21 07 22.1	+0.3
OKC	**Ostrava-Krasne**	**156.41**	**335**	*e*PKPDF	PKPdf	21 07 22.1	+0.3
OKC				*e*PKPAB	PKPab	21 07 50.6	+0.3
KECS	**Kecovo**	**156.51**	**329**	*e*PKP	PKPab	21 07 50.7	-0.1
KECS	**Kecovo**	**156.51**	**329**	*e*PKP2	PKPab	21 07 50.7	-0.1
KECS	**Kecovo**	**156.51**	**329**	*e*PKP	PKPab	21 07 50.7	-0.1
UPC	**Upice**	**156.59**	**338**	*e*PKP	PKPdf	21 07 22.3	+0.3
UPC				*e*		21 07 51.6	
UPC	**Upice**	**156.59**	**338**	*e*PKIKP	PKPdf	21 07 22.3	+0.3
UPC	**Upice**	**156.59**	**338**	*e*PKPDF	PKPdf	21 07 22.3	+0.3
UPC				*e*PKPAB	PKPab	21 07 51.6	+0.6
DPC	**Dobruska-Polom**	**156.62**	**338**	*e*PKP	PKPdf	21 07 22.5	+0.4
DPC				*e*		21 07 51.5	
DPC	**Dobruska-Polom**	**156.62**	**338**	*e*PKIKP	PKPdf	21 07 22.5	+0.4
DPC	**Dobruska-Polom**	**156.62**	**338**	*e*PKPDF	PKPdf	21 07 22.5	+0.4
DPC				*e*PKPAB	PKPab	21 07 51.5	+0.4
DRGR		**156.63**	**324**	P	PKPab	21 07 51.7	+0.3
DRGR		**156.63**	**324**	⇓PKP2	PKPab	21 07 51.3	-0.1
DRGR		**156.63**	**324**	⇓*i*P	PKPab	21 07 51.3	-0.1
MORC	**Moravsky Berou**	**156.68**	**335**	*e*PKPdf	PKPdf	21 07 21.9	-0.3
MORC	**Moravsky Berou**	**156.68**	**335**	*e*PKIKP	PKPdf	21 07 21.9	-0.3
CLL	**Collm**	**156.73**	**344**	*e*PKP	PKPdf	21 07 24.0	+1.8
CLL	**Collm**	**156.73**	**344**	*e*PKIKP	PKPdf	21 07 24.0	+1.8
CLL				*i*		21 07 32.1	
CLL				pmax	pmax		
	comp=Z,16nm,1.6s						
CLL				pmax	pmax		
	comp=Z,26nm,1.1s						
CLL				pmax	pmax		
	comp=Z,58nm,1.4s						
CLL	**Collm**	**156.73**	**344**	*e*PKPdf	PKPdf	21 07 24.0	+1.8
	comp=Z,16nm,1.6s						
CLL				*i* PKPdif		21 07 32.1	
	comp=Z,26nm,1.1s						
CLL				*i* x	x	21 07 35.7	
CLL				*i* PKPab	PKPab	21 07 51.5	-0.1
	comp=Z,58nm,1.4s						
CLL				*e*PP	PP	21 11 27.0	-2.3
CLL				*e*SKKSac	SKKSac	21 18 22.0	+3.6
CLL				*e*PSKS		21 21 56.0	
CLL				*e*PPS		21 24 48.0	
CLL				*e*x	x	21 26 18.0	
CLL				*e*x	x	21 33 30.0	
IBBN	**Ibbenburen**	**156.73**	**352**	*e*PKPab	PKPab	21 07 50.9	-0.6
JMB	**Yambol**	**156.76**	**311**	*e*P	PKPab	21 07 53.0	+0.9
CLZ	**Clausthal**	**156.79**	**348**	*e*PKPdf	PKPdf	21 07 22.4	+0.1
CLZ	**Clausthal**	**156.79**	**348**	*e*PKIKP	PKPdf	21 07 22.4	+0.1
CLZ	**Clausthal**	**156.79**	**348**	*e*PKPdf	PKPdf	21 07 22.4	+0.1
SZH	**Strazhica**	**156.81**	**313**	*e*P	PKPab	21 07 53.2	+1.0
BRG	**Berggiesshubel**	**156.88**	**342**	*e*PKP	PKPdf	21 07 22.2	-0.2
BRG				*i*		21 07 51.8	
BRG				*e*		21 09 52.5	
BRG				PP	PP	21 11 19.0	-11
BRG				SS	SS	21 31 34.0	+12
BRG				LR	LR		
	comp=Z,730nm,22.0s,MS5.5						
BRG	**Berggiesshubel**	**156.88**	**342**	*e*PKIKP	PKPdf	21 07 22.2	-0.2
BRG				pmax	pmax		
	comp=Z,35nm,2.0s						
BRG				pmax	pmax		
	comp=Z,40nm,1.7s						
BRG				pmax	pmax		
	comp=Z,6.0nm,0.7s						
BRG				MLR	MLR		
	comp=N,403nm,16.8s						
BRG				MLR	MLR		
	comp=E,519nm,28.4s						
BRG				MLR	MLR		
	comp=Z,726nm,22.0s						
BRG	**Berggiesshubel**	**156.88**	**342**	*e*PKPdf	PKPdf	21 07 22.8	+0.4
BRG				*e*PKPab	PKPab	21 07 52.0	-0.2
BRG	**Berggiesshubel**	**156.88**	**342**	*e*PKP	PKPdf	21 07 22.2	-0.2
	comp=Z,59nm,2.0s						
BRG				*i*		21 07 51.8	
	comp=Z,66nm,1.7s						
BRG				*e*		21 09 52.5	
	comp=Z,9.4nm,0.7s						
BRG				PP	PP	21 11 19.0	-11
BRG				SS	SS	21 31 34.0	+12
BRG							
	comp=N,673nm,16.8s						
BRG							
	comp=E,867nm,28.4s						
BRG							
	comp=Z,1µm,22.0s						
FBE	**Freiberg**	**156.99**	**343**	*e*PKPab	PKPab	21 07 52.7	0.0
PVCC	**Panska Ves**	**157.01**	**340**	*e*PKP	PKPdf	21 07 23.0	+0.4
PVCC	**Panska Ves**	**157.01**	**340**	*e*PKIKP	PKPdf	21 07 23.0	+0.4
PVCC	**Panska Ves**	**157.01**	**340**	*e*PKPDF	PKPdf	21 07 23.0	+0.4
PSZ	**Piszkesteto**	**157.20**	**329**	*e*PKPab	PKPab	21 07 53.1	-0.6
PSZ	**Piszkesteto**	**157.20**	**329**	*e*PKP/p	PKPab	21 07 54.0	+0.3
PSZ	**Piszkesteto**	**157.20**	**329**	⇑*i*P	PKPdf	21 07 34.0	+11
VYHS	**Vyhne**	**157.21**	**332**	*e*PKP	PKPdf	21 07 23.7	+0.8
VYHS				*e*		21 07 53.8	
VYHS	**Vyhne**	**157.21**	**332**	*e*PKIKP	PKPdf	21 07 23.7	+0.8
VYHS	**Vyhne**	**157.21**	**332**	*e*PKP	PKPdf	21 07 23.7	+0.8
VYHS				*e*		21 07 53.8	
KOLL	**Kolacno**	**157.32**	**332**	*e*PKP2	PKPab	21 07 54.1	-0.1
KOLL	**Kolacno**	**157.32**	**332**	*e*PKP	PKPab	21 07 54.1	-0.1
VRAC	**Vranov**	**157.41**	**336**	⇓*i*P	PKPab	21 07 54.5	-0.1
GZR	**Gura Zlata**	**157.50**	**321**	PKP2	PKPab	21 07 55.2	+0.1
PRU	**Pruhonice**	**157.50**	**340**	*e*PKP	PKPdf	21 07 23.2	0.0
PRU				*e*		21 07 34.6	
PRU				*e*		21 07 55.2	
PRU	**Pruhonice**	**157.50**	**340**	*e*PKIKP	PKPdf	21 07 23.2	0.0
PRU				*e*		21 07 34.6	
PRU	**Pruhonice**	**157.50**	**340**	*e*PKPDF	PKPdf	21 07 23.2	0.0
PRU				*e*x	x	21 07 34.6	
PRU				*e*PKPAB	PKPab	21 07 55.2	+0.3
DIM	**Dimitrovgrad**	**157.64**	**311**	*e*P	PKPab	21 07 57.0	+1.1
MOX	**Moxa**	**157.67**	**345**	*e*PKP	PKPab	21 07 54.6	-1.0
	comp=Z,71nm,2.0s						
MOX	**Moxa**	**157.67**	**345**	*e*PKP2	PKPab	21 07 54.6	-1.0
MOX				pmax	pmax		
	comp=Z,71nm,2.0s						
MOX	**Moxa**	**157.67**	**345**	*e*PKPdf	PKPdf	21 07 24.0	+0.6
MOX				*e*PKPab	PKPab	21 07 55.2	-0.4
TANN	**Tannenbergstha**	**157.68**	**344**	*e*PKPab	PKPab	21 07 55.7	0.0
WERD	**Werda**	**157.69**	**344**	*e*PKPab	PKPab	21 07 55.7	0.0
GUNZ	**Gunzen**	**157.76**	**344**	*e*PKPdf	PKPdf	21 07 24.7	+1.2
GUNZ				*e*PKPab	PKPab	21 07 56.1	+0.1
TREC	**Trest**	**157.81**	**338**	*e*PKP2	PKPab	21 07 56.6	+0.3
TREC	**Trest**	**157.81**	**338**	*e*PKPAB	PKPab	21 07 56.6	+0.3
WERN	**Wernitzgruen**	**157.82**	**344**	*e*PKPab	PKPab	21 07 56.4	+0.1
NKC	**Novy Kostel**	**157.85**	**343**	*e*PKP	PKPdf	21 07 25.4	+1.7
NKC	**Novy Kostel**	**157.85**	**343**	*e*PKIKP	PKPdf	21 07 25.4	+1.7
NKC	**Novy Kostel**	**157.85**	**343**	*e*PKPDF	PKPdf	21 07 25.4	+1.7
BUD	**Budapest**	**157.91**	**330**	⇑*e*PKP/p	PKPab	21 07 57.6	+0.8
BZS	**Buzias**	**157.98**	**323**	⇓P	PKPdf	21 07 23.6	-0.4
BZS	**Buzias**	**157.98**	**323**	⇓PKIKP	PKPdf	21 07 23.6	-0.4
BZS	**Buzias**	**157.98**	**323**	⇓*i*P	PKPdf	21 07 23.6	-0.4
ZST	**Bratislava**	**158.15**	**334**	*e*PKP2	PKPab	21 07 57.1	-0.7
ZST	**Bratislava**	**158.15**	**334**	*e*PKP	PKPab	21 07 57.1	-0.7
MANZ	**Manzenberg**	**158.17**	**344**	*e*PKPab	PKPab	21 07 57.6	-0.2
ROTZ	**Rotzenmuhle**	**158.35**	**343**	*e*PKPab	PKPab	21 07 58.8	+0.2
KHC	**Kasperske Hory**	**158.55**	**340**	*e*PKP	PKPdf	21 07 24.1	-0.4
KHC				*e*		21 07 31.0	
KHC				*e*		21 07 59.5	
KHC				*e*		21 08 05.5	
KHC	**Kasperske Hory**	**158.55**	**340**	*e*PKIKP	PKPdf	21 07 24.1	-0.4
KHC				*e*		21 07 31.0	
KHC	**Kasperske Hory**	**158.55**	**340**	*e*PKPDF	PKPdf	21 07 24.1	-0.4
KHC				*e*pPKP	pPKPdf	21 07 31.0	+1.4
KHC				*e*PKPAB	PKPab	21 07 59.5	0.0
KHC				*e*x	x	21 08 05.5	
GRF	**Grafenberg Arr**	**158.65**	**345**	*e*PKP2	PKPab	21 08 00.2	+0.3
GRF				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.9						
GRF	**Grafenberg Arr**	**158.65**	**345**	*e*PKPab	PKPab	21 08 00.2	+0.3
GRF				*e*L		22 08 11.6	
	comp=Z,2µm,18.0s						
GRFO	**Grafenberg**	**158.65**	**345**	PFAKE		21 07 40.0	+15
GRFO				LR	LR		
	comp=Z,823nm,19.0s,MS5.6						
GRFO	**Grafenberg**	**158.65**	**345**	*e*PKPab	PKPab	21 08 00.2	+0.3
TNS	**Taunus Mts**	**158.68**	**350**	*e*PKP2	PKPab	21 07 57.2	-2.8
TNS	**Taunus Mts**	**158.68**	**350**	*e*PKPab	PKPab	21 07 57.2	-2.8
WET	**Wettzell**	**158.74**	**341**	*e*PKP2	PKPab	21 08 00.7	+0.4
WET	**Wettzell**	**158.74**	**341**	*e*PKPab	PKPab	21 08 00.7	+0.4
GEC2	**GERESS Array S**	**158.77**	**340**	*e*PKP2	PKPab	21 08 00.6	+0.1
GEC2	**GERESS Array S**	**158.77**	**340**	*e*PKPab	PKPab	21 08 00.6	+0.1
GERES	**GERESS Array B**	**158.77**	**340**	PKP	PKPdf	21 07 24.5	-0.3
GERES				PKPab	PKPab	21 07 59.3	-1.1
GERES	**GERESS Array B**	**158.77**	**340**	PKIKP	PKPdf	21 07 24.5	-0.3
GERES						21 07 59.3	
GERES	**GERESS Array B**	**158.77**	**340**	PKP	PKPdf	21 07 24.5	-0.3
	comp=Z,2.4nm,0.9s,baz=56,slow=0.5,SNR=11						
GERES				PKPab	PKPab	21 07 59.3	-1.1
	comp=Z,3.8nm,0.9s,baz=58,slow=3.3,SNR=9.0						
SOP	**Sopron**	**158.78**	**334**	⇓*e*PKP/p	PKPab	21 08 01.4	+0.9
BCLA	**Clavier**	**158.83**	**356**	PKPab	PKPab	21 08 00.5	-0.2
VTS	**Vitosha**	**158.87**	**314**	⇓PKP2	PKPab	21 08 02.4	+1.2
VTS	**Vitosha**	**158.87**	**314**	*e*P	PKPab	21 08 02.0	+0.8
VTS	**Vitosha**	**158.87**	**314**	⇓*i*P	PKPab	21 08 02.4	+1.2
PKSM	**Moragy**	**159.04**	**328**	⇑P	PKPdf	21 07 24.7	-0.6
PKSM	**Moragy**	**159.04**	**328**	⇑PKIKP	PKPdf	21 07 24.7	-0.5
PKSM	**Moragy**	**159.04**	**328**	⇑*i*P	PKPdf	21 07 24.7	-0.5
MMB	**Musomiste**	**159.05**	**311**	*e*P	PKPab	21 08 02.0	0.0
DOU	**Dourbes**	**159.19**	**357**	PKPab	PKPab	21 08 02.1	-0.2
KKB	**Krupnik**	**159.33**	**313**	*e*P	PKPab	21 08 03.0	-0.2
VAY	**Valandovo**	**159.94**	**312**	*e*PKP	PKPab	21 08 05.3	-0.5
STIP	**Stip**	**159.99**	**313**	*e*PKP	PKPab	21 08 06.3	+0.2
FUR	**Furstenfeldbru**	**160.06**	**343**	*e*PKP2	PKPab	21 08 06.2	+0.1
FUR	**Furstenfeldbru**	**160.06**	**343**	*e*PKPab	PKPab	21 08 06.2	+0.1
SKO	**Skopje**	**160.31**	**315**	*e*PKP	PKPab	21 08 08.8	+1.4
KBA	**Koelnbreinsper**	**160.44**	**338**	⇑*i*P	PKPdf	21 07 26.1	-0.7
	comp=Z,12nm,1.3s						
KBA	**Koelnbreinsper**	**160.44**	**338**	⇑*i*PKPdf	PKPdf	21 07 26.1	-0.7
	comp=Z,12nm,1.3s						
KBA				⇓*i*PKPab	PKPab	21 08 08.8	+1.0
BFO	**Black Forest**	**160.53**	**349**	PFAKE		21 07 40.0	+13
BFO				LR	LR		
	comp=Z,3µm,20.0s						
MEZF	**Maizieres J’vi**	**160.75**	**355**	*e*PKIKP	PKPdf	21 07 25.9	-1.2
MEZF	**Maizieres J’vi**	**160.75**	**355**	*e*PKPdf	PKPdf	21 07 25.9	-1.2
KRUS	**Krusevo**	**160.76**	**314**	*e*PKP	PKPab	21 08 10.5	+1.1
WTTA	**Wattenberg**	**160.79**	**341**	⇑*i*P	PKPdf	21 07 27.9	+0.7
	comp=Z,14nm,1.2s						
WTTA	**Wattenberg**	**160.79**	**341**	⇓*i*	PKPab	21 08 09.1	-0.2
	comp=Z,26nm,1.0s						
WTTA	**Wattenberg**	**160.79**	**341**	⇑*i*PKPdf	PKPdf	21 07 27.9	+0.7
	comp=Z,14nm,1.2s						
WTTA				⇓*i*PKPab	PKPab	21 08 09.1	-0.2
	comp=Z,26nm,1.0s						
WTTA	**Wattenberg**	**160.79**	**341**	⇑*i*PKIKP	PKPdf	21 07 27.9	+0.7
WTTA				*i*		21 08 09.1	
MOTA	**Moosalm**	**160.87**	**343**	⇑*i*P	PKPdf	21 07 30.2	+3.0
	comp=Z,8.7nm,1.1s						
MOTA				⇓*i*		21 08 08.9	
	comp=Z,111nm,1.8s						
MOTA	**Moosalm**	**160.87**	**343**	⇓*i*PKPdf	PKPdf	21 07 27.3	+0.1
	comp=Z,8.7nm,1.1s						
MOTA				⇓*i*PKPab	PKPab	21 08 08.9	-0.7
	comp=Z,111nm,1.8s						
MOTA	**Moosalm**	**160.87**	**343**	⇑*i*PKIKP	PKPdf	21 07 30.2	+3.0
MOTA				*i*		21 08 08.9	
HAU	**Haudompre**	**161.13**	**353**	*e*PKIKP	PKPdf	21 07 25.7	-1.8
HAU	**Haudompre**	**161.13**	**353**	*e*PKPdf	PKPdf	21 07 25.7	-1.8
HAU	**Haudompre**	**161.13**	**353**	*e*PKIKP	PKPdf	21 07 25.7	-1.8
VOY	**Vojsko**	**161.16**	**335**	*e*PKPdf	PKPdf	21 07 32.7	+5.1
VOY				*e*		21 08 09.9	
FETA	**Feichten**	**161.26**	**343**	⇑*i*PKPdf	PKPdf	21 07 27.6	0.0
	comp=Z,19nm,1.3s						
LOR	**Lormes**	**162.05**	**358**	*e*PKIKP	PKPdf	21 07 27.0	-1.5
LOR	**Lormes**	**162.05**	**358**	*e*PKPdf	PKPdf	21 07 27.0	-1.5
LOR	**Lormes**	**162.05**	**358**	*e*PKIKP	PKPdf	21 07 27.0	-1.5
SSF	**Saint Saulge**	**162.27**	**358**	*e*PKIKP	PKPdf	21 07 27.3	-1.4
	comp=Z,32nm,1.1s						
SSF	**Saint Saulge**	**162.27**	**358**	*e*PKPdf	PKPdf	21 07 27.3	-1.4
SSF	**Saint Saulge**	**162.27**	**358**	*e*PKIKP	PKPdf	21 07 27.3	-1.4
TCF	**Toulx Ste Croi**	**163.04**	**1**	*e*PKIKP	PKPdf	21 07 28.2	-1.3
TCF	**Toulx Ste Croi**	**163.04**	**1**	*e*PKPdf	PKPdf	21 07 28.2	-1.3
TCF	**Toulx Ste Croi**	**163.04**	**1**	*e*PKIKP	PKPdf	21 07 28.2	-1.3
EBAJ	**Bajamar**	**163.24**	**88**	PKP	PKPdf	21 07 32.1	+1.8
LPL	**La Plagne**	**163.52**	**350**	*e*PKIKP	PKPdf	21 07 29.1	-0.9
	comp=Z,29nm,1.3s						
LPL	**La Plagne**	**163.52**	**350**	*e*PKPdf	PKPdf	21 07 29.1	-0.9
LPL	**La Plagne**	**163.52**	**350**	*e*PKIKP	PKPdf	21 07 29.1	-0.9
LPG	**La Plagne**	**163.54**	**350**	*e*PKIKP	PKPdf	21 07 28.9	-1.1
LPG	**La Plagne**	**163.54**	**350**	*e*PKPdf	PKPdf	21 07 28.9	-1.1
LPG	**La Plagne**	**163.54**	**350**	*e*PKIKP	PKPdf	21 07 28.9	-1.1
TOA0	**Torodi Ar. Sit**	**163.89**	**176**	*e*PKPdf	PKPdf	21 07 31.6	+0.4
TOA0				*e*PKPab	PKPab	21 08 24.5	+0.9
TORD	**Torodi Ar. Bea**	**163.89**	**176**	PKP	PKPdf	21 07 31.2	0.0
TORD				PKPab	PKPab	21 08 27.4	+3.8
TORD	**Torodi Ar. Bea**	**163.89**	**176**	PKP	PKPdf	21 07 31.2	0.0
	comp=Z,14nm,1.1s,baz=306,slow=0.3,SNR=39						
TORD				PKPab	PKPab	21 08 27.4	+3.8
	comp=Z,12nm,0.7s,baz=172,slow=2.4,SNR=22						
TIP	**Timpagrande**	**164.83**	**314**	*e*PKPdf	PKPdf	21 07 31.6	+0.2
MVO	**Moncorvo**	**165.73**	**31**	*e*PKP	PKPdf	21 07 34.2	+2.1
MVO	**Moncorvo**	**165.73**	**31**	*e*LR	LR	22 09 06.8	
	comp=Z,853nm,20.0s						
PMAFR	**Mafra**	**166.15**	**43**	*e*LR	LR	22 09 35.1	
	comp=Z,1µm,20.0s						
PTOM	**Tomar**	**166.20**	**39**	*e*PKP	PKPdf	21 07 34.5	+2.0

PCBR	**Castelo Branco**	166.53	36	*e*PKP	PKPdf	21 07 33.3	+0.5
GUD	**Guadarrama**	167.35	25	PKP	PKPdf	21 07 33.6	+0.3
GUD	**Guadarrama**	167.35	25	PKIKP	PKPdf	21 07 33.6	+0.3
PFVI	**Vila Bisbo**	167.55	48	*e*LR	LR	22 09 15.4	
	comp=Z,1µm,18.0s						
MORF	**Marmelete**	167.56	47	*e*LR	LR	22 10 04.2	
	comp=Z,909nm,24.5s						
EBAD	**Badajoz**	167.57	38	PKP	PKPdf	21 07 35.0	+1.5
PBEJ	**Beja**	167.59	43	*e*PKP	PKPdf	21 07 35.5	+1.9
PBAR	**Barrancos**	167.97	40	*e*PKP	PKPdf	21 07 35.1	+1.2
PBAR	**Barrancos**	167.97	40	*e*LR	LR	22 09 52.7	
	comp=Z,1µm,18.0s						
PBDV	**Barranco-do-Ve**	168.06	46	*e*PKP	PKPdf	21 07 35.9	+2.0
PBDV	**Barranco-do-Ve**	168.06	46	*e*LR	LR	22 08 51.4	
	comp=Z,1µm,18.0s						
PVAQ	**Vaqueiros**	168.09	45	*e*LR	LR	22 08 44.6	
	comp=Z,610nm,20.0s						
PAB	**San Pablo**	168.22	28	*e*PKPdf	PKPdf	21 07 35.3	+1.3
PAB				LR	LR		
	comp=Z,1µm,20.0s						
PAB	**San Pablo**	168.22	28	*e*PKIKP	PKPdf	21 07 35.3	+1.3
PAB				MLR	MLR		
	comp=Z,1µm,20.0s						
ESDC	**Sonseca Array**	168.27	26	PKP	PKPdf	21 07 34.4	+0.4
ESDC				PKPab	PKPab	21 08 41.0	-1.4
ESDC				PP	PP	21 12 32.7	+1.9
ESDC	**Sonseca Array**	168.27	26	PKP	PKPdf	21 07 34.4	+0.4
	comp=Z,6.7nm,1.1s,baz=345,slow=3.5,SNR=22						
ESDC				PKPab	PKPab	21 08 41.0	-1.4
	comp=Z,6.3nm,1.0s,baz=330,slow=3.7,SNR=8.4						
ESDC				PP	PP	21 12 32.7	+1.9
	comp=Z,1.5nm,1.0s,baz=354,slow=4.4,SNR=4.2						
ESLA	**Sonseca Array**	168.27	26	PFAKE		21 07 40.0	+6.0
ESLA				LR	LR		
	comp=Z,6µm,20.0s						
EMIN	**Mina Concepcio**	168.46	41	PKP	PKPdf	21 07 36.2	+2.0
ESPR	**Espera**	169.56	42	PKP	PKPdf	21 07 36.7	+1.8
EBAN	**Banos Encina**	169.62	30	PKP	PKPdf	21 07 35.1	+0.1
EBAN	**Banos Encina**	169.62	30	PKIKP	PKPdf	21 07 35.1	+0.2
EVIA	**Vianos**	169.72	24	PKP	PKPdf	21 07 37.6	+2.7
EVIA	**Vianos**	169.72	24	PKIKP	PKPdf	21 07 37.6	+2.6
ETOB	**Tobarra**	170.02	20	PKP	PKPdf	21 07 36.6	+1.5
EJIF	**Jimena Fronter**	170.07	42	PKP	PKPdf	21 07 37.1	+1.9
EJIF	**Jimena Fronter**	170.07	42	PKIKP	PKPdf	21 07 37.1	+1.9
EQES	**Quesada**	170.23	28	PKP	PKPdf	21 07 37.9	+2.6
KEST	**Kesra**	171.53	321	PKP	PKPdf	21 07 36.5	+0.5
	comp=Z,3.7nm,1.0s,baz=268,slow=2.2,SNR=6.3						
KEST				PKPab	PKPab	21 08 57.9	+0.9
	comp=Z,6.9nm,1.0s,baz=256,slow=3.1,SNR=8.2						

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*MAN **25** 21:09:37, 2.85N×127.15E, h48^{km}, mb4.9, ML3.9, MS4.0*
*IDC **25** 21:09:40.1±0.5, 3.41N×126.74E, h0^{km}, mb4.5/20, mb1 4.6/20, mb1mx4.6/23, mbtmp4.5/20, Error ellipse: s-maj=23.4km s-min=10.1km az=70.0*
*BJI **25** 21:09:43.1, 3.11N×126.95E, h57^{km}, mB5.1, mb4.8, Ms4.7, Msz4.6*
*MOS **25** 21:09:43.6±1.0, 3.46N×126.88E, h37^{km}, mb4.9/16, Error ellipse: s-maj=15.2km s-min=6.9km az=115.7*
*ISCJB **25** 21:09:47.1±0.8, 3.44N±0.03×126.81E±0.05, h68^{km}±7^{km}, mb4.6/58, Error ellipse: s-maj=8.3km s-min=5.0km az=161.3*
*NEIC **25** 21:09:48.7±1.2, 3.43N×126.84E, h67^{km}±11^{km}, mb4.8/20, Error ellipse: s-maj=7.7km s-min=4.0km az=65.0*
ISC 25 21:09:48.9±0.7**, 3.42N**±0.03×**126.82E**±0.05**, h68**^{km}±6^{km}**, h45**^{km}±6.4^{km}**:pP-P, n137, σ0^{s}93**/135**, mb4.6**/57**, 5C, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	**Mati**	3.55	351	*e*P	Pn	21 10 40.5	-1.0
MATI				*e*S	Sn	21 11 29.0	+6.7
BUKP	**Musuan**	4.76	338	*e*P	Pn	21 10 57.5	-0.6
BUKP				*e*S	Sn	21 11 59.2	+7.2
CGP	**Cagayan de Oro**	5.43	337	⇑*e*P	Pn	21 11 07.9	+0.6
CGP				*i* S	Sn	21 12 17.3	+8.9
PAGZ	**Pagadian**	5.57	322	*e*P	Pn	21 11 09.6	+0.3
SCPH	**Surigao**	6.46	348	*e*P	Pn	21 11 22.6	+1.3
MSLP	**Maasin**	6.95	344	*e*P	Pn	21 11 27.7	-0.3
PCI	**Palu**	8.20	239	P	Pn	21 11 47.8	+2.6
	77nm,0.9s						
KKM	**Kota Kinabalu**	10.89	284	*e*Pn	Pn	21 12 23.6	+1.6
KKM				*e*Sn	Sn	21 14 21.6	-0.6
KSM	**Kuching**	16.61	264	*e*Pn	Pn	21 13 41.3	+3.8
KSM				*e*PcP	PcP	21 18 29.2	+4.8
KAKA	**Kakadu**	16.97	161	*e*P	Pn	21 13 41.8	-0.1
	51nm,0.6s						
KAKA				*e*S	S	21 16 53.1	-3.3
NACB	**Ninganchiao**	21.24	347	*e*P	P	21 14 28.8	-0.6
FITZ	**Fitzroy Crossi**	21.42	183	*e*P	P	21 14 29.9	-1.4
	21nm,0.6s,mb4.6						
FITZ				*e*S	S	21 18 22.6	-2.7
FITZ	**Fitzroy Crossi**	21.42	183	P	P	21 14 30.0	-1.4
	13nm,0.7s,mb4.4,baz=25,slow=9.2,SNR=12						
FITZ				S	S	21 18 23.3	-2.0
	3.9nm,1.0s,baz=330,slow=10,SNR=2.2						
LEM	**Lembang**	21.71	242	P	P	21 14 39.2	+4.7
	43nm,0.9s,mb4.8						
YHNB	**Yeheng**	21.77	347	*e*P	P	21 14 35.2	+0.2
QIZ	**Qiongzhong**	22.72	314	P	P	21 14 43.9	-1.3
WRA	**Warramunga Arr**	24.36	163	P	P	21 14 59.6	-1.0
	56nm,0.6s,mb5.1,baz=339,slow=11,SNR=77						
WRA				S	S	21 19 20.9	+5.3
	11nm,1.2s,baz=342,slow=17,SNR=6.0						
WB2	**Warramunga Arr**	24.37	163	*e*P	P	21 14 59.6	-1.1
WB2				*e*S	S	21 19 16.9	+1.3
MBWA	**Marble Bar**	25.40	196	*e*P	P	21 15 10.6	+0.5
	31nm,1.2s,mb4.6						
MBWA				*e*PcP	PcP	21 18 41.3	+0.2
KULM	**Kulim**	26.16	275	*e*P	P	21 15 16.9	-0.3
ASAR	**Alice Springs**	27.79	166	P	P	21 15 30.9	-0.7
	7.5nm,0.6s,mb4.4,baz=353,slow=7.6,SNR=54						
ASAR				S	S	21 20 10.5	+0.7
	0.4nm,0.6s,baz=353,slow=8.7,SNR=2.5						
PSI	**Prapat**	27.86	270	P	P	21 15 31.9	-0.5
	4.1nm,0.6s,mb4.1,baz=56,slow=8.4,SNR=6.7						
WHN	**Wuhan**	29.44	338	⇑P	P	21 15 48.0	+1.8
NJ2	**Nanjing**	29.45	346	*e*P	P	21 15 47.0	+0.8
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.9						
CTAO	**Charters Tower**	30.17	142	P	P	21 15 52.6	-0.1
CM31	**Chiang Mai Arr**	31.11	301	*e*P	P	21 16 01.0	-0.1
CHTO	**Chiang Mai**	31.26	301	*e*P	P	21 16 02.6	+0.2
	comp=Z,3.9nm,0.6s,mb4.3						
CHTO	**Chiang Mai**	31.26	301	*e*P	P	21 16 02.6	+0.2
CHTO				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.3						
ENH	**Enshi**	31.34	330	P	P	21 16 02.4	-0.6
COCO	**West Island**	33.60	242	P	P	21 16 21.8	-1.2
KSRS	**Korea Array**	33.88	2	P	P	21 16 24.8	-0.4
	comp=Z,2.4nm,0.8s,mb4.1,baz=180,slow=9.2,SNR=7.9						
FORT	**Forrest**	34.03	178	*e*P	P	21 16 26.5	+0.1
	comp=Z,41nm,0.7s,mb5.4						
MJAR	**Matsushiro Arr**	34.59	16	P	P	21 16 30.3	-1.0
	comp=Z,0.7nm,0.5s,mb3.8,baz=195,slow=8.8,SNR=4.0						
MJAR				PcP	PcP	21 19 05.8	+1.2
	comp=Z,0.9nm,0.6s,baz=173,slow=3.6,SNR=4.4						
XAN	**Xi'an**	34.73	333	P	P	21 16 31.0	-1.5
XAN				AMB	AMB		
	comp=Z,2.0nm,0.5s,mb4.2						
HNR	**Honiara**	35.39	111	P	P	21 16 37.4	-1.0
KLBR	**Kellerberrin**	35.87	193	*e*P	P	21 16 42.8	+0.5
	comp=Z,14nm,0.9s,mb4.9						
MUN	**Mundaring**	36.62	195	*e*P	P	21 16 49.4	+0.7
EIDS	**Eidsvold**	37.05	142	*e*P	P	21 16 51.8	-0.6
NWAO	**Narrogin (SRO)**	37.27	193	*e*P	P	21 16 55.2	+1.0
	comp=Z,13nm,0.9s,mb4.9						
NWAO	**Narrogin (SRO)**	37.27	193	*e*P	P	21 16 55.2	+1.0
NWAO				pmax	pmax		
	comp=Z,13nm,0.9s						
BJT	**Baijiatuau**	37.69	347	*e*P	P	21 16 58.0	+0.4
	comp=Z,34nm,0.8s,mb5.2						
BJT	**Baijiatuau**	37.69	347	*e*P	P	21 16 58.0	+0.4
BJT				pmax	pmax		
	comp=Z,34nm,0.8s						
BJI	**Beijing**	37.71	347	P	P	21 16 58.0	+0.2
BJI				AMB	AMB		
	comp=Z,38nm,1.1s,mb5.1						
STKA	**Stephens Creek**	37.81	159	*e*P	P	21 16 58.6	-0.2
	comp=Z,54nm,0.7s,mb5.5						
STKA				*e*S	S	21 22 46.9	+2.0
STKA	**Stephens Creek**	37.81	159	P	P	21 16 58.3	-0.5
	comp=Z,67nm,0.7s,mb5.6,baz=335,slow=8.0,SNR=127						
SNY	**Shenyang**	38.35	356	⇑P	P	21 17 04.3	+1.1
SNY				AMB	AMB		
	comp=Z,16nm,0.6s,mb5.0						
SNY				LR	LR		
	comp=N,521nm,22.5s						
SNY				LR	LR		
	comp=E,419nm,19.2s						
SNY				LR	LR		
	comp=Z,914nm,20.4s						
LZH	**Lanzhou**	38.81	330	*e*P	P	21 17 07.8	+0.6
LZH				AP	pP	21 17 16.3	-7.6
LZH				AMB	AMB		
	comp=Z,19nm,1.4s,mb4.7						
LZH	**Lanzhou**	38.81	330	*e*P	P	21 17 07.8	+0.6
	comp=Z,19nm,1.4s,mb4.7						
LZH				pP	pP	21 17 16.2	-7.7
LZH				sP	sP	21 17 20.0	-12
LZH	**Lanzhou**	38.81	330	*e*P	P	21 17 07.8	+0.6
LZH				*SP	sP	21 17 20.0	-12
LZH				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.7						
SHL	**Shillong**	40.13	307	*e*P	P	21 17 18.0	-0.3
MDJ	**Mudanjiang**	41.10	3	P	P	21 17 24.7	-1.3
ARMA	**Armidale**	41.16	147	*e*P	P	21 17 27.5	+0.8
LSA	**Lhasa**	42.71	312	P	P	21 17 40.3	+0.9
LSA	**Lhasa**	42.71	312	*e*P	P	21 17 39.8	+0.3
	comp=Z,8.2nm,0.6s,mb4.6						
LSA	**Lhasa**	42.71	312	*e*P	P	21 17 39.8	+0.4
LSA				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.6						
ASAJ	**Asahikawa**	42.86	17	P	P	21 17 40.8	+0.4
	comp=Z,5.7nm,0.7s,mb4.4,baz=109,slow=3.7,SNR=6.3						
GTA	**Gaotai**	43.41	329	*e*P	P	21 17 45.8	+0.9
GTA				AP	pP	21 17 54.8	-7.0
GTA				AMB	AMB		
	comp=Z,4.0nm,1.1s,mb4.1						
TAPN	**Taplejung**	44.27	307	*e*P	P	21 17 51.5	-0.5
	comp=Z,31nm,1.2s,mb4.9						
ODAN	**Odare**	44.32	306	*e*P	P	21 17 51.8	-0.6
	comp=Z,15nm,0.5s,mb5.0						
HABR	**Khabarovsk**	45.44	8	*e*P	P	21 18 06.5	+5.6
HABR				*e*S	S	21 24 39.3	+2.1
YSS	**Yuzh-Sakhalins**	45.51	15	P	P	21 18 00.6	-0.9
YSS				*e*	pP	21 18 14.7	-3.9
JIRN	**Jiri**	45.63	306	*e*P	P	21 18 02.1	-0.7
	comp=Z,17nm,0.6s,mb5.0						
KLR	**Kul'dur**	45.83	5	*e*P	P	21 18 00.0	-4.0
PALK	**Pallekele**	46.06	277	*e*P	P	21 18 06.9	+0.5
HIA	**Hailar**	46.08	354	*e*P	P	21 18 06.4	+0.5
DZM	**Mont Dzumac**	46.28	125	P	P	21 18 08.8	+0.8
	comp=Z,6.1nm,0.7s,mb4.5,baz=279,slow=19,SNR=4.2						
KKN	**Kakani**	46.41	306	*e*P	P	21 18 08.3	-0.7
	comp=Z,12nm,0.5s,mb4.9						
GKN	**Gorkha**	47.02	306	*e*P	P	21 18 12.5	-1.2
	comp=Z,8.0nm,0.4s,mb4.8						
ULN	**Ulaanbaatar**	47.44	342	*e*P	P	21 18 17.7	+1.1
	comp=Z,4.0nm,0.6s,mb4.3						
ULN				*e*PcP	PcP	21 19 47.2	+1.2
ULN	**Ulaanbaatar**	47.44	342	*e*P	P	21 18 17.7	+1.1
ULN				*e*		21 19 47.3	
ULN				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.3						
SONM	**Songino Array**	47.62	341	P	P	21 18 17.9	-0.1
	comp=Z,3.8nm,0.6s,mb4.4,baz=168,slow=6.7,SNR=36						
SONM				PcP	PcP	21 19 48.3	+1.6
	comp=Z,2.0nm,1.0s,baz=157,slow=3.0,SNR=4.1						
HYB	**Hyderabad**	49.31	290	*e*P	P	21 18 31.5	0.0
HYB	**Hyderabad**	49.31	290	*i* P	P	21 18 31.5	0.0
ZAK	**Zakamensk**	50.84	341	*e*P	P	21 18 41.4	-1.1
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.8						
TLY	**Talaya**	51.85	342	*e*P	P	21 18 51.4	+1.4
	comp=Z,5.2nm,0.6s,mb4.7						
TLY	**Talaya**	51.85	342	*e*P	P	21 18 50.9	+0.9
TLY				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
MOY	**Mondy**	52.70	340	*e*P	P	21 18 57.6	+1.3
WMQ	**Urumqi**	53.03	325	*e*P	P	21 18 57.3	-1.6
WMQ				AMB	AMB		
	comp=Z,8.0nm,1.4s,mb4.6						
WMQ				LR	LR		
	comp=E,833nm,22.3s						
WMQ				LR	LR		
	comp=Z,971nm,23.4s						
BOD	**Bodaibo**	55.18	352	*e*P	P	21 19 12.8	-1.5
BOD				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.7						
MK31	**Makanchi Array**	57.86	325	*e*P	P	21 19 33.6	0.0
MK31				*e*PcP	PcP	21 20 18.2	-7.2
MKAR	**Makanchi Array**	57.86	325	P	P	21 19 33.6	0.0
	comp=Z,3.7nm,0.4s,mb4.8,baz=122,slow=7.7,SNR=70						
YAK	**Yakutsk**	58.51	2	*e*P	P	21 19 38.2	+0.3
YAK				*e*	pP	21 19 52.1	-3.4
YAK	**Yakutsk**	58.51	2	*e*P	P	21 19 41.4	+3.6
YAK				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
MA2	**Magadan**	58.98	14	P	P	21 19 41.0	-0.1
MA2	**Magadan**	58.98	14	⇑*e*P	P	21 19 49.7	+8.6
MA2				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
TKM2	**Tokmak 2**	60.04	319	*e*P	P	21 19 48.6	-0.2
UCH	**Uchtor**	60.46	318	*e*P	P	21 19 52.7	+1.0
	comp=Z,9.8nm,1.0s,mb4.8						
AAK	**Ala-Archa**	60.65	318	*e*P	P	21 19 53.8	+0.9
ZAA0	**Zalesovo Array**	60.90	333	*e*P	P	21 19 53.6	-0.8
ZALV	**Zalesovo Beam**	60.90	333	P	P	21 19 53.6	-0.8
	comp=Z,1.3nm,0.4s,mb4.3,baz=117,slow=6.4,SNR=9.8						
ZAL	**Zalesovo**	60.91	333	P	P	21 19 53.6	-0.8
AML	**Almayashu**	60.98	317	*e*P	P	21 19 55.7	+0.6
	comp=Z,8.0nm,0.9s,mb4.8						
AML				*e*PcP	PcP	21 20 37.3	-0.6
EKS2	**Erkin-Say**	61.14	318	*e*P	P	21 19 55.9	-0.3
	comp=Z,6.9nm,1.0s,mb4.6						
RPZ	**Rata Peaks**	61.46	145	P	P	21 20 00.2	+1.9
	comp=Z,12nm,1.0s,mb4.9,baz=324,slow=8.7,SNR=4.5						
KBL	**Kabul**	61.78	308	*e*P	P	21 19 59.7	-1.0
KURK	**Kurchatov**	62.05	328	*e*P	P	21 20 02.2	0.0
	comp=Z,12nm,0.6s,mb5.1						
KURK	**Kurchatov**	62.05	328	*e*P	P	21 20 02.2	0.0
KURK				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.1						
NVS	**Novosibirsk**	62.19	333	*e*P	P	21 20 01.5	-1.5
NVS				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.7						
NVS				pmax	pmax		
	comp=N,4.0nm,1.4s						
NVS				pmax	pmax		
	comp=E,7.0nm,1.4s						
URZ	**Urewera**	62.25	137	P	P	21 20 04.3	+0.5
	comp=E,7.6nm,0.8s,mb4.8,baz=0.6,slow=6.1,SNR=4.8						
BRVK	**Borovoye**	67.70	327	*e*P	P	21 20 39.0	+0.2
	comp=E,19nm,1.1s,mb4.8						
BRVK	**Borovoye**	67.70	327	*e*P	P	21 20 39.0	+0.1
BRVK				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.8						
CHKZ	**Chkalovo**	67.79	328	*e*P	P	21 20 39.8	+0.4
	comp=Z,0.1nm,0.3s						
CHKZ				*e*	pP	21 20 54.0	-3.5
TIXI	**Tiksi**	68.15	1	*e*P	P	21 20 41.2	-0.1
	comp=Z,9.4nm,0.3s,mb5.1						
TIXI	**Tiksi**	68.15	1	*e*P	P	21 20 47.7	+6.4
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.4						
ARU	**Arti**	75.24	328	*e*P	P	21 21 23.9	-0.3
	comp=Z,5.1nm,0.6s,mb4.4						
ARU				*e*PcP	PcP	21 21 36.5	-0.8
ARU	**Arti**	75.24	328	*e*P	P	21 21 23.9	-0.3
ARU				*e*		21 21 36.5	
ARU				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
ORR	**Orenburg**	76.23	322	*e*P	P	21 21 30.4	+0.4
IMA2	**Indian Mountai**	82.62	24	*e*P	P	21 22 05.9	+1.5
KIV	**Kislovodsk**	83.42	314	*e*P	P	21 22 09.2	+0.2
KIV	**Kislovodsk**	83.42	314	*e*P	P	21 22 09.2	+0.2
PMR	**Palmer**	84.17	29	P	P	21 22 12.9	+0.5
VRSR	**Storozhevoye**	85.87	321	*e*P	P	21 22 21.4	+0.2
VRSR				pmax	pmax		
	comp=N,3.0nm,1.0s						
VRSR				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.9s						
MOS	**Moscow**	86.74	325	*e*P	P	21 22 30.6	+5.2
MOS				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
OBN	**Obninsk**	87.36	325	*e*P	P	21 22 28.5	+0.1
OBN	**Obninsk**	87.36	325	⇑P	P	21 22 28.0	-0.4
OBN				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
KMBO	**Kilima Mbogo**	89.64	269	P	P	21 22 41.1	+1.1
	comp=Z,3.8nm,0.9s,mb4.5,baz=43,slow=6.7,SNR=9.8						
BRTR	**Keskin Array B**	90.29	310	P	P	21 22 42.6	+0.1
	comp=Z,1.6nm,0.8s,mb4.2,baz=108,slow=6.3,SNR=7.7						
ARCES	**ARCESS Array B**	90.77	340	P	P	21 22 44.0	-0.1
	comp=Z,2.2nm,0.7s,mb4.4,baz=95,slow=5.0,SNR=10						
FINES	**FINESS Array B**	92.15	332	P	P	21 22 52.7	+2.0
FINES	**FINESS Array B**	92.15	332	P	P	21 22 52.7	+2.0
	comp=Z,1.6nm,0.7s,mb4.4,baz=50,slow=3.0,SNR=9.0						
AKASG	**Malin Array Be**	92.19	321	P	P	21 22 51.1	0.0
	comp=Z,1.1nm,0.5s,mb4.3,baz=67,slow=4.3,SNR=3.9						
QSPA	**South Pole Qui**	93.33	180	*e*P	P	21 22 60.0	+4.2
NOA	**NORSAR Array B**	99.10	334	P	P	21 23 20.8	-1.5
	comp=Z,0.8nm,0.7s,mb4.3,baz=167,slow=0.7,SNR=4.0						
YKA	**Yellowknife Ar**	99.74	24	P	Pdif	21 23 25.5	+0.2
	comp=Z,0.1nm,0.3s,baz=294,slow=4.6,SNR=3.8						
GERES	**GERESS Array B**	102.38	322	P	Pdif	21 23 36.3	-0.7
	comp=Z,0.3nm,0.6s,baz=222,slow=1.8,SNR=4.2						
ISCO	**Idaho Springs**	115.53	43	*e*PKPdf	PKPdf	21 28 21.7	-1.9
ISCO	**Idaho Springs**	115.53	43	*e*PKIKP	PKPdf	21 28 21.7	-1.8
SDCO	**Great Sand Dun**	116.58	45	PKPdf	PKPdf	21 28 24.8	-0.8
LTX	**Lajitas**	121.71	52	*e*PKPdf	PKPdf	21 28 34.5	-1.2
LTX	**Lajitas**	121.71	52	*e*PKIKP	PKPdf	21 28 34.5	-1.2
TXAR	**Lajitas Array**	121.71	52	PKP	PKPdf	21 28 37.2	+1.4
TXAR	**Lajitas Array**	121.71	52	PKIKP	PKPdf	21 28 37.2	+1.5
TXAR	**Lajitas Array**	121.71	52	PKP	PKPdf	21 28 37.2	+1.4
	comp=Z,0.3nm,0.7s,baz=165,slow=1.0,SNR=6.1						
TORD	**Torodi Ar. Bea**	123.10	288	PKP	PKPdf	21 28 39.4	+0.7
TORD	**Torodi Ar. Bea**	123.10	288	PKP	PKPdf	21 28 39.4	+0.7
	comp=Z,1.5nm,0.7s,baz=79,slow=1.8,SNR=13						
JTS	**JuntasAbangare**	145.55	66	*e*PKP	PKPdf	21 29 21.9	+1.5
JTS	**JuntasAbangare**	145.55	66	*e*PKIKP	PKPdf	21 29 21.9	+1.5

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*ISCJB **25** 21:52:41.0±0.6, 43.57N±0.03×6.04E±0.04, h12^{km}±6^{km}, Error ellipse: s-maj=6.1km s-min=3.8km az=24.7*
*STR **25** 21:52:40.7±0.1, 43.52N×6.09E, h2^{km}, Ml2.5, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
*CSEM **25** 21:52:41.8±0.1, 43.54N×6.04E, h8^{km}, ML1.8/4, Error ellipse: s-maj=2.7km s-min=1.4km az=25.0*
*LDG **25** 21:52:41.9±0.1, 43.53N×6.03E, h3^{km}, Md2.0/3, Ml1.9/4, Error ellipse: s-maj=1.3km s-min=0.6km az=38.0*
*NEIC **25** 21:52:41.9, 43.53N×6.03E, h3^{km}, ML2.5(STR), ML1.9(LDG), After LDG.*
ISC 25 21:52:41.6±0.6**, 43.54N**±0.04×**6.04E**±0.03**, h8**^{km}±7^{km}**, n39, σ0^{s}56**/66**, Near south coast of France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAVF	**Tavernes**	0.08	11	Pg	Pg	21 52 42.9	-0.8
TAVF				Sg	Sg	21 52 44.7	-0.5
TAVF	**Tavernes**	0.08	11	Pg	Pg	21 52 42.9	-0.8
TAVF				Sg	Sg	21 52 44.7	-0.5
TAVF	**Tavernes**	0.08	11	Pg	Pg	21 52 42.9	-0.8
TAVF				Sg	Sg	21 52 44.7	-0.5
PUYF	**Puyloubier**	0.24	268	Pg	Pg	21 52 46.3	-0.2
PUYF				Sg	Sg	21 52 50.4	+0.6
PUYF	**Puyloubier**	0.24	268	Pg	Pg	21 52 46.3	-0.2
PUYF				Sg	Sg	21 52 50.4	+0.6
PUYF	**Puyloubier**	0.24	268	Pg	Pg	21 52 46.3	-0.2
PUYF				Sg	Sg	21 52 50.4	+0.6
VILF	**Villemus**	0.39	323	Pg	Pg	21 52 49.1	-0.2
VILF	**Villemus**	0.39	323	Pg	Pg	21 52 49.1	-0.2
VILF	**Villemus**	0.39	323	Pg	Pg	21 52 49.1	-0.2
LMR	**La Mourre**	0.40	121	*e*Pg	Pg	21 52 49.5	+0.1
LMR				*e*Sg	Sg	21 52 55.0	+0.3
	11nm,0.2s						
LMR	**La Mourre**	0.40	121	*e*Pg	Pg	21 52 49.5	+0.1
LMR				*e*Sg	Sg	21 52 55.0	+0.3
LMR	**La Mourre**	0.40	121	*e*Pg	Pg	21 52 49.5	+0.1
LMR				*e*Sg	Sg	21 52 55.0	+0.3
	5.4nm,0.2s						
FRF	**La Foret Royal**	0.44	87	*e*Pg	Pg	21 52 50.3	0.0
FRF				*e*Sg	Sg	21 52 56.3	+0.2
	6.2nm,0.2s						
FRF	**La Foret Royal**	0.44	87	*e*Pg	Pg	21 52 50.3	0.0
FRF				*e*Sg	Sg	21 52 56.3	+0.2
FRF	**La Foret Royal**	0.44	87	*e*Pg	Pg	21 52 50.3	0.0
FRF				*e*Sg	Sg	21 52 56.3	+0.2
	3.1nm,0.2s						
STOF	**St-Etienne Org**	0.47	349	Pg	Pg	21 52 53.7	+3.0
STOF	**St-Etienne Org**	0.47	349	Pg	Pg	21 52 53.7	+3.0
STOF	**St-Etienne Org**	0.47	349	Pg	Pg	21 52 53.7	+3.0
SMRF	**Simiane la Rot**	0.55	323	*e*Pg	Pg	21 52 52.7	+0.4
SMRF				*e*Sg	Sg	21 52 59.9	+0.4
	3.4nm,0.2s						
SMRF	**Simiane la Rot**	0.55	323	*e*Pg	Pg	21 52 52.7	+0.4
SMRF				*e*Sg	Sg	21 52 59.9	+0.4
SMRF	**Simiane la Rot**	0.55	323	*e*Pg	Pg	21 52 52.7	+0.4
SMRF				*e*Sg	Sg	21 52 59.9	+0.4
	1.7nm,0.2s						
PRAF	**Pradon**	0.68	293	Pg	Pg	21 52 54.6	-0.2
PRAF	**Pradon**	0.68	293	Pg	Pg	21 52 54.6	-0.2
PRAF	**Pradon**	0.68	293	Pg	Pg	21 52 54.6	-0.2
SBF	**Sospel**	1.06	72	*e*Pg	Pg	21 53 02.2	+0.1
SBF				*e*Sg	Sg	21 53 16.1	+0.2
	7.6nm,0.2s						
SBF	**Sospel**	1.06	72	*e*Pg	Pg	21 53 02.2	+0.1
SBF				*e*Sg	Sg	21 53 16.1	+0.2
SBF	**Sospel**	1.06	72	*e*Pg	Pg	21 53 02.2	+0.1
SBF				*e*Sg	Sg	21 53 16.1	+0.2
	3.8nm,0.2s						
MBDF	**Montbardon**	1.30	24	*e*Pg	Pg	21 53 06.6	0.0
MBDF				*e*Sg	Sg	21 53 23.6	+0.2
	0.7nm,0.2s						
MBDF	**Montbardon**	1.30	24	*e*Pg	Pg	21 53 06.6	0.0
MBDF				*e*Sg	Sg	21 53 23.6	+0.2
MBDF	**Montbardon**	1.30	24	*e*Pg	Pg	21 53 06.6	0.0
MBDF				*e*Sg	Sg	21 53 23.6	+0.2
	0.3nm,0.2s						
ORIF	**Oris-en-Rattie**	1.38	355	*e*Pg	Pg	21 53 08.1	-0.1
ORIF				*e*Sg	Sg	21 53 26.1	0.0
	3.6nm,0.3s						
ORIF	**Oris-en-Rattie**	1.38	355	*e*Pg	Pg	21 53 08.1	-0.1
ORIF				*e*Sg	Sg	21 53 26.1	0.0
ORIF	**Oris-en-Rattie**	1.38	355	*e*Pg	Pg	21 53 08.1	-0.1
ORIF				*e*Sg	Sg	21 53 26.1	0.0
	1.8nm,0.3s						
VIVF	**Saint-Julien-l**	1.64	324	*e*Pg	Pg	21 53 12.6	-0.5
VIVF				*e*Sg	Sg	21 53 34.0	-0.4
	1.4nm,0.2s						
VIVF	**Saint-Julien-l**	1.64	324	*e*Pg	Pg	21 53 12.6	-0.5
VIVF				*e*Sg	Sg	21 53 34.0	-0.4
VIVF	**Saint-Julien-l**	1.64	324	*e*Pg	Pg	21 53 12.6	-0.5
VIVF				*e*Sg	Sg	21 53 34.0	-0.4
	0.7nm,0.2s						
PGF	**Pioggiola**	2.39	114	*e*Pn	Pn	21 53 20.2	-0.8
PGF	**Pioggiola**	2.39	114	*e*Pn	Pn	21 53 20.2	-0.8
PGF	**Pioggiola**	2.39	114	*e*Pn	Pn	21 53 20.2	-0.8

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*BJI **25** 21:53:10.6, 73.49N×63.9E, h10^{km}, mB5.5, mb5.0, Ms5.2, Msz4.9*
*CSEM **25** 21:53:11.9±0.0, 73.28N×67.0E, h14^{km}, mb5.2/99, Ms4.8, Mw5.4, Error ellipse: s-maj=1.4km s-min=0.9km az=68.0*
*IDC **25** 21:53:11.6±0.4, 73.22N×69.0E, h0^{km}, mb4.5/27, mb1 4.7/33, mb1mx4.7/33, mbtmp4.6/33, ML4.0/5, MS5.0/25, Ms1 5.0/25, ms1mx4.9/32, Error ellipse: s-maj=12.4km s-min=8.2km az=39.0*
*CRAAG **25** 21:53:11.6, 73.31N×70.0E, Mb5.3*
*MOS **25** 21:53:11.0±1.4, 73.30N×64.1E, h10^{km}, mb5.4/108, MS5.0/74, Error ellipse: s-maj=20.5km s-min=2.6km az=92.5*
*ISCJB **25** 21:53:11.8±0.1, 73.21N±0.01×66.9E±0.06, h10^{km}, mb5.1/245, MS5.0/207, Error ellipse: s-maj=2.5km s-min=2.0km az=175.3*
*NAO **25** 21:53:12.7, 73.21N×69.8E, h16^{km}, ML3.6*
*BGS **25** 21:53:12.8, 73.20N×67.8E, h10^{km}, mb5.0*
*HEL **25** 21:53:12.4±0.5, 73.29N×70.2E, h10^{km}, ML4.5, mb5.3(NEIC), MS5.1(NEIC)*
*GCMT **25** 21:53:13.6±0.1, 73.26N×67.6E, h12^{km}, MW5.4/100, Moment Tensor Solution. s54,c73; s100,c202; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-1.49±.02; M$_{\theta\theta}$0.67±.02; M$_{\phi\phi}$0.82±.02; M$_{r\theta}$0.07±.07;*

Mθφ0.75±.02; Mφr-0.41±.07; Best double couple: M0 1.55000×10^{17} NP1:φs233.00000°,δ41.00000°, λ-72.00000°. NP2:φs30.00000°,δ51.00000°, λ-105.00000°. Principal axes: T 1.5210, Plg5.0000°, Azm131.0000°; N 0.0600, Plg12.0000°, Azm40.0000°; P -1.5800, Plg77.0000°, Azm244.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.

*NEIC **25** 21:53:13.6±0.1, 7320N×678E, h10^{km}, mb5.3/157, MS5.1/154 Error ellipse: s-maj=3.9km s-min=2.6km az=69.0*

*BER **25** 21:53:14.8±3.9, 7321N×691E, h24^{km}±41^{km}, MD3.1, ML3.8, ML3.6(NAO)*

*SZGRF **25** 21:53:27.2, 7225N×807E, h33^{km}, mb5.3, MS4.5, Norwegian Sea*

ISC 25 21:53:13.8±0.1,**7318N**±001×**677E**±006,**h10**^{km}**,(h15**^{km}±1.6^{km}**:pP-P),n1082,**σ1§**22**/1047,**mb5.1**/244,**MS5.0**/207,**35C-25D,Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JNE	Jan Mayen East	5.14	252	*e*P	Pn	21 54 29.1	-1.6
JNW	Jan Mayen West	5.16	253	*e*P	Pn	21 54 29.3	-1.5
JMIC	Jan Mayen	5.20	252	*e*P	Pn	21 54 30.1	-1.4
JMIC	Jan Mayen	5.20	252	Pn	Pn	21 54 29.7	-1.8
JMIC				LR	LR	21 56 07.3	
JMIC	Jan Mayen	5.20	252	Pn	Pn	21 54 29.7	-1.8
	105nm,0.3s,baz=24,slow=4.5,SNR=16						
JMIC				LR	LR	21 56 07.3	
	comp=Z,12μm,19.6s,baz=40,slow=34						
JMIC	Jan Mayen	5.20	252	Pn	Pn	21 54 29.7	-1.8
JMIC	Jan Mayen	5.20	252	P	Pn	21 54 30.1	-1.4
TRO	Tromso	5.27	127	*e*P	Pn	21 54 29.6	-2.8
TRO				*e*S	Sn	21 55 26.0	-7.1
TRO				AML	AML	21 55 29.7	
	comp=Z,125nm,0.6s						
TRO				*e*		21 59 11.8	
TRO	Tromso	5.27	127	*e*P	Pn	21 54 29.6	-2.8
TRO				*e*S	Sn	21 55 26.0	-7.1
JMI	Jan Mayen	5.29	252	*e*P	Pn	21 54 31.3	-1.5
SPB4	Spitsbergen Ar	5.54	21	*e*Pn	Pn	21 54 33.1	-3.1
SPB4				Sn	Sn	21 55 40.4	+0.5
SPB4	Spitsbergen Ar	5.54	21	*e*Pn	Pn	21 54 33.1	-3.1
SPA0	Spitsbergen Ar	5.55	21	Pn	Pn	21 54 33.1	-3.1
	baz=187,slow=16						
SPA0	Spitsbergen Ar	5.55	21	*e*P	Pn	21 54 33.1	-3.1
SPA0	Spitsbergen Ar	5.55	21	Pn	Pn	21 54 33.1	-3.1
	baz=187,slow=16						
SPA0	Spitsbergen Ar	5.55	21	Pn	Pn	21 54 33.1	-3.1
	SNR=62						
LOF	Lofoten	5.55	153	*e*P	Pn	21 54 36.0	-0.2
LOF				*e*S	Sn	21 55 33.2	-6.8
LOF				AML	AML	21 55 36.7	
	comp=Z,232nm,0.4s						
LOF				*e*		21 59 29.3	
LOF	Lofoten	5.55	153	*e*P	Pn	21 54 36.5	+0.2
LOF				*e*S	Sn	21 55 29.2	-11
LOF				*e*		21 59 29.3	
LOF	Lofoten	5.55	153	*e*P	Pn	21 54 36.5	+0.2
KBS	Kingsbay	5.91	10	Pn	Pn	21 54 37.5	-3.7
KBS	Kingsbay	5.91	10	*e*P	Pn	21 54 37.9	-3.2
KBS	Kingsbay	5.91	10	*e*Pn	Pn	21 54 37.6	-3.5
	comp=Z,85nm,0.6s						
KBS				*e*Sn	Sn	21 55 48.7	0.0
KBS	Kingsbay	5.91	10	*e*P	Pn	21 54 38.5	-2.6
KBS	Kingsbay	5.91	10	*e*Pn	Pn	21 54 37.6	-3.5
	comp=Z,85nm,0.6s						
KIF	Kilpisjarvi	6.18	126	*e*P	Pn	21 54 43.1	-1.9
KIF				MPN		21 54 44.9	
	comp=Z,41nm,0.2s						
KIF				*e*S	Sn	21 55 47.5	-8.0
KTK1	Kautokeino	6.77	120	*e*P	Pn	21 54 52.1	-0.9
KTK1				*e*S	Sn	21 55 59.0	-11
KTK1				*e*		21 59 40.5	
ARA0	ARCESS Array S	7.01	112	Pn	Pn	21 54 53.4	-2.9
	baz=325,slow=12						
ARA0	ARCESS Array S	7.01	112	*e*P	Pn	21 54 53.4	-2.9
ARA0	ARCESS Array S	7.01	112	Pn	Pn	21 54 53.4	-2.9
	baz=325,slow=12						
ARA0	ARCESS Array S	7.01	112	Pn	Pn	21 54 53.4	-2.9
	SNR=62						
ARCES	ARCESS Array B	7.01	112	Pn	Pn	21 54 53.3	-3.0
ARCES				Sn	Sn	21 56 07.9	-8.0
ARCES				LR	LR	21 58 16.2	
ARCES	ARCESS Array B	7.01	112	Pn	Pn	21 54 53.3	-3.0
	comp=Z,8.8nm,0.3s,baz=322,slow=13,SNR=259						
ARCES				Sn	Sn	21 56 07.9	-8.0
	comp=Z,12nm,0.3s,baz=315,slow=22,SNR=11						
ARCES				LR	LR	21 58 16.2	
	comp=Z,6μm,20.5s,baz=338,slow=44						
ARCES	ARCESS Array B	7.01	112	Pn	Pn	21 54 53.3	-3.0
ARCES				Sn	Sn	21 56 07.9	-8.0
ARE0	ARCESS Array S	7.01	112	*e*Pn	Pn	21 54 54.1	-2.2
ARE0				*e*Sn	Sn	21 56 09.3	-6.5
ARE0	ARCESS Array S	7.01	112	*e*Pn	Pn	21 54 54.1	-2.2
ARE0				*e*Sn	Sn	21 56 09.3	-6.6
STOK	Stokkvaagen	7.21	160	*e*P	Pn	21 54 58.2	-0.8
STOK				*e*S	Sn	21 56 10.2	-11
STOK				AML	AML	21 56 16.8	
	comp=Z,134nm,0.6s						
STOK	Stokkvaagen	7.21	160	*e*P	Pn	21 54 58.2	-0.8
STOK				*e*S	Sn	21 56 10.2	-11
STOK	Stokkvaagen	7.21	160	*e*Pn	Pn	21 54 58.2	-0.8
STOK				*e*Sn	Sn	21 56 12.5	-8.3
STOK				AML	AML	21 56 16.8	
	comp=Z,134nm,0.6s						
STOK	Stokkvaagen	7.21	160	*e*Pn	Pn	21 54 58.2	-0.9
	SNR=62						
KEV	Kevo	7.28	108	*e*P	Pn	21 54 57.8	-2.2
KEV				MPN		21 55 06.3	
	comp=Z,28nm,0.3s						
KEV				*e*S	Sn	21 56 11.4	-11
KEV	Kevo	7.28	108	*e*Pn	Pn	21 54 56.9	-3.1
	comp=Z,40nm,0.5s						
KEV				*e*Sn	Sn	21 56 21.7	-0.8
KEV	Kevo	7.28	108	*e*P	Pn	21 54 56.9	-3.1
KEV				*e*		21 56 21.7	
KEV				pmax	pmax		
	comp=Z,40nm,0.5s						
KEV	Kevo	7.28	108	*e*Pn	Pn	21 54 56.9	-3.1
	comp=Z,40nm,0.5s						
HEF	Hetta	7.32	122	*e*P	Pn	21 54 59.3	-1.3
HEF				*e*S	Sn	21 56 15.1	-8.5
DAG	Danmarks Havn	7.47	310	*e*P	Pn	21 54 57.2	-5.3
DAG	Danmarks Havn	7.47	310	⇓*i*P	Pn	21 54 57.2	-5.3
DAG				pmax	pmax		
	comp=Z,96nm,0.8s						
DAG				MLR	MLR		
	comp=Z,15μm,19.0s						
DAG	Danmarks Havn	7.47	310	⇓*i*P	Pn	21 54 57.2	-5.3
	comp=Z,96nm,0.8s						
DAG							
	comp=Z,15μm,19.0s						
MOR8	Moi Rana	7.53	156	*e*P	Pn	21 55 01.8	-1.6
MOR8				*e*S	Sn	21 56 19.8	-8.8
MOR8				AML	AML	21 56 25.1	
	comp=Z,115nm,0.4s						
MOR8	Moi Rana	7.53	156	*e*P	Pn	21 55 01.8	-1.6
MOR8				*e*S	Sn	21 56 19.8	-8.8
MOR8	Moi Rana	7.53	156	*e*Pn	Pn	21 55 01.8	-1.6
MOR8				*e*Sn	Sn	21 56 19.8	-8.8
MOR8				AML	AML	21 56 25.1	
	comp=Z,115nm,0.4s						
MOR8	Moi Rana	7.53	156	*e*Pn	Pn	21 55 01.8	-1.6
	SNR=62						
SGF	Sodankyl	8.77	121	*e*P	Pn	21 55 18.6	-1.8
SGF				MPN		21 55 22.2	
	comp=Z,40nm,0.6s						
SGF				*e*S	Sn	21 56 48.8	-10
NSS	Namsos	8.89	165	*e*P	Pn	21 55 20.2	-1.9
NSS				*e*S	Sn	21 56 53.0	-9.0
NSS				AML	AML	21 57 01.0	
	comp=Z,86nm,0.6s						
NSS				*e*		21 59 24.3	
NSS	Namsos	8.89	165	*e*P	Pn	21 55 20.2	-1.9
NSS				*e*S	Sn	21 56 53.0	-9.0
NSS	Namsos	8.89	165	*e*Pn	Pn	21 55 20.2	-1.9
NSS				*e*Sn	Sn	21 56 53.0	-9.0
NSS				AML	AML	21 57 01.0	
	comp=Z,86nm,0.6s						
NSS				*e*		21 59 24.3	
NSS	Namsos	8.89	165	*e*Pn	Pn	21 55 20.2	-1.9
	SNR=62						
NSS				*e*Sn	Sn	21 56 53.0	-9.1
	comp=Z,86nm,0.6s,SNR=62						
APA0	Apatity Array	10.35	110	Pn	Pn	21 55 39.8	-2.2
	baz=319,slow=11						
APA0	Apatity Array	10.35	110	*e*P	Pn	21 55 39.8	-2.2
APA0	Apatity Array	10.35	110	Pn	Pn	21 55 39.8	-2.2
	baz=319,slow=11						
APA0	Apatity Array	10.35	110	Pn	Pn	21 55 39.8	-2.2
	SNR=62						
APA	Apatity	10.49	109	⇑*i*P	Pn	21 55 40.0	-3.9
APA				pmax	pmax		
	comp=Z,44nm,0.8s						
APA				MLR	MLR		
	comp=Z,8μm,16.0s						
OUL	Oulu	10.54	131	*e*P	Pn	21 55 43.1	-1.6
OUL				MPN		21 55 48.4	
	comp=Z,37nm,0.6s						
MSF	Maaselka	10.59	122	*e*P	Pn	21 55 43.4	-1.9
UMAU	Umeaa	10.60	145	P	Pn	21 55 43.9	-1.5
LVZ	Lovozero	10.61	106	*e*P	Pn	21 55 42.1	-3.4
MOL	Molde	10.67	178	*e*P	Pn	21 55 44.6	-1.8
MOL	Molde	10.67	178	*e*Pn	Pn	21 55 44.6	-1.8
MOL	Molde	10.67	178	*e*Pn	Pn	21 55 44.6	-1.8
	SNR=62						
KU6	Riekki	10.71	120	*e*P	Pn	21 55 44.8	-2.2
KU6				*e*S	Sn	21 57 32.4	-14
DOMB	Dombas	11.23	174	*e*P	Pn	21 55 52.4	-1.6
DOMB	Dombas	11.23	174	*e*Pn	Pn	21 55 52.4	-1.6
DOMB	Dombas	11.23	174	*e*Pn	Pn	21 55 52.4	-1.6
	SNR=62						
FOO	Floro	11.66	184	*e*P	Pn	21 55 57.4	-2.5
FOO				*e*S	Sn	21 57 59.8	-10
FOO				AML	AML	21 58 07.7	
	comp=Z,39nm,0.7s						
FOO	Floro	11.66	184	*e*P	Pn	21 55 57.4	-2.5
FOO				*e*S	Sn	21 57 59.8	-10
FOO	Floro	11.66	184	*e*Pn	Pn	21 55 57.4	-2.5
FOO				*e*Sn	Sn	21 57 59.8	-10
FOO				AML	AML	21 58 07.7	
	comp=Z,39nm,0.7s						
FOO	Floro	11.66	184	*e*Pn	Pn	21 55 57.4	-2.5
	SNR=62						
FOO				*e*Sn	Sn	21 57 59.8	-10
	comp=Z,39nm,0.7s,SNR=62						
VAF	Ylistaro	11.72	142	*e*P	Pn	21 55 58.8	-1.9
VAF				MPN		21 56 10.8	
	comp=Z,20nm,0.7s						
VAF				*e*S	Sn	21 57 59.4	-12
SUE	Sulen	12.21	185	*e*P	Pn	21 56 05.2	-2.2
SUE	Sulen	12.21	185	*e*Pn	Pn	21 56 05.2	-2.2
SUE	Sulen	12.21	185	*e*Pn	Pn	21 56 05.2	-2.2
	SNR=62						
NB2	NORSAR Subarra	12.31	170	Pn	Pn	21 56 07.5	-1.4
	comp=Z,26nm,1.0s,baz=355,slow=14						
NB2	NORSAR Subarra	12.31	170	Pn	Pn	21 56 08.4	-0.5
	baz=355,slow=14						
NB2	NORSAR Subarra	12.31	170	*e*P	Pn	21 56 08.4	-0.5
NB2	NORSAR Subarra	12.31	170	Pn	Pn	21 56 08.4	-0.5
	baz=355,slow=14						
NB2	NORSAR Subarra	12.31	170	Pn	Pn	21 56 07.5	-1.4
	comp=Z,26nm,1.0s,SNR=4.0						
NOA	NORSAR Array B	12.31	170	Pn	Pn	21 56 06.8	-2.1
NOA				Sn	Sn	21 58 19.5	-6.5
NOA				LR	LR	22 00 35.7	
NOA	NORSAR Array B	12.31	170	Pn	Pn	21 56 06.8	-2.1
	comp=Z,2.5nm,0.3s,baz=345,slow=13,SNR=20						
NOA				Sn	Sn	21 58 19.5	-6.5
	comp=Z,2.0nm,0.3s,baz=346,slow=20,SNR=4.2						
NOA				LR	LR	22 00 35.7	
	comp=Z,5μm,20.1s,baz=355,slow=36						
NOA	NORSAR Array B	12.31	170	Pn	Pn	21 56 06.8	-2.1
NAO01	NORSAR Array S	12.49	171	*e*Pn	Pn	21 56 09.1	-2.2
	comp=Z,11nm,0.6s						
NAO01				*e*Sn	Sn	21 58 30.1	-0.3
NAO01	NORSAR Array S	12.49	171	*e*Pn	Pn	21 56 09.1	-2.2
	comp=Z,11nm,0.6s						
RUND	Rundenannen	12.84	183	*e*P	Pn	21 56 14.7	-1.4
RUND	Rundenannen	12.84	183	*e*Pn	Pn	21 56 14.7	-1.4
RUND	Rundenannen	12.84	183	*e*Pn	Pn	21 56 14.7	-1.3
	SNR=62						
KEF	Keuruu	12.93	139	*e*P	Pn	21 56 15.5	-1.7
BORG	Borgarnes	13.00	244	*e*Pn	Pn	21 56 23.7	+5.4
BORG				Sn	Sn	21 58 42.1	-0.7
BORG	Borgarnes	13.00	244	Pn	Pn	21 56 22.6	+4.3
	comp=Z,0.5nm,0.3s,baz=64,slow=13,SNR=3.1						
BORG	Borgarnes	13.00	244	Sn	Sn	21 58 42.1	-0.6
KAF	Kangasniemi	13.26	137	*e*P	Pn	21 56 19.5	-2.3
KAF				MPN		21 56 24.2	
	comp=Z,26nm,0.7s						
KAF				*e*S	Sn	21 58 35.9	-13
ODD1	Odda	13.33	180	*e*P	Pn	21 56 21.6	-1.2
ODD1	Odda	13.33	180	*e*Pn	Pn	21 56 21.6	-1.2
ODD1	Odda	13.33	180	*e*Pn	Pn	21 56 21.5	-1.3
	SNR=62						
HFS	Hagfors	13.38	165	Pn	Pn	21 56 22.0	-1.3
	baz=359,slow=12						
HFS	Hagfors	13.38	165	*e*P	Pn	21 56 22.0	-1.3
HFS	Hagfors	13.38	165	Pn	Pn	21 56 21.8	-1.5
HFS				Sn	Sn	21 58 44.3	-7.6
HFS				LR	LR	22 01 18.0	
HFS	Hagfors	13.38	165	Pn	Pn	21 56 22.0	-1.3
	baz=359,slow=12						
HFS	Hagfors	13.38	165	Pn	Pn	21 56 21.8	-1.6
	comp=Z,1.7nm,0.3s,baz=355,slow=13,SNR=49						
HFS				Sn	Sn	21 58 44.3	-7.6
	comp=Z,3.1nm,0.3s,baz=354,slow=23,SNR=9.0						
HFS				LR	LR	22 01 18.0	
	comp=Z,10μm,18.0s,baz=352,slow=36						
HFS	Hagfors	13.38	165	Pn	Pn	21 56 21.8	-1.5
RAF	Rauma	13.46	147	*e*P	Pn	21 56 21.6	-3.0
KONO	Kongsberg	13.64	174	*e*P	Pn	21 56 25.0	-2.0
	comp=Z,82nm,1.3s						
KONO				*e*Sn	Sn	21 58 57.4	-0.9
KONO	Kongsberg	13.64	174	*e*P	Pn	21 56 25.0	-1.9
KONO				*e*		21 58 57.4	
KONO				pmax	pmax		
	comp=Z,82nm,1.3s						
BLS5	Blasjo	13.82	181	*e*P	Pn	21 56 28.4	-1.0
BLS5	Blasjo	13.82	181	*e*Pn	Pn	21 56 28.4	-1.0
BLS5	Blasjo	13.82	181	*e*Pn	Pn	21 56 28.5	-1.0
	SNR=62						
FIA0	FINESS Array S	13.83	138	Pn	Pn	21 56 27.1	-2.4
	baz=321,slow=7.9						
FIA0	FINESS Array S	13.83	138	*e*P	Pn	21 56 27.1	-2.4
FIA0	FINESS Array S	13.83	138	Pn	Pn	21 56 27.1	-2.4
	baz=321,slow=7.9						
FIA0	FINESS Array S	13.83	138	Pn	Pn	21 56 27.0	-2.5
	SNR=62						
FIA1	FINESS Array S	13.83	138	*e*Pn	Pn	21 56 26.6	-2.9
FIA1				*e*Sn	Sn	21 58 57.4	-5.4
FIA1	FINESS Array S	13.83	138	*e*Pn	Pn	21 56 26.6	-2.9
FINES	FINESS Array B	13.83	138	Pn	Pn	21 56 27.1	-2.4
FINES				Sn	Sn	21 58 51.5	-11
FINES				LR	LR	22 01 28.6	
FINES	FINESS Array B	13.83	138	Pn	Pn	21 56 27.1	-2.4
	comp=Z,1.3nm,0.3s,baz=344,slow=12,SNR=56						
FINES				Sn	Sn	21 58 51.5	-11
	comp=Z,0.5nm,0.3s,baz=334,slow=22,SNR=3.4						
FINES				LR	LR	22 01 28.6	
	comp=Z,8μm,20.6s,baz=341,slow=36						
FINES	FINESS Array B	13.83	138	Pn	Pn	21 56 27.1	-2.4
FINES				Sn	Sn	21 58 51.5	-11
KMY	Karmoy	14.05	183	*e*P	Pn	21 56 31.0	-1.5
KMY	Karmoy	14.05	183	*e*Pn	Pn	21 56 31.0	-1.5
KMY	Karmoy	14.05	183	*e*Pn	Pn	21 56 31.0	-1.5
	SNR=62						
TMCR	Tamitsa	14.30	113	*e*P	Pn	21 56 30.9	-5.1
TMCR				pmax	pmax		
	comp=Z,158nm,1.4s						
SNART	Snartemo	14.91	179	*e*P	Pn	21 56 37.4	-6.9
ALE	Alert	15.84	333	Pn	Pn	21 56 51.0	-5.4
	comp=Z,594nm,1.7s,SNR=60						
MCD	Coleburn Disti	16.17	200	*e*P	Pn	21 57 00.0	-0.7
KAC	Achnashellach	16.47	203	*e*P	Pn	21 57 05.5	+0.9
VSU	Vasula	16.73	141	*e*P	Pn	21 57 04.1	-3.7
MUD	Monsted U’grnd	16.83	175	⇓*i*P	Pn	21 57 11.5	+2.4
MUD				pmax	pmax		
	comp=Z,94nm,1.5s						
MUD	Monsted U’grnd	16.83	175	⇓*i*P	Pn	21 57 11.5	+2.4
	comp=Z,94nm,1.5s						
MUD				*i* S	Sn	22 00 33.0	+17
EAB	Aberfoyle	17.65	201	*e*P	Pn	21 57 17.7	-1.7
EDI	Edinburgh	17.80	199	*e*P	Pn	21 57 19.0	-2.3
EDI				AMb	AMB	21 57 27.0	
	comp=Z,96nm,2.4s						
EBL	Broad Law	17.94	198	*e*P	Pn	21 57 21.6	-1.3
EBL	Broad Law	17.94	198	*e*P	Pn	21 57 21.6	-1.3
	comp=Z,121nm,1.9s						
EKA	Eskdalemuir Ar	18.38	198	P	Pn	21 57 26.9	-1.4
	comp=Z,0.4nm,0.3s,baz=5.4,slow=10,SNR=11						
ESK	Eskdalemuir	18.40	198	*e*P	Pn	21 57 27.6	-1.0
ESK				AMb	AMB	21 57 36.7	
	comp=Z,121nm,1.9s						
ESK	Eskdalemuir	18.40	198	*e*P	Pn	21 57 27.2	-1.4
	comp=Z,221nm,1.7s						
ESK				Sn	Sn	22 00 52.3	-1.6
ESK	Eskdalemuir	18.40	198	*e*P	Pn	21 57 27.2	-1.4
ESK						22 00 52.3	
ESK				pmax	pmax		
	comp=Z,221nm,1.7s						
ESK	Eskdalemuir	18.40	198	*e*P	Pn	21 57 27.2	-1.4
	comp=Z,221nm,1.7s						
ESK				Sn	Sn	22 00 52.3	-1.6
BSD	Bornholm Skovb	18.45	165	*i* P	Pn	21 57 27.1	-2.1
BSD				pmax	pmax		
	comp=Z,100nm,1.4s						
BSD				MLR	MLR		
	comp=Z,7μm,18.0s						
BSD	Bornholm Skovb	18.45	165	*i* P	Pn	21 57 27.1	-2.1
	comp=Z,105nm,1.4s						
BSD				*i*		22 01 05.2	
BSD							
	comp=Z,7μm,18.0s						
BHH	Howats Hill	18.62	198	*e*P	Pn	21 57 31.8	+0.5
XAL	Allendale	18.77	196	*e*P	Pn	21 57 32.7	-0.4
XAL	Allendale	18.77	196	*e*P	Pn	21 57 32.7	-0.3
	comp=Z,110nm,1.5s						
RGN	Rugen	18.91	168	P	Pn	21 57 33.8	-0.9
RGN	Rugen	18.91	168	P	Pn	21 57 33.8	-0.9
HPK	Haverah Park	19.62	195	*e*P	Pn	21 57 41.9	-1.3
HPK				AMb	AMB	21 57 48.3	
	comp=Z,110nm,1.5s						
SFJD	Kangerlussuaq	19.72	281	*e*P	Pn	21 57 43.3	-1.1
	comp=Z,190nm,1.5s						
SFJD	Kangerlussuaq	19.72	281	*e*P	Pn	21 57 43.3	-1.1
SFJD				pmax	pmax		
	comp=Z,190nm,1.5s						
SFJD	Kangerlussuaq	19.72	281	P	Pn	21 57 43.3	-1.1
	comp=Z,0.3nm,0.3s,baz=38,slow=8.8,SNR=14						
SFJD				LR	LR	22 04 22.3	
	comp=Z,8μm,18.9s,baz=18,slow=34						
SFJD	Kangerlussuaq	19.72	281	*e*P	Pn	21 57 43.3	-1.1
	comp=Z,190nm,1.5s						
LHO	Holmfirth	20.05	195	*e*P	P	21 57 45.7	-0.8
KBI1	Birley Grange	20.31	194	*e*P	P	21 57 46.9	-2.6
SUW	Suwalki	20.43	151	*e*P	P	21 57 51.2	+0.5
	comp=Z,2μm,3.4s						
SUW				*e*S	S	22 01 40.0	+0.9
SUW				LMZ		22 05 06.8	
	comp=Z,7μm,19.6s						
SUW	Suwalki	20.43	151	*e*P	P	21 57 51.2	+0.5
SUW				*e*S	S	22 01 40.0	+0.9
SUW	Suwalki	20.43	151	*e*P	P	21 57 51.2	+0.5
SUW				*e*S	S	22 01 40.0	+0.9
SUW				pmax	pmax		
	comp=Z,2μm,3.4s						
SUW				MLR	MLR		
	comp=Z,7μm,19.6s,MS5.0						
WIT	Witteveen	20.45	180	*e*P	P	21 57 56.2	+5.3
GKP	Gorka Klasztor	20.47	162	*e*P	P	21 57 52.6	+1.4
	comp=Z,2μm,5.0s						
GKP				*e*S	S	22 01 45.1	+5.1
GKP				LMZ		22 05 03.8	
	comp=Z,8μm,21.5s						
GKP	Gorka Klasztor	20.47	162	*e*P	P	21 57 52.6	+1.4
	comp=Z,2.4nm,5.0s						
GKP				*e*S	S	22 01 45.1	+5.1
GKP				LR	LR		
	comp=Z,8μm,21.5s,MS5.0						
GKP	Gorka Klasztor	20.47	162	*e*P	P	21 57 52.6	+1.4
GKP				*e*S	S	22 01 45.1	+5.1
GKP				pmax	pmax		
	comp=Z,2μm,5.0s						
GKP				MLR	MLR		
	comp=Z,8μm,21.5s,MS5.0						
KWE	Weaver Farm	20.57	195	*e*P	P	21 57 50.1	-2.2
DLF	Lyons Farm	20.74	203	*e*P	P	21 57 53.0	-1.1
DCN	Croghan	20.78	204	*e*P	P	21 57 53.0	-1.5
SBD1	Bryn Du	20.80	197	*e*P	P	21 57 53.4	-1.3
CWF	Charnwood Fore	20.81	194	*e*P	P	21 57 52.5	-2.3
CWF				AMb	AMB	21 57 59.4	
	comp=Z,106nm,1.5s						
IBBN	Ibbenburen	20.96	178	*e*P	P	21 57 56.4	-0.1
	comp=Z,193nm,1.6s						
RUE	Ruedersdorf	21.00	168	*e*P	P	21 57 57.0	+0.2
	comp=Z,327nm,1.5s						
RUE	Ruedersdorf	21.00	168	*e*P	P	21 57 56.7	-0.2
	comp=Z,412nm,1.6s						
RUE	Ruedersdorf	21.00	168	*e*P	P	21 57 57.0	+0.1
	comp=Z,327nm,1.5s						
HLM1	Long Mynd	21.15	197	*e*P	P	21 57 57.7	-0.8
WTSB	Winterswijk	21.30	180	*e*P	P	21 58 00.9	+0.8
	comp=Z,225nm,2.1s,mb5.1						
CLZ	Clausthal	21.48	174	*e*P	P	21 58 02.3	+0.2
CLZ				pmax	pmax		
	comp=Z,250nm,1.5s,mb5.3						
CLZ	Clausthal	21.48	174	*e*P	P	21 58 02.3	+0.2
	comp=Z,250nm,1.5s,mb5.3						
MOS	Moscow	21.51	128	*e*P	P	21 58 02.1	-0.3
MOS				*e*		21 58 23.9	
MOS				*e*S	S	22 01 59.5	-1.0
MOS				*e*		22 09 21.9	
MOS				pmax	pmax		
	comp=Z,344nm,1.5s,mb5.6						
MOS				pmax	pmax		
	comp=N,172nm,1.2s						
MOS				pmax	pmax		
	comp=Z,700nm,2.0s,mb5.7						
MOS				MLR	MLR		
	comp=Z,3μm,14.0s,MS4.8						
MOS				MLR	MLR		
	comp=E,2μm,13.0s						
SSW	Stow on the Wo	21.62	195	*e*P	P	21 58 03.6	+0.1
HTR	Trewern Hill	21.62	197	*e*P	P	21 58 04.4	+0.8
HTR	Trewern Hill	21.62	197	*e*P	P	21 58 04.4	+0.8
	comp=E,170nm,1.4s,mb5.3						
MCH1	Michaelchurch	21.68	197	*e*P	P	21 58 03.6	-0.5
MCH1				AMb	AMB	21 58 15.6	
	comp=Z,170nm,1.4s,mb5.3						
SKP1	Kophill	21.79	193	*e*P	P	21 58 05.0	-0.3
OBN	Obninsk	21.85	130	*e*P	P	21 58 05.2	-0.8
OBN				LR	LR		
	comp=Z,8μm,22.0s,MS5.1						
OBN	Obninsk	21.85	130	*j* *e*P	P	21 58 05.4	-0.6
OBN				*i*		21 58 11.0	
OBN				*e*		21 58 32.6	
OBN				*i* S	S	22 02 12.9	+5.9
OBN				*e*		22 03 00.4	
OBN				pmax	pmax		
	comp=Z,300nm,2.0s,mb5.4						
OBN				pmax	pmax		
	comp=Z,62nm,1.3s,mb4.9						
OBN				MLR	MLR		
	comp=Z,2μm,15.0s,MS4.5						
OBN	Obninsk	21.85	130	*e*P	P	21 58 05.2	-0.8
WAR	Warsaw	21.88	156	*e*P	P	21 58 08.6	+2.2
WAR				LMZ		22 05 47.8	
	comp=Z,6μm,24.0s						
HGH	Gray Hill	22.02	196	*e*P	P	21 58 07.2	-0.6
SWN1	Swindon	22.06	194	*e*P	P	21 58 08.6	+0.3
CLL	Collm	22.12	170	*i* P	P	21 58 09.0	0.0
	comp=Z,113nm,1.7s,mb5.0						
CLL				*i*		21 58 15.2	
CLL				*e*S	S	22 02 15.0	+2.6
CLL				LR	LR		
	comp=Z,5μm,17.0s,MS5.0						
CLL	Collm	22.12	170	*i* P	P	21 58 09.0	0.0
CLL				*i*		21 58 15.2	
CLL				*e*S	S	22 02 15.0	+2.6
CLL				pmax	pmax		
	comp=Z,113nm,1.7s,mb5.0						
CLL				MLR	MLR		
	comp=Z,5μm,17.0s,MS5.0						
CLL	Collm	22.12	170	*e*P	P	21 58 09.2	+0.2
	comp=Z,203nm,2.1s,mb5.2						
CLL	Collm	22.12	170	*i* P	P	21 58 09.0	0.0
	comp=Z,113nm,1.7s,mb5.0						
CLL				*e*Plp		21 58 12.0	

	comp=Z,700nm,15.8s						
CLL				*i* (sP)	sP	21 58 15.2	+2.1
CLL				*i* x	x	21 58 21.5	
CLL				*i* PPP		21 58 39.8	
CLL				*e*x	x	21 59 41.0	
CLL				*e*S	**S**	**22 02 15.0**	**+2.6**
	comp=N,200nm,28.5s						
CLL				*e*S	**S**	**22 02 15.0**	**+2.6**
	comp=E,2µm,24.5s						
CLL				Lm		22 06 00.0	
	comp=N,3µm,18.9s						
CLL				Lm		22 06 00.0	
	comp=E,800nm,18.2s						
HGN	**Heimansgroeve**	**22.50**	**181**	*e*P	**P**	**21 58 13.6**	**+0.6**
	comp=E,148nm,1.5s,mb5.2						
FBE	**Freiberg**	**22.53**	**169**	*e*P	**P**	**21 58 14.0**	**+0.7**
BRG	**Berggiesshubel**	**22.61**	**168**	*i* P	**P**	**21 58 14.2**	**0.0**
	comp=E,54nm,1.6s,mb4.7						
BRG				*i*		21 58 23.9	
BRG				S	**S**	**22 02 24.0**	**+2.2**
BRG				LR	LR		
	comp=Z,3µm,17.0s,MS4.8						
BRG	**Berggiesshubel**	**22.61**	**168**	*i* P	**P**	**21 58 14.2**	**+0.1**
BRG				S	**S**	**22 02 24.0**	**+2.2**
BRG				pmax	pmax		
	comp=Z,55nm,1.6s,mb4.7						
BRG				pmax	pmax		
	comp=Z,83nm,1.6s,mb4.9						
BRG				MLR	MLR		
	comp=N,2µm,17.5s						
BRG				MLR	MLR		
	comp=E,334nm,12.0s						
BRG				MLR	MLR		
	comp=Z,3µm,17.0s,MS4.8						
BRG	**Berggiesshubel**	**22.61**	**168**	*e*P	**P**	**21 58 14.4**	**+0.3**
	comp=Z,97nm,1.4s,mb5.0						
BRG	**Berggiesshubel**	**22.61**	**168**	*i* P	**P**	**21 58 14.2**	**0.0**
	comp=Z,91nm,1.6s,mb5.0						
BRG				*i*		21 58 23.9	
	comp=Z,139nm,1.6s						
BRG				S	**S**	**22 02 24.0**	**+2.2**
BRG							
	comp=N,3µm,17.5s						
BRG							
	comp=E,558nm,12.0s						
BRG							
	comp=Z,5µm,17.0s						
MOX	**Moxa**	**22.72**	**172**	⇓*i*P	**P**	**21 58 16.7**	**+1.4**
	comp=Z,127nm,1.4s,mb5.2						
MOX				*e*PP		21 58 48.7	
MOX				*e*S	**S**	**22 02 24.0**	**+0.2**
MOX				LR	LR		
	comp=Z,2µm,16.0s,MS4.7						
MOX	**Moxa**	**22.72**	**172**	⇓*i*P	**P**	**21 58 16.7**	**+1.4**
	comp=Z,127nm,1.4s,mb5.2						
MOX				*e*		21 58 48.7	
MOX							
	comp=Z,2µm,16.0s						
MOX	**Moxa**	**22.72**	**172**	⇓*i*P	**P**	**21 58 16.7**	**+1.4**
MOX				*e*		21 58 48.7	
MOX				pmax	pmax		
	comp=Z,127nm,1.4s,mb5.2						
MOX				MLR	MLR		
	comp=Z,2µm,16.0s,MS4.7						
MOX	**Moxa**	**22.72**	**172**	*e*P	**P**	**21 58 16.5**	**+1.2**
	comp=Z,195nm,1.8s,mb5.2						
MENF	**Mencas**	**22.80**	**188**	*e*P	**P**	**21 58 16.8**	**+0.7**
KSP	**Ksiaz**	**22.80**	**164**	*e*P	**P**	**21 58 16.7**	**+0.5**
	comp=Z,900nm,2.5s,mb5.8						
KSP				*e*S	**S**	**22 02 30.6**	**+5.4**
KSP				LMZ		22 06 56.6	
	comp=Z,8µm,18.9s						
KSP	**Ksiaz**	**22.80**	**164**	*e*P	**P**	**21 58 16.5**	**+0.3**
KSP				*e*S	**S**	**22 02 23.5**	**-1.7**
KSP				MLR	MLR		
	comp=Z,11µm,18.1s,MS5.3						
KSP	**Ksiaz**	**22.80**	**164**	*e*P	**P**	**21 58 16.5**	**+0.3**
KSP				*e*S	**S**	**22 02 23.5**	**-1.7**
WERD	**Werda**	**22.95**	**171**	*e*P	**P**	**21 58 18.0**	**+0.3**
	comp=Z,181nm,2.1s,mb5.1						
TANN	**Tannenbergstha**	**22.99**	**171**	*e*P	**P**	**21 58 19.0**	**+0.9**
	comp=Z,161nm,1.9s,mb5.1						
PVCC	**Panska Ves**	**22.99**	**167**	*e*P	**P**	**21 58 18.9**	**+0.7**
PVCC				*e*S	**S**	**22 02 31.1**	**+2.8**
PVCC				AMS	AMS	22 07 00.0	
	comp=Z,5µm,19.0s						
GUNZ	**Gunzen**	**23.03**	**171**	*e*P	**P**	**21 58 19.4**	**+0.8**
	comp=Z,143nm,1.7s,mb5.1						
TNS	**Taunus Mts**	**23.05**	**177**	*e*P	**P**	**21 58 19.5**	**+0.6**
TNS				pmax	pmax		
	comp=Z,395nm,2.3s,mb5.4						
TNS	**Taunus Mts**	**23.05**	**177**	*e*P	**P**	**21 58 19.5**	**+0.6**
	comp=Z,395nm,2.3s,mb5.4						
WERN	**Wernitzgruen**	**23.11**	**171**	*e*P	**P**	**21 58 19.9**	**+0.5**
	comp=Z,107nm,1.1s,mb5.2						
UPC	**Upice**	**23.11**	**165**	*e*P	**P**	**21 58 20.5**	**+1.0**
NKC	**Novy Kostel**	**23.17**	**171**	*e*P	**P**	**21 58 20.8**	**+0.8**
NKC				*e*S	**S**	**22 02 34.1**	**+3.0**
NKC	**Novy Kostel**	**23.17**	**171**	*e*P	**P**	**21 58 20.8**	**+0.8**
NKC				*e*S	**S**	**22 02 34.1**	**+3.0**
NKC				AMS	AMS	22 07 30.0	
	comp=Z,5µm,15.9s						
GIVF	**Givet**	**23.18**	**183**	*e*P	**P**	**21 58 17.4**	**-2.8**
	comp=Z,215nm,1.5s,mb5.1						
GIVF	**Givet**	**23.18**	**183**	*e*P	**P**	**21 58 17.4**	**-2.8**
	comp=Z,107nm,1.5s,mb5.0						
GIVF	**Givet**	**23.18**	**183**	*e*P	**P**	**21 58 17.4**	**-2.8**
GIVF				pmax	pmax		
	comp=Z,107nm,1.5s,mb5.0						
BAIF	**Baives**	**23.23**	**184**	*e*P	**P**	**21 58 18.3**	**-2.5**
SOKR	**Solikamsk**	**23.27**	**99***c*	*i*P	**P**	**21 58 20.4**	**-0.6**
SOKR				S	**S**	**22 02 35.4**	**+2.8**
SOKR				pmax	pmax		
	comp=Z,110nm,1.4s,mb5.1						
SOKR				MLR	MLR		
	comp=Z,2µm,14.0s,MS4.7						
DPC	**Dobruska-Polom**	**23.29**	**164**	*e*P	**P**	**21 58 21.5**	**+0.1**
DPC				*e*S	**S**	**22 02 36.1**	**+2.9**
DPC				AMS	AMS	22 07 10.0	
	comp=Z,4µm,17.8s						
ABH	**Alteburg**	**23.39**	**179**	*e*P	**P**	**21 58 23.7**	**+1.3**
MANZ	**Manzenberg**	**23.40**	**171**	*e*P	**P**	**21 58 22.7**	**+0.2**
	comp=Z,139nm,1.7s,mb5.1						
PRA	**Prague**	**23.44**	**168**	P	**P**	**21 58 24.0**	**+1.1**
PRU	**Pruhonice**	**23.53**	**167**	*e*P	**P**	**21 58 24.0**	**+0.2**
PRU				*e*S	**S**	**22 02 40.3**	**+3.3**
PRU				LR	LR		
	comp=Z,4µm,17.6s,MS4.9						
PRU	**Pruhonice**	**23.53**	**167**	*e*P	**P**	**21 58 24.0**	**+0.2**
PRU				*e*S	**S**	**22 02 40.3**	**+3.3**
PRU				AMS	AMS	22 07 20.0	
	comp=Z,4µm,17.6s						
RUP	**Ruppelstein**	**23.57**	**180**	*e*P	**P**	**21 58 25.2**	**+1.0**
WLF	**Walferdange**	**23.60**	**181**	*e*P	**P**	**21 58 25.2**	**+0.6**
	comp=Z,238nm,1.8s,mb5.3						
WLF	**Walferdange**	**23.60**	**181**	*e*P	**P**	**21 58 25.2**	**+0.7**
WLF				pmax	pmax		
	comp=Z,238nm,1.8s,mb5.3						
WLF	**Walferdange**	**23.60**	**181**	*e*P	**P**	**21 58 24.9**	**+0.4**
	comp=Z,532nm,2.2s,mb5.6						
WLF	**Walferdange**	**23.60**	**181**	*e*P	**P**	**21 58 25.2**	**+0.7**
	comp=Z,238nm,1.8s,mb5.3						
ROTZ	**Rotzenmuhle**	**23.62**	**171**	*e*P	**P**	**21 58 25.0**	**+0.3**
	comp=Z,342nm,2.2s,mb5.4						
GRA1	**Grafenberg Arr**	**23.66**	**173**	*e*P	**P**	**21 58 25.4**	**+0.4**
	comp=Z,242nm,1.8s,mb5.3						
GRA1				LR	LR		
	comp=Z,2µm,18.0s,MS4.5						
GRF	**Grafenberg Arr**	**23.66**	**173**	*e*P	**P**	**21 58 25.4**	**+0.4**
GRF				pmax	pmax		
	comp=Z,242nm,1.8s,mb5.3						
GRF				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.5						
GRF	**Grafenberg Arr**	**23.66**	**173**	*e*P	**P**	**21 58 25.4**	**+0.4**
GRF				pmax	pmax		
	comp=Z,242nm,1.8s,mb5.3						
GRF				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.5						
GRF	**Grafenberg Arr**	**23.66**	**173**	*e*P	**P**	**21 58 25.4**	**+0.4**
	comp=Z,242nm,1.8s,mb5.3						
GRFO	**Grafenberg**	**23.66**	**173**	*e*P	**P**	**21 58 26.3**	**+1.2**
	comp=Z,3.3nm,0.6s						
GRFO				S	**S**	**22 02 41.2**	**+2.1**
GRFO				LR	LR		
	comp=Z,823nm,19.0s						
GRFO	**Grafenberg**	**23.66**	**173**	*e*P	**P**	**21 58 26.3**	**+1.3**
GRFO				S	**S**	**22 02 41.2**	**+2.1**
GRFO				pmax	pmax		
	comp=Z,3.0nm,0.6s						
GRFO				MLR	MLR		
	comp=Z,823nm,19.0s,MS4.2						
GRFO	**Grafenberg**	**23.66**	**173**	*e*P	**P**	**21 58 26.3**	**+1.3**
	comp=Z,3.3nm,0.6s						
TOD	**Tromm**	**23.68**	**177**	*e*P	**P**	**21 58 26.5**	**+1.3**
RAC	**Raciborz**	**23.72**	**162**	*e*P	**P**	**21 58 26.5**	**+0.9**
RAC				*e*S	**S**	**22 02 46.0**	**+5.9**
RAC				LR	LR		
	comp=Z,6µm,17.9s,MS5.1						
RAC	**Raciborz**	**23.72**	**162**	*e*P	**P**	**21 58 26.5**	**+0.9**
RAC				*e*S	**S**	**22 02 46.0**	**+5.9**
RAC				MLR	MLR		
	comp=E,4µm,23.0s,MS5.1						
RAC				MLR	MLR		
	comp=N,6µm,20.0s,MS5.1						
RAC				MLR	MLR		
	comp=Z,6µm,17.9s,MS5.1						
OJC	**Ojcow**	**23.74**	**159**	*e*P	**P**	**21 58 26.6**	**+0.8**
OJC				*e*S	**S**	**22 02 41.3**	**+0.8**
OJC				LR	LR		
	comp=Z,6µm,21.2s,MS5.0						
KTD	**Kalmit**	**23.95**	**178**	*e*P	**P**	**21 58 28.9**	**+1.2**
OKC	**Ostrava-Krasne**	**23.96**	**162**	*e*P	**P**	**21 58 28.4**	**+0.6**
OKC				*e*S	**S**	**22 02 51.4**	**+7.4**
OKC	**Ostrava-Krasne**	**23.96**	**162**	*e*P	**P**	**21 58 28.4**	**+0.6**
OKC				*e*S	**S**	**22 02 51.4**	**+7.4**
OKC				AMS	AMS	22 07 40.0	
	comp=Z,4µm,16.2s						
MORC	**Moravsky Berou**	**23.96**	**163**	*e*P	**P**	**21 58 27.9**	**+0.1**
	comp=Z,34nm,1.0s,mb4.7						
MORC	**Moravsky Berou**	**23.96**	**163**	⇓*i*P	**P**	**21 58 28.3**	**+0.5**
MORC	**Moravsky Berou**	**23.96**	**163**	*e*P	**P**	**21 58 27.9**	**+0.1**
	comp=Z,34nm,1.0s,mb4.7						
WET	**Wettzell**	**24.27**	**170**	*e*P	**P**	**21 58 31.8**	**+1.1**
WET				pmax	pmax		
	comp=Z,456nm,2.5s,mb5.5						
WET	**Wettzell**	**24.27**	**170**	*e*P	**P**	**21 58 31.8**	**+1.1**
	comp=Z,456nm,2.5s,mb5.5						
TREC	**Trest**	**24.28**	**166**	*e*P	**P**	**21 58 31.4**	**+0.7**
TREC				*e*S	**S**	**22 02 57.1**	**+7.9**
TREC				AMS	AMS	22 08 10.0	
	comp=Z,5µm,15.1s						
LANF	**Langenberg**	**24.29**	**178**	*e*P	**P**	**21 58 31.9**	**+1.1**
KHC	**Kasperske Hory**	**24.32**	**169**	*e*P	**P**	**21 58 32.5**	**+1.4**
KHC				*e*		21 58 37.0	
KHC				*e*S	**S**	**22 02 55.2**	**+5.3**
KHC				LR	LR		
	comp=Z,4µm,17.0s,MS5.0						
KHC	**Kasperske Hory**	**24.32**	**169**	*e*P	**P**	**21 58 32.5**	**+1.4**
KHC				*e*pP		21 58 37.0	
KHC				*e*S	**S**	**22 02 55.2**	**+5.3**
KHC				AMS	AMS	22 08 00.0	
	comp=Z,4µm,17.0s						
VRAC	**Vranov**	**24.35**	**164**	P	**P**	**21 58 32.5**	**+1.1**
VRAC	**Vranov**	**24.35**	**164**	P	**P**	**21 58 32.4**	**+1.0**
	comp=Z,28nm,0.9s,mb4.7,baz=358,slow=10,SNR=19						
VRAC				LR	LR	22 08 09.1	
	comp=Z,4µm,19.0s,MS5.0,baz=351,slow=37						
VRAC	**Vranov**	**24.35**	**164**	⇓*i*P	**P**	**21 58 32.3**	**+0.9**
VRAC	**Vranov**	**24.35**	**164**	P	**P**	**21 58 32.5**	**+1.1**
STU	**Stuttgart**	**24.52**	**176**	*e*P	**P**	**21 58 33.3**	**+0.4**
	comp=Z,334nm,2.2s,mb5.5						
AKASG	**Malin Array Be**	**24.57**	**144**	P	**P**	**21 58 31.3**	**-2.1**
	comp=Z,12nm,0.6s,mb4.6,baz=344,slow=9.4,SNR=20						
AKASG				LR	LR	22 07 54.6	
	comp=Z,10µm,19.9s,MS5.3,baz=350,slow=36						
AKBB	**Malin Array Si**	**24.57**	**144**	*e*P	**P**	**21 58 31.9**	**-1.4**
AKBB				*e*S	**S**	**22 02 52.8**	**-1.2**
AKBB	**Malin Array Si**	**24.57**	**144**	*e*P	**P**	**21 58 31.9**	**-1.5**
AKBB				*e*S	**S**	**22 02 52.8**	**-1.1**
KIEV	**Kiev**	**24.58**	**144**	*e*P	**P**	**21 58 32.4**	**-1.0**
	comp=Z,110nm,1.4s,mb5.2						
KIEV				PcP	PcP	22 02 08.4	-2.4
KIEV				*e*S	**S**	**22 02 51.5**	**-2.4**
KIEV				LR	LR		
	comp=Z,10µm,20.0s,MS5.3						
KIEV	**Kiev**	**24.58**	**144**	*e*P	**P**	**21 58 32.4**	**-1.0**
KIEV						22 02 08.4	
KIEV				*e*S	**S**	**22 02 51.5**	**-2.5**
KIEV				pmax	pmax		
	comp=Z,110nm,1.4s,mb5.2						
KIEV				MLR	MLR		
	comp=Z,10µm,20.0s,MS5.3						
KIEV	**Kiev**	**24.58**	**144**	*e*P	**P**	**21 58 32.4**	**-1.0**
	comp=Z,110nm,1.4s,mb5.2						
KIEV	**Kiev**	**24.58**	**144**	PcP	PcP	22 02 08.4	-2.4
NIE	**Niedzica**	**24.59**	**158**	*e*P	**P**	**21 58 34.3**	**+0.8**
GEC2	**GERESS Array S**	**24.62**	**169**	*e*P	**P**	**21 58 34.5**	**+0.7**
GEC2				*e*PcP	PcP	22 02 10.4	-0.5
GEC2				S	S	22 03 39.5	+45
GEC2	**GERESS Array S**	**24.62**	**169**	*e*P	**P**	**21 58 35.2**	**+1.4**
GEC2				pmax	pmax		
	comp=Z,92nm,1.5s,mb5.1						
GEC2	**GERESS Array S**	**24.62**	**169**	*e*P	**P**	**21 58 35.2**	**+1.4**
	comp=Z,92nm,1.5s,mb5.1						
GEC2	**GERESS Array S**	**24.62**	**169**	*e*P	**P**	**21 58 34.5**	**+0.7**
GEC2	**GERESS Array S**	**24.62**	**169**	*e*PcP	PcP	22 02 10.4	-0.5
GERES	**GERESS Array B**	**24.62**	**169**	P	**P**	**21 58 34.1**	**+0.3**
GERES				LR	LR	22 08 32.9	
GERES	**GERESS Array B**	**24.62**	**169**	P	**P**	**21 58 34.1**	**+0.3**
	comp=Z,6.8nm,0.8s,mb4.2,baz=1.6,slow=9.3,SNR=25						
GERES				LR	LR	22 08 32.9	
	comp=Z,4µm,18.3s,MS4.9,baz=355,slow=37						
LVV	**L'vov**	**24.64**	**153**	*e*P	**P**	**21 58 34.5**	**+0.5**
LVV				*e*S	**S**	**22 02 57.9**	**+2.9**
LVV				MLR	MLR		
	comp=Z,6µm,16.0s,MS5.2						
LVV				MLR	MLR		
	comp=N,2µm,15.0s,MS5.1						
LVV				MLR	MLR		
	comp=E,4µm,15.0s,MS5.1						
KWP	**Kalwaria**	**24.65**	**155**	*e*P	**P**	**21 58 35.7**	**+1.6**
	comp=E,2µm,5.2s						
KWP				*e*S	**S**	**22 02 59.1**	**+3.9**
KWP				LMZ		22 08 00.6	
	comp=E,8µm,18.8s						
KWP	**Kalwaria**	**24.65**	**155**	*e*P	**P**	**21 58 35.7**	**+1.6**
KWP				*e*S	**S**	**22 02 59.1**	**+3.9**
STR	**Strasbourg**	**24.69**	**178**	*e*P	**P**	**21 58 37.1**	**+2.7**
STHS	**Stebnicka Huta**	**24.69**	**157**	*e*P	**P**	**21 58 35.7**	**+1.2**
STHS				pmax	pmax		
	comp=Z,32nm,0.8s,mb4.9						
STHS	**Stebnicka Huta**	**24.69**	**157**	*e*P	**P**	**21 58 35.7**	**+1.2**
	comp=Z,32nm,0.8s,mb4.9						
FLN	**La Foliniere**	**24.72**	**192**	*e*P	**P**	**21 58 32.5**	**-2.2**
	comp=Z,86nm,1.1s,mb4.9						
FLN				*e*MLR	MLR		
	comp=Z,2µm,20.2s,MS4.3						
FLN	**La Foliniere**	**24.72**	**192**	*e*P	**P**	**21 58 32.5**	**-2.2**
	comp=Z,43nm,1.1s,mb4.9						
FLN				LR	LR		
	comp=Z,2µm,20.3s,MS4.6						
FLN	**La Foliniere**	**24.72**	**192**	*e*P	**P**	**21 58 32.5**	**-2.2**
FLN				pmax	pmax		
	comp=Z,43nm,1.1s,mb4.9						
FLN				MLR	MLR		
	comp=Z,2µm,20.3s,MS4.6						
MEZF	**Maizieres J'vi**	**24.78**	**183**	*e*P	**P**	**21 58 33.6**	**-1.7**
	comp=Z,131nm,1.1s,mb5.1						
MEZF	**Maizieres J'vi**	**24.78**	**183**	*e*P	**P**	**21 58 33.6**	**-1.7**
	comp=Z,65nm,1.1s,mb5.1						
CDF	**Champ du Feu**	**24.86**	**179**	*e*P	**P**	**21 58 33.4**	**-2.6**
	comp=Z,294nm,1.8s,mb5.2						
CDF	**Champ du Feu**	**24.86**	**179**	*e*P	**P**	**21 58 33.4**	**-2.6**
	comp=Z,147nm,1.8s,mb5.2						
CDF	**Champ du Feu**	**24.86**	**179**	*e*P	**P**	**21 58 33.4**	**-2.6**
CDF				pmax	pmax		
	comp=Z,147nm,1.8s,mb5.2						
LDF	**La Druitiere**	**24.86**	**191**	*e*P	**P**	**21 58 34.0**	**-2.0**
	comp=Z,232nm,1.4s,mb5.2						
LDF	**La Druitiere**	**24.86**	**191**	*e*P	**P**	**21 58 34.0**	**-2.0**
LDF				pmax	pmax		
	comp=Z,116nm,1.4s,mb5.2						
LDF	**La Druitiere**	**24.86**	**191**	*e*P	**P**	**21 58 34.0**	**-2.0**
	comp=Z,116nm,1.4s,mb5.2						
BFO	**Black Forest**	**24.95**	**178**	*e*P	**P**	**21 58 41.9**	**+5.1**
BFO				*e*PcP	PcP	22 02 09.2	-2.5
BFO				*e*S	**S**	**22 02 59.5**	**-0.4**
BFO				LR	LR		
	comp=Z,3µm,20.0s,MS4.8						
BFO	**Black Forest**	**24.95**	**178**	*e*P	**P**	**21 58 37.8**	**+1.0**
	comp=Z,180nm,1.7s,mb5.3						
BFO	**Black Forest**	**24.95**	**178**	*e*PcP	PcP	22 02 09.2	-2.4
RES	**Resolute Bay**	**24.95**	**322**	*e*P	**P**	**21 58 35.5**	**-1.2**
	comp=Z,1µm,1.3s,mb6.2						
RES				*e*PcP	PcP	22 02 10.1	-1.1
RES				*e*S	**S**	**22 03 00.4**	**+0.7**
RES	**Resolute Bay**	**24.95**	**322**	*e*P	**P**	**21 58 35.5**	**-1.2**
	comp=Z,1µm,1.3s,mb6.2						
RES	**Resolute Bay**	**24.95**	**322**	*e*PcP	PcP	22 02 10.1	-1.2
THEF	**They Montfort**	**25.04**	**181**	*e*P	**P**	**21 58 39.1**	**+1.4**
ECH	**Echery**	**25.05**	**179**	*e*P	**P**	**21 58 38.7**	**+0.9**
GRR	**Gorron**	**25.11**	**192**	*e*P	**P**	**21 58 36.3**	**-2.0**
SPAK	**Spaichingen-Ko**	**25.18**	**177**	*e*P	**P**	**21 58 40.4**	**+1.5**
FUR	**Furstenfeldbru**	**25.18**	**173**	*e*P	**P**	**21 58 40.4**	**+1.5**
FUR				pmax	pmax		
	comp=Z,453nm,1.9s,mb5.7						
FUR	**Furstenfeldbru**	**25.18**	**173**	*e*P	**P**	**21 58 40.4**	**+1.5**
	comp=Z,453nm,1.9s,mb5.7						
SMOL	**Smolenice**	**25.21**	**163**	*e*P	**P**	**21 58 40.2**	**+1.1**
CRVS	**Cervenica-Dubn**	**25.22**	**157**	*e*P	**P**	**21 58 40.4**	**+1.1**
KOLL	**Kolacno**	**25.23**	**162**	*e*P	**P**	**21 58 40.1**	**+0.8**
HAU	**Haudompre**	**25.26**	**181**	*e*P	**P**	**21 58 37.2**	**-2.5**
	comp=Z,275nm,1.5s,mb5.3						
HAU				*e*MLR	MLR		
	comp=Z,2µm,19.8s,MS4.4						
HAU	**Haudompre**	**25.26**	**181**	*e*P	**P**	**21 58 37.2**	**-2.5**
	comp=Z,137nm,1.5s,mb5.3						
HAU				LR	LR		
	comp=Z,2µm,19.8s,MS4.7						
HAU	**Haudompre**	**25.26**	**181**	*e*P	**P**	**21 58 37.2**	**-2.5**
HAU				pmax	pmax		
	comp=Z,137nm,1.5s,mb5.3						
HAU				MLR	MLR		
	comp=Z,2µm,19.8s,MS4.7						
KOLS	**Kolonicke sedl**	**25.29**	**156**	*e*P	**P**	**21 58 40.3**	**+0.4**
KOLS				pmax	pmax		
	comp=Z,111nm,1.6s,mb5.1						
KOLS	**Kolonicke sedl**	**25.29**	**156**	*e*P	**P**	**21 58 40.3**	**+0.4**
	comp=Z,110nm,1.6s,mb5.1						
ROSF	**Rostrenen**	**25.33**	**196**	*e*P	**P**	**21 58 38.3**	**-2.0**
	comp=Z,177nm,1.2s,mb5.2						
ROSF	**Rostrenen**	**25.33**	**196**	*e*P	**P**	**21 58 38.3**	**-2.0**
	comp=Z,88nm,1.2s,mb5.2						
ROSF	**Rostrenen**	**25.33**	**196**	*e*P	**P**	**21 58 38.3**	**-2.0**
ROSF				pmax	pmax		
	comp=Z,88nm,1.2s,mb5.2						
VYHS	**Vyhne**	**25.35**	**161**	*e*P	**P**	**21 58 40.7**	**+0.2**
	comp=Z,36nm,1.3s,mb4.7						
VYHS				LR	LR		
	comp=Z,2µm,23.5s,MS4.6						
SGMF	**Saint Gilles**	**25.36**	**195**	*e*P	**P**	**21 58 38.1**	**-2.4**
	comp=Z,300nm,1.5s,mb5.3						
SGMF	**Saint Gilles**	**25.36**	**195**	*e*P	**P**	**21 58 38.1**	**-2.4**
	comp=Z,150nm,1.5s,mb5.3						
SGMF	**Saint Gilles**	**25.36**	**195**	*e*P	**P**	**21 58 38.1**	**-2.4**
SGMF				pmax	pmax		
	comp=Z,150nm,1.5s,mb5.3						
FELD	**Feldberg im Sc**	**25.40**	**178**	*e*P	**P**	**21 58 41.9**	**+1.0**
MOF	**Molkenrain**	**25.42**	**179**	*e*P	**P**	**21 58 42.1**	**+1.0**
HINF	**Hinteralfeld**	**25.45**	**180**	*e*P	**P**	**21 58 40.6**	**-0.8**
	comp=Z,123nm,1.4s,mb5.0						
HINF	**Hinteralfeld**	**25.45**	**180**	*e*P	**P**	**21 58 40.6**	**-0.8**
HINF				pmax	pmax		
	comp=Z,61nm,1.4s,mb4.9						
HINF	**Hinteralfeld**	**25.45**	**180**	*e*P	**P**	**21 58 40.6**	**-0.8**
	comp=Z,61nm,1.4s,mb5.0						
ZST	**Bratislava**	**25.50**	**164**	*e*P	**P**	**21 58 43.2**	**+1.4**
ZST				LR	LR		
	comp=Z,5µm,17.3s,MS5.1						
KECS	**Kecovo**	**25.53**	**159**	*e*P	**P**	**21 58 42.1**	**0.0**
	comp=Z,17nm,1.1s,mb4.5						
KECS	**Kecovo**	**25.53**	**159**	*e*P	**P**	**21 58 42.1**	**0.0**
KECS				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.5						
VOR	**Voronezh**	**25.58**	**129**	*e*P	**P**	**21 58 43.0**	**+0.5**
VOR				pmax	pmax		
	comp=Z,300nm,1.8s,mb5.5						
UZH	**Uzhgorod**	**25.59**	**156**	⇓*i*P	**P**	**21 58 43.4**	**+0.8**
UZH				*e*		21 59 33.4	
UZH				*e*S	**S**	**22 03 10.0**	**-0.1**
UZH				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.1						
MOA	**Molln**	**25.64**	**168**	⇑*i*P	**P**	**21 58 43.5**	**+0.4**
	comp=Z,46nm,1.7s,mb4.7,SNR=12						
CONA	**Conrad Observa**	**25.67**	**166**	*i* P	**P**	**21 58 44.2**	**+0.8**
	comp=Z,86nm,1.7s,mb5.0,SNR=24						
QUIF	**Quistinic**	**25.74**	**196**	*e*P	**P**	**21 58 42.0**	**-2.0**
	comp=Z,306nm,1.6s,mb5.3						
QUIF	**Quistinic**	**25.74**	**196**	*e*P	**P**	**21 58 42.0**	**-2.0**
	comp=Z,153nm,1.6s,mb5.3						
QUIF	**Quistinic**	**25.74**	**196**	*e*P	**P**	**21 58 42.0**	**-2.0**
QUIF				pmax	pmax		
	comp=Z,153nm,1.6s,mb5.3						
BBS	**Basel-Blauen**	**25.81**	**179**	*e*P	**P**	**21 58 45.1**	**+0.5**
LOMF	**Lomont**	**25.92**	**180**	*e*P	**P**	**21 58 46.7**	**+1.1**
SOP	**Sopron**	**25.96**	**165**	⇓*e*P	**P**	**21 58 47.1**	**+1.1**
MOTA	**Moosalm**	**26.00**	**173**	⇑*i*P	**P**	**21 58 47.3**	**+0.9**
	comp=Z,64nm,1.6s,mb4.9,SNR=5.1						
MOTA	**Moosalm**	**26.00**	**173**	⇑*i*P	**P**	**21 58 47.3**	**+1.0**
MOTA				pmax	pmax		
	comp=Z,64nm,1.6s,mb4.9						
DAVA	**Damuels**	**26.02**	**175**	*i* P	**P**	**21 58 48.5**	**+2.0**
	comp=Z,79nm,1.5s,mb5.0,SNR=16						
PSZ	**Piszkesteto**	**26.03**	**160**	P	**P**	**21 58 47.8**	**+1.3**
PSZ	**Piszkesteto**	**26.03**	**160**	⇑*e*P	**P**	**21 58 48.1**	**+1.5**
PSZ	**Piszkesteto**	**26.03**	**160**	⇓*i*P	**P**	**21 58 47.8**	**+1.2**
LOR	**Lormes**	**26.03**	**185**	*e*P	**P**	**21 58 45.3**	**-1.4**
	comp=Z,114nm,1.0s,mb5.0						
LOR				*e*MLR	MLR		
	comp=Z,2µm,20.8s,MS4.3						
LOR	**Lormes**	**26.03**	**185**	*e*P	**P**	**21 58 45.3**	**-1.4**
	comp=Z,57nm,1.0s,mb5.1						
LOR				LR	LR		
	comp=Z,2µm,20.8s,MS4.6						
LOR	**Lormes**	**26.03**	**185**	*e*P	**P**	**21 58 45.3**	**-1.4**
LOR				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.1						
LOR				MLR	MLR		
	comp=Z,2µm,20.8s,MS4.6						
VRSR	**Storozhevoye**	**26.06**	**130**	*e*P	**P**	**21 58 46.0**	**-0.9**
VRSR				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.0						
VRSR				pmax	pmax		
	comp=N,10.0nm,2.0s						
VRSR				pmax	pmax		
	comp=E,4.0nm,0.9s						
VRSR				MLR	MLR		
	comp=Z,1µm,23.0s,MS4.4						
VRSR				MLR	MLR		
	comp=N,760nm,21.0s,MS4.3						
VRSR				MLR	MLR		
	comp=E,560nm,21.0s,MS4.3						
PENC	**Penc**	**26.09**	**161**	⇑*e*P	**P**	**21 58 49.1**	**+1.9**
WTTA	**Wattenberg**	**26.10**	**172**	*i* P	**P**	**21 58 49.1**	**+1.8**
	comp=E,65nm,1.7s,mb4.9,SNR=16						
WTTA	**Wattenberg**	**26.10**	**172**	*i* P	**P**	**21 58 49.1**	**+1.9**
WTTA				pmax	pmax		
	comp=Z,65nm,1.7s,mb4.9						
WTTA	**Wattenberg**	**26.10**	**172**	*i* P	**P**	**21 58 49.0**	**+1.8**
	comp=Z,65nm,1.7s,mb4.9						
TRPA	**Tarpa**	**26.11**	**156**	⇓*i*P	**P**	**21 58 48.1**	**+0.8**
SSF	**Saint Saulge**	**26.25**	**185**	*e*P	**P**	**21 58 47.2**	**-1.4**
	comp=Z,117nm,1.4s,mb4.9						
SSF	**Saint Saulge**	**26.25**	**185**	*e*P	**P**	**21 58 47.2**	**-1.4**
SSF				pmax	pmax		
	comp=Z,58nm,1.4s,mb4.9						
SSF	**Saint Saulge**	**26.25**	**185**	*e*P	**P**	**21 58 47.2**	**-1.4**
	comp=Z,58nm,1.4s,mb4.9						
VORD	**Divnogorie**	**26.32**	**130**	*e*P	**P**	**21 58 48.0**	**-1.2**
VORD				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.7						
VORD				pmax	pmax		
	comp=N,20nm,0.8s						
VORD				pmax	pmax		
	comp=E,20nm,0.8s						
VORD				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.1						
VORD				MLR	MLR		
	comp=N,5µm,21.0s,MS5.1						
VORD				MLR	MLR		
	comp=E,2µm,16.0s,MS5.1						
ARSA	**Arzberg**	**26.32**	**166**	*i* P	**P**	**21 58 50.9**	**+1.7**
	comp=E,42nm,1.4s,mb4.8,SNR=11						
ARSA	**Arzberg**	**26.32**	**166**	*i* pP	pP	21 58 50.9	-1.4
	comp=E,42nm,1.4s,SNR=11						
BUD	**Budapest**	**26.37**	**161**	⇑*e*P	**P**	**21 58 51.7**	**+2.0**
ARU	**Arti**	**26.43**	**101**	*e*P	**P**	**21 58 49.9**	**-0.3**

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      comp=E,348nm,1.8s,mb5.6
ARU                               ePcP   PcP    22 02 13.9 -1.0
ARU                                LR    LR
      comp=Z,2µm,20.0s,MS4.6
ARU   Arti             26.43 101 d iP    P      21 58 49.7 -0.4
ARU                               i             21 58 56.8
ARU                               ePPP          21 59 33.7
ARU                               e             22 02 09.7
ARU                               eS     S      22 03 22.3 -0.9
ARU                               eSSS          22 04 29.9
ARU                                pmax  pmax
      comp=Z,168nm,1.8s,mb5.3
ARU   Arti             26.43 101  eP     P      21 58 49.8 -0.3
      comp=Z,348nm,1.8s,mb5.6
ARU   Arti             26.43 101  ePcP   PcP    22 02 13.9 -1.0
DAVOS Davos            26.46 175   P     P      21 58 51.6 +1.0
AVF   Avril sur Loir   26.52 185  eP     P      21 58 50.6 -0.5
      comp=Z,192nm,1.4s,mb5.1
AVF   Avril sur Loir   26.52 185  eP     P      21 58 50.6 -0.5
AVF                                pmax  pmax
      comp=Z,96nm,1.4s,mb5.1
AVF   Avril sur Loir   26.52 185  eP     P      21 58 50.6 -0.5
      comp=Z,96nm,1.4s,mb5.1
DAVOX Davos/Dischmat   26.53 175   P     P      21 58 51.6 +0.5
      comp=Z,8.2nm,1.1s,mb4.2,baz=338,slow=9.2,SNR=4.8
DAVOX                              LR    LR     22 09 18.7
      comp=Z,2µm,21.1s,MS4.6,baz=347,slow=36
SEST  Monte Rota       26.64 172   P     P      21 58 54.7 +2.6
      comp=Z,821nm,3.0s
SMF   Signal de Mont   26.66 185  eP     P      21 58 51.5 -0.8
      comp=Z,111nm,1.2s,mb5.0
SMF   Signal de Mont   26.66 185  eP     P      21 58 51.5 -0.8
SMF                                pmax  pmax
      comp=Z,56nm,1.2s,mb5.0
SMF   Signal de Mont   26.66 185  eP     P      21 58 51.5 -0.8
      comp=Z,56nm,1.2s,mb5.0
CABF  La Chapelle      26.66 181  eP     P      21 58 51.5 -0.8
      comp=Z,440nm,1.6s,mb5.4
CABF  La Chapelle      26.66 181  eP     P      21 58 51.5 -0.8
CABF                               pmax  pmax
      comp=Z,220nm,1.6s,mb5.4
CABF  La Chapelle      26.66 181  eP     P      21 58 51.5 -0.8
      comp=Z,220nm,1.6s,mb5.4
SVE   Sverdlovsk       26.68  99⇑eP     P      21 58 52.0 -0.4
SVE                               eS     S      22 03 32.0 +4.8
SVE                               e             22 04 34.0
SVE                                MLR   MLR
      comp=N,2µm,16.0s,MS4.9
SVE                                MLR   MLR
      comp=E,2µm,16.0s,MS4.9
SVE                                MLR   MLR
      comp=Z,3µm,16.0s,MS5.0
VRHR  Novokhopersk     26.73 127  eP     P      21 58 51.9 -1.0
VRHR                               pmax  pmax
      comp=N,90nm,1.3s
VRHR                               pmax  pmax
      comp=E,40nm,1.3s
VRHR                               pmax  pmax
      comp=Z,70nm,1.3s,mb5.0
VRHR                               MLR   MLR
      comp=Z,4µm,20.0s,MS5.0
VRHR                               MLR   MLR
      comp=N,3µm,16.0s,MS5.0
VRHR                               MLR   MLR
      comp=E,1µm,14.0s,MS5.0
BGF   Bois d'Agland    26.77 186  eP     P      21 58 52.1 -1.2
      comp=E,118nm,1.0s,mb5.1
BGF   Bois d'Agland    26.77 186  eP     P      21 58 52.1 -1.2
BGF                                pmax  pmax
      comp=Z,59nm,1.0s,mb5.1
BGF   Bois d'Agland    26.77 186  eP     P      21 58 52.1 -1.2
      comp=Z,59nm,1.0s,mb5.1
FVI   Forni Avoltri    26.81 171   P     P      21 58 55.8 +2.1
TUE   Stuetta          26.82 176   P     P      21 58 56.5 +2.7
BRMO  Bormio           26.84 174   P     P      21 58 56.6 +2.6
MFF   Saint Martin d   26.85 191  eP     P      21 58 52.5 -1.5
      comp=Z,95nm,1.3s,mb4.9
MFF   Saint Martin d   26.85 191  eP     P      21 58 52.5 -1.5
      comp=Z,48nm,1.3s,mb4.9
MFF   Saint Martin d   26.85 191  eP     P      21 58 52.5 -1.5
MFF                                pmax  pmax
      comp=Z,48nm,1.3s,mb4.9
APPI  Appiano          26.87 173   P     P      21 58 56.8 +2.6
PERS  Pernice          26.90 167  i P    P      21 58 55.6 +1.1
PERS                              e             21 59 00.8
BURAR Bucovina Array   26.96 152  ⇑P     P      21 58 55.1 +0.1
BURAR Bucovina Array   26.96 152⇑iP     P      21 58 55.1 +0.1
OBKA  Obir             26.99 168⇑iP     P      21 58 57.3 +2.0
      comp=Z,64nm,1.4s,mb5.0
OBKA  Obir             26.99 168⇑ipP    pP     21 58 57.3 -1.0
      comp=Z,64nm,1.4s
OBKA  Obir             26.99 168⇑iP     P      21 58 57.3 +2.0
      comp=Z,64nm,1.4s,mb5.0
TCF   Toulx Ste Croi   27.06 187  eP     P      21 58 54.5 -1.4
      comp=Z,310nm,1.7s,mb5.2
TCF   Toulx Ste Croi   27.06 187  eP     P      21 58 54.5 -1.4
      comp=Z,155nm,1.7s,mb5.3
TCF   Toulx Ste Croi   27.06 187  eP     P      21 58 54.5 -1.4
TCF                                pmax  pmax
      comp=Z,155nm,1.7s,mb5.3
AGO   Saint Agoulin    27.27 186  eP     P      21 59 01.8 +4.0
CTI   Castel Tesino    27.31 173   P     P      21 59 00.0 +1.8
PLDF  La Plantade      27.34 185  eP     P      21 59 03.0 +4.6
VNDS  Vrh nad Dolski   27.41 168  i P    P      21 59 04.0 +4.9
VAI   Varese           27.42 177   P     P      21 59 00.7 +1.6
DRGR                   27.45 156   P     P      21 59 00.9 +1.5
DRGR                   27.45 156   P     P      21 59 00.9 +1.5
DRGR                   27.45 156⇑iP     P      21 59 00.5 +1.1
DRGR                   27.45 156   P     P      21 59 00.9 +1.5
PYM   Petit Puy Mans   27.57 186  eP     P      21 59 01.6 +1.1
PKSM  Moragy           27.60 162   P     P      21 59 01.8 +1.1
PKSM  Moragy           27.60 162⇑iP     P      21 59 01.2 +0.5
PKSM  Moragy           27.60 162   P     P      21 59 01.8 +1.1
VISS  Visnje           27.71 168  i P    P      21 59 03.0 +1.2
VISS                              i             21 59 07.9
LPL   La Plagne        27.75 180  eP     P      21 59 01.9 -0.2
      comp=Z,143nm,1.7s,mb5.0
LPL   La Plagne        27.75 180  eP     P      21 59 01.9 -0.2
LPL                                pmax  pmax
      comp=Z,71nm,1.7s,mb5.0
LPL   La Plagne        27.75 180  eP     P      21 59 01.9 -0.2
      comp=Z,71nm,1.7s,mb5.0
LPG   La Plagne        27.77 180  eP     P      21 59 01.7 -0.6
      comp=Z,100nm,1.4s,mb5.0
LPG   La Plagne        27.77 180  eP     P      21 59 01.7 -0.6
LPG                                pmax  pmax
      comp=Z,50nm,1.4s,mb5.0
LPG   La Plagne        27.77 180  eP     P      21 59 01.7 -0.6
      comp=Z,50nm,1.4s,mb5.0
RHK3  Tenkes           27.88 163⇑eP     P      21 59 04.0 +0.7
BOJS  Bojanci          28.04 167  eP     P      21 58 56.2 -8.4
RJF   Les Rejaudoux    28.07 188  eP     P      21 59 03.7 -1.3
      comp=Z,116nm,1.4s,mb5.0
RJF                               eMLR   MLR
      comp=Z,2µm,22.2s,MS4.3
RJF   Les Rejaudoux    28.07 188  eP     P      21 59 03.7 -1.3
      comp=Z,58nm,1.4s,mb5.0
RJF                                LR    LR
      comp=Z,2µm,22.3s,MS4.6
RJF   Les Rejaudoux    28.07 188  eP     P      21 59 03.7 -1.3
RJF                                pmax  pmax
      comp=Z,58nm,1.4s,mb5.0
RJF                                MLR   MLR
      comp=Z,2µm,22.3s,MS4.6
LBL   Lubilhac         28.08 185  eP     P      21 59 03.9 -1.2
KIS   Kishinev         28.10 147  eP     P      21 59 03.0 -2.2
KIS                               e             21 59 08.0
KIS                               eS     S      22 03 50.0 +0.3
KIS                                MLR   MLR
      comp=N,5µm,16.0s,MS5.2
KIS                                MLR   MLR
      comp=Z,6µm,16.0s,MS5.3
KIS                                MLR   MLR
      comp=E,2µm,15.0s,MS5.2
KIS                                MLR   MLR
      comp=Z,8µm,16.0s
KIS   Kishinev         28.10 147  eP     P      21 59 03.0 -2.2
KIS                               eS     S      22 03 50.0 +0.3
KIS                               eLQ           22 07 20.0
KIS                                LRM          22 09 40.0
      comp=Z,8µm,16.0s
BNI   Bardonecchia     28.22 180  eP     P      21 59 05.0 -1.3
      comp=Z,73nm,1.6s,mb5.1
BNI   Bardonecchia     28.22 180  eP     P      21 59 05.0 -1.3
BNI                                pmax  pmax
      comp=Z,73nm,1.6s,mb5.1
ORIF  Oris-en-Rattie   28.35 181  eP     P      21 59 06.9 -0.6
      comp=Z,28nm,1.0s,mb4.6
ORIF                              eMLR   MLR
      comp=Z,2µm,21.2s,MS4.3
ORIF  Oris-en-Rattie   28.35 181  eP     P      21 59 06.9 -0.6
ORIF                               pmax  pmax
      comp=Z,14nm,1.0s,mb4.5
ORIF  Oris-en-Rattie   28.35 181  eP     P      21 59 06.9 -0.6
      comp=Z,14nm,1.0s,mb4.6
CAF   Calviac          28.43 187  eP     P      21 59 07.1 -1.1
      comp=Z,128nm,1.7s,mb5.0
CAF   Calviac          28.43 187  eP     P      21 59 07.1 -1.1
CAF                                pmax  pmax
      comp=Z,64nm,1.7s,mb5.0
CAF   Calviac          28.43 187  eP     P      21 59 07.1 -1.1
      comp=Z,64nm,1.7s,mb5.0
VIVF  Saint-Julien-l   28.43 183  eP     P      21 59 07.4 -0.8
      comp=Z,62nm,1.1s,mb4.8
VIVF  Saint-Julien-l   28.43 183  eP     P      21 59 07.4 -0.8
VIVF                               pmax  pmax
      comp=Z,31nm,1.1s,mb4.8
VIVF  Saint-Julien-l   28.43 183  eP     P      21 59 07.4 -0.8
      comp=Z,31nm,1.1s,mb4.8
LFF   La Frestale      28.47 189  eP     P      21 59 07.3 -1.2
BZS   Buzias           28.48 158   P     P      21 59 10.5 +1.9
BZS   Buzias           28.48 158⇑iP     P      21 59 10.1 +1.5
BZS   Buzias           28.48 158   P     P      21 59 10.5 +1.9
MBDF  Montbardon       28.54 180  eP     P      21 59 09.2  0.0
      comp=Z,146nm,1.4s,mb5.2
MBDF  Montbardon       28.54 180  eP     P      21 59 09.2  0.0
MBDF                               pmax  pmax
      comp=Z,73nm,1.4s,mb5.2
MBDF  Montbardon       28.54 180  eP     P      21 59 09.2  0.0
      comp=Z,73nm,1.4s,mb5.2
FGSL  Fruska Gora      28.75 161   P     P      21 59 12.2 +1.2
GZR   Gura Zlata       28.84 156   P     P      21 59 13.3 +1.5
GZR   Gura Zlata       28.84 156⇓iP     P      21 59 13.0 +1.2
GZR   Gura Zlata       28.84 156   P     P      21 59 13.3 +1.5
VRI   Vrincioaia       28.89 150  ⇑P     P      21 59 14.4 +2.2
VRI   Vrincioaia       28.89 150⇑iP     P      21 59 14.4 +2.2
VOIR                   29.07 153   P     P      21 59 20.0 +6.1
MLR   Muntele Rosu     29.14 152  ⇓P     P      21 59 16.1 +1.6
MLR   Muntele Rosu     29.14 152   P     P      21 59 15.7 +1.2
      comp=Z,3.6nm,0.7s,mb4.2,baz=350,slow=11,SNR=4.2
MLR                                LR    LR     22 11 05.9
      comp=Z,9µm,19.1s,MS5.4,baz=0.7,slow=37
MLR   Muntele Rosu     29.14 152⇓iP     P      21 59 16.1 +1.6
BEO   Belgrade         29.15 160   P     P      21 59 15.8 +1.3
LASF  Ste Croix        29.23 184  eP     P      21 59 13.6 -1.6
      comp=Z,155nm,1.5s,mb5.2
SMRF  Simiane la Rot   29.30 182  eP     P      21 59 14.6 -1.3
      comp=Z,146nm,1.6s,mb5.2
SMRF  Simiane la Rot   29.30 182  eP     P      21 59 14.6 -1.3
      comp=Z,146nm,1.6s,mb5.5
VMG   Vicchio          29.39 173   P     P      21 59 18.7 +2.0
SBF   Sospel           29.41 179  eP     P      21 59 16.3 -0.6
      comp=Z,200nm,1.1s,mb5.5
SBF   Sospel           29.41 179  eP     P      21 59 16.3 -0.6
SBF                                pmax  pmax
      comp=Z,100nm,1.1s,mb5.5
SBF   Sospel           29.41 179  eP     P      21 59 16.3 -0.6
      comp=Z,100nm,1.1s,mb5.5
SFI   Santa Sofia      29.46 173   P     P      21 59 19.8 +2.5
ORR   Orenburg         29.60 110  eP     P      21 59 18.6 +0.1
FRF   La Foret Royal   29.71 180  eP     P      21 59 17.7 -1.8
      comp=Z,82nm,1.3s,mb5.0
FRF   La Foret Royal   29.71 180  eP     P      21 59 17.7 -1.8
      comp=Z,41nm,1.3s,mb5.0
FRF   La Foret Royal   29.71 180  eP     P      21 59 17.7 -1.8
FRF                                pmax  pmax
      comp=Z,41nm,1.3s,mb5.0
DIVS  Divcibare        29.82 161   P     P      21 59 21.1 +0.6
BADI  Badiali          29.87 172   P     P      21 59 23.0 +2.0
      comp=Z,396nm,2.5s,mb5.7
CSNT  Castellina Chi   29.87 173   P     P      21 59 20.9 -0.1
LMR   La Mourre        29.93 180  eP     P      21 59 20.6 -0.9
      comp=Z,84nm,1.3s,mb5.0
LMR   La Mourre        29.93 180  eP     P      21 59 20.6 -0.9
LMR                                pmax  pmax
      comp=Z,42nm,1.3s,mb5.0
LMR   La Mourre        29.93 180  eP     P      21 59 20.6 -0.9
      comp=Z,42nm,1.3s,mb5.0
MTLF  Montolieu        30.00 187  eP     P      21 59 20.9 -1.2
      comp=Z,20nm,1.1s,mb4.4
MTLF  Montolieu        30.00 187  eP     P      21 59 20.9 -1.2
      comp=Z,9.9nm,1.1s,mb4.5
MTLF  Montolieu        30.00 187  eP     P      21 59 20.9 -1.2
MTLF                               pmax  pmax
      comp=Z,10.0nm,1.1s,mb4.5
GRUS  Gruza            30.10 160   P     P      21 59 22.7 -0.3
SNTG  Esanatoglia      30.15 171   P     P      21 59 25.7 +2.2
      comp=Z,117nm,2.6s,mb5.2
ELIZ  Elizondo         30.36 192   P     P      21 59 23.9 -1.4
      comp=Z,67nm,1.1s,mb5.3
ELIZ  Elizondo         30.36 192   P     P      21 59 23.9 -1.4
ELIZ                               pmax  pmax
      comp=Z,67nm,1.1s,mb5.3
EPF   Esparros         30.39 189  eP     P      21 59 24.4 -1.2
      comp=Z,139nm,1.5s,mb5.2
EPF   Esparros         30.39 189  eP     P      21 59 24.4 -1.2
      comp=Z,69nm,1.5s,mb5.2
EPF   Esparros         30.39 189  eP     P      21 59 24.4 -1.2
EPF                                pmax  pmax
      comp=Z,69nm,1.5s,mb5.2
SJPF  Ste Jean         30.39 192  eP     P      21 59 24.0 -1.6
      comp=Z,183nm,1.6s,mb5.3
SJPF  Ste Jean         30.39 192  eP     P      21 59 24.0 -1.6
      comp=Z,91nm,1.6s,mb5.3
SJPF  Ste Jean         30.39 192  eP     P      21 59 24.0 -1.6
SJPF                               pmax  pmax
      comp=Z,91nm,1.6s,mb5.2
ETSF  Etsaut           30.57 191  eP     P      21 59 26.1 -1.0
      comp=Z,254nm,1.7s,mb5.5
ETSF  Etsaut           30.57 191  eP     P      21 59 26.1 -1.0
ETSF                               pmax  pmax
      comp=Z,127nm,1.7s,mb5.5
ETSF  Etsaut           30.57 191  eP     P      21 59 26.1 -1.0
      comp=Z,127nm,1.7s,mb5.5
NRCA  Norcia           30.58 171   P     P      21 59 28.9 +1.6
      comp=Z,14nm,1.2s,mb4.7
SJES  Sjenica          30.64 161   P     P      21 59 29.2 +1.5
EPON  Pontenova        30.65 200   P     P      21 59 27.0 -0.8
      comp=Z,142nm,1.6s,mb5.5
EPON  Pontenova        30.65 200   P     P      21 59 27.0 -0.9
      comp=Z,142nm,1.6s,mb5.5
PGF   Pioggiola        30.74 177  eP     P      21 59 27.2 -1.4
      comp=Z,177nm,1.4s,mb5.4
PGF   Pioggiola        30.74 177  eP     P      21 59 27.2 -1.4
      comp=Z,88nm,1.4s,mb5.4
PGF   Pioggiola        30.74 177  eP     P      21 59 27.2 -1.4
PGF                                pmax  pmax
      comp=Z,88nm,1.4s,mb5.4
EBIE  Bielsa           30.74 190   P     P      21 59 28.1 -0.6
      comp=Z,379nm,2.6s,mb5.8
EBIE  Bielsa           30.74 190   P     P      21 59 28.1 -0.6
      comp=Z,379nm,2.6s,mb5.8
TIXI  Tiksi            30.86  32  eP     P      21 59 29.4 -0.1
      comp=Z,99nm,1.5s,mb5.4
TIXI                               LR    LR
      comp=Z,839nm,19.0s,MS4.4
TIXI  Tiksi            30.86  32⇑eP     P      21 59 29.6 +0.2
TIXI                               pmax  pmax
      comp=Z,88nm,1.8s,mb5.3
TIXI                               MLR   MLR
      comp=Z,900nm,19.0s,MS4.5
TIXI  Tiksi            30.86  32  eP     P      21 59 29.4  0.0
      comp=Z,99nm,1.5s,mb5.4
ECRI  Cripan           30.97 193   P     P      21 59 31.3 +0.6
      comp=Z,45nm,1.3s,mb5.1
ECRI  Cripan           30.97 193   P     P      21 59 31.3 +0.6
ECRI                               pmax  pmax
      comp=Z,45nm,1.3s,mb5.1
ECRI  Cripan           30.97 193   P     P      21 59 31.3 +0.6
      comp=Z,45nm,1.3s,mb5.1
AQU   L'Aquila         31.07 170  eP     P      21 59 31.3 -0.3
AQU   L'Aquila         31.07 170  eP     P      21 59 31.3 -0.3
STS   Santiago         31.23 202   P     P      21 59 30.0 -3.0
      comp=Z,22nm,0.9s,mb5.0
STS   Santiago         31.23 202   P     P      21 59 30.0 -3.0
STS                                pmax  pmax
      comp=Z,22nm,0.9s,mb5.0
BARS  Barje            31.27 158   P     P      21 59 34.5 +1.2
AKTK  Aktyubinsk       31.57 108   P     P      21 59 35.1 -0.8
AKTO  Aktyubinsk       31.57 108   P     P      21 59 35.1 -0.8
      comp=Z,14nm,0.8s,mb4.8,baz=342,slow=9.2,SNR=24
VVLD  Villa Vallelon   31.57 170   P     P      21 59 38.0 +2.1
      comp=Z,180nm,2.5s,mb5.5
ERUA  La Rua           31.57 200   P     P      21 59 32.5 -3.5
VTS   Vitosha          31.65 157   P     P      21 59 37.7 +1.0
VTS   Vitosha          31.65 157  eP     P      21 59 36.6 -0.1
VTS   Vitosha          31.65 157⇓iP     P      21 59 36.7  0.0
ESAC  San Caprasio     31.74 190   P     P      21 59 37.9 +0.4
      comp=Z,142nm,1.0s,mb5.8
ESAC  San Caprasio     31.74 190   P     P      21 59 37.8 +0.4
      comp=Z,142nm,1.0s,mb5.8
SDI   San Donato       31.74 170   P     P      21 59 39.1 +1.7
SDI                                pmax  pmax
      comp=Z,49nm,1.8s,mb5.0
SDI   San Donato       31.74 170   P     P      21 59 39.1 +1.7
      comp=Z,48nm,1.8s,mb5.0
RNI2  Rionero Sannit   31.76 169   P     P      21 59 39.5 +1.8
      comp=Z,627nm,2.7s,mb6.0
ANN   Anapa            31.78 136  eP     P      21 59 32.8 -5.0
ANN                               eS     S      22 04 42.5 -4.9
ANN                                pmax  pmax
      comp=Z,85nm,1.2s,mb5.5
ANN                                MLR   MLR
      comp=Z,3µm,16.0s,MS5.1
PGB   Panagyurishte    31.80 155  eP     P      21 59 37.0 -1.0
ECAL  Calabor          31.98 199   P     P      21 59 38.7 -0.9
      comp=Z,170nm,1.5s,mb5.7
ECAL  Calabor          31.98 199   P     P      21 59 38.7 -0.9
      comp=Z,170nm,1.5s,mb5.7
EPOB  Poblet           32.03 188   P     P      21 59 37.6 -2.4
      comp=Z,118nm,1.4s,mb5.5
PBRG  Braganca         32.12 199  eP     P      21 59 41.7 +0.9
      comp=Z,64nm,2.0s,mb5.1
CHKZ  Chkalovo         32.30  92   P     P      21 59 40.2 -2.0
KKB   Krupnik          32.35 157  eP     P      21 59 42.0 -0.8
KRUS  Krusevo          32.65 160  eP     P      21 59 46.5 +1.1
MMB   Musomiste        32.70 156  eP     P      21 59 46.0 +0.1
RZN   Rozhen           32.72 155  eP     P      21 59 46.0 -0.1
ETOR  Torete           32.73 192   P     P      21 59 47.2 +1.1
      comp=Z,32nm,1.1s,mb5.2
ETOR  Torete           32.73 192   P     P      21 59 47.2 +1.1
ETOR                               pmax  pmax
      comp=Z,32nm,1.1s,mb5.2
ETOR  Torete           32.73 192   P     P      21 59 47.2 +1.1
      comp=Z,32nm,1.1s,mb5.2
PVRL  Vila Real        32.74 200  eP     P      21 59 48.0 +1.8
      comp=Z,64nm,1.4s,mb5.4
BRVK  Borovoye         32.74  93  eP     P      21 59 46.0 -0.1
      comp=Z,68nm,1.6s,mb5.3
BRVK                              ePP    PP     22 00 56.5 -3.3
BRVK                              ePcP   PcP    22 02 26.9 -4.2
BRVK                               S     S      22 05 01.8 -0.5
BRVK                               LR    LR
      comp=Z,2µm,20.0s,MS4.8
BRVK  Borovoye         32.74  93  eP     P      21 59 46.1  0.0
BRVK                              e             22 00 56.5
BRVK                              e             22 02 26.9
BRVK                               S     S      22 05 01.8 -0.5
BRVK                               pmax  pmax
      comp=Z,68nm,1.6s,mb5.3
BRVK                               MLR   MLR
      comp=Z,2µm,20.0s,MS4.8
BRVK  Borovoye         32.74  93   P     P      21 59 47.6 +1.4
      SNR=20
BRVK  Borovoye         32.74  93  eP     P      21 59 46.0 -0.1
      comp=Z,68nm,1.6s,mb5.3
BRVK  Borovoye         32.74  93  ePP    PP     22 00 56.5 -3.4
MVO   Moncorvo         32.78 199  eP     P      21 59 47.4 +0.8
      comp=Z,30nm,1.4s,mb5.0
MVO                               eLR    LR     22 09 16.2
      comp=Z,832nm,21.0s
VAY   Valandovo        32.83 158  eP     P      21 59 47.2 +0.2
KDZ   Kurdzhali        32.85 154  eP     P      21 59 50.0 +2.8
OHR   Ohrid            32.85 160  eP     P      21 59 47.4 +0.1
SGO   Sicignano        32.97 168   P     P      21 59 50.2 +2.0
SGO                                pmax  pmax
      comp=Z,2.0nm,0.2s,mb4.7
SGO   Sicignano        32.97 168   P     P      21 59 50.2 +2.0
      comp=Z,1.8nm,0.2s,mb4.7
GUD   Guadarrama       33.05 195   P     P      21 59 49.0 +0.1
      comp=Z,34nm,1.4s,mb5.1
GUD   Guadarrama       33.05 195   P     P      21 59 49.0 +0.1
GUD                                pmax  pmax
      comp=Z,34nm,1.4s,mb5.1
GUD   Guadarrama       33.05 195   P     P      21 59 49.0 +0.1
      comp=Z,34nm,1.4s,mb5.1
PVIS  Viseu            33.31 201  eP     P      21 59 51.9 +0.7
      comp=Z,51nm,1.7s,mb5.2
SOC   Sochi            33.41 134  eP     P      21 59 50.3 -1.8
SOC                               e*PP   pP     21 59 52.0 -3.1
SOC                               ePPP          22 01 11.7
SOC                               e             22 02 29.6
SOC                               eS     S      22 05 11.7 -1.1
SOC                               e*SS   sS     22 05 15.3 -2.6
SOC                                pmax  pmax
      comp=Z,9.0nm,0.6s,mb4.9
SOC                                MLR   MLR
      comp=Z,5µm,21.0s,MS5.2
MTE   Manteigas        33.59 200  eP     P      21 59 55.8 +2.1
      comp=Z,40nm,2.3s,mb4.9
KIV   Kislovodsk       33.70 130  eP     P      21 59 54.5 -0.1
      comp=Z,22nm,0.9s,mb5.1
KIV                               ePP    PP     22 01 09.0 -1.5
KIV                                PcP   PcP    22 02 30.4 -3.5
KIV                               eS     S      22 05 27.1  +10
KIV                                LR    LR
      comp=Z,4µm,22.0s,MS5.1
KIV   Kislovodsk       33.70 130  eP     P      21 59 54.5 -0.1
KIV                               e             22 01 09.0
KIV                                             22 02 30.4
KIV                               eS     S      22 05 27.1  +10
KIV                                pmax  pmax
      comp=Z,22nm,0.9s,mb5.1
KIV                                MLR   MLR
      comp=Z,4µm,22.0s,MS5.1
KIV   Kislovodsk       33.70 130   P     P      21 59 55.8 +1.2
      SNR=13
KIV   Kislovodsk       33.70 130  ePP    PP     22 01 09.0 -1.6
ECHE  Chera            33.89 191   P     P      21 59 56.9 +0.7
      comp=Z,10.0nm,0.8s,mb4.8
ECHE  Chera            33.89 191   P     P      21 59 56.9 +0.7
ECHE                               pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.8
ECHE  Chera            33.89 191   P     P      21 59 56.9 +0.7
      comp=Z,10.0nm,0.8s,mb4.8
ESDC  Sonseca Array    34.00 195   P     P      21 59 57.0 -0.2
      comp=Z,5.9nm,1.0s,mb4.5,baz=6.0,slow=9.3,SNR=16
ESDC  Sonseca Array    34.00 195   P     P      21 59 56.8 -0.4
      comp=Z,12nm,1.3s,mb4.7
ESLA  Sonseca Array    34.00 195  eP     P      21 59 57.3 +0.1
      comp=Z,8.8nm,1.3s,mb4.5
ESLA                              ePP    PP     22 01 19.5 +5.5
ESLA                              eS     S      22 04 46.7  -35
ESLA                               LR    LR
      comp=Z,5µm,21.0s,MS5.2
ESLA  Sonseca Array    34.00 195  eP     P      21 59 57.3 +0.1
      comp=Z,8.8nm,1.3s,mb4.5
SCHQ  Schefferville    34.12 278  eP     P      21 59 57.2 -0.9
SCHQ                              ePP    PP     22 01 14.6 -0.5
SCHQ                              ePcP   PcP    22 02 33.9 -1.0
SCHQ                               LR    LR     22 12 15.7
SCHQ  Schefferville    34.12 278   P     P      21 59 56.5 -1.6
      comp=Z,4.1nm,0.6s,mb4.5,baz=26,slow=9.8,SNR=10
SCHQ                               LR    LR     22 12 15.7
      comp=Z,3µm,21.4s,MS5.0,baz=25,slow=34
SCHQ  Schefferville    34.12 278  eP     P      21 59 57.2 -0.9
SCHQ  Schefferville    34.12 278  ePP    PP     22 01 14.6 -0.5
PCBR  Castelo Branco   34.14 200  eP     P      21 59 58.2 -0.2
      comp=Z,47nm,1.6s,mb5.2
PAB   San Pablo        34.15 195  eP     P      21 59 58.7 +0.1
      comp=Z,21nm,1.1s,mb5.0
PAB                               ePP    PP     22 01 14.9 -0.8
PAB                               ePcP   PcP    22 02 34.5 -0.8
PAB                               eS     S      22 05 23.8 -0.6
PAB                                LR    LR
      comp=Z,1µm,19.0s,MS4.6
PAB   San Pablo        34.15 195  eP     P      21 59 58.7 +0.1
PAB                               e             22 01 14.9
PAB                               e             22 02 34.5
PAB                               eS     S      22 05 23.8 -0.6
PAB                                pmax  pmax
      comp=Z,21nm,1.1s,mb5.0
PAB                                MLR   MLR
      comp=Z,1µm,19.0s,MS4.6
PAB   San Pablo        34.15 195  eP     P      21 59 58.7 +0.1
      comp=Z,21nm,1.1s,mb5.0
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PAB	**San Pablo**	**34.15**	**195**	*e*PP	PP	22 01 14.9	-0.8
TIP	**Timpagrande**	**34.44**	**166**	*e*P	**P**	**22 00 01.7**	**+0.7**
TIP				*e*PP	PP	22 01 17.3	-1.5
TIP				*e*PcP	PcP	22 02 33.8	-2.3
PTOM	**Tomar**	**34.45**	**201**	*e*P	**P**	**22 00 01.1**	**0.0**
	comp=Z,80nm,1.5s,mb5.4						
EBEN	**Beniarda**	**34.73**	**190**	P	**P**	**22 00 04.8**	**+1.2**
	comp=Z,185nm,1.6s,mb5.8						
EBEN	**Beniarda**	**34.73**	**190**	P	**P**	**22 00 04.8**	**+1.2**
	comp=Z,185nm,1.6s,mb5.8						
ETOB	**Tobarra**	**34.86**	**191**	P	**P**	**22 00 05.4**	**+0.7**
	comp=Z,394nm,2.8s,mb5.8						
ETOB	**Tobarra**	**34.86**	**191**	P	**P**	**22 00 05.4**	**+0.7**
	comp=Z,394nm,2.8s,mb5.8						
EVIA	**Vianos**	**34.92**	**193**	P	**P**	**22 00 06.6**	**+1.4**
EVIA				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.2						
EVIA	**Vianos**	**34.92**	**193**	P	**P**	**22 00 06.6**	**+1.4**
	comp=Z,38nm,1.1s,mb5.2						
NVS	**Novosibirsk**	**34.94**	**79**	⇑*i*P	**P**	**22 00 06.7**	**+1.5**
NVS				*e*		22 01 23.5	
NVS				*i*		22 02 36.2	
NVS				pmax	pmax		
	comp=N,78nm,1.8s						
NVS				pmax	pmax		
	comp=Z,103nm,1.8s,mb5.5						
ZEI	**Tsey**	**35.10**	**129**	*e*P	**P**	**22 00 07.5**	**+0.8**
ZEI				*i*		22 00 12.8	
ZEI				*e*		22 02 37.6	
ZEI				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
EBAD	**Badajoz**	**35.17**	**199**	P	**P**	**22 00 07.4**	**+0.1**
	comp=Z,19nm,1.1s,mb4.9						
EBAD	**Badajoz**	**35.17**	**199**	P	**P**	**22 00 07.4**	**+0.1**
	comp=Z,19nm,1.1s,mb4.9						
ONI	**Oni**	**35.18**	**130**	P	**P**	**22 00 08.7**	**+1.3**
PMAFR	**Mafra**	**35.20**	**202**	*e*LR	LR	22 09 34.5	
	comp=Z,1μm,20.5s						
EBAN	**Banos Encina**	**35.48**	**194**	P	**P**	**22 00 11.1**	**+1.0**
EBAN				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.2						
EBAN	**Banos Encina**	**35.48**	**194**	P	**P**	**22 00 11.1**	**+1.0**
	comp=Z,35nm,1.2s,mb5.2						
MTTG	**Motta San Giov**	**35.54**	**168**	P	**P**	**22 00 10.1**	**-0.4**
EADA	**Adamuz**	**35.54**	**195**	P	**P**	**22 00 11.2**	**+0.6**
	comp=Z,82nm,1.3s,mb5.5						
EADA	**Adamuz**	**35.54**	**195**	P	**P**	**22 00 11.2**	**+0.7**
	comp=Z,82nm,1.3s,mb5.5						
EMUR	**La Murta**	**35.64**	**191**	P	**P**	**22 00 12.0**	**+0.6**
	comp=Z,120nm,1.6s,mb5.6						
EMUR	**La Murta**	**35.64**	**191**	P	**P**	**22 00 12.0**	**+0.6**
	comp=Z,120nm,1.6s,mb5.6						
ANTO	**Ankara**	**35.69**	**145**	*e*P	**P**	**22 00 10.3**	**-1.5**
	comp=Z,40nm,1.5s,mb5.1						
ANTO				*e*PP	PP	22 01 31.4	-1.3
ANTO				*e*PcP	PcP	22 02 39.4	-0.3
ANTO				*e*S	**S**	**22 05 56.4**	**+8.4**
ANTO				LR	LR		
	comp=Z,2μm,20.0s,MS4.9						
ANTO	**Ankara**	**35.69**	**145**	*e*P	**P**	**22 00 10.4**	**-1.4**
ANTO				*e*		22 01 31.4	
ANTO				*e*		22 02 39.4	
ANTO				*e*S	**S**	**22 05 56.4**	**+8.3**
ANTO				pmax	pmax		
	comp=Z,40nm,1.5s,mb5.1						
ANTO				MLR	MLR		
	comp=Z,2μm,20.0s,MS4.9						
ANTO	**Ankara**	**35.69**	**145**	*e*P	**P**	**22 00 10.4**	**-1.4**
	comp=Z,40nm,1.5s,mb5.1						
ANTO	**Ankara**	**35.69**	**145**	*e*PP	PP	22 01 31.4	-1.3
PBAR	**Barrancos**	**35.74**	**199**	*e*P	**P**	**22 00 12.8**	**+0.5**
	comp=Z,48nm,1.8s,mb5.1						
PBAR				*e*LR	LR	22 09 49.7	
	comp=Z,976nm,21.1s						
MAK	**Makhachkala**	**35.75**	**125**	*e*P	**P**	**22 00 11.8**	**-0.5**
MAK				*i*		22 01 30.9	
MAK				*i* S	**S**	**22 05 51.8**	**+2.9**
MAK				*e*SS	SS	22 08 08.2	-16
MAK				pmax	pmax		
	comp=Z,170nm,1.4s,mb5.8						
MAK				MLR	MLR		
	comp=Z,2μm,16.0s,MS5.1						
EQES	**Quesada**	**35.79**	**193**	P	**P**	**22 00 13.8**	**+1.1**
	comp=Z,124nm,1.3s,mb5.7						
EQES	**Quesada**	**35.79**	**193**	P	**P**	**22 00 13.8**	**+1.1**
	comp=Z,124nm,1.3s,mb5.7						
PBEJ	**Beja**	**35.97**	**200**	*e*P	**P**	**22 00 14.3**	**+0.1**
	comp=Z,64nm,2.1s,mb5.2						
BR131	**Keskin Array S**	**35.98**	**144**	*e*P	**P**	**22 00 14.5**	**+0.2**
	comp=Z,5.9nm,0.7s,mb4.6						
BR131				*e*PP	PP	22 01 30.3	-5.5
BR131				*e*PcP	PcP	22 02 57.9	+17
BR131				*e*S	**S**	**22 05 59.4**	**+7.0**
BR131				LR	LR		
	comp=Z,2μm,19.0s,MS4.9						
BR131	**Keskin Array S**	**35.98**	**144**	*e*P	**P**	**22 00 14.5**	**+0.2**
	comp=Z,5.9nm,0.7s,mb4.6						
BRTR	**Keskin Array B**	**35.98**	**144**	P	**P**	**22 00 14.8**	**+0.5**
	comp=Z,3.8nm,0.7s,mb4.4,baz=350,slow=5.9,SNR=15						
BRTR				LR	LR	22 17 24.5	
	comp=Z,3μm,18.8s,MS5.0,baz=211,slow=40						
EMIN	**Mina Concepcio**	**36.12**	**198**	P	**P**	**22 00 15.2**	**-0.2**
	comp=Z,18nm,0.7s,mb5.1						
EMIN	**Mina Concepcio**	**36.12**	**198**	P	**P**	**22 00 15.2**	**-0.3**
	comp=Z,18nm,0.7s,mb5.1						
ELUQ	**Luque**	**36.12**	**195**	P	**P**	**22 00 16.9**	**+1.4**
ELUQ				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
ELUQ	**Luque**	**36.12**	**195**	P	**P**	**22 00 16.9**	**+1.4**
	comp=Z,18nm,1.1s,mb4.9						
ZAA0	**Zalesovo Array**	**36.17**	**78**	*e*P	**P**	**22 00 15.4**	**-0.4**
ZAA0				*e*PP	PP	22 01 41.1	+3.4
ZAA0				*e*PcP	PcP	22 02 41.2	+0.3
ZALV	**Zalesovo Beam**	**36.17**	**78**	P	**P**	**22 00 15.7**	**-0.1**
	comp=Z,4.5nm,0.8s,mb4.4,baz=331,slow=9.3,SNR=22						
ZALV				LR	LR	22 17 45.8	
	comp=Z,1μm,21.8s,MS4.6,baz=330,slow=41						
ZAL	**Zalesovo**	**36.17**	**79**	P	**P**	**22 00 15.7**	**-0.1**
TBLG	**Delisi**	**36.27**	**129**	*e*P	**P**	**22 00 18.1**	**+1.3**
TBLG	**Delisi**	**36.27**	**129**	P	**P**	**22 00 18.1**	**+1.3**
MTA	**Mtatsminda**	**36.32**	**129**	P	**P**	**22 00 16.6**	**-0.6**
ECOG	**Cogollos-Vega**	**36.35**	**194**	P	**P**	**22 00 19.5**	**+2.0**
	comp=Z,5.7nm,0.7s,mb4.6						
ECOG	**Cogollos-Vega**	**36.35**	**194**	P	**P**	**22 00 19.5**	**+2.0**
ECOG				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
ECOG	**Cogollos-Vega**	**36.35**	**194**	P	**P**	**22 00 19.5**	**+2.0**
	comp=Z,5.7nm,0.7s,mb4.6						
INK	**Inuvik**	**36.40**	**336**	*e*P	**P**	**22 00 16.5**	**-1.1**
	comp=Z,1μm,1.4s						
INK				*e*PP	PP	22 01 36.3	-3.8
INK				*e*PcP	PcP	22 02 40.6	-0.8
INK	**Inuvik**	**36.40**	**336**	*e*P	**P**	**22 00 16.5**	**-1.1**
	comp=Z,1μm,1.4s						
INK	**Inuvik**	**36.40**	**336**	*e*PP	PP	22 01 36.3	-3.8
EGRO	**El Granado**	**36.42**	**199**	P	**P**	**22 00 18.1**	**0.0**
	comp=Z,125nm,1.9s,mb5.5						
EGRO	**El Granado**	**36.42**	**199**	P	**P**	**22 00 18.1**	**0.0**
	comp=Z,125nm,1.9s,mb5.5						
ELOJ	**Sierra Loja**	**36.52**	**195**	P	**P**	**22 00 20.4**	**+1.5**
	comp=Z,3.6nm,1.0s,mb4.2						
ELOJ	**Sierra Loja**	**36.52**	**195**	P	**P**	**22 00 20.4**	**+1.4**
ELOJ				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.2						
ELOJ	**Sierra Loja**	**36.52**	**195**	P	**P**	**22 00 20.4**	**+1.4**
	comp=Z,3.6nm,1.0s,mb4.2						
ENIJ	**Nijar**	**36.56**	**192**	P	**P**	**22 00 21.3**	**+2.0**
	comp=Z,9.3nm,0.8s,mb4.7						
ENIJ	**Nijar**	**36.56**	**192**	P	**P**	**22 00 21.3**	**+2.0**
ENIJ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.7						
ENIJ	**Nijar**	**36.56**	**192**	P	**P**	**22 00 21.3**	**+2.0**
	comp=Z,9.3nm,0.8s,mb4.7						
ERON	**Agron**	**36.62**	**194**	P	**P**	**22 00 20.1**	**+0.3**
ERON	**Agron**	**36.62**	**194**	P	**P**	**22 00 20.1**	**+0.3**
DGRG	**David-gareji**	**36.69**	**128**	P	**P**	**22 00 21.4**	**+1.1**
PBDV	**Barranco-do-Ve**	**36.75**	**200**	*e*P	**P**	**22 00 21.5**	**+0.6**
	comp=Z,68nm,1.5s,mb5.2						
PBDV				*e*LR	LR	22 09 12.1	
	comp=Z,1μm,21.5s						
MORF	**Marmelete**	**36.76**	**201**	*e*LR	LR	22 10 09.1	
	comp=Z,918nm,16.4s						
EGUA	**Guajares**	**36.79**	**194**	P	**P**	**22 00 21.9**	**+0.6**
	comp=Z,2.5nm,0.3s,mb4.5						
EGUA	**Guajares**	**36.79**	**194**	P	**P**	**22 00 21.9**	**+0.6**
EGUA				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.6						
EGUA	**Guajares**	**36.79**	**194**	P	**P**	**22 00 21.9**	**+0.6**
	comp=Z,2.5nm,0.3s,mb4.5						
ESPR	**Espera**	**36.94**	**197**	P	**P**	**22 00 23.2**	**+0.7**
	comp=Z,79nm,1.4s,mb5.3						
ESPR	**Espera**	**36.94**	**197**	P	**P**	**22 00 23.2**	**+0.7**
	comp=Z,79nm,1.4s,mb5.3						
PFVI	**Vila Bisbo**	**36.95**	**201**	*e*LR	LR	22 09 12.4	
	comp=Z,1μm,19.4s						
EBNR	**Beni Rached**	**37.06**	**187**	P	**P**	**22 00 25.0**	**+1.4**
EMHD	**Djebel Mahouad**	**37.11**	**185**	P	**P**	**22 00 21.0**	**-3.0**
EMIJ	**Mijas**	**37.15**	**195**	P	**P**	**22 00 24.4**	**+0.1**
	comp=Z,128nm,1.5s,mb5.5						
EMIJ	**Mijas**	**37.15**	**195**	P	**P**	**22 00 24.4**	**+0.1**
	comp=Z,128nm,1.5s,mb5.5						
ECHA	**Ech Chlef**	**37.21**	**187**	P	**P**	**22 00 26.5**	**+1.7**
KURK	**Kurchatov**	**37.24**	**87**	*e*P	**P**	**22 00 25.0**	**+0.1**
	comp=Z,29nm,1.0s,mb5.1						
KURK				*e*PP	PP	22 01 50.4	+0.8
KURK				*e*PcP	PcP	22 02 43.8	-0.4
KURK				*e*S	S	22 05 37.2	-34
KURK				LR	LR		
	comp=Z,3μm,19.0s,MS5.1						
KURK	**Kurchatov**	**37.24**	**87**	*e*P	**P**	**22 00 25.0**	**+0.1**
KURK				*e*		22 01 50.4	
KURK				*e*		22 02 43.8	
KURK				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.1						
KURK				MLR	MLR		
	comp=Z,3μm,19.0s,MS5.1						
KURK	**Kurchatov**	**37.24**	**87**	P	**P**	**22 00 25.9**	**+1.0**
	SNR=20						
KURK	**Kurchatov**	**37.24**	**87**	*e*P	**P**	**22 00 25.0**	**+0.1**
	comp=Z,29nm,1.0s,mb5.1						
KURK	**Kurchatov**	**37.24**	**87**	*e*PP	PP	22 01 50.4	+0.9
ISP	**Isparta**	**37.30**	**148**	⇓P	**P**	**22 00 27.1**	**+1.5**
ISP	**Isparta**	**37.30**	**148**	*c* *i*P	**P**	**22 00 26.8**	**+1.2**
ISP	**Isparta**	**37.30**	**148**	⇓*i*P	**P**	**22 00 27.1**	**+1.5**
EJIF	**Jimena Fronter**	**37.32**	**196**	P	**P**	**22 00 27.1**	**+1.4**
EJIF				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.8						
EJIF	**Jimena Fronter**	**37.32**	**196**	P	**P**	**22 00 27.1**	**+1.4**
	comp=Z,21nm,1.3s,mb4.8						
EANR	**'Ain N'Sour**	**37.42**	**188**	P	**P**	**22 00 28.0**	**+1.4**
KEST	**Kesra**	**37.55**	**177**	P	**P**	**22 00 27.9**	**+0.2**
	comp=Z,2.6nm,0.8s,mb4.0,baz=318,slow=4.5,SNR=9.2						
ETRT	**Tiaret**	**37.97**	**187**	P	**P**	**22 00 33.0**	**+1.8**
FCC	**Fort Churchill**	**38.01**	**304**	*e*P	**P**	**22 00 30.4**	**-0.9**
	comp=Z,76nm,1.8s,mb5.1						
FCC				*e*PP	PP	22 02 00.6	+2.7
FCC				*e*PcP	PcP	22 02 45.2	-1.3
FCC	**Fort Churchill**	**38.01**	**304**	*e*P	**P**	**22 00 30.4**	**-0.9**
FCC				*e*		22 02 00.6	
FCC				*e*		22 02 45.2	
FCC				pmax	pmax		
	comp=Z,76nm,1.8s,mb5.1						
MALT	**Malatya**	**38.23**	**138**	⇓P	**P**	**22 00 35.3**	**+1.9**
MALT	**Malatya**	**38.23**	**138**	⇓*i*P	**P**	**22 00 35.3**	**+1.9**
BILL	**Bilibino**	**38.38**	**12**	*e*P	**P**	**22 00 33.4**	**-1.0**
	comp=Z,63nm,1.5s,mb5.1						
BILL				*e*PcP	PcP	22 02 46.3	-1.2
BILL				*e*S	**S**	**22 06 28.9**	**+0.4**
BILL				LR	LR		
	comp=Z,1μm,19.0s,MS4.7						
BILL	**Bilibino**	**38.38**	**12**	⇓*e*P	**P**	**22 00 34.4**	**0.0**
BILL						22 02 47.0	
BILL				*i* S	**S**	**22 06 34.7**	**+6.2**
BILL				*e*		22 09 41.2	
BILL				pmax	pmax		
	comp=Z,50nm,1.7s,mb5.0						
BILL				MLR	MLR		
	comp=Z,1μm,18.0s,MS4.7						
BILL	**Bilibino**	**38.38**	**12**	*e*P	**P**	**22 00 33.4**	**-1.0**
	comp=Z,63nm,1.5s,mb5.1						
BILL	**Bilibino**	**38.38**	**12**	*e*PcP	PcP	22 02 46.3	-1.2
YKA	**Yellowknife Ar**	**39.02**	**321**	P	**P**	**22 00 39.0**	**-0.7**
YKA				PcP	PcP	22 02 48.0	-1.5
YKA				LR	LR	22 17 00.5	
YKA	**Yellowknife Ar**	**39.02**	**321**	P	**P**	**22 00 39.0**	**-0.8**
YKA						22 02 48.0	
YKA	**Yellowknife Ar**	**39.02**	**321**	P	**P**	**22 00 39.0**	**-0.7**
	comp=Z,3.4nm,0.6s,mb4.2,baz=18,slow=8.5,SNR=70						
YKA				PcP	PcP	22 02 48.0	-1.5
	comp=Z,3.1nm,0.8s,baz=16,slow=2.9,SNR=16						
YKA				LR	LR	22 17 00.5	
	comp=Z,3μm,18.2s,MS5.2,baz=170,slow=37						
YKA	**Yellowknife Ar**	**39.02**	**321**	PcP	PcP	22 02 48.0	-1.5
YAK	**Yakutsk**	**39.72**	**38**	*e*P	**P**	**22 00 43.8**	**-1.8**
YAK				*e*PP	PP	22 02 14.4	-2.1
YAK				*e*PcP	PcP	22 02 51.6	-0.2
YAK				LR	LR		
	comp=Z,1μm,20.0s,MS4.7						
YAK	**Yakutsk**	**39.72**	**38**	*e*P	**P**	**22 00 45.4**	**-0.3**
YAK				*e*S	**S**	**22 06 41.4**	**-7.4**
YAK				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.6						
YAK				pmax	pmax		
	comp=N,21nm,1.4s						
YAK				pmax	pmax		
	comp=E,16nm,1.5s						
YAK				smax			
	comp=N,174nm,5.6s						
YAK				smax			
	comp=E,101nm,4.3s						
YAK				MLR	MLR		
	comp=Z,953nm,20.0s,MS4.6						
YAK				MLR	MLR		
	comp=N,1μm,23.0s						
YAK				MLR	MLR		
	comp=E,271nm,13.0s						
YAK	**Yakutsk**	**39.72**	**38**	*e*P	**P**	**22 00 43.8**	**-1.9**
YAK	**Yakutsk**	**39.72**	**38**	*e*PP	PP	22 02 14.4	-2.1
BOD	**Bodaibo**	**40.36**	**52**	*e*P	**P**	**22 00 49.3**	**-1.7**
BOD				pmax	pmax		
	comp=Z,32nm,1.4s,mb4.9						
IMA2	**Indian Mountai**	**40.40**	**348**	*e*P	**P**	**22 00 51.1**	**-0.1**
IMA2				PP	PP	22 02 23.8	0.0
IMA2				*e*PcP	PcP	22 02 53.7	-0.2
IMA2	**Indian Mountai**	**40.40**	**348**	*e*P	**P**	**22 00 51.1**	**-0.1**
IMA2	**Indian Mountai**	**40.40**	**348**	PP	PP	22 02 23.8	0.0
EGAK	**Eagle**	**40.65**	**340**	*e*P	**P**	**22 00 52.9**	**-0.4**
	comp=Z,44nm,1.4s,mb4.9						
EGAK				*e*PP	PP	22 02 25.6	-1.0
EGAK				*e*PcP	PcP	22 02 54.4	-0.3
EGAK				LR	LR		
	comp=Z,1μm,21.0s,MS4.7						
EGAK	**Eagle**	**40.65**	**340**	*e*P	**P**	**22 00 52.9**	**-0.4**
	comp=Z,44nm,1.4s,mb4.9						
EGAK	**Eagle**	**40.65**	**340**	*e*PP	PP	22 02 25.6	-1.0
DAWY	**Dawson**	**41.16**	**338**	*e*P	**P**	**22 00 56.9**	**-0.5**
DAWY				*e*PcP	PcP	22 02 55.4	-1.0
DAWY	**Dawson**	**41.16**	**338**	*e*P	**P**	**22 00 56.9**	**-0.6**
DAWY	**Dawson**	**41.16**	**338**	*e*PcP	PcP	22 02 55.3	-1.1
COLA	**College**	**41.17**	**344**	*e*P	**P**	**22 00 57.5**	**-0.1**
	comp=Z,29nm,1.3s,mb4.7						
COLA				*e*PP	PP	22 02 32.3	+0.1
COLA				*e*PcP	PcP	22 02 55.8	-0.6
COLA				LR	LR		
	comp=Z,1μm,21.0s,MS4.7						
COLA	**College**	**41.17**	**344**	*e*P	**P**	**22 00 57.5**	**0.0**
COLA				*e*		22 02 32.3	
COLA				*e*		22 02 55.8	
COLA				pmax	pmax		
	comp=Z,29nm,1.3s,mb4.8						
COLA				MLR	MLR		
	comp=Z,1μm,21.0s,MS4.7						
COLA	**College**	**41.17**	**344**	*e*P	**P**	**22 00 57.5**	**0.0**
	comp=Z,29nm,1.3s,mb4.7						
COLA	**College**	**41.17**	**344**	*e*PP	PP	22 02 32.3	+0.1
TNA	**Tin City**	**41.47**	**357**	*e*P	**P**	**22 01 00.5**	**+0.5**
	comp=Z,24nm,1.6s,mb4.6						
TNA				*e*PcP	PcP	22 02 57.2	-0.2
TNA				LR	LR		
	comp=Z,596nm,22.0s,MS4.4						
TNA	**Tin City**	**41.47**	**357**	*e*P	**P**	**22 01 00.5**	**+0.5**
	comp=Z,24nm,1.6s,mb4.6						
TNA	**Tin City**	**41.47**	**357**	*e*PcP	PcP	22 02 57.2	-0.1
MK31	**Makanchi Array**	**41.83**	**86**	*e*P	**P**	**22 01 02.9**	**-0.3**
MK31				*e*PP	PP	22 02 38.6	-1.0
MK31				*e*PcP	PcP	22 02 57.9	-1.0
MK31	**Makanchi Array**	**41.83**	**86**	*e*P	**P**	**22 01 02.9**	**-0.3**
MK31	**Makanchi Array**	**41.83**	**86**	*e*PP	PP	22 02 38.6	-1.0
MKAR	**Makanchi Array**	**41.83**	**86**	P	**P**	**22 01 02.9**	**-0.3**
MKAR				LR	LR	22 21 11.0	
MKAR	**Makanchi Array**	**41.83**	**86**	P	**P**	**22 01 02.9**	**-0.3**
	comp=Z,7.4nm,0.9s,mb4.3,baz=335,slow=5.4,SNR=50						
MKAR				LR	LR	22 21 11.0	
	comp=Z,2μm,19.3s,MS5.0,baz=342,slow=40						
MOY	**Mondy**	**42.68**	**66**	*e*P	**P**	**22 01 12.2**	**+2.1**
MOY				pmax	pmax		
	comp=Z,184nm,2.0s,mb5.5						
MENT	**Mentasta**	**42.70**	**341**	*e*P	**P**	**22 01 10.9**	**+0.8**
MMAI	**Mount Meron Ar**	**42.82**	**144**	LR	LR	22 20 46.5	
	comp=Z,2μm,19.2s,MS4.9,baz=65,slow=39						
IRK	**Irkutsk**	**43.02**	**63**	⇑*i*P	**P**	**22 01 12.8**	**0.0**
IRK				*e*		22 02 53.4	
IRK				pmax	pmax		
	comp=Z,165nm,2.0s,mb5.4						
CHMS	**Chumysh**	**43.10**	**95**	P	**P**	**22 01 14.8**	**+1.3**
	SNR=7.4						
EKS2	**Erkin-Say**	**43.13**	**97**	P	**P**	**22 01 11.5**	**-2.3**
	SNR=10						
EKS2	**Erkin-Say**	**43.13**	**97**	*e*P	**P**	**22 01 14.4**	**+0.7**
	comp=Z,16nm,1.1s,mb4.7						
EKS2				*e*PcP	PcP	22 03 04.2	+0.9
EKS2				LR	LR		
	comp=Z,1μm,19.0s,MS4.9						
EKS2	**Erkin-Say**	**43.13**	**97**	*e*P	**P**	**22 01 14.4**	**+0.6**
	comp=Z,16nm,1.1s,mb4.7						
VAN	**Vannovskaya**	**43.15**	**115**	*i* P	**P**	**22 01 15.0**	**+1.0**
FRU	**Bishkek**	**43.21**	**96**	⇑*e*P	**P**	**22 01 16.0**	**+1.5**
FRU				pmax	pmax		
	comp=Z,210nm,2.5s,mb5.4						
FRU				MLR	MLR		
	comp=Z,2μm,18.0s,MS5.1						
AAK	**Ala-Archa**	**43.36**	**96**	P	**P**	**22 01 17.8**	**+2.1**
	SNR=8.2						
AAK	**Ala-Archa**	**43.36**	**96**	*e*P	**P**	**22 01 16.1**	**+0.4**
	comp=Z,52nm,1.8s,mb5.0						
AAK				*e*PP	PP	22 02 56.7	+0.5
AAK				*e*PcP	PcP	22 03 03.9	-0.2
AAK				LR	LR		
	comp=Z,1μm,19.0s,MS4.9						
AAK	**Ala-Archa**	**43.36**	**96**	*e*P	**P**	**22 01 16.1**	**+0.4**
AAK				*e*		22 02 56.7	
AAK				*e*		22 03 03.9	
AAK				pmax	pmax		
	comp=Z,52nm,1.8s,mb5.0						
AAK				MLR	MLR		
	comp=Z,1μm,19.0s,MS4.9						
AAK	**Ala-Archa**	**43.36**	**96**	P	**P**	**22 01 17.0**	**+1.3**
	SNR=12						
AAK	**Ala-Archa**	**43.36**	**96**	*e*P	**P**	**22 01 16.1**	**+0.4**
	comp=Z,52nm,1.8s,mb5.0						
AAK	**Ala-Archa**	**43.36**	**96**	*e*PP	PP	22 02 56.7	+0.5
TLY	**Talaya**	**43.37**	**64**	*e*P	**P**	**22 01 15.3**	**-0.3**
	comp=Z,4.0nm,1.4s,mb4.0						
TLY				PP	PP	22 02 56.5	+0.4
TLY				*e*PcP	PcP	22 03 03.1	-0.8
TLY				LR	LR		
	comp=Z,563nm,19.0s,MS4.5						
TLY	**Talaya**	**43.37**	**64**	*e*P	**P**	**22 01 15.3**	**-0.3**
TLY						22 02 56.5	
TLY				*e*		22 03 03.1	
TLY				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.0						
TLY				MLR	MLR		
	comp=Z,563nm,19.0s,MS4.5						
TLY	**Talaya**	**43.37**	**64**	P	**P**	**22 01 16.7**	**+1.1**
	SNR=14						
TLY	**Talaya**	**43.37**	**64**	*e*P	**P**	**22 01 15.3**	**-0.3**
	comp=Z,4.0nm,1.4s,mb4.0						
TLY	**Talaya**	**43.37**	**64**	PP	PP	22 02 56.5	+0.4
PKME	**Peaks-Kenny Pk**	**43.38**	**274**	PFAKE		22 01 30.0	+14
PKME				LR	LR		
	comp=Z,2μm,21.0s,MS5.0						
TKM2	**Tokmak 2**	**43.42**	**95**	P	**P**	**22 01 17.8**	**+1.7**
	SNR=10.0						
TKM2	**Tokmak 2**	**43.42**	**95**	*e*P	**P**	**22 01 17.2**	**+1.1**
	comp=Z,46nm,1.5s,mb5.0						
TKM2				*e*PP	PP	22 02 56.6	-0.2
TKM2				*e*PcP	PcP	22 03 04.3	+0.1
TKM2				LR	LR		
	comp=Z,665nm,20.0s,MS4.5						
TKM2	**Tokmak 2**	**43.42**	**95**	*e*P	**P**	**22 01 17.2**	**+1.1**
TKM2				*e*		22 02 56.6	
TKM2				*e*		22 03 04.3	
TKM2				pmax	pmax		
	comp=Z,46nm,1.5s,mb5.0						
TKM2				MLR	MLR		
	comp=Z,665nm,20.0s,MS4.5						
TKM2	**Tokmak 2**	**43.42**	**95**	*e*P	**P**	**22 01 17.2**	**+1.1**
	comp=Z,46nm,1.5s,mb5.0						
TKM2	**Tokmak 2**	**43.42**	**95**	*e*PP	PP	22 02 56.6	-0.2
AML	**Almayashu**	**43.59**	**97**	P	**P**	**22 01 19.6**	**+2.0**
	SNR=18						
AML	**Almayashu**	**43.59**	**97**	*e*P	**P**	**22 01 19.2**	**+1.7**
	comp=Z,19nm,0.8s,mb4.9						
AML				*e*PP	PP	22 02 59.1	+0.5
AML				*e*PcP	PcP	22 03 05.7	+0.9
AML				LR	LR		
	comp=Z,2μm,19.0s,MS5.0						
AML	**Almayashu**	**43.59**	**97**	*e*PP	PP	22 02 59.1	+0.4
CLNS	**Chul'man**	**43.63**	**45**	*e*P	**P**	**22 01 16.8**	**-0.9**
CLNS				*e**PP	pP	22 01 19.9	-0.9
CLNS				*e*PPP		22 02 59.9	
CLNS				pmax	pmax		
	comp=Z,91nm,1.6s,mb5.2						
CLNS				pmax	pmax		
	comp=N,37nm,1.1s						
CLNS				pmax	pmax		
	comp=E,9.0nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
CLNS				pmax	pmax		
	comp=N,3.0nm,0.6s						
CLNS				pmax	pmax		
	comp=E,2.0nm,0.7s						
CLNS				MLR	MLR		
	comp=Z,1μm,21.0s,MS4.7						
CLNS				MLR	MLR		
	comp=N,400nm,22.0s						
CLNS				MLR	MLR		
	comp=E,300nm,13.0s						
TTA	**Tatalina**	**43.66**	**349**	*e*P	**P**	**22 01 18.7**	**+0.9**
	comp=E,59nm,1.8s,mb5.0						
TTA				*e*PP	PP	22 02 58.6	-0.4
TTA				*e*PcP	PcP	22 03 05.4	+0.7
TTA	**Tatalina**	**43.66**	**349**	*e*P	**P**	**22 01 18.7**	**+0.9**
TTA				*e*		22 02 58.6	
TTA				*e*		22 03 05.4	
TTA				pmax	pmax		
	comp=Z,59nm,1.8s,mb5.0						
TTA	**Tatalina**	**43.66**	**349**	*e*P	**P**	**22 01 18.7**	**+0.9**
	comp=Z,59nm,1.8s,mb5.0						
TTA	**Tatalina**	**43.66**	**349**	*e*PP	PP	22 02 58.6	-0.4
UCH	**Uchtor**	**43.74**	**96**	P	**P**	**22 01 21.0**	**+2.3**
	SNR=19						
UCH	**Uchtor**	**43.74**	**96**	*e*P	**P**	**22 01 19.9**	**+1.1**
	comp=Z,85nm,1.7s,mb5.2						
UCH				*e*PP	PP	22 03 01.9	+1.7
UCH				*e*PcP	PcP	22 03 07.2	+1.9
UCH				LR	LR		
	comp=Z,1μm,20.0s,MS4.9						
UCH	**Uchtor**	**43.74**	**96**	*e*P	**P**	**22 01 19.9**	**+1.2**
	comp=Z,85nm,1.7s,mb5.2						
UCH	**Uchtor**	**43.74**	**96**	*e*PP	PP	22 03 01.9	+1.7
ASF	**Jabal al Asfar**	**43.91**	**142**	P	**P**	**22 01 19.2**	**-1.0**
	comp=Z,8.9nm,1.2s,mb4.4,baz=353,slow=6.2,SNR=3.1						
KZA	**Kyzart**	**44.09**	**96**	P	**P**	**22 01 23.4**	**+1.8**
	SNR=10						
ULHL	**Ulahol**	**44.22**	**94**	P	**P**	**22 01 23.8**	**+1.1**
	SNR=7.8						
ZAK	**Zakamensk**	**44.45**	**65**	*e*P	**P**	**22 01 25.1**	**+0.7**
ZAK				*e*		22 03 04.6	
ZAK				pmax	pmax		
	comp=Z,9.0nm,1.6s,mb4.2						
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.0						
PMR	**Palmer**	**44.51**	**344**	*e*P	**P**	**22 01 23.8**	**-0.9**
	comp=Z,8.1nm,0.9s,mb4.5						
PMR				LR	LR		
	comp=Z,755nm,22.0s,MS4.6						
PMR	**Palmer**	**44.51**	**344**	*e*P	**P**	**22 01 23.8**	**-0.9**
PMR				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
PMR				MLR	MLR		
	comp=Z,755nm,22.0s,MS4.6						
PMR	**Palmer**	**44.51**	**344**	*e*P	**P**	**22 01 23.8**	**-0.9**
	comp=Z,8.1nm,0.9s,mb4.5						

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LBNH  Lisbon         45.08 275 PFAKE         22 01 40.0 +11
LBNH                           LR     LR
      comp=Z,2µm,20.0s,MS5.1
MSNY  Massena        45.23 279 eP     P      22 01 31.8 +1.1
MSNY                           ePcP   PcP    22 03 09.2 -1.2
MSNY  Massena        45.23 279 eP     P      22 01 31.8 +1.2
MA2   Magadan        45.28  25 eP     P      22 01 30.4 -0.4
      comp=Z,61nm,1.4s,mb5.2
MA2                            ePcP   PcP    22 03 07.5 -2.8
MA2                            LR     LR
      comp=Z,559nm,21.0s,MS4.5
MA2   Magadan        45.28  25⇑eP     P      22 01 30.5 -0.3
MA2                            pmax   pmax
      comp=Z,49nm,1.6s,mb5.1
MA2   Magadan        45.28  25 eP     P      22 01 30.4 -0.4
      comp=Z,61nm,1.4s,mb5.2
MA2   Magadan        45.28  25 ePcP   PcP    22 03 07.5 -2.8
SVW2  Sparrevohn     45.46 348 eP     P      22 01 32.5 +0.3
LONY  Lake Ozonia    45.50 278 PFAKE         22 01 40.0 +7.3
LONY                           LR     LR
      comp=Z,3µm,20.0s,MS5.2
CIT   Chita          45.55  56 eP     P      22 01 33.8 +0.7
CIT                            e             22 03 11.4
CIT                            e             22 03 19.9
CIT                            pmax   pmax
      comp=Z,68nm,3.1s
SLKM  Skilak Lake    45.67 344 eP     P      22 01 33.6 -0.3
SLKM                           ePcP   PcP    22 03 09.9 -1.7
SLKM  Skilak Lake    45.67 344 eP     P      22 01 33.6 -0.3
SLKM  Skilak Lake    45.67 344 ePcP   PcP    22 03 09.9 -1.7
EIL   Elat           46.01 145 LR     LR     22 21 32.3
      comp=Z,956nm,20.4s,MS4.7,baz=355,slow=37
WMQ   Urumqi         46.10  83 P      P      22 01 39.0 +1.5
WMQ                            AP     pP     22 01 43.5 +2.8
WMQ                            XP     sP     22 01 46.0 +4.1
WMQ                            PCP    PcP    22 03 16.0 +2.6
WMQ                            PP     PP     22 03 27.3 +2.0
WMQ                            S      S      22 08 23.5 +0.7
WMQ                            AMB    AMB
      comp=Z,36nm,1.2s,mb5.2
WMQ                            LR     LR
      comp=N,1µm,26.0s,MS5.1
WMQ                            LR     LR
      comp=E,2µm,21.0s,MS5.1
WMQ                            LR     LR
      comp=Z,1µm,25.0s,MS4.8
ULM   Lac du Bonnet  46.16 300 P      P      22 01 36.7 -1.2
ULM                            PcP    PcP    22 03 12.5 -1.0
ULM                            LR     LR     22 20 50.3
ULM   Lac du Bonnet  46.16 300 P      P      22 01 36.7 -1.2
      comp=Z,16nm,0.9s,mb4.9,baz=34,slow=6.3,SNR=25
ULM                            PcP    PcP    22 03 12.5 -1.0
      comp=Z,9.0nm,0.9s,baz=30,slow=4.6,SNR=6.8
ULM                            LR     LR     22 20 50.3
      comp=Z,3µm,18.6s,MS5.3,baz=21,slow=36
ULM   Lac du Bonnet  46.16 300 PcP    PcP    22 03 12.5 -1.0
HRV   Harvard--Oak R 46.56 274 PFAKE         22 01 50.0 +8.9
HRV                            LR     LR
      comp=Z,2µm,19.0s,MS5.2
WES   Weston         46.60 274 PFAKE         22 01 50.0 +8.5
WES                            LR     LR
      comp=Z,2µm,19.0s,MS5.0
KSH   Kashi          46.66  96 eP     P      22 01 43.0 +1.0
KSH                            eAP    pP     22 01 53.0 +7.9
KSH                            ePPP          22 04 22.5
KSH                            eSCP   ScP    22 07 05.0 -3.6
KSH                            ePCS   PcS    22 07 09.3 -0.9
KSH                            eS     S      22 08 31.3 +0.4
KSH                            eSCS   ScS    22 11 32.0 -4.3
KSH                            eSS    SS     22 11 54.3 -2.2
KSH                            AMB    AMB
      comp=Z,1µm,5.4s
KSH                            LR     LR
      comp=N,2µm,9.4s
KSH                            LR     LR
      comp=E,3µm,12.1s
KSH                            LR     LR
      comp=Z,4µm,18.1s
EYMN  Ely            47.15 295 eP     P      22 01 45.8 +0.1
      comp=Z,48nm,1.4s,mb5.2
EYMN                           ePcP   PcP    22 03 16.6 -0.5
EYMN                           LR     LR
      comp=Z,4µm,21.0s,MS5.3
EYMN  Ely            47.15 295 eP     P      22 01 45.8 +0.1
      comp=Z,48nm,1.4s,mb5.2
EYMN  Ely            47.15 295 ePcP   PcP    22 03 16.6 -0.5
EDM   Edmonton       47.42 315 eP     P      22 01 46.8 -0.9
EDM   Edmonton       47.42 315 eP     P      22 01 46.8 -0.9
SIT   Sitka          47.49 333 PFAKE         22 02 00.0 +12
SIT                            LR     LR
      comp=Z,4µm,19.0s,MS5.4
SONM  Songino Array  47.61  64 P      P      22 01 49.2 -0.1
SONM                                         22 03 18.3
SONM  Songino Array  47.61  64 P      P      22 01 49.2  0.0
      comp=Z,11nm,1.2s,mb4.8,baz=325,slow=5.9,SNR=50
SONM                           PcP    PcP    22 03 18.3 -0.4
      comp=Z,3.5nm,1.0s,baz=344,slow=4.8,SNR=4.6
SONM                           LR     LR     22 26 03.2
      comp=Z,634nm,18.0s,MS4.6,baz=84,slow=42
WRAK  Wrangell Islan 47.70 331 PFAKE         22 02 00.0 +10
WRAK                           LR     LR
      comp=Z,2µm,20.0s,MS5.1
ULN   Ulaanbaatar    47.75  64 eP     P      22 01 48.6 -1.8
ULN                            LR     LR
      comp=Z,457nm,19.0s,MS4.5
ULN   Ulaanbaatar    47.75  64 P      P      22 01 51.6 +1.3
      SNR=28
AGMN  Agassiz Refuge 47.96 299 eP     P      22 01 51.4 -0.6
      comp=Z,26nm,1.0s,mb5.2
AGMN                           ePcP   PcP    22 03 19.9  0.0
AGMN                           LR     LR
      comp=Z,3µm,22.0s,MS5.2
AGMN  Agassiz Refuge 47.96 299 eP     P      22 01 51.4 -0.6
      comp=Z,26nm,1.0s,mb5.2
AGMN  Agassiz Refuge 47.96 299 ePcP   PcP    22 03 19.9  0.0
GLMI  Grayling       48.16 287 PFAKE         22 02 10.0 +16
GLMI                           LR     LR
      comp=Z,3µm,20.0s,MS5.2
COWI  Conover        48.22 292 PFAKE         22 02 10.0 +16
COWI                           LR     LR
      comp=Z,2µm,19.0s,MS5.2
KBL   Kabul          49.33 106 eP     P      22 02 03.2 +0.6
KBL                            ePcP   PcP    22 03 26.0 +0.9
KBL   Kabul          49.33 106 eP     P      22 02 03.2 +0.6
KBL   Kabul          49.33 106 ePcP   PcP    22 03 26.0 +0.9
HIA   Hailar         49.58  52 eP     P      22 02 03.4 -0.9
      comp=Z,59nm,1.5s,mb5.4
HIA                            LR     LR
      comp=Z,2µm,19.0s,MS5.2
HIA   Hailar         49.58  52 eP     P      22 02 03.4 -1.0
HIA                            pmax   pmax
      comp=Z,59nm,1.5s
HIA                            MLR    MLR
      comp=Z,2µm,19.0s
HIA   Hailar         49.58  52 eP     P      22 02 03.4 -1.0
      comp=Z,59nm,1.5s,mb5.4
ALLY  Alegheny Colle 49.83 282 eP     P      22 02 06.2 -0.1
ALLY  Alegheny Colle 49.83 282 eP     P      22 02 06.2 -0.1
DGMT  Dagmar         49.85 306 eP     P      22 02 06.0 -0.5
      comp=Z,306nm,2.1s,mb6.0
DGMT                           LR     LR
      comp=Z,1µm,19.0s,MS5.0
DGMT  Dagmar         49.85 306 eP     P      22 02 05.9 -0.6
      comp=Z,306nm,2.1s,mb6.0
SSPA  Standing Stone 50.12 279 PFAKE         22 02 20.0 +11
SSPA                           LR     LR
      comp=Z,4µm,22.0s,MS5.4
AAM   Ann Arbor      50.22 285 PFAKE         22 02 20.0 +11
AAM                            LR     LR
      comp=Z,2µm,19.0s,MS5.2
JFWS  Jewell Farm    51.47 291 PFAKE         22 02 30.0 +11
JFWS                           LR     LR
      comp=Z,2µm,19.0s,MS5.2
WALA  Waterton Lakes 51.48 314 eP     P      22 02 17.9 -0.7
      comp=Z,21nm,1.1s,mb5.0
WALA                           ePcP   PcP    22 03 32.3 -0.5
WALA                           ePP    PP     22 04 14.3 -1.1
WALA  Waterton Lakes 51.48 314 eP     P      22 02 18.0 -0.7
      comp=Z,21nm,1.1s,mb5.0
WALA  Waterton Lakes 51.48 314 ePcP   PcP    22 03 32.3 -0.5
EGMT  Eagleton       51.55 310 eP     P      22 02 19.2 -0.1
      comp=Z,44nm,1.1s,mb5.3
EGMT                           LR     LR
      comp=Z,2µm,21.0s,MS5.2
EGMT  Eagleton       51.55 310 eP     P      22 02 19.2 -0.1
      comp=Z,44nm,1.1s,mb5.3
ACSO  Alum Creek Sta 51.94 284 PFAKE         22 02 30.0 +7.7
ACSO                           LR     LR
      comp=Z,2µm,19.0s,MS5.2
LAO   LASA Array     52.00 306 eP     P      22 02 23.5 +0.8
      comp=Z,276nm,2.0s,mb5.8
LAO                            ePcP   PcP    22 03 35.4 +0.6
LAO                            LR     LR
      comp=Z,2µm,20.0s,MS5.2
LAO   LASA Array     52.00 306 eP     P      22 02 23.5 +0.8
      comp=Z,276nm,2.0s,mb5.8
LAO   LASA Array     52.00 306 ePcP   PcP    22 03 35.4 +0.6
KLR   Kul'dur        52.19  43 eP     P      22 02 20.2 -3.8
KLR                            e             22 03 30.1
KLR                            pmax   pmax
      comp=Z,50nm,1.8s,mb5.1
KLR                            MLR    MLR
      comp=E,1µm,16.0s
KLR                            MLR    MLR
      comp=Z,1µm,16.0s,MS5.1
CBN   Corbin         52.22 277 PFAKE         22 02 40.0 +16
CBN                            LR     LR
      comp=Z,3µm,22.0s,MS5.2
ECSD  EROS,Sioux Fal 52.40 297 eP     P      22 02 25.1 -0.6
      comp=Z,58nm,1.3s,mb5.3
ECSD                           ePcP   PcP    22 03 34.8 -1.6
ECSD                           LR     LR
      comp=Z,4µm,20.0s,MS5.4
ECSD  EROS,Sioux Fal 52.40 297 eP     P      22 02 25.1 -0.5
      comp=Z,58nm,1.3s,mb5.3
ECSD  EROS,Sioux Fal 52.40 297 ePcP   PcP    22 03 34.8 -1.5
PET   Petropavlovsk  52.60  21 PFAKE         22 02 40.0 +13
PET                            LR     LR
      comp=Z,545nm,21.0s,MS4.6
PET   Petropavlovsk  52.60  21 eP     P      22 02 24.3 -2.7
PET                            pmax   pmax
      comp=Z,26nm,1.3s,mb5.0
BSMT  Bassoo Peak    52.81 314 P      P      22 02 28.9 +0.3
BSMT  Bassoo Peak    52.81 314 P      P      22 02 28.9 +0.3
QUE   Quetta         52.84 110 eP     P      22 02 28.0 -1.1
NEW   Newport        52.89 316 P      P      22 02 29.6 +0.3
      comp=Z,7.7nm,0.9s,mb4.7,baz=27,slow=6.3,SNR=16
NEW   Newport        52.89 316 P      P      22 02 29.5 +0.3
UNV   Unalaska Valle 53.18 355 PFAKE         22 02 40.0 +8.8
UNV                            LR     LR
      comp=Z,3µm,20.0s,MS5.3
SCIA  State Center   53.21 293 PFAKE         22 02 40.0 +8.4
SCIA                           LR     LR
      comp=Z,3µm,22.0s,MS5.3
CHMT  Chamberlain Mo 53.37 312 P      P      22 02 32.4 -0.4
CHMT  Chamberlain Mo 53.37 312 P      P      22 02 32.4 -0.4
HDIL  Hopedale       53.40 289 PFAKE         22 02 50.0 +17
HDIL                           LR     LR
      comp=Z,3µm,19.0s,MS5.3
MSO   Missoula       53.60 313 PFAKE         22 02 50.0 +16
MSO                            LR     LR
      comp=Z,1µm,19.0s,MS5.0
GTA   Gaotai         53.63  74⇑P      P      22 02 36.3 +1.5
GTA                            AP     pP     22 02 40.8 +2.8
GTA                            XP     sP     22 02 43.3 +4.1
GTA                            PCP    PcP    22 03 40.8 -0.3
GTA                            PP     PP     22 04 39.5 +4.3
GTA                            PPP           22 05 49.5
GTA                            S      S      22 10 12.0 +4.1
GTA                            XS     sS     22 10 19.0 +5.8
GTA                            PS            22 10 23.8
GTA                            AMB    AMB
      comp=Z,31nm,1.6s,mb5.0
GTA                            AMB    AMB
      comp=Z,626nm,5.7s
GTA                            LR     LR
      comp=N,746nm,19.8s,MS4.9
GTA                            LR     LR
      comp=E,683nm,19.8s,MS4.9
GTA                            LR     LR
      comp=Z,774nm,19.4s,MS4.8
GCMT  Greycliff      53.64 309 eP     P      22 02 34.9 +0.1
GCMT                           ePcP   PcP    22 03 40.9 -0.1
GCMT                           ePP    PP     22 04 36.2 +1.1
BLO   Bloomington    53.93 286 eP     P      22 02 36.2 -0.8
      comp=Z,13nm,0.5s,mb5.1
BLO   Bloomington    53.93 286 eP     P      22 02 36.2 -0.7
BLO                            pmax   pmax
      comp=Z,13nm,0.5s,mb5.1
BLO   Bloomington    53.93 286 eP     P      22 02 36.2 -0.7
      comp=Z,13nm,0.5s,mb5.1
BLA   Blacksburg     54.02 280 PFAKE         22 02 50.0 +12
BLA                            LR     LR
      comp=Z,3µm,19.0s,MS5.3
RLMT  Red Lodge      54.19 308 eP     P      22 02 39.2 +0.5
      comp=Z,64nm,1.6s,mb5.3
RLMT                           ePcP   PcP    22 03 43.9 +0.8
RLMT                           LR     LR
      comp=Z,1µm,22.0s,MS4.9
RLMT  Red Lodge      54.19 308 eP     P      22 02 39.2 +0.4
      comp=Z,64nm,1.6s,mb5.3
BOZ   Bozeman (W)    54.22 310 PFAKE         22 02 50.0 +11
BOZ                            LR     LR
      comp=Z,3µm,22.0s,MS5.3
EPH   Ephrata        54.26 318 P      P      22 02 38.9 -0.4
EPH   Ephrata        54.26 318 P      P      22 02 38.9 -0.4
WCI   Wyandotte Cave 54.74 286 PFAKE         22 02 50.0 +7.1
WCI                            LR     LR
      comp=Z,3µm,20.0s,MS5.4
NAZ   Nazwa, Dubai   54.86 123 P      P      22 02 44.5 +0.6
      SNR=11
QLMT  Earthquake Lak 54.95 310 eP     P      22 02 44.6 +0.3
QLMT  Earthquake Lak 54.95 310 eP     P      22 02 44.6 +0.3
LKWY  Lake           54.97 309 PFAKE         22 03 00.0 +16
LKWY                           LR     LR
      comp=Z,3µm,19.0s,MS5.4
YMR   Madison River  55.00 310 PFAKE         22 03 00.0 +15
YMR                            LR     LR
      comp=Z,3µm,20.0s,MS5.4
NLWA  Neilton Lookou 55.03 321 PFAKE         22 03 00.0 +15
NLWA                           LR     LR
      comp=Z,6µm,19.0s,MS5.7
HATD  Hatta, Dubai   55.13 123 P      P      22 02 46.1 +0.3
      SNR=19
CNNC  Cliffs of the  55.13 277 PFAKE         22 03 00.0 +14
CNNC                           LR     LR
      comp=Z,2µm,19.0s,MS5.1
HAWA  Hanford        55.17 317 PFAKE         22 03 00.0 +14
HAWA                           LR     LR
      comp=Z,5µm,19.0s,MS5.6
ASHO  Ashiyiah       55.25 123 P      P      22 02 47.3 +0.7
      SNR=14
WPW   White Pass     55.27 319 P      P      22 02 47.3 +0.7
WPW   White Pass     55.27 319 P      P      22 02 47.3 +0.7
MCMT  McKenzie Canyo 55.27 311 P      P      22 02 47.1 +0.5
MCMT  McKenzie Canyo 55.27 311 P      P      22 02 47.1 +0.5
HHC   Hu-ho-hao-te   55.46  63 eP     P      22 02 48.8 +0.7
HHC                            AP     pP     22 02 53.5 +2.3
HHC                            XP     sP     22 02 55.8 +3.3
HHC                            PCP    PcP    22 03 50.3 +2.2
HHC                            PP     PP     22 04 54.0 +2.5
HHC                            PCS    PcS    22 07 48.0 -0.1
HHC                            S      S      22 10 30.5 -2.0
HHC                            XS     sS     22 10 39.0 +1.2
HHC                            PS            22 10 43.0
HHC                            SCS    ScS    22 12 34.5 -2.2
HHC                            SS     SS     22 14 14.3 -2.2
HHC                            AMB    AMB
      comp=Z,19nm,1.8s,mb4.8
HHC                            AMB    AMB
      comp=Z,197nm,5.4s
HHC                            LR     LR
      comp=N,857nm,17.2s,MS5.1
HHC                            LR     LR
      comp=E,1µm,17.5s,MS5.1
HHC                            LR     LR
      comp=Z,784nm,16.5s,MS4.9
TZTN  Tazewell       55.54 282 PFAKE         22 03 00.0 +11
TZTN                           LR     LR
      comp=Z,2µm,19.0s,MS5.3
IMW   Indian Meadow  55.73 309 eP     P      22 02 50.8 +0.9
      comp=Z,39nm,0.9s,mb5.4
IMW   Indian Meadow  55.73 309 eP     P      22 02 50.8 +0.9
      comp=Z,39nm,0.9s,mb5.4
CN2   Changchun      56.03  50 eP     P      22 02 51.3 -0.8
CN2                            eXP    sP     22 02 58.5 +2.0
CN2                            eS     S      22 10 36.3 -3.7
CN2                            AMB    AMB
      comp=Z,30nm,1.4s,mb5.1
CN2                            AMB    AMB
      comp=Z,230nm,3.0s
CN2                            LR     LR
      comp=N,1µm,15.0s,MS5.1
CN2                            LR     LR
      comp=E,600nm,15.0s,MS5.1
CN2                            LR     LR
      comp=Z,900nm,17.0s,MS4.9
SIUC  Southern Illin 56.04 288 eP     P      22 02 51.2 -1.0
      comp=Z,31nm,0.8s,mb5.4
SIUC  Southern Illin 56.04 288 eP     P      22 02 51.2 -1.0
      comp=Z,31nm,0.8s,mb5.4
FVM   French Village 56.12 289 eP     P      22 02 50.7 -2.1
      comp=Z,93nm,1.7s,mb5.5
FVM   French Village 56.12 289 eP     P      22 02 50.7 -2.1
FVM                            pmax   pmax
      comp=Z,93nm,1.7s,mb5.5
FVM   French Village 56.12 289 eP     P      22 02 50.7 -2.1
      comp=Z,93nm,1.7s,mb5.5
MDJ   Mudanjiang     56.15  46 P      P      22 02 52.0 -1.0
MDJ                            AP     pP     22 02 55.5 -0.7
MDJ                            AMB    AMB
      comp=Z,12nm,1.4s,mb4.7
MDJ                            AMB    AMB
      comp=Z,175nm,4.7s
MDJ                            LR     LR
      comp=N,444nm,17.7s,MS4.9
MDJ                            LR     LR
      comp=E,761nm,15.0s,MS4.9
MDJ                            LR     LR
      comp=Z,582nm,10.6s,MS4.9
MDJ   Mudanjiang     56.15  46 PFAKE         22 03 00.0 +7.0
MDJ                            LR     LR
      comp=Z,630nm,20.0s,MS4.7
BMO   Blue Mountains 56.19 315 eP     P      22 02 52.6 -0.7
      comp=Z,41nm,1.5s,mb5.2
BMO                            ePcP   PcP    22 03 51.0 +0.2
BMO                            LR     LR
      comp=Z,3µm,19.0s,MS5.4
BMO   Blue Mountains 56.19 315 eP     P      22 02 52.6 -0.6
      comp=Z,41nm,1.5s,mb5.2
BMO   Blue Mountains 56.19 315 ePcP   PcP    22 03 51.0 +0.2
YSS   Yuzh-Sakhalins 56.39  35 eP     P      22 02 54.9 +0.3
      comp=Z,15nm,0.8s,mb5.1
YSS                            LR     LR
      comp=Z,667nm,20.0s,MS4.7
YSS   Yuzh-Sakhalins 56.39  35⇑eP     P      22 02 52.9 -1.7
YSS                            pmax   pmax
      comp=Z,26nm,1.7s,mb5.0
YSS                            MLR    MLR
      comp=Z,700nm,20.0s,MS4.8
YSS   Yuzh-Sakhalins 56.39  35 eP     P      22 02 54.9 +0.3
      comp=Z,15nm,0.8s,mb5.1
TKL   Tuckaleechee C 56.43 282 P      P      22 02 54.5 -0.6
      comp=Z,12nm,0.8s,mb5.0,baz=72,slow=5.2,SNR=12
BW06  Boulder Array  56.48 308 PFAKE         22 03 10.0 +15
BW06                           LR     LR
      comp=Z,1µm,20.0s,MS5.1
PDAR  Pinedale Array 56.48 308 P      P      22 02 55.2 -0.1
      comp=Z,3.9nm,0.9s,mb4.4,baz=42,slow=4.9,SNR=23
PDAR                           LR     LR     22 27 03.5
      comp=Z,2µm,18.6s,MS5.2,baz=17,slow=36
PDAR  Pinedale Array 56.48 308 P      P      22 02 55.2 -0.2
ARQ   Araqi          56.65 123 P      P      22 02 57.2 +0.4
      SNR=6.3
KSU1  Kansas State U 56.74 295 eP     P      22 02 56.1 -1.1
      comp=Z,81nm,1.4s,mb5.6
KSU1                           LR     LR
      comp=Z,4µm,20.0s,MS5.5
HLID  Hailey         56.81 312 eP     P      22 02 57.3 -0.4
      comp=Z,168nm,2.3s,mb5.7
HLID                           PcP    PcP    22 03 53.3  0.0
HLID                           LR     LR
      comp=Z,3µm,19.0s,MS5.3
HLID  Hailey         56.81 312 eP     P      22 02 57.3 -0.4
      comp=Z,168nm,2.3s,mb5.7
HLID  Hailey         56.81 312 PcP    PcP    22 03 53.3  0.0
AHID  Auburn Hatcher 56.84 309 PFAKE         22 03 10.0 +12
AHID                           LR     LR
      comp=Z,2µm,20.0s,MS5.2
BIDO  Bidbid         56.87 121 P      P      22 02 58.6 +0.3
      SNR=6.5
WVT   Waverly        57.13 286 PFAKE         22 03 10.0 +10
WVT                            LR     LR
      comp=Z,3.0nm,19.0s
SMDO  Samad          57.30 121 P      P      22 03 01.3  0.0
      SNR=13
BSY   Bisya          57.39 122 P      P      22 03 02.2 +0.2
      SNR=14
BJI   Beijing        57.40  59 P      P      22 03 02.3 +0.4
BJI                            PP     PP     22 05 09.5 +0.7
BJI                            AMB    AMB
      comp=Z,18nm,1.5s,mb4.9
BJI                            AMB    AMB
      comp=Z,439nm,4.4s
BJI                            LR     LR
      comp=N,621nm,22.1s
BJI                            LR     LR
      comp=E,686nm,15.8s
BJI                            LR     LR
      comp=Z,301nm,29.4s
BJI   Beijing        57.40  59 P      P      22 03 02.2 +0.3
BJI                            PP     PP     22 05 09.4 +0.6
BJI                            S      S      22 11 12.8 +15
BJI                            SS     SS     22 15 21.5 +35
BJI                            LR     LR
      comp=Z,300nm,29.4s,MS4.2
BJI   Beijing        57.40  59 P      P      22 03 02.2 +0.3
BJI                                          22 05 09.4
BJI                            S      S      22 11 12.8 +15
BSYO  Bisya          57.41 122 P      P      22 03 02.2 +0.1
      SNR=14
BJT   Baijiatuau     57.42  59 eP     P      22 03 02.3 +0.3
      comp=Z,11nm,1.1s,mb4.8
BJT                            ePcP   PcP    22 03 55.3 -0.4
BJT                            ePP    PP     22 05 05.2 -3.7
BJT                            LR     LR
      comp=Z,734nm,20.0s,MS4.8
BJT   Baijiatuau     57.42  59 eP     P      22 03 02.3 +0.3
BJT                            e             22 03 55.3
BJT                            e             22 05 05.3
BJT                            pmax   pmax
      comp=Z,11nm,1.1s
BJT                            MLR    MLR
      comp=Z,734nm,20.0s
BJT   Baijiatuau     57.42  59 eP     P      22 03 02.3 +0.3
      comp=Z,11nm,1.1s,mb4.8
BJT   Baijiatuau     57.42  59 ePcP   PcP    22 03 55.3 -0.4
SWET  Sewanee        57.45 284 eP     P      22 03 01.3 -1.0
COR   Corvallis      57.63 320 PFAKE         22 03 20.0 +17
COR                            LR     LR
      comp=Z,2µm,19.0s,MS5.2
NHSC  New Hope       57.79 278 PFAKE         22 03 20.0 +15
NHSC                           LR     LR
      comp=Z,2µm,19.0s,MS5.2
CBKS  Cedar Bluff    57.82 298 eP     P      22 03 05.5 +0.7
      comp=Z,200nm,1.8s,mb5.8
CBKS                           LR     LR
      comp=Z,3µm,20.0s,MS5.4
CBKS  Cedar Bluff    57.82 298 eP     P      22 03 05.6 +0.7
CBKS                           pmax   pmax
      comp=Z,200nm,1.8s,mb5.8
CBKS                           MLR    MLR
      comp=Z,3µm,20.0s,MS5.4
CBKS  Cedar Bluff    57.82 298 eP     P      22 03 05.6 +0.7
      comp=Z,200nm,1.8s,mb5.8
LZH   Lanzhou        57.86  72⇑P      P      22 03 06.3 +1.1
LZH                            AP     pP     22 03 10.8 +2.4
LZH                            XP     sP     22 03 14.0 +4.4
LZH                            PP     PP     22 05 15.8 +2.8
LZH                            eS     S      22 11 03.0 -1.3
LZH                            XS     sS     22 11 12.0 +2.4
LZH                            SS     SS     22 14 54.0 -0.3
LZH                            AMB    AMB
      comp=Z,101nm,1.7s,mb5.6
LZH                            AMB    AMB
      comp=Z,510nm,5.3s
LZH                            LR     LR
      comp=N,2µm,20.0s
LZH                            LR     LR
      comp=Z,3µm,18.5s,MS5.5
LZH   Lanzhou        57.86  72⇑P      P      22 03 06.2 +1.0
      comp=Z,101nm,1.7s,mb5.6
LZH                            pP     pP     22 03 10.7 +2.3
LZH                            sP     sP     22 03 14.1 +4.5
LZH                            PP     PP     22 05 15.7 +2.7
LZH                            eS     S      22 11 03.0 -1.3
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LZH				sS	sS	22 11 12.0	+2.4
LZH				SS	SS	22 14 54.0	-0.3
LZH				LR	LR		
	comp=Z,3µm,18.5s,MS5.5						
LZH	Lanzhou	57.86	72	⇑P	P	22 03 06.2	+1.0
LZH				*PP	pP	22 03 10.7	+2.3
LZH				*SP	sP	22 03 14.1	+4.5
LZH						22 05 15.7	
LZH				*e*S	S	22 11 03.0	-1.3
LZH				*SS	sS	22 11 12.0	+2.4
LZH				SS	SS	22 14 54.0	-0.3
LZH				pmax	pmax		
	comp=Z,101nm,1.7s,mb5.6						
LZH				MLR	MLR		
	comp=Z,3µm,18.5s,MS5.5						
LZH	Lanzhou	57.86	72	⇑P	P	22 03 06.2	+1.0
	comp=Z,101nm,1.7s,mb5.6						
LZH				pP	pP	22 03 10.7	+2.3
LZH				*e*S	S	22 11 03.0	-1.3
JMDO	Jabal Madar	57.97	122	P	P	22 03 05.3	-0.8
	SNR=7.1						
HWUT	Hardware Ranch	58.05	309	PFAKE		22 03 20.0	+14
HWUT				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
VLA	Vladivostok	58.07	45	*e*P	P	22 03 06.7	+0.2
VLA				MLR	MLR		
	comp=Z,900nm,18.0s,MS4.9						
PLAL	Pickwick Lake	58.28	286	PFAKE		22 03 20.0	+12
PLAL				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
ISCO	Idaho Springs	58.36	303	*e*P	P	22 03 09.2	+0.5
	comp=Z,50nm,1.6s,mb5.3						
ISCO				*e*PcP	PcP	22 03 59.6	+0.2
ISCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
ISCO	Idaho Springs	58.36	303	*e*P	P	22 03 09.2	+0.6
ISCO				*e*		22 03 59.6	
ISCO				pmax	pmax		
	comp=Z,50nm,1.6s,mb5.3						
ISCO				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
ISCO	Idaho Springs	58.36	303	*e*P	P	22 03 09.1	+0.5
	comp=Z,50nm,1.6s,mb5.3						
ISCO	Idaho Springs	58.36	303	*e*PcP	PcP	22 03 59.6	+0.2
GOGA	Godfrey	58.45	281	*e*P	P	22 03 08.6	-0.7
	comp=Z,47nm,1.4s,mb5.3						
GOGA				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
GOGA	Godfrey	58.45	281	*e*P	P	22 03 08.6	-0.7
GOGA				pmax	pmax		
	comp=Z,47nm,1.4s,mb5.3						
GOGA				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.2						
GOGA	Godfrey	58.45	281	*e*P	P	22 03 08.6	-0.7
	comp=Z,47nm,1.4s,mb5.3						
WVOR	Wild Horse Val	58.78	315	PFAKE		22 03 20.0	+8.5
WVOR				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
OXF	Oxford	59.09	287	PFAKE		22 03 30.0	+16
OXF				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
SMCO	Snowmass	59.28	304	*e*P	P	22 03 15.7	+0.6
	comp=Z,51nm,1.3s,mb5.4						
SMCO				PcP	PcP	22 04 02.5	-0.6
SMCO	Snowmass	59.28	304	*e*P	P	22 03 15.7	+0.7
	comp=Z,50nm,1.3s,mb5.4						
SMCO	Snowmass	59.28	304	PcP	PcP	22 04 02.5	-0.6
MPU	Maple Canyon	59.58	308	PFAKE		22 03 30.0	+13
MPU				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
MOD	Modoc	59.63	316	PFAKE		22 03 30.0	+13
MOD				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
DUG	Dugway	59.67	309	PFAKE		22 03 30.0	+12
DUG				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
ELK	Elko	59.69	312	*e*P	P	22 03 19.0	+1.2
ELK				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
ELK	Elko	59.69	312	*e*P	P	22 03 19.0	+1.2
LRAL	Lakeview Retre	59.80	284	PFAKE		22 03 30.0	+11
LRAL				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
GKN	Gorkha	59.94	93	*e*P	P	22 03 18.8	-0.9
	comp=Z,181nm,1.6s,mb5.9						
TOA0	Torodi Ar. Sit	60.09	186	*e*P	P	22 03 20.1	-0.7
TOA0	Torodi Ar. Sit	60.09	186	*e*P	P	22 03 20.1	-0.7
TORD	Torodi Ar. Bea	60.09	186	P	P	22 03 19.8	-1.0
	comp=Z,10nm,0.7s,mb5.0,baz=0.4,slow=6.3,SNR=89						
TORD				LR	LR	22 28 04.6	
	comp=Z,1µm,21.4s,MS5.0,baz=10.0,slow=35						
TMUT	Trail Mountain	60.17	308	*e*P	P	22 03 21.5	+0.4
TMUT	Trail Mountain	60.17	308	*e*P	P	22 03 21.5	+0.4
SRU	San Rafael	60.19	307	*e*P	P	22 03 21.9	+0.6
	comp=Z,68nm,1.9s,mb5.3						
SRU				*e*PcP	PcP	22 04 06.1	-0.6
SRU				*e*PP	PP	22 05 33.6	+0.2
SRU	San Rafael	60.19	307	*e*P	P	22 03 21.9	+0.6
SRU				*e*		22 04 06.1	
SRU				*e*		22 05 33.6	
SRU				pmax	pmax		
	comp=Z,68nm,1.9s,mb5.3						
SRU	San Rafael	60.19	307	*e*P	P	22 03 21.9	+0.6
	comp=Z,68nm,1.9s,mb5.3						
SRU	San Rafael	60.19	307	*e*PcP	PcP	22 04 06.1	-0.6
MIAR	Mount Ida	60.21	291	*e*P	P	22 03 21.9	+0.5
	comp=Z,108nm,1.5s,mb5.7						
MIAR				*e*PcP	PcP	22 04 06.4	-0.4
MIAR				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
MIAR	Mount Ida	60.21	291	*e*P	P	22 03 21.9	+0.4
MIAR				*e*		22 04 06.4	
MIAR				pmax	pmax		
	comp=Z,108nm,1.5s,mb5.7						
MIAR				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
MIAR	Mount Ida	60.21	291	*e*P	P	22 03 21.9	+0.4
	comp=Z,108nm,1.5s,mb5.7						
MIAR	Mount Ida	60.21	291	*e*PcP	PcP	22 04 06.4	-0.4
LSA	Lhasa	60.24	86	P	P	22 03 23.8	+2.1
LSA	Lhasa	60.24	86	*e*P	P	22 03 23.2	+1.5
	comp=Z,78nm,1.8s,mb5.4						
LSA				*e*PcP	PcP	22 04 08.0	+0.9
LSA				*e*PP	PP	22 05 34.1	-0.1
LSA				LR	LR		
	comp=Z,731nm,19.0s,MS4.8						
LSA	Lhasa	60.24	86	*e*P	P	22 03 23.2	+1.5
LSA				*e*		22 04 08.0	
LSA				*e*		22 05 34.1	
LSA				pmax	pmax		
	comp=Z,78nm,1.8s,mb5.4						
LSA				MLR	MLR		
	comp=Z,731nm,19.0s,MS4.8						
LSA	Lhasa	60.24	86	*e*P	P	22 03 23.2	+1.5
	comp=Z,78nm,1.8s,mb5.4						
LSA	Lhasa	60.24	86	*e*PcP	PcP	22 04 08.0	+1.0
YBH	Yreka Blue Hor	60.27	318	PFAKE		22 03 30.0	+8.2
YBH				LR	LR		
	comp=Z,4µm,19.0s,MS5.6						
SDCO	Great Sand Dun	60.28	302	PFAKE		22 03 30.0	+8.1
SDCO				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
KKN	Kakani	60.33	92	*e*P	P	22 03 21.6	-0.7
	comp=Z,249nm,1.7s,mb6.0						
BMN	Battle Mountai	60.41	313	PFAKE		22 03 40.0	+17
BMN				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
PV10	Paradox Valley	60.54	306	*e*P	P	22 03 22.5	-1.2
PV10	Paradox Valley	60.54	306	*e*P	P	22 03 22.5	-1.2
PV01	Paradox Valley	60.66	305	*e*P	P	22 03 24.1	-0.4
PV01				*e*PcP	PcP	22 04 12.6	+4.0
PV01	Paradox Valley	60.66	305	*e*P	P	22 03 24.1	-0.4
JIRN	Jiri	60.71	91	*e*P	P	22 03 25.0	0.0
	comp=Z,258nm,1.6s,mb6.1						
MSU	Marysvale	61.14	308	*e*P	P	22 03 30.4	+2.7
MSU	Marysvale	61.14	308	*e*P	P	22 03 30.4	+2.7
MVU	Marysvale	61.15	308	PFAKE		22 03 40.0	+12
MVU				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
XAN	Xi'an	61.17	68	P	P	22 03 27.3	-0.7
XAN				S	S	22 11 53.3	+6.2
XAN				AMB	AMB		
	comp=Z,21nm,1.5s,mb5.0						
XAN				LR	LR		
	comp=E,1µm,18.0s						
XAN				LR	LR		
	comp=Z,1µm,19.2s,MS5.2						
WHFO	Wadi Hawf	61.21	127	P	P	22 03 28.2	-0.3
	SNR=7.6						
WDC	Whiskeytown Da	61.35	318	PFAKE		22 03 40.0	+11
WDC				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
WMOK	Wichita Mounta	61.42	295	*e*P	P	22 03 30.1	+0.4
	comp=Z,46nm,1.3s,mb5.5						
WMOK				*e*PcP	PcP	22 04 11.7	0.0
WMOK				LR	LR		
	comp=Z,4µm,19.0s,MS5.6						
WMOK	Wichita Mounta	61.42	295	*e*P	P	22 03 30.1	+0.4
WMOK				*e*		22 04 11.7	
WMOK				pmax	pmax		
	comp=Z,46nm,1.3s,mb5.5						
WMOK				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.6						
WMOK	Wichita Mounta	61.42	295	*e*P	P	22 03 30.1	+0.4
	comp=Z,46nm,1.3s,mb5.5						
WMOK	Wichita Mounta	61.42	295	*e*PcP	PcP	22 04 11.7	0.0
TAPN	Taplejung	61.45	90	*e*P	P	22 03 29.4	-0.6
	comp=Z,224nm,1.9s,mb6.0						
MVCO	Mesa Verde	61.52	305	*e*P	P	22 03 31.3	+0.9
	comp=Z,129nm,1.5s,mb5.8						
MVCO				*e*PcP	PcP	22 04 10.3	-1.8
MVCO				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
ABTO	Aybut	61.65	128	P	P	22 03 31.5	+0.1
	SNR=16						
BRAL	Brewton	61.72	283	PFAKE		22 03 40.0	+8.2
BRAL				LR	LR		
	comp=Z,3µm,22.0s,MS5.4						
ODAN	Odare	61.81	91	*e*P	P	22 03 31.8	-0.7
	comp=Z,311nm,1.7s,mb6.2						
INCN	Inchon	62.33	51	PFAKE		22 03 50.0	+14
INCN				LR	LR		
	comp=Z,676nm,20.0s,MS4.8						
NVAR	Mina Array Bea	62.56	314	P	P	22 03 37.1	-0.2
	comp=Z,2.0nm,0.7s,mb4.3,baz=16,slow=6.0,SNR=5.0						
KSRS	Korea Array	62.65	50	P	P	22 03 36.1	-1.8
	comp=Z,1.6nm,0.5s,mb4.4,baz=356,slow=7.1,SNR=6.9						
KSRS				LR	LR	22 33 54.6	
	comp=Z,796nm,18.1s,MS4.9,baz=345,slow=39						
TPH	Tonopah	62.67	313	PFAKE		22 03 50.0	+12
TPH				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
CD2	Chengdu	62.70	74	⇓*i*P	P	22 03 38.5	+0.1
CD2				AP	pP	22 03 43.0	+1.4
CD2				XP	sP	22 03 46.0	+3.2
CD2				PP	PP	22 05 58.0	+2.1
CD2				S	S	22 12 04.0	-2.6
CD2				XS	sS	22 12 12.0	+0.1
CD2				SS	SS	22 16 10.5	+0.1
CD2				AMB	AMB		
	comp=Z,20nm,1.8s,mb5.0						
CD2				AMB	AMB		
	comp=Z,110nm,9.6s						
CD2				LR	LR		
	comp=N,510nm,19.2s,MS4.9						
CD2				LR	LR		
	comp=E,576nm,20.4s,MS4.9						
CD2				LR	LR		
	comp=Z,610nm,20.4s,MS4.8						
DWPF	Disney	62.84	277	PFAKE		22 03 50.0	+11
DWPF				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
HOPS	Hopland	62.99	318	PFAKE		22 03 50.0	+10
HOPS				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
NATX	Nacogdoches	63.13	291	PFAKE		22 03 50.0	+8.8
NATX				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
ANMO	Albuquerque	63.18	302	P	P	22 03 42.0	+0.6
ANMO				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
ANMO	Albuquerque	63.18	302	⇑*e*P	P	22 03 43.1	+1.6
ANMO	Albuquerque	63.18	302	P	P	22 03 42.0	+0.6
	comp=Z,4.7nm,1.1s,mb4.5,baz=36,slow=6.5,SNR=8.1						
ANMO	Albuquerque	63.18	302	P	P	22 03 42.0	+0.5
CMB	Columbia Colle	63.38	315	PFAKE		22 03 50.0	+7.3
CMB				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
TPNV	Topopah Spring	63.55	311	PFAKE		22 04 00.0	+16
TPNV				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
MCCM	Marconi Confer	63.77	317	PFAKE		22 04 00.0	+15
MCCM				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
WUAZ	Wupatki	63.81	307	PFAKE		22 04 00.0	+14
WUAZ				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
LPM	Los Pinos Moun	63.83	302	*e*P	P	22 03 46.3	+0.5
LAZ	Ladron	63.87	303	*e*P	P	22 03 45.7	-0.3
LAZ	Ladron	63.87	303	*e*P	P	22 03 45.7	-0.3
BNM	Barren Site	63.98	302	*e*P	P	22 03 48.9	+2.1
BNM	Barren Site	63.98	302	*e*P	P	22 03 48.8	+2.0
LENM	Lemitar	64.05	302	*e*P	P	22 03 48.5	+1.3
LENM	Lemitar	64.05	302	*e*P	P	22 03 48.5	+1.3
SHL	Shillong	64.34	87	*e*P	P	22 03 50.0	+0.8
DAC	Darwin (Calif)	64.48	312	*e*P	P	22 03 52.1	+2.0
	comp=Z,49nm,1.6s,mb5.3						
DAC				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
DAC	Darwin (Calif)	64.48	312	*e*P	P	22 03 52.1	+2.1
DAC				pmax	pmax		
	comp=Z,49nm,1.6s,mb5.3						
DAC				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
DAC	Darwin (Calif)	64.48	312	*e*P	P	22 03 52.1	+2.1
	comp=Z,49nm,1.6s,mb5.3						
SAO	San Andreas Ge	64.82	316	PFAKE		22 04 00.0	+7.8
SAO				LR	LR		
	comp=Z,4µm,20.0s,MS5.6						
ENH	Enshi	64.89	69	PFAKE		22 04 00.0	+7.2
ENH				LR	LR		
	comp=Z,3.0nm,20.0s						
HKT	Hockley	65.16	291	*e*P	P	22 03 55.0	+0.4
	comp=Z,17nm,1.7s,mb4.8						
HKT				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
HKT	Hockley	65.16	291	*e*P	P	22 03 55.0	+0.4
HKT				pmax	pmax		
	comp=Z,17nm,1.7s,mb4.8						
HKT				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
HKT	Hockley	65.16	291	*e*P	P	22 03 55.0	+0.4
	comp=Z,17nm,1.7s,mb4.8						
NJ2	Nanjing	65.65	60	*e*P	P	22 04 00.5	+2.8
NJ2				XP	sP	22 04 07.5	+5.4
NJ2				PP	PP	22 06 27.5	+5.8
NJ2				S	S	22 12 45.0	+2.0
NJ2				XS	sS	22 12 54.0	+5.7
NJ2				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,450nm,7.0s						
NJ2				LR	LR		
	comp=N,2µm,23.1s,MS5.2						
NJ2				LR	LR		
	comp=E,870nm,22.2s,MS5.2						
NJ2				LR	LR		
	comp=Z,870nm,22.2s,MS4.9						
MAJO	Matsushiro	65.67	42	*e*P	P	22 03 57.0	-0.7
MAJO				LR	LR		
	comp=Z,780nm,22.0s,MS4.9						
MJAR	Matsushiro Arr	65.67	41	P	P	22 03 56.4	-1.4
	comp=Z,4.2nm,0.9s,mb4.5,baz=334,slow=7.9,SNR=9.0						
MJAR				LR	LR	22 34 09.2	
	comp=Z,491nm,19.4s,MS4.7,baz=335,slow=37						
JCT	Junction City	65.72	295	*e*P	P	22 03 58.5	+0.3
	comp=Z,114nm,1.9s,mb5.6						
JCT				LR	LR		
	comp=Z,4µm,19.0s,MS5.6						
JCT	Junction City	65.72	295	*e*P	P	22 03 58.5	+0.3
JCT				pmax	pmax		
	comp=Z,114nm,1.9s,mb5.6						
JCT				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.6						
JCT	Junction City	65.72	295	*e*P	P	22 03 58.5	+0.3
	comp=Z,114nm,1.9s,mb5.6						
WHN	Wuhan	65.93	64	P	P	22 03 59.8	+0.3
MNTX	Cornudas Mount	66.00	300	PFAKE		22 04 10.0	+10
MNTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
TUC	Tucson	66.74	305	PFAKE		22 04 20.0	+15
TUC				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
PFO	Pinyon Flat Ob	66.80	311	PFAKE		22 04 20.0	+15
PFO				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
TIC	Toumodi	66.86	193	*e*P	P	22 04 10.0	+4.4
	comp=Z,14nm,0.2s,mb5.6						
KIC	Kosan Boka	67.12	192	*e*P	P	22 04 06.4	-0.8
	comp=Z,120nm,1.3s,mb5.8						
SSE	Sheshan	67.14	58	P	P	22 04 11.0	+3.7
SSE				S	S	22 13 03.5	+2.3
SSE				AMB	AMB		
	comp=Z,12nm,1.1s,mb4.8						
SSE				AMB	AMB		
	comp=Z,232nm,8.0s						
SSE				LR	LR		
	comp=N,530nm,17.0s,MS4.9						
SSE				LR	LR		
	comp=E,423nm,17.0s,MS4.9						
SSE				LR	LR		
	comp=Z,766nm,18.0s,MS5.0						
SSE	Sheshan	67.14	58	P	P	22 04 11.0	+3.7
	comp=Z,12nm,1.1s,mb4.8						
SSE				pP	pP	22 04 20.4	+10
SSE				S	S	22 13 03.6	+2.4
SSE				LR	LR		
	comp=Z,770nm,18.0s,MS5.0						
LIC	Lamto	67.27	193	*e*P	P	22 04 06.1	-2.1
	comp=Z,147nm,1.7s,mb5.4						
LIC	Lamto	67.27	193	*e*P	P	22 04 07.1	-1.1
	comp=Z,110nm,1.7s,mb5.6						
LIC	Lamto	67.27	193	*e*P	P	22 04 06.1	-2.1
	comp=Z,73nm,1.7s,mb5.4						
MTP	Monte Pirata	67.70	258	*e*P	P	22 04 10.8	-0.1
GYA	Guiyang	67.72	73	⇑*i*P	P	22 04 12.0	+1.0
GYA				AP	pP	22 04 16.8	+2.6
GYA				XP	sP	22 04 19.3	+3.9
GYA				PCP	PcP	22 04 39.5	+1.7
GYA				PP	PP	22 06 43.3	+3.5
GYA				PPP		22 08 20.0	
GYA				SCP		22 08 42.0	
GYA				S	S	22 13 07.5	-0.7
GYA				PS		22 13 31.8	
GYA				SKS		22 14 06.3	
GYA				SS	SS	22 17 29.5	+0.9
GYA				AMB	AMB		
	comp=Z,50nm,1.2s,mb5.4						
GYA				AMB	AMB		
	comp=Z,320nm,4.7s						
GYA				LR	LR		
	comp=N,1µm,19.9s,MS5.4						
GYA				LR	LR		
	comp=E,2µm,19.2s,MS5.4						
GYA				LR	LR		
	comp=Z,910nm,18.8s,MS5.0						
LTX	Lajitas	67.82	298	*e*P	P	22 04 12.8	+1.3
	comp=Z,15nm,1.3s,mb4.8						
LTX				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
LTX	Lajitas	67.82	298	*e*P	P	22 04 12.9	+1.3
LTX				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.9						
LTX				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.5						
LTX	Lajitas	67.82	298	*e*P	P	22 04 12.9	+1.3
	comp=Z,15nm,1.3s,mb4.8						
TXAR	Lajitas Array	67.82	298	P	P	22 04 10.6	-1.0
	comp=Z,2.6nm,0.8s,mb4.3,baz=45,slow=5.7,SNR=20						
TXAR				LR	LR	22 33 56.7	
	comp=Z,2µm,18.1s,MS5.4,baz=0.0,slow=36						
SJG	San Juan	67.86	259	*e*P	P	22 04 10.2	-1.7
SJG				LR	LR		
	comp=Z,812nm,20.0s,MS5.0						
SJG	San Juan	67.86	259	*e*P	P	22 04 10.2	-1.7
KMI	Kunming	67.88	77	P	P	22 04 11.8	-0.2
KMI				AP	pP	22 04 15.5	+0.3
KMI				S	S	22 13 05.8	-4.4
KMI				PS		22 13 29.3	
KMI				SS	SS	22 17 26.0	-5.1
KMI				SSS		22 20 26.5	
KMI				AMB	AMB		
	comp=Z,17nm,2.0s,mb4.7						
KMI				LR	LR		
	comp=N,443nm,22.3s,MS4.8						
KMI				LR	LR		
	comp=E,482nm,21.2s,MS4.8						
KMI				LR	LR		
	comp=Z,962nm,21.2s,MS5.0						
KMI	Kunming	67.88	77	P	P	22 04 11.7	-0.3
	comp=Z,17nm,2.0s,mb4.7						
KMI				pP	pP	22 04 15.4	+0.2
KMI				S	S	22 13 05.8	-4.4
KMI				PS		22 13 29.2	
KMI				SKS		22 14 05.0	
KMI				SS	SS	22 17 26.0	-5.1
KMI				SSS		22 20 26.6	
KMI				LR	LR		
	comp=Z,960nm,21.2s,MS5.0						
KMI	Kunming	67.88	77	P	P	22 04 11.7	-0.3
KMI				*PP	pP	22 04 15.4	+0.2
KMI				S	S	22 13 05.8	-4.4
KMI				PS		22 13 29.2	
KMI						22 14 05.0	
KMI				SS	SS	22 17 26.0	-5.1
KMI				SSS		22 20 26.6	
KMI				pmax	pmax		
	comp=Z,17nm,2.0s,mb4.7						
KMI				MLR	MLR		
	comp=Z,960nm,21.2s,MS5.0						
KVTX	Kingsville	68.00	292	PFAKE		22 04 20.0	+7.3
KVTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
HYB	Hyderabad	68.19	102	*i* P	P	22 04 14.0	0.0
HYB	Hyderabad	68.19	102	*e*P	P	22 04 14.0	0.0
SDDR	Presa de Saban	68.51	264	*e*P	P	22 04 16.9	+0.9
	comp=Z,16nm,0.7s,mb5.1						
SDDR				LR	LR		
	comp=Z,786nm,19.0s,MS5.0						
SDDR	Presa de Saban	68.51	264	*e*P	P	22 04 16.9	+0.9
	comp=Z,16nm,0.7s,mb5.1						
TEIG	Tepich	72.26	281	PFAKE		22 04 50.0	+11
TEIG				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
CHTO	Chiang Mai	72.77	82	*e*P	P	22 04 40.9	-1.1
	comp=Z,69nm,1.7s,mb5.3						
CHTO				*e*PP	PP	22 07 23.5	0.0
CHTO				LR	LR		
	comp=Z,375nm,20.0s,MS4.7						
CHTO	Chiang Mai	72.77	82	*e*P	P	22 04 40.9	-1.0
CHTO				*e*		22 07 23.5	
CHTO				pmax	pmax		
	comp=Z,69nm,1.7s,mb5.3						
CHTO				MLR	MLR		
	comp=Z,375nm,20.0s,MS4.7						
CHTO	Chiang Mai	72.77	82	P	P	22 04 42.5	+0.5
	SNR=16						
CHTO	Chiang Mai	72.77	82	*e*PP	PP	22 07 23.5	0.0
CM31	Chiang Mai Arr	73.11	82	PFAKE		22 05 00.0	+16
CM31				LR	LR		
	comp=Z,392nm,22.0s,MS4.7						
QIZ	Qiongzhong	75.65	72	P	P	22 04 58.3	-0.5
QIZ				S	S	22 14 39.5	-0.2
QIZ				SS	SS	22 19 30.3	0.0
QIZ				AMB	AMB		
	comp=Z,19nm,2.1s,mb4.7						
QIZ				LR	LR		
	comp=E,515nm,20.6s						
QIZ				LR	LR		
	comp=Z,603nm,23.3s,MS4.8						
QIZ				LR	LR		
	comp=Z,603nm,23.3s						
QIZ				LR	LR		
	comp=Z,603nm,0.6s						
QIZ	Qiongzhong	75.65	72	PFAKE		22 05 10.0	+11
QIZ				LR	LR		
	comp=Z,599nm,21.0s,MS4.9						
KMBO	Kilima Mbogo	76.58	149	P	P	22 05 05.3	+1.3
KMBO				LR	LR		
	comp=Z,337nm,20.0s,MS4.7						
KMBO	Kilima Mbogo	76.58	149	P	P	22 05 05.3	+1.3
	comp=Z,2.7nm,1.0s,mb4.1,baz=62,slow=20,SNR=6.6						
TGUH	Tegucigalpa,Un	77.82	278	*e*P	P	22 05 12.1	+1.1
TGUH				LR	LR		
	comp=Z,616nm,20.0s,MS4.9						
TGUH	Tegucigalpa,Un	77.82	278	*e*P	P	22 05 12.1	+1.1

SDV	Santo Domingo	77.91	260	eP	P	22 05 11.8	+0.3
	comp=Z,18nm,0.8s,mb5.0						
SDV				ePcP	PcP	22 05 21.5	+0.1
SDV				LR	LR		
	comp=Z,265nm,22.0s,MS4.5						
SDV	Santo Domingo	77.91	260	eP	P	22 05 11.8	+0.3
	comp=Z,18nm,0.8s,mb5.0						
SDV	Santo Domingo	77.91	260	ePcP	PcP	22 05 21.5	+0.2
PALK	Pallekele	78.45	103	PFAKE		22 05 30.0	+15
PALK				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
JTS	JuntasAbangare	80.72	275	PFAKE		22 05 40.0	+13
JTS				LR	LR		
	comp=Z,538nm,21.0s,MS4.9						
ROSC	El Rosal	82.80	263	P	P	22 05 39.3	+1.5
	comp=Z,18nm,0.7s,mb5.2,baz=106,slow=8.8,SNR=13						
RCBR	Riachuelo	83.31	223	PFAKE		22 05 50.0	+10
RCBR				LR	LR		
	comp=Z,475nm,20.0s,MS4.9						
OTAV	Otavalo	88.39	265	PFAKE		22 06 20.0	+14
OTAV				LR	LR		
	comp=Z,331nm,22.0s,MS4.7						
LSZ	Lusaka	89.37	159	PFAKE		22 06 20.0	+10
LSZ				LR	LR		
	comp=Z,522nm,20.0s,MS5.0						
DAV	Davao City (W)	91.28	60	PFAKE		22 06 30.0	+11
DAV				LR	LR		
	comp=Z,402nm,21.0s,MS4.8						
TSUM	Tsumeb	92.44	170	PFAKE		22 06 40.0	+16
TSUM				LR	LR		
	comp=Z,430nm,20.0s,MS4.9						
LBTB	Lobatse	98.76	163	PFAKE		22 07 00.0	+7.1
LBTB				LR	LR		
	comp=Z,689nm,20.0s,MS5.2						
NNA	Nana	99.54	260	PFAKE		22 07 10.0	+13
NNA				LR	LR		
	comp=Z,233nm,19.0s,MS4.7						
LPAZ	La Paz	101.18	251	PFAKE		22 07 20.0	+16
LPAZ				LR	LR		
	comp=Z,183nm,19.0s,MS4.6						
BOSA	Boshof	102.30	163	PFAKE		22 07 20.0	+11
BOSA				LR	LR		
	comp=Z,546nm,19.0s,MS5.1						
SUR	Sutherland	105.72	168	PFAKE		22 11 50.0	+14
SUR				LR	LR		
	comp=Z,518nm,20.0s,MS5.1						
PMG	Port Moresby	112.12	43	PFAKE		22 12 00.0	+11
PMG				LR	LR		
	comp=Z,329nm,19.0s,MS4.9						
LCO	Las Campanas	113.97	249	PFAKE		22 12 00.0	+8.0
LCO				LR	LR		
	comp=Z,361nm,22.0s,MS4.9						
HNR	Honiara	114.33	29	PFAKE		22 12 00.0	+6.8
HNR				LR	LR		
	comp=Z,353nm,20.0s,MS5.0						
FUNA	Funafuti	115.23	8	PFAKE		22 12 10.0	+15
FUNA				LR	LR		
	comp=Z,5µm,21.0s,MS6.1						
MBWA	Marble Bar	116.70	74	PFAKE		22 12 10.0	+12
MBWA				LR	LR		
	comp=Z,413nm,19.0s,MS5.1						
WRA	Warramunga Arr	119.43	59	PKP	PKPdf	22 12 00.4	-2.4
WRA	Warramunga Arr	119.43	59	PKIKP	PKPdf	22 12 00.4	-2.4
WRA	Warramunga Arr	119.43	59	PKP	PKPdf	22 12 00.4	-2.4
	comp=Z,2.5nm,1.1s,baz=328,slow=2.1,SNR=8.0						
WRA	Warramunga Arr	119.43	59	PKIKP	PKPdf	22 12 00.4	-2.4
CTAO	Charters Tower	122.32	46	PFAKE		22 12 20.0	+12
CTAO				LR	LR		
	comp=Z,202nm,19.0s,MS4.8						
PPT	Papeete	122.78	333	eLR	LR	22 50 22.4	
	comp=Z,598nm,21.8s						
ASAR	Alice Springs	122.89	61	PKP	PKPdf	22 12 07.3	-2.0
ASAR	Alice Springs	122.89	61	PKIKP	PKPdf	22 12 07.3	-2.0
ASAR	Alice Springs	122.89	61	PKP	PKPdf	22 12 07.3	-2.0
	comp=Z,2.1nm,0.7s,baz=359,slow=1.7,SNR=22						
ASAR	Alice Springs	122.89	61	PKIKP	PKPdf	22 12 07.3	-2.0
RKT	Rikitea	125.73	315	eLR	LR	22 51 58.0	
	comp=Z,579nm,29.2s						
VNA2	Neumayer--Watz	144.16	188	ePKPdf	PKPdf	22 12 45.1	-2.4
	baz=341,slow=6.2						
VNA2				e		22 12 47.6	
VNA2				e		22 12 53.7	
VNA2				e		22 13 00.0	
VNA3	Neumayer Olymp	144.58	189	ePKPdf	PKPdf	22 12 46.3	-1.9
VNA3				e		22 12 48.8	
VNA3				e		22 12 55.0	
VNA3				e		22 13 01.4	
URZ	Urewera	144.67	13	PKP	PKPdf	22 12 48.8	-0.6
URZ	Urewera	144.67	13	PKP	PKPdf	22 12 48.8	-0.6
	comp=Z,6.7nm,0.9s,baz=26,slow=7.3,SNR=3.6						
URZ	Urewera	144.67	13	PKIKP	PKPdf	22 12 48.8	-0.6
SNAA	Sanae	144.76	185	PKP	PKPdf	22 12 47.0	-1.5
SNAA	Sanae	144.76	185	PKIKP	PKPdf	22 12 47.0	-1.5
SNAA	Sanae	144.76	185	PKP	PKPdf	22 12 47.0	-1.5
	comp=Z,6.3nm,1.2s,baz=22,slow=5.2,SNR=11						
SNAA	Sanae	144.76	185	PKIKP	PKPdf	22 12 47.0	-1.5
MAW	Mawson	145.23	146	PKP	PKPdf	22 12 48.8	-0.6
MAW				LR	LR		
	comp=Z,687nm,19.0s,MS5.5						
MAW	Mawson	145.23	146	PKIKP	PKPdf	22 12 48.8	-0.6
MAW				MLR	MLR		
	comp=Z,687nm,19.0s						
MAW	Mawson	145.23	146	PKP	PKPdf	22 12 48.8	-0.6
	comp=Z,6.9nm,0.9s,baz=13,slow=5.9,SNR=4.5						
QSPA	South Pole Qui	163.13	180	PFAKE		22 13 20.0	+6.1
QSPA				LR	LR		
	comp=Z,308nm,21.0s						

IDC **25** *21:55:40.3±1.9, 73.56N×6.99E, h0^{km}, mb4.4/5, mb1 4.5/7, mb1mx4.0/22, mbtmp4.3/7, ML3.8/2, Error ellipse: s-maj=32.3km s-min=27.3km az=162.0*
ISCJB **25** *21:55:42.5±0.6, 73.31N±0.05×7.5E±0.3, h10^{km}, mb4.3/7, Error ellipse: s-maj=11.8km s-min=7.1km az=0.2*
MOS **25** *21:55:42.7±1.7, 73.38N×7.87E, h10^{km}, mb4.5/1, Error ellipse: s-maj=45.4km s-min=10.7km az=95.2*
NEIC **25** *21:55:43.8±0.6, 73.29N×7.02E, h10^{km}, mb4.5/2, Error ellipse: s-maj=13.3km s-min=9.0km az=89.0*
CSEM **25** *21:55:44.4±0.1, 73.12N×6.24E, h25^{km}, ML2.6, Error ellipse: s-maj=2.8km s-min=2.4km az=106.0*
BER **25** *21:55:45.2±3.2, 73.23N×7.14E, h10^{km}, ML2.6(NAO)*
NAO **25** *21:55:47.7±1.6, 73.37N×8.74E, ML2.6*
ISC 25 21:55:43.6±0.5, **73.27N**±0.05×**6.9E**±0.2, **h10^{km}, n63,** σ**1^s.16**/62, **mb4.3**/7, **1D, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JMIC	Jan Mayen	5.26	252	eP	Pn	21 57 00.5	-1.6
TRO	Tromso	5.29	128	eP	Pn	21 57 02.0	-0.5
SPB4	Spitsbergen Ar	5.45	21	Pn	Pn	21 57 04.9	+0.2
SPB4	Spitsbergen Ar	5.45	21	Pn	Pn	21 57 04.9	+0.2
SPA0	Spitsbergen Ar	5.46	21	Pn	Pn	21 57 04.7	0.0
	baz=215,slow=16						
SPA0	Spitsbergen Ar	5.46	21	Pn	Pn	21 57 04.7	0.0
	baz=215,slow=16						
SPA0	Spitsbergen Ar	5.46	21	Pn	Pn	21 57 04.7	0.0
	SNR=50						
KBS	Kingsbay	5.82	10	Pn	Pn	21 57 10.8	+1.2
KBS	Kingsbay	5.82	10	ePn	Pn	21 57 10.7	+1.0
KBS	Kingsbay	5.82	10	ePn	Pn	21 57 11.0	+1.4
KBS	Kingsbay	5.82	10	eP	Pn	21 57 10.7	+1.0
KBS	Kingsbay	5.82	10	Pn	Pn	21 57 10.8	+1.1
ARA0	ARCESS Array S	7.00	113	Pn	Pn	21 57 25.8	-0.1
	baz=321,slow=12						
ARA0				Sn	Sn	21 58 36.8	-8.7
	baz=317,slow=22						
ARA0	ARCESS Array S	7.00	113	Pn	Pn	21 57 25.8	-0.1
	baz=321,slow=12						
ARA0				Sn	Sn	21 58 36.8	-8.7
	baz=317,slow=22						
ARA0	ARCESS Array S	7.00	113	Pn	Pn	21 57 25.8	-0.2
	SNR=50						
ARA0				Sn	Sn	21 58 36.8	-8.7
	SNR=50						
ARCES	ARCESS Array B	7.00	113	Pn	Pn	21 57 26.2	+0.2
ARCES	ARCESS Array B	7.00	113	Pn	Pn	21 57 26.2	+0.2
	3.2nm,0.3s,baz=324,slow=11,SNR=6.9						
ARCES	ARCESS Array B	7.00	113	Pn	Pn	21 57 26.2	+0.2
KEV	Kevo	7.27	109	ePn	Pn	21 57 29.5	-0.1
KEV	Kevo	7.27	109	ePn	Pn	21 57 29.5	-0.1
NSS	Namsos	8.96	166	eP	Pn	21 57 51.3	-1.5
APA0	Apatity Array	10.34	110	Pn	Pn	21 58 10.9	-0.7
	baz=316,slow=12						
APA0	Apatity Array	10.34	110	Pn	Pn	21 58 10.9	-0.7
	baz=316,slow=12						
APA0	Apatity Array	10.34	110	Pn	Pn	21 58 10.9	-0.7
	SNR=50						
FINES	FINESS Array B	13.86	139	Pn	Pn	21 58 58.2	-1.6
FINES	FINESS Array B	13.86	139	Pn	Pn	21 58 58.2	-1.6
	1.0nm,0.3s,baz=345,slow=14,SNR=5.3						
FINES	FINESS Array B	13.86	139	Pn	Pn	21 58 58.2	-1.5
RGN	Rugen	18.98	168	P	Pn	22 00 05.2	-0.2
RGN	Rugen	18.98	168	P	Pn	22 00 05.2	-0.2
OBN	Obninsk	21.87	130	eP	P	22 00 35.8	-0.2
	20nm,0.7s,mb4.7						
OBN	Obninsk	21.87	130⇓	eP	P	22 00 40.7	+4.7
OBN				pmax	pmax		
	comp=Z,85nm,1.8s,mb4.9						
OBN	Obninsk	21.87	130	eP	P	22 00 35.8	-0.2
CLL	Collm	22.20	170	eP	P	22 00 42.0	+2.5
CLL	Collm	22.20	170	e(P)	P	22 00 42.0	+2.5
GRFO	Grafenberg	23.73	173	eP	P	22 00 56.5	+1.0
GRFO	Grafenberg	23.73	173	eP	P	22 00 56.5	+1.0
MORC	Moravsky Berou	24.03	163	eP	P	22 00 57.6	-0.6
MORC	Moravsky Berou	24.03	163	eP	P	22 00 57.6	-0.6
VRAC	Vranov	24.42	165	P	P	22 01 03.3	+1.5
	comp=Z,15nm,0.9s,mb4.4,baz=358,slow=9.6,SNR=6.0						
AKASG	Malin Array Be	24.62	145	P	P	22 01 03.1	-0.4
	comp=Z,8.2nm,0.9s,mb4.3,baz=344,slow=9.1,SNR=6.2						
GERES	GERESS Array B	24.69	169	P	P	22 01 06.1	+1.9
	comp=Z,4.5nm,1.0s,mb4.0,baz=2.1,slow=7.2,SNR=3.8						
KWP	Kalwaria	24.71	155	P	P	22 01 03.9	-0.5
KWP	Kalwaria	24.71	155	P	P	22 01 03.9	-0.5
PSZ	Piszkesteto	26.09	160	eP	P	22 01 17.3	+0.4
PSZ	Piszkesteto	26.09	160	eP	P	22 01 17.3	+0.4
ARU	Arti	26.40	102	eP	P	22 01 21.9	+2.3
ARU	Arti	26.40	102	eP	P	22 01 22.0	+2.3
TIXI	Tiksi	30.77	32	eP	P	22 01 57.9	-0.5
CHKZ	Chkalovo	32.26	92	P	P	22 02 10.0	-1.7
ESLA	Sonseca Array	34.09	195	eP	P	22 02 30.1	+2.4
	comp=Z,4.6nm,1.3s,mb4.2						
ESLA	Sonseca Array	34.09	195	eP	P	22 02 30.1	+2.4
SCHQ	Schefferville	34.15	278	P	P	22 02 26.8	-1.3
SCHQ	Schefferville	34.15	278	P	P	22 02 26.8	-1.3
ZALV	Zalesovo Beam	36.11	79	P	P	22 02 40.7	-4.3
ZALV	Zalesovo Beam	36.11	79	P	P	22 02 40.7	-4.3
	comp=Z,1.4nm,0.6s,mb4.1,baz=326,slow=7.2,SNR=6.0						
ZAL	Zalesovo	36.12	79	P	P	22 02 40.7	-4.4
YAK	Yakutsk	39.63	38	P	P	22 03 10.3	-4.3
TORD	Torodi Ar. Bea	60.17	186	P	P	22 05 50.9	-0.2
TORD	Torodi Ar. Bea	60.17	186	P	P	22 05 50.9	-0.2
	comp=Z,2.4nm,0.8s,mb4.3,baz=356,slow=6.2,SNR=7.7						
ASAR	Alice Springs	122.81	61	PKP	PKPdf	22 14 38.7	-0.3
ASAR	Alice Springs	122.81	61	PKIKP	PKPdf	22 14 38.7	-0.3
ASAR	Alice Springs	122.81	61	PKP	PKPdf	22 14 38.7	-0.3
	comp=Z,0.4nm,0.7s,baz=357,slow=2.6,SNR=3.6						
ASAR	Alice Springs	122.81	61	PKIKP	PKPdf	22 14 38.7	-0.3

ISCJB **25** *21:58:08.6±2.3, 73.16N±0.04×7.0E±0.2, h14^{km}±15^{km}, mb3.9/13, Error ellipse: s-maj=12.3km s-min=6.5km az=167.0*
MOS **25** *21:58:08.2±1.4, 73.17N×6.87E, h10^{km}, mb4.3/6, Error ellipse: s-maj=39.2km s-min=7.8km az=94.3*
IDC **25** *21:58:08.5±1.1, 73.22N×6.83E, h0^{km}, mb3.8/6, mb1 3.9/10, mb1mx3.7/24, mbtmp3.8/10, ML2.9/3, Error ellipse: s-maj=24.9km s-min=15.6km az=56.0*
CSEM **25** *21:58:09.8, 73.20N×6.79E, h10^{km}, mb4.1/8, After NEIC*
NEIC **25** *21:58:09.8±0.4, 73.20N×6.79E, h10^{km}, mb4.0/9, Error ellipse: s-maj=9.4km s-min=5.4km az=80.0*
ISC 25 21:58:08.9±2.8, **73.19N**±0.04×**6.9E**±0.2, **h3^{km}**±18^{km}**, n67,** σ**0^s.87**/72, **mb3.9**/13, **1C, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SPB4	Spitsbergen Ar	5.53	21	ePn	Pn	21 59 31.3	-0.7
SPB4	Spitsbergen Ar	5.53	21	ePn	Pn	21 59 31.3	-0.7
KBS	Kingsbay	5.89	10	ePn	Pn	21 59 36.8	-0.2
KBS	Kingsbay	5.89	10	ePn	Pn	21 59 36.8	-0.2
ARCES	ARCESS Array B	6.98	113	Pn	Pn	21 59 51.6	-0.2
ARCES	ARCESS Array B	6.98	113	Pn	Pn	21 59 51.6	-0.3
	1.7nm,0.3s,baz=320,slow=12,SNR=15						
ARCES	ARCESS Array B	6.98	113	Pn	Pn	21 59 51.6	-0.3
KEV	Kevo	7.25	108	ePn	Pn	21 59 55.5	-0.1
KEV	Kevo	7.25	108	ePn	Pn	21 59 55.5	-0.1
APA	Apatity	10.45	109⇑	eP	Pn	22 00 34.4	-5.1
APA				i		22 02 29.6	
NOA	NORSAR Array B	12.31	170	Pn	Pn	22 01 05.9	+1.0
NOA				Sn	Sn	22 03 22.4	0.0
NOA	NORSAR Array B	12.31	170	Pn	Pn	22 01 05.9	+1.0
	baz=354,slow=18,SNR=2.0						
NOA				Sn	Sn	22 03 22.4	0.0
	0.4nm,0.3s,baz=164,slow=12,SNR=3.4						
NOA	NORSAR Array B	12.31	170	Pn	Pn	22 01 05.9	+1.0
NOA				Sn	Sn	22 03 22.5	0.0
HFS	Hagfors	13.37	165	Pn	Pn	22 01 19.4	0.0
HFS				Sn	Sn	22 03 48.2	-0.1
HFS	Hagfors	13.37	165	Pn	Pn	22 01 19.4	0.0
	0.1nm,0.3s,baz=0.9,slow=9.4,SNR=3.0						
HFS				Sn	Sn	22 03 48.2	-0.1
	0.4nm,0.3s,baz=18,slow=20,SNR=3.6						
HFS	Hagfors	13.37	165	Pn	Pn	22 01 19.4	+0.1
HFS				Sn	Sn	22 03 48.2	-0.1
KONO	Kongsberg	13.64	174	ePn	Pn	22 01 21.1	-2.0
KONO	Kongsberg	13.64	174	ePn	Pn	22 01 21.0	-2.0
FINES	FINESS Array B	13.81	139	Pn	Pn	22 01 25.1	-0.2
FINES				Sn	Sn	22 03 56.7	-2.2
FINES	FINESS Array B	13.81	139	Pn	Pn	22 01 25.1	-0.2
	0.1nm,0.3s,baz=345,slow=16,SNR=2.4						
FINES				Sn	Sn	22 03 56.7	-2.2
	0.3nm,0.3s,baz=349,slow=27,SNR=3.1						
FINES	FINESS Array B	13.81	139	Pn	Pn	22 01 25.1	-0.2
FINES				Sn	Sn	22 03 56.7	-2.2
ESK	Eskdalemuir	18.42	198	P	Pn	22 02 24.9	0.0
	15nm,1.0s						
ESK	Eskdalemuir	18.42	198	P	Pn	22 02 24.9	0.0
ESK				pmax	pmax		
	comp=Z,15nm,1.0s						
ESK	Eskdalemuir	18.42	198	P	Pn	22 02 24.9	0.0
	comp=Z,15nm,1.0s						
RUE	Ruedersdorf	21.00	168	eP	P	22 02 52.3	-0.8
RUE	Ruedersdorf	21.00	168	eP	P	22 02 52.3	-0.8
OBN	Obninsk	21.83	130	eP	P	22 03 01.8	-0.2
	comp=Z,75nm,1.8s,mb4.8						
OBN	Obninsk	21.83	130	eP	P	22 03 01.8	-0.2
	comp=Z,75nm,1.8s,mb4.8						
VRAC	Vranov	24.35	164	P	P	22 03 29.3	+1.7
	comp=Z,1.2nm,0.4s,mb3.7,baz=352,slow=10,SNR=3.6						
VRAC	Vranov	24.35	164	P	P	22 03 29.2	+1.6
AKASG	Malin Array Be	24.56	144	P	P	22 03 29.8	+0.2
	comp=Z,0.9nm,0.5s,mb3.6,baz=343,slow=9.1,SNR=2.9						
GERES	GERESS Array B	24.62	169	P	P	22 03 31.3	+1.2
	comp=Z,0.6nm,0.6s,mb3.3,baz=1.9,slow=8.0,SNR=3.5						
KWP	Kalwaria	24.64	155	eP	P	22 03 31.5	+1.2
	comp=Z,7.9nm,0.8s,mb4.3						
KWP	Kalwaria	24.64	155	eP	P	22 03 31.5	+1.2
KWP				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.3						
KWP	Kalwaria	24.64	155	eP	P	22 03 31.5	+1.2
	comp=Z,7.9nm,0.8s,mb4.3						
PSZ	Piszkesteto	26.02	160	eP	P	22 03 43.1	+0.3
	comp=Z,3.7nm,1.0s,mb3.9						
PSZ	Piszkesteto	26.02	160	eP	P	22 03 43.1	+0.3
PSZ				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb3.9						
PSZ	Piszkesteto	26.02	160	eP	P	22 03 43.1	+0.3
	comp=Z,3.7nm,1.0s,mb3.9						
ARU	Arti	26.39	101	eP	P	22 03 46.3	+0.2
	comp=Z,3.7nm,0.6s,mb4.1						
ARU	Arti	26.39	101	eP	P	22 03 46.3	+0.2
ARU				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.1						
ARU	Arti	26.39	101	eP	P	22 03 46.3	+0.2
	comp=Z,3.7nm,0.6s,mb4.1						
TIXI	Tiksi	30.83	32	eP	P	22 04 27.3	+1.8
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
TIXI	Tiksi	30.83	32	eP	P	22 04 27.3	+1.8
	comp=Z,0.8nm,0.4s,mb3.9						
BRVK	Borovoye	32.70	93	P	P	22 04 43.1	+1.0
BRVK	Borovoye	32.70	93	P	P	22 04 43.1	+1.0
INK	Inuvik	36.41	336	eP	P	22 05 14.0	0.0
	comp=Z,150nm,1.3s						
INK	Inuvik	36.41	336	eP	P	22 05 14.0	0.0
	comp=Z,150nm,1.3s						
KURK	Kurchatov	37.20	87	eP	P	22 05 21.1	+0.2
	comp=Z,1.2nm,0.6s,mb3.9						
KURK	Kurchatov	37.20	87	eP	P	22 05 21.1	+0.2
KURK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.8						
KURK	Kurchatov	37.20	87	eP	P	22 05 21.1	+0.2
	comp=Z,1.2nm,0.6s,mb3.9						
BILL	Bilibino	38.37	12	P	P	22 05 29.6	-0.9
BILL	Bilibino	38.37	12	P	P	22 05 29.6	-1.0
YKA	Yellowknife Ar	39.04	321	P	P	22 05 36.3	+0.1
	comp=Z,0.2nm,0.6s,baz=28,slow=9.4,SNR=4.3						
YKA	Yellowknife Ar	39.04	321	P	P	22 05 36.3	+0.1
COLA	College	41.17	344	eP	P	22 05 52.6	-1.3
	comp=Z,1.0nm,0.4s,mb3.8						
COLA	College	41.17	344	eP	P	22 05 52.6	-1.3
COLA				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.8						
COLA	College	41.17	344	eP	P	22 05 52.6	-1.3
	comp=Z,1.0nm,0.4s,mb3.8						
MKAR	Makanchi Array	41.79	86	P	P	22 05 59.7	+0.5
MKAR	Makanchi Array	41.79	86	P	P	22 05 59.7	+0.5
	comp=Z,1.8nm,1.1s,mb3.6,baz=328,slow=5.2,SNR=2.5						
WALA	Waterton Lakes	51.50	314	eP	P	22 07 14.4	-0.7
	comp=Z,0.4nm,0.5s,mb3.6						
WALA	Waterton Lakes	51.50	314	eP	P	22 07 14.4	-0.8
	comp=Z,0.4nm,0.5s,mb3.6						
TORD	Torodi Ar. Bea	60.10	186	P	P	22 08 16.9	-0.3
TORD	Torodi Ar. Bea	60.10	186	P	P	22 08 16.9	-0.3
	comp=Z,1.6nm,1.0s,mb4.0,baz=0.5,slow=6.5,SNR=7.6						
ASAR	Alice Springs	122.85	61	PKP	PKPdf	22 17 04.3	-1.4
ASAR	Alice Springs	122.85	61	PKIKP	PKPdf	22 17 04.3	-1.4
ASAR	Alice Springs	122.85	61	PKP	PKPdf	22 17 04.3	-1.4
	comp=Z,0.2nm,0.7s,baz=306,slow=2.2,SNR=2.8						
ASAR	Alice Springs	122.85	61	PKP	PKPdf	22 17 04.3	-1.4

TIF **25** *22:17:32.7, 42.63N×42.18E, h9^{km}±2^{km}*
ISCJB **25** *22:17:32.2±0.6, 42.66N±0.03×42.12E±0.04, h10^{km}, Error ellipse: s-maj=5.0km s-min=4.4km az=163.8*
MOS **25** *22:17:35.0±1.1, 42.65N×42.18E, h17^{km}, mb3.9/1, Error ellipse: s-maj=14.4km s-min=9.5km az=135.0*
ISC 25 22:17:32.8±0.6, **42.63N**±0.03×**42.13E**±0.04, **h10^{km}, n22,** σ**1^s.06**/33, **3C-3D, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ONI	Oni	0.97	93	P	Pg	22 17 51.0	-0.6
ONI				S	Sg	22 18 04.7	+0.5
DIGR	Digorskoe uzhe	1.10	75⇓	iPG	Pg	22 17 53.3	-0.6
DIGR				i S	Sg	22 18 07.5	-0.7
SHAR	Shatzhatmas	1.18	19⇓	iPG	Pg	22 17 55.3	-0.1
BCA	Borcka	1.25	198	PN	Pn	22 17 55.0	-1.3
ZEI	Tsey	1.31	83	ePG	Pg	22 17 57.2	-0.7
ZEI				i		22 18 14.3	
KIV	Kislovodsk	1.38	17⇑	iPG	Pg	22 17 58.7	-0.7
LSNR	Lesken	1.39	62⇓	iPG	Pg	22 17 59.8	+0.3
LSNR				eS	Sn	22 18 17.9	+1.2
KORR	Kora	1.49	72⇑	iPG	Pg	22 18 01.2	-0.3
KORR				i S	Sn	22 18 20.5	+1.3
KUBR	Kubataba	1.49	38	ePG	Pg	22 18 02.5	+1.0
PYA	Pyatigorsk	1.55	25	ePG	Pg	22 18 01.0	-1.6
GOR	Gori	1.60	113	P	Pn	22 18 02.4	+1.2
GOR				S	Sg	22 18 24.7	+0.3
LACR	Lac	1.60	82⇑	iPG	Pg	22 18 02.9	-0.7
LACR				i S	Sn	22 18 23.6	+1.6
ARNR	Ardon	1.67	70	i PN	Pg	22 18 05.3	+0.4
ARNR				eS	Sg	22 18 27.1	+0.5
SOC	Sochi	2.01	299	ePN	Pb	22 18 09.5	+0.1
SOC				e		22 18 13.3	
SOC				e		22 18 16.1	
SOC				e		22 18 41.6	
SOC				pmax	pmax		
	comp=Z,40nm,0.6s						
TBLG	Delisi	2.13	114	ePN	Pn	22 18 10.4	+1.9
TBLG				eS	Sb	22 18 38.7	+0.6
TBLG	Delisi	2.13	114	P	Pn	22 18 10.4	+1.9
TBLG				S	Sb	22 18 38.7	+0.6
KARS	Kars	2.14	160	ePN	Pn	22 18 09.5	+0.9
MTA	Mtatsminda	2.19	115	P	Pg	22 18 13.0	-1.7
MTA				S	Sg	22 18 40.4	-2.7
GOF	Gofitskoye	2.51	15	ePG	Sn	22 18 43.8	-0.5
GOF				pmax	pmax		
	comp=Z,31nm,1.3s						
DGRG	David-gareji	2.69	115	P	Pg	22 18 21.3	-3.0
DGRG				S	Sg	22 18 58.4	-0.7
EZM	Erzurum	2.79	192	ePN	Pn	22 18 18.8	+1.3
GUMT	Gumushane	2.95	223	eP	Pn	22 18 19.8	+0.1

ISCJB **25** *22:35:04.0±1.1, 28.77S±0.07×176.3W±0.1, h96^{km}±8^{km}, mb4.1/10, Error ellipse: s-maj=16.0km s-min=9.9km az=28.7*
NEIC **25** *22:35:04.3±1.3, 28.73S×176.31W, h75^{km}±11^{km}, mb4.5/3, Error ellipse: s-maj=17.9km s-min=10.3km az=144.0*
IDC **25** *22:35:05.4±3.2, 28.07S×176.76W, h60^{km}±27^{km}, mb3.9/8, mb1 4.2/8, mb1mx4.1/12, mbtmp3.9/8, MS3.4/2, Ms1 3.4/2, ms1mx3.0/24, Error ellipse: s-maj=27.1km s-min=23.8km az=143.0*
ISC 25 22:35:04.9±1.1, **28.74S**±0.07×**176.29W**±0.10, **h86^{km}**±9^{km}, **n45,** σ**1^s.07**/28, **mb4.1**/10, **Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	1.52	250	P	Pn	22 35 30.6	0.0
	2µm,0.3s,baz=37,slow=1.3,SNR=74						
RAO				S	Sn	22 35 50.2	0.0
	2µm,0.3s,baz=62,slow=22,SNR=16						
URZ	Urewera	10.98	208	P	Pn	22 37 34.4	-4.4
	0.4nm,0.3s,baz=269,slow=5.9,SNR=6.2						
URZ				S	Sn	22 39 39.4	-0.3
	5.8nm,0.3s,baz=83,slow=22,SNR=18						
SNZO	South Karori	14.54	208	Pn	Pn	22 38 26.3	+0.1
AFI	Afiamalu	15.34	17	Pn	Pn	22 38 37.1	+0.6
RAR	Rarotonga	16.73	67	P	Pn	22 38 52.2	-1.7
	1.3nm,0.3s,baz=288,slow=6.4,SNR=5.5						
RAR				LR	LR	22 43 56.3	
	comp=Z,112nm,18.5s,baz=321,slow=32						
DZM	Mont Dzumac	16.95	289	P	Pn	22 38 56.7	+0.1
	0.2nm,0.3s,baz=93,slow=18,SNR=3.5						
DZM				LR	LR	22 43 41.2	
	comp=Z,190nm,21.6s,baz=34,slow=32						
RPZ	Rata Peaks	18.07	211	P	Pn	22 39 11.5	+1.5
RPZ	Rata Peaks	18.07	211	P	Pn	22 39 11.5	+1.5
	2.0nm,0.3s,baz=112,slow=18,SNR=10.0						
MCQ	Macquarie Isla	31.39	208	P	P	22 41 17.6	+0.3
CTAO	Charters Tower	35.06	276	eP	P	22 41 48.9	-0.8
	9.7nm,0.9s,mb4.6						
STKA	Stephens Creek	36.34	254	eP	P	22 42 02.2	+1.8
	1.5nm,0.4s,mb4.3						
STKA	Stephens Creek	36.34	254	P	P	22 42 01.4	+1.0
	1.1nm,0.3s,mb4.2,baz=90,slow=13,SNR=4.9						
ASAR	Alice Springs	44.72	264	P	P	22 43 09.4	-0.2
	1.9nm,0.5s,mb4.0,baz=94,slow=6.8,SNR=32						
ASAR				PcP	PcP	22 44 53.8	+3.1
	0.5nm,0.4s,baz=111,slow=4.2,SNR=4.6						
WB2	Warramunga Arr	45.55	270	eP	P	22 43 15.5	-0.8
WRA	Warramunga Arr	45.57	270	P	P	22 43 15.6	-0.7
	2.0nm,0.4s,mb4.2,baz=109,slow=7.8,SNR=52						
WRA				pP	pP	22 43 29.9	-7.3
	1.4nm,0.5s,baz=110,slow=7.6,SNR=8.5						
FITZ	Fitzroy Crossi	53.88	268	eP	P	22 44 19.4	-0.1
	3.6nm,0.6s,mb4.6						
NWAO	Narrogin (SRO)	56.39	248	P	P	22 44 35.7	-1.7
MBWA	Marble Bar	57.91	262	P	P	22 44 49.7	+1.4
PMSA	Palmer Station	73.16	156	P	P	22 46 23.3	-2.4
MAW	Mawson	74.38	200	P	P	22 46 39.4	+6.6
	4.5nm,0.7s,mb4.3,baz=124,slow=14,SNR=4.7						
MJAR	Matsushiro Arr	77.75	324	P	P	22 46 52.2	-0.1
	2.5nm,0.6s,mb4.1,baz=165,slow=6.2,SNR=6.7						
VNA3	Neumayer Olymp	79.85	176	e	P	22 47 10.3	+6.9
VNA3				e		22 47 14.4	
VNA3				e		22 47 19.6	
VNA2	Neumayer--Watz	80.30	176	e	P	22 47 13.8	+7.9
	baz=184,slow=4.2						
VNA2				e		22 47 17.6	
VNA2				e		22 47 22.7	
KSRS	Korea Array	84.07	319	P	P	22 47 25.2	-0.7
	0.6nm,0.4s,mb3.8,baz=144,slow=10,SNR=3.5						
NVAR	Mina Array Bea	86.01	42	P	P	22 47 37.4	+1.8
	0.7nm,0.3s,mb4.0,baz=222,slow=9.1,SNR=3.3						
TXAR	Lajitas Array	90.23	56	P	P	22 47 59.5	+3.6
	0.1nm,0.7s,mb3.1,baz=284,slow=5.0,SNR=4.1						
MKAR	Makanchi Array	117.84	310	PKP	PKPdf	22 53 43.1	+2.2
MKAR	Makanchi Array	117.84	310	PKP	PKPdf	22 53 43.1	+2.2

	0.8nm,0.8s,baz=68,slow=2.8,SNR=7.7						
KURK	Kurchatov	120.97	314	PKPdf	PKPdf	22 53 44.5	-2.4
AML	Almayashu	122.91	304	*e*Pdif	Pdif	22 50 18.1	-4.0
ARCES	ARCESS Array B	137.27	349	PKP	PKPdf	22 54 21.3	+4.1
ARCES	ARCESS Array B	137.27	349	PKP	PKPdf	22 54 21.3	+4.1
	2.1nm,1.0s,baz=0.0,slow=2.4,SNR=4.2						
FINES	FINESS Array B	144.07	342	PKP	PKPdf	22 54 29.4	-0.3
FINES	FINESS Array B	144.07	342	PKP	PKPdf	22 54 29.4	-0.3
	1.2nm,0.6s,baz=52,slow=3.1,SNR=9.6						
NB2	NORSAR Subarra	147.31	353	PKPa	PKPdf	22 54 39.4	+4.2
	comp=Z,1.5nm,0.5s,baz=8.7,slow=2.9						
NOA	NORSAR Array B	147.31	353	PKPbc	PKPbc	22 54 39.5	+1.8
NOA	NORSAR Array B	147.31	353	PKPbc	PKPbc	22 54 39.5	+1.8
	comp=Z,2.3nm,0.6s,baz=12,slow=4.5,SNR=6.2						
HFS	Hagfors	147.89	351	PKPbc	PKPbc	22 54 41.2	+1.9
HFS	Hagfors	147.89	351	PKPbc	PKPbc	22 54 41.2	+1.9
	comp=Z,3.9nm,0.6s,baz=72,slow=4.8,SNR=14						
AKASG	Malin Array Be	150.83	326	PKPbc	PKPbc	22 54 49.1	+2.2
AKASG	Malin Array Be	150.83	326	PKPbc	PKPbc	22 54 49.1	+2.2
	comp=Z,4.6nm,0.8s,baz=40,slow=3.2,SNR=8.0						
BRTR	Keskin Array B	153.06	302	PKPbc	PKPbc	22 54 54.7	+2.4
BRTR				PKPab	PKPab	22 55 05.3	+1.2
BRTR	Keskin Array B	153.06	302	PKPbc	PKPbc	22 54 54.7	+2.4
	comp=Z,0.8nm,0.6s,baz=137,slow=5.6,SNR=4.3						
BRTR				PKPab	PKPab	22 55 05.3	+1.2
	comp=Z,2.4nm,0.9s,baz=113,slow=3.1,SNR=7.2						
TORD	Torodi Ar. Bea	164.37	173	PKP	PKPdf	22 55 01.4	+2.4
TORD				PKPab	PKPab	22 56 00.0	+6.6
TORD	Torodi Ar. Bea	164.37	173	PKP	PKPdf	22 55 01.4	+2.4
	comp=Z,0.8nm,1.1s,baz=252,slow=2.9,SNR=2.7						
TORD				PKPab	PKPab	22 56 00.0	+6.6
	comp=Z,0.8nm,0.9s,baz=226,slow=2.0,SNR=2.9						

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*ISCJB **25** 22:53:30.2±2.9, 6.5S±0.2×147.0E±0.2, h104^{km}±26^{km}, mb3.6/4, Error ellipse: s-maj=32.1km s-min=27.2km az=154.6*

*NEIC **25** 22:53:30.8±2.3, 6.44S×147.02E, h94^{km}±21^{km}, mb4.0/1, Error ellipse: s-maj=23.4km s-min=20.2km az=79.0*

*IDC **25** 22:53:30.6±5.9, 6.47S×147.09E, h98^{km}±45^{km}, mb3.4/3, mb1 3.6/5, mb1mx3.3/15, mbtmp3.5/5, Error ellipse: s-maj=54.9km s-min=48.2km az=77.0*

ISC 25 22:53:31.5±2.9, 6.5S±0.2×147.0E±0.2, h99^{km}±26^{km}, n12, σ0^{s}.85/13, mb3.6/4, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	2.92	176	*e*Pn	Pn	22 54 14.9	-1.2
PMG				*e*Sn	Sn	22 54 51.7	+1.2
PMG	Port Moresby	2.92	176	P	Pn	22 54 15.1	-1.0
	47nm,0.3s,baz=12,slow=9.3,SNR=94						
PMG				S	Sn	22 54 50.3	-0.2
	19nm,0.3s,baz=294,slow=18,SNR=4.0						
CTAO	Charters Tower	13.55	183	Pn	Pn	22 56 41.3	+1.6
KAKA	Kakadu	15.60	246	*e*Pn	Pn	22 57 06.8	+0.8
WB2	Warramunga Arr	18.15	221	*e*P	Pn	22 57 36.4	-0.8
WRA	Warramunga Arr	18.16	221	P	Pn	22 57 36.2	-1.0
	0.3nm,0.3s,baz=46,slow=11,SNR=21						
ASAR	Alice Springs	21.21	215	P	P	22 58 09.8	+0.4
	1.0nm,0.4s,mb3.5,baz=52,slow=8.6,SNR=17						
FITZ	Fitzroy Crossi	23.80	239	P	P	22 58 35.5	+0.1
	0.8nm,0.3s,mb3.5,baz=63,slow=13,SNR=10						
STKA	Stephens Creek	25.76	191	P	P	22 58 52.4	-0.7
	1.5nm,0.6s,mb3.6,baz=356,slow=8.1,SNR=4.6						
LSA	Lhasa	64.50	307	*e*P	P	23 03 58.8	+0.7
	1.2nm,0.7s,mb3.8						
KURK	Kurchatov	81.57	323	P	P	23 05 38.0	-0.3
TORD	Torodi Ar. Bea	145.18	284	PKPbc	PKPbc	23 12 57.4	-1.0
	0.3nm,0.6s,baz=77,slow=3.8,SNR=7.2						

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*ISCJB **25** 22:55:26.2±0.7, 0.6S±0.1×127.4E±0.2, h10^{km}, mb3.9/6, Error ellipse: s-maj=33.2km s-min=10.6km az=158.2*

*IDC **25** 22:55:27.2±1.4, 0.63S×127.34E, h0^{km}, mb3.7/4, mb1 3.9/4, mb1mx3.7/16, mbtmp3.7/4, Error ellipse: s-maj=131.6km s-min=21.0km az=69.0*

*NEIC **25** 22:55:28.3±0.5, 0.61S×127.38E, h10^{km}, mb4.3/3, Error ellipse: s-maj=23.2km s-min=7.4km az=69.0*

NEIC Felt [III] at Labuha.

ISC 25 22:55:28.5±0.7, 0.6S±0.1×127.3E±0.2, h10^{km}, n15, σ0^{s}.85/15, mb3.9/6, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KKM	Kota Kinabalu	12.86	301	Pn	Pn	22 58 29.2	-2.4
WRA	Warramunga Arr	20.40	161	P	P	23 00 05.0	-0.7
	2.0nm,0.6s,baz=340,slow=12,SNR=12						
WB2	Warramunga Arr	20.40	161	*e*P	P	23 00 05.2	-0.6
MBWA	Marble Bar	21.67	199	P	P	23 00 19.6	+0.1
ASAR	Alice Springs	23.78	165	P	P	23 00 42.1	+0.6
	2.1nm,0.6s,mb3.7,baz=345,slow=12,SNR=19						
KULM	Kulim	27.21	283	P	P	23 01 14.2	+1.3
STKA	Stephens Creek	33.90	158	P	P	23 02 11.4	-0.2
SONM	Songino Array	51.59	342	P	P	23 04 35.6	+0.7
	0.2nm,0.6s,mb3.3,baz=157,slow=7.7,SNR=3.4						
MK31	Makanchi Array	61.44	326	*e*P	P	23 05 45.6	+0.4
MKAR	Makanchi Array	61.44	326	P	P	23 05 45.7	+0.5
MKAR	Makanchi Array	61.44	326	P	P	23 05 45.7	+0.5
	1.1nm,0.6s,mb4.2,baz=119,slow=7.0,SNR=16						
KURK	Kurchatov	65.70	328	*e*P	P	23 06 12.7	-0.6
	1.2nm,0.6s,mb4.1						
BRVK	Borovoye	71.33	328	*e*P	P	23 06 48.4	+0.1
	1.0nm,0.6s,mb3.9						
CHKZ	Chkalovo	71.44	328	*e*P	P	23 06 48.2	-0.9
MAW	Mawson	79.86	201	*e*P	P	23 07 37.8	+0.8
	2.2nm,0.5s,mb4.3						

IDC 25 23:01:55.4±2.3, 0.65S×127.40E, h0^{km}, mb3.1/3, mb1 3.4/3, mb1mx3.3/16, mbtmp3.2/3, Error ellipse: s-maj=195.8km s-min=27.5km az=66.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	20.35	161	P	P	23 06 33.3	-0.2
	0.7nm,0.8s,baz=340,slow=12,SNR=4.3						
ASAR	Alice Springs	23.74	165	P	P	23 07 09.8	+0.2
	0.3nm,0.4s,baz=341,slow=10,SNR=5.2						
MKAR	Makanchi Array	61.53	326	P	P	23 12 14.2	0.0
	0.3nm,0.7s,baz=117,slow=8.4,SNR=4.5						

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*NEIC **25** 23:04:30.8±1.0, 23.13S×173.80W, h10^{km}, mb4.6/2, Error ellipse: s-maj=23.2km s-min=15.3km az=111.0*

*ISCJB **25** 23:04:31.9±1.1, 23.0S±0.1×173.7W±0.2, h33^{km}, mb4.4/6, Error ellipse: s-maj=25.1km s-min=15.6km az=27.0*

*IDC **25** 23:04:31.1±29.0, 23.20S×173.95W, h0^{km}, mb4.1/4, mb1 4.2/4, mb1mx4.0/14, mbtmp4.1/4, MS3.6/2, Ms1 3.6/2, ms1mx3.0/29, Error ellipse: s-maj=533.5km s-min=142.8km az=80.0*

ISC 25 23:04:34.0±1.0, 23.1S±0.1×173.7W±0.2, h35^{km}, n17, σ1^{s}.11/14, mb4.4/6, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	Raoul Island	7.17	211	LR	LR	23 08 36.7	
	comp=Z,350nm,19.5s,baz=101,slow=35						
AFI	Afiamalu	9.35	12	Pn	Pn	23 06 45.7	-0.5
SNZO	South Karori	20.57	205	P	P	23 09 07.8	-1.9
HNR	Honiara	28.64	294	*e*P	P	23 10 24.4	-3.1
	82nm,1.1s,mb5.4						
CTA	Charters Tower	37.26	267	P	P	23 11 43.9	+1.3
	1.9nm,0.4s,mb4.3,baz=97,slow=13,SNR=5.1						
CTAO	Charters Tower	37.26	267	*e*P	P	23 11 43.5	+0.9
	4.1nm,0.5s,mb4.5						
PMG	Port Moresby	39.81	283	*e*P	P	23 12 02.2	-1.9
	14nm,0.9s,mb4.7						
STKA	Stephens Creek	40.35	248	P	P	23 12 07.9	-0.5
	0.6nm,0.4s,mb3.7,baz=84,slow=10,SNR=2.3						
ASAR	Alice Springs	47.84	258	P	P	23 13 08.8	+0.3
	0.4nm,0.4s,mb3.8,baz=101,slow=7.5,SNR=9.0						
WB2	Warramunga Arr	48.21	263	*e*P	P	23 13 12.2	+0.8
WRA	Warramunga Arr	48.22	263	P	P	23 13 12.2	+0.7
	1.1nm,0.3s,mb4.3,baz=101,slow=8.4,SNR=98						
GUMO	Guam	54.53	308	*e*P	P	23 13 59.8	+1.0
FITZ	Fitzroy Crossi	56.64	263	LR	LR	23 38 07.4	
	comp=Z,90nm,20.9s,baz=320,slow=36						
NWAO	Narrogin (SRO)	60.78	244	P	P	23 14 42.8	+0.2
MBWA	Marble Bar	61.18	258	*e*P	P	23 14 46.3	+0.8
PMSA	Palmer Station	77.29	156	P	P	23 16 25.2	+0.7
	174nm,0.7s						
KURK	Kurchatov	118.62	316	P	PKPdf	23 23 19.7	+1.8

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*CSEM **25** 23:11:31.0, 73.06N×5.99E, h1^{km}, ML2.8, After NAO*

NAO 25 23:11:31.0±9.7, 73.06N×5.99E, ML2.8, Greenland Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SPA0	Spitsbergen Ar	5.75	22	Pn	Pn	23 12 56.5	-0.9
	baz=205,slow=14						
SPA0	Spitsbergen Ar	5.75	22	Pn	Pn	23 12 56.5	-0.9
	baz=205,slow=14						
SPA0	Spitsbergen Ar	5.75	22	Pn	Pn	23 12 56.5	-0.9
	baz=205,slow=14,SNR=2.4						
KBS	Kingsbay	6.07	11	Pn	Pn	23 13 01.1	-0.8
KBS	Kingsbay	6.07	11	Pn	Pn	23 13 01.1	-0.8
KBS	Kingsbay	6.07	11	Pn	Pn	23 13 01.1	-0.7
ARA0	ARCESS Array S	7.18	110	Pn	Pn	23 13 16.6	-0.4
	baz=319,slow=12						
ARA0	ARCESS Array S	7.18	110	Pn	Pn	23 13 16.6	-0.4
	baz=319,slow=12						
ARA0	ARCESS Array S	7.18	110	Pn	Pn	23 13 16.6	-0.4
	baz=319,slow=12,SNR=6.9						

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*IDC **25** 23:12:24.8±0.5, 73.15N×6.57E, h0^{km}, mb4.2/16, mb1 4.3/22, mb1mx4.2/28, mbtmp4.2/22, ML4.0/6, MS4.2/26, Ms1 4.2/26, ms1mx4.1/37, Error ellipse: s-maj=15.3km s-min=9.9km az=45.0*

*NAO **25** 23:12:25.3±2.1, 73.16N×7.38E, ML3.1*

*ISCJB **25** 23:12:25.3±0.2, 73.28N±0.02×7.26E±0.09, h10^{km}, mb4.6/97, MS4.1/40, Error ellipse: s-maj=3.9km s-min=2.9km az=153.7*

*MOS **25** 23:12:25.3±0.9, 73.32N×6.87E, h10^{km}, mb4.9/51, Error ellipse: s-maj=20.6km s-min=3.3km az=92.7*

*BJI **25** 23:12:25.1, 73.30N×6.90E, h10^{km}, mB5.2, mb4.7, Ms4.8, Msz4.5*

*BER **25** 23:12:26.8±3.7, 73.18N×6.89E, h10^{km}, MD3.2, ML3.0, ML3.1(NAO)*

*CSEM **25** 23:12:26.7±0.0, 73.31N×6.52E, h25^{km}, mb4.8/51, Ms3.7, Mw4.9, Error ellipse: s-maj=1.5km s-min=1.2km az=68.0*

*GCMT **25** 23:12:27.1±0.3, 73.29N×6.80E, h12^{km}, MW4.9/76, Moment Tensor Solution. s15,c18; s76,c111; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.67±.09; $M_{\theta\theta}$1.06±.09; $M_{\phi\phi}$1.60±.08; $M_{r\theta}$0.86±.35; $M_{\theta\phi}$1.36±.07; $M_{\phi r}$-1.09±.35; Best double couple: $M_0$2.99600×10^{16} NP1:ϕ_s240.00000°,δ46.00000°,λ-57.00000°. NP2: ϕ_s17.00000°,δ53.00000°,λ-119.00000°. Principal axes: T 2.7350, Plg4.0000°, Azm128.0000°; N 0.5120, Plg23.0000°, Azm36.0000°; P -3.2570, Plg67.0000°, Azm226.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **25** 23:12:27.1±0.2, 73.25N×6.89E, h10^{km}, mb4.8/54 Error ellipse: s-maj=5.1km s-min=3.3km az=65.0*

*SZGRF **25** 23:12:31.5, 73.20N×7.24E, h33^{km}, mb5.1, MS3.7, Greenland Sea*

*HEL **25** 23:12:33.6±0.9, 72.84N×7.92E, h10^{km}, ML4.0, mb4.8(NEIC), ML3.1(BER)*

ISC 25 23:12:27.3±0.2, 73.24N±0.02×7.12E±0.09, h10^{km}, (h21^{km}±3.9^{km}:pP-P), n442, σ1^{s}.16/450, mb4.6/97, MS4.1/40, 17C-10D, Greenland Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRO	Tromso	5.22	128	*e*P	Pn	23 13 43.1	-2.2
TRO				*e*S	Sn	23 14 38.0	-7.5
TRO				AML	AML	23 14 43.9	
	comp=Z,32nm,0.5s						
TRO	Tromso	5.22	128	*e*P	Pn	23 13 43.1	-2.2
TRO				*e*S	Sn	23 14 38.0	-7.5
JNE	Jan Mayen East	5.25	252	*e*P	Pn	23 13 42.2	-3.5
JNW	Jan Mayen West	5.27	253	*e*P	Pn	23 13 42.2	-3.7
JMIC	Jan Mayen	5.32	252	Pn	Pn	23 13 41.4	-5.1
JMIC				LR	LR	23 15 21.2	
JMIC	Jan Mayen	5.32	252	Pn	Pn	23 13 41.4	-5.1
	comp=Z,22nm,0.3s,baz=55,slow=7.8,SNR=4.9						
JMIC				LR	LR	23 15 21.3	
	comp=Z,2µm,21.2s,baz=102,slow=34						
JMIC	Jan Mayen	5.32	252	Pn	Pn	23 13 41.4	-5.1
JMI	Jan Mayen	5.41	252	*e*P	Pn	23 13 42.3	-5.5
SPB4	Spitsbergen Ar	5.45	20	*e*Pn	Pn	23 13 47.5	-1.0
SPB4	Spitsbergen Ar	5.45	20	*e*Pn	Pn	23 13 47.5	-0.9
SPA0	Spitsbergen Ar	5.46	20	Pn	Pn	23 13 47.1	-1.3
	baz=204,slow=12						
SPA0	Spitsbergen Ar	5.46	20	*e*	Pn	23 13 47.1	-1.3
SPA0	Spitsbergen Ar	5.46	20	Pn	Pn	23 13 47.1	-1.3
	baz=204,slow=12						
SPA0	Spitsbergen Ar	5.46	20	Pn	Pn	23 13 47.2	-1.3
	SNR=50						
LOF	Lofoten	5.56	154	*e*P	Pn	23 13 49.8	-0.1
LOF				AML	AML	23 14 52.7	
	comp=Z,54nm,0.8s						
LOF				*e*		23 18 39.9	
KBS	Kingsbay	5.83	9	Pn	Pn	23 13 51.5	-2.1
KBS	Kingsbay	5.83	9	*e*P	Pn	23 13 51.9	-1.7
KBS	Kingsbay	5.83	9	*e*Pn	Pn	23 13 52.0	-1.6
KBS	Kingsbay	5.83	9	*e*P	Pn	23 13 53.1	-0.5
KBS	Kingsbay	5.83	9	Pn	Pn	23 13 51.5	-2.1
KBS	Kingsbay	5.83	9	*e*P	Pn	23 13 51.9	-1.7
	SNR=49						
KIF	Kilpisjarvi	6.14	127	*e*P	Pn	23 13 57.6	-0.2
KIF				*e*S	Sn	23 15 01.2	-6.7
KTK1	Kautokeino	6.72	121	*e*P	Pn	23 14 05.6	-0.1
KTK1				AML	AML	23 15 24.1	
	comp=Z,12nm,0.4s						
KTK1				*e*		23 18 55.8	
ARA0	ARCESS Array S	6.94	113	Pn	Pn	23 14 07.8	-1.0
	baz=312,slow=12						
ARA0				Sn	Sn	23 15 20.0	-7.7
	baz=312,slow=22						
ARA0	ARCESS Array S	6.94	113	*e*P	Pn	23 14 07.8	-1.0
ARA0				*e*S	Sn	23 15 20.0	-7.7
ARA0	ARCESS Array S	6.94	113	Pn	Pn	23 14 07.8	-1.0
	baz=312,slow=12						
ARA0				Sn	Sn	23 15 20.0	-7.7
	baz=312,slow=22						
ARA0	ARCESS Array S	6.94	113	Pn	Pn	23 14 07.8	-1.0
	SNR=50						
ARA0				Sn	Sn	23 15 20.0	-7.6
	SNR=50						
ARCES	ARCESS Array B	6.94	113	Pn	Pn	23 14 08.0	-0.8
ARCES				Sn	Sn	23 15 21.7	-6.0
ARCES				LR	LR	23 17 28.9	
ARCES	ARCESS Array B	6.94	113	Pn	Pn	23 14 08.0	-0.8
	comp=Z,6.9nm,0.3s,baz=321,slow=12,SNR=138						
ARCES				Sn	Sn	23 15 21.7	-6.0
	comp=Z,3.8nm,0.3s,baz=316,slow=21,SNR=9.2						
ARCES				LR	LR	23 17 28.9	
	comp=Z,1µm,20.5s,baz=318,slow=43						
ARCES	ARCESS Array B	6.94	113	Pn	Pn	23 14 08.0	-0.8
ARCES				Sn	Sn	23 15 21.7	-5.9
ARE0	ARCESS Array S	6.94	113	*e*Pn	Pn	23 14 09.2	+0.4
ARE0	ARCESS Array S	6.94	113	*e*Pn	Pn	23 14 09.2	+0.4
KEV	Kevo	7.20	109	*e*p	Pn	23 14 11.5	-0.9
KEV	Kevo	7.20	109	*e*P	Pn	23 14 12.2	-0.2
KEV				MPN		23 14 14.2	
	comp=Z,16nm,0.3s						
KEV				*e*S	Sn	23 15 28.2	-6.0
KEV	Kevo	7.20	109	*e*Pn	Pn	23 14 11.7	-0.8
KEV				*e*Sn	Sn	23 15 27.5	-6.7
KEV	Kevo	7.20	109	*e*Pn	Pn	23 14 11.7	-0.7
KEV				*e*Sn	Sn	23 15 27.5	-6.7
STOK	Stokkvaagen	7.23	161	*e*P	Pn	23 14 11.1	-1.8
STOK				*e*S	Sn	23 15 24.1	-11
STOK				AML	AML	23 15 31.9	
	comp=Z,28nm,0.3s						
STOK	Stokkvaagen	7.23	161	*e*P	Pn	23 14 11.1	-1.8
STOK				*e*S	Sn	23 15 24.1	-11
HEF	Hetta	7.27	124	*e*P	Pn	23 14 13.4	+0.1
HEF				*e*S	Sn	23 15 29.7	-6.1
DAG	Danmarks Havn	7.50	310	⇓*e*P	Pn	23 14 10.3	-6.2
DAG				pmax	pmax		
	comp=Z,41nm,1.2s						
DAG	Danmarks Havn	7.50	310	⇓*i*P	Pn	23 14 10.3	-6.2
	comp=Z,41nm,1.2s						
MOR8	Moi Rana	7.54	157	*e*P	Pn	23 14 14.9	-2.1
MOR8				*e*S	Sn	23 15 31.6	-11
MOR8				AML	AML	23 15 39.2	
	comp=Z,30nm,0.7s						
MOR8	Moi Rana	7.54	157	*e*P	Pn	23 14 14.9	-2.1
MOR8				*e*S	Sn	23 15 31.6	-11
SGF	Sodankyl	8.71	122	*e*P	Pn	23 14 33.3	+0.2
SGF				MPN		23 14 36.0	
	comp=Z,8.3nm,0.2s						
SGF				*e*S	Sn	23 16 03.7	-7.5
NSS	Namsos	8.92	166	*e*P	Pn	23 14 33.3	-2.7
NSS				*e*S	Sn	23 16 05.3	-11
NSS				AML	AML	23 16 14.7	
	comp=Z,28nm,0.6s						
NSS	Namsos	8.92	166	*e*P	Pn	23 14 33.3	-2.7
NSS				*e*S	Sn	23 16 05.3	-11
NSS	Namsos	8.92	166	*e*Pn	Pn	23 14 33.3	-2.7
NSS				*e*Sn	Sn	23 16 05.3	-11
NSS				AML	AML	23 16 14.7	
	comp=Z,28nm,0.6s						
APA0	Apatity Array	10.27	110	Pn	Pn	23 14 51.9	-2.6
	baz=319,slow=11						
APA0	Apatity Array	10.27	110	*e*P	Pn	23 14 51.9	-2.6
APA0	Apatity Array	10.27	110	Pn	Pn	23 14 51.9	-2.6
	baz=319,slow=11						
APA0	Apatity Array	10.27	110	Pn	Pn	23 14 51.9	-2.5
	SNR=50						
APA	Apatity	10.41	110	⇓*i*P	Pn	23 14 56.0	-0.3
APA				pmax	pmax		
	comp=Z,18nm,0.7s						
OUL	Oulu	10.51	132	*e*P	Pn	23 14 57.2	-0.5
LVZ	Lovozero	10.53	107	*e*P	Pn	23 14 56.0	-1.9
MSF	Maaselka	10.54	123	*e*P	Pn	23 14 57.3	-0.8
MSF				MPN		23 15 00.2	
	comp=Z,7.9nm,0.4s						
KU6	Riekki	10.66	121	*e*P	Pn	23 14 58.8	-0.9
KU6				*e*S	Sn	23 16 49.5	-9.3
DOMB	Dombas	11.28	175	*e*P	Pn	23 15 05.7	-2.5
DOMB	Dombas	11.28	175	*e*Pn	Pn	23 15 05.7	-2.5
DOMB	Dombas	11.28	175	*e*Pn	Pn	23 15 05.7	-2.5
DOMB	Dombas	11.28	175	*e*Pn	Pn	23 15 05.7	-2.5
	SNR=50						
VAF	Ylistaro	11.71	143	*e*P	Pn	23 15 13.1	-0.9
VAF				*e*S	Sn	23 17 14.1	-10
FOO	Floro	11.72	185	*e*P	Pn	23 15 10.5	-3.8
FOO	Floro	11.72	185	*e*Pn	Pn	23 15 10.5	-3.8
FOO	Floro	11.72	185	*e*Pn	Pn	23 15 10.5	-3.8
	SNR=50						
NB2	NORSAR Subarra	12.36	171	Pn	Pn	23 15 20.6	-2.3
	baz=352,slow=14						
NB2	NORSAR Subarra	12.36	171	*e*P	Pn	23 15 20.6	-2.3
NB2	NORSAR Subarra	12.36	171	Pn	Pn	23 15 20.6	-2.3
	baz=352,slow=14						
NB2	NORSAR Subarra	12.36	171	Pn	Pn	23 15 20.6	-2.3
	SNR=50						
NOA	NORSAR Array B	12.36	171	Pn	Pn	23 15 20.6	-2.3
NOA				Sn	Sn	23 17 28.4	-12
NOA				LR	LR	23 19 48.2	
NOA	NORSAR Array B	12.36	171	Pn	Pn	23 15 20.6	-2.3
	comp=Z,0.8nm,0.3s,baz=267,slow=13,SNR=7.7						
NOA				Sn	Sn	23 17 28.4	-12
	comp=Z,0.4nm,0.3s,baz=352,slow=19,SNR=5.1						
NOA				LR	LR	23 19 48.2	
	comp=Z,843nm,19.7s,baz=350,slow=36						
NOA	NORSAR Array B	12.36	171	Pn	Pn	23 15 20.6	-2.3
NOA				Sn	Sn	23 17 28.4	-12
NAO01	NORSAR Array S	12.54	171	*e*Pn	Pn	23 15 23.6	-1.8
NAO01				*e*Sn	Sn	23 17 43.0	-1.9
NAO01	NORSAR Array S	12.54	171	*e*Pn	Pn	23 15 23.6	-1.8
SUF	Sumiainen	12.65	137	*e*P	Pn	23 15 25.1	-1.8
SUF				MPN		23 15 28.1	
	comp=Z,4.6nm,0.5s						
KEF	Keuruu	12.91	140	*e*P	Pn	23 15 29.5	-1.0
KEF				MPN		23 15 30.1	
	comp=Z,3.0nm,0.4s						
KAF	Kangasniemi	13.24	138	*e*p	Pn	23 15 32.7	-2.2
HFS	Hagfors	13.41	166	Pn	Pn	23 15 34.8	-2.5
	baz=340,slow=16						
HFS	Hagfors	13.41	166	*e*P	Pn	23 15 34.8	-2.5
HFS	Hagfors	13.41	166	Pn	Pn	23 15 34.7	-2.5
HFS				Sn	Sn	23 17 53.8	-12
HFS				LR	LR	23 20 21.7	
HFS	Hagfors	13.41	166	Pn	Pn	23 15 34.8	-2.5
	baz=340,slow=16						
HFS	Hagfors	13.41	166	Pn	Pn	23 15 34.7	-2.5
	comp=Z,1.3nm,0.3s,baz=357,slow=12,SNR=29						
HFS				Sn	Sn	23 17 53.8	-12
	comp=Z,0.3nm,0.3s,baz=346,slow=21,SNR=4.1						
HFS				LR	LR	23 20 21.7	
	comp=Z,2µm,19.5s,baz=347,slow=36						
HFS	Hagfors	13.41	166	Pn	Pn	23 15 34.8	-2.5
	SNR=50						
HFS				Sn	Sn	23 17 53.8	-12
RAF	Rauma	13.46	148	*e*P	Pn	23 15 36.0	-1.9
JOF	Joensuu	13.59	127	*e*p	Pn	23 15 36.2	-3.6
KONO	Kongsberg	13.69	175	Pn	Pn	23 15 40.5	-0.6
KONO	Kongsberg	13.69	175	Pn	Pn	23 15 40.5	-0.6
FIA1	FINESS Array S	13.80	139	*e*Pn	Pn	23 15 41.3	-1.4
FIA1	FINESS Array S	13.80	139	*e*Pn	Pn	23 15 41.3	-1.4
FIA0	FINESS Array S	13.81	139	Pn	Pn	23 15 40.7	-2.0
	baz=334,slow=12						
FIA0	FINESS Array S	13.81	139	*e*P	Pn	23 15 40.7	-2.0
FIA0	FINESS Array S	13.81	139	Pn	Pn	23 15 40.7	-2.0
	baz=334,slow=12						
FIA0	FINESS Array S	13.81	139	Pn	Pn	23 15 40.7	-2.0
	SNR=50						
FINES	FINESS Array B	13.81	139	Pn	Pn	23 15 40.5	-2.2
FINES				LR	LR	23 20 41.2	
FINES	FINESS Array B	13.81	139	Pn	Pn	23 15 40.5	-2.2
	comp=Z,0.8nm,0.3s,baz=329,slow=10,SNR=40						
FINES				LR	LR	23 20 41.2	
	comp=Z,1µm,20.6s,baz=331,slow=36						
FINES	FINESS Array B	13.81	139	Pn	Pn	23 15 40.5	-2.2
TMCR	Tamitsa	14.24	114	*e*P	Pn	23 15 44.6	-4.0
VSU	Vasula	16.71	142	*e*P	Pn	23 16 18.3	-2.8
EKA	Eskdalemuir Ar	18.47	199	P	Pn	23 16 39.8	-3.1
	comp=Z,0.1nm,0.3s,baz=10,slow=10.0,SNR=5.2						
SFJD	Kangerlussuaq	19.81	281	LR	LR	23 23 35.2	
	comp=Z,1µm,19.4s,baz=23,slow=34						
SUW	Suwalki	20.43	152	*e*P	P	23 17 04.9	+0.6
GKP	Gorka Klasztor	20.50	162	*e*P	P	23 17 08.9	+3.9
RUE	Ruedersdorf	21.03	169	*e*P	P	23 17 11.9	+1.2
RUE	Ruedersdorf	21.03	169	*e*P	P	23 17 11.9	+1.1
MOS	Moscow	21.47	128	*e*P	P	23 17 15.6	+0.1
MOS				*e*S	S	23 21 16.7	+3.5
MOS				pmax	pmax		
	comp=Z,145nm,1.3s,mb5.2						
MOS				pmax	pmax		
	comp=Z,200nm,1.3s,mb5.3						
MOS				MLR	MLR		
	comp=Z,800nm,15.0s,MS4.2						
OBN	Obninsk	21.81	131	*e*P	P	23 17 18.8	-0.3
OBN	Obninsk	21.81	131	⇓*e*P	P	23 17 19.3	+0.2
OBN				*e*		23 17 23.2	
OBN				S	S	23 21 19.0	-0.8
OBN				pmax	pmax		
	comp=Z,199nm,1.7s,mb5.3						
OBN				MLR	MLR		
	comp=Z,300nm,16.0s,MS3.8						
OBN	Obninsk	21.81	131	*e*P	P	23 17 18.8	-0.3
CLL	Collm	22.16	170	⇓*i*P	P	23 17 24.3	+1.4
	comp=Z,26nm,1.5s,mb4.4						
CLL				*i*		23 17 27.9	
CLL				*e*S	S	23 21 26.0	-0.7
CLL				LR	LR		
	comp=Z,900nm,17.4s,MS4.2						
CLL	Collm	22.16	170	⇓*i*P	P	23 17 24.3	+1.4
CLL				*i*		23 17 27.9	
CLL				*e*S	S	23 21 26.0	-0.7
CLL				pmax	pmax		
	comp=Z,26nm,1.5s,mb4.4						
CLL				MLR	MLR		
	comp=Z,900nm,17.4s,MS4.2						
CLL	Collm	22.16	170	⇓*i*P	P	23 17 24.3	+1.4
	comp=Z,26nm,1.5s,mb4.4						
CLL				*i* sP	sP	23 17 27.9	+0.9
	comp=Z,74nm,1.6s						
CLL				*e*S	S	23 21 26.0	-0.7
	comp=E,400nm,22.4s						
BRG	Berggiesshubel	22.65	169	*e*P	P	23 17 28.6	+0.6
BRG				pmax	pmax		
	comp=Z,25nm,1.8s,mb4.3						
BRG				MLR	MLR		
	comp=N,407nm,15.4s,MS4.0						
BRG				MLR	MLR		
	comp=E,301nm,17.6s,MS4.0						
BRG				MLR	MLR		
	comp=Z,596nm,17.0s,MS4.1						
BRG	Berggiesshubel	22.65	169	*e*P	P	23 17 28.6	+0.6
	comp=Z,41nm,1.8s,mb4.6						
BRG				PP		23 17 49.0	

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BRG                               S      S      23 21 13.5  -23
BRG
      comp=N,680nm,15.4s
BRG
      comp=E,503nm,17.6s
BRG
      comp=Z,995nm,17.0s
MOX   Moxa            22.77 173  eP     P      23 17 30.5 +1.2
      comp=Z,43nm,1.6s,mb4.6
MOX
      comp=Z,400nm,18.0s
MOX   Moxa            22.77 173  eP     P      23 17 30.5 +1.2
MOX                               pmax   pmax
      comp=Z,43nm,1.6s,mb4.6
MOX                               MLR    MLR
      comp=Z,400nm,18.0s,MS3.9
KSP   Ksiaz           22.83 165  eP     P      23 17 31.7 +1.7
KSP   Ksiaz           22.83 165  eP     P      23 17 31.2 +1.2
KSP                               MLR    MLR
      comp=Z,2µm,19.9s,MS4.4
PVCC  Panska Ves      23.03 168  eP     P      23 17 33.2 +1.1
PVCC                              AMS    AMS    23 26 10.0
      comp=Z,800nm,19.5s
UPC   Upice           23.14 165  eP     P      23 17 34.7 +1.4
SOKR  Solikamsk       23.18 100c iP     P      23 17 34.6 +1.0
SOKR                              pmax   pmax
      comp=Z,50nm,1.4s,mb4.8
SOKR                              MLR    MLR
      comp=Z,560nm,19.0s,MS4.0
NKC   Novy Kostel     23.21 171  eP     P      23 17 35.0 +1.0
NKC                               AMS    AMS    23 26 50.0
      comp=Z,1µm,18.2s
GIVF  Givet           23.25 184  eP     P      23 17 33.9  -0.5
      comp=Z,171nm,1.6s,mb4.9
GIVF  Givet           23.25 184  eP     P      23 17 33.9  -0.5
GIVF                              pmax   pmax
      comp=Z,85nm,1.6s,mb4.9
GIVF  Givet           23.25 184  eP     P      23 17 33.9  -0.5
      comp=Z,85nm,1.6s,mb4.9
BAIF  Baives          23.30 185  eP     P      23 17 34.4  -0.5
      comp=Z,215nm,1.9s,mb5.0
BAIF  Baives          23.30 185  eP     P      23 17 34.4  -0.5
BAIF                              pmax   pmax
      comp=Z,107nm,1.9s,mb5.0
BAIF  Baives          23.30 185  eP     P      23 17 34.4  -0.5
      comp=Z,107nm,1.9s,mb5.0
DPC   Dobruska-Polom  23.32 165  eP     P      23 17 35.8 +0.6
DPC                               AMS    AMS    23 26 40.0
      comp=Z,800nm,16.3s
PRU   Pruhonice       23.56 168  eP     P      23 17 38.8 +1.1
PRU                               AMS    AMS    23 26 40.0
      comp=Z,700nm,17.1s
GRA1  Grafenberg Arr  23.70 173  eP     P      23 17 39.6 +0.7
      comp=Z,137nm,2.1s,mb5.0
GRA1                             e             23 17 44.5
GRA1                              LR     LR
      comp=Z,300nm,20.7s,MS3.7
GRF   Grafenberg Arr  23.70 173  eP     P      23 17 39.6 +0.7
GRF                              e             23 17 44.5
GRF                               pmax   pmax
      comp=Z,137nm,2.1s,mb5.0
GRF                               MLR    MLR
      comp=Z,300nm,20.7s,MS3.7
GRF   Grafenberg Arr  23.70 173  eP     P      23 17 39.6 +0.7
GRF                              e             23 17 44.5
GRF                               pmax   pmax
      comp=Z,137nm,2.1s,mb5.0
GRF                               MLR    MLR
      comp=Z,300nm,20.7s,MS3.7
GRF   Grafenberg Arr  23.70 173  eP     P      23 17 39.6 +0.7
      comp=Z,137nm,2.1s,mb5.0
GRF                              e             23 17 44.5
GRF                              eL            23 25 45.0
      comp=Z,282nm,20.7s
OJC   Ojcow           23.76 160  eP     P      23 17 39.6 +0.1
OKC   Ostrava-Krasne  23.98 162  eP     P      23 17 41.3  -0.2
OKC                               AMS    AMS    23 27 10.0
      comp=Z,900nm,18.0s
MORC  Moravsky Berou  23.99 163  eP     P      23 17 42.2 +0.7
      comp=Z,63nm,1.6s,mb4.8
MORC  Moravsky Berou  23.99 163⇑iP     P      23 17 42.5 +0.9
MORC  Moravsky Berou  23.99 163  eP     P      23 17 42.2 +0.6
      comp=Z,63nm,1.6s,mb4.8
TREC  Trest           24.32 167  eP     P      23 17 45.7 +1.2
TREC                              AMS    AMS    23 27 00.0
      comp=Z,1µm,17.4s
KHC   Kasperske Hory  24.36 170  eP     P      23 17 46.2 +1.2
KHC   Kasperske Hory  24.36 170  eP     P      23 17 47.4 +2.4
KHC                              epP           23 17 51.0
KHC                               AMS    AMS    23 27 20.0
      comp=Z,900nm,17.2s
VRAC  Vranov          24.38 165 ⇑P      P      23 17 46.8 +1.6
VRAC  Vranov          24.38 165  P      P      23 17 44.6  -0.6
      comp=Z,8.5nm,0.9s,mb4.2,baz=2.7,slow=8.5,SNR=11
VRAC                              LR     LR     23 27 21.8
      comp=Z,766nm,18.1s,MS4.2,baz=353,slow=37
VRAC  Vranov          24.38 165⇑iP     P      23 17 46.8 +1.7
AKASG Malin Array Be  24.57 145  P      P      23 17 45.7  -1.1
AKASG                             LR     LR     23 27 07.5
AKASG Malin Array Be  24.57 145  P      P      23 17 45.7  -1.1
      comp=Z,4.2nm,0.5s,mb4.2,baz=345,slow=9.4,SNR=11
AKASG                             LR     LR     23 27 07.5
      comp=Z,2µm,20.1s,MS4.5,baz=335,slow=36
AKBB  Malin Array Si  24.57 145  eP     P      23 17 46.4  -0.4
AKBB  Malin Array Si  24.57 145  eP     P      23 17 46.4  -0.4
KIEV  Kiev            24.57 145  eP     P      23 17 45.6  -1.2
      comp=Z,37nm,1.2s,mb4.8
KIEV  Kiev            24.57 145  eP     P      23 17 45.6  -1.2
KIEV                              pmax   pmax
      comp=Z,37nm,1.2s,mb4.8
KIEV  Kiev            24.57 145  eP     P      23 17 45.6  -1.2
      comp=Z,37nm,1.2s,mb4.8
NIE   Niedzica        24.61 159  eP     P      23 17 48.6 +1.4
LVV   L'vov           24.65 153  eP     P      23 17 47.3  -0.3
LVV                              eS     S      23 22 05.3  -3.3
LVV                               MLR    MLR
      comp=Z,900nm,15.0s,MS4.4
GEC2  GERESS Array S  24.66 170  eP     P      23 17 48.4 +0.8
GEC2  GERESS Array S  24.66 170  eP     P      23 17 48.4 +0.8
GERES GERESS Array B  24.66 170  P      P      23 17 47.7   0.0
      comp=Z,1.9nm,0.7s,mb3.8,baz=2.1,slow=9.3,SNR=13
GERES                             LR     LR     23 27 45.1
      comp=Z,654nm,18.4s,MS4.2,baz=294,slow=37
KWP   Kalwaria        24.67 155  eP     P      23 17 48.9 +1.1
KWP   Kalwaria        24.67 155⇑iP     P      23 17 49.0 +1.3
STHS  Stebnicka Huta  24.71 158  eP     P      23 17 50.1 +2.0
STHS                              pmax   pmax
      comp=Z,26nm,1.6s,mb4.5
STHS  Stebnicka Huta  24.71 158  eP     P      23 17 50.1 +2.0
      comp=Z,26nm,1.6s,mb4.5
FLN   La Foliniere    24.80 192  eP     P      23 17 48.1  -0.8
      comp=Z,42nm,1.1s,mb4.6
FLN                              eMLR   MLR
      comp=Z,362nm,18.8s,MS3.6
FLN   La Foliniere    24.80 192  eP     P      23 17 48.1  -0.8
      comp=Z,21nm,1.1s,mb4.6
FLN                               LR     LR
      comp=Z,360nm,18.8s,MS3.9
FLN   La Foliniere    24.80 192  eP     P      23 17 48.1  -0.8
FLN                               pmax   pmax
      comp=Z,21nm,1.1s,mb4.6
FLN                               MLR    MLR
      comp=Z,360nm,18.8s,MS3.9
MEZF  Maizieres J'vi  24.84 183  eP     P      23 17 49.1  -0.2
      comp=Z,39nm,1.1s,mb4.5
MEZF  Maizieres J'vi  24.84 183  eP     P      23 17 49.1  -0.2
      comp=Z,20nm,1.1s,mb4.5
CDF   Champ du Feu    24.91 180  eP     P      23 17 50.1 +0.1
      comp=Z,24nm,1.1s,mb4.3
CDF   Champ du Feu    24.91 180  eP     P      23 17 50.1 +0.1
CDF                               pmax   pmax
      comp=Z,12nm,1.1s,mb4.3
CDF   Champ du Feu    24.91 180  eP     P      23 17 50.1 +0.1
      comp=Z,12nm,1.1s,mb4.3
LDF   La Druitiere    24.94 191  eP     P      23 17 49.6  -0.6
      comp=Z,88nm,1.4s,mb4.8
LDF   La Druitiere    24.94 191  eP     P      23 17 49.6  -0.6
LDF                               pmax   pmax
      comp=Z,44nm,1.4s,mb4.8
LDF   La Druitiere    24.94 191  eP     P      23 17 49.6  -0.6
      comp=Z,44nm,1.4s,mb4.8
RES   Resolute Bay    24.97 322  eP     P      23 17 53.1 +2.8
GRR   Gorron          25.19 193  eP     P      23 17 52.0  -0.5
CRVS  Cervenica-Dubn  25.24 157  eP     P      23 17 54.3 +1.4
KOLL  Kolacno         25.25 162  eP     P      23 17 53.7 +0.6
KOLS  Kolonicke sedl  25.30 156  eP     P      23 17 54.0 +0.5
HAU   Haudompre       25.32 181  eP     P      23 17 53.6  -0.1
      comp=Z,69nm,1.3s,mb4.7
HAU                              eMLR   MLR
      comp=Z,411nm,20.0s,MS3.6
HAU   Haudompre       25.32 181  eP     P      23 17 53.6  -0.1
      comp=Z,34nm,1.3s,mb4.7
HAU                               LR     LR
      comp=Z,410nm,20.0s,MS3.9
HAU   Haudompre       25.32 181  eP     P      23 17 53.6  -0.1
HAU                               pmax   pmax
      comp=Z,34nm,1.3s,mb4.7
HAU                               MLR    MLR
      comp=Z,410nm,20.0s,MS3.9
VYHS  Vyhne           25.38 162  eP     P      23 17 54.7 +0.5
VYHS                              pmax   pmax
      comp=Z,9.0nm,1.3s,mb4.1
VYHS  Vyhne           25.38 162  eP     P      23 17 54.7 +0.5
      comp=Z,9.1nm,1.3s,mb4.2
ROSF  Rostrenen       25.42 196  eP     P      23 17 54.0  -0.6
      comp=Z,223nm,1.5s,mb5.2
ROSF  Rostrenen       25.42 196  eP     P      23 17 54.0  -0.6
ROSF                              pmax   pmax
      comp=Z,112nm,1.5s,mb5.2
ROSF  Rostrenen       25.42 196  eP     P      23 17 54.0  -0.6
      comp=Z,112nm,1.5s,mb5.2
HINF  Hinteralfeld    25.51 180  eP     P      23 17 55.8 +0.4
ZST   Bratislava      25.52 164  eP     P      23 17 58.1 +2.6
      comp=Z,44nm,1.6s,mb4.7
ZST                               LR     LR
      comp=Z,800nm,17.2s,MS4.3
VOR   Voronezh        25.54 130  P      P      23 17 57.0 +1.3
VOR                               pmax   pmax
      comp=Z,120nm,1.6s,mb5.2
KECS  Kecovo          25.55 159  eP     P      23 17 56.2 +0.5
      comp=Z,6.9nm,1.3s,mb4.0
KECS                             e             23 18 14.1
KECS  Kecovo          25.55 159  eP     P      23 17 56.2 +0.5
KECS                              pmax   pmax
      comp=Z,7.0nm,1.3s,mb4.0
UZH   Uzhgorod        25.60 156  eP     P      23 17 56.0  -0.2
UZH                              i      pP     23 18 00.0 +0.8
UZH                              e             23 18 43.4
UZH                              eS     S      23 22 22.0  -1.8
UZH                              i SSS         23 23 49.0
UZH                               MLR    MLR
      comp=Z,800nm,18.0s,MS4.3
CONA  Conrad Observa  25.70 166⇓iP     P      23 17 58.6 +1.5
      comp=Z,15nm,1.0s,mb4.5
VRSR  Storozhevoye    26.02 130  eP     P      23 17 59.5  -0.5
VRSR                              pmax   pmax
      comp=Z,2.0nm,0.8s,mb3.7
VRSR                              pmax   pmax
      comp=N,4.0nm,0.9s
VRSR                              pmax   pmax
      comp=E,3.0nm,1.0s
PSZ   Piszkesteto     26.05 160  eP     P      23 18 01.7 +1.4
      comp=E,44nm,1.6s,mb4.7
PSZ   Piszkesteto     26.05 160  eP     P      23 18 01.7 +1.4
PSZ                               pmax   pmax
      comp=Z,44nm,1.6s,mb4.7
PSZ   Piszkesteto     26.05 160  epP    pP     23 18 01.5  -1.8
LOR   Lormes          26.10 185  eP     P      23 18 00.8   0.0
      comp=Z,8.9nm,0.8s,mb4.1
LOR                              eMLR   MLR
      comp=Z,565nm,24.5s,MS3.7
LOR   Lormes          26.10 185  eP     P      23 18 00.8   0.0
      comp=Z,4.4nm,0.8s,mb4.0
LOR                               LR     LR
      comp=Z,570nm,24.5s,MS4.0
LOR   Lormes          26.10 185  eP     P      23 18 00.8   0.0
LOR                               pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.0
LOR                               MLR    MLR
      comp=Z,570nm,24.5s,MS4.0
WTTA  Wattenberg      26.14 173⇑iP     P      23 18 05.7 +4.5
      comp=Z,25nm,1.4s,mb4.5
WTTA  Wattenberg      26.14 173⇑ipP    pP     23 18 05.7 +1.5
      comp=Z,25nm,1.4s
WTTA  Wattenberg      26.14 173⇑iP     P      23 18 05.7 +4.6
WTTA                              pmax   pmax
      comp=Z,25nm,1.4s,mb4.5
VORD  Divnogorie      26.28 130  eP     P      23 18 01.4  -0.9
VORD                              pmax   pmax
      comp=Z,10.0nm,1.1s,mb4.3
VORD                              pmax   pmax
      comp=N,10.0nm,0.6s
VORD                              pmax   pmax
      comp=E,30nm,0.9s
VORD                              MLR    MLR
      comp=Z,730nm,15.0s,MS4.3
VORD                              MLR    MLR
      comp=N,1µm,26.0s
VORD                              MLR    MLR
      comp=E,400nm,16.0s
SSF   Saint Saulge    26.32 186  eP     P      23 18 03.0 +0.3
      comp=E,71nm,1.6s,mb4.7
SSF   Saint Saulge    26.32 186  eP     P      23 18 03.0 +0.3
SSF                               pmax   pmax
      comp=Z,36nm,1.6s,mb4.7
SSF   Saint Saulge    26.32 186  eP     P      23 18 03.0 +0.3
      comp=Z,36nm,1.6s,mb4.7
ARU   Arti            26.34 102  eP     P      23 18 04.0 +1.2
      comp=Z,46nm,1.2s,mb4.9
ARU   Arti            26.34 102c iP     P      23 18 03.0 +0.2
ARU                              ePPP          23 18 48.9
ARU                              eS     S      23 22 35.9 +0.6
ARU                               pmax   pmax
      comp=Z,55nm,1.4s,mb4.9
ARU   Arti            26.34 102  eP     P      23 18 04.0 +1.2
      comp=Z,46nm,1.2s,mb4.9
BUD   Budapest        26.39 162  eP     P      23 18 06.9 +3.5
DAVOX Davos/Dischmat  26.58 176  LR     LR     23 28 20.0
      comp=Z,357nm,20.4s,MS3.9,baz=346,slow=36
AVF   Avril sur Loir  26.59 186  eP     P      23 18 05.5 +0.3
      comp=Z,98nm,1.7s,mb4.8
AVF   Avril sur Loir  26.59 186  eP     P      23 18 05.5 +0.3
AVF                               pmax   pmax
      comp=Z,49nm,1.7s,mb4.8
AVF   Avril sur Loir  26.59 186  eP     P      23 18 05.5 +0.3
      comp=Z,49nm,1.7s,mb4.8
VRHR  Novokhopersk    26.68 127  eP     P      23 18 05.4  -0.6
VRHR                              pmax   pmax
      comp=N,5.0nm,0.5s
VRHR                              pmax   pmax
      comp=Z,8.0nm,0.5s,mb4.5
VRHR                              pmax   pmax
      comp=E,6.0nm,1.2s
CABF  La Chapelle     26.72 182  eP     P      23 18 05.8  -0.6
      comp=E,96nm,1.5s,mb4.8
CABF  La Chapelle     26.72 182  eP     P      23 18 05.8  -0.6
CABF                              pmax   pmax
      comp=Z,48nm,1.5s,mb4.8
CABF  La Chapelle     26.72 182  eP     P      23 18 05.8  -0.6
      comp=Z,48nm,1.5s,mb4.8
SMF   Signal de Mont  26.73 185  eP     P      23 18 05.7  -0.7
      comp=Z,97nm,1.6s,mb4.8
SMF   Signal de Mont  26.73 185  eP     P      23 18 05.7  -0.7
SMF                               pmax   pmax
      comp=Z,48nm,1.6s,mb4.8
SMF   Signal de Mont  26.73 185  eP     P      23 18 05.7  -0.7
      comp=Z,48nm,1.6s,mb4.8
BGF   Bois d'Agland   26.84 187  eP     P      23 18 07.3  -0.1
MFF   Saint Martin d  26.93 191  eP     P      23 18 08.3 +0.1
      comp=Z,340nm,1.9s,mb5.2
MFF   Saint Martin d  26.93 191  eP     P      23 18 08.3 +0.1
MFF                               pmax   pmax
      comp=Z,170nm,1.9s,mb5.2
MFF   Saint Martin d  26.93 191  eP     P      23 18 08.3 +0.1
      comp=Z,170nm,1.9s,mb5.2
BURAR Bucovina Array  26.97 152 ⇓P      P      23 18 11.0 +2.4
BURAR Bucovina Array  26.97 152⇓iP     P      23 18 11.0 +2.4
TCF   Toulx Ste Croi  27.13 187  eP     P      23 18 10.5 +0.4
PKSM  Moragy          27.62 163 ⇑P      P      23 18 15.4 +1.0
PKSM  Moragy          27.62 163⇑iP     P      23 18 15.4 +0.9
PKSM  Moragy          27.62 163  eP     P      23 18 15.2 +0.7
LPL   La Plagne       27.81 181  eP     P      23 18 16.9 +0.7
LPG   La Plagne       27.83 181  eP     P      23 18 17.2 +0.9
      comp=Z,34nm,1.4s,mb4.5
LPG   La Plagne       27.83 181  eP     P      23 18 17.2 +0.9
LPG                               pmax   pmax
      comp=Z,17nm,1.4s,mb4.5
LPG   La Plagne       27.83 181  eP     P      23 18 17.2 +0.9
      comp=Z,17nm,1.4s,mb4.5
RJF   Les Rejaudoux   28.14 188  eP     P      23 18 19.6 +0.5
RJF                              eMLR   MLR
      comp=Z,361nm,22.8s,MS3.6
RJF   Les Rejaudoux   28.14 188  eP     P      23 18 19.6 +0.5
RJF                               MLR    MLR
      comp=Z,360nm,22.8s,MS3.9
ORIF  Oris-en-Rattie  28.42 182  eP     P      23 18 22.1 +0.6
      comp=Z,12nm,0.9s,mb4.2
ORIF                             eMLR   MLR
      comp=Z,516nm,20.2s,MS3.8
ORIF  Oris-en-Rattie  28.42 182  eP     P      23 18 22.1 +0.6
ORIF                              pmax   pmax
      comp=Z,6.0nm,0.9s,mb4.2
ORIF  Oris-en-Rattie  28.42 182  eP     P      23 18 22.1 +0.6
      comp=Z,5.9nm,0.9s,mb4.2
VIVF  Saint-Julien-l  28.50 184  eP     P      23 18 23.0 +0.8
      comp=Z,19nm,1.2s,mb4.3
VIVF  Saint-Julien-l  28.50 184  eP     P      23 18 23.0 +0.8
VIVF                              pmax   pmax
      comp=Z,9.0nm,1.2s,mb4.3
VIVF  Saint-Julien-l  28.50 184  eP     P      23 18 23.0 +0.8
      comp=Z,9.4nm,1.2s,mb4.3
CAF   Calviac         28.50 188  eP     P      23 18 23.0 +0.7
BZS   Buzias          28.50 158⇑iP     P      23 18 23.4 +1.1
LFF   La Frestale     28.54 190  eP     P      23 18 23.3 +0.6
MBDF  Montbardon      28.60 181  eP     P      23 18 23.9 +0.7
      comp=Z,34nm,1.3s,mb4.6
MBDF  Montbardon      28.60 181  eP     P      23 18 23.9 +0.7
MBDF                              pmax   pmax
      comp=Z,17nm,1.3s,mb4.6
MBDF  Montbardon      28.60 181  eP     P      23 18 23.9 +0.7
      comp=Z,17nm,1.3s,mb4.6
MLR   Muntele Rosu    29.15 152  LR     LR     23 30 18.4
      comp=Z,1µm,18.7s,MS4.6,baz=181,slow=37
LASF  Ste Croix       29.29 185  eP     P      23 18 29.9 +0.6
      comp=Z,51nm,1.4s,mb4.8
LASF  Ste Croix       29.29 185  eP     P      23 18 29.9 +0.6
      comp=Z,26nm,1.4s,mb4.8
SMRF  Simiane la Rot  29.36 182  eP     P      23 18 30.0 +0.1
SBF   Sospel          29.47 180  eP     P      23 18 31.6 +0.7
      comp=Z,96nm,1.0s,mb5.2
SBF   Sospel          29.47 180  eP     P      23 18 31.6 +0.7
SBF                               pmax   pmax
      comp=Z,48nm,1.0s,mb5.2
SBF   Sospel          29.47 180  eP     P      23 18 31.6 +0.7
      comp=Z,48nm,1.0s,mb5.2
ORR   Orenburg        29.53 111  eP     P      23 18 31.2  -0.2
FRF   La Foret Royal  29.77 181  eP     P      23 18 34.1 +0.6
LMR   La Mourre       30.00 181  eP     P      23 18 36.4 +0.8
MTLF  Montolieu       30.08 187  eP     P      23 18 36.7 +0.4
EPF   Esparros        30.47 190  eP     P      23 18 40.4 +0.7
      comp=Z,29nm,1.2s,mb4.6
EPF   Esparros        30.47 190  eP     P      23 18 40.4 +0.7
EPF                               pmax   pmax
      comp=Z,14nm,1.2s,mb4.6
EPF   Esparros        30.47 190  eP     P      23 18 40.4 +0.7
      comp=Z,14nm,1.2s,mb4.6
SJPF  Ste Jean        30.47 192  eP     P      23 18 40.3 +0.5
ETSF  Etsaut          30.64 191  eP     P      23 18 41.9 +0.6
TIXI  Tiksi           30.75  32  eP     P      23 18 37.6  -4.5
TIXI  Tiksi           30.75  32  eP     P      23 18 41.8  -0.2
TIXI                              pmax   pmax
      comp=Z,28nm,1.2s,mb5.0
TIXI                              MLR    MLR
      comp=Z,162nm,18.0s,MS3.7
PGF   Pioggiola       30.79 177  eP     P      23 18 43.4 +0.8
AKTK  Aktyubinsk      31.49 108  P      P      23 18 49.5 +0.8
AKTK                              LR     LR     23 32 23.9
AKTO  Aktyubinsk      31.49 108  P      P      23 18 49.5 +0.8
      comp=Z,8.2nm,1.1s,mb4.5,baz=338,slow=9.9,SNR=12
AKTO                              LR     LR     23 32 23.9
      comp=Z,735nm,18.9s,MS4.4,baz=343,slow=38
ANN   Anapa           31.75 137  eP     P      23 18 47.5  -3.5
ANN                               pmax   pmax
      comp=Z,72nm,1.2s,mb5.4
BRVK  Borovoye        32.64  93  eP     P      23 19 00.4 +1.6
      comp=Z,12nm,1.3s,mb4.7
BRVK                             ePP    PP     23 20 14.5 +2.3
BRVK  Borovoye        32.64  93  eP     P      23 19 00.4 +1.6
BRVK                             e             23 20 14.5
BRVK                              pmax   pmax
      comp=Z,12nm,1.3s,mb4.7
BRVK  Borovoye        32.64  93  eP     P      23 19 00.4 +1.6
      comp=Z,12nm,1.3s,mb4.7
BRVK  Borovoye        32.64  93  ePP    PP     23 20 14.5 +2.2
KIV   Kislovodsk      33.66 131  eP     P      23 19 07.2  -0.5
KIV                              ePcP   PcP    23 21 44.2  -3.0
KIV   Kislovodsk      33.66 131  eP     P      23 19 06.7  -1.0
KIV                               pmax   pmax
      comp=Z,9.0nm,1.2s,mb4.6
KIV                               MLR    MLR
      comp=Z,418nm,15.0s,MS4.3
KIV   Kislovodsk      33.66 131  eP     P      23 19 07.2  -0.5
KIV   Kislovodsk      33.66 131  ePcP   PcP    23 21 44.2  -3.1
SCHQ  Schefferville   34.21 279  LR     LR     23 31 28.5
      comp=Z,546nm,21.8s,MS4.2,baz=352,slow=34
NVS   Novosibirsk     34.83  80  eP     P      23 19 17.9 +0.2
NVS                              e             23 20 43.9
NVS                               pmax   pmax
      comp=Z,31nm,1.5s,mb5.0
NVS                               pmax   pmax
      comp=N,23nm,1.6s
BRTR  Keskin Array B  35.97 144  P      P      23 19 28.3 +0.6
      comp=N,1.3nm,0.8s,mb3.9,baz=350,slow=7.2,SNR=4.3
BRTR                              LR     LR     23 36 36.9
      comp=N,370nm,18.2s,MS4.2,baz=322,slow=40
ZAA0  Zalesovo Array  36.06  79  eP     P      23 19 29.1 +0.8
ZAA0                             ePP    PP     23 20 52.9 +2.9
ZAA0  Zalesovo Array  36.06  79  eP     P      23 19 29.1 +0.8
ZALV  Zalesovo Beam   36.06  79  P      P      23 19 28.9 +0.5
      comp=N,3.6nm,0.9s,mb4.3,baz=324,slow=9.1,SNR=17
ZALV                              PP     PP     23 20 53.0 +3.0
      comp=N,1.2nm,0.9s,baz=342,slow=14,SNR=4.1
ZALV                              LR     LR     23 37 08.7
      comp=N,234nm,20.9s,MS3.9,baz=87,slow=41
ZAL   Zalesovo        36.06  79  P      P      23 19 28.9 +0.6
ZAL                                            23 20 53.0
INK   Inuvik          36.39 337  P      P      23 19 29.5  -1.5
INK                                            23 21 54.3
INK   Inuvik          36.39 337  P      P      23 19 29.5  -1.5
      comp=N,8.6nm,1.2s,mb4.6,baz=13,slow=7.6
INK                               PcP    PcP    23 21 54.2  -0.6
      comp=N,0.9nm,0.5s,baz=7.3,slow=11,SNR=5.2
INK                               LR     LR     23 36 01.0
      comp=N,262nm,20.0s,MS4.0,baz=59,slow=39
INK   Inuvik          36.39 337  PcP    PcP    23 21 54.2  -0.7
KURK  Kurchatov       37.13  87  eP     P      23 19 38.8 +1.2
      comp=N,11nm,1.1s,mb4.6
KURK  Kurchatov       37.13  87⇑eP     P      23 19 37.1  -0.4
KURK  Kurchatov       37.13  87  eP     P      23 19 38.8 +1.3
      comp=N,11nm,1.1s,mb4.6
KEST  Kesra           37.60 177  LR     LR     23 35 46.5
      comp=N,79nm,19.1s,MS3.5,baz=163,slow=37
FCC   Fort Churchill  38.06 304  eP     P      23 19 43.2  -2.1
FCC                              ePP    PP     23 21 10.6  -1.3
FCC   Fort Churchill  38.06 304  eP     P      23 19 43.2  -2.0
FCC   Fort Churchill  38.06 304  ePP    PP     23 21 10.6  -1.3
MALT  Malatya         38.20 139  eP     P      23 19 48.6 +2.0
MALT  Malatya         38.20 139  eP     P      23 19 48.7 +2.0
BILL  Bilibino        38.30  12  eP     P      23 19 47.0  -0.2
      comp=N,23nm,1.4s,mb4.7
BILL  Bilibino        38.30  12  P      P      23 19 48.0 +0.8
BILL                             e             23 19 54.4
BILL                              pmax   pmax
      comp=Z,11nm,1.2s,mb4.5
BILL                              MLR    MLR
      comp=Z,200nm,17.0s,MS4.0
BILL  Bilibino        38.30  12  eP     P      23 19 47.0  -0.2
      comp=Z,23nm,1.4s,mb4.7
YKW3  Yellowknife Ar  38.98 321  eP     P      23 19 51.2  -1.7
YKW3  Yellowknife Ar  38.98 321  eP     P      23 19 51.2  -1.7
YKA   Yellowknife Ar  39.03 321  P      P      23 19 51.7  -1.7
YKA                               PP     PP     23 21 21.3  -1.2
YKA                               PcP    PcP    23 22 02.3  -0.8
YKA                               LR     LR     23 36 04.8
YKA   Yellowknife Ar  39.03 321  P      P      23 19 51.7  -1.7
YKA                                            23 21 21.3
YKA                                            23 22 02.3
YKA   Yellowknife Ar  39.03 321  P      P      23 19 51.7  -1.7
      comp=Z,3.3nm,1.0s,mb4.0,baz=16,slow=8.4,SNR=31
YKA                               PP     PP     23 21 21.3  -1.2
      comp=Z,0.7nm,1.0s,baz=22,slow=12,SNR=3.5
YKA                               PcP    PcP    23 22 02.3  -0.8
      comp=Z,0.8nm,0.6s,baz=15,slow=2.9,SNR=11
YKA                               LR     LR     23 36 04.8
      comp=Z,539nm,18.8s,MS4.4,baz=170,slow=36
YKA   Yellowknife Ar  39.03 321  PP     PP     23 21 21.3  -1.2
YAK   Yakutsk         39.62  39  eP     P      23 19 58.8 +0.5
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YAK	Yakutsk	39.62	39⇑	eP	P	23 19 56.8	-1.4
YAK				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.4						
YAK	Yakutsk	39.62	39	eP	P	23 19 58.8	+0.6
BOD	Bodaibo	40.24	52	eP	P	23 20 01.9	-1.6
BOD				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.4						
COLA	College	41.14	344	eP	P	23 20 11.5	+0.7
COLA	College	41.14	344	eP	P	23 20 10.2	-0.6
DAWY	Dawson	41.14	338	eP	P	23 20 09.7	-1.1
DAWY	Dawson	41.14	338	eP	P	23 20 09.7	-1.1
TNA	Tin City	41.41	357	eP	P	23 20 09.1	-4.0
MK31	Makanchi Array	41.73	86	eP	P	23 20 16.6	+0.8
MK31				ePP	PP	23 21 53.9	+1.9
MK31	Makanchi Array	41.73	86	eP	P	23 20 16.6	+0.8
MK31	Makanchi Array	41.73	86	ePP	PP	23 21 53.9	+1.9
MKAR	Makanchi Array	41.73	86	P	P	23 20 16.9	+1.1
MKAR				PP	PP	23 21 57.2	+5.2
MKAR				LR	LR	23 40 23.9	
MKAR	Makanchi Array	41.73	86	P	P	23 20 16.9	+1.1
MKAR						23 21 57.2	
MKAR				pmax	pmax		
	comp=Z,5.0nm,1.1s						
MKAR				pmax	pmax		
	comp=Z,8.0nm,1.3s						
MKAR				MLR	MLR		
	comp=Z,311nm,19.5s						
MKAR	Makanchi Array	41.73	86	P	P	23 20 16.9	+1.1
	comp=Z,5.0nm,1.1s,mb4.1,baz=340,slow=6.8,SNR=25						
MKAR				PP	PP	23 21 57.2	+5.2
	comp=Z,7.6nm,1.3s,baz=340,slow=9.1,SNR=6.2						
MKAR				LR	LR	23 40 23.9	
	comp=Z,311nm,19.5s,MS4.2,baz=357,slow=40						
MOY	Mondy	42.56	67	eP	P	23 20 25.4	+2.8
MOY				pmax	pmax		
	comp=Z,56nm,1.8s,mb5.0						
IRK	Irkutsk	42.91	64	eP	P	23 20 25.2	-0.2
IRK				e		23 22 09.5	
IRK				pmax	pmax		
	comp=Z,45nm,1.6s,mb5.0						
EKS2	Erkin-Say	43.03	97	eP	P	23 20 28.2	+1.7
	comp=Z,4.8nm,1.0s,mb4.2						
EKS2				ePP	PP	23 22 07.5	+1.4
EKS2	Erkin-Say	43.03	97	eP	P	23 20 28.2	+1.7
	comp=Z,4.8nm,1.0s,mb4.2						
EKS2	Erkin-Say	43.03	97	ePP	PP	23 22 07.5	+1.3
TLY	Talaya	43.25	65	eP	P	23 20 24.7	-3.5
TKM2	Tokmak 2	43.32	95	eP	P	23 20 29.7	+0.8
	comp=Z,6.7nm,1.1s,mb4.3						
TKM2	Tokmak 2	43.32	95	eP	P	23 20 29.7	+0.9
TKM2				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.3						
TKM2	Tokmak 2	43.32	95	eP	P	23 20 29.7	+0.9
	comp=Z,6.7nm,1.1s,mb4.3						
AML	Almayashu	43.50	97	eP	P	23 20 33.3	+3.0
	comp=Z,24nm,1.3s,mb4.8						
AML				ePP	PP	23 22 14.2	+3.1
AML	Almayashu	43.50	97	eP	P	23 20 33.3	+3.0
	comp=Z,24nm,1.3s,mb4.8						
ZAK	Zakamensk	44.34	66	eP	P	23 20 37.2	+0.3
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.6s,mb3.9						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.8s,mb3.5						
MA2	Magadan	45.18	25⇑	eP	P	23 20 42.3	-1.2
MA2				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.2						
WMQ	Urumqi	46.00	83	eP	P	23 20 52.0	+1.8
WMQ				LR	LR		
	comp=N,263nm,24.0s						
WMQ				LR	LR		
	comp=E,152nm,18.4s						
WMQ				LR	LR		
	comp=Z,247nm,17.0s						
ULM	Lac du Bonnet	46.22	300	P	P	23 20 49.4	-2.5
	comp=Z,2.5nm,0.9s,mb4.2,baz=31,slow=11,SNR=3.8						
ULM				LR	LR	23 39 22.0	
	comp=Z,439nm,20.1s,MS4.4,baz=188,slow=35						
EYMN	Ely	47.22	295	eP	P	23 21 01.6	+1.9
EDM	Edmonton	47.45	315	eP	P	23 21 00.4	-1.0
EDM	Edmonton	47.45	315	eP	P	23 21 00.4	-1.0
SONM	Songino Array	47.49	64	P	P	23 21 02.8	+1.0
SONM						23 22 32.1	
SONM				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SONM				MLR	MLR		
	comp=Z,186nm,19.3s						
SONM	Songino Array	47.49	64	P	P	23 21 02.8	+0.9
	comp=Z,3.6nm,1.0s,mb4.3,baz=326,slow=6.8,SNR=26						
SONM				PcP	PcP	23 22 32.1	+0.3
	comp=Z,0.9nm,0.8s,baz=318,slow=1.9,SNR=3.6						
SONM				LR	LR	23 45 58.8	
	comp=Z,186nm,19.2s,MS4.1,baz=0.7,slow=42						
ULN	Ulaanbaatar	47.64	64	eP	P	23 21 03.3	+0.4
	comp=Z,23nm,1.5s,mb5.0						
ULN	Ulaanbaatar	47.64	64	eP	P	23 21 03.3	+0.3
ULN				pmax	pmax		
	comp=Z,23nm,1.5s,mb5.0						
ULN	Ulaanbaatar	47.64	64	eP	P	23 21 03.3	+0.3
	comp=Z,23nm,1.5s,mb5.0						
KBL	Kabul	49.24	106	eP	P	23 21 15.8	+0.3
HIA	Hailar	49.46	53	eP	P	23 21 17.3	+0.3
	comp=Z,13nm,1.4s,mb4.8						
HIA	Hailar	49.46	53	eP	P	23 21 17.3	+0.3
HIA				pmax	pmax		
	comp=Z,13nm,1.4s						
HIA	Hailar	49.46	53	eP	P	23 21 17.3	+0.3
	comp=Z,13nm,1.4s,mb4.8						
WALA	Waterton Lakes	51.51	314	eP	P	23 21 31.2	-1.2
WALA	Waterton Lakes	51.51	314	eP	P	23 21 31.2	-1.2
ECSD	EROS,Sioux Fal	52.46	297	eP	P	23 21 38.0	-1.6
	comp=Z,20nm,1.3s,mb4.9						
ECSD	EROS,Sioux Fal	52.46	297	eP	P	23 21 38.0	-1.6
	comp=Z,20nm,1.3s,mb4.9						
NEW	Newport	52.92	316	eP	P	23 21 41.7	-1.2
	comp=Z,7.4nm,1.1s,mb4.5						
NEW	Newport	52.92	316	eP	P	23 21 41.7	-1.2
NEW				pmax	pmax		
	comp=Z,7.0nm,1.1s						
NEW	Newport	52.92	316	eP	P	23 21 41.7	-1.2
	comp=Z,7.4nm,1.1s,mb4.5						
CHMT	Chamberlain Mo	53.40	313	eP	P	23 21 44.5	-2.0
CHMT	Chamberlain Mo	53.40	313	eP	P	23 21 44.5	-2.0
GTA	Gaotai	53.52	74	P	P	23 21 48.5	+1.0
GTA				AP	pP	23 21 52.8	+2.2
GTA				XP	sP	23 21 55.3	+3.4
GTA				AMB	AMB		
	comp=Z,11nm,1.6s,mb4.5						
MSO	Missoula	53.63	313	eP	P	23 21 47.7	-0.5
	comp=Z,12nm,1.3s,mb4.7						
MSO	Missoula	53.63	313	eP	P	23 21 47.7	-0.5
	comp=Z,12nm,1.3s,mb4.7						
GCMT	Greycliff	53.68	309	eP	P	23 21 46.7	-1.8
GCMT	Greycliff	53.68	309	eP	P	23 21 46.7	-1.9
MCMT	McKenzie Canyo	55.30	311	eP	P	23 21 59.5	-0.9
MCMT	McKenzie Canyo	55.30	311	eP	P	23 21 59.5	-0.8
IMW	Indian Meadow	55.77	309	eP	P	23 22 04.1	+0.4
	comp=Z,14nm,1.1s,mb4.9						
IMW	Indian Meadow	55.77	309	eP	P	23 22 04.1	+0.4
	comp=Z,14nm,1.1s,mb4.9						
MOOW	Moose Ponds	55.86	309	eP	P	23 22 04.6	+0.2
	comp=Z,12nm,1.4s,mb4.7						
MOOW	Moose Ponds	55.86	309	eP	P	23 22 04.6	+0.2
	comp=Z,12nm,1.4s,mb4.7						
LOHW	Long Hollow	55.96	309	eP	P	23 22 05.4	+0.3
LOHW	Long Hollow	55.96	309	eP	P	23 22 05.4	+0.3
BMO	Blue Mountains	56.22	315	eP	P	23 22 08.3	+1.4
BMO	Blue Mountains	56.22	315	eP	P	23 22 08.3	+1.4
REDW	Red Top Meadow	56.26	309	eP	P	23 22 08.7	+1.5
	comp=Z,23nm,1.6s,mb5.0						
REDW	Red Top Meadow	56.26	309	eP	P	23 22 08.7	+1.5
	comp=Z,23nm,1.6s,mb5.0						
YSS	Yuzh-Sakhalins	56.28	35⇑	eP	P	23 22 06.7	-0.6
YSS				pmax	pmax		
	comp=Z,12nm,1.5s,mb4.7						
PDAR	Pinedale Array	56.53	308	P	P	23 22 08.0	-1.1
	comp=Z,2.9nm,1.1s,mb4.2,baz=35,slow=5.4,SNR=12						
PDAR				LR	LR	23 46 35.3	
	comp=Z,255nm,19.1s,MS4.3,baz=58,slow=36						
BW06	Boulder Array	56.53	308	eP	P	23 22 08.8	-0.3
BW06	Boulder Array	56.53	308	eP	P	23 22 08.9	-0.2
HLID	Hailey	56.85	312	eP	P	23 22 12.2	+0.8
HLID	Hailey	56.85	312	eP	P	23 22 12.2	+0.8
LZH	Lanzhou	57.75	72	eP	P	23 22 19.5	+1.6
LZH				AP	pP	23 22 27.0	+5.9
LZH				XP	sP	23 22 30.5	+8.2
LZH				AMB	AMB		
	comp=Z,31nm,1.5s,mb5.1						
LZH				AMB	AMB		
	comp=Z,120nm,4.3s						
LZH	Lanzhou	57.75	72	eP	P	23 22 19.5	+1.6
	comp=Z,31nm,1.5s,mb5.1						
LZH				pP	pP	23 22 27.0	+5.9
LZH				sP	sP	23 22 30.5	+8.2
LZH	Lanzhou	57.75	72	eP	P	23 22 19.5	+1.6
	comp=Z,31nm,1.5s,mb5.1						
LZH				pP	pP	23 22 27.0	+5.9
CBKS	Cedar Bluff	57.88	298	eP	P	23 22 20.0	+1.3
CBKS	Cedar Bluff	57.88	298	eP	P	23 22 20.0	+1.2
HWUT	Hardware Ranch	58.09	309	eP	P	23 22 22.2	+2.1
HWUT	Hardware Ranch	58.09	309	eP	P	23 22 22.2	+2.0
ISCO	Idaho Springs	58.41	303	eP	P	23 22 23.2	+0.7
ISCO	Idaho Springs	58.41	303	eP	P	23 22 23.2	+0.7
ASAJ	Asahikawa	59.01	36	LR	LR	23 48 33.2	
	comp=Z,155nm,21.0s,MS4.1,baz=3.0,slow=37						
SMCO	Snowmass	59.33	304	eP	P	23 22 28.9	+0.1
SMCO	Snowmass	59.33	304	eP	P	23 22 28.9	0.0
GKN	Gorkha	59.84	93	eP	P	23 22 32.6	+0.1
	comp=Z,49nm,1.5s,mb5.3						
LSA	Lhasa	60.13	86	eP	P	23 22 36.6	+2.1
	comp=Z,20nm,1.5s,mb4.9						
LSA				ePP	PP	23 24 47.1	+0.3
LSA	Lhasa	60.13	86	eP	P	23 22 36.6	+2.1
LSA				e		23 24 47.1	
LSA				pmax	pmax		
	comp=Z,20nm,1.5s,mb4.9						
LSA	Lhasa	60.13	86	eP	P	23 22 36.6	+2.1
	comp=Z,20nm,1.5s,mb4.9						
LSA	Lhasa	60.13	86	ePP	PP	23 24 47.1	+0.4
TOA0	Torodi Ar. Sit	60.16	186	eP	P	23 22 34.2	-0.6
TOA0	Torodi Ar. Sit	60.16	186	eP	P	23 22 34.2	-0.6
TORD	Torodi Ar. Bea	60.16	186	P	P	23 22 33.7	-1.0
TORD				LR	LR	23 47 18.3	
TORD	Torodi Ar. Bea	60.16	186	P	P	23 22 33.7	-1.0
	comp=Z,3.5nm,0.7s,mb4.5,baz=1.0,slow=7.5,SNR=56						
TORD				LR	LR	23 47 18.3	
	comp=Z,124nm,20.2s,MS4.0,baz=340,slow=35						
KKN	Kakani	60.23	93	eP	P	23 22 35.6	+0.4
	comp=Z,45nm,1.4s,mb5.3						
JIRN	Jiri	60.61	92	eP	P	23 22 38.2	+0.4
	comp=Z,61nm,1.5s,mb5.5						
PV01	Paradox Valley	60.70	305	eP	P	23 22 38.0	-0.3
PV01	Paradox Valley	60.70	305	eP	P	23 22 38.0	-0.3
XAN	Xi'an	61.06	68	P	P	23 22 40.5	-0.3
XAN				AP	pP	23 22 49.0	+5.0
XAN				AMB	AMB		
	comp=Z,8.0nm,1.5s,mb4.6						
MSU	Marysvale	61.18	309	eP	P	23 22 40.5	-1.0
MSU	Marysvale	61.18	309	eP	P	23 22 40.5	-1.0
TAPN	Taplejung	61.35	90	eP	P	23 22 42.2	-0.6
	comp=Z,45nm,1.4s,mb5.4						
WMOK	Wichita Mounta	61.48	296	eP	P	23 22 45.5	+1.8
WMOK	Wichita Mounta	61.48	296	eP	P	23 22 45.5	+1.9
ODAN	Odare	61.72	91	eP	P	23 22 45.6	+0.3
	comp=Z,77nm,1.5s,mb5.6						
NVAR	Mina Array Bea	62.59	314	P	P	23 22 51.5	+0.5
	comp=Z,0.5nm,0.4s,mb4.0,baz=15,slow=8.1,SNR=3.7						
ANMO	Albuquerque	63.23	303⇑	eP	P	23 22 55.0	-0.3
NJ2	Nanjing	65.53	60	eP	P	23 23 12.3	+1.9
NJ2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.2						
MJAR	Matsushiro Arr	65.56	42	P	P	23 23 10.2	-0.3
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	65.56	42	P	P	23 23 10.2	-0.3
	comp=Z,0.6nm,0.3s,mb4.1,baz=357,slow=6.6,SNR=4.3						
LTX	Lajitas	67.88	298	eP	P	23 23 24.6	-0.8
LTX				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
LTX	Lajitas	67.88	298	eP	P	23 23 24.6	-0.8
	comp=Z,2.5nm,0.8s,mb4.3						
TXAR	Lajitas Array	67.88	298	P	P	23 23 24.1	-1.3
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR				MLR	MLR		
	comp=Z,394nm,19.0s						
TXAR	Lajitas Array	67.88	298	P	P	23 23 24.1	-1.4
	comp=Z,0.8nm,0.7s,mb3.8,baz=46,slow=5.4,SNR=7.1						
TXAR				LR	LR	23 53 10.1	
	comp=Z,394nm,19.0s,MS4.7,baz=175,slow=36						
CHTO	Chiang Mai	72.66	83	eP	P	23 23 54.5	-0.3
	comp=Z,14nm,1.5s,mb4.7						
CHTO	Chiang Mai	72.66	83	eP	P	23 23 54.5	-0.3
CHTO				pmax	pmax		
	comp=Z,14nm,1.5s,mb4.7						
CHTO	Chiang Mai	72.66	83	eP	P	23 23 54.5	-0.3
	comp=Z,14nm,1.5s,mb4.7						
SDV	Santo Domingo	78.01	261	eP	P	23 24 24.9	-0.7
	comp=Z,4.1nm,0.8s,mb4.4						
SDV	Santo Domingo	78.01	261	eP	P	23 24 24.9	-0.7
	comp=Z,4.1nm,0.8s,mb4.4						
PSI	Prapat	87.86	87	LR	LR	00 12 02.7	
	comp=Z,152nm,18.7s,MS4.4,baz=121,slow=41						
OTAV	Otavalo	88.49	266	eP	P	23 25 19.8	+0.2
	comp=Z,14nm,1.4s,mb5.0						
OTAV	Otavalo	88.49	266	eP	P	23 25 19.8	+0.2
	comp=Z,14nm,1.4s,mb5.0						
ASAR	Alice Springs	122.77	61	PKP	PKPdf	23 31 20.5	-2.1
ASAR	Alice Springs	122.77	61	PKIKP	PKPdf	23 31 20.5	-2.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	122.77	61	PKP	PKPdf	23 31 20.5	-2.1
	comp=Z,0.9nm,0.6s,baz=357,slow=1.7,SNR=14						
ASAR	Alice Springs	122.77	61	PKIKP	PKPdf	23 31 20.5	-2.1
NWAO	Narrogin (SRO)	126.99	81	PKP	PKPdf	23 31 28.9	-1.5
NWAO	Narrogin (SRO)	126.99	81	PKIKP	PKPdf	23 31 29.0	-1.4
NWAO				pmax	pmax		
	comp=Z,8.0nm,0.9s						
NWAO	Narrogin (SRO)	126.99	81	PKP	PKPdf	23 31 28.9	-1.5
	comp=Z,7.7nm,0.9s,baz=241,slow=22,SNR=3.1						
NWAO	Narrogin (SRO)	126.99	81	PKIKP	PKPdf	23 31 29.0	-1.4
VNA2	Neumayer--Watz	144.24	188	ePKPdf	PKPdf	23 31 57.5	-3.6
	baz=338,slow=5.6						
VNA2				e		23 32 02.7	
VNA2				e		23 32 07.0	
VNA2				e		23 32 10.6	
VNA3	Neumayer Olymp	144.65	189	ePKPdf	PKPdf	23 31 59.8	-2.1
VNA3				e		23 32 05.1	
VNA3				e		23 32 09.3	
VNA3				e		23 32 13.8	
SNAA	Sanae	144.83	185	PKP	PKPdf	23 32 01.0	-1.2
SNAA	Sanae	144.83	185	PKIKP	PKPdf	23 32 01.0	-1.1
SNAA				pmax	pmax		
	comp=Z,1.0nm,1.1s						
SNAA	Sanae	144.83	185	PKP	PKPdf	23 32 01.0	-1.2
	comp=Z,1.4nm,1.1s,baz=16,slow=12,SNR=3.3						
SNAA	Sanae	144.83	185	PKIKP	PKPdf	23 32 01.0	-1.1

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*IDC **25** 23:16:15.3±1.2, 051S×12775E, h0^{km}, mb3.8/6, mb1 3.9/6, mb1mx3.8/17, mbtmp3.8/6, MS3.3/1, Ms1 3.3/1, ms1mx2.8/32, Error ellipse: s-maj=119.4km s-min=18.3km az=68.0*

*NEIC **25** 23:16:16.9±0.3, 050S×12774E, h10^{km}, mb4.4/3, Error ellipse: s-maj=12.4km s-min=6.4km az=64.0*

*ISCJB **25** 23:16:18.4±0.4, 054S±007×1277E±01, h33^{km}, mb4.2/10, Error ellipse: s-maj=16.1km s-min=8.1km az=155.3*

ISC 25 23:16:20.6±0.4**, 053S**±007×**1277E**±01**, h35^{km}, n25, σ0^{s}97**/25**, mb4.2**/10**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KKM	Kota Kinabalu	13.21	300	ePn	Pn	23 19 24.2	-1.6
WRA	Warramunga Arr	20.35	162	P	P	23 20 54.1	-0.1
	1.2nm,0.5s,baz=340,slow=12,SNR=20						
WB2	Warramunga Arr	20.36	162	eP	P	23 20 54.2	0.0
PMG	Port Moresby	21.26	115	P	P	23 21 02.8	-1.3
MBWA	Marble Bar	21.94	200	eP	P	23 21 11.3	+0.1
ASAR	Alice Springs	23.77	166	P	P	23 21 30.0	-0.1
	2.2nm,0.5s,mb3.8,baz=346,slow=12,SNR=26						
NACB	Ninganchiao	25.27	347	eP	P	23 21 43.3	-0.4
KULM	Kulim	27.65	282	eP	P	23 22 05.2	-0.2
COCO	West Island	32.76	248	eP	P	23 22 49.8	-0.8
	61nm,1.0s,mb5.5						
NWAO	Narrogin (SRO)	33.70	196	eP	P	23 22 59.7	+1.2
	8.4nm,0.9s,mb4.7						
STKA	Stephens Creek	33.83	158	P	P	23 22 58.6	-1.0
	2.9nm,0.9s,mb4.2,baz=333,slow=18,SNR=3.2						
ENH	Enshi	35.21	332	eP	P	23 23 12.2	+0.6
	0.5nm,0.5s,mb3.7						
SONM	Songino Array	51.62	342	P	P	23 25 23.6	0.0
	0.3nm,0.7s,mb3.4,baz=158,slow=8.0,SNR=3.7						
MCQ	Macquarie Isla	59.59	159	P	P	23 26 20.2	-0.5
MK31	Makanchi Array	61.61	326	eP	P	23 26 33.5	-1.2
MKAR	Makanchi Array	61.61	326	P	P	23 26 34.3	-0.4
	1.3nm,0.7s,mb4.2,baz=116,slow=8.5,SNR=13						
KURK	Kurchatov	65.85	328	eP	P	23 27 00.9	-1.6
	2.0nm,0.6s,mb4.3						
CHKZ	Chkalovo	71.60	328	P	P	23 27 37.8	-0.5
AKTK	Aktyubinsk	77.60	322	P	P	23 28 14.4	+1.2
AKTO	Aktyubinsk	77.60	322	P	P	23 28 14.4	+1.2
	0.5nm,0.4s,mb3.8,baz=131,slow=7.3,SNR=3.8						
SLKM	Skilak Lake	86.54	29	P	P	23 29 01.1	+1.3
KIV	Kislovodsk	86.78	314	eP	P	23 29 02.8	+1.4
COLA	College	88.10	25	eP	P	23 29 07.0	-0.3
	13nm,1.8s,mb4.8						
QSPA	South Pole Qui	89.41	180	P	P	23 29 14.5	+1.3
MALT	Malatya	89.77	308	P	P	23 29 17.5	+1.7

CASC 25 23:24:48.1±1.9**, 900N**×**8373W, h8^{km}**±11^{km}**, MD3.6, 4C-2D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BAR1		0.48	60⇑	eP	Pg	23 24 58.5	+1.1
BAR1				eS	Sg	23 25 05.1	+1.4
BUS	Buena Vista	0.55	357⇓	eP	Pg	23 25 00.2	+1.4
BUS				eS	Sg	23 25 10.5	+4.5
QCR	Quepos	0.60	314⇑	iP	Pg	23 25 00.5	+0.8
QCR				eS	Sg	23 25 09.1	+1.5
LCR2	La Lucha 2	0.79	340⇑	eP	Pg	23 25 03.5	+0.3
LCR2				eS	Sg	23 25 14.6	+1.1
URSC	Urasca	0.83	357⇓	eP	Pg	23 25 04.1	0.0
URSC				eS	Sg	23 25 16.2	+1.3
ICR	Volcan Irazu	0.98	354	eP	Pg	23 25 07.0	+0.1
ICR				eS	Sg	23 25 20.8	+1.1
BRU2	Volcan	1.05	101	eP	Pg	23 25 06.5	-1.7
BRU2				eS	Sg	23 25 17.7	-4.1
PRS1	Puriscal	1.13	330⇑	eP	Pg	23 25 07.8	-2.1
PRS1				eS	Sg	23 25 22.7	-1.9
BRU	Baru	1.17	99	eP	Pb	23 25 08.5	-2.1
CGA2	Cerro Gallo 2	1.24	324	eP	Pn	23 25 10.3	-1.5
CGA2				eS	Sb	23 25 27.5	-0.5
CNI	Changuinola	1.27	71	eP	Pn	23 25 10.9	-1.2
AZU	Azuero	3.62	109	eP	Pn	23 25 45.8	+1.3
PTP	Ponta Puerca	19.84	61	eP		23 25 08.8	
PTP				eS		23 25 25.4	

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*IDC **25** 23:27:12.8±1.2, 055S×12746E, h0^{km}, mb4.0/4, mb1 4.1/5, mb1mx3.9/17, mbtmp4.0/5, ML3.2/1, Error ellipse: s-maj=99.2km s-min=20.3km az=70.0*

*ISCJB **25** 23:27:13.0±7.6, 052S±009×1277E±01, h18^{km}±56^{km}, mb4.5/12, Error ellipse: s-maj=22.1km s-min=12.0km az=149.4*

*NEIC **25** 23:27:13.6±0.4, 053S×12761E, h10^{km}, mb4.4/5, Error ellipse: s-maj=15.7km s-min=7.4km az=67.0*

ISC 25 23:27:15.9±7.7**, 055S**±009×**1276E**±01**, h23^{km}**±57^{km}**, n28, σ0^{s}98**/26**, mb4.5**/12**, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	17.56	186	P	Pn	23 31 20.2	+1.0
	0.1nm,0.3s,baz=15,slow=14,SNR=3.1						
WRA	Warramunga Arr	20.36	162	P	P	23 31 51.3	+0.3
	4.8nm,0.8s,baz=342,slow=13,SNR=20						
WB2	Warramunga Arr	20.37	162	eP	P	23 31 51.3	+0.2
MBWA	Marble Bar	21.89	200	eP	P	23 32 06.4	-1.1
	8.5nm,1.0s,mb4.1						
NACB	Ninganchiao	25.26	347	P	P	23 32 39.2	-1.3
CTAO	Charters Tower	26.63	138	eP	P	23 32 53.5	+0.4
	17nm,1.3s,mb4.4						
KULM	Kulim	27.56	282	P	P	23 33 00.6	-1.0
COCO	West Island	32.67	248	P	P	23 33 44.2	-2.4
HNR	Honiara	33.35	106	P	P	23 33 50.7	-2.0
STKA	Stephens Creek	33.84	158	P	P	23 33 57.7	+1.0
STKA	Stephens Creek	33.84	158	P	P	23 33 57.7	+1.0
	3.3nm,0.8s,mb4.3,baz=338,slow=12,SNR=5.1						
ENH	Enshi	35.18	332	eP	P	23 34 08.0	-0.3
LZH	Lanzhou	42.64	331	eP	P	23 35 15.5	+4.8
	23nm,1.0s,mb4.9						
LZH				pP	pP	23 35 20.5	+2.8
LZH				sP	sP	23 35 23.4	+2.9
LSA	Lhasa	45.98	314	P	P	23 35 38.9	+1.3
	2.1nm,0.8s,mb4.1						
TAPN	Taplejung	47.33	309	eP	P	23 35 49.0	+0.8
	9.1nm,0.8s,mb4.8						
ODAN	Odare	47.34	308	eP	P	23 35 50.5	+2.2
	22nm,1.2s,mb4.9						
KKN	Kakani	49.44	308	eP	P	23 36 05.0	+0.6
	22nm,1.2s,mb5.1						
GKN	Gorkha	50.04	308	eP	P	23 36 08.7	-0.3
	6.8nm,0.7s,mb4.8						
SONM	Songino Array	51.61	342	P	P	23 36 21.0	+0.5
	0.7nm,0.8s,mb3.7,baz=154,slow=7.1,SNR=6.7						
MK31	Makanchi Array	61.57	326	eP	P	23 37 30.9	-0.6
MKAR	Makanchi Array	61.57	326	P	P	23 37 31.5	0.0
	1.2nm,0.5s,mb4.3,baz=117,slow=8.0,SNR=19						
EKS2	Erkin-Say	64.62	319	eP	P	23 37 52.4	+0.6
KURK	Kurchatov	65.82	328	eP	P	23 37 59.7	+0.4
	2.6nm,0.7s,mb4.4						
CHKZ	Chkalovo	71.56	328	P	P	23 38 34.6	-0.5
MAW	Mawson	80.09	201	P	P	23 39 23.9	+0.4
KMBO	Kilima Mbogo	90.37	269	eP	P	23 40 15.5	-0.7
TORD	Torodi Ar. Bea	125.02	286	PKP	PKPdf	23 46 14.6	-0.8
TORD	Torodi Ar. Bea	125.02	286	PKP	PKPdf	23 46 14.6	-0.8
	0.4nm,0.7s,baz=79,slow=3.1,SNR=3.7						

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*ISCJB **25** 23:27:52.7±1.1, 467S±009×1496E±02, h592^{km}±12^{km}, mb3.9/12, Error ellipse: s-maj=28.4km s-min=12.9km az=13.8*

*NEIC **25** 23:27:53.2±1.0, 465S×14961E, h584^{km}±12^{km}, mb4.2/6, Error ellipse: s-maj=18.9km s-min=10.0km az=92.0*

*IDC **25** 23:27:53.4±1.5, 465S×14946E, h577^{km}±14^{km}, mb3.2/9, mb1 3.3/11, mb1mx3.3/16, mbtmp3.3/11, Error ellipse: s-maj=41.0km s-min=11.6km az=104.0*

ISC 25 23:27:53.0±1.1**, 468S**±009×**1496E**±02**, h581^{km}**±11^{km}**, n28, σ0^{s}67**/30**, mb3.9**/12**, Bismarck Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	5.29	207	eP	P	23 29 27.8	+0.7
PMG				eS	S	23 30 43.8	-0.2
PMG	Port Moresby	5.29	207	P	P	23 29 27.8	+0.7
	14nm,0.3s,baz=46,slow=5.7,SNR=32						
PMG				S	S	23 30 42.9	-1.1
	2.6nm,0.3s,baz=146,slow=18,SNR=9.5						
CTA	Charters Tower	15.66	192	eP	P	23 31 09.2	+1.1
	6.3nm,0.5s						
CTA	Charters Tower	15.66	192	P	P	23 31 09.3	+1.2
	1.7nm,0.3s,baz=4.3,slow=11,SNR=18						
CTAO	Charters Tower	15.66	192	eP	P	23 31 09.2	+1.1
	6.8nm,0.5s						
KAKA	Kakadu	18.75	244	eP	P	23 31 36.0	-0.4
	13nm,0.6s						
WB2	Warramunga Arr	21.24	223	P	P	23 31 58.2	-0.7
WRA	Warramunga Arr	21.25	223	P	P	23 31 59.5	+0.6
	4.9nm,0.9s,mb4.1,baz=46,slow=9.6,SNR=30						
WRA				S	S	23 35 16.4	-0.9
	2.1nm,0.8s,baz=44,slow=16,SNR=5.1						
WRA				ScP	ScP	23 38 22.4	+0.7
	1.1nm,0.8s,baz=45,slow=3.0,SNR=5.3						
ASAR	Alice Springs	24.21	217	P	P	23 32 25.5	+0.3
	2.7nm,0.4s,mb4.2,baz=50,slow=7.9,SNR=28						
FITZ	Fitzroy Crossi	26.98	238	eP	P	23 32 49.1	-0.6
	7.3nm,1.5s,mb4.1						
FITZ	Fitzroy Crossi	26.98	238	P	P	23 32 49.3	-0.4
	1.4nm,0.3s,mb4.0,baz=49,slow=12,SNR=17						
STKA	Stephens Creek	28.09	195	P	P	23 32 58.5	-0.7
	1.4nm,0.5s,mb3.9,baz=351,slow=10,SNR=3.7						
MBWA	Marble Bar	33.31	238	eP	P	23 33 45.0	+0.9
	1.8nm,0.4s,mb4.0						
NACB	Ninganchiao	39.59	318	eP	P	23 34 35.4	-0.1
YHNB	Yeheng	40.07	318	eP	P	23 34 39.6	+0.2
MJAR	Matsushiro Arr	42.37	346	P	P	23 34 56.2	-1.0
	2.0nm,0.5s,mb3.9,baz=177,slow=6.3,SNR=4.9						
KSRS	Korea Array	46.53	336	P	P	23 35 29.2	+0.1
	2.2nm,0.5s,mb3.9,baz=154,slow=8.2,SNR=7.3						

KULM	Kulim	49.90	281	eP	P	23 35 54.3	-0.3
ENH	Enshi	51.78	315	P	P	23 36 08.1	+0.1
SONM	Songino Array	64.56	329	P	P	23 37 34.3	+0.5
	2.7nm,0.7s,mb3.8,baz=149,slow=4.8,SNR=23						
LSA	Lhasa	65.57	305	eP	P	23 37 42.0	+1.5
	3.7nm,0.6s,mb4.0						
MKAR	Makanchi Array	78.16	320	P	P	23 38 53.4	+0.3
	0.8nm,0.6s,mb3.3,baz=99,slow=8.2,SNR=4.2						
ZALV	Zalesovo Beam	79.31	327	P	P	23 38 58.1	-0.9
	0.5nm,0.4s,mb3.2,baz=125,slow=6.2,SNR=4.1						
EKS2	Erkin-Say	82.81	314	eP	P	23 39 17.8	+0.6
	1.9nm,0.7s,mb3.7						
COLA	College	82.93	22	P	P	23 39 16.9	-0.5
CHKZ	Chkalovo	87.25	324	eP	P	23 39 38.5	+0.1
BRVK	Borovoye	87.32	324	P	P	23 39 37.9	-0.8
TORD	Torodi Ar. Bea	147.25	287	PKPbc	PKPbc	23 46 32.7	-0.2
	0.8nm,0.4s,baz=66,slow=2.0,SNR=20						

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*IDC **25** 23:30:11.9±0.5, 73.15N×661E, h0^{km}, mb4.2/16,*
mb1 4.3/21, mb1mx4.2/27, mbtmp4.1/21, ML3.6/5, MS3.9/18,
Ms1 3.9/18, ms1mx3.7/32, Error ellipse: s-maj=15.9km
s-min=10.6km az=45.0
*CSEM **25** 23:30:11.1±0.0, 7308N×634E, h10^{km}, mb4.7/46, Ms3.5,*
Error ellipse: s-maj=2.0km s-min=1.5km az=80.0
*ISCJB **25** 23:30:12.0±0.2, 73.14N±002×687E±0.10, h10^{km}, mb4.5/89,*
MS3.9/23, Error ellipse: s-maj=4.1km s-min=3.2km
az=160.7
*NAO **25** 23:30:12.1±2.1, 73.13N×7.19E, ML3.1*
*MOS **25** 23:30:12.0±1.4, 73.18N×669E, h10^{km}, mb4.7/50, Error*
ellipse: s-maj=19.3km s-min=3.3km az=92.9
*BJI **25** 23:30:12.6, 7357N×695E, h10^{km}, mB5.0, mb4.7, Ms4.9,*
Msz4.4
*NEIC **25** 23:30:13.9±0.2, 73.13N×664E, h10^{km}, mb4.7/56, Error*
ellipse: s-maj=5.3km s-min=3.7km az=73.0
*BER **25** 23:30:15.8±5.0, 7325N×781E, h0^{km}±41^{km}, ML3.2,*
ML3.1(NAO)
*HEL **25** 23:30:15.7±0.7, 73.17N×750E, h10^{km}, ML4.3,*
mb4.7(NEIC), ML3.2(BER)
*SZGRF **25** 23:30:18.5, 73.19N×723E, h33^{km}, mb4.8, Greenland Sea*
ISC 25 23:30:14.0±0.2, **7314N**±002×**679E**±009, **h10^{km}, n393,**
σ**1^{s}15**/405, **mb4.5**/89, **MS3.9**/23, **21C-8D, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRO	Tromso	5.24	126	eP	Pn	23 31 30.3	-1.9
TRO				AML	AML	23 32 29.3	
	comp=Z,22nm,0.6s						
TRO				e		23 36 04.0	
TRO	Tromso	5.24	126	eP	Pn	23 31 29.8	-2.3
TRO				eS	Sn	23 32 11.1	-21
TRO				e		23 36 04.0	
LOF	Lofoten	5.51	153	eP	Pn	23 31 36.7	+0.8
LOF				eS	Sn	23 32 33.8	-5.3
LOF				AML	AML	23 32 40.5	
	comp=Z,77nm,0.6s						
LOF	Lofoten	5.51	153	P	Pn	23 31 36.6	+0.8
SPB4	Spitsbergen Ar	5.59	21	ePn	Pn	23 31 35.0	-1.9
SPB4	Spitsbergen Ar	5.59	21	ePn	Pn	23 31 35.0	-1.9
SPA0	Spitsbergen Ar	5.59	21	Pn	Pn	23 31 34.8	-2.2
	baz=184,slow=14						
SPA0	Spitsbergen Ar	5.59	21	eP	Pn	23 31 34.8	-2.2
SPA0	Spitsbergen Ar	5.59	21	Pn	Pn	23 31 34.8	-2.2
	baz=184,slow=14						
SPA0	Spitsbergen Ar	5.59	21	Pn	Pn	23 31 34.8	-2.1
	SNR=50						
KBS	Kingsbay	5.95	10	Pn	Pn	23 31 39.6	-2.3
KBS	Kingsbay	5.95	10	eP	Pn	23 31 40.9	-1.0
KBS	Kingsbay	5.95	10	ePn	Pn	23 31 40.5	-1.4
KBS	Kingsbay	5.95	10	⇑eP	Pn	23 31 40.7	-1.2
KBS	Kingsbay	5.95	10	Pn	Pn	23 31 39.6	-2.3
KBS	Kingsbay	5.95	10	eP	Pn	23 31 40.9	-1.0
	SNR=49						
KIF	Kilpisjarvi	6.15	125	eP	Pn	23 31 44.1	-0.6
KIF				MPN		23 31 46.0	
	comp=Z,35nm,0.2s						
KIF				eS	Sn	23 32 48.6	-6.4
KIF	Kilpisjarvi	6.15	125	P	Pn	23 31 44.1	-0.6
	comp=Z,35nm,0.2s						
KTK1	Kautokeino	6.75	120	eP	Pn	23 31 53.1	+0.3
KTK1				eSg	Sn	23 33 04.9	-4.7
KTK1				e		23 36 43.0	
KTK1	Kautokeino	6.75	120	eP	Pn	23 31 53.1	+0.3
	SNR=47						
ARA0	ARCESS Array S	6.99	112	Pn	Pn	23 31 55.1	-1.0
	baz=324,slow=12						
ARA0				Sn	Sn	23 33 08.6	-6.9
	baz=317,slow=22						
ARA0	ARCESS Array S	6.99	112	eP	Pn	23 31 55.1	-1.0
ARA0				eS	Sn	23 33 08.6	-6.9
ARA0	ARCESS Array S	6.99	112	Pn	Pn	23 31 55.1	-1.0
	baz=324,slow=12						
ARA0				Sn	Sn	23 33 08.6	-6.9
	baz=317,slow=22						
ARA0	ARCESS Array S	6.99	112	Pn	Pn	23 31 55.2	-0.9
	SNR=50						
ARA0				Sn	Sn	23 33 08.6	-6.9
	SNR=50						
ARCES	ARCESS Array B	6.99	112	P	Pn	23 31 55.2	-0.9
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ARCES				MLR	MLR		
	comp=Z,446nm,20.0s						
ARCES	ARCESS Array B	6.99	112	Pn	Pn	23 31 55.2	-0.9
	comp=Z,3.0nm,0.3s,baz=324,slow=12,SNR=74						
ARCES				Sn	Sn	23 33 04.5	-11
	comp=Z,2.5nm,0.3s,baz=316,slow=21,SNR=8.9						
ARCES				LR	LR	23 35 26.1	
	comp=Z,446nm,20.0s,baz=331,slow=45						
ARE0	ARCESS Array S	6.99	112	ePn	Pn	23 31 57.0	+0.9
STOK	Stokkvaagen	7.17	159	eP	Pn	23 31 58.9	+0.3
STOK				eS	Sn	23 33 11.2	-8.7
STOK				AML	AML	23 33 17.3	
	comp=Z,55nm,0.7s						
STOK	Stokkvaagen	7.17	159	eP	Pn	23 31 58.9	+0.3
STOK				eSg	Sn	23 33 11.2	-8.7
STOK	Stokkvaagen	7.17	159	P	Pn	23 31 58.8	+0.2
KEV	Kevo	7.26	108	eP	Pn	23 31 59.3	-0.6
KEV				MPN		23 32 04.0	
	comp=Z,15nm,0.3s						
KEV				eS	Sn	23 33 13.0	-9.2
KEV	Kevo	7.26	108	ePn	Pn	23 31 59.1	-0.8
	comp=Z,18nm,0.3s						
KEV	Kevo	7.26	108	eP	Pn	23 31 59.1	-0.8
KEV				pmax	pmax		
	comp=Z,18nm,0.3s						
KEV	Kevo	7.26	108	ePn	Pn	23 31 59.1	-0.8
	comp=Z,18nm,0.3s						
HEF	Hetta	7.29	122	eP	Pn	23 32 00.1	-0.2
HEF				eS	Sn	23 33 16.0	-7.0
HEF	Hetta	7.29	122	P	Pn	23 32 00.1	-0.2
MOR8	Moi Rana	7.48	155	eP	Pn	23 32 02.2	-0.8
MOR8				eS	Sn	23 33 19.6	-8.1
MOR8				AML	AML	23 33 25.7	
	comp=Z,41nm,0.6s						
MOR8				e		23 37 05.7	
MOR8	Moi Rana	7.48	155	eP	Pn	23 32 02.2	-0.8
MOR8				eSg	Sn	23 33 19.6	-8.1
MOR8				e		23 37 05.7	
DAG	Danmarks Havn	7.50	311	eP	Pn	23 31 57.2	-5.9
DAG	Danmarks Havn	7.50	311	⇑iP	Pn	23 31 57.2	-5.9
DAG				pmax	pmax		
	comp=Z,16nm,0.8s						
DAG	Danmarks Havn	7.50	311	⇑iP	Pn	23 31 57.2	-5.9
	comp=Z,16nm,0.8s						
SGF	Sodankyl	8.74	121	eP	Pn	23 32 20.2	+0.1
SGF				MPN		23 32 30.7	
	comp=Z,28nm,0.6s						
SGF	Sodankyl	8.74	121	P	Pn	23 32 20.1	0.0
	comp=Z,28nm,0.6s						
NSS	Namsos	8.85	165	eP	Pn	23 32 20.7	-0.9
NSS				eS	Sn	23 33 54.3	-6.9
NSS				AML	AML	23 34 01.3	
	comp=Z,34nm,0.7s						
NSS	Namsos	8.85	165	eP	Pn	23 32 20.7	-0.9
NSS				eSg	Sn	23 33 54.3	-6.9
APA0	Apatity Array	10.33	109	Pn	Pn	23 32 40.0	-1.8
	baz=321,slow=14						
APA0	Apatity Array	10.33	109	eP	Pn	23 32 40.0	-1.8
APA0	Apatity Array	10.33	109	Pn	Pn	23 32 40.0	-1.8
	baz=321,slow=14						
APA0	Apatity Array	10.33	109	Pn	Pn	23 32 40.0	-1.8
	SNR=50						
APA	Apatity	10.47	109	⇑iP	Pn	23 32 43.0	-0.8
APA				pmax	pmax		
	comp=Z,9.0nm,0.7s						
OUL	Oulu	10.51	131	eP	Pn	23 32 44.1	-0.3
OUL	Oulu	10.51	131	P	Pn	23 32 44.0	-0.3
MSF	Maaselka	10.56	122	eP	Pn	23 32 44.1	-1.0
MSF				MPN		23 32 49.5	
	comp=Z,10nm,0.5s						
MSF	Maaselka	10.56	122	P	Pn	23 32 44.1	-1.0
	comp=Z,10nm,0.5s						
LVZ	Lovozero	10.59	106	⇑eP	Pn	23 32 43.0	-2.4
MOL	Molde	10.62	178	eP	Pn	23 32 45.3	-0.6
MOL				eS	Sn	23 34 37.4	-7.3
KU6	Riekki	10.68	120	eP	Pn	23 32 45.5	-1.2
KU6				eS	Sn	23 34 34.8	-11
DOMB	Dombas	11.18	174	eP	Pn	23 32 52.6	-0.9
FOO	Floro	11.61	184	eS	Sn	23 35 00.2	-8.8
FOO	Floro	11.61	184	eS	Sn	23 35 00.2	-8.8
VAF	Ylistaro	11.68	142	eP	Pn	23 33 00.1	-0.3
NB2	NORSAR Subarra	12.27	170	Pn	Pn	23 33 07.2	-1.2
	comp=Z,5.1nm,0.8s,baz=354,slow=14						
NB2	NORSAR Subarra	12.27	170	Pn	Pn	23 33 08.2	-0.2
	baz=351,slow=12						
NB2	NORSAR Subarra	12.27	170	eP	Pn	23 33 08.2	-0.2
NB2	NORSAR Subarra	12.27	170	Pn	Pn	23 33 08.2	-0.2
	baz=351,slow=12						
NOA	NORSAR Array B	12.27	170	Pn	Pn	23 33 07.3	-1.1
NOA				Sn	Sn	23 35 13.1	-12
NOA				LR	LR	23 37 35.2	
NOA	NORSAR Array B	12.27	170	P	Pn	23 33 07.4	-1.0
NOA				pmax	pmax		
	comp=Z,1.0nm,0.3s						
NOA				MLR	MLR		
	comp=Z,328nm,20.3s						
NOA	NORSAR Array B	12.27	170	Pn	Pn	23 33 07.3	-1.1
	comp=Z,0.5nm,0.3s,baz=349,slow=13,SNR=8.3						
NOA				Sn	Sn	23 35 13.1	-12
	comp=Z,0.5nm,0.3s,baz=247,slow=16,SNR=6.0						
NOA				LR	LR	23 37 35.3	
	comp=Z,328nm,20.3s,baz=355,slow=36						
NOA	NORSAR Array B	12.27	170	Sn	Sn	23 35 13.1	-12
KEF	Keuruu	12.89	139	eP	Pn	23 33 16.2	-0.7
KEF				MPN		23 33 19.3	
	comp=Z,20nm,0.8s						
KEF	Keuruu	12.89	139	P	Pn	23 33 16.2	-0.7
	comp=Z,20nm,0.8s						
HFS	Hagfors	13.33	165	Pn	Pn	23 33 21.0	-1.8
	baz=1.1,slow=14						
HFS	Hagfors	13.33	165	eP	Pn	23 33 21.0	-1.8
HFS	Hagfors	13.33	165	Pn	Pn	23 33 21.9	-1.0
HFS				Sn	Sn	23 35 40.8	-10
HFS				LR	LR	23 38 08.3	
HFS	Hagfors	13.33	165	Pn	Pn	23 33 21.0	-1.8
	baz=1.1,slow=14						
HFS	Hagfors	13.33	165	Pn	Pn	23 33 21.9	-1.0
	comp=Z,0.4nm,0.3s,baz=359,slow=12,SNR=11						
HFS				Sn	Sn	23 35 40.8	-10
	comp=Z,0.3nm,0.3s,baz=341,slow=21,SNR=4.9						
HFS				LR	LR	23 38 08.3	
	comp=Z,679nm,19.4s,baz=9.4,slow=36						
RAF	Rauma	13.42	147	eP	Pn	23 33 24.7	+0.6
RAF	Rauma	13.42	147	P	Pn	23 33 24.6	+0.5
FIA1	FINESS Array S	13.79	138	ePn	Pn	23 33 27.3	-1.9
FIA1				eSn	Sn	23 35 54.2	-7.9
FIA1	FINESS Array S	13.79	138	ePn	Pn	23 33 27.3	-1.8
FIA0	FINESS Array S	13.79	138	Pn	Pn	23 33 26.5	-2.6
	baz=346,slow=12						
FIA0	FINESS Array S	13.79	138	eP	Pn	23 33 26.5	-2.6
FIA0	FINESS Array S	13.79	138	Pn	Pn	23 33 26.5	-2.6
	baz=346,slow=12						
FIA0	FINESS Array S	13.79	138	Pn	Pn	23 33 26.5	-2.6
	SNR=50						
FINES	FINESS Array B	13.79	138	P	Pn	23 33 27.0	-2.1
FINES				MLR	MLR		
	comp=Z,529nm,20.2s						
FINES	FINESS Array B	13.79	138	Pn	Pn	23 33 27.0	-2.1
	comp=Z,0.4nm,0.3s,baz=339,slow=9.4,SNR=16						
FINES				LR	LR	23 38 27.9	
	comp=Z,529nm,20.2s,baz=322,slow=36						
TMCR	Tamitsa	14.28	113	eP	Pn	23 33 32.4	-3.4
EKA	Eskdalemuir Ar	18.34	198	P	Pn	23 34 26.5	-1.5
	comp=Z,0.1nm,0.3s,baz=9.2,slow=9.3,SNR=4.6						
ESK	Eskdalemuir	18.36	198	eP	Pn	23 34 29.3	+1.0
SFJD	Kangerlussuaq	19.73	281	LR	LR	23 41 23.0	
	comp=Z,450nm,20.9s,baz=20,slow=34						
SUW	Suwalki	20.39	151	eP	P	23 34 51.2	+0.8
RUE	Ruedersdorf	20.95	168	eP	P	23 34 57.4	+0.8
RUE	Ruedersdorf	20.95	168	eP	P	23 34 57.4	+0.9
MOS	Moscow	21.48	128	eP	P	23 35 01.8	-0.4
MOS				i		23 35 23.1	
MOS				eSS		23 39 28.2	
MOS				pmax	pmax		
	comp=Z,104nm,1.3s,mb5.0						
OBN	Obninsk	21.82	130	eP	P	23 35 05.5	-0.3
OBN	Obninsk	21.82	130	⇑eP	P	23 35 05.7	-0.1
OBN				i		23 35 09.3	
OBN				pmax	pmax		
	comp=Z,159nm,1.8s,mb5.2						
OBN				MLR	MLR		
	comp=Z,300nm,14.0s,MS3.9						
OBN	Obninsk	21.82	130	eP	P	23 35 05.5	-0.3
CLL	Collm	22.08	170	⇓iP	P	23 35 11.2	+2.6
	comp=Z,47nm,1.7s,mb4.6						
CLL				i		23 35 14.6	
CLL				eS	S	23 39 16.0	+4.3
CLL				LR	LR		
	comp=Z,400nm,16.7s,MS3.9						
CLL	Collm	22.08	170	⇓iP	P	23 35 11.2	+2.6
CLL				i		23 35 14.6	
CLL				eS	S	23 39 16.0	+4.3
CLL				pmax	pmax		
	comp=Z,47nm,1.7s,mb4.6						
CLL				MLR	MLR		
	comp=Z,400nm,16.7s,MS3.9						
CLL	Collm	22.08	170	⇓iP	P	23 35 11.2	+2.6
	comp=Z,47nm,1.7s,mb4.6						
CLL				i sP	sP	23 35 14.6	+1.8
	comp=Z,40nm,1.4s						
CLL				ePPP		23 35 40.0	
CLL				eS	S	23 39 16.0	+4.3
BRG	Berggiesshubel	22.56	168	eP	P	23 35 15.3	+1.5
BRG				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.2						
BRG				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.1						
BRG	Berggiesshubel	22.56	168	eP	P	23 35 15.3	+1.5
	comp=Z,21nm,1.3s,mb4.4						
BRG				e		23 35 26.5	
	comp=Z,15nm,1.2s						
MOX	Moxa	22.67	172	eP	P	23 35 16.8	+1.8
	comp=Z,33nm,1.4s,mb4.6						
MOX	Moxa	22.67	172	eP	P	23 35 16.8	+1.8
MOX				pmax	pmax		
	comp=Z,33nm,1.4s,mb4.6						
KSP	Ksiaz	22.76	164	eP	P	23 35 16.5	+0.7
PVCC	Panska Ves	22.95	167	eP	P	23 35 19.4	+1.6
PVCC				AMS	AMS	23 44 10.0	
UPC	Upice	23.07	165	eP	P	23 35 21.1	+2.0
NKC	Novy Kostel	23.12	171	eP	P	23 35 20.9	+1.2
NKC				AMS	AMS	23 44 50.0	
	comp=Z,600nm,6.6s						
GIVF	Givet	23.14	183	eP	P	23 35 18.0	-1.8
BAIF	Baives	23.19	184	eP	P	23 35 18.7	-1.7
	comp=Z,91nm,1.6s,mb4.7						
BAIF	Baives	23.19	184	eP	P	23 35 18.7	-1.7
BAIF				pmax	pmax		
	comp=Z,46nm,1.6s,mb4.7						
BAIF	Baives	23.19	184	eP	P	23 35 18.7	-1.7
	comp=Z,46nm,1.6s,mb4.7						
DPC	Dobruska-Polom	23.25	164	eP	P	23 35 21.9	+0.9
DPC				AMS	AMS	23 44 00.0	
	comp=Z,400nm,19.7s						
SOKR	Solikamsk	23.25	99	⇑iP	P	23 35 21.6	+0.6
SOKR				pmax	pmax		
	comp=Z,30nm,1.2s,mb4.6						
ABH	Alteburg	23.34	179	eP	P	23 35 23.7	+1.7
PRU	Pruhonice	23.48	167	eP	P	23 35 24.3	+0.8
PRU				AMS	AMS	23 44 20.0	
	comp=Z,500nm,18.0s						
RUP	Ruppelstein	23.52	180	eP	P	23 35 25.2	+1.3
GRA1	Grafenberg Arr	23.61	173	eP	P	23 35 26.6	+1.8
	comp=Z,51nm,1.8s,mb4.7						
GRA1				e		23 35 31.4	
GRF	Grafenberg Arr	23.61	173	eP	P	23 35 26.6	+1.8
GRF				e		23 35 31.4	
GRF				pmax	pmax		
	comp=Z,51nm,1.8s,mb4.7						
GRF	Grafenberg Arr	23.61	173	eP	P	23 35 26.6	+1.8
GRF				e		23 35 31.4	
GRF				pmax	pmax		
	comp=Z,51nm,1.8s,mb4.7						
GRF	Grafenberg Arr	23.61	173	eP	P	23 35 26.6	+1.8
	comp=Z,51nm,1.8s,mb4.7						
GRF				e		23 35 31.4	
TOD	Tromm	23.63	177	eP	P	23 35 26.3	+1.3
OJC	Ojcow	23.70	159	eP	P	23 35 26.5	+1.0
OKC	Ostrava-Krasne	23.91	162	eP	P	23 35 28.2	+0.7
OKC				AMS	AMS	23 44 30.0	
	comp=Z,500nm,19.0s						
MORC	Moravsky Berou	23.92	163	eP	P	23 35 28.9	+1.3
	comp=Z,39nm,1.6s,mb4.6						
MORC	Moravsky Berou	23.92	163	⇓iP	P	23 35 28.3	+0.7
TREC	Trest	24.23	166	eP	P	23 35 31.2	+0.7
TREC				AMS	AMS	23 45 40.0	
	comp=Z,500nm,14.6s						
KHC	Kasperske Hory	24.28	169	eP	P	23 35 31.9	+1.0
KHC				e		23 35 38.5	
KHC	Kasperske Hory	24.28	169	⇑eP	P	23 35 33.6	+2.7
KHC	Kasperske Hory	24.28	169	eP	P	23 35 31.9	+1.0
KHC				epP		23 35 38.5	
KHC				AMS	AMS	23 44 50.0	
VRAC	Vranov	24.30	164	P	P	23 35 31.3	+0.2
VRAC				pmax	pmax		
	comp=Z,7.0nm,0.4s						
VRAC				MLR	MLR		
	comp=Z,262nm,21.4s						
VRAC	Vranov	24.30	164	P	P	23 35 31.3	+0.2
	comp=Z,7.4nm,0.4s,mb4.5,baz=329,slow=9.2,SNR=11						
VRAC				LR	LR	23 44 25.2	
	comp=Z,262nm,21.4s,MS3.7,baz=351,slow=35						
AKASG	Malin Array Be	24.54	144	P	P	23 35 32.7	-0.5
AKASG				LR	LR	23 44 54.3	
AKASG	Malin Array Be	24.54	144	P	P	23 35 32.7	-0.5
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.7s						
AKASG				MLR	MLR		
	comp=Z,710nm,19.9s						
AKASG	Malin Array Be	24.54	144	P	P	23 35 32.7	-0.5
	comp=Z,5.8nm,0.7s,mb4.2,baz=344,slow=9.7,SNR=11						
AKASG				LR	LR	23 44 54.3	
	comp=Z,710nm,19.9s,MS4.2,baz=330,slow=36						
AKBB	Malin Array Si	24.54	144	eP	P	23 35 32.8	-0.4
AKBB	Malin Array Si	24.54	144	eP	P	23 35 32.8	-0.4
KIEV	Kiev	24.54	144	eP	P	23 35 32.8	-0.4
	comp=Z,42nm,1.4s,mb4.8						
KIEV	Kiev	24.54	144	eP	P	23 35 32.8	-0.4
KIEV				pmax	pmax		
	comp=Z,42nm,1.4s,mb4.8						
KIEV	Kiev	24.54	144	eP	P	23 35 32.8	-0.4
	comp=Z,42nm,1.4s,mb4.8						
NIE	Niedzica	24.54	158	eP	P	23 35 34.8	+1.6
GERES	GERESS Array B	24.57	169	P	P	23 35 35.0	+1.5
GERES				pmax	pmax		
	comp=Z,5.0nm,1.0s						
GERES				MLR	MLR		
	comp=Z,270nm,18.6s						
GERES	GERESS Array B	24.57	169	P	P	23 35 35.0	+1.5
	comp=Z,5.0nm,1.0s,mb4.0,baz=2.8,slow=8.0,SNR=15						
GERES				LR	LR	23 45 32.0	
	comp=Z,270nm,18.6s,MS3.8,baz=337,slow=37						
LVV	L’vov	24.60	153	eP	P	23 35 32.1	-1.7
LVV				eS	S	23 39 48.1	-6.3
LVV				MLR	MLR		
	comp=Z,400nm,15.0s,MS4.0						
KWP	Kalwaria	24.61	155	eP	P	23 35 35.3	+1.4
KWP	Kalwaria	24.61	155	eP	P	23 35 35.3	+1.4
KWP	Kalwaria	24.61	155	⇓iP	P	23 35 34.8	+0.9
STHS	Stebnicka Huta	24.65	157	eP	P	23 35 36.1	+1.9
	comp=Z,9.7nm,0.9s,mb4.3						
STHS	Stebnicka Huta	24.65	157	eP	P	23 35 36.1	+1.9
STHS				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.3						
STHS	Stebnicka Huta	24.65	157	eP	P	23 35 36.0	+1.8
FLN	La Foliniere	24.67	192	eP	P	23 35 32.9	-1.6
	comp=Z,104nm,1.5s						
FLN				eMLR	MLR		
	comp=Z,183nm,18.1s						
FLN	La Foliniere	24.67	192	eP	P	23 35 32.9	-1.6
	comp=Z,52nm,1.5s,mb4.8						
FLN				LR	LR		
	comp=Z,180nm,18.1s,MS3.6						
FLN	La Foliniere	24.67	192	eP	P	23 35 32.9	-1.6
FLN				pmax	pmax		
	comp=Z,52nm,1.5s,mb4.8						
FLN				MLR	MLR		
	comp=Z,180nm,18.1s,MS3.6						
MEZF	Maizieres J’vi	24.73	183	eP	P	23 35 33.6	-1.4
	comp=Z,27nm,0.8s,mb4.5						
MEZF	Maizieres J’vi	24.73	183	eP	P	23 35 33.6	-1.4
	comp=Z,13nm,0.8s,mb4.5						
CDF	Champ du Feu	24.81	179	eP	P	23 35 34.3	-1.4
	comp=Z,30nm,1.3s,mb4.3						
CDF	Champ du Feu	24.81	179	eP	P	23 35 34.3	-1.4
CDF				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.4						
CDF	Champ du Feu	24.81	179	eP	P	23 35 34.3	-1.4
	comp=Z,15nm,1.3s,mb4.3						
LDF	La Druitiere	24.82	191	eP	P	23 35 34.2	-1.6
	comp=Z,93nm,1.4s,mb4.8						
LDF	La Druitiere	24.82	191	eP	P	23 35 34.2	-1.6
LDF				pmax	pmax		
	comp=Z,47nm,1.4s,mb4.8						
LDF	La Druitiere	24.82	191	eP	P	23 35 34.2	-1.6
	comp=Z,46nm,1.4s,mb4.8						
RES	Resolute Bay	24.99	322	eP	P	23 35 37.8	+0.6
	comp=Z,276nm,1.2s,mb5.7						
RES	Resolute Bay	24.99	322	eP	P	23 35 37.8	+0.6
	comp=Z,276nm,1.2s,mb5.7						
THEF	They Montfort	25.00	181	eP	P	23 35 39.9	+2.5
ECH	Echery	25.01	179	eP	P	23 35 38.4	+0.9
GRR	Gorron	25.07	192	eP	P	23 35 36.5	-1.5
SMOL	Smolenice	25.16	163	eP	P	23 35 40.7	+1.8
CRVS	Cervenica-Dubn	25.18	157	eP	P	23 35 40.9	+1.9
KOLL	Kolacno	25.18	162	eP	P	23 35 40.0	+0.9
HAU	Haudompre	25.22	181	eP	P	23 35 37.9	-1.5
	comp=Z,146nm,1.6s,mb5.0						
HAU				eMLR	MLR		
	comp=Z,321nm,17.8s,MS3.6						
HAU	Haudompre	25.22	181	eP	P	23 35 37.9	-1.5
	comp=Z,73nm,1.6s,mb5.0						
HAU				LR	LR		
	comp=Z,320nm,17.8s,MS3.9						
HAU	Haudompre	25.22	181	eP	P	23 35 37.9	-1.5
HAU				pmax	pmax		
	comp=Z,73nm,1.6s,mb5.0						
HAU				MLR	MLR		
	comp=Z,320nm,17.8s,MS3.9						
KOLS	Kolonicke sedl	25.24	156	eP	P	23 35 40.7	+1.1
KOLS				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.3						
KOLS	Kolonicke sedl	25.24	156	eP	P	23 35 40.7	+1.1
	comp=Z,10.0nm,1.0s,mb4.3						
ROSF	Rostrenen	25.29	196	eP	P	23 35 38.6	-1.5
VYHS	Vyhne	25.31	161	eP	P	23 35 41.0	+0.8
VYHS				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.1						
VYHS	Vyhne	25.31	161	eP	P	23 35 41.0	+0.8
	comp=Z,8.8nm,1.3s,mb4.1						
SGMF	Saint Gilles	25.32	195	eP	P	23 35 38.4	-1.9
	comp=Z,213nm,1.6s,mb5.1						
SGMF	Saint Gilles	25.32	195	eP	P	23 35 38.4	-1.9
SGMF				pmax	pmax		
	comp=Z,107nm,1.6s,mb5.1						
SGMF	Saint Gilles	25.32	195	eP	P	23 35 38.4	-1.9
	comp=Z,107nm,1.6s,mb5.1						
FELD	Feldberg im Sc	25.35	178	eP	P	23 35 41.8	+1.2
HINF	Hinteralfeld	25.41	180	eP	P	23 35 40.0	-1.1
	comp=Z,18nm,1.2s,mb4.2						
HINF	Hinteralfeld	25.41	180	eP	P	23 35 40.0	-1.1
HINF				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.2						
HINF	Hinteralfeld	25.41	180	eP	P	23 35 40.0	-1.1
	comp=Z,8.9nm,1.2s,mb4.2						
ZST	Bratislava	25.45	164	eP	P	23 35 43.3	+1.8
	comp=Z,22nm,1.5s,mb4.5						
ZST				LR	LR		
	comp=Z,400nm,16.1s,MS4.0						
KECS	Kecovo	25.48	159	eP	P	23 35 40.8	-1.0
KECS				eP	pP	23 35 41.8	-3.0
KECS	Kecovo	25.48	159	eP	P	23 35 40.8	-1.0

KECS				e	pP	23 35 41.8	-3.0
KECS				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.0						
UZH	Uzhgorod	25.54	156	eP	P	23 35 43.0	+0.6
UZH				e		23 36 18.6	
UZH				eS	S	23 40 08.0	-1.5
UZH				eSS		23 41 15.0	
UZH				MLR	MLR		
	comp=Z,300nm,18.0s,MS3.9						
VOR	Voronezh	25.55	129	P	P	23 35 42.0	-0.4
VOR				pmax	pmax		
	comp=Z,80nm,1.4s,mb5.1						
CONA	Conrad Observa	25.62	166	⇑iP	P	23 35 44.6	+1.5
	comp=Z,28nm,1.7s,mb4.5						
LOMF	Lomont	25.87	180	eP	P	23 35 48.5	+3.2
SOP	Sopron	25.92	165	⇑epP	pP	23 35 52.0	+3.2
PSZ	Piszkesteto	25.98	160	eP	P	23 35 52.7	+6.4
	comp=Z,31nm,1.4s,mb4.7						
PSZ	Piszkesteto	25.98	160	eP	P	23 35 52.7	+6.4
PSZ				pmax	pmax		
	comp=Z,31nm,1.4s,mb4.7						
PSZ	Piszkesteto	25.98	160	⇑eP	P	23 35 47.8	+1.5
LOR	Lormes	25.99	185	eP	P	23 35 45.1	-1.3
	comp=Z,16nm,0.9s,mb4.3						
LOR				eMLR	MLR		
	comp=Z,328nm,21.0s,MS3.5						
LOR	Lormes	25.99	185	eP	P	23 35 45.1	-1.3
	comp=Z,8.1nm,0.9s,mb4.2						
LOR				LR	LR		
	comp=Z,330nm,21.0s,MS3.8						
LOR	Lormes	25.99	185	eP	P	23 35 45.1	-1.3
LOR				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.2						
LOR				MLR	MLR		
	comp=Z,330nm,21.0s,MS3.8						
VRSR	Storozhevoye	26.03	130	eP	P	23 35 46.1	-0.6
VRSR				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.9						
VRSR				pmax	pmax		
	comp=N,6.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,2.0nm,1.0s						
WTTA	Wattenberg	26.05	172	⇑iP	P	23 35 52.0	+5.1
	comp=E,24nm,1.4s,mb4.5						
WTTA	Wattenberg	26.05	172	⇑ipP	pP	23 35 52.0	+2.0
	comp=E,24nm,1.4s						
WTTA	Wattenberg	26.05	172	⇑iP	P	23 35 52.0	+5.0
WTTA				pmax	pmax		
	comp=Z,25nm,1.4s,mb4.5						
SSF	Saint Saulge	26.20	185	eP	P	23 35 47.3	-1.0
	comp=Z,102nm,1.9s,mb4.7						
SSF	Saint Saulge	26.20	185	eP	P	23 35 47.3	-1.0
SSF				pmax	pmax		
	comp=Z,51nm,1.9s,mb4.7						
SSF	Saint Saulge	26.20	185	eP	P	23 35 47.3	-1.0
	comp=Z,51nm,1.9s,mb4.7						
ARSA	Arzberg	26.27	166	⇑iP	P	23 35 52.9	+4.0
	comp=Z,10nm,1.0s,mb4.3						
ARU	Arti	26.41	101	eP	P	23 35 50.5	+0.4
	comp=Z,26nm,1.1s,mb4.7						
ARU	Arti	26.41	101	diP	P	23 35 50.1	0.0
ARU				ePPP		23 36 39.2	
ARU				eS	S	23 40 23.1	0.0
ARU				pmax	pmax		
	comp=Z,22nm,1.1s,mb4.6						
ARU	Arti	26.41	101	eP	P	23 35 50.5	+0.4
	comp=Z,26nm,1.1s,mb4.7						
AVF	Avril sur Loir	26.48	185	eP	P	23 35 50.0	-0.8
	comp=Z,44nm,1.3s,mb4.5						
AVF	Avril sur Loir	26.48	185	eP	P	23 35 50.0	-0.8
AVF				pmax	pmax		
	comp=Z,22nm,1.3s,mb4.5						
AVF	Avril sur Loir	26.48	185	eP	P	23 35 50.0	-0.8
	comp=Z,22nm,1.3s,mb4.5						
DAVOX	Davos/Dischmat	26.48	175	LR	LR	23 45 20.2	
	comp=Z,218nm,19.2s,MS3.7,baz=176,slow=34						
SMF	Signal de Mont	26.61	185	eP	P	23 35 50.8	-1.2
	comp=Z,7.0nm,0.6s,mb4.0						
SMF	Signal de Mont	26.61	185	eP	P	23 35 50.8	-1.2
SMF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.1						
SMF	Signal de Mont	26.61	185	eP	P	23 35 50.8	-1.2
	comp=Z,3.5nm,0.6s,mb4.0						
CABF	La Chapelle	26.61	181	eP	P	23 35 51.2	-0.8
	comp=Z,193nm,1.9s,mb5.0						
CABF	La Chapelle	26.61	181	eP	P	23 35 51.2	-0.8
CABF				pmax	pmax		
	comp=Z,96nm,1.9s,mb5.0						
CABF	La Chapelle	26.61	181	eP	P	23 35 51.2	-0.8
	comp=Z,96nm,1.9s,mb5.0						
VRHR	Novokhopersk	26.70	127	eP	P	23 35 54.0	+1.2
VRHR				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.2						
VRHR				pmax	pmax		
	comp=N,10.0nm,1.1s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.8s						
BGF	Bois d’Agland	26.73	186	eP	P	23 35 52.0	-1.1
	comp=E,31nm,0.9s,mb4.5						
BGF	Bois d’Agland	26.73	186	eP	P	23 35 52.0	-1.1
BGF				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.5						
BGF	Bois d’Agland	26.73	186	eP	P	23 35 52.0	-1.1
	comp=Z,16nm,0.9s,mb4.5						
MFF	Saint Martin d	26.81	191	eP	P	23 35 52.5	-1.3
	comp=Z,81nm,1.3s,mb4.8						
MFF	Saint Martin d	26.81	191	eP	P	23 35 52.5	-1.3
MFF				pmax	pmax		
	comp=Z,40nm,1.3s,mb4.8						
MFF	Saint Martin d	26.81	191	eP	P	23 35 52.5	-1.3
	comp=Z,40nm,1.3s,mb4.8						
BURAR	Bucovina Array	26.92	152	⇑P	P	23 35 54.9	+0.1
BURAR	Bucovina Array	26.92	152	⇑iP	P	23 35 54.9	+0.1
TCF	Toulx Ste Croi	27.02	187	eP	P	23 35 54.7	-1.0
	comp=Z,49nm,1.4s,mb4.5						
TCF	Toulx Ste Croi	27.02	187	eP	P	23 35 54.7	-1.0
TCF				pmax	pmax		
	comp=Z,24nm,1.4s,mb4.5						
TCF	Toulx Ste Croi	27.02	187	eP	P	23 35 54.7	-1.0
	comp=Z,24nm,1.4s,mb4.5						
DRGR		27.41	156	⇓P	P	23 36 00.1	+0.9
DRGR		27.41	156	⇓iP	P	23 36 00.1	+0.9
PKSM	Moragy	27.55	162	⇑eP	P	23 36 01.5	+1.0
LPG	La Plagne	27.73	180	eP	P	23 36 01.5	-0.5
RJF	Les Rejaudoux	28.03	188	eP	P	23 36 03.7	-1.0
RJF				eMLR	MLR		
	comp=Z,252nm,22.8s,MS3.4						
RJF	Les Rejaudoux	28.03	188	eP	P	23 36 03.7	-1.0
RJF				MLR	MLR		
	comp=Z,250nm,22.8s,MS3.7						
ORIF	Oris-en-Rattie	28.31	181	eP	P	23 36 06.9	-0.3
ORIF				eMLR	MLR		
	comp=Z,296nm,23.0s,MS3.5						
CAF	Calviac	28.38	187	eP	P	23 36 07.4	-0.5
VIVF	Saint-Julien-l	28.39	183	eP	P	23 36 07.5	-0.4
	comp=Z,23nm,1.1s,mb4.4						
VIVF	Saint-Julien-l	28.39	183	eP	P	23 36 07.5	-0.4
VIVF				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.4						
VIVF	Saint-Julien-l	28.39	183	eP	P	23 36 07.5	-0.4
	comp=Z,11nm,1.1s,mb4.4						
LFF	La Frestale	28.42	189	eP	P	23 36 07.4	-0.9
BZS	Buzias	28.44	158	⇑P	P	23 36 09.7	+1.3
BZS	Buzias	28.44	158	⇑iP	P	23 36 09.7	+1.3
MBDF	Montbardon	28.50	180	eP	P	23 36 08.2	-0.7
	comp=Z,31nm,1.2s,mb4.5						
MBDF	Montbardon	28.50	180	eP	P	23 36 08.2	-0.7
MBDF				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.5						
MBDF	Montbardon	28.50	180	eP	P	23 36 08.2	-0.7
	comp=Z,16nm,1.2s,mb4.5						
MLR	Muntele Rosu	29.10	152	LR	LR	23 47 56.3	
	comp=Z,438nm,20.6s,MS4.1,baz=122,slow=36						
LASF	Ste Croix	29.18	184	eP	P	23 36 14.5	-0.5
	comp=Z,53nm,1.3s,mb4.8						
LASF	Ste Croix	29.18	184	eP	P	23 36 14.5	-0.5
	comp=Z,27nm,1.3s,mb4.8						
SMRF	Simiane la Rot	29.25	182	eP	P	23 36 14.9	-0.7
	comp=Z,71nm,1.3s,mb5.0						
SMRF	Simiane la Rot	29.25	182	eP	P	23 36 14.9	-0.7
	comp=Z,36nm,1.3s,mb5.0						
SBF	Sospel	29.36	179	eP	P	23 36 16.1	-0.5
	comp=Z,131nm,1.3s,mb5.2						
SBF	Sospel	29.36	179	eP	P	23 36 16.1	-0.5
SBF				pmax	pmax		
	comp=Z,66nm,1.3s,mb5.2						
SBF	Sospel	29.36	179	eP	P	23 36 16.1	-0.5
	comp=Z,66nm,1.3s,mb5.2						
ORR	Orenburg	29.58	110	eP	P	23 36 18.7	+0.2
FRF	La Foret Royal	29.66	180	eP	P	23 36 18.8	-0.5
LMR	La Mourre	29.89	180	eP	P	23 36 19.9	-1.4
	comp=Z,43nm,1.2s,mb4.8						
LMR	La Mourre	29.89	180	eP	P	23 36 19.9	-1.4
LMR				pmax	pmax		
	comp=Z,22nm,1.2s,mb4.8						
LMR	La Mourre	29.89	180	eP	P	23 36 19.9	-1.4
	comp=Z,22nm,1.2s,mb4.8						
EPF	Esparros	30.35	189	eP	P	23 36 24.5	-0.8
	comp=Z,101nm,1.6s,mb5.0						
EPF	Esparros	30.35	189	eP	P	23 36 24.5	-0.8
EPF				pmax	pmax		
	comp=Z,51nm,1.6s,mb5.0						
EPF	Esparros	30.35	189	eP	P	23 36 24.5	-0.8
	comp=Z,50nm,1.6s,mb5.0						
ETSF	Etsaut	30.52	191	eP	P	23 36 26.0	-0.9
PGF	Pioggiola	30.69	177	eP	P	23 36 27.7	-0.7
	comp=Z,206nm,1.6s,mb5.4						
PGF	Pioggiola	30.69	177	eP	P	23 36 27.7	-0.7
PGF				pmax	pmax		
	comp=Z,103nm,1.6s,mb5.4						
PGF	Pioggiola	30.69	177	eP	P	23 36 27.7	-0.7
	comp=Z,103nm,1.6s,mb5.4						
TIXI	Tiksi	30.89	32	eP	P	23 36 30.3	+0.4
TIXI	Tiksi	30.89	32	eP	P	23 36 28.9	-1.0
TIXI				e		23 36 34.9	
TIXI				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.6						
TIXI	Tiksi	30.89	32	eP	P	23 36 30.3	+0.4
AQU	L’Aquila	31.03	170	eP	P	23 36 31.1	-0.3
	comp=Z,6.4nm,0.3s,mb4.9						
AQU	L’Aquila	31.03	170	eP	P	23 36 31.1	-0.2
AQU				pmax	pmax		
	comp=Z,6.0nm,0.3s,mb4.9						
AQU	L’Aquila	31.03	170	eP	P	23 36 31.1	-0.2
	comp=Z,6.4nm,0.3s,mb4.9						
AKTK	Aktyubinsk	31.55	108	P	P	23 36 36.1	+0.2
AKTK	Aktyubinsk	31.55	108	P	P	23 36 36.1	+0.3
AKTO	Aktyubinsk	31.55	108	P	P	23 36 36.1	+0.3
AKTO				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
AKTO	Aktyubinsk	31.55	108	P	P	23 36 36.1	+0.2
	comp=Z,6.7nm,1.0s,mb4.4,baz=341,slow=13,SNR=8.7						
ANN	Anapa	31.74	136	eP	P	23 36 32.7	-4.9
ANN				pmax	pmax		
	comp=Z,61nm,1.3s,mb5.3						
BRVK	Borovoye	32.73	93	eP	P	23 36 47.2	+1.0
	comp=Z,3.3nm,0.6s,mb4.4						
BRVK	Borovoye	32.73	93	eP	P	23 36 47.2	+1.0
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
BRVK	Borovoye	32.73	93	eP	P	23 36 47.2	+1.0
	comp=Z,3.2nm,0.6s,mb4.4						
KIV	Kislovodsk	33.66	130	eP	P	23 36 55.5	+1.1
KIV				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
KIV				MLR	MLR		
	comp=Z,188nm,15.0s,MS3.9						
KIV	Kislovodsk	33.66	130	eP	P	23 36 55.5	+1.1
	comp=Z,5.5nm,0.9s,mb4.5						
ESDC	Sonseca Array	33.95	195	P	P	23 36 57.5	+0.5
	comp=Z,1.6nm,0.8s,mb4.0,baz=5.9,slow=8.2,SNR=7.2						
ESLA	Sonseca Array	33.95	195	P	P	23 37 00.1	+3.1
SCHQ	Schefferville	34.13	278	P	P	23 36 58.9	+0.5
SCHQ	Schefferville	34.13	278	LR	LR	23 49 13.6	
	comp=Z,324nm,18.8s,MS4.1,baz=297,slow=34						
SCHQ	Schefferville	34.13	278	P	P	23 36 58.9	+0.5
NVS	Novosibirsk	34.94	79	eP	P	23 37 04.2	-1.1
BRTR	Keskin Array B	35.94	144	P	P	23 37 15.9	+1.8
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR				MLR	MLR		
	comp=Z,153nm,19.2s						
BRTR	Keskin Array B	35.94	144	P	P	23 37 15.9	+1.8
	comp=Z,1.3nm,0.8s,mb3.9,baz=359,slow=6.2,SNR=4.8						
BRTR				LR	LR	23 53 04.2	
	comp=Z,153nm,19.2s,MS3.8,baz=324,slow=38						
ZALV	Zalesovo Beam	36.17	78	P	P	23 37 16.0	+0.1
	comp=Z,2.2nm,0.9s,mb4.1,baz=332,slow=9.1,SNR=11						
ZALV				LR	LR	23 54 34.9	
	comp=Z,100nm,21.4s,MS3.6,baz=339,slow=40						
ZAL	Zalesovo	36.17	78	P	P	23 37 16.0	0.0
INK	Inuvik	36.45	336	eP	P	23 37 18.4	+0.3
	comp=Z,211nm,1.1s						
INK	Inuvik	36.45	336	eP	P	23 37 18.4	+0.2
	comp=Z,211nm,1.1s						
KURK	Kurchatov	37.23	87	eP	P	23 37 25.4	+0.4
	comp=Z,5.5nm,0.9s,mb4.4						
KURK	Kurchatov	37.23	87	eP	P	23 37 25.5	+0.5
KURK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.4						
KURK	Kurchatov	37.23	87	eP	P	23 37 25.5	+0.5
	comp=Z,5.5nm,0.9s,mb4.4						
KEST	Kesra	37.50	177	LR	LR	23 51 46.3	
	comp=Z,46nm,19.7s,baz=254,slow=34						
MALT	Malatya	38.19	138	eP	P	23 37 34.8	+1.6
MALT	Malatya	38.19	138	eP	P	23 37 34.8	+1.6
BILL	Bilibino	38.43	12	P	P	23 37 35.0	+0.1
BILL				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
YKA	Yellowknife Ar	39.06	321	P	P	23 37 39.1	-1.1
	comp=Z,1.7nm,0.9s,mb3.8,baz=19,slow=8.6,SNR=14						
YKA				PcP	PcP	23 39 49.3	-0.5
	comp=Z,0.7nm,0.6s,baz=18,slow=3.1,SNR=12						
YKA	Yellowknife Ar	39.06	321	PcP	PcP	23 39 49.3	-0.5
YAK	Yakutsk	39.76	38	⇑eP	P	23 37 46.6	+0.5
YAK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
BOD	Bodaibo	40.38	52	eP	P	23 37 48.8	-2.5
BOD				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.2						
DAWY	Dawson	41.20	338	eP	P	23 37 58.5	+0.5
DAWY	Dawson	41.20	338	eP	P	23 37 58.5	+0.5
COLA	College	41.21	344	eP	P	23 37 58.9	+0.8
COLA	College	41.21	344	eP	P	23 37 57.6	-0.5
MKAR	Makanchi Array	41.83	86	P	P	23 38 04.0	+0.7
MKAR						23 39 42.5	
MKAR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
MKAR				pmax	pmax		
	comp=Z,3.0nm,1.2s						
MKAR				MLR	MLR		
	comp=Z,143nm,19.5s						
MKAR	Makanchi Array	41.83	86	P	P	23 38 04.0	+0.7
	comp=Z,2.8nm,1.0s,mb3.9,baz=329,slow=9.1,SNR=10						
MKAR				PP	PP	23 39 42.5	+2.7
	comp=Z,3.3nm,1.1s,baz=328,slow=8.6,SNR=5.6						
MKAR				LR	LR	23 58 11.8	
	comp=Z,143nm,19.5s,MS3.9,baz=356,slow=40						
EKS2	Erkin-Say	43.12	97	eP	P	23 38 14.6	+0.8
	comp=Z,4.8nm,1.1s,mb4.1						
EKS2	Erkin-Say	43.12	97	eP	P	23 38 14.6	+0.7
	comp=Z,4.8nm,1.1s,mb4.1						
TLY	Talaya	43.38	64	eP	P	23 38 15.8	-0.1
TLY	Talaya	43.38	64	eP	P	23 38 15.8	-0.1
TKM2	Tokmak 2	43.41	95	eP	P	23 38 17.1	+0.9
	comp=Z,13nm,1.4s,mb4.5						
TKM2	Tokmak 2	43.41	95	eP	P	23 38 17.1	+0.9
TKM2				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.5						
TKM2	Tokmak 2	43.41	95	eP	P	23 38 17.1	+0.9
	comp=Z,13nm,1.4s,mb4.5						
AML	Almayashu	43.58	97	eP	P	23 38 20.0	+2.4
	comp=Z,18nm,1.4s,mb4.6						
AML	Almayashu	43.58	97	eP	P	23 38 20.0	+2.4
	comp=Z,18nm,1.4s,mb4.6						
UCH	Uchtor	43.73	96	eP	P	23 38 21.4	+2.6
	comp=Z,6.9nm,1.4s,mb4.2						
UCH	Uchtor	43.73	96	eP	P	23 38 21.4	+2.6
	comp=Z,6.9nm,1.4s,mb4.2						
MA2	Magadan	45.32	25	eP	P	23 38 29.9	-1.4
MA2				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.1						
ULM	Lac du Bonnet	46.19	300	eP	P	23 38 37.2	-1.1
	comp=Z,4.3nm,0.8s,mb4.4						
ULM	Lac du Bonnet	46.19	300	P	P	23 38 36.9	-1.4
	comp=Z,3.6nm,0.8s,mb4.3,baz=46,slow=6.0,SNR=8.0						
ULM				PcP	PcP	23 40 12.5	-1.3
	comp=Z,3.1nm,1.0s,baz=199,slow=3.5,SNR=3.2						
ULM				LR	LR	23 57 29.9	
	comp=Z,298nm,21.5s,MS4.2,baz=36,slow=36						
ULM	Lac du Bonnet	46.19	300	eP	P	23 38 37.2	-1.1
	comp=Z,4.3nm,0.8s,mb4.4						
SONM	Songino Array	47.63	64	P	P	23 38 50.1	+0.6
SONM						23 40 18.6	
SONM				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SONM				pmax	pmax		
	comp=Z,1.0nm,0.9s						
SONM	Songino Array	47.63	64	P	P	23 38 50.1	+0.6
	comp=Z,1.9nm,0.9s,mb4.1,baz=322,slow=8.1,SNR=13						
SONM				PcP	PcP	23 40 18.6	-0.3
	comp=Z,0.7nm,0.9s,baz=314,slow=3.6,SNR=4.2						
ULN	Ulaanbaatar	47.77	63	eP	P	23 38 52.1	+1.4
	comp=Z,9.8nm,1.4s,mb4.7						
ULN	Ulaanbaatar	47.77	63	eP	P	23 38 52.1	+1.5
ULN				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.7						
ULN	Ulaanbaatar	47.77	63	eP	P	23 38 52.1	+1.5
	comp=Z,9.8nm,1.4s,mb4.7						
WALA	Waterton Lakes	51.51	314	eP	P	23 39 17.9	-1.2
	comp=Z,4.0nm,0.9s,mb4.3						
MSO	Missoula	53.63	313	eP	P	23 39 35.7	+0.9
MSO	Missoula	53.63	313	eP	P	23 39 35.7	+0.8
GTA	Gaotai	53.64	74	eP	P	23 39 36.3	+1.3
GTA				AP	pP	23 39 42.8	+4.6
GTA				XP	sP	23 39 46.0	+6.6
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.2						
GCMT	Greycliff	53.68	309	eP	P	23 39 34.9	-0.3
GCMT				ePcP	PcP	23 40 41.2	-0.1
GCMT	Greycliff	53.68	309	eP	P	23 39 34.9	-0.3
GCMT	Greycliff	53.68	309	ePcP	PcP	23 40 41.2	-0.1
IMW	Indian Meadow	55.76	309	eP	P	23 39 51.2	+0.9
	comp=Z,7.1nm,0.9s,mb4.7						
IMW	Indian Meadow	55.76	309	eP	P	23 39 51.2	+0.9
	comp=Z,7.1nm,0.9s,mb4.7						
MOOW	Moose Ponds	55.86	309	eP	P	23 39 51.2	+0.2
MOOW	Moose Ponds	55.86	309	eP	P	23 39 51.2	+0.2
CN2	Changchun	56.06	50	eP	P	23 39 52.0	-0.4
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
DCID1	Drake Creek	56.10	309	eP	P	23 39 46.9	-5.9
BMO	Blue Mountains	56.23	315	eP	P	23 39 55.3	+1.7
BMO	Blue Mountains	56.23	315	eP	P	23 39 55.3	+1.7
BW06	Boulder Array	56.52	308	eP	P	23 39 55.4	-0.3
BW06	Boulder Array	56.52	308	eP	P	23 39 55.4	-0.3
PDAR	Pinedale Array	56.52	308	P	P	23 39 55.2	-0.5
	comp=Z,1.6nm,1.0s,mb4.0,baz=44,slow=4.5,SNR=8.1						
PDAR				LR	LR	00 04 04.0	
	comp=Z,177nm,19.1s,MS4.2,baz=58,slow=36						
PDAR	Pinedale Array	56.52	308	P	P	23 39 55.2	-0.5
HLID	Hailey	56.85	312	eP	P	23 39 60.0	+1.9
	comp=Z,11nm,1.4s,mb4.7						
HLID	Hailey	56.85	312	eP	P	23 40 00.0	+1.9
	comp=Z,11nm,1.4s,mb4.7						
PHWY	Pilot Hill	56.93	304	eP	P	23 39 51.7	-7.0
SMCO	Snowmass	59.31	304	eP	P	23 40 12.1	-3.3
	comp=Z,5.1nm,1.0s,mb4.5						
TOA0	Torodi Ar. Sit	60.04	186	eP	P	23 40 20.5	-0.2
TOA0	Torodi Ar. Sit	60.04	186	eP	P	23 40 20.5	-0.1
TORD	Torodi Ar. Bea	60.04	186	P	P	23 40 20.4	-0.2
TORD	Torodi Ar. Bea	60.04	186	P	P	23 40 20.4	-0.2
	comp=Z,6.6nm,0.8s,mb4.7,baz=356,slow=7.0,SNR=46						
TMUT	Trail Mountain	60.20	308	eP	P	23 40 21.8	+0.3
TMUT	Trail Mountain	60.20	308	eP	P	23 40 21.8	+0.3
LSA	Lhasa	60.24	86	eP	P	23 40 23.2	+1.4
	comp=Z,7.5nm,1.1s,mb4.6						
LSA	Lhasa	60.24	86	eP	P	23 40 23.2	+1.3
LSA				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
LSA	Lhasa	60.24	86	eP	P	23 40 23.2	+1.3
	comp=Z,7.5nm,1.1s,mb4.6						
MSU	Marysvale	61.17	308	eP	P	23 40 29.1	+1.0
MSU	Marysvale	61.17	308	eP	P	23 40 29.1	+1.0
WMOK	Wichita Mounta	61.45	295	eP	P	23 40 29.7	-0.3
	comp=Z,11nm,1.4s,mb4.8						
WMOK	Wichita Mounta	61.45	295	eP	P	23 40 29.7	-0.3
WMOK				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.8						
WMOK	Wichita Mounta	61.45	295	eP	P	23 40 29.7	-0.3
	comp=Z,11nm,1.4s,mb4.8						
NVAR	Mina Array Bea	62.60	314	P	P	23 40 38.5	+0.8
NVAR	Mina Array Bea	62.60	314	P	P	23 40 38.5	+0.8
	comp=Z,0.8nm,0.6s,mb4.0,baz=32,slow=5.5,SNR=3.6						
NJ2	Nanjing	65.67	60	eP	P	23 41 00.3	+2.3
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.3						
LTX	Lajitas	67.85	298	P	P	23 41 11.6	-0.2
LTX	Lajitas	67.85	298	P	P	23 41 11.6	-0.3
TXAR	Lajitas Array	67.85	298	P	P	23 41 10.5	-1.4
TXAR				LR	LR	00 10 47.4	
TXAR	Lajitas Array	67.85	298	P	P	23 41 10.5	-1.4
TXAR				pmax	pmax		
	comp=Z,2.0nm,1.2s						
TXAR				MLR	MLR		
	comp=Z,182nm,18.5s						
TXAR	Lajitas Array	67.85	298	P	P	23 41 10.5	-1.4
	comp=Z,2.3nm,1.2s,mb4.1,baz=56,slow=4.7,SNR=6.2						
TXAR				LR	LR	00 10 47.4	
	comp=Z,182nm,18.5s,MS4.3,baz=10.0,slow=36						
CHTO	Chiang Mai	72.77	82	eP	P	23 41 41.5	-0.6
	comp=Z,1.9nm,0.9s,mb4.0						
CHTO	Chiang Mai	72.77	82	eP	P	23 41 41.6	-0.5
CHTO				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
CHTO	Chiang Mai	72.77	82	eP	P	23 41 41.5	-0.6
	comp=Z,1.9nm,0.9s,mb4.0						
SDV	Santo Domingo	77.90	261	eP	P	23 42 11.8	+0.2
	comp=Z,4.1nm,0.8s,mb4.4						
SDV				ePcP	PcP	23 42 21.8	+0.4
SDV	Santo Domingo	77.90	261	eP	P	23 42 11.8	+0.2
	comp=Z,4.1nm,0.8s,mb4.4						
PSI	Prapat	87.96	87	P	P	23 43 02.9	-0.9
PSI				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.5						
PSI	Prapat	87.96	87	P	P	23 43 02.9	-0.9
	comp=Z,1.2nm,0.3s,mb4.6,baz=256,slow=5.5,SNR=4.2						
ASAR	Alice Springs	122.90	61	PKP	PKPdf	23 49 07.7	-1.8
ASAR	Alice Springs	122.90	61	PKIKP	PKPdf	23 49 07.7	-1.8
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	122.90	61	PKP	PKPdf	23 49 07.7	-1.8
	comp=Z,1.3nm,0.7s,baz=8.5,slow=1.3,SNR=15						
ASAR	Alice Springs	122.90	61	PKIKP	PKPdf	23 49 07.7	-1.8
SNAA	Sanae	144.71	185	PKP	PKPdf	23 49 47.5	-1.1
SNAA	Sanae	144.71	185	PKIKP	PKPdf	23 49 47.5	-1.1
SNAA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SNAA	Sanae	144.71	185	PKP	PKPdf	23 49 47.5	-1.1
	comp=Z,1.5nm,0.9s,baz=34,slow=6.8,SNR=6.6						
SNAA	Sanae	144.71	185	PKIKP	PKPdf	23 49 47.5	-1.1

IDC 25 23:34:09.0±3.1**,8.64S×107.59E,h0**^{km}**,mb3.4**/4**,mb1 3.6**/4**,**
mb1mx3.5/18**,mbtmp3.4**/4**,Error ellipse:**
s-maj=131.3km s-min=23.3km az=51.0,Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	28.20	116	P	P	23 40 03.4	-0.3
	0.4nm,0.5s,baz=288,slow=12,SNR=5.4						
ASAR	Alice Springs	29.28	124	P	P	23 40 13.7	+0.5
	0.4nm,0.8s,baz=298,slow=8.2,SNR=3.3						
SONM	Songino Array	56.23	359	P	P	23 43 50.9	0.0
	0.2nm,0.5s,baz=175,slow=7.9,SNR=3.1						
MKAR	Makanchi Array	59.62	340	P	P	23 44 14.8	+0.1
	0.4nm,0.5s,baz=149,slow=8.1,SNR=13						

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*IDC **26** 00:19:19.2±0.7,7.18S×80.66W,h0^{km},mb4.6/18,*
mb1 4.6/21,mb1mx4.6/25,mbtmp4.5/21,ML3.8/2,MS4.5/18,
Ms1 4.5/18,ms1mx4.4/25,Error ellipse: s-maj=23.8km
s-min=14.8km az=54.0
*MOS **26** 00:19:23.6±0.8,7.00S×80.61W,h33^{km},mb4.9/8,Error*
ellipse: s-maj=24.1km s-min=8.0km az=115.4
*ISCJB **26** 00:19:24.9±1.4,7.09S±0.06×80.60W±0.07,h49^{km}±12^{km},*
mb4.8/38,MS4.6/20,Error ellipse: s-maj=14.4km
s-min=7.0km az=139.5
*NEIC **26** 00:19:24.6±0.3,7.17S×80.61W,h35^{km},mb4.8/19,*
ML4.8(LIM),Error ellipse: s-maj=12.3km s-min=6.4km
az=54.0
NEIC Felt [II] at Pimentel.
*BJI **26** 00:19:24.5,7.20S×80.60W,h35^{km},mB5.2,Ms5.1,Msz4.8*
*GCMT **26** 00:19:24.6±0.2,7.26S×80.83W,h19^{km},MW5.3/65,*
Moment Tensor Solution. s57,c83; s65,c103; Duration:

1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}0.63±.02; $M_{\theta\theta}$-0.03±.01; $M_{\phi\phi}$-0.59±.02; $M_{r\theta}$0.19±.03; $M_{\theta\phi}$0.27±.01; $M_{\phi r}$-0.95±.07; Best double couple: $M_0$1.18200×10^{17} NP1:ϕ_s327.00000°,δ18.00000°,λ71.00000°. NP2: ϕ_s167.00000°,δ73.00000°,λ96.00000°. Principal axes: T 1.1510, Plg62.0000°, Azm86.0000°; N 0.0620, Plg6.0000°, Azm345.0000°; P -1.2130, Plg28.0000°, Azm252.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.

ISC 26 00:19:27.8±1.2**,708S**±006×**8049W**±007**,h57**^{km}±10^{km}**, h50**^{km}±6.5^{km}**:pP-P,n230,**σ**0**^{s}**76**/194**,mb4.8**/37**,MS4.6**/20**, 28C-49D,Off coast of northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATAH	Atahualpa	2.08	88	Pn	Pn	00 20 01.8	+1.4
	44nm,0.3s,baz=282,slow=10,SNR=118						
ATAH				Sn	Sn	00 20 36.4	+11
	343nm,0.3s,baz=121,slow=19,SNR=5.7						
NNA	Nana	6.06	144	Pn	Pn	00 20 51.9	-3.0
NNA	Nana	6.06	144	Pn	Pn	00 20 51.9	-3.0
	baz=329,slow=13						
OTAV	Otavalo	7.55	16	ePn	Pn	00 21 14.6	-0.7
ARE	Arequipa	12.82	137	eP	Pn	00 22 30.0	+2.6
LPAZ	La Paz	15.16	128	Pn	Pn	00 22 59.3	+0.7
LPAZ				LR	LR	00 29 59.0	
LPAZ	La Paz	15.16	128	Pn	Pn	00 22 59.3	+0.7
	0.6nm,0.3s,baz=296,slow=11,SNR=11						
LPAZ				LR	LR	00 29 59.0	
	comp=Z,1μm,18.3s,baz=307,slow=42						
JTS	JuntasAbangare	17.82	345	ePn	Pn	00 23 31.2	-0.8
	75nm,1.8s						
JTS				LR	LR	00 28 48.4	
JTS	JuntasAbangare	17.82	345	eP	Pn	00 23 30.1	-1.9
JTS	JuntasAbangare	17.82	345	P	Pn	00 23 28.6	-3.4
	0.3nm,0.3s,baz=180,slow=11,SNR=2.4						
JTS				LR	LR	00 28 48.4	
	comp=Z,2μm,20.6s,baz=172,slow=32						
SDV	Santo Domingo	18.65	32	ePn	Pn	00 23 41.9	-0.2
SDV	Santo Domingo	18.65	32	P	Pn	00 23 41.6	-0.5
	0.3nm,0.3s,baz=250,slow=13,SNR=6.7						
SIV	San Ignacio	20.96	117	P	P	00 24 06.5	+0.1
	15nm,0.8s,baz=296,slow=11,SNR=57						
TGUH	Tegucigalpa,Un	22.05	342	eP	P	00 24 19.4	+1.4
	52nm,1.0s,mb4.9						
PCRV	Puerto La Cruz	23.30	43	P	P	00 24 30.8	-0.2
	62nm,0.9s,mb5.0,baz=233,slow=10,SNR=12						
PCRV				LR	LR	00 35 06.2	
	comp=Z,2μm,19.9s,MS4.7,baz=65,slow=40						
CFAA	Coronel Fontan	26.95	156	P	P	00 25 01.4	-2.7
	1.3nm,0.9s,baz=332,slow=8.2,SNR=18						
CFAA				LR	LR	00 34 26.2	
	comp=Z,200nm,18.6s,baz=336,slow=34						
CMIG	Matias Romero	27.92	329	LR	LR	00 34 11.8	
	comp=Z,591nm,18.4s,MS4.2,baz=12,slow=32						
TEIG	Tepich	28.20	344	LR	LR	00 35 13.0	
	comp=Z,866nm,19.7s,MS4.3,baz=124,slow=34						
SJG	San Juan	28.75	29	eP	P	00 25 20.8	+0.5
SJG	San Juan	28.75	29	P	P	00 25 20.8	+0.5
	50nm,0.8s,mb5.3,baz=223,slow=4.7,SNR=16						
SJG				LR	LR	00 38 30.5	
	comp=Z,1μm,18.8s,MS4.5,baz=223,slow=40						
CBYP	Canovanas	29.04	30	eP	P	00 25 28.7	+6.0
LRAL	Lakeview Retre	40.37	352	eP	P	00 26 59.5	-0.6
PLAL	Pickwick Lake	42.44	351	eP	P	00 27 13.9	-3.2
CPCT	Cooper Cave	42.47	355	eP	P	00 27 17.6	+0.3
TXAR	Lajitas Array	42.52	329	P	P	00 27 17.6	-0.3
	2.3nm,0.8s,mb4.0,baz=143,slow=7.8,SNR=7.7						
TXAR				LR	LR	00 43 26.6	
	comp=Z,506nm,19.1s,MS4.4,baz=315,slow=34						
PARMO	Parma	44.37	349	eP	P	00 27 30.9	-1.7
WMOK	Wichita Mounta	45.04	339	eP	P	00 27 37.4	-0.6
SIUC	Southern Illin	45.30	350	eP	P	00 27 38.2	-1.8
	34nm,0.9s,mb5.2						
FVM	French Village	45.78	349	eP	P	00 27 43.1	-0.7
	10nm,0.8s,mb4.8						
FVM	French Village	45.78	349	eP	P	00 27 43.1	-0.7
FVM				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
ACSO	Alum Creek Sta	47.13	357	eP	P	00 27 53.7	-0.7
	comp=Z,15nm,0.8s,mb5.0						
KSU1	Kansas State U	48.32	343	eP	P	00 28 02.4	-1.2
ANMO	Albuquerque	48.46	331	eP	P	00 28 04.4	-0.4
	comp=Z,9.3nm,1.0s,mb4.8						
ANMO	Albuquerque	48.46	331	eP	P	00 28 04.4	-0.4
ANMO				pmax	pmax		
	comp=Z,9.0nm,1.0s						
TUC	Tucson	48.66	325	P	P	00 28 06.4	0.0
	comp=Z,19nm,1.0s,mb5.1						
TUC	Tucson	48.66	325	P	P	00 28 06.4	0.0
TUC				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
SDCO	Great Sand Dun	50.33	334	eP	P	00 28 19.3	+0.3
	comp=Z,6.7nm,0.8s,mb4.7						
MVCO	Mesa Verde	51.26	331	⇑P	P	00 28 25.9	-0.1
	baz=52						
ISCO	Idaho Springs	52.11	336	eP	P	00 28 31.6	-0.6
	comp=Z,13nm,1.4s,mb4.7						
ISCO	Idaho Springs	52.11	336	eP	P	00 28 31.6	-0.7
ISCO				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.7						
PV10	Paradox Valley	52.45	332	eP	P	00 28 32.1	-2.7
W13A	Hualapai Mount	52.46	325	⇑P	P	00 28 34.9	0.0
	baz=53						
SRU	San Rafael	53.73	331	eP	P	00 28 44.2	-0.1
V11A	Goodsprings	53.87	325	⇑P	P	00 28 44.9	-0.4
	baz=54						
T13A	Saint George	53.87	327	⇓P	P	00 28 45.1	-0.3
	baz=54						
MSU	Marysvale	54.08	329	eP	P	00 28 47.9	+1.0
MSU				epP	pP	00 28 57.5	-4.5
ARUT	Antelope Range	54.19	328	eP	P	00 28 47.4	-0.2
S13A	Holt Ranch, En	54.26	327	⇓P	P	00 28 48.9	+0.7
	baz=54,SNR=5.2						
RKT	Rikitea	54.65	247	eLR	LR	00 44 40.0	
	comp=Z,1μm,26.5s						
T11A	Corn Creek, Al	54.75	326	⇓P	P	00 28 52.1	+0.4
	baz=55						
DAU	Daniels Canyon	55.10	332	eP	P	00 28 55.6	+1.4
JLU	Jordanelle	55.34	332	eP	P	00 28 56.9	+1.0
DUG	Dugway	55.69	330	eP	P	00 28 58.2	-0.2
	comp=Z,14nm,1.3s,mb4.8						
DUG	Dugway	55.69	330	eP	P	00 28 58.2	-0.2
DUG				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.8						
S10A	Tonopah Range,	56.00	326	⇑P	P	00 29 01.0	+0.3
	baz=56						
Q11A	Duckwater	56.15	327	⇓P	P	00 29 01.8	+0.1
	baz=56						
HWUT	Hardware Ranch	56.19	332	eP	P	00 29 01.8	-0.1
P12A	McGill	56.21	328	⇓P	P	00 29 02.6	+0.5
	baz=56						
PDAR	Pinedale Array	56.22	335	P	P	00 29 01.5	-0.7
	comp=Z,2.7nm,0.9s,mb4.3,baz=139,slow=8.2,SNR=14						
PDAR				PcP	PcP	00 29 58.5	-0.7
	comp=Z,1.5nm,0.8s,baz=138,slow=4.3,SNR=3.9						
PDAR				LR	LR	00 52 36.6	
	comp=Z,283nm,19.8s,MS4.4,baz=24,slow=36						
M15A	Larsen Ranch,	56.49	332	⇓P	P	00 29 05.0	+0.9
	baz=57						
O12A	Currie	56.71	329	⇓P	P	00 29 06.9	+1.1
	baz=57						
AGMN	Agassiz Refuge	56.78	348	eP	P	00 29 04.9	-1.1
	comp=Z,16nm,0.8s,mb5.1						
AHID	Auburn Hatcher	56.90	333	eP	P	00 29 05.0	-1.9
	comp=Z,4.8nm,0.8s,mb4.6						
M14A	Sheep Mountain	56.95	331	⇓P	P	00 29 07.3	0.0
	baz=57						
Q09A	Carvers	56.97	326	⇓P	P	00 29 07.0	-0.6
	baz=57						
O11A	Cowboy Ranch,	57.08	328	⇑P	P	00 29 09.1	+0.8
	baz=57						
REDW	Red Top Meadow	57.26	334	eP	P	00 29 06.5	-3.0
NVAR	Mina Array Bea	57.32	325	P	P	00 29 10.5	+0.5
NVAR				PcP	PcP	00 30 04.0	+0.3
NVAR	Mina Array Bea	57.32	325	P	P	00 29 10.5	+0.5
	comp=Z,0.8nm,0.3s,mb4.3,baz=134,slow=8.1,SNR=5.0						
NVAR				PcP	PcP	00 30 04.0	+0.3
	comp=Z,1.5nm,0.5s,baz=132,slow=4.3,SNR=4.1						
ELK	Elko	57.32	329	eP	P	00 29 10.9	+0.9
	comp=Z,6.8nm,0.8s,mb4.7						
ELK	Elko	57.32	329	eP	P	00 29 10.9	+0.9
ELK				pmax	pmax		
	comp=Z,7.0nm,0.8s						
MOOW	Moose Ponds	57.53	334	eP	P	00 29 11.1	-0.3
O10A	Cortez Mining,	57.64	328	⇓P	P	00 29 13.1	+0.8
	baz=58						
M12A	Wells	57.65	330	⇓P	P	00 29 11.9	-0.4
	baz=58						
K14A	Jones Ranch, D	57.67	332	P	P	00 29 12.1	-0.3
	baz=58,SNR=6.7						
IMW	Indian Meadow	57.73	334	eP	P	00 29 13.7	+0.9
M11A	Holland Ranch,	58.11	329	⇓P	P	00 29 16.0	+0.5
	baz=58						
K13A	Stover Farm, H	58.18	331	⇓P	P	00 29 16.0	0.0
	baz=58						
K12A	Draper Farm, C	58.56	331	P	P	00 29 18.8	+0.1
	baz=59,SNR=6.1						
L11A	Cat Creek Ranc	58.63	330	P	P	00 29 19.7	+0.6
	baz=59,SNR=5.1						
ULM	Lac du Bonnet	58.64	348	P	P	00 29 17.5	-1.5
	comp=Z,8.1nm,0.9s,mb4.8,baz=165,slow=7.3,SNR=19						
QLMT	Earthquake Lak	58.69	335	eP	P	00 29 19.6	+0.1
GCMT	Greycliff	58.75	336	eP	P	00 29 19.0	-0.8
J13A	Cove Ranch, Pi	58.79	332	P	P	00 29 20.6	+0.3
	baz=59,SNR=5.2						
L10A	Juniper Basin	58.93	329	⇓P	P	00 29 21.4	+0.2
	baz=59						
M09A	Marrel Ranch,	58.96	328	⇓P	P	00 29 21.6	+0.2
	baz=59						
HLID	Hailey	59.03	332	eP	P	00 29 22.4	+0.5
	comp=Z,7.3nm,0.9s,mb4.7						
HLID	Hailey	59.03	332	P	P	00 29 22.4	+0.5
	baz=59,SNR=12						
TAOE	Nuku Hiva Isla	59.06	264	eS	S	00 37 26.8	+0.9
	comp=Z,4μm,27.1s						
TAOE				eLR	LR	00 46 37.6	
	comp=Z,2μm,23.7s						
J12A	Stokes Ranch,	59.12	331	⇑P	P	00 29 22.8	+0.3
	baz=59						
I13A	Wildhorse Cree	59.16	332	P	P	00 29 23.4	+0.6
	baz=59,SNR=11						
K11A	Parker Ranch,	59.22	330	⇑P	P	00 29 23.5	+0.3
	baz=59						
P05C	Yuba Gap, Truc	59.23	324	⇓P	P	00 29 22.7	-0.7
	baz=59						
MCMT	McKenzie Canyo	59.30	334	eP	P	00 29 23.8	0.0
G15A	Dillon	59.41	334	P	P	00 29 25.0	+0.5
	baz=60,SNR=5.5						
BOZ	Bozeman (W)	59.43	335	eP	P	00 29 24.4	-0.2
	comp=Z,6.6nm,1.1s,mb4.6						
BOZ	Bozeman (W)	59.43	335	eP	P	00 29 24.4	-0.2
BOZ				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
BOZ	Bozeman (W)	59.43	335	P	P	00 29 24.0	-0.6
	baz=60,SNR=6.3						
L09A	Wilkinson Ranc	59.50	328	P	P	00 29 25.4	+0.3
	baz=60,SNR=8.1						
MFID	Camas Ranch	59.60	331	P	P	00 29 26.3	+0.5
	baz=60,SNR=10						
DLMT	Dillon	59.61	334	epP	pP	00 29 33.9	-7.3
K10A	MacKenzie Ranc	59.64	330	P	P	00 29 26.4	+0.3
	baz=60,SNR=7.0						
H13A	Challis	59.73	333	⇓P	P	00 29 26.7	0.0
	baz=60						
N06A	Buffalo Meadow	59.77	326	P	P	00 29 27.4	+0.3
	baz=60,SNR=6.0						
O05C	Quincy	59.85	325	⇑P	P	00 29 27.6	0.0
	baz=60						
G14A	Jackson	59.90	334	⇓P	P	00 29 27.9	+0.1
	baz=60						
ORV	Oroville	59.91	324	⇓P	P	00 29 28.0	0.0
	baz=60						
F15A	Butte	59.95	335	⇓P	P	00 29 28.0	-0.2
	baz=60						
L08A	Fields	59.97	328	⇓P	P	00 29 28.3	-0.1
	baz=60						
H12A	Diamond D Ranc	59.99	332	P	P	00 29 28.9	+0.4
	baz=60,SNR=8.5						
K09A	Rome	60.02	329	P	P	00 29 29.2	+0.5
	baz=60,SNR=13						
I11A	Placerville	60.03	331	⇓P	P	00 29 28.7	0.0
	baz=60						
G13A	Cobalt	60.12	333	P	P	00 29 29.5	+0.1
	baz=60,SNR=5.5						
F14A	Wisdom	60.30	334	⇓P	P	00 29 31.3	+0.8
	baz=60						
E15A	Deer Lodge	60.47	335	⇓P	P	00 29 31.9	+0.1
	baz=61						
J09A	Fry Pan Ranch,	60.50	329	⇑P	P	00 29 32.5	+0.6
	baz=61						
I10A	Payette	60.57	331	⇓P	P	00 29 33.4	+0.9
	baz=61						
EGMT	Eagleton	60.63	338	eP	P	00 29 34.6	+1.8
EGMT	Eagleton	60.63	338	⇓P	P	00 29 32.4	-0.4
	baz=61						
H11A	Donnelly	60.65	332	⇑P	P	00 29 33.0	0.0
	baz=61						
MOD	Modoc	60.82	327	⇓P	P	00 29 33.6	-0.5
	baz=61						
E14A	Clinton	60.83	334	⇑P	P	00 29 34.6	+0.4
	baz=61						
M05C	Lookout	60.91	326	⇓P	P	00 29 34.6	-0.2
	baz=61						
F12A	Elk City	61.09	333	P	P	00 29 37.1	+1.2
	baz=61,SNR=5.4						
MSO	Missoula	61.34	334	eP	P	00 29 37.8	+0.1
	comp=Z,6.1nm,1.0s,mb4.7						
D14A	Greenough	61.36	335	⇓P	P	00 29 38.2	+0.5
	baz=62						
K06A	Valley Falls	61.40	328	⇑P	P	00 29 38.6	+0.5
	baz=62						
J06A	Christmas Vall	61.67	328	⇑P	P	00 29 39.1	-0.8
	baz=62						
K05A	Summer Lake	61.70	327	⇓P	P	00 29 39.9	-0.2
	baz=62						
D13A	Huson	61.77	334	⇑P	P	00 29 40.7	+0.1
	baz=62						
N02C	Big Bar	61.79	324	⇓P	P	00 29 40.8	0.0
	baz=62						
H08A	Prairie City	61.80	330	⇓P	P	00 29 40.4	-0.4
	baz=62						
I07A	Izee	61.91	329	⇑P	P	00 29 42.1	+0.5
	baz=62						
E11A	Bogner Ranch,	61.98	333	⇑P	P	00 29 41.7	-0.3
	baz=62						
C14A	Swan Lake	62.00	335	⇓P	P	00 29 42.2	+0.2
	baz=62						
YBH	Yreka Blue Hor	62.04	325	⇓P	P	00 29 41.5	-0.9
	baz=62						
D12A	Red Ives Fores	62.13	334	⇓P	P	00 29 42.7	-0.2
	baz=62						
F10A	Beach Ranch, E	62.17	332	⇑P	P	00 29 43.9	+0.7
	baz=62						
I06A	Prineville	62.18	329	⇓P	P	00 29 43.5	+0.2
	baz=62						
C13A	Hot Springs	62.28	335	⇑P	P	00 29 44.0	+0.1
	baz=62						
E10A	Myers Farm, Un	62.49	332	⇑P	P	00 29 45.7	+0.4
	baz=63						
G08A	Pilot Rock	62.50	330	⇓P	P	00 29 45.4	0.0
	baz=63						
D11A	Klaveano Farm,	62.56	333	⇑P	P	00 29 45.6	-0.2
	baz=63						
SCHQ	Schefferville	62.73	9	P	P	00 29 45.9	-0.9
	comp=Z,8.6nm,0.8s,mb4.9,baz=196,slow=5.1,SNR=7.2						
SCHQ				LR	LR	00 59 53.3	
	comp=Z,280nm,18.2s,MS4.5,baz=174,slow=39						
H06A	Lindquist Farm	62.79	329	⇑P	P	00 29 47.3	-0.1
	baz=63						
I05A	Bend	62.88	328	⇓P	P	00 29 48.2	+0.2
	baz=63						
D10A	Wagner Farm, O	62.99	333	P	P	00 29 47.6	-1.1
	baz=63,SNR=5.5						
E09A	Wood Farm, Sta	62.99	332	⇓P	P	00 29 48.1	-0.6
	baz=63						
WALA	Waterton Lakes	63.09	336	eP	P	00 29 49.9	+0.6
	comp=Z,10nm,1.1s,mb4.9						
K02A	Glendale	63.15	326	⇑P	P	00 29 49.6	-0.2
	baz=63						
A13A	Flathead Natio	63.19	336	⇓P	P	00 29 49.8	-0.1
	baz=63						
H05A	Madras	63.19	329	⇑P	P	00 29 49.9	-0.1
	baz=63						
B12A	Libby	63.32	335	⇑P	P	00 29 51.3	+0.5
	baz=64						
B11A	Sandpoint	63.63	334	⇓P	P	00 29 53.0	+0.1
	baz=64						
A12A	Yaak River Ran	63.70	335	⇓P	P	00 29 54.2	+0.8
	baz=64						
H04A	Detroit Lake	63.72	328	⇑P	P	00 29 53.7	+0.2
	baz=64						
F06A	Goldendale	63.74	330	⇓P	P	00 29 53.9	+0.3
	baz=64						
NEW	Newport	63.83	334	P	P	00 29 53.5	-0.7
	comp=Z,4.3nm,0.9s,mb4.5,baz=126,slow=4.7,SNR=6.6						
E07A	Sunnyside	63.84	331	P	P	00 29 54.9	+0.6
	baz=64,SNR=5.7						
A11A	Hall Mountain,	64.02	335	P	P	00 29 56.2	+0.7
	baz=64,SNR=7.3						
F05A	White Salmon	64.16	329	⇑P	P	00 29 57.0	+0.6
	baz=64						
G04A	Mulino	64.22	328	⇓P	P	00 29 57.0	+0.2
	baz=64						
C08A	Higginbotham F	64.34	332	⇓P	P	00 29 57.3	-0.3
	baz=64						
D07A	Quincy	64.35	331	⇑P	P	00 29 58.3	+0.6
	baz=64						
B09A	Rice	64.40	333	⇓P	P	00 29 58.3	+0.4
	baz=65						
C07A	Waterville	64.75	332	⇓P	P	00 29 59.9	-0.3
	baz=65						
A09A	Danville	65.01	333	P	P	00 30 02.1	+0.3
	baz=65,SNR=5.5						
A08A	Turner Farm, O	65.30	333	P	P	00 30 04.3	+0.5
	baz=66,SNR=5.7						
B07A	Winthrop	65.33	332	⇑P	P	00 30 04.0	0.0
	baz=66						
A07A	Ashnola River,	65.87	332	⇓P	P	00 30 08.5	+1.0
	baz=66						
B05A	Bryant	66.12	331	⇓P	P	00 30 08.8	-0.3
	baz=66						
EDM	Edmonton	66.21	339	eP	P	00 30 08.9	-0.6
FCC	Fort Churchill	66.53	352	eP	P	00 30 10.3	-1.1
	comp=Z,6.2nm,0.9s,mb4.6						
FCC	Fort Churchill	66.53	352	eP	P	00 30 10.4	-1.1
FCC				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
PPT	Papeete	68.00	254	eS	S	00 39 18.1	+1.0
	comp=Z,871nm,27.0s						
PPT				eLR	LR	00 50 54.0	
	comp=Z,863nm,23.8s,baz=90						
PPT	Papeete	68.00	254	LR	LR	00 53 14.0	
	comp=Z,532nm,18.5s,MS4.8,baz=35,slow=30						
YKA	Yellowknife Ar	74.15	344	P	P	00 30 57.0	-0.9
YKA				LR	LR	01 04 51.6	
YKA	Yellowknife Ar	74.15	344	P	P	00 30 57.0	-0.9
	comp=Z,1.9nm,0.8s,mb4.1,baz=139,slow=5.5,SNR=38						
YKA				LR	LR	01 04 51.6	
	comp=Z,185nm,18.7s,MS4.4,baz=65,slow=37						
DLBC	Dease Lake	76.43	336	P	P	00 31 11.9	+0.8
	baz=130,slow=6.6						
LIC	Lamto	76.44	82	eP	P	00 31 12.7	+0.6
	comp=Z,43nm,1.0s,mb5.3						
TIC	Toumodi	76.51	81	eP	P	00 31 13.2	+0.7
	comp=Z,106nm,1.2s,mb5.7						
KIC	Kosan Boka	76.74	82	eP	P	00 31 14.8	+1.0
	comp=Z,106nm,1.1s,mb5.7						
SFJD	Kangerlussuaq	76.96	12	P	P	00 31 12.3	-1.6
	comp=Z,11nm,0.9s,mb4.8,baz=165,slow=2.8,SNR=4.1						
VNA3	Neumayer Olymp	77.21	162	eP	P	00 31 14.5	-0.9
VNA3				e		00 31 22.5	
VNA3				e	pP	00 31 30.4	-0.9
VNA2	Neumayer--Watz	77.85	161	eP	P	00 31 18.0	-0.9
VNA2				e		00 31 26.2	
VNA2				e	pP	00 31 32.8	-2.0
SNAA	Sanae	79.44	162	eP	P	00 31 26.2	-1.5
MDT	Midelt	82.07	56	P	P	00 31 43.0	+0.6
	comp=Z,4.8nm,0.9s,mb4.4,baz=264,slow=8.2,SNR=7.0						
RES	Resolute Bay	82.10	356	eP	P	00 31 41.3	-0.5
DAWY	Dawson	83.37	338	eP	P	00 31 48.7	+0.2
INK	Inuvik	83.79	343	eP	P	00 31 49.8	-0.8
	comp=Z,233nm,1.0s						
INK	Inuvik	83.79	343	P	P	00 31 50.0	-0.6
	comp=Z,6.2nm,1.0s,mb4.7,baz=142,slow=5.3,SNR=13						
BORG	Borgarnes	83.82	22	P	P	00 31 52.3	+1.5
	comp=Z,20nm,0.9s,mb5.2,baz=256,slow=4.2,SNR=3.7						
TOA0	Torodi Ar. Sit	84.04	76	eP	P	00 31 52.7	-0.3
TORD	Torodi Ar. Bea	84.04	76	P	P	00 31 53.3	+0.3
	comp=Z,3.9nm,0.7s,mb4.6,baz=269,slow=5.6,SNR=30						
TORD				LR	LR	01 08 00.8	
	comp=Z,923nm,20.8s,MS5.1,baz=250,slow=35						
ESDC	Sonseca Array	84.22	49	P	P	00 31 55.0	+1.6
	comp=Z,5.0nm,0.9s,mb4.7,baz=266,slow=4.9,SNR=19						
ESDC				LR	LR	01 07 03.2	
	comp=Z,232nm,18.2s,MS4.6,baz=265,slow=34						
EGAK	Eagle	84.39	338	eP	P	00 31 52.8	-0.9
	comp=Z,14nm,1.0s,mb5.0						
COLA	College	87.00	337	eP	P	00 32 06.3	-0.3
VNDA	Vanda	88.90	191	LR	LR	01 02 55.3	
	comp=Z,341nm,20.2s,MS4.8,baz=129,slow=30						
IMA2	Indian Mountai	89.70	337	eP	P	00 32 18.8	-0.6
KEST	Kesra	93.95	55	LR	LR	01 14 19.5	
	comp=Z,129nm,19.1s,MS4.4,baz=204,slow=35						
NOA	NORSAR Array B	96.97	29	LR	LR	01 12 06.3	
	comp=Z,152nm,20.6s,MS4.5,baz=270,slow=33						
GERES	GERESS Array B	98.04	42	P	P	00 32 57.6	-0.4
	comp=Z,0.6nm,0.9s,mb4.1,baz=246,slow=9.6,SNR=2.9						
GERES				LR	LR	01 17 49.6	
	comp=Z,132nm,18.1s,MS4.5,baz=257,slow=36						
AKTK	Aktyubinsk	124.72	31	PKP	PKPdf	00 38 20.9	-0.3
AKTO	Aktyubinsk	124.72	31	PKIKP	PKPdf	00 38 20.9	-0.2
AKTO	Aktyubinsk	124.72	31	PKP	PKPdf	00 38 20.9	-0.3
	comp=Z,1.1nm,0.8s,baz=310,slow=1.7,SNR=4.9						
ZALV	Zalesovo Beam	131.78	12	PKP	PKPdf	00 38 33.8	-0.7
ZALV	Zalesovo Beam	131.78	12	PKP	PKPdf	00 38 33.8	-0.7
	comp=Z,0.6nm,0.4s,baz=331,slow=2.1,SNR=8.6						
ZAL	Zalesovo	131.78	12	PKIKP	PKPdf	00 38 33.8	-0.7
MDJ	Mudanjiang	134.35	330	PKP	PKPdf	00 38 42.3	+2.7
MDJ				XPKP		00 38 53.3	
MDJ				SS	SS	00 58 59.5	+2.7
ASAR	Alice Springs	134.59	227	PKP	PKPdf	00 38 40.1	-0.6
ASAR	Alice Springs	134.59	227	PKIKP	PKPdf	00 38 40.1	-0.6
ASAR	Alice Springs	134.59	227	PKP	PKPdf	00 38 40.1	-0.6
	comp=Z,1.3nm,0.7s,baz=126,slow=2.0,SNR=13						
WB2	Warramunga Arr	136.46	231	eP	PKPdf	00 38 42.7	-1.6
WRA	Warramunga Arr	136.47	231	PKP	PKPdf	00 38 42.8	-1.6
WRA	Warramunga Arr	136.47	231	PKIKP	PKPdf	00 38 42.8	-1.5
WRA	Warramunga Arr	136.47	231	PKP	PKPdf	00 38 42.8	-1.6
	comp=Z,4.2nm,0.9s,baz=126,slow=1.7,SNR=18						
MKAR	Makanchi Array	137.76	18	PKP	PKPdf	00 38 44.4	-1.5
MKAR	Makanchi Array	137.76	18	PKIKP	PKPdf	00 38 44.4	-1.5
MKAR	Makanchi Array	137.76	18	PKP	PKPdf	00 38 44.4	-1.5
	comp=Z,1.7nm,1.0s,baz=349,slow=0.1,SNR=9.6						
SONM	Songino Array	138.97	353	PKP	PKPdf	00 38 47.1	-0.9
SONM				PP	PP	00 41 38.5	-1.0
SONM	Songino Array	138.97	353	PKIKP	PKPdf	00 38 47.1	-1.0
SONM						00 41 38.5	
SONM	Songino Array	138.97	353	PKhKP		00 38 37.4	
	comp=Z,0.8nm,0.8s,baz=343,slow=2.6,SNR=7.9						
SONM				PKP	PKPdf	00 38 47.1	-0.9
	comp=Z,0.9nm,0.9s,baz=0.9,slow=2.3,SNR=4.5						
SONM				PP	PP	00 41 38.5	-1.0
	comp=Z,0.7nm,1.0s,baz=344,slow=4.7,SNR=4.2						
KSRS	Korea Array	140.25	324	PKhKP		00 38 42.5	
	comp=Z,0.4nm,0.3s,baz=141,slow=2.6,SNR=2.8						
KSRS				PKP	PKPdf	00 38 49.5	-1.3
	comp=Z,1.4nm,0.6s,baz=58,slow=0.6,SNR=5.2						
BJI	Beijing	143.94	338	PKP	PKPdf	00 38 56.0	-1.3
BJI				SKS	SKSdf	00 46 03.0	+0.8
BJI				SS	SS	01 00 50.8	+1.7
BJI				LR	LR		
	comp=Z,153nm,36.8s,MS4.5						
HHC	Hu-ho-hao-te	144.69	344	ePKP	PKPdf	00 38 58.0	-0.5
HHC				APKP		00 39 08.8	
HHC				XPKP		00 39 12.5	
HHC				PP	PP	00 42 18.8	+4.3
HHC				PKS		00 42 32.3	
HHC				SKS	SKSdf	00 46 02.8	-0.4
HHC				SKKS	SKKSac	00 49 03.3	+0.1
HHC				SS	SS	01 01 01.0	+3.5
HHC				PP	PP		
	comp=Z,127nm,8.1s						
HHC				LR	LR		
	comp=N,129nm,36.0s,MS4.6						
HHC				LR	LR		
	comp=E,148nm,36.0s,MS4.6						
HHC				LR	LR		
	comp=Z,135nm,38.4s,MS4.4						
BTO	Baotou	145.32	346	ePKP	PKPdf	00 38 54.8	-4.8
GTA	Gaotai	147.81	360	ePKP	PKPdf	00 39 06.0	+2.1
GTA				APKP		00 39 16.3	
GTA				XPKP		00 39 20.5	
GTA				PKS		00 42 38.3	
GTA				PP	PP	00 42 41.8	+9.1
GTA				SKS	SKSdf	00 46 09.3	+1.5
GTA				SKKS	SKKSac	00 49 25.5	+4.7
GTA				SS	SS	01 01 42.5	+10

GTA				PP	PP		
	comp=Z,213nm,6.8s						
GTA				LR	LR		
	comp=N,237nm,14.1s,MS5.2						
GTA				LR	LR		
	comp=E,174nm,13.7s,MS5.2						
GTA				LR	LR		
	comp=Z,190nm,12.9s,MS5.1						
CD2	Chengdu	155.96	351	ePKP	PKPdf	00 39 15.0	-1.3
CD2				APKP		00 39 25.8	
CD2				XPKP		00 39 29.3	
CD2				PKP2	PKPab	00 39 47.5	+4.1
CD2				PP	PP	00 43 23.5	+4.2
CD2				SKS	SKSdf	00 46 16.0	-2.2
CD2				SKKS	SKKSac	00 50 06.5	+1.0
CD2				PP	PP		
	comp=Z,120nm,10.8s						
CD2				LR	LR		
	comp=N,120nm,24.0s,MS4.8						
CD2				LR	LR		
	comp=E,130nm,26.4s,MS4.8						
CD2				LR	LR		
	comp=Z,120nm,24.2s,MS4.6						
GYA	Guiyang	159.56	341	i PKP	PKPdf	00 39 19.5	-1.4
GYA				APKP		00 39 31.3	
GYA				XPKP		00 39 35.8	
GYA				PKP2	PKPab	00 39 58.3	-0.7
GYA				PKS		00 42 51.3	
GYA				PP	PP	00 43 42.3	+3.1
GYA				SKKS	SKKSac	00 50 25.0	+0.3
GYA				PP	PP		
	comp=Z,110nm,7.8s						
GYA				LR	LR		
	comp=N,120nm,20.9s,MS5.0						
GYA				LR	LR		
	comp=E,170nm,21.8s,MS5.0						
GYA				LR	LR		
	comp=Z,110nm,21.4s,MS4.7						
KMI	Kunming	161.79	351	PKP	PKPdf	00 39 19.0	-4.4
KMI				APKP		00 39 33.3	
KMI				XPKP		00 39 37.3	
KMI				PP	PP	00 43 55.8	+4.8
KMI				SKKS	SKKSac	00 50 39.0	+2.8
KMI				SS	SS	01 04 10.0	+5.8
KMI				PP	PP		
	comp=Z,201nm,6.9s						
KMI				LR	LR		
	comp=N,153nm,15.9s						
KMI				LR	LR		
	comp=E,285nm,16.5s						
KMI				LR	LR		
	comp=Z,243nm,15.4s						

*IDC **26** 00:58:45.0±0.8, 33.19N×90.47E, h0^{km}, mb3.7/10, mb1 3.8/12, mb1mx3.8/22, mbtmp3.6/12, ML3.1/2, Error ellipse: s-maj=32.2km s-min=17.5km az=48.0*

*ISCJB **26** 00:58:46.8±2.3, 33.21N±0.05×90.30E±0.05, h22^{km}±19^{km}, mb3.7/10, Error ellipse: s-maj=8.2km s-min=7.0km az=13.3*

*BJI **26** 00:58:47.3, 33.25N×90.36E, h24^{km}, mB4.4, mb4.4, Ms4.1, Msz3.8*

*NEIC **26** 00:58:50.3±0.9, 33.28N×90.47E, h35^{km}, mb3.6/2, Error ellipse: s-maj=17.6km s-min=12.0km az=76.0*

ISC 26 00:58:49.9±2.2**, 33.22N**±0.05×**90.25E**±0.05**, h28**^{km}±18^{km}**, n29, σ1**^{s}**14**/33**, mb3.7**/10**, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	Lhasa	3.59	167	P	Pn	00 59 44.5	+0.8
LSA				SG	Sn	01 00 34.5	+9.3
LSA	Lhasa	3.59	167	ePn	Pn	00 59 44.1	+0.4
LSA				eSn	Sn	01 00 24.7	-0.5
TAPN	Taplejung	6.25	201	eP	Pn	01 00 19.6	-0.6
	3.7nm,0.4s						
JIRN	Jiri	6.55	213	eP	Pn	01 00 24.7	+0.3
	12nm,0.4s						
ODAN	Odare	6.80	202	eP	Pn	01 00 26.4	-1.4
	20nm,0.6s						
KKN	Kakani	6.90	220	eP	Pn	01 00 29.1	-0.1
	34nm,0.6s						
GKN	Gorkha	7.10	224	eP	Pn	01 00 32.1	+0.2
	14nm,0.4s						
SHL	Shillong	7.76	169	eP	Pn	01 00 41.0	0.0
SHL				eS	Sn	01 02 47.0	+39
LZH	Lanzhou	11.56	72	eP	Pn	01 01 36.0	+3.0
LZH				AP		01 01 42.5	
LZH				XP		01 01 48.5	
LZH				eS	Sn	01 03 42.0	+1.0
LZH				XS		01 03 53.3	
LZH				SS		01 03 57.0	
LZH				AMB	AMB		
	comp=Z,13nm,1.0s						
LZH				AMB	AMB		
	comp=Z,60nm,4.0s						
LZH				LR	LR		
	comp=N,1μm,11.0s						
LZH				LR	LR		
	comp=Z,1μm,12.0s						
CD2	Chengdu	11.69	98	eP	Pn	01 01 35.0	+0.2
CD2				PP		01 01 44.3	
CD2				S	Sn	01 03 43.5	-0.9
CD2				SS		01 03 57.3	
CD2				AMB	AMB		
	comp=Z,20nm,4.2s						
CD2				LR	LR		
	comp=N,260nm,9.6s						
CD2				LR	LR		
	comp=E,370nm,8.4s						
CD2				LR	LR		
	comp=Z,180nm,9.6s						
MK31	Makanchi Array	14.85	338	ePn	Pn	01 02 17.2	-0.7
MKAR	Makanchi Array	14.85	338	Pn	Pn	01 02 16.3	-1.5
MKAR	Makanchi Array	14.85	338	Pn	Pn	01 02 16.3	-1.5
	comp=Z,0.1nm,0.3s,baz=147,slow=14,SNR=9.7						
TKM2	Tokmak 2	15.04	314	ePn	Pn	01 02 26.9	+6.4
	comp=Z,3.7nm,0.7s						
UCH	Uchtor	15.34	310	ePn	Pn	01 02 27.9	+3.6
	comp=Z,2.7nm,0.8s						
GYA	Guiyang	15.75	111	P	Pn	01 02 31.3	+1.6
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s						
KBL	Kabul	17.66	280	ePn	Pn	01 02 55.0	+1.2
SONM	Songino Array	19.02	35	P	Pn	01 03 07.6	-2.6
	comp=Z,0.1nm,0.3s,baz=218,slow=11,SNR=6.1						
ZALV	Zalesovo Beam	21.08	351	P	P	01 03 31.4	-0.3
	comp=Z,1.1nm,0.6s,mb3.4,baz=170,slow=12,SNR=6.4						
NJ2	Nanjing	24.09	85	eP	P	01 04 03.0	0.0
BRTR	Keskin Array B	45.34	295	P	P	01 07 06.0	+0.6
	comp=Z,0.6nm,0.8s,mb3.5,baz=62,slow=6.5,SNR=3.6						
AKASG	Malin Array Be	47.23	311	P	P	01 07 20.0	-0.1
	comp=Z,1.1nm,0.6s,mb4.0,baz=80,slow=7.0,SNR=2.2						
FINES	FINESS Array B	49.18	325	P	P	01 07 36.0	+0.9
	comp=Z,1.5nm,0.9s,mb4.0,baz=213,slow=4.8,SNR=3.1						
NOA	NORSAR Array B	56.36	325	P	P	01 08 28.6	+0.5
	comp=Z,0.5nm,0.6s,mb3.7,baz=46,slow=14,SNR=2.5						
GERES	GERESS Array B	57.44	310	P	P	01 08 38.2	+2.2
	comp=Z,0.3nm,0.6s,mb3.5,baz=70,slow=8.5,SNR=3.2						
WRA	Warramunga Arr	67.57	135	P	P	01 09 41.1	-2.8
	comp=Z,1.5nm,0.8s,mb4.0,baz=330,slow=6.5,SNR=6.2						
ASAR	Alice Springs	70.22	138	P	P	01 10 00.8	+0.4
	comp=Z,1.7nm,0.8s,mb4.0,baz=324,slow=5.8,SNR=14						
TORD	Torodi Ar. Bea	81.73	280	P	P	01 11 05.8	-0.5
	comp=Z,0.5nm,0.6s,mb3.6,baz=56,slow=4.3,SNR=7.3						
YKA	Yellowknife Ar	82.54	11	P	P	01 11 07.8	-1.9
	comp=Z,0.5nm,0.9s,mb3.6,baz=348,slow=4.4,SNR=6.6						

*ISCJB **26** 01:14:20.0±0.6, 73.18N±0.05×7.6E±0.2, h10^{km}, mb3.3/5, Error ellipse: s-maj=8.8km s-min=6.0km az=148.8*

*CSEM **26** 01:14:21.5±0.1, 73.13N×6.42E, h10^{km}, ML3.0, Error ellipse: s-maj=3.9km s-min=2.8km az=70.0*

*NAO **26** 01:14:21.2±2.3, 73.12N×7.31E, ML2.7*

*NEIC **26** 01:14:21.9±0.5, 73.17N×7.23E, h10^{km}, mb3.8/1, Error ellipse: s-maj=9.9km s-min=6.6km az=65.0*

*IDC **26** 01:14:21.1±1.2, 73.07N×6.99E, h0^{km}, mb3.5/5, mb1 3.7/9, mb1mx3.5/24, mbtmp3.5/9, ML3.1/4, Error ellipse: s-maj=23.3km s-min=16.6km az=34.0*

*BER **26** 01:14:22.8±3.9, 73.11N×6.88E, h10^{km}, ML2.2, ML2.7(NAO)*

*HEL **26** 01:14:27.6±1.1, 72.96N×8.05E, h10^{km}, ML3.0, mb3.8(NEIC), ML2.2(BER)*

ISC 26 01:14:26.3±0.8**, 72.86N**±0.06×**7.9E**±0.2**, h10**^{km}**, n72, σ0**^{s}**97**/86**, mb3.3**/5**, Norwegian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRO	Tromso	4.80	127	eP	Pn	01 15 38.5	0.0
TRO				eS	Sn	01 16 33.6	-0.5
TRO				e		01 20 12.4	
TRO	Tromso	4.80	127	eP	Pn	01 15 38.5	0.0
LOF	Lofoten	5.11	156	eP	Pn	01 15 44.1	+1.3
LOF	Lofoten	5.11	156	ePn	Pn	01 15 44.1	+1.3
LOF	Lofoten	5.11	156	ePn	Pn	01 15 44.1	+1.3
	SNR=50						
KIF	Kilpisjarvi	5.72	126	eP	Pn	01 15 51.8	+0.7
KIF				eS	Sn	01 16 55.7	-0.9
KIF				MSN		01 17 01.4	
	comp=Z,6.3nm,0.3s						
SPB4	Spitsbergen Ar	5.74	18	ePn	Pn	01 15 43.2	-8.1
SPB4				eSn	Sn	01 17 02.6	+5.5
SPB4	Spitsbergen Ar	5.74	18	ePn	Pn	01 15 43.2	-8.1
SPA0	Spitsbergen Ar	5.74	18	Pn	Pn	01 15 43.1	-8.2
	baz=205,slow=14						
SPA0	Spitsbergen Ar	5.74	18	e	Pn	01 15 43.1	-8.2
SPA0	Spitsbergen Ar	5.74	18	Pn	Pn	01 15 43.1	-8.2
	baz=205,slow=14						
SPA0	Spitsbergen Ar	5.74	18	Pn	Pn	01 15 43.2	-8.2
	SNR=50						
KBS	Kingsbay	6.17	7	eP	Pn	01 15 48.7	-8.6
KBS				AML	AML	01 17 18.1	
	comp=Z,2.4nm,0.5s						
KBS	Kingsbay	6.17	7	ePn	Pn	01 15 48.5	-8.8
KBS				eSn	Sn	01 17 08.1	+0.3
KBS	Kingsbay	6.17	7	ePn	Pn	01 15 48.5	-8.8
KTK1	Kautokeino	6.32	120	eP	Pn	01 16 00.8	+1.6
KTK1				e		01 20 50.9	
KTK1	Kautokeino	6.32	120	ePn	Pn	01 16 00.8	+1.6
KTK1				e		01 20 50.9	
KTK1	Kautokeino	6.32	120	ePn	Pn	01 16 00.9	+1.6
	SNR=50						
ARA0	ARCESS Array S	6.57	112	Pn	Pn	01 16 03.1	+0.3
	baz=308,slow=12						
ARA0				Sn	Sn	01 17 17.2	-0.4
	baz=314,slow=22						
ARA0	ARCESS Array S	6.57	112	eP	Pn	01 16 03.1	+0.3
ARA0				eS	Sn	01 17 17.2	-0.4
ARA0	ARCESS Array S	6.57	112	Pn	Pn	01 16 03.1	+0.3
	baz=308,slow=12						
ARA0				Sn	Sn	01 17 17.2	-0.4
	baz=314,slow=22						
ARA0	ARCESS Array S	6.57	112	Pn	Pn	01 16 03.1	+0.3
	SNR=50						
ARA0				Sn	Sn	01 17 17.2	-0.4
	SNR=50						
ARCES	ARCESS Array B	6.57	112	Pn	Pn	01 16 04.0	+1.2
ARCES				Sn	Sn	01 17 17.9	+0.3
ARCES	ARCESS Array B	6.57	112	Pn	Pn	01 16 04.0	+1.2
	comp=Z,0.9nm,0.3s,baz=311,slow=11,SNR=78						
ARCES				Sn	Sn	01 17 17.9	+0.3
	comp=Z,1.2nm,0.3s,baz=308,slow=20,SNR=9.0						
ARCES	ARCESS Array B	6.57	112	Pn	Pn	01 16 04.0	+1.2
ARCES				Sn	Sn	01 17 17.9	+0.3
ARE0	ARCESS Array S	6.57	112	ePn	Pn	01 16 02.3	-0.5
ARE0	ARCESS Array S	6.57	112	ePn	Pn	01 16 02.3	-0.5
STOK	Stokkvaagen	6.80	162	eP	Pn	01 16 06.7	+0.8
STOK	Stokkvaagen	6.80	162	ePn	Pn	01 16 06.7	+0.8
STOK	Stokkvaagen	6.80	162	ePn	Pn	01 16 06.7	+0.8
	SNR=50						
KEV	Kevo	6.86	108	ep	Pn	01 16 06.3	-0.4
	comp=Z,4.5nm,0.4s						
KEV	Kevo	6.86	108	eP	Pn	01 16 06.9	+0.2
KEV				eS	Sn	01 17 20.4	-4.2
KEV				MSN		01 17 26.1	
	comp=Z,2.8nm,0.3s						
KEV	Kevo	6.86	108	eP	Pn	01 16 06.3	-0.4
	comp=Z,4.5nm,0.4s						
HEF	Hetta	6.86	123	eP	Pn	01 16 08.2	+1.4
HEF				eS	Sn	01 17 24.1	-0.6
MOR8	Moi Rana	7.10	158	eP	Pn	01 16 10.6	+0.6
MOR8				AML	AML	01 17 32.5	
	comp=Z,7.0nm,0.5s						
MOR8	Moi Rana	7.10	158	eP	Pn	01 16 10.6	+0.6
MOR8				eS	Sn	01 17 26.4	-4.1
MOR8	Moi Rana	7.10	158	ePn	Pn	01 16 10.6	+0.6
MOR8				AML	AML	01 17 32.5	
	comp=Z,7.0nm,0.5s						
MOR8	Moi Rana	7.10	158	ePn	Pn	01 16 10.6	+0.6
	SNR=50						
SGF	Sodankyl	8.30	122	eP	Pn	01 16 28.3	+1.7
APA0	Apatity Array	9.92	110	Pn	Pn	01 16 48.9	+0.3
	baz=331,slow=16						
APA0	Apatity Array	9.92	110	eP	Pn	01 16 48.9	+0.3
APA0	Apatity Array	9.92	110	Pn	Pn	01 16 48.9	+0.3
	baz=331,slow=16						
APA0	Apatity Array	9.92	110	Pn	Pn	01 16 48.9	+0.3
	SNR=50						
MSF	Maaselka	10.13	123	eP	Pn	01 16 50.2	-1.3
KU6	Riekki	10.25	121	eP	Pn	01 16 53.1	-0.1
NB2	NORSAR Subarra	11.94	172	eP	Pn	01 17 16.4	0.0
NB2	NORSAR Subarra	11.94	172	Pn	Pn	01 17 16.4	0.0
NB2	NORSAR Subarra	11.94	172	Pn	Pn	01 17 16.4	+0.1
	SNR=50						
NOA	NORSAR Array B	11.94	172	Pn	Pn	01 17 15.7	-0.7
NOA	NORSAR Array B	11.94	172	Pn	Pn	01 17 15.7	-0.7
	comp=Z,0.2nm,0.3s,baz=244,slow=21,SNR=2.7						
NOA	NORSAR Array B	11.94	172	Pn	Pn	01 17 15.7	-0.6
KAF	Kangasniemi	12.79	138	ep	Pn	01 17 28.0	+0.1
	comp=Z,0.7nm,0.4s						
HFS	Hagfors	12.98	167	Pn	Pn	01 17 30.4	-0.1
	baz=6.6,slow=9.3						
HFS	Hagfors	12.98	167	eP	Pn	01 17 30.4	-0.1
HFS	Hagfors	12.98	167	Pn	Pn	01 17 30.2	-0.3
HFS	Hagfors	12.98	167	Pn	Pn	01 17 30.4	-0.1
	baz=6.6,slow=9.3						
HFS	Hagfors	12.98	167	Pn	Pn	01 17 30.2	-0.3
	comp=Z,0.2nm,0.3s,baz=355,slow=12,SNR=8.7						
JOF	Joensuu	13.17	127	ep	Pn	01 17 31.0	-2.1
	comp=Z,5.3nm,0.7s						
FIA0	FINESS Array S	13.36	140	Pn	Pn	01 17 36.2	+0.6
	baz=322,slow=12						
FIA0	FINESS Array S	13.36	140	eP	Pn	01 17 36.2	+0.6
FIA0	FINESS Array S	13.36	140	Pn	Pn	01 17 36.2	+0.6
	baz=322,slow=12						
FIA0	FINESS Array S	13.36	140	Pn	Pn	01 17 36.2	+0.5
	SNR=50						
FINES	FINESS Array B	13.36	140	Pn	Pn	01 17 36.7	+1.0
FINES	FINESS Array B	13.36	140	Pn	Pn	01 17 36.7	+1.0
	comp=Z,0.1nm,0.3s,baz=331,slow=12,SNR=5.2						
FINES	FINESS Array B	13.36	140	Pn	Pn	01 17 36.7	+1.0
SFJD	Kangerlussuaq	20.12	283	P	P	01 18 52.5	-7.3
	comp=Z,4.8nm,0.8s						
SFJD	Kangerlussuaq	20.12	283	P	P	01 18 52.5	-7.3
	comp=Z,4.8nm,0.8s						
VRAC	Vranov	23.95	166	P	P	01 19 39.9	-0.3
	comp=Z,3.6nm,0.9s,mb3.8,baz=2.3,slow=11,SNR=5.4						
GERES	GERESS Array B	24.24	171	P	P	01 19 42.8	0.0
	comp=Z,0.9nm,0.8s,mb3.2,baz=316,slow=3.7,SNR=4.4						
YKA	Yellowknife Ar	39.48	322	P	P	01 21 49.1	-7.1
	comp=Z,0.1nm,0.5s,mb2.8,baz=13,slow=8.9,SNR=4.3						
MKAR	Makanchi Array	41.51	87	P	P	01 22 11.6	-1.5
	comp=Z,0.2nm,0.7s,mb2.9,baz=357,slow=5.8,SNR=2.7						
TORD	Torodi Ar. Bea	59.81	187	P	P	01 24 28.9	-2.5
	comp=Z,1.0nm,0.7s,mb4.0,baz=6.9,slow=6.4,SNR=12						

*NAO **26** 01:15:43.9±2.1, 73.14N×7.12E, ML2.4*

*ISCJB **26** 01:15:43.2±0.7, 73.19N±0.06×8.2E±0.2, h10^{km}, mb3.6/4, MS3.8/2, Error ellipse: s-maj=10.3km s-min=5.9km az=137.9*

*IDC **26** 01:15:44.0±1.4, 73.18N×7.21E, h0^{km}, mb3.6/4, mb1 3.7/8, mb1mx3.5/24, mbtmp3.6/8, ML3.3/4, MS3.4/6, Ms1 3.4/6, ms1mx3.1/35, Error ellipse: s-maj=28.4km s-min=17.1km az=30.0*

*CSEM **26** 01:15:44.7±0.4, 73.13N×6.75E, h5^{km}, ML2.4, Error ellipse: s-maj=18.9km s-min=6.8km az=84.0*

*HEL **26** 01:15:46.5±0.8, 73.24N×7.97E, h10^{km}, ML2.4(BER), ML2.4(NAO)*

*BER **26** 01:15:46.4±3.9, 73.20N×7.30E, h7^{km}±44^{km}, ML2.4, ML2.4(NAO)*

ISC 26 01:15:45.8±0.7**, 73.22N**±0.06×**8.1E**±0.2**, h10**^{km}**, n43, σ1**^{s}**44**/49**, mb3.6**/4**, MS3.8**/2**, Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRO	Tromso	4.99	131	eP	Pn	01 17 01.3	+0.8
TRO				eS	Sn	01 17 55.6	-2.4
TRO				AML	AML	01 17 59.4	
	comp=Z,4.7nm,0.7s						
SPA0	Spitsbergen Ar	5.38	18	Pn	Pn	01 17 06.0	+0.2
	baz=205,slow=14						
SPA0	Spitsbergen Ar	5.38	18	eP	Pn	01 17 06.0	+0.2
SPA0	Spitsbergen Ar	5.38	18	Pn	Pn	01 17 06.0	+0.2
	baz=205,slow=14						
SPA0	Spitsbergen Ar	5.38	18	Pn	Pn	01 17 06.0	+0.1
	SNR=50						
LOF	Lofoten	5.42	158	eP	Pn	01 17 08.0	+1.5
LOF				eS	Sn	01 18 04.9	-3.9
LOF				AML	AML	01 18 07.6	
	comp=Z,14nm,0.6s						
JMIC	Jan Mayen	5.59	254	LR	LR	01 18 38.5	
	comp=Z,226nm,21.3s,baz=206,slow=33						
KBS	Kingsbay	5.81	7	Pn	Pn	01 17 11.7	-0.1
KBS	Kingsbay	5.81	7	e	Pn	01 17 11.7	-0.1
KBS				eP		01 17 11.7	
KBS	Kingsbay	5.81	7	Pn	Pn	01 17 11.7	-0.1
KBS				eP		01 17 11.7	
KBS	Kingsbay	5.81	7	Pn	Pn	01 17 11.7	-0.1
	SNR=50						
KIF	Kilpisjarvi	5.89	130	eP	Pn	01 17 15.1	+2.1
KIF				eS	Sn	01 18 19.6	-0.9
KIF	Kilpisjarvi	5.89	130	P	Pn	01 17 15.0	+2.0
ARA0	ARCESS Array S	6.66	115	Pn	Pn	01 17 27.2	+3.7
	baz=325,slow=10						
ARA0				Sn	Sn	01 18 40.5	+1.2
	baz=303,slow=22						
ARA0	ARCESS Array S	6.66	115	eP	Pn	01 17 27.2	+3.7
ARA0				eS	Sn	01 18 40.5	+1.2
ARA0	ARCESS Array S	6.66	115	Pn	Pn	01 17 27.2	+3.7
	baz=325,slow=10						
ARA0				Sn	Sn	01 18 40.5	+1.2
	baz=303,slow=22						
ARA0	ARCESS Array S	6.66	115	Pn	Pn	01 17 27.2	+3.7
	SNR=50						
ARA0				Sn	Sn	01 18 40.5	+1.2
	SNR=50						
ARCES	ARCESS Array B	6.66	115	Pn	Pn	01 17 27.1	+3.6
	comp=Z,1.2nm,0.3s,baz=328,slow=13,SNR=5.9						
ARCES				Sn	Sn	01 18 40.3	+1.0
	comp=Z,0.6nm,0.3s,baz=314,slow=21,SNR=3.3						
KEV	Kevo	6.92	111	ep	Sn	01 18 44.9	-0.8
	comp=Z,2.1nm,0.4s						
KEV	Kevo	6.92	111	eS	Sn	01 18 43.4	-2.3
HEF	Hetta	7.02	126	eS	Sn	01 18 46.9	-1.1
MOR8	Moi Rana	7.41	160	eS	Sn	01 18 50.9	-6.8
MOR8				AML	AML	01 18 57.3	
	comp=Z,7.4nm,0.4s						
MOR8	Moi Rana	7.41	160	eS	Sn	01 18 50.9	-6.8
MOR8				AML	AML	01 18 57.3	
	comp=Z,7.4nm,0.4s						
NB2	NORSAR Subarra	12.29	173	eP	Pn	01 18 39.0	-1.5
NB2	NORSAR Subarra	12.29	173	Pn	Pn	01 18 39.0	-1.5
NB2	NORSAR Subarra	12.29	173	Pn	Pn	01 18 39.0	-1.5
	SNR=50						
NOA	NORSAR Array B	12.29	173	Pn	Pn	01 18 40.7	+0.2
	comp=Z,0.2nm,0.3s,baz=353,slow=14,SNR=2.5						
NOA				LR	LR	01 23 31.5	
	comp=Z,49nm,18.7s,baz=285,slow=38						
KAF	Kangasniemi	13.03	139	ep	Pn	01 18 51.5	+1.0
	comp=Z,2.0nm,0.6s						
HFS	Hagfors	13.32	168	Pn	Pn	01 18 53.9	-0.6
	baz=8.4,slow=6.9						
HFS	Hagfors	13.32	168	eP	Pn	01 18 53.9	-0.6
HFS	Hagfors	13.32	168	Pn	Pn	01 18 53.9	-0.6
	baz=8.4,slow=6.9						
HFS	Hagfors	13.32	168	Pn	Pn	01 18 53.9	-0.6
	comp=Z,0.3nm,0.3s,baz=354,slow=12,SNR=6.1						
HFS				LR	LR	01 23 30.0	
	comp=Z,180nm,18.2s,baz=251,slow=35						
JOF	Joensuu	13.35	129	ep	Pn	01 18 52.5	-2.4
	comp=Z,1.5nm,0.4s						
FIA0	FINESS Array S	13.60	141	Pn	Pn	01 18 59.4	+1.0
	baz=333,slow=14						
FIA0	FINESS Array S	13.60	141	e	Pn	01 18 59.4	+1.0
FIA0	FINESS Array S	13.60	141	Pn	Pn	01 18 59.4	+1.0
	baz=333,slow=14						
FIA0	FINESS Array S	13.60	141	Pn	Pn	01 18 59.4	+1.0
	SNR=50						
FINES	FINESS Array B	13.60	141	Pn	Pn	01 18 59.1	+0.7
	comp=Z,0.2nm,0.3s,baz=335,slow=9.6,SNR=6.4						
FINES				LR	LR	01 24 00.1	
	comp=Z,120nm,20.8s,baz=206,slow=36						
VRAC	Vranov	24.29	166	P	P	01 21 04.2	+1.5
	comp=Z,2.3nm,0.7s,mb3.7,baz=349,slow=15,SNR=3.4						
GERES	GERESS Array B	24.59	171	P	P	01 21 07.0	+1.5
	comp=Z,0.9nm,0.8s,mb3.3,baz=358,slow=6.9,SNR=3.8						
YKA	Yellowknife Ar	39.23	322	P	P	01 23 11.5	-2.0
	comp=Z,0.3nm,0.6s,mb3.2,baz=14,slow=8.6,SNR=4.5						
YKA				LR	LR	01 38 22.5	
	comp=Z,75nm,19.4s,MS3.5,baz=155,slow=35						
ASAJ	Asahikawa	58.85	37	LR	LR	01 55 49.8	
	comp=Z,108nm,19.5s,MS4.0,baz=154,slow=41						
TORD	Torodi Ar. Bea	60.17	187	P	P	01 25 51.9	-1.4
	comp=Z,1.1nm,0.7s,mb4.0,baz=358,slow=5.8,SNR=14						

*IDC **26** 01:21:21.9±1.1, 1.09N×125.96E, h0^{km}, mb3.9/5, mb1 4.1/6, mb1mx3.9/18, mbtmp3.9/6, ML4.0/1, Error ellipse: s-maj=96.8km s-min=17.5km az=70.0*

*NEIC **26** 01:21:23.4±0.7, 1.08N×125.94E, h10^{km}, Error ellipse: s-maj=54.8km s-min=9.5km az=69.0*

*ISCJB **26** 01:21:24.9±0.9, 1.0N±0.2×125.7E±0.5, h33^{km}, mb3.9/5, Error ellipse: s-maj=71.5km s-min=12.9km az=159.8*

ISC 26 01:21:27.1±0.9**, 1.0N**±0.2×**125.8E**±0.5**, h35**^{km}**, n8, σ0**^{s}**31**/8**, mb3.9**/5**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	18.95	180	P	Pn	01 25 46.4	+0.1
	0.3nm,0.3s,baz=19,slow=13,SNR=7.3						
WRA	Warramunga Arr	22.43	158	P	P	01 26 23.0	0.0
	5.3nm,0.5s,mb4.2,baz=338,slow=11,SNR=25						
WB2	Warramunga Arr	22.43	158	eP	P	01 26 22.7	-0.3
ASAR	Alice Springs	25.74	163	P	P	01 26 55.0	+0.5
	1.5nm,0.5s,mb3.8,baz=349,slow=7.8,SNR=15						
STKA	Stephens Creek	35.96	157	P	P	01 28 24.2	-0.3
	1.5nm,0.4s,mb4.2,baz=326,slow=3.6,SNR=4.7						
SONM	Songino Array	49.60	343	P	P	01 30 15.4	+0.5
	0.4nm,0.9s,mb3.5,baz=156,slow=9.8,SNR=3.2						
MK31	Makanchi Array	59.27	327	eP	P	01 31 24.9	-0.4
MKAR	Makanchi Array	59.27	327	P	P	01 31 25.1	-0.1
	0.6nm,0.4s,mb4.0,baz=120,slow=7.5,SNR=18						

*IDC **26** 01:27:40.8±1.4, 0.53S×127.40E, h0^{km}, mb3.7/6, mb1 3.9/6, mb1mx3.8/16, mbtmp3.8/6, MS3.9/2, Ms1 3.9/2, ms1mx3.2/26, Error ellipse: s-maj=192.9km s-min=18.3km az=68.0*

NEIC 26 01:27:42.4±0.9**, 0.60S×127.29E, h10**^{km}**, Error ellipse: s-maj=146.0km s-min=11.9km az=68.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	20.43	161	P	P	01 32 19.2	-0.8
	1.8nm,0.5s,baz=342,slow=12,SNR=7.2						
ASAR	Alice Springs	23.81	165	P	P	01 32 56.0	+0.2
	1.8nm,0.6s,baz=353,slow=16,SNR=11						
STKA	Stephens Creek	33.92	158	P	P	01 34 26.7	+0.9
	2.7nm,0.8s,baz=354,slow=12,SNR=3.1						
SONM	Songino Array	51.55	342	P	P	01 36 49.1	+0.5
	0.5nm,0.7s,baz=156,slow=6.9,SNR=4.0						
URZ	Urewera	59.05	135	LR	LR	01 59 59.2	
	comp=Z,78nm,19.3s,baz=0.0,slow=33						
MK31	Makanchi Array	61.42	326	eP	P	01 37 59.3	+0.3
MKAR	Makanchi Array	61.42	326	P	P	01 37 59.6	+0.6
	0.7nm,0.7s,baz=121,slow=8.3,SNR=11						
AFI	Afiamalu	61.69	105	LR	LR	01 59 59.2	
	comp=Z,108nm,20.2s,baz=0.0,slow=32						
ZALV	Zalesovo Beam	64.68	334	P	P	01 38 19.3	-1.2
	0.4nm,0.4s,baz=142,slow=7.3,SNR=3.2						
TORD	Torodi Ar. Bea	124.70	286	PKP	PKPdf	01 46 43.8	+0.3
	0.5nm,0.7s,baz=116,slow=2.2,SNR=3.5						

*IDC **26** 01:47:38.0±0.9, 29.56N×142.96E, h0^{km}, mb3.9/10, mb1 4.0/12, mb1mx3.9/21, mbtmp3.9/12, ML3.6/2, MS3.1/1, Ms1 3.1/1, ms1mx2.6/29, Error ellipse: s-maj=32.3km s-min=16.2km az=86.0*

*ISCJB **26** 01:47:40.8±3.1, 29.69N±0.05×142.6E±0.2, h26^{km}±22^{km}, mb3.8/10, Error ellipse: s-maj=27.7km s-min=6.6km* *az=170.1*

*JMA **26** 01:47:41.5±0.3, 2968N×14262E, h42^{km}, M4.2*

*NEIC **26** 01:47:42.5±4.9, 2962N×14305E, h35^{km}, MG4.2(JMA), Error ellipse: s-maj=193.0km s-min=15.5km az=73.0*

ISC 26 01:47:43.0±3.3, **2965N**±005×**1427E**±02, **h30**^{km}±23^{km}, **n20**, σ**1**^{s}**10**/24, **mb3.8**/10, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	Chichi jima	2.58	190	P	Pn	01 48 22.6	-0.2
CBIJ				*e*S	Sn	01 48 53.1	0.0
CBIJ	Chichi jima	2.58	190	Pn	Pn	01 48 21.4	-1.3
	9.2nm,0.3s,baz=295,slow=20,SNR=2.2						
CBIJ				Sn	Sn	01 48 52.5	-0.6
	47nm,0.3s,baz=282,slow=23,SNR=8.7						
CBIJ				LR	LR	01 49 20.9	
	comp=Z,376nm,20.6s,baz=76,slow=40						
JHU	Hanno	6.82	336	*e*S	Sn	01 50 34.6	-3.0
JRY	Ryogami san	7.11	334	P	Pn	01 49 25.5	+0.6
JRY				S	Sn	01 50 44.5	-0.2
JAG	Ashikaga	7.29	339	P	Pn	01 49 27.3	-0.1
JAG				*e*S	Sn	01 50 46.8	-2.2
MJAR	Matsushiro Arr	7.84	332	Pn	Pn	01 49 35.4	+0.5
MJAR	Matsushiro Arr	7.84	332	Pn	Pn	01 49 35.4	+0.5
	1.2nm,0.3s,baz=159,slow=11,SNR=5.5						
JFK	Kawauchi	7.85	349	*e*S	Sn	01 50 54.6	-8.2
JMK	Ichinoseki	9.36	353	*e*S	Sn	01 51 32.3	-7.7
SONM	Songino Array	33.24	313	P	P	01 54 19.1	+1.7
	0.9nm,0.9s,mb3.7,baz=119,slow=9.3,SNR=6.2						
ZALV	Zalesovo Beam	47.89	318	P	P	01 56 20.3	+2.2
	0.3nm,0.3s,mb3.8,baz=125,slow=44,SNR=2.3						
MK31	Makanchi Array	49.23	308	*e*P	P	01 56 28.1	-0.5
MKAR	Makanchi Array	49.23	308	P	P	01 56 29.9	+1.4
	1.7nm,0.8s,mb4.1,baz=90,slow=9.1,SNR=20						
WRA	Warramunga Arr	49.95	190	P	P	01 56 33.6	-0.7
	1.2nm,0.7s,mb4.1,baz=11,slow=7.9,SNR=6.9						
ASAR	Alice Springs	53.68	190	P	P	01 57 00.6	-1.4
	0.2nm,0.5s,mb3.3,baz=15,slow=8.6,SNR=3.2						
YKA	Yellowknife Ar	69.69	29	P	P	01 58 48.7	-0.8
	0.3nm,0.6s,mb3.4,baz=295,slow=6.5,SNR=4.9						
ARCES	ARCESS Array B	71.29	341	P	P	01 58 59.7	+0.6
	1.1nm,0.9s,mb3.8,baz=64,slow=6.1,SNR=3.5						
FINES	FINESS Array B	75.87	334	P	P	01 59 26.2	0.0
	1.8nm,1.0s,mb4.0,baz=93,slow=4.2,SNR=4.3						
BRTR	Keskin Array B	84.60	313	P	P	02 00 14.3	+0.7
	0.7nm,1.0s,mb3.8,baz=117,slow=4.9,SNR=4.2						
TXAR	Lajitas Array	93.72	53	P	P	02 00 57.6	+0.4
	0.3nm,0.8s,mb3.8,baz=330,slow=5.2,SNR=3.1						

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*ISCJB **26** 01:48:39.8±0.6, 7335N±004×77E±03, h10^{km}, mb3.8/9, Error ellipse: s-maj=10.5km s-min=5.9km az=172.5*

*IDC **26** 01:48:39.9±1.2, 7334N×733E, h0^{km}, mb3.8/5, mb1 3.9/9, mb1mx3.6/24, mbtmp3.7/9, ML3.3/4, MS3.2/2, Ms1 3.2/2, ms1mx2.7/29, Error ellipse: s-maj=26.6km s-min=15.3km az=33.0*

*MOS **26** 01:48:40.8±1.3, 7345N×786E, h10^{km}, mb4.3/4, Error ellipse: s-maj=36.3km s-min=8.2km az=96.8*

*NAO **26** 01:48:40.8±2.0, 7327N×765E, ML2.3*

*NEIC **26** 01:48:41.6±0.6, 7336N×741E, h10^{km}, Error ellipse: s-maj=13.2km s-min=7.6km az=83.0*

*CSEM **26** 01:48:42.8±0.1, 7327N×690E, h20^{km}, ML2.3, Error ellipse: s-maj=4.0km s-min=2.0km az=88.0*

*BER **26** 01:48:43.9±2.4, 7342N×821E, h0^{km}±30^{km}, ML2.3, ML2.3(NAO)*

ISC 26 01:48:42.1±0.5, **7336N**±004×**77E**±02, **h10**^{km}, **n64**, σ**1**^{s}**32**/78, **mb3.8**/9, **6C-2D**, **Greenland Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRO	Tromso	5.17	131	*e*P	Pn	01 49 58.6	-0.7
TRO				*e*S	Sn	01 50 51.8	-7.1
TRO				*e*		01 54 40.6	
TRO	Tromso	5.17	131	*e*P	Pn	01 49 58.6	-0.7
TRO				*e*S	Sn	01 50 54.6	-4.3
TRO				AML	AML	01 50 58.7	
	comp=Z,8.6nm,0.8s						
TRO				*e*		01 54 40.6	
TRO	Tromso	5.17	131	*e*P	Pn	01 49 58.6	-0.7
TRO				*e*S	Sn	01 50 51.8	-7.1
SPB4	Spitsbergen Ar	5.29	20	⇓*e*Pn	Pn	01 50 00.8	-0.2
SPB4	Spitsbergen Ar	5.29	20	⇓*e*Pn	Pn	01 50 00.8	-0.2
SPA0	Spitsbergen Ar	5.29	20	Pn	Pn	01 50 00.8	-0.2
	baz=205,slow=12						
SPA0	Spitsbergen Ar	5.29	20	Pn	Pn	01 50 00.8	-0.2
	baz=205,slow=12						
SPA0	Spitsbergen Ar	5.29	20	Pn	Pn	01 50 00.8	-0.2
	SNR=50						
LOF	Lofoten	5.59	157	*e*P	Pn	01 50 05.8	+0.6
LOF				AML	AML	01 51 02.8	
	comp=Z,10nm,0.7s						
KBS	Kingsbay	5.69	8	Pn	Pn	01 50 05.9	-0.6
KBS	Kingsbay	5.69	8	*e*P	Pn	01 50 06.0	-0.5
	comp=Z,6.8nm,0.3s						
KBS	Kingsbay	5.69	8	*e*P	Pn	01 50 05.9	-0.6
KBS	Kingsbay	5.69	8	*e*P	Pn	01 50 06.0	-0.5
KBS				pmax	pmax		
	comp=Z,7.0nm,0.3s						
KBS	Kingsbay	5.69	8	Pn	Pn	01 50 05.9	-0.6
ARA0	ARCESS Array S	6.83	115	Pn	Pn	01 50 22.5	+0.4
	baz=324,slow=14						
ARA0				Sn	Sn	01 51 35.2	-4.7
	baz=310,slow=22						
ARA0	ARCESS Array S	6.83	115	Pn	Pn	01 50 22.5	+0.4
	baz=324,slow=14						
ARA0				Sn	Sn	01 51 35.2	-4.7
	baz=310,slow=22						
ARA0	ARCESS Array S	6.83	115	Pn	Pn	01 50 22.5	+0.3
	SNR=50						
ARA0				Sn	Sn	01 51 35.2	-4.7
	SNR=50						
ARCES	ARCESS Array B	6.83	115	Pn	Pn	01 50 22.8	+0.7
ARCES				Sn	Sn	01 51 37.2	-2.7
ARCES	ARCESS Array B	6.83	115	Pn	Pn	01 50 22.8	+0.7
	comp=Z,0.6nm,0.3s,baz=326,slow=12,SNR=48						
ARCES				Sn	Sn	01 51 37.2	-2.7
	comp=Z,0.7nm,0.3s,baz=310,slow=21,SNR=3.8						
ARCES	ARCESS Array B	6.83	115	Pn	Pn	01 50 22.8	+0.6
ARCES				Sn	Sn	01 51 37.2	-2.7
ARE0	ARCESS Array S	6.83	115	*e*Pn	Pn	01 50 24.1	+1.9
ARE0				Sn	Sn	01 51 36.1	-3.8
ARE0	ARCESS Array S	6.83	115	*e*Pn	Pn	01 50 24.1	+1.9
ARE0				Sn	Sn	01 51 36.1	-3.8
KEV	Kevo	7.09	111	*e*p	Pn	01 50 25.8	+0.2
	comp=Z,2.5nm,0.4s						
KEV	Kevo	7.09	111	*e*P	Pn	01 50 25.8	+0.2
KEV				pmax	pmax		
	comp=Z,3.0nm,0.4s						
STOK	Stokkvaagen	7.29	163	*e*P	Pn	01 50 28.5	+0.1
MOR8	Moi Rana	7.58	159	*e*P	Pn	01 50 31.8	-0.6
MOR8				*e*S	Sn	01 51 50.4	-7.8
NSS	Namsos	9.00	168	*e*P	Pn	01 50 49.8	-2.0
LVZ	Lovozero	10.40	108	*e*P	Pn	01 51 13.5	+2.5
NB2	NORSAR Subarra	12.44	172	P	Pn	01 51 37.2	-1.7
	baz=351,slow=14						
NB2	NORSAR Subarra	12.44	172	Pn	Pn	01 51 37.2	-1.7
	SNR=6.1						
NOA	NORSAR Array B	12.44	172	Pn	Pn	01 51 38.3	-0.6
NOA	NORSAR Array B	12.44	172	Pn	Pn	01 51 38.3	-0.6
	comp=Z,0.3nm,0.3s,baz=349,slow=13,SNR=3.2						
NOA	NORSAR Array B	12.44	172	Pn	Pn	01 51 38.3	-0.6
HFS	Hagfors	13.48	167	Pn	Pn	01 51 51.4	-1.6
HFS				LR	LR	01 56 27.0	
HFS	Hagfors	13.48	167	P	Pn	01 51 51.5	-1.5
	baz=354,slow=9.3						
HFS	Hagfors	13.48	167	Pn	Pn	01 51 51.4	-1.6
	comp=Z,0.3nm,0.3s,baz=355,slow=13,SNR=10						
HFS				LR	LR	01 56 27.0	
	comp=Z,74nm,21.4s,baz=66,slow=35						
JOF	Joensuu	13.53	128	*e*p	Pn	01 51 50.7	-3.0
	comp=Z,2.0nm,0.5s						
FIA0	FINESS Array S	13.79	141	Pn	Pn	01 51 56.3	-0.9
	baz=343,slow=14						
FIA0	FINESS Array S	13.79	141	Pn	Pn	01 51 56.3	-0.9
	baz=343,slow=14						
FIA0	FINESS Array S	13.79	141	Pn	Pn	01 51 56.3	-0.9
	SNR=50						
FINES	FINESS Array B	13.79	141	Pn	Pn	01 51 56.9	-0.3
FINES	FINESS Array B	13.79	141	Pn	Pn	01 51 56.9	-0.3
	comp=Z,0.2nm,0.3s,baz=344,slow=11,SNR=11						
FINES	FINESS Array B	13.79	141	Pn	Pn	01 51 56.8	-0.4
OBN	Obninsk	21.76	132	⇑*e*P	P	01 53 34.9	+1.6
OBN				*e*		01 53 59.3	
OBN				*e*S	S	01 57 33.4	-0.2
OBN				pmax	pmax		
	comp=Z,37nm,1.9s,mb4.5						
UPC	Upice	23.21	166	*e*P	P	01 53 49.9	+1.1
NKC	Novy Kostel	23.30	172	*e*P	P	01 53 50.3	+0.6
DPC	Dobruska-Polom	23.39	166	*e*P	P	01 53 46.3	-4.4
PRU	Pruhonice	23.64	169	*e*P	P	01 53 54.2	+1.0
OKC	Ostrava-Krasne	24.04	163	*e*P	P	01 53 58.8	+2.0
KHC	Kasperske Hory	24.45	171	*e*P	P	01 54 03.5	+3.0
VRAC	Vranov	24.45	166	P	P	01 54 01.0	+0.5
	comp=Z,4.6nm,0.8s,mb4.0,baz=354,slow=10,SNR=6.0						
AKASG	Malin Array Be	24.56	146	P	P	01 54 01.0	-0.6
	comp=Z,0.9nm,0.5s,mb3.6,baz=342,slow=9.6,SNR=4.2						
GERES	GERESS Array B	24.74	170	P	P	01 54 04.0	+0.8
	comp=Z,1.2nm,0.8s,mb3.5,baz=2.2,slow=7.1,SNR=7.1						
GERES				LR	LR	02 03 52.7	
	comp=Z,64nm,18.1s,baz=288,slow=37						
UZH	Uzhgorod	25.64	157	*e*P	P	01 54 10.8	-0.5
UZH				*e*		01 54 47.6	
ARU	Arti	26.20	103	*c i*P	P	01 54 19.0	+2.6
ARU				*e*		01 54 57.3	
ARU				*e*S	S	01 58 52.5	+4.6
ARU				*e*SS		01 59 50.8	
ARU				pmax	pmax		
	comp=Z,12nm,1.7s,mb4.2						
TIXI	Tiksi	30.57	32	⇑*e*P	P	01 54 53.5	-1.7
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.5s,mb3.9						
KURK	Kurchatov	36.96	88	⇑*e*P	P	01 55 52.5	+1.7
BILL	Bilibino	38.16	13	⇑*i*P	P	01 56 00.3	-0.5
BILL				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb3.7						
YKA	Yellowknife Ar	39.05	321	P	P	01 56 06.6	-1.7
YKA	Yellowknife Ar	39.05	321	P	P	01 56 06.6	-1.7
	comp=Z,0.8nm,1.0s,mb3.4,baz=23,slow=9.3,SNR=11						
YKA	Yellowknife Ar	39.05	321	P	P	01 56 06.6	-1.7
ULN	Ulaanbaatar	47.44	64	⇑*e*P	P	01 57 17.6	+1.4
TORD	Torodi Ar. Bea	60.29	187	P	P	01 58 49.2	-1.2
TORD	Torodi Ar. Bea	60.29	187	P	P	01 58 49.2	-1.2
	comp=Z,0.8nm,0.8s,mb3.8,baz=1.3,slow=6.6,SNR=6.5						

JMA 26 02:01:12.1±0.2, **2557N**×**12370E**, **h197**^{km}±5^{km}, **M3.9**, **Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IRIF	Iriomote-Funau	1.23	179	P	Pn	02 01 43.1	-0.2
IRIF				S	Sn	02 02 08.1	+0.7
JIJ	Ishigaki jima	1.27	161	P	Pn	02 01 43.4	-0.2
JIJ				S	Sn	02 02 07.2	-0.7
YOJ	Yonaguni jima	1.27	210	P	Pn	02 01 43.8	+0.2
YOJ				*e*S	Sn	02 02 08.7	+0.8
JTJ	Tarama	1.30	135	P	Pn	02 01 44.1	+0.3
JTJ				S	Sn	02 02 08.1	-0.2
JKRS	Kuro-shima	1.36	168	P	Pn	02 01 44.6	+0.3
JKRS				S	Sn	02 02 09.8	+0.5
HATJ	Hateruma jima	1.51	176	P	Pn	02 01 45.9	+0.2
HATJ				S	Sn	02 02 12.0	+0.3
JMJ	Miyako jima 2	1.63	117	P	Pn	02 01 47.2	+0.5
JMJ				S	Sn	02 02 13.3	-0.2
JOGS	Gusukube	1.74	117	P	Pn	02 01 48.1	+0.3
JOGS				S	Sn	02 02 15.6	+0.1
JKE	Kume jima 2	2.88	74	P	Pn	02 01 57.9	-2.2
JKE				*e*S	Sn	02 02 33.9	-3.7
JAGN	Aguni-jima	3.34	72	P	Pn	02 02 02.8	-2.9
JAGN				*e*S	Sn	02 02 42.0	-5.6
JIH	Iheya	4.10	68	P	Pn	02 02 11.0	-4.0
JOW	Kunigami	4.30	72	P	Pn	02 02 13.5	-4.0

IDC 26 02:04:26.6±3.8, **101N**×**12604E**, **h0**^{km}, **mb3.5**/3, **mb1 3.7**/3, **mb1mx3.4**/17, **mbtmp3.5**/3, **Error ellipse: s-maj=470.1km s-min=26.0km az=65.0**, **Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	22.35	159	P	P	02 09 25.6	-0.7
	2.0nm,0.9s,baz=333,slow=12,SNR=4.6						
ASAR	Alice Springs	25.69	163	P	P	02 09 59.2	+0.6
	0.5nm,0.3s,baz=347,slow=12,SNR=10						
MKAR	Makanchi Array	59.41	327	P	P	02 14 31.0	0.0
	0.2nm,0.4s,baz=123,slow=7.2,SNR=5.7						

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*NEIC **26** 02:08:14.3±2.6, 4460N×14783E, h10^{km}, Error ellipse: s-maj=75.7km s-min=22.9km az=176.0*

*ISCJB **26** 02:08:21.2±1.1, 4418N±008×1479E±01, h98^{km}±6^{km}, mb3.6/7, Error ellipse: s-maj=19.1km s-min=7.1km az=42.3*

*MOS **26** 02:08:21.4±0.3, 4437N×14804E, h110^{km}, mb3.9/2, Error ellipse: s-maj=25.2km s-min=18.5km az=40.6*

*JMA **26** 02:08:24.0±0.2, 4394N×14780E, h83^{km}, M3.8*

*IDC **26** 02:08:25.9±4.0, 4452N×14768E, h111^{km}±44^{km}, mb3.4/7, mb1 3.5/8, mb1mx3.3/22, mbtmp3.3/8, Error ellipse: s-maj=79.7km s-min=26.3km az=179.0*

ISC 26 02:08:22.4±1.1, **4417N**±009×**1479E**±01, **h92**^{km}±7^{km}, **n30**, σ**1**^{s}**18**/38, **mb3.6**/7, **1D**, **Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril'sk	1.07	359	⇓*i*PN	Pn	02 08 42.0	-0.9
KUR				*i* S	Sn	02 08 57.0	-1.3
KUR				pmax	pmax		
	comp=N,160nm,0.4s						
KUR				pmax	pmax		
	comp=E,220nm,0.4s						
KUR				pmax	pmax		
	comp=Z,680nm,0.4s						
KUR				smax			
	comp=E,4μm,1.0s						
KUR				smax			
	comp=N,1μm,0.5s						
KUR				smax			
	comp=E,2μm,0.5s						
NEM2	Nemuro 2	1.75	244	P	Pn	02 08 51.1	-0.3
NEM2				*e*S	Sn	02 09 11.3	-2.1
JRA	Rausu	2.01	264	P	Pn	02 08 55.5	+0.8
JRA				*e*S	Sn	02 09 19.8	+0.3
JNK	Nakash	2.37	257	P	Pn	02 09 00.2	+0.8
JNK				*e*S	Sn	02 09 26.8	-1.1
JAK	Akkeshi	2.60	244	P	Pn	02 09 02.3	-0.2
JAK				*e*S	Sn	02 09 31.0	-2.4
JTKR	Abashiri--Toko	2.88	267	P	Pn	02 09 07.1	+0.8
JAR	Ashorobuto	3.12	255	P	Pn	02 09 10.6	+1.2
JAR				*e*S	Sn	02 09 46.4	+0.7
JCH	Churui	3.65	246	P	Pn	02 09 16.6	0.0
JCH				*e*S	Sn	02 09 56.5	-2.1
JKK2	Kamakawa 2	3.73	267	P	Pn	02 09 19.2	+1.6
ASAJ	Asahikawa	3.81	271	PN	Pn	02 09 20.5	+1.7
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	3.81	271	P	Pn	02 09 20.4	+1.6
	comp=Z,1.7nm,0.3s,baz=43,slow=18,SNR=4.0						
JSE	Soyaes	3.88	284	P	Pn	02 09 20.5	+0.8
JFR	Furan	3.98	257	P	Pn	02 09 22.5	+1.5
ERM	Erimo	4.08	240	*e*PN	Pn	02 09 25.9	+3.4
JNBK	Urakawa-nobuka	4.21	245	P	Pn	02 09 23.7	-0.4
JWK2	Keihoku	4.43	287	P	Pn	02 09 29.4	+2.3
YSS	Yuzh-Sakhalins	4.56	309	*e*PN	Pn	02 09 29.2	+0.3
JKB	Kayabe	5.52	248	P	Pn	02 09 42.1	+0.1
JKB				*e*S	Sn	02 10 39.7	-4.4
JOT	Ohata	5.76	243	*e*S	Sn	02 10 43.9	-6.0
ULN	Ulaanbaatar	28.37	292	*e*P	P	02 14 06.9	-0.7
SONM	Songino Array	28.81	292	P	P	02 14 11.5	0.0
	comp=Z,0.5nm,0.5s,mb3.4,baz=77,slow=8.0,SNR=6.7						
MKAR	Makanchi Array	44.87	298	*i* P	P	02 16 27.1	-0.2
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MKAR	Makanchi Array	44.87	298	P	P	02 16 26.9	-0.4
	comp=Z,1.2nm,0.8s,mb3.7,baz=78,slow=8.2,SNR=11						
YKA	Yellowknife Ar	55.16	34	P	P	02 17 45.7	+0.9
	comp=Z,0.2nm,0.6s,mb3.3,baz=302,slow=6.9,SNR=3.7						
ARCES	ARCESS Array B	59.04	340	P	P	02 18 10.2	-1.9
	comp=Z,0.3nm,0.3s,mb3.8,baz=52,slow=7.4,SNR=7.5						
FINES	FINESS Array B	64.75	333	*i* P	P	02 18 48.7	-1.7
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	64.75	333	P	P	02 18 48.8	-1.6
	comp=Z,0.9nm,0.5s,mb3.8,baz=54,slow=7.5,SNR=5.2						
NOA	NORSAR Array B	69.41	339	P	P	02 19 19.6	-0.3
	comp=Z,0.4nm,0.4s,mb3.6,baz=30,slow=6.5,SNR=2.4						
TXAR	Lajitas Array	81.97	57	P	P	02 20 32.7	+0.6
TXAR	Lajitas Array	81.97	57	P	P	02 20 32.7	+0.6
	comp=Z,0.4nm,0.7s,mb3.4,baz=292,slow=4.3,SNR=5.4						

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*CSEM **26** 02:23:30.9±0.1, 3934N×4089E, h2^{km}, MD3.2, Error ellipse: s-maj=4.3km s-min=2.7km az=124.0*

*ISK **26** 02:23:30.5, 3938N×4087E, h5^{km}, MD3.2*

*ISCJB **26** 02:23:32.6±0.5, 3939N±003×4089E±005, h10^{km}, Error ellipse: s-maj=6.4km s-min=4.0km az=25.1*

*DDA **26** 02:23:32.2, 3938N×4095E, h24^{km}±1^{km}, Md2.7*

ISC 26 02:23:33.0±0.5, **3938N**±003×**4088E**±005, **h10**^{km}, **n22**, σ**1**^{s}**14**/26, **2C-1D**, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BNGL	BINGOL	0.48	154	⇓*i*P	Pg	02 23 41.2	-1.1
BNGL				*i* S	Sg	02 23 49.4	+0.9
BINT	Bingol	0.59	211	*i* PG	Pg	02 23 43.0	-1.5
BINT	Bingol	0.59	211	*i* Pg	Pg	02 23 43.0	-1.5
EZM	Erzurum	0.64	35	*i* PG	Pg	02 23 44.2	-1.2
EZM				*i* SG	Sg	02 23 53.9	+0.1
ERZM	Erzurum	0.64	35	⇑*i*P	Pg	02 23 44.2	-1.3
ERZM				*i* S	Sg	02 23 54.0	+0.1
EZC	Erzincan	0.90	294	PN	Pn	02 23 54.6	+2.8
PTK	Pertek	1.26	248	PN	Pn	02 23 55.0	-1.6
PTK	Pertek	1.26	248	*e*Pn	Pn	02 23 55.0	-1.6
BTMT	Batman	1.28	158	PN	Pn	02 23 56.0	-0.9
TUTA	Tutak	1.50	89	*i* P	Pn	02 23 58.9	-1.0
TUTA				*i* S	Sn	02 24 22.2	+2.7
GUMT	Gumushane	1.52	315	PN	Pn	02 24 00.4	+0.1
GUMT	Gumushane	1.52	315	*e*Pn	Pn	02 24 00.4	+0.1
DIY	Diyarbakir	1.57	199	*e*PN	Pn	02 24 00.7	-0.2
DIY	Diyarbakir	1.57	199	*e*Pn	Pn	02 24 00.7	-0.2
DIYA	Diyarbakir	1.57	203	⇑*i*P	Pn	02 24 01.7	+0.7
AGRB	Hanur-Agry	1.64	83	*e*PN	Pn	02 24 02.3	+0.4
AGRB	Hanur-Agry	1.64	83	*e*Pn	Pn	02 24 02.3	+0.4
ELZG	Elazig	1.72	240	*i* P	Pn	02 24 03.7	+0.7
MACK	Trabzon	1.78	332	*i* P	Pn	02 24 05.2	+1.4
MARD	Mardin	2.07	182	*i* P	Pn	02 24 09.1	+1.3
MALT	Malatya	2.19	242	*e*PN	Pn	02 24 09.4	-0.1
MALT	Malatya	2.19	242	*e*Pn	Pn	02 24 09.4	-0.1

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*SZGRF **26** 02:35:57.7, 2595S×17879E, h33^{km}, South of Fiji Islands*

*NEIC **26** 02:36:58.5±1.1, 2396S×17933E, h532^{km}±13^{km}, mb4.8/2, Error ellipse: s-maj=17.3km s-min=11.7km az=144.0*

*ISCJB **26** 02:37:01.7±1.6, 2403S±009×1790E±01, h571^{km}±19^{km}, mb4.1/10, Error ellipse: s-maj=15.1km s-min=13.1km az=136.0*

*IDC **26** 02:37:03.2±1.8, 2400S×17903E, h572^{km}±20^{km}, mb3.6/10, mb1 3.8/11, mb1mx3.7/16, mbtmp3.6/11, Error ellipse: s-maj=20.1km s-min=12.1km az=164.0*

ISC 26 02:37:01.5±1.5, **2414S**±009×**1791E**±01, **h554**^{km}±18^{km}, **n85**, σ**0**^{s}**83**/29, **mb4.1**/10, **9C-5D**, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	11.86	277	*e*P	P	02 39 38.5	-0.1
DZM	Mont Dzumac	11.86	277	*e*P	P	02 39 38.5	-0.1
DZM	Mont Dzumac	11.86	277	P	P	02 39 39.0	+0.4
	3.0nm,0.3s,baz=91,slow=17,SNR=22						
AFI	Afiamalu	13.31	42	P	P	02 39 46.6	-7.1
	8.2nm,0.3s,baz=12,slow=7.0,SNR=9.3						
URZ	Urewera	14.19	187	P	P	02 40 01.2	-1.1
	1.9nm,0.3s,baz=12,slow=4.2,SNR=20						
URZ				S	S	02 42 30.8	-0.4
	1.0nm,0.3s,baz=322,slow=22,SNR=8.2						
RPZ	Rata Peaks	20.63	197	P	P	02 41 04.2	+1.4
	5.7nm,0.7s,baz=30,slow=14,SNR=3.2						
ARMA	Armidale	25.20	250	*e*P	P	02 41 45.5	+1.8
CTA	Charters Tower	30.68	271	⇑*i*P	P	02 42 31.7	0.0
	15nm,0.3s,mb5.0						
CTA	Charters Tower	30.68	271	P	P	02 42 31.9	+0.3
	18nm,0.4s,mb5.0,baz=94,slow=11,SNR=54						
TOO	Toolangi	31.66	237	*e*P	P	02 42 40.7	+1.0
	10nm,0.6s,mb4.5						
MCQ	Macquarie Isla	33.85	201	P	P	02 42 57.1	-0.9
STKA	Stephens Creek	33.90	248	⇑*i*P	P	02 42 59.5	+0.7
	11nm,0.6s,mb4.6						
STKA	Stephens Creek	33.90	248	*e*P	P	02 42 59.2	+0.4
STKA	Stephens Creek	33.90	248	P	P	02 42 59.5	+0.7
	12nm,0.5s,mb4.7,baz=92,slow=9.7,SNR=61						
STKA				PcP	PcP	02 45 21.4	+0.3
	0.9nm,0.6s,baz=268,slow=3.5,SNR=3.2						
ASAR	Alice Springs	41.22	261	P	P	02 43 58.5	-0.1
	8.7nm,0.8s,mb4.3,baz=93,slow=8.2,SNR=79						
ASAR				PcP	PcP	02 45 44.0	-0.3
	1.0nm,0.6s,baz=92,slow=5.6,SNR=4.8						
ASAR				S	S	02 49 32.7	0.0
	0.9nm,0.7s,baz=99,slow=15,SNR=7.4						
WB2	Warramunga Arr	41.59	267	⇑*i*P	P	02 44 00.7	-0.9
WRA	Warramunga Arr	41.60	267	P	P	02 44 00.9	-0.8
	10nm,0.7s,mb4.5,baz=102,slow=8.3,SNR=36						
WRA				S	S	02 49 35.6	-2.8
	2.3nm,0.9s,baz=103,slow=14,SNR=5.7						
FITZ	Fitzroy Crossi	50.02	266	P	P	02 45 05.8	+0.1
	1.1nm,0.5s,mb3.6,baz=318,slow=13,SNR=6.7						
MJAR	Matsushiro Arr	71.64	326	P	P	02 47 26.5	-0.8
	3.8nm,0.7s,mb3.9,baz=158,slow=4.9,SNR=8.6						
VNA3	Neumayer Olymp	84.68	177	*e*	P	02 48 36.7	+0.1
VNA2	Neumayer--Watz	85.09	178	*e*	P	02 48 38.9	+0.3
	baz=252,slow=2.1						
NVAR	Mina Array Bea	85.47	44	P	P	02 48 41.2	+0.2
NVAR	Mina Array Bea	85.47	44	P	P	02 48 41.2	+0.2
	1.3nm,0.8s,mb3.5,baz=214,slow=6.3,SNR=6.0						
TXAR	Lajitas Array	91.23	58	P	P	02 49 08.8	+0.7
TXAR	Lajitas Array	91.23	58	P	P	02 49 08.8	+0.7
	1.2nm,0.7s,mb3.9,baz=214,slow=6.4,SNR=16						
PDAR	Pinedale Array	93.41	44	P	P	02 49 17.2	-0.5
	0.3nm,0.6s,mb3.5,baz=215,slow=4.2,SNR=4.3						
YKA	Yellowknife Ar	100.91	26	P	Pdif	02 49 49.7	-1.7
	0.2nm,0.8s,baz=273,slow=13,SNR=3.3						
MKAR	Makanchi Array	111.73	313	PKPdf	PKiKP	02 54 32.2	-1.1
MKAR	Makanchi Array	111.73	313	PKiKP	PKiKP	02 54 32.2	-1.1
	0.3nm,0.4s,baz=117,slow=0.7,SNR=3.4						
KEV	Kevo	131.47	347	*e*pkp	PKPdf	02 55 06.9	-3.5
KEV	Kevo	131.47	347	*e*PKP	PKPdf	02 55 06.9	-3.5
ARCES	ARCESS Array B	131.95	348	PKP	PKPdf	02 55 10.2	-1.1
ARCES	ARCESS Array B	131.95	348	PKP	PKPdf	02 55 10.2	-1.1
	2.0nm,0.7s,baz=84,slow=4.0,SNR=15						
JOF	Joensuu	135.68	340	*e*pkp	PKPdf	02 55 17.5	-1.0
JOF	Joensuu	135.68	340	*e*PKP	PKPdf	02 55 17.5	-1.0
KAF	Kangasniemi	137.82	341	*e*pkp	PKPdf	02 55 19.7	-2.7
KAF	Kangasniemi	137.82	341	*e*PKP	PKPdf	02 55 19.7	-2.7
FINES	FINESS Array B	138.41	341	PKP		02 55 14.4	
FINES				PKP	PKPdf	02 55 23.1	-0.5
FINES	FINESS Array B	138.41	341	PKhKP		02 55 14.4	
	1.2nm,0.9s,baz=70,slow=3.7,SNR=4.3						
FINES				PKP	PKPdf	02 55 23.1	-0.5
	1.2nm,0.5s,baz=95,slow=3.8,SNR=9.8						
NB2	NORSAR Subarra	142.19	350	PKPa	PKPdf	02 55 25.7	-4.6
	comp=Z,1.3nm,0.6s,baz=15,slow=3.0						
NOA	NORSAR Array B	142.19	350	PKP	PKPdf	02 55 25.8	-4.6
NOA	NORSAR Array B	142.19	350	PKhKP		02 55 25.8	
	comp=Z,2.5nm,0.7s,baz=16,slow=4.8,SNR=9.2						
MALT	Malatya	143.83	302	⇑*i*P	PKPdf	02 55 33.7	-0.3
AKASG	Malin Array Be	144.73	326	PKP	PKPdf	02 55 34.2	-0.9
AKASG	Malin Array Be	144.73	326	PKP	PKPdf	02 55 34.2	-0.9
	comp=Z,4.1nm,0.5s,baz=45,slow=4.1,SNR=20						
BRTR	Keskin Array B	147.08	306	PKPbc	PKPbc	02 55 42.0	-0.6
BRTR	Keskin Array B	147.08	306	PKPbc	PKPbc	02 55 42.0	-0.6
	comp=Z,3.0nm,0.7s,baz=137,slow=5.4,SNR=14						
ANTO	Ankara	147.66	307	*e*PKPbc	PKPbc	02 55 43.8	-0.2
KWP	Kalwaria	148.58	330	⇑*i*P	PKPbc	02 55 45.3	-0.7
BURAR	Bucovina Array	148.71	325	⇓*i*P	PKPbc	02 55 46.7	+0.3
BSEG	Bad Segeberg	149.08	347	*e*PKPbc	PKPbc	02 55 46.5	-0.6
BSEG	Bad Segeberg	149.08	347	*e*PKPbc	PKPbc	02 55 46.5	-0.6
KOLS	Kolonicke sedl	149.28	330	*e*PKP	PKPbc	02 55 47.7	0.0
KOLS	Kolonicke sedl	149.28	330	*e*PKP	PKPbc	02 55 47.7	0.0
STHS	Stebnicka Huta	149.39	331	*e*PKP	PKPbc	02 55 47.4	-0.6
STHS	Stebnicka Huta	149.39	331	*e*PKP	PKPbc	02 55 47.4	-0.6
MLR	Muntele Rosu	149.60	321	⇑*i*P	PKPbc	02 55 46.5	-2.1
CRVS	Cervenica-Dubn	149.67	330	*e*PKP	PKPbc	02 55 47.8	-0.8
CRVS	Cervenica-Dubn	149.67	330	*e*PKP	PKPbc	02 55 47.8	-0.8
DRGR		150.55	326	⇓*i*P	PKPbc	02 55 49.8	-1.0
MORC	Moravsky Berou	150.64	335	⇓*i*P	PKPbc	02 55 50.8	-0.1
CLL	Collm	150.84	342	*e*PKPbc	PKPbc	02 55 50.7	-0.6
CLL				*e*PKPab	PKPab	02 56 00.3	-0.8
CLL	Collm	150.84	342	⇓*i*PKPbc	PKPbc	02 55 50.8	-0.5
	comp=Z,14nm,0.8s						
CLL				*i* (PKiKP)		02 55 53.2	

CLL				*i* PKPab	PKPab	02 56 00.3	-0.8
	comp=Z,6.0nm,0.9s						
BRG	**Berggiesshubel**	150.95	341	*e*PKPbc	PKPbc	02 55 51.2	-0.3
BRG				*e*PKPab	PKPab	02 56 01.1	-0.4
BRG	**Berggiesshubel**	150.95	341	⇓*i*P	PKPdf	02 55 51.3	+6.1
	comp=Z,9.9nm,0.4s						
BRG				*e*		02 56 01.1	
	comp=Z,5.0nm,0.8s						
CLZ	**Clausthal**	151.02	346	*e*PKPbc	PKPbc	02 55 51.3	-0.4
CLZ	**Clausthal**	151.02	346	*e*PKPbc	PKPbc	02 55 51.3	-0.4
FBE	**Freiberg**	151.08	341	*e*PKPbc	PKPbc	02 55 51.0	-0.8
FBE				*e*PKPab	PKPab	02 56 01.8	-0.3
IBBN	**Ibbenburen**	151.11	349	*e*PKPbc	PKPbc	02 55 51.7	-0.2
VYHS	**Vyhne**	151.13	332	*e*PKP	PKPbc	02 55 51.3	-0.7
VYHS	**Vyhne**	151.13	332	*e*PKP	PKPbc	02 55 51.3	-0.7
KOLL	**Kolacno**	151.25	333	*e*PKP	PKPbc	02 55 52.0	-0.3
KOLL	**Kolacno**	151.25	333	*e*PKP	PKPbc	02 55 52.0	-0.3
GZR	**Gura Zlata**	151.43	324	⇑*i*P	PKPbc	02 55 51.3	-1.5
WERD	**Werda**	151.81	342	*e*PKPbc	PKPbc	02 55 53.1	-0.4
BZS	**Buzias**	151.90	325	⇑*i*P	PKPbc	02 55 52.9	-0.9
WERN	**Wernitzgruen**	151.93	342	*e*PKPbc	PKPbc	02 55 53.1	-0.7
WERN				*e*PKPab	PKPab	02 56 05.5	-0.2
KHC	**Kasperske Hory**	152.59	339	*e*P	PKPab	02 56 08.0	-0.5
KHC	**Kasperske Hory**	152.59	339	*e*PKPbc	PKPbc	02 55 54.5	-0.7
KHC				*e*PKPab	PKPab	02 56 08.0	-0.5
GERES	**GERESS Array B**	152.79	339	PKPbc	PKPbc	02 55 55.2	-0.5
GERES				PKPab	PKPab	02 56 09.2	-0.3
GERES	**GERESS Array B**	152.79	339	PKPbc	PKPbc	02 55 55.2	-0.5
	comp=Z,0.8nm,0.6s,baz=34,slow=0.5,SNR=6.4						
GERES				PKPab	PKPab	02 56 09.2	-0.3
	comp=Z,0.6nm,0.6s,baz=1.9,slow=4.0,SNR=5.4						
GRB3	**Grafenberg Arr**	152.94	342	*e*PKPab	PKPab	02 56 09.9	-0.1
PKSM	**Moragy**	152.95	329	⇑*i*P	PKPbc	02 55 54.3	-1.8
TORD	**Torodi Ar. Bea**	168.81	193	PKP	PKPdf	02 56 04.8	-1.0
TORD				PKPab	PKPab	02 57 20.4	+0.3
TORD	**Torodi Ar. Bea**	168.81	193	PKP	PKPdf	02 56 04.8	-1.0
	comp=Z,1.1nm,1.1s,baz=224,slow=2.1,SNR=3.6						
TORD				PKPab	PKPab	02 57 20.4	+0.3
	comp=Z,1.7nm,0.9s,baz=158,slow=3.8,SNR=14						

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*NEIC **26** 02:53:10.6, 3233S×7193W, h45^{km}, MD3.9(GUC), After GUC.*

GUC 26 02:53:10.6±0.8**, 3233S×7193W, h45^{km}±3^{km}, MD3.9, ML3.4, 4C-9D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PACH	**Papudo**	0.47	117	*e*P	Pn	02 53 21.8	+0.6
CHNG	**Los Chungos**	0.57	40	⇓*i*P	Pn	02 53 10.3	-12
CHNG				*i* S	Sn	02 53 19.4	-12
IHA	**Instituto Hidr**	0.74	161	⇑*i*P	Pn	02 53 24.5	-0.2
IHA				*i* S	Sn	02 53 35.0	+0.1
PEL	**Peldehue**	1.33	128	⇓*i*P	Pn	02 53 34.1	+1.4
PEL				*i* S	Sn	02 53 50.8	+1.5
PEL				AML	AML	02 53 51.8	
	comp=N,2µm,0.3s						
CMCH	**Combarbala**	1.40	35	⇑*i*P	Pn	02 53 34.6	+1.0
CMCH				*i* S	Sn	02 53 52.5	+1.7
CMCH	**Combarbala**	1.40	35	⇑*i*P	Pn	02 53 34.6	+1.0
CMCH				*i* S	Sn	02 53 52.5	+1.7
CMCH				AML	AML	02 53 56.2	
	comp=N,3µm,0.7s						
RCDM	**Rinconada Maip**	1.50	141	*e*P	Pn	02 53 36.0	+1.0
RCDM				*i* S	Sn	02 53 54.7	+1.3
RCDM	**Rinconada Maip**	1.50	141	*e*P	Pn	02 53 36.0	+1.0
RCDM				*i* S	Sn	02 53 54.7	+1.3
RCDM				AML	AML	02 53 56.0	
	comp=E,1µm,0.2s						
TACH	**Talagante**	1.57	148	*e*P	Pn	02 53 37.3	+1.4
FSR	**Penalolen**	1.65	135	⇓*i*P	Pn	02 53 38.2	+1.1
FSR				*i* S	Sn	02 53 59.0	+2.0
ANTU	**Antumapu**	1.65	139	*e*P	Pn	02 53 38.0	+0.8
ANTU				*i* S	Sn	02 53 58.5	+1.4
ANTU	**Antumapu**	1.65	139	*e*P	Pn	02 53 38.0	+0.8
ANTU				*i* S	Sn	02 53 58.5	+1.4
ANTU				AML	AML	02 54 00.1	
	comp=E,828nm,0.4s						
FCH	**Farellones**	1.71	126	⇑*i*P	Pn	02 53 39.5	+1.6
FCH				*i* S	Sn	02 54 00.6	+2.2
FCH				AML	AML	02 54 01.3	
	comp=E,418nm,0.2s						
PCH	**Pirque**	1.76	138	*i* P	Pn	02 53 40.2	+1.6
OVCH	**Ovalle**	1.82	20	⇓*e*P	Pn	02 53 40.2	+0.8
OVCH				*i* S	Sn	02 54 02.6	+1.3
OVCH	**Ovalle**	1.82	20	⇓*e*P	Pn	02 53 40.2	+0.8
OVCH				*i* S	Sn	02 54 02.6	+1.3
OVCH				AML	AML	02 54 08.8	
	comp=N,276nm,0.1s						
CHCH	**Chadas Angostu**	1.93	147	⇓*i*P	Pn	02 53 42.3	+1.4
TLL	**Tololo Astrono**	2.36	24	⇓*e*P	Pn	02 53 48.3	+1.5
TLL				*i* S	Sn	02 54 16.4	+1.9
TLL	**Tololo Astrono**	2.36	24	⇓*e*P	Pn	02 53 48.3	+1.5
TLL				*i* S	Sn	02 54 16.4	+1.9
TLL				AML	AML	02 54 29.1	
	comp=E,96nm,0.2s						
LCO	**Las Campanas**	3.47	18	⇓*i*Pn	Pn	02 54 03.0	+0.9
LCO				*e*Sn	Sn	02 54 41.4	-0.5

IDC 26 03:03:11.2±2.7**, 082N×12726E, h0^{km}, mb3.6**/3**, mb1 3.8**/3**, mb1mx3.5**/16**, mbtmp3.6**/3**, Error ellipse: s-maj=252.2km s-min=26.5km az=66.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	21.77	162	P	P	03 08 03.5	-1.3
	1.0nm,0.4s,baz=340,slow=10.0,SNR=5.2						
WB2	**Warramunga Arr**	21.77	162	*e*P	P	03 08 04.2	-0.6
ASAR	**Alice Springs**	25.18	166	P	P	03 08 39.5	+0.9
	1.0nm,0.6s,baz=349,slow=15,SNR=14						
MKAR	**Makanchi Array**	60.24	326	P	P	03 13 21.2	-0.1
	0.2nm,0.4s,baz=124,slow=7.6,SNR=4.9						

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*NEIC **26** 03:10:51.9, 35.15S×70.63W, h37^{km}, MD4.0(GUC), After GUC.*

GUC 26 03:10:51.9±0.9**, 3515S×7063W, h37^{km}±12^{km}, MD4.0, ML3.2, 2C-7D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NICH	**Los Niches**	0.51	286	⇓*i*P	Pn	03 11 02.7	0.0
NICH				*i* S	Sn	03 11 10.5	+0.2
SFDO	**San Fernando**	0.62	329	⇓*i*P	Pn	03 11 04.3	+0.2
CICH	**Cipreses**	0.84	12	⇓*i*P	Pn	03 11 08.0	+0.7
CICH				*i* S	Sn	03 11 19.9	+1.5
TALC	**Talca**	0.86	253	⇓*i*P	Pn	03 11 01.9	-5.5
TALC				*i* S	Sn	03 11 13.6	-5.2
TALC	**Talca**	0.86	253	⇓*i*P	Pn	03 11 01.9	-5.5
TALC				*i* S	Sn	03 11 13.6	-5.2
TALC				AML	AML	03 11 14.9	
	comp=N,4µm,0.1s						
CHCH	**Chadas Angostu**	1.21	359	⇓*i*P	Pn	03 11 14.0	+1.7
CHCH				*i* S	Sn	03 11 30.7	+3.2
LNV	**Longovilo**	1.35	331	*e*P	Pn	03 11 16.7	+2.4
TACH	**Talagante**	1.51	350	⇓*i*P	Pn	03 11 19.5	+3.0
TACH				*i* S	Sn	03 11 40.1	+5.2
SJCH	**San Jose de Ma**	1.52	9	*e*P	Pn	03 11 18.9	+2.3
SJCH				*i* S	Sn	03 11 40.4	+5.3
PCH	**Pirque**	1.53	4	*e*P	Pn	03 11 19.8	+3.1
PCH				*i* S	Sn	03 11 40.6	+5.4
ANTU	**Antumapu**	1.57	360	*e*P	Pn	03 11 20.2	+2.9
ANTU				*i* S	Sn	03 11 41.8	+5.3
ANTU	**Antumapu**	1.57	360	*e*P	Pn	03 11 20.2	+2.9
ANTU				*i* S	Sn	03 11 41.8	+5.3
ANTU				AML	AML	03 11 45.0	
	comp=E,389nm,0.5s						
RCDM	**Rinconada Maip**	1.66	355	⇑*e*P	Pn	03 11 20.9	+2.4
RCDM				*i* S	Sn	03 11 43.5	+4.9
RCDM	**Rinconada Maip**	1.66	355	⇑*e*P	Pn	03 11 20.9	+2.4
RCDM				*i* S	Sn	03 11 43.5	+4.9
RCDM				AML	AML	03 11 44.8	
	comp=E,2µm,0.1s						
FSR	**Penalolen**	1.67	3	*e*P	Pn	03 11 22.4	+3.8
FSR				*i* S	Sn	03 11 45.1	+6.4
FCH	**Farellones**	1.84	9	*e*P	Pn	03 11 25.2	+4.3
FCH				*i* S	Sn	03 11 50.0	+7.1
FCH				AML	AML	03 11 59.4	
	comp=E,230nm,0.3s						
CCHI	**Chillan**	1.87	219	*e*P	Pn	03 11 25.1	+3.8
CCHI				*i* S	Sn	03 11 49.7	+6.0
CCHI	**Chillan**	1.87	219	*e*P	Pn	03 11 25.1	+3.8
CCHI				*i* S	Sn	03 11 49.7	+6.0
CCHI				AML	AML	03 11 53.4	
	comp=N,159nm,0.5s						
CCHI				AML	AML	03 11 54.5	
	comp=E,172nm,0.4s						
PEL	**Peldehue**	2.00	359	*e*P	Pn	03 11 28.0	+4.9
PEL				*i* S	Sn	03 11 55.1	+8.1
PEL				AML	AML	03 11 60.0	
	comp=E,522nm,0.4s						
COCH	**Cobquecura**	2.01	240	*e*P	Pn	03 11 26.8	+3.5
COCH				S	Sn	03 11 52.7	+5.4
COCH	**Cobquecura**	2.01	240	*e*P	Pn	03 11 26.8	+3.5
COCH				*i* S	Sn	03 11 52.7	+5.4
COCH				AML	AML	03 11 56.4	
	comp=E,183nm,0.4s						
JTS	**JuntasAbangare**	47.18	341	P	P	03 19 16.5	-4.4

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*NIED **26** 03:11:00, 3350N×13970E, h160^{km}, Mw4.3 Best double couple: M$_0$2.99000×10^{15} NP1:φ$_s$238.00000°, δ47.00000°, λ126.00000°. NP2:φ$_s$11.00000°, δ54.00000°, λ58.00000°.*

*MOS **26** 03:11:49.8±0.9, 3339N×13974E, h165^{km}, mb4.2/5, Error ellipse: s-maj=23.4km s-min=8.7km az=108.5*

*ISCJB **26** 03:11:50.9±0.3, 3342N±003×13975E±008, h174^{km}±2^{km}, mb4.0/21, Error ellipse: s-maj=11.1km s-min=5.1km az=165.6*

*IDC **26** 03:11:52.3±0.3, 3341N×13962E, h164^{km}±2^{km}, mb3.7/14, mb1 3.8/19, mb1mx3.7/29, mbtmp3.7/19, Error ellipse: s-maj=17.7km s-min=7.1km az=73.0*

*BJI **26** 03:11:52.9, 3350N×13970E, h165^{km}, mB4.6, mb4.4*

*JMA **26** 03:11:52.9±0.2, 3350N×13970E, h165^{km}±2^{km}, M4.3*

*NEIC **26** 03:11:53.0, 3350N×13970E, h165^{km}, mb4.2/5, After JMA.*

ISC 26 03:11:52.2±0.3**, 3346N**±004×**13977E**±008**, h169^{km}±2^{km}, n60, σ1^{s}00**/66**, mb4.0**/21**, 5C-1D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHJ	**Hachijo jima 2**	0.34	178	P	**Pn**	**03 12 15.9**	**+0.8**
	456nm,0.3s,baz=83,slow=6.1,SNR=21						
JHJ				S	**Sn**	**03 12 32.7**	**+0.1**
	678nm,0.3s,baz=47,slow=22,SNR=11						
JHJ2	**Mitsune**	0.35	173	P	**Pn**	**03 12 15.6**	**+0.5**
JHJ2				*e*S	**Sn**	**03 12 33.9**	**+1.2**
JKO	**Kozu shima**	0.90	324	⇑P	**Pn**	**03 12 17.7**	**-0.3**
JKO				*e*S	**Sn**	**03 12 37.5**	**-0.4**
JIM2	**Oshima 3**	1.29	348	P	**Pn**	**03 12 21.8**	**+0.6**
JIZS	**Izushimoda**	1.46	330	⇓P	**Pn**	**03 12 22.8**	**0.0**
JIZS				*e*S	**Sn**	**03 12 45.9**	**-0.6**
BSO3	**Boso 3**	1.48	24	⇑P	**Pn**	**03 12 23.6**	**+0.6**
BSO1	**Boso 1**	1.56	40	⇑P	**Pn**	**03 12 24.5**	**+0.7**
BSO4	**Boso 4**	1.60	17	⇑P	**Pn**	**03 12 25.1**	**+0.9**
JOD2	**Odawara 2**	1.89	343	P	**Pn**	**03 12 27.7**	**+0.5**
JOD2				*e*S	**Sn**	**03 12 53.9**	**-0.5**
MJAR	**Matsushiro Arr**	3.33	338	P	**Pn**	**03 12 43.9**	**-0.5**
	16nm,0.3s,baz=163,slow=11,SNR=120						
MJAR				S	**Sn**	**03 13 24.1**	**-1.1**
	18nm,0.3s,baz=164,slow=18,SNR=8.7						
MAJO	**Matsushiro**	3.34	338	*e*Pn	**Pn**	**03 12 44.3**	**-0.2**
MAJO				*e*Sn	**Sn**	**03 13 16.6**	**-8.6**
MAT	**Matsushiro**	3.34	338	P	**Pn**	**03 12 44.0**	**-0.4**
MAT				*e*S	**Sn**	**03 13 27.5**	**+2.3**
CBIJ	**Chichi jima**	6.67	161	P	**Pn**	**03 13 26.3**	**-1.7**
	54nm,0.3s,baz=282,slow=20,SNR=7.5						
CBIJ				S	**Sn**	**03 14 40.8**	**-2.5**
	73nm,0.3s,baz=58,slow=21,SNR=6.5						
JNU	**Nakatsue**	7.45	270	P	**Pn**	**03 13 38.0**	**-0.2**
	0.4nm,0.3s,baz=17,slow=44,SNR=2.6						
KSRS	**Korea Array**	10.45	296	P	**Pn**	**03 14 18.4**	**+0.7**
	0.6nm,0.3s,baz=106,slow=13,SNR=29						
ASAJ	**Asahikawa**	10.87	11	P	**Pn**	**03 14 22.5**	**-0.6**
ASAJ				S	**Sn**	**03 16 22.3**	**-1.2**
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.3s						
ASAJ				smax			
	comp=N,3.0nm,0.3s						
ASAJ	**Asahikawa**	10.87	11	P	**Pn**	**03 14 22.5**	**-0.6**
	comp=N,7.4nm,0.3s,baz=223,slow=12,SNR=29						
ASAJ				S	**Sn**	**03 16 22.3**	**-1.2**
	comp=N,2.5nm,0.3s,baz=0.4,slow=26,SNR=8.1						
MDJ	**Mudanjiang**	13.65	328	*e*Pn	**Pn**	**03 14 57.3**	**-1.5**
	comp=N,14nm,0.8s						
YSS	**Yuzh-Sakhalins**	13.67	9	*e*P	**Pn**	**03 14 57.0**	**-2.0**
CN2	**Changchun**	15.21	317	*e*P	**Pn**	**03 15 17.8**	**-0.3**
KLR	**Kul'dur**	16.85	342	*e*P	**Pn**	**03 15 33.0**	**-5.1**
KLR				pmax	pmax		
	comp=E,16nm,0.9s						
KLR				pmax	pmax		
	comp=Z,24nm,0.9s						
HIA	**Hailar**	21.70	323	*e*P	**P**	**03 16 27.1**	**-2.5**
	comp=Z,10nm,0.6s,mb4.4						
HIA	**Hailar**	21.70	323	*e*P	**P**	**03 16 27.1**	**-2.5**
HIA				pmax	pmax		
	comp=Z,11nm,0.6s						
SONM	**Songino Array**	28.85	310	P	**P**	**03 17 34.1**	**-0.5**
	comp=Z,1.6nm,0.8s,mb3.8,baz=112,slow=8.1,SNR=10						
BOD	**Bodaibo**	29.95	332	*e*P	**P**	**03 17 44.1**	**-0.1**
BOD				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.9						
ZAK	**Zakamensk**	31.59	313	*e*P	**P**	**03 17 58.8**	**+0.2**
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.7s,mb3.3						
TLY	**Talaya**	31.81	316	*e*P	**P**	**03 18 02.6**	**+2.1**
TLY				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
TIXI	**Tiksi**	38.70	355	*e*P	**P**	**03 18 55.7**	**-3.4**
TIXI				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
ZALV	**Zalesovo Beam**	43.42	315	P	**P**	**03 19 37.9**	**0.0**
ZALV				PcP	PcP	03 21 23.8	+0.8
ZALV	**Zalesovo Beam**	43.42	315	P	**P**	**03 19 37.9**	**0.0**
	comp=Z,1.2nm,0.5s,mb3.8,baz=99,slow=7.1,SNR=6.1						
ZALV				PcP	PcP	03 21 23.8	+0.8
	comp=Z,2.9nm,0.6s,baz=106,slow=2.9,SNR=13						
ZAL	**Zalesovo**	43.43	315	P	**P**	**03 19 37.9**	**0.0**
ZAL						03 21 23.8	
NVS	**Novosibirsk**	44.42	316	*e*P	**P**	**03 19 39.4**	**-6.4**
MK31	**Makanchi Array**	44.97	305	*e*P	**P**	**03 19 50.4**	**+0.1**
MKAR	**Makanchi Array**	44.97	305	P	**P**	**03 19 50.6**	**+0.3**
MKAR						03 21 29.2	
MKAR	**Makanchi Array**	44.97	305	P	**P**	**03 19 50.5**	**+0.3**
	comp=Z,1.8nm,0.7s,mb3.8,baz=90,slow=9.7,SNR=20						
MKAR				PcP	PcP	03 21 29.2	+0.7
	comp=Z,0.4nm,0.6s,baz=78,slow=9.5,SNR=2.7						
MKAR				ScP	ScP	03 25 05.2	+0.3
	comp=Z,1.0nm,0.9s,baz=78,slow=4.9,SNR=5.2						
KURK	**Kurchatov**	47.16	311	*e*P	**P**	**03 20 06.5**	**-0.8**
	comp=Z,3.9nm,0.8s,mb4.1						
KURK	**Kurchatov**	47.16	311	*e*P	**P**	**03 20 06.5**	**-0.8**
KURK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
AML	**Almayashu**	51.76	300	*e*P	**P**	**03 20 43.6**	**+1.2**
	comp=Z,1.7nm,0.4s,mb4.0						
FITZ	**Fitzroy Crossi**	53.01	197	*e*P	**P**	**03 20 51.0**	**-0.7**
	comp=Z,6.0nm,1.2s,mb4.2						
FITZ	**Fitzroy Crossi**	53.01	197	P	**P**	**03 20 51.2**	**-0.5**
	comp=Z,2.0nm,0.8s,mb3.9,baz=36,slow=8.7,SNR=6.0						
WB2	**Warramunga Arr**	53.35	186	⇑*i*P	**P**	**03 20 53.3**	**-0.8**
WRA	**Warramunga Arr**	53.35	186	P	**P**	**03 20 53.4**	**-0.7**
	comp=Z,6.1nm,0.4s,mb4.7,baz=0.3,slow=7.4,SNR=34						
WRA				PcP	PcP	03 22 00.4	+1.2
	comp=Z,2.3nm,0.6s,baz=0.9,slow=4.1,SNR=5.3						
ASAR	**Alice Springs**	57.08	186	P	**P**	**03 21 20.4**	**-0.3**
	comp=Z,1.8nm,0.4s,mb4.2,baz=0.8,slow=6.2,SNR=40						
ASAR				PcP	PcP	03 22 15.0	+1.4
	comp=Z,0.8nm,0.7s,baz=356,slow=5.6,SNR=3.1						
INK	**Inuvik**	58.18	26	P	**P**	**03 21 29.5**	**+1.6**
	comp=Z,0.4nm,0.4s,mb3.6,baz=219,slow=27,SNR=4.5						
FORT	**Forrest**	64.84	191	*e*P	**P**	**03 22 13.1**	**+0.2**
	comp=Z,35nm,0.6s,mb5.4						
STKA	**Stephens Creek**	65.00	178	P	**P**	**03 22 14.8**	**+0.8**
	comp=Z,1.0nm,0.3s,mb4.1,baz=354,slow=8.1,SNR=8.8						
ARCES	**ARCESS Array B**	66.87	340	P	**P**	**03 22 26.8**	**+1.3**
	comp=Z,0.8nm,0.7s,mb3.7,baz=51,slow=6.0,SNR=5.1						
JOF	**Joensuu**	68.49	332	*e*p	**P**	**03 22 34.8**	**-0.9**
FINES	**FINESS Array B**	71.35	332	P	**P**	**03 22 53.0**	**-0.1**
	comp=Z,0.7nm,0.5s,mb3.6,baz=74,slow=4.5,SNR=6.3						
JMIC	**Jan Mayen**	73.42	350	P	**P**	**03 23 05.7**	**+0.4**
	comp=Z,132nm,0.4s,baz=106,slow=5.3,SNR=5.3						
HFS	**Hagfors**	76.78	335	P	**P**	**03 23 25.2**	**+0.6**
	comp=Z,3.9nm,0.9s,mb4.0,baz=88,slow=7.6,SNR=4.4						
NOA	**NORSAR Array B**	76.95	337	P	**P**	**03 23 26.8**	**+1.2**
	comp=Z,0.5nm,0.7s,baz=49,slow=6.7,SNR=2.4						
BRTR	**Keskin Array B**	80.20	311	P	**P**	**03 23 44.9**	**+1.1**
	comp=Z,1.6nm,0.9s,mb3.7,baz=121,slow=5.0,SNR=7.2						
TXAR	**Lajitas Array**	93.38	51	P	**P**	**03 24 51.7**	**+3.4**
TXAR	**Lajitas Array**	93.38	51	P	**P**	**03 24 51.7**	**+3.4**
	comp=Z,0.5nm,0.7s,mb3.8,baz=288,slow=3.1,SNR=6.7						
TORD	**Torodi Ar. Bea**	118.81	312	PKP	PKPdf	03 30 20.9	0.0
TORD	**Torodi Ar. Bea**	118.81	312	PKP	PKPdf	03 30 20.9	0.0
	comp=Z,0.5nm,0.6s,baz=36,slow=1.7,SNR=18						
LPAZ	**La Paz**	149.60	63	PKPbc	PKPbc	03 31 24.2	+2.1
LPAZ	**La Paz**	149.60	63	PKP2	PKPab	03 31 24.2	-3.5
LPAZ	**La Paz**	149.60	63	PKPbc	PKPbc	03 31 24.2	+2.1
	comp=Z,1.6nm,0.7s,baz=8.8,slow=7.1,SNR=7.3						

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*NEIC **26** 03:17:06.4, 3286S×7031W, h95^{km}, MD3.7(GUC), After GUC.*

GUC 26 03:17:06.4±0.6**, 3286S×7031W, h95^{km}±3^{km}, MD3.3, ML3.1, 2C-9D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FCH	**Farellones**	0.47	178	⇓*i*P	Pn	03 17 22.3	+0.8
FCH				*i* S	Sn	03 17 34.5	+1.8
FCH				AML	AML	03 17 35.1	
	comp=E,1µm,0.2s						
DSCH	**Colegio Aleman**	0.58	202	⇓*i*P	Pn	03 17 21.9	-0.5
DSCH				*i* S	Sn	03 17 34.5	+0.2
STL	**Santa Lucia**	0.64	206	⇑*e*P	Pn	03 17 22.4	-0.5
STL				*i* S	Sn	03 17 35.1	0.0
FSR	**Penalolen**	0.65	197	*e*P	Pn	03 17 23.4	+0.5
FSR				*i* S	Sn	03 17 36.1	+0.9
FSR	**Penalolen**	0.65	197	*e*P	Pn	03 17 23.4	+0.5
FSR				*i* S	Sn	03 17 36.1	+0.9
FSR				AML	AML	03 17 38.0	
	comp=N,429nm,0.3s						
RCDM	**Rinconada Maip**	0.76	214	*e*P	Pn	03 17 24.1	+0.2
RCDM				*i* S	Sn	03 17 37.9	+0.9
RCDM	**Rinconada Maip**	0.76	214	*e*P	Pn	03 17 24.1	+0.2
RCDM				*i* S	Sn	03 17 37.9	+0.9
RCDM				AML	AML	03 17 40.2	
	comp=N,1µm,0.1s						
ANTU	**Antumapu**	0.76	201	⇓*i*P	Pn	03 17 24.0	+0.1
ANTU				*i* S	Sn	03 17 38.1	+1.0
ANTU	**Antumapu**	0.76	201	⇓*i*P	Pn	03 17 24.0	+0.1
ANTU				*i* S	Sn	03 17 38.1	+1.0
ANTU				AML	AML	03 17 38.9	
	comp=N,574nm,0.3s						
PCH	**Pirque**	0.78	193	*i* P	Pn	03 17 24.5	+0.4
PCH				*i* S	Sn	03 17 38.4	+1.0
SJCH	**San Jose de Ma**	0.78	183	*e*P	Pn	03 17 24.0	-0.2
SJCH				*i* S	Sn	03 17 37.9	+0.4
TACH	**Talagante**	0.95	214	⇑*i*P	Pn	03 17 26.1	+0.2
TACH				*i* S	Sn	03 17 41.2	+0.6
PACH	**Papudo**	1.00	288	*e*P	Pn	03 17 27.1	+0.6
CHCH	**Chadas Angostu**	1.11	195	⇓*i*P	Pn	03 17 27.9	+0.2
CHCH				*i* S	Sn	03 17 44.5	+0.8
CHNG	**Los Chungos**	1.40	314	*e*P	Pn	03 17 18.9	-12
CHNG				*i* S	Sn	03 17 37.4	-13
LNV	**Longovilo**	1.43	220	⇓*i*P	Pn	03 17 31.0	-0.6
LNV				*i* S	Sn	03 17 50.1	-0.4
CICH	**Cipreses**	1.46	184	⇓*i*P	Pn	03 17 32.6	+0.7
CMCH	**Combarbala**	1.78	340	⇓*i*P	Pn	03 17 36.7	+0.8
CMCH				*i* S	Sn	03 17 59.4	+1.0
CMCH	**Combarbala**	1.78	340	⇓*i*P	Pn	03 17 36.7	+0.8
CMCH				*i* S	Sn	03 17 59.4	+1.0
CMCH				AML	AML	03 18 01.4	
	comp=N,319nm,0.3s						

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*CSEM **26** 03:23:39.7±0.1, 4068N×3536E, h2^{km}, MD2.8, Error ellipse: s-maj=2.1km s-min=1.3km az=148.0*

*ISCJB **26** 03:23:40.1±0.6, 4065N±004×3535E±007, h2^{km}, Error ellipse: s-maj=7.9km s-min=4.7km az=28.3*

*DDA **26** 03:23:40.0, 4066N×3537E, h8^{km}±1^{km}, Md2.8*

*ISK **26** 03:23:40.3, 4067N×3538E, h3^{km}, MD2.7*

ISC 26 03:23:40.8±0.7**, 4066N**±004×**3533E**±007**, h1^{km}±11^{km}, n16, σ0^{s}53**/19**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTKT	**Corum**	0.41	265	*i* P	**Pg**	**03 23 49.2**	**+0.5**
KVT	**Kavak**	0.68	52	PG	**Pg**	**03 23 53.3**	**-0.6**
KVT				SG	**Sg**	**03 24 03.4**	**+0.7**
KVT	**Kavak**	0.68	52	*e*Pg	**Pg**	**03 23 53.3**	**-0.6**
KVT				*e*Sg	**Sg**	**03 24 03.4**	**+0.7**
BOYT	**Boyabat**	0.82	337	*e*P	**Pg**	**03 23 56.1**	**-0.4**
DIKM	**Dikmen**	0.99	357	PG	**Pg**	**03 23 59.9**	**+0.2**
DIKM	**Dikmen**	0.99	357	*e*Pg	**Pg**	**03 23 59.9**	**+0.2**
YOZ	**Yozgat**	1.02	180	PG	**Pg**	**03 24 00.8**	**+0.5**
YOZ	**Yozgat**	1.02	180	*e*Pg	**Pg**	**03 24 00.8**	**+0.5**
CDAG	**Cicekdag**	1.27	216	*i* P	**Pg**	**03 24 04.3**	**-0.8**
CDAG	**Cicekdag**	1.27	216	*i* P	**Pg**	**03 24 04.3**	**-0.8**
ELDT	**Eldivan**	1.46	264	*e*P	**Pn**	**03 24 08.0**	**-0.2**
SVSK	**Karacayir**	1.48	120	*e*PN	**Pn**	**03 24 08.0**	**-0.4**
SVSK	**Karacayir**	1.48	120	*e*Pn	**Pn**	**03 24 08.0**	**-0.4**
KAMT	**Kaman**	1.79	224	*e*PN	**Pn**	**03 24 13.4**	**+0.6**
KAMT	**Kaman**	1.79	224	*e*Pn	**Pn**	**03 24 13.4**	**+0.6**
AVNT	**Avonos**	1.92	191	*i* P	**Pg**	**03 24 16.8**	**-0.7**
AVNT				*i* S	**Sg**	**03 24 42.8**	**+0.5**

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*NEIC **26** 03:24:49.8, 1791N×6832W, h90^{km}, MD3.5(RSPR), After RSPR.*

RSPR 26 03:24:49.8, 1791N×6832W, h90^{km}±3^{km}, MD3.5/6**, MD3.5**/6**, 9C-1D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CRPR	**Cabo Rojo, PR**	1.16	85	⇑*e*P	Pn	03 25 10.9	-0.3
CRPR				*e*S	Sn	03 25 27.4	-0.1
LSP	**Las Mesas**	1.21	77	⇑*e*P	Pn	03 25 11.1	-0.7
LSP				*e*S	Sn	03 25 28.1	-0.4
AGPR	**Aguadilla, PR**	1.28	64	*e*S	Sn	03 25 29.7	-0.5
AGPR	**Aguadilla, PR**	1.28	64	⇑*e*P	Pn	03 25 12.6	-0.1
AGPR				*e*S	Sn	03 25 29.7	-0.5
LRS	**Lares**	1.46	74	⇑*e*P	Pn	03 25 14.2	-0.8
LRS				*e*S	Sn	03 25 34.0	0.0
AOPR	**Arecibo Observ**	1.56	73	*e*S	Sn	03 25 35.9	-0.3
AOPR	**Arecibo Observ**	1.56	73	⇑*e*P	Pn	03 25 15.3	-0.9
AOPR				*e*S	Sn	03 25 35.9	-0.3
SJG	**San Juan**	2.08	84	⇑*e*P	Pn	03 25 22.2	-0.8
SJG				*e*S	Sn	03 25 48.3	0.0
CPD	**Cerro la Pandu**	2.30	86	⇑*e*P	Pn	03 25 25.5	-0.4
CPD				*e*S	Sn	03 25 52.9	-0.6
HUMP	**Col San Antoni**	2.37	84	⇑*e*P	Pn	03 25 27.0	+0.2
HUMP				*e*S	Sn	03 25 54.6	-0.6
CBYP	**Canovanas**	2.37	81	⇑*e*P	Pn	03 25 26.6	-0.3
CBYP				*e*S	Sn	03 25 55.6	+0.3
MTP	**Monte Pirata**	2.64	85	⇓*e*P	Pn	03 25 30.4	0.0
MTP				*e*S	Sn	03 26 01.9	+0.1

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*GCMT **26** 03:33:04.3±0.3, 29.07S×176.71W, h30^{km}, MW5.1/60, Moment Tensor Solution. s47,c60; s60,c78; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$4.65±.23; M$_{\theta\theta}$-0.60±.17; M$_{\phi\phi}$-4.05±.16; M$_{r\theta}$0.80±.25; M$_{\theta\phi}$-1.56±.12; M$_{\phi r}$2.92±.18; Best double couple: M$_0$5.54900×10^{16} NP1:φ$_s$204.00000°, δ29.00000°, λ95.00000°. NP2: φ$_s$18.00000°, δ62.00000°, λ87.00000°. Principal axes: T 5.5560, Plg73.0000°, Azm281.0000°; N -0.0110, Plg3.0000°, Azm19.0000°; P -5.5420, Plg16.0000°, Azm110.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **26** 03:33:04.2, 28.90S×177.00W, h35^{km}, mb5.0*

*NEIC **26** 03:33:04.3±0.6, 28.93S×177.05W, h35^{km}, mb5.0/5, Error ellipse: s-maj=21.3km s-min=11.9km az=147.0*

*ISCJB **26** 03:33:06.5±1.4, 29.36S±0.07×177.1W±0.1, h71^{km}±9^{km}, mb4.5/14, Error ellipse: s-maj=20.1km s-min=11.9km az=12.6*

*IDC **26** 03:33:06.4±1.9, 28.94S×177.09W, h48^{km}±15^{km}, mb4.2/9, mb1 4.4/10, mb1mx4.4/13, mbtmp4.2/10, ML4.2/1, MS4.5/14, Ms1 4.5/14, ms1mx4.2/21, Error ellipse: s-maj=26.0km s-min=21.8km az=154.0*

ISC 26 03:33:06.2±1.7**, 2939S**±007×**1770W**±01**, h57^{km}±12^{km}, n68, σ1^{s}03**/33**, mb4.6**/14**, MS4.5**/12**, 1C-7D, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	**Raoul Island**	0.79	280	⇓*i*P	**Pn**	**03 33 20.5**	**-0.9**

RAO				eSn	Sn	03 33 32.8	+0.1
RAO	Raoul Island	0.79	280	P	Pn	03 33 20.7	-0.7
	2µm,0.3s,baz=91,slow=6.2,SNR=54						
RAO				S	Sn	03 33 33.4	+0.8
	5µm,0.3s,baz=242,slow=23,SNR=19						
URZ	Urewera	10.10	207	P	Pn	03 35 32.5	+4.1
	2.0nm,0.3s,baz=308,slow=4.3,SNR=8.8						
URZ				S	Sn	03 37 22.8	+2.7
	6.7nm,0.3s,baz=124,slow=20,SNR=7.1						
URZ	Urewera	10.10	207	eSN	Sn	03 37 18.9	-1.3
MRZ	Mangatainoka R	12.77	206	eSN	Sn	03 38 17.7	-7.6
DZM	Mont Dzumac	16.57	292	P	Pn	03 36 58.7	+3.9
	0.4nm,0.3s,baz=85,slow=20,SNR=4.4						
DZM				LR	LR	03 42 15.1	
	comp=Z,3µm,18.1s,baz=189,slow=34						
WVZ	Waitaha Valley	16.82	212	ePN	Pn	03 36 58.2	+0.5
RPZ	Rata Peaks	17.18	210	P	Pn	03 37 02.4	+0.2
	2.8nm,0.3s,baz=255,slow=0.5,SNR=14						
RAR	Rarotonga	17.58	66	P	Pn	03 37 00.7	-6.6
	3.0nm,0.3s,baz=241,slow=8.0,SNR=6.5						
RAR				LR	LR	03 41 42.0	
	comp=Z,1µm,20.4s,baz=253,slow=30						
JCZ	Jackson Bay	18.52	214	ePN	Pn	03 37 15.8	-2.7
ARMA	Armidale	27.15	260	eP	P	03 38 48.4	+4.3
PPT	Papeete	27.72	71	eLQ		03 44 10.9	
	1µm,24.8s						
PPT				eLR	LR	03 45 44.0	
	2µm,26.0s,baz=241						
PPT	Papeete	27.72	71	LR	LR	03 47 07.0	
	comp=Z,471nm,21.1s,MS4.0,baz=248,slow=30						
CTA	Charters Tower	34.49	277	⇓iP	P	03 39 51.0	+2.1
	12nm,0.7s,mb4.9						
CTAO	Charters Tower	34.49	277	eP	P	03 39 48.9	0.0
	11nm,0.7s,mb4.9						
STKA	Stephens Creek	35.54	255	⇓iP	P	03 39 59.5	+1.7
	7.4nm,0.6s,mb4.8						
STKA	Stephens Creek	35.54	255	eP	P	03 39 59.4	+1.6
STKA	Stephens Creek	35.54	255	P	P	03 39 59.7	+1.9
	8.3nm,0.7s,mb4.8,baz=95,slow=9.1,SNR=19						
STKA				LR	LR	03 53 56.9	
	comp=Z,1µm,18.1s,MS4.7,baz=75,slow=35						
RKT	Rikitea	38.07	91	eLR	LR	03 50 38.8	
	1µm,27.5s,baz=257						
TAOE	Nuku Hiva Isla	40.13	67	eLR	LR	03 51 25.4	
	2µm,25.7s,baz=247						
ASAR	Alice Springs	44.02	265	P	P	03 41 08.3	0.0
	6.8nm,0.6s,mb4.5,baz=98,slow=6.5,SNR=60						
ASAR				PcP	PcP	03 42 56.8	+3.7
	1.7nm,0.7s,baz=114,slow=3.8,SNR=4.2						
WB2	Warramunga Arr	44.91	271	eP	P	03 41 15.3	-0.1
WB2	Warramunga Arr	44.91	271	eP	P	03 41 15.3	-0.2
WRA	Warramunga Arr	44.92	271	P	P	03 41 15.4	-0.1
	12nm,0.8s,mb4.8,baz=108,slow=7.7,SNR=34						
WRA				LR	LR	03 59 25.7	
	comp=Z,545nm,18.4s,MS4.5,baz=115,slow=35						
FORT	Forrest	47.13	254	eP	P	03 41 32.4	-0.4
	23nm,0.7s,mb5.2						
VNDA	Vanda	49.18	186	LR	LR	04 00 32.4	
	comp=Z,213nm,18.3s,MS4.2,baz=331,slow=33						
FITZ	Fitzroy Crossi	53.22	269	⇓iP	P	03 42 19.2	+0.2
	9.9nm,0.7s,mb4.8						
GUMO	Guam	56.38	314	LR	LR	04 02 21.2	
	comp=Z,1µm,20.8s,MS4.9,baz=94,slow=31						
MBWA	Marble Bar	57.19	263	eP	P	03 42 46.7	-0.9
	22nm,1.3s,mb5.0						
MAW	Mawson	73.55	200	P	P	03 44 37.5	+4.9
	4.3nm,0.7s,mb4.5,baz=122,slow=10,SNR=6.6						
MAW				LR	LR	04 16 51.1	
	comp=Z,367nm,18.4s,MS4.7,baz=324,slow=36						
MJAR	Matsushiro Arr	77.91	325	P	P	03 44 57.1	-0.7
	3.6nm,0.8s,mb4.4,baz=159,slow=5.8,SNR=7.0						
MJAR				LR	LR	04 12 45.2	
	comp=Z,275nm,20.4s,MS4.6,baz=165,slow=31						
LPIG	La Paz	83.28	58	LR	LR	04 13 03.8	
	comp=Z,221nm,21.8s,MS4.5,baz=232,slow=29						
KSRS	Korea Array	84.14	319	P	P	03 45 31.2	+0.2
	2.1nm,0.9s,mb4.3,baz=134,slow=5.8,SNR=6.5						
KSRS				LR	LR	04 21 45.3	
	comp=Z,112nm,18.9s,MS4.3,baz=316,slow=35						
NVAR	Mina Array Bea	86.92	42	P	P	03 45 45.6	+0.8
	1.3nm,0.8s,mb4.2,baz=234,slow=11,SNR=4.9						
CN2	Changchun	89.86	322	eP	P	03 45 57.0	-1.5
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb5.1						
TXAR	Lajitas Array	91.13	57	P	P	03 46 05.8	+1.0
	comp=Z,0.9nm,0.9s,mb4.1,baz=225,slow=5.1,SNR=5.5						
TXAR				LR	LR	04 17 05.1	
	comp=Z,174nm,20.1s,MS4.5,baz=310,slow=29						
CMIG	Matias Romero	91.63	71	LR	LR	04 16 33.1	
	comp=Z,119nm,21.3s,MS4.3,baz=205,slow=28						
PDAR	Pinedale Array	94.82	43	P	P	03 46 21.2	-0.3
	comp=Z,0.5nm,0.9s,mb4.0,baz=150,slow=3.3,SNR=4.1						
PDAR				LR	LR	04 26 34.2	
	comp=Z,267nm,18.0s,MS4.8,baz=259,slow=34						
MKAR	Makanchi Array	117.77	310	PKP	PKPdf	03 51 45.5	-0.2
MKAR	Makanchi Array	117.77	310	PKP	PKPdf	03 51 45.5	-0.2
	comp=Z,0.7nm,0.6s,baz=78,slow=2.4,SNR=7.8						
ZALV	Zalesovo Beam	117.84	319	PKP	PKPdf	03 51 45.3	-0.3
ZALV	Zalesovo Beam	117.84	319	PKP	PKPdf	03 51 45.3	-0.3
	comp=Z,0.4nm,0.3s,baz=211,slow=1.7,SNR=4.1						
ARCES	ARCESS Array B	137.78	348	PKP	PKPdf	03 52 16.9	-6.2
ARCES	ARCESS Array B	137.78	348	PKhKP		03 52 16.9	
	comp=Z,4.2nm,1.1s,baz=58,slow=3.2,SNR=3.7						
JOF	Joensuu	141.78	339	epkp	PKPdf	03 52 25.9	-4.6
JOF	Joensuu	141.78	339	ePKP	PKPdf	03 52 25.9	-4.6
KAF	Kangasniemi	143.87	342	epkp	PKPdf	03 52 31.0	-3.2
KAF	Kangasniemi	143.87	342	ePKP	PKPdf	03 52 31.0	-3.2
FINES	FINESS Array B	144.48	341	PKP	PKPdf	03 52 33.8	-1.5
FINES	FINESS Array B	144.48	341	PKP	PKPdf	03 52 33.8	-1.5
	comp=Z,8.2nm,0.7s,baz=64,slow=4.4,SNR=30						
KIV	Kislovodsk	145.34	306	ePKPdf	PKPdf	03 52 36.5	-0.9
NB2	NORSAR Subarra	147.88	352	PKPa	PKPbc	03 52 43.8	-0.3
	comp=Z,6.6nm,0.7s,baz=13,slow=2.9						
NOA	NORSAR Array B	147.88	352	PKPbc	PKPbc	03 52 44.1	0.0
NOA	NORSAR Array B	147.88	352	PKPbc	PKPbc	03 52 44.1	0.0
	comp=Z,6.7nm,0.7s,baz=15,slow=4.4,SNR=23						
MALT	Malatya	149.39	296	⇓iP	PKPbc	03 52 51.0	+2.2
AKASG	Malin Array Be	150.99	325	PKPbc	PKPbc	03 52 52.6	+0.5
AKASG				PKPab	PKPab	03 53 00.5	+0.6
AKASG	Malin Array Be	150.99	325	PKPbc	PKPbc	03 52 52.6	+0.5
	comp=Z,12nm,0.7s,baz=46,slow=2.9,SNR=30						
AKASG				PKPab	PKPab	03 53 00.5	+0.6
	comp=Z,7.8nm,0.6s,baz=44,slow=3.4,SNR=10						
AKBB	Malin Array Si	150.99	325	ePKPbc	PKPbc	03 52 52.7	+0.6
BRTR	Keskin Array B	152.84	300	PKPbc	PKPbc	03 52 57.6	+0.8
BRTR				PKPab	PKPab	03 53 05.7	-2.3
BRTR	Keskin Array B	152.84	300	PKPbc	PKPbc	03 52 57.6	+0.8
	comp=Z,1.9nm,0.8s,baz=108,slow=4.0,SNR=9.2						
BRTR				PKPab	PKPab	03 53 05.7	-2.3
	comp=Z,3.4nm,0.8s,baz=103,slow=3.7,SNR=12						
ANTO	Ankara	153.44	301	⇓iP	PKPbc	03 52 58.8	+0.7
KWP	Kalwaria	154.84	329	⇑iP	PKPbc	03 53 00.8	+0.1
BURAR	Bucovina Array	154.97	323	⇓iP	PKPab	03 53 17.4	+0.7
CLL	Collm	156.86	344	ePKPdf	PKPdf	03 52 56.0	+1.3
CLL				ePKPab	PKPab	03 53 25.0	+0.4
KHC	Kasperske Hory	158.69	341	ePKPab	PKPab	03 53 32.5	-0.1
GERES	GERESS Array B	158.91	340	PKPab	PKPab	03 53 32.6	-0.9
	comp=Z,0.6nm,0.7s,baz=64,slow=3.1,SNR=4.2						
TORD	Torodi Ar. Bea	163.79	176	PKP	PKPdf	03 53 02.8	-0.6
TORD				PKPab	PKPab	03 53 58.0	+2.4
TORD	Torodi Ar. Bea	163.79	176	PKP	PKPdf	03 53 02.8	-0.6
	comp=Z,0.4nm,0.8s,baz=325,slow=1.8,SNR=3.6						
TORD				PKPab	PKPab	03 53 58.0	+2.4
	comp=Z,1.3nm,0.8s,baz=189,slow=3.4,SNR=12						

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*NEIC **26** 03:53:49.4, 16.66N×99.19W, h13km, MD4.0(MEX), After MEX.*

MEX 26 03:53:49.9±0.6**, 16.65N×99.26W, h24km**±21km**, MD3.9, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.67	289	i P	Pb	03 53 58.0	-4.9
ACX				i S	Sb	03 54 05.5	-6.3
CAIG	El Cayaco	1.05	293	i P	Pn	03 54 06.5	-2.6
CAIG				i S	Sb	03 54 20.6	-2.1
CAIG	El Cayaco	1.05	293	i P	Pn	03 54 06.5	-2.6
CAIG				i S	Sb	03 54 18.7	-3.9
PNIG	Pinotepa	1.11	103	i P	Pn	03 54 06.2	-3.8
PNIG				i S	Sb	03 54 19.2	-5.3
PNIG	Pinotepa	1.11	103	i P	Pn	03 54 07.2	-2.8
PNIG				i S	Sb	03 54 20.7	-3.9
MEIG	Mezcala	1.32	345	i P	Pn	03 54 09.7	-3.1
MEIG				i S	Sn	03 54 25.2	-4.5
PLIG	Platanillo	1.75	352	i P	Pn	03 54 16.4	-2.4
PLIG				i S	Sn	03 54 37.8	-2.6
YAIG	Yautepec	2.21	5	i P	Pn	03 54 23.4	-1.7
YAIG				i S	Sn	03 54 49.4	-2.3
VHO	Vista Hermosa	2.45	80	i P	Pn	03 54 24.6	-3.8
VHO				i S	Sn	03 54 53.5	-4.2
VHO	Vista Hermosa	2.45	80	i P	Pn	03 54 26.4	-2.1
VHO				i S	Sn	03 54 54.9	-2.8
OXX	Oaxaca	2.46	80	eP	Pn	03 54 25.0	-3.6
TPIG	Tehuac#an	2.53	45	i P	Pn	03 54 26.8	-2.7
TPIG				i S	Sn	03 54 57.9	-1.6
SZVM	Salazar	2.67	357	eP	Pn	03 54 28.4	-3.0
SZVM				i S	Sn	03 55 01.3	-1.6
MOIG	Morelia	3.53	329	i P	Pn	03 54 41.7	-1.6
MOIG				i S	Sn	03 55 23.2	-1.1
MOIG	Morelia	3.53	329	i P	Pn	03 54 41.0	-2.2
MOIG				i S	Sn	03 55 22.2	-2.0
MMIG	Aquila	4.23	293	i P	Pn	03 54 50.8	-2.1
MMIG				i S	Sn	03 55 40.4	-1.1

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*ISCJB **26** 03:59:46.3±1.2, 4.73S±0.05×81.20W±0.08, h57km±13km, mb4.2/10, Error ellipse: s-maj=13.2km s-min=7.1km az=159.3*

*IDC **26** 03:59:49.0±2.7, 4.78S×81.06W, h68km±27km, mb3.7/8, mb1 4.1/12, mb1mx4.0/19, mbtmp3.9/12, MS3.5/4, Ms1 3.5/4, ms1mx3.2/22, Error ellipse: s-maj=29.5km s-min=16.8km az=58.0*

*NEIC **26** 03:59:48.3±0.9, 4.76S×81.15W, h61km±9km, mb4.6/3, Error ellipse: s-maj=12.1km s-min=7.2km az=57.0*

ISC 26 03:59:48.5±0.9**, 4.73S**±0.05×**81.17W**±0.07**, h59km**±11km**, n33, σ0.87**/26**, mb4.2**/10**, 1C, Near coast of northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATAH	Atahualpa	3.56	129	P	Pn	04 00 43.0	+1.7
	12nm,0.3s,baz=320,slow=8.1,SNR=79						
ATAH				S	Sn	04 01 22.4	+0.2
	51nm,0.3s,baz=116,slow=23,SNR=17						
ATAH				LR	LR	04 02 12.2	
	comp=Z,997nm,21.3s,baz=312,slow=40						
OTAV	Otavalo	5.63	29	⇑ePn	Pn	04 01 08.4	-1.3
	27nm,0.8s						
OTAV				eSn	Sn	04 02 13.0	-0.1
NNA	Nana	8.38	150	P	Pn	04 01 45.9	-1.5
	4.4nm,0.3s,baz=332,slow=12,SNR=10						
NNA				S	Sn	04 03 20.1	-0.5
	6.4nm,0.3s,baz=265,slow=23,SNR=4.8						
PAYG	Puerto Ayora	9.96	294	ePn	Pn	04 02 09.0	0.0
	28nm,0.5s						
ARE	Arequipa	15.04	142	P	Pn	04 03 18.0	+0.4
JTS	JuntasAbangare	15.39	346	LR	LR	04 08 04.3	
	comp=Z,141nm,18.0s,baz=343,slow=32						
SDV	Santo Domingo	17.13	38	P	Pn	04 03 45.4	+1.4
	1.0nm,0.3s,baz=215,slow=10,SNR=22						
SDV				LR	LR	04 11 04.2	
	comp=Z,149nm,19.8s,baz=176,slow=40						
LPAZ	La Paz	17.20	133	P	Pn	04 03 45.0	+0.1
LPAZ				LR	LR	04 10 34.8	
LPAZ	La Paz	17.20	133	P	Pn	04 03 45.0	+0.1
	0.3nm,0.3s,baz=321,slow=12,SNR=10						
LPAZ				LR	LR	04 10 34.8	
	comp=Z,130nm,19.7s,baz=95,slow=38						
TGUH	Tegucigalpa,Un	19.62	342	eP	Pn	04 04 13.9	-0.3
	18nm,0.9s						
PCRV	Puerto La Cruz	22.15	48	P	P	04 04 39.9	+0.4
	16nm,0.6s,mb4.7,baz=197,slow=3.1,SNR=12						
SIV	San Ignacio	22.69	121	P	P	04 04 45.7	+0.4
	3.0nm,0.9s,mb3.7,baz=289,slow=11,SNR=4.9						
TXAR	Lajitas Array	40.17	329	P	P	04 07 19.8	+0.7
	0.5nm,0.9s,mb3.2,baz=132,slow=7.8,SNR=4.9						
TXAR				PcP	PcP	04 09 22.6	+0.1
	1.1nm,0.8s,baz=151,slow=6.7,SNR=8.4						
HWUT	Hardware Ranch	53.81	332	eP	P	04 09 05.6	+0.3
	14nm,1.1s,mb4.8						
PDAR	Pinedale Array	53.83	334	P	P	04 09 05.8	+0.4
	2.6nm,0.9s,mb4.2,baz=130,slow=8.7,SNR=16						
PDAR				pP	pP	04 09 27.6	+6.7
	0.7nm,0.6s,baz=187,slow=11,SNR=3.3						
NVAR	Mina Array Bea	55.02	325	P	P	04 09 15.7	+1.6
	1.6nm,0.7s,mb4.2,baz=130,slow=7.4,SNR=8.7						
ULM	Lac du Bonnet	56.22	349	P	P	04 09 21.2	-1.2
	5.9nm,0.9s,mb4.6,baz=179,slow=7.7,SNR=10						
QLMT	Earthquake Lak	56.29	334	eP	P	04 09 23.4	+0.3
GCMT	Greycliff	56.34	336	eP	P	04 09 23.3	-0.1
MCMT	McKenzie Canyo	56.91	334	eP	P	04 09 28.4	+1.0
EDM	Edmonton	63.78	339	eP	P	04 10 13.4	-0.9
FCC	Fort Churchill	64.13	353	eP	P	04 10 15.7	-0.7
	7.1nm,1.1s,mb4.6						
YKA	Yellowknife Ar	71.72	344	P	P	04 11 03.1	-0.9
	1.5nm,1.0s,mb3.9,baz=139,slow=6.1,SNR=14						
TORD	Torodi Ar. Bea	84.14	76	P	P	04 12 12.7	-1.2
	0.2nm,0.4s,mb3.6,baz=283,slow=5.6,SNR=9.1						
ZALV	Zalesovo Beam	129.62	11	PKP	PKPdf	04 18 49.5	-1.3
ZALV	Zalesovo Beam	129.62	11	PKP	PKPdf	04 18 49.5	-1.3
	0.9nm,0.5s,baz=298,slow=3.2,SNR=6.3						
ASAR	Alice Springs	135.66	229	PKP	PKPdf	04 19 03.4	+0.3
ASAR				pPKP	pPKPdf	04 19 17.8	-2.7
ASAR	Alice Springs	135.66	229	PKP	PKPdf	04 19 03.4	+0.3
	0.4nm,0.4s,baz=275,slow=16,SNR=5.2						
ASAR				pPKP	pPKPdf	04 19 17.8	-2.7
	0.9nm,0.9s,baz=141,slow=3.1,SNR=3.7						
MKAR	Makanchi Array	135.72	16	PKP	PKPdf	04 19 00.5	-2.0
MKAR	Makanchi Array	135.72	16	PKP	PKPdf	04 19 00.5	-2.0
	0.3nm,0.6s,baz=306,slow=2.7,SNR=3.6						
WRA	Warramunga Arr	137.35	234	PKP	PKPdf	04 19 06.1	-0.3
WRA	Warramunga Arr	137.35	234	PKP	PKPdf	04 19 06.1	-0.3
	0.5nm,0.4s,baz=111,slow=1.3,SNR=6.2						
FITZ	Fitzroy Crossi	145.16	229	ePKPdf	PKPdf	04 19 19.6	-0.8

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*ISCJB **26** 04:31:05.7±0.5, 40.50N±0.03×22.34E±0.03, h2km±11km, Error ellipse: s-maj=5.0km s-min=3.9km az=10.2*

*ATH **26** 04:31:05.3, 40.58N×22.27E, h4km, MD3.1/3*

*CSEM **26** 04:31:06.5±0.1, 40.50N×22.33E, h10km, ML2.8, Error ellipse: s-maj=1.7km s-min=1.6km az=158.0*

*SKO **26** 04:31:06.6, 40.51N×22.35E, h4km*

*THE **26** 04:31:06.5, 40.51N×22.35E, h14km, ML2.8*

ISC 26 04:31:06.3±0.5**, 40.50N**±0.03×**22.34E**±0.03**, h10km**±9km**, n33, σ0.81**/49**, 1D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIT	Litokhoron	0.42	164	ePg	Pg	04 31 14.5	0.0
LIT				eSg	Sg	04 31 21.5	+1.5
LIT	Litokhoron	0.42	164	ePg	Pg	04 31 14.5	+0.1
LIT				eSg	Sg	04 31 21.5	+1.5
GRG	Griva	0.46	6	ePg	Pg	04 31 15.0	-0.2
GRG	Griva	0.46	6	ePg	Pg	04 31 15.0	-0.2
KZN	Kozani	0.48	246	ePG	Pg	04 31 14.5	-1.0
KZN	Kozani	0.48	246	ePg	Pg	04 31 14.5	-1.0
THE	Thessaloniki	0.49	75	ePg	Pg	04 31 15.8	-0.1
THE				eSg	Sg	04 31 22.9	+0.5
THE	Thessaloniki	0.49	75	ePg	Pg	04 31 15.8	-0.1
THE				eSg	Sg	04 31 22.9	+0.5
HORT	Hortiatis	0.59	80	ePg	Pg	04 31 17.8	+0.2
HORT				eSg	Sg	04 31 26.1	+0.7
HORT	Hortiatis	0.59	80	ePg	Pg	04 31 17.8	+0.2
HORT				eSg	Sg	04 31 26.1	+0.7
KNT	Kendrikon	0.78	33	ePg	Pg	04 31 21.4	0.0
KNT	Kendrikon	0.78	33	ePg	Pg	04 31 21.4	0.0
FNA	Florina	0.79	291	ePg	Pg	04 31 21.0	-0.4
FNA				eSg	Sg	04 31 33.3	+1.6
FNA	Florina	0.79	291	ePg	Pg	04 31 21.0	-0.4
FNA				eSg	Sg	04 31 33.3	+1.6
SOH	Sokhos	0.83	67	ePg	Pg	04 31 22.0	-0.4
SOH				eSg	Sg	04 31 34.6	+1.3
SOH	Sokhos	0.83	67	ePg	Pg	04 31 22.0	-0.4
SOH				eSg	Sg	04 31 34.6	+1.3
VAY	Valandovo	0.84	12	ePg	Pg	04 31 22.4	0.0
VAY	Valandovo	0.84	12	i Pg	Pg	04 31 20.9	-1.5
VAY				eSg	Sg	04 31 32.8	-0.5
VAY	Valandovo	0.84	12	ePg	Pg	04 31 22.4	0.0
PLG	Polygyros	0.85	98	ePg	Pg	04 31 22.4	-0.3
PLG				eSg	Sg	04 31 34.4	+0.6
PLG	Polygyros	0.85	98	⇓iPG	Pg	04 31 22.4	-0.3
PLG				eSG	Sg	04 31 34.6	+0.8
PLG	Polygyros	0.85	98	ePg	Pg	04 31 22.4	-0.3
PLG				eSg	Sg	04 31 34.4	+0.6
BIA	Bitola	0.93	304	i Pg	Pg	04 31 23.8	-0.4
THL	Klokotos Trika	0.97	195	ePG	Pg	04 31 24.8	-0.1
THL	Klokotos Trika	0.97	195	ePg	Pg	04 31 24.8	-0.1
PAIG	Paliouri	1.18	119	ePg	Pg	04 31 27.2	-1.6
PAIG				eSg	Sg	04 31 43.6	-0.5
PAIG	Paliouri	1.18	119	ePg	Pg	04 31 27.2	-1.6
PAIG				eSg	Sg	04 31 43.6	-0.5
KRUS	Krusevo	1.20	317	ePn	Pn	04 31 29.6	+0.7
STIP	Stip	1.20	354	ePn	Pn	04 31 29.8	+0.9
OUR	Ouranopolis	1.27	97	ePg	Pg	04 31 29.3	-1.2
OUR	Ouranopolis	1.27	97	ePg	Pg	04 31 29.3	-1.2
NVR	Nevrokopi	1.43	53	ePB	Pb	04 31 32.2	-0.8
NVR	Nevrokopi	1.43	53	ePb	Pb	04 31 32.2	-0.8

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*NIED **26** 05:06:00, 34.20N×135.20E, h5km, Mw3.4 Best double couple: M0 1.40000×10^14 NP1:φs357.00000°, δ45.00000°, λ68.00000°. NP2:φs207.00000°, δ49.00000°, λ111.00000°.*

*ISCJB **26** 05:06:07.6±0.4, 34.15N±0.03×135.13E±0.03, h10km, mb3.3/4, Error ellipse: s-maj=3.8km s-min=3.3km az=23.6*

*IDC **26** 05:06:07.7±1.1, 34.09N×135.15E, h0km, mb3.5/4, mb1 3.7/8, mb1mx3.5/26, mbtmp3.6/8, ML3.5/4, Error ellipse: s-maj=21.6km s-min=13.4km az=146.0*

*NEIC **26** 05:06:08.1, 34.17N×135.16E, h6km, MG3.7(JMA), After JMA.*

*JMA **26** 05:06:08.0, 34.17N×135.16E, h6km±1km, M3.6 Broadband fault plane solution: P waves. NP1: φs345.00000°, δ47.00000°, λ48.00000°. NP2: φs218.00000°, δ58.00000°, λ125.00000°. Principal axes: T Plg60.0000°, Azm183.0000°; N Plg29.0000°, Azm17.0000°; P Plg6.0000°, Azm284.0000°;*

JMA Felt II J1.

ISC 26 05:06:08.6±0.4**, 34.16N**±0.02×**135.17E**±0.03**, h10km, n22, σ0.99**/36**, mb3.3**/4**, 1C-7D, Near south coast of western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAJ2	Tsuna	0.35	318	⇓P	Pg	05 06 14.8	-0.6
JAJ2				S	Sg	05 06 19.3	-0.8
JWM	Minabe	0.35	153	⇓P	Pg	05 06 15.3	-0.1
JWM				eS	Sg	05 06 19.9	-0.2
JWY	Kouya	0.36	81	⇓P	Pg	05 06 15.0	-0.6
JWY				eS	Sg	05 06 20.2	-0.3
JHE	Heguri	0.65	41	⇓P	Pg	05 06 20.7	-0.5
JHE				S	Sg	05 06 29.3	-0.5
JAI	Aioi	0.70	238	⇓P	Pg	05 06 21.1	-0.9
JAI				S	Sg	05 06 30.5	-0.7
JWZ	Kozaga	0.78	144	⇑P	Pg	05 06 23.2	-0.3
JWZ				eS	Sg	05 06 33.5	-0.2
JKS	Kasai	0.86	342	⇓P	Pg	05 06 24.3	-0.9
JKS				S	Sg	05 06 35.5	-0.9
JKN2	Miekihoku	0.92	85	⇓P	Pg	05 06 25.5	-0.8
JKN2				S	Sg	05 06 38.3	0.0
MAJO	Matsushiro	3.44	45	ePn	Pn	05 07 03.3	+1.1
MAT	Matsushiro	3.44	45	P	Pn	05 07 03.8	+1.6
MAT				S	Sn	05 07 45.0	+2.0
MJAR	Matsushiro Arr	3.44	45	Pn	Pn	05 07 03.4	+1.2
MJAR				Pg	Pg	05 07 12.5	-2.0
MJAR				Lg		05 08 01.2	
MJAR	Matsushiro Arr	3.44	45	Pn	Pn	05 07 03.4	+1.2
	1.4nm,0.3s,baz=238,slow=14,SNR=10						
MJAR				Pg	Pg	05 07 12.5	-2.0
	2.8nm,0.3s,baz=228,slow=15,SNR=21						
MJAR				Lg		05 08 01.2	
	1.3nm,0.3s,baz=226,slow=29,SNR=6.4						
JNU	Nakatsue	3.72	255	Pn	Pn	05 07 06.5	+0.4
JNU				Pg	Pg	05 07 15.9	-4.0
JNU				Lg		05 08 06.3	
JNU	Nakatsue	3.72	255	Pn	Pn	05 07 06.5	+0.4
	2.0nm,0.3s,baz=107,slow=5.1,SNR=23						
JNU				Pg	Pg	05 07 15.9	-4.0
	4.5nm,0.3s,baz=63,slow=12,SNR=16						
JNU				Lg		05 08 06.3	
	1.6nm,0.3s,baz=156,slow=27,SNR=2.7						
KSRS	Korea Array	6.74	301	Pn	Pn	05 07 49.9	+2.4
	0.7nm,0.3s,baz=118,slow=14,SNR=6.7						
KSRS				Sn	Sn	05 09 05.0	+0.7
	0.5nm,0.3s,baz=121,slow=23,SNR=6.3						
JOW	Kunigami	9.41	221	Pn	Pn	05 08 25.6	+1.3
JOW	Kunigami	9.41	221	Pn	Pn	05 08 25.6	+1.3
	3.9nm,0.3s,baz=8.9,slow=30,SNR=5.0						
SONM	Songino Array	25.48	311	P	P	05 11 37.4	+0.7
SONM	Songino Array	25.48	311	P	P	05 11 37.4	+0.7
	0.9nm,0.8s,mb3.3,baz=101,slow=9.0,SNR=7.7						
MKAR	Makanchi Array	41.41	304	P	P	05 13 54.7	-0.3
	0.2nm,0.7s,mb2.9,baz=92,slow=11,SNR=2.2						
WRA	Warramunga Arr	53.81	181	P	P	05 15 30.4	-1.0
	0.4nm,0.3s,mb3.8,baz=356,slow=7.7,SNR=4.8						
ASAR	Alice Springs	57.52	181	P	P	05 15 59.1	+1.1
	0.2nm,0.6s,mb3.3,baz=16,slow=13,SNR=4.3						

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*CSEM **26** 05:34:06.4±0.2, 43.89N×16.13E, h2km, ML2.9/3, Error ellipse: s-maj=15.5km s-min=3.6km az=49.0*

*ISCJB **26** 05:34:07.3±1.0, 43.8N±0.1×16.0E±0.2, h2km, Error ellipse: s-maj=23.5km s-min=4.7km az=44.8*

*VIE **26** 05:34:09.2±1.1, 43.78N×15.85E, h10km, mb2.7/1, ML2.9/3, Error ellipse: s-maj=13.4km s-min=7.8km az=34.0*

ISC 26 05:34:07.9±1.5**, 43.7N**±0.2×**15.9E**±0.3**, h6km**±10km**, n17, σ1.02**/24**, 4C-1D, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NVLJ	Novalja	1.10	319	ePg	Pg	05 34 27.5	-1.5
NVLJ				Sg	Sg	05 34 44.6	+1.3
STON	Ston	1.59	122	ePn	Pn	05 34 36.4	-0.1
STON				Sn	Sg	05 34 59.9	+1.1
STON	Ston	1.59	122	ePn	Pn	05 34 36.3	-0.2
STON				Sn	Sg	05 34 59.9	+1.1
BOJS	Bojanci	1.82	346	i Pn	Pn	05 34 38.8	-1.0
BOJS	Bojanci	1.82	346	i Pn	Pn	05 34 38.8	-1.0
GCIS	Gornji Cirnik	2.14	355	i Pn	Pn	05 34 42.1	-2.0
GCIS	Gornji Cirnik	2.14	355	i Pn	Pn	05 34 42.1	-2.0
VISS	Visnje	2.19	341	ePn	Pn	05 34 44.5	-0.4
VISS	Visnje	2.19	341	ePn	Pn	05 34 44.5	-0.4
VOY	Vojsko	2.69	329	ePn	Pn	05 34 52.1	+0.3
VOY				eSn	Sn	05 35 26.2	+1.5
VOY	Vojsko	2.69	329	ePn	Pn	05 34 52.1	+0.3
VOY				eSn	Sn	05 35 26.2	+1.5
OBKA	Obir	2.93	342	⇑iPn	Pn	05 34 55.0	+0.1
OBKA	Obir	2.93	342	⇑iPn	Pn	05 34 55.0	+0.1
OBKA				⇓iSn	Sn	05 35 31.0	+0.5
OBKA	Obir	2.93	342	Pn	Pn	05 34 55.0	0.0
OBKA				Sn	Sn	05 35 31.0	+0.6
MOA	Molln	4.26	345	⇑iPn	Pn	05 35 13.2	-0.2
MOA	Molln	4.26	345	⇑iPn	Pn	05 35 13.2	-0.2
MOA	Molln	4.26	345	Pn	Pn	05 35 13.2	-0.1

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*IDC **26** 05:39:21.3±1.5, 3.38S×145.51E, h0km, mb4.0/6, mb1 4.3/7, mb1mx4.1/14, mbtmp4.1/7, ML4.2/1, MS3.7/12, Ms1 3.7/12, ms1mx3.5/23, Error ellipse: s-maj=55.3km s-min=21.4km az=102.0*

*ISCJB **26** 05:39:24.1±1.0, 3.6S±0.1×145.9E±0.2, h33km, mb3.9/6, MS3.7/7, Error ellipse: s-maj=23.2km s-min=15.4km az=7.8*

*NEIC **26** 05:39:25.7±1.1, 3.52S×145.76E, h35km, mb4.1/2, Error ellipse: s-maj=26.8km s-min=15.9km az=97.0*

ISC 26 05:39:25.6±1.0**, 3.59S**±0.10×**145.8E**±0.2**, h35km, n25, σ1.24**/17**, mb3.9**/6**, MS3.7**/7**, 2C, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	5.94	167	ePn	Pn	05 40 50.3	-0.8
PMG	Port Moresby	5.94	167	Pn	Pn	05 40 49.9	-1.1
	2.4nm,0.3s,baz=25,slow=1.2,SNR=6.0						
PMG				LR	LR	05 42 57.6	
	comp=Z,212nm,19.2s,baz=183,slow=35						
HNR	Honiara	15.21	113	LR	LR	05 47 31.3	
	comp=Z,280nm,20.0s,baz=358,slow=32						
KAKA	Kakadu	16.02	235	eP	Pn	05 43 11.5	+3.1
	11nm,0.6s						
KAKA	Kakadu	16.02	235	eP	Pn	05 43 09.1	+0.7
	12nm,0.5s						
CTA	Charters Tower	16.41	178	LR	LR	05 49 20.6	
	comp=Z,128nm,18.8s,baz=33,slow=36						
GUMO	Guam	17.09	357	LR	LR	05 48 05.4	
	comp=Z,147nm,18.4s,baz=199,slow=31						
WB2	Warramunga Arr	19.72	214	⇑iP	Pn	05 43 53.6	-0.3
WB2	Warramunga Arr	19.72	214	eP	Pn	05 43 53.4	-0.5
WRA	Warramunga Arr	19.73	214	P	Pn	05 43 52.5	-1.4

	0.7nm,0.3s,baz=39,slow=12,SNR=59						
WRA				LR	LR	05 51 44.3	
	comp=Z,167nm,19.4s,baz=65,slow=38						
ASAR	Alice Springs	23.03	209	P	P	05 44 28.4	+0.6
	8.3nm,0.9s,mb4.2,baz=41,slow=8.6,SNR=54						
FITZ	Fitzroy Crossi	24.45	232	⇑*i*P	P	05 44 41.6	+0.3
	14nm,0.7s,mb4.5						
FITZ	Fitzroy Crossi	24.45	232	*e*P	P	05 44 41.4	+0.1
FITZ	Fitzroy Crossi	24.45	232	P	P	05 44 41.7	+0.4
	8.4nm,0.7s,mb4.3,baz=57,slow=9.8,SNR=21						
FITZ				LR	LR	05 53 55.3	
	comp=Z,134nm,19.4s,MS3.4,baz=57,slow=36						
DZM	Mont Dzumac	27.18	134	LR	LR	05 54 59.0	
	comp=Z,190nm,18.8s,MS3.7,baz=259,slow=34						
STKA	Stephens Creek	28.41	188	*e*P	P	05 45 20.3	+3.4
	2.2nm,0.8s,mb3.8						
STKA	Stephens Creek	28.41	188	P	P	05 45 19.2	+2.3
	2.6nm,0.8s,mb3.9,baz=339,slow=12,SNR=5.3						
AFI	Afiamalu	43.09	106	LR	LR	06 04 22.0	
	comp=Z,63nm,18.4s,MS3.5,baz=73,slow=35						
KSRS	Korea Array	44.09	339	LR	LR	06 04 25.6	
	comp=Z,86nm,18.5s,MS3.7,baz=244,slow=34						
URZ	Urewera	44.80	145	LR	LR	06 04 15.6	
	comp=Z,136nm,19.2s,MS3.9,baz=353,slow=33						
RPZ	Rata Peaks	45.79	154	LR	LR	06 03 37.5	
	comp=Z,131nm,21.1s,MS3.9,baz=36,slow=32						
SONM	Songino Array	61.73	331	P	P	05 49 38.2	-2.1
	0.4nm,0.7s,mb3.6,baz=147,slow=6.1,SNR=3.7						
SONM				LR	LR	06 16 26.1	
	comp=Z,110nm,18.1s,MS4.1,baz=7.6,slow=36						
MKAR	Makanchi Array	74.89	320	P	P	05 51 03.0	+0.2
MKAR	Makanchi Array	74.89	320	P	P	05 51 03.0	+0.2
	0.5nm,0.9s,mb3.4,baz=115,slow=6.5,SNR=4.5						
YKA	Yellowknife Ar	97.60	28	P	P	05 52 57.3	+1.2
	0.2nm,0.7s,mb3.8,baz=276,slow=6.1,SNR=3.1						

*IDC **26** 05:50:43.6±1.6, 46.03N×12.84E, h0^{km}, mb3.4/3, mb1 3.6/9, mb1mx3.5/23, mbtmp3.5/9, ML3.5/6, MS2.8/4, Ms1 2.8/4, ms1mx2.5/29, Error ellipse: s-maj=21.3km s-min=15.1km az=131.0*

*ISCJB **26** 05:50:45.2±0.1, 46.287N±0.008×12.51E±0.01, h11^{km}±1^{km}, mb3.4/3, Error ellipse: s-maj=1.4km s-min=1.2km az=0.7*

*ROM **26** 05:50:45.7±0.3, 46.25N×12.59E, h9^{km}±3^{km}, Md3.2/19, Ml3.7/32, Error ellipse: s-maj=1.4km s-min=1.3km az=174.0*

*MOS **26** 05:50:45.1±0.8, 46.20N×12.57E, h16^{km}, mb4.0/1, Error ellipse: s-maj=4.3km s-min=3.2km az=85.3*

*NEIC **26** 05:50:45.7, 46.25N×12.59E, h9^{km}, ML3.7(ROM), ML3.6(LJU), After ROM.*

NEIC Felt [III] in western Slovenia.

*GEN **26** 05:50:46.4, 46.30N×12.46E, h4^{km}, ML3.0*

*CSEM **26** 05:50:46.2±0.0, 46.29N×12.60E, h12^{km}, ML4.0/51, Error ellipse: s-maj=0.8km s-min=0.6km az=26.0*

*PRU **26** 05:50:46.6, 46.27N×12.63E, h0^{km}*

*LDG **26** 05:50:46.1±0.1, 46.26N×12.61E, h10^{km}, Md3.8/2, Ml3.7/29, Error ellipse: s-maj=2.1km s-min=1.6km az=13.0*

*SZGRF **26** 05:50:48.8, 46.39N×12.60E, h10^{km}, mb3.9, Northern Italy*

*ZUR **26** 05:50:48.6, 46.31N×12.26E, h10^{km}, ML2.9/6*

*STR **26** 05:50:51.6±0.8, 46.32N×12.06E, h10^{km}, Ml3.7, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 26 05:50:45.9±0.2, **46.273N**±0.008×**12.516E**±0.009, **h6**^{km}±1^{km}, **n588,** σ1^{s}**15**/940, **mb3.4**/3, **34C-35D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CSO	Casso	0.13	270	⇑*i*Pg	Pg	05 50 49.1	+0.5
CSO				*i* Sg	Sg	05 50 51.4	+1.0
CSO	Casso	0.13	270	*i* Pg	Pg	05 50 49.1	+0.5
CSO				*i* Sg	Sg	05 50 51.4	+1.0
MLNI	Malnisio	0.14	152	⇓*i*Pg	Pg	05 50 49.1	+0.4
MLNI				*i* Sg	Sg	05 50 51.6	+1.0
MLNI	Malnisio	0.14	152	*i* Pg	Pg	05 50 49.1	+0.4
MLNI				*i* Sg	Sg	05 50 51.6	+1.0
CSMI	Casera Mimoias	0.26	21	⇓*i*Pg	Pg	05 50 51.3	+0.4
CSMI				*i* Sg	Sg	05 50 55.7	+1.4
CSMI	Casera Mimoias	0.26	21	*i* Pg	Pg	05 50 51.3	+0.4
CSMI				*i* Sg	Sg	05 50 55.7	+1.4
CAE	Caneva	0.27	192	⇑*i*Pg	Pg	05 50 51.1	0.0
CAE				*i* Sg	Sg	05 50 55.7	+1.0
CAE	Caneva	0.27	192	*i* Pg	Pg	05 50 51.1	0.0
CAE				*i* Sg	Sg	05 50 55.7	+1.0
MPRI	Monte Prat	0.33	95	⇓*i*Pg	Pg	05 50 52.1	-0.1
MPRI				*i* Sg	Sg	05 50 57.8	+1.2
MPRI	Monte Prat	0.33	95	*i* Pg	Pg	05 50 52.1	-0.1
MPRI				*i* Sg	Sg	05 50 57.8	+1.3
AFL	Alpe Faloria	0.35	318	⇑*i*Pg	Pg	05 50 53.3	+0.8
AFL				*i* Sg	Sg	05 50 58.8	+1.7
AFL	Alpe Faloria	0.35	318	*i* Pg	Pg	05 50 53.3	+0.7
AFL				*i* Sg	Sg	05 50 58.8	+1.7
FVI	Forni Avoltri	0.37	29	Pg	Pg	05 50 53.5	+0.4
FVI				Sg	Sg	05 50 59.6	+1.7
FVI	Forni Avoltri	0.37	29	Pg	Pg	05 50 53.5	+0.4
FVI				Sg	Sg	05 50 59.6	+1.7
	4µm,0.3s						
FVI	Forni Avoltri	0.37	29	Pg	Pg	05 50 53.5	+0.4
FVI				Sg	Sg	05 50 59.6	+1.7
	4µm,0.3s						
FAU	Forcella Aurin	0.37	264	⇑*i*Pg	Pg	05 50 52.9	-0.2
FAU	Forcella Aurin	0.37	264	*i* Pg	Pg	05 50 52.9	-0.2
BOO	Bordano	0.41	83	⇓*i*Pg	Pg	05 50 53.3	-0.4
BOO	Bordano	0.41	83	*i* Pg	Pg	05 50 53.3	-0.4
BUA	Buia	0.42	97	⇓*i*Pg	Pg	05 50 53.9	-0.1
BUA				*i* Sg	Sg	05 51 01.1	+1.5
BUA	Buia	0.42	97	*i* Pg	Pg	05 50 53.9	-0.1
BUA				*i* Sg	Sg	05 51 01.1	+1.5
ZOU	Zoufplan	0.42	48	⇓*i*Pg	Pg	05 50 54.3	+0.3
ZOU				*i* Sg	Sg	05 51 00.9	+1.2
ZOU	Zoufplan	0.42	48	*i* Pg	Pg	05 50 54.3	+0.2
ZOU				*i* Sg	Sg	05 51 00.9	+1.3
ABTA	Abfaltersbach	0.47	360	*i* Pg	Pg	05 50 55.8	+0.7
	SNR=325						
ABTA				⇑*i*Sg	Sg	05 51 02.0	+0.8
ABTA	Abfaltersbach	0.47	360	Pg	Pg	05 50 55.8	+0.8
	SNR=325						
ABTA				Sg	Sg	05 51 02.0	+0.8
GMNA	Gemona	0.50	89	⇓*i*Pg	Pg	05 50 54.1	-1.4
GMNA	Gemona	0.50	89	⇓*i*Pg	Pg	05 50 54.1	-1.4
GMNA	Gemona	0.50	89	⇓*i*Pg	Pg	05 50 54.1	-1.4
BAD	Bernadia	0.51	94	⇓*i*Pg	Pg	05 50 55.3	-0.3
BAD				*i* Sg	Sg	05 51 03.5	+1.3
BAD	Bernadia	0.51	94	*i* Pg	Pg	05 50 55.3	-0.3
BAD				*i* Sg	Sg	05 51 03.5	+1.3
PLRO	Paularo	0.52	57	⇓*i*Pg	Pg	05 50 55.8	-0.1
PLRO				*i* Sg	Sg	05 51 03.9	+1.4
PLRO	Paularo	0.52	57	*i* Pg	Pg	05 50 55.8	0.0
PLRO				*i* Sg	Sg	05 51 03.9	+1.3
SEST	Monte Rota	0.52	337	⇑Pg	Pg	05 50 56.9	+1.0
SEST				Sn	Sg	05 51 04.6	+2.0
SEST	Monte Rota	0.52	337	⇑Pg	Pg	05 50 56.9	+1.0
SEST				Sn	Sg	05 51 04.6	+2.0
	2µm,0.6s						
SEST	Monte Rota	0.52	337	⇑Pg	Pg	05 50 56.9	+1.0
TLI	Talmassons	0.54	130	⇑*i*Pg	Pg	05 50 56.1	-0.1
TLI	Talmassons	0.54	130	*i* Pg	Pg	05 50 56.1	-0.1
MTLO	Montello	0.54	213	⇑*i*Pg	Pg	05 50 56.1	-0.2
MTLO	Montello	0.54	213	*i* Pg	Pg	05 50 56.2	-0.1
PTCC	Patocco-Chiusa	0.59	77	⇓Pg	Pg	05 50 56.6	-0.7
PTCC	Patocco-Chiusa	0.59	77	⇓Pg	Pg	05 50 56.6	-0.7
PTCC	Patocco-Chiusa	0.59	77	⇓Pg	Pg	05 50 56.6	-0.7
COLI	Coloredo	0.61	103	⇑*i*Pg	Pg	05 50 57.4	-0.3
COLI				*i* Sg	Sg	05 51 07.7	+2.0
COLI	Coloredo	0.61	103	*i* Pg	Pg	05 50 57.4	-0.3
COLI				*i* Sg	Sg	05 51 07.7	+2.0
CGRP	Cima Grappa	0.63	232	⇑*i*Pg	Pg	05 50 57.0	-1.0
CGRP				*i* Sg	Sg	05 51 07.4	+1.1
CGRP	Cima Grappa	0.63	232	*i* Pg	Pg	05 50 57.0	-1.0
CGRP				*i* Sg	Sg	05 51 07.4	+1.1
CTI	Castel Tesino	0.64	250	Pg	Pg	05 50 57.1	-1.1
CTI				Sg	Sg	05 51 07.3	+0.8
CTI	Castel Tesino	0.64	250	Pg	Pg	05 50 57.1	-1.1
CTI				Sg	Sg	05 51 07.3	+0.8
	6µm,0.3s						
ROBS	Robic	0.69	92	*i* Pg	Pg	05 50 58.4	-0.8
ROBS				*i* Sg	Sg	05 51 08.9	+0.8
ROBS	Robic	0.69	92	*i* Pg	Pg	05 50 58.4	-0.8
ROBS				*i* Sg	Sg	05 51 08.9	+0.8
ROBS							
	comp=Z,310nm,0.1s						
ROBS	Robic	0.69	92	*i* Pg	Pg	05 50 58.3	-0.8
ROBS				*i* Sg	Sg	05 51 08.9	+0.8
	comp=Z,310nm,0.1s						
LSR	Lussari	0.73	73	⇑*i*Pg	Pg	05 50 59.3	-0.6
LSR				*i* Sg	Sg	05 51 10.7	+1.3
LSR	Lussari	0.73	73	*i* Pg	Pg	05 50 59.3	-0.6
LSR				*i* Sg	Sg	05 51 10.7	+1.4
DRE	Drenchia	0.79	97	⇑*i*Pg	Pg	05 51 00.1	-0.8
DRE				*i* Sg	Sg	05 51 12.9	+1.6
DRE	Drenchia	0.79	97	*i* Pg	Pg	05 51 00.2	-0.8
DRE				*i* Sg	Sg	05 51 12.9	+1.7
CADS	Cadrg	0.85	93	*i* Pg	Pg	05 51 01.1	-1.0
CADS				*e*Sg	Sg	05 51 14.0	+0.9
CADS	Cadrg	0.85	93	*i* P	Pg	05 51 00.1	-2.0
CADS				*i* Pg	Pg	05 51 01.1	-1.0
CADS				*e*Sg	Sg	05 51 14.0	+0.9
CADS							
	comp=Z,919nm,0.2s						
MYKA	Terra Mystica	0.86	65	⇓*i*Pg	Pg	05 51 01.8	-0.5
MYKA				⇓*i*Sg	Sg	05 51 13.5	+0.1
	comp=Z,672nm,0.4s						
MYKA	Terra Mystica	0.86	65	Pg	Pg	05 51 01.8	-0.5
MYKA				Sg	Sg	05 51 13.5	+0.1
	comp=Z,672nm,0.4s						
APPI	Appiano	0.92	283	⇓Pg	Pg	05 51 03.8	+0.4
APPI				Sg	Sg	05 51 16.4	+1.1
APPI	Appiano	0.92	283	⇓Pg	Pg	05 51 03.8	+0.4
APPI				Sg	Sg	05 51 16.4	+1.1
	comp=Z,992nm,0.2s						
APPI	Appiano	0.92	283	⇓Pg	Pg	05 51 03.8	+0.4
VOJS	Vojsko	0.98	104	*i* Pg	Pg	05 51 03.5	-1.2
VOJS				*i* Sg	Sg	05 51 18.9	+1.5
VOJS	Vojsko	0.98	104	*i* Pg	Pg	05 51 03.5	-1.2
VOJS				*i* Sg	Sg	05 51 18.9	+1.5
VOJS	Vojsko	0.98	104	*i* Pg	Pg	05 51 03.5	-1.2
VOJS				*i* Sg	Sg	05 51 18.9	+1.5
KBA	Koelnbreinsper	0.99	35	*e*Pg	Pg	05 51 05.1	+0.3
	SNR=79						
KBA	Koelnbreinsper	0.99	35	*e*Pg	Pg	05 51 05.1	+0.3
KBA				*i* Sg	Sg	05 51 18.2	+0.6
KBA	Koelnbreinsper	0.99	35	*e*Pg	Pg	05 51 05.1	+0.3
	SNR=79						
KBA				⇓*i*Sg	Sg	05 51 18.2	+0.6
	comp=Z,786nm,0.5s						
KBA	Koelnbreinsper	0.99	35	*e*Pg	Pg	05 51 05.3	+0.5
KBA				*e*Sg	Sg	05 51 18.1	+0.5
KBA	Koelnbreinsper	0.99	35	Pg	Pg	05 51 05.1	+0.3
	comp=Z,78nm,8.0s						
KBA				Sg	Sg	05 51 18.2	+0.6
	comp=Z,786nm,0.5s						
VOY	Vojsko	0.99	104	*e*Pg	Pg	05 51 03.4	-1.4
VOY	Vojsko	0.99	104	*e*Pg	Pg	05 51 03.4	-1.4
GORS	Gorjuse	1.03	87	*i* Pg	Pg	05 51 04.0	-1.5
GORS				*e*Sg	Sg	05 51 20.0	+1.1
GORS	Gorjuse	1.03	87	*i* Pg	Pg	05 51 04.0	-1.5
GORS				*e*Sg	Sg	05 51 20.0	+1.1
GORS							
	comp=Z,596nm,0.2s						
GORS	Gorjuse	1.03	87	*i* Pg	Pg	05 51 04.0	-1.5
GORS				*e*Sg	Sg	05 51 20.0	+1.2
	comp=Z,596nm,0.2s						
TRI	Trieste	1.04	122	Pg	Pg	05 51 04.4	-1.3
TRI				Sg	Sg	05 51 20.1	+0.9
TRI	Trieste	1.04	122	Pg	Pg	05 51 04.4	-1.3
TRI				Sg	Sg	05 51 20.1	+0.9
	comp=Z,2µm,0.2s						
TRI	Trieste	1.04	122	Pg	Pg	05 51 04.4	-1.3
TRI				Sg	Sg	05 51 20.1	+0.9
	comp=Z,2µm,0.2s						
TEOL	Teolo	1.09	213	⇓*i*Pg	Pg	05 51 06.6	-0.1
TEOL	Teolo	1.09	213	*i* Pg	Pg	05 51 06.6	-0.1
JAVS	Javornik	1.14	109	*i* Pn	Pg	05 51 06.6	-1.1
JAVS				*i* Sn	Sn	05 51 24.1	-0.3
JAVS	Javornik	1.14	109	*i* Pg	Pg	05 51 06.6	-1.1
JAVS				*i* Sg	Sn	05 51 24.1	-0.3
JAVS							
	comp=Z,1µm,0.3s						
JAVS	Javornik	1.14	109	*i* Pn	Pn	05 51 06.6	-1.8
JAVS				*i* Sn	Sn	05 51 24.1	-0.3
	comp=Z,1µm,0.3s						
WTTA	Wattenberg	1.16	329	*e*Pg	Pg	05 51 08.8	+0.7
	SNR=117						
WTTA	Wattenberg	1.16	329	*e*Pg	Pg	05 51 08.8	+0.7
WTTA				*i* Sg	Sg	05 51 24.4	+1.2
WTTA	Wattenberg	1.16	329	*e*Pg	Pg	05 51 08.8	+0.7
	SNR=117						
WTTA				⇑*i*Sg	Sg	05 51 24.4	+1.2
	comp=Z,1µm,0.6s						
WTTA	Wattenberg	1.16	329	*e*Pg	Pg	05 51 08.7	+0.6
WTTA				*e*Sg	Sg	05 51 23.8	+0.6
WTTA	Wattenberg	1.16	329	Pg	Pg	05 51 08.8	+0.7
	comp=Z,117nm,4.0s						
WTTA				Sg	Sg	05 51 24.4	+1.2
	comp=Z,1µm,0.6s						
WATA	Walderalm	1.24	329	*e*Pg	Pg	05 51 10.3	+0.6
	SNR=47						
WATA	Walderalm	1.24	329	*e*Pg	Pg	05 51 10.3	+0.6
WATA				*i* Sg	Sg	05 51 27.2	+1.3
WATA	Walderalm	1.24	329	*e*Pg	Pg	05 51 10.3	+0.6
	SNR=47						
WATA				⇑Sg	Sg	05 51 27.8	+2.0
	comp=Z,6.8nm,0.1s						
WATA	Walderalm	1.24	329	*e*P	Pg	05 51 10.3	+0.6
WATA				*i*		05 51 27.2	
WATA	Walderalm	1.24	329	Pg	Pg	05 51 10.3	+0.6
	comp=Z,47nm,2.0s						
WATA				Sg	Sg	05 51 27.2	+1.4
	comp=Z,314nm,0.4s						
SKDS	Skadanscina	1.27	124	*i* Pg	Pg	05 51 08.2	-2.0
SKDS				*i* Sg	Sg	05 51 27.3	+0.5
SQTA	Sankt Quirin	1.31	317	*e*Pg	Pg	05 51 11.4	+0.5
	SNR=138						
SQTA	Sankt Quirin	1.31	317	*e*Pg	Pg	05 51 11.4	+0.5
SQTA				*i* Sg	Sg	05 51 29.3	+1.5
SQTA	Sankt Quirin	1.31	317	*e*Pg	Pg	05 51 11.4	+0.5
	SNR=138						
SQTA				⇑*i*Sn	Sn	05 51 29.3	+0.9
	comp=Z,203nm,0.3s						
SQTA	Sankt Quirin	1.31	317	*e*P	Pg	05 51 11.4	+0.5
SQTA				*i*		05 51 29.3	
SQTA	Sankt Quirin	1.31	317	Pg	Pg	05 51 11.4	+0.5
	comp=Z,137nm,5.0s						
SQTA				Sg	Sg	05 51 29.3	+1.5
	comp=Z,203nm,0.3s						
MOZS	Mozjanca	1.34	88	*i* Pn	Pn	05 51 10.9	-0.2
MOZS				*i* Sn	Sn	05 51 30.1	+0.9
MAGA	Magasa	1.41	250	⇓Pg	Pg	05 51 12.5	-0.3
MAGA				Sg	Sg	05 51 32.1	+1.1
	comp=Z,19µm,0.4s						
MAGA	Magasa	1.41	250	⇓Pg	Pg	05 51 12.5	-0.3
MABI	Malga Bissina	1.41	262	Pg	Pg	05 51 12.6	-0.2
MABI				Sg	Sg	05 51 30.9	-0.2
MABI	Malga Bissina	1.41	262	Pg	Pg	05 51 12.6	-0.2
MABI				Sg	Sg	05 51 30.9	-0.2
	comp=Z,352nm,0.4s						
LJU	Ljubljana	1.42	99	*i* Pn	Pn	05 51 12.2	+0.1
LJU				*i* Sn	Sn	05 51 32.3	+1.2
LJU	Ljubljana	1.42	99	*i* Pn	Pn	05 51 12.2	+0.1
LJU				*i* Sn	Sn	05 51 32.3	+1.2
LJU							
	comp=Z,1µm,0.3s						
LJU	Ljubljana	1.42	99	*i* Pn	Pn	05 51 12.2	0.0
LJU				*i* Sn	Sn	05 51 32.3	+1.1
	comp=Z,1µm,0.3s						
BGLD	Berchtesgaden	1.42	14	⇑*i*Pg	Pg	05 51 12.8	-0.3
BGLD	Berchtesgaden	1.42	14	⇑*i*Pg	Pg	05 51 12.8	-0.3
OBKA	Obir	1.43	80	*e*Pg	Pg	05 51 12.7	-0.5
	SNR=38						
OBKA	Obir	1.43	80	*e*Pg	Pg	05 51 12.7	-0.5
	SNR=38						
OBKA				⇑*i*Sg	Sg	05 51 32.3	+0.6
	comp=Z,1µm,0.4s						
OBKA	Obir	1.43	80	Pg	Pg	05 51 12.7	-0.5
OBKA				Sg	Sg	05 51 32.3	+0.6
	comp=Z,1µm,0.4s						
CEY	Cerknica	1.44	111	*i* Pn	Pn	05 51 11.8	-0.6
CEY				*i* Sn	Sn	05 51 31.6	+0.1
CEY	Cerknica	1.44	111	*i* Pn	Pn	05 51 11.8	-0.6
CEY				*i* Sn	Sn	05 51 31.6	+0.1
CEY							
	comp=Z,1µm,0.3s						
CEY	Cerknica	1.44	111	*i* Pn	Pn	05 51 11.8	-0.6
CEY				*i* Sn	Sn	05 51 31.6	0.0
	comp=Z,1µm,0.3s						
FETA	Feichten	1.44	302	*e*Pg	Pg	05 51 13.5	+0.1
	SNR=332						
FETA				⇑*i*Sg	Sg	05 51 33.7	+1.6
	comp=Z,368nm,0.5s						
FETA	Feichten	1.44	302	Pg	Pg	05 51 13.5	0.0
	SNR=332						
FETA				Sg	Sg	05 51 33.7	+1.6
	comp=Z,368nm,0.5s						
MOTA	Moosalm	1.45	318	*e*Pg	Pg	05 51 13.8	+0.3
	SNR=94						
MOTA	Moosalm	1.45	318	*e*Pg	Pg	05 51 13.8	+0.2
MOTA				*i* Sg	Sg	05 51 33.8	+1.5
MOTA	Moosalm	1.45	318	*e*Pg	Pg	05 51 13.8	+0.3
	SNR=94						
MOTA				⇑*i*Sg	Sg	05 51 33.8	+1.5
	comp=Z,257nm,0.5s						
MOTA	Moosalm	1.45	318	Pg	Pg	05 51 13.8	+0.2
	comp=Z,94nm,3.0s						
MOTA				Sg	Sg	05 51 33.8	+1.5
	comp=Z,257nm,0.5s						
BRMO	Bormio	1.50	279	Pg	Pg	05 51 14.2	-0.3
BRMO				Sg	Sg	05 51 34.2	+0.3
BRMO	Bormio	1.50	279	Pg	Pg	05 51 14.2	-0.3
BRMO				Sg	Sg	05 51 34.2	+0.3
	comp=Z,557nm,0.7s						
VNDS	Vrh nad Dolski	1.53	96	*i* Pn	Pn	05 51 13.6	-0.1
VNDS				*i* Sg	Sg	05 51 34.9	0.0
SALO	Salr	1.54	245	Pn	Pn	05 51 14.3	+0.5
SALO				Sn	Sn	05 51 36.1	+2.0
	comp=Z,2µm,0.3s						
SALO	Salr	1.54	245	Pn	Pn	05 51 14.3	+0.5
SALO				Sn	Sn	05 51 36.1	+2.0
	comp=Z,2µm,0.3s						
FUORN	Ofenpass-Fuorn	1.60	283	Pn	Pb	05 51 15.6	-0.1
FUORN				Sn	Sn	05 51 37.0	+1.4
FUORN	Ofenpass-Fuorn	1.60	283	⇑*i*P*	Pb	05 51 15.6	-0.1
	comp=Z,271nm,0.2s						
FUORN	Ofenpass-Fuorn	1.60	283	Pn	Pb	05 51 15.6	-0.1
FUORN				Sn	Sn	05 51 37.0	+1.4
SBPO	S.Benedetto Po	1.66	223	Pn	Pn	05 51 15.6	+0.1
SBPO				Sn	Sn	05 51 39.4	+2.3
SBPO	S.Benedetto Po	1.66	223	Pn	Pn	05 51 15.6	+0.1
SBPO				Sn	Sn	05 51 39.4	+2.3
VISS	Visnje	1.69	105	*i* Pn	Pn	05 51 16.1	+0.2
VISS				*i* Sn	Sn	05 51 38.5	+0.8
VISS	Visnje	1.69	105	*i* Pn	Pn	05 51 16.1	+0.2
VISS				*i* Sn	Sn	05 51 38.5	+0.8
VISS							
	comp=Z,616nm,0.2s						
VISS	Visnje	1.69	105	*i* Pn	Pn	05 51 16.1	+0.2
VISS				*i* Sn	Sn	05 51 38.5	+0.7
	comp=Z,616nm,0.2s						
RETA	Reutte	1.71	316	⇓*e*Pg	Pg	05 51 18.3	-0.3
	SNR=96						
RETA				⇑*i*Sg	Sg	05 51 42.3	+1.5
	comp=Z,332nm,0.5s						
RETA	Reutte	1.71	316	Pg	Pg	05 51 18.3	-0.3
	SNR=96						
RETA				Sg	Sg	05 51 42.3	+1.5
	comp=Z,332nm,0.5s						
BERNI	Berninapass	1.73	276	⇓*i*P	Pb	05 51 18.1	0.0
BERNI	Berninapass	1.73	276	⇓*i*P*	Pb	05 51 18.1	0.0
	comp=Z,67nm,0.2s						
PDKS	Podkum	1.74	96	*i* Pn	Pn	05 51 16.8	+0.2
PDKS				*i* Sn	Sn	05 51 40.9	+1.9
PDKS	Podkum	1.74	96	*i* Pn	Pn	05 51 16.8	+0.2
PDKS				*i* Sn	Sn	05 51 40.9	+1.9
PDKS							
	comp=Z,591nm,0.2s						
PDKS	Podkum	1.74	96	*i* Pn	Pn	05 51 16.8	+0.2
	comp=Z,591nm,0.2s						
PDKS				*i* Sn	Sn	05 51 40.9	+1.8
FIU	Minerbio Fiu	1.79	204	Pn	Pn	05 51 17.1	-0.1
FIU				Sn	Sn	05 51 41.0	+0.8
FIU	Minerbio Fiu	1.79	204	Pn	Pn	05 51 17.1	-0.1
FIU				Sn	Sn	05 51 41.0	+0.8
	comp=Z,3µm,0.4s						
FIU	Minerbio Fiu	1.79	204	Pn	Pn	05 51 17.1	-0.1
FIU				Sn	Sn	05 51 41.0	+0.8
	comp=Z,3µm,0.4s						
RAVA	Ravarino	1.81	213	Pn	Pn	05 51 17.6	+0.1
RAVA	Ravarino	1.81	213	Pn	Pn	05 51 17.6	+0.1
	comp=Z,2µm,0.7s						
RAVA	Ravarino	1.81	213	Pn	Pn	05 51 17.6	+0.1
	comp=Z,2µm,0.7s						
PERS	Pernice	1.83	78	*i* Pn	Pn	05 51 18.4	+0.5
PERS				*e*Sn	Sn	05 51 43.0	+1.6
PERS	Pernice	1.83	78	*i* Pn	Pn	05 51 18.4	+0.5
PERS				*e*Sn	Sn	05 51 43.0	+1.6
PERS							
	comp=Z,621nm,0.5s						
PERS	Pernice	1.83	78	*i* Pn	Pn	05 51 18.4	+0.5
PERS				*e*Sn	Sn	05 51 43.0	+1.5
	comp=Z,621nm,0.5s						
DAVOX	Davos/Dischmat	1.89	287	Pn	Pn	05 51 21.1	+2.5
	comp=Z,92nm,0.3s,baz=93,slow=15,SNR=514						
DAVOX				Lg		05 51 46.5	
	comp=Z,73nm,0.3s,baz=355,slow=22,SNR=9.5						
DAVOX	Davos/Dischmat	1.89	287	Pn	Pn	05 51 21.1	+2.4
DAVOX				Sn	Sn	05 51 44.2	+1.4
DAVOX	Davos/Dischmat	1.89	287	⇓*i*P*	Pb	05 51 20.9	+0.1
	comp=Z,190nm,0.2s						
DAVOX	Davos/Dischmat	1.89	287	⇓*i*Pb	Pb	05 51 20.9	+0.1
	comp=Z,190nm,0.2s						
DAVOX	Davos/Dischmat	1.89	287	Pn	Pn	05 51 21.1	+2.4
DAVOX				Sn	Sn	05 51 44.2	+1.4
NOVE	Novellara	1.94	221	Pn	Pn	05 51 19.4	0.0
	comp=Z,2µm,0.6s						
NOVE	Novellara	1.94	221	Pn	Pn	05 51 19.4	0.0
	comp=Z,2µm,0.6s						
LEGS	Legarje	1.98	98	*i* Pn	Pn	05 51 20.0	+0.1
LEGS				*e*Sn	Sn	05 51 47.0	+2.0
LEGS	Legarje	1.98	98	*i* Pn	Pn	05 51 20.0	+0.1
LEGS				*e*Sn	Sn	05 51 47.0	+2.0
LEGS	Legarje	1.98	98	*i* Pn	Pn	05 51 20.0	+0.1
LEGS				*e*Sn	Sn	05 51 47.0	+2.1
MOA	Molln	1.98	37	*e*Pg	Pg	05 51 21.9	-1.9
	SNR=232						
MOA	Molln	1.98	37	*e*Pg	Pg	05 51 21.9	-1.9
	SNR=232						
MOA				⇑*i*Sg	Sg	05 51 50.0	+0.6
	comp=Z,232nm,0.3s						
MOA	Molln	1.98	37	*e*Pn	Pn	05 51 21.7	+1.8
MOA	Molln	1.98	37	Pg	Pg	05 51 21.9	-1.9
	comp=Z,232nm,5.0s						
MOA				Sg	Sg	05 51 50.0	+0.6
	comp=Z,232nm,0.3s						
MDI	Monti di Nese	2.02	257	Pn	Pn	05 51 21.1	+0.7
	comp=Z,858nm,0.7s						
MDI	Monti di Nese	2.02	257	Pn	Pn	05 51 21.1	+0.7
	comp=Z,858nm,0.7s						
DOBS	Dobrina	2.06	92	*i* Pn	Pn	05 51 20.8	-0.1
DOBS	Dobrina	2.06	92	*i* Pn	Pn	05 51 20.8	-0.1
DOBS	Dobrina	2.06	92	*i* Pn	Pn	05 51 20.8	-0.1
BOJS	Bojanci	2.06	111	*i* Pn	Pn	05 51 21.2	+0.2
BOJS	Bojanci	2.06	111	*i* Pn	Pn	05 51 21.2	+0.2
BOJS							
	comp=Z,398nm,0.2s						
BOJS	Bojanci	2.06	111	*i* Pn	Pn	05 51 21.2	+0.2
	comp=Z,398nm,0.2s						
FUR	Furstenfeldbru	2.07	336	*e*Pn	Pn	05 51 23.4	+2.2
FUR				*e*Sn	Sn	05 51 47.8	+0.4
FUR	Furstenfeldbru	2.07	336	*e*Pn	Pn	05 51 23.4	+2.2
FUR				*e*Sn	Sn	05 51 47.8	+0.4
FUR	Furstenfeldbru	2.07	336	*e*Pn	Pn	05 51 23.4	+2.2
FUR				*e*Sn	Sn	05 51 47.8	+0.4
DAVA	Damuels	2.08	300	*e*Pg	Pg	05 51 24.1	-1.5
	SNR=137						
DAVA	Damuels	2.08	300	*e*Pg	Pg	05 51 24.1	-1.5
DAVA				*i* Sg	Sg	05 51 53.8	+1.3
DAVA	Damuels	2.08	300	*e*Pg	Pg	05 51 24.1	-1.5
	SNR=137						
DAVA				⇓*i*Sg	Sg	05 51 53.8	+1.3
	comp=Z,314nm,0.4s						
DAVA	Damuels	2.08	300	*e*Pn	Pg	05 51 24.1	-1.5
DAVA	Damuels	2.08	300	Pg	Pg	05 51 24.1	-1.5
	comp=Z,136nm,6.0s						
DAVA				Sg	Sg	05 51 53.8	+1.3
	comp=Z,314nm,0.4s						
GROS	Grobnik	2.08	84	*i* Pn	Pn	05 51 21.4	+0.1
GROS	Grobnik	2.08	84	*i* Pn	Pn	05 51 21.4	+0.1
GROS	Grobnik	2.08	84	*i* Pn	Pn	05 51 21.4	+0.2
CRES	Cresnjev	2.10	101	*i* Pn	Pn	05 51 21.5	0.0
CRES				*i* Sn	Sn	05 51 50.3	+2.4
CRES	Cresnjev	2.10	101	*i* Pn	Pn	05 51 21.5	0.0

CRES				*i* Sn	Sn	05 51 50.3	+2.4
CRES							
	comp=Z,312nm,0.2s						
CRES	Cresnjev	2.10	101	*i* Pn	Pn	05 51 21.5	0.0
	comp=Z,312nm,0.2s						
CRES				*i* Sn	Sn	05 51 50.3	+2.4
VDL	Val di Lei	2.13	277	*e*P	Pb	05 51 24.2	-0.7
VDL	Val di Lei	2.13	277	*e*P*	Pb	05 51 24.2	-0.7
	comp=Z,55nm,0.2s						
GOLS	Golise	2.18	96	*i* Pn	Pn	05 51 22.5	-0.1
GOLS				*e*Sn	Sn	05 51 51.7	+1.8
GOLS	Golise	2.18	96	*i* Pn	Pn	05 51 22.5	-0.1
GOLS				*e*Sn	Sn	05 51 51.7	+1.8
GOLS							
	comp=Z,460nm,0.3s						
GOLS	Golise	2.18	96	*i* Pn	Pn	05 51 22.5	-0.1
	comp=Z,460nm,0.3s						
GOLS				*e*Sn	Sn	05 51 51.7	+1.8
TUE	Stuetta	2.20	276	Pn	Pn	05 51 25.0	+2.0
TUE				Sn	Sn	05 51 51.4	+0.9
TUE	Stuetta	2.20	276	Pn	Pn	05 51 25.0	+2.0
TUE				Sn	Sn	05 51 51.4	+0.9
	comp=Z,273nm,0.6s						
TUE	Stuetta	2.20	276	Pn	Pn	05 51 25.0	+2.0
TUE				Sn	Sn	05 51 51.4	+0.9
	comp=Z,273nm,0.6s						
GCIS	Gornji Cirnik	2.20	99	*e*Pn	Pn	05 51 23.0	0.0
GCIS				*e*Sn	Sn	05 51 52.3	+1.7
GCIS	Gornji Cirnik	2.20	99	*e*Pn	Pn	05 51 23.0	0.0
GCIS				*e*Sn	Sn	05 51 52.3	+1.7
GCIS							
	comp=Z,257nm,0.2s						
ZCCA	Zocca	2.21	210	Pn	Pn	05 51 23.8	+0.8
ZCCA	Zocca	2.21	210	Pn	Pn	05 51 23.8	+0.8
ZCCA	Zocca	2.21	210	Pn	Pn	05 51 23.8	+0.8
ARSA	Arzberg	2.29	64	*e*Pn	Pn	05 51 24.8	+0.7
	SNR=39						
ARSA	Arzberg	2.29	64	*e*Pn	Pn	05 51 24.8	+0.7
ARSA	Arzberg	2.29	64	*e*Pn	Pn	05 51 24.8	+0.7
	SNR=39						
ARSA	Arzberg	2.29	64	*e*Pn	Pn	05 51 24.7	+0.6
ARSA				*e*Sn	Sn	05 51 51.5	-1.1
ARSA	Arzberg	2.29	64	Pn	Pn	05 51 24.8	+0.7
	comp=Z,38nm,6.0s						
PLONS	Plons/SG	2.29	291	*e*Pn	Pn	05 51 27.1	+2.9
	comp=Z,33nm,0.2s						
PLONS	Plons/SG	2.29	291	*e*Pn	Pn	05 51 27.1	+2.9
	comp=Z,33nm,0.2s						
FNVD	Fontana Vidola	2.32	206	Pn	Pn	05 51 24.5	-0.1
FNVD	Fontana Vidola	2.32	206	Pn	Pn	05 51 24.5	-0.1
	comp=Z,253nm,0.4s						
FNVD	Fontana Vidola	2.32	206	Pn	Pn	05 51 24.5	-0.1
	comp=Z,253nm,0.4s						
PESA	Pesaro	2.34	174	Pn	Pn	05 51 25.0	+0.1
PESA				Sn	Sn	05 51 53.3	-0.7
PESA	Pesaro	2.34	174	Pn	Pn	05 51 25.0	+0.1
PESA				Sn	Sn	05 51 53.3	-0.7
	comp=Z,431nm,0.5s						
PESA	Pesaro	2.34	174	Pn	Pn	05 51 25.0	+0.1
PESA				Sn	Sn	05 51 53.3	-0.7
	comp=Z,431nm,0.5s						
GSCL	Gusciola	2.35	216	Pn	Pn	05 51 25.7	+0.6
GSCL	Gusciola	2.35	216	Pn	Pn	05 51 25.7	+0.6
GSCL	Gusciola	2.35	216	Pn	Pn	05 51 25.7	+0.6
SEI	Scarperia	2.37	201	Pn	Pn	05 51 25.0	-0.2
SEI	Scarperia	2.37	201	Pn	Pn	05 51 25.0	-0.2
	comp=Z,377nm,0.3s						
SEI	Scarperia	2.37	201	Pn	Pn	05 51 25.0	-0.2
	comp=Z,377nm,0.3s						
ERBM	Eremo	2.37	219	Pn	Pn	05 51 25.9	+0.6
ERBM	Eremo	2.37	219	Pn	Pn	05 51 25.9	+0.6
	comp=Z,241nm,0.6s						
ERBM	Eremo	2.37	219	Pn	Pn	05 51 25.9	+0.6
	comp=Z,241nm,0.6s						
NVLJ	Novalja	2.38	135	*e*Pn	Pn	05 51 25.5	+0.1
NVLJ				Sn	Sn	05 51 54.9	0.0
NVLJ	Novalja	2.38	135	*e*Pn	Pn	05 51 25.5	+0.1
NVLJ				Sn	Sn	05 51 54.9	-0.1
VMG	Vicchio	2.41	197	Pn	Pn	05 51 25.3	-0.5
VMG	Vicchio	2.41	197	Pn	Pn	05 51 25.3	-0.5
	comp=Z,102nm,0.2s						
VMG	Vicchio	2.41	197	Pn	Pn	05 51 25.3	-0.5
	comp=Z,102nm,0.2s						
SFI	Santa Sofia	2.42	192	Pn	Pn	05 51 25.2	-0.7
SFI				Sn	Sn	05 51 55.6	-0.2
SFI	Santa Sofia	2.42	192	Pn	Pn	05 51 25.2	-0.7
SFI				Sn	Sn	05 51 55.6	-0.2
	comp=Z,89nm,0.2s						
PZZT	Monte Pizzetto	2.44	209	Pn	Pn	05 51 26.1	-0.1
PZZT	Monte Pizzetto	2.44	209	Pn	Pn	05 51 26.1	-0.1
MUGIO	Muggio	2.44	263	Pn	Pn	05 51 27.1	+0.8
MUGIO	Muggio	2.44	263	Pn	Pn	05 51 27.1	+0.8
GRAM		2.48	225	P	Pn	05 51 26.6	-0.2
LLS	Linth-Limmern	2.49	285	⇓*i*P	Pn	05 51 29.8	+2.9
LLS	Linth-Limmern	2.49	285	⇓*i*Pn	Pn	05 51 29.8	+2.9
	comp=Z,19nm,0.2s						
VALM		2.50	221	P	Pn	05 51 26.7	-0.4
SARO	Sassorosso	2.57	216	P	Pn	05 51 27.8	-0.2
FSSB	Fossombrone	2.59	176	Pn	Pn	05 51 27.7	-0.6
FSSB	Fossombrone	2.59	176	Pn	Pn	05 51 27.7	-0.6
	comp=Z,509nm,0.4s						
FSSB	Fossombrone	2.59	176	Pn	Pn	05 51 27.7	-0.6
	comp=Z,509nm,0.4s						
KOGS	Kog	2.59	85	*i* Pn	Pn	05 51 27.9	-0.4
KOGS	Kog	2.59	85	*i* Pn	Pn	05 51 27.9	-0.4
KOGS	Kog	2.59	85	*i* Pn	Pn	05 51 27.9	-0.4
BDI	Bagni Di Lucca	2.59	212	Pn	Pn	05 51 29.0	+0.7
BDI	Bagni Di Lucca	2.59	212	Pn	Pn	05 51 29.0	+0.7
	comp=Z,277nm,0.4s						
BDI	Bagni Di Lucca	2.59	212	Pn	Pn	05 51 29.0	+0.7
	comp=Z,277nm,0.4s						
BOB	Bobbio (Coli)	2.63	236	Pn	Pn	05 51 29.9	+1.0
BOB	Bobbio (Coli)	2.63	236	Pn	Pn	05 51 29.9	+1.0
BOB	Bobbio (Coli)	2.63	236	Pn	Pn	05 51 29.9	+1.0
BACM		2.64	222	P	Pn	05 51 28.6	-0.3
VAI	Varese	2.64	263	Pn	Pn	05 51 29.6	+0.6
VAI	Varese	2.64	263	Pn	Pn	05 51 29.6	+0.6
VAI	Varese	2.64	263	Pn	Pn	05 51 29.6	+0.6
CODM		2.66	226	P	Pn	05 51 28.9	-0.4
CRE	Caprese Michel	2.68	189	Pn	Pn	05 51 29.5	-0.1
CRE	Caprese Michel	2.68	189	Pn	Pn	05 51 29.5	-0.1
	comp=Z,90nm,0.5s						
CRE	Caprese Michel	2.68	189	Pn	Pn	05 51 29.5	-0.1
	comp=Z,90nm,0.5s						
GEC2	GERESS Array S	2.70	17	*e*Pn	Pn	05 51 30.5	+0.7
GEC2	GERESS Array S	2.70	17	*e*Pn	Pn	05 51 30.5	+0.7
GEC2	GERESS Array S	2.70	17	*e*Pn	Pn	05 51 30.5	+0.7
GERES	GERESS Array B	2.70	17	Pn	Pn	05 51 30.6	+0.9
GERES				Pg	Pg	05 51 37.1	-0.4
GERES				Sn	Sn	05 52 05.8	+3.1
GERES				Lg		05 52 11.5	
GERES				LR	LR	05 52 52.0	
GERES	GERESS Array B	2.70	17	P	Pn	05 51 30.6	+0.8
GERES						05 52 05.8	
GERES	GERESS Array B	2.70	17	Pn	Pn	05 51 30.6	+0.9
	comp=Z,6.5nm,0.3s,baz=194,slow=14,SNR=151						
GERES				Pg	Pg	05 51 37.1	-0.4
	comp=Z,20nm,0.3s,baz=190,slow=16,SNR=60						
GERES				Sn	Sn	05 52 05.8	+3.1
	comp=Z,16nm,0.3s,baz=191,slow=27,SNR=7.2						
GERES				Lg		05 52 11.5	
	comp=Z,33nm,0.3s,baz=197,slow=30,SNR=8.5						
GERES				LR	LR	05 52 52.0	
	comp=Z,186nm,18.3s,baz=274,slow=45						
GERES	GERESS Array B	2.70	17	Pg	Pg	05 51 37.1	-0.4
CRMI	Carmignano	2.71	204	Pn	Pn	05 51 29.6	-0.4
	comp=Z,69nm,0.7s						
CRMI	Carmignano	2.71	204	Pn	Pn	05 51 29.6	-0.4
	comp=Z,69nm,0.7s						
MAIM		2.76	212	Pn	Pn	05 51 30.9	+0.3
MAIM		2.76	212	Pn	Pn	05 51 30.9	+0.3
MAIM		2.76	212	P	Pn	05 51 30.2	-0.4
MAIM		2.76	212	Pn	Pn	05 51 30.9	+0.3
BADI	Badiali	2.77	184	Pn	Pn	05 51 30.8	0.0
BADI	Badiali	2.77	184	Pn	Pn	05 51 30.8	0.0
	comp=Z,158nm,0.4s						
BADI	Badiali	2.77	184	Pn	Pn	05 51 30.8	0.0
	comp=Z,158nm,0.4s						
ARVD	Arcevia	2.79	174	Pn	Pn	05 51 30.7	-0.4
ARVD				Sn	Sn	05 52 03.3	-1.7
	comp=Z,147nm,0.7s						
ARVD	Arcevia	2.79	174	Pn	Pn	05 51 30.7	-0.4
ARVD				Sn	Sn	05 52 03.3	-1.7
	comp=Z,147nm,0.7s						
SISC	Sisak	2.81	105	*e*Pg	Pg	05 51 37.6	-2.0
SISC				Sn	Sn	05 52 07.8	+2.2
SISC	Sisak	2.81	105	*e*Pg	Pg	05 51 37.6	-2.1
SISC				Sn	Sn	05 52 07.7	+2.2
CONA	Conrad Observa	2.82	53	*e*Pn	Pn	05 51 32.5	+1.0
	SNR=40						
CONA	Conrad Observa	2.82	53	Pn	Pn	05 51 32.5	+1.0
	SNR=40						
AOI	Ancona	2.83	164	Pn	Pn	05 51 31.5	-0.1
AOI	Ancona	2.83	164	Pn	Pn	05 51 31.5	-0.1
	comp=Z,144nm,0.5s						
AOI	Ancona	2.83	164	Pn	Pn	05 51 31.5	-0.1
	comp=Z,144nm,0.5s						
WET	Wettzell	2.88	5	*e*Pn	Pn	05 51 32.9	+0.6
WET				*e*Sn	Sn	05 52 06.3	-1.0
WET	Wettzell	2.88	5	*e*Pn	Pn	05 51 32.9	+0.6
WET				*e*Sn	Sn	05 52 06.3	-1.0
WET	Wettzell	2.88	5	*e*Pn	Pn	05 51 32.9	+0.6
WET				*e*Sn	Sn	05 52 06.3	-1.0
CSNT	Castellina Chi	2.93	198	Pn	Pn	05 51 32.5	-0.5
CSNT	Castellina Chi	2.93	198	Pn	Pn	05 51 32.5	-0.5
	comp=Z,169nm,0.8s						
CSNT	Castellina Chi	2.93	198	Pn	Pn	05 51 32.5	-0.5
	comp=Z,169nm,0.8s						
CING	Cingoli	2.94	170	Pn	Pn	05 51 32.8	-0.3
CING	Cingoli	2.94	170	Pn	Pn	05 51 32.8	-0.3
	comp=Z,175nm,0.8s						
CING	Cingoli	2.94	170	Pn	Pn	05 51 32.8	-0.3
	comp=Z,175nm,0.8s						
KHC	Kasperske Hory	2.95	14	*e*Pn	Pn	05 51 34.1	+0.9
KHC				*e*Pg	Pg	05 51 41.7	-0.6
KHC				*e*Sn	Sn	05 52 09.1	+0.2
KHC				*e*Sg	Sg	05 52 20.9	+0.4
KHC	Kasperske Hory	2.95	14	*e*P	Pn	05 51 34.1	+0.9
KHC				*e*		05 52 09.1	
KHC	Kasperske Hory	2.95	14	*e*PN	Pn	05 51 34.1	+0.9
KHC				*e*PG	Pg	05 51 41.7	-0.6
KHC				*e*SN	Sn	05 52 09.1	+0.2
KHC				*e*SG	Sg	05 52 20.9	+0.4
	comp=Z,114nm,0.6s						
MURB	Monte Urbino	3.01	180	Pn	Pn	05 51 34.2	+0.1
MURB	Monte Urbino	3.01	180	Pn	Pn	05 51 34.2	+0.1
	comp=Z,401nm,0.3s						
MURB	Monte Urbino	3.01	180	Pn	Pn	05 51 34.2	+0.1
	comp=Z,401nm,0.3s						
SNTG	Esanatoglia	3.03	174	⇑Pn	Pn	05 51 34.1	-0.3
SNTG	Esanatoglia	3.03	174	⇑Pn	Pn	05 51 34.1	-0.3
	comp=Z,73nm,0.3s						
SNTG	Esanatoglia	3.03	174	⇑Pn	Pn	05 51 34.1	-0.3
	comp=Z,73nm,0.3s						
HASLI	Hasliberg/Brie	3.05	281	⇓*i*Pn	Pn	05 51 37.3	+2.6
	comp=Z,19nm,0.2s						
HASLI	Hasliberg/Brie	3.05	281	⇓*i*Pn	Pn	05 51 37.3	+2.6
	comp=Z,19nm,0.2s						
SOP	Sopron	3.11	62	⇑*i*Pn	Pn	05 51 35.8	+0.4
SOP				*e*Sn	Sn	05 52 13.9	+1.1
SPAK	Spaichingen-Ko	3.13	307	P	Pn	05 51 37.1	+1.3
SPAK				S	Sn	05 52 14.0	+0.5
MMK	Mattmark	3.17	268	Pn	Pn	05 51 37.1	+0.8
MMK	Mattmark	3.17	268	Pn	Pn	05 51 37.1	+0.8
ASS	Assisi	3.21	178	Pn	Pn	05 51 36.8	0.0
ASS	Assisi	3.21	178	Pn	Pn	05 51 36.8	0.0
	comp=Z,6.0nm,0.4s						
ASS	Assisi	3.21	178	Pn	Pn	05 51 36.8	0.0
	comp=Z,6.0nm,0.4s						
ORO	Oropa	3.23	260	Pn	Pn	05 51 36.0	-1.1
ORO	Oropa	3.23	260	Pn	Pn	05 51 36.0	-1.1
	comp=Z,115nm,0.3s						
ORO	Oropa	3.23	260	Pn	Pn	05 51 36.0	-1.1
	comp=Z,115nm,0.3s						
PCP	Pian Castagno	3.29	240	P	Pn	05 51 38.0	+0.1
TRAV		3.42	259	P	Pn	05 51 38.5	-1.1
NRCA	Norcia	3.46	173	Pn	Pn	05 51 39.9	-0.4
NRCA	Norcia	3.46	173	Pn	Pn	05 51 39.9	-0.4
	comp=Z,27nm,0.3s						
NRCA	Norcia	3.46	173	Pn	Pn	05 51 39.9	-0.4
	comp=Z,27nm,0.3s						
FELD	Feldberg im Sc	3.48	299	P	Pn	05 51 41.9	+1.4
ROTZ	Rotzenmuhle	3.50	357	*e*Pn	Pn	05 51 40.8	0.0
ROTZ				*e*Sn	Sn	05 52 20.7	-1.9
BFO	Black Forest	3.51	307	*e*Pn	Pn	05 51 42.4	+1.4
BFO	Black Forest	3.51	307	*e*Pn	Pn	05 51 42.4	+1.4
BFO	Black Forest	3.51	307	*e*Pn	Pn	05 51 42.4	+1.4
GRA1	Grafenberg Arr	3.53	346	*e*Pn	Pn	05 51 42.5	+1.3
GRA1				*e*Sn	Sn	05 52 22.2	-1.1
GRA1	Grafenberg Arr	3.53	346	*e*Pn	Pn	05 51 42.5	+1.3
GRA1				*e*Sn	Sn	05 52 22.2	-1.1
GRF	Grafenberg Arr	3.53	346	*e*Pn	Pn	05 51 42.5	+1.3
GRF				*e*Sn	Sn	05 52 22.2	-1.1
GRF	Grafenberg Arr	3.53	346	*e*Pn	Pn	05 51 42.5	+1.3
GRF				*e*Sn	Sn	05 52 22.2	-1.1
GRF	Grafenberg Arr	3.53	346	*e*Pn	Pn	05 51 42.5	+1.3
GRF				*e*Sn	Sn	05 52 22.2	-1.1
TREC	Trest	3.63	32	*e*P	Pn	05 51 43.0	+0.4
TREC				*e*		05 52 25.4	
TREC				smax			
	comp=N,188nm,1.0s						
TREC	Trest	3.63	32	*e*PN	Pn	05 51 43.0	+0.4
TREC				*e*PG	Pg	05 51 52.3	-3.0
TREC				*e*SN	Sn	05 52 25.4	-0.3
TREC				*e*SG	Sg	05 52 40.4	-1.9
	comp=N,188nm,1.0s						
BBS	Basel-Blauen	3.63	291	P	Pn	05 51 44.0	+1.3
BBS				S	Sn	05 52 26.9	+1.0
ZST	Bratislava	3.67	57	*e*PN	Pn	05 51 43.5	+0.4
ZST				*e*PB	Pb	05 51 54.7	+3.6
ZST				*e*SG	Sg	05 52 44.1	+0.4
ZST	Bratislava	3.67	57	*e*Pn	Pn	05 51 43.5	+0.4
LNSS	Leonessa	3.69	174	Pn	Pn	05 51 43.1	-0.3
	comp=N,235nm,0.4s						
LNSS	Leonessa	3.69	174	Pn	Pn	05 51 43.1	-0.3
	comp=N,235nm,0.4s						
MANZ	Manzenberg	3.73	356	*e*Pn	Pn	05 51 44.0	+0.1
MANZ				*e*Sn	Sn	05 52 27.0	-1.1
TERO	Teramo	3.73	168	Pn	Pn	05 51 43.2	-0.8
TERO	Teramo	3.73	168	Pn	Pn	05 51 43.2	-0.8
	comp=N,133nm,0.4s						
TERO	Teramo	3.73	168	Pn	Pn	05 51 43.2	-0.8
	comp=N,133nm,0.4s						
CAMP	Campotosto	3.79	170	Pn	Pn	05 51 44.2	-0.6
	comp=N,38nm,1.1s						
CAMP	Campotosto	3.79	170	Pn	Pn	05 51 44.2	-0.6
	comp=N,38nm,1.1s						
RORO		3.82	237	P	Pn	05 51 44.5	-0.6
RSP	Reno Superiore	3.85	255	Pn	Pn	05 51 43.8	-1.8
RSP	Reno Superiore	3.85	255	Pn	Pn	05 51 43.8	-1.8
	comp=N,70nm,0.6s						
RSP	Reno Superiore	3.85	255	Pn	Pn	05 51 43.8	-1.8
	comp=N,70nm,0.6s						
MNS	Montasola	3.89	178	Pn	Pn	05 51 45.6	-0.6
MNS	Montasola	3.89	178	Pn	Pn	05 51 45.6	-0.6
	comp=N,96nm,0.5s						
MNS	Montasola	3.89	178	Pn	Pn	05 51 45.6	-0.6
	comp=N,96nm,0.5s						
PRU	Pruhonice	3.96	19	*e*Pn	Pn	05 51 47.1	0.0
PRU				*e*Pg	Pg	05 51 58.7	-2.9
PRU				*e*Sn	Sn	05 52 32.1	-1.7
PRU				*e*Sg	Sg	05 52 52.6	-0.3
PRU	Pruhonice	3.96	19	*e*P	Pn	05 51 47.1	0.0
PRU				*e*		05 52 32.1	
PRU	Pruhonice	3.96	19	*e*PN	Pn	05 51 47.1	0.0
PRU				*e*PG	Pg	05 51 58.7	-2.9
PRU				*e*SN	Sn	05 52 32.1	-1.7
PRU				*e*SG	Sg	05 52 52.6	-0.3
	comp=N,73nm,0.4s						
NKC	Novy Kostel	3.96	359	*e*Pn	Pn	05 51 47.9	+0.7
NKC				*e*Pg	Pg	05 51 59.9	-1.9
NKC				*e*Sn	Sn	05 52 33.4	-0.6
NKC				*e*Sg	Sg	05 52 53.2	+0.1
NKC	Novy Kostel	3.96	359	*e*P	Pn	05 51 47.9	+0.7
NKC				*e*		05 52 33.4	
NKC	Novy Kostel	3.96	359	*e*PN	Pn	05 51 47.9	+0.7
NKC				*e*PG	Pg	05 51 59.9	-1.9
NKC				*e*SN	Sn	05 52 33.4	-0.6
NKC				*e*SG	Sg	05 52 53.2	+0.1
	comp=N,355nm,1.3s						
AQU	L’Aquila	3.97	170	Pn	Pn	05 51 45.9	-1.4
AQU	L’Aquila	3.97	170	Pn	Pn	05 51 45.9	-1.4
	comp=N,133nm,1.0s						
AQU	L’Aquila	3.97	170	Pn	Pn	05 51 45.9	-1.4
	comp=N,133nm,1.0s						
MOF	Molkenrain	4.00	295	P	Pn	05 51 49.1	+1.4
RHK3	Tenkes	4.01	93	⇑*e*P	Pn	05 51 46.6	-1.2
MONE	Monesi	4.02	239	P	Pn	05 51 47.7	-0.2
WERN	Wernitzgruen	4.02	359	*e*Pn	Pn	05 51 48.2	+0.3
WERN				*e*Sn	Sn	05 52 32.3	-3.0
SMOL	Smolenice	4.02	54	*e*Pn	Pn	05 51 48.6	+0.6
SMOL	Smolenice	4.02	54	*e*PN	Pn	05 51 48.6	+0.6
SMOL	Smolenice	4.02	54	*e*Pn	Pn	05 51 48.6	+0.6
LOMF	Lomont	4.05	287	P	Pn	05 51 49.8	+1.4
FAGN	Fagnano	4.08	169	Pn	Pn	05 51 48.3	-0.5
	comp=N,144nm,0.5s						
FAGN	Fagnano	4.08	169	Pn	Pn	05 51 48.3	-0.5
	comp=N,144nm,0.5s						
GUNZ	Gunzen	4.10	358	*e*Pn	Pn	05 51 49.7	+0.7
VRAC	Vranov	4.10	41	Pn	Pn	05 51 48.5	-0.5
VRAC				Pg	Pg	05 51 58.6	-5.7
VRAC				Sn	Sn	05 52 37.4	+0.2
VRAC				Lg		05 52 52.0	
VRAC				LR	LR	05 53 43.0	
VRAC	Vranov	4.10	41	P	Pn	05 51 48.5	-0.5
VRAC						05 52 37.4	
VRAC	Vranov	4.10	41	Pn	Pn	05 51 48.5	-0.5
	comp=N,1.2nm,0.3s,baz=234,slow=14,SNR=3.8						
VRAC				Pg	Pg	05 51 58.6	-5.7
	comp=N,3.0nm,0.3s,baz=236,slow=11,SNR=7.2						
VRAC				Sn	Sn	05 52 37.4	+0.2
	comp=N,2.2nm,0.3s,baz=189,slow=18,SNR=3.7						
VRAC				Lg		05 52 52.0	
	comp=N,3.4nm,0.3s,baz=141,slow=20,SNR=4.4						
VRAC				LR	LR	05 53 43.0	
	comp=N,111nm,18.3s,baz=171,slow=43						
VRAC	Vranov	4.10	41	⇓*i*P	Pn	05 51 48.0	-1.0
LPG	La Plagne	4.10	261	*e*Pn	Pn	05 51 49.7	+0.7
	SNR=1.0						
LPG				*e*Sn	Sn	05 52 33.7	-3.6
LPG				*e*Sg	Sg	05 52 56.0	-1.5
	comp=N,34nm,0.4s,SNR=1.0						
LPG	La Plagne	4.10	261	*e*Pn	Pn	05 51 49.7	+0.7
LPG				*e*Sn	Sn	05 52 33.7	-3.6
LPG				*e*Sg	Sg	05 52 56.0	-1.5
LPG	La Plagne	4.10	261	*e*P	Pn	05 51 49.7	+0.7
LPG				*e*		05 52 33.7	
LPG	La Plagne	4.10	261	*e*Pn	Pn	05 51 49.7	+0.7
	SNR=1.0						
LPG				*e*Sn	Sn	05 52 33.7	-3.6
LPG				*e*Sg	Sg	05 52 56.0	-1.5
	comp=N,17nm,0.4s,SNR=1.0						
LPL	La Plagne	4.11	261	*e*Pn	Pn	05 51 49.1	-0.1
	SNR=1.0						
LPL				*e*Sn	Sn	05 52 32.8	-4.7
LPL				*e*Sg	Sg	05 52 56.5	-1.2
	comp=N,47nm,0.5s,SNR=1.0						
LPL	La Plagne	4.11	261	*e*Pn	Pn	05 51 49.1	-0.1
LPL				*e*Sn	Sn	05 52 32.8	-4.7
LPL				*e*Sg	Sg	05 52 56.5	-1.2
LPL	La Plagne	4.11	261	*e*P	Pn	05 51 49.1	-0.1
LPL				*e*		05 52 32.8	
LPL	La Plagne	4.11	261	*e*Pn	Pn	05 51 49.1	-0.1
	SNR=1.0						
LPL				*e*Sg	Sg	05 52 56.5	-1.2
	comp=N,24nm,0.5s,SNR=1.0						
ECH	Echery	4.13	300	P	Pn	05 51 50.8	+1.3
ECH				S	Sn	05 52 37.7	-0.5
ENR	Entracque	4.14	242	P	Pn	05 51 48.9	-0.7
TANN	Tannenbergstha	4.15	360	*e*Pn	Pn	05 51 50.2	+0.5
TANN				*e*Sn	Sn	05 52 37.8	-0.6
CDF	Champ du Feu	4.16	303	*e*Pg	Pg	05 52 04.0	-1.4
	SNR=1.0						
CDF				*e*Sn	Sn	05 52 34.9	-3.8
CDF				*e*Sg	Sg	05 52 58.5	-0.7
	comp=N,52nm,0.5s,SNR=1.0						
CDF	Champ du Feu	4.16	303	*e*Pn	Pn	05 51 50.0	+0.2
CDF				*e*Pg	Pg	05 52 04.0	-1.4
CDF				*e*Sn	Sn	05 52 34.9	-3.8
CDF				*e*Sg	Sg	05 52 58.5	-0.7
CDF	Champ du Feu	4.16	303	*e*P	Pn	05 51 50.0	+0.2
CDF				*e*		05 52 34.9	
CDF	Champ du Feu	4.16	303	*e*Pn	Pn	05 51 50.0	+0.2
CDF	Champ du Feu	4.16	303	*e*Pg	Pg	05 52 04.0	-1.4
	SNR=1.0						
CDF				*e*Sn	Sn	05 52 34.9	-3.8
CDF				*e*Sg	Sg	05 52 58.5	-0.7
	comp=N,26nm,0.5s,SNR=1.0						
TOD	Tromm	4.17	325	P	Pn	05 51 51.0	+1.1
HINF	Hinteralfeld	4.17	294	*e*Pn	Pn	05 51 50.4	+0.4
	SNR=1.0						
HINF				*e*Sn	Sn	05 52 35.0	-4.0
	comp=N,34nm,0.3s,SNR=1.0						
HINF				*e*Sg	Sg	05 52 58.6	-1.0
HINF	Hinteralfeld	4.17	294	*e*Pn	Pn	05 51 50.4	+0.4
HINF				*e*Sn	Sn	05 52 35.0	-4.0
HINF				*e*Sg	Sg	05 52 58.6	-1.0
HINF	Hinteralfeld	4.17	294	*e*P	Pn	05 51 50.4	+0.4
HINF				*e*		05 52 35.0	
HINF	Hinteralfeld	4.17	294	*e*Pn	Pn	05 51 50.4	+0.4
	SNR=1.0						
HINF				*e*Sn	Sn	05 52 35.0	-4.0
	comp=N,17nm,0.3s,SNR=1.0						
HINF				*e*Sg	Sg	05 52 58.6	-1.0
LANF	Langenberg	4.18	312	P	Pn	05 51 51.7	+1.5
WERD	Werda	4.18	358	*e*Sn	Sn	05 52 36.4	-2.9
NEGI	Negi	4.18	236	P	Pn	05 51 49.4	-0.8
STV	Sta Anna Valdi	4.19	243	P	Pn	05 51 48.9	-1.4
PKSM	Moragy	4.25	89	⇓*i*P	Pn	05 51 49.5	-1.6
PKSM	Moragy	4.25	89	⇑*i*Pn	Pn	05 51 49.6	-1.5
PKSM				*e*Sn	Sn	05 52 39.7	-1.3
BNI	Bardonecchia	4.27	255	*e*Pn	Pn	05 51 51.3	-0.1
BNI	Bardonecchia	4.27	255	*e*Pn	Pn	05 51 51.3	-0.1
PTQR	Pietraquaria	4.30	171	Pn	Pn	05 51 52.2	+0.4
PTQR	Pietraquaria	4.30	171	Pn	Pn	05 51 52.2	+0.4
	comp=N,12nm,0.2s						
PTQR	Pietraquaria	4.30	171	Pn	Pn	05 51 52.2	+0.4
	comp=N,12nm,0.2s						
MBDF	Montbardon	4.32	251	*e*Pn	Pn	05 51 51.0	-1.1
MBDF				*e*Sn	Sn	05 52 38.5	-4.4
	comp=N,56nm,0.6s,SNR=1.0						
MBDF	Montbardon	4.32	251	*e*Pn	Pn	05 51 51.0	-1.1
MBDF				*e*Sn	Sn	05 52 38.5	-4.4
MBDF	Montbardon	4.32	251	*e*Pn	Pn	05 51 51.0	-1.1
MBDF				*e*Sn	Sn	05 52 38.5	-4.4
	comp=N,28nm,0.6s,SNR=1.0						
SBF	Sospel	4.33	238	*e*Pn	Pn	05 51 51.9	-0.3
	SNR=1.0						
SBF				*e*Sn	Sn	05 52 39.0	-4.0
	comp=N,155nm,0.6s,SNR=1.0						
SBF	Sospel	4.33	238	*e*Pn	Pn	05 51 51.9	-0.3
SBF				*e*Sn	Sn	05 52 39.0	-4.0
SBF	Sospel	4.33	238	*e*Pn	Pn	05 51 51.9	-0.3
	SNR=1.0						
SBF				*e*Sn	Sn	05 52 39.0	-4.0
	comp=N,77nm,0.6s,SNR=1.0						
SURF	Saint Ours	4.40	248	P	Pn	05 51 52.5	-0.7
MOX	Moxa	4.42	353	*e*Pn	Pn	05 51 53.6	+0.2
MOX				*e*Pg	Pg	05 52 12.9	+2.5
MOX				*e*Sn	Sn	05 52 43.3	-1.8
MOX				Sg	Sg	05 53 10.0	+2.4
MOX	Moxa	4.42	353	*e*PN	Pn	05 51 53.6	+0.2
MOX				*e*PG	Pg	05 52 12.9	+2.5
MOX				*e*SN	Sn	05 52 43.3	-1.8
MOX				*e*(SG)	Sg	05 53 10.0	+2.4
MOX	Moxa	4.42	353	*e*P	Pn	05 51 53.6	+0.2
MOX				*e*		05 52 43.3	
MOX	Moxa	4.42	353	*e*Pn	Pn	05 51 53.6	+0.2
MOX				*e*Sn	Sn	05 52 42.7	-2.4
CABF	La Chapelle	4.46	277	*e*Pg	Pg	05 52 09.1	-2.1
	SNR=1.0						
CABF				*e*Sn	Sn	05 52 40.6	-5.5
CABF				*e*Sg	Sg	05 53 08.0	-0.9
	comp=N,51nm,0.8s						
CABF	La Chapelle	4.46	277	*e*Pn	Pn	05 51 54.9	+0.9
CABF				*e*Pg	Pg	05 52 09.1	-2.1
CABF				*e*Sn	Sn	05 52 40.6	-5.5
CABF				*e*Sg	Sg	05 53 08.0	-0.9
CABF	La Chapelle	4.46	277	*e*P	Pn	05 51 54.9	+0.9
CABF				*e*		05 52 40.6	
CABF	La Chapelle	4.46	277	*e*Pn	Pn	05 51 54.9	+0.9
CABF	La Chapelle	4.46	277	*e*Pg	Pg	05 52 09.1	-2.1
	SNR=1.0						
CABF				*e*Sn	Sn	05 52 40.6	-5.5
CABF				*e*Sg	Sg	05 53 08.0	-0.9
	comp=N,26nm,0.8s						
PVCC	Panska Ves	4.47	17	*e*Pn	Pn	05 51 54.3	+0.1
PVCC				*e*Pg	Pg	05 52 09.0	-2.5
PVCC				*e*Sg	Sg	05 53 07.6	-1.8
PVCC	Panska Ves	4.47	17	*e*PN	Pn	05 51 54.3	+0.1

PVCC				*e*PG	Pg	05 52 09.0	-2.5
PVCC				*e*SG	Sg	05 53 07.6	-1.8
	comp=N,92nm,0.6s						
PVCC	**Panska Ves**	4.47	17	*e*Pn	Pn	05 51 54.3	+0.1
PGF	**Pioggiola**	4.50	215	*e*Pn	Pn	05 51 53.8	-0.7
	SNR=1.0						
PGF				*e*Sn	Sn	05 52 42.5	-4.6
	comp=N,30nm,0.4s,SNR=1.0						
PGF	**Pioggiola**	4.50	215	*e*Pn	Pn	05 51 53.8	-0.7
PGF				*e*Sn	Sn	05 52 42.5	-4.6
PGF	**Pioggiola**	4.50	215	*e*Pn	Pn	05 51 53.8	-0.7
	SNR=1.0						
PGF				*e*Sn	Sn	05 52 42.5	-4.6
	comp=N,15nm,0.4s,SNR=1.0						
HAU	**Haudompre**	4.55	295	*e*Pg	Pg	05 52 11.1	-1.9
HAU				*e*Sn	Sn	05 52 44.0	-4.5
	comp=N,44nm,0.4s,SNR=1.0						
HAU	**Haudompre**	4.55	295	*e*P	Pn	05 51 56.5	+1.2
HAU				*e*Pg	Pg	05 52 11.1	-1.9
HAU				*e*Sn	Sn	05 52 44.0	-4.5
HAU	**Haudompre**	4.55	295	*e*Pg	Pg	05 52 11.1	-1.9
HAU				*e*Sn	Sn	05 52 44.0	-4.5
	comp=N,22nm,0.4s,SNR=1.0						
GDM	**Grand'Maison**	4.61	259	P	Pn	05 51 58.1	+2.1
KOLL	**Kolacno**	4.61	58	*e*Pn	Pn	05 51 55.6	-0.5
KOLL				*e*Sn	Sn	05 52 50.2	+0.2
KOLL	**Kolacno**	4.61	58	*e*PN	Pn	05 51 55.6	-0.5
KOLL				*e*SN	Sn	05 52 50.2	+0.2
KOLL	**Kolacno**	4.61	58	*e*Pn	Pn	05 51 55.6	-0.5
KOLL				*e*Sn	Sn	05 52 50.2	+0.2
SDI	**San Donato**	4.66	168	Pn	Pn	05 51 56.4	-0.3
SDI	**San Donato**	4.66	168	Pn	Pn	05 51 56.4	-0.3
	comp=N,11nm,0.3s						
SDI	**San Donato**	4.66	168	Pn	Pn	05 51 56.4	-0.3
	comp=N,11nm,0.3s						
FBE	**Freiberg**	4.69	7	*e*Pn	Pn	05 51 57.5	+0.4
BRG	**Berggiesshubel**	4.70	11	Pn	Pn	05 51 57.7	+0.4
BRG				Pg	Pg	05 52 14.9	-1.0
BRG				Sn	Sn	05 52 48.0	-4.1
BRG				Sg	Sg	05 53 13.9	-2.8
BRG	**Berggiesshubel**	4.70	11	P	Pn	05 51 57.7	+0.4
BRG						05 52 48.0	
BRG	**Berggiesshubel**	4.70	11	*e*Pn	Pn	05 51 57.3	0.0
BRG	**Berggiesshubel**	4.70	11	PN	Pn	05 51 57.7	+0.4
BRG				PG	Pg	05 52 14.9	-1.0
BRG				SN	Sn	05 52 48.0	-4.1
BRG				SG	Sg	05 53 13.9	-2.8
TNS	**Taunus Mts**	4.80	327	*e*Pn	Pn	05 52 00.0	+1.4
TNS				*e*Sn	Sn	05 52 52.9	-1.6
TNS	**Taunus Mts**	4.80	327	*e*Pn	Pn	05 52 00.0	+1.4
TNS				*e*Sn	Sn	05 52 52.9	-1.6
TNS	**Taunus Mts**	4.80	327	*e*Pn	Pn	05 52 00.0	+1.4
TNS				*e*Sn	Sn	05 52 52.9	-1.6
DPC	**Dobruska-Polom**	4.81	31	*e*Pn	Pn	05 51 58.3	-0.4
DPC				*e*Pg	Pg	05 52 14.5	-3.4
DPC				*e*Sn	Sn	05 52 54.1	-0.6
DPC				*e*Sg	Sg	05 53 18.1	-2.0
DPC	**Dobruska-Polom**	4.81	31	*e*P	Pn	05 51 58.3	-0.4
DPC				*e*		05 52 54.1	
DPC	**Dobruska-Polom**	4.81	31	*e*PN	Pn	05 51 58.3	-0.4
DPC				*e*PG	Pg	05 52 14.5	-3.4
DPC				*e*SN	Sn	05 52 54.1	-0.6
DPC				*e*SG	Sg	05 53 18.1	-2.0
	comp=N,88nm,0.7s						
VYHS	**Vyhne**	4.83	60	*e*Pn	Pn	05 51 58.2	-0.9
VYHS				*e*Sn	Sn	05 52 52.7	-2.7
VYHS				*e*Sg	Sg	05 53 26.1	+5.1
VYHS	**Vyhne**	4.83	60	*e*PN	Pn	05 51 58.2	-0.9
VYHS				*e*SN	Sn	05 52 52.7	-2.7
VYHS				*e*SG	Sg	05 53 26.1	+5.1
VYHS	**Vyhne**	4.83	60	*e*Pn	Pn	05 51 58.2	-0.9
VYHS				*e*Sn	Sn	05 52 52.7	-2.7
UPC	**Upice**	4.83	28	*e*Pn	Pn	05 51 59.1	0.0
UPC				*e*Pg	Pg	05 52 15.6	-2.8
UPC				*e*Sn	Sn	05 52 54.2	-1.2
UPC				*e*Sg	Sg	05 53 19.5	-1.5
UPC	**Upice**	4.83	28	*e*P	Pn	05 51 59.1	0.0
UPC				*e*		05 52 54.2	
UPC	**Upice**	4.83	28	*e*PN	Pn	05 51 59.1	0.0
UPC				*e*PG	Pg	05 52 15.6	-2.8
UPC				*e*SN	Sn	05 52 54.2	-1.2
UPC				*e*SG	Sg	05 53 19.5	-1.5
ORIF	**Oris-en-Rattie**	4.85	256	*e*Pn	Pn	05 52 00.0	+0.6
	SNR=1.0						
ORIF				*e*Sn	Sn	05 52 51.5	-4.3
ORIF	**Oris-en-Rattie**	4.85	256	*e*Sg	Sg	05 53 17.1	-4.4
	comp=N,40nm,0.6s,SNR=1.0						
ORIF	**Oris-en-Rattie**	4.85	256	*e*Pn	Pn	05 52 00.0	+0.6
ORIF				*e*Sn	Sn	05 52 51.5	-4.3
ORIF				*e*Sg	Sg	05 53 17.1	-4.4
ORIF	**Oris-en-Rattie**	4.85	256	*e*Pn	Pn	05 52 00.0	+0.6
	SNR=1.0						
ORIF				*e*Sn	Sn	05 52 51.5	-4.3
THEF	**They Montfort**	4.86	296	P	Pn	05 52 00.9	+1.5
MORC	**Moravsky Berou**	4.87	42	*e*Pn	Pn	05 51 59.3	-0.2
MORC				*e*Sg	Sg	05 53 21.6	-0.4
MORC	**Moravsky Berou**	4.87	42⇑	*i*P	Pn	05 51 59.7	+0.2
MORC	**Moravsky Berou**	4.87	42	*e*Pn	Pn	05 51 59.3	-0.2
MORC				*e*Sg	Sg	05 53 21.6	-0.4
PENC	**Penc**	4.87	69⇑	*e*P	Pn	05 52 00.5	+0.9
FRF	**La Foret Royal**	4.97	239	*e*Sn	Sn	05 52 54.1	-4.7
FRF	**La Foret Royal**	4.97	239	*e*Pn	Pn	05 52 00.0	-1.0
FRF				*e*Sn	Sn	05 52 54.1	-4.7
FRF				*e*Sg	Sg	05 53 23.0	-2.5
FRF	**La Foret Royal**	4.97	239	*e*P	Pn	05 52 00.0	-1.0
FRF				*e*		05 52 54.1	
FRF	**La Foret Royal**	4.97	239	*e*Pn	Pn	05 52 00.0	-1.0
	SNR=1.0						
FRF				*e*Sg	Sg	05 53 23.0	-2.5
	comp=N,26nm,0.7s						
RUP	**Ruppelstein**	5.02	315	P	Pn	05 52 03.9	+2.2
CLL	**Collm**	5.05	3	*i* Pn	Pn	05 52 03.7	+1.6
CLL				*i* Sn	Sn	05 52 58.9	-1.8
CLL				*i* Sg	Sg	05 53 26.2	-1.7
CLL	**Collm**	5.05	3	*e*Pn	Pn	05 52 01.9	-0.2
CLL	**Collm**	5.05	3	*i* Pn	Pn	05 52 02.7	+0.6
CLL				*i* Pn(2)		05 52 03.7	
CLL				*e*Pg	Pg	05 52 26.0	+3.5
CLL				*i* x	x	05 52 35.9	
CLL				*i* Sn	Sn	05 52 58.9	-1.8
CLL				*i* Sg	Sg	05 53 26.2	-1.7
	comp=Z,65nm,0.7s						
CLL	**Collm**	5.05	3	*i* Pn	Pn	05 52 03.7	+1.6
CLL				*i* Sn	Sn	05 52 58.9	-1.8
RGNG	**Rignano Grg**	5.10	153	Pn	Pn	05 52 00.9	-1.9
RGNG	**Rignano Grg**	5.10	153	Pn	Pn	05 52 00.9	-1.9
RGNG	**Rignano Grg**	5.10	153	Pn	Pn	05 52 00.9	-1.9
LMR	**La Mourre**	5.19	238	*e*Pn	Pn	05 52 03.1	-0.9
	SNR=1.0						
LMR				*e*Sn	Sn	05 52 59.3	-4.8
	comp=Z,34nm,0.4s,SNR=1.0						
LMR	**La Mourre**	5.19	238	*e*Pn	Pn	05 52 03.1	-0.9
LMR				*e*Sn	Sn	05 52 59.3	-4.8
LMR	**La Mourre**	5.19	238	*e*Pn	Pn	05 52 03.1	-0.9
	SNR=1.0						
LMR				*e*Sn	Sn	05 52 59.3	-4.8
	comp=Z,17nm,0.4s,SNR=1.0						
OKC	**Ostrava-Krasne**	5.19	45	*e*Pn	Pn	05 52 04.8	+0.7
OKC				*e*Sg	Sg	05 53 29.2	-3.3
OKC	**Ostrava-Krasne**	5.19	45	*e*PN	Pn	05 52 04.8	+0.7
OKC				*e*SG	Sg	05 53 29.2	-3.3
	comp=Z,41nm,0.7s						
OKC	**Ostrava-Krasne**	5.19	45	*e*Pn	Pn	05 52 04.8	+0.7
OKC				*e*Sg	Sg	05 53 29.2	-3.3
	comp=Z,41nm,0.7s						
KSP	**Ksiaz**	5.22	27	*e*Pn	Pn	05 52 04.5	+0.1
KSP				*e*Sn	Sn	05 53 02.8	-2.0
KSP				*e*Sg	Sg	05 53 30.2	-3.0
KSP	**Ksiaz**	5.22	27	*e*P	Pn	05 52 04.5	+0.1
KSP				*e*		05 53 02.8	
KSP	**Ksiaz**	5.22	27	*e*Pn	Pn	05 52 04.5	+0.1
KSP				*e*Sn	Sn	05 53 02.8	-2.0
KSP				*e*Sg	Sg	05 53 30.2	-3.0
LIKS	**Likavka**	5.25	56	*e*SN	Sn	05 52 58.1	-7.5
RFYF	**Reffroy**	5.33	299	*e*Pg	Pg	05 52 25.2	-2.6
	baz=120						
RFYF	**Reffroy**	5.33	299	*e*Pg	Pg	05 52 25.2	-2.6
RFYF	**Reffroy**	5.33	299	*e*Pg	Pg	05 52 25.2	-2.6
SMRF	**Simiane la Rot**	5.42	247	*e*Pn	Pn	05 52 06.8	-0.4
	SNR=1.0						
SMRF				*e*Sn	Sn	05 53 05.3	-4.6
	comp=Z,29nm,0.5s						
SMRF	**Simiane la Rot**	5.42	247	*e*Pn	Pn	05 52 06.8	-0.4
SMRF				*e*Sn	Sn	05 53 05.3	-4.6
SMRF	**Simiane la Rot**	5.42	247	*e*Pn	Pn	05 52 06.8	-0.4
	SNR=1.0						
SMRF				*e*Sn	Sn	05 53 05.3	-4.6
	comp=Z,14nm,0.5s						
SFTF	**Sexfontaines**	5.45	293	*e*Pn	Pn	05 52 07.0	-0.5
SFTF	**Sexfontaines**	5.45	293	*e*P	Pn	05 52 10.5	+3.0
	baz=122						
SFTF	**Sexfontaines**	5.45	293	*e*Pg	Pg	05 52 27.5	-2.6
	baz=119						
SFTF				*e*Sg	Sg	05 53 38.7	-2.0
	comp=Z,19nm,0.5s						
SFTF	**Sexfontaines**	5.45	293	*e*P	Pn	05 52 10.5	+3.0
SFTF				*e*Pg	Pg	05 52 27.5	-2.6
SFTF				*e*Sg	Sg	05 53 38.7	-2.0
SFTF	**Sexfontaines**	5.45	293	*e*Pn	Pn	05 52 07.0	-0.5
SFTF	**Sexfontaines**	5.45	293	*e*P	Pn	05 52 10.5	+3.0
SFTF	**Sexfontaines**	5.45	293	*e*Pg	Pg	05 52 27.5	-2.6
SFTF				*e*Sg	Sg	05 53 38.7	-2.0
	comp=Z,9.4nm,0.5s						
WLF	**Walferdange**	5.46	311	P	Pn	05 52 08.5	+0.8
WLF	**Walferdange**	5.46	311	*e*Pn	Pn	05 52 10.5	+2.8
WLF	**Walferdange**	5.46	311	P	Pn	05 52 08.4	+0.7
MEZF	**Maizieres J'vi**	5.54	296	*e*Pg	Pg	05 52 29.0	-2.9
MEZF				*e*Sg	Sg	05 53 42.2	-1.4
	comp=Z,17nm,0.4s						
MEZF	**Maizieres J'vi**	5.54	296	*e*Pg	Pg	05 52 29.0	-2.9
MEZF				*e*Sg	Sg	05 53 42.2	-1.4
MEZF	**Maizieres J'vi**	5.54	296	*e*Pg	Pg	05 52 29.0	-2.9
MEZF				*e*Sg	Sg	05 53 42.2	-1.4
	comp=Z,8.4nm,0.4s						
VIVF	**Saint-Julien-l**	5.69	258	*e*Pn	Pn	05 52 10.5	-0.3
	SNR=1.0						
VIVF				*e*Sn	Sn	05 53 11.7	-4.7
	comp=Z,8.4nm,0.3s						
VIVF	**Saint-Julien-l**	5.69	258	*e*Pn	Pn	05 52 10.5	-0.3
VIVF				*e*Sn	Sn	05 53 11.7	-4.7
VIVF	**Saint-Julien-l**	5.69	258	*e*Pn	Pn	05 52 10.5	-0.3
	SNR=1.0						
VIVF				*e*Sn	Sn	05 53 11.7	-4.7
	comp=Z,4.2nm,0.3s						
DIVS	**Divcibare**	5.71	110	Pn	Pn	05 52 11.3	+0.1
KECS	**Kecovo**	5.85	65	*e*Pn	Pn	05 52 12.9	-0.1
	comp=Z,2.5nm,0.3s						
KECS				*e*Sn	Sn	05 53 18.4	-2.0
KECS	**Kecovo**	5.85	65	*e*P	Pn	05 52 12.9	-0.1
KECS				*e*		05 53 18.4	
KECS				pmax	pmax		
	comp=Z,3.0nm,0.3s						
KECS	**Kecovo**	5.85	65	*e*PN	Pn	05 52 12.9	-0.1
KECS				*e*SN	Sn	05 53 18.4	-2.0
SMF	**Signal de Mont**	6.00	277	*e*Pn	Pn	05 52 15.6	+0.4
	SNR=1.0						
SMF				*e*Sn	Sn	05 53 20.1	-4.2
	comp=Z,26nm,0.6s,SNR=1.0						
SMF	**Signal de Mont**	6.00	277	*e*Pn	Pn	05 52 15.6	+0.4
SMF				*e*Sn	Sn	05 53 20.1	-4.2
SMF	**Signal de Mont**	6.00	277	*e*Pn	Pn	05 52 15.6	+0.4
	SNR=1.0						
SMF				*e*Sn	Sn	05 53 20.1	-4.2
	comp=Z,13nm,0.6s,SNR=1.0						
LOR	**Lormes**	6.03	283	*e*Pn	Pn	05 52 16.3	+0.7
	baz=102,SNR=1.0						
LOR				*e*Sn	Sn	05 53 20.3	-4.6
	comp=Z,9.7nm,0.3s						
LOR	**Lormes**	6.03	283	*e*Pn	Pn	05 52 16.3	+0.7
LOR				*e*Sn	Sn	05 53 20.3	-4.6
MEM	**Membach**	6.13	317	P	Pn	05 52 19.9	+3.0
SSF	**Saint Saulge**	6.25	281	*e*Pn	Pn	05 52 19.4	+0.8
	SNR=1.0						
SSF	**Saint Saulge**	6.25	281	*e*Pn	Pn	05 52 19.4	+0.8
AVF	**Avril sur Loir**	6.34	278	*e*Pn	Pn	05 52 19.9	0.0
	SNR=1.0						
AVF				*e*Sn	Sn	05 53 26.2	-6.4
	comp=Z,5.5nm,0.5s						
AVF	**Avril sur Loir**	6.34	278	*e*Pn	Pn	05 52 19.9	0.0
AVF				*e*Sn	Sn	05 53 26.2	-6.4
AVF	**Avril sur Loir**	6.34	278	*e*Pn	Pn	05 52 19.9	0.0
	SNR=1.0						
AVF				*e*Sn	Sn	05 53 26.2	-6.4
	comp=Z,2.8nm,0.5s						
BCLA	**Clavier**	6.35	313	P	Pn	05 52 23.0	+3.1
BZS	**Buzias**	6.38	93⇑	*i*P	Pn	05 52 19.8	-0.6
GIVF	**Givet**	6.41	309	*e*Pn	Pn	05 52 19.4	-1.4
GIVF	**Givet**	6.41	309	*e*P	Pn	05 52 23.6	+2.8
	SNR=1.0						
GIVF				*e*Sn	Sn	05 53 27.9	-6.4
GIVF				*e*Sg	Sg	05 54 09.4	-2.2
	comp=Z,21nm,0.5s						
GIVF	**Givet**	6.41	309	*e*P	Pn	05 52 23.6	+2.8
GIVF				*e*		05 53 27.9	
GIVF	**Givet**	6.41	309	*e*Pn	Pn	05 52 19.4	-1.4
GIVF	**Givet**	6.41	309	*e*P	Pn	05 52 23.6	+2.8
	SNR=1.0						
GIVF				*e*Sn	Sn	05 53 27.9	-6.4
GIVF				*e*Sg	Sg	05 54 09.4	-2.2
	comp=Z,11nm,0.5s						
LASF	**Ste Croix**	6.50	253	*e*Pn	Pn	05 52 21.1	-0.9
LASF				*e*Sn	Sn	05 53 31.5	-5.0
	comp=Z,30nm,0.7s						
LASF	**Ste Croix**	6.50	253	*e*Pn	Pn	05 52 21.1	-0.9
LASF				*e*Sn	Sn	05 53 31.5	-5.0
LASF	**Ste Croix**	6.50	253	*e*Pn	Pn	05 52 21.1	-0.9
LASF				*e*Sn	Sn	05 53 31.5	-5.0
	comp=Z,15nm,0.7s						
DOU	**Dourbes**	6.53	309	P	Pn	05 52 25.3	+2.9
STHS	**Stebnicka Huta**	6.66	59	*e*Pn	Pn	05 52 24.5	+0.3
STHS	**Stebnicka Huta**	6.66	59	*e*PN	Pn	05 52 24.5	+0.3
STHS	**Stebnicka Huta**	6.66	59	*e*Pn	Pn	05 52 24.5	+0.3
BGF	**Bois d'Agland**	6.69	276	*e*Pn	Pn	05 52 24.6	0.0
	SNR=1.0						
BGF				*e*Sn	Sn	05 53 36.1	-5.1
	comp=Z,25nm,0.4s						
BGF	**Bois d'Agland**	6.69	276	*e*Pn	Pn	05 52 24.6	0.0
BGF				*e*Sn	Sn	05 53 36.1	-5.1
BGF	**Bois d'Agland**	6.69	276	*e*Pn	Pn	05 52 24.6	0.0
	SNR=1.0						
BGF				*e*Sn	Sn	05 53 36.1	-5.1
	comp=Z,13nm,0.4s						
BAIF	**Baives**	6.72	307	*e*Pn	Pn	05 52 24.2	-0.9
BAIF	**Baives**	6.72	307	*e*P	Pn	05 52 28.2	+3.1
BAIF				*e*Sn	Sn	05 53 36.6	-5.3
BAIF				*e*Sg	Sg	05 54 18.5	-3.1
	comp=Z,24nm,0.7s						
BAIF	**Baives**	6.72	307	*e*P	Pn	05 52 28.2	+3.1
BAIF				*e*		05 53 36.6	
BAIF	**Baives**	6.72	307	*e*Pn	Pn	05 52 24.2	-0.9
BAIF	**Baives**	6.72	307	*e*P	Pn	05 52 28.2	+3.1
BAIF				*e*Sn	Sn	05 53 36.6	-5.3
BAIF				*e*Sg	Sg	05 54 18.5	-3.1
	comp=Z,12nm,0.7s						
HYF	**Humbligny**	6.86	282	*e*P	Pn	05 52 28.8	+1.9
HYF				*e*Sn	Sn	05 53 38.9	-6.3
KOLS	**Kolonicke sedl**	7.11	64	*e*Pn	Pn	05 52 30.3	-0.1
KOLS	**Kolonicke sedl**	7.11	64	*e*PN	Pn	05 52 30.3	-0.1
KOLS	**Kolonicke sedl**	7.11	64	*e*Pn	Pn	05 52 30.3	-0.1
TCF	**Toulx Ste Croi**	7.14	274	*e*Pn	Pn	05 52 31.6	+0.8
	SNR=1.0						
TCF				*e*Sn	Sn	05 53 46.6	-5.7
	comp=Z,11nm,0.4s						
TCF	**Toulx Ste Croi**	7.14	274	*e*Pn	Pn	05 52 31.6	+0.8
TCF				*e*Sn	Sn	05 53 46.6	-5.7
CAF	**Calviac**	7.45	263	*e*Pn	Pn	05 52 34.1	-1.0
CAF				*e*Sn	Sn	05 53 53.9	-6.0
	comp=Z,2.8nm,0.4s						
CAF	**Calviac**	7.45	263	*e*Pn	Pn	05 52 34.1	-1.0
CAF				*e*Sn	Sn	05 53 53.9	-6.0
CAF	**Calviac**	7.45	263	*e*Pn	Pn	05 52 34.1	-1.0
CAF				*e*Sn	Sn	05 53 53.9	-6.0
	comp=Z,1.4nm,0.4s						
RJF	**Les Rejaudoux**	7.75	267	*e*Pn	Pn	05 52 38.1	-1.1
RJF	**Les Rejaudoux**	7.75	267	*e*Pn	Pn	05 52 38.1	-1.1
RJF	**Les Rejaudoux**	7.75	267	*e*Pn	Pn	05 52 38.1	-1.1
MTLF	**Montolieu**	7.89	252	*e*Pn	Pn	05 52 40.3	-0.8
MTLF				*e*Sn	Sn	05 54 03.8	-6.8
	comp=Z,4.0nm,0.5s						
MTLF	**Montolieu**	7.89	252	*e*Pn	Pn	05 52 40.3	-0.8
MTLF				*e*Sn	Sn	05 54 03.8	-6.8
MTLF	**Montolieu**	7.89	252	*e*Pn	Pn	05 52 40.3	-0.8
MTLF				*e*Sn	Sn	05 54 03.8	-6.8
	comp=Z,2.0nm,0.5s						
LFF	**La Frestale**	8.37	265	*e*Pn	Pn	05 52 45.9	-1.7
LFF	**La Frestale**	8.37	265	*e*Pn	Pn	05 52 45.9	-1.7
LFF	**La Frestale**	8.37	265	*e*Pn	Pn	05 52 45.9	-1.7
MFF	**Saint Martin d**	8.75	277	*e*Pn	Pn	05 52 53.6	+0.7
MFF	**Saint Martin d**	8.75	277	*e*Pn	Pn	05 52 53.6	+0.7
LDF	**La Druitiere**	8.88	290	*e*Pn	Pn	05 52 52.7	-1.9
LDF	**La Druitiere**	8.88	290	*e*Pn	Pn	05 52 52.7	-1.9
LDF	**La Druitiere**	8.88	290	*e*Pn	Pn	05 52 52.7	-1.9
VAE	**Valguarnera**	8.90	170	LR	LR	05 56 48.0	
	comp=Z,100nm,18.2s,baz=145,slow=42						
FLN	**La Foliniere**	9.14	291	*e*Pn	Pn	05 52 55.1	-3.1
	SNR=1.0						
FLN	**La Foliniere**	9.14	291	*e*Pn	Pn	05 52 55.1	-3.1
FLN	**La Foliniere**	9.14	291	*e*Pn	Pn	05 52 55.1	-3.1
	SNR=1.0						
GRR	**Gorron**	9.33	288	*e*Pn	Pn	05 52 59.1	-1.7
	SNR=1.0						
GRR	**Gorron**	9.33	288	*e*Pn	Pn	05 52 59.1	-1.7
GRR	**Gorron**	9.33	288	*e*Pn	Pn	05 52 59.1	-1.7
	SNR=1.0						
EKA	**Eskdalemuir Ar**	13.41	318	Pn	Pn	05 53 57.9	+1.3
EKA	**Eskdalemuir Ar**	13.41	318	Pn	Pn	05 53 57.8	+1.3
	comp=Z,0.1nm,0.3s,baz=131,slow=14,SNR=3.7						
EKA	**Eskdalemuir Ar**	13.41	318	Pn	Pn	05 53 57.8	+1.3
NOA	**NORSAR Array B**	14.82	358	Pn	Pn	05 54 15.9	+0.2
NOA	**NORSAR Array B**	14.82	358	Pn	Pn	05 54 15.9	+0.2
	comp=Z,0.1nm,0.3s,baz=61,slow=11,SNR=2.3						
NOA	**NORSAR Array B**	14.82	358	Pn	Pn	05 54 15.9	+0.2
VSU	**Vasula**	14.94	30	*e*P	Pn	05 54 16.1	-1.2
BRTR	**Keskin Array B**	16.76	105	Pn	Pn	05 54 33.2	-7.8
BRTR	**Keskin Array B**	16.76	105	*i* P	Pn	05 54 39.4	-1.7
BRTR				pmax	pmax		
	comp=Z,1.0nm,1.1s						
BRTR	**Keskin Array B**	16.76	105	Pn	Pn	05 54 33.2	-7.9
	comp=Z,0.0nm,0.3s,baz=188,slow=18,SNR=2.7						
FINES	**FINESS Array B**	17.11	23	P	Pn	05 54 45.1	-0.3
	comp=Z,0.3nm,0.3s,baz=216,slow=9.4,SNR=11						
ANN	**Anapa**	17.50	86	*e*P	Pn	05 54 55.7	+5.3
ANN				pmax	pmax		
	comp=Z,39nm,1.4s						
MKAR	**Makanchi Array**	46.52	63	P	P	05 59 11.9	-1.9
	comp=Z,0.1nm,0.5s,mb3.0,baz=299,slow=7.4,SNR=3.6						
SONM	**Songino Array**	59.96	51	P	P	06 00 51.1	-1.6
SONM				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SONM	**Songino Array**	59.96	51	P	P	06 00 51.1	-1.6
	comp=Z,0.5nm,0.7s,mb3.6,baz=266,slow=7.3,SNR=4.2						
TXAR	**Lajitas Array**	85.19	308	P	P	06 03 24.2	+1.0
	comp=Z,0.3nm,0.8s,mb3.5,baz=73,slow=3.8,SNR=3.6						

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*ISCJB **26** 05:57:15.4±2.1, 2084S±008×1756W±0.1, h33^{km}±23^{km}, mb4.6/9, MS3.5/1, Error ellipse: s-maj=19.6km s-min=10.5km az=29.6*

*IDC **26** 05:57:19.9±3.2, 2073S×17551W, h62^{km}±29^{km}, mb4.4/8, mb1 4.5/10, mb1mx4.2/20, mbtmp4.4/10, ML3.4/2, MS3.3/2, Ms1 3.3/2, ms1mx2.9/26, Error ellipse: s-maj=31.4km s-min=16.5km az=148.0*

*NEIC **26** 05:57:20.1±1.6, 2074S×17549W, h69^{km}±15^{km}, mb4.8/3, Error ellipse: s-maj=18.7km s-min=11.2km az=155.0*

ISC 26 05:57:19.8±1.5**, 2093S**±010×**1752W**±02**, h80**^{km}±20^{km}**, n35, σ1**^{s}**27**/20**, mb4.5**/9**, 1C, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	7.71	26	P	Pn	05 59 09.0	-0.4
	5.8nm,0.3s,baz=59,slow=20,SNR=5.7						
AFI				S	Sn	06 00 25.0	-10
	3.6nm,0.3s,baz=192,slow=23,SNR=3.2						
RAO	**Raoul Island**	8.64	196	S	Sn	06 00 57.7	-0.3
	98nm,0.3s,baz=228,slow=22,SNR=3.9						
RAR	**Rarotonga**	14.42	94	P	Pn	06 00 43.8	+3.9
	0.9nm,0.3s,baz=253,slow=11,SNR=3.1						
RAR				S	Sn	06 03 11.5	-7.1
	3.4nm,0.3s,baz=282,slow=20,SNR=5.5						
DZM	**Mont Dzumac**	17.11	263	P	Pn	06 01 17.2	+3.3
	0.9nm,0.3s,baz=97,slow=16,SNR=9.0						
DZM				LR	LR	06 05 34.4	
	comp=Z,61nm,20.2s,baz=336,slow=29						
URZ	**Urewera**	18.51	199	S	S	06 04 45.5	-11
	1.1nm,0.3s,baz=194,slow=22,SNR=6.4						
PAE	**Paea**	24.40	87	*e*T		06 27 51.5	
	31nm,0.3s						
PPT	**Papeete**	24.42	87	*e*LR	LR	06 08 38.5	
	155nm,32.0s						
PPT	**Papeete**	24.42	87	*e*T		06 27 36.1	
	3.9nm,0.3s						
TVO	**Taravao**	24.68	87	*e*T		06 28 01.2	
	6.6nm,0.3s						
RPZ	**Rata Peaks**	25.45	204	P	P	06 02 43.0	+2.9
	21nm,0.6s,mb4.8,baz=297,slow=2.3,SNR=14						
CTA	**Charters Tower**	36.05	264⇑	*i*P	P	06 04 14.5	+0.8
	7.7nm,0.4s,mb5.0						
CTA	**Charters Tower**	36.05	264	P	P	06 04 13.9	+0.1
	17nm,0.7s,mb5.1,baz=94,slow=11,SNR=16						
RKT	**Rikitea**	37.29	101	*e*T		06 43 41.5	
	3.6nm,0.2s						
PMG	**Port Moresby**	37.98	282	P	P	06 04 30.3	0.0
	21nm,0.7s,mb5.1,baz=105,slow=8.0,SNR=4.9						
STKA	**Stephens Creek**	39.97	245	*e*P	P	06 04 46.5	-0.1
	7.6nm,0.6s,mb4.7						
STKA	**Stephens Creek**	39.97	245	P	P	06 04 46.9	+0.3
	8.3nm,0.6s,mb4.8,baz=92,slow=9.5,SNR=35						
STKA				LR	LR	06 19 57.1	
	comp=Z,71nm,20.4s,baz=334,slow=34						
ASAR	**Alice Springs**	46.96	257	P	P	06 05 42.9	-0.1
	11nm,0.8s,mb4.7,baz=88,slow=8.4,SNR=91						
ASAR				PcP	PcP	06 07 15.9	+1.6
	1.3nm,0.6s,baz=106,slow=3.7,SNR=7.2						
WB2	**Warramunga Arr**	47.11	262	*e*P	P	06 05 43.2	-1.0
WRA	**Warramunga Arr**	47.12	262	P	P	06 05 43.3	-1.0
	9.0nm,0.6s,mb4.7,baz=96,slow=8.2,SNR=44						
WRA				PcP	PcP	06 07 16.3	+1.3
	0.5nm,0.5s,baz=95,slow=3.7,SNR=4.9						
MBWA	**Marble Bar**	60.30	257	*e*P	P	06 07 19.6	-0.9
	3.7nm,0.6s,mb4.6						
LENM	**Lemitar**	84.90	51	P	P	06 09 41.7	-4.4
TXAR	**Lajitas Array**	85.10	56	P	P	06 09 50.8	+3.5
	0.6nm,0.9s,mb3.5,baz=214,slow=6.0,SNR=4.5						
YKA	**Yellowknife Ar**	95.82	24	P	P	06 10 39.0	+2.3
	0.2nm,0.7s,mb3.7,baz=242,slow=4.6,SNR=4.5						
ARCES	**ARCESS Array B**	129.78	351	PKP	PKPdf	06 16 21.2	+2.0
ARCES	**ARCESS Array B**	129.78	351	PKP	PKPdf	06 16 21.2	+2.0
	1.3nm,0.8s,baz=8.5,slow=2.5,SNR=3.9						
AKASG	**Malin Array Be**	144.61	333	PKP	PKPdf	06 16 46.2	-0.8
AKASG	**Malin Array Be**	144.61	333	PKP	PKPdf	06 16 46.2	-0.8
	1.8nm,0.5s,baz=41,slow=4.2,SNR=7.1						
EKA	**Eskdalemuir Ar**	145.13	8	PKP	PKPdf	06 16 47.8	+0.1
EKA	**Eskdalemuir Ar**	145.13	8	PKP	PKPdf	06 16 47.8	+0.1
	2.7nm,0.8s,baz=339,slow=3.6,SNR=5.0						
CLL	**Collm**	149.00	350	*e*PKPbc	PKPbc	06 17 00.0	+1.6
BRTR	**Keskin Array B**	149.04	314	PKPbc	PKPbc	06 17 00.6	+1.7
BRTR	**Keskin Array B**	149.04	314	PKPbc	PKPbc	06 17 00.6	+1.7
	1.3nm,0.8s,baz=128,slow=3.8,SNR=5.2						
MMAI	**Mount Meron Ar**	150.29	300	PKPbc	PKPbc	06 17 04.0	+1.8
	1.5nm,0.4s,baz=98,slow=6.0,SNR=3.3						
GERES	**GERESS Array B**	151.24	348	PKPbc	PKPbc	06 17 04.8	+0.9
GERES	**GERESS Array B**	151.24	348	PKPbc	PKPbc	06 17 04.8	+0.9
	0.6nm,0.6s,baz=38,slow=2.4,SNR=4.8						

WEL 26 06:00:42.5±0.4**, 3841S×17603E, h153**^{km}±3^{km}**, ML3.7**/17**, Error ellipse: s-maj=3.1km s-min=2.7km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWVZ	**Taurewa**	0.81	215	PN	Pn	06 01 06.2	+0.2
BKZ	**Black Stump Fm**	0.84	155	PN	Pn	06 01 06.5	+0.3
BKZ				SN	Sn	06 01 24.7	+0.2
URZ	**Urewera**	0.86	81	*e*PN	Pn	06 01 06.2	-0.2
URZ				SN	Sn	06 01 24.6	-0.1
WPVZ	**Whakapapa**	0.88	205	PN	Pn	06 01 06.8	+0.3
TUVZ	**Tukino**	0.91	199	PN	Pn	06 01 07.2	+0.4
TRVZ	**Turoa**	0.97	203	PN	Pn	06 01 07.8	+0.5
WNVZ	**Wahianoa**	0.98	200	PN	Pn	06 01 07.7	+0.3
MOVZ	**Moawhango**	1.02	192	PN	Pn	06 01 07.6	-0.1
PKVZ	**Pokaka**	1.03	211	PN	Pn	06 01 07.7	0.0
MTVZ	**Mangateitei**	1.07	204	PN	Pn	06 01 08.2	+0.1
MWZ	**Matawai**	1.18	87	PN	Pn	06 01 09.5	+0.4
MWZ				SN	Sn	06 01 29.2	-0.2
KNZ	**Kokohu**	1.43	116	PN	Pn	06 01 11.9	+0.4
WAZ	**Wanganui**	1.57	211	PN	Pn	06 01 12.5	-0.5
TSZ	**Takapari Road**	1.65	182	PN	Pn	06 01 13.5	-0.4
PXZ	**Pawanui**	1.75	158	PN	Pn	06 01 14.9	0.0
MRZ	**Mangatainoka R**	2.28	189	PN	Pn	06 01 19.5	-1.6

KIW	**Kapiti Island**	**2.60**	**199**	PN	Pn	06 01 22.7	-2.3
MTW	**Mount Morrison**	**2.78**	**188**	PN	Pn	06 01 24.7	-2.5
CAW	**Cannon Point**	**2.80**	**195**	PN	Pn	06 01 25.0	-2.3
DUWZ	**D'Urville Isla**	**2.90**	**214**	PN	Pn	06 01 25.9	-2.7
MRW	**Makara Radio**	**3.00**	**199**	PN	Pn	06 01 27.2	-2.8
TRWZ	**Traveller**	**3.00**	**185**	PN	Pn	06 01 27.6	-2.3
PAWZ	**Paruwai Farm**	**3.01**	**189**	PN	Pn	06 01 27.5	-2.6
MSWZ	**Moikau Station**	**3.06**	**191**	PN	Pn	06 01 28.0	-2.7
SNZO	**South Karori**	**3.07**	**199**	PN	Pn	06 01 27.8	-3.0
TCW	**Tory Channel**	**3.11**	**205**	PN	Pn	06 01 28.4	-2.9
TUWZ	**Tuamarina**	**3.42**	**207**	PN	Pn	06 01 32.1	-3.1
KHZ	**Kahutara**	**4.43**	**205**	PN	Pn	06 01 44.7	-3.7

MEX 26 06:16:19.9±0.9**,1605N**×**9425W,h16**^{km}±264^{km}**,MD4.1,**
Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	**Huatulco**	**1.81**	**262**	*i* P	Pn	06 16 46.6	-3.9
HUIG				*i* S	Sn	06 17 08.3	-4.8
CCIG	**Comitan**	**2.04**	**83**	*i* P	Pn	06 16 51.0	-2.5
CCIG				*i* S	Sn	06 17 12.6	-6.1
VHO	**Vista Hermosa**	**2.59**	**294**	*i* P	Pn	06 16 58.2	-3.0
VHO				*i* S	Sn	06 17 28.6	-3.8
TEIG	**Tepich**	**7.03**	**53**	*i* P	Pn	06 18 01.0	-1.2
TEIG				*i* S	Sn	06 19 18.9	-3.1

CSEM ***26*** *06:23:55.9±0.1, 40.06N×42.52E, h5^{km}, MD2.9, Error ellipse: s-maj=3.3km s-min=2.8km az=70.0*
ISK ***26*** *06:23:56.3, 40.07N×42.59E, h5^{km}, MD2.8*
ISCJB ***26*** *06:23:57.6±0.6, 40.06N±0.03×42.58E±0.05, h8^{km}, Error ellipse: s-maj=5.8km s-min=4.3km az=162.8*
DDA ***26*** *06:23:57.8, 40.07N×42.67E, h8^{km}, Md2.9*
ISC 26 06:23:57.9±0.7**,4006N**±004×**4256E**±008**,h11**^{km}±14^{km}**,n9,**
σ**0§71**/17**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGRB	**Hanur-Agry**	**0.59**	**146**	PG	**Pg**	**06 24 08.7**	**-0.6**
AGRB				SG	**Sg**	**06 24 18.0**	**+0.9**
AGRB	**Hanur-Agry**	**0.59**	**146**	*e*Pg	**Pg**	**06 24 08.7**	**-0.6**
AGRB				*e*Sg	**Sg**	**06 24 18.0**	**+0.9**
KARS	**Kars**	**0.68**	**36**	PG	**Pg**	**06 24 10.0**	**-1.1**
KARS				SG	**Sg**	**06 24 20.9**	**+0.8**
KARS	**Kars**	**0.68**	**36**	*e*Pg	**Pg**	**06 24 10.0**	**-1.1**
KARS				*e*Sg	**Sg**	**06 24 20.9**	**+0.8**
TUTA	**Tutak**	**0.69**	**164**	*i* P	**Pg**	**06 24 10.5**	**-0.8**
TUTA				*i* S	**Sg**	**06 24 20.7**	**+0.5**
ERZM	**Erzurum**	**0.93**	**261**	*i* P	**Pb**	**06 24 16.3**	**+0.2**
ERZM				*i* S	**Sb**	**06 24 28.6**	**+0.1**
EZM	**Erzurum**	**0.94**	**261**	PG	**Pg**	**06 24 15.9**	**0.0**
ARTV	**Artvin**	**1.22**	**337**	*i* P	**Pn**	**06 24 20.1**	**-0.9**
ARTV				*i* S	**Sb**	**06 24 37.6**	**+0.8**
ARTV	**Artvin**	**1.22**	**337**	*i* P	**Pn**	**06 24 20.0**	**-0.9**
ARTV				*i* S	**Sb**	**06 24 37.6**	**+0.9**

ISCJB ***26*** *06:35:00.5±0.2, 42.87N±0.01×2.91W±0.02, h14^{km}, Error ellipse: s-maj=2.1km s-min=1.5km az=153.7*
MDD ***26*** *06:35:02.7±0.4, 42.79N×2.92W, h14^{km}±4^{km}, mbLg2.8/49, Error ellipse: s-maj=4.0km s-min=2.9km az=177.0, PRXIMO III CAICEDO YUSO N POBES III SALINAS DE ANA VOLORIA I LA PUEBLA DE N MORILLAS I TUESTE*
MDD EMS: III UELAS CAICEDO A.
INMG ***26*** *06:35:03.5±1.3, 42.74N×2.97W, h4^{km}±3^{km}, ML3.1, Error ellipse: s-maj=2.0km s-min=1.8km az=28.0*
LDG ***26*** *06:35:03.3±0.1, 42.81N×2.93W, h3^{km}, Md3.3/2, Ml3.5/27, Error ellipse: s-maj=1.5km s-min=1.0km az=152.0*
STR ***26*** *06:35:03.4±0.3, 42.78N×2.93W, h5^{km}, Ml3.3, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
NEIC ***26*** *06:35:03.5, 42.73N×2.96W, h2^{km}, ML3.3(STR), MN2.9(MDD), After MDD.*
NEIC Felt [III] at Basquinuelas, Caicedo Sopena, Caicedo Yuso, Lantaron, Pobes, Salines de Anana and Voloria.
CSEM ***26*** *06:35:03.3±0.0, 42.78N×2.92W, h5^{km}, ML3.6/37, Error ellipse: s-maj=1.1km s-min=0.7km az=138.0*
ISC 26 06:35:00.9±0.3**,4283N**±001×**294W**±001**,h5**^{km}±2^{km}**,n263,**
σ**1§31**/470**,2C-2D,Spain**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ECRI	**Cripan**	**0.39**	**125**	⇓Pg	**Pg**	**06 35 09.8**	**+1.5**
ECRI				Lg		06 35 15.8	
ECRI	**Cripan**	**0.39**	**125**	⇓Pg	**Pg**	**06 35 09.8**	**+1.5**
	93nm,0.1s,SNR=18						
ECRI				Lg		06 35 15.5	
	9.0nm,0.6s,SNR=7.9						
ECRI	**Cripan**	**0.39**	**125**	Pg	**Pg**	**06 35 09.8**	**+1.5**
	93nm,0.1s,SNR=18						
ELAN	**Lanestosa**	**0.54**	**318**	⇑Pg	**Pg**	**06 35 14.4**	**+3.1**
ELAN				Lg		06 35 23.9	
ELAN	**Lanestosa**	**0.54**	**318**	⇑Pg	**Pg**	**06 35 14.4**	**+3.1**
	121nm,0.1s,SNR=18						
ELAN				Lg		06 35 22.7	
	862nm,0.3s,SNR=16						
ELAN	**Lanestosa**	**0.54**	**318**	Pg	**Pg**	**06 35 14.4**	**+3.1**
	121nm,0.1s,SNR=18						
IUSE	**Utxeti**	**1.03**	**83**	Pg	**Pg**	**06 35 22.5**	**+1.9**
	36nm,0.3s,SNR=31						
IUSE				Lg		06 35 36.8	
	105nm,0.3s,SNR=8.4						
IUSE	**Utxeti**	**1.03**	**83**	Pg	**Pg**	**06 35 22.7**	**+2.1**
	36nm,0.3s,SNR=31						
ELIZ	**Elizondo**	**1.08**	**72**	Pg	**Pg**	**06 35 23.3**	**+1.6**
ELIZ				Lg		06 35 39.3	
ELIZ	**Elizondo**	**1.08**	**72**	Pg	**Pg**	**06 35 23.3**	**+1.6**
	94nm,0.2s,SNR=126						
ELIZ				Lg		06 35 38.9	
	240nm,0.5s,SNR=16						
ELIZ	**Elizondo**	**1.08**	**72**	Pg	**Pg**	**06 35 23.3**	**+1.6**
	94nm,0.2s,SNR=126						
IPRE	**Itoiz**	**1.16**	**91**	Pg	**Pg**	**06 35 24.5**	**+1.4**
	41nm,0.5s,SNR=30						
IPRE				Lg		06 35 40.8	
	65nm,0.3s,SNR=30						
IPRE	**Itoiz**	**1.16**	**91**	Pg	**Pg**	**06 35 24.8**	**+1.6**
	41nm,0.5s,SNR=30						
SJPF	**Ste Jean**	**1.29**	**77**	*e*Pn	**Pn**	**06 35 26.6**	**+1.1**
SJPF				*e*Sg	**Sg**	**06 35 44.4**	**+2.2**
	310nm,0.4s,SNR=1.0						
SJPF	**Ste Jean**	**1.29**	**77**	*e*Pn	**Pn**	**06 35 26.6**	**+1.1**
SJPF				*e*Sg	**Sg**	**06 35 44.4**	**+2.2**
SJPF	**Ste Jean**	**1.29**	**77**	Pn	**Pn**	**06 35 26.6**	**+1.1**
SJPF				Lg		06 35 44.4	
	155nm,0.4s						
SJPF	**Ste Jean**	**1.29**	**77**	*e*Pn	**Pn**	**06 35 26.6**	**+1.1**
SJPF				*e*Sg	**Sg**	**06 35 44.4**	**+2.2**
	155nm,0.4s,SNR=1.0						
OSSF	**Osses**	**1.30**	**70**	Pg	**Pg**	**06 35 26.6**	**+0.8**
OSSF				Sg	**Sg**	**06 35 44.8**	**+2.2**
OSSF	**Osses**	**1.30**	**70**	Pg	**Pg**	**06 35 26.6**	**+0.8**
OSSF				Sg	**Sg**	**06 35 44.8**	**+2.2**
OSSF	**Osses**	**1.30**	**70**	Pg	**Pg**	**06 35 26.6**	**+0.8**
OSSF				Sg	**Sg**	**06 35 44.8**	**+2.2**
LARF	**Larrau**	**1.45**	**81**	Pg	**Pg**	**06 35 29.5**	**+0.9**
LARF				Sg	**Sg**	**06 35 49.8**	**+2.5**
LARF	**Larrau**	**1.45**	**81**	Pg	**Pg**	**06 35 29.5**	**+0.9**
LARF				Sg	**Sg**	**06 35 49.8**	**+2.5**
LARF	**Larrau**	**1.45**	**81**	Pg	**Pg**	**06 35 29.5**	**+0.9**
LARF				Sg	**Sg**	**06 35 49.8**	**+2.5**
ORDF	**Ordiarp**	**1.52**	**75**	Pg	**Pg**	**06 35 30.6**	**+0.7**
ORDF				Sg	**Sg**	**06 35 51.5**	**+1.9**
ORDF	**Ordiarp**	**1.52**	**75**	Pg	**Pg**	**06 35 30.6**	**+0.7**
ORDF				Sg	**Sg**	**06 35 51.5**	**+1.9**
ORDF	**Ordiarp**	**1.52**	**75**	Pg	**Pg**	**06 35 30.6**	**+0.7**
ORDF				Sg	**Sg**	**06 35 51.5**	**+1.9**
ATE	**Arette**	**1.66**	**80**	Pg	**Pg**	**06 35 32.9**	**+0.2**
ATE				Sg	**Sg**	**06 35 55.1**	**+0.9**
ATE	**Arette**	**1.66**	**80**	Pg	**Pg**	**06 35 32.9**	**+0.2**
ATE				Sg	**Sg**	**06 35 55.1**	**+0.9**
ATE	**Arette**	**1.66**	**80**	Pg	**Pg**	**06 35 32.9**	**+0.2**
ATE				Sg	**Sg**	**06 35 55.1**	**+0.9**
EARI	**Arriondas**	**1.73**	**286**	Pn	**Pn**	**06 35 33.7**	**+2.1**
EARI				Lg		06 35 58.2	
EARI	**Arriondas**	**1.73**	**286**	Pn	**Pn**	**06 35 33.1**	**+1.5**
	18nm,0.3s,SNR=7.9						
EARI				Pg	**Pg**	**06 35 35.3**	**+1.2**
	9.3nm,0.5s,SNR=7.9						
EARI				Sn	**Sn**	**06 35 55.1**	**+1.0**
	12nm,0.6s,SNR=7.9						
EARI				Lg		06 35 58.2	
	152nm,0.4s,SNR=16						
EARI	**Arriondas**	**1.73**	**286**	Pn	**Pn**	**06 35 33.7**	**+2.1**
	18nm,0.3s,SNR=7.9						
ETSF	**Etsaut**	**1.75**	**87**	*e*Pn	**Pn**	**06 35 33.5**	**+1.6**
ETSF	**Etsaut**	**1.75**	**87**	*e*P	**Pg**	**06 35 35.1**	**+0.7**
	SNR=1.0						
ETSF				*e*Sn	**Sn**	**06 35 54.6**	**+0.1**
	SNR=1.0						
ETSF				*e*Sg	**Sg**	**06 35 58.3**	**+1.3**
	187nm,0.4s						
ETSF	**Etsaut**	**1.75**	**87**	*e*Pn	**Pn**	**06 35 33.5**	**+1.6**
ETSF				*e*P		06 35 35.1	
ETSF				*e*Sn	**Sn**	**06 35 54.6**	**+0.1**
ETSF				*e*Sg	**Sg**	**06 35 58.3**	**+1.3**
ETSF	**Etsaut**	**1.75**	**87**	Pn	**Pn**	**06 35 33.5**	**+1.6**
ETSF				Pg	**Pg**	**06 35 35.1**	**+0.7**
ETSF				Sn	**Sn**	**06 35 54.6**	**+0.1**
ETSF				Lg		06 35 58.3	
	93nm,0.4s						
ETSF	**Etsaut**	**1.75**	**87**	*e*Pn	**Pn**	**06 35 33.5**	**+1.6**
ETSF	**Etsaut**	**1.75**	**87**	*e*P	**Pg**	**06 35 35.1**	**+0.7**
	SNR=1.0						
ETSF				*e*Sn	**Sn**	**06 35 54.6**	**+0.1**
	SNR=1.0						
ETSF				*e*Sg	**Sg**	**06 35 58.3**	**+1.3**
	93nm,0.4s						
REYF	**Montagne du Re**	**1.88**	**82**	Pg	**Pg**	**06 35 35.9**	**-1.0**
REYF				Sg	**Sg**	**06 36 01.3**	**0.0**
REYF	**Montagne du Re**	**1.88**	**82**	Pg	**Pg**	**06 35 35.9**	**-1.0**
REYF				Sg	**Sg**	**06 36 01.3**	**0.0**
REYF	**Montagne du Re**	**1.88**	**82**	Pg	**Pg**	**06 35 35.9**	**-1.0**
REYF				Sg	**Sg**	**06 36 01.3**	**0.0**
ETOR	**Torete**	**2.12**	**162**	Pn	**Pn**	**06 35 37.8**	**+0.9**
ETOR				Pg	**Pg**	**06 35 40.6**	**-0.9**
ETOR				Sn	**Sn**	**06 36 02.7**	**-0.9**
ETOR				Lg		06 36 07.5	
ETOR	**Torete**	**2.12**	**162**	Pn	**Pn**	**06 35 37.4**	**+0.5**
	67nm,0.4s,SNR=51						
ETOR				Pg	**Pg**	**06 35 40.6**	**-0.9**
	57nm,0.3s,SNR=7.9						
ETOR				Sn	**Sn**	**06 36 02.9**	**-0.7**
	137nm,0.2s,SNR=5.0						
ETOR				Lg		06 36 08.3	
	320nm,0.6s,SNR=7.9						
ETOR	**Torete**	**2.12**	**162**	Pn	**Pn**	**06 35 37.8**	**+0.9**
	67nm,0.4s,SNR=51						
ESAC	**San Caprasio**	**2.14**	**120**	Pg	**Pg**	**06 35 40.5**	**-1.4**
ESAC				Sn	**Sn**	**06 36 04.4**	**+0.2**
ESAC				Lg		06 36 10.4	
ESAC	**San Caprasio**	**2.14**	**120**	Pn	**Pn**	**06 35 37.9**	**+0.6**
	23nm,1.6s,SNR=7.9						
ESAC				Pg	**Pg**	**06 35 41.8**	**-0.1**
	4.1nm,0.1s,SNR=7.9						
ESAC				Sn	**Sn**	**06 36 04.4**	**+0.2**
	387nm,0.4s,SNR=7.9						
ESAC				Lg		06 36 10.4	
	268nm,0.3s,SNR=7.9						
ESAC	**San Caprasio**	**2.14**	**120**	Pg	**Pg**	**06 35 40.5**	**-1.4**
	4.1nm,0.1s,SNR=7.9						
ESAC				Sn	**Sn**	**06 36 04.4**	**+0.2**
	387nm,0.4s,SNR=7.9						
VIEF	**Viey**	**2.18**	**88**	Pg	**Pg**	**06 35 39.8**	**-2.8**
VIEF	**Viey**	**2.18**	**88**	Pg	**Pg**	**06 35 39.8**	**-2.8**
LABF	**Labassere**	**2.22**	**83**	Pg	**Pg**	**06 35 40.7**	**-2.7**
LABF	**Labassere**	**2.22**	**83**	Pg	**Pg**	**06 35 40.7**	**-2.7**
EBIE	**Bielsa**	**2.27**	**93**	Pn	**Pn**	**06 35 40.9**	**+1.9**
EBIE				Sn	**Sn**	**06 36 09.6**	**+2.2**
EBIE	**Bielsa**	**2.27**	**93**	Pn	**Pn**	**06 35 40.2**	**+1.1**
	7.0nm,0.3s,SNR=25						
EBIE				Pg	**Pg**	**06 35 44.1**	**-0.3**
	15nm,1.3s,SNR=7.9						
EBIE				Sn	**Sn**	**06 36 08.9**	**+1.5**
	40nm,0.5s,SNR=6.7						
EBIE				Lg		06 36 14.5	
	38nm,1.2s,SNR=7.9						
EBIE	**Bielsa**	**2.27**	**93**	Pn	**Pn**	**06 35 40.9**	**+1.8**
	7.0nm,0.3s,SNR=25						
EBIE				Sn	**Sn**	**06 36 09.6**	**+2.2**
	40nm,0.5s,SNR=6.7						
GUD	**Guadarrama**	**2.37**	**203**	Pn	**Pn**	**06 35 40.8**	**+0.4**
GUD				Pg	**Pg**	**06 35 44.9**	**-1.4**
GUD				Lg		06 36 13.7	
GUD	**Guadarrama**	**2.37**	**203**	Pn	**Pn**	**06 35 40.8**	**+0.4**
	1.2nm,0.2s,SNR=7.9						
GUD				Pg	**Pg**	**06 35 44.9**	**-1.4**
	10nm,0.3s,SNR=7.9						
GUD				Sn	**Sn**	**06 36 09.2**	**-0.6**
	1.1nm,0.6s,SNR=7.9						
GUD				Lg		06 36 16.7	
	81nm,0.4s,SNR=7.9						
GUD	**Guadarrama**	**2.37**	**203**	Pn	**Pn**	**06 35 40.8**	**+0.4**
	1.2nm,0.2s,SNR=7.9						
RESF	**Ens**	**2.41**	**89**	Pg	**Pg**	**06 35 43.2**	**-3.8**
RESF	**Ens**	**2.41**	**89**	Pg	**Pg**	**06 35 43.2**	**-3.8**
EPF	**Esparros**	**2.41**	**84**	*e*Pn	**Pn**	**06 35 42.7**	**+1.7**
	SNR=1.0						
EPF				*e*Sn	**Sn**	**06 36 10.0**	**-0.9**
	SNR=1.0						
EPF				*e*Sg	**Sg**	**06 36 19.3**	**+0.9**
	75nm,0.4s						
EPF	**Esparros**	**2.41**	**84**	*e*Pn	**Pn**	**06 35 42.7**	**+1.7**
EPF				*e*Sn	**Sn**	**06 36 10.0**	**-0.9**
EPF				*e*Sg	**Sg**	**06 36 19.3**	**+0.9**
EPF	**Esparros**	**2.41**	**84**	Pn	**Pn**	**06 35 42.7**	**+1.7**
EPF				Sn	**Sn**	**06 36 10.0**	**-0.9**
EPF				Lg		06 36 19.3	
	38nm,0.4s						
EPF	**Esparros**	**2.41**	**84**	*e*Pn	**Pn**	**06 35 42.7**	**+1.7**
	SNR=1.0						
EPF				*e*Sn	**Sn**	**06 36 10.0**	**-0.9**
	SNR=1.0						
EPF				*e*Sg	**Sg**	**06 36 19.3**	**+0.9**
	38nm,0.4s						
ECAL	**Calabor**	**2.95**	**254**	Pn	**Pn**	**06 35 49.4**	**+0.9**
ECAL				Pg	**Pg**	**06 35 56.9**	**-0.6**
ECAL				Lg		06 36 35.3	
ECAL	**Calabor**	**2.95**	**254**	Pn	**Pn**	**06 35 49.4**	**+0.9**
	12nm,0.2s,SNR=25						
ECAL				Pg	**Pg**	**06 35 56.9**	**-0.6**
	57nm,0.4s,SNR=7.9						
ECAL				Sn	**Sn**	**06 36 25.0**	**+0.7**
	30nm,1.8s,SNR=7.9						
ECAL				Lg		06 36 36.7	
	79nm,0.3s,SNR=9.5						
ECAL	**Calabor**	**2.95**	**254**	Pn	**Pn**	**06 35 49.4**	**+1.0**
	12nm,0.2s,SNR=25						
ECAL	**Calabor**	**2.95**	**254**	Pg	**Pg**	**06 35 56.9**	**-0.6**
	57nm,0.4s,SNR=7.9						
PBRG	**Braganca**	**3.00**	**251**	*e*Pn	**Pn**	**06 35 50.0**	**+0.9**
PBRG				*e*Sg	**Sg**	**06 36 37.8**	**+0.4**
PBRG				A		06 36 39.6	
	57nm,0.4s						
PBRG	**Braganca**	**3.00**	**251**	Pn	**Pn**	**06 35 50.0**	**+0.9**
PBRG				Lg		06 36 37.8	
	28nm,0.4s						
PBRG	**Braganca**	**3.00**	**251**	*e*Pn	**Pn**	**06 35 50.0**	**+0.9**
PBRG				*e*Sg	**Sg**	**06 36 37.8**	**+0.4**
	57nm,0.4s						
SALF	**Salau**	**3.04**	**90**	Pn	**Pn**	**06 35 51.9**	**+2.3**
SALF	**Salau**	**3.04**	**90**	Pn	**Pn**	**06 35 51.9**	**+2.3**
SALF	**Salau**	**3.04**	**90**	Pn	**Pn**	**06 35 51.9**	**+2.3**
ERTA	**Horta de San J**	**3.08**	**126**	Pn	**Pn**	**06 35 50.5**	**+0.4**
ERTA				Pg	**Pg**	**06 35 58.9**	**-0.9**
ERTA				Lg		06 36 38.2	
ERTA	**Horta de San J**	**3.08**	**126**	Pn	**Pn**	**06 35 50.5**	**+0.4**
	2.2nm,0.2s,SNR=9.4						
ERTA				Pg	**Pg**	**06 35 58.6**	**-1.3**
	1.3nm,0.1s,SNR=7.9						
ERTA				Sn	**Sn**	**06 36 27.4**	**+0.1**
	21nm,1.7s,SNR=7.9						
ERTA				Lg		06 36 39.3	
	18nm,0.3s						
ERTA	**Horta de San J**	**3.08**	**126**	Pn	**Pn**	**06 35 50.5**	**+0.4**
	2.2nm,0.2s,SNR=9.4						
ERTA	**Horta de San J**	**3.08**	**126**	Pg	**Pg**	**06 35 58.9**	**-0.9**
	1.3nm,0.1s,SNR=7.9						
EMOS	**Mosqueruela**	**3.08**	**142**	Pn	**Pn**	**06 35 52.5**	**+2.3**
EMOS				Pg	**Pg**	**06 35 57.6**	**-2.3**
EMOS				Lg		06 36 39.6	
EMOS	**Mosqueruela**	**3.08**	**142**	Pn	**Pn**	**06 35 49.8**	**-0.4**
	0.4nm,0.1s,SNR=7.9						
EMOS				Pg	**Pg**	**06 35 58.2**	**-1.7**
	28nm,1.3s,SNR=7.9						
EMOS				Sn	**Sn**	**06 36 27.6**	**+0.2**
	2.5nm,3.4s,SNR=7.9						
EMOS				Lg		06 36 39.6	
	34nm,0.5s,SNR=7.9						
EMOS	**Mosqueruela**	**3.08**	**142**	Pn	**Pn**	**06 35 52.5**	**+2.3**
	0.4nm,0.1s,SNR=7.9						
EMOS	**Mosqueruela**	**3.08**	**142**	Pg	**Pg**	**06 35 57.6**	**-2.3**
	28nm,1.3s,SNR=7.9						
EPON	**Pontenova**	**3.13**	**281**	Pn	**Pn**	**06 35 52.3**	**+1.5**
EPON				Lg		06 36 41.5	
EPON	**Pontenova**	**3.13**	**281**	Pn	**Pn**	**06 35 51.7**	**+0.9**
	3.0nm,0.2s,SNR=11						
EPON				Pg	**Pg**	**06 35 59.6**	**-1.2**
	9.6nm,1.1s,SNR=7.9						
EPON				Sn	**Sn**	**06 36 29.5**	**+1.0**
	30nm,1.7s,SNR=7.9						
EPON				Lg		06 36 43.1	
	29nm,0.2s,SNR=5.6						
EPON	**Pontenova**	**3.13**	**281**	Pn	**Pn**	**06 35 52.3**	**+1.5**
	3.0nm,0.2s,SNR=11						
ERUA	**La Rua**	**3.14**	**263**	Pn	**Pn**	**06 35 52.5**	**+1.5**
ERUA	**La Rua**	**3.14**	**263**	Pn	**Pn**	**06 35 51.5**	**+0.6**
	51nm,0.1s,SNR=7.9						
ERUA				Pg	**Pg**	**06 35 59.8**	**-1.2**
	47nm,3.0s,SNR=7.9						
ERUA				Sn	**Sn**	**06 36 29.2**	**+0.5**
	7.4nm,1.6s,SNR=7.9						
ERUA				Lg		06 36 42.7	
	17nm,1.1s,SNR=7.9						
ERUA	**La Rua**	**3.14**	**263**	Pn	**Pn**	**06 35 52.5**	**+1.5**
	51nm,0.1s,SNR=7.9						
ESDC	**Sonseca Array**	**3.25**	**194**	Pn	**Pn**	**06 35 51.4**	**-1.1**
ESDC				Pg	**Pg**	**06 36 01.5**	**-1.6**
ESDC				Lg		06 36 43.5	
ESDC	**Sonseca Array**	**3.25**	**194**	Pn	**Pn**	**06 35 52.4**	**-0.1**
	1.5nm,0.2s,baz=15,slow=12,SNR=4.0						
ESDC				Pg	**Pg**	**06 36 01.5**	**-1.6**
	6.6nm,0.2s,baz=17,slow=18,SNR=7.9						
ESDC				Sn	**Sn**	**06 36 31.5**	**0.0**
	SNR=7.9						
ESDC				Lg		06 36 44.1	
	22nm,0.5s,baz=19,slow=29,SNR=7.9						
ESDC	**Sonseca Array**	**3.25**	**194**	Pn	**Pn**	**06 35 51.4**	**-1.1**
	1.5nm,0.2s,SNR=4.0						
ESDC	**Sonseca Array**	**3.25**	**194**	Pg	**Pg**	**06 36 01.5**	**-1.6**
	6.6nm,0.2s,SNR=7.9						
EPOB	**Poblet**	**3.33**	**115**	Pn	**Pn**	**06 35 53.6**	**0.0**
EPOB				Pg	**Pg**	**06 36 05.3**	**+0.5**
EPOB				Sn	**Sn**	**06 36 33.7**	**+0.1**
EPOB				Lg		06 36 46.9	
EPOB	**Poblet**	**3.33**	**115**	Pn	**Pn**	**06 35 53.6**	**0.0**
	0.6nm,0.2s,SNR=8.8						
EPOB				Pg	**Pg**	**06 36 03.4**	**-1.3**
	2.5nm,0.1s,SNR=7.9						
EPOB				Sn	**Sn**	**06 36 33.7**	**+0.1**
	5.4nm,0.3s,SNR=4.0						
EPOB				Lg		06 36 48.1	
	23nm,0.5s,SNR=4.0						
EPOB	**Poblet**	**3.33**	**115**	Pn	**Pn**	**06 35 53.6**	**0.0**
	0.6nm,0.2s,SNR=8.8						
EPOB	**Poblet**	**3.33**	**115**	Pg	**Pg**	**06 36 05.3**	**+0.6**
	2.5nm,0.1s,SNR=7.9						
EPOB				Sn	**Sn**	**06 36 33.7**	**+0.1**
	5.4nm,0.3s,SNR=4.0						
LFF	**La Frestale**	**3.39**	**50**	*e*Pn	**Pn**	**06 35 55.4**	**+1.0**
	SNR=1.0						
LFF				*e*Sn	**Sn**	**06 36 34.3**	**-0.7**
	SNR=1.0						
LFF				*e*Sg	**Sg**	**06 36 49.8**	**0.0**
	45nm,0.5s,SNR=1.0						
LFF	**La Frestale**	**3.39**	**50**	*e*Pn	**Pn**	**06 35 55.4**	**+1.0**
LFF				*e*Sn	**Sn**	**06 36 34.3**	**-0.7**
LFF				*e*Sg	**Sg**	**06 36 49.8**	**0.0**
LFF	**La Frestale**	**3.39**	**50**	Pn	**Pn**	**06 35 55.4**	**+1.0**
LFF				Lg		06 36 49.8	
	23nm,0.5s						
LFF	**La Frestale**	**3.39**	**50**	*e*Pn	**Pn**	**06 35 55.4**	**+1.0**
	SNR=1.0						
LFF				*e*Sn	**Sn**	**06 36 34.3**	**-0.7**
	SNR=1.0						
LFF				*e*Sg	**Sg**	**06 36 49.8**	**0.0**
	23nm,0.5s,SNR=1.0						
EMIR	**Miracle**	**3.43**	**104**	Pn	**Pn**	**06 35 58.1**	**+3.1**
EMIR				Lg		06 36 50.6	
EMIR	**Miracle**	**3.43**	**104**	Pn	**Pn**	**06 35 54.9**	**-0.1**
	2.3nm,0.5s,SNR=7.9						
EMIR				Lg		06 36 50.6	
	23nm,0.4s,SNR=7.9						
EMIR	**Miracle**	**3.43**	**104**	Pn	**Pn**	**06 35 58.1**	**+3.1**
	2.3nm,0.5s,SNR=7.9						
MVO	**Moncorvo**	**3.48**	**243**	*e*Pn	**Pn**	**06 35 56.2**	**+0.6**
MVO				*e*Sg	**Sg**	**06 36 51.6**	**-0.9**
MVO				A		06 36 54.1	
	41nm,0.4s						
MVO				A		06 37 03.5	
	57nm,0.6s						
MVO	**Moncorvo**	**3.48**	**243**	Pn	**Pn**	**06 35 56.2**	**+0.6**
MVO				Lg		06 36 51.6	
	20nm,0.4s						
MVO	**Moncorvo**	**3.48**	**243**	*e*Pn	**Pn**	**06 35 56.2**	**+0.6**
MVO				*e*Sg	**Sg**	**06 36 51.6**	**-0.9**
	57nm,0.6s						
ECHE	**Chera**	**3.56**	**155**	Pn	**Pn**	**06 35 58.1**	**+1.3**
ECHE				Pg	**Pg**	**06 36 07.6**	**-1.6**
ECHE				Lg		06 36 57.0	
ECHE	**Chera**	**3.56**	**155**	Pn	**Pn**	**06 35 57.2**	**+0.4**
	1.6nm,0.3s,SNR=7.9						
ECHE				Pg	**Pg**	**06 36 06.9**	**-2.2**
	5.9nm,0.4s,SNR=7.9						
ECHE				Sn	**Sn**	**06 36 39.1**	**-0.1**
	7.1nm,0.6s,SNR=7.9						
ECHE				Lg		06 36 55.1	
	8.9nm,0.6s,SNR=7.9						
ECHE	**Chera**	**3.56**	**155**	Pn	**Pn**	**06 35 58.1**	**+1.3**
	1.6nm,0.3s,SNR=7.9						
ECHE	**Chera**	**3.56**	**155**	Pg	**Pg**	**06 36 07.6**	**-1.5**
	5.9nm,0.4s,SNR=7.9						
MTLF	**Montolieu**	**3.81**	**81**	*e*Pn	**Pn**	**06 36 00.8**	**+0.6**
	SNR=1.0						
MTLF				*e*Sn	**Sn**	**06 36 44.2**	**-1.1**
	SNR=1.0						
MTLF				*e*Sg	**Sg**	**06 37 02.6**	**-0.6**
	25nm,0.7s						
MTLF	**Montolieu**	**3.81**	**81**	*e*Pn	**Pn**	**06 36 00.8**	**+0.6**
MTLF				*e*Sn	**Sn**	**06 36 44.2**	**-1.1**
MTLF				*e*Sg	**Sg**	**06 37 02.6**	**-0.6**
MTLF	**Montolieu**	**3.81**	**81**	Pn	**Pn**	**06 36 00.8**	**+0.6**
MTLF				Sn	**Sn**	**06 36 44.2**	**-1.1**
MTLF				Lg		06 37 02.6	
	13nm,0.7s						
MTLF	**Montolieu**	**3.81**	**81**	*e*Pn	**Pn**	**06 36 00.8**	**+0.6**
	SNR=1.0						
MTLF				*e*Sn	**Sn**	**06 36 44.2**	**-1.1**
	SNR=1.0						
MTLF				*e*Sg	**Sg**	**06 37 02.6**	**-0.6**
	13nm,0.7s						
PVRL	**Vila Real**	**3.88**	**248**	*e*Pn	**Pn**	**06 36 02.0**	**+0.8**
PVRL				*e*Sg	**Sg**	**06 37 04.1**	**-1.5**
PVRL				A		06 37 07.7	
	40nm,0.4s						
PVRL	**Vila Real**	**3.88**	**248**	Pn	**Pn**	**06 36 02.0**	**+0.8**
PVRL				Lg		06 37 04.1	
	20nm,0.4s						
PVRL	**Vila Real**	**3.88**	**248**	*e*Pn	**Pn**	**06 36 02.0**	**+0.8**
PVRL				*e*Sg	**Sg**	**06 37 04.1**	**-1.5**
	40nm,0.4s						
ELOB	**Lobios**	**3.92**	**257**	Pn	**Pn**	**06 36 02.3**	**+0.6**
ELOB				Pg	**Pg**	**06 36 15.1**	**-0.9**
ELOB				Lg		06 37 06.8	
ELOB	**Lobios**	**3.92**	**257**	Pn	**Pn**	**06 36 02.3**	**+0.6**
	0.1nm,0.1s,SNR=6.6						
ELOB				Pg	**Pg**	**06 36 14.7**	**-1.3**
	0.0nm,1.2s,SNR=7.9						
ELOB				Sn	**Sn**	**06 36 48.9**	**+0.8**
	5.6nm,1.1s,SNR=7.9						
ELOB				Lg		06 37 06.8	
	21nm,0.3s,SNR=7.9						
ELOB	**Lobios**	**3.92**	**257**	Pn	**Pn**	**06 36 02.3**	**+0.6**
	0.1nm,0.1s,SNR=6.6						
ELOB	**Lobios**	**3.92**	**257**	Pg	**Pg**	**06 36 15.1**	**-0.9**
	SNR=7.9						
PCAB	**Cabril**	**3.94**	**255**	*e*Pn	**Pn**	**06 36 02.6**	**+0.6**
PCAB				*e*Sg	**Sg**	**06 37 06.6**	**-0.9**
PCAB				A		06 37 08.9	
	43nm,0.7s						

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PCAB  Cabril          3.94 255  Pn    Pn   06 36 02.6 +0.6
PCAB                            Lg         06 37 06.6
      21nm,0.7s
PCAB  Cabril          3.94 255 ePn    Pn   06 36 02.6 +0.6
PCAB                           eSg    Sg   06 37 06.6 -0.9
      43nm,0.7s
RJF   Les Rejaudoux   4.05  51 ePn    Pn   06 36 04.2 +0.7
      SNR=1.0
RJF                            eSn    Sn   06 36 49.6 -1.7
      18nm,0.2s,SNR=1.0
RJF                            eSg    Sg   06 37 11.0 +0.1
RJF   Les Rejaudoux   4.05  51 ePn    Pn   06 36 04.2 +0.7
RJF                            eSn    Sn   06 36 49.6 -1.7
RJF                            eSg    Sg   06 37 11.0 +0.1
RJF   Les Rejaudoux   4.05  51  Pn    Pn   06 36 04.2 +0.7
RJF                             Lg         06 37 11.0
RJF   Les Rejaudoux   4.05  51 ePn    Pn   06 36 04.2 +0.7
      SNR=1.0
RJF                            eSn    Sn   06 36 49.6 -1.7
      8.8nm,0.2s,SNR=1.0
RJF                            eSg    Sg   06 37 11.0 +0.1
STS   Santiago        4.13 273  Pn    Pn   06 36 06.3 +1.7
STS                             Sn    Sn   06 36 53.8 +0.6
STS                             Lg         06 37 13.2
STS   Santiago        4.13 273  Pn    Pn   06 36 05.3 +0.7
      2.1nm,0.6s,SNR=7.9
STS                             Sn    Sn   06 36 53.8 +0.6
      5.5nm,0.5s,SNR=7.9
STS                             Lg         06 37 14.0
      4.5nm,0.6s,SNR=7.9
STS   Santiago        4.13 273  Pn    Pn   06 36 06.3 +1.7
      2.1nm,0.6s,SNR=7.9
STS                             Sn    Sn   06 36 53.8 +0.6
      5.5nm,0.5s,SNR=7.9
CAF   Calviac         4.18  58 ePn    Pn   06 36 06.0 +0.8
      SNR=1.0
CAF                            eSn    Sn   06 36 52.8 -1.6
      24nm,0.3s,SNR=1.0
CAF                            eSg    Sg   06 37 14.9 -0.1
      SNR=1.0
CAF   Calviac         4.18  58 ePn    Pn   06 36 06.0 +0.8
CAF                            eSn    Sn   06 36 52.8 -1.6
CAF                            eSg    Sg   06 37 14.9 -0.1
CAF   Calviac         4.18  58  Pn    Pn   06 36 06.0 +0.8
CAF                             Lg         06 37 14.9
CAF   Calviac         4.18  58 ePn    Pn   06 36 06.0 +0.8
      SNR=1.0
CAF                            eSn    Sn   06 36 52.8 -1.6
      12nm,0.3s,SNR=1.0
CAF                            eSg    Sg   06 37 14.9 -0.1
      SNR=1.0
EVIA  Vianos          4.20 175  Pg    Pg   06 36 20.5 -0.9
EVIA                            Lg         06 37 12.1
EVIA  Vianos          4.20 175  Pg    Pg   06 36 18.5 -2.9
      5.6nm,0.4s,SNR=7.9
EVIA                            Lg         06 37 14.5
      24nm,0.4s,SNR=7.9
EVIA  Vianos          4.20 175  Pg    Pg   06 36 20.5 -0.9
      5.6nm,0.4s,SNR=7.9
MTE   Manteigas       4.22 236 ePn    Pn   06 36 08.6 +2.7
MTE                            eSg    Sg   06 37 15.8 -0.7
MTE                             A          06 37 31.7
      44nm,0.6s
MTE   Manteigas       4.22 236  Lg         06 37 15.8
      22nm,0.6s
MTE   Manteigas       4.22 236 ePn    Pn   06 36 08.6 +2.7
MTE                            eSg    Sg   06 37 15.8 -0.7
      44nm,0.6s
MFF   Saint Martin d  4.26  27 ePn    Pn   06 36 07.3 +0.9
      SNR=1.0
MFF                            eSn    Sn   06 36 55.6 -0.9
      20nm,0.5s,SNR=1.0
MFF   Saint Martin d  4.26  27 ePn    Pn   06 36 07.3 +0.9
MFF                            eSn    Sn   06 36 55.6 -0.9
MFF   Saint Martin d  4.26  27  Pn    Pn   06 36 07.3 +0.9
MFF   Saint Martin d  4.26  27 ePn    Pn   06 36 07.3 +0.9
      SNR=1.0
MFF                            eSn    Sn   06 36 55.6 -0.9
      10.0nm,0.5s,SNR=1.0
PVIS  Viseu           4.27 242 ePn    Pn   06 36 07.6 +1.1
PVIS                           eSg    Sg   06 37 17.8 -0.2
PVIS                            A          06 37 27.7
      26nm,0.7s
PVIS  Viseu           4.27 242  Pn    Pn   06 36 07.6 +1.1
PVIS                            Lg         06 37 17.8
      13nm,0.7s
PVIS  Viseu           4.27 242 ePn    Pn   06 36 07.6 +1.1
EJON  La Jonquera     4.31  93  Pn    Pn   06 36 08.6 +1.5
EJON                            Sn    Sn   06 36 56.6 -1.2
EJON                            Lg         06 37 18.1
EJON  La Jonquera     4.31  93  Pn    Pn   06 36 08.2 +1.1
      0.9nm,0.2s,SNR=6.8
EJON                            Sn    Sn   06 36 58.3 +0.5
      6.6nm,0.5s,SNR=7.9
EJON                            Lg         06 37 19.0
      3.4nm,0.4s
EJON  La Jonquera     4.31  93  Pn    Pn   06 36 08.6 +1.5
      0.9nm,0.2s,SNR=6.8
EJON                            Sn    Sn   06 36 56.6 -1.2
      6.6nm,0.5s,SNR=7.9
ETOB  Tobarra         4.31 165  Pn    Pn   06 36 07.8 +0.6
ETOB                            Pg    Pg   06 36 22.3 -1.2
ETOB                            Lg         06 37 18.4
ETOB  Tobarra         4.31 165  Pn    Pn   06 36 07.8 +0.6
      6.8nm,0.4s,SNR=6.4
ETOB                            Pg    Pg   06 36 21.3 -2.2
      7.9nm,0.6s,SNR=7.9
ETOB                            Sn    Sn   06 36 57.2 -0.6
      8.7nm,2.1s,SNR=7.9
ETOB                            Lg         06 37 18.4
      8.5nm,0.3s,SNR=5.0
ETOB  Tobarra         4.31 165  Pn    Pn   06 36 07.8 +0.7
      6.8nm,0.4s,SNR=6.4
ETOB  Tobarra         4.31 165  Pg    Pg   06 36 22.3 -1.2
      7.9nm,0.6s,SNR=7.9
EZAM  Zamans          4.31 263  Pn    Pn   06 36 07.7 +0.6
EZAM                            Lg         06 37 17.7
EZAM  Zamans          4.31 263  Pn    Pn   06 36 07.7 +0.6
      2.3nm,0.2s,SNR=7.9
EZAM                            Sn    Sn   06 36 58.7 +0.9
      36nm,1.6s,SNR=7.9
EZAM                            Lg         06 37 20.3
      16nm,0.4s,SNR=7.9
EZAM  Zamans          4.31 263  Pn    Pn   06 36 07.7 +0.6
      2.3nm,0.2s,SNR=7.9
EMAZ  Mazaricos       4.44 274  Pn    Pn   06 36 09.3 +0.4
EMAZ                            Sn    Sn   06 36 57.8 -3.1
EMAZ                            Lg         06 37 23.9
EMAZ  Mazaricos       4.44 274  Pn    Pn   06 36 09.3 +0.4
      13nm,0.3s,SNR=37
EMAZ                            Sn    Sn   06 37 02.7 +1.7
      8.7nm,0.2s,SNR=7.9
EMAZ                            Lg         06 37 23.9
      5.8nm,0.2s,SNR=7.9
EMAZ  Mazaricos       4.44 274  Pn    Pn   06 36 09.3 +0.4
      13nm,0.3s,SNR=37
PCBR  Castelo Branco  4.54 230 eSg    Sg   06 37 24.8 -1.9
PCBR                            A          06 37 36.9
      28nm,0.6s
PCBR  Castelo Branco  4.54 230  Lg         06 37 24.8
      14nm,0.6s
EBEN  Beniarda        4.61 153  Pn    Pn   06 36 12.8 +1.6
EBEN  Beniarda        4.61 153  Pn    Pn   06 36 11.9 +0.7
      6.0nm,0.4s,SNR=6.6
EBEN                            Sn    Sn   06 37 04.9 -0.1
      0.0nm,0.8s,SNR=5.0
EBEN  Beniarda        4.61 153  Pn    Pn   06 36 12.8 +1.6
      6.0nm,0.4s,SNR=6.6
EBAN  Banos Encina    4.71 188  Pg    Pg   06 36 27.8 -3.3
      16nm,1.8s,SNR=7.9
EBAN                            Sn    Sn   06 37 06.9 -0.6
      3.7nm,0.6s,SNR=7.9
EBAN                            Lg         06 37 30.3
      16nm,0.7s,SNR=7.9
EADA  Adamuz          4.83 196  Pn    Pn   06 36 14.6 +0.5
EADA                            Pg    Pg   06 36 30.2 -3.1
EADA                            Sn    Sn   06 37 07.9 -2.5
EADA                            Lg         06 37 34.0
EADA  Adamuz          4.83 196  Pn    Pn   06 36 14.6 +0.5
      0.3nm,0.3s,SNR=7.9
EADA                            Pg    Pg   06 36 30.2 -3.1
      0.3nm,0.2s,SNR=7.9
EADA                            Sn    Sn   06 37 10.9 +0.5
      2.5nm,0.2s,SNR=7.9
EADA                            Lg         06 37 34.6
      39nm,0.6s,SNR=7.9
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EADA  Adamuz          4.83 196  Pn    Pn   06 36 14.6 +0.4
      0.3nm,0.3s,SNR=7.9
EADA  Adamuz          4.83 196  Pg    Pg   06 36 30.2 -3.1
      0.3nm,0.2s,SNR=7.9
EADA                            Sn    Sn   06 37 07.9 -2.5
      2.5nm,0.2s,SNR=7.9
EQES  Quesada         5.03 181  Pg    Pg   06 36 33.9 -3.3
EQES                            Lg         06 37 40.6
EQES  Quesada         5.03 181  Pg    Pg   06 36 33.9 -3.3
      2.8nm,0.3s,SNR=7.9
EQES                            Lg         06 37 40.6
      13nm,0.4s,SNR=7.9
EQES  Quesada         5.03 181  Pg    Pg   06 36 33.9 -3.2
      2.8nm,0.3s,SNR=7.9
TCF   Toulx Ste Croi  5.04  45 ePn    Pn   06 36 17.5 +0.3
      SNR=1.0
TCF                            eSn    Sn   06 37 13.7 -2.1
      13nm,0.3s,SNR=1.0
TCF                            eSg    Sg   06 37 42.2 -0.6
TCF   Toulx Ste Croi  5.04  45 ePn    Pn   06 36 17.5 +0.3
TCF                            eSn    Sn   06 37 13.7 -2.1
TCF                            eSg    Sg   06 37 42.2 -0.6
TCF   Toulx Ste Croi  5.04  45  Pn    Pn   06 36 17.5 +0.3
TCF                             Lg         06 37 42.2
TCF   Toulx Ste Croi  5.04  45 ePn    Pn   06 36 17.5 +0.3
      SNR=1.0
TCF                            eSn    Sn   06 37 13.7 -2.1
      6.3nm,0.3s,SNR=1.0
TCF                            eSg    Sg   06 37 42.2 -0.6
QUIF  Quistinic       5.09 358 ePn    Pn   06 36 18.6 +0.9
      SNR=1.0
QUIF                           eSn    Sn   06 37 14.1 -2.7
      9.6nm,0.2s
QUIF  Quistinic       5.09 358 ePn    Pn   06 36 18.6 +0.9
QUIF                           eSn    Sn   06 37 14.1 -2.7
QUIF  Quistinic       5.09 358  Pn    Pn   06 36 18.6 +0.9
QUIF  Quistinic       5.09 358 ePn    Pn   06 36 18.6 +0.9
      SNR=1.0
QUIF                           eSn    Sn   06 37 14.1 -2.7
      4.8nm,0.2s
LASF  Ste Croix       5.10  74 ePn    Pn   06 36 18.1 +0.2
LASF                           eSn    Sn   06 37 14.6 -2.5
      22nm,0.6s
LASF  Ste Croix       5.10  74 ePn    Pn   06 36 18.1 +0.2
LASF                           eSn    Sn   06 37 14.6 -2.5
LASF  Ste Croix       5.10  74  Pn    Pn   06 36 18.1 +0.2
LASF  Ste Croix       5.10  74 ePn    Pn   06 36 18.1 +0.2
LASF                           eSn    Sn   06 37 14.6 -2.5
      11nm,0.6s
EBAD  Badajoz         5.12 219  Pn    Pn   06 36 19.5 +1.3
EBAD                            Pg    Pg   06 36 37.2 -1.7
EBAD                            Sn    Sn   06 37 14.3 -3.3
EBAD                            Lg         06 37 43.8
EBAD  Badajoz         5.12 219  Pn    Pn   06 36 18.1  0.0
      1.0nm,1.1s,SNR=7.9
EBAD                            Pg    Pg   06 36 35.7 -3.1
      3.5nm,1.1s,SNR=7.9
EBAD                            Sn    Sn   06 37 17.1 -0.4
      0.3nm,0.3s,SNR=7.9
EBAD                            Lg         06 37 43.8
      25nm,0.6s,SNR=7.9
EBAD  Badajoz         5.12 219  Pn    Pn   06 36 19.5 +1.4
EBAD  Badajoz         5.12 219  Pg    Pg   06 36 37.2 -1.7
EMUR  La Murta        5.15 165  Pg    Pg   06 36 35.5 -4.0
      3.4nm,1.3s,SNR=7.9
EMUR                            Sn    Sn   06 37 18.8 +0.4
      2.4nm,1.3s,SNR=7.9
EMUR                            Lg         06 37 45.6
      12nm,1.1s,SNR=7.9
SGMF  Saint Gilles    5.43   3 ePn    Pn   06 36 23.3 +0.9
      SNR=1.0
SGMF                           eSn    Sn   06 37 22.7 -2.5
      7.6nm,0.2s
SGMF  Saint Gilles    5.43   3 ePn    Pn   06 36 23.3 +0.9
SGMF                           eSn    Sn   06 37 22.7 -2.5
SGMF  Saint Gilles    5.43   3  Pn    Pn   06 36 23.3 +0.9
SGMF  Saint Gilles    5.43   3 ePn    Pn   06 36 23.3 +0.9
      SNR=1.0
SGMF                           eSn    Sn   06 37 22.7 -2.5
      3.8nm,0.2s
ROSF  Rostrenen       5.51 358 ePn    Pn   06 36 24.4 +0.9
ROSF                           eSn    Sn   06 37 24.7 -2.5
      19nm,0.2s,SNR=1.0
ROSF  Rostrenen       5.51 358 ePn    Pn   06 36 24.4 +0.9
ROSF                           eSn    Sn   06 37 24.7 -2.5
ROSF  Rostrenen       5.51 358  Pn    Pn   06 36 24.4 +0.9
ROSF  Rostrenen       5.51 358 ePn    Pn   06 36 24.4 +0.9
ROSF                           eSn    Sn   06 37 24.7 -2.5
      9.6nm,0.2s,SNR=1.0
BGF   Bois d'Agland   5.55  46 ePn    Pn   06 36 24.7 +0.5
BGF                            eSn    Sn   06 37 25.4 -2.9
      41nm,0.4s
BGF                            eSg    Sg   06 37 58.1 -1.1
      SNR=1.0
BGF   Bois d'Agland   5.55  46 ePn    Pn   06 36 24.7 +0.5
BGF                            eSn    Sn   06 37 25.4 -2.9
BGF                            eSg    Sg   06 37 58.1 -1.1
BGF   Bois d'Agland   5.55  46  Pn    Pn   06 36 24.7 +0.5
BGF                             Lg         06 37 58.1
BGF   Bois d'Agland   5.55  46 ePn    Pn   06 36 24.7 +0.5
BGF                            eSn    Sn   06 37 25.4 -2.9
      21nm,0.4s
BGF                            eSg    Sg   06 37 58.1 -1.1
      SNR=1.0
PBAR  Barrancos       5.61 215 ePn    Pn   06 36 26.6 +1.7
PBAR                           eSg    Sg   06 37 58.2 -2.7
PBAR                            A          06 38 07.2
      20nm,0.5s
PBAR  Barrancos       5.61 215  Pn    Pn   06 36 26.6 +1.7
PBAR                            Lg         06 37 58.2
      9.9nm,0.5s
EQUE  Quentar         5.63 184  Pn    Pn   06 36 25.4 +0.1
      1.4nm,0.3s,SNR=7.9
EQUE                            Sn    Sn   06 37 30.1 -0.2
      2.9nm,1.6s,SNR=7.9
EQUE                            Lg         06 38 00.2
      7.9nm,0.4s,SNR=7.9
GRR   Gorron          5.74  14 ePn    Pn   06 36 26.8  0.0
      SNR=1.0
GRR                            eSn    Sn   06 37 30.2 -2.8
      9.7nm,0.3s,SNR=1.0
GRR   Gorron          5.74  14 ePn    Pn   06 36 26.8  0.0
GRR                            eSn    Sn   06 37 30.2 -2.8
GRR   Gorron          5.74  14  Pn    Pn   06 36 26.8  0.0
GRR   Gorron          5.74  14 ePn    Pn   06 36 26.8  0.0
      SNR=1.0
GRR                            eSn    Sn   06 37 30.2 -2.8
      4.8nm,0.3s,SNR=1.0
EMIN  Mina Concepcio  5.81 211  Pn    Pn   06 36 26.3 -1.4
EMIN                            Sn    Sn   06 37 29.9 -4.8
EMIN                            Lg         06 38 05.3
EMIN  Mina Concepcio  5.81 211  Pn    Pn   06 36 28.1 +0.5
      0.2nm,1.1s,SNR=7.9
EMIN                            Sn    Sn   06 37 35.5 +0.9
      5.6nm,1.2s,SNR=7.9
EMIN                            Lg         06 38 06.1
      5.2nm,0.3s,SNR=7.9
EMIN  Mina Concepcio  5.81 211  Pn    Pn   06 36 26.3 -1.4
VIVF  Saint-Julien-l  5.86  67 ePn    Pn   06 36 30.1 +1.7
      SNR=1.0
VIVF                           eSn    Sn   06 37 33.3 -2.6
      12nm,0.6s,SNR=1.0
VIVF  Saint-Julien-l  5.86  67 ePn    Pn   06 36 30.1 +1.7
VIVF                           eSn    Sn   06 37 33.3 -2.6
VIVF  Saint-Julien-l  5.86  67  Pn    Pn   06 36 30.1 +1.7
VIVF  Saint-Julien-l  5.86  67 ePn    Pn   06 36 30.1 +1.7
      SNR=1.0
VIVF                           eSn    Sn   06 37 33.3 -2.6
      5.8nm,0.6s,SNR=1.0
EBER  Berja           5.93 180  Pg    Pg   06 36 49.7 -4.7
      5.5nm,1.2s,SNR=7.9
EBER                            Lg         06 38 10.5
      5.2nm,0.5s,SNR=7.9
HYF   Humbligny       5.94  40 eSn    Sn   06 37 35.8 -2.0
HYF   Humbligny       5.94  40 eSn    Sn   06 37 35.8 -2.0
MOE   Montemor        5.96 226 eSg    Sg   06 38 08.3 -3.8
AVF   Avril sur Loir  5.97  46 ePn    Pn   06 36 30.0 +0.1
AVF                            eSn    Sn   06 37 35.8 -2.8
      6.2nm,0.4s,SNR=1.0
AVF                            eSg    Sg   06 38 11.8 -0.7
AVF   Avril sur Loir  5.97  46 ePn    Pn   06 36 30.0 +0.1
AVF                            eSn    Sn   06 37 35.8 -2.8
AVF                            eSg    Sg   06 38 11.8 -0.7
AVF   Avril sur Loir  5.97  46  Pn    Pn   06 36 30.0 +0.1
AVF                             Lg         06 38 11.8
```

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AVF   Avril sur Loir  5.97  46 ePn    Pn   06 36 30.0 +0.1
AVF                            eSn    Sn   06 37 35.8 -2.8
      3.1nm,0.4s,SNR=1.0
AVF                            eSg    Sg   06 38 11.8 -0.7
LDF   La Druitiere    6.09  18 ePn    Pn   06 36 32.2 +0.7
LDF                            eSn    Sn   06 37 39.3 -2.2
      3.9nm,0.3s,SNR=1.0
LDF   La Druitiere    6.09  18 ePn    Pn   06 36 32.2 +0.7
LDF                            eSn    Sn   06 37 39.3 -2.2
LDF   La Druitiere    6.09  18 ePn    Pn   06 36 32.2 +0.7
LDF                            eSn    Sn   06 37 39.3 -2.2
      2.0nm,0.3s,SNR=1.0
SMF   Signal de Mont  6.15  49 ePn    Pn   06 36 32.3  0.0
SMF                            eSn    Sn   06 37 40.3 -2.7
      6.9nm,0.4s
SMF   Signal de Mont  6.15  49 ePn    Pn   06 36 32.3  0.0
SMF                            eSn    Sn   06 37 40.3 -2.7
SMF   Signal de Mont  6.15  49  Pn    Pn   06 36 32.3  0.0
SMF   Signal de Mont  6.15  49 ePn    Pn   06 36 32.3  0.0
SMF                            eSn    Sn   06 37 40.3 -2.7
      3.5nm,0.4s
FLN   La Foliniere    6.17  15 ePn    Pn   06 36 33.1 +0.5
      baz=201,SNR=1.0
FLN                            eSn    Sn   06 37 39.7 -3.9
      9.5nm,0.4s
FLN   La Foliniere    6.17  15 ePn    Pn   06 36 33.1 +0.5
FLN                            eSn    Sn   06 37 39.7 -3.9
FLN   La Foliniere    6.17  15  Pn    Pn   06 36 33.1 +0.5
FLN   La Foliniere    6.17  15 ePn    Pn   06 36 33.1 +0.5
      SNR=1.0
FLN                            eSn    Sn   06 37 39.7 -3.9
      4.8nm,0.4s
SSF   Saint Saulge    6.22  45 ePn    Pn   06 36 33.6 +0.2
      SNR=1.0
SSF                            eSn    Sn   06 37 41.0 -3.9
      10nm,0.4s
SSF                            eSg    Sg   06 38 18.9 -1.8
SSF   Saint Saulge    6.22  45 ePn    Pn   06 36 33.6 +0.2
SSF                            eSn    Sn   06 37 41.0 -3.9
SSF                            eSg    Sg   06 38 18.9 -1.8
SSF   Saint Saulge    6.22  45  Pn    Pn   06 36 33.6 +0.2
SSF   Saint Saulge    6.22  45 ePn    Pn   06 36 33.6 +0.2
      SNR=1.0
SSF                            eSn    Sn   06 37 41.0 -3.9
      5.1nm,0.4s
SSF                            eSg    Sg   06 38 18.9 -1.8
EGRO  El Granado      6.33 215  Pn    Pn   06 36 34.6 -0.3
      4.3nm,1.2s,SNR=7.9
EGRO                            Lg         06 38 23.4
      1.1nm,0.2s,SNR=7.9
LOR   Lormes          6.54  45 ePn    Pn   06 36 38.5 +0.8
      baz=226
LOR                            eSn    Sn   06 37 50.2 -2.5
      5.1nm,0.3s
LOR                            eSg    Sg   06 38 28.5 -2.4
LOR   Lormes          6.54  45 ePn    Pn   06 36 38.5 +0.8
LOR                            eSn    Sn   06 37 50.2 -2.5
LOR                            eSg    Sg   06 38 28.5 -2.4
LOR   Lormes          6.54  45  Pn    Pn   06 36 38.5 +0.8
LOR   Lormes          6.54  45 ePn    Pn   06 36 38.5 +0.8
LOR                            eSn    Sn   06 37 50.2 -2.5
      2.5nm,0.3s
LOR                            eSg    Sg   06 38 28.5 -2.4
PVAQ  Vaqueiros       6.54 216 eSg    Sg   06 38 30.3 -0.7
PVAQ                            A          06 38 42.5
      11nm,0.2s
PVAQ  Vaqueiros       6.54 216  Lg         06 38 30.3
      5.3nm,0.2s
ORIF  Oris-en-Rattie  6.70  69 ePn    Pn   06 36 42.2 +2.3
ORIF                           eSn    Sn   06 37 53.8 -2.8
      6.2nm,0.6s
ORIF  Oris-en-Rattie  6.70  69 ePn    Pn   06 36 42.2 +2.3
ORIF                           eSn    Sn   06 37 53.8 -2.8
ORIF  Oris-en-Rattie  6.70  69  Pn    Pn   06 36 42.2 +2.3
ORIF  Oris-en-Rattie  6.70  69 ePn    Pn   06 36 42.2 +2.3
ORIF                           eSn    Sn   06 37 53.8 -2.8
      3.1nm,0.6s
MBDF  Montbardon      7.28  72 ePn    Pn   06 36 47.6 -0.2
      SNR=1.0
MBDF  Montbardon      7.28  72 ePn    Pn   06 36 47.6 -0.2
MBDF  Montbardon      7.28  72  Pn    Pn   06 36 47.6 -0.2
LPG   La Plagne       7.46  66 eSn    Sn   06 38 11.9 -3.3
      4.4nm,0.7s,SNR=1.0
LPG   La Plagne       7.46  66 eSn    Sn   06 38 11.9 -3.3
      2.2nm,0.7s,SNR=1.0
BAIF  Baives          8.75  32 ePn    Pn   06 37 09.0 +1.1
BAIF                           eSn    Sn   06 38 41.1 -5.7
      2.8nm,0.2s
BAIF  Baives          8.75  32 ePn    Pn   06 37 09.0 +1.1
BAIF                           eSn    Sn   06 38 41.1 -5.7
BAIF  Baives          8.75  32  Pn    Pn   06 37 09.0 +1.1
BAIF  Baives          8.75  32 ePn    Pn   06 37 09.0 +1.1
BAIF                           eSn    Sn   06 38 41.1 -5.7
      1.4nm,0.2s
GIVF  Givet           9.03  34 ePn    Pn   06 37 12.5 +0.7
GIVF                           eSn    Sn   06 38 49.2 -4.5
      10nm,0.3s
GIVF  Givet           9.03  34 ePn    Pn   06 37 12.5 +0.7
GIVF                           eSn    Sn   06 38 49.2 -4.5
GIVF  Givet           9.03  34  Pn    Pn   06 37 12.5 +0.7
GIVF  Givet           9.03  34 ePn    Pn   06 37 12.5 +0.7
GIVF                           eSn    Sn   06 38 49.2 -4.5
      5.1nm,0.3s
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*ISCJB **26** 06:39:12.8±1.2, 16.50N±0.04×98.98W±0.02, h6km±8km,*
mb4.4/26, MS3.8/9, Error ellipse: s-maj=6.4km
s-min=3.5km az=17.6
*IDC **26** 06:39:12.5±1.6, 16.54N×98.98W, h0km, mb4.3/5,*
mb1 4.4/10, mb1mx4.1/22, mbtmp4.2/10, ML3.6/5, MS3.7/10,
Ms1 3.7/10, ms1mx3.4/29, Error ellipse: s-maj=32.6km
s-min=16.0km az=26.0
*MEX **26** 06:39:15.6±0.6, 16.35N×99.11W, h24km±12km, MD4.6*
*BJI **26** 06:39:15.4, 16.30N×99.10W, h16km, mB5.3, Ms4.8, Msz4.7*
*NEIC **26** 06:39:15.4, 16.33N×99.13W, h16km, mb4.5/24,*
MD4.6(MEX), After MEX.
ISC 26 06:39:16.1±1.4**, 16.49N**±0.04×**98.91W**±0.03**, h18**km±9km**,**
n191, σ0.96/216**, mb4.4**/26**, MS3.8**/9**, 37C-29D, Near coast**
of Guerrero

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Code  Station Name     Δ°  AZ°    Phase ID         Time    Res
                                 Op     ISC       h  m  s  ISC
PNIG  Pinotepa        0.76  97  i P   Pb   06 39 30.5 -0.2
PNIG                            i S   Sb   06 39 42.3 +1.6
ACX   Acapulco        1.03 291  i P   Pb   06 39 28.9 -6.5
ACX                             i S   Sb   06 39 40.7 -7.9
ACX   Acapulco        1.03 291  i P   Pb   06 39 28.9 -6.5
ACX                             i S   Sb   06 39 40.2 -8.5
CAIG  El Cayaco       1.41 293  i P   Pn   06 39 36.1 -4.8
CAIG                            i S   Sn   06 39 50.7 -8.3
CAIG                            i S   Sn   06 39 53.0 -6.0
CAIG  El Cayaco       1.41 293  i P   Pn   06 39 36.1 -4.8
CAIG                            i S   Sn   06 39 50.7 -8.3
MEIG  Mezcala         1.58 335  i P   Pn   06 39 40.2 -3.0
MEIG                            i S   Sn   06 40 00.4 -2.7
UTMO  Huajuapan       1.70  38  i P   Pn   06 39 44.1 -0.7
UTMO                            i S   Sn   06 40 07.6 +1.4
PLIG  Platanillo      1.97 343  i P   Pn   06 39 46.4 -2.2
PLIG                            i S   Sn   06 40 10.8 -2.1
VHO   Vista Hermosa   2.17  74  i P   Pn   06 39 51.2  0.0
VHO                             i P        06 39 51.6
VHO                             i S   Sn   06 40 18.1 +0.5
VHO                             i S   Sn   06 40 23.7 +6.1
VHO   Vista Hermosa   2.17  74  i P   Pn   06 39 51.2  0.0
VHO                             i S   Sn   06 40 18.1 +0.5
YAIG  Yautepec        2.36 356  i P   Pn   06 39 53.3 -0.6
YAIG                            i S   Sn   06 40 22.1 -0.4
TPIG  Tehuac#an       2.42  37  i P   Pn   06 39 53.8 -1.0
TPIG                            i S   Sn   06 40 26.2 +2.3
ZIIG  Zihuatanejo     2.68 295  i P   Pn   06 39 53.5 -4.9
ZIIG                            i S   Sn   06 40 23.4 -7.0
HUIG  Huatulco        2.79 105  i P   Pn   06 39 59.3 -0.5
HUIG                            i S   Sn   06 40 31.6 -1.4
IIO   Organos         3.09   3  e P   Pn   06 40 06.2 +2.3
IIO                             i S   Sn   06 40 46.8 +6.4
PTVM  Pico Tres Padr  3.09 356  e P   Pn   06 40 04.2 +0.3
PTVM                            i S   Sn   06 40 44.8 +4.3
PTVM  Pico Tres Padr  3.09 356  e P   Pn   06 40 03.2 -0.7
PTVM                            i S   Sn   06 40 40.8 +0.3
MOIG  Morelia         3.84 326  e P   Pn   06 40 13.8 -0.4
MOIG                            i S   Sn   06 40 58.7 -0.2
MOIG  Morelia         3.84 326  e P   Pn   06 40 12.1 -2.1
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MOIG				*i* S	**Sn**	**06 40 54.4**	**-4.6**
CMIG	**Matias Romero**	**3.90**	**81**	Pn	**Pn**	**06 40 14.7**	**-0.4**
CMIG				Sn	**Sn**	**06 41 04.8**	**+4.2**
CMIG				Lg		06 41 19.3	
CMIG	**Matias Romero**	**3.90**	**81**	Pn	**Pn**	**06 40 14.7**	**-0.4**
	4.1nm,0.3s,baz=255,slow=9.4,SNR=72						
CMIG				Sn	**Sn**	**06 41 04.8**	**+4.2**
	14nm,0.3s,baz=280,slow=15,SNR=4.8						
CMIG				Lg		06 41 19.3	
	48nm,0.3s,baz=355,slow=13,SNR=11						
LVIG	**Laguna Verde**	**3.99**	**36**	*i* P	**Pn**	**06 40 22.4**	**+6.1**
LVIG				*i* S	**Sn**	**06 41 10.8**	**+8.0**
TUIG	**Tuzandepetl**	**4.55**	**70**	*i* P	**Pn**	**06 40 22.9**	**-1.2**
TUIG				*i* P		06 40 23.4	
TUIG				*i* S	**Sn**	**06 41 17.7**	**+1.1**
TUIG				*i* S	**Sn**	**06 41 19.5**	**+3.0**
TUIG	**Tuzandepetl**	**4.55**	**70**	*i* P	**Pn**	**06 40 23.4**	**-0.7**
TUIG				*i* S	**Sn**	**06 41 17.7**	**+1.1**
MMIG	**Aquila**	**4.60**	**294**	*i* P	**Pn**	**06 40 20.9**	**-3.8**
MMIG				*i* S	**Sn**	**06 41 11.7**	**-5.9**
CCIG	**Comitan**	**6.50**	**91**	*i* P	**Pn**	**06 40 51.9**	**+0.9**
CCIG				*i* S	**Sn**	**06 42 02.3**	**-2.4**
CJM	**Chamela**	**6.56**	**298**	*e*S	**Sn**	**06 42 00.8**	**-5.1**
ANIG	**Ahuacatlan**	**6.99**	**311**	*i* P	**Pn**	**06 40 57.9**	**+0.4**
ANIG				*i* S	**Sn**	**06 42 12.8**	**-3.7**
ZAIG	**Zacatecas**	**7.13**	**332**	*i* P	**Pb**	**06 41 22.7**	**+3.3**
ZAIG				*i* S	**Sn**	**06 42 29.7**	**+10**
ZAIG	**Zacatecas**	**7.13**	**332**	*i* P	**Pn**	**06 41 01.6**	**+2.1**
ZAIG				*i* S	**Sn**	**06 42 22.3**	**+2.1**
LNIG	**Linares**	**8.38**	**357**	*i* P	**Pn**	**06 41 17.6**	**+0.9**
LNIG				*i* S	**Sn**	**06 42 51.1**	**+0.2**
TEIG	**Tepich**	**10.76**	**68**	Pn	**Pn**	**06 41 47.9**	**-1.4**
TEIG				Pn	**Pn**	**06 41 51.6**	**+2.4**
TEIG				Sn	**Sn**	**06 43 45.4**	**-3.9**
TEIG				LR	LR	06 46 53.4	
TEIG	**Tepich**	**10.76**	**68**	Pn	**Pn**	**06 41 47.8**	**-1.4**
	0.9nm,0.3s,baz=329,slow=22,SNR=18						
TEIG				Sn	**Sn**	**06 43 45.4**	**-3.9**
	1.1nm,0.3s,baz=354,slow=23,SNR=3.2						
TEIG				LR	LR	06 46 53.3	
	comp=Z,502nm,20.2s,baz=210,slow=43						
LTX	**Lajitas**	**13.51**	**342**	*e*Pn	**Pn**	**06 42 27.3**	**+0.4**
TXAR	**Lajitas Array**	**13.51**	**342**	Pn	**Pn**	**06 42 26.6**	**-0.2**
TXAR				Lg		06 46 24.7	
TXAR				LR	LR	06 48 28.6	
TXAR	**Lajitas Array**	**13.51**	**342**	Pn	**Pn**	**06 42 26.6**	**-0.3**
	0.0nm,0.3s,baz=157,slow=16,SNR=10						
TXAR				Lg		06 46 24.7	
	0.0nm,0.3s,baz=154,slow=29,SNR=8.8						
TXAR				LR	LR	06 48 28.6	
	comp=Z,205nm,19.9s,baz=10.0,slow=41						
JCT	**Junction City**	**13.95**	**357**	*e*Pn	**Pn**	**06 42 32.2**	**-0.7**
JTS	**JuntasAbangare**	**14.91**	**113**	*e*Pn	**Pn**	**06 42 49.3**	**+3.2**
	13nm,1.0s						
JTS	**JuntasAbangare**	**14.91**	**113**	Pn	**Pn**	**06 42 47.5**	**+1.4**
	0.5nm,0.3s,baz=182,slow=9.3,SNR=5.4						
NATX	**Nacogdoches**	**15.69**	**14**	*e*Pn	**Pn**	**06 42 58.9**	**+2.7**
MNTX	**Cornudas Mount**	**16.24**	**340**	*e*Pn	**Pn**	**06 43 02.6**	**-0.8**
GDL2	**Guadalupe Moun**	**16.40**	**343**	*e*Pn	**Pn**	**06 43 07.6**	**+2.2**
WMOK	**Wichita Mounta**	**18.17**	**0**	*e*P	**Pn**	**06 43 28.2**	**+0.8**
AMTX	**Amarillo**	**18.48**	**353**	*e*P	**Pn**	**06 43 29.7**	**-1.6**
MIAR	**Mount Ida**	**18.61**	**14**	*e*P	**Pn**	**06 43 29.9**	**-2.9**
	19nm,1.1s						
BNM	**Barren Site**	**18.90**	**340**	*e*P	**Pn**	**06 43 36.1**	**-0.3**
LAZ	**Ladron**	**19.30**	**339**	P	**Pn**	**06 43 41.1**	**-0.1**
ANMO	**Albuquerque**	**19.59**	**341**	P	**Pn**	**06 43 42.0**	**-2.6**
ANMO				Lg		06 49 46.3	
ANMO				LR	LR	06 51 49.1	
ANMO	**Albuquerque**	**19.59**	**341**	P	**Pn**	**06 43 42.0**	**-2.6**
	0.1nm,0.3s,baz=159,slow=10,SNR=17						
ANMO				Lg		06 49 46.3	
	0.1nm,0.3s,baz=51,slow=20,SNR=3.1						
ANMO				LR	LR	06 51 49.1	
	comp=Z,516nm,21.9s,baz=276,slow=39						
116A	**Eloy**	**19.75**	**326**	⇑P	**Pn**	**06 43 45.0**	**-1.6**
	baz=20						
OXF	**Oxford**	**19.87**	**24**	*e*P	**Pn**	**06 43 44.3**	**-3.6**
115A	**Sonoran Desert**	**20.14**	**326**	⇑P	**P**	**06 43 49.8**	**+0.6**
	baz=20,SNR=5.4						
PLAL	**Pickwick Lake**	**20.81**	**26**	*e*P	**P**	**06 43 56.4**	**-0.1**
	16nm,1.0s						
Z14A	**Wintersburg**	**21.04**	**326**	⇑P	**P**	**06 43 59.4**	**+0.4**
	baz=21						
Y14A	**Wickenburg**	**21.51**	**326**	P	**P**	**06 44 04.5**	**+0.4**
	baz=21,SNR=11						
X15A	**Humboldt**	**21.54**	**329**	P	**P**	**06 44 04.6**	**+0.2**
	baz=21,SNR=6.8						
X14A	**Yava**	**21.86**	**328**	P	**P**	**06 44 08.1**	**+0.3**
	baz=22,SNR=5.4						
Y13A	**Salome**	**21.86**	**325**	⇓P	**P**	**06 44 07.8**	**0.0**
	baz=22,SNR=9.9						
SDCO	**Great Sand Dun**	**21.96**	**346**	*e*P	**P**	**06 44 09.7**	**+0.9**
	6.3nm,1.0s,mb4.0						
WUAZ	**Wupatki**	**21.97**	**332**	*e*P	**P**	**06 44 10.2**	**+1.2**
	26nm,0.9s,mb4.7						
WUAZ	**Wupatki**	**21.97**	**332**	⇑P	**P**	**06 44 09.2**	**+0.2**
	baz=22,SNR=5.3						
W15A	**Williams**	**22.11**	**330**	⇓P	**P**	**06 44 10.4**	**0.0**
	baz=22						
Y12C	**Blythe**	**22.20**	**324**	⇑P	**P**	**06 44 11.5**	**0.0**
	baz=22						
MVCO	**Mesa Verde**	**22.31**	**339**	*e*P	**P**	**06 44 12.0**	**-0.6**
	90nm,1.6s,mb5.0						
MVCO	**Mesa Verde**	**22.31**	**339**	P	**P**	**06 44 11.9**	**-0.7**
	baz=22,SNR=12						
PDMCI	**Parker Dam,Lak**	**22.39**	**325**	⇓P	**P**	**06 44 14.0**	**+0.5**
	baz=22						
X13A	**Yucca**	**22.45**	**326**	⇓P	**P**	**06 44 14.4**	**+0.3**
	baz=22						
W14A	**Seligman**	**22.54**	**328**	⇓P	**P**	**06 44 15.5**	**+0.4**
	baz=22						
BC3	**Big Chuckw Mtn**	**22.67**	**322**	⇑P	**P**	**06 44 17.3**	**+0.8**
	baz=23						
FVM	**French Village**	**22.68**	**18**	*e*P	**P**	**06 44 15.5**	**-0.9**
SIUC	**Southern Illin**	**22.80**	**20**	*e*P	**P**	**06 44 16.5**	**-1.4**
	19nm,1.0s,mb4.5						
CPCT	**Cooper Cave**	**22.84**	**32**	*e*P	**P**	**06 44 17.9**	**-0.3**
IRM	**Iron Mountain**	**22.86**	**323**	P	**P**	**06 44 18.7**	**+0.3**
	baz=23,SNR=11						
NEE2	**Needles Airpor**	**23.00**	**325**	⇑P	**P**	**06 44 19.9**	**-0.1**
	baz=23						
109C	**Camp Elliot, M**	**23.17**	**318**	⇑P	**P**	**06 44 22.5**	**+0.7**
	baz=23						
PV01	**Paradox Valley**	**23.18**	**340**	*e*P	**P**	**06 44 21.4**	**-0.4**
BELC	**Belle Mtn.**	**23.24**	**322**	⇓P	**P**	**06 44 22.4**	**-0.1**
	baz=23						
PFO	**Pinyon Flat Ob**	**23.24**	**320**	⇓P	**P**	**06 44 22.8**	**+0.3**
	baz=23						
PV10	**Paradox Valley**	**23.55**	**340**	*e*P	**P**	**06 44 24.4**	**-1.1**
USIN	**University of**	**23.57**	**23**	*e*P	**P**	**06 44 25.1**	**-0.7**
GMRC	**Granite Mounta**	**23.59**	**324**	⇑P	**P**	**06 44 26.2**	**+0.1**
	baz=24						
T15A	**Red Dirt Ranch**	**23.67**	**332**	⇓P	**P**	**06 44 25.9**	**-0.8**
	baz=24						
SMCO	**Snowmass**	**23.68**	**344**	*e*P	**P**	**06 44 27.5**	**+0.8**
	20nm,1.2s,mb4.4						
MURC	**Murrieta**	**23.70**	**319**	⇑P	**P**	**06 44 27.1**	**+0.1**
	baz=24						
V12A	**Nelson**	**23.85**	**326**	⇓P	**P**	**06 44 27.6**	**-0.8**
	baz=24						
ISCO	**Idaho Springs**	**23.95**	**347**	*e*P	**P**	**06 44 28.8**	**-0.4**
	15nm,1.3s,mb4.3						
HEC	**Hector,Ludlow**	**24.02**	**323**	⇑P	**P**	**06 44 30.5**	**+0.6**
	baz=24						
TUQ	**Turquoise Mtn.**	**24.22**	**324**	⇑P	**P**	**06 44 32.0**	**+0.3**
	baz=24						
U12A	**Valley of Fire**	**24.23**	**328**	⇑P	**P**	**06 44 31.2**	**-0.6**
	baz=24						
V11A	**Goodsprings**	**24.24**	**326**	⇓P	**P**	**06 44 31.2**	**-0.8**
	baz=24						
T13A	**Saint George**	**24.38**	**330**	⇑P	**P**	**06 44 34.0**	**+0.8**
	baz=24						
SHPR	**Sheep Range**	**24.61**	**327**	*e*P	**P**	**06 44 36.3**	**+1.0**
GSC	**Goldstone**	**24.62**	**323**	⇓P	**P**	**06 44 35.7**	**+0.3**
	baz=24						
S14A	**Cedar City**	**24.64**	**332**	⇓P	**P**	**06 44 35.7**	**+0.2**
	baz=24						
SRU	**San Rafael**	**24.72**	**338**	*e*P	**P**	**06 44 36.3**	**+0.1**
	26nm,1.0s,mb4.7						
SHOC	**Shoshone**	**24.75**	**325**	⇓P	**P**	**06 44 36.4**	**-0.2**
	baz=25						
ARUT	**Antelope Range**	**24.78**	**332**	*e*P	**P**	**06 44 37.7**	**+0.9**
MSU	**Marysvale**	**24.84**	**335**	*e*P	**P**	**06 44 38.6**	**+1.3**
EDW2	**Edwards Air Fo**	**25.04**	**321**	⇓P	**P**	**06 44 39.8**	**+0.6**
	baz=25						
TMUT	**Trail Mountain**	**25.13**	**337**	*e*P	**P**	**06 44 41.6**	**+1.5**
T11A	**Corn Creek, Al**	**25.20**	**328**	⇑P	**P**	**06 44 40.6**	**-0.1**
	baz=25						
BLG	**Laguna Peak**	**25.21**	**318**	⇓P	**P**	**06 44 41.3**	**+0.5**
	baz=25						
LRMC	**Laurel Mountai**	**25.26**	**322**	⇓P	**P**	**06 44 41.4**	**+0.1**
	baz=25						
S12A	**Delamar Landin**	**25.30**	**329**	⇓P	**P**	**06 44 41.5**	**-0.1**
	baz=25						
HDIL	**Hopedale**	**25.39**	**17**	*e*P	**P**	**06 44 40.8**	**-1.5**
	16nm,0.8s,mb4.6						
TPNV	**Topopah Spring**	**25.51**	**326**	*e*P	**P**	**06 44 46.0**	**+2.5**
	12nm,1.0s,mb4.4						
TPNV	**Topopah Spring**	**25.51**	**326**	⇑P	**P**	**06 44 43.7**	**+0.2**
	baz=25,SNR=7.4						
MPMC	**Manual Prospec**	**25.55**	**323**	⇑P	**P**	**06 44 43.6**	**-0.3**
	baz=25						
ARVC	**Arvin**	**25.72**	**320**	⇑P	**P**	**06 44 45.4**	**0.0**
	baz=26						
R12A	**Pony Springs,**	**25.76**	**331**	⇓P	**P**	**06 44 45.8**	**+0.1**
	baz=26						
OTAV	**Otavalo**	**25.84**	**127**	*e*P	**P**	**06 44 50.6**	**+3.9**
ISA	**Isabella**	**25.86**	**321**	⇓P	**P**	**06 44 47.2**	**+0.6**
	baz=26						
NLU	**North Lily Min**	**26.04**	**336**	*e*P	**P**	**06 44 49.1**	**+0.9**
DAU	**Daniels Canyon**	**26.13**	**338**	*e*P	**P**	**06 44 49.5**	**+0.4**
S10A	**Tonopah Range,**	**26.42**	**327**	⇓P	**P**	**06 44 52.4**	**+0.7**
	baz=26,SNR=5.5						
DUG	**Dugway**	**26.53**	**336**	*e*P	**P**	**06 44 53.6**	**+0.9**
	11nm,1.3s,mb4.2						
CTU	**Camp Tracy**	**26.56**	**338**	*e*P	**P**	**06 44 59.9**	**+7.0**
SMMC	**Simmler**	**26.57**	**319**	⇓P	**P**	**06 44 53.5**	**+0.5**
	baz=26						
Q11A	**Duckwater**	**26.66**	**330**	⇑P	**P**	**06 44 54.3**	**+0.4**
	baz=26						
RCTC	**Rector, Farmer**	**26.75**	**321**	⇑P	**P**	**06 44 54.2**	**-0.5**
	baz=27						
V05C	**Boulder Hill,**	**26.86**	**320**	⇑P	**P**	**06 44 55.3**	**-0.5**
	baz=27						
HELL	**Mitchell Peak,**	**26.87**	**322**	⇓P	**P**	**06 44 56.5**	**+0.6**
	baz=27						
R09A	**Tonopah**	**26.91**	**327**	⇑P	**P**	**06 44 55.6**	**-0.5**
	baz=27						
S08C	**White Mtn Res**	**26.96**	**325**	⇑P	**P**	**06 44 56.8**	**+0.2**
	baz=27						
ECSD	**EROS,Sioux Fal**	**27.23**	**4**	*e*P	**P**	**06 44 57.1**	**-1.8**
	6.0nm,0.9s,mb4.1						
HWUT	**Hardware Ranch**	**27.30**	**339**	*e*P	**P**	**06 44 59.4**	**-0.1**
	2.3nm,0.8s,mb3.8						
HWUT				*e*P		06 45 06.6	
U05C	**Westside ANR,**	**27.30**	**320**	⇑P	**P**	**06 44 58.5**	**-1.1**
	baz=27						
ACSO	**Alum Creek Sta**	**27.41**	**27**	*e*P	**P**	**06 44 59.6**	**-0.9**
	12nm,0.8s,mb4.5						
NVAR	**Mina Array Bea**	**27.70**	**326**	P	**P**	**06 45 02.9**	**-0.3**
	2.9nm,0.8s,mb4.0,baz=144,slow=11,SNR=10						
BW06	**Boulder Array**	**27.73**	**343**	*e*P	**P**	**06 45 03.0**	**-0.3**
	18nm,1.3s,mb4.5						
PDAR	**Pinedale Array**	**27.73**	**343**	P	**P**	**06 45 02.9**	**-0.5**
	6.8nm,1.1s,mb4.2,baz=146,slow=8.6,SNR=25						
M14A	**Sheep Mountain**	**27.86**	**336**	⇓P	**P**	**06 45 04.5**	**-0.1**
	baz=28						
SDV	**Santo Domingo**	**28.58**	**102**	LR	LR	06 58 24.5	
	comp=Z,87nm,18.4s,MS3.4,baz=347,slow=40						
L13A	**Double Diamond**	**28.59**	**336**	⇑P	**P**	**06 45 11.2**	**+0.1**
	baz=28,SNR=5.3						
REDW	**Red Top Meadow**	**28.65**	**342**	*e*P	**P**	**06 45 11.2**	**-0.4**
	9.4nm,1.1s,mb4.4						
K14A	**Jones Ranch, D**	**28.70**	**338**	P	**P**	**06 45 12.3**	**+0.3**
	baz=29,SNR=7.4						
LOHW	**Long Hollow**	**28.80**	**342**	*e*P	**P**	**06 45 13.6**	**+0.6**
MOOW	**Moose Ponds**	**28.97**	**342**	*e*P	**P**	**06 45 15.4**	**+0.9**
K13A	**Stover Farm, H**	**29.12**	**337**	⇑P	**P**	**06 45 16.4**	**+0.6**
	baz=29						
IMW	**Indian Meadow**	**29.16**	**342**	*e*P	**P**	**06 45 16.0**	**-0.2**
	6.4nm,0.9s,mb4.3						
L11A	**Cat Creek Ranc**	**29.39**	**334**	⇓P	**P**	**06 45 18.3**	**+0.1**
	baz=29						
K12A	**Draper Farm, C**	**29.43**	**336**	P	**P**	**06 45 18.9**	**+0.4**
	baz=29,SNR=5.5						
J12A	**Stokes Ranch,**	**30.02**	**336**	⇓P	**P**	**06 45 23.7**	**-0.1**
	baz=30						
HLID	**Hailey**	**30.03**	**337**	*e*P	**P**	**06 45 24.6**	**+0.7**
HLID	**Hailey**	**30.03**	**337**	⇑P	**P**	**06 45 24.4**	**+0.6**
	baz=30						
I11A	**Placerville**	**30.92**	**336**	⇑P	**P**	**06 45 32.1**	**+0.3**
	baz=31						
ATAH	**Atahualpa**	**30.93**	**137**	LR	LR	06 55 00.4	
	comp=Z,79nm,20.6s,MS3.4,baz=285,slow=30						
BOZ	**Bozeman (W)**	**30.96**	**343**	*e*P	**P**	**06 45 32.7**	**+0.6**
BOZ	**Bozeman (W)**	**30.96**	**343**	⇑P	**P**	**06 45 32.6**	**+0.5**
	baz=31						
DLMT	**Dillon**	**30.99**	**341**	*e*P	**P**	**06 45 33.3**	**+1.0**
DLMT				*e*	pP	06 45 40.1	+2.1
GASB	**Alder Springs**	**31.02**	**323**	⇑P	**P**	**06 45 34.0**	**+1.3**
	baz=31						
H12A	**Diamond D Ranc**	**31.04**	**338**	P	**P**	**06 45 33.3**	**+0.5**
	baz=31,SNR=6.6						
G14A	**Jackson**	**31.16**	**340**	P	**P**	**06 45 34.2**	**+0.4**
	baz=31,SNR=6.4						
G13A	**Cobalt**	**31.29**	**339**	⇓P	**P**	**06 45 35.5**	**+0.5**
	baz=31						
SJG	**San Juan**	**31.30**	**82**	*e*P	**P**	**06 45 30.0**	**-5.4**
SJG				*e*		06 45 40.2	
LRM	**Limekiln Ridge**	**31.36**	**342**	*e*P	**P**	**06 45 35.8**	**+0.2**
F15A	**Butte**	**31.39**	**342**	⇓P	**P**	**06 45 35.9**	**+0.1**
	baz=31						
H11A	**Donnelly**	**31.61**	**336**	⇑P	**P**	**06 45 37.6**	**-0.1**
	baz=32						
F14A	**Wisdom**	**31.64**	**341**	⇓P	**P**	**06 45 38.3**	**+0.3**
	baz=32						
I09A	**Lost Marbles R**	**31.70**	**334**	⇑P	**P**	**06 45 39.4**	**+0.8**
	baz=32						
E15A	**Deer Lodge**	**31.96**	**342**	⇑P	**P**	**06 45 40.9**	**+0.1**
	baz=32						
DGMT	**Dagmar**	**32.19**	**353**	*e*P	**P**	**06 45 42.0**	**-0.8**
	13nm,1.0s,mb4.7						
E14A	**Clinton**	**32.21**	**341**	⇑P	**P**	**06 45 44.0**	**+1.0**
	baz=32,SNR=5.1						
E13A	**Victor**	**32.46**	**340**	⇑P	**P**	**06 45 45.5**	**+0.3**
	baz=32						
CHMT	**Chamberlain Mo**	**32.59**	**342**	*e*P	**P**	**06 45 46.0**	**-0.3**
EGMT	**Eagleton**	**32.69**	**346**	⇑P	**P**	**06 45 47.5**	**+0.3**
	baz=32						
MSO	**Missoula**	**32.72**	**341**	*e*P	**P**	**06 45 54.2**	**+6.7**
E11A	**Bogner Ranch,**	**33.08**	**338**	⇓P	**P**	**06 45 50.7**	**+0.1**
	baz=33						
D13A	**Huson**	**33.12**	**340**	P	**P**	**06 45 50.5**	**-0.5**
	baz=33,SNR=5.4						
F10A	**Beach Ranch, E**	**33.14**	**336**	⇑P	**P**	**06 45 51.5**	**+0.3**
	baz=33						
ULM	**Lac du Bonnet**	**33.76**	**4**	LR	LR	07 03 01.7	
	comp=Z,73nm,19.8s,MS3.4,baz=160,slow=42						
WALA	**Waterton Lakes**	**34.71**	**343**	*e*P	**P**	**06 46 05.7**	**+0.9**
	9.3nm,1.2s,mb4.6						
NEW	**Newport**	**35.03**	**339**	*e*P	**P**	**06 46 02.2**	**-5.3**
NEW				*e*		06 46 13.9	
FFC	**Flin Flon**	**38.23**	**357**	*e*P	**P**	**06 46 33.2**	**-1.5**
	20nm,1.3s,mb4.7						
FFC				*e*		06 46 41.1	
LPAZ	**La Paz**	**44.52**	**136**	*e*P	**P**	**06 47 26.1**	**-0.8**
LPAZ	**La Paz**	**44.52**	**136**	LR	LR	07 03 49.6	
	comp=Z,55nm,21.5s,MS3.4,baz=270,slow=33						
SCHQ	**Schefferville**	**45.54**	**25**	P	**P**	**06 47 33.0**	**-1.5**
SCHQ				*e*P		06 47 33.1	
SCHQ				LR	LR	07 09 49.9	
SCHQ	**Schefferville**	**45.54**	**25**	P	**P**	**06 47 33.0**	**-1.5**
	7.2nm,1.0s,mb4.6,baz=210,slow=7.2,SNR=4.7						
SCHQ				LR	LR	07 09 49.9	
	comp=Z,241nm,19.6s,MS4.1,baz=82,slow=40						
YKA	**Yellowknife Ar**	**47.26**	**350**	P	**P**	**06 47 45.6**	**-2.2**
	3.6nm,0.9s,mb4.3,baz=159,slow=7.4,SNR=34						
YKA				LR	LR	07 09 56.0	
	comp=Z,113nm,18.3s,MS3.9,baz=200,slow=39						
YKW3	**Yellowknife Ar**	**47.32**	**350**	*e*P	**P**	**06 47 47.0**	**-1.4**
SIV	**San Ignacio**	**49.35**	**129**	P	**P**	**06 48 04.4**	**-0.3**
	1.9nm,1.0s,mb4.1,baz=314,slow=8.4,SNR=8.1						
INK	**Inuvik**	**56.26**	**345**	*e*P	**P**	**06 48 53.7**	**-1.3**
	235nm,1.1s						
COLA	**College**	**58.39**	**338**	*e*P	**P**	**06 49 09.6**	**-0.5**
	3.2nm,0.9s,mb4.3						
TIXI	**Tiksi**	**86.37**	**346**	*e*P	**P**	**06 51 55.7**	**-1.1**
	7.0nm,0.5s,mb5.2						
TIXI				*e*PcP	PcP	06 52 01.0	+1.7
TORD	**Torodi Ar. Bea**	**96.21**	**74**	LR	LR	07 32 34.5	
	comp=Z,67nm,18.7s,MS4.2,baz=295,slow=33						
BJI	**Beijing**	**114.96**	**331**	PKP	PKiKP	06 57 53.0	-3.2
BJI				SKS	SKSdf	07 05 05.5	-2.1
BJI				LR	LR		
	comp=N,31nm,24.2s,MS4.1						
BJI				LR	LR		
	comp=E,41nm,20.3s,MS4.1						
HHC	**Hu-ho-hao-te**	**116.32**	**335**	*e*PKP	PKPdf	06 57 58.5	-0.3
HHC				PP	PP	06 59 08.0	+4.3
HHC				PKS		07 01 34.5	
HHC				SKS	SKSdf	07 05 06.5	-3.7
HHC				SKKS	SKKSac	07 05 57.5	-7.7
HHC				PP	PP		
	comp=Z,96nm,8.6s						
HHC				LR	LR		
	comp=N,145nm,34.8s,MS4.5						
HHC				LR	LR		
	comp=E,176nm,33.6s,MS4.5						
HHC				LR	LR		
	comp=Z,183nm,33.6s,MS4.5						
NJ2	**Nanjing**	**119.67**	**323**	*e*PKP	PKPdf	06 58 05.0	-0.5
WMQ	**Urumqi**	**119.68**	**354**	PKP	PKPdf	06 58 05.3	+0.1
LZH	**Lanzhou**	**123.45**	**338**	*e*PKP	PKPdf	06 58 12.0	-0.7
CD2	**Chengdu**	**128.07**	**335**	*e*PKP	PKPdf	06 58 20.5	-1.2

KRSC 26 06:58:38.0±1.0**,5282N×16134E,h17^{km}±17^{km},ML3.6,Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SPN	**Mys Shipunski**	**0.84**	**290**	*e*P	Pb	06 58 54.5	+0.3
SPN				*i* S	Sb	06 59 06.7	+1.5
NLC	**Nalytchevo**	**1.26**	**287**	*e*P	Pn	06 59 01.0	+0.3
NLC				*i* S	Sb	06 59 17.7	+0.7
AVH	**Avacha**	**1.63**	**287**	*e*P	Pn	06 59 07.0	+1.1
PET	**Petropavlovsk**	**1.64**	**278**	*e*P	Pn	06 59 06.1	+0.1
PET				*i* S	Sn	06 59 26.5	-0.2
KII	**Karymskiy**	**1.66**	**318**	*e*P	Pn	06 59 07.1	+0.8
KII				*i* S	Sn	06 59 28.5	+1.3
MKZ	**Mys Kozlova**	**1.75**	**7**	*e*P	Pn	06 59 07.4	-0.2
MKZ				*i* S	Sn	06 59 29.0	-0.5
RUS	**Russkaya**	**1.77**	**258**	*e*P	Pn	06 59 08.3	+0.6
RUS				*i* S	Sn	06 59 30.5	+0.7
GRL	**Gorelyy**	**2.01**	**264**	*e*P	Pn	06 59 12.4	+1.4
GRL				*i* S	Sn	06 59 37.6	+1.9
GNL	**Ganaly**	**2.22**	**295**	*e*P	Pn	06 59 15.6	+1.6
GNL				*i* S	Sn	06 59 43.2	+2.2
TUMR	**Tumrok**	**2.57**	**345**	*e*P	Pn	06 59 19.5	+0.8
TUMR				*i* S	Sn	06 59 50.1	+0.6
MIPR	**Malaya Ipel'ka**	**2.85**	**261**	*e*P	Pn	06 59 24.6	+2.0
KMNR	**Kamenistaya**	**3.01**	**348**	*e*P	Pn	06 59 27.1	+2.2
KMNR				*i* S	Sn	07 00 02.7	+2.2
ZLN	**Zelenaya**	**3.22**	**355**	*e*P	Pn	06 59 29.0	+1.3
KPT	**Kopyto**	**3.22**	**349**	*e*P	Pn	06 59 30.6	+2.9
KPT				*i* S	Sn	07 00 08.1	+2.5
KRSR	**Krestovskiy**	**3.43**	**353**	*e*P	Pn	06 59 33.2	+2.6
KBTR	**Krutoberegovo**	**3.50**	**14**	P	Pn	06 59 33.0	+1.4

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*IDC **26** 07:13:30.7±1.0,4721N×15647E,h0^{km},mb3.7/8, mb1 3.9/9,mb1mx3.7/23,mbtmp3.7/9,ML3.7/1,Error ellipse: s-maj=30.3km s-min=21.2km az=149.0*

*ISCJB **26** 07:13:34.1±0.9,473N±0.1×1562E±02,h33^{km},mb3.9/11, MS3.6/3,Error ellipse: s-maj=20.9km s-min=12.3km az=41.7*

*MOS **26** 07:13:36.2±1.6,4733N×15596E,h56^{km},mb4.1/8,Error ellipse: s-maj=23.0km s-min=13.2km az=85.2*

ISC 26 07:13:36.3±0.9**,473N**±01×**1563E**±02**,h35^{km},n22,** σ1^{s}**02**/23**,mb3.9**/11**,MS3.6**/3**,2D,East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**3.37**	**358**	*e*PN	**Pn**	**07 14 24.2**	**-2.1**
SKR				*e*		07 15 02.2	
ASAJ	**Asahikawa**	**10.09**	**257**	PN	**Pn**	**07 15 58.3**	**-0.2**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**10.09**	**257**	Pn	**Pn**	**07 15 58.2**	**-0.3**
	comp=Z,0.7nm,0.3s,baz=338,slow=19,SNR=3.0						
ERM	**Erimo**	**10.74**	**245**	*i* PN	**Pn**	**07 16 04.5**	**-2.9**
BILL	**Bilibino**	**21.40**	**10**	⇓*e*P	**P**	**07 18 21.0**	**+0.5**
BILL				*e*		07 18 41.0	
BILL				*e*S	**S**	**07 22 07.3**	**-8.4**
BILL				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb3.6						
BILL				MLR	MLR		
	comp=Z,100nm,16.0s,MS3.3						
KSRS	**Korea Array**	**23.03**	**255**	P	**P**	**07 18 39.6**	**+1.4**
	comp=Z,1.6nm,0.8s,mb3.5,baz=55,slow=9.9,SNR=5.4						
TIXI	**Tiksi**	**27.57**	**342**	*i* P	**P**	**07 19 19.1**	**-0.4**
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb3.8						
TIXI				MLR	MLR		
	comp=Z,100nm,16.0s,MS3.5						
MKAR	**Makanchi Array**	**48.59**	**298**	P	**P**	**07 22 16.4**	**+0.4**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MKAR	**Makanchi Array**	**48.59**	**298**	P	**P**	**07 22 16.4**	**+0.4**
	comp=Z,1.5nm,0.8s,mb4.1,baz=63,slow=8.4,SNR=15						
YKA	**Yellowknife Ar**	**49.16**	**38**	P	**P**	**07 22 20.2**	**0.0**
	comp=Z,0.2nm,0.8s,mb3.2,baz=287,slow=7.5,SNR=2.8						
ARU	**Arti**	**56.04**	**318**	*e*P	**P**	**07 23 11.5**	**+0.4**
ARCES	**ARCESS Array B**	**58.01**	**342**	P	**P**	**07 23 25.8**	**+0.9**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ARCES	**ARCESS Array B**	**58.01**	**342**	P	**P**	**07 23 25.8**	**+0.9**
	comp=Z,1.9nm,0.8s,mb4.2,baz=12,slow=7.4,SNR=3.8						
FINES	**FINESS Array B**	**64.43**	**336**	P	**P**	**07 24 08.1**	**-0.3**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES	**FINESS Array B**	**64.43**	**336**	P	**P**	**07 24 08.1**	**-0.3**
	comp=Z,1.3nm,0.8s,mb4.0,baz=57,slow=5.2,SNR=5.1						
OBN	**Obninsk**	**66.04**	**327**	⇓*e*P	**P**	**07 24 18.7**	**-0.2**
OBN				*e*		07 26 44.9	
OBN				*e*S	S	07 32 51.0	-13
OBN				pmax	pmax		
	comp=Z,17nm,1.6s,mb4.8						
OBN				MLR	MLR		
	comp=Z,100nm,19.0s,MS4.0						
NOA	**NORSAR Array B**	**68.36**	**343**	P	**P**	**07 24 35.4**	**+1.8**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	**NORSAR Array B**	**68.36**	**343**	P	**P**	**07 24 35.4**	**+1.8**
	comp=Z,0.8nm,0.7s,mb3.9,baz=25,slow=6.3,SNR=3.2						
ASAR	**Alice Springs**	**73.48**	**201**	P	**P**	**07 25 04.5**	**-0.4**
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	**Alice Springs**	**73.48**	**201**	P	**P**	**07 25 04.5**	**-0.4**
	comp=Z,0.7nm,0.7s,mb3.7,baz=16,slow=5.2,SNR=6.4						
TXAR	**Lajitas Array**	**75.32**	**63**	P	**P**	**07 25 15.4**	**-0.4**
TXAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	**Lajitas Array**	**75.32**	**63**	P	**P**	**07 25 15.4**	**-0.5**
	comp=Z,0.8nm,0.7s,mb3.8,baz=307,slow=5.5,SNR=12						

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*IDC **26** 07:17:34.5±1.1,2040S×17594W,h0^{km},mb3.9/6, mb1 4.1/7,mb1mx4.0/16,mbtmp3.9/7,ML4.2/2,MS3.1/1, Ms1 3.1/1,ms1mx2.6/24,Error ellipse: s-maj=44.1km s-min=20.0km az=132.0*

*NEIC **26** 07:17:36.3±0.8,2056S×17582W,h15^{km},Error ellipse: s-maj=30.5km s-min=12.9km az=118.0*

*ISCJB **26** 07:17:37.4±1.0,208S±0.1×1758W±02,h33^{km},mb3.9/6, Error ellipse: s-maj=28.1km s-min=15.7km az=21.2*

ISC 26 07:17:38.8±0.8**,206S**±01×**1758W**±02**,h35^{km},n18,** σ1^{s}**38**/12**,mb3.9**/6**,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**7.68**	**30**	Pn	**Pn**	**07 19 26.6**	**-1.7**
AFI	**Afiamalu**	**7.68**	**30**	Pn	**Pn**	**07 19 26.5**	**-1.7**
	2.7nm,0.3s,baz=249,slow=16,SNR=7.6						
RAO	**Raoul Island**	**8.81**	**192**	Pn	**Pn**	**07 19 43.6**	**-0.1**
RAO	**Raoul Island**	**8.81**	**192**	Pn	**Pn**	**07 19 43.6**	**-0.1**
	178nm,0.3s,baz=293,slow=23,SNR=4.4						
RAR	**Rarotonga**	**14.95**	**95**	LR	LR	07 25 53.2	
	comp=Z,82nm,21.0s,baz=147,slow=33						
URZ	**Urewera**	**18.63**	**198**	P	**Pn**	**07 21 51.8**	**-2.1**
	1.0nm,0.3s,baz=301,slow=12,SNR=7.0						
PAE	**Paea**	**24.89**	**88**	*e*T		07 48 02.0	
	31nm,0.2s						
PPT	**Papeete**	**24.91**	**87**	*e*LR	LR	07 28 48.4	
	187nm,26.5s						
PPT	**Papeete**	**24.91**	**87**	*e*T		07 48 07.9	

	3.1nm,0.2s						
TVO	**Taravao**	25.18	88	*e*T		07 48 11.1	
	5.6nm,0.3s						
RPZ	**Rata Peaks**	25.53	203	P	P	07 23 06.9	+2.9
	8.6nm,0.7s,mb4.4,baz=86,slow=23,SNR=5.3						
RKT	**Rikitea**	37.84	101	*e*T		08 03 58.3	
	7.3nm,0.3s						
STKA	**Stephens Creek**	39.63	245	P	P	07 25 08.3	+1.0
	1.7nm,1.0s,mb3.8,baz=100,slow=11,SNR=2.8						
ASAR	**Alice Springs**	46.54	257	P	P	07 26 02.7	-0.6
	1.1nm,0.8s,mb3.8,baz=83,slow=8.5,SNR=8.8						
WRA	**Warramunga Arr**	46.67	262	P	P	07 26 03.6	-0.7
	0.7nm,0.6s,mb3.8,baz=94,slow=5.8,SNR=3.5						
NVAR	**Mina Array Bea**	79.68	42	P	P	07 29 43.7	+0.8
	0.6nm,0.6s,mb3.7,baz=230,slow=8.2,SNR=3.1						
YKA	**Yellowknife Ar**	95.75	24	P	P	07 31 02.4	+1.7
YKA	**Yellowknife Ar**	95.75	24	P	P	07 31 02.4	+1.7
	0.2nm,0.7s,mb3.7,baz=237,slow=4.3,SNR=3.8						

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*NEIC **26** 07:18:39.9,3295S×6829W,h13^{km},ML3.1(GUC),After GUC.*

GUC 26 07:18:39.9±0.5**,3295S×6829W,h13**^{km}±12^{km}**,MD3.8, ML3.1,2C-1D,Mendoza Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDZ	**Mendoza**	0.47	278	*e*P	Pg	07 18 48.1	-1.1
MDZ				*e*		07 18 54.2	
MDZ				*e*S	Sg	07 19 02.8	+7.2
FCH	**Farellones**	1.72	257	⇓*i*P	Pn	07 19 09.8	+0.3
FCH				*i* S	Sn	07 19 32.8	+1.4
FCH				AML	AML	07 19 36.9	
	comp=N,297nm,0.4s						
PEL	**Peldehue**	2.02	264	⇑*e*P	Pn	07 19 14.2	+0.5
PEL				*i* S	Sn	07 19 40.3	+1.5
PEL				AML	AML	07 19 43.5	
	comp=N,229nm,0.5s						
ANTU	**Antumapu**	2.06	252	P	Pn	07 19 14.5	+0.3
ANTU				S	Sn	07 19 42.2	+2.5
ANTU	**Antumapu**	2.06	252	*e*P	Pn	07 19 14.5	+0.3
ANTU				*i* S	Sn	07 19 42.2	+2.5
ANTU				AML	AML	07 19 46.5	
	comp=E,187nm,0.4s						
CHCH	**Chadas Angostu**	2.20	243	⇑*i*P	Pn	07 19 17.3	+1.1
CICH	**Cipreses**	2.24	232	*e*P	Pn	07 19 18.0	+1.3
LNV	**Longovilo**	2.79	248	*e*P	Pn	07 19 25.1	+0.7
TLL	**Tololo Astrono**	3.51	322	*e*P	Pn	07 19 35.8	+1.6

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*MOS **26** 07:22:52.6±0.8,4878N×14578E,h408^{km},mb3.4/5,Error ellipse: s-maj=49.4km s-min=21.8km az=95.4*

*ISCJB **26** 07:22:55.4±1.1,48.1N±03×1459E±03,h478^{km}±24^{km}, mb3.2/7,Error ellipse: s-maj=50.8km s-min=30.7km az=7.0*

*IDC **26** 07:22:55.1±2.6,4832N×14601E,h443^{km}±50^{km},mb2.9/6, mb1 3.0/7,mb1mx2.9/22,mbtmp2.9/7,Error ellipse: s-maj=59.7km s-min=22.0km az=3.0*

ISC 26 07:22:56.4±1.1**,480N**±03×**1459E**±03**,h480**^{km}±24^{km}**,n16,** σ**0**^{s}**86**/16**,mb3.2**/7**,1C,Sea of Okhotsk**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YSS	**Yuzh-Sakhalins**	2.38	244	⇑*i*PN	**P**	**07 24 02.5**	**+0.8**
YSS				pmax	pmax		
	comp=Z,40nm,0.7s						
ASAJ	**Asahikawa**	4.54	211	PN	**P**	**07 24 17.2**	**-1.0**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	4.54	211	P	**P**	**07 24 17.2**	**-1.0**
	comp=Z,1.1nm,0.3s,baz=322,slow=33,SNR=4.0						
MKAR	**Makanchi Array**	41.95	293	P	**P**	**07 30 05.3**	**+1.4**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	**Makanchi Array**	41.95	293	P	**P**	**07 30 05.3**	**+1.4**
	comp=Z,0.7nm,0.5s,mb3.4,baz=67,slow=6.8,SNR=13						
YKA	**Yellowknife Ar**	52.76	35	P	**P**	**07 31 25.0**	**-0.2**
	comp=Z,0.1nm,0.5s,mb2.4,baz=302,slow=7.0,SNR=3.4						
ARCES	**ARCESS Array B**	54.92	338	P	**P**	**07 31 40.7**	**+0.3**
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ARCES	**ARCESS Array B**	54.92	338	P	**P**	**07 31 40.6**	**+0.2**
	comp=Z,1.0nm,0.8s,mb3.2,baz=45,slow=7.0,SNR=3.9						
JOF	**Joensuu**	57.90	331	*e*p	**P**	**07 32 00.3**	**-0.7**
	comp=Z,0.6nm,0.4s,mb3.3						
JOF	**Joensuu**	57.90	331	*e*P	**P**	**07 32 00.3**	**-0.7**
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.5						
KAF	**Kangasniemi**	60.09	332	*e*p	**P**	**07 32 14.3**	**-1.5**
FINES	**FINESS Array B**	60.67	331	P	**P**	**07 32 19.5**	**-0.1**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	**FINESS Array B**	60.67	331	P	**P**	**07 32 19.5**	**-0.1**
	comp=Z,1.4nm,0.5s,mb3.7,baz=44,slow=7.5,SNR=17						
NOA	**NORSAR Array B**	65.29	338	P	**P**	**07 32 49.7**	**+0.2**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NOA	**NORSAR Array B**	65.29	338	P	**P**	**07 32 49.6**	**+0.1**
	comp=Z,0.8nm,0.5s,mb3.6,baz=30,slow=6.4,SNR=3.5						
TXAR	**Lajitas Array**	80.99	56	P	**P**	**07 34 21.2**	**+0.9**
	comp=Z,0.1nm,0.5s,mb2.6,baz=282,slow=4.5,SNR=2.4						

IDC 26 07:36:57.5±1.1**,5745N×3312W,h0**^{km}**,mb3.4**/4**, mb1 3.7**/5**,mb1mx3.5**/24**,mbtmp3.5**/5**,ML2.5**/1**,MS3.4**/5**, Ms1 3.4**/5**,ms1mx3.0**/25**,Error ellipse: s-maj=43.5km s-min=23.9km az=21.0,Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCHQ	**Schefferville**	18.85	276	P	Pn	07 41 20.0	+0.8
	0.2nm,0.3s,baz=110,slow=7.2,SNR=4.0						
SCHQ				LR	LR	07 46 60.0	
	comp=Z,151nm,21.2s,baz=221,slow=32						
DAVOX	**Davos/Dischmat**	28.01	94	LR	LR	07 53 34.7	
	comp=Z,106nm,19.2s,baz=86,slow=36						
GERES	**GERESS Array B**	28.84	87	LR	LR	07 52 34.7	
	comp=Z,33nm,21.0s,baz=278,slow=32						
YKA	**Yellowknife Ar**	38.53	313	P	P	07 44 20.5	-0.6
	0.5nm,0.8s,baz=61,slow=9.3,SNR=7.5						
YKA				LR	LR	07 59 46.0	
	comp=Z,57nm,19.5s,baz=155,slow=36						
BRTR	**Keskin Array B**	45.57	83	LR	LR	08 04 03.2	
	comp=Z,44nm,18.9s,baz=144,slow=36						
PDAR	**Pinedale Array**	48.51	287	P	P	07 45 42.0	+0.3
	0.6nm,0.9s,baz=54,slow=7.5,SNR=4.8						
TORD	**Torodi Ar. Bea**	51.50	135	P	P	07 46 04.6	-0.1
	0.3nm,0.8s,baz=313,slow=6.2,SNR=2.6						
MKAR	**Makanchi Array**	63.14	44	P	P	07 47 27.1	+0.6
	0.4nm,0.7s,baz=339,slow=4.5,SNR=7.2						
ASAR	**Alice Springs**	144.97	21	PKP	PKPdf	07 56 34.8	-1.5
	0.8nm,0.7s,baz=343,slow=2.0,SNR=9.2						

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*ISCJB **26** 07:55:05.9±0.7,639N±006×12684E±010,h127^{km}±7^{km}, mb4.1/11,Error ellipse: s-maj=16.1km s-min=9.8km az=175.3*

*MAN **26** 07:55:06,647N×12690E,h114^{km},mb4.5,ML3.4,MS3.3*

*NEIC **26** 07:55:07.5±1.3,641N×12686E,h128^{km}±11^{km},mb4.7/2, Error ellipse: s-maj=29.0km s-min=8.1km az=74.0*

*IDC **26** 07:55:10.8±10.0,638N×12691E,h160^{km}±97^{km},mb3.6/9, mb1 3.8/9,mb1mx3.6/19,mbtmp3.6/9,Error ellipse: s-maj=47.1km s-min=17.4km az=72.0*

ISC 26 07:55:07.1±0.7**,641N**±006×**12683E**±010**,h123**^{km}±7^{km}**, n24,**σ**0**^{s}**67**/29**,mb4.1**/11**,2C-2D,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	**Mati**	0.78	313	*e*P	**Pn**	**07 55 27.4**	**0.0**
MATI				*e*S	**Sn**	**07 55 42.8**	**+0.1**
DAV	**Davao City (W)**	1.40	298	*e*Pn	**Pn**	**07 55 34.6**	**+0.9**
DAV				*e*Sn	**Sn**	**07 55 52.4**	**-1.4**
DAV	**Davao City (W)**	1.40	298	⇑*e*P	**Pn**	**07 55 34.0**	**+0.4**
BIPH	**Bislig**	1.82	345	⇓*i*P	**Pn**	**07 55 39.1**	**+0.6**
BIPH				*e*S	**Sn**	**07 56 02.2**	**-0.4**
GSPH	**General Santos**	1.90	260	⇑*e*P	**Pn**	**07 55 47.7**	**+8.3**
GSPH				*e*S	**Sn**	**07 56 04.5**	**+0.4**
BUKP	**Musuan**	2.28	310	*e*P	**Pn**	**07 55 44.7**	**+0.5**
BUKP				*e*S	**Sn**	**07 56 13.1**	**+0.4**
PAGZ	**Pagadian**	3.71	293	*e*P	**Pn**	**07 56 02.2**	**-0.6**
KAKA	**Kakadu**	19.80	164	*e*P	**P**	**07 59 28.6**	**+0.6**
	10nm,0.5s						
FITZ	**Fitzroy Crossi**	24.38	183	⇓*i*P	**P**	**08 00 13.9**	**-0.1**
	11nm,0.9s,mb4.2						
FITZ	**Fitzroy Crossi**	24.38	183	P	**P**	**08 00 13.8**	**-0.2**
	2.8nm,0.3s,mb4.0,baz=16,slow=10,SNR=29						
WRA	**Warramunga Arr**	27.21	164	P	**P**	**08 00 38.7**	**-0.8**
	0.9nm,0.4s,mb3.6,baz=342,slow=9.7,SNR=5.7						
WB2	**Warramunga Arr**	27.21	164	*e*P	**P**	**08 00 39.7**	**+0.2**
WB2				*e*P		08 00 40.9	
ASAR	**Alice Springs**	30.68	167	P	**P**	**08 01 10.7**	**+0.4**
	2.6nm,0.3s,mb4.4,baz=338,slow=7.3,SNR=56						
KLBR	**Kellerberrin**	38.77	192	*e*P	**P**	**08 02 19.4**	**-0.2**
	10nm,0.5s,mb4.9						
MUN	**Mundaring**	39.49	194	*e*P	**P**	**08 02 26.0**	**+0.3**
NWAO	**Narrogin (SRO)**	40.17	193	P	**P**	**08 02 31.7**	**+0.5**
	27nm,0.6s,mb5.3,baz=16,slow=7.0,SNR=39						
STKA	**Stephens Creek**	40.59	161	*e*P	**P**	**08 02 32.4**	**-2.4**
	1.6nm,0.3s,mb4.3						
STKA	**Stephens Creek**	40.59	161	*e*P	**P**	**08 02 33.7**	**-1.1**
STKA				P		08 02 34.1	
STKA	**Stephens Creek**	40.59	161	P	**P**	**08 02 34.1**	**-0.7**
	2.2nm,0.4s,mb4.3,baz=344,slow=7.8,SNR=8.2						
SONM	**Songino Array**	44.81	341	P	**P**	**08 03 09.8**	**+1.2**
	0.4nm,0.6s,mb3.4,baz=171,slow=10,SNR=2.7						
MKAR	**Makanchi Array**	55.44	324	P	**P**	**08 04 28.9**	**+0.1**
	0.6nm,0.5s,mb3.9,baz=122,slow=8.4,SNR=9.9						
ARCES	**ARCESS Array B**	87.98	340	P	**P**	**08 07 41.5**	**-1.5**
	1.5nm,0.8s,mb4.1,baz=90,slow=6.3,SNR=4.5						
BRTR	**Keskin Array B**	88.40	310	P	**P**	**08 07 45.8**	**+0.3**
	0.8nm,0.9s,mb3.7,baz=337,slow=19,SNR=2.4						
YKA	**Yellowknife Ar**	97.03	24	P	**P**	**08 08 24.8**	**0.0**
	0.2nm,0.7s,mb3.7,baz=301,slow=4.3,SNR=4.7						

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*NIED **26** 07:58:00,3140N×13350E,h5^{km},Mw3.9 Best double couple: $M_0$7.07000×10^{14} NP1:ϕ_s38.00000°,δ26.00000°, λ-74.00000°. NP2:ϕ_s201.00000°,δ65.00000°, λ-97.00000°.*

JMA 26 07:58:51.5±0.2**,3136N×13349E,h49**^{km}**,M3.7,5C, Southeast of Shikoku**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTO	**Tosashimizu**	1.60	339	⇑P	Pn	07 59 18.2	+0.8
JTO				*e*S	Sn	07 59 36.5	-0.5
JNAR	**Kushima--Naru**	1.90	276	P	Pn	07 59 22.4	+0.9
JTSN	**Tsuno**	1.91	298	P	Pn	07 59 22.3	+0.8
JTSN				S	Sn	07 59 45.7	+1.3
JKU	**Kubokawa**	1.98	350	⇑P	Pn	07 59 23.8	+1.3
JKU				S	Sn	07 59 45.8	-0.3
UWA2	**Uwa jima 2**	1.99	339	⇑P	Pn	07 59 23.8	+1.1
UWA2				S	Sn	07 59 46.1	-0.3
MRT2	**Murotomisaki 2**	2.10	15	P	Pn	07 59 24.7	+0.6
MRT2				S	Sn	07 59 49.5	+0.5
JTZ	**Takazaki**	2.12	285	P	Pn	07 59 25.1	+0.7
JKIT	**Kitakata**	2.14	307	⇑P	Pn	07 59 25.8	+1.1
JTSR	**Tashiro 2**	2.21	266	P	Pn	07 59 25.8	+0.1
JTSR				*e*S	Sn	07 59 52.8	+1.1
JUS	**Usuki**	2.25	320	P	Pn	07 59 27.2	+1.0
JNA	**Nagahama**	2.35	339	⇑P	Pn	07 59 29.2	+1.6
JNA				*e*S	Sn	07 59 55.4	+0.1
JMN	**Monobe**	2.38	8	P	Pn	07 59 29.3	+1.2

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*MOS **26** 08:05:27.7±1.2,5574N×110.15E,h12^{km},mb4.4/1,Error ellipse: s-maj=15.6km s-min=9.4km az=56.8*

BYKL 26 08:05:29.0±0.2**,5569N×11016E,h5**^{km}±3^{km}**,13C-1D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIZ	**Nizh Angarsk**	0.36	284	*e*PG	Pg	08 05 35.7	-0.2
NIZ				*e*		08 05 41.5	
NIZ				pmax	pmax		
	comp=Z,1μm,0.3s						
NIZ				smax			
	comp=N,4μm,0.3s						
NIZ	**Nizh Angarsk**	0.36	284	⇑*i*Pg	Pg	08 05 35.7	-0.2
NIZ				*e*Sg	Sg	08 05 41.5	+0.9
NIZ				Pmax			
	comp=N,662nm,0.2s						
NIZ				Smax			
	comp=N,4μm,0.3s						
KMO	**Kumora**	0.62	71	⇑*i*PG	Pg	08 05 39.6	-1.3
KMO				*e*		08 05 47.3	
KMO				pmax	pmax		
	comp=Z,1μm,0.3s						
KMO				smax			
	comp=N,1μm,0.8s						
KMO	**Kumora**	0.62	71	⇑*i*Pg	Pg	08 05 39.7	-1.2
	comp=N,21nm,0.4s						
KMO				⇑*i*Pg	Pg	08 05 39.7	-1.2
	comp=N,147nm,0.4s						
KMO				⇑*i*Pg	Pg	08 05 39.7	-1.2
	comp=N,1μm,0.4s						
KMO				*e*Sg	Sg	08 05 47.8	-1.1
KMO				Pmax			
	comp=N,1μm,0.3s						
KMO				Smax			
	comp=N,1μm,0.8s						
YOA	**Uoyan**	0.99	63	⇓*i*PG	Pg	08 05 46.2	-1.7
YOA				*e*		08 05 59.5	
YOA				pmax	pmax		
	comp=Z,411nm,0.2s						
YOA				smax			
	comp=E,2μm,0.4s						
YLYR	**Ulyunkhan**	1.00	145	⇑*i*PG	Pg	08 05 46.7	-1.4
YLYR				*e*		08 05 59.7	
YLYR				pmax	pmax		
	comp=Z,171nm,0.2s						
YLYR				smax			
	comp=E,907nm,0.3s						
YLYR	**Ulyunkhan**	1.00	145	⇑*i*Pg	Pg	08 05 46.7	-1.4
YLYR				*e*Sg	Sg	08 05 59.9	-1.1
YLYR				*e*		08 06 05.5	
YLYR				Pmax			
	comp=E,172nm,0.1s						
YLYR				Smax			
	comp=E,711nm,0.3s						
SVKR	**Severomuysk**	1.96	76	*e*PN	Pn	08 06 04.2	+1.4
SVKR				*e*		08 06 29.0	
SVKR				pmax	pmax		
	comp=Z,508nm,0.4s						
SVKR				smax			
	comp=N,3μm,0.8s						
SVKR	**Severomuysk**	1.96	76	*e*Pg	Pg	08 06 04.5	-2.0
SVKR				*e*Sg	Sg	08 06 30.2	-1.7
SVKR				Pmax			
	comp=N,508nm,0.3s						
SVKR				Smax			
	comp=N,3μm,0.5s						
UKT	**Uakit**	1.98	94	*e*PN	Pn	08 06 01.8	-1.3
UKT				*e*		08 06 03.4	
UKT				*e*S	Sn	08 06 27.4	-0.8
UKT				*e*		08 06 29.6	
UKT				pmax	pmax		
	comp=Z,358nm,0.4s						
UKT				smax			
	comp=N,639nm,0.4s						
UKT	**Uakit**	1.98	94	⇑*i*Pn	Pn	08 06 03.7	+0.6
UKT				⇑*i*Pg	Pg	08 06 04.1	-2.8
UKT				*e*Sg	Sg	08 06 30.1	-2.4
UKT				Pmax			
	comp=N,362nm,0.4s						
UKT				Smax			
	comp=N,641nm,0.3s						
SYVR	**Suvo**	2.04	183	*e*PN	Pn	08 06 05.7	+1.8
SYVR				*e*		08 06 33.8	
SYVR				pmax	pmax		
	comp=Z,136nm,0.4s						
SYVR				smax			
	comp=E,1μm,0.8s						
SYVR	**Suvo**	2.04	183	*e*Pn	Pn	08 06 04.1	+0.2
SYVR				*e*Pg	Pg	08 06 05.7	-2.3
SYVR				*e*Sg	Sg	08 06 33.6	-0.8
SYVR				Pmax			
	comp=E,147nm,0.4s						
SYVR				Smax			
	comp=E,1μm,0.5s						
OGRR	**Ongureny**	2.54	217	*e*PN	Pn	08 06 11.4	+0.7
OGRR				*e*		08 06 15.1	
OGRR				*e*S	Sn	08 06 43.0	+1.1
OGRR				*e*		08 06 47.0	
OGRR				pmax	pmax		
	comp=Z,68nm,0.3s						
OGRR				smax			
	comp=E,605nm,0.4s						
OGRR	**Ongureny**	2.54	217	*e*Pn	Pn	08 06 11.4	+0.7
OGRR				*e*		08 06 16.2	
OGRR				*e*Sn	Sn	08 06 43.2	+1.3
OGRR				*e*Sg	Sg	08 06 47.1	-3.2
OGRR				Smax			
	comp=E,607nm,0.3s						
MXMB	**Maximikha**	2.57	199	*e*Pn	Pn	08 06 11.5	+0.3
MXMB				*e*Pg	Pg	08 06 15.5	-2.7
MXMB				*e*Sg	Sg	08 06 49.6	-1.8
MXMB				Pmax			
	comp=E,93nm,0.5s						
MXMB				Smax			
	comp=E,716nm,0.5s						
BOD	**Bodaibo**	3.01	43	*e*PN	Pn	08 06 16.8	-0.4
BOD				*e*		08 06 20.9	
BOD				*e*		08 06 59.3	
BOD				pmax	pmax		
	comp=Z,38nm,0.3s						
BOD				smax			
	comp=N,229nm,0.6s						
BOD	**Bodaibo**	3.01	43	*e*Pn	Pn	08 06 17.3	+0.1
BOD				*e*Sn	Sn	08 06 52.6	-0.9
BOD				*e*Sg	Sg	08 07 01.1	-4.3
BOD				Smax			
	comp=N,229nm,0.6s						
NLYR	**Nelyaty**	3.21	73	*e*Pn	Pn	08 06 20.4	+0.4
NLYR				*e*Pg	Pg	08 06 25.8	-4.6
NLYR				*e*		08 06 29.2	
NLYR				*e*Sg	Sg	08 07 09.0	-2.9
ZRHB	**Zarechye**	3.61	211	*e*Pn	Pn	08 06 26.4	+1.0
ZRHB				*e*Sg	Sg	08 07 21.6	-3.1
ZRHB				Smax			
	comp=N,529nm,0.7s						
TRG	**Tyrgan**	3.69	219	*e*PN	Pn	08 06 34.8	+8.2
TRG				*e*		08 07 23.3	
TRG				pmax	pmax		
	comp=Z,30nm,0.3s						
TRG				smax			
	comp=E,202nm,0.4s						
TRG	**Tyrgan**	3.69	219	*e*Pn	Pn	08 06 27.3	+0.7
TRG				*e*		08 06 30.1	
TRG				*e*Sn	Sn	08 07 10.5	+0.1
TRG				*e*Sg	Sg	08 07 23.5	-3.9
TRG				Smax			
	comp=E,192nm,0.4s						
TRTB	**Turuntaevo**	3.77	204	*e*Pn	Pn	08 06 28.2	+0.4
TRTB				*e*Sg	Sg	08 07 26.1	-4.0
TRTB				Smax			
	comp=E,131nm,0.6s						
UUDB	**Ulan-Yde**	4.11	202	*e*Pg	Pg	08 06 43.3	-4.3
UUDB				*e*Sg	Sg	08 07 37.2	-3.6
UUDB				Pmax			
	comp=E,9.0nm,0.1s						
UUDB				Smax			
	comp=E,1μm,1.4s						
FFNB	**Fofonovo**	4.17	210	*e*Sn	Sn	08 07 21.2	-1.0
FFNB				*e*Sg	Sg	08 07 37.5	-5.2
FFNB				Smax			
	comp=E,288nm,0.6s						
CIT	**Chita**	4.19	150	*e*PN	Pn	08 06 42.8	+9.4
CIT				*e*		08 07 36.4	
CIT				pmax	pmax		
	comp=Z,42nm,1.0s						
CIT				smax			
	comp=E,196nm,0.9s						
CIT	**Chita**	4.19	150	*e*Pg	Pg	08 06 43.6	-5.6
CIT				*e*Sg	Sg	08 07 36.9	-6.5
CIT				Pmax			
	comp=E,34nm,0.6s						
CIT				Smax			
	comp=E,195nm,0.7s						
KAB	**Kabansk**	4.20	211	*e*PN	Pn	08 06 43.3	+10
KAB				*e*		08 07 39.2	
KAB				pmax	pmax		
	comp=Z,144nm,0.4s						
KAB				smax			
	comp=E,483nm,1.0s						
HRMR	**Khuramsha**	4.49	206	*e*Pn	Pn	08 06 38.4	+0.8
HRMR				*e*		08 07 31.6	
HRMR				*e*Sg	Sg	08 07 47.3	-5.9
HRMR				Smax			
	comp=E,387nm,0.6s						
CRS	**Chara**	4.68	72	*e*PN	Pn	08 06 51.7	+12
CRS	**Chara**	4.68	72	*e*Pn	Pn	08 06 40.4	+0.2
CRS				*e*Pg	Pg	08 06 53.4	-5.1
CRS				*e*Sg	Sg	08 07 54.0	-5.1
CRS				Pmax			
	comp=E,167nm,0.9s						
CRS				Smax			
	comp=E,206nm,1.5s						
IRK	**Irkutsk**	4.90	228	*e*Sn	Sn	08 07 38.0	-2.2
IRK				*e*Sg	Sg	08 08 00.9	-5.3
IRK				Smax			
	comp=E,397nm,0.5s						
LSTR	**Listvyanka**	4.96	222	*e*Pn	Pn	08 06 44.5	+0.4
LSTR				*e*Sn	Sn	08 07 39.3	-2.5
LSTR				*e*Sg	Sg	08 08 01.5	-6.8
LSTR				Smax			
	comp=E,129nm,0.6s						
TLY	**Talaya**	5.58	227	*e*PN	Pn	08 06 51.9	-0.6
TLY				*e*		08 07 07.3	
TLY				*e*S	Sn	08 07 53.1	-3.8
TLY	**Talaya**	5.58	227	*e*Pn	Pn	08 06 52.1	-0.4
TLY				*e*Sn	Sn	08 07 54.8	-2.1
TLY				*e*Sg	Sg	08 08 21.5	-6.5
TLY				Smax			
	comp=E,76nm,0.5s						
TUP	**Tupik**	5.77	99	*e*PN	Pn	08 06 54.6	-0.6
TUP				*e*		08 07 12.2	
TUP				*e*S	Sn	08 07 59.9	-1.8
TUP				*e*		08 08 27.5	
TUP				pmax	pmax		
	comp=Z,23nm,0.7s						
TUP				smax			
	comp=N,118nm,1.4s						
TUP	**Tupik**	5.77	99	*e*Pn	Pn	08 06 55.2	0.0
TUP				*e*Pg	Pg	08 07 12.1	-7.3
TUP				*e*Sg	Sg	08 08 27.5	-6.6
TUP				Pmax			
	comp=N,20nm,0.5s						
TUP				Smax			
	comp=N,137nm,1.0s						
ARS	**Arshan**	5.94	234	*e*PN	Pn	08 06 57.5	0.0
ARS				*e*S	Sn	08 08 03.2	-2.6
ARS				*e*S	Sn	08 08 33.2	+27
ARS				smax			
	comp=E,762nm,0.7s						
ARS	**Arshan**	5.94	234	⇑*i*Pn	Pn	08 06 57.5	0.0
ARS				*e*Sn	Sn	08 08 02.7	-3.1
ARS				*e*Sg	Sg	08 08 32.6	-6.9
ARS				Smax			
	comp=E,462nm,0.7s						
ZAK	**Zakamensk**	6.74	221	*e*PN	Pn	08 07 08.1	-0.4
ZAK				*e*		08 07 27.5	
ZAK				*e*S	Sn	08 08 21.8	-3.8
ZAK				*e*		08 08 54.6	
ZAK				pmax	pmax		
	comp=Z,6.0nm,0.5s						
ZAK				pmax	pmax		
	comp=E,52nm,1.3s						
MOY	**Mondy**	6.77	237	⇑*i*PN	Pn	08 07 10.5	+1.6
MOY				*e*		08 07 31.4	
MOY				*e*S	Sn	08 08 24.0	-2.3
MOY				*e*		08 08 56.7	
MOY				pmax	pmax		
	comp=Z,19nm,0.4s						
MOY				smax			
	comp=E,119nm,1.2s						
MOY	**Mondy**	6.77	237	⇑*i*Pn	Pn	08 07 10.6	+1.7
MOY				*e*Sn	Sn	08 08 23.7	-2.6
MOY				*e*Sg	Sg	08 08 57.5	-8.8
MOY				Smax			
	comp=E,121nm,1.1s						
ORL	**Orlik**	6.85	247	*e*PN	Pn	08 07 11.4	+1.4
ORL				*e*S	Sn	08 08 25.9	-2.4
ORL				*e*S	Sn	08 09 00.6	+32
ORL				smax			
	comp=N,163nm,1.0s						
ORL	**Orlik**	6.85	247	⇑*i*Pn	Pn	08 07 11.4	+1.4
ORL				*e*Sn	Sn	08 08 25.9	-2.4
ORL				*e*Sg	Sg	08 09 00.6	-8.3
ORL				Smax			
	comp=N,164nm,1.0s						

*IDC **26** 08:15:11.1±1.2,19.16N×121.34E,h0^{km},mb3.5/4,mb1 3.8/4,mb1mx3.5/20,mbtmp3.5/4,MS3.1/1,Ms1 3.1/1,ms1mx2.7/28,Error ellipse: s-maj=73.8km s-min=24.8km az=69.0*

*MAN **26** 08:15:15,19.22N×121.11E,h56^{km},mb3.6,ML2.3,MS1.9*

*ISCJB **26** 08:15:17.2±1.8,19.1N±0.1×121.1E±0.1,h60^{km}±17^{km},mb3.4/4,Error ellipse: s-maj=22.2km s-min=18.5km az=33.7*

ISC 26 08:15:17.5±1.9,**19.2N**±0.1×**121.1E**±0.1,**h48**^{km}±19^{km},**n9**,σ**0^{s}75**/11,**mb3.4**/4,**Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SGCP	**Mt. Cagua**	**1.29**	**135**	*e*P	**Pn**	**08 15 38.0**	**-1.1**
SGCP				*e*S	**Sn**	**08 15 56.0**	**+0.7**
APYP	**Conner**	**1.30**	**174**	*e*P	**Pn**	**08 15 38.6**	**-0.7**
APYP				*e*S	**Sn**	**08 15 56.5**	**+0.9**
ABRA	**Dolores**	**1.55**	**193**	*e*P	**Pn**	**08 15 42.2**	**-0.5**
CVP	**Callao Caves**	**1.61**	**154**	*e*P	**Pn**	**08 15 43.5**	**0.0**
CVP				*e*S	**Sn**	**08 16 03.7**	**+0.5**
JOW	**Kunigami**	**10.10**	**40**	LR	LR	08 20 52.9	
	comp=Z,114nm,20.2s,baz=76,slow=34						
WRA	**Warramunga Arr**	**40.98**	**161**	P	**P**	**08 22 55.1**	**-0.7**
	0.3nm,0.3s,mb3.3,baz=341,slow=9.3,SNR=2.8						
MKAR	**Makanchi Array**	**41.99**	**320**	P	**P**	**08 23 05.2**	**+1.4**
	0.7nm,0.8s,mb3.4,baz=105,slow=9.7,SNR=8.4						
ASAR	**Alice Springs**	**44.37**	**163**	P	**P**	**08 23 22.8**	**-0.5**
	0.2nm,0.3s,mb3.3,baz=345,slow=6.8,SNR=7.9						
YKA	**Yellowknife Ar**	**87.61**	**23**	P	**P**	**08 28 00.5**	**+0.2**
	0.4nm,0.8s,mb3.7,baz=312,slow=4.3,SNR=10						

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*ISK **26** 08:17:44.4,38.41N×39.28E,h5^{km},MD3.4*

*ISCJB **26** 08:17:45.8±0.4,38.41N±0.03×39.29E±0.03,h5^{km},Error ellipse: s-maj=4.5km s-min=3.4km az=162.6*

*CSEM **26** 08:17:45.1±0.1,38.41N×39.27E,h5^{km},MD3.5,Error ellipse: s-maj=2.9km s-min=1.8km az=153.0*

*DDA **26** 08:17:46.8,38.39N×39.31E,h5^{km},Md3.5*

ISC 26 08:17:46.1±0.6,**38.42N**±0.03×**39.31E**±0.04,**h2**^{km}±6^{km},**n32**,σ**0^{s}97**/41,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	**Elazig**	**0.26**	**287**	*i* P	**Pg**	**08 17 51.0**	**-0.2**
ELZG				*i* S	**Sg**	**08 17 54.4**	**-0.2**
PTK	**Pertek**	**0.47**	**8**	PG	**Pg**	**08 17 54.8**	**-0.4**
PTK				SG	**Sg**	**08 18 02.9**	**+1.5**
PTK	**Pertek**	**0.47**	**8**	*e*Pg	**Pg**	**08 17 54.8**	**-0.4**
PTK				*e*Sg	**Sg**	**08 18 02.9**	**+1.5**
MALT	**Malatya**	**0.70**	**261**	PG	**Pg**	**08 17 58.2**	**-1.3**
MALT				SG	**Sg**	**08 18 09.1**	**+0.5**
MALT	**Malatya**	**0.70**	**261**	*e*Pg	**Pg**	**08 17 58.2**	**-1.3**
MALT				*e*Sg	**Sg**	**08 18 09.1**	**+0.5**
MYA	**Malataya**	**0.70**	**262**	PG	**Pg**	**08 17 58.6**	**-0.9**
MYA	**Malataya**	**0.70**	**262**	*e*Pg	**Pg**	**08 17 58.6**	**-0.9**
DIY	**Diyarbakir**	**0.90**	**126**	PG	**Pg**	**08 18 02.6**	**-0.7**
DIY	**Diyarbakir**	**0.90**	**126**	*e*Pg	**Pg**	**08 18 02.6**	**-0.7**
BINT	**Bingol**	**1.03**	**64**	PG	**Pg**	**08 18 05.8**	**-0.1**
BINT	**Bingol**	**1.03**	**64**	*e*Pg	**Pg**	**08 18 05.8**	**-0.1**
URFA	**Urfa**	**1.05**	**201**	PG	**Pg**	**08 18 05.6**	**-0.7**
URFA	**Urfa**	**1.05**	**201**	*e*Pg	**Pg**	**08 18 05.6**	**-0.7**
ATAB	**Bozova**	**1.24**	**220**	*i* P	**Pg**	**08 18 10.1**	**+0.2**
ATAB				*i* S	**Sg**	**08 18 28.2**	**+2.2**
EZC	**Erzincan**	**1.38**	**17**	PN	**Pn**	**08 18 11.7**	**-0.7**
BNGL	**BINGOL**	**1.54**	**69**	*i* P	**Pn**	**08 18 15.0**	**+0.5**
BNGL				*i* S	**Sg**	**08 18 43.9**	**+8.4**
MARD	**Mardin**	**1.61**	**133**	*i* P	**Pn**	**08 18 14.2**	**-1.3**
MARD				*i* S	**Sn**	**08 18 37.9**	**+1.0**
BTMT	**Batman**	**1.73**	**97**	PN	**Pn**	**08 18 15.0**	**-2.2**
GZT	**Gaziantep**	**1.74**	**233**	*i* P	**Pn**	**08 18 16.5**	**-0.9**
GZT				*i* S	**Sg**	**08 18 43.5**	**+1.4**
GUMT	**Gumushane**	**2.04**	**4**	*e*PN	**Pn**	**08 18 21.5**	**0.0**
GUMT	**Gumushane**	**2.04**	**4**	*e*Pn	**Pn**	**08 18 21.5**	**0.0**
GAZ	**Gaziantep**	**2.08**	**234**	*e*PN	**Pn**	**08 18 21.4**	**-0.6**
GAZ	**Gaziantep**	**2.08**	**234**	*e*Pn	**Pn**	**08 18 21.4**	**-0.6**
EZM	**Erzurum**	**2.18**	**47**	*e*PN	**Pn**	**08 18 23.9**	**+0.5**
SVSK	**Karacayir**	**2.33**	**310**	*e*PN	**Pn**	**08 18 25.9**	**+0.4**
SVSK	**Karacayir**	**2.33**	**310**	*e*Pn	**Pn**	**08 18 25.9**	**+0.4**
SIRT	**Sirnak**	**2.64**	**109**	*e*PN	**Pn**	**08 18 30.9**	**+1.2**
SIRT	**Sirnak**	**2.64**	**109**	*e*Pn	**Pn**	**08 18 30.9**	**+1.2**
BNN	**Bunyan**	**2.74**	**280**	*e*PN	**Pn**	**08 18 30.8**	**-0.3**
BNN	**Bunyan**	**2.74**	**280**	*e*Pn	**Pn**	**08 18 30.8**	**-0.3**
AGRB	**Hanur-Agry**	**3.09**	**67**	*e*PN	**Pn**	**08 18 37.3**	**+1.3**
AGRB	**Hanur-Agry**	**3.09**	**67**	*e*Pn	**Pn**	**08 18 37.3**	**+1.3**

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*KISR **26** 08:32:52.0±1.1,29.74N×56.10E,h43^{km}±999^{km},ML4.1*

*CSEM **26** 08:32:54.4±0.3,29.16N×56.05E,h40^{km},ML4.2/3,Error ellipse: s-maj=9.7km s-min=2.3km az=38.0*

*OMAN **26** 08:33:25.3,26.91N×56.29E,h16^{km}*

ISC 26 08:32:56.0±1.6,**29.0N**±0.1×**55.9E**±0.1,**h10**^{km},**n21**,σ**0^{s}90**/34,**Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BANOM	**Banah**	**3.08**	**174**	P	**Pn**	**08 33 43.9**	**-0.9**
	SNR=195						
BANOM	**Banah**	**3.08**	**174**	P	**Pn**	**08 33 43.9**	**-0.9**
	SNR=195						
BANOM	**Banah**	**3.08**	**174**	P	**Pn**	**08 33 43.9**	**-0.9**
	SNR=10						
BANOM				S	**Sn**	**08 34 19.5**	**-2.2**
NAZ	**Nazwa, Dubai**	**4.00**	**183**	P	**Pn**	**08 33 58.7**	**+1.2**
	SNR=11						
HATD	**Hatta, Dubai**	**4.16**	**177**	P	**Pn**	**08 33 59.3**	**-0.3**
FAQ	**Al Faqa, Dubai**	**4.25**	**184**	P	**Pn**	**08 34 01.6**	**+0.8**
	SNR=14						
ASHO	**Ashiyiah**	**4.30**	**178**	P	**Pn**	**08 34 01.6**	**+0.1**
	SNR=24						
ASHO	**Ashiyiah**	**4.30**	**178**	P	**Pn**	**08 34 01.6**	**0.0**
	SNR=24						
ASUD	**Al Ashush, Dub**	**4.39**	**187**	P	**Pn**	**08 34 04.4**	**+1.6**
	SNR=26						
QRN	**Al-Qurain**	**7.03**	**270**	*e*P	**Pn**	**08 34 39.0**	**0.0**
QRN				*e*S	**Sn**	**08 36 00.2**	**+1.1**
QRN				AML	AML	08 36 02.5	
	comp=Z,75nm,0.3s						
UMR	**Umm Al-Rimmam**	**7.20**	**276**	*e*P	**Pn**	**08 34 41.0**	**-0.3**
UMR				*e*S	**Sn**	**08 36 02.6**	**-0.5**
UMR				AML	AML	08 36 05.2	
	comp=Z,25nm,0.2s						
UMR	**Umm Al-Rimmam**	**7.20**	**276**	*e*P	**Pn**	**08 34 41.0**	**-0.3**
UMR				*e*S	**Sn**	**08 36 02.6**	**-0.5**
KBD	**Kabd**	**7.21**	**273**	*e*P	**Pn**	**08 34 41.8**	**+0.3**
KBD				*e*S	**Sn**	**08 36 04.2**	**+0.7**
KBD				AML	AML	08 36 04.5	
	comp=Z,58nm,0.3s						
RDF	**Al-Radifah**	**7.34**	**271**	*e*P	**Pn**	**08 34 43.6**	**+0.2**
RDF				*e*S	**Sn**	**08 36 07.5**	**+0.8**
RDF				AML	AML	08 36 08.7	
	comp=Z,20nm,0.2s						
RDF	**Al-Radifah**	**7.34**	**271**	*e*P	**Pn**	**08 34 43.6**	**+0.3**
RDF				*e*S	**Sn**	**08 36 07.6**	**+0.9**
	comp=Z,20nm,0.2s						
MIB	**Mutribah**	**7.54**	**278**	*e*P	**Pn**	**08 34 45.6**	**-0.4**
MIB				*e*S	**Sn**	**08 36 09.7**	**-1.8**
MIB				AML	AML	08 36 12.1	
	comp=Z,8.5nm,0.2s						
MIB	**Mutribah**	**7.54**	**278**	*e*P	**Pn**	**08 34 45.6**	**-0.4**
MIB				*e*S	**Sn**	**08 36 09.7**	**-1.8**
NAY	**Al-Naaiem**	**7.60**	**274**	*e*P	**Pn**	**08 34 47.0**	**+0.1**
NAY				*e*S	**Sn**	**08 36 13.5**	**+0.3**
NAY				AML	AML	08 36 14.7	
	comp=Z,10.0nm,0.2s						
NAY	**Al-Naaiem**	**7.60**	**274**	*e*P	**Pn**	**08 34 47.0**	**+0.1**
NAY				*e*S	**Sn**	**08 36 13.5**	**+0.3**
RST	**Umm Al-Ruwaisa**	**7.82**	**276**	*e*P	**Pn**	**08 34 49.4**	**-0.5**
RST				*e*S	**Sn**	**08 36 17.5**	**-1.0**
RST				AML	AML	08 36 18.1	
	comp=Z,8.5nm,0.3s						
RST	**Umm Al-Ruwaisa**	**7.82**	**276**	*e*P	**Pn**	**08 34 49.4**	**-0.5**
RST				*e*S	**Sn**	**08 36 17.5**	**-1.0**

IDC 26 08:48:58.4±7.2,**19.96S**×**169.19E**,**h0**^{km},**mb4.2**/4,**mb1 4.4**/4,**mb1mx4.1**/12,**mbtmp4.2**/4,**MS2.8**/1,**Ms1 2.8**/1,**ms1mx2.5**/24,**Error ellipse: s-maj=172.2km s-min=39.1km az=119.0**,**Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**3.31**	**230**	LR	LR	08 50 29.9	
	comp=Z,142nm,19.4s,baz=176,slow=28						
STKA	**Stephens Creek**	**27.42**	**239**	P	P	08 54 46.0	+0.2
	3.0nm,0.7s,baz=97,slow=8.7,SNR=9.1						
WRA	**Warramunga Arr**	**32.72**	**264**	P	P	08 55 32.8	-0.1
	0.6nm,0.3s,baz=94,slow=7.7,SNR=5.6						
ASAR	**Alice Springs**	**32.91**	**257**	P	P	08 55 34.5	0.0
	6.6nm,0.6s,baz=89,slow=8.2,SNR=109						
MJAR	**Matsushiro Arr**	**63.37**	**332**	P	P	08 59 29.4	-0.1
	0.8nm,0.4s,baz=134,slow=8.7,SNR=4.2						

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*ISCJB **26** 08:48:57.5±0.3,9.87N±0.03×42.85E±0.04,h10^{km},mb4.8/54,MS4.4/29,Error ellipse: s-maj=6.4km s-min=3.7km az=33.3*

*DHMR **26** 08:48:57.7±1.1,9.89N×42.87E,h16^{km}±185^{km},mb4.7,ML4.4*

*MOS **26** 08:48:57.6±1.2,9.90N×42.78E,h10^{km},mb5.3/11,MS4.3/7,Error ellipse: s-maj=17.2km s-min=7.3km az=76.2*

*BJI **26** 08:48:57.9,10.00N×42.70E,h15^{km},mB5.2,mb4.7,Ms4.9,Msz4.5*

*IDC **26** 08:48:57.9±0.6,9.94N×42.86E,h0^{km},mb4.3/17,mb1 4.4/18,mb1mx4.4/22,mbtmp4.3/18,ML3.5/1,MS4.3/16,Ms1 4.3/16,ms1mx4.3/25,Error ellipse: s-maj=19.4km s-min=10.7km az=93.0*

*CSEM **26** 08:48:58.0±0.1,10.01N×42.86E,h10^{km},mb5.1/13,Mw5.0,Error ellipse: s-maj=4.7km s-min=3.8km az=83.0*

*NEIC **26** 08:48:59.4±0.4,9.97N×42.88E,h10^{km},mb4.9/7,Error ellipse: s-maj=11.8km s-min=8.5km az=104.0*

*GCMT **26** 08:48:59.4±0.4,9.77N×43.19E,h12^{km},MW5.0/53,Moment Tensor Solution. s27,c30; s53,c80; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.91±.19; M$_{\theta\theta}$4.33±.13; M$_{\phi\phi}$-1.41±.22; M$_{r\theta}$-1.75±.42; M$_{\theta\phi}$1.20±.15; M$_{\phi r}$-0.54±.68; Best double couple: M$_0$4.16900×10^{16} NP1:φ$_s$266.00000°,δ32.00000°,λ-79.00000°. NP2: φ$_s$73.00000°,δ58.00000°,λ-97.00000°. Principal axes: T 4.9910, Plg13.0000°, Azm168.0000°; N -1.6330, Plg6.0000°, Azm77.0000°; P -3.3480, Plg76.0000°, Azm324.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 26 08:48:59.4±0.3,**9.84N**±0.03×**42.87E**±0.04,**h11**^{km},**h11**^{km}±1.6^{km}**:pP-P**,**n148**,σ**1^{s}15**/154,**mb4.8**/54,**MS4.4**/29,**7C-5D**,**Ethiopia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATD	**Arta Tunnel**	**1.68**	**359**	Pg	**Pn**	**08 49 25.9**	**-2.8**
ATD				Lg		08 49 47.5	
ATD	**Arta Tunnel**	**1.68**	**359**	Pg	**Pn**	**08 49 25.9**	**-2.8**
	487nm,0.3s,baz=239,slow=22,SNR=1102						
ATD				Lg		08 49 47.5	
	6μm,0.3s,baz=317,slow=19,SNR=43						
ATD	**Arta Tunnel**	**1.68**	**359**	Pg	**Pn**	**08 49 26.0**	**-2.7**
DESE	**Dese**	**3.42**	**292**	*e*P	**Pn**	**08 49 52.5**	**-0.3**
DESE				S	**Sg**	**08 50 44.0**	**-5.4**
TRBA	**At Turbah**	**3.58**	**20**	*i* P	**Pn**	**08 49 53.9**	**-1.1**
TRBA				AMb	AMB	08 49 55.4	
	comp=Z,369nm,1.8s						
TRBA				*i* S	**Sn**	**08 50 39.8**	**+2.5**
TRBA				AML	AML	08 51 05.7	
	comp=E,2μm,0.7s						
UDYN	**Al ‘Udayn**	**4.24**	**15**	*i* P	**Pn**	**08 50 03.9**	**0.0**
UDYN				AMb	AMB	08 50 04.7	
	comp=Z,17nm,0.5s						
UDYN				*i* S	**Sn**	**08 50 55.1**	**+1.6**
UDYN				AML	AML	08 51 21.4	
	comp=N,1μm,0.8s						
UDYN	**Al ‘Udayn**	**4.24**	**15**	*i* P	**Pn**	**08 50 03.9**	**-0.1**
	comp=N,8.4nm,0.5s						
UDYN				*i* S	**Sn**	**08 50 55.1**	**+1.6**
	comp=N,610nm,0.8s						
FURI	**Furi**	**4.24**	**258**	*e*PN	**Pn**	**08 50 05.9**	**+1.9**
FURI				*e*S	**Sg**	**08 51 14.6**	**-1.1**
LBOS		**4.63**	**30**⇓	*i*P	**Pn**	**08 50 09.3**	**-0.1**
LBOS				*i* S	**Sn**	**08 51 04.7**	**+1.5**
BDHA	**Al Bayda’**	**4.88**	**32**⇑	*i*P	**Pn**	**08 50 12.6**	**-0.2**
BDHA				*i* S	**Sn**	**08 51 10.7**	**+1.3**
DHBB	**Dhamar BB**	**4.93**	**17**⇑	*i*P	**Pn**	**08 50 13.4**	**-0.1**
DHBB				*i* S	**Sn**	**08 51 11.9**	**+1.4**
HAJJ	**Hajjah**	**5.87**	**7**	*i* P	**Pn**	**08 50 25.6**	**-0.7**
HAJJ				*i* S	**Sn**	**08 51 33.7**	**+0.1**
KMBO	**Kilima Mbogo**	**12.25**	**207**	*e*Pn	**Pn**	**08 51 55.4**	**+1.5**
KMBO				*e*Sn	**Sn**	**08 54 16.8**	**+6.2**
KMBO				*e*Sg		08 55 30.3	
KMBO	**Kilima Mbogo**	**12.25**	**207**	*e*P	**Pn**	**08 51 55.4**	**+1.5**
KMBO				*e*		08 54 16.8	
KMBO	**Kilima Mbogo**	**12.25**	**207**	Pn	**Pn**	**08 51 57.4**	**+3.5**
	SNR=10.0						
KMBO	**Kilima Mbogo**	**12.25**	**207**	Pn	**Pn**	**08 51 53.9**	**0.0**
	comp=N,0.3nm,0.3s,baz=29,slow=14,SNR=18						
KMBO				Sn	**Sn**	**08 54 09.9**	**-0.7**
	comp=N,1.6nm,0.3s,baz=34,slow=19,SNR=4.5						
KMBO				Lg		08 55 17.0	
	comp=N,5.1nm,0.3s,baz=279,slow=16,SNR=4.7						
KMBO				LR	LR	08 56 35.0	
	comp=N,2μm,21.9s,baz=197,slow=37						
KMBO	**Kilima Mbogo**	**12.25**	**207**	P	**Pn**	**08 51 57.4**	**+3.5**
	SNR=10.0						
ABTO	**Aybut**	**12.59**	**53**	P	**Pn**	**08 52 05.0**	**+6.5**
	SNR=10						
ABTO	**Aybut**	**12.59**	**53**	P	**Pn**	**08 52 05.0**	**+6.5**
	SNR=10						
ABTO	**Aybut**	**12.59**	**53**	Pn	**Pn**	**08 52 05.0**	**+6.5**
	SNR=10						
ABTO	**Aybut**	**12.59**	**53**	P	**Pn**	**08 52 05.0**	**+6.5**
	SNR=10						
RBK	**Rabkut**	**13.39**	**54**	P	**Pn**	**08 52 13.2**	**+3.7**
	SNR=8.3						
RBK	**Rabkut**	**13.39**	**54**	P	**Pn**	**08 52 13.2**	**+3.7**
	SNR=8.3						
RBK	**Rabkut**	**13.39**	**54**	Pn	**Pn**	**08 52 13.2**	**+3.7**
	SNR=8.3						
RBK	**Rabkut**	**13.39**	**54**	P	**Pn**	**08 52 13.2**	**+3.7**
	SNR=8.3						
ARQ	**Araqi**	**18.72**	**43**	P	**Pn**	**08 53 17.5**	**-1.0**
	SNR=6.1						
ASUD	**Al Ashush, Dub**	**18.89**	**37**	P	**Pn**	**08 53 21.5**	**+0.9**
	SNR=8.6						
FAQ	**Al Faqa, Dubai**	**19.14**	**38**	P	**Pn**	**08 53 22.5**	**-1.1**
	SNR=14						
JMDO	**Jabal Madar**	**19.20**	**48**	P	**Pn**	**08 53 24.4**	**+0.1**
	SNR=5.9						
NAZ	**Nazwa, Dubai**	**19.36**	**37**	P	**Pn**	**08 53 24.9**	**-1.4**
	SNR=13						
ASHO	**Ashiyiah**	**19.38**	**39**	P	**Pn**	**08 53 25.3**	**-1.2**
	SNR=11						
HOQ	**Hoqain**	**19.42**	**44**	P	**Pn**	**08 53 25.4**	**-1.6**
	SNR=7.5						
RDF	**Al-Radifah**	**19.49**	**12**	AMb	AMB	08 53 30.6	
	comp=Z,41nm,0.5s						
HATD	**Hatta, Dubai**	**19.53**	**39**	P	**Pn**	**08 53 27.6**	**-0.7**
	SNR=12						
SMDO	**Samad**	**19.59**	**46**	P	**Pn**	**08 53 26.4**	**-2.5**
	SNR=8.6						
NAY	**Al-Naaiem**	**19.74**	**11**	*e*P	**Pn**	**08 53 27.8**	**-2.9**
NAY				AMb	AMB	08 53 37.6	
	comp=Z,25nm,1.3s						
NAY	**Al-Naaiem**	**19.74**	**11**	*e*P	**Pn**	**08 53 27.8**	**-2.9**
	comp=Z,25nm,1.3s						
RST	**Umm Al-Ruwaisa**	**19.94**	**11**	*e*P	**Pn**	**08 53 29.3**	**-3.7**
RST				AMb	AMB	08 53 34.6	
	comp=Z,51nm,1.0s						
RST	**Umm Al-Ruwaisa**	**19.94**	**11**	*e*P	**Pn**	**08 53 29.3**	**-3.8**
	comp=Z,51nm,1.0s						
MIB	**Mutribah**	**20.29**	**11**	*e*P	**P**	**08 53 33.5**	**-1.9**
MIB				AMb	AMB	08 53 42.1	
	comp=Z,65nm,0.9s						
MIB	**Mutribah**	**20.29**	**11**	*e*P	**P**	**08 53 33.5**	**-1.8**
	comp=Z,65nm,0.9s						
EIL	**Elat**	**21.07**	**341**	P	**P**	**08 53 41.3**	**-2.4**
	comp=Z,2.6nm,0.8s,mb3.6,baz=138,slow=14,SNR=1.9						
EIL				LR	LR	09 00 23.6	
	comp=Z,1μm,19.7s,MS4.2,baz=140,slow=33						
ASF	**Jabal al Asfar**	**22.90**	**347**	LR	LR	09 02 09.4	
	comp=Z,1μm,19.0s,MS4.4,baz=220,slow=35						
BHD	**Baghdad**	**23.36**	**3**	*e*P	x	08 54 15.0	
BHD				*e*S	x	08 59 05.0	
MMAI	**Mount Meron Ar**	**24.07**	**344**	LR	LR	09 02 43.2	
	comp=Z,768nm,18.2s,MS4.2,baz=170,slow=34						
LSZ	**Lusaka**	**28.89**	**210**	P	**P**	**08 54 59.0**	**+0.5**
LSZ				LR	LR	09 05 56.0	
LSZ	**Lusaka**	**28.89**	**210**	P	**P**	**08 54 59.0**	**+0.5**
	comp=Z,1.2nm,0.6s,mb3.8,baz=29,slow=9.6,SNR=4.5						
LSZ				LR	LR	09 05 56.0	
	comp=Z,788nm,18.5s,MS4.3,baz=132,slow=35						
BRTR	**Keskin Array B**	**30.87**	**346**	P	**P**	**08 55 17.2**	**+1.4**
BRTR						08 58 13.6	
BRTR	**Keskin Array B**	**30.87**	**346**	P	**P**	**08 55 17.1**	**+1.3**
	comp=Z,4.1nm,1.1s,mb4.2,baz=160,slow=7.7,SNR=11						
BRTR				PcP	PcP	08 58 13.6	+0.9
	comp=Z,1.2nm,0.9s,baz=190,slow=4.2,SNR=3.7						
BRTR				LR	LR	09 07 37.1	
	comp=Z,390nm,19.3s,MS4.1,baz=141,slow=36						
BRTR	**Keskin Array B**	**30.87**	**346**	P	**P**	**08 55 17.1**	**+1.3**
ZEI	**Tsey**	**32.81**	**1**	*e*P	**P**	**08 55 33.3**	**+0.5**
ZEI				*i* *PP	pP	08 55 42.4	+6.3
MAK	**Makhachkala**	**33.24**	**6**	*e*P	**P**	**08 55 37.4**	**+0.9**
MAK				*e*		08 56 45.4	
MAK				*e*PPP		08 57 05.2	
MAK				*e*S	**S**	**09 00 56.1**	**-0.4**
MAK				*e*SS	SS	09 02 50.3	-30
MAK				pmax	pmax		
	comp=Z,129nm,1.5s,mb5.6						
MAK				MLR	MLR		
	comp=Z,919nm,14.0s,MS4.6						
KIV	**Kislovodsk**	**33.98**	**360**	*e*P	**P**	**08 55 44.5**	**+1.5**
	comp=Z,38nm,1.1s,mb5.2						
KIV	**Kislovodsk**	**33.98**	**360**	*e*P	**P**	**08 55 44.8**	**+1.8**
KIV				*e*		08 56 56.9	
KIV				*e*S	**S**	**09 01 09.8**	**+1.8**
KIV				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.1						
KIV				MLR	MLR		
	comp=Z,312nm,18.0s,MS4.1						
KIV	**Kislovodsk**	**33.98**	**360**	P	**P**	**08 55 44.9**	**+1.9**
	SNR=5.2						
KIV	**Kislovodsk**	**33.98**	**360**	P	**P**	**08 55 44.9**	**+1.9**
	SNR=5.2						
KIV	**Kislovodsk**	**33.98**	**360**	*e*P	**P**	**08 55 44.5**	**+1.5**
	comp=Z,38nm,1.1s,mb5.2						
ANN	**Anapa**	**35.14**	**353**	*e*P	**P**	**08 55 48.9**	**-4.2**
ANN				*e*		08 57 06.5	
ANN				*e*		08 58 21.1	
ANN				*e*S	**S**	**09 01 17.9**	**-8.0**
ANN				pmax	pmax		
	comp=Z,101nm,1.3s,mb5.6						
ANN				MLR	MLR		
	comp=Z,388nm,13.0s,MS4.3						
NDI	**New Delhi**	**37.25**	**55**	*e*x	x	08 56 11.5	
KEST	**Kesra**	**39.90**	**316**	LR	LR	09 15 17.4	
	comp=Z,648nm,18.4s,MS4.5,baz=274,slow=40						
TORD	**Torodi Ar. Bea**	**40.45**	**279**	P	**P**	**08 56 38.6**	**+0.3**
	comp=Z,4.1nm,0.9s,mb4.2,baz=89,slow=7.1,SNR=26						
BOSA	**Boshof**	**41.85**	**204**	P	**P**	**08 56 49.3**	**-0.3**
	comp=Z,11nm,1.1s,mb4.4,baz=29,slow=7.8,SNR=7.1						
BOSA				LR	LR	09 16 23.4	
	comp=Z,809nm,18.1s,MS4.6,baz=34,slow=39						
AKASG	**Malin Array Be**	**42.26**	**347**	P	**P**	**08 56 52.2**	**-0.5**
AKASG				LR	LR	09 16 35.8	
AKASG	**Malin Array Be**	**42.26**	**347**	P	**P**	**08 56 52.2**	**-0.5**
	comp=Z,1.6nm,0.6s,mb3.8,baz=172,slow=7.5,SNR=9.0						
AKASG				LR	LR	09 16 35.8	
	comp=Z,308nm,18.3s,MS4.2,baz=155,slow=39						
AAK	**Ala-Archa**	**42.79**	**35**	*e*P	**P**	**08 56 57.2**	**0.0**
	comp=Z,5.9nm,1.1s,mb4.2						
AAK	**Ala-Archa**	**42.79**	**35**⇓	*e*P	**P**	**08 56 58.6**	**+1.5**
AAK				pmax	pmax		
	comp=Z,15nm,2.2s,mb4.3						
AAK				MLR	MLR		
	comp=Z,400nm,14.0s,MS4.5						
AAK	**Ala-Archa**	**42.79**	**35**	*e*P	**P**	**08 56 57.2**	**+0.1**
	comp=Z,5.9nm,1.1s,mb4.2						
GKN	**Gorkha**	**43.18**	**59**	*e*P	**P**	**08 56 59.9**	**-0.6**
	comp=Z,112nm,1.3s,mb5.5						
KKN	**Kakani**	**43.67**	**60**	*e*P	**P**	**08 57 04.2**	**-0.3**
	comp=Z,135nm,1.2s,mb5.6						
KKN	**Kakani**	**43.67**	**60**	*e*P	**P**	**08 57 04.2**	**-0.3**
KKN				pmax	pmax		
	comp=Z,135nm,1.2s,mb5.5						
JIRN	**Jiri**	**44.41**	**60**	*e*P	**P**	**08 57 09.5**	**-1.0**
	comp=Z,103nm,1.2s,mb5.4						
ODAN	**Odare**	**45.25**	**62**	*e*P	**P**	**08 57 16.7**	**-0.5**
	comp=Z,97nm,1.6s,mb5.4						
OBN	**Obninsk**	**45.43**	**355**⇑	*i*P	**P**	**08 57 18.3**	**+0.2**
OBN				*e*		08 59 07.1	
OBN				*e*S	**S**	**09 04 03.7**	**+4.5**
OBN				pmax	pmax		
	comp=Z,28nm,1.5s,mb4.9						
OBN				MLR	MLR		
	comp=Z,200nm,16.0s,MS4.2						
TAPN	**Taplejung**	**45.64**	**61**	*e*P	**P**	**08 57 18.9**	**-1.4**
	comp=Z,139nm,1.3s,mb5.7						
GERES	**GERESS Array B**	**45.90**	**333**	P	**P**	**08 57 20.2**	**-1.7**
	comp=Z,0.4nm,0.4s,mb3.7,baz=154,slow=5.2,SNR=4.3						
GERES				LR	LR	09 20 43.7	
	comp=Z,134nm,18.4s,MS3.9,baz=104,slow=42						
MOS	**Moscow**	**45.97**	**356**	*e*P	**P**	**08 57 22.0**	**-0.3**
MOS				pmax	pmax		
	comp=Z,63nm,1.2s,mb5.4						
KIC	**Kosan Boka**	**47.23**	**270**	*e*P	**P**	**08 57 33.2**	**+0.3**
	comp=Z,57nm,0.9s,mb5.5						
TIC	**Toumodi**	**47.47**	**270**	*e*P	**P**	**08 57 34.8**	**0.0**
	comp=Z,167nm,1.3s,mb5.8						
LIC	**Lamto**	**47.53**	**269**	*e*P	**P**	**08 57 35.5**	**+0.2**
	comp=Z,93nm,1.3s,mb5.7						
ARU	**Arti**	**48.07**	**12***d*	*i*P	**P**	**08 57 40.6**	**+1.9**
ARU				*e*		08 59 33.7	
ARU				*e*S	**S**	**09 04 38.3**	**+1.4**
ARU				pmax	pmax		
	comp=Z,9.0nm,1.7s,mb4.5						
ARU				MLR	MLR		
	comp=Z,234nm,22.0s,MS4.1						
BRVK	**Borovoye**	**48.44**	**22**	*e*P	**P**	**08 57 41.4**	**-0.2**
	comp=Z,15nm,1.2s,mb4.9						
BRVK	**Borovoye**	**48.44**	**22**	*e*P	**P**	**08 57 41.4**	**-0.3**
BRVK				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.9						
BRVK	**Borovoye**	**48.44**	**22**	*e*P	**P**	**08 57 41.4**	**-0.3**
	comp=Z,15nm,1.2s,mb4.9						
SHL	**Shillong**	**48.95**	**65**	*e*P	**P**	**08 57 46.0**	**-0.1**
LSA	**Lhasa**	**49.13**	**59**	P	**P**	**08 57 47.8**	**+0.4**
LSA	**Lhasa**	**49.13**	**59**	*e*P	**P**	**08 57 48.0**	**+0.6**
	comp=Z,46nm,1.4s,mb5.3						
LSA	**Lhasa**	**49.13**	**59**	*e*P	**P**	**08 57 48.0**	**+0.6**
LSA				pmax	pmax		
	comp=Z,46nm,1.4s,mb5.3						
LSA	**Lhasa**	**49.13**	**59**	*e*P	**P**	**08 57 48.0**	**+0.6**
	comp=Z,46nm,1.4s,mb5.3						
MK31	**Makanchi Array**	**49.73**	**35**	*e*P	**P**	**08 57 50.7**	**-1.0**
MK31	**Makanchi Array**	**49.73**	**35**	*e*P	**P**	**08 57 50.7**	**-1.0**
MKAR	**Makanchi Array**	**49.73**	**35**	P	**P**	**08 57 50.8**	**-0.9**
MKAR				LR	LR	09 19 32.9	
MKAR	**Makanchi Array**	**49.73**	**35**	P	**P**	**08 57 50.8**	**-0.9**
	comp=Z,7.5nm,1.0s,mb4.7,baz=232,slow=6.0,SNR=31						
MKAR				LR	LR	09 19 32.9	
	comp=Z,286nm,19.2s,MS4.3,baz=39,slow=37						
KURK	**Kurchatov**	**50.24**	**29**	*e*P	**P**	**08 57 55.1**	**-0.4**
	comp=Z,17nm,1.3s,mb4.9						
KURK	**Kurchatov**	**50.24**	**29**⇑	*e*P	**P**	**08 57 55.9**	**+0.4**
KURK	**Kurchatov**	**50.24**	**29**	*e*P	**P**	**08 57 55.1**	**-0.4**
	comp=Z,17nm,1.3s,mb4.9						
ESDC	**Sonseca Array**	**51.07**	**314**	P	**P**	**08 58 02.0**	**0.0**
	comp=Z,0.8nm,0.4s,mb4.0,baz=107,slow=6.4,SNR=7.7						
ESDC				LR	LR	09 21 29.3	
	comp=Z,310nm,18.1s,MS4.4,baz=135,slow=38						
WMQ	**Urumqi**	**51.46**	**41**	P	**P**	**08 58 05.3**	**+0.5**
WMQ				LR	LR		
	comp=N,191nm,20.5s						
WMQ				LR	LR		
	comp=E,183nm,37.0s						
WMQ				LR	LR		
	comp=Z,208nm,16.5s,MS4.2						
FINES	**FINESS Array B**	**52.97**	**350**	P	**P**	**08 58 15.5**	**-0.2**
	comp=Z,6.2nm,1.0s,mb4.5,baz=126,slow=9.7,SNR=11						
FINES				LR	LR	09 21 40.1	
	comp=Z,142nm,20.2s,MS4.0,baz=53,slow=37						
KAF	**Kangasniemi**	**53.56**	**350**	*e*p	**P**	**08 58 18.5**	**-1.5**
	baz=157,slow=7.6						
JOF	**Joensuu**	**53.64**	**353**	*e*p	**P**	**08 58 18.3**	**-2.3**
	comp=Z,8.4nm,0.9s,mb4.7						
ZAL	**Zalesovo**	**55.22**	**29**	P	**P**	**08 58 31.5**	**-0.8**
ZALV	**Zalesovo Beam**	**55.23**	**29**	P	**P**	**08 58 31.5**	**-0.9**
	comp=Z,1.9nm,0.3s,mb4.6,baz=243,slow=6.5,SNR=6.8						
ZALV				LR	LR	09 25 11.2	
	comp=Z,618nm,18.5s,MS4.7,baz=47,slow=39						
NAO01	**NORSAR Array S**	**56.12**	**342**	*e*P	**P**	**08 58 40.5**	**+1.9**
	comp=Z,15nm,1.0s,mb5.0						
NAO01	**NORSAR Array S**	**56.12**	**342**	*e*P	**P**	**08 58 40.5**	**+1.9**

	comp=Z,15nm,1.0s,mb5.0						
NB2	NORSAR Subarra	56.18	342	P	P	08 58 38.4	-0.6
	comp=Z,13nm,1.2s,mb4.8,baz=139,slow=7.4						
NOA	NORSAR Array B	56.18	342	P	P	08 58 38.9	-0.1
NOA				LR	LR	09 23 36.1	
NOA	NORSAR Array B	56.18	342	P	P	08 58 38.9	-0.1
	comp=Z,3.0nm,0.9s,mb4.3,baz=139,slow=7.2,SNR=4.2						
NOA				LR	LR	09 23 36.1	
	comp=Z,157nm,18.9s,MS4.1,baz=125,slow=37						
GTA	Gaotai	58.41	50	eP	P	08 58 57.0	+1.7
GTA				AP	pP	08 59 01.5	+2.8
GTA				XP	sP	08 59 04.0	+4.0
GTA				PCP	PcP	08 59 49.8	+3.8
GTA				PP	PP	09 01 06.3	+1.8
GTA				S	S	09 06 55.5	-2.8
GTA				SS	SS	09 10 47.0	-3.6
GTA				AMB	AMB		
	comp=Z,7.0nm,1.2s,mb4.6						
GTA				AMB	AMB		
	comp=Z,147nm,4.9s						
GTA				LR	LR		
	comp=N,319nm,14.1s,MS4.7						
GTA				LR	LR		
	comp=E,253nm,14.5s,MS4.7						
GTA				LR	LR		
	comp=Z,200nm,16.4s,MS4.3						
KMI	Kunming	58.66	67	P	P	08 58 58.0	+0.8
KMI				AMB	AMB		
	comp=Z,17nm,1.5s,mb4.8						
ARCES	ARCESS Array B	60.67	353	LR	LR	09 29 41.1	
	comp=Z,214nm,18.3s,MS4.3,baz=248,slow=40						
KEV	Kevo	60.71	354	ep	P	08 59 09.3	-1.3
LZH	Lanzhou	60.87	54	eP	P	08 59 12.5	+0.3
LZH				AP	pP	08 59 15.8	+0.1
LZH				PP	PP	09 01 28.5	+2.2
LZH				eS	S	09 07 29.0	-1.1
LZH				SS	SS	09 11 25.5	-3.7
LZH				AMB	AMB		
	comp=Z,59nm,1.7s,mb5.4						
LZH				AMB	AMB		
	comp=Z,250nm,4.0s						
LZH				LR	LR		
	comp=E,445nm,16.1s						
LZH				LR	LR		
	comp=Z,756nm,17.3s,MS4.9						
GYA	Guiyang	62.27	65	P	P	08 59 23.0	+1.1
GYA				PCP	PcP	09 00 03.3	+1.6
GYA				PP	PP	09 01 42.0	+3.1
GYA				SCP	ScP	09 04 04.0	0.0
GYA				S	S	09 07 46.8	-1.4
GYA				SKS		09 09 11.5	
GYA				SS	SS	09 11 51.0	-0.6
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.2						
GYA				AMB	AMB		
	comp=Z,110nm,5.0s						
GYA				LR	LR		
	comp=N,320nm,20.0s,MS4.7						
GYA				LR	LR		
	comp=E,470nm,21.2s,MS4.7						
GYA				LR	LR		
	comp=Z,410nm,21.8s,MS4.5						
XAN	Xi'an	64.74	57	P	P	08 59 37.5	-0.6
XAN				AMB	AMB		
	comp=Z,14nm,1.5s,mb4.8						
SONM	Songino Array	65.07	42	P	P	08 59 40.4	+0.4
	comp=Z,6.6nm,1.0s,mb4.6,baz=246,slow=5.6,SNR=27						
ULN	Ulaanbaatar	65.51	42	eP	P	08 59 42.0	-0.9
	comp=Z,4.4nm,1.0s,mb4.4						
ULN	Ulaanbaatar	65.51	42	⇑eP	P	08 59 43.9	+1.1
ULN	Ulaanbaatar	65.51	42	eP	P	08 59 42.0	-0.8
	comp=Z,4.4nm,1.0s,mb4.4						
HHC	Hu-ho-hao-te	67.53	50	eP	P	08 59 57.0	+1.1
HHC				AP	pP	09 00 01.5	+2.1
HHC				XP	sP	09 00 04.0	+3.3
HHC				PCP	PcP	09 00 24.3	+1.2
HHC				PP	PP	09 02 26.8	+2.1
HHC				SCP		09 04 26.5	
HHC				PCS		09 04 27.8	
HHC				S	S	09 08 51.0	-1.5
HHC				SCS	ScS	09 09 51.5	-2.9
HHC				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.7						
HHC				AMB	AMB		
	comp=Z,183nm,5.9s						
HHC				LR	LR		
	comp=N,132nm,22.8s,MS4.4						
HHC				LR	LR		
	comp=E,239nm,22.8s,MS4.4						
HHC				LR	LR		
	comp=Z,194nm,22.8s,MS4.3						
WHN	Wuhan	69.15	61	⇑P	P	09 00 08.5	+2.2
KBS	Kingsbay	70.73	354	⇑eP	P	09 00 17.2	+2.1
BJI	Beijing	70.97	51	P	P	09 00 16.8	-0.4
BJI				AP	pP	09 00 19.5	-1.2
BJI				S	S	09 09 32.3	-0.9
BJI				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.7						
BJI				LR	LR		
	comp=N,243nm,8.7s						
BJI				LR	LR		
	comp=E,221nm,7.8s						
BJI				LR	LR		
	comp=Z,133nm,24.7s,MS4.1						
BOD	Bodaibo	71.70	32	eP	P	09 00 19.7	-1.6
BOD				pmax	pmax		
	comp=Z,5.0nm,1.6s,mb4.2						
NJ2	Nanjing	73.00	59	eP	P	09 00 29.3	-0.3
NJ2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
CN2	Changchun	77.92	47	eP	P	09 00 58.5	+0.9
CN2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.7						
MAW	Mawson	78.58	172	P	P	09 01 02.3	+1.7
	comp=Z,5.9nm,0.8s,mb4.6,baz=284,slow=8.3,SNR=3.9						
TIXI	Tiksi	79.46	19	eP	P	09 01 07.0	+1.5
TIXI	Tiksi	79.46	19	⇓eP	P	09 01 06.4	+0.8
TIXI				pmax	pmax		
	comp=Z,14nm,2.0s,mb4.5						
TIXI	Tiksi	79.46	19	eP	P	09 01 07.0	+1.4
YAK	Yakutsk	79.89	29	iP	P	09 01 09.8	+1.8
YAK				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
KSRS	Korea Array	80.19	54	P	P	09 01 10.2	+0.1
	comp=Z,5.4nm,1.1s,mb4.4,baz=276,slow=6.2,SNR=12						
MDJ	Mudanjiang	80.85	46	P	P	09 01 13.0	-0.6
MDJ				PP	PP	09 04 16.5	-1.2
MDJ				S	S	09 11 21.0	-1.0
MDJ				AMB	AMB		
	comp=Z,8.0nm,1.8s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,155nm,7.6s						
MDJ				LR	LR		
	comp=N,393nm,26.9s						
MDJ				LR	LR		
	comp=Z,385nm,30.6s,MS4.6						
HABR	Khabarovsk	84.16	42	eP	P	09 01 29.6	-1.2
HABR				eS	S	09 11 49.4	-6.4
HABR				pmax	pmax		
	comp=Z,48nm,1.2s,mb5.5						
VNA2	Neumayer--Watz	87.32	195	eP	P	09 01 46.1	+0.2
VNA2				e	pP	09 01 48.7	-0.8
VNA2				e		09 01 55.3	
VNA2				e		09 02 02.0	
VNA1	Neumayer--Stat	87.36	195	eP	P	09 01 46.0	-0.1
VNA1				e	pP	09 01 48.1	-1.6
VNA1				e		09 01 54.8	
VNA1				e		09 02 00.7	
VNA3	Neumayer Olymp	88.10	195	eP	P	09 01 50.6	+1.0
VNA3				e	pP	09 01 52.8	-0.4
VNA3				e		09 01 57.5	
VNA3				e		09 02 03.9	
MA2	Magadan	90.46	29	eP	P	09 02 02.9	+1.9
	comp=Z,8.0nm,1.1s,mb5.0						
MA2	Magadan	90.46	29	eP	P	09 02 02.9	+1.9
MA2				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb5.0						
MA2	Magadan	90.46	29	eP	P	09 02 02.9	+1.9
	comp=Z,7.9nm,1.1s,mb5.0						
BILL	Bilibino	92.68	18	⇓eP	P	09 02 12.1	+0.9
BILL				e		09 05 54.9	
BILL				eSS	SS	09 19 39.0	+12
BILL				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.9						
BILL				MLR	MLR		
	comp=Z,400nm,21.0s,MS4.8						
WRA	Warramunga Arr	94.67	109	P	P	09 02 21.7	+0.5
	comp=Z,3.2nm,1.0s,mb4.7,baz=295,slow=3.4,SNR=9.0						
ASAR	Alice Springs	94.83	113	P	P	09 02 21.9	0.0
	comp=Z,1.6nm,0.9s,mb4.5,baz=286,slow=4.3,SNR=9.3						
PDAR	Pinedale Array	121.90	336	PKP	PKPdf	09 07 53.6	-0.5
PDAR	Pinedale Array	121.90	336	PKP	PKPdf	09 07 53.6	-0.5
	comp=Z,0.7nm,0.8s,baz=101,slow=4.7,SNR=5.2						
PDAR	Pinedale Array	121.90	336	PKIKP	PKPdf	09 07 53.6	-0.5
NVAR	Mina Array Bea	128.86	341	PKP	PKPdf	09 08 08.7	+1.1
NVAR	Mina Array Bea	128.86	341	PKP	PKPdf	09 08 08.7	+1.1
	comp=Z,1.4nm,0.9s,baz=228,slow=1.8,SNR=6.4						
NVAR	Mina Array Bea	128.86	341	PKIKP	PKPdf	09 08 08.7	+1.1

IDC 26 08:57:32.5±5.3, 42.29N×149.94E, h0^{km}, mb3.7/3, mb1 4.0/3, mb1mx3.5/21, mbtmp3.7/3, Error ellipse: s-maj=150.5km s-min=53.3km az=17.0, Off southeast coast of Hokkaido

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YKA	Yellowknife Ar	55.88	34	P	P	09 07 11.5	+0.2
	0.3nm,0.5s,baz=298,slow=7.1,SNR=5.3						
FINES	FINESS Array B	67.09	334	P	P	09 08 27.2	0.0
	0.3nm,0.3s,baz=38,slow=9.6,SNR=5.0						
TXAR	Lajitas Array	81.73	58	P	P	09 09 53.0	+0.1
	0.5nm,0.5s,baz=299,slow=4.8,SNR=14						

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*BJI **26** 09:01:16.4, 16.32S×168.15E, h51^{km}, mB5.3, mb5.1, Ms5.2, Msz4.9*

*LDG **26** 09:01:17.7±0.3, 15.75S×166.74E, h10^{km}, Mb5.4/2, Ms4.8/8, Error ellipse: s-maj=50.7km s-min=6.9km az=87.0*

*MOS **26** 09:01:19.7±1.5, 15.89S×167.48E, h33^{km}, mb5.4/28, MS4.9/19, Error ellipse: s-maj=10.0km s-min=7.9km az=34.9*

*ISCJB **26** 09:01:20.1±1.1, 15.97S±0.04×167.52E±0.04, h46^{km}±9^{km}, mb5.2/67, MS4.8/48, Error ellipse: s-maj=7.1km s-min=5.9km az=168.3*

*IDC **26** 09:01:21.3±0.6, 15.92S×167.54E, h44^{km}±4^{km}, mb4.8/18, mb1 4.8/19, mb1mx4.8/21, mbtmp4.8/19, ML5.3/1, MS4.7/16, Ms1 4.7/16, ms1mx4.5/21, Error ellipse: s-maj=15.3km s-min=13.6km az=101.0*

*GCMT **26** 09:01:22.6±0.2, 15.98S×167.39E, h44^{km}, MW5.5/87, Moment Tensor Solution. s84,c147; s87,c149; Duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$2.01±.04; M$_{\theta\theta}$0.18±.03; M$_{\phi\phi}$-2.19±.03; M$_{r\theta}$-0.55±.04; M$_{\theta\phi}$1.03±.03; M$_{\phi r}$0.13±.04; Best double couple: M$_0$2.38400×10^{17} NP1:ϕ_s176.00000°, δ44.00000°, λ114.00000°. NP2:ϕ_s324.00000°, δ51.00000°, λ69.00000°. Principal axes: T 2.1710, Plg73.0000°, Azm172.0000°; N 0.4290, Plg16.0000°, Azm338.0000°; P -2.5960, Plg4.0000°, Azm69.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **26** 09:01:22.6±1.1, 15.97S×167.52E, h51^{km}±9^{km}, mb5.2/35, MS5.1/5 Error ellipse: s-maj=8.4km s-min=6.6km az=163.0*

ISC 26 09:01:22.9±0.9, 16.02S±0.04×167.55E±0.04, h57^{km}±8^{km}, h57^{km}±2.9^{km}:pP-P, n509, σ1^{s}14/177, mb5.2/67, MS4.8/48, 33C-31D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	6.11	190	eP	Pn	09 02 48.8	-1.8
DZM				eS	Sn	09 03 57.1	-2.2
DZM	Mont Dzumac	6.11	190	eP	Pn	09 02 48.8	-1.9
DZM				eS	Sn	09 03 57.1	-2.2
DZM	Mont Dzumac	6.11	190	P	Pn	09 02 49.2	-1.5
	67nm,0.3s,baz=47,slow=18,SNR=177						
DZM				S	Sn	09 03 56.6	-2.7
	108nm,0.3s,baz=154,slow=23,SNR=11						
HNR	Honiara	9.89	311	eP	Pn	09 03 43.7	+1.4
	578nm,1.0s						
HNR	Honiara	9.89	311	eP	Pn	09 03 43.7	+1.3
HNR				pmax	pmax		
	comp=Z,579nm,1.0s						
HNR	Honiara	9.89	311	P	Pn	09 03 42.3	-0.1
	comp=Z,57nm,0.3s,baz=102,slow=4.2,SNR=13						
HNR				LR	LR	09 07 07.3	
	comp=Z,7µm,21.4s,baz=178,slow=35						
FUNA	Funafuti	13.60	58	ePn	Pn	09 04 32.1	-0.9
	comp=Z,378nm,0.8s						
EIDS	Eidsvold	17.98	236	eP	Pn	09 05 31.3	+2.4
	comp=Z,133nm,1.5s						
AFI	Afiamalu	20.09	87	eP	P	09 05 53.7	+1.8
	comp=Z,107nm,1.2s						
AFI	Afiamalu	20.09	87	eP	P	09 05 53.7	+1.8
AFI				pmax	pmax		
	comp=Z,107nm,1.2s						
AFI	Afiamalu	20.09	87	P	P	09 05 53.2	+1.3
	comp=Z,33nm,0.8s,baz=271,slow=16,SNR=6.1						
AFI				LR	LR	09 11 46.7	
	comp=Z,3µm,19.8s,MS4.6,baz=280,slow=31						
ARMA	Armidale	20.45	223	eP	P	09 05 57.4	+1.7
ARMA				esP	sP	09 06 20.6	+5.2
ARMA				eS	S	09 09 46.9	+5.3
ARMA				eSCP	ScP	09 13 44.6	+6.7
CTA	Charters Tower	20.64	256	eP	P	09 05 59.2	+1.3
	comp=Z,34nm,1.0s						
CTA				epP		09 06 11.7	
CTA				eS	S	09 09 42.1	-3.6
CTA	Charters Tower	20.64	256	eP	P	09 05 59.2	+1.3
CTA				e*PP		09 06 11.7	
CTA				eS	S	09 09 42.1	-3.6
CTA				pmax	pmax		
	comp=Z,34nm,1.0s						
CTA	Charters Tower	20.64	256	P	P	09 05 57.7	-0.2
	comp=Z,30nm,0.8s,baz=82,slow=13,SNR=16						
CTA				LR	LR	09 12 44.8	
	comp=Z,3µm,20.7s,MS4.6,baz=118,slow=33						
CTAO	Charters Tower	20.64	256	eP	P	09 05 57.9	-0.1
	comp=Z,66nm,0.9s						
CTAO	Charters Tower	20.64	256	eP	P	09 05 57.9	0.0
CTAO				pmax	pmax		
	comp=Z,67nm,0.9s						
PMG	Port Moresby	20.93	286	eP	P	09 06 01.8	+0.7
PMG	Port Moresby	20.93	286	iP	P	09 06 02.8	+1.7
PMG	Port Moresby	20.93	286	P	P	09 06 01.7	+0.6
	comp=Z,38nm,0.9s,baz=104,slow=3.9,SNR=8.5						
COEN	Coen	23.63	272	P	P	09 06 29.8	+0.7
	comp=Z,16nm,1.1s,mb4.4						
URZ	Urewera	23.71	161	P	P	09 06 30.5	+0.9
	comp=Z,16nm,0.9s,mb4.5,baz=54,slow=4.6,SNR=8.0						
URZ				LR	LR	09 14 32.0	
	comp=Z,4µm,20.8s,MS4.8,baz=164,slow=33						
CNB	Canberra Magne	25.18	217	eP	P	09 06 44.0	+0.9
	comp=Z,68nm,0.7s,mb5.3						
RPZ	Rata Peaks	27.77	175	P	P	09 07 07.8	+1.5
	comp=Z,29nm,0.8s,mb5.0,baz=65,slow=6.0,SNR=9.4						
RPZ				LR	LR	09 14 48.7	
	comp=Z,591nm,21.9s,MS4.1,baz=348,slow=29						
STKA	Stephens Creek	28.39	232	eP	P	09 07 13.7	+1.7
	comp=Z,14nm,1.2s,mb4.5						
STKA				epP	pP	09 07 23.9	-2.2
STKA				eS	S	09 11 54.8	-0.2
STKA				eSCP	ScP	09 14 05.2	+5.3
STKA	Stephens Creek	28.39	232	P	P	09 07 12.8	+0.8
	comp=Z,19nm,1.0s,mb4.7,baz=63,slow=7.1,SNR=16						
STKA				PcP	PcP	09 10 24.3	+0.9
	comp=Z,6.9nm,0.9s,baz=318,slow=4.9,SNR=4.3						
STKA				ScP	ScP	09 14 05.9	+6.0
	comp=Z,9.1nm,0.9s,baz=44,slow=3.4,SNR=12						
STKA				LR	LR	09 17 39.8	
	comp=Z,4µm,20.4s,MS5.0,baz=264,slow=34						
TOO	Toolangi	28.99	218	eP	P	09 07 18.4	+1.1
	comp=Z,16nm,0.7s,mb4.9						
TOO				epP	pP	09 07 35.0	+3.5
TOO	Toolangi	28.99	218	eP	P	09 07 18.4	+1.1
TOO				e*PP	pP	09 07 35.0	+3.5
TOO				pmax	pmax		
	comp=Z,16nm,0.7s,mb4.9						
RAR	Rarotonga	31.36	105	LR	LR	09 18 36.0	
	comp=Z,449nm,18.9s,MS4.2,baz=281,slow=33						
WB2	Warramunga Arr	31.79	258	eP	P	09 07 41.7	-0.5
WB2				eS	S	09 12 46.9	-1.6
WB2				eSCP	ScP	09 14 17.4	+6.3
WRA	Warramunga Arr	31.80	258	P	P	09 07 40.1	-2.1
WRA				PcP	PcP	09 10 33.2	+0.7
WRA				ScP	ScP	09 14 14.0	+2.8
WRA	Warramunga Arr	31.80	258	P	P	09 07 40.1	-2.2
WRA						09 10 33.2	
WRA	Warramunga Arr	31.80	258	P	P	09 07 40.1	-2.1
	comp=Z,7.9nm,0.9s,mb4.5,baz=87,slow=8.8,SNR=22						
WRA				PcP	PcP	09 10 33.2	+0.7
	comp=Z,1.8nm,0.6s,baz=88,slow=3.9,SNR=4.7						
WRA				ScP	ScP	09 14 14.0	+2.8
	comp=Z,11nm,1.0s,baz=84,slow=3.6,SNR=21						
WRA				PKiKP	PKiKP	09 17 58.8	-2.5
	comp=Z,1.0nm,0.8s,baz=305,slow=0.2,SNR=5.9						
WRA				LR	LR	09 19 29.6	
	comp=Z,2µm,20.8s,MS4.8,baz=95,slow=34						
ASAR	Alice Springs	32.49	251	P	P	09 07 46.8	-1.5
ASAR				PcP	PcP	09 10 34.6	+0.4
ASAR				ScP	ScP	09 14 17.2	+3.7
ASAR	Alice Springs	32.49	251	P	P	09 07 46.8	-1.5
ASAR						09 10 34.7	
ASAR	Alice Springs	32.49	251	P	P	09 07 46.8	-1.5
	comp=Z,43nm,0.9s,mb5.3,baz=77,slow=8.4,SNR=172						
ASAR				PcP	PcP	09 10 34.6	+0.4
	comp=Z,3.4nm,0.7s,baz=93,slow=2.8,SNR=4.3						
ASAR				ScP	ScP	09 14 17.2	+3.7
	comp=Z,17nm,1.1s,baz=92,slow=2.7,SNR=29						
ASAR				PKiKP	PKiKP	09 17 59.4	-2.3
	comp=Z,0.4nm,0.6s,baz=108,slow=1.1,SNR=5.6						
KAKA	Kakadu	34.14	271	eP	P	09 08 01.2	-1.6
	comp=Z,52nm,1.5s,mb5.2						
KAKA				eSCP	ScP	09 14 24.7	+5.3
FORT	Forrest	38.89	241	eP	P	09 08 43.2	+0.1
	comp=Z,70nm,0.7s,mb5.5						
FORT				epP	pP	09 08 55.8	-1.8
FITZ	Fitzroy Crossi	40.06	261	eP	P	09 08 52.2	-0.8
	comp=Z,36nm,1.0s,mb5.1						
FITZ				epP	pP	09 09 05.3	-2.2
FITZ				eS	S	09 14 51.8	-3.4
PAE	Paea	41.01	99	eP	P	09 09 01.0	+0.2
	comp=Z,60nm,1.1s,mb5.1						
PAE	Paea	41.01	99	eP	P	09 09 01.0	+0.2
PAE				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.1						
PPT	Papeete	41.02	98	eS	S	09 15 11.9	+2.5
	comp=Z,739nm,29.8s						
PPT				eLQ		09 18 40.8	
	comp=Z,4µm,30.5s						
PPT				eLR	LR	09 20 25.4	
	comp=Z,3µm,25.8s,baz=257						
PPT	Papeete	41.02	98	eP	P	09 09 01.4	+0.5
	comp=Z,27nm,1.0s,mb4.8						
PPT				eS	S	09 15 11.9	+2.5
PPT				eLQ		09 18 40.8	
PPT	Papeete	41.02	98	eP	P	09 09 01.4	+0.5
PPT				eS	S	09 15 11.9	+2.5
PPT				pmax	pmax		
	comp=Z,27nm,1.0s						
PPT	Papeete	41.02	98	LR	LR	09 21 34.0	
	comp=Z,1µm,21.4s,MS4.8,baz=264,slow=30						
TVO	Taravao	41.31	99	eP	P	09 09 03.7	+0.4
	comp=Z,54nm,1.0s,mb5.2						
TVO	Taravao	41.31	99	eP	P	09 09 03.7	+0.4
TVO				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.1						
PMOR	Pomariorio Ree	42.89	95	eP	P	09 09 16.9	+0.7
	comp=Z,79nm,1.1s,mb5.3						
VAH	Vaihoa	43.11	95	eP	P	09 09 18.3	+0.3
	comp=Z,27nm,1.0s,mb4.9						
MBWA	Marble Bar	45.48	256	eP	P	09 09 36.7	-0.2
	comp=Z,21nm,0.8s,mb5.0						
KLBR	Kellerberrin	47.72	242	eP	P	09 09 53.4	-0.9
	comp=Z,22nm,0.8s,mb5.2						
NWAO	Narrogin (SRO)	48.33	240	eP	P	09 09 59.0	0.0
	comp=Z,56nm,1.0s,mb5.5						
NWAO	Narrogin (SRO)	48.33	240	eP	P	09 09 59.0	0.0
NWAO				pmax	pmax		
	comp=Z,56nm,1.0s						
MUN	Mundaring	49.08	241	eP	P	09 10 04.3	-0.4
MUN				eS	S	09 17 08.4	+2.7
TAOE	Nuku Hiva Isla	51.46	89	eP	P	09 10 23.9	+0.9
	comp=Z,712nm,1.5s						
MYLDM	Lahad Datu	52.90	289	⇓P	P	09 10 35.0	+1.4
TSM	Tawau	53.11	288	⇓P	P	09 10 36.1	+0.9
SDKM	Sandakan	54.27	289	⇑P	P	09 10 45.4	+1.6
RKT	Rikitea	54.34	107	eS	S	09 18 21.1	+2.8
	comp=Z,642nm,28.5s						
RKT				eSS	SS	09 22 05.8	+4.7
	comp=Z,385nm,30.8s						
RKT				eLQ		09 24 18.7	
	comp=Z,758nm,34.0s						
RKT				eLR	LR	09 26 41.0	
	comp=Z,1µm,29.8s,baz=272						
KDM	Kudat	55.13	291	⇓P	P	09 10 50.8	+0.9
KKM	Kota Kinabalu	55.33	289	⇑P	P	09 10 52.9	+1.6
BTM	Bintulu	57.12	285	⇓P	P	09 11 06.8	+2.7
JOW	Kunigami	57.17	318	P	P	09 11 03.8	-0.4
	comp=Z,48nm,0.8s,mb5.6,baz=157,slow=8.2,SNR=7.1						
SBUM	Sibu	57.66	283	⇓P	P	09 11 10.0	+2.0
KSM	Kuching	59.12	282	⇓P	P	09 11 19.0	+0.9
MJAR	Matsushiro Arr	59.16	333	P	P	09 11 16.8	-1.2
	comp=Z,22nm,0.8s,mb5.2,baz=166,slow=8.1,SNR=48						
MAJO	Matsushiro	59.16	333	eP	P	09 11 17.2	-0.7
	comp=Z,31nm,0.8s,mb5.4						
MAJO	Matsushiro	59.16	333	eP	P	09 11 17.2	-0.7
MAJO				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.4						
MAT	Matsushiro	59.16	333	P	P	09 11 16.8	-1.1
JNU	Nakatsue	60.12	325	P	P	09 11 24.6	0.0
	comp=Z,35nm,0.8s,mb5.4,baz=125,slow=7.6,SNR=18						
YHNB	Yeheng	60.52	311	eP	P	09 11 27.1	-0.5
VNDA	Vanda	61.59	181	LR	LR	09 34 09.2	
	comp=Z,600nm,20.4s,MS4.7,baz=3.4,slow=32						
QZH	Quanzhou	62.72	310	eP	P	09 11 45.5	+3.2
QZH				S	S	09 20 13.0	+5.9
QZH				LR	LR		
	comp=Z,1µm,19.8s,MS5.1						
SSE	Sheshan	64.63	317	P	P	09 11 57.0	+2.2
SSE				S	S	09 20 31.3	+0.7
SSE				SS	SS	09 24 44.0	+1.4
SSE				AMB	AMB		
	comp=Z,17nm,0.9s,mb5.1						
SSE				AMB	AMB		
	comp=Z,55nm,4.7s						
SSE				LR	LR		
	comp=N,263nm,16.8s,MS4.6						
SSE				LR	LR		
	comp=E,245nm,16.7s,MS4.6						
SSE				LR	LR		
	comp=Z,388nm,16.7s,MS4.7						
KSRS	Korea Array	64.95	326	P	P	09 11 57.0	+0.3
	comp=Z,6.5nm,0.8s,mb4.7,baz=140,slow=6.7,SNR=25						
KS15	Wonju Array Si	64.96	326	eP	P	09 11 57.8	+1.0
MYKOM	Kota Tinggi	65.33	280	⇓P	P	09 12 00.6	+0.9
GZH	Guangzhou	65.73	305	P	P	09 12 03.5	+1.4
GZH				S	S	09 20 52.0	+7.7
GZH				LR	LR		
	comp=N,507nm,14.9s,MS5.0						
GZH				LR	LR		
	comp=E,548nm,16.8s,MS5.0						
GZH				LR	LR		
	comp=Z,916nm,20.8s,MS5.0						
KGM	Kluang	65.90	280	⇓P	P	09 12 03.5	+0.1
YSS	Yuzh-Sakhalins	66.53	342	eP	P	09 12 08.3	+1.7
	comp=Z,52nm,0.9s,mb5.6						
YSS	Yuzh-Sakhalins	66.53	342	⇑iP	P	09 12 08.0	+1.4
YSS				e		09 12 18.0	
YSS				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.6						
YSS				MLR	MLR		
	comp=Z,500nm,17.0s,MS4.8						
QIZ	Qiongzhong	66.59	299	P	P	09 12 07.5	-0.2
QIZ				PP	PP	09 14 35.8	+0.7
QIZ				S	S	09 20 55.5	+0.5
QIZ				AMB	AMB		
	comp=Z,19nm,1.3s,mb5.0						
QIZ				LR	LR		
	comp=E,327nm,27.6s						
QIZ				LR	LR		
	comp=Z,698nm,27.4s,MS4.7						
NJ2	Nanjing	66.78	316	eP	P	09 12 09.0	+0.4
NJ2				AP	pP	09 12 25.5	+1.3
NJ2				PP	PP	09 14 38.8	+2.3
NJ2				S	S	09 20 55.0	-1.8
NJ2				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,420nm,8.0s						
NJ2				LR	LR		
	comp=N,1µm,24.3s,MS5.1						
NJ2				LR	LR		

	comp=E,880nm,24.4s,MS5.1						
NJ2				LR	LR		
	comp=Z,980nm,27.9s,MS4.9						
KTGM	**Kuala Trenggan**	**67.15**	**283**	⇓P	**P**	**09 12 12.9**	**+1.5**
FRIM	**Kepong**	**67.89**	**280**	⇑P	**P**	**09 12 15.4**	**-0.7**
IPM	**Ipoh**	**68.86**	**281**	⇑P	**P**	**09 12 20.3**	**-1.8**
WHN	**Wuhan**	**69.00**	**312**	⇓P	**P**	**09 12 22.5**	**-0.1**
KULM	**Kulim**	**69.47**	**282**	⇑P	**P**	**09 12 26.0**	**0.0**
DL2	**Dalian**	**69.48**	**323**	P	**P**	**09 12 26.5**	**+1.1**
DL2				S	S	09 21 30.3	+1.6
DL2				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.3						
DL2				AMB	AMB		
	comp=Z,200nm,5.7s						
DL2				LR	LR		
	comp=N,150nm,20.7s,MS4.5						
DL2				LR	LR		
	comp=E,250nm,20.9s,MS4.5						
DL2				LR	LR		
	comp=Z,360nm,23.1s,MS4.5						
MDJ	**Mudanjiang**	**69.53**	**332**	P	**P**	**09 12 27.0**	**+1.4**
MDJ				PCP	PcP	09 12 48.0	-0.4
MDJ				PP	PP	09 15 00.3	+0.1
MDJ				S	S	09 21 33.5	+4.4
MDJ				SS	SS	09 25 58.5	+0.4
MDJ				AMB	AMB		
	comp=Z,69nm,1.0s,mb5.5						
MDJ				AMB	AMB		
	comp=Z,116nm,3.9s						
MDJ				LR	LR		
	comp=N,393nm,26.7s						
MDJ				LR	LR		
	comp=Z,382nm,22.0s,MS4.6						
MDJ	**Mudanjiang**	**69.53**	**332**	*e*P	**P**	**09 12 25.6**	**0.0**
	comp=Z,63nm,0.9s,mb5.5						
SNY	**Shenyang**	**70.42**	**327**	⇑P	**P**	**09 12 31.5**	**+0.4**
SNY				S	S	09 21 44.8	+5.2
SNY				SS	SS	09 26 11.5	-0.4
SNY				AMB	AMB		
	comp=Z,11nm,0.4s,mb5.1						
SNY				AMB	AMB		
	comp=Z,246nm,6.9s						
SNY				LR	LR		
	comp=E,548nm,15.1s						
SNY				LR	LR		
	comp=Z,648nm,22.1s						
HABR	**Khabarovsk**	**70.42**	**338**	*e*P	**P**	**09 12 30.8**	**-0.1**
HABR				*e*S	S	09 21 42.2	+2.9
HABR				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.4						
CN2	**Changchun**	**70.88**	**329**	⇑P	**P**	**09 12 32.5**	**-1.3**
CN2				*e*S	S	09 21 42.5	-2.3
CN2				SS	SS	09 26 19.8	+0.9
CN2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.4						
CN2				AMB	AMB		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,400nm,17.0s,MS4.8						
CN2				LR	LR		
	comp=E,300nm,17.0s,MS4.8						
CN2				LR	LR		
	comp=Z,500nm,21.0s,MS4.8						
KLR	**Kul'dur**	**72.28**	**336**	*e*P	**P**	**09 12 39.0**	**-3.2**
KLR				pmax	pmax		
	comp=E,50nm,1.6s						
KLR				pmax	pmax		
	comp=Z,85nm,1.6s,mb5.4						
GYA	**Guiyang**	**72.66**	**305**	⇑*i*P	**P**	**09 12 44.5**	**-0.4**
GYA				AP	pP	09 13 03.0	+2.3
GYA				PP	PP	09 15 31.0	+3.6
GYA				S	S	09 22 06.5	+0.4
GYA				SKS		09 22 42.3	
GYA				SCS	ScS	09 22 46.0	-1.8
GYA				SS	SS	09 26 49.0	+2.2
GYA				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.3						
GYA				AMB	AMB		
	comp=Z,180nm,5.4s						
GYA				LR	LR		
	comp=N,720nm,20.4s,MS5.1						
GYA				LR	LR		
	comp=E,670nm,20.2s,MS5.1						
GYA				LR	LR		
	comp=Z,810nm,20.8s,MS5.0						
BJT	**Baijiatuau**	**73.42**	**321**	*e*P	**P**	**09 12 49.9**	**+0.8**
	comp=Z,40nm,0.9s,mb5.3						
BJT	**Baijiatuau**	**73.42**	**321**	*e*P	**P**	**09 12 49.9**	**+0.8**
BJT				pmax	pmax		
	comp=Z,40nm,0.9s						
BJI	**Beijing**	**73.43**	**321**	P	**P**	**09 12 49.3**	**+0.1**
BJI				PCP	PcP	09 13 05.3	+0.2
BJI				PP	PP	09 15 32.0	-1.7
BJI				SS	SS	09 26 57.8	-0.3
BJI				AMB	AMB		
	comp=Z,42nm,1.0s,mb5.3						
BJI				AMB	AMB		
	comp=Z,360nm,5.3s						
BJI				LR	LR		
	comp=N,551nm,25.3s,MS4.9						
BJI				LR	LR		
	comp=E,565nm,24.5s,MS4.9						
BJI				LR	LR		
	comp=Z,1µm,28.2s,MS5.0						
NST	**Nakhon Sawan**	**73.61**	**292**	P	**P**	**09 12 48.0**	**-2.7**
QSPA	**South Pole Qui**	**74.02**	**180**	*e*P	**P**	**09 12 53.4**	**+1.4**
	comp=Z,54nm,1.1s,mb5.4						
XAN	**Xi'an**	**74.75**	**313**	P	**P**	**09 12 57.3**	**+0.3**
XAN				AMB	AMB		
	comp=Z,19nm,1.3s,mb4.9						
KMI	**Kunming**	**75.21**	**302**	P	**P**	**09 13 01.3**	**+1.4**
KMI				S	S	09 22 36.5	+1.7
KMI				SS	SS	09 27 26.5	+0.8
KMI				AMB	AMB		
	comp=Z,44nm,1.3s,mb5.2						
KMI				AMB	AMB		
	comp=Z,288nm,7.3s						
KMI				LR	LR		
	comp=N,289nm,26.4s,MS4.6						
KMI				LR	LR		
	comp=E,308nm,25.8s,MS4.6						
KMI				LR	LR		
	comp=Z,752nm,27.5s,MS4.8						
CHG	**Chiang Mai**	**75.85**	**295**	⇓P	**P**	**09 13 03.7**	**0.0**
	comp=Z,16nm,0.8s,mb5.0						
CHTO	**Chiang Mai**	**75.85**	**295**	*e*P	**P**	**09 13 03.6**	**-0.1**
	comp=Z,13nm,0.9s,mb4.9						
CHTO	**Chiang Mai**	**75.85**	**295**	*e*P	**P**	**09 13 03.6**	**-0.1**
CHTO				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
MA2	**Magadan**	**76.55**	**351**	*e*P	**P**	**09 13 06.5**	**-0.2**
	comp=Z,13nm,0.7s,mb5.0						
MA2	**Magadan**	**76.55**	**351**	⇓*e*P	**P**	**09 13 05.2**	**-1.5**
MA2				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
HHC	**Hu-ho-hao-te**	**76.73**	**320**	*e*P	**P**	**09 13 08.8**	**+0.6**
HHC				PCP	PcP	09 13 20.3	+1.0
HHC				AP	pP	09 13 25.5	+1.4
HHC				PP	PP	09 16 03.0	+1.3
HHC				S	S	09 22 50.0	-0.9
HHC				SKS		09 23 11.0	
HHC				SCS	ScS	09 23 17.0	-2.9
HHC				SS	SS	09 27 50.3	+2.1
HHC				AMB	AMB		
	comp=Z,16nm,0.9s,mb5.0						
HHC				AMB	AMB		
	comp=Z,203nm,5.8s						
HHC				LR	LR		
	comp=N,294nm,26.4s,MS4.7						
HHC				LR	LR		
	comp=E,436nm,27.6s,MS4.7						
HHC				LR	LR		
	comp=Z,735nm,27.1s,MS4.9						
CD2	**Chengdu**	**77.00**	**308**	*e*P	**P**	**09 13 09.0**	**-0.9**
CD2				PP	PP	09 16 05.0	+0.9
CD2				S	S	09 22 52.0	-2.3
CD2				SS	SS	09 27 54.3	+1.6
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
CD2				AMB	AMB		
	comp=Z,70nm,4.2s						
CD2				LR	LR		
	comp=E,300nm,19.8s						
CD2				LR	LR		
	comp=Z,430nm,20.4s,MS4.8						
HIA	**Hailar**	**77.53**	**330**	*e*P	**P**	**09 13 12.4**	**0.0**
	comp=Z,48nm,1.0s,mb5.4						
HIA	**Hailar**	**77.53**	**330**	*e*P	**P**	**09 13 12.4**	**0.0**
HIA				pmax	pmax		
	comp=Z,47nm,1.0s						
BTO	**Baotou**	**77.56**	**319**	*e*P	**P**	**09 13 13.3**	**+0.5**
LZH	**Lanzhou**	**79.38**	**312**	*e*P	**P**	**09 13 24.3**	**+1.3**
LZH				AP	pP	09 13 40.5	+1.6
LZH				PP	PP	09 16 26.0	+2.1
LZH				*e*S	S	09 23 20.0	+0.4
LZH				SS	SS	09 28 29.8	+1.6
LZH				AMB	AMB		
	comp=Z,77nm,1.3s,mb5.5						
LZH				AMB	AMB		
	comp=Z,280nm,4.6s						
LZH				LR	LR		
	comp=E,792nm,16.0s						
LZH				LR	LR		
	comp=Z,1µm,18.0s,MS5.2						
MAW	**Mawson**	**80.80**	**202**	P	**P**	**09 13 30.0**	**-0.1**
	comp=Z,18nm,1.1s,mb4.9,baz=84,slow=4.2,SNR=3.8						
MAW				LR	LR	09 45 09.3	
	comp=Z,745nm,19.2s,MS5.1,baz=87,slow=32						
CLNS	**Chul'man**	**80.81**	**338**	*e*P	**P**	**09 13 30.8**	**+0.6**
CLNS				pmax	pmax		
	comp=N,16nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.3						
CLNS				pmax	pmax		
	comp=E,13nm,0.9s						
GAMB	**Gambell**	**81.15**	**9**	*e*P	**P**	**09 13 33.3**	**+1.5**
CIT	**Chita**	**82.31**	**330**	*e*P	**P**	**09 13 37.7**	**-0.5**
CIT				*e*		09 13 46.0	
CIT				pmax	pmax		
	comp=Z,165nm,1.1s,mb5.9						
ULN	**Ulaanbaatar**	**83.33**	**324**	*e*P	**P**	**09 13 43.2**	**-0.4**
ULN	**Ulaanbaatar**	**83.33**	**324**	*c* *i*P	**P**	**09 13 42.7**	**-0.9**
YAK	**Yakutsk**	**83.33**	**343**	*e*P	**P**	**09 13 43.7**	**+0.4**
	comp=Z,82nm,0.7s,mb5.9						
YAK	**Yakutsk**	**83.33**	**343**	*d* *i*P	**P**	**09 13 43.6**	**+0.3**
YAK				pmax	pmax		
	comp=Z,68nm,0.6s,mb5.8						
YAK				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.7						
TNA	**Tin City**	**83.42**	**10**	*e*P	**P**	**09 13 43.6**	**0.0**
SLKM	**Skilak Lake**	**83.45**	**20**	*e*P	**P**	**09 13 44.1**	**+0.2**
SONM	**Songino Array**	**83.68**	**324**	P	**P**	**09 13 45.0**	**-0.4**
	comp=Z,40nm,1.0s,mb5.5,baz=140,slow=4.7,SNR=78						
GTA	**Gaotai**	**83.75**	**314**	*e*P	**P**	**09 13 45.5**	**-0.5**
GTA				PP	PP	09 17 01.0	+1.1
GTA				SKS		09 24 00.8	
GTA				S	S	09 24 05.0	+0.4
GTA				SS	SS	09 29 35.8	+2.6
GTA				AMB	AMB		
	comp=Z,20nm,1.4s,mb5.0						
GTA				AMB	AMB		
	comp=Z,157nm,6.1s						
GTA				LR	LR		
	comp=N,345nm,21.3s,MS4.9						
GTA				LR	LR		
	comp=E,424nm,19.0s,MS4.9						
GTA				LR	LR		
	comp=Z,478nm,18.6s,MS4.9						
BILL	**Bilibino**	**83.82**	**360**	*e*P	**P**	**09 13 45.3**	**-0.4**
	comp=Z,34nm,1.2s,mb5.3						
BILL	**Bilibino**	**83.82**	**360**	⇑*e*P	**P**	**09 13 45.2**	**-0.5**
BILL				pmax	pmax		
	comp=Z,46nm,1.9s,mb5.3						
BILL				MLR	MLR		
	comp=Z,300nm,17.0s,MS4.7						
SHL	**Shillong**	**84.41**	**298**	*e*P	**P**	**09 13 49.0**	**-0.7**
PMR	**Palmer**	**84.62**	**19**	*e*P	**P**	**09 13 49.8**	**-0.1**
	comp=Z,43nm,1.3s,mb5.4						
PMR	**Palmer**	**84.62**	**19**	*e*P	**P**	**09 13 49.8**	**0.0**
PMR				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.4						
BOD	**Bodaibo**	**85.74**	**334**	*e*P	**P**	**09 13 53.3**	**-2.2**
BOD				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.4						
CMB	**Columbia Colle**	**86.24**	**49**	P	**P**	**09 13 57.9**	**-0.6**
	comp=Z,17nm,1.4s,mb5.1						
CMB	**Columbia Colle**	**86.24**	**49**	P	**P**	**09 13 57.9**	**-0.6**
CMB				pmax	pmax		
	comp=Z,17nm,1.4s,mb5.1						
LSA	**Lhasa**	**86.47**	**302**	*e*P	**P**	**09 14 01.1**	**+1.2**
	comp=Z,3.9nm,0.5s,mb4.9						
LSA	**Lhasa**	**86.47**	**302**	*e*P	**P**	**09 14 01.1**	**+1.3**
LSA				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.9						
ZAK	**Zakamensk**	**86.75**	**325**	*e*P	**P**	**09 13 59.7**	**-1.0**
ZAK				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.3						
IMA2	**Indian Mountai**	**86.81**	**15**	*e*P	**P**	**09 14 01.4**	**+0.8**
TLY	**Talaya**	**87.20**	**326**	P	**P**	**09 14 02.0**	**-0.8**
	comp=Z,92nm,0.9s,mb6.0,SNR=7.7						
TLY	**Talaya**	**87.20**	**326**	*e*P	**P**	**09 14 01.6**	**-1.2**
COLA	**College**	**87.45**	**17**	⇑*e*P	**P**	**09 14 01.2**	**-2.6**
SYO	**Syowa Base**	**87.56**	**197**	⇑*e*X		09 14 00.8	
SYO	**Syowa Base**	**87.56**	**197**	⇓*e*pP	pP	09 14 20.4	-0.2
NVAR	**Mina Array Bea**	**87.90**	**49**	P	**P**	**09 14 07.2**	**+0.6**
	comp=Z,0.9nm,0.7s,mb4.1,baz=231,slow=3.9,SNR=4.9						
TAPN	**Taplejung**	**88.53**	**299**	*e*P	**P**	**09 14 09.2**	**-0.6**
	comp=Z,16nm,0.8s,mb5.4						
ODAN	**Odare**	**88.64**	**298**	*e*P	**P**	**09 14 08.8**	**-1.5**
	comp=Z,26nm,0.7s,mb5.7						
SHPR	**Sheep Range**	**89.54**	**52**	*e*P	**P**	**09 14 18.5**	**+4.2**
JIRN	**Jiri**	**89.91**	**299**	*e*P	**P**	**09 14 15.8**	**-0.4**
	comp=Z,36nm,1.3s,mb5.5						
HAWA	**Hanford**	**90.14**	**41**	*e*P	**P**	**09 14 17.5**	**+0.7**
KKN	**Kakani**	**90.72**	**299**	*e*P	**P**	**09 14 19.3**	**-0.7**
TIXI	**Tiksi**	**91.28**	**349**	*e*P	**P**	**09 14 20.2**	**-1.3**
TIXI	**Tiksi**	**91.28**	**349**	⇑*e*P	**P**	**09 14 20.8**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb5.0						
TIXI				MLR	MLR		
	comp=Z,300nm,16.0s,MS4.8						
GKN	**Gorkha**	**91.32**	**299**	*e*P	**P**	**09 14 22.0**	**-0.8**
SNAA	**Sanae**	**92.29**	**183**	*i* P	**P**	**09 14 25.8**	**-0.7**
VNA3	**Neumayer Olymp**	**92.94**	**181**	*e*P	**P**	**09 14 28.0**	**-1.5**
VNA3				*e*		09 14 32.4	
VNA3				*e*		09 14 36.7	
VNA3				*e*	pP	09 14 41.6	-4.2
VNA3				*e*	pP	09 14 44.7	-1.1
VNA3				*e*		09 14 54.8	
VNA3				*e*		09 14 58.0	
VNA2	**Neumayer--Watz**	**93.21**	**182**	*e*P	**P**	**09 14 29.2**	**-1.6**
	baz=194,slow=2.9						
VNA2				*e*		09 14 33.4	
VNA2				*e*		09 14 37.4	
VNA2				*e*	pP	09 14 42.8	-4.2
VNA2				*e*	pP	09 14 45.4	-1.6
VNA2				*e*		09 14 56.1	
VNA2				*e*		09 14 59.7	
VNA1	**Neumayer--Stat**	**93.51**	**181**	*e*P	**P**	**09 14 31.1**	**-1.0**
VNA1				*e*		09 14 35.0	
VNA1				*e*		09 14 39.0	
VNA1				*e*	pP	09 14 44.4	-4.0
VNA1				*e*	pP	09 14 46.7	-1.7
VNA1				*e*		09 14 57.1	
WMQ	**Urumqi**	**93.81**	**314**	P	**P**	**09 14 33.0**	**-0.9**
WMQ				AP	pP	09 14 50.3	+0.1
WMQ				PP	PP	09 18 21.8	+1.5
WMQ				S	S	09 25 34.5	-4.6
WMQ				AMB	AMB		
	comp=Z,244nm,4.8s						
WMQ				LR	LR		
	comp=N,148nm,22.7s,MS4.8						
WMQ				LR	LR		
	comp=E,406nm,23.9s,MS4.8						
WMQ				LR	LR		
	comp=Z,511nm,24.4s,MS4.9						
PDAR	**Pinedale Array**	**95.62**	**47**	P	**P**	**09 14 41.0**	**-1.3**
	comp=Z,0.2nm,0.7s,baz=240,slow=7.1,SNR=2.4						
PDAR				PKKP	PKKPbc	09 31 33.8	-0.5
	comp=Z,0.4nm,0.7s,baz=177,slow=1.8,SNR=3.9						
PDAR				LR	LR	09 53 28.1	
	comp=Z,303nm,18.4s,baz=308,slow=33						
TXAR	**Lajitas Array**	**96.65**	**62**	P	**P**	**09 14 46.4**	**-0.9**
	comp=Z,0.1nm,0.6s,baz=215,slow=4.1,SNR=4.1						
TXAR				LR	LR	09 54 12.2	
	comp=Z,490nm,18.1s,baz=30,slow=33						
MKAR	**Makanchi Array**	**98.31**	**316**	P	**P**	**09 14 53.6**	**-0.7**
MKAR						09 18 53.1	
MKAR	**Makanchi Array**	**98.31**	**316**	P	**P**	**09 14 53.6**	**-0.7**
	comp=Z,2.3nm,0.7s,mb4.8,baz=108,slow=4.0,SNR=22						
MKAR				PP	PP	09 18 53.1	-1.8
	comp=Z,0.7nm,1.0s,baz=107,slow=7.1,SNR=4.2						
MKAR				LR	LR	10 02 05.6	
	comp=Z,208nm,18.9s,MS4.7,baz=98,slow=37						
YKA	**Yellowknife Ar**	**98.56**	**27**	P	**P**	**09 14 52.7**	**-2.3**
YKA				pP	pP	09 15 07.6	-3.7
YKA				sP	sP	09 15 12.2	-5.3
YKA				PP	PP	09 19 00.8	+4.3
YKA				PKKPbc	PKKPbc	09 31 24.8	-2.1
YKA				LR	LR	10 00 35.3	
YKA	**Yellowknife Ar**	**98.56**	**27**	P	**P**	**09 14 52.7**	**-2.3**
YKA				*PP	pP	09 15 07.6	-3.7
YKA						09 19 00.8	
YKA	**Yellowknife Ar**	**98.56**	**27**	P	**P**	**09 14 52.7**	**-2.3**
	comp=Z,1.3nm,0.8s,mb4.5,baz=256,slow=4.7,SNR=17						
YKA				pP	pP	09 15 07.6	-3.7
	comp=Z,2.1nm,0.8s,baz=256,slow=4.6,SNR=11						
YKA				sP	sP	09 15 12.2	-5.3
	comp=Z,3.6nm,0.8s,baz=254,slow=4.6,SNR=11						
YKA				PP	PP	09 19 00.7	+4.3
	comp=Z,0.2nm,0.7s,baz=234,slow=6.8,SNR=3.6						
YKA				PKKPbc	PKKPbc	09 31 24.8	-2.1
	comp=Z,0.1nm,0.5s,baz=58,slow=2.7,SNR=4.0						
YKA				LR	LR	10 00 35.3	
	comp=Z,195nm,18.8s,MS4.6,baz=200,slow=36						
YKW3	**Yellowknife Ar**	**98.58**	**27**	*e*P	**P**	**09 14 51.9**	**-3.2**
ZALV	**Zalesovo Beam**	**98.58**	**324**	P	**P**	**09 14 54.0**	**-1.3**
	comp=Z,9.2nm,0.8s,mb5.4,baz=104,slow=4.7,SNR=14						
ZALV				LR	LR	09 53 15.8	
	comp=Z,110nm,22.0s,MS4.3,baz=51,slow=32						
ZAL	**Zalesovo**	**98.59**	**324**	P	**P**	**09 14 54.0**	**-1.4**
ARU	**Arti**	**113.69**	**325**	*e*PKPdf	PKiKP	09 19 54.7	0.0
ARU	**Arti**	**113.69**	**325**	*i* PKIKP	PKiKP	09 19 54.5	-0.2
ARU				*e*		09 20 46.5	
ARU				*e*		09 27 03.2	
AKTK	**Aktyubinsk**	**114.61**	**318**	PKP	PKiKP	09 19 55.0	-1.6
AKTO	**Aktyubinsk**	**114.61**	**318**	PKIKP	PKiKP	09 19 55.1	-1.5
AKTO	**Aktyubinsk**	**114.61**	**318**	PKP	PKiKP	09 19 55.0	-1.6
	comp=Z,2.8nm,0.6s,baz=86,slow=2.2,SNR=5.3						
APA	**Apatity**	**120.68**	**341**	⇑*i*PKIKP	PKPdf	09 20 13.0	+5.2
APA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
APA				MLR	MLR		
	comp=Z,500nm,18.0s,MS5.2						
KEV	**Kevo**	**121.03**	**345**	*e*pkp	PKPdf	09 20 05.3	-3.1
KEV	**Kevo**	**121.03**	**345**	*e*PKP	PKPdf	09 20 05.3	-3.1
KEV	**Kevo**	**121.03**	**345**	*e*PKIKP	PKPdf	09 20 05.3	-3.1
ARCES	**ARCESS Array B**	**121.56**	**345**	PKP	PKPdf	09 20 08.1	-1.4
ARCES				pPKP	pPKPdf	09 20 22.6	-3.6
ARCES	**ARCESS Array B**	**121.56**	**345**	PKIKP	PKPdf	09 20 08.1	-1.4
ARCES						09 20 22.7	
ARCES	**ARCESS Array B**	**121.56**	**345**	PKP	PKPdf	09 20 08.1	-1.4
	comp=Z,5.4nm,0.6s,baz=89,slow=0.9,SNR=32						
ARCES				pPKP	pPKPdf	09 20 22.6	-3.6
	comp=Z,14nm,0.6s,baz=77,slow=1.0,SNR=13						
BOSA	**Boshof**	**122.57**	**220**	PKP	PKPdf	09 20 12.1	-0.6
BOSA	**Boshof**	**122.57**	**220**	PKIKP	PKPdf	09 20 12.1	-0.6
BOSA	**Boshof**	**122.57**	**220**	PKP	PKPdf	09 20 12.1	-0.6
	comp=Z,7.0nm,0.8s,baz=63,slow=3.6,SNR=9.3						
UMR	**Umm Al-Rimmam**	**123.46**	**295**	*e*P	PKPdf	09 20 14.4	+0.1
UMR				AMb	AMB	09 20 16.4	
	comp=Z,56nm,0.7s						
RDF	**Al-Radifah**	**123.60**	**294**	*e*P	PKPdf	09 20 14.7	0.0
RDF				AMb	AMB	09 20 16.7	
	comp=Z,57nm,0.6s						
MIB	**Mutribah**	**123.79**	**295**	*e*P	PKPdf	09 20 14.7	-0.3
MIB				AMb	AMB	09 20 16.5	
	comp=Z,50nm,0.8s						
NAY	**Al-Naaiem**	**123.87**	**295**	*e*P	PKPdf	09 20 14.5	-0.6
NAY				AMb	AMB	09 20 17.6	
	comp=Z,19nm,1.1s						
JOF	**Joensuu**	**124.17**	**338**	*e*pkp	PKPdf	09 20 12.8	-1.8
JOF	**Joensuu**	**124.17**	**338**	*e*PKP	PKPdf	09 20 12.8	-1.8
JOF	**Joensuu**	**124.17**	**338**	*e*PKIKP	PKPdf	09 20 12.8	-1.8
ZEI	**Tsey**	**125.30**	**311**	*e*PKIKP	PKPdf	09 20 17.4	0.0
KIV	**Kislovodsk**	**125.92**	**313**	⇑*e*PKP	PKPdf	09 20 19.4	+0.8
KIV	**Kislovodsk**	**125.92**	**313**	*i* PKIKP	PKPdf	09 20 19.0	+0.4
KIV				pmax	pmax		
	comp=Z,10.0nm,1.0s						
KIV				MLR	MLR		
	comp=Z,197nm,20.0s,MS4.8						
OBN	**Obninsk**	**125.93**	**328**	⇑*e*PKP	PKPdf	09 20 18.2	0.0
OBN	**Obninsk**	**125.93**	**328**	⇓*i*PKIKP	PKPdf	09 20 17.8	-0.4
OBN				*e**PP		09 20 32.3	
OBN				pmax	pmax		
	comp=Z,31nm,1.2s						
OBN				MLR	MLR		
	comp=Z,300nm,20.0s,MS5.0						
VRSR	**Storozhevoye**	**126.05**	**322**	*e*PKIKP	PKPdf	09 20 18.6	0.0
VRSR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,2.0nm,2.0s						
KAF	**Kangasniemi**	**126.48**	**339**	*e*pkp	PKPdf	09 20 16.4	-2.7
KAF	**Kangasniemi**	**126.48**	**339**	*e*PKP	PKPdf	09 20 16.4	-2.7
KAF	**Kangasniemi**	**126.48**	**339**	*e*PKIKP	PKPdf	09 20 16.4	-2.7
FINES	**FINESS Array B**	**127.01**	**338**	PKP	PKPdf	09 20 18.5	-1.6
FINES				pPKP	pPKPdf	09 20 32.3	-4.7
FINES	**FINESS Array B**	**127.01**	**338**	PKIKP	PKPdf	09 20 18.5	-1.6
FINES						09 20 32.3	
FINES	**FINESS Array B**	**127.01**	**338**	PKP	PKPdf	09 20 18.5	-1.6
	comp=E,8.1nm,0.9s,baz=66,slow=4.6,SNR=18						
FINES				pPKP	pPKPdf	09 20 32.3	-4.7
	comp=E,10nm,1.0s,baz=104,slow=6.1,SNR=7.7						
KMBO	**Kilima Mbogo**	**128.06**	**256**	*e*PKPdf	PKPdf	09 20 24.0	+0.4
KMBO	**Kilima Mbogo**	**128.06**	**256**	*i* PKIKP	PKPdf	09 20 25.6	+2.0
KMBO				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KMBO	**Kilima Mbogo**	**128.06**	**256**	PKP	PKPdf	09 20 23.8	+0.2
	comp=Z,4.7nm,0.9s,baz=8.1,slow=2.1,SNR=6.2						
LSZ	**Lusaka**	**129.23**	**234**	*e*PKPdf	PKPdf	09 20 27.2	+1.4
LSZ	**Lusaka**	**129.23**	**234**	*e*PKIKP	PKPdf	09 20 27.2	+1.4
MALT	**Malatya**	**130.28**	**307**	*e*PKPdf	PKPdf	09 20 27.6	+0.5
MALT	**Malatya**	**130.28**	**307**	*e*PKIKP	PKPdf	09 20 27.6	+0.5
MALT	**Malatya**	**130.28**	**307**	⇓*i*P	PKPdf	09 20 29.4	+2.3
NB2	**NORSAR Subarra**	**131.93**	**345**	PKPd	PKPdf	09 20 28.3	-1.2
	comp=Z,3.0nm,0.7s,baz=31,slow=1.9						
NOA	**NORSAR Array B**	**131.93**	**345**	PKP	PKPdf	09 20 28.6	-0.9
NOA				pPKP	pPKPdf	09 20 43.8	-2.5
NOA	**NORSAR Array B**	**131.93**	**345**	PKIKP	PKPdf	09 20 28.6	-0.9
NOA						09 20 43.8	
NOA	**NORSAR Array B**	**131.93**	**345**	PKP	PKPdf	09 20 28.6	-0.9
	comp=Z,2.3nm,0.8s,baz=37,slow=2.0,SNR=9.1						
NOA				pPKP	pPKPdf	09 20 43.8	-2.5
	comp=Z,4.6nm,0.7s,baz=34,slow=2.0,SNR=12						
AKASG	**Malin Array Be**	**131.94**	**325**	PKP	PKPdf	09 20 30.1	+0.3
AKASG				pPKP	pPKPdf	09 20 43.7	-3.0
AKASG				SKPab		09 23 54.0	
AKASG	**Malin Array Be**	**131.94**	**325**	PKIKP	PKPdf	09 20 30.2	+0.4
AKASG						09 20 43.7	
AKASG	**Malin Array Be**	**131.94**	**325**	PKP	PKPdf	09 20 30.1	+0.3
	comp=Z,2.2nm,0.5s,baz=54,slow=2.2,SNR=8.8						
AKASG				pPKP	pPKPdf	09 20 43.7	-3.0
	comp=Z,2.0nm,0.5s,baz=62,slow=2.2,SNR=3.6						
AKASG				SKPab		09 23 54.0	
	comp=Z,3.3nm,0.8s,baz=47,slow=4.2,SNR=10						
AKBB	**Malin Array Si**	**131.94**	**325**	*e*PKPdf	PKPdf	09 20 29.2	-0.6
AKBB	**Malin Array Si**	**131.94**	**325**	*e*PKIKP	PKPdf	09 20 29.2	-0.6
BR131	**Keskin Array S**	**133.54**	**310**	*e*PKPdf	PKPdf	09 20 35.4	+2.2
BRTR	**Keskin Array B**	**133.54**	**310**	PKP	PKPdf	09 20 34.0	+0.7
BRTR				pPKP	pPKPdf	09 20 47.9	-2.1
BRTR				SKP		09 24 04.9	
BRTR	**Keskin Array B**	**133.54**	**310**	PKIKP	PKPdf	09 20 34.0	+0.8
BRTR						09 20 47.9	
BRTR	**Keskin Array B**	**133.54**	**310**	PKP	PKPdf	09 20 34.0	+0.7
	comp=Z,4.5nm,0.9s,baz=52,slow=2.0,SNR=12						
BRTR				pPKP	pPKPdf	09 20 47.9	-2.1
	comp=Z,5.5nm,1.0s,baz=73,slow=2.5,SNR=7.8						
BRTR				SKP		09 24 04.9	
	comp=Z,1.2nm,0.7s,baz=74,slow=4.7,SNR=4.3						
LVV	**L'vov**	**135.21**	**327**	*e*PKIKP	PKPdf	09 20 32.1	-3.9
BURAR	**Bucovina Array**	**135.80**	**324**	⇓P	PKPdf	09 20 38.2	+1.0
BURAR	**Bucovina Array**	**135.80**	**324**	⇓PKIKP	PKPdf	09 20 38.2	+1.0
BURAR	**Bucovina Array**	**135.80**	**324**	⇓*i*P	PKPdf	09 20 38.2	+1.0
MLR	**Muntele Rosu**	**136.47**	**321**	⇓P	PKPdf	09 20 39.1	+0.6
MLR	**Muntele Rosu**	**136.47**	**321**	⇓PKIKP	PKPdf	09 20 39.1	+0.6
MLR	**Muntele Rosu**	**136.47**	**321**	⇓*i*P	PKPdf	09 20 39.1	+0.6
KOLS	**Kolonicke sedl**	**136.66**	**327**	*e*PKP	PKPdf	09 20 38.9	+0.2
KOLS				*e*		09 21 00.2	
KOLS	**Kolonicke sedl**	**136.66**	**327**	*e*PKIKP	PKPdf	09 20 38.9	+0.2
KOLS	**Kolonicke sedl**	**136.66**	**327**	*e*PKP	PKPdf	09 20 38.9	+0.2
KOLS				*e*		09 21 00.2	
KOLS				*e*		12 32 50.3	

UZH	**Uzhgorod**	**136.83**	**326**	*e*PKIKP	PKPdf	09 20 36.6	-2.5
UZH				*e*		09 20 42.4	
STHS	**Stebnicka Huta**	**136.90**	**328**	*e*PKP	PKPdf	09 20 36.9	-2.3
STHS	**Stebnicka Huta**	**136.90**	**328**	*e*PKIKP	PKPdf	09 20 36.9	-2.3
STHS	**Stebnicka Huta**	**136.90**	**328**	*e*PKP	PKPdf	09 20 36.9	-2.3
OJC	**Ojcow**	**137.10**	**330**	*e*PKP	PKPdf	09 20 40.1	+0.6
OJC	**Ojcow**	**137.10**	**330**	*e*PKIKP	PKPdf	09 20 40.1	+0.6
CRVS	**Cervenica-Dubn**	**137.11**	**327**	*e*PKP	PKPdf	09 20 39.7	+0.1
CRVS	**Cervenica-Dubn**	**137.11**	**327**	*e*PKIKP	PKPdf	09 20 39.7	+0.1
CRVS	**Cervenica-Dubn**	**137.11**	**327**	*e*PKP	PKPdf	09 20 39.7	+0.1
CRVS				*e*		12 32 50.4	
DRGR		**137.68**	**324**	⇓P	PKPdf	09 20 41.2	+0.5
DRGR		**137.68**	**324**	⇓PKIKP	PKPdf	09 20 41.2	+0.5
DRGR		**137.68**	**324**	⇓*i*P	PKPdf	09 20 41.2	+0.5
OKC	**Ostrava-Krasne**	**138.15**	**330**	AMS	AMS	10 18 10.0	
	comp=Z,600nm,27.0s						
GZR	**Gura Zlata**	**138.42**	**322**	⇓P	PKPdf	09 20 43.2	+1.1
GZR	**Gura Zlata**	**138.42**	**322**	⇓PKIKP	PKPdf	09 20 43.2	+1.1
GZR	**Gura Zlata**	**138.42**	**322**	⇓*i*P	PKPdf	09 20 43.2	+1.1
MORC	**Moravsky Berou**	**138.48**	**331**	*e*PKPdf	PKPdf	09 20 42.9	+0.9
MORC	**Moravsky Berou**	**138.48**	**331**	*e*PKIKP	PKPdf	09 20 42.9	+0.8
PSZ	**Piszkesteto**	**138.54**	**327**	*e*PKPdf	PKPdf	09 20 43.1	+0.9
PSZ	**Piszkesteto**	**138.54**	**327**	*e*PKIKP	PKPdf	09 20 43.1	+0.9
DPC	**Dobruska-Polom**	**138.64**	**332**	*e*PKP	PKPdf	09 20 42.4	+0.1
DPC				*e*		09 20 55.5	
DPC				LR	LR		
	comp=Z,500nm,20.2s,MS5.2						
DPC	**Dobruska-Polom**	**138.64**	**332**	*e*PKIKP	PKPdf	09 20 42.4	+0.1
DPC				*e*		09 20 55.5	
DPC				MLR	MLR		
	comp=Z,500nm,20.2s,MS5.2						
DPC	**Dobruska-Polom**	**138.64**	**332**	*e*PKPDF	PKPdf	09 20 42.4	+0.1
DPC				*e*pPKP	pPKPdf	09 20 55.5	-3.7
DPC				AMS	AMS	10 21 50.0	
	comp=Z,500nm,20.2s						
VYHS	**Vyhne**	**138.71**	**328**	*e*PKP	PKPdf	09 20 40.5	-2.0
VYHS				*e*		09 20 56.7	
VYHS	**Vyhne**	**138.71**	**328**	*e*PKIKP	PKPdf	09 20 40.5	-2.0
VYHS				*e*		09 20 56.7	
VYHS	**Vyhne**	**138.71**	**328**	*e*PKP	PKPdf	09 20 40.5	-2.0
VYHS				*e*		09 20 56.7	
BZS	**Buzias**	**138.97**	**323**	⇓P	PKPdf	09 20 43.2	+0.1
BZS	**Buzias**	**138.97**	**323**	⇓PKIKP	PKPdf	09 20 43.2	+0.1
BZS	**Buzias**	**138.97**	**323**	⇓*i*P	PKPdf	09 20 43.2	+0.1
PVCC	**Panska Ves**	**139.28**	**334**	*e*PKP	PKPdf	09 20 44.3	+0.8
PVCC				*e*		09 21 00.3	
PVCC				LR	LR		
	comp=Z,500nm,22.6s,MS5.2						
PVCC	**Panska Ves**	**139.28**	**334**	*e*PKIKP	PKPdf	09 20 44.3	+0.8
PVCC				*e*		09 21 00.3	
PVCC				MLR	MLR		
	comp=Z,500nm,22.6s,MS5.2						
PVCC	**Panska Ves**	**139.28**	**334**	*e*PKPDF	PKPdf	09 20 44.3	+0.8
PVCC				*e*pPKP	pPKPdf	09 21 00.3	0.0
PVCC				AMS	AMS	10 17 30.0	
	comp=Z,500nm,22.6s						
BRG	**Berggiesshubel**	**139.28**	**334**	*e*PKP	PKPdf	09 20 43.3	-0.2
BRG				*e*		09 20 59.5	
BRG				LR	LR		
	comp=Z,300nm,23.8s,MS5.0						
BRG	**Berggiesshubel**	**139.28**	**334**	*e*PKIKP	PKPdf	09 20 43.3	-0.2
BRG				*e*		09 20 59.5	
BRG				MLR	MLR		
	comp=Z,300nm,23.8s,MS5.0						
BRG	**Berggiesshubel**	**139.28**	**334**	*e*PKP	PKPdf	09 20 43.3	-0.2
	comp=Z,4.2nm,0.8s						
BRG				*e*		09 20 59.5	
	comp=Z,19nm,1.2s						
BRG							
	comp=N,199nm,20.3s						
BRG							
	comp=E,297nm,25.3s						
BRG							
	comp=Z,508nm,23.8s						
CLL	**Collm**	**139.33**	**336**	*i* PKP	PKPdf	09 20 46.1	+2.5
CLL				*i*		09 20 59.6	
CLL				LR	LR		
	comp=Z,400nm,27.5s,MS5.0						
CLL	**Collm**	**139.33**	**336**	*i* PKIKP	PKPdf	09 20 46.1	+2.5
CLL				*i*		09 20 59.6	
CLL				MLR	MLR		
	comp=Z,400nm,27.5s,MS5.0						
CLL	**Collm**	**139.33**	**336**	*i* (PKPdf)	PKPdf	09 20 46.1	+2.5
	comp=Z,15nm,1.1s						
CLL				*i* pPKPdf	pPKPdf	09 20 59.6	-0.8
PRU	**Pruhonice**	**139.69**	**333**	*e*PKP	PKPdf	09 20 43.1	-1.2
PRU				*e*		09 20 57.5	
PRU				LR	LR		
	comp=Z,500nm,23.6s,MS5.2						
PRU	**Pruhonice**	**139.69**	**333**	*e*PKIKP	PKPdf	09 20 43.1	-1.2
PRU				*e*		09 20 57.5	
PRU				MLR	MLR		
	comp=Z,500nm,23.6s,MS5.2						
PRU	**Pruhonice**	**139.69**	**333**	*e*PKPDF	PKPdf	09 20 43.1	-1.2
PRU				*e*pPKP	pPKPdf	09 20 57.5	-3.6
PRU				AMS	AMS	10 20 20.0	
	comp=Z,500nm,23.6s						
TREC	**Trest**	**139.77**	**332**	AMS	AMS	10 22 10.0	
	comp=Z,600nm,19.5s						
PKSM	**Moragy**	**140.28**	**326**	⇑P	PKPdf	09 20 45.5	+0.1
PKSM	**Moragy**	**140.28**	**326**	⇑PKIKP	PKPdf	09 20 45.5	0.0
PKSM	**Moragy**	**140.28**	**326**	⇑*i*P	PKPdf	09 20 45.5	0.0
NKC	**Novy Kostel**	**140.38**	**335**	*e*PKP	PKPdf	09 20 45.7	+0.2
NKC				*e*		09 21 02.0	
NKC	**Novy Kostel**	**140.38**	**335**	*e*PKIKP	PKPdf	09 20 45.7	+0.2
NKC				*e*		09 21 02.0	
NKC	**Novy Kostel**	**140.38**	**335**	*e*PKPDF	PKPdf	09 20 45.7	+0.2
NKC				*e*pPKP	pPKPdf	09 21 02.0	-0.4
KHC	**Kasperske Hory**	**140.75**	**333**	*e*PKP	PKPdf	09 20 45.4	-0.8
KHC				*e*		09 20 59.9	
KHC				LR	LR		
	comp=Z,400nm,14.9s,MS5.3						
KHC	**Kasperske Hory**	**140.75**	**333**	*e*PKIKP	PKPdf	09 20 45.4	-0.8
KHC				*e*		09 20 59.9	
KHC				MLR	MLR		
	comp=Z,400nm,14.9s,MS5.3						
KHC	**Kasperske Hory**	**140.75**	**333**	*e*PKPDF	PKPdf	09 20 45.4	-0.8
KHC				*e*pPKP	pPKPdf	09 20 59.9	-3.1
KHC				AMS	AMS	10 20 40.0	
	comp=Z,400nm,14.9s						
GEC2	**GERESS Array S**	**140.90**	**333**	*e*PKPdf	PKPdf	09 20 47.3	+0.8
GEC2	**GERESS Array S**	**140.90**	**333**	*e*PKIKP	PKPdf	09 20 47.3	+0.8
GERES	**GERESS Array B**	**140.90**	**333**	PKP		09 20 42.2	
GERES				PKP	PKPdf	09 20 46.9	+0.4
GERES	**GERESS Array B**	**140.90**	**333**	PKIKP		09 20 42.2	
GERES						09 20 46.9	
GERES	**GERESS Array B**	**140.90**	**333**	PKhKP		09 20 42.2	
	comp=Z,4.8nm,0.8s,baz=77,slow=1.8,SNR=9.4						
GERES				PKP	PKPdf	09 20 46.9	+0.4
	comp=Z,4.8nm,0.8s,baz=31,slow=2.3,SNR=14						
GRA1	**Grafenberg Arr**	**141.30**	**335**	*e*PKP	PKPdf	09 20 47.0	-0.2
GRA1				LR	LR		
	comp=Z,300nm,20.9s,MS5.0						
GRF	**Grafenberg Arr**	**141.30**	**335**	*e*PKP	PKPdf	09 20 47.0	-0.2
GRF				LR	LR		
	comp=Z,300nm,20.9s,MS5.0						
GRF	**Grafenberg Arr**	**141.30**	**335**	*e*PKIKP	PKPdf	09 20 47.0	-0.2
GRF				MLR	MLR		
	comp=Z,300nm,20.9s,MS5.0						
GRF	**Grafenberg Arr**	**141.30**	**335**	*e*PKIKP	PKPdf	09 20 47.0	-0.2
GRF				MLR	MLR		
	comp=Z,300nm,20.9s,MS5.0						
GRF	**Grafenberg Arr**	**141.30**	**335**	*e*PKP	PKPdf	09 20 47.0	-0.2
GRF				*e*L		10 23 49.4	
	comp=Z,266nm,20.9s						
PERS	**Pernice**	**141.82**	**329**	*i* PKPdf	PKPdf	09 20 49.0	+0.8
PERS	**Pernice**	**141.82**	**329**	*i* PKPdf	PKPdf	09 20 49.0	+0.8
BOJS	**Bojanci**	**142.53**	**327**	*e*PKPdf	PKPdf	09 20 50.8	+1.3
BOJS	**Bojanci**	**142.53**	**327**	*e*PKPdf	PKPdf	09 20 50.8	+1.3
JAVS	**Javornik**	**142.87**	**329**	*i* PKPdf	PKPdf	09 20 49.1	-1.0
JAVS				*i*		09 21 02.0	
JAVS	**Javornik**	**142.87**	**329**	*i* PKPdf	PKPdf	09 20 49.1	-1.0
JAVS				*i*		09 21 02.0	
ABTA	**Abfaltersbach**	**143.00**	**331**	⇑*i*PKPdf	PKPdf	09 20 46.6	-3.7
	comp=Z,13nm,0.9s						
WTTA	**Wattenberg**	**143.01**	**332**	⇑*i*P	PKPdf	09 20 48.9	-1.4
	comp=Z,21nm,1.1s						
WTTA	**Wattenberg**	**143.01**	**332**	⇑*i*PKPdf	PKPdf	09 20 48.9	-1.4
	comp=Z,21nm,1.1s						
WTTA	**Wattenberg**	**143.01**	**332**	⇑*i*PKIKP	PKPdf	09 20 48.9	-1.4
MOTA	**Moosalm**	**143.18**	**333**	⇑*i*P	PKPdf	09 20 49.2	-1.4
	comp=Z,18nm,1.1s						
MOTA	**Moosalm**	**143.18**	**333**	⇑*i*PKPdf	PKPdf	09 20 49.2	-1.4
	comp=Z,18nm,1.1s						
MOTA	**Moosalm**	**143.18**	**333**	⇑*i*PKIKP	PKPdf	09 20 49.2	-1.4
SQTA	**Sankt Quirin**	**143.23**	**333**	⇑*i*P	PKPdf	09 20 49.6	-1.1
	comp=Z,8.9nm,1.0s						
SQTA	**Sankt Quirin**	**143.23**	**333**	⇑*i*PKPdf	PKPdf	09 20 49.6	-1.1
	comp=Z,8.9nm,1.0s						
SQTA	**Sankt Quirin**	**143.23**	**333**	⇑*i*PKIKP	PKPdf	09 20 49.6	-1.1
BFO	**Black Forest**	**143.53**	**337**	*e*PKPdf	PKPdf	09 20 50.0	-1.2
BFO	**Black Forest**	**143.53**	**337**	*e*PKIKP	PKPdf	09 20 50.0	-1.2
FETA	**Feichten**	**143.59**	**333**	⇑*i*PKPdf	PKPdf	09 20 47.6	-3.8
	comp=Z,40nm,1.1s						
CDF	**Champ du Feu**	**143.86**	**338**	*e*PKP1	PKPdf	09 20 50.4	-1.4
	comp=Z,52nm,1.0s						
CDF	**Champ du Feu**	**143.86**	**338**	*e*PKP	PKPdf	09 20 50.4	-1.4
CDF	**Champ du Feu**	**143.86**	**338**	*e*PKIKP	PKPdf	09 20 50.4	-1.4
FELD	**Feldberg im Sc**	**144.03**	**336**	PKP	PKPdf	09 20 51.0	-1.1
ECH	**Echery**	**144.07**	**338**	PKP	PKPdf	09 20 51.0	-1.1
ECH	**Echery**	**144.07**	**338**	PKP	PKPdf	09 20 51.0	-1.1
ECH	**Echery**	**144.07**	**338**	PKIKP	PKPdf	09 20 51.0	-1.1
BRMO	**Bormio**	**144.17**	**333**	PKP	PKPdf	09 20 52.2	-0.2
MOF	**Molkenrain**	**144.38**	**337**	PKP	PKPdf	09 20 52.1	-0.6
MOF	**Molkenrain**	**144.38**	**337**	PKP	PKPdf	09 20 52.1	-0.6
MOF	**Molkenrain**	**144.38**	**337**	PKIKP	PKPdf	09 20 52.1	-0.6
HINF	**Hinteralfeld**	**144.51**	**337**	*e*PKP1	PKPdf	09 20 51.5	-1.4
	comp=Z,28nm,0.7s						
HINF	**Hinteralfeld**	**144.51**	**337**	*e*PKP	PKPdf	09 20 51.5	-1.4
HINF	**Hinteralfeld**	**144.51**	**337**	*e*PKIKP	PKPdf	09 20 51.5	-1.4
HAU	**Haudompre**	**144.54**	**338**	*e*PKP1	PKPdf	09 20 51.9	-1.1
	comp=Z,48nm,0.8s						
HAU				*e*MLR	MLR		
	comp=Z,268nm,20.8s,MS4.7						
HAU	**Haudompre**	**144.54**	**338**	*e*PKP	PKPdf	09 20 51.9	-1.1
HAU				LR	LR		
	comp=Z,270nm,20.8s,MS5.0						
HAU	**Haudompre**	**144.54**	**338**	*e*PKIKP	PKPdf	09 20 51.9	-1.1
HAU				MLR	MLR		
	comp=Z,270nm,20.8s,MS5.0						
BBS	**Basel-Blauen**	**144.56**	**336**	PKP	PKPdf	09 20 52.9	-0.1
BBS	**Basel-Blauen**	**144.56**	**336**	PKIKP	PKPdf	09 20 52.9	-0.1
MEZF	**Maizieres J'vi**	**144.56**	**340**	*e*PKP1	PKPdf	09 20 52.2	-0.8
MEZF	**Maizieres J'vi**	**144.56**	**340**	*e*PKP	PKPdf	09 20 52.2	-0.8
TUE	**Stuetta**	**144.62**	**334**	PKP	PKPdf	09 20 53.9	+0.7
RGNG	**Rignano Grg**	**144.84**	**322**	PKP	PKPdf	09 20 53.6	-0.1
LOMF	**Lomont**	**144.91**	**337**	PKP	PKPdf	09 20 53.6	0.0
LOMF	**Lomont**	**144.91**	**337**	PKP	PKPdf	09 20 53.6	0.0
LOMF	**Lomont**	**144.91**	**337**	PKIKP	PKPdf	09 20 53.6	0.0
SNTG	**Esanatoglia**	**145.28**	**327**	PKP	PKPdf	09 20 55.8	+1.4
VAI	**Varese**	**145.34**	**334**	PKP	PKPdf	09 20 54.7	+0.3
VAI	**Varese**	**145.34**	**334**	PKIKP	PKPdf	09 20 54.7	+0.3
SFI	**Santa Sofia**	**145.39**	**328**	PKP	PKPdf	09 20 56.8	+2.2
SFI	**Santa Sofia**	**145.39**	**328**	PKIKP	PKPdf	09 20 56.8	+2.2
NRCA	**Norcia**	**145.47**	**326**	PKP	PKPdf	09 20 55.8	+1.0
VMG	**Vicchio**	**145.50**	**329**	PKP	PKPdf	09 20 57.2	+2.4
SEI	**Scarperia**	**145.52**	**329**	PKP	PKPdf	09 20 57.3	+2.5
ASS	**Assisi**	**145.56**	**327**	PKP	PKPdf	09 20 56.1	+1.2
ASS	**Assisi**	**145.56**	**327**	PKIKP	PKPdf	09 20 56.1	+1.2
TDS	**Terranova Siba**	**145.58**	**319**	PKP	PKPdf	09 20 56.6	+1.6
TDS	**Terranova Siba**	**145.58**	**319**	PKIKP	PKPdf	09 20 56.6	+1.6
TIP	**Timpagrande**	**145.58**	**318**	*e*PKPdf	PKPdf	09 20 55.0	0.0
AQU	**L'Aquila**	**145.64**	**325**	*e*PKPdf	PKPdf	09 21 00.5	+5.4
AQU	**L'Aquila**	**145.64**	**325**	⇑PKP2	PKPab	09 21 00.4	+4.7
AQU	**L'Aquila**	**145.64**	**325**	⇑*i*P	PKPdf	09 21 00.4	+5.3
SGO	**Sicignano**	**145.68**	**321**	PKP	PKPdf	09 20 56.7	+1.5
SGO	**Sicignano**	**145.68**	**321**	PKP2	PKPab	09 20 56.7	+0.7
ERBM	**Eremo**	**145.71**	**330**	PKP	PKPdf	09 20 57.0	+1.9
CABF	**La Chapelle**	**145.81**	**337**	*e*PKP1	PKPbc	09 20 55.7	-0.1
	comp=Z,178nm,1.0s						
CABF	**La Chapelle**	**145.81**	**337**	*e*PKP	PKPdf	09 20 55.7	+0.5
CABF	**La Chapelle**	**145.81**	**337**	*e*PKP2	PKPab	09 20 55.7	-0.5
OG01	**Vacheresse**	**145.82**	**336**	PKP	PKPdf	09 20 56.9	+1.7
OG01	**Vacheresse**	**145.82**	**336**	PKP	PKPdf	09 20 56.9	+1.7
ORO	**Oropa**	**145.86**	**334**	PKP	PKPdf	09 20 56.4	+1.1
ORO	**Oropa**	**145.86**	**334**	PKP2	PKPab	09 20 56.4	-0.1
FLN	**La Foliniere**	**145.90**	**346**	*e*PKP1	PKPbc	09 20 55.2	-0.8
	comp=Z,80nm,1.0s						
FLN				*e*MLR	MLR		
	comp=Z,282nm,22.2s,MS4.7						
FLN	**La Foliniere**	**145.90**	**346**	*e*PKP	PKPdf	09 20 55.2	-0.1
FLN				LR	LR		
	comp=Z,280nm,22.3s,MS5.0						
FLN	**La Foliniere**	**145.90**	**346**	*e*PKIKP	PKPdf	09 20 55.2	-0.1
FLN				MLR	MLR		
	comp=Z,280nm,22.3s,MS5.0						
LDF	**La Druitiere**	**145.97**	**345**	*e*PKP1	PKPbc	09 20 55.2	-1.0
	comp=Z,88nm,1.1s						
LDF	**La Druitiere**	**145.97**	**345**	*e*PKP	PKPdf	09 20 55.2	-0.2
LDF	**La Druitiere**	**145.97**	**345**	*e*PKIKP	PKPdf	09 20 55.2	-0.2
LOR	**Lormes**	**146.03**	**340**	*e*PKP1	PKPbc	09 20 55.7	-0.7
LOR				*e*MLR	MLR		
	comp=Z,595nm,21.8s,MS5.0						
LOR	**Lormes**	**146.03**	**340**	*e*PKP	PKPdf	09 20 55.7	+0.1
LOR				LR	LR		
	comp=Z,590nm,21.8s,MS5.3						
LOR	**Lormes**	**146.03**	**340**	*e*PKP2	PKPbc	09 20 55.7	-0.7
LOR				MLR	MLR		
	comp=Z,590nm,21.8s,MS5.3						
SSF	**Saint Saulge**	**146.33**	**340**	*e*PKP1	PKPbc	09 20 56.8	-0.5
	comp=Z,116nm,0.9s						
SSF	**Saint Saulge**	**146.33**	**340**	*e*PKP	PKPdf	09 20 56.8	+0.7
SSF	**Saint Saulge**	**146.33**	**340**	*e*PKP2	PKPbc	09 20 56.8	-0.5
GRR	**Gorron**	**146.34**	**346**	*e*PKP1	PKPbc	09 20 56.7	-0.6
	comp=Z,175nm,1.2s						
GRR	**Gorron**	**146.34**	**346**	*e*PKP	PKPdf	09 20 56.7	+0.7
GRR	**Gorron**	**146.34**	**346**	*e*PKP2	PKPbc	09 20 56.7	-0.6
RSL	**Roselend**	**146.37**	**336**	PKP	PKPdf	09 20 57.1	+0.9
RSL	**Roselend**	**146.37**	**336**	PKP	PKPdf	09 20 57.1	+0.9
RSL	**Roselend**	**146.37**	**336**	PKP2	PKPbc	09 20 57.1	-0.4
LPL	**La Plagne**	**146.47**	**335**	*e*PKP1	PKPbc	09 20 58.9	+1.1
LPL	**La Plagne**	**146.47**	**335**	*e*PKP	PKPbc	09 20 58.9	+1.1
LPL	**La Plagne**	**146.47**	**335**	*e*PKP2	PKPab	09 20 58.9	+0.1
LPG	**La Plagne**	**146.47**	**335**	*e*PKP1	PKPbc	09 20 59.0	+1.2
	comp=Z,52nm,0.7s						
LPG	**La Plagne**	**146.47**	**335**	*e*PKP	PKPbc	09 20 59.0	+1.2
LPG	**La Plagne**	**146.47**	**335**	*e*PKP2	PKPab	09 20 59.0	+0.2
OG05	**Jujurieux**	**146.53**	**337**	PKP	PKPdf	09 20 57.8	+1.4
OG05	**Jujurieux**	**146.53**	**337**	PKP	PKPdf	09 20 57.8	+1.4
SMF	**Signal de Mont**	**146.58**	**339**	*e*PKP1	PKPbc	09 20 57.4	-0.7
	comp=Z,94nm,0.9s						
SMF	**Signal de Mont**	**146.58**	**339**	*e*PKP	PKPdf	09 20 57.4	+0.9
SMF	**Signal de Mont**	**146.58**	**339**	*e*PKP2	PKPab	09 20 57.4	-1.8
AVF	**Avril sur Loir**	**146.62**	**340**	*e*PKP1	PKPbc	09 20 57.4	-0.8
	comp=Z,65nm,0.9s						
AVF	**Avril sur Loir**	**146.62**	**340**	*e*PKP	PKPdf	09 20 57.4	+0.8
AVF	**Avril sur Loir**	**146.62**	**340**	*e*PKP2	PKPab	09 20 57.4	-1.9
SOI	**Samo**	**146.65**	**317**	PKP	PKPdf	09 20 58.7	+1.8
SOI	**Samo**	**146.65**	**317**	PKP2	PKPab	09 20 58.7	-1.1
SGMF	**Saint Gilles**	**146.84**	**348**	*e*PKP1	PKPbc	09 20 57.7	-1.0
	comp=Z,118nm,1.0s						
SGMF	**Saint Gilles**	**146.84**	**348**	*e*PKP	PKPdf	09 20 57.7	+0.8
SGMF	**Saint Gilles**	**146.84**	**348**	*e*PKIKP	PKPdf	09 20 57.7	+0.8
BNI	**Bardonecchia**	**146.87**	**335**	*e*PKPdf	PKPdf	09 20 56.9	-0.2
BNI	**Bardonecchia**	**146.87**	**335**	*e*PKIKP	PKPdf	09 20 56.9	-0.1
ROSF	**Rostrenen**	**146.90**	**349**	*e*PKP1	PKPbc	09 20 58.0	-0.9
	comp=Z,186nm,1.5s						
ROSF	**Rostrenen**	**146.90**	**349**	*e*PKP	PKPdf	09 20 58.0	+1.0
ROSF	**Rostrenen**	**146.90**	**349**	*e*PKP2	PKPbc	09 20 58.0	-0.9
MTTG	**Motta San Giov**	**146.93**	**317**	PKP	PKPbc	09 21 00.4	+1.0
GDM	**Grand'Maison**	**146.97**	**336**	PKP	PKPbc	09 20 59.5	+0.3
GDM	**Grand'Maison**	**146.97**	**336**	PKP	PKPbc	09 20 59.5	+0.3
BGF	**Bois d'Agland**	**146.99**	**340**	*e*PKP1	PKPbc	09 20 58.5	-0.7
	comp=Z,75nm,0.8s						
BGF	**Bois d'Agland**	**146.99**	**340**	*e*PKP	PKPdf	09 20 58.5	+1.3
BGF	**Bois d'Agland**	**146.99**	**340**	*e*PKP2	PKPbc	09 20 58.5	-0.7
GRN	**Grenoble**	**147.09**	**336**	PKP	PKPbc	09 20 59.5	-0.1
GRN	**Grenoble**	**147.09**	**336**	PKP	PKPbc	09 20 59.5	-0.1
GRN	**Grenoble**	**147.09**	**336**	PKP2	PKPbc	09 20 59.5	-0.1
MBDF	**Montbardon**	**147.10**	**334**	*e*PKP1	PKPbc	09 20 59.9	+0.3
	comp=Z,46nm,0.8s						
MBDF	**Montbardon**	**147.10**	**334**	*e*PKP	PKPbc	09 20 59.9	+0.3
MBDF	**Montbardon**	**147.10**	**334**	*e*PKP2	PKPbc	09 20 59.9	+0.3
PLDF	**La Plantade**	**147.24**	**339**	PKP	PKPbc	09 21 00.0	0.0
PLDF	**La Plantade**	**147.24**	**339**	PKP	PKPbc	09 21 00.0	0.0
PLDF	**La Plantade**	**147.24**	**339**	PKP2	PKPbc	09 21 00.0	0.0
SURF	**Saint Ours**	**147.28**	**334**	PKP	PKPbc	09 21 00.3	+0.2
SURF	**Saint Ours**	**147.28**	**334**	PKP	PKPbc	09 21 00.3	+0.2
ORIF	**Oris-en-Rattie**	**147.30**	**336**	*e*PKP1	PKPbc	09 20 59.9	-0.3
	comp=Z,55nm,0.8s						
ORIF				*e*MLR	MLR		
	comp=Z,322nm,20.5s,MS4.8						
ORIF	**Oris-en-Rattie**	**147.30**	**336**	*e*PKP	PKPbc	09 20 59.9	-0.3
ORIF	**Oris-en-Rattie**	**147.30**	**336**	*e*PKP2	PKPbc	09 20 59.9	-0.3
AGO	**Saint Agoulin**	**147.34**	**340**	PKP	PKPdf	09 20 59.5	+1.7
AGO	**Saint Agoulin**	**147.34**	**340**	PKP	PKPdf	09 20 59.5	+1.7
AUTN	**L'Aution**	**147.40**	**333**	PKP	PKPdf	09 20 59.9	+1.9
AUTN	**L'Aution**	**147.40**	**333**	PKP	PKPdf	09 20 59.9	+1.9
AUTN	**L'Aution**	**147.40**	**333**	PKP2	PKPbc	09 20 59.9	-0.6
TCF	**Toulx Ste Croi**	**147.43**	**341**	*e*PKP1	PKPbc	09 20 59.8	-0.7
	comp=Z,95nm,1.1s						
TCF	**Toulx Ste Croi**	**147.43**	**341**	*e*PKP	PKPdf	09 20 59.8	+1.9
TCF	**Toulx Ste Croi**	**147.43**	**341**	*e*PKP2	PKPbc	09 20 59.8	-0.7
TOUF	**Mont Tournerai**	**147.47**	**333**	PKP	PKPbc	09 21 00.1	-0.6
TOUF	**Mont Tournerai**	**147.47**	**333**	PKP	PKPbc	09 21 00.1	-0.6
TOUF	**Mont Tournerai**	**147.47**	**333**	PKP2	PKPbc	09 21 00.1	-0.6
SBF	**Sospel**	**147.50**	**333**	*e*PKP1	PKPbc	09 20 59.9	-0.9
	comp=Z,132nm,0.9s						
SBF	**Sospel**	**147.50**	**333**	*e*PKP	PKPdf	09 20 59.9	+1.7
SBF	**Sospel**	**147.50**	**333**	*e*PKP2	PKPbc	09 20 59.9	-0.9
PGF	**Pioggiola**	**147.79**	**330**	*e*PKP1	PKPbc	09 21 00.6	-1.0
	comp=Z,110nm,0.8s						
PGF	**Pioggiola**	**147.79**	**330**	*e*PKP	PKPdf	09 21 00.6	+1.9
PGF	**Pioggiola**	**147.79**	**330**	*e*PKP2	PKPbc	09 21 00.6	-1.0
VIVF	**Saint-Julien-l**	**147.82**	**337**	*e*PKP1	PKPbc	09 21 00.9	-0.7
	comp=Z,21nm,0.7s						
VIVF	**Saint-Julien-l**	**147.82**	**337**	*e*PKP	PKPbc	09 21 00.9	-0.7
VIVF	**Saint-Julien-l**	**147.82**	**337**	*e*PKP2	PKPbc	09 21 00.9	-0.7
MFF	**Saint Martin d**	**147.82**	**344**	*e*PKP1	PKPbc	09 21 00.7	-0.8
	comp=Z,89nm,0.8s						
MFF	**Saint Martin d**	**147.82**	**344**	*e*PKP	PKPbc	09 21 00.7	-0.8
MFF	**Saint Martin d**	**147.82**	**344**	*e*PKP2	PKPbc	09 21 00.7	-0.8
LBL	**Lubilhac**	**148.02**	**339**	PKP	PKPbc	09 21 01.3	-0.8
LBL	**Lubilhac**	**148.02**	**339**	PKP	PKPbc	09 21 01.3	-0.8
LBL	**Lubilhac**	**148.02**	**339**	PKP2	PKPbc	09 21 01.3	-0.8
FRF	**La Foret Royal**	**148.09**	**333**	*e*PKP1	PKPbc	09 21 01.2	-1.2
	comp=Z,73nm,0.9s						
FRF	**La Foret Royal**	**148.09**	**333**	*e*PKP	PKPbc	09 21 01.2	-1.2
FRF	**La Foret Royal**	**148.09**	**333**	*e*PKIKP	PKPbc	09 21 01.2	-1.2
SMRF	**Simiane la Rot**	**148.20**	**335**	*e*PKP1	PKPbc	09 21 02.2	-0.4
	comp=Z,66nm,1.1s						
SMRF	**Simiane la Rot**	**148.20**	**335**	*e*PKP	PKPbc	09 21 02.2	-0.4
RCBR	**Riachuelo**	**148.22**	**131**	*e*PKPdf	PKPdf	09 21 01.0	+0.7
RCBR				*e*PKPbc	PKPbc	09 21 03.8	+0.2
RCBR				*e*PKPab	PKPab	09 21 07.9	+1.3
LMR	**La Mourre**	**148.33**	**333**	*e*PKP1	PKPbc	09 21 03.2	+0.2
	comp=Z,99nm,1.0s						
LMR	**La Mourre**	**148.33**	**333**	*e*PKP	PKPbc	09 21 03.2	+0.2
LMR	**La Mourre**	**148.33**	**333**	*e*PKP2	PKPbc	09 21 03.2	+0.2
RJF	**Les Rejaudoux**	**148.52**	**341**	*e*PKP1	PKPbc	09 21 03.0	-0.4
	comp=Z,93nm,1.2s						
RJF				*e*MLR	MLR		
	comp=Z,328nm,22.5s,MS4.8						
RJF	**Les Rejaudoux**	**148.52**	**341**	*e*PKP	PKPbc	09 21 03.0	-0.4
RJF				LR	LR		
	comp=Z,330nm,22.5s,MS5.1						
RJF	**Les Rejaudoux**	**148.52**	**341**	*e*PKP2	PKPbc	09 21 03.0	-0.4
RJF				MLR	MLR		
	comp=Z,330nm,22.5s,MS5.1						
CAF	**Calviac**	**148.69**	**340**	*e*PKP1	PKPbc	09 21 03.7	-0.2
	comp=Z,21nm,0.8s						
CAF	**Calviac**	**148.69**	**340**	*e*PKP	PKPbc	09 21 03.7	-0.2
CAF	**Calviac**	**148.69**	**340**	*e*PKP2	PKPbc	09 21 03.7	-0.2
LASF	**Ste Croix**	**148.79**	**337**	*e*PKP1	PKPbc	09 21 03.6	-0.6
	comp=Z,78nm,0.9s						
LASF	**Ste Croix**	**148.79**	**337**	*e*PKP	PKPbc	09 21 03.6	-0.6
LFF	**La Frestale**	**149.09**	**342**	*e*PKP1	PKPbc	09 21 04.1	-0.8
	comp=Z,81nm,1.0s						
LFF	**La Frestale**	**149.09**	**342**	*e*PKP	PKPbc	09 21 04.1	-0.8
LFF	**La Frestale**	**149.09**	**342**	*e*PKP2	PKPbc	09 21 04.1	-0.8
VSL	**Villasalto**	**149.82**	**325**	*e*PKPdf	PKPdf	09 21 02.2	+0.2
VSL				*e*PKPbc	PKPbc	09 21 07.6	+0.7
VSL				*e*PKPab	PKPab	09 21 12.3	-0.1
MTLF	**Montolieu**	**150.03**	**338**	*e*PKP1	PKPbc	09 21 06.6	-0.6
	comp=Z,85nm,1.0s						
MTLF	**Montolieu**	**150.03**	**338**	*e*PKP	PKPbc	09 21 06.6	-0.6
MTLF	**Montolieu**	**150.03**	**338**	*e*PKHKP	PKPbc	09 21 06.6	-0.6
EPF	**Esparros**	**150.94**	**340**	*e*PKP1	PKPbc	09 21 09.1	-0.3
	comp=Z,42nm,1.0s						
EPF	**Esparros**	**150.94**	**340**	*e*PKP	PKPbc	09 21 09.1	-0.3
EPF	**Esparros**	**150.94**	**340**	*e*PKIKP	PKPbc	09 21 09.1	-0.3
ETSF	**Etsaut**	**151.34**	**342**	*e*PKP1	PKPbc	09 21 10.1	-0.3
	comp=Z,35nm,0.6s						
ETSF	**Etsaut**	**151.34**	**342**	*e*PKP	PKPbc	09 21 10.1	-0.3
SJPF	**Ste Jean**	**151.34**	**343**	*e*PKP1	PKPbc	09 21 10.6	+0.3
SJPF	**Ste Jean**	**151.34**	**343**	*e*PKP	PKPbc	09 21 10.6	+0.3
KEST	**Kesra**	**152.36**	**319**	PKPbc	PKPbc	09 21 14.2	+1.2
	comp=Z,12nm,0.7s,baz=217,slow=0.9,SNR=4.8						
CMAH	**Djebel Manchou**	**152.93**	**323**	P	PKPbc	09 21 14.0	-0.1
CGMA	**Guelma**	**153.06**	**323**	P	PKPbc	09 21 13.0	-1.4
PBRG	**Braganca**	**153.83**	**350**	*e*PKPab	PKPab	09 21 29.5	+0.5
PBRG				*i* -		09 21 43.6	
DFRA	**Djebel Bou Aff**	**153.86**	**325**	P	PKPbc	09 21 17.0	+0.8
PCAB	**Cabril**	**154.11**	**352**	*e*PKPab	PKPab	09 21 32.3	+2.1
PCAB				*i* -		09 21 44.7	
SET	**Setif**	**154.37**	**325**	P	PKPbc	09 21 19.0	+1.7
PVRL	**Vila Real**	**154.50**	**352**	*e*PKPab	PKPab	09 21 32.2	+0.4
PVRL				*i* -		09 21 46.7	
MVO	**Moncorvo**	**154.50**	**350**	*e*PKPab	PKPab	09 21 31.8	-0.1
MVO				*i* -		09 21 46.8	
PVIS	**Viseu**	**155.07**	**352**	*e*PKPab	PKPab	09 21 35.7	+1.4
PVIS				*i* -		09 21 49.2	
ESDC	**Sonseca Array**	**155.29**	**344**	PKPab	PKPab	09 21 33.5	-1.8
	comp=Z,2.0nm,0.6s,baz=17,slow=3.7,SNR=5.9						
MTE	**Manteigas**	**155.33**	**351**	*e*PKPab	PKPab	09 21 35.3	-0.1
MTE				*i* -		09 21 51.9	
PCBR	**Castelo Branco**	**155.87**	**351**	*e*PKPab	PKPab	09 21 38.6	+0.9
PCBR				*i* -		09 21 52.4	
PBAR	**Barrancos**	**157.41**	**349**	*e*PKPab	PKPab	09 21 45.2	+0.8
PBAR				*i* -		09 21 58.8	
PBEJ	**Beja**	**157.70**	**350**	*e*PKPab	PKPab	09 21 46.7	+1.0
PBEJ				*i* -		09 22 01.0	
PVAQ	**Vaqueiros**	**158.29**	**350**	*i* -	pPKPab	09 22 02.5	-2.0
MORF	**Marmelete**	**158.53**	**352**	*i* -	pPKPab	09 22 04.7	-0.9
TOA0	**Torodi Ar. Sit**	**166.01**	**260**	*e*PKPdf	PKPdf	09 21 21.4	-1.0
TORD	**Torodi Ar. Bea**	**166.01**	**260**	PKP	PKPdf	09 21 21.0	-1.4
TORD				PKPab	PKPab	09 22 22.6	-0.3
TORD				PP	PP	09 26 08.7	-1.9
TORD	**Torodi Ar. Bea**	**166.01**	**260**	PKP	PKPdf	09 21 21.0	-1.4
	comp=Z,2.4nm,0.6s,baz=346,slow=1.3,SNR=24						
TORD				PKPab	PKPab	09 22 22.6	-0.3
	comp=Z,3.3nm,0.9s,baz=102,slow=4.1,SNR=6.1						
TORD				PP	PP	09 26 08.7	-1.9
	comp=Z,1.8nm,1.2s,baz=99,slow=2.4,SNR=4.6						
KIC	**Kosan Boka**	**167.79**	**219**	*e*P	PKPab	09 22 30.3	-0.2
	comp=Z,117nm,1.3s						
LIC	**Lamto**	**167.85**	**218**	*e*PKIKP	PKPdf	09 21 21.6	-2.3
	comp=Z,56nm,1.4s						
LIC				*e*MLR	MLR		
	comp=Z,679nm,22.5s						
LIC	**Lamto**	**167.85**	**218**	*e*P	PKPab	09 22 30.5	-0.3
	comp=Z,84nm,1.3s						
LIC	**Lamto**	**167.85**	**218**	*e*PKPdf	PKPdf	09 21 21.6	-2.3
LIC				LR	LR		
	comp=Z,340nm,22.5s						
TIC	**Toumodi**	**168.18**	**219**	*e*P	PKPab	09 22 32.5	+0.2
	comp=Z,53nm,0.8s						

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*ISCJB **26** 09:02:50.1±0.8, 14.1N±0.2×144.4E±, h196^{km}±40^{km}, mb3.5/6, Error ellipse: s-maj=182.2km s-min=19.0km az=174.8*

*IDC **26** 09:02:50.9±1.4, 14.14N×144.61E, h199^{km}±16^{km}, mb3.3/6, mb1 3.4/6, mb1mx3.4/20, mbtmp3.3/6, Error ellipse: s-maj=114.0km s-min=14.6km az=84.0*

*NEIC **26** 09:02:51.3±1.1, 14.10N×144.09E, h185^{km}±17^{km}, Error ellipse: s-maj=61.5km s-min=16.0km az=86.0*

ISC 26 09:02:51.1±1.5**, 14.2N**±0.1×**144.6E**±1.0**, h203**^{km}±19^{km}**, n9, σ0^{s}55**/11**, mb3.5**/6**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**0.60**	**159**	P	**Pn**	**09 03 19.1**	**+0.2**
GUMO				S	**Sn**	**09 03 40.4**	**-0.1**
GUMO	**Guam**	**0.60**	**159**	P	**Pn**	**09 03 19.1**	**+0.2**
	135nm,0.3s,baz=256,slow=3.7,SNR=50						
GUMO				S	**Sn**	**09 03 40.4**	**-0.1**
	68nm,0.3s,baz=310,slow=22,SNR=11						
MJAR	**Matsushiro Arr**	**23.03**	**347**	P	**P**	**09 07 38.5**	**+0.2**
	1.4nm,0.5s,mb3.8,baz=169,slow=9.9,SNR=5.9						
KSRS	**Korea Array**	**27.57**	**330**	P	**P**	**09 08 18.6**	**-0.6**
	0.5nm,0.3s,mb3.6,baz=146,slow=8.0,SNR=5.0						
WRA	**Warramunga Arr**	**35.37**	**197**	P	**P**	**09 09 28.0**	**+0.5**
	0.5nm,0.3s,mb3.5,baz=21,slow=9.5,SNR=2.3						
ASAR	**Alice Springs**	**39.03**	**196**	P	**P**	**09 09 57.6**	**-0.7**
	0.7nm,0.5s,mb3.5,baz=23,slow=7.3,SNR=2.6						
SONM	**Songino Array**	**46.15**	**325**	P	**P**	**09 10 54.8**	**-0.4**
	0.4nm,0.6s,mb2.9,baz=118,slow=7.2,SNR=3.0						
MKAR	**Makanchi Array**	**60.93**	**316**	P	**P**	**09 12 43.7**	**+1.0**

MKAR	**Makanchi Array**	**60.93**	**316**	P	**P**	**09 12 43.7**	**+1.1**
	1.3nm,0.5s,mb3.8,baz=90,slow=8.8,SNR=20						

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*ISCJB **26** 09:21:29.4±0.4, 36.39N±0.03×70.81E±0.07, h213^{km}±6^{km}, mb3.3/7, Error ellipse: s-maj=9.3km s-min=5.0km az=160.7*

*IDC **26** 09:21:30.0±6.5, 36.24N×70.74E, h209^{km}±60^{km}, mb3.2/8, mb1 3.3/10, mb1mx3.1/23, mbtmp3.2/10, Error ellipse: s-maj=33.1km s-min=19.3km az=25.0*

*NNC **26** 09:21:37.0±4.6, 37.04N×70.72E, h227^{km}±48^{km}, mb2.6, mpv3.6, Error ellipse: s-maj=57.5km s-min=24.8km az=38.0*

ISC 26 09:21:30.5±0.5**, 36.37N**±0.04×**70.89E**±0.07**, h207**^{km}±6^{km}**, n40, σ1^{s}34**/50**, mb3.3**/7**, 4C-1D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	**Cherat**	**2.67**	**162**	P	**Pn**	**09 22 18.6**	**+1.8**
CHCP	**Chirah Chowk**	**3.33**	**144**	P	**Pn**	**09 22 26.7**	**+2.3**
THW	**Thamme Wali**	**3.64**	**169**	P	**Pn**	**09 22 29.6**	**+1.5**
THW				S	**Sn**	**09 23 13.0**	**-0.3**
SBDP	**Sheikh Budin**	**4.06**	**181**	P	**Pn**	**09 22 33.8**	**+0.5**
SBDP				S	**Sn**	**09 23 21.0**	**-1.8**
DRP	**Derazinda**	**4.65**	**187**	P	**Pn**	**09 22 41.7**	**+1.0**
THN	**Thein Dam**	**5.60**	**133**	*e*P	**Pn**	**09 22 54.1**	**+1.4**
THN				*e*S	**Sn**	**09 23 56.0**	**-1.7**
DLH	**Dalhousie**	**5.67**	**131**	*e*x	x	09 24 40.0	
AML	**Almayashu**	**6.15**	**20**	P	**Pn**	**09 22 59.3**	**-0.3**
	SNR=101						
UCH	**Uchtor**	**6.49**	**25**	P	**Pn**	**09 23 03.7**	**-0.3**
	SNR=45						
EKS2	**Erkin-Say**	**6.66**	**19**	P	**Pn**	**09 23 06.2**	**0.0**
	SNR=23						
KK31	**Karatay Array**	**6.73**	**358**	⇑P	**Pn**	**09 23 05.5**	**-1.6**
	6.0nm,0.3s,baz=176,slow=11,SNR=268						
KK31				⇑S	**Sn**	**09 24 16.4**	**-7.6**
	9.0nm,0.3s,baz=188,slow=18,SNR=21						
AAK	**Ala-Archa**	**6.84**	**23**	P	**Pn**	**09 23 08.6**	**0.0**
	SNR=8.6						
SDNR	**Sundarnagar**	**7.01**	**132**	*e*P	**Pn**	**09 23 13.6**	**+2.7**
SDNR				*e*S	**Sn**	**09 24 28.0**	**-2.6**
KBK	**Karagaybulak**	**7.01**	**25**	P	**Pn**	**09 23 11.0**	**+0.2**
	SNR=7.1						
TKM2	**Tokmak 2**	**7.48**	**28**	P	**Pn**	**09 23 16.8**	**-0.1**
	SNR=14						
TKM2	**Tokmak 2**	**7.48**	**28**	⇑P	**Pn**	**09 23 16.7**	**-0.1**
	1.1nm,0.7s						
KLP	**Kalpa**	**7.79**	**126**	*e*P	**Pn**	**09 23 23.6**	**+2.7**
KLP				AMb	AMB	09 23 24.9	
	comp=Z,7.7nm,0.6s						
KLP				*e*S	**Sn**	**09 24 47.1**	**-1.9**
KHET	**Khetri**	**9.26**	**152**	*e*P	**Pn**	**09 23 39.3**	**-0.7**
KHET				AMb	AMB	09 23 42.6	
	comp=Z,4.5nm,0.3s						
KHET				*e*S	**Sn**	**09 25 15.9**	**-8.1**
JOSI	**Joshimath**	**9.27**	**126**	*e*P	**Pn**	**09 23 41.8**	**+1.6**
JOSI				*e*S	**Sn**	**09 25 21.5**	**-2.7**
NDI	**New Delhi**	**9.34**	**143**	*e*P	**Pn**	**09 23 40.0**	**-1.1**
NDI				*e*S	**Sn**	**09 25 18.0**	**-7.9**
AYAN	**Aya Nagar**	**9.46**	**144**	*e*P	**Pn**	**09 23 38.8**	**-3.9**
AYAN				AMb	AMB	09 23 39.9	
	comp=Z,41nm,0.1s						
KUDL	**Kundal**	**9.47**	**148**	*e*S	**Sn**	**09 25 21.7**	**-7.3**
SONA	**Sohna**	**9.64**	**145**	*e*P	**Pn**	**09 23 46.5**	**+1.4**
SONA				AMb	AMB	09 23 47.6	
	comp=Z,6.4nm,0.3s						
SONA				*e*S	**Sn**	**09 25 25.9**	**-7.1**
MK31	**Makanchi Array**	**13.44**	**36**	P	**Pn**	**09 24 34.0**	**+0.9**
	comp=Z,1.3nm,0.7s,baz=220,slow=13,SNR=12						
MKAR	**Makanchi Array**	**13.44**	**36**	P	**Pn**	**09 24 36.6**	**+3.6**
	comp=Z,0.2nm,0.3s,baz=224,slow=12,SNR=9.9						
GKN	**Gorkha**	**14.31**	**122**	*e*P	**Pn**	**09 24 46.0**	**+2.1**
	comp=Z,21nm,0.4s						
KKN	**Kakani**	**14.88**	**121**	*e*P	**Pn**	**09 24 51.2**	**+0.2**
	comp=Z,25nm,0.5s						
AB31	**Akbulak array**	**15.15**	**332**	⇑P	**Pn**	**09 24 52.1**	**-1.9**
	comp=Z,0.7nm,0.4s,baz=134,slow=11,SNR=18						
AB31				⇓S	**S**	**09 27 32.6**	**-9.4**
	comp=Z,0.6nm,0.6s						
JIRN	**Jiri**	**15.60**	**120**	*e*P	**Pn**	**09 25 01.6**	**+2.0**
	comp=Z,26nm,0.4s						
AKTO	**Aktyubinsk**	**16.85**	**331**	P	**P**	**09 25 13.0**	**0.0**
	comp=Z,0.6nm,0.3s,baz=130,slow=11,SNR=9.8						
TAPN	**Taplejung**	**16.86**	**117**	*e*P	**P**	**09 25 17.5**	**+4.1**
	comp=Z,5.4nm,0.3s						
ZALV	**Zalesovo Beam**	**20.07**	**24**	P	**P**	**09 25 47.9**	**+0.1**
	comp=Z,1.2nm,0.3s,baz=229,slow=11,SNR=3.7						
FINES	**FINESS Array B**	**37.54**	**326**	P	**P**	**09 28 24.1**	**-0.2**
	comp=Z,1.0nm,0.5s,mb3.6,baz=119,slow=9.7,SNR=6.6						
ARCES	**ARCESS Array B**	**41.23**	**338**	P	**P**	**09 28 54.9**	**+0.2**
	comp=Z,1.8nm,0.6s,mb3.7,baz=113,slow=7.5,SNR=16						
NB2	**NORSAR Subarra**	**44.43**	**323**	P	**P**	**09 29 19.7**	**-0.7**
	comp=Z,0.5nm,0.5s,mb3.1,baz=94,slow=7.9						
NOA	**NORSAR Array B**	**44.43**	**323**	P	**P**	**09 29 19.7**	**-0.7**
	comp=Z,0.6nm,0.9s,mb2.9,baz=104,slow=7.3,SNR=3.7						
TORD	**Torodi Ar. Bea**	**65.63**	**269**	P	**P**	**09 31 51.0**	**-1.7**
	comp=Z,0.3nm,0.4s,mb3.2,baz=54,slow=6.1,SNR=8.7						
YKA	**Yellowknife Ar**	**81.38**	**3**	P	**P**	**09 33 23.8**	**+0.2**
	comp=Z,0.1nm,0.3s,mb2.9,baz=351,slow=5.4,SNR=6.7						
WRA	**Warramunga Arr**	**82.00**	**122**	P	**P**	**09 33 26.7**	**-0.7**
	comp=Z,0.3nm,0.3s,mb3.4,baz=326,slow=5.2,SNR=2.9						
ASAR	**Alice Springs**	**84.25**	**125**	P	**P**	**09 33 39.1**	**+0.3**
	comp=Z,0.1nm,0.3s,mb3.1,baz=290,slow=4.4,SNR=4.2						

WEL 26 09:26:22.5±0.2**, 39.60S×177.03E, h28**^{km}±1^{km}**, ML3.6**/26**, 2C, Error ellipse: s-maj=2.2km s-min=1.4km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PXZ	**Pawanui**	**0.45**	**196**	P*	Pb	09 26 32.1	0.0
PXZ				S*	Sb	09 26 40.2	+1.7
PXZ				S*	Sb	09 26 40.4	+1.9
BKZ	**Black Stump Fm**	**0.60**	**316**	P*	Pb	09 26 33.7	-0.7
BKZ				S*	Sb	09 26 42.2	-0.3
KNZ	**Kokohu**	**0.77**	**41**	⇑PN	Pn	09 26 37.2	-0.3
TSZ	**Takapari Road**	**0.94**	**240**	*e*PN	Pn	09 26 38.7	-1.2
MOVZ	**Moawhango**	**1.00**	**281**	PN	Pn	09 26 40.2	-0.5
RITZ	**Rihia Road**	**1.10**	**304**	*e*PN	Pn	09 26 42.2	+0.2
TUVZ	**Tukino**	**1.11**	**287**	PN	Pn	09 26 42.2	0.0
NGZ	**Ngauruhoe**	**1.18**	**291**	PN	Pn	09 26 43.0	-0.1
TRVZ	**Turoa**	**1.18**	**284**	*e*PN	Pn	09 26 42.7	-0.5
KRVZ	**Karewarewa**	**1.19**	**295**	PN	Pn	09 26 42.7	-0.5
FWVZ	**Far West T-bar**	**1.19**	**286**	PN	Pn	09 26 43.2	-0.1
KATZ	**Kakaramea**	**1.21**	**301**	*e*PN	Pn	09 26 44.0	+0.5
WTVZ	**West Tongariro**	**1.21**	**293**	PN	Pn	09 26 43.5	-0.1
RATZ	**Rangitukua**	**1.22**	**306**	*e*PN	Pn	09 26 43.6	0.0
MTVZ	**Mangateitei**	**1.22**	**280**	PN	Pn	09 26 43.2	-0.5
BFZ	**Birch Farm**	**1.23**	**209**	*e*PN	Pn	09 26 42.6	-1.3
MWZ	**Matawai**	**1.32**	**17**	⇑PN	Pn	09 26 44.6	-0.5
PKVZ	**Pokaka**	**1.34**	**283**	*e*PN	Pn	09 26 44.8	-0.4
TWVZ	**Taurewa**	**1.34**	**293**	*e*PN	Pn	09 26 44.9	-0.4
URZ	**Urewera**	**1.34**	**3**	*e*PN	Pn	09 26 44.8	-0.5
WATZ	**Wairara**	**1.34**	**311**	*e*PN	Pn	09 26 43.8	-1.6
MRZ	**Mangatainoka R**	**1.53**	**226**	PN	Pn	09 26 46.4	-1.6
WAZ	**Wanganui**	**1.58**	**264**	*e*PN	Pn	09 26 49.2	+0.6
PUZ	**Puketiti**	**1.80**	**33**	*e*PN	Pn	09 26 50.3	-1.4
MTW	**Mount Morrison**	**1.94**	**216**	*e*PN	Pn	09 26 51.3	-2.3
HIZ	**Hauiti**	**2.01**	**302**	*e*PN	Pn	09 26 53.4	-1.1
CAW	**Cannon Point**	**2.12**	**224**	*e*PN	Pn	09 26 54.2	-1.9
MSWZ	**Moikau Station**	**2.26**	**216**	*e*PN	Pn	09 26 55.6	-2.5
MXZ	**Matakaoa Point**	**2.27**	**27**	PN	Pn	09 26 57.7	-0.4
TCW	**Tory Channel**	**2.65**	**232**	*e*PN	Pn	09 27 00.4	-2.8
TUWZ	**Tuamarina**	**2.98**	**231**	*e*PN	Pn	09 27 04.8	-3.0
LTZ	**Lake Taylor**	**4.79**	**227**	*e*PN	Pn	09 27 31.0	-1.8
MQZ	**McQueen's Vall**	**5.25**	**217**	SN	Sn	09 28 31.0	-7.6

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*ISCJB **26** 09:34:45.5±1.0, 2.14S±0.08×138.9E±0.2, h10^{km}, mb3.8/4, MS3.5/1, Error ellipse: s-maj=22.5km s-min=10.2km az=11.4*

*IDC **26** 09:34:45.1±1.5, 2.02S×139.14E, h0^{km}, mb3.8/5, mb1 4.1/7, mb1mx4.0/14, mbtmp4.0/7, ML4.3/2, MS3.6/1, Ms1 3.6/1, ms1mx3.1/21, Error ellipse: s-maj=59.6km s-min=18.8km az=81.0*

*NEIC **26** 09:34:47.0±0.7, 2.04S×139.02E, h10^{km}, mb4.1/2, Error ellipse: s-maj=21.9km s-min=9.8km az=88.0*

ISC 26 09:34:48.8±6.2**, 2.1S**±0.1×**139.0E**±0.2**, h21**^{km}±48^{km}**, n14, σ0^{s}58**/13**, mb3.8**/4**, MS3.5**/1**, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**12.40**	**211**	*e*P	**Pn**	**09 37 43.9**	**-0.2**
	11nm,0.6s						
KAKA				*e*S	**Sn**	**09 40 01.2**	**-0.5**
WB2	**Warramunga Arr**	**18.31**	**194**	*e*P	**Pn**	**09 39 01.5**	**-0.1**
WRA	**Warramunga Arr**	**18.31**	**194**	P	**Pn**	**09 39 01.6**	**-0.1**
	2.3nm,0.3s,baz=18,slow=13,SNR=58						
WRA				S	**Sn**	**09 42 19.9**	**-5.7**
	0.2nm,0.3s,baz=8.9,slow=23,SNR=4.6						
CTA	**Charters Tower**	**19.21**	**159**	P	**Pn**	**09 39 11.8**	**-0.7**
	0.2nm,0.3s,baz=331,slow=15,SNR=2.4						
FITZ	**Fitzroy Crossi**	**20.62**	**219**	*e*P	**P**	**09 39 27.9**	**+0.9**
	3.3nm,0.4s						
FITZ	**Fitzroy Crossi**	**20.62**	**219**	P	**P**	**09 39 27.9**	**+1.0**
	2.8nm,1.0s,baz=66,slow=17,SNR=6.6						
ASAR	**Alice Springs**	**22.00**	**193**	P	**P**	**09 39 42.5**	**+0.8**
	5.8nm,0.6s,mb4.2,baz=23,slow=10,SNR=118						
CBIJ	**Chichi jima**	**29.19**	**6**	LR	LR	09 51 06.4	
	comp=Z,126nm,21.6s,MS3.5,baz=357,slow=34						
STKA	**Stephens Creek**	**29.71**	**176**	*e*P	**P**	**09 40 54.7**	**+1.2**
	2.2nm,0.7s,mb4.0						
STKA	**Stephens Creek**	**29.71**	**176**	P	**P**	**09 40 53.4**	**-0.1**
	0.8nm,0.5s,mb3.7,baz=9.5,slow=12,SNR=3.3						
SONM	**Songino Array**	**57.31**	**334**	P	**P**	**09 44 34.7**	**-0.4**
	0.4nm,0.7s,mb3.5,baz=150,slow=7.1,SNR=2.8						
MKAR	**Makanchi Array**	**69.51**	**322**	P	**P**	**09 45 55.7**	**-0.2**
	0.6nm,0.6s,mb3.7,baz=114,slow=7.0,SNR=8.2						
TORD	**Torodi Ar. Bea**	**136.39**	**287**	PKP	PKPdf	09 54 10.0	-0.1
TORD	**Torodi Ar. Bea**	**136.39**	**287**	PKP	PKPdf	09 54 10.0	-0.1
	0.5nm,0.7s,baz=92,slow=1.6,SNR=3.5						

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*IDC **26** 09:51:51.7±1.0, 14.85N×119.98E, h0^{km}, mb3.8/7, mb1 4.0/7, mb1mx3.8/19, mbtmp3.8/7, Error ellipse: s-maj=66.9km s-min=18.1km az=75.0*

*ISCJB **26** 09:51:55.7±0.7, 14.86N±0.05×119.54E±0.06, h33^{km}, mb3.7/7, Error ellipse: s-maj=9.0km s-min=6.9km az=164.5*

*MAN **26** 09:51:56, 14.91N×119.67E, h32^{km}, mb4.4, ML3.3, MS3.1*

ISC 26 09:51:57.0±0.7**, 14.86N**±0.05×**119.58E**±0.07**, h35**^{km}**, n20, σ1^{s}30**/23**, mb3.7**/7**, 3D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCZP	**Santa Cruz**	**0.96**	**20**	*e*P	**Pn**	**09 52 13.1**	**-1.0**
LUBP	**Lubang**	**1.30**	**150**	*e*P	**Pn**	**09 52 17.8**	**-0.9**
TGY	**Tagaytay City**	**1.52**	**120**	⇓*e*P	**Pn**	**09 52 24.5**	**+2.8**
TGY				*i* S	**Sn**	**09 52 39.6**	**-0.7**
BOLP	**Bolinao**	**1.54**	**12**	*e*P	**Pn**	**09 52 21.8**	**-0.2**
PCPH	**Palayan**	**1.62**	**64**	⇓*e*P	**Pn**	**09 52 21.5**	**-1.7**
PCPH				*i* S	**Sn**	**09 52 39.2**	**-3.7**
BCPH	**Baguio City Da**	**1.79**	**33**	⇓*e*P	**Pn**	**09 52 25.4**	**-0.1**
BCPH						09 52 45.8	
BALP	**Baler**	**2.12**	**65**	*e*P	**Pn**	**09 52 29.7**	**-0.2**
BALP				*e*S	**Sn**	**09 52 55.8**	**+0.8**
POLP	**Polilio Island**	**2.29**	**93**	*e*P	**Pn**	**09 52 33.1**	**+0.7**
BUSP	**Coron**	**2.91**	**168**	*e*P	**Pn**	**09 52 41.8**	**+1.0**
CAUP	**Cauayan**	**2.99**	**46**	*e*P	**Pn**	**09 52 44.1**	**+2.1**
APYP	**Conner**	**3.38**	**28**	*e*P	**Pn**	**09 52 52.7**	**+5.3**
APYP				*e*S	**Sn**	**09 53 34.3**	**+8.0**
OTRP	**Odiongan**	**3.44**	**136**	*e*P	**Pn**	**09 52 49.2**	**+1.0**
KSRS	**Korea Array**	**23.69**	**17**	P	**P**	**09 57 03.3**	**-2.3**
	0.5nm,0.5s,mb3.2,baz=192,slow=9.0,SNR=3.2						
SONM	**Songino Array**	**34.64**	**344**	P	**P**	**09 58 42.7**	**-0.2**
	0.1nm,0.4s,mb3.1,baz=146,slow=9.0,SNR=2.2						
WRA	**Warramunga Arr**	**37.51**	**157**	P	**P**	**09 59 05.4**	**-2.4**
	1.1nm,0.4s,mb3.9,baz=330,slow=10,SNR=30						
ASAR	**Alice Springs**	**40.78**	**160**	P	**P**	**09 59 33.6**	**-1.3**
	1.3nm,0.4s,mb3.9,baz=335,slow=6.9,SNR=55						
ARCES	**ARCESS Array B**	**77.61**	**339**	P	**P**	**10 03 50.4**	**+1.1**
	2.6nm,1.0s,mb4.1,baz=89,slow=7.3,SNR=4.1						
FINES	**FINESS Array B**	**78.74**	**331**	P	**P**	**10 03 57.5**	**+1.8**
	1.9nm,1.0s,mb4.0,baz=58,slow=7.2,SNR=5.0						
YKA	**Yellowknife Ar**	**92.12**	**22**	P	**P**	**10 05 03.0**	**+0.5**
	0.3nm,0.5s,mb3.9,baz=308,slow=4.5,SNR=9.8						
TXAR	**Lajitas Array**	**119.39**	**43**	PKP	PKPdf	10 10 44.2	+0.8
	0.2nm,0.5s,baz=0.0,slow=0.1,SNR=3.6						

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*IDC **26** 10:10:54.6±6.4, 36.28N×70.86E, h186^{km}±59^{km}, mb3.3/8, mb1 3.5/10, mb1mx3.2/23, mbtmp3.3/10, Error ellipse: s-maj=31.3km s-min=18.1km az=26.0*

*ISCJB **26** 10:10:57.4±0.5, 36.50N±0.04×70.96E±0.07, h224^{km}±7^{km}, mb3.4/7, Error ellipse: s-maj=10.3km s-min=6.0km az=151.3*

*NNC **26** 10:11:05.6±1.8, 37.20N×70.94E, h237^{km}±15^{km}, mb2.4, mpv3.1, Error ellipse: s-maj=20.5km s-min=8.6km az=28.0*

ISC 26 10:10:58.5±0.5**, 36.49N**±0.05×**71.02E**±0.08**, h218**^{km}±8^{km}**, n32, σ1^{s}29**/41**, mb3.4**/7**, 4D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	**Cherat**	**2.75**	**164**	P	**Pn**	**10 11 47.9**	**+1.6**
CHCP	**Chirah Chowk**	**3.37**	**146**	P	**Pn**	**10 11 55.3**	**+1.9**
THW	**Thamme Wali**	**3.73**	**171**	P	**Pn**	**10 11 59.0**	**+1.3**
SBDP	**Sheikh Budin**	**4.18**	**182**	P	**Pn**	**10 12 03.3**	**+0.1**
DRP	**Derazinda**	**4.78**	**188**	P	**Pn**	**10 12 12.1**	**+1.5**
DRP				S	**S**	**10 13 05.0**	**-2.6**
THN	**Thein Dam**	**5.60**	**135**	*e*P	**Pn**	**10 12 22.7**	**+1.7**
THN				*e*S	**S**	**10 13 23.2**	**-3.2**
DLH	**Dalhousie**	**5.67**	**132**	*e*S	**S**	**10 13 27.0**	**-1.0**
KK31	**Karatay Array**	**6.62**	**357**	P	**Pn**	**10 12 32.5**	**-1.3**
	2.6nm,0.4s,baz=184,slow=12,SNR=38						
KK31				⇓S	**S**	**10 13 41.5**	**-8.3**
	29nm,0.5s,baz=187,slow=17,SNR=25						
SDNR	**Sundarnagar**	**7.01**	**133**	*e*P	**Pn**	**10 12 40.0**	**+1.0**
SDNR				*e*S	**S**	**10 13 55.4**	**-3.7**
TKM2	**Tokmak 2**	**7.33**	**27**	⇓P	**Pn**	**10 12 42.7**	**-0.3**
	0.4nm,0.7s						
KLP	**Kalpa**	**7.77**	**127**	*e*P	**Pn**	**10 12 51.1**	**+2.3**
KLP				AMb	AMB	10 12 51.3	
	comp=Z,5.2nm,0.4s						
KLP				*e*S	**S**	**10 14 14.4**	**-2.6**
KHET	**Khetri**	**9.31**	**153**	*e*P	**Pn**	**10 13 09.1**	**+0.4**
KHET				AMb	AMB	10 13 09.8	
	comp=Z,3.0nm,0.3s						
KHET				*e*S	**S**	**10 14 46.3**	**-7.1**
NDI	**New Delhi**	**9.37**	**144**	*e*P	**Pn**	**10 13 08.0**	**-1.4**
NDI				*e*x	x	10 14 23.0	
KUDL	**Kundal**	**9.52**	**149**	*e*P	**Pn**	**10 13 11.2**	**-0.1**
KUDL				AMb	AMB	10 13 13.0	
	comp=Z,4.0nm,0.5s						
KUDL				*e*S	**S**	**10 14 51.4**	**-6.8**
SONA	**Sohna**	**9.68**	**146**	*e*P	**Pn**	**10 13 13.3**	**-0.1**
SONA				AMb	AMB	10 13 13.9	
	comp=Z,5.8nm,0.2s						
SONA				*e*S	**S**	**10 14 55.8**	**-6.3**
MK31	**Makanchi Array**	**13.29**	**36**	⇓P	**Pn**	**10 13 59.0**	**+0.1**
	comp=Z,1.7nm,0.8s,baz=219,slow=12,SNR=11						
MKAR	**Makanchi Array**	**13.29**	**36**	P	**Pn**	**10 13 58.9**	**+0.1**
	comp=Z,0.2nm,0.3s,baz=220,slow=10,SNR=12						
GKN	**Gorkha**	**14.28**	**122**	*e*P	**Pn**	**10 14 16.0**	**+4.8**
	comp=Z,27nm,0.5s						
KKN	**Kakani**	**14.86**	**122**	*e*P	**Pn**	**10 14 19.2**	**+1.0**
	comp=Z,32nm,0.5s						
AB31	**Akbulak array**	**15.10**	**331**	P	**Pn**	**10 14 18.9**	**-2.1**
	comp=Z,1.0nm,0.4s,baz=142,slow=12,SNR=15						
AB31				⇓S	**S**	**10 17 00.4**	**-7.7**
	comp=Z,2.8nm,0.8s						
JIRN	**Jiri**	**15.57**	**120**	*e*P	**Pn**	**10 14 25.9**	**-0.9**
	comp=Z,14nm,0.4s						
AKTO	**Aktyubinsk**	**16.80**	**330**	P	**P**	**10 14 40.0**	**+0.2**
	comp=Z,0.8nm,0.3s,baz=136,slow=10,SNR=29						
TAPN	**Taplejung**	**16.83**	**118**	*e*P	**P**	**10 14 43.0**	**+2.7**
	comp=Z,16nm,0.5s						
ODAN	**Odare**	**16.90**	**120**	*e*P	**P**	**10 14 44.6**	**+3.5**
	comp=Z,10nm,0.5s						
ZALV	**Zalesovo Beam**	**19.92**	**24**	P	**P**	**10 15 13.9**	**+0.4**
	comp=Z,2.9nm,0.4s,baz=219,slow=11,SNR=4.1						
FINES	**FINESS Array B**	**37.50**	**326**	P	**P**	**10 17 51.4**	**+0.4**
	comp=Z,1.0nm,0.5s,mb3.6,baz=107,slow=9.3,SNR=4.8						
ARCES	**ARCESS Array B**	**41.16**	**338**	P	**P**	**10 18 21.7**	**+0.6**
	comp=Z,2.1nm,0.5s,mb3.9,baz=113,slow=8.1,SNR=24						
NOA	**NORSAR Array B**	**44.40**	**323**	P	**P**	**10 18 46.4**	**-0.8**
	comp=Z,0.8nm,0.8s,mb3.1,baz=97,slow=7.7,SNR=3.5						
TORD	**Torodi Ar. Bea**	**65.73**	**269**	P	**P**	**10 21 18.5**	**-1.7**
	comp=Z,0.5nm,0.5s,mb3.5,baz=48,slow=5.2,SNR=12						
YKA	**Yellowknife Ar**	**81.26**	**3**	P	**P**	**10 22 50.1**	**+0.4**
	comp=Z,0.1nm,0.3s,mb2.9,baz=350,slow=5.4,SNR=8.5						
WRA	**Warramunga Arr**	**81.97**	**122**	P	**P**	**10 22 54.0**	**-0.1**
	comp=Z,0.4nm,0.4s,mb3.4,baz=325,slow=5.0,SNR=11						
ASAR	**Alice Springs**	**84.23**	**125**	P	**P**	**10 23 05.3**	**-0.3**
	comp=Z,0.4nm,0.7s,mb3.3,baz=316,slow=5.2,SNR=4.7						

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*CSEM **26** 10:19:51.8±0.1, 36.99N×29.46E, h5^{km}, MD3.2, Error ellipse: s-maj=2.3km s-min=1.8km az=172.0*

*ISK **26** 10:19:51.0, 36.99N×29.46E, h5^{km}, MD3.2*

*NEIC **26** 10:19:51.0, 36.99N×29.46E, h5^{km}, MD3.1(ISK), After ISK.*

*ISCJB **26** 10:19:52.4±0.5, 36.98N±0.03×29.46E±0.04, h5^{km}, Error ellipse: s-maj=5.0km s-min=4.0km az=165.5*

ISC 26 10:19:52.9±0.5**, 36.98N**±0.04×**29.47E**±0.04**, h8**^{km}±7^{km}**, n36, σ0^{s}79**/44**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GOLH	**Golhisar**	**0.26**	**16**	*i* P	**Pg**	**10 19 58.2**	**+0.1**
GOLH	**Golhisar**	**0.26**	**16**	*i* P	**Pg**	**10 19 58.2**	**0.0**
GOLH				*i* S	**Sg**	**10 20 03.3**	**+1.6**
ELL	**Elmali**	**0.42**	**124**	PG	**Pg**	**10 20 00.7**	**-0.5**
ELL				SG	**Sg**	**10 20 07.9**	**+1.2**
ELL	**Elmali**	**0.42**	**124**	Pg	**Pg**	**10 20 00.7**	**-0.5**
ELL				Sg	**Sg**	**10 20 07.7**	**+1.0**
ELL	**Elmali**	**0.42**	**124**	*e*Pg	**Pg**	**10 20 00.7**	**-0.5**
ELL				*e*Sg	**Sg**	**10 20 07.9**	**+1.2**
FETY	**Fethiye**	**0.47**	**222**	PG	**Pg**	**10 20 01.2**	**-0.8**
FETY				SG	**Sg**	**10 20 08.6**	**+0.5**
FETY	**Fethiye**	**0.47**	**222**	Pg	**Pg**	**10 20 01.3**	**-0.7**
FETY				Sg	**Sg**	**10 20 09.3**	**+1.2**
FETY	**Fethiye**	**0.47**	**222**	Pg	**Pg**	**10 20 01.3**	**-0.7**
FETY				*e*Sg	**Sg**	**10 20 08.6**	**+0.5**
DALT	**Dalyan (Mudla)**	**0.70**	**252**	PG	**Pg**	**10 20 05.6**	**-0.8**
DALT	**Dalyan (Mudla)**	**0.70**	**252**	Pg	**Pg**	**10 20 05.6**	**-0.8**
DALT	**Dalyan (Mudla)**	**0.70**	**252**	*e*Pg	**Pg**	**10 20 05.6**	**-0.8**
DENT	**Denizli**	**0.84**	**336**	PG	**Pg**	**10 20 08.1**	**-1.1**
DENT	**Denizli**	**0.84**	**336**	Pg	**Pg**	**10 20 08.1**	**-1.0**
DENT	**Denizli**	**0.84**	**336**	*e*Pg	**Pg**	**10 20 08.1**	**-1.1**
ANTB	**Antalya**	**0.95**	**95**	*e*PG	**Pg**	**10 20 11.0**	**-0.2**
ANTB	**Antalya**	**0.95**	**95**	*e*Pg	**Pg**	**10 20 11.0**	**-0.2**
YER	**Yerkesik**	**0.96**	**279**	PG	**Pg**	**10 20 10.4**	**-1.0**
YER	**Yerkesik**	**0.96**	**279**	Pg	**Pg**	**10 20 10.5**	**-0.9**
YER	**Yerkesik**	**0.96**	**279**	Pg	**Pg**	**10 20 10.5**	**-0.9**
BCK	**Bucak**	**1.01**	**62**	PG	**Pg**	**10 20 11.4**	**-1.0**
BCK	**Bucak**	**1.01**	**62**	Pg	**Pg**	**10 20 11.4**	**-1.0**
BCK	**Bucak**	**1.01**	**62**	*e*Pg	**Pg**	**10 20 11.4**	**-1.0**
KHL	**Karahalli**	**1.34**	**2**	*e*PN	**Pn**	**10 20 17.6**	**-0.3**
KHL	**Karahalli**	**1.34**	**2**	Pn	**Pn**	**10 20 17.7**	**-0.3**
KHL	**Karahalli**	**1.34**	**2**	Pn	**Pn**	**10 20 17.7**	**-0.2**
MLSB	**Milas**	**1.39**	**283**	*e*PN	**Pn**	**10 20 19.2**	**+0.6**
MLSB	**Milas**	**1.39**	**283**	Pn	**Pn**	**10 20 19.2**	**+0.6**
MLSB	**Milas**	**1.39**	**283**	*e*Pn	**Pn**	**10 20 19.2**	**+0.6**
DAT	**Datca**	**1.54**	**261**	*e*PN	**Pn**	**10 20 20.8**	**+0.1**
DAT	**Datca**	**1.54**	**261**	*e*Pn	**Pn**	**10 20 20.8**	**+0.1**
BDRM	**Kayabasi**	**1.62**	**273**	*i* P	**Pg**	**10 20 23.7**	**-0.4**
BDRM				*i* S	**Sg**	**10 20 46.4**	**+1.3**
KULA	**Kula-Manisa**	**1.66**	**337**	*e*PN	**Pn**	**10 20 22.5**	**+0.2**
KULA	**Kula-Manisa**	**1.66**	**337**	*e*Pn	**Pn**	**10 20 22.5**	**+0.2**
BODT	**Bodrum**	**1.73**	**273**	*e*PN	**Pn**	**10 20 23.6**	**+0.3**
BODT	**Bodrum**	**1.73**	**273**	Pn	**Pn**	**10 20 23.6**	**+0.3**
BODT	**Bodrum**	**1.73**	**273**	*e*Pn	**Pn**	**10 20 23.6**	**+0.3**

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*IDC **26** 10:42:23.5±1.3, 9.69N×83.94W, h0^{km}, mb3.6/5, mb1 4.0/7, mb1mx3.8/19, mbtmp3.8/7, ML3.9/2, MS3.7/7, Ms1 3.7/7, ms1mx3.3/25, Error ellipse: s-maj=47.6km s-min=11.3km az=25.0*

*ISCJB **26** 10:42:27.8±0.4, 9.58N±0.04×84.13W±0.03, h25^{km}±3^{km}, mb3.5/5, MS4.0/3, Error ellipse: s-maj=7.4km s-min=4.1km az=37.7*

*CASC **26** 10:42:28.3±2.5, 9.59N×84.13W, h13^{km}±8^{km}, MD4.1*

*NEIC **26** 10:42:28.2, 9.57N×84.17W, h19^{km}, MD4.5(CASC), After CASC.*

NEIC Felt in the Valle Central.

ISC 26 10:42:28.3±0.4**, 9.60N**±0.03×**84.15W**±0.03**, h19**^{km}±3^{km}**, n50, σ1^{s}26**/54**, mb3.5**/5**, MS4.0**/3**, 8C-10D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QCR	**Quepos**	**0.18**	**185**	*i* P	**Pg**	**10 42 33.4**	**+0.4**
QCR				*e*S	**Sg**	**10 42 36.1**	**-0.1**
LCR2	**La Lucha 2**	**0.20**	**46**	⇓*e*P	**Pg**	**10 42 33.9**	**+0.5**
LAJ	**Bijagual**	**0.26**	**6**	⇓*e*P	**Sg**	**10 42 37.3**	**-1.1**
SJS	**Escuela Geolog**	**0.35**	**16**	⇓*i*P	**Pg**	**10 42 36.2**	**+0.4**
BUS	**Buena Vista**	**0.39**	**97**	⇑*i*P	**Pg**	**10 42 36.7**	**+0.2**
PRS1	**Puriscal**	**0.41**	**337**	⇓*i*P	**Pg**	**10 42 36.0**	**-0.9**
URSC	**Urasca**	**0.43**	**58**	⇑*i*P	**Pg**	**10 42 37.3**	**+0.1**
ICR	**Volcan Irazu**	**0.49**	**40**	⇑*i*P	**Pg**	**10 42 38.5**	**+0.2**
ICR				*e*S	**Sg**	**10 42 50.0**	**+5.1**
ICR	**Volcan Irazu**	**0.49**	**40**	⇑*i*P	**Pg**	**10 42 38.5**	**+0.2**
ICR				*e*S	**Sg**	**10 42 46.0**	**+1.0**
CGA2	**Cerro Gallo 2**	**0.52**	**323**	⇓*i*P	**Pg**	**10 42 38.5**	**-0.2**
BAR1		**0.90**	**113**	⇓*i*P	**Pb**	**10 42 44.3**	**-1.0**
JCR	**Jicaral**	**0.98**	**285**	⇑*e*P	**Pb**	**10 42 45.6**	**-1.1**
FORC	**Fortuna**	**1.00**	**329**	⇓*i*P	**Pb**	**10 42 46.5**	**-0.7**
FORC				*e*S	**Sb**	**10 43 00.4**	**+0.4**
JTS	**JuntasAbangare**	**1.05**	**311**	*e*P	**Pb**	**10 42 45.4**	**-2.5**
JTS				*e*S	**Sb**	**10 42 59.8**	**-1.5**
JTS	**JuntasAbangare**	**1.05**	**311**	Pn	**Pn**	**10 42 45.6**	**-2.5**
	754nm,0.3s,baz=135,slow=9.1,SNR=1058						
JTS				Pg	**Pg**	**10 42 47.8**	**-0.8**
	754nm,0.3s,baz=142,slow=17,SNR=874						
JTS				Lg		10 42 59.5	
	1μm,0.3s,baz=209,slow=14,SNR=31						
2RIO	**Dos Rios de Up**	**1.41**	**311**	⇑*e*P	**Pg**	**10 42 58.9**	**+3.4**
CUI		**1.46**	**316**	⇓*e*P	**Pn**	**10 42 53.3**	**-0.4**
CUI				*e*S	**Sn**	**10 43 12.0**	**-0.5**
LIM1	**Limonal**	**1.54**	**315**	⇑*e*P	**Pn**	**10 42 54.6**	**-0.3**
LIM1				*e*S	**Sn**	**10 43 14.7**	**+0.3**
VCR	**Vista de Mar**	**1.55**	**290**	⇓*e*P	**Pn**	**10 42 55.0**	**+0.1**
CNI	**Changuinola**	**1.62**	**96**	⇑*i*P	**Pn**	**10 42 55.7**	**-0.2**
BRU	**Baru**	**1.76**	**117**	*e*P	**Pn**	**10 42 57.7**	**-0.1**
BRU	**Baru**	**1.76**	**117**	*e*P	**Pn**	**10 42 57.0**	**-0.8**
SSNN	**San Juan del S**	**2.37**	**315**	*e*P	**Pn**	**10 43 08.3**	**+2.1**
SSNN				*e*S	**Sn**	**10 43 38.3**	**+3.5**
CONN	**Concepcion**	**2.43**	**323**	*e*P	**Pn**	**10 43 10.1**	**+3.0**
MGAN	**Managua**	**3.26**	**321**	*e*P	**Pn**	**10 43 20.7**	**+2.1**
COPN	**Copaltepe**	**3.51**	**317**	⇓*e*P	**Pn**	**10 43 23.8**	**+1.8**
TEL3	**Telica 3**	**3.96**	**318**	*e*P	**Pn**	**10 43 29.9**	**+1.7**
AZU	**Azuero**	**4.23**	**115**	*e*P	**Pn**	**10 43 33.1**	**+1.2**
AZU	**Azuero**	**4.23**	**115**	*e*P	**Pn**	**10 43 32.7**	**+0.8**
BCIP	**Isla Barro Col**	**4.28**	**95**	*e*Pn	**Pn**	**10 43 31.4**	**-1.1**
TGUH	**Tegucigalpa,Un**	**5.38**	**326**	*e*Pn	**Pn**	**10 43 49.3**	**+1.6**
	93nm,0.7s						
ROSC	**El Rosal**	**10.82**	**115**	LR	LR	10 48 32.1	
	comp=Z,110nm,19.1s,baz=354,slow=34						
OTAV	**Otavalo**	**10.89**	**148**	*e*Pn	**Pn**	**10 45 05.7**	**+2.3**
	9.8nm,1.0s						
TEIG	**Tepich**	**11.29**	**340**	LR	LR	10 49 13.8	
	comp=Z,233nm,22.0s,baz=223,slow=36						
CMIG	**Matias Romero**	**12.82**	**307**	Pn	**Pn**	**10 45 30.3**	**+0.6**
CMIG	**Matias Romero**	**12.82**	**307**	Pn	**Pn**	**10 45 30.3**	**+0.6**
	0.6nm,0.3s,baz=132,slow=10,SNR=10						
SDV	**Santo Domingo**	**13.36**	**92**	*e*Pn	**Pn**	**10 45 38.9**	**+1.7**
	9.3nm,0.6s						
SDV				*e*Sn	**Sn**	**10 47 56.6**	**-8.7**
SDV	**Santo Domingo**	**13.36**	**92**	Pn	**Pn**	**10 45 37.3**	**+0.1**
	0.7nm,0.3s,baz=301,slow=9.6,SNR=11						
SDV				Sn	**Sn**	**10 48 04.5**	**-0.8**
	1.4nm,0.3s,baz=308,slow=19,SNR=6.1						
ATAH	**Atahualpa**	**17.46**	**161**	P	**Pn**	**10 46 36.4**	**+5.4**
	0.2nm,0.3s,baz=302,slow=19,SNR=2.3						
ATAH				LR	LR	10 52 26.0	
	comp=Z,217nm,18.8s,baz=128,slow=34						
PCRV	**Puerto La Cruz**	**19.23**	**87**	P	**Pn**	**10 46 46.8**	**-5.9**
	0.3nm,0.3s,baz=321,slow=6.5,SNR=3.3						
SJG	**San Juan**	**19.40**	**62**	LR	LR	10 53 01.4	
	comp=Z,246nm,19.5s,baz=85,slow=33						
TXAR	**Lajitas Array**	**26.82**	**320**	P	**P**	**10 48 07.9**	**+0.3**
	0.1nm,0.3s,mb2.8,baz=137,slow=9.4,SNR=4.3						
SIV	**San Ignacio**	**34.19**	**138**	P	**P**	**10 49 10.2**	**-2.6**
	0.7nm,0.7s,mb3.7,baz=322,slow=7.0,SNR=3.4						
YKA	**Yellowknife Ar**	**57.22**	**344**	P	**P**	**10 52 11.3**	**-2.7**
	0.2nm,0.6s,mb3.3,baz=141,slow=6.9,SNR=8.3						
PPT	**Papeete**	**70.03**	**247**	LR	LR	11 15 25.5	
	comp=Z,143nm,21.2s,MS4.2,baz=335,slow=28						
ESDC	**Sonseca Array**	**76.40**	**51**	P	**P**	**10 54 15.4**	**-1.4**
	1.9nm,0.7s,mb4.2,baz=283,slow=5.2,SNR=6.0						
ESDC				LR	LR	11 21 02.4	
	comp=Z,87nm,19.1s,MS4.1,baz=295,slow=30						
TORD	**Torodi Ar. Bea**	**83.85**	**78**	P	**P**	**10 54 53.0**	**-4.5**
	0.3nm,0.4s,mb3.8,baz=277,slow=5.3,SNR=7.7						

NOA	NORSAR Array B	84.27	29	LR	LR	11 29 27.7	
	comp=Z,31nm,19.8s,MS3.7,baz=275,slow=34						
ASAR	Alice Springs	141.09	244	PKP	PKPdf	11 01 57.7	-0.6
	0.2nm,0.8s,baz=104,slow=3.7,SNR=3.0						
WRA	Warramunga Arr	141.48	250	PKP	PKPdf	11 01 59.4	+0.2
	0.4nm,0.7s,baz=101,slow=2.4,SNR=4.1						

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*IDC **26** 11:14:24.9±0.8, 32.94N×90.26E, h0^{km}, mb3.9/10, mb1 4.0/12, mb1mx3.8/22, mbtmp3.8/12, ML3.4/2, MS3.4/4, Ms1 3.4/4, ms1mx3.1/30, Error ellipse: s-maj=34.1km s-min=18.7km az=45.0*

*ISCJB **26** 11:14:29.8±1.8, 33.12N±0.09×90.3E±0.1, h45^{km}±18^{km}, mb3.9/10, MS3.6/2, Error ellipse: s-maj=20.7km s-min=14.3km az=176.5*

ISC 26 11:14:32.3±1.4**, 33.12N**±0.09×**90.3E**±0.1**, h51**^{km}±15^{km}**, n18, σ0^{s}75**/17**, mb3.9**/10**, MS3.6**/2**, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TAPN	Taplejung	6.18	202	*e*P	Pn	11 16 01.1	+0.1
	145nm,1.5s						
JIRN	Jiri	6.51	214	*e*P	Pn	11 16 06.3	+0.8
	24nm,0.5s						
ODAN	Odare	6.74	203	*e*P	Pn	11 16 07.8	-0.8
	28nm,0.7s						
KKN	Kakani	6.87	221	*e*P	Pn	11 16 10.5	+0.1
	40nm,0.6s						
GKN	Gorkha	7.08	225	*e*P	Pn	11 16 13.4	+0.2
	24nm,0.5s						
MKAR	Makanchi Array	14.97	338	Pn	Pn	11 17 58.2	-2.3
	0.1nm,0.3s,baz=146,slow=14,SNR=12						
MKAR				LR	LR	11 23 42.9	
	comp=Z,77nm,18.1s,baz=153,slow=37						
SONM	Songino Array	19.06	35	P	Pn	11 18 52.7	+1.3
	0.2nm,0.3s,baz=224,slow=4.0,SNR=5.7						
SONM				LR	LR	11 26 26.3	
	comp=Z,113nm,19.8s,baz=328,slow=38						
AKTO	Aktyubinsk	29.35	316	LR	LR	11 33 39.9	
	comp=Z,89nm,20.0s,MS3.4,baz=263,slow=39						
BRTR	Keskin Array B	45.44	295	P	P	11 22 46.2	+0.1
	0.7nm,0.8s,mb3.6,baz=35,slow=5.3,SNR=3.5						
AKASG	Malin Array Be	47.34	311	P	P	11 23 01.0	+0.2
	1.3nm,0.6s,mb4.1,baz=77,slow=6.9,SNR=4.1						
FINES	FINESS Array B	49.30	325	P	P	11 23 15.9	+0.1
	1.6nm,0.8s,mb4.1,baz=117,slow=8.0,SNR=5.2						
NOA	NORSAR Array B	56.48	325	P	P	11 24 08.5	-0.2
	1.2nm,0.8s,mb4.0,baz=81,slow=7.2,SNR=3.7						
GERES	GERESS Array B	57.55	310	P	P	11 24 17.0	+0.5
	0.3nm,0.3s,mb3.9,baz=70,slow=7.7,SNR=3.7						
GERES				LR	LR	11 51 16.7	
	comp=Z,67nm,20.8s,MS3.7,baz=295,slow=38						
WRA	Warramunga Arr	67.45	135	P	P	11 25 21.6	-1.2
	1.0nm,0.8s,mb3.9,baz=329,slow=6.3,SNR=6.7						
ASAR	Alice Springs	70.10	138	P	P	11 25 39.2	0.0
	0.8nm,0.8s,mb3.7,baz=326,slow=6.2,SNR=7.8						
TORD	Torodi Ar. Bea	81.81	280	P	P	11 26 46.3	+0.1
	0.5nm,0.6s,mb3.6,baz=46,slow=5.1,SNR=3.9						
YKA	Yellowknife Ar	82.63	11	P	P	11 26 49.3	-0.4
	0.3nm,0.8s,mb3.4,baz=330,slow=5.1,SNR=7.1						
SCHQ	Schefferville	90.22	347	P	P	11 27 27.7	+0.7
	4.2nm,1.0s,mb4.7,baz=30,slow=17,SNR=2.8						

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*JMA **26** 11:47:46.7±0.5, 31.93N×138.31E, h377^{km}, M3.5*

*ISCJB **26** 11:47:47.3±0.7, 32.07N±0.08×138.25E±0.07, h379^{km}±5^{km}, mb3.3/13, Error ellipse: s-maj=12.9km s-min=8.6km az=153.5*

*IDC **26** 11:47:48.5±1.2, 32.02N×137.95E, h371^{km}±11^{km}, mb3.2/13, mb1 3.3/17, mb1mx3.3/25, mbtmp3.2/17, Error ellipse: s-maj=17.0km s-min=13.0km az=84.0*

ISC 26 11:47:48.5±0.7**, 32.11N**±0.08×**138.22E**±0.07**, h372**^{km}±5^{km}**, n35, σ1^{s}14**/49**, mb3.3**/13**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIE	Ise	2.61	331	P	Pn	11 48 47.3	+1.1
JIE				*e*S	S	11 49 33.6	+0.9
JKN2	Miekihoku	2.68	323	P	Pn	11 48 47.0	+0.2
HMMJ	Hamamatsu 2	2.77	351	P	Pn	11 48 49.0	+1.5
JWY	Kouya	3.05	314	P	Pn	11 48 50.4	+0.6
JWY				*e*S	S	11 49 37.8	-1.5
JOD2	Odawara 2	3.23	13	P	Pn	11 48 52.1	+0.7
JOD2				*e*S	S	11 49 44.6	+2.4
BSO3	Boso 3	3.30	35	P	Pn	11 48 51.7	-0.4
BSO3				*e*S	S	11 49 43.0	-0.4
BSO4	Boso 4	3.37	31	P	Pn	11 48 53.0	+0.3
BSO4				*e*S	S	11 49 44.3	-0.3
JYN	Shimob	3.39	4	P	Pn	11 48 54.4	+1.5
BSO1	Boso 1	3.43	42	P	Pn	11 48 53.0	-0.3
BSO1				*e*S	S	11 49 44.6	-1.0
JAI	Aioi	3.59	299	P	Pn	11 48 54.5	-0.3
JHU	Hanno	3.84	13	P	Pn	11 48 56.9	-0.2
JHU				*e*S	S	11 49 50.9	-1.7
JRY	Ryogami san	3.94	8	P	Pn	11 48 59.1	+1.0
JRY				*e*S	S	11 49 55.6	+1.2
JYT	Yasato	4.42	21	P	Pn	11 49 02.5	-0.5
JYT				*e*S	S	11 50 00.3	-3.0
MJAR	Matsushiro Arr	4.42	360	P	Pn	11 49 03.4	+0.4
	2.6nm,0.3s,baz=176,slow=11,SNR=35						
MJAR				S	S	11 50 03.9	+0.6
	0.3nm,0.3s,baz=151,slow=16,SNR=3.3						
MAT	Matsushiro	4.42	360	P	Pn	11 49 03.4	+0.4
MAT				S	S	11 50 03.5	+0.2
JAG	Ashikaga	4.42	13	P	Pn	11 49 02.7	-0.3
JAG				*e*S	S	11 50 00.8	-2.5
JHO	Hitachi	4.89	23	P	Pn	11 49 06.9	-1.0
JHO				*e*S	S	11 50 08.4	-3.8
JFK	Kawauchi	5.68	22	P	Pn	11 49 16.4	0.0
JFK				*e*S	S	11 50 24.5	-3.3
JNU	Nakatsue	6.28	281	P	Pn	11 49 22.8	-0.4
	1.4nm,0.3s,baz=81,slow=11,SNR=18						
KSRS	Korea Array	10.01	305	P	Pn	11 50 06.8	+0.3
	0.5nm,0.3s,baz=118,slow=11,SNR=7.5						
ASAJ	Asahikawa	12.47	15	P	P	11 50 36.9	+2.6
	1.6nm,0.3s,baz=215,slow=13,SNR=14						
SONM	Songino Array	28.75	312	P	P	11 53 13.3	+0.1
	1.0nm,0.4s,mb3.4,baz=110,slow=7.7,SNR=10						
ZALV	Zalesovo Beam	43.47	316	P	P	11 55 14.5	-1.8
	1.9nm,0.3s,mb3.7,baz=90,slow=4.3,SNR=2.9						
MKAR	Makanchi Array	44.69	306	P	P	11 55 25.0	-0.9
	2.6nm,0.6s,mb3.5,baz=85,slow=10.0,SNR=41						
MKAR				ScP	ScP	12 00 16.4	-0.7
	0.5nm,0.6s,baz=80,slow=5.6,SNR=6.2						
WRA	Warramunga Arr	51.89	185	P	P	11 56 19.2	-1.3
	0.2nm,0.3s,mb3.0,baz=0.2,slow=7.5,SNR=11						
ASAR	Alice Springs	55.61	185	P	P	11 56 46.4	-0.7
	0.3nm,0.7s,mb2.8,baz=10.0,slow=15,SNR=4.5						
ARCES	ARCESS Array B	67.67	339	P	P	11 58 06.2	0.0
	0.9nm,0.5s,mb3.8,baz=61,slow=9.9,SNR=9.0						
YKA	Yellowknife Ar	69.38	28	P	P	11 58 18.4	+1.6
	0.1nm,0.5s,mb2.8,baz=300,slow=6.3,SNR=3.7						
FINES	FINESS Array B	71.93	332	P	P	11 58 31.8	-0.2
	1.7nm,0.4s,mb4.1,baz=69,slow=6.4,SNR=22						
AKASG	Malin Array Be	76.55	322	P	P	11 58 56.9	-1.7
	0.4nm,0.4s,mb3.5,baz=357,slow=14,SNR=3.7						
NB2	NORSAR Subarra	77.67	337	P	P	11 59 04.2	-0.4
	comp=Z,0.1nm,0.5s,mb2.8,baz=51,slow=5.6						
NOA	NORSAR Array B	77.67	337	P	P	11 59 04.5	-0.1
	comp=Z,1.2nm,0.7s,mb3.7,baz=43,slow=5.3,SNR=4.9						
NVAR	Mina Array Bea	80.09	51	P	P	11 59 20.3	+2.2
	comp=Z,0.2nm,0.6s,mb3.0,baz=60,slow=23,SNR=3.4						
BRTR	Keskin Array B	80.10	311	P	P	11 59 18.1	0.0
	comp=Z,1.1nm,0.8s,mb3.6,baz=50,slow=1.9,SNR=4.3						
TXAR	Lajitas Array	95.24	51	P	P	12 00 33.2	+2.1
	comp=Z,0.1nm,0.6s,mb3.0,baz=17,slow=35,SNR=3.4						

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*NEIC **26** 12:19:54.5, 40.64N×124.87W, h0^{km}, mb5.2/52, MS5.0/101, MW5.4(BRK), After NCEDC.*

NEIC Felt [IV] at Bayside, Eureka, Ferndale, Loleta and Petrolia; [III] at Arcata, Blue Lake, Fortuna, Garberville, Hydesville, Kneeland, McKinleyville, Trinidad and Whitethorn; [II] at Oakland, Petaluma, Rio Dell and San Francisco. Felt at Alameda, Anderson, Angels Camp, Berkeley, Boulder Creek, Carlotta, Concord, Crescent City, Dublin, El Sobrante, Fairfield, Fort Bragg, Fremont, Hoopa, Inverness, Kenwood, Mountain View, Myers Flat, Orick, Pleasanton, Redding, Redwood City, Richmond, Sacramento, Samoa, San Jose, San Leandro, Santa Clara, Santa Cruz, Santa Rosa, Shingle Springs, Union City, Willow Creek and Yreka. Also felt at Reno, Nevada.

*BJI **26** 12:19:54.4, 40.60N×124.90W, h1^{km}, mB5.3, mb4.8, Ms5.2, Msz4.8*

*GCMT **26** 12:19:54.5±0.2, 40.63N×124.90W, h16^{km}, MW5.4/98, Moment Tensor Solution. s76,c135; s98,c196; Duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.14±.02; $M_{\theta\theta}$-1.37±.03; $M_{\phi\phi}$1.51±.03; $M_{r\theta}$0.14±.04; $M_{\theta\phi}$0.93±.02; $M_{\phi r}$0.07±.04; Best double couple: $M_0$1.72200×10^{17} NP1:ϕ_s331.00000°, δ85.00000°, λ-179.00000°. NP2:ϕ_s241.00000°, δ89.00000°, λ-5.00000°. Principal axes: T 1.7910, Plg3.0000°, Azm287.0000°; N -0.1320, Plg85.0000°, Azm53.0000°; P -1.6540, Plg4.0000°, Azm196.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*ISCJB **26** 12:19:55.4±0.2, 40.65N±0.01×124.70W±0.02, h10^{km}, mb4.9/87, MS4.9/131 Error ellipse: s-maj=2.3km s-min=1.3km az=161.4*

*MOS **26** 12:19:55.6±1.0, 40.63N×124.71W, h10^{km}, mb5.3/34, MS5.0/36, Error ellipse: s-maj=5.7km s-min=5.2km az=38.1*

*IDC **26** 12:19:56.9±0.6, 40.77N×124.42W, h0^{km}, mb4.6/23, mb1 4.6/27, mb1mx4.6/30, mbtmp4.6/27, ML4.3/6, MS4.8/26, Ms1 4.8/26, ms1mx4.7/30, Error ellipse: s-maj=12.9km s-min=7.4km az=46.0*

*SZGRF **26** 12:20:04.4, 40.94N×124.35W, h25^{km}, mb5.1, MS5.1, Near coast of northern California, United States*

ISC 26 12:19:58.5±0.6**, 40.65N**±0.01×**124.70W**±0.02**, h17**^{km}±3^{km}**, h21**^{km}±2.4^{km}**:pP-P, n694, σ1^{s}21**/668**, mb4.9**/87**, MS4.9**/131**, 181C-133D, Near coast of northern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JCC	Jacoby Creek	0.54	72	⇑P	Pg	12 20 09.1	-0.1
	baz=0.7,SNR=1000						
JCC				⇓S	Sg	12 20 17.6	+1.2
	baz=0.7						
O01C	Eel River Cons	0.85	127	P	Pb	12 20 13.9	-0.8
	baz=0.9,SNR=1000						
O01C				⇑S	Sb	12 20 27.2	+1.5
	baz=0.9						
KRMB	Red Mountain	1.06	34	*e*P	Pb	12 20 15.8	-2.5
KRMB				*e*S	Sb	12 20 29.6	-2.2
N02C	Big Bar	1.07	81	⇑P	Pb	12 20 16.9	-1.7
	baz=1.2,SNR=1000						
N02C				⇑S	Sb	12 20 32.4	+0.1
	baz=1.2						
KIPM	Iron Peak	1.26	132	*e*Pn	Pn	12 20 19.0	-2.3
M01C	Crescent City	1.27	20	⇓P	Pn	12 20 18.5	-2.9
	baz=1.3,SNR=926						
M01C				⇑S	Sb	12 20 34.8	-3.2
	baz=1.3						
KCPM	Cahto Peak	1.29	138	*e*Pn	Pn	12 20 19.3	-2.4
KCPM				*e*Sn	Sn	12 20 33.3	-5.2
O02C	Red Bluff	1.54	107	⇓P	Pn	12 20 23.7	-1.4
	baz=1.6,SNR=1000						
O02C				⇓S	Sn	12 20 42.8	-1.8
	baz=1.6						
P01C	Double 8 Ranch	1.58	138	⇑P	Pn	12 20 23.2	-2.5
	baz=1.7,SNR=1000						
P01C				⇑S	Sn	12 20 43.8	-1.9
	baz=1.7						
WDC	Whiskeytown Da	1.65	92	*e*Pn	Pn	12 20 25.1	-1.4
WDC	Whiskeytown Da	1.65	92	⇑P	Pn	12 20 25.0	-1.6
	baz=1.8,SNR=1000						
WDC				⇓S	Sn	12 20 46.4	-0.9
	baz=1.8						
L02A	Cave Junction	1.71	28	⇓P	Pn	12 20 25.2	-2.4
	baz=1.8,SNR=114						
L02A				⇓S	Sn	12 20 47.1	-1.9
	baz=1.8						
GASB	Alder Springs	1.82	123	⇓P	Pn	12 20 27.3	-1.6
	baz=1.9,SNR=1000						
GASB				⇑S	Sn	12 20 50.8	-0.8
	baz=1.9						
YBH	Yreka Blue Hor	1.85	54	*e*Pn	Pn	12 20 28.0	-1.4
YBH				*e*Sn	Sn	12 20 53.2	+0.9
YBH	Yreka Blue Hor	1.85	54	⇑P	Pn	12 20 27.8	-1.5
	baz=2.0,SNR=1000						
YBH				⇑S	Sn	12 20 51.7	-0.6
	baz=2.0						
M03C	McCloud	2.05	72	⇑P	Pn	12 20 30.5	-1.6
	baz=2.2,SNR=266						
M03C				⇓S	Sn	12 20 58.1	+0.9
	baz=2.2						
HOPS	Hopland	2.08	142	*e*Pn	Pn	12 20 30.3	-2.3
HOPS	Hopland	2.08	142	⇑P	Pn	12 20 30.1	-2.4
	baz=2.1,SNR=996						
HOPS				⇓S	Sn	12 20 55.8	-2.2
	baz=2.1						
LHEM	Herd Peak	2.11	62	⇓P	Pn	12 20 32.3	-0.7
O03C	Acorn Hollow,	2.14	107	⇑P	Pn	12 20 31.8	-1.6
	baz=2.3,SNR=1000						
O03C				⇑S	Sn	12 20 58.1	-1.5
	baz=2.3						
K01A	Sixes	2.16	5	⇑P	Pn	12 20 30.6	-3.1
	baz=2.2,SNR=29						
K02A	Glendale	2.30	23	⇑P	Pn	12 20 33.0	-2.6
	baz=2.4,SNR=791						
K02A				⇑S	Sn	12 21 01.1	-2.3
	baz=2.4						
M04C	Macdoel	2.44	61	⇑P	Pn	12 20 35.7	-1.7
	baz=2.5,SNR=222						
BUOR	Burton Butte	2.46	48	P	Pn	12 20 37.9	+0.1
HATC	Hat Creek Radi	2.47	85	⇓P	Pn	12 20 36.4	-1.5
	baz=2.6,SNR=909						
HATC				⇓S	Sn	12 21 08.6	+1.0
	baz=2.6						
MNRC	McLaughlin Nat	2.48	135	⇑P	Pn	12 20 36.1	-2.0
	baz=2.6,SNR=634						
MNRC				⇑S	Sn	12 21 06.1	-1.8
	baz=2.6						
LTIM	Timbered Crate	2.49	77	P	Pn	12 20 37.3	-0.9
LASM	Arnica Sink	2.54	67	P	Pn	12 20 38.2	-0.7
LBCM	Butte Creek Ri	2.55	85	P	Pn	12 20 38.2	-0.9
LAB	Little Aspen B	2.56	50	P	Pn	12 20 39.8	+0.7
L04A	Klamath Falls	2.60	53	⇑P	Pn	12 20 38.2	-1.6
	baz=2.7,SNR=252						
L04A				⇓S	Sn	12 21 11.3	+0.3
	baz=2.7						
VSP	Spence Mountai	2.67	50	P	Pn	12 20 40.5	-0.1
NSHM	Saint Helena R	2.67	142	*e*Pn	Pn	12 20 38.1	-2.7
ORV	Oroville	2.69	113	P	Pn	12 20 38.9	-2.0
	baz=2.8,SNR=1000						
DBO	Dodson Butte	2.69	23	P	Pn	12 20 38.9	-2.1
BBOR	Butler Butte	2.70	33	P	Pn	12 20 39.9	-1.1
HOG	Hogback Mounta	2.75	54	P	Pn	12 20 41.2	-0.7
O04C	Chester	2.78	96	⇓P	Pn	12 20 40.8	-1.3
	baz=2.9,SNR=1000						
M05C	Lookout	2.78	74	P	Pn	12 20 41.0	-1.3
	baz=2.9,SNR=150						
OHCM	Honcut	2.80	117	*e*Pn	Pn	12 20 40.0	-2.4
MCCM	Marconi Confer	2.88	150	*e*Pn	Pn	12 20 41.0	-2.5
MCCM	Marconi Confer	2.88	150	⇓P	Pn	12 20 40.6	-2.9
	baz=2.9,SNR=104						
CVS	Carmenet Viney	2.88	142	⇑P	Pn	12 20 41.1	-2.5
	baz=3.0,SNR=171						
Q03C	Winters	2.89	133	⇓P	Pn	12 20 41.9	-1.9
	baz=3.0,SNR=133						
K04A	Chilquin	2.96	48	⇑P	Pn	12 20 43.3	-1.4
	baz=3.1,SNR=95						
O05C	Quincy	2.98	102	⇓P	Pn	12 20 44.7	-0.2
	baz=3.1,SNR=1000						
J03A	Ideyld Park	3.01	25	⇑P	Pn	12 20 43.1	-2.2
	baz=3.1,SNR=91						
ELFS	Eagle Lake Fie	3.02	89	⇓P	Pn	12 20 44.7	-0.9
	baz=3.1,SNR=236						
Q04C	Lincoln	3.14	124	⇓P	Pn	12 20 44.6	-2.5
	baz=3.2,SNR=123						
J04A	Umpqua Nationa	3.23	36	⇑P	Pn	12 20 46.8	-1.6
	baz=3.3,SNR=168						
FARB	Farallon Islan	3.23	155	⇑P	Pn	12 20 45.5	-2.9
	baz=3.3,SNR=19						
M06C	Likely Place G	3.25	79	P	Pn	12 20 47.3	-1.3
	baz=3.4,SNR=666						
I02A	Mapleton	3.41	11	⇓P	Pn	12 20 48.5	-2.3
	baz=3.4,SNR=195						
I02A				⇓S	Sn	12 21 27.6	-3.2
	baz=3.4						
P05C	Yuba Gap, Truc	3.42	112	⇑P	Pn	12 20 50.5	-0.5
	baz=3.5,SNR=1000						
P05C				⇓S	Sn	12 21 31.2	0.0
	baz=3.5						
BDM	Black Diamond	3.48	140	⇑P	Pn	12 20 50.1	-1.7
	baz=3.6,SNR=43						
I03A	Eugene	3.48	17	⇑P	Pn	12 20 49.9	-1.9
	baz=3.5,SNR=357						
MOD	Modoc	3.54	68	*e*Pn	Pn	12 20 51.9	-0.8
MOD	Modoc	3.54	68	P	Pn	12 20 51.5	-1.1
	baz=3.7,SNR=177						
SAC	San Andreas	3.54	149	*e*Pn	Pn	12 20 49.9	-2.8
I04A	Tendick Farm,	3.57	28	⇓P	Pn	12 20 51.1	-1.9
	baz=3.6						
I04A				⇑S	Sn	12 21 33.5	-1.3
	baz=3.6						
LAVA	Lava Cap Winer	3.60	121	⇑P	Pn	12 20 52.4	-1.1
	baz=3.7,SNR=317						
J05A	Fort Rock	3.69	43	⇓P	Pn	12 20 53.1	-1.5
	baz=3.8,SNR=396						
N06A	Buffalo Meadow	3.70	87	⇑P	Pn	12 20 53.3	-1.5
	baz=3.8,SNR=1000						
O06A	Flanigan	3.75	96	⇑P	Pn	12 20 54.7	-0.9
	baz=3.9,SNR=176						
JRSC	Jasper Ridge	3.77	149	⇓P	Pn	12 20 52.8	-3.0
	baz=3.8,SNR=191						
JRSC				⇓S	Sn	12 21 37.8	-1.9
	baz=3.8						
R04C	Big Horse Ranc	3.77	128	P	Pn	12 20 54.3	-1.5
	baz=3.9,SNR=520						
WENL	Wente Brothers	3.79	142	⇑P	Pn	12 20 54.6	-1.6
	baz=3.9,SNR=63						
P06A	Stead Airport,	3.81	103	⇓P	Pn	12 20 55.1	-1.2
	baz=3.9,SNR=114						
K06A	Valley Falls	3.96	56	⇑P	Pn	12 20 57.1	-1.3
	baz=4.1,SNR=772						
K06A				⇑S	Sn	12 21 44.4	0.0
	baz=4.1						
BNLO	Ben Lomond (Sa	4.03	150	P	Pn	12 20 56.4	-3.1
	baz=4.1,SNR=212						
WCN	Washoe City	4.03	108	⇓P	Pn	12 20 58.2	-1.1
	baz=4.1,SNR=725						
R05C	Kirkwood Meado	4.07	117	⇑P	Pn	12 20 59.1	-0.8
	baz=4.2,SNR=547						
S04C	Ingram Canyon,	4.10	139	⇓P	Pn	12 20 58.5	-1.8
	baz=4.2,SNR=124						
H03A	Soap Creek Ran	4.15	14	⇓P	Pn	12 20 59.8	-1.3
	baz=4.2,SNR=163						
H03A				⇓S	Sn	12 21 47.1	-2.1
	baz=4.2						
CMB	Columbia Colle	4.25	127	*e*Pn	Pn	12 21 01.6	-0.8
CMB	Columbia Colle	4.25	127	⇓P	Pn	12 21 01.1	-1.3
	baz=4.3,SNR=360						
M07A	Soldier Meadow	4.25	78	P	Pn	12 21 00.8	-1.5
	baz=4.4,SNR=504						
L07A	Adell	4.26	70	⇑P	Pn	12 21 01.6	-1.0
	baz=4.4,SNR=26						
J06A	Christmas Vall	4.27	51	⇑P	Pn	12 21 01.5	-1.2
	baz=4.4,SNR=727						
J06A				⇓S	Sn	12 21 52.8	+0.8
	baz=4.4						
I05A	Bend	4.33	35	⇓P	Pn	12 21 02.5	-1.0
	baz=4.4						
H04A	Detroit Lake	4.43	24	⇓P	Pn	12 21 03.8	-1.1
	baz=4.5,SNR=264						
H04A				⇓S	Sn	12 21 55.3	-0.8
	baz=4.5						
O07A	Toulon	4.47	94	⇑P	Pn	12 21 05.0	-0.5
	baz=4.6,SNR=843						
PACP	Pacheco Peak	4.51	143	⇑P	Pn	12 21 03.8	-2.2
	baz=4.6,SNR=40						
PACP				⇓S	Sn	12 21 57.6	-0.5
	baz=4.6						
K07A	Rock Creek Ran	4.56	62	P	Pn	12 21 05.6	-1.1
	baz=4.7,SNR=337						
R06C	Coleville	4.58	116	⇓P	Pn	12 21 06.3	-0.6
	baz=4.7,SNR=147						
P07A	Fallon	4.59	102	⇑P	Pn	12 21 06.8	-0.3
	baz=4.7,SNR=78						
SAO	San Andreas Ge	4.64	146	*e*Pn	Pn	12 21 04.4	-3.4
I06A	Prineville	4.68	44	⇑P	Pn	12 21 07.6	-0.7
	baz=4.8,SNR=35						
H05A	Madras	4.74	32	⇓P	Pn	12 21 08.4	-0.7
	baz=4.8,SNR=86						
S05C	Merced	4.74	133	⇓P	Pn	12 21 08.4	-0.8
	baz=4.8,SNR=227						
G03A	Yamhill	4.78	12	⇑P	Pn	12 21 08.4	-1.2
	baz=4.8,SNR=65						
G04A	Mulino	4.83	19	⇓P	Pn	12 21 09.5	-0.9
	baz=4.9,SNR=89						
M08A	Happy Creek Ra	4.85	79	⇑P	Pn	12 21 09.2	-1.4
	baz=5.0,SNR=180						
J07A	Hines	4.85	54	⇓P	Pn	12 21 08.8	-1.8
	baz=4.9,SNR=14						
Q07A	Schurz	4.85	109	⇑P	Pn	12 21 10.3	-0.4
	baz=5.0						
WVOR	Wild Horse Val	4.89	67	*e*Pn	Pn	12 21 09.5	-1.6
	593nm,0.9s						
WVOR				*e*Pg	Pg	12 21 23.2	-8.8
WVOR				*e*Sg	Sg	12 22 21.5	-14
WVOR	Wild Horse Val	4.89	67	*e*P	Pn	12 21 09.5	-1.6
WVOR				pmax	pmax		
	comp=Z,593nm,0.9s						
T05C	Eagle Field, D	4.90	139	⇓P	Pn	12 21 10.1	-1.2
	baz=5.0,SNR=66						
HAST	UC Hastings Re	4.92	149	P	Pn	12 21 08.2	-3.4
	baz=5.0,SNR=277						
HAST				⇓S	Sn	12 22 05.4	-2.8
	baz=5.0						
N08A	GE Springer Mi	4.99	86	P	Pn	12 21 11.1	-1.5
	baz=5.1,SNR=667						
O08A	Rochester Mine	5.01	92	⇓P	Pn	12 21 12.4	-0.4
	baz=5.1						
L08A	Fields	5.02	70	⇓P	Pn	12 21 11.3	-1.6
	baz=5.1,SNR=12						
R07C	Lee Vining	5.08	118	⇑P	Pn	12 21 12.8	-0.9
	baz=5.2						
K08A	Mann Creek Ran	5.09	64	P	Pn	12 21 12.7	-1.3
	baz=5.2,SNR=41						
I07A	Izee	5.15	47	⇑P	Pn	12 21 14.2	-0.6
	baz=5.2,SNR=46						
P08A	Dixie Valley	5.16	99	P	Pn	12 21 14.8	-0.2
	baz=5.3,SNR=55						
HOOD	Mount Hood Mea	5.17	25	*e*Pn	Pn	12 21 15.6	+0.5
H06A	Lindquist Farm	5.20	37	⇓P	Pn	12 21 14.8	-0.6
	baz=5.3,SNR=171						
G05A	Wamic	5.22	27	⇑P	Pn	12 21 15.2	-0.4
	baz=5.3,SNR=133						
U04C	Hernandez Rese	5.27	143	⇑P	Pn	12 21 14.6	-1.8
	baz=5.3,SNR=122						
T06C	Millerton Lake	5.33	131	⇓P	Pn	12 21 17.1	-0.1
	baz=5.4,SNR=249						
F03A	Seaside	5.34	9	⇑P	Pn	12 21 16.6	-0.7
	baz=5.4,SNR=20						
F03A				⇓S	Sn	12 22 15.7	-2.7
	baz=5.4						
KCC	Kaiser Creek	5.35	127	⇓P	Pn	12 21 17.4	-0.1
	baz=5.4,SNR=80						
V03C	Hunter Liggett	5.37	148	⇑P	Pn	12 21 15.1	-2.7
	baz=5.4,SNR=62						
V03C				⇑S	Sn	12 22 17.7	-1.4
	baz=5.4						
J08A	Circle Bar Ran	5.37	58	P	Pn	12 21 16.8	-0.9
	baz=5.5,SNR=153						
J08A				⇓S	Sn	12 22 18.5	-0.7
	baz=5.5						
NVAR	Mina Array Bea	5.42	112	Pn	Pn	12 21 18.2	-0.3
NVAR				Pg	Pg	12 21 27.2	-15
NVAR				Lg		12 22 44.4	
NVAR	Mina Array Bea	5.42	112	Pn	Pn	12 21 18.2	-0.3
	comp=Z,120nm,0.3s,baz=290,slow=15,SNR=836						
NVAR				Pg	Pg	12 21 27.2	-15
	comp=Z,63nm,0.3s,baz=309,slow=16,SNR=17						
NVAR				Lg		12 22 44.4	
	baz=288,slow=24,SNR=1.5						
N09A	Rock Creek Ran	5.46	86	⇑P	Pn	12 21 17.8	-1.1
	baz=5.6,SNR=34						
G06A	Carlson Farm,	5.47	32	⇑P	Pn	12 21 18.7	-0.4
	baz=5.5,SNR=81						
L09A	Wilkinson Ranc	5.47	73	⇑P	Pn	12 21 18.0	-1.2
	baz=5.6,SNR=7.9						
Q08A	Gabbs	5.52	107	P	Pn	12 21 19.2	-0.6
	baz=5.6,SNR=42						
F04A	Amboy	5.53	17	⇑P	Pn	12 21 18.7	-1.3
	baz=5.6,SNR=42						
F04A				⇑S	Sn	12 22 20.7	-2.4
	baz=5.6						
M09A	Marrel Ranch,	5.54	80	⇓P	Pn	12 21 18.9	-1.1
	baz=5.6,SNR=30						
I08A	Drewsey	5.59	52	⇑P	Pn	12 21 20.3	-0.5
	baz=5.7,SNR=12						
R08A	Mina	5.60	112	⇓P	Pn	12 21 20.6	-0.3
	baz=5.7,SNR=62						

K09A	Rome	5.61	66	⇑P	Pn	12 21 19.9	-1.2
	baz=5.7,SNR=15						
U05C	Westside ANR,	5.61	139	⇓P	Pn	12 21 20.5	-0.6
	baz=5.7,SNR=7.4						
BMN	Battle Mountai	5.70	90	*e*Pn	Pn	12 21 21.7	-0.7
PKD	Parkfield	5.73	144	⇑P	Pn	12 21 20.0	-2.7
	baz=5.8,SNR=53						
F05A	White Salmon	5.74	23	⇑P	Pn	12 21 21.9	-0.9
	baz=5.8,SNR=7.4						
O09A	Fish Creek Ran	5.75	92	⇑P	Pn	12 21 22.2	-0.8
	baz=5.9						
MTUM	Tungsten Hills	5.80	123	*e*Pn	Pn	12 21 24.5	+0.7
J09A	Fry Pan Ranch,	5.83	60	⇓P	Pn	12 21 23.2	-0.9
	baz=5.9						
V04C	Ramage Ranch,	5.85	148	⇑P	Pn	12 21 21.9	-2.5
	baz=5.9						
V04C				⇑S	Sn	12 22 29.0	-1.9
	baz=5.9						
F06A	Goldendale	5.86	28	⇑P	Pn	12 21 23.1	-1.3
	baz=5.9,SNR=12						
H08A	Prairie City	5.89	47	⇑P	Pn	12 21 25.0	+0.1
	baz=6.0,SNR=13						
P09A	Austin	5.90	98	⇓P	Pn	12 21 25.2	+0.1
	baz=6.0,SNR=222						
G07A	Ruggs Ranch, H	5.91	37	⇑P	Pn	12 21 25.2	+0.1
	baz=6.0,SNR=110						
E03A	Lebam	5.95	8	⇑P	Pn	12 21 25.0	-0.7
	baz=6.0,SNR=11						
HELL	Mitchell Peak,	5.96	130	⇓P	Pn	12 21 25.9	+0.1
	baz=6.0,SNR=76						
S08C	White Mtn Res	5.98	120	⇑P	Pn	12 21 26.9	+0.8
	baz=6.1,SNR=24						
Q09A	Carvers	6.07	105	P	Pn	12 21 27.6	+0.2
	baz=6.2,SNR=76						
V05C	Boulder Hill,	6.09	140	⇑P	Pn	12 21 27.6	-0.1
	baz=6.2,SNR=8.3						
RCTC	Rector, Farmer	6.09	134	⇓P	Pn	12 21 27.5	-0.2
	baz=6.2,SNR=9.9						
E04A	Onalaska	6.11	13	⇑P	Pn	12 21 28.0	+0.1
	baz=6.1						
PTRM	Twissleman Ran	6.12	143	*e*Pn	Pn	12 21 25.6	-2.5
I09A	Lost Marbles R	6.13	55	⇓P	Pn	12 21 28.5	+0.3
	baz=6.2						
TIN	Tinemaha	6.20	123	⇓P	Pn	12 21 29.4	+0.2
	baz=6.3						
M10A	I.L. Ranch, Tu	6.23	79	⇑P	Pn	12 21 28.3	-1.2
	baz=6.3,SNR=19						
N10A	Dunphy	6.23	87	⇑P	Pn	12 21 29.5	-0.1
	baz=6.3						
K10A	MacKenzie Ranc	6.23	68	⇑P	Pn	12 21 28.3	-1.3
	baz=6.3,SNR=17						
G08A	Pilot Rock	6.26	40	⇓P	Pn	12 21 30.6	+0.6
	baz=6.3						
O10A	Cortez Mining,	6.26	91	⇓P	Pn	12 21 30.3	+0.3
	baz=6.4,SNR=24						
E05A	Randle	6.28	19	⇑P	Pn	12 21 30.5	+0.2
	baz=6.3,SNR=43						
F07A	Phinny Hill Vi	6.29	32	⇓P	Pn	12 21 30.7	+0.3
	baz=6.4						
TPH	Tonopah	6.34	112	*e*Pn	Pn	12 21 31.2	+0.1
L10A	Juniper Basin	6.35	74	⇓P	Pn	12 21 30.4	-0.8
	baz=6.5,SNR=28						
R09A	Tonopah	6.38	110	⇓P	Pn	12 21 31.0	-0.6
	baz=6.5,SNR=124						
P10A	Eureka	6.40	97	⇑P	Pn	12 21 31.9	0.0
	baz=6.5,SNR=11						
LON	Longmire	6.44	18	*e*Pn	Pn	12 21 32.9	+0.4
E06A	Yakima	6.48	23	⇓P	Pn	12 21 32.5	-0.5
	baz=6.5,SNR=172						
D03A	Wishkah Elem.	6.50	6	⇓P	Pn	12 21 32.6	-0.6
	baz=6.5,SNR=11						
SMMC	Simmler	6.50	144	⇓P	Pn	12 21 31.9	-1.4
	baz=6.6						
S09A	Goldfield	6.50	114	⇑P	Pn	12 21 32.9	-0.5
	baz=6.6,SNR=104						
J10A	Berg Farm, Mel	6.53	62	⇑P	Pn	12 21 33.1	-0.5
	baz=6.6						
VES	Vestal, Richgr	6.53	136	⇓P	Pn	12 21 33.2	-0.5
	baz=6.6,SNR=70						
H09A	Durkee	6.55	50	⇓P	Pn	12 21 34.6	+0.5
	baz=6.6,SNR=11						
Q10A	Clear Creek Ra	6.65	103	⇑P	Pn	12 21 36.0	+0.6
	baz=6.8,SNR=33						
CWC	Cottonwood Cre	6.68	127	⇓P	Pn	12 21 35.6	-0.1
	baz=6.8,SNR=9.1						
I10A	Payette	6.78	57	⇑P	Pn	12 21 36.7	-0.4
	baz=6.9						
M11A	Holland Ranch,	6.78	81	P	Pn	12 21 36.5	-0.7
	baz=6.9,SNR=9.5						
GRAC	Grapevine Rang	6.79	120	⇑P	Pn	12 21 37.1	-0.1
	baz=6.9						
N11A	Elko Archery C	6.81	86	⇑P	Pn	12 21 37.5	0.0
	baz=6.9						
D05A	Enumclaw	6.82	16	⇑P	Pn	12 21 37.5	-0.1
	baz=6.9,SNR=28						
K11A	Parker Ranch,	6.82	69	⇓P	Pn	12 21 37.6	-0.1
	baz=6.9						
S10A	Tonopah Range,	6.85	111	⇑P	Pn	12 21 37.6	-0.6
	baz=7.0,SNR=26						
HAWA	Hanford	6.86	31	*e*Pn	Pn	12 21 38.9	+0.8
E07A	Sunnyside	6.87	29	⇑P	Pn	12 21 37.7	-0.7
	baz=6.9						
BMO	Blue Mountains	6.87	50	*e*Pn	Pn	12 21 39.5	+1.1
L11A	Cat Creek Ranc	6.89	74	P	Pn	12 21 38.0	-0.7
	baz=7.0,SNR=18						
R10A	Warm Springs	6.91	107	⇓P	Pn	12 21 39.2	+0.2
	baz=7.0,SNR=65						
O11A	Cowboy Ranch,	6.92	91	⇑P	Pn	12 21 39.3	+0.2
	baz=7.0,SNR=21						
PKM	Peak Mountain	6.93	145	⇑P	Pn	12 21 38.0	-1.2
	baz=7.0,SNR=11						
P11A	Circle Ranch,	6.95	96	⇓P	Pn	12 21 39.8	+0.3
	baz=7.1,SNR=13						
ISA	Isabella	6.99	133	⇑P	Pn	12 21 40.4	+0.3
	baz=7.1,SNR=128						
GNW	Green Mountain	7.04	10	*e*Pn	Pn	12 21 41.5	+0.8
H10A	Noah's Angus R	7.06	54	⇑P	Pn	12 21 41.6	+0.6
	baz=7.2,SNR=7.0						
F09A	S2 Ranch, Elgi	7.08	42	⇓P	Pn	12 21 41.2	0.0
	baz=7.2						
DAC	Darwin (Calif)	7.08	126	*e*Pn	Pn	12 21 43.0	+1.7
D06A	Cle Elum	7.11	22	⇑P	Pn	12 21 41.1	-0.4
	baz=7.2,SNR=5.3						
E08A	Dider Farm, El	7.13	33	⇓P	Pn	12 21 41.7	-0.2
	baz=7.2,SNR=10						
MFID	Camas Ranch	7.16	64	⇓P	Pn	12 21 41.8	-0.5
	baz=7.3						
C04A	Brinnon	7.17	9	⇓P	Pn	12 21 42.1	-0.4
	baz=7.2,SNR=8.9						
ELK	Elko	7.19	86	*e*Pn	Pn	12 21 44.5	+1.8
Q11A	Duckwater	7.20	102	P	Pn	12 21 43.7	+0.8
	baz=7.3,SNR=148						
ARVC	Arvin	7.21	138	⇓P	Pn	12 21 42.4	-0.6
	baz=7.3,SNR=48						
I11A	Placerville	7.25	60	⇓P	Pn	12 21 44.8	+1.1
	baz=7.4						
MPMC	Manual Prospec	7.29	127	⇓P	Pn	12 21 44.9	+0.8
	baz=7.4,SNR=17						
N12A	Clover Valley,	7.34	85	⇑P	Pn	12 21 45.1	+0.2
	baz=7.4,SNR=40						
SBC	Santa Barbara	7.36	146	⇑P	Pn	12 21 45.0	-0.1
	baz=7.4						
C05A	Tolt Reservoir	7.36	16	⇑P	Pn	12 21 45.0	-0.1
	baz=7.4,SNR=8.3						
D07A	Quincy	7.37	26	⇑P	Pn	12 21 44.9	-0.4
	baz=7.4						
TRCR	Troy Canyon	7.42	105	*e*Pn	Pn	12 21 45.8	0.0
FURC	Furnace Creek,	7.43	122	⇑P	Pn	12 21 46.9	+0.8
	baz=7.5						
L12A	House Creek Ra	7.43	75	⇑P	Pn	12 21 46.5	+0.4
	baz=7.5						
M12A	Wells	7.44	81	⇑P	Pn	12 21 45.4	-0.8
	baz=7.5,SNR=21						
B04A	Port Angeles	7.45	6	⇑P	Pn	12 21 46.2	-0.2
	baz=7.5,SNR=15						
E09A	Wood Farm, Sta	7.55	37	⇓P	Pn	12 21 47.3	-0.3
	baz=7.6						
TPNV	Topopah Spring	7.56	117	*e*Pn	Pn	12 21 48.7	+0.8
TPNV	Topopah Spring	7.56	117	⇓P	Pn	12 21 48.7	+0.8
	baz=7.7,SNR=31						
LRMC	Laurel Mountai	7.57	131	⇑P	Pn	12 21 48.0	0.0
	baz=7.7						
H11A	Donnelly	7.57	55	⇑P	Pn	12 21 48.9	+0.9
	baz=7.7						
S11A	Rachel	7.58	110	⇓P	Pn	12 21 48.5	+0.4
	baz=7.7,SNR=19						
K12A	Draper Farm, C	7.60	72	⇓P	Pn	12 21 49.3	+0.9
	baz=7.7						
O12A	Currie	7.60	90	⇑P	Pn	12 21 48.5	+0.1
	baz=7.7,SNR=107						
P12A	McGill	7.60	96	⇓P	Pn	12 21 49.7	+1.2
	baz=7.7,SNR=89						
F10A	Beach Ranch, E	7.61	43	⇑P	Pn	12 21 49.0	+0.4
	baz=7.7						
J12A	Stokes Ranch,	7.61	67	⇑P	Pn	12 21 48.9	+0.3
	baz=7.7						
D08A	Wollman Farm,	7.64	31	⇓P	Pn	12 21 48.5	-0.4
	baz=7.7						
OSI	Osito Adit	7.67	140	⇑P	Pn	12 21 49.7	+0.4
	baz=7.7,SNR=7.8						
C06A	Tall Timber Ra	7.76	19	⇓P	Pn	12 21 51.1	+0.5
	baz=7.8						
Q12A	Willow Creek R	7.76	99	⇑P	Pn	12 21 51.4	+0.7
	baz=7.9,SNR=399						
BSC	Santa Cruz Isl	7.78	147	⇑P	Pn	12 21 50.4	-0.4
	baz=7.8						
C07A	Waterville	7.78	24	⇓P	Pn	12 21 51.0	+0.1
	baz=7.8,SNR=30						
U10A	Ash Meadows, A	7.80	120	⇓P	Pn	12 21 52.3	+1.1
	baz=7.9						
B05A	Bryant	7.83	13	⇓P	Pn	12 21 51.9	+0.3
	baz=7.9,SNR=33						
EDW2	Edwards Air Fo	7.84	135	⇑P	Pn	12 21 51.5	-0.2
	baz=7.9,SNR=50						
D09A	Jones Farm, Ri	7.89	34	⇓P	Pn	12 21 52.0	-0.4
	baz=8.0						
BLG	Laguna Peak	7.92	144	⇑P	Pn	12 21 53.1	+0.3
	baz=8.0						
N13A	Wendover, West	7.97	85	⇑P	Pn	12 21 53.6	+0.1
	baz=8.1						
M13A	Montello	8.00	82	⇓P	Pn	12 21 53.9	0.0
	baz=8.1,SNR=7.9						
E10A	Myers Farm, Un	8.02	41	⇓P	Pn	12 21 54.9	+0.7
	baz=8.1						
PGC	Sidney	8.04	6	*e*Pn	Pn	12 21 54.1	-0.3
T11A	Corn Creek, Al	8.13	112	⇑P	Pn	12 21 56.1	+0.3
	baz=8.2						
F11A	Grangeville	8.14	47	⇑P	Pn	12 21 56.3	+0.5
	baz=8.2,SNR=14						
R12A	Pony Springs,	8.14	103	⇑P	Pn	12 21 56.2	+0.3
	baz=8.2,SNR=20						
SHOC	Shoshone	8.15	123	⇓P	Pn	12 21 56.8	+1.0
	baz=8.2						
DECC	Green Verdugo	8.15	140	⇓P	Pn	12 21 55.6	-0.4
	baz=8.2						
HLID	Hailey	8.18	66	*e*Pn	Pn	12 21 58.3	+1.9
HLID	Hailey	8.18	66	⇑P	Pn	12 21 57.1	+0.7
	baz=8.3						
A04A	Legoe Bay, Lum	8.19	9	⇑P	Pn	12 21 56.9	+0.4
	baz=8.2						
B06A	Marblemount	8.19	15	⇑P	Pn	12 21 55.6	-0.9
	baz=8.2						
K13A	Stover Farm, H	8.20	72	⇑P	Pn	12 21 57.4	+0.9
	baz=8.3						
C08A	Higginbotham F	8.20	28	⇓P	Pn	12 21 56.5	-0.1
	baz=8.3						
GSC	Goldstone	8.21	128	⇓P	Pn	12 21 57.4	+0.6
	baz=8.3						
L13A	Double Diamond	8.22	76	⇑P	Pn	12 21 57.2	+0.4
	baz=8.3						
H12A	Diamond D Ranc	8.24	59	⇑P	Pn	12 21 58.4	+1.3
	baz=8.3						
S12A	Delamar Landin	8.24	108	⇓P	Pn	12 21 57.4	+0.3
	baz=8.3						
J13A	Cove Ranch, Pi	8.30	67	⇓P	Pn	12 21 59.2	+1.2
	baz=8.4						
D10A	Wagner Farm, O	8.35	37	⇓P	Pn	12 21 58.6	0.0
	baz=8.4						
RRX	Edison Barstow	8.39	131	⇑P	Pn	12 21 59.6	+0.4
	baz=8.5						
E11A	Bogner Ranch,	8.40	44	⇓P	Pn	12 22 00.4	+1.1
	baz=8.5						
U11A	Corn Creek	8.43	117	⇓P	Pn	12 22 00.4	+0.5
	baz=8.5						
B07A	Winthrop	8.46	21	⇑P	Pn	12 22 00.2	0.0
	baz=8.5,SNR=13						
I13A	Wildhorse Cree	8.50	64	⇓P	Pn	12 22 01.9	+1.2
	baz=8.6						
BFSC	Mount Baldy St	8.50	137	⇑P	Pn	12 22 01.0	+0.2
	baz=8.6,SNR=59						
SHPR	Sheep Range	8.54	116	*e*Pn	Pn	12 22 01.8	+0.5
A05A	Maple Falls	8.55	12	⇑P	Pn	12 22 01.8	+0.5
	baz=8.6,SNR=41						
B08A	Colville Reser	8.60	25	⇓P	Pn	12 22 02.4	+0.3
	baz=8.7,SNR=21						
M14A	Sheep Mountain	8.62	81	⇑P	Pn	12 22 03.7	+1.4
	baz=8.7						
H13A	Challis	8.64	60	⇓P	Pn	12 22 03.9	+1.3
	baz=8.7						
TUQ	Turquoise Mtn.	8.66	124	⇓P	Pn	12 22 04.2	+1.2
	baz=8.8						
V11A	Goodsprings	8.73	120	⇓P	Pn	12 22 04.9	+0.9
	baz=8.8						
T12A	Moapa	8.74	113	⇑P	Pn	12 22 04.8	+0.8
	baz=8.8						
A06A	Chilliwack	8.75	14	⇑P	Pn	12 22 03.8	-0.3
	baz=8.8						
D11A	Klaveano Farm,	8.79	41	⇓P	Pn	12 22 05.3	+0.6
	baz=8.9						
CIS	Catalina Islan	8.81	143	⇑P	Pn	12 22 05.2	+0.1
	baz=8.9						
HEC	Hector,Ludlow	8.81	129	⇓P	Pn	12 22 05.9	+0.8
	baz=8.9						
K14A	Jones Ranch, D	8.84	74	⇑P	Pn	12 22 05.6	+0.2
	baz=8.9						
BGU	Big Grassy Mou	8.86	84	*e*Pn	Pn	12 22 06.3	+0.6
G13A	Cobalt	8.87	57	⇑P	Pn	12 22 07.0	+1.1
	baz=9.0						
BBRC	Big Bear Sol-O	8.88	133	⇑P	Pn	12 22 06.3	+0.3
	baz=9.0						
C10A	Spilker Farm,	8.91	34	⇓P	Pn	12 22 06.4	0.0
	baz=9.0						
A07A	Ashnola River,	8.94	19	⇑P	Pn	12 22 07.3	+0.7
	baz=9.0						
S13A	Holt Ranch, En	8.97	107	P	Pn	12 22 07.7	+0.6
	baz=9.1,SNR=26						
U12A	Valley of Fire	9.01	115	⇓P	Pn	12 22 08.5	+0.8
	baz=9.1,SNR=8.1						
HVU	Hansel Valley	9.06	79	*e*Pn	Pn	12 22 10.1	+1.7
	comp=Z,92nm,1.3s						
HVU	Hansel Valley	9.06	79	*e*P	Pn	12 22 10.1	+1.7
HVU				pmax	pmax		
	comp=Z,92nm,1.3s						
B09A	Rice	9.06	29	⇑P	Pn	12 22 08.3	-0.2
	baz=9.1						
A08A	Turner Farm, O	9.15	23	⇑P	Pn	12 22 10.2	+0.6
	baz=9.2,SNR=14						
T13A	Saint George	9.17	110	P	Pn	12 22 10.2	+0.3
	baz=9.3,SNR=21						
V12A	Nelson	9.18	119	⇓P	Pn	12 22 11.0	+0.9
	baz=9.3						
ARUT	Antelope Range	9.20	105	*e*Pn	Pn	12 22 11.1	+0.9
MURC	Murrieta	9.24	137	⇑P	Pn	12 22 10.5	-0.4
	baz=9.3,SNR=20						
GMRC	Granite Mounta	9.25	126	⇑P	Pn	12 22 11.1	0.0
	baz=9.3,SNR=5.5						
SPUT	South Promonto	9.29	82	*e*Pn	Pn	12 22 14.3	+2.7
M15A	Larsen Ranch,	9.29	81	⇓P	Pn	12 22 12.6	+1.0
	baz=9.4						
D12A	Red Ives Fores	9.30	43	⇓P	Pn	12 22 12.0	+0.4
	baz=9.4						
B10A	Chitwood Farm,	9.32	32	⇑P	Pn	12 22 12.8	+0.9
	baz=9.4						
NEW	Newport	9.34	33	*e*Pn	Pn	12 22 13.3	+1.1
	comp=Z,43nm,1.2s						
NEW	Newport	9.34	33	*e*P	Pn	12 22 13.3	+1.1
NEW				pmax	pmax		
	comp=Z,43nm,1.2s						
NEW	Newport	9.34	33	Pn	Pn	12 22 13.4	+1.3
	comp=Z,0.5nm,0.3s,baz=207,slow=11,SNR=12						
NEW				Lg		12 24 42.7	
	comp=Z,0.1nm,0.3s,baz=232,slow=21,SNR=2.0						
NEW				LR	LR	12 26 10.6	
	comp=Z,9µm,18.5s,baz=220,slow=41						
CCUT	Cedar City	9.34	106	*e*Pn	Pn	12 22 12.6	+0.3
A09A	Danville	9.38	26	⇑P	Pn	12 22 13.3	+0.5
	baz=9.4						
S14A	Cedar City	9.41	104	⇓P	Pn	12 22 14.2	+1.0
	baz=9.5						
W12A	Cal Nev Ari	9.42	121	⇑P	Pn	12 22 15.0	+1.6
	baz=9.5						
G14A	Jackson	9.43	57	⇑P	Pn	12 22 14.7	+1.2
	baz=9.5						
NOQ	North Oquirrh	9.56	86	*e*Pn	Pn	12 22 17.6	+2.2
BELC	Belle Mtn.	9.59	131	P	Pn	12 22 15.8	+0.1
	baz=9.7,SNR=86						
PFO	Pinyon Flat Ob	9.63	134	Pn	Pn	12 22 16.0	-0.2
	comp=Z,1µm,0.5s,SNR=39						
PFO	Pinyon Flat Ob	9.63	134	*e*Pn	Pn	12 22 16.3	+0.1
PFO	Pinyon Flat Ob	9.63	134	*e*P	Pn	12 22 16.3	+0.1
PFO	Pinyon Flat Ob	9.63	134	Pn	Pn	12 22 16.4	+0.1
	comp=Z,19nm,0.3s,baz=321,slow=9.6,SNR=89						
PFO				Lg		12 24 59.7	
	comp=Z,0.0nm,0.3s,baz=23,slow=12,SNR=3.3						
PFO				LR	LR	12 26 36.9	
	comp=Z,7µm,18.6s,baz=137,slow=42						
PFO	Pinyon Flat Ob	9.63	134	P	Pn	12 22 16.6	+0.4
	baz=9.7,SNR=7.0						
MCMT	McKenzie Canyo	9.66	61	*e*Pn	Pn	12 22 17.9	+1.2
NLU	North Lily Min	9.67	90	*e*Pn	Pn	12 22 19.0	+2.2
F14A	Wisdom	9.74	54	⇓P	Pn	12 22 18.4	+0.7
	baz=9.8						
T14A	Hurricane	9.74	108	⇓P	Pn	12 22 18.7	+0.9
	baz=9.8						
A10A	Northport	9.75	29	⇓P	Pn	12 22 18.2	+0.4
	baz=9.8						
B11A	Sandpoint	9.79	35	⇑P	Pn	12 22 18.7	+0.4
	baz=9.9						
D13A	Huson	9.80	46	⇑P	Pn	12 22 19.6	+1.1
	baz=9.9						
CTU	Camp Tracy	9.84	86	*e*Pn	Pn	12 22 20.9	+1.8
MSU	Marysvale	9.90	98	*e*Pn	Pn	12 22 21.5	+1.5
MSO	Missoula	9.93	48	*e*Pn	Pn	12 22 21.9	+1.6
HWUT	Hardware Ranch	9.96	80	*e*Pn	Pn	12 22 22.9	+2.2
U14A	Mt Trumbull	9.96	111	⇑P	Pn	12 22 22.8	+2.0
	baz=10						
E14A	Clinton	9.97	51	⇑P	Pn	12 22 22.6	+1.8
	baz=10						
IRM	Iron Mountain	9.98	127	⇑P	Pn	12 22 21.3	+0.2
	baz=10,SNR=13						
MPU	Maple Canyon	10.00	89	*e*Pn	Pn	12 22 23.3	+2.0
G15A	Dillon	10.03	59	⇑P	Pn	12 22 22.2	+0.5
	baz=10						
DLMT	Dillon	10.04	58	*e*Pn	Pn	12 22 22.4	+0.6
JLU	Jordanelle	10.08	86	*e*Pn	Pn	12 22 24.1	+1.7
C13A	Hot Springs	10.11	43	⇑P	Pn	12 22 22.8	0.0
	baz=10						
BSMT	Bassoo Peak	10.11	41	*e*Pn	Pn	12 22 23.3	+0.5
BC3	Big Chuckw Mtn	10.16	131	⇑P	Pn	12 22 23.8	+0.3
	baz=10,SNR=17						
B12A	Libby	10.16	37	⇓P	Pn	12 22 23.4	0.0
	baz=10						
W13A	Hualapai Mount	10.19	120	⇑P	Pn	12 22 25.5	+1.6
	baz=10						
A11A	Hall Mountain,	10.19	33	⇓P	Pn	12 22 24.6	+0.7
	baz=10						
MONP	Monument Peak	10.20	137	⇑P	Pn	12 22 25.0	+0.9
	baz=10						
DAU	Daniels Canyon	10.24	87	*e*Pn	Pn	12 22 26.2	+1.7
T15A	Red Dirt Ranch	10.27	107	⇑P	Pn	12 22 26.7	+1.6
	baz=10,SNR=6.4						
F15A	Butte	10.30	56	⇑P	Pn	12 22 25.3	-0.1
	baz=10						
D14A	Greenough	10.32	48	⇑P	Pn	12 22 25.9	+0.3
	baz=10						
LRM	Limekiln Ridge	10.32	56	*e*Pn	Pn	12 22 27.0	+1.4
CHMT	Chamberlain Mo	10.37	49	*e*Pn	Pn	12 22 28.0	+1.6
AHID	Auburn Hatcher	10.39	74	*e*Pn	Pn	12 22 29.8	+3.2
TMUT	Trail Mountain	10.45	93	*e*Pn	Pn	12 22 30.4	+3.0
A12A	Yaak River Ran	10.48	35	⇑P	Pn	12 22 28.1	+0.4
	baz=10						
E15A	Deer Lodge	10.48	53	⇑P	Pn	12 22 28.6	+0.8
	baz=11,SNR=18						
SWSC	Sam W. Stewart	10.49	134	⇓P	Pn	12 22 28.0	0.0
	baz=11						
PDMCI	Parker Dam,Lak	10.51	124	⇑P	Pn	12 22 29.7	+1.4
	baz=11						
X13A	Yucca	10.53	122	⇑P	Pn	12 22 29.3	+0.8
	baz=11						
DVTC	Desert V Tower	10.55	136	⇓P	Pn	12 22 29.4	+0.6
	baz=11						
C14A	Swan Lake	10.60	44	⇓P	Pn	12 22 29.6	+0.2
	baz=11						
QLMT	Earthquake Lak	10.62	62	*e*Pn	Pn	12 22 31.4	+1.7
B13A	Whitefish	10.62	40	⇑P	Pn	12 22 29.9	+0.1
	baz=11						
Y12C	Blythe	10.64	127	⇑P	Pn	12 22 30.1	0.0
	baz=11,SNR=6.7						
REDW	Red Top Meadow	10.66	71	*e*Pn	Pn	12 22 33.1	+2.8
W14A	Seligman	10.66	117	⇓P	Pn	12 22 31.6	+1.2
	baz=11						
IMW	Indian Meadow	10.70	68	*e*Pn	Pn	12 22 34.3	+3.4
BOZ	Bozeman (W)	10.77	58	*e*Pn	Pn	12 22 32.1	+0.3
BOZ	Bozeman (W)	10.77	58	⇓P	Pn	12 22 32.1	+0.3
	baz=11						
MOOW	Moose Ponds	10.81	69	*e*Pn	Pn	12 22 35.3	+3.0
D15A	Lincoln	10.86	50	⇑P	Pn	12 22 33.6	+0.6
	baz=11,SNR=17						
LOHW	Long Hollow	10.88	70	*e*Pn	Pn	12 22 36.0	+2.7
YMR	Madison River	10.88	64	*e*Pn	Pn	12 22 35.8	+2.4
	comp=Z,100nm,1.3s						
YFT	Old Faithful	10.91	65	*e*Pn	Pn	12 22 37.7	+4.0
GLA	Glamis	10.95	131	⇑P	Pn	12 22 34.0	-0.3
	baz=11,SNR=5.8						
SRU	San Rafael	11.01	93	*e*Pn	Pn	12 22 38.1	+3.1
Y13A	Salome	11.03	125	⇑P	Pn	12 22 36.2	+0.8
	baz=11,SNR=6.8						
A13A	Flathead Natio	11.04	38	⇓P	Pn	12 22 35.5	+0.1
	baz=11						
YNR	Norris Junctio	11.09	64	*e*Pn	Pn	12 22 38.9	+2.7
HRY	Holter Researc	11.11	53	Pn	Pn	12 22 36.2	-0.2
X14A	Yava	11.22	120	⇓P	Pn	12 22 39.8	+1.8
	baz=11						
W15A	Williams	11.24	115	⇑P	Pn	12 22 40.3	+2.1
	baz=11						
LKWY	Lake	11.24	65	*e*Pn	Pn	12 22 42.8	+4.5
Y14A	Wickenburg	11.47	122	⇑P	Pn	12 22 43.5	+2.0
	baz=12						
BW06	Boulder Array	11.52	74	*e*Pn	Pn	12 22 44.4	+2.4
PDAR	Pinedale Array	11.52	74	Pn	Pn	12 22 41.8	-0.3
PDAR				Lg		12 25 48.3	
PDAR	Pinedale Array	11.52	74	Pn	Pn	12 22 41.8	-0.3
	comp=Z,0.2nm,0.3s,baz=243,slow=13,SNR=54						
PDAR				Lg		12 25 48.3	
	baz=101,slow=27,SNR=2.3						
X15A	Humboldt	11.64	118	⇑P	Pn	12 22 46.0	+2.1
	baz=12						
WUAZ	Wupatki	11.68	112	*e*Pn	Pn	12 22 47.4	+3.0
WUAZ	Wupatki	11.68	112	⇓P	Pn	12 22 46.7	+2.4
	baz=12						
BBB	Bella Bella	11.77	350	Pn	Pn	12 22 46.0	+0.5
BBB	Bella Bella	11.77	350	Pn	Pn	12 22 46.0	+0.5
	comp=Z,0.3nm,0.3s,baz=178,slow=13,SNR=7.6						
Z14A	Wintersburg	11.88	124	⇓P	Pn	12 22 48.4	+1.4
	baz=12,SNR=5.5						
GCMT	Greycliff	12.11	60	*e*Pn	Pn	12 22 50.8	+0.7
RLMT	Red Lodge	12.17	63	*e*Pn	Pn	12 22 52.7	+1.8
	comp=Z,63nm,1.4s						
PV10	Paradox Valley	12.31	96	*e*Pn	Pn	12 22 55.9	+3.0
PV01	Paradox Valley	12.73	96	*e*Pn	Pn	12 23 01.1	+2.5
115A	Sonoran Desert	12.77	125	⇑P	Pn	12 23 00.9	+1.7
	baz=13,SNR=7.2						
EGMT	Eagleton	12.98	50	*e*Pn	Pn	12 23 01.9	-0.1
EGMT	Eagleton	12.98	50	⇑P	Pn	12 23 01.3	-0.7
	baz=13						
MVCO	Mesa Verde	13.08	100	*e*Pn	Pn	12 23 05.1	+1.8
	comp=Z,477nm,1.8s						
MVCO	Mesa Verde	13.08	100	⇓P	Pn	12 23 05.0	+1.7
	baz=13						
116A	Eloy	13.19	124	⇑P	Pn	12 23 06.8	+1.9
	baz=13						
RWWY	Rawlins	13.22	80	*e*Pn	Pn	12 23 04.9	-0.4
TUC	Tucson	13.94	122	*e*Pn	Pn	12 23 17.1	+1.9
	comp=Z,298nm,2.1s						
TUC	Tucson	13.94	122	*e*P	Pn	12 23 17.2	+2.0
TUC				pmax	pmax		
	comp=Z,298nm,2.1s						
PHWY	Pilot Hill	14.55	81	*e*Pn	Pn	12 23 22.8	-0.7
ISCO	Idaho Springs	14.61	87	*e*Pn	Pn	12 23 24.9	+0.6
LAO	LASA Array	14.66	60	*e*Pn	Pn	12 23 23.9	-1.0
LAO				*e*P		12 23 31.7	
EDM	Edmonton	14.74	28	*e*Pn	Pn	12 23 23.8	-2.2
SDCO	Great Sand Dun	15.17	95	*e*Pn	Pn	12 23 33.2	+1.4
LAZ	Ladron	15.26	109	*e*P	Pn	12 23 34.5	+1.5
LENM	Lemitar	15.49	109	*e*P	Pn	12 23 37.7	+1.6
ANMO	Albuquerque	15.49	106	*e*P	Pn	12 23 36.3	+0.2
	comp=Z,305nm,1.9s						
ANMO	Albuquerque	15.49	106*c*	*i*P	Pn	12 23 37.2	+1.1
ANMO	Albuquerque	15.49	106	Pn	Pn	12 23 35.9	-0.2
	comp=Z,0.3nm,0.3s,baz=302,slow=11,SNR=49						
ANMO				Lg		12 28 13.2	
	comp=Z,0.1nm,0.3s,baz=65,slow=22,SNR=2.6						

ANMO				LR	LR	12 30 21.9	
	comp=Z,5µm,18.1s,baz=298,slow=41						
Y22C	**IRIS PASSCAL I**	**15.58**	**109**	⇑P	**Pn**	**12 23 38.4**	**+1.3**
	baz=16						
LPM	**Los Pinos Moun**	**15.67**	**108**	*e*P	**Pn**	**12 23 39.7**	**+1.3**
BNM	**Barren Site**	**15.75**	**109**	*e*P	**Pn**	**12 23 40.8**	**+1.4**
CRAG	**Craig**	**15.84**	**342**	*e*P	**Pn**	**12 23 39.8**	**-0.7**
	comp=Z,149nm,1.4s						
DGMT	**Dagmar**	**16.54**	**55**	*e*P	**Pn**	**12 23 47.2**	**-2.3**
	comp=Z,202nm,1.2s						
WRAK	**Wrangell Islan**	**16.55**	**345**	*e*P	**Pn**	**12 23 50.6**	**+1.1**
	comp=Z,263nm,1.4s						
MNTX	**Cornudas Mount**	**17.95**	**114**	*e*P	**Pn**	**12 24 08.0**	**+0.8**
DLBC	**Dease Lake**	**18.12**	**351**	*e*P	**Pn**	**12 24 11.4**	**+2.3**
DLBC	**Dease Lake**	**18.12**	**351**	P	**Pn**	**12 24 10.3**	**+1.2**
CBKS	**Cedar Bluff**	**19.27**	**87**	*e*P	**Pn**	**12 24 22.1**	**-1.2**
	comp=Z,178nm,0.9s						
CBKS	**Cedar Bluff**	**19.27**	**87**	*e*P	**Pn**	**12 24 22.1**	**-1.1**
CBKS				pmax	pmax		
	comp=Z,178nm,0.9s						
SKAG	**Skagway**	**19.98**	**344**	*e*P	**Pn**	**12 24 32.3**	**+0.9**
	comp=Z,246nm,1.5s						
LPIG	**La Paz**	**20.45**	**139**	LR	LR	12 32 43.8	
	comp=Z,3µm,18.7s,MS4.7,baz=140,slow=38						
LTX	**Lajitas**	**20.55**	**117**	*e*P	**P**	**12 24 37.7**	**+1.6**
LTX				LR	LR		
	comp=Z,3µm,22.0s,MS4.6						
TXAR	**Lajitas Array**	**20.55**	**117**	P	**P**	**12 24 37.2**	**+1.0**
TXAR	**Lajitas Array**	**20.55**	**117**	P	**P**	**12 24 37.2**	**+1.0**
	comp=Z,45nm,0.9s,baz=298,slow=7.4,SNR=198						
FFC	**Flin Flon**	**20.66**	**39**	P	**P**	**12 24 36.7**	**-0.4**
	comp=Z,485nm,1.1s,SNR=35						
ECSD	**EROS,Sioux Fal**	**21.00**	**72**	*e*P	**P**	**12 24 37.2**	**-3.7**
	comp=Z,19nm,0.8s						
ECSD				*e*S	**S**	**12 28 41.5**	**+7.5**
WMOK	**Wichita Mounta**	**21.30**	**98**	*e*P	**P**	**12 24 42.3**	**-2.0**
WMOK				LR	LR		
	comp=Z,6µm,20.0s,MS5.0						
KSU1	**Kansas State U**	**21.58**	**85**	*e*P	**P**	**12 24 45.8**	**-1.4**
KSU1				LR	LR		
	comp=Z,5µm,19.0s,MS5.0						
AGMN	**Agassiz Refuge**	**21.86**	**60**	*e*P	**P**	**12 24 48.1**	**-1.9**
	comp=Z,57nm,0.8s,mb5.1						
AGMN				LR	LR		
	comp=Z,5µm,20.0s,MS4.9						
ULM	**Lac du Bonnet**	**22.26**	**55**	P	**P**	**12 24 52.1**	**-2.3**
	comp=Z,53nm,1.0s,mb4.9,baz=260,slow=10,SNR=38						
ULM				LR	LR	12 33 06.1	
	comp=Z,923nm,21.2s,MS4.2,baz=76,slow=36						
JCT	**Junction City**	**22.59**	**109**	*e*P	**P**	**12 24 57.2**	**-0.9**
JCT				LR	LR		
	comp=Z,10µm,19.0s,MS5.3						
YKA	**Yellowknife Ar**	**22.70**	**12**	P	**P**	**12 24 58.0**	**-0.9**
YKA				LR	LR	12 34 21.1	
YKA	**Yellowknife Ar**	**22.70**	**12**	P	**P**	**12 24 58.0**	**-0.9**
	comp=Z,25nm,1.0s,mb4.6,baz=197,slow=11,SNR=98						
YKA				LR	LR	12 34 21.1	
	comp=Z,2µm,20.7s,MS4.5,baz=195,slow=38						
YKW3	**Yellowknife Ar**	**22.76**	**12**	*e*P	**P**	**12 24 58.6**	**-0.9**
SCIA	**State Center**	**23.63**	**77**	*e*P	**P**	**12 25 09.4**	**+0.6**
	comp=Z,28nm,0.8s,mb4.7						
SCIA				LR	LR		
	comp=Z,5µm,21.0s,MS4.9						
EYMN	**Ely**	**24.72**	**62**	*e*P	**P**	**12 25 18.3**	**-0.3**
EYMN				LR	LR		
	comp=Z,4µm,19.0s,MS4.9						
KDAK	**Kodiak Island**	**24.74**	**323**	PFAKE		12 25 30.0	+11
KDAK				LR	LR		
	comp=Z,657nm,22.0s,MS4.1						
KDAK	**Kodiak Island**	**24.74**	**323**	LR	LR	12 32 31.4	
	comp=Z,2µm,20.5s,MS4.5,baz=128,slow=30						
DAWY	**Dawson**	**24.98**	**345**	*e*P	**P**	**12 25 20.6**	**-0.1**
MENT	**Mentasta**	**25.03**	**339**	*e*P	**P**	**12 25 23.4**	**+2.1**
MIAR	**Mount Ida**	**25.32**	**94**	*e*P	**P**	**12 25 23.6**	**-0.6**
	comp=Z,173nm,1.8s,mb5.3						
MIAR				LR	LR		
	comp=Z,7µm,19.0s,MS5.2						
MIAR	**Mount Ida**	**25.32**	**94**	*e*P	**P**	**12 25 23.6**	**-0.6**
MIAR				pmax	pmax		
	comp=Z,173nm,1.8s,mb5.3						
MIAR				MLR	MLR		
	comp=Z,7µm,19.0s,MS5.2						
SML	**Sawmill**	**25.56**	**334**	*e*P	**P**	**12 25 26.0**	**-0.1**
KVTX	**Kingsville**	**25.65**	**112**	*e*P	**P**	**12 25 29.8**	**+2.5**
	comp=Z,65nm,0.8s,mb5.2						
KVTX				LR	LR		
	comp=Z,4µm,20.0s,MS5.0						
PMR	**Palmer**	**25.68**	**333**	*e*P	**P**	**12 25 29.3**	**+2.1**
	comp=Z,88nm,1.3s,mb5.1						
PMR				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
PMR	**Palmer**	**25.68**	**333**	*e*P	**P**	**12 25 29.3**	**+2.1**
PMR				pmax	pmax		
	comp=Z,88nm,1.3s,mb5.1						
PMR				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.5						
JFWS	**Jewell Farm**	**25.69**	**74**	*e*P	**P**	**12 25 28.6**	**+1.1**
JFWS				LR	LR		
	comp=Z,4µm,21.0s,MS5.0						
NATX	**Nacogdoches**	**25.71**	**101**	*e*P	**P**	**12 25 29.2**	**+1.4**
	comp=Z,43nm,0.9s,mb5.0						
NATX				LR	LR		
	comp=Z,9µm,19.0s,MS5.3						
HKT	**Hockley**	**25.76**	**105**	*e*P	**P**	**12 25 29.0**	**+0.8**
	comp=Z,375nm,1.7s,mb5.6						
HKT				LR	LR		
	comp=Z,3µm,20.0s,MS4.8						
HKT	**Hockley**	**25.76**	**105**	*e*P	**P**	**12 25 29.0**	**+0.8**
HKT				pmax	pmax		
	comp=Z,375nm,1.7s,mb5.6						
HKT				MLR	MLR		
	comp=Z,3µm,20.0s,MS4.8						
EGAK	**Eagle**	**25.97**	**344**	*e*P	**P**	**12 25 30.3**	**+0.5**
EGAK				LR	LR		
	comp=Z,1µm,21.0s,MS4.4						
COWI	**Conover**	**26.27**	**66**	PFAKE		12 25 40.0	+7.3
COWI				LR	LR		
	comp=Z,3µm,19.0s,MS4.8						
FCC	**Fort Churchill**	**26.48**	**37**	*e*P	**P**	**12 25 34.1**	**-0.4**
SLM	**Saint Louis**	**26.52**	**83**	*e*P	**P**	**12 25 35.2**	**+0.2**
	comp=Z,75nm,1.2s,mb5.1						
SLM	**Saint Louis**	**26.52**	**83**	*e*P	**P**	**12 25 35.3**	**+0.3**
SLM				pmax	pmax		
	comp=Z,75nm,1.2s,mb5.1						
FVM	**French Village**	**26.55**	**85**	*e*P	**P**	**12 25 35.3**	**-0.1**
HDIL	**Hopedale**	**26.77**	**79**	*e*P	**P**	**12 25 36.7**	**-0.6**
	comp=Z,197nm,1.8s,mb5.3						
HDIL				LR	LR		
	comp=Z,5µm,22.0s,MS5.0						
SIUC	**Southern Illin**	**27.55**	**84**	*e*P	**P**	**12 25 44.5**	**+0.2**
COLA	**College**	**27.68**	**339**	PFAKE		12 26 00.0	+15
COLA				LR	LR		
	comp=Z,972nm,19.0s,MS4.4						
SVW2	**Sparrevohn**	**27.82**	**328**	*e*P	**P**	**12 25 47.2**	**+0.8**
INK	**Inuvik**	**28.12**	**353**	*e*P	**P**	**12 25 49.2**	**+0.1**
	comp=Z,2µm,1.3s,mb6.7						
INK	**Inuvik**	**28.12**	**353**	P	**P**	**12 25 49.9**	**+0.8**
	comp=Z,13nm,1.2s,mb4.5,baz=168,slow=8.3,SNR=12						
INK				LR	LR	12 37 50.6	
	comp=Z,4µm,18.8s,MS5.0,baz=162,slow=38						
OXF	**Oxford**	**28.50**	**91**	*e*P	**P**	**12 25 53.4**	**+0.6**
	comp=Z,40nm,1.0s,mb5.1						
OXF				LR	LR		
	comp=Z,3µm,19.0s,MS5.0						
OXF	**Oxford**	**28.50**	**91**	*e*P	**P**	**12 25 53.4**	**+0.6**
OXF				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.1						
OXF				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.0						
USIN	**University of**	**28.65**	**83**	*e*P	**P**	**12 25 54.5**	**+0.4**
TTA	**Tatalina**	**29.02**	**331**	*e*P	**P**	**12 25 56.6**	**-0.5**
BLO	**Bloomington**	**29.17**	**80**	*e*P	**P**	**12 25 58.9**	**+0.1**
	comp=Z,39nm,0.7s,mb5.2						
BLO	**Bloomington**	**29.17**	**80**	*e*P	**P**	**12 25 58.9**	**+0.1**
BLO				pmax	pmax		
	comp=Z,39nm,0.7s,mb5.2						
PLAL	**Pickwick Lake**	**29.34**	**89**	*e*P	**P**	**12 25 59.3**	**-0.9**
	comp=Z,47nm,1.3s,mb5.1						
PLAL				LR	LR		
	comp=Z,5µm,20.0s,MS5.1						
WCI	**Wyandotte Cave**	**29.61**	**82**	*e*P	**P**	**12 26 02.7**	**+0.1**
	comp=Z,18nm,0.9s,mb4.8						
WCI				LR	LR		
	comp=Z,3µm,20.0s,MS4.9						
WCI	**Wyandotte Cave**	**29.61**	**82**	*e*P	**P**	**12 26 02.7**	**+0.1**
WCI				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.8						
WCI				MLR	MLR		
	comp=Z,3µm,20.0s,MS4.9						
IMA2	**Indian Mountai**	**30.23**	**337**	*e*P	**P**	**12 26 08.4**	**+0.6**
AAM	**Ann Arbor**	**30.59**	**73**	PFAKE		12 26 20.0	+8.8
AAM				LR	LR		
	comp=Z,3µm,22.0s,MS4.8						
UNV	**Unalaska Valle**	**30.81**	**310**	*e*P	**P**	**12 26 11.9**	**-1.2**
UNV				LR	LR		
	comp=Z,4µm,22.0s,MS5.0						
LRAL	**Lakeview Retre**	**30.93**	**92**	*e*P	**P**	**12 26 15.5**	**+1.1**
	comp=Z,40nm,1.3s,mb5.1						
LRAL				LR	LR		
	comp=Z,4µm,20.0s,MS5.0						
ACSO	**Alum Creek Sta**	**31.54**	**77**	*e*P	**P**	**12 26 19.9**	**+0.2**
	comp=Z,48nm,0.9s,mb5.3						
ACSO				LR	LR		
	comp=Z,3µm,20.0s,MS5.0						
BRAL	**Brewton**	**31.80**	**96**	PFAKE		12 26 30.0	+8.0
BRAL				LR	LR		
	comp=Z,5µm,20.0s,MS5.2						
CPCT	**Cooper Cave**	**31.86**	**86**	*e*P	**P**	**12 26 22.9**	**+0.4**
TZTN	**Tazewell**	**32.21**	**84**	*e*P	**P**	**12 26 26.0**	**+0.4**
TZTN				LR	LR		
	comp=Z,2µm,19.0s,MS4.8						
ALLY	**Alegheny Colle**	**33.28**	**73**	*e*P	**P**	**12 26 35.6**	**+0.7**
SADO	**Sadowa**	**33.39**	**68**	P	**P**	**12 26 35.9**	**0.0**
GOGA	**Godfrey**	**33.46**	**89**	*e*P	**P**	**12 26 37.0**	**+0.4**
GOGA				LR	LR		
	comp=Z,3µm,19.0s,MS5.0						
ELN	**Prospectdale**	**34.09**	**81**	*e*P	**P**	**12 26 42.4**	**+0.4**
BLA	**Blacksburg**	**34.35**	**81**	*e*P	**P**	**12 26 43.8**	**-0.4**
	comp=Z,28nm,0.8s,mb5.2						
BLA				LR	LR		
	comp=Z,5µm,19.0s,MS5.3						
BLA	**Blacksburg**	**34.35**	**81**	*e*P	**P**	**12 26 43.8**	**-0.4**
BLA				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.2						
BLA				MLR	MLR		
	comp=Z,5µm,19.0s,MS5.3						
CMIG	**Matias Romero**	**34.83**	**124**	P	**P**	**12 26 49.9**	**+1.4**
CMIG				LR	LR	12 42 23.8	
CMIG	**Matias Romero**	**34.83**	**124**	P	**P**	**12 26 49.9**	**+1.4**
	comp=Z,12nm,1.0s,mb4.8,baz=317,slow=8.5,SNR=18						
CMIG				LR	LR	12 42 23.8	
	comp=Z,2µm,18.9s,MS5.0,baz=296,slow=39						
TNA	**Tin City**	**34.84**	**330**	*e*P	**P**	**12 26 49.6**	**+1.5**
TNA				LR	LR		
	comp=Z,637nm,20.0s,MS4.4						
SSPA	**Standing Stone**	**35.19**	**74**	*e*P	**P**	**12 26 51.4**	**-0.1**
	comp=Z,169nm,1.8s,mb5.7						
SSPA				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
GAMB	**Gambell**	**35.72**	**326**	*e*P	**P**	**12 26 57.7**	**+2.0**
NHSC	**New Hope**	**36.09**	**88**	PFAKE		12 27 10.0	+11
NHSC				LR	LR		
	comp=Z,3µm,20.0s,MS5.0						
CBN	**Corbin**	**36.30**	**78**	PFAKE		12 27 10.0	+9.0
CBN				LR	LR		
	comp=Z,4µm,20.0s,MS5.2						
URVA	**University of**	**36.39**	**79**	*e*P	**P**	**12 27 02.0**	**+0.2**
LONY	**Lake Ozonia**	**36.62**	**67**	*e*P	**P**	**12 27 04.1**	**+0.5**
LONY				LR	LR		
	comp=Z,3µm,21.0s,MS5.0						
CNNC	**Cliffs of the**	**36.97**	**83**	*e*P	**P**	**12 27 07.0**	**+0.3**
	comp=Z,28nm,0.5s,mb5.3						
CNNC				LR	LR		
	comp=Z,3µm,20.0s,MS5.1						
NCB	**Newcomb**	**37.01**	**68**	*e*P	**P**	**12 27 08.5**	**+1.6**
	comp=Z,105nm,1.6s,mb5.4						
NCB				LR	LR		
	comp=Z,3µm,22.0s,MS5.0						
TEIG	**Tepich**	**37.07**	**112**	*e*P	**P**	**12 27 08.7**	**+1.0**
TEIG				LR	LR		
	comp=Z,2µm,21.0s,MS4.8						
TEIG	**Tepich**	**37.07**	**112**	P	**P**	**12 27 08.1**	**+0.4**
	comp=Z,22nm,0.9s,mb5.0,baz=294,slow=9.4,SNR=14						
FRNY	**Flat Rock**	**37.27**	**66**	*e*P	**P**	**12 27 09.7**	**+0.6**
DWPF	**Disney**	**37.48**	**96**	PFAKE		12 27 20.0	+8.8
DWPF				LR	LR		
	comp=Z,4µm,22.0s,MS5.2						
ACCN	**Adirondack Com**	**37.53**	**69**	*e*P	**P**	**12 27 12.1**	**+0.6**
HNH	**Hanover**	**38.43**	**68**	*e*P	**P**	**12 27 20.5**	**+1.5**
LBNH	**Lisbon**	**38.56**	**67**	*e*P	**P**	**12 27 21.6**	**+1.5**
	comp=Z,97nm,1.2s,mb5.4						
LBNH				LR	LR		
	comp=Z,3µm,21.0s,MS5.1						
LBNH	**Lisbon**	**38.56**	**67**	*e*P	**P**	**12 27 21.6**	**+1.5**
LBNH				pmax	pmax		
	comp=Z,97nm,1.2s,mb5.4						
LBNH				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.1						
HRV	**Harvard--Oak R**	**39.26**	**69**	PFAKE		12 27 40.0	+14
HRV				LR	LR		
	comp=Z,2µm,21.0s,MS4.9						
SOR	**Soroa**	**39.26**	**104**	*e*P	**P**	**12 27 21.0**	**-5.2**
WES	**Weston**	**39.46**	**69**	PFAKE		12 27 40.0	+12
WES				LR	LR		
	comp=Z,1µm,22.0s,MS4.7						
PKME	**Peaks-Kenny Pk**	**40.14**	**64**	*e*P	**P**	**12 27 33.8**	**+0.6**
	comp=Z,56nm,1.7s,mb5.0						
SCHQ	**Schefferville**	**40.23**	**49**	P	**P**	**12 27 34.2**	**+0.3**
SCHQ				LR	LR	12 44 22.7	
SCHQ	**Schefferville**	**40.23**	**49**	P	**P**	**12 27 34.2**	**+0.3**
	comp=Z,19nm,0.9s,mb4.8,baz=288,slow=9.6,SNR=6.8						
SCHQ				LR	LR	12 44 22.7	
	comp=Z,2µm,19.6s,MS5.0,baz=277,slow=37						
TGUH	**Tegucigalpa,Un**	**42.02**	**118**	*e*P	**P**	**12 27 51.4**	**+2.4**
	comp=Z,81nm,1.3s,mb5.2						
TGUH				LR	LR		
	comp=Z,3µm,20.0s,MS5.2						
CCCC	**Cccc**	**44.10**	**102**	*e*P	**P**	**12 28 09.4**	**+3.5**
BILL	**Bilibino**	**45.27**	**330**	*e*P	**P**	**12 28 14.2**	**-0.4**
	comp=Z,22nm,1.2s,mb4.9						
BILL				LR	LR		
	comp=Z,830nm,19.0s,MS4.7						
BILL	**Bilibino**	**45.27**	**330**	*e*P	**P**	**12 28 13.8**	**-0.8**
BILL				*e*		12 30 03.3	
BILL				*e*S	**S**	**12 34 53.3**	**-0.5**
BILL				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.5						
BILL				MLR	MLR		
	comp=Z,900nm,20.0s,MS4.7						
JTS	**JuntasAbangare**	**46.30**	**119**	PFAKE		12 28 30.0	+6.6
JTS				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
JTS	**JuntasAbangare**	**46.30**	**119**	*i* P	**P**	**12 28 23.3**	**-0.1**
JTS	**JuntasAbangare**	**46.30**	**119**	P	**P**	**12 28 24.2**	**+0.8**
	comp=Z,8.4nm,0.5s,mb4.9,baz=307,slow=8.0,SNR=7.7						
BBSR	**BB Station**	**48.12**	**80**	PFAKE		12 28 50.0	+13
BBSR				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
SDDR	**Presa de Saban**	**50.29**	**99**	PFAKE		12 29 10.0	+16
SDDR				LR	LR		
	comp=Z,3µm,20.0s,MS5.2						
TAOE	**Nuku Hiva Isla**	**51.28**	**200**	*e*S	**S**	**12 36 15.7**	**-4.0**
	comp=Z,3µm,24.8s						
TAOE				*e*LR	LR	12 43 32.5	
	comp=Z,6µm,28.5s,baz=25						
MA2	**Magadan**	**53.45**	**321**	*e*P	**P**	**12 29 17.9**	**+0.7**
	comp=Z,9.3nm,1.0s,mb4.7						
MA2				LR	LR		
	comp=Z,461nm,19.0s,MS4.5						
MA2	**Magadan**	**53.45**	**321**	*e*P	**P**	**12 29 17.7**	**+0.5**
MA2				*e*S	**S**	**12 36 49.0**	**+0.5**
MA2				pmax	pmax		
	comp=Z,20nm,1.5s,mb4.8						
MA2				MLR	MLR		
	comp=N,500nm,18.5s						
DAG	**Danmarks Havn**	**54.33**	**16**	*e*P	**P**	**12 29 23.0**	**-0.4**
DAG				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.4						
DAG	**Danmarks Havn**	**54.33**	**16**	*i* P	**P**	**12 29 23.0**	**-0.4**
DAG							
	comp=Z,3µm,21.0s						
SJG	**San Juan**	**54.69**	**96**	P	**P**	**12 29 27.7**	**+0.9**
SJG				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
SJG	**San Juan**	**54.69**	**96**	P	**P**	**12 29 27.7**	**+0.9**
	comp=Z,15nm,0.3s,mb5.5,baz=322,slow=17,SNR=6.0						
MTP	**Monte Pirata**	**55.15**	**96**	*e*P	**P**	**12 29 30.5**	**+0.4**
TIXI	**Tiksi**	**56.81**	**339**	*e*P	**P**	**12 29 40.6**	**-0.7**
	comp=Z,25nm,1.4s,mb5.1						
TIXI				LR	LR		
	comp=Z,625nm,20.0s,MS4.7						
TIXI	**Tiksi**	**56.81**	**339**	*e*P	**P**	**12 29 41.1**	**-0.2**
TIXI				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.9						
TIXI				MLR	MLR		
	comp=Z,569nm,16.0s,MS4.8						
SDV	**Santo Domingo**	**57.26**	**108**	*e*P	**P**	**12 29 45.9**	**+0.7**
	comp=Z,82nm,1.8s,mb5.5						
SDV				LR	LR		
	comp=Z,428nm,19.0s,MS4.6						
SDV	**Santo Domingo**	**57.26**	**108**	P	**P**	**12 29 45.9**	**+0.6**
	comp=Z,6.3nm,0.8s,mb4.7,baz=11,slow=8.3,SNR=8.6						
ROSC	**El Rosal**	**57.44**	**114**	P	**P**	**12 29 48.7**	**+2.2**
	comp=Z,13nm,0.4s,mb5.3,baz=103,slow=17,SNR=4.7						
ROSC				LR	LR	12 59 32.6	
	comp=Z,564nm,18.1s,MS4.7,baz=19,slow=41						
KBS	**Kingsbay**	**58.01**	**9**	PFAKE		12 30 00.0	+10
KBS				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
OTAV	**Otavalo**	**58.08**	**122**	*e*P	**P**	**12 29 52.3**	**+1.3**
	comp=Z,34nm,1.4s,mb5.2						
OTAV				LR	LR		
	comp=Z,676nm,22.0s,MS4.7						
YAK	**Yakutsk**	**61.59**	**329**	*e*P	**P**	**12 30 18.3**	**+3.8**
YAK				*e**PP	pP	12 30 25.8	+5.7
YAK				*e*		12 30 58.1	
YAK				*e*S	**S**	**12 38 34.4**	**-0.9**
YAK				*e*		12 40 02.6	
YAK				pmax	pmax		
	comp=N,9.0nm,1.4s						
YAK				pmax	pmax		
	comp=Z,36nm,1.4s,mb5.3						
YAK				pmax	pmax		
	comp=E,24nm,1.7s						
YAK				smax			
	comp=E,212nm,12.2s						
YAK				smax			
	comp=N,187nm,13.4s						
PPT	**Papeete**	**62.37**	**207**	*e*S	**S**	**12 38 42.7**	**-3.3**
	comp=N,942nm,25.8s						
PPT				*e*SS	SS	12 42 41.0	-9.2
	comp=N,222nm,27.8s						
PPT				*e*LQ		12 45 58.4	
	comp=N,1µm,29.5s						
PPT				*e*LR	LR	12 48 37.6	
	comp=N,2µm,28.8s,baz=19						
PPT	**Papeete**	**62.37**	**207**	LR	LR	12 50 06.0	
	comp=N,618nm,18.7s,MS4.8,baz=18,slow=29						
BBGH	**Gun Hill**	**62.73**	**96**	PFAKE		12 30 30.0	+7.2
BBGH				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
YSS	**Yuzh-Sakhalins**	**63.28**	**310**	*e*P	**P**	**12 30 30.0**	**+4.0**
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
RKT	**Rikitea**	**64.16**	**191**	*e*S	**S**	**12 39 05.0**	**-3.2**
	comp=Z,1µm,29.0s						
RKT				*e*SS	SS	12 43 15.8	-2.3
	comp=Z,201nm,29.8s						
RKT				*e*LQ		12 46 43.5	
	comp=Z,368nm,26.8s						
RKT				*e*LR	LR	12 49 48.3	
	comp=Z,2µm,26.8s,baz=6.9						
ASAJ	**Asahikawa**	**64.89**	**307**	P	**P**	**12 30 41.4**	**+4.7**
	comp=Z,11nm,0.9s,mb4.9,baz=108,slow=7.0,SNR=6.0						
HABR	**Khabarovsk**	**66.78**	**315**	*e*P	**P**	**12 30 49.0**	**+0.3**
HABR				*e*		12 33 13.8	
HABR				*e*S	S	12 39 43.3	+3.4
HABR				pmax	pmax		
	comp=Z,38nm,1.7s,mb5.2						
ARCES	**ARCESS Array B**	**67.96**	**11**	P	**P**	**12 30 57.5**	**+1.7**
	comp=Z,2.8nm,0.9s,mb4.3,baz=336,slow=11,SNR=3.7						
ARCES				LR	LR	13 02 10.7	
	comp=Z,1µm,18.1s,MS5.1,baz=339,slow=37						
KEV	**Kevo**	**67.97**	**10**	PFAKE		12 31 10.0	+14
KEV				LR	LR		
	comp=Z,935nm,20.0s,MS5.0						
KLR	**Kul'dur**	**68.09**	**317**	*e*P	**P**	**12 31 00.0**	**+3.0**
NNA	**Nana**	**68.56**	**129**	PFAKE		12 31 10.0	+10
NNA				LR	LR		
	comp=Z,426nm,22.0s,MS4.6						
BOD	**Bodaibo**	**70.33**	**331**	*e*P	**P**	**12 31 07.6**	**-3.1**
BOD				pmax	pmax		
	comp=Z,12nm,1.7s,mb4.5						
LVZ	**Lovozero**	**70.66**	**8**	PFAKE		12 31 20.0	+7.5
LVZ				LR	LR		
	comp=Z,888nm,19.0s,MS5.0						
MJAR	**Matsushiro Arr**	**72.00**	**303**	P	**P**	**12 31 24.6**	**+3.4**
	comp=Z,4.4nm,1.0s,mb4.4,baz=38,slow=6.1,SNR=9.7						
MJAR				LR	LR	12 57 08.5	
	comp=Z,345nm,20.8s,MS4.6,baz=55,slow=31						
MAT	**Matsushiro**	**72.00**	**303**	P	**P**	**12 31 25.2**	**+4.0**
MDJ	**Mudanjiang**	**72.11**	**314**	P	**P**	**12 31 19.3**	**-2.5**
MDJ				S	S	12 40 48.3	+5.3
MDJ				SS	SS	12 45 18.8	-0.6
MDJ				AMB	AMB		
	comp=Z,7.0nm,2.2s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,188nm,7.9s						
MDJ				LR	LR		
	comp=N,320nm,36.2s						
MDJ				LR	LR		
	comp=Z,424nm,37.0s,MS4.4						
MDJ	**Mudanjiang**	**72.11**	**314**	PFAKE		12 31 30.0	+8.2
MDJ				LR	LR		
	comp=Z,374nm,19.0s,MS4.7						
ESK	**Eskdalemuir**	**72.23**	**31**	PFAKE		12 31 30.0	+7.8
ESK				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
NOA	**NORSAR Array B**	**72.49**	**21**	P	**P**	**12 31 23.6**	**-0.1**
	comp=Z,4.1nm,0.9s,mb4.4,baz=326,slow=6.0,SNR=8.2						
NOA				LR	LR	13 02 54.6	
	comp=Z,775nm,20.4s,MS5.0,baz=325,slow=36						
KONO	**Kongsberg**	**73.19**	**22**	PFAKE		12 31 40.0	+12
KONO				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
HIA	**Hailar**	**74.02**	**322**	PFAKE		12 31 40.0	+7.1
HIA				LR	LR		
	comp=Z,501nm,20.0s,MS4.8						
CIT	**Chita**	**74.76**	**327**	*e*P	**P**	**12 31 41.4**	**+4.2**
CN2	**Changchun**	**74.90**	**315**	*e*P	**P**	**12 31 41.5**	**+3.3**
CN2				*e*S	S	12 41 18.5	+4.0
CN2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.6						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,200nm,19.0s,MS4.7						
CN2				LR	LR		
	comp=E,300nm,19.0s,MS4.7						
CN2				LR	LR		
	comp=Z,600nm,21.0s,MS4.9						
KAF	**Kangasniemi**	**74.94**	**14**	*e*p	**P**	**12 31 35.7**	**-2.4**
	comp=Z,0.8nm,0.3s,mb4.1						
KAF	**Kangasniemi**	**74.94**	**14**	*e*P	**P**	**12 31 35.7**	**-2.4**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
JOF	**Joensuu**	**75.00**	**11**	*e*p	**P**	**12 31 36.4**	**-2.0**
	comp=Z,1.7nm,0.6s,mb4.2						
FINES	**FINESS Array B**	**75.52**	**14**	P	**P**	**12 31 40.8**	**-0.6**
	comp=Z,1.5nm,0.7s,mb4.0,baz=343,slow=4.0,SNR=6.2						
FINES				LR	LR	13 04 48.5	
	comp=Z,637nm,20.4s,MS4.9,baz=351,slow=36						
LPAZ	**La Paz**	**77.19**	**125**	P	**P**	**12 31 51.9**	**+0.4**
LPAZ	**La Paz**	**77.19**	**125**	P	**P**	**12 31 51.8**	**+0.3**
	comp=Z,4.5nm,0.8s,mb4.4,baz=357,slow=9.8,SNR=8.3						
LPAZ				LR	LR	13 06 49.5	
	comp=Z,460nm,19.9s,MS4.8,baz=132,slow=36						
SNY	**Shenyang**	**77.25**	**315**	⇑P	**P**	**12 31 56.5**	**+4.9**
SNY				AMB	AMB		
	comp=Z,17nm,1.7s,mb4.7						
SNY				AMB	AMB		
	comp=Z,205nm,7.8s						
SNY				LR	LR		
	comp=N,378nm,16.9s,MS5.0						
SNY				LR	LR		
	comp=E,399nm,16.5s,MS5.0						
SNY				LR	LR		
	comp=Z,436nm,29.4s						
KSRS	**Korea Array**	**77.75**	**309**	P	**P**	**12 31 56.5**	**+2.0**
	comp=Z,4.5nm,1.0s,mb4.3,baz=49,slow=6.1,SNR=13						
KSRS				LR	LR	13 03 41.6	
	comp=Z,149nm,20.4s,MS4.3,baz=48,slow=34						
IRK	**Irkutsk**	**78.19**	**332**	*e*P	**P**	**12 32 01.3**	**+4.7**
IRK				pmax	pmax		
	comp=Z,40nm,1.6s,mb5.1						
INCN	**Inchon**	**78.49**	**310**	PFAKE		12 32 10.0	+11
INCN				LR	LR		
	comp=Z,287nm,21.0s,MS4.6						
TLY	**Talaya**	**78.87**	**332**	*e*P	**P**	**12 32 00.3**	**-0.1**

	comp=Z,29nm,1.5s,mb5.0						
TLY				LR	LR		
	comp=Z,645nm,22.0s,MS4.9						
TLY	**Talaya**	78.87	332	*e*P	P	12 32 00.0	-0.4
TLY				*e*		12 34 58.4	
TLY				*e*S	S	12 42 02.1	+4.5
TLY				pmax	pmax		
	comp=Z,30nm,1.9s,mb4.9						
TLY				MLR	MLR		
	comp=Z,549nm,21.0s,MS4.9						
BAIF	**Baives**	79.16	31	*e*P	P	12 32 04.7	+2.7
GIVF	**Givet**	79.36	30	*e*P	P	12 32 06.0	+2.9
MOY	**Mondy**	79.82	333	*e*P	P	12 32 11.1	+5.5
MOY				pmax	pmax		
	comp=Z,34nm,2.8s,mb4.8						
ZAK	**Zakamensk**	80.07	331	*e*P	P	12 32 06.6	-0.3
ZAK				pmax	pmax		
	comp=Z,4.0nm,1.6s,mb4.1						
ULN	**Ulaanbaatar**	80.64	328	PFAKE		12 32 20.0	+10
ULN				LR	LR		
	comp=Z,705nm,22.0s,MS5.0						
ULN	**Ulaanbaatar**	80.64	328	*i* P	P	12 32 10.0	-0.1
SONM	**Songino Array**	80.93	328	P	P	12 32 11.9	+0.2
	comp=Z,3.9nm,0.7s,mb4.4,baz=37,slow=3.6,SNR=16						
SONM				LR	LR	13 07 43.8	
	comp=Z,550nm,20.9s,MS4.9,baz=30,slow=35						
LOR	**Lormes**	81.25	33	*e*P	P	12 32 17.2	+3.9
	comp=Z,59nm,1.3s,mb5.0						
LOR				*e*MLR	MLR		
	comp=Z,1µm,18.2s,MS5.0						
LOR	**Lormes**	81.25	33	*e*P	P	12 32 17.2	+3.9
	comp=Z,30nm,1.3s,mb5.1						
LOR				LR	LR		
	comp=Z,1µm,18.3s,MS5.3						
LOR	**Lormes**	81.25	33	*e*P	P	12 32 17.2	+3.9
LOR				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.1						
LOR				MLR	MLR		
	comp=Z,1µm,18.3s,MS5.3						
CLL	**Collm**	81.26	25	*e*P	P	12 32 13.0	-0.3
CLL				*i*		12 32 21.7	
CLL				*i*		12 32 26.5	
CLL				*e*S	S	12 42 24.0	+1.3
CLL				LR	LR		
	comp=Z,900nm,20.0s,MS5.1						
CLL	**Collm**	81.26	25	*e*P	P	12 32 13.0	-0.3
CLL				*i*		12 32 21.7	
CLL				*e*S	S	12 42 24.0	+1.3
CLL				MLR	MLR		
	comp=Z,900nm,20.0s,MS5.1						
CLL	**Collm**	81.26	25	*e*P	P	12 32 13.0	-0.3
CLL				*i* (sP)	sP	12 32 21.7	+0.6
	comp=Z,21nm,1.3s						
CLL				*i* x	x	12 32 26.5	
CLL				*e*S	S	12 42 24.0	+1.3
CLL				*e*x	x	12 44 29.0	
CLL				*e*SS	SS	12 48 24.0	+47
CLL				*e*SSS		12 51 48.0	
CLL				*e*x	x	12 57 03.0	
CLL				Lm		13 08 00.0	
	comp=N,500nm,18.7s						
CLL				Lm		13 08 00.0	
	comp=E,700nm,19.6s						
CLL				Lm		13 08 00.0	
	comp=Z,900nm,20.0s						
SSF	**Saint Saulge**	81.27	33	*e*P	P	12 32 15.9	+2.5
	comp=Z,18nm,1.0s,mb4.7						
SSF	**Saint Saulge**	81.27	33	*e*P	P	12 32 15.9	+2.5
	comp=Z,9.0nm,1.0s,mb4.7						
SSF	**Saint Saulge**	81.27	33	*e*P	P	12 32 15.9	+2.5
SSF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
TCF	**Toulx Ste Croi**	81.33	34	*e*P	P	12 32 16.2	+2.4
MOX	**Moxa**	81.37	26	*e*P	P	12 32 14.2	+0.3
MOX							
	comp=Z,700nm,19.0s						
AVF	**Avril sur Loir**	81.42	33	*e*P	P	12 32 16.6	+2.4
	comp=Z,34nm,1.2s,mb4.8						
AVF	**Avril sur Loir**	81.42	33	*e*P	P	12 32 16.6	+2.4
	comp=Z,17nm,1.2s,mb4.8						
AVF	**Avril sur Loir**	81.42	33	*e*P	P	12 32 16.6	+2.4
AVF				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
HAU	**Haudompre**	81.64	31	*e*P	P	12 32 19.3	+3.9
HAU				*e*MLR	MLR		
	comp=Z,1µm,19.0s,MS4.9						
HAU	**Haudompre**	81.64	31	*e*P	P	12 32 19.3	+3.9
HAU				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.2						
CDF	**Champ du Feu**	81.67	30	*e*P	P	12 32 18.4	+2.9
NVS	**Novosibirsk**	81.92	344	*e*P	P	12 32 15.6	-1.1
NVS				*e*S	S	12 42 28.7	-0.7
NVS				*e*PS		12 43 43.2	
NVS				pmax	pmax		
	comp=N,44nm,1.8s						
NVS				pmax	pmax		
	comp=Z,93nm,1.8s,mb5.4						
NVS				pmax	pmax		
	comp=E,40nm,1.6s						
NVS				pmax	pmax		
	comp=Z,13nm,2.0s,mb4.5						
NVS				pmax	pmax		
	comp=N,6.0nm,1.7s						
NVS				pmax	pmax		
	comp=E,8.0nm,1.7s						
NVS				smax			
	comp=N,62nm,2.9s						
NVS				smax			
	comp=E,39nm,2.9s						
BRG	**Berggiesshubel**	81.94	25	*e*P	P	12 32 17.8	+0.9
	comp=E,4.3nm,1.0s,mb4.3						
BRG				*e*		12 32 25.8	
BRG				LR	LR		
	comp=Z,810nm,16.4s,MS5.2						
BRG	**Berggiesshubel**	81.94	25	*e*P	P	12 32 17.8	+0.9
BRG				*e*		12 32 25.8	
BRG				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
BRG				MLR	MLR		
	comp=Z,810nm,16.4s,MS5.2						
BRG	**Berggiesshubel**	81.94	25	*e*P	P	12 32 17.8	+0.9
	comp=Z,7.2nm,1.0s,mb4.5						
BRG				*e*		12 32 25.8	
	comp=Z,23nm,1.3s						
BRG							
	comp=N,949nm,15.0s						
BRG							
	comp=E,302nm,11.0s						
BRG							
	comp=Z,1µm,16.4s						
NKC	**Novy Kostel**	82.00	26	*e*P	P	12 32 22.8	+5.6
NKC				AMS	AMS	13 11 40.0	
	comp=Z,900nm,18.9s						
GRA1	**Grafenberg Arr**	82.04	27	*e*P	P	12 32 18.0	+0.5
	comp=Z,13nm,0.8s,mb4.9						
GRA1				*e*pP	pP	12 32 25.3	+2.1
GRA1				LR	LR		
	comp=Z,900nm,19.8s,MS5.1						
GRF	**Grafenberg Arr**	82.04	27	*e*P	P	12 32 18.0	+0.5
GRF				*e**PP	pP	12 32 25.3	+2.1
GRF				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
GRF				MLR	MLR		
	comp=Z,900nm,19.8s,MS5.1						
GRF	**Grafenberg Arr**	82.04	27	*e*P	P	12 32 18.0	+0.5
GRF				*e**PP	pP	12 32 25.3	+2.1
GRF				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
GRF				MLR	MLR		
	comp=Z,900nm,19.8s,MS5.1						
GRF	**Grafenberg Arr**	82.04	27	*e*P	P	12 32 18.0	+0.5
	comp=Z,13nm,0.8s,mb4.9						
GRF				*e*pP	pP	12 32 25.3	+2.1
GRF				*e*L		13 09 13.9	
	comp=Z,885nm,19.8s						
GRFO	**Grafenberg**	82.04	27	PFAKE		12 32 30.0	+13
GRFO				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
BFO	**Black Forest**	82.14	30	PFAKE		12 32 30.0	+12
BFO				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
MNK	**Minsk**	82.34	16	*e*P	P	12 32 18.0	-0.9
ZALV	**Zalesovo Beam**	82.41	343	P	P	12 32 20.2	+0.9
	comp=Z,1.1nm,0.3s,mb4.3,baz=350,slow=4.4,SNR=3.0						
ZALV				LR	LR	13 12 52.2	
	comp=Z,336nm,19.2s,MS4.7,baz=24,slow=39						
ZAL	**Zalesovo**	82.42	343	P	P	12 32 20.2	+0.8
PVCC	**Panska Ves**	82.44	25	*e*P	P	12 32 28.7	+9.2
PVCC				AMS	AMS	13 12 00.0	
	comp=Z,1µm,14.4s						
BJI	**Beijing**	82.44	317	P	P	12 32 16.8	-2.9
BJI				S	S	12 42 33.3	-2.0
BJI				AMB	AMB		
	comp=Z,149nm,5.1s						
BJI				LR	LR		
	comp=N,383nm,29.6s,MS4.7						
BJI				LR	LR		
	comp=E,324nm,26.0s,MS4.7						
BJI				LR	LR		
	comp=Z,390nm,38.2s						
BJT	**Baijiatuau**	82.46	317	PFAKE		12 32 30.0	+10
BJT				LR	LR		
	comp=Z,381nm,21.0s,MS4.7						
KSP	**Ksiaz**	82.70	24	*e*P	P	12 32 21.8	+0.9
KSP				LR	LR		
	comp=Z,2µm,20.3s,MS5.5						
PRU	**Pruhonice**	82.90	25	*e*P	P	12 32 22.6	+0.7
PRU				*e*x	x	12 32 31.4	
PRU				AMS	AMS	13 12 20.0	
	comp=Z,1µm,15.2s						
UPC	**Upice**	82.91	24	*e*P	P	12 32 21.8	-0.2
UPC				*e*x	x	12 32 30.8	
DPC	**Dobruska-Polom**	83.14	24	*e*P	P	12 32 24.2	+1.0
DPC				*e*		12 32 31.7	
DPC				MLR	MLR		
	comp=Z,900nm,19.4s,MS5.2						
DPC	**Dobruska-Polom**	83.14	24	*e*P	P	12 32 24.2	+1.0
DPC				*e*x	x	12 32 31.7	
DPC				*e*S	S	12 42 53.4	+11
DPC				AMS	AMS	13 08 30.0	
	comp=Z,900nm,19.4s						
ARU	**Arti**	83.25	358	*e*P	P	12 32 22.4	-1.2
	comp=Z,16nm,1.1s,mb5.0						
ARU				LR	LR		
	comp=Z,469nm,19.0s,MS4.9						
ARU	**Arti**	83.25	358	*i* P	P	12 32 22.6	-1.0
ARU				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.7						
ARU				MLR	MLR		
	comp=Z,400nm,18.0s,MS4.8						
OBN	**Obninsk**	83.27	11	PFAKE		12 32 30.0	+6.2
OBN				LR	LR		
	comp=Z,727nm,19.0s,MS5.1						
OBN	**Obninsk**	83.27	11⇓	*e*P	P	12 32 20.2	-3.6
OBN				*i* S	S	12 42 34.6	-8.6
OBN				*e*SS	SS	12 48 11.0	+4.6
OBN				pmax	pmax		
	comp=Z,26nm,1.8s,mb5.0						
KHC	**Kasperske Hory**	83.32	26	*e*P	P	12 32 25.5	+1.4
KHC				*e*x	x	12 32 32.7	
KHC				*e*x	x	12 42 50.4	
KHC				AMS	AMS	13 10 00.0	
	comp=Z,700nm,18.3s						
PAB	**San Pablo**	83.44	42	PFAKE		12 32 40.0	+15
PAB				LR	LR		
	comp=Z,635nm,20.0s,MS5.0						
ESDC	**Sonseca Array**	83.54	42	P	P	12 32 25.6	+0.1
	comp=Z,3.1nm,0.8s,mb4.5,baz=328,slow=5.3,SNR=4.1						
ESDC				LR	LR	13 08 07.6	
	comp=Z,509nm,18.5s,MS4.9,baz=300,slow=35						
GERES	**GERESS Array B**	83.61	26	P	P	12 32 26.0	+0.3
	comp=Z,0.2nm,0.3s,mb3.7,baz=278,slow=40,SNR=3.9						
GERES				LR	LR	13 10 40.6	
	comp=Z,376nm,20.2s,MS4.8,baz=308,slow=36						
LASF	**Ste Croix**	83.80	35	*e*P	P	12 32 29.4	+2.7
	comp=Z,67nm,1.4s,mb5.3						
TREC	**Trest**	83.81	25	AMS	AMS	13 12 50.0	
	comp=Z,1µm,18.0s						
FETA	**Feichten**	84.12	29⇑	*i*PcP	PcP	12 32 38.5	+6.3
	comp=Z,22nm,2.1s						
HHC	**Hu-ho-hao-te**	84.13	321	*e*P	P	12 32 33.8	+5.4
HHC				SKS		12 42 54.3	
HHC				SS	SS	12 48 28.0	+8.0
HHC				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.2						
HHC				LR	LR		
	comp=N,142nm,26.4s,MS4.8						
HHC				LR	LR		
	comp=E,488nm,26.4s,MS4.8						
HHC				LR	LR		
	comp=Z,254nm,30.0s,MS4.4						
OKC	**Ostrava-Krasne**	84.15	23	*e*P	P	12 32 27.7	-0.7
OKC				*e*		12 32 37.2	
OKC	**Ostrava-Krasne**	84.15	23	*e*P	P	12 32 27.7	-0.7
OKC				*e*x	x	12 32 37.2	
OKC				AMS	AMS	13 11 00.0	
	comp=Z,1µm,17.1s						
MBDF	**Montbardon**	84.49	32	*e*P	P	12 32 31.9	+1.7
	comp=Z,36nm,1.0s,mb5.2						
MBDF	**Montbardon**	84.49	32	*e*P	P	12 32 31.9	+1.7
	comp=Z,18nm,1.0s,mb5.2						
MBDF	**Montbardon**	84.49	32	*e*P	P	12 32 31.9	+1.7
MBDF				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.2						
JOW	**Kunigami**	84.70	301	LR	LR	13 04 19.3	
	comp=Z,246nm,20.9s,MS4.6,baz=119,slow=31						
ABTA	**Abfaltersbach**	85.00	28⇑	*i*PcP	PcP	12 32 38.8	+2.8
	comp=Z,18nm,1.3s						
KBA	**Koelnbreinsper**	85.01	27⇑	*i*P	P	12 32 35.6	+2.8
	comp=Z,23nm,1.2s,mb5.2						
KBA	**Koelnbreinsper**	85.01	27⇑	*i*P	P	12 32 35.6	+2.8
	comp=Z,23nm,1.3s,mb5.2						
KBA	**Koelnbreinsper**	85.01	27⇑	*i*PcP	PcP	12 32 35.6	-0.4
	comp=Z,23nm,1.2s						
KBA	**Koelnbreinsper**	85.01	27⇑	*i*P	P	12 32 35.6	+2.8
KBA				pmax	pmax		
	comp=Z,23nm,1.3s,mb5.2						
CONA	**Conrad Observa**	85.12	25⇑	*i*PcP	PcP	12 32 34.6	-1.9
	comp=Z,26nm,1.4s						
HNR	**Honiara**	85.17	253	PFAKE		12 32 40.0	+6.0
HNR				LR	LR		
	comp=Z,338nm,19.0s,MS4.8						
ZST	**Bratislava**	85.28	25	*e*P	P	12 32 35.1	+1.0
	comp=Z,64nm,2.0s,mb5.4						
ZST				*e*		12 32 42.5	
ZST				LR	LR		
	comp=Z,700nm,18.2s,MS5.1						
ZST	**Bratislava**	85.28	25	*e*P	P	12 32 35.1	+1.0
ZST				*e*		12 32 42.5	
ZST				pmax	pmax		
	comp=Z,64nm,2.0s,mb5.4						
ZST				MLR	MLR		
	comp=Z,700nm,18.2s,MS5.1						
ZST	**Bratislava**	85.28	25	*e*P	P	12 32 35.1	+1.0
ZST				*e*		12 32 42.5	
STHS	**Stebnicka Huta**	85.42	22	*e*P	P	12 32 35.1	+0.3
	comp=Z,10.0nm,1.1s,mb4.9						
STHS				*e*		12 32 44.5	
STHS	**Stebnicka Huta**	85.42	22	*e*P	P	12 32 35.1	+0.3
STHS				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.9						
LMR	**La Mourre**	85.53	33	*e*P	P	12 32 37.7	+2.3
	comp=Z,60nm,1.2s,mb5.4						
LMR	**La Mourre**	85.53	33	*e*P	P	12 32 37.7	+2.3
	comp=Z,30nm,1.2s,mb5.4						
LMR	**La Mourre**	85.53	33	*e*P	P	12 32 37.7	+2.3
LMR				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.4						
VYHS	**Vyhne**	85.56	23	*e*P	P	12 32 36.1	+0.6
	comp=Z,17nm,1.7s,mb5.0						
VYHS				*e*	pP	12 32 43.0	+1.8
VYHS	**Vyhne**	85.56	23	*e*P	P	12 32 36.1	+0.6
VYHS				*e*	pP	12 32 43.0	+1.8
VYHS				pmax	pmax		
	comp=Z,17nm,1.7s,mb5.0						
VYHS	**Vyhne**	85.56	23	*e*P	P	12 32 36.0	+0.5
VYHS				*e*	pP	12 32 43.0	+1.8
SOP	**Sopron**	85.56	25	*e*sP	sP	12 32 44.6	+1.3
KWP	**Kalwaria**	85.63	21	*e*P	P	12 32 35.7	-0.1
	comp=Z,47nm,1.5s,mb5.5						
KWP	**Kalwaria**	85.63	21	*e*P	P	12 32 35.7	-0.1
KWP				pmax	pmax		
	comp=Z,47nm,1.5s,mb5.5						
BRVK	**Borovoye**	85.77	351	P	P	12 32 36.9	+0.5
	comp=Z,52nm,0.9s,mb5.8,SNR=5.1						
BRVK	**Borovoye**	85.77	351	*e*P	P	12 32 36.0	-0.4
	comp=Z,25nm,1.2s,mb5.3						
BRVK				LR	LR		
	comp=Z,563nm,21.0s,MS4.9						
BRVK	**Borovoye**	85.77	351	*e*P	P	12 32 36.0	-0.4
BRVK				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.3						
BRVK				MLR	MLR		
	comp=Z,563nm,21.0s,MS4.9						
KECS	**Kecovo**	86.05	22	*e*	P	12 32 47.4	+9.5
SSE	**Sheshan**	86.17	308	P	P	12 32 36.5	-2.3
SSE				S	S	12 43 09.3	-3.6
SSE				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.9						
SSE				AMB	AMB		
	comp=Z,84nm,3.7s						
SSE				LR	LR		
	comp=N,137nm,17.8s,MS4.5						
SSE				LR	LR		
	comp=E,101nm,17.8s,MS4.5						
SSE				LR	LR		
	comp=Z,125nm,14.7s,MS4.4						
AKASG	**Malin Array Be**	86.20	16	P	P	12 32 37.0	-1.6
	comp=Z,1.9nm,0.7s,mb4.5,baz=342,slow=4.3,SNR=4.5						
AKASG				LR	LR	13 10 35.0	
	comp=Z,528nm,21.2s,MS4.9,baz=315,slow=35						
PSZ	**Piszkesteto**	86.39	23	*e*P	P	12 32 41.4	+1.8
	comp=Z,60nm,1.6s,mb5.6						
PSZ	**Piszkesteto**	86.39	23	*e*P	P	12 32 41.4	+1.8
PSZ				pmax	pmax		
	comp=Z,60nm,1.6s,mb5.6						
PSZ	**Piszkesteto**	86.39	23⇑	*e*PcP	PcP	12 32 41.3	-0.8
UZH	**Uzhgorod**	86.43	21	*e*P	P	12 32 47.0	+7.2
UZH				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.3						
BUD	**Budapest**	86.51	24	*e*sP	sP	12 32 51.0	+2.9
KURK	**Kurchatov**	86.75	345	*e*P	P	12 32 40.5	-0.8
	comp=Z,22nm,1.0s,mb5.3						
KURK				LR	LR		
	comp=Z,546nm,22.0s,MS4.9						
KURK	**Kurchatov**	86.75	345	*e*P	P	12 32 40.5	-0.8
KURK				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.3						
KURK				MLR	MLR		
	comp=Z,546nm,22.0s,MS4.9						
NJ2	**Nanjing**	86.85	310	*e*P	P	12 32 40.0	-2.2
NJ2				AP	pP	12 32 44.8	-3.1
NJ2				XP	sP	12 32 47.0	-3.0
NJ2				PP	PP	12 36 05.0	+0.7
NJ2				SKS		12 43 05.0	
NJ2				S	S	12 43 17.0	-2.5
NJ2				XS	sS	12 43 25.0	-4.0
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,320nm,5.5s						
NJ2				LR	LR		
	comp=N,700nm,25.6s,MS5.1						
NJ2				LR	LR		
	comp=E,480nm,22.2s,MS5.1						
NJ2				LR	LR		
	comp=Z,470nm,28.0s						
ORR	**Orenburg**	88.11	0	*e*P	P	12 32 52.9	+5.1
MKAR	**Makanchi Array**	89.67	342	P	P	12 32 54.7	-0.6
	comp=Z,1.3nm,1.0s,mb4.2,baz=20,slow=3.9,SNR=7.5						
MKAR				LR	LR	13 20 21.4	
	comp=Z,455nm,18.4s,MS4.9,baz=12,slow=40						
WHN	**Wuhan**	90.54	312	*e*P	P	12 33 04.8	+5.1
GTA	**Gaotai**	90.57	327	*e*P	P	12 33 04.5	+4.9
GTA				AP	pP	12 33 08.0	+2.6
GTA				XP	sP	12 33 10.3	+2.8
GTA				PP	PP	12 36 39.5	+5.8
GTA				SKS		12 43 34.3	
GTA				S	S	12 43 54.5	+0.2
GTA				SS	SS	12 49 56.0	+2.1
GTA				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.7						
GTA				AMB	AMB		
	comp=Z,143nm,5.3s						
GTA				LR	LR		
	comp=N,334nm,25.1s,MS4.9						
GTA				LR	LR		
	comp=E,439nm,25.1s,MS4.9						
GTA				LR	LR		
	comp=Z,510nm,24.3s,MS4.9						
XAN	**Xi’an**	90.75	318	P	P	12 33 04.3	+3.7
XAN				AMB	AMB		
	comp=Z,13nm,1.4s,mb5.1						
WMQ	**Urumqi**	90.99	337	P	P	12 33 02.3	+0.8
WMQ				PP	PP	12 36 40.8	+4.0
WMQ				SKS		12 43 33.5	
WMQ				S	S	12 43 58.0	0.0
WMQ				AMB	AMB		
	comp=Z,14nm,1.2s,mb5.2						
WMQ				AMB	AMB		
	comp=Z,473nm,5.3s						
WMQ				LR	LR		
	comp=N,364nm,11.7s						
WMQ				LR	LR		
	comp=E,569nm,20.6s						
WMQ				LR	LR		
	comp=Z,518nm,6.7s						
RCBR	**Riachuelo**	92.84	95	PFAKE		12 33 20.0	+9.5
RCBR				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
KEST	**Kesra**	93.04	36	LR	LR	13 14 00.2	
	comp=Z,220nm,20.6s,MS4.6,baz=296,slow=35						
PMG	**Port Moresby**	94.65	262	PFAKE		12 33 30.0	+11
PMG				LR	LR		
	comp=Z,429nm,22.0s,MS4.9						
TKM2	**Tokmak 2**	94.81	345	PFAKE		12 33 30.0	+11
TKM2				LR	LR		
	comp=Z,542nm,21.0s,MS5.0						
KIV	**Kislovodsk**	95.01	9	PFAKE		12 33 30.0	+10
KIV				LR	LR		
	comp=Z,504nm,19.0s,MS5.0						
AAK	**Ala-Archa**	95.30	346	PFAKE		12 33 30.0	+8.6
AAK				LR	LR		
	comp=Z,427nm,19.0s,MS4.9						
EKS2	**Erkin-Say**	95.40	346	PFAKE		12 33 30.0	+8.2
EKS2				LR	LR		
	comp=Z,436nm,20.0s,MS4.9						
UCH	**Uchtor**	95.69	346	PFAKE		12 33 30.0	+6.9
UCH				LR	LR		
	comp=Z,593nm,20.0s,MS5.1						
AML	**Almayashu**	95.93	346	PFAKE		12 33 30.0	+5.7
AML				LR	LR		
	comp=Z,431nm,20.0s,MS4.9						
ANTO	**Ankara**	97.28	17	PFAKE		12 33 40.0	+10
ANTO				LR	LR		
	comp=Z,589nm,20.0s,MS5.1						
GYA	**Guiyang**	97.95	315	P	P	12 33 32.0	-1.7
GYA				PP	PP	12 37 32.5	+0.9
GYA				SKS		12 44 10.0	
GYA				S	S	12 44 55.3	-4.3
GYA				SS	SS	12 51 38.8	-1.0
GYA				AMB	AMB		
	comp=Z,180nm,7.2s						
GYA				LR	LR		
	comp=N,620nm,21.4s,MS5.3						
GYA				LR	LR		
	comp=E,870nm,22.2s,MS5.3						
GYA				LR	LR		
	comp=Z,610nm,21.8s,MS5.0						
DAV	**Davao City (W)**	100.11	288	PFAKE		12 33 50.0	+6.9
DAV				LR	LR		
	comp=Z,475nm,21.0s,MS5.0						
KMI	**Kunming**	101.10	317	P	Pdif	12 33 44.0	-3.5
KMI				AMB	AMB		
	comp=Z,5.0nm,1.0s						
QIZ	**Qiongzhong**	101.96	308	*e*P	Pdif	12 33 48.3	-3.1
QIZ				*e*S	Sdif	12 45 31.0	-1.9
QIZ				SS	SS	12 52 36.3	+0.1
QIZ				AMB	AMB		
	comp=Z,163nm,4.9s						
QIZ				LR	LR		
	comp=Z,239nm,38.7s,MS4.4						
QIZ	**Qiongzhong**	101.96	308	PFAKE		12 34 00.0	+8.6
QIZ				LR	LR		
	comp=Z,216nm,20.0s,MS4.7						
CTAO	**Charters Tower**	102.10	254	PFAKE		12 34 00.0	+8.0
CTAO				LR	LR		
	comp=Z,409nm,20.0s,MS5.0						
LSA	**Lhasa**	102.51	329	PFAKE		12 34 00.0	+6.2
LSA				LR	LR		
	comp=Z,569nm,21.0s,MS5.1						
CHTO	**Chiang Mai**	108.27	316	PFAKE		12 38 40.0	+14
CHTO				LR	LR		
	comp=Z,238nm,20.0s,MS4.8						
MBWA	**Marble Bar**	122.64	269	PFAKE		12 39 00.0	+6.7
MBWA				LR	LR		
	comp=Z,267nm,19.0s,MS4.9						

PALK	Pallekele	126.88	328	PFAKE		12 39 10.0	+8.2
PALK				LR	LR		
	comp=Z,260nm,20.0s,MS4.9						
QSPA	South Pole Qui	130.46	180	ePKPdf	PKPdf	12 39 07.2	+0.7
COCO	West Island	133.87	296	ePKPdf	PKPdf	12 39 14.9	0.0
KMBO	Kilima Mbogo	137.39	27	PFAKE		12 39 30.0	+8.4
KMBO				LR	LR		
	comp=Z,354nm,20.0s,MS5.1						
TSUM	Tsumeb	141.35	68	PFAKE		12 39 40.0	+11
TSUM				LR	LR		
	comp=Z,475nm,20.0s,MS5.2						
LSZ	Lusaka	145.44	51	ePKPdf	PKPdf	12 39 35.7	-0.1
LSZ				LR	LR		
	comp=Z,390nm,19.0s,MS5.2						
SYO	Syowa Base	150.37	169	⇑ePKPbc	PKPbc	12 39 46.2	-1.4
SYO	Syowa Base	150.37	169	⇑ePP	PP	12 43 20.0	-3.5
BOSA	Boshof	152.65	73	PKPbc	PKPbc	12 39 53.1	-1.0
	comp=Z,2.4nm,0.5s,baz=63,slow=21,SNR=7.5						
BOSA				PKPab	PKPab	12 40 03.3	-1.5
	comp=Z,2.8nm,0.6s,baz=331,slow=2.9,SNR=6.7						

IDC 26 12:24:51.3±2.1**,6.97S**×**129.19E,h0^{km},mb3.6**/1**,mb1 4.1**/3**, mb1mx3.7**/14**,mbtmp3.8**/3**,ML4.0**/2**,Error ellipse: s-maj=109.0km s-min=31.8km az=67.0,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	13.83	159	Pn	Pn	12 28 07.3	-1.4
	0.7nm,0.3s,baz=338,slow=13,SNR=68						
WRA				Sn	Sn	12 30 33.4	-10
	2.0nm,0.3s,baz=342,slow=22,SNR=11						
ASAR	Alice Springs	17.21	165	P	Pn	12 28 54.5	+1.3
	0.9nm,0.3s,baz=351,slow=8.6,SNR=50						
ASAR				S	Sn	12 31 56.0	-9.3
	0.4nm,0.3s,baz=352,slow=27,SNR=7.3						
MKAR	Makanchi Array	67.76	327	P	P	12 35 50.9	+0.1
	0.3nm,0.5s,baz=120,slow=8.1,SNR=5.5						

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*IDC **26** 13:13:18.8±1.0,6.72S×105.56E,h0^{km},mb4.1/12, mb1 4.2/12,mb1mx4.1/20,mbtmp4.1/12,Error ellipse: s-maj=39.4km s-min=16.0km az=51.0*

*ISCJB **26** 13:13:22.4±1.0,6.6S±0.2×105.7E±0.2,h33^{km},mb4.1/13, Error ellipse: s-maj=35.1km s-min=12.6km az=138.6*

ISC 26 13:13:24.5±1.0**,6.7S**±0.2×**105.6E**±0.2**,h35^{km},n15,σ1^{s}12**/14**, mb4.1**/13**,Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	27.09	105	eP	P	13 19 07.1	+2.9
	8.2nm,0.5s,mb4.5						
WRA	Warramunga Arr	30.83	118	P	P	13 19 36.8	-0.6
	0.9nm,0.4s,mb3.9,baz=287,slow=10,SNR=14						
WRA				PcP	PcP	13 22 32.9	-1.3
	0.6nm,0.5s,baz=301,slow=2.2,SNR=7.0						
WB2	Warramunga Arr	30.84	118	eP	P	13 19 36.7	-0.8
ASAR	Alice Springs	31.99	125	P	P	13 19 47.1	-0.5
	0.3nm,0.5s,mb3.4,baz=307,slow=7.5,SNR=7.6						
ASAR				PcP	PcP	13 22 36.6	-0.6
	0.4nm,0.4s,baz=305,slow=2.2,SNR=6.8						
PMG	Port Moresby	41.20	97	P	P	13 21 06.9	+0.7
	6.7nm,0.6s,mb4.4,baz=270,slow=3.0,SNR=5.6						
STKA	Stephens Creek	41.87	132	P	P	13 21 11.4	-0.1
	1.5nm,0.5s,mb3.9,baz=293,slow=10,SNR=7.3						
KSRS	Korea Array	48.58	24	P	P	13 22 06.2	+1.5
	1.5nm,0.6s,mb4.2,baz=217,slow=7.3,SNR=10						
MJAR	Matsushiro Arr	52.72	33	P	P	13 22 35.0	-0.9
	0.9nm,0.5s,mb4.0,baz=205,slow=8.6,SNR=4.5						
SONM	Songino Array	54.27	1	P	P	13 22 45.2	-1.8
	0.6nm,0.4s,mb3.9,baz=176,slow=11,SNR=6.4						
SONM				PcP	PcP	13 23 51.0	+0.1
	0.7nm,0.4s,baz=177,slow=4.7,SNR=7.6						
MKAR	Makanchi Array	57.12	341	P	P	13 23 07.5	+0.1
	0.7nm,0.3s,mb4.1,baz=152,slow=8.9,SNR=21						
ZALV	Zalesovo Beam	62.88	346	P	P	13 23 45.6	-1.3
	2.0nm,0.4s,mb4.6,baz=172,slow=4.5,SNR=4.6						
BRTR	Keskin Array B	80.59	312	P	P	13 25 33.7	0.0
	1.0nm,0.7s,mb3.9,baz=138,slow=8.3,SNR=5.5						
FINES	FINESS Array B	90.84	332	P	P	13 26 25.9	+1.8
	0.5nm,0.5s,mb4.1,baz=131,slow=5.8,SNR=4.7						
ARCES	ARCESS Array B	92.75	340	P	P	13 26 33.3	+0.6
	1.2nm,0.5s,mb4.5,baz=90,slow=6.1,SNR=11						
TXAR	Lajitas Array	144.36	47	PKP	PKPdf	13 32 56.9	-0.8
	2.1nm,0.6s,baz=321,slow=1.0,SNR=45						

MAN 26 13:48:15,6.10N×125.70E,h130^{km},mb3.8,ML2.6,MS2.2, 1C,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GSPH	General Santos	0.75	269	⇑eP	Pn	13 48 36.0	+0.3
GSPH						13 48 51.5	
MATI	Mati	1.00	33	eP	Pn	13 48 38.8	+0.8
MATI				eS	Sn	13 48 56.8	+1.4
BUKP	Musuan	1.87	340	eP	Pn	13 48 48.8	+1.3

MAN 26 13:58:24,9.95N×126.04E,h24^{km},mb3.6,ML2.3,MS1.8, 1C,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SCPH	Surigao	0.56	253	⇑eP	Pb	13 58 36.6	+1.3
SCPH				eS	Sb	13 58 46.5	+3.6
BUTP	Butuan	1.06	203	eP	Pn	13 58 44.1	+0.8
BUTP				eS	Sb	13 58 58.0	+1.0
MSLP	Maasin	1.18	279	eP	Pn	13 58 44.9	-0.1
MSLP				eS	Sn	13 59 01.9	+1.7
BESP	Borongan	1.75	340	eP	Pn	13 58 53.4	+0.6

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*ISCJB **26** 14:05:24.0±0.8,29.09N±0.03×34.77E±0.07,h10^{km},Error ellipse: s-maj=9.0km s-min=4.0km az=175.0*

*CSEM **26** 14:05:24.0±0.1,29.04N×34.90E,h20^{km},ML2.7,Error ellipse: s-maj=8.6km s-min=2.5km az=87.0*

*SGS **26** 14:05:24.1,29.12N×34.80E,h17^{km}*

*GII **26** 14:05:24.8±52.0,29.15N×34.88E,h0^{km}±767^{km},ML2.1/2*

ISC 26 14:05:23.9±1.8**,29.0N**±0.1×**34.7E**±0.3**,h2^{km}**±41^{km}**,n14, σ0^{s}74**/22**,Egypt**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HQLS		0.40	50	P	Pg	14 05 30.2	-1.4
HQLS		0.40	50	S	Sg	14 05 35.6	-1.3
HQLS		0.40	50	P	Pg	14 05 30.2	-1.4
RSHS		0.74	174	P	Pb	14 05 39.3	-0.2
RSHS				S	Sb	14 05 50.1	0.0
RSHS		0.74	174	P	Pb	14 05 39.3	-0.2
JLOS		0.75	114	P	Pg	14 05 38.3	+0.1
JLOS				S	Sg	14 05 47.8	-0.1
JLOS		0.75	114	S	Sg	14 05 47.8	-0.2
JLOS		0.75	114	P	Pg	14 05 38.3	+0.1
MBH	Mount Berech	0.77	13	Pg	Pg	14 05 38.3	-0.4
MBH				Sg	Sg	14 05 49.6	+0.9
MBH	Mount Berech	0.77	13	Pg	Pg	14 05 38.3	-0.4
MBH				Sg	Sg	14 05 49.6	+0.9
KRMI	Paran Flat	1.07	1	Pg	Pg	14 05 44.4	-0.1
KRMI				Sg	Sg	14 05 58.7	+0.2
KRMI	Paran Flat	1.07	1	Pg	Pg	14 05 44.4	-0.1
KRMI				Sg	Sg	14 05 58.7	+0.3
PRNI	Paran	1.33	11	Pg	Pg	14 05 48.5	-1.0
PRNI				Sg	Sg	14 06 05.7	-1.1
PRNI	Paran	1.33	11	Pg	Pg	14 05 48.5	-0.9
PRNI				Sg	Sg	14 06 05.7	-1.0

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*CSEM **26** 14:16:37.9±0.1,46.24N×12.55E,h2^{km},ML4.0/33,Error ellipse: s-maj=1.1km s-min=0.8km az=179.0*

*ISCJB **26** 14:16:37.7±0.2,46.270N±0.009×12.52E±0.01,h11^{km}±1^{km}, Error ellipse: s-maj=1.6km s-min=1.3km az=177.2*

*LDG **26** 14:16:38.6±0.1,46.26N×12.63E,h10^{km},Ml3.6/20,Error ellipse: s-maj=3.1km s-min=2.2km az=179.0*

*ROM **26** 14:16:38.0±0.3,46.27N×12.57E,h7^{km}±3^{km},Md3.4/32, Ml3.5/19,Error ellipse: s-maj=1.6km s-min=1.2km az=168.0*

*GEN **26** 14:16:38.2,46.27N×12.52E,h5^{km},ML3.0*

*PRU **26** 14:16:38.8,46.28N×12.57E,h0^{km}*

*NEIC **26** 14:16:38.0,46.27N×12.57E,h7^{km},ML3.8(SZGRF), ML3.6(LDG),ML3.5(ROM),ML3.5(STR),After ROM.*

*SZGRF **26** 14:16:39.6,46.28N×12.73E,h10^{km},mb3.8,Northern Italy*

*STR **26** 14:16:44.8±0.3,46.39N×12.05E,h10^{km},Ml3.5,Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*

ISC 26 14:16:38.5±0.2**,46.259N**±0.009×**12.52E**±0.01**,h7^{km}**±1^{km}**, n429,σ1^{s}10**/742**,31C-43D,Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MLNI	Malnisio	0.13	149	⇓iPg	Pg	14 16 41.5	+0.3
MLNI				i Sg	Sg	14 16 43.9	+0.9
MLNI	Malnisio	0.13	149	i Pg	Pg	14 16 41.5	+0.3
MLNI				i Sg	Sg	14 16 43.9	+0.9
CSO	Casso	0.13	276	⇑iPg	Pg	14 16 41.5	+0.2
CSO				i Sg	Sg	14 16 43.9	+0.6
CSO	Casso	0.13	276	i Pg	Pg	14 16 41.5	+0.2
CSO				i Sg	Sg	14 16 43.9	+0.6
CAE	Caneva	0.26	192	⇑iPg	Pg	14 16 43.5	-0.1
CAE				i Sg	Sg	14 16 47.7	+0.7
CAE	Caneva	0.26	192	i Pg	Pg	14 16 43.5	-0.1
CAE				i Sg	Sg	14 16 47.7	+0.7
CSMI	Casera Mimoias	0.27	20	⇓iPg	Pg	14 16 43.8	0.0
CSMI				i Sg	Sg	14 16 48.4	+1.0
CSMI	Casera Mimoias	0.27	20	i Pg	Pg	14 16 43.8	0.0
CSMI				i Sg	Sg	14 16 48.4	+1.0
MPRI	Monte Prat	0.33	93	⇓iPg	Pg	14 16 44.5	-0.4
MPRI				i Sg	Sg	14 16 50.2	+1.0
MPRI	Monte Prat	0.33	93	i Pg	Pg	14 16 44.5	-0.4
MPRI				i Sg	Sg	14 16 50.2	+1.0
AFL	Alpe Faloria	0.36	320	⇓iPg	Pg	14 16 45.9	+0.4
AFL	Alpe Faloria	0.36	320	i Pg	Pg	14 16 45.9	+0.4
FAU	Forcella Aurin	0.37	266	⇑iPg	Pg	14 16 45.4	-0.4
FAU	Forcella Aurin	0.37	266	i Pg	Pg	14 16 45.4	-0.4
FVI	Forni Avoltri	0.38	28	Pg	Pg	14 16 45.8	-0.2
FVI				Sg	Sg	14 16 52.0	+1.0
FVI	Forni Avoltri	0.38	28	Pg	Pg	14 16 45.8	-0.2
FVI				Sg	Sg	14 16 52.0	+1.0
	4µm,0.4s						
FVI	Forni Avoltri	0.38	28	Pg	Pg	14 16 45.8	-0.2
FVI				Sg	Sg	14 16 52.0	+1.0
	4µm,0.4s						
BOO	Bordano	0.41	81	⇓iPg	Pg	14 16 45.8	-0.7
BOO				i Sg	Sg	14 16 52.4	+0.6
BOO	Bordano	0.41	81	i Pg	Pg	14 16 45.8	-0.6
BOO				i Sg	Sg	14 16 52.4	+0.6
BUA	Buia	0.42	95	⇓iPg	Pg	14 16 46.6	-0.1
BUA				i Sg	Sg	14 16 54.0	+1.8
BUA	Buia	0.42	95	i Pg	Pg	14 16 46.6	-0.1
BUA				i Sg	Sg	14 16 54.0	+1.8
ZOU	Zoufplan	0.43	47	⇓iPg	Pg	14 16 46.8	-0.2
ZOU				i Sg	Sg	14 16 53.6	+0.9
ZOU	Zoufplan	0.43	47	i Pg	Pg	14 16 46.8	-0.1
ZOU				i Sg	Sg	14 16 53.6	+1.0
ABTA	Abfaltersbach	0.49	360	ePg	Pg	14 16 48.2	+0.2
	SNR=72						
ABTA				⇑iSg	Sg	14 16 55.2	+0.8
	614nm,0.2s						
ABTA	Abfaltersbach	0.49	360	Pg	Pg	14 16 48.2	+0.2
	SNR=72						
ABTA				Sg	Sg	14 16 55.2	+0.8
	614nm,0.2s						
GMNA	Gemona	0.50	88	⇓iPg	Pg	14 16 46.5	-1.7
GMNA	Gemona	0.50	88	⇓iPg	Pg	14 16 46.5	-1.7
GMNA	Gemona	0.50	88	⇓iPg	Pg	14 16 46.5	-1.7
BAD	Bernadia	0.51	92	⇓iPg	Pg	14 16 47.7	-0.5
BAD				Sg	Sg	14 16 56.0	+1.2
BAD	Bernadia	0.51	92	i Pg	Pg	14 16 47.7	-0.6
BAD				Sg	Sg	14 16 56.0	+1.2
PLRO	Paularo	0.53	56	⇓iPg	Pg	14 16 48.2	-0.5
PLRO				i Sg	Sg	14 16 56.6	+1.1
PLRO	Paularo	0.53	56	i Pg	Pg	14 16 48.2	-0.4
PLRO				i Sg	Sg	14 16 56.6	+1.1
SEST	Monte Rota	0.53	337	Pg	Pg	14 16 49.4	+0.6
SEST				Sg	Sg	14 16 56.6	+0.9
SEST	Monte Rota	0.53	337	Pg	Pg	14 16 49.4	+0.6
SEST				Sg	Sg	14 16 56.6	+0.9
	2µm,0.7s						
SEST	Monte Rota	0.53	337	Pg	Pg	14 16 49.4	+0.6
PTCC	Patocco-Chiusa	0.60	76	⇓Pg	Pg	14 16 49.0	-1.0
PTCC				Sg	Sg	14 16 58.5	+0.7
PTCC	Patocco-Chiusa	0.60	76	⇓Pg	Pg	14 16 49.0	-1.0
PTCC				Sg	Sg	14 16 58.5	+0.7
PTCC	Patocco-Chiusa	0.60	76	⇓Pg	Pg	14 16 49.0	-1.0
PTCC				Sg	Sg	14 16 58.5	+0.7
COLI	Coloredo	0.61	102	⇑iPg	Pg	14 16 49.9	-0.4
COLI				i Sg	Sg	14 16 59.5	+1.3
COLI	Coloredo	0.61	102	i Pg	Pg	14 16 49.9	-0.4
COLI				i Sg	Sg	14 16 59.5	+1.3
CGRP	Cima Grappa	0.63	233	⇓iPg	Pg	14 16 49.5	-1.0
CGRP	Cima Grappa	0.63	233	i Pg	Pg	14 16 49.5	-1.0
CTI	Castel Tesino	0.64	251	Pn	Pg	14 16 49.9	-0.9
CTI				Sg	Sg	14 16 59.9	+0.8
CTI	Castel Tesino	0.64	251	Pn	Pg	14 16 49.9	-0.9
CTI				Sg	Sg	14 16 59.9	+0.8
	3µm,0.2s						
ROBS	Robic	0.69	91	i Pg	Pg	14 16 50.6	-1.2
ROBS				eSg	Sg	14 17 01.8	+1.1
ROBS	Robic	0.69	91	i Pg	Pg	14 16 50.6	-1.2
ROBS				eSg	Sg	14 17 01.8	+1.1
ROBS							
	comp=Z,668nm,0.2s						
ROBS	Robic	0.69	91	i Pg	Pg	14 16 50.6	-1.2
ROBS				eSg	Sg	14 17 01.8	+1.1
LSR	Lussari	0.73	72	⇑iPg	Pg	14 16 51.7	-0.9
LSR				i Sg	Sg	14 17 03.3	+1.1
LSR	Lussari	0.73	72	i Pg	Pg	14 16 51.7	-0.9
LSR				i Sg	Sg	14 17 03.3	+1.2
DRE	Drenchia	0.79	96	⇑iPg	Pg	14 16 52.5	-1.1
DRE				i Sg	Sg	14 17 05.4	+1.6
DRE	Drenchia	0.79	96	i Pg	Pg	14 16 52.5	-1.1
DRE				i Sg	Sg	14 17 05.4	+1.5
CADS	Cadrg	0.85	92	i Pg	Pg	14 16 53.6	-1.2
CADS				i Sg	Sg	14 17 05.9	+0.1
CADS	Cadrg	0.85	92	i Pg	Pg	14 16 53.6	-1.2
CADS				i Sg	Sg	14 17 05.9	+0.1
CADS							
	comp=Z,648nm,0.2s						
CADS	Cadrg	0.85	92	i Pg	Pg	14 16 53.6	-1.2
CADS				i Sg	Sg	14 17 05.9	+0.1
MYKA	Terra Mystica	0.86	64	⇓iPg	Pg	14 16 54.2	-0.9
MYKA				⇓iSg	Sg	14 17 06.5	+0.3
	comp=Z,378nm,0.3s						
MYKA	Terra Mystica	0.86	64	Pg	Pg	14 16 54.2	-0.9
MYKA				Sg	Sg	14 17 06.5	+0.2
	comp=Z,378nm,0.3s						
APPI	Appiano	0.92	284	Pg	Pg	14 16 56.3	+0.2
APPI				Sg	Sg	14 17 08.9	+0.8
APPI	Appiano	0.92	284	Pg	Pg	14 16 56.3	+0.2
APPI				Sg	Sg	14 17 08.9	+0.8
	comp=Z,716nm,0.3s						
VOJS	Vojsko	0.98	103	i Pg	Pg	14 16 56.0	-1.3
VOJS				eSg	Sg	14 17 11.5	+1.5
VOJS	Vojsko	0.98	103	i Pg	Pg	14 16 56.0	-1.3
VOJS				eSg	Sg	14 17 11.5	+1.5
VOJS	Vojsko	0.98	103	i Pg	Pg	14 16 56.0	-1.3
VOJS				eSg	Sg	14 17 11.5	+1.6
VOY	Vojsko	0.98	103	⇑iPg	Pg	14 16 56.0	-1.4
VOY				Sg	Sg	14 17 11.0	+0.8
VOY	Vojsko	0.98	103	⇑iPg	Pg	14 16 56.0	-1.4
VOY				Sg	Sg	14 17 11.0	+0.8
KBA	Koelnbreinsper	1.00	35	⇑ePg	Pg	14 16 57.3	-0.4
	SNR=82						
KBA	Koelnbreinsper	1.00	35	⇑ePg	Pg	14 16 57.3	-0.4
KBA				i Sg	Sg	14 17 10.9	+0.3
KBA	Koelnbreinsper	1.00	35	⇑ePg	Pg	14 16 57.3	-0.4
	SNR=82						
KBA				⇑iSg	Sg	14 17 10.9	+0.3
	comp=Z,653nm,0.3s						
KBA	Koelnbreinsper	1.00	35	Pg	Pg	14 16 57.3	-0.4
	comp=Z,82nm,1.0s						
KBA				Sg	Sg	14 17 10.9	+0.2
	comp=Z,653nm,0.3s						
GORS	Gorjuse	1.03	86	i Pg	Pg	14 16 56.4	-1.8
GORS				eSg	Sg	14 17 11.8	+0.3
GORS	Gorjuse	1.03	86	i Pg	Pg	14 16 56.4	-1.8
GORS				eSg	Sg	14 17 11.8	+0.3
GORS							
	comp=Z,652nm,0.3s						
GORS	Gorjuse	1.03	86	i Pg	Pg	14 16 56.4	-1.8
GORS				eSg	Sg	14 17 11.8	+0.3
TRI	Trieste	1.03	122	Pg	Pg	14 16 56.8	-1.5
TRI				Sg	Sg	14 17 12.3	+0.7
TRI	Trieste	1.03	122	Pg	Pg	14 16 56.8	-1.5
TRI				Sg	Sg	14 17 12.3	+0.7
	comp=Z,1µm,0.2s						
TRI	Trieste	1.03	122	Pg	Pg	14 16 56.8	-1.5
TRI				Sg	Sg	14 17 12.3	+0.7
	comp=Z,1µm,0.2s						
TEOL	Teolo	1.08	214	⇑iPg	Pg	14 16 59.0	-0.1
TEOL	Teolo	1.08	214	i Pg	Pg	14 16 59.0	-0.1
JAVS	Javornik	1.14	108	i Pn	Pg	14 16 58.8	-1.6
JAVS				i Sg	Sg	14 17 17.0	+1.9
JAVS	Javornik	1.14	108	i Pg	Pg	14 16 58.8	-1.6
JAVS				i Sg	Sg	14 17 17.0	+1.9
JAVS							
	comp=Z,531nm,0.2s						
JAVS	Javornik	1.14	108	i Pg	Pg	14 16 58.8	-1.5
JAVS				i Sg	Sg	14 17 17.0	+1.9
	comp=Z,531nm,0.2s						
WTTA	Wattenberg	1.17	329	⇓ePg	Pn	14 17 01.2	-0.1
	SNR=63						
WTTA	Wattenberg	1.17	329	⇓ePg	Pg	14 17 01.2	+0.2
WTTA				i Sg	Sg	14 17 17.9	+1.6
WTTA	Wattenberg	1.17	329	⇓ePn	Pn	14 17 01.2	-0.1
	SNR=63						
WTTA				⇓iSn	Sn	14 17 17.9	+0.3
	comp=Z,472nm,0.4s						
WTTA	Wattenberg	1.17	329	Pg	Pg	14 17 01.2	+0.2
	comp=Z,63nm,3.0s						
WTTA				Sg	Sg	14 17 17.9	+1.7
	comp=Z,472nm,0.4s						
WATA	Walderalm	1.26	329	⇑ePg	Pg	14 17 02.8	+0.2
	SNR=14						
WATA	Walderalm	1.26	329	⇑ePg	Pg	14 17 02.8	+0.2
WATA				i Sg	Sg	14 17 19.9	+1.0
WATA	Walderalm	1.26	329	⇑ePg	Pg	14 17 02.8	+0.2
	SNR=14						
WATA				⇓iSg	Sg	14 17 19.9	+1.0
	comp=Z,119nm,0.4s						
WATA	Walderalm	1.26	329	Pg	Pg	14 17 02.8	+0.2
	comp=Z,14nm,5.0s						
WATA				Sg	Sg	14 17 19.9	+1.0
	comp=Z,119nm,0.4s						
SQTA	Sankt Quirin	1.32	317	⇑ePg	Pg	14 17 03.5	-0.2
	SNR=63						
SQTA	Sankt Quirin	1.32	317	⇑ePg	Pg	14 17 03.5	-0.2
SQTA				i Sg	Sg	14 17 21.6	+0.8
SQTA	Sankt Quirin	1.32	317	⇑ePg	Pg	14 17 03.5	-0.2
	SNR=63						
SQTA				⇑iSg	Sg	14 17 21.6	+0.8
	comp=Z,209nm,0.3s						
SQTA	Sankt Quirin	1.32	317	Pg	Pg	14 17 03.5	-0.3
	comp=Z,62nm,8.0s						
SQTA				Sg	Sg	14 17 21.6	+0.8
	comp=Z,209nm,0.3s						
MAGA	Magasa	1.40	250	Pn	Pn	14 17 04.8	+0.4
MAGA				Sn	Sn	14 17 24.2	+1.0
	comp=Z,8µm,0.4s						
MAGA	Magasa	1.40	250	Pn	Pn	14 17 04.8	+0.4
MAGA				Sn	Sn	14 17 24.2	+1.0
	comp=Z,8µm,0.4s						
MABI	Malga Bissina	1.41	262	Pn	Pn	14 17 04.9	+0.4
MABI				Sn	Sn	14 17 23.3	0.0
MABI	Malga Bissina	1.41	262	Pn	Pn	14 17 04.9	+0.4
MABI				Sn	Sn	14 17 23.3	0.0
	comp=Z,171nm,0.3s						
MABI	Malga Bissina	1.41	262	Pn	Pn	14 17 04.9	+0.4
MABI				Sn	Sn	14 17 23.3	0.0
	comp=Z,171nm,0.3s						
LJU	Ljubljana	1.42	98	i Pn	Pn	14 17 04.7	+0.1
LJU				i Sg	Sg	14 17 24.5	+0.5
LJU				eSn	Sn	14 17 25.3	+1.8
LJU	Ljubljana	1.42	98	i Pn	Pn	14 17 04.7	+0.1
LJU				eSn	Sn	14 17 25.3	+1.8
LJU							
	comp=Z,449nm,0.1s						
LJU	Ljubljana	1.42	98	i Pn	Pn	14 17 04.7	+0.1
LJU				i Sg	Sg	14 17 24.5	+0.5
LJU				eSn	Sn	14 17 25.3	+1.8
	comp=Z,449nm,0.1s						
OBKA	Obir	1.43	79	⇓ePg	Pg	14 17 04.9	-1.0
	SNR=55						
OBKA	Obir	1.43	79	⇓ePg	Pg	14 17 04.9	-1.0
OBKA				i Sg	Sg	14 17 24.7	+0.2
OBKA	Obir	1.43	79	⇓ePg	Pg	14 17 04.9	-1.0
	SNR=55						
OBKA				⇓iSg	Sg	14 17 24.7	+0.2
	comp=Z,1µm,0.4s						
OBKA	Obir	1.43	79	Pg	Pg	14 17 04.9	-1.0
	comp=Z,55nm,3.0s						
OBKA				Sg	Sg	14 17 24.7	+0.3
	comp=Z,1µm,0.4s						
CEY	Cerknica	1.43	111	eSn	Sn	14 17 24.8	+0.9
CEY							
	comp=Z,543nm,0.2s						
CEY	Cerknica	1.43	111	eSn	Sn	14 17 24.8	+0.9
	comp=Z,543nm,0.2s						
BGLD	Berchtesgaden	1.44	14	⇓iPg	Pg	14 17 05.7	-0.3
BGLD	Berchtesgaden	1.44	14	⇓iPg	Pg	14 17 05.7	-0.3
FETA	Feichten	1.45	302	ePg	Pg	14 17 06.1	-0.1
	SNR=247						
FETA	Feichten	1.45	302	Pg	Pg	14 17 06.1	-0.2
	SNR=247						
MOTA	Moosalm	1.46	319	⇓ePg	Pg	14 17 06.1	-0.3
	SNR=20						
MOTA	Moosalm	1.46	319	⇓ePg	Pg	14 17 06.1	-0.3
MOTA				i Sg	Sg	14 17 26.4	+1.1
MOTA	Moosalm	1.46	319	⇓ePg	Pg	14 17 06.1	-0.3
	SNR=20						
MOTA				⇓iSg	Sg	14 17 26.4	+1.1
	comp=Z,131nm,0.4s						
MOTA	Moosalm	1.46	319	Pg	Pg	14 17 06.1	-0.3
	comp=Z,20nm,1.0s						
MOTA				Sg	Sg	14 17 26.4	+1.1
	comp=Z,131nm,0.4s						
BRMO	Bormio	1.50	279	Pn	Pn	14 17 06.5	+0.7
BRMO				Sn	Sn	14 17 25.3	-0.3
BRMO	Bormio	1.50	279	Pn	Pn	14 17 06.5	+0.7
BRMO				Sn	Sn	14 17 25.3	-0.3
	comp=Z,267nm,0.5s						
BRMO	Bormio	1.50	279	Pn	Pn	14 17 06.5	+0.7
SALO	Salr	1.53	246	Pn	Pn	14 17 06.6	+0.4
SALO				Sn	Sn	14 17 27.4	+1.1
	comp=Z,2µm,0.8s						
SALO	Salr	1.53	246	Pn	Pn	14 17 06.6	+0.4
SALO				Sn	Sn	14 17 27.4	+1.1
	comp=Z,2µm,0.8s						
FUORN	Ofenpass-Fuorn	1.60	284	Pn	Pn	14 17 08.0	+0.8
FUORN				Sn	Sn	14 17 28.7	+0.7
FUORN	Ofenpass-Fuorn	1.60	284	Pn	Pn	14 17 08.0	+0.8
VISS	Visnje	1.68	105	i Pn	Pn	14 17 08.5	+0.2
VISS				i Sn	Sn	14 17 31.2	+1.2
VISS	Visnje	1.68	105	i Pn	Pn	14 17 08.5	+0.2
VISS				i Sn	Sn	14 17 31.2	+1.2
VISS							
	comp=Z,369nm,0.2s						
VISS	Visnje	1.68	105	i Pn	Pn	14 17 08.5	+0.2
VISS				i Sn	Sn	14 17 31.2	+1.1
RETA	Reutte	1.72	316	⇑ePg	Pg	14 17 10.9	-0.6
	SNR=28						
RETA	Reutte	1.72	316	Pg	Pg	14 17 10.9	-0.6
	SNR=28						
PERS	Pernice	1.84	77	i Pn	Pn	14 17 10.7	+0.2
PERS				eSn	Sn	14 17 36.0	+2.0
PERS	Pernice	1.84	77	i Pn	Pn	14 17 10.7	+0.2
PERS				eSn	Sn	14 17 36.0	+2.0
PERS							
	comp=Z,192nm,0.2s						
PERS	Pernice	1.84	77	i Pn	Pn	14 17 10.6	+0.2
PERS				eSn	Sn	14 17 36.0	+2.1
DAVOX	Davos/Dischmat	1.89	287	Pn	Pn	14 17 13.0	+1.8
DAVOX				Sn	Sn	14 17 38.4	+3.1
DAVOX	Davos/Dischmat	1.89	287	Pn	Pn	14 17 13.0	+1.8
DAVOX				Sn	Sn	14 17 38.4	+3.1
MOA	Molln	1.99	36	⇓ePn	Pn	14 17 14.1	+1.6
	SNR=69						
MOA	Molln	1.99	36	⇓ePn	Pn	14 17 14.1	+1.6
MOA				i Sn	Sn	14 17 38.3	+0.6
MOA	Molln	1.99	36	⇓ePn	Pn	14 17 14.1	+1.6
	SNR=69						
MOA				⇑iSn	Sn	14 17 38.3	+0.6
MOA	Molln	1.99	36	Pn	Pn	14 17 14.1	+1.5
	comp=Z,68nm,7.0s						
MOA				Sn	Sn	14 17 38.3	+0.6
MDI	Monti di Nese	2.01	257	Pn	Pn	14 17 13.4	+0.5
MDI				Sn	Sn	14 17 41.6	+3.4
	comp=Z,397nm,0.3s						
MDI	Monti di Nese	2.01	257	Pn	Pn	14 17 13.4	+0.5
MDI				Sn	Sn	14 17 41.6	+3.4

	comp=Z,397nm,0.3s						
BOJS	**Bojanci**	2.06	111	*i* Pn	Pn	14 17 13.6	+0.2
BOJS				*e*Sn	Sn	14 17 40.9	+1.7
BOJS	**Bojanci**	2.06	111	*i* Pn	Pn	14 17 13.6	+0.2
BOJS				*e*Sn	Sn	14 17 40.9	+1.7
BOJS							
	comp=Z,226nm,0.2s						
BOJS	**Bojanci**	2.06	111	*i* Pn	Pn	14 17 13.6	+0.2
BOJS				*e*Sn	Sn	14 17 40.9	+1.6
DAVA	**Damuels**	2.08	301	⇓*i*Pn	Pn	14 17 15.1	+1.2
DAVA	**Damuels**	2.08	301	⇓*i*Pn	Pn	14 17 15.1	+1.2
DAVA				*i* Sn	Sn	14 17 41.0	+1.0
DAVA				*i* Sg	Sg	14 17 47.0	+1.6
DAVA	**Damuels**	2.08	301	⇓*i*Pn	Pn	14 17 15.1	+1.2
DAVA				⇓*i*Sn	Sn	14 17 40.9	+1.0
DAVA				⇑*i*Sg	Sg	14 17 47.0	+1.6
	comp=Z,212nm,0.5s						
DAVA	**Damuels**	2.08	301	Pn	Pn	14 17 15.1	+1.3
DAVA				Sn	Sn	14 17 40.9	+0.9
DAVA				Sg	Sg	14 17 47.0	+1.6
	comp=Z,212nm,0.5s						
FUR	**Furstenfeldbru**	2.09	337	*e*Pn	Pn	14 17 15.9	+2.0
FUR				*e*Sn	Sn	14 17 42.3	+2.2
FUR	**Furstenfeldbru**	2.09	337	*e*Pn	Pn	14 17 15.9	+2.0
FUR				*e*Sn	Sn	14 17 42.3	+2.2
FUR	**Furstenfeldbru**	2.09	337	*e*Pn	Pn	14 17 15.9	+2.0
FUR				*e*Sn	Sn	14 17 42.3	+2.2
ZCCA	**Zocca**	2.19	210	Pn	Pn	14 17 17.3	+1.9
ZCCA	**Zocca**	2.19	210	Pn	Pn	14 17 17.3	+1.9
ZCCA	**Zocca**	2.19	210	Pn	Pn	14 17 17.3	+1.9
TUE	**Stuetta**	2.21	277	Pn	Pn	14 17 17.6	+2.1
TUE	**Stuetta**	2.21	277	Pn	Pn	14 17 17.6	+2.1
	comp=Z,151nm,0.5s						
TUE	**Stuetta**	2.21	277	Pn	Pn	14 17 17.6	+2.1
	comp=Z,151nm,0.5s						
ARSA	**Arzberg**	2.29	63	*e*Pn	Pn	14 17 17.3	+0.6
	SNR=32						
ARSA	**Arzberg**	2.29	63	*e*Pn	Pn	14 17 17.3	+0.6
ARSA				*i* Sn	Sn	14 17 45.3	+0.1
ARSA				*i* Sg	Sg	14 17 53.0	+0.8
ARSA	**Arzberg**	2.29	63	*e*Pn	Pn	14 17 17.3	+0.6
	SNR=32						
ARSA				⇓*i*Sn	Sn	14 17 45.3	+0.1
ARSA				⇓*i*Sg	Sg	14 17 53.0	+0.8
	comp=Z,78nm,0.3s						
ARSA	**Arzberg**	2.29	63	Pn	Pn	14 17 17.3	+0.6
	comp=Z,31nm,6.0s						
ARSA				Sn	Sn	14 17 45.3	+0.1
ARSA				Sg	Sg	14 17 53.0	+0.9
	comp=Z,78nm,0.3s						
FNVD	**Fontana Vidola**	2.31	206	Pn	Pn	14 17 16.8	-0.2
FNVD	**Fontana Vidola**	2.31	206	Pn	Pn	14 17 16.8	-0.2
	comp=Z,207nm,0.7s						
FNVD	**Fontana Vidola**	2.31	206	Pn	Pn	14 17 16.8	-0.2
	comp=Z,207nm,0.7s						
PESA	**Pesaro**	2.33	174	Pn	Pn	14 17 17.3	+0.1
PESA	**Pesaro**	2.33	174	Pn	Pn	14 17 17.3	+0.1
PESA	**Pesaro**	2.33	174	Pn	Pn	14 17 17.3	+0.1
SEI	**Scarperia**	2.35	201	Pn	Pn	14 17 17.7	+0.2
SEI	**Scarperia**	2.35	201	Pn	Pn	14 17 17.7	+0.2
	comp=Z,245nm,0.3s						
SEI	**Scarperia**	2.35	201	Pn	Pn	14 17 17.7	+0.2
	comp=Z,245nm,0.3s						
NVLJ	**Novalja**	2.37	135	*e*Pn	Pn	14 17 17.4	-0.4
NVLJ				Sn	Sn	14 17 47.1	0.0
NVLJ	**Novalja**	2.37	135	*e*Pn	Pn	14 17 17.3	-0.5
NVLJ				Sn	Sn	14 17 47.1	0.0
VMG	**Vicchio**	2.40	197	Pn	Pn	14 17 18.2	+0.1
VMG				Sn	Sn	14 17 47.6	-0.1
VMG	**Vicchio**	2.40	197	Pn	Pn	14 17 18.2	+0.1
VMG				Sn	Sn	14 17 47.6	-0.1
	comp=Z,57nm,0.2s						
VMG	**Vicchio**	2.40	197	Pn	Pn	14 17 18.2	+0.1
VMG				Sn	Sn	14 17 47.6	-0.1
	comp=Z,57nm,0.2s						
SFI	**Santa Sofia**	2.40	192	Pn	Pn	14 17 17.6	-0.6
SFI				Sn	Sn	14 17 47.8	0.0
SFI	**Santa Sofia**	2.40	192	Pn	Pn	14 17 17.6	-0.6
SFI				Sn	Sn	14 17 47.8	0.0
	comp=Z,66nm,0.3s						
PZZT	**Monte Pizzetto**	2.43	209	Pn	Pn	14 17 19.1	+0.5
PZZT	**Monte Pizzetto**	2.43	209	Pn	Pn	14 17 19.1	+0.5
MUGIO	**Muggio**	2.44	263	Pn	Pn	14 17 19.9	+1.2
MUGIO	**Muggio**	2.44	263	Pn	Pn	14 17 19.9	+1.2
GRAM		2.47	225	P	Pn	14 17 18.6	-0.6
VALM		2.49	221	P	Pn	14 17 18.3	-1.1
SARO	**Sassorosso**	2.56	217	P	Pn	14 17 19.5	-0.8
FSSB	**Fossombrone**	2.57	176	Pn	Pn	14 17 20.3	-0.3
FSSB				Sn	Sn	14 17 51.6	-0.5
FSSB	**Fossombrone**	2.57	176	Pn	Pn	14 17 20.3	-0.3
FSSB				Sn	Sn	14 17 51.6	-0.5
	comp=Z,282nm,0.3s						
FSSB	**Fossombrone**	2.57	176	Pn	Pn	14 17 20.3	-0.3
FSSB				Sn	Sn	14 17 51.6	-0.5
	comp=Z,282nm,0.3s						
BDI	**Bagni Di Lucca**	2.58	212	Pn	Pn	14 17 21.5	+0.8
BDI	**Bagni Di Lucca**	2.58	212	Pn	Pn	14 17 21.5	+0.8
BDI	**Bagni Di Lucca**	2.58	212	Pn	Pn	14 17 21.5	+0.8
BOB	**Bobbio (Coli)**	2.62	236	Pn	Pn	14 17 22.4	+1.2
BOB	**Bobbio (Coli)**	2.62	236	Pn	Pn	14 17 22.4	+1.2
BOB	**Bobbio (Coli)**	2.62	236	Pn	Pn	14 17 22.4	+1.2
BACM		2.63	222	P	Pn	14 17 20.5	-0.8
VAI	**Varese**	2.64	263	Pn	Pn	14 17 22.5	+1.0
VAI	**Varese**	2.64	263	Pn	Pn	14 17 22.5	+1.0
	comp=Z,125nm,0.5s						
VAI	**Varese**	2.64	263	Pn	Pn	14 17 22.5	+1.0
	comp=Z,125nm,0.5s						
CODM		2.65	226	P	Pn	14 17 20.7	-0.9
CRE	**Caprese Michel**	2.67	189	Pn	Pn	14 17 22.0	+0.1
CRE	**Caprese Michel**	2.67	189	Pn	Pn	14 17 22.0	+0.1
	comp=Z,64nm,0.8s						
CRE	**Caprese Michel**	2.67	189	Pn	Pn	14 17 22.0	+0.1
	comp=Z,64nm,0.8s						
GEC2	**GERESS Array S**	2.71	17	*e*Pn	Pn	14 17 23.0	+0.6
GEC2	**GERESS Array S**	2.71	17	*e*Pn	Pn	14 17 23.0	+0.6
GEC2	**GERESS Array S**	2.71	17	*e*Pn	Pn	14 17 23.0	+0.6
MAIM		2.75	212	P	Pn	14 17 21.9	-1.1
BADI	**Badiali**	2.76	184	Pn	Pn	14 17 23.8	+0.7
BADI	**Badiali**	2.76	184	Pn	Pn	14 17 23.8	+0.7
	comp=Z,108nm,0.5s						
BADI	**Badiali**	2.76	184	Pn	Pn	14 17 23.8	+0.7
	comp=Z,108nm,0.5s						
ARVD	**Arcevia**	2.78	174	Pn	Pn	14 17 22.9	-0.5
	comp=Z,5µm,7.3s						
ARVD	**Arcevia**	2.78	174	Pn	Pn	14 17 22.9	-0.5
	comp=Z,5µm,7.3s						
SISC	**Sisak**	2.81	105	*e*Pg	Pg	14 17 32.1	-0.1
SISC				Sg	Sg	14 18 08.4	-0.2
SISC	**Sisak**	2.81	105	*e*Pg	Pg	14 17 32.1	-0.2
SISC				Sg	Sg	14 18 08.4	-0.2
AOI	**Ancona**	2.82	164	Pn	Pn	14 17 24.1	+0.2
AOI	**Ancona**	2.82	164	Pn	Pn	14 17 24.1	+0.2
	comp=Z,133nm,0.9s						
AOI	**Ancona**	2.82	164	Pn	Pn	14 17 24.1	+0.2
	comp=Z,133nm,0.9s						
CONA	**Conrad Observa**	2.83	53	⇑*e*Pn	Pn	14 17 24.9	+0.8
	SNR=18						
CONA				⇑*i*Sn	Sn	14 17 59.7	+1.3
CONA				⇓*i*Sg	Sg	14 18 11.3	+1.9
	comp=Z,47nm,0.4s						
CONA	**Conrad Observa**	2.83	53	Pn	Pn	14 17 24.9	+0.8
	SNR=18						
CONA				Sn	Sn	14 17 59.7	+1.3
CONA				Sg	Sg	14 18 11.3	+1.9
	comp=Z,47nm,0.4s						
WET	**Wettzell**	2.90	5	*e*Pn	Pn	14 17 25.5	+0.5
WET				*e*Sn	Sn	14 18 00.4	+0.3
WET	**Wettzell**	2.90	5	*e*Pn	Pn	14 17 25.5	+0.5
WET				*e*Sn	Sn	14 18 00.4	+0.3
WET	**Wettzell**	2.90	5	*e*Pn	Pn	14 17 25.5	+0.5
WET				*e*Sn	Sn	14 18 00.4	+0.3
KHC	**Kasperske Hory**	2.96	14	*e*Pn	Pn	14 17 26.4	+0.5
KHC				*e*Pg	Pg	14 17 32.5	-2.7
KHC				*e*Sn	Sn	14 18 02.8	+1.1
KHC				*e*Sg	Sg	14 18 13.0	-0.6
KHC	**Kasperske Hory**	2.96	14	*e*PN	Pn	14 17 26.4	+0.5
KHC				*e*PG	Pg	14 17 32.5	-2.7
KHC				*e*SN	Sn	14 18 02.8	+1.1
KHC				*e*SG	Sg	14 18 13.0	-0.6
	comp=Z,80nm,0.7s						
KHC	**Kasperske Hory**	2.96	14	*e*Pn	Pn	14 17 26.4	+0.5
MURB	**Monte Urbino**	3.00	180	Pn	Pn	14 17 27.7	+1.3
MURB	**Monte Urbino**	3.00	180	Pn	Pn	14 17 27.7	+1.3
	comp=Z,291nm,0.7s						
MURB	**Monte Urbino**	3.00	180	Pn	Pn	14 17 27.7	+1.3
	comp=Z,291nm,0.7s						
SNTG	**Esanatoglia**	3.02	174	Pn	Pn	14 17 26.9	+0.2
SNTG	**Esanatoglia**	3.02	174	Pn	Pn	14 17 26.9	+0.2
	comp=Z,48nm,0.4s						
SNTG	**Esanatoglia**	3.02	174	Pn	Pn	14 17 26.9	+0.2
	comp=Z,48nm,0.4s						
SOP	**Sopron**	3.11	61	⇑*e*Pn	Pn	14 17 28.2	+0.2
SOP				*e*Sn	Sn	14 18 04.6	-0.8
SOP	**Sopron**	3.11	61	⇑*e*Pn	Pn	14 17 28.2	+0.2
SOP				*e*Sn	Sn	14 18 04.6	-0.8
SPAK	**Spaichingen-Ko**	3.14	307	P	Pn	14 17 29.8	+1.4
SPAK				S	Sn	14 18 07.0	+0.9
ASS	**Assisi**	3.20	178	Pn	Pn	14 17 29.9	+0.8
ASS	**Assisi**	3.20	178	Pn	Pn	14 17 29.9	+0.8
	comp=Z,1.0nm,0.3s						
ASS	**Assisi**	3.20	178	Pn	Pn	14 17 29.9	+0.8
	comp=Z,1.0nm,0.3s						
ORO	**Oropa**	3.23	260	Pn	Pn	14 17 29.3	-0.2
ORO	**Oropa**	3.23	260	Pn	Pn	14 17 29.3	-0.2
	comp=Z,79nm,0.3s						
ORO	**Oropa**	3.23	260	Pn	Pn	14 17 29.3	-0.2
	comp=Z,79nm,0.3s						
PCP	**Pian Castagno**	3.28	240	P	Pn	14 17 29.6	-0.7
TRAV		3.41	259	P	Pn	14 17 30.6	-1.5
NRCA	**Norcia**	3.45	173	Pn	Pn	14 17 32.7	+0.1
NRCA	**Norcia**	3.45	173	Pn	Pn	14 17 32.7	+0.1
	comp=Z,21nm,0.4s						
NRCA	**Norcia**	3.45	173	Pn	Pn	14 17 32.7	+0.1
	comp=Z,21nm,0.4s						
FELD	**Feldberg im Sc**	3.48	299	P	Pn	14 17 34.2	+1.1
ROTZ	**Rotzenmuhle**	3.52	357	*e*Pn	Pn	14 17 33.5	0.0
ROTZ				*e*Sn	Sn	14 18 13.9	-1.4
BFO	**Black Forest**	3.52	308	*e*Pn	Pn	14 17 35.0	+1.4
BFO	**Black Forest**	3.52	308	*e*Pn	Pn	14 17 35.0	+1.4
BFO	**Black Forest**	3.52	308	*e*Pn	Pn	14 17 35.0	+1.4
GRFO	**Grafenberg**	3.54	346	Pn	Pn	14 17 35.9	+2.0
GRFO	**Grafenberg**	3.54	346	Pn	Pn	14 17 35.9	+2.0
GRF	**Grafenberg Arr**	3.54	346	*e*Sn	Sn	14 18 15.4	-0.6
TREC	**Trest**	3.64	32	*e*PN	Pn	14 17 35.3	+0.1
TREC				*e*PG	Pg	14 17 43.7	-4.5
TREC				*e*SN	Sn	14 18 18.7	+0.4
TREC				*e*SG	Sg	14 18 33.4	-1.9
	comp=Z,87nm,0.7s						
TREC	**Trest**	3.64	32	*e*Pn	Pn	14 17 35.3	+0.1
BBS	**Basel-Blauen**	3.64	291	P	Pn	14 17 36.6	+1.4
LNSS	**Leonessa**	3.67	174	Pn	Pn	14 17 36.1	+0.4
	comp=Z,155nm,0.3s						
LNSS	**Leonessa**	3.67	174	Pn	Pn	14 17 36.1	+0.4
	comp=Z,155nm,0.3s						
ZST	**Bratislava**	3.68	57	*e*Pg	Pg	14 17 47.5	-1.4
ZST				*e*Sg	Sg	14 18 34.9	-1.6
ZST	**Bratislava**	3.68	57	*e*PG	Pg	14 17 47.5	-1.4
ZST				*e*SG	Sg	14 18 34.9	-1.6
ZST	**Bratislava**	3.68	57	*e*Pg	Pg	14 17 47.5	-1.4
ZST				*e*Sg	Sg	14 18 34.9	-1.6
MANZ	**Manzenberg**	3.74	356	*e*Pn	Pn	14 17 36.1	-0.5
MANZ				*e*Sn	Sn	14 18 20.3	-0.5
RORO		3.81	237	P	Pn	14 17 36.2	-1.3
RSP	**Reno Superiore**	3.85	255	P	Pn	14 17 36.1	-2.0
PRU	**Pruhonice**	3.97	19	*e*Pn	Pn	14 17 39.7	-0.1
PRU				*e*Pg	Pg	14 17 48.3	-6.2
PRU				*e*Sn	Sn	14 18 25.0	-1.5
PRU				*e*Sg	Sg	14 18 44.0	-2.0
PRU	**Pruhonice**	3.97	19	*e*PN	Pn	14 17 39.7	-0.1
PRU				*e*PG	Pg	14 17 48.3	-6.2
PRU				*e*SN	Sn	14 18 25.0	-1.5
PRU				*e*SG	Sg	14 18 44.0	-2.0
	comp=Z,60nm,0.4s						
PRU	**Pruhonice**	3.97	19	*e*Pn	Pn	14 17 39.7	-0.1
PRU				*e*Sn	Sn	14 18 25.0	-1.5
PRU				*e*Sg	Sg	14 18 44.0	-2.0
	comp=Z,60nm,0.4s						
NKC	**Novy Kostel**	3.98	359	*e*Pn	Pn	14 17 40.3	+0.5
NKC				*e*Pg	Pg	14 17 52.2	-2.5
NKC				*e*Sn	Sn	14 18 26.1	-0.6
NKC				*e*Sg	Sg	14 18 47.2	+1.0
NKC	**Novy Kostel**	3.98	359	*e*PN	Pn	14 17 40.3	+0.5
NKC				*e*PG	Pg	14 17 52.2	-2.5
NKC				*e*SN	Sn	14 18 26.1	-0.6
NKC				*e*SG	Sg	14 18 47.2	+1.0
	comp=Z,97nm,0.8s						
NKC	**Novy Kostel**	3.98	359	*e*Pn	Pn	14 17 40.3	+0.5
RHK3	**Tenkes**	4.01	93	⇑*e*Pn	Pn	14 17 39.0	-1.3
RHK3				*e*Sn	Sn	14 18 24.1	-3.4
MOF	**Molkenrain**	4.01	295	P	Pn	14 17 41.5	+1.2
MONE	**Monesi**	4.01	239	P	Pn	14 17 39.2	-1.1
SMOL	**Smolenice**	4.03	54	*e*Pn	Pn	14 17 41.1	+0.6
SMOL				*e*Sg	Sg	14 18 46.3	-1.5
SMOL	**Smolenice**	4.03	54	*e*PN	Pn	14 17 41.1	+0.6
SMOL				*e*SG	Sg	14 18 46.3	-1.5
SMOL	**Smolenice**	4.03	54	*e*Pn	Pn	14 17 41.1	+0.6
SMOL				*e*Sg	Sg	14 18 46.3	-1.5
WERN	**Wernitzgruen**	4.03	359	*e*Pn	Pn	14 17 41.1	+0.5
WERN				*e*Sn	Sn	14 18 27.2	-0.8
LOMF	**Lomont**	4.06	288	P	Pn	14 17 42.2	+1.3
LPG	**La Plagne**	4.10	261	*e*Pn	Pn	14 17 42.3	+0.8
	SNR=1.0						
LPG				*e*Sn	Sn	14 18 25.6	-4.1
LPG				*e*Sg	Sg	14 18 48.0	-2.0
	comp=Z,41nm,0.7s						
LPG	**La Plagne**	4.10	261	*e*Pn	Pn	14 17 42.3	+0.8
LPG				*e*Sn	Sn	14 18 25.6	-4.1
LPG				*e*Sg	Sg	14 18 48.0	-2.0
LPG	**La Plagne**	4.10	261	*e*Pn	Pn	14 17 42.3	+0.8
	SNR=1.0						
LPG				*e*Sn	Sn	14 18 25.6	-4.1
LPG				*e*Sg	Sg	14 18 48.0	-2.0
	comp=Z,21nm,0.7s						
DOI	**San Damiano**	4.11	247	Pn	Pn	14 17 40.2	-1.4
DOI	**San Damiano**	4.11	247	Pn	Pn	14 17 40.2	-1.4
	comp=Z,49nm,0.8s						
DOI	**San Damiano**	4.11	247	Pn	Pn	14 17 40.2	-1.4
	comp=Z,49nm,0.8s						
LPL	**La Plagne**	4.11	262	*e*Pn	Pn	14 17 41.5	-0.1
	SNR=1.0						
LPL				*e*Sn	Sn	14 18 25.3	-4.6
	SNR=1.0						
LPL				*e*Sg	Sg	14 18 48.9	-1.4
	comp=Z,40nm,0.6s,SNR=1.0						
LPL	**La Plagne**	4.11	262	*e*Pn	Pn	14 17 41.5	-0.1
LPL				*e*Sn	Sn	14 18 25.3	-4.6
LPL				*e*Sg	Sg	14 18 48.9	-1.4
LPL	**La Plagne**	4.11	262	*e*Pn	Pn	14 17 41.5	-0.1
	SNR=1.0						
LPL				*e*Sg	Sg	14 18 48.9	-1.4
	comp=Z,20nm,0.6s,SNR=1.0						
GUNZ	**Gunzen**	4.11	358	*e*Pn	Pn	14 17 42.6	+0.9
ENR	**Entracque**	4.13	242	P	Pn	14 17 40.8	-1.2
ECH	**Echery**	4.14	300	P	Pn	14 17 42.9	+0.8
ECH				S	Sn	14 18 31.3	+0.6
RSL	**Roselend**	4.15	264	P	Pn	14 17 44.1	+1.9
TANN	**Tannenbergstha**	4.16	360	*e*Pn	Pn	14 17 42.6	+0.3
CDF	**Champ du Feu**	4.16	303	*e*Pn	Pn	14 17 43.1	+0.7
	SNR=1.0						
CDF	**Champ du Feu**	4.16	303	*e*Pg	Pg	14 17 56.3	-1.9
	SNR=1.0						
CDF				*e*Sn	Sn	14 18 27.1	-4.2
	SNR=1.0						
CDF				*e*Sg	Sg	14 18 51.2	-0.9
	comp=Z,24nm,0.4s,SNR=1.0						
CDF	**Champ du Feu**	4.16	303	*e*Pn	Pn	14 17 43.1	+0.7
CDF				*e*Pg	Pg	14 17 56.3	-1.9
CDF				*e*Sn	Sn	14 18 27.1	-4.2
CDF				*e*Sg	Sg	14 18 51.2	-0.9
CDF	**Champ du Feu**	4.16	303	*e*Pn	Pn	14 17 43.1	+0.7
	SNR=1.0						
CDF	**Champ du Feu**	4.16	303	*e*Pg	Pg	14 17 56.3	-1.9
	SNR=1.0						
CDF				*e*Sn	Sn	14 18 27.1	-4.2
	SNR=1.0						
CDF				*e*Sg	Sg	14 18 51.2	-0.9
	comp=Z,12nm,0.4s,SNR=1.0						
HINF	**Hinteralfeld**	4.17	294	*e*Pn	Pn	14 17 43.3	+0.8
	SNR=1.0						
HINF	**Hinteralfeld**	4.17	294	*e*Pg	Pg	14 17 59.4	+1.0
	SNR=1.0						
HINF				*e*Sn	Sn	14 18 27.4	-4.1
	comp=Z,27nm,0.3s,SNR=1.0						
HINF				*e*Sg	Sg	14 18 51.8	-0.7
HINF	**Hinteralfeld**	4.17	294	*e*Pn	Pn	14 17 43.3	+0.8
HINF				*e*Pg	Pg	14 17 59.4	+1.0
HINF				*e*Sn	Sn	14 18 27.4	-4.1
HINF				*e*Sg	Sg	14 18 51.8	-0.7
HINF	**Hinteralfeld**	4.17	294	*e*Pn	Pn	14 17 43.3	+0.8
	SNR=1.0						
HINF	**Hinteralfeld**	4.17	294	*e*Pg	Pg	14 17 59.4	+1.0
	SNR=1.0						
HINF				*e*Sn	Sn	14 18 27.4	-4.1
	comp=Z,14nm,0.3s,SNR=1.0						
HINF				*e*Sg	Sg	14 18 51.8	-0.7
NEGI	**Negi**	4.18	236	P	Pn	14 17 41.0	-1.6
STV	**Sta Anna Valdi**	4.18	243	P	Pn	14 17 41.1	-1.6
LANF	**Langenberg**	4.19	312	P	Pn	14 17 44.4	+1.6
WERD	**Werda**	4.19	358	*e*Pn	Pn	14 17 43.6	+0.8
WERD				*e*Sn	Sn	14 18 31.0	-1.0
PKSM	**Moragy**	4.25	88	⇑*e*Pn	Pn	14 17 42.1	-1.5
PKSM				*e*Sn	Sn	14 18 30.8	-2.6
BNI	**Bardonecchia**	4.27	256	*e*Pn	Pn	14 17 43.9	+0.1
BNI	**Bardonecchia**	4.27	256	*e*Pn	Pn	14 17 43.9	+0.1
MBDF	**Montbardon**	4.32	251	*e*Pn	Pn	14 17 43.6	-1.0
	SNR=1.0						
MBDF				*e*Sn	Sn	14 18 31.2	-4.0
	comp=Z,31nm,0.5s						
MBDF	**Montbardon**	4.32	251	*e*Pn	Pn	14 17 43.6	-1.0
MBDF				*e*Sn	Sn	14 18 31.2	-4.0
MBDF	**Montbardon**	4.32	251	*e*Pn	Pn	14 17 43.6	-1.0
	SNR=1.0						
MBDF				*e*Sn	Sn	14 18 31.2	-4.0
	comp=Z,16nm,0.5s						
SBF	**Sospel**	4.32	238	*e*Pn	Pn	14 17 44.3	-0.3
	SNR=1.0						
SBF				*e*Sn	Sn	14 18 31.4	-3.8
	comp=Z,38nm,0.3s,SNR=1.0						
SBF	**Sospel**	4.32	238	*e*Pn	Pn	14 17 44.3	-0.3
SBF				*e*Sn	Sn	14 18 31.4	-3.8
SBF	**Sospel**	4.32	238	*e*Pn	Pn	14 17 44.3	-0.3
	SNR=1.0						
SBF				*e*Sn	Sn	14 18 31.4	-3.8
	comp=Z,19nm,0.3s,SNR=1.0						
MOX	**Moxa**	4.43	353	*e*Pn	Pn	14 17 46.1	0.0
MOX				*e*Sn	Sn	14 18 36.4	-1.4
MOX				Sg	Sg	14 19 01.7	+1.0
MOX	**Moxa**	4.43	353	*e*PN	Pn	14 17 46.1	0.0
MOX				*e*SN	Sn	14 18 36.4	-1.4
MOX				(SG)	Sg	14 19 01.7	+1.0
MOX	**Moxa**	4.43	353	*e*Pn	Pn	14 17 46.1	0.0
MOX				*e*Sn	Sn	14 18 36.4	-1.4
MOX	**Moxa**	4.43	353	*e*Pn	Pn	14 17 46.1	0.0
MOX				*e*Sn	Sn	14 18 36.4	-1.4
CABF	**La Chapelle**	4.46	277	*e*Pn	Pn	14 17 46.4	-0.1
CABF				*e*Sn	Sn	14 18 33.2	-5.4
	SNR=1.0						
CABF				*e*Sg	Sg	14 19 00.5	-1.1
	comp=Z,27nm,0.6s,SNR=1.0						
CABF	**La Chapelle**	4.46	277	*e*Pn	Pn	14 17 46.4	-0.1
CABF				*e*Sn	Sn	14 18 33.2	-5.4
CABF				*e*Sg	Sg	14 19 00.5	-1.1
CABF	**La Chapelle**	4.46	277	*e*Pn	Pn	14 17 46.4	-0.1
CABF				*e*Sn	Sn	14 18 33.2	-5.4
	SNR=1.0						
CABF				*e*Sg	Sg	14 19 00.5	-1.1
	comp=Z,14nm,0.6s,SNR=1.0						
PGF	**Pioggiola**	4.48	215	*e*Pn	Pn	14 17 45.9	-0.9
PGF				*e*Sn	Sn	14 18 35.1	-4.1
	comp=Z,9.8nm,0.3s						
PGF	**Pioggiola**	4.48	215	*e*Pn	Pn	14 17 45.9	-0.9
PGF				*e*Sn	Sn	14 18 35.1	-4.1
PGF	**Pioggiola**	4.48	215	*e*Pn	Pn	14 17 45.9	-0.9
PGF				*e*Sn	Sn	14 18 35.1	-4.1
	comp=Z,4.9nm,0.3s						
PVCC	**Panska Ves**	4.49	17	*e*Pn	Pn	14 17 46.4	-0.4
PVCC				*e*Sn	Sn	14 18 39.9	+0.7
PVCC				*e*Sg	Sg	14 19 00.3	-2.2
PVCC	**Panska Ves**	4.49	17	*e*PN	Pn	14 17 46.4	-0.4
PVCC				*e*SN	Sn	14 18 39.9	+0.7
PVCC				*e*SG	Sg	14 19 00.3	-2.2
	comp=Z,59nm,0.4s						
PVCC	**Panska Ves**	4.49	17	*e*Pn	Pn	14 17 46.4	-0.4
PVCC				*e*Sn	Sn	14 18 39.9	+0.7
PVCC				*e*Sg	Sg	14 19 00.3	-2.2
	comp=Z,59nm,0.4s						
HAU	**Haudompre**	4.56	295	*e*Pg	Pg	14 18 03.5	-2.3
HAU				*e*Sn	Sn	14 18 37.0	-4.0
	comp=Z,66nm,0.5s,SNR=1.0						
HAU	**Haudompre**	4.56	295	*e*P	Pn	14 17 48.8	+1.0
HAU				*e*Pg	Pg	14 18 03.5	-2.3
HAU				*e*Sn	Sn	14 18 37.0	-4.0
HAU	**Haudompre**	4.56	295	*e*Pg	Pg	14 18 03.5	-2.3
HAU				*e*Sn	Sn	14 18 37.0	-4.0
	comp=Z,33nm,0.5s,SNR=1.0						
FBE	**Freiberg**	4.70	6	*e*Pn	Pn	14 17 50.1	+0.3
FBE				*e*Sn	Sn	14 18 42.6	-1.9
BRG	**Berggiesshubel**	4.71	11	Pn	Pn	14 17 50.8	+0.8
BRG				Pg	Pg	14 18 07.4	-1.4
BRG				Sn	Sn	14 18 41.6	-3.2
BRG				Sg	Sg	14 19 07.9	-1.9
BRG	**Berggiesshubel**	4.71	11	Pn	Pn	14 17 50.8	+0.8
BRG	**Berggiesshubel**	4.71	11	PN	Pn	14 17 50.8	+0.8
BRG				PG	Pg	14 18 07.4	-1.4
BRG				SN	Sn	14 18 41.6	-3.2
BRG				SG	Sg	14 19 07.9	-1.9
	comp=Z,30nm,0.6s						
TNS	**Taunus Mts**	4.81	327	*e*Pn	Pn	14 17 52.5	+1.2
TNS				*e*Sn	Sn	14 18 48.2	+1.0
TNS	**Taunus Mts**	4.81	327	*e*Pn	Pn	14 17 52.5	+1.2
TNS				*e*Sn	Sn	14 18 48.2	+1.0
TNS	**Taunus Mts**	4.81	327	*e*Pn	Pn	14 17 52.5	+1.2
TNS				*e*Sn	Sn	14 18 48.2	+1.0
DPC	**Dobruska-Polom**	4.82	30	*e*Pn	Pn	14 17 51.1	-0.3
DPC				*e*Pg	Pg	14 18 04.9	-5.8
DPC				*e*Sn	Sn	14 18 45.3	-2.1
DPC				*e*Sg	Sg	14 19 10.1	-3.0
DPC	**Dobruska-Polom**	4.82	30	*e*PN	Pn	14 17 51.1	-0.3
DPC				*e*PG	Pg	14 18 04.9	-5.8
DPC				*e*SN	Sn	14 18 45.3	-2.1
DPC				*e*SG	Sg	14 19 10.1	-3.0
	comp=Z,84nm,0.9s						
DPC	**Dobruska-Polom**	4.82	30	*e*Pn	Pn	14 17 51.1	-0.3
DPC				*e*Sn	Sn	14 18 45.3	-2.1
DPC				*e*Sg	Sg	14 19 10.1	-3.0
	comp=Z,84nm,0.9s						
VYHS	**Vyhne**	4.84	60	*e*Pn	Pn	14 17 50.8	-0.9
VYHS				*e*Sn	Sn	14 18 44.7	-3.3
VYHS				*e*Sg	Sg	14 19 14.4	+0.5
VYHS	**Vyhne**	4.84	60	*e*PN	Pn	14 17 50.8	-0.9
VYHS				*e*SN	Sn	14 18 44.7	-3.3
VYHS				*e*SG	Sg	14 19 14.4	+0.5
VYHS	**Vyhne**	4.84	60	*e*Pn	Pn	14 17 50.8	-0.9
VYHS				*e*Sn	Sn	14 18 44.7	-3.3
VYHS				*e*Sg	Sg	14 19 14.4	+0.5
ORIF	**Oris-en-Rattie**	4.85	256	*e*Pn	Pn	14 17 52.9	+1.1
	SNR=1.0						
ORIF				*e*Sn	Sn	14 18 43.9	-4.2
	comp=Z,25nm,0.5s,SNR=1.0						
ORIF	**Oris-en-Rattie**	4.85	256	*e*Pn	Pn	14 17 52.9	+1.1
ORIF				*e*Sn	Sn	14 18 43.9	-4.2
ORIF	**Oris-en-Rattie**	4.85	256	*e*Pn	Pn	14 17 52.9	+1.1
	SNR=1.0						
UPC	**Upice**	4.85	27	*e*Pn	Pn	14 17 51.7	-0.1
UPC				*e*Pg	Pg	14 18 05.2	-6.1
UPC				*e*Sn	Sn	14 18 45.8	-2.3
UPC				*e*Sg	Sg	14 19 10.5	-3.6
UPC	**Upice**	4.85	27	*e*PN	Pn	14 17 51.7	-0.1
UPC				*e*PG	Pg	14 18 05.2	-6.1
UPC				*e*SN	Sn	14 18 45.8	-2.3
UPC				*e*SG	Sg	14 19 10.5	-3.6
UPC	**Upice**	4.85	27	*e*Pn	Pn	14 17 51.7	-0.1
UPC				*e*Sn	Sn	14 18 45.8	-2.3
UPC				*e*Sg	Sg	14 19 10.5	-3.6
THEF	**They Montfort**	4.86	296	P	Pn	14 17 53.4	+1.4
PENC	**Penc**	4.87	69	⇑*e*Pn	Pn	14 17 53.4	+1.2
PENC				*e*Sn	Sn	14 18 50.4	+1.6
MORC	**Moravsky Berou**	4.88	42	*e*Pn	Pn	14 17 51.2	-0.9
MORC	**Moravsky Berou**	4.88	42	*e*Pn	Pn	14 17 51.2	-1.0
FRF	**La Foret Royal**	4.96	239	*e*Pn	Pn	14 17 51.8	-1.6
	SNR=1.0						
FRF				*e*Sn	Sn	14 18 46.7	-4.4
	comp=Z,16nm,0.4s,SNR=1.0						
FRF	**La Foret Royal**	4.96	239	*e*Pn	Pn	14 17 51.8	-1.6
FRF				*e*Sn	Sn	14 18 46.7	-4.4
FRF	**La Foret Royal**	4.96	239	*e*Pn	Pn	14 17 51.8	-1.6
	SNR=1.0						
STON	**Ston**	5.02	131	*e*Pn	Pn	14 17 54.8	+0.7

STON				Sn	**Sn**	**14 18 50.7**	**-1.7**
STON	**Ston**	**5.02**	**131**	*e*Pn	**Pn**	**14 17 54.8**	**+0.6**
STON				Sn	**Sn**	**14 18 50.6**	**-1.8**
CLL	**Collm**	**5.06**	**3**	*i* Pn	**Pn**	**14 17 55.0**	**+0.2**
CLL				*i* Sn	**Sn**	**14 18 51.8**	**-1.6**
CLL				*e*Sg	**Sg**	**14 19 22.0**	**+1.0**
CLL	**Collm**	**5.06**	**3**	*i* Pn	**Pn**	**14 17 55.0**	**+0.2**
CLL				*i* Pn(2)		14 17 56.2	
CLL				*i* x	x	14 18 27.9	
CLL				*i* Sn	**Sn**	**14 18 51.8**	**-1.6**
CLL				*e*Sg	**Sg**	**14 19 22.0**	**+1.0**
	comp=Z,35nm,0.6s						
CLL	**Collm**	**5.06**	**3**	*i* Pn	**Pn**	**14 17 55.0**	**+0.2**
CLL				*i* Sn	**Sn**	**14 18 51.8**	**-1.6**
LMR	**La Mourre**	**5.18**	**238**	*e*Pn	**Pn**	**14 17 55.4**	**-1.0**
	SNR=1.0						
LMR				*e*Sn	**Sn**	**14 18 51.8**	**-4.5**
	comp=Z,19nm,0.4s						
LMR	**La Mourre**	**5.18**	**238**	*e*Pn	**Pn**	**14 17 55.4**	**-1.0**
LMR				*e*Sn	**Sn**	**14 18 51.8**	**-4.5**
LMR	**La Mourre**	**5.18**	**238**	*e*Pn	**Pn**	**14 17 55.4**	**-1.0**
	SNR=1.0						
OKC	**Ostrava-Krasne**	**5.20**	**44**	*e*SG	**Sg**	**14 19 21.6**	**-3.9**
	comp=Z,49nm,0.7s						
OKC	**Ostrava-Krasne**	**5.20**	**44**	*e*Sg	**Sg**	**14 19 21.6**	**-3.9**
	comp=Z,49nm,0.7s						
FGSL	**Fruska Gora**	**5.23**	**100**	Pn	**Pn**	**14 17 56.5**	**-0.5**
KSP	**Ksiaz**	**5.23**	**27**	*e*Pn	**Pn**	**14 17 57.0**	**0.0**
KSP				*e*Sn	**Sn**	**14 18 57.2**	**-0.3**
KSP				*e*Sg	**Sg**	**14 19 23.2**	**-3.1**
KSP	**Ksiaz**	**5.23**	**27**	*e*Pn	**Pn**	**14 17 57.0**	**0.0**
KSP				*e*Sn	**Sn**	**14 18 57.2**	**-0.3**
KSP				*e*Sg	**Sg**	**14 19 23.2**	**-3.1**
SMRF	**Simiane la Rot**	**5.42**	**248**	*e*Pn	**Pn**	**14 17 59.1**	**-0.5**
	SNR=1.0						
SMRF				*e*Sn	**Sn**	**14 18 58.0**	**-4.2**
	comp=Z,22nm,0.4s,SNR=1.0						
SMRF	**Simiane la Rot**	**5.42**	**248**	*e*Pn	**Pn**	**14 17 59.1**	**-0.5**
SMRF				*e*Sn	**Sn**	**14 18 58.0**	**-4.2**
SMRF	**Simiane la Rot**	**5.42**	**248**	*e*Pn	**Pn**	**14 17 59.1**	**-0.5**
	SNR=1.0						
SMRF				*e*Sn	**Sn**	**14 18 58.0**	**-4.2**
	comp=Z,11nm,0.4s,SNR=1.0						
SFTF	**Sexfontaines**	**5.45**	**294**	*e*Pn	**Pn**	**14 17 58.9**	**-1.2**
SFTF	**Sexfontaines**	**5.45**	**294**	*e*P	**Pn**	**14 18 02.8**	**+2.7**
	baz=123						
SFTF	**Sexfontaines**	**5.45**	**294**	*e*Pn	**Pn**	**14 17 58.9**	**-1.2**
SFTF				*e*P		14 18 02.8	
SFTF	**Sexfontaines**	**5.45**	**294**	*e*Pn	**Pn**	**14 17 58.9**	**-1.2**
SFTF	**Sexfontaines**	**5.45**	**294**	*e*P	**Pn**	**14 18 02.8**	**+2.7**
VIVF	**Saint-Julien-l**	**5.68**	**259**	*e*Pn	**Pn**	**14 18 02.9**	**-0.4**
	SNR=1.0						
VIVF				*e*Sn	**Sn**	**14 19 04.6**	**-4.2**
	comp=Z,5.0nm,0.3s						
VIVF	**Saint-Julien-l**	**5.68**	**259**	*e*Pn	**Pn**	**14 18 02.9**	**-0.4**
VIVF				*e*Sn	**Sn**	**14 19 04.6**	**-4.2**
VIVF	**Saint-Julien-l**	**5.68**	**259**	*e*Pn	**Pn**	**14 18 02.9**	**-0.4**
	SNR=1.0						
VIVF				*e*Sn	**Sn**	**14 19 04.6**	**-4.2**
	comp=Z,2.5nm,0.3s						
DIVS	**Divcibare**	**5.71**	**110**	Pn	**Pn**	**14 18 03.8**	**+0.2**
KECS	**Kecovo**	**5.85**	**65**	*e*Pn	**Pn**	**14 18 05.4**	**-0.2**
KECS				*e*Sn	**Sn**	**14 19 10.8**	**-2.1**
KECS	**Kecovo**	**5.85**	**65**	*e*PN	**Pn**	**14 18 05.4**	**-0.2**
KECS				*e*SN	**Sn**	**14 19 10.8**	**-2.1**
SMF	**Signal de Mont**	**6.01**	**277**	*e*Pn	**Pn**	**14 18 08.4**	**+0.7**
	SNR=1.0						
SMF				*e*Sn	**Sn**	**14 19 12.5**	**-4.2**
	comp=Z,12nm,0.5s						
SMF	**Signal de Mont**	**6.01**	**277**	*e*Pn	**Pn**	**14 18 08.4**	**+0.7**
SMF				*e*Sn	**Sn**	**14 19 12.5**	**-4.2**
SMF	**Signal de Mont**	**6.01**	**277**	*e*Pn	**Pn**	**14 18 08.4**	**+0.7**
	SNR=1.0						
SMF				*e*Sn	**Sn**	**14 19 12.5**	**-4.2**
	comp=Z,6.2nm,0.5s						
LOR	**Lormes**	**6.03**	**283**	*e*Pn	**Pn**	**14 18 08.4**	**+0.3**
	baz=100,SNR=1.0						
LOR				*e*Sn	**Sn**	**14 19 12.9**	**-4.4**
	comp=Z,6.8nm,0.3s,SNR=1.0						
LOR	**Lormes**	**6.03**	**283**	*e*Pn	**Pn**	**14 18 08.4**	**+0.3**
LOR				*e*Sn	**Sn**	**14 19 12.9**	**-4.4**
LOR	**Lormes**	**6.03**	**283**	*e*Pn	**Pn**	**14 18 08.4**	**+0.3**
	SNR=1.0						
LOR				*e*Sn	**Sn**	**14 19 12.9**	**-4.4**
	comp=Z,3.4nm,0.3s,SNR=1.0						
SSF	**Saint Saulge**	**6.25**	**281**	*e*Pn	**Pn**	**14 18 11.8**	**+0.7**
	SNR=1.0						
SSF	**Saint Saulge**	**6.25**	**281**	*e*Pn	**Pn**	**14 18 11.8**	**+0.7**
SSF	**Saint Saulge**	**6.25**	**281**	*e*Pn	**Pn**	**14 18 11.8**	**+0.7**
	SNR=1.0						
AVF	**Avril sur Loir**	**6.35**	**278**	*e*Pn	**Pn**	**14 18 11.9**	**-0.5**
	SNR=1.0						
AVF	**Avril sur Loir**	**6.35**	**278**	*e*Pg	**Pg**	**14 18 41.6**	**+1.6**
	SNR=1.0						
AVF	**Avril sur Loir**	**6.35**	**278**	*e*Pn	**Pn**	**14 18 11.9**	**-0.5**
AVF				*e*Pg	**Pg**	**14 18 41.6**	**+1.6**
AVF	**Avril sur Loir**	**6.35**	**278**	*e*Pn	**Pn**	**14 18 11.9**	**-0.5**
	SNR=1.0						
GIVF	**Givet**	**6.42**	**310**	*e*Pn	**Pn**	**14 18 11.5**	**-1.9**
GIVF	**Givet**	**6.42**	**310**	*e*P	**Pn**	**14 18 15.9**	**+2.5**
	SNR=1.0						
GIVF	**Givet**	**6.42**	**310**	*e*Pn	**Pn**	**14 18 11.5**	**-1.9**
GIVF				*e*P		14 18 15.9	
GIVF	**Givet**	**6.42**	**310**	*e*Pn	**Pn**	**14 18 11.5**	**-1.9**
GIVF	**Givet**	**6.42**	**310**	*e*P	**Pn**	**14 18 15.9**	**+2.5**
	SNR=1.0						
LASF	**Ste Croix**	**6.50**	**253**	*e*Pn	**Pn**	**14 18 13.6**	**-0.9**
	SNR=1.0						
LASF				*e*Sn	**Sn**	**14 19 24.1**	**-4.7**
	comp=Z,5.3nm,0.4s						
LASF	**Ste Croix**	**6.50**	**253**	*e*Pn	**Pn**	**14 18 13.6**	**-0.9**
LASF				*e*Sn	**Sn**	**14 19 24.1**	**-4.7**
LASF	**Ste Croix**	**6.50**	**253**	*e*Pn	**Pn**	**14 18 13.6**	**-0.9**
	SNR=1.0						
LASF				*e*Sn	**Sn**	**14 19 24.1**	**-4.7**
	comp=Z,2.7nm,0.4s						
CRVS	**Cervenica-Dubn**	**6.60**	**63**	*e*Pn	**Pn**	**14 18 15.8**	**-0.1**
CRVS	**Cervenica-Dubn**	**6.60**	**63**	*e*PN	**Pn**	**14 18 15.8**	**-0.1**
CRVS	**Cervenica-Dubn**	**6.60**	**63**	*e*Pn	**Pn**	**14 18 15.8**	**-0.1**
STHS	**Stebnicka Huta**	**6.67**	**59**	*e*Pn	**Pn**	**14 18 18.1**	**+1.3**
STHS	**Stebnicka Huta**	**6.67**	**59**	*e*PN	**Pn**	**14 18 18.1**	**+1.3**
STHS	**Stebnicka Huta**	**6.67**	**59**	*e*Pn	**Pn**	**14 18 18.1**	**+1.3**
BGF	**Bois d'Agland**	**6.69**	**276**	*e*Pn	**Pn**	**14 18 17.0**	**-0.1**
	SNR=1.0						
BGF				*e*Sn	**Sn**	**14 19 28.7**	**-4.9**
	comp=Z,15nm,0.3s						
BGF	**Bois d'Agland**	**6.69**	**276**	*e*Pn	**Pn**	**14 18 17.0**	**-0.1**
BGF				*e*Sn	**Sn**	**14 19 28.7**	**-4.9**
BGF	**Bois d'Agland**	**6.69**	**276**	*e*Pn	**Pn**	**14 18 17.0**	**-0.1**
	SNR=1.0						
BGF				*e*Sn	**Sn**	**14 19 28.7**	**-4.9**
	comp=Z,7.7nm,0.3s						
TCF	**Toulx Ste Croi**	**7.14**	**274**	*e*Pn	**Pn**	**14 18 24.0**	**+0.7**
TCF				*e*Sn	**Sn**	**14 19 39.0**	**-5.7**
	comp=Z,6.4nm,0.4s,SNR=1.0						
TCF	**Toulx Ste Croi**	**7.14**	**274**	*e*Pn	**Pn**	**14 18 24.0**	**+0.7**
TCF				*e*Sn	**Sn**	**14 19 39.0**	**-5.7**
CAF	**Calviac**	**7.45**	**263**	*e*Pn	**Pn**	**14 18 26.4**	**-1.2**
CAF	**Calviac**	**7.45**	**263**	*e*Pn	**Pn**	**14 18 26.4**	**-1.2**
CAF	**Calviac**	**7.45**	**263**	*e*Pn	**Pn**	**14 18 26.4**	**-1.2**
RJF	**Les Rejaudoux**	**7.75**	**267**	*e*Pn	**Pn**	**14 18 30.0**	**-1.7**
RJF	**Les Rejaudoux**	**7.75**	**267**	*e*Pn	**Pn**	**14 18 30.0**	**-1.7**
RJF	**Les Rejaudoux**	**7.75**	**267**	*e*Pn	**Pn**	**14 18 30.0**	**-1.7**
MTLF	**Montolieu**	**7.88**	**252**	*e*Pn	**Pn**	**14 18 32.8**	**-0.7**
MTLF	**Montolieu**	**7.88**	**252**	*e*Pn	**Pn**	**14 18 32.8**	**-0.7**
MTLF	**Montolieu**	**7.88**	**252**	*e*Pn	**Pn**	**14 18 32.8**	**-0.7**
LFF	**La Frestale**	**8.36**	**265**	*e*Pn	**Pn**	**14 18 38.6**	**-1.5**
	SNR=1.0						
LFF	**La Frestale**	**8.36**	**265**	*e*Pn	**Pn**	**14 18 38.6**	**-1.5**
LFF	**La Frestale**	**8.36**	**265**	*e*Pn	**Pn**	**14 18 38.6**	**-1.5**
	SNR=1.0						
LDF	**La Druitiere**	**8.88**	**290**	*e*Pn	**Pn**	**14 18 45.1**	**-2.1**
LDF	**La Druitiere**	**8.88**	**290**	*e*Pn	**Pn**	**14 18 45.1**	**-2.1**
LDF	**La Druitiere**	**8.88**	**290**	*e*Pn	**Pn**	**14 18 45.1**	**-2.1**
FLN	**La Foliniere**	**9.15**	**291**	*e*Pn	**Pn**	**14 18 46.8**	**-4.0**
	baz=110						
FLN	**La Foliniere**	**9.15**	**291**	*e*Pn	**Pn**	**14 18 46.8**	**-4.0**
FLN	**La Foliniere**	**9.15**	**291**	*e*Pn	**Pn**	**14 18 46.8**	**-4.0**
GRR	**Gorron**	**9.33**	**288**	*e*Pn	**Pn**	**14 18 51.4**	**-1.9**
GRR	**Gorron**	**9.33**	**288**	*e*Pn	**Pn**	**14 18 51.4**	**-1.9**
GRR	**Gorron**	**9.33**	**288**	*e*Pn	**Pn**	**14 18 51.4**	**-1.9**

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*CSEM **26** 14:40:08.7±0.3,3371N×3233E,h10^{km},Mw2.5,Error ellipse: s-maj=6.9km s-min=2.9km az=147.0*

*ISCJB **26** 14:40:09.7±1.0,3363N±007×3258E±006,h10^{km},Error ellipse: s-maj=11.2km s-min=5.4km az=156.5*

*HLW **26** 14:40:11.2,3379N×3261E,h23^{km},Mb3.7*

*GII **26** 14:40:14.0±0.0,3364N×3278E,h15^{km}±2^{km},ML2.8/6, Mw2.5/4*

ISC 26 14:40:10.7±1.0,3368N±007×3262E±006,h10^{km},n45,σ0^{s}62/55,Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OFRI	**'Ofer**	**2.25**	**117**	Pn	**Pn**	**14 40 48.0**	**+0.1**
OFRI	**'Ofer**	**2.25**	**117**	Pn	**Pn**	**14 40 48.0**	**0.0**
MMA0	**Mount Meron ar**	**2.42**	**105**	Pn	**Pn**	**14 40 50.2**	**-0.1**
MMA0	**Mount Meron ar**	**2.42**	**105**	Pn	**Pn**	**14 40 50.2**	**-0.2**
SLTI	**Sal'it**	**2.49**	**124**	Pn	**Pn**	**14 40 51.4**	**+0.1**
SLTI				Sn	**Sn**	**14 41 20.5**	**-1.2**
SLTI	**Sal'it**	**2.49**	**124**	Pn	**Pn**	**14 40 51.4**	**+0.1**
SLTI				Sn	**Sn**	**14 41 20.5**	**-1.2**
MMLI	**Mount Malkishu**	**2.66**	**117**	Pn	**Pn**	**14 40 54.5**	**+0.9**
MMLI	**Mount Malkishu**	**2.66**	**117**	Pn	**Pn**	**14 40 54.5**	**+0.9**
RCY	**Rachaya**	**2.68**	**93**	*e*Pn	**Pn**	**14 40 53.9**	**0.0**
RCY				Sn	**Sn**	**14 41 26.1**	**-0.3**
RCY	**Rachaya**	**2.68**	**93**	*e*Pn	**Pn**	**14 40 53.9**	**0.0**
RCY				Sn	**Sn**	**14 41 26.0**	**-0.4**
KSHT	**Keshet**	**2.76**	**104**	Pn	**Pn**	**14 40 55.7**	**+0.7**
KSHT	**Keshet**	**2.76**	**104**	Pn	**Pn**	**14 40 55.7**	**+0.7**
HMDT	**Nahal Hemdat**	**2.83**	**119**	Pn	**Pn**	**14 40 57.1**	**+1.2**
HMDT	**Nahal Hemdat**	**2.83**	**119**	Pn	**Pn**	**14 40 57.1**	**+1.2**
HWQ	**Hawqa**	**2.83**	**77**	*e*Pn	**Pn**	**14 40 55.2**	**-0.8**
HWQ				Sn	**Sn**	**14 41 27.0**	**-3.1**
HWQ	**Hawqa**	**2.83**	**77**	*e*Pn	**Pn**	**14 40 55.2**	**-0.7**
HWQ				Sn	**Sn**	**14 41 27.0**	**-3.1**
AMAG	**Maghara**	**3.07**	**170**	P	**Pn**	**14 40 59.2**	**0.0**
AMAG	**Maghara**	**3.07**	**170**	P	**Pn**	**14 40 59.2**	**0.0**
YTIR	**Yattir**	**3.13**	**137**	Pn	**Pn**	**14 41 01.0**	**+0.9**
YTIR	**Yattir**	**3.13**	**137**	Pn	**Pn**	**14 41 01.0**	**+0.9**
DRGI	**Dragot**	**3.13**	**131**	Pn	**Pn**	**14 41 00.9**	**+0.8**
DRGI	**Dragot**	**3.13**	**131**	Pn	**Pn**	**14 41 00.9**	**+0.8**
DSI	**Dead Sea**	**3.14**	**131**	Pn	**Pn**	**14 41 01.2**	**+1.0**
DSI	**Dead Sea**	**3.14**	**131**	Pn	**Pn**	**14 41 01.2**	**+1.0**
KZIT	**Kziot**	**3.15**	**151**	Pn	**Pn**	**14 41 00.9**	**+0.6**
KZIT				Sn	**Sn**	**14 41 37.8**	**-0.2**
KZIT	**Kziot**	**3.15**	**151**	Pn	**Pn**	**14 41 00.9**	**+0.6**
KZIT				Sn	**Sn**	**14 41 37.8**	**-0.2**
MZDA	**Masada**	**3.31**	**135**	Pn	**Pn**	**14 41 02.8**	**+0.2**
MZDA				Sn	**Sn**	**14 41 41.8**	**-0.2**
MZDA	**Masada**	**3.31**	**135**	Pn	**Pn**	**14 41 02.8**	**+0.2**
MZDA				Sn	**Sn**	**14 41 41.7**	**-0.3**
HHAG	**Hagoal**	**3.74**	**187**	P	**Pn**	**14 41 07.9**	**-0.6**
KOT	**Kottamia**	**3.80**	**190**	P	**Pn**	**14 41 08.8**	**-0.4**
SUZ		**3.83**	**177**	P	**Pn**	**14 41 09.7**	**0.0**
PRNI	**Paran**	**3.89**	**148**	Pn	**Pn**	**14 41 11.0**	**+0.5**
PRNI	**Paran**	**3.89**	**148**	Pn	**Pn**	**14 41 11.0**	**+0.5**
HNKL	**Nakhl**	**3.92**	**162**	P	**Pn**	**14 41 10.6**	**-0.2**
SQR		**3.98**	**198**	P	**Pn**	**14 41 11.7**	**0.0**
AYT	**Al 'Ayyat**	**4.15**	**198**	P	**Pn**	**14 41 14.3**	**+0.1**
GLL	**Jalalah**	**4.16**	**191**	P	**Pn**	**14 41 13.7**	**-0.6**
FYM	**Al Fayyum**	**4.20**	**199**	P	**Pn**	**14 41 14.8**	**+0.1**
ZNM		**4.30**	**177**	P	**Pn**	**14 41 16.1**	**0.0**
HNAT	**Natroun**	**4.38**	**203**	P	**Pn**	**14 41 17.0**	**-0.2**
HBST	**Basata**	**4.80**	**157**	P	**Pn**	**14 41 22.9**	**-0.1**
HDHB	**Dhahab**	**5.23**	**160**	P	**Pn**	**14 41 28.8**	**-0.1**
HKAT	**Jabal Katrina**	**5.27**	**167**	P	**Pn**	**14 41 29.6**	**+0.1**
GRB	**Gharib**	**5.39**	**178**	P	**Pn**	**14 41 30.7**	**-0.5**
HFRF	**Wahat Farafira**	**7.50**	**211**	P	**Pn**	**14 41 59.7**	**-0.4**

IDC 26 14:43:28.8±1.3,1924N×14664E,h0^{km},mb3.4/4,mb1 3.6/4,mb1mx3.4/18,mbtmp3.4/4,Error ellipse: s-maj=57.8km s-min=24.9km az=95.0,Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**40.77**	**198**	P	P	14 51 11.8	0.0
	0.8nm,0.6s,baz=21,slow=8.7,SNR=18						
SONM	**Songino Array**	**43.28**	**321**	P	P	14 51 32.3	+0.1
	0.3nm,0.8s,baz=116,slow=6.6,SNR=2.9						
ASAR	**Alice Springs**	**44.42**	**197**	P	P	14 51 41.4	-0.1
	0.4nm,1.0s,baz=9.2,slow=6.0,SNR=3.8						
YKA	**Yellowknife Ar**	**77.09**	**28**	P	P	14 55 23.9	+0.1
	0.2nm,0.6s,baz=294,slow=5.6,SNR=5.4						

MOS 26 14:51:34.1±0.8,4328N×4484E,h27^{km},mb3.6/1,2D,Error ellipse: s-maj=40.6km s-min=18.6km az=57.4,Western Caucasus

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLKR	**Vladikavkaz**	**0.26**	**207**	*e*PG	Pb	14 51 43.0	+2.3
TRKR	**Terskaya**	**0.45**	**350**	*e*PG	Pb	14 51 44.8	+1.2
KORR	**Kora**	**0.59**	**252**	*e*PG	Pb	14 51 47.5	+1.6
LACR	**Lac**	**0.60**	**222**⇓	*i*PG	Pb	14 51 46.1	+0.1
ZEI	**Tsey**	**0.85**	**234**⇓	*i*PG	Pb	14 51 49.5	-0.8
ZEI				*i* S	Sb	14 52 08.3	+6.9
DIGR	**Digorskoe uzhe**	**0.99**	**248**	*e*PG	Pn	14 51 52.1	-0.2
DIGR				*e*S	Sb	14 52 12.8	+7.4

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*ISCJB **26** 15:22:46.3±1.0,210S±02×1736W±01,h10^{km},mb4.0/4, MS3.3/3,Error ellipse: s-maj=22.6km s-min=15.5km az=163.7*

*IDC **26** 15:22:50.3±2.0,2075S×174.12W,h0^{km},mb4.0/4, mb1 4.3/5,mb1mx4.0/16,mbtmp4.1/5,ML2.4/1,MS3.5/4, Ms1 3.5/4,ms1mx3.1/26,Error ellipse: s-maj=73.9km s-min=26.1km az=143.0*

*NEIC **26** 15:22:52.2±1.7,2098S×17407W,h15^{km},Error ellipse: s-maj=75.7km s-min=23.3km az=151.0*

ISC 26 15:22:48.5±1.0,210S±02×1736W±01,h10^{km},n16,σ0^{s}84/8,mb4.0/4,MS3.3/3,Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**7.27**	**14**	*e*Pn	**Pn**	**15 24 34.5**	**-0.4**
AFI				Sn	Sx	15 25 52.6	
AFI	**Afiamalu**	**7.27**	**14**	Pn	**Pn**	**15 24 34.2**	**-0.7**
	3.4nm,0.3s,baz=324,slow=20,SNR=8.0						
AFI				Sn	Sx	15 25 52.6	
	11nm,0.3s,baz=146,slow=23,SNR=4.1						
RAR	**Rarotonga**	**12.92**	**93**	Pn	**Pn**	**15 25 52.3**	**0.0**
RAR				LR	LR	15 30 28.3	
RAR	**Rarotonga**	**12.92**	**93**	Pn	**Pn**	**15 25 52.3**	**0.0**
	1.6nm,0.3s,baz=280,slow=12,SNR=5.1						
RAR				LR	LR	15 30 28.3	
	comp=Z,203nm,18.6s,baz=236,slow=34						
PPT	**Papeete**	**22.94**	**86**	*e*LR	LR	15 33 18.1	
	98nm,26.2s						
PPT	**Papeete**	**22.94**	**86**	LR	LR	15 34 51.2	
	comp=Z,171nm,21.7s,MS3.5,baz=360,slow=31						
RPZ	**Rata Peaks**	**26.00**	**206**	LR	LR	15 38 02.2	
	comp=Z,58nm,19.9s,MS3.1,baz=176,slow=35						
HNR	**Honiara**	**27.93**	**290**	LR	LR	15 37 27.0	
	comp=Z,77nm,18.8s,MS3.3,baz=359,slow=32						
ASAR	**Alice Springs**	**48.39**	**257**	P	**P**	**15 31 31.2**	**+0.2**
	2.5nm,0.8s,mb4.3,baz=93,slow=8.1,SNR=24						
WRA	**Warramunga Arr**	**48.59**	**262**	P	**P**	**15 31 31.5**	**-1.1**
	1.1nm,0.6s,mb4.0,baz=96,slow=7.8,SNR=16						
MJAR	**Matsushiro Arr**	**73.11**	**321**	P	**P**	**15 34 20.4**	**+1.3**
	1.9nm,0.7s,mb4.2,baz=151,slow=5.7,SNR=6.5						
NVAR	**Mina Array Bea**	**78.64**	**41**	P	**P**	**15 34 54.9**	**+4.2**
	0.6nm,0.6s,mb3.7,baz=229,slow=9.6,SNR=4.3						
AKASG	**Malin Array Be**	**145.35**	**334**	PKP	PKPdf	15 42 28.3	+1.8
AKASG	**Malin Array Be**	**145.35**	**334**	PKP	PKPdf	15 42 28.3	+1.8
	2.6nm,0.6s,baz=41,slow=4.1,SNR=6.3						
BRTR	**Keskin Array B**	**150.16**	**315**	PKPbc	PKPbc	15 42 43.0	+3.1
BRTR	**Keskin Array B**	**150.16**	**315**	PKPbc	PKPbc	15 42 43.0	+3.1
	1.1nm,0.7s,baz=76,slow=5.2,SNR=6.2						

IDC 26 15:28:47.9±1.7,111N×12614E,h0^{km},mb3.9/4,mb1 4.1/4,mb1mx3.7/16,mbtmp4.0/4,Error ellipse: s-maj=160.9km s-min=22.9km az=64.0,Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**22.42**	**159**	P	P	15 33 47.9	-0.4
	4.5nm,0.8s,baz=338,slow=11,SNR=25						
WB2	**Warramunga Arr**	**22.42**	**159**	*e*P	P	15 33 47.2	-1.1
ASAR	**Alice Springs**	**25.76**	**163**	P	P	15 34 20.4	-0.1
	1.4nm,0.4s,baz=347,slow=12,SNR=42						
STKA	**Stephens Creek**	**35.93**	**157**	P	P	15 35 50.8	+0.6
	3.2nm,0.9s,baz=326,slow=8.7,SNR=4.3						
MKAR	**Makanchi Array**	**59.37**	**326**	P	P	15 38 52.0	0.0
	0.3nm,0.4s,baz=125,slow=6.7,SNR=8.6						

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*IDC **26** 15:28:50.9±0.8,3313N×9059E,h0^{km},mb3.9/8, mb1 4.1/10,mb1mx3.9/22,mbtmp3.9/10,ML3.3/2,MS3.5/6, Ms1 3.5/6,ms1mx3.2/32,Error ellipse: s-maj=35.3km s-min=17.6km az=51.0*

*ISCJB **26** 15:28:51.6±2.5,3319N±005×9051E±007,h13^{km}±17^{km}, mb4.2/16,MS3.6/8,Error ellipse: s-maj=9.4km s-min=7.6km az=179.7*

*BJI **26** 15:28:54.4,3322N×9057E,h27^{km},mB4.9,mb4.4,ML4.1, Ms4.2,Msz4.1*

*MOS **26** 15:28:55.5±1.2,3335N×9052E,h33^{km},mb4.5/6,Error ellipse: s-maj=17.2km s-min=8.8km az=89.1*

*NEIC **26** 15:28:55.4±2.9,3322N×9045E,h27^{km}±24^{km},mb4.0/2, Error ellipse: s-maj=13.0km s-min=7.9km az=97.0*

ISC 26 15:28:55.3±2.3,3324N±005×9045E±006,h23^{km}±19^{km},n48,σ1^{s}15/50,mb4.1/16,MS3.6/8,2C-3D,Qinghai

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	**Lhasa**	**3.57**	**170**	P	**Pn**	**15 29 52.0**	**+2.6**
LSA	**Lhasa**	**3.57**	**170**	*e*Pn	**Pn**	**15 29 51.5**	**+2.1**
LSA				*e*Sg	**Sn**	**15 30 42.1**	**+11**
LSA	**Lhasa**	**3.57**	**170**	*e*P	**Pn**	**15 29 51.5**	**+2.1**
LSA				*e*		15 30 42.1	
TAPN	**Taplejung**	**6.33**	**203**	*e*P	**Pn**	**15 30 27.1**	**-0.1**
	140nm,1.3s						
JIRN	**Jiri**	**6.66**	**215**	*e*P	**Pn**	**15 30 32.3**	**+0.5**
	31nm,0.6s						
ODAN	**Odare**	**6.88**	**203**	*e*P	**Pn**	**15 30 32.8**	**-2.1**
	23nm,0.7s						
GKN	**Gorkha**	**7.23**	**225**	*e*P	**Pn**	**15 30 38.8**	**-0.8**
	16nm,0.3s						
WMQ	**Urumqi**	**10.79**	**349**	*e*P	**Pn**	**15 31 30.3**	**+2.0**
CD2	**Chengdu**	**11.52**	**98**	*e*P	**Pn**	**15 31 38.5**	**+0.1**
CD2				PP		15 31 48.3	
CD2				S	**Sn**	**15 33 46.0**	**-0.4**
CD2				SS		15 34 00.5	
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s						
CD2				AMB	AMB		
	comp=Z,30nm,4.4s						
CD2				LR	LR		
	comp=N,480nm,10.8s						
CD2				LR	LR		
	comp=E,580nm,9.6s						
CD2				LR	LR		
	comp=Z,620nm,8.4s						
MKAR	**Makanchi Array**	**14.90**	**338**	Pn	**Pn**	**15 32 23.3**	**-1.2**
MKAR				LR	LR	15 38 58.2	
MKAR	**Makanchi Array**	**14.90**	**338**	*i* P	**Pn**	**15 32 24.7**	**+0.2**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MKAR	**Makanchi Array**	**14.90**	**338**	Pn	**Pn**	**15 32 23.3**	**-1.2**
	comp=Z,0.1nm,0.3s,baz=146,slow=14,SNR=13						
MKAR				LR	LR	15 38 58.2	
	comp=Z,207nm,18.6s,baz=165,slow=40						
UCH	**Uchtor**	**15.46**	**310**	*e*P	**Pn**	**15 32 38.2**	**+6.3**
	comp=Z,13nm,1.1s						
AAK	**Ala-Archa**	**15.68**	**311**	*i* P	**Pn**	**15 32 40.3**	**+5.6**
SONM	**Songino Array**	**18.90**	**35**	P	**Pn**	**15 33 14.0**	**-0.9**
	comp=Z,0.1nm,0.3s,baz=209,slow=12,SNR=8.7						
SONM				LR	LR	15 41 27.1	
	comp=Z,199nm,21.9s,baz=207,slow=40						
ULN	**Ulaanbaatar**	**19.24**	**36**	*e*P	**Pn**	**15 33 17.6**	**-1.3**
ULN	**Ulaanbaatar**	**19.24**	**36**⇑	*e*P	**Pn**	**15 33 19.1**	**+0.1**
KURK	**Kurchatov**	**19.51**	**337**	*e*P	**Pn**	**15 33 20.1**	**-2.0**
	comp=Z,8.6nm,1.2s						
KURK	**Kurchatov**	**19.51**	**337**	*i* P	**Pn**	**15 33 23.0**	**+0.8**
ZAK	**Zakamensk**	**19.57**	**25**	*e*P	**Pn**	**15 33 21.5**	**-1.4**
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s						
TLY	**Talaya**	**20.79**	**24**	P	**P**	**15 33 35.4**	**+0.7**
TLY	**Talaya**	**20.79**	**24**	*i* P	**P**	**15 33 35.1**	**+0.5**
ZAL	**Zalesovo**	**21.08**	**351**	P	**P**	**15 33 38.0**	**+0.2**
ZALV	**Zalesovo Beam**	**21.09**	**351**	P	**P**	**15 33 38.0**	**0.0**
	comp=Z,4.3nm,0.8s,mb3.9,baz=169,slow=11,SNR=12						
ZALV				LR	LR	15 42 35.7	
	comp=Z,98nm,18.6s,MS3.2,baz=120,slow=39						
NVS	**Novosibirsk**	**22.19**	**349**	*e*P	**P**	**15 33 42.9**	**-6.8**
NVS				*e*S	**S**	**15 37 38.2**	**-15**
NVS				pmax	pmax		
	comp=N,12nm,1.3s						
NVS				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.0						
NVS				pmax	pmax		
	comp=E,6.0nm,1.4s						
NVS				smax			
	comp=N,25nm,2.6s						
NVS				smax			
	comp=E,18nm,2.6s						
QIZ	**Qiongzhong**	**22.38**	**124**	P	**P**	**15 33 52.0**	**0.0**
QIZ				S	**S**	**15 37 51.3**	**-5.8**
QIZ				AMB	AMB		
	comp=Z,22nm,2.0s,mb4.2						
QIZ				AMB	AMB		
	comp=Z,277nm,4.2s						
QIZ				LR	LR		
	comp=N,377nm,11.1s						
QIZ				LR	LR		
	comp=E,410nm,9.6s						
QIZ				LR	LR		
	comp=Z,638nm,11.2s,MS4.3						
NJ2	**Nanjing**	**23.92**	**85**	*e*P	**P**	**15 34 10.0**	**+2.4**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.3						
HIA	**Hailar**	**27.00**	**45**⇓	*e*P	**P**	**15 34 36.8**	**+1.4**
AKTO	**Aktyubinsk**	**29.34**	**316**	LR	LR	15 48 42.1	
	comp=Z,54nm,18.7s,MS3.2,baz=298,slow=40						
JOW	**Kunigami**	**33.23**	**91**	LR	LR	15 50 00.9	
	comp=Z,94nm,18.9s,MS3.5,baz=104,slow=38						
YAK	**Yakutsk**	**38.08**	**29**	*i* P	**P**	**15 36 09.7**	**-2.2**
YAK				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.6						
YAK				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.7						
ANN	**Anapa**	**42.10**	**302**	*e*P	**P**	**15 36 36.0**	**-9.5**
ANN				*e**PP	pP	15 36 55.0	+2.6
ANN				pmax	pmax		
	comp=Z,30nm,0.9s,mb4.9						
OBN	**Obninsk**	**43.09**	**317**⇓	*e*P	**P**	**15 36 53.7**	**+0.3**
OBN				*e*SS	SS	15 47 15.3	+45
OBN				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.3						
OBN				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.8						
TIXI	**Tiksi**	**43.50**	**17**	*i* P	**P**	**15 36 56.5**	**0.0**
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.6						
TIXI				MLR	MLR		
	comp=Z,100nm,16.0s,MS3.8						
BRTR	**Keskin Array B**	**45.49**	**295**	P	**P**	**15 37 13.9**	**+1.1**
	comp=Z,0.7nm,0.6s,mb3.7,baz=80,slow=10,SNR=4.9						
EIL	**Elat**	**47.02**	**281**	LR	LR	15 59 29.8	
	comp=Z,44nm,21.6s,MS3.4,slow=39						
AKASG	**Malin Array Be**	**47.35**	**311**	P	**P**	**15 37 26.9**	**-0.4**
	comp=Z,1.9nm,0.6s,mb4.2,baz=77,slow=6.7,SNR=5.9						
BILL	**Bilibino**	**54.36**	**27**⇓	*e*P	**P**	**15 38 20.9**	**+1.1**
BILL				*e*S	**S**	**15 45 43.4**	**-13**
BILL				pmax	pmax		
	comp=Z,4.0nm,1.6s,mb4.1						
NB2	**NORSAR Subarra**	**56.45**	**325**	P	**P**	**15 38 34.0**	**-0.9**
	comp=Z,1.6nm,0.8s,mb4.1,baz=80,slow=7.4						
NOA	**NORSAR Array B**	**56.45**	**325**	P	**P**	**15 38 34.5**	**-0.4**
NOA	**NORSAR Array B**	**56.45**	**325**	P	**P**	**15 38 34.5**	**-0.4**
	comp=Z,1.4nm,0.8s,mb4.0,baz=82,slow=7.1,SNR=4.9						
GERES	**GERESS Array B**	**57.56**	**310**	P	**P**	**15 38 43.8**	**+0.8**
	comp=Z,0.7nm,0.6s,mb3.8,baz=79,slow=6.9,SNR=4.9						
KMBO	**Kilima Mbogo**	**60.57**	**247**⇑	*e*P	**P**	**15 39 08.5**	**+4.1**
WRA	**Warramunga Arr**	**67.46**	**135**	*i* P	**P**	**15 39 51.0**	**+1.6**
WRA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
WRA	**Warramunga Arr**	**67.46**	**135**	P	**P**	**15 39 47.5**	**-1.9**
	comp=Z,2.7nm,0.8s,mb4.3,baz=328,slow=6.1,SNR=12						
ASAR	**Alice Springs**	**70.11**	**138**	P	**P**	**15 40 04.7**	**-1.2**
	comp=Z,3.3nm,0.8s,mb4.3,baz=322,slow=6.2,SNR=20						
YKA	**Yellowknife Ar**	**82.50**	**11**	*i* P	**P**	**15 41 15.0**	**-0.7**
YKA				pmax	pmax		

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	82.50	11	P	P	15 41 15.0	-0.6
	comp=Z,0.6nm,0.7s,mb3.7,baz=333,slow=5.0,SNR=10						

ISCJB ***26*** *15:41:20.0±0.3, 4184N±003×13975E±006, h199^{km}±3^{km}, mb3.8/18, Error ellipse: s-maj=7.8km s-min=5.1km az=18.5*

MOS ***26*** *15:41:20.2±0.8, 4183N×13974E, h207^{km}, mb4.2/3, Error ellipse: s-maj=18.1km s-min=11.1km az=89.6*

IDC ***26*** *15:41:20.6±1.1, 4184N×13973E, h191^{km}±11^{km}, mb3.3/11, mb1 3.4/14, mb1mx3.4/24, mbtmp3.3/14, Error ellipse: s-maj=15.3km s-min=12.0km az=118.0*

JMA ***26*** *15:41:21.8±0.1, 4185N×13972E, h187^{km}±1^{km}, M3.4*

NEIC ***26*** *15:41:21.1±0.5, 4184N×13972E, h196^{km}±6^{km}, mb4.5/7, Error ellipse: s-maj=9.9km s-min=6.6km az=115.0*

ISC 26 15:41:21.0±0.3, 4184N±003×13975E±006, h194^{km}±3^{km}, n46, σ0^{s}64/62, mb3.8/18, 1C, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOSM	Okushiri--Mats	0.32	320	P	Pn	15 41 46.7	-0.1
JOSM				*e*S	Sn	15 42 05.6	-1.2
JYM2	Yakumo 2	0.54	59	P	Pn	15 41 48.0	+0.5
JYM2				*e*S	Sn	15 42 07.9	-0.2
JSR	Shiriuchi	0.59	121	P	Pn	15 41 48.1	+0.3
JSR				*e*S	Sn	15 42 08.4	0.0
JSH	Shimam	0.83	15	P	Pn	15 41 49.3	+0.3
JSH				*e*S	Sn	15 42 10.2	-0.7
JKB	Kayabe	0.96	87	P	Pn	15 41 50.2	+0.4
JOT	Ohata	1.08	115	P	Pn	15 41 50.9	+0.2
JNB	Noboribetsu	1.15	56	P	Pn	15 41 51.3	+0.1
JIW	Iwasaki	1.26	171	P	Pn	15 41 52.6	+0.5
JIW				*e*S	Sn	15 42 16.5	+0.3
JSK	Shakotan	1.61	19	P	Pn	15 41 55.6	+0.5
JSK				*e*S	Sn	15 42 21.3	-0.4
JEW	Eniwo	1.61	51	P	Pn	15 41 56.0	+0.9
JEW				*e*S	Sn	15 42 22.2	+0.5
JANG	Nango	1.98	137	P	Pn	15 41 58.5	-0.4
JANG				*e*S	Sn	15 42 27.3	-0.9
JNBK	Urakawa-nobuka	2.28	78	P	Pn	15 42 02.3	+0.3
JNBK				*e*S	Sn	15 42 34.3	+0.3
JHR	Hokuryu	2.40	37	P	Pn	15 42 04.4	+1.1
JHR				*e*S	Sn	15 42 37.3	+1.0
JFR	Furan	2.49	57	P	Pn	15 42 04.1	-0.2
JFR				*e*S	Sn	15 42 37.9	-0.2
ERM	Erimo	2.55	85	*e*Pn	Pn	15 42 05.3	+0.3
ERM				*e*Sn	Sn	15 42 37.7	-1.6
JOM	Ohasama	2.64	153	P	Pn	15 42 06.0	-0.1
JOM				*e*S	Sn	15 42 40.8	-0.4
ASAJ	Asahikawa	3.09	42	P	Pn	15 42 12.0	+0.7
ASAJ				S	Sn	15 42 50.1	-0.7
ASAJ				pmax	pmax		
	comp=Z,17nm,0.3s						
ASAJ				smax			
	comp=N,4.0nm,0.3s						
ASAJ	Asahikawa	3.09	42	P	Pn	15 42 12.0	+0.7
	comp=N,17nm,0.3s,baz=238,slow=13,SNR=166						
ASAJ				S	Sn	15 42 50.0	-0.7
	comp=N,4.0nm,0.3s,baz=64,slow=30,SNR=9.6						
MAJO	Matsushiro	5.42	193	*e*P	Pn	15 42 41.3	+0.6
MJAR	Matsushiro Arr	5.42	193	P	Pn	15 42 41.1	+0.4
	comp=N,0.5nm,0.3s,baz=9.3,slow=14,SNR=5.4						
YSS	Yuzh-Sakhalins	5.55	22	*e*P	Pn	15 42 42.2	0.0
	comp=N,19nm,0.4s						
YSS	Yuzh-Sakhalins	5.55	22	⇑*e*P	Pn	15 42 42.9	+0.7
YSS				*e*S	Sn	15 43 45.8	-0.5
YSS				pmax	pmax		
	comp=Z,20nm,0.8s						
YSS				smax			
	comp=E,30nm,0.8s						
KSRS	Korea Array	10.11	248	P	Pn	15 43 42.4	+0.7
	comp=E,0.1nm,0.3s,baz=59,slow=11,SNR=6.8						
BOD	Bodaibo	22.84	323	*e*P	P	15 46 05.2	-1.8
BOD				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.7						
SONM	Songino Array	24.27	296	P	P	15 46 20.5	+0.4
	comp=Z,1.2nm,0.6s,mb3.7,baz=95,slow=9.0,SNR=11						
ZALV	Zalesovo Beam	37.83	308	P	P	15 48 18.3	-0.2
	comp=Z,2.4nm,0.6s,mb3.9,baz=86,slow=7.9,SNR=10						
ZAL	Zalesovo	37.84	308	P	P	15 48 18.3	-0.3
MKAR	Makanchi Array	40.62	297	P	P	15 48 41.3	-0.4
	comp=Z,4.1nm,0.8s,mb3.9,baz=83,slow=9.7,SNR=38						
KURK	Kurchatov	42.07	304	*e*P	P	15 48 53.1	-0.3
	comp=Z,5.3nm,0.4s,mb4.3						
KURK	Kurchatov	42.07	304	*e*P	P	15 48 53.1	-0.3
KURK				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.3						
TAPN	Taplejung	44.56	268	*e*P	P	15 49 14.4	+0.8
	comp=Z,5.5nm,0.3s,mb4.3						
ODAN	Odare	45.06	268	*e*P	P	15 49 17.7	+0.1
	comp=Z,5.4nm,0.6s,mb4.1						
JIRN	Jiri	45.52	270	*e*P	P	15 49 21.5	+0.3
	comp=Z,5.9nm,0.4s,mb4.3						
KKN	Kakani	46.14	270	*e*P	P	15 49 25.4	-0.6
	comp=Z,15nm,0.8s,mb4.4						
KKN	Kakani	46.14	270	*e*P	P	15 49 25.4	-0.6
KKN				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.4						
GKN	Gorkha	46.50	271	*e*P	P	15 49 28.7	-0.2
	comp=Z,17nm,0.6s,mb4.6						
EKS2	Erkin-Say	47.69	294	*e*P	P	15 49 38.1	+0.3
YKA	Yellowknife Ar	60.33	31	P	P	15 51 09.6	+0.8
	comp=Z,0.2nm,0.5s,mb3.0,baz=304,slow=6.5,SNR=5.3						
WRA	Warramunga Arr	61.67	186	P	P	15 51 17.3	-1.0
	comp=Z,0.4nm,0.7s,mb3.2,baz=5.9,slow=7.0,SNR=6.4						
FINES	FINESS Array B	63.98	331	P	P	15 51 31.9	-1.2
FINES	FINESS Array B	63.98	331	P	P	15 51 31.9	-1.2
	comp=Z,0.6nm,0.5s,mb3.5,baz=38,slow=9.0,SNR=7.6						
ASAR	Alice Springs	65.39	186	P	P	15 51 42.6	0.0
	comp=Z,0.4nm,0.9s,mb3.1,baz=8.8,slow=6.7,SNR=3.7						
AKASG	Malin Array Be	69.74	321	P	P	15 52 08.7	-0.9
	comp=Z,0.9nm,0.3s,mb3.9,baz=44,slow=7.0,SNR=5.0						
BRTR	Keskin Array B	74.75	310	P	P	15 52 40.1	+0.6
	comp=Z,0.4nm,0.4s,mb3.4,baz=56,slow=4.2,SNR=3.2						
PDAR	Pinedale Array	75.22	45	P	P	15 52 43.0	+0.9
	comp=Z,1.0nm,0.6s,mb3.6,baz=268,slow=1.6,SNR=8.0						
GERES	GERESS Array B	77.97	327	P	P	15 52 57.7	+0.3
	comp=Z,0.4nm,0.4s,mb3.4,baz=28,slow=4.4,SNR=4.4						

NEIC ***26*** *15:43:32.2, 2825S×7120W, h33^{km}, ML3.7(GUC), After GUC.*

GUC 26 15:43:32.2±1.0, 2825S×7120W, h33^{km}±8^{km}, MD3.7, ML3.7, 2D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VACH	Vallenar	0.51	130	⇓*i*P	Pb	15 43 42.9	+0.1
VACH				*i* S	Sb	15 43 50.5	+0.3
VACH	Vallenar	0.51	130	⇓*i*P	Pb	15 43 42.9	+0.1
VACH				*i* S	Sb	15 43 50.5	+0.3
VACH				AML	AML	15 43 51.2	
	comp=N,10µm,0.5s						
LCO	Las Campanas	0.88	150	*e*Pn	Pn	15 43 47.9	-0.4
LCO				*e*Sn	Sn	15 43 59.0	-0.8
CPCH	Copiapo	1.16	40	*e*P	Pn	15 43 52.4	+0.3
CPCH				*i* S	Sn	15 44 08.2	+1.4
CDCH	Caldera	1.21	16	*e*P	Pn	15 43 53.3	+0.4
CDCH				*i* S	Sn	15 44 08.6	+0.5
TLL	Tololo Astrono	1.94	170	*e*P	Pn	15 44 03.2	+0.3
TLL				*i* S	Sn	15 44 27.4	+1.2
TLL	Tololo Astrono	1.94	170	*e*P	Pn	15 44 03.2	+0.3
TLL				*i* S	Sn	15 44 27.4	+1.2
TLL				AML	AML	15 44 37.1	
	comp=E,240nm,0.7s						
CMCH	Combarbala	2.92	177	*e*P	Pn	15 44 18.0	+1.6
CMCH				*i* S	Sn	15 44 52.7	+2.4
CMCH	Combarbala	2.92	177	*e*P	Pn	15 44 18.0	+1.6
CMCH				*i* S	Sn	15 44 52.7	+2.4
CMCH				AML	AML	15 45 04.9	
	comp=N,759nm,0.6s						

ISCJB ***26*** *15:55:05.7±0.5, 3839N±002×12255W±004, h12^{km}±3^{km}, Error ellipse: s-maj=5.3km s-min=3.4km az=24.9*

NEIC ***26*** *15:55:06.1, 3839N×12257W, h4^{km}, MD2.8(NCEDC), After NCEDC.*

ISC 26 15:55:05.9±0.4, 3838N±002×12254W±004, h13^{km}±3^{km}, n26, σ0^{s}70/42, 22C-15D, Northern California

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CVS	Carmenet Viney	0.07	116	⇓P	Pg	15 55 08.3	-0.3
	baz=0.1,SNR=1000						
CVS				⇑S	Sg	15 55 10.2	-0.3
	baz=0.1						
NSHM	Saint Helena R	0.15	341	*e*Pg	Pg	15 55 08.8	-0.7
MCCM	Marconi Confer	0.35	229	⇓P	Pg	15 55 13.2	+0.2
	baz=0.3,SNR=110						
MCCM				⇓S	Sg	15 55 18.3	+0.6
	baz=0.3						
Q03C	Winters	0.49	58	⇑P	Pg	15 55 17.2	+1.7
	baz=0.5,SNR=39						
MNRC	McLaughlin Nat	0.51	9	⇑P	Pg	15 55 16.1	+0.2
	baz=0.5,SNR=189						
MNRC				⇓S	Sg	15 55 23.6	+1.0
	baz=0.5						
BDM	Black Diamond	0.68	128	⇑P	Pg	15 55 19.4	+0.2
	baz=0.7,SNR=29						
HOPS	Hopland	0.74	326	*e*Pn	Pn	15 55 21.1	-0.9
FARB	Farallon Islan	0.77	208	⇑P	Pg	15 55 20.1	-0.7
	baz=0.8,SNR=8.3						
FARB				⇑S	Sg	15 55 31.9	+1.0
	baz=0.8						
WENL	Wente Brothers	0.98	140	⇓P	Pb	15 55 24.1	-0.5
	baz=1.0,SNR=9.6						
JRSC	Jasper Ridge	1.00	166	⇑P	Pb	15 55 24.6	-0.4
	baz=1.0,SNR=44						
JRSC				⇑S	Sb	15 55 38.2	0.0
	baz=1.0						
Q04C	Lincoln	1.02	63	⇑P	Pb	15 55 24.9	-0.5
	baz=1.0						
Q04C				⇑S	Sb	15 55 38.7	-0.1
	baz=1.0						
R04C	Big Horse Ranc	1.27	95	⇑P	Pn	15 55 28.5	-0.8
	baz=1.3						
R04C				⇑S	Sb	15 55 45.4	-0.5
	baz=1.3						
BNLO	Ben Lomond (Sa	1.28	167	⇑P	Pn	15 55 29.1	-0.3
	baz=1.3						
BNLO				⇑S	Sb	15 55 47.7	+1.6
	baz=1.3						
S04C	Ingram Canyon,	1.30	132	⇑P	Pn	15 55 29.5	-0.2
	baz=1.3,SNR=8.7						
ORV	Oroville	1.43	34	⇑P	Pn	15 55 31.4	-0.1
	baz=1.4						
ORV				⇓S	Sn	15 55 49.6	-0.5
	baz=1.4						
LAVA	Lava Cap Winer	1.46	75	⇑P	Pn	15 55 31.8	-0.2
	baz=1.5						
LAVA				⇑S	Sn	15 55 51.1	+0.1
	baz=1.5						
CMB	Columbia Colle	1.73	101	*e*Pn	Pn	15 55 36.0	+0.4
CMB				*e*Sn	Sn	15 55 57.8	+0.2
CMB	Columbia Colle	1.73	101	⇓P	Pn	15 55 35.7	0.0
	baz=1.8,SNR=12						
CMB				⇓S	Sn	15 55 58.6	+1.0
	baz=1.8						
P05C	Yuba Gap, Truc	1.77	58	⇓P	Pn	15 55 36.4	+0.2
	baz=1.8						
P05C				⇑S	Sn	15 55 59.2	+0.6
	baz=1.8						
SAO	San Andreas Ge	1.83	151	*e*Pn	Pn	15 55 35.8	-1.2
R05C	Kirkwood Meado	1.96	80	⇑Pb	Pb	15 55 40.5	-1.0
	baz=2.0,SNR=20						
R05C				⇑Sb	Sb	15 56 06.0	+0.2
	baz=2.0						
O05C	Quincy	2.02	38	⇓S	Sn	15 56 04.9	+0.1
	baz=2.0						
S05C	Merced	2.03	120	⇓P	Pn	15 55 39.7	-0.1
	baz=2.1,SNR=8.7						
S05C				⇓S	Sn	15 56 05.7	+0.7
	baz=2.1						
O04C	Chester	2.25	30	⇓S	Sn	15 56 11.5	+1.3
	baz=2.2						
WCN	Washoe City	2.36	66	⇓Pb	Pb	15 55 46.8	-1.4
	baz=2.4						
WCN				⇑Sb	Sb	15 56 17.9	+0.6
	baz=2.4						
R06C	Coleville	2.43	86	⇓Sb	Sb	15 56 19.0	-0.3
	baz=2.5						

IDC 26 16:18:12.7±1.8, 3153S×17763W, h0^{km}, mb4.2/4, mb1 4.4/5, mb1mx4.2/13, mbtmp4.2/5, ML3.5/1, Error ellipse: s-maj=60.9km s-min=29.5km az=148.0, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	7.98	211	Pn	Pn	16 20 08.2	-1.7
	0.7nm,0.3s,baz=162,slow=10,SNR=10.0						
URZ				Sn	Sn	16 21 36.6	-4.4
	1.6nm,0.3s,baz=173,slow=19,SNR=8.7						
STKA	Stephens Creek	34.55	258	P	P	16 25 03.8	+0.9
	2.4nm,0.7s,baz=105,slow=12,SNR=5.0						
ASAR	Alice Springs	43.38	268	P	P	16 26 17.1	+0.2
	2.5nm,0.7s,baz=104,slow=7.4,SNR=48						
WRA	Warramunga Arr	44.47	273	P	P	16 26 25.6	-0.2
	5.8nm,0.7s,baz=112,slow=7.9,SNR=58						
NVAR	Mina Array Bea	88.85	43	P	P	16 31 09.7	+1.1
	0.6nm,0.6s,baz=206,slow=6.3,SNR=4.0						
FINES	FINESS Array B	146.31	340	PKPbc	PKPbc	16 37 52.6	-1.9
	2.0nm,0.8s,baz=56,slow=4.5,SNR=9.2						

NEIC ***26*** *16:24:53.9±1.7, 1631N×9921W, h10^{km}, MD4.3(MEX), Error ellipse: s-maj=28.5km s-min=8.4km az=23.0*

ISCJB ***26*** *16:24:55.0±0.7, 1653N±004×9906W±003, h10^{km}, mb3.5/3, Error ellipse: s-maj=6.7km s-min=3.7km az=27.3*

IDC ***26*** *16:24:55.3±7.6, 1658N×9899W, h0^{km}, mb3.7/3, mb1 3.9/4, mb1mx3.7/17, mbtmp3.7/4, ML3.3/1, MS3.0/2, Ms1 3.0/2, ms1mx2.7/26, Error ellipse: s-maj=144.5km s-min=23.2km az=11.0*

MEX ***26*** *16:24:59.0±1.0, 1643N×9907W, h16^{km}±10^{km}, MD4.3*

ISC 26 16:24:54.9±0.8, 1653N±005×9907W±003, h4^{km}±5^{km}, n33, σ1^{s}30/56, mb3.5/3, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.88	293	*i* P	Pg	16 25 07.2	-4.6
ACX				*i* S	Sg	16 25 17.8	-5.5
PNIG	Pinotepa	0.91	98	*e*P	Pg	16 25 13.2	+0.8
PNIG				*i* S	Sg	16 25 24.4	+0.2
CAIG	El Cayaco	1.26	294	*i* P	Pg	16 25 18.5	-0.6
CAIG				*i* S	Sg	16 25 35.9	+0.4
CAIG	El Cayaco	1.26	294	*i* P	Pg	16 25 18.4	-0.7
CAIG				*i* S	Sg	16 25 35.7	+0.2
MEIG	Mezcala	1.49	339	*e*P	Pn	16 25 22.8	+0.3
MEIG				*i* S	Sn	16 25 41.0	-1.4
PLIG	Platanillo	1.90	347	*e*P	Pn	16 25 29.0	+0.9
PLIG				*i* S	Sn	16 25 52.6	0.0
VHO	Vista Hermosa	2.30	76	*i* P	Pn	16 25 34.3	+0.6
VHO				*i* S	Sn	16 26 01.9	-0.6
VHO	Vista Hermosa	2.30	76	*i* P	Pn	16 25 34.3	+0.6
VHO				*i* S	Sn	16 26 01.5	-0.9
OXX	Oaxaca	2.31	76	*i* P	Pn	16 25 31.8	-2.0
OXX				*i* S	Sn	16 26 07.7	+5.0
YAIG	Yautepec	2.32	360	*e*P	Pn	16 25 35.9	+1.9
YAIG				*i* S	Sn	16 26 03.4	+0.4
TPIG	Tehuac#an	2.49	41	*i* P	Pn	16 25 37.6	+1.4
TPIG				*i* S	Sn	16 26 07.2	+0.1
UNM	Universidad Na	2.79	358	*i* S	Sg	16 26 25.3	+0.7
UNM	Universidad Na	2.79	358	*i* S	Sn	16 26 11.8	-2.7
SZVM	Salazar	2.80	354	*e*P	Pn	16 25 42.3	+1.8
SZVM				*i* S	Sn	16 26 14.1	-0.6
HUIG	Huatulco	2.94	104	*e*P	Pn	16 25 42.6	+0.1
HUIG				*i* S	Sn	16 26 14.4	-3.8
PTVM	Pico Tres Padr	3.05	359	*e*P	Pn	16 25 46.7	+2.7
PTVM				*i* S	Sn	16 26 21.0	0.0
MOIG	Morelia	3.73	328	*i* P	Pn	16 25 60.0	+6.7
MOIG				*i* S	Sn	16 26 46.2	+8.5
MOIG	Morelia	3.73	328	*i* P	Pn	16 25 57.9	+4.6
MOIG				*i* S	Sn	16 26 40.7	+3.0
CMIG	Matias Romero	4.04	81	Pn	Pn	16 25 57.6	-0.1
CMIG				Pg	Pg	16 26 10.8	-1.7
CMIG				Lg		16 27 02.0	
CMIG				LR	LR	16 27 49.4	
CMIG	Matias Romero	4.04	81	Pn	Pn	16 25 57.6	-0.1
	2.1nm,0.3s,baz=266,slow=11,SNR=16						
CMIG				Pg	Pg	16 26 10.8	-1.7
	6.9nm,0.3s,baz=261,slow=12,SNR=29						
CMIG				Lg		16 27 02.0	
	58nm,0.3s,baz=7.6,slow=11,SNR=25						
CMIG				LR	LR	16 27 49.4	
	comp=Z,173nm,18.2s,baz=233,slow=44						
LVIG	Laguna Verde	4.06	38	*e*P	Pn	16 25 55.2	-2.6
LVIG				*i* S	Sn	16 26 53.5	+7.7
MMIG	Aquila	4.45	294	*i* P	Pn	16 26 04.8	+1.7
MMIG				*i* S	Sn	16 26 53.7	-1.7
SFJM	Santa Fe	5.45	317	*i* P	Pg	16 26 37.8	-1.6
SFJM	Santa Fe	5.45	317	*i* P	Pb	16 26 27.8	-2.9
CCIG	Comitan	6.66	91	*i* S	Sn	16 27 59.0	+9.2
CCIG	Comitan	6.66	91	*i* S	Sn	16 27 59.0	+9.2
TEIG	Tepich	10.88	69	*e*Pn	Pn	16 27 31.2	-0.4
TEIG				Sn	Sn	16 29 19.5	-14
TEIG				Sn	Sn	16 29 24.9	-9.0
TEIG				LR	LR	16 32 34.7	
TEIG	Tepich	10.88	69	Pn	Pn	16 27 26.1	-5.5
	0.3nm,0.3s,baz=336,slow=21,SNR=2.4						
TEIG				Sn	Sn	16 29 24.9	-9.0
	0.4nm,0.3s,baz=314,slow=23,SNR=2.9						
TEIG				LR	LR	16 32 34.7	
	comp=Z,90nm,18.3s,baz=82,slow=43						
TXAR	Lajitas Array	13.43	342	Pn	Pn	16 28 16.6	+10
TXAR				Lg		16 32 01.4	
TXAR	Lajitas Array	13.43	342	Pn	Pn	16 28 16.6	+10
	0.1nm,0.3s,baz=42,slow=30,SNR=2.7						
TXAR				Lg		16 32 01.4	
	baz=320,slow=52,SNR=2.4						
PDAR	Pinedale Array	27.65	343	P	P	16 30 45.5	+1.7
	0.5nm,0.9s,mb3.1,baz=152,slow=10.0,SNR=3.3						
SCHQ	Schefferville	45.57	26	P	P	16 33 15.4	-0.4
	3.9nm,1.0s,mb4.3,baz=220,slow=15,SNR=3.3						
YKA	Yellowknife Ar	47.20	350	P	P	16 33 28.9	+0.4
	0.1nm,0.4s,mb3.1,baz=157,slow=7.5,SNR=4.9						

ISCJB ***26*** *16:34:37.9±0.5, 3828N±003×2728E±004, h13^{km}±3^{km}, Error ellipse: s-maj=5.5km s-min=4.7km az=171.9*

CSEM ***26*** *16:34:37.1±0.1, 3828N×2728E, h12^{km}, MD3.0, Error ellipse: s-maj=3.7km s-min=2.8km az=82.0*

ISK ***26*** *16:34:37.2, 3831N×2719E, h19^{km}, MD3.0*

ATH ***26*** *16:34:37.3, 3828N×2726E, h14^{km}±1^{km}, MD3.0/3*

DDA ***26*** *16:34:39.1, 3827N×2722E, h7^{km}±2^{km}, Md2.8*

ISC 26 16:34:37.9±0.5, 3827N±003×2726E±004, h13^{km}±3^{km}, n37, σ0^{s}71/49, 1C, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IZM	Izmir	0.13	2	*i* PG	Pg	16 34 41.6	+0.4
IZM				*i* SG	Sg	16 34 44.0	+0.4
IZM	Izmir	0.13	2	*i* Pg	Pg	16 34 41.6	+0.4
IZM				*i* Sg	Sg	16 34 44.0	+0.4
KDAG	Bornova	0.13	4	*i* P	Pg	16 34 41.6	+0.3
KDAG				*i* S	Sg	16 34 44.1	+0.4
BLCB	Balcova	0.20	304	PG	Pg	16 34 41.6	-0.8
BLCB				SG	Sg	16 34 44.9	-0.6
BLCB	Balcova	0.20	304	*e*Pg	Pg	16 34 41.6	-0.8
BLCB				*e*Sg	Sg	16 34 44.9	-0.6
URLA	Izmir	0.53	280	*i* P	Pg	16 34 48.0	-0.2
URLA				*i* S	Sg	16 34 55.6	+0.3
URLA	Izmir	0.53	280	*i* P	Pg	16 34 48.0	-0.3
SMG	Samos	0.65	211	⇑*i*PB	Pb	16 34 50.1	-1.0
SMG				*e*SB	Sb	16 34 59.2	-0.9
SMG	Samos	0.65	211	*i* Pb	Pb	16 34 50.1	-1.0
SMG				*e*Sb	Sb	16 34 59.2	-0.9
AKS	Akhisar	0.75	35	PG	Pg	16 34 52.4	0.0
AKS	Akhisar	0.75	35	*e*Pg	Pg	16 34 52.4	0.0
MLSB	Milas	1.06	157	*e*PN	Pn	16 34 58.3	-0.1
MLSB	Milas	1.06	157	*e*Pn	Pn	16 34 58.3	-0.1
AYVA	Ayvalik	1.13	337	*i* P	Pb	16 34 59.2	-0.1
AYVA				*i* S	Sb	16 35 15.1	+1.3
KULA	Kula-Manisa	1.13	77	*e*PN	Pn	16 34 59.2	-0.2
KULA	Kula-Manisa	1.13	77	*e*Pn	Pn	16 34 59.2	-0.2
BODT	Bodrum	1.21	178	*e*PN	Pn	16 35 00.1	-0.3
BODT	Bodrum	1.21	178	*e*Pn	Pn	16 35 00.1	-0.3
BDRM	Kayabasi	1.21	173	*i* P	Pn	16 35 01.6	+1.1
BDRM				*i* S	Sb	16 35 17.0	+0.8
PRK	Paraskevi	1.24	322	*e*PB	Pb	16 35 00.6	-0.6
PRK				*e*SB	Sb	16 35 17.7	+0.6
PRK	Paraskevi	1.24	322	*e*Pb	Pb	16 35 00.6	-0.6
PRK				*e*Sb	Sb	16 35 17.7	+0.6
YER	Yerkesik	1.40	144	*e*PN	Pn	16 35 03.0	0.0
YER	Yerkesik	1.40	144	*e*Pn	Pn	16 35 03.0	0.0
BALB	Balikesir	1.45	19	*e*PN	Pn	16 35 02.6	-1.2
BALB	Balikesir	1.45	19	*e*Pn	Pn	16 35 02.6	-1.2
DST	Dursunbey	1.71	38	*e*PN	Pn	16 35 06.7	-0.7
DST	Dursunbey	1.71	38	*e*Pn	Pn	16 35 06.7	-0.7
KHL	Karahalli	1.78	88	*e*PN	Pn	16 35 09.1	+0.7
KHL	Karahalli	1.78	88	*e*Pn	Pn	16 35 09.1	+0.7
APE	Apeiranthos	1.82	229	*e*PN	Pn	16 35 10.6	+1.7
APE	Apeiranthos	1.82	229	*e*Pn	Pn	16 35 10.6	+1.7
KCT	Karacabey	2.17	23	*e*PN	Pn	16 35 12.7	-1.0
KCT	Karacabey	2.17	23	*e*Pn	Pn	16 35 12.7	-1.0
IZI	Iznik	2.69	39	*e*PN	Pn	16 35 20.6	-0.2
IZI	Iznik	2.69	39	*e*Pn	Pn	16 35 20.6	-0.2
YLV	Yalova	2.82	35	*e*PN	Pn	16 35 22.7	+0.1
YLV	Yalova	2.82	35	*e*Pn	Pn	16 35 22.7	+0.1

BJI ***26*** *16:55:13.1, 060S×9890E, h30^{km}, mb4.7*

NEIC ***26*** *16:55:14.1±0.7, 063S×9892E, h30^{km}, mb4.4/2, Error ellipse: s-maj=25.9km s-min=8.4km az=65.0*

ISCJB ***26*** *16:55:16.7±2.8, 04S±02×993E±02, h59^{km}±21^{km}, mb4.0/12, MS3.3/1, Error ellipse: s-maj=46.9km s-min=12.6km az=148.7*

IDC ***26*** *16:55:18.4±4.3, 039S×9926E, h60^{km}±34^{km}, mb3.6/10, mb1 3.7/11, mb1mx3.6/22, mbtmp3.7/11, ML3.9/1, MS3.3/1, Ms1 3.3/1, ms1mx3.0/23, Error ellipse: s-maj=55.8km s-min=13.7km az=58.0*

ISC 26 16:55:18.1±2.8, 04S±02×993E±03, h55^{km}±21^{km}, n20, σ0^{s}64/18, mb4.0/12, MS3.3/1, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	3.19	354	P	Pn	16 56 05.0	-0.9
	14nm,0.3s,baz=161,slow=9.2,SNR=34						
KULM	Kulim	5.81	14	*e*P	Pn	16 56 42.6	+0.8
MBWA	Marble Bar	28.72	137	*e*P	P	17 01 11.2	+0.8
LSA	Lhasa	30.91	346	P	P	17 01 31.0	+1.3
LSA	Lhasa	30.91	346	*e*P	P	17 01 30.2	+0.5
	2.1nm,0.6s,mb4.1						
FITZ	Fitzroy Crossi	31.32	126	P	P	17 01 33.0	-0.5
FITZ	Fitzroy Crossi	31.32	126	P	P	17 01 33.0	-0.5
	0.9nm,0.7s,mb3.7,baz=249,slow=22,SNR=2.6						
WRA	Warramunga Arr	39.44	122	P	P	17 02 42.9	-0.3
	1.3nm,0.5s,mb4.0,baz=305,slow=8.9,SNR=28						
ASAR	Alice Springs	40.79	127	P	P	17 02 54.2	-0.1
	1.5nm,0.7s,mb3.7,baz=300,slow=7.7,SNR=47						
ASAR				PcP	PcP	17 04 55.1	+0.5
	0.8nm,0.8s,baz=307,slow=2.8,SNR=5.3						
KSRS	Korea Array	46.04	32	P	P	17 03 35.4	-1.0
	0.6nm,0.7s,mb3.6,baz=214,slow=7.1,SNR=3.6						
KSRS				LR	LR	17 24 41.2	
	comp=Z,32nm,18.2s,MS3.3,baz=60,slow=38						
SONM	Songino Array	48.44	6	P	P	17 03 55.4	+0.6
	2.6nm,0.8s,mb4.3,baz=191,slow=10.0,SNR=16						
SONM				PcP	PcP	17 05 20.1	-0.3
	0.3nm,0.5s,baz=194,slow=2.1,SNR=2.1						
ULN	Ulaanbaatar	48.54	7	*e*P	P	17 03 56.2	+0.6
	13nm,1.8s,mb4.7						
EKS2	Erkin-Say	48.61	335	*e*P	P	17 03 57.0	+0.8
MKAR	Makanchi Array	49.30	345	P	P	17 04 01.2	-0.2
	0.6nm,0.6s,mb3.8,baz=158,slow=8.4,SNR=13						
STKA	Stephens Creek	50.76	132	P	P	17 04 13.0	+0.2
	0.9nm,0.6s,mb3.9,baz=274,slow=7.0,SNR=4.4						
ZALV	Zalesovo Beam	55.47	350	P	P	17 04 46.5	-0.5
	2.4nm,0.5s,mb4.5,baz=166,slow=7.7,SNR=8.6						
FINES	FINESS Array B	82.36	332	P	P	17 07 33.2	-0.7
	0.6nm,0.7s,mb3.7,baz=116,slow=6.3,SNR=2.8						
ARCES	ARCESS Array B	84.73	340	P	P	17 07 45.4	-0.4
	0.6nm,0.7s,mb3.9,baz=108,slow=4.0,SNR=4.4						
TXAR	Lajitas Array	143.85	35	PKP	PKPdf	17 14 46.0	-1.9
TXAR	Lajitas Array	143.85	35	PKP	PKPdf	17 14 46.0	-1.9
	0.4nm,0.6s,baz=132,slow=1.3,SNR=4.0						

NIED ***26*** *17:02:00, 4270N×14500E, h32^{km}, Mw3.5 Best double couple: M$_0$2.22000×10^{14} NP1:φ$_s$61.00000°, δ32.00000°, λ-89.00000°. NP2:φ$_s$240.00000°, δ58.00000°, λ-91.00000°.*

IDC ***26*** *17:02:08.4±1.3, 4206N×14379E, h0^{km}, mb3.4/6, mb1 3.6/6, mb1mx3.5/21, mbtmp3.4/6, Error ellipse: s-maj=37.8km s-min=26.5km az=68.0*

ISCJB ***26*** *17:02:08.7±0.9, 4269N±006×14506E±007, h49^{km}±7^{km},* *mb3.4/5, Error ellipse: s-maj=11.6km s-min=6.8km az=144.7*

*JMA **26** 17:02:09.3, 4271N×14502E, h50^{km}±1^{km}, M3.8*

JMA Felt I J1.

*MOS **26** 17:02:18.2±1.1, 4208N×14369E, h99^{km}, mb3.8/1, Error ellipse: s-maj=43.1km s-min=31.6km az=118.2*

*NEIC **26** 17:02:20.1±1.3, 42.10N×14368E, h96^{km}±9^{km}, MG3.8(JMA), Error ellipse: s-maj=27.5km s-min=19.0km az=67.0*

ISC 26 17:02:09.5±1.0, **4270N**±006×**14506E**±007, **h39**^{km}±9^{km}, **n18,** σ**0**^{s}**58**/24, **mb3.4**/5, **Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAK	**Akkeshi**	0.40	319	P	Pn	17 02 18.9	0.0
JAK				*e*S	Sn	17 02 26.1	+0.7
NEM2	**Nemuro 2**	0.84	37	P	Pn	17 02 24.7	0.0
NEM2				*e*S	Sn	17 02 36.2	+0.4
JNK	**Nakash**	0.92	345	P	Pn	17 02 25.5	-0.4
JNK				*e*S	Sn	17 02 37.1	-0.9
JOB	**Onbets**	0.93	283	P	Pn	17 02 25.7	-0.2
JOB				*e*S	Sn	17 02 37.5	-0.5
JAR	**Ashorobuto**	1.12	303	P	Pn	17 02 28.2	-0.4
JAR				*e*S	Sn	17 02 41.8	-1.0
JRA	**Rausu**	1.24	2	P	Pn	17 02 30.2	-0.1
JRA				*e*S	Sn	17 02 45.7	-0.1
JCH	**Churui**	1.25	267	P	Pn	17 02 30.5	+0.1
JCH				*e*S	Sn	17 02 46.8	+0.7
JTKR	**Abashiri--Toko**	1.53	327	P	Pn	17 02 34.6	+0.4
JTKR				*e*S	Sn	17 02 53.6	+0.8
ERM	**Erimo**	1.56	245	*e*Pn	Pn	17 02 34.8	+0.1
ERM	**Erimo**	1.56	245	*e*PN	Pn	17 02 34.8	+0.1
SONM	**Songino Array**	27.49	294	P	P	17 07 52.0	+0.2
	0.5nm,0.7s,mb3.1,baz=80,slow=8.9,SNR=4.0						
ZALV	**Zalesovo Beam**	40.42	308	P	P	17 09 44.4	+0.9
	0.3nm,0.3s,mb3.5,baz=76,slow=12,SNR=2.9						
ZAL	**Zalesovo**	40.44	308	P	P	17 09 44.4	+0.7
MKAR	**Makanchi Array**	43.72	298	P	P	17 10 10.4	-0.2
	0.2nm,0.4s,mb3.2,baz=81,slow=9.5,SNR=7.4						
YKA	**Yellowknife Ar**	57.52	33	P	pP	17 12 06.4	+0.6
YKA	**Yellowknife Ar**	57.52	33	P	pP	17 12 06.4	+0.6
	0.2nm,0.3s,baz=302,slow=7.6,SNR=4.0						
WRA	**Warramunga Arr**	63.10	191	P	P	17 12 31.4	-1.4
	0.7nm,1.2s,mb3.7,baz=5.3,slow=7.4,SNR=2.5						
ASAR	**Alice Springs**	66.83	191	P	P	17 12 57.5	+0.4
	0.3nm,0.9s,mb3.3,baz=16,slow=8.3,SNR=4.5						

IDC 26 17:17:23.3±1.9, **044N**×**12581E, h0**^{km}, **mb3.1**/3, **mb1 3.3**/3, **mb1mx3.2**/17, **mbtmp3.2**/3, **Error ellipse: s-maj=173.5km s-min=25.7km az=65.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	21.91	158	P	P	17 22 17.3	-1.0
	0.3nm,0.5s,baz=336,slow=11,SNR=8.1						
ASAR	**Alice Springs**	25.22	162	P	P	17 22 51.9	+0.9
	0.2nm,0.4s,baz=345,slow=12,SNR=6.5						
MKAR	**Makanchi Array**	59.75	327	P	P	17 27 29.9	0.0
	0.2nm,0.6s,baz=128,slow=7.7,SNR=6.4						

*ISCJB **26** 17:22:10.4±0.7, 4793N±008×1487E±0.1, h390^{km}±10^{km}, mb3.4/16, Error ellipse: s-maj=14.1km s-min=12.4km az=22.1*

*MOS **26** 17:22:11.1±0.9, 4824N×14867E, h387^{km}, mb3.7/2, Error ellipse: s-maj=20.1km s-min=12.9km az=80.0*

*IDC **26** 17:22:13.1±2.0, 4825N×14866E, h391^{km}±22^{km}, mb3.1/16, mb1 3.3/19, mb1mx3.3/24, mbtmp3.1/19, Error ellipse: s-maj=14.7km s-min=11.1km az=129.0*

*NEIC **26** 17:22:15.3±1.8, 4828N×14865E, h414^{km}±22^{km}, Error ellipse: s-maj=13.5km s-min=10.4km az=132.0*

ISC 26 17:22:11.3±0.8, **4800N**±009×**1488E**±01, **h382**^{km}±10^{km}, **n52,** σ**1**^{s}**34**/58, **mb3.4**/16, **Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YSS	**Yuzh-Sakhalins**	4.20	258	*e*PN	Pn	17 23 25.8	+1.6
YSS				*e*S	S	17 24 24.5	+1.3
YSS				smax			
	comp=E,40nm,1.1s						
NEM2	**Nemuro 2**	5.09	206	P	Pn	17 23 31.0	-2.5
NEM2				*e*S	S	17 24 34.4	-5.7
JTKR	**Abashiri--Toko**	5.26	222	P	Pn	17 23 36.9	+1.7
JMP	**Maruseppu**	5.48	225	P	Pn	17 23 39.7	+2.1
JAK	**Akkeshi**	5.76	211	P	Pn	17 23 39.1	-1.6
JAK				*e*S	S	17 24 48.1	-5.1
ASAJ	**Asahikawa**	5.78	230	P	Pn	17 23 43.4	+2.5
ASAJ	**Asahikawa**	5.78	230	PN	Pn	17 23 43.3	+2.4
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	5.78	230	P	Pn	17 23 43.3	+2.4
	comp=Z,0.7nm,0.3s,baz=54,slow=9.7,SNR=8.9						
JAR	**Ashorobuto**	5.86	218	P	Pn	17 23 42.0	+0.3
JOB	**Onbets**	6.16	216	P	Pn	17 23 44.0	-1.1
JOB				*e*S	S	17 24 56.8	-4.5
JCH	**Churui**	6.59	217	P	Pn	17 23 48.7	-1.2
JCH				*e*S	S	17 25 04.2	-6.0
JNBK	**Urakawa-nobuka**	7.12	219	P	Pn	17 23 54.3	-1.6
ERM	**Erimo**	7.18	216	*i* PN	Pn	17 23 57.1	+0.6
JNB	**Noboribetsu**	7.76	227	P	Pn	17 24 04.3	+1.1
JNB				*e*S	S	17 25 31.3	-3.3
JSH	**Shimam**	8.14	232	P	Pn	17 24 09.2	+1.6
JKB	**Kayabe**	8.20	225	P	Pn	17 24 06.6	-1.7
JKB				*e*S	S	17 25 37.2	-6.8
JTM	**Tenmabayashi**	9.07	220	*e*S	S	17 25 53.8	-8.8
JANG	**Nango**	9.23	217	*e*S	S	17 25 58.8	-7.2
KLR	**Kul'dur**	11.32	283	*e*PN	Pn	17 24 44.1	-0.5
VLA	**Vladivostok**	12.78	254	*e*PN	Pn	17 24 53.2	-8.4
VLA				pmax	pmax		
	comp=Z,91nm,1.4s						
MJAR	**Matsushiro Arr**	13.84	218	P	P	17 25 16.9	+5.0
MJAR	**Matsushiro Arr**	13.84	218	P	P	17 25 16.9	+5.0
	comp=Z,0.5nm,0.3s,baz=28,slow=11,SNR=6.5						
YAK	**Yakutsk**	17.70	330	*i* P	P	17 25 51.9	-1.2
YAK				pmax	pmax		
	comp=Z,2.0nm,0.5s						
KSRS	**Korea Array**	18.52	243	P	P	17 26 05.0	+2.9
	comp=Z,0.2nm,0.3s,baz=48,slow=10,SNR=5.8						
SONM	**Songino Array**	28.13	286	P	P	17 27 30.5	+0.8
	comp=Z,0.2nm,0.5s,mb2.7,baz=54,slow=7.3,SNR=2.1						
SONM				PcP	PcP	17 30 33.3	+0.9
	comp=Z,0.3nm,0.6s,baz=85,slow=3.6,SNR=2.7						
IMA2	**Indian Mountai**	34.57	37	*e*P	P	17 28 24.9	-0.3
ZALV	**Zalesovo Beam**	39.46	303	PcP	PcP	17 31 04.4	-0.4
	comp=Z,0.4nm,0.3s,baz=27,slow=1.6,SNR=4.0						
INK	**Inuvik**	42.19	33	P	P	17 29 27.4	-0.4
	comp=Z,2.1nm,0.6s,mb3.7,baz=302,slow=4.1,SNR=5.5						
MKAR	**Makanchi Array**	43.73	294	P	P	17 29 41.2	+1.0
MKAR	**Makanchi Array**	43.73	294	P	P	17 29 40.1	0.0
	comp=Z,0.5nm,0.8s,mb2.9,baz=58,slow=6.5,SNR=5.3						
MKAR				PcP	PcP	17 31 18.5	-0.7
	comp=Z,0.6nm,1.0s,baz=73,slow=2.0,SNR=4.0						
YKA	**Yellowknife Ar**	51.67	36	P	P	17 30 40.2	0.0
YKA	**Yellowknife Ar**	51.67	36	P	P	17 30 40.1	-0.1
YKA	**Yellowknife Ar**	51.67	36	P	P	17 30 40.2	0.0
	comp=Z,0.9nm,0.4s,mb3.3,baz=302,slow=7.1,SNR=19						
ARCES	**ARCESS Array B**	55.66	339	P	P	17 31 07.4	-1.2
ARCES				PcP	PcP	17 32 02.6	-0.2
ARCES	**ARCESS Array B**	55.66	339	P	P	17 31 07.4	-1.2
	comp=Z,1.0nm,0.7s,mb3.3,baz=26,slow=10,SNR=3.5						
ARCES				PcP	PcP	17 32 02.6	-0.2
	comp=Z,1.5nm,0.9s,baz=47,slow=4.0,SNR=2.9						
FINES	**FINESS Array B**	61.60	333	*i* P	P	17 31 48.5	-0.7
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	**FINESS Array B**	61.60	333	P	P	17 31 48.4	-0.8
	comp=Z,1.4nm,0.5s,mb3.7,baz=30,slow=8.8,SNR=10						
NVAR	**Mina Array Bea**	64.44	60	P	P	17 32 08.8	+0.8
	comp=Z,0.3nm,0.4s,mb3.2,baz=291,slow=8.5,SNR=2.8						
NOA	**NORSAR Array B**	66.04	339	P	P	17 32 16.9	-0.9
	comp=Z,0.9nm,0.8s,mb3.4,baz=42,slow=8.5,SNR=3.4						
PDAR	**Pinedale Array**	66.36	52	P	P	17 32 21.6	+1.5
PDAR	**Pinedale Array**	66.36	52	P	P	17 32 21.6	+1.5
	comp=Z,0.8nm,0.6s,mb3.6,baz=232,slow=1.0,SNR=2.4						
ULM	**Lac du Bonnet**	67.46	39	P	P	17 32 25.9	-0.9
ULM	**Lac du Bonnet**	67.46	39	P	P	17 32 25.9	-0.9
	comp=Z,0.6nm,0.4s,mb3.6,baz=315,slow=5.7,SNR=2.4						
AKASG	**Malin Array Be**	68.82	324	P	P	17 32 34.4	-0.8
	comp=Z,1.7nm,0.5s,mb3.9,baz=36,slow=6.0,SNR=4.4						
WRA	**Warramunga Arr**	68.86	195	*i* P	P	17 32 37.0	+1.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA	**Warramunga Arr**	68.86	195	P	P	17 32 37.2	+1.5
	comp=Z,0.7nm,0.6s,mb3.4,baz=9.7,slow=6.4,SNR=12						
ASAR	**Alice Springs**	72.58	194	P	P	17 33 00.4	+2.6
ASAR	**Alice Springs**	72.58	194	P	P	17 33 00.5	+2.7
	comp=Z,0.4nm,0.5s,mb3.2,baz=5.3,slow=5.8,SNR=19						
SCHQ	**Schefferville**	73.24	21	P	P	17 33 00.5	-0.9
	comp=Z,2.9nm,0.8s,mb3.9,baz=7.1,slow=8.1,SNR=3.1						
GERES	**GERESS Array B**	75.98	331	P	P	17 33 17.4	+0.4
	comp=Z,0.4nm,0.6s,mb3.2,baz=12,slow=6.0,SNR=3.0						
TXAR	**Lajitas Array**	79.40	58	P	P	17 33 37.4	+1.4
TXAR	**Lajitas Array**	79.40	58	P	P	17 33 37.4	+1.4
	comp=Z,0.7nm,0.6s,mb3.5,baz=302,slow=4.5,SNR=8.7						

*ISCJB **26** 17:24:23.1±1.2, 2138S±009×682W±02, h123^{km}±17^{km}, mb3.6/2, Error ellipse: s-maj=33.3km s-min=13.4km az=15.3*

*IDC **26** 17:24:24.6±2.5, 2129S×6823W, h117^{km}±21^{km}, mb3.5/2, mb1 3.5/5, mb1mx3.4/17, mbtmp3.4/5, Error ellipse: s-maj=39.6km s-min=25.1km az=101.0*

*NEIC **26** 17:24:24.1±0.9, 2134S×6823W, h114^{km}±9^{km}, mb4.7/1, Error ellipse: s-maj=25.0km s-min=9.9km az=106.0*

ISC 26 17:24:24.2±1.1, **2138S**±009×**682W**±02, **h119**^{km}±15^{km}, **n15,** σ**0**^{s}**87**/9, **mb3.6**/2, **Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LPAZ	**La Paz**	5.07	1	P	Pn	17 25 38.5	+0.4
	2.1nm,0.3s,baz=172,slow=7.5,SNR=39						
LCO	**Las Campanas**	7.93	196	*e*P	Pn	17 26 16.3	-0.5
	9.6nm,0.5s						
SIV	**San Ignacio**	8.62	53	P	Pn	17 26 25.5	-0.6
	4.2nm,0.3s,baz=251,slow=12,SNR=47						
SIV				S	Sn	17 27 54.7	-6.9
	0.1nm,0.3s,baz=218,slow=15,SNR=2.2						
CFAA	**Coronel Fontan**	10.18	180	P	Pn	17 26 48.9	+1.7
	0.1nm,0.3s,baz=4.3,slow=9.5,SNR=3.6						
CFAA				S	Sn	17 28 34.6	-4.8
	0.0nm,0.3s,baz=189,slow=7.2,SNR=2.0						
TORD	**Torodi Ar. Bea**	76.69	70	P	P	17 36 03.3	+0.6
	0.5nm,0.4s,mb3.6,baz=251,slow=4.4,SNR=8.9						
YKA	**Yellowknife Ar**	91.30	340	P	P	17 37 14.9	-0.8
YKA	**Yellowknife Ar**	91.30	340	P	P	17 37 14.9	-0.8
	0.3nm,0.6s,mb3.6,baz=132,slow=4.3,SNR=7.8						
ASAR	**Alice Springs**	130.32	207	PKP	PKPdf	17 43 21.6	+0.5
ASAR	**Alice Springs**	130.32	207	PKP	PKPdf	17 43 21.6	+0.5
	0.1nm,0.4s,baz=126,slow=1.6,SNR=4.3						
WRA	**Warramunga Arr**	133.39	210	PKP	PKPdf	17 43 27.7	+0.7
WRA	**Warramunga Arr**	133.39	210	PKP	PKPdf	17 43 27.7	+0.7
	0.4nm,0.8s,baz=157,slow=1.5,SNR=3.8						
ZALV	**Zalesovo Beam**	141.56	26	PKP	PKPdf	17 43 42.7	+1.8
ZALV	**Zalesovo Beam**	141.56	26	PKP	PKPdf	17 43 42.7	+1.8
	0.7nm,0.5s,baz=219,slow=12,SNR=4.0						
MKAR	**Makanchi Array**	145.14	36	PKPbc	PKPbc	17 43 48.0	+0.7
MKAR	**Makanchi Array**	145.14	36	PKPbc	PKPbc	17 43 48.0	+0.7
	0.4nm,0.4s,baz=357,slow=2.7,SNR=9.9						

*NIED **26** 17:47:00, 3130N×14100E, h74^{km}, Mw4.0 Best double couple: $M_0$1.08000×10^{15} NP1:ϕ_s27.00000°, δ27.00000°, λ66.00000°. NP2:ϕ_s233.00000°, δ65.00000°, λ102.00000°.*

*ISCJB **26** 17:47:24.3±0.7, 3107N±004×1411E±0.1, h80^{km}±7^{km}, mb3.9/11, Error ellipse: s-maj=15.4km s-min=6.1km az=166.6*

*IDC **26** 17:47:25.9±2.1, 3100N×14096E, h75^{km}±16^{km}, mb3.7/10, mb1 3.7/15, mb1mx3.7/24, mbtmp3.7/15, MS2.7/3, Ms1 2.7/3, ms1mx2.5/29, Error ellipse: s-maj=39.0km s-min=14.3km az=77.0*

*NEIC **26** 17:47:26.2±1.4, 3098N×14102E, h82^{km}±11^{km}, MG3.9(JMA), Error ellipse: s-maj=24.1km s-min=9.8km az=76.0*

*JMA **26** 17:47:28.7±0.3, 3129N×14099E, h81^{km}, M3.9*

ISC 26 17:47:25.9±0.7, **3107N**±004×**1411E**±01, **h78**^{km}±6^{km}, **n35,** σ**1**^{s}**01**/42, **mb3.9**/11, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHJ2	**Mitsune**	2.32	332	P	Pn	17 48 02.3	+0.4
JHJ2				*e*S	Sn	17 48 26.6	-2.9
JHJ	**Hachijo jima 2**	2.34	331	P	Pn	17 48 01.5	-0.7
	69nm,0.3s,baz=229,slow=19,SNR=4.2						
JHJ				S	Sn	17 48 24.6	-5.4
	186nm,0.3s,baz=89,slow=22,SNR=10						
JHJ				LR	LR	17 48 59.9	
	comp=Z,282nm,19.4s,baz=267,slow=40						
BSO1	**Boso 1**	3.58	358	P	Pn	17 48 20.0	+1.0
BSO3	**Boso 3**	3.76	352	P	Pn	17 48 21.9	+0.5
BSO3				*e*S	Sn	17 49 02.6	-1.9
TK01	**Tokai 1**	4.01	313	P	Pn	17 48 25.4	+0.5
CBIJ	**Chichi jima**	4.07	166	S	Sn	17 49 11.4	-0.7
	67nm,0.3s,baz=244,slow=20,SNR=4.7						
JOD2	**Odawara 2**	4.51	338	P	Pn	17 48 32.9	+1.1
JOD2				*e*S	Sn	17 49 20.3	-2.7
JYN	**Shimob**	4.91	335	P	Pn	17 48 39.1	+1.9
JIE	**Ise**	4.98	313	P	Pn	17 48 39.0	+0.9
JWZ	**Kozaga**	5.19	300	P	Pn	17 48 40.4	-0.5
JRY	**Ryogami san**	5.27	340	P	Pn	17 48 43.5	+1.5
JRY				*e*S	Sn	17 49 40.5	-0.9
JAG	**Ashikaga**	5.52	346	P	Pn	17 48 45.6	+0.2
JAG				*e*S	Sn	17 49 46.2	-1.3
MJAR	**Matsushiro Arr**	5.97	337	P	Pn	17 48 52.5	+0.9
	2.0nm,0.3s,baz=162,slow=11,SNR=18						
MAJO	**Matsushiro**	5.97	337	*e*Pn	Pn	17 48 52.7	+1.0
	16nm,0.7s						
MAT	**Matsushiro**	5.97	337	P	Pn	17 48 52.6	+1.0
MAT				*e*S	Sn	17 49 59.0	+0.4
JMK	**Ichinoseki**	7.87	1	P	Pn	17 49 17.5	0.0
JMK				*e*S	Sn	17 50 39.2	-5.7
JNU	**Nakatsue**	8.92	286	P	Pn	17 49 32.4	+0.4
	0.5nm,0.3s,baz=244,slow=4.2,SNR=5.1						
JNU				LR	LR	17 52 48.6	
	comp=Z,52nm,22.0s,baz=285,slow=37						
KSRS	**Korea Array**	12.63	304	P	Pn	17 50 22.2	-0.2
	0.1nm,0.3s,baz=124,slow=16,SNR=4.4						
KSRS				LR	LR	17 54 45.9	
	comp=Z,22nm,18.5s,baz=90,slow=35						
ASAJ	**Asahikawa**	13.08	5	P	Pn	17 50 27.8	-0.5
	0.7nm,0.3s,baz=244,slow=25,SNR=7.4						
GUMO	**Guam**	17.74	168	P	Pn	17 51 25.9	-1.9
	18nm,0.3s,baz=7.2,slow=22,SNR=2.1						
SONM	**Songino Array**	31.28	312	P	P	17 53 36.7	-1.5
	0.2nm,0.5s,mb3.1,baz=103,slow=6.4,SNR=2.3						
MKAR	**Makanchi Array**	47.29	307	P	P	17 55 49.8	-1.6
	0.6nm,0.5s,mb3.6,baz=88,slow=8.1,SNR=7.2						
MKAR				PcP	PcP	17 57 22.4	+1.1
	0.4nm,0.8s,baz=78,slow=6.7,SNR=4.1						
MKAR				ScP	ScP	18 01 08.0	-0.4
	0.2nm,0.5s,baz=75,slow=3.5,SNR=4.3						
WRA	**Warramunga Arr**	51.13	188	P	P	17 56 20.6	-0.3
	1.4nm,0.4s,mb4.4,baz=5.6,slow=7.7,SNR=84						
WRA				PcP	PcP	17 57 37.7	+2.2
	0.8nm,0.7s,baz=360,slow=3.9,SNR=4.7						
ASAR	**Alice Springs**	54.86	188	P	P	17 56 48.0	-0.2
	0.5nm,0.5s,mb3.9,baz=3.3,slow=6.5,SNR=28						
AKTK	**Aktyubinsk**	62.57	314	P	P	17 57 41.8	+0.3
AKTO	**Aktyubinsk**	62.57	314	P	P	17 57 41.8	+0.3
	1.1nm,0.6s,mb4.0,baz=86,slow=11,SNR=5.3						
YKA	**Yellowknife Ar**	69.11	29	pP	pP	17 58 45.2	+1.6
	0.2nm,0.5s,baz=299,slow=6.0,SNR=3.0						
ARCES	**ARCESS Array B**	69.50	340	P	P	17 58 26.4	+0.8
	1.9nm,0.8s,mb4.0,baz=78,slow=11,SNR=5.4						
JOF	**Joensuu**	71.12	333	*e*p	P	17 58 34.9	-0.7
	1.0nm,0.3s,mb4.1						
KAF	**Kangasniemi**	73.51	334	*e*p	P	17 58 50.1	+0.3
	baz=55,slow=5.5						
FINES	**FINESS Array B**	73.99	333	P	P	17 58 53.6	+0.9
	1.1nm,0.5s,mb3.9,baz=75,slow=6.1,SNR=11						
AKASG	**Malin Array Be**	78.88	323	P	P	17 59 20.9	+0.4
	1.8nm,0.3s,mb4.3,baz=52,slow=5.4,SNR=9.5						
NOA	**NORSAR Array B**	79.59	338	P	P	17 59 24.9	+0.8
NOA	**NORSAR Array B**	79.59	338	P	P	17 59 24.9	+0.8
	0.3nm,0.5s,mb3.4,baz=56,slow=4.9,SNR=2.4						
BRTR	**Keskin Array B**	82.64	312	P	P	17 59 40.9	+0.1
	1.1nm,0.7s,mb3.8,baz=76,slow=5.2,SNR=5.8						

IDC 26 17:47:57.9±7.8, **3470N**×**6769E, h0**^{km}, **mb3.5**/2, **mb1 3.5**/3, **mb1mx3.2**/22, **mbtmp3.5**/3, **ML3.3**/1, **1C, Error ellipse: s-maj=242.4km s-min=40.3km az=99.0, Southeastern Afghanistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	**Karatay Array**	8.68	14	Pn	Pn	17 50 14.5	+10
	1.4nm,0.6s,baz=183,slow=14,SNR=16						
KK31				⇑Sn	Sn	17 51 51.1	+7.9
	1.0nm,0.5s,baz=192,slow=23,SNR=4.7						
MKAR	**Makanchi Array**	16.35	38	Pn	Pn	17 51 48.1	-0.6
	0.1nm,0.3s,baz=214,slow=12,SNR=11						
ZALV	**Zalesovo Beam**	22.71	27	P	P	17 53 01.0	0.0
	0.4nm,0.4s,baz=215,slow=9.7,SNR=4.2						
ASAR	**Alice Springs**	85.49	123	P	P	18 00 37.9	+0.1
	0.2nm,0.6s,baz=313,slow=5.9,SNR=4.3						

*ISCJB **26** 17:58:23.0±0.8, 2023S±004×6895W±006, h81^{km}±7^{km}, mb4.6/27, Error ellipse: s-maj=8.8km s-min=6.2km az=171.7*

*BJI **26** 17:58:26.8, 2020S×6890W, h100^{km}, mB4.9*

*IDC **26** 17:58:27.0±0.4, 20.16S×6890W, h100^{km}±3^{km}, mb4.3/23, mb1 4.3/26, mb1mx4.3/27, mbtmp4.3/26, MS4.0/5, Ms1 4.0/5, ms1mx3.4/21, Error ellipse: s-maj=14.3km s-min=9.8km az=70.0*

*NEIC **26** 17:58:26.9±0.3, 20.16S×6894W, mb5.1/4, Error ellipse: s-maj=10.3km s-min=6.3km az=73.0*

NEIC Felt [III] at Iquique.

ISC 26 17:58:24.7±0.6, **2025S**±004×**6897W**±006, **h80**^{km}±6^{km}, **h100**^{km}±1.9^{km}**:pP-P, n81,** σ**1**^{s}**09**/57, **mb4.6**/27, **1C-2D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CEN1	**Los Morros**	3.33	200	*e*P	Pn	17 59 16.0	+1.5
CEN1				*i* S	Sn	18 00 03.4	+10
ANCH	**Antofagasta**	3.67	201	*e*P	Pn	17 59 16.9	-2.2
LPAZ	**La Paz**	4.02	12	*e*P	Pn	17 59 29.8	+5.8
LPAZ	**La Paz**	4.02	12	P	Pn	17 59 29.9	+5.9
ARE	**Arequipa**	4.46	327	*e*P	Pn	17 59 30.0	0.0
ARE				*i*		17 59 36.5	
ARE				*i*		18 00 07.4	
ARE				*e*S	Sn	18 00 19.0	-1.7
CPN1	**Cerro Paranal**	4.55	197	*e*P	Pn	17 59 30.0	-1.2
CDCH	**Caldera**	7.00	194	*e*P	Pn	17 59 59.5	-5.1
SIV	**San Ignacio**	8.62	62	P	Pn	18 00 28.6	+1.8
	15nm,0.3s,baz=246,slow=13,SNR=270						
SIV				S	Sn	18 02 02.7	+0.2
	baz=337,slow=22,SNR=1.6						
LCO	**Las Campanas**	8.86	190	*e*P	Pn	18 00 25.4	-4.6
	62nm,0.8s						
TLL	**Tololo Astrono**	10.01	189	*e*P	Pn	18 00 41.7	-4.0
NNA	**Nana**	11.16	316	P	Pn	18 01 03.3	+1.8
	1.9nm,0.3s,baz=140,slow=14,SNR=3.4						
NNA				S	Sn	18 02 53.3	-11
CFAA	**Coronel Fontan**	11.33	177	P	Pn	18 00 59.9	-3.7
	0.2nm,0.3s,baz=353,slow=12,SNR=23						
CFAA				S	Sn	18 02 57.3	-11
	0.3nm,0.3s,baz=218,slow=17,SNR=3.8						
MDZ	**Mendoza**	12.58	180	*e*P	Pn	18 01 24.1	+3.4
FCH	**Farellones**	13.08	185	*e*P	Pn	18 01 27.9	+0.6
ATAH	**Atahualpa**	16.03	324	P	Pn	18 02 06.8	+1.4
	0.3nm,0.3s,baz=56,slow=14,SNR=2.7						
ROSC	**El Rosal**	25.50	348	P	P	18 03 47.1	+1.3
	7.7nm,0.5s,mb4.4,baz=95,slow=22,SNR=3.4						
SDV	**Santo Domingo**	29.00	357	*e*P	P	18 04 15.6	-1.5
	14nm,0.8s,mb4.7						
SDV				*e*pP	pP	18 04 39.6	+3.9
SDV	**Santo Domingo**	29.00	357	P	P	18 04 16.0	-1.1
	5.2nm,0.4s,mb4.5,baz=209,slow=9.5,SNR=11						
SDV				LR	LR	18 16 19.9	
	comp=Z,108nm,20.9s,baz=179,slow=37						
PCRV	**Puerto La Cruz**	30.53	8	P	P	18 04 29.8	-0.9
	14nm,0.5s,mb5.0,baz=218,slow=3.0,SNR=6.0						
PCRV				LR	LR	18 16 59.0	
	comp=Z,201nm,21.6s,baz=25,slow=36						
EFI	**East Falkland**	32.51	167	*e*P	P	18 04 47.6	-0.1
	45nm,0.8s,mb5.3						
JTS	**JuntasAbangare**	34.18	331	P	P	18 05 01.8	-0.8
	1.7nm,0.4s,mb4.3,baz=277,slow=22,SNR=2.3						
USHA	**Ushuaia**	34.53	179	P	P	18 05 05.3	+0.2
	15nm,0.7s,mb4.9,baz=292,slow=11,SNR=6.5						
RCBR	**Riachuelo**	35.16	71	*e*P	P	18 05 11.8	+0.6
	61nm,0.9s,mb5.4						
SJG	**San Juan**	38.22	4	*e*P	P	18 05 34.8	-2.2
	67nm,0.8s,mb5.5						
SJG	**San Juan**	38.22	4	P	P	18 05 35.0	-2.0
	60nm,0.7s,mb5.6,baz=188,slow=2.6,SNR=20						
TEIG	**Tepich**	44.45	334	P	P	18 06 27.6	-0.3
	3.9nm,0.5s,mb4.4,baz=183,slow=23,SNR=3.5						
CMIG	**Matias Romero**	44.99	324	P	P	18 06 32.3	0.0
	2.8nm,0.8s,mb4.1,baz=110,slow=6.2,SNR=7.6						
TXAR	**Lajitas Array**	59.58	325	P	P	18 08 21.4	+1.2
	0.4nm,0.4s,mb3.8,baz=144,slow=11,SNR=4.7						
VNA3	**Neumayer Olymp**	61.27	162	*e*P	P	18 08 31.4	+0.2
VNA3				*e*		18 08 58.2	
VNA1	**Neumayer--Stat**	61.48	161	*e*P	P	18 08 33.6	+1.0
VNA1				*e*		18 09 00.1	
VNA2	**Neumayer--Watz**	61.84	161	*e*P	P	18 08 35.1	+0.1
	baz=291,slow=7.7						
VNA2				*e*		18 09 01.3	
SNAA	**Sanae**	63.48	161	P	P	18 08 46.2	+0.3
	5.1nm,0.8s,mb4.5,baz=276,slow=5.6,SNR=31						
SNAA				pP	pP	18 09 11.5	+5.0
	3.8nm,0.9s,baz=285,slow=5.7,SNR=4.9						
ANMO	**Albuquerque**	65.43	327	P	P	18 08 59.6	+0.5
	0.9nm,0.4s,mb3.9,baz=49,slow=4.4,SNR=3.1						
ANMO				pP	pP	18 09 23.5	+3.7
	2.1nm,0.6s,baz=155,slow=8.9,SNR=3.5						
MAIT	**Maitri**	67.98	159	*e*P	P	18 09 12.9	-2.0
LIC	**Lamto**	68.10	74	*e*P	P	18 09 15.8	-0.8
	58nm,1.2s,mb5.3						
TIC	**Toumodi**	68.28	74	*e*P	P	18 09 17.1	-0.6
	141nm,1.2s,mb5.7						
KIC	**Kosan Boka**	68.42	74	*e*P	P	18 09 18.1	-0.4
	212nm,1.0s						
QSPA	**South Pole Qui**	69.94	180	*e*P	P	18 09 27.7	+0.8
	8.3nm,0.5s,mb4.8						
QSPA				*e*	pP	18 09 53.0	+5.3
PDAR	**Pinedale Array**	73.00	330	P	P	18 09 47.5	+1.8
	0.9nm,1.0s,baz=130,slow=6.0,SNR=4.4						
PDAR				pP	pP	18 10 10.7	+3.9
	1.2nm,0.7s,baz=121,slow=5.8,SNR=5.4						
ULM	**Lac du Bonnet**	74.11	342	P	P	18 09 50.8	-1.2
	2.3nm,0.6s,mb4.1,baz=157,slow=7.7,SNR=6.2						
NVAR	**Mina Array Bea**	74.48	322	P	P	18 09 55.2	+0.8
	2.4nm,0.9s,mb4.0,baz=156,slow=6.9						
NVAR				pP	pP	18 10 20.4	+4.9
	3.6nm,0.8s,baz=164,slow=7.0,SNR=3.8						
SCHQ	**Schefferville**	74.80	1	P	P	18 09 55.4	-0.5
	9.7nm,0.8s,mb4.6,baz=194,slow=4.7,SNR=16						
PPT	**Papeete**	75.55	256	LR	LR	18 34 26.5	
	comp=Z,120nm,21.4s,baz=180,slow=28						
TORD	**Torodi Ar. Bea**	77.00	71	P	P	18 10 08.4	-0.9
	10nm,0.5s,mb4.8,baz=252,slow=5.3,SNR=83						
TORD				pP	pP	18 10 35.6	+5.1
	23nm,0.9s,baz=253,slow=5.6,SNR=8.6						
TORD				LR	LR	18 43 27.5	
	comp=Z,65nm,19.9s,baz=160,slow=35						
SYO	**Syowa Base**	77.69	160⇓	*e*P	P	18 10 10.6	-1.7
SYO	**Syowa Base**	77.69	160⇑	*e*PcP	PcP	18 10 20.4	-1.7
SYO	**Syowa Base**	77.69	160⇓	*e*pP	pP	18 10 40.4	+6.9
VNDA	**Vanda**	78.06	190	P	P	18 10 15.2	+0.9
	5.0nm,0.8s,mb4.3,baz=84,slow=6.0,SNR=6.3						
RAR	**Rarotonga**	83.60	250	P	P	18 10 45.8	+1.0
	10nm,0.6s,mb4.9,baz=117,slow=7.6,SNR=3.1						
BOSA	**Boshof**	84.08	118	P	P	18 10 47.8	+0.6
	3.7nm,0.8s,mb4.2,baz=270,slow=7.1,SNR=3.6						
ESDC	**Sonseca Array**	84.99	45	P	P	18 10 51.4	+0.1
	5.4nm,1.0s,mb4.4,baz=240,slow=5.3,SNR=11						
ESDC				pP	pP	18 11 17.3	+4.5
	6.5nm,1.0s,baz=238,slow=5.2,SNR=3.2						
MAW	**Mawson**	85.54	163	P	P	18 10 54.0	+0.3
	6.4nm,0.7s,mb4.7,baz=252,slow=4.8,SNR=3.5						
MAW				LR	LR	18 51 03.2	
	comp=Z,207nm,18.4s,baz=175,slow=37						
YKA	**Yellowknife Ar**	89.99	341	P	P	18 11 14.6	-0.2
YKA				pP	pP	18 11 41.3	+4.8
YKA	**Yellowknife Ar**	89.99	341	P	P	18 11 14.6	-0.2
	6.9nm,0.9s,mb4.8,baz=134,slow=4.5,SNR=4.6						
YKA				pP	pP	18 11 41.3	+4.8
	7.9nm,0.8s,baz=132,slow=4.3,SNR=8.1						
KEST	**Kesra**	92.60	53	P	P	18 11 27.7	+0.1
	2.0nm,0.8s,mb4.5,baz=34,slow=15,SNR=3.6						
ASAR	**Alice Springs**	130.99	208	PKP	PKPdf	18 17 26.6	-1.2
ASAR				pPKP	pPKPdf	18 17 55.1	+4.8
ASAR	**Alice Springs**	130.99	208	PKP	PKPdf	18 17 26.6	-1.2
	2.2nm,0.8s,baz=123,slow=1.1,SNR=8.2						

ASAR				pPKP	pPKPdf	18 17 55.1	+4.8
	1.4nm,0.8s,baz=138,slow=2.8,SNR=4.9						
WRA	**Warramunga Arr**	**133.99**	**211**	PKP	PKPdf	18 17 32.6	-1.0
WRA				pPKP	pPKPdf	18 17 59.8	+3.7
WRA	**Warramunga Arr**	**133.99**	**211**	PKP	PKPdf	18 17 32.6	-1.0
	2.7nm,0.7s,baz=161,slow=1.7,SNR=36						
WRA				pPKP	pPKPdf	18 17 59.8	+3.7
	0.6nm,0.6s,baz=160,slow=1.7,SNR=2.4						
ZALV	**Zalesovo Beam**	**140.85**	**24**	PKP	PKPdf	18 17 41.7	-3.4
ZALV				pPKP	pPKPdf	18 18 11.8	+4.1
ZALV	**Zalesovo Beam**	**140.85**	**24**	PKP	PKPdf	18 17 41.7	-3.4
	2.7nm,0.8s,baz=11,slow=2.9,SNR=5.9						
ZALV				pPKP	pPKPdf	18 18 11.8	+4.1
	3.8nm,0.7s,baz=299,slow=2.8,SNR=5.5						
KSH	**Kashi**	**144.35**	**50**	*e*PKP	PKPdf	18 17 52.0	+0.2
KSH				*e*PKS		18 21 25.0	
KSH				LR	LR		
	comp=N,609nm,4.0s						
KSH				LR	LR		
	comp=E,941nm,3.1s						
KSH				LR	LR		
	comp=Z,834nm,4.9s						
MK31	**Makanchi Array**	**144.65**	**35**	*e*PKP	PKPdf	18 17 50.9	-1.2
MKAR	**Makanchi Array**	**144.65**	**35**	PKP	PKPdf	18 17 50.9	-1.2
MKAR				pPKP	pPKPdf	18 18 18.5	+3.8
MKAR	**Makanchi Array**	**144.65**	**35**	PKP	PKPdf	18 17 50.9	-1.2
	comp=Z,4.8nm,0.7s,baz=321,slow=4.0,SNR=39						
MKAR				pPKP	pPKPdf	18 18 18.5	+3.8
	comp=Z,3.0nm,0.7s,baz=337,slow=5.3,SNR=6.1						
HYB	**Hyderabad**	**149.16**	**90**	*e*P	PKPdf	18 18 10.0	+10
HYB	**Hyderabad**	**149.16**	**90**	*i* PKP	PKPdf	18 17 59.0	-1.5
WMQ	**Urumqi**	**149.48**	**34**	PKP	PKPdf	18 18 02.5	+2.3
WMQ				PP	PP		
	comp=Z,21nm,10.5s						
HIA	**Hailar**	**150.22**	**348**	*e*PKPbc	PKPbc	18 18 06.8	+0.4
MDJ	**Mudanjiang**	**151.23**	**332**	PKP	PKPdf	18 18 00.0	-2.9
MDJ				XPKP		18 18 46.0	
MDJ				PP	PP	18 21 45.5	-1.8
MDJ				PP	PP		
	comp=Z,97nm,5.0s						
MJAR	**Matsushiro Arr**	**151.24**	**310**	PKPbc	PKPbc	18 18 08.8	-0.5
MJAR				pPKPbc	pPKPbc	18 18 35.5	+3.8
MJAR	**Matsushiro Arr**	**151.24**	**310**	PKPbc	PKPbc	18 18 08.8	-0.5
	comp=Z,3.9nm,0.8s,baz=79,slow=1.2,SNR=13						
MJAR				pPKPbc	pPKPbc	18 18 35.6	+3.8
	comp=Z,3.4nm,0.8s,baz=68,slow=1.2,SNR=4.4						
SONM	**Songino Array**	**152.23**	**7**	PKP	PKPdf	18 18 03.8	-0.5
SONM				PKPbc	PKPbc	18 18 11.0	-0.1
SONM				pPKP	pPKPdf	18 18 31.3	+4.3
SONM	**Songino Array**	**152.23**	**7**	PKP	PKPdf	18 18 03.8	-0.5
	comp=Z,0.7nm,0.8s,baz=192,slow=2.9,SNR=3.1						
SONM				PKPbc	PKPbc	18 18 11.0	-0.1
	comp=Z,1.9nm,0.7s,baz=324,slow=1.3,SNR=7.2						
SONM				pPKP	pPKPdf	18 18 31.3	+4.3
	comp=Z,2.9nm,0.8s,baz=350,slow=2.5,SNR=5.0						
KSRS	**Korea Array**	**157.42**	**323**	PKPab	PKPab	18 18 41.1	-2.4
	comp=Z,1.0nm,0.8s,baz=56,slow=3.6,SNR=5.9						
HHC	**Hu-ho-hao-te**	**159.46**	**359**	*e*PKP	PKPdf	18 18 11.0	-3.1
BJI	**Beijing**	**159.79**	**348**	PKP	PKPdf	18 18 11.0	-3.5
BJI				SS	SS	18 42 30.3	-5.2
BJI				LR	LR		
	comp=N,217nm,5.0s						
BJI				LR	LR		
	comp=E,284nm,4.8s						
BJI				LR	LR		
	comp=Z,90nm,32.7s						
LZH	**Lanzhou**	**163.01**	**20**	*e*PKP	PKPdf	18 18 21.0	+2.9
LZH				PP	PP	18 22 58.8	+6.9
LZH				SKKS	SKKSac	18 29 35.0	+1.4
LZH				SS	SS	18 43 12.0	+2.5
LZH				PP	PP		
	comp=Z,280nm,4.7s						
CD2	**Chengdu**	**167.53**	**30**	*e*PKP	PKPdf	18 18 18.0	-4.0
CD2				APKP		18 18 53.0	
CD2				PKP2	PKPab	18 19 27.3	-0.7
CD2				PP	PP	18 23 15.8	+0.1
CD2				SS	SS	18 43 54.5	-1.6
CD2				PP	PP		
	comp=Z,150nm,10.8s						
CD2				LR	LR		
	comp=N,80nm,15.6s						
CD2				LR	LR		
	comp=Z,80nm,15.8s						
KMI	**Kunming**	**170.94**	**56**	PKP	PKPdf	18 18 22.0	-2.3
GYA	**Guiyang**	**172.63**	**32**	PKP	PKPdf	18 18 22.0	-3.0
GYA				APKP		18 18 55.5	
GYA				PKP2	PKPab	18 19 50.5	-0.2
GYA				PKS		18 21 53.0	
GYA				PP	PP	18 23 42.8	+1.4
GYA				SKKS	SKKSac	18 30 15.5	-6.2
GYA				SS	SS	18 44 41.5	-5.3
GYA				PP	PP		
	comp=Z,120nm,8.7s						
GYA				LR	LR		
	comp=N,120nm,21.8s						
GYA				LR	LR		
	comp=E,270nm,22.6s						
GYA				LR	LR		
	comp=Z,110nm,21.7s						

IDC 26 17:58:40.0±8.8**, 1525S**×**17124W, h0**^{km}**, mb4.5**/4**,**
mb1 4.7/4**, mb1mx4.1**/17**, mbtmp4.5**/4**, Error ellipse:**
s-maj=186.5km s-min=149.1km az=129.0, Samoa
Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**22.19**	**249**	P	P	18 03 38.3	+0.3
	7.8nm,0.8s,baz=94,slow=14,SNR=3.2						
STKA	**Stephens Creek**	**45.92**	**240**	*e*P	P	18 07 04.7	0.0
	2.6nm,0.5s						
STKA	**Stephens Creek**	**45.92**	**240**	P	P	18 07 04.8	+0.1
	3.4nm,0.5s,baz=95,slow=10,SNR=14						
WB2	**Warramunga Arr**	**51.90**	**256**	*e*P	P	18 07 50.4	-0.3
WRA	**Warramunga Arr**	**51.91**	**256**	P	P	18 07 50.6	-0.2
	1.5nm,0.5s,baz=93,slow=8.1,SNR=59						
ASAR	**Alice Springs**	**52.14**	**252**	P	P	18 07 52.4	-0.1
	13nm,0.6s,baz=88,slow=8.1,SNR=377						
KAKA	**Kakadu**	**54.59**	**265**	*e*P	P	18 08 13.3	+2.7
	6.6nm,0.8s						
FITZ	**Fitzroy Crossi**	**60.28**	**258**	*e*P	P	18 08 52.8	+2.0
	5.2nm,1.2s						

*ISCJB **26** 18:18:20.1±0.4, 3265N±002×11599W±002, h9^{km}±3^{km},*
Error ellipse: s-maj=4.0km s-min=2.8km az=144.6
*ECX **26** 18:18:21.0±0.7, 3267N×11599W, h2^{km}, MD2.8, ML2.9*
ISC 26 18:18:20.1±0.3**, 3266N**±002×**11600W**±002**, h9**^{km}±3^{km}**, n32,**
σ**0.^{s}92**/47**, 20C-15D, California-Baja California border**
region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YUH	**Yuha Desert**	**0.07**	**98**	⇑*e*P	**Pg**	**18 18 21.7**	**-0.4**
DVTC	**Desert V Tower**	**0.09**	**271**	⇓P	**Pg**	**18 18 22.7**	**+0.3**
	baz=0.0,SNR=215						
DVTC				⇑S	**Sg**	**18 18 24.1**	**+0.2**
	baz=0.0						
CRR	**Carrizo Plain**	**0.23**	**6**	⇓*e*P	**Pg**	**18 18 25.1**	**+0.2**
SGL	**Mount Signal**	**0.23**	**92**	⇑*e*P	**Pg**	**18 18 25.2**	**+0.4**
COK	**Cook Ranch**	**0.30**	**50**	⇑*e*P	**Pg**	**18 18 26.8**	**+0.7**
SWSC	**Sam W. Stewart**	**0.33**	**31**	P	**Pg**	**18 18 27.0**	**+0.4**
	baz=0.4,SNR=126						
SWSC				⇑S	**Sg**	**18 18 31.6**	**+0.6**
	baz=0.4						
MONP	**Monument Peak**	**0.42**	**303**	⇓P	**Pg**	**18 18 28.8**	**+0.4**
	baz=0.4,SNR=30						
MONP				⇑S	**Sg**	**18 18 34.1**	**+0.2**
	baz=0.4						
BAR	**Barrett**	**0.57**	**272**	⇓*e*P	**Pg**	**18 18 31.4**	**+0.3**
CBX	**Cerro Bola**	**0.66**	**239**	*e*P	**Pg**	**18 18 33.2**	**+0.4**
CBX				*e*S	**Sg**	**18 18 42.3**	**+0.9**
COA	**Coachella**	**0.77**	**74**	⇑*e*P	**Pg**	**18 18 35.1**	**+0.2**
EMX	**El Mayor**	**0.93**	**136**	⇑*e*P	**Pg**	**18 18 47.2**	**+9.2**
EMX				*e*S	**Sg**	**18 19 05.8**	**+16**
EMX				⇓*e*		18 19 11.9	
	comp=E,273nm,1.1s						
ENX	**Ensenada**	**0.96**	**216**	*e*P	**Pg**	**18 18 38.1**	**-0.4**
ENX				*e*S	**Sg**	**18 18 51.4**	**+0.5**
ENX				⇓*e*		18 18 53.5	
	comp=N,327nm,0.5s						
109C	**Camp Elliot, M**	**0.96**	**284**	⇑P	**Pg**	**18 18 38.1**	**-0.5**
	baz=0.9,SNR=14						
109C				⇓S	**Sg**	**18 18 50.5**	**-0.6**
	baz=0.9						
PFO	**Pinyon Flat Ob**	**1.02**	**338**	⇓P	**Pg**	**18 18 39.3**	**-0.5**
	baz=1.0,SNR=16						
PFO				⇑S	**Sg**	**18 18 53.5**	**+0.4**
	baz=1.0						
GLA	**Glamis**	**1.06**	**68**	P	**Pg**	**18 18 39.6**	**-1.0**
	baz=1.1,SNR=10						
GLA				⇑S	**Sg**	**18 18 53.2**	**-1.2**
	baz=1.1						
BC3	**Big Chuckw Mtn**	**1.10**	**25**	P	**Pg**	**18 18 40.0**	**-1.2**
	baz=1.1,SNR=29						
BC3				⇑S	**Sg**	**18 18 54.2**	**-1.2**
	baz=1.1						
PBX	**Punta Banda**	**1.10**	**214**	*e*P	**Pg**	**18 18 40.3**	**-1.0**
PBX				*e*S	**Sg**	**18 18 56.0**	**+0.5**
PBX				*e*		18 18 56.5	
	comp=N,295nm,0.5s						
ECNX	**Esteban Cantu**	**1.12**	**207**	*e*P	**Pg**	**18 18 41.0**	**-0.6**
ECNX				*e*S	**Sg**	**18 18 56.5**	**+0.4**
BELC	**Belle Mtn.**	**1.34**	**0**	P	**Pn**	**18 18 43.8**	**-1.2**
	baz=1.4,SNR=35						
BELC				⇓S	**Sb**	**18 19 01.2**	**-1.5**
	baz=1.4						
MURC	**Murrieta**	**1.38**	**313**	⇑S	**Sb**	**18 19 03.3**	**-0.5**
	baz=1.3						
ECBX	**El Chinero**	**1.43**	**145**	⇑*e*P	**Pn**	**18 18 37.6**	**-8.6**
ECBX				*e*S	**Sn**	**18 18 50.0**	**-15**
Y12C	**Blythe**	**1.65**	**48**	⇑S	**Sn**	**18 19 09.8**	**-0.9**
	baz=1.7						
IRM	**Iron Mountain**	**1.66**	**25**	⇑P	**Pn**	**18 18 47.9**	**-1.6**
	baz=1.7						
IRM				⇓Sb	**Sb**	**18 19 13.2**	**+1.3**
	baz=1.7						
BBRC	**Big Bear Sol-O**	**1.78**	**335**	⇓Sb	**Sb**	**18 19 16.6**	**+1.3**
	baz=1.8						
CIS	**Catalina Islan**	**2.15**	**291**	⇑Sb	**Sb**	**18 19 25.0**	**-1.1**
	baz=2.1						
Y13A	**Salome**	**2.15**	**57**	⇑Sb	**Sb**	**18 19 27.3**	**+1.2**
	baz=2.2						
X13A	**Yucca**	**2.65**	**43**	⇓S	**Sn**	**18 19 35.3**	**+0.1**
	baz=2.7						
Z14A	**Wintersburg**	**2.66**	**74**	⇑S	**Sn**	**18 19 34.9**	**-0.6**
	baz=2.7						
EDW2	**Edwards Air Fo**	**2.77**	**324**	⇓Sb	**Sb**	**18 19 45.6**	**+1.8**
	baz=2.7						
Y14A	**Wickenburg**	**2.81**	**62**	⇓Sb	**Sb**	**18 19 47.0**	**+1.8**
	baz=2.9						
X14A	**Yava**	**3.16**	**54**	⇑Sb	**Sb**	**18 19 58.3**	**+3.1**
	baz=3.2						
X15A	**Humboldt**	**3.63**	**59**	⇓Sb	**Sb**	**18 20 12.5**	**+3.8**
	baz=3.7						

*IDC **26** 18:20:04.6±1.1, 5407S×5896W, h0^{km}, mb4.0/4, mb1 4.2/4,*
mb1mx4.1/10, mbtmp4.0/4, MS3.6/1, Ms1 3.7/1,
ms1mx3.4/14, Error ellipse: s-maj=53.4km s-min=35.2km
az=46.0
*ISCJB **26** 18:20:05.4±2.2, 5391S±007×588W±03, h8^{km}±14^{km},*
mb4.2/6, MS3.5/1, Error ellipse: s-maj=26.7km
s-min=11.1km az=177.1
*NEIC **26** 18:20:07.2±0.6, 5389S×5870W, h10^{km}, mb4.7/2, Error*
ellipse: s-maj=30.1km s-min=12.9km az=91.0
ISC 26 18:20:08.7±2.2**, 5388S**±007×**588W**±03**, h17**^{km}±14^{km}**, n22,**
σ**0.^{s}97**/13**, mb4.2**/6**, MS3.5**/1**, Falkland Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EFI	**East Falkland**	**2.24**	**11**	*e*Pn	**Pn**	**18 20 46.4**	**+1.4**
EFI				*e*Pg	**Pg**	**18 20 50.0**	**-1.7**
EFI				*e*Sg	**Sg**	**18 21 21.7**	**+0.9**
PMSA	**Palmer Station**	**11.26**	**192**	*e*Pn	**Pn**	**18 22 50.1**	**+1.6**
LCO	**Las Campanas**	**26.33**	**336**	*e*P	**P**	**18 25 43.3**	**-0.2**
	6.7nm,0.5s,mb4.4						
VNA3	**Neumayer Olymp**	**27.38**	**148**	*e*	**P**	**18 25 52.3**	**-0.3**
VNA3				*e*		18 25 59.8	
VNA1	**Neumayer--Stat**	**27.71**	**146**	*e*	**P**	**18 25 56.0**	**+0.5**
VNA1				*e*		18 26 03.5	
VNA2	**Neumayer--Watz**	**28.04**	**147**	*e*	**P**	**18 25 58.9**	**+0.4**
	baz=277,slow=9.2						
VNA2				*e*	pP	18 26 05.4	+1.8
QSPA	**South Pole Qui**	**36.38**	**180**	*e*P	**P**	**18 27 09.6**	**-1.6**
	18nm,0.9s,mb5.0						
LPAZ	**La Paz**	**38.22**	**345**	P	**P**	**18 27 27.4**	**-0.1**
	0.4nm,0.4s,mb3.5,baz=18,slow=14,SNR=2.6						
LPAZ				LR	LR	18 42 54.1	
	comp=Z,81nm,20.9s,MS3.5,baz=179,slow=36						
BOSA	**Boshof**	**64.01**	**103**	P	**P**	**18 30 41.3**	**+0.2**
	1.7nm,0.8s,mb4.1,baz=166,slow=20,SNR=2.6						
TORD	**Torodi Ar. Bea**	**84.13**	**58**	P	**P**	**18 32 37.5**	**-1.1**
	1.6nm,0.8s,mb4.2,baz=248,slow=5.6,SNR=8.6						
TXAR	**Lajitas Array**	**91.52**	**322**	P	**P**	**18 33 13.8**	**-0.1**
	0.5nm,0.6s,mb4.0,baz=160,slow=7.6,SNR=5.9						
ASAR	**Alice Springs**	**102.01**	**192**	P	Pdif	18 33 58.7	-3.1
	0.3nm,0.6s,baz=171,slow=4.5,SNR=7.2						
WRA	**Warramunga Arr**	**105.62**	**193**	PKPdf	PKiKP	18 38 28.0	-2.9
WRA	**Warramunga Arr**	**105.62**	**193**	PKiKP	PKiKP	18 38 28.0	-2.9
	0.1nm,0.4s,baz=176,slow=1.0,SNR=5.0						
YKA	**Yellowknife Ar**	**124.01**	**332**	PKP	PKPdf	18 39 03.4	-1.1
YKA	**Yellowknife Ar**	**124.01**	**332**	PKP	PKPdf	18 39 03.3	-1.1
	1.1nm,0.6s,baz=145,slow=2.0,SNR=19						
NOA	**NORSAR Array B**	**127.25**	**35**	PKP	PKPdf	18 39 10.5	-0.2
NOA	**NORSAR Array B**	**127.25**	**35**	PKP	PKPdf	18 39 10.5	-0.2
	0.9nm,0.9s,baz=217,slow=2.2,SNR=2.6						
ARCES	**ARCESS Array B**	**137.18**	**31**	PKP	PKPdf	18 39 30.1	+0.9
ARCES	**ARCESS Array B**	**137.18**	**31**	PKP	PKPdf	18 39 30.1	+0.9
	1.2nm,0.7s,baz=264,slow=1.2,SNR=5.2						
MKAR	**Makanchi Array**	**154.41**	**90**	PKPbc	PKPbc	18 40 05.7	-1.4
MKAR	**Makanchi Array**	**154.41**	**90**	PKPbc	PKPbc	18 40 05.7	-1.5
	0.3nm,0.5s,baz=285,slow=1.4,SNR=6.5						

*IDC **26** 18:24:11.3±1.0, 555N×12665E, h0^{km}, mb3.7/8, mb1 3.8/8,*
mb1mx3.7/20, mbtmp3.7/8, Error ellipse: s-maj=74.4km
s-min=15.2km az=73.0
*ISCJB **26** 18:24:17.4±1.8, 57N±01×1270E±03, h65^{km}±17^{km},*
mb3.6/8, Error ellipse: s-maj=50.0km s-min=12.7km
az=157.0
*MAN **26** 18:24:17, 544N×12644E, h4^{km}, mb4.9, ML3.8, MS3.9*
*NEIC **26** 18:24:19.3±2.1, 554N×12664E, h60^{km}±19^{km}, mb4.0/1,*
Error ellipse: s-maj=57.7km s-min=10.6km az=72.0
ISC 26 18:24:18.4±1.9**, 56N**±01×**1269E**±03**, h54**^{km}±18^{km}**, n15,**
σ**1.^{s}02**/16**, mb3.6**/8**, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	**Mati**	**1.50**	**333**	*e*P	**Pn**	**18 24 41.8**	**-1.2**
DAV	**Davao City (W)**	**1.99**	**317**	*e*P	**Pn**	**18 24 48.6**	**-1.0**
GSPH	**General Santos**	**2.04**	**284**	⇑*e*P	**Pn**	**18 24 42.4**	**-7.9**
BUKP	**Musuan**	**2.93**	**321**	*e*P	**Pn**	**18 25 03.5**	**+1.0**
BUKP				*e*S	**Sn**	**18 25 37.7**	**+1.2**
BUTP	**Butuan**	**3.59**	**339**	*e*P	**Pn**	**18 25 16.5**	**+4.9**
FITZ	**Fitzroy Crossi**	**23.59**	**183**	*e*P	**P**	**18 29 24.7**	**+0.3**
	8.4nm,1.4s,mb4.0						
FITZ	**Fitzroy Crossi**	**23.59**	**183**	P	**P**	**18 29 23.3**	**-1.1**
	0.8nm,0.5s,mb3.4,baz=2.6,slow=12,SNR=8.1						
WRA	**Warramunga Arr**	**26.41**	**164**	P	**P**	**18 29 51.2**	**+1.2**
	1.0nm,0.5s,mb3.6,baz=343,slow=10,SNR=16						
WRA				PcP	PcP	18 33 14.7	+0.1
	0.5nm,0.9s,baz=330,slow=2.3,SNR=2.9						
WB2	**Warramunga Arr**	**26.41**	**164**	*e*P	**P**	**18 29 51.5**	**+1.5**
ASAR	**Alice Springs**	**29.87**	**167**	P	**P**	**18 30 19.9**	**-1.1**
	0.3nm,0.6s,mb3.2,baz=350,slow=7.5,SNR=9.4						
ASAR				PcP	PcP	18 33 23.5	+0.4
	0.3nm,0.7s,baz=347,slow=2.3,SNR=6.4						
NWAO	**Narrogin (SRO)**	**39.41**	**193**	P	**P**	**18 31 42.4**	**-0.7**
	6.8nm,0.8s,mb4.4,baz=343,slow=6.1,SNR=3.2						
STKA	**Stephens Creek**	**39.80**	**160**	P	**P**	**18 31 46.5**	**+0.2**
	0.5nm,0.4s,mb3.6,baz=338,slow=9.1,SNR=3.7						
SONM	**Songino Array**	**45.60**	**341**	P	**P**	**18 32 34.3**	**+1.1**
	0.2nm,0.5s,mb3.3,baz=155,slow=7.9,SNR=2.3						
MKAR	**Makanchi Array**	**56.15**	**324**	P	**P**	**18 33 51.5**	**-1.0**
	0.4nm,0.4s,mb3.8,baz=122,slow=7.3,SNR=17						
ZALV	**Zalesovo Beam**	**59.03**	**332**	P	**P**	**18 34 11.7**	**-0.8**
	0.2nm,0.4s,mb3.5,baz=117,slow=1.6,SNR=2.5						

*MAN **26** 18:28:34, 521N×12662E, h21^{km}, mb5.1, ML4.0, MS4.1*
*IDC **26** 18:28:39.5±3.9, 559N×12650E, h64^{km}±32^{km}, mb3.4/6,*
mb1 3.6/6, mb1mx3.3/19, mbtmp3.4/6, MS3.5/1, Ms1 3.5/1,
ms1mx2.8/18, Error ellipse: s-maj=96.3km s-min=16.0km
az=68.0
*ISCJB **26** 18:28:40.7±1.1, 539N±009×1259E±01, h90^{km}±13^{km},*
mb3.6/6, Error ellipse: s-maj=24.8km s-min=15.1km
az=173.7
ISC 26 18:28:41.6±1.1**, 537N**±009×**1259E**±01**, h77**^{km}±15^{km}**, n13,**
σ**0.^{s}76**/14**, mb3.6**/6**, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GSPH	**General Santos**	**1.18**	**307**	⇑*e*P	**Pn**	**18 29 02.4**	**-0.3**
MATI	**Mati**	**1.61**	**13**	*e*P	**Pn**	**18 29 01.4**	**-6.8**
MATI				*e*S	**Sn**	**18 29 28.7**	**+0.3**
BUKP	**Musuan**	**2.63**	**342**	*e*P	**Pn**	**18 29 22.0**	**+0.1**
BUKP				*e*S	**Sn**	**18 29 59.3**	**+6.5**
BUTP	**Butuan**	**3.59**	**356**	*e*P	**Pn**	**18 29 34.6**	**-0.3**
FITZ	**Fitzroy Crossi**	**23.32**	**181**	*e*P	**P**	**18 33 44.8**	**+1.7**
	6.5nm,1.0s,mb3.9						
FITZ	**Fitzroy Crossi**	**23.32**	**181**	P	**P**	**18 33 44.5**	**+1.4**
	3.7nm,1.1s,mb3.6,baz=21,slow=8.6,SNR=5.8						
WRA	**Warramunga Arr**	**26.49**	**162**	P	**P**	**18 34 10.9**	**-1.0**
	1.2nm,0.6s,mb3.5,baz=343,slow=10.0,SNR=12						
WRA				PcP	PcP	18 37 34.8	-0.5
	1.1nm,1.2s,baz=353,slow=32,SNR=3.2						
WRA				ScP	ScP	18 41 08.5	0.0
	0.5nm,1.0s,baz=356,slow=3.7,SNR=4.8						
WB2	**Warramunga Arr**	**26.49**	**162**	*e*P	**P**	**18 34 12.8**	**+0.9**
ASAR	**Alice Springs**	**29.90**	**165**	P	**P**	**18 34 42.2**	**0.0**
	0.5nm,0.9s,mb3.2,baz=356,slow=8.4,SNR=6.3						
ASAR				PcP	PcP	18 37 43.2	-0.4
	0.5nm,1.0s,baz=0.1,slow=2.5,SNR=4.3						
NWAO	**Narrogin (SRO)**	**38.96**	**192**	LR	LR	18 54 57.6	
	comp=Z,62nm,18.7s,baz=183,slow=40						
STKA	**Stephens Creek**	**39.95**	**159**	P	**P**	**18 36 07.2**	**-1.3**
	0.9nm,0.6s,mb3.8,baz=342,slow=6.4,SNR=3.0						
MKAR	**Makanchi Array**	**55.74**	**325**	P	**P**	**18 38 10.8**	**+0.4**
	0.4nm,0.5s,mb3.8,baz=117,slow=8.2,SNR=18						
MKAR				PcP	PcP	18 39 08.7	-0.1
	0.7nm,0.8s,baz=122,slow=4.4,SNR=4.7						
ZALV	**Zalesovo Beam**	**58.76**	**333**	P	**P**	**18 38 31.1**	**-0.4**
	0.5nm,0.7s,mb3.7,baz=145,slow=5.3,SNR=3.0						

IDC 26 18:40:26.3±1.3**, 110S**×**12773E, h0**^{km}**, mb3.8**/5**, mb1 3.8**/6**,**
mb1mx3.7/17**, mbtmp3.8**/6**, ML3.7**/1**, Error ellipse:**
s-maj=119.7km s-min=20.1km az=69.0, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**19.81**	**161**	P	Pn	18 44 58.8	-1.2
	0.2nm,0.3s,baz=341,slow=12,SNR=25						
ASAR	**Alice Springs**	**23.21**	**166**	P	P	18 45 35.3	+0.1
	0.8nm,0.7s,baz=346,slow=11,SNR=11						
SONM	**Songino Array**	**52.17**	**342**	P	P	18 49 39.6	+1.0
	0.5nm,0.4s,baz=157,slow=7.8,SNR=2.9						
MKAR	**Makanchi Array**	**62.09**	**326**	P	P	18 50 48.9	0.0
	0.5nm,0.3s,baz=115,slow=8.2,SNR=37						
ZALV	**Zalesovo Beam**	**65.33**	**334**	P	P	18 51 10.1	0.0
	0.3nm,0.3s,baz=119,slow=5.6,SNR=3.8						
AKTO	**Aktyubinsk**	**78.05**	**322**	P	P	18 52 26.3	-0.6
	0.8nm,0.4s,baz=98,slow=8.0,SNR=6.9						

CASC 26 19:15:28.9±1.6**, 836N**×**8282W, h0**^{km}±5^{km}**, MD3.8, 3C-2D,**
Panama-Costa Rica border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRU2	**Volcan**	**0.46**	**17**	⇓*i*P	Pg	19 15 39.5	+1.9
BRU2				*e*S	Sg	19 15 47.1	+3.6
TBS2		**0.47**	**21**	*e*P	Pg	19 15 46.0	+8.2
TBS2				*e*S	Sg	19 15 55.6	+12
BRU	**Baru**	**0.52**	**30**	⇑*i*P	Pg	19 15 40.9	+2.0
BRU				*e*S	Sg	19 15 50.5	+4.9
CTCR	**Cotoan**	**0.54**	**7**	⇓*i*P	Pg	19 15 40.9	+1.6
CTCR				*e*S	Sg	19 15 50.0	+3.7
BAR1		**1.00**	**331**	*e*P	Pg	19 15 47.6	-0.6
BAR1				*e*S	Sg	19 16 02.6	+1.4
CNI	**Changuinola**	**1.10**	**16**	⇑*i*P	Pg	19 15 49.9	-0.1
QCR	**Quepos**	**1.70**	**309**	*e*P	Pn	19 15 59.0	-0.8
QCR				*e*S	Sn	19 16 24.0	+1.7
URSC	**Urasca**	**1.75**	**327**	*e*P	Pn	19 15 59.7	-0.8
URSC				*e*S	Sn	19 16 24.7	+1.3
LCR2	**La Lucha 2**	**1.80**	**320**	*e*P	Pn	19 16 00.9	-0.3
LCR2				*e*S	Sn	19 16 27.5	+2.6
LAJ	**Bijagual**	**1.97**	**320**	*e*P	Pn	19 16 06.1	+2.5
LAJ				*e*S	Sn	19 16 36.9	+7.9
PRS1	**Puriscal**	**2.19**	**318**	*e*P	Pn	19 16 06.5	0.0
PRS1				*e*S	Sn	19 16 35.7	+1.4
CGA2	**Cerro Gallo 2**	**2.31**	**316**	*e*P	Pn	19 16 09.1	+0.8
CGA2				*e*S	Sn	19 16 39.9	+2.4
PTP	**Ponta Puerca**	**19.39**	**58**	⇑*i*P		19 15 33.5	

*ISCJB **26** 19:18:02.9±0.9, 992N±007×4265E±006, h10^{km}, mb3.7/4,*
Error ellipse: s-maj=10.5km s-min=6.4km az=146.7
*IDC **26** 19:18:02.9±1.5, 1011N×4284E, h0^{km}, mb3.6/4, mb1 3.6/5,*
mb1mx3.5/20, mbtmp3.6/5, ML2.9/1, MS3.2/1, Ms1 3.2/1,
ms1mx2.7/21, Error ellipse: s-maj=59.3km s-min=24.8km
az=135.0
*DHMR **26** 19:18:03.1±0.3, 999N×4284E, h8^{km}±481^{km}, ML3.5*
ISC 26 19:18:04.7±0.9**, 990N**±007×**4269E**±006**, h10**^{km}**, n9,**
σ**1.^{s}29**/13**, mb3.7**/4**, Ethiopia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DESE	**Dese**	**3.23**	**292**	*e*Pn	**Pn**	**19 18 56.1**	**+0.6**
DESE				Pg	**Pg**	**19 19 01.9**	**-4.9**
DESE				Sg	**Sg**	**19 19 48.1**	**-0.6**
TRBA	**At Turbah**	**3.59**	**23**	*i* P	**Pn**	**19 19 00.1**	**-0.4**
TRBA				*i* S	**Sn**	**19 19 44.5**	**+1.5**
TRBA				AML	AML	19 20 04.4	
	comp=N,198nm,0.6s						
LBOS		**4.67**	**32**	*i* S	**Sn**	**19 20 10.1**	**+0.4**
DHBB	**Dhamar BB**	**4.93**	**20**	*i* S	**Sn**	**19 20 16.8**	**+0.8**
KMBO	**Kilima Mbogo**	**12.22**	**207**	Pn	**Pn**	**19 21 00.9**	**+1.9**
	comp=N,0.1nm,0.3s,baz=48,slow=14,SNR=3.0						
KMBO				Sn	**Sn**	**19 23 25.9**	**+11**
	comp=N,0.2nm,0.3s,baz=109,slow=16,SNR=3.4						
KMBO				Lg		19 24 25.8	
	comp=N,0.8nm,0.3s,baz=263,slow=22,SNR=5.5						
KMBO				LR	LR	19 25 39.2	
	comp=N,108nm,21.5s,baz=272,slow=37						
TORD	**Torodi Ar. Bea**	**40.26**	**279**	P	**P**	**19 25 43.0**	**+0.7**
	comp=N,0.5nm,0.9s,mb3.2,baz=95,slow=11,SNR=3.4						
MKAR	**Makanchi Array**	**49.78**	**35**	P	**P**	**19 26 55.5**	**-2.1**
	comp=N,0.7nm,0.8s,mb3.7,baz=229,slow=7.4,SNR=7.3						
ZALV	**Zalesovo Beam**	**55.27**	**29**	P	**P**	**19 27 35.6**	**-2.5**
	comp=N,0.9nm,0.6s,mb4.0,baz=238,slow=8.3,SNR=5.7						
SONM	**Songino Array**	**65.15**	**42**	P	**P**	**19 28 44.6**	**-1.4**
	comp=N,0.5nm,0.4s,mb3.9,baz=258,slow=5.7,SNR=3.2						

*IDC **26** 19:22:30.4±0.8, 1706S×16731E, h0^{km}, mb4.4/12,*
mb1 4.5/14, mb1mx4.5/19, mbtmp4.4/14, ML4.2/2, MS3.8/10,
Ms1 3.8/10, ms1mx3.6/28, Error ellipse: s-maj=26.8km
s-min=18.2km az=120.0
*ISCJB **26** 19:22:31.7±3.7, 1712S±005×1672E±01, h17^{km}±25^{km},*
mb4.5/21, MS3.8/9, Error ellipse: s-maj=18.4km
s-min=8.3km az=175.5
*NEIC **26** 19:22:32.0±0.4, 1699S×16728E, h10^{km}, mb4.8/7, Error*
ellipse: s-maj=11.4km s-min=7.8km az=109.0
*LDG **26** 19:22:34.4±0.2, 1700S×16620E, h10^{km}, Mb4.7/2, Error*
ellipse: s-maj=42.7km s-min=3.8km az=83.0
*BJI **26** 19:22:34.2, 1621S×16766E, h21^{km}, mB5.2, mb4.8*
ISC 26 19:22:34.5±3.8**, 1712S**±005×**1673E**±01**, h23**^{km}±25^{km}**,**
h18^{km}±2.9^{km}**:pP-P, n130,** σ**1.^{s}03**/44**, mb4.6**/20**, MS3.8**/9**,**
Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**4.98**	**189**	*e*P	**Pn**	**19 23 47.6**	**-0.4**
DZM				*e*S	**Sn**	**19 24 43.5**	**-1.4**
DZM	**Mont Dzumac**	**4.98**	**189**	*e*P	**Pn**	**19 23 47.6**	**-0.4**
DZM				*e*S	**Sn**	**19 24 43.5**	**-1.4**
DZM	**Mont Dzumac**	**4.98**	**189**	Pn	**Pn**	**19 23 47.8**	**-0.2**
	7.4nm,0.3s,baz=49,slow=17,SNR=275						
DZM				Sn	**Sn**	**19 24 44.9**	**0.0**
	7.8nm,0.3s,baz=304,slow=22,SNR=7.0						
NOUC	**Port Laguerre**	**5.04**	**190**	*e*P	**Pn**	**19 23 49.1**	**+0.4**
NOUC				*e*S	**Sn**	**19 24 45.0**	**-1.1**
NOUC	**Port Laguerre**	**5.04**	**190**	*e*P	**Pn**	**19 23 49.0**	**+0.4**
NOUC				*e*S	**Sn**	**19 24 45.0**	**-1.1**
HNR	**Honiara**	**10.43**	**316**	Pn	**Pn**	**19 24 58.9**	**-3.9**
	182nm,0.8s						
HNR				LR	LR	19 28 16.4	
HNR	**Honiara**	**10.43**	**316**	Pn	**Pn**	**19 25 03.2**	**+0.5**

	2.4nm,0.3s,baz=81,slow=4.1,SNR=3.6						
HNR				LR	LR	19 28 16.4	
	comp=Z,216nm,21.1s,baz=179,slow=33						
EIDS	**Eidsvold**	**17.15**	**239**	*e*Pn	**Pn**	**19 26 32.4**	**-0.4**
CTA	**Charters Tower**	**20.11**	**258**	*e*P	**P**	**19 27 08.6**	**+1.7**
	6.0nm,0.6s						
CTA	**Charters Tower**	**20.11**	**258**	P	**P**	**19 27 07.9**	**+1.0**
	7.0nm,0.7s,baz=34,slow=3.9,SNR=6.5						
CTA				LR	LR	19 33 39.1	
	comp=Z,200nm,19.7s,MS3.5,baz=78,slow=33						
CTAO	**Charters Tower**	**20.11**	**258**	*e*P	**P**	**19 27 08.5**	**+1.6**
PMG	**Port Moresby**	**20.99**	**289**	LR	LR	19 33 22.4	
	comp=Z,179nm,21.1s,MS3.4,baz=90,slow=31						
CNB	**Canberra Magne**	**24.13**	**218**	*e*P	**P**	**19 27 50.8**	**+2.1**
	28nm,0.9s,mb4.7						
STKA	**Stephens Creek**	**27.49**	**233**	*e*P	**P**	**19 28 20.0**	**+0.8**
	8.0nm,0.9s,mb4.2						
STKA	**Stephens Creek**	**27.49**	**233**	*e*P	**P**	**19 28 20.2**	**+1.0**
STKA	**Stephens Creek**	**27.49**	**233**	P	**P**	**19 28 20.2**	**+1.0**
	11nm,0.9s,mb4.4,baz=58,slow=7.1,SNR=17						
STKA				PcP	PcP	19 31 37.6	+0.4
	2.1nm,0.8s,baz=203,slow=3.2,SNR=3.0						
STKA				LR	LR	19 39 51.6	
	comp=Z,121nm,18.3s,MS3.5,baz=28,slow=38						
WB2	**Warramunga Arr**	**31.29**	**260**	*e*P	**P**	**19 28 52.3**	**-0.8**
WB2	**Warramunga Arr**	**31.29**	**260**	*e*P	**P**	**19 28 52.4**	**-0.7**
WRA	**Warramunga Arr**	**31.30**	**260**	P	**P**	**19 28 51.9**	**-1.3**
	4.0nm,0.7s,mb4.3,baz=90,slow=8.8,SNR=35						
WRA				PcP	PcP	19 31 47.1	-0.1
	2.6nm,1.0s,baz=88,slow=3.1,SNR=6.9						
WRA				LR	LR	19 40 25.4	
	comp=Z,100nm,19.7s,MS3.5,baz=175,slow=34						
RAR	**Rarotonga**	**31.38**	**103**	LR	LR	19 38 41.9	
	comp=Z,209nm,18.6s,MS3.8,baz=163,slow=31						
ASAR	**Alice Springs**	**31.87**	**253**	P	**P**	**19 28 58.0**	**-0.2**
	8.9nm,0.8s,mb4.7,baz=78,slow=8.8,SNR=69						
ASAR				PcP	PcP	19 31 48.6	-0.1
	1.2nm,0.8s,baz=89,slow=2.5,SNR=5.5						
GUMO	**Guam**	**37.67**	**323**	LR	LR	19 43 02.3	
	comp=Z,269nm,19.2s,MS4.1,baz=129,slow=33						
FITZ	**Fitzroy Crossi**	**39.61**	**262**	*e*P	**P**	**19 30 04.7**	**+0.1**
	15nm,0.9s,mb4.7						
PPT	**Papeete**	**41.15**	**97**	*e*LR	LR	19 41 37.9	
	237nm,27.2s						
PPT	**Papeete**	**41.15**	**97**	LR	LR	19 43 25.1	
	comp=Z,186nm,18.1s,MS4.0,baz=244,slow=30						
RKT	**Rikitea**	**54.30**	**106**	*e*LR	LR	19 47 43.6	
	141nm,30.0s						
JHJ	**Hachijo jima 2**	**56.43**	**332**	LR	LR	19 50 13.5	
	comp=Z,117nm,21.7s,MS3.9,baz=211,slow=30						
MJAR	**Matsushiro Arr**	**60.01**	**333**	P	**P**	**19 32 38.4**	**-0.9**
	8.5nm,1.0s,mb4.7,baz=163,slow=6.9,SNR=18						
MAJO	**Matsushiro**	**60.01**	**333**	*e*P	**P**	**19 32 37.9**	**-1.5**
	5.9nm,0.8s,mb4.7						
MAT	**Matsushiro**	**60.01**	**333**	P	**P**	**19 32 38.5**	**-0.9**
KSRS	**Korea Array**	**65.70**	**326**	P	**P**	**19 33 16.8**	**-0.5**
	1.2nm,0.8s,mb4.0,baz=139,slow=7.8,SNR=6.1						
PSI	**Prapat**	**70.21**	**279**	P	**P**	**19 33 45.4**	**-0.8**
	2.2nm,0.4s,mb4.5,baz=167,slow=10,SNR=4.1						
CN2	**Changchun**	**71.68**	**329**	*e*P	**P**	**19 33 53.5**	**-0.9**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
QSPA	**South Pole Qui**	**72.92**	**180**	*e*P	**P**	**19 34 02.3**	**+0.9**
	comp=Z,18nm,1.3s,mb4.8						
XAN	**Xi’an**	**75.29**	**313**	P	**P**	**19 34 17.0**	**+1.1**
XAN				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.6						
LZH	**Lanzhou**	**79.91**	**313**	*e*P	**P**	**19 34 43.5**	**+1.8**
LZH				AP	pP	19 34 46.5	-2.7
LZH				AMB	AMB		
	comp=Z,23nm,1.2s,mb5.0						
LZH				AMB	AMB		
	comp=Z,110nm,5.0s						
ULN	**Ulaanbaatar**	**84.04**	**324**	*e*P	**P**	**19 35 03.1**	**-0.1**
	comp=Z,6.0nm,0.8s,mb4.8						
GTA	**Gaotai**	**84.30**	**314**	P	**P**	**19 35 05.8**	**+1.1**
GTA				AP	pP	19 35 10.5	-1.7
GTA				XP	sP	19 35 14.5	-0.4
GTA				AMB	AMB		
	comp=Z,8.0nm,1.1s,mb4.8						
SONM	**Songino Array**	**84.40**	**324**	P	**P**	**19 35 05.1**	**+0.2**
	comp=Z,5.6nm,1.1s,mb4.6,baz=140,slow=5.1,SNR=15						
SHL	**Shillong**	**84.68**	**299**	*e*P	**P**	**19 35 09.0**	**+2.1**
BILL	**Bilibino**	**84.92**	**360**	*e*P	**P**	**19 35 06.6**	**-0.5**
	comp=Z,19nm,1.2s,mb5.1						
NVAR	**Mina Array Bea**	**88.84**	**49**	P	**P**	**19 35 26.9**	**0.0**
	comp=Z,0.5nm,0.6s,mb4.0,baz=206,slow=8.4,SNR=3.5						
VNA3	**Neumayer Olymp**	**91.84**	**181**	*e*	**P**	**19 35 41.2**	**+0.8**
VNA3				*e*	pP	19 35 48.3	+0.4
VNA3				*e*		19 35 51.9	
VNA2	**Neumayer--Watz**	**92.11**	**182**	*e*	**P**	**19 35 42.6**	**+1.0**
	baz=156,slow=4.0						
VNA2				*e*	pP	19 35 49.5	+0.3
VNA2				*e*		19 35 53.5	
PDAR	**Pinedale Array**	**96.57**	**47**	LR	LR	20 19 21.3	
	comp=Z,86nm,18.1s,MS4.3,baz=249,slow=35						
MKAR	**Makanchi Array**	**98.91**	**316**	P	**P**	**19 36 12.3**	**-0.6**
	comp=Z,0.3nm,0.8s,mb3.9,baz=94,slow=6.5,SNR=4.7						
ZALV	**Zalesovo Beam**	**99.29**	**324**	P	**P**	**19 36 12.6**	**-1.8**
	comp=Z,0.4nm,0.5s,mb4.2,baz=122,slow=1.9,SNR=3.5						
YKA	**Yellowknife Ar**	**99.67**	**27**	P	Pdif	19 36 14.2	-2.0
	comp=Z,0.1nm,0.3s,baz=262,slow=4.4,SNR=3.5						
ARCES	**ARCESS Array B**	**122.54**	**345**	PKP	PKPdf	19 41 27.4	-0.1
ARCES	**ARCESS Array B**	**122.54**	**345**	PKP	PKPdf	19 41 27.4	0.0
	comp=Z,2.6nm,0.7s,baz=80,slow=1.4,SNR=13						
FINES	**FINESS Array B**	**127.92**	**338**	PKP	PKPdf	19 41 37.1	-0.9
FINES	**FINESS Array B**	**127.92**	**338**	PKP	PKPdf	19 41 37.1	-0.9
	comp=Z,3.3nm,0.9s,baz=204,slow=4.2,SNR=6.9						
AKASG	**Malin Array Be**	**132.68**	**325**	PKP	PKPdf	19 41 46.3	-1.1
AKASG	**Malin Array Be**	**132.68**	**325**	PKP	PKPdf	19 41 46.3	-1.1
	comp=Z,0.9nm,0.5s,baz=45,slow=1.4,SNR=3.3						
BRTR	**Keskin Array B**	**134.02**	**309**	PKP	PKPdf	19 41 49.9	-0.3
BRTR	**Keskin Array B**	**134.02**	**309**	PKP	PKPdf	19 41 49.9	-0.3
	comp=Z,0.7nm,0.9s,baz=44,slow=3.7,SNR=3.1						
GERES	**GERESS Array B**	**141.74**	**332**	PKP		19 42 00.4	
GERES	**GERESS Array B**	**141.74**	**332**	PKhKP		19 42 00.4	
	comp=Z,0.8nm,0.9s,baz=318,slow=1.8,SNR=3.7						
BAIF	**Baives**	**144.41**	**341**	*e*PKP1	PKPdf	19 42 09.5	+0.7
BAIF	**Baives**	**144.41**	**341**	*e*PKP	PKPdf	19 42 09.5	+0.7
CDF	**Champ du Feu**	**144.76**	**337**	*e*PKP1	PKPdf	19 42 08.6	-0.9
	comp=Z,37nm,1.0s						
CDF	**Champ du Feu**	**144.76**	**337**	*e*PKP	PKPdf	19 42 08.6	-0.9
HINF	**Hinteralfeld**	**145.41**	**337**	*e*PKP1	PKPbc	19 42 10.4	-0.1
	comp=Z,24nm,0.8s						
HINF	**Hinteralfeld**	**145.41**	**337**	*e*PKP	PKPdf	19 42 10.4	-0.2
HAU	**Haudompre**	**145.44**	**337**	*e*PKP1	PKPbc	19 42 10.8	+0.2
	comp=Z,100nm,1.0s						
HAU	**Haudompre**	**145.44**	**337**	*e*PKP	PKPdf	19 42 10.8	+0.1
MEZF	**Maizieres J’vi**	**145.49**	**339**	*e*PKP1	PKPbc	19 42 11.4	+0.6
	comp=Z,147nm,1.0s						
MEZF	**Maizieres J’vi**	**145.49**	**339**	*e*PKP	PKPdf	19 42 11.4	+0.7
CABF	**La Chapelle**	**146.70**	**336**	*e*PKP1	PKPbc	19 42 15.1	+0.6
	comp=Z,39nm,0.9s						
CABF	**La Chapelle**	**146.70**	**336**	*e*PKP	PKPbc	19 42 15.1	+0.6
FLN	**La Foliniere**	**146.89**	**345**	*e*PKP1	PKPbc	19 42 15.0	0.0
FLN	**La Foliniere**	**146.89**	**345**	*e*PKP	PKPbc	19 42 15.0	0.0
LDF	**La Druitiere**	**146.96**	**345**	*e*PKP1	PKPbc	19 42 15.1	0.0
	comp=Z,35nm,1.1s						
LDF	**La Druitiere**	**146.96**	**345**	*e*PKP	PKPbc	19 42 15.1	0.0
LOR	**Lormes**	**146.96**	**339**	*e*PKP1	PKPbc	19 42 15.6	+0.4
	comp=Z,23nm,0.9s						
LOR	**Lormes**	**146.96**	**339**	*e*PKP	PKPbc	19 42 15.6	+0.4
SSF	**Saint Saulge**	**147.26**	**339**	*e*PKP1	PKPbc	19 42 16.4	+0.4
	comp=Z,37nm,0.8s						
SSF	**Saint Saulge**	**147.26**	**339**	*e*PKP	PKPbc	19 42 16.4	+0.4
GRR	**Gorron**	**147.33**	**345**	*e*PKP1	PKPbc	19 42 16.6	+0.4
	comp=Z,18nm,0.8s						
GRR	**Gorron**	**147.33**	**345**	*e*PKP	PKPbc	19 42 16.6	+0.4
LPL	**La Plagne**	**147.34**	**334**	*e*PKP1	PKPbc	19 42 17.0	+0.7
	comp=Z,17nm,0.8s						
LPL	**La Plagne**	**147.34**	**334**	*e*PKP	PKPbc	19 42 17.0	+0.7
LPG	**La Plagne**	**147.34**	**334**	*e*PKP1	PKPbc	19 42 17.1	+0.8
	comp=Z,27nm,0.9s						
LPG	**La Plagne**	**147.34**	**334**	*e*PKP	PKPbc	19 42 17.1	+0.8
SMF	**Signal de Mont**	**147.50**	**339**	*e*PKP1	PKPbc	19 42 16.9	+0.2
	comp=Z,34nm,0.9s						
SMF	**Signal de Mont**	**147.50**	**339**	*e*PKP	PKPbc	19 42 16.9	+0.2
AVF	**Avril sur Loir**	**147.55**	**339**	*e*PKP1	PKPbc	19 42 16.8	-0.1
	comp=Z,42nm,1.0s						
AVF	**Avril sur Loir**	**147.55**	**339**	*e*PKP	PKPbc	19 42 16.8	-0.1
SGMF	**Saint Gilles**	**147.84**	**347**	*e*PKP1	PKPbc	19 42 17.7	+0.1
SGMF	**Saint Gilles**	**147.84**	**347**	*e*PKP	PKPbc	19 42 17.7	+0.1
ROSF	**Rostrenen**	**147.91**	**348**	*e*PKP1	PKPbc	19 42 17.8	0.0
	comp=Z,17nm,0.9s						
ROSF	**Rostrenen**	**147.91**	**348**	*e*PKP	PKPbc	19 42 17.8	0.0
BGF	**Bois d’Agland**	**147.92**	**340**	*e*PKP1	PKPbc	19 42 18.1	+0.2
	comp=Z,34nm,0.8s						
BGF	**Bois d’Agland**	**147.92**	**340**	*e*PKP	PKPbc	19 42 18.1	+0.2
MBDF	**Montbardon**	**147.96**	**333**	*e*PKP1	PKPbc	19 42 18.2	+0.2
MBDF	**Montbardon**	**147.96**	**333**	*e*PKP	PKPbc	19 42 18.2	+0.2
ORIF	**Oris-en-Rattie**	**148.18**	**335**	*e*PKP1	PKPbc	19 42 18.9	+0.3
	comp=Z,36nm,1.0s						
ORIF	**Oris-en-Rattie**	**148.18**	**335**	*e*PKP	PKPbc	19 42 18.9	+0.3
SBF	**Sospel**	**148.34**	**332**	*e*PKP1	PKPbc	19 42 18.8	-0.3
	comp=Z,80nm,1.1s						
SBF	**Sospel**	**148.34**	**332**	*e*PKP	PKPbc	19 42 18.8	-0.3
TCF	**Toulx Ste Croi**	**148.37**	**340**	*e*PKP1	PKPbc	19 42 19.4	+0.3
	comp=Z,18nm,0.8s						
TCF	**Toulx Ste Croi**	**148.37**	**340**	*e*PKP	PKPbc	19 42 19.4	+0.3
PGF	**Pioggiola**	**148.59**	**328**	*e*PKP1	PKPbc	19 42 19.8	0.0
	comp=Z,41nm,0.8s						
PGF	**Pioggiola**	**148.59**	**328**	*e*PKP	PKPbc	19 42 19.8	0.0
VIVF	**Saint-Julien-l**	**148.71**	**336**	*e*PKP1	PKPbc	19 42 20.2	+0.2
	comp=Z,17nm,0.9s						
VIVF	**Saint-Julien-l**	**148.71**	**336**	*e*PKP	PKPbc	19 42 20.2	+0.2
MFF	**Saint Martin d**	**148.80**	**343**	*e*PKP1	PKPbc	19 42 20.3	+0.1
	comp=Z,36nm,0.9s						
MFF	**Saint Martin d**	**148.80**	**343**	*e*PKP	PKPbc	19 42 20.3	+0.1
FRF	**La Foret Royal**	**148.93**	**332**	*e*PKP1	PKPbc	19 42 20.5	-0.1
FRF	**La Foret Royal**	**148.93**	**332**	*e*PKP	PKPbc	19 42 20.5	-0.1
SMRF	**Simiane la Rot**	**149.07**	**334**	*e*PKP1	PKPbc	19 42 21.4	+0.5
	comp=Z,50nm,1.0s						
SMRF	**Simiane la Rot**	**149.07**	**334**	*e*PKP	PKPbc	19 42 21.4	+0.5
LMR	**La Mourre**	**149.18**	**332**	*e*PKP1	PKPbc	19 42 21.2	0.0
	comp=Z,35nm,1.0s						
LMR	**La Mourre**	**149.18**	**332**	*e*PKP	PKPbc	19 42 21.2	0.0
RJF	**Les Rejaudoux**	**149.46**	**340**	*e*PKP1	PKPbc	19 42 22.3	+0.4
RJF	**Les Rejaudoux**	**149.46**	**340**	*e*PKP	PKPbc	19 42 22.3	+0.4
CAF	**Calviac**	**149.61**	**339**	*e*PKP1	PKPbc	19 42 22.8	+0.5
CAF	**Calviac**	**149.61**	**339**	*e*PKP	PKPbc	19 42 22.8	+0.5
LASF	**Ste Croix**	**149.68**	**336**	*e*PKP1	PKPbc	19 42 23.0	+0.5
	comp=Z,38nm,1.0s						
LASF	**Ste Croix**	**149.68**	**336**	*e*PKP	PKPbc	19 42 23.0	+0.5
LFF	**La Frestale**	**150.04**	**341**	*e*PKP1	PKPbc	19 42 23.6	+0.3
	comp=Z,39nm,1.0s						
LFF	**La Frestale**	**150.04**	**341**	*e*PKP	PKPbc	19 42 23.6	+0.3
MTLF	**Montolieu**	**150.93**	**337**	*e*PKP1	PKPbc	19 42 25.9	+0.4
	comp=Z,18nm,0.8s						
MTLF	**Montolieu**	**150.93**	**337**	*e*PKP	PKPbc	19 42 25.9	+0.4
EPF	**Esparros**	**151.87**	**339**	*e*PKP1	PKPbc	19 42 28.3	+0.6
EPF	**Esparros**	**151.87**	**339**	*e*PKP	PKPbc	19 42 28.3	+0.6
ETSF	**Etsaut**	**152.28**	**341**	*e*PKP1	PKPbc	19 42 29.4	+0.8
ETSF	**Etsaut**	**152.28**	**341**	*e*PKP	PKPbc	19 42 29.4	+0.8
TORD	**Torodi Ar. Bea**	**165.50**	**256**	PKP	PKPdf	19 42 36.6	-1.6
TORD				PKPab	PKPab	19 43 36.7	+0.1
TORD	**Torodi Ar. Bea**	**165.50**	**256**	PKP	PKPdf	19 42 36.6	-1.6
	comp=Z,1.3nm,0.8s,baz=2.0,slow=1.0,SNR=7.0						
TORD				PKPab	PKPab	19 43 36.7	+0.1
	comp=Z,0.5nm,0.8s,baz=110,slow=4.5,SNR=3.5						

IDC 26 19:22:57.0±4.5**,9.23S×114.38E,h0^{km},mb3.1**/3**,mb1 3.4**/3**,**
mb1mx3.2/17**,mbtmp3.2**/3**,Error ellipse:**
s-maj=289.2km s-min=26.9km az=47.0,South of Bali

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**22.03**	**121**	P	P	19 27 54.5	+1.2
	0.3nm,0.6s,baz=301,slow=11,SNR=5.2						
ASAR	**Alice Springs**	**23.55**	**130**	P	P	19 28 08.2	-1.1
	0.4nm,0.6s,baz=312,slow=9.1,SNR=6.3						
MKAR	**Makanchi Array**	**62.69**	**336**	P	P	19 33 23.6	+0.1
	0.3nm,0.6s,baz=146,slow=7.1,SNR=5.6						

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*IDC **26** 19:28:11.4±2.8, 13.30N×125.92E, h0^{km}, mb3.5/4,*
mb1 3.6/4, mb1mx3.4/19, mbtmp3.5/4, Error ellipse:
s-maj=256.4km s-min=21.8km az=67.0
*ISCJB **26** 19:28:14.1±1.1, 13.35N±0.09×125.85E±0.08, h33^{km},*
mb3.5/4, Error ellipse: s-maj=13.6km s-min=11.0km
az=2.8
*MAN **26** 19:28:14, 13.27N×125.42E, h127^{km}, mb4.5, ML3.4, MS3.3*
ISC 26 19:28:16.6±1.1**,13.2N**±0.1×**125.72E**±0.09**,h35^{km},n8,**
σ1^{s}.03/11**,mb3.5**/4**,1D,Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNP	**Catarman**	**1.26**	**235**	*e*P	**Pn**	**19 28 38.4**	**+0.7**
CNP				*e*S	**Sn**	**19 28 56.9**	**+3.4**
PVCP	**Virac**	**1.57**	**283**	*e*P	**Pn**	**19 28 41.1**	**-0.8**
PVCP				*e*S	**Sn**	**19 29 00.9**	**-0.2**
PVCP	**Virac**	**1.57**	**283**⇓	*e*P	**Pn**	**19 28 33.1**	**-8.9**
PVCP				*i* S	**Pn**	**19 28 41.1**	**-0.8**
GUIM	**Jordan**	**4.02**	**230**	*e*P	**Pn**	**19 29 13.6**	**-2.1**
WRA	**Warramunga Arr**	**34.04**	**165**	P	**P**	**19 34 58.0**	**+0.4**
	0.9nm,1.1s,mb3.6,baz=346,slow=9.5,SNR=3.1						
ASAR	**Alice Springs**	**37.54**	**168**	P	**P**	**19 35 27.1**	**-0.4**
	0.2nm,0.6s,mb3.0,baz=352,slow=7.2,SNR=3.4						
MKAR	**Makanchi Array**	**49.37**	**322**	P	**P**	**19 37 03.5**	**+0.9**
	0.6nm,0.8s,mb3.7,baz=115,slow=7.5,SNR=5.1						
ZALV	**Zalesovo Beam**	**51.79**	**330**	P	**P**	**19 37 20.7**	**0.0**
	0.3nm,0.3s,mb3.7,baz=128,slow=9.3,SNR=2.3						

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*NEIC **26** 19:39:12.9±0.5, 52.73N×174.69W, mb4.6/4, Error ellipse:*
s-maj=12.7km s-min=7.3km az=157.0
*IDC **26** 19:39:13.7±0.8, 52.87N×174.76W, h214^{km}±7^{km}, mb3.8/13,*
mb1 4.0/13, mb1mx3.7/23, mbtmp3.8/13, Error ellipse:
s-maj=19.6km s-min=11.1km az=175.0
*ISCJB **26** 19:39:15.4±1.0, 52.79N±0.10×174.17W±0.10, h225^{km}±9^{km},*
mb4.0/18, Error ellipse: s-maj=16.1km s-min=9.0km
az=169.0
*BJI **26** 19:39:16.0, 52.89N×174.42W, h218^{km}, mB4.6, mb4.5*
ISC 26 19:39:17.3±1.0**,52.9N**±0.1×**174.13W**±0.10**,h226**^{km}±9^{km}**,**
h218^{km}±3.3^{km}**:pP-P,n53,σ1^{s}.23**/52**,mb4.0**/18**,Andreanof**
Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UNV	**Unalaska Valle**	**4.67**	**75**	P	**Pn**	**19 40 28.1**	**0.0**
SPIA	**Saint Paul Isl**	**4.85**	**26**	P	**Pn**	**19 40 29.6**	**-0.7**
AKLV	**Akutan Long Va**	**5.04**	**72**	P	**Pn**	**19 40 33.1**	**+0.3**
AKUT	**Akutan**	**5.14**	**73**	*e*P	**Pn**	**19 40 34.1**	**+0.1**
FALS	**False Pass**	**6.64**	**68**	P	**Pn**	**19 40 53.0**	**0.0**
SDPT	**Sand Point**	**8.39**	**67**	*e*P	**Pn**	**19 41 14.0**	**-1.4**
SVW2	**Sparrevohn**	**12.99**	**43**	*e*P	**Pn**	**19 42 14.9**	**+1.3**
TNA	**Tin City**	**13.10**	**11**	*e*P	**Pn**	**19 42 14.9**	**+0.1**
	2.0nm,0.7s						
KDAK	**Kodiak Island**	**13.18**	**60**	*e*P	**Pn**	**19 42 13.9**	**-2.1**
	79nm,0.5s						
KDAK	**Kodiak Island**	**13.18**	**60**	P	**Pn**	**19 42 14.0**	**-2.0**
	18nm,0.3s,baz=240,slow=6.4,SNR=52						
KDAK				S	**S**	**19 44 40.6**	**-1.8**
	2.2nm,0.3s,baz=156,slow=23,SNR=10.0						
TTA	**Tatalina**	**13.87**	**36**	*e*P	**Pn**	**19 42 25.9**	**+1.5**
SLKM	**Skilak Lake**	**15.12**	**50**	*e*P	**Pn**	**19 42 38.8**	**-0.8**
PMR	**Palmer**	**16.00**	**47**	*e*P	**P**	**19 42 51.3**	**+2.1**
	15nm,0.6s						
SML	**Sawmill**	**16.43**	**47**	*e*P	**P**	**19 42 54.0**	**0.0**
IMA2	**Indian Mountai**	**16.68**	**30**	*e*P	**P**	**19 42 57.7**	**+1.0**
EYAK	**Cordova Ski Ar**	**17.25**	**52**	*e*P	**P**	**19 43 04.6**	**+1.7**
COLA	**College**	**17.95**	**38**	*e*P	**P**	**19 43 09.6**	**-1.0**
	18nm,0.8s						
EGAK	**Eagle**	**20.52**	**42**	*e*P	**P**	**19 43 38.1**	**+0.1**
	22nm,0.6s						
DAWY	**Dawson**	**21.03**	**44**	*e*P	**P**	**19 43 43.9**	**+0.6**
INK	**Inuvik**	**24.57**	**36**	*e*P	**P**	**19 44 15.9**	**-0.2**
	86nm,0.5s						
INK	**Inuvik**	**24.57**	**36**	P	**P**	**19 44 15.5**	**-0.6**
	2.2nm,0.4s,mb4.1,baz=225,slow=6.5,SNR=12						
YKA	**Yellowknife Ar**	**32.09**	**49**	P	**P**	**19 45 22.6**	**-0.2**
	3.7nm,0.4s,mb4.2,baz=288,slow=7.8,SNR=46						
YKA				ScP	ScP	19 51 25.8	-1.9
	0.3nm,0.6s,baz=288,slow=3.5,SNR=5.2						
NEW	**Newport**	**35.68**	**74**	P	**P**	**19 45 54.4**	**+0.6**
	2.7nm,0.5s,mb4.0,baz=307,slow=7.2,SNR=6.7						
MDJ	**Mudanjiang**	**37.15**	**280**	P	**P**	**19 46 06.0**	**-0.3**
MDJ				AP	pP	19 46 52.0	-0.6
MDJ				PP	PP	19 47 35.0	-0.8
MDJ				S	**S**	**19 51 35.0**	**-0.4**
MDJ				AMB	AMB		
	comp=Z,107nm,5.4s						
MCMT	**McKenzie Canyo**	**39.99**	**76**	*e*P	**P**	**19 46 30.3**	**+0.4**
CN2	**Changchun**	**40.07**	**282**	*e*P	**P**	**19 46 31.5**	**+1.0**
NVAR	**Mina Array Bea**	**40.56**	**88**	P	**P**	**19 46 36.4**	**+1.9**
NVAR	**Mina Array Bea**	**40.56**	**88**	P	**P**	**19 46 36.4**	**+1.9**
	comp=Z,1.6nm,0.7s,mb3.6,baz=299,slow=6.9,SNR=6.7						
PDAR	**Pinedale Array**	**43.13**	**77**	P	**P**	**19 46 55.9**	**+0.6**
	comp=Z,4.6nm,0.5s,mb4.2,baz=311,slow=3.6,SNR=54						
PDAR				pP	pP	19 47 44.5	+1.6
	comp=Z,0.8nm,0.6s,baz=335,slow=4.0,SNR=1.8						
BJI	**Beijing**	**47.84**	**284**	P	**P**	**19 47 31.8**	**-0.4**
SONM	**Songino Array**	**48.52**	**298**	P	**P**	**19 47 33.2**	**-4.0**
	comp=Z,0.2nm,0.6s,baz=68,slow=8.4,SNR=2.1						
SONM				pP	pP	19 48 19.3	-6.6
	comp=Z,0.3nm,0.7s,baz=59,slow=12,SNR=2.0						
HHC	**Hu-ho-hao-te**	**50.01**	**288**	*e*P	**P**	**19 47 49.0**	**+0.4**
HHC				AP	pP	19 48 38.0	+0.4
HHC				PCP	PcP	19 49 05.8	+0.9
HHC				PP	PP	19 49 48.5	+2.9
HHC				SCP	ScP	19 52 39.5	+1.0
HHC				PCS	PcS	19 53 02.8	+0.6
HHC				S	**S**	**19 54 42.0**	**+0.5**
HHC				SCS	ScS	19 57 14.3	-1.3
HHC				SS	SS	19 58 14.5	-2.5
HHC				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.0						
HHC				AMB	AMB		
	comp=Z,222nm,8.0s						
HHC				LR	LR		
	comp=N,121nm,24.0s						
HHC				LR	LR		
	comp=E,141nm,24.0s						
HHC				LR	LR		
	comp=Z,103nm,24.0s						
NJ2	**Nanjing**	**51.61**	**274**	*e*P	**P**	**19 48 02.5**	**+1.9**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
TXAR	**Lajitas Array**	**55.62**	**86**	P	**P**	**19 48 30.2**	**+0.6**
	comp=Z,0.9nm,0.6s,mb3.5,baz=294,slow=4.4,SNR=8.9						
TXAR				pP	pP	19 49 16.9	-2.9
	comp=Z,0.7nm,0.7s,baz=326,slow=6.0,SNR=3.0						
TXAR				ScP	ScP	19 53 03.2	+0.1
	comp=Z,0.3nm,0.5s,baz=332,slow=4.3,SNR=3.9						
LZH	**Lanzhou**	**57.69**	**288**	*e*P	**P**	**19 48 43.3**	**-0.8**
LZH				AP	pP	19 49 33.5	-1.0
LZH				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.5						
LZH				AMB	AMB		
	comp=Z,55nm,4.0s						
WMQ	**Urumqi**	**60.89**	**305**	P	**P**	**19 49 08.8**	**+2.9**
MKAR	**Makanchi Array**	**61.30**	**310**	P	**P**	**19 49 04.2**	**-4.3**
MKAR				pP	pP	19 49 51.5	-8.2
MKAR	**Makanchi Array**	**61.30**	**310**	P	**P**	**19 49 04.2**	**-4.3**
	comp=Z,0.1nm,0.3s,baz=46,slow=6.4,SNR=5.9						
MKAR				pP	pP	19 49 51.5	-8.2
	comp=Z,0.2nm,0.6s,baz=59,slow=6.1,SNR=1.9						
CD2	**Chengdu**	**61.44**	**284**	*e*P	**P**	**19 49 11.0**	**+1.2**
CD2				PP	PP	19 51 31.0	+3.5
CD2				S	**S**	**19 57 12.5**	**0.0**
CD2				SS	SS	20 01 19.0	+2.1
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.6						
CD2				AMB	AMB		
	comp=Z,30nm,9.6s						
GYA	**Guiyang**	**62.98**	**279**	P	**P**	**19 49 21.0**	**+1.0**
GYA				PCP	PcP	19 49 57.5	+1.7
GYA				SCP	ScP	19 53 36.5	+0.7
GYA				PCS		19 53 59.8	
GYA				S	**S**	**19 57 32.0**	**+0.1**
GYA				SKS		19 58 47.8	
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.4						
GYA				AMB	AMB		
	comp=Z,90nm,6.4s						
FINES	**FINESS Array B**	**64.89**	**349**	P	**P**	**19 49 29.0**	**-2.9**
	comp=Z,1.1nm,0.8s,mb3.5,baz=26,slow=4.9,SNR=3.5						
NOA	**NORSAR Array B**	**66.35**	**357**	pP	pP	19 50 27.2	-5.8
	comp=Z,1.2nm,0.9s,baz=226,slow=21,SNR=1.6						
AKASG	**Malin Array Be**	**74.92**	**345**	P	**P**	**19 50 30.1**	**-2.9**
	comp=Z,0.3nm,0.3s,mb3.4,baz=60,slow=33,SNR=4.6						
GERES	**GERESS Array B**	**78.43**	**355**	pP	pP	19 51 39.6	-6.6
	comp=Z,0.2nm,0.4s,baz=5.2,slow=16,SNR=2.2						
BRTR	**Keskin Array B**	**84.68**	**339**	P	**P**	**19 51 23.0**	**-2.4**
	comp=Z,0.5nm,0.8s,mb3.3,baz=339,slow=3.7,SNR=3.2						
BRTR				pP	pP	19 52 15.8	-4.1
	comp=Z,1.4nm,0.8s,baz=17,slow=4.5,SNR=4.2						
WRA	**Warramunga Arr**	**85.13**	**228**	P	**P**	**19 51 23.6**	**-4.2**
	comp=Z,2.3nm,0.5s,mb4.1,baz=33,slow=5.8,SNR=42						
PSI	**Prapat**	**85.94**	**269**	P	**P**	**19 51 28.3**	**-3.7**
	comp=Z,2.8nm,0.5s,mb4.3,baz=7.5,slow=4.8,SNR=4.6						
ASAR	**Alice Springs**	**88.58**	**226**	P	**P**	**19 51 41.0**	**-3.3**
	comp=Z,6.4nm,0.8s,mb4.5,baz=24,slow=4.7,SNR=79						
STKA	**Stephens Creek**	**92.80**	**216**	P	**P**	**19 52 00.0**	**-3.7**
	comp=Z,2.5nm,0.9s,mb4.2,baz=158,slow=17,SNR=5.9						
TORD	**Torodi Ar. Bea**	**114.14**	**4**	PKP	PKiKP	19 57 25.6	-4.2
TORD	**Torodi Ar. Bea**	**114.14**	**4**	PKP	PKiKP	19 57 25.6	-4.2
	comp=Z,0.3nm,0.9s,baz=329,slow=1.7,SNR=2.9						
VNA3	**Neumayer Olymp**	**160.31**	**165**	*e*PKPdf	PKPab	19 59 27.9	-2.3
VNA2	**Neumayer--Watz**	**160.94**	**167**	*e*PKPdf	PKPab	19 59 31.1	-1.8
	baz=209,slow=2.2						

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*TEH **26** 19:41:59.1, 35.75N×52.13E, h4^{km}, ML3.6*
*ISCJB **26** 19:43:05.7±0.5, 35.73N±0.03×52.06E±0.03, h10^{km}, Error*
ellipse: s-maj=4.0km s-min=3.8km az=173.1
*CSEM **26** 19:43:05.0±0.2, 35.76N×52.09E, h16^{km}, ML3.4, Error*
ellipse: s-maj=4.1km s-min=2.8km az=164.0
*THR **26** 19:43:06.0±1.0, 35.71N×52.05E, h14^{km}±4^{km}, ML3.4*
ISC 26 19:43:06.7±0.5**,35.73N**±0.03×**52.02E**±0.03**,h10^{km},n33,**
σ1^{s}.27/41**,Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DAMV	**Damavand**	**0.11**	**199**	*e*Pg	**Pg**	**19 43 09.1**	**-0.2**
	SNR=140						
DAMV				*e*Sg	**Sg**	**19 43 12.0**	**+0.8**
	16µm,0.4s,SNR=140						
DAMV	**Damavand**	**0.11**	**199**	*e*Pg	**Pg**	**19 43 09.1**	**-0.3**
DAMV				*e*Sg	**Sg**	**19 43 12.0**	**+0.7**
DAMV				AML	AML	19 43 12.5	
	comp=E,18µm,0.1s						
DAMV				AML	AML	19 43 14.8	
	comp=N,16µm,0.4s						
IDMV	**Damavand**	**0.15**	**175**	*e*Sg	**Sg**	**19 43 12.8**	**+0.4**
IDMV				*e*		19 43 13.4	
	comp=Z,79µm,0.1s						
IDMV	**Damavand**	**0.15**	**175**	*e*Sg	**Sg**	**19 43 12.8**	**+0.4**
IPRN	**Paran-Amol**	**0.54**	**20**	*e*Sg	**Sg**	**19 43 23.6**	**-0.7**
IPRN				*e*		19 43 27.6	
	comp=Z,91µm,0.2s						
IFIR	**Firoozkooh**	**0.61**	**98**	*e*Pg	**Pg**	**19 43 16.1**	**-2.3**
IFIR				*e*Sg	**Sg**	**19 43 23.5**	**-2.9**
IFIR				*e*		19 43 25.0	
	comp=Z,73µm,0.1s						
IFIR	**Firoozkooh**	**0.61**	**98**	*e*Pg	**Pg**	**19 43 16.1**	**-2.3**
IFIR				*e*Sg	**Sg**	**19 43 23.5**	**-2.9**
CHTH	**Charan**	**0.74**	**284**	*e*Pg	**Pg**	**19 43 20.7**	**-0.3**
	SNR=90						
CHTH				*e*Sg	**Sg**	**19 43 31.7**	**+1.0**
	SNR=90						
CHTH	**Charan**	**0.74**	**284**	*e*Pg	**Pg**	**19 43 20.7**	**-0.3**
CHTH				*e*Sg	**Sg**	**19 43 31.7**	**+1.0**
THKV	**Tehran--Karaj**	**0.94**	**282**	*e*Pg	**Pg**	**19 43 24.9**	**+0.1**
	SNR=90						
THKV	**Tehran--Karaj**	**0.94**	**282**	*e*Pg	**Pg**	**19 43 24.9**	**+0.1**
THKV				AML	AML	19 43 42.2	
	comp=N,1µm,0.3s						
THKV				AML	AML	19 43 42.8	
	comp=E,821nm,0.7s						
ISHM	**Shahmirzad**	**1.04**	**86**	*e*Pg	**Pg**	**19 43 23.8**	**-2.9**
ISHM				*e*		19 43 40.3	
	comp=Z,34µm,0.2s						
ISHM	**Shahmirzad**	**1.04**	**86**	*e*Pg	**Pg**	**19 43 23.8**	**-2.9**
IMHD	**Mahdasht**	**1.10**	**268**	*e*	**Pb**	**19 43 28.3**	**+0.6**
	comp=Z,14µm,0.1s						
IGLO	**Galoogah**	**1.33**	**64**	*e*Pn	**Pg**	**19 43 36.0**	**+3.8**
IGLO				*e*		19 44 10.7	
	comp=Z,7µm,0.2s						
GHVR	**GHOM**	**1.38**	**205**	*e*Pg	**Pg**	**19 43 32.1**	**-1.1**
	SNR=90						
GHVR	**GHOM**	**1.38**	**205**	*e*Pg	**Pg**	**19 43 32.1**	**-1.1**
ISFB	**Sefidab**	**1.39**	**172**	*e*Sg	**Sg**	**19 43 51.0**	**-0.3**
ISFB				*e*		19 43 32.9	
	comp=Z,13µm,0.1s						
ISFB	**Sefidab**	**1.39**	**172**	*e*Sg	**Sg**	**19 43 51.0**	**-0.3**
IANJ	**Anjiloo**	**1.57**	**99**	*e*	**Sg**	**19 43 60.0**	**+2.8**
	comp=Z,7µm,0.1s						
ASAO	**Ashtian**	**2.01**	**235**	*e*Pg	**Pb**	**19 43 42.8**	**-0.5**
	SNR=90						
ASAO				*e*Sg	**Sg**	**19 44 10.0**	**-1.4**
	SNR=90						
ASAO	**Ashtian**	**2.01**	**235**	*e*Pg	**Pb**	**19 43 42.8**	**-0.5**
ASAO				*e*Sg	**Sg**	**19 44 10.0**	**-1.3**

ASAO				AML	AML	19 44 13.7	
	comp=N,205nm,0.5s						
ASAO				AML	AML	19 44 14.0	
	comp=E,194nm,0.6s						
IKLH	**Kalahroud**	**2.43**	**189**	*e*	**Sg**	**19 44 23.0**	**-1.9**
	comp=Z,5µm,0.2s						
IZEF	**Zefreh**	**2.84**	**175**	*e*	**Sg**	**19 44 38.9**	**+1.0**
	comp=Z,939nm,0.1s						
IGAR	**Garneh**	**3.48**	**177**	*e*Pn	**Pn**	**19 44 01.4**	**+0.5**
IGAR				*e*		19 44 59.4	
	comp=Z,819nm,0.2s						
IGAR	**Garneh**	**3.48**	**177**	*e*Pn	**Pn**	**19 44 01.4**	**+0.5**
MRVT	**Maraveh tapeh**	**3.80**	**58**	*e*Pn	**Pn**	**19 44 05.9**	**+0.7**
	SNR=52						
MRVT	**Maraveh tapeh**	**3.80**	**58**	*e*Pn	**Pn**	**19 44 06.0**	**+0.8**
ICHK	**Chekchek**	**4.01**	**150**	*e*Pn	**Pn**	**19 44 09.4**	**+1.3**
ICHK				*e*		19 45 22.6	
	comp=Z,594nm,0.2s						
ICHK	**Chekchek**	**4.01**	**150**	*e*Pn	**Pn**	**19 44 09.4**	**+1.3**
IMEH	**Mehriz**	**4.84**	**153**	*e*Pn	**Pn**	**19 44 20.4**	**+0.8**
IMEH				*e*		19 46 00.2	
	comp=Z,181nm,0.2s						
IMEH	**Mehriz**	**4.84**	**153**	*e*Pn	**Pn**	**19 44 20.4**	**+0.8**
IBAF	**Bafgh**	**5.08**	**143**	*e*	**Pn**	**19 44 24.8**	**+1.9**
	comp=Z,942nm,0.1s						

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*TIF **26** 19:46:49.3, 43.25N×45.78E, h21^{km}±4^{km}*

MOS 26 19:46:51.0±1.2**, 43.25N×45.69E, h25^{km}, mb3.7**/1**, 8C-2D, Error ellipse: s-maj=27.2km s-min=9.9km az=176.4, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNJR	**Sundja**	**0.67**	**255**	⇑*i*PG	Pb	19 47 05.6	+1.6
SNJR				*i* S	Sb	19 47 15.7	+2.8
VLKR	**Vladikavkaz**	**0.77**	**255**	*e*PG	Pb	19 47 07.2	+1.5
VLKR				*i* S	Sb	19 47 19.2	+3.5
KMSR	**Komsomolskaya**	**1.03**	**277**	⇓*i*PG	Pn	19 47 11.0	+1.2
KMSR				*i* S	Sb	19 47 25.4	+2.3
ARNR	**Ardon**	**1.03**	**267**	⇑*i*PG	Pn	19 47 11.2	+1.3
ARNR				*i* S	Sb	19 47 25.8	+2.5
LACR	**Lac**	**1.11**	**248**	⇑*i*PG	Pn	19 47 12.4	+1.5
LACR				*i* S	Sn	19 47 27.4	+2.1
PRTR	**Priterechnaya**	**1.14**	**297**	⇑*i*PG	Pn	19 47 12.5	+1.2
PRTR				*i* S	Sn	19 47 27.9	+1.7
KORR	**Kora**	**1.20**	**263**	⇑*i*PG	Pn	19 47 13.5	+1.4
KORR				*i* S	Sn	19 47 30.4	+2.8
LSNR	**Lesken**	**1.37**	**272**	*e*PG	Pn	19 47 16.4	+1.9
LSNR				*e*S	Sn	19 47 33.6	+1.8
ZEI	**Tsey**	**1.40**	**251**	⇓*i*PG	Pn	19 47 16.3	+1.4
ZEI				*i* S	Sn	19 47 34.5	+2.0
DIGR	**Digorskoe uzhe**	**1.58**	**258**	⇑*i*PG	Pn	19 47 18.8	+1.4
TBLG	**Delisi**	**1.67**	**205**	S	Sn	19 47 58.6	+19
MTA	**Mtatsminda**	**1.69**	**203**	S	Sn	19 47 58.3	+19
ONI	**Oni**	**1.78**	**249**	P	Pn	19 47 23.0	+2.9
ONI				S	Sn	19 47 46.3	+4.5
SHAR	**Shatzhatmas**	**2.25**	**284**	⇑*i*PN	Pn	19 47 27.0	+0.4
KIV	**Kislovodsk**	**2.29**	**289**	⇑*e*PN	Pn	19 47 27.5	+0.3

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*IDC **26** 19:48:46.5±1.7, 5.82S×130.77E, h0^{km}, mb4.0/2, mb1 4.2/4, mb1mx3.8/13, mbtmp4.1/4, ML4.2/2, MS3.9/1, Ms1 3.9/1, ms1mx3.1/19, Error ellipse: s-maj=130.3km s-min=23.7km az=68.0*

*ISCJB **26** 19:49:01.5±2.4, 6.6S±0.1×130.0E±0.2, h140^{km}±23^{km}, mb3.7/2, Error ellipse: s-maj=43.6km s-min=17.0km az=157.4*

ISC 26 19:49:02.8±3.9**, 6.6S**±0.2×**129.9E**±0.3**, h134^{km}**±38^{km}**, n9, σ1^{s}.39**/12**, mb3.7**/2**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**6.57**	**158**	*e*P	**Pn**	**19 50 39.4**	**+2.3**
	27nm,0.2s						
KAKA				*e*S	**Sn**	**19 51 49.8**	**-1.0**
FITZ	**Fitzroy Crossi**	**12.16**	**200**	*e*P	**Pn**	**19 51 51.8**	**+0.1**
	4.7nm,0.2s						
FITZ				*e*S	Sx	19 53 59.4	
WRA	**Warramunga Arr**	**13.95**	**162**	Pn	**Pn**	**19 52 13.8**	**-1.0**
	1.0nm,0.3s,baz=349,slow=13,SNR=32						
WRA				Sn	**Sn**	**19 54 39.0**	**-10**
	2.0nm,0.3s,baz=334,slow=22,SNR=12						
WB2	**Warramunga Arr**	**13.95**	**162**	*e*P	**Pn**	**19 52 13.1**	**-1.7**
WB2				*e*S	**Sn**	**19 54 39.2**	**-10**
ASAR	**Alice Springs**	**17.40**	**168**	P	**Pn**	**19 52 59.5**	**+2.1**
	0.8nm,0.3s,baz=351,slow=13,SNR=37						
ASAR				S	**Sn**	**19 56 04.7**	**-7.3**
	0.5nm,0.3s,baz=354,slow=28,SNR=8.4						
STKA	**Stephens Creek**	**27.42**	**158**	*e*P	**P**	**19 54 37.4**	**+1.4**
	1.4nm,0.9s,mb3.6						
STKA	**Stephens Creek**	**27.42**	**158**	P	**P**	**19 54 37.0**	**+1.0**
	0.6nm,0.3s,mb3.7,baz=330,slow=11,SNR=8.4						
AFI	**Afiamalu**	**57.74**	**102**	LR	LR	20 19 39.1	
	comp=Z,110nm,19.0s,baz=265,slow=32						
MKAR	**Makanchi Array**	**67.83**	**327**	P	**P**	**19 59 45.6**	**-0.8**
	1.3nm,0.6s,mb3.9,baz=122,slow=8.1,SNR=30						

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*CSEM **26** 19:50:52.3±0.2, 36.70N×35.95E, h5^{km}, MD3.1, Error ellipse: s-maj=5.7km s-min=4.5km az=25.0*

*DDA **26** 19:50:53.0, 36.74N×36.06E, h7^{km}±4^{km}, Md3.2*

*ISK **26** 19:50:52.4, 36.75N×35.98E, h5^{km}, MD3.1*

*ISCJB **26** 19:50:53.4±0.6, 36.74N±0.02×36.00E±0.04, h3^{km}±6^{km}, Error ellipse: s-maj=5.5km s-min=3.9km az=176.5*

ISC 26 19:50:54.2±0.5**, 36.74N**±0.02×**35.97E**±0.04**, h10^{km}**±5^{km}**, n33, σ1^{s}.03**/42**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEYT	**Ceyhan**	**0.32**	**327**	PG	**Pg**	**19 50 59.8**	**-0.8**
CEYT				SG	**Sg**	**19 51 06.1**	**+1.2**
CEYT	**Ceyhan**	**0.32**	**327**	*e*Pg	**Pg**	**19 50 59.8**	**-0.8**
CEYT				*e*Sg	**Sg**	**19 51 06.1**	**+1.2**
KRTS	**Karatas**	**0.50**	**251**	PG	**Pg**	**19 51 03.6**	**-0.5**
KRTS	**Karatas**	**0.50**	**251**	*e*Pg	**Pg**	**19 51 03.6**	**-0.5**
HTY	**Hatay**	**0.64**	**167**	PG	**Pg**	**19 51 06.4**	**-0.1**
HTY	**Hatay**	**0.64**	**167**	*e*Pg	**Pg**	**19 51 06.4**	**-0.1**
YAYL	**Yayladag**	**0.72**	**171**	*i* P	**Pg**	**19 51 07.6**	**-0.5**
YAYL				*i* S	**Sg**	**19 51 18.2**	**+0.7**
KOZT	**Kozan**	**0.74**	**351**	PG	**Pg**	**19 51 07.8**	**-0.8**
ANDN	**Andirin**	**0.89**	**20**	*i* P	**Pg**	**19 51 10.9**	**-0.5**
ANDN				*i* S	**Sg**	**19 51 24.5**	**+1.5**
KARA	**Karaisali**	**0.89**	**306**	PG	**Pg**	**19 51 10.2**	**-1.3**
KARA	**Karaisali**	**0.89**	**306**	*e*Pg	**Pg**	**19 51 10.2**	**-1.3**
GAZ	**Gaziantep**	**1.09**	**66**	PG	**Pg**	**19 51 13.5**	**-1.6**
GAZ	**Gaziantep**	**1.09**	**66**	*e*Pg	**Pg**	**19 51 13.5**	**-1.6**
GULE	**Gulek**	**1.09**	**300**	*e*P	**Pb**	**19 51 14.2**	**-1.0**
GULE				*i* S	**Sg**	**19 51 32.4**	**+2.8**
GULE	**Gulek**	**1.09**	**300**	*e*P	**Pb**	**19 51 14.2**	**-1.0**
GULE				*i* S	**Sg**	**19 51 32.3**	**+2.8**
MERS	**Mersin**	**1.17**	**277**	*e*PN	**Pn**	**19 51 15.5**	**-1.0**
MERS	**Mersin**	**1.17**	**277**	*e*Pn	**Pn**	**19 51 15.5**	**-1.0**
GZT	**Gaziantep**	**1.42**	**64**	*i* P	**Pn**	**19 51 18.3**	**-1.7**
GZT				*i* S	**Sn**	**19 51 38.1**	**-0.6**
NIG	**Nigde**	**1.74**	**322**	*e*PN	**Pn**	**19 51 24.4**	**0.0**
NIG	**Nigde**	**1.74**	**322**	*e*Pn	**Pn**	**19 51 24.4**	**0.0**
BNN	**Bunyan**	**2.11**	**357**	*e*PN	**Pn**	**19 51 30.2**	**+0.7**
BNN	**Bunyan**	**2.11**	**357**	*e*Pn	**Pn**	**19 51 30.2**	**+0.7**
AVNT	**Avonos**	**2.22**	**337**	*i* P	**Pb**	**19 51 34.3**	**0.0**
URFA	**Urfa**	**2.39**	**72**	*e*PN	**Pn**	**19 51 34.1**	**+0.8**
URFA	**Urfa**	**2.39**	**72**	*e*Pn	**Pn**	**19 51 34.1**	**+0.8**
HWQ	**Hawqa**	**2.46**	**180**	*e*Pg	**Pg**	**19 51 42.4**	**+1.1**
HWQ				*e*Sg	**Sb**	**19 52 08.5**	**-0.3**
HWQ	**Hawqa**	**2.46**	**180**	*e*Pg	**Pg**	**19 51 42.4**	**+1.0**
HWQ				*e*Sg	**Sb**	**19 52 08.5**	**-0.3**
MALT	**Malatya**	**2.51**	**51**	*e*PN	**Pn**	**19 51 35.9**	**+0.9**
MALT	**Malatya**	**2.51**	**51**	*e*Pn	**Pn**	**19 51 35.9**	**+0.9**
BHL	**Bhannes**	**2.84**	**185**	*e*Sg	**Sb**	**19 52 20.6**	**+0.8**
BHL	**Bhannes**	**2.84**	**185**	*e*Sg	**Sb**	**19 52 20.6**	**+0.7**
PTK	**Pertek**	**3.46**	**51**	*e*PN	**Pn**	**19 51 49.8**	**+1.7**
PTK	**Pertek**	**3.46**	**51**	*e*Pn	**Pn**	**19 51 49.8**	**+1.7**

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*ISCJB **26** 19:53:47.2±1.0, 15.63N±0.06×96.51W±0.03, h23^{km}±7^{km}, mb3.7/5, Error ellipse: s-maj=9.6km s-min=4.7km az=11.6*

*MEX **26** 19:53:47.6±0.7, 15.47N×96.53W, h20^{km}±31^{km}, MD4.4*

*NEIC **26** 19:53:49.1±1.5, 15.82N×96.41W, h14^{km}±12^{km}, MD4.4(MEX), Error ellipse: s-maj=21.1km s-min=8.2km az=189.0*

*IDC **26** 19:53:56.0±5.4, 16.07N×96.11W, h58^{km}±41^{km}, mb3.6/5, mb1 3.9/7, mb1mx3.6/20, mbtmp3.6/7, ML3.9/2, MS3.1/1, Ms1 3.1/1, ms1mx2.7/30, Error ellipse: s-maj=54.8km s-min=21.5km az=31.0*

ISC 26 19:53:48.2±1.0**, 15.69N**±0.06×**96.49W**±0.03**, h16^{km}**±6^{km}**, n32, σ1^{s}.42**/55**, mb3.7**/5**, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	**Huatulco**	**0.38**	**78**	*i* P	**Pg**	**19 53 55.9**	**-0.1**
HUIG				*i* S	**Sg**	**19 54 02.2**	**+1.0**
HUIG	**Huatulco**	**0.38**	**78**	*i* P	**Pg**	**19 53 55.9**	**-0.1**
HUIG				*i* S	**Sg**	**19 54 02.1**	**+0.9**
VHO	**Vista Hermosa**	**1.40**	**350**	*i* P	**Pn**	**19 54 12.6**	**-0.5**
VHO				*i* S	**Sn**	**19 54 31.4**	**+0.1**
OXX	**Oaxaca**	**1.41**	**351**	*i* P	**Pn**	**19 54 11.0**	**-2.2**
OXX				*i* S	**Sn**	**19 54 30.5**	**-0.9**
PNIG	**Pinotepa**	**1.72**	**294**	*e*P	**Pn**	**19 54 16.9**	**-0.7**
PNIG				*i* S	**Sn**	**19 54 39.8**	**+0.5**
PNIG	**Pinotepa**	**1.72**	**294**	*e*P	**Pn**	**19 54 14.8**	**-2.7**
PNIG				*i* S	**Sn**	**19 54 35.5**	**-3.8**
CMIG	**Matias Romero**	**2.08**	**48**	P	**Pn**	**19 54 21.1**	**-1.4**
	76nm,0.3s,baz=227,slow=10,SNR=508						
CMIG				S	**Sn**	**19 54 50.1**	**+2.0**
	42nm,0.3s,baz=49,slow=18,SNR=13						
UTMO	**Huajuapan**	**2.48**	**330**	*e*P	**Pn**	**19 54 27.1**	**-0.8**
UTMO				*i* S	**Sn**	**19 54 58.1**	**+0.3**
TUIG	**Tuzandepetl**	**3.06**	**40**	*i* P	**Pn**	**19 54 36.1**	**+0.2**
TUIG				*i* S	**Sn**	**19 55 13.8**	**+1.5**
TUIG	**Tuzandepetl**	**3.06**	**40**	*i* P	**Pn**	**19 54 35.4**	**-0.6**
TUIG				*i* S	**Sn**	**19 55 12.9**	**+0.6**
MEIG	**Mezcala**	**3.73**	**307**	*e*P	**Pn**	**19 54 43.5**	**-1.8**
MEIG				*i* S	**Sn**	**19 55 25.6**	**-3.3**
SCX	**San Cristobal**	**3.85**	**74**	*i* P	**Pn**	**19 54 47.3**	**+0.5**
SCX				*i* S	**Sn**	**19 55 29.5**	**-2.3**
CAIG	**El Cayaco**	**3.87**	**291**	*i* P	**Pn**	**19 54 48.4**	**+1.3**
CAIG				*i* S	**Sn**	**19 55 34.1**	**+1.8**
CAIG	**El Cayaco**	**3.87**	**291**	*i* P	**Pn**	**19 54 44.4**	**-2.7**
CAIG				*i* S	**Sn**	**19 55 28.0**	**-4.3**
PLIG	**Platanillo**	**3.94**	**313**	*i* P	**Pn**	**19 54 49.8**	**+1.7**
PLIG				*i* S	**Sn**	**19 55 35.0**	**+1.0**
PLIG	**Platanillo**	**3.94**	**313**	*e*P	**Pn**	**19 54 46.8**	**-1.3**
PLIG				*i* S	**Sn**	**19 55 31.8**	**-2.3**
YAIG	**Yautepec**	**4.00**	**322**	*i* P	**Pn**	**19 54 50.1**	**+1.1**
YAIG				*i* S	**Sn**	**19 55 41.3**	**+5.7**
YAIG	**Yautepec**	**4.00**	**322**	*e*P	**Pn**	**19 54 46.6**	**-2.3**
YAIG				*i* S	**Sn**	**19 55 34.8**	**-0.8**
CCIG	**Comitan**	**4.23**	**81**	*i* P	**Pn**	**19 54 51.5**	**-0.5**
CCIG				*i* S	**Sn**	**19 55 41.1**	**0.0**
SZVM	**Salazar**	**4.55**	**323**	*e*P	**Pn**	**19 54 57.5**	**+1.1**
SZVM				*i* S	**Sn**	**19 55 48.3**	**-0.7**
PTVM	**Pico Tres Padr**	**4.62**	**328**	*i* P	**Pn**	**19 55 04.2**	**+6.8**
PTVM				*i* S	**Sn**	**19 55 52.9**	**+2.1**
TEIG	**Tepich**	**9.03**	**59**	*e*Pn	**Pn**	**19 55 55.6**	**-2.4**
TEIG				S	**Sn**	**19 57 33.4**	**-5.9**
TEIG				LR	LR	20 00 03.8	
TEIG	**Tepich**	**9.03**	**59**	P	**Pn**	**19 55 55.0**	**-3.0**
	2.4nm,0.3s,baz=72,slow=20,SNR=6.7						
TEIG				S	**Sn**	**19 57 33.4**	**-5.9**
	3.0nm,0.3s,baz=240,slow=23,SNR=2.9						
TEIG				LR	LR	20 00 03.8	
	comp=Z,112nm,18.3s,baz=54,slow=43						
TXAR	**Lajitas Array**	**15.11**	**335**	P	**Pn**	**19 57 24.6**	**+3.6**
	0.1nm,0.3s,baz=158,slow=14,SNR=5.1						
BNM	**Barren Site**	**20.53**	**335**	*e*P	**P**	**19 58 27.8**	**+1.9**
SDV	**Santo Domingo**	**26.14**	**102**	P	**P**	**19 59 23.1**	**+1.2**
SDV	**Santo Domingo**	**26.14**	**102**	P	**P**	**19 59 23.1**	**+1.2**
	5.2nm,0.6s,mb4.2,baz=317,slow=5.0,SNR=8.4						
PDAR	**Pinedale Array**	**29.22**	**340**	P	**P**	**19 59 51.2**	**+2.0**
	0.3nm,0.5s,mb3.3,baz=141,slow=8.8,SNR=4.1						
NVAR	**Mina Array Bea**	**29.70**	**324**	P	**P**	**19 59 56.2**	**+2.7**
	0.4nm,0.4s,mb3.5,baz=148,slow=8.6,SNR=3.8						
YKA	**Yellowknife Ar**	**48.47**	**349**	P	**P**	**20 02 29.4**	**-0.3**
YKA	**Yellowknife Ar**	**48.47**	**349**	P	**P**	**20 02 29.4**	**-0.3**
	0.1nm,0.3s,mb3.3,baz=153,slow=7.1,SNR=5.3						
INK	**Inuvik**	**57.63**	**345**	P	**P**	**20 03 37.3**	**0.0**
	1.0nm,0.7s,mb4.0,baz=147,slow=7.2,SNR=4.7						

IDC 26 20:10:04.9±8.3**, 20.83S**×**173.63E, h0^{km}, mb4.1**/3**, mb1 4.3**/4**, mb1mx4.0**/13**, mbtmp4.1**/4**, ML3.0**/1**, MS3.9**/13**, Ms1 3.9**/13**, ms1mx3.7**/30**, Error ellipse: s-maj=200.8km s-min=39.2km az=130.0, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**6.80**	**258**	Pn	Pn	20 11 47.2	+1.2
	0.3nm,0.3s,baz=78,slow=15,SNR=3.9						
RAO	**Raoul Island**	**11.36**	**139**	LR	LR	20 15 22.8	
	comp=Z,145nm,18.8s,baz=158,slow=28						
HNR	**Honiara**	**17.38**	**309**	LR	LR	20 19 38.2	
	comp=Z,129nm,21.4s,baz=179,slow=33						
URZ	**Urewera**	**17.63**	**171**	LR	LR	20 19 58.4	
	comp=Z,255nm,19.1s,baz=279,slow=34						
CTA	**Charters Tower**	**25.65**	**267**	LR	LR	20 24 41.3	
	comp=Z,256nm,18.7s,baz=77,slow=34						
PMG	**Port Moresby**	**27.91**	**290**	LR	LR	20 24 04.6	
	comp=Z,154nm,19.9s,baz=52,slow=30						
STKA	**Stephens Creek**	**30.63**	**242**	LR	LR	20 27 50.7	
	comp=Z,384nm,18.4s,baz=29,slow=35						
PPT	**Papeete**	**34.85**	**91**	*e*LR	LR	20 26 15.9	
	287nm,26.8s						
PPT	**Papeete**	**34.85**	**91**	LR	LR	20 28 00.9	
	comp=Z,169nm,19.1s,baz=290,slow=31						
WRA	**Warramunga Arr**	**36.78**	**264**	P	P	20 17 12.7	-1.8
	1.4nm,0.9s,baz=97,slow=9.0,SNR=7.1						
WRA				LR	LR	20 31 05.1	
	comp=Z,159nm,19.1s,baz=80,slow=34						
ASAR	**Alice Springs**	**36.80**	**258**	P	P	20 17 15.7	+1.1
	8.1nm,1.1s,baz=92,slow=9.1,SNR=29						
TAOE	**Nuku Hiva Isla**	**46.08**	**82**	*e*LR	LR	20 31 31.1	
	657nm,30.1s						
NWAO	**Narrogin (SRO)**	**51.19**	**244**	LR	LR	20 39 05.2	
	comp=Z,290nm,21.2s,baz=29,slow=34						
JOW	**Kunigami**	**64.61**	**315**	LR	LR	20 43 39.5	
	comp=Z,117nm,21.5s,baz=58,slow=31						
MJAR	**Matsushiro Arr**	**66.14**	**329**	P	P	20 20 54.2	+0.1
	1.1nm,0.8s,baz=159,slow=7.1,SNR=3.2						
JNU	**Nakatsue**	**67.40**	**322**	LR	LR	20 49 25.3	
	comp=Z,61nm,18.1s,baz=112,slow=35						
LPIG	**La Paz**	**86.43**	**63**	LR	LR	20 52 37.6	
	comp=Z,129nm,18.7s,baz=202,slow=30						
TXAR	**Lajitas Array**	**93.93**	**60**	LR	LR	20 59 12.5	
	comp=Z,113nm,18.3s,baz=180,slow=31						

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*IDC **26** 20:30:44.7±1.4, 20.09S×173.08E, h0^{km}, mb4.1/8, mb1 4.3/8, mb1mx4.2/14, mbtmp4.1/8, MS3.7/8, Ms1 3.7/8, ms1mx3.5/31, Error ellipse: s-maj=56.5km s-min=23.0km az=148.0*

*SZGRF **26** 20:30:44.9, 20.89S×175.07E, h33^{km}, South of Fiji Islands*

*NEIC **26** 20:30:46.6±0.7, 20.03S×173.04E, h10^{km}, mb4.7/2, Error ellipse: s-maj=37.2km s-min=13.7km az=151.0*

*ISCJB **26** 20:30:48.9±0.9, 20.1S±0.2×173.0E±0.2, h33^{km}, mb4.2/11, MS4.0/5, Error ellipse: s-maj=39.2km s-min=15.4km az=151.0*

*BJI **26** 20:30:48.5, 19.67S×172.84E, h10^{km}, mb4.9*

ISC 26 20:30:50.8±0.9**, 20.1S**±0.2×**173.0E**±0.2**, h35^{km}, n58, σ0^{s}.89**/14**, mb4.2**/11**, MS4.0**/5**, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**6.44**	**251**	Pn	**Pn**	**20 32 16.7**	**-6.5**
DZM				LR	LR	20 33 42.6	
DZM	**Mont Dzumac**	**6.44**	**251**	Pn	**Pn**	**20 32 16.7**	**-6.5**
	0.1nm,0.3s,baz=45,slow=8.7,SNR=3.0						
DZM				LR	LR	20 33 42.7	
	comp=Z,63nm,22.0s,baz=108,slow=27						
HNR	**Honiara**	**16.51**	**308**	LR	LR	20 38 35.1	
	comp=Z,92nm,21.3s,baz=180,slow=28						
URZ	**Urewera**	**18.41**	**170**	LR	LR	20 40 35.0	
	comp=Z,412nm,20.4s,baz=258,slow=32						
RPZ	**Rata Peaks**	**23.58**	**184**	LR	LR	20 43 58.8	
	comp=Z,689nm,18.9s,MS4.1,baz=18,slow=34						
PMG	**Port Moresby**	**27.15**	**289**	LR	LR	20 45 04.1	
	comp=Z,74nm,21.0s,MS3.2,baz=35,slow=32						
STKA	**Stephens Creek**	**30.47**	**241**	P	**P**	**20 37 01.2**	**+0.9**
STKA	**Stephens Creek**	**30.47**	**241**	P	**P**	**20 37 01.2**	**+0.9**
	2.4nm,0.8s,mb4.0,baz=53,slow=10,SNR=3.7						
WRA	**Warramunga Arr**	**36.29**	**263**	P	**P**	**20 37 49.3**	**-1.9**
	2.2nm,1.0s,mb4.0,baz=95,slow=8.6,SNR=7.1						
ASAR	**Alice Springs**	**36.40**	**257**	P	**P**	**20 37 51.6**	**-0.4**
	4.0nm,0.9s,mb4.3,baz=81,slow=8.7,SNR=30						
MBWA	**Marble Bar**	**49.69**	**259**	*e*P	**P**	**20 39 40.5**	**+0.9**
	9.8nm,1.0s,mb4.8						
NWAO	**Narrogin (SRO)**	**51.00**	**244**	P	**P**	**20 39 49.0**	**-0.3**
	9.8nm,0.8s,mb4.8,baz=103,slow=7.9,SNR=4.1						
JHJ	**Hachijo jima 2**	**61.74**	**329**	LR	LR	21 01 55.7	
	comp=Z,217nm,20.9s,MS4.3,baz=177,slow=30						
MJAR	**Matsushiro Arr**	**65.26**	**330**	P	**P**	**20 41 28.8**	**-0.1**
	1.5nm,0.8s,mb4.1,baz=154,slow=6.0,SNR=4.6						
MJAR				LR	LR	21 07 30.7	
	comp=Z,173nm,18.3s,MS4.3,baz=355,slow=34						
KSRS	**Korea Array**	**71.30**	**323**	LR	LR	21 10 13.1	
	comp=Z,50nm,18.4s,MS3.8,baz=323,slow=33						
XAN	**Xi'an**	**81.36**	**311**	P	**P**	**20 43 05.3**	**+1.4**
XAN				AMB	AMB		
	comp=Z,3.0nm,1.1s,mb4.1						
NVAR	**Mina Array Bea**	**86.75**	**47**	P	**P**	**20 43 30.2**	**-1.1**
	comp=Z,0.4nm,0.6s,mb3.9,baz=215,slow=7.6,SNR=3.7						
SONM	**Songino Array**	**90.10**	**322**	P	**P**	**20 43 46.8**	**-0.2**
	comp=Z,0.5nm,0.8s,mb3.9,baz=67,slow=3.9,SNR=5.0						
WUAZ	**Wupatki**	**90.41**	**52**	*e*P	**P**	**20 43 49.6**	**+0.9**
	comp=Z,2.2nm,0.6s,mb4.7						
TXAR	**Lajitas Array**	**94.08**	**60**	P	**P**	**20 44 05.5**	**-0.3**
	comp=Z,0.4nm,0.7s,mb4.0,baz=227,slow=4.8,SNR=5.2						
OKC	**Ostrava-Krasne**	**144.25**	**332**	*e*P	PKPdf	20 50 21.7	-1.1
OKC	**Ostrava-Krasne**	**144.25**	**332**	*e*PKP	PKPdf	20 50 21.7	-1.1
DPC	**Dobruska-Polom**	**144.65**	**334**	*e*P	PKPdf	20 50 22.9	-0.6
DPC	**Dobruska-Polom**	**144.65**	**334**	*e*PKP	PKPdf	20 50 22.9	-0.6
UPC	**Upice**	**144.65**	**334**	*e*P	PKPdf	20 50 22.7	-0.8
UPC	**Upice**	**144.65**	**334**	*e*PKP	PKPdf	20 50 22.7	-0.8
EKA	**Eskdalemuir Ar**	**144.74**	**356**	PKP	PKPdf	20 50 21.6	-1.9
EKA	**Eskdalemuir Ar**	**144.74**	**356**	PKP	PKPdf	20 50 21.6	-1.9
	comp=Z,5.5nm,1.0s,baz=326,slow=4.0,SNR=4.9						
VYHS	**Vyhne**	**144.90**	**330**	*e*P	PKPdf	20 50 22.7	-1.3
VYHS	**Vyhne**	**144.90**	**330**	*e*PKP	PKPdf	20 50 22.7	-1.3
KOLL	**Kolacno**	**145.04**	**330**	*e*P	PKPbc	20 50 24.5	+0.8
KOLL	**Kolacno**	**145.04**	**330**	*e*PKP	PKPdf	20 50 24.5	+0.2
NRDL	**Niedersach Rie**	**145.07**	**342**	*e*PKPbc	PKPbc	20 50 23.9	+0.3
CLL	**Collm**	**145.15**	**338**	*e*PKPbc	PKPbc	20 50 23.4	-0.5
CLL	**Collm**	**145.15**	**338**	*i* PKPdf	PKPdf	20 50 23.9	-0.5
	comp=Z,20nm,1.0s						
BRG	**Berggiesshubel**	**145.17**	**337**	*e*PKPbc	PKPbc	20 50 23.7	-0.3
BRG	**Berggiesshubel**	**145.17**	**337**	*e*P	PKPbc	20 50 24.1	+0.1
	comp=Z,28nm,1.3s						
PVCC	**Panska Ves**	**145.21**	**336**	*e*P	PKPbc	20 50 24.7	+0.6
PVCC	**Panska Ves**	**145.21**	**336**	*e*PKP	PKPdf	20 50 24.7	+0.2
FBE	**Freiberg**	**145.34**	**337**	*e*PKPbc	PKPbc	20 50 25.0	+0.4
SMOL	**Smolenice**	**145.54**	**331**	*e*P	PKPdf	20 50 26.2	+1.1
SMOL	**Smolenice**	**145.54**	**331**	*e*PKP	PKPdf	20 50 26.2	+1.1
PRU	**Pruhonice**	**145.65**	**335**	*e*P	PKPdf	20 50 26.0	+0.8
PRU	**Pruhonice**	**145.65**	**335**	*e*PKP	PKPdf	20 50 26.0	+0.8
TREC	**Trest**	**145.80**	**334**	*e*PKP	PKPdf	20 50 26.0	+0.5
IBBN	**Ibbenburen**	**145.90**	**344**	*e*PKPbc	PKPbc	20 50 26.4	+0.2
ZST	**Bratislava**	**145.92**	**331**	*e*P	PKPdf	20 50 27.2	+1.4
ZST	**Bratislava**	**145.92**	**331**	*e*PKP	PKPdf	20 50 27.2	+1.4
TANN	**Tannenbergstha**	**146.08**	**338**	*e*PKPbc	PKPbc	20 50 27.5	+0.6
WERD	**Werda**	**146.11**	**338**	*e*PKPbc	PKPbc	20 50 28.4	+1.4
GUNZ	**Gunzen**	**146.17**	**338**	*e*PKPbc	PKPbc	20 50 26.9	-0.2
WERN	**Wernitzgruen**	**146.22**	**338**	*e*PKPbc	PKPbc	20 50 29.2	+1.9
KHC	**Kasperske Hory**	**146.71**	**335**	*e*P	PKPdf	20 50 29.1	+2.0
KHC	**Kasperske Hory**	**146.71**	**335**	*e*PKP	PKPdf	20 50 29.1	+2.0
GERES	**GERESS Array B**	**146.89**	**335**	PKPbc	PKPbc	20 50 28.2	-1.0
GERES	**GERESS Array B**	**146.89**	**335**	PKPbc	PKPbc	20 50 28.2	-1.0
	comp=Z,1.3nm,0.8s,baz=46,slow=3.9,SNR=9.4						
GRA1	**Grafenberg Arr**	**147.13**	**338**	*e*PKPbc	PKPbc	20 50 27.8	-2.1
GRF	**Grafenberg Arr**	**147.13**	**338**	*e*PKPbc	PKPbc	20 50 27.8	-2.1

IDC 26 20:37:34.7±2.2**, 21.32S**×**70.49W, h0^{km}, mb3.8**/2**, mb1 3.9**/4**, mb1mx3.7**/16**, mbtmp3.7**/4**, ML3.7**/2**, Error ellipse: s-maj=62.7km s-min=47.6km az=162.0, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	**La Paz**	**5.48**	**24**	Pn	Pn	20 38 59.0	+1.4
	1.1nm,0.3s,baz=217,slow=7.4,SNR=19						
SIV	**San Ignacio**	**10.38**	**61**	Pn	Pn	20 40 04.1	-0.8
	0.5nm,0.3s,baz=267,slow=9.3,SNR=12						
TORD	**Torodi Ar. Bea**	**78.69**	**71**	P	P	20 49 39.2	-0.2
	0.5nm,0.6s,baz=252,slow=4.8,SNR=5.3						
YKA	**Yellowknife Ar**	**90.54**	**341**	P	P	20 50 37.2	-0.9
	0.2nm,0.4s,baz=147,slow=3.5,SNR=5.8						
MKAR	**Makanchi Array**	**146.34**	**35**	PKPbc	PKPbc	20 57 18.0	+0.6
	0.4nm,0.7s,baz=320,slow=4.3,SNR=5.6						

IDC 26 20:48:28.6±2.4**, 17.78S**×**172.16W, h0^{km}, mb4.1**/3**, mb1 4.3**/4**, mb1mx3.9**/17**, mbtmp4.2**/4**, ML2.8**/1**, Error ellipse: s-maj=69.9km s-min=28.3km az=109.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**3.87**	**5**	Pn	Pn	20 49 30.5	+1.1
	42nm,0.3s,baz=178,slow=2.1,SNR=35						
AFI				Sn	Sn	20 49 58.4	-17
	139nm,0.3s,baz=343,slow=23,SNR=17						
URZ	**Urewera**	**22.46**	**203**	P	P	20 53 29.6	+0.2
	5.0nm,0.3s,baz=180,slow=5.7,SNR=22						
WRA	**Warramunga Arr**	**50.50**	**259**	P	P	20 57 27.8	-1.1
	0.5nm,0.7s,baz=95,slow=6.3,SNR=13						
ASAR	**Alice Springs**	**50.55**	**254**	P	P	20 57 30.3	+1.1
	1.9nm,0.5s,baz=86,slow=7.9,SNR=47						
BRTR	**Keskin Array B**	**148.74**	**320**	PKPbc	PKPbc	21 08 17.4	-0.9
	1.0nm,0.8s,baz=94,slow=3.3,SNR=6.0						

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*ISCJB **26** 20:56:47.2±0.7, 55.2S±0.1×128.8W±0.2, h10^{km}, mb4.1/7, MS4.3/14, Error ellipse: s-maj=21.3km s-min=15.5km az=44.0*

*IDC **26** 20:56:47.8±0.7, 55.48S×128.79W, h0^{km}, mb4.4/5, mb1 4.6/5, mb1mx4.4/12, mbtmp4.4/5, MS4.3/14, Ms1 4.2/14, ms1mx4.2/18, Error ellipse: s-maj=41.2km s-min=20.0km az=172.0*

*GCMT **26** 20:56:49.1±0.2, 55.34S×128.81W, h20^{km}±1^{km}, MW5.2/66, Moment Tensor Solution. s37,c49; s66,c95; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.99±.24; $M_{\theta\theta}$5.81±.27; $M_{\phi\phi}$-3.81±.20; $M_{r\theta}$-0.14±.41; $M_{\theta\phi}$4.79±.18; $M_{\phi r}$1.72±.40; Best double couple: $M_0$7.11000×10^{16} NP1:ϕ_s111.00000°,δ73.00000°,λ-13.00000°. NP2: ϕ_s205.00000°,δ78.00000°,λ-163.00000°. Principal axes: T 7.8180, Plg3.0000°, Azm337.0000°; N -1.4060, Plg69.0000°, Azm239.0000°; P -6.4020, Plg20.0000°, Azm68.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **26** 20:56:49.1±0.6, 55.42S×128.71W, h10^{km} Error ellipse: s-maj=33.1km s-min=16.8km az=170.0*

ISC 26 20:56:49.0±0.7**, 55.2S**±0.1×**128.8W**±0.2**, h10^{km}, n34, σ0^{s}.90**/12**, mb4.1**/7**, MS4.3**/14**, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RKT	**Rikitea**	**32.34**	**349**	*e*LQ		21 10 22.5	
	319nm,32.0s						
RKT				*e*LR	LR	21 11 43.7	
	1µm,29.0s,baz=171						
VNDA	**Vanda**	**32.48**	**202**	LR	LR	21 13 08.5	
	comp=Z,292nm,21.0s,MS4.0,baz=81,slow=30						
PPT	**Papeete**	**40.76**	**329**	*e*S	**S**	**21 10 40.8**	**+0.3**
	173nm,25.2s						
PPT				*e*LR	LR	21 15 41.2	
	1µm,26.5s,baz=167						
PPT	**Papeete**	**40.76**	**329**	LR	LR	21 17 06.3	
	comp=Z,473nm,19.1s,MS4.4,baz=175,slow=30						
VNA3	**Neumayer Olymp**	**46.79**	**157**	*e*	**P**	**21 05 18.3**	**+0.3**
VNA3				*e*		21 05 24.7	
VNA3				*e*		21 05 48.2	
VNA3				*e*		21 07 35.5	
TAOE	**Nuku Hiva Isla**	**47.07**	**345**	*e*LR	LR	21 18 33.4	
	3µm,25.7s						
VNA2	**Neumayer--Watz**	**47.53**	**158**	*e*	**P**	**21 05 24.3**	**+0.6**
	baz=223,slow=8.8						
VNA2				*e*		21 05 29.4	
VNA2				*e*		21 05 53.7	
VNA2				*e*		21 07 42.4	
VNA1	**Neumayer--Stat**	**47.54**	**157**	*e*	**P**	**21 05 24.9**	**+1.1**
VNA1				*e*		21 05 29.8	
VNA1				*e*		21 05 54.2	
VNA1				*e*		21 07 42.0	
SNAA	**Sanae**	**47.90**	**160**	P	**P**	**21 05 25.1**	**-1.5**
	2.4nm,0.7s,mb4.3,baz=217,slow=6.2,SNR=15						
SNAA				LR	LR	21 24 12.8	

	comp=Z,296nm,19.2s,MS4.3,baz=173,slow=35						
CFAA	**Coronel Fontan**	**48.13**	**87**	P	**P**	**21 05 27.8**	**-1.1**
	0.2nm,0.6s,mb3.3,baz=247,slow=5.1,SNR=4.9						
AFI	**Afiamalu**	**52.88**	**304**	LR	LR	21 22 33.8	
	comp=Z,125nm,19.5s,MS4.0,baz=154,slow=29						
MAW	**Mawson**	**57.22**	**185**	LR	LR	21 28 37.3	
	comp=Z,375nm,20.1s,MS4.5,baz=141,slow=34						
LPAZ	**La Paz**	**60.15**	**75**	P	**P**	**21 06 57.4**	**+0.8**
LPAZ				LR	LR	21 25 40.3	
LPAZ	**La Paz**	**60.15**	**75**	P	**P**	**21 06 57.4**	**+0.8**
	7.6nm,1.1s,mb4.6,baz=201,slow=4.8,SNR=17						
LPAZ				LR	LR	21 25 40.3	
	comp=Z,90nm,21.1s,MS3.9,baz=54,slow=29						
STKA	**Stephens Creek**	**64.27**	**251**	LR	LR	21 29 36.1	
	comp=Z,277nm,21.6s,MS4.4,baz=300,slow=31						
CTA	**Charters Tower**	**70.88**	**262**	LR	LR	21 33 00.3	
	comp=Z,130nm,18.7s,MS4.2,baz=314,slow=31						
ROSC	**El Rosal**	**74.76**	**57**	LR	LR	21 35 22.5	
	comp=Z,154nm,18.2s,MS4.3,baz=209,slow=31						
ASAR	**Alice Springs**	**74.90**	**250**	P	**P**	**21 08 29.4**	**-0.5**
	3.0nm,0.8s,mb4.3,baz=138,slow=6.1,SNR=14						
WRA	**Warramunga Arr**	**77.66**	**253**	P	**P**	**21 08 44.8**	**-0.9**
	2.8nm,1.0s,mb4.2,baz=143,slow=5.5,SNR=9.8						
WRA				LR	LR	21 39 26.4	
	comp=Z,164nm,18.9s,MS4.4,baz=145,slow=33						
PMG	**Port Moresby**	**78.92**	**269**	LR	LR	21 35 38.7	
	comp=Z,206nm,20.9s,MS4.4,baz=299,slow=30						
TEIG	**Tepich**	**82.67**	**38**	LR	LR	21 37 05.6	
	comp=Z,140nm,20.8s,MS4.3,baz=145,slow=29						
FITZ	**Fitzroy Crossi**	**83.86**	**247**	P	**P**	**21 09 19.8**	**+1.1**
	4.0nm,0.9s,mb4.5,baz=122,slow=11,SNR=5.0						
TXAR	**Lajitas Array**	**86.90**	**22**	P	**P**	**21 09 39.8**	**+6.2**
	0.1nm,0.3s,mb3.5,baz=180,slow=9.8,SNR=2.5						
BOSA	**Boshof**	**93.64**	**157**	LR	LR	21 49 37.3	
	comp=Z,234nm,18.5s,MS4.7,baz=173,slow=34						
PDAR	**Pinedale Array**	**98.94**	**14**	LR	LR	21 47 05.4	
	comp=Z,178nm,19.4s,MS4.6,baz=219,slow=30						
KEST	**Kesra**	**145.50**	**107**	PKPbc	PKPbc	21 16 28.4	+1.7
	3.1nm,1.0s,baz=255,slow=12,SNR=3.6						
SONM	**Songino Array**	**145.66**	**281**	PKPbc	PKPbc	21 16 27.7	+0.9
SONM	**Songino Array**	**145.66**	**281**	PKPbc	PKPbc	21 16 27.7	+0.9
	2.6nm,0.7s,baz=123,slow=2.7,SNR=12						
EKA	**Eskdalemuir Ar**	**149.70**	**67**	PKPbc	PKPbc	21 16 38.8	+1.2
EKA	**Eskdalemuir Ar**	**149.70**	**67**	PKPbc	PKPbc	21 16 38.8	+1.2
	3.4nm,0.8s,baz=242,slow=3.6,SNR=5.9						
GERES	**GERESS Array B**	**156.31**	**90**	PKP	PKPdf	21 16 43.0	+0.3
GERES	**GERESS Array B**	**156.31**	**90**	PKP	PKPdf	21 16 43.0	+0.3
	0.7nm,0.7s,baz=355,slow=2.8,SNR=5.5						
MKAR	**Makanchi Array**	**158.83**	**260**	PKPab	PKPab	21 17 20.1	-1.9
	0.2nm,0.6s,baz=116,slow=3.4,SNR=3.0						
ZALV	**Zalesovo Beam**	**160.55**	**280**	PKPab	PKPab	21 17 32.1	+2.8
	0.3nm,0.3s,baz=123,slow=5.5,SNR=4.6						

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*ISCJB **26** 21:05:34.1±0.6,29.4S±0.2×61.2E±0.1,h10^{km},mb4.2/13, MS3.7/4,Error ellipse: s-maj=25.0km s-min=13.8km az=1.6*

*IDC **26** 21:05:34.5±0.7,29.35S×61.27E,h0^{km},mb4.2/11, mb1 4.3/11,mb1mx4.1/22,mbtmp4.2/11,MS3.8/4, Ms1 3.7/4,ms1mx3.4/34,Error ellipse: s-maj=30.6km s-min=17.9km az=10.0*

*NEIC **26** 21:05:35.9±0.4,29.36S×61.23E,h10^{km},mb4.4/2,Error ellipse: s-maj=18.0km s-min=10.2km az=183.0*

ISC 26 21:05:36.1±0.6,**29.4S**±0.2×**61.2E**±0.1,**h10^{km},n22,σ0^{s}72**/14, **mb4.2**/13,**MS3.7**/4,**Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOSA	**Boshof**	**31.39**	**262**	LR	LR	21 21 50.7	
	comp=Z,148nm,21.6s,MS3.6,baz=96,slow=31						
LBTB	**Lobatse**	**31.90**	**269**	P	**P**	**21 12 01.9**	**0.0**
	3.3nm,1.0s,mb4.1						
LBTB	**Lobatse**	**31.90**	**269**	LR	LR	21 22 23.2	
	comp=Z,100nm,18.3s,MS3.5,baz=106,slow=32						
LSZ	**Lusaka**	**33.49**	**288**	*e*P	**P**	**21 12 14.7**	**-1.1**
	7.3nm,0.8s,mb4.7						
SUR	**Sutherland**	**34.66**	**255**	P	**P**	**21 12 26.7**	**+0.9**
	9.6nm,0.9s,mb4.7,baz=131,slow=9.3,SNR=3.4						
KMBO	**Kilima Mbogo**	**36.22**	**317**	LR	LR	21 23 50.8	
	comp=Z,198nm,20.6s,MS3.9,baz=93,slow=30						
TSUM	**Tsumeb**	**40.84**	**274**	P	**P**	**21 13 18.6**	**+0.4**
	5.2nm,1.0s,mb4.1,baz=106,slow=6.9,SNR=6.7						
ASAR	**Alice Springs**	**64.34**	**104**	P	**P**	**21 16 12.0**	**-0.3**
	3.1nm,1.0s,mb4.3,baz=245,slow=5.8,SNR=12						
WRA	**Warramunga Arr**	**66.17**	**100**	P	**P**	**21 16 23.7**	**-0.6**
	3.8nm,1.0s,mb4.4,baz=248,slow=5.5,SNR=8.6						
STKA	**Stephens Creek**	**67.62**	**115**	P	**P**	**21 16 33.2**	**-0.1**
	5.2nm,1.1s,mb4.5,baz=157,slow=5.0,SNR=3.7						
TORD	**Torodi Ar. Bea**	**71.29**	**298**	P	**P**	**21 16 56.2**	**+0.1**
	3.9nm,0.8s,mb4.4,baz=113,slow=5.1,SNR=25						
AML	**Almayashu**	**72.10**	**10**	*e*P	**P**	**21 17 01.4**	**+1.0**
BRTR	**Keskin Array B**	**73.40**	**338**	P	**P**	**21 17 07.1**	**-1.1**
	0.7nm,0.7s,mb3.7,baz=156,slow=8.9,SNR=5.6						
MKAR	**Makanchi Array**	**78.19**	**15**	P	**P**	**21 17 35.5**	**+0.1**
	1.0nm,0.8s,mb3.8,baz=178,slow=4.2,SNR=6.8						
KEST	**Kesra**	**81.12**	**320**	LR	LR	21 52 57.0	
	comp=Z,52nm,20.9s,MS3.9,baz=216,slow=35						
AKASG	**Malin Array Be**	**84.62**	**340**	P	**P**	**21 18 08.3**	**-1.0**
	0.2nm,0.3s,mb3.8,baz=171,slow=5.3,SNR=4.4						
ZALV	**Zalesovo Beam**	**85.48**	**14**	P	**P**	**21 18 14.2**	**+0.6**
	0.7nm,0.5s,mb4.1,baz=172,slow=4.1,SNR=3.9						
SONM	**Songino Array**	**86.93**	**29**	P	**P**	**21 18 22.0**	**+1.1**
	0.5nm,0.7s,mb3.9,baz=211,slow=4.5,SNR=2.9						
YKA	**Yellowknife Ar**	**146.79**	**356**	PKPbc	PKPbc	21 25 17.2	-0.5
YKA	**Yellowknife Ar**	**146.79**	**356**	PKPbc	PKPbc	21 25 17.2	-0.5
	1.4nm,0.8s,baz=354,slow=3.1,SNR=22						
TEIG	**Tepich**	**150.92**	**259**	PKPbc	PKPbc	21 25 29.6	+0.1
TEIG	**Tepich**	**150.92**	**259**	PKPbc	PKPbc	21 25 29.6	+0.1
	18nm,0.7s,baz=266,slow=2.1,SNR=8.1						

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*IDC **26** 21:07:42.9±8.3,5.91S×149.98E,h61^{km}±64^{km},mb3.5/3, mb1 3.8/4,mb1mx3.5/15,mbtmp3.7/4,ML3.3/1,MS3.5/2, Ms1 3.5/2,ms1mx3.1/15,Error ellipse: s-maj=104.9km s-min=53.9km az=129.0*

NEIC 26 21:07:32.1±2.6,**6.05S×150.92E,h10^{km},Error ellipse: s-maj=86.4km s-min=18.5km az=116.0,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**5.00**	**228**	P	Pn	21 08 48.4	+1.3
	10nm,0.3s,baz=44,slow=4.8,SNR=25						
PMG				S	Sn	21 09 38.9	-6.1
	11nm,0.3s,baz=100,slow=19,SNR=6.5						
PMG				LR	LR	21 10 41.3	
	comp=Z,276nm,21.0s,baz=148,slow=40						
WB2	**Warramunga Arr**	**21.21**	**228**	*e*P	P	21 12 18.1	0.0
WRA	**Warramunga Arr**	**21.22**	**228**	P	P	21 12 17.7	-0.5
	1.2nm,0.4s,baz=51,slow=10,SNR=29						
ASAR	**Alice Springs**	**23.97**	**221**	P	P	21 12 47.1	+0.3
	0.7nm,0.3s,baz=54,slow=9.0,SNR=17						
FITZ	**Fitzroy Crossi**	**27.42**	**242**	P	P	21 13 16.8	-1.4
	0.6nm,0.3s,baz=78,slow=9.3,SNR=12						
YKA	**Yellowknife Ar**	**97.40**	**28**	LR	LR	22 06 43.8	
	comp=Z,44nm,19.1s,baz=185,slow=36						
TORD	**Torodi Ar. Bea**	**148.87**	**285**	PKPbc	PKPbc	21 27 21.5	+0.4
TORD	**Torodi Ar. Bea**	**148.87**	**285**	PKPbc	PKPbc	21 27 21.5	+0.4
	2.7nm,0.7s,baz=84,slow=2.3,SNR=21						

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*IDC **26** 21:21:42.6±1.8,20.32S×172.97E,h0^{km},mb4.0/5, mb1 4.2/5,mb1mx4.1/11,mbtmp4.0/5,MS3.9/5,Ms1 3.8/5, ms1mx3.5/18,Error ellipse: s-maj=62.5km s-min=31.7km az=153.0*

*ISCJB **26** 21:21:43.7±1.6,20.2S±0.4×172.7E±0.2,h10^{km},mb4.0/5, MS3.9/4,Error ellipse: s-maj=58.8km s-min=16.5km az=152.1*

*NEIC **26** 21:21:43.5±1.1,20.43S×173.03E,h10^{km},Error ellipse: s-maj=47.6km s-min=23.0km az=158.0*

ISC 26 21:21:45.0±1.6,**20.3S**±0.4×**172.8E**±0.2,**h10^{km},n19,σ1^{s}12**/7, **mb4.0**/5,**MS3.9**/4,**Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**6.15**	**252**	Pn	**Pb**	**21 23 29.4**	**-2.9**
DZM	**Mont Dzumac**	**6.15**	**252**	Pn	**Pb**	**21 23 29.4**	**-2.9**
	0.3nm,0.3s,baz=18,slow=20,SNR=3.3						
URZ	**Urewera**	**18.27**	**169**	LR	LR	21 31 32.3	
	comp=Z,198nm,20.3s,baz=313,slow=32						
RPZ	**Rata Peaks**	**23.37**	**183**	LR	LR	21 34 46.2	
	comp=Z,406nm,18.1s,MS3.9,baz=340,slow=34						
STKA	**Stephens Creek**	**30.16**	**241**	LR	LR	21 38 55.6	
	comp=Z,107nm,19.1s,MS3.5,baz=207,slow=34						
WRA	**Warramunga Arr**	**36.03**	**264**	P	**P**	**21 28 47.5**	**+0.8**
	2.0nm,1.1s,mb4.0,baz=92,slow=8.9,SNR=4.7						
ASAR	**Alice Springs**	**36.11**	**257**	P	**P**	**21 28 48.5**	**+1.0**
	3.8nm,1.1s,mb4.2,baz=86,slow=8.8,SNR=14						
VNDA	**Vanda**	**57.49**	**183**	LR	LR	21 50 39.0	
	comp=Z,201nm,21.0s,MS4.2,baz=344,slow=30						
MJAR	**Matsushiro Arr**	**65.30**	**330**	P	**P**	**21 32 26.6**	**-0.6**
	1.8nm,0.9s,mb4.1,baz=171,slow=8.4,SNR=3.4						
KSRS	**Korea Array**	**71.30**	**324**	LR	LR	22 01 11.4	
	comp=Z,56nm,18.4s,MS3.9,baz=303,slow=33						
SONM	**Songino Array**	**90.09**	**322**	P	**P**	**21 34 45.6**	**+0.5**
	0.3nm,0.5s,mb3.9,baz=126,slow=2.5,SNR=2.7						
TXAR	**Lajitas Array**	**94.38**	**60**	P	**P**	**21 35 04.7**	**-0.7**
	0.5nm,0.8s,mb4.0,baz=196,slow=7.8,SNR=3.9						
CLL	**Collm**	**145.23**	**338**	*i* P	PKPbc	21 41 20.8	-1.6
CLL				*i*		21 41 25.9	
CLL	**Collm**	**145.23**	**338**	*i* PKPbc	PKPbc	21 41 20.8	-1.6
	comp=Z,17nm,1.5s						
CLL				*i* PKiKP	PKiKP	21 41 25.9	-0.7
CLL				*i* pPKiKP		21 41 28.6	
BRG	**Berggiesshubel**	**145.24**	**336**	*e*P	PKPbc	21 41 22.0	-0.4
	comp=Z,24nm,1.6s						
GERES	**GERESS Array B**	**146.95**	**334**	PKPbc	PKPbc	21 41 26.7	-1.0
GERES	**GERESS Array B**	**146.95**	**334**	PKPbc	PKPbc	21 41 26.7	-1.0
	comp=Z,1.0nm,0.9s,baz=330,slow=4.6,SNR=7.3						
TORD	**Torodi Ar. Bea**	**168.87**	**232**	PKP	PKPdf	21 41 50.5	-2.8
TORD	**Torodi Ar. Bea**	**168.87**	**232**	PKP	PKPdf	21 41 50.5	-2.8
	comp=Z,1.0nm,1.1s,baz=349,slow=2.7,SNR=3.5						

IDC 26 21:43:25.5±3.1,16.97S×167.02E,h0^{km},mb3.9/4, mb1 4.1/5,mb1mx3.9/15,mbtmp3.9/5,ML3.8/1,MS3.2/1, Ms1 3.2/1,ms1mx2.5/23,Error ellipse: s-maj=67.5km s-min=31.4km az=98.0,Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**5.10**	**186**	*e*P	Pn	21 44 42.1	-1.1
DZM				*e*S	Sn	21 45 38.3	-4.6
DZM	**Mont Dzumac**	**5.10**	**186**	Pn	Pn	21 44 42.0	-1.2
	3.3nm,0.3s,baz=41,slow=14,SNR=29						
DZM				Sn	Sn	21 45 38.3	-4.6
	2.4nm,0.3s,baz=134,slow=23,SNR=9.5						
PMG	**Port Moresby**	**20.73**	**289**	LR	LR	21 55 24.1	
	comp=Z,56nm,18.0s,baz=31,slow=35						
STKA	**Stephens Creek**	**27.40**	**233**	P	P	21 49 14.2	+1.4
	0.7nm,0.5s,baz=58,slow=13,SNR=3.3						
WRA	**Warramunga Arr**	**31.11**	**259**	P	P	21 49 45.5	-0.4
	0.5nm,0.5s,baz=86,slow=8.2,SNR=6.9						
ASAR	**Alice Springs**	**31.71**	**252**	P	P	21 49 50.9	-0.3
	1.5nm,0.9s,baz=78,slow=8.4,SNR=15						
MJAR	**Matsushiro Arr**	**59.78**	**333**	P	P	21 53 32.4	+0.1
	1.8nm,1.1s,baz=167,slow=6.4,SNR=4.9						

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*NEIC **26** 22:13:17.5,27.40S×70.90W,h6^{km},ML3.6(GUC),After GUC.*

GUC 26 22:13:17.5±0.3,**27.40S×70.90W,h6^{km}**±4^{km},**MD3.6,ML3.6, 3C,Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDCH	**Caldera**	**0.34**	**11**	⇑*i*P	Pg	22 13 24.4	+0.3
CDCH				*i* S	Sg	22 13 29.6	+1.2
CPCH	**Copiapo**	**0.49**	**85**	⇑*i*P	Pg	22 13 27.5	+0.6
CPCH				*i* S	Sg	22 13 35.2	+1.9
CPCH	**Copiapo**	**0.49**	**85**	⇑*i*P	Pg	22 13 27.5	+0.6
CPCH				*i* S	Sg	22 13 35.2	+1.9
CPCH				AML	AML	22 13 36.3	
	comp=E,22µm,0.1s						
VACH	**Vallenar**	**1.17**	**174**	*e*P	Pg	22 13 39.0	-1.0
VACH				*i* S	Sg	22 13 55.1	-0.2
VACH	**Vallenar**	**1.17**	**174**	*e*P	Pg	22 13 39.0	-1.0
VACH				*i* S	Sg	22 13 55.1	-0.2
VACH				AML	AML	22 13 59.0	
	comp=E,913nm,0.5s						
LCO	**Las Campanas**	**1.61**	**174**	*e*Pn	Pn	22 13 46.3	-0.2
LCO				*e*Sn	Sn	22 14 07.2	-0.4
TLL	**Tololo Astrono**	**2.75**	**178**	*e*P	Pn	22 14 04.0	+1.8
TLL				*i* S	Sn	22 14 39.2	+3.4

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*IDC **26** 22:33:33.7±0.6,5.51N×126.38E,h0^{km},mb4.2/16, mb1 4.3/16,mb1mx4.2/21,mbtmp4.2/16,MS3.9/3, Ms1 3.9/3,ms1mx3.4/23,Error ellipse: s-maj=32.0km s-min=12.8km az=76.0*

*MAN **26** 22:33:33,4.91N×126.70E,h62^{km},mb5.2,ML4.1,MS4.3*

*MOS **26** 22:33:37.1±1.4,5.52N×126.51E,h33^{km},mb4.9/17, MS4.0/4,Error ellipse: s-maj=14.5km s-min=7.6km az=107.0*

*BJI **26** 22:33:40.7,5.73N×126.20E,h27^{km},mB4.9,mb4.5,Ms4.1, Msz3.8*

*ISCJB **26** 22:33:41.3±0.7,5.45N±0.04×126.46E±0.05,h71^{km}±6^{km}, mb4.4/50,Error ellipse: s-maj=8.6km s-min=7.0km az=175.9*

*NEIC **26** 22:33:41.2±1.1,5.54N×126.49E,h55^{km}±10^{km},mb4.8/20, Error ellipse: s-maj=8.8km s-min=5.6km az=77.0*

ISC 26 22:33:42.2±0.7,**5.46N**±0.04×**126.49E**±0.06,**h63^{km}**±6^{km}, **h15^{km}**±8.0^{km}**:pP-P,n107,σ1^{s}10**/112,**mb4.5**/50,**2C-6D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	**Mati**	**1.50**	**351**	*e*P	**Pn**	**22 34 07.4**	**+0.4**
MATI				*e*S	**Sn**	**22 34 31.8**	**+6.2**
GSPH	**General Santos**	**1.66**	**292**	⇓*e*P	**Pn**	**22 34 05.4**	**-3.7**
GSPH				*e*S	**Sn**	**22 34 27.8**	**-1.6**
DAV	**Davao City (W)**	**1.84**	**331**	*e*Pn	**Pn**	**22 34 10.0**	**-1.6**
DAV				*e*Sn	**Sn**	**22 34 25.6**	**-8.3**
KCP	**Kidapawan**	**2.08**	**318**	⇓*e*P	**Pn**	**22 34 14.4**	**-0.4**
KCP				*i* S	**Sn**	**22 34 48.6**	**+9.0**
BIPH	**Bislig**	**2.71**	**357**	⇓*e*P	**Pn**	**22 34 24.6**	**+1.2**
BIPH				*i* S	**Sn**	**22 34 49.9**	**-5.3**
BUKP	**Musuan**	**2.79**	**330**	*e*P	**Pn**	**22 34 24.2**	**-0.4**
CGP	**Cagayan de Oro**	**3.47**	**329**	⇑*i*P	**Pn**	**22 34 34.9**	**+1.1**
CGP				*i* S	**Sn**	**22 35 21.6**	**+7.8**
PAGZ	**Pagadian**	**3.90**	**308**	*e*P	**Pn**	**22 34 41.9**	**+2.2**
SCPH	**Surigao**	**4.41**	**347**	⇓*e*P	**Pn**	**22 34 50.0**	**+3.3**
MSLP	**Maasin**	**4.92**	**341**	*e*P	**Pn**	**22 35 01.2**	**+7.6**
TBP	**Tagbilaran**	**4.95**	**328**	*e*P	**Pn**	**22 34 54.4**	**+0.3**
LLP	**Lapu-Lapu**	**5.44**	**333**	*e*P	**Pn**	**22 34 57.5**	**-3.3**
KSM	**Kuching**	**16.63**	**257**	*e*Pn	**Pn**	**22 37 32.1**	**+0.8**
KSM				*e*Sn	**Sn**	**22 40 30.4**	**-4.9**
KAKA	**Kakadu**	**18.99**	**162**	*e*P	**Pn**	**22 37 59.9**	**-0.2**
	19nm,0.9s						
NACB	**Ninganchiao**	**19.20**	**346**	*e*P	**Pn**	**22 37 57.0**	**-5.6**
GUMO	**Guam**	**19.83**	**65**	P	**Pn**	**22 38 07.0**	**-3.1**
GUMO	**Guam**	**19.83**	**65**	LR	LR	22 44 30.8	
	comp=Z,374nm,21.3s,baz=223,slow=33						
QIZ	**Qiongzhong**	**21.10**	**311**	P	**P**	**22 38 21.5**	**-0.2**
QIZ				AMB	AMB		
	comp=Z,23nm,1.3s,mb4.3						
QIZ				AMB	AMB		
	comp=Z,110nm,3.6s						
QIZ				LR	LR		
	comp=E,370nm,17.5s						
QIZ				LR	LR		
	comp=Z,412nm,25.0s						
FITZ	**Fitzroy Crossi**	**23.42**	**182**	*e*P	**P**	**22 38 45.7**	**-0.2**
	comp=Z,21nm,1.4s,mb4.4						
FITZ	**Fitzroy Crossi**	**23.42**	**182**	P	**P**	**22 38 46.0**	**+0.1**
	comp=Z,4.4nm,0.8s,mb4.0,baz=26,slow=13,SNR=9.4						
SSE	**Sheshan**	**25.99**	**350**	P	**P**	**22 39 10.3**	**+1.1**
SSE				AP	pP	22 39 19.0	-5.4
SSE				XP	sP	22 39 22.8	-9.0
SSE				S	**S**	**22 43 40.3**	**+4.9**
SSE				AMB	AMB		
	comp=Z,12nm,0.8s,mb4.5						
SSE				AMB	AMB		
	comp=Z,33nm,6.3s						
SSE				LR	LR		
	comp=N,109nm,13.7s						
SSE				LR	LR		
	comp=E,59nm,13.7s						
SSE				LR	LR		
	comp=Z,113nm,15.7s						
WRA	**Warramunga Arr**	**26.39**	**163**	P	**P**	**22 39 13.9**	**+1.0**
	comp=Z,3.7nm,0.6s,mb4.1,baz=343,slow=10,SNR=23						
WB2	**Warramunga Arr**	**26.40**	**163**	*e*P	**P**	**22 39 14.1**	**+1.2**
MBWA	**Marble Bar**	**27.27**	**194**	*e*P	**P**	**22 39 21.4**	**+0.7**
NJ2	**Nanjing**	**27.41**	**346**	*e*P	**P**	**22 39 22.0**	**+0.1**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.5						
WHN	**Wuhan**	**27.45**	**337**	*e*P	**P**	**22 39 24.0**	**+1.7**
PSI	**Prapat**	**27.62**	**266**	P	**P**	**22 39 23.4**	**-0.7**
	comp=Z,5.3nm,0.8s,mb4.2,baz=142,slow=4.6,SNR=5.2						
ASAR	**Alice Springs**	**29.83**	**166**	P	**P**	**22 39 42.8**	**-0.8**
	comp=Z,0.7nm,0.6s,mb3.6,baz=352,slow=7.6,SNR=11						
ASAR				PcP	PcP	22 42 48.5	+2.7
	comp=Z,0.6nm,0.6s,baz=355,slow=2.4,SNR=3.2						
KMI	**Kunming**	**30.02**	**313**	P	**P**	**22 39 45.8**	**+0.6**
KMI				AMB	AMB		
	comp=Z,5.0nm,1.6s,mb4.0						
KMI				LR	LR		
	comp=Z,247nm,23.6s						
KSRS	**Korea Array**	**31.88**	**2**	P	**P**	**22 40 05.8**	**+4.4**
	comp=Z,1.5nm,0.7s,mb3.9,baz=181,slow=10.0,SNR=7.9						
MAJO	**Matsushiro**	**32.75**	**18**	P	**P**	**22 40 07.6**	**-1.5**
MJAR	**Matsushiro Arr**	**32.75**	**18**	P	**P**	**22 40 08.6**	**-0.6**
	comp=Z,0.5nm,0.3s,mb3.9,baz=189,slow=9.9,SNR=2.7						
MJAR				LR	LR	22 51 29.1	
	comp=Z,260nm,19.0s,baz=180,slow=33						
XAN	**Xi’an**	**32.78**	**332**	P	**P**	**22 40 09.8**	**+0.4**
XAN				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
BJT	**Baijiatuau**	**35.65**	**346**	*e*P	**P**	**22 40 33.0**	**-1.1**
	comp=Z,13nm,0.9s,mb4.9						
BJT	**Baijiatuau**	**35.65**	**346**	*e*P	**P**	**22 40 33.0**	**-1.1**
BJT				pmax	pmax		
	comp=Z,13nm,0.9s						
HNR	**Honiara**	**36.47**	**114**	LR	LR	22 53 29.6	
	comp=Z,142nm,19.5s,baz=360,slow=33						
LZH	**Lanzhou**	**36.91**	**329**	*e*P	**P**	**22 40 48.5**	**+3.5**
LZH				AP	pP	22 40 53.5	-7.1
LZH				XP	sP	22 40 56.0	-12
LZH				AMB	AMB		
	comp=Z,42nm,1.5s,mb5.0						
LZH				AMB	AMB		
	comp=Z,230nm,4.0s						
LZH				LR	LR		
	comp=E,396nm,13.5s						
LZH				LR	LR		
	comp=Z,665nm,15.0s						
SHL	**Shillong**	**38.68**	**305**	*e*P	**P**	**22 41 05.0**	**+4.9**
MDJ	**Mudanjiang**	**39.10**	**4**	P	**P**	**22 41 02.0**	**-1.2**
NWAO	**Narrogin (SRO)**	**39.17**	**192**	*e*P	**P**	**22 41 04.8**	**+0.8**
NWAO	**Narrogin (SRO)**	**39.17**	**192**	P	**P**	**22 41 03.0**	**-0.9**
	comp=Z,3.5nm,0.6s,mb4.3,baz=21,slow=10,SNR=4.7						
STKA	**Stephens Creek**	**39.82**	**160**	*e*P	**P**	**22 41 09.3**	**-0.1**
	comp=Z,4.5nm,0.7s,mb4.3						
STKA	**Stephens Creek**	**39.82**	**160**	P	**P**	**22 41 08.7**	**-0.7**
	comp=Z,3.6nm,0.7s,mb4.2,baz=329,slow=9.6,SNR=6.0						
LSA	**Lhasa**	**41.14**	**310**	*e*P	**P**	**22 41 20.1**	**-0.3**
	comp=Z,2.9nm,0.6s,mb4.1						
LSA	**Lhasa**	**41.14**	**310**	*e*P	**P**	**22 41 20.1**	**-0.3**
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
GTA	**Gaotai**	**41.51**	**328**	*e*P	**P**	**22 41 26.0**	**+2.7**
GTA				AP	pP	22 41 30.3	-8.8
GTA				XP	sP	22 41 33.0	-13
GTA				PP	PP	22 43 03.3	+3.0
GTA				PCP	PcP	22 43 23.5	+3.6
GTA				S	**S**	**22 47 36.0**	**+1.6**
GTA				SS	SS	22 50 32.8	-8.4
GTA				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb4.2						
GTA				AMB	AMB		
	comp=Z,138nm,5.3s						
GTA				LR	LR		
	comp=N,257nm,16.7s						
GTA				LR	LR		
	comp=E,272nm,19.0s						
GTA				LR	LR		
	comp=Z,366nm,20.9s						
TAPN	**Taplejung**	**42.82**	**305**	*e*P	**P**	**22 41 34.0**	**-0.2**
	comp=Z,18nm,0.9s,mb4.8						
ODAN	**Odare**	**42.90**	**304**	*e*P	**P**	**22 41 34.5**	**-0.3**
	comp=Z,22nm,0.9s,mb4.9						
KLR	**Kul’dur**	**43.85**	**5**	*e*P	**P**	**22 41 43.4**	**+1.3**
HIA	**Hailar**	**44.03**	**354**	P	**P**	**22 41 42.9**	**-0.6**
JIRN	**Jiri**	**44.19**	**305**	*e*P	**P**	**22 41 45.3**	**+0.1**
	comp=Z,39nm,1.0s,mb5.1						
KKN	**Kakani**	**44.98**	**304**	*e*P	**P**	**22 41 50.8**	**-0.7**
	comp=Z,33nm,1.3s,mb5.0						
KKN	**Kakani**	**44.98**	**304**	*e*P	**P**	**22 41 50.8**	**-0.7**
KKN				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.0						
ULN	**Ulaanbaatar**	**45.42**	**342**	*e*P	**P**	**22 41 56.2**	**+1.6**
	comp=Z,4.8nm,0.9s,mb4.3						
ULN	**Ulaanbaatar**	**45.42**	**342**	*i* P	**P**	**22 41 56.6**	**+2.0**
GKN	**Gorkha**	**45.59**	**304**	*e*P	**P**	**22 41 55.8**	**-0.5**
	comp=Z,30nm,1.1s,mb5.1						
SONM	**Songino Array**	**45.60**	**341**	P	**P**	**22 41 56.7**	**+0.7**
	comp=Z,1.3nm,0.7s,mb4.0,baz=148,slow=6.6,SNR=6.4						
HYB	**Hyderabad**	**48.33**	**288**	*e*P	**P**	**22 42 23.0**	**+5.2**
HYB	**Hyderabad**	**48.33**	**288**	*i* P	**P**	**22 42 23.0**	**+5.2**
ZAK	**Zakamensk**	**48.83**	**340**	*e*P	**P**	**22 42 23.3**	**+2.2**
ZAK				*e*		22 43 52.0	
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.6s,mb3.6						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.2s,mb4.0						
TLY	**Talaya**	**49.83**	**342**	*e*P	**P**	**22 42 29.5**	**+0.8**
	comp=Z,5.7nm,0.8s,mb4.7						
TLY	**Talaya**	**49.83**	**342**	*e*P	**P**	**22 42 30.3**	**+1.6**
TLY				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
TLY				MLR	MLR		
	comp=Z,103nm,18.0s						
BOD	**Bodaibo**	**53.13**	**352**	*e*P	**P**	**22 42 50.8**	**-2.5**
BOD				pmax	pmax		
	comp=Z,5.0nm,1.8s,mb4.1						
PET	**Petropavlovsk**	**54.24**	**23**	P	**P**	**22 43 00.3**	**-1.2**
MKAR	**Makanchi Array**	**56.02**	**325**	P	**P**	**22 43 13.7**	**-0.7**
	comp=Z,1.7nm,0.4s,mb4.5,baz=118,slow=7.0,SNR=27						
YAK	**Yakutsk**	**56.50**	**2**	P	**P**	**22 43 15.7**	**-1.8**
	comp=Z,17nm,0.5s,mb5.3						
YAK	**Yakutsk**	**56.50**	**2**	*i* P	**P**	**22 43 17.1**	**-0.5**
YAK				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
YAK				MLR	MLR		
	comp=Z,100nm,15.0s						
UCH	**Uchtor**	**58.76**	**317**	*e*P	**P**	**22 43 34.0**	**+0.1**
	comp=Z,10nm,1.0s,mb4.8						
AAK	**Ala-Archa**	**58.93**	**317**	*e*P	**P**	**22 43 34.2**	**-0.8**
ZAA0	**Zalesovo Array**	**58.95**	**333**	*e*P	**P**	**22 43 35.2**	**+0.2**
ZAA0				*e*PcP	PcP	22 44 22.1	-1.3
ZALV	**Zalesovo Beam**	**58.95**	**333**	P	**P**	**22 43 34.4**	**-0.5**
	comp=Z,2.1nm,0.7s,mb4.3,baz=116,slow=6.9,SNR=15						
ZAL	**Zalesovo**	**58.96**	**333**	P	**P**	**22 43 34.4**	**-0.5**
KURK	**Kurchatov**	**60.17**	**327**	*e*P	**P**	**22 43 42.8**	**-0.6**
	comp=Z,7.4nm,0.6s,mb4.9						
KURK				*e*PcP	PcP	22 44 33.8	+5.4
KURK	**Kurchatov**	**60.17**	**327**	*i* P	**P**	**22 43 42.6**	**-0.8**
NVS	**Novosibirsk**	**60.24**	**333**	*e*P	**P**	**22 43 42.7**	**-1.0**
NVS				pmax	pmax		
	comp=N,6.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,6.0nm,1.3s						
NVS				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.7						
KBL	**Kabul**	**60.30**	**307**	*e*P	**P**	**22 43 43.9**	**-0.6**
BRVK	**Borovoye**	**65.83**	**327**	*e*P	**P**	**22 44 19.9**	**-1.0**
	comp=Z,18nm,1.2s,mb5.0						
BRVK	**Borovoye**	**65.83**	**327**	*e*P	**P**	**22 44 19.9**	**-1.0**
BRVK				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.0						
TIXI	**Tiksi**	**66.13**	**1**	*e*P	**P**	**22 44 22.5**	**+0.1**
	comp=Z,11nm,1.1s,mb4.8						
TIXI	**Tiksi**	**66.13**	**1**	*i* P	**P**	**22 44 21.2**	**-1.3**
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.3						
BILL	**Bilibino**	**67.96**	**15**	P	**P**	**22 44 34.5**	**+0.4**
BILL	**Bilibino**	**67.96**	**15**	⇓*e*P	**P**	**22 44 30.3**	**-3.8**
BILL				*e*SS	SS	22 57 50.9	0.0
BILL				pmax	pmax		
	comp=Z,5.0nm,2.2s,mb4.2						
BILL				MLR	MLR		
	comp=Z,100nm,17.0s						
AKTK	**Aktyubinsk**	**72.17**	**321**	P	**P**	**22 44 59.6**	**-0.7**
AKTO	**Aktyubinsk**	**72.17**	**321**	P	**P**	**22 44 59.6**	**-0.7**
	comp=Z,3.5nm,0.8s,mb4.4,baz=106,slow=9.9,SNR=12						
ARU	**Arti**	**73.36**	**327**	*e*P	**P**	**22 45 06.6**	**-0.6**
ARU	**Arti**	**73.36**	**327**	*d* *i*P	**P**	**22 45 10.6**	**+3.4**
ARU				*e*		22 47 50.3	
ARU				*e*PPP		22 49 38.3	
ARU				*e*S	S	22 54 42.0	+11
ARU				pmax	pmax		

	comp=Z,9.0nm,1.2s,mb4.6						
ORR	Orenburg	74.44	322	*e*P	P	22 45 15.0	+1.4
ZEI	Tsey	80.89	312	*e*P	P	22 45 50.5	+0.8
ZEI				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
KIV	Kislovodsk	81.78	313	*e*P	P	22 45 53.8	-0.6
	comp=Z,3.1nm,0.6s,mb4.4						
KIV	Kislovodsk	81.78	313	*e*P	P	22 45 54.0	-0.4
KIV				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
VRHR	Novokhopersk	82.56	321	*e*P	P	22 45 58.5	+0.2
VRHR				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
VRHR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VRHR				pmax	pmax		
	comp=E,7.0nm,0.6s						
MCK	McKinley	82.73	27	*e*P	P	22 45 59.0	0.0
MCK				*e*PcP	PcP	22 46 05.1	+1.4
OBN	Obninsk	85.52	325	P	P	22 46 13.5	+0.2
OBN	Obninsk	85.52	325	⇑*e*P	P	22 46 13.8	+0.5
OBN				*e*S	S	22 56 36.2	-3.7
OBN				pmax	pmax		
	comp=Z,22nm,2.0s,mb5.0						
OBN				MLR	MLR		
	comp=Z,100nm,21.0s						
JOF	Joensuu	87.55	333	*e*p	P	22 46 23.5	+0.5
	comp=Z,1.9nm,0.6s,mb4.5						
KEV	Kevo	88.20	340	*e*p	P	22 46 27.9	+1.9
	comp=Z,8.6nm,0.9s,mb5.0						
KEV	Kevo	88.20	340	*e*P	P	22 46 27.9	+1.9
KEV				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.0						
BRTR	Keskin Array B	88.74	310	P	P	22 46 28.5	-0.8
	comp=Z,0.6nm,0.7s,mb4.0,baz=88,slow=4.9,SNR=2.7						
ARCES	ARCESS Array B	88.76	340	P	P	22 46 27.9	-0.8
	comp=Z,2.6nm,0.9s,mb4.6,baz=71,slow=5.3,SNR=6.9						
KAF	Kangasniemi	89.97	332	*e*p	P	22 46 36.0	+1.5
	comp=Z,1.8nm,0.5s,mb4.7,baz=75,slow=4.2						
KAF	Kangasniemi	89.97	332	*e*P	P	22 46 36.0	+1.5
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.7						
FINES	FINESS Array B	90.21	332	*i* P	P	22 46 38.4	+2.8
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
FINES	FINESS Array B	90.21	332	P	P	22 46 35.0	-0.6
	comp=Z,2.1nm,0.7s,mb4.5,baz=66,slow=4.8,SNR=7.7						
NOA	NORSAR Array B	97.15	334	P	P	22 47 06.0	-1.5
	comp=Z,1.2nm,1.0s,mb4.3,baz=68,slow=4.5,SNR=2.4						
YKA	Yellowknife Ar	98.03	24	P	P	22 47 11.8	+0.4
	comp=Z,0.1nm,0.4s,mb3.7,baz=308,slow=3.5,SNR=3.6						
TORD	Torodi Ar. Bea	122.14	289	PKP	PKPdf	22 52 29.9	-1.0
TORD	Torodi Ar. Bea	122.14	289	PKP	PKPdf	22 52 29.9	-1.0
	comp=Z,1.0nm,0.8s,baz=78,slow=1.8,SNR=10						

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*IDC **26** 22:34:24.3±1.2, 5.47N×125.87E, h0^{km}, mb4.2/11, mb1 4.3/11, mb1mx4.1/21, mbtmp4.2/11, MS3.7/2, Ms1 3.7/2, ms1mx3.3/22, Error ellipse: s-maj=83.0km s-min=15.4km az=75.0*

*MOS **26** 22:34:27.3±0.7, 5.51N×125.99E, h33^{km}, mb4.8/3, Error ellipse: s-maj=23.4km s-min=11.8km az=118.4*

*ISCJB **26** 22:34:30.0±1.7, 5.49N±0.07×126.0E±0.1, h59^{km}±16^{km}, mb4.2/15, MS3.5/2, Error ellipse: s-maj=19.9km s-min=9.2km az=160.0*

*NEIC **26** 22:34:29.3±0.3, 5.49N×125.94E, h35^{km}, mb4.5/5, Error ellipse: s-maj=13.1km s-min=6.6km az=72.0*

ISC 26 22:34:31.4±1.7, **5.47N**±0.07×**126.0E**±0.1, **h54**^{km}±16^{km}, **n37, σ0.79**/34, **mb4.2**/15, **MS3.5**/2, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUKP	Musuan	2.56	339	*e*S	Pn	22 35 10.9	+0.4
TATO	Taipei	19.87	348	P	Pn	22 38 56.5	-3.6
GUMO	Guam	20.27	65	P	P	22 39 02.1	-0.5
FITZ	Fitzroy Crossi	23.43	181	P	P	22 39 35.0	-0.9
	2.4nm,0.4s,mb4.0,baz=9.2,slow=17,SNR=3.0						
PMG	Port Moresby	25.75	125	P	P	22 39 57.2	-0.1
WRA	Warramunga Arr	26.55	162	P	P	22 40 05.5	+1.2
	3.7nm,0.5s,mb4.2,baz=339,slow=10,SNR=4.6						
WRA				LR	LR	22 50 54.0	
	comp=Z,155nm,20.6s,MS3.5,baz=340,slow=37						
PSI	Prapat	27.13	265	LR	LR	22 50 46.0	
	comp=Z,146nm,20.8s,MS3.5,baz=26,slow=36						
MBWA	Marble Bar	27.17	193	*e*P	P	22 40 09.1	-0.7
	6.8nm,0.8s,mb4.2						
ASAR	Alice Springs	29.97	165	P	P	22 40 34.5	-0.3
	1.5nm,0.7s,mb3.8,baz=348,slow=8.0,SNR=4.3						
CTAO	Charters Tower	32.28	142	P	P	22 40 55.8	+0.7
BJT	Baijiatuau	35.51	347	*e*P	P	22 41 23.9	+0.9
	7.1nm,0.7s,mb4.7						
BJT	Baijiatuau	35.51	347	*e*P	P	22 41 23.9	+0.9
BJT				pmax	pmax		
	comp=Z,7.0nm,0.7s						
NWAO	Narrogin (SRO)	39.08	192	*e*P	P	22 41 53.7	+0.4
	comp=Z,4.0nm,0.6s,mb4.3						
NWAO	Narrogin (SRO)	39.08	192	*e*P	P	22 41 53.7	+0.4
NWAO				pmax	pmax		
	comp=Z,4.0nm,0.6s						
NWAO	Narrogin (SRO)	39.08	192	P	P	22 41 53.5	+0.1
	comp=Z,3.9nm,0.6s,mb4.3,baz=45,slow=4.3,SNR=2.5						
MDJ	Mudanjiang	39.12	4	P	P	22 41 52.7	-0.8
LSA	Lhasa	40.75	310	P	P	22 42 06.0	-1.3
ULN	Ulaanbaatar	45.25	342	*e*P	P	22 42 42.2	-1.1
	comp=Z,4.0nm,0.8s,mb4.3						
SONM	Songino Array	45.42	342	P	P	22 42 45.5	+0.8
	comp=Z,0.5nm,0.4s,mb3.7,baz=150,slow=12,SNR=2.1						
TLY	Talaya	49.66	342	P	P	22 43 17.6	+0.1
MKAR	Makanchi Array	55.72	325	P	P	22 44 03.7	+1.3
MKAR	Makanchi Array	55.72	325	P	P	22 44 03.7	+1.4
	comp=Z,1.4nm,0.4s,mb4.3,baz=122,slow=7.5,SNR=4.0						
ZALV	Zalesovo Beam	58.71	333	P	P	22 44 22.8	-0.6
	comp=Z,1.6nm,0.6s,mb4.2,baz=127,slow=6.8,SNR=2.8						
ZAL	Zalesovo	58.72	333	P	P	22 44 22.8	-0.6
AML	Almayashu	58.93	317	P	P	22 44 25.9	+0.8
AKTK	Aktyubinsk	71.85	321	P	P	22 45 49.4	+0.9
AKTO	Aktyubinsk	71.85	321	P	P	22 45 49.4	+0.9
	comp=Z,1.9nm,0.6s,mb4.2,baz=91,slow=14,SNR=2.2						
ARU	Arti	73.08	328	*e*P	P	22 45 55.7	0.0
	comp=Z,3.2nm,0.4s,mb4.6						
ARU	Arti	73.08	328	*e*P	P	22 45 55.7	0.0
ARU				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.6						
KIV	Kislovodsk	81.42	313	P	P	22 46 42.8	+0.1
KIV	Kislovodsk	81.42	313	P	P	22 46 42.8	+0.1
COLA	College	83.44	25	P	P	22 46 52.9	+0.2
BRTR	Keskin Array B	88.35	310	P	P	22 47 16.2	-1.4
	comp=Z,0.4nm,0.4s,mb4.0,baz=50,slow=4.7,SNR=3.1						
ARCES	ARCESS Array B	88.57	340	P	P	22 47 17.6	-0.3
	comp=Z,2.3nm,0.7s,mb4.6,baz=76,slow=7.5,SNR=3.7						
FINES	FINESS Array B	89.96	332	P	P	22 47 25.2	+0.5
	comp=Z,0.6nm,0.5s,mb4.2,baz=74,slow=8.1,SNR=3.4						
TORD	Torodi Ar. Bea	121.67	289	PKP	PKPdf	22 53 20.1	-0.1
TORD	Torodi Ar. Bea	121.67	289	PKP	PKPdf	22 53 20.1	-0.1
	comp=Z,0.6nm,0.4s,baz=65,slow=1.6,SNR=7.4						

IDC 26 22:39:50.3±1.7, **13.11N**×**143.76E**, **h215**^{km}±40^{km}, **mb3.3**/4, **mb1 3.5**/4, **mb1mx3.1**/20, **mbtmp3.3**/4, **MS3.4**/1, **Ms1 3.4**/1, **ms1mx3.0**/15, **Error ellipse: s-maj=109.4km s-min=19.1km az=87.0, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.18	66	P	Pn	22 40 24.2	+1.3
	20nm,0.3s,baz=24,slow=19,SNR=4.7						
GUMO				S	S	22 40 48.2	+0.1
	77nm,0.3s,baz=169,slow=24,SNR=11						
WRA	Warramunga Arr	34.12	196	P	P	22 46 14.7	-0.3
	1.7nm,0.6s,baz=16,slow=9.4,SNR=16						
FITZ	Fitzroy Crossi	35.79	210	LR	LR	23 00 47.3	
	comp=Z,69nm,21.7s,baz=234,slow=35						
ASAR	Alice Springs	37.80	195	P	P	22 46 46.3	+0.2
	0.7nm,0.7s,baz=19,slow=13,SNR=7.1						
MKAR	Makanchi Array	61.09	316	P	P	22 49 42.0	+0.3
	0.4nm,0.5s,baz=94,slow=8.2,SNR=6.2						
FINES	FINESS Array B	91.14	335	P	P	22 52 29.8	-0.7
	0.3nm,0.5s,baz=54,slow=3.6,SNR=5.6						

IDC 26 22:47:31.3±3.7, **16.01N**×**146.15E**, **h96**^{km}±33^{km}, **mb3.2**/3, **mb1 3.6**/4, **mb1mx3.3**/20, **mbtmp3.4**/4, **Error ellipse: s-maj=47.8km s-min=27.0km az=95.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.70	207	P	Pn	22 48 14.7	+1.6
	58nm,0.3s,baz=21,slow=18,SNR=10						
GUMO				S	Sn	22 48 45.2	+0.2
	49nm,0.3s,baz=330,slow=20,SNR=4.2						
WRA	Warramunga Arr	37.56	198	P	P	22 54 36.8	+0.3
	0.3nm,0.3s,baz=27,slow=8.8,SNR=26						
MKAR	Makanchi Array	60.64	315	P	P	22 57 32.0	-0.2
	0.1nm,0.3s,baz=93,slow=8.7,SNR=12						
YKA	Yellowknife Ar	80.16	28	P	P	22 59 30.7	+0.1
	0.5nm,0.6s,baz=288,slow=5.2,SNR=8.0						

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*IDC **26** 22:48:07.8±1.1, 41.03S×173.99E, h96^{km}±12^{km}, mb3.8/3, mb1 3.9/5, mb1mx3.7/12, mbtmp3.7/5, Error ellipse: s-maj=30.4km s-min=8.4km az=131.0*

*ISCJB **26** 22:48:09.3±0.3, 40.96S±0.03×173.77E±0.05, h120^{km}±3^{km}, mb4.3/5, Error ellipse: s-maj=7.3km s-min=3.7km az=33.7*

*WEL **26** 22:48:11.5±0.1, 40.92S×173.82E, h108^{km}±1^{km}, ML4.5/23, Error ellipse: s-maj=1.1km s-min=0.9km az=90.0, 5.*

WEL Felt between Wanganui, Canterbury and Manawatu, maximum reported intensity MM.

*NEIC **26** 22:48:11.5, 40.92S×173.82E, h108^{km}, MG4.5(WEL), After WEL.*

NEIC Felt in the Marlborough, Nelson and Wellington areas.

ISC 26 22:48:10.2±0.3, **40.96S**±0.03×**173.79E**±0.05, **h114**^{km}±3^{km}, **n122, σ0.94**/127, **mb4.3**/5, **41C-5D, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DUWZ	D'Urville Isla	0.18	33	⇑PN	Pn	22 48 26.2	+0.1
DUWZ				SN	Sn	22 48 37.5	-0.4
NNZ	Nelson	0.41	230	⇑P	Pn	22 48 27.5	+0.6
NNZ				S	Sn	22 48 39.2	-0.3
NNZ	Nelson	0.41	230	⇑PN	Pn	22 48 27.5	+0.6
NNZ				SN	Sn	22 48 39.2	-0.3
TCW	Tory Channel	0.45	125	⇑P	Pn	22 48 28.1	+0.9
TCW				S	Sn	22 48 39.4	-0.5
TCW	Tory Channel	0.45	125	⇑PN	Pn	22 48 28.1	+1.0
TCW				SN	Sn	22 48 39.4	-0.5
TUWZ	Tuamarina	0.49	166	⇑PN	Pn	22 48 28.4	+1.0
TUWZ				SN	Sn	22 48 40.3	-0.1
MRW	Makara Radio	0.74	112	⇑P	Pn	22 48 30.0	+0.7
MRW	Makara Radio	0.74	112	⇑PN	Pn	22 48 30.0	+0.7
BSWZ	Blackbirch Sta	0.76	175	⇑P	Pn	22 48 30.8	+1.3
BSWZ	Blackbirch Sta	0.76	175	⇑PN	Pn	22 48 30.8	+1.3
SNZO	South Karori	0.78	117	⇑P	Pn	22 48 30.3	+0.7
SNZO	South Karori	0.78	117	⇑PN	Pn	22 48 30.3	+0.7
WEL	Wellington	0.81	114	⇑P	Pn	22 48 30.6	+0.7
WEL	Wellington	0.81	114	⇑PN	Pn	22 48 30.6	+0.7
KIW	Kapiti Island	0.85	84	⇑P	Pn	22 48 30.8	+0.5
KIW	Kapiti Island	0.85	84	⇑PN	Pn	22 48 30.8	+0.5
CMWZ	Cape Campbell	0.85	158	⇑P	Pn	22 48 31.9	+1.6
CMWZ	Cape Campbell	0.85	158	⇑PN	Pn	22 48 31.9	+1.6
BHW	Baring Head	0.93	119	⇑P	Pn	22 48 31.6	+0.6
BHW	Baring Head	0.93	119	⇑PN	Pn	22 48 31.6	+0.6
QRZ	Quartz Range	0.96	277	P	Pn	22 48 31.7	+0.3
QRZ	Quartz Range	0.96	277	PN	Pn	22 48 31.7	+0.3
CAW	Cannon Point	0.98	99	⇑P	Pn	22 48 32.0	+0.5
CAW	Cannon Point	0.98	99	⇑PN	Pn	22 48 32.0	+0.5
THZ	Tophouse	1.05	219	⇑P	Pn	22 48 33.4	+1.2
THZ	Tophouse	1.05	219	⇑PN	Pn	22 48 33.4	+1.2
MSWZ	Moikau Station	1.19	113	⇑P	Pn	22 48 34.3	+0.6
MSWZ	Moikau Station	1.19	113	⇑PN	Pn	22 48 34.3	+0.6
PAWZ	Paruwai Farm	1.31	110	⇑P	Pn	22 48 35.5	+0.5
PAWZ	Paruwai Farm	1.31	110	⇑PN	Pn	22 48 35.5	+0.5
MTW	Mount Morrison	1.31	100	⇑P	Pn	22 48 35.4	+0.4
MTW	Mount Morrison	1.31	100	⇑PN	Pn	22 48 35.4	+0.4
MRZ	Mangatainoka R	1.39	78	⇑P	Pn	22 48 35.9	-0.1
MRZ	Mangatainoka R	1.39	78	⇑PN	Pn	22 48 35.9	0.0
KHZ	Kahutara	1.47	187	⇑P	Pn	22 48 38.4	+1.5
KHZ	Kahutara	1.47	187	⇓PN	Pn	22 48 38.4	+1.5
TRWZ	Traveller	1.50	108	⇑PN	Pn	22 48 37.7	+0.5
WAZ	Wanganui	1.51	38	P	Pn	22 48 38.0	+0.7
WAZ	Wanganui	1.51	38	PN	Pn	22 48 38.0	+0.7
TIWZ	Tintock	1.60	84	⇑PN	Pn	22 48 38.5	+0.1
NRZ	Ngariki Road	1.62	4	⇑P	Pn	22 48 39.3	+0.6
NRZ	Ngariki Road	1.62	4	⇑PN	Pn	22 48 39.3	+0.6
DFE	Dawson Falls	1.64	9	P	Pn	22 48 39.8	+0.8
DFE	Dawson Falls	1.64	9	PN	Pn	22 48 39.8	+0.8
NWEZ	Newall Road	1.68	2	P	Pn	22 48 40.1	+0.7
NWEZ	Newall Road	1.68	2	PN	Pn	22 48 40.1	+0.7
DSZ	Denniston Nort	1.69	241	⇑P	Pn	22 48 40.1	+0.6
DSZ	Denniston Nort	1.69	241	⇑PN	Pn	22 48 40.1	+0.5
NEZ	North Egmont	1.70	8	P	Pn	22 48 40.1	+0.4
NEZ	North Egmont	1.70	8	PN	Pn	22 48 40.1	+0.4
RAEZ	Rainy Point	1.73	16	P	Pn	22 48 40.8	+0.8
RAEZ	Rainy Point	1.73	16	PN	Pn	22 48 40.8	+0.8
PKE	Pukeiti	1.76	5	⇓P	Pn	22 48 41.0	+0.5
PKE	Pukeiti	1.76	5	⇓PN	Pn	22 48 41.0	+0.5
BFZ	Birch Farm	1.88	82	⇓P	Pn	22 48 41.7	-0.2
BFZ	Birch Farm	1.88	82	⇑PN	Pn	22 48 41.7	-0.2
VRZ	Vera Road	1.97	22	P	Pn	22 48 43.5	+0.5
VRZ	Vera Road	1.97	22	PN	Pn	22 48 43.5	+0.5
MTVZ	Mangateitei	2.03	40	PN	Pn	22 48 43.6	-0.2
PKVZ	Pokaka	2.05	36	PN	Pn	22 48 43.8	-0.2
TRVZ	Turoa	2.13	40	PN	Pn	22 48 45.0	-0.1
WNVZ	Wahianoa	2.14	41	P	Pn	22 48 44.9	-0.2
WNVZ	Wahianoa	2.14	41	PN	Pn	22 48 44.9	-0.2
LTZ	Lake Taylor	2.15	211	P	Pn	22 48 45.9	+0.7
LTZ	Lake Taylor	2.15	211	PN	Pn	22 48 45.9	+0.7
MOVZ	Moawhango	2.16	45	P	Pn	22 48 44.9	-0.5
MOVZ	Moawhango	2.16	45	PN	Pn	22 48 44.9	-0.4
FWVZ	Far West T-bar	2.17	39	P	Pn	22 48 45.4	-0.1
FWVZ	Far West T-bar	2.17	39	PN	Pn	22 48 45.4	-0.1
TUVZ	Tukino	2.21	41	P	Pn	22 48 46.1	+0.1
TUVZ	Tukino	2.21	41	PN	Pn	22 48 46.1	0.0
NGZ	Ngauruhoe	2.26	39	P	Pn	22 48 46.3	-0.3
NGZ	Ngauruhoe	2.26	39	PN	Pn	22 48 46.3	-0.3
TWVZ	Taurewa	2.27	34	P	Pn	22 48 46.3	-0.5
TWVZ	Taurewa	2.27	34	PN	Pn	22 48 46.3	-0.4
OTVZ	Oturere	2.29	39	PN	Pn	22 48 47.2	0.0
WTVZ	West Tongariro	2.30	38	P	Pn	22 48 46.8	-0.4
WTVZ	West Tongariro	2.30	38	PN	Pn	22 48 46.8	-0.4
KRVZ	Karewarewa	2.34	38	PN	Pn	22 48 47.2	-0.5
KATZ	Kakaramea	2.46	37	*e*PN	Pn	22 48 48.6	-0.6
PXZ	Pawanui	2.52	70	PN	Pn	22 48 49.0	-1.0
HIZ	Hauiti	2.57	19	⇑P	Pn	22 48 50.6	-0.1
HIZ	Hauiti	2.57	19	⇓PN	Pn	22 48 50.6	-0.2
RATZ	Rangitukua	2.58	37	*e*PN	Pn	22 48 50.6	-0.2
WATZ	Wairara	2.70	34	*e*PN	Pn	22 48 51.3	-1.0
BKZ	Black Stump Fm	2.74	50	*e*PN	Pn	22 48 52.2	-0.7
CRLZ	Canterbury Las	2.76	198	PN	Pn	22 48 52.8	-0.3
MQZ	McQueen's Vall	2.88	197	P	Pn	22 48 54.1	-0.6
MQZ	McQueen's Vall	2.88	197	PN	Pn	22 48 54.1	-0.6
RPZ	Rata Peaks	3.42	215	P	Pn	22 49 01.4	-0.5
	7.8nm,0.3s,baz=118,slow=14,SNR=64						
RPZ				S	Sn	22 49 39.5	-2.4
	71nm,0.3s,baz=337,slow=3.7,SNR=41						
RPZ	Rata Peaks	3.42	215	*e*PN	Pn	22 49 01.2	-0.7
TOZ	Tahuroa Road	3.48	23	PN	Pn	22 49 01.9	-0.9
KNZ	Kokohu	3.55	58	*e*PN	Pn	22 49 01.2	-2.4
URZ	Urewera	3.72	45	P	Pn	22 49 03.1	-2.8
URZ	Urewera	3.72	45	P	Pn	22 49 03.3	-2.5
	2.7nm,0.3s,baz=233,slow=5.5,SNR=30						
URZ				S	Sn	22 49 44.7	-4.2
	78nm,0.3s,baz=106,slow=18,SNR=39						
URZ	Urewera	3.72	45	PN	Pn	22 49 03.1	-2.7
MWZ	Matawai	3.90	49	*e*P	Pn	22 49 05.7	-2.5
MWZ	Matawai	3.90	49	*e*PN	Pn	22 49 05.7	-2.5
FOZ	Fox Glacier	4.01	228	P	Pn	22 49 08.0	-1.7
FOZ	Fox Glacier	4.01	228	PN	Pn	22 49 08.0	-1.7
WTAZ	Waiatarua	4.06	9	P	Pn	22 49 10.9	+0.4
WTAZ	Waiatarua	4.06	9	PN	Pn	22 49 10.9	+0.4
ODZ	Otahua Downs	4.69	208	PN	Pn	22 49 18.4	-0.4
JCZ	Jackson Bay	4.85	228	*e*PN	Pn	22 49 19.4	-1.7
MXZ	Matakaoa Point	4.87	47	*e*PN	Pn	22 49 18.5	-2.8
WCZ	Waipu Caves	5.03	5	*e*PN	Pn	22 49 22.8	-0.6
WKZ	Wanaka	5.22	221	*e*PN	Pn	22 49 23.9	-2.1
EAZ	Earnscleugh	5.39	216	*e*PN	Pn	22 49 25.5	-2.7
MSZ	Milford Sound	5.69	227	*e*PN	Pn	22 49 31.3	-1.0
OUZ	Omahuta	5.73	358	*e*PN	Pn	22 49 32.5	-0.4
TUZ	Tuapeka	5.84	210	*e*PN	Pn	22 49 33.7	-0.6
RAO	Raoul Island	13.50	33	Pn	Pn	22 51 17.4	+0.4
AFI	Afiamalu	29.75	29	*e*P	P	22 54 07.7	+1.9
	9.3nm,0.4s,mb4.8						
HNR	Honiara	33.71	335	P	P	22 54 41.6	+1.1
ASAR	Alice Springs	37.49	285	P	P	22 55 13.6	+0.7
	1.3nm,0.6s,mb4.1,baz=130,slow=7.6,SNR=7.9						
PMG	Port Moresby	39.28	316	*e*P	P	22 55 29.7	+1.8
	18nm,1.1s,mb4.8						
WRA	Warramunga Arr	39.50	290	P	P	22 55 30.4	+0.7
	1.5nm,0.4s,mb4.2,baz=126,slow=8.4,SNR=26						
CASY	Casey	42.69	212	P	P	22 55 56.2	+0.9
FITZ	Fitzroy Crossi	46.98	284	P	P	22 56 30.1	+0.2
	1.2nm,0.5s,mb3.9,baz=158,slow=5.4,SNR=4.4						
ARCES	ARCESS Array B	146.91	340	PKPbc	PKPbc	23 07 37.6	-0.4
	1.3nm,0.8s,baz=88,slow=1.8,SNR=9.6						
BRTR	Keskin Array B	149.78	281	PKP	PKPdf	23 07 39.3	-2.2
	0.5nm,0.8s,baz=50,slow=9.8,SNR=3.6						
BRTR				PKPbc	PKPbc	23 07 46.0	-0.4
	0.8nm,0.8s,baz=64,slow=2.9,SNR=4.4						
TORD	Torodi Ar. Bea	151.45	196	PKPbc	PKPbc	23 07 50.9	-0.2
	0.2nm,0.4s,baz=159,slow=3.1,SNR=9.9						

IDC 26 22:48:41.2±3.7, **7.70S**×**155.47E**, **h0**^{km}, **mb3.6**/4, **mb1 3.8**/4, **mb1mx3.6**/13, **mbtmp3.6**/4, **MS3.8**/1, **Ms1 3.8**/1, **ms1mx2.9**/18, **Error ellipse: s-maj=106.8km s-min=30.2km az=115.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	23.82	237	P	P	22 53 55.3	-0.9
	2.2nm,0.8s,baz=63,slow=9.6,SNR=13						
ASAR	Alice Springs	26.07	230	P	P	22 54 17.5	+0.8
	0.4nm,0.8s,baz=62,slow=8.5,SNR=2.9						
PPT	Papeete	54.34	106	LR	LR	23 17 47.4	
	comp=Z,102nm,21.4s,baz=184,slow=32						
SONM	Songino Array	70.19	327	P	P	22 59 56.8	+1.0
	0.7nm,0.8s,baz=132,slow=6.9,SNR=4.8						
MKAR	Makanchi Array	84.25	319	P	P	23 01 14.2	-0.6
	0.7nm,0.7s,baz=104,slow=6.2,SNR=5.4						

MEX 26 22:53:38.1±0.8, **16.73N**×**99.82W**, **h20**^{km}±999^{km}, **MD3.6, 1C, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.17	326	*i* P	Pb	22 53 46.7	+3.9
CAIG	El Cayaco	0.54	307	⇑*i*P	Pb	22 53 47.0	-1.9
CAIG				*i* S	Sb	22 53 54.1	-2.0
MEIG	Mezcala	1.21	9	*e*P	Pn	22 53 57.7	-2.2
MEIG				*i* S	Sb	22 54 10.9	-4.6
PLIG	Platanillo	1.68	10	*i* P	Pn	22 54 03.0	-3.4
PLIG				*i* S	Sn	22 54 24.2	-3.2

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*ISCJB **26** 22:58:13.3±0.6, 40.9S±0.1×80.7E±0.1, h10^{km}, mb4.2/6, MS4.1/10, Error ellipse: s-maj=18.0km s-min=12.8km az=1.6*

*IDC **26** 22:58:13.7±4.6, 40.72S×80.65E, h0^{km}, mb3.9/4, mb1 4.1/4, mb1mx3.7/14, mbtmp3.9/4, MS4.1/10, Ms1 4.1/10, ms1mx4.0/17, Error ellipse: s-maj=165.5km s-min=40.1km az=30.0*

*NEIC **26** 22:58:15.1±0.5, 40.87S×80.69E, h10^{km}, mb4.6/3, Error ellipse: s-maj=15.2km s-min=10.9km az=183.0*

ISC 26 22:58:15.3±0.6, **40.9S**±0.1×**80.7E**±0.1, **h10**^{km}, **n26, σ0.80**/16, **mb4.2**/6, **MS4.1**/10, **Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAW	Mawson	28.49	194	*e*P	P	23 04 10.0	-0.2
	189nm,1.7s,mb5.5						
MAW	Mawson	28.49	194	LR	LR	23 12 28.9	
	comp=Z,500nm,21.5s,MS4.1,baz=316,slow=30						
NWAO	Narrogin (SRO)	30.11	87	P	P	23 04 24.5	-0.5
NWAO	Narrogin (SRO)	30.11	87	LR	LR	23 14 05.0	
	comp=Z,203nm,21.0s,MS3.7,baz=179,slow=32						
CASY	Casey	30.41	157	P	P	23 04 28.3	+1.0
MBWA	Marble Bar	38.40	71	P	P	23 05 36.5	-0.4
BOSA	Boshof	46.47	267	LR	LR	23 21 45.1	
	comp=Z,294nm,18.6s,MS4.3,baz=122,slow=30						
PSI	Prapat	46.56	25	LR	LR	23 22 04.5	
	comp=Z,282nm,21.9s,MS4.2,baz=194,slow=31						
ASAR	Alice Springs	47.42	86	P	P	23 06 51.1	+1.1
	0.9nm,0.7s,mb3.8,baz=234,slow=6.7,SNR=12						
SUR	Sutherland	47.98	260	LR	LR	23 21 31.5	
	comp=Z,226nm,22.0s,MS4.1,baz=295,slow=29						
LBTB	Lobatse	48.11	272	P	P	23 06 55.4	+0.1
VNDA	Vanda	48.56	163	LR	LR	23 25 16.2	
	comp=Z,676nm,18.9s,MS4.7,baz=270,slow=33						
STKA	Stephens Creek	48.97	100	*e*P	P	23 07 01.4	-0.5
	3.1nm,0.6s,mb4.5						
STKA	Stephens Creek	48.97	100	P	P	23 07 02.0	+0.2
	5.4nm,0.9s,mb4.5,baz=254,slow=5.9,SNR=8.0						
STKA				LR	LR	23 23 45.4	
	comp=Z,336nm,20.7s,MS4.3,baz=103,slow=31						
WRA	Warramunga Arr	49.91	82	P	P	23 07 08.4	-0.8
	1.7nm,0.9s,mb4.1,baz=233,slow=7.8,SNR=8.1						
WRA				LR	LR	23 26 37.2	
	comp=Z,71nm,18.3s,MS3.7,baz=50,slow=34						
KAKA	Kakadu	53.08	73	*e*P	P	23 07 32.1	-0.9
KMBO	Kilima Mbogo	55.73	304	P	P	23 07 52.2	-0.1
KMBO	Kilima Mbogo	55.73	304	LR	LR	23 26 33.3	
	comp=Z,91nm,18.5s,MS3.9,baz=322,slow=31						
TSUM	Tsumeb	57.51	272	*e*P	P	23 08 03.7	-1.1
	1.6nm,0.8s,mb4.1						
KBL	Kabul	75.83	350	*e*P	P	23 10 02.4	+1.1
MKAR	Makanchi Array	87.31	1	P	P	23 11 01.2	-0.5
MKAR	Makanchi Array	87.31	1	P	P	23 11 01.2	-0.5
	0.2nm,0.6s,mb3.5,baz=180,slow=4.0,SNR=4.1						
ULN	Ulaanbaatar	91.42	17	P	P	23 11 22.5	+1.5
ZALV	Zalesovo Beam	94.53	2	LR	LR	23 54 54.4	
	comp=Z,32nm,18.8s,MS3.8,baz=117,slow=36						
INK	Inuvik	146.98	23	PKPbc	PKPbc	23 17 55.5	-1.4
INK	Inuvik	146.98	23	PKPbc	PKPbc	23 17 55.5	-1.4
	1.4nm,0.6s,baz=337,slow=7.7,SNR=4.8						

IDC 26 23:01:44.0±5.7, **41.67S**×**80.69E**, **h0**^{km}, **mb4.0**/4, **mb1 4.2**/4, **mb1mx3.8**/14, **mbtmp4.0**/4, **Error ellipse: s-maj=185.9km s-min=42.9km az=32.0, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	47.49	85	P	P	23 10 21.4	+0.7
	1.4nm,0.8s,baz=232,slow=7.2,SNR=11						
STKA	Stephens Creek	48.85	99	P	P	23 10 30.6	-0.6
	3.0nm,0.8s,baz=235,slow=9.0,SNR=5.4						
WRA	Warramunga Arr	50.04	81	P	P	23 10 40.2	-0.2
	2.6nm,0.8s,baz=232,slow=7.8,SNR=16						
MKAR	Makanchi Array	88.09	1	P	P	23 14 35.8	0.0
	0.4nm,0.8s,baz=182,slow=4.3,SNR=3.6						

WEL 26 23:40:28.3±0.1, **39.26S**×**175.47E**, **h5**^{km}, **ML3.6**/40, **15C-6D, Error ellipse: s-maj=0.7km s-min=0.5km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FWVZ	Far West T-bar	0.06	91	⇑P*	Pg	23 40 30.4	+0.7
FWVZ				S*	Sg	23 40 31.8	+1.1
DRZ	Dome Shelter	0.07	107	⇑PG	Pg	23 40 30.5	+0.6
TRVZ	Turoa	0.07	128	⇓PG	Pg	23 40 30.4	+0.5
WPVZ	Whakapapa	0.07	49	⇑PG	Pg	23 40 30.6	+0.7
WPVZ				SG	Sg	23 40 32.5	+1.4
PKVZ	Pokaka	0.11	250	⇓PG	Pg	23 40 31.1	+0.7
WNVZ	Wahianoa	0.12	127	⇑PG	Pg	23 40 31.2	+0.4
NGZ	Ngauruhoe	0.13	52	⇑PG	Pg	23 40 31.3	+0.5
NGZ				SG	Sg	23 40 33.7	+1.2
MTVZ	Mangateitei	0.13	181	⇓PG	Pg	23 40 31.2	+0.3
TUVZ	Tukino	0.14	96	⇓PG	Pg	23 40 31.6	+0.6
WTVZ	West Tongariro	0.17	33	⇑PG	Pg	23 40 32.0	+0.5
WTVZ				SG	Sg	23 40 34.8	+1.1
TWVZ	Taurewa	0.18	351	⇑PG	Pg	23 40 32.3	+0.4
KRVZ	Karewarewa	0.20	39	⇑PG	Pg	23 40 32.6	+0.3
MOVZ	Moawhango	0.27	125	⇑PG	Pg	23 40 33.5	+0.1
KATZ	Kakaramea	0.33	32	⇑PG	Pg	23 40 34.9	+0.3
RITZ	Rihia Road	0.41	47	⇓PG	Pg	23 40 36.5	+0.4
RATZ	Rangitukua	0.45	31	⇑PG	Pg	23 40 37.3	+0.3
VRZ	Vera Road	0.57	283	PG	Pg	23 40 39.7	+0.4
WATZ	Wairara	0.58	20	⇑PG	Pg	23 40 39.5	+0.1
HATZ	Hinemaiaia	0.60	53	P*	Pg	23 40 39.4	-0.4
WAZ	Wanganui	0.63	217	⇑P*	Pb	23 40 40.4	-1.3
BKZ	Black Stump Fm	0.80	84	⇓P*	Pb	23 40 43.3	-1.3
RAEZ	Rainy Point	0.84	267	P*	Pb	23 40 45.2	-0.1
HIZ	Hauiti	0.88	327	⇑P*	Pb	23 40 45.0	-1.0
PATZ	Paeroa	1.07	35	P*	Pb	23 40 49.2	+0.1

PKE	**Pukeiti**	**1.16**	**272**	P*	Pb	23 40 51.2	+0.5
PXZ	**Pawanui**	**1.32**	**126**	*e*P*	Pb	23 40 53.4	-0.2
MRZ	**Mangatainoka R**	**1.41**	**177**	⇑PN	Pn	23 40 54.7	+0.1
TOZ	**Tahuroa Road**	**1.52**	**1**	P*	Pb	23 40 54.9	-2.0
BFZ	**Birch Farm**	**1.54**	**158**	PN	Pn	23 40 57.3	+0.9
TIWZ	**Tintock**	**1.55**	**168**	PN	Pn	23 40 57.3	+0.8
KIW	**Kapiti Island**	**1.66**	**195**	PN	Pn	23 40 57.7	-0.3
MRW	**Makara Radio**	**2.06**	**196**	*e*PN	Pn	23 41 04.8	+1.3
SNZO	**South Karori**	**2.13**	**196**	PN	Pn	23 41 05.3	+0.7
TCW	**Tory Channel**	**2.16**	**205**	PN	Pn	23 41 05.3	+0.4
MSWZ	**Moikau Station**	**2.17**	**184**	PN	Pn	23 41 05.2	+0.2
TUWZ	**Tuamarina**	**2.47**	**208**	*e*PN	Pn	23 41 10.2	+1.1
BSWZ	**Blackbirch Sta**	**2.74**	**206**	*e*PN	Pn	23 41 15.0	+2.2
QRZ	**Quartz Range**	**2.75**	**234**	*e*PN	Pn	23 41 13.0	0.0
THZ	**Tophouse**	**3.18**	**217**	*e*PN	Pn	23 41 20.4	+1.5
KHZ	**Kahutara**	**3.48**	**204**	*e*PN	Pn	23 41 23.2	+0.1

IDC 26 23:41:41.2±2.0**,5.49N**×**126.18E,h0^{km},mb3.5**/4**,mb1 3.7**/4**, mb1mx3.5**/19**,mbtmp3.5**/4**,Error ellipse: s-maj=124.9km s-min=24.6km az=69.0,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**23.44**	**181**	P	P	23 46 52.8	+0.3
	3.3nm,1.2s,baz=0.0,slow=13,SNR=3.5						
WRA	**Warramunga Arr**	**26.51**	**163**	P	P	23 47 20.4	-0.2
	0.4nm,0.4s,baz=341,slow=10,SNR=13						
ASAR	**Alice Springs**	**29.94**	**166**	P	P	23 47 51.3	+0.1
	0.2nm,0.4s,baz=4.0,slow=8.4,SNR=2.4						
MKAR	**Makanchi Array**	**55.81**	**325**	P	P	23 51 20.2	0.0
	0.2nm,0.5s,baz=124,slow=7.5,SNR=6.2						

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*BJI **26** 23:49:51.2, 44.51S×35.11E, h8^{km}, mB5.6, mb5.6, Ms5.4, Msz5.0*

*ISCJB **26** 23:49:51.4±0.3, 44.87S±0.05×35.04E±0.09, h10^{km}, mb5.2/37, MS5.3/141, Error ellipse: s-maj=10.0km s-min=5.5km az=145.4*

*IDC **26** 23:49:51.8±0.5, 44.87S×35.42E, h0^{km}, mb4.6/17, mb1 4.7/17, mb1mx4.6/19, mbtmp4.6/17, MS5.2/19, Ms1 5.2/19, ms1mx5.2/24, Error ellipse: s-maj=22.7km s-min=13.2km az=63.0*

*MOS **26** 23:49:52.6±2.0, 44.87S×35.54E, h10^{km}, mb5.4/11, MS5.2/13, Error ellipse: s-maj=25.8km s-min=11.4km az=92.8*

*NEIC **26** 23:49:53.7±0.3, 44.77S×35.50E, h10^{km}, mb5.3/25, MS5.3/127, MW5.7, Error ellipse: s-maj=12.1km s-min=9.0km az=68.0, Moment Tensor Solution. s3 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.96; M$_{\theta\theta}$2.88; M$_{\phi\phi}$-3.83; M$_{r\theta}$-0.07; M$_{\theta\phi}$2.18; M$_{\phi r}$-0.29; Best double couple: M$_0$4.00000×10^{17} NP1:ϕ_s298.00000°,δ86.00000°, λ0.00000°. NP2:ϕ_s208.00000°,δ90.00000°,λ176.00000°. Principal axes: T 3.5300, Plg3.0000°, Azm163.0000°; N 0.9600, Plg86.0000°, Azm22.0000°; P -4.4900, Plg3.0000°, Azm254.0000°;*

*GCMT **26** 23:49:53.7±0.1, 44.79S×35.36E, h18^{km}, MW5.7/93, Moment Tensor Solution. s85,c153; s93,c240; Duration: 1^{s}7 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.48±.05; M$_{\theta\theta}$2.18±.05; M$_{\phi\phi}$-1.70±.05; M$_{r\theta}$0.94±.12; M$_{\theta\phi}$3.50±.04; M$_{\phi r}$-0.69±.12; Best double couple: M$_0$4.18400×10^{17} NP1:ϕ_s16.00000°,δ74.00000°, λ-172.00000°. NP2:ϕ_s283.00000°,δ82.00000°, λ-16.00000°. Principal axes: T 4.2880, Plg6.0000°, Azm330.0000°; N -0.2100, Plg72.0000°, Azm79.0000°; P -4.0810, Plg17.0000°, Azm239.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

ISC 26 23:49:53.3±0.3**,44.86S**±0.05×**35.11E**±0.09**,h10^{km},n282,** σ**1^{s}14**/116**,mb5.2**/37**,MS5.3**/141**,10C-1D,Prince Edward Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSD	**Kokstad**	**14.98**	**341**	*e*P	**Pn**	**23 53 20.8**	**-4.2**
KSD				*e*S	**Sn**	**23 55 54.8**	**-16**
KSD				AML	AML	23 56 06.9	
	comp=Z,108nm,0.4s						
ELIM	**Elim**	**15.62**	**306**	*e*P	**Pn**	**23 53 30.9**	**-2.5**
ELIM				*e*S	**Sn**	**23 56 10.2**	**-16**
ELIM				AML	AML	23 56 24.5	
	comp=Z,30nm,0.4s						
SUR	**Sutherland**	**16.71**	**313**	*e*P	**Pn**	**23 53 46.2**	**-1.1**
SUR				*e*S	**Sn**	**23 56 41.4**	**-12**
SUR	**Sutherland**	**16.71**	**313**	*e*Pn	**Pn**	**23 53 45.9**	**-1.4**
	comp=Z,97nm,0.9s						
SUR				*e*Sn	**Sn**	**23 56 40.2**	**-13**
SUR	**Sutherland**	**16.71**	**313**	Pn	**Pn**	**23 53 45.8**	**-1.6**
	comp=Z,18nm,0.3s,baz=140,slow=13,SNR=127						
SUR				Sn	**Sn**	**23 56 38.8**	**-14**
	comp=Z,6.2nm,0.3s,baz=254,slow=19,SNR=4.4						
SUR				LR	LR	23 59 11.7	
	comp=Z,9µm,19.6s,baz=140,slow=33						
SUR				T		00 08 36.0	
	comp=Z,2.0nm,0.3s,baz=208,slow=20,SNR=3.5						
CER	**Ceres**	**16.78**	**308**	*e*P	**Pn**	**23 53 48.0**	**-0.2**
CER				*e*S	**Sn**	**23 56 39.1**	**-15**
SEK	**Senekal**	**17.55**	**338**	*e*P	**Pn**	**23 53 57.8**	**-0.2**
SEK				*e*S	**Sn**	**23 57 03.9**	**-10**
SEK				AML	AML	23 57 36.3	
	comp=Z,26nm,0.6s						
CVNA	**Calvinia**	**17.96**	**313**	*e*P	**Pn**	**23 54 02.9**	**-0.1**
CVNA				*e*S	**Sn**	**23 57 10.6**	**-13**
CVNA				AML	AML	23 57 40.3	
	comp=Z,26nm,0.5s						
BOSA	**Boshof**	**18.01**	**331**	*e*P	**Pn**	**23 54 01.6**	**-2.1**
BOSA	**Boshof**	**18.01**	**331**	*e*Pn	**Pn**	**23 54 00.2**	**-3.4**
	comp=Z,198nm,1.2s						
BOSA	**Boshof**	**18.01**	**331**	*e*P	**Pn**	**23 54 00.2**	**-3.5**
BOSA				pmax	pmax		
	comp=Z,198nm,1.2s						
BOSA	**Boshof**	**18.01**	**331**	P	**Pn**	**23 53 59.5**	**-4.1**
	comp=Z,1.0nm,0.3s,baz=156,slow=10,SNR=55						
BOSA				S	**Sn**	**23 57 05.8**	**-19**
	comp=Z,1.3nm,0.3s,baz=247,slow=18,SNR=1.8						
BOSA				LR	LR	23 59 59.6	
	comp=Z,10µm,18.9s,baz=145,slow=34						
BOSA				T		00 08 44.5	
	comp=Z,1.1nm,0.3s,baz=102,slow=17,SNR=3.7						
UPI	**Upington**	**19.83**	**322**	*e*P	**Pn**	**23 54 24.0**	**-1.6**
UPI				*e*S	**Sn**	**23 57 56.8**	**-12**
UPI				AML	AML	23 58 37.6	
	comp=Z,12nm,0.4s						
SLR	**Silverton**	**19.87**	**342**	*e*P	**Pn**	**23 54 25.3**	**-0.7**
KSR	**Koster**	**20.09**	**338**	*e*P	**P**	**23 54 26.5**	**-0.5**
KOMG	**Komaggas**	**20.49**	**311**	*e*P	**P**	**23 54 32.0**	**+0.8**
KOMG				*e*S	**S**	**23 58 08.3**	**-12**
KOMG				AML	AML	23 58 51.2	
	comp=Z,12nm,0.5s						
LBTB	**Lobatse**	**21.25**	**336**	*e*P	**P**	**23 54 39.3**	**-0.2**
LBTB				*e*S	**S**	**23 58 27.4**	**-8.2**
LBTB	**Lobatse**	**21.25**	**336**	⇑*e*P	**P**	**23 54 38.8**	**-0.7**
	comp=Z,246nm,1.2s,mb5.4						
LBTB				*e*S	**S**	**23 58 20.5**	**-15**
LBTB				LR	LR		
	comp=Z,10µm,19.0s,MS5.2						
LBTB	**Lobatse**	**21.25**	**336**	⇑*e*P	**P**	**23 54 38.8**	**-0.7**
LBTB				pmax	pmax		
	comp=Z,246nm,1.2s,mb5.4						
LBTB				MLR	MLR		
	comp=Z,10µm,19.0s,MS5.2						
LBTB	**Lobatse**	**21.25**	**336**	P	**P**	**23 54 39.5**	**+0.1**
	comp=Z,176nm,1.1s,mb5.3,baz=172,slow=7.0,SNR=57						
LBTB				S	**S**	**23 58 24.8**	**-11**
	comp=Z,18nm,0.8s,baz=86,slow=19,SNR=3.3						
LBTB				LR	LR	00 01 47.2	
	comp=Z,11µm,19.5s,MS5.3,baz=166,slow=34						
LBTB				T		00 10 19.1	
	comp=Z,3.3nm,0.5s,baz=278,slow=11,SNR=4.6						
MSNA	**Messina**	**22.84**	**348**	*e*P	**P**	**23 54 56.2**	**-0.3**
MAW	**Mawson**	**27.06**	**157**	*e*P	**P**	**23 55 34.1**	**-1.3**
	comp=Z,75nm,1.2s,mb5.1						
MAW				*e*		23 56 06.3	
MAW	**Mawson**	**27.06**	**157**	*e*P	**P**	**23 55 34.1**	**-1.3**
MAW				pmax	pmax		
	comp=Z,75nm,1.2s						
MAW	**Mawson**	**27.06**	**157**	P	**P**	**23 55 34.3**	**-1.2**
	comp=Z,22nm,0.9s,mb4.7,baz=286,slow=15,SNR=5.3						
MAW				LR	LR	00 03 22.8	
	comp=Z,3µm,19.2s,MS4.8,baz=324,slow=30						
NVL	**N’lazarevskaya**	**28.38**	**196**	*i* P	**P**	**23 55 46.7**	**-0.5**
NVL				pmax	pmax		
	comp=N,15nm,1.1s						
NVL				pmax	pmax		
	comp=Z,32nm,1.1s,mb4.9						
NVL				pmax	pmax		
	comp=E,4.0nm,0.6s						
MAIT	**Maitri**	**28.41**	**196**	*e*P	**P**	**23 55 45.2**	**-2.3**
TSUM	**Tsumeb**	**29.46**	**325**	⇑*i*P	**P**	**23 55 57.2**	**0.0**
	comp=E,155nm,0.9s,mb5.7						
TSUM				LR	LR		
	comp=Z,7µm,20.0s,MS5.3						
TSUM	**Tsumeb**	**29.46**	**325**	P	**P**	**23 55 57.7**	**+0.5**
	comp=Z,44nm,1.1s,mb5.1,baz=143,slow=9.7,SNR=36						
TSUM				LR	LR	00 06 56.6	
	comp=Z,7µm,19.0s,MS5.3,baz=152,slow=35						
LSZ	**Lusaka**	**30.07**	**347**	⇑*e*P	**P**	**23 56 01.4**	**-1.3**
	comp=Z,23nm,0.5s,mb5.2						
LSZ				LR	LR		
	comp=Z,6µm,19.0s,MS5.2						
LSZ	**Lusaka**	**30.07**	**347**	⇑*e*P	**P**	**23 56 01.4**	**-1.2**
LSZ				pmax	pmax		
	comp=Z,23nm,0.5s,mb5.2						
LSZ				MLR	MLR		
	comp=Z,6µm,19.0s,MS5.2						
LSZ	**Lusaka**	**30.07**	**347**	P	**P**	**23 56 02.0**	**-0.6**
	comp=Z,28nm,0.5s,mb5.3,baz=174,slow=11,SNR=125						
LSZ				LR	LR	00 07 09.3	
	comp=Z,6µm,18.3s,MS5.2,baz=173,slow=34						
SNAA	**Sanae**	**32.40**	**201**	P	**P**	**23 56 23.3**	**+0.6**
	comp=Z,4.4nm,0.8s,mb4.3,baz=54,slow=8.9,SNR=44						
KMBO	**Kilima Mbogo**	**43.59**	**3**	*e*P	**P**	**23 57 56.6**	**-1.0**
	comp=Z,37nm,1.9s,mb4.8						
KMBO				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
KMBO	**Kilima Mbogo**	**43.59**	**3**	*e*P	**P**	**23 57 56.6**	**-0.9**
KMBO				pmax	pmax		
	comp=Z,37nm,1.9s						
KMBO				MLR	MLR		
	comp=Z,2µm,20.0s						
KMBO	**Kilima Mbogo**	**43.59**	**3**	P	**P**	**23 57 58.8**	**+1.2**
	comp=Z,1.8nm,0.7s,baz=234,slow=23,SNR=6.1						
KMBO				LR	LR	00 14 20.0	
	comp=Z,3µm,18.9s,MS5.2,baz=162,slow=34						
CASY	**Casey**	**44.33**	**146**	P	**P**	**23 58 04.1**	**+1.1**
CASY				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
QSPA	**South Pole Qui**	**45.36**	**180**	*e*P	**P**	**23 58 10.3**	**-0.6**
	comp=Z,34nm,0.7s,mb5.3						
QSPA				*e*		23 58 20.3	
VNDA	**Vanda**	**53.59**	**167**	*e*P	**P**	**23 59 12.9**	**-0.9**
	comp=Z,19nm,1.0s,mb5.0						
VNDA				LR	LR		
	comp=Z,4µm,19.0s,MS5.5						
VNDA	**Vanda**	**53.59**	**167**	*e*P	**P**	**23 59 12.9**	**-0.9**
VNDA				pmax	pmax		
	comp=Z,19nm,1.0s						
VNDA				MLR	MLR		
	comp=Z,4µm,19.0s						
VNDA	**Vanda**	**53.59**	**167**	P	**P**	**23 59 12.7**	**-1.1**
	comp=Z,12nm,0.9s,mb4.8,baz=244,slow=8.6,SNR=16						
VNDA				LR	LR	00 20 09.7	
	comp=Z,4µm,18.9s,MS5.5,baz=222,slow=34						
SBA	**Scott Base**	**54.06**	**169**	*e*P	**P**	**23 59 17.7**	**+0.4**
	comp=Z,44nm,1.0s,mb5.3						
SBA				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
SBA	**Scott Base**	**54.06**	**169**	*e*P	**P**	**23 59 17.7**	**+0.5**
SBA				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.3						
SBA				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.4						
PMSA	**Palmer Station**	**54.08**	**211**	*e*P	**P**	**23 59 21.2**	**+3.6**
	comp=Z,82nm,1.1s,mb5.6						
PMSA				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
DRV	**Dumont d’Urvil**	**55.11**	**152**	P	**P**	**23 59 28.0**	**+3.0**
DRV	**Dumont d’Urvil**	**55.11**	**152**	PP	PP	00 01 26.0	-1.8
DRV				S	**S**	**00 07 13.0**	**+5.7**
DRV				SS	SS	00 10 58.0	+7.6
DRV				R		00 15 00.0	
ASCN	**Ascension**	**56.35**	**295**	PFAKE		23 59 50.0	+15
ASCN				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
EFI	**East Falkland**	**58.30**	**227**	P	**P**	**23 59 51.8**	**+4.0**
EFI				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
COCO	**West Island**	**61.52**	**78**	P	**P**	**00 00 09.9**	**-0.5**
KIC	**Kosan Boka**	**62.27**	**314**	*e*P	**P**	**00 00 15.9**	**+0.4**
	comp=Z,45nm,0.8s,mb5.7						
LIC	**Lamto**	**62.30**	**314**	*e*P	**P**	**00 00 16.1**	**+0.4**
	comp=Z,101nm,1.7s,mb5.7						
NWAO	**Narrogin (SRO)**	**62.46**	**110**	P	**P**	**00 00 16.1**	**-0.5**
	comp=Z,23nm,1.1s,mb5.2						
NWAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
NWAO	**Narrogin (SRO)**	**62.46**	**110**	P	**P**	**00 00 16.1**	**-0.5**
NWAO				pmax	pmax		
	comp=Z,23nm,1.1s						
NWAO				MLR	MLR		
	comp=Z,2µm,20.0s						
NWAO	**Narrogin (SRO)**	**62.46**	**110**	LR	LR	00 21 34.1	
	comp=Z,2µm,18.9s,MS5.4,baz=235,slow=31						
TIC	**Toumodi**	**62.66**	**314**	*e*P	**P**	**00 00 18.2**	**+0.2**
	comp=Z,85nm,0.7s,mb6.0						
TOA0	**Torodi Ar. Sit**	**65.21**	**324**	*e*P	**P**	**00 00 35.3**	**+0.5**
TOA0				*e*		00 00 45.7	
TORD	**Torodi Ar. Bea**	**65.21**	**324**	P	**P**	**00 00 35.6**	**+0.9**
	comp=Z,14nm,0.5s,mb5.2,baz=159,slow=7.1,SNR=162						
TORD				LR	LR	00 27 40.7	
	comp=Z,1µm,21.8s,MS5.1,baz=160,slow=35						
PALK	**Pallekele**	**66.09**	**51**	PFAKE		00 00 50.0	+9.5
PALK				LR	LR		
	comp=Z,708nm,22.0s,MS4.8						
MBWA	**Marble Bar**	**71.67**	**102**	*e*P	**P**	**00 01 15.1**	**-0.2**
	comp=Z,12nm,0.9s,mb4.8						
MBWA				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
RCBR	**Riachuelo**	**72.48**	**279**	P	**P**	**00 01 23.7**	**+3.5**
	comp=Z,50nm,1.3s,mb5.3						
RCBR				LR	LR		
	comp=Z,435nm,19.0s,MS4.8						
HYB	**Hyderabad**	**73.51**	**43**	*e*P	**P**	**00 01 26.0**	**-0.1**
HYB				*e*S	S	00 10 56.0	+0.2
TAU	**Tasmania Unive**	**73.77**	**135**	PFAKE		00 01 40.0	+13
TAU				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
PSI	**Prapat**	**73.78**	**69**	P	**P**	**00 01 26.5**	**-1.3**
PSI	**Prapat**	**73.78**	**69**	P	**P**	**00 01 26.5**	**-1.3**
	comp=Z,8.6nm,1.0s,mb4.6,baz=200,slow=9.2,SNR=9.5						
NAY	**Al-Naaiem**	**74.58**	**11**	*e*P	**P**	**00 01 32.4**	**+0.3**
NAY				AMb	AMB	00 01 43.4	
	comp=Z,19nm,0.8s,mb5.1						
RST	**Umm Al-Ruwaisa**	**74.79**	**11**	*e*P	**P**	**00 01 33.4**	**0.0**
RST				AMb	AMB	00 01 44.7	
	comp=Z,29nm,0.8s,mb5.2						
MIB	**Mutribah**	**75.14**	**11**	*e*P	**P**	**00 01 35.4**	**0.0**
MIB				AMb	AMB	00 01 44.6	
	comp=Z,23nm,1.2s,mb5.0						
FITZ	**Fitzroy Crossi**	**77.83**	**103**	*e*P	**P**	**00 01 50.2**	**-0.8**
	comp=Z,27nm,1.3s,mb5.0						
FITZ	**Fitzroy Crossi**	**77.83**	**103**	P	**P**	**00 01 51.2**	**+0.2**
	comp=Z,4.5nm,1.0s,mb4.4,baz=212,slow=7.3,SNR=4.1						
STKA	**Stephens Creek**	**78.59**	**124**	*e*P	**P**	**00 01 52.8**	**-2.3**
	comp=Z,11nm,0.9s,mb4.8						
STKA	**Stephens Creek**	**78.59**	**124**	P	**P**	**00 01 54.0**	**-1.1**
	comp=Z,5.5nm,0.8s,mb4.5,baz=206,slow=4.1,SNR=11						
STKA				LR	LR	00 32 40.4	
	comp=Z,804nm,18.1s,MS5.1,baz=329,slow=33						
ASAR	**Alice Springs**	**79.58**	**113**	P	**P**	**00 01 59.6**	**-1.0**
	comp=Z,2.9nm,1.0s,mb4.2,baz=217,slow=5.3,SNR=13						
LCO	**Las Campanas**	**80.25**	**239**	PFAKE		00 02 20.0	+16
LCO				LR	LR		
	comp=Z,951nm,22.0s,MS5.1						
WRA	**Warramunga Arr**	**82.47**	**110**	P	**P**	**00 02 14.8**	**-1.2**
	comp=Z,3.7nm,1.0s,mb4.3,baz=218,slow=4.4,SNR=9.9						
WRA				LR	LR	00 32 42.9	
	comp=Z,2µm,20.7s,MS5.5,baz=225,slow=31						
WB2	**Warramunga Arr**	**82.48**	**111**	*e*P	**P**	**00 02 15.0**	**-1.1**
MALT	**Malatya**	**82.85**	**3**	*e*P	**P**	**00 02 18.7**	**+1.3**
	comp=Z,5.8nm,1.0s,mb4.6						
MALT	**Malatya**	**82.85**	**3**	*e*P	**P**	**00 02 18.7**	**+1.3**
MALT				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
MALT	**Malatya**	**82.85**	**3**	⇑*i*P	**P**	**00 02 19.0**	**+1.6**
KEST	**Kesra**	**83.55**	**339**	LR	LR	00 39 24.7	
	comp=Z,871nm,20.0s,MS5.1,baz=17,slow=36						
BRTR	**Keskin Array B**	**84.21**	**359**	P	**P**	**00 02 24.5**	**+0.1**
	comp=Z,2.3nm,0.8s,mb4.3,baz=173,slow=7.9,SNR=9.3						
BR131	**Keskin Array S**	**84.22**	**359**	*e*P	**P**	**00 02 23.8**	**-0.5**
	comp=Z,3.5nm,0.3s,mb5.0						
BR131				LR	LR		
	comp=Z,563nm,21.0s,MS4.9						
ANTO	**Ankara**	**84.37**	**358**	PFAKE		00 02 40.0	+15
ANTO				LR	LR		
	comp=Z,745nm,19.0s,MS5.1						
KBL	**Kabul**	**84.82**	**28**	*e*P	**P**	**00 02 25.3**	**-2.3**
GKN	**Gorkha**	**85.42**	**42**	*e*P	**P**	**00 02 30.4**	**-0.3**
	comp=Z,63nm,1.0s,mb5.7						
KKN	**Kakani**	**85.55**	**43**	*e*P	**P**	**00 02 31.4**	**0.0**
	comp=Z,59nm,1.3s,mb5.7						
KKN	**Kakani**	**85.55**	**43**	*e*P	**P**	**00 02 31.4**	**0.0**
KKN				pmax	pmax		
	comp=Z,59nm,1.3s,mb5.7						
CM31	**Chiang Mai Arr**	**85.61**	**59**	PFAKE		00 02 40.0	+8.1
CM31				LR	LR		
	comp=Z,552nm,19.0s,MS5.0						
ODAN	**Odare**	**85.83**	**45**	*e*P	**P**	**00 02 32.9**	**+0.1**
	comp=Z,71nm,1.2s,mb5.8						
CHTO	**Chiang Mai**	**85.89**	**58**	PFAKE		00 02 40.0	+6.7
CHTO				LR	LR		
	comp=Z,417nm,20.0s,MS4.8						
JIRN	**Jiri**	**85.89**	**44**	*e*P	**P**	**00 02 33.2**	**+0.1**
	comp=Z,112nm,1.5s,mb5.9						
KAKA	**Kakadu**	**86.26**	**104**	*e*P	**P**	**00 02 38.8**	**+3.4**
	comp=Z,30nm,1.1s,mb5.4						
TAPN	**Taplejung**	**86.39**	**45**	*e*P	**P**	**00 02 35.6**	**0.0**
	comp=Z,33nm,1.3s,mb5.4						
SNZO	**South Karori**	**86.88**	**151**	PFAKE		00 02 50.0	+12
SNZO				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
SHL	**Shillong**	**87.12**	**49**	*e*P	**P**	**00 02 41.0**	**+1.8**
SHL				*e*S	S	00 13 20.0	+1.6
LPAZ	**La Paz**	**87.74**	**249**	P	**P**	**00 02 45.7**	**+3.2**
	comp=Z,0.3nm,0.5s,baz=98,slow=1.5,SNR=2.0						
LPAZ				LR	LR	00 38 08.9	
	comp=Z,1µm,19.0s,MS5.3,baz=121,slow=33						
CART	**Cartagena**	**88.31**	**332**	P	**P**	**00 02 45.1**	**+0.5**
KIV	**Kislovodsk**	**88.69**	**5**	PFAKE		00 03 00.0	+14
KIV				LR	LR		
	comp=Z,571nm,20.0s,MS5.0						
KIV	**Kislovodsk**	**88.69**	**5**	*e*P	**P**	**00 02 50.5**	**+4.3**
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb5.0						
KIV				MLR	MLR		
	comp=Z,532nm,18.0s,MS5.0						
SFS	**San Fernando**	**89.17**	**328**	P	**P**	**00 02 49.3**	**+0.6**
LSA	**Lhasa**	**90.05**	**46**	PFAKE		00 03 00.0	+7.0
LSA				LR	LR		
	comp=Z,534nm,21.0s,MS5.0						
CTA	**Charters Tower**	**90.06**	**119**	LR	LR	00 38 06.3	
	comp=Z,2µm,19.9s,MS5.6,baz=210,slow=32						
CTAO	**Charters Tower**	**90.06**	**119**	P	**P**	**00 02 54.0**	**+0.5**
	comp=Z,19nm,1.1s,mb5.3						
CTAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
CTAO	**Charters Tower**	**90.06**	**119**	P	**P**	**00 02 54.0**	**+0.6**
CTAO				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.3						
CTAO				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.6						
MLR	**Muntele Rosu**	**90.33**	**354**	⇑*i*P	**P**	**00 02 54.8**	**+1.0**
PLOR	**Plostina**	**90.64**	**354**	⇑*i*P	**P**	**00 02 56.9**	**+1.6**
VRI	**Vrincioaia**	**90.65**	**354**	⇑*i*P	**P**	**00 02 55.9**	**+0.6**
ESDC	**Sonseca Array**	**91.20**	**331**	P	**P**	**00 03 00.0**	**+2.0**
	comp=Z,0.2nm,0.5s,baz=134,slow=5.5,SNR=3.0						
ESDC				LR	LR	00 44 41.1	
	comp=Z,2µm,19.6s,MS5.5,baz=150,slow=36						
ESLA	**Sonseca Array**	**91.20**	**331**	P	**P**	**00 03 00.7**	**+2.7**
ESLA				LR	LR		
	comp=Z,10µm,19.0s,MS6.3						
PAB	**San Pablo**	**91.22**	**331**	PFAKE		00 03 10.0	+12
PAB				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
JAVS	**Javornik**	**92.27**	**345**	*i* P	**P**	**00 03 09.5**	**+6.7**
JAVS				*e*pP	pP	00 03 14.5	+8.3
BURAR	**Bucovina Array**	**92.50**	**353**	⇑*i*P	**P**	**00 03 08.6**	**+4.7**
PERS	**Pernice**	**92.81**	**346**	*i* P	**P**	**00 03 11.2**	**+5.9**
PERS				*i*		00 03 17.4	
QIZ	**Qiongzhong**	**92.90**	**66**	*e*P	**P**	**00 03 05.3**	**-1.1**
QIZ				PP	PP	00 06 46.8	-2.5
QIZ				S	S	00 14 10.0	-2.3
QIZ				SS	SS	00 20 24.0	-2.5
QIZ				LR	LR		
	comp=N,261nm,16.7s,MS5.0						
QIZ				LR	LR		
	comp=E,347nm,17.4s,MS5.0						
QIZ				LR	LR		
	comp=Z,376nm,18.1s,MS4.9						
QIZ	**Qiongzhong**	**92.90**	**66**	PFAKE		00 03 20.0	+14
QIZ				LR	LR		
	comp=Z,418nm,20.0s,MS4.9						
KMI	**Kunming**	**92.95**	**57**	P	**P**	**00 03 08.5**	**+2.0**
KMI				SKS		00 13 39.5	
KMI				S	S	00 14 10.0	-2.4
KMI				SS	SS	00 20 23.8	-3.3
KMI				LR	LR		
	comp=N,353nm,18.6s,MS5.0						
KMI				LR	LR		
	comp=E,366nm,17.2s,MS5.0						
KMI				LR	LR		
	comp=Z,526nm,21.0s,MS5.0						
AML	**Almayashu**	**93.23**	**28**	PFAKE		00 03 20.0	+13
AML				LR	LR		
	comp=Z,484nm,20.0s,MS5.0						
UCH	**Uchtor**	**93.59**	**28**	PFAKE		00 03 20.0	+11
UCH				LR	LR		
	comp=Z,411nm,20.0s,MS4.9						
EKS2	**Erkin-Say**	**93.73**	**28**	PFAKE		00 03 20.0	+10
EKS2				LR	LR		
	comp=Z,556nm,20.0s,MS5.0						
UZH	**Uzhgorod**	**93.78**	**352**	*e*P	**P**	**00 03 05.0**	**-4.7**
UZH				*e*		00 13 41.0	
UZH				*e*S	S	00 14 13.0	-5.6
UZH				*i* PS	PS	00 15 35.0	+0.8
UZH				MLR	MLR		
	comp=Z,400nm,18.0s,MS4.9						
AAK	**Ala-Archa**	**93.94**	**28**	PFAKE		00 03 20.0	+9.4
AAK				LR	LR		
	comp=Z,477nm,20.0s,MS5.0						
TKM2	**Tokmak 2**	**94.57**	**29**	PFAKE		00 03 20.0	+6.5
TKM2				LR	LR		
	comp=Z,407nm,20.0s,MS4.9						
GERES	**GERESS Array B**	**95.19**	**346**	P	**P**	**00 03 18.2**	**+2.0**
	comp=Z,0.2nm,0.4s,baz=182,slow=9.3,SNR=3.5						
GERES				LR	LR	00 48 57.9	
	comp=Z,915nm,20.6s,MS5.2,baz=175,slow=37						
DAV	**Davao City (W)**	**95.26**	**85**	PFAKE		00 03 30.0	+13
DAV				LR	LR		
	comp=Z,313nm,21.0s,MS4.8						
AKASG	**Malin Array Be**	**95.32**	**356**	LR	LR	00 48 10.3	
	comp=Z,446nm,21.6s,MS4.9,baz=170,slow=37						
TREC	**Trest**	**95.33**	**347**	AMS	AMS	00 50 30.0	
	comp=Z,1µm,20.3s						
OKC	**Ostrava-Krasne**	**95.47**	**349**	*e*x	x	00 03 33.9	
OKC				*e*PS	PS	00 16 09.6	+17
OKC				*e*SS	SS	00 20 59.2	-3.2
OKC				AMS	AMS	00 51 30.0	
	comp=Z,700nm,18.6s						
KHC	**Kasperske Hory**	**95.48**	**346**	*e*PS	PS	00 15 56.4	+3.5
KHC				*e*SS	SS	00 21 08.9	+6.3
KHC				AMS	AMS	00 47 30.0	
	comp=Z,1µm,21.5s						
BFO	**Black Forest**	**95.73**	**342**	PFAKE		00 03 30.0	+11
BFO				LR	LR		
	comp=Z,829nm,22.0s,MS5.2						
PRU	**Pruhonice**	**96.15**	**347**	*e*PS	PS	00 16 01.8	+1.6
PRU				*e*SS	SS	00 21 12.2	+0.1
PRU				AMS	AMS	00 49 00.0	
	comp=Z,900nm,17.7s						
DPC	**Dobruska-Polom**	**96.23**	**348**	*e*PS	PS	00 16 04.4	+3.4
DPC				*e*SS	SS	00 21 14.8	+1.7
DPC				AMS	AMS	00 48 50.0	
	comp=Z,800nm,20.8s						
UPC	**Upice**	**96.43**	**348**	*e*x	x	00 03 30.6	
GRFO	**Grafenberg**	**96.45**	**345**	PFAKE		00 03 30.0	+8.1
GRFO				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
NNA	**Nana**	**96.61**	**246**	PFAKE		00 03 40.0	+16
NNA				LR	LR		
	comp=Z,739nm,19.0s,MS5.2						
PVCC	**Panska Ves**	**96.67**	**347**	*e*SS	PKKPbc	00 20 07.1	+0.4

PVCC				AMS	AMS	00 49 40.0	
	comp=Z,1µm,20.9s						
NKC	**Novy Kostel**	**96.74**	**346**	*e*x	x	00 03 41.8	
NKC				*e*PS	PS	00 16 17.6	+11
NKC				*e*SS	SS	00 21 31.0	+11
NKC				AMS	AMS	00 49 20.0	
	comp=Z,2µm,17.9s						
CLL	**Collm**	**97.68**	**346**	*e*SKSac	SKSac	00 14 09.5	+5.2
CLL				*e*S	S	00 14 54.9	+2.6
CLL				*e*PS	PS	00 16 28.6	+12
CLL				*e*SS	SS	00 21 38.2	+4.6
CLL				*e*(SSS)		00 24 32.4	
CLL				*e*SSSS		00 29 05.6	
CLL				*e*LR	LR	00 36 49.2	
CLL				*e*L		00 48 32.2	
	comp=Z,1µm,20.0s						
CLL	**Collm**	**97.68**	**346**	*e*SKSac	SKSac	00 14 09.0	+4.7
CLL				*e*Sdif	S	00 14 44.0	-8.3
CLL				LmV		00 15 00.0	
	comp=Z,200nm,18.7s						
CLL				*e*PS	PS	00 16 20.0	+3.1
CLL				*e*PPS		00 17 04.0	
CLL				*e*SS	SS	00 21 35.0	+1.4
CLL				*e*SSS		00 25 24.0	
CLL				Lm		00 48 00.0	
	comp=Z,1µm,20.8s						
CD2	**Chengdu**	**97.86**	**54**	*e*P	**P**	**00 03 29.3**	**+0.5**
CD2				AP	pP	00 03 34.0	+1.8
CD2				XP	sP	00 03 37.0	+3.7
CD2				PP	PP	00 07 30.5	+2.8
CD2				SKS		00 14 05.0	
CD2				S	S	00 14 52.0	-2.8
CD2				XS	sS	00 14 59.3	-1.1
CD2				SS	SS	00 21 36.0	-0.8
CD2				AMB	AMB		
	comp=Z,40nm,0.8s,mb6.0						
CD2				AMB	AMB		
	comp=Z,80nm,9.4s						
CD2				LR	LR		
	comp=N,310nm,18.0s,MS5.0						
CD2				LR	LR		
	comp=E,400nm,20.4s,MS5.0						
CD2				LR	LR		
	comp=Z,290nm,19.2s,MS4.8						
PMG	**Port Moresby**	**98.58**	**112**	PFAKE		00 03 40.0	+7.4
PMG				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
PMG	**Port Moresby**	**98.58**	**112**	LR	LR	00 44 35.2	
	comp=Z,1µm,18.2s,MS5.5,baz=220,slow=33						
OBN	**Obninsk**	**99.61**	**1**	PFAKE		00 03 50.0	+14
OBN				LR	LR		
	comp=Z,479nm,20.0s,MS5.0						
WMQ	**Urumqi**	**99.92**	**36**	P	Pdif	00 03 38.0	-0.3
RAO	**Raoul Island**	**100.33**	**151**	PFAKE		00 03 50.0	+10
RAO				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
LZH	**Lanzhou**	**101.73**	**50**	*e*P	Pdif	00 03 44.0	-2.3
LZH				PP	PP	00 07 56.8	-0.3
LZH				SKS		00 14 21.3	
LZH				*e*S	Sdif	00 15 22.0	-5.7
LZH				SS	SS	00 22 25.0	-5.8
LZH				AMB	AMB		
	comp=Z,14nm,1.0s						
LZH				AMB	AMB		
	comp=Z,90nm,6.3s						
LZH				LR	LR		
	comp=N,856nm,18.5s						
LZH				LR	LR		
	comp=Z,1µm,19.7s,MS5.3						
BRVK	**Borovoye**	**102.10**	**21**	PFAKE		00 04 00.0	+12
BRVK				LR	LR		
	comp=Z,278nm,19.0s,MS4.8						
KURK	**Kurchatov**	**102.40**	**27**	PFAKE		00 04 00.0	+11
KURK				LR	LR		
	comp=Z,355nm,20.0s,MS4.9						
ARU	**Arti**	**102.83**	**13**	PFAKE		00 04 00.0	+8.8
ARU				LR	LR		
	comp=Z,624nm,20.0s,MS5.1						
ESK	**Eskdalemuir**	**104.94**	**338**	PFAKE		00 04 10.0	+9.4
ESK				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
KONO	**Kongsberg**	**106.24**	**347**	PFAKE		00 08 30.0	+13
KONO				LR	LR		
	comp=Z,784nm,19.0s,MS5.3						
HNR	**Honiara**	**106.64**	**122**	PFAKE		00 08 30.0	+11
HNR				LR	LR		
	comp=Z,16µm,21.0s						
OTAV	**Otavalo**	**106.69**	**253**	PFAKE		00 08 30.0	+11
OTAV				LR	LR		
	comp=Z,603nm,19.0s,MS5.2						
SDV	**Santo Domingo**	**107.37**	**265**	PFAKE		00 08 30.0	+10
SDV				LR	LR		
	comp=Z,401nm,19.0s,MS5.0						
PTCN	**Pitcairn Islan**	**109.11**	**194**	PFAKE		00 08 40.0	+17
PTCN				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
SJG	**San Juan**	**110.45**	**275**	PFAKE		00 08 40.0	+14
SJG				LR	LR		
	comp=Z,246nm,20.0s,MS4.8						
BJT	**Baijiatuau**	**111.43**	**55**	PFAKE		00 08 40.0	+13
BJT				LR	LR		
	comp=Z,389nm,20.0s,MS5.0						
RKT	**Rikitea**	**111.75**	**190**	*e*SS	SS	00 24 49.7	+5.3
	comp=Z,440nm,28.8s						
RKT				*e*LR	LR	00 41 37.5	
	comp=Z,896nm,27.2s						
ULN	**Ulaanbaatar**	**111.79**	**44**	PFAKE		00 08 40.0	+12
ULN				LR	LR		
	comp=Z,395nm,20.0s,MS5.0						
LVZ	**Lovozero**	**112.43**	**360**	PFAKE		00 08 40.0	+12
LVZ				LR	LR		
	comp=Z,572nm,20.0s,MS5.2						
TLY	**Talaya**	**112.83**	**39**	PFAKE		00 08 40.0	+11
TLY				LR	LR		
	comp=Z,325nm,22.0s,MS4.9						
RAR	**Rarotonga**	**112.86**	**165**	PFAKE		00 08 40.0	+9.5
RAR				LR	LR		
	comp=Z,2.0nm,21.0s						
PAYG	**Puerto Ayora**	**113.81**	**243**	PFAKE		00 08 50.0	+17
PAYG				LR	LR		
	comp=Z,533nm,19.0s,MS5.2						
KEV	**Kevo**	**114.45**	**357**	PFAKE		00 08 40.0	+8.1
KEV				LR	LR		
	comp=Z,882nm,20.0s,MS5.4						
SDDR	**Presa de Saban**	**114.67**	**273**	PFAKE		00 08 50.0	+16
SDDR				LR	LR		
	comp=Z,465nm,19.0s,MS5.1						
INCN	**Inchon**	**116.17**	**62**	PFAKE		00 08 50.0	+14
INCN				LR	LR		
	comp=Z,465nm,20.0s,MS5.1						
PPT	**Papeete**	**117.73**	**175**	*e*SS	SS	00 26 11.0	+7.9
	comp=Z,691nm,25.8s						
PPT				*e*LR	LR	00 44 28.7	
	comp=Z,2µm,26.0s,baz=190						
FUNA	**Funafuti**	**117.78**	**139**	PFAKE		00 08 50.0	+10
FUNA				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
BORG	**Borgarnes**	**117.80**	**336**	PFAKE		00 08 50.0	+12
BORG				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
JTS	**JuntasAbangare**	**118.39**	**255**	PFAKE		00 08 50.0	+8.8
JTS				LR	LR		
	comp=Z,410nm,20.0s,MS5.0						
HIA	**Hailar**	**119.18**	**48**	PFAKE		00 08 50.0	+8.4
HIA				LR	LR		
	comp=Z,319nm,20.0s,MS5.0						
BOD	**Bodaibo**	**121.37**	**38**	*e*PKIKP	PKPdf	00 08 43.7	-1.9
MDJ	**Mudanjiang**	**122.12**	**57**	PKP	PKPdf	00 08 47.5	0.0
MDJ				XPKP		00 08 51.8	
MDJ				PP	PP	00 10 21.5	-1.6
MDJ				PP	PP		
	comp=Z,52nm,19.9s						
MDJ				LR	LR		
	comp=N,143nm,36.4s,MS4.6						
MDJ				LR	LR		
	comp=E,199nm,36.4s,MS4.6						
MDJ	**Mudanjiang**	**122.12**	**57**	PFAKE		00 09 00.0	+13
MDJ				LR	LR		
	comp=Z,368nm,19.0s,MS5.0						
TGUH	**Tegucigalpa,Un**	**122.64**	**257**	PFAKE		00 09 00.0	+11
TGUH				LR	LR		
	comp=Z,372nm,19.0s,MS5.1						
MAJO	**Matsushiro**	**123.13**	**69**	PFAKE		00 09 00.0	+10
MAJO				LR	LR		
	comp=Z,368nm,19.0s,MS5.1						
KBS	**Kingsbay**	**124.29**	**355**	PFAKE		00 09 00.0	+9.3
KBS				LR	LR		
	comp=Z,350nm,22.0s,MS5.0						
TAOE	**Nuku Hiva Isla**	**126.36**	**186**	*e*SS	SS	00 28 07.0	+14
	comp=Z,2µm,30.4s						
TAOE				*e*LR	LR	00 48 45.0	
	comp=Z,5µm,32.9s						
TEIG	**Tepich**	**127.53**	**261**	PFAKE		00 09 10.0	+11
TEIG				LR	LR		
	comp=Z,548nm,21.0s,MS5.2						
DWPF	**Disney**	**127.61**	**274**	PFAKE		00 09 10.0	+11
DWPF				LR	LR		
	comp=Z,600nm,20.0s,MS5.3						
WES	**Weston**	**128.41**	**295**	PFAKE		00 09 10.0	+10
WES				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
CNNC	**Cliffs of the**	**129.15**	**284**	PFAKE		00 09 10.0	+8.8
CNNC				LR	LR		
	comp=Z,602nm,20.0s,MS5.3						
NHSC	**New Hope**	**129.58**	**280**	PFAKE		00 09 10.0	+7.9
NHSC				LR	LR		
	comp=Z,501nm,19.0s,MS5.2						
YAK	**Yakutsk**	**130.29**	**38**	PFAKE		00 09 10.0	+7.5
YAK				LR	LR		
	comp=Z,470nm,21.0s,MS5.2						
CBN	**Corbin**	**130.34**	**287**	PFAKE		00 09 20.0	+17
CBN				LR	LR		
	comp=Z,547nm,19.0s,MS5.3						
SCHQ	**Schefferville**	**131.19**	**311**	PFAKE		00 09 20.0	+16
SCHQ				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
YSS	**Yuzh-Sakhalins**	**131.28**	**60**	PFAKE		00 09 20.0	+15
YSS				LR	LR		
	comp=Z,862nm,20.0s,MS5.5						
SSPA	**Standing Stone**	**131.88**	**290**	PFAKE		00 09 20.0	+14
SSPA				LR	LR		
	comp=Z,400nm,19.0s,MS5.1						
BLA	**Blacksburg**	**131.92**	**285**	PFAKE		00 09 20.0	+14
BLA				LR	LR		
	comp=Z,526nm,20.0s,MS5.2						
GOGA	**Godfrey**	**132.06**	**278**	PFAKE		00 09 20.0	+13
GOGA				LR	LR		
	comp=Z,485nm,19.0s,MS5.2						
TIXI	**Tiksi**	**132.97**	**26**	PFAKE		00 09 20.0	+13
TIXI				LR	LR		
	comp=Z,459nm,20.0s,MS5.2						
ERPA	**Erie**	**133.96**	**291**	PFAKE		00 09 20.0	+10
ERPA				LR	LR		
	comp=Z,499nm,21.0s,MS5.2						
LRAL	**Lakeview Retre**	**134.35**	**276**	PFAKE		00 09 20.0	+8.9
LRAL				LR	LR		
	comp=Z,688nm,19.0s,MS5.4						
ACSO	**Alum Creek Sta**	**135.13**	**287**	PFAKE		00 09 30.0	+18
ACSO				LR	LR		
	comp=Z,590nm,21.0s,MS5.3						
WVT	**Waverly**	**136.53**	**279**	PFAKE		00 09 30.0	+15
WVT				LR	LR		
	comp=Z,8.0nm,22.0s						
OXF	**Oxford**	**136.83**	**276**	PFAKE		00 09 30.0	+14
OXF				LR	LR		
	comp=Z,483nm,22.0s,MS5.2						
HKT	**Hockley**	**138.91**	**266**	PFAKE		00 09 30.0	+10
HKT				LR	LR		
	comp=Z,474nm,20.0s,MS5.2						
KVTX	**Kingsville**	**138.95**	**261**	PFAKE		00 09 30.0	+10
KVTX				LR	LR		
	comp=Z,664nm,21.0s,MS5.4						
MA2	**Magadan**	**139.63**	**45**	PFAKE		00 09 30.0	+10
MA2				LR	LR		
	comp=Z,612nm,21.0s,MS5.3						
JFWS	**Jewell Farm**	**141.20**	**287**	PFAKE		00 09 40.0	+17
JFWS				LR	LR		
	comp=Z,586nm,19.0s,MS5.4						
COWI	**Conover**	**141.57**	**292**	PFAKE		00 09 40.0	+16
COWI				LR	LR		
	comp=Z,516nm,20.0s,MS5.3						
JCT	**Junction City**	**142.03**	**264**	PFAKE		00 09 40.0	+15
JCT				LR	LR		
	comp=Z,553nm,19.0s,MS5.3						
SCIA	**State Center**	**142.85**	**284**	PFAKE		00 09 40.0	+14
SCIA				LR	LR		
	comp=Z,668nm,19.0s,MS5.4						
RES	**Resolute Bay**	**143.06**	**340**	*e*PKPdf	PKPdf	00 09 26.6	+0.8
RES	**Resolute Bay**	**143.06**	**340**	*e*PKIKP	PKPdf	00 09 26.6	+0.8
WMOK	**Wichita Mounta**	**143.60**	**270**	PFAKE		00 09 40.0	+12
WMOK				LR	LR		
	comp=Z,457nm,21.0s,MS5.2						
EYMN	**Ely**	**143.66**	**294**	PFAKE		00 09 40.0	+12
EYMN				LR	LR		
	comp=Z,639nm,19.0s,MS5.4						
LTX	**Lajitas**	**144.07**	**259**	*e*PKPdf	PKPdf	00 09 28.6	-0.3
LTX				LR	LR		
	comp=Z,742nm,20.0s,MS5.5						
LTX	**Lajitas**	**144.07**	**259**	*e*PKIKP	PKPdf	00 09 28.6	-0.4
LTX				MLR	MLR		
	comp=Z,742nm,20.0s,MS5.5						
TXAR	**Lajitas Array**	**144.07**	**259**	PKP	PKPdf	00 09 28.0	-1.0
TXAR	**Lajitas Array**	**144.07**	**259**	PKIKP	PKPdf	00 09 28.0	-1.0
TXAR	**Lajitas Array**	**144.07**	**259**	PKP	PKPdf	00 09 28.0	-1.0
	comp=Z,3.1nm,0.8s,baz=142,slow=6.3,SNR=11						
KSU1	**Kansas State U**	**144.08**	**278**	PFAKE		00 09 40.0	+11
KSU1				LR	LR		
	comp=Z,981nm,22.0s,MS5.5						
AMTX	**Amarillo**	**145.73**	**268**	*e*PKPbc	PKPbc	00 09 35.5	+3.4
AMTX				LR	LR		
	comp=Z,278nm,21.0s,MS5.0						
ECSD	**EROS,Sioux Fal**	**145.83**	**286**	*e*PKPdf	PKPdf	00 09 32.7	+1.2
ECSD				LR	LR		
	comp=Z,346nm,20.0s,MS5.1						
BILL	**Bilibino**	**145.84**	**30**	*e*PKPdf	PKPdf	00 09 32.1	+1.3
BILL				LR	LR		
	comp=Z,482nm,20.0s,MS5.3						
BILL	**Bilibino**	**145.84**	**30**	⇓*i*PKP2	PKPab	00 09 32.0	+0.2
BILL				pmax	pmax		
	comp=Z,26nm,1.4s						
CBKS	**Cedar Bluff**	**146.17**	**276**	PKPdf	PKPdf	00 09 33.3	+1.1
CBKS				LR	LR		
	comp=Z,742nm,19.0s,MS5.5						
CBKS	**Cedar Bluff**	**146.17**	**276**	PKP2	PKPab	00 09 33.3	-0.7
CBKS				MLR	MLR		
	comp=Z,742nm,19.0s,MS5.5						
FCC	**Fort Churchill**	**146.54**	**313**	*e*PKPbc	PKPbc	00 09 36.0	+2.2
FCC	**Fort Churchill**	**146.54**	**313**	*e*PKP2	PKPab	00 09 36.0	+1.2
AGMN	**Agassiz Refuge**	**146.59**	**294**	*e*PKPdf	PKPdf	00 09 34.1	+1.4
AGMN				LR	LR		
	comp=Z,606nm,19.0s,MS5.4						
MNTX	**Cornudas Mount**	**146.65**	**261**	PFAKE		00 09 50.0	+17
MNTX				LR	LR		
	comp=Z,365nm,20.0s,MS5.2						
ULM	**Lac du Bonnet**	**146.98**	**297**	*e*PKPbc	PKPbc	00 09 35.0	-0.2
ULM				LR	LR		
	comp=Z,845nm,20.0s,MS5.5						
ULM	**Lac du Bonnet**	**146.98**	**297**	PKPbc	PKPbc	00 09 36.3	+1.0
	comp=Z,3.6nm,0.6s,baz=96,slow=3.0,SNR=11						
BNM	**Barren Site**	**148.86**	**263**	*e*PKPdf	PKPdf	00 09 39.1	+2.2
BNM				*e*PKPab	PKPab	00 09 47.1	+2.3
LPM	**Los Pinos Moun**	**148.95**	**264**	*e*PKPdf	PKPdf	00 09 39.3	+2.3
LENM	**Lemitar**	**149.12**	**263**	PKPdf	PKPdf	00 09 36.8	-0.5
ANMO	**Albuquerque**	**149.16**	**265**	*e*PKPdf	PKPdf	00 09 40.9	+3.5
ANMO				PKPbc	PKPbc	00 09 41.9	+0.4
ANMO				LR	LR		
	comp=Z,503nm,20.0s,MS5.3						
ANMO	**Albuquerque**	**149.16**	**265**	*e*PKHKP		00 09 40.9	
ANMO						00 09 41.9	
ANMO				MLR	MLR		
	comp=Z,503nm,20.0s						
ANMO	**Albuquerque**	**149.16**	**265**	PKPbc	PKPbc	00 09 41.9	+0.4
	comp=Z,1.2nm,0.8s,baz=7.1,slow=8.1,SNR=3.0						
LAZ	**Ladron**	**149.36**	**263**	*e*PKPdf	PKPdf	00 09 41.0	+3.3
SDCO	**Great Sand Dun**	**149.80**	**270**	*e*PKPdf	PKPdf	00 09 40.5	+2.3
SDCO				LR	LR		
	comp=Z,605nm,20.0s,MS5.4						
ISCO	**Idaho Springs**	**150.73**	**274**	PFAKE		00 09 50.0	+10
ISCO				LR	LR		
	comp=Z,602nm,20.0s,MS5.4						
TUC	**Tucson**	**150.76**	**256**	PFAKE		00 09 50.0	+10
TUC				LR	LR		
	comp=Z,437nm,20.0s,MS5.3						
SMCO	**Snowmass**	**151.45**	**272**	PKPdf	PKPbc	00 09 49.5	+2.6
MVCO	**Mesa Verde**	**151.69**	**267**	PFAKE		00 09 50.0	+8.8
MVCO				LR	LR		
	comp=Z,760nm,21.0s,MS5.5						
DGMT	**Dagmar**	**152.08**	**292**	PFAKE		00 09 50.0	+8.6
DGMT				LR	LR		
	comp=Z,863nm,22.0s,MS5.5						
WUAZ	**Wupatki**	**152.91**	**262**	PFAKE		00 10 00.0	+17
WUAZ				LR	LR		
	comp=Z,486nm,20.0s,MS5.3						
LAO	**LASA Array**	**153.15**	**288**	PFAKE		00 10 00.0	+17
LAO				LR	LR		
	comp=Z,761nm,22.0s,MS5.5						
SRU	**San Rafael**	**153.95**	**269**	PKPdf	PKPdf	00 09 47.7	+3.2
SRU	**San Rafael**	**153.95**	**269**	PKIKP	PKPdf	00 09 47.7	+3.2
PDAR	**Pinedale Array**	**154.54**	**278**	PKP	PKPdf	00 09 44.5	-0.7
PDAR				PKPbc	PKPbc	00 09 54.2	+0.6
PDAR				PKPab	PKPab	00 10 02.6	-5.7
PDAR	**Pinedale Array**	**154.54**	**278**	PKP	PKPdf	00 09 44.5	-0.7
	comp=Z,0.5nm,1.0s,baz=0.0,slow=1.0,SNR=2.9						
PDAR				PKPbc	PKPbc	00 09 54.2	+0.6
	comp=Z,0.6nm,0.7s,baz=72,slow=4.8,SNR=3.9						
PDAR				PKPab	PKPab	00 10 02.6	-5.7
	comp=Z,2.0nm,1.0s,baz=110,slow=3.9,SNR=6.3						
BW06	**Boulder Array**	**154.54**	**278**	PFAKE		00 10 00.0	+15
BW06				LR	LR		
	comp=Z,517nm,20.0s,MS5.3						
MSU	**Marysvale**	**154.88**	**267**	PKPdf	PKPbc	00 09 58.5	+4.1
MSU	**Marysvale**	**154.88**	**267**	PKIKP	PKPbc	00 09 58.6	+4.1
MVU	**Marysvale**	**154.90**	**267**	PKPdf	PKPdf	00 09 46.5	+0.7
MVU				LR	LR		
	comp=Z,645nm,20.0s,MS5.4						
RLMT	**Red Lodge**	**154.93**	**283**	PFAKE		00 10 00.0	+14
RLMT				LR	LR		
	comp=Z,673nm,22.0s,MS5.4						
MPU	**Maple Canyon**	**155.09**	**271**	PFAKE		00 10 00.0	+14
MPU				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
YKA	**Yellowknife Ar**	**155.20**	**326**	PKP	PKPdf	00 09 47.2	+1.8
YKA				PKPbc	PKPdf	00 09 53.5	+8.1
YKA				PKPab	PKPab	00 10 06.0	-4.4
YKA	**Yellowknife Ar**	**155.20**	**326**	PKIKP	PKPdf	00 09 47.2	+1.8
YKA						00 09 53.5	
YKA						00 10 06.0	
YKA	**Yellowknife Ar**	**155.20**	**326**	PKP	PKPdf	00 09 47.2	+1.8
	comp=Z,0.2nm,0.8s,baz=299,slow=4.9,SNR=2.5						
YKA				PKPbc	PKPdf	00 09 53.5	+8.1
	comp=Z,1.3nm,0.8s,baz=46,slow=1.8,SNR=12						
YKA				PKPab	PKPab	00 10 06.0	-4.4
	comp=Z,1.5nm,0.8s,baz=41,slow=1.9,SNR=6.5						
CCUT	**Cedar City**	**155.29**	**264**	*e*PKPdf	PKPdf	00 09 48.3	+1.9
PFO	**Pinyon Flat Ob**	**155.40**	**253**	PFAKE		00 10 00.0	+13
PFO				LR	LR		
	comp=Z,410nm,20.0s,MS5.2						
LKWY	**Lake**	**155.59**	**282**	PFAKE		00 10 00.0	+13
LKWY				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
HWUT	**Hardware Ranch**	**155.60**	**274**	PFAKE		00 10 00.0	+13
HWUT				LR	LR		
	comp=Z,600nm,21.0s,MS5.4						
AHID	**Auburn Hatcher**	**155.63**	**277**	PFAKE		00 10 00.0	+13
AHID				LR	LR		
	comp=Z,669nm,22.0s,MS5.4						
EGMT	**Eagleton**	**155.71**	**290**	PFAKE		00 10 00.0	+13
EGMT				LR	LR		
	comp=Z,543nm,19.0s,MS5.4						
TNA	**Tin City**	**155.72**	**23**	PFAKE		00 10 00.0	+14
TNA				LR	LR		
	comp=Z,387nm,20.0s,MS5.2						
DUG	**Dugway**	**156.00**	**270**	PFAKE		00 10 00.0	+13
DUG				LR	LR		
	comp=Z,558nm,21.0s,MS5.4						
YMR	**Madison River**	**156.01**	**282**	PFAKE		00 10 00.0	+13
YMR				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
BOZ	**Bozeman (W)**	**156.66**	**284**	PFAKE		00 10 00.0	+12
BOZ				LR	LR		
	comp=Z,545nm,20.0s,MS5.4						
DAC	**Darwin (Calif)**	**157.65**	**257**	PFAKE		00 10 00.0	+11
DAC				LR	LR		
	comp=Z,645nm,21.0s,MS5.4						
ELK	**Elko**	**157.92**	**270**	PFAKE		00 10 00.0	+10
ELK				LR	LR		
	comp=Z,709nm,19.0s,MS5.5						
HLID	**Hailey**	**158.18**	**277**	PFAKE		00 10 00.0	+10
HLID				LR	LR		
	comp=Z,784nm,20.0s,MS5.5						
TPH	**Tonopah**	**158.25**	**262**	PFAKE		00 10 00.0	+10
TPH				LR	LR		
	comp=Z,586nm,19.0s,MS5.4						
MSO	**Missoula**	**158.42**	**286**	PFAKE		00 10 00.0	+10
MSO				LR	LR		
	comp=Z,503nm,20.0s,MS5.3						
BMN	**Battle Mountai**	**159.22**	**267**	PFAKE		00 10 00.0	+8.8
BMN				LR	LR		
	comp=Z,687nm,20.0s,MS5.5						
COLA	**College**	**159.88**	**4**	PFAKE		00 10 00.0	+8.8
COLA				LR	LR		
	comp=Z,649nm,20.0s,MS5.5						
EGAK	**Eagle**	**159.93**	**355**	PFAKE		00 10 00.0	+8.7
EGAK				LR	LR		
	comp=Z,987nm,20.0s,MS5.7						
CMB	**Columbia Colle**	**160.45**	**258**	PFAKE		00 10 00.0	+7.3
CMB				LR	LR		
	comp=Z,551nm,22.0s						
BMO	**Blue Mountains**	**160.48**	**280**	PFAKE		00 10 00.0	+7.5
BMO				LR	LR		
	comp=Z,643nm,19.0s						
NEW	**Newport**	**160.65**	**290**	PFAKE		00 10 00.0	+7.4
NEW				LR	LR		
	comp=Z,1µm,20.0s						
WVOR	**Wild Horse Val**	**160.88**	**272**	PFAKE		00 10 00.0	+7.0
WVOR				LR	LR		
	comp=Z,630nm,19.0s						
MCK	**McKinley**	**160.95**	**6**	PFAKE		00 10 00.0	+7.6
MCK				LR	LR		
	comp=Z,427nm,22.0s						
MOD	**Modoc**	**161.91**	**269**	PFAKE		00 10 10.0	+16
MOD				LR	LR		
	comp=Z,2µm,21.0s						
HOPS	**Hopland**	**162.76**	**258**	PFAKE		00 10 10.0	+15
HOPS				LR	LR		
	comp=Z,854nm,21.0s						
WDC	**Whiskeytown Da**	**163.04**	**263**	PFAKE		00 10 10.0	+15
WDC				LR	LR		
	comp=Z,1µm,22.0s						
PMR	**Palmer**	**163.05**	**7**	PFAKE		00 10 10.0	+15
PMR				LR	LR		
	comp=Z,1µm,21.0s						
UNV	**Unalaska Valle**	**163.35**	**50**	PFAKE		00 10 10.0	+15
UNV				LR	LR		
	comp=Z,4µm,22.0s						
YBH	**Yreka Blue Hor**	**163.56**	**267**	PFAKE		00 10 10.0	+14
YBH				LR	LR		
	comp=Z,591nm,20.0s						
WRAK	**Wrangell Islan**	**165.99**	**330**	PFAKE		00 10 10.0	+13
WRAK				LR	LR		
	comp=Z,870nm,20.0s						
KDAK	**Kodiak Island**	**166.21**	**18**	PFAKE		00 10 10.0	+13
KDAK				LR	LR		
	comp=Z,305nm,21.0s						
SIT	**Sitka**	**166.40**	**337**	PFAKE		00 10 10.0	+12
SIT				LR	LR		
	comp=Z,1µm,20.0s						

IDC 26 23:54:33.3±17.0**, 1.17S×128.13E, h0^{km}, mb3.5**/2**, mb1 3.6**/3**, mb1mx3.3**/16**, mbtmp3.4**/3**, ML3.4**/1**, Error ellipse: s-maj=257.8km s-min=149.8km az=152.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.62**	**162**	P	Pn	23 59 03.5	-1.3
	0.1nm,0.3s,baz=342,slow=11,SNR=20						
ASAR	**Alice Springs**	**23.05**	**166**	P	P	23 59 39.9	-0.5
	0.2nm,0.3s,baz=348,slow=13,SNR=4.6						
STKA	**Stephens Creek**	**33.08**	**159**	P	P	00 01 11.4	+0.6
	1.6nm,0.8s,baz=338,slow=11,SNR=3.1						

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*NEIC **27** 00:11:27.0±0.5, 2.23N×96.36E, h30^{km}, mb4.1/2, Error ellipse: s-maj=11.5km s-min=7.9km az=56.0*

*ISCJB **27** 00:11:31.8±2.6, 2.42N±0.08×96.7E±0.1, h83^{km}±21^{km}, mb4.0/9, Error ellipse: s-maj=24.0km s-min=11.8km az=159.8*

*IDC **27** 00:11:32.9±11.0, 2.37N×96.69E, h75^{km}±85^{km}, mb3.4/5, mb1 3.4/6, mb1mx3.2/22, mbtmp3.4/6, ML2.5/1, Error ellipse: s-maj=149.0km s-min=21.6km az=59.0*

ISC 27 00:11:32.7±2.6**, 2.37N**±0.09×**96.7E**±0.1**, h75**^{km}±21^{km}**, n21,**

$\sigma0^{s}.50$/22, mb4.0/9, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	Prapat	2.27	79	P	Pn	00 12 08.3	+0.1
PSI	Prapat	2.27	79	P	Pn	00 12 08.3	+0.1
	1.2nm,0.3s,baz=292,slow=14,SNR=9.8						
KULM	Kulim	4.90	54	ePn	Pn	00 12 44.2	+0.3
KULM				Sn	Sn	00 13 38.6	-0.8
KSM	Kuching	13.64	94	ePn	Pn	00 14 43.4	+0.4
LSA	Lhasa	27.68	350	eP	P	00 17 14.5	+0.7
	3.0nm,0.7s,mb3.9						
YHNB	Yeheng	32.54	45	eP	P	00 17 58.0	+1.1
NWAO	Narrogin (SRO)	40.12	153	P	P	00 19 00.8	-0.5
BJT	Baijiatuau	41.44	23	eP	P	00 19 11.7	-0.3
	10nm,0.7s,mb4.8						
WRA	Warramunga Arr	43.09	123	P	P	00 19 25.4	-0.3
	0.5nm,0.9s,mb3.3,baz=300,slow=9.5,SNR=3.5						
WB2	Warramunga Arr	43.10	123	P	P	00 19 26.1	+0.2
ASAR	Alice Springs	44.51	128	P	P	00 19 37.4	+0.3
	0.2nm,0.6s,mb3.0,baz=320,slow=8.5,SNR=2.9						
MKAR	Makanchi Array	45.99	346	P	P	00 19 48.2	-0.2
MKAR	Makanchi Array	45.99	346	P	P	00 19 48.2	-0.2
	1.3nm,0.5s,mb3.9,baz=157,slow=9.1,SNR=41						
SONM	Songino Array	46.06	9	P	P	00 19 49.6	+0.7
	0.2nm,0.3s,mb3.3,baz=187,slow=12,SNR=2.6						
PMG	Port Moresby	51.62	104	P	P	00 20 32.0	-0.1
	10nm,0.7s,mb5.0						
ZAA0	Zalesovo Array	52.33	351	eP	P	00 20 36.7	0.0
ZALV	Zalesovo Beam	52.33	351	P	P	00 20 36.7	0.0
	2.8nm,0.5s,mb4.6,baz=178,slow=6.8,SNR=27						
BRVK	Borovoye	55.05	341	eP	P	00 20 55.6	-0.9
	1.4nm,0.7s,mb4.1						
CHKZ	Chkalovo	55.46	341	P	P	00 20 59.2	-0.3
CASY	Casey	69.21	174	P	P	00 22 31.4	+0.3
VNDA	Vanda	87.06	169	eP	P	00 24 09.1	-0.5

ISCJB **27** *00:26:06.1±3.9, 5.2S±0.1×151.1E±0.2, h81^{km}±30^{km}, mb3.5/5, Error ellipse: s-maj=33.2km s-min=21.0km az=176.1*
NEIC **27** *00:26:08.2±2.7, 5.24S×151.10E, h86^{km}±20^{km}, mb4.2/1, Error ellipse: s-maj=28.0km s-min=13.4km az=81.0*
IDC **27** *00:26:09.9±8.3, 5.29S×151.06E, h99^{km}±56^{km}, mb3.2/4, mb1 3.4/5, mb1mx3.3/14, mbtmp3.3/5, Error ellipse: s-maj=98.5km s-min=30.9km az=101.0*
ISC 27 00:26:07.6±3.6, **5.2S**±0.1×**151.2E**±0.2, **h81^{km}**±28^{km}, **n16, $\sigma0^{s}.58$**/16, **mb3.5**/5, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	5.74	224	ePn	Pn	00 27 29.7	-0.6
PMG				eSn	Sn	00 28 35.2	+0.3
PMG	Port Moresby	5.74	224	P	Pn	00 27 29.4	-1.0
	1.4nm,0.3s,baz=49,slow=12,SNR=5.1						
PMG				S	Sn	00 28 35.9	+1.0
	2.0nm,0.3s,baz=324,slow=19,SNR=3.4						
CTAO	Charters Tower	15.52	197	P	Pn	00 29 42.7	+0.8
WB2	Warramunga Arr	21.94	227	eP	P	00 30 54.6	-0.1
WRA	Warramunga Arr	21.95	227	P	P	00 30 54.1	-0.7
	1.2nm,0.5s,mb3.5,baz=51,slow=10.0,SNR=16						
ASAR	Alice Springs	24.75	221	P	P	00 31 21.6	-0.1
	1.1nm,0.6s,mb3.5,baz=58,slow=8.6,SNR=13						
STKA	Stephens Creek	27.98	198	P	P	00 31 51.2	+0.4
MBWA	Marble Bar	34.34	240	eP	P	00 32 47.3	+0.4
KKM	Kota Kinabalu	36.64	287	P	P	00 33 06.1	-0.6
TAU	Tasmania Unive	37.68	185	P	P	00 33 14.4	-0.6
NWAO	Narrogin (SRO)	41.93	225	eP	P	00 33 49.9	-0.6
SONM	Songino Array	65.83	329	P	P	00 36 45.4	+1.1
	0.3nm,0.4s,mb3.5,baz=123,slow=5.3,SNR=2.6						
MKAR	Makanchi Array	79.58	319	P	P	00 38 05.9	0.0
	0.1nm,0.4s,mb3.0,baz=104,slow=8.1,SNR=6.2						
KURK	Kurchatov	83.11	322	eP	P	00 38 24.4	0.0
	4.7nm,1.5s,mb4.1						
TORD	Torodi Ar. Bea	148.88	287	PKPbc	PKPbc	00 45 46.0	-1.1
TORD	Torodi Ar. Bea	148.88	287	PKPbc	PKPbc	00 45 46.0	-1.1
	0.9nm,0.5s,baz=83,slow=2.1,SNR=18						

CSEM **27** *00:34:30.9±0.1, 40.35N×27.06E, h12^{km}, MD2.8, Error ellipse: s-maj=2.3km s-min=1.6km az=142.0*
ISCJB **27** *00:34:31.3±0.5, 40.36N±0.03×27.04E±0.03, h6^{km}±6^{km}, Error ellipse: s-maj=5.6km s-min=4.1km az=166.3*
ISK **27** *00:34:31.2, 40.38N×27.04E, h8^{km}, MD2.8*
DDA **27** *00:34:32.3, 40.33N×27.14E, h12^{km}, Md2.9*
ATH **27** *00:34:37.1, 40.12N×25.77E, h10^{km}, MD2.9/3*
ISC 27 00:34:31.7±0.4, **40.36N**±0.03×**27.03E**±0.03, **h8^{km}**±5^{km}, **n43, $\sigma0^{s}.66$**/51, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPK	Lapseki	0.21	273	PG	Pg	00 34 36.9	+1.0
LPK	Lapseki	0.21	273	ePg	Pg	00 34 36.9	+1.0
RKY	Sarkoy-Tekirda	0.34	19	PG	Pg	00 34 38.7	+0.3
RKY	Sarkoy-Tekirda	0.34	19	ePg	Pg	00 34 38.7	+0.3
SART	Tekirdag	0.35	19	i P	Pg	00 34 39.2	+0.7
SART				i S	Sg	00 34 43.7	+0.6
MFT	Murefte	0.47	24	PG	Pg	00 34 40.6	-0.1
MFT	Murefte	0.47	24	ePg	Pg	00 34 40.6	-0.1
MRMT	Marmara Adasi	0.49	61	PG	Pg	00 34 40.8	-0.4
MRMT				SG	Sg	00 34 47.7	0.0
MRMT	Marmara Adasi	0.49	61	ePg	Pg	00 34 40.8	-0.4
MRMT				eSg	Sg	00 34 47.7	0.0
EDC	Edincik	0.64	91	PG	Pg	00 34 43.1	-0.8
EDC				SG	Sg	00 34 52.3	+0.1
EDC	Edincik	0.64	91	ePg	Pg	00 34 43.1	-0.8
EDC				eSg	Sg	00 34 52.3	+0.1
BNT	Bandirma	0.68	90	PG	Pg	00 34 44.3	-0.4
EZN	Ezine	0.76	226	PG	Pg	00 34 46.1	-0.2
EZN	Ezine	0.76	226	ePg	Pg	00 34 46.1	-0.2
ENEZ	Enez	0.77	299	PG	Pg	00 34 45.8	-0.6
ENEZ	Enez	0.77	299	ePg	Pg	00 34 45.8	-0.6
GADA	Gvkgeada	0.88	259	PG	Pg	00 34 48.5	-0.1
GADA	Gvkgeada	0.88	259	ePg	Pg	00 34 48.5	-0.1
BOZC	Bozcaada	0.91	236	i P	Pg	00 34 49.0	-0.1
BOZC				i S	Sg	00 35 01.3	+0.2
BALB	Balikesir	0.97	138	PG	Pg	00 34 51.2	+0.9
BALB	Balikesir	0.97	138	ePg	Pg	00 34 51.2	+0.9
BTOK	Tokmak	0.97	128	i P	Pg	00 34 48.2	-2.2
BTOK				i S	Sg	00 35 03.4	+0.4
KCT	Karacabey	1.02	95	PG	Pg	00 34 51.6	+0.4
KCT	Karacabey	1.02	95	ePg	Pg	00 34 51.6	+0.4
AYVA	Ayvalik	1.08	194	i P	Pg	00 34 52.1	-0.3
AYVA				i S	Sg	00 35 06.6	0.0
PRK	Paraskevi	1.26	208	ePB	Pb	00 34 55.3	-0.3
PRK	Paraskevi	1.26	208	ePb	Pb	00 34 55.3	-0.3
CTT	Catalca	1.32	53	PN	Pn	00 34 56.0	-0.4
CTT	Catalca	1.32	53	ePn	Pn	00 34 56.0	-0.4
RDO	Rodhopi	1.38	305	ePB	Pb	00 34 56.7	-1.0
RDO	Rodhopi	1.38	305	ePb	Pb	00 34 56.7	-1.0
DST	Dursunbey	1.44	121	ePN	Pn	00 34 58.3	+0.3
DST	Dursunbey	1.44	121	ePn	Pn	00 34 58.3	+0.3
EDRB	Edirne	1.50	352	ePN	Pn	00 34 59.1	+0.3
EDRB	Edirne	1.50	352	ePn	Pn	00 34 59.1	+0.3
AKS	Akhisar	1.60	158	ePN	Pn	00 35 00.9	+0.7
AKS	Akhisar	1.60	158	ePn	Pn	00 35 00.9	+0.7
YLV	Yalova	1.80	83	ePN	Pn	00 35 02.6	-0.3
YLV	Yalova	1.80	83	ePn	Pn	00 35 02.6	-0.3
IZI	Iznik	1.87	90	ePN	Pn	00 35 03.5	-0.4
IZI	Iznik	1.87	90	ePn	Pn	00 35 03.5	-0.4
KULA	Kula-Manisa	2.23	145	ePN	Pn	00 35 10.4	+1.5
KULA	Kula-Manisa	2.23	145	ePn	Pn	00 35 10.4	+1.5

LDG **27** *00:44:09.1±0.3, 19.57S×172.80E, h10^{km}, Mb5.2/2, Ms4.8/7, Error ellipse: s-maj=26.6km s-min=5.9km az=144.0*
ISCJB **27** *00:44:13.3±1.6, 20.19S±0.06×172.91E±0.04, h56^{km}±14^{km}, mb4.9/58, MS4.7/27, Error ellipse: s-maj=9.4km s-min=5.8km az=170.5*
MOS **27** *00:44:13.1±1.2, 20.15S×172.88E, h50^{km}, mb5.2/19, MS5.1/8, Error ellipse: s-maj=9.8km s-min=9.3km az=146.8*
BJI **27** *00:44:13.6, 19.63S×173.23E, h51^{km}, mB5.3, mb4.9, Ms5.1, Msz4.8*
IDC **27** *00:44:14.8±4.4, 20.17S×172.97E, h59^{km}±38^{km}, mb4.3/15, mb1 4.5/17, mb1mx4.5/20, mbtmp4.3/17, ML3.7/2, MS4.5/15, Ms1 4.5/15, ms1mx4.4/27, Error ellipse: s-maj=26.0km s-min=18.6km az=159.0*
NEIC **27** *00:44:15.0±1.0, 20.12S×172.93E, h58^{km}±9^{km}, mb5.1/33, Error ellipse: s-maj=7.5km s-min=4.8km az=164.0*
GCMT **27** *00:44:15.0±0.2, 20.15S×173.02E, h12^{km}, MW5.2/79, Moment Tensor Solution. s43,c57; s79,c123; Duration: 0 Moment tensor: Scale 10^{17}Nm; M_{rr}0.45±.02; $M_{\theta\theta}$-0.78±.02; $M_{\phi\phi}$0.32±.02; $M_{r\theta}$0.15±.05; $M_{\theta\phi}$-0.25±.02; $M_{\phi r}$0.10±.06; Best double couple: $M_0$0.68100×10^{17} NP1:ϕ_s286.00000°,δ45.00000°,λ132.00000°. NP2: ϕ_s54.00000°,δ58.00000°,λ56.00000°. Principal axes: T 0.5070, Plg61.0000°, Azm270.0000°; N 0.3480, Plg28.0000°, Azm73.0000°; P -0.8550, Plg7.0000°, Azm167.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
SZGRF **27** *00:44:20.5, 21.32S×173.15E, h33^{km}, Vanuatu Islands region*
ISC 27 00:44:15.7±1.3, **20.19S**±0.06×**172.95E**±0.04, **h63^{km}**±12^{km}, **n571, $\sigma0^{s}.57$**/328, **mb5.0**/57, **174C-92D, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	6.35	252	P	Pn	00 45 46.4	-0.4
	0.9nm,0.3s,baz=89,slow=17,SNR=7.1						
RAO	Raoul Island	12.25	139	Pn	Pn	00 47 08.1	+0.7
RAO	Raoul Island	12.25	139	LR	LR	00 50 45.8	
	comp=Z,4µm,18.6s,baz=328,slow=32						
AFI	Afiamalu	15.88	69	Pn	Pn	00 47 54.6	-0.7
AFI	Afiamalu	15.88	69	LR	LR	00 52 32.7	
	comp=Z,1µm,21.8s,baz=224,slow=31						
HNR	Honiara	16.49	309	LR	LR	00 53 26.7	
	comp=Z,989nm,19.3s,baz=177,slow=34						
URZ	Urewera	18.37	170	P	Pn	00 48 25.6	-0.3
	0.5nm,0.3s,baz=334,slow=7.9,SNR=10						
URZ				LR	LR	00 53 56.6	
	comp=Z,2µm,19.5s,baz=8.5,slow=32						
SNZO	South Karori	21.11	176	eP	P	00 48 55.6	+0.6
	47nm,1.0s,mb4.8						
ARMA	Armidale	21.76	238	eP	P	00 49 03.8	+1.6
RPZ	Rata Peaks	23.51	183	LR	LR	00 57 22.3	
	comp=Z,3µm,20.9s,baz=13,slow=34						
CTA	Charters Tower	25.05	266	eP	P	00 49 34.8	+0.5
	7.5nm,0.6s,mb4.4						
CTA	Charters Tower	25.05	266	eP	P	00 49 34.8	+0.5
CTA				pmax	pmax		
	comp=Z,8.0nm,0.6s						
CTA	Charters Tower	25.05	266	P	P	00 49 34.0	-0.3
	comp=Z,8.7nm,0.6s,mb4.5,baz=97,slow=12,SNR=7.8						
CTA				LR	LR	00 58 07.6	
	comp=Z,1µm,20.7s,baz=78,slow=33						
CTAO	Charters Tower	25.05	266	eP	P	00 49 34.3	0.0
	comp=Z,68nm,1.5s,mb5.0						
CTAO	Charters Tower	25.05	266	eP	P	00 49 34.3	0.0
CTAO				pmax	pmax		
	comp=Z,68nm,1.5s,mb5.0						
RAR	Rarotonga	25.53	97	LR	LR	00 56 46.6	
	comp=Z,566nm,19.8s,baz=75,slow=30						
PMG	Port Moresby	27.10	290	eP	P	00 49 51.6	-1.2
	comp=Z,25nm,0.9s,mb4.7						
PMG	Port Moresby	27.10	290	eP	P	00 49 51.6	-1.2
PMG				pmax	pmax		
	comp=Z,25nm,0.9s						
PMG	Port Moresby	27.10	290	LR	LR	00 57 53.7	
	comp=Z,521nm,19.8s,baz=30,slow=30						
STKA	Stephens Creek	30.37	241	eP	P	00 50 21.9	+0.1
	comp=Z,6.0nm,0.9s,mb4.3						
STKA	Stephens Creek	30.37	241	P	P	00 50 22.2	+0.4
	comp=Z,6.2nm,0.9s,mb4.4,baz=84,slow=8.7,SNR=11						
STKA				PcP	PcP	00 53 19.9	-0.5
	comp=Z,1.5nm,0.8s,baz=299,slow=5.6,SNR=3.5						
STKA				LR	LR	01 01 39.2	
	comp=Z,791nm,18.8s,baz=64,slow=34						
TAU	Tasmania Unive	31.25	218	eP	P	00 50 29.8	+0.5
	comp=Z,27nm,1.2s,mb5.0						
TAU	Tasmania Unive	31.25	218	eP	P	00 50 29.8	+0.5
TAU				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.0						
PPT	Papeete	35.51	92	eLR	LR	01 00 36.0	
	comp=Z,721nm,27.2s						
PPT	Papeete	35.51	92	LR	LR	01 01 38.5	
	comp=Z,431nm,21.2s,baz=200,slow=29						
WB2	Warramunga Arr	36.20	264	eP	P	00 51 11.1	-1.5
WB2				ePP	PP	00 52 37.4	+1.4
WB2				ePcP	PcP	00 53 37.2	+0.2
WRA	Warramunga Arr	36.21	264	P	P	00 51 11.7	-1.0
WRA						00 53 36.9	
WRA	Warramunga Arr	36.21	264	P	P	00 51 11.7	-1.0
	comp=Z,6.8nm,1.1s,mb4.5,baz=95,slow=8.5,SNR=39						
WRA				PcP	PcP	00 53 36.9	-0.2
	comp=Z,1.5nm,0.8s,baz=81,slow=2.5,SNR=5.6						
WRA				LR	LR	01 05 44.1	
	comp=Z,456nm,18.1s,baz=85,slow=36						
ASAR	Alice Springs	36.31	257	P	P	00 51 12.8	-0.7
	comp=Z,12nm,0.9s,mb4.8,baz=83,slow=8.9,SNR=70						
KAKA	Kakadu	39.48	274	P	P	00 51 40.3	0.0
FORT	Forrest	41.63	246	eP	P	00 51 57.5	-0.4
	comp=Z,21nm,0.9s,mb4.8						
GUMO	Guam	43.47	318	LR	LR	01 08 22.6	
	comp=Z,345nm,18.9s,baz=250,slow=33						
FITZ	Fitzroy Crossi	44.63	264	⇑iP	P	00 52 22.3	+0.1
	comp=Z,25nm,0.8s,mb5.1						
FITZ	Fitzroy Crossi	44.63	264	P	P	00 52 22.4	+0.2
	comp=Z,13nm,0.8s,mb4.8,baz=122,slow=8.7,SNR=20						
TAOE	Nuku Hiva Isla	46.63	83	eLR	LR	01 05 46.6	
	comp=Z,1µm,25.3s						
MBWA	Marble Bar	49.60	259	eP	P	00 53 01.4	+0.5
	comp=Z,80nm,1.4s,mb5.6						
KLBR	Kellerberrin	50.48	245	⇑iP	P	00 53 07.0	-0.5
	comp=Z,58nm,1.3s,mb5.5						
NWAO	Narrogin (SRO)	50.91	244	eP	P	00 53 10.8	+0.1
	comp=Z,13nm,0.6s,mb5.0						
NWAO	Narrogin (SRO)	50.91	244	eP	P	00 53 10.8	+0.1
NWAO				pmax	pmax		
	comp=Z,13nm,0.6s						
MUN	Mundaring	51.78	245	eP	P	00 53 15.3	-2.0
VNDA	Vanda	57.63	183	P	P	00 53 59.7	+0.9
VNDA	Vanda	57.63	183	LR	LR	01 14 08.1	
	comp=Z,1µm,21.7s,baz=12,slow=31						
SBA	Scott Base	57.78	182	eP	P	00 54 00.7	+0.8
	comp=Z,18nm,1.0s,mb5.1						
SBA	Scott Base	57.78	182	eP	P	00 54 00.7	+0.8
SBA				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
KKM	Kota Kinabalu	61.54	289	eP	P	00 54 27.4	+0.6
MJAR	Matsushiro Arr	65.28	330	P	P	00 54 50.6	-0.3
	comp=Z,5.9nm,0.8s,mb4.6,baz=161,slow=6.7,SNR=13						
MJAR				LR	LR	01 19 03.9	
	comp=Z,446nm,21.0s,baz=150,slow=32						
MAJO	Matsushiro	65.28	330	eP	P	00 54 50.8	-0.1
	comp=Z,16nm,0.9s,mb5.1						
MAJO	Matsushiro	65.28	330	eP	P	00 54 50.8	-0.1
MAJO				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
MAT	Matsushiro	65.28	330	P	P	00 54 50.6	-0.3
NACB	Ninganchiao	66.67	309	eP	P	00 55 00.1	0.0
TATO	Taipei	67.23	310	P	P	00 55 03.4	-0.3
QSPA	South Pole Qui	69.87	180	eP	P	00 55 19.0	-0.3
	comp=Z,114nm,2.0s,mb5.5						
KSRS	Korea Array	71.30	324	P	P	00 55 29.0	+0.4
	comp=Z,1.6nm,0.9s,mb4.0,baz=123,slow=6.0,SNR=6.8						
KSRS				LR	LR	01 22 11.5	
	comp=Z,201nm,21.2s,baz=150,slow=32						
YSS	Yuzh-Sakhalins	72.17	339	eP	P	00 55 35.0	+1.5
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
COCO	West Island	73.00	263	P	P	00 55 39.5	+0.3
NJ2	Nanjing	73.35	314	eP	P	00 55 42.0	+1.1
NJ2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.2						
WHN	Wuhan	75.60	311	P	P	00 55 54.0	0.0
MDJ	Mudanjiang	75.66	330	eP	P	00 55 54.1	0.0
	comp=Z,3.0nm,0.4s,mb4.6						
PSI	Prapat	76.02	278	P	P	00 55 55.6	-1.2
	comp=Z,3.5nm,0.6s,mb4.4,baz=106,slow=5.6,SNR=8.2						
TIA	Tai'an	77.00	317	⇓P	P	00 56 02.0	+0.2
CN2	Changchun	77.12	327	eP	P	00 56 02.0	-0.3
CN2				eS	S	01 05 40.3	-6.1
CN2				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.8						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
MAW	Mawson	78.85	202	P	P	00 56 12.6	+0.9
ENH	Enshi	78.99	308	P	P	00 56 12.0	-1.0
GYA	Guiyang	79.24	303	⇑iP	P	00 56 16.8	+2.3
GYA				PCP	PcP	00 56 24.0	+1.5
GYA				PP	PP	00 59 19.0	+3.9
GYA				S	S	01 06 04.5	-5.5
GYA				SKS		01 06 15.5	
GYA				SCS	ScS	01 06 24.3	-7.9
GYA				SS	SS	01 11 17.0	-1.2
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
GYA				AMB	AMB		
	comp=Z,120nm,7.4s						
GYA				LR	LR		
	comp=N,420nm,20.8s						
GYA				LR	LR		
	comp=E,470nm,21.6s						
GYA				LR	LR		
	comp=Z,310nm,20.7s						
BJT	Baijiatuau	79.89	319	eP	P	00 56 17.1	-0.6
	comp=Z,7.0nm,0.8s,mb4.6						
BJT	Baijiatuau	79.89	319	eP	P	00 56 17.1	-0.6
BJT				pmax	pmax		
	comp=Z,7.0nm,0.8s						
BJI	Beijing	79.90	319	P	P	00 56 18.0	+0.3
BJI				S	S	01 06 14.3	-2.1
BJI				AMB	AMB		
	comp=Z,13nm,1.1s,mb4.8						
BJI				LR	LR		
	comp=N,293nm,13.8s						
BJI				LR	LR		
	comp=E,235nm,17.9s						
BJI				LR	LR		
	comp=Z,345nm,23.1s						
XAN	Xi'an	81.35	311	P	P	00 56 26.0	+0.4
XAN				AMB	AMB		
	comp=Z,18nm,1.7s,mb4.7						
MA2	Magadan	81.53	349	eP	P	00 56 25.5	-0.4
	comp=Z,25nm,1.4s,mb5.0						
MA2	Magadan	81.53	349	⇓eP	P	00 56 25.4	-0.5
MA2				pmax	pmax		
	comp=Z,27nm,2.0s,mb4.8						
KMI	Kunming	81.75	300	P	P	00 56 30.3	+2.4
KMI				AMB	AMB		
	comp=Z,16nm,1.2s,mb4.8						
CHTO	Chiang Mai	82.23	293	eP	P	00 56 31.2	+0.7
	comp=Z,24nm,1.2s,mb5.0						
CHTO	Chiang Mai	82.23	293	eP	P	00 56 31.2	+0.6
CHTO				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
HHC	Hu-ho-hao-te	83.24	318	eP	P	00 56 36.3	+1.0
HHC				PP	PP	00 59 51.5	+3.7
HHC				SKS		01 06 43.5	
HHC				S	S	01 06 46.0	-4.8
HHC				SS	SS	01 12 16.5	-0.7
HHC				AMB	AMB		
	comp=Z,13nm,0.9s,mb5.0						
HHC				AMB	AMB		
	comp=Z,80nm,5.7s						
HHC				LR	LR		
	comp=N,244nm,23.8s						
HHC				LR	LR		
	comp=E,260nm,26.2s						
HHC				LR	LR		
	comp=Z,471nm,29.7s						
CD2	Chengdu	83.60	306	eP	P	00 56 38.5	+1.1
CD2				PP	PP	00 59 55.0	+4.0
CD2				S	S	01 06 49.5	-5.4
CD2				SS	SS	01 12 22.3	-0.7
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.2						
CD2				LR	LR		
	comp=N,160nm,15.6s						
CD2				LR	LR		
	comp=E,200nm,12.0s						
CD2				LR	LR		
	comp=Z,166nm,13.2s						
HIA	Hailar	83.72	328	eP	P	00 56 37.6	0.0
	comp=Z,3.3nm,0.6s,mb4.6						
HIA	Hailar	83.72	328	eP	P	00 56 37.6	0.0
HIA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
PKM	Peak Mountain	84.06	50	⇑P	P	00 56 39.9	+0.2
	baz=84						
U04C	Hernandez Rese	84.11	48	⇓P	P	00 56 40.5	+0.6
	baz=84						
S04C	Ingram Canyon,	84.31	47	⇓P	P	00 56 41.0	+0.1
	baz=84						
GASB	Alder Springs	84.49	44	⇓P	P	00 56 42.7	+1.0
	baz=85						
GAMB	Gambell	84.55	7	eP	P	00 56 42.0	+0.6
PMSA	Palmer Station	84.79	159	eP	P	00 56 41.8	-1.1
ARVC	Arvin	84.89	50	⇑P	P	00 56 43.9	+0.1
	baz=85						
S05C	Merced	84.92	47	⇑P	P	00 56 43.7	-0.3
	baz=85						
VES	Vestal, Richgr	85.05	49	⇓P	P	00 56 44.2	-0.5
	baz=85						
WDC	Whiskeytown Da	85.09	44	⇑P	P	00 56 44.4	-0.3
	baz=85						
T06C	Millerton Lake	85.18	48	P	P	00 56 44.9	-0.4
	baz=85,SNR=6.1						
CMB	Columbia Colle	85.22	47	eP	P	00 56 45.3	-0.1
	comp=Z,38nm,1.6s,mb5.3						
CMB	Columbia Colle	85.22	47	eP	P	00 56 45.3	-0.1
CMB				pmax	pmax		
	comp=Z,38nm,1.6s,mb5.3						
CMB	Columbia Colle	85.22	47	⇑P	P	00 56 45.3	-0.2
	baz=85,SNR=6.7						
ORV	Oroville	85.24	45	P	P	00 56 45.2	-0.3
	baz=85,SNR=6.4						
L02A	Cave Junction	85.25	42	⇑P	P	00 56 45.1	-0.3
	baz=86						
BFSC	Mount Baldy St	85.31	51	⇓P	P	00 56 45.6	-0.4
	baz=86						
LAVA	Lava Cap Winer	85.34	46	⇑P	P	00 56 45.6	-0.5
	baz=86						
MURC	Murrieta	85.35	52	⇓P	P	00 56 45.8	-0.4
	baz=86						
EDW2	Edwards Air Fo	85.37	50	⇓P	P	00 56 46.2	-0.1
	baz=86,SNR=6.8						
ISA	Isabella	85.40	50	⇑P	P	00 56 46.3	0.0
	baz=86,SNR=15						
HELL	Mitchell Peak,	85.50	48	P	P	00 56 46.4	-0.5
	baz=86,SNR=7.0						
YBH	Yreka Blue Hor	85.59	43	eP	P	00 56 48.0	+0.8
	comp=Z,44nm,1.7s,mb5.4						
YBH	Yreka Blue Hor	85.59	43	eP	P	00 56 48.0	+0.8
YBH				pmax	pmax		
	comp=Z,44nm,1.7s						
YBH	Yreka Blue Hor	85.59	43	⇑P	P	00 56 47.6	+0.4
	baz=86						
KCC	Kaiser Creek	85.61	48	⇓P	P	00 56 46.8	-0.6
	baz=86						
P05C	Yuba Gap, Truc	85.71	45	⇑P	P	00 56 47.9	+0.1
	baz=86,SNR=6.1						
M03C	McCloud	85.72	43	⇑P	P	00 56 48.0	+0.1
	baz=86						
R05C	Kirkwood Meado	85.77	46	⇑P	P	00 56 48.4	+0.3
	baz=86,SNR=5.4						
O05C	Quincy	85.83	45	⇑P	P	00 56 48.6	+0.2
	baz=86						
PFO	Pinyon Flat Ob	85.91	52	P	P	00 56 48.6	-0.3
	comp=Z,3.2nm,0.9s,mb4.5,baz=266,slow=6.6,SNR=3.7						
LZH	Lanzhou	85.98	311	⇑P	P	00 56 51.3	+2.1
LZH				SKS		01 07 02.5	
LZH				eS	S	01 07 13.3	-4.9
LZH				eSS	SS	01 12 57.5	-0.3
LZH				AMB	AMB		
	comp=Z,65nm,1.3s,mb5.7						
LZH				AMB	AMB		
	comp=Z,273nm,8.2s						
LZH				LR	LR		
	comp=N,305nm,15.6s						
LZH				LR	LR		
	comp=Z,491nm,19.3s						
R06C	Coleville	86.10	47	⇓P	P	00 56 49.9	+0.1
	baz=86,SNR=6.4						
BEKR	Beckwourth	86.16	45	⇑P	P	00 56 50.0	-0.1
	baz=86,SNR=5.7						
M04C	Macdoel	86.17	43	⇑P	P	00 56 50.3	+0.2
	baz=86						
MPMC	Manual Prospec	86.29	50	⇑P	P	00 56 50.7	-0.1
	baz=86,SNR=6.5						
ELFS	Eagle Lake Fie	86.29	44	⇓P	P	00 56 51.0	+0.4
	baz=86						
DAC	Darwin (Calif)	86.32	49	eP	P	00 56 51.3	+0.4
L04A	Klamath Falls	86.34	43	⇑P	P	00 56 50.8	-0.1
	baz=86						
M05C	Lookout	86.40	44	⇓P	P	00 56 51.3	+0.1
	baz=87						
BELC	Belle Mtn.	86.42	52	⇓P	P	00 56 51.5	+0.1

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      baz=87,SNR=10
GSC   Goldstone         86.43  50 ⇑P        P         00 56 51.4 -0.1
      baz=87
S08C  White Mtn Res     86.49  48 ⇑P        P         00 56 52.2 +0.4
      baz=87,SNR=8.1
HEC   Hector,Ludlow     86.56  51 ⇑P        P         00 56 51.7 -0.4
      baz=87
O06A  Flanigan          86.66  45 ⇑P        P         00 56 52.5  0.0
      baz=87,SNR=7.9
BC3   Big Chuckw Mtn    86.67  52 ⇓P        P         00 56 52.9 +0.2
      baz=87
K04A  Chilquin          86.67  42 ⇓P        P         00 56 52.8 +0.3
      baz=87
TNA   Tin City          86.72   8 eP        P         00 56 52.5 +0.3
      comp=Z,24nm,1.6s,mb5.2
PAHR  Pah Rah Range     86.73  46 eP        P         00 56 53.2 +0.4
      comp=Z,23nm,1.3s,mb5.2
M06C  Likely Place G    86.75  44 ⇑P        P         00 56 53.1 +0.2
      baz=87
J04A  Umpqua Nationa    86.76  42 ⇓P        P         00 56 53.1 +0.2
      baz=87
GRAC  Grapevine Rang    86.82  49 ⇓P        P         00 56 53.4  0.0
      baz=87
NVAR  Mina Array Bea    86.84  47  P        P         00 56 52.9 -0.5
NVAR  Mina Array Bea    86.84  47  P        P         00 56 52.9 -0.5
      comp=Z,3.6nm,0.8s,mb4.6,baz=215,slow=6.3,SNR=9.5
I04A  Tendick Farm,     86.86  41 ⇑P        P         00 56 53.4  0.0
      baz=87
GLA   Glamis            86.87  53 ⇓P        P         00 56 53.9 +0.2
      baz=87
FURC  Furnace Creek,    86.93  49 ⇓P        P         00 56 53.8 -0.1
      baz=87
GMRC  Granite Mounta    87.02  51 ⇓P        P         00 56 54.2 -0.2
      baz=87,SNR=5.6
SHOC  Shoshone          87.08  50 ⇑P        P         00 56 54.5 -0.2
      baz=87
IRM   Iron Mountain     87.12  52 ⇑P        P         00 56 54.8 -0.1
      baz=87,SNR=8.1
MOD   Modoc             87.22  43 eP        P         00 56 55.5 +0.4
MOD   Modoc             87.22  43  P        P         00 56 55.3 +0.2
      baz=87,SNR=6.2
S09A  Goldfield         87.26  48 ⇑P        P         00 56 55.0 -0.5
      baz=87
U10A  Ash Meadows, A    87.29  50 ⇑P        P         00 56 55.6 -0.1
      baz=88
O07A  Toulon            87.29  45 ⇓P        P         00 56 55.5  0.0
      baz=88,SNR=6.5
Q08A  Gabbs             87.31  47 ⇑P        P         00 56 56.0 +0.3
      baz=88
J05A  Fort Rock         87.33  42 ⇓P        P         00 56 55.8 +0.2
      baz=88,SNR=7.5
TPH   Tonopah           87.42  48 eP        P         00 56 56.6 +0.3
      comp=Z,4.2nm,0.6s,mb4.8
TPH   Tonopah           87.42  48 eP        P         00 56 56.6 +0.3
TPH                                pmax     pmax
      comp=Z,4.0nm,0.6s,mb4.8
H04A  Detroit Lake      87.47  40 ⇓P        P         00 56 56.4 +0.1
      baz=88
TPNV  Topopah Spring    87.59  49 eP        P         00 56 56.7 -0.4
      comp=Z,15nm,0.9s,mb5.2
TPNV  Topopah Spring    87.59  49 eP        P         00 56 56.7 -0.4
TPNV                               pmax     pmax
      comp=Z,15nm,0.9s,mb5.2
TPNV  Topopah Spring    87.59  49 ⇑P        P         00 56 57.1  0.0
      baz=88,SNR=9.0
R09A  Tonopah           87.61  48 ⇑P        P         00 56 57.1  0.0
      baz=88,SNR=12
V11A  Goodsprings       87.67  51 ⇑P        P         00 56 57.2 -0.3
      baz=88
M07A  Soldier Meadow    87.70  44 ⇓P        P         00 56 57.4 -0.1
      baz=88,SNR=7.5
K06A  Valley Falls      87.70  43 ⇓P        P         00 56 57.6 +0.1
      baz=88
S10A  Tonopah Range,    87.79  48  P        P         00 56 58.1 +0.1
      baz=88,SNR=9.1
W12A  Cal Nev Ari       87.84  51 ⇓P        P         00 56 58.1 -0.2
      baz=88
O08A  Rochester Mine    87.84  46 ⇓P        P         00 56 58.5 +0.4
      baz=88
L07A  Adell             87.90  44 ⇑P        P         00 56 58.7 +0.3
      baz=88,SNR=6.9
PDMCI Parker Dam,Lak    87.93  52 ⇓P        P         00 56 58.5 -0.2
      baz=88
Y13A  Salome            87.95  53 ⇑P        P         00 56 59.1 +0.2
      baz=88,SNR=7.4
F04A  Amboy             87.98  39 ⇑P        P         00 56 59.4 +0.7
      baz=88
J06A  Christmas Vall    87.99  42 ⇓P        P         00 56 59.0 +0.2
      baz=88
V12A  Nelson            88.04  51 ⇓P        P         00 56 59.3  0.0
      baz=88
N08A  GE Springer Mi    88.09  45  P        P         00 56 59.5 +0.2
      baz=88,SNR=10
BILL  Bilibino          88.11 357 eP        P         00 56 58.1 -0.7
      comp=Z,39nm,1.6s,mb5.4
BILL  Bilibino          88.11 357c iP       P         00 56 58.3 -0.5
BILL                               pmax     pmax
      comp=Z,25nm,1.5s,mb5.2
E04A  Onalaska          88.16  38 ⇓P        P         00 57 00.1 +0.6
      baz=88
SHPR  Sheep Range       88.17  50 eP        P         00 57 00.0 +0.2
R10A  Warm Springs      88.17  48 ⇓P        P         00 57 00.2 +0.4
      baz=88
M08A  Happy Creek Ra    88.25  44 ⇑P        P         00 57 00.5 +0.4
      baz=88,SNR=6.2
G05A  Wamic             88.28  40 ⇑P        P         00 57 00.8 +0.7
      baz=88
K07A  Rock Creek Ran    88.29  43 ⇑P        P         00 57 00.5 +0.3
      baz=88,SNR=11
X13A  Yucca             88.29  52 ⇑P        P         00 57 00.5  0.0
      baz=88
I06A  Prineville        88.30  42 ⇓P        P         00 57 00.7 +0.4
      baz=88,SNR=8.3
SNAA  Sanae             88.33 181c iP       P         00 56 58.4 -1.7
Q10A  Clear Creek Ra    88.34  48 ⇓P        P         00 57 00.6  0.0
      baz=88
Z14A  Wintersburg       88.42  54 ⇓P        P         00 57 01.2  0.0
      baz=89,SNR=5.1
O09A  Fish Creek Ran    88.43  46  P        P         00 57 01.2 +0.2
      baz=89,SNR=6.9
T11A  Corn Creek, Al    88.45  49 ⇓P        P         00 57 01.3 +0.1
      baz=89
W13A  Hualapai Mount    88.47  52 ⇓P        P         00 57 01.4  0.0
      baz=89
CIT   Chita             88.52 328 eP        P         00 57 00.8 -0.3
CIT                               e                   00 57 11.5
CIT                                pmax     pmax
      comp=Z,85nm,1.6s,mb5.8
F05A  White Salmon      88.53  40 ⇓P        P         00 57 02.0 +0.7
      baz=89
BMN   Battle Mountai    88.53  46 eP        P         00 57 02.0 +0.5
U12A  Valley of Fire    88.58  50 ⇑P        P         00 57 01.9 +0.1
      baz=89
J07A  Hines             88.59  42 ⇑P        P         00 57 01.7 +0.1
      baz=89
C04A  Brinnon           88.61  37 ⇑P        P         00 57 01.9 +0.2
      baz=89
H06A  Lindquist Farm    88.63  41 ⇑P        P         00 57 01.8  0.0
      baz=89,SNR=8.3
Y14A  Wickenburg        88.63  53 ⇑P        P         00 57 01.7 -0.4
      baz=89
L08A  Fields            88.63  44 ⇓P        P         00 57 02.1 +0.3
      baz=89,SNR=12
P10A  Eureka            88.67  47 ⇑P        P         00 57 02.3 +0.2
      baz=89
115A  Sonoran Desert    88.69  54 ⇑P        P         00 57 02.4  0.0
      baz=89
G06A  Carlson Farm,     88.70  40 ⇓P        P         00 57 02.9 +0.8
      baz=89
E05A  Randle            88.70  39 ⇑P        P         00 57 02.7 +0.6
      baz=89
MCK   McKinley          88.76  16  P        P         00 57 02.8 +0.8
VNA3  Neumayer Olymp    88.79 179 eP        P         00 57 00.9 -1.4
VNA3                              e                   00 57 03.3
VNA3                              e                   00 57 06.3
K08A  Mann Creek Ran    88.80  43 ⇑P        P         00 57 02.8 +0.2
      baz=89,SNR=8.8
I07A  Izee              88.81  42 ⇑P        P         00 57 02.9 +0.2
      baz=89,SNR=5.9
YAK   Yakutsk           88.86 341 eP        P         00 57 02.1 -0.4
      comp=Z,30nm,1.3s,mb5.5
YAK   Yakutsk           88.86 341 eP        P         00 57 02.1 -0.4
YAK                                pmax     pmax
      comp=Z,30nm,1.3s,mb5.5
Q11A  Duckwater         88.87  48 ⇓P        P         00 57 03.3 +0.2
      baz=89,SNR=11
F06A  Goldendale        88.88  40 ⇓P        P         00 57 03.3 +0.4
      baz=89
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S12A  Delamar Landin    88.88  49 ⇑P        P         00 57 03.5 +0.3
      baz=89
D05A  Enumclaw          88.90  38 ⇑P        P         00 57 03.4 +0.4
      baz=89
X14A  Yava              88.94  53  P        P         00 57 04.1 +0.6
      baz=89,SNR=7.8
O10A  Cortez Mining,    88.95  46 ⇓P        P         00 57 03.5  0.0
      baz=89
L09A  Wilkinson Ranc    88.99  44 ⇑P        P         00 57 03.9 +0.4
      baz=89
116A  Eloy              89.03  55 ⇑P        P         00 57 04.1  0.0
      baz=89,SNR=6.1
J08A  Circle Bar Ran    89.11  43  P        P         00 57 04.3 +0.2
      baz=89,SNR=8.3
W14A  Seligman          89.11  52 ⇓P        P         00 57 04.8 +0.4
      baz=89,SNR=7.9
P11A  Circle Ranch,     89.12  47 ⇑P        P         00 57 04.3 +0.1
      baz=89
VNA2  Neumayer--Watz    89.13 180 eP        P         00 57 02.9 -0.9
VNA2                              e                   00 57 05.4
VNA2                              e                   00 57 08.8
N10A  Dunphy            89.15  46 ⇑P        P         00 57 04.5 +0.2
      baz=89
E06A  Yakima            89.16  39 ⇑P        P         00 57 04.8 +0.5
      baz=89
K09A  Rome              89.28  44  P        P         00 57 05.0 +0.2
      baz=90,SNR=15
T13A  Saint George      89.29  50 ⇑P        P         00 57 05.5 +0.4
      baz=90,SNR=6.0
A04A  Legoe Bay, Lum    89.30  37 ⇑P        P         00 57 05.1 +0.3
      baz=90
G07A  Ruggs Ranch, H    89.30  41  P        P         00 57 05.1 +0.1
      baz=90,SNR=8.9
I08A  Drewsey           89.32  42 ⇑P        P         00 57 05.1  0.0
      baz=90
C05A  Tolt Reservoir    89.34  38 ⇑P        P         00 57 04.7 -0.3
      baz=90,SNR=5.4
R12A  Pony Springs,     89.37  49 ⇓P        P         00 57 05.6 +0.2
      baz=90,SNR=9.4
B05A  Bryant            89.40  37 ⇑P        P         00 57 05.3  0.0
      baz=90,SNR=5.2
X15A  Humboldt          89.43  53  P        P         00 57 06.4 +0.6
      baz=90,SNR=11
O11A  Cowboy Ranch,     89.45  47 ⇓P        P         00 57 06.0 +0.2
      baz=90,SNR=14
F07A  Phinny Hill Vi    89.46  40 ⇓P        P         00 57 05.5 -0.2
      baz=90
M10A  I.L. Ranch, Tu    89.50  45 ⇑P        P         00 57 06.2 +0.2
      baz=90,SNR=17
Q12A  Willow Creek R    89.53  48  P        P         00 57 06.5 +0.3
      baz=90,SNR=9.4
H08A  Prairie City      89.55  42 ⇑P        P         00 57 06.3 +0.2
      baz=90
J09A  Fry Pan Ranch,    89.56  43  P        P         00 57 06.3 +0.1
      baz=90,SNR=19
D06A  Cle Elum          89.57  39 ⇑P        P         00 57 06.1 -0.1
      baz=90
S13A  Holt Ranch, En    89.57  50 ⇓P        P         00 57 06.6 +0.2
      baz=90,SNR=7.5
IMA2  Indian Mountai    89.61  13 eP        P         00 57 04.4 -1.5
P12A  McGill            89.67  47 ⇑P        P         00 57 07.0 +0.2
      baz=90,SNR=8.9
W15A  Williams          89.70  52 ⇑P        P         00 57 07.6 +0.5
      baz=90
N11A  Elko Archery C    89.71  46 ⇓P        P         00 57 07.3 +0.3
      baz=90
ULN   Ulaanbaatar       89.73 322d iP       P         00 57 07.5 +0.6
G08A  Pilot Rock        89.75  41  P        P         00 57 07.2 +0.1
      baz=90,SNR=14
A05A  Maple Falls       89.79  37 ⇓P        P         00 57 07.1 -0.1
      baz=90
L10A  Juniper Basin     89.80  45 ⇓P        P         00 57 07.5 +0.1
      baz=90,SNR=15
E07A  Sunnyside         89.83  40 ⇓P        P         00 57 07.4  0.0
      baz=90,SNR=6.2
K10A  MacKenzie Ranc    89.87  44  P        P         00 57 07.9 +0.2
      baz=90,SNR=9.5
T14A  Hurricane         89.91  50  P        P         00 57 08.4 +0.4
      baz=90,SNR=9.8
CCUT  Cedar City        89.92  50 eP        P         00 57 08.7 +0.7
HAWA  Hanford           89.94  40 eP        P         00 57 08.3 +0.4
M11A  Holland Ranch,    89.96  45 ⇑P        P         00 57 08.7 +0.6
      baz=90
ARUT  Antelope Range    89.96  49 eP        P         00 57 08.7 +0.5
COLA  College           89.97  16  P        P         00 57 05.6 -2.0
D07A  Quincy            90.08  39 ⇑P        P         00 57 08.4 -0.2
      baz=90
SONM  Songino Array     90.10 322  P        P         00 57 08.5 -0.1
      comp=Z,3.3nm,1.1s,mb4.6,baz=146,slow=5.2,SNR=15
O12A  Currie            90.14  47  P        P         00 57 09.2 +0.3
      baz=90,SNR=7.9
A06A  Chilliwack        90.19  37 ⇓P        P         00 57 08.6 -0.4
      baz=90
N12A  Clover Valley,    90.20  46 ⇑P        P         00 57 09.2 -0.1
      baz=90,SNR=11
H09A  Durkee            90.25  42 ⇓P        P         00 57 09.3 -0.1
      baz=90
E08A  Dider Farm, El    90.28  40 ⇑P        P         00 57 09.4 -0.1
      baz=90,SNR=6.7
C07A  Waterville        90.28  38 ⇓P        P         00 57 08.9 -0.6
      baz=90
L11A  Cat Creek Ranc    90.32  45 ⇓P        P         00 57 10.1 +0.3
      baz=90,SNR=14
GTA   Gaotai            90.33 312 ⇑P        P         00 57 10.8 +0.9
GTA                                PP       PP        01 00 49.5 +4.4
GTA                                SKS                01 07 28.3
GTA                                S        S         01 07 52.5 -6.9
GTA                                SS       SS        01 13 59.3 -1.9
GTA                                AMB      AMB
      comp=Z,17nm,1.5s,mb5.2
GTA                                AMB      AMB
      comp=Z,154nm,6.1s
GTA                                LR       LR
      comp=N,200nm,17.9s
GTA                                LR       LR
      comp=E,266nm,19.8s
GTA                                LR       LR
      comp=Z,212nm,19.0s
T15A  Red Dirt Ranch    90.39  51 ⇑P        P         00 57 10.7 +0.4
      baz=91,SNR=7.7
K11A  Parker Ranch,     90.41  44 ⇑P        P         00 57 10.4 +0.2
      baz=91,SNR=6.0
WUAZ  Wupatki           90.51  52 eP        P         00 57 11.4 +0.6
WUAZ  Wupatki           90.51  52 ⇓P        P         00 57 11.3 +0.4
      baz=91,SNR=10
I10A  Payette           90.52  43 ⇑P        P         00 57 10.9 +0.3
      baz=91
M12A  Wells             90.54  46 ⇓P        P         00 57 11.1 +0.3
      baz=91,SNR=10
BMO   Blue Mountains    90.56  42 eP        P         00 57 09.5 -1.3
      comp=Z,20nm,1.5s,mb5.2
BMO   Blue Mountains    90.56  42 eP        P         00 57 09.5 -1.4
BMO                                pmax     pmax
      comp=Z,20nm,1.5s,mb5.2
F09A  S2 Ranch, Elgi    90.60  41 ⇓P        P         00 57 10.9 -0.1
      baz=91
B07A  Winthrop          90.63  38 ⇓P        P         00 57 10.9 -0.2
      baz=91,SNR=5.6
D08A  Wollman Farm,     90.64  39  P        P         00 57 11.0 -0.1
      baz=91,SNR=5.2
N13A  Wendover, West    90.77  46 ⇑P        P         00 57 12.0 +0.1
      baz=91,SNR=8.9
A07A  Ashnola River,    90.78  37  P        P         00 57 11.7  0.0
      baz=91,SNR=5.7
H10A  Noah’s Angus R    90.79  42 ⇓P        P         00 57 11.3 -0.7
      baz=91,SNR=8.8
L12A  House Creek Ra    90.80  45 ⇓P        P         00 57 12.1 +0.1
      baz=91,SNR=7.5
MFID  Camas Ranch       90.84  44 ⇓P        P         00 57 11.9 -0.3
      baz=91,SNR=7.6
E09A  Wood Farm, Sta    90.84  40 ⇑P        P         00 57 11.4 -0.7
      baz=91
C08A  Higginbotham F    90.92  39 ⇑P        P         00 57 11.7 -0.7
      baz=91
I11A  Placerville       90.98  43 ⇓P        P         00 57 12.6 -0.3
      baz=91
D09A  Jones Farm, Ri    91.00  40  P        P         00 57 12.7 -0.2
      baz=91,SNR=9.7
M13A  Montello          91.02  46 ⇓P        P         00 57 12.9 -0.2
      baz=91,SNR=23
B08A  Colville Reser    91.04  38 ⇑P        P         00 57 12.1 -0.8
      baz=91,SNR=6.2
K12A  Draper Farm, C    91.09  45 ⇑P        P         00 57 13.3  0.0
      baz=91,SNR=5.7
F10A  Beach Ranch, E    91.14  41  P        P         00 57 12.9 -0.6
      baz=91,SNR=6.5
MSU   Marysvale         91.17  49 eP        P         00 57 15.1 +1.2
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J12A  Stokes Ranch,     91.24  44 ⇑P        P         00 57 14.0  0.0
      baz=91,SNR=17
H11A  Donnelly          91.31  42  P        P         00 57 14.2 -0.2
      baz=92,SNR=9.4
A08A  Turner Farm, O    91.36  38 ⇓P        P         00 57 14.3 -0.2
      baz=92,SNR=7.1
DUG   Dugway            91.44  48 ⇓P        P         00 57 14.9 -0.1
      baz=92,SNR=6.5
L13A  Double Diamond    91.49  45 ⇑P        P         00 57 15.4 +0.2
      baz=92
D10A  Wagner Farm, O    91.62  40 ⇑P        P         00 57 14.9 -0.9
      baz=92
M14A  Sheep Mountain    91.63  46 ⇑P        P         00 57 15.8 -0.2
      baz=92,SNR=12
K13A  Stover Farm, H    91.64  45 ⇑P        P         00 57 16.2 +0.3
      baz=92,SNR=6.0
EGAK  Eagle             91.71  18 eP        P         00 57 14.9 -0.8
      comp=Z,4.9nm,0.8s,mb4.9
DAWY  Dawson            91.72  19 eP        P         00 57 15.2 -0.6
B09A  Rice              91.76  38 ⇑P        P         00 57 15.7 -0.6
      baz=92
F11A  Grangeville       91.77  41 ⇓P        P         00 57 16.0 -0.4
      baz=92
A09A  Danville          91.77  38 ⇑P        P         00 57 15.7 -0.6
      baz=92
HLID  Hailey            91.82  44 eP        P         00 57 17.4 +0.6
HLID  Hailey            91.82  44 ⇓P        P         00 57 16.8  0.0
      baz=92
J13A  Cove Ranch, Pi    91.91  44 ⇑P        P         00 57 17.2  0.0
      baz=92,SNR=5.0
E11A  Bogner Ranch,     91.95  41 ⇓P        P         00 57 16.0 -1.3
      baz=92
H12A  Diamond D Ranc    91.98  43 ⇓P        P         00 57 17.0 -0.4
      baz=92,SNR=7.1
I13A  Wildhorse Cree    92.17  44 ⇑P        P         00 57 18.4 +0.1
      baz=92,SNR=5.0
MPU   Maple Canyon      92.18  48 eP        P         00 57 19.3 +0.8
K14A  Jones Ranch, D    92.20  45 ⇓P        P         00 57 18.5  0.0
      baz=92
M15A  Larsen Ranch,     92.23  46 ⇑P        P         00 57 18.1 -0.5
      baz=92
F12A  Elk City          92.27  42  P        P         00 57 18.1 -0.6
      baz=92,SNR=7.2
NEW   Newport           92.28  39  P        P         00 57 18.3 -0.5
A10A  Northport         92.37  38 ⇓P        P         00 57 18.8 -0.3
      baz=93
H13A  Challis           92.37  43 ⇑P        P         00 57 18.9 -0.3
      baz=92,SNR=6.4
JLU   Jordanelle        92.55  48 eP        P         00 57 20.7 +0.5
SRU   San Rafael        92.60  49 eP        P         00 57 20.8 +0.4
DAU   Daniels Canyon    92.61  48 eP        P         00 57 20.2 -0.2
G13A  Cobalt            92.61  43 ⇑P        P         00 57 19.9 -0.5
      baz=93
B11A  Sandpoint         92.81  39 ⇓P        P         00 57 20.8 -0.4
      baz=93
HWUT  Hardware Ranch    92.89  47 eP        P         00 57 21.6 -0.1
LSA   Lhasa             93.01 300 eP        P         00 57 23.4 +0.8
A11A  Hall Mountain,    93.05  39 ⇓P        P         00 57 22.2 -0.1
      baz=93
ZAK   Zakamensk         93.13 323 eP        P         00 57 22.3 -0.3
ZAK                                pmax     pmax
      comp=Z,5.0nm,1.4s,mb4.8
G14A  Jackson           93.17  43 ⇑P        P         00 57 22.6 -0.4
      baz=93
E13A  Victor            93.23  41 ⇓P        P         00 57 22.9 -0.3
      baz=93
LAZ   Ladron            93.26  55 eP        P         00 57 23.9 +0.3
MVCO  Mesa Verde        93.31  52 ⇑P        P         00 57 22.7 -1.0
      baz=94
F14A  Wisdom            93.47  42 ⇑P        P         00 57 23.5 -0.8
      baz=94
BNM   Barren Site       93.56  55 eP        P         00 57 25.2 +0.2
PV01  Paradox Valley    93.62  51 eP        P         00 57 24.1 -1.1
LPM   Los Pinos Moun    93.62  55 eP        P         00 57 25.3 +0.1
MNTX  Cornudas Mount    93.63  58 eP        P         00 57 25.5 +0.1
      comp=Z,14nm,1.2s,mb5.3
D14A  Greenough         93.94  41 ⇑P        P         00 57 26.2 -0.2
      baz=94
ANMO  Albuquerque       93.99  54  P        P         00 57 26.7 -0.3
      comp=Z,26nm,1.6s,mb5.4
ANMO  Albuquerque       93.99  54⇓eP        P         00 57 27.4 +0.5
F15A  Butte             94.04  42 ⇓P        P         00 57 26.5 -0.4
      baz=94
REDW  Red Top Meadow    94.09  45 eP        P         00 57 27.6 +0.4
TXAR  Lajitas Array     94.17  60  P        P         00 57 27.9  0.0
      comp=Z,3.5nm,0.8s,mb4.8,baz=223,slow=5.5,SNR=45
TXAR                               PKKPbc   PKKPbc    01 14 28.5 -0.9
      comp=Z,0.3nm,0.6s,baz=104,slow=4.3,SNR=4.0
BOZ   Bozeman (W)       94.51  43 ⇓P        P         00 57 28.8 -0.3
      baz=95
D15A  Lincoln           94.53  41 ⇓P        P         00 57 28.9 -0.2
      baz=95
GDL2  Guadalupe Moun    94.62  58 eP        P         00 57 30.3 +0.4
BW06  Boulder Array     94.72  46 eP        P         00 57 29.4 -0.7
      comp=Z,13nm,1.6s,mb5.1
PDAR  Pinedale Array    94.72  46  P        P         00 57 29.1 -1.0
      comp=Z,1.8nm,0.9s,mb4.5,baz=191,slow=4.5,SNR=11
SDCO  Great Sand Dun    95.72  52 eP        P         00 57 34.9  0.0
      comp=Z,4.8nm,1.1s,mb4.8
INK   Inuvik            96.37  18  P        P         00 57 35.1 -1.9
      comp=Z,3.2nm,1.0s,mb4.7,baz=234,slow=5.7,SNR=5.1
TIXI  Tiksi             96.41 347 i P       P         00 57 35.3 -1.9
TIXI                               pmax     pmax
      comp=Z,2.0nm,1.1s,mb4.5
YKA   Yellowknife Ar    99.92  27  P        Pdif      00 57 52.1 -1.4
      comp=Z,0.1nm,0.3s,baz=249,slow=4.5,SNR=5.1
WMQ   Urumqi           100.40 313  P        Pdif      00 57 56.5 +0.9
WMQ                                LR       LR
      comp=N,115nm,30.9s
WMQ                                LR       LR
      comp=E,244nm,37.2s
WMQ                                LR       LR
      comp=Z,73nm,19.2s
MKAR  Makanchi Array   104.87 315  Pdif     Pdif      00 58 16.4 +0.9
MKAR                               PKKPbc   PKKPbc    01 13 56.6 -3.1
MKAR  Makanchi Array   104.87 315  Pdiff    Pdif      00 58 16.4 +0.9
      comp=Z,1.3nm,0.6s,baz=93,slow=5.6,SNR=24
MKAR                               PKKPbc   PKKPbc    01 13 56.6 -3.1
      comp=Z,0.3nm,0.7s,baz=287,slow=4.7,SNR=3.9
SDV   Santo Domingo    117.75  90  PKPdf    PKPdf     01 02 57.1 +1.3
ARU   Arti             120.05 324 ePKPdf    PKPdf     01 02 58.6 -0.3
ARU   Arti             120.05 324 i PKIKP   PKPdf     01 02 58.2 -0.6
ARU                               e                   01 04 24.9
ARU                               e                   01 09 43.4
ARCES ARCESS Array B   126.84 346  PKP      PKPdf     01 03 10.7 -0.8
ARCES ARCESS Array B   126.84 346  PKIKP    PKPdf     01 03 10.7 -0.8
ARCES ARCESS Array B   126.84 346  PKP      PKPdf     01 03 10.7 -0.8
      comp=Z,2.1nm,0.8s,baz=316,slow=5.0,SNR=3.6
FINES FINESS Array B   132.75 339  PKP      PKPdf     01 03 22.5 -0.5
FINES FINESS Array B   132.75 339  PKIKP    PKPdf     01 03 22.5 -0.5
FINES FINESS Array B   132.75 339  PKP      PKPdf     01 03 22.5 -0.5
      comp=Z,0.8nm,0.7s,baz=94,slow=7.6,SNR=4.1
MALT  Malatya          136.88 305 ePKPdf    PKPdf     01 03 30.6 -0.9
MALT  Malatya          136.88 305 ePKIKP    PKPdf     01 03 30.6 -0.8
BRTR  Keskin Array B   140.15 308  PKP      PKPdf     01 03 36.5 -0.8
BRTR  Keskin Array B   140.15 308  PKIKP    PKPdf     01 03 36.6 -0.8
BRTR  Keskin Array B   140.15 308  PKP      PKPdf     01 03 36.5 -0.8
      comp=Z,0.7nm,0.9s,baz=115,slow=1.8,SNR=4.3
IAS   Iasi             141.09 322  P        PKPdf     01 03 41.3 +2.5
IAS   Iasi             141.09 322  PKIKP    PKPdf     01 03 41.3 +2.5
MLR   Muntele Rosu     142.94 321 ⇑P        PKPdf     01 03 42.0 -0.2
MLR   Muntele Rosu     142.94 321 ⇑PKIKP    PKPdf     01 03 42.0 -0.2
MLR   Muntele Rosu     142.94 321⇑iP        PKPdf     01 03 42.0 -0.2
UZH   Uzhgorod         143.12 327⇓iPKIKP    PKPdf     01 03 39.3 -3.1
DRGR                   144.05 324  P        PKPdf     01 03 42.8 -1.3
DRGR                   144.05 324  PKIKP    PKPdf     01 03 42.8 -1.3
DRGR                   144.05 324⇓iP        PKPdf     01 03 41.8 -2.3
KECS  Kecovo           144.12 328 ePKP      PKPdf     01 03 41.5 -2.7
KECS  Kecovo           144.12 328 ePKIKP    PKPdf     01 03 41.5 -2.7
KECS  Kecovo           144.12 328 ePKP      PKPdf     01 03 41.5 -2.7
ZIMR                   144.25 318  P        PKPdf     01 03 43.4 -1.2
ZIMR                   144.25 318  PKIKP    PKPdf     01 03 43.4 -1.1
OKC   Ostrava-Krasne   144.27 332 ePKP      PKPdf     01 03 42.4 -2.0
OKC   Ostrava-Krasne   144.27 332 ePKIKP    PKPdf     01 03 42.4 -2.0
OKC   Ostrava-Krasne   144.27 332 ePKP      PKPdf     01 03 42.4 -2.0
OKC                                AMS      AMS       02 06 50.0
      comp=Z,300nm,18.2s
KSP   Ksiaz            144.30 334 ePKP      PKPdf     01 03 42.9 -1.5
KSP   Ksiaz            144.30 334 ePKP      PKPdf     01 03 42.5 -1.9
KSP   Ksiaz            144.30 334 ePKIKP    PKPdf     01 03 42.5 -1.9
MORC  Moravsky Berou   144.58 332 ⇑P        PKPdf     01 03 43.4 -1.5
MORC  Moravsky Berou   144.58 332 ⇑PKIKP    PKPdf     01 03 43.4 -1.5
MORC  Moravsky Berou   144.58 332⇑iP        PKPdf     01 03 43.4 -1.5
DPC   Dobruska-Polom   144.67 334 ePKP      PKPdf     01 03 44.0 -1.0
DPC                               e                   01 03 48.8
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DPC				LR	LR		
	comp=Z,400nm,16.1s						
DPC	Dobruska-Polom	144.67	334	ePKIKP	PKPdf	01 03 44.0	-1.0
DPC				MLR	MLR		
	comp=Z,400nm,16.1s						
DPC	Dobruska-Polom	144.67	334	ePKP	PKPdf	01 03 44.0	-1.0
DPC				ex	x	01 03 48.8	
DPC				AMS	AMS	02 09 30.0	
	comp=Z,400nm,16.1s						
UPC	Upice	144.67	334	ePKP	PKPdf	01 03 44.0	-1.0
UPC	Upice	144.67	334	ePKIKP	PKPdf	01 03 44.0	-1.0
UPC	Upice	144.67	334	ePKP	PKPdf	01 03 44.0	-1.0
PSZ	Piszkesteto	144.80	328	⇓P	PKPdf	01 03 44.9	-0.5
PSZ	Piszkesteto	144.80	328	⇓PKIKP	PKPdf	01 03 44.9	-0.4
PSZ	Piszkesteto	144.80	328	⇓ePKP/F	PKPdf	01 03 44.7	-0.6
PSZ	Piszkesteto	144.80	328	⇓iP	PKPdf	01 03 44.9	-0.4
GZR	Gura Zlata	144.85	323	P	PKPdf	01 03 44.9	-0.6
GZR	Gura Zlata	144.85	323	⇑PKHKP		01 03 44.2	
GZR	Gura Zlata	144.85	323	⇑iP	PKPdf	01 03 44.2	-1.3
CRAR	CRAIOVA	144.85	320	PKIKP	PKPdf	01 03 46.1	+0.5
VYHS	Vyhne	144.91	330	i PKP	PKPdf	01 03 44.9	-0.6
VYHS	Vyhne	144.91	330	i PKIKP	PKPdf	01 03 44.9	-0.6
VYHS	Vyhne	144.91	330	i PKP	PKPdf	01 03 44.9	-0.6
KOLL	Kolacno	145.06	330	i PKP	PKPdf	01 03 45.3	-0.5
KOLL	Kolacno	145.06	330	i PKIKP	PKPdf	01 03 45.3	-0.5
KOLL	Kolacno	145.06	330	i PKP	PKPdf	01 03 45.3	-0.5
NRDL	Niedersach Rie	145.11	342	ePKPbc	PKPbc	01 03 44.8	-0.5
CLL	Collm	145.18	338	⇑iPKP	PKPdf	01 03 45.1	-0.8
CLL				i		01 03 50.7	
CLL	Collm	145.18	338	⇑iPKIKP	PKPdf	01 03 45.1	-0.8
CLL	Collm	145.18	338	ePKPbc	PKPbc	01 03 45.1	-0.5
CLL	Collm	145.18	338	⇑iPKPdf	PKPdf	01 03 45.1	-0.8
	comp=Z,51nm,1.0s						
CLL				i PKiKP	PKiKP	01 03 50.7	+0.9
CLL				LmV		02 13 00.0	
	comp=Z,300nm,19.1s						
BRG	Berggiesshubel	145.19	337	⇑iPKP	PKPdf	01 03 45.5	-0.4
BRG				i		01 03 50.6	
BRG				epPKP	pPKPdf	01 04 22.9	+19
BRG	Berggiesshubel	145.19	337	⇑iPKIKP	PKPdf	01 03 45.5	-0.4
BRG	Berggiesshubel	145.19	337	ePKPbc	PKPbc	01 03 45.0	-0.6
BRG	Berggiesshubel	145.19	337	⇑iPKP	PKPdf	01 03 45.5	-0.4
	comp=Z,135nm,1.7s						
BRG				i		01 03 50.6	
	comp=Z,28nm,1.0s						
BRG				epPKP	pPKPdf	01 04 22.9	+19
	comp=Z,37nm,1.8s						
PVCC	Panska Ves	145.23	336	ePKP	PKPdf	01 03 45.9	-0.1
PVCC				e		01 03 51.3	
PVCC				LR	LR		
	comp=Z,400nm,19.5s						
PVCC	Panska Ves	145.23	336	ePKIKP	PKPdf	01 03 45.9	-0.1
PVCC				MLR	MLR		
	comp=Z,400nm,19.5s						
PVCC	Panska Ves	145.23	336	ePKP	PKPdf	01 03 45.9	-0.1
PVCC				ex	x	01 03 51.3	
PVCC				AMS	AMS	02 12 10.0	
	comp=Z,400nm,19.5s						
VRAC	Vranov	145.34	333	P	PKPbc	01 03 46.2	0.0
VRAC	Vranov	145.34	333	⇑PKIKP	PKPdf	01 03 46.0	-0.2
VRAC	Vranov	145.34	333	PKIKP	PKPdf	01 03 46.2	0.0
VRAC	Vranov	145.34	333	⇑iP	PKPbc	01 03 46.0	-0.2
FBE	Freiberg	145.37	337	ePKPbc	PKPbc	01 03 46.1	-0.1
BUD	Budapest	145.52	328	⇑ePKP/F	PKPbc	01 03 46.8	0.0
SMOL	Smolenice	145.56	331	ePKP	PKPdf	01 03 47.0	+0.4
SMOL	Smolenice	145.56	331	ePKIKP	PKPdf	01 03 47.0	+0.4
SMOL	Smolenice	145.56	331	ePKP	PKPdf	01 03 47.0	+0.4
CLZ	Clausthal	145.60	341	ePKPbc	PKPbc	01 03 46.6	-0.3
CLZ	Clausthal	145.60	341	ePKIKP	PKPdf	01 03 46.6	0.0
CLZ	Clausthal	145.60	341	ePKPbc	PKPbc	01 03 46.6	-0.3
PRU	Pruhonice	145.67	335	ePKP	PKPdf	01 03 46.7	-0.1
PRU				LR	LR		
	comp=Z,400nm,16.4s						
PRU	Pruhonice	145.67	335	ePKP2	PKPab	01 03 46.7	-0.8
PRU				MLR	MLR		
	comp=Z,400nm,16.4s						
PRU	Pruhonice	145.67	335	ePKP	PKPdf	01 03 46.7	-0.1
PRU				AMS	AMS	02 08 50.0	
	comp=Z,400nm,16.4s						
TREC	Trest	145.82	333	ePKP2	PKPab	01 03 47.5	-0.7
TREC				MLR	MLR		
	comp=Z,400nm,21.7s						
TREC	Trest	145.82	333	ePKP	PKPdf	01 03 47.5	+0.4
TREC				AMS	AMS	02 12 40.0	
	comp=Z,400nm,21.7s						
IBBN	Ibbenburen	145.93	344	ePKPbc	PKPbc	01 03 47.9	0.0
ZST	Bratislava	145.94	331	ePKP	PKPdf	01 03 48.4	+1.1
ZST				LR	LR		
	comp=Z,200nm,21.2s						
ZST	Bratislava	145.94	331	ePKP2	PKPab	01 03 48.4	-0.2
ZST				MLR	MLR		
	comp=Z,200nm,21.2s						
ZST	Bratislava	145.94	331	ePKP	PKPdf	01 03 48.4	+1.1
TANN	Tannenbergstha	146.11	337	ePKPbc	PKPbc	01 03 48.0	-0.5
WERD	Werda	146.14	338	ePKPbc	PKPbc	01 03 48.1	-0.5
VTS	Vitosha	146.15	318	⇑P	PKPdf	01 03 49.4	+1.6
VTS	Vitosha	146.15	318	⇑PKP2	PKPab	01 03 49.4	-0.2
VTS	Vitosha	146.15	318	⇑iP	PKPdf	01 03 49.4	+1.6
GUNZ	Gunzen	146.20	338	ePKPbc	PKPbc	01 03 48.8	0.0
MOX	Moxa	146.22	339	ePKP	PKPdf	01 03 49.2	+1.5
MOX	Moxa	146.22	339	ePKP	PKPdf	01 03 49.2	+1.5
	comp=Z,61nm,1.9s						
MOX	Moxa	146.22	339	ePKP2	PKPab	01 03 49.2	-0.4
MOX	Moxa	146.22	339	ePKPbc	PKPbc	01 03 48.4	-0.4
WERN	Wernitzgruen	146.25	337	ePKPbc	PKPbc	01 03 48.5	-0.4
NKC	Novy Kostel	146.26	337	ePKP	PKPdf	01 03 48.8	+1.0
NKC				e		01 03 55.4	
NKC	Novy Kostel	146.26	337	ePKP2	PKPab	01 03 48.8	-1.0
NKC	Novy Kostel	146.26	337	ePKP	PKPdf	01 03 48.8	+1.0
NKC				ex	x	01 03 55.4	
NKC				AMS	AMS	02 07 10.0	
	comp=Z,300nm,19.6s						
SOP	Sopron	146.56	331	⇓ePKP/F	PKPbc	01 03 50.3	+0.4
PKSM	Moragy	146.58	327	⇓P	PKPdf	01 03 49.2	+0.7
PKSM	Moragy	146.58	327	⇓PKP2	PKPdf	01 03 49.2	+0.7
PKSM	Moragy	146.58	327	⇓iP	PKPdf	01 03 49.2	+0.7
CONA	Conrad Observa	146.70	332	⇑iPKPab	PKPab	01 03 50.3	-1.2
	comp=Z,28nm,1.4s,SNR=8.1						
KHC	Kasperske Hory	146.73	335	ePKP	PKPdf	01 03 49.9	+1.3
KHC				e		01 03 59.0	
KHC				LR	LR		
	comp=Z,500nm,24.3s						
KHC	Kasperske Hory	146.73	335	⇑iPKP2	PKPab	01 03 50.4	-1.2
KHC	Kasperske Hory	146.73	335	ePKP	PKPdf	01 03 49.9	+1.3
KHC				ex	x	01 03 59.0	
KHC				AMS	AMS	02 01 20.0	
	comp=Z,500nm,24.3s						
ROTZ	Rotzenmuhle	146.74	337	ePKPbc	PKPbc	01 03 49.5	-0.9
BUG	Bochum--Univer	146.85	344	ePKPbc	PKPbc	01 03 50.4	-0.2
GEC2	GERESS Array S	146.91	335	ePKPbc	PKPbc	01 03 50.3	-0.6
GEC2	GERESS Array S	146.91	335	ePKP2	PKPbc	01 03 50.3	-0.6
GEC2	GERESS Array S	146.91	335	ePKPbc	PKPbc	01 03 50.3	-0.6
GERES	GERESS Array B	146.91	335	PKPbc	PKPbc	01 03 50.8	-0.1
GERES	GERESS Array B	146.91	335	PKP2	PKPab	01 03 50.8	-1.6
GERES	GERESS Array B	146.91	335	PKPbc	PKPbc	01 03 50.8	-0.1
	comp=Z,3.6nm,0.7s,baz=38,slow=2.4,SNR=21						
WET	Wettzell	147.00	336	ePKPbc	PKPbc	01 03 50.6	-0.5
WET	Wettzell	147.00	336	ePKP2	PKPbc	01 03 50.6	-0.5
WET	Wettzell	147.00	336	ePKPbc	PKPbc	01 03 50.6	-0.5
APE	Apeiranthos	147.03	308	⇑P	PKPdf	01 03 50.3	+0.8
APE	Apeiranthos	147.03	308	⇑PKP2	PKPbc	01 03 50.3	-1.3
APE	Apeiranthos	147.03	308	⇑iP	PKPdf	01 03 50.3	+0.8
GRA1	Grafenberg Arr	147.16	338	ePKPbc	PKPbc	01 03 51.8	+0.2
GRF	Grafenberg Arr	147.16	338	ePKP	PKPbc	01 03 51.8	+0.2
GRF	Grafenberg Arr	147.16	338	ePKP2	PKPab	01 03 51.8	-1.5
GRF	Grafenberg Arr	147.16	338	ePKP2	PKPab	01 03 51.8	-1.5
GRF	Grafenberg Arr	147.16	338	ePKPbc	PKPbc	01 03 51.8	+0.2
VAY	Valandovo	147.22	317	ePKP	PKPdf	01 03 48.1	-1.5
STIP	Stip	147.27	317	ePKP	PKPdf	01 03 49.1	-0.6
SANT	Santorini	147.34	307	ePKPdf	PKPdf	01 03 51.5	+1.4
ARSA	Arzberg	147.35	331	⇑iP	PKPdf	01 03 51.4	+1.7
	comp=Z,14nm,1.6s						
ARSA	Arzberg	147.35	331	⇑iPKPbc	PKPbc	01 03 51.4	-0.8
	comp=Z,14nm,1.6s						
SKO	Skopje	147.59	318	ePKP	PKPdf	01 03 48.5	-1.8
TNS	Taunus Mts	147.60	341	ePKPbc	PKPbc	01 03 51.8	-1.0
TNS	Taunus Mts	147.60	341	ePKP2	PKPbc	01 03 51.8	-1.0
TNS	Taunus Mts	147.60	341	ePKPbc	PKPbc	01 03 51.8	-1.0
HGN	Heimansgroeve	147.81	344	ePKP	PKPbc	01 03 55.4	+2.1
	comp=Z,51nm,1.7s						
BEBN	Eben Emael	147.84	345	PKPab	PKPbc	01 03 55.2	+1.8
MEM	Membach	147.93	344	PKPab	PKPbc	01 03 55.5	+1.9
KRUS	Krusevo	148.03	318	ePKP	PKPdf	01 03 49.5	-1.5
BIA	Bitola	148.17	317	ePKP	PKPdf	01 03 49.7	-1.6
BCLA	Clavier	148.28	345	PKPab	PKPbc	01 03 57.1	+2.5
FUR	Furstenfeldbru	148.41	336	ePKPbc	PKPbc	01 03 54.3	-0.7
FUR	Furstenfeldbru	148.41	336	ePKP2	PKPbc	01 03 54.3	-0.7
FUR	Furstenfeldbru	148.41	336	ePKPbc	PKPbc	01 03 54.3	-0.7
SNF	Seneffe	148.44	346	PKPab	PKPbc	01 03 58.1	+3.1
OHR	Ohrid	148.46	318	ePKP	PKPdf	01 03 50.2	-1.6
GIVF	Givet	148.69	345	⇑iPKP1	PKPbc	01 03 55.1	-0.5
GIVF	Givet	148.69	345	⇑iPKP	PKPbc	01 03 55.1	-0.5
GIVF	Givet	148.69	345	⇑iPKP2	PKPbc	01 03 55.1	-0.5
VISS	Visnje	148.75	330	i PKPdf	PKPbc	01 03 55.3	-0.6
VISS	Visnje	148.75	330	i PKPdf	PKPbc	01 03 55.3	-0.6
DOU	Dourbes	148.75	345	PKPab	PKPbc	01 03 59.6	+3.8
WLF	Walferdange	148.76	343	ePKP	PKPbc	01 03 54.5	-1.3
WLF	Walferdange	148.76	343	ePKP2	PKPbc	01 03 54.5	-1.3
WLF	Walferdange	148.76	343	PKPab	PKPab	01 04 00.6	+0.9
BOJS	Bojanci	148.77	329	i PKPdf	PKPbc	01 03 55.7	-0.3
BOJS	Bojanci	148.77	329	i PKPdf	PKPbc	01 03 55.7	-0.3
BAIF	Baives	148.88	346	⇑iPKP1	PKPbc	01 03 55.7	-0.4
	comp=Z,22nm,1.1s						
BAIF	Baives	148.88	346	⇑iPKP	PKPbc	01 03 55.7	-0.4
BAIF	Baives	148.88	346	⇑iPKP2	PKPbc	01 03 55.7	-0.4
JAVS	Javornik	149.04	331	i PKPdf	PKPdf	01 03 55.4	+2.9
JAVS				i PKPbc	PKPbc	01 03 60.0	+3.3
JAVS	Javornik	149.04	331	i PKPdf	PKPdf	01 03 55.4	+2.9
JAVS				i PKPbc	PKPbc	01 03 60.0	+3.3
ABTA	Abfaltersbach	149.06	333	⇑iPKPbc	PKPbc	01 03 55.3	-1.4
	comp=Z,14nm,1.2s						
MOTA	Moosalm	149.15	336	⇑iP	PKPbc	01 03 56.0	-0.8
	comp=Z,23nm,1.4s,SNR=7.1						
MOTA	Moosalm	149.15	336	⇑iPKPbc	PKPbc	01 03 56.0	-0.8
	comp=Z,23nm,1.4s,SNR=7.1						
MOTA	Moosalm	149.15	336	⇑iPKP2	PKPbc	01 03 56.0	-0.9
STR	Strasbourg	149.26	341	PKP	PKPdf	01 03 53.8	+1.0
BFO	Black Forest	149.31	340	ePKP	PKPbc	01 03 56.1	-1.1
BFO				ePKPbc	PKPbc	01 03 56.2	-1.0
BFO	Black Forest	149.31	340	ePKP2	PKPbc	01 03 56.2	-1.0
BFO	Black Forest	149.31	340	ePKPbc	PKPbc	01 03 56.2	-1.0
CDF	Champ du Feu	149.56	341	⇑iPKP1	PKPbc	01 03 57.2	-0.7
	comp=Z,65nm,1.3s						
CDF	Champ du Feu	149.56	341	⇑iPKP	PKPbc	01 03 57.2	-0.7
CDF	Champ du Feu	149.56	341	⇑iPKP2	PKPbc	01 03 57.2	-0.7
DAVA	Damuels	149.66	337	⇑iP	PKPbc	01 03 57.4	-0.7
	comp=Z,15nm,1.1s						
DAVA	Damuels	149.66	337	⇑iPKPbc	PKPbc	01 03 57.4	-0.7
	comp=Z,15nm,1.1s						
MEZF	Maizieres J'vi	150.12	344	⇑iPKP1	PKPbc	01 03 58.8	-0.4
	comp=Z,42nm,1.0s						
MEZF	Maizieres J'vi	150.12	344	⇑iPKP	PKPdf	01 03 58.8	+4.6
HAU	Haudompre	150.21	342	⇑iPKP1	PKPbc	01 03 58.7	-0.8
	comp=Z,63nm,1.4s						
HAU				eMLR	MLR		
	comp=Z,304nm,19.0s						
HAU	Haudompre	150.21	342	⇑iPKP	PKPbc	01 03 58.7	-0.8
HAU				LR	LR		
	comp=Z,300nm,19.0s						
HAU	Haudompre	150.21	342	⇑iPKIKP	PKPbc	01 03 58.7	-0.8
HAU				MLR	MLR		
	comp=Z,300nm,19.0s						
HINF	Hinteralfeld	150.22	341	⇑iPKP1	PKPbc	01 03 58.6	-0.9
HINF	Hinteralfeld	150.22	341	⇑iPKP	PKPbc	01 03 58.6	-0.9
HINF	Hinteralfeld	150.22	341	⇑iPKIKP	PKPbc	01 03 58.6	-0.9
LOMF	Lomont	150.65	341	PKP	PKPbc	01 04 00.9	+0.4
FLN	La Foliniere	151.01	351	⇑iPKP1	PKPbc	01 04 00.3	-1.0
	comp=Z,33nm,0.9s						
FLN				eMLR	MLR		
	comp=Z,397nm,20.0s						
FLN	La Foliniere	151.01	351	⇑iPKP	PKPbc	01 04 00.3	-1.0
FLN				LR	LR		
	comp=Z,400nm,20.0s						
FLN	La Foliniere	151.01	351	⇑iPKIKP	PKPbc	01 04 00.3	-1.0
FLN				MLR	MLR		
	comp=Z,400nm,20.0s						
LDF	La Druitiere	151.12	350	⇑iPKP1	PKPbc	01 04 00.4	-1.2
	comp=Z,12nm,0.9s						
LDF	La Druitiere	151.12	350	⇑iPKP	PKPbc	01 04 00.4	-1.2
LDF	La Druitiere	151.12	350	⇑iPKIKP	PKPbc	01 04 00.4	-1.2
GRR	Gorron	151.43	351	⇑iPKP1	PKPbc	01 04 01.3	-1.0
	comp=Z,21nm,0.8s						
GRR	Gorron	151.43	351	⇑iPKP	PKPbc	01 04 01.3	-1.0
GRR	Gorron	151.43	351	⇑iPKIKP	PKPbc	01 04 01.3	-1.0
CABF	La Chapelle	151.54	341	⇑iPKP1	PKPbc	01 04 02.3	-0.3
CABF	La Chapelle	151.54	341	⇑iPKP	PKPbc	01 04 02.3	-0.3
CABF	La Chapelle	151.54	341	⇑iPKIKP	PKPbc	01 04 02.3	-0.3
LOR	Lormes	151.56	344	⇑iPKP1	PKPbc	01 04 01.8	-0.9
	comp=Z,39nm,1.3s						
LOR				eMLR	MLR		
	comp=Z,535nm,21.5s						
LOR	Lormes	151.56	344	⇑iPKP	PKPbc	01 04 01.8	-0.9
LOR				LR	LR		
	comp=Z,530nm,21.5s						
LOR	Lormes	151.56	344	⇑iPKIKP	PKPbc	01 04 01.8	-0.9
LOR				MLR	MLR		
	comp=Z,530nm,21.5s						
SGMF	Saint Gilles	151.77	354	ePKP1	PKPbc	01 04 01.9	-1.2
SGMF	Saint Gilles	151.77	354	ePKP	PKPbc	01 04 01.9	-1.2
SGMF	Saint Gilles	151.77	354	ePKIKP	PKPbc	01 04 01.9	-1.2
SSF	Saint Saulge	151.85	345	⇑iPKP1	PKPbc	01 04 02.5	-0.8
	comp=Z,9.8nm,0.7s						
SSF	Saint Saulge	151.85	345	⇑iPKP	PKPbc	01 04 02.5	-0.8
SSF	Saint Saulge	151.85	345	⇑iPKIKP	PKPbc	01 04 02.5	-0.8
LPL	La Plagne	152.30	339	ePKP1	PKPbc	01 04 04.2	-0.2
LPL	La Plagne	152.30	339	ePKP	PKPbc	01 04 04.2	-0.2
LPL	La Plagne	152.30	339	ePKIKP	PKPbc	01 04 04.2	-0.2
LPG	La Plagne	152.31	339	⇑iPKP1	PKPbc	01 04 04.3	-0.1
LPG	La Plagne	152.31	339	⇑iPKP	PKPbc	01 04 04.3	-0.1
LPG	La Plagne	152.31	339	⇑iPKIKP	PKPbc	01 04 04.3	-0.1
MBDF	Montbardon	152.97	338	ePKP1	PKPbc	01 04 06.3	+0.4
MBDF	Montbardon	152.97	338	ePKP	PKPbc	01 04 06.3	+0.4
MBDF	Montbardon	152.97	338	ePKIKP	PKPbc	01 04 06.3	+0.4
MFF	Saint Martin d	153.06	349	ePKP1	PKPbc	01 04 05.0	-1.0
MFF	Saint Martin d	153.06	349	ePKP	PKPbc	01 04 05.0	-1.0
MFF	Saint Martin d	153.06	349	ePKIKP	PKPbc	01 04 05.0	-1.0
ORIF	Oris-en-Rattie	153.11	339	⇑iPKP1	PKPbc	01 04 05.4	-0.8
	comp=Z,11nm,0.8s						
ORIF				eMLR	MLR		
	comp=Z,371nm,19.5s						
ORIF	Oris-en-Rattie	153.11	339	⇑iPKP	PKPbc	01 04 05.4	-0.8
ORIF	Oris-en-Rattie	153.11	339	⇑iPKIKP	PKPbc	01 04 05.4	-0.8
ESDC	Sonseca Array	160.40	353	PKPab	PKPab	01 04 49.2	-0.1
	comp=Z,2.5nm,0.8s,baz=8.4,slow=5.2,SNR=8.6						
TORD	Torodi Ar. Bea	169.08	231	PKP	PKPdf	01 04 14.9	-1.6
TORD				PKPab	PKPab	01 05 27.8	-0.5
TORD	Torodi Ar. Bea	169.08	231	PKP	PKPdf	01 04 14.9	-1.6
	comp=Z,8.2nm,1.3s,baz=296,slow=0.8,SNR=14						
TORD				PKPab	PKPab	01 05 27.8	-0.5
	comp=Z,0.9nm,0.6s,baz=118,slow=1.9,SNR=7.0						

IDC 27 00:52:47.5±28.0**, 2230S**×**17369W, h0**^{km}**, mb4.1**/4**, mb1 4.2**/4**, mb1mx4.0**/16**, mbtmp4.1**/4**, MS3.8**/1**, Ms1 3.8**/1**, ms1mx2.9**/32**, Error ellipse: s-maj=526.6km s-min=162.7km az=77.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	Charters Tower	37.34	266	P	P	01 00 02.1	+0.3
	4.5nm,0.5s,baz=110,slow=12,SNR=5.4						
CTA				LR	LR	01 11 45.6	
	comp=Z,118nm,18.5s,baz=227,slow=30						
STKA	Stephens Creek	40.69	247	P	P	01 00 30.3	+0.4
	0.9nm,0.6s,baz=82,slow=7.1,SNR=3.0						
ASAR	Alice Springs	48.04	258	P	P	01 01 28.7	-0.1
	0.8nm,0.5s,baz=101,slow=7.0,SNR=12						
WRA	Warramunga Arr	48.34	263	P	P	01 01 30.6	-0.6
	0.7nm,0.3s,baz=103,slow=8.3,SNR=72						

IDC 27 00:57:18.4±5.5**, 3159S**×**7742E, h0**^{km}**, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.5**/17**, mbtmp3.5**/3**, Error ellipse: s-maj=207.5km s-min=42.4km az=35.0, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAR	Alice Springs	50.20	96	P	P	01 06 16.6	+0.5
	0.7nm,0.7s,baz=244,slow=6.5,SNR=6.4						
WRA	Warramunga Arr	52.05	92	P	P	01 06 29.5	-0.6
	1.1nm,1.1s,baz=251,slow=7.7,SNR=3.2						
MKAR	Makanchi Array	78.14	3	P	P	01 09 20.1	+1.1
	0.1nm,0.6s,baz=194,slow=5.5,SNR=2.6						
YKA	Yellowknife Ar	148.13	11	PKPbc	PKPbc	01 17 03.7	-1.6
	0.2nm,0.5s,baz=324,slow=3.6,SNR=5.7						

WEL 27 01:01:16.8±0.5**, 3632S**×**17739E, h180**^{km}±7^{km}**, ML3.7**/10**, Error ellipse: s-maj=7.4km s-min=6.5km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	1.45	150	ePN	Pn	01 01 48.2	+0.1
MXZ				SN	Sn	01 02 12.0	-0.4
PUZ	Puketiti	1.89	159	PN	Pn	01 01 52.8	+0.3
PUZ				SN	Sn	01 02 19.8	-0.5
URZ	Urewera	1.95	186	PN	Pn	01 01 53.8	+0.6
URZ				SN	Sn	01 02 22.1	+0.5
MWZ	Matawai	2.02	177	PN	Pn	01 01 54.4	+0.5
MWZ				SN	Sn	01 02 23.0	+0.1
KNZ	Kokohu	2.71	175	ePN	Pn	01 02 01.6	-0.2
BKZ	Black Stump Fm	2.93	194	ePN	Pn	01 02 04.5	+0.1
BKZ				SN	Sn	01 02 42.2	+0.4
PXZ	Pawanui	3.73	186	ePN	Pn	01 02 12.0	-2.4
BFZ	Birch Farm	4.45	191	ePN	Pn	01 02 21.6	-1.9
BFZ				SN	Sn	01 03 11.6	-4.3
MRZ	Mangatainoka R	4.57	198	ePN	Pn	01 02 22.8	-2.1
TIWZ	Tintock	4.61	194	ePN	Pn	01 02 23.4	-2.1
KIW	Kapiti Island	4.94	202	ePN	Pn	01 02 27.6	-2.1
TCW	Tory Channel	5.46	205	ePN	Pn	01 02 34.3	-2.2
NNZ	Nelson	5.81	211	ePN	Pn	01 02 41.1	0.0
NNZ				SN	Sn	01 03 44.3	-3.3
THZ	Tophouse	6.46	211	ePN	Pn	01 02 49.4	-0.3
THZ				SN	Sn	01 03 58.1	-4.9
KHZ	Kahutara	6.78	205	ePN	Pn	01 02 51.9	-2.0

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*ISCJB **27** 01:03:35.4±0.5, 4334N±002×1892E±004, h10^{km}±8^{km}, Error ellipse: s-maj=5.0km s-min=3.0km az=35.3*

*BEO **27** 01:03:35.5±1.2, 4333N×1880E, h1^{km}±8^{km}, ML2.5/5*

*PDG **27** 01:03:37.1±0.1, 4328N×1897E, h7^{km}±1^{km}, MD2.3/2, ML2.3/8, Error ellipse: s-maj=0.4km s-min=0.6km az=0.0*

ISC 27 01:03:36.2±0.4**, 4335N**±002×**1891E**±004**, h6**^{km}±9^{km}**, n17, σ0^{s}90**/34**, 4C-1D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
UPM	Unac-Piva	0.14	179	ePg	Pg	01 03 39.0	-0.1
UPM				eSg	Sg	01 03 40.9	-0.1
PLE	Pljevlja	0.36	93	⇑iPg	Pg	01 03 43.0	-0.1
PLE				eSg	Sg	01 03 47.5	-0.3
BRY	Bratogost	0.52	211	⇓iPg	Pg	01 03 45.5	-0.6
BRY				eSg	Sg	01 03 53.8	+0.9
NKY	Niksic	0.54	173	⇑iPg	Pg	01 03 45.7	-0.8
NKY				eSg	Sg	01 03 53.3	-0.2
BBLS	Bajina Basta -	0.64	35	i Pg	Pg	01 03 48.5	+0.1
BBLS				eSg	Sg	01 03 57.9	+1.2
SJES	Sjenica	0.76	96	i Pg	Pg	01 03 50.7	-0.1
SJES				eSg	Sg	01 04 01.6	+1.0
IVA	Berane	0.87	123	⇑iPg	Pg	01 03 51.7	-1.1
IVA				eSg	Sg	01 04 04.1	0.0
HCY	Herceg Novi	0.95	199	ePg	Pg	01 03 54.0	-0.3
HCY				eSg	Sg	01 04 07.9	+1.3
TTG	Podgorica	0.95	164	⇑iPg	Pg	01 03 53.3	-1.1
TTG				eSg	Sg	01 04 06.9	+0.1
STON	Ston	1.00	242	ePg	Pg	01 03 54.7	-0.7
STON				Sg	Sg	01 04 10.3	+1.9
BUM	Brajici-Budva	1.04	180	ePg	Pg	01 03 55.2	-1.0
BUM				eSg	Sg	01 04 10.7	+1.0
PVY	Plav	1.09	133	ePg	Pg	01 03 55.6	-1.4
PVY				eSg	Sg	01 04 11.0	-0.1
DIVS	Divcibare	1.09	46	ePg	Pg	01 03 56.7	-0.3
DIVS				eSg	Sg	01 04 12.6	+1.4
ULC	Ulcinj	1.41	169	ePg	Pg	01 04 01.8	-1.3
ULC				eSg	Sg	01 04 22.8	+1.5
GRUS	Gruza	1.42	67	ePg	Pg	01 04 02.4	-1.0
GRUS				eSg	Sg	01 04 23.6	+1.8
FGSL	Fruska Gora	1.92	19	ePn	Pn	01 04 09.3	-0.1
FGSL				eSg	Sg	01 04 37.7	-0.3
PKSM	Moragy	2.87	356	ePn	Pn	01 04 22.9	+0.5
PKSM				eSg	Sg	01 05 07.1	-1.3

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*BJI **27** 01:14:16.7, 1.10S×12760E, h10^{km}, mB5.2, mb4.7*

*IDC **27** 01:14:16.2±1.0, 1.04S×12759E, h0^{km}, mb4.4/6, mb1 4.5/8, mb1mx4.2/18, mbtmp4.4/8, ML4.4/2, MS4.0/1, Ms1 4.0/1, ms1mx3.1/24, Error ellipse: s-maj=49.8km s-min=16.1km az=67.0*

*ISCJB **27** 01:14:17.9±3.9, 1.12S±0.06×12758E±0.08, h24^{km}±29^{km}, mb4.7/25, Error ellipse: s-maj=15.4km s-min=7.6km az=145.0*

*NEIC **27** 01:14:17.7±0.3, 1.07S×12761E, h10^{km}, mb4.8/17, Error ellipse: s-maj=10.8km s-min=4.7km az=58.0*

*MOS **27** 01:14:19.0±1.0, 1.14S×12757E, h33^{km}, mb4.8/5, Error ellipse: s-maj=29.8km s-min=12.4km az=126.1*

ISC 27 01:14:21.5±3.6**, 1.14S**±0.06×**12756E**±0.08**, h34**^{km}±27^{km}**, n59, σ1^{s}07**/59**, mb4.7**/25**, 1C, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	12.47	157	eP	Pn	01 17 15.6	-1.1
	28nm,0.5s						
KKM	Kota Kinabalu	13.39	302	ePn	Pn	01 17 28.6	-0.6
FITZ	Fitzroy Crossi	16.96	186	eP	Pn	01 18 17.4	+1.2
	7.8nm,1.0s						
FITZ	Fitzroy Crossi	16.96	186	P	Pn	01 18 18.0	+1.8
	0.3nm,0.3s,baz=27,slow=17,SNR=8.4						
WRA	Warramunga Arr	19.83	161	P	Pn	01 18 48.5	-2.7
	2.7nm,0.3s,baz=340,slow=12,SNR=96						
WB2	Warramunga Arr	19.83	161	eP	Pn	01 18 48.3	-2.9
COEN	Coen	20.02	130	eP	P	01 18 53.9	+2.3
	6.8nm,0.6s						
PMG	Port Moresby	21.16	113	eP	P	01 19 04.6	+0.6
MBWA	Marble Bar	21.31	200	eP	P	01 19 06.3	+0.8
	4.9nm,0.7s,mb4.0						
ASAR	Alice Springs	23.22	165	P	P	01 19 25.4	-0.4
	13nm,0.8s,mb4.4,baz=344,slow=10,SNR=108						
NACB	Ninganchiao	25.82	347	eP	P	01 19 46.8	-3.0
CTAO	Charters Tower	26.25	137	eP	P	01 19 52.5	-1.1
YHNB	Yeheng	26.35	347	eP	P	01 19 56.7	+2.2
KULM	Kulim	27.62	284	eP	P	01 20 05.3	-0.9
PSI	Prapat	28.89	278	P	P	01 20 16.9	-0.5
	5.0nm,0.8s,mb4.3,baz=61,slow=3.6,SNR=6.4						
COCO	West Island	32.38	249	P	P	01 20 48.9	+0.6
	29nm,0.3s,mb5.6						
HNR	Honiara	33.26	105	P	P	01 20 56.3	+0.4
STKA	Stephens Creek	33.32	158	eP	P	01 20 56.9	+0.7
	5.5nm,0.8s,mb4.5						
STKA	Stephens Creek	33.32	158	P	P	01 20 57.4	+1.2
	5.0nm,0.5s,mb4.7,baz=331,slow=8.3,SNR=15						
ENH	Enshi	35.67	333	eP	P	01 21 16.4	-0.3
	0.3nm,0.4s,mb3.6						
XAN	Xi'an	39.13	335	P	P	01 21 46.0	+0.1
XAN				AMB	AMB		
	comp=Z,16nm,0.7s,mb4.9						
LZH	Lanzhou	43.13	332	⇑P	P	01 22 20.5	+1.8
LZH				AMB	AMB		
	comp=Z,21nm,1.2s,mb4.7						
TAU	Tasmania Unive	45.19	160	eP	P	01 22 36.1	+1.0
	comp=Z,1.8nm,0.4s,mb4.2						
TAU	Tasmania Unive	45.19	160	eP	P	01 22 36.1	+0.9
TAU				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.3						
LSA	Lhasa	46.34	314	P	P	01 22 46.0	+1.5
LSA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
LSA	Lhasa	46.34	314	eP	P	01 22 46.4	+1.9
	comp=Z,4.3nm,0.6s,mb4.6						
LSA	Lhasa	46.34	314	eP	P	01 22 46.4	+1.9
LSA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
TAPN	Taplejung	47.65	310	eP	P	01 22 55.4	+0.7
	comp=Z,19nm,0.7s,mb5.2						
ODAN	Odare	47.65	309	eP	P	01 22 55.5	+0.7
	comp=Z,16nm,0.7s,mb5.2						
GTA	Gaotai	47.70	331	eP	P	01 22 56.3	+1.4
GTA				AP	pP	01 23 00.3	-4.8
GTA				XP	sP	01 23 03.0	-6.2
GTA				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.9						
JIRN	Jiri	48.97	309	eP	P	01 23 05.9	+0.9
	comp=Z,18nm,0.7s,mb5.2						
KKN	Kakani	49.74	309	eP	P	01 23 11.2	+0.4
	comp=Z,14nm,0.7s,mb5.1						
KKN	Kakani	49.74	309	eP	P	01 23 11.2	+0.4
KKN				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.1						

GKN	Gorkha	50.35	309	*e*P	P	01 23 15.9	+0.5
	comp=Z,18nm,0.9s,mb5.1						
HYB	Hyderabad	51.66	293	*e*P	P	01 23 25.0	-0.5
HYB				*e*		01 26 04.0	
HYB	Hyderabad	51.66	293	*i* P	P	01 23 25.0	-0.5
ULN	Ulaanbaatar	51.98	343	*i* P	P	01 23 27.7	+0.4
SONM	Songino Array	52.15	342	P	P	01 23 28.0	-0.6
	comp=Z,2.4nm,0.7s,mb4.2,baz=158,slow=8.0,SNR=11						
ZAK	Zakamensk	55.37	341	*e*P	P	01 23 52.1	0.0
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.8						
WMQ	Urumqi	57.19	326	*e*P	P	01 24 06.0	+0.8
MKAR	Makanchi Array	62.03	326	P	P	01 24 38.4	-0.1
	comp=Z,3.9nm,0.5s,mb4.8,baz=121,slow=8.3,SNR=92						
UCH	Uchtor	64.33	319	*e*P	P	01 24 53.6	-0.3
	comp=Z,4.6nm,0.8s,mb4.6						
AAK	Ala-Archa	64.53	319	*e*P	P	01 24 54.7	-0.4
EKS2	Erkin-Say	65.01	319	*e*P	P	01 24 59.0	+0.7
	comp=Z,2.9nm,0.7s,mb4.4						
KBL	Kabul	65.17	309	*e*P	P	01 24 59.5	0.0
ZAA0	Zalesovo Array	65.29	334	*e*P	P	01 24 58.7	-1.1
ZALV	Zalesovo Beam	65.29	334	P	P	01 24 58.8	-1.1
	comp=Z,1.1nm,0.5s,mb4.2,baz=100,slow=4.5,SNR=8.8						
ZAL	Zalesovo	65.29	334	P	P	01 24 58.8	-1.0
CASY	Casey	66.11	187	*e*P	P	01 25 05.2	+0.2
	comp=Z,7.7nm,0.3s,mb5.2						
KURK	Kurchatov	66.28	328	*e*P	P	01 25 05.8	-0.5
	comp=Z,9.7nm,0.8s,mb4.9						
KURK	Kurchatov	66.28	328	*e*P	P	01 25 05.8	-0.5
KURK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
BRVK	Borovoye	71.91	328	*e*P	P	01 25 40.6	-0.6
	comp=Z,4.9nm,0.9s,mb4.4						
BRVK	Borovoye	71.91	328	*e*P	P	01 25 40.6	-0.6
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
CHKZ	Chkalovo	72.03	328	*e*P	P	01 25 39.4	-2.5
CHKZ				*e*PcP	PcP	01 25 59.6	-0.7
ARU	Arti	79.48	328	*e*P	P	01 26 23.5	-1.0
ARU	Arti	79.48	328	*e*P	P	01 26 23.5	-0.9
MAW	Mawson	79.50	201	P	P	01 26 24.0	-0.3
KIV	Kislovodsk	87.08	314	*e*P	P	01 27 03.0	-0.9
KIV	Kislovodsk	87.08	314	*e*P	P	01 27 03.0	-0.9

ISCJB ***27*** *01:16:55.5±3.3, 1.06S±0.06×127.70E±0.08, h15^{km}±24^{km}, mb4.7/29, Error ellipse: s-maj=14.3km s-min=6.8km az=149.9*

BJI ***27*** *01:16:56.6, 1.00S×127.70E, h10^{km}, mB4.9, mb4.8*

NEIC ***27*** *01:16:56.7±0.2, 1.05S×127.75E, h10^{km}, mb4.9/16, Error ellipse: s-maj=9.2km s-min=4.9km az=55.0*

MOS ***27*** *01:16:58.3±1.0, 1.04S×127.69E, h33^{km}, mb5.1/6, Error ellipse: s-maj=25.7km s-min=11.5km az=124.9*

IDC ***27*** *01:17:02.1±3.2, 1.12S×127.65E, h50^{km}±30^{km}, mb4.2/11, mb1 4.3/12, mb1mx4.2/17, mbtmp4.2/12, ML4.5/1, MS3.6/1, Ms1 3.5/1, ms1mx3.1/24, Error ellipse: s-maj=33.4km s-min=9.6km az=71.0*

ISC 27 01:17:00.5±1.5**, 113S**±005×**12770E**±008**, h35**^{km}±14^{km}**, n66, σ0^{s}95**/64**, mb4.7**/29**, 1C, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KKM	Kota Kinabalu	13.50	302	Pn	Pn	01 20 09.8	+0.2
FITZ	Fitzroy Crossi	16.99	187	*e*P	Pn	01 21 00.4	+4.9
	6.7nm,0.6s						
FITZ	Fitzroy Crossi	16.99	187	P	Pn	01 20 59.8	+4.3
	0.2nm,0.3s,baz=8.2,slow=8.1,SNR=5.3						
KSM	Kuching	17.58	278	Pn	Pn	01 21 02.5	-0.4
WRA	Warramunga Arr	19.80	161	P	Pn	01 21 28.0	-1.7
	1.5nm,0.3s,baz=341,slow=11,SNR=16						
WRA				S	S	01 25 09.2	0.0
	0.1nm,0.3s,baz=333,slow=21,SNR=5.6						
WB2	Warramunga Arr	19.80	161	*e*P	Pn	01 21 27.7	-2.0
PMG	Port Moresby	21.04	114	Pn	P	01 21 42.8	+1.2
MBWA	Marble Bar	21.37	201	*e*P	P	01 21 45.2	+0.1
	4.1nm,0.6s,mb3.9						
ASAR	Alice Springs	23.20	165	P	P	01 22 04.5	+0.1
	9.8nm,0.6s,mb4.4,baz=344,slow=11,SNR=18						
ASAR				S	S	01 26 14.7	+0.9
	3.2nm,1.0s,baz=344,slow=20,SNR=11						
CTAO	Charters Tower	26.16	137	P	P	01 22 31.1	-0.7
YHNB	Yeheng	26.36	347	*e*P	P	01 22 33.6	+0.1
KULM	Kulim	27.75	284	P	P	01 22 45.8	-0.4
PSI	Prapat	29.03	278	P	P	01 22 57.9	+0.3
	3.5nm,0.5s,mb4.3,baz=129,slow=21,SNR=7.5						
NWAO	Narrogin (SRO)	33.13	196	*e*P	P	01 23 33.5	+0.2
HNR	Honiara	33.13	106	P	P	01 23 33.8	+0.1
STKA	Stephens Creek	33.28	158	*e*P	P	01 23 36.6	+1.8
	4.5nm,0.7s,mb4.5						
STKA	Stephens Creek	33.28	158	P	P	01 23 37.1	+2.3
	5.6nm,0.7s,mb4.6,baz=320,slow=9.7,SNR=8.5						
STKA				LR	LR	01 38 41.7	
	comp=Z,102nm,19.7s,baz=216,slow=39						
ENH	Enshi	35.72	332	P	P	01 23 55.5	-0.5
KSRS	Korea Array	38.39	0	P	P	01 24 19.5	+1.1
	1.3nm,0.7s,mb3.8,baz=177,slow=9.9,SNR=5.7						
MJAR	Matsushiro Arr	38.73	14	P	P	01 24 21.1	-0.3
	1.1nm,0.3s,mb4.0,baz=185,slow=9.5,SNR=5.6						
XAN	Xi'an	39.18	335	P	P	01 24 25.3	+0.2
XAN				AMB	AMB		
	comp=Z,24nm,0.7s,mb5.0						
LZH	Lanzhou	43.18	331	⇑P	P	01 24 59.8	+1.8
LZH				AMB	AMB		
	comp=Z,23nm,1.3s,mb4.8						
TAU	Tasmania Unive	45.16	160	*e*P	P	01 25 15.6	+1.9
	comp=Z,20nm,1.0s,mb4.9						
TAU	Tasmania Unive	45.16	160	*e*P	P	01 25 15.6	+1.9
TAU				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.9						
LSA	Lhasa	46.43	314	*e*P	P	01 25 25.1	+1.0
	comp=Z,5.4nm,0.6s,mb4.7						
LSA	Lhasa	46.43	314	*e*P	P	01 25 25.1	+1.1
LSA				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
TAPN	Taplejung	47.74	309	*e*P	P	01 25 34.7	+0.4
	comp=Z,11nm,0.8s,mb4.9						
ODAN	Odare	47.75	309	*e*P	P	01 25 34.3	-0.1
	comp=Z,14nm,0.7s,mb5.1						
GTA	Gaotai	47.76	331	*e*P	P	01 25 35.3	+1.1
GTA				AP	pP	01 25 41.8	-2.8
GTA				XP	sP	01 25 44.8	-4.0
GTA				PCP	PcP	01 27 04.5	+1.5
GTA				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.8						
JIRN	Jiri	49.07	309	*e*P	P	01 25 45.0	+0.5
	comp=Z,16nm,0.7s,mb5.1						
GUN	Gumba	49.43	309	*e*P	P	01 25 48.3	+1.0
	comp=Z,147nm,0.3s						
KKN	Kakani	49.84	309	*e*P	P	01 25 50.6	+0.2
	comp=Z,11nm,0.5s,mb5.1						
KKN	Kakani	49.84	309	*e*P	P	01 25 50.6	+0.2
KKN				pmax	pmax		
	comp=Z,11nm,0.5s,mb5.1						
GKN	Gorkha	50.45	308	*e*P	P	01 25 54.9	-0.1
	comp=Z,12nm,0.7s,mb5.0						
SONM	Songino Array	52.18	342	P	P	01 26 08.3	+0.6
	comp=Z,3.1nm,0.6s,mb4.4,baz=154,slow=8.2,SNR=15						
SONM				PcP	PcP	01 27 19.5	+0.5
	comp=Z,1.4nm,0.7s,baz=158,slow=4.2,SNR=4.3						
MKAR	Makanchi Array	62.09	326	P	P	01 27 17.8	0.0
MKAR				PcP	PcP	01 27 57.7	-0.1
MKAR	Makanchi Array	62.09	326	P	P	01 27 17.8	+0.1
	comp=Z,6.2nm,0.5s,mb5.0,baz=120,slow=8.6,SNR=35						
MKAR				PcP	PcP	01 27 57.7	-0.1
	comp=Z,2.1nm,0.7s,baz=137,slow=3.9,SNR=4.7						
TKM2	Tokmak 2	64.03	320	P	P	01 27 31.8	+1.1
	comp=Z,3.7nm,0.6s,mb4.6						
TKM2	Tokmak 2	64.03	320	P	P	01 27 31.8	+1.1
TKM2				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
UCH	Uchtor	64.41	319	*e*P	P	01 27 34.5	+1.3
	comp=Z,18nm,1.5s,mb4.9						
AAK	Ala-Archa	64.61	319	*e*P	P	01 27 34.5	0.0
	comp=Z,6.5nm,1.1s,mb4.6						
AAK	Ala-Archa	64.61	319	*i* P	P	01 27 35.2	+0.7
EKS2	Erkin-Say	65.09	319	*e*P	P	01 27 38.6	+1.0
	comp=Z,3.4nm,0.7s,mb4.5						
KBL	Kabul	65.27	309	*e*P	P	01 27 37.6	-1.4
ZAA0	Zalesovo Array	65.33	334	*e*P	P	01 27 37.6	-1.3
ZALV	Zalesovo Beam	65.33	334	P	P	01 27 38.0	-0.9
	comp=Z,2.0nm,0.5s,mb4.4,baz=109,slow=4.5,SNR=14						
ZAL	Zalesovo	65.33	334	P	P	01 27 38.0	-1.0
KURK	Kurchatov	66.34	328	*e*P	P	01 27 45.3	-0.3
	comp=Z,18nm,0.8s,mb5.1						
KURK				*e*		01 28 02.4	
KURK	Kurchatov	66.34	328	*i* P	P	01 27 44.4	-1.1
NVS	Novosibirsk	66.62	334	*e*P	P	01 27 45.8	-1.4
NVS				pmax	pmax		
	comp=N,4.0nm,1.0s						
NVS				pmax	pmax		
	comp=E,5.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
BRVK	Borovoye	71.97	328	*e*P	P	01 28 20.1	-0.3
	comp=Z,34nm,1.4s,mb5.1						
BRVK				*e*		01 28 36.7	
BRVK	Borovoye	71.97	328	*e*P	P	01 28 20.1	-0.3
BRVK				*e*		01 28 36.7	
BRVK				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.1						
CHKZ	Chkalovo	72.09	328	P	P	01 28 20.8	-0.3
ARU	Arti	79.54	328	*e*P	P	01 29 02.9	-0.7
ARU	Arti	79.54	328	*e*P	P	01 29 02.9	-0.7
KIV	Kislovodsk	87.17	314	P	P	01 29 42.9	-0.3
KIV	Kislovodsk	87.17	314	P	P	01 29 42.9	-0.3
MCK	McKinley	88.06	26	P	P	01 29 46.8	-0.2
KMBO	Kilima Mbogo	90.42	269	*e*P	P	01 29 59.8	+0.6
BRTR	Keskin Array B	93.84	310	P	P	01 30 13.2	-1.2
	comp=Z,0.6nm,0.8s,mb4.0,baz=130,slow=7.8,SNR=3.1						
ARCES	ARCESS Array B	95.31	340	P	P	01 30 18.9	-1.6
	comp=Z,1.9nm,0.6s,mb4.7,baz=80,slow=6.8,SNR=9.1						
FINES	FINESS Array B	96.54	332	P	P	01 30 24.2	-2.1
	comp=Z,0.6nm,0.6s,mb4.2,baz=60,slow=8.2,SNR=3.0						
ESLA	Sonseca Array	121.69	317	*e*PKPdf	PKPdf	01 35 51.4	+0.3
ECSD	EROS,Sioux Fal	122.15	37	*e*PKPdf	PKPdf	01 35 52.0	+0.2
TORD	Torodi Ar. Bea	125.23	285	PKP	PKPdf	01 35 59.9	+1.4
TORD	Torodi Ar. Bea	125.23	285	PKP	PKPdf	01 35 59.9	+1.4
	comp=Z,0.7nm,1.0s,baz=18,slow=0.4,SNR=2.9						

ISCJB ***27*** *01:22:29.0±0.5, 27.45S±0.05×63.34W±0.08, h601^{km}±7^{km}, mb4.1/23, Error ellipse: s-maj=11.3km s-min=7.8km az=166.6*

IDC ***27*** *01:22:29.6±0.6, 27.42S×63.39W, h589^{km}±7^{km}, mb3.7/9, mb1 3.8/12, mb1mx3.7/19, mbtmp3.6/12, Error ellipse: s-maj=16.6km s-min=12.0km az=89.0*

NEIC ***27*** *01:22:29.2±0.5, 27.38S×63.29W, h586^{km}±6^{km}, mb4.1/14, Error ellipse: s-maj=10.2km s-min=6.6km az=65.0*

ISC 27 01:22:29.3±0.5**, 2738S**±005×**6330W**±008**, h585**^{km}±6^{km}**, n71, σ0^{s}70**/59**, mb4.1**/22**, 1C-1D, Santiago del Estero Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CFAA	Coronel Fontan	6.02	224	P	P	01 24 09.8	+0.1
	5.5nm,0.3s,baz=46,slow=12,SNR=207						
CFAA				S	S	01 25 30.7	-1.2
	0.1nm,0.3s,baz=313,slow=19,SNR=8.1						
CDCH	Caldera	6.71	271	*e*P	P	01 24 15.4	-0.5
LCO	Las Campanas	6.73	254	*e*P	P	01 24 16.5	+0.4
	43nm,0.3s						
LCO				*e*S	S	01 25 43.4	-0.2
CPN1	Cerro Paranal	6.95	292	*i* P	P	01 24 18.5	+0.3
MDZ	Mendoza	7.29	220	*e*P	P	01 24 21.2	0.0
CEN1	Los Morros	7.39	301	⇑*i*P	P	01 24 22.8	+0.5
ANCH	Antofagasta	7.40	298	*e*P	P	01 24 22.2	-0.2
FCH	Farellones	8.46	224	⇓*e*P	P	01 24 33.3	+0.9
SIV	San Ignacio	11.52	11	P	P	01 25 03.7	+0.5
	0.7nm,0.3s,baz=202,slow=9.2,SNR=8.8						
SIV				S	S	01 27 10.0	+0.4
	0.2nm,0.3s,baz=179,slow=19,SNR=3.5						
LPAZ	La Paz	11.91	337	*e*P	P	01 25 08.1	+0.9
LPAZ				S	S	01 27 15.7	-1.2
LPAZ	La Paz	11.91	337	P	P	01 25 08.2	+1.1
	1.5nm,0.3s,baz=127,slow=5.9,SNR=48						
LPAZ				S	S	01 27 15.7	-1.2
	0.2nm,0.3s,baz=36,slow=24,SNR=5.1						
USHA	Ushuaia	27.69	186	P	P	01 27 30.7	-0.6
	5.5nm,0.4s,mb4.5,baz=17,slow=7.2,SNR=9.0						
OTAV	Otavalo	31.08	330	P	P	01 28 01.6	+0.4
RCBR	Riachuelo	33.74	56	*e*P	P	01 28 23.8	+0.1
SDV	Santo Domingo	36.74	348	*e*P	P	01 28 46.7	-1.8
	4.2nm,0.3s,mb4.5						
PAYG	Puerto Ayora	37.08	311	P	P	01 28 52.5	+1.1
JTS	JuntasAbangare	42.93	328	P	P	01 29 37.6	-0.3
TEIG	Tepich	53.14	330	*e*P	P	01 30 53.2	-0.4
	13nm,0.9s,mb4.3						
SNAA	Sanae	55.07	160	P	P	01 31 06.6	+0.2
	0.4nm,0.8s,baz=257,slow=14,SNR=4.4						
DWPF	Disney	57.85	341	P	P	01 31 25.7	-0.3
BBSR	BB Station	59.43	359	*e*P	P	01 31 37.3	+0.8
LIC	Lamto	65.44	68	*e*P	P	01 32 14.6	-1.1
	46nm,1.0s,mb4.9						
TIC	Toumodi	65.68	68	*e*P	P	01 32 17.3	+0.1
	12nm,0.2s,mb4.9						
KIC	Kosan Boka	65.75	68	*e*P	P	01 32 17.3	-0.4
	53nm,0.5s						
SWET	Sewanee	65.83	340	*e*P	P	01 32 17.4	-0.2
OXF	Oxford	66.33	337	*e*P	P	01 32 20.0	-0.8
WVT	Waverly	67.27	339	P	P	01 32 27.6	+1.1
MIAR	Mount Ida	67.93	333	*e*P	P	01 32 30.6	0.0
	2.3nm,0.5s,mb3.9						
LTX	Lajitas	68.36	323	*e*P	P	01 32 33.7	+0.4
TXAR	Lajitas Array	68.36	323	P	P	01 32 33.6	+0.3
	6.2nm,0.9s,mb4.0,baz=142,slow=7.8,SNR=8.6						
SIUC	Southern Illin	69.16	338	P	P	01 32 36.6	-1.3
ACSO	Alum Creek Sta	69.71	344	*e*P	P	01 32 40.5	-0.6
WMOK	Wichita Mounta	70.31	329	*e*P	P	01 32 44.6	-0.2
	2.1nm,0.9s,mb3.6						
SUR	Sutherland	71.28	117	*e*P	P	01 32 52.0	+1.3
TSUM	Tsumeb	73.58	103	*e*P	P	01 33 04.7	+0.5
	2.9nm,0.6s,mb4.0						
ANMO	Albuquerque	74.21	324	*e*P	P	01 33 08.0	+0.7
	1.2nm,0.6s,mb3.6						
TOA0	Torodi Ar. Sit	74.77	66	*e*P	P	01 33 10.5	-0.3
TORD	Torodi Ar. Bea	74.77	66	P	P	01 33 10.6	-0.3
	14nm,0.6s,mb4.7,baz=277,slow=6.6,SNR=215						
TORD				pP	pP	01 35 14.1	+2.3
	1.4nm,0.8s,baz=240,slow=6.4,SNR=6.8						
SDCO	Great Sand Dun	75.91	327	*e*P	P	01 33 17.6	+0.9
	2.2nm,1.0s,mb3.5						
BOSA	Boshof	76.26	115	*e*P	P	01 33 18.8	-0.1
	8.0nm,0.7s,mb4.3						
BOSA	Boshof	76.26	115	P	P	01 33 19.0	0.0
	5.3nm,0.4s,mb4.3,baz=250,slow=3.8,SNR=29						
LBTB	Lobatse	78.00	112	*e*P	P	01 33 28.5	0.0
	12nm,1.0s,mb4.3						
PDAR	Pinedale Array	81.76	327	P	P	01 33 47.9	+0.4
	1.1nm,0.6s,mb3.5,baz=131,slow=8.4,SNR=8.6						
HWUT	Hardware Ranch	81.87	326	*e*P	P	01 33 48.5	+0.4
	1.6nm,0.6s,mb3.7						
SCHQ	Schefferville	81.92	358	P	P	01 33 48.2	+0.2
SCHQ	Schefferville	81.92	358	P	P	01 33 48.2	+0.2
	2.6nm,0.7s,mb3.9,baz=198,slow=6.4,SNR=4.2						
ULM	Lac du Bonnet	82.51	340	P	P	01 33 50.6	-0.5
	2.4nm,0.7s,mb3.8,baz=148,slow=4.0,SNR=5.8						
CMB	Columbia Colle	84.21	318	P	P	01 33 59.1	-0.8
LSZ	Lusaka	84.41	104	*e*P	P	01 34 01.8	+0.3
	3.6nm,0.6s,mb4.1						
HLID	Hailey	84.73	325	*e*P	P	01 34 03.1	+0.8
	2.0nm,0.6s,mb3.9						
ESDC	Sonseca Array	86.61	42	P	P	01 34 11.4	+0.1
	0.4nm,0.4s,mb3.5,baz=246,slow=4.5,SNR=5.6						
ESLA	Sonseca Array	86.61	42	P	P	01 34 08.7	-2.6
NEW	Newport	89.40	327	P	P	01 34 24.4	+0.2
FCC	Fort Churchill	89.55	345	*e*P	P	01 34 24.6	+0.1
	2.2nm,0.6s,mb4.2						
YKA	Yellowknife Ar	98.45	339	P	Pdif	01 35 04.8	-0.7
	0.4nm,0.6s,baz=126,slow=4.4,SNR=11						
ASAR	Alice Springs	126.61	200	PKP	PKPdf	01 40 26.4	-1.0
ASAR	Alice Springs	126.61	200	PKP	PKPdf	01 40 26.4	-1.0
	0.4nm,0.6s,baz=155,slow=1.5,SNR=6.3						
WRA	Warramunga Arr	129.95	202	PKP	PKPdf	01 40 33.2	-0.6
WRA				SKPbc	SKPbc	01 43 00.7	-2.0
WRA	Warramunga Arr	129.95	202	PKP	PKPdf	01 40 33.2	-0.6
	0.2nm,0.3s,baz=166,slow=1.7,SNR=6.6						
WRA				SKPbc	SKPbc	01 43 00.7	-2.0
	1.3nm,0.4s,baz=158,slow=3.5,SNR=9.5						
FITZ	Fitzroy Crossi	133.97	192	PKP	PKPdf	01 40 41.9	+0.5
FITZ				SKPbc	SKPbc	01 43 15.1	-1.4
FITZ	Fitzroy Crossi	133.97	192	PKP	PKPdf	01 40 41.9	+0.5
	0.8nm,0.6s,baz=86,slow=1.5,SNR=3.4						
FITZ				SKPbc	SKPbc	01 43 15.1	-1.4
	1.5nm,0.7s,baz=315,slow=1.4,SNR=4.4						
AAK	Ala-Archa	142.64	55	*e*PKPdf	PKPdf	01 40 53.9	-2.6
KURK	Kurchatov	142.95	41	*e*PKPdf	PKPdf	01 40 55.1	-1.6
HYB	Hyderabad	143.49	98	*e*P	PKPdf	01 40 57.5	-1.2
HYB	Hyderabad	143.49	98	*i* PKP	PKPdf	01 40 57.5	-1.2
ZAA0	Zalesovo Array	144.62	33	*e*PKPdf	PKPdf	01 41 00.5	+0.9
ZALV	Zalesovo Beam	144.62	33	PKP	PKPdf	01 40 60.0	+0.4
ZALV				pPKP	pPKPdf	01 43 16.8	+1.5
ZALV				SKPbc	SKPbc	01 43 44.3	+0.2
ZALV	Zalesovo Beam	144.62	33	PKP	PKPdf	01 40 60.0	+0.4
	6.6nm,0.4s,baz=305,slow=4.6,SNR=48						
ZALV				pPKP	pPKPdf	01 43 16.8	+1.5
	0.6nm,0.5s,baz=328,slow=5.3,SNR=2.8						
ZALV				SKPbc	SKPbc	01 43 44.3	+0.2
	0.6nm,0.5s,baz=298,slow=3.5,SNR=3.4						
MKAR	Makanchi Array	146.76	45	PKP	PKPdf	01 41 04.2	+0.8
MKAR				PKPbc	PKPbc	01 41 06.5	+0.2
MKAR				pPKPbc	pPKPbc	01 43 19.9	+0.3
MKAR	Makanchi Array	146.76	45	PKP	PKPdf	01 41 04.2	+0.8
	6.6nm,0.6s,baz=280,slow=0.8,SNR=61						
MKAR				PKPbc	PKPbc	01 41 06.5	+0.2
	6.7nm,0.6s,baz=302,slow=2.5,SNR=60						
MKAR				pPKPbc	pPKPbc	01 43 19.9	+0.3
	0.1nm,0.4s,baz=270,slow=2.9,SNR=3.0						
SONM	Songino Array	158.04	19	PKPab	PKPab	01 41 58.0	+0.9
	0.8nm,0.8s,baz=314,slow=2.8,SNR=2.9						

IDC 27 01:27:12.9±2.4**, 908S**×**11963E, h0**^{km}**, mb3.3**/1**, mb1 3.5**/4**, mb1mx3.3**/18**, mbtmp3.3**/4**, ML3.5**/3**, Error ellipse: s-maj=200.1km s-min=27.5km az=54.0, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	10.70	148	Pn	Pn	01 29 48.7	+1.2
	0.4nm,0.3s,baz=340,slow=16,SNR=15						
FITZ				Sn	Sn	01 31 39.5	-8.7
	1.4nm,0.3s,baz=346,slow=19,SNR=18						
WRA	Warramunga Arr	17.86	129	P	Pn	01 31 23.8	+0.9
	0.2nm,0.3s,baz=303,slow=13,SNR=9.6						
WRA				S	Sn	01 34 29.2	-14
	0.1nm,0.3s,baz=304,slow=24,SNR=2.9						
ASAR	Alice Springs	19.92	138	P	Pn	01 31 45.0	-2.9
	0.1nm,0.3s,baz=320,slow=9.5,SNR=2.9						
ASAR				S	Sn	01 35 19.9	-13
	0.1nm,0.3s,baz=312,slow=24,SNR=3.7						
MKAR	Makanchi Array	64.81	333	P	P	01 37 53.5	+0.1
	0.1nm,0.4s,baz=137,slow=4.6,SNR=3.0						

ISCJB ***27*** *01:35:34.2±0.3, 41.73S±0.07×79.98E±0.09, h10^{km}, mb4.5/23, MS4.9/15, Error ellipse: s-maj=10.3km s-min=9.5km az=139.8*

IDC ***27*** *01:35:34.1±0.5, 41.64S×79.95E, h0^{km}, mb4.2/14, mb1 4.3/14, mb1mx4.2/18, mbtmp4.2/14, MS4.9/14, Ms1 4.9/14, ms1mx4.8/19, Error ellipse: s-maj=21.2km s-min=15.4km az=166.0*

GCMT ***27*** *01:35:36.3±0.2, 41.72S×79.81E, h12^{km}, MW5.4/86, Moment Tensor Solution. s68,c105; s86,c159; Duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.14±.02; M$_{\theta\theta}$1.50±.02; M$_{\phi\phi}$-1.36±.02; M$_{r\theta}$0.34±.06; M$_{\theta\phi}$-0.09±.02; M$_{\phi r}$0.08±.06; Best double couple: M$_0$1.47000×10^{17} NP1:φ$_s$137.00000°, δ79.00000°, λ5.00000°. NP2:φ$_s$47.00000°, δ85.00000°, λ169.00000°. Principal axes: T 1.5700, Plg11.0000°, Azm2.0000°; N -0.2020, Plg78.0000°, Azm204.0000°; P -1.3700, Plg4.0000°, Azm92.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BJI ***27*** *01:35:36.3, 41.60S×80.00E, h10^{km}, mB5.1, mb4.7, Ms5.1, Msz4.8*

NEIC ***27*** *01:35:36.4±0.3, 41.60S×80.00E, h10^{km}, mb4.7/11, Error ellipse: s-maj=11.0km s-min=10.2km az=133.0*

ISC 27 01:35:35.9±0.3**, 4174S**±007×**7996E**±009**, h10**^{km}**, (h9**^{km}±1.8^{km}**:pP-P), n80, σ1^{s}26**/50**, mb4.5**/23**, MS4.9**/15**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAW	Mawson	27.53	194	P	P	01 41 26.1	+3.8
	40nm,1.1s,mb5.0						
MAW				LR	LR	01 49 52.8	
MAW	Mawson	27.53	194	P	P	01 41 23.5	+1.2
	20nm,1.1s,mb4.7,baz=28,slow=14,SNR=4.1						
MAW				LR	LR	01 49 52.8	
	comp=Z,3µm,20.5s,MS4.8,baz=348,slow=31						
CASY	Casey	29.86	156	P	P	01 41 46.1	+3.0
NWAO	Narrogin (SRO)	30.72	86	LR	LR	01 51 27.6	
	comp=Z,2µm,20.6s,MS4.8,baz=58,slow=31						
COCO	West Island	32.92	31	P	P	01 42 07.8	-2.6
MBWA	Marble Bar	39.20	71	*e*P	P	01 43 03.1	-1.1
	18nm,1.5s,mb4.6						
MAIT	Maitri	44.13	206	*e*P	P	01 43 40.0	-4.0
FITZ	Fitzroy Crossi	45.40	73	P	P	01 43 55.4	+0.7
	1.9nm,0.9s,mb3.9,baz=212,slow=15,SNR=2.2						
BOSA	Boshof	45.88	268	*e*P	P	01 43 58.5	+0.1
	5.6nm,0.8s,mb4.5						
BOSA				LR	LR	01 59 27.2	
BOSA	Boshof	45.88	268	P	P	01 43 58.1	-0.4
	5.6nm,0.9s,mb4.5,baz=102,slow=12,SNR=7.8						
BOSA				LR	LR	01 59 27.2	
	comp=Z,3µm,18.8s,MS5.2,baz=125,slow=31						
SUR	Sutherland	47.30	261	P	P	01 44 09.7	+0.2
	8.3nm,0.8s,mb4.7,baz=134,slow=7.0,SNR=3.6						
LBTB	Lobatse	47.58	273	*e*P	P	01 44 11.7	-0.2
	8.2nm,1.0s,mb4.7						
LBTB	Lobatse	47.58	273	P	P	01 44 10.6	-1.3
	3.8nm,1.0s,mb4.4,baz=265,slow=8.9,SNR=3.6						
VNDA	Vanda	47.91	163	*e*P	P	01 44 13.9	+0.2
	11nm,1.2s,mb4.8						
VNDA				LR	LR	02 03 06.6	
VNDA	Vanda	47.91	163	P	P	01 44 13.2	-0.5
	1.3nm,0.7s,mb4.1,baz=274,slow=8.5,SNR=5.1						
VNDA				LR	LR	02 03 06.6	
	comp=Z,4µm,18.1s,MS5.5,baz=269,slow=34						
ASAR	Alice Springs	48.04	85	P	P	01 44 14.8	-0.6
	2.5nm,0.7s,mb4.4,baz=234,slow=7.1,SNR=22						
ASAR				PcP	PcP	01 45 45.0	+1.7
	0.8nm,0.7s,baz=222,slow=2.6,SNR=4.1						
QSPA	South Pole Qui	48.42	180	*e*P	P	01 44 16.7	-0.9
	113nm,1.7s,mb5.6						
TAU	Tasmania Unive	48.58	115	P	P	01 44 20.8	+1.5
PALK	Pallekele	48.78	1	*e*P	P	01 44 20.6	-0.4
	5.7nm,1.0s,mb4.6						
SNAA	Sanae	48.79	205	P	P	01 44 22.0	+1.5
	0.7nm,0.8s,mb3.7,baz=89,slow=16,SNR=6.2						
SNAA				LR	LR	02 01 57.6	
	comp=Z,318nm,20.0s,MS4.3,baz=138,slow=32						
STKA	Stephens Creek	49.38	99	*e*P	P	01 44 25.5	-0.1
	7.7nm,1.2s,mb4.6						
STKA	Stephens Creek	49.38	99	P	P	01 44 25.6	0.0
	3.9nm,0.7s,mb4.5,baz=258,slow=3.7,SNR=12						
STKA				LR	LR	02 02 41.2	
	comp=Z,3µm,19.0s,MS5.3,baz=236,slow=33						
VNA2	Neumayer--Watz	50.38	205	*e*	P	01 44 30.4	-2.3
	baz=84,slow=6.4						
VNA2				*e*	pP	01 44 32.0	-3.8
VNA2				*e*		01 44 36.8	
VNA2				*e*		01 44 42.3	
VNA2				*e*		01 44 46.7	
VNA2				*e*		01 44 51.4	
VNA2				*e*		01 44 59.3	
VNA2				*e*		01 45 01.9	
VNA2				*e*		01 45 06.3	
WRA	Warramunga Arr	50.58	82	P	P	01 44 34.3	-0.6
WRA				LR	LR	02 04 02.6	
WRA	Warramunga Arr	50.58	82	P	P	01 44 34.3	-0.6
	5.5nm,0.9s,mb4.5,baz=232,slow=7.8,SNR=17						
WRA				LR	LR	02 04 02.6	
	comp=Z,603nm,19.7s,MS4.6,baz=340,slow=34						
WB2	Warramunga Arr	50.59	82	*e*P	P	01 44 34.5	-0.5
VNA3	Neumayer Olymp	51.01	205	*e*	P	01 44 34.8	-2.6
VNA3				*e*	pP	01 44 37.0	-3.6
VNA3				*e*		01 44 41.7	
VNA3				*e*		01 44 47.1	
VNA3				*e*		01 44 51.3	
VNA3				*e*		01 44 56.0	
VNA3				*e*		01 45 04.3	
VNA3				*e*		01 45 06.9	
VNA3				*e*		01 45 11.6	
KSM	Kuching	51.05	41	P	P	01 44 37.2	-1.1
KMBO	Kilima Mbogo	55.75	305	P	P	01 45 14.8	+1.8
KMBO	Kilima Mbogo	55.75	305	LR	LR	02 04 14.5	
	comp=Z,827nm,19.4s,MS4.8,baz=114,slow=31						

KKM	Kota Kinabalu	57.94	44	*e*P	P	01 45 28.1	-0.4
SHL	Shillong	67.87	12	*e*P	P	01 46 38.5	+4.2
PMSA	Palmer Station	70.14	196	LR	LR	02 14 44.7	
	comp=Z,682nm,21.6s,MS4.9,baz=81,slow=34						
URZ	Urewera	70.39	124	LR	LR	02 11 48.7	
	comp=Z,406nm,19.1s,MS4.7,baz=282,slow=31						
LSA	Lhasa	71.83	10	P	P	01 46 56.8	-1.8
LSA				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
LSA	Lhasa	71.83	10	P	P	01 46 58.7	+0.2
DZM	Mont Dzumac	73.12	105	LR	LR	02 13 29.9	
	comp=Z,995nm,21.1s,MS5.1,baz=203,slow=31						
CD2	Chengdu	75.55	21	*e*P	P	01 47 23.0	+2.6
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
HNR	Honiara	76.33	90	P	P	01 47 26.9	+1.5
HNR	Honiara	76.33	90	LR	LR	02 20 53.4	
	comp=Z,532nm,18.4s,MS4.9,baz=179,slow=36						
YHNB	Yeheng	76.39	38	P	P	01 47 24.5	-0.8
KBL	Kabul	76.57	351	*e*P	P	01 47 26.7	+0.6
GTA	Gaotai	82.76	15	*e*P	P	01 48 00.5	+0.8
GTA				AP	pP	01 48 04.3	+1.3
GTA				XP	sP	01 48 06.8	+2.6
GTA				AMB	AMB		
	comp=Z,2.0nm,1.0s,mb4.1						
GTA				AMB	AMB		
	comp=Z,71nm,4.6s						
GTA				LR	LR		
	comp=N,485nm,19.8s,MS5.0						
GTA				LR	LR		
	comp=E,366nm,16.7s,MS5.0						
GTA				LR	LR		
	comp=Z,480nm,17.5s,MS4.9						
UCH	Uchtor	83.73	356	*e*P	P	01 48 04.0	-0.5
AAK	Ala-Archa	84.13	356	*e*P	P	01 48 08.0	+1.4
EKS2	Erkin-Say	84.20	355	*e*P	P	01 48 06.8	-0.2
	comp=Z,16nm,1.2s,mb5.0						
TKM2	Tokmak 2	84.37	357	P	P	01 48 11.7	+3.9
MKAR	Makanchi Array	88.17	2	P	P	01 48 25.5	-0.9
	comp=Z,0.7nm,0.9s,mb3.9,baz=178,slow=7.7,SNR=5.3						
TORD	Torodi Ar. Bea	90.09	287	P	P	01 48 35.6	-0.7
	comp=Z,1.6nm,1.2s,mb4.2,baz=170,slow=4.9,SNR=3.6						
TORD				LR	LR	02 27 35.4	
	comp=Z,2µm,19.9s,MS5.4,baz=130,slow=35						
BRTR	Keskin Array B	91.35	326	P	P	01 48 41.6	+0.2
	comp=Z,1.1nm,1.0s,mb4.1,baz=138,slow=5.8,SNR=4.2						
KURK	Kurchatov	92.08	359	*e*P	P	01 48 40.6	-4.0
	comp=Z,3.6nm,1.1s,mb4.6						
SONM	Songino Array	92.21	17	P	P	01 48 46.3	+1.0
	comp=Z,0.2nm,0.5s,mb3.7,baz=209,slow=1.5,SNR=2.8						
ULN	Ulaanbaatar	92.39	18	*e*P	P	01 48 48.4	+2.3
	comp=Z,6.8nm,1.7s,mb4.7						
BRVK	Borovoye	94.79	354	P	P	01 48 54.6	-2.4
CHKZ	Chkalovo	95.38	354	P	P	01 49 00.5	+0.9
RAR	Rarotonga	96.51	126	LR	LR	02 24 17.6	
	comp=Z,203nm,18.8s,MS4.6,baz=104,slow=30						
MDJ	Mudanjiang	96.78	33	P	P	01 49 06.6	+0.3
PPT	Papeete	105.33	131	*e*LR	LR	02 24 29.4	
	comp=Z,285nm,22.5s						
RKT	Rikitea	107.81	146	*e*LR	LR	02 25 36.5	
	comp=Z,411nm,24.0s						
YAK	Yakutsk	110.90	23	PKiKP	PKiKP	01 54 09.0	+0.9
TAOE	Nuku Hiva Isla	117.66	134	*e*LR	LR	02 30 13.1	
	comp=Z,632nm,22.7s						
COLA	College	144.52	33	*e*PKPdf	PKPdf	01 55 12.8	+1.5
JTS	JuntasAbangare	145.98	207	*e*PKPdf	PKPdf	01 55 16.0	+0.6
RES	Resolute Bay	146.88	358	*e*PKPdf	PKPdf	01 55 16.7	+1.6
INK	Inuvik	147.97	23	PKPbc	PKPbc	01 55 18.9	-1.4
INK				*e*PKPdf	PKPdf	01 55 19.0	+1.9
INK	Inuvik	147.97	23	PKPbc	PKPbc	01 55 18.9	-1.4
	comp=Z,3.1nm,0.8s,baz=349,slow=3.8,SNR=8.1						
DAWY	Dawson	148.23	32	*e*PKPdf	PKPbc	01 55 20.9	-0.1
YKA	Yellowknife Ar	157.48	18	PKP	PKPdf	01 55 29.8	-1.3
YKA				PKPab	PKPab	01 56 01.5	-1.4
YKA	Yellowknife Ar	157.48	18	PKP	PKPdf	01 55 29.8	-1.3
	comp=Z,0.1nm,0.4s,baz=343,slow=3.9,SNR=3.7						
YKA				PKPab	PKPab	01 56 01.5	-1.4
	comp=Z,0.4nm,0.9s,baz=320,slow=4.0,SNR=5.1						
LTX	Lajitas	167.28	165	*e*PKPdf	PKPdf	01 55 43.3	+1.2
TXAR	Lajitas Array	167.28	165	PKP	PKPdf	01 55 42.0	0.0
TXAR				PKPab	PKPab	01 56 46.5	-0.2
TXAR	Lajitas Array	167.28	165	PKP	PKPdf	01 55 42.0	0.0
	comp=Z,0.4nm,1.1s,baz=168,slow=4.6,SNR=3.3						
TXAR				PKPab	PKPab	01 56 46.5	-0.2
	comp=Z,0.2nm,0.7s,baz=206,slow=6.0,SNR=2.6						
BOZ	Bozeman (W)	170.74	61	*e*PKPdf	PKPdf	01 55 45.0	+1.4
PV01	Paradox Valley	172.52	116	PKPdf	PKPdf	01 55 51.2	+6.4
BW06	Boulder Array	172.86	79	PKPdf	PKPdf	01 55 50.5	+5.8
PDAR	Pinedale Array	172.86	79	PKP	PKPdf	01 55 45.9	+1.1
PDAR				PKPab	PKPab	01 57 08.8	-2.5
PDAR	Pinedale Array	172.86	79	PKP	PKPdf	01 55 45.9	+1.1
	comp=Z,0.4nm,0.8s,baz=140,slow=2.9,SNR=3.1						
PDAR				PKPab	PKPab	01 57 08.8	-2.5
	comp=Z,0.7nm,1.1s,baz=297,slow=4.0,SNR=3.1						
WMOK	Wichita Mounta	172.94	188	*e*PKPdf	PKPdf	01 55 46.9	+1.8
SDCO	Great Sand Dun	174.20	132	PKPdf	PKPdf	01 55 46.9	+1.4
ISCO	Idaho Springs	175.35	113	*e*PKPdf	PKPdf	01 55 46.1	+0.4

ISCJB ***27*** *01:38:19.0±0.6, 44.1S±0.1×78.9E±0.1, h10km, mb4.5/7, MS5.0/2, Error ellipse: s-maj=21.2km s-min=13.4km az=21.6*

NEIC ***27*** *01:38:21.0±0.5, 44.05S×78.92E, h10km, mb4.3/1, Error ellipse: s-maj=20.1km s-min=12.9km az=202.0*

IDC ***27*** *01:38:29.2±4.7, 41.59S×80.24E, h0km, mb4.2/4, mb1 4.4/4, mb1mx3.9/14, mbtmp4.2/4, MS4.9/2, Ms1 4.9/2, ms1mx4.4/16, Error ellipse: s-maj=177.3km s-min=41.9km az=28.0*

ISC 27 01:38:20.9±0.6, **44.1S**±0.1×**79.0E**±0.1, **h10**km, **n23**, σ**0.78**/15, **mb4.5**/7, **MS5.0**/2, **Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CASY	Casey	28.10	153	*e*P	P	01 44 12.5	+0.1
	40nm,0.9s,mb5.0						
SBA	Scott Base	46.92	163	P	P	01 46 50.2	-0.8
LBTB	Lobatse	47.02	276	P	P	01 46 53.1	+0.7
ASAR	Alice Springs	48.98	84	P	P	01 47 08.6	+0.9
	2.5nm,0.9s,mb4.2,baz=226,slow=7.2,SNR=8.3						
STKA	Stephens Creek	49.76	98	*e*P	P	01 47 19.1	+5.6
	7.8nm,0.9s,mb4.7						
STKA	Stephens Creek	49.76	98	P	P	01 47 18.5	+5.1
	7.7nm,1.0s,mb4.7,baz=252,slow=6.9,SNR=5.6						
LSZ	Lusaka	51.57	287	*e*P	P	01 47 26.9	-0.4
	5.3nm,1.2s,mb4.3						
WRA	Warramunga Arr	51.66	81	P	P	01 47 27.9	0.0
	5.2nm,0.9s,mb4.5,baz=230,slow=7.3,SNR=8.6						
WB2	Warramunga Arr	51.67	81	*e*P	P	01 47 28.1	+0.1
WB2	Warramunga Arr	51.67	81	*e*P	P	01 47 28.7	+0.6
TSUM	Tsumeb	56.42	275	*e*P	P	01 48 03.0	+0.3
	52nm,2.4s,mb5.1						
KMBO	Kilima Mbogo	56.51	307	P	P	01 48 03.4	+0.1
PMG	Port Moresby	67.87	82	LR	LR	02 14 24.0	
	comp=Z,2µm,18.8s,MS5.2,baz=202,slow=32						
KBL	Kabul	78.73	352	*e*P	P	01 50 22.5	-0.6
MALT	Malatya	89.80	329	*e*P	P	01 51 20.3	+1.1
MKAR	Makanchi Array	90.50	2	P	P	01 51 20.4	-1.9
	0.7nm,1.0s,mb4.0,baz=165,slow=6.0,SNR=3.7						
MJAR	Matsushiro Arr	96.53	44	LR	LR	02 33 59.9	
	comp=Z,296nm,18.1s,MS4.8,baz=275,slow=35						
CART	Cartagena	108.72	304	PKiKP	PKiKP	01 56 50.5	+0.7
RES	Resolute Bay	149.14	357	*e*PKPdf	PKPdf	01 58 04.2	+0.3
RES				*e*PKPab	PKPab	01 58 12.8	+0.4
INK	Inuvik	150.38	24	PKPbc	PKPbc	01 58 13.6	+2.4
INK	Inuvik	150.38	24	PKPbc	PKPbc	01 58 13.6	+2.4
	2.2nm,0.7s,baz=349,slow=3.9,SNR=3.9						
NVAR	Mina Array Bea	165.86	107	PKPab	PKPab	01 59 38.0	+13
	0.4nm,0.5s,baz=237,slow=6.0,SNR=3.5						
PDAR	Pinedale Array	173.67	99	PKPab	PKPab	02 00 06.5	+6.7
	1.0nm,1.0s,baz=132,slow=1.3,SNR=3.9						

ISCJB ***27*** *01:55:10.8±1.0, 20.52S±0.04×68.64W±0.08, h99km±9km, mb4.1/22, Error ellipse: s-maj=13.2km s-min=6.7km az=175.4*

NEIC ***27*** *01:55:12.6±1.0, 20.48S×68.65W, h101km±10km, mb4.1/12, Error ellipse: s-maj=13.3km s-min=9.3km az=62.0*

IDC ***27*** *01:55:15.8±0.7, 20.12S×68.58W, h122km±4km, mb3.9/12, mb1 4.1/13, mb1mx3.9/21, mbtmp4.0/13, Error ellipse: s-maj=20.7km s-min=16.0km az=53.0*

ISC 27 01:55:12.0±0.8, **20.53S**±0.04×**68.63W**±0.08, **h95**km±7km, **h121**km±3.0km**:pP-P, n55,** σ**1.37**/56, **mb4.1**/22, **1D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	4.25	6	⇓*e*Pn	Pn	01 56 18.0	+3.5
LPAZ				Sn	Sn	01 57 03.0	-0.1
LPAZ	La Paz	4.25	6	P	Pn	01 56 18.0	+3.5
	10nm,0.3s,baz=180,slow=6.9,SNR=226						
LPAZ				S	Sn	01 57 02.8	-0.2
	4.3nm,0.3s,baz=220,slow=12,SNR=4.2						
SIV	San Ignacio	8.48	59	P	Pn	01 57 13.2	+1.1
	8.5nm,0.3s,baz=252,slow=12,SNR=154						
SIV				S	Sn	01 58 42.6	-3.5
	baz=318,slow=19,SNR=5.1						
LCO	Las Campanas	8.65	192	*e*Pn	Pn	01 57 14.9	+0.6
	9.9nm,0.6s						
LCO				*e*Sn	Sn	01 58 48.1	-2.0
CFAA	Coronel Fontan	11.03	178	P	Pn	01 57 47.7	+1.0
CFAA				S	Sn	01 59 47.2	-1.0
CFAA	Coronel Fontan	11.03	178	P	Pn	01 57 47.7	+1.0
	0.1nm,0.3s,baz=0.7,slow=13,SNR=7.8						
CFAA				S	Sn	01 59 47.2	-1.0
	0.2nm,0.3s,baz=202,slow=19,SNR=5.5						
NNA	Nana	11.59	316	Pn	Pn	01 57 55.2	+0.7
NNA				*e*Sn	Sn	01 59 51.7	-10
NNA	Nana	11.59	316	P	Pn	01 57 58.4	+3.9
	1.0nm,0.3s,baz=158,slow=16,SNR=2.3						
OTAV	Otavalo	22.77	334	P	P	02 00 07.5	+0.8
	2.2nm,0.6s,mb3.7						
OTAV				*e*S	S	02 04 03.1	-5.3
SDV	Santo Domingo	29.30	356	*e*P	P	02 01 03.6	-2.0
	2.8nm,0.7s,mb4.0						
SDV	Santo Domingo	29.30	356	P	P	02 01 03.4	-2.2
	1.0nm,0.4s,mb3.8,baz=223,slow=9.1,SNR=2.9						
SDV				pP	pP	02 01 31.5	+4.4
	3.0nm,0.7s,baz=206,slow=13,SNR=3.3						
JTS	JuntasAbangare	34.58	331	P	P	02 01 55.4	+3.5
SJG	San Juan	38.48	4	*e*P	P	02 02 21.8	-3.1
	11nm,0.4s,mb5.0						
SJG	San Juan	38.48	4	P	P	02 02 22.0	-3.0
	5.3nm,0.3s,mb4.8,baz=149,slow=5.9,SNR=5.9						
TEIG	Tepich	44.84	333	P	P	02 03 15.4	-1.5
TEIG	Tepich	44.84	333	P	P	02 03 15.2	-1.7
	4.0nm,0.6s,mb4.3,baz=113,slow=4.5,SNR=3.3						
DWPF	Disney	49.92	345	P	P	02 03 55.4	-0.7
BBSR	BB Station	52.74	4	P	P	02 04 15.3	-1.8
TKL	Tuckaleechee C	57.70	345	P	P	02 04 51.1	-1.6
	4.1nm,1.0s,mb4.4,baz=113,slow=7.7,SNR=2.4						
TKL				pP	pP	02 05 19.2	+3.1
	2.3nm,0.6s,baz=108,slow=5.4,SNR=2.8						
SWET	Sewanee	57.82	343	*e*P	P	02 04 51.9	-1.7
WVT	Waverly	59.21	342	P	P	02 05 05.6	+2.4
MIAR	Mount Ida	59.69	336	*e*P	P	02 05 07.1	+0.6
LTX	Lajitas	59.99	325	*e*P	P	02 05 10.0	+1.3
	0.6nm,0.5s,mb3.9						
WMOK	Wichita Mounta	61.99	332	P	P	02 05 24.1	+2.0
SNAA	Sanae	63.10	161	P	P	02 05 32.3	+3.3
	0.4nm,0.6s,mb3.5,baz=253,slow=8.9,SNR=7.7						
SADO	Sadowa	65.69	352	P	P	02 05 44.4	-1.7
SADO	Sadowa	65.69	352	P	P	02 05 44.4	-1.7
	baz=213,slow=11						
ANMO	Albuquerque	65.84	326	P	P	02 05 49.6	+2.2
SDCO	Great Sand Dun	67.55	329	*e*P	P	02 05 58.8	+0.5
	0.8nm,0.5s,mb3.8						
LIC	Lamto	67.86	74	*e*P	P	02 06 00.3	-0.4
	26nm,0.6s,mb5.2						
TIC	Toumodi	68.05	74	*e*P	P	02 06 01.7	-0.2
	104nm,1.2s						
KIC	Kosan Boka	68.18	74	*e*P	P	02 06 02.8	+0.1
	72nm,0.6s						
HWUT	Hardware Ranch	73.51	328	*e*P	P	02 06 35.4	+1.1
	0.8nm,0.5s,mb3.7						
ULM	Lac du Bonnet	74.48	342	P	P	02 06 38.0	-1.8
ULM	Lac du Bonnet	74.48	342	P	P	02 06 38.0	-1.8
	1.1nm,0.5s,mb3.8,baz=167,slow=5.5,SNR=5.4						
NVAR	Mina Array Bea	74.90	322	P	P	02 06 41.2	-1.3
	0.2nm,0.4s,mb3.2,baz=163,slow=7.4,SNR=2.1						
NVAR				pP	pP	02 07 11.0	+4.0
	1.0nm,0.6s,baz=134,slow=6.4,SNR=4.6						
NVAR				sP	sP	02 07 26.3	+9.1
	0.4nm,0.5s,baz=129,slow=6.3,SNR=3.2						
SCHQ	Schefferville	75.07	1	P	P	02 06 42.0	-1.0
	2.4nm,0.6s,mb4.1,baz=226,slow=7.3,SNR=4.9						
HLID	Hailey	76.37	328	*e*P	P	02 06 52.1	+1.3
	1.0nm,0.8s,mb3.6						
TOA0	Torodi Ar. Sit	76.78	70	*e*P	P	02 06 53.4	-0.4
TORD	Torodi Ar. Bea	76.78	70	P	P	02 06 53.5	-0.2
	9.3nm,0.5s,mb4.8,baz=254,slow=5.2,SNR=202						
TSUM	Tsumeb	80.06	107	*e*P	P	02 07 12.7	+0.9
	4.0nm,0.8s,mb4.3						
NEW	Newport	81.05	330	*e*P	P	02 07 17.8	+1.5
	1.6nm,0.6s,mb4.0						
FCC	Fort Churchill	81.75	347	*e*P	P	02 07 19.0	-0.8
	2.5nm,0.4s,mb4.4						
BOSA	Boshof	83.67	118	P	P	02 07 31.7	+1.1
	5.3nm,1.0s,mb4.3,baz=252,slow=3.2,SNR=6.0						
ESDC	Sonseca Array	84.96	44	P	P	02 07 36.8	+0.1
	0.6nm,0.6s,mb3.7,baz=246,slow=4.8,SNR=4.6						
LBTB	Lobatse	85.18	115	*e*P	P	02 07 40.5	+2.2
	3.0nm,0.6s,mb4.4						
YKA	Yellowknife Ar	90.37	340	P	P	02 08 01.6	-0.5
YKA				pP	pP	02 08 32.0	+4.7
YKA				sP	sP	02 08 45.7	+8.3
YKA	Yellowknife Ar	90.37	340	P	P	02 08 01.6	-0.5
	1.6nm,0.7s,mb4.3,baz=133,slow=4.7,SNR=36						
YKA				pP	pP	02 08 32.0	+4.7
	2.6nm,0.7s,baz=133,slow=4.9,SNR=11						
YKA				sP	sP	02 08 45.7	+8.3
	2.6nm,0.8s,baz=133,slow=4.8,SNR=4.9						
COLA	College	103.91	334	Pdif	Pdif	02 09 03.7	-0.1
ZALV	Zalesovo Beam	140.97	25	PKP	PKPdf	02 14 26.3	-4.4
ZALV				PKP	PKPdf	02 14 31.5	+0.7
ZALV				pPKP	pPKPdf	02 15 03.4	+6.3
ZALV	Zalesovo Beam	140.97	25	PKhKP		02 14 26.3	
	0.7nm,0.6s,baz=349,slow=0.7,SNR=3.6						
ZALV				PKP	PKPdf	02 14 31.5	+0.7
	0.7nm,0.4s,baz=309,slow=2.8,SNR=4.4						
ZALV				pPKP	pPKPdf	02 15 03.4	+6.3
	1.1nm,0.6s,baz=318,slow=2.0,SNR=3.9						
MKAR	Makanchi Array	144.70	35	PKP	PKPdf	02 14 37.0	-0.6
MKAR				pPKP	pPKPdf	02 15 09.5	+5.6
MKAR	Makanchi Array	144.70	35	PKP	PKPdf	02 14 37.0	-0.6
	1.1nm,0.4s,baz=344,slow=2.8,SNR=24						
MKAR				pPKP	pPKPdf	02 15 09.5	+5.6
	0.9nm,0.6s,baz=307,slow=3.3,SNR=4.5						
SONM	Songino Array	152.47	7	PKPbc	PKPbc	02 14 56.8	-0.3
SONM				PKPab	PKPab	02 15 07.0	-0.5
SONM				pPKPbc	pPKPbc	02 15 30.7	+7.4
SONM	Songino Array	152.47	7	PKPbc	PKPbc	02 14 56.7	-0.3
	1.1nm,0.7s,baz=230,slow=1.9,SNR=5.9						
SONM				PKPab	PKPab	02 15 07.0	-0.5
	0.6nm,0.7s,baz=314,slow=3.4,SNR=5.1						
SONM				pPKPbc	pPKPbc	02 15 30.7	+7.4
	1.5nm,0.7s,baz=338,slow=1.7,SNR=5.1						

IDC 27 01:58:22.7±57.0, **22.77S**×**175.43W, h0**km, **mb4.0**/3, **mb1 4.2**/3, **mb1mx3.9**/14, **mbtmp4.0**/3, **Error ellipse: s-maj=1065.0km s-min=170.7km az=87.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	39.04	247	P	P	02 05 51.2	0.0
	0.9nm,0.5s,baz=90,slow=9.1,SNR=4.5						
ASAR	Alice Springs	46.37	258	P	P	02 06 50.9	-0.1
	0.8nm,0.5s,baz=95,slow=7.3,SNR=12						
WRA	Warramunga Arr	46.69	264	P	P	02 06 53.5	0.0
	1.7nm,0.4s,baz=103,slow=8.2,SNR=19						

ISCJB ***27*** *02:05:26.7±1.4, 18.03S±0.09×175.43W±0.08, h221km±14km, mb4.1/20, Error ellipse: s-maj=17.1km s-min=10.1km az=143.8*

NEIC ***27*** *02:05:27.7±1.3, 18.06S×175.35W, h221km±12km, mb4.4/8, Error ellipse: s-maj=16.7km s-min=8.3km az=145.0*

IDC ***27*** *02:05:33.4±1.9, 18.18S×175.42W, h271km±17km, mb3.8/14, mb1 4.0/15, mb1mx3.9/19, mbtmp3.8/15, Error ellipse: s-maj=14.1km s-min=9.5km az=139.0*

ISC 27 02:05:27.3±1.5, **18.14S**±0.09×**175.33W**±0.09, **h214**km±14km, **n59,** σ**0.95**/35, **mb4.1**/20, **1C, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	5.42	40	P	Pn	02 06 46.6	-0.9
	8.3nm,0.3s,baz=25,slow=19,SNR=14						
AFI				S	S	02 07 45.5	-5.4
	74nm,0.3s,baz=54,slow=22,SNR=12						
RAR	Rarotonga	14.97	104	P	Pn	02 08 58.1	+9.5
	1.7nm,0.3s,baz=295,slow=14,SNR=4.8						
DZM	Mont Dzumac	17.55	254	P	P	02 09 20.0	+2.6
	0.7nm,0.3s,baz=72,slow=19,SNR=4.0						
URZ	Urewera	21.11	197	P	P	02 09 55.6	+0.3
	17nm,0.3s,mb5.0,baz=358,slow=4.1,SNR=34						
URZ				S	S	02 13 34.8	-1.9
	4.2nm,0.6s,baz=29,slow=18,SNR=4.8						
ARMA	Armidale	32.38	242	*e*P	P	02 11 38.5	+1.6
CTA	Charters Tower	36.30	261	*e*P	P	02 12 10.0	-0.6
	4.0nm,0.4s,mb4.3						
CTA	Charters Tower	36.30	261	P	P	02 12 10.3	-0.3
	5.0nm,0.5s,mb4.3,baz=87,slow=11						
STKA	Stephens Creek	41.09	242	*e*P	P	02 12 50.8	+0.4
	2.3nm,1.0s,mb3.6						
STKA	Stephens Creek	41.09	242	P	P	02 12 50.6	+0.2
	2.4nm,0.5s,mb3.9,baz=81,slow=10,SNR=8.9						
WB2	Warramunga Arr	47.45	259	*e*P	P	02 13 39.9	-1.0
WRA	Warramunga Arr	47.47	259	P	P	02 13 40.7	-0.3
	5.3nm,0.3s,mb4.3,baz=98,slow=6.7,SNR=177						
WRA				S	S	02 20 13.4	-5.8
	1.3nm,0.9s,baz=96,slow=13,SNR=4.1						
ASAR	Alice Springs	47.54	254	P	P	02 13 41.2	-0.3
	34nm,0.6s,mb4.8,baz=91,slow=8.1,SNR=381						
ASAR				S	S	02 20 15.3	-4.9
	0.6nm,0.7s,baz=95,slow=14,SNR=7.8						
KAKA	Kakadu	50.50	268	*e*P	P	02 14 03.1	-1.0
	17nm,0.6s,mb4.7						
FITZ	Fitzroy Crossi	55.87	260	*e*P	P	02 14 42.9	-0.3
	14nm,2.0s,mb4.1						
FITZ	Fitzroy Crossi	55.87	260	*e*P	P	02 14 42.2	-1.0
	2.9nm,0.4s,mb4.2						
VNDA	Vanda	60.48	186	P	P	02 15 15.6	+1.5
	6.0nm,1.0s,mb4.2,baz=5.5,slow=5.0,SNR=6.2						
MBWA	Marble Bar	60.85	255	*e*P	P	02 15 16.6	-1.0
	2.6nm,0.3s,mb4.3						
MJAR	Matsushiro Arr	69.87	322	P	P	02 16 14.7	-0.3
	2.4nm,0.5s,mb4.1,baz=158,slow=5.9,SNR=7.2						
QSPA	South Pole Qui	71.92	180	*e*P	P	02 16 27.3	+0.7
	16nm,0.8s,mb4.7						
KSRS	Korea Array	76.84	317	P	P	02 16 57.3	+1.7
	1.8nm,0.7s,mb3.8,baz=130,slow=6.3,SNR=6.5						
NVAR	Mina Array Bea	77.59	42	P	P	02 17 00.0	+0.3
	1.4nm,0.7s,mb3.7,baz=218,slow=7.7,SNR=7.6						
TUC	Tucson	79.55	51	*e*P	P	02 17 10.5	-0.1
	1.9nm,0.9s,mb3.7						
TXAR	Lajitas Array	83.67	57	P	P	02 17 33.1	+0.9
	1.0nm,0.7s,mb3.7,baz=209,slow=7.7,SNR=14						
ANMO	Albuquerque	83.97	50	P	P	02 17 34.1	+0.5
	baz=241,slow=3.7						
PDAR	Pinedale Array	85.53	42	P	P	02 17 40.6	-0.6
	0.6nm,0.7s,mb3.4,baz=196,slow=2.8,SNR=5.8						
CMIG	Matias Romero	86.53	71	P	P	02 17 46.0	-0.7
	0.9nm,0.5s,mb3.7,baz=197,slow=7.3,SNR=4.1						
RLMT	Red Lodge	86.87	40	*e*P	P	02 17 49.2	+1.5
	7.3nm,0.6s,mb4.6						
SNAA	Sanae	90.27	178	P	P	02 18 02.2	-1.2
	0.5nm,0.6s,mb3.5,baz=219,slow=2.8,SNR=5.8						
VNA3	Neumayer Olymp	90.30	175	*e*	P	02 18 02.9	-0.6
VNA2	Neumayer--Watz	90.77	176	*e*	P	02 18 05.5	-0.2
	baz=208,slow=3.2						
YKA	Yellowknife Ar	93.34	24	P	P	02 18 17.0	-0.4
	0.6nm,0.8s,mb3.7,baz=242,slow=4.4,SNR=8.7						
MKAR	Makanchi Array	111.40	314	PKPdf	PKiKP	02 23 34.5	-1.2
MKAR	Makanchi Array	111.40	314	PKiKP	PKiKP	02 23 34.5	-1.2
	0.3nm,0.5s,baz=181,slow=0.4,SNR=10						
ARCES	ARCESS Array B	127.03	351	PKP	PKPdf	02 24 04.0	-1.2
ARCES	ARCESS Array B	127.03	351	PKP	PKPdf	02 24 04.0	-1.2
	2.5nm,0.7s,baz=11,slow=3.1,SNR=12						
FINES	FINESS Array B	134.17	346	PKP	PKPdf	02 24 18.1	-0.7
FINES	FINESS Array B	134.17	346	PKP	PKPdf	02 24 18.1	-0.7
	1.2nm,0.8s,baz=27,slow=1.9,SNR=3.9						
CLL	Collm	146.25	351	⇑*i*PKPbc	PKPbc	02 24 42.0	-0.4
	comp=Z,7.0nm,0.8s						
BRTR	Keskin Array B	146.99	317	PKPbc	PKPbc	02 24 44.9	0.0
BRTR	Keskin Array B	146.99	317	PKPbc	PKPbc	02 24 44.9	0.0
	comp=Z,1.3nm,0.8s,baz=126,slow=3.2,SNR=7.8						
GERES	GERESS Array B	148.51	349	PKPbc	PKPbc	02 24 48.6	0.0
GERES	GERESS Array B	148.51	349	PKPbc	PKPbc	02 24 48.6	0.0
	comp=Z,0.9nm,0.6s,baz=0.0,slow=0.0,SNR=6.6						
FLN	La Foliniere	149.17	7	*e*PKP1	PKPbc	02 24 49.5	-0.8
	comp=Z,3.3nm,0.4s						
FLN	La Foliniere	149.17	7	*e*PKP	PKPbc	02 24 49.5	-0.8
CDF	Champ du Feu	149.73	357	*e*PKP1	PKPbc	02 24 51.4	-0.2
	comp=Z,6.4nm,0.6s						
CDF	Champ du Feu	149.73	357	*e*PKP	PKPbc	02 24 51.4	-0.2
HAU	Haudompre	150.18	358	*e*PKP1	PKPbc	02 24 52.4	-0.3
	comp=Z,3.3nm,0.5s						
HINF	Hinteralfeld	150.35	357	*e*PKP1	PKPbc	02 24 52.6	-0.5
	comp=Z,5.4nm,0.8s						
LOR	Lormes	150.94	1	*e*PKP1	PKPbc	02 24 54.2	-0.3
	comp=Z,6.5nm,0.6s						
SSF	Saint Saulge	151.14	2	*e*PKP1	PKPbc	02 24 54.7	-0.3
MFF	Saint Martin d	151.34	7	*e*PKP1	PKPbc	02 24 54.8	-0.7
AVF	Avril sur Loir	151.41	2	*e*PKP1	PKPbc	02 24 54.9	-0.7
CABF	La Chapelle	151.58	358	*e*PKP1	PKPbc	02 24 56.2	+0.2
BGF	Bois d'Agland	151.62	3	*e*PKP1	PKPbc	02 24 55.7	-0.4
	comp=Z,8.2nm,0.5s						
TCF	Toulx Ste Croi	151.86	4	*e*PKP1	PKPbc	02 24 56.0	-0.7
	comp=Z,6.6nm,0.7s						
LPL	La Plagne	152.65	357	*e*PKP1	PKPbc	02 24 59.5	+1.0
LPG	La Plagne	152.67	357	*e*PKP1	PKPbc	02 24 59.5	+1.0
TORD	Torodi Ar. Bea	174.27	150	PKP	PKPdf	02 25 09.8	-2.3
TORD				PKPab	PKPab	02 26 44.5	-0.7
TORD	Torodi Ar. Bea	174.27	150	PKP	PKPdf	02 25 09.8	-2.3
	comp=Z,0.5nm,0.8s,baz=39,slow=1.6,SNR=4.7						
TORD				PKPab	PKPab	02 26 44.5	-0.7
	comp=Z,1.5nm,1.0s,baz=196,slow=2.6,SNR=5.9						

ISCJB ***27*** *02:06:57.6±0.5, 50.29N±0.03×18.88E±0.03, h0km, Error ellipse: s-maj=4.9km s-min=2.5km az=9.2*

CSEM ***27*** *02:06:58.8±0.2, 50.25N×18.93E, h2km, ML2.8/7, Error ellipse: s-maj=7.1km s-min=2.5km az=1.0*

IPEC ***27*** *02:06:58.1±0.2, 50.30N×18.91E, h4km±1km, ML2.0/4, Error ellipse: s-maj=2.3km s-min=0.8km az=168.0*

PRU ***27*** *02:06:58.5, 50.27N×18.92E, h0km*

WAR ***27*** *02:06:58.1, 50.25N×18.95E, ML2.5, Mining Induced*

ISC 27 02:06:58.9±0.5, **50.25N**±0.03×**18.89E**±0.03, **h0**km, **n42,** σ**1.28**/66, **1C-5D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	Raciborz	0.48	250	*e*Pg	Pg	02 07 08.5	+0.4
RAC				*e*Sg	Sg	02 07 15.6	+1.3
OJC	Ojcow	0.58	92	*e*Pg	Pg	02 07 09.0	-1.1
OJC				*e*Sg	Sg	02 07 16.7	-0.9
OKC	Ostrava-Krasne	0.63	230	*e*PG	Pg	02 07 10.9	-0.1
OKC				*e*SG	Sg	02 07 20.4	+1.2
	56nm,1.1s						
OKC	Ostrava-Krasne	0.63	230	*e*Pg	Pg	02 07 10.9	-0.1
OKC				*e*Sg	Sg	02 07 19.8	+0.6
MORC	Moravsky Berou	0.99	242	⇑*i*P	Pg	02 07 17.4	-0.5
MORC	Moravsky Berou	0.99	242	S	Sg	02 07 31.0	+0.3
MORC	Moravsky Berou	0.99	242	*e*Pg	Pg	02 07 17.3	-0.6
MORC				*e*Sg	Sg	02 07 30.3	-0.4
	10nm,0.2s						
NIE	Niedzica	1.24	131	*e*Pg	Pg	02 07 21.5	-1.2
NIE				*e*Sg	Sg	02 07 38.0	-0.7
JAVC	Velka Javorina	1.60	210	*e*Sg	Sg	02 07 51.7	+1.4
	16nm,0.7s						
DPC	Dobruska-Polom	1.65	275	*e*PG	Pg	02 07 28.2	-2.4
DPC				*e*SG	Sg	02 07 52.0	0.0
	19nm,0.6s						
DPC	Dobruska-Polom	1.65	275	*e*Pn	Pn	02 07 28.0	-1.2
DPC	Dobruska-Polom	1.65	275	*e*Pg	Pg	02 07 28.2	-2.4
DPC				*e*Sg	Sg	02 07 50.0	-2.0
KOLL	Kolacno	1.70	191	*e*PN	Pn	02 07 31.0	+1.2
KOLL				*e*SN	Sn	02 07 53.3	+1.1
KOLL	Kolacno	1.70	191	*e*Pn	Pn	02 07 31.0	+1.2
KOLL				*e*Sn	Sn	02 07 53.3	+1.1
STHS	Stebnicka Huta	1.73	118	*e*PN	Pn	02 07 30.8	+0.5
STHS				*e*SN	Sn	02 07 57.9	+4.8
STHS	Stebnicka Huta	1.73	118	*e*Pn	Pn	02 07 30.8	+0.5
STHS				*e*Sn	Sn	02 07 57.9	+4.8
VYHS	Vyhne	1.75	181	*e*PN	Pn	02 07 28.9	-1.7
VYHS				*e*SN	Sn	02 07 51.8	-1.8
VYHS	Vyhne	1.75	181	*e*Pn	Pn	02 07 28.9	-1.7
VYHS				*e*Sn	Sn	02 07 51.8	-1.8
KSP	Ksiaz	1.76	291	*e*Pn	Pn	02 07 31.8	+1.2
KSP				*e*Sn	Sn	02 07 55.7	+1.9
VRAC	Vranov	1.76	239	S	Sn	02 07 53.9	+0.1

VRAC	Vranov	1.76	239	ePn	Pn	02 07 29.8	-0.9
VRAC	Vranov	1.76	239	⇓iP	Pn	02 07 30.6	-0.1
VRAC				eSg	Sg	02 07 54.1	-1.4
	14nm,0.5s						
KRUC	Moravsky	2.01	235	ePn	Pn	02 07 33.4	-0.7
KRUC				eSn	Sn	02 08 00.2	+0.3
	8.4nm,0.6s						
KECS	Kecovo	2.05	149	ePN	Pn	02 07 36.4	+1.8
KECS				eSN	Sn	02 08 02.2	+1.3
CRVS	Cervenica-Dubn	2.15	128	ePN	Pn	02 07 37.6	+1.6
CRVS	Cervenica-Dubn	2.15	128	ePn	Pn	02 07 37.6	+1.6
PSZ	Piszkesteto	2.42	164	⇓iP	Pn	02 07 40.6	+0.9
KWP	Kalwaria	2.54	103	ePg	Pg	02 07 47.2	-0.4
KWP				eSg	Sg	02 08 26.5	+6.0
KWP	Kalwaria	2.54	103	⇓iP	Pn	02 07 44.5	+3.1
KWP	Kalwaria	2.54	103	ePg	Pg	02 07 47.2	-0.4
PVCC	Panska Ves	2.78	277	eSG	Sg	02 08 28.0	-0.3
	29nm,1.2s						
PVCC	Panska Ves	2.78	277	eSg	Sg	02 08 28.0	-0.3
	29nm,1.2s						
PRU	Pruhonice	2.81	266	ePG	Pg	02 07 49.6	-3.2
PRU				eSG	Sg	02 08 27.1	-2.1
	4.6nm,0.8s						
PRU	Pruhonice	2.81	266	ePg	Pg	02 07 49.6	-3.2
PRU				eSg	Sg	02 08 27.1	-2.1
	4.6nm,0.8s						
BRG	Berggiesshubel	3.22	283	PG	Pg	02 08 02.3	+1.7
BRG				SG	Sg	02 08 44.9	+2.6
	4.2nm,0.9s						
KHC	Kasperske Hory	3.63	254	ePN	Pn	02 07 55.5	-0.8
KHC				ePG	Pg	02 08 04.2	-4.2
KHC				eSG	Sg	02 08 54.2	-1.2
	5.5nm,0.6s						
KHC	Kasperske Hory	3.63	254	ePn	Pn	02 07 55.5	-0.8
CLL	Collm	3.89	288	eSg	Sg	02 09 06.0	+2.3
NKC	Novy Kostel	4.14	272	eSG	Sg	02 09 10.9	-0.9
NKC	Novy Kostel	4.14	272	eSg	Sg	02 09 10.9	-0.9
DRGR		4.29	142	⇓iP	Pn	02 08 05.7	+0.3
BURAR	Bucovina Array	4.93	120	⇓iP	Pn	02 08 13.6	-0.6

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*NEIC **27** 02:09:03.0, 40.56N×22.30E, h26km, MD3.1(ATH), ML2.9(THE), After ATH.*
*CSEM **27** 02:09:03.9±0.1, 40.49N×22.32E, h15km, ML2.9, Error ellipse: s-maj=1.9km s-min=1.5km az=132.0*
*ATH **27** 02:09:03.0, 40.56N×22.30E, h26km±1km, MD3.1/5*
*ISCJB **27** 02:09:04.5±0.4, 40.49N±0.03×22.34E±0.03, h20km±6km, Error ellipse: s-maj=4.4km s-min=3.8km az=171.7*
*THE **27** 02:09:04.1, 40.49N×22.33E, h14km, ML2.9*
*SKO **27** 02:09:04.6, 40.51N×22.43E, h7km*
ISC 27 02:09:04.0±0.4**, 40.50N**±0.03×**22.34E**±0.03**, h16**km±5km**, n46, σ0ˢ83**/76**, 2D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIT	Litokhoron	0.41	163	P	Pg	02 09 12.2	-0.2
LIT				S	Sg	02 09 18.6	+0.7
LIT	Litokhoron	0.41	163	ePg	Pg	02 09 12.2	-0.2
LIT				eSg	Sg	02 09 18.6	+0.7
LIT	Litokhoron	0.41	163	ePg	Pg	02 09 12.2	-0.1
LIT				eSg	Sg	02 09 18.6	+0.7
GRG	Griva	0.46	6	P	Pg	02 09 12.8	-0.5
GRG				S	Sg	02 09 20.2	+0.6
GRG	Griva	0.46	6	ePg	Pg	02 09 12.8	-0.5
GRG				eSg	Sg	02 09 20.2	+0.6
GRG	Griva	0.46	6	ePg	Pg	02 09 12.8	-0.5
GRG				eSg	Sg	02 09 20.2	+0.6
KZN	Kozani	0.47	247	ePb	Pg	02 09 12.7	-0.7
KZN				eSb	Sb	02 09 20.8	+0.2
KZN	Kozani	0.47	247	ePB	Pg	02 09 12.7	-0.7
KZN				eSB	Sb	02 09 20.8	+0.2
KZN	Kozani	0.47	247	ePb	Pg	02 09 12.7	-0.7
KZN				eSb	Sb	02 09 20.8	+0.2
THE	Thessaloniki	0.50	74	P	Pg	02 09 13.7	-0.3
THE				S	Sg	02 09 21.2	+0.6
THE	Thessaloniki	0.50	74	ePg	Pg	02 09 13.7	-0.3
THE				eSg	Sg	02 09 21.2	+0.6
THE	Thessaloniki	0.50	74	ePg	Pg	02 09 13.6	-0.3
THE				eSg	Sg	02 09 21.2	+0.6
HORT	Hortiatis	0.59	80	P	Pg	02 09 15.5	-0.2
HORT				S	Sg	02 09 25.1	+1.6
HORT	Hortiatis	0.59	80	ePg	Pg	02 09 15.5	-0.2
HORT				eSg	Sg	02 09 25.1	+1.6
HORT	Hortiatis	0.59	80	ePg	Pg	02 09 15.5	-0.1
HORT				eSg	Sg	02 09 25.1	+1.6
FNA	Florina	0.79	292	ePg	Pg	02 09 18.8	-0.5
FNA	Florina	0.79	292	ePg	Pg	02 09 18.8	-0.5
KNT	Kendrikon	0.79	32	ePg	Pg	02 09 18.9	-0.5
KNT				eSg	Sg	02 09 30.7	+0.9
KNT	Kendrikon	0.79	32	ePg	Pg	02 09 19.0	-0.4
KNT				eSg	Sg	02 09 30.7	+0.8
SOH	Sokhos	0.84	67	ePg	Pg	02 09 19.8	-0.5
SOH				eSg	Sg	02 09 32.5	+1.1
SOH	Sokhos	0.84	67	ePg	Pg	02 09 19.8	-0.5
SOH				eSg	Sg	02 09 32.5	+1.1
VAY	Valandovo	0.84	12	i Pg	Pg	02 09 18.7	-1.8
PLG	Polygyros	0.85	98	⇓iPn	Pg	02 09 20.2	-0.4
PLG				eSn	Sn	02 09 32.0	-1.5
PLG	Polygyros	0.85	98	ePg	Pg	02 09 20.2	-0.4
PLG				eSg	Sg	02 09 32.3	+0.4
PLG	Polygyros	0.85	98	⇓iPN	Pg	02 09 20.2	-0.4
PLG				eSN	Sn	02 09 32.0	-1.5
PLG	Polygyros	0.85	98	ePg	Pg	02 09 20.2	-0.4
PLG				eSg	Sg	02 09 32.3	+0.4
BIA	Bitola	0.93	305	i Pg	Pg	02 09 22.9	+0.8
BIA				eSg	Sg	02 09 35.3	+1.0
THL	Klokotos Trika	0.96	195	ePN	Pn	02 09 22.7	-0.1
THL				eSN	Sn	02 09 36.9	+0.8
THL	Klokotos Trika	0.96	195	ePn	Pn	02 09 22.7	-0.1
THL				eSn	Sn	02 09 36.9	+0.8
SRS	Serrai	1.14	56	ePg	Pg	02 09 25.3	-0.7
SRS				eSg	Sg	02 09 41.5	+0.7
SRS	Serrai	1.14	56	ePg	Pg	02 09 25.3	-0.7
SRS				eSg	Sg	02 09 41.5	+0.6
PAIG	Paliouri	1.17	118	ePg	Pg	02 09 25.1	-1.5
PAIG				eSg	Sg	02 09 41.1	-0.9
PAIG	Paliouri	1.17	118	ePg	Pg	02 09 25.1	-1.6
PAIG				eSg	Sg	02 09 41.2	-0.8
KRUS	Krusevo	1.20	317	i Pg	Pg	02 09 26.9	-0.3
STIP	Stip	1.20	355	ePg	Pg	02 09 26.0	-1.2
STIP	Stip	1.20	355	i Pg	Pg	02 09 26.9	-0.3
STIP	Stip	1.20	355	ePg	Pg	02 09 26.0	-1.2
NEO	Neokhori	1.37	150	ePn	Pn	02 09 28.8	+0.4
NEO	Neokhori	1.37	150	ePN	Pn	02 09 28.8	+0.4
NEO	Neokhori	1.37	150	ePn	Pn	02 09 28.8	+0.4
EVR	Evrytania	1.63	195	ePn	Pn	02 09 33.3	+1.3
EVR	Evrytania	1.63	195	ePN	Pn	02 09 33.3	+1.3
EVR	Evrytania	1.63	195	ePn	Pn	02 09 33.3	+1.3
RDO	Rodhopi	2.51	74	ePn	Pn	02 09 44.7	+0.5
RDO	Rodhopi	2.51	74	ePN	Pn	02 09 44.7	+0.5
RDO	Rodhopi	2.51	74	ePn	Pn	02 09 44.7	+0.5

MAN 27 02:40:55, 10.62N×125.44E, h60km, mb4.0, ML2.7, MS2.4, 1D, Leyte

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	0.71	320	eP	Pn	02 41 12.1	+2.7
PLP				eS	Sn	02 41 23.7	+3.8
MSLP	Maasin	0.75	230	eP	Pn	02 41 12.5	+2.6
SCPH	Surigao	0.83	177	⇓eP	Pn	02 41 13.1	+2.2
BESP	Borongan	0.98	360	eP	Pn	02 41 14.4	+1.7

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*ISCJB **27** 02:46:37.5±0.6, 10.73N±0.03×61.45W±0.04, h71km±6km, Error ellipse: s-maj=6.6km s-min=4.8km az=23.4*
*FUNV **27** 02:46:39.0, 10.73N×61.39W, h27km, MW3.4*
*TRN **27** 02:46:40.1, 10.86N×61.43W, h33km, MD3.4*
*NEIC **27** 02:46:40.1, 10.86N×61.43W, h33km, MD3.4(TRN), After TRN.*
ISC 27 02:46:38.9±0.6**, 10.75N**±0.03×**61.46W**±0.03**, h58**km±6km**, n25, σ1ˢ15**/42**, 3C-1D, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRN	Trinidad (W)	0.11	152	⇑iP	Pn	02 46 46.7	-1.0
TRN				eS	Sn	02 46 51.5	-2.6
TCE	Chacachacare	0.29	260	⇑iP	Pn	02 46 48.9	+0.1
TCE				eS	Sn	02 46 55.4	-0.5
TPP	Pointe-a-Pierr	0.43	179	eP	Pn	02 46 50.9	+0.9
TPP				eP		02 46 56.0	
TPP				eS	Sn	02 46 59.6	+1.7
TPP	Pointe-a-Pierr	0.43	179	e	Pn	02 46 56.0	+6.0
TPP				eS	Sn	02 46 59.6	+1.7
TBH	Brigand Hill	0.47	124	⇑iP	Pn	02 46 50.5	+0.2
TBH				eS	Sn	02 46 59.5	+1.0
GUIV	Guiria	0.76	262	eP	Pn	02 46 54.4	+0.7
GUIV				eS	Sn	02 47 05.4	+0.8
TPR	Prospect	0.80	57	⇓iP	Pn	02 46 54.5	+0.2
TPR				eS	Sn	02 47 04.7	-0.8
GRW	Mount Saint Ca	1.42	352	eP	Pn	02 47 03.1	+0.7
GRW				eS	Sn	02 47 21.5	+1.4
GRHS	Sauteurs	1.48	353	eP	Pn	02 47 04.3	+1.1
GRHS				eS	Sn	02 47 19.5	-2.0
GRIC	Isle de Caille	1.53	355	eP	Pn	02 47 03.2	-0.8
GRIC	Isle de Caille	1.53	355	eP	Pn	02 47 05.4	+1.4
GRIC				eS	Sn	02 47 21.0	-1.9
GRSS	Sisters	1.55	354	eP	Pn	02 47 06.4	+2.2
GRSS				eS	Sn	02 47 22.0	-1.3
GUNV	Guanoco	1.57	248	eP	Pn	02 47 05.5	+1.0
GUNV				eS	Sn	02 47 25.1	+1.3
CRUV	Carupano	1.75	268	eP	Pn	02 47 07.6	+0.7
CRUV				eS	Sn	02 47 28.0	-0.2
ITEV	Isla Los Testi	1.75	290	eP	Pn	02 47 07.8	+0.9
ITEV				eS	Sn	02 47 29.4	+1.2
RIOV	Rio Grande	2.69	188	eP	Pn	02 47 20.4	+0.7
PCRV	Puerto La Cruz	3.18	260	eP	Pn	02 47 26.5	+0.1
GURV	El Guri	3.38	209	eP	Pn	02 47 28.9	-0.3
GURV				eS	Sn	02 48 05.9	-2.1
PRGV	PARIAGUAN	3.71	238	eP	Pn	02 47 34.2	+0.4
CUPV	Cœpira	4.32	261	eP	Pn	02 47 42.9	+0.9
CUPV				eS	Sn	02 48 29.4	-1.7
BIRV	Birongo	4.74	267	eP	Pn	02 47 48.0	+0.2
LUEV	Luepa	4.87	180	eP	Pn	02 47 48.4	-1.3
MERV	Las Mercedes	4.99	253	eP	Pn	02 47 51.0	-0.3
MERV				eS	Sn	02 48 45.4	-2.3
CAOV	Caicara del Or	5.89	235	eP	Pn	02 48 02.6	-0.9
BAUV	El Baul	6.73	255	eP	Pn	02 48 14.4	-0.7

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*NEIC **27** 02:48:28.9±0.6, 50.61N×157.34E, h10km, Error ellipse: s-maj=16.6km s-min=11.2km az=132.0*
*KRSC **27** 02:48:31.2±0.7, 50.54N×157.74E, h32km±31km, ML4.9*
*MOS **27** 02:48:31.5±1.0, 50.58N×157.28E, h44km, mb4.6/1, Error ellipse: s-maj=18.2km s-min=7.2km az=76.5*
*ISCJB **27** 02:48:32.1±0.9, 50.54N±0.06×157.46E±0.08, h50km±7km, mb3.8/22, Error ellipse: s-maj=11.6km s-min=4.7km az=140.0*
*IDC **27** 02:48:35.8±4.5, 50.68N×157.21E, h64km±42km, mb3.5/19, mb1 3.7/21, mb1mx3.6/29, mbtmp3.5/21, ML4.1/2, MS3.6/1, Ms1 3.6/1, ms1mx3.0/37, Error ellipse: s-maj=21.3km s-min=15.7km az=140.0*
ISC 27 02:48:33.5±0.9**, 50.54N**±0.06×**157.42E**±0.08**, h46**km±7km**, n56, σ1ˢ28**/74**, mb3.8**/22**, 1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	0.84	280	⇓iPN	Pn	02 48 47.2	-1.7
SKR				i S	Sn	02 48 59.0	-1.1
SKR				pmax	pmax		
	comp=N,510nm,0.3s						
SKR				pmax	pmax		
	comp=E,750nm,0.3s						
SKR				pmax	pmax		
	comp=Z,1μm,0.3s						
SKR				smax			
	comp=N,20μm,1.0s						
SKR				smax			
	comp=E,22μm,1.0s						
ALID	Alaid	1.23	286	eP	Pn	02 48 54.5	+0.3
ALID				i S	Sn	02 49 10.9	+1.3
MIPR	Malaya Ipel'ka	1.79	347	eP	Pn	02 49 02.3	+0.5
MIPR				i S	Sn	02 49 25.3	+2.0
RUS	Russkaya	2.02	19	PN	Pn	02 49 03.2	-1.8
RUS				S	Sn	02 49 26.7	-2.2
RUS	Russkaya	2.02	19	eP	Pn	02 49 03.2	-1.8
RUS				i S	Sn	02 49 26.7	-2.2
GRL	Gorelyy	2.06	11	eP	Pn	02 49 05.1	-0.4
GRL				i S	Sn	02 49 29.7	-0.2
PET	Petropavlovsk	2.60	17	ePn	Pn	02 49 11.8	-1.2
PET				eSn	Sn	02 49 41.9	-1.5
PET	Petropavlovsk	2.60	17	PN	Pn	02 49 12.2	-0.8
PET				S	Sn	02 49 42.6	-0.8
PET	Petropavlovsk	2.60	17	eP	Pn	02 49 12.2	-0.8
PET				i S	Sn	02 49 42.6	-0.8
AVH	Avacha	2.85	16	eP	Pn	02 49 17.0	+0.6
AVH				i S	Sn	02 49 51.0	+1.6
NLC	Nalytchevo	2.90	24	PN	Pn	02 49 14.6	-2.4
NLC				S	Sn	02 49 47.0	-3.5
NLC	Nalytchevo	2.90	24	eP	Pn	02 49 14.6	-2.4
NLC				i S	Sn	02 49 47.0	-3.5
SPN	Mys Shipunski	3.03	31	PN	Pn	02 49 17.8	-1.0
SPN				S	Sn	02 49 52.3	-1.5
SPN	Mys Shipunski	3.03	31	eP	Pn	02 49 17.8	-1.0
SPN				i S	Sn	02 49 52.3	-1.5
GNL	Ganaly	3.18	6	eP	Pn	02 49 21.8	+0.9
GNL				i S	Sn	02 49 58.9	+1.4
KII	Karymskiy	3.72	19	PN	Pn	02 49 29.1	+0.8
KII				S	Sn	02 50 12.0	+1.2
KII	Karymskiy	3.72	19	eP	Pn	02 49 29.1	+0.8
KII				i S	Sn	02 50 12.0	+1.2
TUMR	Tumrok	5.03	18	eP	Pn	02 49 48.7	+2.4
KMNR	Kamenistaya	5.50	17	P	Pn	02 49 53.8	+1.2
KBTR	Krutoberegovo	6.53	28	PN	Pn	02 50 06.9	0.0
KBTR	Krutoberegovo	6.53	28	eP	Pn	02 50 06.9	0.0
KBTR				i S	Sn	02 51 19.0	-1.0
MA2	Magadan	9.82	340	ePn	Pn	02 50 51.9	+0.1
	comp=E,4.8nm,0.3s						
MA2	Magadan	9.82	340	i PN	Pn	02 50 52.8	+1.0
YSS	Yuzh-Sakhalins	10.32	255	i PN	Pn	02 50 53.3	-5.5
ASAJ	Asahikawa	11.92	243	PN	Pn	02 51 21.5	+0.9
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ	Asahikawa	11.92	243	P	Pn	02 51 21.5	+0.9
	comp=Z,1.6nm,0.3s,baz=41,slow=12,SNR=7.1						
BILL	Bilibino	18.09	11	i P	Pn	02 52 42.6	+1.6
BILL				pmax	pmax		
	comp=Z,2.0nm,0.4s						
MJAR	Matsushiro Arr	19.66	232	P	Pn	02 52 58.5	-1.4
	comp=Z,0.6nm,0.3s,baz=35,slow=12,SNR=7.3						
KSRS	Korea Array	24.74	249	P	P	02 53 52.3	+1.9
	comp=Z,1.9nm,0.6s,mb3.8,baz=50,slow=9.3,SNR=7.0						
TIXI	Tiksi	24.79	339	eP	P	02 53 53.4	+2.9
TIXI				e		02 54 35.1	
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb3.6						
JNU	Nakatsue	26.13	238	P	P	02 54 06.0	+2.9
	comp=Z,10nm,0.7s,mb4.5,baz=49,slow=11,SNR=6.0						
SML	Sawmill	31.28	48	eP	P	02 54 48.6	+0.1
COLA	College	31.40	42	i P	P	02 54 51.8	+2.2
SONM	Songino Array	32.92	285	P	P	02 55 03.6	+0.4
	comp=Z,0.3nm,0.3s,mb3.6,baz=35,slow=5.3,SNR=2.9						
INK	Inuvik	36.92	35	P	P	02 55 38.0	+0.7
	comp=Z,0.7nm,0.4s,mb3.8,baz=296,slow=8.2,SNR=5.1						
ZALV	Zalesovo Beam	42.79	304	P	P	02 56 24.6	-1.6
	comp=Z,0.3nm,0.4s,mb3.4,baz=59,slow=8.6,SNR=2.6						
ZAL	Zalesovo	42.81	304	P	P	02 56 24.6	-1.7
YKA	Yellowknife Ar	46.18	40	P	P	02 56 53.3	+0.2
	comp=Z,0.3nm,0.7s,mb3.3,baz=300,slow=7.7,SNR=4.0						
MKAR	Makanchi Array	47.78	296	P	P	02 57 04.9	-0.9
	comp=Z,0.4nm,0.4s,mb3.8,baz=68,slow=7.3,SNR=11						
SPB4	Spitsbergen Ar	49.38	350	eP	P	02 57 16.8	-0.9
HAWA	Hanford	52.47	60	P	P	02 57 45.7	+4.4
	comp=Z,78nm,2.4s,mb5.2						
ARCES	ARCESS Array B	55.19	341	P	P	02 57 58.2	-2.6
	comp=Z,1.4nm,0.7s,mb4.1,baz=51,slow=8.5,SNR=3.7						
PDAR	Pinedale Array	60.26	58	P	P	02 58 38.4	+1.5
	comp=Z,0.5nm,0.8s,mb3.6,baz=318,slow=2.0,SNR=3.9						
FINES	FINESS Array B	61.79	336	P	P	02 58 45.1	-1.8
	comp=Z,0.5nm,0.6s,mb3.8,baz=35,slow=5.1,SNR=3.7						
NOA	NORSAR Array B	65.51	343	P	P	02 59 10.2	-1.2
	comp=Z,0.4nm,0.6s,mb3.6,baz=21,slow=7.1,SNR=3.0						
HFS	Hagfors	65.85	341	P	P	02 59 12.1	-1.5
	comp=Z,2.0nm,0.9s,mb4.2,baz=82,slow=7.8,SNR=3.7						
SCHQ	Schefferville	68.68	26	P	P	02 59 31.8	+0.2
SCHQ	Schefferville	68.68	26	P	P	02 59 31.8	+0.2
	comp=Z,1.0nm,0.4s,mb4.1,baz=306,slow=8.7,SNR=8.9						
WRA	Warramunga Arr	73.07	203	P	P	02 59 58.3	-0.2
	comp=Z,0.3nm,0.3s,mb3.7,baz=24,slow=6.4,SNR=5.4						
TXAR	Lajitas Array	73.21	64	P	P	03 00 00.5	+1.0
	comp=Z,0.2nm,0.6s,mb3.2,baz=303,slow=5.2,SNR=6.7						
EKA	Eskdalemuir Ar	73.26	349	P	P	02 59 59.1	-0.2
	comp=Z,1.2nm,0.4s,mb4.2,baz=20,slow=5.3,SNR=12						
PARMO	Parma	75.01	50	eP	P	03 00 10.1	+0.2
MLR	Muntele Rosu	75.52	327	P	P	03 00 13.0	+0.3
	comp=Z,0.5nm,0.4s,mb3.8,baz=135,slow=7.1,SNR=3.0						
GERES	GERESS Array B	76.22	336	P	P	03 00 16.2	-0.3
	comp=Z,0.2nm,0.4s,mb3.4,baz=117,slow=5.7,SNR=3.7						
ASAR	Alice Springs	76.75	202	P	P	03 00 20.3	+0.6
	comp=Z,0.4nm,0.8s,mb3.4,baz=22,slow=5.1,SNR=3.6						
MMAI	Mount Meron Ar	82.34	314	P	P	03 00 50.1	-0.1
	comp=Z,1.5nm,0.4s,mb4.2,baz=53,slow=7.4,SNR=6.5						

IDC 27 02:58:10.1±2.1**, 1.03S×127.69E, h0**km**, mb3.2**/2**, mb1 3.4**/3**, mb1mx3.3**/16**, mbtmp3.2**/3**, ML3.3**/1**, Error ellipse: s-maj=156.1km s-min=27.5km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.89	161	P	Pn	03 02 42.7	-2.1
	0.1nm,0.3s,baz=340,slow=12,SNR=3.0						
ASAR	Alice Springs	23.29	165	P	P	03 03 20.2	+0.4
	0.4nm,0.7s,baz=347,slow=12,SNR=5.6						
MKAR	Makanchi Array	62.01	326	P	P	03 08 32.2	0.0
	0.2nm,0.4s,baz=122,slow=7.8,SNR=5.0						

IDC 27 03:16:43.4±24.0**, 2.59S×97.61E, h0**km**, mb3.6**/2**, mb1 3.6**/2**, mb1mx3.2**/20**, mbtmp3.6**/2**, Error ellipse: s-maj=1247.0km s-min=84.0km az=56.0, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	50.99	346	P	P	03 25 46.8	-0.1
	0.3nm,0.6s,baz=155,slow=9.4,SNR=3.5						
ZALV	Zalesovo Beam	57.34	351	P	P	03 26 33.1	+0.1
	0.5nm,0.4s,baz=173,slow=7.2,SNR=3.5						
TXAR	Lajitas Array	146.59	35	PKPbc	PKPbc	03 36 26.9	-0.7
	0.1nm,0.5s,baz=247,slow=1.9,SNR=3.6						

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*ISCJB **27** 03:37:42.1±1.7, 20.2S±0.2×177.7W±0.1, h469km±23km, mb3.8/9, Error ellipse: s-maj=35.4km s-min=12.8km az=158.6*
*IDC **27** 03:37:44.1±2.9, 19.96S×177.82W, h476km±25km, mb3.3/6, mb1 3.5/8, mb1mx3.4/16, mbtmp3.4/8, Error ellipse: s-maj=82.3km s-min=13.8km az=151.0*
*NEIC **27** 03:37:46.0±1.4, 19.79S×177.91W, h502km±16km, mb4.1/3, Error ellipse: s-maj=28.1km s-min=14.1km az=150.0*
ISC 27 03:37:43.9±1.6**, 20.3S**±0.2×**177.7W**±0.1**, h476**km±22km**, n27, σ0ˢ56**/18**, mb3.8**/9**, 2C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	8.49	43	P	P	03 39 44.9	-0.2
	3.0nm,0.3s,baz=203,slow=7.7,SNR=3.5						
AFI				S	S	03 41 19.5	-5.1
	13nm,0.3s,baz=17,slow=20,SNR=7.6						
DZM	Mont Dzumac	14.88	260	P	P	03 40 54.1	+0.8
	0.2nm,0.3s,baz=97,slow=16,SNR=3.1						
URZ	Urewera	18.49	193	P	P	03 41 36.4	+6.5
	4.3nm,0.3s,baz=276,slow=4.3,SNR=20						
CTA	Charters Tower	33.78	264	P	P	03 43 45.7	+0.4
CTA	Charters Tower	33.78	264	P	P	03 43 45.7	+0.5
	4.5nm,0.5s,mb4.2,baz=81,slow=12,SNR=4.4						
STKA	Stephens Creek	38.13	244	P	P	03 44 21.3	0.0
	1.3nm,0.5s,mb3.6,baz=98,slow=11,SNR=4.4						
ASAR	Alice Springs	44.83	256	P	P	03 45 14.7	-0.1
	4.2nm,0.7s,mb4.0,baz=97,slow=7.5,SNR=56						
ASAR				PcP	PcP	03 46 46.0	-0.7
	0.9nm,0.5s,baz=102,slow=4.0,SNR=9.0						
WB2	Warramunga Arr	44.88	262	eP	P	03 45 15.0	-0.2
WB2	Warramunga Arr	44.88	262	eP	P	03 45 14.7	-0.5
WRA	Warramunga Arr	44.90	262	P	P	03 45 14.6	-0.7
	1.5nm,0.6s,mb3.6,baz=97,slow=8.8,SNR=6.7						
WRA				PcP	PcP	03 46 46.2	-0.8
	0.5nm,0.3s,baz=99,slow=3.2,SNR=4.2						
FORT	Forrest	49.63	246	eP	P	03 45 50.4	-0.5
	9.5nm,0.6s,mb4.3						
FITZ	Fitzroy Crossi	53.32	262	eP	P	03 46 18.0	+0.1
	9.2nm,1.6s,mb3.9						
QSPA	South Pole Qui	69.81	180	eP	P	03 48 05.9	+0.8
	5.0nm,0.9s,mb4.0						
TXAR	Lajitas Array	86.70	57	P	P	03 49 37.9	+1.2
	0.6nm,0.7s,mb3.4,baz=215,slow=7.0,SNR=7.7						
VNA3	Neumayer Olymp	88.37	176	e	P	03 49 43.2	-0.6
PDAR	Pinedale Array	88.60	43	P	P	03 49 45.2	-0.1
	0.5nm,0.7s,mb3.5,baz=229,slow=3.4,SNR=4.8						
VNA2	Neumayer--Watz	88.81	177	e	P	03 49 45.4	-0.5
	baz=199,slow=4.2						
MKAR	Makanchi Array	111.22	313	PKPdf	PKiKP	03 55 20.9	-1.8
MKAR	Makanchi Array	111.22	313	PKiKP	PKiKP	03 55 20.9	-1.8
	0.3nm,0.6s,baz=238,slow=2.6,SNR=5.3						
AKASG	Malin Array Be	142.93	331	PKP	PKPdf	03 56 18.5	-4.0
AKASG	Malin Array Be	142.93	331	PKhKP		03 56 18.5	
	1.5nm,0.5s,baz=43,slow=4.1,SNR=6.3						
BRTR	Keskin Array B	146.87	313	PKPbc	PKPbc	03 56 31.6	-0.7
BRTR	Keskin Array B	146.87	313	PKPbc	PKPbc	03 56 31.6	-0.7
	1.2nm,0.6s,baz=77,slow=3.1,SNR=7.7						
CLL	Collm	147.88	347	⇑iP	PKPbc	03 56 34.2	-0.4
CLL	Collm	147.88	347	⇑iPKPbc	PKPbc	03 56 34.2	-0.4
	comp=Z,7.0nm,1.0s						
GERES	GERESS Array B	150.04	345	PKPbc	PKPbc	03 56 39.4	-0.5
GERES	GERESS Array B	150.04	345	PKPbc	PKPbc	03 56 39.4	-0.5
	comp=Z,1.1nm,0.7s,baz=334,slow=8.9,SNR=6.5						

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*ISCJB **27** 03:47:10.6±0.5, 44.79S±0.07×35.2E±0.2, h10km, mb4.7/15, MS4.5/16, Error ellipse: s-maj=18.8km s-min=8.2km az=162.8*
*IDC **27** 03:47:10.6±0.6, 44.82S×35.28E, h0km, mb4.5/10, mb1 4.6/12, mb1mx4.4/19, mbtmp4.5/12, ML4.6/2, MS4.4/18, Ms1 4.4/18, ms1mx4.3/24, Error ellipse: s-maj=32.8km s-min=14.6km az=62.0*
*GCMT **27** 03:47:12.1±0.3, 44.77S×35.35E, h18km±1km, MW5.1/75, Moment Tensor Solution. s39,c57; s75,c113; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.75±.22; $M_{\theta\theta}$3.79±.22; $M_{\phi\phi}$-3.04±.20; $M_{r\theta}$2.38±.47; $M_{\theta\phi}$4.65±.17; $M_{\phi r}$-0.93±.42; Best double couple: $M_0$6.33100×10^{16} NP1:ϕ_s19.00000°,δ66.00000°,λ-175.00000°. NP2: ϕ_s287.00000°,δ85.00000°,λ-24.00000°. Principal axes: T 6.5590, Plg14.0000°, Azm335.0000°; N -0.4540, Plg65.0000°, Azm97.0000°; P -6.1030, Plg20.0000°, Azm240.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*NEIC **27** 03:47:12.1±0.4, 44.84S×35.12E, h10km, mb5.0/2 Error ellipse: s-maj=19.9km s-min=7.9km az=65.0*
ISC 27 03:47:12.4±0.5**, 44.78S**±0.07×**35.3E**±0.2**, h10**km**, n43, σ0ˢ81**/30**, mb4.7**/15**, MS4.5**/16**, Prince Edward Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SUR	Sutherland	16.73	313	Pn	Pn	03 51 05.0	-1.8
SUR				Sn	Sn	03 53 59.5	-13
SUR				LR	LR	03 56 30.8	
SUR	Sutherland	16.73	313	Pn	Pn	03 51 05.0	-1.8
	3.6nm,0.3s,baz=136,slow=17,SNR=42						
SUR				Sn	Sn	03 53 59.5	-13
	0.8nm,0.3s,baz=73,slow=19,SNR=5.7						
SUR				LR	LR	03 56 30.8	
	comp=Z,1μm,19.2s,baz=142,slow=33						
BOSA	Boshof	18.00	330	P	Pn	03 51 21.3	-1.3
	0.9nm,0.3s,baz=154,slow=13,SNR=20						
BOSA				S	Sn	03 54 27.8	-16
	0.5nm,0.3s,baz=66,slow=19,SNR=3.2						
BOSA				LR	LR	03 57 09.3	
	comp=Z,2μm,20.7s,baz=143,slow=33						
LBTB	Lobatse	21.22	335	P	P	03 51 58.6	+0.3
	41nm,0.9s,mb4.7,baz=169,slow=8.7,SNR=37						
LBTB				S	S	03 55 45.9	-8.3
	2.3nm,0.4s,baz=254,slow=15,SNR=4.6						
LBTB				LR	LR	03 59 06.4	
	comp=Z,2μm,19.4s,MS4.4,baz=154,slow=34						
MATP	Matopo	24.93	345	P	P	03 52 34.8	-0.8
MATP				S	S	03 57 14.5	+16
MATP				LR	LR	04 01 14.2	
MATP	Matopo	24.93	345	P	P	03 52 34.8	-0.9
	20nm,0.9s,mb4.6,baz=174,slow=9.7,SNR=15						
MATP				S	S	03 57 14.5	+16
	1.2nm,0.5s,baz=245,slow=19,SNR=2.2						

MATP				LR	LR	04 01 14.2	
	comp=Z,941nm,18.4s,MS4.3,baz=171,slow=34						
MAW	Mawson	27.10	157	LR	LR	04 00 52.4	
	comp=Z,254nm,18.2s,MS3.8,baz=205,slow=30						
TSUM	Tsumeb	29.45	324	P	P	03 53 16.9	+0.5
	15nm,0.9s,mb4.7,baz=155,slow=8.6,SNR=21						
TSUM				LR	LR	04 04 15.9	
	comp=Z,974nm,18.9s,MS4.5,baz=152,slow=35						
LSZ	Lusaka	30.01	346	*e*P	P	03 53 21.4	+0.1
	14nm,0.8s,mb4.7						
LSZ				*e*		03 53 30.6	
SNAA	Sanae	32.52	201	P	P	03 53 42.5	-0.4
	1.7nm,0.7s,mb4.1,baz=81,slow=6.5,SNR=19						
VNA2	Neumayer--Watz	33.37	204	*e*	P	03 53 50.4	+0.1
	baz=61,slow=8.3						
VNA2				*e*		03 53 59.6	
VNA2				*e*		03 54 04.9	
VNA2				*e*		03 54 08.8	
VNA2				*e*		03 54 12.2	
VNA2				*e*		03 54 17.9	
VNA2				*e*		03 54 21.7	
VNA1	Neumayer--Stat	33.49	205	*e*	P	03 53 51.9	+0.5
VNA1				*e*		03 54 01.0	
VNA1				*e*		03 54 05.2	
VNA1				*e*		03 54 11.5	
VNA1				*e*		03 54 18.0	
VNA1				*e*		03 54 23.5	
VNA3	Neumayer Olymp	34.17	204	*e*	P	03 53 58.4	+1.1
VNA3				*e*		03 54 06.2	
VNA3				*e*		03 54 11.6	
VNA3				*e*		03 54 15.6	
VNA3				*e*		03 54 19.0	
VNA3				*e*		03 54 24.4	
VNA3				*e*		03 54 28.6	
KMBO	Kilima Mbogo	43.50	3	LR	LR	04 11 39.8	
	comp=Z,334nm,19.4s,MS4.3,baz=164,slow=34						
QSPA	South Pole Qui	45.44	180	*e*P	P	03 55 29.8	-1.0
	19nm,0.6s,mb5.1						
VNDA	Vanda	53.64	167	P	P	03 56 32.4	-1.0
VNDA				LR	LR	04 17 55.7	
VNDA	Vanda	53.64	167	P	P	03 56 32.4	-1.0
	4.9nm,0.7s,mb4.5,baz=171,slow=6.3,SNR=14						
VNDA				LR	LR	04 17 55.7	
	comp=Z,519nm,18.8s,MS4.6,baz=222,slow=34						
KIC	Kosan Boka	62.29	314	*e*P	P	03 57 34.6	-0.2
	98nm,1.4s,mb5.7						
LIC	Lamto	62.33	313	*e*P	P	03 57 35.5	+0.5
	35nm,1.0s,mb5.5						
TIC	Toumodi	62.68	314	*e*P	P	03 57 38.0	+0.6
	103nm,1.0s,mb5.9						
TOA0	Torodi Ar. Sit	65.20	324	*e*P	P	03 57 54.9	+1.0
TORD	Torodi Ar. Bea	65.20	324	P	P	03 57 54.9	+1.0
	14nm,0.6s,mb5.1,baz=160,slow=6.5,SNR=169						
TORD				LR	LR	04 24 24.9	
	comp=Z,254nm,21.5s,MS4.4,baz=5.0,slow=34						
STKA	Stephens Creek	78.55	124	P	P	03 59 13.8	-0.3
	2.9nm,0.9s,mb4.2,baz=250,slow=6.1,SNR=5.6						
STKA				LR	LR	04 26 02.5	
	comp=Z,181nm,18.5s,MS4.4,baz=206,slow=30						
ASAR	Alice Springs	79.51	113	P	P	03 59 18.9	-0.5
	1.6nm,0.8s,mb4.0,baz=217,slow=5.1,SNR=9.8						
WRA	Warramunga Arr	82.39	110	P	P	03 59 35.1	+0.2
	0.7nm,0.5s,mb3.9,baz=219,slow=5.0,SNR=4.9						
WRA				LR	LR	04 30 11.6	
	comp=Z,263nm,20.0s,MS4.6,baz=245,slow=31						
KEST	Kesra	83.51	339	LR	LR	04 37 41.0	
	comp=Z,123nm,18.6s,MS4.3,baz=188,slow=36						
BRTR	Keskin Array B	84.13	359	P	P	03 59 44.4	+1.3
	0.8nm,0.9s,mb3.9,baz=176,slow=6.6,SNR=3.4						
MDT	Midelt	85.32	327	LR	LR	04 39 05.5	
	comp=Z,374nm,18.0s,MS4.8,baz=135,slow=36						
LPAZ	La Paz	87.87	249	LR	LR	04 35 36.4	
	comp=Z,174nm,18.3s,MS4.5,baz=249,slow=33						
CTA	Charters Tower	90.00	119	LR	LR	04 35 14.2	
	comp=Z,403nm,18.8s,MS4.9,baz=228,slow=32						
URZ	Urewera	90.46	151	LR	LR	04 37 18.0	
	comp=Z,208nm,19.7s,MS4.6,baz=88,slow=33						
ESDC	Sonseca Array	91.18	331	LR	LR	04 42 00.2	
	comp=Z,259nm,19.1s,MS4.7,baz=295,slow=36						
GERES	GERESS Array B	95.13	346	LR	LR	04 46 39.0	
	comp=Z,159nm,20.8s,MS4.5,baz=96,slow=38						
PPT	Papeete	117.80	175	*e*LR	LR	04 41 50.2	
	245nm,25.5s						
TAOE	Nuku Hiva Isla	126.46	186	*e*LR	LR	04 45 48.0	
	362nm,24.2s						
TXAR	Lajitas Array	144.19	259	PKP	PKPdf	04 06 47.5	-0.8
TXAR	Lajitas Array	144.19	259	PKP	PKPdf	04 06 47.5	-0.8
	0.5nm,0.7s,baz=124,slow=4.5,SNR=6.0						
ULM	Lac du Bonnet	147.04	297	PKPbc	PKPbc	04 06 53.6	-1.0
ULM	Lac du Bonnet	147.04	297	PKPbc	PKPbc	04 06 53.6	-1.0
	2.1nm,0.7s,baz=124,slow=3.6,SNR=3.0						
PDAR	Pinedale Array	154.64	278	PKP	PKPdf	04 07 05.7	+1.2
PDAR				PKPbc	PKPbc	04 07 12.6	-0.4
PDAR	Pinedale Array	154.64	278	PKP	PKPdf	04 07 05.7	+1.2
	0.4nm,0.9s,baz=90,slow=1.8,SNR=2.3						
PDAR				PKPbc	PKPbc	04 07 12.6	-0.4
	0.4nm,0.9s,baz=150,slow=4.2,SNR=2.6						
YKA	Yellowknife Ar	155.19	326	PKPab	PKPab	04 07 29.3	-0.2
YKA	Yellowknife Ar	155.19	326	PKPab	PKPab	04 07 29.3	-0.2
	0.5nm,0.6s,baz=58,slow=4.5,SNR=6.3						

IDC 27 03:57:16.3±2.5**,067S**×**12860E,h0^{km},mb3.5**/2**,mb1 3.6**/3**, mb1mx3.4**/16**,mbtmp3.4**/3**,Error ellipse: s-maj=200.6km s-min=26.6km az=68.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.96	164	P	Pn	04 01 49.9	-2.0
	0.3nm,0.3s,baz=344,slow=11,SNR=3.1						
ASAR	Alice Springs	23.44	168	P	P	04 02 27.7	+0.2
	0.7nm,0.7s,baz=340,slow=10,SNR=5.2						
MKAR	Makanchi Array	62.21	326	P	P	04 07 39.8	+0.1
	0.3nm,0.3s,baz=120,slow=8.7,SNR=7.9						

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*IDC **27** 04:04:54.3±14.0,3669N×7056E,h288^{km}±149^{km},mb2.5/1, mb1 3.0/4,mb1mx2.7/23,mbtmp3.0/4,Error ellipse: s-maj=105.9km s-min=46.1km az=168.0*

ISC 27 04:04:49.1±3.8**,370N**±02×**699E**±02**,h198^{km}**±35^{km}**,n6,** σ**1^{s}77**/8**,2C-1D,Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KK31	Karatay Array	6.16	4	P	Pn	04 06 15.6	-2.5
	3.9nm,0.4s,baz=183,slow=11,SNR=59						
KK31				⇓S	Sn	04 07 28.9	+0.1
	2.7nm,0.5s,baz=190,slow=22,SNR=7.9						
MKAR	Makanchi Array	13.48	39	P	Pn	04 07 53.1	+0.8
	0.2nm,0.3s,baz=207,slow=11,SNR=6.4						
AB31	Akbulak array	14.26	333	⇑P	Pn	04 08 04.8	+2.9
	1.2nm,0.3s,baz=167,slow=11,SNR=54						
AB31				⇑S	S	04 10 40.0	-0.4
	0.3nm,0.5s,baz=174,slow=22,SNR=5.1						
AKTO	Aktyubinsk	15.94	331	P	Pn	04 08 27.2	+4.7
	0.6nm,0.3s,baz=139,slow=12,SNR=16						
ZALV	Zalesovo Beam	19.89	27	P	P	04 09 04.6	-0.5
	1.5nm,0.3s,baz=212,slow=9.9,SNR=44						
TORD	Torodi Ar. Bea	64.83	268	P	P	04 15 06.5	-0.5
	0.1nm,0.4s,baz=54,slow=4.7,SNR=5.4						

WEL 27 04:11:30.7±0.2**,3801S**×**17627E,h155^{km}**±1^{km}**,ML3.6**/11**, 1C,Error ellipse: s-maj=2.1km s-min=1.7km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	Urewera	0.71	111	PN	Pn	04 11 53.7	-0.1
URZ				SN	Sn	04 12 11.5	+0.2
MWZ	Matawai	1.04	109	PN	Pn	04 11 56.4	+0.2
BKZ	Black Stump Fm	1.17	172	⇑PN	Pn	04 11 57.5	+0.1
BKZ				SN	Sn	04 12 18.0	+0.1
TUVZ	Tukino	1.35	201	PN	Pn	04 11 59.5	+0.5
WNVZ	Wahianoa	1.42	202	PN	Pn	04 12 00.1	+0.3
KNZ	Kokohu	1.49	133	PN	Pn	04 12 00.6	+0.1
MTVZ	Mangateitei	1.51	204	PN	Pn	04 12 01.0	+0.3
PXZ	Pawanui	2.07	167	PN	Pn	04 12 06.5	-0.4
PXZ				SN	Sn	04 12 33.7	-1.1
BFZ	Birch Farm	2.67	180	PN	Pn	04 12 12.4	-1.6
MRZ	Mangatainoka R	2.71	191	PN	Pn	04 12 12.6	-1.9
MRZ				SN	Sn	04 12 45.9	-2.5
TIWZ	Tintock	2.78	186	PN	Pn	04 12 13.7	-1.7
KIW	Kapiti Island	3.04	200	PN	Pn	04 12 16.3	-2.4
MTW	Mount Morrison	3.20	190	PN	Pn	04 12 17.9	-2.8
CAW	Cannon Point	3.23	196	PN	Pn	04 12 18.5	-2.6
MSWZ	Moikau Station	3.49	193	PN	Pn	04 12 21.3	-3.1
TCW	Tory Channel	3.55	205	PN	Pn	04 12 22.2	-3.0

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*NEIC **27** 04:17:46.4,3154S×6957W,h138^{km},MD3.7(GUC),After GUC.*

GUC 27 04:17:46.4±1.0**,3154S**×**6957W,h138^{km}**±16^{km}**,MD3.7, ML3.7,2C-5D,San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMCH	Combarbala	1.28	286	⇓*i*P	Pn	04 18 13.4	+0.8
CMCH				*i* S	Sn	04 18 33.9	+1.2
CMCH	Combarbala	1.28	286	⇓*i*P	Pn	04 18 13.4	+0.8
CMCH				*i* S	Sn	04 18 33.9	+1.2
CMCH				AML	AML	04 18 36.3	
	comp=E,2µm,0.6s						
MDZ	Mendoza	1.47	156	⇑*i*P	Pn	04 18 13.6	-1.1
MDZ				*i*		04 18 32.6	
MDZ				*i* S	Sn	04 18 34.5	-1.9
CHNG	Los Chungos	1.68	258	*e*P	Pn	04 18 04.0	-13
CHNG				*i* S	Sn	04 18 26.6	-14
OVCH	Ovalle	1.68	303	*e*P	Pn	04 18 17.4	+0.3
OVCH				*i* S	Sn	04 18 40.7	+0.3
OVCH	Ovalle	1.68	303	*e*P	Pn	04 18 17.4	+0.3
OVCH				*i* S	Sn	04 18 40.7	+0.3
OVCH				AML	AML	04 18 41.5	
	comp=N,807nm,0.3s						
TLL	Tololo Astrono	1.73	322	*e*P	Pn	04 18 18.8	+1.1
TLL				*i* S	Sn	04 18 43.0	+1.4
TLL	Tololo Astrono	1.73	322	*e*P	Pn	04 18 18.8	+1.1
TLL				*i* S	Sn	04 18 43.0	+1.4
TLL				AML	AML	04 18 46.1	
	comp=E,236nm,0.2s						
FCH	Farellones	1.88	199	*i* P	Pn	04 18 20.7	+1.4
FCH				*i* S	Sn	04 18 46.2	+1.5
FCH				AML	AML	04 18 49.9	
	comp=E,247nm,0.2s						
LSCH	La Serena	2.17	318	*e*P	Pn	04 18 23.6	+0.7
LSCH				*i* S	Sn	04 18 51.1	+0.1
RCDM	Rinconada Maip	2.20	208	*e*P	Pn	04 18 23.8	+0.5
RCDM				*i* S	Sn	04 18 52.1	+0.5
RCDM	Rinconada Maip	2.20	208	*e*P	Pn	04 18 23.8	+0.5
RCDM				*i* S	Sn	04 18 52.1	+0.5
RCDM				AML	AML	04 18 53.5	
	comp=E,436nm,0.2s						
ANTU	Antumapu	2.21	204	*e*P	Pn	04 18 23.8	+0.4
ANTU				*i* S	Sn	04 18 52.6	+0.8
ANTU	Antumapu	2.21	204	*e*P	Pn	04 18 23.8	+0.4
ANTU				*i* S	Sn	04 18 52.6	+0.8
ANTU				AML	AML	04 18 59.0	
	comp=E,248nm,0.2s						
PCH	Pirque	2.22	201	*i* P	Pn	04 18 24.5	+1.1
PCH				*i* S	Sn	04 18 53.2	+1.2
TACH	Talagante	2.40	208	⇓*i*P	Pn	04 18 25.9	+0.3
CHCH	Chadas Angostu	2.55	201	⇑*i*P	Pn	04 18 28.2	+0.6
CHCH				*i* S	Sn	04 19 00.1	+0.8
LCO	Las Campanas	2.71	339	*e*Pn	Pn	04 18 30.4	+0.8
LCO				*e*Sn	Sn	04 19 02.6	-0.2
LNV	Longovilo	2.86	212	*i* P	Pn	04 18 30.8	-0.7
VACH	Vallenar	3.13	341	⇓*e*P	Pn	04 18 35.5	+0.5
VACH				*i* S	Sn	04 19 12.6	0.0
VACH	Vallenar	3.13	341	⇓*e*P	Pn	04 18 35.5	+0.5
VACH				*i* S	Sn	04 19 12.6	0.0
VACH				AML	AML	04 19 15.1	
	comp=E,502nm,0.1s						

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*NEIC **27** 04:24:39.7,1958N×6829W,h30^{km},MD3.5(RSPR),After RSPR.*

RSPR 27 04:24:39.7,1958N×**6829W,h30^{km}**±18^{km}**,MD3.5**/13**, MD3.5**/13**,16C,North Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AGPR	Aguadilla, PR	1.57	135	⇑*e*P	Pn	04 25 03.6	-2.0
AGPR				*e*S	Sn	04 25 23.0	-1.9
LSP	Las Mesas	1.80	141	⇑*e*P	Pn	04 25 06.8	-2.0
LSP				*e*S	Sn	04 25 29.0	-1.7
LRS	Lares	1.87	133	⇑*e*P	Pn	04 25 08.2	-1.6
LRS				*e*S	Sn	04 25 30.5	-2.0
AOPR	Arecibo Observ	1.90	130	⇑*e*P	Pn	04 25 08.5	-1.7
AOPR				*e*S	Sn	04 25 30.9	-2.2
CRPR	Cabo Rojo, PR	1.92	144	⇑*e*P	Pn	04 25 09.2	-1.2
CRPR				*e*S	Sn	04 25 31.5	-2.2
GBPR	Guanica, Bosqu	2.08	140	⇑*e*P	Pn	04 25 11.3	-1.3
GBPR	Guanica, Bosqu	2.08	140	*e*S	Sn	04 25 36.1	-1.5
CELP	Cerrillos	2.21	132	⇑*e*P	Pn	04 25 12.8	-1.5
CELP				*e*S	Sn	04 25 38.5	-2.2
OBIP	Obispado Ponce	2.21	134	⇑*e*P	Pn	04 25 13.2	-1.2
OBIP				*e*S	Sn	04 25 38.5	-2.2
ICM	Isla Caja Muer	2.37	135	⇑*e*P	Pn	04 25 15.5	-1.2
ICM				*e*S	Sn	04 25 42.5	-2.2
SJG	San Juan	2.50	125	⇑*e*P	Pn	04 25 17.4	-1.0
SJG				*e*S	Sn	04 25 46.5	-1.3
SJG	San Juan	2.50	125	⇑*e*P	Pn	04 25 17.3	-1.1
SJG				*e*S	Sn	04 25 46.1	-1.7
CBYP	Canovanas	2.65	119	⇑*e*P	Pn	04 25 19.1	-1.3
CBYP				*e*S	Sn	04 25 49.9	-1.6
HUMP	Col San Antoni	2.72	121	⇑*e*P	Pn	04 25 20.2	-1.1
HUMP				*e*S	Sn	04 25 52.0	-1.2
CPD	Cerro la Pandu	2.72	124	⇑*e*P	Pn	04 25 20.2	-1.3
CPD				*e*S	Sn	04 25 51.7	-1.7
SDDR	Presa de Saban	2.89	259	*e*Pn	Pn	04 25 26.2	+2.4
SDDR				*e*Sn	Sn	04 26 09.1	+12
MTP	Monte Pirata	2.98	119	⇑*e*P	Pn	04 25 23.9	-1.2
MTP				*e*S	Sn	04 25 58.0	-1.8
STVI	Saint Thomas	3.38	111	⇑*e*P	Pn	04 25 29.3	-1.3
STVI				*e*S	Sn	04 26 08.6	-1.2
TBVI	Tortola	3.66	108	*e*S	Sn	04 26 15.1	-1.5

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*DDA **27** 04:42:31.0,3836N×3934E,h7^{km}±7^{km}*

*ISCJB **27** 04:42:32.0±0.5,3840N±003×3928E±003,h4^{km}±6^{km}, Error ellipse: s-maj=5.0km s-min=4.0km az=177.6*

*CSEM **27** 04:42:31.4±0.1,3841N×3929E,h5^{km},MD3.1,Error ellipse: s-maj=2.2km s-min=2.1km az=2.0*

*ISK **27** 04:42:31.2,3841N×3923E,h5^{km},MD3.1*

ISC 27 04:42:32.6±0.5**,3840N**±003×**3928E**±003**,h8^{km}**±5^{km}**,n25,** σ**0^{s}74**/36**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	Elazig	0.25	292	*i* P	Pg	04 42 37.5	0.0
ELZG				*i* S	Sg	04 42 41.3	+0.4
ELZG	Elazig	0.25	292	*i* P	Pg	04 42 37.5	0.0
PTK	Pertek	0.50	10	PG	Pg	04 42 41.4	-0.8
PTK				SG	Sg	04 42 49.8	+1.1
PTK	Pertek	0.50	10	*e*Pg	Pg	04 42 41.4	-0.8
PTK				*e*Sg	Sg	04 42 49.8	+1.1
MALT	Malatya	0.68	263	PG	Pg	04 42 44.0	-1.6
MALT				SG	Sg	04 42 53.6	-0.8
MALT	Malatya	0.68	263	*e*Pg	Pg	04 42 44.0	-1.6
MALT				*e*Sg	Sg	04 42 53.6	-0.8
MYA	Malataya	0.68	264	PG	Pg	04 42 45.2	-0.4
MYA				SG	Sg	04 42 54.3	-0.1
MYA	Malataya	0.68	264	*e*Pg	Pg	04 42 45.2	-0.4
MYA				*e*Sg	Sg	04 42 54.3	-0.1
DIYA	Diyarbakir	0.82	126	*i* P	Pg	04 42 48.6	+0.2
DIYA				*i* S	Sg	04 43 00.0	+1.1
DIY	Diyarbakir	0.90	124	PG	Pg	04 42 49.3	-0.6
DIY	Diyarbakir	0.90	124	*e*Pg	Pg	04 42 49.3	-0.6
URFA	Urfa	1.03	201	PG	Pg	04 42 52.0	-0.3
URFA	Urfa	1.03	201	*e*Pg	Pg	04 42 52.0	-0.3
BINT	Bingol	1.06	63	PN	Pn	04 42 53.1	-0.7
BINT	Bingol	1.06	63	*e*Pn	Pn	04 42 53.1	-0.7
ATAB	Bozova	1.21	220	*i* P	Pb	04 42 56.1	+0.2
ATAB				*i* S	Sb	04 43 11.9	+0.2
EZC	Erzincan	1.41	17	PN	Pn	04 42 57.7	-0.9
MARD	Mardin	1.61	132	*i* P	Pn	04 43 00.7	-0.6
MARD				*i* S	Sn	04 43 22.0	-0.3
GZT	Gaziantep	1.71	233	*i* P	Pn	04 43 02.9	+0.2
GZT				*i* S	Sg	04 43 29.1	+1.4
BTMT	Batman	1.75	96	PN	Pn	04 43 03.0	-0.3
EZM	Erzurum	2.21	47	*e*PN	Pn	04 43 10.8	+1.2
SVSK	Karacayir	2.33	311	*e*PN	Pn	04 43 11.8	+0.6
SVSK	Karacayir	2.33	311	*e*Pn	Pn	04 43 11.8	+0.6
BNN	Bunyan	2.73	281	*e*PN	Pn	04 43 17.5	+0.8
BNN	Bunyan	2.73	281	*e*Pn	Pn	04 43 17.5	+0.8

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*ISCJB **27** 05:06:24.3±0.8,6363N±004×2386W±007,h4^{km}±4^{km}, mb3.8/18,MS3.7/18,Error ellipse: s-maj=7.2km s-min=3.8km az=148.8*

*CSEM **27** 05:06:24.4±0.1,6369N×2371W,h2^{km},mb4.1/9,Ms3.5, Error ellipse: s-maj=4.0km s-min=2.5km az=147.0*

*REY **27** 05:06:24.4,6353N×2402W,h10^{km},ML3.5,ML3.7*

*IDC **27** 05:06:26.4±0.9,6365N×2420W,h0^{km},mb3.6/9, mb1 3.8/10,mb1mx3.7/24,mbtmp3.6/10,ML3.4/1,MS3.8/18, Ms1 3.8/18,ms1mx3.6/39,Error ellipse: s-maj=31.2km s-min=16.8km az=22.0*

*NEIC **27** 05:06:27.1±0.6,6362N×2395W,h10^{km},mb4.1/12, MS3.6/2,Error ellipse: s-maj=15.1km s-min=9.3km az=31.0*

ISC 27 05:06:25.8±0.7**,6366N**±004×**2379W**±007**,h5^{km}**±4^{km}**,n94,** σ**1^{s}29**/103**,mb3.8**/18**,MS3.7**/18**,Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
INYL	Nylenda	0.56	55	P	Pg	05 06 36.9	+0.3
INYL				S	Sg	05 06 47.2	+3.2
IGRV	Grindav??k	0.63	71	P	Pg	05 06 37.7	-0.1
IGRV				S	Sg	05 06 47.9	+2.0
IVOG	Vogar	0.69	63	P	Pg	05 06 39.3	+0.2
IVOG				S	Sg	05 06 50.9	+2.8
IKRI	Krysuvik	0.79	73	P	Pg	05 06 40.0	-1.0
IKRI				S	Sg	05 06 52.8	+1.5
IKAS	Kald??rsel	0.94	66	P	Pg	05 06 42.9	-0.8
IKAS				S	Sg	05 06 58.0	+2.2
IVOS	Vogsosar	0.95	77	P	Pg	05 06 42.3	-1.7
IVOS				S	Sg	05 06 56.8	+0.5
ISAN	Sandskeio	1.06	67	P	Pg	05 06 44.8	-1.3
ISAN				S	Sg	05 07 01.0	+1.1
IKUD	Kuludalsa	1.08	51	P	Pg	05 06 44.8	-1.6
IKUD				S	Sg	05 07 01.7	+1.4
IBJA	Bjarnastaoir	1.14	74	P	Pg	05 06 45.8	-1.9
IBJA				S	Sg	05 07 02.3	-0.2
IHEI	Heioarbar	1.25	63	P	Pn	05 06 48.0	-1.9
IHEI				S	Sg	05 07 06.4	+0.4
IKRO	Krokur	1.26	68	P	Pn	05 06 47.8	-2.2
IKRO				S	Sg	05 07 05.4	-0.9
ISOL	Solvholt	1.29	77	P	Pn	05 06 47.8	-2.7
ISOL				S	Sb	05 07 05.8	-1.6
IASM	Asmuli	1.42	81	P	Pn	05 06 50.6	-1.7
IASM				S	Sb	05 07 09.6	-1.6
ISAU	Saurbar	1.53	76	P	Pn	05 06 52.4	-1.4
ISAU				S	Sn	05 07 12.6	-1.4
BORG	Borgarnes	1.54	44	Pn	Pn	05 06 52.8	-1.0
BORG				Sn	Sn	05 07 16.1	+2.0
BORG	Borgarnes	1.54	44	Pn	Pn	05 06 52.8	-1.0
	61nm,0.3s,baz=212,slow=7.8,SNR=24						
BORG				Sn	Sn	05 07 16.1	+2.0
	83nm,0.3s,baz=92,slow=16,SNR=9.9						
BORG	Borgarnes	1.54	44	Pn	Pn	05 06 52.8	-1.0
BORG				Sn	Sn	05 07 16.0	+1.9
IASB	\`sbjarnarst	1.54	44	P	Pn	05 06 52.6	-1.2
IASB				S	Sn	05 07 13.9	-0.2
IVES	Vestmannaeyjar	1.58	96	S	Sn	05 07 13.8	-1.5
IGYG	Gygjarholskot	1.70	67	P	Pn	05 06 54.8	-1.2
IGYG				S	Sn	05 07 18.0	-0.1
IHAU	Haukadalur	1.73	78	P	Pn	05 06 55.4	-1.0
IHAU				S	Sn	05 07 18.4	-0.4
IMID	Miomork	1.74	88	P	Pn	05 06 55.0	-1.6
IMID				S	Sn	05 07 20.0	+0.8
IESK	Eystri-Skogar	1.95	92	P	Pn	05 06 58.8	-0.6
IESK				S	Sn	05 07 24.4	+0.2
IHVE	Hveravellir	2.21	55	P	Pn	05 07 02.8	-0.2
IHVO	Lagu-Hvolar	2.21	91	P	Pn	05 07 03.5	+0.4
IHVO				S	Sn	05 07 32.0	+1.2
IVAT	Vatnsfell	2.22	74	P	Pn	05 07 01.8	-1.4
EKA	Eskdalemuir Ar	13.33	119	Pn	Pn	05 09 40.3	+4.8
EKA	Eskdalemuir Ar	13.33	119	Pn	Pn	05 09 40.3	+4.8
	0.1nm,0.3s,baz=305,slow=14,SNR=2.9						
NOA	NORSAR Array B	16.33	83	LR	LR	05 16 38.6	
	comp=Z,108nm,19.7s,baz=305,slow=37						
HFS	Hagfors	17.83	84	LR	LR	05 17 45.8	
	comp=Z,108nm,18.4s,baz=255,slow=38						
ROSF	Rostrenen	19.02	134	*e*P	Pn	05 10 47.8	-1.1
SGMF	Saint Gilles	19.33	133	*e*P	Pn	05 10 51.7	-0.8
FLN	La Foliniere	19.59	129	*e*P	Pn	05 10 55.2	-0.5
	12nm,0.6s						
FLN				*e*MLR	MLR		
	comp=Z,407nm,18.8s						
FLN	La Foliniere	19.59	129	*e*P	Pn	05 10 55.2	-0.5
	comp=Z,6.1nm,0.6s						
LDF	La Druitiere	19.86	128	*e*P	Pn	05 10 57.8	-1.1
	comp=Z,10nm,0.6s						
LDF	La Druitiere	19.86	128	*e*P	Pn	05 10 57.8	-1.1
	comp=Z,5.1nm,0.6s						
ARCES	ARCESS Array B	19.93	51	LR	LR	05 17 44.1	
	comp=Z,242nm,19.9s,baz=338,slow=34						
BAIF	Baives	20.26	119	*e*P	P	05 11 04.5	+2.9
	comp=Z,23nm,0.8s						
BAIF	Baives	20.26	119	*e*P	P	05 11 04.5	+2.9
	comp=Z,12nm,0.8s						
LOR	Lormes	22.41	124	*e*P	P	05 11 25.6	+0.8
LOR				*e*MLR	MLR		
	comp=Z,282nm,18.2s,MS3.4						
LOR	Lormes	22.41	124	*e*P	P	05 11 25.6	+0.8
LOR				LR	LR		
	comp=Z,280nm,18.3s,MS3.7						
SSF	Saint Saulge	22.46	125	*e*P	P	05 11 24.7	-0.6
	comp=Z,8.8nm,0.8s,mb3.9						
SSF	Saint Saulge	22.46	125	*e*P	P	05 11 24.7	-0.6
	comp=Z,4.4nm,0.8s,mb3.9						
FINES	FINESS Array B	22.62	73	P	P	05 11 29.9	+2.9
	comp=Z,4.9nm,1.1s,mb3.9,baz=309,slow=6.1,SNR=5.4						
FINES				LR	LR	05 20 12.7	
	comp=Z,57nm,18.2s,MS3.0,baz=326,slow=36						
AVF	Avril sur Loir	22.63	125	*e*P	P	05 11 26.6	-0.6
	comp=Z,3.2nm,0.5s,mb3.7						
AVF	Avril sur Loir	22.63	125	*e*P	P	05 11 26.6	-0.6
	comp=Z,1.6nm,0.5s,mb3.7						
BGF	Bois d’Agland	22.64	127	*e*P	P	05 11 26.6	-0.7
	comp=Z,18nm,0.7s,mb4.3						
BGF	Bois d’Agland	22.64	127	*e*P	P	05 11 26.6	-0.7
	comp=Z,8.8nm,0.7s,mb4.3						
TCF	Toulx Ste Croi	22.65	128	*e*P	P	05 11 27.6	+0.2
	comp=Z,3.8nm,0.5s,mb3.8						
TCF	Toulx Ste Croi	22.65	128	*e*P	P	05 11 27.6	+0.2
	comp=Z,1.9nm,0.5s,mb3.8						
HAU	Haudompre	22.75	119	*e*P	P	05 11 30.0	+1.6
HAU				*e*MLR	MLR		
	comp=Z,182nm,20.2s,MS3.2						
HAU	Haudompre	22.75	119	*e*P	P	05 11 30.0	+1.6
HAU				LR	LR		
	comp=Z,180nm,20.3s,MS3.5						
CDF	Champ du Feu	22.78	117	*e*P	P	05 11 31.1	+2.3
SMF	Signal de Mont	22.93	125	*e*P	P	05 11 30.7	+0.3
	comp=Z,17nm,0.9s,mb4.2						
SMF	Signal de Mont	22.93	125	*e*P	P	05 11 30.7	+0.3
	comp=Z,8.4nm,0.9s,mb4.2						
HINF	Hinteralfeld	23.10	119	*e*P	P	05 11 33.4	+1.3
SCHQ	Schefferville	23.28	268	LR	LR	05 18 45.0	
	comp=Z,266nm,18.8s,MS3.7,baz=322,slow=32						
BRG	Berggiesshubel	23.66	105	*e*P	P	05 11 39.0	+1.2
	comp=Z,2.9nm,1.0s,mb3.7						
BRG	Berggiesshubel	23.66	105	*e*P	P	05 11 39.0	+1.1
	comp=Z,2.9nm,1.0s,mb3.7						
CABF	La Chapelle	23.80	122	*e*P	P	05 11 39.3	+0.2
VIVF	Saint-Julien-l	24.76	126	*e*P	P	05 11 48.8	+0.8
LPL	La Plagne	24.96	122	*e*P	P	05 11 51.1	+1.3
	comp=Z,6.5nm,0.7s,mb4.0						
LPL	La Plagne	24.96	122	*e*P	P	05 11 51.1	+1.3
	comp=Z,3.2nm,0.7s,mb4.0						
LPG	La Plagne	24.98	122	*e*P	P	05 11 51.1	+1.1
GERES	GERESS Array B	25.08	108	P	P	05 11 54.5	+3.7
	comp=Z,0.5nm,0.6s,mb3.2,baz=324,slow=9.6,SNR=1.8						
GERES				LR	LR	05 23 01.3	
	comp=Z,245nm,18.1s,MS3.8,baz=85,slow=39						
DAVOX	Davos/Dischmat	25.14	116	LR	LR	05 20 38.3	
	comp=Z,140nm,18.9s,MS3.5,baz=258,slow=34						
ORIF	Oris-en-Rattie	25.15	124	*e*P	P	05 11 53.0	+1.5
	comp=Z,20nm,1.0s,mb4.3						
ORIF				*e*MLR	MLR		
	comp=Z,211nm,19.8s,MS3.4						
ORIF	Oris-en-Rattie	25.15	124	*e*P	P	05 11 53.0	+1.5
	comp=Z,9.9nm,1.0s,mb4.3						
MBDF	Montbardon	25.64	123	*e*P	P	05 11 57.2	+1.2
	comp=Z,15nm,1.0s,mb4.2						
MBDF	Montbardon	25.64	123	*e*P	P	05 11 57.2	+1.2
	comp=Z,7.3nm,1.0s,mb4.2						
VRAC	Vranov	25.97	104	LR	LR	05 21 13.4	

	comp=Z,110nm,21.0s,MS3.4,baz=126,slow=34						
ESDC	Sonseca Array	26.75	144	P	P	05 12 09.6	+3.6
ESDC				LR	LR	05 22 09.5	
ESDC	Sonseca Array	26.75	144	P	P	05 12 09.6	+3.6
	comp=Z,0.6nm,0.7s,mb3.2,baz=334,slow=8.6,SNR=4.2						
ESDC				LR	LR	05 22 09.5	
	comp=Z,138nm,18.0s,MS3.5,baz=315,slow=35						
MDT	Midelt	33.12	150	LR	LR	05 24 33.2	
	comp=Z,73nm,19.3s,MS3.4,baz=146,slow=33						
YKA	Yellowknife Ar	37.84	311	P	P	05 13 44.0	+1.3
YKA				LR	LR	05 29 04.9	
YKA	Yellowknife Ar	37.84	311	P	P	05 13 44.0	+1.3
	comp=Z,0.4nm,0.9s,mb3.1,baz=54,slow=8.6,SNR=4.3						
YKA				LR	LR	05 29 04.9	
	comp=Z,123nm,19.2s,MS3.7,baz=165,slow=36						
YKA	Yellowknife Ar	37.84	311	P	P	05 13 44.0	+1.3
INK	Inuvik	39.21	326	LR	LR	05 30 56.5	
	comp=Z,166nm,19.4s,MS3.9,baz=191,slow=38						
ULM	Lac du Bonnet	39.26	285	LR	LR	05 28 34.3	
	comp=Z,180nm,20.7s,MS3.9,baz=26,slow=34						
CBN	Corbin	40.55	257	P	P	05 14 04.8	-0.8
	comp=Z,38nm,0.6s						
CBN	Corbin	40.55	257	P	P	05 14 04.8	-0.8
	comp=Z,38nm,0.6s						
BRTR	Keskin Array B	40.98	98	P	P	05 14 12.2	+3.0
	comp=Z,1.2nm,0.9s,mb3.5,baz=351,slow=6.9,SNR=4.5						
BRTR	Keskin Array B	40.98	98	P	P	05 14 12.1	+2.9
AKTO	Aktyubinsk	43.22	68	LR	LR	05 33 16.8	
	comp=Z,128nm,18.1s,MS3.9,baz=323,slow=37						
NEW	Newport	49.57	299	LR	LR	05 35 23.2	
	comp=Z,176nm,19.2s,MS4.1,baz=189,slow=35						
PDAR	Pinedale Array	50.97	289	P	P	05 15 27.8	-0.1
	comp=Z,1.1nm,1.0s,mb3.8,baz=55,slow=5.6,SNR=5.7						
TORD	Torodi Ar. Bea	53.52	149	P	P	05 15 47.3	+0.2
	comp=Z,0.4nm,0.5s,mb3.6,baz=336,slow=8.1,SNR=8.5						
MKAR	Makanchi Array	55.57	53	P	P	05 16 03.4	+1.8
MKAR	Makanchi Array	55.57	53	P	P	05 16 03.4	+1.8
	comp=Z,0.4nm,0.8s,mb3.5,baz=328,slow=4.4,SNR=4.9						
ANMO	Albuquerque	56.14	281	LR	LR	05 39 49.5	
	comp=Z,122nm,20.4s,MS4.0,baz=8.1,slow=36						
TXAR	Lajitas Array	59.69	275	P	P	05 16 31.1	+0.3
	comp=Z,0.7nm,1.0s,mb3.6,baz=132,slow=1.9,SNR=4.5						
TXAR	Lajitas Array	59.69	275	P	P	05 16 31.1	+0.2
PFO	Pinyon Flat Ob	61.59	289	LR	LR	05 43 44.5	
	comp=Z,210nm,20.4s,MS4.3,baz=42,slow=36						
LPIG	La Paz	67.16	278	LR	LR	05 46 34.5	
	comp=Z,152nm,20.3s,MS4.2,baz=328,slow=36						

IDC 27 05:14:58.3±3.8**,3022S**×**13865E,h0**^{km}**,mb1 2.9**/3**,**
mb1mx2.9/13**,mbtmp2.7**/3**,ML2.8**/3**,Error ellipse:**
s-maj=105.0km s-min=15.7km az=45.0,South Australia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	3.02	124	Pn	Pn	05 15 47.4	0.0
	0.4nm,0.3s,baz=302,slow=12,SNR=6.5						
STKA				Sn	Sn	05 16 24.1	-0.1
	1.3nm,0.3s,baz=285,slow=16,SNR=5.7						
STKA				Lg		05 16 34.8	
	2.0nm,0.3s,baz=198,slow=21,SNR=8.0						
ASAR	Alice Springs	7.78	326	Pn	Pn	05 16 54.1	+1.3
	0.1nm,0.3s,baz=148,slow=12,SNR=5.4						
ASAR				Sn	Sn	05 18 24.9	+3.2
	0.2nm,0.3s,baz=152,slow=21,SNR=5.4						
WRA	Warramunga Arr	10.95	338	Pn	Pn	05 17 34.5	-1.9
	0.2nm,0.3s,baz=156,slow=14,SNR=4.1						
WRA				Sn	Sn	05 19 41.0	+1.3
	baz=138,slow=36,SNR=2.6						

ISCJB ***27*** *05:17:16.7±0.6, 6349N±005×2395W±008, h10^{km}, mb3.6/7, Error ellipse: s-maj=7.5km s-min=4.1km az=156.6*
CSEM ***27*** *05:17:16.1±0.2, 6353N×2385W, h5^{km}, ML3.8, Error ellipse: s-maj=8.3km s-min=3.5km az=169.0*
REY ***27*** *05:17:16.7, 6341N×2408W, h10^{km}, ML3.5, ML3.8*
IDC ***27*** *05:17:18.0±1.0, 6351N×2385W, h0^{km}, mb3.6/7, mb1 3.8/7, mb1mx3.6/22, mbtmp3.6/7, MS3.8/1, Ms1 3.8/1, ms1mx2.7/34, Error ellipse: s-maj=26.9km s-min=17.9km az=171.0*
NEIC ***27*** *05:17:19.5±0.8, 6354N×2381W, h10^{km}, Error ellipse: s-maj=21.4km s-min=13.7km az=175.0*
ISC 27 05:17:17.9±0.6**,6351N**±005×**2387W**±008**,h10**^{km}**,n38,**
σ**1**^{s}**21**/58**,mb3.6**/7**,Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
INYL	Nylenda	0.69	47	P	Pg	05 17 30.9	-0.3
INYL				S	Sg	05 17 41.8	+1.6
IGRV	Grindav??k	0.72	61	P	Pg	05 17 31.2	-0.6
IGRV				S	Sg	05 17 42.4	+1.1
IVOG	Vogar	0.80	54	P	Pg	05 17 32.7	-0.7
IVOG				S	Sg	05 17 45.4	+1.5
IKRI	Krysuvik	0.88	64	P	Pg	05 17 33.6	-1.3
IKRI				S	Sg	05 17 46.8	+0.4
IVOS	Vogsosar	1.03	69	P	Pg	05 17 35.8	-1.8
IVOS				S	Sg	05 17 51.2	+0.2
IKAS	Kald??rsel	1.03	59	P	Pg	05 17 36.4	-1.4
IKAS				S	Sg	05 17 51.9	+0.7
ISAN	Sandskeio	1.16	61	P	Pb	05 17 38.0	-2.0
ISAN				S	Sb	05 17 55.1	0.0
IKUD	Kuludalsa	1.20	46	P	Pn	05 17 38.7	-2.0
IKUD				S	Sb	05 17 56.0	-0.3
IBJA	Bjarnastaoir	1.23	68	P	Pn	05 17 39.6	-1.5
IBJA				S	Sb	05 17 56.4	-0.5
IKRO	Krokur	1.36	63	P	Pn	05 17 41.2	-1.7
IKRO				S	Sb	05 18 00.1	-0.7
IHEI	Heioarbar	1.36	58	P	Pn	05 17 41.0	-1.9
IHEI				S	Sb	05 18 01.4	+0.6
ISOL	Solvholt	1.37	71	P	Pn	05 17 41.4	-1.7
ISOL				S	Sb	05 18 00.6	-0.5
IASM	Asmuli	1.49	76	S	Sn	05 18 04.1	0.0
ISAU	Saurbar	1.61	71	P	Pn	05 17 45.0	-1.4
ISAU				S	Sn	05 18 07.1	-0.1
IVES	Vestmannaeyjar	1.61	91	S	Sn	05 18 07.4	+0.2
BORG	Borgarnes	1.67	41	Pn	Pn	05 17 46.7	-0.5
BORG				Sn	Sg	05 18 12.0	+0.5
BORG	Borgarnes	1.67	41	Pn	Pn	05 17 46.7	-0.5
	baz=215,slow=8.9						
BORG				Sn	Sg	05 18 12.0	+0.5
	85nm,0.3s,baz=299,slow=24,SNR=5.1						
BORG	Borgarnes	1.67	41	Pn	Pn	05 17 46.7	-0.5
BORG				Sn	Sg	05 18 12.0	+0.4
IASB	`sbjarnarst	1.67	41	P	Pn	05 17 46.3	-0.9
IASB				S	Sn	05 18 08.7	+0.1
IMID	Miomork	1.79	83	P	Pn	05 17 47.8	-1.0
IGYG	Gygjarholskot	1.79	63	P	Pn	05 17 48.2	-0.7
IGYG				S	Sn	05 18 12.6	+0.9
IHAU	Haukadalur	1.80	73	P	Pn	05 17 47.3	-1.6
IHAU				S	Sn	05 18 12.7	+0.9
IESK	Eystri-Skogar	1.98	88	S	Sn	05 18 16.9	+0.6
IHVO	Lagu-Hvolar	2.25	87	S	Sn	05 18 24.6	+1.6
IVAT	Vatnsfell	2.30	71	S	Sn	05 18 26.5	+2.4
IHVE	Hveravellir	2.33	52	P	Pn	05 17 56.3	+0.1
ISNB	Snabyli	2.35	82	P	Pn	05 17 55.5	-1.0
ISNB				S	Sn	05 18 27.0	+1.6
ISKR	Skrokkalda	2.63	64	P	Pn	05 18 00.8	+0.4
IKAL	Kalfafell	2.79	78	P	Pn	05 18 02.0	-0.5
IKAL				S	Sn	05 18 36.1	0.0
SFJD	Kangerlussuaq	11.69	299	LR	LR	05 24 01.5	
	comp=Z,438nm,20.1s,baz=151,slow=34						
FINES	FINESS Array B	22.70	72	P	P	05 22 21.5	+2.3
	2.2nm,0.9s,mb3.6,baz=269,slow=11,SNR=4.9						
YKA	Yellowknife Ar	37.91	311	P	P	05 24 36.8	+2.1
	0.1nm,0.4s,mb2.9,baz=55,slow=8.6,SNR=4.3						
BRTR	Keskin Array B	41.00	97	P	P	05 25 02.8	+2.1
	1.4nm,1.1s,mb3.5,baz=330,slow=6.3,SNR=3.7						
PDAR	Pinedale Array	50.98	289	P	P	05 26 20.6	+1.3
	1.6nm,1.0s,mb3.9,baz=38,slow=5.6,SNR=8.9						
PDAR	Pinedale Array	50.98	289	P	P	05 26 20.6	+1.3
TORD	Torodi Ar. Bea	53.41	148	P	P	05 26 38.5	+0.8
	1.4nm,1.1s,mb3.8,baz=343,slow=8.2,SNR=5.0						
MKAR	Makanchi Array	55.69	53	P	P	05 26 56.0	+2.1
	0.5nm,0.8s,mb3.6,baz=316,slow=5.1,SNR=3.5						
TXAR	Lajitas Array	59.67	275	P	P	05 27 24.4	+2.4
	0.6nm,1.0s,mb3.6,baz=35,slow=4.6,SNR=4.4						

ISCJB ***27*** *05:22:12.3±0.7, 6349N±006×2397W±008, h10^{km}, mb3.5/4, Error ellipse: s-maj=8.6km s-min=4.8km az=159.3*
IDC ***27*** *05:22:12.5±1.4, 6350N×2353W, h0^{km}, mb3.4/4, mb1 3.8/4, mb1mx3.4/21, mbtmp3.4/4, Error ellipse: s-maj=30.6km s-min=24.1km az=147.0*
ISC 27 05:22:13.3±0.7**,6353N**±006×**2391W**±009**,h10**^{km}**,n21,**
σ**0**^{s}**92**/37**,mb3.5**/4**,Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
INYL	Nylenda	0.69	49	P	Pg	05 22 26.6	0.0
INYL				S	Sg	05 22 37.5	+1.9
IVOS	Vogsosar	1.04	71	P	Pg	05 22 31.6	-1.6
IVOS				S	Sg	05 22 46.5	-0.2
IKAS	Kald??rsel	1.04	61	P	Pg	05 22 32.3	-1.0
IKAS				S	Sg	05 22 47.4	+0.6
ISAN	Sandskeio	1.17	62	P	Pb	05 22 34.0	-1.5
ISAN				S	Sb	05 22 50.9	+0.2
IKUD	Kuludalsa	1.20	48	P	Pb	05 22 35.2	-0.9
IKUD				S	Sb	05 22 51.3	-0.4
IBJA	Bjarnastaoir	1.23	69	P	Pn	05 22 35.0	-1.6
IBJA				S	Sb	05 22 52.0	-0.6
IHEI	Heioarbar	1.36	59	P	Pn	05 22 37.2	-1.1
IHEI				S	Sb	05 22 57.0	+0.7
IKRO	Krokur	1.37	64	P	Pn	05 22 37.2	-1.2
IKRO				S	Sb	05 22 56.1	-0.3
IASM	Asmuli	1.50	77	P	Pn	05 22 39.9	-0.3
IASM				S	Sn	05 23 00.0	+0.2
ISAU	Saurbar	1.62	72	P	Pn	05 22 41.8	-0.1
ISAU				S	Sn	05 23 03.2	+0.4
IVES	Vestmannaeyjar	1.63	91	P	Pn	05 22 42.0	0.0
IVES				S	Sn	05 23 03.7	+0.7
BORG	Borgarnes	1.67	42	Pn	Pn	05 22 41.9	-0.6
	64nm,0.3s,baz=223,slow=11,SNR=3.0						
BORG				Sn	Sn	05 23 03.6	-0.4
	baz=195,slow=22,SNR=3.5						
IASB	`sbjarnarst	1.67	42	P	Pn	05 22 41.7	-0.8
IASB				S	Sn	05 23 04.1	+0.1
IGYG	Gygjarholskot	1.80	63	P	Pn	05 22 45.2	+0.9
IGYG				S	Sn	05 23 08.8	+1.6
IMID	Miomork	1.81	84	P	Pn	05 22 45.4	+1.0
IMID				S	Sn	05 23 07.3	0.0
IHAU	Haukadalur	1.81	74	P	Pn	05 22 44.9	+0.4
IHAU				S	Sn	05 23 08.3	+0.9
IESK	Eystri-Skogar	2.00	88	S	Sn	05 23 12.6	+0.5
YKA	Yellowknife Ar	37.89	311	P	P	05 29 32.2	+2.3
	0.5nm,0.9s,mb3.3,baz=48,slow=8.4,SNR=4.6						
PDAR	Pinedale Array	50.96	289	P	P	05 31 15.1	+0.5
	0.8nm,1.0s,mb3.6,baz=56,slow=6.1,SNR=4.2						
TORD	Torodi Ar. Bea	53.43	148	P	P	05 31 32.8	-0.3
	0.6nm,0.9s,mb3.5,baz=340,slow=6.6,SNR=2.9						
TXAR	Lajitas Array	59.65	275	P	P	05 32 20.7	+3.4
	0.6nm,1.0s,mb3.6,baz=84,slow=2.8,SNR=4.2						

ISCJB ***27*** *05:24:14.9±0.3, 6344N±003×2385W±007, h10^{km}, mb4.1/32, MS3.6/21, Error ellipse: s-maj=5.3km s-min=3.2km az=139.3*
CSEM ***27*** *05:24:14.2±0.1, 6349N×2389W, h10^{km}, mb4.6/16, Ms3.4, Mw4.9, Error ellipse: s-maj=2.5km s-min=1.8km az=159.0*
IDC ***27*** *05:24:15.4±0.7, 6336N×2413W, h0^{km}, mb3.8/16, mb1 4.0/17, mb1mx3.9/26, mbtmp3.8/17, ML3.2/1, MS3.7/21, Ms1 3.7/21, ms1mx3.6/31, Error ellipse: s-maj=21.9km s-min=13.1km az=11.0*
GCMT ***27*** *05:24:16.5±0.3, 6351N×2386W, h14^{km}±1^{km}, MW4.9/60, Moment Tensor Solution. s7,c7; s60,c91; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.31±.27; M$_{\theta\theta}$-0.29±.17; M$_{\phi\phi}$2.59±.17; M$_{r\theta}$1.29±.48; M$_{\theta\phi}$0.66±.10; M$_{\phi r}$-1.13±.33; Best double couple: M$_0$3.05900×10^{16} NP1:ϕ_s217.00000°,δ42.00000°,λ-48.00000°. NP2: ϕ_s346.00000°,δ61.00000°,λ-121.00000°. Principal axes: T 2.8870, Plg10.0000°, Azm98.0000°; N 0.3380, Plg27.0000°, Azm2.0000°; P -3.2310, Plg61.0000°, Azm207.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
REY ***27*** *05:24:16.2, 6344N×2389W, h10^{km}, ML3.8, ML4.1*
NEIC ***27*** *05:24:16.5±0.3, 6330N×2405W, h10^{km}, mb4.5/21, Error ellipse: s-maj=8.9km s-min=5.3km az=212.0*
ISC 27 05:24:16.5±0.3**,6349N**±003×**2374W**±006**,h10**^{km}**,n123,**
σ**1**^{s}**15**/120**,mb4.1**/32**,MS3.6**/21**,Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
INYL	Nylenda	0.66	42	P	Pg	05 24 29.1	-0.1
INYL				S	Sg	05 24 39.4	+1.6
IGRV	Grindav??k	0.68	56	P	Pg	05 24 29.2	-0.4
IVOG	Vogar	0.77	50	P	Pg	05 24 30.6	-0.7
IKRI	Krysuvik	0.84	61	P	Pg	05 24 31.8	-0.8
IKRI				S	Sg	05 24 44.4	+0.9
IVOS	Vogsosar	0.98	67	P	Pg	05 24 34.0	-1.2
IVOS				S	Sg	05 24 47.7	-0.2
IKAS	Kald??rsel	0.99	57	P	Pg	05 24 34.5	-1.1
IKAS				S	Sg	05 24 47.8	-0.7
ISAN	Sandskeio	1.12	58	P	Pb	05 24 36.4	-1.5
ISAN				S	Sb	05 24 52.2	-0.2
IKUD	Kuludalsa	1.17	44	P	Pb	05 24 37.6	-1.2
IKUD				S	Sb	05 24 54.3	+0.3
IBJA	Bjarnastaoir	1.18	66	P	Pb	05 24 37.3	-1.5
IBJA				S	Sb	05 24 54.3	+0.2
IKRO	Krokur	1.31	61	P	Pn	05 24 39.5	-1.3
IHEI	Heioarbar	1.32	56	P	Pn	05 24 39.8	-1.1
ISOL	Solvholt	1.32	69	P	Pn	05 24 39.5	-1.4
ISOL				S	Sb	05 24 57.9	-0.3
IASM	Asmuli	1.43	75	P	Pn	05 24 41.6	-0.9
IVES	Vestmannaeyjar	1.55	90	P	Pn	05 24 43.3	-0.8
IVES				S	Sn	05 25 04.0	-0.2
ISAU	Saurbar	1.56	70	P	Pn	05 24 43.4	-0.8
ISAU				S	Sn	05 25 04.8	+0.4
BORG	Borgarnes	1.65	39	Pn	Pn	05 24 44.4	-1.0
BORG				Sn	Sn	05 25 12.0	+5.4
BORG	Borgarnes	1.65	39	Pn	Pn	05 24 44.4	-1.0
	241nm,0.3s,baz=231,slow=6.5,SNR=33						
BORG				Sn	Sn	05 25 12.0	+5.4
	261nm,0.3s,baz=303,slow=22,SNR=7.6						
BORG	Borgarnes	1.65	39	Pn	Pn	05 24 44.4	-1.0
BORG				Sn	Sn	05 25 12.0	+5.4
IASB	`sbjarnarst	1.65	39	P	Pn	05 24 44.3	-1.1
IASB				S	Sn	05 25 06.5	-0.1
IMID	Miomork	1.73	83	P	Pn	05 24 46.6	+0.1
IMID				S	Sn	05 25 09.2	+0.6
IHAU	Haukadalur	1.75	72	S	Sn	05 25 09.5	+0.5
IGYG	Gygjarholskot	1.75	61	P	Pn	05 24 46.4	-0.4
IESK	Eystri-Skogar	1.92	87	P	Pn	05 24 50.0	+0.8
JMIC	Jan Mayen	9.53	31	LR	LR	05 29 17.2	
	comp=Z,232nm,21.6s,baz=75,slow=31						
EKA	Eskdalemuir Ar	13.23	119	Pn	Pn	05 27 26.2	+2.1
EKA	Eskdalemuir Ar	13.23	119	Pn	Pn	05 27 26.2	+2.1
	0.1nm,0.3s,baz=303,slow=16,SNR=3.5						
EKA	Eskdalemuir Ar	13.23	119	Pn	Pn	05 27 26.2	+2.1
NOA	NORSAR Array B	16.32	83	LR	LR	05 34 12.2	
	comp=Z,112nm,18.4s,baz=305,slow=36						
HFS	Hagfors	17.82	84	LR	LR	05 34 45.5	
	comp=Z,181nm,21.9s,baz=262,slow=35						
ROSF	Rostrenen	18.89	134	*e*P	Pn	05 28 36.0	-1.3
	69nm,1.5s						
ROSF	Rostrenen	18.89	134	*e*P	Pn	05 28 36.0	-1.3
	34nm,1.5s						
QUIF	Quistinic	19.29	134	*e*P	Pn	05 28 40.3	-1.8
	134nm,1.7s						
QUIF	Quistinic	19.29	134	*e*P	Pn	05 28 40.3	-1.8
	67nm,1.7s						
FLN	La Foliniere	19.46	128	*e*P	Pn	05 28 43.4	-0.8
	13nm,0.6s						
FLN				*e*MLR	MLR		
	comp=Z,308nm,18.5s						
FLN	La Foliniere	19.46	128	*e*P	Pn	05 28 43.4	-0.8
	comp=Z,6.6nm,0.6s						
LDF	La Druitiere	19.73	128	*e*P	Pn	05 28 45.3	-2.1
	comp=Z,38nm,1.1s						
LDF	La Druitiere	19.73	128	*e*P	Pn	05 28 45.3	-2.1
	comp=Z,19nm,1.1s						
ARCES	ARCESS Array B	20.02	51	P	P	05 28 51.0	+2.1
ARCES				LR	LR	05 35 14.2	
ARCES	ARCESS Array B	20.02	51	P	P	05 28 51.0	+2.1
	comp=Z,2.7nm,0.8s,baz=266,slow=9.1,SNR=7.3						
ARCES				LR	LR	05 35 14.2	
	comp=Z,81nm,19.9s,MS3.1,baz=279,slow=33						
BAIF	Baives	20.15	119	*e*P	P	05 28 52.5	+2.0
	comp=Z,44nm,1.0s						
BAIF	Baives	20.15	119	*e*P	P	05 28 52.5	+2.0
	comp=Z,22nm,1.0s						
GIVF	Givet	20.36	118	*e*P	P	05 28 54.7	+1.9
MFF	Saint Martin d	21.44	131	*e*P	P	05 29 04.1	-0.3
	comp=Z,65nm,1.4s,mb4.5						
MFF	Saint Martin d	21.44	131	*e*P	P	05 29 04.1	-0.3
	comp=Z,33nm,1.4s,mb4.5						
LOR	Lormes	22.30	124	*e*P	P	05 29 13.0	-0.6
LOR				*e*MLR	MLR		
	comp=Z,228nm,22.5s,MS3.2						
LOR	Lormes	22.30	124	*e*P	P	05 29 13.0	-0.6
LOR				LR	LR		
	comp=Z,230nm,22.5s,MS3.5						
SSF	Saint Saulge	22.34	125	*e*P	P	05 29 13.3	-0.7
	comp=Z,36nm,1.2s,mb4.4						
SSF	Saint Saulge	22.34	125	*e*P	P	05 29 13.3	-0.7
	comp=Z,18nm,1.2s,mb4.4						
KAF	Kangasniemi	22.45	71	*e*p	P	05 29 15.5	+0.4
AVF	Avril sur Loir	22.51	125	*e*P	P	05 29 14.5	-1.4
	comp=Z,87nm,1.6s,mb4.6						
AVF	Avril sur Loir	22.51	125	*e*P	P	05 29 14.5	-1.4
	comp=Z,44nm,1.6s,mb4.6						
BGF	Bois d'Agland	22.52	126	*e*P	P	05 29 14.6	-1.4
	comp=Z,23nm,0.6s,mb4.5						
BGF	Bois d'Agland	22.52	126	*e*P	P	05 29 14.6	-1.4
	comp=Z,12nm,0.6s,mb4.5						
TCF	Toulx Ste Croi	22.53	128	*e*P	P	05 29 14.9	-1.1
	comp=Z,84nm,1.5s,mb4.6						
TCF	Toulx Ste Croi	22.53	128	*e*P	P	05 29 14.9	-1.1
	comp=Z,42nm,1.5s,mb4.6						
HAU	Haudompre	22.64	119	*e*P	P	05 29 18.0	+0.7
	comp=Z,62nm,1.4s,mb4.5						
HAU				*e*MLR	MLR		
	comp=Z,368nm,21.0s,MS3.5						
HAU	Haudompre	22.64	119	*e*P	P	05 29 18.0	+0.7
	comp=Z,31nm,1.4s,mb4.5						
HAU				LR	LR		
	comp=Z,370nm,21.0s,MS3.8						
FINES	FINESS Array B	22.65	72	P	P	05 29 19.6	+2.3
	comp=Z,5.1nm,1.0s,mb3.9,baz=292,slow=6.0,SNR=7.5						
FINES				LR	LR	05 37 35.4	
	comp=Z,126nm,19.5s,MS3.4,baz=314,slow=35						
FINES	FINESS Array B	22.65	72	P	P	05 29 19.5	+2.2
CDF	Champ du Feu	22.68	117	*e*P	P	05 29 18.8	+1.1
	comp=Z,30nm,1.1s,mb4.3						
CDF	Champ du Feu	22.68	117	*e*P	P	05 29 18.8	+1.1
	comp=Z,15nm,1.1s,mb4.3						
MOX	Moxa	22.76	108	*e*P	P	05 29 19.4	+0.9
	comp=Z,19nm,1.6s,mb4.3						
SMF	Signal de Mont	22.81	125	*e*P	P	05 29 19.3	+0.2
	comp=Z,50nm,1.2s,mb4.5						
SMF	Signal de Mont	22.81	125	*e*P	P	05 29 19.3	+0.2
	comp=Z,25nm,1.2s,mb4.5						
CLL	Collm	22.87	105	*i* P	P	05 29 19.5	-0.1
	comp=Z,13nm,1.5s,mb4.1						
CLL				*i* (sP)	sP	05 29 23.8	0.0
CLL				*e*x	x	05 29 39.0	
HINF	Hinteralfeld	22.99	119	*e*P	P	05 29 21.7	+0.7
	comp=Z,166nm,1.8s,mb4.8						
HINF	Hinteralfeld	22.99	119	*e*P	P	05 29 21.7	+0.7
	comp=Z,83nm,1.8s,mb4.8						
RJF	Les Rejaudoux	23.14	130	*e*P	P	05 29 22.0	-0.5
RJF				*e*MLR	MLR		
	comp=Z,187nm,23.0s,MS3.2						
RJF	Les Rejaudoux	23.14	130	*e*P	P	05 29 22.0	-0.5
RJF				LR	LR		
	comp=Z,190nm,23.0s,MS3.5						
SCHQ	Schefferville	23.30	268	P	P	05 29 23.6	-0.5
	comp=Z,3.5nm,1.0s,mb3.7,baz=33,slow=16,SNR=3.8						
SCHQ				LR	LR	05 36 40.9	
	comp=Z,341nm,20.3s,MS3.8,baz=146,slow=32						
NKC	Novy Kostel	23.42	107	AMS	AMS	05 40 30.0	
	comp=Z,600nm,13.0s						
BRG	Berggiesshubel	23.59	105	*e*P	P	05 29 28.6	+1.4
	comp=Z,13nm,1.9s,mb4.0						
CABF	La Chapelle	23.69	121	*e*P	P	05 29 27.4	-0.7
	comp=Z,77nm,1.4s,mb4.6						
CABF	La Chapelle	23.69	121	*e*P	P	05 29 27.4	-0.7
	comp=Z,38nm,1.4s,mb4.6						
PVCC	Panska Ves	24.11	104	AMS	AMS	05 41 00.0	
	comp=Z,400nm,16.4s						
JOF	Joensuu	24.19	66	*e*p	P	05 29 32.7	+0.2
PRU	Pruhonice	24.50	105	AMS	AMS	05 41 40.0	
	comp=Z,400nm,9.4s						
KHC	Kasperske Hory	24.73	108	*e*P	P	05 29 39.0	+1.4
KHC				*e*x	x	05 29 49.5	
KHC				AMS	AMS	05 41 00.0	
	comp=Z,600nm,13.9s						
LPL	La Plagne	24.85	122	*e*P	P	05 29 38.9	+0.2
LPG	La Plagne	24.87	122	*e*P	P	05 29 38.7	-0.2
	comp=Z,33nm,1.3s,mb4.4						
LPG	La Plagne	24.87	122	*e*P	P	05 29 38.7	-0.2
	comp=Z,17nm,1.3s,mb4.4						
GERES	GERESS Array B	25.00	108	LR	LR	05 38 18.9	
	comp=Z,279nm,21.9s,MS3.7,baz=280,slow=34						
DPC	Dobruska-Polom	25.01	103	AMS	AMS	05 41 10.0	
	comp=Z,400nm,17.5s						
DAVOX	Davos/Dischmat	25.04	116	LR	LR	05 38 20.1	
	comp=Z,278nm,21.3s,MS3.7,baz=80,slow=34						
TREC	Trest	25.43	105	AMS	AMS	05 42 00.0	
	comp=Z,600nm,12.7s						
MBDF	Montbardon	25.53	123	*e*P	P	05 29 45.2	+0.3
	comp=Z,33nm,1.2s,mb4.4						
MBDF	Montbardon	25.53	123	*e*P	P	05 29 45.2	+0.3
	comp=Z,17nm,1.2s,mb4.4						
VRAC	Vranov	25.90	104	P	P	05 29 50.4	+2.2
	comp=Z,2.7nm,0.7s,mb3.9,baz=314,slow=10,SNR=4.1						
VRAC				LR	LR	05 39 19.8	
	comp=Z,189nm,20.5s,MS3.6,baz=310,slow=35						
OKC	Ostrava-Krasne	26.19	102	AMS	AMS	05 43 00.0	
	comp=Z,300nm,14.6s						
ESDC	Sonseca Array	26.60	144	P	P	05 29 55.2	+0.7
	comp=Z,0.8nm,0.7s,mb3.4,baz=342,slow=11,SNR=5.6						
ESDC				LR	LR	05 39 34.6	
	comp=Z,96nm,19.3s,MS3.4,baz=310,slow=35						
AKASG	Malin Array Be	30.50	90	LR	LR	05 42 02.1	
	comp=Z,125nm,18.2s,MS3.6,baz=270,slow=35						
MLR	Muntele Rosu	32.92	99	LR	LR	05 44 37.1	
	comp=Z,160nm,20.6s,MS3.7,baz=94,slow=37						
MDT	Midelt	32.96	150	LR	LR	05 42 31.9	
	comp=Z,78nm,18.8s,MS3.4,baz=353,slow=33						
KEST	Kesra	34.36	128	LR	LR	05 43 45.5	
	comp=Z,58nm,20.1s,MS3.3,baz=290,slow=34						
VAE	Valguarnera	34.69	120	LR	LR	05 46 04.1	
	comp=Z,209nm,19.7s,MS3.9,baz=134,slow=38						
YKA	Yellowknife Ar	37.97	311	P	P	05 31 33.4	-0.4
YKA				PcP	PcP	05 33 48.7	-0.3
YKA				LR	LR	05 47 14.5	
YKA	Yellowknife Ar	37.97	311	P	P	05 31 33.3	-0.4
	comp=Z,1.0nm,1.0s,mb3.5,baz=46,slow=8.5,SNR=10						
YKA				PcP	PcP	05 33 48.7	-0.3
	comp=Z,0.9nm,0.8s,baz=43,slow=3.3,SNR=12						
YKA				LR	LR	05 47 14.5	
	comp=Z,203nm,19.0s,MS4.0,baz=135,slow=36						
YKA	Yellowknife Ar	37.97	311	P	P	05 31 33.3	-0.5
YKA	Yellowknife Ar	37.97	311	PcP	PcP	05 33 48.7	-0.4
ULM	Lac du Bonnet	39.33	285	LR	LR	05 47 23.6	
	comp=Z,254nm,18.4s,MS4.1,baz=26,slow=35						
INK	Inuvik	39.37	327	*e*P	P	05 31 45.4	0.0
	comp=Z,299nm,1.4s						
INK	Inuvik	39.37	327	P	P	05 31 46.2	+0.8
	comp=Z,0.8nm,0.3s,mb3.9,baz=50,slow=14,SNR=9.6						
INK	Inuvik	39.37	327	*e*P	P	05 31 45.4	0.0
	comp=Z,299nm,1.4s						
BRTR	Keskin Array B	40.94	98	P	P	05 32 01.2	+2.5
	comp=Z,0.8nm,0.8s,mb3.4,baz=328,slow=4.4,SNR=3.8						
AKTK	Aktyubinsk	43.27	67	P	P	05 32 20.0	+2.4
AKTK				LR	LR	05 49 56.7	
AKTK	Aktyubinsk	43.27	67	P	P	05 32 20.0	+2.4
AKTO	Aktyubinsk	43.27	67	P	P	05 32 20.0	+2.4
	comp=Z,0.7nm,0.8s,mb3.5,baz=321,slow=14,SNR=3.2						
AKTO				LR	LR	05 49 56.7	
	comp=Z,163nm,19.9s,MS3.9,baz=326,slow=35						
ZALV	Zalesovo Beam	50.48	47	P	P	05 33 16.6	+2.7
	comp=Z,0.3nm,0.3s,mb3.8,baz=325,slow=7.0,SNR=3.2						
ZALV				PcP	PcP	05 34 34.1	+2.3
	comp=Z,1.3nm,0.9s,baz=345,slow=5.2,SNR=4.2						
ZALV				LR	LR	05 56 54.4	
	comp=Z,36nm,18.8s,MS3.4,baz=219,slow=39						
PDAR	Pinedale Array	51.05	289	P	P	05 33 18.2	-0.2
	comp=Z,1.8nm,0.9s,mb4.0,baz=65,slow=5.8,SNR=10						
TORD	Torodi Ar. Bea	53.36	149	P	P	05 33 35.5	-0.3
TORD	Torodi Ar. Bea	53.36	149	P	P	05 33 35.5	-0.3
	comp=Z,1.4nm,0.9s,mb3.9,baz=350,slow=7.4,SNR=5.8						
MK31	Makanchi Array	55.65	53	*e*P	P	05 33 54.4	+2.3
MK31	Makanchi Array	55.65	53	*e*P	P	05 33 54.4	+2.2
MKAR	Makanchi Array	55.66	53	P	P	05 33 53.3	+1.1
MKAR				LR	LR	06 00 55.3	
MKAR	Makanchi Array	55.66	53	P	P	05 33 53.3	+1.1
	comp=Z,1.0nm,0.8s,mb3.9,baz=328,slow=5.9,SNR=7.9						
MKAR				LR	LR	06 00 55.3	
	comp=Z,54nm,18.6s,MS3.7,baz=153,slow=39						
ANMO	Albuquerque	56.20	281	P	P	05 33 56.6	+0.4

	comp=Z,0.5nm,0.5s,mb3.8,baz=73,slow=11,SNR=2.8						
JCT	**Junction City**	**57.02**	**273**	*e*P	**P**	**05 34 01.2**	**-0.9**
	comp=Z,5.7nm,0.7s,mb4.7						
JCT	**Junction City**	**57.02**	**273**	*e*P	**P**	**05 34 01.2**	**-0.9**
	comp=Z,5.7nm,0.7s,mb4.7						
LIC	**Lamto**	**58.74**	**158**	*e*P	**P**	**05 34 12.5**	**-1.8**
	comp=Z,31nm,1.2s,mb4.9						
LIC	**Lamto**	**58.74**	**158**	*e*P	**P**	**05 34 12.5**	**-1.8**
	comp=Z,15nm,1.2s,mb4.9						
TXAR	**Lajitas Array**	**59.73**	**275**	P	**P**	**05 34 19.9**	**-1.1**
TXAR				LR	LR	05 58 20.8	
TXAR	**Lajitas Array**	**59.73**	**275**	P	**P**	**05 34 19.9**	**-1.1**
	comp=Z,0.8nm,0.9s,mb3.7,baz=69,slow=4.2,SNR=5.7						
TXAR				LR	LR	05 58 20.8	
	comp=Z,149nm,18.1s,MS4.2,baz=5.0,slow=34						
SONM	**Songino Array**	**62.26**	**36**	P	**P**	**05 34 40.6**	**+2.7**
	comp=Z,1.3nm,1.1s,mb4.0,baz=327,slow=7.6,SNR=5.8						

*ISCJB **27** 05:27:43.2±1.3, 63.44N±0.07×24.0W±0.1, h1^{km}±7^{km}, mb3.5/5, Error ellipse: s-maj=13.5km s-min=5.6km az=154.3*

*CSEM **27** 05:27:43.9±0.1, 63.50N×23.97W, h10^{km}, ML3.8, Error ellipse: s-maj=5.0km s-min=2.4km az=151.0*

*REY **27** 05:27:45.3, 63.49N×24.13W, h10^{km}, ML3.4, ML3.8*

*IDC **27** 05:27:45.7±1.2, 63.42N×24.23W, h0^{km}, mb3.5/5, mb1 3.8/5, mb1mx3.5/22, mbtmp3.5/5, MS3.7/1, Ms1 3.7/1, ms1mx2.3/27, Error ellipse: s-maj=46.3km s-min=27.8km az=22.0*

*NEIC **27** 05:27:46.2±0.9, 63.64N×23.66W, h10^{km}, Error ellipse: s-maj=21.3km s-min=16.4km az=160.0*

ISC 27 05:27:44.5±1.1**, 63.44N**±0.07×**23.9W**±0.1**, h1**^{km}±5^{km}**, n24, σ1**^{s}**03**/36**, mb3.5**/5**, Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
INYL	**Nylenda**	**0.73**	**43**	P	**Pg**	**05 27 58.9**	**+0.4**
INYL				S	**Sg**	**05 28 09.6**	**+1.6**
IVOS	**Vogsosar**	**1.05**	**66**	P	**Pg**	**05 28 04.3**	**-0.2**
IVOS				S	**Sg**	**05 28 19.0**	**+0.9**
IKAS	**Kald??rsel**	**1.07**	**56**	P	**Pg**	**05 28 05.0**	**+0.1**
IKAS				S	**Sg**	**05 28 20.3**	**+1.5**
ISAN	**Sandskeio**	**1.19**	**58**	P	**Pg**	**05 28 06.8**	**-0.5**
ISAN				S	**Sg**	**05 28 23.4**	**+0.7**
IKUD	**Kuludalsa**	**1.25**	**44**	P	**Pg**	**05 28 07.0**	**-1.3**
IKUD				S	**Sg**	**05 28 24.1**	**-0.4**
IBJA	**Bjarnastaoir**	**1.25**	**65**	P	**Pg**	**05 28 07.5**	**-0.9**
IBJA				S	**Sg**	**05 28 24.6**	**+0.1**
IKRO	**Krokur**	**1.39**	**60**	P	**Pn**	**05 28 09.8**	**-1.0**
IKRO				S	**Sg**	**05 28 28.3**	**-0.6**
IHEI	**Heioarbar**	**1.39**	**56**	P	**Pn**	**05 28 09.8**	**-1.1**
IHEI				S	**Sg**	**05 28 29.4**	**+0.3**
IASM	**Asmuli**	**1.50**	**73**	P	**Pn**	**05 28 12.0**	**-0.5**
IASM				S	**Sb**	**05 28 31.8**	**-0.8**
ISAU	**Saurbar**	**1.63**	**69**	P	**Pn**	**05 28 13.6**	**-0.6**
ISAU				S	**Sn**	**05 28 35.3**	**-0.5**
BORG	**Borgarnes**	**1.72**	**39**	Pn	**Pn**	**05 28 13.4**	**-2.0**
BORG				Sn	**Sn**	**05 28 39.6**	**+1.7**
BORG	**Borgarnes**	**1.72**	**39**	Pn	**Pn**	**05 28 13.4**	**-2.0**
	baz=231,slow=6.4						
BORG				Sn	**Sn**	**05 28 39.6**	**+1.7**
	48nm,0.3s,baz=74,slow=21,SNR=4.3						
BORG	**Borgarnes**	**1.72**	**39**	Pn	**Pn**	**05 28 13.4**	**-2.0**
BORG				Sn	**Sn**	**05 28 39.7**	**+1.7**
IASB	**`sbjarnarst**	**1.72**	**39**	P	**Pn**	**05 28 14.5**	**-0.9**
IASB				S	**Sn**	**05 28 36.6**	**-1.4**
IHAU	**Haukadalur**	**1.82**	**71**	S	**Sn**	**05 28 41.5**	**+1.2**
IGYG	**Gygjarholskot**	**1.82**	**61**	S	**Sn**	**05 28 40.7**	**+0.2**
SFJD	**Kangerlussuaq**	**11.72**	**299**	LR	LR	05 34 30.4	
	comp=Z,348nm,18.0s,baz=150,slow=35						
YKA	**Yellowknife Ar**	**37.96**	**311**	P	**P**	**05 35 02.6**	**-0.4**
	0.1nm,0.4s,mb2.9,baz=40,slow=8.6,SNR=4.7						
YKA				PcP	PcP	05 37 18.2	-0.2
	0.3nm,0.8s,baz=44,slow=3.8,SNR=5.1						
YKA	**Yellowknife Ar**	**37.96**	**311**	PcP	PcP	05 37 18.2	-0.3
PDAR	**Pinedale Array**	**51.01**	**289**	P	**P**	**05 36 48.0**	**+0.6**
	1.8nm,1.0s,mb3.9,baz=56,slow=5.5,SNR=6.9						
TORD	**Torodi Ar. Bea**	**53.35**	**148**	P	**P**	**05 37 06.5**	**+1.4**
TORD	**Torodi Ar. Bea**	**53.35**	**148**	P	**P**	**05 37 06.5**	**+1.4**
	0.4nm,0.9s,mb3.3,baz=339,slow=7.3,SNR=2.1						
MKAR	**Makanchi Array**	**55.73**	**53**	P	**P**	**05 37 25.3**	**+3.3**
	0.3nm,0.7s,mb3.5,baz=321,slow=4.1,SNR=2.7						
TXAR	**Lajitas Array**	**59.68**	**275**	P	**P**	**05 37 51.8**	**+1.7**
	0.7nm,1.0s,mb3.6,baz=46,slow=3.9,SNR=4.5						

*MDD **27** 05:40:54.2±2.2, 34.07N×15.19W, h55^{km}±245^{km}, mb4.1/7, Error ellipse: s-maj=69.5km s-min=12.2km az=120.0, PRXIMO*

*INMG **27** 05:40:57.5±0.9, 34.11N×15.23W, h10^{km}±14^{km}, ML2.7, Error ellipse: s-maj=5.6km s-min=2.7km az=126.0*

CSEM 27 05:40:49.1±0.5**, 33.79N**×**14.85W, h2**^{km}**, ML4.0**/4**, Error ellipse: s-maj=18.9km s-min=7.1km az=125.0, Madeira Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMPS	**Porto Santo**	**1.44**	**240**	*e*P	Pn	05 41 17.2	+1.1
PMPS				*e*S	Sg	05 41 32.6	-2.6
PMPS				A		05 41 34.6	
	191nm,0.2s						
PMPS	**Porto Santo**	**1.44**	**240**	Pn	Pn	05 41 17.2	+1.1
PMPS				Sn	Sn	05 41 32.6	-3.0
	96nm,0.2s						
PMAR	**Madeira**	**2.03**	**239**	*e*Pn	Pn	05 41 25.3	+1.1
PMAR				*e*Sn	Sn	05 41 46.1	-4.0
PMAR				A		05 41 49.7	
	99nm,0.2s						
PMAR	**Madeira**	**2.03**	**239**	Pn	Pn	05 41 25.3	+1.1
PMAR				Sn	Sn	05 41 46.1	-4.0
	50nm,0.2s						
PMAR	**Madeira**	**2.03**	**239**	*e*Pn	Pn	05 41 25.3	+1.1
CFUE	**Fuerteventura**	**5.18**	**171**	Pn	Pn	05 42 13.4	+5.8
	1.1nm,0.1s,SNR=7.9						
CFUE				Sn	Sn	05 43 14.6	+6.6
	3.8nm,0.1s,SNR=7.9						
CFUE	**Fuerteventura**	**5.18**	**171**	P	Pn	05 42 13.8	+6.2
	1.1nm,0.1s,SNR=7.9						
CFUE				S	Sn	05 43 11.8	+3.8
	3.8nm,0.1s,SNR=7.9						
CFTV	**Fuerteventura**	**5.39**	**173**	Pn	Pn	05 42 16.3	+5.8
	4.7nm,0.7s,SNR=7.9						
CFTV				Sn	Sn	05 43 17.8	+4.5
	0.9nm,0.2s,SNR=7.9						
CFTV	**Fuerteventura**	**5.39**	**173**	S	Sn	05 43 16.6	+3.3
	0.9nm,0.2s,SNR=7.9						
EOSO	**Osorio**	**5.73**	**186**	Sn	Sn	05 43 28.0	+6.6
	2.3nm,0.1s,SNR=7.9						
EOSO	**Osorio**	**5.73**	**186**	S	Sn	05 43 24.8	+3.4
	2.3nm,0.1s,SNR=7.9						
CCAN	**Las Canadas**	**5.75**	**196**	Pn	Pn	05 42 20.7	+5.3
	0.1nm,0.6s,SNR=7.9						
CCAN				Sn	Sn	05 43 27.0	+5.1
	0.3nm,0.1s,SNR=7.9						
CCAN	**Las Canadas**	**5.75**	**196**	S	Sn	05 43 22.3	+0.4
	0.3nm,0.1s,SNR=7.9						
CHIO	**Chio**	**5.78**	**197**	Pn	Pn	05 42 20.9	+5.1
	3.9nm,0.5s,SNR=7.9						
CHIO				Sn	Sn	05 43 26.5	+3.8
	5.2nm,0.1s,SNR=7.9						
CHIO	**Chio**	**5.78**	**197**	S	Sn	05 43 22.9	+0.2
	5.2nm,0.1s,SNR=7.9						
PFVI	**Vila Bisbo**	**5.94**	**54**	*e*Pn	Pn	05 42 20.4	+2.3
PFVI				*e*Sn	Sn	05 43 21.4	-5.3
PFVI				A		05 43 26.7	
	4.1nm,0.1s						
PFVI	**Vila Bisbo**	**5.94**	**54**	Pn	Pn	05 42 20.4	+2.3
PFVI				Sn	Sn	05 43 21.4	-5.3
	2.0nm,0.1s						
EGOM	**La Gomera**	**5.96**	**200**	Pn	Pn	05 42 22.6	+4.2
	7.5nm,2.4s,SNR=7.9						
EGOM				Sn	Sn	05 43 32.0	+4.8
	2.2nm,0.1s,SNR=7.9						
EGOM	**La Gomera**	**5.96**	**200**	S	Sn	05 43 26.0	-1.2
	2.2nm,0.1s,SNR=7.9						
MORF	**Marmelete**	**6.16**	**53**	*e*Pn	Pn	05 42 23.4	+2.4
MORF				*e*Sn	Sn	05 43 27.5	-4.5
MORF				A		05 43 32.1	
	4.3nm,0.2s						
MORF	**Marmelete**	**6.16**	**53**	Pn	Pn	05 42 23.4	+2.4
MORF				Sn	Sn	05 43 27.5	-4.5
	4.3nm,0.2s						
PBDV	**Barranco-do-Ve**	**6.61**	**57**	*e*Pn	Pn	05 42 30.3	+3.0
PBDV				*e*Sn	Sn	05 43 39.1	-4.2
PBDV				A		05 43 45.2	
	2.2nm,0.2s						
PBDV	**Barranco-do-Ve**	**6.61**	**57**	Pn	Pn	05 42 30.3	+3.0
PBDV				Sn	Sn	05 43 39.1	-4.2
	2.2nm,0.2s						
PMAFR	**Mafra**	**6.84**	**39**	*e*Sn	Sn	05 43 39.3	-10
PMAFR				A		05 43 40.0	
	15nm,0.2s						
PMAFR	**Mafra**	**6.84**	**39**	Sn	Sn	05 43 39.3	-10
	15nm,0.2s						
PMAFR	**Mafra**	**6.84**	**39**	*e*Sn	Sn	05 43 39.3	-10
	15nm,0.2s						
PVAQ	**Vaqueiros**	**6.84**	**56**	*e*Pn	Pn	05 42 33.2	+2.8
PVAQ				*e*Sn	Sn	05 43 43.8	-5.1
PVAQ				A		05 43 47.8	
	3.1nm,0.2s						
PVAQ	**Vaqueiros**	**6.84**	**56**	Pn	Pn	05 42 33.2	+2.8
PVAQ				Sn	Sn	05 43 43.8	-5.1
	3.1nm,0.2s						
EGRO	**El Granado**	**7.07**	**56**	Pn	Pn	05 42 36.5	+3.0
	1.5nm,0.2s,SNR=8.5						
EGRO				Sn	Sn	05 43 49.8	-4.7
	1.8nm,0.1s,SNR=6.1						
EGRO	**El Granado**	**7.07**	**56**	P	Pn	05 42 36.5	+3.0
	1.5nm,0.2s,SNR=8.5						
MOE	**Montemor**	**7.07**	**46**	*e*Sn	Sn	05 43 45.9	-8.6
MOE	**Montemor**	**7.07**	**46**	Sn	Sn	05 43 45.9	-8.6
PBEJ	**Beja**	**7.07**	**51**	*e*Pn	Pn	05 42 36.0	+2.4
PBEJ				*e*Sn	Sn	05 43 49.1	-5.5
PBEJ				A		05 43 53.3	
	1.8nm,0.1s						
PBEJ	**Beja**	**7.07**	**51**	Pn	Pn	05 42 36.0	+2.4
PBEJ				Sn	Sn	05 43 49.1	-5.5
	0.9nm,0.1s						
PBAR	**Barrancos**	**7.70**	**53**	*e*Pn	Pn	05 42 45.2	+3.0
PBAR				*e*Sn	Sn	05 44 04.5	-5.5
PBAR	**Barrancos**	**7.70**	**53**	Pn	Pn	05 42 45.2	+3.0
PBAR				Sn	Sn	05 44 04.5	-5.5
EMIN	**Mina Concepcio**	**7.74**	**57**	Pn	Pn	05 42 45.4	+2.6
	2.4nm,0.2s,SNR=12						
EMIN				Sn	Sn	05 44 05.8	-5.3
	0.7nm,0.1s,SNR=7.2						
EMIN	**Mina Concepcio**	**7.74**	**57**	P	Pn	05 42 45.4	+2.6
	2.4nm,0.2s,SNR=12						
ESPR	**Espera**	**7.97**	**65**	Pn	Pn	05 42 49.0	+3.1
	1.3nm,0.1s,SNR=7.9						
ESPR	**Espera**	**7.97**	**65**	P	Pn	05 42 49.0	+3.1
	1.3nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	**8.04**	**50**	Pn	Pn	05 42 48.5	+1.7
	1.0nm,0.1s,SNR=5.9						
EBAD				Sn	Sn	05 44 11.7	-6.6
	2.1nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**8.04**	**50**	P	Pn	05 42 48.5	+1.6
	1.0nm,0.1s,SNR=5.9						
PCBR	**Castelo Branco**	**8.45**	**42**	*e*Pn	Pn	05 42 52.6	+0.1
PCBR	**Castelo Branco**	**8.45**	**42**	Pn	Pn	05 42 52.6	+0.1
MTE	**Manteigas**	**8.81**	**39**	*e*Sn	Sn	05 44 28.7	-8.6
MTE	**Manteigas**	**8.81**	**39**	Sn	Sn	05 44 28.7	-8.6
EADA	**Adamuz**	**9.40**	**59**	Pn	Pn	05 43 08.5	+2.9
	0.3nm,0.1s,SNR=5.6						
EADA				Sn	Sn	05 44 46.7	-5.2
	0.3nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**9.40**	**59**	P	Pn	05 43 08.5	+2.9
	0.3nm,0.1s,SNR=5.6						

*CSEM **27** 05:51:46.8±0.1, 63.42N×23.59W, h2^{km}, mb4.7/33, Ms4.1, Mw5.0, Error ellipse: s-maj=1.7km s-min=1.3km az=164.0*

*REY **27** 05:51:47.9, 63.37N×23.89W, h10^{km}, ML4.0, ML4.2*

*MOS **27** 05:51:48.8±1.5, 63.24N×24.06W, h10^{km}, mb4.9/36, MS4.2/14, Error ellipse: s-maj=12.6km s-min=5.7km az=122.1*

*IDC **27** 05:51:48.6±0.6, 63.46N×24.11W, h0^{km}, mb4.0/16, mb1 4.2/18, mb1mx4.1/28, mbtmp4.0/18, ML3.2/2, MS4.3/25, Ms1 4.3/25, ms1mx4.2/30, Error ellipse: s-maj=20.5km s-min=12.5km az=17.0*

*BJI **27** 05:51:48.4, 63.30N×23.90W, h10^{km}, mB5.2, mb4.7, Ms4.7, Msz4.3*

*ISCJB **27** 05:51:49.2±0.2, 63.44N±0.02×23.65W±0.04, h10^{km}, mb4.5/75, MS4.2/42, Error ellipse: s-maj=3.3km s-min=2.3km az=146.7*

*GCMT **27** 05:51:50.5±0.2, 63.40N×23.89W, h12^{km}, MW5.0/72, Moment Tensor Solution. s12,c14; s72,c118; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.07±.11; $M_{\theta\theta}$0.04±.13; $M_{\phi\phi}$3.03±.08; $M_{r\theta}$0.47±.43; $M_{\theta\phi}$0.64±.08; $M_{\phi r}$-1.86±.31; Best double couple: $M_0$3.65900×10^{16} NP1:ϕ_s204.00000°, δ32.00000°, λ-68.00000°. NP2: ϕ_s359.00000°, δ61.00000°, λ-103.00000°. Principal axes: T 3.6210, Plg15.0000°, Azm98.0000°; N 0.0780, Plg11.0000°, Azm5.0000°; P -3.6970, Plg71.0000°, Azm239.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **27** 05:51:50.5±0.3, 63.30N×23.93W, h10^{km}, mb4.7/46, MS4.1/6 Error ellipse: s-maj=10.0km s-min=4.3km az=208.0*

*SZGRF **27** 05:51:53.8, 64.36N×23.45W, h33^{km}, mb4.8, MS3.9, Iceland region*

ISC 27 05:51:50.9±0.2**, 63.48N**±0.02×**23.54W**±0.04**, h10**^{km}**, (h17**^{km}±1.0^{km}**:pP-P), n292, σ1**^{s}**51**/303**, mb4.5**/75**, MS4.2**/41**, 4C-3D, Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
INYL	**Nylenda**	**0.62**	**35**	P	**Pg**	**05 52 01.6**	**-1.2**
INYL				S	**Sg**	**05 52 12.5**	**+1.6**
IGRV	**Grindav??k**	**0.62**	**51**	P	**Pg**	**05 52 01.6**	**-1.3**
IGRV				S	**Sg**	**05 52 12.7**	**+1.8**
IVOG	**Vogar**	**0.71**	**45**	P	**Pg**	**05 52 03.2**	**-1.5**
IVOG				S	**Sg**	**05 52 15.0**	**+1.0**
IKRI	**Krysuvik**	**0.77**	**58**	P	**Pg**	**05 52 04.1**	**-1.6**
IKRI				S	**Sg**	**05 52 16.9**	**+1.2**
IVOS	**Vogsosar**	**0.90**	**64**	P	**Pg**	**05 52 06.4**	**-1.9**
IKAS	**Kald??rsel**	**0.93**	**53**	P	**Pg**	**05 52 07.1**	**-1.7**
IKAS				S	**Sg**	**05 52 22.3**	**+1.4**
ISAN	**Sandskeio**	**1.05**	**56**	P	**Pg**	**05 52 08.6**	**-2.5**
ISAN				S	**Sg**	**05 52 25.7**	**+0.9**
IBJA	**Bjarnastaoir**	**1.10**	**64**	P	**Pb**	**05 52 09.6**	**-2.4**
IBJA				S	**Sg**	**05 52 26.2**	**-0.2**
IKUD	**Kuludalsa**	**1.12**	**40**	P	**Pb**	**05 52 09.9**	**-2.5**
IKUD				S	**Sb**	**05 52 26.8**	**-0.3**
ISOL	**Solvholt**	**1.24**	**67**	P	**Pn**	**05 52 11.8**	**-2.5**
ISOL				S	**Sb**	**05 52 29.1**	**-1.4**
IKRO	**Krokur**	**1.25**	**59**	P	**Pn**	**05 52 11.8**	**-2.5**
IKRO				S	**Sb**	**05 52 29.6**	**-0.9**
IHEI	**Heioarbar**	**1.25**	**54**	P	**Pn**	**05 52 11.7**	**-2.7**
IHEI				S	**Sb**	**05 52 31.0**	**+0.2**
IASM	**Asmuli**	**1.35**	**73**	P	**Pn**	**05 52 13.4**	**-2.4**
IASM				S	**Sb**	**05 52 32.7**	**-1.0**
IVES	**Vestmannaeyjar**	**1.46**	**90**	P	**Pn**	**05 52 14.3**	**-3.0**
IVES				S	**Sn**	**05 52 35.1**	**-1.4**
ISAU	**Saurbar**	**1.48**	**68**	P	**Pn**	**05 52 15.6**	**-2.0**
ISAU				S	**Sn**	**05 52 37.4**	**+0.4**
BORG	**Borgarnes**	**1.61**	**36**	Pn	**Pn**	**05 52 17.1**	**-2.1**
BORG				Sn	**Sn**	**05 52 40.4**	**+0.4**
BORG	**Borgarnes**	**1.61**	**36**	Pn	**Pn**	**05 52 17.1**	**-2.1**
	152nm,0.3s,baz=212,slow=8.7,SNR=10						
BORG				Sn	**Sn**	**05 52 40.4**	**+0.4**
	391nm,0.3s,baz=272,slow=21,SNR=12						
BORG	**Borgarnes**	**1.61**	**36**	Pn	**Pn**	**05 52 17.1**	**-2.2**
BORG				Sn	**Sn**	**05 52 40.4**	**+0.4**
IASB	**`sbjarnarst**	**1.61**	**36**	P	**Pn**	**05 52 16.9**	**-2.4**
IASB				S	**Sn**	**05 52 39.2**	**-0.8**
IMID	**Miomork**	**1.65**	**82**	P	**Pn**	**05 52 17.8**	**-2.0**
IMID				S	**Sn**	**05 52 41.1**	**+0.1**
IHAU	**Haukadalur**	**1.67**	**71**	P	**Pn**	**05 52 17.9**	**-2.2**
IHAU				S	**Sn**	**05 52 40.3**	**-1.2**
IGYG	**Gygjarholskot**	**1.68**	**60**	P	**Pn**	**05 52 18.3**	**-2.0**
IGYG				S	**Sn**	**05 52 43.1**	**+1.3**
IESK	**Eystri-Skogar**	**1.84**	**87**	P	**Pn**	**05 52 19.8**	**-2.6**
IESK				S	**Sn**	**05 52 46.3**	**+0.6**
IHVO	**Lagu-Hvolar**	**2.11**	**87**	P	**Pn**	**05 52 24.3**	**-1.8**
IVAT	**Vatnsfell**	**2.17**	**69**	P	**Pn**	**05 52 26.5**	**-0.5**
IVAT				S	**Sn**	**05 52 54.9**	**+1.0**
ISNB	**Snabyli**	**2.21**	**81**	P	**Pn**	**05 52 26.1**	**-1.5**
IHVE	**Hveravellir**	**2.23**	**49**	P	**Pn**	**05 52 26.7**	**-1.2**
ISKR	**Skrokkalda**	**2.52**	**62**	P	**Pn**	**05 52 31.5**	**-0.3**
IKAL	**Kalfafell**	**2.65**	**77**	P	**Pn**	**05 52 32.8**	**-0.8**
JMIC	**Jan Mayen**	**9.49**	**31**	LR	LR	05 56 45.9	
	comp=Z,668nm,18.2s,baz=84,slow=31						
SFJD	**Kangerlussuaq**	**11.83**	**299**	LR	LR	05 58 30.8	
	comp=Z,5μm,19.2s,baz=79,slow=35						
EKA	**Eskdalemuir Ar**	**13.15**	**119**	Pn	**Pn**	**05 54 58.5**	**+1.2**
EKA	**Eskdalemuir Ar**	**13.15**	**119**	Pn	**Pn**	**05 54 58.5**	**+1.2**
	0.1nm,0.3s,baz=310,slow=12,SNR=5.8						
NOA	**NORSAR Array B**	**16.24**	**83**	LR	LR	06 01 25.4	
	comp=Z,558nm,21.6s,baz=300,slow=35						
HFS	**Hagfors**	**17.74**	**84**	P	**Pn**	**05 56 00.1**	**+2.6**
	0.1nm,0.3s,baz=249,slow=12,SNR=3.5						
HFS				LR	LR	06 02 10.0	
	comp=Z,847nm,21.8s,baz=278,slow=34						
ROSF	**Rostrenen**	**18.81**	**134**	*e*P	**Pn**	**05 56 09.3**	**-1.5**
	82nm,1.4s						
ROSF	**Rostrenen**	**18.81**	**134**	*e*P	**Pn**	**05 56 09.3**	**-1.5**
ROSF				pmax	pmax		
	comp=Z,41nm,1.4s						
ROSF	**Rostrenen**	**18.81**	**134**	*e*P	**Pn**	**05 56 09.3**	**-1.5**
	comp=Z,41nm,1.4s						
MENF	**Mencas**	**18.87**	**121**	*e*P	**Pn**	**05 56 14.3**	**+2.8**
SGMF	**Saint Gilles**	**19.12**	**133**	*e*P	**Pn**	**05 56 13.2**	**-1.3**
	comp=Z,37nm,1.1s						
SGMF	**Saint Gilles**	**19.12**	**133**	*e*P	**Pn**	**05 56 13.2**	**-1.3**
SGMF				pmax	pmax		
	comp=Z,19nm,1.1s						
SGMF	**Saint Gilles**	**19.12**	**133**	*e*P	**Pn**	**05 56 13.2**	**-1.3**
	comp=Z,19nm,1.1s						
QUIF	**Quistinic**	**19.22**	**135**	*e*P	**Pn**	**05 56 14.1**	**-1.6**
	comp=Z,31nm,0.9s						
QUIF	**Quistinic**	**19.22**	**135**	*e*P	**Pn**	**05 56 14.1**	**-1.6**
QUIF				pmax	pmax		
	comp=Z,16nm,0.9s						
QUIF	**Quistinic**	**19.22**	**135**	*e*P	**Pn**	**05 56 14.1**	**-1.6**
	comp=Z,16nm,0.9s						
FLN	**La Foliniere**	**19.39**	**129**	*e*P	**Pn**	**05 56 17.0**	**-0.7**
	comp=Z,37nm,0.8s						
FLN				*e*MLR	MLR		
	comp=Z,2μm,22.5s						
FLN	**La Foliniere**	**19.39**	**129**	*e*P	**Pn**	**05 56 17.0**	**-0.7**
FLN				pmax	pmax		
	comp=Z,18nm,0.8s						
FLN	**La Foliniere**	**19.39**	**129**	*e*P	**Pn**	**05 56 17.0**	**-0.7**
	comp=Z,18nm,0.8s						
GRR	**Gorron**	**19.57**	**130**	*e*P	**Pn**	**05 56 18.7**	**-1.2**
LDF	**La Druitiere**	**19.66**	**128**	*e*P	**Pn**	**05 56 18.7**	**-2.2**
	comp=Z,16nm,0.7s						
LDF	**La Druitiere**	**19.66**	**128**	*e*P	**Pn**	**05 56 18.7**	**-2.2**
LDF				pmax	pmax		
	comp=Z,8.0nm,0.7s						
LDF	**La Druitiere**	**19.66**	**128**	*e*P	**Pn**	**05 56 18.7**	**-2.2**
	comp=Z,7.8nm,0.7s						
WTSB	**Winterswijk**	**19.66**	**112**	*e*P	**Pn**	**05 56 23.6**	**+2.7**
	comp=Z,32nm,1.7s						
ARCES	**ARCESS Array B**	**19.96**	**51**	P	**Pn**	**05 56 24.1**	**-0.3**
	comp=Z,4.1nm,0.8s,baz=266,slow=9.6,SNR=11						
ARCES				LR	LR	06 02 31.6	
	comp=Z,1μm,21.5s,baz=281,slow=32						
BAIF	**Baives**	**20.07**	**119**	*e*P	**P**	**05 56 25.9**	**+1.9**
	comp=Z,56nm,0.9s						
BAIF	**Baives**	**20.07**	**119**	*e*P	**P**	**05 56 25.9**	**+1.9**
BAIF				pmax	pmax		
	comp=Z,28nm,0.9s						
BAIF	**Baives**	**20.07**	**119**	*e*P	**P**	**05 56 25.9**	**+1.9**
	comp=Z,28nm,0.9s						
DOU	**Dourbes**	**20.19**	**118**	P	**P**	**05 56 29.6**	**+4.3**
BCLA	**Clavier**	**20.22**	**117**	P	**P**	**05 56 28.5**	**+2.9**
GIVF	**Givet**	**20.28**	**118**	*e*P	**P**	**05 56 29.6**	**+3.3**
	comp=Z,64nm,1.3s						
GIVF	**Givet**	**20.28**	**118**	*e*P	**P**	**05 56 29.6**	**+3.3**
	comp=Z,32nm,1.3s						
GIVF	**Givet**	**20.28**	**118**	*e*P	**P**	**05 56 29.6**	**+3.3**
GIVF				pmax	pmax		
	comp=Z,32nm,1.3s						
CLZ	**Clausthal**	**21.26**	**107**	*e*P	**P**	**05 56 40.2**	**+3.3**
CLZ				pmax	pmax		
	comp=Z,111nm,1.9s,mb4.9						
CLZ	**Clausthal**	**21.26**	**107**	*e*P	**P**	**05 56 40.2**	**+3.3**
	comp=Z,111nm,1.9s,mb4.9						
MFF	**Saint Martin d**	**21.36**	**131**	*e*P	**P**	**05 56 37.6**	**-0.4**
	comp=Z,67nm,1.2s,mb4.6						
MFF	**Saint Martin d**	**21.36**	**131**	*e*P	**P**	**05 56 37.6**	**-0.4**
MFF				pmax	pmax		
	comp=Z,33nm,1.2s,mb4.5						
MFF	**Saint Martin d**	**21.36**	**131**	*e*P	**P**	**05 56 37.6**	**-0.4**
	comp=Z,33nm,1.2s,mb4.6						
MEZF	**Maizieres J'vi**	**21.65**	**120**	*e*P	**P**	**05 56 42.5**	**+1.4**
TNS	**Taunus Mts**	**21.66**	**113**	*e*P	**P**	**05 56 45.6**	**+4.5**
TNS				pmax	pmax		
	comp=Z,78nm,1.9s,mb4.8						
TNS	**Taunus Mts**	**21.66**	**113**	*e*P	**P**	**05 56 45.6**	**+4.5**
	comp=Z,78nm,1.9s,mb4.8						
UBBA	**Unterbreizbach**	**21.85**	**110**	*e*P	**P**	**05 56 46.9**	**+3.6**
	comp=Z,112nm,2.0s,mb5.0						
LOR	**Lormes**	**22.22**	**124**	*e*P	**P**	**05 56 46.4**	**-0.8**
	comp=Z,63nm,1.0s,mb4.7						
LOR				*e*MLR	MLR		
	comp=Z,1μm,20.2s,MS4.0						
LOR	**Lormes**	**22.22**	**124**	*e*P	**P**	**05 56 46.4**	**-0.8**
	comp=Z,31nm,1.0s,mb4.7						
LOR				LR	LR		
	comp=Z,1μm,20.3s,MS4.3						
LOR	**Lormes**	**22.22**	**124**	*e*P	**P**	**05 56 46.4**	**-0.8**
LOR				pmax	pmax		
	comp=Z,31nm,1.0s,mb4.7						
LOR				MLR	MLR		
	comp=Z,1μm,20.3s,MS4.3						
THEF	**They Montfort**	**22.24**	**119**	*e*P	**P**	**05 56 48.6**	**+1.2**
SSF	**Saint Saulge**	**22.26**	**125**	*e*P	**P**	**05 56 46.2**	**-1.4**
	comp=Z,51nm,1.1s,mb4.6						
SSF	**Saint Saulge**	**22.26**	**125**	*e*P	**P**	**05 56 46.2**	**-1.4**
SSF				pmax	pmax		
	comp=Z,25nm,1.1s,mb4.6						
SSF	**Saint Saulge**	**22.26**	**125**	*e*P	**P**	**05 56 46.2**	**-1.4**
	comp=Z,25nm,1.1s,mb4.6						
LANF	**Langenberg**	**22.36**	**116**	*e*P	**P**	**05 56 53.6**	**+4.9**
KAF	**Kangasniemi**	**22.37**	**71**	*e*p	**P**	**05 56 48.9**	**+0.2**
AVF	**Avril sur Loir**	**22.43**	**125**	*e*P	**P**	**05 56 47.8**	**-1.7**
	comp=Z,54nm,1.2s,mb4.5						
AVF	**Avril sur Loir**	**22.43**	**125**	*e*P	**P**	**05 56 47.8**	**-1.7**
AVF				pmax	pmax		
	comp=Z,27nm,1.2s,mb4.5						
AVF	**Avril sur Loir**	**22.43**	**125**	*e*P	**P**	**05 56 47.8**	**-1.7**
	comp=Z,27nm,1.2s,mb4.5						
BGF	**Bois d'Agland**	**22.45**	**127**	*e*P	**P**	**05 56 48.0**	**-1.6**
	comp=Z,126nm,1.1s,mb5.0						
BGF	**Bois d'Agland**	**22.45**	**127**	*e*P	**P**	**05 56 48.0**	**-1.6**
BGF				pmax	pmax		
	comp=Z,63nm,1.1s,mb5.0						
BGF	**Bois d'Agland**	**22.45**	**127**	*e*P	**P**	**05 56 48.0**	**-1.6**
	comp=Z,63nm,1.1s,mb5.0						
TCF	**Toulx Ste Croi**	**22.45**	**128**	*e*P	**P**	**05 56 48.7**	**-0.9**
	comp=Z,63nm,1.2s,mb4.6						
TCF	**Toulx Ste Croi**	**22.45**	**128**	*e*P	**P**	**05 56 48.7**	**-0.9**
TCF				pmax	pmax		
	comp=Z,32nm,1.2s,mb4.6						
TCF	**Toulx Ste Croi**	**22.45**	**128**	*e*P	**P**	**05 56 48.7**	**-0.9**
	comp=Z,32nm,1.2s,mb4.6						
HAU	**Haudompre**	**22.56**	**119**	*e*P	**P**	**05 56 51.8**	**+1.0**
	comp=Z,73nm,1.1s,mb4.7						
HAU				*e*MLR	MLR		
	comp=Z,975nm,23.0s,MS3.9						
HAU	**Haudompre**	**22.56**	**119**	*e*P	**P**	**05 56 51.8**	**+1.0**
	comp=Z,36nm,1.1s,mb4.7						
HAU				LR	LR		
	comp=Z,980nm,23.0s,MS4.2						
HAU	**Haudompre**	**22.56**	**119**	*e*P	**P**	**05 56 51.8**	**+1.0**
HAU				pmax	pmax		
	comp=Z,36nm,1.1s,mb4.7						
HAU				MLR	MLR		
	comp=Z,980nm,23.0s,MS4.2						
FINES	**FINESS Array B**	**22.57**	**72**	P	**P**	**05 56 51.5**	**+0.6**
	comp=Z,11nm,1.0s,mb4.2,baz=285,slow=11,SNR=16						
FINES				LR	LR	06 05 01.1	
	comp=Z,399nm,20.8s,MS3.8,baz=307,slow=35						
FIA1	**FINESS Array S**	**22.57**	**72**	*e*P	**P**	**05 56 51.6**	**+0.8**
FIA1	**FINESS Array S**	**22.57**	**72**	*e*P	**P**	**05 56 51.6**	**+0.8**
CDF	**Champ du Feu**	**22.60**	**117**	*e*P	**P**	**05 56 52.4**	**+1.2**
	comp=Z,46nm,1.2s,mb4.5						
CDF	**Champ du Feu**	**22.60**	**117**	*e*P	**P**	**05 56 52.4**	**+1.2**
CDF				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.5						
CDF	**Champ du Feu**	**22.60**	**117**	*e*P	**P**	**05 56 52.4**	**+1.2**
	comp=Z,23nm,1.2s,mb4.5						
MOX	**Moxa**	**22.67**	**108**	*e*P	**P**	**05 56 49.8**	**-2.2**
	comp=Z,15nm,1.1s,mb4.3						
MOX							
	comp=Z,800nm,20.0s						

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MOX   Moxa             22.67 108 eP      P        05 56 49.8 -2.2
MOX                               pmax   pmax
      comp=Z,15nm,1.1s,mb4.3
MOX                               MLR    MLR
      comp=Z,800nm,20.0s,MS4.2
MOX   Moxa             22.67 108 eP      P        05 56 53.7 +1.7
      comp=Z,13nm,1.1s,mb4.3
ECH   Echery           22.71 118 eP      P        05 56 49.7 -2.7
SMF   Signal de Mont   22.73 125 eP      P        05 56 52.7  0.0
      comp=Z,88nm,1.0s,mb4.8
SMF   Signal de Mont   22.73 125 eP      P        05 56 52.7  0.0
SMF                               pmax   pmax
      comp=Z,44nm,1.0s,mb4.8
SMF   Signal de Mont   22.73 125 eP      P        05 56 52.7  0.0
      comp=Z,44nm,1.0s,mb4.8
CLL   Collm            22.78 105 i P     P        05 56 54.8 +1.7
      comp=Z,114nm,2.6s,mb4.8
CLL                              i                05 56 57.6
CLL                              i                05 57 01.5
CLL                              eS      S        06 01 07.0 +5.0
CLL                               LR     LR
      comp=Z,800nm,20.7s,MS4.1
CLL   Collm            22.78 105 i P     P        05 56 54.8 +1.7
CLL                              i                05 56 57.6
CLL                              i                05 57 01.5
CLL                              eS      S        06 01 07.0 +5.0
CLL                               pmax   pmax
      comp=Z,114nm,2.6s,mb4.8
CLL                               MLR    MLR
      comp=Z,800nm,20.7s,MS4.1
CLL   Collm            22.78 105 eP      P        05 56 55.0 +1.9
      comp=Z,92nm,2.2s,mb4.8
CLL   Collm            22.78 105 i P     P        05 56 54.8 +1.7
      comp=Z,114nm,2.6s,mb4.8
CLL                              i (sP)  sP       05 56 57.6 +0.3
CLL                              i x     x        05 57 01.5
CLL                              eS      S        06 01 07.0 +5.0
CLL                              eSS              06 01 45.0
CLL                               LmV             06 05 00.0
      comp=Z,800nm,20.7s
HINF  Hinteralfeld     22.91 119 eP      P        05 56 54.9 +0.4
AGO   Saint Agoulin    22.98 127 eP      P        05 56 56.5 +1.2
MOF   Molkenrain       22.99 118 eP      P        05 56 53.6 -1.8
RJF   Les Rejaudoux    23.06 130 eP      P        05 56 55.3 -0.8
      comp=Z,74nm,1.1s,mb4.7
RJF                              eMLR    MLR
      comp=Z,1µm,20.5s,MS4.1
RJF   Les Rejaudoux    23.06 130 eP      P        05 56 55.3 -0.8
      comp=Z,37nm,1.1s,mb4.7
RJF                               LR     LR
      comp=Z,1µm,20.5s,MS4.4
RJF   Les Rejaudoux    23.06 130 eP      P        05 56 55.3 -0.8
RJF                               pmax   pmax
      comp=Z,37nm,1.1s,mb4.7
RJF                               MLR    MLR
      comp=Z,1µm,20.5s,MS4.4
BFO   Black Forest     23.09 116 eP      P        05 56 59.2 +2.8
BFO                               pmax   pmax
      comp=Z,48nm,1.6s,mb4.7
BFO   Black Forest     23.09 116 eP      P        05 56 59.2 +2.8
      comp=Z,48nm,1.6s,mb4.7
WERD  Werda            23.11 107 eP      P        05 56 58.9 +2.3
      comp=Z,70nm,2.0s,mb4.7
LFF   La Frestale      23.12 132 eP      P        05 56 54.8 -1.9
      comp=Z,152nm,1.6s,mb4.9
LFF   La Frestale      23.12 132 eP      P        05 56 54.8 -1.9
LFF                               pmax   pmax
      comp=Z,76nm,1.6s,mb4.9
LFF   La Frestale      23.12 132 eP      P        05 56 54.8 -1.9
      comp=Z,76nm,1.6s,mb4.9
GUNZ  Gunzen           23.18 108 eP      P        05 56 59.6 +2.2
      comp=Z,19nm,1.1s,mb4.4
PYM   Petit Puy Mans   23.20 127 eP      P        05 56 59.7 +2.2
TANN  Tannenbergstha   23.20 107 eP      P        05 56 59.7 +2.1
      comp=Z,21nm,1.1s,mb4.5
FBE   Freiberg         23.21 105 eP      P        05 56 58.8 +1.1
      comp=Z,357nm,3.2s
GRA1  Grafenberg Arr   23.22 110 eP      P        05 57 00.3 +2.5
GRA1                              LR     LR
      comp=Z,500nm,20.6s,MS4.0
GRF   Grafenberg Arr   23.22 110 eP      P        05 57 00.3 +2.5
GRF                              eL               06 05 53.3
      comp=Z,473nm,20.6s
PLDF  La Plantade      23.23 126 eP      P        05 56 59.3 +1.4
WERN  Wernitzgruen     23.26 108 eP      P        05 57 00.4 +2.2
      comp=Z,16nm,1.1s,mb4.4
LOMF  Lomont           23.28 120 eP      P        05 56 54.5 -3.9
FELD  Feldberg im Sc   23.32 117 eP      P        05 56 57.0 -1.8
NKC   Novy Kostel      23.33 108 eP      P        05 57 00.7 +1.8
NKC                               AMS    AMS      06 07 50.0
      comp=Z,1µm,12.9s
MANZ  Manzenberg       23.37 108 eP      P        05 57 01.4 +2.0
      comp=Z,538nm,4.2s
SCHQ  Schefferville    23.38 269  P      P        05 56 57.1 -2.3
      comp=Z,5.5nm,0.8s,mb4.0,baz=60,slow=6.0,SNR=7.0
SCHQ                              LR     LR       06 04 51.1
      comp=Z,917nm,18.1s,MS4.3,baz=337,slow=34
BRG   Berggiesshubel   23.50 105 eP      P        05 57 01.7 +1.0
      comp=Z,15nm,1.1s,mb4.3
BRG   Berggiesshubel   23.50 105 eP      P        05 57 01.8 +1.0
      comp=Z,13nm,1.1s,mb4.3
BRG
      comp=N,736nm,16.8s
BRG
      comp=E,354nm,13.0s
BRG
      comp=Z,1µm,13.3s
CAF   Calviac          23.58 130 eP      P        05 56 59.8 -1.7
      comp=Z,84nm,1.7s,mb4.6
CAF   Calviac          23.58 130 eP      P        05 56 59.8 -1.7
CAF                               pmax   pmax
      comp=Z,42nm,1.7s,mb4.6
CAF   Calviac          23.58 130 eP      P        05 56 59.8 -1.7
      comp=Z,42nm,1.7s,mb4.6
ROTZ  Rotzenmuhle      23.58 109 eP      P        05 57 03.2 +1.7
      comp=Z,163nm,2.3s,mb5.0
CABF  La Chapelle      23.61 122 eP      P        05 57 00.8 -1.0
      comp=Z,66nm,1.2s,mb4.6
CABF  La Chapelle      23.61 122 eP      P        05 57 00.8 -1.0
CABF                              pmax   pmax
      comp=Z,33nm,1.2s,mb4.6
CABF  La Chapelle      23.61 122 eP      P        05 57 00.8 -1.0
      comp=Z,33nm,1.2s,mb4.6
PVCC  Panska Ves       24.03 105 eP      P        05 57 08.8 +3.2
PVCC                              AMS    AMS      06 08 20.0
      comp=Z,900nm,15.0s
SJPF  Ste Jean         24.13 137 eP      P        05 57 04.0 -2.5
      comp=Z,160nm,1.7s,mb4.9
SJPF  Ste Jean         24.13 137 eP      P        05 57 04.0 -2.5
SJPF                              pmax   pmax
      comp=Z,80nm,1.7s,mb4.9
SJPF  Ste Jean         24.13 137 eP      P        05 57 04.0 -2.5
      comp=Z,80nm,1.7s,mb4.9
PRU   Pruhonice        24.41 106  AMS    AMS      06 06 20.0
      comp=Z,900nm,19.2s
ETSF  Etsaut           24.53 136 eP      P        05 57 08.0 -2.2
KSP   Ksiaz            24.55 102 eP      P        05 57 11.3 +0.9
VIVF  Saint-Julien-l   24.56 126 eP      P        05 57 10.2 -0.3
      comp=Z,50nm,1.1s,mb4.6
VIVF  Saint-Julien-l   24.56 126 eP      P        05 57 10.2 -0.3
VIVF                              pmax   pmax
      comp=Z,25nm,1.1s,mb4.7
VIVF  Saint-Julien-l   24.56 126 eP      P        05 57 10.2 -0.3
      comp=Z,25nm,1.1s,mb4.6
KHC   Kasperske Hory   24.65 108 i P     P        05 57 13.7 +2.5
KHC   Kasperske Hory   24.65 108 eP      P        05 57 13.9 +2.7
KHC                               AMS    AMS      06 08 20.0
      comp=Z,2µm,14.6s
UPC   Upice            24.67 103 eP      P        05 57 15.3 +3.8
EPF   Esparros         24.69 135 eP      P        05 57 09.0 -2.7
      comp=Z,20nm,0.9s,mb4.3
EPF   Esparros         24.69 135 eP      P        05 57 09.0 -2.7
EPF                               pmax   pmax
      comp=Z,10.0nm,0.9s,mb4.3
EPF   Esparros         24.69 135 eP      P        05 57 09.0 -2.7
      comp=Z,10nm,0.9s,mb4.3
LPL   La Plagne        24.77 122 eP      P        05 57 12.7 +0.3
      comp=Z,39nm,1.1s,mb4.6
LPL   La Plagne        24.77 122 eP      P        05 57 12.7 +0.3
LPL                               pmax   pmax
      comp=Z,20nm,1.1s,mb4.6
LPL   La Plagne        24.77 122 eP      P        05 57 12.7 +0.3
      comp=Z,20nm,1.1s,mb4.6
LPG   La Plagne        24.79 122 eP      P        05 57 13.0 +0.4
      comp=Z,26nm,1.0s,mb4.4
LPG   La Plagne        24.79 122 eP      P        05 57 13.0 +0.4
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LPG                               pmax   pmax
      comp=Z,13nm,1.0s,mb4.4
LPG   La Plagne        24.79 122 eP      P        05 57 13.0 +0.4
      comp=Z,13nm,1.0s,mb4.4
GERES GERESS Array B   24.92 108  P      P        05 57 14.8 +1.1
      comp=Z,1.3nm,0.7s,mb3.5,baz=323,slow=8.4,SNR=5.2
GERES                             LR     LR       06 08 06.2
      comp=Z,946nm,18.3s,MS4.3,baz=286,slow=39
DPC   Dobruska-Polom   24.92 103 eP      P        05 57 15.8 +2.1
DPC                               AMS    AMS      06 08 30.0
      comp=Z,2µm,16.1s
LASF  Ste Croix        24.95 128 eP      P        05 57 12.7 -1.3
      comp=Z,49nm,1.1s,mb4.6
LASF  Ste Croix        24.95 128 eP      P        05 57 12.7 -1.3
      comp=Z,24nm,1.1s,mb4.6
ORIF  Oris-en-Rattie   24.95 124 eP      P        05 57 14.3 +0.2
      comp=Z,52nm,1.2s,mb4.7
ORIF                             eMLR    MLR
      comp=Z,1µm,21.2s,MS4.0
ORIF  Oris-en-Rattie   24.95 124 eP      P        05 57 14.3 +0.2
ORIF                              pmax   pmax
      comp=Z,26nm,1.2s,mb4.6
ORIF  Oris-en-Rattie   24.95 124 eP      P        05 57 14.3 +0.2
      comp=Z,26nm,1.2s,mb4.7
DAVOX Davos/Dischmat   24.96 116  P      P        05 57 16.6 +2.5
      comp=Z,5.8nm,0.9s,mb4.1,baz=323,slow=17,SNR=3.5
DAVOX                             LR     LR       06 06 33.3
      comp=Z,668nm,21.1s,MS4.1,baz=262,slow=35
MTE   Manteigas        24.98 150 eP      P        05 57 18.6 +4.3
      comp=Z,17nm,0.9s,mb4.6
MTLF  Montolieu        25.03 131 eP      P        05 57 13.5 -1.2
TREC  Trest            25.34 106  AMS    AMS      06 09 30.0
      comp=Z,1µm,12.4s
MBDF  Montbardon       25.45 123 eP      P        05 57 18.5 -0.1
      comp=Z,40nm,1.1s,mb4.6
MBDF  Montbardon       25.45 123 eP      P        05 57 18.5 -0.1
MBDF                              pmax   pmax
      comp=Z,20nm,1.1s,mb4.6
MBDF  Montbardon       25.45 123 eP      P        05 57 18.5 -0.1
      comp=Z,20nm,1.1s,mb4.5
SMRF  Simiane la Rot   25.65 126 eP      P        05 57 20.1 -0.3
      comp=Z,67nm,1.4s,mb4.7
SMRF  Simiane la Rot   25.65 126 eP      P        05 57 20.1 -0.3
      comp=Z,33nm,1.4s,mb4.7
VRAC  Vranov           25.81 104  P      P        05 57 24.4 +2.6
      comp=Z,3.3nm,0.6s,mb4.1,baz=294,slow=9.1,SNR=4.9
VRAC                              LR     LR       06 08 01.3
      comp=Z,540nm,18.3s,MS4.1,baz=318,slow=37
MORC  Moravsky Berou   25.88 103 eP      P        05 57 22.2 -0.2
RES   Resolute Bay     25.90 325 eP      P        05 57 23.0 +0.6
OKC   Ostrava-Krasne   26.10 102 eP      P        05 57 28.8 +4.4
OKC                               AMS    AMS      06 10 10.0
      comp=Z,800nm,17.6s
SBF   Sospel           26.44 123 eP      P        05 57 27.9 +0.4
      comp=Z,31nm,0.7s,mb4.6
SBF   Sospel           26.44 123 eP      P        05 57 27.9 +0.4
SBF                               pmax   pmax
      comp=Z,15nm,0.7s,mb4.6
SBF   Sospel           26.44 123 eP      P        05 57 27.9 +0.4
      comp=Z,15nm,0.7s,mb4.6
ESDC  Sonseca Array    26.53 145  P      P        05 57 28.9 +0.5
      comp=Z,2.4nm,0.9s,mb3.7,baz=345,slow=9.9,SNR=9.6
ESDC                              LR     LR       06 07 04.6
      comp=Z,650nm,18.9s,MS4.2,baz=330,slow=34
UZH   Uzhgorod         28.82  99 eP      P        05 57 53.0 +4.2
UZH                              e                05 58 41.5
UZH                              ePPP             05 58 51.5
UZH                               MLR    MLR
      comp=Z,1µm,11.5s,MS4.7
AKASG Malin Array Be   30.42  90  LR     LR       06 10 12.3
      comp=Z,590nm,19.5s,MS4.2,baz=315,slow=36
OBN   Obninsk          30.70  77 eP      P        05 58 06.5 +1.2
OBN                              e                05 59 09.5
OBN                               pmax   pmax
      comp=Z,21nm,1.1s,mb4.9
OBN                               MLR    MLR
      comp=Z,400nm,16.0s,MS4.2
FRNY  Flat Rock        33.59 260 eP      P        05 58 30.4 -0.4
FRNY  Flat Rock        33.59 260 eP      P        05 58 30.4 -0.4
KEST  Kesra            34.28 128  LR     LR       06 11 33.8
      comp=Z,218nm,19.6s,MS3.9,baz=332,slow=34
YKW3  Yellowknife Ar   38.00 311 eP      P        05 59 08.5 +0.1
YKW3  Yellowknife Ar   38.00 311 eP      P        05 59 08.5 +0.1
YKA   Yellowknife Ar   38.05 311⇑eP      P        05 59 08.6 -0.2
YKA   Yellowknife Ar   38.05 311  P      P        05 59 06.3 -2.5
      comp=Z,2.5nm,1.2s,mb3.8,baz=47,slow=7.8,SNR=11
YKA                               PcP    PcP      06 01 24.1 +0.4
      comp=Z,1.7nm,0.9s,baz=42,slow=3.3,SNR=17
YKA                               LR     LR       06 14 17.5
      comp=Z,960nm,19.1s,MS4.6,baz=145,slow=36
YKA   Yellowknife Ar   38.05 311  PcP    PcP      06 01 24.1 +0.4
ANN   Anapa            38.50  89 eP      P        05 59 12.5 -0.4
ANN                              eS      S        06 05 09.0 +1.0
ANN                               pmax   pmax
      comp=Z,46nm,1.2s,mb5.1
ANN                               MLR    MLR
      comp=Z,846nm,15.0s,MS4.7
ULM   Lac du Bonnet    39.41 286  LR     LR       06 14 52.9
      comp=Z,631nm,18.3s,MS4.5,baz=37,slow=35
INK   Inuvik           39.42 327 eP      P        05 59 20.3  0.0
      comp=Z,677nm,1.8s
INK   Inuvik           39.42 327  P      P        05 59 16.6 -3.6
      comp=Z,1.4nm,0.8s,mb3.7,baz=39,slow=8.5,SNR=4.0
INK   Inuvik           39.42 327 eP      P        05 59 20.3  0.0
      comp=Z,677nm,1.8s
BRTR  Keskin Array B   40.85  98⇑eP      P        05 59 35.9 +3.5
BRTR  Keskin Array B   40.85  98  P      P        05 59 34.4 +2.0
      comp=Z,3.6nm,0.9s,mb4.0,baz=341,slow=7.2,SNR=12
KIV   Kislovodsk       41.52  86 eP      P        05 59 45.2 +7.3
KIV                              eS      S        06 06 02.2 +9.1
KIV                               pmax   pmax
      comp=Z,5.0nm,0.7s,mb4.2
KIV                               MLR    MLR
      comp=Z,532nm,18.0s,MS4.5
TIXI  Tiksi            43.82  12  P      P        05 59 57.4 +1.1
      comp=Z,6.7nm,1.0s,mb4.3
TIXI  Tiksi            43.82  12⇑eP      P        05 59 58.0 +1.7
TIXI                              pmax   pmax
      comp=Z,19nm,1.6s,mb4.6
TIXI                              MLR    MLR
      comp=Z,100nm,24.0s,MS3.6
TIXI  Tiksi            43.82  12  P      P        05 59 57.4 +1.1
      comp=Z,6.7nm,1.0s,mb4.3
DAWY  Dawson           44.24 325 eP      P        05 59 59.6 -0.1
DAWY  Dawson           44.24 325 eP      P        05 59 59.6 -0.1
EDM   Edmonton         44.37 301 eP      P        06 00 01.3 +0.5
EDM   Edmonton         44.37 301 eP      P        06 00 01.3 +0.5
COLA  College          45.58 330 i P     P        06 00 10.5 +0.2
IMA2  Indian Mountai   45.76 334 eP      P        06 00 12.2 +0.5
IMA2  Indian Mountai   45.76 334 eP      P        06 00 12.2 +0.5
FVM   French Village   46.61 270 eP      P        06 00 16.4 -2.4
      comp=Z,12nm,1.0s,mb4.8
FVM   French Village   46.61 270 eP      P        06 00 16.4 -2.4
FVM                               pmax   pmax
      comp=Z,11nm,1.0s,mb4.7
FVM   French Village   46.61 270 eP      P        06 00 16.4 -2.4
      comp=Z,12nm,1.0s,mb4.8
EGMT  Eagleton         46.98 294 eP      P        06 00 21.5  0.0
EGMT  Eagleton         46.98 294 eP      P        06 00 21.5 -0.1
BILL  Bilibino         48.59 355 i P     P        06 00 34.8 +1.1
BILL                              pmax   pmax
      comp=Z,18nm,2.6s,mb4.6
BILL                              MLR    MLR
      comp=Z,200nm,23.0s,MS4.0
BSMT  Bassoo Peak      49.16 297 eP      P        06 00 38.4  0.0
BSMT  Bassoo Peak      49.16 297 eP      P        06 00 38.4  0.0
NVS   Novosibirsk      49.16  47 i P     P        06 00 39.9 +1.6
NVS                               pmax   pmax
      comp=Z,33nm,1.8s,mb5.1
NVS                               pmax   pmax
      comp=N,39nm,2.4s
NVS                               pmax   pmax
      comp=E,11nm,1.8s
BOZ   Bozeman (W)      49.66 293 eP      P        06 00 43.2 +1.0
BOZ                               pmax   pmax
      comp=Z,18nm,1.5s,mb4.9
BOZ   Bozeman (W)      49.66 293 eP      P        06 00 43.2 +1.0
      comp=Z,18nm,1.5s,mb4.9
LRM   Limekiln Ridge   49.86 294 eP      P        06 00 42.9 -0.8
LRM   Limekiln Ridge   49.86 294 eP      P        06 00 42.9 -0.8
DLMT  Dillon           50.29 294 eP      P        06 00 43.4 -3.7
      comp=Z,20nm,1.7s,mb4.9
ZALV  Zalesovo Beam    50.42  47  P      P        06 00 48.8 +0.9
ZALV                              PcP    PcP      06 02 06.0 -0.1
ZALV                              LR     LR       06 22 37.3
ZALV  Zalesovo Beam    50.42  47  P      P        06 00 48.8 +0.9
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      comp=Z,0.4nm,0.3s,mb3.9,baz=340,slow=8.1,SNR=5.8
ZALV                              PcP    PcP      06 02 06.0 -0.1
      comp=Z,0.5nm,0.3s,baz=335,slow=5.6,SNR=4.1
ZALV                              LR     LR       06 22 37.3
      comp=Z,86nm,20.9s,MS3.7,baz=177,slow=36
ZAL   Zalesovo         50.43  47  P      P        06 00 48.8 +0.9
ZAL                                               06 02 06.0
PHWY  Pilot Hill       50.57 285 eP      P        06 00 47.7 -1.5
PHWY  Pilot Hill       50.57 285 eP      P        06 00 47.7 -1.5
LOHW  Long Hollow      50.88 291 eP      P        06 00 52.2 +0.6
      comp=Z,21nm,1.8s,mb4.8
LOHW  Long Hollow      50.88 291 eP      P        06 00 52.2 +0.7
      comp=Z,21nm,1.8s,mb4.8
KURK  Kurchatov        50.98  53 eP      P        06 00 52.6 +0.5
      comp=Z,7.3nm,1.3s,mb4.5
KURK  Kurchatov        50.98  53⇓eP      P        06 00 55.3 +3.1
KURK  Kurchatov        50.98  53 eP      P        06 00 52.6 +0.4
      comp=Z,7.3nm,1.3s,mb4.5
PDAR  Pinedale Array   51.13 289  P      P        06 00 50.6 -2.8
      comp=Z,2.0nm,0.9s,mb4.1,baz=61,slow=5.9,SNR=9.7
PDAR                              LR     LR       06 21 54.4
      comp=Z,631nm,18.3s,MS4.7,baz=46,slow=36
REDW  Red Top Meadow   51.19 291 eP      P        06 00 54.0 +0.2
      comp=Z,12nm,1.4s,mb4.6
REDW  Red Top Meadow   51.19 291 eP      P        06 00 54.0 +0.1
      comp=Z,12nm,1.4s,mb4.6
WMOK  Wichita Mounta   53.05 275 eP      P        06 01 07.7 -0.1
WMOK  Wichita Mounta   53.05 275 eP      P        06 01 07.7 -0.1
TOA0  Torodi Ar. Sit   53.30 149 eP      P        06 01 08.2 -1.6
TOA0  Torodi Ar. Sit   53.30 149 eP      P        06 01 08.1 -1.7
TORD  Torodi Ar. Bea   53.30 149  P      P        06 01 08.1 -1.7
      comp=Z,6.0nm,1.0s,mb4.5,baz=337,slow=6.2,SNR=21
TORD                              LR     LR       06 25 53.6
      comp=Z,167nm,18.6s,MS4.1,baz=325,slow=38
MPU   Maple Canyon     54.28 289 eP      P        06 01 18.3 +1.5
MPU   Maple Canyon     54.28 289 eP      P        06 01 18.3 +1.5
MK31  Makanchi Array   55.59  53 eP      P        06 01 28.9 +2.7
MK31  Makanchi Array   55.59  53 eP      P        06 01 28.9 +2.8
MKAR  Makanchi Array   55.59  53  P      P        06 01 26.6 +0.5
MKAR                                              06 02 27.1
MKAR  Makanchi Array   55.59  53  P      P        06 01 26.6 +0.4
      comp=Z,2.4nm,0.9s,mb4.2,baz=352,slow=4.9,SNR=16
MKAR                              PcP    PcP      06 02 27.0 +1.4
      comp=Z,0.6nm,0.9s,baz=353,slow=3.5,SNR=2.1
MKAR                              LR     LR       06 24 55.7
      comp=Z,158nm,21.0s,MS4.1,baz=329,slow=36
MSU   Marysvale        55.77 288 eP      P        06 01 23.9 -3.6
ANMO  Albuquerque      56.29 281 eP      P        06 01 30.2 -1.0
      comp=Z,4.6nm,1.4s,mb4.3
ANMO  Albuquerque      56.29 281⇓eP      P        06 01 31.3  0.0
ANMO  Albuquerque      56.29 281 eP      P        06 01 30.2 -1.1
      comp=Z,4.6nm,1.4s,mb4.3
LPM   Los Pinos Moun   56.90 281 eP      P        06 01 35.5 -0.1
LPM   Los Pinos Moun   56.90 281 eP      P        06 01 35.5 -0.1
JCT   Junction City    57.11 273 eP      P        06 01 36.7 -0.5
      comp=Z,11nm,0.9s,mb4.9
JCT   Junction City    57.11 273 eP      P        06 01 36.7 -0.5
JCT                               pmax   pmax
      comp=Z,11nm,0.9s,mb4.9
JCT   Junction City    57.11 273 eP      P        06 01 36.7 -0.5
      comp=Z,11nm,0.9s,mb4.9
TIC   Toumodi          58.29 158 eP      P        06 01 45.5 -0.1
      comp=Z,7.2nm,0.2s,mb5.3
KIC   Kosan Boka       58.62 158 eP      P        06 01 47.9 +0.1
      comp=Z,108nm,1.4s,mb5.7
LIC   Lamto            58.70 158 eP      P        06 01 46.9 -1.5
      comp=Z,27nm,1.0s,mb4.9
LIC                              eMLR    MLR
      comp=Z,155nm,17.8s,MS3.9
LIC   Lamto            58.70 158 eP      P        06 01 48.5 +0.1
      comp=Z,52nm,1.7s,mb5.3
LIC   Lamto            58.70 158 eP      P        06 01 46.9 -1.5
      comp=Z,13nm,1.0s,mb4.9
LIC                               LR     LR
      comp=Z,80nm,17.8s,MS3.9
ZAK   Zakamensk        59.06  37 eP      P        06 01 52.9 +2.4
ZAK                               pmax   pmax
      comp=Z,2.0nm,1.3s,mb4.0
TXAR  Lajitas Array    59.82 276  P      P        06 01 53.3 -2.7
      comp=Z,0.7nm,0.8s,mb3.7,baz=53,slow=4.8,SNR=3.5
TXAR                              LR     LR       06 26 47.7
      comp=Z,443nm,19.0s,MS4.6,baz=105,slow=35
WMQ   Urumqi           60.08  51  P      P        06 02 02.3 +4.6
WMQ                               LR     LR
      comp=N,187nm,17.0s,MS4.5
WMQ                               LR     LR
      comp=E,271nm,20.9s,MS4.5
WMQ                               LR     LR
      comp=Z,211nm,26.2s
SONM  Songino Array    62.22  36  P      P        06 02 12.4 +0.3
      comp=Z,0.5nm,0.6s,mb3.8,baz=348,slow=6.5,SNR=5.3
SONM                              LR     LR       06 30 42.1
      comp=Z,197nm,19.3s,MS4.3,baz=189,slow=37
ULN   Ulaanbaatar      62.36  35⇑eP      P        06 02 16.6 +3.5
GTA   Gaotai           68.05  44 eP      P        06 02 53.0 +2.9
GTA                               AP     pP       06 02 57.5 +4.1
GTA                               XP     sP       06 03 00.0 +5.4
GTA                               PP     PP       06 05 26.8 +7.2
GTA                               S      S        06 11 53.5 +4.3
GTA                               XS     sS       06 12 01.5 +6.9
GTA                               SS     SS       06 16 19.3 +8.8
GTA                               AMB    AMB
      comp=Z,6.0nm,1.5s,mb4.4
GTA                               AMB    AMB
      comp=Z,98nm,5.7s
GTA                               LR     LR
      comp=Z,267nm,15.6s,MS4.6
YSS   Yuzh-Sakhalins   69.38  10 i P     P        06 03 01.4 +3.1
HHC   Hu-ho-hao-te     70.07  35 eP      P        06 03 05.0 +2.4
HHC                               AP     pP       06 03 09.8 +3.9
HHC                               XP     sP       06 03 12.0 +4.9
HHC                               PCP    PcP      06 03 27.5 +2.8
HHC                               PP     PP       06 05 42.3 +5.3
HHC                               S      S        06 12 14.5 +1.5
HHC                               SKS             06 13 02.0
HHC                               SCS    ScS      06 13 03.5 -1.1
HHC                               SS     SS       06 16 44.3 +2.9
HHC                               AMB    AMB
      comp=Z,12nm,1.0s,mb4.8
HHC                               AMB    AMB
      comp=Z,108nm,5.4s
HHC                               LR     LR
      comp=N,107nm,22.6s,MS4.5
HHC                               LR     LR
      comp=E,307nm,21.4s,MS4.5
HHC                               LR     LR
      comp=Z,142nm,20.2s,MS4.2
CN2   Changchun        70.27  23 eP      P        06 03 04.5 +0.7
BJI   Beijing          71.97  31  P      P        06 03 15.8 +1.7
BJI                               S      S        06 12 37.0 +2.0
BJI                               AMB    AMB
      comp=Z,10.0nm,1.9s,mb4.4
BJI                               LR     LR
      comp=Z,163nm,25.1s,MS4.2
LZH   Lanzhou          72.35  42 ⇓P      P        06 03 19.0 +2.5
LZH                               AP     pP       06 03 23.5 +3.7
LZH                               XP     sP       06 03 26.3 +5.3
LZH                               PP     PP       06 06 02.3 +5.6
LZH                               AMB    AMB
      comp=Z,24nm,1.5s,mb4.9
LZH                               AMB    AMB
      comp=Z,69nm,7.6s
KSRS  Korea Array      76.87  23  LR     LR       06 38 33.9
      comp=Z,68nm,18.3s,MS4.0,baz=122,slow=36
CD2   Chengdu          77.12  45 eP      P        06 03 45.5 +1.3
CD2                               AP     pP       06 03 50.3 +2.8
CD2                               XP     sP       06 03 53.5 +4.8
CD2                               SS     SS       06 18 33.0 +3.8
CD2                               AMB    AMB
      comp=Z,10.0nm,0.8s,mb4.8
CD2                               AMB    AMB
      comp=Z,30nm,5.8s
CD2                               LR     LR
      comp=Z,100nm,12.6s,MS4.3
KMBO  Kilima Mbogo     78.37 117  LR     LR       06 41 25.7
      comp=Z,152nm,18.7s,MS4.3,baz=277,slow=38
KMI   Kunming          82.16  48  P      P        06 04 13.5 +1.8
KMI                               AP     pP       06 04 19.8 +4.8
KMI                               XP     sP       06 04 22.8 +6.6
KMI                               LR     LR
      comp=Z,67nm,29.9s,MS3.8
GYA   Guiyang          82.18  44  P      P        06 04 13.0 +1.3
GYA                               PP     PP       06 07 23.3 +4.0
GYA                               S      S        06 14 27.0 +0.4
GYA                               SKS             06 14 29.5
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GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
GYA				AMB	AMB		
	comp=Z,70nm,5.8s						
GYA				LR	LR		
	comp=Z,310nm,21.7s,MS4.6						
LPAZ	La Paz	86.67	222	LR	LR	06 36 42.6	
	comp=Z,76nm,19.9s,MS4.1,baz=208,slow=31						
BOSA	Boshof	99.54	138	LR	LR	06 48 43.3	
	comp=Z,190nm,19.2s,MS4.6,baz=344,slow=34						
ASAR	Alice Springs	137.46	31	PKP	PKPdf	06 11 14.2	-0.1
ASAR	Alice Springs	137.46	31	PKIKP	PKPdf	06 11 14.2	-0.1
ASAR	Alice Springs	137.46	31	PKP	PKPdf	06 11 14.2	-0.1
	comp=Z,0.4nm,0.5s,baz=8.4,slow=1.5,SNR=6.7						
ASAR	Alice Springs	137.46	31	PKIKP	PKPdf	06 11 14.2	-0.1

WEL 27 05:52:26.4±0.5**, 38.27S×176.09E, h144**^{km}±4^{km}**, ML3.5**/13**, Error ellipse: s-maj=7.5km s-min=7.4km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.81	90	PN	Pn	05 52 48.8	-0.2
URZ				SN	Sn	05 53 06.4	+0.3
BKZ	Black Stump Fm	0.95	161	PN	Pn	05 52 50.2	0.0
BKZ				SN	Sn	05 53 08.1	-0.2
TUVZ	Tukino	1.05	199	PN	Pn	05 52 51.2	+0.2
TRVZ	Turoa	1.11	202	PN	Pn	05 52 52.0	+0.4
WNVZ	Wahianoa	1.12	200	PN	Pn	05 52 51.7	0.0
MWZ	Matawai	1.14	94	PN	Pn	05 52 52.7	+0.9
MWZ				SN	Sn	05 53 11.4	+0.2
PUZ	Puketiti	1.72	84	PN	Pn	05 52 57.6	-0.4
MXZ	Matakaoa Point	1.89	69	PN	Pn	05 52 59.7	-0.2
BFZ	Birch Farm	2.41	177	PN	Pn	05 53 04.2	-1.9
MRZ	Mangatainoka R	2.42	189	PN	Pn	05 53 04.0	-2.2
MRZ				SN	Sn	05 53 33.0	-3.9
KIW	Kapiti Island	2.75	199	PN	Pn	05 53 07.4	-2.9
MTW	Mount Morrison	2.92	189	PN	Pn	05 53 09.4	-3.0
CAW	Cannon Point	2.94	195	PN	Pn	05 53 09.8	-2.9
MRW	Makara Radio	3.14	199	PN	Pn	05 53 12.1	-3.3
MSWZ	Moikau Station	3.21	191	PN	Pn	05 53 12.7	-3.5
TCW	Tory Channel	3.25	205	PN	Pn	05 53 13.4	-3.4
KHZ	Kahutara	4.58	204	PN	Pn	05 53 29.7	-4.4

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*ISCJB **27** 06:15:01.1±0.7, 0.4S±0.1×123.7E±0.3, h10^{km}, mb4.0/7, Error ellipse: s-maj=46.3km s-min=11.4km az=163.5*

*IDC **27** 06:15:01.2±0.8, 0.44S×123.66E, h0^{km}, mb4.0/7, mb1 4.1/8, mb1mx4.0/18, mbtmp4.0/8, ML3.4/1, Error ellipse: s-maj=55.9km s-min=12.7km az=68.0*

*NEIC **27** 06:15:03.1±0.5, 0.39S×123.75E, h10^{km}, mb3.7/1, Error ellipse: s-maj=32.8km s-min=8.0km az=73.0*

ISC 27 06:15:02.3±5.5**, 0.4S**±0.1×**123.8E**±0.3**, h4**^{km}±35^{km}**, n11,** σ**0^{s}28**/11**, mb4.0**/7**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	17.70	174	*e*P	Pn	06 19 10.0	+0.2
	3.7nm,0.6s						
FITZ	Fitzroy Crossi	17.70	174	P	Pn	06 19 09.9	+0.1
	0.1nm,0.3s,baz=6.0,slow=18,SNR=5.1						
WRA	Warramunga Arr	22.03	153	P	P	06 19 57.5	-0.4
	10nm,0.7s,mb4.4,baz=331,slow=9.9,SNR=28						
WRA				S	S	06 24 01.6	0.0
	0.6nm,0.6s,baz=333,slow=11,SNR=3.2						
WB2	Warramunga Arr	22.04	153	*e*P	P	06 19 58.0	0.0
ASAR	Alice Springs	25.15	158	P	P	06 20 29.2	+0.5
	3.5nm,0.5s,mb4.2,baz=344,slow=14,SNR=52						
ASAR				PcP	PcP	06 24 03.6	+0.6
	0.3nm,0.4s,baz=356,slow=2.8,SNR=3.5						
STKA	Stephens Creek	35.58	153	P	P	06 22 00.7	-0.1
	0.7nm,0.3s,mb4.0,baz=320,slow=12,SNR=3.3						
MJAR	Matsushiro Arr	39.12	19	P	P	06 22 30.9	+0.1
	1.5nm,0.6s,mb3.9,baz=184,slow=8.7,SNR=6.1						
SONM	Songino Array	50.35	345	P	P	06 24 00.3	+0.1
	0.8nm,0.6s,mb4.0,baz=161,slow=9.2,SNR=7.7						
MKAR	Makanchi Array	59.33	328	P	P	06 25 05.0	-0.4
	0.5nm,0.4s,mb3.9,baz=124,slow=8.3,SNR=11						
ZALV	Zalesovo Beam	62.97	335	P	P	06 25 30.2	+0.3
	0.5nm,0.4s,mb4.0,baz=127,slow=5.2,SNR=3.8						
TORD	Torodi Ar. Bea	121.23	285	PKP	PKPdf	06 33 54.7	-2.9
	0.3nm,0.6s,baz=79,slow=1.8,SNR=4.8						

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*ISCJB **27** 06:31:01.3±0.9, 63.53N±0.04×23.95W±0.06, h3^{km}±5^{km}, mb4.0/21, MS3.9/3, Error ellipse: s-maj=6.5km s-min=4.0km az=152.8*

*CSEM **27** 06:31:02.4±0.1, 63.61N×23.86W, h10^{km}, mb4.5/7, Ms4.0, Error ellipse: s-maj=2.9km s-min=2.3km az=163.0*

*REY **27** 06:31:02.1, 63.48N×24.09W, h10^{km}, ML3.6, ML4.0*

*MOS **27** 06:31:02.2±1.6, 63.41N×24.15W, h10^{km}, mb4.6/9, MS4.0/4, Error ellipse: s-maj=18.6km s-min=9.3km az=116.9*

*IDC **27** 06:31:02.4±0.7, 63.45N×24.18W, h0^{km}, mb3.7/13, mb1 3.9/14, mb1mx3.8/24, mbtmp3.7/14, ML3.4/1, Error ellipse: s-maj=23.8km s-min=14.2km az=7.0*

*NEIC **27** 06:31:04.1±0.5, 63.48N×24.04W, h10^{km}, mb4.4/9, MS4.1/4, Error ellipse: s-maj=12.3km s-min=7.3km az=35.0*

ISC 27 06:31:02.7±0.9**, 63.54N**±0.04×**23.87W**±0.07**, h2**^{km}±5^{km}**, n105,** σ**1^{s}42**/114**, mb4.0**/21**, MS3.9**/3**, Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
INYL	Nylenda	0.66	48	P	Pg	06 31 15.6	+0.2
INYL				S	Sg	06 31 26.2	+2.2
IGRV	Grindav??k	0.70	62	P	Pg	06 31 16.1	0.0
IGRV				S	Sg	06 31 27.3	+2.0
IVOG	Vogar	0.78	56	P	Pg	06 31 17.6	-0.1
IVOG				S	Sg	06 31 29.9	+2.1
IKRI	Krysuvik	0.87	66	P	Pg	06 31 18.8	-0.4
IKRI				S	Sg	06 31 31.6	+1.1
IVOS	Vogsosar	1.01	71	P	Pg	06 31 20.8	-1.3
IVOS				S	Sg	06 31 36.0	+0.8
IKAS	Kald??rsel	1.02	61	P	Pg	06 31 21.2	-0.9
IKAS				S	Sg	06 31 36.5	+1.2
ISAN	Sandskeio	1.14	62	P	Pg	06 31 23.2	-1.4
ISAN				S	Sg	06 31 40.4	+1.1
IKUD	Kuludalsa	1.18	47	P	Pg	06 31 23.9	-1.3
IKUD				S	Sg	06 31 40.4	-0.1
IBJA	Bjarnastaoir	1.21	69	P	Pg	06 31 24.2	-1.6
IBJA				S	Sg	06 31 41.7	+0.2
IHEI	Heioarbar	1.34	59	P	Pn	06 31 25.9	-2.5
IHEI				S	Sg	06 31 45.0	-0.6
IKRO	Krokur	1.34	64	P	Pn	06 31 26.4	-2.0
IKRO				S	Sg	06 31 44.6	-1.1
ISOL	Solvholt	1.36	72	P	Pn	06 31 26.5	-2.1
ISOL				S	Sb	06 31 45.5	-1.1
IASM	Asmuli	1.48	77	P	Pn	06 31 28.8	-1.5
IASM				S	Sn	06 31 48.7	-1.5
ISAU	Saurbar	1.60	72	P	Pn	06 31 31.0	-0.9
IVES	Vestmannaeyjar	1.61	92	S	Sn	06 31 53.2	-0.2
IVES	Vestmannaeyjar	1.61	92	P	Sn	06 31 53.2	-0.2
BORG	Borgarnes	1.65	41	*e*Pn	Pn	06 31 31.1	-1.5
BORG	Borgarnes	1.65	41	Pn	Pn	06 31 31.1	-1.5
	67nm,0.3s,baz=215,slow=8.2,SNR=89						
BORG				Sn	Sn	06 31 52.7	-1.6
	95nm,0.3s,baz=248,slow=9.6,SNR=14						
BORG	Borgarnes	1.65	41	*e*Pn	Pn	06 31 31.1	-1.5
IASB	`sbjarnarst	1.65	41	P	Pn	06 31 30.9	-1.7
IGYG	Gygjarholskot	1.78	64	P	Pn	06 31 33.2	-1.2
IMID	Miomork	1.78	84	P	Pn	06 31 32.7	-1.8
IHAU	Haukadalur	1.79	74	P	Pn	06 31 33.4	-1.1
IESK	Eystri-Skogar	1.98	88	P	Pn	06 31 37.4	+0.3
IHVO	Lagu-Hvolar	2.25	88	P	Pn	06 31 39.8	-1.0
IVAT	Vatnsfell	2.29	71	P	Pn	06 31 40.9	-0.5
IHVE	Hveravellir	2.31	53	P	Pn	06 31 41.4	-0.2
ISKR	Skrokkalda	2.62	65	P	Pn	06 31 46.1	+0.2
SFJD	Kangerlussuaq	11.68	299	Pn	Pn	06 33 52.0	+2.0
SFJD	Kangerlussuaq	11.68	299	Pn	Pn	06 33 52.0	+2.0
	0.3nm,0.3s,baz=117,slow=6.8,SNR=2.3						
EKA	Eskdalemuir Ar	13.30	119	Pn	Pn	06 34 12.9	+0.6
EKA	Eskdalemuir Ar	13.30	119	Pn	Pn	06 34 12.9	+0.6
	0.1nm,0.3s,baz=312,slow=14,SNR=4.0						
EKA	Eskdalemuir Ar	13.30	119	Pn	Pn	06 34 12.9	+0.6
KBS	Kingsbay	18.66	21	*e*Pn	Pn	06 35 21.9	+0.2
KBS	Kingsbay	18.66	21	*e*Pn	Pn	06 35 21.9	+0.2
SGMF	Saint Gilles	19.27	133	*e*P	Pn	06 35 24.0	-5.2
QUIF	Quistinic	19.36	134	*e*P	Pn	06 35 27.1	-3.2
FLN	La Foliniere	19.54	128	*e*P	Pn	06 35 30.8	-1.6
FLN				*e*MLR	MLR		
	comp=Z,1μm,19.5s						
LDF	La Druitiere	19.81	128	*e*P	Pn	06 35 32.9	-2.7
ARCES	ARCESS Array B	20.03	51	P	P	06 35 36.5	+0.1
ARCES	ARCESS Array B	20.03	51	P	P	06 35 36.5	+0.1
	comp=Z,2.1nm,0.8s,baz=329,slow=6.4,SNR=2.9						
BAIF	Baives	20.23	119	*e*P	P	06 35 41.2	+2.5
	comp=Z,33nm,1.1s						
BAIF	Baives	20.23	119	*e*P	P	06 35 41.2	+2.5
BAIF				pmax	pmax		
	comp=Z,17nm,1.1s						
BAIF	Baives	20.23	119	*e*P	P	06 35 41.2	+2.5
	comp=Z,17nm,1.1s						
GIVF	Givet	20.43	118	*e*P	P	06 35 42.9	+2.0
MFF	Saint Martin d	21.51	131	*e*P	P	06 35 51.5	-1.1
	comp=Z,28nm,1.2s,mb4.3						
MFF	Saint Martin d	21.51	131	*e*P	P	06 35 51.5	-1.1
	comp=Z,14nm,1.2s,mb4.3						
MFF	Saint Martin d	21.51	131	*e*P	P	06 35 51.5	-1.1
MFF				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.3						
MEZF	Maizieres J'vi	21.81	120	*e*P	P	06 35 57.8	+2.1
LOR	Lormes	22.37	124	*e*P	P	06 36 01.7	-0.1
	comp=Z,38nm,1.1s,mb4.4						
LOR				*e*MLR	MLR		
	comp=Z,740nm,20.5s,MS3.8						
LOR	Lormes	22.37	124	*e*P	P	06 36 01.7	-0.1
	comp=Z,19nm,1.1s,mb4.4						
LOR				LR	LR		
	comp=Z,740nm,20.5s,MS4.1						
LOR	Lormes	22.37	124	*e*P	P	06 36 01.7	-0.1
LOR				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.4						
LOR				MLR	MLR		
	comp=Z,740nm,20.5s,MS4.1						
SSF	Saint Saulge	22.41	124	*e*P	P	06 36 01.7	-0.5
	comp=Z,32nm,1.2s,mb4.3						
SSF	Saint Saulge	22.41	124	P	P	06 36 05.0	+2.8
	comp=Z,16nm,1.2s,mb4.3						
SSF	Saint Saulge	22.41	124	P	P	06 36 05.0	+2.8
SSF				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.3						
SSF	Saint Saulge	22.41	124	*e*P	P	06 36 01.7	-0.5
	comp=Z,16nm,1.2s,mb4.3						
KAF	Kangasniemi	22.49	71	*e*p	P	06 36 04.4	+1.5
AVF	Avril sur Loir	22.59	125	*e*P	P	06 36 01.2	-2.9
BGF	Bois d'Agland	22.60	126	*e*P	P	06 36 03.0	-1.2
	comp=Z,36nm,0.9s,mb4.5						
BGF	Bois d'Agland	22.60	126	*e*P	P	06 36 03.0	-1.2
BGF				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.5						
BGF	Bois d'Agland	22.60	126	*e*P	P	06 36 03.0	-1.2
	comp=Z,18nm,0.9s,mb4.5						
TCF	Toulx Ste Croi	22.60	128	*e*P	P	06 36 03.7	-0.5
	comp=Z,47nm,1.4s,mb4.4						
TCF	Toulx Ste Croi	22.60	128	*e*P	P	06 36 03.7	-0.5
TCF				pmax	pmax		
	comp=Z,24nm,1.4s,mb4.4						
TCF	Toulx Ste Croi	22.60	128	*e*P	P	06 36 03.7	-0.5
	comp=Z,24nm,1.4s,mb4.4						
FINES	FINESS Array B	22.69	72	P	P	06 36 06.9	+1.9
	comp=Z,4.1nm,1.0s,mb3.8,baz=342,slow=9.0,SNR=6.6						
HAU	Haudompre	22.72	119	*e*P	P	06 36 06.8	+1.4
	comp=Z,30nm,1.1s,mb4.3						
HAU				*e*MLR	MLR		
	comp=Z,646nm,19.8s,MS3.8						
HAU	Haudompre	22.72	119	*e*P	P	06 36 06.8	+1.4
	comp=Z,15nm,1.1s,mb4.3						
HAU				LR	LR		
	comp=Z,650nm,19.8s,MS4.1						
HAU	Haudompre	22.72	119	*e*P	P	06 36 06.8	+1.4
HAU				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.3						
HAU				MLR	MLR		
	comp=Z,650nm,19.8s,MS4.1						
CDF	Champ du Feu	22.75	117	*e*P	P	06 36 06.8	+1.0
	comp=Z,22nm,1.1s,mb4.2						
CDF	Champ du Feu	22.75	117	*e*P	P	06 36 06.8	+1.0
	comp=Z,11nm,1.1s,mb4.2						
MOX	Moxa	22.83	108	*e*(P)	P	06 36 08.9	+2.3
SMF	Signal de Mont	22.89	125	*e*P	P	06 36 05.8	-1.5
	comp=Z,63nm,1.3s,mb4.6						
SMF	Signal de Mont	22.89	125	*e*P	P	06 36 05.8	-1.5
SMF				pmax	pmax		
	comp=Z,32nm,1.3s,mb4.6						
SMF	Signal de Mont	22.89	125	*e*P	P	06 36 05.8	-1.5
	comp=Z,32nm,1.3s,mb4.6						
CLL	Collm	22.94	105	*e*P	P	06 36 09.0	+1.3
HINF	Hinteralfeld	23.07	119	P	P	06 36 13.3	+4.1
RJF	Les Rejaudoux	23.21	130	*e*P	P	06 36 08.3	-2.4
RJF				*e*MLR	MLR		
	comp=Z,850nm,21.8s,MS3.9						
SCHQ	Schefferville	23.24	268	P	P	06 36 09.8	-1.2
	comp=Z,2.9nm,0.7s,mb3.8,baz=35,slow=16,SNR=5.1						
NKC	Novy Kostel	23.49	107	*e*P	P	06 36 16.2	+2.6
NKC				AMS	AMS	06 45 00.0	
	comp=Z,700nm,20.7s						
PVCC	Panska Ves	24.18	104	AMS	AMS	06 45 50.0	
	comp=Z,500nm,19.5s						
PRU	Pruhonice	24.57	105	AMS	AMS	06 45 50.0	
	comp=Z,500nm,18.9s						
KHC	Kasperske Hory	24.80	108	*e*P	P	06 36 27.5	+1.8
KHC				AMS	AMS	06 46 00.0	
	comp=Z,700nm,18.4s						
LPL	La Plagne	24.92	122	*e*P	P	06 36 27.8	+1.0
LPG	La Plagne	24.95	122	*e*P	P	06 36 27.6	+0.6
DPC	Dobruska-Polom	25.08	103	*e*P	P	06 36 30.8	+2.6
DPC				AMS	AMS	06 48 00.0	
	comp=Z,500nm,21.3s						
ORIF	Oris-en-Rattie	25.11	124	P	P	06 36 33.1	+4.6
TREC	Trest	25.50	105	AMS	AMS	06 46 10.0	
	comp=Z,700nm,16.9s						
MBDF	Montbardon	25.61	123	P	P	06 36 35.8	+2.8
OKC	Ostrava-Krasne	26.25	102	AMS	AMS	06 48 40.0	
	comp=Z,600nm,16.6s						
ESDC	Sonseca Array	26.67	144	P	P	06 36 43.8	+1.1
	comp=Z,0.3nm,0.3s,mb3.3,baz=344,slow=9.2,SNR=4.6						
YKA	Yellowknife Ar	37.90	311	P	P	06 38 20.9	+0.3
	comp=Z,0.3nm,0.7s,mb3.1,baz=48,slow=8.7,SNR=8.4						
YKA				PcP	PcP	06 40 36.3	-0.1
	comp=Z,0.6nm,0.8s,baz=43,slow=3.4,SNR=11						
YKA	Yellowknife Ar	37.90	311	PcP	PcP	06 40 36.3	-0.1
ULM	Lac du Bonnet	39.26	285	P	P	06 38 31.6	-0.6
	comp=Z,2.0nm,1.0s,mb3.8,baz=30,slow=8.0,SNR=3.6						
BRTR	Keskin Array B	41.00	97	P	P	06 38 48.4	+1.7
	comp=Z,1.1nm,0.9s,mb3.5,baz=7.7,slow=10,SNR=4.2						
DAWY	Dawson	44.10	325	*e*P	P	06 39 12.6	+0.9
DAWY	Dawson	44.10	325	*e*P	P	06 39 12.6	+0.9
NVS	Novosibirsk	49.23	47	*e*P	P	06 39 54.3	+2.4
NVS				pmax	pmax		
	comp=N,8.0nm,1.7s						
NVS				pmax	pmax		
	comp=E,6.0nm,1.7s						
NVS				pmax	pmax		
	comp=Z,15nm,1.7s,mb4.8						
ZALV	Zalesovo Beam	50.48	47	P	P	06 40 03.9	+2.4
	comp=Z,0.4nm,0.6s,mb3.6,baz=319,slow=9.9,SNR=2.0						
ZAL	Zalesovo	50.49	47	P	P	06 40 03.9	+2.4
PDAR	Pinedale Array	50.98	289	P	P	06 40 04.0	-1.3
	comp=Z,2.1nm,0.8s,mb4.1,baz=64,slow=6.8,SNR=14						
TORD	Torodi Ar. Bea	53.43	148	P	P	06 40 23.1	-0.8
	comp=Z,1.8nm,1.0s,mb4.0,baz=338,slow=8.4,SNR=7.5						
MKAR	Makanchi Array	55.67	53	P	P	06 40 40.6	+0.8
	comp=Z,0.3nm,0.7s,mb3.5,baz=327,slow=5.7,SNR=5.1						
LIC	Lamto	58.81	158	*e*P	P	06 40 57.5	-4.8
TXAR	Lajitas Array	59.67	275	P	P	06 41 06.9	-1.3
	comp=Z,1.3nm,1.0s,mb3.9,baz=38,slow=6.3,SNR=7.8						
SONM	Songino Array	62.25	36	P	P	06 41 26.5	+1.0
	comp=Z,0.8nm,0.8s,mb3.9,baz=343,slow=9.8,SNR=5.1						

IDC 27 06:36:26.4±2.1**, 3.36S×127.70E, h0**^{km}**, mb3.5**/2**, mb1 3.8**/3**, mb1mx3.5**/17**, mbtmp3.6**/3**, ML3.6**/1**, Error ellipse: s-maj=160.2km s-min=28.1km az=67.0, Seram**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	17.70	159	P	Pn	06 40 36.0	+1.5
	0.2nm,0.3s,baz=338,slow=12,SNR=5.5						
ASAR	Alice Springs	21.05	164	P	P	06 41 11.8	-0.4
	0.9nm,0.3s,baz=345,slow=11,SNR=15						
MKAR	Makanchi Array	63.95	327	P	P	06 47 01.4	0.0
	0.3nm,0.6s,baz=118,slow=7.6,SNR=4.1						

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*BJI **27** 06:36:40.6, 63.30N×24.10W, h10^{km}, mB4.9, mb4.6, Ms4.4, Msz4.2*

*CSEM **27** 06:36:43.1±0.1, 63.49N×23.88W, h2^{km}, mb4.6/18, Ms3.8, Error ellipse: s-maj=2.7km s-min=1.4km az=166.0*

*REY **27** 06:36:43.7, 63.41N×24.19W, h10^{km}, ML3.8, ML4.0*

*ISCJB **27** 06:36:44.5±0.2, 63.44N±0.03×23.92W±0.04, h10^{km}, mb4.4/45, MS4.0/24, Error ellipse: s-maj=4.0km s-min=2.2km az=158.6*

*MOS **27** 06:36:44.5±1.1, 63.37N×23.98W, h10^{km}, mb4.7/19, MS4.0/12, Error ellipse: s-maj=15.1km s-min=7.3km az=116.3*

*IDC **27** 06:36:44.6±0.6, 63.40N×24.15W, h0^{km}, mb3.8/14, mb1 4.0/16, mb1mx3.9/25, mbtmp3.9/16, ML3.0/2, MS4.0/14, Ms1 4.0/14, ms1mx3.8/33, Error ellipse: s-maj=22.7km s-min=12.8km az=9.0*

*NEIC **27** 06:36:46.6±0.2, 63.30N×24.05W, h10^{km}, mb4.6/23, MS3.8/6, Error ellipse: s-maj=9.2km s-min=3.6km az=24.0*

*SZGRF **27** 06:36:49.7, 63.81N×24.06W, h33^{km}, mb4.5, MS3.8, Iceland region*

ISC 27 06:36:46.3±0.2**, 63.47N**±0.03×**23.80W**±0.04**, h10**^{km}**, (h12**^{km}±.5^{km}**:pP-P), n200,** σ**1^{s}32**/208**, mb4.4**/45**, MS4.0**/24**, 7C, Iceland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
INYL	Nylenda	0.69	43	P	Pg	06 36 58.5	-1.2
INYL				S	Sg	06 37 10.3	+1.5
IGRV	Grindav??k	0.72	56	P	Pg	06 36 59.0	-1.1
IGRV				S	Sg	06 37 11.0	+1.5
IVOG	Vogar	0.81	51	P	Pg	06 37 00.6	-1.2
IVOG				S	Sg	06 37 13.6	+1.3
IKRI	Krysuvik	0.87	61	P	Pg	06 37 01.4	-1.7
IKRI				S	Sg	06 37 15.2	+0.8
IVOS	Vogsosar	1.01	67	P	Pg	06 37 03.7	-2.0
IVOS				S	Sg	06 37 19.2	+0.3
IKAS	Kald??rsel	1.03	56	P	Pg	06 37 04.3	-1.8
IKAS				S	Sg	06 37 20.3	+0.8
ISAN	Sandskeio	1.16	58	P	Pb	06 37 06.2	-2.1
ISAN				S	Sb	06 37 23.6	+0.3
IKUD	Kuludalsa	1.21	44	P	Pn	06 37 06.7	-2.5
IKUD				S	Sb	06 37 24.9	+0.1
IBJA	Bjarnastaoir	1.21	66	P	Pn	06 37 07.1	-2.1
IBJA				S	Sb	06 37 24.9	0.0
IKRO	Krokur	1.35	61	P	Pn	06 37 09.1	-2.0
IKRO				S	Sb	06 37 28.9	0.0
IHEI	Heioarbar	1.35	56	P	Pn	06 37 08.8	-2.4
IHEI				S	Sb	06 37 29.5	+0.5
ISOL	Solvholt	1.36	69	P	Pn	06 37 08.9	-2.3
ISOL				S	Sb	06 37 28.5	-0.5
IASM	Asmuli	1.47	74	P	Pn	06 37 10.6	-2.2
IASM				S	Sn	06 37 31.8	-0.2
IVES	Vestmannaeyjar	1.58	89	P	Pn	06 37 13.0	-1.3
ISAU	Saurbar	1.60	69	P	Pn	06 37 13.3	-1.2
ISAU				S	Sn	06 37 35.6	+0.5
BORG	Borgarnes	1.68	39	*e*Pn	Pn	06 37 13.7	-2.0
BORG	Borgarnes	1.68	39	Pn	Pn	06 37 13.9	-1.8
	145nm,0.3s,baz=219,slow=9.0,SNR=292						
BORG				Sn	Sn	06 37 42.8	+5.5
	82nm,0.3s,baz=106,slow=22,SNR=12						
BORG	Borgarnes	1.68	39	*e*Pn	Pn	06 37 13.7	-2.0
IASB	`sbjarnarst	1.68	39	P	Pn	06 37 13.9	-1.8
IASB				S	Sn	06 37 38.1	+0.8
IMID	Miomork	1.76	82	P	Pn	06 37 14.9	-1.9
IMID				S	Sn	06 37 40.7	+1.4
IHAU	Haukadalur	1.78	72	P	Pn	06 37 15.6	-1.4
IHAU				S	Sn	06 37 41.1	+1.4
IGYG	Gygjarholskot	1.79	61	P	Pn	06 37 16.3	-0.8
IGYG				S	Sn	06 37 41.4	+1.6
IESK	Eystri-Skogar	1.95	86	P	Pn	06 37 18.4	-1.0
IHVO	Lagu-Hvolar	2.22	86	P	Pn	06 37 22.1	-1.0
IVAT	Vatnsfell	2.28	69	P	Pn	06 37 22.7	-1.2
ISNB	Snabyli	2.33	81	P	Pn	06 37 23.1	-1.4
ISNB				S	Sn	06 37 55.3	+2.2
IHVE	Hveravellir	2.33	51	P	Pn	06 37 23.6	-1.0
ISKR	Skrokkalda	2.63	63	P	Pn	06 37 28.5	-0.1
IKAL	Kalfafell	2.77	77	P	Pn	06 37 29.5	-1.1
IKAL				S	Sn	06 38 06.2	+2.3
IHRN	Hraun	3.08	29	P	Pn	06 37 34.5	-0.4
IFAG	Fagurholsmyri	3.21	80	P	Pn	06 37 35.6	-1.1
JMIC	Jan Mayen	9.56	31	LR	LR	06 42 07.9	
	comp=Z,480nm,18.8s,baz=82,slow=33						
SFJD	Kangerlussuaq	11.73	299	LR	LR	06 43 27.6	
	comp=Z,2μm,19.1s,baz=85,slow=35						
EKA	Eskdalemuir Ar	13.25	118	Pn	Pn	06 39 55.4	+1.3
EKA	Eskdalemuir Ar	13.25	118	Pn	Pn	06 39 55.4	+1.3
	0.1nm,0.3s,baz=320,slow=15,SNR=3.6						
EKA	Eskdalemuir Ar	13.25	118	Pn	Pn	06 39 55.4	+1.3
NOA	NORSAR Array B	16.36	83	LR	LR	06 46 22.0	
	comp=Z,262nm,19.6s,baz=310,slow=35						
HFS	Hagfors	17.85	84	P	Pn	06 40 55.6	+1.2
	0.1nm,0.3s,baz=294,slow=11,SNR=4.2						
HFS				LR	LR	06 46 31.7	
	comp=Z,501nm,21.9s,baz=246,slow=33						
ROSF	Rostrenen	18.89	134	*e*P	Pn	06 41 04.9	-2.2
	72nm,1.3s						
ROSF	Rostrenen	18.89	134	*e*P	Pn	06 41 04.9	-2.2
ROSF				pmax	pmax		
	comp=Z,36nm,1.3s						
ROSF	Rostrenen	18.89	134	*e*P	Pn	06 41 04.9	-2.2
	comp=Z,36nm,1.3s						
GRR	Gorron	19.66	129	*e*P	Pn	06 41 15.4	-0.9
LDF	La Druitiere	19.74	128	*e*P	Pn	06 41 15.8	-1.5
ARCES	ARCESS Array B	20.05	51	P	P	06 41 20.6	+1.5
	comp=Z,2.9nm,0.8s,baz=271,slow=9.1,SNR=4.5						
ARCES				LR	LR	06 47 39.5	
	comp=Z,427nm,19.5s,MS3.8,baz=285,slow=32						
BAIF	Baives	20.17	119	*e*P	P	06 41 22.6	+2.1
	comp=Z,51nm,1.1s						
BAIF	Baives	20.17	119	*e*P	P	06 41 22.6	+2.1
BAIF				pmax	pmax		
	comp=Z,25nm,1.1s						
BAIF	Baives	20.17	119	*e*P	P	06 41 22.6	+2.1
	comp=Z,26nm,1.1s						
GIVF	Givet	20.38	118	*e*P	P	06 41 25.4	+2.7
MFF	Saint Martin d	21.45	131	*e*P	P	06 41 34.2	-0.1
LOR	Lormes	22.31	124	*e*P	P	06 41 42.6	-0.9
LOR				*e*MLR	MLR		
	comp=Z,579nm,18.2s,MS3.7						
LOR	Lormes	22.31	124	*e*P	P	06 41 42.6	-0.9
LOR				MLR	MLR		
	comp=Z,580nm,18.3s,MS4.0						
SSF	Saint Saulge	22.35	124	*e*P	P	06 41 42.8	-1.2
	comp=Z,49nm,1.2s,mb4.5						
SSF	Saint Saulge	22.35	124	*e*P	P	06 41 42.8	-1.2
SSF				pmax	pmax		
	comp=Z,24nm,1.2s,mb4.5						
SSF	Saint Saulge	22.35	124	*e*P	P	06 41 42.8	-1.2
	comp=Z,24nm,1.2s,mb4.5						
KAF	Kangasniemi	22.49	71	*e*p	P	06 41 45.5	+0.2
AVF	Avril sur Loir	22.52	125	*e*P	P	06 41 44.2	-1.6
BGF	Bois d'Agland	22.54	126	*e*P	P	06 41 44.6	-1.3
	comp=Z,29nm,0.8s,mb4.5						
BGF	Bois d'Agland	22.54	126	*e*P	P	06 41 44.6	-1.3
BGF				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.5						
BGF	Bois d'Agland	22.54	126	*e*P	P	06 41 44.6	-1.3
	comp=Z,15nm,0.8s,mb4.5						
TCF	Toulx Ste Croi	22.54	127	*e*P	P	06 41 45.4	-0.6
	comp=Z,39nm,1.3s,mb4.4						
TCF	Toulx Ste Croi	22.54	127	*e*P	P	06 41 45.4	-0.6
TCF				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.4						
TCF	Toulx Ste Croi	22.54	127	*e*P	P	06 41 45.4	-0.6
	comp=Z,19nm,1.3s,mb4.4						
HAU	Haudompre	22.66	119	*e*P	P	06 41 48.5	+1.3
	comp=Z,48nm,1.1s,mb4.5						
HAU				*e*MLR	MLR		
	comp=Z,509nm,22.0s,MS3.6						
HAU	Haudompre	22.66	119	*e*P	P	06 41 48.5	+1.3
	comp=Z,24nm,1.1s,mb4.5						
HAU				LR	LR		
	comp=Z,510nm,22.0s,MS3.9						
HAU	Haudompre	22.66	119	*e*P	P	06 41 48.5	+1.3
HAU				pmax	pmax		
	comp=Z,24nm,1.1s,mb4.5						
HAU				MLR	MLR		
	comp=Z,510nm,22.0s,MS3.9						
FINES	FINESS Array B	22.69	72	P	P	06 41 49.0	+1.5
	comp=Z,7.1nm,1.0s,mb4.1,baz=328,slow=6.8,SNR=12						
FINES				LR	LR	06 50 07.4	
	comp=Z,190nm,19.6s,MS3.5,baz=93,slow=35						
CDF	Champ du Feu	22.70	117	*e*P	P	06 41 49.1	+1.5
	comp=Z,38nm,1.2s,mb4.4						
CDF	Champ du Feu	22.70	117	*e*P	P	06 41 49.1	+1.5
CDF				pmax	pmax		

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             comp=Z,19nm,1.2s,mb4.4
CDF   Champ du Feu     22.70 117 eP      P          06 41 49.1 +1.5
             comp=Z,19nm,1.2s,mb4.4
MOX   Moxa             22.78 108 eP      P          06 41 51.2 +2.7
MOX
             comp=Z,300nm,22.0s
SMF   Signal de Mont   22.83 125 eP      P          06 41 49.1 +0.1
CLL   Collm            22.89 105  P      P          06 41 51.0 +1.3
CLL                              e                  06 41 58.0
CLL                               LR     LR
             comp=Z,600nm,17.8s,MS4.1
CLL   Collm            22.89 105 eP      P          06 41 51.0 +1.3
CLL                              ex      x          06 41 58.0
HINF  Hinteralfeld     23.01 118 eP      P          06 41 51.7 +0.8
BFO   Black Forest     23.19 116 eP      P          06 41 53.9 +1.1
             comp=Z,2.5nm,0.8s,mb3.7
BFO   Black Forest     23.19 116 eP      P          06 41 53.9 +1.1
BFO                               pmax   pmax
             comp=Z,2.0nm,0.8s,mb3.6
BFO   Black Forest     23.19 116 eP      P          06 41 53.9 +1.1
             comp=Z,2.5nm,0.8s,mb3.7
SCHQ  Schefferville    23.26 268  P      P          06 41 52.5  -1.1
             comp=Z,4.0nm,0.8s,mb3.9,baz=50,slow=7.4,SNR=7.9
SCHQ                              LR     LR         06 49 05.4
             comp=Z,585nm,20.3s,MS4.0,baz=302,slow=32
GRA1  Grafenberg Arr   23.33 110 eP      P          06 41 56.8 +2.5
             comp=Z,25nm,1.4s,mb4.5
GRA1                              LR     LR
             comp=Z,300nm,21.8s,MS3.7
GRF   Grafenberg Arr   23.33 110 eP      P          06 41 56.8 +2.5
GRF                               pmax   pmax
             comp=Z,25nm,1.4s,mb4.5
GRF                               MLR    MLR
             comp=Z,300nm,21.8s,MS3.7
GRF   Grafenberg Arr   23.33 110 eP      P          06 41 56.8 +2.5
GRF                               pmax   pmax
             comp=Z,25nm,1.4s,mb4.5
GRF                               MLR    MLR
             comp=Z,300nm,21.8s,MS3.7
GRF   Grafenberg Arr   23.33 110 eP      P          06 41 56.8 +2.5
             comp=Z,25nm,1.4s,mb4.5
GRF                              eL                 06 49 02.3
             comp=Z,338nm,21.8s
NKC   Novy Kostel      23.44 107 eP      P          06 41 59.6 +4.1
NKC                               AMS    AMS        06 53 40.0
             comp=Z,700nm,10.6s
BRG   Berggiesshubel   23.62 104 eP      P          06 42 00.1 +2.9
BRG                               pmax   pmax
             comp=Z,16nm,1.7s,mb4.2
BRG   Berggiesshubel   23.62 104 eP      P          06 42 00.1 +2.9
             comp=Z,27nm,1.7s,mb4.4
CABF  La Chapelle      23.70 121 eP      P          06 41 57.6  -0.4
             comp=Z,62nm,1.4s,mb4.5
CABF  La Chapelle      23.70 121 eP      P          06 41 57.6  -0.4
CABF                              pmax   pmax
             comp=Z,31nm,1.4s,mb4.5
CABF  La Chapelle      23.70 121 eP      P          06 41 57.6  -0.4
             comp=Z,31nm,1.4s,mb4.5
PVCC  Panska Ves       24.14 104  AMS    AMS        06 53 20.0
             comp=Z,500nm,14.8s
SJPF  Ste Jean         24.20 137 eP      P          06 42 00.9  -1.7
             comp=Z,70nm,1.5s,mb4.6
SJPF  Ste Jean         24.20 137 eP      P          06 42 00.9  -1.7
SJPF                              pmax   pmax
             comp=Z,35nm,1.5s,mb4.6
SJPF  Ste Jean         24.20 137 eP      P          06 42 00.9  -1.7
             comp=Z,35nm,1.5s,mb4.6
PRU   Pruhonice        24.53 105 eP      P          06 42 08.3 +2.8
PRU                               AMS    AMS        06 52 20.0
             comp=Z,500nm,20.0s
ETSF  Etsaut           24.60 136 eP      P          06 42 04.8  -1.4
VIVF  Saint-Julien-l   24.65 126 eP      P          06 42 06.5  -0.2
KHC   Kasperske Hory   24.75 108 eP      P          06 42 09.9 +2.3
KHC                               LR     LR
             comp=Z,800nm,14.5s,MS4.4
LPL   La Plagne        24.86 122 eP      P          06 42 09.5 +0.9
LPG   La Plagne        24.89 122 eP      P          06 42 09.6 +0.8
             comp=Z,19nm,1.1s,mb4.2
LPG   La Plagne        24.89 122 eP      P          06 42 09.6 +0.8
LPG                               pmax   pmax
             comp=Z,9.0nm,1.1s,mb4.2
LPG   La Plagne        24.89 122 eP      P          06 42 09.6 +0.8
             comp=Z,9.4nm,1.1s,mb4.2
GERES GERESS Array B   25.03 108  P      P          06 42 11.6 +1.6
             comp=Z,0.6nm,0.6s,baz=300,slow=9.1,SNR=5.2
GERES                             LR     LR         06 52 53.4
             comp=Z,559nm,18.2s,MS4.1,baz=283,slow=38
DPC   Dobruska-Polom   25.04 103 eP      P          06 42 12.1 +2.0
DPC                               AMS    AMS        06 53 40.0
             comp=Z,900nm,16.1s
ORIF  Oris-en-Rattie   25.05 124 eP      P          06 42 10.8 +0.5
ORIF                             eMLR    MLR
             comp=Z,504nm,19.2s,MS3.7
DAVOX Davos/Dischmat   25.06 116  LR     LR         06 51 17.8
             comp=Z,419nm,18.7s,MS4.0,baz=261,slow=35
TREC  Trest            25.45 105  AMS    AMS        06 54 20.0
             comp=Z,600nm,14.4s
MBDF  Montbardon       25.54 123 eP      P          06 42 15.1 +0.3
             comp=Z,39nm,1.3s,mb4.5
MBDF  Montbardon       25.54 123 eP      P          06 42 15.1 +0.3
MBDF                              pmax   pmax
             comp=Z,20nm,1.3s,mb4.5
MBDF  Montbardon       25.54 123 eP      P          06 42 15.1 +0.3
             comp=Z,20nm,1.3s,mb4.5
RES   Resolute Bay     25.84 325 eP      P          06 42 18.8 +1.5
RES   Resolute Bay     25.84 325 eP      P          06 42 18.8 +1.6
VRAC  Vranov           25.92 104  LR     LR         06 51 54.9
             comp=Z,334nm,20.7s,MS3.9,baz=316,slow=35
OKC   Ostrava-Krasne   26.21 101 eP      P          06 42 23.9 +3.1
OKC                               AMS    AMS        06 54 50.0
             comp=Z,500nm,17.1s
ESDC  Sonseca Array    26.60 144  P      P          06 42 25.2 +0.8
             comp=Z,0.3nm,0.3s,baz=335,slow=9.2,SNR=5.2
ESDC                              LR     LR         06 51 40.1
             comp=Z,344nm,19.4s,MS3.9,baz=350,slow=34
UZH   Uzhgorod         28.94  99 eP      P          06 42 50.0 +4.8
UZH                              e                  06 43 47.0
UZH                              ePPP               06 43 56.5
UZH                              eS      S          06 47 42.0 +6.5
UZH                              eSS     SS         06 49 21.0  -17
UZH                               MLR    MLR
             comp=Z,680nm,13.0s,MS4.4
OBN   Obninsk          30.81  77 eP      P          06 43 00.3  -1.4
OBN                              eS      S          06 48 14.1 +9.3
OBN                               pmax   pmax
             comp=Z,5.0nm,1.0s,mb4.3
OBN                               MLR    MLR
             comp=Z,300nm,16.0s,MS4.0
MSNY  Massena          33.91 262 eP      P          06 43 28.5  -0.4
MSNY  Massena          33.91 262 eP      P          06 43 28.5  -0.5
YKA   Yellowknife Ar   37.96 311  P      P          06 44 02.4  -1.0
YKA                               PcP    PcP        06 46 17.2  -1.6
YKA   Yellowknife Ar   37.96 311  P      P          06 44 02.4  -1.0
             comp=Z,1.1nm,0.9s,mb3.6,baz=49,slow=8.2,SNR=15
YKA                               PcP    PcP        06 46 17.2  -1.6
             comp=Z,1.1nm,0.9s,baz=41,slow=3.1,SNR=14
YKA   Yellowknife Ar   37.96 311  PcP    PcP        06 46 17.2  -1.6
ULM   Lac du Bonnet    39.30 285  P      P          06 44 14.1  -0.8
             comp=Z,1.6nm,0.8s,mb3.8,baz=54,slow=11,SNR=3.1
BRTR  Keskin Array B   40.96  97  P      P          06 44 30.1 +1.4
             comp=Z,2.3nm,0.9s,mb3.8,baz=350,slow=6.6,SNR=7.3
TIXI  Tiksi            43.86  12 eP      P          06 44 52.2 +0.3
TIXI  Tiksi            43.86  12 eP      P          06 44 54.8 +2.9
TIXI                              pmax   pmax
             comp=Z,17nm,2.2s,mb4.4
TIXI  Tiksi            43.86  12 eP      P          06 44 52.2 +0.3
DAWY  Dawson           44.18 325 eP      P          06 44 56.5 +2.0
DAWY  Dawson           44.18 325 eP      P          06 44 56.5 +1.9
EDM   Edmonton         44.27 301 eP      P          06 44 56.8 +1.4
EDM   Edmonton         44.27 301 eP      P          06 44 56.8 +1.4
COLA  College          45.53 330⇑eP      P          06 45 06.1 +0.8
LAO   LASA Array       46.46 290 eP      P          06 45 13.8 +0.9
             comp=Z,3.4nm,0.4s,mb4.6
LAO   LASA Array       46.46 290 eP      P          06 45 13.8 +0.9
             comp=Z,3.4nm,0.4s,mb4.6
FVM   French Village   46.50 270 eP      P          06 45 13.0  -0.3
FVM   French Village   46.50 270 eP      P          06 45 13.0  -0.3
EGMT  Eagleton         46.88 293 eP      P          06 45 17.3 +1.2
             comp=Z,11nm,1.1s,mb4.7
BILL  Bilibino         48.58 355⇑eP      P          06 45 29.8 +0.7
BILL                              pmax   pmax
             comp=Z,9.0nm,1.3s,mb4.6
TNA   Tin City         48.62 341 eP      P          06 45 30.8 +1.4
HRY   Holter Researc   48.78 294 eP      P          06 45 31.9 +1.0
HRY   Holter Researc   48.78 294 eP      P          06 45 31.9 +1.0
```

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LRAL  Lakeview Retre   49.09 263 eP      P          06 45 31.9  -1.5
NVS   Novosibirsk      49.26  47 eP      P          06 45 35.0 +0.6
NVS                               pmax   pmax
             comp=Z,25nm,1.8s,mb4.9
NVS                               pmax   pmax
             comp=E,10.0nm,1.8s
BOZ   Bozeman (W)      49.55 293 eP      P          06 45 37.9 +1.1
             comp=E,18nm,1.5s,mb4.9
BOZ   Bozeman (W)      49.55 293 eP      P          06 45 37.9 +1.1
BOZ                               pmax   pmax
             comp=Z,18nm,1.5s,mb4.9
BOZ   Bozeman (W)      49.55 293 eP      P          06 45 37.9 +1.1
             comp=Z,18nm,1.5s,mb4.9
LRM   Limekiln Ridge   49.75 294 eP      P          06 45 39.9 +1.6
LRM   Limekiln Ridge   49.75 294 eP      P          06 45 39.9 +1.6
PHWY  Pilot Hill       50.46 285 eP      P          06 45 44.2 +0.5
PHWY  Pilot Hill       50.46 285 eP      P          06 45 44.2 +0.4
ZALV  Zalesovo Beam    50.51  47  P      P          06 45 45.4 +1.4
ZALV                              LR     LR         07 08 17.0
ZALV  Zalesovo Beam    50.51  47  P      P          06 45 45.4 +1.4
             comp=Z,0.3nm,0.5s,mb3.5,baz=357,slow=5.9,SNR=3.7
ZALV                              LR     LR         07 08 17.0
             comp=Z,58nm,19.2s,MS3.6,baz=101,slow=37
ZAL   Zalesovo         50.52  47  P      P          06 45 45.4 +1.4
MCMT  McKenzie Canyo   50.72 293 eP      P          06 45 46.7 +1.0
MCMT  McKenzie Canyo   50.72 293 eP      P          06 45 46.7 +1.0
MOOW  Moose Ponds      50.73 291 eP      P          06 45 46.7 +1.0
MOOW  Moose Ponds      50.73 291 eP      P          06 45 46.7 +1.0
BW06  Boulder Array    51.03 289 eP      P          06 45 47.0  -0.9
BW06  Boulder Array    51.03 289 eP      P          06 45 47.0  -1.0
PDAR  Pinedale Array   51.03 289  P      P          06 45 46.8  -1.2
             comp=Z,3.0nm,0.8s,mb4.3,baz=54,slow=5.9,SNR=27
KURK  Kurchatov        51.08  53⇑eP      P          06 45 47.2  -1.1
REDW  Red Top Meadow   51.09 291 eP      P          06 45 49.4 +0.9
             comp=Z,13nm,1.4s,mb4.7
REDW  Red Top Meadow   51.09 291 eP      P          06 45 49.4 +1.0
             comp=Z,13nm,1.4s,mb4.7
BMO   Blue Mountains   52.52 297 eP      P          06 45 59.7 +0.6
             comp=Z,18nm,1.7s,mb4.7
BMO   Blue Mountains   52.52 297 eP      P          06 45 59.7 +0.6
             comp=Z,18nm,1.7s,mb4.7
HWUT  Hardware Ranch   52.83 290 eP      P          06 46 02.4 +1.0
             comp=Z,9.6nm,1.2s,mb4.6
HWUT  Hardware Ranch   52.83 290 eP      P          06 46 02.4 +1.0
             comp=Z,9.6nm,1.2s,mb4.6
SMCO  Snowmass         52.87 285 eP      P          06 46 01.3  -0.5
             comp=Z,14nm,1.2s,mb4.8
WMOK  Wichita Mounta   52.94 275 eP      P          06 46 01.7  -0.6
             comp=Z,18nm,1.6s,mb4.8
WMOK  Wichita Mounta   52.94 275 eP      P          06 46 01.7  -0.6
WMOK                              pmax   pmax
             comp=Z,18nm,1.6s,mb4.8
WMOK  Wichita Mounta   52.94 275 eP      P          06 46 01.7  -0.6
             comp=Z,18nm,1.6s,mb4.8
TORD  Torodi Ar. Bea   53.36 148  P      P          06 46 04.8  -0.8
             comp=Z,1.9nm,0.9s,mb4.0,baz=345,slow=8.0,SNR=8.4
MKAR  Makanchi Array   55.69  53 i P     P          06 46 26.1 +3.9
MKAR                              pmax   pmax
             comp=Z,1.0nm,0.9s
MKAR  Makanchi Array   55.69  53  P      P          06 46 23.2 +1.0
             comp=Z,0.7nm,0.9s,mb3.7,baz=331,slow=7.3,SNR=5.9
ANMO  Albuquerque      56.17 281⇑eP      P          06 46 25.7  -0.1
LAZ   Ladron           56.94 281 eP      P          06 46 31.8 +0.6
LAZ   Ladron           56.94 281 eP      P          06 46 31.8 +0.5
JCT   Junction City    56.99 273 eP      P          06 46 31.1  -0.6
JCT   Junction City    56.99 273 eP      P          06 46 31.1  -0.6
MA2   Magadan          57.21   3⇑eP      P          06 46 32.3  -0.5
MA2                               pmax   pmax
             comp=Z,21nm,1.9s,mb4.8
ZAK   Zakamensk        59.14  37 eP      P          06 46 47.9 +1.4
ZAK                               pmax   pmax
             comp=Z,2.0nm,2.0s,mb3.8
TXAR  Lajitas Array    59.70 275  P      P          06 46 50.0  -0.6
             comp=Z,0.9nm,0.8s,mb3.8,baz=57,slow=4.6,SNR=7.8
WMQ   Urumqi           60.18  51  P      P          06 46 52.3  -1.4
WMQ                               LR     LR
             comp=N,107nm,17.8s,MS4.2
WMQ                               LR     LR
             comp=E,156nm,21.8s,MS4.2
WMQ                               LR     LR
             comp=Z,142nm,20.6s,MS4.1
SONM  Songino Array    62.30  36  P      P          06 47 09.2 +1.2
             comp=Z,0.5nm,0.9s,mb3.7,baz=335,slow=6.5,SNR=6.2
ULN   Ulaanbaatar      62.44  35⇑eP      P          06 47 08.9  0.0
HIA   Hailar           63.99  26⇑eP      P          06 47 17.5  -1.7
GTA   Gaotai           68.14  44 eP      P          06 47 50.0 +4.0
GTA                               AP     pP         06 47 53.8 +4.5
GTA                               XP     sP         06 47 56.8 +6.3
GTA                               AMB    AMB
             comp=Z,6.0nm,1.5s,mb4.4
GTA                               AMB    AMB
             comp=Z,136nm,5.3s
GTA                               LR     LR
             comp=Z,158nm,13.7s,MS4.4
HHC   Hu-ho-hao-te     70.14  35 eP      P          06 47 57.5  -0.9
HHC                               PCP    PcP        06 48 19.8  -0.6
HHC                               PP     PP         06 50 35.0 +2.0
HHC                               S      S          06 57 08.0  -1.2
HHC                               SKS               06 57 56.0
HHC                               SCS    ScS        06 57 58.0  -2.6
HHC                               SS     SS         07 01 38.5 +0.6
HHC                               AMB    AMB
             comp=Z,5.0nm,0.9s,mb4.4
HHC                               AMB    AMB
             comp=Z,77nm,5.8s
HHC                               LR     LR
             comp=N,167nm,28.6s,MS4.3
HHC                               LR     LR
             comp=E,156nm,28.5s,MS4.3
HHC                               LR     LR
             comp=Z,81nm,28.5s,MS3.8
CN2   Changchun        70.32  23 eP      P          06 47 55.5  -4.0
BJI   Beijing          72.03  31  P      P          06 48 04.0  -5.9
BJI                               AMB    AMB
             comp=Z,7.0nm,1.1s,mb4.5
BJI                               LR     LR
             comp=Z,140nm,23.3s,MS4.2
LZH   Lanzhou          72.44  42 eP      P          06 48 10.3  -2.1
LZH                               AP     pP         06 48 13.5  -2.2
LZH                              ePP     PP         06 50 53.3 +0.5
LZH                               AMB    AMB
             comp=Z,25nm,1.5s,mb4.9
LZH                               AMB    AMB
             comp=Z,71nm,7.7s
KSRS  Korea Array      76.92  23  LR     LR         07 24 47.5
             comp=Z,79nm,18.4s,MS4.1,baz=231,slow=37
CD2   Chengdu          77.21  44 eP      P          06 48 35.3  -4.8
CD2                               PP     PP         06 51 30.5  -2.8
CD2                               S      S          06 58 22.5  -6.8
CD2                               AMB    AMB
             comp=Z,10.0nm,0.9s,mb4.8
CD2                               AMB    AMB
             comp=Z,30nm,6.4s
CD2                               LR     LR
             comp=Z,130nm,16.4s,MS4.3
NJ2   Nanjing          80.29  32 eP      P          06 48 55.5  -1.5
NJ2                               AMB    AMB
             comp=Z,20nm,0.5s,mb5.3
JNU   Nakatsue         81.65  21  LR     LR         07 29 52.5
             comp=Z,92nm,18.1s,MS4.2,baz=264,slow=39
KMI   Kunming          82.25  47  P      P          06 49 04.0  -3.5
KMI                               AP     pP         06 49 07.5  -3.3
KMI                               XP     sP         06 49 09.8  -2.2
KMI                               AMB    AMB
             comp=Z,15nm,0.7s,mb5.0
KMI                               LR     LR
             comp=Z,74nm,28.4s,MS3.9
GYA   Guiyang          82.26  43  P      P          06 49 04.0  -3.6
GYA                               PP     PP         06 52 14.5  -0.9
GYA                               S      S          06 59 18.5  -4.3
GYA                               SKS               06 59 21.5
GYA                               SS     SS         07 04 40.5  -1.2
GYA                               AMB    AMB
             comp=Z,10.0nm,0.8s,mb4.8
GYA                               AMB    AMB
             comp=Z,70nm,5.4s
ASAR  Alice Springs   137.53  31  PKP    PKPdf      06 56 09.7  -0.1
ASAR  Alice Springs   137.53  31  PKIKP  PKPdf      06 56 09.7  -0.1
ASAR  Alice Springs   137.53  31  PKP    PKPdf      06 56 09.7  -0.1
             comp=Z,0.5nm,0.6s,baz=360,slow=1.2,SNR=5.7
ASAR  Alice Springs   137.53  31  PKIKP  PKPdf      06 56 09.7  -0.1
STKA  Stephens Creek  147.07  23  PKPbc  PKPbc      06 56 27.6  -0.9
             comp=Z,1.1nm,0.7s,baz=315,slow=8.6,SNR=3.9
```

NEIC ***27*** *06:44:29.0, 1653N×10036W, h10^{km}, MD4.1(MEX), After MEX.*

MEX 27 06:44:30.3±0.8**, 1656N×10035W, h16^{km}**±25^{km}**, MD4.1, Near coast of Guerrero**

```
Code  Station Name      Δ°  AZ°    Phase ID            Time     Res
                                   Op     ISC        h  m  s    ISC
CAIG  El Cayaco        0.49   9  i P      Pg        06 44 37.9  -2.2
CAIG                             i S      Sg        06 44 45.2  -1.4
ACX   Acapulco         0.51  54  i P      Pg        06 44 37.5  -2.9
ACX                              i S      Sg        06 44 45.5  -1.8
MEIG  Mezcala          1.52  27  i P      Pn        06 44 54.2  -2.7
MEIG                             i S      Sn        06 45 11.1  -5.3
PLIG  Platanillo       1.99  24  i P      Pn        06 45 01.2  -2.1
PLIG                             i S      Sn        06 45 24.0  -4.0
SZVM  Salazar          2.89  18  eP       Pn        06 45 14.0  -1.8
SZVM                             i S      Sn        06 45 45.0  -5.2
MOIG  Morelia          3.20 346  i P      Pn        06 45 19.5  -0.5
MOIG                             i S      Sn        06 45 55.0  -2.8
MOIG  Morelia          3.20 346  i P      Pn        06 45 18.5  -1.5
MOIG                             i S      Sn        06 45 55.0  -2.8
PTVM  Pico Tres Padr   3.23  21  eP       Pn        06 45 18.1  -2.4
PTVM                             i S      Sn        06 45 57.5  -1.2
PTVM  Pico Tres Padr   3.23  21  eP       Pn        06 45 18.1  -2.4
PTVM                             i S      Sn        06 45 55.4  -3.2
MMIG  Aquila           3.34 301  i P      Pn        06 45 18.3  -3.6
MMIG                             i S      Sn        06 45 57.5  -3.7
IIO   Organos          3.38  27  i P      Pn        06 45 20.3  -2.2
IIO                              i S      Sn        06 46 01.8  -0.6
TPIG  Tehuac#an        3.39  57  i P      Pn        06 45 20.1  -2.5
TPIG                             i S      Sn        06 45 58.6  -4.0
VHO   Vista Hermosa    3.50  81  i P      Pn        06 45 23.2  -0.9
VHO                              i S      Sn        06 46 01.5  -3.6
CMIG  Matias Romero    5.26  83  i P      Pn        06 45 47.2  -1.1
```

ISCJB ***27*** *06:56:16.9±0.5, 3841N±003×3927E±003, h7^{km}, Error ellipse: s-maj=4.6km s-min=3.4km az=172.8*
CSEM ***27*** *06:56:16.3±0.1, 3844N×3923E, h12^{km}, MD2.9, Error ellipse: s-maj=2.5km s-min=1.8km az=156.0*
ISK ***27*** *06:56:16.6, 3842N×3923E, h8^{km}, MD2.9*
DDA ***27*** *06:56:17.3, 3851N×3933E, h7^{km}, Md2.9*

ISC 27 06:56:17.3±0.6**, 3842N**±004×**3927E**±005**, h9^{km}**±8^{km}**, n19,** σ**0^{s}63**/30**, Turkey**

```
Code  Station Name      Δ°  AZ°    Phase ID            Time     Res
                                   Op     ISC        h  m  s    ISC
ELZG  Elazig           0.24 289  i P      Pg        06 56 22.1  -0.1
ELZG                             i S      Sg        06 56 25.8  +0.3
ELZG  Elazig           0.24 289  i P      Pg        06 56 22.0  -0.1
PTK   Pertek           0.48  11    PG     Pg        06 56 26.1  -0.5
PTK                                SG     Sg        06 56 34.4  +1.4
PTK   Pertek           0.48  11  ePg      Pg        06 56 26.1  -0.5
PTK                              eSg      Sg        06 56 34.4  +1.4
MALT  Malatya          0.67 261    PG     Pg        06 56 29.0  -1.3
MALT                               SG     Sg        06 56 39.1   0.0
MALT  Malatya          0.67 261  ePg      Pg        06 56 29.0  -1.3
MALT                             eSg      Sg        06 56 39.1   0.0
MYA   Malataya         0.67 262  ePG      Pg        06 56 29.2  -1.1
MYA                              eSG      Sg        06 56 39.2  +0.1
MYA   Malataya         0.67 262  ePg      Pg        06 56 29.2  -1.1
MYA                              eSg      Sg        06 56 39.2  +0.1
DIY   Diyarbakir       0.92 125  ePG      Pg        06 56 35.2  +0.3
DIY   Diyarbakir       0.92 125  ePg      Pg        06 56 35.2  +0.3
URFA  Urfa             1.04 200  ePG      Pg        06 56 37.1  -0.2
URFA  Urfa             1.04 200  ePg      Pg        06 56 37.1  -0.2
BINT  Bingol           1.05  64  ePN      Pn        06 56 38.0  -0.3
BINT  Bingol           1.05  64  ePn      Pn        06 56 38.0  -0.3
ATAB  Bozova           1.22 220  i P      Pn        06 56 40.8  +0.2
ATAB                             i S      Sb        06 56 57.4  +0.9
EZC   Erzincan         1.39  17  ePN      Pn        06 56 42.3  -0.6
MARD  Mardin           1.62 132  i P      Pn        06 56 45.7  -0.4
MARD                             i S      Sn        06 57 06.6  -0.5
BEST  Besiri           1.66 108  i P      Pn        06 56 46.8  +0.2
BEST                             i S      Sn        06 57 08.5  +0.5
GZT   Gaziantep        1.72 232  i P      Pb        06 56 49.5  +0.4
GZT                              i S      Sg        06 57 13.2  +0.7
```

IDC ***27*** *07:05:06.5±1.1, 836N×12670E, h0^{km}, mb3.8/5, mb1 4.0/5, mb1mx3.7/19, mbtmp3.8/5, Error ellipse: s-maj=81.5km s-min=22.4km az=70.0*
MAN ***27*** *07:05:10, 795N×12681E, h26^{km}, mb4.2, ML3.1, MS2.8*
ISCJB ***27*** *07:05:12.3±2.5, 83N±0.1×1269E±03, h60^{km}±22^{km}, mb3.8/5, Error ellipse: s-maj=49.7km s-min=18.9km az=164.4*

ISC 27 07:05:13.3±3.0**, 83N**±01×**1269E**±03**, h53^{km}**±27^{km}**, n9,** σ**1^{s}18**/10**, mb3.8**/5**, 1C, Mindanao**

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Code  Station Name      Δ°  AZ°    Phase ID            Time     Res
                                   Op     ISC        h  m  s    ISC
BIPH  Bislig           0.53 260⇑ eP       Pn        07 05 23.3  -1.8
BIPH                             eS       Sn        07 05 33.7  +0.1
MATI  Mati             1.46 205  eP       Pn        07 05 30.2  -7.2
BUKP  Musuan           1.85 258  eP       Pn        07 05 43.6  +0.9
SCPH  Surigao          2.03 317  eP       Pn        07 05 46.4  +1.2
WRA   Warramunga Arr  28.99 165   P       P         07 11 07.6  -0.6
      1.1nm,0.7s,mb3.7,baz=342,slow=10,SNR=4.2
ASAR  Alice Springs   32.48 168   P       P         07 11 41.7  +2.8
      0.3nm,0.4s,mb3.5,baz=353,slow=6.5,SNR=4.6
MKAR  Makanchi Array  53.98 323   P       P         07 14 31.6  -0.2
      2.1nm,1.0s,mb4.0,baz=124,slow=7.1,SNR=14
ZALV  Zalesovo Beam   56.66 332   P       P         07 14 49.6  -1.4
      0.8nm,0.6s,mb3.9,baz=121,slow=5.7,SNR=5.4
YKA   Yellowknife Ar  95.32  24   P       P         07 18 31.9  +0.5
      0.3nm,0.7s,mb3.8,baz=301,slow=4.6,SNR=6.3
```

NEIC ***27*** *07:10:19.4±0.8, 709S×12888E, h35^{km}, Error ellipse: s-maj=36.0km s-min=10.9km az=75.0*
IDC ***27*** *07:10:24.9±7.0, 738S×12861E, h95^{km}±66^{km}, mb3.6/4, mb1 3.7/7, mb1mx3.6/15, mbtmp3.6/7, ML3.8/3, Error ellipse: s-maj=110.6km s-min=22.8km az=61.0*
ISCJB ***27*** *07:10:29.1±4.8, 77S±02×1284E±02, h161^{km}±55^{km}, mb3.7/4, Error ellipse: s-maj=39.7km s-min=29.4km az=34.4*

ISC 27 07:10:27.1±4.0**, 76S**±02×**1283E**±02**, h114^{km}**±43^{km}**, n8,** σ**1^{s}14**/9**, mb3.8**/4**, Banda Sea**

```
Code  Station Name      Δ°  AZ°    Phase ID            Time     Res
                                   Op     ISC        h  m  s    ISC
FITZ  Fitzroy Crossi  10.78 194   P       Pn        07 12 59.8  +1.6
      1.1nm,0.3s,baz=29,slow=11,SNR=28
FITZ                              S       Sn        07 14 56.0  -0.9
      2.2nm,0.3s,baz=47,slow=14,SNR=12
WRA   Warramunga Arr  13.60 155   P       Pn        07 13 33.3  -2.0
      0.4nm,0.3s,baz=331,slow=14,SNR=4.6
WRA                               S       Sn        07 15 54.0   -11
      1.3nm,0.3s,baz=333,slow=23,SNR=8.6
ASAR  Alice Springs   16.86 162   P       Pn        07 14 17.3  +1.1
      0.2nm,0.3s,baz=338,slow=10.0,SNR=14
ASAR                              S       Sx        07 17 15.2
      0.4nm,0.3s,baz=315,slow=18,SNR=6.5
STKA  Stephens Creek  27.15 155   P       P         07 16 00.7  +1.0
      0.9nm,0.6s,mb3.5,baz=11,slow=7.9,SNR=2.9
SONM  Songino Array   58.49 343   P       P         07 20 11.2  +0.1
      0.4nm,0.6s,mb3.6,baz=164,slow=7.9,SNR=3.4
MKAR  Makanchi Array  67.81 328   P       P         07 21 13.0  +0.3
      1.2nm,0.4s,mb4.0,baz=117,slow=8.0,SNR=22
ZALV  Zalesovo Beam   71.38 335   P       P         07 21 33.4  -1.1
      1.5nm,0.6s,mb4.0,baz=118,slow=5.9,SNR=9.8
LPAZ  La Paz         151.23 146   PKPbc   PKPbc     07 30 08.5  +0.4
      0.6nm,0.3s,baz=355,slow=3.3,SNR=7.5
```

NEIC ***27*** *08:06:17.8, 1695N×10026W, h10^{km}, MD3.1(MEX), After MEX.*

MEX 27 08:06:18.0±1.3**, 1706N×10036W, h10^{km}**±53^{km}**, MD3.6, Guerrero**

```
Code  Station Name      Δ°  AZ°    Phase ID            Time     Res
                                   Op     ISC        h  m  s    ISC
CAIG  El Cayaco        0.09 101  eP       Pg        08 06 19.9  -0.4
CAIG                             i S      Sg        08 06 21.0  -1.1
ACX   Acapulco         0.46 115  i P      Pg        08 06 23.8  -3.3
ACX                              i S      Sg        08 06 29.7  -3.5
MEIG  Mezcala          1.11  39  eP       Pb        08 06 37.0  -2.3
MEIG                             i S      Sg        08 06 50.5  -3.3
UTMO  Huajuapan        2.55  72  i S      Sn        08 07 26.2  -4.4
IIO   Organos          2.95  31  i P      Pn        08 07 10.1  +5.1
IIO                              i S      Sn        08 07 39.9  -0.7
```

TEIG	Tepich	11.87	73	ePn	Pn	08 09 05.6	-1.9

ISCJB ***27*** *08:38:55.0±0.7, 6.7N±0.1×72.9W±0.2, h174km±9km, mb3.5/6, Error ellipse: s-maj=32.6km s-min=8.7km az=43.3*
IDC ***27*** *08:38:55.1±0.6, 6.67N×72.93W, h162km±5km, mb3.4/6, mb1 3.6/8, mb1mx3.4/18, mbtmp3.4/8, Error ellipse: s-maj=20.5km s-min=7.2km az=130.0*
NEIC ***27*** *08:38:56.1±0.6, 6.69N×72.89W, h173km±6km, Error ellipse: s-maj=17.5km s-min=8.6km az=129.0*
ISC 27 08:38:56.0±0.7**, 6.7N**±0.1×**72.9W**±0.1**, h169**km±9km**, n20, σ0.62**/13**, mb3.5**/6**, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ROSC	El Rosal	2.31	218	P	Pn	08 39 36.3	+0.4
	45nm,0.3s,baz=270,slow=23,SNR=52						
ROSC				S	Sn	08 40 05.6	-1.1
	73nm,0.3s,baz=99,slow=15,SNR=17						
SDV	Santo Domingo	3.14	46	P	Pn	08 39 46.2	+0.4
	16nm,0.3s,baz=248,slow=5.3,SNR=154						
SDV				S	Sn	08 40 24.4	-0.2
	22nm,0.3s,baz=274,slow=21,SNR=27						
OTAV	Otavalo	8.47	221	ePn	Pn	08 40 56.9	+1.3
SDDR	Presa de Saban	12.31	7	eP	Pn	08 41 50.4	+4.6
LPAZ	La Paz	23.33	168	pP	pP	08 44 21.3	+0.3
	1.4nm,0.8s,baz=338,slow=14,SNR=4.3						
TXAR	Lajitas Array	36.69	312	P	P	08 45 46.6	-0.2
	0.1nm,0.5s,mb2.7,baz=121,slow=8.7,SNR=3.8						
ULM	Lac du Bonnet	47.47	340	P	P	08 47 13.4	-0.3
	0.5nm,0.4s,mb3.5,baz=135,slow=10.0,SNR=2.8						
SCHQ	Schefferville	48.24	5	P	P	08 47 20.1	+0.6
	2.2nm,0.5s,mb4.0,baz=183,slow=9.3,SNR=8.1						
YKA	Yellowknife Ar	63.45	340	P	P	08 49 07.1	-0.3
YKA				pP	pP	08 49 45.7	-1.5
YKA	Yellowknife Ar	63.45	340	P	P	08 49 07.1	-0.3
	0.4nm,0.6s,mb3.5,baz=133,slow=6.7,SNR=17						
YKA				pP	pP	08 49 45.7	-1.5
	0.2nm,0.6s,baz=133,slow=6.7,SNR=2.8						
TORD	Torodi Ar. Bea	73.56	78	P	P	08 50 10.7	-0.5
	0.2nm,0.3s,mb3.4,baz=288,slow=6.1,SNR=8.3						
ARCES	ARCESS Array B	86.71	20	P	P	08 51 20.3	-0.1
	3.8nm,1.0s,mb4.2,baz=274,slow=3.7,SNR=5.5						
MKAR	Makanchi Array	122.37	20	PKP	PKPdf	08 57 30.6	-0.6
MKAR	Makanchi Array	122.37	20	PKP	PKPdf	08 57 30.6	-0.6
	0.3nm,0.4s,baz=326,slow=2.2,SNR=5.2						
SONM	Songino Array	125.70	1	PKP	PKPdf	08 57 38.1	+0.6
SONM	Songino Array	125.70	1	PKP	PKPdf	08 57 38.1	+0.6
	0.3nm,0.5s,baz=316,slow=2.4,SNR=4.1						
ASAR	Alice Springs	149.20	234	PKPbc	PKPbc	08 58 25.1	-0.3
ASAR				pPKPbc	pPKPbc	08 59 07.2	-2.2
ASAR	Alice Springs	149.20	234	PKPbc	PKPbc	08 58 25.1	-0.3
	0.8nm,0.5s,baz=117,slow=3.8,SNR=14						
ASAR				pPKPbc	pPKPbc	08 59 07.2	-2.2
	0.5nm,0.7s,baz=123,slow=3.4,SNR=2.6						
WRA	Warramunga Arr	150.46	241	PKPbc	PKPbc	08 58 28.1	-0.4
WRA				pPKPbc	pPKPbc	08 59 09.5	-3.1
WRA	Warramunga Arr	150.46	241	PKPbc	PKPbc	08 58 28.1	-0.4
	0.8nm,0.5s,baz=109,slow=2.5,SNR=20						
WRA				pPKPbc	pPKPbc	08 59 09.5	-3.1
	0.5nm,0.5s,baz=108,slow=2.5,SNR=2.5						

ISCJB ***27*** *09:02:42.7±0.6, 37.53N±0.03×38.72E±0.03, h4km±5km, Error ellipse: s-maj=5.2km s-min=4.3km az=7.4*
CSEM ***27*** *09:02:42.0±0.1, 37.54N×38.72E, h5km, MD2.9, Error ellipse: s-maj=4.0km s-min=2.8km az=65.0*
ISK ***27*** *09:02:42.3, 37.54N×38.77E, h6km, MD2.9*
DDA ***27*** *09:02:43.0, 37.51N×38.76E, h1km±5km, Md2.9*
ISC 27 09:02:43.1±0.5**, 37.51N**±0.03×**38.72E**±0.03**, h10**km±4km**, n17, σ0.97**/30**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URFA	Urfa	0.11	133	i PG	Pg	09 02 45.5	-0.3
URFA				i SG	Sg	09 02 47.2	-0.4
URFA	Urfa	0.11	133	i Pg	Pg	09 02 45.5	-0.3
URFA				i Sg	Sg	09 02 47.2	-0.4
ATAB	Bozova	0.34	263	i P	Pg	09 02 49.5	-0.4
ATAB				i S	Sg	09 02 54.7	+0.2
MALT	Malatya	0.83	344	PG	Pg	09 02 57.6	-1.6
MALT				SG	Sg	09 03 10.8	+0.8
MALT	Malatya	0.83	344	ePg	Pg	09 02 57.6	-1.6
MALT				eSg	Sg	09 03 10.8	+0.8
MYA	Malataya	0.84	344	PG	Pg	09 02 58.2	-1.2
MYA				SG	Sg	09 03 10.6	+0.2
MYA	Malataya	0.84	344	ePg	Pg	09 02 58.2	-1.2
MYA				eSg	Sg	09 03 10.6	+0.2
GZT	Gaziantep	0.94	261	i P	Pg	09 03 00.3	-0.9
GZT				i S	Sg	09 03 15.4	+2.1
ELZG	Elazig	1.00	12	i P	Pg	09 03 01.5	-1.0
ELZG				i S	Sg	09 03 16.2	+0.7
DIYA	Diyarbakir	1.18	69	i P	Pb	09 03 05.2	-0.4
DIYA				i S	Sg	09 03 22.9	+1.7
DIYA	Diyarbakir	1.18	69	i P	Pb	09 03 05.2	-0.5
DIYA				i S	Sg	09 03 22.9	+1.7
GAZ	Gaziantep	1.25	255	PN	Pn	09 03 07.4	+0.7
GAZ	Gaziantep	1.25	255	ePn	Pn	09 03 07.4	+0.7
PTK	Pertek	1.47	21	ePN	Pn	09 03 09.6	-0.2
PTK	Pertek	1.47	21	ePn	Pn	09 03 09.6	-0.2
MARD	Mardin	1.65	96	i P	Pn	09 03 13.3	+1.1
MARD				i S	Sn	09 03 32.7	-0.7
ANDN	Andirin	1.89	273	i P	Pn	09 03 16.5	+1.0
ANDN				i S	Sn	09 03 38.2	-1.2

CASC 27 09:14:43.3±1.9**, 9.59N**×**84.13W, h17**km±4km**, MD3.5, 6D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
QCR	Quepos	0.17	191	⇓eP	Pg	09 14 48.5	+0.8
LCR2	La Lucha 2	0.20	41	⇓eP	Pg	09 14 49.0	+0.9
LCR2				eS	Sg	09 14 52.8	+1.4
LAJ	Bijagual	0.27	2	⇓eP	Pg	09 14 52.5	+3.2
LAJ				eS	Sg	09 14 59.0	+5.7
BUS	Buena Vista	0.37	96	eP	Pg	09 14 51.6	+0.6
BUS				eS	Sg	09 14 58.0	+1.8
URSC	Urasca	0.42	55	⇓eP	Pg	09 14 52.5	+0.5
URSC				eS	Sg	09 14 58.8	+1.0
PRS1	Puriscal	0.43	336	⇓eP	Pg	09 14 51.2	-0.8
PRS1				eS	Sg	09 14 56.8	-1.1
ICR	Volcan Irazu	0.49	38	eP	Pg	09 14 53.6	+0.5
ICR				eS	Sg	09 15 00.9	+1.2
CGA2	Cerro Gallo 2	0.53	322	eP	Pg	09 14 53.6	-0.4
CGA2				eS	Sg	09 15 01.6	+0.4
BAR1		0.88	113	eP	Pb	09 14 59.6	-0.5
BAR1				eS	Sb	09 15 11.9	+0.3
JCR	Jicaral	1.00	285	eP	Pb	09 15 00.8	-1.3
JCR				eS	Sb	09 15 14.7	-0.3
CUI		1.48	316	⇓eP	Pn	09 15 11.4	+2.2
CUI				eS	Sn	09 15 28.2	+0.1
LIM1	Limonal	1.56	315	eP	Pn	09 15 10.0	-0.2
LIM1				eS	Sn	09 15 31.4	+1.3
CNI	Changuinola	1.60	96	eP	Pn	09 15 10.0	-0.8
BRU	Baru	1.74	117	eP	Pn	09 15 12.7	0.0

IDC 27 09:17:49.4±2.2**, 0.84S**×**128.05E, h0**km**, mb3.6**/2**, mb1 3.6**/3**, mb1mx3.4**/16**, mbtmp3.5**/3**, ML3.5**/1**, Error ellipse: s-maj=183.8km s-min=24.7km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.96	162	P	Pn	09 22 23.2	-1.6
	0.2nm,0.3s,baz=341,slow=12,SNR=4.6						
ASAR	Alice Springs	23.39	166	P	P	09 23 00.1	0.0
	0.6nm,0.6s,baz=346,slow=11,SNR=8.2						
MKAR	Makanchi Array	62.05	326	P	P	09 28 11.8	+0.1
	0.5nm,0.4s,baz=119,slow=8.2,SNR=21						

BJI ***27*** *09:42:40.6, 17.10N×61.50W, h51km, mB5.4, Ms5.2, Msz5.0*
TRN ***27*** *09:42:40.0, 17.10N×61.45W, h50km, MD4.6, M4.6(FDF)*
GCMT ***27*** *09:42:40.6±0.3, 17.18N×61.40W, h50km±1km, MW5.0/58, Moment Tensor Solution. s35,c47; s58,c83; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.44±.20; $M_{\theta\theta}$-0.55±.14; $M_{\phi\phi}$-2.89±.14; $M_{r\theta}$-0.61±.10; $M_{\theta\phi}$1.72±.13; $M_{\phi r}$1.83±.11; Best double couple: $M_0$4.10400×10^{16} NP1:ϕ_s147.00000°,δ31.00000°,λ81.00000°. NP2: ϕ_s337.00000°,δ59.00000°,λ95.00000°. Principal axes: T 3.9360, Plg75.0000°, Azm262.0000°; N 0.3330, Plg5.0000°, Azm154.0000°; P -4.2720, Plg14.0000°, Azm63.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
NEIC ***27*** *09:42:40.6, 17.11N×61.49W, h51km, mb5.0/65, MD5.1(RSPR), MD4.6(TRN), After TRN.*
NEIC Felt [V] on Guadeloupe and [IV] at Saint John's and [III] at Bolans. Also felt at Carlisle, Cedar Grove and English Harbour Town. Felt at Charlestown, Saint Kitts and Nevis.
ISCJB ***27*** *09:42:41.6±0.3, 17.06N±0.02×61.57W±0.03, h61km±3km, mb4.8/88, Error ellipse: s-maj=5.1km s-min=2.4km az=138.2*
IDC ***27*** *09:42:41.7±1.2, 16.99N×61.53W, h52km±11km, mb4.1/21, mb1 4.3/24, mb1mx4.3/27, mbtmp4.2/24, MS4.1/27, Ms1 4.1/27, ms1mx4.0/36, Error ellipse: s-maj=10.4km s-min=9.5km az=36.0*
MOS ***27*** *09:42:42.2±0.8, 17.13N×61.65W, h62km, mb5.1/29, Error ellipse: s-maj=8.4km s-min=6.1km az=129.6*
RSPR ***27*** *09:42:43.7, 16.98N×61.64W, h54km±51km, MD5.0/14, MD5.0/14*
ISC 27 09:42:42.6±0.4**, 17.07N**±0.02×**61.53W**±0.03**, h52**km±3km**, h55**km±.6km**:pP-P, n490, σ0.72**/492**, mb4.8**/88**, MS4.3**/29**, 116C-85D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BPA	Boggy Peak	0.31	266	⇑iP	Pn	09 42 52.0	-0.1
BPA				eS	Sn	09 42 59.5	+0.7
CPB	Codrington	0.64	334	eP	Pn	09 42 54.4	-1.3
SFG	Saint Francois	0.87	158	⇓eP	Pn	09 42 56.7	-2.0
DEG	La Desirade	0.88	149	⇑iP	Pn	09 42 56.4	-2.4
LZG	Guadaloupe-1	0.95	194	eP	Pn	09 42 59.1	-0.6
LZG				eS	Sn	09 43 13.2	+0.9
DOG	Dongo Capester	1.03	184	eP	Pn	09 42 60.0	-0.9
SCG	Saint Claude	1.04	188	eP	Pn	09 43 00.1	-0.8
HMG	Houelmont	1.09	188	eP	Pn	09 43 01.1	-0.6
MGG	Marie-Galante	1.16	170	eP	Pn	09 43 01.4	-1.1
TBG	Guadaloupe-3	1.21	185	eP	Pn	09 43 02.3	-0.9
MDN	Morne-Daniel	1.74	176	eP	Pn	09 43 11.3	+0.8
MDN				eS	Sn	09 43 32.2	+0.6
STMA	St. Maarten, A	1.79	303	⇑iP	Pn	09 43 11.7	+0.6
STMA				eS	Sn	09 43 34.1	+1.4
DBCT	Belle View Cho	1.79	174	eP	Pn	09 43 12.2	+1.0
DSHT	Scott's Head	1.85	175	eP	Pn	09 43 12.9	+1.0
FDF	Fort de France	2.35	171	⇓eP	Pn	09 43 17.7	-1.1
FDF				eS	Sn	09 43 45.6	-0.8
MVM	Montagne Vaucl	2.57	166	eP	Pn	09 43 20.9	-1.0
MVM				eS	Sn	09 43 51.3	-0.6
BIM	Bigot	2.57	170	⇑eP	Pn	09 43 21.4	-0.5
SLW	Petit Monier	3.08	169	eP	Pn	09 43 29.0	+0.1
SLW				eS	Sn	09 44 05.2	+0.7
TBVI	Tortola	3.23	295	⇑iP	Pn	09 43 30.2	-0.6
TBVI				eS	Sn	09 44 07.2	-1.0
SLB	Belfond	3.25	172	eP	Pn	09 43 31.0	-0.2
SLB				eS	Sn	09 44 11.7	+3.0
STVI	Saint Thomas	3.50	292	⇓eP	Pn	09 43 34.3	-0.3
STVI				eS	Sn	09 44 14.9	+0.1
SSV	Crater Summit	3.73	175	⇑iP	Pn	09 43 37.8	+0.1
SSV				eS	Sn	09 44 25.1	+4.6
SVV	Soufriere Volc	3.74	175	eP	Pn	09 43 38.1	+0.3
SVV				eS	Sn	09 44 20.8	+0.2
BHS	Barnard House	3.77	174	eP	Pn	09 43 38.1	-0.1
BHS				eS	Sn	09 44 24.5	+3.2
SVB	Belmont	3.78	176	eP	Pn	09 43 38.4	-0.1
FCV	Fort Charlotte	3.90	176	⇑eP	Pn	09 43 39.8	-0.3
FCV				eS	Sn	09 44 21.9	-2.7
MTP	Monte Pirata	3.97	286	⇓eP	Pn	09 43 41.4	+0.4
MTP				eS	Sn	09 44 29.9	+3.6
HUMP	Col San Antoni	4.25	285	eP	Pn	09 43 45.4	+0.5
HUMP				eS	Sn	09 44 32.9	-0.4
CPD	Cerro la Pandu	4.29	284	⇓eP	Pn	09 43 46.0	+0.6
CPD				eS	Sn	09 44 34.5	+0.3
CBYP	Canovanas	4.29	287	⇓eP	Pn	09 43 46.4	+0.9
CBYP				eS	Sn	09 44 37.0	+2.7
BBGH	Gun Hill	4.34	154	Pn	Pn	09 43 45.5	-0.7
SJG	San Juan	4.52	284	eS	Sn	09 44 37.8	-2.2
SJG	San Juan	4.52	284	⇓eP	Pn	09 43 49.2	+0.6
SJG				eS	Sn	09 44 37.8	-2.2
SJG	San Juan	4.52	284	P	Pn	09 43 49.5	+0.9
	175nm,0.3s,baz=110,slow=12,SNR=171						
SJG				S	Sn	09 44 40.7	+0.7
	67nm,0.3s,baz=345,slow=11,SNR=4.7						
ICM	Isla Caja Muer	4.83	281	⇓eP	Pn	09 43 53.0	+0.2
ICM				eS	Sn	09 44 46.1	-1.4
GRW	Mount Saint Ca	4.88	181	eP	Pn	09 43 53.3	-0.2
GRW				eS	Sn	09 44 50.2	+1.5
GRGR	Grenville	4.91	181	ePn	Pn	09 43 53.9	0.0
	458nm,0.4s						
GRGR				Sn	Sn	09 44 51.4	+2.1
OBIP	Obispado Ponce	4.94	282	i P	Pn	09 43 54.5	+0.2
OBIP				eS	Sn	09 44 49.2	-0.9
AOPR	Arecibo Observ	5.14	285	⇑eP	Pn	09 43 57.8	+0.8
AOPR	Arecibo Observ	5.14	285	eS	Sn	09 44 56.3	+1.3
GBPR	Guanica, Bosqu	5.18	281	⇓eP	Pn	09 43 58.0	+0.4
GBPR	Guanica, Bosqu	5.18	281	eS	Sn	09 44 54.4	-1.7
CRPR	Cabo Rojo, PR	5.40	281	⇓eP	Pn	09 44 00.3	-0.3
CRPR	Cabo Rojo, PR	5.40	281	eS	Sn	09 45 01.2	-0.4
LSP	Las Mesas	5.41	283	⇓eP	Pn	09 44 01.4	+0.7
LSP	Las Mesas	5.41	283	eS	Sn	09 45 02.2	+0.5
AGPR	Aguadilla, PR	5.49	286	⇑eP	Pn	09 44 02.6	+0.7
AGPR	Aguadilla, PR	5.49	286	eS	Sn	09 45 03.9	+0.1
TPR	Prospect	5.89	173	eP	Pn	09 44 03.6	-3.8
TPR	Prospect	5.89	173	eP	Pn	09 44 08.4	+1.0
TCE	Chacachacare	6.33	182	eP	Pn	09 44 14.8	+1.3
TCE				eS	Sn	09 45 25.5	+1.0
TRN	Trinidad (W)	6.38	179	eP	Pn	09 44 16.0	+1.9
TRN				eS	Sn	09 45 27.2	+1.6
TBH	Brigand Hill	6.56	176	eP	Pn	09 44 20.8	+4.3
TPP	Pointe-a-Pierr	6.71	179	eP	Pn	09 44 25.4	+6.7
PCRV	Puerto La Cruz	7.48	204	P	Pn	09 44 29.1	-0.2
	11nm,0.3s,baz=359,slow=5.0,SNR=31						
PCRV				S	Sn	09 45 50.4	-2.3
	baz=347,slow=19,SNR=2.6						
PCRV				LR	LR	09 47 40.4	
	comp=Z,2μm,20.4s,baz=193,slow=40						
SDDR	Presa de Saban	9.47	283	⇑eP	Pn	09 44 56.8	+0.3
SDDR				eS	Sn	09 46 39.2	-2.3
SDV	Santo Domingo	12.03	229	ePn	Pn	09 45 30.2	-1.2
SDV	Santo Domingo	12.03	229	P	Pn	09 45 30.2	-1.2
	2.8nm,0.3s,baz=78,slow=8.8,SNR=24						
SDV				LR	LR	09 50 22.2	
	comp=Z,1μm,21.4s,baz=15,slow=38						
ROSC	El Rosal	17.45	227	ePn	Pn	09 46 43.2	+0.8
ROSC	El Rosal	17.45	227	P	Pn	09 46 43.4	+0.9
	3.0nm,0.3s,baz=84,slow=17,SNR=17						
ROSC				LR	LR	09 53 45.0	
	comp=Z,694nm,21.0s,baz=42,slow=38						
MGV	Manicaragua	18.09	289	eP	Pn	09 46 50.5	+0.3
BCIP	Isla Barro Col	19.47	249	eP	Pn	09 47 05.5	-1.4
	94nm,1.0s						
SOR	Soroa	20.97	289	eP	P	09 47 19.8	-1.6
OTAV	Otavalo	23.61	227	eP	P	09 47 48.4	-0.6
JTS	JuntasAbangare	23.71	257	⇑iP	P	09 47 48.2	-1.9
JTS	JuntasAbangare	23.71	257	P	P	09 47 48.0	-2.1
	2.7nm,0.3s,mb4.1,baz=35,slow=11,SNR=7.3						
JTS				LR	LR	09 56 08.0	
	comp=Z,295nm,20.4s,MS3.7,baz=235,slow=34						
TEIG	Tepich	25.52	281	eP	P	09 48 06.1	-0.4
TEIG	Tepich	25.52	281	P	P	09 48 05.5	-1.0
	20nm,0.6s,mb4.8,baz=91,slow=5.4,SNR=24						
TEIG				PcP	PcP	09 51 36.9	-0.1
	8.0nm,0.6s,baz=45,slow=4.3,SNR=8.5						
GOGA	Godfrey	25.57	314	eP	P	09 48 06.5	-0.3
	15nm,1.0s,mb4.5						
GOGA	Godfrey	25.57	314	eP	P	09 48 06.5	-0.3
GOGA				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.5						
BLA	Blacksburg	26.08	324	eP	P	09 48 11.6	+0.3
	comp=Z,19nm,0.9s,mb4.6						
BLA	Blacksburg	26.08	324	eP	P	09 48 11.6	+0.3
BLA				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.6						
PAL	Palisades	26.14	338	eP	P	09 48 11.6	-0.2
	comp=Z,4.1nm,0.3s,mb4.4						
PAL	Palisades	26.14	338	eP	P	09 48 11.6	-0.2
PAL				pmax	pmax		
	comp=Z,4.0nm,0.3s,mb4.4						
ELN	Prospectdale	26.28	324	eP	P	09 48 12.7	-0.4
TKL	Tuckaleechee C	27.09	317	P	P	09 48 19.9	-0.6
	comp=Z,2.7nm,0.3s,mb4.2,baz=151,slow=10,SNR=8.9						
TKL				LR	LR	09 57 39.1	
	comp=Z,562nm,21.2s,MS4.1,baz=151,slow=33						
LRAL	Lakeview Retre	27.91	310	eP	P	09 48 28.0	+0.2
	comp=Z,18nm,0.9s,mb4.7						
ATAH	Atahualpa	29.15	216	P	P	09 48 39.8	+0.8
	comp=Z,24nm,1.0s,mb4.9,baz=39,slow=4.2,SNR=17						
ATAH				LR	LR	10 01 42.4	
	comp=Z,679nm,21.6s,MS4.2,baz=13,slow=39						
PLAL	Pickwick Lake	29.64	312	eP	P	09 48 43.1	-0.1
	comp=Z,37nm,0.8s,mb5.2						
OXF	Oxford	30.38	310	eP	P	09 48 49.7	0.0
UTMT	University of	30.89	314	eP	P	09 48 54.5	+0.3
	comp=Z,83nm,1.2s,mb5.4						
USIN	University of	30.97	317	eP	P	09 48 54.7	-0.2
	comp=Z,41nm,1.1s,mb5.2						
GLAT	Glass	31.14	313	eP	P	09 48 56.2	-0.3
SADO	Sadowa	31.34	336	P	P	09 48 57.2	-0.8
SADO				PcP	PcP	09 51 50.3	-0.6
SADO	Sadowa	31.34	336	P	P	09 48 57.2	-0.8
	baz=177,slow=8.5						
SADO				PcP	PcP	09 51 50.3	-0.6
	baz=121,slow=5.9						
PARMO	Parma	31.67	314	eP	P	09 49 00.9	-0.1
HBAR	Harrisburg	31.77	311	eP	P	09 49 01.7	-0.3
SIUC	Southern Illin	31.85	316	eP	P	09 49 02.9	+0.3
	comp=Z,50nm,1.0s,mb5.3						
NNA	Nana	32.59	209	P	P	09 49 07.9	-1.4
	comp=Z,219nm,0.7s,SNR=5.6						
NNA	Nana	32.59	209	eP	P	09 49 07.3	-2.0
	comp=Z,22nm,0.6s,mb5.3						
UALR	University of	32.66	309	eP	P	09 49 10.1	+0.3
	comp=Z,9.7nm,0.9s,mb4.7						
FVM	French Village	32.81	315	eP	P	09 49 10.7	-0.3
	comp=Z,13nm,0.4s,mb5.2						
FVM	French Village	32.81	315	eP	P	09 49 10.7	-0.3
FVM				pmax	pmax		
	comp=Z,13nm,0.4s,mb5.2						
SIV	San Ignacio	32.85	179	P	P	09 49 10.7	-0.9
	comp=Z,12nm,0.4s,mb5.1,baz=12,slow=8.7,SNR=117						
NATX	Nacogdoches	33.37	302	eP	P	09 49 16.3	+0.3
	comp=Z,110nm,1.1s,mb5.7						
MIAR	Mount Ida	33.49	307	eP	P	09 49 16.5	-0.6
	comp=Z,15nm,1.0s,mb4.9						
MIAR	Mount Ida	33.49	307	eP	P	09 49 16.5	-0.6
MIAR				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
HDIL	Hopedale	33.51	320	eP	P	09 49 17.2	+0.1
	comp=Z,58nm,1.4s,mb5.3						
LPAZ	La Paz	33.77	191	eP	P	09 49 17.1	-2.5
	comp=Z,2.5nm,0.8s,mb4.2						
LPAZ	La Paz	33.77	191	eP	P	09 49 17.1	-2.5
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LPAZ	La Paz	33.77	191	P	P	09 49 17.2	-2.3
	comp=Z,1.8nm,0.4s,mb4.3,baz=20,slow=4.4,SNR=13						
LPAZ				PcP	PcP	09 51 57.8	-0.3
	comp=Z,2.4nm,0.9s,baz=27,slow=4.5,SNR=3.9						
LPAZ				LR	LR	10 04 57.2	
	comp=Z,172nm,18.9s,MS3.8,baz=325,slow=40						
HKT	Hockley	33.83	299	eP	P	09 49 19.7	-0.3
	comp=Z,25nm,1.3s,mb5.0						
HKT				ePcP	PcP	09 51 57.1	-1.1
HKT	Hockley	33.83	299	eP	P	09 49 19.7	-0.4
HKT				e		09 51 57.1	
HKT				pmax	pmax		
	comp=Z,25nm,1.3s,mb5.0						
JCT	Junction City	37.30	298	eP	P	09 49 48.8	-1.0
	comp=Z,17nm,0.5s,mb5.1						
JCT	Junction City	37.30	298	eP	P	09 49 48.8	-1.0
JCT				pmax	pmax		
	comp=Z,17nm,0.5s,mb5.1						
WMOK	Wichita Mounta	37.58	305	eP	P	09 49 51.0	-1.1
	comp=Z,16nm,0.9s,mb4.7						
WMOK	Wichita Mounta	37.58	305	eP	P	09 49 51.0	-1.1
WMOK				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
SCHQ	Schefferville	37.91	355	P	P	09 49 55.0	+0.4
	comp=Z,6.0nm,0.5s,mb4.6,baz=171,slow=6.4,SNR=51						
SCHQ				LR	LR	10 03 39.3	
	comp=Z,411nm,21.8s,MS4.2,baz=130,slow=33						
CBKS	Cedar Bluff	39.71	311	eP	P	09 50 09.2	-0.7
	comp=Z,71nm,0.9s,mb5.4						
CBKS	Cedar Bluff	39.71	311	eP	P	09 50 09.3	-0.6
CBKS				pmax	pmax		
	comp=Z,71nm,0.9s,mb5.4						
ECSD	EROS,Sioux Fal	39.80	319	eP	P	09 50 09.8	-0.7
	comp=Z,18nm,0.5s,mb5.0						
ECSD				ePcP	PcP	09 52 15.5	-0.4
LTX	Lajitas	40.40	295	eP	P	09 50 14.6	-1.2
	comp=Z,3.6nm,0.7s,mb4.2						
LTX	Lajitas	40.40	295	eP	P	09 50 14.6	-1.2
LTX				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
TXAR	Lajitas Array	40.40	295	P	P	09 50 14.6	-1.2
TXAR						09 52 18.8	
TXAR	Lajitas Array	40.40	295	P	P	09 50 14.6	-1.2
	comp=Z,2.1nm,0.5s,mb4.1,baz=125,slow=7.2,SNR=45						
TXAR				PcP	PcP	09 52 18.8	+0.6
	comp=Z,2.2nm,0.5s,baz=109,slow=4.6,SNR=8.8						
TXAR				ScP	ScP	09 56 02.9	-0.4
	comp=Z,1.1nm,1.1s,baz=116,slow=5.7,SNR=4.6						
TXAR				LR	LR	10 11 11.7	
	comp=Z,198nm,18.2s,MS4.0,baz=50,slow=42						
AGMN	Agassiz Refuge	41.88	326	eP	P	09 50 26.8	-0.8
	comp=Z,22nm,0.5s,mb5.0						
MNTX	Cornudas Mount	42.23	299	eP	P	09 50 30.1	-0.7
	comp=Z,66nm,1.5s,mb5.0						
ULM	Lac du Bonnet	43.06	328	eP	P	09 50 36.0	-1.2
	comp=Z,16nm,0.5s,mb5.0						
ULM	Lac du Bonnet	43.06	328	P	P	09 50 36.0	-1.2
	comp=Z,5.6nm,0.4s,mb4.7,baz=133,slow=8.3,SNR=38						
ULM				LR	LR	10 06 41.0	
	comp=Z,151nm,18.9s,MS3.9,baz=138,slow=33						
BNM	Barren Site	43.70	302	eP	P	09 50 42.8	+0.2
BNM				e		09 52 27.1	
ANMO	Albuquerque	43.73	303	eP	P	09 50 42.9	+0.1
	comp=Z,6.2nm,0.5s,mb4.6						
ANMO	Albuquerque	43.73	303	c iP	P	09 50 42.8	0.0
LPM	Los Pinos Moun	43.73	302	eP	P	09 50 43.0	+0.1
LPM				ePcP	PcP	09 52 29.7	+0.6
LENM	Lemitar	43.98	302	eP	P	09 50 44.7	-0.2
LENM				epP	pP	09 50 59.0	+0.2
LENM				ePcP	PcP	09 52 30.3	+0.3
LAZ	Ladron	44.16	302	eP	P	09 50 46.5	+0.1
LAZ				epP	pP	09 51 00.4	+0.2
LAZ				esP	sP	09 51 05.9	-0.4
LAZ				e		09 52 31.9	
ISCO	Idaho Springs	44.33	310	eP	P	09 50 47.9	+0.3
	comp=Z,20nm,1.0s,mb4.8						
ISCO	Idaho Springs	44.33	310	eP	P	09 50 47.9	+0.3
ISCO				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.8						
PHWY	Pilot Hill	44.70	312	eP	P	09 50 50.8	+0.3
MVCO	Mesa Verde	45.83	306	eP	P	09 50 59.3	-0.2
	comp=Z,5.2nm,0.6s,mb4.6						
MVCO				ePcP	PcP	09 52 37.1	+0.8
MVCO	Mesa Verde	45.83	306	⇓P	P	09 50 59.6	0.0
	baz=46						
RWWY	Rawlins	46.07	312	eP	P	09 51 01.8	+0.5
	comp=Z,61nm,1.1s,mb5.4						
PV01	Paradox Valley	46.10	307	eP	P	09 51 02.0	+0.3
PV01				ePcP	PcP	09 52 36.3	-0.9
PV01				ePP	PP	09 52 50.6	+0.2
TUC	Tucson	46.85	298	eP	P	09 51 07.8	+0.1
	comp=Z,17nm,1.1s,mb4.9						
TUC	Tucson	46.85	298	eP	P	09 51 07.8	+0.1
TUC				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
LAO	LASA Array	47.18	319	eP	P	09 51 09.7	-0.2
	comp=Z,11nm,0.7s,mb4.9						
116A	Eloy	47.66	299	⇑P	P	09 51 13.8	-0.1
	baz=48,SNR=9.6						
WUAZ	Wupatki	47.78	303	eP	P	09 51 15.4	+0.6
	comp=Z,23nm,0.5s,mb5.5						
WUAZ				ePcP	PcP	09 52 44.1	+0.9
WUAZ	Wupatki	47.78	303	⇓P	P	09 51 15.4	+0.6
	baz=48						
FCC	Fort Churchill	48.00	338	eP	P	09 51 15.3	-0.8
	comp=Z,12nm,1.1s,mb4.8						
FCC	Fort Churchill	48.00	338	eP	P	09 51 15.3	-0.8
FCC				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
PDAR	Pinedale Array	48.05	313	P	P	09 51 16.9	+0.1
	comp=Z,36nm,0.9s,mb5.4,baz=117,slow=8.7,SNR=185						
PDAR				PcP	PcP	09 52 43.8	-0.3
	comp=Z,2.1nm,0.6s,baz=103,slow=4.0,SNR=2.3						

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PDAR                                    LR       LR       10 10 52.0
       comp=Z,264nm,20.3s,MS4.2,baz=129,slow=35
115A   Sonoran Desert    48.11 299  ⇑P       P        09 51 17.8 +0.4
       baz=48,SNR=11
X15A   Humboldt          48.33 301  ⇑P       P        09 51 20.0 +0.9
       baz=48,SNR=21
TMUT   Trail Mountain    48.37 308  eP       P        09 51 20.1 +0.8
W15A   Williams          48.45 302  ⇑P       P        09 51 21.1 +1.1
       baz=48,SNR=8.9
RLMT   Red Lodge         48.59 316  eP       P        09 51 20.8 -0.1
       comp=Z,56nm,1.3s,mb5.4
DAU    Daniels Canyon    48.66 309  eP       P        09 51 22.1 +0.6
FFC    Flin Flon         48.71 330  eP       P        09 51 20.6 -1.0
       comp=Z,2.5nm,0.4s,mb4.6
FFC    Flin Flon         48.71 330  eP       P        09 51 20.6 -1.1
FFC                                  pmax    pmax
       comp=Z,3.0nm,0.4s,mb4.7
Z14A   Wintersburg       48.78 300  ⇑P       P        09 51 22.9 +0.3
       baz=49,SNR=5.2
CFAA   Coronel Fontan    48.82 188   P       P        09 51 20.0 -2.7
       comp=Z,0.5nm,0.6s,mb3.7,baz=346,slow=7.8,SNR=8.8
T15A   Red Dirt Ranch    48.84 304   P       P        09 51 23.8 +0.8
       baz=49,SNR=21
JLU    Jordanelle        48.85 309  eP       P        09 51 23.7 +0.7
MPU    Maple Canyon      48.85 309   P       P        09 51 23.2 +0.2
       comp=Z,16nm,0.6s,mb5.2
X14A   Yava              48.87 301  ⇑P       P        09 51 23.9 +0.7
       baz=49,SNR=13
Y14A   Wickenburg        48.90 300  ⇑P       P        09 51 23.7 +0.3
       baz=49,SNR=16
LOHW   Long Hollow       49.03 313  eP       P        09 51 24.3  0.0
       comp=Z,13nm,0.8s,mb5.0
GCMT   Greycliff         49.08 316  eP       P        09 51 24.9 +0.3
CTU    Camp Tracy        49.09 309  eP       P        09 51 25.4 +0.5
       comp=Z,50nm,0.9s,mb5.5
W14A   Seligman          49.12 302  ⇓P       P        09 51 25.9 +0.8
       baz=49,SNR=11
REDW   Red Top Meadow    49.13 313  eP       P        09 51 25.4 +0.2
       comp=Z,12nm,0.5s,mb5.2
AHID   Auburn Hatcher    49.14 312  eP       P        09 51 25.2  0.0
       comp=Z,17nm,0.6s,mb5.2
MOOW   Moose Ponds       49.17 314  eP       P        09 51 25.5 +0.2
       comp=Z,10nm,0.8s,mb4.9
NLU    North Lily Min    49.17 308  eP       P        09 51 25.7 +0.3
HWUT   Hardware Ranch    49.18 311  eP       P        09 51 25.4 -0.1
       comp=Z,44nm,1.0s,mb5.4
HWUT                                epP      pP       09 51 39.8 +0.2
NOQ    North Oquirrh     49.36 309  eP       P        09 51 27.1 +0.3
       comp=Z,50nm,0.9s,mb5.5
U14A   Mt Trumbull       49.37 304  ⇓P       P        09 51 28.1 +1.0
       baz=49,SNR=5.9
T14A   Hurricane         49.40 304  ⇑P       P        09 51 27.2  0.0
       baz=49,SNR=7.1
DCID1  Drake Creek       49.43 313  eP       P        09 51 27.8 +0.4
YFT    Old Faithful      49.44 314  eP       P        09 51 27.8 +0.4
Y13A   Salome            49.56 300  ⇓P       P        09 51 28.8 +0.3
       baz=50,SNR=14
S14A   Cedar City        49.58 305  ⇓P       P        09 51 28.8 +0.2
       baz=50,SNR=6.6
YMR    Madison River     49.59 315  eP       P        09 51 28.4 -0.1
       comp=Z,24nm,1.0s,mb5.2
X13A   Yucca             49.65 301   P       P        09 51 29.6 +0.4
       baz=50,SNR=7.3
CCUT   Cedar City        49.70 305  eP       P        09 51 29.5  0.0
CCUT                                ePcP     PcP      09 52 51.1 +1.0
N15A   Stansbury Isla    49.71 309  ⇑P       P        09 51 29.9 +0.3
       baz=50
SPUT   South Promonto    49.75 310  eP       P        09 51 30.1 +0.2
W13A   Hualapai Mount    49.76 302  ⇓P       P        09 51 30.7 +0.7
       baz=50,SNR=18
DUG    Dugway            49.77 308  eP       P        09 51 30.4 +0.4
       comp=Z,39nm,1.0s,mb5.4
DUG                                 ePcP     PcP      09 52 50.6 +0.3
DUG    Dugway            49.77 308  eP       P        09 51 30.4 +0.4
DUG                                 e                 09 52 50.6
DUG                                  pmax    pmax
       comp=Z,39nm,1.0s,mb5.4
DUG    Dugway            49.77 308  ⇑P       P        09 51 30.3 +0.3
       baz=50
M15A   Larsen Ranch,     49.78 310  ⇑P       P        09 51 30.0 -0.1
       baz=50,SNR=9.8
ARUT   Antelope Range    49.80 305  eP       P        09 51 30.2  0.0
PDMCI  Parker Dam,Lak    49.87 301  ⇓P       P        09 51 31.0 +0.1
       baz=50
EGMT   Eagleton          49.91 319  eP       P        09 51 31.0 +0.1
       comp=Z,16nm,1.1s,mb5.0
EGMT   Eagleton          49.91 319  ⇑P       P        09 51 31.3 +0.4
       baz=50
QLMT   Earthquake Lak    49.96 315  eP       P        09 51 32.7 +1.3
U13A   Pakoon Wash       50.00 303  ⇓P       P        09 51 32.4 +0.6
       baz=50
T13A   Saint George      50.04 304  ⇑P       P        09 51 33.0 +0.9
       baz=50,SNR=11
BGU    Big Grassy Mou    50.09 309  eP       P        09 51 32.6 +0.2
S13A   Holt Ranch, En    50.09 305  ⇑P       P        09 51 33.1 +0.6
       baz=50,SNR=6.2
HVU    Hansel Valley     50.10 311  eP       P        09 51 32.4 -0.1
       comp=Z,30nm,0.9s,mb5.3
HVU    Hansel Valley     50.10 311  eP       P        09 51 32.4 -0.1
HVU                                  pmax    pmax
       comp=Z,30nm,0.9s,mb5.3
Y12C   Blythe            50.13 300  ⇑P       P        09 51 32.8 -0.1
       baz=50
N14A   Grayback Hills    50.19 309  ⇑P       P        09 51 33.5 +0.3
       baz=50,SNR=27
GLA    Glamis            50.32 299  ⇑P       P        09 51 34.3  0.0
       baz=50
BOZ    Bozeman (W)       50.33 316  ⇑P       P        09 51 34.6 +0.5
       baz=50
SFJD   Kangerlussuaq     50.41   6   LR      LR       10 10 55.9
       comp=Z,259nm,18.8s,MS4.3,baz=173,slow=34
M14A   Sheep Mountain    50.45 310  ⇑P       P        09 51 35.1  0.0
       baz=50,SNR=23
U12A   Valley of Fire    50.46 303  ⇑P       P        09 51 35.6 +0.4
       baz=50
K14A   Jones Ranch, D    50.57 311   P       P        09 51 36.3 +0.3
       baz=51,SNR=51
W12A   Cal Nev Ari       50.58 302  ⇓P       P        09 51 36.8 +0.6
       baz=51,SNR=8.4
V12A   Nelson            50.62 302  ⇑P       P        09 51 36.9 +0.4
       baz=51,SNR=5.6
O13A   Hicks Ranch, I    50.64 308  ⇓P       P        09 51 37.0 +0.5
       baz=51,SNR=6.5
T12A   Moapa             50.64 304  ⇓P       P        09 51 36.8 +0.1
       baz=51
IRM    Iron Mountain     50.69 300  ⇑P       P        09 51 37.5 +0.5
       baz=51,SNR=20
G15A   Dillon            50.77 315   P       P        09 51 38.3 +0.8
       baz=51,SNR=16
R12A   Pony Springs,     50.79 306   P       P        09 51 38.7 +0.9
       baz=51,SNR=8.2
S12A   Delamar Landin    50.87 305  ⇓P       P        09 51 39.3 +0.9
       baz=51,SNR=7.1
BC3    Big Chuckw Mtn    50.89 300  ⇑P       P        09 51 38.4 -0.2
       baz=51
DLMT   Dillon            50.90 315  eP       P        09 51 37.8 -0.7
       comp=Z,22nm,0.9s,mb5.1
MCMT   McKenzie Canyo    50.92 314  eP       P        09 51 39.6 +1.0
MCMT                                ePcP     PcP      09 52 54.9 +0.5
N13A   Wendover, West    50.95 309  ⇑P       P        09 51 39.2 +0.3
       baz=51,SNR=7.5
F15A   Butte             50.97 316  ⇓P       P        09 51 39.4 +0.4
       baz=51,SNR=11
L13A   Double Diamond    51.02 311  ⇑P       P        09 51 39.5 +0.1
       baz=51,SNR=23
M13A   Montello          51.02 310  ⇓P       P        09 51 39.6 +0.1
       baz=51,SNR=11
Q12A   Willow Creek R    51.08 307  ⇓P       P        09 51 40.6 +0.6
       baz=51,SNR=8.4
V11A   Goodsprings       51.10 302  ⇑P       P        09 51 40.2 +0.1
       baz=51
T11A   Corn Creek, Al    51.11 304   P       P        09 51 40.8 +0.6
       baz=51,SNR=7.9
SWSC   Sam W. Stewart    51.12 299  ⇓P       P        09 51 40.6 +0.3
       baz=51
GMRC   Granite Mounta    51.17 301   P       P        09 51 41.1 +0.4
       baz=51,SNR=5.8
P12A   McGill            51.22 307  ⇑P       P        09 51 41.6 +0.7
       baz=51,SNR=7.0
O12A   Currie            51.24 308   P       P        09 51 41.8 +0.7
       baz=51,SNR=11
E15A   Deer Lodge        51.24 316  ⇓P       P        09 51 41.3 +0.4
       baz=51
K13A   Stover Farm, H    51.24 311   P       P        09 51 41.6 +0.5
       baz=51,SNR=57
D15A   Lincoln           51.35 317   P       P        09 51 42.3 +0.5
       baz=51,SNR=16
G14A   Jackson           51.45 315  ⇑P       P        09 51 42.9 +0.3
       baz=52,SNR=16
J13A   Cove Ranch, Pi    51.48 312   P       P        09 51 43.3 +0.4
       baz=52,SNR=28
F14A   Wisdom            51.55 315  ⇓P       P        09 51 44.1 +0.8
       baz=52,SNR=16
I13A   Wildhorse Cree    51.56 313   P       P        09 51 44.1 +0.6
       baz=52,SNR=23
N12A   Clover Valley,    51.57 309  ⇓P       P        09 51 43.9 +0.4
       baz=52,SNR=14
S11A   Rachel            51.58 305  ⇓P       P        09 51 44.3 +0.5
       baz=52
M12A   Wells             51.59 310  ⇑P       P        09 51 43.7  0.0
       baz=52,SNR=17
Q11A   Duckwater         51.69 306  ⇑P       P        09 51 44.6 +0.1
       baz=52,SNR=12
HLID   Hailey            51.69 312  eP       P        09 51 44.7 +0.3
       comp=Z,22nm,1.1s,mb5.0
HLID   Hailey            51.69 312   P       P        09 51 45.0 +0.6
       baz=52,SNR=20
HEC    Hector,Ludlow     51.72 301  ⇑P       P        09 51 45.1 +0.3
       baz=52
CHMT   Chamberlain Mo    51.79 317  eP       P        09 51 45.1 +0.1
SHOC   Shoshone          51.79 302  ⇑P       P        09 51 45.5 +0.2
       baz=52
E14A   Clinton           51.80 316  ⇑P       P        09 51 45.3 +0.1
       baz=52,SNR=6.4
L12A   House Creek Ra    51.81 310  ⇓P       P        09 51 45.5 +0.2
       baz=52,SNR=13
H13A   Challis           51.82 314   P       P        09 51 45.4  0.0
       baz=52,SNR=12
K12A   Draper Farm, C    51.83 311  ⇑P       P        09 51 45.9 +0.5
       baz=52,SNR=20
P11A   Circle Ranch,     51.88 307  ⇑P       P        09 51 46.2 +0.3
       baz=52
TPNV   Topopah Spring    51.89 304  eP       P        09 51 46.3 +0.3
       comp=Z,16nm,0.8s,mb5.0
TPNV   Topopah Spring    51.89 304  eP       P        09 51 46.3 +0.3
TPNV                                 pmax    pmax
       comp=Z,16nm,0.8s,mb5.0
TPNV   Topopah Spring    51.89 304  ⇓P       P        09 51 46.8 +0.8
       baz=52
U10A   Ash Meadows, A    51.89 303  ⇑P       P        09 51 46.9 +0.9
       baz=52
O11A   Cowboy Ranch,     51.90 308  ⇓P       P        09 51 46.7 +0.6
       baz=52,SNR=41
G13A   Cobalt            51.94 314  ⇑P       P        09 51 46.2 -0.1
       baz=52
D14A   Greenough         52.00 317   P       P        09 51 46.8 +0.2
       baz=52,SNR=8.2
N11A   Elko Archery C    52.08 309  ⇑P       P        09 51 47.6 +0.2
       baz=52
J12A   Stokes Ranch,     52.10 312  ⇓P       P        09 51 47.5  0.0
       baz=52,SNR=22
R10A   Warm Springs      52.11 305  ⇑P       P        09 51 48.4 +0.8
       baz=52,SNR=8.5
GSC    Goldstone         52.16 302  ⇑P       P        09 51 48.0  0.0
       baz=52
H12A   Diamond D Ranc    52.23 313   P       P        09 51 48.4 -0.1
       baz=52,SNR=5.7
M11A   Holland Ranch,    52.23 309  ⇑P       P        09 51 48.9 +0.4
       baz=52,SNR=22
Q10A   Clear Creek Ra    52.26 306  ⇑P       P        09 51 49.1 +0.3
       baz=52,SNR=9.3
E13A   Victor            52.27 316   P       P        09 51 49.1 +0.4
       baz=52,SNR=25
RRX    Edison Barstow    52.28 301  ⇓P       P        09 51 49.1 +0.2
       baz=52
S10A   Tonopah Range,    52.28 305  ⇑P       P        09 51 49.7 +0.8
       baz=52,SNR=19
MURC   Murrieta          52.34 299  ⇑P       P        09 51 48.9 -0.5
       baz=52
L11A   Cat Creek Ranc    52.35 310   P       P        09 51 49.8 +0.5
       baz=52,SNR=31
C14A   Swan Lake         52.36 318  ⇑P       P        09 51 49.7 +0.3
       baz=52
P10A   Eureka            52.43 307  ⇓P       P        09 51 50.2 +0.3
       baz=52
O10A   Cortez Mining,    52.56 308  ⇑P       P        09 51 51.1 +0.2
       baz=53
D13A   Huson             52.63 317   P       P        09 51 51.3  0.0
       baz=53,SNR=7.8
N10A   Dunphy            52.64 308  ⇓P       P        09 51 51.6 +0.1
       baz=53
MFID   Camas Ranch       52.66 312  ⇓P       P        09 51 51.6  0.0
       baz=53,SNR=16
K11A   Parker Ranch,     52.67 311   P       P        09 51 52.0 +0.2
       baz=53,SNR=13
R09A   Tonopah           52.70 305  ⇑P       P        09 51 52.2 +0.2
       baz=53,SNR=10
S09A   Goldfield         52.75 305  ⇓P       P        09 51 52.6 +0.1
       baz=53,SNR=21
BFSC   Mount Baldy St    52.77 300  ⇓P       P        09 51 52.5 -0.1
       baz=53
MPMC   Manual Prospec    52.78 303   P       P        09 51 53.0 +0.4
       baz=53,SNR=6.9
GRAC   Grapevine Rang    52.78 304  ⇓P       P        09 51 53.1 +0.5
       baz=53,SNR=6.7
M10A   I.L. Ranch, Tu    52.80 309  ⇑P       P        09 51 53.1 +0.4
       baz=53,SNR=8.4
F12A   Elk City          52.80 315   P       P        09 51 52.9 +0.2
       baz=53,SNR=13
L10A   Juniper Basin     52.86 310  ⇑P       P        09 51 53.4 +0.3
       baz=53,SNR=29
I11A   Placerville       52.86 312   P       P        09 51 53.1  0.0
       baz=53,SNR=36
C13A   Hot Springs       52.87 317   P       P        09 51 53.2 +0.1
       baz=53,SNR=6.8
DAC    Darwin (Calif)    52.89 303  eP       P        09 51 53.9 +0.4
       comp=Z,20nm,0.9s,mb5.0
DAC                                 epP      pP       09 52 08.0 +0.4
DAC                                 ePcP     PcP      09 53 03.0 +1.0
DAC    Darwin (Calif)    52.89 303  eP       P        09 51 53.9 +0.5
DAC                                 e*PP     pP       09 52 08.0 +0.4
DAC                                 e                 09 53 03.0
DAC                                  pmax    pmax
       comp=Z,20nm,0.9s,mb5.0
P09A   Austin            52.93 307  ⇓P       P        09 51 54.0 +0.3
       baz=53
B13A   Whitefish         53.00 318  ⇓P       P        09 51 54.0 -0.1
       baz=53
O09A   Fish Creek Ran    53.06 308  ⇓P       P        09 51 55.1 +0.5
       baz=53,SNR=20
H11A   Donnelly          53.07 313   P       P        09 51 54.3 -0.3
       baz=53,SNR=12
EDW2   Edwards Air Fo    53.09 301  ⇑P       P        09 51 55.1 +0.1
       baz=53,SNR=6.5
BMN    Battle Mountai    53.13 308  eP       P        09 51 55.5 +0.3
       comp=Z,88nm,1.5s,mb5.5
BMN    Battle Mountai    53.13 308  eP       P        09 51 55.5 +0.4
BMN                                  pmax    pmax
       comp=Z,88nm,1.5s,mb5.5
A13A   Flathead Natio    53.13 319  ⇓P       P        09 51 54.7 -0.3
       baz=53
D12A   Red Ives Fores    53.21 316  ⇓P       P        09 51 55.3 -0.3
       baz=53
K10A   MacKenzie Ranc    53.28 311   P       P        09 51 56.4 +0.2
       baz=53,SNR=19
J10A   Berg Farm, Mel    53.33 312  ⇑P       P        09 51 56.3 -0.2
       baz=53,SNR=11
MDT    Midelt            53.35  62   P       P        09 51 57.3 +0.4
       comp=Z,2.7nm,0.9s,mb4.2,baz=161,slow=4.6,SNR=4.5
G11A   Walters Elk Ra    53.41 314  ⇑P       P        09 51 56.6 -0.5
       baz=53
N09A   Rock Creek Ran    53.42 308  ⇓P       P        09 51 57.6 +0.3
       baz=53,SNR=8.9
F11A   Grangeville       53.45 315   P       P        09 51 57.2 -0.2
       baz=54,SNR=28
Q08A   Gabbs             53.45 306  ⇑P       P        09 51 57.3 -0.2
       baz=54,SNR=12
S08C   White Mtn Res     53.48 304  ⇑P       P        09 51 58.5 +0.8
       baz=54,SNR=16
R08A   Mina              53.52 305  ⇑P       P        09 51 58.3 +0.2
       baz=54
ISA    Isabella          53.54 302  ⇑P       P        09 51 58.1 -0.1
       baz=54
H10A   Noah’s Angus R    53.56 313   P       P        09 51 57.5 -0.7
       baz=54,SNR=23
E11A   Bogner Ranch,     53.60 315   P       P        09 51 58.1 -0.4
       baz=54,SNR=30
NVAR   Mina Array Bea    53.68 305   P       P        09 51 59.5 +0.2
NVAR                                 PcP     PcP      09 53 05.4 +0.5
NVAR   Mina Array Bea    53.68 305   P       P        09 51 59.5 +0.2
       comp=Z,9.0nm,0.7s,mb4.8,baz=94,slow=7.2,SNR=52
NVAR                                 PcP     PcP      09 53 05.4 +0.4
       comp=Z,4.6nm,1.0s,baz=111,slow=5.3,SNR=3.8
L09A   Wilkinson Ranc    53.72 310   P       P        09 52 00.1 +0.6
       baz=54,SNR=19
B12A   Libby             53.74 318  ⇑P       P        09 51 59.6 +0.1
       baz=54
ARVC   Arvin             53.79 301  ⇑P       P        09 52 00.3 +0.2
       baz=54
D11A   Klaveano Farm,    53.85 316  ⇑P       P        09 52 00.2 -0.1
       baz=54
K09A   Rome              53.88 311  ⇓P       P        09 52 00.8 +0.2
       baz=54,SNR=18
A12A   Yaak River Ran    53.92 319  ⇑P       P        09 52 01.1 +0.4
       baz=54,SNR=11
EDM    Edmonton          53.94 324  eP       P        09 51 59.9 -1.0
BMO    Blue Mountains    54.01 313  eP       P        09 52 00.7 -0.8
       comp=Z,17nm,1.1s,mb4.9
BMO    Blue Mountains    54.01 313  eP       P        09 52 00.7 -0.8
BMO                                  pmax    pmax
       comp=Z,17nm,1.1s,mb4.9
J09A   Fry Pan Ranch,    54.02 311  ⇓P       P        09 52 01.6 -0.1
       baz=54
VES    Vestal, Richgr    54.05 302  ⇑P       P        09 52 02.0  0.0
       baz=54
HELL   Mitchell Peak,    54.07 303   P       P        09 52 02.5 +0.4
       baz=54,SNR=13
I09A   Lost Marbles R    54.13 312  ⇑P       P        09 52 02.3 -0.2
       baz=54
M08A   Happy Creek Ra    54.16 309  ⇑P       P        09 52 02.8 +0.1
       baz=54,SNR=14
F10A   Beach Ranch, E    54.20 315  ⇑P       P        09 52 02.2 -0.6
       baz=54
H09A   Durkee            54.22 313   P       P        09 52 02.7 -0.3
       baz=54,SNR=11
RCTC   Rector, Farmer    54.22 303  ⇓P       P        09 52 02.7 -0.5
       baz=54,SNR=8.2
E10A   Myers Farm, Un    54.23 315   P       P        09 52 03.2 +0.1
       baz=54,SNR=5.5
B11A   Sandpoint         54.23 318   P       P        09 52 03.4 +0.3
       baz=54,SNR=6.2
L08A   Fields            54.25 310  ⇑P       P        09 52 03.3  0.0
       baz=54,SNR=14
O07A   Toulon            54.34 307  ⇑P       P        09 52 03.8 -0.3
       baz=54,SNR=12
KCC    Kaiser Creek      54.37 304  ⇓P       P        09 52 04.1 -0.2
       baz=54,SNR=5.2
A11A   Hall Mountain,    54.37 318  ⇑P       P        09 52 04.6 +0.5
       baz=54
K08A   Mann Creek Ran    54.44 311  ⇑P       P        09 52 04.5 -0.2
       baz=54
ESDC   Sonseca Array     54.45  53   P       P        09 52 04.9 +0.1
       comp=Z,0.4nm,0.3s,mb3.8,baz=272,slow=7.5,SNR=3.2
D10A   Wagner Farm, O    54.48 316   P       P        09 52 04.4 -0.4
       baz=54,SNR=8.6
N07B   Gerlach           54.50 308  ⇓P       P        09 52 05.0 -0.1
       baz=54
J08A   Circle Bar Ran    54.54 311  ⇑P       P        09 52 05.1 -0.3
       baz=54,SNR=19
R06C   Coleville         54.59 305   P       P        09 52 06.5 +0.7
       baz=55,SNR=12
F09A   S2 Ranch, Elgi    54.60 314   P       P        09 52 05.4 -0.4
       baz=55,SNR=6.8
T06C   Millerton Lake    54.65 303   P       P        09 52 05.1 -1.2
       baz=55,SNR=5.3
NEW    Newport           54.68 317  eP       P        09 52 05.8 -0.5
       comp=Z,16nm,0.6s,mb5.2
NEW    Newport           54.68 317  eP       P        09 52 05.8 -0.5
NEW                                  pmax    pmax
       comp=Z,16nm,0.6s
M07A   Soldier Meadow    54.73 309  ⇑P       P        09 52 06.7 -0.1
       baz=55,SNR=11
B10A   Chitwood Farm,    54.75 318  ⇓P       P        09 52 06.6 -0.2
       baz=55
SMMC   Simmler           54.76 301  ⇓P       P        09 52 07.2  0.0
       baz=55
H08A   Prairie City      54.89 313   P       P        09 52 08.2 +0.2
       baz=55,SNR=18
E09A   Wood Farm, Sta    54.94 315  ⇓P       P        09 52 07.7 -0.5
       baz=55
L07A   Adell             54.95 310  ⇓P       P        09 52 08.2 -0.2
       baz=55,SNR=6.3
K07A   Rock Creek Ran    54.99 310  ⇓P       P        09 52 08.5 -0.1
       baz=55
O06A   Flanigan          55.07 307  ⇑P       P        09 52 08.6 -0.7
       baz=55
R05C   Kirkwood Meado    55.09 306   P       P        09 52 10.5 +1.0
       baz=55,SNR=15
A10A   Northport         55.14 318  ⇓P       P        09 52 09.3 -0.3
       baz=55
N06A   Buffalo Meadow    55.14 308   P       P        09 52 09.4 -0.4
       baz=55,SNR=14
D09A   Jones Farm, Ri    55.17 316  ⇑P       P        09 52 09.5 -0.3
       baz=55
F08A   Pendleton         55.22 314  ⇓P       P        09 52 09.6 -0.6
       baz=55
G08A   Pilot Rock        55.24 314  ⇓P       P        09 52 10.1 -0.4
       baz=55,SNR=5.3
CMB    Columbia Colle    55.27 305  ⇑P       P        09 52 10.3 -0.5
       baz=55
B09A   Rice              55.38 317   P       P        09 52 10.7 -0.6
       baz=55,SNR=9.1
I07A   Izee              55.40 312   P       P        09 52 11.6  0.0
       baz=55,SNR=12
BEKR   Beckwourth        55.44 307  ⇓P       P        09 52 11.4 -0.6
       baz=55
U04C   Hernandez Rese    55.46 303  ⇓P       P        09 52 11.5 -0.7
       baz=56
OD2    Odessa Site #2    55.51 316   P       P        09 52 12.0 -0.3
H07A   Lands Inn, Kim    55.53 313  ⇑P       P        09 52 12.4 -0.1
       baz=56
P05C   Yuba Gap, Truc    55.57 306  ⇓P       P        09 52 12.8 -0.1
       baz=56
D08A   Wollman Farm,     55.58 316  ⇑P       P        09 52 12.5 -0.3
       baz=56
LAVA   Lava Cap Winer    55.62 306  ⇑P       P        09 52 13.3 +0.1
       baz=56,SNR=8.6
MOD    Modoc             55.65 309  ⇑P       P        09 52 12.9 -0.4
       baz=56
M06C   Likely Place G    55.69 308  ⇑P       P        09 52 13.5 -0.2
       baz=56
G07A   Ruggs Ranch, H    55.73 313  ⇑P       P        09 52 13.3 -0.6
       baz=56
J06A   Christmas Vall    55.73 311  ⇓P       P        09 52 13.4 -0.6
       baz=56
K06A   Valley Falls      55.73 310  ⇑P       P        09 52 13.9 -0.1
       baz=56
A09A   Danville          55.79 318  ⇑P       P        09 52 13.9 -0.4
       baz=56
C08A   Higginbotham F    55.82 317   P       P        09 52 14.2 -0.3
       baz=56,SNR=8.8
O05C   Quincy            55.88 307  ⇑P       P        09 52 14.5 -0.6
       baz=56
I06A   Prineville        55.88 312  ⇓P       P        09 52 15.4 +0.3
       baz=56
PACP   Pacheco Peak      55.91 303  ⇓P       P        09 52 15.2 -0.1
       baz=56
F07A   Phinny Hill Vi    56.02 314  ⇓P       P        09 52 15.7 -0.3
       baz=56
HAST   UC Hastings Re    56.08 303  ⇑P       P        09 52 16.4 -0.2
       baz=56
EPH    Ephrata           56.09 316   P       P        09 52 16.4 -0.1
H06A   Lindquist Farm    56.10 313  ⇓P       P        09 52 16.9 +0.3
       baz=56
E07A   Sunnyside         56.10 315  ⇓P       P        09 52 16.5 -0.1
       baz=56
Q04C   Lincoln           56.12 306  ⇑P       P        09 52 17.2 +0.4
       baz=56
B08A   Colville Reser    56.13 317  ⇓P       P        09 52 16.4 -0.4
       baz=56
M05C   Lookout           56.20 309  ⇑P       P        09 52 16.0 -1.4
       baz=56
LIC    Lamto             56.21  94  eP       P        09 52 13.0 -4.8
A08A   Turner Farm, O    56.23 318  ⇑P       P        09 52 16.3 -1.1
       baz=56
OHCM   Honcut            56.25 306  eP       P        09 52 17.6 -0.2
ORV    Oroville          56.28 306  ⇑P       P        09 52 17.6 -0.4
       baz=56,SNR=12
D07A   Quincy            56.31 316   P       P        09 52 17.8 -0.2
       baz=56,SNR=5.3
WENL   Wente Brothers    56.32 304  ⇑P       P        09 52 18.4 +0.1
       baz=56
G06A   Carlson Farm,     56.40 313  ⇓P       P        09 52 18.5 -0.2
       baz=56
C07A   Waterville        56.47 316  ⇓P       P        09 52 17.8 -1.4
       baz=56
J05A   Fort Rock         56.52 311  ⇓P       P        09 52 19.1 -0.5
       baz=56
F06A   Goldendale        56.59 314  ⇓P       P        09 52 19.9 -0.2
       baz=57
B07A   Winthrop          56.66 317   P       P        09 52 20.1 -0.5
       baz=57,SNR=12
I05A   Bend              56.67 312  ⇓P       P        09 52 21.4 +0.7
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	baz=57						
H05A	Madras	56.71	313	⇑P	P	09 52 20.9	0.0
	baz=57						
O03C	Acorn Hollow,	56.73	307	⇓P	P	09 52 20.3	-0.9
	baz=57						
M04C	Macdoel	56.77	309	⇓P	P	09 52 21.4	0.0
	baz=57						
K04A	Chilquin	56.79	310	P	P	09 52 22.5	+0.9
	baz=57,SNR=6.2						
L04A	Klamath Falls	56.85	310	P	P	09 52 22.6	+0.7
	baz=57,SNR=7.1						
E06A	Yakima	56.86	315	⇑P	P	09 52 21.8	-0.1
	baz=57						
D06A	Cle Elum	56.89	316	P	P	09 52 22.3	+0.2
	baz=57,SNR=5.8						
M03C	McCloud	56.92	308	⇑P	P	09 52 22.2	-0.3
	baz=57						
CVS	Carmenet Viney	56.93	305	⇓P	P	09 52 22.4	-0.2
	baz=57						
SJPF	Ste Jean	56.94	49	eP	P	09 52 23.5	+0.9
	comp=Z,20nm,0.7s,mb4.9						
SJPF	Ste Jean	56.94	49	eP	P	09 52 23.5	+0.9
	comp=Z,9.9nm,0.7s,mb5.0						
SJPF	Ste Jean	56.94	49	eP	P	09 52 23.5	+0.9
SJPF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
A07A	Ashnola River,	56.96	318	P	P	09 52 22.8	+0.2
	baz=57,SNR=7.5						
C06A	Tall Timber Ra	57.06	316	⇓P	P	09 52 23.1	-0.2
	baz=57						
F05A	White Salmon	57.07	314	⇑P	P	09 52 23.7	+0.2
	baz=57						
J04A	Umpqua Nationa	57.15	311	⇑P	P	09 52 23.9	-0.1
	baz=57						
WDC	Whiskeytown Da	57.17	308	⇑P	P	09 52 22.9	-1.4
	baz=57						
WPW	White Pass	57.27	315	P	P	09 52 25.1	+0.2
ETSF	Etsaut	57.39	50	eP	P	09 52 28.4	+2.6
E05A	Randle	57.39	315	⇑P	P	09 52 25.7	0.0
	baz=57						
H04A	Detroit Lake	57.40	312	⇑P	P	09 52 25.7	0.0
	baz=57						
YBH	Yreka Blue Hor	57.41	309	⇑P	P	09 52 25.3	-0.6
	baz=57						
P01C	Double 8 Ranch	57.69	306	⇑P	P	09 52 28.7	+0.7
	baz=58						
N02C	Big Bar	57.77	308	⇑P	P	09 52 27.5	-1.0
	baz=58						
B05A	Bryant	57.92	317	⇓P	P	09 52 27.3	-2.1
	baz=58						
A05A	Maple Falls	58.05	317	⇑P	P	09 52 29.1	-1.1
	baz=58						
E04A	Onalaska	58.05	315	⇓P	P	09 52 29.1	-1.3
	baz=58						
O01C	Eel River Cons	58.11	307	⇑P	P	09 52 31.6	+0.7
	baz=58						
YKA	Yellowknife Ar	58.32	334	i P	P	09 52 30.6	-1.3
YKA				pmax	pmax		
	comp=Z,4.0nm,0.5s						
YKA	Yellowknife Ar	58.32	334	P	P	09 52 30.6	-1.3
	comp=Z,4.1nm,0.5s,mb4.8,baz=105,slow=7.5,SNR=192						
YKA				LR	LR	10 16 07.1	
	comp=Z,118nm,19.7s,MS4.0,baz=25,slow=34						
E03A	Lebam	58.62	314	⇓P	P	09 52 33.9	-0.4
	baz=59						
B04A	Port Angeles	58.81	316	⇑P	P	09 52 35.7	+0.1
	baz=59						
RES	Resolute Bay	60.43	350	eP	P	09 52 45.5	-0.8
	comp=Z,68nm,0.9s,mb5.7						
AVF	Avril sur Loir	60.60	46	eP	P	09 52 49.0	+1.0
	comp=Z,9.5nm,0.8s,mb4.7						
AVF	Avril sur Loir	60.60	46	eP	P	09 52 49.0	+1.0
	comp=Z,4.8nm,0.8s,mb4.7						
AVF	Avril sur Loir	60.60	46	eP	P	09 52 49.0	+1.0
AVF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
SSF	Saint Saulge	60.74	45	eP	P	09 52 50.8	+1.9
	comp=Z,11nm,0.9s,mb4.7						
SSF	Saint Saulge	60.74	45	eP	P	09 52 50.8	+1.9
	comp=Z,5.6nm,0.9s,mb4.7						
SSF	Saint Saulge	60.74	45	eP	P	09 52 50.8	+1.9
SSF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
SMF	Signal de Mont	60.92	46	eP	P	09 52 52.2	+2.1
TORD	Torodi Ar. Bea	60.95	84	P	P	09 52 49.7	-1.1
TORD				LR	LR	10 14 25.6	
TORD	Torodi Ar. Bea	60.95	84	P	P	09 52 49.7	-1.1
	comp=Z,1.2nm,0.6s,mb4.2,baz=274,slow=6.7,SNR=9.8						
TORD				LR	LR	10 14 25.6	
	comp=Z,224nm,21.4s,MS4.3,baz=270,slow=31						
LOR	Lormes	61.00	45	eP	P	09 52 52.6	+2.0
	comp=Z,16nm,0.9s,mb4.8						
LOR	Lormes	61.00	45	eP	P	09 52 52.6	+2.0
	comp=Z,8.3nm,0.9s,mb4.9						
LOR	Lormes	61.00	45	eP	P	09 52 52.6	+2.0
LOR				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
GIVF	Givet	61.95	42	eP	P	09 52 59.7	+2.7
KEST	Kesra	64.88	58	P	P	09 53 17.8	+1.1
	comp=Z,1.9nm,0.7s,mb4.2,baz=311,slow=11,SNR=3.1						
KEST				LR	LR	10 17 02.5	
	comp=Z,58nm,18.1s,MS3.8,baz=249,slow=32						
DAVOX	Davos/Dischmat	65.08	46	LR	LR	10 16 53.5	
	comp=Z,131nm,18.1s,MS4.2,baz=262,slow=32						
NOA	NORSAR Array B	66.87	30	P	P	09 53 28.5	-0.4
NOA				LR	LR	10 16 34.6	
NOA	NORSAR Array B	66.87	30	P	P	09 53 28.5	-0.4
	comp=Z,1.4nm,1.0s,mb4.0,baz=266,slow=6.7,SNR=3.3						
NOA				LR	LR	10 16 34.6	
	comp=Z,176nm,21.8s,MS4.2,baz=265,slow=30						
CLL	Collm	67.22	41	e(pP)	pP	09 53 42.0	-4.0
INK	Inuvik	67.62	338	eP	P	09 53 32.7	-0.9
	comp=Z,701nm,1.2s						
GERES	GERESS Array B	67.67	44	P	P	09 53 33.1	-1.1
	comp=Z,0.4nm,0.5s,mb3.7,baz=268,slow=5.9,SNR=2.0						
GERES				LR	LR	10 21 42.5	
	comp=Z,91nm,18.0s,MS4.0,baz=286,slow=35						
DAWY	Dawson	69.49	333	eP	P	09 53 45.2	-0.1
VRAC	Vranov	69.55	43	LR	LR	10 17 42.7	
	comp=Z,106nm,19.3s,MS4.1,baz=86,slow=30						
EGAK	Eagle	70.28	333	eP	P	09 53 49.9	-0.2
	comp=Z,6.9nm,0.9s,mb4.6						
ARCES	ARCESS Array B	73.12	22	P	P	09 54 07.0	-0.1
ARCES				LR	LR	10 18 43.2	
ARCES	ARCESS Array B	73.12	22	P	P	09 54 07.0	-0.1
	comp=Z,1.4nm,0.6s,mb4.1,baz=297,slow=4.0,SNR=8.7						
ARCES				LR	LR	10 18 43.2	
	comp=Z,111nm,20.4s,MS4.1,baz=13,slow=30						
COLA	College	73.14	334	eP	P	09 54 06.8	-0.5
	comp=Z,6.7nm,1.0s,mb4.5						
COLA	College	73.14	334	eP	P	09 54 06.9	-0.4
COLA				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
FINES	FINESS Array B	74.04	30	P	P	09 54 12.1	-0.5
	comp=Z,1.5nm,0.4s,mb4.2,baz=261,slow=4.5,SNR=13						
FINES				LR	LR	10 20 48.4	
	comp=Z,139nm,20.4s,MS4.2,baz=183,slow=31						
KAF	Kangasniemi	74.08	29	ep	P	09 54 11.7	-1.2
	comp=Z,3.4nm,0.5s,mb4.5						
KAF	Kangasniemi	74.08	29	eP	P	09 54 11.7	-1.2
KAF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
IMA2	Indian Mountai	75.42	335	eP	P	09 54 20.1	-0.4
JOF	Joensuu	76.26	28	ep	P	09 54 23.8	-1.6
	comp=Z,2.1nm,0.6s,mb4.2						
MLR	Muntele Rosu	76.30	46	LR	LR	10 25 32.2	
	comp=Z,119nm,18.8s,MS4.2,baz=123,slow=34						
SVW2	Sparrevohn	77.17	330	P	P	09 54 29.7	-0.8
AKASG	Malin Array Be	77.46	41	P	P	09 54 31.3	-1.1
	comp=Z,0.6nm,0.4s,mb3.9,baz=296,slow=4.2,SNR=2.8						
OBN	Obninsk	80.72	35	⇓iP	P	09 54 49.3	-0.8
OBN				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
TNA	Tin City	81.20	336	eP	P	09 54 53.4	+0.9
	comp=Z,12nm,1.1s,mb4.8						
BRTR	Keskin Array B	83.16	51	i P	P	09 55 03.0	-0.3
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BRTR	Keskin Array B	83.16	51	P	P	09 55 03.1	-0.2
	comp=Z,1.3nm,0.6s,mb4.1,baz=264,slow=5.4,SNR=6.4						
BRTR				LR	LR	10 27 07.2	
	comp=Z,120nm,20.5s,MS4.3,baz=331,slow=32						
EIL	Elat	87.16	60	LR	LR	10 30 54.3	
	comp=Z,80nm,21.6s,MS4.1,baz=108,slow=33						
KIV	Kislovodsk	88.16	44	eP	P	09 55 28.5	+0.5
KIV				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.9						
BILL	Bilibino	88.36	344	eP	P	09 55 28.2	-0.2
	comp=Z,29nm,1.5s,mb5.3						
BILL	Bilibino	88.36	344	c iP	P	09 55 27.9	-0.6
BILL				pmax	pmax		
	comp=Z,19nm,1.7s,mb5.0						
TIXI	Tiksi	91.22	357	eP	P	09 55 41.3	-0.5
	comp=Z,1.2nm,0.3s,mb4.7						
TIXI	Tiksi	91.22	357	⇑eP	P	09 55 41.0	-0.8
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.8						
PPT	Papeete	93.23	253	LR	LR	10 29 47.3	
	comp=Z,162nm,22.0s,MS4.4,baz=88,slow=30						
BOSA	Boshof	95.27	118	LR	LR	10 31 37.9	
	comp=Z,102nm,20.7s,MS4.3,baz=279,slow=31						
KMBO	Kilima Mbogo	98.73	89	LR	LR	10 38 05.9	
	comp=Z,117nm,18.7s,MS4.4,baz=280,slow=34						
WMQ	Urumqi	113.18	24	PKP	PKiKP	10 01 13.0	-1.5
WMQ				LR	LR		
	comp=N,71nm,27.2s,MS4.3						
WMQ				LR	LR		
	comp=E,59nm,22.3s,MS4.3						
WMQ				LR	LR		
	comp=Z,69nm,22.0s,MS4.2						
HHC	Hu-ho-hao-te	122.03	6	ePKP	PKPdf	10 01 30.0	-1.6
LZH	Lanzhou	125.36	15	ePKP	PKPdf	10 01 35.0	-3.1
LZH				XPKP		10 01 57.3	
LZH				PKS		10 05 10.3	
LZH				SKS	SKSdf	10 08 39.8	-6.0
LZH				SKKS	SKKSac	10 10 14.3	-8.4
LZH				eSS	SS	10 20 17.3	-3.4
LZH				PP	PP		
	comp=Z,102nm,7.6s						
LZH				LR	LR		
	comp=E,237nm,18.2s						
LZH				LR	LR		
	comp=Z,498nm,20.1s,MS5.2						
CD2	Chengdu	130.25	17	ePKP	PKPdf	10 01 45.5	-2.1
CD2				XPKP		10 02 10.0	
CD2				PP	PP	10 04 02.8	+3.1
CD2				SKS	SKSdf	10 08 51.8	-3.3
CD2				SKKS	SKKSac	10 10 48.8	-4.7
CD2				SS	SS	10 21 20.0	-1.5
CD2				PP	PP		
	comp=Z,80nm,10.2s						
CD2				LR	LR		
	comp=E,180nm,13.2s						
CD2				LR	LR		
	comp=Z,100nm,14.4s,MS4.7						
NJ2	Nanjing	131.16	360	ePKP	PKPdf	10 01 52.5	+3.2
NJ2				XPKP		10 02 07.0	
NJ2				PKS		10 05 27.0	
NJ2				PP	PP		
	comp=Z,360nm,10.3s						
NJ2				LR	LR		
	comp=N,890nm,27.9s,MS5.4						
NJ2				LR	LR		
	comp=E,560nm,26.6s,MS5.4						
NJ2				LR	LR		
	comp=Z,580nm,33.8s						
GYA	Guiyang	135.24	15	PDIF	Pdif	09 58 57.0	-1.7
GYA				PKP	PKPdf	10 01 55.8	-1.3
GYA				XPKP		10 02 20.5	
GYA				PP	PP	10 04 35.8	+4.2
GYA				PKS		10 05 30.5	
GYA				SKKS	SKKSac	10 11 19.8	-4.3
GYA				SS	SS	10 22 22.5	+0.4
GYA				PP	PP		
	comp=Z,120nm,8.4s						
GYA				LR	LR		
	comp=N,220nm,22.8s,MS4.9						
GYA				LR	LR		
	comp=E,190nm,23.6s,MS4.9						
GYA				LR	LR		
	comp=Z,210nm,21.7s,MS4.8						
KMI	Kunming	135.35	20	PKP	PKPdf	10 01 54.0	-3.4
NACB	Ninganchiao	138.90	356	ePKPdf	PKPdf	10 02 04.5	+0.6
NACB				epPKPdf	pPKPdf	10 02 20.5	+0.8
PSI	Prapat	152.40	46	PKPbc	PKPbc	10 02 32.6	-1.3
	comp=Z,3.1nm,0.7s,baz=170,slow=17,SNR=4.9						
STKA	Stephens Creek	154.38	231	PKP	PKPdf	10 02 25.8	-3.5
STKA				PKPbc	PKPbc	10 02 36.9	-0.8
STKA	Stephens Creek	154.38	231	PKP	PKPdf	10 02 25.8	-3.5
	comp=Z,2.2nm,1.0s,baz=147,slow=21,SNR=2.8						
STKA				PKPbc	PKPbc	10 02 36.9	-0.8
	comp=Z,1.1nm,0.7s,baz=78,slow=8.8,SNR=3.7						
ASAR	Alice Springs	164.11	243	PKP	PKPdf	10 02 38.6	-2.2
ASAR				PKPab	PKPab	10 03 33.1	-1.3
ASAR	Alice Springs	164.11	243	PKIKP	PKPdf	10 02 38.7	-2.1
ASAR						10 03 33.2	
ASAR	Alice Springs	164.11	243	PKP	PKPdf	10 02 38.6	-2.2
	comp=Z,0.9nm,0.8s,baz=96,slow=1.4,SNR=12						
ASAR				PKPab	PKPab	10 03 33.1	-1.3
	comp=Z,2.0nm,0.5s,baz=112,slow=3.9,SNR=19						
WRA	Warramunga Arr	164.68	257	PKP	PKPdf	10 02 39.4	-2.0
WRA				PKPab	PKPab	10 03 36.7	-0.4
WRA	Warramunga Arr	164.68	257	PKIKP	PKPdf	10 02 39.4	-2.0
WRA						10 03 36.7	
WRA	Warramunga Arr	164.68	257	PKP	PKPdf	10 02 39.4	-2.0
	comp=Z,4.4nm,1.1s,baz=66,slow=1.0,SNR=14						
WRA				PKPab	PKPab	10 03 36.7	-0.4
	comp=Z,0.6nm,0.5s,baz=97,slow=4.3,SNR=10.0						

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*IDC **27** 10:01:23.2±0.8, 21.72N×120.60E, h0^{km}, mb3.7/8, mb1 3.9/8, mb1mx3.8/20, mbtmp3.7/8, MS3.1/2, Ms1 3.1/2, ms1mx2.5/32, Error ellipse: s-maj=39.7km s-min=16.7km az=71.0*

*NEIC **27** 10:01:24.0±10.0, 21.72N×120.59E, h6^{km}±67^{km}, MG4.1(JMA), Error ellipse: s-maj=27.7km s-min=12.7km az=65.0*

*ISCJB **27** 10:01:27.8±1.6, 21.76N±0.07×120.73E±0.08, h47^{km}±15^{km}, mb3.6/8, Error ellipse: s-maj=12.9km s-min=11.9km az=25.3*

*JMA **27** 10:01:27.7±0.3, 21.69N×120.87E, h28^{km}, M4.1*

ISC 27 10:01:28.9±1.7**, 21.76N**±0.08×**120.67E**±0.09**, h39**^{km}±17^{km}**, n19, σ0^{s}.66**/24**, mb3.6**/8**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YHNB	Yeheng	2.97	13	ePn	Pn	10 02 12.6	-0.9
YHNB				eSn	Sn	10 02 48.1	+0.3
YOJ	Yonaguni jima	3.45	38	P	Pn	10 02 20.6	+0.6
YOJ				eS	Sn	10 02 59.9	+0.3
HATJ	Hateruma jima	3.69	51	P	Pn	10 02 23.2	-0.1
HATJ				eS	Sn	10 03 04.9	-0.7
IRIF	Iriomote-Funau	3.81	47	P	Pn	10 02 25.5	+0.5
IRIF				eS	Sn	10 03 08.8	+0.2
JKRS	Kuro-shima	3.94	51	P	Pn	10 02 27.3	+0.4
JKRS				eS	Sn	10 03 11.5	-0.4
JIJ	Ishigaki jima	4.12	50	P	Pn	10 02 29.4	+0.1
JIJ				eS	Sn	10 03 15.2	-1.0
JTJ	Tarama	4.69	52	P	Pn	10 02 37.2	+0.1
JTJ				eS	Sn	10 03 30.9	+0.6
JNU	Nakatsue	14.49	36	LR	LR	10 10 02.7	
	comp=Z,67nm,20.4s,baz=72,slow=36						
KSRS	Korea Array	16.85	20	LR	LR	10 12 45.5	
	comp=Z,62nm,18.5s,baz=205,slow=40						
MJAR	Matsushiro Arr	21.20	42	P	P	10 06 11.0	0.0
	1.0nm,0.7s,mb3.3,baz=241,slow=7.5,SNR=3.2						
SONM	Songino Array	28.43	340	P	P	10 07 21.9	+2.1
	0.5nm,0.7s,mb3.2,baz=139,slow=7.0,SNR=4.7						
MKAR	Makanchi Array	39.78	318	P	P	10 08 57.3	-0.6
	0.4nm,0.5s,mb3.4,baz=109,slow=8.8,SNR=7.3						
ZAA0	Zalesovo Array	42.04	329	eP	P	10 09 15.7	-0.6
ZALV	Zalesovo Beam	42.04	329	P	P	10 09 15.4	-1.0
	2.3nm,0.7s,mb3.9,baz=119,slow=7.3,SNR=10						
WRA	Warramunga Arr	43.55	161	P	P	10 09 28.7	-0.3
	1.2nm,0.7s,mb3.8,baz=343,slow=9.2,SNR=12						
ASAR	Alice Springs	46.96	163	P	P	10 09 55.6	-0.3
	0.4nm,0.3s,mb3.8,baz=340,slow=7.0,SNR=20						
STKA	Stephens Creek	56.98	159	P	P	10 11 11.0	+0.6
STKA	Stephens Creek	56.98	159	P	P	10 11 11.0	+0.6
	0.6nm,0.4s,mb4.0,baz=6.6,slow=5.9,SNR=5.2						
YKA	Yellowknife Ar	85.38	23	P	P	10 14 02.3	+0.6
	0.3nm,0.7s,mb3.5,baz=313,slow=5.0,SNR=7.3						

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*ISCJB **27** 10:06:15.3±1.3, 28.6S±0.3×74.3E±0.2, h10^{km}, mb3.9/8, MS4.0/2, Error ellipse: s-maj=52.0km s-min=18.3km az=19.9*

*IDC **27** 10:06:15.4±1.3, 28.61S×74.24E, h0^{km}, mb3.9/8, mb1 4.0/8, mb1mx3.8/20, mbtmp3.9/8, MS3.9/2, Ms1 3.9/2, ms1mx3.3/26, Error ellipse: s-maj=54.3km s-min=20.2km az=21.0*

*NEIC **27** 10:06:16.9±1.0, 28.63S×74.23E, h10^{km}, Error ellipse: s-maj=41.5km s-min=14.9km az=200.0*

ISC 27 10:06:17.1±1.3**, 28.6S**±0.3×**74.3E**±0.2**, h10**^{km}**, n12, σ0^{s}.63**/9**, mb3.9**/8**, MS4.0**/2**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	44.65	301	P	P	10 14 31.2	+0.9
KMBO	Kilima Mbogo	44.65	301	P	P	10 14 31.2	+0.9
	0.4nm,0.3s,mb3.8,baz=180,slow=8.1,SNR=2.8						
FITZ	Fitzroy Crossi	48.01	89	P	P	10 14 57.6	+0.9
	1.9nm,0.8s,mb4.2,baz=225,slow=3.7,SNR=3.5						
ASAR	Alice Springs	53.31	99	P	P	10 15 36.0	-0.6
	1.2nm,0.8s,mb3.9,baz=249,slow=6.5,SNR=12						
ASAR				PcP	PcP	10 16 43.5	-0.7
	0.8nm,0.9s,baz=245,slow=2.6,SNR=4.7						
WRA	Warramunga Arr	54.97	95	P	P	10 15 48.8	0.0
	3.2nm,0.9s,mb4.4,baz=253,slow=7.4,SNR=13						
WRA				LR	LR	10 38 30.7	
	comp=Z,62nm,19.0s,MS3.7,baz=245,slow=35						
MKAR	Makanchi Array	75.40	6	P	P	10 18 00.1	-0.6
	0.7nm,0.9s,mb3.6,baz=197,slow=6.2,SNR=6.0						
SONM	Songino Array	81.39	21	P	P	10 18 34.3	+0.5
	0.9nm,0.9s,mb3.7,baz=171,slow=3.7,SNR=5.5						
TORD	Torodi Ar. Bea	81.42	290	P	P	10 18 34.1	-0.7
	0.6nm,1.0s,mb3.5,baz=108,slow=4.7,SNR=2.3						
ZALV	Zalesovo Beam	82.72	6	P	P	10 18 40.1	-0.5
	1.7nm,1.0s,mb4.0,baz=224,slow=4.1,SNR=5.5						
KSRS	Korea Array	82.75	40	LR	LR	10 54 48.7	
	comp=Z,112nm,20.3s,MS4.2,baz=260,slow=35						
YKA	Yellowknife Ar	145.61	7	PKPbc	PKPbc	10 25 55.2	0.0
YKA	Yellowknife Ar	145.61	7	PKPbc	PKPbc	10 25 55.2	0.0
	1.3nm,1.0s,baz=334,slow=4.1,SNR=13						

IDC 27 10:06:59.8±2.1**, 0.99S×127.94E, h0**^{km}**, mb3.3**/2**, mb1 3.5**/3**, mb1mx3.3**/16**, mbtmp3.3**/3**, ML3.4**/1**, Error ellipse: s-maj=164.5km s-min=26.1km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.85	162	P	Pn	10 11 32.4	-1.6
	0.1nm,0.3s,baz=341,slow=12,SNR=6.6						
ASAR	Alice Springs	23.27	166	P	P	10 12 09.4	+0.2
	0.3nm,0.5s,baz=345,slow=10,SNR=5.2						
MKAR	Makanchi Array	62.11	326	P	P	10 17 22.6	+0.1
	0.2nm,0.4s,baz=116,slow=8.5,SNR=7.5						

MAN 27 10:40:28, 8.03N×124.89E, h32^{km}**, mb4.7, ML3.5, MS3.5, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUKP	Musuan	0.23	131	eP	Pb	10 40 37.1	+2.3
CGP	Cagayan de Oro	0.46	336	⇑eP	Pb	10 40 40.1	+2.1
CGP				i S	Sb	10 40 47.9	+3.1
PAGZ	Pagadian	1.50	263	eP	Pn	10 40 53.6	+0.9

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*IDC **27** 10:46:31.0±0.7, 2.54N×126.51E, h0^{km}, mb4.1/10, mb1 4.2/10, mb1mx4.1/19, mbtmp4.1/10, MS3.6/1, Ms1 3.6/1, ms1mx2.9/26, Error ellipse: s-maj=61.4km s-min=14.1km az=73.0*

*NEIC **27** 10:46:32.8±0.6, 2.60N×126.47E, h10^{km}, mb4.1/4, Error ellipse: s-maj=45.0km s-min=10.8km az=72.0*

*ISCJB **27** 10:46:38.8±5.5, 2.5N±0.1×126.3E±0.3, h75^{km}±53^{km}, mb4.0/10, Error ellipse: s-maj=49.4km s-min=17.0km az=163.9*

ISC 27 10:46:42.2±4.8**, 2.5N**±0.1×**126.5E**±0.3**, h92**^{km}±47^{km}**, n22, σ0^{s}.85**/18**, mb4.1**/10**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	16.18	159	eP	Pn	10 50 25.1	+0.9
	12nm,0.9s						
FITZ	Fitzroy Crossi	20.44	182	eP	P	10 51 13.4	+1.1
	6.6nm,0.6s						
FITZ	Fitzroy Crossi	20.44	182	P	P	10 51 12.6	+0.2
	3.8nm,0.6s,baz=4.1,slow=9.5,SNR=16						
WRA	Warramunga Arr	23.55	161	P	P	10 51 43.6	-0.8
	2.8nm,0.4s,mb4.0,baz=336,slow=10,SNR=43						
WB2	Warramunga Arr	23.55	161	eP	P	10 51 43.3	-1.1
ASAR	Alice Springs	26.94	165	P	P	10 52 15.1	-0.1
	1.2nm,0.5s,mb3.7,baz=348,slow=7.1,SNR=26						
JHJ	Hachijo jima 2	32.95	21	LR	LR	11 05 29.9	
	comp=Z,117nm,21.3s,baz=81,slow=35						
KSRS	Korea Array	34.86	2	P	P	10 53 23.9	-0.7
	1.8nm,0.6s,mb4.1,baz=175,slow=9.6,SNR=6.4						
STKA	Stephens Creek	37.03	158	eP	P	10 53 43.0	-0.2
	1.8nm,0.8s,mb4.0						
STKA	Stephens Creek	37.03	158	P	P	10 53 42.5	-0.6
	1.1nm,0.5s,mb4.0,baz=339,slow=9.2,SNR=9.2						
SONM	Songino Array	48.43	342	P	P	10 55 14.9	-0.3
	1.4nm,0.8s,mb3.9,baz=155,slow=8.9,SNR=10.0						
MKAR	Makanchi Array	58.47	326	P	P	10 56 28.2	-0.4
	0.9nm,0.5s,mb4.1,baz=120,slow=7.7,SNR=20						
ZALV	Zalesovo Beam	61.62	333	P	P	10 56 48.6	-1.4
	0.5nm,0.4s,mb3.9,baz=137,slow=8.7,SNR=3.4						
KURK	Kurchatov	62.69	328	eP	P	10 56 56.7	-0.5
	4.4nm,0.6s,mb4.6						
AKTK	Aktyubinsk	74.51	322	P	P	10 58 11.7	+0.9
AKTO	Aktyubinsk	74.51	322	P	P	10 58 11.7	+0.9
	1.1nm,0.5s,mb3.9,baz=84,slow=9.2,SNR=5.1						
IMA2	Indian Mountai	83.64	24	eP	P	10 59 01.8	+1.5
ARCES	ARCESS Array B	91.56	340	P	P	10 59 39.2	+0.9
ARCES	ARCESS Array B	91.56	340	P	P	10 59 39.2	+0.9
	3.7nm,0.9s,mb4.6,baz=46,slow=3.9,SNR=4.6						
YKA	Yellowknife Ar	100.75	24	P	Pdif	11 00 20.8	+0.5
	0.2nm,0.6s,baz=296,slow=4.2,SNR=5.1						
TORD	Torodi Ar. Bea	123.08	287	PKP	PKPdf	11 05 30.3	+1.2
TORD	Torodi Ar. Bea	123.08	287	PKP	PKPdf	11 05 30.3	+1.2
	0.4nm,0.6s,baz=112,slow=2.1,SNR=2.9						

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*ISCJB **27** 10:56:45.5±0.8, 40.19N±0.04×19.70E±0.06, h10^{km}, Error ellipse: s-maj=7.4km s-min=5.4km az=25.5*

*SKO **27** 10:56:47.2, 40.07N×19.88E, h15^{km}*

*NEIC **27** 10:56:47.0, 40.12N×19.79E, h10^{km}, MD3.5(ATH), After ATH.*

*ATH **27** 10:56:47.0, 40.12N×19.79E, h10^{km}±2^{km}, MD3.5/6*

*CSEM **27** 10:56:50.0±0.2, 40.01N×19.97E, h2^{km}, MD3.5, Error ellipse: s-maj=5.2km s-min=3.3km az=173.0*

ISC 27 10:56:46.6±0.8**, 40.17N**±0.04×**19.74E**±0.06**, h10**^{km}**, n22, σ1^{s}.07**/27**, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEK	Kerkira	0.45	174	Pb	Pg	10 56 54.9	-0.5
KEK				eSb	Sg	10 57 00.7	-0.7
KEK	Kerkira	0.45	174	ePB	Pg	10 56 54.9	-0.5
KEK				eSB	Sg	10 57 00.7	-0.7
KEK	Kerkira	0.45	174	Pb	Pg	10 56 54.9	-0.5
KEK				eSb	Sg	10 57 00.7	-0.7
LSK	Leskovik	0.66	91	ePg	Pg	10 56 57.1	-2.2
LSK				i Sg	Sg	10 57 08.2	+0.3
JAN	Janina	0.99	120	Pb	Pb	10 57 04.7	-1.1
JAN	Janina	0.99	120	ePB	Pb	10 57 04.7	-1.1
JAN	Janina	0.99	120	Pb	Pb	10 57 04.7	-1.1
OHR	Ohrid	1.24	40	ePg	Pg	10 57 10.3	-0.1
OHR				eSg	Sg	10 57 27.1	+0.6
BIA	Bitola	1.48	54	ePg	Pn	10 57 12.7	-0.5
KZN	Kozani	1.56	84	ePb	Pb	10 57 15.9	+0.4
KZN	Kozani	1.56	84	ePB	Pb	10 57 15.9	+0.4
KZN	Kozani	1.56	84	ePb	Pb	10 57 15.9	+0.4
KRUS	Krusevo	1.66	43	ePg	Pg	10 57 17.7	-0.8
THL	Klokotos Trika	1.85	108	ePN	Pn	10 57 19.5	+1.2
THL	Klokotos Trika	1.85	108	ePn	Pn	10 57 19.5	+1.2
EVR	Evrytania	2.03	127	ePn	Pn	10 57 22.4	+1.6
EVR	Evrytania	2.03	127	ePN	Pn	10 57 22.4	+1.6
EVR	Evrytania	2.03	127	ePn	Pn	10 57 22.4	+1.6
VLS	Valsamata	2.09	161	ePn	Pn	10 57 24.0	+2.3
VLS	Valsamata	2.09	161	ePN	Pn	10 57 24.0	+2.3
VLS	Valsamata	2.09	161	ePn	Pn	10 57 24.0	+2.3
SG1	Sgolgore (BA)	2.43	287	ePn	Pg	10 57 33.0	-0.2

IDC 27 11:04:40.1±2.4**, 5.59N×126.70E, h0**^{km}**, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/18**, mbtmp3.4**/3**, MS2.9**/1**, Ms1 2.9**/1**, ms1mx2.7**/14**, Error ellipse: s-maj=186.9km s-min=27.0km az=66.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	26.46	164	P	P	11 10 17.9	-1.1
	0.3nm,0.4s,baz=343,slow=10,SNR=6.5						
ASAR	Alice Springs	29.92	167	P	P	11 10 51.5	+1.6
	0.1nm,0.3s,baz=354,slow=7.9,SNR=3.3						
KSRS	Korea Array	31.74	2	LR	LR	11 23 47.8	
	comp=Z,20nm,18.1s,baz=260,slow=36						
MKAR	Makanchi Array	56.02	325	P	P	11 14 20.6	0.0
	0.5nm,0.7s,baz=117,slow=7.4,SNR=6.5						

IDC ***27*** *11:31:59.7±1.4, 26.26N×110.47W, h0^{km}, mb3.0/1, mb1 3.5/5, mb1mx3.4/21, mbtmp3.1/5, ML3.5/4, Error ellipse: s-maj=21.7km s-min=13.3km az=95.0*

ISCJB ***27*** *11:32:00.5±1.0, 26.29N±0.06×110.29W±0.09, h10^{km}, mb3.2/1, Error ellipse: s-maj=11.7km s-min=8.3km az=173.3*

NEIC ***27*** *11:32:01.9±0.9, 26.19N×110.34W, h10^{km}, Error ellipse: s-maj=21.0km s-min=11.9km az=83.0*

ISC 27 11:32:01.9±1.0**, 26.15N**±0.06×**110.30W**±0.09**, h10**^{km}**, n10, σ0**^{s}**85**/13**, mb3.2**/1**, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	La Paz	2.04	180	Pn	Pn	11 32 37.1	+0.8
LPIG				Lg		11 33 08.1	
LPIG	La Paz	2.04	180	Pn	Pn	11 32 37.1	+0.8
	17nm,0.3s,baz=1.5,slow=6.1,SNR=11						
LPIG				Lg		11 33 08.1	
	38nm,0.3s,baz=29,slow=10,SNR=6.9						
TUC	Tucson	6.15	356	*e*Pn	Pn	11 33 32.8	0.0
	2.2nm,0.9s						
TUC				*e*Sg	Sg	11 35 20.2	+0.8
TXAR	Lajitas Array	6.68	60	Pn	Pn	11 33 40.0	-0.1
TXAR				Sn	Sn	11 34 56.0	-0.2
TXAR				Lg		11 35 34.9	
TXAR	Lajitas Array	6.68	60	Pn	Pn	11 33 40.0	-0.1
	0.2nm,0.3s,baz=232,slow=13,SNR=14						
TXAR				Sn	Sn	11 34 56.0	-0.2
	0.2nm,0.3s,baz=238,slow=12,SNR=3.7						
TXAR				Lg		11 35 34.9	
	0.7nm,0.3s,baz=231,slow=29,SNR=7.3						
NVAR	Mina Array Bea	13.98	333	Pn	Pn	11 35 18.9	-1.1
NVAR	Mina Array Bea	13.98	333	Pn	Pn	11 35 18.9	-1.1
	0.1nm,0.3s,baz=115,slow=15,SNR=2.3						
PDAR	Pinedale Array	16.59	2	Pn	Pn	11 35 55.7	+1.2
PDAR	Pinedale Array	16.59	2	Pn	Pn	11 35 55.7	+1.2
	0.1nm,0.3s,baz=174,slow=9.1,SNR=3.5						
YKA	Yellowknife Ar	36.45	357	P	P	11 39 05.2	-1.4
	0.3nm,1.0s,mb3.2,baz=170,slow=7.9,SNR=4.5						

CSEM ***27*** *11:38:42.6±0.1, 38.49N×39.20E, h30^{km}, MD2.8, Error ellipse: s-maj=2.3km s-min=1.5km az=137.0*

DDA ***27*** *11:38:42.8, 38.30N×39.20E, h6^{km}±5^{km}, Md2.9*

ISK ***27*** *11:38:42.9, 38.46N×39.21E, h5^{km}, MD2.8*

ISCJB ***27*** *11:38:43.5±0.6, 38.41N±0.07×39.24E±0.06, h14^{km}±16^{km}, Error ellipse: s-maj=13.5km s-min=4.6km az=146.9*

ISC 27 11:38:44.0±0.6**, 38.43N**±0.07×**39.24E**±0.07**, h17**^{km}±15^{km}**, n13, σ0**^{s}**90**/22**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.21	288	*i* P	Pg	11 38 49.0	0.0
ELZG				*i* S	Sg	11 38 52.0	-0.4
PTK	Pertek	0.47	14	PG	Pg	11 38 52.8	-0.7
PTK				SG	Sg	11 39 00.6	+0.7
PTK	Pertek	0.47	14	*e*Pg	Pg	11 38 52.8	-0.7
PTK				*e*Sg	Sg	11 39 00.6	+0.7
MALT	Malatya	0.65	260	PG	Pg	11 38 55.9	-0.9
MALT				SG	Sg	11 39 05.7	+0.2
MALT	Malatya	0.65	260	*e*Pg	Pg	11 38 55.9	-0.9
MALT				*e*Sg	Sg	11 39 05.7	+0.2
MYA	Malataya	0.65	261	PG	Pg	11 38 56.6	-0.2
MYA				SG	Sg	11 39 06.4	+1.0
MYA	Malataya	0.65	261	*e*Pg	Pg	11 38 56.6	-0.2
MYA				*e*Sg	Sg	11 39 06.4	+1.0
DIYA	Diyarbakir	0.86	126	*i* P	Pb	11 38 59.7	-0.6
URFA	Urfa	1.04	199	PG	Pg	11 39 04.4	+0.2
URFA	Urfa	1.04	199	*e*Pg	Pg	11 39 04.4	+0.2
BNGL	BINGOL	1.58	70	*i* P	Pg	11 39 13.5	-0.9
BNGL				*i* S	Sg	11 39 37.9	+2.9
MARD	Mardin	1.65	132	*i* P	Pn	11 39 12.7	+0.6
GZT	Gaziantep	1.71	231	*i* P	Pg	11 39 15.4	-1.4
GZT				*i* S	Sg	11 39 40.2	+1.2

IDC ***27*** *11:44:33.9±1.1, 26.18N×110.45W, h0^{km}, mb3.9/5, mb1 4.1/11, mb1mx4.0/25, mbtmp3.8/11, ML3.5/5, MS3.9/13, Ms1 3.9/13, ms1mx3.6/29, Error ellipse: s-maj=19.1km s-min=11.9km az=90.0*

ISCJB ***27*** *11:44:37.8±0.6, 26.30N±0.05×110.11W±0.03, h10^{km}, mb4.2/10, MS3.9/12, Error ellipse: s-maj=7.0km s-min=3.9km az=6.2*

NEIC ***27*** *11:44:37.0±0.8, 26.03N×110.31W, h10^{km}, mb4.3/17, Error ellipse: s-maj=11.6km s-min=7.8km az=220.0*

ISC 27 11:44:37.0±0.6**, 26.03N**±0.05×**110.20W**±0.03**, h10**^{km}**, n260, σ1**^{s}**30**/257**, mb4.2**/11**, MS3.9**/12**, 74C-74D, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPIG	La Paz	1.92	183	Pn	Pn	11 45 08.8	-1.0
LPIG				Lg		11 45 40.4	
LPIG	La Paz	1.92	183	Pn	Pn	11 45 08.8	-1.0
	37nm,0.3s,baz=9.2,slow=4.7,SNR=32						
LPIG				Lg		11 45 40.4	
	318nm,0.3s,baz=35,slow=12,SNR=8.5						
TUC	Tucson	6.28	355	*e*Pn	Pn	11 46 05.1	-4.6
	33nm,0.8s						
TUC				*e*Sg	Sg	11 47 55.3	-3.3
116A	Eloy	6.64	349	P	Pn	11 46 10.6	-4.0
	baz=6.2,SNR=11						
LTX	Lajitas	6.66	59	*e*Pn	Pn	11 46 15.4	+0.4
LTX				*e*Sg	Sg	11 48 12.6	+1.7
TXAR	Lajitas Array	6.66	59	Pn	Pn	11 46 14.2	-0.8
TXAR				Sn	Sn	11 47 31.3	+0.3
TXAR				Lg		11 48 09.8	
TXAR	Lajitas Array	6.66	59	Pn	Pn	11 46 14.2	-0.8
	0.9nm,0.3s,baz=237,slow=13,SNR=65						
TXAR				Sn	Sn	11 47 31.3	+0.3
	0.8nm,0.3s,baz=222,slow=20,SNR=3.6						
TXAR				Lg		11 48 09.8	
	2.5nm,0.3s,baz=242,slow=28,SNR=5.1						
115A	Sonoran Desert	6.88	346	⇑P	Pn	11 46 15.4	-2.5
	baz=6.4,SNR=5.7						
MNTX	Cornudas Mount	7.05	36	*e*Pn	Pn	11 46 19.5	-0.8
MNTX				*e*Sg	Sg	11 48 19.1	-4.3
Z14A	Wintersburg	7.69	343	⇑P	Pn	11 46 25.2	-3.9
	baz=7.2						
GDL2	Guadalupe Moun	7.99	38	*e*Pn	Pn	11 46 38.0	+4.8
GDL2				*e*Pg	Pn	11 47 09.4	+36
GDL2				*e*Sb	Sb	11 48 48.6	+18
GLA	Glamis	8.08	331	⇓P	Pn	11 46 32.5	-1.9
	baz=7.7						
Y12C	Blythe	8.56	335	⇓P	Pn	11 46 40.5	-0.5
	baz=8.1						
LENM	Lemitar	8.58	18	*e*Pn	Pn	11 46 42.6	+1.4
X15A	Humboldt	8.61	349	⇓P	Pn	11 46 39.5	-2.2
	baz=8.2						
BNM	Barren Site	8.66	20	*e*Pn	Pn	11 46 43.1	+0.7
BNM				*e*Sg	Sn	11 49 08.1	+48
X14A	Yava	8.73	345	⇓P	Pn	11 46 41.2	-2.1
	baz=8.3						
LAZ	Ladron	8.76	17	*e*Pn	Pn	11 46 44.1	+0.5
LAZ				*e*Sg	Sn	11 49 19.2	+57
PDMCI	Parker Dam,Lak	8.92	338	⇓P	Pn	11 46 44.4	-1.5
	baz=8.5						
X13A	Yucca	9.09	341	⇑P	Pn	11 46 47.2	-1.1
	baz=8.7						
IRM	Iron Mountain	9.17	333	⇑P	Pn	11 46 48.2	-1.1
	baz=8.8						
W15A	Williams	9.29	349	⇓P	Pn	11 46 50.0	-1.0
	baz=8.8						
PFO	Pinyon Flat Ob	9.30	326	LR	LR	11 49 48.8	
	comp=Z,396nm,20.9s,baz=101,slow=35						
ANMO	Albuquerque	9.46	19	Pn	Pn	11 46 52.8	-0.5
ANMO				Lg		11 49 29.8	
ANMO	Albuquerque	9.46	19	Pn	Pn	11 46 52.8	-0.5
	0.1nm,0.3s,baz=217,slow=12,SNR=6.0						
ANMO				Lg		11 49 29.8	
	0.2nm,0.3s,baz=234,slow=17,SNR=3.7						
W14A	Seligman	9.48	346	P	Pn	11 46 51.9	-1.8
	baz=9.0,SNR=9.4						
WUAZ	Wupatki	9.51	354	*e*Pn	Pn	11 46 59.4	+5.4
WUAZ	Wupatki	9.51	354	⇓P	Pn	11 46 52.9	-1.1
	baz=9.1						
W13A	Hualapai Mount	9.58	342	P	Pn	11 46 54.3	-0.7
	baz=9.1,SNR=7.1						
JCT	Junction City	10.18	62	*e*Pn	Pn	11 47 07.1	+3.9
V12A	Nelson	10.46	339	⇓P	Pn	11 47 05.4	-1.6
	baz=10.0						
V11A	Goodsprings	10.76	337	⇑P	Pn	11 47 11.7	+0.6
	baz=10,SNR=7.2						
U13A	Pakoon Wash	10.84	344	⇓P	Pn	11 47 12.6	+0.4
	baz=10						
T15A	Red Dirt Ranch	11.11	351	⇓P	Pn	11 47 15.8	-0.1
	baz=11,SNR=6.9						
MVCO	Mesa Verde	11.24	7	P	Pn	11 47 18.0	+0.3
	baz=11,SNR=7.6						
SHPR	Sheep Range	11.27	339	*e*Pn	Pn	11 47 17.8	-0.4
T14A	Hurricane	11.27	348	⇑P	Pn	11 47 16.9	-1.2
	baz=11						
T13A	Saint George	11.40	345	⇓P	Pn	11 47 20.3	+0.3
	baz=11						
ARVC	Arvin	11.72	323	⇓P	Pn	11 47 25.1	+0.8
	baz=11						
ISA	Isabella	11.94	326	⇓P	Pn	11 47 27.9	+0.6
	baz=12						
T11A	Corn Creek, Al	11.97	340	⇓P	Pn	11 47 27.8	+0.2
	baz=12						
DAC	Darwin (Calif)	12.01	330	*e*Pn	Pn	11 47 28.9	+0.6
TPNV	Topopah Spring	12.04	336	⇑P	Pn	11 47 30.0	+1.3
	baz=12						
SDCO	Great Sand Dun	12.34	18	*e*Pn	Pn	11 47 38.0	+5.3
VES	Vestal, Richgr	12.39	324	⇓P	Pn	11 47 34.2	+0.7
	baz=12						
S11A	Rachel	12.50	339	⇑P	Pn	11 47 36.1	+1.2
	baz=12						
MSU	Marysvale	12.56	353	*e*Pn	Pn	11 47 36.1	+0.4
HELL	Mitchell Peak,	13.01	327	⇑P	Pn	11 47 42.2	+0.2
	baz=13						
S10A	Tonopah Range,	13.04	337	P	Pn	11 47 41.8	-0.5
	baz=13,SNR=11						
S09A	Goldfield	13.09	335	P	Pn	11 47 42.4	-0.7
	baz=13,SNR=14						
WMOK	Wichita Mounta	13.12	46	*e*Pn	Pn	11 47 44.2	+0.7
TMUT	Trail Mountain	13.26	357	*e*Pn	Pn	11 47 45.0	-0.3
R10A	Warm Springs	13.27	339	⇑P	Pn	11 47 45.7	+0.3
	baz=13						
S08C	White Mtn Res	13.29	331	⇑P	Pn	11 47 46.9	+1.2
	baz=13						
MTUM	Tungsten Hills	13.34	330	*e*Pn	Pn	11 47 47.6	+1.2
R09A	Tonopah	13.49	336	⇑P	Pn	11 47 48.8	+0.4
	baz=13,SNR=10						
Q12A	Willow Creek R	13.55	344	⇑P	Pn	11 47 48.4	-0.8
	baz=13						
Q11A	Duckwater	13.58	342	P	Pn	11 47 49.0	-0.7
	baz=13,SNR=5.8						
T06C	Millerton Lake	13.61	326	⇓P	Pn	11 47 50.4	+0.3
	baz=13						
KCC	Kaiser Creek	13.67	328	⇑P	Pn	11 47 51.7	+0.8
	baz=13						
Q10A	Clear Creek Ra	13.79	339	P	Pn	11 47 51.9	-0.6
	baz=13,SNR=6.8						
P12A	McGill	13.98	345	P	Pn	11 47 55.3	+0.2
	baz=14,SNR=8.3						
NVAR	Mina Array Bea	14.13	333	Pn	Pn	11 47 55.8	-1.4
NVAR	Mina Array Bea	14.13	333	Pn	Pn	11 47 55.8	-1.4
	0.1nm,0.3s,baz=145,slow=12,SNR=12						
ISCO	Idaho Springs	14.26	14	*e*Pn	Pn	11 48 01.3	+2.4
P11A	Circle Ranch,	14.27	342	⇓P	Pn	11 48 00.4	+1.4
	baz=14						
DUG	Dugway	14.30	352	*e*Pn	Pn	11 48 00.2	+0.8
DUG	Dugway	14.30	352	⇓P	Pn	11 47 59.4	0.0
	baz=14						
Q08A	Gabbs	14.36	335	⇑P	Pn	11 48 00.4	+0.2
	baz=14						
O13A	Hicks Ranch, I	14.41	348	⇓P	Pn	11 48 01.4	+0.3
	baz=14						
P10A	Eureka	14.53	340	⇓P	Pn	11 48 02.6	0.0
	baz=14						
JLU	Jordanelle	14.57	356	*e*Pn	Pn	11 48 10.4	+7.2
P09A	Austin	14.69	338	⇓P	Pn	11 48 04.8	0.0
	baz=14						
O12A	Currie	14.70	346	⇓P	Pn	11 48 04.7	-0.2
	baz=14						
R06C	Coleville	14.70	330	⇑P	Pn	11 48 05.9	+1.0
	baz=14						
O11A	Cowboy Ranch,	14.78	343	⇓P	Pn	11 48 06.0	-0.1
	baz=14						
N14A	Grayback Hills	14.99	351	⇓P	Pn	11 48 09.2	+0.3
	baz=14,SNR=7.4						
BGU	Big Grassy Mou	15.04	352	*e*P	Pn	11 48 13.7	+4.1
R05C	Kirkwood Meado	15.13	329	⇑P	Pn	11 48 11.3	+0.5
	baz=15						
N13A	Wendover, West	15.16	348	⇑P	Pn	11 48 11.8	+0.7
	baz=15						
O10A	Cortez Mining,	15.16	341	⇓P	Pn	11 48 11.5	+0.3
	baz=15						
O09A	Fish Creek Ran	15.26	339	⇑P	Pn	11 48 13.8	+1.3
	baz=15						
N12A	Clover Valley,	15.32	346	⇑P	Pn	11 48 14.4	+1.1
	baz=15						
SPUT	South Promonto	15.36	354	*e*Pn	Pn	11 48 16.4	+2.6
N11A	Elko Archery C	15.45	344	⇑P	Pn	11 48 17.1	+2.2
	baz=15						
WCN	Washoe City	15.48	331	⇑P	Pn	11 48 16.8	+1.5
	baz=15						
LAVA	Lava Cap Winer	15.48	328	⇑P	Pn	11 48 17.4	+1.9
	baz=15						
CBKS	Cedar Bluff	15.49	32	*e*P	Pn	11 48 18.6	+3.0
	13nm,0.8s						
M15A	Larsen Ranch,	15.51	354	⇑P	Pn	11 48 17.1	+1.4
	baz=15						
BMN	Battle Mountai	15.51	340	*e*Pn	Pn	11 48 17.0	+1.3
	27nm,1.1s						
HWUT	Hardware Ranch	15.58	356	*e*Pn	Pn	11 48 15.3	-1.3
M13A	Montello	15.64	349	⇓P	Pn	11 48 19.0	+1.5
	baz=15						
M14A	Sheep Mountain	15.65	351	⇓P	Pn	11 48 18.5	+0.9
	baz=15,SNR=8.7						
PHWY	Pilot Hill	15.73	13	*e*Pn	Pn	11 48 22.4	+3.8
RWWY	Rawlins	15.81	8	*e*P	Pn	11 48 26.3	+6.6
	13nm,1.2s						
M12A	Wells	15.84	347	⇑P	Pn	11 48 21.0	+1.0
	baz=15						
O07A	Toulon	15.85	335	⇓P	Pn	11 48 21.8	+1.6
	baz=15						
HVU	Hansel Valley	15.86	353	*e*P	Pn	11 48 23.1	+2.8
	21nm,1.0s						
P05C	Yuba Gap, Truc	15.86	329	⇓P	Pn	11 48 22.8	+2.5
	baz=16						
Q04C	Lincoln	15.86	326	⇑P	Pn	11 48 22.4	+2.0
	baz=16						
N09A	Rock Creek Ran	15.99	339	⇓P	Pn	11 48 23.8	+1.8
	baz=16						
M11A	Holland Ranch,	16.05	345	⇑P	Pn	11 48 24.3	+1.7
	baz=16						
BEKR	Beckwourth	16.20	331	P	Pn	11 48 25.5	+0.8
	baz=16,SNR=6.8						
O06A	Flanigan	16.23	333	⇓P	Pn	11 48 26.2	+1.2
	baz=16						
L13A	Double Diamond	16.32	350	⇑P	Pn	11 48 27.1	+1.0
	baz=16,SNR=9.9						
M10A	I.L. Ranch, Tu	16.32	343	⇓P	Pn	11 48 26.5	+0.2
	baz=16						
N07B	Gerlach	16.42	336	⇑P	Pn	11 48 28.9	+1.4
	baz=16						
ORV	Oroville	16.48	328	⇑P	Pn	11 48 29.1	+0.8
	baz=16						
O05C	Quincy	16.53	330	⇑P	Pn	11 48 30.6	+1.6
	baz=16						
L12A	House Creek Ra	16.56	347	⇑P	Pn	11 48 29.7	+0.5
	baz=16						
K14A	Jones Ranch, D	16.66	352	P	Pn	11 48 31.8	+1.3
	baz=16,SNR=9.4						
BW06	Boulder Array	16.71	2	*e*Pn	Pn	11 48 32.4	+1.2
	20nm,1.3s						
PDAR	Pinedale Array	16.71	2	Pn	Pn	11 48 30.1	-1.0
PDAR	Pinedale Array	16.71	2	Pn	Pn	11 48 30.1	-1.0
	0.1nm,0.3s,baz=183,slow=10,SNR=8.7						
N06A	Buffalo Meadow	16.72	334	⇓P	Pn	11 48 32.0	+0.6
	baz=16						
L11A	Cat Creek Ranc	16.74	346	P	Pn	11 48 30.9	-0.6
	baz=16,SNR=7.3						
CMIG	Matias Romero	16.78	119	P	Pn	11 48 35.2	+3.0
	0.0nm,0.3s,baz=309,slow=8.1,SNR=3.1						
M08A	Happy Creek Ra	16.80	338	⇓P	Pn	11 48 33.1	+0.8
	baz=16						
L10A	Juniper Basin	16.82	344	⇑P	Pn	11 48 33.5	+0.9
	baz=16						
HOPS	Hopland	16.86	323	⇓P	Pn	11 48 35.7	+2.6
	baz=16						
K13A	Stover Farm, H	16.89	350	⇑P	Pn	11 48 34.1	+0.8
	baz=16						
O04C	Chester	16.90	330	⇑P	Pn	11 48 34.9	+1.4
	baz=16						
K12A	Draper Farm, C	17.01	348	⇓P	Pn	11 48 36.7	+1.7
	baz=17						
M07A	Soldier Meadow	17.02	336	⇑P	Pn	11 48 36.3	+1.2
	baz=17						
L09A	Wilkinson Ranc	17.10	341	⇓P	Pn	11 48 37.1	+1.0
	baz=17						
REDW	Red Top Meadow	17.30	358	*e*Pn	Pn	11 48 39.2	+0.6
	18nm,1.2s						
KSU1	Kansas State U	17.33	38	*e*Pn	Pn	11 48 41.4	+2.4
P01C	Double 8 Ranch	17.34	324	⇓P	Pn	11 48 41.5	+2.3
	baz=17						
M06C	Likely Place G	17.37	333	⇑P	Pn	11 48 40.4	+1.0
	baz=17						
K11A	Parker Ranch,	17.37	345	⇓P	Pn	11 48 40.1	+0.6
	baz=17						
L08A	Fields	17.46	339	⇑P	Pn	11 48 41.4	+0.8
	baz=17						
HATC	Hat Creek Radi	17.46	330	⇑P	Pn	11 48 42.4	+1.7
	baz=17						
LOHW	Long Hollow	17.55	359	*e*Pn	Pn	11 48 40.3	-1.3
K10A	MacKenzie Ranc	17.58	344	⇑P	Pn	11 48 43.1	+1.0
	baz=17						
J13A	Cove Ranch, Pi	17.63	350	⇑P	Pn	11 48 43.2	+0.6
	baz=17						
L07A	Adell	17.64	337	⇓P	Pn	11 48 44.0	+1.2
	baz=17						
J12A	Stokes Ranch,	17.64	348	P	Pn	11 48 42.9	+0.1
	baz=17,SNR=6.2						
MOOW	Moose Ponds	17.68	359	*e*Pn	Pn	11 48 44.8	+1.5
K09A	Rome	17.74	342	⇑P	Pn	11 48 44.2	+0.2
	baz=17						
M05C	Lookout	17.77	332	⇑P	Pn	11 48 45.3	+0.8
	baz=17						
WDC	Whiskeytown Da	17.78	328	⇓P	Pn	11 48 46.7	+2.2
	baz=17						
HLID	Hailey	17.83	350	*e*Pn	Pn	11 48 45.0	-0.1
HLID	Hailey	17.83	350	⇑P	Pn	11 48 45.4	+0.3
	baz=17						
MOD	Modoc	17.89	335	*e*P	Pn	11 48 50.3	+4.4
	19nm,1.5s						
MOD	Modoc	17.89	335	⇓P	Pn	11 48 47.2	+1.3
	baz=18						
MFID	Camas Ranch	17.94	347	⇓P	Pn	11 48 46.6	+0.1
	baz=18						
I13A	Wildhorse Cree	18.13	351	P	Pn	11 48 48.4	-0.4
	baz=18,SNR=11						
M03C	McCloud	18.13	330	⇓P	Pn	11 48 50.7	+1.8
	baz=18						
J10A	Berg Farm, Mel	18.17	344	⇑P	Pn	11 48 50.0	+0.8
	baz=18						
K07A	Rock Creek Ran	18.20	338	⇑P	Pn	11 48 49.2	-0.6
	baz=18						
J09A	Fry Pan Ranch,	18.35	342	⇓P	Pn	11 48 51.4	-0.1
	baz=18						
M04C	Macdoel	18.42	331	⇑P	Pn	11 48 51.5	-0.9
	baz=18						
I11A	Placerville	18.45	347	⇑P	Pn	11 48 52.3	-0.5
	baz=18						
LKWY	Lake	18.50	360	*e*P	Pn	11 48 59.3	+6.0
	12nm,1.1s						
J08A	Circle Bar Ran	18.56	341	⇓P	Pn	11 48 52.6	-1.5
	baz=18						
YMR	Madison River	18.61	358	*e*P	Pn	11 48 54.9	+0.2
	12nm,1.0s						
K06A	Valley Falls	18.65	336	⇑P	Pn	11 48 53.5	-1.7
	baz=18						
L04A	Klamath Falls	18.76	332	⇓P	Pn	11 48 57.5	+0.9
	baz=18						
YBH	Yreka Blue Hor	18.76	330	⇑P	Pn	11 48 56.7	+0.1
	baz=18						
H13A	Challis	18.78	351	⇓P	Pn	11 48 56.0	-0.8
	baz=18						
QLMT	Earthquake Lak	18.79	357	*e*P	Pn	11 48 56.3	-0.5
I10A	Payette	18.80	345	⇑P	Pn	11 48 58.1	+1.1
	baz=18						
J07A	Hines	18.83	339	P	Pn	11 48 55.4	-2.1
	baz=18,SNR=6.9						
H12A	Diamond D Ranc	18.86	350	⇓P	Pn	11 48 56.6	-1.1
	baz=18						
MCMT	McKenzie Canyo	18.88	354	*e*P	Pn	11 48 57.2	-0.8
I09A	Lost Marbles R	18.92	343	⇑P	Pn	11 49 00.5	+2.0
	baz=18						
J06A	Christmas Vall	19.01	337	⇓P	Pn	11 48 59.4	-0.1
	baz=19						
I08A	Drewsey	19.09	341	⇑P	Pn	11 49 01.2	+0.6
	baz=19						
G15A	Dillon	19.19	355	⇓P	Pn	11 49 02.0	+0.3
	baz=19						
H11A	Donnelly	19.22	347	⇓P	Pn	11 49 02.1	+0.1
	baz=19						
H10A	Noah’s Angus R	19.26	346	⇓P	Pn	11 49 02.9	+0.3
	baz=19						
G13A	Cobalt	19.30	351	P	Pn	11 49 00.8	-2.2
	baz=19,SNR=6.8						
G14A	Jackson	19.35	353	⇑P	Pn	11 49 02.3	-1.4
	baz=19						
J05A	Fort Rock	19.43	335	⇑P	Pn	11 49 03.5	-1.1
	baz=19						
I07A	Izee	19.53	340	⇓P	Pn	11 49 04.2	-1.6
	baz=19						
H09A	Durkee	19.55	344	⇓P	Pn	11 49 05.5	-0.5
	baz=19						
BOZ	Bozeman (W)	19.61	357	*e*P	Pn	11 49 05.0	-1.7
BOZ	Bozeman (W)	19.61	357	⇓P	Pn	11 49 06.6	-0.1
	baz=19						
I06A	Prineville	19.64	338	⇑P	Pn	11 49 06.6	-0.5
	baz=19						
BMO	Blue Mountains	19.64	345	*e*Pn	Pn	11 49 08.6	+1.5
H08A	Prairie City	19.68	342	⇓P	Pn	11 49 05.8	-1.8
	baz=19						
GCMT	Greycliff	19.73	1	*e*P	Pn	11 49 07.1	-1.0
LRM	Limekiln Ridge	19.84	355	*e*P	Pn	11 49 07.8	-1.6
F15A	Butte	19.86	355	P	Pn	11 49 08.1	-1.6
	baz=19,SNR=6.5						
F14A	Wisdom	19.91	353	⇑P	Pn	11 49 09.0	-1.3
	baz=20						
G11A	Walters Elk Ra	19.94	347	⇑P	Pn	11 49 09.7	-0.9
	baz=20						
H07A	Lands Inn, Kim	20.01	340	⇓P	P	11 49 11.5	+1.8
	baz=20						
F12A	Elk City	20.10	350	⇑P	P	11 49 10.2	-0.5
	baz=20						
F11A	Grangeville	20.39	348	P	P	11 49 11.9	-1.9
	baz=20,SNR=8.3						
E15A	Deer Lodge	20.45	355	⇑P	P	11 49 13.4	-1.1
	baz=20						
G08A	Pilot Rock	20.47	342	⇓P	P	11 49 12.9	-1.8
	baz=20						
E14A	Clinton	20.52	353	P	P	11 49 13.9	-1.3
	baz=20,SNR=9.9						
FVM	French Village	20.53	50	*e*P	P	11 49 15.9	+0.4
	14nm,0.8s						
F09A	S2 Ranch, Elgi	20.59	344	P	P	11 49 14.1	-2.0
	baz=20,SNR=11						
E13A	Victor	20.62	352	P	P	11 49 14.6	-1.8
	baz=20,SNR=13						
G07A	Ruggs Ranch, H	20.65	341	⇑P	P	11 49 14.6	-2.1
	baz=20						
F10A	Beach Ranch, E	20.68	346	P	P	11 49 14.9	-2.1
	baz=20,SNR=9.2						
E11A	Bogner Ranch,	20.85	348	⇓P	P	11 49 16.6	-2.2
	baz=20						
LAO	LASA Array	20.86	8	*e*P	P	11 49 19.0	+0.1
	17nm,1.1s						
TEIG	Tepich	20.96	101	LR	LR	11 59 32.7	
	comp=Z,286nm,18.5s,MS3.7,baz=175,slow=42						
MSO	Missoula	20.97	353	*e*P	P	11 49 18.3	-1.9
	13nm,1.2s						
CHMT	Chamberlain Mo	20.99	354	*e*P	P	11 49 18.6	-1.7
PLAL	Pickwick Lake	21.01	60	*e*Pn	P	11 49 28.6	+7.9
	18nm,1.3s,mb4.2						
D15A	Lincoln	21.05	356	⇓P	P	11 49 20.5	-0.5
	baz=21						
E10A	Myers Farm, Un	21.15	347	⇑P	P	11 49 20.5	-1.6
	baz=21						
D14A	Greenough	21.18	354	P	P	11 49 20.6	-1.8
	baz=21,SNR=14						
SIUC	Southern Illin	21.24	52	*e*P	P	11 49 24.5	+1.3

	30nm,1.0s,mb4.6						
D13A	Huson	21.30	352	⇓P	P	11 49 22.6	-1.1
	baz=21						
D12A	Red Ives Fores	21.38	350	⇓P	P	11 49 23.8	-0.7
	baz=21						
E09A	Wood Farm, Sta	21.40	345	⇑P	P	11 49 24.2	-0.7
	baz=21						
D11A	Klaveano Farm,	21.54	349	⇓P	P	11 49 23.8	-2.5
	baz=21						
HAWA	Hanford	21.64	342	eP	P	11 49 29.4	+2.0
D10A	Wagner Farm, O	21.72	347	⇑P	P	11 49 24.9	-3.4
	baz=21						
C14A	Swan Lake	21.88	354	⇓P	P	11 49 27.4	-2.5
	baz=21						
E07A	Sunnyside	21.88	342	⇑P	P	11 49 27.3	-2.7
	baz=22						
C13A	Hot Springs	21.89	352	⇓P	P	11 49 27.5	-2.5
	baz=21						
D09A	Jones Farm, Ri	21.96	345	⇑P	P	11 49 27.1	-3.6
	baz=22						
EGMT	Eagleton	21.96	1	eP	P	11 49 30.0	-0.8
	24nm,1.3s,mb4.5						
EGMT	Eagleton	21.96	1	⇓P	P	11 49 27.9	-2.9
	baz=22						
D08A	Wollman Farm,	22.10	344	⇑P	P	11 49 28.4	-3.9
	baz=22						
USIN	University of	22.45	52	eP	P	11 49 45.1	+9.0
E05A	Randle	22.46	339	⇓P	P	11 49 36.9	+0.7
	baz=22,SNR=7.7						
D07A	Quincy	22.50	342	⇓P	P	11 49 35.1	-1.5
	baz=22						
B13A	Whitefish	22.56	353	⇑P	P	11 49 37.0	-0.1
	baz=22						
LON	Longmire	22.65	339	eP	P	11 49 35.6	-2.5
SWET	Sewanee	22.76	60	eP	P	11 49 46.7	+7.2
B12A	Libby	22.80	351	⇑P	P	11 49 37.5	-2.2
	baz=22						
C08A	Higginbotham F	22.81	344	⇓P	P	11 49 37.7	-2.1
	baz=22						
NEW	Newport	22.85	348	P	P	11 49 36.8	-3.5
NEW				eP		11 49 42.8	
NEW				LR	LR	11 58 54.1	
NEW	Newport	22.85	348	P	P	11 49 36.8	-3.5
	6.6nm,1.0s,mb4.0,baz=169,slow=13,SNR=9.1						
NEW				LR	LR	11 58 54.1	
	comp=Z,380nm,18.4s,MS3.9,baz=171,slow=38						
DGMT	Dagmar	22.89	10	eP	P	11 49 42.5	+1.8
C07A	Waterville	22.98	343	⇓P	P	11 49 41.4	-0.2
	baz=22						
E03A	Lebam	23.07	336	⇑P	P	11 49 41.7	-1.0
	baz=23						
A13A	Flathead Natio	23.10	353	⇓P	P	11 49 41.3	-1.6
	baz=23						
A11A	Hall Mountain,	23.39	350	⇓P	P	11 49 43.8	-2.1
	baz=23						
B08A	Colville Reser	23.41	345	⇑P	P	11 49 43.6	-2.6
	baz=23						
A10A	Northport	23.62	348	⇑P	P	11 49 48.7	+0.4
	baz=23						
C04A	Brinnon	23.88	338	⇓P	P	11 49 50.4	-0.2
	baz=23						
CPCT	Cooper Cave	23.93	61	eP	P	11 49 53.3	+2.0
A08A	Turner Farm, O	23.96	345	⇑P	P	11 49 51.3	0.0
	baz=24						
TKL	Tuckaleechee C	24.57	61	P	P	11 49 56.9	-0.3
	3.5nm,0.8s,mb4.0,baz=204,slow=13,SNR=5.2						
TKL				LR	LR	11 59 23.0	
	comp=Z,324nm,18.3s,MS3.9,baz=123,slow=36						
ULM	Lac du Bonnet	26.58	21	P	P	11 50 13.6	-1.6
	0.6nm,0.4s,mb3.4,baz=180,slow=7.1,SNR=2.3						
ULM				LR	LR	12 00 46.6	
	comp=Z,250nm,18.3s,MS3.8,baz=206,slow=37						
EDM	Edmonton	27.26	356	eP	P	11 50 21.0	-0.2
BBB	Bella Bella	29.42	337	LR	LR	12 01 58.5	
	comp=Z,231nm,20.3s,MS3.8,baz=58,slow=36						
FCC	Fort Churchill	34.62	15	eP	P	11 51 24.7	-1.3
DLBC	Dease Lake	35.28	342	eP	P	11 51 33.5	+1.8
YKA	Yellowknife Ar	36.58	357	P	P	11 51 39.4	-3.4
YKA				LR	LR	12 07 14.4	
YKA	Yellowknife Ar	36.58	357	P	P	11 51 39.4	-3.4
	1.5nm,1.1s,mb3.8,baz=179,slow=8.0,SNR=14						
YKA				LR	LR	12 07 14.4	
	comp=Z,305nm,18.1s,MS4.1,baz=160,slow=37						
ROSC	El Rosal	40.25	115	LR	LR	12 09 10.4	
	comp=Z,101nm,18.7s,MS3.7,baz=206,slow=36						
SDV	Santo Domingo	41.20	107	eP	P	11 52 26.5	+4.3
	8.5nm,1.0s,mb4.3						
DAWY	Dawson	42.49	341	eP	P	11 52 36.2	+4.1
SCHQ	Schefferville	42.74	36	LR	LR	12 10 52.3	
	comp=Z,226nm,18.8s,MS4.1,baz=247,slow=37						
INK	Inuvik	44.58	348	P	P	11 52 45.4	-3.4
INK				eP		11 52 52.3	
INK	Inuvik	44.58	348	P	P	11 52 45.4	-3.4
	2.6nm,0.9s,mb4.0,baz=135,slow=5.7,SNR=3.5						
TTA	Tatalina	47.55	334	eP	P	11 53 14.9	+2.6
	3.3nm,0.8s,mb4.4						
PPT	Papeete	57.82	226	LR	LR	12 11 32.4	
	comp=Z,9.9nm,19.8s,MS2.9,baz=48,slow=28						
DAG	Danmarks Havn	65.22	15	⇑iP	P	11 55 16.8	-1.3
	10nm,1.1s,mb4.8						
FINES	FINESS Array B	85.97	19	LR	LR	12 33 44.5	
	comp=Z,67nm,18.8s,MS4.1,baz=318,slow=34						
GERES	GERESS Array B	90.22	33	LR	LR	12 39 00.7	
	comp=Z,101nm,18.6s,MS4.3,baz=278,slow=36						
ZALV	Zalesovo Beam	99.30	351	LR	LR	12 41 47.4	
	comp=Z,48nm,19.5s,MS4.0,baz=37,slow=35						

IDC 27 11:58:41.2±4.0,256S×14043E,h0^{km},mb3.4/2,mb1 3.6/3,mb1mx3.5/12,mbtmp3.5/3,ML3.5/1,Error ellipse: s-maj=148.9km s-min=29.1km az=88.0,Near north coast of Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	18.27	199	P	Pn	12 02 55.6	-0.7
	0.1nm,0.3s,baz=20,slow=11,SNR=11						
ASAR	Alice Springs	21.91	196	P	P	12 03 35.7	-0.4
	0.6nm,0.5s,baz=27,slow=10,SNR=9.3						
MKAR	Makanchi Array	70.73	322	P	P	12 09 59.7	+0.5
	0.5nm,0.7s,baz=115,slow=8.7,SNR=7.7						

IDC 27 12:01:36.2±1.2,096S×12750E,h0^{km},mb4.1/6,mb1 4.2/7,mb1mx4.1/17,mbtmp4.1/7,ML3.6/1,Error ellipse: s-maj=116.0km s-min=17.4km az=71.0

BJI 27 12:01:37.7,100S×12740E,h10^{km},mB4.8,mb4.7

NEIC 27 12:01:37.8±0.6,100S×12740E,h10^{km},Error ellipse: s-maj=44.7km s-min=9.1km az=71.0

ISCJB 27 12:01:38.8±0.8,10S±01×1275E±04,h33^{km},mb4.2/6,Error ellipse: s-maj=53.5km s-min=10.2km az=160.8

ISC 27 12:01:41.4±3.5,11S±02×1275E±04,h40^{km}±38^{km},n13,σ1^{s}02/11,mb4.2/6,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	12.57	157	eP	Pn	12 04 38.6	+0.8
	8.4nm,0.4s						
FITZ	Fitzroy Crossi	17.04	186	eP	Pn	12 05 37.1	+0.3
	11nm,1.6s						
FITZ	Fitzroy Crossi	17.04	186	P	Pn	12 05 36.9	+0.2
	0.2nm,0.3s,baz=28,slow=9.6,SNR=6.7						
WRA	Warramunga Arr	19.93	161	P	Pn	12 06 10.5	-1.4
	3.3nm,0.4s,baz=340,slow=11,SNR=59						
WB2	Warramunga Arr	19.93	161	eP	Pn	12 06 10.4	-1.5
ASAR	Alice Springs	23.32	165	P	P	12 06 46.4	+0.2
	6.6nm,0.8s,mb4.1,baz=347,slow=13,SNR=60						
STKA	Stephens Creek	33.42	158	P	P	12 08 18.6	+2.2
	4.4nm,0.7s,mb4.5,baz=3.7,slow=18,SNR=3.0						
LZH	Lanzhou	43.02	332	eP	P	12 09 37.3	+0.1
LZH				AP	pP	12 09 43.3	-5.1
LZH				XP	sP	12 09 46.8	-6.3
LZH				AMB	AMB		
	comp=Z,21nm,1.3s,mb4.7						
SONM	Songino Array	52.05	342	P	P	12 10 47.4	+0.3
	comp=Z,0.5nm,0.3s,mb3.9,baz=145,slow=5.4,SNR=6.5						
MKAR	Makanchi Array	61.92	326	P	P	12 11 57.5	+0.5
	comp=Z,0.7nm,0.4s,mb4.2,baz=114,slow=8.1,SNR=14						
ZALV	Zalesovo Beam	65.19	334	P	P	12 12 17.2	-1.2
	comp=Z,0.5nm,0.5s,mb3.8,baz=123,slow=7.4,SNR=4.5						
TORD	Torodi Ar. Bea	125.03	285	PKP	PKPdf	12 20 40.4	+1.9
TORD	Torodi Ar. Bea	125.03	285	PKP	PKPdf	12 20 40.4	+1.9
	comp=Z,0.3nm,0.7s,baz=56,slow=0.7,SNR=2.7						

MAN 27 12:26:29,873N×12254E,h8^{km},mb4.8,ML3.7,MS3.7,1C-2D,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCPH	Dipolog City	0.81	100	⇓iP	Pg	12 26 44.4	-0.3
SNPH	Sibulan	0.91	48	⇓iP	Pg	12 26 47.0	+0.4
SNPH				i S	Sg	12 27 02.0	+3.5
PAGZ	Pagadian	1.21	137	eP	Pb	12 26 52.1	0.0
PAGZ				eS	Sb	12 27 09.3	+1.4
TBP	Tagbilaran	1.61	54	eP	Pn	12 26 57.2	-0.6
TBP				eS	Sn	12 27 16.6	-2.2
GUIM	Jordan	1.88	1	eP	Pn	12 27 02.6	+1.1
GUIM				eS	Sn	12 27 24.5	-0.9
LLP	Lapu-Lapu	2.11	42	eP	Pn	12 27 04.2	-0.4
LLP				eS	Sn	12 27 27.8	-3.3
CGP	Cagayan de Oro	2.14	97	⇑eP	Pn	12 27 05.2	+0.1
CGP				eS	Sn	12 27 33.2	+1.3
CUYO	Cuyo Island	2.59	325	eP	Pn	12 27 12.1	+0.9
BUKP	Musuan	2.63	109	eP	Pn	12 27 13.3	+1.5
MSLP	Maasin	2.67	58	eP	Pn	12 27 13.3	+0.9
RCP	Roxas	2.82	4	eP	Pn	12 27 17.4	+3.1
RCP				eS	Sn	12 27 51.5	+3.0
KALP	Kalibo	2.93	356	eP	Sn	12 27 50.8	-0.7
OTRP	Odiongan	3.64	352	eP	Pn	12 27 27.6	+1.9
BUSP	Coron	3.99	325	eP	Pn	12 27 31.0	+0.6

MAN 27 12:48:29,889N×12308E,h70^{km},mb3.9,ML2.6,MS2.2,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNPH	Sibulan	0.48	19	eP	Pn	12 48 44.0	+2.4
PAGZ	Pagadian	1.08	164	eP	Pn	12 48 49.3	+0.8
PAGZ				eS	Sn	12 49 05.7	+2.6
GUIM	Jordan	1.79	344	eP	Pn	12 48 59.6	+1.8
GUIM				eS	Sn	12 49 21.5	+1.8

ISCJB 27 12:53:28.0±0.6,1084N±004×6227W±003,h88^{km}±6^{km},Error ellipse: s-maj=6.6km s-min=4.8km az=0.4

FUNV 27 12:53:29.3,1090N×6219W,h76^{km},MW3.2

TRN 27 12:53:31.7,1095N×6207W,h77^{km},MD3.0

NEIC 27 12:53:31.7,1095N×6207W,h76^{km},MD3.0(TRN),After TRN.

ISC 27 12:53:29.0±0.6,1086N±004×6227W±003,h81^{km}±7^{km},n18,σ0^{s}85/30,2C-3D,Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	Guiria	0.21	168	⇓eP	Pn	12 53 41.0	+0.1
GUIV				eS	Sn	12 53 49.4	-0.4
TCE	Chacachacare	0.53	107	eP	Pn	12 53 44.4	+1.3
TCE				i S	Sn	12 53 54.0	+0.4
TRN	Trinidad (W)	0.88	104	⇑iP	Pn	12 53 47.5	+0.9
TRN				eS	Sn	12 53 59.2	-0.7
GUNV	Guanoco	0.96	224	eP	Pn	12 53 48.6	+0.9
GUNV				eS	Sn	12 54 02.6	+1.0
CRUV	Carupano	0.97	259	⇓iP	Pn	12 53 47.9	+0.1
CRUV				eS	Sn	12 54 01.4	-0.4
ITEV	Isla Los Testi	0.98	300	eP	Pn	12 53 48.0	+0.1
ITEV				eS	Sn	12 54 01.7	-0.3
TBH	Brigand Hill	1.24	107	⇑iP	Pn	12 53 52.2	+1.2
TBH				eS	Sn	12 54 05.8	-1.8
GRGR	Grenville	1.40	25	ePn	Pn	12 53 53.0	-0.1
GRW	Mount Saint Ca	1.43	25	eP	Pn	12 53 53.4	0.0
GRW				eS	Sn	12 54 10.8	-1.0
TPR	Prospect	1.50	77	eP	Pn	12 53 55.2	+0.9
TPR				eS	Sn	12 54 13.9	+0.3
IBAV	Isla La Blanqu	2.46	293	⇓iP	Pn	12 54 07.4	+0.4
IBAV				eS	Sn	12 54 34.9	-1.4
RIOV	Rio Grande	2.81	171	eP	Pn	12 54 12.3	+0.5
RIOV				eS	Sn	12 54 42.3	-2.4
GURV	El Guri	3.18	195	eP	Pn	12 54 16.8	-0.1
CUPV	Cœpira	3.55	257	eP	Pn	12 54 23.0	+1.1
CUPV				eS	Sn	12 55 02.3	-0.5
BIRV	Birongo	3.95	265	eP	Pn	12 54 27.6	+0.3
LUEV	Luepa	5.05	171	eP	Pn	12 54 40.8	-1.4
CAOV	Caicara del Or	5.32	229	eP	Pn	12 54 46.3	+0.2
BAUV	El Baul	6.00	252	eP	Pn	12 54 55.1	-0.1

ISCJB 27 13:10:30.4±3.0,193S±07×1778W±04,h519^{km}±35^{km},mb3.7/5,Error ellipse: s-maj=127.9km s-min=22.0km az=154.0

NEIC 27 13:10:30.9±2.2,1938S×17770W,h517^{km}±24^{km},mb3.8/2,Error ellipse: s-maj=105.1km s-min=16.6km az=156.0

IDC 27 13:10:31.2±2.9,1924S×17772W,h522^{km}±33^{km},mb3.1/4,mb1 3.4/5,mb1mx3.1/15,mbtmp3.2/5,Error ellipse: s-maj=106.6km s-min=19.7km az=153.0

ISC 27 13:10:31.2±2.9,192S±07×1778W±04,h517^{km}±32^{km},n8,σ0^{s}30/9,mb3.7/5,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.79	48	P	P	13 12 26.5	+0.5
	2.3nm,0.3s,baz=337,slow=20,SNR=5.3						
AFI				S	S	13 13 59.7	-0.4
	2.9nm,0.3s,baz=194,slow=23,SNR=4.8						
STKA	Stephens Creek	38.56	243	eP	P	13 17 09.0	-0.4
	1.6nm,0.5s,mb3.8						
STKA	Stephens Creek	38.56	243	P	P	13 17 09.1	-0.3
	3.5nm,0.8s,mb3.9,baz=84,slow=7.8,SNR=9.5						
WB2	Warramunga Arr	45.00	261	eP	P	13 18 00.5	0.0
WRA	Warramunga Arr	45.01	261	P	P	13 18 00.3	-0.2
	0.8nm,0.3s,mb3.7,baz=98,slow=7.2,SNR=45						
ASAR	Alice Springs	45.04	255	P	P	13 18 00.8	+0.1
	3.8nm,0.7s,mb4.0,baz=90,slow=7.9,SNR=66						
ASAR				PcP	PcP	13 19 29.4	-1.4
	0.4nm,0.5s,baz=103,slow=4.1,SNR=5.1						
FITZ	Fitzroy Crossi	53.42	261	eP	P	13 19 03.2	+0.4
	5.9nm,1.1s,mb3.8						
TXAR	Lajitas Array	86.17	57	P	P	13 22 17.8	0.0
	0.3nm,0.7s,mb3.0,baz=226,slow=6.8,SNR=4.1						

MAN 27 13:14:30,1335N×12064E,h35^{km},mb3.9,ML2.6,MS2.3,1C-1D,Mindoro

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	Lubang	0.54	315	eP	Pn	13 14 43.3	+2.1
TGY	Tagaytay City	0.80	21	⇑eP	Pn	13 14 46.6	+1.8
TGY				eS	Sn	13 14 56.7	+1.2
BUSP	Coron	1.41	198	eP	Pn	13 14 54.1	+1.0
BUSP				eS	Sn	13 15 11.4	+0.9
OTRP	Odiongan	1.67	126	eP	Pn	13 14 58.1	+1.4
POLP	Polilio Island	1.86	42	eP	Pn	13 15 04.5	+5.1
PCPH	Palayan	2.24	11	⇓eP	Pn	13 15 05.1	+0.5
BALP	Baler	2.54	21	eP	Pn	13 15 10.6	+1.8
PVCP	Virac	3.43	86	eP	Pn	13 15 23.1	+2.2

ISCJB 27 13:25:45.3±0.3,1068N±002×6257W±002,h113^{km}±3^{km},mb3.8/12,Error ellipse: s-maj=4.8km s-min=3.1km az=136.5

TRN 27 13:25:47.7,1071N×6244W,h111^{km},MD4.3

IDC 27 13:25:47.3±0.7,1094N×6272W,h109^{km}±5^{km},mb3.7/11,mb1 3.9/12,mb1mx3.7/21,mbtmp3.7/12,Error ellipse: s-maj=14.8km s-min=6.8km az=137.0

FUNV 27 13:25:47.4,1070N×6252W,h105^{km},MW4.4

NEIC 27 13:25:48.5,1078N×6254W,h78^{km},MD4.3(TRN),MW4.4(CAR),Mw4.4(CAR),After TRN.

NEIC Felt at Bayshore, Curepe, Diego Martin, El Socorro and Port-of-Spain, Trinidad.

ISC 27 13:25:46.4±0.3,1069N±002×6257W±002,h106^{km}±3^{km},h111^{km}±2.0^{km}:pP-P,n61,σ1^{s}04/94,mb3.8/12,17C-6D,Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	Guiria	0.34	96	⇓iP	Pn	13 26 02.2	+0.3
GUIV				eS	Sn	13 26 12.7	-0.8
GUNV	Guanoco	0.64	215	⇑iP	Pn	13 26 05.4	+1.5
GUNV				eS	Sn	13 26 18.2	+1.2
CRUV	Carupano	0.66	269	⇑iP	Pn	13 26 04.6	+0.6
CRUV				eS	Sn	13 26 17.6	+0.3
TCE	Chacachacare	0.80	89	⇑iP	Pn	13 26 05.8	+0.5
TCE				eS	Sn	13 26 16.2	-3.4
ITEV	Isla Los Testi	0.87	320	⇓iP	Pn	13 26 06.5	+0.6
ITEV				eS	Sn	13 26 20.4	-0.2
TRN	Trinidad (W)	1.15	92	⇓iP	Pn	13 26 09.4	+0.6
TRN				eS	Sn	13 26 24.2	-1.7
TPP	Pointe-a-Pierr	1.16	108	eP	Pn	13 26 10.3	+1.3
TPP				eS	Sn	13 26 25.2	-0.9
TPP				eS	Sn	13 26 27.4	+1.3
TPP	Pointe-a-Pierr	1.16	108	eP	Pn	13 26 10.3	+1.3
TPP				eS	Sn	13 26 25.2	-0.9
TBH	Brigand Hill	1.49	98	eP	Pn	13 26 13.3	+0.5
TBH				eS	Sn	13 26 32.5	-0.5
GRGR	Grenville	1.69	32	eP	Pn	13 26 15.7	+0.3
GRGR				eS	Sn	13 26 37.6	+0.2
GRW	Mount Saint Ca	1.71	31	eP	Pn	13 26 16.2	+0.6
GRHS	Sauteurs	1.78	31	eP	Pn	13 26 16.9	+0.5
GRHS				eS	Sn	13 26 38.7	-0.6
TPR	Prospect	1.83	74	⇑iP	Pn	13 26 17.2	+0.2
TPR				eS	Sn	13 26 38.8	-1.6
TPR				eS	Sn	13 26 40.8	+0.4
TPR	Prospect	1.83	74	⇑iP	Pn	13 26 17.2	+0.2
TPR				eS	Sn	13 26 38.8	-1.6
GRSS	Sisters	1.86	30	⇑eP	Pn	13 26 18.4	+1.0
GRSS				eS	Sn	13 26 42.0	+0.9
GRIC	Isle de Caille	1.86	31	⇓eP	Pn	13 26 18.4	+1.0
GRIC				eS	Sn	13 26 40.8	-0.4
PCRV	Puerto La Cruz	2.10	256	⇑iP	Pn	13 26 21.3	+0.9
PCRV				eS	Sn	13 26 45.8	-0.7
PCRV	Puerto La Cruz	2.10	256	P	Pn	13 26 21.3	+0.9
	159nm,0.3s,baz=93,slow=3.0,SNR=695						
PCRV				S	Sn	13 26 45.7	-0.8
	169nm,0.3s,baz=242,slow=16,SNR=16						
IBAV	Isla La Blanqu	2.27	300	⇓iP	Pn	13 26 23.6	+0.8
RIOV	Rio Grande	2.70	164	eP	Pn	13 26 28.8	+0.4
RIOV				eS	Sn	13 26 58.9	-1.8
FCV	Fort Charlotte	2.78	28	eP	Pn	13 26 29.3	-0.1
FCV				eS	Sn	13 27 01.5	-0.9
PRGV	PARIAGUAN	2.80	227	⇑iP	Pn	13 26 30.1	+0.5
SVB	Belmont	2.88	26	eP	Pn	13 26 31.1	+0.4
SVB				eS	Sn	13 27 03.4	-1.4
SVV	Soufriere Volc	2.93	27	eP	Pn	13 26 31.7	+0.3
SSV	Crater Summit	2.95	27	eP	Pn	13 26 31.5	-0.1
GURV	El Guri	2.95	190	⇑iP	Pn	13 26 32.0	+0.3
CUPV	Cœpira	3.23	259	⇑iP	Pn	13 26 36.2	+0.9
CUPV				eS	Sn	13 27 12.5	-0.7
SLB	Belfond	3.46	25	eP	Pn	13 26 38.4	0.0
SLB				eS	Sn	13 27 16.2	-2.5
BIRV	Birongo	3.65	267	⇑iP	Pn	13 26 42.4	+1.5
SLW	Petit Monier	3.68	25	eP	Pn	13 26 41.4	+0.1
SLW				eS	Sn	13 27 25.4	+1.5
MERV	Las Mercedes	3.94	249	⇑eP	Pn	13 26 44.6	-0.3
MERV				eS	Sn	13 27 29.0	-1.2
BIM	Bigot	4.08	21	eP	Pn	13 26 46.9	+0.1
BIM				eS	Sn	13 27 33.8	+0.2
MVM	Montagne Vaucl	4.18	23	eP	Pn	13 26 48.4	+0.3
FDF	Fort de France	4.25	19	⇑eP	Pn	13 26 49.5	+0.4
FDF				eS	Sn	13 27 35.0	-2.8
LUEV	Luepa	4.93	167	⇑eP	Pn	13 26 57.3	-1.0
LUEV				eS	Sn	13 27 49.9	-4.4
CAOV	Caicara del Or	4.99	228	eP	Pn	13 26 58.3	-0.7
TURV	Turiamo	5.19	268	⇓eP	Pn	13 27 01.4	-0.4
TBG	Guadaloupe-3	5.21	10	eP	Pn	13 27 04.6	+2.6
MGG	Marie-Galante	5.34	13	eP	Pn	13 27 05.5	+1.6
BAUV	El Baul	5.67	253	⇑eP	Pn	13 27 07.2	-1.0
DEG	La Desirade	5.78	15	eP	Pn	13 27 11.0	+1.2
DEG				eS	Sn	13 28 12.9	-1.9
SANV	Sanarito	6.96	261	eP	Pn	13 27 25.4	-0.4
CURV	Curarigua	7.30	265	⇑eP	Pn	13 27 29.7	-0.7
SDV	Santo Domingo	8.15	258	eP	Pn	13 27 40.5	-1.4
SDV				P		13 27 40.5	
SDV				eS	Sn	13 29 07.6	-4.7
SDV				S	Sn	13 29 07.8	-4.6
SDV	Santo Domingo	8.15	258	P	Pn	13 27 40.5	-1.4
	6.5nm,0.3s,baz=104,slow=7.7,SNR=28						
SDV				S	Sn	13 29 07.8	-4.6
	38nm,0.3s,baz=324,slow=22,SNR=19						
SJG	San Juan	8.16	335	S	Sn	13 29 06.4	-6.1
	2.7nm,0.3s,baz=356,slow=15,SNR=4.5						
SOCV	Socops	8.52	254	⇑eP	Pn	13 27 45.2	-1.8
ATAH	Atahualpa	23.60	223	P	P	13 30 51.3	+3.5
	5.0nm,0.6s,mb4.0,baz=343,slow=8.1,SNR=4.0						
ATAH				pP		13 31 14.7	
	10.0nm,0.7s,baz=42,slow=9.9,SNR=5.1						
NNA	Nana	26.62	213	P	P	13 31 16.6	+1.5
	11nm,0.7s,mb4.5,baz=344,slow=7.7,SNR=5.9						
LPAZ	La Paz	27.36	192	P	P	13 31 24.5	+2.8
	2.0nm,0.8s,mb3.7,baz=351,slow=10,SNR=11						
LPAZ				pP	pP	13 31 49.9	+4.7
	3.8nm,0.8s,baz=99,slow=4.7,SNR=6.3						
CFAA	Coronel Fontan	42.40	187	P	P	13 33 30.1	-0.3
	0.3nm,0.7s,mb3.1,baz=357,slow=9.0,SNR=4.9						
TXAR	Lajitas Array	42.56	302	P	P	13 33 32.4	+0.5
TXAR				pP	pP	13 33 57.9	+1.4
TXAR	Lajitas Array	42.56	302	P	P	13 33 32.4	+0.5
	0.3nm,0.8s,mb3.1,baz=116,slow=12,SNR=4.7						
TXAR				pP	pP	13 33 57.9	+1.4
	0.4nm,0.6s,baz=116,slow=9.7,SNR=4.2						
SCHQ	Schefferville	44.16	356	P	P	13 33 44.0	-0.3
	2.8nm,0.6s,mb4.2,baz=164,slow=9.0,SNR=3.8						
ULM	Lac du Bonnet	48.04	332	P	P	13 34 13.2	-1.5
	2.3nm,0.4s,mb4.3,baz=139,slow=8.5,SNR=13						
ULM				pP	pP	13 34 39.1	-0.8
	4.1nm,0.8s,baz=143,slow=6.6,SNR=5.5						
PDAR	Pinedale Array	51.80	317	P	P	13 34 42.5	-1.0
	1.1nm,0.5s,mb4.2,baz=115,slow=10,SNR=25						
PDAR				pP	pP	13 35 06.8	-2.0
	0.8nm,0.5s,baz=120,slow=9.9,SNR=5.6						
TORD	Torodi Ar. Bea	62.78	81	P	P	13 36 01.4	+0.4
	0.4nm,0.5s,mb3.6,baz=278,slow=5.0,SNR=4.6						
YKA	Yellowknife Ar	63.65	336	P	P	13 36 03.9	-2.0
YKA				pP	pP	13 36 30.8	-1.4
YKA	Yellowknife Ar	63.65	336	P	P	13 36 03.9	-2.0
	0.9nm,0.5s,mb3.8,baz=110,slow=7.3,SNR=19						
YKA				pP	pP	13 36 30.8	-1.4
	0.6nm,0.7s,baz=111,slow=7.4,SNR=5.0						
GERES	GERESS Array B	73.00	42	P	P	13 37 05.2	+0.7
	1.0nm,0.7s,mb3.7,baz=251,slow=4.1,SNR=5.7						
FINES	FINESS Array B	80.05	29	P	P	13 37 44.2	+0.1
	0.8nm,0.6s,mb3.7,baz=237,slow=4.3,SNR=4.7						
FINES				pP	pP	13 38 11.9	+0.5
	0.4nm,0.5s,baz=257,slow=2.1,SNR=1.4						

IDC 27 13:33:59.8±11.0,229N×12804E,h143^{km}±107^{km},mb3.3/5,mb1 3.5/5,mb1mx3.2/17,mbtmp3.3/5,Error ellipse: s-maj=106.0km s-min=20.9km az=62.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	20.40	187	P	P	13 38 26.2	+0.5
	1.5nm,0.7s,baz=6.6,slow=15,SNR=8.6						
WRA	Warramunga Arr	22.95	165	P	P	13 38 51.9	+0.2
	1.5nm,0.5s,baz=344,slow=10.0,SNR=29						
WB2	Warramunga Arr	22.95	165	eP	P	13 38 52.3	+0.5
ASAR	Alice Springs	26.43	168	P	P	13 39 22.7	-0.6
	0.4nm,0.6s,baz=349,slow=7.6,SNR=12						
ASAR				PcP	PcP	13 42 44.8	-0.4
	0.2nm,0.4s,baz=359,slow=2.1,SNR=7.2						
STKA	Stephens Creek	36.34	160	P	P	13 40 50.2	+0.2
	1.9nm,0.4s,baz=338,slow=9.5,SNR=13						
MKAR	Makanchi Array	59.48	325	P	P	13 43 47.8	+0.1
	0.6nm,0.5s,baz=116,slow=8.2,SNR=14						

NEIC 27 13:41:44.2,3102S×7136W,h43^{km},MD3.9(GUC),After GUC.

GUC 27 13:41:44.2±1.0,3102S×7136W,h43^{km}±6^{km},MD3.9,ML3.7,6C,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TLL	Tololo Astrono	0.97	29	⇑iP	Pn	13 42 02.8	+1.4
TLL				i S	Sn	13 42 16.4	+2.4
TLL	Tololo Astrono	0.97	29	⇑iP	Pn	13 42 02.8	+1.4
TLL				i S	Sn	13 42 16.4	+2.4
TLL				AML	AML	13 42 18.4	
	comp=N,2μm,0.2s						
LSCH	La Serena	1.11	5	eP	Pn	13 42 04.0	+0.7
LSCH				i S	Sn	13 42 19.3	+1.9
LCO	Las Campanas	2.08	16	ePn	Pn	13 42 17.9	+1.4
LCO				eSn	Sn	13 42 43.7	+2.5
FCH	Farellones	2.47	159	eP	Pn	13 42 23.0	+1.0
FCH				i S	Sn	13 42 53.8	+2.9
FCH				AML	AML	13 43 00.3	
	comp=E,446nm,0.3s						

VACH	Vallenar	2.49	12	eP	Pn	13 42 23.0	+0.8
VACH				i S	Sn	13 42 52.5	+1.2
VACH	Vallenar	2.49	12	eP	Pn	13 42 23.0	+0.8
VACH				i S	Sn	13 42 52.5	+1.2
VACH				AML	AML	13 43 02.2	
	comp=N,1µm,0.4s						
RCDM	Rinconada Maip	2.51	169	eP	Pn	13 42 22.5	+0.1
RCDM				i S	Sn	13 42 51.6	-0.2
ANTU	Antumapu	2.62	167	⇑iP	Pn	13 42 24.6	+0.7
ANTU				i S	Sn	13 42 56.0	+1.5
ANTU	Antumapu	2.62	167	⇑iP	Pn	13 42 24.6	+0.7
ANTU				i S	Sn	13 42 56.0	+1.5
ANTU				AML	AML	13 43 03.9	
	comp=N,443nm,0.3s						
TACH	Talagante	2.65	172	eP	Pn	13 42 24.3	-0.2
PCH	Pirque	2.69	165	eP	Pn	13 42 25.4	+0.5
MDZ	Mendoza	2.83	132	eP	Pn	13 42 29.6	+2.8
LNV	Longovilo	2.93	181	i P	Pn	13 42 27.3	-1.0
CHCH	Chadas Angostu	2.97	169	⇑iP	Pn	13 42 29.2	+0.4
CICH	Cipreses	3.39	167	⇑iP	Pn	13 42 35.0	+0.5

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*NEIC **27** 13:55:35.5, 6657N×13583W, h20^{km}, ML2.7(PGC), ML2.7(AEIC), After PGC.*

PGC 27 13:55:35.3±0.0**, 6652N×13558W, h20**^{km}**, ML2.7**/2**, 114km southwest of Fort McPherson, Nt Northern Yukon Territory, Canada, Northern Yukon Territory**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
INK	Inuvik	1.97	23	ePn	Pn	13 56 07.3	-0.2
INK				eSg	Sn	13 56 38.1	+6.7
INK	Inuvik	1.97	23	Trac			
INK	Inuvik	1.97	23	Pn	Pn	13 56 07.0	-0.4
INK				Sn	Sn	13 56 31.5	+0.1
INK				Sg	Sn	13 56 37.1	+5.7
EGAK	Eagle	2.90	235	P	Pn	13 56 18.4	-1.8
EGAK				ePn	Pn	13 56 18.9	-1.3
EGAK				S	Sn	13 56 53.0	-1.4
DAWY	Dawson	2.94	215	P	Pn	13 56 20.2	-0.5
DAWY				S	Sn	13 56 56.8	+1.5
DAWY	Dawson	2.94	215	Trac			
DAWY	Dawson	2.94	215	Pn	Pn	13 56 20.6	-0.2
DAWY				Sn	Sn	13 56 52.9	-2.5
BCA3	Beaver Creek A	4.36	220	P	Pn	13 56 39.9	-0.4
IL1	Eielson Array	5.00	255	P	Pn	13 56 46.8	-2.2
HYT	Haines Junctio	5.78	189	Sg	Sn	13 58 34.7	+29

IDC 27 13:56:42.6±6.4**, 080N×9774E, h0**^{km}**, mb3.5**/4**, mb1 3.6**/4**, mb1mx3.4**/21**, mbtmp3.5**/4**, Error ellipse: s-maj=323.9km s-min=25.2km az=55.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	41.36	122	P	P	14 04 31.4	+0.6
	0.2nm,0.6s,baz=303,slow=8.8,SNR=2.8						
ASAR	Alice Springs	42.72	127	P	P	14 04 41.4	-0.4
	0.3nm,1.0s,baz=293,slow=7.8,SNR=2.6						
MKAR	Makanchi Array	47.76	346	P	P	14 05 21.5	0.0
	0.5nm,0.6s,baz=158,slow=9.0,SNR=8.9						
ZALV	Zalesovo Beam	54.04	351	P	P	14 06 08.9	+0.3
	1.0nm,0.4s,baz=183,slow=6.8,SNR=7.4						
TXAR	Lajitas Array	143.72	33	PKP	PKPdf	14 16 18.0	-2.5
	0.5nm,1.0s,baz=322,slow=4.0,SNR=3.6						

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*ISCJB **27** 14:39:11.7±3.8, 79S±02×1585E±0.1, h51^{km}±39^{km}, mb3.8/7, Error ellipse: s-maj=31.0km s-min=19.8km az=147.1*

*IDC **27** 14:39:12.9±0.8, 792S×15854E, h48^{km}±7^{km}, mb3.7/7, mb1 3.9/8, mb1mx3.7/16, mbtmp3.8/8, MS3.2/1, Ms1 3.2/1, ms1mx2.3/26, Error ellipse: s-maj=18.9km s-min=8.6km az=44.0*

*NEIC **27** 14:39:12.8±0.8, 787S×15858E, Error ellipse: s-maj=16.8km s-min=15.3km az=65.0*

ISC 27 14:39:13.1±4.1**, 79S**±02×**1586E**±02**, h51**^{km}±44^{km}**, h51**^{km}±1.7^{km}**:pP-P, n13, σ0^{s}66**/14**, mb3.8**/7**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HNR	Honiara	2.05	138	ePn	Pn	14 39 44.4	-0.8
HNR				S	Sn	14 40 09.6	0.0
HNR	Honiara	2.05	138	P	Pn	14 39 45.4	+0.2
	76nm,0.3s,baz=267,slow=3.6,SNR=57						
HNR				S	Sn	14 40 09.6	0.0
	123nm,0.3s,baz=268,slow=2.7,SNR=8.4						
DZM	Mont Dzumac	16.01	153	LR	LR	14 47 29.0	
	comp=Z,81nm,20.1s,baz=213,slow=31						
EIDS	Eidsvold	18.79	201	eP	Pn	14 43 30.7	+1.4
WB2	Warramunga Arr	26.34	240	eP	P	14 44 44.5	-0.1
WRA	Warramunga Arr	26.35	240	P	P	14 44 44.7	+0.1
	2.1nm,0.7s,mb3.8,baz=65,slow=9.1,SNR=14						
WRA				pP	pP	14 44 57.3	-0.3
	1.8nm,0.9s,baz=67,slow=9.2,SNR=3.4						
ASAR	Alice Springs	28.37	234	P	P	14 45 02.0	-0.8
	0.8nm,0.6s,mb3.5,baz=62,slow=10.0,SNR=17						
ASAR				pP	pP	14 45 15.0	-0.8
	0.3nm,0.6s,baz=63,slow=8.9,SNR=2.4						
STKA	Stephens Creek	28.63	211	eP	P	14 45 04.6	-0.3
STKA	Stephens Creek	28.63	211	P	P	14 45 05.2	+0.3
	0.8nm,0.4s,mb3.8,baz=32,slow=15,SNR=5.3						
FITZ	Fitzroy Crossi	33.60	249	P	P	14 45 47.9	-1.0
	2.4nm,0.9s,mb4.1,baz=67,slow=12,SNR=6.9						
SONM	Songino Array	72.03	326	P	P	14 50 32.6	+1.0
	1.7nm,0.9s,mb4.0,baz=137,slow=5.0,SNR=7.0						
SONM				pP	pP	14 50 46.2	+0.1
	0.8nm,0.8s,baz=131,slow=4.1,SNR=3.4						
MKAR	Makanchi Array	86.42	318	P	P	14 51 50.4	+0.1
	0.2nm,0.5s,mb3.6,baz=83,slow=6.3,SNR=7.7						
MKAR				pP	pP	14 52 03.4	-1.6
	0.3nm,0.5s,baz=99,slow=5.6,SNR=4.9						
YKA	Yellowknife Ar	95.47	28	P	P	14 52 31.8	-0.3
	0.4nm,0.8s,mb3.9,baz=260,slow=4.9,SNR=8.5						
YKA				pP	pP	14 52 47.3	+0.4
	0.2nm,0.7s,baz=262,slow=4.3,SNR=3.1						

IDC 27 14:43:38.6±2.0**, 359N×12751E, h0**^{km}**, mb3.5**/4**, mb1 3.6**/4**, mb1mx3.5**/18**, mbtmp3.5**/4**, Error ellipse: s-maj=163.5km s-min=23.7km az=66.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.33	164	P	P	14 48 59.0	+0.8
	0.3nm,0.6s,baz=344,slow=10,SNR=6.4						
ASAR	Alice Springs	27.80	167	P	P	14 49 29.6	0.0
	0.2nm,0.5s,baz=350,slow=7.5,SNR=5.9						
STKA	Stephens Creek	37.73	160	P	P	14 50 55.5	-0.7
	1.2nm,0.8s,baz=351,slow=13,SNR=3.5						
MKAR	Makanchi Array	58.11	325	P	P	14 53 34.0	+0.1
	0.3nm,0.4s,baz=114,slow=8.1,SNR=10.0						

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*MOS **27** 14:48:05.1±0.9, 321N×12586E, h131^{km}, mb4.8/18, Error ellipse: s-maj=19.3km s-min=7.8km az=113.2*

*IDC **27** 14:48:05.6±2.1, 3.12N×12552E, h116^{km}±18^{km}, mb4.2/17, mb1 4.3/17, mb1mx4.3/19, mbtmp4.2/17, Error ellipse: s-maj=27.3km s-min=8.9km az=75.0*

*ISCJB **27** 14:48:07.3±0.8, 323N±004×126.10E±006, h156^{km}±6^{km}, mb4.6/51, Error ellipse: s-maj=10.0km s-min=6.3km az=171.2*

*BJI **27** 14:48:09.3, 290N×12585E, h192^{km}, mB5.1, mb4.6*

*NEIC **27** 14:48:11.4±1.6, 3.13N×12590E, h177^{km}±15^{km}, mb4.7/20, Error ellipse: s-maj=13.3km s-min=5.6km az=65.0*

ISC 27 14:48:08.8±0.8**, 320N**±004×**12604E**±006**, h154**^{km}±6^{km}**, n115, σ1^{s}09**/109**, mb4.6**/51**, 13C-8D, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GSPH	General Santos	3.07	339	⇑eP	Pn	14 48 55.8	-1.5
GSPH				eS	Sn	14 49 31.5	-1.3
MATI	Mati	3.73	3	eP	Pn	14 49 04.5	-1.2
PAGZ	Pagadian	5.33	330	eP	Pn	14 49 26.0	-0.6
MYLDM	Lahad Datu	7.78	285	⇑P	Pn	14 50 00.4	+1.2
TSM	Tawau	8.22	278	⇓P	Pn	14 50 04.9	-0.4
SDKM	Sandakan	9.15	286	⇓P	Pn	14 50 17.7	+0.2
KDM	Kudat	9.89	292	⇓P	Pn	14 50 28.9	+1.6
KKM	Kota Kinabalu	10.20	286	eP	Pn	14 50 33.9	+2.5
KKM	Kota Kinabalu	10.20	286	⇓P	Pn	14 50 30.8	-0.6
BTM	Bintulu	12.94	270	⇑P	Pn	14 51 09.2	+2.1
SBUM	Sibu	13.83	267	⇓P	Pn	14 51 22.2	+3.7
KSM	Kuching	15.81	264	eP	Pn	14 51 43.6	+0.4
KSM	Kuching	15.81	264	⇑P	Pn	14 51 44.0	+0.8
KAKA	Kakadu	17.03	158	eP	Pn	14 51 55.6	-2.3
	12nm,0.6s						
FITZ	Fitzroy Crossi	21.17	181	eP	P	14 52 41.0	-1.0
	38nm,0.6s,mb4.9						
FITZ	Fitzroy Crossi	21.17	181	eP	P	14 52 41.3	-0.7
FITZ	Fitzroy Crossi	21.17	181	P	P	14 52 40.8	-1.2
	30nm,0.8s,mb4.7,baz=3.8,slow=9.0,SNR=62						
FITZ				PcP	PcP	14 56 43.0	+1.4
	2.1nm,0.6s,baz=209,slow=16,SNR=4.9						
MYKOM	Kota Tinggi	22.21	267	⇑P	P	14 52 52.8	-0.4
KGM	Kluang	22.73	268	⇓P	P	14 52 58.0	0.0
KTGM	Kuala Trenggan	22.94	276	⇑P	P	14 53 00.3	+0.4
WRA	Warramunga Arr	24.39	161	P	P	14 53 13.7	+0.7
	8.4nm,0.9s,mb4.3,baz=334,slow=11,SNR=46						
WRA				PcP	PcP	14 56 49.7	+1.4
	1.5nm,0.6s,baz=319,slow=2.1,SNR=6.5						
WRA				S	S	14 57 28.5	+7.0
	2.2nm,1.0s,baz=334,slow=18,SNR=4.7						
WB2	Warramunga Arr	24.40	161	eP	P	14 53 13.6	+0.6
WB2				eS	S	14 57 28.8	+7.2
MBWA	Marble Bar	24.98	194	eP	P	14 53 17.5	-0.8
IPM	Ipoh	24.99	274	⇑P	P	14 53 21.2	+2.7
ASAR	Alice Springs	27.77	164	P	P	14 53 44.0	+0.7
ASAR						14 56 57.4	
ASAR	Alice Springs	27.77	164	P	P	14 53 44.0	+0.7
	2.9nm,0.5s,mb4.3,baz=341,slow=7.1,SNR=104						
ASAR				PcP	PcP	14 56 57.4	+1.4
	2.0nm,0.5s,baz=348,slow=2.2,SNR=13						
ASAR				ScP	ScP	15 00 25.8	+3.2
	0.6nm,0.7s,baz=341,slow=2.5,SNR=4.5						
WHN	Wuhan	29.36	339	P	P	14 54 02.8	+5.4
NJ2	Nanjing	29.49	348	eP	P	14 54 00.5	+2.0
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.7						
CHTO	Chiang Mai	30.72	302	eP	P	14 54 08.8	-0.6
	comp=Z,4.8nm,0.6s,mb4.4						
CHTO	Chiang Mai	30.72	302	eP	P	14 54 08.8	-0.7
CHTO				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
FORT	Forrest	33.84	177	eP	P	14 54 36.8	+0.3
	comp=Z,10nm,0.4s,mb4.9						
KSRS	Korea Array	34.14	3	P	P	14 54 41.5	+2.5
	comp=Z,4.1nm,0.5s,mb4.5,baz=186,slow=9.8,SNR=23						
KSRS				PcP	PcP	14 57 15.2	+2.5
	comp=Z,1.5nm,0.6s,baz=180,slow=2.9,SNR=4.8						
MJAR	Matsushiro Arr	35.03	17	P	P	14 54 47.4	+0.7
	comp=Z,2.2nm,0.8s,mb3.9,baz=193,slow=8.5,SNR=5.4						
MJAR				PcP	PcP	14 57 16.5	+1.1
	comp=Z,1.6nm,0.9s,baz=200,slow=5.2,SNR=3.3						
KLBR	Kellerberrin	35.48	192	eP	P	14 54 50.2	-0.4
	comp=Z,11nm,0.4s,mb4.8						
MUN	Mundaring	36.21	194	eP	P	14 54 56.6	-0.2
NWAO	Narrogin (SRO)	36.88	192	eP	P	14 55 02.0	-0.5
	comp=Z,5.6nm,0.4s,mb4.5						
NWAO	Narrogin (SRO)	36.88	192	eP	P	14 55 02.0	-0.5
NWAO				pmax	pmax		
	comp=Z,6.0nm,0.4s						
BJI	Beijing	37.75	348	P	P	14 55 10.0	+0.3
BJI				AMB	AMB		
	comp=Z,15nm,0.6s,mb4.8						
STKA	Stephens Creek	37.88	158	eP	P	14 55 12.3	+1.3
	comp=Z,6.0nm,0.8s,mb4.3						
STKA	Stephens Creek	37.88	158	P	P	14 55 12.4	+1.4
	comp=Z,7.6nm,0.8s,mb4.4,baz=332,slow=9.4,SNR=18						
STKA				PcP	PcP	14 57 25.3	+1.3
	comp=Z,2.4nm,0.5s,baz=332,slow=7.3,SNR=3.0						
LZH	Lanzhou	38.62	331	⇑P	P	14 55 17.5	+0.4
LZH				AMB	AMB		
	comp=Z,35nm,1.5s,mb4.8						
LSA	Lhasa	42.28	312	eP	P	14 55 48.3	+1.0
LSA	Lhasa	42.28	312	eP	P	14 55 48.2	+0.9
	comp=Z,16nm,0.7s,mb4.8						
LSA	Lhasa	42.28	312	eP	P	14 55 48.2	+0.9
LSA				pmax	pmax		
	comp=Z,16nm,0.7s,mb4.8						
GTA	Gaotai	43.21	330	eP	P	14 55 55.0	+0.4
GTA				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.2						
ASAJ	Asahikawa	43.30	17	P	P	14 55 58.5	+3.3
	comp=Z,12nm,0.6s,mb4.7,baz=222,slow=12,SNR=14						
TAPN	Taplejung	43.78	307	eP	P	14 55 59.1	-0.3
	comp=Z,31nm,0.9s,mb4.9						
ODAN	Odare	43.83	306	eP	P	14 56 00.1	+0.3
	comp=Z,40nm,0.8s,mb5.1						
JIRN	Jiri	45.13	307	eP	P	14 56 10.0	-0.1
	comp=Z,46nm,0.7s,mb5.2						
KKN	Kakani	45.92	306	eP	P	14 56 16.3	0.0
	comp=Z,42nm,0.7s,mb5.2						
KKN	Kakani	45.92	306	eP	P	14 56 16.3	0.0
KKN				pmax	pmax		
	comp=Z,42nm,0.7s,mb5.2						
KLR	Kul'dur	46.12	5	eP	P	14 56 15.0	-2.5
HIA	Hailar	46.22	354	eP	P	14 56 19.3	+1.1
	comp=Z,7.8nm,1.0s,mb4.3						
HIA	Hailar	46.22	354	eP	P	14 56 19.3	+1.1
HIA				pmax	pmax		
	comp=Z,8.0nm,1.0s						
GKN	Gorkha	46.52	306	eP	P	14 56 20.2	-0.8
	comp=Z,31nm,0.7s,mb5.0						
ULN	Ulaanbaatar	47.42	343	eP	P	14 56 27.8	+0.2
	comp=Z,3.6nm,0.5s,mb4.3						
ULN	Ulaanbaatar	47.42	343	⇑eP	P	14 56 28.1	+0.5
SONM	Songino Array	47.59	342	P	P	14 56 29.3	+0.4
	comp=Z,2.6nm,0.6s,mb4.0,baz=154,slow=8.4,SNR=13						
SONM				PcP	PcP	14 57 57.2	+0.9
	comp=Z,1.6nm,0.7s,baz=159,slow=3.9,SNR=5.0						
HYB	Hyderabad	48.65	290	eP	P	14 56 37.0	-0.6
HYB	Hyderabad	48.65	290	i P	P	14 56 37.0	-0.6
TLY	Talaya	51.82	342	eP	P	14 57 02.2	+1.4
TLY				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
BOD	Bodaibo	55.29	352	⇓iP	P	14 57 27.0	+1.0
BOD				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.7						
THN	Thein Dam	55.35	308	eP	P	14 57 24.9	-2.0
MK31	Makanchi Array	57.60	326	eP	P	14 57 42.3	-0.2
MKAR	Makanchi Array	57.60	326	P	P	14 57 42.4	-0.2
MKAR						14 58 34.4	
MKAR	Makanchi Array	57.60	326	P	P	14 57 42.4	-0.2
	comp=Z,5.5nm,0.6s,mb4.6,baz=120,slow=7.8,SNR=105						
MKAR				PcP	PcP	14 58 34.4	+0.3
	comp=Z,3.1nm,0.6s,baz=140,slow=3.0,SNR=12						
MKAR				ScP	ScP	15 02 23.3	+3.7
	comp=Z,0.3nm,0.8s,baz=103,slow=5.8,SNR=2.8						
YAK	Yakutsk	58.76	2	eP	P	14 57 51.5	+1.2
YAK				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.8						
YAK				pmax	pmax		
	comp=N,8.0nm,1.4s						
MA2	Magadan	59.39	14	eP	P	14 57 57.4	+2.7
	comp=N,11nm,0.6s,mb4.9						
MA2	Magadan	59.39	14	eP	P	14 57 57.4	+2.7
MA2				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.9						
AAK	Ala-Archa	60.29	318	⇓iP	P	14 58 01.1	-0.1
AAK				pmax	pmax		
	comp=Z,14nm,2.3s,mb4.4						
ZALV	Zalesovo Beam	60.75	333	P	P	14 58 03.3	-0.8
	comp=Z,2.4nm,0.7s,mb4.2,baz=122,slow=6.7,SNR=13						
ZAL	Zalesovo	60.76	333	P	P	14 58 03.3	-0.8
KURK	Kurchatov	61.82	328	eP	P	14 58 10.7	-0.6
	comp=Z,14nm,0.6s,mb5.0						
KURK	Kurchatov	61.82	328	⇑iP	P	14 58 10.8	-0.5
NVS	Novosibirsk	62.04	334	eP	P	14 58 11.7	-1.0
TIXI	Tiksi	68.38	1	⇑eP	P	14 58 54.2	+0.9
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
ARU	Arti	75.02	328	eP	P	14 59 31.9	-1.3
	comp=Z,5.5nm,0.7s,mb4.3						
ARU	Arti	75.02	328	eP	P	14 59 31.9	-1.3
ARU				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.2						
QRN	Al-Qurain	78.06	299	eP	P	14 59 48.8	-2.1
QRN				AMb	AMB	14 59 50.7	
	comp=Z,17nm,0.4s,mb5.0						
RDF	Al-Radifah	78.39	299	eP	P	14 59 51.0	-1.8
RDF				AMb	AMB	14 59 52.1	
	comp=Z,21nm,0.7s,mb4.9						
MIB	Mutribah	78.62	300	eP	P	14 59 52.0	-2.0
MIB				AMb	AMB	14 59 53.4	
	comp=Z,16nm,0.5s,mb4.9						
RST	Umm Al-Ruwaisa	78.90	299	eP	P	14 59 53.5	-2.0
RST				AMb	AMB	14 59 54.5	
	comp=Z,24nm,0.4s,mb5.2						
VNDA	Vanda	82.99	173	P	P	15 00 17.6	+1.5
	comp=Z,2.2nm,0.4s,mb4.2,baz=324,slow=6.0,SNR=8.2						
VRHR	Novokhopersk	84.02	321	eP	P	15 00 20.2	-1.7
VRHR				pmax	pmax		
	comp=N,10.0nm,0.5s						
VRHR				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.1						
VRHR				pmax	pmax		
	comp=E,30nm,0.9s						
OBN	Obninsk	87.10	325	eP	P	15 00 37.1	0.0
OBN				i *PP	pP	15 01 12.8	-3.0
OBN				pmax	pmax		
	comp=Z,39nm,1.8s,mb4.9						
KMBO	Kilima Mbogo	88.85	269	P	P	15 00 47.0	+0.7
	comp=Z,3.0nm,0.8s,mb4.2,baz=48,slow=7.2,SNR=4.9						
JOF	Joensuu	89.34	333	ep	P	15 00 46.6	-0.9
	comp=Z,4.1nm,0.4s,mb4.7						
BRTR	Keskin Array B	89.83	310	i P	P	15 00 49.7	-0.6
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BRTR	Keskin Array B	89.83	310	P	P	15 00 49.8	-0.5
	comp=Z,2.9nm,0.8s,mb4.2,baz=102,slow=5.9,SNR=10						
ARCES	ARCESS Array B	90.71	340	P	P	15 00 53.7	0.0
ARCES	ARCESS Array B	90.71	340	P	P	15 00 53.7	0.0
	comp=Z,3.4nm,0.7s,mb4.5,baz=90,slow=4.7,SNR=21						
KAF	Kangasniemi	91.75	332	ep	P	15 00 57.6	-1.1
	comp=Z,1.5nm,0.3s,mb4.5,baz=76,slow=4.2						
KAF	Kangasniemi	91.75	332	eP	P	15 00 57.6	-1.1
KAF				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.6						
AKASG	Malin Array Be	91.87	321	i P	P	15 00 58.9	-0.6
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.5s						
AKASG	Malin Array Be	91.87	321	P	P	15 00 58.8	-0.8
	comp=Z,3.6nm,0.5s,mb4.6,baz=67,slow=4.8,SNR=6.6						
FINES	FINESS Array B	91.98	332	P	P	15 00 59.4	-0.4
	comp=Z,1.5nm,0.5s,mb4.2,baz=57,slow=5.7,SNR=12						
MLR	Muntele Rosu	94.81	316	⇑iP	P	15 01 13.7	+0.5
BURAR	Bucovina Array	94.94	318	⇑iP	P	15 01 14.0	+0.3
UZH	Uzhgorod	96.66	320	eP	P	15 01 22.3	+0.8
CRVS	Cervenica-Dubn	97.14	320	eP	P	15 01 24.2	+0.5
STHS	Stebnicka Huta	97.16	320	eP	P	15 01 24.3	+0.6
	comp=Z,2.5nm,0.7s,mb4.7						
STHS	Stebnicka Huta	97.16	320	eP	P	15 01 24.3	+0.6
STHS				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.7						
KECS	Kecovo	97.86	320	eP	P	15 01 26.8	-0.1
	comp=Z,3.0nm,1.0s,mb4.7						
KECS	Kecovo	97.86	320	eP	P	15 01 26.8	-0.1
KECS				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.7						
NB2	NORSAR Subarra	98.96	333	P	P	15 01 31.4	-0.1
	comp=Z,0.4nm,0.5s,mb4.1,baz=58,slow=5.3						
NOA	NORSAR Array B	98.96	333	P	P	15 01 31.1	-0.4
	comp=Z,0.2nm,0.6s,mb3.8,baz=68,slow=4.5,SNR=3.3						
YKA	Yellowknife Ar	100.27	24	P	Pdif	15 01 39.4	+1.9
YKA				PKKPbc	PKKPbc	15 17 53.5	-3.0
YKA	Yellowknife Ar	100.27	24	P	Pdif	15 01 39.4	+1.9
	comp=Z,0.1nm,0.5s,baz=295,slow=4.8,SNR=4.2						
YKA				PKKPbc	PKKPbc	15 17 53.5	-3.0
	comp=Z,0.1nm,0.4s,baz=116,slow=2.5,SNR=4.3						
SCHQ	Schefferville	121.20	9	PKP	PKPdf	15 06 44.7	+1.4
SCHQ	Schefferville	121.20	9	PKP	PKPdf	15 06 44.7	+1.4
	comp=Z,2.1nm,0.6s,baz=356,slow=6.2,SNR=4.4						
TORD	Torodi Ar. Bea	122.43	288	PKP	PKPdf	15 06 46.8	0.0
TORD	Torodi Ar. Bea	122.43	288	PKP	PKPdf	15 06 46.8	0.0
	comp=Z,1.4nm,0.7s,baz=82,slow=1.6,SNR=19						
TXAR	Lajitas Array	122.47	52	PKP	PKPdf	15 06 49.1	+2.6
TXAR	Lajitas Array	122.47	52	PKIKP	PKPdf	15 06 49.1	+2.6
TXAR	Lajitas Array	122.47	52	PKP	PKPdf	15 06 49.1	+2.6
	comp=Z,0.5nm,0.5s,baz=266,slow=0.2,SNR=7.5						

IDC 27 14:51:50.0±1.5**, 1905N×14634E, h0**^{km}**, mb3.7**/5**, mb1 4.0**/5**, mb1mx3.6**/20**, mbtmp3.7**/5**, Error ellipse: s-maj=136.8km s-min=23.9km az=118.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	40.50	198	P	P	14 59 31.3	+0.6
	0.6nm,0.4s,baz=24,slow=8.6,SNR=7.3						
FITZ	Fitzroy Crossi	42.15	210	P	P	14 59 43.5	-0.9
	2.3nm,0.9s,baz=32,slow=12,SNR=14						
ASAR	Alice Springs	44.16	196	P	P	15 00 00.7	+0.1
	0.5nm,0.7s,baz=14,slow=7.0,SNR=5.5						
YKA	Yellowknife Ar	77.39	28	P	P	15 03 45.8	-0.7
	0.2nm,0.5s,baz=290,slow=5.3,SNR=4.2						
NVAR	Mina Array Bea	82.45	52	P	P	15 04 16.0	+1.6
	0.4nm,0.6s,baz=272,slow=6.0,SNR=2.5						

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*PRU **27** 14:58:30.8, 5032N×1894E, h0^{km}*

WAR 27 14:58:30.2, 5023N×1907E, ML2.5, 1C-1D, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OKC	Ostrava-Krasne	0.72	237	ePG	Pg	14 58 43.7	-0.2
OKC				eSG	Sg	14 58 54.4	+1.2
	10.0nm,0.5s						
MORC	Moravsky Berou	1.09	246	⇑iP	Pg	14 58 49.9	-1.1
MORC	Moravsky Berou	1.09	246	S	Sg	14 59 06.4	+1.3
STHS	Stebnicka Huta	1.63	119	ePN	Pn	14 59 01.7	+1.7
STHS				eSN	Sn	14 59 25.4	+3.8
VYHS	Vyhne	1.75	185	ePN	Pn	14 59 00.9	-0.8
VYHS				eSN	Sn	14 59 23.5	-1.1
DPC	Dobruska-Polom	1.77	275	ePG	Pg	14 59 01.1	-3.0
DPC				eSG	Sg	14 59 24.7	-2.3
	12nm,0.8s						
VRAC	Vranov	1.85	241	⇓iP	Pn	14 59 03.4	+0.2
VRAC	Vranov	1.85	241	S	Sn	14 59 28.9	+1.6
KECS	Kecovo	1.98	152	ePN	Pn	14 59 07.2	+2.3
KECS				eSN	Sn	14 59 33.9	+3.5
CRVS	Cervenica-Dubn	2.05	130	ePN	Pn	14 59 08.8	+3.0
CRVS				eSN	Sn	14 59 36.9	+4.9
PVCC	Panska Ves	2.90	278	eSG	Sg	15 00 01.1	-2.2
	6.6nm,0.4s						
PRU	Pruhonice	2.93	267	eSG	Sg	15 00 01.3	-2.9
	4.2nm,0.7s						
BRG	Berggiesshubel	3.33	283	SG	Sg	15 00 17.1	-0.2
	3.7nm,0.5s						
KHC	Kasperske Hory	3.73	255	eSG	Sg	15 00 28.3	-1.8
	5.4nm,0.5s						

IDC 27 15:03:21.9±2.7**, 1888S×7162W, h0**^{km}**, mb3.7**/2**, mb1 3.8**/4**, mb1mx3.6**/16**, mbtmp3.6**/4**, ML3.4**/2**, Error ellipse: s-maj=99.0km s-min=38.7km az=176.0, Off coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LPAZ	La Paz	4.21	53	Pn	Pn	15 04 28.4	+1.1
	1.0nm,0.3s,baz=250,slow=9.0,SNR=12						
SIV	San Ignacio	10.47	76	Pn	Pn	15 05 53.6	+0.3
	0.2nm,0.3s,baz=262,slow=14,SNR=8.8						
TORD	Torodi Ar. Bea	78.92	72	P	P	15 15 27.2	-0.6
	0.5nm,0.6s,baz=256,slow=6.1,SNR=4.4						
YKA	Yellowknife Ar	87.89	342	P	P	15 16 12.3	-0.6
	0.4nm,0.7s,baz=136,slow=5.1,SNR=6.8						
SONM	Songino Array	151.07	3	PKPbc	PKPbc	15 23 18.3	+1.4
	0.3nm,0.4s,baz=318,slow=1.9,SNR=2.3						

MAN 27 15:16:40, 1560N×11999E, h28^{km}**, mb3.7, ML2.5, MS2.0, 2D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SCZP	Santa Cruz	0.19	335	eP	Pb	15 16 47.8	+1.9
BOLP	Bolinao	0.78	354	eP	Pb	15 16 55.5	+0.5
BOLP				eS	Sb	15 17 06.5	+1.3
BCPH	Baguio City Da	0.96	36	⇓iP	Pn	15 16 58.5	+0.9
BCPH				i S	Sn	15 17 12.9	+2.6
PCPH	Palayan	1.06	92	⇓eP	Pn	15 16 59.1	0.0
PCPH				eS	Sn	15 17 12.7	-0.3
BALP	Baler	1.53	85	eP	Pn	15 17 06.8	+1.3
LUBP	Lubang	1.87	172	eP	Pn	15 17 12.1	+1.9
ABRA	Dolores	2.15	19	eP	Pn	15 17 16.0	+2.0
CAUP	Cauayan	2.21	53	eP	Pn	15 17 18.4	+3.6
APYP	Conner	2.55	28	eP	Pn	15 17 22.0	+2.5
BUSP	Coron	3.58	177	eP	Pn	15 17 34.9	+1.2

*MOS **27** 15:25:18.8±1.2, 56.22N×114.23E, h18^{km}, mb4.2/1, Error ellipse: s-maj=35.1km s-min=22.3km az=49.1*

BYKL 27 15:25:19.4±0.2, 56.24N×114.22E, h17^{km}±3^{km}, 1C-1D, East of Lake Baykal

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SVKR	**Severomuysk**	**0.39**	**252**	*e*PG	Pg	15 25 26.4	-1.0
SVKR				*e*		15 25 30.9	
SVKR				pmax	pmax		
	comp=Z,338nm,0.4s						
SVKR				smax			
	comp=N,3µm,0.6s						
SVKR	**Severomuysk**	**0.39**	**252**	*e*Pg	Pg	15 25 26.5	-0.9
SVKR				*e*Sg	Sg	15 25 31.8	-1.0
SVKR				Pmax			
	comp=N,343nm,0.2s						
SVKR				Smax			
	comp=N,2µm,0.3s						
UKT	**Uakit**	**0.82**	**204**	⇓*i*Pg	Pg	15 25 34.4	-1.0
UKT				*e*Sg	Sg	15 25 45.9	-0.4
UKT				Pmax			
	comp=N,23nm,0.2s						
UKT				Smax			
	comp=N,206nm,0.4s						
NLYR	**Nelyaty**	**0.86**	**72**	*e*Pg	Pg	15 25 35.1	-1.1
NLYR				*e*Sg	Sg	15 25 47.2	-0.3
NLYR				*e*Sb	Sb	15 25 50.7	+3.6
YOA	**Uoyan**	**1.40**	**267**	⇑*i*PN	Pn	15 25 44.5	+0.4
YOA				*i*		15 26 04.4	
YOA				pmax	pmax		
	comp=Z,67nm,0.2s						
YOA				smax			
	comp=N,890nm,0.4s						
YOA	**Uoyan**	**1.40**	**267**	*e*Pg	Pg	15 25 44.5	-1.8
YOA				*e*Sg	Sg	15 26 03.3	-1.3
YOA				Pmax			
	comp=N,69nm,0.3s						
YOA				Smax			
	comp=N,888nm,0.3s						
BOD	**Bodaibo**	**1.59**	**356**	*e*PN	Pn	15 25 46.7	0.0
BOD				*e*		15 26 07.2	
BOD				pmax	pmax		
	comp=Z,97nm,0.5s						
BOD				smax			
	comp=E,597nm,0.3s						
BOD	**Bodaibo**	**1.59**	**356**	*e*Pg	Pg	15 25 47.1	-2.8
BOD				*e*Sg	Sg	15 26 07.3	-3.3
BOD				Pmax			
	comp=E,68nm,0.2s						
BOD				Smax			
	comp=E,592nm,0.3s						
KMO	**Kumora**	**1.73**	**259**	*e*PN	Pn	15 25 49.4	+0.8
KMO				*e*		15 26 12.9	
KMO				pmax	pmax		
	comp=Z,47nm,0.3s						
KMO				smax			
	comp=N,322nm,0.9s						
KMO	**Kumora**	**1.73**	**259**	*e*Pn	Pn	15 25 49.4	+0.8
KMO				*e*Pg	Pg	15 25 50.5	-2.1
KMO				*e*Sg	Sg	15 26 13.3	-1.8
KMO				Pmax			
	comp=N,46nm,0.3s						
KMO				Smax			
	comp=N,324nm,0.5s						
YLYR	**Ulyunkhan**	**2.21**	**233**	*e*PN	Pn	15 25 56.1	+0.9
YLYR				*e*		15 25 58.5	
YLYR				*e*		15 26 28.3	
YLYR				pmax	pmax		
	comp=Z,22nm,0.3s						
YLYR				smax			
	comp=N,181nm,0.4s						
YLYR	**Ulyunkhan**	**2.21**	**233**	*e*Pn	Pn	15 25 56.1	+0.9
YLYR				*e*Pg	Pg	15 25 58.8	-3.0
YLYR				*e*		15 26 01.8	
YLYR				*e*Sg	Sg	15 26 28.3	-2.1
YLYR				max			
	comp=N,23nm,0.3s						
YLYR				Smax			
	comp=N,177nm,0.4s						
CRS	**Chara**	**2.34**	**72**	*e*PN	Pn	15 25 57.6	+0.6
CRS				*e*		15 26 01.7	
CRS				*e*		15 26 31.5	
CRS				pmax	pmax		
	comp=Z,38nm,0.9s						
CRS				smax			
	comp=E,132nm,0.6s						
CRS	**Chara**	**2.34**	**72**	*e*Pn	Pn	15 25 57.7	+0.7
CRS				*e*Pg	Pg	15 26 01.4	-2.8
CRS				*e*Sg	Sg	15 26 31.8	-2.6
CRS				Pmax			
	comp=E,30nm,0.4s						
CRS				Smax			
	comp=E,103nm,0.3s						
NIZ	**Nizh Angarsk**	**2.67**	**262**	*e*Pn	Pn	15 26 02.9	+1.4
NIZ				*e*Sg	Sg	15 26 42.3	-2.8
NIZ				Smax			
	comp=E,53nm,0.3s						
KHNR	**Khani**	**3.26**	**76**	*e*Sn	Sn	15 26 48.3	+0.4
KHNR				*e*Sg	Sg	15 27 00.3	-3.6
SYVR	**Suvo**	**3.55**	**225**	*e*Sg	Sg	15 27 08.8	-4.6
SYVR				Smax			
	comp=E,49nm,1.0s						
TUP	**Tupik**	**3.75**	**117**	*e*Pn	Pn	15 26 16.7	+0.4
TUP				*e*Pg	Pg	15 26 26.5	-4.6
TUP				*e*Sg	Sg	15 27 15.7	-3.9
TUP				Pmax			
	comp=E,21nm,0.6s						
TUP				Smax			
	comp=E,48nm,0.7s						
CIT	**Chita**	**4.25**	**186**	*e*Sg	Sg	15 27 31.3	-4.3
CIT				Smax			
	comp=E,96nm,0.8s						
OGRR	**Ongureny**	**4.62**	**238**	*e*Pn	Pn	15 26 29.4	+1.1
OGRR				*e*Pg	Pg	15 26 42.4	-5.4
OGRR				*e*Sg	Sg	15 27 41.8	-5.8
OGRR				Pmax			
	comp=E,3.0nm,0.4s						
OGRR				Smax			
	comp=E,20nm,0.6s						
TRG	**Tyrgan**	**5.76**	**236**	*e*Sg	Sg	15 28 17.6	-6.5
TRG				Smax			
	comp=E,8.0nm,0.4s						
KPC	**Khapcheranga**	**6.64**	**190**	*e*Pn	Pn	15 26 56.4	+0.3
KPC				*e*Sg	Sn	15 28 44.5	+33
KPC				Smax			
	comp=E,16nm,0.9s						
TLY	**Talaya**	**7.73**	**238**	*e*Sg	Sn	15 29 18.9	+41
TLY				Smax			
	comp=E,4.0nm,0.2s						

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*ISCJB **27** 15:30:36.3±0.4, 10.55N±0.03×62.57W±0.02, h101^{km}±4^{km}, Error ellipse: s-maj=4.8km s-min=3.1km az=138.9*

*FUNV **27** 15:30:38.0, 10.62N×62.48W, h95^{km}, MW3.6*

*TRN **27** 15:30:39.5, 10.59N×62.47W, h84^{km}, MD3.8*

*NEIC **27** 15:30:39.2, 10.64N×62.49W, h83^{km}, MD3.8(TRN), After TRN.*

NEIC Felt [II] on Trinidad.

ISC 27 15:30:37.4±0.4, 10.55N±0.03×62.56W±0.02, h94^{km}±5^{km}, n41, σ1^{s}.04/69, 12C-3D, Near coast of Venezuela

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	**Guiria**	**0.35**	**74**	⇓*i*P	**Pn**	**15 30 52.0**	**+0.5**
GUIV				*e*S	**Sn**	**15 31 01.4**	**-0.7**
GUNV	**Guanoco**	**0.54**	**224**	⇑*i*P	**Pn**	**15 30 54.9**	**+2.0**
GUNV				*e*S	**Sn**	**15 31 06.8**	**+2.3**
CRUV	**Carupano**	**0.68**	**281**	⇑*i*P	**Pn**	**15 30 54.6**	**+0.6**
CRUV				*e*S	**Sn**	**15 31 06.8**	**+0.3**
TCE	**Chacachacare**	**0.81**	**80**	*e*P	**Pn**	**15 30 55.9**	**+0.6**
TCE				*e*S	**Sn**	**15 31 07.7**	**-1.1**
ITEV	**Isla Los Testi**	**0.98**	**325**	⇓*i*P	**Pn**	**15 30 57.4**	**+0.2**
ITEV				*e*S	**Sn**	**15 31 10.8**	**-1.2**
TPP	**Pointe-a-Pierr**	**1.12**	**102**	*e*P	**Pn**	**15 30 59.6**	**+0.9**
TPP				*e*S	**Sn**	**15 31 14.0**	**-0.7**
TRN	**Trinidad (W)**	**1.14**	**85**	*e*P	**Pn**	**15 30 59.7**	**+0.6**
TRN				*i* S	**Sn**	**15 31 14.1**	**-1.2**
TBH	**Brigand Hill**	**1.47**	**92**	⇑*e*P	**Pn**	**15 31 03.8**	**+0.8**
TBH				*e*S	**Sn**	**15 31 21.5**	**-0.9**
GRGR	**Grenville**	**1.81**	**29**	*e*Pn	**Pn**	**15 31 06.8**	**-0.5**
GRGR				*e*Sn	**Sn**	**15 31 27.3**	**-2.7**
GRW	**Mount Saint Ca**	**1.83**	**29**	*e*P	**Pn**	**15 31 07.5**	**-0.1**
GRW				*e*S	**Sn**	**15 31 23.7**	**-6.8**
TPR	**Prospect**	**1.86**	**70**	⇑*i*P	**Pn**	**15 31 08.1**	**+0.1**
TPR				*e*S	**Sn**	**15 31 30.2**	**-1.1**
GRHS	**Sauteurs**	**1.89**	**28**	*e*P	**Pn**	**15 31 09.1**	**+0.7**
GRHS				*e*S	**Sn**	**15 31 30.7**	**-1.3**
GRSS	**Sisters**	**1.97**	**28**	⇑*i*P	**Pn**	**15 31 10.6**	**+1.2**
GRSS				*i* S	**Sn**	**15 31 33.8**	**0.0**
GRIC	**Isle de Caille**	**1.97**	**29**	⇑*e*P	**Pn**	**15 31 10.6**	**+1.1**
GRIC				*e*S	**Sn**	**15 31 30.8**	**-3.1**
PCRV	**Puerto La Cruz**	**2.08**	**260**	⇑*i*P	**Pn**	**15 31 11.7**	**+0.9**
PCRV				*e*S	**Sn**	**15 31 36.0**	**-0.2**
IBAV	**Isla La Blanqu**	**2.35**	**303**	⇑*i*P	**Pn**	**15 31 14.8**	**+0.4**
RIOV	**Rio Grande**	**2.57**	**163**	*e*P	**Pn**	**15 31 18.5**	**+1.1**
RIOV				*e*S	**Sn**	**15 31 47.4**	**-0.7**
PRGV	**PARIAGUAN**	**2.72**	**229**	⇑*i*P	**Pn**	**15 31 20.1**	**+0.8**
PRGV				*e*S	**Sn**	**15 31 52.8**	**+1.3**
GURV	**El Guri**	**2.82**	**191**	⇑*i*P	**Pn**	**15 31 21.7**	**+1.0**
GURV				*e*S	**Sn**	**15 31 52.8**	**-1.1**
FCV	**Fort Charlotte**	**2.89**	**26**	*e*P	**Pn**	**15 31 23.0**	**+1.4**
FCV				*e*S	**Sn**	**15 32 02.9**	**+7.2**
SVV	**Soufriere Volc**	**3.05**	**25**	*e*P	**Pn**	**15 31 25.7**	**+2.0**
SVV				*e*S	**Sn**	**15 32 07.2**	**+7.8**
CUPV	**Cœpira**	**3.21**	**262**	⇑*e*P	**Pn**	**15 31 26.8**	**+0.9**
CUPV				*e*S	**Sn**	**15 32 03.6**	**+0.2**
SLB	**Belfond**	**3.58**	**24**	*e*P	**Pn**	**15 31 32.6**	**+1.7**
SLB				*e*S	**Sn**	**15 32 13.9**	**+1.7**
ORCV	**Isla La Orchil**	**3.78**	**290**	*e*P	**Pn**	**15 31 33.8**	**+0.2**
SLW	**Petit Monier**	**3.80**	**25**	*e*P	**Pn**	**15 31 34.4**	**+0.6**
SLW				*e*S	**Sn**	**15 32 17.4**	**0.0**
MERV	**Las Mercedes**	**3.90**	**251**	*e*P	**Pn**	**15 31 35.3**	**+0.1**
MERV				*e*S	**Sn**	**15 32 19.4**	**-0.6**
BIM	**Bigot**	**4.20**	**20**	*e*P	**Pn**	**15 31 39.1**	**-0.2**
BIM				*e*S	**Sn**	**15 32 25.2**	**-2.1**
MVM	**Montagne Vaucl**	**4.30**	**22**	*e*P	**Pn**	**15 31 40.5**	**-0.2**
MVM				*e*S	**Sn**	**15 32 30.8**	**+1.1**
FDF	**Fort de France**	**4.38**	**18**	*e*P	**Pn**	**15 31 41.4**	**-0.3**
FDF				*e*S	**Sn**	**15 32 27.2**	**-4.4**
LUEV	**Luepa**	**4.80**	**167**	*e*P	**Pn**	**15 31 47.2**	**-0.3**
CAOV	**Caicara del Or**	**4.91**	**230**	*e*P	**Pn**	**15 31 48.9**	**0.0**
CAOV				*e*S	**Sn**	**15 32 41.6**	**-2.8**
TURV	**Turiamo**	**5.19**	**269**	*e*P	**Pn**	**15 31 52.3**	**-0.5**
BAUV	**El Baul**	**5.63**	**254**	*e*P	**Pn**	**15 31 58.1**	**-0.6**
TEPV	**Terepaima**	**6.55**	**265**	⇓*i*P	**Pn**	**15 32 10.6**	**-0.7**
SANV	**Sanarito**	**6.95**	**262**	⇑*i*P	**Pn**	**15 32 16.1**	**-0.5**
SIQV	**Siquisique**	**7.13**	**271**	*e*P	**Pn**	**15 32 18.5**	**-0.5**
CURV	**Curarigua**	**7.30**	**266**	*e*P	**Pn**	**15 32 21.3**	**-0.2**
SDV	**Santo Domingo**	**8.13**	**259**	*e*Pn	**Pn**	**15 32 31.4**	**-1.4**
	7.1nm,0.3s						
SOCV	**Socops**	**8.49**	**255**	*e*P	**Pn**	**15 32 36.7**	**-1.0**
VIGV	**El Vigia**	**8.84**	**260**	*e*P	**Pn**	**15 32 41.6**	**-0.9**
VIRV	**Villa del Rosa**	**9.68**	**271**	*e*P	**Pn**	**15 32 52.1**	**-1.8**

IDC 27 16:00:19.5±59.0, 16.72S×177.18W, h0^{km}, mb3.7/3, mb1 3.9/3, mb1mx3.6/14, mbtmp3.7/3, Error ellipse: s-maj=1090.0km s-min=165.2km az=78.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**40.23**	**240**	P	P	16 07 58.5	+0.4
	0.9nm,0.6s,baz=84,slow=12,SNR=6.1						
WRA	**Warramunga Arr**	**46.02**	**258**	P	P	16 08 44.5	-0.6
	0.2nm,0.4s,baz=96,slow=7.4,SNR=6.6						
ASAR	**Alice Springs**	**46.25**	**253**	P	P	16 08 46.9	0.0
	1.4nm,0.6s,baz=90,slow=7.9,SNR=34						

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*IDC **27** 16:13:49.6±1.1, 35.88S×106.45W, h0^{km}, mb4.5/10, mb1 4.6/10, mb1mx4.5/16, mbtmp4.5/10, MS4.2/14, Ms1 4.2/14, ms1mx4.1/19, Error ellipse: s-maj=32.9km s-min=24.2km az=34.0*

*GCMT **27** 16:13:51.3±0.2, 35.31S×106.14W, h24^{km}±1^{km}, MW5.2/71, Moment Tensor Solution. s43,c56; s71,c112; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.20±.24; $M_{\theta\theta}$-2.70±.21; $M_{\phi\phi}$2.50±.23; $M_{r\theta}$-0.53±.33; $M_{\theta\phi}$-6.67±.20; $M_{\phi r}$-1.48±.34; Best double couple: $M_0$7.32700×10^{16} NP1:ϕ_s101.00000°, δ78.00000°, λ-179.00000°. NP2: ϕ_s11.00000°, δ89.00000°, λ-12.00000°. Principal axes: T 7.1830, Plg8.0000°, Azm56.0000°; N 0.2880, Plg78.0000°, Azm185.0000°; P -7.4710, Plg9.0000°, Azm325.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **27** 16:13:51.3±0.8, 35.94S×106.25W, h10^{km}, mb4.9/8 Error ellipse: s-maj=23.0km s-min=16.9km az=222.0*

*ISCJB **27** 16:13:52.6±0.6, 35.41S±0.08×106.2W±.02, h10^{km}, mb4.6/18, MS4.2/14, Error ellipse: s-maj=18.8km s-min=11.7km az=175.2*

*BJI **27** 16:13:58.3, 35.90S×106.30W, h10^{km}*

ISC 27 16:13:54.9±0.6, 35.36S±0.08×106.1W±.02, h10^{km}, (h8^{km}±.6^{km}:pP-P), n51, σ1^{s}.11/28, mb4.6/18, MS4.2/14, 2C, Southern East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPN	**Rapa Nui**	**8.67**	**340**	T		16 24 43.7	
	31nm,0.3s,baz=232,slow=19,SNR=4.4						
USHA	**Ushuaia**	**32.40**	**139**	P	**P**	**16 20 18.1**	**-6.4**
	6.7nm,0.8s,mb4.5,baz=275,slow=8.7,SNR=3.3						
USHA				LR	LR	16 30 22.9	
	comp=Z,1µm,19.5s,MS4.7,baz=223,slow=31						
ARE	**Arequipa**	**36.11**	**68**	*e*P	**P**	**16 20 57.0**	**-0.2**
ATAH	**Atahualpa**	**37.99**	**49**	P	**P**	**16 21 12.4**	**-0.7**
	4.7nm,0.9s,mb4.2,baz=267,slow=13,SNR=4.8						
ATAH				LR	LR	16 31 37.6	
	comp=Z,92nm,21.3s,MS3.6,baz=221,slow=28						
PMSA	**Palmer Station**	**38.67**	**153**	LR	LR	16 31 26.8	
	comp=Z,71nm,20.5s,MS3.5,baz=307,slow=28						
LPAZ	**La Paz**	**38.78**	**71**	*e*P	**P**	**16 21 20.4**	**+0.6**
LPAZ				LR	LR	16 34 02.8	
LPAZ	**La Paz**	**38.78**	**71**	P	**P**	**16 21 20.9**	**+1.0**
	2.7nm,0.8s,mb4.0,baz=238,slow=6.7,SNR=11						
LPAZ				LR	LR	16 34 02.8	
	comp=Z,184nm,21.0s,MS3.9,baz=255,slow=31						
PPT	**Papeete**	**42.40**	**283**	*e*S	**S**	**16 28 05.3**	**-5.9**
	358nm,29.2s						
PPT				*e*LQ		16 31 33.5	
	2µm,28.0s						
PPT				*e*LR	LR	16 33 23.5	
	200nm,23.0s						
PPT	**Papeete**	**42.40**	**283**	LR	LR	16 34 03.4	
	comp=Z,255nm,20.4s,MS4.1,baz=308,slow=29						
OTAV	**Otavalo**	**43.80**	**42**	*e*P	**P**	**16 22 00.8**	**-0.2**
	24nm,1.4s,mb4.7						
SIV	**San Ignacio**	**44.48**	**76**	P	**P**	**16 22 06.4**	**-0.1**
	18nm,1.0s,mb4.7,baz=249,slow=12,SNR=49						
ROSC	**El Rosal**	**49.90**	**43**	P	**P**	**16 22 50.5**	**+1.7**
	7.3nm,0.3s,mb5.1,baz=100,slow=18,SNR=7.9						
ROSC				LR	LR	16 40 06.2	
	comp=Z,336nm,20.3s,MS4.3,baz=216,slow=31						
QSPA	**South Pole Qui**	**54.84**	**180**	*e*P	**P**	**16 23 25.4**	**+0.8**
	18nm,1.0s,mb5.1						
SDV	**Santo Domingo**	**55.28**	**44**	*e*P	**P**	**16 23 26.4**	**-2.2**
	13nm,1.2s,mb4.8						
VNDA	**Vanda**	**56.22**	**195**	LR	LR	16 43 01.4	
	comp=Z,167nm,18.7s,MS4.2,baz=275,slow=32						
VNA3	**Neumayer Olymp**	**58.96**	**158**	*e*	**P**	**16 23 53.9**	**0.0**
VNA3				*e*	pP	16 23 56.6	-0.6
VNA3				*e*		16 24 09.9	
VNA3				*e*		16 24 15.6	
VNA1	**Neumayer--Stat**	**59.59**	**157**	*e*	**P**	**16 23 58.7**	**+0.4**
VNA1				*e*	pP	16 24 01.3	-0.2
VNA1				*e*		16 24 14.6	
VNA1				*e*		16 24 20.5	
VNA2	**Neumayer--Watz**	**59.77**	**158**	*e*	**P**	**16 23 59.6**	**+0.1**
	baz=238,slow=6.8						
VNA2				*e*	pP	16 24 01.7	-1.0
VNA2				*e*		16 24 15.6	
VNA2				*e*		16 24 21.4	
LTX	**Lajitas**	**64.39**	**2**	*e*P	**P**	**16 24 32.5**	**+1.5**
	4.5nm,0.9s,mb4.5						
TXAR	**Lajitas Array**	**64.39**	**2**	P	**P**	**16 24 31.1**	**+0.2**
	1.1nm,0.7s,mb4.0,baz=188,slow=7.6,SNR=12						
TXAR				LR	LR	16 48 45.0	
	comp=Z,52nm,20.4s,MS3.7,baz=295,slow=32						
JCT	**Junction City**	**65.76**	**6**	*e*P	**P**	**16 24 41.3**	**+1.5**
	14nm,1.0s,mb5.0						
MNTX	**Cornudas Mount**	**66.71**	**1**	*e*P	**P**	**16 24 46.4**	**+0.5**
	8.8nm,1.4s,mb4.6						
SYO	**Syowa Base**	**72.89**	**168**	⇑*e*P	**P**	**16 25 20.3**	**-3.3**
NVAR	**Mina Array Bea**	**74.29**	**350**	P	**P**	**16 25 31.4**	**-0.7**
	4.6nm,0.9s,mb4.4,baz=164,slow=7.7,SNR=21						
MAW	**Mawson**	**77.01**	**176**	LR	LR	16 59 02.7	
	comp=Z,204nm,18.8s,MS4.5,baz=170,slow=36						
BW06	**Boulder Array**	**77.82**	**357**	*e*P	**P**	**16 25 51.0**	**-1.0**
	14nm,1.2s,mb4.8						
PDAR	**Pinedale Array**	**77.82**	**357**	P	**P**	**16 25 50.7**	**-1.4**
	6.6nm,1.0s,mb4.5,baz=164,slow=5.9,SNR=23						
PDAR				LR	LR	16 58 28.6	
	comp=Z,116nm,18.3s,MS4.2,baz=24,slow=34						
HLID	**Hailey**	**78.92**	**354**	*e*P	**P**	**16 25 57.7**	**-0.4**
	14nm,1.0s,mb4.8						
QLMT	**Earthquake Lak**	**79.97**	**356**	*e*P	**P**	**16 26 06.3**	**+2.5**
MCMT	**McKenzie Canyo**	**80.05**	**355**	*e*P	**P**	**16 26 05.0**	**+0.8**
ULM	**Lac du Bonnet**	**85.72**	**7**	P	**P**	**16 26 32.9**	**-0.6**
	4.4nm,0.8s,mb4.7,baz=192,slow=6.7,SNR=7.1						
STKA	**Stephens Creek**	**87.78**	**232**	LR	LR	16 59 28.4	
	comp=Z,360nm,18.1s,MS4.8,baz=302,slow=31						
CTA	**Charters Tower**	**92.08**	**244**	LR	LR	17 02 29.5	
	comp=Z,279nm,18.2s,MS4.8,baz=81,slow=32						
SCHQ	**Schefferville**	**95.95**	**22**	LR	LR	17 11 52.9	
	comp=Z,149nm,18.6s,MS4.5,baz=252,slow=36						
YKA	**Yellowknife Ar**	**97.76**	**356**	P	**P**	**16 27 27.6**	**-1.8**
YKA	**Yellowknife Ar**	**97.76**	**356**	P	**P**	**16 27 27.6**	**-1.8**
	0.1nm,0.4s,mb3.7,baz=175,slow=4.6,SNR=3.0						
PMG	**Port Moresby**	**97.99**	**253**	LR	LR	17 01 32.3	
	comp=Z,178nm,20.0s,MS4.6,baz=127,slow=29						
FINES	**FINESS Array B**	**140.26**	**34**	PKP	PKPdf	16 33 20.1	-3.0
FINES	**FINESS Array B**	**140.26**	**34**	PKP	PKPdf	16 33 20.1	-3.0
	5.4nm,1.2s,baz=262,slow=15,SNR=2.5						
AKASG	**Malin Array Be**	**144.50**	**50**	PKPbc	PKPdf	16 33 28.1	-2.8
AKASG	**Malin Array Be**	**144.50**	**50**	PKPbc	PKPdf	16 33 28.1	-2.8
	1.6nm,0.8s,baz=222,slow=33,SNR=5.4						
WHN	**Wuhan**	**145.90**	**274**	⇑PKP	PKPbc	16 33 36.0	+1.3
BJI	**Beijing**	**146.47**	**291**	PKP	PKPdf	16 33 34.5	-0.2
BRTR	**Keskin Array B**	**147.96**	**70**	PKPbc	PKPbc	16 33 37.0	-3.3
BRTR	**Keskin Array B**	**147.96**	**70**	PKPbc	PKPbc	16 33 37.0	-3.3
	3.4nm,0.9s,baz=192,slow=4.3,SNR=10						
SONM	**Songino Array**	**152.91**	**307**	PKP	PKPdf	16 33 40.9	-3.7
SONM				PKPbc	PKPbc	16 33 48.9	-3.0
SONM	**Songino Array**	**152.91**	**307**	PKP	PKPdf	16 33 40.9	-3.7
	0.2nm,0.3s,baz=29,slow=3.3,SNR=2.3						
SONM				PKPbc	PKPbc	16 33 48.9	-3.0
	1.5nm,0.6s,baz=13,slow=0.9,SNR=3.7						
ZALV	**Zalesovo Beam**	**159.91**	**341**	PKP	PKPdf	16 33 52.1	-1.4
ZALV	**Zalesovo Beam**	**159.91**	**341**	PKP	PKPdf	16 33 52.1	-1.4
	0.3nm,0.4s,baz=33,slow=3.4,SNR=3.1						
MKAR	**Makanchi Array**	**166.96**	**334**	PKP	PKPdf	16 33 56.4	-4.0
MKAR	**Makanchi Array**	**166.96**	**334**	PKP	PKPdf	16 33 56.4	-4.0
	0.1nm,0.5s,baz=242,slow=2.5,SNR=5.8						

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*ISCJB **27** 16:15:03.3±0.5, 37.60N±0.02×26.73E±0.03, h4^{km}±4^{km}, Error ellipse: s-maj=4.5km s-min=3.3km az=155.3*

*ISK **27** 16:15:03.7, 37.63N×26.80E, h5^{km}, MD3.4*

*CSEM **27** 16:15:03.5±0.1, 37.61N×26.78E, h5^{km}, MD3.4, Error ellipse: s-maj=2.0km s-min=1.6km az=88.0*

*DDA **27** 16:15:04.0, 37.64N×26.79E, h11^{km}, Md2.7*

*ATH **27** 16:15:04.2, 37.61N×26.70E, h5^{km}, MD3.4/4*

*THE **27** 16:15:05.1, 37.59N×26.89E, h31^{km}, ML3.6*

ISC 27 16:15:04.0±0.5, 37.59N±0.02×26.73E±0.03, h4^{km}±4^{km}, n74, σ0^{s}.81/90, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**0.14**	**35**	*e*PG	**Pg**	**16 15 07.1**	**+0.2**
SMG	**Samos**	**0.14**	**35**	Pg	**Pg**	**16 15 07.1**	**+0.2**
BODT	**Bodrum**	**0.70**	**139**	PG	**Pg**	**16 15 17.5**	**+0.1**
BODT				SG	**Sg**	**16 15 27.5**	**+1.0**
BODT	**Bodrum**	**0.70**	**139**	*e*Pg	**Pg**	**16 15 17.5**	**+0.1**
BODT				*e*Sg	**Sg**	**16 15 27.5**	**+1.0**
BDRM	**Kayabasi**	**0.77**	**132**	*i* P	**Pg**	**16 15 18.2**	**-0.6**
BDRM				*i* S	**Sg**	**16 15 30.0**	**+1.2**
BDRM	**Kayabasi**	**0.77**	**132**	*i* P	**Pg**	**16 15 18.2**	**-0.6**
BDRM				*i* S	**Sg**	**16 15 30.0**	**+1.2**
URLA	**Izmir**	**0.78**	**352**	*i* P	**Pg**	**16 15 17.6**	**-1.3**
URLA				*i* S	**Sg**	**16 15 30.0**	**+1.0**
BLCB	**Balcova**	**0.83**	**17**	PG	**Pg**	**16 15 18.6**	**-1.3**
BLCB				SG	**Sg**	**16 15 29.4**	**-1.3**
BLCB	**Balcova**	**0.83**	**17**	*e*Pg	**Pg**	**16 15 18.9**	**-1.0**
BLCB				*e*Sg	**Sg**	**16 15 30.5**	**-0.2**
BLCB	**Balcova**	**0.83**	**17**	*e*Pg	**Pg**	**16 15 19.0**	**-0.9**
BLCB				*e*Sg	**Sg**	**16 15 30.5**	**-0.2**
MLSB	**Milas**	**0.88**	**109**	PG	**Pg**	**16 15 21.3**	**+0.4**
MLSB				SG	**Sg**	**16 15 32.4**	**+0.1**
MLSB	**Milas**	**0.88**	**109**	*e*Pg	**Pg**	**16 15 21.3**	**+0.4**
MLSB				*e*Sg	**Sg**	**16 15 32.4**	**+0.1**
IZM	**Izmir**	**0.91**	**27**	PG	**Pg**	**16 15 19.9**	**-1.5**
IZM	**Izmir**	**0.91**	**27**	*e*Pg	**Pg**	**16 15 19.9**	**-1.5**
KDAG	**Bornova**	**0.92**	**27**	*i* P	**Pg**	**16 15 19.4**	**-2.1**
KDAG				*i* S	**Sg**	**16 15 33.5**	**+0.1**
KDAG	**Bornova**	**0.92**	**27**	*i* P	**Pg**	**16 15 19.4**	**-2.2**
KDAG				*i* S	**Sg**	**16 15 33.5**	**+0.1**
CHOS	**Chios island**	**0.96**	**326**	*e*Pg	**Pg**	**16 15 22.7**	**+0.3**
CHOS				*e*Sg	**Sg**	**16 15 35.9**	**+1.1**
CHOS	**Chios island**	**0.96**	**326**	*e*Pg	**Pg**	**16 15 22.7**	**+0.3**
CHOS				*e*Sg	**Sg**	**16 15 35.9**	**+1.1**
NISR	**Nisiros**	**1.03**	**162**	*e*PN	**Pn**	**16 15 24.5**	**-0.7**
NISR	**Nisiros**	**1.03**	**162**	*e*Pn	**Pn**	**16 15 24.5**	**-0.7**
APE	**Apeiranthos**	**1.09**	**242**	*e*Pg	**Pg**	**16 15 24.7**	**-0.1**
APE				*e*Sg	**Sg**	**16 15 40.4**	**+1.4**
APE	**Apeiranthos**	**1.09**	**242**	*e*PN	**Pn**	**16 15 24.9**	**-1.2**
APE	**Apeiranthos**	**1.09**	**242**	*e*Pg	**Pg**	**16 15 24.7**	**-0.2**
APE				*e*Sg	**Sg**	**16 15 40.4**	**+1.4**
DAT	**Datca**	**1.09**	**142**	PN	**Pn**	**16 15 24.4**	**-1.7**
DAT	**Datca**	**1.09**	**142**	*e*Pn	**Pn**	**16 15 24.4**	**-1.7**
YER	**Yerkesik**	**1.32**	**110**	PN	**Pn**	**16 15 28.2**	**-1.0**
YER	**Yerkesik**	**1.32**	**110**	*e*Pn	**Pn**	**16 15 28.2**	**-1.0**
AKS	**Akhisar**	**1.54**	**33**	PN	**Pn**	**16 15 31.9**	**-0.4**
AKS	**Akhisar**	**1.54**	**33**	*e*Pn	**Pn**	**16 15 31.9**	**-0.4**
SANT	**Santorini**	**1.59**	**220**	*e*Pb	**Pn**	**16 15 31.6**	**-1.4**
SANT	**Santorini**	**1.59**	**220**	*e*Pb	**Pn**	**16 15 31.5**	**-1.4**
PRK	**Paraskevi**	**1.69**	**348**	*e*PB	**Pb**	**16 15 35.9**	**+0.2**
PRK	**Paraskevi**	**1.69**	**348**	Pb	**Pb**	**16 15 35.9**	**+0.2**
DALT	**Dalyan (Mudla)**	**1.73**	**118**	*e*PN	**Pn**	**16 15 35.3**	**+0.4**
DALT	**Dalyan (Mudla)**	**1.73**	**118**	*e*Pn	**Pn**	**16 15 35.3**	**+0.4**
KULA	**Kula-Manisa**	**1.78**	**58**	*e*PN	**Pn**	**16 15 35.7**	**+0.1**
KULA	**Kula-Manisa**	**1.78**	**58**	*e*Pn	**Pn**	**16 15 35.7**	**+0.1**
DENT	**Denizli**	**1.83**	**84**	*e*PN	**Pn**	**16 15 36.7**	**+0.4**
DENT	**Denizli**	**1.83**	**84**	*e*Pn	**Pn**	**16 15 36.7**	**+0.4**
FETY	**Fethiye**	**2.11**	**116**	*e*PN	**Pn**	**16 15 40.4**	**+0.3**
FETY	**Fethiye**	**2.11**	**116**	*e*Pn	**Pn**	**16 15 40.4**	**+0.3**
BALB	**Balikesir**	**2.24**	**23**	*e*PN	**Pn**	**16 15 42.0**	**+0.2**
BALB	**Balikesir**	**2.24**	**23**	*e*Pn	**Pn**	**16 15 42.0**	**+0.2**
EZN	**Ezine**	**2.25**	**352**	*e*PN	**Pn**	**16 15 42.5**	**+0.4**
EZN	**Ezine**	**2.25**	**352**	*e*Pn	**Pn**	**16 15 42.5**	**+0.4**
KHL	**Karahalli**	**2.33**	**71**	*e*PN	**Pn**	**16 15 42.8**	**-0.3**
KHL	**Karahalli**	**2.33**	**71**	*e*Pn	**Pn**	**16 15 42.8**	**-0.3**
DST	**Dursunbey**	**2.50**	**36**	*e*PN	**Pn**	**16 15 45.8**	**+0.3**
DST	**Dursunbey**	**2.50**	**36**	*e*Pn	**Pn**	**16 15 45.8**	**+0.3**
ELL	**Elmali**	**2.67**	**107**	*e*PN	**Pn**	**16 15 48.0**	**+0.2**
ELL	**Elmali**	**2.67**	**107**	*e*Pn	**Pn**	**16 15 48.0**	**+0.2**
GADA	**Gvkgeada**	**2.68**	**346**	*e*PN	**Pn**	**16 15 48.7**	**+0.8**
GADA	**Gvkgeada**	**2.68**	**346**	*e*Pn	**Pn**	**16 15 48.7**	**+0.8**
DID	**Didima**	**2.78**	**269**	*e*Pn	**Pn**	**16 15 48.9**	**-0.4**
DID	**Didima**	**2.78**	**269**	*e*Pn	**Pn**	**16 15 48.9**	**-0.4**
LPK	**Lapseki**	**2.78**	**0**	*e*PN	**Pn**	**16 15 49.2**	**-0.1**
LPK	**Lapseki**	**2.78**	**0**	*e*Pn	**Pn**	**16 15 49.2**	**-0.1**
EDC	**Edincik**	**2.89**	**17**	*e*PN	**Pn**	**16 15 51.3**	**+0.5**
EDC	**Edincik**	**2.89**	**17**	*e*Pn	**Pn**	**16 15 51.3**	**+0.5**
BNT	**Bandirma**	**2.91**	**18**	*e*PN	**Pn**	**16 15 51.5**	**+0.3**
KCT	**Karacabey**	**2.96**	**25**	*e*PN	**Pn**	**16 15 52.2**	**+0.4**
KCT	**Karacabey**	**2.96**	**25**	*e*Pn	**Pn**	**16 15 52.2**	**+0.4**
RKY	**Sarkoy-Tekirda**	**3.11**	**6**	*e*PN	**Pn**	**16 15 53.6**	**-0.3**
RKY	**Sarkoy-Tekirda**	**3.11**	**6**	*e*Pn	**Pn**	**16 15 53.6**	**-0.3**
ENEZ	**Enez**	**3.17**	**352**	*e*PN	**Pn**	**16 15 54.3**	**-0.4**
ENEZ	**Enez**	**3.17**	**352**	*e*Pn	**Pn**	**16 15 54.3**	**-0.4**
IZI	**Iznik**	**3.48**	**37**	*e*PN	**Pn**	**16 15 59.4**	**+0.5**
IZI	**Iznik**	**3.48**	**37**	*e*Pn	**Pn**	**16 15 59.4**	**+0.5**
YLV	**Yalova**	**3.61**	**34**	*e*PN	**Pn**	**16 16 01.9**	**+1.1**
YLV	**Yalova**	**3.61**	**34**	*e*Pn	**Pn**	**16 16 01.9**	**+1.1**
GULT	**Gulveren**	**4.09**	**45**	*e*PN	**Pn**	**16 16 08.4**	**+1.1**
GULT	**Gulveren**	**4.09**	**45**	*e*Pn	**Pn**	**16 16 08.4**	**+1.1**
EDRB	**Edirne**	**4.25**	**0**	*e*PN	**Pn**	**16 16 10.2**	**+0.7**
EDRB	**Edirne**	**4.25**	**0**	*e*Pn	**Pn**	**16 16 10.2**	**+0.7**

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*ISCJB **27** 16:17:35.4±0.8, 31.95N±0.10×138.6E±0.1, h379^{km}±8^{km}, mb2.9/3, Error ellipse: s-maj=18.0km s-min=13.0km az=39.2*

IDC ***27*** *16:17:36.1±2.3, 31.82N×138.42E, h362^{km}±46^{km}, mb2.7/3, mb1 2.8/4, mb1mx2.6/22, mbtmp2.6/4, Error ellipse: s-maj=226.9km s-min=24.7km az=81.0*

JMA ***27*** *16:17:40.6±0.5, 32.13N×138.36E, h347^{km}, M3.1*

ISC 27 16:17:36.6±0.8, 32.04N±0.10×138.6E±0.1, h376^{km}±8^{km}, n17, σ1^{s}36/18, mb2.9/3, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	1.47	43	P	Pn	16 18 29.5	+2.4
JHJ2				eS	S	16 19 05.6	-2.2
JIE	Ise	2.85	326	P	Pn	16 18 37.6	+1.1
JWZ	Kozaga	2.87	302	P	Pn	16 18 36.1	-0.7
JOD2	Odawara 2	3.24	7	P	Pn	16 18 41.1	+1.2
BSO1	Boso 1	3.27	36	eS	S	16 19 33.3	+1.7
JWY	Kouya	3.35	311	P	Pn	16 18 41.4	+0.5
JAI	Aioi	3.92	298	P	Pn	16 18 45.7	-0.7
JRY	Ryogami san	3.98	3	P	Pn	16 18 49.8	+3.0
JWT	Wachi	4.21	321	P	Pn	16 18 49.8	+0.7
JMN	Monobe	4.34	294	P	Pn	16 18 49.8	-0.7
JAG	Ashikaga	4.43	9	eS	S	16 19 49.9	-2.0
MJAR	Matsushiro Arr	4.51	356	P	Pn	16 18 52.9	+0.7
	1.3nm,0.3s,baz=169,slow=11,SNR=6.7						
MAT	Matsushiro	4.51	356	P	Pn	16 18 51.0	-1.2
JMK	Ichinoseki	7.22	16	S	S	16 20 46.3	-1.6
WRA	Warramunga Arr	51.84	185	P	P	16 26 06.9	-1.0
	0.2nm,0.3s,mb2.9,baz=0.6,slow=7.6,SNR=8.6						
ASAR	Alice Springs	55.57	185	P	P	16 26 33.6	-1.0
	0.1nm,0.3s,mb2.6,baz=23,slow=12,SNR=4.7						
FINES	FINESS Array B	72.16	332	P	P	16 28 22.5	+1.4
	0.2nm,0.3s,mb3.3,baz=89,slow=10,SNR=3.5						

IDC ***27*** *16:29:48.6±1.2, 0.90S×127.66E, h0^{km}, mb3.8/6, mb1 3.9/7, mb1mx3.8/17, mbtmp3.8/7, ML3.4/1, MS3.6/2, Ms1 3.6/2, ms1mx3.1/31, Error ellipse: s-maj=119.3km s-min=17.3km az=71.0*

ISCJB ***27*** *16:29:51.9±0.8, 1.1S±0.1×127.3E±0.3, h33^{km}, mb3.9/5, Error ellipse: s-maj=38.2km s-min=12.4km az=159.7*

NEIC ***27*** *16:29:51.4±0.8, 0.98S×127.14E, h10^{km}, mb4.2/2, Error ellipse: s-maj=38.9km s-min=14.7km az=69.0*

ISC 27 16:29:54.4±0.8, 1.1S±0.1×127.2E±0.3, h35^{km}, n13, σ1^{s}58/12, mb3.9/5, Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	16.94	185	P	Pn	16 33 50.5	+1.7
	0.1nm,0.3s,baz=203,slow=15,SNR=4.3						
FITZ				LR	LR	16 40 58.2	
	comp=Z,82nm,19.1s,baz=357,slow=39						
WRA	Warramunga Arr	19.98	160	P	Pn	16 34 22.6	-3.2
	2.2nm,0.5s,baz=340,slow=11,SNR=34						
WB2	Warramunga Arr	19.99	160	eP	Pn	16 34 22.5	-3.4
WB2	Warramunga Arr	19.99	160	eP	Pn	16 34 23.1	-2.8
COEN	Coen	20.34	130	eP	P	16 34 29.6	+1.7
	16nm,1.3s						
ASAR	Alice Springs	23.35	164	P	P	16 34 59.1	-0.8
	2.0nm,0.7s,mb3.6,baz=352,slow=15,SNR=34						
STKA	Stephens Creek	33.49	157	eP	P	16 36 31.6	+1.1
	2.6nm,0.9s,mb4.2						
STKA	Stephens Creek	33.49	157	P	P	16 36 30.9	+0.3
	2.0nm,0.6s,mb4.2,baz=340,slow=11,SNR=5.8						
SONM	Songino Array	52.01	342	P	P	16 39 00.1	-0.2
	1.3nm,1.0s,mb3.8,baz=140,slow=7.8,SNR=4.2						
MKAR	Makanchi Array	61.79	327	P	P	16 40 11.3	+1.6
MKAR	Makanchi Array	61.79	327	P	P	16 40 11.3	+1.6
	0.6nm,0.4s,mb4.0,baz=108,slow=9.2,SNR=5.5						
ZALV	Zalesovo Beam	65.09	334	P	P	16 40 29.6	-1.8
	0.2nm,0.3s,mb3.6,baz=131,slow=4.4,SNR=2.7						
AKASG	Malin Array Be	95.90	321	LR	LR	17 31 44.5	
	comp=Z,64nm,19.4s,baz=305,slow=39						

IDC 27 16:31:34.4±3.2, 22.91S×179.76E, h533^{km}±41^{km}, mb3.5/6, mb1 3.6/7, mb1mx3.3/16, mbtmp3.5/7, Error ellipse: s-maj=61.1km s-min=29.4km az=37.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	15.47	188	P	P	16 34 46.7	-2.0
	1.0nm,0.3s,baz=340,slow=20,SNR=8.4						
CTA	Charters Tower	31.26	269	P	P	16 37 11.7	+0.9
	5.9nm,0.5s,baz=91,slow=10,SNR=9.2						
STKA	Stephens Creek	34.90	247	P	P	16 37 42.6	+1.2
	2.2nm,0.5s,baz=85,slow=8.8,SNR=5.7						
ASAR	Alice Springs	41.99	260	P	P	16 38 38.8	-0.3
	2.7nm,0.7s,baz=97,slow=6.9,SNR=23						
ASAR				S	S	16 44 19.4	+0.1
	0.8nm,1.0s,baz=97,slow=15,SNR=4.1						
WRA	Warramunga Arr	42.26	265	P	P	16 38 40.3	-1.0
	1.0nm,0.3s,baz=101,slow=8.1,SNR=56						
FITZ	Fitzroy Crossi	50.69	265	P	P	16 39 44.8	-0.3
	0.9nm,0.3s,baz=65,slow=9.1,SNR=14						
MAW	Mawson	78.60	200	P	P	16 42 41.0	+0.5
	24nm,1.0s,baz=127,slow=5.1,SNR=3.8						

IDC ***27*** *16:49:05.0±3.6, 17.50S×168.10E, h0^{km}, mb4.2/5, mb1 4.3/6, mb1mx4.1/16, mbtmp4.2/6, ML4.0/1, MS3.0/1, Ms1 3.0/1, ms1mx2.6/23, Error ellipse: s-maj=80.2km s-min=36.7km az=103.0*

NEIC ***27*** *16:49:10.2±4.5, 17.81S×168.52E, h56^{km}±40^{km}, mb4.8/1, Error ellipse: s-maj=51.9km s-min=42.6km az=143.0*

ISC 27 16:49:13.0±3.2, 18.0S±0.2×168.4E±0.3, h75^{km}±33^{km}, n14, σ0^{s}95/18, mb4.1/7, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	4.44	205	eP	Pn	16 50 17.9	+0.1
DZM				eS	Sn	16 51 07.9	-0.3
DZM	Mont Dzumac	4.44	205	eP	Pn	16 50 17.9	+0.1
DZM				eS	Sn	16 51 07.9	-0.3
DZM	Mont Dzumac	4.44	205	Pn	Pn	16 50 17.9	+0.1
	6.8nm,0.3s,baz=24,slow=17,SNR=70						
DZM				Sn	Sn	16 51 07.9	-0.3
	2.9nm,0.3s,baz=143,slow=20,SNR=5.2						
DZM				LR	LR	16 51 11.3	
	comp=Z,160nm,21.3s,baz=358,slow=26						
NOUC	Port Laguerre	4.52	206	eP	Pn	16 50 19.4	+0.4
NOUC				eS	Sn	16 51 09.8	-0.5
CTA	Charters Tower	21.07	261	P	P	16 53 52.8	+1.6
	2.8nm,0.8s,mb3.7,baz=79,slow=16,SNR=3.9						
STKA	Stephens Creek	27.88	235	eP	P	16 54 57.5	+1.7
	1.9nm,0.6s,mb3.8						
STKA	Stephens Creek	27.88	235	eP	P	16 54 57.4	+1.6
STKA	Stephens Creek	27.88	235	P	P	16 54 57.8	+2.0
	2.7nm,0.6s,mb3.9,baz=92,slow=6.9,SNR=8.7						
WB2	Warramunga Arr	32.26	261	eP	P	16 55 33.9	-0.8
WRA	Warramunga Arr	32.27	261	P	P	16 55 33.2	-1.6
	0.4nm,0.4s,mb3.5,baz=81,slow=6.1,SNR=12						
ASAR	Alice Springs	32.71	254	P	P	16 55 37.9	-0.7
	3.4nm,0.6s,mb4.4,baz=80,slow=8.8,SNR=45						
FITZ	Fitzroy Crossi	40.63	263	eP	P	16 56 45.9	0.0
	13nm,0.8s,mb4.8						
NWAO	Narrogin (SRO)	48.10	242	P	P	16 57 46.5	+1.0
	13nm,1.0s,mb4.7,baz=90,slow=12,SNR=2.8						
SONM	Songino Array	85.81	323	P	P	17 01 43.4	-0.7
	1.2nm,1.0s,mb3.8,baz=113,slow=3.7,SNR=4.9						

ISCJB ***27*** *16:54:03.4±0.4, 77.82N±0.06×126.7E±0.3, h10^{km}, mb4.2/25, MS3.5/7, Error ellipse: s-maj=8.2km s-min=7.7km az=153.9*

BJI ***27*** *16:54:03.3, 77.90N×126.50E, h10^{km}, mB4.7, mb4.5, Ms4.8, Msz4.5*

IDC ***27*** *16:54:03.8±0.8, 77.90N×126.50E, h0^{km}, mb3.9/13, mb1 4.0/13, mb1mx3.9/24, mbtmp3.9/13, MS3.5/5, Ms1 3.5/5, ms1mx3.1/29, Error ellipse: s-maj=25.4km s-min=15.7km az=151.0*

NEIC ***27*** *16:54:05.4±0.3, 77.92N×126.47E, h10^{km}, mb4.9/8, Error ellipse: s-maj=8.8km s-min=7.3km az=170.0*

MOS ***27*** *16:54:06.4±1.3, 77.76N×127.05E, h34^{km}, mb4.4/4, Error ellipse: s-maj=46.1km s-min=8.7km az=88.8*

ISC 27 16:54:05.4±0.4, 77.85N±0.06×126.6E±0.3, h10^{km}, n51, σ1^{s}06/49, mb4.2/25, MS3.5/7, 8C-4D, Laptev Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIXI	Tiksi	6.26	173	ePn	Pn	16 55 34.5	-3.3
TIXI				eSn	Sn	16 56 38.9	-10
TIXI	Tiksi	6.26	173	⇑eP	Pn	16 55 34.8	-2.9
BILL	Bilibino	14.79	110	ePn	Pn	16 57 33.2	-1.0
	15nm,0.4s						
BILL	Bilibino	14.79	110	⇓eP	Pn	16 57 32.0	-2.2
BILL				pmax	pmax		
	comp=Z,8.0nm,0.5s						
YAK	Yakutsk	15.93	175	eP	Pn	16 57 51.5	+2.3
	comp=Z,21nm,0.8s						
YAK	Yakutsk	15.93	175	eP	Pn	16 57 50.5	+1.3
YAK				pmax	pmax		
	comp=Z,17nm,1.3s						
YAK				pmax	pmax		
	comp=N,14nm,1.4s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.3s						
YAK				MLR	MLR		
	comp=Z,151nm,20.0s						
YAK				MLR	MLR		
	comp=N,126nm,18.0s						
YAK				MLR	MLR		
	comp=E,126nm,20.0s						
MA2	Magadan	20.01	143	eP	P	16 58 38.5	+0.7
	comp=E,6.8nm,0.8s						
MA2	Magadan	20.01	143	⇑eP	P	16 58 37.1	-0.7
MA2				pmax	pmax		
	comp=Z,12nm,1.4s						
BOD	Bodaibo	20.58	199	eP	P	16 58 42.2	-1.7
BOD				pmax	pmax		
	comp=Z,7.0nm,0.8s						
TNA	Tin City	22.29	86	eP	P	16 59 03.4	+1.1
	comp=Z,6.9nm,0.8s,mb4.1						
ARCES	ARCESS Array B	25.77	307	P	P	16 59 36.6	+0.9
	comp=Z,5.4nm,0.9s,mb4.1,baz=10,slow=7.4,SNR=5.5						
NVS	Novosibirsk	27.59	239	eP	P	16 59 48.7	-3.5
NVS				pmax	pmax		
	comp=Z,10.0nm,1.6s,mb4.2						
NVS				pmax	pmax		
	comp=N,8.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,12nm,1.6s						
TLY	Talaya	27.60	212	⇓eP	P	16 59 52.1	-0.2
TLY				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb3.5						
MOY	Mondy	27.92	215	eP	P	16 59 56.5	+1.3
ZALV	Zalesovo Beam	28.16	237	P	P	16 59 57.8	+0.5
	comp=Z,2.4nm,1.0s,mb3.8,baz=10,slow=9.2,SNR=7.4						
ZALV				LR	LR	17 13 34.1	
	comp=Z,33nm,18.3s,MS3.0,baz=350,slow=42						
ZAL	Zalesovo	28.17	237	P	P	16 59 57.8	+0.4
HIA	Hailar	28.81	189	⇓eP	P	17 00 04.4	+1.2
HABR	Khabarovsk	29.67	169	eP	P	17 00 07.8	-2.9
HABR				e		17 01 00.2	
ULN	Ulaanbaatar	31.02	206	⇑eP	P	17 00 22.6	-0.1
SONM	Songino Array	31.12	207	P	P	17 00 23.9	+0.3
	comp=Z,1.8nm,1.0s,mb3.9,baz=4.1,slow=7.7,SNR=8.7						
YSS	Yuzh-Sakhalins	31.64	159	⇑eP	P	17 00 27.3	-0.8
YSS				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb3.9						
KURK	Kurchatov	32.38	242	⇑eP	P	17 00 34.0	-0.6
FINES	FINESS Array B	33.02	300	LR	LR	17 17 32.9	
	comp=Z,92nm,18.2s,MS3.5,baz=14,slow=43						
YKA	Yellowknife Ar	35.09	45	P	P	17 00 58.0	0.0
YKA				PcP	PcP	17 03 29.1	-0.1
YKA	Yellowknife Ar	35.09	45	P	P	17 00 58.0	0.0
	comp=Z,0.5nm,0.8s,mb3.5,baz=345,slow=8.0,SNR=6.9						
YKA				PcP	PcP	17 03 29.1	-0.1
	comp=Z,0.6nm,0.8s,baz=328,slow=3.6,SNR=9.3						
MK31	Makanchi Array	35.49	236	eP	P	17 01 01.2	-0.4
MKAR	Makanchi Array	35.49	236	P	P	17 01 01.5	-0.1
MKAR						17 03 29.4	
MKAR	Makanchi Array	35.49	236	P	P	17 01 01.5	-0.2
	comp=Z,0.4nm,0.6s,mb3.6,baz=345,slow=9.0,SNR=5.4						
MKAR				PcP	PcP	17 03 29.4	-1.2
	comp=Z,0.4nm,0.5s,baz=20,slow=4.6,SNR=4.8						
MKAR				LR	LR	17 17 18.0	
	comp=Z,66nm,18.7s,MS3.4,baz=191,slow=39						
NOA	NORSAR Array B	35.95	312	P	P	17 01 04.2	-1.2
	comp=Z,0.9nm,0.8s,mb3.8,baz=9.8,slow=14,SNR=2.6						
HFS	Hagfors	36.41	309	P	P	17 01 08.6	-0.8
	comp=Z,1.6nm,0.6s,mb4.1,baz=55,slow=6.2,SNR=5.9						
AKTO	Aktyubinsk	36.80	264	LR	LR	17 19 57.5	
	comp=Z,56nm,18.8s,MS3.4,baz=233,slow=42						
OBN	Obninsk	36.89	287	eP	P	17 01 13.3	-0.2
OBN				e		17 02 34.8	
OBN				MLR	MLR		
	comp=Z,100nm,18.0s,MS3.6						
BJI	Beijing	38.17	193	P	P	17 01 25.5	+1.0
BJI				AMB	AMB		
	comp=Z,9.0nm,1.2s,mb4.4						
AAK	Ala-Archa	40.93	243	⇓eP	P	17 01 46.0	-1.5
AAK				pmax	pmax		
	comp=Z,13nm,2.5s,mb4.1						
AKASG	Malin Array Be	42.53	291	P	P	17 01 58.8	-1.6
	comp=Z,0.9nm,0.5s,mb3.7,baz=25,slow=9.4,SNR=2.4						
CLL	Collm	44.97	306	eP	P	17 02 20.0	0.0
KIV	Kislovodsk	46.20	276	⇑eP	P	17 02 31.5	+1.6
KIV				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
KIV				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.8						
GERES	GERESS Array B	47.22	304	LR	LR	17 27 08.1	
	comp=Z,124nm,20.9s,MS3.9,baz=92,slow=42						
KBL	Kabul	49.81	246	P	P	17 02 57.9	0.0
BRTR	Keskin Array B	52.15	283	⇑eP	P	17 03 16.8	+1.4
BRTR	Keskin Array B	52.15	283	P	P	17 03 16.9	+1.5
	comp=Z,1.4nm,1.0s,mb3.9,baz=49,slow=5.7,SNR=4.0						
GKN	Gorkha	53.44	227	eP	P	17 03 25.4	+0.3
	comp=Z,31nm,0.9s,mb5.2						
JIRN	Jiri	53.53	226	eP	P	17 03 26.7	+0.9
	comp=Z,23nm,0.9s,mb5.1						
KKN	Kakani	53.55	227	eP	P	17 03 26.7	+0.8
	comp=Z,27nm,1.0s,mb5.1						
TAPN	Taplejung	53.61	224	eP	P	17 03 26.6	+0.2
	comp=Z,18nm,1.0s,mb5.0						
ODAN	Odare	54.14	224	eP	P	17 03 30.8	+0.6
	comp=Z,31nm,0.9s,mb5.2						
PDAR	Pinedale Array	54.95	48	P	P	17 03 36.2	+0.3
	comp=Z,0.4nm,0.7s,mb3.6,baz=27,slow=4.2,SNR=3.7						
NVAR	Mina Array Bea	57.70	57	P	P	17 03 56.6	+1.1
	comp=Z,0.5nm,0.5s,mb3.8,baz=291,slow=3.5,SNR=3.2						
ANMO	Albuquerque	63.08	47	⇑eP	P	17 04 32.9	+0.5
TXAR	Lajitas Array	69.02	46	P	P	17 05 10.2	-0.4
	comp=Z,4.6nm,1.0s,mb4.4,baz=354,slow=3.7,SNR=25						
TORD	Torodi Ar. Bea	84.10	307	P	P	17 06 34.5	-1.7
	comp=Z,1.4nm,1.2s,mb4.0,baz=18,slow=6.1,SNR=4.2						

IDC ***27*** *17:01:01.9±0.4, 16.45S×171.91W, h0^{km}, mb4.7/19, mb1 5.0/21, mb1mx5.0/22, mbtmp4.8/21, MS4.3/18, Ms1 4.3/18, ms1mx4.2/22, Error ellipse: s-maj=17.1km s-min=11.6km az=129.0*

SZGRF ***27*** *17:01:03.1, 16.83S×172.34W, h37^{km}, Samoa Islands region*

GCMT ***27*** *17:01:03.5±0.3, 16.53S×171.79W, h52^{km}±1^{km}, MW5.1/68, Moment Tensor Solution. s50,c61; s68,c102; Duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$4.83±.25; M$_{\theta\theta}$-0.01±.18; M$_{\phi\phi}$-4.82±.18; M$_{r\theta}$-2.27±.14; M$_{\theta\phi}$-3.11±.13; M$_{\phi r}$-0.87±.15; Best double couple: M$_0$6.18500×10^{16} NP1:φ$_s$5.00000°,δ40.00000°,λ57.00000°. NP2: φ$_s$225.00000°,δ57.00000°,λ115.00000°. Principal axes: T 5.7420, Plg67.0000°, Azm186.0000°; N 0.8930, Plg21.0000°, Azm31.0000°; P -6.6290, Plg9.0000°, Azm298.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BJI ***27*** *17:01:03.5, 16.50S×172.00W, h8^{km}, mB5.6, mb5.0, Ms5.0, Msz4.8*

ISCJB ***27*** *17:01:03.4±0.2, 16.44S±0.05×172.06W±0.04, h16^{km}, mb5.0/74, MS4.5/31, Error ellipse: s-maj=7.9km s-min=4.8km az=144.6*

NEIC ***27*** *17:01:03.5±3.1, 16.46S×172.03W, h8^{km}±18^{km}, mb5.3/42, MS4.7/3, Error ellipse: s-maj=8.9km s-min=4.7km az=138.0*

MOS ***27*** *17:01:07.1±1.4, 16.34S×172.03W, h33^{km}, mb5.4/29, Error ellipse: s-maj=12.7km s-min=7.9km az=69.3*

ISC 27 17:01:07.8±0.2, 16.44S±0.05×172.09W±0.04, h34^{km}, h34^{km}±.8^{km}:pP-P, n720, σ0^{s}59/399, mb5.0/74, MS4.5/31, 146C-101D, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.53	7	ePn	Pn	17 01 44.9	-1.6
AFI				eSn	Sn	17 02 12.8	-3.5
AFI	Afiamalu	2.53	7	Pn	Pn	17 01 45.1	-1.4
	105nm,0.3s,baz=25,slow=1.1,SNR=98						
AFI				Sn	Sn	17 02 12.2	-4.0
	4μm,0.3s,baz=189,slow=23,SNR=48						
FUNA	Funafuti	11.59	312	Pn	Pn	17 03 49.3	-1.5
FUNA				eSn	Sn	17 05 47.5	-12
RAR	Rarotonga	12.59	114	Pn	Pn	17 03 58.1	-6.4
RAR				Sn	Sn	17 06 09.3	-14
RAR				LR	LR	17 07 36.5	
RAR	Rarotonga	12.59	114	Pn	Pn	17 03 58.1	-6.4
	12nm,0.3s,baz=266,slow=8.2,SNR=41						
RAR				Sn	Sn	17 06 09.3	-14
	9.0nm,0.3s,baz=104,slow=21,SNR=5.3						
RAR				LR	LR	17 07 36.5	
	comp=Z,2μm,21.9s,baz=285,slow=32						
DZM	Mont Dzumac	21.02	251	P	P	17 05 48.7	0.0
DZM				LR	LR	17 10 49.5	
DZM	Mont Dzumac	21.02	251	P	P	17 05 48.7	0.0
	6.4nm,0.9s,mb4.0,baz=91,slow=15,SNR=3.0						
DZM				LR	LR	17 10 49.5	
	comp=Z,213nm,20.6s,MS3.5,baz=242,slow=28						
PPT	Papeete	21.56	96	eLQ		17 10 04.7	
	2μm,28.2s						
PPT				eLR	LR	17 10 51.0	
	2μm,24.8s,baz=258						
PPT	Papeete	21.56	96	P	P	17 05 51.3	-3.1
	7.5nm,0.3s,mb4.6,baz=206,slow=24,SNR=2.4						
PPT				LR	LR	17 12 01.7	
	comp=Z,627nm,18.4s,MS4.0,baz=258,slow=31						
URZ	Urewera	23.72	202	P	P	17 06 15.4	-1.4
	7.5nm,0.6s,mb4.3,baz=155,slow=23,SNR=5.3						
URZ				S	S	17 10 34.4	+4.9
	8.4nm,0.8s,baz=156,slow=20,SNR=4.7						
URZ	Urewera	23.72	202	eP*	P	17 06 19.6	+2.8
QRZ	Quartz Range	27.71	206	eP	P	17 07 00.8	+7.9
QRZ	Quartz Range	27.71	206	eP*	P	17 07 00.8	+7.9
HNR	Honiara	28.11	281	LR	LR	17 15 14.4	
	comp=Z,338nm,20.9s,MS3.9,baz=179,slow=30						
RPZ	Rata Peaks	30.73	204	LR	LR	17 17 07.9	
	comp=Z,399nm,20.6s,MS4.1,baz=248,slow=31						
TAOE	Nuku Hiva Isla	32.03	80	eLR	LR	17 15 38.8	
	2μm,25.8s,baz=244						
RKT	Rikitea	35.48	107	eLR	LR	17 17 08.2	
	1μm,26.8s,baz=279						
ARMA	Armidale	35.91	241	eP	P	17 08 03.9	-1.1
CTA	Charters Tower	39.66	258	P	P	17 08 36.6	-0.1
	3.6nm,0.8s,mb4.2,baz=99,slow=13,SNR=3.9						
STKA	Stephens Creek	44.63	241	⇑iP	P	17 09 17.9	+0.7
	7.9nm,0.6s,mb4.7						
STKA	Stephens Creek	44.63	241	P	P	17 09 18.1	+0.9
	15nm,1.0s,mb4.8,baz=81,slow=7.5,SNR=18						
WB2	Warramunga Arr	50.83	257	eP	P	17 10 05.1	-0.4
WRA	Warramunga Arr	50.84	257	P	P	17 10 05.5	0.0
	5.9nm,0.8s,mb4.6,baz=92,slow=7.0,SNR=35						
WRA				LR	LR	17 31 22.3	
	comp=Z,253nm,18.1s,MS4.3,baz=85,slow=36						
ASAR	Alice Springs	51.00	253	P	P	17 10 06.8	+0.1
	17nm,0.8s,mb5.0,baz=87,slow=7.8,SNR=82						
ASAR				PcP	PcP	17 11 22.6	+0.1
	8.7nm,0.9s,baz=94,slow=4.4,SNR=6.6						
FITZ	Fitzroy Crossi	59.24	258	eP	P	17 11 06.8	+0.6
	5.9nm,0.7s,mb4.7						
SBA	Scott Base	62.33	185	eP	P	17 11 27.0	+0.7
	26nm,0.9s,mb5.3						
SBA	Scott Base	62.33	185	eP	P	17 11 27.0	+0.7
SBA				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.3						
VNDA	Vanda	62.48	186	eP	P	17 11 27.2	-0.1
	comp=Z,19nm,1.0s,mb5.2						
VNDA	Vanda	62.48	186	eP	P	17 11 27.2	-0.1
VNDA				pmax	pmax		
	comp=Z,19nm,1.0s						
VNDA	Vanda	62.48	186	P	P	17 11 27.5	+0.2
	comp=Z,14nm,0.8s,mb5.1,baz=11,slow=5.3,SNR=23						
VNDA				LR	LR	17 32 54.8	
	comp=Z,181nm,21.4s,MS4.2,baz=96,slow=31						
KLBR	Kellerberrin	64.88	242	eP	P	17 11 44.1	+0.2
	comp=Z,17nm,0.7s,mb5.2						
MUN	Mundaring	66.16	242	eP	P	17 11 51.7	-0.5
MJAR	Matsushiro Arr	70.54	319	P	P	17 12 19.0	-0.4
	comp=Z,3.6nm,0.9s,mb4.3,baz=152,slow=6.6,SNR=6.2						
MJAR				LR	LR	17 37 27.5	
	comp=Z,320nm,20.1s,MS4.6,baz=105,slow=31						
BSC	Santa Cruz Isl	70.77	44	⇓P	P	17 12 21.2	+0.3
	baz=71						
FARB	Farallon Islan	70.90	39	⇑P	P	17 12 21.6	0.0
	baz=71						
V04C	Ramage Ranch,	70.94	42	⇑P	P	17 12 22.0	+0.2
	baz=71						
V03C	Hunter Liggett	70.95	42	⇑P	P	17 12 22.2	+0.4
	baz=71						
HAST	UC Hastings Re	70.97	41	⇑P	P	17 12 22.2	+0.2
	baz=71						
BNLO	Ben Lomond (Sa	71.05	40	⇑P	P	17 12 22.6	+0.2
	baz=71						
CIS	Catalina Islan	71.26	45	⇓P	P	17 12 24.6	+0.8
	baz=71						
SMMC	Simmler	71.31	43	⇑P	P	17 12 24.8	+0.7
	baz=72						
U04C	Hernandez Rese	71.44	42	⇑P	P	17 12 25.8	+1.0
	baz=72,SNR=8.0						
PACP	Pacheco Peak	71.52	41	P	P	17 12 26.3	+0.9
	baz=72,SNR=12						
WENL	Wente Brothers	71.61	40	⇓P	P	17 12 26.3	+0.4
	baz=72						
CVS	Carmenet Viney	71.64	39	⇑P	P	17 12 25.7	-0.3
	baz=72						
HOPS	Hopland	71.69	38	⇑P	P	17 12 26.5	+0.2
	baz=72						
BDM	Black Diamond	71.75	40	⇑P	P	17 12 27.3	+0.6
	baz=72						
S04C	Ingram Canyon,	71.81	40	P	P	17 12 27.7	+0.7
	baz=72,SNR=7.8						
P01C	Double 8 Ranch	71.84	38	⇓P	P	17 12 27.4	+0.2
	baz=72						
T05C	Eagle Field, D	71.84	41	⇓P	P	17 12 28.1	+0.8
	baz=72						
ARVC	Arvin	71.97	44	⇑P	P	17 12 28.1	0.0
	baz=72						
MNRC	McLaughlin Nat	71.99	39	⇑P	P	17 12 28.9	+0.8
	baz=72,SNR=8.7						
MURC	Murrieta	72.19	46	⇓P	P	17 12 29.7	+0.2
	baz=72						
VES	Vestal, Richgr	72.23	43	⇑P	P	17 12 29.2	-0.3
	baz=72,SNR=11						
BFSC	Mount Baldy St	72.25	45	⇓P	P	17 12 29.3	-0.5
	baz=72						
GASB	Alder Springs	72.32	38	⇓P	P	17 12 31.1	+1.0
	baz=72,SNR=5.7						
S05C	Merced	72.33	41	⇓P	P	17 12 30.0	-0.2
	baz=72						
EDW2	Edwards Air Fo	72.39	44	P	P	17 12 30.7	+0.1
	baz=72,SNR=11						
DVTC	Desert V Tower	72.44	47	⇓P	P	17 12 31.2	+0.3
	baz=73						
R04C	Big Horse Ranc	72.52	40	⇑P	P	17 12 31.1	-0.1
	baz=73						
T06C	Millerton Lake	72.52	42	⇑P	P	17 12 31.3	0.0
	baz=73,SNR=7.2						
ISA	Isabella	72.52	43	P	P	17 12 31.7	+0.3
	baz=73,SNR=16						
O02C	Red Bluff	72.62	37	⇑P	P	17 12 32.3	+0.5
	baz=73,SNR=6.0						
PFO	Pinyon Flat Ob	72.72	46	eP	P	17 12 32.3	-0.2
	comp=Z,18nm,1.0s,mb5.0						
PFO	Pinyon Flat Ob	72.72	46	eP	P	17 12 32.3	-0.2
PFO				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
CMB	Columbia Colle	72.72	40	eP	P	17 12 32.1	-0.4
	comp=Z,39nm,1.2s,mb5.2						
CMB	Columbia Colle	72.72	40	eP	P	17 12 32.1	-0.4
CMB				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.2						
CMB	Columbia Colle	72.72	40	⇑P	P	17 12 32.2	-0.3
	baz=73,SNR=11						
SWSC	Sam W. Stewart	72.81	47	⇓P	P	17 12 32.7	-0.4
	baz=73						
LRMC	Laurel Mountai	72.94	44	⇓P	P	17 12 33.8	-0.1
	baz=73						
LAVA	Lava Cap Winer	72.94	40	⇑P	P	17 12 33.6	-0.2
	baz=73						
O03C	Acorn Hollow,	72.95	38	⇑P	P	17 12 33.4	-0.4
	baz=73						
KCC	Kaiser Creek	72.96	42	⇑P	P	17 12 33.8	-0.1
	baz=73,SNR=9.1						
ORV	Oroville	72.98	39	P	P	17 12 34.4	+0.4
	baz=73,SNR=6.5						
WDC	Whiskeytown Da	73.02	37	⇑P	P	17 12 34.3	+0.1
	baz=73,SNR=5.1						

ASAJ	**Asahikawa**	**73.09**	**328**	LR	LR	17 41 34.0	
	comp=Z,146nm,20.0s,MS4.3,baz=166,slow=33						
CWC	**Cottonwood Cre**	**73.24**	**43**	⇓P	**P**	**17 12 35.5**	**-0.1**
	baz=73						
R05C	**Kirkwood Meado**	**73.32**	**40**	P	**P**	**17 12 36.3**	**+0.3**
	baz=74,SNR=13						
P05C	**Yuba Gap, Truc**	**73.36**	**39**	⇓P	**P**	**17 12 36.4**	**+0.1**
	baz=74,SNR=7.2						
CHGN	**Chignik**	**73.37**	**8**	*e*P	**P**	**17 12 35.5**	**-0.4**
MPMC	**Manual Prospec**	**73.40**	**44**	P	**P**	**17 12 37.1**	**+0.5**
	baz=74,SNR=26						
JNU	**Nakatsue**	**73.43**	**313**	LR	LR	17 39 58.4	
	comp=Z,180nm,19.9s,MS4.3,baz=122,slow=32						
HEC	**Hector,Ludlow**	**73.48**	**45**	⇓P	**P**	**17 12 36.8**	**-0.2**
	baz=74						
TIN	**Tinemaha**	**73.50**	**42**	⇓P	**P**	**17 12 37.8**	**+0.7**
	baz=74						
GLA	**Glamis**	**73.55**	**47**	⇑P	**P**	**17 12 37.6**	**+0.1**
	baz=74,SNR=7.0						
O05C	**Quincy**	**73.59**	**39**	⇓P	**P**	**17 12 37.5**	**-0.1**
	baz=74						
R07C	**Lee Vining**	**73.59**	**41**	⇓P	**P**	**17 12 37.6**	**-0.1**
	baz=74						
QSPA	**South Pole Qui**	**73.61**	**180**	*e*P	**P**	**17 12 36.6**	**-0.5**
	comp=Z,64nm,1.1s,mb5.5						
YBH	**Yreka Blue Hor**	**73.67**	**36**	*e*P	**P**	**17 12 38.6**	**+0.6**
	comp=Z,40nm,1.0s,mb5.3						
YBH	**Yreka Blue Hor**	**73.67**	**36**	*e*P	**P**	**17 12 38.6**	**+0.6**
YBH				pmax	pmax		
	comp=Z,40nm,1.0s						
YBH	**Yreka Blue Hor**	**73.67**	**36**	⇓P	**P**	**17 12 38.5**	**+0.5**
	baz=74,SNR=9.7						
M03C	**McCloud**	**73.71**	**37**	⇑P	**P**	**17 12 38.3**	**0.0**
	baz=74,SNR=5.7						
O04C	**Chester**	**73.71**	**38**	⇓P	**P**	**17 12 38.4**	**+0.1**
	baz=74						
S08C	**White Mtn Res**	**73.80**	**42**	P	**P**	**17 12 39.7**	**+0.8**
	baz=74,SNR=24						
HATC	**Hat Creek Radi**	**73.80**	**38**	⇓P	**P**	**17 12 39.1**	**+0.3**
	baz=74						
BEKR	**Beckwourth**	**73.86**	**39**	P	**P**	**17 12 39.3**	**+0.1**
	baz=74,SNR=14						
WCN	**Washoe City**	**73.88**	**40**	⇑P	**P**	**17 12 39.7**	**+0.4**
	baz=74,SNR=6.6						
GMRC	**Granite Mounta**	**73.91**	**46**	⇓P	**P**	**17 12 39.2**	**-0.4**
	baz=74,SNR=11						
IRM	**Iron Mountain**	**73.92**	**46**	P	**P**	**17 12 39.7**	**+0.1**
	baz=74,SNR=22						
GRAC	**Grapevine Rang**	**74.03**	**43**	⇓P	**P**	**17 12 40.0**	**-0.2**
	baz=74,SNR=16						
FURC	**Furnace Creek,**	**74.06**	**44**	P	**P**	**17 12 40.5**	**+0.1**
	baz=74,SNR=6.2						
Y12C	**Blythe**	**74.14**	**47**	⇓P	**P**	**17 12 40.9**	**0.0**
	baz=74,SNR=7.8						
M04C	**Macdoel**	**74.20**	**37**	⇓P	**P**	**17 12 41.2**	**+0.1**
	baz=74,SNR=5.3						
NVAR	**Mina Array Bea**	**74.26**	**41**	P	**P**	**17 12 41.3**	**-0.2**
	comp=Z,25nm,0.8s,mb5.2,baz=218,slow=7.8,SNR=72						
J02A	**Umpqua**	**74.27**	**35**	⇑P	**P**	**17 12 41.3**	**-0.1**
	baz=74						
BUOR	**Burton Butte**	**74.29**	**36**	P	**P**	**17 12 42.5**	**+0.8**
M05C	**Lookout**	**74.33**	**37**	⇑P	**P**	**17 12 41.9**	**0.0**
	baz=74,SNR=11						
R08A	**Mina**	**74.34**	**41**	⇑P	**P**	**17 12 42.2**	**+0.2**
	baz=74,SNR=9.6						
PAHR	**Pah Rah Range**	**74.36**	**40**	*e*P	**P**	**17 12 41.9**	**-0.2**
	comp=Z,45nm,1.2s,mb5.3						
U10A	**Ash Meadows, A**	**74.38**	**44**	⇓P	**P**	**17 12 42.6**	**+0.4**
	baz=74						
L04A	**Klamath Falls**	**74.42**	**36**	⇓P	**P**	**17 12 42.8**	**+0.4**
	baz=75,SNR=7.3						
S09A	**Goldfield**	**74.54**	**42**	P	**P**	**17 12 43.2**	**0.0**
	baz=75,SNR=33						
NEE2	**Needles Airpor**	**74.62**	**46**	⇑P	**P**	**17 12 44.3**	**+0.6**
	baz=75						
M06C	**Likely Place G**	**74.63**	**38**	⇑P	**P**	**17 12 43.8**	**+0.2**
	baz=75,SNR=9.5						
V11A	**Goodsprings**	**74.66**	**45**	⇑P	**P**	**17 12 44.1**	**+0.2**
	baz=75						
Y13A	**Salome**	**74.66**	**47**	⇑P	**P**	**17 12 44.1**	**+0.1**
	baz=75,SNR=6.1						
PDMCI	**Parker Dam,Lak**	**74.70**	**47**	P	**P**	**17 12 44.3**	**+0.1**
	baz=75,SNR=16						
N06A	**Buffalo Meadow**	**74.72**	**39**	⇑P	**P**	**17 12 44.4**	**+0.2**
	baz=75						
TPNV	**Topopah Spring**	**74.73**	**43**	*e*P	**P**	**17 12 44.3**	**0.0**
	comp=Z,20nm,0.9s,mb5.0						
TPNV	**Topopah Spring**	**74.73**	**43**	*e*P	**P**	**17 12 44.3**	**0.0**
TPNV				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
TPNV	**Topopah Spring**	**74.73**	**43**	⇑P	**P**	**17 12 44.6**	**+0.3**
	baz=75						
W12A	**Cal Nev Ari**	**74.74**	**45**	⇓P	**P**	**17 12 44.8**	**+0.4**
	baz=75						
TPH	**Tonopah**	**74.74**	**42**	*e*P	**P**	**17 12 43.8**	**-0.6**
	comp=Z,87nm,1.1s,mb5.6						
TPH	**Tonopah**	**74.74**	**42**	*e*P	**P**	**17 12 43.8**	**-0.5**
TPH				pmax	pmax		
	comp=Z,87nm,1.1s,mb5.6						
Q08A	**Gabbs**	**74.75**	**41**	P	**P**	**17 12 44.6**	**+0.2**
	baz=75,SNR=28						
K04A	**Chilquin**	**74.80**	**36**	⇓P	**P**	**17 12 44.5**	**0.0**
	baz=75						
R09A	**Tonopah**	**74.94**	**42**	P	**P**	**17 12 45.7**	**+0.2**
	baz=75,SNR=32						
O07A	**Toulon**	**74.94**	**39**	⇓P	**P**	**17 12 45.6**	**+0.1**
	baz=75,SNR=28						
V12A	**Nelson**	**74.99**	**45**	⇓P	**P**	**17 12 45.9**	**+0.1**
	baz=75,SNR=10						
J04A	**Umpqua Nationa**	**74.99**	**35**	⇑P	**P**	**17 12 45.9**	**+0.2**
	baz=75						
YSS	**Yuzh-Sakhalins**	**75.01**	**330**	*e*P	**P**	**17 12 47.0**	**+1.4**
	comp=Z,46nm,1.0s,mb5.4						
YSS	**Yuzh-Sakhalins**	**75.01**	**330**	⇑*e*P	**P**	**17 12 46.5**	**+0.8**
YSS				pmax	pmax		
	comp=Z,49nm,1.1s,mb5.3						
Z14A	**Wintersburg**	**75.05**	**48**	⇑P	**P**	**17 12 46.1**	**-0.1**
	baz=75,SNR=14						
S10A	**Tonopah Range,**	**75.06**	**42**	P	**P**	**17 12 46.5**	**+0.3**
	baz=75,SNR=33						
X13A	**Yucca**	**75.08**	**47**	P	**P**	**17 12 46.5**	**+0.2**
	baz=75,SNR=24						
P08A	**Dixie Valley**	**75.16**	**40**	⇑P	**P**	**17 12 46.9**	**+0.2**
	baz=75,SNR=7.5						
MOD	**Modoc**	**75.17**	**37**	⇓P	**P**	**17 12 46.4**	**-0.3**
	baz=75,SNR=19						
I04A	**Tendick Farm,**	**75.18**	**35**	⇑P	**P**	**17 12 46.3**	**-0.4**
	baz=75						
115A	**Sonoran Desert**	**75.22**	**49**	⇑P	**P**	**17 12 47.3**	**+0.1**
	baz=75						
N07B	**Gerlach**	**75.26**	**39**	P	**P**	**17 12 47.8**	**+0.5**
	baz=75,SNR=16						
H03A	**Soap Creek Ran**	**75.29**	**34**	⇑P	**P**	**17 12 46.3**	**-1.1**
	baz=76						
W13A	**Hualapai Mount**	**75.31**	**46**	P	**P**	**17 12 48.0**	**+0.4**
	baz=75,SNR=12						
Y14A	**Wickenburg**	**75.31**	**48**	P	**P**	**17 12 47.8**	**+0.1**
	baz=75,SNR=16						
S11A	**Rachel**	**75.45**	**43**	⇑P	**P**	**17 12 48.5**	**+0.1**
	baz=76,SNR=6.5						
R10A	**Warm Springs**	**75.46**	**42**	P	**P**	**17 12 49.2**	**+0.7**
	baz=76,SNR=34						
O08A	**Rochester Mine**	**75.46**	**40**	⇑P	**P**	**17 12 48.6**	**+0.2**
	baz=76						
J05A	**Fort Rock**	**75.51**	**36**	⇓P	**P**	**17 12 48.7**	**+0.1**
	baz=76,SNR=11						
M07A	**Soldier Meadow**	**75.51**	**38**	⇑P	**P**	**17 12 48.9**	**+0.2**
	baz=76,SNR=20						
116A	**Eloy**	**75.53**	**49**	⇓P	**P**	**17 12 49.4**	**+0.3**
	baz=76,SNR=7.6						
T11A	**Corn Creek, Al**	**75.58**	**44**	⇓P	**P**	**17 12 49.4**	**+0.3**
	baz=76,SNR=20						
U12A	**Valley of Fire**	**75.58**	**45**	⇑P	**P**	**17 12 49.3**	**0.0**
	baz=76,SNR=9.6						
P09A	**Austin**	**75.66**	**41**	⇓P	**P**	**17 12 49.6**	**+0.1**
	baz=76,SNR=12						
X14A	**Yava**	**75.67**	**47**	P	**P**	**17 12 50.1**	**+0.4**
	baz=76,SNR=29						
Q10A	**Clear Creek Ra**	**75.70**	**42**	P	**P**	**17 12 50.4**	**+0.5**
	baz=76,SNR=10						
K06A	**Valley Falls**	**75.76**	**37**	⇑P	**P**	**17 12 50.2**	**+0.1**
	baz=76,SNR=14						
L07A	**Adell**	**75.80**	**38**	⇑P	**P**	**17 12 50.7**	**+0.4**
	baz=76,SNR=11						
H04A	**Detroit Lake**	**75.89**	**34**	⇓P	**P**	**17 12 50.3**	**-0.5**
	baz=76						
W14A	**Seligman**	**75.92**	**46**	P	**P**	**17 12 51.9**	**+0.7**
	baz=76,SNR=41						
TRCR	**Troy Canyon**	**75.96**	**43**	*e*P	**P**	**17 12 50.9**	**-0.4**
U13A	**Pakoon Wash**	**75.96**	**45**	P	**P**	**17 12 51.9**	**+0.5**
	baz=76,SNR=24						
O09A	**Fish Creek Ran**	**75.99**	**40**	P	**P**	**17 12 51.8**	**+0.3**
	baz=76,SNR=14						
M08A	**Happy Creek Ra**	**76.02**	**39**	⇓P	**P**	**17 12 52.0**	**+0.4**
	baz=76,SNR=9.4						
S12A	**Delamar Landin**	**76.03**	**43**	⇓P	**P**	**17 12 52.4**	**+0.7**
	baz=76,SNR=8.3						
TUC	**Tucson**	**76.08**	**50**	*e*P	**P**	**17 12 52.3**	**+0.1**
	comp=Z,34nm,0.9s,mb5.3						
TUC	**Tucson**	**76.08**	**50**	*e*P	**P**	**17 12 52.3**	**+0.2**
TUC				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.3						
J06A	**Christmas Vall**	**76.10**	**36**	⇑P	**P**	**17 12 51.9**	**-0.1**
	baz=76,SNR=11						
BMN	**Battle Mountai**	**76.12**	**40**	*e*P	**P**	**17 12 52.0**	**-0.1**
	comp=Z,43nm,1.1s,mb5.3						
BMN	**Battle Mountai**	**76.12**	**40**	*e*P	**P**	**17 12 52.1**	**-0.1**
BMN				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.3						
P10A	**Eureka**	**76.12**	**41**	⇑P	**P**	**17 12 52.3**	**0.0**
	baz=76,SNR=16						
X15A	**Humboldt**	**76.14**	**47**	P	**P**	**17 12 52.9**	**+0.4**
	baz=76,SNR=28						
N09A	**Rock Creek Ran**	**76.18**	**40**	P	**P**	**17 12 53.1**	**+0.5**
	baz=76,SNR=17						
Q11A	**Duckwater**	**76.19**	**42**	P	**P**	**17 12 53.0**	**+0.3**
	baz=76,SNR=33						
K07A	**Rock Creek Ran**	**76.27**	**37**	⇓P	**P**	**17 12 53.1**	**+0.1**
	baz=76,SNR=12						
T13A	**Saint George**	**76.33**	**44**	⇓P	**P**	**17 12 53.7**	**+0.3**
	baz=76,SNR=9.5						
H05A	**Madras**	**76.39**	**35**	⇑P	**P**	**17 12 53.4**	**-0.2**
	baz=77						
E03A	**Lebam**	**76.40**	**32**	⇓P	**P**	**17 12 53.4**	**-0.2**
	baz=77						
WVOR	**Wild Horse Val**	**76.47**	**38**	*e*P	**P**	**17 12 54.0**	**-0.1**
	comp=Z,40nm,1.1s,mb5.3						
WVOR	**Wild Horse Val**	**76.47**	**38**	*e*P	**P**	**17 12 54.0**	**-0.1**
WVOR				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.3						
W15A	**Williams**	**76.47**	**47**	⇑P	**P**	**17 12 55.0**	**+0.7**
	baz=77						
O10A	**Cortez Mining,**	**76.49**	**40**	P	**P**	**17 12 54.7**	**+0.5**
	baz=77,SNR=6.3						
L08A	**Fields**	**76.49**	**38**	⇓P	**P**	**17 12 54.3**	**+0.1**
	baz=77,SNR=16						
U14A	**Mt Trumbull**	**76.50**	**45**	⇑P	**P**	**17 12 55.0**	**+0.6**
	baz=77,SNR=9.3						
I06A	**Prineville**	**76.50**	**36**	⇓P	**P**	**17 12 54.7**	**+0.4**
	baz=77,SNR=8.3						
P11A	**Circle Ranch,**	**76.53**	**41**	P	**P**	**17 12 55.2**	**+0.7**
	baz=77,SNR=6.6						
R12A	**Pony Springs,**	**76.58**	**43**	⇑P	**P**	**17 12 55.1**	**+0.2**
	baz=77,SNR=30						
F04A	**Amboy**	**76.58**	**33**	⇓P	**P**	**17 12 54.9**	**+0.2**
	baz=77						
VIPM	**Ingram Point**	**76.63**	**35**	P	**P**	**17 12 55.5**	**+0.5**
J07A	**Hines**	**76.65**	**37**	⇑P	**P**	**17 12 55.2**	**+0.1**
	baz=77,SNR=6.5						
S13A	**Holt Ranch, En**	**76.67**	**44**	P	**P**	**17 12 56.0**	**+0.7**
	baz=77,SNR=13						
G05A	**Wamic**	**76.72**	**34**	⇑P	**P**	**17 12 55.5**	**0.0**
	baz=77						
N10A	**Dunphy**	**76.73**	**40**	⇑P	**P**	**17 12 55.9**	**+0.3**
	baz=77						
K08A	**Mann Creek Ran**	**76.74**	**38**	⇓P	**P**	**17 12 55.6**	**0.0**
	baz=77,SNR=25						
L09A	**Wilkinson Ranc**	**76.79**	**38**	P	**P**	**17 12 56.3**	**+0.4**
	baz=77,SNR=12						
Q12A	**Willow Creek R**	**76.83**	**42**	P	**P**	**17 12 56.4**	**+0.2**
	baz=77,SNR=30						
E04A	**Onalaska**	**76.86**	**33**	⇑P	**P**	**17 12 56.0**	**-0.2**
	baz=77						
T14A	**Hurricane**	**76.91**	**45**	⇑P	**P**	**17 12 57.1**	**+0.4**
	baz=77						
O11A	**Cowboy Ranch,**	**76.92**	**41**	P	**P**	**17 12 57.2**	**+0.4**
	baz=77,SNR=36						
H06A	**Lindquist Farm**	**76.93**	**35**	⇑P	**P**	**17 12 56.6**	**-0.1**
	baz=77,SNR=10						
CCUT	**Cedar City**	**76.98**	**44**	*e*P	**P**	**17 12 57.6**	**+0.4**
CCUT				*e*	pP	17 13 08.4	+0.4
I07A	**Izee**	**76.98**	**36**	⇓P	**P**	**17 12 57.3**	**+0.4**
	baz=77,SNR=9.4						
P12A	**McGill**	**77.03**	**42**	⇑P	**P**	**17 12 57.4**	**0.0**
	baz=77,SNR=20						
ARUT	**Antelope Range**	**77.06**	**44**	*e*P	**P**	**17 12 57.8**	**+0.3**
ARUT				*e*	pP	17 13 08.5	+0.2
G06A	**Carlson Farm,**	**77.08**	**35**	⇓P	**P**	**17 12 57.4**	**-0.1**
	baz=77						
J08A	**Circle Bar Ran**	**77.12**	**37**	⇓P	**P**	**17 12 57.7**	**-0.1**
	baz=77,SNR=14						
K09A	**Rome**	**77.17**	**38**	⇓P	**P**	**17 12 58.0**	**0.0**
	baz=77,SNR=19						
M10A	**I.L. Ranch, Tu**	**77.18**	**39**	⇓P	**P**	**17 12 58.5**	**+0.3**
	baz=77,SNR=17						
S14A	**Cedar City**	**77.22**	**44**	⇑P	**P**	**17 12 59.1**	**+0.6**
	baz=77						
N11A	**Elko Archery C**	**77.27**	**40**	⇓P	**P**	**17 12 59.0**	**+0.4**
	baz=77						
WUAZ	**Wupatki**	**77.27**	**47**	*e*P	**P**	**17 12 59.6**	**+0.8**
	comp=Z,23nm,1.1s,mb5.0						
E05A	**Randle**	**77.34**	**33**	⇑P	**P**	**17 12 58.7**	**-0.2**
	baz=78,SNR=7.2						
F06A	**Goldendale**	**77.34**	**34**	⇑P	**P**	**17 12 58.7**	**-0.3**
	baz=78						
T15A	**Red Dirt Ranch**	**77.36**	**45**	P	**P**	**17 12 59.8**	**+0.5**
	baz=78,SNR=19						
I08A	**Drewsey**	**77.41**	**37**	⇓P	**P**	**17 12 59.4**	**+0.1**
	baz=78,SNR=10						
C04A	**Brinnon**	**77.48**	**32**	⇓P	**P**	**17 12 59.7**	**-0.1**
	baz=78,SNR=5.1						
ELK	**Elko**	**77.53**	**41**	*e*P	**P**	**17 13 00.5**	**+0.3**
	comp=Z,39nm,1.1s,mb5.2						
ELK				*e*	pP	17 13 11.0	0.0
ELK				LR	LR		
	comp=Z,424nm,19.0s,MS4.8						
ELK	**Elko**	**77.53**	**41**	*e*P	**P**	**17 13 00.5**	**+0.3**
ELK				*e*	pP	17 13 11.0	0.0
ELK				pmax	pmax		
	comp=Z,39nm,1.1s						
ELK				MLR	MLR		
	comp=Z,424nm,19.0s						
J09A	**Fry Pan Ranch,**	**77.54**	**37**	⇑P	**P**	**17 13 00.0**	**-0.1**
	baz=78,SNR=18						
WPW	**White Pass**	**77.54**	**33**	P	**P**	**17 13 00.1**	**+0.1**
L10A	**Juniper Basin**	**77.55**	**39**	P	**P**	**17 13 00.4**	**+0.2**
	baz=78,SNR=28						
O12A	**Currie**	**77.58**	**41**	⇓P	**P**	**17 13 00.4**	**0.0**
	baz=78,SNR=33						
M11A	**Holland Ranch,**	**77.58**	**40**	⇑P	**P**	**17 13 00.8**	**+0.4**
	baz=78,SNR=14						
G07A	**Ruggs Ranch, H**	**77.63**	**35**	⇑P	**P**	**17 13 00.6**	**0.0**
	baz=78,SNR=6.0						
D05A	**Enumclaw**	**77.63**	**32**	⇓P	**P**	**17 13 00.2**	**-0.3**
	baz=78						
K10A	**MacKenzie Ranc**	**77.72**	**38**	P	**P**	**17 13 01.4**	**+0.2**
	baz=78,SNR=21						
N12A	**Clover Valley,**	**77.72**	**41**	⇑P	**P**	**17 13 01.0**	**-0.1**
	baz=78,SNR=8.5						
H08A	**Prairie City**	**77.72**	**36**	⇑P	**P**	**17 13 00.6**	**-0.6**
	baz=78						
E06A	**Yakima**	**77.74**	**33**	⇑P	**P**	**17 13 00.7**	**-0.4**
	baz=78						
KSRS	**Korea Array**	**77.78**	**315**	P	**P**	**17 13 03.2**	**+1.6**
	comp=Z,9.9nm,1.1s,mb4.7,baz=123,slow=7.1,SNR=12						
KSRS				LR	LR	17 41 02.3	
	comp=Z,158nm,20.6s,MS4.3,baz=97,slow=31						
F07A	**Phinny Hill Vi**	**77.89**	**34**	⇓P	**P**	**17 13 02.0**	**0.0**
	baz=78						
I09A	**Lost Marbles R**	**77.92**	**37**	P	**P**	**17 13 02.0**	**-0.2**
	baz=78,SNR=6.8						
O13A	**Hicks Ranch, I**	**77.98**	**42**	P	**P**	**17 13 03.2**	**+0.5**
	baz=78,SNR=9.3						
L11A	**Cat Creek Ranc**	**78.03**	**39**	⇑P	**P**	**17 13 02.9**	**0.0**
	baz=78,SNR=28						
G08A	**Pilot Rock**	**78.04**	**35**	P	**P**	**17 13 02.9**	**0.0**
	baz=78,SNR=21						
M12A	**Wells**	**78.12**	**40**	P	**P**	**17 13 03.7**	**+0.3**
	baz=78,SNR=16						
J10A	**Berg Farm, Mel**	**78.16**	**38**	⇑P	**P**	**17 13 03.8**	**+0.2**
	baz=78						
K11A	**Parker Ranch,**	**78.21**	**39**	P	**P**	**17 13 04.0**	**+0.1**
	baz=78,SNR=13						
D06A	**Cle Elum**	**78.23**	**33**	⇑P	**P**	**17 13 03.8**	**0.0**
	baz=78,SNR=5.3						
N13A	**Wendover, West**	**78.25**	**41**	P	**P**	**17 13 04.5**	**+0.4**
	baz=78,SNR=10.0						
MSU	**Marysvale**	**78.29**	**44**	*e*P	**P**	**17 13 05.0**	**+0.7**
MSU				*e*	pP	17 13 15.8	+0.6
A04A	**Legoe Bay, Lum**	**78.29**	**31**	⇑P	**P**	**17 13 04.2**	**0.0**
	baz=78						
B05A	**Bryant**	**78.29**	**32**	⇑P	**P**	**17 13 04.2**	**+0.1**
	baz=78,SNR=5.2						
E07A	**Sunnyside**	**78.35**	**34**	⇓P	**P**	**17 13 04.3**	**-0.2**
	baz=78,SNR=12						
CMW	**Cultus Mountai**	**78.38**	**31**	P	**P**	**17 13 05.4**	**+0.7**
H09A	**Durkee**	**78.38**	**36**	⇑P	**P**	**17 13 04.6**	**-0.2**
	baz=78						
SVW2	**Sparrevohn**	**78.39**	**8**	*e*P	**P**	**17 13 03.8**	**-0.7**
MDW	**Midway**	**78.43**	**34**	P	**P**	**17 13 05.4**	**+0.4**
F08A	**Pendleton**	**78.45**	**35**	P	**P**	**17 13 05.2**	**+0.1**
	baz=79,SNR=10.0						
L12A	**House Creek Ra**	**78.47**	**40**	⇑P	**P**	**17 13 05.7**	**+0.4**
	baz=79,SNR=12						
I10A	**Payette**	**78.53**	**37**	⇑P	**P**	**17 13 05.8**	**+0.2**
	baz=79						
M13A	**Montello**	**78.55**	**41**	P	**P**	**17 13 06.4**	**+0.6**
	baz=79,SNR=6.0						
D07A	**Quincy**	**78.69**	**33**	⇓P	**P**	**17 13 06.3**	**-0.1**
	baz=79						
MFID	**Camas Ranch**	**78.71**	**38**	P	**P**	**17 13 06.6**	**0.0**
	baz=79,SNR=16						
E08A	**Dider Farm, El**	**78.73**	**34**	⇑P	**P**	**17 13 06.4**	**-0.3**
	baz=79						
B06A	**Marblemount**	**78.76**	**32**	⇑P	**P**	**17 13 06.1**	**-0.6**
	baz=79						
DUG	**Dugway**	**78.77**	**42**	*e*P	**P**	**17 13 06.8**	**-0.2**
	comp=Z,36nm,1.3s,mb5.1						
DUG	**Dugway**	**78.77**	**42**	*e*P	**P**	**17 13 06.8**	**-0.2**
DUG				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.1						
DUG	**Dugway**	**78.77**	**42**	⇓P	**P**	**17 13 07.0**	**0.0**
	baz=79						
LNOR	**Lincton Mounta**	**78.77**	**35**	P	**P**	**17 13 06.7**	**-0.2**
K12A	**Draper Farm, C**	**78.82**	**39**	⇓P	**P**	**17 13 07.3**	**+0.1**
	baz=79,SNR=12						
H10A	**Noah’s Angus R**	**78.86**	**37**	⇓P	**P**	**17 13 07.0**	**-0.4**
	baz=79						
F09A	**S2 Ranch, Elgi**	**78.88**	**35**	P	**P**	**17 13 07.3**	**-0.2**
	baz=79,SNR=14						
N14A	**Grayback Hills**	**78.89**	**41**	⇓P	**P**	**17 13 07.7**	**+0.1**
	baz=79,SNR=6.3						
I11A	**Placerville**	**78.92**	**38**	⇑P	**P**	**17 13 07.5**	**-0.3**
	baz=79,SNR=10						
C07A	**Waterville**	**78.96**	**33**	⇓P	**P**	**17 13 07.4**	**-0.5**
	baz=79,SNR=7.5						
J12A	**Stokes Ranch,**	**79.05**	**39**	P	**P**	**17 13 08.7**	**+0.2**
	baz=79,SNR=16						
L13A	**Double Diamond**	**79.09**	**40**	⇓P	**P**	**17 13 08.9**	**+0.1**
	baz=79,SNR=15						
NLU	**North Lily Min**	**79.12**	**43**	*e*P	**P**	**17 13 09.4**	**+0.5**
NLU				*e*	pP	17 13 21.5	+1.8
M14A	**Sheep Mountain**	**79.14**	**41**	⇑P	**P**	**17 13 09.0**	**0.0**
	baz=79,SNR=38						
A06A	**Chilliwack**	**79.14**	**31**	⇑P	**P**	**17 13 08.2**	**-0.7**
	baz=79						
D08A	**Wollman Farm,**	**79.16**	**34**	⇑P	**P**	**17 13 08.7**	**-0.3**
	baz=79,SNR=11						
E09A	**Wood Farm, Sta**	**79.24**	**35**	P	**P**	**17 13 08.9**	**-0.5**
	baz=79,SNR=9.6						
K13A	**Stover Farm, H**	**79.32**	**40**	P	**P**	**17 13 10.3**	**+0.4**
	baz=80,SNR=13						
N15A	**Stansbury Isla**	**79.33**	**42**	⇓P	**P**	**17 13 10.0**	**-0.1**
	baz=80						
H11A	**Donnelly**	**79.35**	**37**	⇑P	**P**	**17 13 09.4**	**-0.7**
	baz=80,SNR=17						
B07A	**Winthrop**	**79.42**	**32**	⇓P	**P**	**17 13 10.2**	**-0.1**
	baz=80,SNR=8.9						
F10A	**Beach Ranch, E**	**79.42**	**35**	⇑P	**P**	**17 13 09.7**	**-0.7**
	baz=80,SNR=23						
NOQ	**North Oquirrh**	**79.46**	**42**	*e*P	**P**	**17 13 10.5**	**-0.3**
	comp=Z,19nm,0.9s,mb5.0						
OD2	**Odessa Site #2**	**79.48**	**34**	P	**P**	**17 13 10.9**	**+0.1**
D09A	**Jones Farm, Ri**	**79.49**	**34**	⇑P	**P**	**17 13 10.5**	**-0.3**
	baz=80,SNR=14						
C08A	**Higginbotham F**	**79.55**	**33**	⇓P	**P**	**17 13 10.7**	**-0.4**
	baz=80,SNR=12						
SSE	**Sheshan**	**79.59**	**307**	P	**P**	**17 13 13.8**	**+2.1**
SSE				XP	sP	17 13 18.5	-8.0
SSE				S	S	17 23 15.5	+4.1
SSE				XS	sS	17 23 21.5	-7.9
SSE				SS	SS	17 28 25.8	+5.3
SSE				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.9						
SSE				AMB	AMB		
	comp=Z,99nm,6.6s						
SSE				LR	LR		
	comp=N,45nm,15.6s,MS4.3						
SSE				LR	LR		
	comp=E,95nm,15.6s,MS4.3						
SSE				LR	LR		
	comp=Z,126nm,16.5s,MS4.3						
G11A	**Walters Elk Ra**	**79.62**	**36**	⇑P	**P**	**17 13 11.1**	**-0.4**
	baz=80						
HLID	**Hailey**	**79.64**	**39**	*e*P	**P**	**17 13 11.8**	**+0.1**
	comp=Z,34nm,1.0s,mb5.2						
HLID				*e*	pP	17 13 22.1	-0.4
HVU	**Hansel Valley**	**79.65**	**41**	*e*P	**P**	**17 13 11.7**	**-0.1**
	comp=Z,45nm,1.5s,mb5.2						
HVU				*e*	pP	17 13 22.3	-0.3
HVU	**Hansel Valley**	**79.65**	**41**	*e*P	**P**	**17 13 11.7**	**-0.1**
HVU				*e*	pP	17 13 22.3	-0.4
HVU				pmax	pmax		
	comp=Z,45nm,1.5s,mb5.2						
A07A	**Ashnola River,**	**79.66**	**32**	⇓P	**P**	**17 13 11.3**	**-0.4**
	baz=80,SNR=7.5						
M15A	**Larsen Ranch,**	**79.69**	**41**	⇑P	**P**	**17 13 11.8**	**-0.2**
	baz=80						
J13A	**Cove Ranch, Pi**	**79.69**	**39**	⇓P	**P**	**17 13 11.9**	**0.0**
	baz=80,SNR=24						
SRU	**San Rafael**	**79.70**	**44**	*e*P	**P**	**17 13 12.0**	**-0.2**
	comp=Z,18nm,0.7s,mb5.1						
SRU	**San Rafael**	**79.70**	**44**	*e*P	**P**	**17 13 12.0**	**-0.1**
SRU				pmax	pmax		
	comp=Z,19nm,0.7s,mb5.1						
CTU	**Camp Tracy**	**79.72**	**42**	*e*P	**P**	**17 13 12.1**	**-0.1**
	comp=Z,15nm,1.0s,mb4.9						
CTU				*e*	pP	17 13 21.9	-1.1
B08A	**Colville Reser**	**79.76**	**33**	P	**P**	**17 13 11.5**	**-0.7**
	baz=80,SNR=11						
E10A	**Myers Farm, Un**	**79.79**	**35**	⇓P	**P**	**17 13 11.8**	**-0.7**
	baz=80						
K14A	**Jones Ranch, D**	**79.82**	**40**	P	**P**	**17 13 13.0**	**+0.3**
	baz=80,SNR=17						
MNTX	**Cornudas Mount**	**79.84**	**53**	*e*P	**P**	**17 13 12.7**	**-0.3**
	comp=Z,32nm,1.1s,mb5.2						
HABR	**Khabarovsk**	**79.89**	**327**	*e*P	**P**	**17 13 13.8**	**+0.9**
HABR				*e*S	S	17 23 16.1	+2.3
HABR				pmax	pmax		
	comp=Z,43nm,1.8s,mb5.1						
PMR	**Palmer**	**79.89**	**11**	PFAKE		17 13 20.0	+7.4
PMR				LR	LR		
	comp=Z,207nm,19.0s,MS4.5						
H12A	**Diamond D Ranc**	**79.94**	**38**	⇑P	**P**	**17 13 12.8**	**-0.5**
	baz=80,SNR=17						
F11A	**Grangeville**	**79.97**	**36**	P	**P**	**17 13 12.1**	**-1.3**
	baz=80,SNR=14						
I13A	**Wildhorse Cree**	**80.01**	**38**	P	**P**	**17 13 13.8**	**0.0**
	baz=80,SNR=19						
D10A	**Wagner Farm, O**	**80.05**	**35**	⇓P	**P**	**17 13 13.2**	**-0.6**
	baz=80,SNR=9.4						
LPM	**Los Pinos Moun**	**80.09**	**50**	*e*P	**P**	**17 13 14.5**	**+0.2**
TTA	**Tatalina**	**80.11**	**7**	*e*P	**P**	**17 13 14.1**	**+0.3**
TXAR	**Lajitas Array**	**80.15**	**56**	P	**P**	**17 13 14.8**	**0.0**
TXAR				PKKPbc	PKKPbc	17 32 00.3	+0.9
TXAR				LR	LR	17 40 31.8	
TXAR	**Lajitas Array**	**80.15**	**56**	P	**P**	**17 13 14.8**	**0.0**
	comp=Z,14nm,1.0s,mb4.8,baz=216,slow=7.7,SNR=71						
TXAR				PKKPbc	PKKPbc	17 32 00.3	+0.9
	comp=Z,0.4nm,0.9s,baz=117,slow=4.4,SNR=3.7						
TXAR				LR	LR	17 40 31.8	
	comp=Z,137nm,18.9s,MS4.3,baz=180,slow=30						
A08A	**Turner Farm, O**	**80.16**	**32**	⇓P	**P**	**17 13 14.1**	**-0.3**
	baz=80,SNR=18						
E11A	**Bogner Ranch,**	**80.21**	**36**	P	**P**	**17 13 13.7**	**-1.1**
	baz=80,SNR=8.1						
H13A	**Challis**	**80.30**	**38**	⇑P	**P**	**17 13 15.1**	**-0.2**
	baz=80,SNR=25						
HWUT	**Hardware Ranch**	**80.32**	**41**	*e*P	**P**	**17 13 14.9**	**-0.6**
	comp=Z,13nm,1.2s,mb4.8						
F12A	**Elk City**	**80.40**	**36**	P	**P**	**17 13 15.3**	**-0.5**
	baz=81,SNR=47						
B09A	**Rice**	**80.42**	**33**	⇑P	**P**	**17 13 15.0**	**-0.7**

	baz=81,SNR=8.1						
ANMO	Albuquerque	80.51	49	eP	P	17 13 16.7	+0.1
	comp=Z,25nm,1.2s,mb5.0						
ANMO	Albuquerque	80.51	49	eP	P	17 13 16.7	+0.1
ANMO				pmax	pmax		
	comp=Z,25nm,1.2s						
A09A	Danville	80.53	32	⇑P	P	17 13 15.9	-0.5
	baz=81,SNR=11						
D11A	Klaveano Farm,	80.56	35	⇓P	P	17 13 16.0	-0.6
	baz=81						
G13A	Cobalt	80.61	37	⇑P	P	17 13 16.5	-0.4
	baz=81,SNR=19						
MDJ	Mudanjiang	80.62	322	P	P	17 13 18.3	+1.4
MDJ				AP	pP	17 13 28.3	+0.5
MDJ				XP	sP	17 13 32.8	+1.0
MDJ				PP	PP	17 16 23.0	+1.9
MDJ				S	S	17 23 29.5	+7.8
MDJ				AMB	AMB		
	comp=Z,9.0nm,1.4s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,124nm,5.2s						
MDJ				LR	LR		
	comp=N,192nm,20.7s,MS4.6						
MDJ				LR	LR		
	comp=E,215nm,20.7s,MS4.6						
MDJ				LR	LR		
	comp=Z,300nm,21.5s,MS4.6						
MDJ	Mudanjiang	80.62	322	P	P	17 13 17.8	+0.8
	comp=Z,3.4nm,0.8s,mb4.3						
A10A	Northport	81.07	33	⇓P	P	17 13 18.6	-0.6
	baz=81,SNR=9.2						
G14A	Jackson	81.15	38	⇓P	P	17 13 19.6	-0.2
	baz=81,SNR=12						
MCMT	McKenzie Canyo	81.28	38	eP	P	17 13 20.4	0.0
MCMT				e	pP	17 13 30.7	-0.6
B11A	Sandpoint	81.37	34	P	P	17 13 20.6	-0.2
	baz=82,SNR=11						
E13A	Victor	81.40	36	⇓P	P	17 13 20.2	-0.9
	baz=82,SNR=9.5						
F14A	Wisdom	81.52	37	⇓P	P	17 13 21.2	-0.5
	baz=82,SNR=11						
MA2	Magadan	81.54	342	⇑eP	P	17 13 20.5	-1.0
MA2				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
D13A	Huson	81.62	36	P	P	17 13 21.4	-0.8
	baz=82,SNR=21						
G15A	Dillon	81.68	38	P	P	17 13 22.7	+0.1
	baz=82,SNR=16						
A11A	Hall Mountain,	81.68	33	⇓P	P	17 13 22.3	-0.2
	baz=82,SNR=7.5						
E14A	Clinton	81.79	37	P	P	17 13 22.8	-0.3
	baz=82,SNR=13						
B12A	Libby	81.80	34	⇑P	P	17 13 22.7	-0.4
	baz=82,SNR=5.3						
TNA	Tin City	81.81	2	eP	P	17 13 23.2	+0.4
	comp=Z,7.2nm,0.8s,mb4.7						
C13A	Hot Springs	81.90	35	P	P	17 13 23.2	-0.4
	baz=82,SNR=9.6						
MCK	McKinley	81.91	10	eP	P	17 13 22.5	-0.9
	comp=Z,23nm,1.0s,mb5.1						
MCK				e	pP	17 13 32.1	-2.1
MCK	McKinley	81.91	10	eP	P	17 13 22.5	-0.8
MCK				e	pP	17 13 32.1	-2.1
MCK				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.1						
A12A	Yaak River Ran	82.04	34	⇓P	P	17 13 24.0	-0.4
	baz=82						
F15A	Butte	82.04	38	P	P	17 13 24.2	-0.3
	baz=82,SNR=8.0						
KLR	Kul'dur	82.07	327	eP	P	17 13 22.2	-2.3
QLMT	Earthquake Lak	82.13	39	eP	P	17 13 25.5	+0.5
D14A	Greenough	82.15	36	P	P	17 13 24.0	-1.0
	baz=82,SNR=14						
MENT	Mentasta	82.18	13	eP	P	17 13 25.1	+0.3
PDAR	Pinedale Array	82.20	41	P	P	17 13 24.8	-0.6
	comp=Z,6.0nm,0.9s,mb4.5,baz=207,slow=3.0,SNR=30						
PDAR				LR	LR	17 45 20.0	
	comp=Z,261nm,18.4s,MS4.6,baz=258,slow=32						
CHMT	Chamberlain Mo	82.20	36	eP	P	17 13 24.4	-0.9
E15A	Deer Lodge	82.28	37	P	P	17 13 25.1	-0.6
	baz=82,SNR=7.6						
YMR	Madison River	82.32	39	eP	P	17 13 26.1	+0.1
	comp=Z,9.9nm,0.5s,mb5.0						
B13A	Whitefish	82.35	35	P	P	17 13 25.2	-0.8
	baz=82,SNR=5.3						
BOZ	Bozeman (W)	82.45	38	eP	P	17 13 26.1	-0.5
	comp=Z,22nm,1.1s,mb5.0						
BOZ				e	pP	17 13 36.9	-0.6
BOZ				LR	LR		
	comp=Z,376nm,22.0s,MS4.7						
BOZ	Bozeman (W)	82.45	38	eP	P	17 13 26.1	-0.5
BOZ				e	pP	17 13 36.9	-0.6
BOZ				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
BOZ				MLR	MLR		
	comp=Z,376nm,22.0s,MS4.7						
BOZ	Bozeman (W)	82.45	38	⇑P	P	17 13 26.3	-0.2
	baz=83						
YNR	Norris Junctio	82.52	39	eP	P	17 13 27.7	+0.7
LKWY	Lake	82.61	39	eP	P	17 13 28.9	+1.4
	comp=Z,33nm,1.2s,mb5.2						
LKWY				e	pP	17 13 39.2	+0.9
LKWY	Lake	82.61	39	eP	P	17 13 28.9	+1.4
LKWY				e	pP	17 13 39.2	+0.8
LKWY				pmax	pmax		
	comp=Z,33nm,1.2s,mb5.2						
D15A	Lincoln	82.69	36	⇑P	P	17 13 27.4	-0.4
	baz=83,SNR=22						
CN2	Changchun	82.69	320	eP	P	17 13 29.0	+1.1
CN2				eXP	sP	17 13 36.0	-6.8
CN2				eS	S	17 23 46.0	+2.9
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb5.0						
CN2				AMB	AMB		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,200nm,13.0s,MS4.8						
CN2				LR	LR		
	comp=E,200nm,13.0s,MS4.8						
CN2				LR	LR		
	comp=Z,300nm,15.0s,MS4.8						
COLA	College	83.15	10	eP	P	17 13 29.0	-0.8
	comp=Z,43nm,1.1s,mb5.4						
COLA				e	pP	17 13 38.5	-2.2
COLA	College	83.15	10	eP	P	17 13 29.0	-0.8
COLA				e	pP	17 13 38.5	-2.2
COLA				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.4						
IMA2	Indian Mountai	83.42	7	eP	P	17 13 30.6	-0.5
IMA2				e	pP	17 13 40.6	-1.5
JCT	Junction City	83.68	56	eP	P	17 13 32.4	-0.9
	comp=Z,11nm,0.9s,mb5.0						
JCT	Junction City	83.68	56	eP	P	17 13 32.4	-0.9
JCT				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.0						
GCMT	Greycliff	83.69	39	eP	P	17 13 32.7	-0.4
GCMT				e	pP	17 13 43.5	-0.5
DAWY	Dawson	84.12	14	eP	P	17 13 34.7	-0.1
DAWY				e	pP	17 13 44.3	-1.3
EGAK	Eagle	84.34	13	eP	P	17 13 35.6	-0.3
	comp=Z,81nm,1.8s,mb5.6						
EGAK				e	pP	17 13 46.4	-0.4
QIZ	Qiongzhong	84.46	292	P	P	17 13 38.0	+0.4
QIZ				S	S	17 24 08.0	+6.0
QIZ				AMB	AMB		
	comp=Z,17nm,1.8s,mb4.9						
QIZ				AMB	AMB		
	comp=Z,303nm,4.9s						
QIZ				LR	LR		
	comp=Z,266nm,22.9s,MS4.6						
EGMT	Eagleton	84.80	37	eP	P	17 13 37.3	-1.2
	comp=Z,19nm,1.1s,mb5.1						
EGMT	Eagleton	84.80	37	⇑P	P	17 13 37.9	-0.7
	baz=85						
BILL	Bilibino	85.70	352	eP	P	17 13 42.4	-0.3
	comp=Z,23nm,1.3s,mb5.2						
BILL				e	pP	17 13 52.2	-1.4
BILL	Bilibino	85.70	352c	iP	P	17 13 42.1	-0.6
BILL				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.3						
EDM	Edmonton	85.72	31	P	P	17 13 41.4	-1.6
BJT	Baijiatuau	87.09	313	eP	P	17 13 51.3	+1.2
	comp=Z,18nm,1.1s,mb5.2						
BJT	Baijiatuau	87.09	313	eP	P	17 13 51.3	+1.1
BJT				pmax	pmax		
	comp=Z,18nm,1.1s						
BJI	Beijing	87.10	313	P	P	17 13 51.5	+1.3
BJI				S	S	17 24 34.8	+7.7
BJI				AMB	AMB		
	comp=Z,63nm,2.5s,mb5.4						
BJI				LR	LR		
	comp=Z,161nm,27.8s,MS4.3						
MAW	Mawson	87.21	198	P	P	17 13 50.1	-0.2
	comp=Z,14nm,1.1s,mb5.1,baz=139,slow=9.3,SNR=3.9						
MAW				LR	LR	17 51 45.0	
	comp=Z,268nm,18.7s,MS4.7,baz=288,slow=35						
DGMT	Dagmar	88.26	38	eP	P	17 13 54.5	-1.0
	comp=Z,11nm,0.6s,mb5.2						
INK	Inuvik	88.98	13	eP	P	17 13 57.2	-1.2
	comp=Z,2µm,1.9s						
INK	Inuvik	88.98	13	P	P	17 13 57.8	-0.7
	comp=Z,7.1nm,0.9s,mb5.0,baz=211,slow=5.9,SNR=19						
GYA	Guiyang	89.64	298	⇑iP	P	17 14 03.3	+0.7
GYA				PP	PP	17 17 38.0	+3.0
GYA				SKS		17 24 32.5	
GYA				S	S	17 24 53.5	+1.7
GYA				SS	SS	17 30 53.8	+4.8
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.4						
GYA				AMB	AMB		
	comp=Z,170nm,8.4s						
GYA				LR	LR		
	comp=N,420nm,21.8s,MS5.0						
GYA				LR	LR		
	comp=E,590nm,22.6s,MS5.0						
GYA				LR	LR		
	comp=Z,410nm,22.7s,MS4.8						
JTS	JuntasAbangare	90.16	79	P	P	17 14 04.5	-0.7
	comp=Z,542nm,1.0s,SNR=14						
JTS	JuntasAbangare	90.16	79	eP	P	17 14 04.5	-0.7
	comp=Z,124nm,1.1s						
JTS	JuntasAbangare	90.16	79	eP	P	17 14 04.5	-0.7
JTS				pmax	pmax		
	comp=Z,124nm,1.1s						
YKA	Yellowknife Ar	90.55	23	P	P	17 14 05.6	-0.3
YKA				LR	LR	17 46 01.1	
YKA	Yellowknife Ar	90.55	23	P	P	17 14 05.6	-0.3
	comp=Z,9.3nm,1.0s,mb5.1,baz=234,slow=4.4,SNR=72						
YKA				LR	LR	17 46 01.1	
	comp=Z,79nm,20.3s,MS4.1,baz=115,slow=30						
YAK	Yakutsk	90.56	336	⇑eP	P	17 14 04.7	-1.3
YAK				pmax	pmax		
	comp=Z,15nm,1.3s,mb5.2						
HHC	Hu-ho-hao-te	90.66	313	eP	P	17 14 07.3	+0.3
HHC				AP	pP	17 14 12.0	-5.9
HHC				XP	sP	17 14 14.3	-7.6
HHC				PP	PP	17 17 45.8	+3.1
HHC				SKS		17 24 37.3	
HHC				S	S	17 25 01.3	+0.8
HHC				XS	sS	17 25 09.3	-9.4
HHC				SS	SS	17 31 07.3	+4.2
HHC				AMB	AMB		
	comp=Z,14nm,0.6s,mb5.5						
HHC				AMB	AMB		
	comp=Z,124nm,5.9s						
HHC				LR	LR		
	comp=N,181nm,38.1s,MS4.4						
HHC				LR	LR		
	comp=E,163nm,33.3s,MS4.4						
HHC				LR	LR		
	comp=Z,170nm,32.1s,MS4.3						
VNA3	Neumayer Olymp	91.71	174	ePKPdf	P	17 14 10.2	-1.2
VNA3				e		17 14 15.7	
VNA3				e	pP	17 14 21.3	-1.1
LCO	Las Campanas	91.73	121	eP	P	17 14 11.6	-0.7
	comp=Z,23nm,1.0s,mb5.5						
SNAA	Sanae	91.80	177	⇑eP	P	17 14 10.4	-1.4
SYO	Syowa Base	91.83	191	⇓eP	P	17 14 08.8	-3.1
SYO	Syowa Base	91.83	191	⇑eP	P	17 14 13.8	+1.9
VNA2	Neumayer--Watz	92.22	175	ePKPdf	P	17 14 12.9	-0.8
	baz=171,slow=3.2						
VNA2				e		17 14 17.8	
VNA2				e	pP	17 14 24.2	-0.5
VNA1	Neumayer--Stat	92.41	175	ePKPdf	P	17 14 14.0	-0.6
VNA1				e		17 14 19.1	
VNA1				e	pP	17 14 26.5	+0.9
KMI	Kunming	92.61	295	P	P	17 14 18.0	+1.6
KMI				AMB	AMB		
	comp=Z,5.0nm,1.6s,mb4.7						
CD2	Chengdu	93.43	301	eP	P	17 14 17.5	-2.5
CD2				SKS		17 24 49.0	
CD2				S	S	17 25 19.5	-6.3
CD2				AMB	AMB		
	comp=Z,20nm,1.2s,mb5.4						
CD2				AMB	AMB		
	comp=Z,50nm,9.2s						
CD2				LR	LR		
	comp=N,160nm,20.4s						
CD2				LR	LR		
	comp=Z,100nm,21.4s,MS4.2						
CIT	Chita	93.51	323	eP	P	17 14 20.9	+1.0
CIT				e	pP	17 14 30.7	-0.2
ULM	Lac du Bonnet	93.95	39	P	P	17 14 20.2	-1.7
	comp=Z,4.7nm,1.0s,mb4.9,baz=240,slow=2.1,SNR=5.3						
ULM				LR	LR	17 52 08.2	
	comp=Z,278nm,18.6s,MS4.8,baz=258,slow=33						
LZH	Lanzhou	94.85	306	eP	P	17 14 28.0	+1.5
LZH				AP	pP	17 14 33.3	-4.2
LZH				XP	sP	17 14 35.3	-6.1
LZH				PP	PP	17 18 19.3	+3.5
LZH				SKS		17 25 02.0	
LZH				eS	S	17 25 39.5	+1.4
LZH				XS	sS	17 25 47.3	-9.1
LZH				SS	SS	17 32 07.8	+4.2
LZH				AMB	AMB		
	comp=Z,41nm,1.5s,mb5.6						
LZH				AMB	AMB		
	comp=Z,175nm,9.2s						
LZH				LR	LR		
	comp=Z,983nm,19.2s,MS5.3						
BOD	Bodaibo	95.47	329	eP	P	17 14 27.7	-1.0
BOD				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.6						
ULN	Ulaanbaatar	96.05	318	⇑eP	P	17 14 31.7	+0.1
TIXI	Tiksi	96.34	344	eP	P	17 14 30.4	-2.0
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.5						
SONM	Songino Array	96.46	318	P	P	17 14 32.9	-0.6
	comp=Z,0.7nm,0.8s,mb4.1,baz=121,slow=4.1,SNR=4.9						
SONM				LR	LR	17 51 23.1	
	comp=Z,191nm,21.4s,MS4.5,baz=6.5,slow=31						
LPAZ	La Paz	98.27	110	P	P	17 14 42.5	+0.1
	comp=Z,2.0nm,0.9s,mb4.6,baz=265,slow=5.2,SNR=6.0						
LPAZ				LR	LR	17 49 48.4	
	comp=Z,149nm,18.2s,MS4.5,baz=62,slow=30						
GTA	Gaotai	98.81	308	eP	P	17 14 45.8	+1.5
GTA				AP	pP	17 14 50.0	-5.3
GTA				XP	sP	17 14 52.8	-6.5
GTA				PP	PP	17 18 50.3	+4.1
GTA				SKS		17 25 22.5	
GTA				S	S	17 26 12.5	+0.6
GTA				XS	sS	17 26 20.0	-10
GTA				SS	SS	17 33 03.0	+3.7
GTA				AMB	AMB		
	comp=Z,2.0nm,0.8s,mb4.7						
GTA				AMB	AMB		
	comp=Z,94nm,5.0s						
GTA				LR	LR		
	comp=N,186nm,14.4s,MS4.9						
GTA				LR	LR		
	comp=E,224nm,17.1s,MS4.9						
GTA				LR	LR		
	comp=Z,271nm,19.8s,MS4.8						
TLY	Talaya	99.23	321	⇑eP	P	17 14 45.8	-0.1
TLY				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb4.4						
ZALV	Zalesovo Beam	110.82	322	PKPdf	PKiKP	17 19 34.6	-2.3
ZALV	Zalesovo Beam	110.82	322	PKiKP	PKiKP	17 19 34.6	-2.3
	comp=Z,1.1nm,0.7s,baz=143,slow=0.8,SNR=7.6						
ZAL	Zalesovo	110.83	322	PKIKP	PKiKP	17 19 34.7	-2.3
MK31	Makanchi Array	112.45	314	ePKiKP	PKiKP	17 19 39.4	-0.9
MK31	Makanchi Array	112.45	314	ePKIKP	PKiKP	17 19 39.4	-0.9
MKAR	Makanchi Array	112.45	314	PKPdf	PKiKP	17 19 38.8	-1.5
MKAR				PKKPbc	PKKPbc	17 30 36.5	+5.3
MKAR	Makanchi Array	112.45	314	i PKIKP	PKiKP	17 19 39.4	-0.9
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MKAR	Makanchi Array	112.45	314	PKiKP	PKiKP	17 19 38.8	-1.5
	comp=Z,1.8nm,0.8s,baz=64,slow=2.8,SNR=8.9						
MKAR				PKKPbc	PKKPbc	17 30 36.5	+5.3
	comp=Z,0.5nm,0.7s,baz=222,slow=1.6,SNR=4.2						
KURK	Kurchatov	114.75	319	ePKiKP	PKiKP	17 19 43.1	-1.5
KURK	Kurchatov	114.75	319	⇑iPKIKP	PKiKP	17 19 43.3	-1.3
ARU	Arti	124.88	328	i PKIKP	PKPdf	17 20 03.4	-0.5
ARU				e		17 21 49.3	
ARU				e		17 27 03.0	
ARCES	ARCESS Array B	125.81	352	PKP	PKPdf	17 20 03.7	-1.6
ARCES	ARCESS Array B	125.81	352	PKIKP	PKPdf	17 20 03.7	-1.6
ARCES	ARCESS Array B	125.81	352	PKP	PKPdf	17 20 03.7	-1.6
	comp=Z,8.1nm,0.9s,baz=29,slow=2.8,SNR=8.4						
AKTK	Aktyubinsk	127.58	322	PKP	PKPdf	17 20 08.6	-0.6
AKTO	Aktyubinsk	127.58	322	PKIKP	PKPdf	17 20 08.6	-0.6
AKTO	Aktyubinsk	127.58	322	PKP	PKPdf	17 20 08.6	-0.6
	comp=Z,2.5nm,0.9s,baz=316,slow=0.7,SNR=6.6						
FINES	FINESS Array B	133.22	348	PKP	PKPdf	17 20 18.1	-1.5
FINES	FINESS Array B	133.22	348	PKIKP	PKPdf	17 20 18.1	-1.5
FINES	FINESS Array B	133.22	348	PKP	PKPdf	17 20 18.1	-1.5
	comp=Z,1.9nm,0.8s,baz=98,slow=7.9,SNR=9.6						
OBN	Obninsk	135.56	337	i PKIKP	PKPdf	17 20 23.7	-0.5
OBN				pmax	pmax		
	comp=Z,11nm,1.2s						
OBN				MLR	MLR		
	comp=Z,100nm,19.0s,MS4.6						
MATP	Matopo	138.16	210	PKP	PKPdf	17 20 31.0	+0.9
MATP	Matopo	138.16	210	PKP	PKPdf	17 20 31.0	+0.9
	comp=Z,5.6nm,0.8s,baz=190,slow=4.1,SNR=8.7						
RDF	Al-Radifah	141.55	296	eP	PKPdf	17 20 28.6	-7.4
RDF				AMb	AMB	17 20 37.2	
	comp=Z,22nm,1.3s						
MIB	Mutribah	141.57	297	eP	PKPdf	17 20 29.4	-6.6
MIB				AMb	AMB	17 20 31.8	
	comp=Z,17nm,0.8s						
NAY	Al-Naaiem	141.76	297	eP	PKPdf	17 20 29.0	-7.3
NAY				AMb	AMB	17 20 40.2	
	comp=Z,10nm,0.9s						
AKASG	Malin Array Be	141.78	338	i PKIKP	PKPdf	17 20 36.2	+0.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
RST	Umm Al-Ruwaisa	141.92	297	eP	PKPdf	17 20 30.0	-6.6
RST				AMb	AMB	17 20 40.5	
	comp=Z,28nm,1.0s						
LSZ	Lusaka	142.67	213	PKHKP		17 20 31.2	
LSZ	Lusaka	142.67	213	PKhKP		17 20 31.2	
	comp=Z,4.2nm,0.8s,baz=132,slow=3.3,SNR=4.3						
TSUM	Tsumeb	143.33	195	ePKPpre		17 20 35.9	
LVV	L'vov	144.24	342	ePKIKP	PKPdf	17 20 37.3	-2.8
WTSB	Winterswijk	144.55	1	ePKP	PKPdf	17 20 39.7	-0.8
	comp=Z,27nm,0.7s						
CLZ	Clausthal	144.63	357	ePKPbc	PKPdf	17 20 39.5	-1.2
CLZ	Clausthal	144.63	357	ePKIKP	PKPdf	17 20 39.5	-1.2
CLZ	Clausthal	144.63	357	ePKPbc	PKPdf	17 20 39.5	-1.2
KWP	Kalwaria	144.78	343	ePKP	PKPdf	17 20 40.1	-0.9
KWP	Kalwaria	144.78	343	ePKP	PKPdf	17 20 40.1	-0.9
KWP	Kalwaria	144.78	343	ePKIKP	PKPdf	17 20 40.1	-0.9
OJC	Ojcow	144.97	347	ePKP	PKPdf	17 20 40.4	-0.9
OJC	Ojcow	144.97	347	ePKIKP	PKPdf	17 20 40.4	-0.9
CLL	Collm	144.98	354	⇑iPKP	PKPdf	17 20 39.9	-1.4
CLL	Collm	144.98	354	⇑iPKIKP	PKPdf	17 20 39.9	-1.4
CLL	Collm	144.98	354	ePKPbc	PKPdf	17 20 39.7	-1.6
CLL	Collm	144.98	354	⇑iPKPdf	PKPdf	17 20 39.9	-1.4
	comp=Z,17nm,0.9s						
ELZG	Elazig	145.02	315	i P	PKPbc	17 20 42.0	+0.8
KSP	Ksiaz	145.03	351	ePKP	PKPdf	17 20 40.7	-0.7
KSP	Ksiaz	145.03	351	ePKP	PKPdf	17 20 40.6	-0.8
KSP				e		17 20 51.2	
KSP	Ksiaz	145.03	351	ePKIKP	PKPdf	17 20 40.6	-0.8
KSP				e		17 20 51.2	
BUG	Bochum--Univer	145.08	1	ePKPbc	PKPbc	17 20 40.0	-0.9
BRG	Berggiesshubel	145.31	353	ePKP	PKPdf	17 20 41.1	-0.8
BRG				e		17 20 53.1	
BRG	Berggiesshubel	145.31	353	ePKIKP	PKPdf	17 20 41.1	-0.8
BRG				e		17 20 53.1	
BRG	Berggiesshubel	145.31	353	ePKPbc	PKPbc	17 20 41.1	-0.6
BRG	Berggiesshubel	145.31	353	ePKP	PKPdf	17 20 41.1	-0.8
	comp=Z,17nm,1.0s						
BRG				e		17 20 53.1	
	comp=Z,7.8nm,1.1s						
FBE	Freiberg	145.33	354	ePKPbc	PKPbc	17 20 41.4	-0.4
FBE				epPKPbc	pPKPbc	17 20 52.1	-0.8
STHS	Stebnicka Huta	145.37	345	i PKP	PKPdf	17 20 42.2	+0.2
STHS				e		17 20 53.5	
STHS	Stebnicka Huta	145.37	345	i PKIKP	PKPdf	17 20 42.2	+0.2
STHS				e		17 20 53.5	
STHS	Stebnicka Huta	145.37	345	i PKP	PKPdf	17 20 42.2	+0.2
STHS				e		17 20 53.4	
UPC	Upice	145.40	351	ePKP	PKPdf	17 20 41.9	-0.2
UPC				e		17 20 52.6	
UPC	Upice	145.40	351	ePKIKP	PKPdf	17 20 41.9	-0.2
UPC				e		17 20 52.6	
UPC	Upice	145.40	351	ePKP	PKPdf	17 20 41.9	-0.2
UPC				ex	x	17 20 52.6	
MALT	Malatya	145.49	315	P	PKPdf	17 20 44.3	+1.7
MALT	Malatya	145.49	315	PKIKP	PKPdf	17 20 44.3	+1.7
MALT	Malatya	145.49	315	⇓iP	PKPdf	17 20 44.0	+1.4
DPC	Dobruska-Polom	145.50	350	ePKP	PKPdf	17 20 42.6	+0.4
DPC				e		17 20 53.2	
DPC	Dobruska-Polom	145.50	350	ePKIKP	PKPdf	17 20 42.6	+0.4
DPC				e		17 20 53.2	
DPC	Dobruska-Polom	145.50	350	ePKP	PKPdf	17 20 42.6	+0.4
DPC				ex	x	17 20 53.2	
KOLS	Kolonicke sedl	145.54	343	ePKP	PKPdf	17 20 42.5	+0.1
KOLS	Kolonicke sedl	145.54	343	ePKIKP	PKPdf	17 20 42.5	+0.1
KOLS	Kolonicke sedl	145.54	343	ePKP	PKPdf	17 20 42.5	+0.1
PVCC	Panska Ves	145.58	352	ePKP	PKPdf	17 20 43.0	+0.6
PVCC				e		17 20 53.1	
PVCC	Panska Ves	145.58	352	ePKIKP	PKPdf	17 20 43.0	+0.6
PVCC				e		17 20 53.1	
PVCC	Panska Ves	145.58	352	ePKP	PKPdf	17 20 43.0	+0.6
PVCC				ex	x	17 20 53.1	
NIE	Niedzica	145.60	346	ePKP	PKPdf	17 20 43.5	+1.1
NIE	Niedzica	145.60	346	ePKP2	PKPab	17 20 43.5	+0.6
UCC	Uccle	145.61	4	PKPab	PKPab	17 20 42.6	-0.3
OKC	Ostrava-Krasne	145.67	348	ePKP	PKPdf	17 20 43.1	+0.6
OKC				e		17 20 52.6	
OKC	Ostrava-Krasne	145.67	348	ePKP2	PKPab	17 20 43.1	-0.1
OKC	Ostrava-Krasne	145.67	348	ePKP	PKPdf	17 20 43.1	+0.6
OKC				ex	x	17 20 52.6	
MOX	Moxa	145.75	356	ePKP	PKPdf	17 20 42.7	0.0
MOX				e		17 20 53.7	
MOX	Moxa	145.75	356	ePKP	PKPdf	17 20 42.7	0.0
	comp=Z,53nm,1.3s						
MOX				e		17 20 53.7	
MOX	Moxa	145.75	356	ePKP2	PKPab	17 20 42.7	-0.8
MOX	Moxa	145.75	356	ePKPbc	PKPbc	17 20 42.8	-0.3
MOX				epPKPbc	pPKPbc	17 20 53.5	-0.8
ATD	Arta Tunnel	145.78	266	PKPbc	PKPbc	17 20 44.9	+0.6
ATD	Arta Tunnel	145.78	266	PKPbc	PKPbc	17 20 44.9	+0.6
	comp=Z,25nm,1.1s,baz=272,slow=22,SNR=11						
CRVS	Cervenica-Dubn	145.79	344	ePKP	PKPdf	17 20 43.3	+0.5
CRVS	Cervenica-Dubn	145.79	344	ePKP2	PKPab	17 20 43.3	-0.3
CRVS	Cervenica-Dubn	145.79	344	ePKP	PKPdf	17 20 43.3	+0.5
BURAR	Bucovina Array	145.79	339	⇑P	PKPdf	17 20 42.5	-0.3
BURAR	Bucovina Array	145.79	339	⇑PKP2	PKPab	17 20 42.6	-1.1
BURAR	Bucovina Array	145.79	339	⇑iP	PKPdf	17 20 42.5	-0.3
UZH	Uzhgorod	145.81	343	⇓iPKP2	PKPab	17 20 43.0	-0.7
MORC	Moravsky Berou	145.84	349	ePKPdf	PKPdf	17 20 42.5	-0.4
MORC	Moravsky Berou	145.84	349	PKP2	PKPab	17 20 44.1	+0.3
MORC	Moravsky Berou	145.84	349	⇑iP	PKPdf	17 20 43.5	+0.7
MEM	Membach	145.88	2	PKPab	PKPab	17 20 42.5	-1.4
SNF	Seneffe	145.89	4	PKPab	PKPab	17 20 43.4	-0.6
WERD	Werda	145.89	355	ePKPbc	PKPbc	17 20 43.4	-0.1
TANN	Tannenbergstha	145.91	355	ePKPbc	PKPbc	17 20 43.3	-0.3
BOYT	Boyabat	145.94	322	i P	PKPdf	17 20 44.4	+1.1
GUNZ	Gunzen	145.97	355	ePKPbc	PKPbc	17 20 43.6	-0.2
WERN	Wernitzgruen	146.05	355	ePKPbc	PKPbc	17 20 44.0	0.0
NKC	Novy Kostel	146.09	355	ePKP	PKPdf	17 20 44.1	+0.8
NKC				e		17 20 55.2	
NKC	Novy Kostel	146.09	355	ePKP2	PKPab	17 20 44.1	-0.7
NKC	Novy Kostel	146.09	355	ePKP	PKPdf	17 20 44.1	+0.8
NKC				ex	x	17 20 55.2	
PRU	Pruhonice	146.11	352	ePKP	PKPdf	17 20 44.2	+0.9
PRU				e		17 20 54.9	
PRU	Pruhonice	146.11	352	ePKP2	PKPab	17 20 44.2	-0.6
PRU	Pruhonice	146.11	352	ePKP	PKPdf	17 20 44.2	+0.9
PRU				ex	x	17 20 54.9	
TRPA	Tarpa	146.19	342	⇑iP	PKPdf	17 20 44.1	+0.6
KMBO	Kilima Mbogo	146.19	242	ePKPdf	PKPdf	17 20 45.3	+0.8
KMBO	Kilima Mbogo	146.19	242	ePKP2	PKPab	17 20 45.3	-1.0
KMBO	Kilima Mbogo	146.19	242	PKPbc	PKPbc	17 20 46.2	+0.6
	comp=Z,30nm,1.0s,baz=70,slow=2.4,SNR=33						
DOU	Dourbes	146.32	4	PKPab	PKPab	17 20 44.8	-0.9
GIVF	Givet	146.33	4	ePKIKP	PKPdf	17 20 41.6	-2.1

	comp=Z,41nm,1.0s						
GIVF	**Givet**	**146.33**	**4**	*e*PKPdf	PKPdf	17 20 41.6	-2.1
GIVF	**Givet**	**146.33**	**4**	*e*PKIKP	PKPdf	17 20 41.6	-2.1
BAIF	**Baives**	**146.33**	**4**	*e*PKIKP	PKPdf	17 20 42.2	-1.5
BAIF	**Baives**	**146.33**	**4**	*e*PKPdf	PKPdf	17 20 42.2	-1.5
BAIF	**Baives**	**146.33**	**4**	*e*PKIKP	PKPdf	17 20 42.2	-1.5
MANZ	**Manzenberg**	**146.37**	**355**	*e*PKPbc	PKPbc	17 20 44.3	-0.7
KECS	**Kecovo**	**146.42**	**345**	*i* PKP	PKPdf	17 20 45.2	+1.3
KECS	**Kecovo**	**146.42**	**345**	*i* PKP2	PKPab	17 20 45.2	-0.9
KECS	**Kecovo**	**146.42**	**345**	*i* PKP	PKPdf	17 20 45.2	+1.3
VRAC	**Vranov**	**146.47**	**350**	⇓P	PKPdf	17 20 45.9	+1.9
VRAC	**Vranov**	**146.47**	**350**	⇓PKP2	PKPab	17 20 45.9	-0.3
VRAC	**Vranov**	**146.47**	**350**	⇓*i*P	PKPdf	17 20 45.9	+2.0
CTKT	**Corum**	**146.51**	**321**	*i* P	PKPdf	17 20 45.2	+1.0
GZT	**Gaziantep**	**146.56**	**314**	*i* P	PKPdf	17 20 46.0	+1.5
ROTZ	**Rotzenmuhle**	**146.58**	**355**	*e*PKPbc	PKPbc	17 20 45.5	-0.1
TREC	**Trest**	**146.66**	**351**	*e*PKP	PKPdf	17 20 44.9	+0.7
TREC				*e*x	x	17 20 58.1	
VRI	**Vrincioaia**	**146.71**	**336**	P	PKPdf	17 20 46.1	+1.7
VRI	**Vrincioaia**	**146.71**	**336**	PKP2	PKPab	17 20 46.1	-1.2
VRI	**Vrincioaia**	**146.71**	**336**	⇓*i*P	PKPdf	17 20 46.0	+1.6
GRA1	**Grafenberg Arr**	**146.73**	**356**	*e*PKPbc	PKPbc	17 20 46.1	+0.1
GRA1				*e*pPKPbc	pPKPbc	17 20 56.4	-0.9
GRF	**Grafenberg Arr**	**146.73**	**356**	*e*PKP	PKPdf	17 20 46.1	+1.8
GRF				pPKPbc	pPKPbc	17 20 56.4	-0.9
GRF	**Grafenberg Arr**	**146.73**	**356**	*e*PKP2	PKPab	17 20 46.1	-1.1
GRF	**Grafenberg Arr**	**146.73**	**356**	*e*PKP2	PKPab	17 20 46.1	-1.1
GRF	**Grafenberg Arr**	**146.73**	**356**	*e*PKPbc	PKPbc	17 20 46.1	+0.1
GRF				*e*pPKPbc	pPKPbc	17 20 56.4	-0.9
BALT	**Daday**	**146.74**	**324**	*i* P	PKPdf	17 20 44.7	+0.1
PLOR	**Plostina**	**146.75**	**336**	PKP2	PKPab	17 20 46.5	-1.0
PLOR	**Plostina**	**146.75**	**336**	⇓*i*P	PKPdf	17 20 46.3	+1.8
VYHS	**Vyhne**	**146.80**	**347**	*e*PKP	PKPdf	17 20 46.4	+1.9
VYHS				*e*		17 20 57.1	
VYHS	**Vyhne**	**146.80**	**347**	*e*PKP2	PKPab	17 20 46.4	-1.2
VYHS	**Vyhne**	**146.80**	**347**	*e*PKP	PKPdf	17 20 46.4	+1.9
VYHS				*e*		17 20 57.1	
KOLL	**Kolacno**	**146.82**	**347**	*i* PKP	PKPdf	17 20 46.6	+2.1
KOLL				*e*		17 20 56.9	
KOLL	**Kolacno**	**146.82**	**347**	*i* PKP2	PKPab	17 20 46.6	-1.0
KOLL	**Kolacno**	**146.82**	**347**	*i* PKP	PKPdf	17 20 46.6	+2.1
KOLL				*e*		17 20 56.9	
WLF	**Walferdange**	**146.83**	**2**	*e*PKPbc	PKPbc	17 20 46.4	+0.1
WLF	**Walferdange**	**146.83**	**2**	*e*PKP2	PKPab	17 20 46.4	-1.2
WLF	**Walferdange**	**146.83**	**2**	PKPab	PKPab	17 20 46.9	-0.7
WLF	**Walferdange**	**146.83**	**2**	*e*PKPbc	PKPbc	17 20 46.2	-0.1
KHC	**Kasperske Hory**	**147.07**	**353**	*e*PKP	PKPdf	17 20 47.1	+2.2
KHC				*e*		17 20 57.9	
KHC	**Kasperske Hory**	**147.07**	**353**	*e*PKP2	PKPab	17 20 47.1	-1.5
KHC	**Kasperske Hory**	**147.07**	**353**	*e*PKP	PKPbc	17 20 47.1	+0.1
KHC				*e*x	x	17 20 57.9	
SMOL	**Smolenice**	**147.08**	**348**	*e*PKP	PKPbc	17 20 47.7	+0.6
SMOL				*e*		17 20 58.6	
SMOL	**Smolenice**	**147.08**	**348**	*e*PKP2	PKPbc	17 20 47.7	+0.6
SMOL	**Smolenice**	**147.08**	**348**	*e*PKP	PKPbc	17 20 47.7	+0.6
SMOL				*e*		17 20 58.6	
PSZ	**Piszkesteto**	**147.09**	**345**	*e*PKPbc	PKPbc	17 20 47.5	+0.4
PSZ	**Piszkesteto**	**147.09**	**345**	PKP2	PKPab	17 20 48.0	-0.7
PSZ	**Piszkesteto**	**147.09**	**345**	⇓*e*PKP/p	PKPbc	17 20 47.8	+0.7
PSZ	**Piszkesteto**	**147.09**	**345**	⇓*i*P	PKPdf	17 20 46.7	+1.7
WET	**Wettzell**	**147.13**	**354**	*e*PKPbc	PKPbc	17 20 46.1	-1.1
WET				*e*pPKPbc	pPKPbc	17 20 58.6	+0.2
WET	**Wettzell**	**147.13**	**354**	*e*PKP2	PKPbc	17 20 46.1	-1.1
WET	**Wettzell**	**147.13**	**354**	*e*PKPbc	PKPbc	17 20 46.1	-1.1
WET				*e*pPKPbc	pPKPbc	17 20 58.6	+0.2
ANDN	**Andirin**	**147.27**	**316**	*i* P	PKPbc	17 20 48.0	0.0
MLR	**Muntele Rosu**	**147.33**	**336**	P	PKPbc	17 20 48.2	+0.3
MLR	**Muntele Rosu**	**147.33**	**336**	⇓PKP2	PKPbc	17 20 47.6	-0.3
MLR	**Muntele Rosu**	**147.33**	**336**	⇓*i*P	PKPbc	17 20 47.6	-0.3
DRGR		**147.34**	**341**	P	PKPbc	17 20 47.9	+0.1
DRGR		**147.34**	**341**	⇓PKP2	PKPbc	17 20 47.6	-0.3
DRGR		**147.34**	**341**	⇓*i*P	PKPbc	17 20 47.6	-0.3
GEC2	**GERESS Array S**	**147.34**	**353**	*e*PKPbc	PKPbc	17 20 47.0	-0.8
GEC2				*e*pPKPbc	pPKPbc	17 20 58.5	-0.5
GEC2	**GERESS Array S**	**147.34**	**353**	*e*PKP2	PKPbc	17 20 47.0	-0.8
GEC2	**GERESS Array S**	**147.34**	**353**	*e*PKPbc	PKPbc	17 20 47.0	-0.8
GEC2				*e*pPKPbc	pPKPbc	17 20 58.5	-0.5
GERES	**GERESS Array B**	**147.34**	**353**	PKPbc	PKPbc	17 20 46.7	-1.0
GERES	**GERESS Array B**	**147.34**	**353**	PKP2	PKPbc	17 20 46.7	-1.1
GERES	**GERESS Array B**	**147.34**	**353**	PKPbc	PKPbc	17 20 46.7	-1.1
	comp=Z,7.0nm,0.9s,baz=117,slow=1.8,SNR=32						
ELDT	**Eldivan**	**147.40**	**322**	*i* P	PKPdf	17 20 49.0	+3.2
ISR	**Istrita**	**147.40**	**335**	⇓P	PKPbc	17 20 48.5	+0.4
ISR	**Istrita**	**147.40**	**335**	⇓PKP2	PKPab	17 20 48.5	-1.5
ISR	**Istrita**	**147.40**	**335**	⇓*i*P	PKPbc	17 20 48.5	+0.4
ZST	**Bratislava**	**147.44**	**349**	*e*PKP	PKPbc	17 20 47.8	-0.3
ZST				*e*		17 20 59.7	
ZST	**Bratislava**	**147.44**	**349**	*e*PKP2	PKPbc	17 20 47.8	-0.3
ZST	**Bratislava**	**147.44**	**349**	*e*PKP	PKPbc	17 20 47.8	-0.3
ZST				*e*		17 20 59.7	
AVNT	**Avonos**	**147.57**	**319**	*i* P	PKPdf	17 20 49.0	+2.8
BUD	**Budapest**	**147.71**	**346**	⇓*e*PKP/p	PKPdf	17 20 49.3	+3.2
VOIR		**147.72**	**337**	P	PKPbc	17 20 49.8	+0.8
VOIR		**147.72**	**337**	PKP2	PKPbc	17 20 49.8	+0.9
VOIR		**147.72**	**337**	⇑*i*P	PKPbc	17 20 49.8	+0.9
BR131	**Keskin Array S**	**147.76**	**321**	*e*PKPbc	PKPbc	17 20 49.8	+0.5
BRTR	**Keskin Array B**	**147.76**	**321**	PKPbc	PKPbc	17 20 49.2	0.0
BRTR	**Keskin Array B**	**147.76**	**321**	PKP2	PKPbc	17 20 49.3	0.0
BRTR	**Keskin Array B**	**147.76**	**321**	PKPbc	PKPbc	17 20 49.2	0.0
	comp=Z,18nm,0.9s,baz=28,slow=5.6,SNR=65						
CONA	**Conrad Observa**	**147.93**	**350**	⇑*i*pPKPdf	PKPdf	17 20 47.0	+0.6
	comp=Z,24nm,0.9s,SNR=11						
MEZF	**Maizieres J'vi**	**147.94**	**4**	*e*PKIKP	PKPdf	17 20 45.1	-1.3
MEZF	**Maizieres J'vi**	**147.94**	**4**	*e*PKPdf	PKPdf	17 20 45.1	-1.3
SOP	**Sopron**	**148.04**	**349**	⇑*e*PKP/p	PKPbc	17 20 50.1	+0.4
SGKT	**Sivrigoynuk**	**148.13**	**324**	*i* P	PKPdf	17 20 47.9	+0.9
ANTO	**Ankara**	**148.17**	**322**	*e*PKPbc	PKPbc	17 20 50.7	+0.3
ANTO	**Ankara**	**148.17**	**322**	*e*PKP2	PKPbc	17 20 50.7	+0.4
ANTO	**Ankara**	**148.17**	**322**	⇑*i*P	PKPbc	17 20 50.7	+0.4
BFO	**Black Forest**	**148.20**	**359**	*e*PKPbc	PKPbc	17 20 49.7	-0.4
BFO	**Black Forest**	**148.20**	**359**	*e*PKP2	PKPbc	17 20 49.7	-0.4
BFO	**Black Forest**	**148.20**	**359**	*e*PKPbc	PKPbc	17 20 49.7	-0.4
FUR	**Furstenfeldbru**	**148.24**	**356**	*e*PKPbc	PKPbc	17 20 50.6	+0.3
FUR	**Furstenfeldbru**	**148.24**	**356**	*e*PKP2	PKPbc	17 20 50.6	+0.3
FUR	**Furstenfeldbru**	**148.24**	**356**	*e*PKPbc	PKPbc	17 20 50.6	+0.3
MOA	**Molln**	**148.24**	**352**	⇑*i*P	PKPbc	17 20 50.4	+0.1
	comp=Z,18nm,1.1s,SNR=6.1						
MOA	**Molln**	**148.24**	**352**	⇑*i*PKPbc	PKPbc	17 20 50.4	+0.1
	comp=Z,18nm,1.1s,SNR=6.1						
GZR	**Gura Zlata**	**148.56**	**340**	P	PKPbc	17 20 51.2	0.0
GZR	**Gura Zlata**	**148.56**	**340**	PKIKP	PKPbc	17 20 51.2	0.0
GZR	**Gura Zlata**	**148.56**	**340**	⇑*i*P	PKPbc	17 20 51.2	0.0
ARSA	**Arzberg**	**148.64**	**350**	⇑*i*P	PKPbc	17 20 51.3	0.0
	comp=Z,16nm,1.2s						
ARSA	**Arzberg**	**148.64**	**350**	⇑*i*PKPbc	PKPbc	17 20 51.3	0.0
	comp=Z,16nm,1.2s						
BZS	**Buzias**	**148.73**	**341**	P	PKPbc	17 20 51.4	-0.2
BZS	**Buzias**	**148.73**	**341**	⇓PKP2	PKPbc	17 20 51.2	-0.4
BZS	**Buzias**	**148.73**	**341**	⇓*i*P	PKPbc	17 20 51.2	-0.4
RETA	**Reutte**	**148.95**	**356**	⇑*i*PKiKP	PKiKP	17 20 52.1	-1.3
	comp=Z,28nm,1.2s						
WATA	**Walderalm**	**149.04**	**355**	⇑*i*P	PKPbc	17 20 52.7	+0.4
	comp=Z,6.3nm,0.6s						
WATA	**Walderalm**	**149.04**	**355**	⇑*i*PKiKP	PKiKP	17 20 52.7	-0.9
	comp=Z,6.3nm,0.6s						
WATA	**Walderalm**	**149.04**	**355**	⇑*i*PKP2	PKPbc	17 20 52.8	+0.5
MOTA	**Moosalm**	**149.07**	**356**	⇑*i*P	PKPbc	17 20 52.3	-0.1
	comp=Z,36nm,1.1s						
MOTA	**Moosalm**	**149.07**	**356**	⇑*i*PKPbc	PKPbc	17 20 52.3	-0.1
	comp=Z,36nm,1.1s						
MOTA	**Moosalm**	**149.07**	**356**	⇑*i*PKP2	PKPbc	17 20 52.3	-0.1
LOR	**Lormes**	**149.08**	**5**	*e*PKIKP	PKPdf	17 20 48.0	-0.3
	comp=Z,18nm,0.9s						
LOR	**Lormes**	**149.08**	**5**	*e*PKPdf	PKPdf	17 20 48.0	-0.3
LOR	**Lormes**	**149.08**	**5**	*e*PKIKP	PKPdf	17 20 48.0	-0.3
WTTA	**Wattenberg**	**149.11**	**355**	⇑*i*P	PKPbc	17 20 52.8	+0.3
	comp=Z,23nm,0.8s						
WTTA	**Wattenberg**	**149.11**	**355**	⇑*i*PKiKP	PKiKP	17 20 52.8	-1.0
	comp=Z,23nm,0.8s						
WTTA	**Wattenberg**	**149.11**	**355**	⇑*i*PKP2	PKPbc	17 20 52.8	+0.3
KBA	**Koelnbreinsper**	**149.12**	**353**	⇑*i*P	PKPbc	17 20 52.0	-0.5
	comp=Z,11nm,0.9s						
KBA	**Koelnbreinsper**	**149.12**	**353**	⇑*i*PKPbc	PKPbc	17 20 52.0	-0.5
	comp=Z,11nm,0.9s						
KBA	**Koelnbreinsper**	**149.12**	**353**	⇑*i*PKP2	PKPbc	17 20 52.0	-0.5
SQTA	**Sankt Quirin**	**149.19**	**356**	⇑*i*P	PKPbc	17 20 53.0	+0.3
	comp=Z,20nm,1.0s						
SQTA	**Sankt Quirin**	**149.19**	**356**	⇑*i*PKiKP	PKiKP	17 20 53.0	-0.9
	comp=Z,20nm,1.0s						
SQTA	**Sankt Quirin**	**149.19**	**356**	⇑*i*PKP2	PKPbc	17 20 53.0	+0.3
MFF	**Saint Martin d**	**149.19**	**11**	*e*PKIKP	PKPdf	17 20 47.8	-0.7
	comp=Z,32nm,1.1s						
MFF	**Saint Martin d**	**149.19**	**11**	*e*PKPdf	PKPdf	17 20 47.8	-0.7
MFF	**Saint Martin d**	**149.19**	**11**	*e*PKIKP	PKPdf	17 20 47.8	-0.7
DAVA	**Damuels**	**149.20**	**357**	⇑*i*P	PKPbc	17 20 52.8	+0.1
	comp=Z,36nm,1.1s						
DAVA	**Damuels**	**149.20**	**357**	⇑*i*PKiKP	PKiKP	17 20 52.8	-1.1
	comp=Z,36nm,1.1s						
SSF	**Saint Saulge**	**149.25**	**6**	*e*PKIKP	PKPdf	17 20 48.2	-0.4
	comp=Z,18nm,1.0s						
SSF	**Saint Saulge**	**149.25**	**6**	*e*PKPdf	PKPdf	17 20 48.2	-0.4
SSF	**Saint Saulge**	**149.25**	**6**	*e*PKIKP	PKPdf	17 20 48.2	-0.4
PERS	**Pernice**	**149.30**	**350**	*i* PKPbc	PKPbc	17 20 52.2	-0.9
FETA	**Feichten**	**149.42**	**356**	⇑*i*PKiKP	PKiKP	17 20 53.6	-0.8
	comp=Z,33nm,1.1s,SNR=8.7						
AVF	**Avril sur Loir**	**149.50**	**6**	*e*PKIKP	PKPdf	17 20 48.2	-0.8
AVF	**Avril sur Loir**	**149.50**	**6**	*e*PKPdf	PKPdf	17 20 48.2	-0.8
AVF	**Avril sur Loir**	**149.50**	**6**	*e*PKIKP	PKPdf	17 20 48.2	-0.8
OBKA	**Obir**	**149.51**	**351**	⇑*e*P	PKPbc	17 20 52.6	-1.0
	comp=Z,13nm,1.1s						
OBKA	**Obir**	**149.51**	**351**	⇑*e*PKPbc	PKPbc	17 20 52.6	-1.0
	comp=Z,13nm,1.1s						
MYKA	**Terra Mystica**	**149.52**	**352**	⇑*i*PKPbc	PKPbc	17 20 53.0	-0.6
	comp=Z,19nm,0.9s						
ESKT	**Eskisehir**	**149.53**	**324**	*i* P	PKPbc	17 20 53.7	-0.1
ABTA	**Abfaltersbach**	**149.54**	**354**	⇓*i*PKPdf	PKPdf	17 20 48.2	-0.8
	comp=Z,6.4nm,1.2s,SNR=12						
ABTA	**Abfaltersbach**	**149.54**	**354**		PKPbc	17 20 53.1	-0.5
	comp=Z,28nm,0.9s						
ABTA						17 21 04.7	
	comp=Z,32nm,1.2s						
BGF	**Bois d'Agland**	**149.68**	**7**	*e*PKIKP	PKPdf	17 20 49.5	+0.2
BGF	**Bois d'Agland**	**149.68**	**7**	*e*PKPdf	PKPdf	17 20 49.5	+0.2
TCF	**Toulx Ste Croi**	**149.86**	**8**	*e*PKIKP	PKPdf	17 20 48.9	-0.7
	comp=Z,23nm,1.3s						
TCF	**Toulx Ste Croi**	**149.86**	**8**	*e*PKPdf	PKPdf	17 20 48.9	-0.7
TCF	**Toulx Ste Croi**	**149.86**	**8**	*e*PKIKP	PKPdf	17 20 48.9	-0.7
CABF	**La Chapelle**	**149.88**	**3**	*e*PKIKP	PKPdf	17 20 49.9	+0.3
	comp=Z,22nm,1.0s						
CABF	**La Chapelle**	**149.88**	**3**	*e*PKPdf	PKPdf	17 20 49.9	+0.3
LJU	**Ljubljana**	**149.97**	**351**	*i* PKPdf	PKPdf	17 20 50.0	+0.2
LJU				*i* PKPbc	PKPbc	17 20 54.1	-0.5
LJU				*i* PKPab	PKPab	17 21 05.1	+4.8
LJU	**Ljubljana**	**149.97**	**351**	*i* PKHKP		17 20 50.0	
LJU	**Ljubljana**	**149.97**	**351**	*i* PKPdf	PKPdf	17 20 50.0	+0.2
LJU				*i* PKPbc	PKPbc	17 20 54.1	-0.5
LJU				*i* PKPab	PKPab	17 21 05.1	+4.8
ULDT	**Uludag**	**150.04**	**326**	*i* P	PKPbc	17 20 54.3	-0.7
JAVS	**Javornik**	**150.19**	**351**	*i* PKPbc	PKPbc	17 20 54.7	-0.5
CEY	**Cerknica**	**150.28**	**351**	*e*PKP	PKPbc	17 20 54.0	-1.5
CEY	**Cerknica**	**150.28**	**351**	*e*PKPbc	PKPbc	17 20 54.0	-1.5
BOJS	**Bojanci**	**150.38**	**350**	*e*PKPdf	PKPdf	17 20 50.0	-0.4
BOJS				*e*PKPbc	PKPbc	17 20 55.6	-0.1
BOJS				*e*PKPab	PKPab	17 21 06.4	+4.4
BOJS	**Bojanci**	**150.38**	**350**	*e*PKPdf	PKPdf	17 20 50.0	-0.4
BOJS				*e*PKPbc	PKPbc	17 20 55.6	-0.1
BOJS				*e*PKPab	PKPab	17 21 06.4	+4.4
RJF	**Les Rejaudoux**	**150.73**	**9**	*e*PKIKP	PKPdf	17 20 50.6	-0.4
RJF	**Les Rejaudoux**	**150.73**	**9**	*e*PKPdf	PKPdf	17 20 50.6	-0.4
RJF	**Les Rejaudoux**	**150.73**	**9**	*e*PKIKP	PKPdf	17 20 50.6	-0.4
BTOK	**Tokmak**	**150.90**	**327**	*i* P	PKPbc	17 20 56.6	-0.5
LPL	**La Plagne**	**151.00**	**2**	*e*PKIKP	PKPdf	17 20 51.7	+0.3
LPL	**La Plagne**	**151.00**	**2**	*e*PKPdf	PKPdf	17 20 51.7	+0.3
LPL	**La Plagne**	**151.00**	**2**	*e*PKIKP	PKPdf	17 20 51.7	+0.3
LPG	**La Plagne**	**151.01**	**2**	*e*PKIKP	PKPdf	17 20 52.0	+0.6
LPG	**La Plagne**	**151.01**	**2**	*e*PKPdf	PKPdf	17 20 52.0	+0.6
LPG	**La Plagne**	**151.01**	**2**	*e*PKIKP	PKPdf	17 20 52.0	+0.6
CAF	**Calviac**	**151.18**	**9**	*e*PKIKP	PKPdf	17 20 51.4	-0.3
CAF	**Calviac**	**151.18**	**9**	*e*PKPdf	PKPdf	17 20 51.4	-0.3
CAF	**Calviac**	**151.18**	**9**	*e*PKIKP	PKPdf	17 20 51.4	-0.3
PCAB	**Cabril**	**151.32**	**25**	*e*PKPbc	PKPbc	17 20 57.7	-0.3
BNI	**Bardonecchia**	**151.46**	**2**	PKPbc	PKPbc	17 20 58.7	+0.5
BNI				*e*PKPab	PKPab	17 21 07.1	+0.6
VIVF	**Saint-Julien-l**	**151.54**	**5**	*e*PKIKP	PKPdf	17 20 52.2	0.0
	comp=Z,14nm,1.0s						
VIVF	**Saint-Julien-l**	**151.54**	**5**	*e*PKPdf	PKPdf	17 20 52.2	0.0
VIVF	**Saint-Julien-l**	**151.54**	**5**	*e*PKIKP	PKPdf	17 20 52.2	0.0
ORIF	**Oris-en-Rattie**	**151.56**	**3**	*e*PKIKP	PKPdf	17 20 52.3	0.0
	comp=Z,22nm,1.2s						
ORIF	**Oris-en-Rattie**	**151.56**	**3**	*e*PKPdf	PKPdf	17 20 52.3	0.0
ORIF	**Oris-en-Rattie**	**151.56**	**3**	*e*PKIKP	PKPdf	17 20 52.3	0.0
PBRG	**Braganca**	**151.75**	**24**	*e*PKPbc	PKPbc	17 20 58.3	-0.7
MBDF	**Montbardon**	**151.79**	**2**	*e*PKIKP	PKPdf	17 20 52.6	0.0
	comp=Z,39nm,1.5s						
MBDF	**Montbardon**	**151.79**	**2**	*e*PKPdf	PKPdf	17 20 52.6	0.0
MBDF	**Montbardon**	**151.79**	**2**	*e*PKIKP	PKPdf	17 20 52.6	0.0
PVRL	**Vila Real**	**151.81**	**25**	*e*PKPbc	PKPbc	17 20 59.3	+0.1
MVO	**Moncorvo**	**152.19**	**25**	*e*PKPbc	PKPbc	17 20 59.8	-0.2
MVO	**Moncorvo**	**152.19**	**25**	*e*PKPab	PKPab	17 21 10.4	+0.7
LASF	**Ste Croix**	**152.24**	**6**	*e*PKIKP	PKPdf	17 20 53.4	+0.1
	comp=Z,68nm,1.5s						
LASF	**Ste Croix**	**152.24**	**6**	*e*PKPdf	PKPdf	17 20 53.4	+0.1
MTE	**Manteigas**	**152.62**	**26**	*e*PKPbc	PKPbc	17 21 03.0	+2.0
MTE	**Manteigas**	**152.62**	**26**	*e*PKPab	PKPab	17 21 14.6	+3.1
PMAFR	**Mafra**	**152.99**	**30**	*e*PKPab	PKPab	17 21 11.7	-1.4
EVO	**Evora**	**153.93**	**29**	*e*PKPab	PKPab	17 21 16.2	-0.9
MORF	**Marmelete**	**154.58**	**32**	*e*PKPab	PKPab	17 21 17.0	-2.9
ESDC	**Sonseca Array**	**154.64**	**22**	PKP	PKPdf	17 20 56.4	-0.6
ESDC				PKPab	PKPab	17 21 18.5	-1.6
ESDC	**Sonseca Array**	**154.64**	**22**	PKP	PKPdf	17 20 56.3	-0.6
	comp=Z,0.3nm,0.3s,baz=339,slow=3.2,SNR=2.7						
ESDC				PKPab	PKPab	17 21 18.5	-1.6
	comp=Z,0.3nm,0.3s,baz=319,slow=2.0,SNR=4.3						
PBAR	**Barrancos**	**154.67**	**28**	*e*PKPdf	PKPdf	17 20 57.4	+0.4
PBAR	**Barrancos**	**154.67**	**28**	*e*PKPab	PKPab	17 21 19.9	-0.4
PVAQ	**Vaqueiros**	**154.97**	**30**	*e*PKPab	PKPab	17 21 21.3	-0.3
PBDV	**Barranco-do-Ve**	**154.99**	**31**	*e*PKPdf	PKPdf	17 20 58.2	+0.7
PBDV	**Barranco-do-Ve**	**154.99**	**31**	*e*PKPab	PKPab	17 21 20.4	-1.3
LIC	**Lamto**	**163.76**	**127**	⇑*i*PKP2	PKPab	17 21 58.5	-2.0
	comp=Z,52nm,1.3s						
LIC	**Lamto**	**163.76**	**127**	*e*P	PKPab	17 21 58.1	-2.4
	comp=Z,54nm,1.3s						
TIC	**Toumodi**	**164.03**	**126**	*e*P	PKPab	17 21 59.8	-1.9
	comp=Z,95nm,1.1s						
KIC	**Kosan Boka**	**164.07**	**128**	*e*P	PKPab	17 21 59.7	-2.1
	comp=Z,53nm,1.0s						
TORD	**Torodi Ar. Bea**	**173.15**	**118**	PKP	PKPdf	17 21 11.8	-2.7
TORD				PKPab	PKPab	17 22 40.0	-2.0
TORD				PP	PP	17 26 30.4	-3.3
TORD	**Torodi Ar. Bea**	**173.15**	**118**	PKP	PKPdf	17 21 11.8	-2.7
	comp=Z,4.1nm,1.0s,baz=335,slow=1.4,SNR=15						
TORD				PKPab	PKPab	17 22 40.0	-2.0
	comp=Z,17nm,1.0s,baz=256,slow=4.6,SNR=44						
TORD				PP	PP	17 26 30.4	-3.3
	comp=Z,2.7nm,1.1s,baz=258,slow=7.4,SNR=5.7						

DDA ***27*** *17:05:09.4, 38.70N×39.48E, h5^{km}, Md2.6*
ISCJB ***27*** *17:05:10.7±0.8, 38.42N±0.04×39.26E±0.06, h8^{km}±10^{km},*
Error ellipse: s-maj=9.6km s-min=5.5km az=36.2
CSEM ***27*** *17:05:10.1±0.2, 38.44N×39.25E, h7^{km}±2^{km}, MD2.9, Error*
ellipse: s-maj=6.1km s-min=2.8km az=124.0
ISK ***27*** *17:05:10.3, 38.42N×39.23E, h8^{km}, MD2.9*
ISC 27 17:05:11.2±0.8, **38.43N**±0.04×**39.27E**±0.07, **h9**^{km}±10^{km}**, n14,**
σ**0.96**/23**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.23**	**286**	*i* P	**Pg**	**17 05 15.9**	**-0.1**
ELZG				*i* S	**Sg**	**17 05 19.7**	**+0.6**
PTK	**Pertek**	**0.47**	**12**	PG	**Pg**	**17 05 19.6**	**-0.8**
PTK				SG	**Sg**	**17 05 27.8**	**+1.3**
PTK	**Pertek**	**0.47**	**12**	*e*Pg	**Pg**	**17 05 19.6**	**-0.8**
PTK				*e*Sg	**Sg**	**17 05 27.8**	**+1.3**
MYA	**Malataya**	**0.67**	**261**	PG	**Pg**	**17 05 23.5**	**-0.7**
MYA				SG	**Sg**	**17 05 32.5**	**-0.4**
MYA	**Malataya**	**0.67**	**261**	*e*Pg	**Pg**	**17 05 23.5**	**-0.7**
MYA				*e*Sg	**Sg**	**17 05 32.5**	**-0.4**
MALT	**Malatya**	**0.67**	**260**	PG	**Pg**	**17 05 22.9**	**-1.3**
MALT				SG	**Sg**	**17 05 32.4**	**-0.6**
MALT	**Malatya**	**0.67**	**260**	*e*Pg	**Pg**	**17 05 22.9**	**-1.3**
MALT				*e*Sg	**Sg**	**17 05 32.4**	**-0.6**
URFA	**Urfa**	**1.05**	**200**	PG	**Pg**	**17 05 30.6**	**-0.8**
URFA	**Urfa**	**1.05**	**200**	*e*Pg	**Pg**	**17 05 30.6**	**-0.8**
EZC	**Erzincan**	**1.38**	**18**	*e*PN	**Pn**	**17 05 35.6**	**-1.1**
MARD	**Mardin**	**1.64**	**133**	*i* P	**Pn**	**17 05 39.9**	**-0.3**
MARD				*i* S	**Sn**	**17 06 01.9**	**+0.5**
GZT	**Gaziantep**	**1.73**	**232**	*i* P	**Pg**	**17 05 46.8**	**+2.4**
GZT				*i* S	**Sg**	**17 06 07.8**	**+1.2**
SVSK	**Karacayir**	**2.30**	**311**	*e*PN	**Pn**	**17 05 50.2**	**+0.8**
SVSK	**Karacayir**	**2.30**	**311**	*e*Pn	**Pn**	**17 05 50.2**	**+0.8**

DDA ***27*** *17:06:22.9, 38.74N×39.33E, h16^{km}, Md2.8*
CSEM ***27*** *17:06:23.7±0.1, 38.39N×39.27E, h5^{km}, MD3.0, Error*
ellipse: s-maj=2.6km s-min=2.2km az=168.0
ISK ***27*** *17:06:23.9, 38.39N×39.25E, h5^{km}, MD3.0*
ISCJB ***27*** *17:06:24.0±0.7, 38.38N±0.04×39.30E±0.04, h5^{km}±9^{km},*
Error ellipse: s-maj=6.5km s-min=5.5km az=143.0
ISC 27 17:06:24.6±0.7, **38.39N**±0.04×**39.31E**±0.05, **h7**^{km}±8^{km}**, n17,**
σ**0.86**/26**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.28**	**293**	*i* P	**Pg**	**17 06 29.9**	**-0.1**
ELZG				*i* S	**Sg**	**17 06 34.4**	**+0.7**
PTK	**Pertek**	**0.51**	**8**	PG	**Pg**	**17 06 34.3**	**-0.1**
PTK				SG	**Sg**	**17 06 42.0**	**+1.0**
PTK	**Pertek**	**0.51**	**8**	*e*Pg	**Pg**	**17 06 34.3**	**-0.1**
PTK				*e*Sg	**Sg**	**17 06 42.0**	**+1.0**
MALT	**Malatya**	**0.70**	**264**	PG	**Pg**	**17 06 36.7**	**-1.3**
MALT				SG	**Sg**	**17 06 46.0**	**-1.0**
MALT	**Malatya**	**0.70**	**264**	*e*Pg	**Pg**	**17 06 36.7**	**-1.3**
MALT				*e*Sg	**Sg**	**17 06 46.0**	**-1.0**
MYA	**Malataya**	**0.70**	**265**	PG	**Pg**	**17 06 37.4**	**-0.6**
MYA				SG	**Sg**	**17 06 46.6**	**-0.4**
MYA	**Malataya**	**0.70**	**265**	*e*Pg	**Pg**	**17 06 37.4**	**-0.6**
MYA				*e*Sg	**Sg**	**17 06 46.6**	**-0.4**
DIY	**Diyarbakir**	**0.88**	**124**	*e*PG	**Pg**	**17 06 41.5**	**+0.1**
DIY	**Diyarbakir**	**0.88**	**124**	*e*Pg	**Pg**	**17 06 41.5**	**+0.1**
URFA	**Urfa**	**1.02**	**202**	*e*PG	**Pg**	**17 06 44.1**	**-0.1**
URFA	**Urfa**	**1.02**	**202**	*e*Pg	**Pg**	**17 06 44.1**	**-0.1**
EZC	**Erzincan**	**1.41**	**16**	*e*PN	**Pn**	**17 06 50.2**	**-0.5**
MARD	**Mardin**	**1.58**	**132**	*i* P	**Pn**	**17 06 53.8**	**+0.7**
MARD				*i* S	**Sn**	**17 07 13.9**	**+0.1**
GZT	**Gaziantep**	**1.72**	**234**	*i* P	**Pn**	**17 06 55.6**	**+0.7**
GZT				*i* S	**Sg**	**17 07 22.3**	**+2.4**
BTMT	**Batman**	**1.73**	**96**	*e*PN	**Pn**	**17 06 53.6**	**-1.4**
SVSK	**Karacayir**	**2.36**	**311**	*e*PN	**Pn**	**17 07 04.2**	**+0.5**
SVSK	**Karacayir**	**2.36**	**311**	*e*Pn	**Pn**	**17 07 04.2**	**+0.5**

ISCJB ***27*** *17:11:41.0±0.4, 48.42N±0.02×17.11E±0.03, h5^{km}±6^{km},*
Error ellipse: s-maj=3.6km s-min=3.2km az=170.4
IPEC ***27*** *17:11:41.8±0.1, 48.39N×17.16E, h7^{km}±1^{km}, ML1.7/3, Error*
ellipse: s-maj=1.0km s-min=0.7km az=98.0
VIE ***27*** *17:11:42.5±0.3, 48.39N×17.10E, h0^{km}, mb1.8/3, ML2.1/3,*
Error ellipse: s-maj=2.8km s-min=1.8km az=110.0
CSEM ***27*** *17:11:42.0±0.1, 48.37N×17.16E, h2^{km}, ML2.6/6, Error*
ellipse: s-maj=2.5km s-min=2.2km az=144.0
PRU ***27*** *17:11:42.4, 48.39N×17.13E, h0^{km}*
ISC 27 17:11:41.9±0.4, **48.40N**±0.02×**17.15E**±0.03, **h8**^{km}±5^{km}**, n29,**
σ**0.81**/54**, 4C-2D, Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZST	**Bratislava**	**0.20**	**189**	*i* PG	**Pg**	**17 11 46.1**	**+0.1**
ZST				*e*SG	**Sg**	**17 11 48.7**	**0.0**
ZST	**Bratislava**	**0.20**	**189**	*e*Pg	**Pg**	**17 11 46.2**	**+0.2**
ZST				*e*Sg	**Sg**	**17 11 48.7**	**0.0**
SMOL	**Smolenice**	**0.22**	**57**	*i* PG	**Pg**	**17 11 46.7**	**+0.4**
SMOL				*e*SG	**Sg**	**17 11 50.3**	**+1.0**
SMOL	**Smolenice**	**0.22**	**57**	*i* Pg	**Pg**	**17 11 46.7**	**+0.4**
SMOL				*e*Sg	**Sg**	**17 11 50.3**	**+1.0**
JAVC	**Velka Javorina**	**0.58**	**36**	*e*Pg	**Pg**	**17 11 53.6**	**+0.5**
JAVC				*e*Sg	**Sg**	**17 12 02.7**	**+2.1**
	30nm,0.4s						
SOP	**Sopron**	**0.82**	**209**	*e*Pg	**Pg**	**17 11 57.1**	**-0.5**
KRUC	**Moravsky**	**0.83**	**323**	*e*Pg	**Pg**	**17 11 57.8**	**-0.2**
KRUC				*e*Sg	**Sg**	**17 12 08.6**	**-0.2**
	12nm,0.3s						
KOLL	**Kolacno**	**0.85**	**77**	*e*PG	**Pg**	**17 11 58.2**	**-0.1**
KOLL				*e*SG	**Sg**	**17 12 09.8**	**+0.4**
KOLL	**Kolacno**	**0.85**	**77**	*e*Pg	**Pg**	**17 11 58.2**	**-0.1**
KOLL				*e*Sg	**Sg**	**17 12 09.8**	**+0.4**
CONA	**Conrad Observa**	**0.98**	**242**	⇑*i*Pg	**Pg**	**17 12 00.7**	**0.0**
	3.7nm,0.5s						
CONA				⇑*i*Sg	**Sg**	**17 12 15.0**	**+1.5**
	10nm,0.3s						
CONA	**Conrad Observa**	**0.98**	**242**	Pg	**Pg**	**17 12 00.7**	**-0.1**
	3.7nm,0.5s						
CONA				Sg	**Sg**	**17 12 15.0**	**+1.5**
	10nm,0.3s						
VRAC	**Vranov**	**0.98**	**338**	*e*Pg	**Pg**	**17 12 00.3**	**-0.5**
VRAC				*e*Sg	**Sg**	**17 12 13.2**	**-0.4**
	13nm,0.3s						
VYHS	**Vyhne**	**1.13**	**84**	*e*PN	**Pn**	**17 12 03.5**	**-0.5**
VYHS				*e*SN	**Sn**	**17 12 19.8**	**+0.1**
VYHS	**Vyhne**	**1.13**	**84**	*e*Pg	**Pg**	**17 12 03.1**	**-0.4**
VYHS	**Vyhne**	**1.13**	**84**	*e*Pn	**Pn**	**17 12 03.5**	**-0.5**
VYHS				*e*Sg	**Sg**	**17 12 16.9**	**-1.2**
VYHS				*e*Sn	**Sn**	**17 12 19.8**	**+0.1**
MORC	**Moravsky Berou**	**1.41**	**10**	*e*Pg	**Pg**	**17 12 08.0**	**-0.9**
MORC				*e*Sg	**Sg**	**17 12 26.1**	**-1.0**
ARSA	**Arzberg**	**1.59**	**224**	⇓*i*Pn	**Pn**	**17 12 11.1**	**+0.7**
	comp=Z,1.7nm,0.2s						
ARSA				⇑*e*Sg	**Sg**	**17 12 33.1**	**+0.2**
	comp=N,4.4nm,0.3s						
ARSA	**Arzberg**	**1.59**	**224**	⇓*i*Pn	**Pn**	**17 12 11.1**	**+0.7**
	1.7nm,0.2s						
ARSA				⇑*e*Sg	**Sg**	**17 12 33.1**	**+0.2**
	4.4nm,0.3s						
ARSA	**Arzberg**	**1.59**	**224**	Pn	**Pn**	**17 12 11.1**	**+0.8**
	1.7nm,0.2s						
ARSA				Sg	**Sg**	**17 12 33.1**	**+0.2**
	4.4nm,0.3s						
DPC	**Dobruska-Polom**	**2.03**	**345**	*e*PG	**Pg**	**17 12 20.5**	**-0.3**
DPC				*e*SG	**Sg**	**17 12 48.5**	**+1.4**
	3.6nm,0.4s						
DPC	**Dobruska-Polom**	**2.03**	**345**	*e*Pg	**Pg**	**17 12 20.5**	**-0.3**
DPC				*e*Sg	**Sg**	**17 12 48.5**	**+1.4**
	3.6nm,0.4s						
KECS	**Kecovo**	**2.22**	**86**	*e*PN	**Pn**	**17 12 22.3**	**+3.2**
KECS				*e*SG	**Sg**	**17 12 52.5**	**-0.8**
PRU	**Pruhonice**	**2.34**	**314**	*e*PG	**Pg**	**17 12 25.9**	**-0.8**
PRU				*e*SG	**Sg**	**17 12 58.0**	**+1.0**
	5.4nm,0.4s						
PRU	**Pruhonice**	**2.34**	**314**	*e*Pg	**Pg**	**17 12 25.9**	**-0.8**
PRU				*e*Sg	**Sg**	**17 12 58.0**	**+1.0**
	5.4nm,0.4s						
PKSM	**Moragy**	**2.41**	**155**	*e*Pn	**Pn**	**17 12 21.4**	**-0.2**
KHC	**Kasperske Hory**	**2.48**	**289**	*e*PN	**Pn**	**17 12 22.5**	**0.0**
KHC				*e*PG	**Pg**	**17 12 28.4**	**-0.9**
KHC				*e*SG	**Sg**	**17 13 00.4**	**-1.0**
KHC	**Kasperske Hory**	**2.48**	**289**	*e*Pn	**Pn**	**17 12 22.5**	**0.0**
NKC	**Novy Kostel**	**3.58**	**303**	*e*SG	**Sg**	**17 13 37.2**	**+0.2**
NKC	**Novy Kostel**	**3.58**	**303**	*e*Sg	**Sg**	**17 13 37.2**	**+0.2**

CSEM ***27*** *17:55:21.6±0.1, 38.43N×27.17E, h2^{km}, MD3.0, Error*
ellipse: s-maj=1.4km s-min=1.2km az=159.0
ISK ***27*** *17:55:21.9, 38.42N×27.16E, h4^{km}, MD3.0*
ISCJB ***27*** *17:55:22.4±0.4, 38.44N±0.04×27.14E±0.03, h5^{km}±4^{km},*
Error ellipse: s-maj=6.1km s-min=4.2km az=170.2
DDA ***27*** *17:55:22.3, 38.46N×27.11E, h5^{km}, Md2.6*
ISC 27 17:55:22.6±0.4, **38.42N**±0.03×**27.14E**±0.03, **h5**^{km}±3^{km}**, n38,**
σ**1.00**/50**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLCB	**Balcova**	**0.09**	**248**	*i* PG	**Pg**	**17 55 24.6**	**+0.1**
BLCB				*i* SG	**Sg**	**17 55 26.4**	**+0.6**
BLCB	**Balcova**	**0.09**	**248**	*i* Pg	**Pg**	**17 55 24.6**	**+0.1**
BLCB				*i* Sg	**Sg**	**17 55 26.4**	**+0.6**
IZM	**Izmir**	**0.10**	**102**	*i* PG	**Pg**	**17 55 24.2**	**-0.5**
IZM				*i* SG	**Sg**	**17 55 26.2**	**+0.1**
IZM	**Izmir**	**0.10**	**102**	*i* Pg	**Pg**	**17 55 24.2**	**-0.5**
IZM				*i* Sg	**Sg**	**17 55 26.2**	**+0.1**
KDAG	**Bornova**	**0.10**	**98**	*i* P	**Pg**	**17 55 24.5**	**-0.2**
KDAG				*i* S	**Sg**	**17 55 26.7**	**+0.6**
URLA	**Izmir**	**0.43**	**263**	*i* P	**Pg**	**17 55 30.0**	**-1.0**
URLA				*i* S	**Sg**	**17 55 37.5**	**+0.8**
AKS	**Akhisar**	**0.70**	**49**	PG	**Pg**	**17 55 35.0**	**-1.1**
AKS				SG	**Sg**	**17 55 45.6**	**+0.4**
AKS	**Akhisar**	**0.70**	**49**	*e*Pg	**Pg**	**17 55 35.0**	**-1.1**
AKS				*e*Sg	**Sg**	**17 55 45.6**	**+0.4**
AYVA	**Ayvalik**	**0.96**	**338**	*i* P	**Pg**	**17 55 38.5**	**-2.5**
AYVA				*i* S	**Sg**	**17 55 53.9**	**+0.5**
KULA	**Kula-Manisa**	**1.20**	**85**	PN	**Pn**	**17 55 44.8**	**-1.2**
KULA	**Kula-Manisa**	**1.20**	**85**	*e*Pn	**Pn**	**17 55 44.8**	**-1.2**
MLSB	**Milas**	**1.23**	**156**	*e*PN	**Pn**	**17 55 45.5**	**-0.9**
MLSB	**Milas**	**1.23**	**156**	*e*Pn	**Pn**	**17 55 45.5**	**-0.9**
BALB	**Balikesir**	**1.35**	**25**	*e*PN	**Pn**	**17 55 48.0**	**-0.1**
BALB	**Balikesir**	**1.35**	**25**	*e*Pn	**Pn**	**17 55 48.0**	**-0.1**

BODT	Bodrum	1.36	174	ePN	Pn	17 55 48.2	0.0
BODT	Bodrum	1.36	174	ePn	Pn	17 55 48.2	0.0
BTOK	Tokmak	1.51	27	iP	Pn	17 55 48.4	-2.0
BTOK				iS	Sn	17 56 07.7	-2.6
BTOK	Tokmak	1.51	27	iP	Pn	17 55 48.3	-2.0
BTOK				iS	Sn	17 56 07.7	-2.6
EZN	Ezine	1.54	336	ePN	Pn	17 55 50.8	0.0
EZN	Ezine	1.54	336	ePn	Pn	17 55 50.8	0.0
YER	Yerkesik	1.57	144	ePN	Pn	17 55 51.3	+0.2
YER	Yerkesik	1.57	144	ePn	Pn	17 55 51.3	+0.2
DST	Dursunbey	1.66	44	ePN	Pn	17 55 52.6	+0.3
DST	Dursunbey	1.66	44	ePn	Pn	17 55 52.6	+0.3
KHL	Karahalli	1.87	92	ePN	Pn	17 55 55.8	+0.5
KHL	Karahalli	1.87	92	ePn	Pn	17 55 55.8	+0.5
BNT	Bandirma	2.03	17	ePN	Pn	17 55 57.7	+0.3
BNT	Bandirma	2.03	17	ePn	Pn	17 55 57.7	+0.3
KCT	Karacabey	2.07	27	ePN	Pn	17 55 58.2	+0.2
KCT	Karacabey	2.07	27	ePn	Pn	17 55 58.2	+0.2
RKY	Sarkoy-Tekirda	2.27	1	ePN	Pn	17 56 01.4	+0.7
RKY	Sarkoy-Tekirda	2.27	1	ePn	Pn	17 56 01.4	+0.7
ULDT	Uludag	2.31	41	iP	Pn	17 56 02.9	+1.5
ULDT				iS	Sn	17 56 33.1	+2.9
IZI	Iznik	2.63	43	ePN	Pn	17 56 06.4	+0.6
IZI	Iznik	2.63	43	ePn	Pn	17 56 06.4	+0.6
YLV	Yalova	2.75	38	ePN	Pn	17 56 08.7	+1.3
YLV	Yalova	2.75	38	ePn	Pn	17 56 08.7	+1.3

ISCJB 27 18:20:48.5±1.1, 39.62N±0.05×40.95E±0.09, h8^{km}, Error ellipse: s-maj=10.4km s-min=5.8km az=26.3

ISK 27 18:20:48.6, 39.59N×41.10E, h14^{km}, MD3.0

CSEM 27 18:20:49.7±0.6, 39.70N×41.10E, h27^{km}±5^{km}, MD3.0, Error ellipse: s-maj=24.4km s-min=8.7km az=176.0

DDA 27 18:20:49.1, 39.60N×41.00E, h8^{km}, Md2.9

ISC 27 18:20:49.0±1.2, 39.62N±0.05×41.0E±0.1, h12^{km}±7^{km}, n9, σ1^{s}01/13, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZM	Erzurum	0.42	47	iPG	Pg	18 20 56.7	-0.6
ERZM	Erzurum	0.42	47	iP	Pg	18 20 56.8	-0.5
ERZM				iS	Sg	18 21 04.4	+1.4
BNGL	BINGOL	0.68	168	iP	Pg	18 21 01.4	-0.9
BNGL				iS	Sg	18 21 11.9	+0.7
EZC	Erzincan	0.90	279	PN	Pn	18 21 13.8	+6.3
EZC				SN	Sn	18 21 32.1	+12
PTK	Pertek	1.42	240	ePN	Pn	18 21 15.8	+1.1
PTK	Pertek	1.42	240	ePn	Pn	18 21 15.8	+1.1
TUTA	Tutak	1.45	98	iP	Pn	18 21 14.0	-1.0
TUTA				iS	Sn	18 21 35.0	+1.1
AGRB	Hanur-Agry	1.56	91	ePN	Pn	18 21 15.3	-1.4
AGRB	Hanur-Agry	1.56	91	ePn	Pn	18 21 15.3	-1.4

ISCJB 27 18:59:17.0±0.5, 30.35N±0.09×139.0E±0.2, h443^{km}±11^{km}, mb3.4/12, Error ellipse: s-maj=32.5km s-min=8.4km az=160.6

JMA 27 18:59:18.9±0.3, 30.41N×139.14E, h430^{km}, M3.4

IDC 27 18:59:18.3±1.5, 30.40N×138.75E, h416^{km}±25^{km}, mb3.0/6, mb1 3.1/8, mb1mx2.9/22, mbtmp3.0/8, Error ellipse: s-maj=61.9km s-min=13.3km az=74.0

NEIC 27 18:59:18.4±1.7, 30.32N×138.51E, h427^{km}±28^{km}, mb3.7/7, Error ellipse: s-maj=61.3km s-min=17.9km az=69.0

ISC 27 18:59:18.1±0.6, 30.33N±0.09×139.0E±0.2, h438^{km}±11^{km}, n28, σ1^{s}40/32, mb3.4/12, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	4.29	138	P	P	19 00 35.6	+0.4
CBIJ				S	S	19 01 35.5	-2.3
CBIJ	Chichi jima	4.29	138	P	P	19 00 34.7	-0.5
	6.3nm,0.3s,baz=287,slow=20,SNR=3.1						
CBIJ				S	S	19 01 35.5	-2.4
	23nm,0.3s,baz=294,slow=21,SNR=10						
JIE	Ise	4.48	335	P	P	19 00 38.5	+1.8
BSO1	Boso 1	4.64	21	P	P	19 00 39.1	+0.9
JOD2	Odawara 2	4.92	1	P	P	19 00 40.5	-0.5
JNY	Yasuok	5.10	350	P	P	19 00 44.0	+1.3
JEG	Eigenji	5.26	336	P	P	19 00 45.9	+1.6
JHU	Hanno	5.52	3	P	P	19 00 46.2	-0.6
JHU				S	S	19 01 54.7	-4.7
JRY	Ryogami san	5.67	360	P	P	19 00 48.6	+0.1
JRY				eS	S	19 01 59.4	-2.9
MJAR	Matsushiro Arr	6.23	354	P	P	19 00 54.0	-0.2
MJAR	Matsushiro Arr	6.23	354	P	P	19 00 54.0	-0.2
	1.7nm,0.3s,baz=168,slow=11,SNR=19						
MAJO	Matsushiro	6.23	354	ePn	P	19 00 53.9	-0.3
	8.7nm,0.5s						
MAT	Matsushiro	6.23	354	P	P	19 00 53.9	-0.3
MAT	Matsushiro	6.23	354	P	P	19 00 54.0	-0.2
JMK	Ichinoseki	8.80	12	P	P	19 01 23.4	+1.5
SONM	Songino Array	30.43	314	P	P	19 04 52.4	-0.3
	0.3nm,0.4s,mb3.0,baz=131,slow=9.7,SNR=3.8						
MKAR	Makanchi Array	46.25	307	P	P	19 07 02.6	+0.4
	0.3nm,0.2s,mb3.2,baz=93,slow=8.5,SNR=3.7						
KURK	Kurchatov	48.71	313	P	P	19 07 19.1	-1.6
	1.9nm,0.9s,mb3.4						
WRA	Warramunga Arr	50.17	186	P	P	19 07 34.4	+2.5
	0.8nm,0.5s,mb3.3,baz=2.4,slow=8.1,SNR=23						
AAK	Ala-Archa	52.11	302	P	P	19 07 44.1	-1.8
	9.5nm,1.5s,mb3.8						
EKS2	Erkin-Say	52.63	303	P	P	19 07 48.2	-1.4
	1.8nm,0.8s,mb3.4						
BRVK	Borovoye	53.82	316	P	P	19 07 56.0	-1.9
	2.0nm,0.9s,mb3.4						
ASAR	Alice Springs	53.90	186	P	P	19 08 01.5	+2.5
	0.5nm,0.6s,mb2.9,baz=14,slow=12,SNR=12						
ARU	Arti	60.14	321	P	P	19 08 37.0	-4.6
	5.6nm,1.1s,mb3.9						
STKA	Stephens Creek	61.91	177	P	P	19 08 51.9	-1.6
	2.2nm,0.9s,mb3.7						
ARCES	ARCESS Array B	69.56	340	P	P	19 09 42.5	+1.3
ARCES	ARCESS Array B	69.56	340	P	P	19 09 42.5	+1.4
	3.3nm,1.0s,mb3.8,baz=77,slow=7.6,SNR=4.3						
FINES	FINESS Array B	73.80	333	P	P	19 10 07.4	+1.3
	0.4nm,0.5s,mb3.3,baz=76,slow=8.0,SNR=4.9						

IDC 27 19:23:32.0±7.2, 36.31N×71.11E, h187^{km}±61^{km}, mb3.2/5, mb1 3.2/7, mb1mx3.0/23, mbtmp3.1/7, Error ellipse: s-maj=57.2km s-min=32.4km az=151.0

NEIC 27 19:23:35.9±1.2, 36.52N×71.38E, h226^{km}±11^{km}, mb3.9/2, Error ellipse: s-maj=28.0km s-min=12.1km az=134.0

ISCJB 27 19:23:37.3±0.9, 36.86N±0.08×71.0E±0.1, h217^{km}±9^{km}, mb3.3/4, Error ellipse: s-maj=19.0km s-min=11.1km az=30.9

ISC 27 19:23:37.9±1.0, 36.80N±0.10×71.0E±0.2, h210^{km}±9^{km}, n25, σ1^{s}05/30, mb3.3/4, 1D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBL	Kabul	2.78	216	ePn	Pn	19 24 25.1	-0.5
KBL				eSn	S	19 24 49.9	-13
AML	Almayashu	5.71	20	P	Pn	19 25 02.1	+0.7
	SNR=25						
UCH	Uchtor	6.05	25	P	Pn	19 25 06.7	+0.8
	SNR=8.2						
UCH	Uchtor	6.05	25	ePn	Pn	19 25 06.0	+0.1
UCH				eSn	S	19 26 12.8	-2.9
EKS2	Erkin-Say	6.22	19	P	Pn	19 25 09.2	+1.2
	SNR=5.1						
EKS2	Erkin-Say	6.22	19	ePn	Pn	19 25 08.1	0.0
EKS2				eSn	S	19 26 14.3	-5.4
KK31	Karatay Array	6.31	357	⇓P	Pn	19 25 09.4	+0.3
	0.3nm,0.2s,baz=178,slow=13,SNR=37						
KK31				S	S	19 26 18.5	-3.1
	5.7nm,0.5s,baz=171,slow=16,SNR=21						
AAK	Ala-Archa	6.41	24	P	Pn	19 25 11.4	+0.9
	SNR=8.2						
AAK	Ala-Archa	6.41	24	ePn	Pn	19 25 09.9	-0.6
	6.7nm,0.6s						
AAK				eSn	S	19 26 10.3	-14
KBK	Karagaybulak	6.58	26	P	Pn	19 25 14.2	+1.5
	SNR=5.6						
TKM2	Tokmak 2	7.05	28	P	Pn	19 25 19.6	+0.9
	SNR=6.1						
TKM2	Tokmak 2	7.05	28	eP	Pn	19 25 18.3	-0.4
	8.9nm,1.0s						
MK31	Makanchi Array	13.03	37	ePn	Pn	19 26 34.7	-0.6
MKAR	Makanchi Array	13.03	37	P	Pn	19 26 35.1	-0.2
	0.2nm,0.3s,baz=211,slow=14,SNR=11						
AKTK	Aktyubinsk	16.53	330	P	P	19 27 17.8	+1.0
AKTO	Aktyubinsk	16.53	330	P	P	19 27 17.8	+1.0
	0.1nm,0.3s,baz=109,slow=6.5,SNR=4.8						
ZALV	Zalesovo Beam	19.63	25	P	P	19 27 50.3	0.0
	1.2nm,0.5s,baz=221,slow=12,SNR=6.9						
ULN	Ulaanbaatar	28.59	56	P	P	19 29 08.1	-6.1
ARCES	ARCESS Array B	40.88	337	P	P	19 30 59.2	+0.3
	3.0nm,1.0s,mb3.7,baz=108,slow=8.6,SNR=3.4						
NB2	NORSAR Subarra	44.16	323	P	P	19 31 25.3	0.0
	comp=Z,0.6nm,0.5s,mb3.2,baz=100,slow=7.4						
NOA	NORSAR Array B	44.16	323	P	P	19 31 24.8	-0.6
NOA	NORSAR Array B	44.16	323	P	P	19 31 24.8	-0.6
	comp=Z,0.6nm,0.9s,mb2.9,baz=103,slow=7.3,SNR=3.8						
TORD	Torodi Ar. Bea	65.75	269	P	P	19 33 57.5	-3.1
TORD	Torodi Ar. Bea	65.75	269	P	P	19 33 57.5	-3.1
	comp=Z,0.5nm,0.5s,mb3.4,baz=42,slow=4.5,SNR=5.8						
YKA	Yellowknife Ar	80.94	3	P	P	19 35 27.8	-0.6
	comp=Z,0.2nm,0.4s,mb3.1,baz=348,slow=5.1,SNR=4.3						

IDC 27 19:25:46.6±1.4, 59.76N×146.20W, h0^{km}, mb3.7/3, mb1 3.7/5, mb1mx3.4/23, mbtmp3.7/5, ML3.2/2, Error ellipse: s-maj=32.0km s-min=15.8km az=4.0

ISCJB 27 19:25:47.0±0.6, 59.46N±0.05×146.23W±0.07, h34^{km}±8^{km}, mb3.9/3, Error ellipse: s-maj=9.1km s-min=5.7km az=169.8

NEIC 27 19:25:49.0, 59.54N×146.29W, h16^{km}, ML3.6(PMR), ML3.5(AEIC), After AEIC.

ISC 27 19:25:48.3±0.8, 59.50N±0.05×146.27W±0.07, h25^{km}±7^{km}, n38, σ0^{s}98/43, mb3.9/3, Gulf of Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MID	Middleton Isla	0.08	207	P	Pb	19 25 52.8	+0.1
EYAK	Cordova Ski Ar	1.08	14	P	Pn	19 26 06.0	-1.8
RAGM	Ragged Mountai	1.20	41	P	Pn	19 26 08.2	-1.1
RAGM				S	Sn	19 26 25.1	+0.3
SEW	Seward	1.72	292	P	Pn	19 26 15.8	-0.7
KNK	Knik Glacier	2.21	331	P	Pn	19 26 23.0	-0.2
SLKM	Skilak Lake	2.23	299	P	Pn	19 26 23.5	0.0
RC01	Rabbit Creek A	2.35	314	P	Pn	19 26 24.5	-0.7
SML	Sawmill	2.53	337	ePn	Pn	19 26 27.5	-0.2
PMR	Palmer	2.53	327	P	Pn	19 26 27.3	-0.4
GHO	Glory Hole Cre	2.63	331	P	Pn	19 26 29.3	+0.3
PNL	Peninsula	3.50	84	P	Pn	19 26 40.2	-0.7
PAX	Paxson	3.50	6	P	Pn	19 26 41.8	+0.7
MENT	Mentasta	3.66	19	eP	Pn	19 26 44.6	+1.4
KDAK	Kodiak Island	3.72	245	Pn	Pn	19 26 44.8	+0.8
KDAK				Sn	Sn	19 27 25.2	-1.8
KDAK	Kodiak Island	3.72	245	Pn	Pn	19 26 44.8	+0.8
	0.8nm,0.3s,baz=134,slow=23,SNR=8.4						
KDAK				Sn	Sn	19 27 25.2	-1.8
	3.0nm,0.3s,baz=103,slow=13,SNR=9.7						
BCA3	Beaver Creek A	4.18	29	P	Pn	19 26 50.5	+0.1
DOT	Dot Lake	4.29	13	P	Pn	19 26 52.7	+0.8
TRF	Thorofare Moun	4.41	336	P	Pn	19 26 53.9	+0.4
MCK	McKinley	4.43	344	P	Pn	19 26 54.0	+0.2
KTH	Kantishna Hill	4.64	333	P	Pn	19 26 57.1	+0.6
SVW2	Sparrevohn	4.90	293	eP	Pn	19 27 01.2	+1.0
IL1	Eielson Array	5.30	357	P	Pn	19 27 04.5	-1.1
COLA	College	5.45	353	P	Pn	19 27 07.8	+0.1
DAWY	Dawson	5.62	33	P	Pn	19 27 09.8	-0.3
EGAK	Eagle	5.81	22	P	Pn	19 27 12.5	-0.2
WHY	Whitehorse	5.82	74	P	Pn	19 27 12.0	-0.8
TTA	Tatalina	5.83	310	ePn	Pn	19 27 14.1	+1.2
	3.7nm,0.8s						
IM3	Indian Mountai	7.35	335	P	Pn	19 27 33.5	-0.4
IMA2	Indian Mountai	7.41	336	P	Pn	19 27 34.2	-0.5
DLBC	Dease Lake	8.46	90	Pn	Pn	19 27 51.4	+2.4
DLBC				Sn	Sn	19 29 22.7	-0.8
DLBC	Dease Lake	8.46	90	Pn	Pn	19 27 51.4	+2.4
	baz=270,slow=8.7						
DLBC				Sn	Sn	19 29 22.7	-0.8
	baz=189,slow=19						
INK	Inuvik	10.44	27	Pn	Pn	19 28 14.4	-1.7
INK	Inuvik	10.44	27	Pn	Pn	19 28 14.4	-1.7
	0.2nm,0.3s,baz=213,slow=10,SNR=7.0						
YKA	Yellowknife Ar	15.55	65	Pn	Pn	19 29 28.2	+2.7
YKA	Yellowknife Ar	15.55	65	Pn	Pn	19 29 28.2	+2.6
	0.1nm,0.3s,baz=270,slow=9.8,SNR=8.3						
SONM	Songino Array	57.78	311	P	P	19 35 39.1	+2.4
	0.7nm,0.7s,mb3.8,baz=43,slow=6.7,SNR=4.3						
FINES	FINESS Array B	59.24	4	P	P	19 35 47.3	+0.5
	0.5nm,0.4s,mb3.9,baz=20,slow=6.3,SNR=3.4						
MKAR	Makanchi Array	66.86	326	P	P	19 36 37.2	-0.3
	0.3nm,0.2s,mb3.9,baz=30,slow=7.4,SNR=4.4						

LDG 27 19:54:17.6±0.1, 44.01N×8.97E, h7^{km}, Md3.3/1, Ml3.2/26, Error ellipse: s-maj=2.0km s-min=1.3km az=172.0

ROM 27 19:54:17.5±0.5, 44.05N×8.93E, h10^{km}±5^{km}, Md2.9/24, Ml3.0/21, Error ellipse: s-maj=3.3km s-min=1.6km az=158.0

CSEM 27 19:54:17.8±0.1, 44.00N×8.98E, h12^{km}, ML3.4/34, Error ellipse: s-maj=1.4km s-min=0.8km az=176.0

NEIC 27 19:54:17.5, 44.05N×8.93E, h10^{km}, ML3.3(STR), ML3.0(ROM), ML3.2(LDG), After ROM.

ISCJB 27 19:54:18.3±0.3, 44.05N±0.02×8.92E±0.02, h27^{km}±3^{km}, Error ellipse: s-maj=3.2km s-min=1.8km az=171.1

GEN 27 19:54:18.3, 44.15N×8.97E, h16^{km}, ML3.0

SZGRF 27 19:54:19.4, 44.21N×8.84E, h10^{km}, mb3.5, Northern Italy

STR 27 19:54:19.0±1.0, 44.24N×8.80E, h5^{km}, Ml3.3, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0

PRU 27 19:54:20.7, 44.02N×10.15E, h0^{km}

ISC 27 19:54:17.8±0.2, 44.06N±0.02×8.89E±0.01, h16^{km}±1^{km}, n339, σ1^{s}35/533, 40C-9D, Northern Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GENL	Genova Univers	0.35	9	P	Pg	19 54 23.0	-2.0
GENL				S	Sg	19 54 28.0	-1.9
PCP	Pian Castagno	0.54	333	Pg	Pg	19 54 27.9	-0.6
PCP				Sg	Sg	19 54 35.9	+0.1
PCP	Pian Castagno	0.54	333	Pg	Pg	19 54 27.9	-0.6
PCP				Sg	Sg	19 54 35.9	+0.1
	584nm,0.4s						
PCP	Pian Castagno	0.54	333	Pg	Pg	19 54 27.9	-0.6
PCP				Sg	Sg	19 54 35.9	+0.1
	584nm,0.4s						
RORO		0.60	275	P	Pg	19 54 30.6	+1.1
RORO				S	Sg	19 54 38.9	+1.4
CODM		0.76	64	S	Sg	19 54 38.4	-4.3
BOB	Bobbio (Coli)	0.81	29	⇑iPg	Pg	19 54 32.5	-1.0
BOB				Sg	Sg	19 54 44.3	+0.1
BOB	Bobbio (Coli)	0.81	29	⇑iPg	Pg	19 54 32.5	-1.0
BOB				Sg	Sg	19 54 44.3	+0.1
	598nm,1.0s						
BOB	Bobbio (Coli)	0.81	29	⇑iPg	Pg	19 54 32.5	-1.0
BOB				Sg	Sg	19 54 44.3	+0.1
	598nm,1.0s						
MONE	Monesi	0.82	272	P	Pb	19 54 34.0	+0.4
BACM		0.88	75	P	Pb	19 54 33.3	-1.3
NEGI	Negi	0.89	257	P	Pb	19 54 35.1	+0.4
GRAM		0.95	62	P	Pb	19 54 34.2	-1.6
GROG	Isola di Gorgo	0.96	131	Pg	Pg	19 54 35.2	-1.1
GROG				Sg	Sg	19 54 47.8	-1.1
	338nm,0.3s						
GROG	Isola di Gorgo	0.96	131	Pg	Pg	19 54 35.2	-1.1
GROG				Sg	Sg	19 54 47.8	-1.1
	338nm,0.3s						
SAOF	Saorge	0.97	266	Pg	Pg	19 54 37.0	+0.5
SAOF				Sg	Sg	19 54 51.0	+1.8
SAOF	Saorge	0.97	266	Pg	Pg	19 54 37.0	+0.5
SAOF				Sg	Sg	19 54 51.0	+1.8
SAOF	Saorge	0.97	266	Pg	Pg	19 54 37.0	+0.5
SAOF				Sg	Sg	19 54 51.0	+1.8
VALM		1.01	73	P	Pb	19 54 35.7	-1.2
AUTN	L'Aution	1.06	267	Pg	Pg	19 54 38.5	+0.3
AUTN				Sg	Sg	19 54 53.2	+1.1
AUTN	L'Aution	1.06	267	Pg	Pg	19 54 38.5	+0.3
AUTN				Sg	Sg	19 54 53.2	+1.1
AUTN	L'Aution	1.06	267	Pg	Pg	19 54 38.5	+0.3
AUTN				Sg	Sg	19 54 53.2	+1.1
SBF	Sospel	1.07	260	ePn	Pn	19 54 38.0	-0.1
SBF	Sospel	1.07	260	ePg	Pg	19 54 39.1	+0.6
	SNR=1.0						
SBF				eSn	Sn	19 54 52.5	-0.1
	SNR=1.0						
SBF				eSg	Sg	19 54 53.7	+1.2
	1μm,0.4s,SNR=1.0						
SBF	Sospel	1.07	260	ePn	Pn	19 54 38.0	-0.1
SBF				ePg	Pg	19 54 39.1	+0.6
SBF				eSn	Sn	19 54 52.5	-0.1
SBF				eSg	Sg	19 54 53.7	+1.2
SBF	Sospel	1.07	260	ePn	Pn	19 54 38.0	-0.1
SBF	Sospel	1.07	260	ePg	Pg	19 54 39.1	+0.6
	SNR=1.0						
SBF				eSn	Sn	19 54 52.5	-0.1
	SNR=1.0						
SBF				eSg	Sg	19 54 53.7	+1.2
	590nm,0.4s,SNR=1.0						
ENR	Entracque	1.07	279	P	Pb	19 54 38.0	0.0
VLC	Villacollemand	1.08	84	ePg	Pg	19 54 37.3	-1.3
VLC				eSg	Sg	19 54 51.5	-1.2
VLC				Sg	Sg	19 54 51.8	-0.9
VLC	Villacollemand	1.08	84	Pg	Pg	19 54 37.4	-1.2
VLC				Sg	Sg	19 54 51.8	-0.9
	501nm,0.6s						
VLC	Villacollemand	1.08	84	Pg	Pg	19 54 37.4	-1.2
VLC				Sg	Sg	19 54 51.8	-0.9
	501nm,0.6s						
SARO	Sassorosso	1.09	83	P	Pb	19 54 37.1	-1.2
LUCF	Luceram	1.13	262	Pg	Pg	19 54 39.2	-0.4
LUCF	Luceram	1.13	262	Pg	Pg	19 54 39.2	-0.4
STV	Sta Anna Valdi	1.15	280	Pn	Pn	19 54 39.5	+0.4
STV				Sn	Sn	19 54 55.4	+0.9
STV	Sta Anna Valdi	1.15	280	Pn	Pn	19 54 39.5	+0.4
STV				Sn	Sn	19 54 55.4	+0.9
	155nm,0.4s						
STV	Sta Anna Valdi	1.15	280	P	Pn	19 54 38.8	-0.3
STV	Sta Anna Valdi	1.15	280	Pn	Pn	19 54 39.5	+0.4
STV				Sn	Sn	19 54 55.4	+0.9
	155nm,0.4s						
ERBM	Eremo	1.15	71	Pg	Pg	19 54 38.9	-1.0
ERBM				Sg	Sg	19 54 54.2	-0.7
ERBM	Eremo	1.15	71	Pg	Pg	19 54 38.9	-1.0
ERBM				Sg	Sg	19 54 54.2	-0.7
	480nm,0.8s						
ERBM	Eremo	1.15	71	Pg	Pg	19 54 38.9	-1.0
ERBM				Sg	Sg	19 54 54.2	-0.7
	480nm,0.8s						
REVF	Revere	1.15	254	Pg	Pg	19 54 39.4	-0.5
REVF	Revere	1.15	254	Pg	Pg	19 54 39.4	-0.5
REVF	Revere	1.15	254	Pg	Pg	19 54 39.4	-0.5
MAIM		1.16	97	Pg	Pg	19 54 38.1	-2.1
MAIM				Sg	Sg	19 54 53.9	-1.4
MAIM		1.16	97	Pg	Pg	19 54 38.1	-2.1
MAIM				Sg	Sg	19 54 53.9	-1.4
	383nm,0.4s						
MAIM		1.16	97	Pg	Pg	19 54 38.1	-2.1
MAIM				Sg	Sg	19 54 53.9	-1.4
	383nm,0.4s						
TOUF	Mont Tournerai	1.19	268	Pg	Pg	19 54 40.7	0.0
TOUF	Mont Tournerai	1.19	268	Pg	Pg	19 54 40.7	0.0
TOUF	Mont Tournerai	1.19	268	Pg	Pg	19 54 40.7	0.0
BDI	Bagni Di Lucca	1.23	89	Pn	Pn	19 54 39.2	-1.0
BDI				Sn	Sn	19 54 54.6	-1.9
BDI	Bagni Di Lucca	1.23	89	Pn	Pn	19 54 39.2	-1.0
BDI				Sn	Sn	19 54 54.6	-1.9
	439nm,0.5s						
BDI	Bagni Di Lucca	1.23	89	Pn	Pn	19 54 39.2	-1.0
BDI				Sn	Sn	19 54 54.6	-1.9
	439nm,0.5s						
MONC	Moncucco Torin	1.23	326	Pn	Pn	19 54 42.0	+1.7
	370nm,0.6s						
MONC	Moncucco Torin	1.23	326	Pn	Pn	19 54 42.0	+1.7
	370nm,0.6s						
GSCL	Gusciola	1.25	76	Pn	Pn	19 54 41.0	+0.4
GSCL				Sn	Sn	19 54 56.9	-0.2
GSCL	Gusciola	1.25	76	Pn	Pn	19 54 41.0	+0.4
GSCL				Sn	Sn	19 54 56.9	-0.2
	142nm,0.6s						
GSCL	Gusciola	1.25	76	Pn	Pn	19 54 41.0	+0.4
GSCL				Sn	Sn	19 54 56.9	-0.2
	142nm,0.6s						
DOI	San Damiano	1.26	291	Pn	Pn	19 54 40.7	-0.1
DOI	San Damiano	1.26	291	Pn	Pn	19 54 40.7	-0.1
	183nm,0.2s						
DOI	San Damiano	1.26	291	Pn	Pn	19 54 40.7	-0.1
	183nm,0.2s						
MVIF	Mont Vial	1.27	263	Pg	Pg	19 54 42.5	+0.3
MVIF	Mont Vial	1.27	263	Pg	Pg	19 54 42.5	+0.3
MVIF	Mont Vial	1.27	263	Pg	Pg	19 54 42.5	+0.3
PZZT	Monte Pizzetto	1.42	86	Pn	Pn	19 54 42.1	-0.8
PZZT				Sn	Sn	19 55 01.6	+0.4
	684nm,0.5s						
PZZT	Monte Pizzetto	1.42	86	Pn	Pn	19 54 42.1	-0.8
PZZT				Sn	Sn	19 55 01.6	+0.4
	684nm,0.5s						
CALN	Calern	1.48	259	Pn	Pn	19 54 44.1	+0.4
CALN	Calern	1.48	259	Pn	Pn	19 54 44.1	+0.4
CALN	Calern	1.48	259	Pn	Pn	19 54 44.1	+0.4
PGF	Pioggiola	1.51	177	ePn	Pn	19 54 43.4	-0.8
	SNR=1.0						
PGF				eSn	Sn	19 55 00.1	-3.4
	49nm,0.2s,SNR=1.0						
PGF	Pioggiola	1.51	177	ePn	Pn	19 54 43.4	-0.8
PGF				eSn	Sn	19 55 00.1	-3.4
PGF	Pioggiola	1.51	177	ePn	Pn	19 54 43.4	-0.8
	SNR=1.0						
PGF				eSn	Sn	19 55 00.1	-3.4
	25nm,0.2s,SNR=1.0						
CRMI	Carmignano	1.52	99	Pn	Pn	19 54 43.7	-0.6
	34nm,0.4s						
CRMI	Carmignano	1.52	99	Pn	Pn	19 54 43.7	-0.6
	34nm,0.4s						
ZCCA	Zocca	1.53	78	Pn	Pn	19 54 47.4	+3.1
ZCCA	Zocca	1.53	78	Pn	Pn	19 54 47.4	+3.1
ZCCA	Zocca	1.53	78	Pn	Pn	19 54 47.4	+3.1
SURF	Saint Ours	1.55	286	Pg	Pg	19 54 47.1	-0.5
SURF				Sg	Sg	19 55 07.5	-0.3
SURF	Saint Ours	1.55	286	Pg	Pg	19 54 47.1	-0.5
SURF				Sg	Sg	19 55 07.5	-0.3
SURF	Saint Ours	1.55	286	Pg	Pg	19 54 47.1	-0.5
SURF				Sg	Sg	19 55 07.5	-0.3
RSP	Reno Superiore	1.60	314	Pn	Pn	19 54 47.6	+2.2
RSP	Reno Superiore	1.60	314	Pn	Pn	19 54 47.6	+2.2
	102nm,0.8s						
RSP	Reno Superiore	1.60	314	Pn	Pn	19 54 47.6	+2.2
	102nm,0.8s						
FNVD	Fontana Vidola	1.61	85	Pn	Pn	19 54 46.5	+1.0
FNVD				Sn	Sn	19 55 08.5	+2.6
FNVD	Fontana Vidola	1.61	85	Pn	Pn	19 54 46.5	+1.0
FNVD				Sn	Sn	19 55 08.5	+2.6
	465nm,0.6s						
FNVD	Fontana Vidola	1.61	85	Pn	Pn	19 54 46.5	+1.0
FNVD				Sn	Sn	19 55 08.5	+2.6
	465nm,0.6s						
MBDF	Montbardon	1.66	294	ePn	Pn	19 54 46.3	+0.1
MBDF	Montbardon	1.66	294	eP	Pn	19 54 48.8	+2.6
	SNR=1.0						
MBDF				eSn	Sn	19 55 07.1	-0.1
MBDF				eSg	Sg	19 55 12.8	+1.5
	202nm,0.5s,SNR=1.0						
MBDF	Montbardon	1.66	294	ePn	Pn	19 54 46.3	+0.1
MBDF				eP		19 54 48.8	
MBDF				eSn	Sn	19 55 07.1	-0.1
MBDF				eSg	Sg	19 55 12.8	+1.5
MBDF	Montbardon	1.66	294	ePn	Pn	19 54 46.3	+0.1
MBDF	Montbardon	1.66	294	eP	Pn	19 54 48.8	+2.6
	SNR=1.0						
MBDF				eSg	Sg	19 55 12.8	+1.5
	101nm,0.5s,SNR=1.0						
ORO	Oropa	1.70	338	Pn	Pn	19 54 48.1	+1.4
ORO	Oropa	1.70	338	Pn	Pn	19 54 48.1	+1.4
	228nm,0.6s						
ORO	Oropa	1.70	338	Pn	Pn	19 54 48.1	+1.4
	228nm,0.6s						
FRF	La Foret Royal	1.70	254	ePn	Pn	19 54 46.7	-0.1
	SNR=1.0						
FRF	La Foret Royal	1.70	254	ePg	Pg	19 54 50.2	-0.2
	SNR=1.0						
FRF				eSn	Sn	19 55 07.4	-0.8
	555nm,0.3s,SNR=1.0						
FRF	La Foret Royal	1.70	254	ePn	Pn	19 54 46.7	-0.1
FRF				ePg	Pg	19 54 50.2	-0.2
FRF				eSn	Sn	19 55 07.4	-0.8
FRF	La Foret Royal	1.70	254	ePn	Pn	19 54 46.7	-0.1
	SNR=1.0						
FRF	La Foret Royal	1.70	254	ePg	Pg	19 54 50.2	-0.2
	SNR=1.0						
FRF				eSn	Sn	19 55 07.4	-0.8
	278nm,0.3s,SNR=1.0						
GRFL	Gerfalco	1.77	120	Pn	Pn	19 54 48.9	+1.3

GRFL	**Gerfalco**	1.77	120	Pn	Pn	19 54 48.9	+1.3
	17nm,0.5s						
GRFL	**Gerfalco**	1.77	120	Pn	Pn	19 54 48.9	+1.3
	17nm,0.5s						
SEI	**Scarperia**	1.77	89	Pn	Pn	19 54 48.0	+0.2
SEI	**Scarperia**	1.77	89	Pn	Pn	19 54 48.0	+0.2
	245nm,0.3s						
SEI	**Scarperia**	1.77	89	Pn	Pn	19 54 48.0	+0.2
	245nm,0.3s						
VAI	**Varese**	1.81	357	Pn	Pn	19 54 49.7	+1.4
VAI	**Varese**	1.81	357	Pn	Pn	19 54 49.7	+1.4
	22nm,0.3s						
VAI	**Varese**	1.81	357	Pn	Pn	19 54 49.7	+1.4
	22nm,0.3s						
MDI	**Monti di Nese**	1.81	18	Pn	Pn	19 54 49.1	+0.8
	136nm,0.6s						
MDI	**Monti di Nese**	1.81	18	Pn	Pn	19 54 49.1	+0.8
	136nm,0.6s						
CSNT	**Castellina Chi**	1.83	108	Pn	Pn	19 54 48.0	-0.6
CSNT	**Castellina Chi**	1.83	108	Pn	Pn	19 54 48.0	-0.6
	76nm,0.6s						
CSNT	**Castellina Chi**	1.83	108	Pn	Pn	19 54 48.0	-0.6
	76nm,0.6s						
MUGIO	**Muggio**	1.87	3	Pn	Pn	19 54 50.0	+1.0
MUGIO	**Muggio**	1.87	3	Pn	Pn	19 54 50.0	+1.0
BNI	**Bardonecchia**	1.87	303	ePn	Pn	19 54 50.1	+1.0
BNI				ePg	Pg	19 54 52.4	-1.3
BNI				eSn	Sn	19 55 09.7	-2.6
BNI	**Bardonecchia**	1.87	303	ePn	Pn	19 54 50.1	+1.0
BNI	**Bardonecchia**	1.87	303	ePg	Pg	19 54 52.4	-1.2
LMR	**La Mourre**	1.88	248	ePn	Pn	19 54 48.6	-0.6
	SNR=1.0						
LMR				eSn	Sn	19 55 11.3	-1.2
	463nm,0.3s						
LMR	**La Mourre**	1.88	248	ePn	Pn	19 54 48.6	-0.6
LMR				eSn	Sn	19 55 11.3	-1.2
LMR	**La Mourre**	1.88	248	ePn	Pn	19 54 48.6	-0.6
	SNR=1.0						
LMR				eSn	Sn	19 55 11.3	-1.2
	232nm,0.3s						
VMG	**Vicchio**	1.91	92	Pn	Pn	19 54 51.7	+2.0
VMG	**Vicchio**	1.91	92	Pn	Pn	19 54 51.7	+2.0
	50nm,0.4s						
VMG	**Vicchio**	1.91	92	Pn	Pn	19 54 51.7	+2.0
	50nm,0.4s						
SALO	**Salr**	1.94	36	⇑Pn	Pn	19 54 51.0	+0.9
	176nm,0.7s						
SALO	**Salr**	1.94	36	⇑Pn	Pn	19 54 51.0	+0.9
	176nm,0.7s						
OG25	**Le Caire**	2.05	280	Pg	Pg	19 54 54.4	-2.7
OG25				Sg	Sg	19 55 20.2	-3.5
OG25	**Le Caire**	2.05	280	Pg	Pg	19 54 54.4	-2.7
OG25				Sg	Sg	19 55 20.2	-3.5
OG25	**Le Caire**	2.05	280	Pg	Pg	19 54 54.4	-2.7
LPG	**La Plagne**	2.10	314	ePn	Pn	19 54 52.6	+0.4
LPG	**La Plagne**	2.10	314	eP	Pn	19 54 55.0	+2.8
LPG	**La Plagne**	2.10	314	ePg	Pg	19 54 59.0	+1.0
	SNR=1.0						
LPG				eSn	Sn	19 55 18.2	+0.2
	SNR=1.0						
LPG				eSg	Sg	19 55 26.4	+1.2
	55nm,0.5s,SNR=1.0						
LPG	**La Plagne**	2.10	314	ePn	Pn	19 54 52.6	+0.4
LPG				eP		19 54 55.0	
LPG				ePg	Pg	19 54 59.0	+1.0
LPG				eSn	Sn	19 55 18.2	+0.2
LPG				eSg	Sg	19 55 26.4	+1.2
LPG	**La Plagne**	2.10	314	ePn	Pn	19 54 52.6	+0.4
LPG	**La Plagne**	2.10	314	eP	Pn	19 54 55.0	+2.8
LPG	**La Plagne**	2.10	314	ePg	Pg	19 54 59.0	+1.0
	SNR=1.0						
LPG				eSn	Sn	19 55 18.2	+0.2
	SNR=1.0						
LPG				eSg	Sg	19 55 26.4	+1.2
	28nm,0.5s,SNR=1.0						
MMK	**Mattmark**	2.10	342	Pn	Pn	19 54 55.1	+2.9
MMK	**Mattmark**	2.10	342	Pn	Pn	19 54 55.1	+2.9
TAVF	**Tavernes**	2.10	259	Pg	Pg	19 54 57.9	-0.1
TAVF	**Tavernes**	2.10	259	Pg	Pg	19 54 57.9	-0.1
TAVF	**Tavernes**	2.10	259	Pg	Pg	19 54 57.9	-0.1
MAGA	**Magasa**	2.11	35	Pn	Pn	19 54 52.8	+0.4
	637nm,0.6s						
MAGA	**Magasa**	2.11	35	Pn	Pn	19 54 52.8	+0.4
	637nm,0.6s						
LPL	**La Plagne**	2.12	314	ePn	Pn	19 54 53.7	+1.2
LPL	**La Plagne**	2.12	314	eP	Pn	19 54 55.1	+2.6
	SNR=1.0						
LPL				eSn	Sn	19 55 18.7	+0.2
LPL				eSg	Sg	19 55 26.4	+0.5
	30nm,0.3s,SNR=1.0						
LPL	**La Plagne**	2.12	314	ePn	Pn	19 54 53.7	+1.2
LPL				eP		19 54 55.1	
LPL				eSn	Sn	19 55 18.7	+0.2
LPL				eSg	Sg	19 55 26.4	+0.5
LPL	**La Plagne**	2.12	314	ePn	Pn	19 54 53.7	+1.2
LPL	**La Plagne**	2.12	314	eP	Pn	19 54 55.1	+2.6
	SNR=1.0						
LPL				eSn	Sn	19 55 18.7	+0.2
LPL				eSg	Sg	19 55 26.4	+0.5
	15nm,0.3s,SNR=1.0						
SFI	**Santa Sofia**	2.14	93	Pn	Pn	19 54 52.1	-0.6
SFI	**Santa Sofia**	2.14	93	Pn	Pn	19 54 52.1	-0.6
	24nm,0.3s						
SFI	**Santa Sofia**	2.14	93	Pn	Pn	19 54 52.1	-0.6
	24nm,0.3s						
STOF	**St-Etienne Org**	2.15	269	Pg	Pg	19 55 01.2	+2.1
STOF	**St-Etienne Org**	2.15	269	Pg	Pg	19 55 01.2	+2.1
STOF	**St-Etienne Org**	2.15	269	Pg	Pg	19 55 01.2	+2.1
CRE	**Caprese Michel**	2.25	100	Pn	Pn	19 54 54.2	-0.2
CRE	**Caprese Michel**	2.25	100	Pn	Pn	19 54 54.2	-0.2
	24nm,0.3s						
CRE	**Caprese Michel**	2.25	100	Pn	Pn	19 54 54.2	-0.2
	24nm,0.3s						
RSL	**Roselend**	2.29	316	Pg	Pg	19 54 59.6	-2.1
RSL	**Roselend**	2.29	316	Pg	Pg	19 54 59.6	-2.1
RSL	**Roselend**	2.29	316	Pg	Pg	19 54 59.6	-2.1
MABI	**Malga Bissina**	2.30	29	⇑Pn	Pn	19 54 55.7	+0.7
MABI	**Malga Bissina**	2.30	29	⇑Pn	Pn	19 54 55.7	+0.7
MABI	**Malga Bissina**	2.30	29	⇑Pn	Pn	19 54 55.7	+0.7
VILF	**Villemus**	2.31	266	Pg	Pg	19 55 02.2	+0.3
VILF	**Villemus**	2.31	266	Pg	Pg	19 55 02.2	+0.3
VILF	**Villemus**	2.31	266	Pg	Pg	19 55 02.2	+0.3
ORIF	**Oris-en-Rattie**	2.32	293	eP	Pn	19 54 57.6	+2.3
	SNR=1.0						
ORIF				eSn	Sn	19 55 23.1	-0.4
	68nm,0.4s,SNR=1.0						
ORIF	**Oris-en-Rattie**	2.32	293	eP	Pn	19 54 57.6	+2.3
	SNR=1.0						
ORIF				eSn	Sn	19 55 23.1	-0.4
	34nm,0.4s,SNR=1.0						
SMRF	**Simiane la Rot**	2.40	269	ePn	Pn	19 54 57.3	+1.0
SMRF	**Simiane la Rot**	2.40	269	eP	Pn	19 54 58.5	+2.2
	SNR=1.0						
SMRF	**Simiane la Rot**	2.40	269	ePg	Pg	19 55 03.4	-0.3
	SNR=1.0						
SMRF				eSn	Sn	19 55 23.3	-2.0
SMRF				eSg	Sg	19 55 34.0	-0.8
	109nm,0.4s,SNR=1.0						
SMRF	**Simiane la Rot**	2.40	269	ePn	Pn	19 54 57.3	+1.0
SMRF				eP		19 54 58.5	
SMRF				ePg	Pg	19 55 03.4	-0.3
SMRF				eSn	Sn	19 55 23.3	-2.0
SMRF				eSg	Sg	19 55 34.0	-0.8
SMRF	**Simiane la Rot**	2.40	269	ePn	Pn	19 54 57.3	+1.0
SMRF	**Simiane la Rot**	2.40	269	eP	Pn	19 54 58.5	+2.2
	SNR=1.0						
SMRF	**Simiane la Rot**	2.40	269	ePg	Pg	19 55 03.4	-0.3
	SNR=1.0						
SMRF				eSn	Sn	19 55 23.3	-2.0
SMRF				eSg	Sg	19 55 34.0	-0.8
	54nm,0.4s,SNR=1.0						
TUE	**Stuetta**	2.44	7	Pn	Pn	19 54 58.4	+1.6
TUE	**Stuetta**	2.44	7	Pn	Pn	19 54 58.4	+1.6
	33nm,0.4s						
TUE	**Stuetta**	2.44	7	Pn	Pn	19 54 58.4	+1.6
	33nm,0.4s						
RSM	**Repubblica di**	2.57	92	Pn	Pn	19 55 00.0	+1.3
RSM	**Repubblica di**	2.57	92	Pn	Pn	19 55 00.0	+1.3
RSM	**Repubblica di**	2.57	92	Pn	Pn	19 55 00.0	+1.3
BRMO	**Bormio**	2.63	23	Pn	Pn	19 55 01.0	+1.4
BRMO	**Bormio**	2.63	23	Pn	Pn	19 55 01.0	+1.4
	20nm,0.6s						
BRMO	**Bormio**	2.63	23	Pn	Pn	19 55 01.0	+1.4
	20nm,0.6s						
PRAF	**Pradon**	2.70	266	Pg	Pg	19 55 09.5	-0.1
PRAF	**Pradon**	2.70	266	Pg	Pg	19 55 09.5	-0.1
PRAF	**Pradon**	2.70	266	Pg	Pg	19 55 09.5	-0.1
CTI	**Castel Tesino**	2.79	44	Pn	Pn	19 55 01.5	-0.2
CTI	**Castel Tesino**	2.79	44	Pn	Pn	19 55 01.5	-0.2
	18nm,0.3s						
CTI	**Castel Tesino**	2.79	44	Pn	Pn	19 55 01.5	-0.2
	18nm,0.3s						
FSSB	**Fossombrone**	2.83	96	Pn	Pn	19 55 03.4	+1.1
FSSB	**Fossombrone**	2.83	96	Pn	Pn	19 55 03.4	+1.1
	11nm,0.3s						
FSSB	**Fossombrone**	2.83	96	Pn	Pn	19 55 03.4	+1.1
	11nm,0.3s						
APPI	**Appiano**	2.93	33	Pn	Pn	19 55 04.7	+1.1
APPI	**Appiano**	2.93	33	Pn	Pn	19 55 04.7	+1.1
	62nm,0.4s						
APPI	**Appiano**	2.93	33	Pn	Pn	19 55 04.7	+1.1
	62nm,0.4s						
CESI	**CESI - Serrava**	3.10	108	Pn	Pn	19 55 06.1	+0.1
VIVF	**Saint-Julien-l**	3.13	286	ePn	Pn	19 55 06.8	+0.5
	SNR=1.0						
VIVF				eSn	Sn	19 55 42.0	-1.3
	12nm,0.3s,SNR=1.0						
VIVF	**Saint-Julien-l**	3.13	286	ePn	Pn	19 55 06.8	+0.5
VIVF				eSn	Sn	19 55 42.0	-1.3
VIVF	**Saint-Julien-l**	3.13	286	ePn	Pn	19 55 06.8	+0.5
	SNR=1.0						
VIVF				eSn	Sn	19 55 42.0	-1.3
	6.2nm,0.3s,SNR=1.0						
CABF	**La Chapelle**	3.23	323	ePn	Pn	19 55 08.3	+0.5
CABF	**La Chapelle**	3.23	323	ePg	Pg	19 55 19.2	-0.4
CABF				eSn	Sn	19 55 44.8	-1.1
	11nm,0.5s						
CABF	**La Chapelle**	3.23	323	ePn	Pn	19 55 08.3	+0.5
CABF				ePg	Pg	19 55 19.2	-0.4
CABF				eSn	Sn	19 55 44.8	-1.1
CABF	**La Chapelle**	3.23	323	ePn	Pn	19 55 08.3	+0.5
CABF	**La Chapelle**	3.23	323	ePg	Pg	19 55 19.2	-0.4
CABF				eSn	Sn	19 55 44.8	-1.1
	5.6nm,0.5s						
FETA	**Feichten**	3.23	23	⇓iPn	Pn	19 55 10.5	+2.7
	2.4nm,0.2s						
FETA				⇑eSn	Sn	19 55 49.6	+3.7
	8.0nm,0.4s						
FETA	**Feichten**	3.23	23	Pn	Pn	19 55 10.5	+2.7
	2.4nm,0.2s						
FETA				Sn	Sn	19 55 49.6	+3.7
	8.0nm,0.4s						
DAVA	**Damuels**	3.30	12	⇑iPn	Pn	19 55 11.3	+2.6
	comp=Z,0.7nm,0.1s						
DAVA	**Damuels**	3.30	12	⇑iPn	Pn	19 55 11.3	+2.6
DAVA				i Sn	Sn	19 55 51.4	+3.7
DAVA	**Damuels**	3.30	12	⇑iPn	Pn	19 55 11.3	+2.6
	0.7nm,0.1s						
DAVA				⇑iSn	Sn	19 55 51.4	+3.7
	8.1nm,0.2s						
DAVA	**Damuels**	3.30	12	ePn	Pn	19 55 10.8	+2.0
DAVA				eSn	Sn	19 55 50.5	+2.9
DAVA	**Damuels**	3.30	12	⇑iPn	Pn	19 55 11.3	+2.5
DAVA				Sn	Sn	19 55 51.4	+3.8
	8.1nm,0.2s						
NRCA	**Norcia**	3.31	110	Pn	Pn	19 55 09.5	+0.7
NRCA	**Norcia**	3.31	110	Pn	Pn	19 55 09.5	+0.7
	4.0nm,0.4s						
NRCA	**Norcia**	3.31	110	Pn	Pn	19 55 09.5	+0.7
	4.0nm,0.4s						
SQTA	**Sankt Quirin**	3.55	26	⇑iPn	Pn	19 55 14.8	+2.5
	comp=Z,8.3nm,0.2s,SNR=20						
SQTA	**Sankt Quirin**	3.55	26	⇑iPn	Pn	19 55 14.8	+2.5
SQTA				i Sn	Sn	19 55 56.2	+2.3
SQTA	**Sankt Quirin**	3.55	26	⇑iPn	Pn	19 55 14.8	+2.5
	8.3nm,0.2s,SNR=20						
SQTA				⇑iSn	Sn	19 55 56.2	+2.3
	8.6nm,0.3s						
SQTA	**Sankt Quirin**	3.55	26	⇑iPn	Pn	19 55 14.8	+2.6
SQTA				Sn	Sn	19 55 56.2	+2.3
	8.6nm,0.3s						
LASF	**Ste Croix**	3.63	272	ePn	Pn	19 55 13.4	+0.1
	SNR=1.0						
LASF				eSn	Sn	19 55 54.1	-1.7
	SNR=1.0						
LASF				eSg	Sg	19 56 11.7	-2.6
	18nm,0.7s,SNR=1.0						
LASF	**Ste Croix**	3.63	272	ePn	Pn	19 55 13.4	+0.1
LASF				eSn	Sn	19 55 54.1	-1.7
LASF				eSg	Sg	19 56 11.7	-2.6
LASF	**Ste Croix**	3.63	272	ePn	Pn	19 55 13.4	+0.1
	SNR=1.0						
LASF				eSn	Sn	19 55 54.1	-1.7
	SNR=1.0						
LASF				eSg	Sg	19 56 11.7	-2.6
	9.1nm,0.7s,SNR=1.0						
MOTA	**Moosalm**	3.63	24	i Pn	Pn	19 55 16.3	+3.0
	comp=Z,14nm,0.4s,SNR=13						
MOTA	**Moosalm**	3.63	24	i Pn	Pn	19 55 16.3	+3.0
MOTA				i Sn	Sn	19 55 57.4	+1.6
MOTA	**Moosalm**	3.63	24	i Pn	Pn	19 55 16.3	+3.0
	14nm,0.4s,SNR=13						
MOTA				⇑iSn	Sn	19 55 57.4	+1.6
	14nm,0.5s						
MOTA	**Moosalm**	3.63	24	i Pn	Pn	19 55 16.3	+3.0
MOTA				Sn	Sn	19 55 57.4	+1.6
	14nm,0.5s						
ABTA	**Abfaltersbach**	3.70	42	⇓iPn	Pn	19 55 16.1	+1.8
	3.4nm,0.2s,SNR=9.2						
ABTA				⇑iSn	Sn	19 55 58.0	+0.4
	3.7nm,0.3s						
ABTA	**Abfaltersbach**	3.70	42	Pn	Pn	19 55 16.1	+1.8
	3.4nm,0.2s,SNR=9.2						
ABTA				Sn	Sn	19 55 58.0	+0.4
	3.7nm,0.3s						
FVI	**Forni Avoltri**	3.73	46	Pn	Pn	19 55 15.9	+1.2
FVI	**Forni Avoltri**	3.73	46	Pn	Pn	19 55 15.9	+1.2
	9.0nm,0.3s						
FVI	**Forni Avoltri**	3.73	46	Pn	Pn	19 55 15.9	+1.2
	9.0nm,0.3s						
WTTA	**Wattenberg**	3.74	30	⇑iPn	Pn	19 55 16.9	+2.1
	comp=Z,8.2nm,0.3s,SNR=13						
WTTA	**Wattenberg**	3.74	30	⇑iPn	Pn	19 55 16.9	+2.1
WTTA				eSn	Sn	19 55 59.1	+0.7
WTTA	**Wattenberg**	3.74	30	⇑iPn	Pn	19 55 16.9	+2.1
	8.2nm,0.3s,SNR=13						
WTTA				⇓eSn	Sn	19 55 59.1	+0.7
	9.3nm,0.4s						
WTTA	**Wattenberg**	3.74	30	ePn	Pn	19 55 16.6	+1.9
WTTA				eSn	Sn	19 55 58.5	+0.1
WTTA	**Wattenberg**	3.74	30	⇑iPn	Pn	19 55 16.9	+2.2
WTTA				Sn	Sn	19 55 59.1	+0.7
	9.3nm,0.4s						
WATA	**Walderalm**	3.78	29	⇑iPn	Pn	19 55 17.9	+2.6
	comp=Z,11nm,0.2s						
WATA	**Walderalm**	3.78	29	⇑iPn	Pn	19 55 17.9	+2.6
WATA				eSn	Sn	19 56 03.4	+4.0
WATA	**Walderalm**	3.78	29	⇑iPn	Pn	19 55 17.9	+2.6
	11nm,0.2s						
WATA				⇑eSn	Sn	19 56 03.4	+4.0
	5.1nm,0.3s						
WATA	**Walderalm**	3.78	29	⇑iPn	Pn	19 55 17.9	+2.6
WATA				Sn	Sn	19 56 03.4	+4.0
	5.1nm,0.3s						
ROBS	**Robic**	3.93	55	i Sn	Sn	19 56 01.7	-1.4
ROBS	**Robic**	3.93	55	i Sn	Sn	19 56 01.7	-1.4
SKDS	**Skadanscina**	3.94	66	i Sn	Sn	19 56 00.0	-3.3
HINF	**Hinteralfeld**	4.02	340	ePn	Pn	19 55 19.3	+0.7
	SNR=1.0						
HINF				eSn	Sn	19 56 03.6	-1.7
	4.4nm,0.3s,SNR=1.0						
HINF	**Hinteralfeld**	4.02	340	ePn	Pn	19 55 19.3	+0.7
HINF				eSn	Sn	19 56 03.6	-1.7
HINF	**Hinteralfeld**	4.02	340	ePn	Pn	19 55 19.3	+0.7
	SNR=1.0						
HINF				eSn	Sn	19 56 03.6	-1.7
	2.2nm,0.3s,SNR=1.0						
VOY	**Vojsko**	4.05	59	ePn	Pn	19 55 21.3	+2.2
VOY				eSn	Sn	19 56 03.8	-2.4
VOY	**Vojsko**	4.05	59	ePn	Pn	19 55 21.3	+2.2
VOY				eSn	Sn	19 56 03.8	-2.4
VOY	**Vojsko**	4.05	59	ePn	Pn	19 55 21.3	+2.2
VOY				eSn	Sn	19 56 03.8	-2.4
JAVS	**Javornik**	4.10	62	i Sn	Sn	19 56 05.3	-2.1
JAVS	**Javornik**	4.10	62	i Sn	Sn	19 56 05.3	-2.1
MYKA	**Terra Mystica**	4.22	51	⇑iSn	Sn	19 56 10.1	-0.2
	3.0nm,0.3s						
MYKA	**Terra Mystica**	4.22	51	Sn	Sn	19 56 10.1	-0.2
	3.0nm,0.3s						
BFO	**Black Forest**	4.29	355	ePn	Pn	19 55 21.8	-0.5
BFO				eSn	Sn	19 56 05.9	-6.1
BFO	**Black Forest**	4.29	355	ePn	Pn	19 55 21.8	-0.5
HAU	**Haudompre**	4.33	337	ePn	Pn	19 55 23.5	+0.7
	SNR=1.0						
HAU				eSn	Sn	19 56 11.3	-1.6
	12nm,0.3s						
HAU				eSg	Sg	19 56 36.1	-0.5
	10nm,0.6s,SNR=1.0						
HAU	**Haudompre**	4.33	337	ePn	Pn	19 55 23.5	+0.7
HAU				eSn	Sn	19 56 11.3	-1.6
HAU				eSg	Sg	19 56 36.1	-0.5
HAU	**Haudompre**	4.33	337	ePn	Pn	19 55 23.5	+0.7
	SNR=1.0						
HAU				eSn	Sn	19 56 11.3	-1.6
	6.2nm,0.3s						
HAU				eSg	Sg	19 56 36.1	-0.5
	5.1nm,0.6s,SNR=1.0						
KBA	**Koelnbreinsper**	4.34	44	⇑iPn	Pn	19 55 24.9	+1.8
	comp=Z,0.8nm,0.2s						
KBA	**Koelnbreinsper**	4.34	44	⇑iPn	Pn	19 55 24.9	+1.8
KBA				i Sn	Sn	19 56 14.3	+0.9
KBA	**Koelnbreinsper**	4.34	44	⇑iPn	Pn	19 55 24.9	+1.8
	0.8nm,0.2s						
KBA				⇓iSn	Sn	19 56 14.3	+0.9
	7.0nm,0.6s						
KBA	**Koelnbreinsper**	4.34	44	ePn	Pn	19 55 24.9	+1.8
KBA	**Koelnbreinsper**	4.34	44	⇑iPn	Pn	19 55 24.9	+1.8
KBA				Sn	Sn	19 56 14.3	+0.9
	7.0nm,0.6s						
SMF	**Signal de Mont**	4.40	308	ePn	Pn	19 55 24.9	+1.0
	SNR=1.0						
SMF				eSn	Sn	19 56 12.7	-2.1
	7.2nm,0.5s						
SMF	**Signal de Mont**	4.40	308	ePn	Pn	19 55 24.9	+1.0
SMF				eSn	Sn	19 56 12.7	-2.1
SMF	**Signal de Mont**	4.40	308	ePn	Pn	19 55 24.9	+1.0
	SNR=1.0						
SMF				eSn	Sn	19 56 12.7	-2.1
	3.6nm,0.5s						
CDF	**Champ du Feu**	4.50	346	ePn	Pn	19 55 25.9	+0.7
	SNR=1.0						
CDF				eSn	Sn	19 56 15.0	-2.1
	8.6nm,0.5s,SNR=1.0						
CDF	**Champ du Feu**	4.50	346	ePn	Pn	19 55 25.9	+0.7
CDF				eSn	Sn	19 56 15.0	-2.1
CDF	**Champ du Feu**	4.50	346	ePn	Pn	19 55 25.9	+0.7
	SNR=1.0						
CDF				eSn	Sn	19 56 15.0	-2.1
	4.3nm,0.5s,SNR=1.0						
MOZS	**Mozjanca**	4.51	58	i Sn	Sn	19 56 16.6	-1.0
EJON	**La Jonquera**	4.67	252	P	Pn	19 55 28.0	+0.4
EJON				S	Sn	19 56 18.9	-2.5
EJON	**La Jonquera**	4.67	252	P	Pn	19 55 28.0	+0.4
	0.8nm,0.1s,SNR=4.6						
OBKA	**Obir**	4.68	56	⇑ePn	Pn	19 55 30.9	+3.1
OBKA	**Obir**	4.68	56	⇑ePn	Pn	19 55 30.9	+3.1
OBKA				i Sn	Sn	19 56 20.3	-1.4
OBKA	**Obir**	4.68	56	⇑ePn	Pn	19 55 30.9	+3.1
OBKA				⇑iSn	Sn	19 56 20.3	-1.4
	8.7nm,0.4s						
OBKA	**Obir**	4.68	56	⇑ePn	Pn	19 55 30.9	+3.2
OBKA				Sn	Sn	19 56 20.3	-1.4
	8.7nm,0.4s						
AVF	**Avril sur Loir**	4.76	307	ePn	Pn	19 55 28.8	0.0
AVF				eSn	Sn	19 56 21.6	-2.0
	2.6nm,0.3s						
AVF	**Avril sur Loir**	4.76	307	ePn	Pn	19 55 28.8	0.0
AVF				eSn	Sn	19 56 21.6	-2.0
AVF	**Avril sur Loir**	4.76	307	ePn	Pn	19 55 28.8	0.0
AVF				eSn	Sn	19 56 21.6	-2.0
	1.3nm,0.3s						
LOR	**Lormes**	4.77	314	ePn	Pn	19 55 29.1	+0.2
	baz=134,SNR=1.0						
LOR				eSn	Sn	19 56 21.8	-2.0
	4.3nm,0.3s						
LOR	**Lormes**	4.77	314	ePn	Pn	19 55 29.1	+0.2
LOR				eSn	Sn	19 56 21.8	-2.0
LOR	**Lormes**	4.77	314	ePn	Pn	19 55 29.1	+0.2
	SNR=1.0						
LOR				eSn	Sn	19 56 21.8	-2.0
	2.2nm,0.3s						
SSF	**Saint Saulge**	4.83	310	ePn	Pn	19 55 29.4	-0.3
SSF	**Saint Saulge**	4.83	310	eP	Pn	19 55 33.5	+3.8
SSF				eSn	Sn	19 56 23.4	-1.9
	3.5nm,0.4s						
SSF	**Saint Saulge**	4.83	310	ePn	Pn	19 55 29.4	-0.3
SSF				eP		19 55 33.5	
SSF				eSn	Sn	19 56 23.4	-1.9
SSF	**Saint Saulge**	4.83	310	ePn	Pn	19 55 29.4	-0.3
SSF	**Saint Saulge**	4.83	310	eP	Pn	19 55 33.5	+3.8
SSF				eSn	Sn	19 56 23.4	-1.9
	1.8nm,0.4s						
MTLF	**Montolieu**	4.89	264	ePn	Pn	19 55 30.5	-0.1
MTLF	**Montolieu**	4.89	264	eP	Pn	19 55 34.0	+3.4
	SNR=1.0						
MTLF				eSn	Sn	19 56 24.2	-2.7
MTLF				eSg	Sg	19 56 52.0	-2.8
	6.2nm,0.5s						
MTLF	**Montolieu**	4.89	264	ePn	Pn	19 55 30.5	-0.1
MTLF				eP		19 55 34.0	
MTLF				eSn	Sn	19 56 24.2	-2.7
MTLF				eSg	Sg	19 56 52.0	-2.8
MTLF	**Montolieu**	4.89	264	ePn	Pn	19 55 30.5	-0.1
MTLF	**Montolieu**	4.89	264	eP	Pn	19 55 34.0	+3.4
	SNR=1.0						
MTLF				eSn	Sn	19 56 24.2	-2.7
MTLF				eSg	Sg	19 56 52.0	-2.8
	3.1nm,0.5s						
BGF	**Bois d’Agland**	4.94	302	ePn	Pn	19 55 32.6	+1.3
BGF	**Bois d’Agland**	4.94	302	ePg	Pg	19 55 50.7	-1.7
	SNR=1.0						
BGF				eSn	Sn	19 56 26.2	-1.9
	7.0nm,0.3s,SNR=1.0						
BGF	**Bois d’Agland**	4.94	302	ePn	Pn	19 55 32.6	+1.3
BGF				ePg	Pg	19 55 50.7	-1.7
BGF				eSn	Sn	19 56 26.2	-1.9
BGF	**Bois d’Agland**	4.94	302	ePn	Pn	19 55 32.6	+1.3
BGF	**Bois d’Agland**	4.94	302	ePg	Pg	19 55 50.7	-1.7
	SNR=1.0						
BGF				eSn	Sn	19 56 26.2	-1.9
	3.5nm,0.3s,SNR=1.0						
CAF	**Calviac**	4.96	282	ePn	Pn	19 55 31.9	+0.3
	SNR=1.0						
CAF				eSn	Sn	19 56 26.3	-2.3
	3.3nm,0.4s						
CAF	**Calviac**	4.96	282	ePn	Pn	19 55 31.9	+0.3
CAF				eSn	Sn	19 56 26.3	-2.3
CAF	**Calviac**	4.96	282	ePn	Pn	19 55 31.9	+0.3
	SNR=1.0						
CAF				eSn	Sn	19 56 26.3	-2.3
	1.6nm,0.4s						
MOA	**Molln**	5.33	43	⇓ePn	Pn	19 55 37.6	+1.0
	comp=Z,0.6nm,0.2s						
MOA	**Molln**	5.33	43	⇓ePn	Pn	19 55 37.6	+1.0
	0.6nm,0.2s						
MOA				i Sn	Sn	19 56 36.9	-0.7
MOA	**Molln**	5.33	43	⇓ePn	Pn	19 55 37.6	+1.0
	0.6nm,0.2s						
MOA				⇓iSn	Sn	19 56 36.9	-0.7
	1.4nm,0.3s						
MOA	**Molln**	5.33	43	ePn	Pn	19 55 36.8	+0.2
MOA				eSn	Sn	19 56 36.9	-0.7
MOA	**Molln**	5.33	43	⇓ePn	Pn	19 55 37.6	+1.0
	0.6nm,0.2s						
MOA				Sn	Sn	19 56 36.9	-0.7
	1.4nm,0.3s						
RJF	**Les Rejaudoux**	5.41	286	ePn	Pn	19 55 37.0	-0.7
RJF	**Les Rejaudoux**	5.41	286	eP	Pn	19 55 41.3	+3.6
RJF				eSn	Sn	19 56 35.5	-4.0
	1.3nm,0.3s						
RJF	**Les Rejaudoux**	5.41	286	ePn	Pn	19 55 37.0	-0.7
RJF				eP		19 55 41.3	
RJF				eSn	Sn	19 56 35.5	-4.0
RJF	**Les Rejaudoux**	5.41	286	ePn	Pn	19 55 37.0	-0.7
RJF	**Les Rejaudoux**	5.41	286	eP	Pn	19 55 41.3	+3.6
RJF				eSn	Sn	19 56 35.5	-4.0
	0.6nm,0.3s						
ARSA	**Arzberg**	5.64	53	ePn	Pn	19 55 41.5	+0.7
WET	**Wettzell**	5.78	27	ePn	Pn	19 55 42.3	-0.5
WET				eSn	Sn	19 56 45.9	-2.8
WET	**Wettzell**	5.78	27	ePn	Pn	19 55 42.3	-0.5
WET				eSn	Sn	19 56 45.9	-2.8
WET	**Wettzell**	5.78	27	ePn	Pn	19 55 42.3	-0.5
WET				eSn	Sn	19 56 45.9	-2.8

EMIR	Miracle	5.81	251	P	Pn	19 55 44.8	+1.6
EMIR				S	Sn	19 56 46.4	-3.1
EMIR	Miracle	5.81	251	P	Pn	19 55 44.8	+1.5
	1.3nm,0.1s,SNR=7.3						
GEC2	GERESS Array S	5.83	33	*e*Pn	Pn	19 55 43.0	-0.4
GEC2				*e*Sn	Sn	19 56 46.9	-2.9
GEC2	GERESS Array S	5.83	33	*e*Pn	Pn	19 55 43.0	-0.4
GEC2				*e*Sn	Sn	19 56 46.9	-2.9
GEC2	GERESS Array S	5.83	33	*e*Pn	Pn	19 55 43.0	-0.4
GEC2				*e*Sn	Sn	19 56 46.9	-2.9
KHC	Kasperske Hory	6.01	31	*e*Pn	Pn	19 55 45.9	-0.1
KHC				*e*		19 56 11.0	
KHC				*e*Sn	Sn	19 56 49.6	-4.8
KHC				*e*Sg	Sg	19 57 19.8	-11
KHC	Kasperske Hory	6.01	31	*e*PN	Pn	19 55 45.9	-0.1
KHC				*e*PG	Pg	19 56 11.0	-1.8
KHC				*e*SN	Sn	19 56 49.6	-4.8
KHC				*e*x	x	19 57 19.8	
KHC	Kasperske Hory	6.01	31	*e*Pn	Pn	19 55 45.9	-0.1
ETOS	Mallorca	6.24	229	P	Pn	19 55 50.7	+1.6
ETOS				S	Sn	19 56 54.8	-5.3
ETOS	Mallorca	6.24	229	P	Pn	19 55 50.7	+1.6
	20nm,0.4s,SNR=7.9						
EPF	Esparros	6.30	264	*e*Pn	Pn	19 55 49.5	-0.5
EPF	Esparros	6.30	264	*e*Pn	Pn	19 55 49.5	-0.5
EBIE	Bielsa	6.52	261	P	Pn	19 55 56.1	+3.1
EBIE				S	Sn	19 57 04.8	-2.3
EBIE	Bielsa	6.52	261	P	Pn	19 55 56.1	+3.1
	0.4nm,0.2s,SNR=7.9						
GUNZ	Gunzen	6.73	19	*e*Sn	Sn	19 57 08.4	-3.6
MOX	Moxa	6.84	15	*e*Sn	Sn	19 57 10.2	-4.7
MOX	Moxa	6.84	15	*e*SN	Sn	19 57 10.2	-4.7
MOX	Moxa	6.84	15	*e*Sn	Sn	19 57 10.0	-4.9
ETSF	Etsaut	6.97	264	*e*Sn	Sn	19 57 13.5	-4.7
	2.5nm,0.5s,SNR=1.0						
EIBI	Ibiza	7.57	231	P	Pn	19 56 09.3	+1.9
EIBI	Ibiza	7.57	231	P	Pn	19 56 09.3	+1.9
	2.3nm,0.2s,SNR=7.9						
GRR	Gorron	8.03	306	*e*Pn	Pn	19 56 13.2	-0.4
GRR	Gorron	8.03	306	*e*Pn	Pn	19 56 13.2	-0.4
GRR	Gorron	8.03	306	*e*Pn	Pn	19 56 13.2	-0.4
ETOR	Torete	8.72	252	P	Pn	19 56 24.7	+1.6
ETOR				S	Sn	19 57 57.2	-3.8

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*NIED **27** 19:57:00,24.10N×121.70E,h35^{km},Mw4.0 Best double couple: $M_0$1.28000×10^{15} NP1:ϕ_s41.00000°,δ56.00000°, λ147.00000°. NP2:ϕ_s151.00000°,δ63.00000°,λ39.00000°.*

*NEIC **27** 19:57:09.7±1.1,24.12N×121.91E,h28^{km}±6^{km},mb4.4/15, ML4.7(TAP),Error ellipse: s-maj=10.6km s-min=8.5km az=59.0*

NEIC Recorded [3 TAP] in Hua-lien and I-lan; [2 TAP] in Nan-t'ou; [1 TAP] in Chang-hua and T'ai-chung Counties.

*JMA **27** 19:57:10.2±0.2,24.11N×121.72E,h64^{km},M3.9*

*ISCJB **27** 19:57:10.1±0.5,24.06N±0.05×121.73E±0.03,h40^{km}±4^{km}, mb4.1/26,Error ellipse: s-maj=9.0km s-min=3.7km az=9.4*

*IDC **27** 19:57:11.7±4.2,24.02N×121.83E,h51^{km}±40^{km},mb3.6/10, mb1 3.7/12,mb1mx3.7/23,mbtmp3.7/12,ML3.9/2,Error ellipse: s-maj=33.3km s-min=15.2km az=66.0*

*BJI **27** 19:57:14.2,24.36N×121.52E,h28^{km},mB4.6,mb3.9,ML4.0*

ISC 27 19:57:10.7±0.6**,24.08N**±0.05×**121.74E**±0.02**,h29**^{km}±4^{km}**,** **n51,**σ1^{s}**07**/62**,mb4.1**/26**,1C,Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NACB	Ninganchiao	0.17	304	*e*Pg	Pb	19 57 16.3	-0.1
NACB				*e*Sg	Sb	19 57 20.4	+0.2
YHNB	Yeheng	0.68	330	*e*Pg	Pb	19 57 23.8	-0.2
YHNB				*e*Sg	Sb	19 57 32.3	-0.8
TATO	Taipei	0.92	345	*e*Pg	Pn	19 57 27.8	0.0
TATO				*e*Sg	Sn	19 57 41.1	+1.1
YOJ	Yonaguni jima	1.22	72	P	Pn	19 57 31.7	-0.1
YOJ				S	Sn	19 57 47.3	0.0
IRIF	Iriomote-Funau	1.83	82	P	Pn	19 57 40.2	-0.1
IRIF				*e*S	Sn	19 58 02.7	+0.2
HATJ	Hateruma jima	1.89	90	P	Pn	19 57 41.0	0.0
HATJ				S	Sn	19 58 03.7	-0.1
JKRS	Kuro-shima	2.08	85	P	Pn	19 57 44.0	+0.4
JKRS				S	Sn	19 58 09.8	+1.3
JIJ	Ishigaki jima	2.21	82	P	Pn	19 57 45.2	-0.2
JIJ				*e*S	Sn	19 58 11.3	-0.5
JTJ	Tarama	2.75	78	P	Pn	19 57 53.1	+0.1
JTJ				*e*S	Sn	19 58 26.0	+0.7
QZH	Quanzhou	3.00	287	⇑*i*P	Pn	19 57 57.5	+1.2
QZH				S	Sn	19 58 30.5	-0.8
QZH				Smax			
	comp=N,420nm,0.7s						
QZH				Smax			
	comp=E,530nm,0.6s						
JMJ	Miyako jima 2	3.32	77	*e*S	Sn	19 58 40.2	+1.0
JOGS	Gusukube	3.41	78	P	Pn	19 58 02.7	+0.8
JOGS				*e*S	Sn	19 58 42.9	+1.5
JKE	Kume jima 2	5.09	63	P	Pn	19 58 25.2	+0.2
JAGN	Aguni-jima	5.57	62	P	Pn	19 58 31.7	+0.1
JOW	Kunigami	6.51	64	P	Pn	19 58 43.4	-1.2
JOW	Kunigami	6.51	64	P	Pn	19 58 43.5	-1.1
	comp=E,8.2nm,0.3s,baz=248,slow=8.1,SNR=9.9						
JTK	Tokunoshima	7.46	59	P	Pn	19 58 56.4	-1.3
JAM	Amami Oshima	8.27	57	P	Pn	19 59 07.0	-1.8
KSRS	Korea Array	14.34	20	P	Pn	20 00 33.1	+1.3
	comp=E,0.2nm,0.3s,baz=223,slow=6.5,SNR=3.0						
KKM	Kota Kinabalu	18.70	197	P	Pn	20 01 29.5	+2.0
GTA	Gaotai	24.02	315	*e*P	P	20 02 24.8	+1.7
GTA				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb3.9						
ULN	Ulaanbaatar	26.45	337	*e*P	P	20 02 44.7	-0.4
	comp=Z,5.2nm,0.9s,mb4.1						
SONM	Songino Array	26.66	337	P	P	20 02 47.1	+0.1
	comp=Z,1.6nm,0.7s,mb3.6,baz=152,slow=10.0,SNR=13						
LSA	Lhasa	27.80	288	*e*P	P	20 02 59.4	+1.9
	comp=Z,2.3nm,0.7s,mb3.9						
TAPN	Taplejung	30.78	283	*e*P	P	20 03 25.7	+1.8
	comp=Z,12nm,0.9s,mb4.7						
TLY	Talaya	30.86	338	P	P	20 03 22.9	-1.4
	comp=Z,1.1nm,0.6s,mb3.9						
ODAN	Odare	31.08	282	*e*P	P	20 03 28.1	+1.5
	comp=Z,7.9nm,0.9s,mb4.6						
JIRN	Jiri	32.12	284	*e*P	P	20 03 37.2	+1.5
	comp=Z,9.6nm,0.8s,mb4.7						
KKN	Kakani	32.92	284	*e*P	P	20 03 43.7	+1.0
	comp=Z,8.1nm,0.8s,mb4.7						
GKN	Gorkha	33.48	285	*e*P	P	20 03 48.1	+0.5
	comp=Z,3.9nm,0.6s,mb4.5						
MK31	Makanchi Array	38.77	316	*e*P	P	20 04 32.5	-0.1
MKAR	Makanchi Array	38.77	316	P	P	20 04 32.7	+0.1
MKAR	Makanchi Array	38.77	316	P	P	20 04 32.7	+0.1
	comp=Z,1.4nm,0.7s,mb3.8,baz=104,slow=9.8,SNR=18						
ZALV	Zalesovo Beam	40.61	327	P	P	20 04 46.8	-1.0
	comp=Z,3.3nm,0.7s,mb4.1,baz=113,slow=7.6,SNR=18						
TKM2	Tokmak 2	42.23	308	P	P	20 04 60.0	-1.3
	comp=Z,4.4nm,0.9s,mb4.1						
KURK	Kurchatov	42.50	320	*e*P	P	20 05 03.6	+0.3
	comp=Z,3.6nm,0.9s,mb4.0						
AML	Almayashu	43.48	306	P	P	20 05 11.9	+0.5
	comp=Z,5.0nm,0.9s,mb4.2						
EKS2	Erkin-Say	43.50	307	P	P	20 05 11.5	0.0
	comp=Z,7.8nm,1.3s,mb4.3						
WRA	Warramunga Arr	45.44	163	P	P	20 05 24.9	-2.4
	comp=Z,0.6nm,0.8s,mb3.5,baz=350,slow=8.0,SNR=12						
KBL	Kabul	46.67	295	*e*P	P	20 05 38.0	+1.2
BRVK	Borovoye	48.15	321	*e*P	P	20 05 47.7	-0.4
	comp=Z,4.5nm,1.0s,mb4.5						
ASAR	Alice Springs	48.91	165	P	P	20 05 52.6	-1.6
	comp=Z,0.2nm,0.5s,mb3.4,baz=339,slow=7.1,SNR=5.5						
ARU	Arti	55.50	323	*e*P	P	20 06 41.3	-1.5
	comp=Z,3.7nm,0.6s,mb4.6						
STKA	Stephens Creek	58.79	160	P	P	20 07 03.9	-2.5
	comp=Z,1.4nm,0.8s,mb4.0,baz=311,slow=13,SNR=3.3						
MALT	Malatya	70.48	304	*e*P	P	20 08 23.3	+0.5
	comp=Z,3.9nm,1.0s,mb4.3						
FINES	FINESS Array B	71.79	330	P	P	20 08 28.1	-2.2
	comp=Z,0.4nm,0.5s,mb3.6,baz=72,slow=8.9,SNR=3.2						
INK	Inuvik	73.13	22	P	P	20 08 36.2	-1.9
INK	Inuvik	73.13	22	P	P	20 08 36.2	-1.9
	comp=Z,1.1nm,0.7s,mb3.9,baz=338,slow=1.7,SNR=4.3						
BRTR	Keskin Array B	73.64	307	P	P	20 08 40.3	-1.4
	comp=Z,2.2nm,1.1s,mb4.0,baz=105,slow=6.5,SNR=5.4						
YKA	Yellowknife Ar	82.87	23	P	P	20 09 31.3	-0.9
YKA	Yellowknife Ar	82.87	23	P	P	20 09 31.3	-0.9
	comp=Z,1.0nm,0.6s,mb4.0,baz=313,slow=4.9,SNR=21						

IDC 27 20:05:23.1±53.0**,12.10S**×**167.95W,h0**^{km}**,mb4.0**/3**,** **mb1 4.2**/3**,mb1mx3.8**/16**,mbtmp4.0**/3**,Error ellipse: s-maj=1092.0km s-min=195.2km az=77.0,Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	50.26	239	P	P	20 14 21.1	-0.3
	0.7nm,0.4s,baz=72,slow=11,SNR=4.8						
WRA	Warramunga Arr	55.80	254	P	P	20 15 02.5	0.0
	0.2nm,0.3s,baz=91,slow=6.6,SNR=34						
ASAR	Alice Springs	56.19	250	P	P	20 15 05.5	+0.2
	4.0nm,0.6s,baz=85,slow=7.9,SNR=78						

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*MEX **27** 20:08:02.6±0.3,25.82N×111.20W,h6^{km}±42^{km},MD5.2*

*MOS **27** 20:08:07.2±1.1,25.94N×110.43W,h10^{km},mb5.2/19,Error ellipse: s-maj=8.5km s-min=4.6km az=88.6*

*IDC **27** 20:08:07.7±0.6,26.16N×110.56W,h0^{km},mb4.4/19, mb1 4.5/24,mb1mx4.5/30,mbtmp4.4/24,ML4.8/1,MS4.3/25, Ms1 4.3/25,ms1mx4.2/30,Error ellipse: s-maj=15.1km s-min=9.5km az=77.0*

*ISCJB **27** 20:08:08.0±0.3,26.00N±0.03×110.37W±0.03,h10^{km}, mb4.8/57,MS4.4/27,Error ellipse: s-maj=4.9km s-min=2.5km az=36.9*

*GCMT **27** 20:08:09.0±0.3,26.25N×110.70W,h13^{km}±1^{km},MW5.0/62, Moment Tensor Solution. s25,c33; s62,c96; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.49±.21; $M_{\theta\theta}$-0.55±.13; $M_{\phi\phi}$4.04±.15; $M_{r\theta}$-0.33±.44; $M_{\theta\phi}$-0.71±.10; $M_{\phi r}$1.74±.32; Best double couple: $M_0$4.21000×10^{16} NP1:ϕ_s353.00000°,δ33.00000°,λ-88.00000°. NP2: ϕ_s170.00000°,δ57.00000°,λ-91.00000°. Principal axes: T 4.5380, Plg12.0000°, Azm261.0000°; N -0.6580, Plg1.0000°, Azm171.0000°; P -3.8810, Plg78.0000°, Azm76.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **27** 20:08:09.0,26.00N×110.50W,h10^{km},mB5.4,mb4.9,Ms5.0, Msz4.6*

*NEIC **27** 20:08:09.0±0.3,25.98N×110.46W,h10^{km},mb4.8/58, MS4.6/1,Error ellipse: s-maj=6.0km s-min=4.1km az=221.0*

ISC 27 20:08:09.6±0.3**,25.96N**±0.03×**110.36W**±0.02**,h10**^{km}**,n483,** σ**1**^{s}**13**/466**,mb4.8**/58**,MS4.4**/27**,112C-100D,Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LPIG	La Paz	1.85	179	Pn	Pn	20 08 42.4	+0.9
LPIG				Lg		20 09 14.1	
LPIG				LR	LR	20 09 31.1	
LPIG	La Paz	1.85	179	Pn	Pn	20 08 42.4	+0.9
	50nm,0.3s,baz=344,slow=3.8,SNR=31						
LPIG				Lg		20 09 14.1	
	410nm,0.3s,baz=111,slow=17,SNR=11						
LPIG				LR	LR	20 09 31.1	
	comp=Z,3µm,19.7s,baz=18,slow=40						
TUC	Tucson	6.33	357	*e*Pn	Pn	20 09 40.1	-2.9
	73nm,0.9s						
TUC	Tucson	6.33	357	*e*P	Pn	20 09 40.1	-3.0
TUC				pmax	pmax		
	comp=Z,73nm,0.9s						
116A	Eloy	6.68	350	P	Pn	20 09 45.5	-2.3
	baz=6.7,SNR=15						
LTX	Lajitas	6.82	59	*e*Pn	Pn	20 09 48.5	-1.2
	comp=Z,123nm,0.9s						
LTX				*e*Pg	Pg	20 10 17.8	-2.4
LTX				*e*Sg	Sg	20 11 48.1	-0.4
LTX	Lajitas	6.82	59	*e*P	Pn	20 09 48.5	-1.2
LTX				pmax	pmax		
	comp=Z,123nm,0.9s						
TXAR	Lajitas Array	6.82	59	Pn	Pn	20 09 49.0	-0.7
TXAR				Sn	Sn	20 11 07.8	+0.4
TXAR				Lg		20 11 43.5	
TXAR	Lajitas Array	6.82	59	P	Pn	20 09 49.1	-0.6
TXAR						20 11 07.8	
TXAR	Lajitas Array	6.82	59	Pn	Pn	20 09 49.0	-0.7
	comp=Z,2.4nm,0.3s,baz=238,slow=13,SNR=70						
TXAR				Sn	Sn	20 11 07.8	+0.4
	comp=Z,2.5nm,0.3s,baz=255,slow=20,SNR=3.9						
TXAR				Lg		20 11 43.5	
	comp=Z,8.4nm,0.3s,baz=210,slow=32,SNR=6.1						
115A	Sonoran Desert	6.91	347	⇑P	Pn	20 09 49.6	-1.4
	baz=6.9						
MNTX	Cornudas Mount	7.19	36	*e*Pn	Pn	20 09 54.9	+0.1
	comp=Z,83nm,0.9s						
MNTX				*e*Pg	Pg	20 10 23.8	-3.6
MNTX				*e*Sg	Sg	20 11 56.7	-3.8
ANIG	Ahuacatlan	7.25	131	*e*P	Pn	20 09 55.4	-0.3
ANIG				*i* S	Sn	20 11 21.2	+3.1
Z14A	Wintersburg	7.71	344	⇑P	Pn	20 09 59.4	-2.6
	baz=7.7						
ZAIG	Zacatecas	7.78	112	*i* P	Pn	20 10 09.7	+6.7
ZAIG				*i* S	Sn	20 11 44.0	+13
ZAIG	Zacatecas	7.78	112	*e*P	Pn	20 10 03.9	+0.9
ZAIG				*i* S	Sn	20 11 40.1	+8.9
GLA	Glamis	8.06	332	⇓P	Pn	20 10 04.8	-2.1
	baz=8.0						
Y14A	Wickenburg	8.27	345	P	Pn	20 10 07.0	-2.7
	baz=8.3,SNR=11						
Y13A	Salome	8.38	340	⇓P	Pn	20 10 10.0	-1.2
	baz=8.4						
Y12C	Blythe	8.56	336	⇓P	Pn	20 10 10.9	-2.8
	baz=8.5						
X15A	Humboldt	8.65	350	⇑P	Pn	20 10 12.8	-2.0
	baz=8.6						
SFJM	Santa Fe	8.66	128	*i* P	Pn	20 10 16.0	+1.0
SFJM	Santa Fe	8.66	128	*i* P	Pn	20 10 20.0	+5.0
LENM	Lemitar	8.68	19	*e*Pn	Pn	20 10 14.2	-1.1
X14A	Yava	8.76	346	⇓P	Pn	20 10 14.4	-1.9
	baz=8.7						
BNM	Barren Site	8.78	21	*e*Pn	Pn	20 10 15.4	-1.2
BNM				*e*Pg	Pn	20 10 56.4	+40
BNM				*e*Sg	Sn	20 12 39.0	+43
LAZ	Ladron	8.86	18	*e*Pn	Pn	20 10 15.9	-1.8
LPM	Los Pinos Moun	8.92	20	*e*Pn	Pn	20 10 19.5	+0.9
PDMCI	Parker Dam,Lak	8.93	339	⇑P	Pn	20 10 16.9	-1.8
	baz=8.9						
X13A	Yucca	9.11	342	⇑P	Pn	20 10 19.9	-1.2
	baz=9.1						
IRM	Iron Mountain	9.16	334	⇑P	Pn	20 10 21.3	-0.6
	baz=9.1						
PFO	Pinyon Flat Ob	9.28	327	Pn	Pn	20 10 15.4	-8.0
PFO				Lg		20 12 56.1	
PFO				LR	LR	20 13 30.5	
PFO	Pinyon Flat Ob	9.28	327	Pn	Pn	20 10 15.4	-8.0
	comp=Z,1.4nm,0.3s,baz=42,slow=4.9,SNR=4.1						
PFO				Lg		20 12 56.1	
	comp=Z,0.8nm,0.3s,baz=8.2,slow=9.2,SNR=1.9						
PFO				LR	LR	20 13 30.5	
	comp=Z,1µm,19.6s,baz=157,slow=36						
W15A	Williams	9.33	350	⇓P	Pn	20 10 24.6	+0.4
	baz=9.3						
W14A	Seligman	9.51	346	⇓P	Pn	20 10 26.5	-0.2
	baz=9.5						
WUAZ	Wupatki	9.56	355	*e*Pn	Pn	20 10 25.1	-2.3
	comp=Z,16nm,0.6s						
WUAZ				*e*Sg	Sn	20 13 12.3	+57
ANMO	Albuquerque	9.57	20	*e*Pn	Pn	20 10 26.4	-1.1
	comp=Z,14nm,0.8s						
ANMO	Albuquerque	9.57	20	⇓*e*P	Pn	20 10 28.3	+0.9
ANMO	Albuquerque	9.57	20	Pn	Pn	20 10 26.6	-0.8
	comp=Z,0.0nm,0.3s,baz=209,slow=12,SNR=8.5						
ANMO				Lg		20 13 05.5	
	comp=Z,0.5nm,0.3s,baz=90,slow=17,SNR=3.6						
ANMO				LR	LR	20 13 35.9	
	comp=Z,914nm,18.8s,baz=194,slow=35						
W13A	Hualapai Mount	9.60	342	P	Pn	20 10 28.6	+0.8
	baz=9.6,SNR=11						
MURC	Murrieta	9.65	324	⇑P	Pn	20 10 29.4	+0.8
	baz=9.6						
LNIG	Linares	9.90	94	*i* P	Pn	20 10 34.9	+2.8
LNIG				*i* S	Sn	20 12 33.5	+10
GMRC	Granite Mounta	9.91	334	⇑P	Pn	20 10 32.2	+0.1
	baz=9.9						
MMIG	Aquila	10.03	138	*i* S	Sn	20 12 26.0	-0.4
W12A	Cal Nev Ari	10.08	338	⇑P	Pn	20 10 35.2	+0.7
	baz=10						
CIS	Catalina Islan	10.19	319	⇑P	Pn	20 10 36.4	+0.4
	baz=10						
JCT	Junction City	10.34	62	*e*Pn	Pn	20 10 41.8	+3.7
	comp=Z,25nm,0.9s						
JCT	Junction City	10.34	62	*e*P	Pn	20 10 41.8	+3.8
JCT				pmax	pmax		
	comp=Z,25nm,0.9s						
BFSC	Mount Baldy St	10.39	324	⇓P	Pn	20 10 38.3	-0.4
	baz=10						
V12A	Nelson	10.47	339	⇑P	Pn	20 10 40.3	+0.5
	baz=10						
U14A	Mt Trumbull	10.70	348	⇓P	Pn	20 10 44.7	+1.8
	baz=11						
V11A	Goodsprings	10.76	337	⇑P	Pn	20 10 44.5	+0.7
	baz=11						
SNCC	San Nicolas Is	10.78	314	⇓P	Pn	20 10 43.9	-0.2
	baz=11						
GSC	Goldstone	10.83	331	⇓P	Pn	20 10 44.0	-0.8
	baz=11						
U13A	Pakoon Wash	10.87	344	P	Pn	20 10 44.2	-1.0
	baz=11,SNR=11						
U12A	Valley of Fire	11.03	342	⇑P	Pn	20 10 46.5	-1.0
	baz=11						
EDW2	Edwards Air Fo	11.06	325	⇑P	Pn	20 10 48.2	+0.4
	baz=11						
T15A	Red Dirt Ranch	11.15	352	⇑P	Pn	20 10 50.2	+1.1
	baz=11						
T14A	Hurricane	11.30	349	⇓P	Pn	20 10 52.0	+0.8
	baz=11						
MVCO	Mesa Verde	11.32	8	*e*Pn	Pn	20 10 51.5	0.0
	comp=Z,47nm,1.1s						
MVCO	Mesa Verde	11.32	8	⇓P	Pn	20 10 52.6	+1.1
	baz=11						
BSC	Santa Cruz Isl	11.34	317	⇑P	Pn	20 10 51.4	-0.3
	baz=11						
LRMC	Laurel Mountai	11.38	328	⇑P	Pn	20 10 53.0	+0.7
	baz=11						
T13A	Saint George	11.43	346	⇓P	Pn	20 10 53.3	+0.4
	baz=11						
U10A	Ash Meadows, A	11.61	335	⇑P	Pn	20 10 56.0	+0.7
	baz=12						
ARVC	Arvin	11.69	323	⇓P	Pn	20 10 56.7	+0.3
	baz=12						
MPMC	Manual Prospec	11.77	330	⇑P	Pn	20 10 58.7	+1.1
	baz=12						
FURC	Furnace Creek,	11.86	334	⇓P	Pn	20 10 58.8	+0.1
	baz=12						
ISA	Isabella	11.91	326	⇓P	Pn	20 10 59.9	+0.4
	baz=12						
T11A	Corn Creek, Al	11.98	341	P	Pn	20 11 01.7	+1.2
	baz=12,SNR=9.5						
DAC	Darwin (Calif)	12.00	331	*e*Pn	Pn	20 10 54.4	-6.4
	comp=Z,13nm,1.0s						
DAC	Darwin (Calif)	12.00	331	*e*P	Pn	20 10 54.4	-6.3
DAC				pmax	pmax		
	comp=Z,13nm,1.0s						
TPNV	Topopah Spring	12.05	337	*e*Pn	Pn	20 11 01.0	-0.3
	comp=Z,24nm,1.0s						
TPNV	Topopah Spring	12.05	337	*e*P	Pn	20 11 01.0	-0.4
TPNV				pmax	pmax		
	comp=Z,24nm,1.0s						
TPNV	Topopah Spring	12.05	337	P	Pn	20 11 02.6	+1.2
	baz=12,SNR=13						
PKM	Peak Mountain	12.07	320	⇑P	Pn	20 11 01.1	-0.6
	baz=12						
ARUT	Antelope Range	12.07	348	*e*Pn	Pn	20 11 03.8	+2.1
S12A	Delamar Landin	12.22	343	⇑P	Pn	20 11 05.5	+1.8
	baz=12						
CWC	Cottonwood Cre	12.35	330	⇑P	Pn	20 11 06.4	+0.8
	baz=12						
VES	Vestal, Richgr	12.36	325	⇑P	Pn	20 11 05.8	+0.1
	baz=12						
PV10	Paradox Valley	12.43	5	*e*Pn	Pn	20 11 09.0	+2.4
SMMC	Simmler	12.47	321	⇑P	Pn	20 11 07.9	+0.7
	baz=12						
S11A	Rachel	12.51	340	P	Pn	20 11 09.1	+1.4
	baz=12,SNR=21						
GRAC	Grapevine Rang	12.52	333	⇓P	Pn	20 11 08.1	+0.3
	baz=12						
MSU	Marysvale	12.61	353	*e*Pn	Pn	20 11 12.5	+3.5
PPM	Popocatepetl	12.83	120	*i* P	Pn	20 11 23.9	+12
PPM	Popocatepetl	12.83	120	*i* P	Pn	20 11 13.9	+1.8
R12A	Pony Springs,	12.84	345	⇑P	Pn	20 11 13.2	+0.9
	baz=13						
TIN	Tinemaha	12.93	331	⇑P	Pn	20 11 14.6	+1.1
	baz=13						
HELL	Mitchell Peak,	12.99	327	⇓P	Pn	20 11 14.1	-0.1
	baz=13						
S10A	Tonopah Range,	13.04	338	P	Pn	20 11 16.2	+1.3
	baz=13,SNR=40						
S09A	Goldfield	13.09	335	P	Pn	20 11 16.6	+1.0
	baz=13,SNR=25						
SRU	San Rafael	13.11	359	*e*Pn	Pn	20 11 17.5	+1.6
	comp=Z,24nm,1.2s						
SRU	San Rafael	13.11	359	*e*P	Pn	20 11 17.5	+1.6
SRU				pmax	pmax		
	comp=Z,24nm,1.2s						
R11A	Troy Canyon, C	13.12	342	⇑P	Pn	20 11 15.9	-0.1
	baz=13						
TRCR	Troy Canyon	13.12	342	*e*Pn	Pn	20 11 16.3	+0.3
PKD	Parkfield	13.23	321	⇓P	Pn	20 11 17.7	+0.1
	baz=13						
WMOK	Wichita Mounta	13.27	46	*e*Pn	Pn	20 11 18.8	+0.6
	comp=Z,84nm,1.0s						
WMOK	Wichita Mounta	13.27	46	*e*P	Pn	20 11 18.8	+0.6
WMOK				pmax	pmax		
	comp=Z,84nm,1.0s						
R10A	Warm Springs	13.28	339	P	Pn	20 11 19.6	+1.4
	baz=13,SNR=19						
S08C	White Mtn Res	13.28	332	⇑P	Pn	20 11 18.6	+0.4
	baz=13,SNR=20						
TMUT	Trail Mountain	13.31	357	*e*Pn	Pn	20 11 19.6	+0.9
MTUM	Tungsten Hills	13.32	330	*e*Pn	Pn	20 11 18.7	-0.2
TPH	Tonopah	13.40	336	*e*Pn	Pn	20 11 20.3	+0.4
	comp=Z,51nm,1.2s						
TPH	Tonopah	13.40	336	*e*P	Pn	20 11 20.3	+0.5
TPH				pmax	pmax		
	comp=Z,51nm,1.2s						
R09A	Tonopah	13.49	337	⇓P	Pn	20 11 21.5	+0.4
	baz=14						
Q12A	Willow Creek R	13.57	345	⇓P	Pn	20 11 23.4	+1.2
	baz=14,SNR=10						
T06C	Millerton Lake	13.59	326	⇓P	Pn	20 11 22.5	+0.1
	baz=14						
Q11A	Duckwater	13.60	342	P	Pn	20 11 23.7	+1.2
	baz=14,SNR=21						
KCC	Kaiser Creek	13.65	328	⇑P	Pn	20 11 24.0	+0.8
	baz=14						
U04C	Hernandez Rese	13.67	322	⇑P	Pn	20 11 25.5	+2.0
	baz=14						
Q10A	Clear Creek Ra	13.80	340	P	Pn	20 11 26.3	+1.1
	baz=14,SNR=13						
P12A	McGill	14.00	345	P	Pn	20 11 29.2	+1.1
	baz=14,SNR=23						
NLU	North Lily Min	14.03	355	*e*Pn	Pn	20 11 29.7	+1.3
MPU	Maple Canyon	14.05	356	*e*Pn	Pn	20 11 32.8	+4.0
	comp=Z,25nm,0.9s						
Q09A	Carvers	14.06	338	⇑P	Pn	20 11 30.1	+1.2
	baz=14,SNR=13						
NVAR	Mina Array Bea	14.12	334	Pn	Pn	20 11 29.4	-0.3
NVAR				Lg		20 15 29.4	
NVAR	Mina Array Bea	14.12	334	Pn	Pn	20 11 29.4	-0.3
	comp=Z,0.1nm,0.3s,baz=153,slow=14,SNR=28						
NVAR				Lg		20 15 29.4	
	baz=183,slow=30,SNR=2.1						
R07C	Lee Vining	14.15	331	⇑P	Pn	20 11 31.5	+1.4
	baz=14						
S05C	Merced	14.16	326	⇓P	Pn	20 11 31.8	+1.5
	baz=14						
UTMO	Huajuapan	14.18	122	*e*P	Pn	20 11 30.3	-0.3
P11A	Circle Ranch,	14.29	343	⇑P	Pn	20 11 33.2	+1.3
	baz=14						
DUG	Dugway	14.34	352	*e*Pn	Pn	20 11 32.7	0.0
	comp=Z,35nm,0.9s						
DUG	Dugway	14.34	352	*e*P	Pn	20 11 32.7	0.0
DUG				pmax	pmax		
	comp=Z,35nm,0.9s						
DUG	Dugway	14.34	352	⇑P	Pn	20 11 35.3	+2.6
	baz=14,SNR=18						
Q08A	Gabbs	14.35	335	P	Pn	20 11 35.0	+2.1
	baz=14,SNR=15						
ISCO	Idaho Springs	14.36	15	*e*Pn	Pn	20 11 33.0	+0.1
	comp=Z,20nm,0.8s						
ISCO	Idaho Springs	14.36	15	*e*P	Pn	20 11 33.0	+0.1
ISCO				pmax	pmax		
	comp=Z,20nm,0.8s						
PACP	Pacheco Peak	14.41	322	⇓P	Pn	20 11 35.1	+1.4
	baz=14						
DAU	Daniels Canyon	14.43	357	*e*Pn	Pn	20 11 27.1	-6.8
O13A	Hicks Ranch, I	14.45	349	⇑P	Pn	20 11 36.0	+1.8
	baz=14,SNR=6.4						
P10A	Eureka	14.55	341	⇓P	Pn	20 11 37.1	+1.6

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           baz=14,SNR=8.7
JLU   Jordanelle        14.63 357 ePn   Pn    20 11 38.9 +2.3
R06C  Coleville         14.68 331 ⇓P    Pn    20 11 37.6 +0.2
           baz=15
NOQ   North Oquirrh     14.72 355 ePn   Pn    20 11 41.4 +3.5
           comp=Z,64nm,1.4s
CMB   Columbia Colle    14.72 327 ePn   Pn    20 11 37.3 -0.7
           comp=Z,26nm,1.1s
CMB   Columbia Colle    14.72 327 eP    Pn    20 11 37.3 -0.6
CMB                                 pmax  pmax
           comp=Z,26nm,1.1s
CMB   Columbia Colle    14.72 327 ⇓P    Pn    20 11 38.6 +0.7
           baz=15
O12A  Currie            14.73 347 ⇑P    Pn    20 11 38.5 +0.6
           baz=15,SNR=16
CTU   Camp Tracy        14.74 356 eP    Pn    20 11 43.6 +5.5
           comp=Z,27nm,1.1s
S04C  Ingram Canyon,    14.80 324 ⇓P    Pn    20 11 40.1 +1.1
           baz=15
O11A  Cowboy Ranch,     14.81 344  P    Pn    20 11 41.3 +2.2
           baz=15,SNR=14
N14A  Grayback Hills    15.03 352 ⇓P    Pn    20 11 44.3 +2.1
           baz=15
BGU   Big Grassy Mou    15.09 352 ePn   Pn    20 11 43.2 +0.4
BGU                               ePn   Pn    20 11 48.1 +5.3
R05C  Kirkwood Meado    15.11 330 ⇓P    Pn    20 11 44.2 +1.0
           baz=15
WENL  Wente Brothers    15.12 323 ⇑P    Pn    20 11 43.7 +0.4
           baz=15
P08A  Dixie Valley      15.14 337 ⇓P    Pn    20 11 46.3 +2.7
           baz=15,SNR=10
O10A  Cortez Mining,    15.18 342  P    Pn    20 11 44.9 +0.8
           baz=15,SNR=11
N13A  Wendover, West    15.19 349 ⇑P    Pn    20 11 44.4 +0.2
           baz=15
O09A  Fish Creek Ran    15.27 340 ⇑P    Pn    20 11 46.4 +1.1
           baz=15,SNR=12
ELK   Elko              15.29 346 ePn   Pn    20 11 45.7 +0.2
           comp=Z,88nm,1.6s
ELK   Elko              15.29 346 eP    Pn    20 11 45.7 +0.2
ELK                                 pmax  pmax
           comp=Z,88nm,1.6s
N12A  Clover Valley,    15.35 346 ⇓P    Pn    20 11 47.0 +0.7
           baz=15,SNR=8.2
SPUT  South Promonto    15.40 354 eP    Pn    20 11 49.2 +2.2
BDM   Black Diamond     15.42 324 ⇑P    Pn    20 11 47.9 +0.7
           baz=15
VHO   Vista Hermosa     15.45 122 i P   Pn    20 11 58.9  +11
VHO   Vista Hermosa     15.45 122 i P   Pn    20 11 48.9 +1.2
LAVA  Lava Cap Winer    15.46 328 ⇓P    Pn    20 11 50.3 +2.6
           baz=15,SNR=6.1
WCN   Washoe City       15.46 332 ⇑P    Pn    20 11 49.1 +1.3
           baz=15
BMN   Battle Mountai    15.52 340 ePn   Pn    20 11 48.5  0.0
           comp=Z,82nm,1.1s
BMN                               eP          20 11 52.1
BMN   Battle Mountai    15.52 340 eP    Pn    20 11 48.6 +0.1
BMN                                 pmax  pmax
           comp=Z,82nm,1.1s
M15A  Larsen Ranch,     15.56 354 ⇑P    Pn    20 11 50.7 +1.7
           baz=16,SNR=9.8
CBKS  Cedar Bluff       15.62  32 ePn   Pn    20 11 49.9  0.0
           comp=Z,39nm,0.8s
CBKS  Cedar Bluff       15.62  32 eP    Pn    20 11 49.9  0.0
CBKS                                pmax  pmax
           comp=Z,39nm,0.8s
PAHR  Pah Rah Range     15.65 333 ePn   Pn    20 11 49.7 -0.5
           comp=Z,57nm,1.1s
PAHR                              eP          20 11 54.1
M13A  Montello          15.68 349 ⇑P    Pn    20 11 51.7 +1.1
           baz=16
M14A  Sheep Mountain    15.70 352 ⇓P    Pn    20 11 52.9 +2.1
           baz=16
P06A  Stead Airport,    15.84 332 ⇓P    Pn    20 11 54.8 +2.2
           baz=16
Q04C  Lincoln           15.84 327 ⇓P    Pn    20 11 54.6 +2.0
           baz=16
P05C  Yuba Gap, Truc    15.84 330 ⇑P    Pn    20 11 54.0 +1.3
           baz=16
O07A  Toulon            15.84 335  P    Pn    20 11 56.6 +3.9
           baz=16,SNR=18
M12A  Wells             15.87 347 ⇑P    Pn    20 11 53.8 +0.8
           baz=16
HVU   Hansel Valley     15.90 353 eP    Pn    20 11 55.6 +2.1
           comp=Z,57nm,1.1s
HVU   Hansel Valley     15.90 353 eP    Pn    20 11 55.6 +2.1
HVU                                 pmax  pmax
           comp=Z,57nm,1.1s
N09A  Rock Creek Ran    16.00 340 ⇑P    Pn    20 11 55.6 +0.9
           baz=16
CVS   Carmenet Viney    16.02 323 ⇑P    Pn    20 11 55.8 +0.7
           baz=16
M11A  Holland Ranch,    16.07 345 ⇓P    Pn    20 11 56.1 +0.4
           baz=16
BEKR  Beckwourth        16.19 331 ⇓P    Pn    20 11 57.6 +0.4
           baz=16
O06A  Flanigan          16.22 333 ⇑P    Pn    20 11 56.7 -0.8
           baz=16
M10A  I.L. Ranch, Tu    16.34 343 ⇑P    Pn    20 11 59.2 +0.1
           baz=16
L13A  Double Diamond    16.35 350 ⇑P    Pn    20 12 00.4 +1.2
           baz=16
MNRC  McLaughlin Nat    16.41 325 ⇑P    Pn    20 12 00.7 +0.7
           baz=16
N07B  Gerlach           16.42 336 ⇑P    Pn    20 12 00.3 +0.2
           baz=16
ORV   Oroville          16.46 328 ⇑P    Pn    20 12 01.4 +0.8
           baz=16
M09A  Marrel Ranch,     16.50 341 ⇑P    Pn    20 12 00.8 -0.3
           baz=16
O05C  Quincy            16.52 330 ⇑P    Pn    20 12 02.3 +0.9
           baz=16
L12A  House Creek Ra    16.59 348 ⇑P    Pn    20 12 02.2 -0.1
           baz=17
K14A  Jones Ranch, D    16.70 353 ⇓P    Pn    20 12 05.9 +2.2
           baz=17,SNR=9.8
N06A  Buffalo Meadow    16.72 334 ⇑P    Pn    20 12 03.7 -0.2
           baz=17
HUIG  Huatulco          16.73 125 eP    Pn    20 12 13.3 +9.1
HUIG  Huatulco          16.73 125 eP    Pn    20 12 04.8 +0.6
L11A  Cat Creek Ranc    16.76 346 ⇓P    Pn    20 12 05.5 +1.1
           baz=17
BW06  Boulder Array     16.78   2 ePn   Pn    20 12 02.8 -1.9
           comp=Z,54nm,1.3s
PDAR  Pinedale Array    16.78   2  Pn   Pn    20 12 04.2 -0.4
PDAR                               Lg         20 16 52.0
PDAR  Pinedale Array    16.78   2  Pn   Pn    20 12 04.3 -0.4
           comp=Z,0.4nm,0.3s,baz=70,slow=39,SNR=27
PDAR                               Lg         20 16 52.0
           comp=Z,0.0nm,0.3s,baz=172,slow=21,SNR=2.5
M08A  Happy Creek Ra    16.81 339 ⇓P    Pn    20 12 06.3 +1.2
           baz=17,SNR=25
MIAR  Mount Ida         16.82  55 eP    Pn    20 12 08.3 +3.1
           comp=Z,21nm,1.2s
MIAR  Mount Ida         16.82  55 eP    Pn    20 12 08.4 +3.1
MIAR                                pmax  pmax
           comp=Z,21nm,1.2s
L10A  Juniper Basin     16.84 344 ⇑P    Pn    20 12 06.8 +1.3
           baz=17
CMIG  Matias Romero     16.88 118  P    Pn    20 12 10.8 +4.8
           comp=Z,0.3nm,0.3s,baz=304,slow=9.4,SNR=27
CMIG                               Lg         20 17 15.2
           comp=Z,0.1nm,0.3s,baz=203,slow=22,SNR=2.0
CMIG                               LR   LR    20 18 40.8
           comp=Z,1µm,19.0s,baz=282,slow=37
CMIG  Matias Romero     16.88 118 eP    Pn    20 12 12.6 +6.5
O04C  Chester           16.88 331  P    Pn    20 12 06.5 +0.5
           baz=17,SNR=9.3
K13A  Stover Farm, H    16.92 351 ⇓P    Pn    20 12 07.0 +0.5
           baz=17
ELFS  Eagle Lake Fie    16.97 332 ⇓P    Pn    20 12 07.8 +0.7
           baz=17
M07A  Soldier Meadow    17.03 337  P    Pn    20 12 08.0 +0.2
           baz=17,SNR=11
K12A  Draper Farm, C    17.05 348 ⇑P    Pn    20 12 09.6 +1.5
           baz=17,SNR=21
L09A  Wilkinson Ranc    17.11 341 ⇓P    Pn    20 12 09.8 +0.9
           baz=17
GASB  Alder Springs     17.13 326 ⇑P    Pn    20 12 10.4 +1.3
           baz=17
P01C  Double 8 Ranch    17.31 324 ⇑P    Pn    20 12 12.1 +0.7
           baz=17
M06C  Likely Place G    17.36 334 ⇓P    Pn    20 12 12.1 +0.1
           baz=17
REDW  Red Top Meadow    17.36 359 eP    Pn    20 12 12.5 +0.5
           comp=Z,42nm,1.1s
K11A  Parker Ranch,     17.40 346 ⇑P    Pn    20 12 12.6 +0.1
           baz=17
HATC  Hat Creek Radi    17.45 331 ⇓P    Pn    20 12 13.3 +0.2
           baz=17
KSU1  Kansas State U    17.46  38 eP    Pn    20 12 14.5 +1.2
           comp=Z,88nm,0.9s
L08A  Fields            17.47 340 ⇓P    Pn    20 12 13.6 +0.3
           baz=18
DCID1 Drake Creek       17.60 358 eP    Pn    20 12 15.7 +0.7
K10A  MacKenzie Ranc    17.60 344 ⇓P    Pn    20 12 15.4 +0.4
           baz=18
LOHW  Long Hollow       17.61 359 eP    Pn    20 12 12.7 -2.4
           comp=Z,33nm,1.4s
L07A  Adell             17.64 337 ⇑P    Pn    20 12 14.8 -0.7
           baz=18
J13A  Cove Ranch, Pi    17.67 351 ⇓P    Pn    20 12 16.1 +0.3
           baz=18
J12A  Stokes Ranch,     17.68 349 ⇓P    Pn    20 12 16.7 +0.8
           baz=18
MOOW  Moose Ponds       17.75 359 eP    Pn    20 12 17.7 +1.0
           comp=Z,20nm,1.1s
K09A  Rome              17.75 342 ⇑P    Pn    20 12 17.8 +1.0
           baz=18
WDC   Whiskeytown Da    17.75 328 ⇓P    Pn    20 12 17.3 +0.5
           baz=18
M05C  Lookout           17.76 332  P    Pn    20 12 17.5 +0.5
           baz=18,SNR=7.1
WVOR  Wild Horse Val    17.78 340 eP    Pn    20 12 15.8 -1.5
           comp=Z,74nm,1.5s
WVOR  Wild Horse Val    17.78 340 eP    Pn    20 12 15.8 -1.4
WVOR                                pmax  pmax
           comp=Z,74nm,1.5s
UALR  University of     17.84  56 eP    Pn    20 12 19.1 +1.2
           comp=Z,34nm,1.1s
HLID  Hailey            17.87 350 eP    Pn    20 12 18.3 +0.1
           comp=Z,25nm,1.3s
HLID  Hailey            17.87 350 ⇓P    Pn    20 12 19.4 +1.2
           baz=18
MOD   Modoc             17.89 335 eP    Pn    20 12 17.9 -0.7
           comp=Z,31nm,1.3s
MOD   Modoc             17.89 335 ⇓P    Pn    20 12 18.7 +0.1
           baz=18
MFID  Camas Ranch       17.97 347 ⇓P    Pn    20 12 19.8 +0.2
           baz=18
K08A  Mann Creek Ran    18.01 340 ⇓P    Pn    20 12 20.0  0.0
           baz=18
M03C  McCloud           18.11 330 ⇑P    Pn    20 12 21.0 -0.3
           baz=18
I13A  Wildhorse Cree    18.17 351 ⇓P    Pn    20 12 23.1 +1.2
           baz=18
K07A  Rock Creek Ran    18.21 339 ⇓P    Pn    20 12 22.4  0.0
           baz=18
N02C  Big Bar           18.31 327 ⇓P    Pn    20 12 23.0 -0.7
           baz=18
J09A  Fry Pan Ranch,    18.36 343 ⇑P    Pn    20 12 25.3 +1.0
           baz=18
M04C  Macdoel           18.41 332  P    Pn    20 12 25.9 +1.0
           baz=18,SNR=12
I11A  Placerville       18.48 347 ⇓P    Pn    20 12 26.4 +0.7
           baz=18
J08A  Circle Bar Ran    18.57 341 ⇓P    Pn    20 12 25.5 -1.4
           baz=19
K06A  Valley Falls      18.65 337 ⇓P    Pn    20 12 27.1 -0.7
           baz=19
YNR   Norris Junctio    18.71 359  P    Pn    20 12 29.1 +0.5
L04A  Klamath Falls     18.75 332 ⇓P    Pn    20 12 27.5 -1.5
           baz=19
K05A  Summer Lake       18.82 335 ⇓P    Pn    20 12 29.0 -0.9
           baz=19
H13A  Challis           18.83 351 ⇑P    Pn    20 12 30.3 +0.4
           baz=19
J07A  Hines             18.84 339 ⇑P    Pn    20 12 29.7 -0.5
           baz=19
QLMT  Earthquake Lak    18.85 358 eP    Pn    20 12 32.2 +2.0
H12A  Diamond D Ranc    18.90 350 ⇓P    Pn    20 12 30.8  0.0
           baz=19
MCMT  McKenzie Canyo    18.93 355 eP    Pn    20 12 31.5 +0.3
I09A  Lost Marbles R    18.94 343 ⇓P    Pn    20 12 30.2 -1.2
           baz=19
J06A  Christmas Vall    19.01 338  P    Pn    20 12 31.6 -0.6
           baz=19,SNR=15
K04A  Chilquin          19.05 334 ⇑P    Pn    20 12 31.8 -0.9
           baz=19
I08A  Drewsey           19.11 342 ⇑P    Pn    20 12 31.4 -2.0
           baz=19
RLMT  Red Lodge         19.14   2 eP    Pn    20 12 34.1 +0.4
           comp=Z,53nm,1.4s
G15A  Dillon            19.24 355 ⇑P    Pn    20 12 34.2 -0.7
           baz=19,SNR=18
H11A  Donnelly          19.25 348 ⇑P    Pn    20 12 34.8 -0.3
           baz=19
H10A  Noah's Angus R    19.29 346 ⇓P    Pn    20 12 34.4 -1.2
           baz=19
G13A  Cobalt            19.34 352  P    Pn    20 12 35.7 -0.5
           baz=19,SNR=32
G14A  Jackson           19.40 353 ⇓P    Pn    20 12 36.4 -0.5
           baz=19
J05A  Fort Rock         19.43 336 ⇑P    Pn    20 12 36.3 -0.9
           baz=19
CCIG  Comitan           19.52 116 i P   Pn    20 12 42.5 +4.1
CCIG  Comitan           19.52 116 i P   Pn    20 12 43.1 +4.6
I07A  Izee              19.54 340  P    Pn    20 12 36.8 -1.8
           baz=20,SNR=12
H09A  Durkee            19.57 344  P    Pn    20 12 39.4 +0.5
           baz=20,SNR=9.4
I06A  Prineville        19.64 338 ⇓P    Pn    20 12 40.2 +0.4
           baz=20
BMO   Blue Mountains    19.66 345 eP    Pn    20 12 37.3 -2.7
           comp=Z,60nm,1.5s
BOZ   Bozeman (W)       19.67 357 eP    Pn    20 12 39.5 -0.5
           comp=Z,64nm,1.8s
BOZ   Bozeman (W)       19.67 357 eP    Pn    20 12 39.5 -0.6
BOZ                                 pmax  pmax
           comp=Z,64nm,1.8s
BOZ   Bozeman (W)       19.67 357 ⇑P    Pn    20 12 40.6 +0.5
           baz=20,SNR=20
H08A  Prairie City      19.70 342 ⇓P    Pn    20 12 39.1 -1.4
           baz=20
GCMT  Greycliff         19.80   1 eP    Pn    20 12 39.6 -2.0
F15A  Butte             19.91 356  P    Pn    20 12 42.1 -0.8
           baz=20,SNR=20
F14A  Wisdom            19.95 354 ⇓P    Pn    20 12 42.7 -0.7
           baz=20
G11A  Walters Elk Ra    19.97 348 ⇓P    Pn    20 12 43.1 -0.6
           baz=20
H07A  Lands Inn, Kim    20.02 340 ⇑P    P     20 12 42.3 -0.3
           baz=20
F13A  Darby             20.04 352 ⇑P    P     20 12 42.7  0.0
           baz=20
F12A  Elk City          20.14 350 ⇑P    P     20 12 44.7 +0.9
           baz=20
G09A  Cove              20.18 345 ⇑P    P     20 12 45.0 +0.8
           baz=20
H06A  Lindquist Farm    20.39 339 ⇑P    P     20 12 45.9 -0.6
           baz=20
F11A  Grangeville       20.42 348 ⇓P    P     20 12 47.4 +0.5
           baz=20
G08A  Pilot Rock        20.49 342  P    P     20 12 47.1 -0.5
           baz=20,SNR=10
E15A  Deer Lodge        20.50 355 ⇑P    P     20 12 48.8 +1.0
           baz=20,SNR=5.7
E14A  Clinton           20.56 354 ⇑P    P     20 12 49.0 +0.6
           baz=21
F09A  S2 Ranch, Elgi    20.61 345 ⇑P    P     20 12 48.2 -0.8
           baz=21
E13A  Victor            20.66 352 ⇑P    P     20 12 49.8 +0.3
           baz=21
G07A  Ruggs Ranch, H    20.67 341 ⇑P    P     20 12 49.0 -0.6
           baz=21
FVM   French Village    20.68  50 eP    P     20 12 50.2 +0.4
           comp=Z,133nm,1.5s
FVM   French Village    20.68  50 eP    P     20 12 50.2 +0.5
FVM                                 pmax  pmax
           comp=Z,133nm,1.5s
GLAT  Glass             20.72  55  P    P     20 12 50.6 +0.4
E11A  Bogner Ranch,     20.88 349 ⇓P    P     20 12 50.8 -1.0
           baz=21
F08A  Pendleton         20.91 343 ⇑P    P     20 12 50.7 -1.4
           baz=21
G06A  Carlson Farm,     20.93 339 ⇓P    P     20 12 51.2 -1.2
           baz=21
LAO   LASA Array        20.95   8 eP    P     20 12 51.5 -1.1
           comp=Z,35nm,1.0s
ECSD  EROS,Sioux Fal    20.96  29 eP    P     20 12 51.7 -1.1
           comp=Z,22nm,1.1s
H04A  Detroit Lake      20.98 336 ⇑P    P     20 12 52.3 -0.7
           baz=21
MSO   Missoula          21.02 353 eP    P     20 12 52.0 -1.4
           comp=Z,70nm,1.5s,mb4.8
CHMT  Chamberlain Mo    21.04 354 eP    P     20 12 52.9 -0.6
TEIG  Tepich            21.09 101  P    P     20 12 57.6 +3.3
           comp=Z,29nm,0.8s,mb4.6,baz=285,slow=9.6,SNR=13
TEIG                               LR   LR    20 22 20.0
           comp=Z,1µm,20.0s,MS4.3,baz=170,slow=40
D15A  Lincoln           21.11 356 ⇑P    P     20 12 54.4 +0.1
           baz=21,SNR=7.2
PLAL  Pickwick Lake     21.17  60 eP    P     20 12 55.9 +0.8
           comp=Z,32nm,1.0s,mb4.6
E10A  Myers Farm, Un    21.18 347 ⇓P    P     20 12 55.6 +0.5
           baz=21,SNR=10
D14A  Greenough         21.23 354 ⇑P    P     20 12 55.4 -0.2
           baz=21,SNR=50
F07A  Phinny Hill Vi    21.32 341 ⇓P    P     20 12 55.7 -0.9
           baz=21
D13A  Huson             21.34 352 ⇑P    P     20 12 56.2 -0.6
           baz=21
SIUC  Southern Illin    21.39  52 eP    P     20 12 58.2 +0.8
           comp=Z,127nm,1.0s,mb5.2
SIUC                              e           20 13 03.3
D12A  Red Ives Fores    21.42 351 ⇓P    P     20 12 57.3 -0.3
           baz=21
E09A  Wood Farm, Sta    21.43 345 ⇓P    P     20 12 56.0 -1.7
           baz=21
F06A  Goldendale        21.45 340 ⇓P    P     20 12 56.8 -1.2
           baz=21
LRAL  Lakeview Retre    21.50  65 eP    P     20 13 00.1 +1.5
           comp=Z,30nm,0.9s,mb4.6
D11A  Klaveano Farm,    21.57 349 ⇓P    P     20 12 58.6 -0.7
           baz=22
E08A  Dider Farm, El    21.63 344 ⇑P    P     20 12 58.5 -1.4
           baz=22
HAWA  Hanford           21.66 343 eP    P     20 12 57.7 -2.5
           comp=Z,77nm,1.4s,mb4.9
D10A  Wagner Farm, O    21.75 347 ⇑P    P     20 13 00.4 -0.9
           baz=22,SNR=11
E07A  Sunnyside         21.90 342 ⇑P    P     20 13 01.0 -1.8
           baz=22
G03A  Yamhill           21.93 335 ⇑P    P     20 13 02.0 -1.1
           baz=22
C14A  Swan Lake         21.93 354 ⇓P    P     20 13 02.5 -0.6
           baz=22
C13A  Hot Springs       21.93 352 ⇓P    P     20 13 03.0 -0.1
           baz=22
D09A  Jones Farm, Ri    21.98 345 ⇓P    P     20 13 02.2 -1.5
           baz=22
EGMT  Eagleton          22.03   1 eP    P     20 13 03.3 -0.9
           comp=Z,78nm,1.0s,mb5.1
EGMT  Eagleton          22.03   1 ⇑P    P     20 13 02.5 -1.6
           baz=22
D08A  Wollman Farm,     22.12 344  P    P     20 13 02.9 -2.3
           baz=22,SNR=7.3
F04A  Amboy             22.14 337 ⇑P    P     20 13 05.5 +0.1
           baz=22
E06A  Yakima            22.21 340 ⇓P    P     20 13 05.9 -0.2
           baz=22
OD2   Odessa Site #2    22.38 345  P    P     20 13 05.8 -2.1
E05A  Randle            22.47 339 ⇑P    P     20 13 09.0 +0.1
           baz=22,SNR=18
D07A  Quincy            22.52 343 ⇓P    P     20 13 09.2 -0.2
           baz=22
WPW   White Pass        22.53 340  P    P     20 13 08.5 -0.9
F03A  Seaside           22.55 335 ⇑P    P     20 13 09.8  0.0
           baz=22
B13A  Whitefish         22.60 353 ⇑P    P     20 13 09.5 -0.7
           baz=23,SNR=7.9
USIN  University of     22.60  52 eP    P     20 13 11.6 +1.2
           comp=Z,70nm,0.9s,mb5.1
LON   Longmire          22.66 339  P    P     20 13 09.9 -0.9
C09A  Chrisman Ranch    22.67 346 ⇑P    P     20 13 10.6 -0.4
           baz=23
RCM   Mount Rainier-    22.71 339  P    P     20 13 11.0 -0.4
HDIL  Hopedale          22.77  45 eP    P     20 13 11.8 -0.4
           comp=Z,205nm,1.1s,mb5.5
FMW   Mount Fremont     22.77 340  P    P     20 13 11.6 -0.5
C08A  Higginbotham F    22.83 345 ⇓P    P     20 13 11.6 -1.1
           baz=23
B12A  Libby             22.84 351 ⇓P    P     20 13 13.2 +0.4
           baz=23
NEW   Newport           22.89 348 eP    P     20 13 11.7 -1.6
           comp=Z,18nm,1.0s,mb4.5
NEW   Newport           22.89 348 eP    P     20 13 11.7 -1.6
NEW                                 pmax  pmax
           comp=Z,18nm,1.0s
NEW   Newport           22.89 348  P    P     20 13 11.6 -1.7
           comp=Z,12nm,0.9s,mb4.3,baz=166,slow=12,SNR=10
NEW                                LR   LR    20 22 19.1
           comp=Z,605nm,18.4s,MS4.1,baz=173,slow=38
SWET  Sewanee           22.91  60 eP    P     20 13 15.0 +1.3
B11A  Sandpoint         22.92 350 ⇑P    P     20 13 13.3 -0.4
           baz=23
DGMT  Dagmar            22.98  11 eP    P     20 13 13.8 -0.5
           comp=Z,78nm,1.1s,mb5.0
C07A  Waterville        23.00 343 ⇓P    P     20 13 14.2 -0.3
           baz=23
GSM   Grass Mountain    23.05 340  P    P     20 13 14.4 -0.6
E03A  Lebam             23.07 336 ⇓P    P     20 13 14.6 -0.7
           baz=23
D05A  Enumclaw          23.10 339 ⇓P    P     20 13 15.4 -0.2
           baz=23
A13A  Flathead Natio    23.15 353 ⇓P    P     20 13 15.4 -0.6
           baz=23
B09A  Rice              23.24 347 ⇓P    P     20 13 15.9 -1.0
           baz=23
A12A  Yaak River Ran    23.30 351 ⇑P    P     20 13 17.0 -0.6
           baz=23
A11A  Hall Mountain,    23.43 350 ⇑P    P     20 13 18.0 -1.0
           baz=23
B08A  Colville Reser    23.44 345 ⇓P    P     20 13 18.9 -0.2
           baz=23,SNR=5.6
C05A  Tolt Reservoir    23.46 341 ⇓P    P     20 13 18.9 -0.5
           baz=23
JFWS  Jewell Farm       23.59  39 eP    P     20 13 19.3 -1.3
           comp=Z,36nm,0.9s,mb4.8
JFWS  Jewell Farm       23.59  39 eP    P     20 13 19.3 -1.4
JFWS                                pmax  pmax
           comp=Z,36nm,0.9s,mb4.8
A10A  Northport         23.66 348 ⇑P    P     20 13 20.2 -1.0
           baz=24
WCI   Wyandotte Cave    23.70  53 eP    P     20 13 22.2 +0.4
           comp=Z,158nm,1.8s,mb5.1
WCI   Wyandotte Cave    23.70  53 eP    P     20 13 22.2 +0.5
WCI                                 pmax  pmax
           comp=Z,158nm,1.8s,mb5.1
B07A  Winthrop          23.73 344 ⇓P    P     20 13 21.3 -0.6
           baz=24
C04A  Brinnon           23.88 339 ⇓P    P     20 13 22.6 -0.7
           baz=24
BLO   Bloomington       23.94  51 eP    P     20 13 24.5 +0.6
           comp=Z,76nm,1.3s,mb5.0
BLO   Bloomington       23.94  51 eP    P     20 13 24.5 +0.6
BLO                                 pmax  pmax
           comp=Z,76nm,1.3s,mb5.0
A08A  Turner Farm, O    23.98 345 ⇑P    P     20 13 24.4 +0.2
           baz=24
CPCT  Cooper Cave       24.09  61 eP    P     20 13 25.8 +0.5
GOGA  Godfrey           24.47  66 eP    P     20 13 28.8  0.0
           comp=Z,78nm,1.3s,mb5.0
GOGA  Godfrey           24.47  66 eP    P     20 13 28.8  0.0
GOGA                                pmax  pmax
           comp=Z,78nm,1.3s,mb5.0
TGUH  Tegucigalpa,Un    24.67 114  P    P     20 13 32.4 +1.6
           comp=Z,80nm,0.9s,mb5.2
A04A  Legoe Bay, Lum    24.68 340 ⇑P    P     20 13 31.6 +1.0
           baz=25
TKL   Tuckaleechee C    24.73  61  P    P     20 13 31.8 +0.6
           comp=Z,7.2nm,0.7s,mb4.3,baz=226,slow=9.1,SNR=5.7
TKL                                LR   LR    20 23 43.4
           comp=Z,1µm,19.2s,MS4.4,baz=250,slow=38
A05A  Maple Falls       24.75 341 ⇑P    P     20 13 31.2 +0.1
           baz=25
AGMN  Agassiz Refuge    25.03  23 eP    P     20 13 31.7 -2.0
           comp=Z,11nm,0.6s,mb4.6
COWI  Conover           26.28  35 eP    P     20 13 42.6 -2.5
           comp=Z,22nm,1.1s,mb4.6
ULM   Lac du Bonnet     26.70  21 eP    P     20 13 45.2 -3.6
           comp=Z,12nm,1.0s,mb4.4
ULM   Lac du Bonnet     26.70  21  P    P     20 13 46.2 -2.6
           comp=Z,5.4nm,1.1s,mb4.0,baz=212,slow=11,SNR=6.6
ULM                                LR   LR    20 23 35.5
           comp=Z,448nm,18.4s,MS4.0,baz=186,slow=35
LHS   Liberty Hill      26.84  65  P    P     20 13 50.8 +0.5
ACSO  Alum Creek Sta    26.86  51 eP    P     20 13 50.4  0.0
           comp=Z,108nm,1.4s,mb5.2
EDM   Edmonton          27.32 356 eP    P     20 13 53.4 -1.0
JTS   JuntasAbangare    28.65 118⇑eP    P     20 14 08.1 +1.4
JTS   JuntasAbangare    28.65 118  P    P     20 14 07.6 +0.8
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	comp=Z,5.9nm,0.7s,mb4.4,baz=334,slow=19,SNR=5.2						
JTS				LR	LR	20 25 37.0	
	comp=Z,502nm,20.4s,MS4.1,baz=237,slow=36						
BBB	Bella Bella	29.43	338	LR	LR	20 25 31.9	
	comp=Z,480nm,19.1s,MS4.1,baz=157,slow=36						
SSPA	Standing Stone	30.63	53	eP	P	20 14 23.7	-0.4
	comp=Z,62nm,1.4s,mb5.2						
LONY	Lake Ozonia	34.27	48	eP	P	20 14 56.1	+0.3
	comp=Z,20nm,1.2s,mb4.9						
FCC	Fort Churchill	34.72	15	eP	P	20 14 56.8	-2.7
	comp=Z,36nm,1.2s,mb5.2						
FCC	Fort Churchill	34.72	15	eP	P	20 14 56.8	-2.7
FCC				pmax	pmax		
	comp=Z,36nm,1.2s,mb5.2						
QUA2	Belchertown	35.09	53	eP	P	20 15 03.0	+0.1
	comp=Z,66nm,1.1s,mb5.5						
QUA2				e		20 15 10.2	
DLBC	Dease Lake	35.29	342	eP	P	20 15 05.1	+0.6
BRYW	Bryant College	35.58	54	eP	P	20 15 06.6	-0.6
	comp=Z,44nm,1.1s,mb5.3						
HRV	Harvard--Oak R	35.72	53	eP	P	20 15 08.0	-0.3
	comp=Z,41nm,1.1s,mb5.3						
HRV	Harvard--Oak R	35.72	53	eP	P	20 15 08.0	-0.4
HRV				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.3						
YKA	Yellowknife Ar	36.63	357	P	P	20 15 13.9	-2.0
	comp=Z,4.2nm,1.0s,mb4.2,baz=175,slow=7.9,SNR=21						
YKA				LR	LR	20 30 13.4	
	comp=Z,303nm,19.4s,MS4.1,baz=170,slow=36						
ROSC	El Rosal	40.35	115	P	P	20 15 51.4	+3.6
	comp=Z,8.1nm,0.4s,mb4.8,baz=281,slow=18,SNR=5.6						
ROSC				LR	LR	20 34 53.4	
	comp=Z,298nm,18.4s,MS4.2,baz=218,slow=40						
SDV	Santo Domingo	41.32	107	eP	P	20 15 57.6	+1.8
	comp=Z,15nm,0.9s,mb4.6						
SDV				ePcP	PcP	20 17 55.0	+0.7
SDV	Santo Domingo	41.32	107	P	P	20 15 58.0	+2.1
	comp=Z,7.9nm,0.7s,mb4.5,baz=319,slow=4.8,SNR=12						
SDV				PcP	PcP	20 17 55.2	+0.8
	comp=Z,8.1nm,0.8s,baz=325,slow=4.7,SNR=5.1						
SJG	San Juan	41.56	92	eP	P	20 15 54.5	-3.2
	comp=Z,33nm,0.9s,mb5.0						
SJG	San Juan	41.56	92	eP	P	20 15 54.5	-3.2
SJG				pmax	pmax		
	comp=Z,33nm,0.9s						
DAWY	Dawson	42.51	342	eP	P	20 16 04.4	-0.4
SCHQ	Schefferville	42.88	36	P	P	20 16 08.6	+0.6
	comp=Z,2.9nm,0.8s,mb4.1,baz=237,slow=12,SNR=3.5						
SCHQ				LR	LR	20 32 49.2	
	comp=Z,504nm,19.4s,MS4.4,baz=253,slow=35						
KDAK	Kodiak Island	43.55	328	P	P	20 16 11.5	-1.8
KDAK	Kodiak Island	43.55	328	P	P	20 16 11.5	-1.8
	comp=Z,11nm,0.7s,mb4.7,baz=164,slow=5.8,SNR=4.3						
EGAK	Eagle	43.55	341	eP	P	20 16 13.1	-0.2
	comp=Z,6.4nm,0.8s,mb4.4						
SLKM	Skilak Lake	43.92	333	eP	P	20 16 15.3	-1.0
SML	Sawmill	43.93	335	eP	P	20 16 15.2	-1.1
INK	Inuvik	44.61	348	eP	P	20 16 21.1	-0.7
	comp=Z,522nm,1.2s						
INK	Inuvik	44.61	348	P	P	20 16 20.1	-1.6
	comp=Z,5.8nm,1.1s,mb4.3,baz=146,slow=11,SNR=5.5						
TAOE	Nuku Hiva Isla	45.13	224	eLR	LR	20 29 01.8	
	comp=Z,2µm,26.0s						
ATAH	Atahualpa	45.14	132	P	P	20 16 30.9	+4.3
	comp=Z,11nm,0.9s,mb4.7,baz=320,slow=4.4,SNR=7.6						
MCK	McKinley	45.32	337	eP	P	20 16 26.4	-1.0
	comp=Z,9.0nm,1.0s,mb4.5						
MCK				e		20 16 32.6	
MCK	McKinley	45.32	337	eP	P	20 16 26.5	-1.0
MCK				e		20 16 32.6	
MCK				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
COLA	College	45.68	339	P	P	20 16 27.4	-2.9
	comp=Z,7.4nm,0.8s,mb4.7						
COLA	College	45.68	339	⇑eP	P	20 16 29.6	-0.7
SVW2	Sparrevohn	46.48	332	eP	P	20 16 35.6	-1.0
TTA	Tatalina	47.54	334	eP	P	20 16 44.0	-0.9
IMA2	Indian Mountai	48.34	338	eP	P	20 16 49.8	-1.2
RES	Resolute Bay	49.43	5	eP	P	20 16 56.8	-2.5
	comp=Z,249nm,0.9s						
TNA	Tin City	53.36	334	eP	P	20 17 27.6	-1.3
	comp=Z,6.8nm,1.0s,mb4.5						
TNA				e		20 17 32.8	
RKT	Rikitea	54.30	208	eLR	LR	20 33 38.0	
	comp=Z,226nm,29.0s						
PPT	Papeete	57.67	226	eS	S	20 26 01.0	+1.8
	comp=Z,118nm,27.8s						
PPT				eLR	LR	20 35 03.7	
	comp=Z,612nm,25.0s						
PPT	Papeete	57.67	226	LR	LR	20 36 55.3	
	comp=Z,336nm,18.2s,MS4.5,baz=42,slow=30						
LPAZ	La Paz	58.75	131	eP	P	20 18 09.3	+1.3
	comp=Z,16nm,1.5s,mb4.8						
LPAZ				e		20 18 16.6	
LPAZ	La Paz	58.75	131	eP	P	20 18 09.3	+1.3
LPAZ				e		20 18 16.6	
LPAZ				pmax	pmax		
	comp=Z,16nm,1.5s						
LPAZ	La Paz	58.75	131	P	P	20 18 09.6	+1.5
	comp=Z,2.1nm,0.9s,mb4.2,baz=271,slow=6.6,SNR=6.7						
LPAZ				LR	LR	20 42 15.8	
	comp=Z,103nm,19.5s,MS4.0,baz=160,slow=35						
BILL	Bilibino	63.73	335	eP	P	20 18 41.0	-0.2
	comp=Z,19nm,0.9s,mb5.1						
BILL	Bilibino	63.73	335	⇓eP	P	20 18 40.8	-0.4
BILL				pmax	pmax		
	comp=Z,18nm,1.7s,mb4.8						
DAG	Danmarks Havn	65.32	15	⇓iP	P	20 18 50.0	-1.4
DAG				pmax	pmax		
	comp=Z,14nm,0.5s,mb5.2						
DAG	Danmarks Havn	65.32	15	⇓iP	P	20 18 50.0	-1.4
	comp=Z,14nm,0.5s,mb5.2						
PET	Petropavlovsk	70.27	320	⇑eP	P	20 19 22.5	-0.5
PET				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.4						
MA2	Magadan	72.29	328	eP	P	20 19 34.3	-0.8
	comp=Z,17nm,1.3s,mb4.8						
MA2				e		20 19 40.3	
MA2	Magadan	72.29	328	eP	P	20 19 34.2	-0.9
MA2				e		20 19 50.7	
MA2				eS	S	20 28 54.4	-3.6
MA2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
TIXI	Tiksi	74.51	344	eP	P	20 19 45.5	-2.4
	comp=Z,18nm,1.0s,mb5.0						
TIXI				e		20 19 51.2	
TIXI	Tiksi	74.51	344	eP	P	20 19 43.9	-4.1
TIXI				pmax	pmax		
	comp=Z,33nm,1.7s,mb5.0						
ARCES	ARCESS Array B	79.61	14	P	P	20 20 14.4	-2.3
	comp=Z,5.1nm,0.9s,mb4.5,baz=316,slow=10.0,SNR=5.3						
YAK	Yakutsk	80.09	336	eP	P	20 20 18.4	-1.1
	comp=Z,26nm,1.0s,mb5.1						
YAK	Yakutsk	80.09	336	eP	P	20 20 18.1	-1.3
YAK				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
YAK				pmax	pmax		
	comp=N,5.0nm,1.6s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.5s						
NB2	NORSAR Subarra	81.32	25	P	P	20 20 26.0	0.0
	comp=Z,18nm,1.2s,mb4.9,baz=307,slow=5.6						
NOA	NORSAR Array B	81.32	25	P	P	20 20 25.3	-0.7
NOA				LR	LR	20 54 28.4	
NOA	NORSAR Array B	81.32	25	P	P	20 20 25.3	-0.7
	comp=Z,3.0nm,0.9s,mb4.2,baz=311,slow=5.2,SNR=5.7						
NOA				LR	LR	20 54 28.4	
	comp=Z,171nm,20.8s,MS4.4,baz=135,slow=34						
YSS	Yuzh-Sakhalins	82.06	319	⇑eP	P	20 20 29.2	-1.0
YSS				pmax	pmax		
	comp=Z,24nm,1.9s,mb4.8						
LVZ	Lovozero	82.88	13	⇑eP	P	20 20 34.6	+0.5
ESDC	Sonseca Array	85.37	48	P	P	20 20 47.1	-0.2
	comp=Z,0.1nm,0.3s,baz=300,slow=5.3,SNR=5.0						
KAF	Kangasniemi	85.62	19	ep	P	20 20 46.8	-1.3
FINES	FINESS Array B	86.08	19	P	P	20 20 50.5	+0.1
	comp=Z,3.2nm,1.1s,mb4.5,baz=358,slow=14,SNR=4.5						
FINES				LR	LR	21 04 04.6	
	comp=Z,136nm,18.1s,MS4.4,baz=169,slow=39						
JOF	Joensuu	86.34	17	ep	P	20 20 49.0	-2.6
TMCR	Tamitsa	86.82	13	eP	P	20 20 57.3	+3.3
CLL	Collm	88.39	32	eP	P	20 21 05.0	+3.3
CLL				LR	LR		
	comp=Z,200nm,19.0s,MS4.5						
CLL	Collm	88.39	32	e(P)	P	20 21 05.0	+3.3
CLL				LmH		20 54 00.0	
	comp=N,200nm,21.6s						
CLL				LmH		20 54 00.0	
	comp=E,100nm,21.2s						
CLL				LmV		20 59 00.0	
	comp=Z,200nm,19.0s						
VSU	Vasula	88.64	21	⇑eP	P	20 21 00.6	-2.2
BOD	Bodaibo	88.66	338	eP	P	20 21 00.0	-2.9
BOD				pmax	pmax		
	comp=Z,10.0nm,1.5s,mb4.9						
GERES	GERESS Array B	90.36	33	LR	LR	21 01 38.5	
	comp=Z,388nm,19.0s,MS4.9,baz=280,slow=36						
MJAR	Matsushiro Arr	90.39	311	LR	LR	20 55 04.4	
	comp=Z,298nm,19.5s,MS4.7,baz=85,slow=31						
MDJ	Mudanjiang	90.98	322	P	P	20 21 11.8	-2.3
MDJ				AMB	AMB		
	comp=Z,4.0nm,1.3s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,105nm,7.7s						
AKASG	Malin Array Be	95.73	24	LR	LR	21 06 53.7	
	comp=Z,150nm,18.3s,MS4.5,baz=300,slow=37						
KEST	Kesra	96.31	45	LR	LR	21 04 54.0	
	comp=Z,112nm,18.8s,MS4.4,baz=279,slow=35						
KSRS	Korea Array	96.49	317	LR	LR	20 58 52.3	
	comp=Z,81nm,19.3s,MS4.2,baz=255,slow=32						
GUMO	Guam	96.98	289	LR	LR	20 56 33.0	
	comp=Z,322nm,20.4s,MS4.8,baz=307,slow=30						
TLY	Talaya	97.12	339	eP	P	20 21 41.8	-0.3
TLY				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.7						
TLY				MLR	MLR		
	comp=Z,70nm,13.0s,MS4.3						
ARU	Arti	97.40	6	eP	P	20 21 43.2	0.0
ARU				e		20 25 39.3	
ARU				ePPP		20 27 44.4	
ARU				eS	SKSac	20 32 20.3	-0.3
ZAK	Zakamensk	98.36	339	eP	P	20 21 47.4	-0.3
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.2s,mb4.2						
ULN	Ulaanbaatar	99.18	336	eP	P	20 21 51.4	0.0
	comp=Z,2.9nm,1.0s,mb4.8						
ULN				e		20 21 57.7	
ULN	Ulaanbaatar	99.18	336	eP	P	20 21 51.4	0.0
ULN				e		20 21 57.7	
ULN				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.8						
ZALV	Zalesovo Beam	99.34	351	P	P	20 21 49.0	-3.0
ZALV				LR	LR	21 06 13.8	
ZALV	Zalesovo Beam	99.34	351	P	P	20 21 49.0	-3.0
	comp=Z,0.2nm,0.4s,mb4.0,baz=18,slow=29,SNR=2.6						
ZALV				LR	LR	21 06 13.8	
	comp=Z,70nm,20.5s,MS4.2,baz=20,slow=35						
ZAL	Zalesovo	99.36	351	P	P	20 21 49.0	-3.0
SONM	Songino Array	99.45	336	P	P	20 21 52.0	-0.6
	comp=Z,1.0nm,1.0s,mb4.3,baz=42,slow=3.5,SNR=5.9						
SONM				LR	LR	21 11 40.7	
	comp=Z,110nm,20.0s,MS4.4,baz=359,slow=38						
HHC	Hu-ho-hao-te	102.97	329	eP	Pdif	20 22 07.5	-0.7
HHC				AP		20 22 12.3	
HHC				PP	PP	20 26 23.8	+2.0
HHC				SKS		20 32 46.0	
HHC				S	Sdif	20 33 47.5	-7.0
HHC				SS	SS	20 40 59.5	-3.1
HHC				AMB	AMB		
	comp=Z,8.0nm,0.9s						
HHC				AMB	AMB		
	comp=Z,172nm,6.1s						
HHC				LR	LR		
	comp=N,139nm,34.5s,MS4.5						
HHC				LR	LR		
	comp=E,220nm,33.3s,MS4.5						
HHC				LR	LR		
	comp=Z,152nm,36.9s,MS4.3						
LZH	Lanzhou	110.35	331	ePKP	PKiKP	20 26 42.5	+0.2
LZH				XPKP		20 26 47.0	
LZH				PP	PP	20 27 20.5	+4.4
LZH				eSS	SS	20 42 41.3	-1.5
LZH				PP	PP		
	comp=Z,81nm,7.4s						
LZH				LR	LR		
	comp=E,145nm,18.0s						
LZH				LR	LR		
	comp=Z,182nm,20.1s,MS4.7						
CD2	Chengdu	114.71	328	ePKP	PKiKP	20 26 48.5	-2.3
CD2				XPKP		20 26 58.0	
CD2				PP	PP	20 27 49.0	+1.7
CD2				PKS		20 30 24.0	
CD2				SKS	SKSdf	20 33 55.8	-7.5
CD2				SKKS	SKKSac	20 34 39.0	-11
CD2				SS	SS	20 43 36.3	-4.6
CD2				PP	PP		
	comp=Z,80nm,8.4s						
CD2				LR	LR		
	comp=N,70nm,25.3s						
CD2				LR	LR		
	comp=Z,90nm,26.0s,MS4.3						
GYA	Guiyang	116.83	323	PDIF	Pdif	20 23 08.5	-1.3
GYA				PKP	PKPdf	20 26 53.0	-2.0
GYA				PP	PP	20 28 04.8	+2.4
GYA				PKS		20 30 28.8	
GYA				SKS	SKSdf	20 34 03.3	-4.2
GYA				SKKS	SKKSac	20 34 56.5	-8.3
GYA				S	Sdif	20 35 44.0	-6.1
GYA				PP	PP		
	comp=Z,120nm,7.8s						
GYA				LR	LR		
	comp=N,120nm,21.8s,MS4.8						
GYA				LR	LR		
	comp=E,190nm,21.6s,MS4.8						
GYA				LR	LR		
	comp=Z,110nm,20.7s,MS4.5						
VNA3	Neumayer Olymp	117.78	159	ePKPdf	PKPdf	20 26 55.1	-0.2
VNA3				e		20 27 01.5	
VNA3				e		20 27 10.7	
STKA	Stephens Creek	117.78	246	PKP	PKPdf	20 26 55.7	-0.9
STKA	Stephens Creek	117.78	246	PKP	PKPdf	20 26 55.7	-0.8
	comp=Z,2.0nm,0.9s,baz=63,slow=11,SNR=2.1						
VNA2	Neumayer--Watz	118.53	159	ePKPdf	PKPdf	20 26 56.8	0.0
	baz=328,slow=3.7						
VNA2				e		20 27 02.6	
VNA2				e		20 27 11.9	
KMI	Kunming	119.99	325	PKP	PKPdf	20 27 00.0	-1.1
WRA	Warramunga Arr	120.64	261	PKP	PKPdf	20 27 00.8	-1.6
WRA	Warramunga Arr	120.64	261	PKIKP	PKPdf	20 27 00.8	-1.5
WRA	Warramunga Arr	120.64	261	PKP	PKPdf	20 27 00.8	-1.6
	comp=Z,0.8nm,0.9s,baz=72,slow=2.4,SNR=4.6						
ASAR	Alice Springs	122.16	257	PKP	PKPdf	20 27 02.5	-2.7
ASAR	Alice Springs	122.16	257	PKIKP	PKPdf	20 27 02.5	-2.7
ASAR	Alice Springs	122.16	257	PKP	PKPdf	20 27 02.5	-2.7
	comp=Z,0.9nm,1.0s,baz=87,slow=1.6,SNR=5.0						
LSZ	Lusaka	139.92	83	ePKPpre		20 27 31.9	
LSZ	Lusaka	139.92	83	ePKHKP		20 27 32.0	
BOSA	Boshof	140.63	104	PKP	PKPdf	20 27 39.1	-0.7
	comp=Z,2.3nm,0.9s,baz=207,slow=2.3,SNR=3.0						

NIED ***27*** *20:11:00, 3390N×13200E, h77^{km}, Mw3.8 Best double couple: M₀4.86000×10^{14} NP1:φ$_{s}$32.00000°, δ34.00000°, λ-96.00000°. NP2:φ$_{s}$219.00000°, δ56.00000°, λ-86.00000°.*

ISCJB ***27*** *20:11:32.8±0.5, 3386N±005×13200E±005, h69^{km}±4^{km}, mb3.5/4, Error ellipse: s-maj=7.8km s-min=6.4km az=13.8*

IDC ***27*** *20:11:34.8±1.6, 3387N×13188E, h72^{km}±16^{km}, mb3.2/4, mb1 3.5/6, mb1mx3.2/24, mbtmp3.2/6, Error ellipse: s-maj=23.4km s-min=12.1km az=86.0*

JMA ***27*** *20:11:34.0, 3385N×13203E, h60^{km}±1^{km}, M3.5 Broadband fault plane solution: P waves. NP1: φ$_{s}$61.00000°, δ41.00000°, λ-60.00000°. NP2:φ$_{s}$204.00000°, δ56.00000°, λ-113.00000°. Principal axes: T Plg8.0000°, Azm310.0000°; N Plg19.0000°, Azm217.0000°; P Plg69.0000°, Azm62.0000°;*

JMA Felt I J1.

ISC 27 20:11:34.0±0.5**, 3384N**±005×**13201E**±005**, h62**^{km}±4^{km}**, n15, σ0^{s}59**/23**, mb3.6**/4**, 4C-3D, Shikoku**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JKD	Kudamatsu	0.24	332	⇓P	Pn	20 11 43.7	-0.2
JKD				S	Sn	20 11 50.8	-0.2
JKI	Kunimi	0.42	241	⇓P	Pn	20 11 45.5	+0.2
JKI				S	Sn	20 11 54.0	+0.4
JNA	Nagahama	0.48	126	⇑P	Pn	20 11 45.8	-0.1
JNA				S	Sn	20 11 54.4	-0.2
JHM	Kurahashi	0.52	55	⇓P	Pn	20 11 46.0	-0.3
JHM				S	Sn	20 11 55.3	0.0
UWA2	Uwa jima 2	0.81	141	⇑P	Pn	20 11 49.6	-0.1
UWA2				S	Sn	20 12 00.9	-0.3
JET	Tanbara	0.87	94	⇑P	Pn	20 11 50.1	-0.3
JET				S	Sn	20 12 02.4	0.0
JHT	Toyohira	0.89	22	P	Pn	20 11 51.1	+0.5
JKU	Kubokawa	1.03	121	⇑P	Pn	20 11 52.0	-0.4
JNU	Nakatsue	1.19	233	P	Pn	20 11 55.0	+0.5
	27nm,0.3s,baz=36,slow=7.2,SNR=252						
JNU				S	Sn	20 12 10.2	+0.3
	41nm,0.3s,baz=188,slow=36,SNR=31						
KSRS	Korea Array	4.91	318	P	Pn	20 12 45.0	-0.2
	1.0nm,0.3s,baz=140,slow=14,SNR=11						
KSRS				S	Sn	20 13 40.1	-0.4
	2.5nm,0.3s,baz=138,slow=24,SNR=9.1						
MJAR	Matsushiro Arr	5.75	60	P	Pn	20 12 58.1	+1.5
	0.3nm,0.3s,baz=243,slow=13,SNR=5.2						
WRA	Warramunga Arr	53.53	177	P	P	20 20 47.3	-1.0
	0.3nm,0.6s,mb3.4,baz=355,slow=8.1,SNR=5.3						
ASAR	Alice Springs	57.22	178	P	P	20 21 15.3	+0.5
	0.4nm,0.6s,mb3.6,baz=11,slow=13,SNR=7.5						
FINES	FINESS Array B	67.89	330	P	P	20 22 24.3	-1.3
	0.4nm,0.5s,mb3.7,baz=66,slow=6.7,SNR=4.4						
NVAR	Mina Array Bea	82.94	48	P	P	20 23 53.4	+1.2
	0.4nm,0.5s,mb3.7,baz=347,slow=7.4,SNR=3.2						

IDC 27 20:39:05.0±1.3**, 2583N**×**11009W, h0**^{km}**, mb3.1**/1**, mb1 3.8**/4**, mb1mx3.6**/20**, mbtmp3.3**/4**, ML3.6**/3**, MS3.3**/2**, Ms1 3.3**/2**, ms1mx2.9**/12**, Error ellipse: s-maj=26.4km s-min=12.4km az=102.0, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	1.73	186	Pn	Pn	20 39 38.1	+1.7
	8.3nm,0.3s,baz=104,slow=4.3,SNR=4.8						
LPIG				Lg		20 39 58.5	
	17nm,0.3s,baz=357,slow=12,SNR=5.6						
TXAR	Lajitas Array	6.68	57	Pn	Pn	20 40 45.9	+1.5
	0.3nm,0.3s,baz=241,slow=13,SNR=7.8						
TXAR				Lg		20 42 33.9	
	0.3nm,0.3s,baz=360,slow=30,SNR=3.4						
PFO	Pinyon Flat Ob	9.52	326	Lg		20 44 09.1	
	0.7nm,0.3s,baz=25,slow=10.0,SNR=2.8						
NVAR	Mina Array Bea	14.35	333	Pn	Pn	20 42 30.9	+1.7
	0.1nm,0.3s,baz=234,slow=13,SNR=3.7						
CMIG	Matias Romero	16.60	119	LR	LR	20 50 08.9	
	comp=Z,52nm,18.5s,baz=198,slow=40						
PDAR	Pinedale Array	16.90	1	Pn	Pn	20 43 05.0	+2.2
	0.1nm,0.3s,baz=178,slow=7.3,SNR=6.8						
TKL	Tuckaleechee C	24.59	60	LR	LR	20 53 27.7	
	comp=Z,135nm,20.6s,baz=56,slow=35						
YKA	Yellowknife Ar	36.78	357	P	P	20 46 14.5	+0.4
	0.2nm,0.7s,baz=184,slow=8.0,SNR=4.1						

ISCJB ***27*** *20:43:49.5±0.3, 5149N±002×693E±002, h0^{km}, Error ellipse: s-maj=2.5km s-min=1.9km az=145.3*

NEIC ***27*** *20:43:50.1±0.8, 5166N×686E, h10^{km}, ML3.2(LDG), ML2.6(SZGRF), Error ellipse: s-maj=10.7km s-min=5.1km az=179.0*

PRU ***27*** *20:43:51.7, 5160N×690E, h0^{km}*

UCC ***27*** *20:43:51.9±0.3, 5161N×686E, h12^{km}±1^{km}, ML2.5*

BUG ***27*** *20:43:51.5, 5157N×689E, h1^{km}, ML1.9*

CSEM ***27*** *20:43:51.9±0.1, 5160N×681E, h2^{km}, ML3.2/17, Error ellipse: s-maj=1.4km s-min=1.1km az=129.0*

BGR ***27*** *20:43:51.7±0.6, 5154N×688E, h1^{km}, ML2.7/4, Error ellipse: s-maj=5.6km s-min=3.3km az=117.0*

LDG ***27*** *20:43:52.0±0.1, 5160N×682E, h1^{km}, Md3.6/2, Ml3.2/20, Error ellipse: s-maj=1.9km s-min=1.4km az=44.0, Suspected Mining induced.*

BNS ***27*** *20:43:53.3±0.2, 5153N×681E, h1^{km}, ML2.6*

ISC 27 20:43:50.8±0.3**, 5155N**±002×**685E**±002**, h0**^{km}**, n132, σ1^{s}25**/243**, 4C-3D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BZER	Hlnxe	0.07	11	Pg	Pg	20 43 52.4	+0.2
BZER				Sg	Sg	20 43 54.0	+0.9
BZER	Hlnxe	0.07	11	Pg	Pg	20 43 52.4	+0.2
BZER				Sg	Sg	20 43 54.0	+0.9
BUG	Bochum--Univer	0.28	112	⇑ePg	Pg	20 43 57.6	+1.4
BUG				Sg	Sg	20 44 02.1	+2.2
BUG	Bochum--Univer	0.28	112	ePg	Pg	20 43 57.6	+1.4
BUG				eSg	Sg	20 44 02.1	+2.2
BUG	Bochum--Univer	0.28	112	ePg	Pg	20 43 57.6	+1.4
BUG				eSg	Sg	20 44 02.1	+2.2
WTSB	Winterswijk	0.42	356	⇓iPg	Pg	20 43 59.5	+0.7
	85nm,0.4s						
WTSB				eSg	Sg	20 44 05.4	+1.2
BNS	Bensberg	0.62	161	ePg	Pg	20 44 04.9	+2.2
BNS				eSg	Sg	20 44 13.6	+2.9
	188nm,0.2s						
HOBG	Hohbusch	0.64	152	ePg	Pg	20 44 05.3	+2.2
IBBN	Ibbenburen	0.94	36	ePg	Pg	20 44 09.0	+0.1
	SNR=5.7						
IBBN				eSg	Sg	20 44 22.1	+1.0
	SNR=3.0						
STB	Steinbach	0.96	180	ePg	Pg	20 44 11.0	+1.9
STB				eSg	Sg	20 44 23.9	+2.5
	105nm,0.2s						
KLL	Kalltalsperre	0.97	201	ePg	Pg	20 44 11.1	+1.8
KLL				eSg	Sg	20 44 24.4	+2.7
	253nm,0.3s						
DREG	Dreilaegerbach	0.97	204	ePg	Pg	20 44 11.2	+1.9
DREG				eSg	Sg	20 44 24.4	+2.5
	312nm,0.2s						
HGN	Heimansgroeve	0.98	217	ePg	Pg	20 44 11.2	+1.8
	24nm,0.2s						
HGN				eSg	Sg	20 44 24.6	+2.5
BEBN	Eben Emael	1.05	225	⇓P	Pg	20 44 12.2	+1.3
BEBN				S	Sg	20 44 25.7	+1.1
	comp=N,101nm,0.4s						
BEBN	Eben Emael	1.05	225	P	Pg	20 44 12.2	+1.3
BEBN				S	Sg	20 44 25.6	+1.0
	comp=N,101nm,0.4s						
MEM	Membach	1.08	210	⇑P	Pg	20 44 12.7	+1.3
MEM				S	Sg	20 44 27.7	+2.2
	comp=E,204nm,0.3s						
MEM	Membach	1.08	210	P	Pg	20 44 12.7	+1.2
MEM				S	Sg	20 44 27.6	+2.2
	comp=E,204nm,0.3s						
HILG	Hillesheim	1.26	185	ePg	Pg	20 44 16.2	+1.3
HILG				eSg	Sg	20 44 32.8	+1.4
	comp=E,149nm,0.2s						
BGG	Burgeitz	1.38	167	ePg	Pg	20 44 17.8	+0.6
BGG				eSg	Sg	20 44 36.0	+0.9
	comp=E,80nm,0.2s						
BCLA	Clavier	1.50	221	⇓P	Pn	20 44 18.8	0.0
BCLA				S	Sg	20 44 38.6	-0.1
	comp=N,45nm,0.4s						
BCLA	Clavier	1.50	221	P	Pn	20 44 18.7	-0.1
BCLA				S	Sg	20 44 38.6	-0.1
	comp=N,45nm,0.4s						
TNS	Taunus Mts	1.67	142	ePg	Pg	20 44 22.5	-0.3
	SNR=6.7						
TNS				eSg	Sg	20 44 43.9	-0.5
	SNR=3.4						
TNS	Taunus Mts	1.67	142	ePg	Pg	20 44 21.7	-1.1
TNS				eSg	Sg	20 44 44.9	+0.5
TNS	Taunus Mts	1.67	142	eSg	Sg	20 44 44.9	+0.5
SNF	Seneffe	1.93	238	⇑P	Pn	20 44 24.7	-0.1
SNF	Seneffe	1.93	238	P	Pn	20 44 24.6	-0.1
GIVF	Givet	1.94	222	ePn	Pn	20 44 25.0	+0.1
GIVF	Givet	1.94	222	ePg	Pg	20 44 28.6	+0.8
GIVF				eSg	Sg	20 44 53.1	+0.2
	comp=N,121nm,0.4s						
GIVF	Givet	1.94	222	ePn	Pn	20 44 25.0	+0.1
GIVF				ePg	Pg	20 44 28.6	+0.8
GIVF				eSg	Sg	20 44 53.1	+0.2
GIVF	Givet	1.94	222	ePn	Pn	20 44 25.0	+0.1
GIVF	Givet	1.94	222	ePg	Pg	20 44 28.6	+0.8
GIVF				eSg	Sg	20 44 53.1	+0.2
	comp=N,60nm,0.4s						
WLF	Walferdange	1.94	193	ePg	Pg	20 44 28.1	+0.2
	SNR=5.0						
WLF				eSg	Sg	20 44 52.4	-0.6
	SNR=4.7						
WLF	Walferdange	1.94	193	ePn	Pn	20 44 26.7	+1.8
WLF				eSn	Sn	20 44 50.6	+0.6
WLF	Walferdange	1.94	193	P	Pn	20 44 27.1	+2.2
WLF	Walferdange	1.94	193	ePn	Pn	20 44 26.7	+1.8

WLF	**Walferdange**	1.94	193	P	Pn	20 44 27.0	+2.1
WLF				*e*Sn	Sn	20 44 50.6	+0.7
DOU	**Dourbes**	2.04	225	⇑P	Pn	20 44 26.5	+0.2
DOU				S	Sn	20 44 52.5	0.0
	comp=N,22nm,0.4s						
DOU	**Dourbes**	2.04	225	P	Pn	20 44 26.4	+0.1
DOU				S	Sn	20 44 52.4	0.0
	comp=N,22nm,0.4s						
UBBA	**Unterbreizbach**	2.12	109	*e*Sg	Sg	20 44 57.6	-1.0
	SNR=2.5						
CLZ	**Clausthal**	2.21	81	*e*Pg	Pg	20 44 30.7	-2.4
CLZ				*e*Sg	Sg	20 45 00.9	-0.9
	SNR=3.0						
CLZ	**Clausthal**	2.21	81	*e*Pg	Pg	20 44 30.7	-2.4
CLZ				*e*Sg	Sg	20 45 00.8	-1.0
BAIF	**Baives**	2.24	229	*e*Pn	Pn	20 44 28.6	-0.5
BAIF	**Baives**	2.24	229	*e*Pg	Pg	20 44 33.8	+0.1
BAIF				*e*Sg	Sg	20 45 02.5	-0.3
	comp=N,23nm,0.3s						
BAIF	**Baives**	2.24	229	*e*Pn	Pn	20 44 28.6	-0.5
BAIF				*e*Pg	Pg	20 44 33.8	+0.1
BAIF				*e*Sg	Sg	20 45 02.5	-0.3
BAIF	**Baives**	2.24	229	*e*Pn	Pn	20 44 28.6	-0.5
BAIF	**Baives**	2.24	229	*e*Pg	Pg	20 44 33.8	+0.1
BAIF				*e*Sg	Sg	20 45 02.5	-0.3
	comp=N,12nm,0.3s						
RFYF	**Reffroy**	3.06	197	*e*Pn	Pn	20 44 39.9	-0.4
	baz=16						
RFYF				*e*Sg	Sg	20 45 29.0	+0.1
	comp=N,24nm,0.2s						
RFYF	**Reffroy**	3.06	197	*e*Pn	Pn	20 44 39.9	-0.4
RFYF				*e*Sg	Sg	20 45 29.0	+0.1
RFYF	**Reffroy**	3.06	197	*e*Pn	Pn	20 44 39.9	-0.4
RFYF				*e*Sg	Sg	20 45 29.0	+0.1
	comp=N,12nm,0.2s						
MOX	**Moxa**	3.14	105	*e*Pn	Pn	20 44 42.2	+0.8
MOX				*e*Sg	Sg	20 45 30.2	-1.4
	SNR=3.0						
MOX	**Moxa**	3.14	105	*e*Pn	Pn	20 44 42.2	+0.8
MOX				*e*Sg	Sg	20 45 33.0	+1.4
MOX	**Moxa**	3.14	105	*e*PN	Pn	20 44 42.2	+0.8
MOX				*e*SG	Sg	20 45 33.0	+1.4
MOX	**Moxa**	3.14	105	*e*Pn	Pn	20 44 42.2	+0.8
MOX				*e*Sg	Sg	20 45 33.0	+1.4
CDF	**Champ du Feu**	3.15	175	*e*Pn	Pn	20 44 41.6	0.0
CDF				*e*Sn	Sn	20 45 18.4	-1.5
CDF				*e*Sg	Sg	20 45 32.3	+0.3
	comp=N,13nm,0.5s						
CDF	**Champ du Feu**	3.15	175	*e*Pn	Pn	20 44 41.6	0.0
CDF				*e*Sn	Sn	20 45 18.4	-1.5
CDF				*e*Sg	Sg	20 45 32.3	+0.3
CDF	**Champ du Feu**	3.15	175	*e*Pn	Pn	20 44 41.6	0.0
CDF				*e*Sn	Sn	20 45 18.4	-1.5
CDF				*e*Sg	Sg	20 45 32.3	+0.3
	comp=N,6.7nm,0.5s						
MEZF	**Maizieres J'vi**	3.26	201	*e*Pn	Pn	20 44 42.7	-0.4
MEZF				*e*Sg	Sg	20 45 36.1	+0.6
	comp=N,16nm,0.4s						
MEZF	**Maizieres J'vi**	3.26	201	*e*Pn	Pn	20 44 42.7	-0.4
MEZF				*e*Sg	Sg	20 45 36.1	+0.6
MEZF	**Maizieres J'vi**	3.26	201	*e*Pn	Pn	20 44 42.7	-0.4
MEZF				*e*Sg	Sg	20 45 36.1	+0.6
	comp=N,7.8nm,0.4s						
GRF	**Grafenberg Arr**	3.35	122	*e*Sg	Sg	20 45 38.0	-0.3
	SNR=1.3						
BFO	**Black Forest**	3.36	163	*e*Pn	Pn	20 44 45.1	+0.7
	SNR=2.3						
BFO				*e*Sn	Sn	20 45 22.0	-3.0
	SNR=2.3						
SFTF	**Sexfontaines**	3.55	200	*e*Pn	Pn	20 44 46.7	-0.3
SFTF	**Sexfontaines**	3.55	200	*e*Pg	Pg	20 44 58.2	-0.5
SFTF				*e*Sg	Sg	20 45 44.3	-0.3
	comp=N,12nm,0.3s						
SFTF	**Sexfontaines**	3.55	200	*e*Pn	Pn	20 44 46.7	-0.3
SFTF				*e*Pg	Pg	20 44 58.2	-0.5
SFTF				*e*Sg	Sg	20 45 44.3	-0.3
SFTF	**Sexfontaines**	3.55	200	*e*Pn	Pn	20 44 46.7	-0.3
SFTF	**Sexfontaines**	3.55	200	*e*Pg	Pg	20 44 58.2	-0.5
SFTF				*e*Sg	Sg	20 45 44.3	-0.3
	comp=N,5.9nm,0.3s						
HAU	**Haudompre**	3.56	185	*e*Pn	Pn	20 44 46.9	-0.3
HAU				*e*Sg	Sg	20 45 46.3	+1.1
	comp=N,12nm,0.3s						
HAU	**Haudompre**	3.56	185	*e*Pn	Pn	20 44 46.9	-0.3
HAU				*e*Sg	Sg	20 45 46.3	+1.1
HAU	**Haudompre**	3.56	185	*e*Pn	Pn	20 44 46.9	-0.3
HAU				*e*Sg	Sg	20 45 46.3	+1.1
	comp=N,6.1nm,0.3s						
WERD	**Werda**	3.62	106	*e*Sn	Sn	20 45 30.2	-1.2
	SNR=1.8						
GUNZ	**Gunzen**	3.67	107	*e*Pn	Pn	20 44 49.2	+0.6
	SNR=1.7						
GUNZ				*e*Sn	Sn	20 45 32.1	-0.4
	SNR=1.4						
TANN	**Tannenbergstha**	3.73	106	*e*Pn	Pn	20 44 50.2	+0.7
	SNR=2.4						
TANN				*e*Sn	Sn	20 45 32.7	-1.2
	SNR=1.7						
HINF	**Hinteralfeld**	3.74	180	*e*Pn	Pn	20 44 49.5	-0.1
HINF				*e*Sn	Sn	20 45 31.9	-2.4
HINF				*e*Sg	Sg	20 45 49.6	-1.2
	comp=N,11nm,0.6s						
HINF	**Hinteralfeld**	3.74	180	*e*Pn	Pn	20 44 49.5	-0.1
HINF				*e*Sn	Sn	20 45 31.9	-2.4
HINF				*e*Sg	Sg	20 45 49.6	-1.2
HINF	**Hinteralfeld**	3.74	180	*e*Pn	Pn	20 44 49.5	-0.1
HINF				*e*Sn	Sn	20 45 31.9	-2.4
HINF				*e*Sg	Sg	20 45 49.6	-1.2
	comp=N,5.7nm,0.6s						
NKC	**Novy Kostel**	3.78	108	*e*SG	Sg	20 45 52.5	+0.3
NKC	**Novy Kostel**	3.78	108	*e*Sg	Sg	20 45 52.5	+0.3
CLL	**Collm**	3.86	91	*e*Pg	Pg	20 45 05.0	+0.3
CLL				*e*Sg	Sg	20 45 53.0	-1.7
CLL	**Collm**	3.86	91	*e*Pg	Pg	20 45 05.0	+0.3
CLL				*e*Sg	Sg	20 45 53.0	-1.7
	comp=Z,13nm,1.2s						
BRG	**Berggiesshubel**	4.51	96	SG	Sg	20 46 18.3	+2.6
	comp=Z,4.3nm,1.3s						
LOR	**Lormes**	4.71	206	*e*Pn	Pn	20 45 02.8	-0.2
	baz=31						
LOR				*e*Sn	Sn	20 45 55.0	-3.2
LOR				*e*Sg	Sg	20 46 20.0	-1.9
	comp=Z,9.6nm,0.4s						
LOR	**Lormes**	4.71	206	*e*Pn	Pn	20 45 02.8	-0.2
LOR				*e*Sn	Sn	20 45 55.0	-3.2
LOR				*e*Sg	Sg	20 46 20.0	-1.9
LOR	**Lormes**	4.71	206	*e*Pn	Pn	20 45 02.8	-0.2
LOR				*e*Sn	Sn	20 45 55.0	-3.2
LOR				*e*Sg	Sg	20 46 20.0	-1.9
	comp=Z,4.8nm,0.4s						
KHC	**Kasperske Hory**	4.94	117	*e*PN	Pn	20 45 10.5	+4.3
KHC				*e*SG	Sg	20 46 30.3	+0.8
CABF	**La Chapelle**	4.97	186	*e*Pn	Pn	20 45 06.4	-0.1
CABF				*e*Sg	Sg	20 46 28.3	-2.0
	comp=Z,18nm,0.8s						
CABF	**La Chapelle**	4.97	186	*e*Pn	Pn	20 45 06.4	-0.1
CABF				*e*Sg	Sg	20 46 28.3	-2.0
CABF	**La Chapelle**	4.97	186	*e*Pn	Pn	20 45 06.4	-0.1
CABF				*e*Sg	Sg	20 46 28.3	-2.0
	comp=Z,9.2nm,0.8s						
PVCC	**Panska Ves**	4.98	99	*e*SG	Sg	20 46 29.0	-1.6
PVCC	**Panska Ves**	4.98	99	*e*Sg	Sg	20 46 29.0	-1.6
SSF	**Saint Saulge**	5.00	207	*e*Pn	Pn	20 45 06.4	-0.5
SSF				*e*Sn	Sn	20 46 01.7	-3.6
SSF				*e*Sg	Sg	20 46 29.8	-1.4
	comp=Z,11nm,0.4s						
SSF	**Saint Saulge**	5.00	207	*e*Pn	Pn	20 45 06.4	-0.5
SSF				*e*Sn	Sn	20 46 01.7	-3.6
SSF				*e*Sg	Sg	20 46 29.8	-1.4
SSF	**Saint Saulge**	5.00	207	*e*Pn	Pn	20 45 06.4	-0.5
SSF				*e*Sn	Sn	20 46 01.7	-3.6
SSF				*e*Sg	Sg	20 46 29.8	-1.4
	comp=Z,5.3nm,0.4s						
PRU	**Pruhonice**	5.13	105	*e*SG	Sg	20 46 34.4	-0.9
PRU	**Pruhonice**	5.13	105	*e*Sg	Sg	20 46 34.4	-0.9
AVF	**Avril sur Loir**	5.29	207	*e*Pn	Pn	20 45 10.2	-0.7
AVF				*e*Sn	Sn	20 46 09.2	-3.3
AVF				*e*Sg	Sg	20 46 38.6	-1.9
	comp=Z,5.3nm,0.4s						
AVF	**Avril sur Loir**	5.29	207	*e*Pn	Pn	20 45 10.2	-0.7
AVF				*e*Sn	Sn	20 46 09.2	-3.3
AVF				*e*Sg	Sg	20 46 38.6	-1.9
AVF	**Avril sur Loir**	5.29	207	*e*Pn	Pn	20 45 10.2	-0.7
AVF				*e*Sn	Sn	20 46 09.2	-3.3
AVF				*e*Sg	Sg	20 46 38.6	-1.9
	comp=Z,2.7nm,0.4s						
SMF	**Signal de Mont**	5.29	203	*e*Pn	Pn	20 45 10.2	-0.8
SMF				*e*Sn	Sn	20 46 08.7	-3.9
SMF				*e*Sg	Sg	20 46 38.2	-2.4
	comp=Z,6.1nm,0.3s						
SMF	**Signal de Mont**	5.29	203	*e*Pn	Pn	20 45 10.2	-0.8
SMF				*e*Sn	Sn	20 46 08.7	-3.9
SMF				*e*Sg	Sg	20 46 38.2	-2.4
SMF	**Signal de Mont**	5.29	203	*e*Pn	Pn	20 45 10.2	-0.8
SMF				*e*Sn	Sn	20 46 08.7	-3.9
SMF				*e*Sg	Sg	20 46 38.2	-2.4
	comp=Z,3.0nm,0.3s						
LDF	**La Druitiere**	5.38	239	*e*Pn	Pn	20 45 11.6	-0.5
LDF				*e*Sn	Sn	20 46 09.9	-4.8
	comp=Z,3.6nm,0.3s						
LDF	**La Druitiere**	5.38	239	*e*Pn	Pn	20 45 11.6	-0.5
LDF				*e*Sn	Sn	20 46 09.9	-4.8
LDF	**La Druitiere**	5.38	239	*e*Pn	Pn	20 45 11.6	-0.5
LDF				*e*Sn	Sn	20 46 09.9	-4.8
	comp=Z,1.8nm,0.3s						
FLN	**La Foliniere**	5.47	242	*e*Pn	Pn	20 45 12.9	-0.6
	baz=57						
FLN				*e*Sn	Sn	20 46 12.7	-4.4
	comp=Z,5.4nm,0.3s						
FLN	**La Foliniere**	5.47	242	*e*Pn	Pn	20 45 12.9	-0.6
FLN				*e*Sn	Sn	20 46 12.7	-4.4
FLN	**La Foliniere**	5.47	242	*e*Pn	Pn	20 45 12.9	-0.6
FLN				*e*Sn	Sn	20 46 12.7	-4.4
	comp=Z,2.7nm,0.3s						
BGF	**Bois d'Agland**	5.65	209	*e*Pn	Pn	20 45 14.9	-0.9
BGF				*e*Sn	Sn	20 46 16.9	-4.4
	comp=Z,15nm,0.4s						
BGF	**Bois d'Agland**	5.65	209	*e*Pn	Pn	20 45 14.9	-0.9
BGF				*e*Sn	Sn	20 46 16.9	-4.4
BGF	**Bois d'Agland**	5.65	209	*e*Pn	Pn	20 45 14.9	-0.9
BGF				*e*Sn	Sn	20 46 16.9	-4.4
	comp=Z,7.5nm,0.4s						
GRR	**Gorron**	5.89	241	*e*Pn	Pn	20 45 18.2	-1.0
GRR				*e*Sn	Sn	20 46 21.8	-5.6
	comp=Z,10nm,0.2s						
GRR	**Gorron**	5.89	241	*e*Pn	Pn	20 45 18.2	-1.0
GRR				*e*Sn	Sn	20 46 21.8	-5.6
GRR	**Gorron**	5.89	241	*e*Pn	Pn	20 45 18.2	-1.0
GRR				*e*Sn	Sn	20 46 21.8	-5.6
	comp=Z,5.2nm,0.2s						
LPL	**La Plagne**	6.04	181	*e*Pn	Pn	20 45 20.7	-0.5
LPL	**La Plagne**	6.04	181	*e*Pn	Pn	20 45 20.7	-0.5
TCF	**Toulx Ste Croi**	6.09	212	*e*Pn	Pn	20 45 21.3	-0.6
TCF	**Toulx Ste Croi**	6.09	212	*e*Pn	Pn	20 45 21.3	-0.6
TCF	**Toulx Ste Croi**	6.09	212	*e*Pn	Pn	20 45 21.3	-0.6
DPC	**Dobruska-Polom**	6.11	98	*e*SG	Sg	20 47 05.5	-1.3
ORIF	**Oris-en-Rattie**	6.67	186	*e*Pn	Pn	20 45 29.5	-0.4
ORIF	**Oris-en-Rattie**	6.67	186	*e*Pn	Pn	20 45 29.5	-0.4
MFF	**Saint Martin d**	6.75	226	*e*Pn	Pn	20 45 29.6	-1.4
MFF	**Saint Martin d**	6.75	226	*e*Pn	Pn	20 45 29.6	-1.4
MFF	**Saint Martin d**	6.75	226	*e*Pn	Pn	20 45 29.6	-1.4
SGMF	**Saint Gilles**	6.91	245	*e*Pn	Pn	20 45 31.6	-1.6
SGMF	**Saint Gilles**	6.91	245	*e*Pn	Pn	20 45 31.6	-1.6
SGMF	**Saint Gilles**	6.91	245	*e*Pn	Pn	20 45 31.6	-1.6
ROSF	**Rostrenen**	7.28	248	*e*Pn	Pn	20 45 36.6	-1.7
ROSF	**Rostrenen**	7.28	248	*e*Pn	Pn	20 45 36.6	-1.7
ROSF	**Rostrenen**	7.28	248	*e*Pn	Pn	20 45 36.6	-1.7
QUIF	**Quistinic**	7.44	245	*e*Pn	Pn	20 45 38.8	-1.6
QUIF	**Quistinic**	7.44	245	*e*Pn	Pn	20 45 38.8	-1.6
QUIF	**Quistinic**	7.44	245	*e*Pn	Pn	20 45 38.8	-1.6

CSEM ***27*** *20:44:42.4, 38.43N×27.16E, h4^{km}, MD2.9, After ISK*
ISK ***27*** *20:44:42.4, 38.43N×27.16E, h4^{km}, MD2.9*
ISCJB ***27*** *20:44:43.0±0.5, 38.42N±0.04×27.17E±0.04, h5^{km}±5^{km}, Error ellipse: s-maj=7.4km s-min=4.6km az=165.4*
ISC 27 20:44:43.3±0.5**, 38.40N**±0.05×**27.17E**±0.04**, h5**^{km}±4^{km}**, n31, σ0^{s}.60**/37**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IZM	**Izmir**	0.07	93	*i* PG	Pg	20 44 44.8	-0.2
IZM				*i* SG	Sg	20 44 46.7	+0.6
KDAG	**Bornova**	0.08	89	*i* P	Pg	20 44 45.0	0.0
BLCB	**Balcova**	0.10	261	*i* PG	Pg	20 44 44.9	-0.5
BLCB				*i* SG	Sg	20 44 47.0	+0.2
BLCB	**Balcova**	0.10	261	*i* Pg	Pg	20 44 44.9	-0.5
BLCB				*i* Sg	Sg	20 44 47.0	+0.2
URLA	**Izmir**	0.45	265	*i* P	Pg	20 44 51.4	-0.7
URLA				*i* S	Sg	20 44 58.5	+0.6
AKS	**Akhisar**	0.69	46	PG	Pg	20 44 55.5	-1.2
AKS				SG	Sg	20 45 06.1	+0.4
AKS	**Akhisar**	0.69	46	*e*Pg	Pg	20 44 55.5	-1.2
AKS				*e*Sg	Sg	20 45 06.1	+0.4
KULA	**Kula-Manisa**	1.18	84	*e*PN	Pn	20 45 04.7	-1.8
KULA	**Kula-Manisa**	1.18	84	*e*Pn	Pn	20 45 04.7	-1.8
MLSB	**Milas**	1.21	156	*e*PN	Pn	20 45 06.5	-0.3
MLSB	**Milas**	1.21	156	*e*Pn	Pn	20 45 06.5	-0.3
BODT	**Bodrum**	1.34	175	*e*PN	Pn	20 45 08.9	+0.2
BODT	**Bodrum**	1.34	175	*e*Pn	Pn	20 45 08.9	+0.2
BALB	**Balikesir**	1.36	24	*e*PN	Pn	20 45 08.7	-0.2
BALB	**Balikesir**	1.36	24	*e*Pn	Pn	20 45 08.7	-0.2
YER	**Yerkesik**	1.54	145	*e*PN	Pn	20 45 12.2	+0.7
YER	**Yerkesik**	1.54	145	*e*Pn	Pn	20 45 12.2	+0.7
EZN	**Ezine**	1.57	336	*e*PN	Pn	20 45 11.7	-0.1
EZN	**Ezine**	1.57	336	*e*Pn	Pn	20 45 11.7	-0.1
KHL	**Karahalli**	1.85	92	*e*PN	Pn	20 45 16.1	+0.3
KHL	**Karahalli**	1.85	92	*e*Pn	Pn	20 45 16.1	+0.3
BNT	**Bandirma**	2.04	16	*e*PN	Pn	20 45 18.5	+0.2
BNT	**Bandirma**	2.04	16	*e*Pn	Pn	20 45 18.5	+0.2
KCT	**Karacabey**	2.08	26	*e*PN	Pn	20 45 19.1	+0.3
KCT	**Karacabey**	2.08	26	*e*Pn	Pn	20 45 19.1	+0.3
MFT	**Murefte**	2.38	2	*e*PN	Pn	20 45 23.5	+0.4
MFT	**Murefte**	2.38	2	*e*Pn	Pn	20 45 23.5	+0.4
IZI	**Iznik**	2.63	42	*e*PN	Pn	20 45 27.2	+0.7
IZI	**Iznik**	2.63	42	*e*Pn	Pn	20 45 27.2	+0.7
YLV	**Yalova**	2.75	38	*e*PN	Pn	20 45 28.2	0.0
YLV	**Yalova**	2.75	38	*e*Pn	Pn	20 45 28.2	0.0

CSEM ***27*** *20:58:32.5±0.2, 39.82N×41.22E, h5^{km}, MD3.1, Error ellipse: s-maj=6.0km s-min=4.7km az=30.0*
ISK ***27*** *20:58:32.9, 39.89N×41.22E, h4^{km}, MD3.1*
ISCJB ***27*** *20:58:33.1±1.1, 39.85N±0.04×41.18E±0.06, h2^{km}±6^{km}, Error ellipse: s-maj=7.9km s-min=6.1km az=2.7*
DDA ***27*** *20:58:34.4, 39.82N×41.31E, h5^{km}, Md3.1*
ISC 27 20:58:33.7±0.9**, 39.86N**±0.04×**41.20E**±0.06**, h5**^{km}±6^{km}**, n12, σ0^{s}.81**/21**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EZM	**Erzurum**	0.13	71	PG	Pg	20 58 35.8	-0.6
EZM				SG	Sg	20 58 37.9	-0.2
ERZM	**Erzurum**	0.13	71	*i* P	Pg	20 58 36.2	-0.2
ERZM				*i* S	Sg	20 58 39.1	+0.9
BNGL	**BINGOL**	0.91	183	*i* P	Pg	20 58 50.6	-0.6
BNGL				*i* S	Sg	20 59 04.6	+1.6
EZC	**Erzincan**	1.07	264	*e*PN	Pn	20 59 00.6	+5.2
TUTA	**Tutak**	1.33	110	*i* P	Pn	20 58 57.0	-2.0
TUTA				*i* S	Sg	20 59 16.0	-0.3
AGRB	**Hanur-Agry**	1.41	101	PN	Pn	20 58 59.9	-0.2
AGRB				SN	Sn	20 59 19.8	+0.8
AGRB	**Hanur-Agry**	1.41	101	*e*Pn	Pn	20 58 59.9	-0.2
AGRB				*e*Sn	Sn	20 59 19.8	+0.8
ARTV	**Artvin**	1.43	23	*i* P	Pn	20 59 00.4	0.0
ARTV				*i* S	Sb	20 59 20.7	+1.3
GUMT	**Gumushane**	1.45	295	*e*PN	Pn	20 59 00.5	-0.1
GUMT	**Gumushane**	1.45	295	*e*Pn	Pn	20 59 00.5	-0.1
BCA	**Borcka**	1.61	11	*e*PN	Pn	20 59 02.4	-0.5
BCA				*e*SN	Sn	20 59 24.1	+0.1
BCA	**Borcka**	1.61	11	*e*Pn	Pn	20 59 02.4	-0.5
BCA				*e*Sn	Sn	20 59 24.1	+0.1

TEH ***27*** *20:58:35.7, 32.08N×55.74E, h3^{km}, ML3.6*
THR ***27*** *20:59:21.6±0.3, 32.03N×55.91E, h15^{km}, ML3.5*
ISCJB ***27*** *20:59:22.9±0.4, 32.08N±0.04×55.72E±0.03, h10^{km}, Error ellipse: s-maj=5.2km s-min=3.3km az=165.7*
CSEM ***27*** *20:59:23.2±0.1, 32.08N×55.74E, h16^{km}, ML3.6, Error ellipse: s-maj=2.3km s-min=1.5km az=154.0*
ISC 27 20:59:24.3±0.4**, 32.05N**±0.04×**55.73E**±0.03**, h10**^{km}**, n37, σ0^{s}.93**/48**, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IBAF	**Bafgh**	0.48	196	*e*Sg	Sg	20 59 40.9	+0.8
IBAF				*e*		20 59 41.7	
	comp=Z,80μm,0.1s						
IBAF	**Bafgh**	0.48	196	*e*Sg	Sg	20 59 40.9	+0.8
ICHK	**Chekchek**	1.14	280	*e*Pg	Pg	20 59 44.7	-1.5
ICHK				*e*Sg	Sg	20 59 58.9	-2.0
ICHK				*e*		21 00 03.3	
	comp=Z,13μm,0.1s						
ICHK	**Chekchek**	1.14	280	*e*Pg	Pg	20 59 44.7	-1.5
ICHK				*e*Sg	Sg	20 59 58.9	-2.0
IMEH	**Mehriz**	1.16	235	*e*Pg	Pg	20 59 45.4	-1.2
IMEH				*e*Sg	Sg	21 00 00.5	-1.1
IMEH				*e*		21 00 04.7	
	comp=Z,11μm,0.1s						
IMEH	**Mehriz**	1.16	235	*e*Pg	Pg	20 59 45.4	-1.2
IMEH				*e*Sg	Sg	21 00 00.5	-1.1
ITEG		2.69	71	*e*Pn	Pn	21 00 07.2	-0.4
ITEG				*e*Sn	Sn	21 00 40.0	-0.2
IKOO		2.80	82	*e*Sn	Sn	21 00 43.1	+0.1
IZEF	**Zefreh**	2.99	287	*e*Pn	Pn	21 00 12.4	+0.6
IZEF				*e*Sn	Sn	21 00 48.3	+0.6
IZEF				*e*		21 01 01.2	
	comp=Z,1μm,0.1s						
IZEF	**Zefreh**	2.99	287	*e*Pn	Pn	21 00 12.4	+0.6
IZEF				*e*Sn	Sn	21 00 48.3	+0.6
IGAR	**Garneh**	3.00	275	*e*Pn	Pn	21 00 14.4	+2.5
IGAR				*e*Sn	Sn	21 00 51.6	+3.7
IGAR				*e*		21 01 06.8	
	comp=Z,2μm,0.2s						
IGAR	**Garneh**	3.00	275	*e*Pn	Pn	21 00 14.4	+2.5
ISRV	**Sarvestan**	3.49	221	*e*Pn	Pn	21 00 19.5	+0.9
ISRV				*e*		21 01 35.0	
	comp=N,2μm,0.3s						
ISRV	**Sarvestan**	3.49	221	*e*Pn	Pn	21 00 19.5	+0.9
IDAH		3.57	78	*e*Pn	Pn	21 00 19.3	-0.4
IDAH				*e*Sn	Sn	21 01 01.1	-0.8
ISFB	**Sefidab**	3.72	309	*e*Pn	Pn	21 00 21.6	-0.2
ISFB				*e*		21 01 20.9	
	comp=Z,1μm,0.2s						
ISFB	**Sefidab**	3.72	309	*e*Pn	Pn	21 00 21.6	-0.2
IKLH	**Kalahroud**	3.72	291	*e*Pn	Pn	21 00 22.1	+0.3
IKLH				*e*Sn	Sn	21 01 04.5	-1.2
IKLH				*e*		21 01 29.9	
	comp=Z,659nm,0.2s						
IKLH	**Kalahroud**	3.72	291	*e*Pn	Pn	21 00 22.1	+0.3
IKLH				*e*Sn	Sn	21 01 04.5	-1.2
IFIR	**Firoozkooh**	4.35	326	*e*Pn	Pn	21 00 30.2	-0.3
IFIR				*e*		21 01 51.8	
	comp=Z,399nm,0.2s						
IFIR	**Firoozkooh**	4.35	326	*e*Pn	Pn	21 00 30.2	-0.3
IGLO	**Galoogah**	4.63	337	*e*Pn	Pn	21 00 35.1	+0.8
IGLO				*e*		21 02 04.6	
	comp=Z,717nm,0.3s						
DAMV	**Damavand**	4.74	320	*e*Pn	Pn	21 00 36.7	+0.8
	SNR=52						
DAMV	**Damavand**	4.74	320	*e*Pn	Pn	21 00 36.7	+0.9
DAMV				AML	AML	21 01 60.0	
	comp=E,37nm,0.6s						
DAMV				AML	AML	21 02 11.7	
	comp=N,29nm,0.7s						
IPRN	**Paran-Amol**	5.08	326	*e*Pn	Pn	21 00 40.2	-0.3
IPRN				*e*		21 02 14.2	
	comp=Z,654nm,0.3s						
IPAY	**Payeh**	5.15	31	*e*Pn	Pn	21 00 41.5	0.0
IPAY				*e*		21 00 44.7	
	comp=Z,270nm,0.1s						
IPAY	**Payeh**	5.15	31	*e*Pn	Pn	21 00 41.5	0.0
IKRD	**Kardeh**	5.24	25	*e*Pn	Pn	21 00 48.3	+5.6
IKRD				*e*		21 01 00.2	
	comp=Z,184nm,0.1s						
ISFR	**Esferayen**	5.32	20	*e*Pn	Pn	21 00 43.8	0.0
ISFR	**Esferayen**	5.32	20	*e*Pn	Pn	21 00 43.8	0.0
ASAO	**Ashtian**	5.38	299	*e*Pn	Pn	21 00 45.9	+1.2
	SNR=52						
ASAO	**Ashtian**	5.38	299	*e*Pn	Pn	21 00 45.9	+1.3
ASAO				AML	AML	21 02 41.8	
	comp=N,9.7nm,0.6s						
CHTH	**Charan**	5.42	316	*e*Pn	Pn	21 00 46.0	+0.9
THKV	**Tehran--Karaj**	5.57	315	*e*Pn	Pn	21 00 48.2	+1.0
THKV				AML	AML	21 02 34.0	
	comp=E,28nm,0.7s						
THKV				AML	AML	21 02 35.3	
	comp=N,21nm,0.3s						
MRVT	**Maraveh tapeh**	5.60	3	*e*Pn	Pn	21 00 46.9	-0.7
IMYA	**Miamay**	5.61	39	*e*Pn	Pn	21 00 47.3	-0.4
IMYA				*e*		21 00 48.1	
	comp=Z,141nm,0.1s						
IMYA	**Miamay**	5.61	39	*e*Pn	Pn	21 00 47.3	-0.4

IDC 27 21:00:12.1±3.6**, 9.81S×156.74E, h0^{km}, mb3.8**/5**, mb1 3.9**/5**, mb1mx3.7**/14**, mbtmp3.8**/5**, MS3.0**/1**, Ms1 3.0**/1**, ms1mx2.7**/23**, Error ellipse: s-maj=106.0km s-min=30.1km az=109.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HNR	**Honiara**	3.19	83	LR	LR	21 01 42.4	
	comp=Z,230nm,18.2s,baz=174,slow=28						
WRA	**Warramunga Arr**	23.84	242	P	P	21 05 26.5	-0.8
	1.9nm,0.7s,baz=67,slow=10,SNR=11						
ASAR	**Alice Springs**	25.79	235	P	P	21 05 46.0	+1.0
	1.5nm,0.8s,baz=63,slow=11,SNR=13						
STKA	**Stephens Creek**	26.06	210	P	P	21 05 47.0	-0.3
	1.7nm,0.8s,baz=19,slow=10.0,SNR=3.7						
SONM	**Songino Array**	72.62	327	P	P	21 11 41.9	+0.5
	0.3nm,0.6s,baz=119,slow=4.6,SNR=3.1						
MKAR	**Makanchi Array**	86.64	318	P	P	21 12 57.4	-0.2
	0.4nm,0.6s,baz=94,slow=6.1,SNR=7.2						

IDC 27 21:05:58.2±1.8**, 0.08S×124.77E, h0^{km}, mb3.3**/3**, mb1 3.6**/3**, mb1mx3.3**/17**, mbtmp3.4**/3**, Error ellipse: s-maj=187.2km s-min=25.6km az=63.0, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	21.85	155	P	P	21 10 51.0	-1.6
	0.5nm,0.6s,baz=333,slow=11,SNR=9.9						
ASAR	**Alice Springs**	25.07	160	P	P	21 11 25.9	+1.4
	0.4nm,0.4s,baz=344,slow=10,SNR=5.9						
MKAR	**Makanchi Array**	59.62	327	P	P	21 16 04.0	0.0
	0.2nm,0.4s,baz=129,slow=7.1,SNR=6.5						

MAN 27 21:07:46, 8.79N×126.43E, h30^{km}, mb4.4, ML3.3, MS3.2, 1C-2D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	**Bislig**	0.61	186	⇑*e*P	Pb	21 07 59.1	+0.8
BIPH				*i* S	Sb	21 08 08.1	+1.6
BUTP	**Butuan**	0.82	282	*e*P	Pn	21 08 01.5	+0.1
BUTP				*e*S	Sb	21 08 13.6	+1.2
SCPH	**Surigao**	1.35	317	⇓*e*P	Pn	21 08 08.5	-0.4
BUKP	**Musuan**	1.63	236	*e*P	Pn	21 08 14.4	+1.8
CGP	**Cagayan de Oro**	1.75	259	⇓*e*P	Pn	21 08 14.8	+0.5
CGP				*e*S	Sn	21 08 36.4	+0.9
MSLP	**Maasin**	2.04	311	*e*P	Pn	21 08 19.4	+1.1

JMA 27 21:14:20.1, 32.92N×132.44E, h32^{km}, M3.5, 3C-1D, Shikoku

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTO	**Tosashimizu**	0.31	101	⇓P	Pb	21 14 27.6	-0.3
JTO				S	Sb	21 14 33.0	-0.1
UWA2	**Uwa jima 2**	0.33	28	⇑P	Pb	21 14 27.9	-0.3
UWA2				S	Sb	21 14 33.5	-0.1
JUS	**Usuki**	0.60	284	⇑P	Pb	21 14 31.9	-0.3
JUS				S	Sb	21 14 40.4	0.0
JNA	**Nagahama**	0.64	3	P	Pb	21 14 32.5	-0.4
JNA				S	Sb	21 14 41.4	-0.1
JKU	**Kubokawa**	0.65	53	⇑P	Pb	21 14 32.6	-0.5
JKU				S	Sb	21 14 41.5	-0.4
JET	**Tanbara**	1.00	31	P	Pn	21 14 37.8	-0.1
JET				S	Sn	21 14 51.7	+0.9

IDC 27 21:38:12.7±3.1,**18.99S**×**72.30W**,**h0**^{km},**mb3.9**/2,**mb1 3.9**/4,**mb1mx3.7**/16,**mbtmp3.7**/4,**ML3.5**/2,**Error ellipse: s-maj=109.8km s-min=38.8km az=179.0,Off coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	4.80	57	Pn	Pn	21 39 26.4	+0.2
	1.0nm,0.3s,baz=245,slow=8.9,SNR=22						
SIV	San Ignacio	11.12	76	Pn	Pn	21 40 54.8	+1.7
	0.2nm,0.3s,baz=269,slow=17,SNR=5.3						
TORD	Torodi Ar. Bea	79.57	72	P	P	21 50 20.9	-1.2
	0.5nm,0.8s,baz=256,slow=5.8,SNR=2.8						
YKA	Yellowknife Ar	87.79	342	P	P	21 51 03.0	-0.3
	1.0nm,0.7s,baz=136,slow=4.9,SNR=22						
MKAR	Makanchi Array	145.31	31	PKPbc	PKPbc	21 57 53.2	+1.0
	0.2nm,0.2s,baz=357,slow=2.9,SNR=2.9						

ISCJB ***27*** *21:45:29.9±2.8,33.71N±0.07×142.0E±0.1,h19^{km}±25^{km},mb3.7/2,Error ellipse: s-maj=17.0km s-min=10.9km az=157.1*

JMA ***27*** *21:45:30.7±0.6,33.70N×141.97E,h27^{km},M3.3*

IDC ***27*** *21:45:34.3±3.8,33.19N×140.52E,h0^{km},mb3.6/2,mb1 3.6/3,mb1mx3.3/21,mbtmp3.4/3,ML3.0/1,Error ellipse: s-maj=135.7km s-min=30.7km az=70.0*

ISC 27 21:45:29.8±1.9,**33.72N**±0.07×**141.9E**±0.1,**h4**^{km}±13^{km},**n10,σ0^s.42**/14,**mb3.7**/2,**Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSO1	Boso 1	1.21	321	P	Pg	21 45 53.0	0.0
BSO2	Boso 2	1.40	318	eS	Sb	21 46 14.9	+0.1
BSO3	Boso 3	1.58	313	P	Pn	21 45 58.5	-0.1
BSO4	Boso 4	1.81	315	P	Pn	21 46 02.5	+0.7
BSO4				eS	Sn	21 46 25.3	0.0
JHJ2	Mitsune	1.85	251	P	Pn	21 46 02.8	+0.5
JHJ2				eS	Sn	21 46 26.1	-0.1
JOD2	Odawara 2	2.79	304	P	Pn	21 46 14.7	-0.6
JOD2				eS	Sn	21 46 49.2	-0.2
JYN	Shimob	3.29	304	P	Pn	21 46 21.1	-1.1
JYN				eS	Sn	21 47 02.0	+0.3
MJAR	Matsushiro Arr	4.13	314	Pn	Pn	21 46 34.3	+0.5
	1.0nm,0.3s,baz=148,slow=15,SNR=7.5						
MKAR	Makanchi Array	46.28	305	P	P	21 53 56.4	0.0
	0.3nm,0.2s,mb3.8,baz=92,slow=9.6,SNR=3.7						
WRA	Warramunga Arr	53.85	189	P	P	21 54 54.0	-0.1
	0.7nm,1.0s,mb3.6,baz=4.7,slow=7.6,SNR=4.9						

ISCJB ***27*** *21:47:07.0±0.4,24.94N±0.07×122.15E±0.03,h137^{km}±4^{km},mb3.6/8,Error ellipse: s-maj=11.3km s-min=5.2km az=178.4*

IDC ***27*** *21:47:07.7±4.6,24.98N×122.18E,h129^{km}±47^{km},mb3.3/6,mb1 3.4/7,mb1mx3.3/21,mbtmp3.3/7,Error ellipse: s-maj=47.1km s-min=16.5km az=65.0*

NEIC ***27*** *21:47:09.0±0.9,24.86N×121.84E,h142^{km}±7^{km},mb3.9/2,Error ellipse: s-maj=42.8km s-min=13.5km az=66.0*

JMA ***27*** *21:47:09.7±0.1,24.93N×122.23E,h125^{km}±2^{km},M3.1*

ISC 27 21:47:08.1±0.4,**24.93N**±0.07×**122.15E**±0.03,**h133**^{km}±4^{km},**n31,σ0^s.81**/45,**mb3.6**/8,**Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TATO	Taipei	0.60	275	ePn	Pn	21 47 28.4	+0.2
TATO				eSn	Sn	21 47 44.1	+0.7
YHNB	Yeheng	0.75	250	ePn	Pn	21 47 29.7	+0.5
YHNB				eSn	Sn	21 47 45.2	+0.1
NACB	Ninganchiao	0.91	214	ePn	Pn	21 47 30.7	+0.2
NACB				eSn	Sn	21 47 45.1	-2.4
YOJ	Yonaguni jima	0.91	120	P	Pn	21 47 30.9	+0.4
YOJ				S	Sn	21 47 47.0	-0.4
IRIF	Iriomote-Funau	1.55	112	P	Pn	21 47 37.3	+0.3
IRIF				eS	Sn	21 47 59.0	0.0
HATJ	Hateruma jima	1.74	120	P	Pn	21 47 40.0	+0.9
HATJ				eS	Sn	21 48 02.1	-0.7
JKRS	Kuro-shima	1.82	112	P	Pn	21 47 40.8	+0.7
JKRS				S	Sn	21 48 04.7	+0.1
JIJ	Ishigaki jima	1.90	107	P	Pn	21 47 41.4	+0.4
JIJ				S	Sn	21 48 05.3	-0.9
JTJ	Tarama	2.33	96	P	Pn	21 47 47.2	+0.8
JTJ				S	Sn	21 48 15.2	-0.5
JMJ	Miyako jima 2	2.85	92	eS	Sn	21 48 27.8	+0.3
JOGS	Gusukube	2.96	93	P	Pn	21 47 55.5	+1.2
JOGS				eS	Sn	21 48 30.0	0.0
JKE	Kume jima 2	4.41	71	P	Pn	21 48 13.9	+0.6
JKE				eS	Sn	21 49 05.2	+1.2
JAGN	Aguni-jima	4.88	69	P	Pn	21 48 20.0	+0.4
JAGN				eS	Sn	21 49 15.4	+0.1
JJT2	Tamagusuku 2	5.20	75	P	Pn	21 48 23.8	-0.1
JIH	Iheya	5.64	67	P	Pn	21 48 29.4	-0.4
JOW	Kunigami	5.83	70	P	Pn	21 48 31.4	-1.0
JOW				eS	Sn	21 49 34.6	-3.5
JOW	Kunigami	5.83	70	P	Pn	21 48 31.4	-0.9
	3.5nm,0.3s,baz=175,slow=13,SNR=13						
JOW				S	Sn	21 49 32.9	-5.3
	2.0nm,0.3s,baz=112,slow=19,SNR=3.5						
JTK	Tokunoshima	6.73	63	P	Pn	21 48 43.1	-1.4
JAM	Amami Oshima	7.52	61	P	Pn	21 48 53.3	-1.7
KSRS	Korea Array	13.43	20	P	Pn	21 50 18.4	+5.2
	0.2nm,0.3s,baz=202,slow=11,SNR=5.7						
ULN	Ulaanbaatar	25.83	336	eP	P	21 52 27.2	+0.4
	1.8nm,0.5s,mb4.0						
SONM	Songino Array	26.05	335	P	P	21 52 29.5	+0.7
	1.9nm,0.6s,mb3.9,baz=152,slow=10,SNR=14						
MKAR	Makanchi Array	38.43	315	P	P	21 54 16.7	+0.1
MKAR	Makanchi Array	38.43	315	P	P	21 54 16.7	+0.1
	0.3nm,0.2s,mb3.5,baz=92,slow=12,SNR=3.6						
ZALV	Zalesovo Beam	40.11	326	P	P	21 54 29.3	-1.2
ZALV	Zalesovo Beam	40.11	326	P	P	21 54 29.3	-1.2
	0.7nm,0.4s,mb3.6,baz=111,slow=8.4,SNR=5.5						
EKS2	Erkin-Say	43.29	306	P	P	21 54 53.2	-3.3
	2.8nm,0.9s,mb3.9						
WRA	Warramunga Arr	46.15	164	P	P	21 55 19.5	+0.2
	0.6nm,0.6s,mb3.4,baz=346,slow=8.2,SNR=7.4						
ASAR	Alice Springs	49.63	166	P	P	21 55 46.7	+0.6
	0.3nm,0.5s,mb3.2,baz=350,slow=6.5,SNR=5.7						
YKA	Yellowknife Ar	81.95	23	P	P	21 59 12.4	-0.2
YKA	Yellowknife Ar	81.95	23	P	P	21 59 12.4	-0.2
	0.2nm,0.4s,mb3.1,baz=320,slow=4.7,SNR=3.9						

ISCJB ***27*** *22:02:36.7±0.8,6.80S±0.04×125.44E±0.06,h515^{km}±12^{km},mb4.4/36,Error ellipse: s-maj=10.0km s-min=5.4km az=157.4*

BJI ***27*** *22:02:36.0,7.08S×125.57E,h542^{km},mB4.6,mb4.3*

IDC ***27*** *22:02:38.7±1.6,6.84S×125.43E,h528^{km}±20^{km},mb3.8/12,mb1 3.9/14,mb1mx3.8/20,mbtmp3.8/14,Error ellipse: s-maj=16.8km s-min=7.7km az=73.0*

NEIC ***27*** *22:02:38.1±0.6,6.86S×125.44E,h520^{km}±8^{km},mb4.4/23,Error ellipse: s-maj=7.7km s-min=4.8km az=65.0*

ISC 27 22:02:37.5±0.7,**6.88S**±0.04×**125.48E**±0.06,**h511**^{km}±10^{km},**n72,σ0^s.86**/76,**mb4.4**/36,**2C-2D,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	8.98	131	⇓iP	P	22 04 45.9	+1.5
	41nm,0.5s						
KAKA				eS	S	22 06 26.9	-1.6
KAKA	Kakadu	8.98	131	eP	P	22 04 45.8	+1.4
KAKA				eS	S	22 06 26.9	-1.7
FITZ	Fitzroy Crossi	11.16	179	⇓iP	P	22 05 08.2	+1.0
	52nm,0.2s						
FITZ				eS	S	22 07 08.5	-1.9
FITZ	Fitzroy Crossi	11.16	179	P	P	22 05 08.1	+0.9
	12nm,0.3s,baz=15,slow=9.3,SNR=505						
FITZ				S	S	22 07 09.1	-1.3
	2.0nm,0.3s,baz=14,slow=21,SNR=11						
MBWA	Marble Bar	15.25	201	eP	P	22 05 49.9	-0.3
	12nm,0.6s						
WRA	Warramunga Arr	15.58	147	P	P	22 05 52.4	-1.2
	7.7nm,0.3s,baz=214,slow=8.6,SNR=312						
WRA				S	S	22 08 33.9	-1.3
	0.7nm,0.3s,baz=323,slow=17,SNR=8.5						
WB2	Warramunga Arr	15.59	147	eP	P	22 05 53.6	0.0
WB2				eS	S	22 08 34.0	-1.3
KKM	Kota Kinabalu	15.81	324	eP	P	22 05 57.4	+1.3
KSM	Kuching	17.26	298	eP	P	22 06 09.8	-0.8
ASAR	Alice Springs	18.56	155	P	P	22 06 23.2	+0.9
	11nm,0.3s,baz=343,slow=15,SNR=448						
ASAR				S	S	22 09 26.0	+0.4
	0.4nm,0.3s,baz=339,slow=21,SNR=22						
ASAR				ScP	ScP	22 13 09.6	-3.0
	0.2nm,0.3s,baz=346,slow=2.2,SNR=5.9						
COEN	Coen	18.77	113	eP	P	22 06 24.8	+0.4
	26nm,0.8s						
PMG	Port Moresby	21.61	98	P	P	22 06 51.2	+1.0
	13nm,0.6s,mb4.7,baz=238,slow=8.2,SNR=5.3						
FORT	Forrest	23.90	175	eP	P	22 07 10.8	+0.2
	17nm,0.6s,mb4.8						
CTA	Charters Tower	24.06	125	eP	P	22 07 13.2	+1.1
	6.7nm,0.5s,mb4.5						
CTA	Charters Tower	24.06	125	P	P	22 07 13.1	+1.0
	15nm,0.7s,mb4.7,baz=304,slow=11,SNR=11						
CTAO	Charters Tower	24.06	125	eP	P	22 07 13.2	+1.1
	15nm,0.8s,mb4.7						
KLBR	Kellerberrin	25.63	195	eP	P	22 07 26.2	+0.3
	12nm,0.8s,mb4.6						
NWAO	Narrogin (SRO)	27.03	195	eP	P	22 07 38.0	-0.2
	2.2nm,0.4s,mb4.1						
NWAO	Narrogin (SRO)	27.03	195	P	P	22 07 38.0	-0.2
	6.9nm,0.8s,mb4.3,baz=43,slow=12,SNR=8.4						
GUMO	Guam	28.00	43	P	P	22 07 46.5	-0.4
GUMO	Guam	28.00	43	P	P	22 07 46.5	-0.4
	81nm,0.5s,mb5.7,baz=353,slow=17,SNR=3.4						
STKA	Stephens Creek	29.07	151	⇑iP	P	22 07 57.1	+1.0
	12nm,0.4s,mb4.9						
STKA	Stephens Creek	29.07	151	P	P	22 07 57.1	+1.0
	24nm,0.7s,mb5.0,baz=327,slow=8.7,SNR=89						
NACB	Ninganchiao	31.09	353	P	P	22 08 13.7	+0.1
YHNB	Yeheng	31.61	353	eP	P	22 08 16.5	-1.6
ARMA	Armidale	33.92	137	eP	P	22 08 39.6	+1.9
HNR	Honiara	34.21	97	eP	P	22 08 39.9	-0.5
	45nm,0.6s,mb5.2						
TOO	Toolangi	35.56	152	eP	P	22 08 53.5	+2.2
	6.8nm,0.5s,mb4.4						
CBIJ	Chichi jima	37.45	25	P	P	22 09 06.4	-0.6
WHN	Wuhan	38.70	345	⇑P	P	22 09 18.0	+0.8
TAU	Tasmania Unive	40.73	155	P	P	22 09 33.0	-0.3
DZM	Mont Dzumac	42.28	115	P	P	22 09 46.9	+0.9
	8.0nm,1.1s,mb4.2,baz=285,slow=20,SNR=3.2						
XAN	Xi'an	43.61	340	P	P	22 09 55.3	-0.8
XAN				AMB	AMB		
	comp=Z,15nm,0.8s,mb4.6						
KSRS	Korea Array	44.16	3	P	P	22 10 00.0	-0.3
	comp=Z,2.7nm,0.7s,mb3.9,baz=184,slow=9.7,SNR=7.8						
MAJO	Matsushiro	44.81	15	eP	P	22 10 04.9	-0.5
	comp=Z,6.8nm,0.7s,mb4.3						
MJAR	Matsushiro Arr	44.81	15	P	P	22 10 04.4	-0.9
	comp=Z,8.0nm,0.8s,mb4.3,baz=190,slow=8.7,SNR=20						
PALK	Pallekele	46.82	287	P	P	22 10 23.1	+1.9
LZH	Lanzhou	47.32	336	eP	P	22 10 25.0	+0.5
LZH				AMB	AMB		
	comp=Z,25nm,1.3s,mb4.6						
LSA	Lhasa	49.09	320	eP	P	22 10 39.1	+1.2
	comp=Z,13nm,0.6s,mb4.7						
ODAN	Odare	49.86	314	eP	P	22 10 43.5	-0.1
	comp=Z,18nm,0.5s,mb4.7						
TAPN	Taplejung	49.92	315	eP	P	22 10 44.2	+0.1
	comp=Z,14nm,0.4s,mb4.7						
JIRN	Jiri	51.19	314	eP	P	22 10 53.6	+0.3
	comp=Z,17nm,0.7s,mb4.5						
MDJ	Mudanjiang	51.39	4	eP	P	22 10 54.8	+0.4
	comp=Z,14nm,0.8s,mb4.4						
GTA	Gaotai	51.82	335	eP	P	22 10 58.3	+0.7
GTA				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb3.9						
KKN	Kakani	51.92	313	eP	P	22 10 58.5	-0.1
	comp=Z,18nm,0.8s,mb4.4						
GKN	Gorkha	52.51	313	eP	P	22 11 02.7	-0.1
	comp=Z,16nm,0.4s,mb4.7						
RPZ	Rata Peaks	54.14	140	P	P	22 11 15.1	+0.9
	comp=Z,39nm,0.8s,mb4.8,baz=320,slow=3.0,SNR=13						
HIA	Hailar	56.13	355	eP	P	22 11 28.5	+0.6
	comp=Z,2.3nm,0.4s,mb3.8						
ULN	Ulaanbaatar	56.88	345	eP	P	22 11 33.3	+0.2
	comp=Z,7.4nm,1.0s,mb3.9						
ULN				ePcP	PcP	22 12 21.6	+0.2
ULN				epP	pP	22 13 15.3	+1.1
ULN				eScP	ScP	22 15 31.1	-0.7
SONM	Songino Array	57.02	345	P	P	22 11 34.4	+0.3
	comp=Z,3.2nm,0.7s,mb3.6,baz=158,slow=8.5,SNR=29						
SONM				PcP	PcP	22 12 22.0	-0.1
	comp=Z,0.4nm,0.8s,baz=145,slow=5.3,SNR=2.0						
CASY	Casey	60.21	187	P	P	22 11 55.7	+0.4
MK31	Makanchi Array	65.73	329	eP	P	22 12 31.2	0.0
MKAR	Makanchi Array	65.73	329	P	P	22 12 31.1	-0.1
	comp=Z,3.7nm,0.6s,mb4.1,baz=128,slow=7.7,SNR=49						
AAK	Ala-Archa	67.60	322	eP	P	22 12 42.1	-0.8
	comp=Z,1.5nm,0.5s,mb3.8						
EKS2	Erkin-Say	68.06	321	eP	P	22 12 46.5	+0.8
	comp=Z,1.3nm,0.5s,mb3.7						
ZALV	Zalesovo Beam	69.55	336	P	P	22 12 53.5	-1.0
	comp=Z,6.1nm,0.4s,mb4.4,baz=135,slow=5.0,SNR=43						
KURK	Kurchatov	70.13	330	eP	P	22 12 57.5	-0.5
	comp=Z,12nm,1.2s,mb4.3						
VNDA	Vanda	73.14	172	P	P	22 13 15.3	+0.1
	comp=Z,2.3nm,0.7s,mb3.7,baz=188,slow=2.8,SNR=7.2						
MAW	Mawson	73.45	201	P	P	22 13 17.5	+0.4
SBA	Scott Base	74.08	172	P	P	22 13 20.2	-0.4
BRVK	Borovoye	75.68	329	eP	P	22 13 29.7	-0.1
	comp=Z,8.4nm,1.1s,mb4.1						
CHKZ	Chkalovo	75.85	330	P	P	22 13 29.9	-0.9
TIXI	Tiksi	78.39	1	eP	P	22 13 43.3	-1.0
	comp=Z,5.5nm,0.6s,mb4.1						
QSPA	South Pole Qui	83.10	180	eP	P	22 14 08.6	-0.1
	comp=Z,1.4nm,0.5s,mb3.8						
ARU	Arti	83.26	329	P	P	22 14 09.0	-0.8
KMBO	Kilima Mbogo	88.11	269	P	P	22 14 33.5	-0.6
MALT	Malatya	91.90	308	P	P	22 14 50.2	-0.9
COLA	College	94.76	25	P	P	22 15 03.7	+0.1
LBTB	Lobatse	96.00	244	P	P	22 15 08.6	-1.6
SANT	Santorini	102.10	306	Pdif	Pdif	22 15 36.3	-0.4
TORD	Torodi Ar. Bea	124.38	281	PKP	PKPdf	22 20 37.7	-1.5
TORD	Torodi Ar. Bea	124.38	281	PKP	PKPdf	22 20 37.7	-1.5
	comp=Z,0.7nm,0.8s,baz=297,slow=1.3,SNR=3.9						

ISCJB ***27*** *22:11:54.8±0.7,16.36N±0.08×93.87W±0.04,h129^{km}±6^{km},mb3.8/3,Error ellipse: s-maj=13.7km s-min=6.0km az=2.8*

IDC ***27*** *22:11:55.5±3.5,16.46N×93.69W,h122^{km}±11^{km},mb3.7/3,mb1 3.9/5,mb1mx3.4/18,mbtmp3.6/5,MS3.4/3,Ms1 3.4/3,ms1mx3.0/22,Error ellipse: s-maj=57.0km s-min=15.5km az=172.0*

MEX ***27*** *22:11:57.2±1.1,16.39N×93.84W,h130^{km}±18^{km},MD4.1*

NEIC ***27*** *22:11:57.9,16.33N×93.87W,h118^{km},MD4.1(MEX),After MEX.*

ISC 27 22:11:55.7±0.7,**16.37N**±0.08×**93.86W**±0.04,**h125**^{km}±6^{km},**n19,σ1^s.32**/26,**mb3.9**/3,**Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	1.22	306	P	Pn	22 12 21.3	+0.9
	42nm,0.3s,baz=118,slow=6.1,SNR=326						
CMIG				S	Sn	22 12 39.9	+0.8
	300nm,0.3s,baz=320,slow=19,SNR=56						
CMIG	Matias Romero	1.22	306	iP	Pn	22 12 21.6	+1.2
CMIG				iS	Sn	22 12 39.8	+0.7
SCX	San Cristobal	1.23	73	iP	Pn	22 12 21.3	+0.8
SCX				iS	Sn	22 12 38.8	-0.5
CCIG	Comitan	1.66	93	iP	Pn	22 12 26.3	+1.0
CCIG				iS	Sn	22 12 48.2	+0.4
TUIG	Tuzandepetl	1.74	342	eP	Pn	22 12 26.1	-0.2
TUIG				iS	Sn	22 12 49.2	-0.4
HUIG	Huatulco	2.25	255	iP	Pn	22 12 32.3	-0.2
HUIG				iS	Sn	22 12 58.7	-2.0
OXX	Oaxaca	2.83	285	iP	Pn	22 12 44.2	+4.2
OXX				iS	Sn	22 13 12.5	-1.7
VHO	Vista Hermosa	2.84	285	iP	Pn	22 12 42.4	+2.3
VHO				iS	Sn	22 13 14.0	-0.3
VHO	Vista Hermosa	2.84	285	iP	Pn	22 12 41.4	+1.3
VHO				iS	Sn	22 13 14.5	+0.1
TEIG	Tepich	6.54	53	P	Pn	22 13 27.0	-2.6
	5.4nm,0.3s,baz=251,slow=1.8,SNR=25						
TEIG				S	Sn	22 14 39.2	-3.5
	3.4nm,0.3s,baz=238,slow=22,SNR=7.4						
TXAR	Lajitas Array	15.74	327	P	Pn	22 15 32.6	+2.1
	0.1nm,0.3s,baz=151,slow=16,SNR=9.6						
ROSC	El Rosal	22.32	119	LR	LR	22 26 25.5	
	comp=Z,113nm,19.9s,baz=196,slow=39						
SDV	Santo Domingo	23.84	105	LR	LR	22 26 58.2	
	comp=Z,56nm,18.0s,baz=356,slow=38						
SJG	San Juan	26.51	82	LR	LR	22 28 08.0	
	comp=Z,84nm,20.5s,baz=85,slow=37						
NVAR	Mina Array Bea	30.71	320	P	P	22 18 01.0	+2.3
NVAR	Mina Array Bea	30.71	320	P	P	22 18 01.0	+2.3
	0.9nm,0.7s,mb3.6,baz=130,slow=9.5,SNR=6.1						
YKA	Yellowknife Ar	48.32	347	P	P	22 20 22.8	-1.3
YKA	Yellowknife Ar	48.32	347	P	P	22 20 22.8	-1.3
	0.9nm,0.5s,mb3.9,baz=152,slow=7.3,SNR=18						
ARCES	ARCESS Array B	84.45	18	P	P	22 24 13.1	-0.9
	2.7nm,0.9s,mb4.1,baz=294,slow=6.8,SNR=3.5						

IDC 27 22:13:39.2±8.2,**19.37S**×**69.45W**,**h114**^{km}±55^{km},**mb3.4**/2,**mb1 3.5**/4,**mb1mx3.4**/17,**mbtmp3.4**/4,**Error ellipse: s-maj=101.5km s-min=43.9km az=22.0,Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	3.31	22	P	Pn	22 14 30.6	+1.0
	2.3nm,0.3s,baz=204,slow=6.4,SNR=86						
SIV	San Ignacio	8.66	68	P	Pn	22 15 40.9	-0.8
	1.7nm,0.3s,baz=263,slow=9.2,SNR=24						
TORD	Torodi Ar. Bea	77.13	71	P	P	22 25 21.0	+0.3
	0.6nm,0.5s,baz=256,slow=5.4,SNR=12						
TORD				pP	pP	22 25 45.9	-3.7
	0.4nm,0.7s,baz=260,slow=4.9,SNR=1.6						
YKA	Yellowknife Ar	89.02	341	P	P	22 26 20.6	-0.1
	0.1nm,0.3s,baz=131,slow=4.7,SNR=3.1						
YKA				pP	pP	22 26 44.5	-6.0
	0.5nm,0.5s,baz=134,slow=5.1,SNR=4.6						
WRA	Warramunga Arr	134.50	212	PKhKP		22 32 40.9	
	0.7nm,1.1s,baz=152,slow=1.9,SNR=2.2						
WRA				PKP	PKPdf	22 32 44.7	-0.2
	0.1nm,0.4s,baz=146,slow=1.8,SNR=6.3						
ZALV	Zalesovo Beam	140.23	24	PKP	PKPdf	22 32 51.4	-2.9
	1.0nm,0.6s,baz=299,slow=2.4,SNR=7.2						

IDC ***27*** *22:14:14.7±0.7,13.04N×88.17W,h0^{km},mb4.5/9,mb1 4.7/10,mb1mx4.4/18,mbtmp4.5/10,ML3.8/1,MS3.7/5,Ms1 3.7/5,ms1mx3.3/23,Error ellipse: s-maj=38.3km s-min=14.7km az=54.0*

NEIC ***27*** *22:14:20.3,12.81N×88.79W,h29^{km},mb4.6/24,MD4.8(CASC),MD4.7(SNET),After CASC.*

NEIC Felt [II] at San Salvador.

ISCJB ***27*** *22:14:21.4±0.4,12.81N±0.04×88.61W±0.04,h63^{km}±5^{km},mb4.5/31,Error ellipse: s-maj=8.8km s-min=3.7km az=36.6*

CASC ***27*** *22:14:21.1±3.0,12.71N×88.71W,h34^{km}±15^{km},MD4.5,ML4.4,mb4.6(NEIC)*

ISC 27 22:14:22.8±0.4,**12.86N**±0.04×**88.58W**±0.04,**h56**^{km}±5^{km},**n147,σ1^s.02**/139,**mb4.5**/31,**MS3.5**/3,**7C-9D,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNVI	San Vicente	0.79	341	iP	x	22 14 56.4	
SNVI				eS	x	22 15 09.3	
CAHU	Cacacuatique	0.97	21	⇓iP	x	22 15 01.1	
CAHU				eS	x	22 15 18.2	
SNET	Serv Nac Est T	1.04	322	eP	x	22 14 39.3	
SNET				eS	x	22 14 53.2	
SNET				e		22 14 56.4	
	comp=Z,21μm,0.3s						
BOQS	Boqueron	1.11	322	⇑iP	x	22 14 59.9	
BOQS				eS	x	22 15 17.6	
SNJE	San Jose	1.42	315	⇓iP	x	22 15 04.0	
SNJE				eS	x	22 15 21.3	
RTR	El Retiro	1.46	315	⇓iP	x	22 15 04.8	
RTR				eS	x	22 15 22.1	
TEL3	Telica 3	1.71	99	⇑eP	Pn	22 14 50.1	-0.3
TELN	Telica	1.72	98	⇓eP	Pn	22 14 50.6	+0.2
TGUH	Tegucigalpa,Un	1.74	47	⇓iPn	Pn	22 14 51.9	+1.2
MOMJ	Momotombo	2.04	102	⇓eP	Pn	22 14 54.1	-0.7
MOMJ				eS	Sn	22 15 20.5	+1.4
COPN	Copaltepe	2.05	109	⇑eP	Pn	22 14 53.9	-1.1
COPN				eS	Sn	22 15 19.1	-0.4
XAVN	Gruta Xavier	2.31	108	⇑eP	Pn	22 14 58.1	-0.4
TISN	Laguna Tiscapa	2.37	107	⇑eP	Pn	22 14 58.9	-0.3
MGAN	Managua	2.38	107	⇑eP	Pn	22 14 58.8	-0.7
MGAN				eS	Sn	22 15 27.5	-0.1
MGAN				i		22 15 30.4	
	comp=N,941nm,0.4s						
HUEN		2.41	102	⇓eP	Pn	22 14 59.4	-0.4
TICN	Ticuantepe	2.44	109	eP	Pn	22 14 60.0	-0.2
TICN				eS	Sn	22 15 30.9	+2.1
FUG	Fuego 3	2.71	306	eP	Pn	22 15 02.2	-1.7
FG6		2.81	307	eP	Pn	22 15 04.6	-0.6
CONN	Concepcion	3.16	114	eP	Pn	22 15 09.9	-0.2
MADN	Villa Maderas	3.31	116	⇓eP	Pn	22 15 11.5	-0.6
JAT	Jato	3.31	296	eP	Pn	22 15 10.3	-1.8
VCR	Vista de Mar	3.96	133	eP	Pn	22 15 19.8	-1.3
VCR	Vista de Mar	3.96	133	eP	Pn	22 15 19.9	-1.2
JTS	JuntasAbangare	4.37	125	ePn	Pn	22 15 25.7	-1.1
JTS	JuntasAbangare	4.37	125	Pn	Pn	22 15 24.0	-2.8
	comp=N,3.2nm,0.3s,baz=300,slow=22,SNR=16						
JTS				Pg	Pn	22 15 33.2	+6.5
	comp=N,26nm,0.3s,baz=316,slow=16,SNR=30						
JTS				Lg		22 16 31.6	
	comp=N,5.5nm,0.3s,baz=140,slow=19,SNR=8.9						
CCIG	Comitan	4.84	315	iP	Pn	22 15 36.9	+3.7
CGA2	Cerro Gallo 2	4.92	125	eP	Pn	22 15 35.6	+1.3
CGA2	Cerro Gallo 2	4.92	125	eP	Pn	22 15 35.4	+1.1
CGA2				eS	Sn	22 16 29.0	-1.0
PRS1	Puriscal	5.07	124	eP	Pn	22 15 38.0	+1.7
PRS1	Puriscal	5.07	124	eP	Pn	22 15 37.6	+1.4
PRS1				eS	Sn	22 16 33.4	-0.1
LAJ	Bijagual	5.29	124	eP	Pn	22 15 33.8	-5.5
LCR2	La Lucha 2	5.45	124	eP	Pn	22 15 42.9	+1.4
LCR2	La Lucha 2	5.45	124	eP	Pn	22 15 42.5	+0.9
LCR2				eS	Sn	22 16 42.5	-0.5
SCX	San Cristobal	5.50	315	iP	Pn	22 15 45.3	+3.1
QCR	Quepos	5.51	128	eP	Pn	22 15 42.7	+0.3
QCR	Quepos	5.51	128	⇓eP	Pn	22 15 42.8	+0.4
URSC	Urasca	5.58	122	eP	Pn	22 15 44.4	+1.0
URSC	Urasca	5.58	122	eP	Pn	22 15 44.2	+0.9
URSC				eS	Sn	22 16 46.5	+0.2
BUS	Buena Vista	5.76	124	eP	Pn	22 15 47.6	+1.9
BUS	Buena Vista	5.76	124	eP	Pn	22 15 47.1	+1.4
BAR1		6.30	124	⇑eP	Pn	22 15 53.7	+0.5
TEIG	Tepich	7.33	2	Pn	Pn	22 16 09.0	+1.7
TEIG				Lg		22 18 04.1	
TEIG				LR	LR	22 19 35.6	
TEIG	Tepich	7.33	2	Pn	Pn	22 16 09.0	+1.7
	comp=N,14nm,0.3s,baz=162,slow=1.2,SNR=9.8						
TEIG				Lg		22 18 04.1	
	comp=N,1.8nm,0.3s,baz=180,slow=20,SNR=2.4						
TEIG				LR	LR	22 19 35.6	
	comp=N,814nm,18.6s,baz=183,slow=45						
CMIG	Matias Romero	7.40	305	Pn	Pn	22 16 07.3	-1.0
CMIG				eP		22 16 10.9	
CMIG				Sn	Sn	22 17 30.3	-0.6
CMIG				LR	LR	22 19 33.5	
CMIG	Matias Romero	7.40	305	Pn	Pn	22 16 07.3	-1.0
	comp=N,1.4nm,0.3s,baz=105,slow=11,SNR=8.3						
CMIG				Sn	Sn	22 17 30.3	-0.6
	comp=N,5.3nm,0.3s,baz=100,slow=6.1,SNR=3.3						
CMIG				LR	LR	22 19 33.5	
	comp=N,630nm,20.4s,baz=158,slow=42						
VHO	Vista Hermosa	8.92	299	iP	Pn	22 16 25.6	-3.5
BCIP	Isla Barro Col	9.33	112	Pn	Pn	22 16 33.8	-1.0
PAYG	Puerto Ayora	13.55	187	ePn	Pn	22 17 32.2	-0.2
OTAV	Otavalo	16.06	141	Pn	Pn	22 18 06.5	+1.3
	comp=N,1.5nm,0.5s						
DWPF	Disney	16.58	23	Pn	Pn	22 18 10.6	-0.9
SDV	Santo Domingo	18.06	101	ePn	Pn	22 18 29.2	-0.7
SDV	Santo Domingo	18.06	101	P	Pn	22 18 29.1	-0.8
	comp=N,0.9nm,0.3s,baz=295,slow=9.4,SNR=17						
LRAL	Lakeview Retre	20.14	4	ePn	P	22 18 55.4	+3.2
	comp=N,12nm,0.9s						
JCT	Junction City	20.38	331	eP	P	22 18 55.4	+0.5
	comp=N,14nm,0.7s						
GOGA	Godfrey	20.98	12	eP	P	22 19 03.6	+2.2
LTX	Lajitas	21.57	322	eP	P	22 19 08.8	+1.0
	comp=N,8.8nm,0.6s,mb4.4						
TXAR	Lajitas Array	21.57	322	P	P	22 19 08.1	+0.3
TXAR				PcP	PcP	22 23 07.7	-0.6
TXAR				LR	LR	22 29 09.7	
TXAR	Lajitas Array	21.57	322	P	P	22 19 08.1	+0.3
	comp=N,9.7nm,0.7s,mb4.3,baz=146,slow=11,SNR=68						
TXAR				PcP	PcP	22 23 07.7	-0.6
	comp=N,0.8nm,0.8s,baz=152,slow=5.7,SNR=4.3						
TXAR				LR	LR	22 29 09.7	
	comp=N,111nm,20.2s,MS3.2,baz=205,slow=41						
OXF	Oxford	21.57	358	eP	P	22 19 08.1	+0.4
OXF				eP		22 19 10.0	
COW	Cow Castle Cre	21.66	18	eP	P	22 19 07.3	-1.3

PLAL	Pickwick Lake	22.03	1	eP	P	22 19 12.8	+0.2
	comp=N,6.6nm,0.6s,mb4.2						
MIAR	Mount Ida	22.06	349	eP	P	22 19 14.1	+1.1
UALR	University of	22.08	352	eP	P	22 19 14.1	+0.9
SJG	San Juan	22.23	74	P	P	22 19 14.0	-0.9
JSC	Jenkinsville	22.34	16	eP	P	22 19 17.9	+2.0
SWET	Sewanee	22.39	6	eP	P	22 19 13.7	-2.7
TKL	Tuckaleechee C	23.11	10	P	P	22 19 23.1	-0.9
	comp=N,20nm,0.7s,mb4.7,baz=185,slow=11,SNR=11						
TKL				LR	LR	22 28 36.1	
	comp=N,124nm,20.0s,MS3.4,baz=39,slow=38						
WVT	Waverly	23.18	2	eP	P	22 19 23.5	-1.3
	comp=N,0.1nm,0.5s						
PCRV	Puerto La Cruz	23.61	94	P	P	22 19 27.6	-1.3
	comp=N,13nm,0.7s,mb4.4,baz=22,slow=19,SNR=3.2						
WMOK	Wichita Mounta	23.67	339	eP	P	22 19 29.4	+0.2
	comp=N,12nm,0.6s,mb4.5						
MNTX	Cornudas Mount	24.30	323	eP	P	22 19 34.5	-0.6
	comp=N,7.9nm,0.7s,mb4.2						
SIUC	Southern Illin	24.76	359	eP	P	22 19 38.5	-0.7
AMTX	Amarillo	24.93	334	eP	P	22 19 41.9	+1.1
FVM	French Village	25.08	357	P	P	22 19 41.9	-0.2
WCI	Wyandotte Cave	25.35	4	eP	P	22 19 44.0	-0.6
	comp=N,22nm,0.7s,mb4.8						
BLO	Bloomington	26.27	4	eP	P	22 19 52.2	-0.6
	comp=N,24nm,0.5s,mb5.0						
BNM	Barren Site	26.80	325	eP	P	22 19 58.7	+1.0
LPM	Los Pinos Moun	26.93	325	eP	P	22 20 00.3	+1.5
LENM	Lemitar	27.01	325	eP	P	22 20 03.4	+3.8
KSU1	Kansas State U	27.09	346	eP	P	22 19 59.8	-0.4
LAZ	Ladron	27.27	325	P	P	22 20 02.5	+0.6
ANMO	Albuquerque	27.31	327	eP	P	22 20 02.4	+0.1
	comp=N,2.6nm,0.6s,mb3.9						
ANMO	Albuquerque	27.31	327	P	P	22 20 03.2	+1.0
	comp=N,2.7nm,0.6s,mb4.0,baz=138,slow=6.9,SNR=7.4						
ACSO	Alum Creek Sta	27.71	9	eP	P	22 20 05.8	+0.1
	comp=N,18nm,0.6s,mb4.9						
BBSR	BB Station	29.26	45	eP	P	22 20 19.8	+0.1
ISCO	Idaho Springs	30.76	334	eP	P	22 20 33.9	+1.1
	comp=N,3.7nm,0.5s,mb4.5						
PV10	Paradox Valley	31.25	328	P	P	22 20 36.8	-0.5
ECSD	EROS,Sioux Fal	31.53	349	eP	P	22 20 39.0	-0.5
	comp=N,16nm,1.4s,mb4.7						
PHWY	Pilot Hill	31.95	336	eP	P	22 20 44.1	+0.8
SRU	San Rafael	32.58	327	eP	P	22 20 50.2	+1.4
COWI	Conover	33.13	359	eP	P	22 20 52.4	-1.2
	comp=N,11nm,0.8s,mb4.8						
MPU	Maple Canyon	33.82	327	eP	P	22 21 00.9	+1.2
JLU	Jordanelle	34.15	328	eP	P	22 21 04.4	+1.8
PDAR	Pinedale Array	34.90	333	P	P	22 21 08.4	-0.5
	comp=N,1.8nm,0.6s,mb4.2,baz=128,slow=11,SNR=17						
PDAR				PcP	PcP	22 23 40.2	-0.5
	comp=N,2.4nm,0.6s,baz=146,slow=5.3,SNR=17						
BW06	Boulder Array	34.90	333	eP	P	22 21 08.9	-0.1
	comp=N,2.1nm,0.6s,mb4.2						
EYMN	Ely	35.06	357	eP	P	22 21 08.9	-1.4
LPAZ	La Paz	35.32	145	eP	P	22 21 13.1	+0.2
	comp=N,1.7nm,0.6s,mb4.2						
LPAZ	La Paz	35.32	145	P	P	22 21 12.5	-0.3
	comp=N,1.0nm,0.7s,mb3.8,baz=332,slow=16,SNR=5.7						
AHID	Auburn Hatcher	35.61	331	eP	P	22 21 16.2	+1.2
HVU	Hansel Valley	35.70	328	eP	P	22 21 16.4	+0.6
	comp=N,3.3nm,0.7s,mb4.4						
AGMN	Agassiz Refuge	35.85	352	eP	P	22 21 15.9	-1.1
	comp=N,9.2nm,0.5s,mb5.0						
REDW	Red Top Meadow	35.95	332	eP	P	22 21 18.5	+0.5
MOOW	Moose Ponds	36.21	332	eP	P	22 21 20.1	0.0
RLMT	Red Lodge	36.67	335	eP	P	22 21 24.1	0.0
	comp=N,12nm,0.8s,mb4.8						
NVAR	Mina Array Bea	36.67	319	P	P	22 21 25.0	+0.8
NVAR				PcP	PcP	22 23 47.2	+1.1
NVAR	Mina Array Bea	36.67	319	P	P	22 21 25.0	+0.8
	comp=N,3.2nm,0.7s,mb4.3,baz=120,slow=8.6,SNR=20						
NVAR				PcP	PcP	22 23 47.2	+1.1
	comp=N,3.7nm,0.7s,baz=121,slow=4.9,SNR=19						
GCMT	Greycliff	37.38	335	eP	P	22 21 30.3	+0.2
ULM	Lac du Bonnet	37.76	352	eP	P	22 21 31.6	-1.6
	comp=N,11nm,0.5s,mb4.8						
ULM	Lac du Bonnet	37.76	352	P	P	22 21 31.4	-1.9
	comp=N,10nm,0.6s,mb4.8,baz=167,slow=9.0,SNR=36						
ULM				PcP	PcP	22 23 47.7	-1.4
	comp=N,1.5nm,0.6s,baz=162,slow=2.8,SNR=3.2						
ULM				LR	LR	22 39 10.7	
	comp=N,258nm,19.5s,MS4.0,baz=185,slow=40						
CMB	Columbia Colle	37.80	317	P	P	22 21 33.9	+0.1
DGMT	Dagmar	37.80	343	eP	P	22 21 34.0	+0.4
HLID	Hailey	37.82	329	eP	P	22 21 34.4	+0.5
MCMT	McKenzie Canyo	38.00	332	eP	P	22 21 35.4	+0.1
BOZ	Bozeman (W)	38.09	334	eP	P	22 21 35.9	-0.2
	comp=N,5.3nm,0.7s,mb4.4						
DLMT	Dillon	38.29	332	eP	P	22 21 38.9	+1.1
LRM	Limekiln Ridge	38.58	333	eP	P	22 21 40.9	+0.7
EGMT	Eagleton	39.25	337	eP	P	22 21 46.3	+0.6
	comp=N,51nm,0.6s,mb5.4						
SIV	San Ignacio	39.52	136	P	P	22 21 47.5	-0.9
	comp=N,8.7nm,0.7s,mb4.6,baz=315,slow=9.3,SNR=33						
SIV				PcP	PcP	22 23 55.1	-0.1
	comp=N,2.1nm,0.6s,baz=205,slow=4.5,SNR=5.0						
CHMT	Chamberlain Mo	39.78	333	eP	P	22 21 50.2	+0.1
NEW	Newport	42.53	332	eP	P	22 22 11.7	-1.0
FFC	Flin Flon	43.08	349	eP	P	22 22 16.5	-0.6
	comp=N,16nm,0.6s,mb4.9						
EDM	Edmonton	44.83	339	eP	P	22 22 30.8	-0.4
SCHQ	Schefferville	45.21	18	eP	P	22 22 32.8	-1.4
SCHQ				PcP	PcP	22 24 12.1	-1.4
SCHQ	Schefferville	45.21	18	P	P	22 22 32.1	-2.1
	comp=N,6.3nm,0.6s,mb4.6,baz=219,slow=6.6,SNR=25						
SCHQ				PcP	PcP	22 24 12.1	-1.4
	comp=N,1.5nm,0.7s,baz=166,slow=4.2,SNR=3.8						
FCC	Fort Churchill	46.00	356	eP	P	22 22 39.1	-1.3
	comp=N,11nm,0.6s,mb5.0						
YKA	Yellowknife Ar	52.93	345	P	P	22 23 31.9	-1.2
YKA				PcP	PcP	22 24 39.9	-1.4
YKA	Yellowknife Ar	52.93	345	P	P	22 23 31.9	-1.2
	comp=N,14nm,0.6s,mb5.1,baz=137,slow=8.0,SNR=284						
YKA				PcP	PcP	22 24 39.9	-1.4
	comp=N,1.7nm,0.6s,baz=148,slow=3.8,SNR=7.5						
DLBC	Dease Lake	55.07	335	eP	P	22 23 49.2	+0.5
RCBR	Riachuelo	55.53	106	P	P	22 23 54.7	+1.9
RKT	Rikitea	57.80	232	eT		23 25 56.7	
	comp=N,2.9nm,0.3s						
RES	Resolute Bay	61.91	358	eP	P	22 24 34.3	-1.8
	comp=N,208nm,0.6s						
INK	Inuvik	62.49	343	eP	P	22 24 39.0	-1.0
	comp=N,392nm,0.6s						
INK				ePcP	PcP	22 25 18.9	0.0
COLA	College	65.62	336	P	P	22 25 00.6	-0.1
MCK	McKinley	65.63	335	eP	P	22 25 00.5	-0.3
	comp=N,2.4nm,0.9s,mb4.2						
PPT	Papeete	67.37	245	eLR	LR	22 45 11.8	
	comp=N,134nm,25.2s						
TORD	Torodi Ar. Bea	87.39	77	P	P	22 27 01.1	-3.6
	comp=N,0.3nm,0.6s,mb3.7,baz=301,slow=6.3,SNR=2.8						
BOYT	Boyabat	105.00	40	i P	PKiKP	22 32 41.2	+2.2
LBTB	Lobatse	117.09	112	PKPdf	PKPdf	22 33 03.4	+1.2
SONM	Songino Array	118.12	349	PKP	PKPdf	22 33 02.4	-1.2
SONM	Songino Array	118.12	349	PKP	PKPdf	22 33 02.4	-1.2
	comp=N,1.2nm,0.6s,baz=341,slow=1.7,SNR=13						
MKAR	Makanchi Array	120.06	7	PKP	PKPdf	22 33 05.5	-1.9
MKAR	Makanchi Array	120.06	7	PKP	PKPdf	22 33 05.5	-1.9
	comp=N,0.3nm,0.3s,baz=349,slow=2.5,SNR=5.8						
WRA	Warramunga Arr	138.32	254	PKP		22 33 38.2	
WRA				PKP	PKPdf	22 33 42.1	-0.6
WRA	Warramunga Arr	138.32	254	PKhKP		22 33 38.2	
	comp=N,1.4nm,0.9s,baz=5.3,slow=0.7,SNR=5.5						
WRA				PKP	PKPdf	22 33 42.1	-0.6
	comp=N,1.6nm,0.5s,baz=86,slow=2.3,SNR=11						
ASAR	Alice Springs	138.39	249	PKP		22 33 31.1	
ASAR	Alice Springs	138.39	249	PKhKP		22 33 31.1	
	comp=N,0.2nm,0.3s,baz=224,slow=39,SNR=3.5						
CHTO	Chiang Mai	147.67	347	ePKPdf	PKPdf	22 34 00.1	+0.9

IDC ***27*** *22:23:04.5±1.3, 26.19N×110.37W, h0^{km}, mb3.6/1, mb1 4.0/5, mb1mx3.8/21, mbtmp3.6/5, ML3.8/3, MS3.9/4, Ms1 3.9/4, ms1mx3.4/18, Error ellipse: s-maj=24.3km s-min=12.9km az=93.0*

NEIC ***27*** *22:23:06.5±0.8, 26.00N×110.25W, h10^{km}, mb4.5/3, Error ellipse: s-maj=13.4km s-min=10.6km az=87.0*

ISCJB ***27*** *22:23:07.2±1.1, 26.27N±0.09×110.22W±0.09, h10^{km}, mb4.7/4, MS3.8/2, Error ellipse: s-maj=14.1km s-min=10.7km az=20.3*

ISC 27 22:23:07.3±0.9**, 26.08N**±0.07×**110.19W**±0.08**, h10**^{km}**, n27,** σ1ˢ**28**/28**, mb4.7**/4**, MS3.8**/2**, Gulf of California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPIG	La Paz	1.97	183	Pn	Pn	22 23 39.0	-1.8
LPIG				Lg		22 24 11.9	
LPIG	La Paz	1.97	183	Pn	Pn	22 23 39.0	-1.8
	15nm,0.3s,baz=345,slow=0.6,SNR=14						
LPIG				Lg		22 24 11.9	
	136nm,0.3s,baz=221,slow=22,SNR=11						
TUC	Tucson	6.23	355	ePn	Pn	22 24 35.5	-3.8
	19nm,0.8s						
TUC				eSn	Sn	22 25 42.4	-8.1
TUC				eSg	Sg	22 26 16.9	-10
TXAR	Lajitas Array	6.63	59	Pn	Pn	22 24 44.7	-0.1
TXAR				Lg		22 26 37.4	
TXAR	Lajitas Array	6.63	59	Pn	Pn	22 24 44.7	-0.1
	0.7nm,0.3s,baz=234,slow=12,SNR=22						
TXAR				Lg		22 26 37.4	
	1.7nm,0.3s,baz=164,slow=14,SNR=4.2						
MNTX	Cornudas Mount	7.01	36	ePn	Pn	22 24 50.4	+0.5
	19nm,0.9s						
MNTX				ePg	Pg	22 25 19.8	-1.7
MNTX				eSn	Sn	22 26 10.8	+1.1
MNTX				eSg	Sg	22 26 48.8	-3.4
PFO	Pinyon Flat Ob	9.27	326	Lg		22 28 02.0	
	0.7nm,0.3s,baz=53,slow=11,SNR=2.0						
ANMO	Albuquerque	9.41	19	Lg		22 27 58.5	
	0.2nm,0.3s,baz=13,slow=16,SNR=3.5						
ANMO				LR	LR	22 28 39.3	
	comp=Z,591nm,18.1s,baz=42,slow=36						
MSU	Marysvale	12.51	353	Pn	Pn	22 26 05.8	+0.5
WMOK	Wichita Mounta	13.08	46	ePn	Pn	22 26 14.0	+0.8
	15nm,1.0s						
NVAR	Mina Array Bea	14.09	333	Pn	Pn	22 26 26.1	-0.9
NVAR	Mina Array Bea	14.09	333	Pn	Pn	22 26 26.1	-0.9
	0.1nm,0.3s,baz=156,slow=13,SNR=5.4						
ISCO	Idaho Springs	14.21	14	ePn	Pn	22 26 30.9	+2.4
	5.9nm,1.0s						
PAHR	Pah Rah Range	15.62	333	ePn	Pn	22 26 48.2	+0.8
	46nm,1.7s						
PDAR	Pinedale Array	16.66	2	Pn	Pn	22 27 00.8	0.0
PDAR				LR	LR	22 33 32.1	
PDAR	Pinedale Array	16.66	2	Pn	Pn	22 27 00.8	0.0
	0.1nm,0.3s,baz=165,slow=6.2,SNR=14						
PDAR				LR	LR	22 33 32.1	
	comp=Z,453nm,20.4s,baz=184,slow=38						
CMIG	Matias Romero	16.80	119	Pn	Pn	22 27 06.8	+4.1
CMIG	Matias Romero	16.80	119	Pn	Pn	22 27 06.8	+4.1
	0.1nm,0.3s,baz=333,slow=11,SNR=3.1						
MCMT	McKenzie Canyo	18.83	354	eP	Pn	22 27 28.2	+0.5
CHMT	Chamberlain Mo	20.94	354	eP	P	22 27 49.0	-1.0
EGMT	Eagleton	21.91	1	eP	P	22 28 00.5	0.0
	27nm,1.3s,mb4.5						
TKL	Tuckaleechee C	24.54	61	LR	LR	22 38 47.4	
	comp=Z,277nm,18.4s,MS3.8,baz=60,slow=38						
YKA	Yellowknife Ar	36.53	357	P	P	22 30 10.7	-2.0
YKA	Yellowknife Ar	36.53	357	P	P	22 30 10.7	-2.0
	1.8nm,1.1s,mb3.8,baz=175,slow=8.3,SNR=8.8						
ROSC	El Rosal	40.26	115	LR	LR	22 49 49.9	
	comp=Z,108nm,18.8s,MS3.7,baz=340,slow=40						
INK	Inuvik	44.53	348	eP	P	22 31 21.9	+3.1
	159nm,1.1s,mb5.8						
BILL	Bilibino	63.70	335	P	P	22 33 39.4	+0.9
	3.1nm,0.6s,mb4.5						

TEH ***27*** *22:27:45.5, 28.10N×55.09E, h6^{km}, ML4.4*

IDC ***27*** *22:28:08.4±0.6, 28.21N×55.21E, h0^{km}, mb4.3/23, mb1 4.5/26, mb1mx4.5/29, mbtmp4.4/26, ML4.4/3, MS4.1/21, Ms1 4.1/21, ms1mx4.0/36, Error ellipse: s-maj=13.6km s-min=10.4km az=134.0*

THR ***27*** *22:28:10.1±0.3, 28.00N×54.91E, h18^{km}±5^{km}, mb4.8*

BJI ***27*** *22:28:11.8, 28.49N×55.42E, h6^{km}, mB5.0, mb4.6, Ms4.6, Msz4.4*

NEIC ***27*** *22:28:12.3, 28.10N×55.08E, h6^{km}, mb4.5/65, MS4.0/2, MN4.6(TEH), After TEH.*

GCMT ***27*** *22:28:12.3±0.5, 27.97N×55.23E, h23^{km}±1^{km}, MW5.0/52, Moment Tensor Solution. s25,c26; s52,c77; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.27±.24; $M_{\theta\theta}$-3.38±.15; $M_{\phi\phi}$0.10±.15; $M_{r\theta}$0.45±.19; $M_{\theta\phi}$-0.13±.10; $M_{\phi r}$0.74±.30; Best double couple: $M_0$3.43900×10^{16} NP1:ϕ_s280.00000°,δ42.00000°,λ108.00000°. NP2: ϕ_s76.00000°,δ50.00000°,λ74.00000°. Principal axes: T 3.4590, Plg77.0000°, Azm286.0000°; N -0.0430, Plg12.0000°, Azm86.0000°; P -3.4200, Plg4.0000°, Azm177.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

MOS ***27*** *22:28:12.5±1.0, 28.20N×55.08E, h33^{km}, mb4.7/49, MS4.1/6 Error ellipse: s-maj=7.2km s-min=3.7km az=124.2*

ISCJB ***27*** *22:28:13.8±0.3, 28.16N±0.02×55.04E±0.02, h45^{km}±3^{km}, mb4.5/103, MS4.2/25, Error ellipse: s-maj=3.5km s-min=3.2km az=24.3*

CSEM ***27*** *22:28:13.1±0.0, 28.18N×55.04E, h40^{km}, mb4.5/61, Ms4.0, Mw5.0, Error ellipse: s-maj=1.7km s-min=1.4km az=28.0*

SZGRF ***27*** *22:28:13.2, 28.26N×55.18E, h33^{km}, mb4.3, MS4.1, Southern Iran*

ISC 27 22:28:15.5±0.3**, 28.15N**±0.02×**55.07E**±0.02**, h45**^{km}±3^{km}**, h28**^{km}±6.9^{km}**:pP-P, n442,** σ1ˢ**07**/473**, mb4.5**/103**, MS4.2**/25**, 36C-12D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IBND		1.48	118	ePn	Pn	22 28 38.9	-0.8
ISRV	Sarvestan	2.11	306	Pn	Pn	22 28 48.8	+0.5
ISRV				Sn	Sn	22 29 15.3	+2.0
ISRV	Sarvestan	2.11	306	ePn	Pn	22 28 48.9	+0.6
ISRV				eSn	Sn	22 29 15.4	+2.1
ISRV	Sarvestan	2.11	306	ePn	Pn	22 28 48.9	+0.6
ISRV				Sn	Sn	22 29 15.3	+2.0
IMOK	Mook	2.25	294	Pn	Pn	22 28 51.2	+0.9
IMOK	Mook	2.25	294	ePn	Pn	22 28 51.3	+1.0
IMOK				e		22 29 49.2	
	comp=Z,36μm,0.5s						
IMOK	Mook	2.25	294	ePn	Pn	22 28 51.3	+1.0
BANOM	Banah	2.48	153	P	Pn	22 28 52.3	-1.0
	SNR=80						
BANOM				S	Sn	22 29 22.9	+0.6
SHI	Shiraz	2.69	304	Pn	Pn	22 28 55.6	-0.6
SHI				Sn	Sn	22 29 29.3	+1.8
SHI	Shiraz	2.69	304	ePn	Pn	22 28 55.7	-0.5
SHI				eSn	Sn	22 29 29.4	+1.9
SHI				e		22 29 58.4	
	comp=Z,28μm,0.3s						
SHI	Shiraz	2.69	304	ePn	Pn	22 28 55.7	-0.5
SHI				Sn	Sn	22 29 29.3	+1.8
NAZ	Nazwa, Dubai	3.19	170	P	Pn	22 29 04.4	+1.2
IMEH	Mehriz	3.25	353	Pn	Pn	22 29 04.5	+0.5
IMEH	Mehriz	3.25	353	Pn	Pn	22 29 04.5	+0.5
FAQ	Al Faqa, Dubai	3.42	172	P	Pn	22 29 06.8	+0.5
	SNR=30						
HATD	Hatta, Dubai	3.44	164	P	Pn	22 29 07.2	+0.6
	SNR=16						
IBAF	Bafgh	3.46	7	Pn	Pn	22 29 06.3	-0.5
IBAF				Sn	Sn	22 29 47.8	+1.3
IBAF	Bafgh	3.46	7	ePn	Pn	22 29 06.3	-0.5
IBAF				e		22 29 21.9	
	comp=Z,10μm,0.3s						
IBAF				eSn	Sn	22 29 47.9	+1.4
IBAF	Bafgh	3.46	7	ePn	Pn	22 29 06.3	-0.5
IBAF				eSn	Sn	22 29 47.9	+1.4
ASUD	Al Ashush, Dub	3.52	176	P	Pn	22 29 09.3	+1.7
	SNR=81						
ASHO	Ashiyiah	3.56	165	P	Pn	22 29 08.2	-0.1
	SNR=12						
ASHO				S	Sn	22 29 51.7	+2.6
ICHK	Chekchek	4.12	352	Pn	Pn	22 29 16.2	+0.3
ICHK				Sn	Sn	22 30 04.0	+1.2
ICHK	Chekchek	4.12	352	ePn	Pn	22 29 16.2	+0.3
ICHK				e		22 29 47.1	
	comp=Z,6μm,0.3s						
ICHK				eSn	Sn	22 30 04.1	+1.3
ICHK	Chekchek	4.12	352	ePn	Pn	22 29 16.2	+0.3
ICHK				Sn	Sn	22 30 04.0	+1.2
IGAR	Garneh	4.78	329	ePn	Pn	22 29 27.8	+2.9
IGAR				e		22 30 35.8	
	comp=Z,4μm,0.2s						
SLWS		5.18	231	P	Pn	22 29 29.8	-0.7
SLWS				S	Sn	22 30 25.2	-3.8
SLWS		5.18	231	P	Pn	22 29 29.8	-0.7
IZEF	Zefreh	5.29	334	Pn	Pn	22 29 31.7	-0.2
IZEF	Zefreh	5.29	334	ePn	Pn	22 29 31.7	-0.2
IZEF				e		22 30 08.0	
	comp=Z,2μm,0.3s						
IZEF	Zefreh	5.29	334	ePn	Pn	22 29 31.7	-0.2
IKOO		5.45	38	ePn	Pn	22 29 33.5	-0.7
IKOO				eSn	Sn	22 30 33.7	-2.0
BOQSS		5.56	247	P	Pn	22 29 35.6	-0.1
BOQSS				S	Sn	22 30 36.2	-2.1
BOQSS		5.56	247	P	Pn	22 29 35.6	-0.1
BTHS		5.58	224	P	Pn	22 29 35.2	-0.7
BTHS		5.58	224	P	Pn	22 29 35.2	-0.7
ITEG		5.70	33	ePn	Pn	22 29 38.0	+0.4
IKLH	Kalahroud	5.96	331	Pn	Pn	22 29 41.1	-0.1
IKLH	Kalahroud	5.96	331	ePn	Pn	22 29 41.1	-0.1
IKLH				e		22 31 49.5	
	comp=Z,12μm,1.0s						
IKLH	Kalahroud	5.96	331	ePn	Pn	22 29 41.1	-0.1
IDAH		6.17	41	ePn	Pn	22 29 43.5	-0.6
KFJS		6.29	272	P	Pn	22 29 45.4	-0.3
KFJS				S	Sn	22 30 54.1	-2.2
QRN	Al-Qurain	6.32	277	eP	Pn	22 29 45.8	-0.4
QRN				AML	AML	22 30 59.7	
	comp=Z,279nm,0.3s						
KBD	Kabd	6.56	281	eP	Pn	22 29 49.3	-0.1
KBD				AML	AML	22 31 02.7	
	comp=Z,269nm,0.4s						
ISFB	Sefidab	6.64	339	Pn	Pn	22 29 50.9	+0.4
ISFB	Sefidab	6.64	339	ePn	Pn	22 29 51.0	+0.5
ISFB				e		22 31 55.3	
	comp=Z,2μm,0.7s						
ISFB	Sefidab	6.64	339	ePn	Pn	22 29 51.0	+0.5
RDF	Al-Radifah	6.66	278	eP	Pn	22 29 50.0	-0.8
RDF				AML	AML	22 31 08.6	
	comp=Z,178nm,0.4s						
NAY	Al-Naaiem	6.96	281	eP	Pn	22 29 54.7	-0.1
NAY				AML	AML	22 31 14.4	
	comp=Z,86nm,0.6s						
MIB	Mutribah	6.97	286	eP	Pn	22 29 54.8	-0.2
MIB				AML	AML	22 31 14.1	
	comp=Z,244nm,0.5s						
HRDDS		7.25	225	P	Pn	22 29 58.3	-0.7
ASAO	Ashtian	7.70	327	eP	Pn	22 30 04.0	-1.0
ASAO				Sn	Sn	22 31 28.0	-2.8
ASAO	Ashtian	7.70	327	ePn	Pn	22 30 04.7	-0.3
	SNR=52						
ASAO	Ashtian	7.70	327	ePn	Pn	22 30 04.7	-0.3
ASAO				Sn	Sn	22 31 28.3	-2.5
DAMV	Damavand	7.91	341	eP	Pn	22 30 08.0	+0.1
DAMV	Damavand	7.91	341	ePn	Pn	22 30 08.2	+0.3
	SNR=52						
DAMV	Damavand	7.91	341	ePn	Pn	22 30 08.2	+0.3
IPRN	Paran-Amol	8.42	344	Pn	Pn	22 30 14.4	-0.4
IPRN	Paran-Amol	8.42	344	ePn	Pn	22 30 14.5	-0.3
IPRN				e		22 30 46.0	
	comp=Z,763nm,0.2s						
CHTH	Charan	8.43	338	eP	Pn	22 30 15.0	0.0
CHTH	Charan	8.43	338	ePn	Pn	22 30 15.2	+0.2
	SNR=52						
CHTH	Charan	8.43	338	ePn	Pn	22 30 15.2	+0.2
IKOM	Komasi	8.83	315	Pn	Pn	22 30 19.8	-0.7
IKOM	Komasi	8.83	315	ePn	Pn	22 30 19.8	-0.7
IKOM	Komasi	8.83	315	ePn	Pn	22 30 19.8	-0.7
ASYS		9.52	269	S	Sn	22 32 10.1	-5.5
MRVT	Maraveh tapeh	9.52	5	ePn	Pn	22 30 31.2	+1.2
	SNR=52						
MRVT	Maraveh tapeh	9.52	5	ePn	Pn	22 30 31.2	+1.2
ILIN	Laeen	9.66	316	Pn	Pn	22 30 30.7	-1.2
ILIN	Laeen	9.66	316	ePn	Pn	22 30 30.7	-1.2
ILIN				e		22 32 28.9	
	comp=Z,977nm,0.2s						
ILIN	Laeen	9.66	316	ePn	Pn	22 30 30.7	-1.2
BHD	Baghdad	10.52	302	ePn	x	22 30 42.0	
BHD				eSn	x	22 32 31.0	
BHD	Baghdad	10.52	302	ePn	x	22 30 42.0	
HAKT	HAKKARI	13.38	317	i P	Pn	22 31 23.4	+0.8
KBL	Kabul	13.53	58	ePn	Pn	22 31 26.9	+2.1
KBL	Kabul	13.53	58	ePn	Pn	22 31 26.9	+2.1
DRP	Derazinda	13.60	71	P	Pn	22 31 25.4	-0.4
MAKU	Maku	14.11	325	eP	Pn	22 31 32.0	-0.7
MAKU	Maku	14.11	325	eP	Pn	22 31 33.1	+0.4
MAKU				AMb	AMB	22 31 41.1	
	comp=Z,37nm,1.8s						
TVAN	Van	14.20	320	⇓iP	Pn	22 31 37.1	+3.2
SBDP	Sheikh Budin	14.22	69	P	Pn	22 31 34.0	-0.2
DYDN	Diyadin	14.77	323	i P	Pn	22 31 49.5	+8.2
MARD	Mardin	15.09	311	i P	Pn	22 31 42.2	-3.4
THW	Thamme Wali	15.10	68	P	Pn	22 31 44.5	-1.3
TUTA	Tutak	15.14	321	⇓iP	Pn	22 31 51.5	+5.2
DGRG	David-gareji	15.46	332	P	Pn	22 31 56.8	+6.4
CEP	Cherat	15.51	64	P	Pn	22 31 49.1	-2.0
BNGL	BINGOL	15.81	317	i P	Pn	22 32 04.6	+10
MTA	Mtatsminda	15.91	331	P	Pn	22 32 03.9	+7.8
MAK	Makhachkala	16.00	339	eP	Pn	22 31 54.4	-2.9
MAK				eS	S	22 34 58.1	-7.5
MAK				pmax	pmax		
	comp=Z,502nm,1.4s						
MAK				MLR	MLR		
	comp=Z,1μm,17.0s						
ASF	Jabal al Asfar	16.22	289	Pn	Pn	22 31 57.2	-2.9
ASF				Sn	Sn	22 34 52.2	-6.8
ASF				LR	LR	22 38 57.1	
ASF	Jabal al Asfar	16.22	289	P	Pn	22 31 57.2	-3.0
ASF						22 34 52.2	
ASF	Jabal al Asfar	16.22	289	Pn	Pn	22 31 57.2	-2.9
	comp=Z,1.1nm,0.3s,baz=320,slow=8.9,SNR=22						
ASF				Sn	Sn	22 34 52.2	-6.8
	comp=Z,0.4nm,0.3s,baz=250,slow=13,SNR=3.4						
ASF				LR	LR	22 38 57.1	
	comp=Z,137nm,18.5s,baz=161,slow=40						
ERZM	Erzurum	16.30	320	⇑iP	Pn	22 32 02.4	+1.3
GOR	Gori	16.44	330	P	Pn	22 32 07.4	+4.5
ARTV	Artvin	16.88	324	i P	Pn	22 32 14.8	+6.3
ZEI	Tsey	17.17	331	eP	Pn	22 32 16.3	+4.3
MALT	Malatya	17.20	310	ePn	Pn	22 32 12.7	+0.3
	comp=Z,24nm,0.5s						
MALT				eSn	Sn	22 35 23.6	+1.0
MALT	Malatya	17.20	310	eP	Pn	22 32 12.7	+0.3
MALT				e		22 35 23.6	
MALT				pmax	pmax		
	comp=Z,24nm,0.5s						
ONI	Oni	17.21	330	P	Pn	22 32 18.0	+5.5
BHL	Bhannes	17.59	294	eP	Pn	22 32 17.0	-0.3
MMAI	Mount Meron Ar	17.61	291	P	Pn	22 32 15.9	-1.6
	comp=Z,1.8nm,0.3s,baz=100,slow=16,SNR=26						
MMAI				S	S	22 35 23.7	-15
	comp=Z,0.7nm,0.3s,baz=111,slow=28,SNR=4.4						
MMAI				LR	LR	22 40 48.6	
	comp=Z,667nm,18.7s,baz=90,slow=43						
EIL	Elat	17.68	280	P	Pn	22 32 18.5	+0.1
	comp=Z,0.9nm,0.3s,baz=88,slow=2.6,SNR=12						
EIL				S	S	22 35 40.9	+0.8
	comp=Z,0.4nm,0.3s,baz=26,slow=13,SNR=2.5						
EIL				LR	LR	22 40 28.3	
	comp=Z,335nm,21.5s,baz=97,slow=42						
COBT	Iskenderun	17.93	302	i P	Pn	22 32 22.2	+0.7
ANDN	Andirin	18.30	306	⇑iP	Pn	22 32 28.9	+3.0
KIV	Kislovodsk	18.65	331	eP	Pn	22 32 31.5	+1.5
	comp=Z,41nm,1.0s						
KIV	Kislovodsk	18.65	331	⇑eP	Pn	22 32 30.1	0.0
KIV				pmax	pmax		
	comp=Z,24nm,1.2s						
KIV				MLR	MLR		
	comp=Z,200nm,16.0s						
KIV	Kislovodsk	18.65	331	eP	Pn	22 32 31.5	+1.4
	comp=Z,41nm,1.0s						
KK31	Karatay Array	19.45	36	i P	Pn	22 32 38.7	-1.0
KK31				pmax	pmax		
	comp=Z,55nm,1.5s						
KKAR	Karatay Array	19.45	36	eP	Pn	22 32 38.7	-1.0
KKAR				pmax	pmax		
	comp=Z,85nm,1.6s						
NDI	New Delhi	19.49	83	eP	Pn	22 32 34.0	-6.3
CSS	Prodhromos	19.71	296	eP	Pn	22 32 42.3	-0.6
	comp=Z,17nm,0.8s						
CSS	Prodhromos	19.71	296	eP	Pn	22 32 42.3	-0.6
	comp=Z,17nm,0.8s						
SOC	Sochi	19.75	325	eP	Pn	22 32 40.4	-2.8
SOC				e		22 36 25.1	
SOC				pmax	pmax		
	comp=Z,20nm,0.9s						
SOC				MLR	MLR		
	comp=Z,1μm,14.0s						

AVNT	Avonos	19.88	307	⇑iP	Pn	22 32 44.8	0.0
ATD	Arta Tunnel	20.11	217	P	P	22 32 46.5	+0.9
	comp=Z,3.8nm,0.3s,baz=14,slow=12,SNR=8.5						
ATD				LR	LR	22 41 14.2	
	comp=Z,602nm,18.1s,MS4.0,baz=33,slow=39						
CDAG	Cicekdag	20.59	309	⇑iP	P	22 32 51.1	+0.5
AML	Almayashu	20.59	42	eP	P	22 32 50.2	-0.5
	comp=Z,23nm,0.9s						
AML	Almayashu	20.59	42	eP	P	22 32 50.2	-0.4
	comp=Z,23nm,0.9s						
CTKT	Corum	20.80	312	i P	P	22 32 54.1	+1.3
EKS2	Erkin-Say	20.96	41	eP	P	22 32 55.5	+0.9
	comp=Z,42nm,1.1s						
EKS2	Erkin-Say	20.96	41	eP	P	22 32 55.5	+0.9
	comp=Z,42nm,1.1s						
BR131	Keskin Array S	21.14	309	eP	P	22 32 57.4	+0.9
	comp=Z,8.2nm,0.6s,mb4.2						
BR131	Keskin Array S	21.14	309	eP	P	22 32 57.4	+0.8
	comp=Z,8.2nm,0.6s,mb4.2						
BRTR	Keskin Array B	21.14	309	P	P	22 32 57.1	+0.6
	comp=Z,9.7nm,0.6s,mb4.3,baz=127,slow=12,SNR=24						
BRTR				S	S	22 36 57.0	+7.8
	comp=Z,0.2nm,0.3s,baz=127,slow=29,SNR=2.4						
UCH	Uchtor	21.14	43	eP	P	22 32 56.8	+0.3
	comp=Z,22nm,1.1s,mb4.4						
UCH	Uchtor	21.14	43	eP	P	22 32 56.8	+0.2
	comp=Z,22nm,1.1s,mb4.4						
AAK	Ala-Archa	21.37	42	eP	P	22 32 57.3	-1.6
	comp=Z,25nm,1.0s,mb4.5						
AAK	Ala-Archa	21.37	42	⇓iP	P	22 32 55.9	-3.1
AAK				pmax	pmax		
	comp=Z,30nm,2.5s,mb4.2						
AB31	Akbulak array	21.41	9	P	P	22 32 58.0	-1.3
AB31				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.5						
FRU	Bishkek	21.56	42	eP	P	22 33 07.0	+6.0
FRU				e		22 37 06.0	
ANTO	Ankara	21.79	308	eP	P	22 33 04.7	+1.2
	comp=Z,21nm,0.7s,mb4.7						
ANTO	Ankara	21.79	308	eP	P	22 33 04.7	+1.2
ANTO				pmax	pmax		
	comp=Z,21nm,0.7s,mb4.7						
ANTO	Ankara	21.79	308	eP	P	22 33 04.7	+1.2
	comp=Z,21nm,0.7s,mb4.7						
BALT	Daday	22.17	313	i P	P	22 33 06.5	-1.0
TKM2	Tokmak 2	22.20	43	eP	P	22 33 10.3	+2.5
	comp=Z,27nm,1.2s,mb4.5						
TKM2	Tokmak 2	22.20	43	eP	P	22 33 10.3	+2.5
TKM2				pmax	pmax		
	comp=Z,27nm,1.2s,mb4.5						
TKM2	Tokmak 2	22.20	43	eP	P	22 33 10.3	+2.5
	comp=Z,27nm,1.2s,mb4.5						
AKTK	Aktyubinsk	22.37	5	P	P	22 33 08.5	-1.0
AKTK				S	S	22 37 14.3	+1.4
AKTK				LR	LR	22 42 48.9	
AKTK	Aktyubinsk	22.37	5	P	P	22 33 08.5	-1.1
AKTO	Aktyubinsk	22.37	5	P	P	22 33 08.5	-1.1
AKTO				S	S	22 37 14.3	+1.4
AKTO	Aktyubinsk	22.37	5	P	P	22 33 08.5	-1.0
	comp=Z,7.9nm,0.8s,mb4.2,baz=166,slow=12,SNR=22						
AKTO				S	S	22 37 14.3	+1.4
	comp=Z,1.1nm,0.7s,baz=72,slow=17,SNR=2.7						
AKTO				LR	LR	22 42 48.9	
	comp=Z,389nm,21.8s,MS3.8,baz=312,slow=40						
SGKT	Sivrigoynuk	22.61	309	i P	P	22 33 11.7	-0.5
ESKT	Eskisehir	23.02	306	i P	P	22 33 16.1	-0.5
SEYT	Eskypehyr	23.02	306	i P	P	22 33 16.1	-0.5
ORR	Orenburg	23.44	360	eP	P	22 33 21.2	+0.5
SIM	Simferopol’	23.65	321	eP	P	22 33 24.0	+1.4
SIM				eS	S	22 37 36.0	+2.1
SIM				pmax	pmax		
	comp=Z,24nm,1.1s,mb4.5						
HYB	Hyderabad	24.10	111	eP	P	22 33 34.0	+7.0
HYB				eS	S	22 38 04.0	+22
HYB	Hyderabad	24.10	111	i P	P	22 33 34.0	+7.0
HYB				eS	S	22 37 56.0	+14
VRHR	Novokhopersk	25.07	340	eP	P	22 33 35.8	+0.3
VRHR				pmax	pmax		
	comp=Z,20nm,0.7s,mb4.8						
VRHR				pmax	pmax		
	comp=N,30nm,0.9s						
VRHR				pmax	pmax		
	comp=E,10.0nm,0.5s						
VORD	Divnogorie	25.72	337	eP	P	22 33 42.6	+1.2
VORD				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.8						
VORD				pmax	pmax		
	comp=N,10.0nm,0.4s						
VORD				pmax	pmax		
	comp=E,6.0nm,0.4s						
VRSR	Storozhevoye	25.96	337	eP	P	22 33 45.0	+1.4
VRSR				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.7						
VRSR				pmax	pmax		
	comp=N,4.0nm,1.6s						
VRSR				pmax	pmax		
	comp=E,3.0nm,1.0s						
SANT	Santorini	26.27	296	eP	P	22 33 47.5	+0.9
SANT	Santorini	26.27	296	eP	P	22 33 47.5	+0.9
IDI	Anoyia	26.57	293	P	P	22 33 49.0	-0.2
	comp=E,5.2nm,0.6s,mb4.3,baz=51,slow=11,SNR=6.7						
GVD	Gavdhos	27.17	292	P	P	22 33 54.5	-0.2
GVD	Gavdhos	27.17	292	P	P	22 33 54.5	-0.2
BRVK	Borovoye	27.32	20	eP	P	22 33 58.1	+2.3
	comp=E,4.6nm,0.8s,mb4.1						
BRVK				ePcP	PcP	22 37 14.9	+0.7
BRVK	Borovoye	27.32	20	eP	P	22 33 58.1	+2.3
BRVK				e		22 37 14.9	
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.1						
BRVK	Borovoye	27.32	20	eP	P	22 33 58.1	+2.3
	comp=Z,4.6nm,0.8s,mb4.1						
CHKZ	Chkalovo	27.95	20	P	P	22 34 04.2	+2.8
CHKZ	Chkalovo	27.95	20	P	P	22 34 04.2	+2.8
MK31	Makanchi Array	28.30	42	eP	P	22 34 05.2	+0.5
MK31	Makanchi Array	28.30	42	eP	P	22 34 05.2	+0.6
MKAR	Makanchi Array	28.30	42	P	P	22 34 04.0	-0.6
MKAR				PcP	PcP	22 37 16.7	-0.1
MKAR				S	S	22 38 49.6	+1.9
MKAR				ScP	ScP	22 40 56.4	+2.3
MKAR				LR	LR	22 45 35.7	
MKAR	Makanchi Array	28.30	42	P	P	22 34 04.0	-0.6
MKAR						22 37 16.7	
MKAR				S	S	22 38 49.6	+1.9
MKAR	Makanchi Array	28.30	42	P	P	22 34 04.0	-0.6
	comp=Z,2.0nm,0.6s,mb4.0,baz=228,slow=8.3,SNR=15						
MKAR				PcP	PcP	22 37 16.7	-0.1
	comp=Z,0.2nm,0.3s,baz=221,slow=4.3,SNR=2.5						
MKAR				S	S	22 38 49.6	+1.9
	comp=Z,0.4nm,0.2s,baz=249,slow=12,SNR=2.9						
MKAR				ScP	ScP	22 40 56.4	+2.3
	comp=Z,0.2nm,0.3s,baz=245,slow=2.6,SNR=3.7						
MKAR				LR	LR	22 45 35.7	
	comp=Z,393nm,21.4s,MS4.0,baz=248,slow=37						
MKAR	Makanchi Array	28.30	42	PcP	PcP	22 37 16.7	0.0
ARU	Arti	28.37	4	eP	P	22 34 05.4	+0.2
ARU				e		22 34 55.0	
ARU				eS	S	22 38 55.7	+7.0
ARU				eSS	SS	22 40 12.5	-37
PLOR	Plostina	28.54	316	⇑iP	P	22 34 08.1	+1.3
KURK	Kurchatov	28.73	32	eP	P	22 34 11.9	+3.5
KURK	Kurchatov	28.73	32	eP	P	22 34 11.9	+3.5
MLR	Muntele Rosu	28.81	315	P	P	22 34 09.3	+0.1
MLR				⇑P		22 34 12.4	
MLR				LR	LR	22 48 32.5	
MLR	Muntele Rosu	28.81	315	⇑P	P	22 34 12.4	+3.2
MLR	Muntele Rosu	28.81	315	P	P	22 34 09.3	+0.1
	comp=Z,2.6nm,0.5s,mb4.2,baz=135,slow=11,SNR=6.2						
MLR				LR	LR	22 48 32.5	
	comp=Z,423nm,19.3s,MS4.1,baz=325,slow=42						
MLR	Muntele Rosu	28.81	315	⇑iP	P	22 34 12.4	+3.2
VOIR		29.36	314	⇑iP	P	22 34 15.9	+1.9
AKASG	Malin Array Be	29.82	326	i P	P	22 34 17.7	-0.4
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	Malin Array Be	29.82	326	P	P	22 34 17.1	-1.0
	comp=Z,1.6nm,0.4s,mb4.1,baz=132,slow=8.8,SNR=12						
AKBB	Malin Array Si	29.82	326	eP	P	22 34 17.3	-0.8
AKBB	Malin Array Si	29.82	326	eP	P	22 34 17.3	-0.8
OBN	Obninsk	30.09	339	P	P	22 34 21.3	+0.9
OBN				ePP	PP	22 35 29.1	+0.3
OBN	Obninsk	30.09	339	⇓iP	P	22 34 19.0	-1.4
OBN				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.7						
OBN				MLR	MLR		
	comp=Z,300nm,20.0s,MS3.9						
OBN	Obninsk	30.09	339	P	P	22 34 21.3	+0.9
OBN	Obninsk	30.09	339	ePP	PP	22 35 29.1	+0.3
BURAR	Bucovina Array	30.26	318	⇑P	P	22 34 22.4	+0.4
BURAR	Bucovina Array	30.26	318	⇑iP	P	22 34 22.4	+0.4
WMQ	Urumqi	30.45	50	eP	P	22 34 23.5	-0.2
GZR	Gura Zlata	30.80	313	⇓P	P	22 34 28.6	+1.8
GZR	Gura Zlata	30.80	313	⇓iP	P	22 34 28.6	+1.8
LSA	Lhasa	31.54	78	eP	P	22 34 36.2	+2.6
	comp=Z,1.4nm,0.5s,mb4.0						
LSA	Lhasa	31.54	78	eP	P	22 34 36.2	+2.6
LSA				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.9						
LSA	Lhasa	31.54	78	eP	P	22 34 36.2	+2.6
	comp=Z,1.4nm,0.5s,mb4.0						
BZS	Buzias	31.64	312	⇓P	P	22 34 34.6	+0.4
BZS	Buzias	31.64	312	⇓iP	P	22 34 34.6	+0.4
UZH	Uzhgorod	32.47	318	eP	P	22 34 39.0	-2.4
UZH				i	pP	22 34 48.0	-5.4
UZH				i		22 35 44.5	
UZH				i S	S	22 39 49.3	-3.7
KOLS	Kolonicke sedl	32.62	318	eP	P	22 34 44.1	+1.4
KWP	Kalwaria	32.70	320	P	P	22 34 43.8	+0.4
KWP	Kalwaria	32.70	320	P	P	22 34 43.8	+0.4
CRVS	Cervenica-Dubn	33.08	318	eP	P	22 34 48.8	+2.0
STHS	Stebnicka Huta	33.44	319	eP	P	22 34 53.8	+3.9
KECS	Kecovo	33.48	317	eP	P	22 34 50.9	+0.6
	comp=Z,3.9nm,1.0s,mb4.3						
KECS	Kecovo	33.48	317	eP	P	22 34 50.9	+0.6
KECS				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
TIP	Timpagrande	33.50	299	P	P	22 34 51.1	+0.5
TIP	Timpagrande	33.50	299	P	P	22 34 51.2	+0.6
PSZ	Piszkesteto	33.61	316	eP	P	22 34 51.8	+0.4
	comp=Z,6.1nm,0.9s,mb4.5						
PSZ	Piszkesteto	33.61	316	eP	P	22 34 51.8	+0.4
PSZ				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
PSZ	Piszkesteto	33.61	316	eP	P	22 34 51.8	+0.4
	comp=Z,6.1nm,0.9s,mb4.5						
ZAL	Zalesovo	33.71	32	P	P	22 34 51.0	-1.2
ZAL				S	S	22 40 10.9	-1.2
ZAA0	Zalesovo Array	33.73	32	P	P	22 34 51.0	-1.4
ZAA0	Zalesovo Array	33.73	32	P	P	22 34 51.0	-1.3
ZALV	Zalesovo Beam	33.73	32	P	P	22 34 51.0	-1.4
ZALV				S	S	22 40 10.9	-1.5
ZALV				LR	LR	22 50 51.3	
ZALV	Zalesovo Beam	33.73	32	P	P	22 34 51.0	-1.4
	comp=Z,7.2nm,0.5s,mb4.9,baz=237,slow=9.4,SNR=36						
ZALV				S	S	22 40 10.9	-1.5
	comp=Z,0.7nm,0.6s,baz=263,slow=9.4,SNR=3.6						
ZALV				LR	LR	22 50 51.3	
	comp=Z,276nm,19.1s,MS4.0,baz=229,slow=41						
KMBO	Kilima Mbogo	33.76	213	eP	P	22 34 54.7	+1.7
KMBO				LR	LR	22 50 15.1	
KMBO	Kilima Mbogo	33.76	213	P	P	22 34 53.6	+0.6
	comp=Z,3.4nm,1.1s,mb4.2,baz=17,slow=12,SNR=4.6						
KMBO				LR	LR	22 50 15.1	
	comp=Z,482nm,20.8s,MS4.2,baz=80,slow=39						
KMBO	Kilima Mbogo	33.76	213	eP	P	22 34 54.7	+1.7
VYHS	Vyhne	34.49	316	eP	P	22 34 59.2	+0.2
VYHS	Vyhne	34.49	316	eP	P	22 34 59.3	+0.3
OJC	Ojcow	34.63	319	eP	P	22 35 00.6	+0.4
KOLL	Kolacno	34.79	316	eP	P	22 35 02.2	+0.6
OKC	Ostrava-Krasne	35.44	318	AMS	AMS	22 49 20.0	
ZST	Bratislava	35.45	315	eP	P	22 35 07.2	-0.1
ZST				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
ZST	Bratislava	35.45	315	eP	P	22 35 07.2	-0.1
	comp=Z,5.9nm,0.8s,mb4.6						
MORC	Moravsky Berou	35.77	318	⇑P	P	22 35 10.0	-0.1
MORC	Moravsky Berou	35.77	318	⇑iP	P	22 35 10.0	0.0
VSU	Vasula	36.12	335	⇑eP	P	22 35 13.7	+0.8
CONA	Conrad Observa	36.15	314	⇑iP	P	22 35 14.0	+0.8
	comp=Z,9.8nm,1.5s,mb4.5						
ARSA	Arzberg	36.15	313	⇓iP	P	22 35 13.9	+0.5
	comp=Z,8.2nm,1.4s,mb4.5						
VRAC	Vranov	36.17	316	⇑P	P	22 35 13.3	-0.1
VRAC	Vranov	36.17	316	⇑iP	P	22 35 13.3	-0.1
AQU	L’Aquila	36.49	304	eP	P	22 35 17.5	+1.2
AQU	L’Aquila	36.49	304	eP	P	22 35 17.5	+1.2
OBKA	Obir	36.58	311	⇑iP	P	22 35 18.9	+1.9
	comp=Z,5.6nm,1.0s,mb4.3						
OBKA	Obir	36.58	311	⇑iP	P	22 35 18.9	+1.9
	comp=Z,5.6nm,1.0s,mb4.3						
DPC	Dobruska-Polom	36.72	318	eP	P	22 35 24.3	+6.2
DPC				AMS	AMS	22 49 50.0	
TREC	Trest	36.84	316	eP	P	22 35 18.7	-0.5
UPC	Upice	36.96	318	eP	P	22 35 19.8	-0.4
MOA	Molln	37.15	313	⇑iP	P	22 35 23.4	+1.6
	comp=Z,18nm,1.2s,mb4.8						
KBA	Koelnbreinsper	37.53	312	⇑iP	P	22 35 25.9	+0.8
	comp=Z,5.7nm,0.9s,mb4.3						
KBA	Koelnbreinsper	37.53	312	⇑iP	P	22 35 25.9	+0.9
KBA				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
TMCR	Tamitsa	37.65	348	eP	P	22 35 24.5	-1.3
PRU	Pruhonice	37.66	317	eP	P	22 35 25.9	-0.2
PRU				AMS	AMS	22 49 50.0	
GERES	GERESS Array B	37.80	315	P	P	22 35 25.5	-1.8
	comp=Z,1.3nm,0.5s,mb3.9,baz=111,slow=7.3,SNR=8.6						
GERES				LR	LR	22 53 24.4	
	comp=Z,129nm,18.8s,MS3.8,baz=87,slow=40						
KHC	Kasperske Hory	37.97	315	eP	P	22 35 28.1	-0.6
KHC				e	pP	22 35 35.0	-5.9
KHC	Kasperske Hory	37.97	315	⇑eP	P	22 35 28.6	-0.1
KHC	Kasperske Hory	37.97	315	eP	P	22 35 28.1	-0.6
KHC				epP	pP	22 35 35.0	-5.9
KHC				AMS	AMS	22 49 20.0	
JOF	Joensuu	38.08	343	ep	P	22 35 29.0	-0.4
	comp=Z,1.4nm,0.4s,mb4.0						
BRG	Berggiesshubel	38.32	318	eP	P	22 35 32.2	+0.5
BRG				pmax	pmax		
	comp=Z,8.0nm,1.5s,mb4.2						
BRG	Berggiesshubel	38.32	318	eP	P	22 35 32.2	+0.5
	comp=Z,8.0nm,1.5s,mb4.2						
FIA1	FINESS Array S	38.49	338	eP	P	22 35 33.6	+0.7
FIA1	FINESS Array S	38.49	338	eP	P	22 35 33.6	+0.7
FINES	FINESS Array B	38.49	338	i P	P	22 35 32.5	-0.4
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FINES	FINESS Array B	38.49	338	P	P	22 35 32.6	-0.4
	comp=Z,2.1nm,0.4s,mb4.2,baz=142,slow=11,SNR=20						
FINES				LR	LR	22 54 11.3	
	comp=Z,204nm,20.2s,MS3.9,baz=339,slow=41						
GTA	Gaotai	38.50	61	eP	P	22 35 33.5	+0.2
GTA				AP	pP	22 35 37.5	-8.1
GTA				XP	sP	22 35 40.3	-11
GTA				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.4						
GTA				AMB	AMB		
	comp=Z,248nm,5.3s						
GTA				LR	LR		
	comp=N,455nm,15.2s,MS4.5						
GTA				LR	LR		
	comp=E,278nm,15.2s,MS4.5						
GTA				LR	LR		
	comp=Z,484nm,16.7s,MS4.4						
WTTA	Wattenberg	38.70	312	⇓iP	P	22 35 34.5	-0.4
	comp=Z,11nm,0.8s,mb4.6						
WTTA	Wattenberg	38.70	312	⇓iP	P	22 35 34.5	-0.4
WTTA				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
WATA	Walderalm	38.76	312	⇑iP	P	22 35 34.9	-0.5
	comp=Z,6.9nm,0.7s,mb4.5						
WATA	Walderalm	38.76	312	⇑iP	P	22 35 34.9	-0.5
WATA				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
KAF	Kangasniemi	38.91	339	ep	P	22 35 35.7	-0.7
	comp=Z,1.0nm,0.4s,mb3.9						
KAF	Kangasniemi	38.91	339	eP	P	22 35 35.7	-0.7
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
SQTA	Sankt Quirin	38.98	311	⇑iP	P	22 35 36.4	-0.8
	comp=Z,4.6nm,0.4s,mb4.5						
SQTA	Sankt Quirin	38.98	311	⇑iP	P	22 35 36.4	-0.8
SQTA				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.6						
NKC	Novy Kostel	39.01	316	AMS	AMS	22 49 10.0	
CLL	Collm	39.03	318	eP	P	22 35 32.0	-5.6
CLL				i		22 35 37.8	
CLL				i	pP	22 35 44.0	-5.8
CLL	Collm	39.03	318	i P	P	22 35 37.8	+0.2
	comp=Z,9.0nm,1.2s,mb4.4						
CLL				i pP	pP	22 35 44.0	-5.8
MOTA	Moosalm	39.08	312	⇑iP	P	22 35 37.6	-0.5
	comp=Z,2.3nm,0.5s,mb4.2						
MOTA	Moosalm	39.08	312	⇑iP	P	22 35 37.6	-0.4
MOTA				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.1						
KEST	Kesra	39.24	293	P	P	22 35 40.5	+0.8
	comp=Z,2.8nm,0.8s,mb4.1,baz=160,slow=4.7,SNR=6.2						
FETA	Feichten	39.25	311	⇑iP	P	22 35 38.8	-0.8
	comp=Z,19nm,1.3s,mb4.7						
RETA	Reutte	39.33	312	⇑iP	P	22 35 39.3	-0.9
	comp=Z,3.8nm,0.8s,mb4.2						
GRA1	Grafenberg Arr	39.60	315	eP	P	22 35 41.3	-1.1
	comp=Z,9.0nm,1.3s,mb4.3						
GRA1				LR	LR		
	comp=Z,200nm,18.7s,MS4.0						
GRF	Grafenberg Arr	39.60	315	eP	P	22 35 41.3	-1.1
GRF				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.3						
GRF				MLR	MLR		
	comp=Z,200nm,18.7s,MS4.0						
GRF	Grafenberg Arr	39.60	315	eP	P	22 35 41.3	-1.1
GRF				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.3						
GRF				MLR	MLR		
	comp=Z,200nm,18.7s,MS4.0						
GRF	Grafenberg Arr	39.60	315	eP	P	22 35 41.3	-1.1
	comp=Z,9.0nm,1.3s,mb4.3						
GRF				eL		22 56 09.9	
	comp=Z,235nm,18.7s						
PGF	Pioggiola	39.74	304	eP	P	22 35 44.5	+0.8
	comp=Z,43nm,1.0s,mb4.8						
PGF	Pioggiola	39.74	304	eP	P	22 35 44.5	+0.8
PGF				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.8						
PGF	Pioggiola	39.74	304	eP	P	22 35 44.5	+0.8
	comp=Z,22nm,1.0s,mb4.8						
DAVA	Damuels	39.87	311	⇑iP	P	22 35 43.8	-0.9
	comp=Z,7.5nm,0.5s,mb4.7						
CHG	Chiang Mai	41.12	93	P	P	22 36 00.6	+5.3
CHTO	Chiang Mai	41.12	93	eP	P	22 35 55.4	0.0
	comp=Z,14nm,1.1s,mb4.5						
CHTO	Chiang Mai	41.12	93	eP	P	22 35 55.4	+0.1
CHTO				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.5						
CHTO	Chiang Mai	41.12	93	eP	P	22 35 55.3	0.0
	comp=Z,14nm,1.1s,mb4.5						
MOY	Mondy	41.44	43	eP	P	22 35 57.9	+0.4
MOY				pmax	pmax		
	comp=Z,28nm,1.4s,mb4.7						
FRF	La Foret Royal	41.56	305	eP	P	22 35 59.6	+1.0
MBDF	Montbardon	41.59	307	eP	P	22 35 59.1	+0.2
	comp=Z,18nm,0.9s,mb4.4						
MBDF	Montbardon	41.59	307	eP	P	22 35 59.1	+0.2
MBDF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.4						
MBDF	Montbardon	41.59	307	eP	P	22 35 59.1	+0.2
	comp=Z,9.0nm,0.9s,mb4.4						
LMR	La Mourre	41.64	305	eP	P	22 36 00.0	+0.7
BNI	Bardonecchia	41.70	307	eP	P	22 35 59.6	-0.2
BNI	Bardonecchia	41.70	307	eP	P	22 35 59.6	-0.1
LPG	La Plagne	41.70	308	eP	P	22 35 58.6	-1.2
	comp=Z,14nm,0.8s,mb4.3						
LPG	La Plagne	41.70	308	eP	P	22 35 58.6	-1.2
LPG				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.3						
LPG	La Plagne	41.70	308	eP	P	22 35 58.6	-1.2
	comp=Z,6.8nm,0.8s,mb4.3						
LZH	Lanzhou	41.71	66	eP	P	22 36 00.0	0.0
LZH				AP	pP	22 36 10.5	-1.8
LZH				AMB	AMB		
	comp=Z,29nm,1.3s,mb4.8						
LZH				AMB	AMB		
	comp=Z,52nm,6.2s						
LZH				LR	LR		
	comp=N,365nm,13.7s						
LZH				LR	LR		
	comp=Z,493nm,17.4s,MS4.4						
LPL	La Plagne	41.72	308	eP	P	22 35 58.8	-1.1
	comp=Z,55nm,1.4s,mb4.7						
LPL	La Plagne	41.72	308	eP	P	22 35 58.8	-1.1
LPL				pmax	pmax		
	comp=Z,28nm,1.4s,mb4.7						
LPL	La Plagne	41.72	308	eP	P	22 35 58.8	-1.1
	comp=Z,28nm,1.4s,mb4.7						
CDF	Champ du Feu	41.82	312	eP	P	22 36 01.6	+0.9
	comp=Z,10nm,0.9s,mb4.1						
CDF	Champ du Feu	41.82	312	eP	P	22 36 01.6	+0.9
CDF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.1						
CDF	Champ du Feu	41.82	312	eP	P	22 36 01.6	+0.9
	comp=Z,5.2nm,0.9s,mb4.1						
HINF	Hinteralfeld	41.99	311	eP	P	22 36 01.0	-1.1
ORIF	Oris-en-Rattie	42.24	307	eP	P	22 36 03.4	-0.8
	comp=Z,12nm,1.0s,mb4.2						
ORIF	Oris-en-Rattie	42.24	307	eP	P	22 36 03.4	-0.8
ORIF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.2						
ORIF	Oris-en-Rattie	42.24	307	eP	P	22 36 03.4	-0.8
	comp=Z,5.9nm,1.0s,mb4.2						
CABF	La Chapelle	42.31	309	eP	P	22 36 04.6	-0.1
	comp=Z,25nm,0.8s,mb4.6						
CABF	La Chapelle	42.31	309	eP	P	22 36 04.6	-0.1
CABF				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.6						
CABF	La Chapelle	42.31	309	eP	P	22 36 04.6	-0.1
	comp=Z,13nm,0.8s,mb4.6						
HAU	Haudompre	42.36	311	eP	P	22 36 04.2	-0.9
ZAK	Zakamensk	42.51	45	eP	P	22 36 05.8	-0.4
ZAK				e		22 37 48.4	
ZAK				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb3.9						
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.7						
TLY	Talaya	43.03	43	eP	P	22 36 14.7	+4.2
TLY				ePPP		22 38 01.6	
TLY				eS	S	22 42 34.4	+1.6
TLY				eSSS		22 46 31.5	
TLY				pmax	pmax		
	comp=Z,9.0nm,1.6s,mb4.2						
TLY				MLR	MLR		
	comp=Z,805nm,14.0s,MS4.8						
MEZF	Maizieres J’vi	43.29	312	eP	P	22 36 12.0	-0.7
	comp=Z,14nm,0.6s,mb4.6						
MEZF	Maizieres J’vi	43.29	312	eP	P	22 36 12.0	-0.7
	comp=Z,7.2nm,0.6s,mb4.6						
NST	Nakhon Sawan	43.38	97	P	P	22 36 14.0	+0.2
LASF	Ste Croix	43.61	305	eP	P	22 36 14.9	-0.4
GIVF	Givet	43.72	314	eP	P	22 36 16.0	-0.1
SMF	Signal de Mont	43.85	309	eP	P	22 36 16.0	-1.2
	comp=Z,9.4nm,0.7s,mb4.3						
SMF	Signal de Mont	43.85	309	eP	P	22 36 16.0	-1.2
SMF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.3						
SMF	Signal de Mont	43.85	309	eP	P	22 36 16.0	-1.2
	comp=Z,4.7nm,0.7s,mb4.3						
LOR	Lormes	43.91	310	eP	P	22 36 16.5	-1.2
NB2	NORSAR Subarra	43.95	331	P	P	22 36 16.8	-1.0
	comp=Z,3.2nm,0.5s,mb4.3,baz=113,slow=7.9						
NB2	NORSAR Subarra	43.95	331	P	P	22 36 16.8	-1.0
	comp=Z,3.2nm,0.5s,mb4.3,baz=113,slow=7.8,SNR=6.0						
NOA	NORSAR Array B	43.95	331	P	P	22 36 16.9	-0.9
	comp=Z,4.3nm,0.7s,mb4.3,baz=117,slow=8.0,SNR=16						
NAO01	NORSAR Array S	44.00	331	eP	P	22 36 17.8	-0.4
NAO01	NORSAR Array S	44.00	331	eP	P	22 36 17.8	-0.4
SONM	Songino Array	44.07	49	P	P	22 36 18.6	-0.3
	comp=Z,7.4nm,1.1s,mb4.3,baz=262,slow=6.8,SNR=20						
SONM				LR	LR	22 55 33.5	
	comp=Z,432nm,18.1s,MS4.4,baz=61,slow=38						
BAIF	Baives	44.10	314	eP	P	22 36 19.0	-0.2
	comp=Z,76nm,1.4s,mb4.9						
BAIF	Baives	44.10	314	eP	P	22 36 19.0	-0.2
BAIF				pmax	pmax		
	comp=Z,38nm,1.4s,mb4.9						
BAIF	Baives	44.10	314	eP	P	22 36 19.0	-0.2
	comp=Z,38nm,1.4s,mb4.9						
SSF	Saint Saulge	44.13	310	eP	P	22 36 18.8	-0.6
	comp=Z,24nm,1.2s,mb4.5						
SSF	Saint Saulge	44.13	310	eP	P	22 36 18.8	-0.6
SSF				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.5						
SSF	Saint Saulge	44.13	310	eP	P	22 36 18.8	-0.6
	comp=Z,12nm,1.2s,mb4.5						
AVF	Avril sur Loir	44.20	309	eP	P	22 36 19.1	-0.9
ULN	Ulaanbaatar	44.51	49	eP	P	22 36 22.1	-0.3

	comp=Z,9.1nm,1.2s,mb4.5						
ULN	Ulaanbaatar	44.51	49	eP	P	22 36 22.1	-0.3
ULN				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.5						
ULN	Ulaanbaatar	44.51	49	eP	P	22 36 22.1	-0.3
	comp=Z,9.1nm,1.2s,mb4.5						
BGF	Bois d'Agland	44.52	309	eP	P	22 36 23.1	+0.5
	comp=Z,29nm,1.0s,mb4.8						
BGF	Bois d'Agland	44.52	309	eP	P	22 36 23.1	+0.5
BGF				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.8						
BGF	Bois d'Agland	44.52	309	eP	P	22 36 23.1	+0.5
	comp=Z,14nm,1.0s,mb4.8						
ARCES	ARCESS Array B	44.81	346	P	P	22 36 23.7	-0.8
	comp=Z,1.8nm,0.5s,mb4.1,baz=139,slow=9.6,SNR=10.0						
ARCES				LR	LR	22 57 45.6	
	comp=Z,271nm,19.2s,MS4.2,baz=305,slow=40						
TCF	Toulx Ste Croi	44.94	309	eP	P	22 36 24.6	-1.3
RJF	Les Rejaudoux	45.35	307	eP	P	22 36 29.0	-0.2
LFF	La Frestale	45.88	307	eP	P	22 36 33.1	-0.3
BTO	Baotou	46.34	59	eP	P	22 36 39.8	+2.7
MFF	Saint Martin d	46.59	309	eP	P	22 36 38.2	-0.7
LDF	La Druitiere	46.72	312	eP	P	22 36 38.9	-0.9
FLN	La Foliniere	46.97	312	eP	P	22 36 41.5	-0.3
	comp=Z,54nm,1.1s,mb5.1						
FLN	La Foliniere	46.97	312	eP	P	22 36 41.5	-0.3
FLN				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.1						
FLN	La Foliniere	46.97	312	eP	P	22 36 41.5	-0.3
	comp=Z,27nm,1.1s,mb5.1						
SJPF	Ste Jean	47.28	304	eP	P	22 36 44.4	+0.1
	comp=Z,8.3nm,0.8s,mb4.4						
SJPF	Ste Jean	47.28	304	eP	P	22 36 44.4	+0.1
SJPF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
SJPF	Ste Jean	47.28	304	eP	P	22 36 44.4	+0.1
	comp=Z,4.2nm,0.8s,mb4.4						
HHC	Hu-ho-hao-te	47.51	59	eP	P	22 36 50.3	+4.2
HHC				AMB	AMB		
	comp=Z,11nm,1.2s,mb4.8						
HHC				AMB	AMB		
	comp=Z,171nm,5.8s						
ETOB	Tobarra	47.75	298	P	P	22 36 52.1	+4.0
	comp=Z,30nm,1.4s,mb5.1						
SGMF	Saint Gilles	48.31	311	eP	P	22 36 54.3	+2.1
EVIA	Vianos	48.49	298	P	P	22 36 55.2	+1.4
	comp=Z,2.9nm,1.0s,mb4.3						
EVIA	Vianos	48.49	298	P	P	22 36 55.2	+1.4
EVIA				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
EVIA	Vianos	48.49	298	P	P	22 36 55.2	+1.4
	comp=Z,2.9nm,1.0s,mb4.3						
EBER	Berja	48.99	296	P	P	22 36 57.1	-0.6
	comp=Z,29nm,1.6s,mb5.1						
EBER	Berja	48.99	296	P	P	22 36 57.1	-0.6
	comp=Z,29nm,1.6s,mb5.1						
EQES	Quesada	49.03	297	P	P	22 36 57.9	0.0
	comp=Z,6.2nm,1.0s,mb4.6						
EQES	Quesada	49.03	297	P	P	22 36 57.9	0.0
	comp=Z,6.2nm,1.0s,mb4.6						
CIT	Chita	49.14	44	eP	P	22 36 56.6	-2.0
ECOG	Cogollos-Vega	49.48	296	P	P	22 37 01.3	-0.1
ECOG				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.5						
ECOG	Cogollos-Vega	49.48	296	P	P	22 37 01.3	-0.1
	comp=Z,6.7nm,1.4s,mb4.5						
ESDC	Sonseca Array	49.52	300	P	P	22 37 02.0	+0.3
	comp=Z,3.5nm,0.9s,mb4.4						
ESDC	Sonseca Array	49.52	300	P	P	22 37 01.3	-0.4
	comp=Z,0.7nm,0.5s,mb3.9,baz=68,slow=7.5,SNR=9.1						
ESDC	Sonseca Array	49.52	300	P	P	22 37 02.0	+0.3
	comp=Z,3.5nm,0.9s,mb4.4						
ESLA	Sonseca Array	49.52	300	eP	P	22 37 02.0	+0.3
ESLA	Sonseca Array	49.52	300	eP	P	22 37 02.0	+0.3
EBAN	Banos Encina	49.55	298	P	P	22 37 01.7	-0.1
	comp=Z,76nm,2.3s,mb5.3						
EBAN	Banos Encina	49.55	298	P	P	22 37 01.7	-0.2
EBAN				pmax	pmax		
	comp=Z,76nm,2.3s,mb5.3						
EBAN	Banos Encina	49.55	298	P	P	22 37 01.7	-0.2
	comp=Z,76nm,2.3s,mb5.3						
ERON	Agron	49.71	296	P	P	22 37 03.3	+0.2
	comp=Z,1.4nm,0.8s,mb4.0						
ERON	Agron	49.71	296	P	P	22 37 03.3	+0.2
	comp=Z,1.4nm,0.8s,mb4.0						
ELOJ	Sierra Loja	49.96	296	P	P	22 37 03.2	-1.9
	comp=Z,1.8nm,1.1s,mb4.0						
ELOJ	Sierra Loja	49.96	296	P	P	22 37 03.2	-1.9
ELOJ				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.1						
ELOJ	Sierra Loja	49.96	296	P	P	22 37 03.2	-1.9
	comp=Z,1.8nm,1.1s,mb4.0						
ELUQ	Luque	50.00	297	P	P	22 37 05.0	-0.4
	comp=Z,2.8nm,0.6s,mb4.5						
ELUQ	Luque	50.00	297	P	P	22 37 05.0	-0.3
ELUQ				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
ELUQ	Luque	50.00	297	P	P	22 37 05.0	-0.3
	comp=Z,2.8nm,0.6s,mb4.5						
EADA	Adamuz	50.17	298	P	P	22 37 06.3	-0.3
	comp=Z,20nm,1.3s,mb5.0						
EADA	Adamuz	50.17	298	P	P	22 37 06.3	-0.3
	comp=Z,20nm,1.3s,mb5.0						
BOD	Bodaibo	50.19	37	eP	P	22 37 04.8	-1.6
BOD				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.8						
LSZ	Lusaka	50.41	214	eP	P	22 37 10.1	+1.5
	comp=Z,14nm,1.4s,mb4.8						
LSZ	Lusaka	50.41	214	eP	P	22 37 10.1	+1.5
LSZ				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.8						
LSZ	Lusaka	50.41	214	eP	P	22 37 10.1	+1.5
	comp=Z,14nm,1.4s,mb4.8						
EMIJ	Mijas	50.54	296	P	P	22 37 07.4	-2.0
	comp=Z,11nm,0.9s,mb4.8						
BJT	Baijiatuau	51.08	60	P	P	22 37 17.0	+3.6
BJI	Beijing	51.08	60	P	P	22 37 17.0	+3.6
BJI				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.4						
BJI				LR	LR		
	comp=N,538nm,23.7s,MS4.6						
BJI				LR	LR		
	comp=E,341nm,21.8s,MS4.6						
BJI				LR	LR		
	comp=Z,207nm,18.8s,MS4.2						
ESPR	Espera	51.35	296	P	P	22 37 14.3	-1.2
	comp=Z,2.5nm,1.1s,mb4.1						
ESPR	Espera	51.35	296	P	P	22 37 14.4	-1.1
	comp=Z,2.5nm,1.1s,mb4.1						
TOA0	Torodi Ar. Sit	51.74	265	eP	P	22 37 18.4	-0.3
TOA0	Torodi Ar. Sit	51.74	265	eP	P	22 37 18.4	-0.3
TORD	Torodi Ar. Bea	51.74	265	P	P	22 37 18.3	-0.4
	comp=Z,9.0nm,0.5s,mb4.9,baz=60,slow=7.5,SNR=150						
TORD				LR	LR	23 01 52.9	
	comp=Z,324nm,20.7s,MS4.3,baz=55,slow=39						
HIA	Hailar	52.99	48	eP	P	22 37 31.2	+3.8
	comp=Z,12nm,1.2s,mb4.7						
HIA	Hailar	52.99	48	eP	P	22 37 31.2	+3.7
HIA				pmax	pmax		
	comp=Z,12nm,1.2s						
CN2	Changchun	57.43	54	eP	P	22 38 01.5	+1.9
CN2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.8						
YAK	Yakutsk	58.38	32	P	P	22 38 05.2	-0.7
YAK	Yakutsk	58.38	32⇑	eP	P	22 38 04.3	-1.6
YAK	Yakutsk	58.38	32	P	P	22 38 05.2	-0.7
TIXI	Tiksi	58.45	21	eP	P	22 38 05.5	-0.8
TIXI				pmax	pmax		
	comp=Z,11nm,1.9s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,263nm,11.0s,MS4.6						
TSUM	Tsumeb	59.42	222	eP	P	22 38 14.6	+1.0
	comp=Z,4.7nm,0.8s,mb4.6						
TSUM	Tsumeb	59.42	222	eP	P	22 38 14.6	+1.0
	comp=Z,4.7nm,0.8s,mb4.6						
LBTB	Lobatse	59.99	211	eP	P	22 38 18.5	+1.0
LBTB				ePP	PP	22 40 33.5	+3.0
LBTB	Lobatse	59.99	211	eP	P	22 38 18.5	+1.0
KIC	Kosan Boka	60.46	261	ePKIKP	P	22 38 20.7	-0.3
	comp=Z,41nm,0.7s,mb5.6						
TIC	Toumodi	60.57	261	ePKIKP	P	22 38 21.3	-0.5
	comp=Z,11nm,0.2s,mb5.6						
KSRS	Korea Array	60.57	61	P	P	22 38 20.6	-0.9
	comp=Z,2.7nm,0.6s,mb4.5,baz=288,slow=5.3,SNR=4.6						
KSRS				LR	LR	23 08 05.8	
	comp=Z,125nm,18.7s,MS4.1,baz=109,slow=40						
LIC	Lamto	60.77	261	eP	P	22 38 23.3	+0.1
	comp=Z,16nm,0.6s,mb5.0						
LIC	Lamto	60.77	261	ePKIKP	P	22 38 20.6	-2.6
	comp=Z,33nm,0.7s,mb5.5						
LIC	Lamto	60.77	261	eP	P	22 38 23.3	+0.1
	comp=Z,7.9nm,0.6s,mb5.0						
KLR	Kul'dur	60.81	47	eP	P	22 38 18.8	-4.1
BOSA	Boshof	63.25	209	eP	P	22 38 40.2	+0.8
BOSA				LR	LR	23 08 10.0	
BOSA	Boshof	63.25	209	P	P	22 38 39.0	-0.4
	comp=Z,2.4nm,0.4s,mb4.7,baz=22,slow=8.9,SNR=19						
BOSA				LR	LR	23 08 10.0	
	comp=Z,190nm,19.4s,MS4.3,baz=261,slow=38						
BOSA	Boshof	63.25	209	eP	P	22 38 40.2	+0.8
JOW	Kunigami	63.98	72	LR	LR	23 09 03.2	
	comp=Z,170nm,19.3s,MS4.2,baz=89,slow=38						
MA2	Magadan	68.94	33⇓	eP	P	22 39 15.5	-0.1
MA2				pmax	pmax		
	comp=Z,16nm,1.7s,mb4.7						
JHJ	Hachijo jima 2	71.13	62	LR	LR	23 13 49.8	
	comp=Z,186nm,19.2s,MS4.4,baz=49,slow=39						
BILL	Bilibino	71.66	22	P	P	22 39 33.1	+1.1
	comp=Z,3.1nm,0.5s,mb4.5						
BILL	Bilibino	71.66	22⇑	eP	P	22 39 29.6	-2.4
BILL				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
BILL	Bilibino	71.66	22	P	P	22 39 33.1	+1.1
	comp=Z,3.1nm,0.5s,mb4.5						
FITZ	Fitzroy Crossi	82.28	115	eP	P	22 40 31.9	-0.6
	comp=Z,8.7nm,1.6s,mb4.4						
FITZ	Fitzroy Crossi	82.28	115	LR	LR	23 19 32.6	
	comp=Z,105nm,18.3s,MS4.2,baz=330,slow=38						
SCHQ	Schefferville	83.52	330	P	P	22 40 37.5	-1.0
	comp=Z,5.4nm,1.1s,mb4.6,baz=22,slow=1.9,SNR=3.0						
IMA2	Indian Mountai	83.53	11	eP	P	22 40 38.1	-0.1
IMA2	Indian Mountai	83.53	11	eP	P	22 40 38.1	-0.2
TTA	Tatalina	85.91	14	eP	P	22 40 51.7	+1.4
	comp=Z,3.9nm,0.7s,mb4.8						
TTA	Tatalina	85.91	14	eP	P	22 40 51.7	+1.4
TTA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.8						
TTA	Tatalina	85.91	14	eP	P	22 40 51.7	+1.4
	comp=Z,3.8nm,0.7s,mb4.7						
MCK	McKinley	86.48	10	eP	P	22 40 53.6	+0.5
	comp=Z,7.4nm,1.3s,mb4.8						
MCK	McKinley	86.48	10	eP	P	22 40 53.6	+0.5
MCK				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.7						
MCK	McKinley	86.48	10	eP	P	22 40 53.6	+0.5
	comp=Z,7.4nm,1.3s,mb4.8						
DAWY	Dawson	87.39	6	eP	P	22 40 58.6	+1.1
DAWY	Dawson	87.39	6	eP	P	22 40 58.6	+1.1
YKA	Yellowknife Ar	89.30	355⇑	eP	P	22 41 06.8	+0.2
YKA	Yellowknife Ar	89.30	355	P	P	22 41 05.3	-1.3
	comp=Z,0.7nm,0.6s,mb4.2,baz=2.1,slow=5.0,SNR=18						
YKA				LR	LR	23 25 02.8	
	comp=Z,80nm,18.3s,MS4.2,baz=160,slow=38						
WRA	Warramunga Arr	90.26	112	i P	P	22 41 12.6	+0.9
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
WRA	Warramunga Arr	90.26	112	P	P	22 41 10.2	-1.6
	comp=Z,1.4nm,0.7s,mb4.4,baz=317,slow=4.0,SNR=110						
WB2	Warramunga Arr	90.27	112	eP	P	22 41 11.4	-0.4
WB2	Warramunga Arr	90.27	112	eP	P	22 41 11.3	-0.5
WB2	Warramunga Arr	90.27	112	eP	P	22 41 11.3	-0.5
ASAR	Alice Springs	91.75	116	P	P	22 41 17.8	-0.9
	comp=Z,1.2nm,0.6s,mb4.4,baz=304,slow=4.9,SNR=23						
ULM	Lac du Bonnet	97.80	342	LR	LR	23 29 42.8	
	comp=Z,128nm,20.5s,MS4.4,baz=13,slow=38						

ISCJB **27** *22:45:43.6±0.3, 44.05N±0.02×8.93E±0.01, h14^{km}±2^{km},*
Error ellipse: s-maj=3.4km s-min=1.8km az=177.1
CSEM **27** *22:45:44.5±0.1, 43.97N×8.99E, h12^{km}, ML3.2/28, Error ellipse: s-maj=2.9km s-min=1.2km az=173.0*
ROM **27** *22:45:44.7±0.5, 44.07N×8.92E, h9^{km}±5^{km}, Md2.8/24, Ml2.7/17, Error ellipse: s-maj=3.3km s-min=1.7km az=159.0*
STR **27** *22:45:45.6±0.5, 44.00N×8.89E, h5^{km}, Ml2.9, Error ellipse: s-maj=0.0km s-min=0.0km az=0.0*
NEIC **27** *22:45:45.7, 44.00N×8.92E, h8^{km}, ML3.2(LDG), ML2.7(ROM), ML2.9(STR), After LDG.*
GEN **27** *22:45:45.2, 44.17N×9.04E, h30^{km}, ML3.0*
LDG **27** *22:45:45.7±0.1, 44.00N×8.92E, h8^{km}, Ml3.2/20, Error ellipse: s-maj=2.7km s-min=2.0km az=121.0*
ISC 27 22:45:44.7±0.3, **44.04N**±0.02×**8.93E**±0.01, **h16**^{km}±2^{km}**, n212,** σ1^{s}**28**/353**, 16C-9D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCP	Pian Castagno	0.58	332	Pg	Pg	22 45 55.3	-0.8
PCP				Sg	Sg	22 46 03.1	-0.7
PCP	Pian Castagno	0.58	332	Pg	Pg	22 45 55.3	-0.8
PCP				Sg	Sg	22 46 03.1	-0.7
	297nm,0.4s						
PCP	Pian Castagno	0.58	332	Pg	Pg	22 45 55.3	-0.8
PCP				Sg	Sg	22 46 03.1	-0.7
	297nm,0.4s						
RORO		0.62	277	P	Pg	22 45 58.1	+1.1
BOB	Bobbio (Coli)	0.82	27	⇑Pg	Pg	22 45 59.8	-0.9
BOB				Sg	Sg	22 46 12.0	+0.4
BOB	Bobbio (Coli)	0.82	27	⇑Pg	Pg	22 45 59.8	-0.9
BOB				Sg	Sg	22 46 12.0	+0.4
	272nm,0.7s						
BOB	Bobbio (Coli)	0.82	27	⇑Pg	Pg	22 45 59.8	-0.9
BOB				Sg	Sg	22 46 12.0	+0.4
	272nm,0.7s						
MONE	Monesi	0.84	273	P	Pb	22 46 01.9	+0.9
GROG	Isola di Gorgo	0.93	131	Pg	Pg	22 46 03.2	+0.5
GROG				Sg	Sg	22 46 15.4	+0.5
	170nm,0.3s						
GROG	Isola di Gorgo	0.93	131	Pg	Pg	22 46 03.2	+0.5
GROG				Sg	Sg	22 46 15.4	+0.5
	170nm,0.3s						
SAOF	Saorge	0.99	268	Pg	Pg	22 46 04.2	+0.3
SAOF				Sg	Sg	22 46 17.0	+0.2
SAOF	Saorge	0.99	268	Pg	Pg	22 46 04.2	+0.3
SAOF				Sg	Sg	22 46 17.0	+0.2
SAOF	Saorge	0.99	268	Pg	Pg	22 46 04.2	+0.3
SAOF				Sg	Sg	22 46 17.0	+0.2
VLC	Villacollemand	1.06	83	Pg	Pg	22 46 04.7	-0.5
VLC				Sg	Sg	22 46 19.3	+0.2
VLC	Villacollemand	1.06	83	Pg	Pg	22 46 04.7	-0.5
VLC				Sg	Sg	22 46 19.3	+0.2
	269nm,0.7s						
VLC	Villacollemand	1.06	83	Pg	Pg	22 46 04.7	-0.5
VLC				Sg	Sg	22 46 19.3	+0.2
	269nm,0.7s						
AUTN	L'Aution	1.08	268	Pg	Pg	22 46 05.8	+0.2
AUTN				Sg	Sg	22 46 20.2	+0.4
AUTN	L'Aution	1.08	268	Pg	Pg	22 46 05.8	+0.2
AUTN				Sg	Sg	22 46 20.2	+0.4
AUTN	L'Aution	1.08	268	Pg	Pg	22 46 05.8	+0.2
AUTN				Sg	Sg	22 46 20.2	+0.4
SBF	Sospel	1.09	261	ePn	Pn	22 46 05.3	+0.1
SBF	Sospel	1.09	261	ePg	Pg	22 46 06.4	+0.6
	SNR=1.0						
SBF				eSn	Sn	22 46 19.8	-0.1
	SNR=1.0						
SBF				eSg	Sg	22 46 21.0	+1.0
	669nm,0.4s,SNR=1.0						
SBF	Sospel	1.09	261	ePn	Pn	22 46 05.3	+0.1
SBF				ePg	Pg	22 46 06.4	+0.6
SBF				eSn	Sn	22 46 19.8	-0.1
SBF				eSg	Sg	22 46 21.0	+1.0
SBF	Sospel	1.09	261	ePn	Pn	22 46 05.3	+0.1
SBF	Sospel	1.09	261	ePg	Pg	22 46 06.4	+0.6
	SNR=1.0						
SBF				eSn	Sn	22 46 19.8	-0.1
	SNR=1.0						
SBF				eSg	Sg	22 46 21.0	+1.0
	335nm,0.4s,SNR=1.0						
ERBM	Eremo	1.14	70	Pg	Pg	22 46 06.2	-0.5
ERBM				Sg	Sg	22 46 21.7	+0.2
ERBM	Eremo	1.14	70	Pg	Pg	22 46 06.2	-0.5
ERBM				Sg	Sg	22 46 21.7	+0.2
	189nm,0.6s						
ERBM	Eremo	1.14	70	Pg	Pg	22 46 06.2	-0.5
ERBM				Sg	Sg	22 46 21.7	+0.2
	189nm,0.6s						
MAIM		1.14	96	Pg	Pg	22 46 05.5	-1.2
MAIM				Sg	Sg	22 46 19.9	-1.6
MAIM		1.14	96	Pg	Pg	22 46 05.5	-1.2
MAIM				Sg	Sg	22 46 19.9	-1.6
	178nm,0.5s						
MAIM		1.14	96	Pg	Pg	22 46 05.5	-1.2
MAIM				Sg	Sg	22 46 19.9	-1.6
	178nm,0.5s						
LUCF	Luceram	1.15	263	Pg	Pg	22 46 06.9	0.0
LUCF				Sg	Sg	22 46 23.3	+1.4
LUCF	Luceram	1.15	263	Pg	Pg	22 46 06.9	0.0
LUCF				Sg	Sg	22 46 23.3	+1.4
REVF	Revere	1.16	256	Pg	Pg	22 46 06.5	-0.7
REVF	Revere	1.16	256	Pg	Pg	22 46 06.5	-0.7
REVF	Revere	1.16	256	Pg	Pg	22 46 06.5	-0.7
STV	Sta Anna Valdi	1.17	281	Pg	Pg	22 46 06.7	-0.6
STV				Sg	Sg	22 46 22.7	+0.1
STV	Sta Anna Valdi	1.17	281	Pg	Pg	22 46 06.7	-0.6
STV				Sg	Sg	22 46 22.7	+0.1
	104nm,0.5s						
STV	Sta Anna Valdi	1.17	281	Pg	Pg	22 46 06.7	-0.6
STV				Sg	Sg	22 46 22.7	+0.1
	104nm,0.5s						
BDI	Bagni Di Lucca	1.21	88	Pg	Pg	22 46 07.2	-0.8
BDI				Sg	Sg	22 46 21.9	-1.8
BDI	Bagni Di Lucca	1.21	88	Pg	Pg	22 46 07.2	-0.8
BDI				Sg	Sg	22 46 21.9	-1.8
	193nm,0.4s						
BDI	Bagni Di Lucca	1.21	88	Pg	Pg	22 46 07.2	-0.8
BDI				Sg	Sg	22 46 21.9	-1.8
	193nm,0.4s						
TOUF	Mont Tournerai	1.21	270	Pg	Pg	22 46 08.1	+0.1
TOUF				Sg	Sg	22 46 24.3	+0.5
TOUF	Mont Tournerai	1.21	270	Pg	Pg	22 46 08.1	+0.1
TOUF				Sg	Sg	22 46 24.3	+0.5
TOUF	Mont Tournerai	1.21	270	Pg	Pg	22 46 08.1	+0.1
TOUF				Sg	Sg	22 46 24.3	+0.5
GSCL	Gusciola	1.24	75	Pg	Pg	22 46 08.8	+0.2
GSCL				Sg	Sg	22 46 24.4	-0.3
GSCL	Gusciola	1.24	75	Pg	Pg	22 46 08.8	+0.2
GSCL				Sg	Sg	22 46 24.4	-0.3
GSCL	Gusciola	1.24	75	Pg	Pg	22 46 08.8	+0.2
GSCL				Sg	Sg	22 46 24.4	-0.3
MONC	Moncucco Torin	1.26	326	Pg	Pg	22 46 09.1	+0.1
	221nm,0.6s						
MONC	Moncucco Torin	1.26	326	Pg	Pg	22 46 09.1	+0.1
	221nm,0.6s						
DOI	San Damiano	1.29	292	Pg	Pg	22 46 08.0	-1.7
DOI	San Damiano	1.29	292	Pg	Pg	22 46 08.0	-1.7
	123nm,0.2s						
DOI	San Damiano	1.29	292	Pg	Pg	22 46 08.0	-1.7
	123nm,0.2s						
PZZT	Monte Pizzetto	1.40	85	Pg	Pg	22 46 09.4	-2.2
PZZT				Sg	Sg	22 46 29.4	-0.5
	297nm,0.3s						
PZZT	Monte Pizzetto	1.40	85	Pg	Pg	22 46 09.4	-2.2
PZZT				Sg	Sg	22 46 29.4	-0.5
	297nm,0.3s						
PGF	Pioggiola	1.49	178	ePn	Pn	22 46 10.7	0.0
	SNR=1.0						
PGF				eSn	Sn	22 46 27.7	-2.0
	51nm,0.4s,SNR=1.0						
PGF	Pioggiola	1.49	178	ePn	Pn	22 46 10.7	0.0
PGF				eSn	Sn	22 46 27.7	-2.0
PGF	Pioggiola	1.49	178	ePn	Pn	22 46 10.7	0.0
	SNR=1.0						
PGF				eSn	Sn	22 46 27.7	-2.0
	26nm,0.4s,SNR=1.0						
CALN	Calern	1.50	260	Pn	Pn	22 46 11.5	+0.6
CALN	Calern	1.50	260	Pn	Pn	22 46 11.5	+0.6
CALN	Calern	1.50	260	Pn	Pn	22 46 11.5	+0.6
CRMI	Carmignano	1.50	99	Pg	Pg	22 46 11.0	-2.5
	17nm,0.4s						
CRMI	Carmignano	1.50	99	Pg	Pg	22 46 11.0	-2.5
	17nm,0.4s						
FNVD	Fontana Vidola	1.59	84	Pg	Pg	22 46 14.6	-0.7
FNVD	Fontana Vidola	1.59	84	Pg	Pg	22 46 14.6	-0.7
	288nm,0.7s						
FNVD	Fontana Vidola	1.59	84	Pg	Pg	22 46 14.6	-0.7
	288nm,0.7s						
RSP	Reno Superiore	1.63	314	Pg	Pg	22 46 14.9	-1.2
RSP	Reno Superiore	1.63	314	Pg	Pg	22 46 14.9	-1.2
	37nm,0.5s						
RSP	Reno Superiore	1.63	314	Pg	Pg	22 46 14.9	-1.2
	37nm,0.5s						
MBDF	Montbardon	1.69	295	ePn	Pn	22 46 13.6	+0.1
MBDF	Montbardon	1.69	295	eP	Pn	22 46 16.1	+2.6
MBDF				eSn	Sn	22 46 34.0	-0.8
	121nm,0.5s,SNR=1.0						
MBDF				eSg	Sg	22 46 40.0	+0.8
	123nm,0.5s						
MBDF	Montbardon	1.69	295	ePn	Pn	22 46 13.6	+0.1
MBDF				eP		22 46 16.1	
MBDF				eSn	Sn	22 46 34.0	-0.8
MBDF				eSg	Sg	22 46 40.0	+0.8
MBDF	Montbardon	1.69	295	ePn	Pn	22 46 13.6	+0.1
MBDF	Montbardon	1.69	295	eP	Pn	22 46 16.1	+2.6
MBDF				eSg	Sg	22 46 40.0	+0.8
	62nm,0.5s						
FRF	La Foret Royal	1.72	255	ePn	Pn	22 46 13.8	0.0
	SNR=1.0						
FRF				eSn	Sn	22 46 34.6	-0.8
	269nm,0.3s,SNR=1.0						
FRF	La Foret Royal	1.72	255	ePn	Pn	22 46 13.8	0.0
FRF				eSn	Sn	22 46 34.6	-0.8
FRF	La Foret Royal	1.72	255	ePn	Pn	22 46 13.8	0.0
	SNR=1.0						
FRF				eSn	Sn	22 46 34.6	-0.8
	135nm,0.3s,SNR=1.0						
ORO	Oropa	1.73	337	Pg	Pg	22 46 14.8	-3.1
ORO	Oropa	1.73	337	Pg	Pg	22 46 14.8	-3.1
	71nm,0.4s						
ORO	Oropa	1.73	337	Pg	Pg	22 46 14.8	-3.1
	71nm,0.4s						
CSNT	Castellina Chi	1.80	107	Pg	Pg	22 46 15.3	-4.1
CSNT	Castellina Chi	1.80	107	Pg	Pg	22 46 15.3	-4.1
	41nm,0.6s						
CSNT	Castellina Chi	1.80	107	Pg	Pg	22 46 15.3	-4.1
	41nm,0.6s						
MDI	Monti di Nese	1.83	18	Pn	Pn	22 46 16.3	+0.9
	68nm,0.4s						
MDI	Monti di Nese	1.83	18	Pn	Pn	22 46 16.3	+0.9
	68nm,0.4s						
VAI	Varese	1.84	357	Pn	Pn	22 46 17.2	+1.7
VAI	Varese	1.84	357	Pn	Pn	22 46 17.2	+1.7
	13nm,0.3s						
VAI	Varese	1.84	357	Pn	Pn	22 46 17.2	+1.7
	13nm,0.3s						
LMR	La Mourre	1.89	249	ePn	Pn	22 46 15.8	-0.4
	SNR=1.0						
LMR				eSn	Sn	22 46 38.9	-0.7
	215nm,0.3s,SNR=1.0						
LMR	La Mourre	1.89	249	ePn	Pn	22 46 15.8	-0.4
LMR				eSn	Sn	22 46 38.9	-0.7
LMR	La Mourre	1.89	249	ePn	Pn	22 46 15.8	-0.4
	SNR=1.0						
LMR				eSn	Sn	22 46 38.9	-0.7
	108nm,0.3s,SNR=1.0						
VMG	Vicchio	1.89	91	Pn	Pn	22 46 19.1	+2.8
VMG	Vicchio	1.89	91	Pn	Pn	22 46 19.1	+2.8
	16nm,0.3s						
VMG	Vicchio	1.89	91	Pn	Pn	22 46 19.1	+2.8
	16nm,0.3s						
BNI	Bardonecchia	1.90	303	ePn	Pn	22 46 18.5	+2.1
BNI				eSn	Sn	22 46 42.9	+3.0
BNI	Bardonecchia	1.90	303	ePn	Pn	22 46 18.5	+2.1
BNI				eSn	Sn	22 46 42.9	+2.9
SFI	Santa Sofia	2.11	93	Pn	Pn	22 46 19.7	+0.4
SFI	Santa Sofia	2.11	93	Pn	Pn	22 46 19.7	+0.4
	32nm,0.7s						
SFI	Santa Sofia	2.11	93	Pn	Pn	22 46 19.7	+0.4
	32nm,0.7s						
MAGA	Magasa	2.12	34	Pn	Pn	22 46 20.0	+0.6
	361nm,0.5s						
MAGA	Magasa	2.12	34	Pn	Pn	22 46 20.0	+0.6
	361nm,0.5s						
LPG	La Plagne	2.13	314	ePn	Pn	22 46 20.0	+0.5
LPG	La Plagne	2.13	314	eP	Pn	22 46 22.3	+2.8
LPG	La Plagne	2.13	314	ePg	Pg	22 46 26.0	+0.4
	SNR=1.0						
LPG				eSn	Sn	22 46 45.5	-0.1
LPG				eSg	Sg	22 46 53.7	+0.5
	32nm,0.5s						
LPG	La Plagne	2.13	314	ePn	Pn	22 46 20.0	+0.5
LPG				eP		22 46 22.3	
LPG				ePg	Pg	22 46 26.0	+0.4
LPG				eSn	Sn	22 46 45.5	-0.1
LPG				eSg	Sg	22 46 53.7	+0.5

LPG	La Plagne	2.13	314	ePn	Pn	22 46 20.0	+0.5
LPG	La Plagne	2.13	314	eP	Pn	22 46 22.3	+2.8
LPG	La Plagne	2.13	314	ePg	Pg	22 46 26.0	+0.4
	SNR=1.0						
LPG				eSn	Sn	22 46 45.5	-0.1
LPG				eSg	Sg	22 46 53.7	+0.5
	16nm,0.5s						
LPL	La Plagne	2.15	314	ePn	Pn	22 46 20.9	+1.1
LPL	La Plagne	2.15	314	eP	Pn	22 46 22.6	+2.8
	SNR=1.0						
LPL				eSn	Sn	22 46 45.5	-0.7
LPL				eSg	Sg	22 46 53.5	-0.4
	15nm,0.3s						
LPL	La Plagne	2.15	314	ePn	Pn	22 46 20.9	+1.1
LPL				eP		22 46 22.6	
LPL				eSn	Sn	22 46 45.5	-0.7
LPL				eSg	Sg	22 46 53.5	-0.4
LPL	La Plagne	2.15	314	ePn	Pn	22 46 20.9	+1.1
LPL	La Plagne	2.15	314	eP	Pn	22 46 22.6	+2.8
	SNR=1.0						
LPL				eSn	Sn	22 46 45.5	-0.7
LPL				eSg	Sg	22 46 53.5	-0.4
	7.7nm,0.3s						
CRE	Caprese Michel	2.23	100	Pn	Pn	22 46 21.7	+0.8
CRE	Caprese Michel	2.23	100	Pn	Pn	22 46 21.7	+0.8
	13nm,0.3s						
CRE	Caprese Michel	2.23	100	Pn	Pn	22 46 21.7	+0.8
	13nm,0.3s						
ORIF	Oris-en-Rattie	2.35	293	eP	Pn	22 46 24.9	+2.3
	SNR=1.0						
ORIF				eSn	Sn	22 46 50.7	-0.4
	39nm,0.4s,SNR=1.0						
ORIF	Oris-en-Rattie	2.35	293	eP	Pn	22 46 24.9	+2.3
	SNR=1.0						
ORIF				eSn	Sn	22 46 50.7	-0.4
	20nm,0.4s,SNR=1.0						
SMRF	Simiane la Rot	2.42	270	ePn	Pn	22 46 24.6	+1.1
SMRF	Simiane la Rot	2.42	270	eP	Pn	22 46 25.8	+2.3
	SNR=1.0						
SMRF	Simiane la Rot	2.42	270	ePg	Pg	22 46 30.9	-0.2
	SNR=1.0						
SMRF				eSn	Sn	22 46 50.8	-1.9
	SNR=1.0						
SMRF				eSg	Sg	22 47 01.3	-1.1
	56nm,0.3s,SNR=1.0						
SMRF	Simiane la Rot	2.42	270	ePn	Pn	22 46 24.6	+1.1
SMRF				eP		22 46 25.8	
SMRF				ePg	Pg	22 46 30.9	-0.2
SMRF				eSn	Sn	22 46 50.8	-1.9
SMRF				eSg	Sg	22 47 01.3	-1.1
SMRF	Simiane la Rot	2.42	270	ePn	Pn	22 46 24.6	+1.1
SMRF	Simiane la Rot	2.42	270	eP	Pn	22 46 25.8	+2.3
	SNR=1.0						
SMRF	Simiane la Rot	2.42	270	ePg	Pg	22 46 30.9	-0.2
	SNR=1.0						
SMRF				eSn	Sn	22 46 50.8	-1.9
	SNR=1.0						
SMRF				eSg	Sg	22 47 01.3	-1.1
	28nm,0.3s,SNR=1.0						
BRMO	Bormio	2.65	22	Pn	Pn	22 46 28.5	+1.9
BRMO	Bormio	2.65	22	Pn	Pn	22 46 28.5	+1.9
	7.0nm,0.3s						
BRMO	Bormio	2.65	22	Pn	Pn	22 46 28.5	+1.9
	7.0nm,0.3s						
CTI	Castel Tesino	2.79	43	Pn	Pn	22 46 29.7	+1.1
CTI	Castel Tesino	2.79	43	Pn	Pn	22 46 29.7	+1.1
	11nm,0.3s						
CTI	Castel Tesino	2.79	43	Pn	Pn	22 46 29.7	+1.1
	11nm,0.3s						
FSSB	Fossombrone	2.81	96	Pn	Pn	22 46 31.5	+2.7
FSSB	Fossombrone	2.81	96	Pn	Pn	22 46 31.5	+2.7
	5.0nm,0.3s						
FSSB	Fossombrone	2.81	96	Pn	Pn	22 46 31.5	+2.7
	5.0nm,0.3s						
APPI	Appiano	2.94	33	Pn	Pn	22 46 32.1	+1.5
APPI	Appiano	2.94	33	Pn	Pn	22 46 32.1	+1.5
APPI	Appiano	2.94	33	Pn	Pn	22 46 32.1	+1.5
VIVF	Saint-Julien-l	3.15	287	ePn	Pn	22 46 34.2	+0.6
	SNR=1.0						
VIVF				eSn	Sn	22 47 09.9	-1.0
	16nm,0.5s,SNR=1.0						
VIVF	Saint-Julien-l	3.15	287	ePn	Pn	22 46 34.2	+0.6
VIVF				eSn	Sn	22 47 09.9	-1.0
VIVF	Saint-Julien-l	3.15	287	ePn	Pn	22 46 34.2	+0.6
	SNR=1.0						
VIVF				eSn	Sn	22 47 09.9	-1.0
	7.8nm,0.5s,SNR=1.0						
CABF	La Chapelle	3.26	323	ePn	Pn	22 46 35.4	+0.3
CABF	La Chapelle	3.26	323	ePg	Pg	22 46 46.2	-1.0
CABF	La Chapelle	3.26	323	ePn	Pn	22 46 35.4	+0.3
CABF				ePg	Pg	22 46 46.2	-1.0
CABF	La Chapelle	3.26	323	ePn	Pn	22 46 35.4	+0.3
CABF	La Chapelle	3.26	323	ePg	Pg	22 46 46.2	-1.0
DAVA	Damuels	3.32	11	⇑iPn	Pn	22 46 38.5	+2.6
	comp=Z,1.3nm,0.3s						
DAVA	Damuels	3.32	11	⇑iPn	Pn	22 46 38.5	+2.6
DAVA				i Sn	Sn	22 47 18.5	+3.6
DAVA	Damuels	3.32	11	⇑iPn	Pn	22 46 38.5	+2.6
	1.3nm,0.3s						
DAVA				⇓iSn	Sn	22 47 18.5	+3.6
	18nm,0.4s						
DAVA	Damuels	3.32	11	Pn	Pn	22 46 38.5	+2.6
	1.3nm,0.3s						
DAVA				Sn	Sn	22 47 18.5	+3.5
	18nm,0.4s						
SQTA	Sankt Quirin	3.57	26	⇑iPn	Pn	22 46 42.0	+2.8
	comp=Z,4.6nm,0.2s,SNR=11						
SQTA	Sankt Quirin	3.57	26	⇑iPn	Pn	22 46 42.0	+2.8
SQTA				i Sn	Sn	22 47 26.8	+5.7
SQTA	Sankt Quirin	3.57	26	⇑iPn	Pn	22 46 42.0	+2.8
	4.6nm,0.2s,SNR=11						
SQTA				⇑iSn	Sn	22 47 26.8	+5.7
SQTA	Sankt Quirin	3.57	26	Pn	Pn	22 46 42.0	+2.7
	4.6nm,0.2s,SNR=11						
SQTA				Sn	Sn	22 47 26.8	+5.8
MOTA	Moosalm	3.65	24	⇓iPn	Pn	22 46 43.0	+2.6
	comp=Z,5.1nm,0.4s,SNR=6.6						
MOTA	Moosalm	3.65	24	⇓iPn	Pn	22 46 43.0	+2.6
MOTA				i Sn	Sn	22 47 28.3	+5.3
MOTA	Moosalm	3.65	24	⇓iPn	Pn	22 46 43.0	+2.6
	5.1nm,0.4s,SNR=6.6						
MOTA				⇑iSn	Sn	22 47 28.3	+5.3
	6.1nm,0.4s						
MOTA	Moosalm	3.65	24	Pn	Pn	22 46 43.0	+2.6
	5.1nm,0.4s,SNR=6.6						
MOTA				Sn	Sn	22 47 28.3	+5.3
	6.1nm,0.4s						
LASF	Ste Croix	3.65	272	ePn	Pn	22 46 41.0	+0.5
	SNR=1.0						
LASF				eSn	Sn	22 47 21.4	-1.8
	SNR=1.0						
LASF				eSg	Sg	22 47 39.1	-2.9
	5.8nm,0.5s,SNR=1.0						
LASF	Ste Croix	3.65	272	ePn	Pn	22 46 41.0	+0.5
LASF				eSn	Sn	22 47 21.4	-1.8
LASF				eSg	Sg	22 47 39.1	-2.9
LASF	Ste Croix	3.65	272	ePn	Pn	22 46 41.0	+0.5
	SNR=1.0						
LASF				eSn	Sn	22 47 21.4	-1.8
	SNR=1.0						
LASF				eSg	Sg	22 47 39.1	-2.9
	2.9nm,0.5s,SNR=1.0						
ABTA	Abfaltersbach	3.71	42	⇓iPn	Pn	22 46 43.3	+2.1
ABTA				⇑iSn	Sn	22 47 24.2	-0.3
	1.4nm,0.3s						
ABTA	Abfaltersbach	3.71	42	Pn	Pn	22 46 43.3	+2.1
ABTA				Sn	Sn	22 47 24.2	-0.3
	1.4nm,0.3s						
FVI	Forni Avoltri	3.74	45	Pn	Pn	22 46 41.5	-0.1
FVI	Forni Avoltri	3.74	45	Pn	Pn	22 46 41.5	-0.1
	5.0nm,0.4s						
FVI	Forni Avoltri	3.74	45	Pn	Pn	22 46 41.5	-0.1
	5.0nm,0.4s						
WTTA	Wattenberg	3.75	30	⇓iPn	Pn	22 46 44.3	+2.6
	comp=Z,4.0nm,0.3s,SNR=6.1						
WTTA	Wattenberg	3.75	30	⇓iPn	Pn	22 46 44.3	+2.6
WTTA				eSn	Sn	22 47 23.6	-1.9
WTTA	Wattenberg	3.75	30	⇓iPn	Pn	22 46 44.3	+2.6
	4.0nm,0.3s,SNR=6.1						
WTTA				⇓eSn	Sn	22 47 23.6	-1.9
	5.2nm,0.4s						
WTTA	Wattenberg	3.75	30	Pn	Pn	22 46 44.3	+2.5
	4.0nm,0.3s,SNR=6.1						
WTTA				Sn	Sn	22 47 23.6	-1.9
	5.2nm,0.4s						
WATA	Walderalm	3.79	28	⇑iPn	Pn	22 46 45.3	+2.9
	comp=Z,4.0nm,0.2s						
WATA	Walderalm	3.79	28	⇑iPn	Pn	22 46 45.3	+2.9
WATA				i Sn	Sn	22 47 29.8	+3.3
WATA	Walderalm	3.79	28	⇑iPn	Pn	22 46 45.3	+2.9
	4.0nm,0.2s						
WATA				⇑iSn	Sn	22 47 29.8	+3.3
	1.4nm,0.2s						
WATA	Walderalm	3.79	28	Pn	Pn	22 46 45.3	+3.0
	4.0nm,0.2s						
WATA				Sn	Sn	22 47 29.8	+3.3
	1.4nm,0.2s						
ROBS	Robic	3.92	54	i Sn	Sn	22 47 29.0	-0.9
ROBS	Robic	3.92	54	i Sn	Sn	22 47 29.0	-0.9
SKDS	Skadanscina	3.93	66	i Pn	Pn	22 46 45.8	+1.5
SKDS				i Sn	Sn	22 47 27.9	-2.0
VOJS	Vojsko	4.04	59	i Pn	Pn	22 46 47.7	+1.9
VOJS				i Sn	Sn	22 47 31.6	-1.2
VOJS	Vojsko	4.04	59	i Pn	Pn	22 46 47.7	+1.9
VOJS				i Sn	Sn	22 47 31.6	-1.2
VOJS	Vojsko	4.04	59	i Pn	Pn	22 46 47.7	+1.9
VOJS				i Sn	Sn	22 47 31.6	-1.2
HINF	Hinteralfeld	4.05	340	ePn	Pn	22 46 46.7	+0.8
	SNR=1.0						
HINF				eSn	Sn	22 47 31.4	-1.5
	2.6nm,0.2s						
HINF	Hinteralfeld	4.05	340	ePn	Pn	22 46 46.7	+0.8
HINF				eSn	Sn	22 47 31.4	-1.5
HINF	Hinteralfeld	4.05	340	ePn	Pn	22 46 46.7	+0.8
	SNR=1.0						
HINF				eSn	Sn	22 47 31.4	-1.5
	1.3nm,0.2s						
HAU	Haudompre	4.36	337	ePn	Pn	22 46 50.9	+0.7
	SNR=1.0						
HAU				eSn	Sn	22 47 39.0	-1.5
	7.3nm,0.3s						
HAU	Haudompre	4.36	337	ePn	Pn	22 46 50.9	+0.7
HAU				eSn	Sn	22 47 39.0	-1.5
HAU	Haudompre	4.36	337	ePn	Pn	22 46 50.9	+0.7
	SNR=1.0						
HAU				eSn	Sn	22 47 39.0	-1.5
	3.7nm,0.3s						
SMF	Signal de Mont	4.43	308	ePn	Pn	22 46 52.2	+1.0
	SNR=1.0						
SMF				eSn	Sn	22 47 40.0	-2.4
	3.5nm,0.3s						
SMF	Signal de Mont	4.43	308	ePn	Pn	22 46 52.2	+1.0
SMF				eSn	Sn	22 47 40.0	-2.4
SMF	Signal de Mont	4.43	308	ePn	Pn	22 46 52.2	+1.0
	SNR=1.0						
SMF				eSn	Sn	22 47 40.0	-2.4
	1.8nm,0.3s						
CDF	Champ du Feu	4.53	346	ePn	Pn	22 46 53.0	+0.6
CDF				eSn	Sn	22 47 42.6	-2.1
	4.2nm,0.4s						
CDF	Champ du Feu	4.53	346	ePn	Pn	22 46 53.0	+0.6
CDF				eSn	Sn	22 47 42.6	-2.1
CDF	Champ du Feu	4.53	346	ePn	Pn	22 46 53.0	+0.6
CDF				eSn	Sn	22 47 42.6	-2.1
	2.1nm,0.4s						
VISS	Visnje	4.56	65	i Sn	Sn	22 47 44.0	-1.4
VISS	Visnje	4.56	65	i Sn	Sn	22 47 44.0	-1.5
AVF	Avril sur Loir	4.79	307	ePn	Pn	22 46 56.0	-0.1
AVF				eSn	Sn	22 47 48.8	-2.5
	1.4nm,0.3s						
AVF	Avril sur Loir	4.79	307	ePn	Pn	22 46 56.0	-0.1
AVF				eSn	Sn	22 47 48.8	-2.5
AVF	Avril sur Loir	4.79	307	ePn	Pn	22 46 56.0	-0.1
AVF				eSn	Sn	22 47 48.8	-2.5
	0.7nm,0.3s						
LOR	Lormes	4.80	314	ePn	Pn	22 46 56.7	+0.4
LOR				eSn	Sn	22 47 49.2	-2.3
	3.8nm,0.4s						
LOR	Lormes	4.80	314	ePn	Pn	22 46 56.7	+0.4
LOR				eSn	Sn	22 47 49.2	-2.3
LOR	Lormes	4.80	314	ePn	Pn	22 46 56.7	+0.4
LOR				eSn	Sn	22 47 49.2	-2.3
	1.9nm,0.4s						
SSF	Saint Saulge	4.86	310	ePn	Pn	22 46 56.4	-0.7
SSF	Saint Saulge	4.86	310	ePn	Pn	22 46 56.4	-0.7
SSF	Saint Saulge	4.86	310	ePn	Pn	22 46 56.4	-0.7
MTLF	Montolieu	4.91	264	ePn	Pn	22 46 58.1	+0.3
	SNR=1.0						
MTLF				eSn	Sn	22 47 51.6	-2.6
	1.8nm,0.3s						
MTLF	Montolieu	4.91	264	ePn	Pn	22 46 58.1	+0.3
MTLF				eSn	Sn	22 47 51.6	-2.6
MTLF	Montolieu	4.91	264	ePn	Pn	22 46 58.1	+0.3
	SNR=1.0						
MTLF				eSn	Sn	22 47 51.6	-2.6
	0.9nm,0.3s						
BGF	Bois d'Agland	4.97	303	ePn	Pn	22 47 00.0	+1.4
BGF	Bois d'Agland	4.97	303	ePn	Pn	22 47 00.0	+1.4
BGF	Bois d'Agland	4.97	303	ePn	Pn	22 47 00.0	+1.4
CAF	Calviac	4.99	283	ePn	Pn	22 46 59.1	+0.3
CAF				eSn	Sn	22 47 53.5	-2.6
	2.0nm,0.4s						
CAF	Calviac	4.99	283	ePn	Pn	22 46 59.1	+0.3
CAF				eSn	Sn	22 47 53.5	-2.6
CAF	Calviac	4.99	283	ePn	Pn	22 46 59.1	+0.3
CAF				eSn	Sn	22 47 53.5	-2.6
	1.0nm,0.4s						
GEC2	GERESS Array S	5.83	33	ePn	Pn	22 47 10.5	+0.1
GEC2				eSn	Sn	22 48 14.7	-2.2
GEC2	GERESS Array S	5.83	33	ePn	Pn	22 47 10.5	+0.1
GEC2				eSn	Sn	22 48 14.7	-2.2

TEH **27** *22:48:15.6, 28.05N×55.15E, h20^{km}, ML3.9*
BJI **27** *22:49:18.1, 28.00N×55.10E, h20^{km}, mb4.4*
IDC **27** *22:49:18.9±1.1, 28.06N×55.14E, h0^{km}, mb3.9/15, mb1 4.0/16, mb1mx3.9/25, mbtmp3.9/16, ML3.7/1, MS3.1/1, Ms1 3.1/1, ms1mx2.6/33, Error ellipse: s-maj=26.5km s-min=18.5km az=5.0*
MOS **27** *22:49:22.1±1.6, 27.90N×55.04E, h33^{km}, mb4.3/7, Error ellipse: s-maj=14.1km s-min=8.8km az=101.9*
CSEM **27** *22:49:23.4±0.1, 28.20N×55.16E, h20^{km}, ML3.9, Error ellipse: s-maj=3.5km s-min=2.1km az=70.0*
NEIC **27** *22:49:24.1, 28.05N×55.15E, h21^{km}, mb4.1/4, MN3.9(TEH), After TEH.*
ISCJB **27** *22:49:25.2±0.5, 28.20N±0.03×55.12E±0.05, h54^{km}±5^{km}, mb4.0/26, Error ellipse: s-maj=7.3km s-min=4.7km az=162.2*
ISC 27 22:49:26.6±0.4, **28.18N**±0.03×**55.12E**±0.05, **h51**^{km}±5^{km}, **h14**^{km}±6.8^{km}**:pP-P, n91,** σ0.94/99, **mb4.0**/26, **8C-1D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ISRV	Sarvestan	2.13	305	Pn	Pn	22 50 00.2	+0.5
ISRV	Sarvestan	2.13	305	ePn	Pn	22 50 00.2	+0.5
ISRV	Sarvestan	2.13	305	ePn	Pn	22 50 00.2	+0.5
IMOK	Mook	2.28	293	Pn	Pn	22 50 01.2	-0.6
IMOK	Mook	2.28	293	ePn	Pn	22 50 01.3	-0.5
IMOK	Mook	2.28	293	ePn	Pn	22 50 01.3	-0.5
BANOM	Banah	2.48	155	P	Pn	22 50 03.5	-1.1
	SNR=10						
BANOM				S	Sn	22 50 34.6	+0.9
SHI	Shiraz	2.71	303	ePn	Pn	22 50 07.9	+0.3
SHI	Shiraz	2.71	303	ePn	Pn	22 50 07.9	+0.3
NAZ	Nazwa, Dubai	3.21	171	P	Pn	22 50 15.2	+0.6
IMEH	Mehriz	3.23	352	ePn	Pn	22 50 15.4	+0.6
IMEH				e		22 51 06.1	
	comp=Z,4µm,0.3s						
IMEH	Mehriz	3.23	352	ePn	Pn	22 50 15.4	+0.6
IBAF	Bafgh	3.42	6	Pn	Pn	22 50 17.2	-0.3
IBAF				Sn	Sn	22 50 57.7	+0.9
IBAF	Bafgh	3.42	6	ePn	Pn	22 50 17.2	-0.3
IBAF				e		22 50 35.6	
	comp=Z,3µm,0.3s						
IBAF				eSn	Sn	22 50 57.8	+1.0
IBAF	Bafgh	3.42	6	ePn	Pn	22 50 17.2	-0.3
IBAF				eSn	Sn	22 50 57.8	+1.0
FAQ	Al Faqa, Dubai	3.45	173	P	Pn	22 50 17.9	+0.1
	SNR=9.9						
HATD	Hatta, Dubai	3.46	164	P	Pn	22 50 16.9	-1.1
ASUD	Al Ashush, Dub	3.54	177	P	Pn	22 50 19.7	+0.6
	SNR=16						
ICHK	Chekchek	4.10	352	Pn	Pn	22 50 27.1	+0.4
ICHK				Sn	Sn	22 51 13.3	-0.1
ICHK	Chekchek	4.10	352	ePn	Pn	22 50 27.2	+0.5
ICHK				eSn	Sn	22 51 13.4	0.0
ICHK				e		22 51 39.9	
	comp=Z,1µm,0.4s						
ICHK	Chekchek	4.10	352	ePn	Pn	22 50 27.2	+0.5
ICHK				eSn	Sn	22 51 13.4	0.0
IGAR	Garneh	4.77	329	ePn	Pn	22 50 39.6	+3.6
IGAR				e		22 51 00.5	
	comp=Z,868nm,0.3s						
IZEF	Zefreh	5.28	334	Pn	Pn	22 50 43.1	+0.2
IZEF	Zefreh	5.28	334	ePn	Pn	22 50 43.2	+0.3
IZEF				e		22 52 38.3	
	comp=Z,462nm,0.4s						
IZEF	Zefreh	5.28	334	ePn	Pn	22 50 43.2	+0.3
IKOO		5.41	38	ePn	Pn	22 50 44.0	-0.7
ITEG		5.65	33	ePn	Pn	22 50 48.5	+0.5
IKLH	Kalahroud	5.96	330	Pn	Pn	22 50 52.4	+0.2
IKLH				Sn	Sn	22 51 57.7	-1.5
IKLH	Kalahroud	5.96	330	ePn	Pn	22 50 52.4	+0.2
IKLH				e		22 53 00.3	
	comp=Z,597nm,0.5s						
IKLH	Kalahroud	5.96	330	ePn	Pn	22 50 52.4	+0.2
IKLH				Sn	Sn	22 51 57.7	-1.5
IDAH		6.12	41	ePn	Pn	22 50 53.7	-0.8
IDAH				eSn	Sn	22 52 01.1	-2.1
ISFB	Sefidab	6.63	339	Pn	Pn	22 51 01.5	+0.1
ISFB	Sefidab	6.63	339	ePn	Pn	22 51 01.5	+0.1
ISFB				e		22 53 33.3	
	comp=Z,238nm,0.4s						
ISFB	Sefidab	6.63	339	ePn	Pn	22 51 01.5	+0.1
IGLO	Galoogah	8.22	351	e		22 51 38.5	
	comp=Z,260nm,0.5s						
ZEI	Tsey	17.16	331	eP	Pn	22 53 26.2	+3.5
MALT	Malatya	17.21	310	ePn	Pn	22 53 23.9	+0.6
	comp=Z,1.6nm,0.6s						
MALT	Malatya	17.21	310	eP	Pn	22 53 23.9	+0.5
MALT				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MMAI	Mount Meron Ar	17.64	291	P	Pn	22 53 27.8	-0.9
	comp=Z,0.3nm,0.3s,baz=111,slow=16,SNR=5.3						
KIV	Kislovodsk	18.64	331	⇑eP	Pn	22 53 44.1	+3.3
KIV				pmax	pmax		
	comp=Z,6.0nm,0.9s						
AML	Almayashu	20.54	42	eP	P	22 54 02.4	+1.7
	comp=Z,148nm,0.8s						
AML				eS	S	22 57 56.8	+9.1
AML	Almayashu	20.54	42	eP	P	22 54 02.4	+1.6
	comp=Z,148nm,0.8s						
EKS2	Erkin-Say	20.91	41	eP	P	22 54 04.9	+0.1
	comp=Z,26nm,1.6s						
EKS2				PcP	PcP	22 58 10.0	-1.0
EKS2	Erkin-Say	20.91	41	eP	P	22 54 04.9	+0.1
	comp=Z,26nm,1.6s						
EKS2	Erkin-Say	20.91	41	PcP	PcP	22 58 10.0	-1.0
UCH	Uchtor	21.09	43	eP	P	22 54 07.2	+0.5
	comp=Z,8.9nm,1.0s,mb4.0						
UCH				eS	S	22 58 02.3	+3.8
UCH	Uchtor	21.09	43	eP	P	22 54 07.2	+0.5
	comp=Z,8.9nm,1.0s,mb4.0						
BRTR	Keskin Array B	21.16	309	P	P	22 54 07.0	-0.4
	comp=Z,1.7nm,0.6s,mb3.5,baz=129,slow=12,SNR=8.6						
AAK	Ala-Archa	21.32	42	eP	P	22 54 08.5	-0.7
	comp=Z,8.4nm,1.1s,mb4.0						
AAK	Ala-Archa	21.32	42	⇑eP	P	22 54 11.8	+2.7
AAK				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.0						
AAK	Ala-Archa	21.32	42	eP	P	22 54 08.5	-0.6
	comp=Z,8.4nm,1.1s,mb4.0						
AKTK	Aktyubinsk	22.34	5	P	P	22 54 19.5	-0.4
AKTK				LR	LR	23 04 04.7	
AKTK	Aktyubinsk	22.34	5	P	P	22 54 19.5	-0.4
AKTO	Aktyubinsk	22.34	5	P	P	22 54 19.5	-0.4
	comp=Z,3.1nm,0.6s,mb3.9,baz=180,slow=12,SNR=12						
MKAR	Makanchi Array	28.25	42	⇑eP	P	22 55 17.7	+2.9
MKAR	Makanchi Array	28.25	42	P	P	22 55 14.1	-0.7
	comp=Z,0.3nm,0.2s,mb3.5,baz=230,slow=9.4,SNR=5.0						
ARU	Arti	28.34	4	⇑eP	P	22 55 22.5	+7.0
ARU				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.1						
KURK	Kurchatov	28.69	32	⇑iP	P	22 55 21.2	+2.6
MLR	Muntele Rosu	28.82	315	P	P	22 55 20.1	+0.2
	comp=Z,0.7nm,0.3s,mb3.8,baz=128,slow=19,SNR=2.2						
AKASG	Malin Array Be	29.82	326	P	P	22 55 28.6	0.0
	comp=Z,0.5nm,0.4s,mb3.6,baz=142,slow=7.4,SNR=4.2						
ZAL	Zalesovo	33.66	32	P	P	22 56 02.0	-0.4
ZAA0	Zalesovo Array	33.68	32	eP	P	22 56 01.9	-0.6
ZAA0				ePP	PP	22 57 18.5	-0.8
ZAA0				PcP	PcP	22 58 43.2	+1.8
ZAA0	Zalesovo Array	33.68	32	eP	P	22 56 01.9	-0.6
ZAA0	Zalesovo Array	33.68	32	ePP	PP	22 57 18.5	-0.8
ZALV	Zalesovo Beam	33.68	32	P	P	22 56 02.0	-0.5
	comp=Z,4.3nm,0.8s,mb4.5,baz=239,slow=8.7,SNR=22						
GERES	GERESS Array B	37.81	315	P	P	22 56 38.9	+0.9
	comp=Z,0.4nm,0.6s,mb3.3,baz=101,slow=9.1,SNR=2.9						
GERES	GERESS Array B	37.81	315	P	P	22 56 38.8	+0.8
KHC	Kasperske Hory	37.98	315	eP	P	22 56 38.5	-0.9
KHC				e		22 56 46.0	
KHC	Kasperske Hory	37.98	315	eP	P	22 56 38.5	-0.9
KHC				epP	pP	22 56 46.0	-6.7
GTA	Gaotai	38.45	61	eP	P	22 56 44.3	+0.8
GTA				AP	pP	22 56 47.8	-9.0
GTA				XP	sP	22 56 50.5	-12
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.2						
FINES	FINESS Array B	38.48	338	i P	P	22 56 43.7	+0.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	38.48	338	P	P	22 56 42.8	-0.6
	comp=Z,0.9nm,0.6s,mb3.6,baz=136,slow=10,SNR=6.0						
PBA	Port Blair	38.81	107	eP	x	22 57 28.1	
PBA				eS	x	22 57 36.1	
LZH	Lanzhou	41.66	66	eP	P	22 57 10.0	-0.1
LZH				AP	pP	22 57 15.5	-8.1
LZH				XP	sP	22 57 19.0	-11
LZH				AMB	AMB		
	comp=Z,16nm,1.1s,mb4.6						
ZAK	Zakamensk	42.45	45	eP	P	22 57 15.2	-1.2
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb3.7						
NB2	NORSAR Subarra	43.95	331	P	P	22 57 27.6	-0.7
	comp=Z,1.2nm,0.6s,mb3.8,baz=116,slow=7.9						
NOA	NORSAR Array B	43.95	331	P	P	22 57 28.0	-0.3
	comp=Z,1.6nm,0.6s,mb3.9,baz=117,slow=8.0,SNR=7.1						
SONM	Songino Array	44.01	49	P	P	22 57 29.2	+0.2
	comp=Z,1.5nm,0.9s,mb3.7,baz=257,slow=6.7,SNR=9.4						
ULN	Ulaanbaatar	44.46	49	⇑eP	P	22 57 32.4	-0.2
ARCES	ARCESS Array B	44.79	346	P	P	22 57 34.7	-0.2
ARCES	ARCESS Array B	44.79	346	P	P	22 57 34.7	-0.2
	comp=Z,2.3nm,0.9s,mb4.0,baz=145,slow=11,SNR=2.7						
BOD	Bodaibo	50.14	37	eP	P	22 58 09.8	-6.8
BOD				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.4						
TORD	Torodi Ar. Bea	51.78	265	P	P	22 58 28.4	-1.1
	comp=Z,0.6nm,0.4s,mb3.8,baz=62,slow=7.6,SNR=10.0						
NJ2	Nanjing	54.57	69	eP	P	22 58 46.5	-3.3
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb5.0						
YAK	Yakutsk	58.33	32	⇑eP	P	22 59 19.0	+2.9
YAK				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
TIXI	Tiksi	58.41	21	eP	P	22 59 16.7	+0.2
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.1						
BILL	Bilibino	71.61	22	⇓eP	P	23 00 46.1	+3.8
BILL				pmax	pmax		
	comp=Z,10.0nm,2.5s,mb4.3						
YKA	Yellowknife Ar	89.27	355	⇑eP	P	23 02 17.6	+0.7
YKA	Yellowknife Ar	89.27	355	P	P	23 02 16.7	-0.1
	comp=Z,0.3nm,0.7s,mb3.8,baz=7.2,slow=5.1,SNR=8.4						
WRA	Warramunga Arr	90.23	112	P	P	23 02 21.7	-0.4
	comp=Z,0.5nm,0.8s,mb3.9,baz=314,slow=4.4,SNR=4.2						
ASAR	Alice Springs	91.73	116	P	P	23 02 28.5	-0.5
	comp=Z,0.4nm,0.9s,mb3.8,baz=296,slow=5.1,SNR=3.6						

MAN 27 22:54:37, 14.82N×122.89E, h26^{km}, mb4.0, ML2.7, MS2.4, 2D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
POLP	Polilio Island	0.92	264	eP	Pn	22 54 54.3	0.0
POLP				eS	Sb	22 55 07.1	+0.9
GQP	Guinayangan	1.01	205	⇓iP	Pn	22 54 55.4	-0.1
GQP				i S	Sb	22 55 09.4	+0.7
LQP	Lukban	1.49	242	eP	Pn	22 55 05.6	+3.5
BALP	Baler	1.56	306	eP	Pn	22 55 02.8	-0.3
PVCP	Virac	1.73	135	⇓iP	Pn	22 55 06.0	+0.5
PVCP				i S	Sn	22 55 28.4	+1.8

PVCP	Virac	1.73	135	*e*P	Pn	22 55 05.5	+0.1
CAUP	Cauayan	2.34	334	*e*P	Pn	22 55 14.7	+0.8
OTRP	Odiongan	2.59	199	*e*P	Pn	22 55 18.9	+1.7

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*ISCJB **27** 22:59:02.0±0.3, 37.11N±0.02×3.77W±0.02, h2^{km}±2^{km}, Error ellipse: s-maj=3.1km s-min=2.2km az=166.2*

*CSEM **27** 22:59:03.7±0.1, 37.00N×3.73W, h2^{km}, ML3.2/10, Error ellipse: s-maj=1.7km s-min=1.1km az=4.0*

*SFS **27** 22:59:03.0, 37.00N×3.23W, h0^{km}, ML2.7*

*MDD **27** 22:59:03.6±0.1, 37.01N×3.72W, h0^{km}, mbLg2.6/35, Error ellipse: s-maj=1.3km s-min=0.9km az=179.0, PRXIMO III LA MALAH.GR, OTURA PADUL II-III RCAL FORNES JAR LOS JARES II N ARENAS DEL REY CLLAR VEGA II LAR ESTEPONA GRANADA LAGA NERJA I UELAS ALHAMA DE GRANADA VENTAS DE HUELMA*

MDD EMS: III N ZAR JAYENA.

*LDG **27** 22:59:03.0±0.2, 36.94N×3.77W, h2^{km}, Ml3.1/3, Error ellipse: s-maj=3.2km s-min=2.4km az=179.0*

*NEIC **27** 22:59:03.5, 37.00N×3.73W, h4^{km}, MN2.8(MDD), After MDD.*

NEIC Felt [III] at Alhendin, Durcal, Escuzar, Fornes, Gojar, Jayena, La Malaha, Los Ogijares, Otura and Padul; [II] at Agron, Arenas Del Rey, Cullar Vega, Dilar, Estepona, Granada, Malaga and Nerja, Spain.

*CNRM **27** 22:59:04.5, 37.19N×5.19W, h30^{km}, MD3.6*

*INMG **27** 22:59:04.0±1.2, 37.00N×3.73W, h2^{km}±2^{km}, MD3.3, ML2.7, Error ellipse: s-maj=1.9km s-min=1.4km az=175.0*

ISC 27 22:59:03.1±0.3**, 37.07N**±0.02×**3.72W**±0.02**, h4**^{km}±2^{km}**, n208, σ1**^{s}**26**/328**, 7C-7D, Spain**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ERON	Agron	0.08	235	Pg	Pg	22 59 05.1	+0.3
ERON	Agron	0.08	235	⇓Pg	Pg	22 59 05.1	+0.3
	256nm,0.4s,SNR=18						
ERON	Agron	0.08	235	Pg	Pg	22 59 05.1	+0.3
	256nm,0.4s,SNR=214						
ECOG	Cogollos-Vega	0.24	30	⇓Pg	Pg	22 59 09.0	+1.2
ECOG	Cogollos-Vega	0.24	30	⇓Pg	Pg	22 59 09.0	+1.2
	10nm,0.1s,SNR=18						
ECOG	Cogollos-Vega	0.24	30	Pg	Pg	22 59 09.0	+1.1
	10nm,0.1s,SNR=18						
EGUA	Guajares	0.26	151	⇓Pg	Pg	22 59 07.5	-0.7
EGUA	Guajares	0.26	151	⇓Pg	Pg	22 59 07.5	-0.7
	9.1nm,0.1s,SNR=18						
EGUA	Guajares	0.26	151	Pg	Pg	22 59 07.5	-0.7
	9.1nm,0.1s,SNR=18						
EQUE	Quentar	0.27	58	⇑Pg	Pg	22 59 09.0	+0.8
	510nm,0.2s,SNR=18						
EQUE				Lg		22 59 13.5	
	523nm,0.3s,SNR=9.1						
EQUE	Quentar	0.27	58	Pg	Pg	22 59 09.0	+0.8
	510nm,0.2s,SNR=18						
EQUE				Lg		22 59 14.1	
	523nm,0.3s,SNR=9.1						
ELOJ	Sierra Loja	0.35	284	⇓Pg	Pg	22 59 09.7	-0.3
ELOJ				Lg		22 59 15.5	
ELOJ	Sierra Loja	0.35	284	⇓Pg	Pg	22 59 09.7	-0.3
	2.8nm,0.1s,SNR=18						
ELOJ				Lg		22 59 15.3	
	176nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	0.35	284	Pg	Pg	22 59 09.7	-0.2
	2.8nm,0.1s,SNR=18						
ELOJ				Lg		22 59 15.5	
	176nm,0.2s,SNR=7.9						
EMAL	Malaga-Limoner	0.64	242	Pg	Pg	22 59 14.3	-1.1
EMAL				Lg		22 59 23.1	
EMAL	Malaga-Limoner	0.64	242	Pg	Pg	22 59 14.3	-1.1
	61nm,0.1s,SNR=7.9						
EMAL				Lg		22 59 22.7	
	200nm,0.2s,SNR=7.9						
EMAL	Malaga-Limoner	0.64	242	*i* P	Pg	22 59 13.8	-1.6
EMAL	Malaga-Limoner	0.64	242	Pg	Pg	22 59 14.4	-1.0
ELUQ	Luque	0.66	319	Pg	Pg	22 59 16.9	+1.1
ELUQ				Lg		22 59 27.1	
ELUQ	Luque	0.66	319	Pg	Pg	22 59 16.9	+1.1
	33nm,0.2s,SNR=43						
ELUQ				Lg		22 59 26.2	
	81nm,0.2s,SNR=17						
ELUQ	Luque	0.66	319	Pg	Pg	22 59 16.9	+1.2
	33nm,0.2s,SNR=43						
EBER	Berja	0.69	104	⇑Pg	Pg	22 59 16.5	+0.3
EBER				Lg		22 59 25.7	
EBER	Berja	0.69	104	⇑Pg	Pg	22 59 16.5	+0.3
	53nm,0.2s,SNR=18						
EBER				Lg		22 59 25.2	
	354nm,0.3s,SNR=7.9						
EBER	Berja	0.69	104	Pg	Pg	22 59 16.5	+0.2
	53nm,0.2s,SNR=18						
EQES	Quesada	0.90	35	Pg	Pg	22 59 21.4	+1.1
EQES				Lg		22 59 35.7	
EQES	Quesada	0.90	35	⇑Pg	Pg	22 59 21.4	+1.1
	130nm,0.6s,SNR=18						
EQES				Lg		22 59 34.6	
	169nm,0.3s,SNR=14						
EQES	Quesada	0.90	35	Pg	Pg	22 59 21.4	+1.0
	130nm,0.6s,SNR=202						
EMIJ	Mijas	0.98	240	Pg	Pg	22 59 19.2	-2.7
EMIJ				Lg		22 59 31.9	
EMIJ	Mijas	0.98	240	Pg	Pg	22 59 19.2	-2.7
	65nm,0.4s,SNR=342						
EMIJ				Lg		22 59 33.5	
	124nm,0.4s,SNR=12						
EMIJ	Mijas	0.98	240	Pg	Pg	22 59 19.2	-2.7
	65nm,0.4s,SNR=342						
EBAN	Banos Encina	1.10	357	Pg	Pg	22 59 25.1	+0.9
EBAN				Lg		22 59 41.5	
EBAN	Banos Encina	1.10	357	Pg	Pg	22 59 25.1	+0.9
	95nm,0.3s,SNR=166						
EBAN				Lg		22 59 41.5	
	213nm,0.4s,SNR=17						
EBAN	Banos Encina	1.10	357	Pg	Pg	22 59 25.1	+0.9
	95nm,0.3s,SNR=166						
ENIJ	Nijar	1.22	94	⇑Pg	Pg	22 59 25.9	-0.5
ENIJ				Lg		22 59 43.1	
ENIJ	Nijar	1.22	94	⇑Pg	Pg	22 59 25.9	-0.5
	41nm,0.3s,SNR=18						
ENIJ				Lg		22 59 42.8	
	58nm,0.3s,SNR=9.0						
ENIJ	Nijar	1.22	94	Pg	Pg	22 59 25.9	-0.5
	41nm,0.3s,SNR=18						
EALB	Alboran	1.25	154	Pg	Pg	22 59 24.2	-2.9
EALB				Lg		22 59 40.3	
EALB	Alboran	1.25	154	Pg	Pg	22 59 24.2	-2.9
	16nm,0.3s,SNR=12						
EALB				Lg		22 59 42.0	
	44nm,0.3s,SNR=8.3						
EALB	Alboran	1.25	154	Pg	Pg	22 59 24.2	-2.9
	16nm,0.3s,SNR=12						
EADA	Adamuz	1.29	329	Pg	Pg	22 59 28.3	+0.4
EADA				Lg		22 59 46.7	
EADA	Adamuz	1.29	329	Pg	Pg	22 59 28.3	+0.4
	14nm,0.1s,SNR=7.9						
EADA				Lg		22 59 46.7	
	53nm,0.2s,SNR=7.9						
EADA	Adamuz	1.29	329	Pg	Pg	22 59 28.3	+0.4
	14nm,0.1s,SNR=7.9						
REAL	Reales	1.33	245	Lg		22 59 44.4	
REAL	Reales	1.33	245	*e*P	Pn	22 59 25.0	-3.4
REAL				*i* S	Sg	22 59 44.4	-1.3
LIJA	Lijar	1.36	264	*i* P	Pn	22 59 31.5	+2.7
EJIF	Jimena Fronter	1.53	247	Pn	Pn	22 59 28.8	-2.4
EJIF				Pg	Pg	22 59 32.5	0.0
EJIF				Lg		22 59 50.9	
EJIF	Jimena Fronter	1.53	247	Pn	Pn	22 59 28.8	-2.4
	2.6nm,0.2s,SNR=7.9						
EJIF				Pg	Pg	22 59 31.4	-1.1
	32nm,0.5s,SNR=7.9						
EJIF				Lg		22 59 51.0	
	66nm,0.6s,SNR=7.9						
EJIF	Jimena Fronter	1.53	247	Pn	Pn	22 59 28.8	-2.4
	2.6nm,0.2s,SNR=7.9						
EJIF	Jimena Fronter	1.53	247	Pg	Pg	22 59 32.5	+0.1
	32nm,0.5s,SNR=7.9						
ESPR	Espera	1.72	264	Pg	Pg	22 59 36.6	+0.5
ESPR				Lg		23 00 01.4	
ESPR	Espera	1.72	264	Pn	Pn	22 59 32.6	-1.2
	1.9nm,0.8s,SNR=7.9						
ESPR				Pg	Pg	22 59 35.1	-1.0
	60nm,0.6s,SNR=36						
ESPR				Sn	Sn	22 59 56.2	0.0
	27nm,1.2s,SNR=7.9						
ESPR				Lg		22 59 58.7	
	43nm,0.5s,SNR=7.2						
ESPR	Espera	1.72	264	Pg	Pg	22 59 36.6	+0.5
	60nm,0.6s,SNR=36						
MOMI	Momias	1.77	246	*e*P	Pn	22 59 37.6	+3.2
GIBL	Gibalbin	1.81	263	*e*P	Pn	22 59 39.1	+4.0
EVIA	Vianos	1.84	31	Pn	Pn	22 59 36.1	+0.6
EVIA				Pg	Pg	22 59 38.2	-0.3
EVIA				Lg		23 00 04.1	
EVIA	Vianos	1.84	31	Pn	Pn	22 59 36.1	+0.6
	2.9nm,0.4s,SNR=7.9						
EVIA				Pg	Pg	22 59 38.2	-0.3
	73nm,0.3s,SNR=79						
EVIA				Sn	Sn	23 00 00.1	+0.9
	14nm,0.6s,SNR=7.9						
EVIA				Lg		23 00 04.1	
	55nm,0.4s,SNR=5.0						
EVIA	Vianos	1.84	31	Pn	Pn	22 59 36.1	+0.6
	2.9nm,0.4s,SNR=7.9						
TOU	Touzarine	2.10	181	*e*P	Pn	22 59 42.0	+3.0
TOU				*e*S	Sn	23 00 09.0	+3.5
EMUR	La Murta	2.12	68	Pn	Pn	22 59 39.8	+0.5
EMUR				Pg	Pg	22 59 43.5	-0.2
EMUR				Lg		23 00 10.0	
EMUR	La Murta	2.12	68	Pn	Pn	22 59 39.8	+0.5
	16nm,0.3s,SNR=16						
EMUR				Pg	Pg	22 59 43.5	-0.3
	25nm,0.3s,SNR=11						
EMUR				Sn	Sn	23 00 06.2	+0.2
	48nm,1.6s,SNR=7.9						
EMUR				Lg		23 00 12.6	
	26nm,0.4s,SNR=4.6						
EMUR	La Murta	2.12	68	Pn	Pn	22 59 39.8	+0.5
	16nm,0.3s,SNR=16						
EMUR	La Murta	2.12	68	Pg	Pg	22 59 43.5	-0.3
	25nm,0.3s,SNR=11						
CART	Cartagena	2.23	76	*e*Pn	Pn	22 59 42.0	+1.2
CART				*e*Sn	Sn	23 00 10.0	+1.2
CART	Cartagena	2.23	76	⇑Pg	Pg	22 59 42.9	-2.9
CART	Cartagena	2.23	76	*e*Pn	Pn	22 59 42.0	+1.2
CART	Cartagena	2.23	76	*i* P	Pn	22 59 42.9	+2.1
CART				*e*Sn	Sn	23 00 10.0	+1.2
ETOB	Tobarra	2.33	47	Pn	Pn	22 59 43.1	+0.9
ETOB				Pg	Pg	22 59 47.5	-0.3
ETOB				Lg		23 00 20.0	
ETOB	Tobarra	2.33	47	Pn	Pn	22 59 43.1	+0.9
	12nm,0.3s,SNR=28						
ETOB				Pg	Pg	22 59 47.1	-0.7
	24nm,0.3s,SNR=15						
ETOB				Sn	Sn	23 00 12.0	+0.7
	2.1nm,0.6s,SNR=7.9						
ETOB				Lg		23 00 20.0	
	24nm,0.3s,SNR=4.6						
ETOB	Tobarra	2.33	47	Pn	Pn	22 59 43.1	+0.9
	12nm,0.3s,SNR=28						
ETOB	Tobarra	2.33	47	Pg	Pg	22 59 47.5	-0.3
	24nm,0.3s,SNR=15						
EMIN	Mina Concepcio	2.45	288	Pn	Pn	22 59 43.3	-0.6
EMIN				Pg	Pg	22 59 48.8	-1.3
EMIN				Lg		23 00 21.1	
EMIN	Mina Concepcio	2.45	288	Pn	Pn	22 59 43.3	-0.6
	2.9nm,0.5s,SNR=36						
EMIN				Pg	Pg	22 59 48.7	-1.3
	3.0nm,0.2s,SNR=14						
EMIN				Sn	Sn	23 00 14.3	+0.1
	31nm,1.8s,SNR=7.9						
EMIN				Lg		23 00 22.7	
	30nm,0.4s,SNR=6.7						
EMIN	Mina Concepcio	2.45	288	Pn	Pn	22 59 43.3	-0.5
	2.9nm,0.5s,SNR=36						
EMIN	Mina Concepcio	2.45	288	Pg	Pg	22 59 48.8	-1.3
PAB	San Pablo	2.52	349	*e*Pn	Pn	22 59 47.3	+2.5
PAB				*e*Sn	Sn	23 00 17.6	+1.6
PAB	San Pablo	2.52	349	*e*Pn	Pn	22 59 47.3	+2.5
PAB				*e*Sn	Sn	23 00 17.6	+1.6
ESDC	Sonseca Array	2.61	356	Pn	Pn	22 59 46.9	+0.9
ESDC				Pg	Pg	22 59 52.9	-0.3
ESDC				Lg		23 00 26.0	
ESDC	Sonseca Array	2.61	356	Pn	Pn	22 59 46.9	+0.9
	0.6nm,0.3s,baz=178,slow=12,SNR=13						
ESDC				Pg	Pg	22 59 52.9	-0.3
	2.2nm,0.3s,baz=173,slow=16,SNR=8.0						
ESDC				Sn	Sn	23 00 18.6	+0.4
	17nm,0.5s,baz=157,slow=30,SNR=7.9						
ESDC				Lg		23 00 28.4	
	9.0nm,0.3s,baz=176,slow=28,SNR=17						
ESDC	Sonseca Array	2.61	356	Pn	Pn	22 59 46.9	+0.9
	0.6nm,0.3s,SNR=13						
ESDC	Sonseca Array	2.61	356	Pg	Pg	22 59 52.8	-0.4
ESLA	Sonseca Array	2.61	356	*e*Pn	Pn	22 59 48.1	+2.1
ESLA				*e*Pg	Pg	22 59 55.0	+1.9
ESLA				*e*Sn	Sn	23 00 20.2	+2.0
ESLA				*e*Sg	Sg	23 00 30.5	+3.5
ESLA	Sonseca Array	2.61	356	*e*Pn	Pn	22 59 48.1	+2.1
ESLA	Sonseca Array	2.61	356	*e*Pg	Pg	22 59 55.0	+1.8
PBAR	Barrancos	2.86	294	*e*Pn	Pn	22 59 49.1	-0.3
PBAR				*e*Sg	Sg	23 00 35.5	+0.6
PBAR				A		23 00 47.8	
	23nm,0.6s						
PBAR	Barrancos	2.86	294	Pn	Pn	22 59 49.1	-0.3
PBAR				Lg		23 00 35.5	
	11nm,0.6s						
PBAR	Barrancos	2.86	294	*e*Pn	Pn	22 59 49.1	-0.3
PBAR				*e*Sg	Sg	23 00 35.5	+0.6
	23nm,0.6s						
TZK	Tazeka	2.99	187	*i* P	Pn	22 59 52.0	+0.7
TZK				*i* S	Sn	23 00 28.0	+0.4
EGRO	El Granado	3.04	280	Pn	Pn	22 59 51.5	-0.3
EGRO				Sn	Sn	23 00 27.7	-0.9
EGRO				Lg		23 00 41.1	
EGRO	El Granado	3.04	280	Pn	Pn	22 59 51.5	-0.3
	3.9nm,0.3s,SNR=15						
EGRO				Sn	Sn	23 00 27.7	-0.9
	3.7nm,0.3s,SNR=5.1						
EGRO				Lg		23 00 41.1	
	12nm,0.4s,SNR=5.0						
EGRO	El Granado	3.04	280	Pn	Pn	22 59 51.5	-0.4
	3.9nm,0.3s,SNR=15						
EGRO				Sn	Sn	23 00 27.7	-0.9
	3.7nm,0.3s,SNR=5.1						
EBAD	Badajoz	3.10	304	Pn	Pn	22 59 53.0	+0.2
EBAD				Pg	Pg	23 00 00.3	-2.2
EBAD				Sn	Sn	23 00 28.7	-1.6
EBAD				Lg		23 00 44.2	
EBAD	Badajoz	3.10	304	Pn	Pn	22 59 53.0	+0.2
	3.8nm,0.6s,SNR=8.5						
EBAD				Pg	Pg	23 00 00.3	-2.2
	3.1nm,0.2s,SNR=7.9						
EBAD				Sn	Sn	23 00 29.1	-1.2
	6.8nm,0.3s,SNR=4.8						
EBAD				Lg		23 00 44.2	
	20nm,0.5s,SNR=5.0						
EBAD	Badajoz	3.10	304	Pn	Pn	22 59 53.0	+0.2
	3.8nm,0.6s,SNR=8.5						
EBAD	Badajoz	3.10	304	Pg	Pg	23 00 00.3	-2.2
	3.1nm,0.2s,SNR=7.9						
EBAD				Sn	Sn	23 00 28.7	-1.6
	6.8nm,0.3s,SNR=4.8						
PVAQ	Vaqueiros	3.21	277	*e*Pn	Pn	22 59 53.4	-0.8
PVAQ				*e*Sn	Sn	23 00 32.4	-0.4
PVAQ				A		23 00 54.2	
	11nm,0.4s						
PVAQ	Vaqueiros	3.21	277	Pn	Pn	22 59 53.4	-0.8
PVAQ				Sn	Sn	23 00 32.4	-0.4
	5.6nm,0.4s						
PVAQ	Vaqueiros	3.21	277	*e*Pn	Pn	22 59 53.4	-0.8
PVAQ				*e*Sn	Sn	23 00 32.4	-0.4
	11nm,0.4s						
EBEN	Beniarda	3.21	58	Pn	Pn	22 59 55.2	+0.8
EBEN				Sn	Sn	23 00 32.8	-0.3
EBEN				Lg		23 00 47.6	
EBEN	Beniarda	3.21	58	Pn	Pn	22 59 55.2	+0.8
	6.0nm,0.8s,SNR=26						
EBEN				Pg	Pg	23 00 02.8	-1.9
	4.3nm,1.3s,SNR=7.9						
EBEN				Sn	Sn	23 00 32.8	-0.3
	23nm,0.9s,SNR=7.9						
EBEN				Lg		23 00 47.6	
	9.8nm,0.5s,SNR=5.0						
EBEN	Beniarda	3.21	58	Pn	Pn	22 59 55.2	+0.9
	6.0nm,0.8s,SNR=26						
EBEN				Sn	Sn	23 00 32.8	-0.2
	23nm,0.9s,SNR=7.9						
ECHE	Chera	3.32	40	Pn	Pn	22 59 56.9	+1.1
ECHE				Pg	Pg	23 00 05.6	-1.2
ECHE				Lg		23 00 51.4	
ECHE	Chera	3.32	40	Pn	Pn	22 59 56.9	+1.1
	0.5nm,0.5s,SNR=7.9						
ECHE				Pg	Pg	23 00 05.6	-1.2
	11nm,0.4s,SNR=7.9						
ECHE				Sn	Sn	23 00 35.3	-0.4
	5.2nm,2.3s,SNR=7.9						
ECHE				Lg		23 00 51.4	
	8.5nm,0.4s,SNR=7.9						
ECHE	Chera	3.32	40	Pn	Pn	22 59 56.9	+1.1
	0.5nm,0.5s,SNR=7.9						
PBDV	Barranco-do-Ve	3.37	274	*e*Pn	Pn	22 59 56.8	+0.4
PBDV				A		23 01 10.4	
	16nm,0.4s						
PBDV	Barranco-do-Ve	3.37	274	Pn	Pn	22 59 56.8	+0.4
PBDV	Barranco-do-Ve	3.37	274	*e*Pn	Pn	22 59 56.8	+0.4
	16nm,0.4s						
PBEJ	Beja	3.43	287	*e*Pn	Pn	22 59 57.6	+0.3
PBEJ				A		23 01 08.8	
	10nm,0.5s						
PBEJ	Beja	3.43	287	Pn	Pn	22 59 57.6	+0.3
PBEJ	Beja	3.43	287	*e*Pn	Pn	22 59 57.6	+0.3
	10nm,0.5s						
PESTR	Estremoz	3.55	302	*e*Pn	Pn	22 59 59.6	+0.7
PESTR				*e*Sn	Sn	23 00 40.6	-0.6
PESTR				A		23 01 06.9	
	16nm,0.6s						
PESTR				A		23 01 06.9	
	8.4nm,0.5s						
PESTR	Estremoz	3.55	302	*e*Pn	Pn	22 59 59.6	+0.7
PESTR				*e*Sn	Sn	23 00 40.6	-0.6
	8.4nm,0.5s						
GUD	Guadarrama	3.59	355	Pn	Pn	23 00 00.3	+0.9
GUD				Pg	Pg	23 00 11.4	-0.4
GUD				Lg		23 00 58.2	
GUD	Guadarrama	3.59	355	Pn	Pn	23 00 00.3	+0.9
	34nm,2.2s,SNR=7.9						
GUD				Pg	Pg	23 00 10.3	-1.6
	2.8nm,0.2s,SNR=7.9						
GUD				Sn	Sn	23 00 42.4	+0.1
	9.7nm,1.2s,SNR=7.9						
GUD				Lg		23 00 58.8	
	16nm,0.3s,SNR=7.9						
GUD	Guadarrama	3.59	355	Pn	Pn	23 00 00.3	+0.8
	34nm,2.2s,SNR=7.9						
GUD	Guadarrama	3.59	355	Pg	Pg	23 00 11.4	-0.5
	2.8nm,0.2s,SNR=7.9						
EVO	Evora	3.70	295	*e*Pn	Pn	23 00 01.7	+0.7
EVO				*e*Sn	Sn	23 00 44.8	-0.2
EVO				*e*Sg	Sg	23 01 02.5	+0.5
EVO				A		23 01 12.9	
	14nm,0.4s						
EVO	Evora	3.70	295	Pn	Pn	23 00 01.7	+0.7
EVO				Sn	Sn	23 00 44.8	-0.2
EVO				Lg		23 01 02.5	
	6.8nm,0.4s						
EVO	Evora	3.70	295	*e*Pn	Pn	23 00 01.7	+0.7
EVO				*e*Sn	Sn	23 00 44.8	-0.2
EVO				*e*Sg	Sg	23 01 02.5	+0.5
	14nm,0.4s						
MORF	Marmelete	3.94	275	*e*Pn	Pn	23 00 04.7	+0.4
MORF				*e*Sn	Sn	23 00 51.3	+0.3
MORF				A		23 01 15.4	
	8.2nm,0.3s						
MORF	Marmelete	3.94	275	Pn	Pn	23 00 04.7	+0.4
MORF	Marmelete	3.94	275	*e*Pn	Pn	23 00 04.7	+0.4
MORF				*e*Sn	Sn	23 00 51.3	+0.3
	8.2nm,0.3s						
MOE	Montemor	3.94	293	*e*Pn	Pn	23 00 05.1	+0.7
MOE				*e*Sn	Sn	23 00 49.7	-1.3
MOE	Montemor	3.94	293	Pn	Pn	23 00 05.1	+0.7
MOE				Sn	Sn	23 00 49.7	-1.3
MOE	Montemor	3.94	293	*e*Pn	Pn	23 00 05.1	+0.7
MOE				*e*Sn	Sn	23 00 49.7	-1.3
ETOR	Torete	3.97	19	Pn	Pn	23 00 06.3	+1.7
ETOR				Pg	Pg	23 00 19.7	+0.6
ETOR				Lg		23 01 09.4	
ETOR	Torete	3.97	19	Pn	Pn	23 00 05.9	+1.2
	6.4nm,0.3s,SNR=18						
ETOR				Pg	Pg	23 00 17.5	-1.6
	24nm,0.3s,SNR=14						
ETOR				Sn	Sn	23 00 50.9	-0.7
	4.2nm,2.3s,SNR=7.9						
ETOR				Lg		23 01 12.3	
	54nm,0.4s,SNR=7.3						
ETOR	Torete	3.97	19	Pn	Pn	23 00 06.3	+1.6
	6.4nm,0.3s,SNR=18						
ETOR	Torete	3.97	19	Pg	Pg	23 00 19.7	+0.6
	24nm,0.3s,SNR=14						
PTEO	Sao Teotonio	4.02	278	*e*Pn	Pn	23 00 07.0	+1.6
PTEO				*e*Sn	Sn	23 00 52.6	-0.2
PTEO	Sao Teotonio	4.02	278	Pn	Pn	23 00 07.0	+1.6
PTEO				Sn	Sn	23 00 52.6	-0.2
PTEO	Sao Teotonio	4.02	278	*e*Pn	Pn	23 00 07.0	+1.6
PTEO				*e*Sn	Sn	23 00 52.6	-0.2
PCBR	Castelo Branco	4.05	314	*e*Pn	Pn	23 00 06.7	+1.0
PCBR				*e*Sn	Sn	23 00 53.3	-0.2
PCBR				A		23 01 19.4	
	11nm,0.4s						
PCBR	Castelo Branco	4.05	314	Pn	Pn	23 00 06.7	+1.0
PCBR				Sn	Sn	23 00 53.3	-0.2
	5.3nm,0.4s						
PCBR	Castelo Branco	4.05	314	*e*Pn	Pn	23 00 06.7	+1.0
PCBR				*e*Sn	Sn	23 00 53.3	-0.2
	11nm,0.4s						
PFVI	Vila Bisbo	4.08	272	*e*Pn	Pn	23 00 06.0	-0.2
PFVI				*e*Sn	Sn	23 00 51.6	-2.8
PFVI				A		23 01 00.1	
	9.6nm,0.6s						
PFVI	Vila Bisbo	4.08	272	Pn	Pn	23 00 06.0	-0.2
PFVI				Sn	Sn	23 00 51.6	-2.8
	4.8nm,0.6s						
PFVI	Vila Bisbo	4.08	272	*e*Pn	Pn	23 00 06.0	-0.2
PFVI				*e*Sn	Sn	23 00 51.6	-2.8
	9.6nm,0.6s						
EMOS	Mosqueruela	4.16	37	Pn	Pn	23 00 10.2	+2.9
EMOS				Pg	Pg	23 00 22.6	-0.2
EMOS				Sn	Sn	23 00 55.2	-1.1
EMOS				Lg		23 01 17.8	
EMOS	Mosqueruela	4.16	37	Pn	Pn	23 00 08.4	+1.1
	1.4nm,0.3s,SNR=7.2						
EMOS				Pg	Pg	23 00 20.7	-2.1
	9.5nm,0.6s,SNR=8.8						
EMOS				Sn	Sn	23 00 55.2	-1.1
	40nm,2.0s,SNR=7.9						
EMOS				Lg		23 01 17.8	
	11nm,0.6s,SNR=5.0						
EMOS	Mosqueruela	4.16	37	Pn	Pn	23 00 10.2	+2.9
	1.4nm,0.3s,SNR=7.2						
EMOS	Mosqueruela	4.16	37	Pg	Pg	23 00 22.6	-0.2
	9.5nm,0.6s,SNR=8.8						
EMOS				Sn	Sn	23 00 55.2	-1.2
	40nm,2.0s,SNR=7.9						
CZD	Col de Zad	4.17	195	*e*P	Pn	23 00 06.0	-1.4
EIBI	Ibiza	4.45	62	Pn	Pn	23 00 11.5	+0.2
EIBI	Ibiza	4.45	62	Pn	Pn	23 00 11.5	+0.2
	13nm,0.8s,SNR=8.3						
EIBI				Sn	Sn	23 01 01.3	-2.3
	26nm,2.3s,SNR=7.9						
EIBI	Ibiza	4.45	62	Pn	Pn	23 00 11.5	+0.2
	13nm,0.8s,SNR=8.3						
MTE	Manteigas	4.47	319	*e*Sg	Sg	23 01 28.4	+1.6
MTE				A		23 01 45.4	
	22nm,0.6s						
MTE	Manteigas	4.47	319	Lg		23 01 28.4	
	11nm,0.6s						
PTOM	Tomar	4.48	306	*e*Pn	Pn	23 00 12.3	+0.6
PTOM				*e*Sn	Sn	23 01 03.3	-1.0
PTOM				*e*Sg	Sg	23 01 28.2	+1.2
PTOM				A		23 01 41.7	
	14nm,0.4s						
PTOM	Tomar	4.48	306	Pn	Pn	23 00 12.3	+0.6
PTOM				Sn	Sn	23 01 03.3	-1.0
PTOM				Lg		23 01 28.2	
	7.1nm,0.4s						
PMAFR	Mafra	4.78	295	*e*Pn	Pn	23 00 17.5	+1.7
PMAFR	Mafra	4.78	295	Pn	Pn	23 00 17.5	+1.7
PVIS	Viseu	4.89	320	*e*Pn	Pn	23 00 17.9	+0.6
PVIS				*e*Sn	Sn	23 01 13.5	-0.8
PVIS				A		23 01 50.0	
	7.1nm,0.5s						
PVIS	Viseu	4.89	320	Pn	Pn	23 00 17.9	+0.6
PVIS				Sn	Sn	23 01 13.5	-0.8
	3.5nm,0.5s						

ERTA	**Horta de San J**	**5.01**	**38**	Pn	**Pn**	**23 00 20.3**	**+1.3**
ERTA				Lg		23 01 46.2	
ERTA	**Horta de San J**	**5.01**	**38**	Pn	**Pn**	**23 00 18.9**	**-0.1**
	0.5nm,1.1s,SNR=7.9						
ERTA				Pg	**Pg**	**23 00 35.4**	**-3.7**
	0.1nm,1.7s,SNR=7.9						
ERTA				Sn	**Sn**	**23 01 15.1**	**-2.1**
	5.9nm,0.9s,SNR=7.9						
ERTA				Lg		23 01 45.1	
	8.5nm,0.5s,SNR=7.9						
ERTA	**Horta de San J**	**5.01**	**38**	Pn	**Pn**	**23 00 20.3**	**+1.3**
	0.5nm,1.1s,SNR=7.9						
PVRL	**Vila Real**	**5.22**	**325**	*e*Pn	**Pn**	**23 00 22.8**	**+0.9**
PVRL				*e*Sn	**Sn**	**23 01 20.9**	**-1.7**
PVRL				A		23 02 02.7	
	6.7nm,0.5s						
PVRL	**Vila Real**	**5.22**	**325**	Pn	**Pn**	**23 00 22.8**	**+0.9**
PVRL				Sn	**Sn**	**23 01 20.9**	**-1.7**
	3.3nm,0.5s						
EPOB	**Poblet**	**5.68**	**40**	Pn	**Pn**	**23 00 28.7**	**+0.6**
EPOB	**Poblet**	**5.68**	**40**	Pn	**Pn**	**23 00 28.7**	**+0.6**
	1.0nm,0.4s,SNR=7.9						
EPOB				Pg	**Pg**	**23 00 47.3**	**-4.5**
	0.2nm,0.3s,SNR=7.9						
EPOB				Sn	**Sn**	**23 01 31.8**	**-2.0**
	0.9nm,1.8s,SNR=7.9						
EPOB				Lg		23 02 06.0	
	3.7nm,3.0s,SNR=7.9						
EPOB	**Poblet**	**5.68**	**40**	Pn	**Pn**	**23 00 28.7**	**+0.6**
	1.0nm,0.4s,SNR=7.9						
ETOS	**Mallorca**	**5.80**	**60**	Pn	**Pn**	**23 00 30.3**	**+0.4**
ETOS	**Mallorca**	**5.80**	**60**	Pn	**Pn**	**23 00 30.3**	**+0.4**
	1.7nm,0.4s,SNR=7.9						
ETOS				Sn	**Sn**	**23 01 34.1**	**-2.7**
	0.6nm,2.4s,SNR=7.9						
ETOS	**Mallorca**	**5.80**	**60**	Pn	**Pn**	**23 00 30.3**	**+0.5**
	1.7nm,0.4s,SNR=7.9						
ELOB	**Lobios**	**5.85**	**326**	Pn	**Pn**	**23 00 31.6**	**+1.0**
ELOB				Sn	**Sn**	**23 01 34.0**	**-4.1**
ELOB				Lg		23 02 12.4	
ELOB	**Lobios**	**5.85**	**326**	Pn	**Pn**	**23 00 31.6**	**+1.0**
	0.3nm,0.2s,SNR=7.9						
ELOB				Pg	**Pg**	**23 00 51.1**	**-4.1**
	0.7nm,1.5s,SNR=7.9						
ELOB				Sn	**Sn**	**23 01 35.3**	**-2.8**
	0.5nm,0.3s,SNR=7.9						
ELOB				Lg		23 02 12.4	
	2.3nm,0.3s,SNR=7.9						
ELOB	**Lobios**	**5.85**	**326**	Pn	**Pn**	**23 00 31.6**	**+1.0**
	0.3nm,0.2s,SNR=7.9						
ELAN	**Lanestosa**	**6.16**	**2**	Pn	**Pn**	**23 00 35.7**	**+0.9**
ELAN				Lg		23 02 22.8	
ELAN	**Lanestosa**	**6.16**	**2**	Pn	**Pn**	**23 00 35.7**	**+0.9**
	5.8nm,0.8s,SNR=7.5						
ELAN				Pg	**Pg**	**23 00 56.9**	**-4.2**
	5.5nm,1.6s,SNR=7.9						
ELAN				Sn	**Sn**	**23 01 43.0**	**-2.7**
	4.5nm,2.3s,SNR=7.9						
ELAN				Lg		23 02 22.8	
	11nm,0.7s,SNR=7.9						
ELAN	**Lanestosa**	**6.16**	**2**	Pn	**Pn**	**23 00 35.7**	**+0.9**
ETSF	**Etsaut**	**6.31**	**22**	*e*Pn	**Pn**	**23 00 38.5**	**+1.6**
ETSF				*e*Sn	**Sn**	**23 01 45.9**	**-3.5**
ETSF				*e*Sg	**Sg**	**23 02 24.5**	**-1.2**
	2.7nm,0.5s						
ETSF	**Etsaut**	**6.31**	**22**	*e*Pn	**Pn**	**23 00 38.5**	**+1.6**
ETSF				*e*Sn	**Sn**	**23 01 45.9**	**-3.5**
ETSF				*e*Sg	**Sg**	**23 02 24.5**	**-1.2**
ETSF	**Etsaut**	**6.31**	**22**	Pn	**Pn**	**23 00 38.5**	**+1.6**
ETSF				Sn	**Sn**	**23 01 45.9**	**-3.5**
ETSF	**Etsaut**	**6.31**	**22**	*e*Pn	**Pn**	**23 00 38.5**	**+1.6**
ETSF				*e*Sg	**Sg**	**23 02 24.5**	**-1.2**
	1.4nm,0.5s						
EMIR	**Miracle**	**6.32**	**38**	Pn	**Pn**	**23 00 37.3**	**+0.4**
EMIR	**Miracle**	**6.32**	**38**	Pn	**Pn**	**23 00 37.3**	**+0.4**
	3.1nm,0.4s,SNR=4.6						
EMIR	**Miracle**	**6.32**	**38**	Pn	**Pn**	**23 00 37.3**	**+0.4**
ELIZ	**Elizondo**	**6.32**	**15**	Pn	**Pn**	**23 00 39.1**	**+2.2**
ELIZ	**Elizondo**	**6.32**	**15**	Pn	**Pn**	**23 00 37.8**	**+0.9**
	2.8nm,0.4s,SNR=7.9						
ELIZ	**Elizondo**	**6.32**	**15**	Pn	**Pn**	**23 00 39.2**	**+2.2**
EARI	**Arriondas**	**6.33**	**350**	Pn	**Pn**	**23 00 37.5**	**+0.4**
EARI				Lg		23 02 24.4	
EARI	**Arriondas**	**6.33**	**350**	Pn	**Pn**	**23 00 37.5**	**+0.4**
	0.0nm,0.4s,SNR=7.9						
EARI				Pg	**Pg**	**23 01 00.1**	**-4.3**
	0.5nm,1.2s,SNR=7.9						
EARI				Sn	**Sn**	**23 01 46.8**	**-3.1**
	6.3nm,1.1s,SNR=7.9						
EARI				Lg		23 02 28.1	
	2.7nm,0.6s,SNR=7.9						
EARI	**Arriondas**	**6.33**	**350**	Pn	**Pn**	**23 00 37.5**	**+0.4**
SJPF	**Ste Jean**	**6.34**	**17**	*e*Pn	**Pn**	**23 00 38.0**	**+0.8**
SJPF				*e*Sn	**Sn**	**23 01 47.0**	**-3.0**
SJPF				*e*Sg	**Sg**	**23 02 25.2**	**-1.3**
	3.2nm,0.3s						
SJPF	**Ste Jean**	**6.34**	**17**	*e*Pn	**Pn**	**23 00 38.0**	**+0.8**
SJPF				*e*Sn	**Sn**	**23 01 47.0**	**-3.0**
SJPF				*e*Sg	**Sg**	**23 02 25.2**	**-1.3**
SJPF	**Ste Jean**	**6.34**	**17**	Pn	**Pn**	**23 00 38.0**	**+0.8**
SJPF				Sn	**Sn**	**23 01 47.0**	**-3.0**
SJPF	**Ste Jean**	**6.34**	**17**	*e*Pn	**Pn**	**23 00 38.0**	**+0.8**
SJPF				*e*Sg	**Sg**	**23 02 25.2**	**-1.3**
	1.6nm,0.3s						
EBIE	**Bielsa**	**6.35**	**27**	Pn	**Pn**	**23 00 39.5**	**+2.1**
EBIE				Sn	**Sn**	**23 01 46.5**	**-3.9**
EBIE	**Bielsa**	**6.35**	**27**	Pn	**Pn**	**23 00 38.4**	**+1.0**
	1.1nm,0.4s,SNR=5.6						
EBIE				Pg	**Pg**	**23 01 01.2**	**-3.5**
	0.1nm,0.6s,SNR=7.9						
EBIE				Sn	**Sn**	**23 01 47.9**	**-2.4**
	1.0nm,0.4s,SNR=7.9						
EBIE				Lg		23 02 29.2	
	1.5nm,2.4s,SNR=7.9						
EBIE	**Bielsa**	**6.35**	**27**	Pn	**Pn**	**23 00 39.5**	**+2.1**
EPF	**Esparros**	**6.72**	**26**	*e*Pn	**Pn**	**23 00 43.6**	**+1.1**
EPF				*e*Sn	**Sn**	**23 01 56.2**	**-3.3**
EPF				*e*Sg	**Sg**	**23 02 37.7**	**-1.2**
	3.4nm,0.5s						
EPF	**Esparros**	**6.72**	**26**	*e*Pn	**Pn**	**23 00 43.6**	**+1.1**
EPF				*e*Sn	**Sn**	**23 01 56.2**	**-3.3**
EPF				*e*Sg	**Sg**	**23 02 37.7**	**-1.2**
EPF	**Esparros**	**6.72**	**26**	Pn	**Pn**	**23 00 43.6**	**+1.1**
EPF				Sn	**Sn**	**23 01 56.2**	**-3.3**
EPF	**Esparros**	**6.72**	**26**	*e*Pn	**Pn**	**23 00 43.6**	**+1.1**
EPF				*e*Sg	**Sg**	**23 02 37.7**	**-1.2**
	1.7nm,0.5s						
LFF	**La Frestale**	**8.56**	**22**	*e*Pn	**Pn**	**23 01 06.7**	**-1.0**
LFF	**La Frestale**	**8.56**	**22**	*e*P	**Pn**	**23 01 12.5**	**+4.8**
LFF	**La Frestale**	**8.56**	**22**	*e*Pn	**Pn**	**23 01 06.7**	**-1.0**
LFF				*e*P		23 01 12.5	
LFF	**La Frestale**	**8.56**	**22**	Pn	**Pn**	**23 01 06.7**	**-1.0**
LFF	**La Frestale**	**8.56**	**22**	*e*Pn	**Pn**	**23 01 06.7**	**-1.0**
LFF	**La Frestale**	**8.56**	**22**	*e*P	**Pn**	**23 01 12.5**	**+4.8**
SGMF	**Saint Gilles**	**11.21**	**4**	*e*Pn	**Pn**	**23 01 43.7**	**-0.4**
SGMF	**Saint Gilles**	**11.21**	**4**	*e*Pn	**Pn**	**23 01 43.7**	**-0.4**
SGMF	**Saint Gilles**	**11.21**	**4**	Pn	**Pn**	**23 01 43.7**	**-0.4**
SGMF	**Saint Gilles**	**11.21**	**4**	*e*Pn	**Pn**	**23 01 43.7**	**-0.4**
FLN	**La Foliniere**	**11.93**	**10**	*e*Pn	**Pn**	**23 01 52.7**	**-1.1**
FLN	**La Foliniere**	**11.93**	**10**	*e*Pn	**Pn**	**23 01 52.7**	**-1.1**
FLN	**La Foliniere**	**11.93**	**10**	Pn	**Pn**	**23 01 52.7**	**-1.1**
FLN	**La Foliniere**	**11.93**	**10**	*e*Pn	**Pn**	**23 01 52.7**	**-1.1**

BJI ***27*** *23:02:27.0, 0.99N×127.96E, h150^{km}, mB5.0, mb4.7*

MOS ***27*** *23:02:33.1±0.9, 1.59N×127.39E, h154^{km}, mb4.5/16, Error ellipse: s-maj=16.5km s-min=7.7km az=107.8*

IDC ***27*** *23:02:34.4±0.8, 1.44N×127.22E, h155^{km}±7^{km}, mb4.1/15, mb1 4.1/16, mb1mx4.1/20, mbtmp4.1/16, Error ellipse: s-maj=24.4km s-min=7.5km az=76.0*

NEIC ***27*** *23:02:34.1±0.2, 1.53N×127.45E, mb4.6/23, Error ellipse: s-maj=9.0km s-min=4.6km az=72.0*

ISCJB ***27*** *23:02:35.4±1.4, 1.53N±0.04×127.41E±0.07, h177^{km}±13^{km}, mb4.5/45, Error ellipse: s-maj=11.4km s-min=5.5km az=165.0*

ISC 27 23:02:36.4±1.4**, 1.49N**±0.04×**127.43E**±0.07**, h172**^{km}±13^{km}**, h156**^{km}±3.3^{km}**:pP-P, n103, σ0^{s}.87**/99**, mb4.5**/45**, 8C, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KKM	**Kota Kinabalu**	**12.07**	**292**	*e*Pn	**Pn**	**23 05 21.8**	**-1.2**
KAKA	**Kakadu**	**14.96**	**161**	*e*P	**Pn**	**23 06 02.3**	**+2.8**
	18nm,0.6s						
KAKA	**Kakadu**	**14.96**	**161**	*e*P	**Pn**	**23 05 58.5**	**-1.0**
KSM	**Kuching**	**17.12**	**270**	*e*P	**Pn**	**23 06 25.1**	**-0.5**
FITZ	**Fitzroy Crossi**	**19.55**	**185**	*e*P	**P**	**23 06 49.7**	**-1.3**
	6.9nm,0.6s						
FITZ				*e*S	**S**	**23 10 19.3**	**-3.3**
FITZ	**Fitzroy Crossi**	**19.55**	**185**	P	**P**	**23 06 50.6**	**-0.5**
	0.3nm,0.3s,baz=12,slow=12,SNR=13						
FITZ				S	**S**	**23 10 19.1**	**-3.5**
	0.1nm,0.3s,baz=198,slow=19,SNR=3.8						
WRA	**Warramunga Arr**	**22.36**	**163**	P	**P**	**23 07 20.5**	**+0.1**
	8.3nm,0.4s,mb4.5,baz=344,slow=11,SNR=191						
WRA				S	**S**	**23 11 14.1**	**+0.8**
	4.9nm,0.7s,baz=337,slow=20,SNR=16						
WB2	**Warramunga Arr**	**22.36**	**163**	⇑*i*P	**P**	**23 07 20.5**	**+0.1**
WB2				*e*S	**S**	**23 11 12.7**	**-0.7**
PMG	**Port Moresby**	**22.44**	**119**	*e*P	**P**	**23 07 21.6**	**+0.3**
	13nm,0.6s,mb4.5						
PMG	**Port Moresby**	**22.44**	**119**	*e*P	**P**	**23 07 21.6**	**+0.3**
PMG				pmax	pmax		
	comp=Z,13nm,0.6s						
PMG	**Port Moresby**	**22.44**	**119**	P	**P**	**23 07 21.5**	**+0.2**
	comp=Z,13nm,0.6s,mb4.5,baz=144,slow=17,SNR=4.5						
NACB	**Ninganchiao**	**23.24**	**346**	*e*P	**P**	**23 07 28.7**	**+0.2**
MBWA	**Marble Bar**	**23.74**	**198**	*e*P	**P**	**23 07 32.2**	**-0.8**
	comp=Z,7.6nm,0.8s,mb4.3						
YHNB	**Yeheng**	**23.77**	**346**	*e*P	**P**	**23 07 33.2**	**-0.1**
QIZ	**Qiongzhong**	**24.51**	**316**	*e*P	**P**	**23 07 40.5**	**+0.5**
ASAR	**Alice Springs**	**25.79**	**166**	P	**P**	**23 07 52.0**	**+0.4**
	comp=Z,4.7nm,0.5s,mb4.4,baz=348,slow=7.2,SNR=79						
ASAR				pP	pP	23 08 24.4	-2.5
	comp=Z,3.5nm,0.8s,baz=345,slow=8.9,SNR=2.9						
ASAR				PcP	PcP	23 11 16.2	-0.6
	comp=Z,0.7nm,0.4s,baz=356,slow=3.2,SNR=4.4						
ASAR				S	**S**	**23 12 07.1**	**-1.0**
	comp=Z,0.7nm,0.7s,baz=353,slow=21,SNR=3.1						
NJ2	**Nanjing**	**31.45**	**346**	*e*P	**P**	**23 08 40.5**	**-1.2**
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
FORT	**Forrest**	**32.10**	**179**	*e*P	**P**	**23 08 47.6**	**+0.2**
	comp=Z,14nm,0.6s,mb4.9						
KLBR	**Kellerberrin**	**34.16**	**195**	*e*P	**P**	**23 09 05.5**	**+0.3**
	comp=Z,30nm,1.1s,mb4.9						
NWAO	**Narrogin (SRO)**	**35.56**	**195**	P	**P**	**23 09 17.3**	**0.0**
KSRS	**Korea Array**	**35.79**	**1**	P	**P**	**23 09 19.5**	**+0.4**
	comp=Z,4.3nm,0.5s,mb4.4,baz=177,slow=9.9,SNR=14						
STKA	**Stephens Creek**	**35.80**	**159**	*e*P	**P**	**23 09 20.2**	**+0.9**
	comp=Z,27nm,0.6s,mb5.1						
STKA	**Stephens Creek**	**35.80**	**159**	*e*P	**P**	**23 09 19.9**	**+0.6**
STKA	**Stephens Creek**	**35.80**	**159**	P	**P**	**23 09 20.2**	**+0.9**
	comp=Z,39nm,0.8s,mb5.1,baz=334,slow=8.2,SNR=70						
STKA				PcP	PcP	23 11 43.4	+0.2
	comp=Z,2.5nm,0.6s,baz=353,slow=6.8,SNR=3.6						
MAJO	**Matsushiro**	**36.27**	**15**	P	**P**	**23 09 23.1**	**-0.1**
MJAR	**Matsushiro Arr**	**36.27**	**15**	P	**P**	**23 09 21.8**	**-1.4**
	comp=Z,2.1nm,0.8s,mb3.8,baz=181,slow=9.0,SNR=5.2						
XAN	**Xi'an**	**36.72**	**334**	P	**P**	**23 09 27.3**	**+0.3**
XAN				AMB	AMB		
	comp=Z,17nm,0.9s,mb4.7						
ARMA	**Armidale**	**39.23**	**146**	*e*P	**P**	**23 09 50.2**	**+2.1**
BJT	**Baijiatuau**	**39.69**	**346**	*e*P	**P**	**23 09 49.9**	**-1.9**
	comp=Z,8.3nm,0.6s,mb4.5						
BJT	**Baijiatuau**	**39.69**	**346**	*e*P	**P**	**23 09 49.9**	**-1.9**
BJT				pmax	pmax		
	comp=Z,8.0nm,0.6s						
BJI	**Beijing**	**39.71**	**346**	P	**P**	**23 09 51.8**	**-0.1**
BJI				AMB	AMB		
	comp=Z,14nm,0.6s,mb4.8						
LZH	**Lanzhou**	**40.77**	**330**	⇑P	**P**	**23 10 02.3**	**+1.5**
LZH				AMB	AMB		
	comp=Z,25nm,1.3s,mb4.7						
MDJ	**Mudanjiang**	**42.98**	**2**	*e*P	**P**	**23 10 19.0**	**+0.4**
	comp=Z,3.7nm,0.6s,mb4.2						
LSA	**Lhasa**	**44.45**	**313**	P	**P**	**23 10 33.0**	**+2.5**
LSA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.7						
LSA	**Lhasa**	**44.45**	**313**	*e*P	**P**	**23 10 31.7**	**+1.2**
	comp=Z,13nm,0.6s,mb4.7						
LSA	**Lhasa**	**44.45**	**313**	*e*P	**P**	**23 10 31.7**	**+1.2**
LSA				pmax	pmax		
	comp=Z,13nm,0.6s,mb4.7						
GTA	**Gaotai**	**45.36**	**330**	*e*P	**P**	**23 10 38.8**	**+1.2**
GTA				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.3						
TAPN	**Taplejung**	**45.91**	**308**	*e*P	**P**	**23 10 43.1**	**+1.0**
	comp=Z,9.8nm,0.5s,mb4.7						
ODAN	**Odare**	**45.95**	**307**	*e*P	**P**	**23 10 43.3**	**+1.0**
	comp=Z,19nm,0.7s,mb4.8						
PALK	**Pallekele**	**46.92**	**279**	P	**P**	**23 10 48.6**	**-1.5**
YSS	**Yuzh-Sakhalins**	**47.21**	**14**	P	**P**	**23 10 51.5**	**-0.3**
JIRN	**Jiri**	**47.26**	**307**	*e*P	**P**	**23 10 53.8**	**+1.3**
	comp=Z,18nm,0.3s,mb5.1						
TAU	**Tasmania Unive**	**47.69**	**160**	P	**P**	**23 10 55.6**	**0.0**
KKN	**Kakani**	**48.04**	**307**	*e*P	**P**	**23 10 59.3**	**+0.7**
	comp=Z,26nm,0.8s,mb4.9						
KKN	**Kakani**	**48.04**	**307**	*e*P	**P**	**23 10 59.3**	**+0.7**
KKN				pmax	pmax		
	comp=Z,26nm,0.8s,mb4.9						
HIA	**Hailar**	**48.05**	**353**	⇑*e*P	**P**	**23 10 58.9**	**+0.7**
GKN	**Gorkha**	**48.64**	**307**	*e*P	**P**	**23 11 03.7**	**+0.5**
	comp=Z,25nm,0.8s,mb4.9						
ULN	**Ulaanbaatar**	**49.45**	**342**	*e*P	**P**	**23 11 09.2**	**+0.3**
	comp=Z,5.8nm,0.9s,mb4.2						
ULN	**Ulaanbaatar**	**49.45**	**342**	⇑*e*P	**P**	**23 11 09.3**	**+0.4**
SONM	**Songino Array**	**49.63**	**341**	P	**P**	**23 11 10.7**	**+0.4**
	comp=Z,2.1nm,0.6s,mb3.9,baz=156,slow=8.4,SNR=17						
SONM				pP	pP	23 11 43.3	-5.6
	comp=Z,0.6nm,0.7s,baz=156,slow=7.3,SNR=1.8						
SONM				PcP	PcP	23 12 29.5	+0.4
	comp=Z,1.8nm,0.8s,baz=156,slow=3.6,SNR=6.6						
HYB	**Hyderabad**	**50.55**	**291**	*e*P	**P**	**23 11 18.5**	**+0.7**
HYB	**Hyderabad**	**50.55**	**291**	*i* P	**P**	**23 11 18.5**	**+0.7**
HYB				*e*pP	pP	23 11 54.0	-2.5
ZAK	**Zakamensk**	**52.85**	**341**	⇑*e*P	**P**	**23 11 33.3**	**-0.9**
ZAK				*i*		23 12 41.8	
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.6s,mb3.3						
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
ZAK				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.5						
BOD	**Bodaibo**	**57.16**	**351**	*e*P	**P**	**23 12 04.6**	**-0.4**
BOD				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
THN	**Thein Dam**	**57.48**	**308**	*e*P	**P**	**23 12 07.4**	**-0.3**
MK31	**Makanchi Array**	**59.78**	**326**	*e*P	**P**	**23 12 23.6**	**+0.3**
MK31				*e*pP	pP	23 12 59.1	-4.2
MKAR	**Makanchi Array**	**59.78**	**326**	P	**P**	**23 12 23.7**	**+0.4**
	comp=Z,5.7nm,0.4s,mb4.7,baz=121,slow=8.6,SNR=103						
MKAR				pP	pP	23 13 00.2	-3.1
	comp=Z,2.4nm,0.7s,baz=120,slow=8.5,SNR=3.4						
MKAR				PcP	PcP	23 13 08.0	-0.2
	comp=Z,1.4nm,0.5s,baz=130,slow=4.7,SNR=7.3						
YAK	**Yakutsk**	**60.41**	**1**	⇑*e*P	**P**	**23 12 26.7**	**-0.6**
YAK				pmax	pmax		
	comp=Z,14nm,0.7s,mb4.9						
MA2	**Magadan**	**60.70**	**13**	⇑*e*P	**P**	**23 12 29.7**	**+0.4**
MA2				*i* *PP	pP	23 13 11.8	+2.4
MA2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
TKM2	**Tokmak 2**	**61.88**	**319**	*e*P	**P**	**23 12 38.5**	**+0.9**
	comp=Z,5.3nm,0.6s,mb4.5						
TKM2	**Tokmak 2**	**61.88**	**319**	*e*P	**P**	**23 12 38.5**	**+0.9**
TKM2				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.5						
UCH	**Uchtor**	**62.29**	**318**	*e*P	**P**	**23 12 41.7**	**+1.4**
	comp=Z,1.8nm,0.6s,mb4.1						
UCH				*e*		23 13 34.6	
AAK	**Ala-Archa**	**62.48**	**318**	*e*P	**P**	**23 12 41.0**	**-0.6**
	comp=Z,3.6nm,0.9s,mb4.2						
AAK	**Ala-Archa**	**62.48**	**318**	*e*P	**P**	**23 12 41.0**	**-0.6**
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
ZALV	**Zalesovo Beam**	**62.88**	**333**	P	**P**	**23 12 42.9**	**-1.1**
	comp=Z,1.1nm,0.4s,mb4.0,baz=135,slow=6.5,SNR=9.2						
ZALV				pP	pP	23 13 18.4	-5.9
	comp=Z,0.4nm,0.3s,baz=125,slow=4.2,SNR=2.1						
ZAL	**Zalesovo**	**62.89**	**333**	P	**P**	**23 12 42.9**	**-1.1**
ZAL				*PP	pP	23 13 18.5	-5.9
EKS2	**Erkin-Say**	**62.97**	**318**	*e*P	**P**	**23 12 45.6**	**+0.9**
	comp=Z,42nm,1.9s,mb4.9						
KBL	**Kabul**	**63.44**	**308**	*e*P	**P**	**23 12 48.2**	**+0.1**
KBL				*e*		23 13 23.0	
KURK	**Kurchatov**	**63.99**	**328**	*e*P	**P**	**23 12 51.2**	**-0.1**
	comp=Z,16nm,0.9s,mb4.8						
KURK				*e*pP	pP	23 13 30.3	-1.5
KURK	**Kurchatov**	**63.99**	**328**	*e*P	**P**	**23 12 51.2**	**-0.1**
KURK				*e**PP	pP	23 13 30.3	-1.5
KURK				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
CASY	**Casey**	**68.70**	**187**	P	**P**	**23 13 20.4**	**-0.6**
BRVK	**Borovoye**	**69.64**	**327**	*e*P	**P**	**23 13 26.7**	**-0.3**
	comp=Z,7.1nm,0.9s,mb4.4						
BRVK	**Borovoye**	**69.64**	**327**	*e*P	**P**	**23 13 26.7**	**-0.3**
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
TIXI	**Tiksi**	**70.06**	**0**	*e*P	**P**	**23 13 28.4**	**-0.8**
	comp=Z,2.7nm,0.3s,mb4.5						
TIXI	**Tiksi**	**70.06**	**0**	*e*P	**P**	**23 13 28.5**	**-0.7**
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.3						
AKTK	**Aktyubinsk**	**75.84**	**322**	P	**P**	**23 14 03.6**	**0.0**
AKTO	**Aktyubinsk**	**75.84**	**322**	P	**P**	**23 14 03.6**	**0.0**
	comp=Z,5.5nm,0.6s,mb4.3,baz=110,slow=8.4,SNR=25						
ARU	**Arti**	**77.19**	**328**	*e*P	**P**	**23 14 10.1**	**-1.0**
	comp=Z,4.0nm,0.6s,mb4.2						
ARU	**Arti**	**77.19**	**328**	⇑*e*P	**P**	**23 14 10.0**	**-1.1**
ARU				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb4.1						
VNDA	**Vanda**	**81.14**	**173**	*e*P	**P**	**23 14 32.9**	**+0.8**
	comp=Z,4.4nm,0.7s,mb4.2						
VNDA	**Vanda**	**81.14**	**173**	*e*P	**P**	**23 14 32.9**	**+0.8**
VNDA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
VNDA	**Vanda**	**81.14**	**173**	P	**P**	**23 14 32.4**	**+0.3**
	comp=Z,5.7nm,0.7s,mb4.3,baz=323,slow=5.5,SNR=14						
IMA2	**Indian Mountai**	**84.13**	**24**	*e*P	**P**	**23 14 48.4**	**+0.7**
MCK	**McKinley**	**85.84**	**26**	*e*P	**P**	**23 14 56.6**	**+0.3**
SML	**Sawmill**	**85.96**	**28**	*e*P	**P**	**23 14 56.8**	**-0.1**
MALT	**Malatya**	**88.30**	**308**	*e*P	**P**	**23 15 08.9**	**+0.2**
KMBO	**Kilima Mbogo**	**90.21**	**269**	*e*P	**P**	**23 15 19.0**	**+0.9**
	comp=Z,0.8nm,0.4s,mb4.0						
KMBO	**Kilima Mbogo**	**90.21**	**269**	*e*P	**P**	**23 15 19.0**	**+0.8**
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.4s						
INK	**Inuvik**	**91.97**	**22**	P	**P**	**23 15 24.1**	**-1.0**
	comp=Z,0.6nm,0.3s,mb4.1,baz=294,slow=5.8,SNR=4.4						
BRTR	**Keskin Array B**	**91.98**	**310**	P	**P**	**23 15 24.1**	**-1.8**
	comp=Z,0.5nm,0.7s,mb3.7,baz=143,slow=4.3,SNR=4.1						
ARCES	**ARCESS Array B**	**92.78**	**340**	P	**P**	**23 15 27.5**	**-1.3**
ARCES	**ARCESS Array B**	**92.78**	**340**	P	**P**	**23 15 27.5**	**-1.3**
	comp=Z,3.1nm,0.7s,mb4.6,baz=64,slow=5.5,SNR=8.8						
FINES	**FINESS Array B**	**94.12**	**332**	*i* P	**P**	**23 15 35.2**	**0.0**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FINES	**FINESS Array B**	**94.12**	**332**	P	**P**	**23 15 33.0**	**-2.2**
	comp=Z,0.9nm,0.9s,mb3.9,baz=64,slow=4.4,SNR=5.7						
YKA	**Yellowknife Ar**	**101.23**	**25**	P	Pdif	23 16 07.4	+0.1
YKA	**Yellowknife Ar**	**101.23**	**25**	*i* P	Pdif	23 16 08.3	+1.0
YKA	**Yellowknife Ar**	**101.23**	**25**	P	Pdif	23 16 07.4	+0.1
	comp=Z,0.3nm,0.6s,baz=298,slow=4.9,SNR=4.4						
TXAR	**Lajitas Array**	**122.38**	**54**	PKP	PKPdf	23 21 12.4	+0.6
TXAR	**Lajitas Array**	**122.38**	**54**	PKIKP	PKPdf	23 21 12.4	+0.6
TXAR	**Lajitas Array**	**122.38**	**54**	PKP	PKPdf	23 21 12.4	+0.6
	comp=Z,0.4nm,0.8s,baz=187,slow=1.4,SNR=5.0						
TORD	**Torodi Ar. Bea**	**124.25**	**287**	PKP	PKPdf	23 21 14.9	-0.8
TORD	**Torodi Ar. Bea**	**124.25**	**287**	PKP	PKPdf	23 21 14.9	-0.8
	comp=Z,1.7nm,0.8s,baz=37,slow=2.2,SNR=12						
LPAZ	**La Paz**	**158.76**	**135**	PKPab	PKPab	23 22 53.5	+2.5
	comp=Z,1.1nm,0.8s,baz=222,slow=4.1,SNR=4.5						

MEX 27 23:05:22.3±0.7**, 16.79N**×**100.17W, h15**^{km}±23^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	**Acapulco**	**0.26**	**73**	*i* P	Pg	23 05 27.5	-0.3
ACX				*i* S	Sg	23 05 31.3	-0.3
CAIG	**El Cayaco**	**0.27**	**341**	*i* P	Pg	23 05 27.6	-0.5
CAIG				*i* S	Sg	23 05 31.6	-0.4
MEIG	**Mezcala**	**1.25**	**25**	*i* P	Pn	23 05 41.1	-4.1
MEIG				*i* S	Sb	23 05 55.8	-5.6
PLIG	**Platanillo**	**1.71**	**22**	*i* P	Pn	23 05 48.8	-2.9
PLIG				*i* S	Sn	23 06 09.6	-3.8

KRSC 27 23:16:27.3±0.0**, 54.79N**×**162.33E, h22**^{km}±22^{km}**, ML3.6, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKZ	**Mys Kozlova**	**0.42**	**236**	*i* P	Pb	23 16 37.2	+1.2
MKZ				*i* S	Sb	23 16 43.6	+1.6
TUMR	**Tumrok**	**1.35**	**292**	*e*P	Pn	23 16 51.7	+0.9
TUMR				*e*S	Sn	23 17 09.7	+1.7
KBTR	**Krutoberegovo**	**1.45**	**11**	*e*P	Pn	23 16 53.5	+1.4
KBTR				*e*S	Sn	23 17 13.2	+2.8
ZLN	**Zelenaya**	**1.51**	**325**	P	Pn	23 16 55.0	+2.1
KMNR	**Kamenistaya**	**1.54**	**310**	*e*P	Pn	23 16 54.5	+1.1
KMNR				*e*S	Sn	23 17 15.2	+2.5
BZMR	**Bezymyannaya**	**1.56**	**318**	P	Pn	23 16 55.1	+1.5
KIRR	**Kirishev**	**1.63**	**317**	P	Pn	23 16 56.6	+2.0
KIRR				S	Sn	23 17 18.2	+3.4
KPT	**Kopyto**	**1.68**	**315**	P	Pn	23 16 56.5	+1.1
KRSR	**Krestovskiy**	**1.75**	**326**	*e*P	Pn	23 16 56.6	+0.4
KRSR				*e*S	Sn	23 17 18.0	+0.2
KLY	**Klyuchi**	**1.80**	**329**	P	Pn	23 16 57.8	+0.8
KLY				S	Sn	23 17 20.5	+1.4
KII	**Karymskiy**	**1.85**	**247**	*e*P	Pn	23 16 58.6	+1.0
KII				*e*S	Sn	23 17 21.3	+1.1
SMKR	**Semkarok**	**1.86**	**345**	*e*P	Pn	23 16 58.8	+1.0
SMKR				*e*S	Sn	23 17 21.6	+1.0
KOZ	**Kozyrevsk**	**1.89**	**313**	P	Pn	23 16 59.2	+1.0
BDR	**Baidarnaya**	**1.89**	**341**	*e*P	Pn	23 16 59.4	+1.2
SRKR	**Sorokina**	**1.98**	**341**	*e*P	Pn	23 17 00.5	+1.1
SRDR	**Sredinnyy**	**2.13**	**317**	*e*P	Pn	23 17 02.8	+1.3
SRDR				*e*S	Sn	23 17 29.5	+2.2
SPN	**Mys Shipunski**	**2.18**	**220**	*e*P	Pn	23 17 03.7	+1.6
SPN				*e*S	Sn	23 17 29.2	+0.9
NLC	**Nalytchevo**	**2.40**	**229**	*e*P	Pn	23 17 07.2	+2.1
NLC				*e*S	Sn	23 17 35.6	+1.8
AVH	**Avacha**	**2.61**	**236**	*e*P	Pn	23 17 10.1	+2.0
AVH				*e*S	Sn	23 17 41.0	+1.9
GNL	**Ganaly**	**2.80**	**249**	*e*P	Pn	23 17 12.7	+2.0
PET	**Petropavlovsk**	**2.80**	**232**	S	Sn	23 17 45.0	+1.2

NIED ***27*** *23:57:00, 28.70N×128.60E, h107^{km}, Mw4.3 Best double couple: $M_0$3.70000×10^{15} NP1:ϕ_s24.00000°, δ42.00000°, λ32.00000°. NP2:ϕ_s269.00000°, δ69.00000°, λ127.00000°.*

BJI ***27*** *23:57:25.0, 28.47N×128.96E, h125^{km}, mB4.5, mb4.4*

ISCJB ***27*** *23:57:27.1±0.3, 28.57N±0.04×128.72E±0.06, h127^{km}±4^{km}, mb3.9/10, Error ellipse: s-maj=9.6km s-min=4.6km az=26.9*

IDC ***27*** *23:57:27.9±0.8, 28.59N×128.59E, h121^{km}±7^{km}, mb3.6/9, mb1 3.8/12, mb1mx3.7/25, mbtmp3.7/12, Error ellipse: s-maj=21.3km s-min=7.9km az=96.0*

JMA ***27*** *23:57:28.2±0.1, 28.69N×128.59E, h102^{km}, M4.1*

JMA Felt I J1.

NEIC ***27*** *23:57:28.4±0.7, 28.59N×128.62E, h125^{km}±8^{km}, mb4.7/2, MW4.3(NIED), Error ellipse: s-maj=13.6km s-min=7.6km az=89.0*

NEIC Recorded [1 JMA] on Amami-oshima.

MOS ***27*** *23:57:28.6±1.0, 28.60N×128.60E, h149^{km}, mb3.8/6, Error ellipse: s-maj=34.2km s-min=20.9km az=98.1*

ISC 27 23:57:28.2±0.3**, 28.58N**±0.04×**128.71E**±0.06**, h120**^{km}±4^{km}**, n43, σ0^{s}.84**/51**, mb3.9**/10**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAM	**Amami Oshima**	**0.80**	**102**	P	**Pn**	**23 57 47.8**	**-0.6**
JAM				*e*S	**Sn**	**23 58 02.5**	**-1.2**
JTK	**Tokunoshima**	**0.82**	**165**	P	**Pn**	**23 57 48.6**	**0.0**
JTK				*e*S	**Sn**	**23 58 03.8**	**-0.1**
JZK	**Kikaishima**	**1.14**	**103**	P	**Pn**	**23 57 52.5**	**+0.9**
JZK				S	**Sn**	**23 58 10.8**	**+1.4**
JNN	**Nakanoshima**	**1.62**	**39**	P	**Pn**	**23 57 56.1**	**-0.9**
JIH	**Iheya**	**1.67**	**203**	P	**Pn**	**23 57 58.0**	**+0.3**
JIH				*e*S	**Sn**	**23 58 20.4**	**+0.3**
JOW	**Kunigami**	**1.78**	**193**	P	**Pn**	**23 57 58.9**	**-0.1**
JOW	**Kunigami**	**1.78**	**193**	P	**Pn**	**23 57 59.0**	**0.0**
	85nm,0.3s,baz=26,slow=12,SNR=169						
JOW				S	**Sn**	**23 58 22.1**	**-0.4**
	197nm,0.3s,baz=117,slow=27,SNR=26						
JKC	**Kuchinoerabu**	**2.28**	**34**	P	**Pn**	**23 58 04.5**	**-0.6**
JAGN	**Aguni-jima**	**2.37**	**214**	P	**Pn**	**23 58 06.8**	**+0.4**

JAGN				eS	Sn	23 58 35.5	-0.1
NAH1	Naha	2.54	201	P	Pn	23 58 08.9	+0.5
NAH1				S	Sn	23 58 38.8	-0.6
JJT2	Tamagusuku 2	2.58	200	P	Pn	23 58 09.6	+0.6
JKE	Kume jima 2	2.82	218	P	Pn	23 58 12.2	0.0
JTN	Tanegashima 3	2.86	43	P	Pn	23 58 11.3	-1.3
JTSR	Tashiro 2	3.21	36	P	Pn	23 58 16.1	-1.2
JSU	Suzuyama	3.29	27	P	Pn	23 58 18.1	-0.1
JNU	Nakatsue	4.90	22	P	Pn	23 58 40.1	+0.4
	baz=251,slow=6.7						
JNU				S	Sn	23 59 36.6	+1.3
	1.4nm,0.3s,baz=315,slow=16,SNR=4.9						
KSRS	Korea Array	8.88	356	P	Pn	23 59 33.5	+0.1
	0.8nm,0.3s,baz=175,slow=14,SNR=45						
MJAR	Matsushiro Arr	11.27	43	P	Pn	00 00 06.7	+1.1
MJAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MJAR	Matsushiro Arr	11.27	43	P	Pn	00 00 06.7	+1.2
	comp=Z,0.8nm,0.3s,baz=228,slow=15,SNR=4.2						
BJT	Baijiatuau	15.40	321	ePn	Pn	00 00 59.4	+0.6
	comp=Z,37nm,1.0s						
BJI	Beijing	15.41	321	P	Pn	00 01 00.0	+1.1
BJI				AMB	AMB		
	comp=Z,34nm,1.0s						
HHC	Hu-ho-hao-te	18.63	316	eP	P	00 01 37.3	+1.0
HHC				AMB	AMB		
	comp=Z,11nm,0.8s						
HHC				AMB	AMB		
	comp=Z,75nm,5.1s						
SONM	Songino Array	25.86	324	P	P	00 02 48.8	+0.4
SONM				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SONM	Songino Array	25.86	324	P	P	00 02 48.8	+0.4
	comp=Z,4.2nm,1.0s,mb3.8,baz=129,slow=10,SNR=16						
GTA	Gaotai	26.18	302	eP	P	00 02 52.0	+0.7
GTA				AMB	AMB		
	comp=Z,2.0nm,0.7s,mb3.7						
MKAR	Makanchi Array	40.33	310	P	P	00 04 52.6	-1.0
MKAR				PcP	PcP	00 06 53.7	-1.1
MKAR				ScP	ScP	00 10 32.1	-0.9
MKAR	Makanchi Array	40.33	310	P	P	00 04 52.6	-1.1
	comp=Z,0.6nm,0.6s,mb3.6,baz=103,slow=10.0,SNR=8.4						
MKAR				PcP	PcP	00 06 53.7	-1.0
	comp=Z,0.4nm,0.7s,baz=76,slow=3.1,SNR=5.3						
MKAR				ScP	ScP	00 10 32.1	-0.9
	comp=Z,0.3nm,0.7s,baz=97,slow=4.9,SNR=3.8						
ZALV	Zalesovo Beam	40.67	321	P	P	00 04 55.0	-1.3
	comp=Z,0.5nm,0.5s,mb3.6,baz=111,slow=7.9,SNR=4.1						
ZALV				PcP	PcP	00 06 54.9	-0.8
	comp=Z,0.2nm,0.3s,baz=14,slow=6.5,SNR=4.0						
ZAL	Zalesovo	40.68	321	P	P	00 04 55.1	-1.3
ZAL						00 06 54.9	
FITZ	Fitzroy Crossi	46.50	184	eP	P	00 05 43.6	+0.2
	comp=Z,10nm,0.6s,mb4.7						
FITZ	Fitzroy Crossi	46.50	184	P	P	00 05 43.4	0.0
	comp=Z,6.7nm,0.7s,mb4.5,baz=5.0,slow=9.0,SNR=16						
WRA	Warramunga Arr	48.54	173	P	P	00 05 59.0	-0.2
WRA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
WRA	Warramunga Arr	48.54	173	P	P	00 05 59.0	-0.2
	comp=Z,4.1nm,0.8s,mb4.4,baz=352,slow=7.9,SNR=24						
WB2	Warramunga Arr	48.54	173	eP	P	00 05 59.3	+0.1
ASAR	Alice Springs	52.18	174	P	P	00 06 26.8	+0.3
ASAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ASAR	Alice Springs	52.18	174	P	P	00 06 26.8	+0.2
	comp=Z,1.6nm,0.9s,mb4.0,baz=355,slow=6.4,SNR=9.8						
STKA	Stephens Creek	61.36	168	P	P	00 07 31.4	+0.2
	comp=Z,2.3nm,0.8s,mb4.3,baz=4.1,slow=9.7,SNR=5.2						
FINES	FINESS Array B	71.04	330	P	P	00 08 30.4	-2.3
FINES	FINESS Array B	71.04	330	P	P	00 08 30.4	-2.3
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	71.04	330	P	P	00 08 30.4	-2.3
	comp=Z,0.5nm,0.5s,mb3.6,baz=70,slow=6.7,SNR=4.6						
WRAK	Wrangell Islan	71.36	35	P	P	00 08 36.7	+2.0
YKA	Yellowknife Ar	76.23	25	P	P	00 09 02.1	-0.9
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	76.23	25	P	P	00 09 02.1	-0.8
	comp=Z,0.9nm,0.7s,mb3.6,baz=302,slow=4.4,SNR=4.4						

IDC ***28*** *00:06:59.2±2.5, 22.67S×169.72E, h0^{km}, mb3.6/4, mb1 3.8/5, mb1mx3.8/13, mbtmp3.6/5, ML3.4/1, Error ellipse: s-maj=108.0km s-min=30.6km az=165.0*

ISCJB ***28*** *00:07:01.8±6.9, 22.4S±0.2×169.6E±0.1, h20^{km}±47^{km}, mb3.6/4, Error ellipse: s-maj=41.8km s-min=18.2km az=8.6*

ISC 28 00:07:02.3±6.8**, 22.5S**±0.2×**169.6E**±0.1**, h14**^{km}±41^{km}**, n9, σ0^{s}50**/10**, mb3.6**/4**, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	2.96	277	eP	Pn	00 07 48.9	0.0
DZM				eS	Sn	00 08 24.1	-0.2
DZM	Mont Dzumac	2.96	277	Pn	Pn	00 07 49.2	+0.3
	4.3nm,0.3s,baz=114,slow=15,SNR=57						
DZM				Sn	Sn	00 08 24.3	+0.1
	18nm,0.3s,baz=310,slow=23,SNR=6.8						
ASAR	Alice Springs	32.83	261	P	P	00 13 36.0	+0.4
	0.8nm,1.0s,mb3.6,baz=99,slow=8.1,SNR=4.1						
WRA	Warramunga Arr	32.94	268	P	P	00 13 35.7	-0.9
	0.3nm,0.8s,mb3.3,baz=101,slow=8.2,SNR=3.9						
VNA3	Neumayer Olymp	86.56	180	e	P	00 19 44.4	-0.2
VNA2	Neumayer--Watz	86.85	181	e	P	00 19 46.5	+0.4
	baz=177,slow=4.3						
SONM	Songino Array	89.99	323	P	P	00 20 01.9	+0.7
	0.2nm,0.5s,mb3.7,baz=114,slow=9.6,SNR=2.9						
NVAR	Mina Array Bea	90.66	48	P	P	00 20 04.0	-0.5
	0.7nm,0.9s,mb4.0,baz=226,slow=8.1,SNR=3.6						
GERES	GERESS Array B	147.46	330	PKPbc	PKPbc	00 26 45.5	-0.2
	0.4nm,0.4s,baz=28,slow=4.4,SNR=3.6						

PRE 28 00:12:32.2±1.5**, 20.81S×33.46E, h5**^{km}**, ML4.6, Mozambique**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSNA	Messina	3.54	244	eP	Pn	00 13 29.1	+1.2
MSNA				eS	Sn	00 14 11.5	+1.3
MSNA				AML	AML	00 14 21.8	
	comp=Z,271nm,0.2s						
SLR	Silverton	6.83	223	eS	Sn	00 15 28.7	-2.5
SLR				AML	AML	00 16 09.7	
	comp=Z,94nm,0.6s						
ERPM	east rand prop	7.22	220	eP	Pn	00 14 19.6	+1.2
ERPM				eS	Sn	00 15 37.8	-3.0
ERPM				AML	AML	00 16 21.3	
	comp=Z,74nm,0.5s						
KSR	Koster	7.84	229	eP	Pn	00 14 29.0	+2.0
KSR				eS	Sn	00 15 52.9	-3.2
KSR				AML	AML	00 16 31.8	
	comp=Z,68nm,0.5s						
PRYS	Parys	8.26	221	eP	Pn	00 14 34.5	+1.8
PRYS				eS	Sn	00 16 03.3	-3.0
PRYS				AML	AML	00 17 02.9	
	comp=Z,30nm,0.8s						
LBTB	Lobatse	8.37	239	eP	Pn	00 14 34.7	+0.5
LBTB				eS	Sn	00 16 04.8	-4.2
LBTB				AML	AML	00 16 52.2	
	comp=Z,45nm,0.5s						
SEK	Senekal	9.17	214	eP	Pn	00 14 47.0	+1.8
SEK				eS	Sn	00 16 24.2	-4.6
SEK				AML	AML	00 17 51.2	
	comp=Z,38nm,0.7s						
KSD	Kokstad	10.35	200	eP	Pn	00 15 02.9	+1.5
KSD				eS	Sn	00 16 52.7	-5.1
KSD				AML	AML	00 18 08.7	
	comp=Z,25nm,0.7s						
BOSA	Boshof	10.76	222	eP	Pn	00 15 07.8	+0.8
BOSA				eS	Sn	00 17 02.1	-5.8
BOSA				AML	AML	00 18 17.4	
	comp=Z,24nm,0.7s						
HVD	Hendrik Verwoe	12.10	215	eP	Pn	00 15 26.8	+1.4
HVD				eS	Sn	00 17 34.1	-6.6
HVD				AML	AML	00 18 57.7	
	comp=Z,18nm,0.8s						
CVNA	Calvinia	16.23	226	eP	Pn	00 16 23.5	+2.5

SOF ***28*** *00:25:11.3, 39.80N×24.02E, h2^{km}, MD3.8*

PRU ***28*** *00:25:14.5, 39.40N×21.78E, h0^{km}, M3.8*

CSEM ***28*** *00:25:14.6±0.0, 39.95N×24.03E, h5^{km}, ML4.6, Error ellipse: s-maj=1.2km s-min=0.8km az=2.0*

IDC ***28*** *00:25:14.3±0.7, 39.86N×23.89E, h0^{km}, mb3.8/15, mb1 3.9/26, mb1mx3.9/31, mbtmp3.8/26, ML3.6/11, MS3.2/5, Ms1 3.2/5, ms1mx2.8/41, Error ellipse: s-maj=12.1km s-min=10.8km az=108.0*

PDG ***28*** *00:25:14.9±0.6, 39.91N×24.01E, h8^{km}±1^{km}, ML3.7/10, Error ellipse: s-maj=1.0km s-min=0.8km az=90.0*

ISCJB ***28*** *00:25:15.6±0.3, 39.93N±0.01×23.97E±0.01, h17^{km}±3^{km}, mb3.8/17, MS3.3/2, Error ellipse: s-maj=2.5km s-min=1.7km az=23.1*

MOS ***28*** *00:25:15.6±1.1, 39.95N×23.98E, h18^{km}, mb4.3/2, Error ellipse: s-maj=6.1km s-min=3.6km az=95.0*

NEIC ***28*** *00:25:15.6, 39.95N×23.89E, h28^{km}, mb3.8/1, MD3.8(SOF), ML3.9(ATH), ML3.7(BUC), ML3.7(PDG), After ATH.*

ATH ***28*** *00:25:15.6, 39.95N×23.89E, h28^{km}±1^{km}, MD4.0/20, ML3.9*

THE ***28*** *00:25:16.1, 39.96N×23.91E, h3^{km}, ML4.6*

SKO ***28*** *00:25:17.6, 40.00N×23.88E, h13^{km}*

NAO ***28*** *00:25:31.6, 40.69N×21.13E, h33^{km}, mb3.8*

DDA ***28*** *00:25:38.5, 39.86N×26.12E, h40^{km}±4^{km}, Md3.7*

ISC 28 00:25:15.2±0.3**, 39.93N**±0.01×**23.98E**±0.01**, h1**^{km}±2^{km}**, n416, σ1^{s}07**/503**, mb3.8**/17**, MS3.3**/2**, 48C-8D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAIG	Paliouri	0.23	270	ePg	Pg	00 25 19.7	+0.1
PAIG				eSg	Sg	00 25 22.8	+0.2
PAIG	Paliouri	0.23	270	ePg	Pg	00 25 19.7	+0.1
PAIG				eSg	Sg	00 25 22.8	+0.2
OUR	Ouranopolis	0.41	1	ePg	Pg	00 25 24.0	+1.0
OUR	Ouranopolis	0.41	1	ePg	Pg	00 25 24.0	+1.0
PLG	Polygyros	0.60	318	Pn	Pg	00 25 26.4	-0.4
PLG	Polygyros	0.60	318	ePg	Pg	00 25 26.0	-0.8
PLG				eSg	Sg	00 25 33.8	-0.8
PLG	Polygyros	0.60	318	ePN	Pg	00 25 26.4	-0.4
PLG	Polygyros	0.60	318	ePg	Pg	00 25 26.0	-0.8
PLG	Polygyros	0.60	318	Pn	Pg	00 25 26.4	-0.4
PLG				eSg	Sg	00 25 33.8	-0.8
AOS	Alonnisos	0.76	186	ePg	Pg	00 25 30.9	+1.1
AOS	Alonnisos	0.76	186	ePg	Pg	00 25 31.0	+1.2
XOR	Xorichti	0.83	227	ePg	Pg	00 25 31.4	+0.4
XOR	Xorichti	0.83	227	ePg	Pg	00 25 31.4	+0.3
LOS	Limnos	0.85	89	ePg	Pg	00 25 33.5	+2.0
NEO	Neokhori	0.85	223	ePn	Pg	00 25 32.2	+0.7
NEO				eSn	Sg	00 25 43.3	+0.7
NEO	Neokhori	0.85	223	ePN	Pg	00 25 32.2	+0.7
NEO				eSN	Sg	00 25 43.3	+0.7
NEO	Neokhori	0.85	223	ePn	Pg	00 25 32.2	+0.7
NEO				eSn	Sg	00 25 43.3	+0.7
LIA	Limnos Island	0.93	92	Pn	Pn	00 25 35.6	+0.3
LIA	Limnos Island	0.93	92	ePN	Pn	00 25 35.6	+0.3
LIA	Limnos Island	0.93	92	Pn	Pn	00 25 35.6	+0.3
HORT	Hortiatis	0.95	315	ePg	Pg	00 25 32.7	-0.7
HORT				eSg	Sg	00 25 45.0	-0.7
HORT	Hortiatis	0.95	315	ePg	Pg	00 25 32.7	-0.7
HORT				eSg	Sg	00 25 45.0	-0.7
SOH	Sokhos	1.01	332	ePg	Pg	00 25 34.3	-0.3
SOH				eSg	Sg	00 25 47.9	+0.1
SOH	Sokhos	1.01	332	ePg	Pg	00 25 34.3	-0.3
SOH				eSg	Sg	00 25 47.8	+0.1
THE	Thessaloniki	1.04	313	ePg	Pg	00 25 34.2	-1.0
THE				eSg	Sg	00 25 48.3	-0.6
THE	Thessaloniki	1.04	313	ePg	Pg	00 25 34.2	-1.1
THE				eSg	Sg	00 25 48.3	-0.5
LIT	Litokhoron	1.16	279	ePg	Pg	00 25 36.7	-0.7
LIT				eSg	Sg	00 25 52.9	+0.5
LIT	Litokhoron	1.16	279	ePg	Pg	00 25 36.7	-0.7
LIT				eSg	Sg	00 25 52.9	+0.6
SRS	Serrai	1.22	346	ePg	Pg	00 25 38.0	-0.7
SRS				eSg	Sg	00 25 54.2	-0.3
SRS	Serrai	1.22	346	ePg	Pg	00 25 38.0	-0.7
SRS				eSg	Sg	00 25 54.2	-0.3
NVR	Nevrokopi	1.42	357	Pn	Pn	00 25 41.1	-1.1
NVR	Nevrokopi	1.42	357	ePN	Pn	00 25 41.1	-1.1
NVR	Nevrokopi	1.42	357	Pn	Pn	00 25 41.1	-1.1
KNT	Kendrikon	1.48	327	ePg	Pn	00 25 41.9	-1.1
KNT				eSg	Sg	00 26 02.1	-0.7
KNT	Kendrikon	1.48	327	ePg	Pn	00 25 41.9	-1.1
KNT				eSg	Sg	00 26 02.1	-0.7
LKR	Lokris	1.48	211	ePb	Pn	00 25 41.6	-1.4
LKR	Lokris	1.48	211	ePB	Pn	00 25 41.6	-1.4
LKR	Lokris	1.48	211	ePb	Pn	00 25 41.6	-1.4
GADA	Gvkgeada	1.50	79	PN	Pn	00 25 42.7	-0.5
GADA				SN	Sn	00 26 03.2	-0.1
GADA	Gvkgeada	1.50	79	ePn	Pn	00 25 42.7	-0.5
GADA				eSn	Sn	00 26 03.2	-0.1
THL	Klokotos Trika	1.56	257	ePN	Pn	00 25 42.5	-1.5
THL	Klokotos Trika	1.56	257	ePn	Pn	00 25 42.5	-1.5
AGG	Agios Georgios	1.56	235	ePg	Pn	00 25 43.0	-1.0
AGG				eSg	Sg	00 26 05.0	-0.5
AGG	Agios Georgios	1.56	235	ePg	Pn	00 25 43.0	-1.1
AGG				eSg	Sg	00 26 05.0	-0.4
GRG	Griva	1.58	311	ePg	Pn	00 25 43.6	-0.7
GRG				eSg	Sg	00 26 05.4	-0.6
GRG	Griva	1.58	311	ePg	Pn	00 25 43.6	-0.7
GRG				eSg	Sg	00 26 05.4	-0.6
BOZC	Bozcaada	1.60	92	i P	Pn	00 25 44.6	+0.1
BOZC				i S	Sn	00 26 04.6	-1.2
MMB	Musomiste	1.67	354	i P	Pn	00 25 44.5	-1.0
RDO	Rodhopi	1.70	44	Pb	Pn	00 25 45.5	-0.5
RDO	Rodhopi	1.70	44	ePB	Pn	00 25 45.5	-0.5
RDO	Rodhopi	1.70	44	Pb	Pn	00 25 45.5	-0.5
KZN	Kozani	1.73	283	Pn	Pn	00 25 45.6	-0.8
KZN	Kozani	1.73	283	ePN	Pn	00 25 45.6	-0.8
KZN	Kozani	1.73	283	Pn	Pn	00 25 45.6	-0.8
VAY	Valandovo	1.75	323	ePb	Pn	00 25 46.0	-0.8
VAY	Valandovo	1.75	323	ePn	Pn	00 25 45.4	-1.3
EZN	Ezine	1.81	93	PN	Pn	00 25 46.5	-1.0
EZN	Ezine	1.81	93	ePn	Pn	00 25 46.5	-1.0
RZN	Rozhen	1.84	17	i P	Pn	00 25 47.8	-0.2
ENEZ	Enez	1.85	63	PN	Pn	00 25 47.5	-0.5
ENEZ	Enez	1.85	63	ePn	Pn	00 25 47.5	-0.5
ALN	Alexandroupoli	1.85	58	ePb	Pn	00 25 47.6	-0.4
ALN	Alexandroupoli	1.85	58	ePb	Pn	00 25 47.6	-0.5
PRK	Paraskevi	1.90	110	Pn	Pn	00 25 49.2	+0.5
PRK				eSn	Sn	00 26 13.6	+0.4
PRK	Paraskevi	1.90	110	ePN	Pn	00 25 49.2	+0.5
PRK				eSN	Sn	00 26 13.6	+0.4
PRK	Paraskevi	1.90	110	Pn	Pn	00 25 49.2	+0.5
PRK				eSn	Sn	00 26 13.6	+0.4
EVR	Evrytania	1.96	240	Pb	Pn	00 25 49.0	-0.5
EVR	Evrytania	1.96	240	ePB	Pn	00 25 49.0	-0.5
EVR	Evrytania	1.96	240	Pb	Pn	00 25 49.0	-0.5
ATH	Athens Observa	1.96	186	Pn	Pn	00 25 49.0	-0.6
ATH	Athens Observa	1.96	186	ePN	Pn	00 25 49.0	-0.6
ATH	Athens Observa	1.96	186	Pn	Pn	00 25 49.0	-0.6
KDZ	Kurdzhali	2.04	32	i P	Pn	00 25 49.4	-1.2
KKB	Krupnik	2.05	341	i P	Pn	00 25 50.0	-0.8
FNA	Florina	2.16	294	ePn	Pn	00 25 51.7	-0.6
FNA				eSn	Sn	00 26 19.3	-0.5
FNA	Florina	2.16	294	ePn	Pn	00 25 51.7	-0.6
FNA				eSn	Sn	00 26 19.3	-0.4
LPK	Lapseki	2.18	77	PN	Pn	00 25 52.0	-0.5
LPK	Lapseki	2.18	77	ePn	Pn	00 25 52.0	-0.5
AYVA	Ayvalik	2.19	106	i P	Pn	00 25 53.2	+0.5
AYVA				i S	Sg	00 26 29.5	+4.1
STIP	Stip	2.23	323	ePn	Pn	00 25 52.8	-0.4
PLD	Plovdiv	2.24	14	ePn	Pn	00 25 53.9	+0.5
PLD	Plovdiv	2.24	14	ePn	Pn	00 25 53.9	+0.5
BIA	Bitola	2.30	299	ePn	Pn	00 25 53.4	-0.8
BIA	Bitola	2.30	299	ePn	Pn	00 25 53.2	-0.9
BIA	Bitola	2.30	299	ePn	Pn	00 25 53.4	-0.8
SELA	Sela	2.31	225	eSn	Sn	00 26 23.3	-0.1
SELA				eSn	Sg	00 26 33.4	+3.8
SELA	Sela	2.31	225	eSn	Sn	00 26 23.3	-0.2
JAN	Janina	2.42	265	Pb	Pn	00 25 55.5	-0.4
JAN				P	Pb	00 26 00.2	+0.6
JAN	Janina	2.42	265	ePB	Pn	00 25 55.5	-0.4
JAN	Janina	2.42	265	Pb	Pn	00 25 55.5	-0.4
JAN	Janina	2.42	265	P	Pb	00 26 00.2	+0.6
KRUS	Krusevo	2.52	306	ePn	Pn	00 25 57.3	0.0
KBN	Korca	2.54	287	ePN	Pn	00 25 57.3	-0.2
KBN				i SN	Sn	00 26 27.0	-2.0
KBN	Korca	2.54	287	ePn	Pn	00 25 57.3	-0.2
KBN				i Sn	Sn	00 26 27.0	-2.0
RKY	Sarkoy-Tekirda	2.56	72	PN	Pn	00 25 56.7	-1.1
RKY	Sarkoy-Tekirda	2.56	72	ePn	Pn	00 25 56.7	-1.1
SART	Tekirdag	2.56	72	i P	Pn	00 25 57.7	-0.1
SART				i S	Sg	00 26 47.9	+10
URLA	Izmir	2.57	127	i P	Pn	00 25 58.1	+0.2
URLA				i S	Sg	00 26 39.6	+1.9
PGB	Panagyurishte	2.62	3	i P	Pn	00 25 58.3	-0.3
MFT	Murefte	2.67	70	PN	Pn	00 25 59.0	-0.2
MFT	Murefte	2.67	70	ePn	Pn	00 25 59.0	-0.2
OHR	Ohrid	2.69	297	ePn	Pn	00 25 60.0	+0.3
RLS	Riolos of Patr	2.71	227	Pb	Pb	00 26 00.5	-3.9
RLS	Riolos of Patr	2.71	227	ePB	Pb	00 26 00.5	-3.9
RLS	Riolos of Patr	2.71	227	Pb	Pb	00 26 00.5	-3.9
VTS	Vitosha	2.72	348	i P	Pn	00 26 00.2	+0.2
VTS	Vitosha	2.72	348	⇑iP	Pn	00 26 00.3	+0.3
SKO	Skopje	2.80	318	ePn	Pn	00 26 01.5	+0.3
BLCB	Balcova	2.84	122	PN	Pn	00 26 00.1	-1.5
BLCB	Balcova	2.84	122	ePn	Pn	00 26 02.6	+1.0
BLCB	Balcova	2.84	122	ePn	Pn	00 26 02.6	+1.0
IGT	Igoumenitsa	2.84	263	eSn	Sn	00 26 33.2	-3.2
IGT	Igoumenitsa	2.84	263	eSn	Sn	00 26 33.2	-3.2
EDRB	Edirne	2.84	47	PN	Pn	00 26 01.1	-0.5
EDRB	Edirne	2.84	47	ePn	Pn	00 26 01.1	-0.5
MRMT	Marmara Adasi	2.85	75	PN	Pn	00 26 01.7	-0.1
MRMT	Marmara Adasi	2.85	75	ePn	Pn	00 26 01.7	-0.1
IZM	Izmir	2.98	120	ePN	Pn	00 26 02.5	-1.0
KDAG	Bornova	2.98	120	i P	Pn	00 26 04.3	+0.8
KDAG				i S	Sn	00 26 44.1	+4.3
EDC	Edincik	3.01	81	ePN	Pn	00 26 03.7	-0.2
EDC	Edincik	3.01	81	ePn	Pn	00 26 03.7	-0.2
BALB	Balikesir	3.02	94	ePN	Pn	00 26 04.1	0.0
BALB	Balikesir	3.02	94	ePn	Pn	00 26 04.1	0.0
BNT	Bandirma	3.05	81	ePN	Pn	00 26 03.8	-0.8
SRN	Sarande	3.06	270	ePN	Pn	00 26 06.3	+1.7
SRN	Sarande	3.06	270	ePn	Pn	00 26 06.3	+1.7
APE	Apeiranthos	3.10	156	Pn	Pn	00 26 05.0	-0.3
APE	Apeiranthos	3.10	156	⇓P	Pn	00 26 04.7	-0.6
APE				S	Sn	00 26 41.5	-1.5
APE	Apeiranthos	3.10	156	ePN	Pn	00 26 05.0	-0.3
APE	Apeiranthos	3.10	156	⇓iP	Pn	00 26 04.7	-0.6
APE	Apeiranthos	3.10	156	Pn	Pn	00 26 05.0	-0.3
APE				S	Sn	00 26 41.5	-1.5
SMG	Samos	3.15	134	P	Pn	00 26 01.0	-4.9
AKS	Akhisar	3.15	108	ePN	Pn	00 26 05.1	-0.8
AKS	Akhisar	3.15	108	ePn	Pn	00 26 05.1	-0.8
VLS	Valsamata	3.17	238	Pn	Pn	00 26 06.0	-0.1
VLS	Valsamata	3.17	238	ePN	Pn	00 26 06.0	-0.1
VLS	Valsamata	3.17	238	Pn	Pn	00 26 06.0	-0.1
ITM	Ithomi	3.18	211	Pn	Pn	00 26 05.5	-0.8
ITM	Ithomi	3.18	211	ePN	Pn	00 26 05.5	-0.8
ITM	Ithomi	3.18	211	Pn	Pn	00 26 05.5	-0.8
PHP	Peshkopia	3.21	304	ePN	Pn	00 26 06.9	+0.2
PHP				i SN	Sn	00 26 35.6	-10
PHP	Peshkopia	3.21	304	ePn	Pn	00 26 06.9	+0.2
JMB	Yambol	3.21	37	ePn	Pn	00 26 06.0	-0.7
JMB	Yambol	3.21	37	i P	Pn	00 26 06.1	-0.6
JMB				i Pg	Pg	00 26 16.7	0.0
JMB	Yambol	3.21	37	ePn	Pn	00 26 06.0	-0.7
KEK	Kerkira	3.23	267	Pn	Pn	00 26 07.2	+0.3
KEK	Kerkira	3.23	267	ePN	Pn	00 26 07.2	+0.3
KEK	Kerkira	3.23	267	Pn	Pn	00 26 07.2	+0.3
VLI	Veliai	3.31	195	ePn	Pn	00 26 08.0	-0.1
VLI	Veliai	3.31	195	ePN	Pn	00 26 08.0	-0.1
VLI	Veliai	3.31	195	ePn	Pn	00 26 08.0	-0.1
BARS	Barje	3.31	331	Sg	Sg	00 27 00.5	-1.1
KCT	Karacabey	3.38	83	ePN	Pn	00 26 08.8	-0.2
KCT	Karacabey	3.38	83	ePn	Pn	00 26 08.8	-0.2
TIR	Tirane	3.44	296	ePN	Pn	00 26 12.6	+2.8
TIR				i SN	Sn	00 26 55.3	+4.2
TIR	Tirane	3.44	296	ePn	Pn	00 26 12.6	+2.8
TIR				i Sn	Sn	00 26 55.3	+4.2
DST	Dursunbey	3.60	94	ePN	Pn	00 26 12.3	+0.2
DST	Dursunbey	3.60	94	ePn	Pn	00 26 12.3	+0.2
CTT	Catalca	3.60	69	ePN	Pn	00 26 12.5	+0.4
CTT	Catalca	3.60	69	ePn	Pn	00 26 12.5	+0.4
SZH	Strazhica	3.64	23	i P	Pn	00 26 12.7	0.0
KYTH	Kithira	3.72	192	ePn	Pn	00 26 14.0	+0.3
KYTH	Kithira	3.72	192	ePN	Pn	00 26 14.0	+0.3
KYTH	Kithira	3.72	192	ePn	Pn	00 26 14.0	+0.3
SANT	Santorini	3.74	161	ePn	Pn	00 26 13.8	-0.2
SANT	Santorini	3.74	161	ePn	Pn	00 26 13.9	-0.1
ZIMR		3.87	15	P	Pn	00 26 15.7	-0.1
ZIMR		3.87	15	⇓P	Pn	00 26 15.0	-0.7
ZIMR		3.87	15	⇓iP	Pn	00 26 14.9	-0.8
BODT	Bodrum	3.88	137	ePN	Pn	00 26 14.5	-1.4
BODT	Bodrum	3.88	137	ePn	Pn	00 26 14.5	-1.4
KULA	Kula-Manisa	3.90	110	ePN	Pn	00 26 15.7	-0.5
KULA	Kula-Manisa	3.90	110	ePn	Pn	00 26 15.7	-0.5
ULDT	Uludag	3.97	85	i P	Pn	00 26 18.3	+1.2
ULDT				i S	Sg	00 27 19.2	-3.4
MLSB	Milas	3.97	130	ePN	Pn	00 26 15.8	-1.4
MLSB	Milas	3.97	130	ePn	Pn	00 26 15.8	-1.4
GEMT	Gemlik	4.02	81	ePN	Pn	00 26 17.7	-0.2
GEMT	Gemlik	4.02	81	ePn	Pn	00 26 17.7	-0.2
PVY	Plav	4.03	313	ePn	Pn	00 26 18.8	+0.9
PVY				eSn	Sn	00 27 07.0	+1.3
PVY	Plav	4.03	313	ePn	Pn	00 26 18.8	+0.9
PVY				eSn	Sn	00 27 07.0	+1.3
PVY	Plav	4.03	313	ePn	Pn	00 26 18.8	+0.9
PVY				eSn	Sn	00 27 07.0	+1.3
ISK	Istanbul-Kandi	4.04	72	ePN	Pn	00 26 18.6	+0.5
ISK	Istanbul-Kandi	4.04	72	ePn	Pn	00 26 18.6	+0.5
KLYT	Kilyos	4.08	69	ePN	Pn	00 26 19.2	+0.6
KLYT	Kilyos	4.08	69	ePn	Pn	00 26 19.2	+0.6
ULC	Ulcinj	4.12	301	⇑iPn	Pn	00 26 20.2	+1.0
ULC				eSn	Sn	00 27 09.3	+1.4
ULC	Ulcinj	4.12	301	⇑iPn	Pn	00 26 20.2	+1.0
ULC				eSn	Sn	00 27 09.3	+1.4
ULC	Ulcinj	4.12	301	⇑iPn	Pn	00 26 20.2	+1.0
ULC				eSn	Sn	00 27 09.3	+1.4
PRD	Provadia	4.16	37	i P	Pn	00 26 19.7	0.0
YLV	Yalova	4.18	80	ePN	Pn	00 26 20.5	+0.5
YLV	Yalova	4.18	80	ePn	Pn	00 26 20.5	+0.5
IZI	Iznik	4.23	83	ePN	Pn	00 26 20.8	0.0
IZI	Iznik	4.23	83	ePn	Pn	00 26 20.8	0.0
BEY	Berane	4.25	315	⇑iPn	Pn	00 26 21.3	+0.3
BEY				eSn	Sn	00 27 12.5	+1.3
IVA	Berane	4.25	315	⇑iPn	Pn	00 26 21.3	+0.3
IVA				eSn	Sn	00 27 12.5	+1.3
IVA	Berane	4.25	315	⇑iPn	Pn	00 26 21.3	+0.3
IVA				eSn	Sn	00 27 12.5	+1.3
IVA	Berane	4.25	315	⇑iPn	Pn	00 26 21.3	+0.3
IVA				eSn	Sn	00 27 12.5	+1.3
PDG	Podgorica	4.35	307	⇑iPn	Pn	00 26 23.0	+0.6
PDG				eSn	Sn	00 27 14.9	+1.3
TTG	Podgorica	4.35	307	⇑iPn	Pn	00 26 23.0	+0.6
TTG				eSn	Sn	00 27 14.9	+1.3
TTG	Podgorica	4.35	307	⇑iPn	Pn	00 26 23.0	+0.6
TTG				eSn	Sn	00 27 14.9	+1.3
TTG	Podgorica	4.35	307	⇑iPn	Pn	00 26 23.0	+0.6
TTG				eSn	Sn	00 27 14.9	+1.3
YER	Yerkesik	4.38	128	ePN	Pn	00 26 22.4	-0.4
YER	Yerkesik	4.38	128	ePn	Pn	00 26 22.4	-0.4
HRT	Hereke	4.44	77	ePN	Pn	00 26 24.2	+0.6
HRT	Hereke	4.44	77	ePN	Pn	00 26 24.6	+1.0
HRT	Hereke	4.44	77	ePn	Pn	00 26 24.2	+0.6
ADVT	Abdulvahap	4.44	82	ePN	Pn	00 26 24.3	+0.7
ADVT	Abdulvahap	4.44	82	ePn	Pn	00 26 24.3	+0.7
SJES	Sjenica	4.50	319	Pn	Pn	00 26 24.3	-0.2
DENT	Denizli	4.50	117	ePN	Pn	00 26 24.4	-0.1
DENT	Denizli	4.50	117	ePn	Pn	00 26 24.4	-0.1
BUM	Brajici-Budva	4.51	303	⇑iPn	Pn	00 26 25.3	+0.7
BUM				eSn	Sn	00 27 18.9	+1.3
BUM	Brajici-Budva	4.51	303	⇑iPn	Pn	00 26 25.3	+0.7
BUM				eSn	Sn	00 27 18.9	+1.3
BUM	Brajici-Budva	4.51	303	⇑iPn	Pn	00 26 25.3	+0.7
BUM				eSn	Sn	00 27 18.9	+1.3
LCI	Lecce	4.51	277	Pn	Pn	00 26 24.6	0.0
LCI	Lecce	4.51	277	Pn	Pn	00 26 24.6	0.0
VAM	Vamos	4.52	178	Pn	Pn	00 26 26.6	+1.9
VAM	Vamos	4.52	178	ePN	Pn	00 26 26.6	+1.9
VAM	Vamos	4.52	178	Pn	Pn	00 26 26.6	+1.9
KHL	Karahalli	4.60	109	ePN	Pn	00 26 26.1	+0.3
KHL	Karahalli	4.60	109	ePn	Pn	00 26 26.1	+0.3
GRUS	Gruza	4.64	329	Pn	Pn	00 26 25.3	-1.1
GRUS				Sg	Sg	00 27 43.5	-0.9
IDI	Anoyia	4.69	171	Pn	Pn	00 26 25.7	-1.4
IDI				LR	LR	00 28 22.0	
IDI	Anoyia	4.69	171	Pn	Pn	00 26 25.7	-1.4
	6.8nm,0.3s,baz=351,slow=11,SNR=42						
IDI				LR	LR	00 28 22.0	
	comp=Z,120nm,19.2s,baz=208,slow=40						

IDI	Anoyia	4.69	171	Pn	Pn	00 26 25.7	-1.4
NKY	Niksic	4.73	309	⇑iPn	Pn	00 26 28.5	+1.0
NKY				eSn	Sn	00 27 24.1	+1.2
NKY	Niksic	4.73	309	⇑iPn	Pn	00 26 28.5	+1.0
NKY				eSn	Sn	00 27 24.1	+1.2
NKY	Niksic	4.73	309	⇑iPn	Pn	00 26 28.5	+1.0
NKY				eSn	Sn	00 27 24.1	+1.2
SVIS	Svilajnac	4.82	336	Pn	Pn	00 26 27.4	-1.4
PLE	Pljevlja	4.83	316	⇑iPn	Pn	00 26 30.4	+1.4
PLE				eSn	Sn	00 27 26.5	+1.0
PLE	Pljevlja	4.83	316	⇑iPn	Pn	00 26 30.4	+1.4
PLE				eSn	Sn	00 27 26.5	+1.0
PLE	Pljevlja	4.83	316	⇑iPn	Pn	00 26 30.4	+1.4
PLE				eSn	Sn	00 27 26.5	+1.0
NPS	Neapolis	4.84	164	Pn	Pn	00 26 29.1	0.0
NPS	Neapolis	4.84	164	ePN	Pn	00 26 29.1	0.0
NPS	Neapolis	4.84	164	Pn	Pn	00 26 29.1	0.0
HCY	Herceg Novi	4.84	303	ePn	Pn	00 26 30.3	+1.2
HCY				eSn	Sn	00 27 26.4	+0.7
HCY	Herceg Novi	4.84	303	ePn	Pn	00 26 30.3	+1.2
HCY				eSn	Sn	00 27 26.4	+0.7
HCY	Herceg Novi	4.84	303	ePn	Pn	00 26 30.3	+1.2
HCY				eSn	Sn	00 27 26.4	+0.7
GPA	Golpazari	4.87	84	ePN	Pn	00 26 30.2	+0.7
GPA	Golpazari	4.87	84	ePn	Pn	00 26 30.2	+0.7
PSN	Preselentsi	4.89	39	iP	Pn	00 26 29.4	-0.4
UPM	Unac-Piva	5.01	312	⇑iPn	Pn	00 26 32.8	+1.3
UPM				eSn	Sn	00 27 30.8	+0.8
UPM	Unac-Piva	5.01	312	⇑iPn	Pn	00 26 32.8	+1.3
UPM				eSn	Sn	00 27 30.8	+0.8
UPM	Unac-Piva	5.01	312	⇑iPn	Pn	00 26 32.8	+1.3
UPM				eSn	Sn	00 27 30.8	+0.8
GULT	Gulveren	5.03	82	ePN	Pn	00 26 32.5	+0.7
GULT	Gulveren	5.03	82	ePn	Pn	00 26 32.5	+0.7
BRY	Bratogost	5.05	308	⇑iPn	Pn	00 26 33.0	+1.0
BRY				eSn	Sn	00 27 31.4	+0.5
BRY	Bratogost	5.05	308	⇑iPn	Pn	00 26 33.0	+1.0
BRY				eSn	Sn	00 27 31.4	+0.5
BRY	Bratogost	5.05	308	⇑iPn	Pn	00 26 33.0	+1.0
BRY				eSn	Sn	00 27 31.4	+0.5
GVD	Gavdhos	5.08	179	Pn	Pn	00 26 29.9	-2.6
GVD	Gavdhos	5.08	179	Pn	Pn	00 26 29.9	-2.6
DIVS	Divcibare	5.12	326	Pn	Pn	00 26 32.3	-0.6
DIVS				Sg	Sg	00 27 56.8	-2.7
SHUT	Suhut-Afyon	5.29	103	ePN	Pn	00 26 36.0	+0.8
SHUT	Suhut-Afyon	5.29	103	ePn	Pn	00 26 36.0	+0.8
ESKT	Eskisehir	5.32	92	ePN	Pn	00 26 35.8	+0.1
ESKT	Eskisehir	5.32	92	iP	Pn	00 26 37.1	+1.5
ESKT				iS	Sg	00 27 58.5	-7.4
ESKT	Eskisehir	5.32	92	ePn	Pn	00 26 35.8	+0.1
SEYT	Eskypehyr	5.32	92	iP	Pn	00 26 37.1	+1.4
ISP	Isparta	5.50	110	⇑iP	Pn	00 26 40.7	+2.4
ISR	Istrita	5.52	19	⇑P	Pn	00 26 39.8	+1.4
ISR	Istrita	5.52	19	⇑iP	Pn	00 26 39.8	+1.3
GZR	Gura Zlata	5.53	351	⇑P	Pn	00 26 37.5	-1.1
GZR	Gura Zlata	5.53	351	⇑iP	Pn	00 26 37.5	-1.1
VOIR		5.56	8	P	Pn	00 26 39.8	+0.8
VOIR		5.56	8	⇑iP	Pn	00 26 39.5	+0.5
VOIR		5.56	8	P	Pn	00 26 39.8	+0.8
TIRR	Tirgusor	5.60	35	P	Pn	00 26 39.2	-0.3
TIRR	Tirgusor	5.60	35	⇓iP	Pn	00 26 39.5	0.0
TIRR	Tirgusor	5.60	35	P	Pn	00 26 39.2	-0.3
TIP	Timpagrande	5.63	265	ePn	Pn	00 26 39.9	-0.1
TIP				eSn	Sn	00 27 39.0	-6.2
TIP	Timpagrande	5.63	265	ePn	Pn	00 26 39.9	-0.1
ELL	Elmali	5.64	122	ePN	Pn	00 26 40.2	+0.1
ELL	Elmali	5.64	122	ePn	Pn	00 26 40.2	+0.1
MLR	Muntele Rosu	5.74	14	P	Pn	00 26 43.1	+1.6
MLR	Muntele Rosu	5.74	14	P	Pn	00 26 42.5	+1.0
MLR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
MLR	Muntele Rosu	5.74	14	Pn	Pn	00 26 42.5	+0.9
	comp=Z,3.1nm,0.3s,baz=199,slow=6.9,SNR=31						
MLR				Lg		00 28 20.4	
	comp=Z,0.5nm,0.3s,baz=238,slow=21,SNR=5.0						
MLR	Muntele Rosu	5.74	14	⇑iP	Pn	00 26 42.7	+1.2
MLR	Muntele Rosu	5.74	14	P	Pn	00 26 43.1	+1.6
BZS	Buzias	5.94	344	P	Pn	00 26 42.9	-1.3
BZS	Buzias	5.94	344	⇑iP	Pn	00 26 43.1	-1.2
FGSL	Fruska Gora	6.06	331	Pn	Pn	00 26 45.2	-0.7
KIZT	Kizilcal	6.21	97	ePN	Pn	00 26 48.9	+1.0
SGKT	Sivrigoynuk	6.21	81	iP	Pn	00 26 48.8	+0.8
SGKT				iS	Sg	00 28 40.6	+5.9
PLOR	Plostina	6.24	17	⇑iP	Pn	00 26 49.5	+1.2
VRI	Vrincioaia	6.27	18	⇑P	Pn	00 26 50.4	+1.7
VRI	Vrincioaia	6.27	18	⇑iP	Pn	00 26 50.3	+1.6
VRI	Vrincioaia	6.27	18	P	Pn	00 26 50.8	+2.1
SOI	Samo	6.44	256	Pn	Pn	00 26 51.4	+0.3
MGR	Morigerati	6.47	275	Pn	Pn	00 26 52.8	+1.3
	comp=Z,112nm,0.6s						
MGR	Morigerati	6.47	275	Pn	Pn	00 26 52.8	+1.3
	comp=Z,112nm,0.6s						
MRLC	Muro Lucano	6.54	280	Pn	Pn	00 26 53.9	+1.5
	comp=Z,198nm,2.5s						
MRLC	Muro Lucano	6.54	280	Pn	Pn	00 26 53.9	+1.5
	comp=Z,198nm,2.5s						
FG4	Candela	6.56	283	Pn	Pn	00 26 54.8	+2.1
	comp=Z,33nm,0.4s						
FG4	Candela	6.56	283	P	Pn	00 26 54.8	+2.1
FG4				pmax	pmax		
	comp=Z,33nm,0.4s						
RGNG	Rignano Grg	6.60	288	Pn	Pn	00 26 53.1	-0.2
RGNG	Rignano Grg	6.60	288	Pn	Pn	00 26 53.1	-0.2
SGO	Sicignano	6.66	278	Pn	Pn	00 26 54.0	-0.2
	comp=Z,31nm,0.4s						
SGO	Sicignano	6.66	278	P	Pn	00 26 54.0	-0.2
SGO				pmax	pmax		
	comp=Z,31nm,0.4s						
SGO	Sicignano	6.66	278	Pn	Pn	00 26 54.0	-0.2
	comp=Z,31nm,0.4s						
SAFT	Safranbolu	6.76	76	ePN	Pn	00 26 56.8	+1.3
SAFT	Safranbolu	6.76	76	ePn	Pn	00 26 56.8	+1.3
FG5	Orsara di Pugl	6.76	284	Pn	Pn	00 26 56.7	+1.2
	comp=Z,14nm,0.4s						
FG5	Orsara di Pugl	6.76	284	P	Pn	00 26 56.7	+1.2
FG5				pmax	pmax		
	comp=Z,14nm,0.4s						
FG5	Orsara di Pugl	6.76	284	Pn	Pn	00 26 56.7	+1.2
	comp=Z,14nm,0.4s						
CSSN	Cassano Irpino	6.90	281	Pn	Pn	00 27 00.8	+3.4
	comp=Z,40nm,0.8s						
PKSM	Moragy	7.39	330	P	Pn	00 27 03.3	-0.9
PKSM	Moragy	7.39	330	⇓iP	Pn	00 27 03.7	-0.5
PKSM	Moragy	7.39	330	⇓ePn	Pn	00 27 03.2	-1.0
BR131	Keskin Array S	7.44	88	P	Pn	00 27 03.4	-1.4
	comp=Z,2.0nm,0.4s						
BRTR	Keskin Array B	7.44	88	Pn	Pn	00 27 06.2	+1.4
BRTR				Lg		00 29 14.4	
BRTR	Keskin Array B	7.44	88	Pn	Pn	00 27 06.2	+1.4
	comp=Z,0.9nm,0.3s,baz=231,slow=21,SNR=25						
BRTR				Lg		00 29 14.4	
	baz=283,slow=25,SNR=3.2						
BRTR	Keskin Array B	7.44	88	Pn	Pn	00 27 06.2	+1.4
SGG	Gregorio Mates	7.44	284	Pn	Pn	00 27 07.5	+2.7
IAS	Iasi	7.71	19	⇓iP	Pn	00 27 08.8	+0.3
BURAR	Bucovina Array	7.74	6	⇑P	Pn	00 27 09.8	+1.0
BURAR	Bucovina Array	7.74	6	⇑iP	Pn	00 27 09.8	+1.0
VAE	Valguarnera	7.87	255	Pn	Pn	00 27 09.9	-0.9
VAE	Valguarnera	7.87	255	Pn	Pn	00 27 09.9	-0.9
	comp=Z,0.3nm,0.3s,baz=114,slow=18,SNR=2.2						
VAE	Valguarnera	7.87	255	Pn	Pn	00 27 09.9	-0.8
SDI	San Donato	7.91	286	Pn	Pn	00 27 13.3	+2.0
	comp=Z,8.0nm,0.4s						
SDI	San Donato	7.91	286	P	Pn	00 27 13.3	+2.0
SDI				pmax	pmax		
	comp=Z,8.0nm,0.4s						
AQU	L’Aquila	8.34	290	Pn	Pn	00 27 14.6	-2.6
AQU	L’Aquila	8.34	290	Pn	Pn	00 27 14.6	-2.6
BOJS	Bojanci	8.50	314	iPn	Pn	00 27 24.3	+5.0
BOJS	Bojanci	8.50	314	iPn	Pn	00 27 24.3	+5.0
PSZ	Piszkesteto	8.51	341	Pn	Pn	00 27 16.1	-3.3
PSZ				eSn	Sn	00 28 47.5	-8.6
NRCA	Norcia	8.67	293	Pn	Pn	00 27 22.9	+1.3
	comp=Z,9.7nm,1.2s						
NRCA	Norcia	8.67	293	Pn	Pn	00 27 22.9	+1.3
	comp=Z,9.7nm,1.2s						
UZH	Uzhgorod	8.78	353	eP	Pn	00 27 26.0	+2.8
UZH				e		00 29 09.0	
KECS	Kecovo	8.91	345	ePn	Pn	00 27 25.0	0.0
KECS	Kecovo	8.91	345	ePN	Pn	00 27 25.0	0.0
VISS	Visnje	8.91	314	iPn	Pn	00 27 27.3	+2.3
VISS	Visnje	8.91	314	iPn	Pn	00 27 27.3	+2.3
VISS	Visnje	8.91	314	iPn	Pn	00 27 27.3	+2.3
CSS	Prodhromos	8.94	121	Pn	Pn	00 27 27.9	+2.6
CRVS	Cervenica-Dubn	9.15	350	ePn	Pn	00 27 30.1	+1.9
CRVS	Cervenica-Dubn	9.15	350	ePN	Pn	00 27 30.1	+1.9
CRVS				e		00 30 18.6	
FSSB	Fossombrone	9.17	298	Pn	Pn	00 27 29.7	+1.2
FSSB	Fossombrone	9.17	298	Pn	Pn	00 27 29.7	+1.2
VYHS	Vyhne	9.32	338	ePn	Pn	00 27 30.9	+0.3
VYHS				e		00 27 47.6	
VYHS	Vyhne	9.32	338	ePN	Pn	00 27 30.9	+0.3
VYHS				e		00 27 47.6	
VYHS	Vyhne	9.32	338	ePn	Pn	00 27 30.9	+0.3
JAVS	Javornik	9.40	313	iPn	Pn	00 27 32.9	+1.3
JAVS				iSn	Sn	00 29 16.4	-1.6
JAVS	Javornik	9.40	313	iPn	Pn	00 27 32.9	+1.3
JAVS				iSn	Sn	00 29 16.4	-1.6
JAVS	Javornik	9.40	313	iPn	Pn	00 27 32.9	+1.2
JAVS				iSn	Sn	00 29 16.4	-1.5
OBKA	Obir	9.51	317	⇑iP	Pn	00 27 35.4	+2.2
	comp=Z,8.6nm,1.1s						
OBKA	Obir	9.51	317	⇑iPn	Pn	00 27 35.4	+2.2
	comp=Z,8.6nm,1.1s						
OBKA	Obir	9.51	317	Pn	Pn	00 27 35.4	+2.2
	comp=Z,8.6nm,1.1s						
ARSA	Arzberg	9.54	323	⇑iP	Pn	00 27 34.5	+0.9
	comp=Z,3.8nm,0.5s						
ARSA	Arzberg	9.54	323	⇑iPn	Pn	00 27 34.5	+0.9
	comp=Z,3.8nm,0.5s						
ARSA	Arzberg	9.54	323	Pn	Pn	00 27 34.5	+0.9
	comp=Z,3.8nm,0.5s						
VOY	Vojsko	9.58	313	e	Pn	00 27 34.6	+0.5
VOY				e		00 27 35.3	
SMOL	Smolenice	9.78	333	ePn	Pn	00 27 43.3	+6.4
SMOL	Smolenice	9.78	333	ePN	Pn	00 27 43.3	+6.4
CONA	Conrad Observa	9.90	326	⇑iPn	Pn	00 27 40.0	+1.4
	comp=Z,2.5nm,0.5s						
CONA	Conrad Observa	9.90	326	Pn	Pn	00 27 40.0	+1.4
	comp=Z,2.5nm,0.5s						
KBA	Koelnbreinsper	10.52	316	⇑iP	Pn	00 27 49.1	+2.2
	comp=Z,12nm,1.3s						
KBA	Koelnbreinsper	10.52	316	⇑iPn	Pn	00 27 49.1	+2.2
	comp=Z,12nm,1.3s						
KBA	Koelnbreinsper	10.52	316	⇑iP	Pn	00 27 49.1	+2.2
KBA				pmax	pmax		
	comp=Z,12nm,1.3s						
KBA	Koelnbreinsper	10.52	316	Pn	Pn	00 27 49.1	+2.2
	comp=Z,12nm,1.3s						
VRAC	Vranov	10.75	333	Pn	Pn	00 27 50.5	+0.4
VRAC				LR	LR	00 32 19.4	
VRAC	Vranov	10.75	333	Pn	Pn	00 27 50.5	+0.4
	comp=Z,0.1nm,0.3s,baz=124,slow=12,SNR=2.3						
VRAC				LR	LR	00 32 19.4	
	comp=Z,71nm,18.5s,baz=143,slow=39						
VRAC	Vranov	10.75	333	Pn	Pn	00 27 50.5	+0.4
AKASG	Malin Array Be	11.38	17	Pn	Pn	00 27 57.6	-1.2
AKASG	Malin Array Be	11.38	17	Pn	Pn	00 27 57.6	-1.2
	comp=Z,1.8nm,0.3s,baz=212,slow=12,SNR=5.8						
AKASG	Malin Array Be	11.38	17	Pn	Pn	00 27 57.7	-1.1
MMAI	Mount Meron Ar	11.49	123	Pn	Pn	00 28 01.1	+0.8
	comp=Z,0.9nm,0.3s,baz=310,slow=12,SNR=11						
GERES	GERESS Array B	11.54	324	Pn	Pn	00 28 01.8	+0.8
GERES	GERESS Array B	11.54	324	Pn	Pn	00 28 01.8	+0.8
	comp=Z,0.1nm,0.3s,baz=317,slow=8.5,SNR=3.4						
KHC	Kasperske Hory	11.81	325	eP	Pn	00 27 57.4	-7.2
KHC				ex	x	00 28 07.5	
KHC				eS	Sn	00 29 59.8	-17
KEST	Kesra	12.30	255	Pn	Pn	00 28 11.1	-0.3
	comp=Z,0.1nm,0.3s,baz=284,slow=18,SNR=2.9						
DAVOX	Davos/Dischmat	12.33	308	Pn	Pn	00 28 11.5	-0.2
DAVOX				LR	LR	00 33 18.4	
DAVOX	Davos/Dischmat	12.33	308	Pn	Pn	00 28 11.5	-0.2
	comp=Z,0.1nm,0.3s,baz=323,slow=20,SNR=2.1						
DAVOX				LR	LR	00 33 18.4	
	comp=Z,123nm,18.3s,baz=255,slow=39						
DAVOX	Davos/Dischmat	12.33	308	Pn	Pn	00 28 11.5	-0.2
EIL	Elat	13.63	135	Pn	Pn	00 28 28.4	-1.2
EIL	Elat	13.63	135	Pn	Pn	00 28 28.4	-1.2
	comp=Z,0.1nm,0.3s,baz=355,slow=18,SNR=2.5						
BNI	Bardonecchia	13.75	298	ePn	Pn	00 28 27.4	-3.8
KIV	Kislovodsk	14.49	68	eP	Pn	00 28 39.8	-1.5
KIV	Kislovodsk	14.49	68	ePn	Pn	00 28 39.8	-1.5
RGN	Rugen	16.29	337	Pn	Pn	00 29 01.8	-3.2
MOS	Moscow	18.22	25	eP	Pn	00 29 30.0	+0.8
MOS				pmax	pmax		
	comp=Z,32nm,1.1s						
HFS	Hagfors	21.23	346	P	P	00 30 01.4	-0.8
	comp=Z,2.6nm,0.7s,mb3.7,baz=149,slow=10,SNR=7.7						
ESDC	Sonseca Array	21.44	278	P	P	00 30 04.0	-0.6
	comp=Z,1.5nm,0.6s,mb3.5,baz=68,slow=11,SNR=7.4						
ESLA	Sonseca Array	21.44	278	eP	P	00 30 02.6	-2.1
FINES	FINESS Array B	21.58	3	P	P	00 30 04.6	-1.4
	comp=Z,2.9nm,0.9s,mb3.7,baz=168,slow=9.8,SNR=9.0						
KONO	Kongsberg	21.72	340	Pn	P	00 30 03.2	-4.3
KAF	Kangasniemi	22.26	3	ep	P	00 30 10.4	-2.8
	comp=Z,3.0nm,0.8s,mb3.8						
KAF	Kangasniemi	22.26	3	eP	P	00 30 10.4	-2.8
KAF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.8						
NAO01	NORSAR Array S	22.46	343	eP	P	00 30 12.8	-2.5
NB2	NORSAR Subarra	22.56	344	P	P	00 30 14.7	-1.7
	comp=Z,6.1nm,1.1s,mb3.9,baz=159,slow=11						
NOA	NORSAR Array B	22.56	344	P	P	00 30 14.8	-1.7
	comp=Z,1.6nm,0.7s,mb3.6,baz=149,slow=9.4,SNR=6.0						
JOF	Joensuu	23.44	8	ep	P	00 30 25.5	-0.2
	comp=Z,2.3nm,0.6s,mb3.8						
MDT	Midelt	24.02	262	P	P	00 30 30.6	-0.9
	comp=Z,2.5nm,0.9s,mb3.7,baz=89,slow=14,SNR=5.8						
MTE	Manteigas	24.03	281	eP	P	00 30 27.0	-4.6
AKTO	Aktyubinsk	25.98	55	LR	LR	00 44 18.6	
	comp=Z,39nm,18.7s,MS3.0,baz=95,slow=44						
ARCES	ARCESS Array B	29.68	1	P	P	00 31 21.2	-0.9
ARCES				pmax	pmax		
	comp=Z,8.0nm,1.2s						
ARCES				MLR	MLR		
	comp=Z,132nm,19.4s						
ARCES	ARCESS Array B	29.68	1	P	P	00 31 21.2	-0.8
	comp=Z,7.8nm,1.2s,mb4.3,baz=148,slow=10.0,SNR=3.1						
ARCES				LR	LR	00 44 31.9	
	comp=Z,132nm,19.4s,MS3.6,baz=326,slow=39						
TORD	Torodi Ar. Bea	33.11	223	P	P	00 31 50.8	-2.0
	comp=Z,2.0nm,0.5s,mb4.3,baz=32,slow=8.9,SNR=42						
BRVK	Borovoye	33.87	52	P	P	00 31 56.2	-2.9
KURK	Kurchatov	39.07	55	P	P	00 32 40.4	-3.1
MK31	Makanchi Array	42.10	61	eP	P	00 33 09.7	+1.1
MK31	Makanchi Array	42.10	61	eP	P	00 33 09.7	+1.2
MKAR	Makanchi Array	42.10	61	P	P	00 33 09.5	+1.0
MKAR	Makanchi Array	42.10	61	P	P	00 33 09.5	+1.0
	comp=Z,1.9nm,0.6s,mb3.9,baz=274,slow=7.3,SNR=39						
ZAL	Zalesovo	42.50	50	P	P	00 33 12.6	+0.8
ZALV	Zalesovo Beam	42.51	50	P	P	00 33 12.6	+0.7
	comp=Z,1.3nm,0.6s,mb3.8,baz=277,slow=8.4,SNR=6.7						
TLY	Talaya	54.12	49	P	P	00 34 36.0	-5.4
SONM	Songino Array	57.26	53	P	P	00 35 03.6	-0.5
	comp=Z,0.1nm,0.3s,mb3.3,baz=122,slow=7.0,SNR=2.7						
SCHQ	Schefferville	58.99	318	P	P	00 35 15.6	-0.5
SCHQ	Schefferville	58.99	318	P	P	00 35 15.6	-0.5
	comp=Z,2.2nm,0.9s,mb4.2,baz=63,slow=9.0,SNR=3.7						
TSUM	Tsumeb	59.12	187	P	P	00 35 15.2	-2.1
BOSA	Boshof	68.20	179	P	P	00 36 14.8	-2.2
BOSA	Boshof	68.20	179	P	P	00 36 14.8	-2.2
	comp=Z,1.7nm,0.7s,mb4.2,baz=270,slow=1.0,SNR=3.9						
YKA	Yellowknife Ar	72.64	341	P	P	00 36 42.9	-0.9
	comp=Z,0.1nm,0.4s,mb3.1,baz=24,slow=4.7,SNR=2.8						
ULM	Lac du Bonnet	75.85	325	P	P	00 37 02.7	-0.2
	comp=Z,0.9nm,0.6s,mb3.9,baz=66,slow=8.3,SNR=3.4						
TXAR	Lajitas Array	95.65	316	P	P	00 38 42.5	-0.1
	comp=Z,0.6nm,0.9s,mb4.0,baz=72,slow=4.1,SNR=4.5						

IDC 28 00:54:02.2±9.2**, 21.64S**×**65.83W, h291**^{km}±78^{km}**, mb3.0**/1**, mb1 2.8**/2**, mb1mx2.7**/16**, mbtmp2.7**/2**, Error ellipse: s-maj=118.3km s-min=81.3km az=24.0, Southern Bolivia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	5.75	337	P	Pn	00 55 29.0	+0.7
	0.3nm,0.3s,baz=172,slow=9.4,SNR=7.1						
LPAZ				S	S	00 56 39.2	+1.5
	0.0nm,0.3s,baz=282,slow=20,SNR=3.8						
TORD	Torodi Ar. Bea	74.72	69	P	P	01 05 10.8	0.0
	0.5nm,0.8s,baz=260,slow=5.5,SNR=3.8						
MKAR	Makanchi Array	144.02	38	PKP	PKPdf	01 13 02.7	-0.3
	0.2nm,0.4s,baz=293,slow=4.0,SNR=4.8						

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*IDC **28** 00:57:10.6±1.2, 2.43N×84.39W, h0^{km}, mb3.6/7, mb1 4.0/10, mb1mx3.9/20, mbtmp3.7/10, ML3.5/3, MS3.5/9, Ms1 3.6/9, ms1mx3.4/21, Error ellipse: s-maj=50.9km s-min=16.6km az=53.0*

*ISCJB **28** 00:57:11.3±0.5, 2.44N±0.07×84.39W±0.06, h17^{km}, mb3.9/10, MS3.4/5, Error ellipse: s-maj=9.8km s-min=8.0km az=25.4*

*NEIC **28** 00:57:13.0±3.7, 2.41N×84.37W, h17^{km}±25^{km}, mb4.2/4, Error ellipse: s-maj=11.0km s-min=8.1km az=220.0*

ISC 28 00:57:14.1±3.1**, 2.44N**±0.07×**84.39W**±0.06**, h21**^{km}±25^{km}**, n22, σ0^{s}79**/21**, mb3.9**/10**, MS3.4**/5**, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
OTAV	Otavalo	6.33	110	ePn	Pn	00 58 45.2	-1.0
	17nm,0.8s						
OTAV				eSn	Sn	00 59 52.2	-5.8
PAYG	Puerto Ayora	6.66	242	ePn	Pn	00 58 49.9	-0.8
	29nm,0.8s						
JTS	JuntasAbangare	7.82	356	Pn	Pn	00 59 07.2	+0.5
JTS				LR	LR	01 01 37.0	
JTS	JuntasAbangare	7.82	356	Pn	Pn	00 59 07.2	+0.5
	1.7nm,0.3s,baz=145,slow=13,SNR=11						
JTS				LR	LR	01 01 37.0	
	comp=Z,254nm,21.5s,baz=348,slow=34						
ATAH	Atahualpa	11.13	148	Pn	Pn	00 59 53.4	+1.3
	0.2nm,0.3s,baz=353,slow=14,SNR=5.0						
ATAH				LR	LR	01 03 36.3	
	comp=Z,425nm,21.6s,baz=128,slow=34						
SDV	Santo Domingo	15.11	64	ePn	Pn	01 00 46.0	-0.4
	9.0nm,1.0s						
SDV				eSn	Sn	01 03 33.2	0.0
SDV				LR	LR	01 06 17.2	
SDV	Santo Domingo	15.11	64	Pn	Pn	01 00 46.9	+0.4
	0.2nm,0.3s,baz=47,slow=19,SNR=2.2						
SDV				LR	LR	01 06 17.2	
	comp=Z,162nm,19.9s,baz=0.6,slow=36						
TEIG	Tepich	18.08	348	LR	LR	01 07 36.7	
	comp=Z,140nm,18.0s,baz=27,slow=35						
PCRV	Puerto La Cruz	21.07	68	LR	LR	01 08 46.1	
	comp=Z,112nm,21.4s,MS3.2,baz=360,slow=33						
SJG	San Juan	23.72	48	LR	LR	01 11 17.0	
	comp=Z,103nm,19.8s,MS3.3,baz=248,slow=36						
LPAZ	La Paz	24.59	140	P	P	01 02 33.6	+0.7
	4.9nm,1.1s,mb4.0,baz=328,slow=11,SNR=14						
LPAZ				LR	LR	01 13 03.8	
	comp=Z,173nm,18.5s,MS3.6,baz=302,slow=39						
SIV	San Ignacio	29.44	129	P	P	01 03 15.9	-0.7
	0.3nm,0.3s,mb3.5,baz=0.0,slow=20,SNR=3.6						
OXF	Oxford	32.25	352	eP	P	01 03 39.8	-1.3
	25nm,1.3s,mb4.9						
TXAR	Lajitas Array	32.42	327	P	P	01 03 43.6	+0.9
	0.3nm,0.8s,mb3.2,baz=123,slow=6.6,SNR=3.4						
TXAR				LR	LR	01 17 45.5	
	comp=Z,62nm,20.4s,MS3.3,baz=180,slow=38						
SDCO	Great Sand Dun	40.12	334	eP	P	01 04 48.5	+0.1
	4.3nm,1.0s,mb4.1						
DUG	Dugway	45.55	329	P	P	01 05 32.8	+0.4
PDAR	Pinedale Array	46.01	334	P	P	01 05 35.0	-1.0
	0.5nm,0.8s,mb3.5,baz=152,slow=6.6,SNR=4.3						
PDAR				LR	LR	01 25 31.6	
	comp=Z,112nm,19.9s,MS3.8,baz=349,slow=37						
AGMN	Agassiz Refuge	46.74	349	eP	P	01 05 42.3	+0.7
	3.3nm,0.9s,mb4.3						
NVAR	Mina Array Bea	47.36	323	P	P	01 05 47.7	+1.1
NVAR	Mina Array Bea	47.36	323	P	P	01 05 47.7	+1.1
	1.4nm,0.9s,mb3.9,baz=135,slow=7.9,SNR=6.7						
YKA	Yellowknife Ar	64.00	345	P	P	01 07 44.8	-0.9
	1.2nm,0.8s,mb4.0,baz=141,slow=6.6,SNR=13						
TORD	Torodi Ar. Bea	85.64	77	P	P	01 09 52.0	+0.1
	0.2nm,0.8s,mb3.4,baz=300,slow=23,SNR=2.1						

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*IDC **28** 01:04:34.9±0.8, 46.39N×155.39E, h0^{km}, mb3.8/10, mb1 4.0/10, mb1mx3.8/23, mbtmp3.8/10, Error ellipse: s-maj=26.2km s-min=19.8km az=150.0*

*ISCJB **28** 01:04:37.9±0.7, 46.3N±0.1×155.4E±0.1, h33^{km}, mb3.8/11, Error ellipse: s-maj=21.2km s-min=13.4km az=162.8*

*MOS **28** 01:04:40.3±1.6, 46.37N×155.09E, h52^{km}, mb4.2/4, Error ellipse: s-maj=32.2km s-min=29.8km az=95.3*

ISC 28 01:04:40.2±0.7**, 46.3N**±0.1×**155.3E**±0.1**, h35**^{km}**, n17, σ0^{s}94**/17**, mb3.8**/11**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
KUR	Kuril’sk	5.34	261	ePN	Pn	01 05 55.6	-1.7
ZALV	Zalesovo Beam	44.09	307	P	P	01 12 45.6	+1.1
	0.3nm,0.4s,mb3.3,baz=69,slow=4.9,SNR=2.5						
ZAL	Zalesovo	44.11	307	P	P	01 12 45.6	+0.9
MKAR	Makanchi Array	48.49	299	P	P	01 13 19.8	+0.6
	0.3nm,0.7s,mb3.5,baz=71,slow=8.0,SNR=4.7						
YKA	Yellowknife Ar	50.34	37	P	P	01 13 32.5	-0.6
	0.2nm,0.5s,mb3.4,baz=295,slow=7.4,SNR=4.0						
NVAR	Mina Array Bea	61.26	63	P	P	01 14 52.2	+0.5
	1.0nm,0.7s,mb4.1,baz=303,slow=5.3,SNR=6.9						
JOF	Joensuu	62.38	335	ep	P	01 14 59.6	+0.8
	0.9nm,0.5s,mb4.2						
JOF	Joensuu	62.38	335	eP	P	01 14 59.6	+0.8
JOF				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.2						
PDAR	Pinedale Array	63.74	55	P	P	01 15 07.5	-0.7
	comp=Z,0.6nm,0.8s,mb3.7,baz=158,slow=1.6,SNR=5.5						
FINES	FINESS Array B	65.06	336	P	P	01 15 15.1	-1.4
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	65.06	336	P	P	01 15 15.1	-1.4
	comp=Z,0.7nm,0.4s,mb4.0,baz=38,slow=7.5,SNR=14						
ULM	Lac du Bonnet	65.82	42	P	P	01 15 20.5	-1.1
	comp=Z,0.5nm,0.7s,mb3.6,baz=350,slow=11,SNR=3.0						
FITZ	Fitzroy Crossi	69.53	210	P	P	01 15 44.9	-0.3
	comp=Z,2.1nm,0.9s,mb4.1,baz=12,slow=9.3,SNR=2.5						
ASAR	Alice Springs	72.33	201	P	P	01 16 03.2	+1.1
ASAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	72.33	201	P	P	01 16 03.1	+1.0
	comp=Z,0.5nm,0.6s,mb3.6,baz=17,slow=5.6,SNR=5.3						
TXAR	Lajitas Array	76.35	62	P	P	01 16 26.4	+0.7
TXAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
TXAR	Lajitas Array	76.35	62	P	P	01 16 26.4	+0.7
	comp=Z,1.5nm,0.5s,mb4.1,baz=306,slow=4.7,SNR=32						

IDC 28 01:04:45.2±11.0**, 9.25S**×**150.76E, h0**^{km}**, mb3.6**/2**, mb1 3.8**/4**, mb1mx3.5**/13**, mbtmp3.7**/4**, ML2.9**/2**, Error ellipse: s-maj=177.0km s-min=43.2km az=29.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.56	267	Pn	Pn	01 05 41.3	-0.3
	5.2nm,0.3s,baz=53,slow=1.1,SNR=12						
PMG				Sn	Sn	01 06 25.7	+1.2
	11nm,0.3s,baz=137,slow=15,SNR=6.6						
WRA	Warramunga Arr	19.10	234	P	Pn	01 09 09.5	-0.9
	0.1nm,0.3s,baz=70,slow=10,SNR=6.4						
ASAR	Alice Springs	21.57	226	P	P	01 09 36.4	-0.1
	1.5nm,0.8s,baz=63,slow=10,SNR=13						
STKA	Stephens Creek	24.07	199	P	P	01 10 03.0	+0.6
	0.9nm,0.4s,baz=7.9,slow=6.5,SNR=3.3						

IDC 28 01:12:47.9±23.0**, 0.74N**×**125.98E, h405**^{km}±278^{km}**, mb3.2**/4**, mb1 3.2**/5**, mb1mx3.0**/17**, mbtmp3.1**/5**, Error ellipse: s-maj=156.7km s-min=32.5km az=49.0, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	18.72	181	P	P	01 16 40.2	+0.4
	0.2nm,0.3s,baz=333,slow=16,SNR=8.7						
WRA	Warramunga Arr	22.12	159	P	P	01 17 10.5	-0.9
	1.7nm,0.3s,baz=335,slow=11,SNR=58						
ASAR	Alice Springs	25.45	163	P	P	01 17 42.1	+1.0
	0.9nm,0.4s,baz=349,slow=7.4,SNR=17						
STKA	Stephens Creek	35.65	157	P	P	01 19 09.4	-0.2
	2.6nm,0.7s,baz=339,slow=8.6,SNR=5.5						
MKAR	Makanchi Array	59.60	327	P	P	01 22 10.8	+0.1
	0.2nm,0.3s,baz=121,slow=7.2,SNR=6.3						

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*IDC **28** 01:15:23.1±3.0, 27.47N×55.59E, h0^{km}, mb3.7/4, mb1 3.7/4, mb1mx3.4/21, mbtmp3.7/4, Error ellipse: s-maj=66.1km*

s-min=32.4km az=146.0
CSEM ***28*** *01:15:32.2,2906N×5450E,h33^{km},ML2.9,After KISR*
KISR ***28*** *01:15:32.2±0.7,2906N×5450E,h34^{km}±713^{km},ML2.9*
ISCJB ***28*** *01:15:35.1±2.5,286N±03×546E±0.1,h10^{km},mb3.8/3, Error ellipse: s-maj=48.4km s-min=12.2km az=172.0*
ISC 28 01:15:36.2±2.5**,286N**±03×**547E**±01**,h10**^{km}**,n12,**σ**0**^{s}**73**/18**, mb3.8**/3**,Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBD	Kabd	6.16	277	*e*P	Pn	01 17 07.0	-0.2
KBD				*e*S	Sn	01 18 17.5	-0.2
KBD				AML	AML	01 18 20.3	
	comp=Z,16nm,0.3s						
KBD	Kabd	6.16	277	*e*P	Pn	01 17 07.0	-0.2
KBD				*e*S	Sn	01 18 17.5	-0.2
	comp=Z,16nm,0.3s						
RDF	Al-Radifah	6.28	274	*e*P	Pn	01 17 08.8	0.0
RDF				*e*S	Sn	01 18 21.4	+0.8
RDF				AML	AML	01 18 22.3	
	comp=Z,4.1nm,0.2s						
RDF	Al-Radifah	6.28	274	*e*P	Pn	01 17 08.8	0.0
RDF				*e*S	Sn	01 18 21.4	+0.8
	comp=Z,4.1nm,0.2s						
MIB	Mutribah	6.53	282	*e*S	Sn	01 18 26.2	-0.6
MIB				AML	AML	01 18 27.5	
	comp=Z,2.4nm,0.4s						
MIB	Mutribah	6.53	282	*e*S	Sn	01 18 26.2	-0.7
	comp=Z,2.4nm,0.4s						
NAY	Al-Naaiem	6.56	277	*e*P	Pn	01 17 12.3	-0.4
NAY				AML	AML	01 18 27.4	
	comp=Z,1.2nm,0.5s						
NAY				*e*S	Sn	01 18 27.6	+0.1
NAY	Al-Naaiem	6.56	277	*e*P	Pn	01 17 12.3	-0.4
NAY				*e*S	Sn	01 18 27.6	+0.1
BRTR	Keskin Array B	20.58	308	P	P	01 20 18.4	+3.2
	comp=Z,1.1nm,0.7s,baz=124,slow=12,SNR=7.7						
ZALV	Zalesovo Beam	33.49	33	P	P	01 22 08.9	-6.5
	comp=Z,0.8nm,0.5s,mb3.9,baz=236,slow=10,SNR=5.0						
FINES	FINESS Array B	37.92	338	P	P	01 22 53.0	-0.3
	comp=Z,1.3nm,0.9s,mb3.6,baz=138,slow=8.5,SNR=4.9						
TORD	Torodi Ar. Bea	51.46	264	P	P	01 24 35.5	-6.4
	comp=Z,0.7nm,0.5s,mb3.9,baz=62,slow=7.8,SNR=19						

IDC ***28*** *01:33:47.8±2.1,4002N×2369E,h0^{km},mb3.7/2,mb1 3.6/3, mb1mx3.2/19,mbtmp3.6/3,ML3.2/1,Error ellipse: s-maj=105.2km s-min=25.6km az=148.0*
NEIC ***28*** *01:33:48.7,3996N×2385E,h28^{km},ML3.9(THE), ML3.5(ATH),After ATH.*
ATH ***28*** *01:33:48.5,3996N×2387E,h28^{km}±2^{km},MD3.7/15,ML3.5*
SOF ***28*** *01:33:48.0,4002N×2403E,h8^{km},MD3.2*
ISCJB ***28*** *01:33:48.0±0.4,3995N±002×2391E±003,h12^{km}±3^{km}, mb3.6/2,Error ellipse: s-maj=3.4km s-min=2.6km az=6.3*
THE ***28*** *01:33:49.1,3994N×2389E,h9^{km},ML3.9*
CSEM ***28*** *01:33:49.0±0.1,3996N×2391E,h15^{km},ML3.9,Error ellipse: s-maj=1.5km s-min=1.1km az=102.0*
SKO ***28*** *01:33:49.7,3999N×2392E,h6^{km}*
ISC 28 01:33:48.7±0.4**,3993N**±002×**2390E**±003**,h9**^{km}±3^{km}**,n140,** σ**1**^{s}**04**/185**,mb3.6**/2**,3C-6D,Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAIG	Paliouri	0.17	269	P	Pg	01 33 52.6	+0.3
PAIG				S	Sg	01 33 55.6	+0.9
PAIG	Paliouri	0.17	269	*e*Pg	Pg	01 33 52.6	+0.3
PAIG				*e*Sg	Sg	01 33 55.6	+0.9
PAIG	Paliouri	0.17	269	*e*Pg	Pg	01 33 52.6	+0.3
PAIG				*e*Sg	Sg	01 33 55.6	+0.9
OUR	Ouranopolis	0.41	9	P	Pg	01 33 56.9	+0.2
OUR	Ouranopolis	0.41	9	*e*Pg	Pg	01 33 56.9	+0.2
OUR	Ouranopolis	0.41	9	*e*Pg	Pg	01 33 56.9	+0.2
PLG	Polygyros	0.56	322	P	Pg	01 33 59.0	-0.6
PLG				Pn	Pg	01 33 59.3	-0.3
PLG				*e*Sn	Sg	01 34 06.4	-0.6
PLG				S	Sg	01 34 07.5	+0.5
PLG	Polygyros	0.56	322	*e*Pg	Pg	01 33 59.0	-0.6
PLG				*e*Sg	Sg	01 34 07.5	+0.5
PLG	Polygyros	0.56	322	*e*PN	Pg	01 33 59.3	-0.3
PLG				*e*SN	Sg	01 34 06.4	-0.6
PLG	Polygyros	0.56	322	*e*Pg	Pg	01 33 59.0	-0.6
PLG	Polygyros	0.56	322	Pn	Pg	01 33 59.3	-0.3
PLG				*e*Sn	Sg	01 34 06.4	-0.6
PLG				*e*Sg	Sg	01 34 07.4	+0.4
AOS	Alonnisos	0.76	181	P	Pg	01 34 03.9	+0.6
AOS	Alonnisos	0.76	181	*e*Pg	Pg	01 34 03.9	+0.6
AOS				*e*Sg	Sg	01 34 15.3	+2.0
AOS	Alonnisos	0.76	181	*e*Pg	Pg	01 34 03.9	+0.5
AOS				*e*Sg	Sg	01 34 15.3	+2.1
XOR	Xorichti	0.78	224	P	Pg	01 34 04.3	+0.5
XOR	Xorichti	0.78	224	*e*Pg	Pg	01 34 04.3	+0.5
XOR				*e*Sg	Sg	01 34 15.8	+1.7
XOR	Xorichti	0.78	224	*e*Pg	Pg	01 34 04.3	+0.5
XOR				*e*Sg	Sg	01 34 15.8	+1.8
NEO	Neokhori	0.81	220	Pn	Pn	01 34 05.3	-1.0
NEO				*e*Sn	Sn	01 34 16.0	-2.5
NEO	Neokhori	0.81	220	*e*PN	Pn	01 34 05.3	-1.0
NEO				*e*SN	Sn	01 34 16.0	-2.5
NEO	Neokhori	0.81	220	Pn	Pn	01 34 05.3	-1.0
NEO				*e*Sn	Sn	01 34 16.0	-2.5
HORT	Hortiatis	0.90	318	P	Pg	01 34 05.3	-0.8
HORT				S	Sg	01 34 18.4	+0.6
HORT	Hortiatis	0.90	318	*e*Pg	Pg	01 34 05.3	-0.8
HORT				*e*Sg	Sg	01 34 18.4	+0.6
HORT	Hortiatis	0.90	318	*e*Pg	Pg	01 34 05.3	-0.8
HORT				*e*Sg	Sg	01 34 18.4	+0.5
LOS	Limnos	0.91	89	P	Pg	01 34 06.2	0.0
LOS	Limnos	0.91	89	*e*Pg	Pg	01 34 06.2	0.0
LOS	Limnos	0.91	89	*e*Pg	Pg	01 34 06.2	0.0
SOH	Sokhos	0.98	335	P	Pg	01 34 07.4	-0.2
SOH				S	Sg	01 34 21.3	+0.9
SOH	Sokhos	0.98	335	*e*Pg	Pg	01 34 07.4	-0.2
SOH				*e*Sg	Sg	01 34 21.3	+0.9
SOH	Sokhos	0.98	335	*e*Pg	Pg	01 34 07.4	-0.2
SOH				*e*Sg	Sg	01 34 21.3	+0.9
LIA	Limnos Island	0.99	92	Pn	Pn	01 34 09.5	+0.7
LIA	Limnos Island	0.99	92	*e*PN	Pn	01 34 08.5	-0.3
LIA	Limnos Island	0.99	92	Pn	Pn	01 34 09.5	+0.7
THE	Thessaloniki	1.00	315	P	Pg	01 34 07.8	-0.1
THE				S	Sg	01 34 21.8	+0.9
THE	Thessaloniki	1.00	315	*e*Pg	Pg	01 34 07.8	-0.1
THE				*e*Sg	Sg	01 34 21.8	+0.9
THE	Thessaloniki	1.00	315	*e*Pg	Pg	01 34 07.8	-0.1
THE				*e*Sg	Sg	01 34 21.8	+0.9
LIT	Litokhoron	1.09	279	P	Pg	01 34 10.0	+0.3
LIT				S	Sg	01 34 25.5	+1.5
LIT	Litokhoron	1.09	279	*e*Pg	Pg	01 34 10.0	+0.3
LIT				*e*Sg	Sg	01 34 25.5	+1.5
LIT	Litokhoron	1.09	279	*e*Pg	Pg	01 34 10.0	+0.3
LIT				*e*Sg	Sg	01 34 25.5	+1.6
SRS	Serrai	1.21	349	P	Pb	01 34 11.1	-0.6
SRS				S	Sg	01 34 28.4	+0.8
SRS	Serrai	1.21	349	*e*Pg	Pb	01 34 11.1	-0.6
SRS				*e*Sg	Sg	01 34 28.4	+0.8
SRS	Serrai	1.21	349	*e*Pg	Pg	01 34 11.1	-0.8
SRS				*e*Sg	Sg	01 34 28.4	+0.8
NVR	Nevrokopi	1.42	359	Pn	Pn	01 34 14.1	-0.6
NVR	Nevrokopi	1.42	359	*e*PN	Pn	01 34 14.1	-0.6
NVR	Nevrokopi	1.42	359	Pn	Pn	01 34 14.1	-0.6
KNT	Kendrikon	1.45	329	P	Pn	01 34 15.1	0.0
KNT				S	Sn	01 34 34.7	+0.5
KNT	Kendrikon	1.45	329	*e*Pg	Pn	01 34 15.1	0.0
KNT				*e*Sg	Sn	01 34 34.7	+0.5
KNT	Kendrikon	1.45	329	*e*Pg	Pg	01 34 15.1	-1.4
KNT				*e*Sg	Sg	01 34 34.7	-0.5
LKR	Lokris	1.46	209	*e*Pb	Pb	01 34 14.2	-1.8
LKR	Lokris	1.46	209	*e*PB	Pb	01 34 14.2	-1.8
LKR	Lokris	1.46	209	*e*Pb	Pb	01 34 14.2	-1.8
THL	Klokotos Trika	1.50	256	*e*PN	Pn	01 34 15.5	-0.2
THL	Klokotos Trika	1.50	256	*e*Pn	Pn	01 34 15.5	-0.2
AGG	Agios Georgios	1.52	234	P	Pn	01 34 15.4	-0.5
AGG				S	Sn	01 34 35.8	0.0
AGG	Agios Georgios	1.52	234	*e*Pg	Pn	01 34 15.4	-0.5
AGG				*e*Sg	Sn	01 34 35.8	0.0
AGG	Agios Georgios	1.52	234	*e*Pg	Pg	01 34 15.4	-2.4
AGG				*e*Sg	Sg	01 34 35.8	-1.6
GRG	Griva	1.53	312	*e*Sg	Sg	01 34 37.0	-1.1
GRG	Griva	1.53	312	*e*Sg	Sg	01 34 37.0	-1.0
MMB	Musomiste	1.66	356	*i* P	Pn	01 34 17.1	-0.9
KZN	Kozani	1.67	284	Pn	Pn	01 34 18.5	+0.3
KZN	Kozani	1.67	284	*e*PN	Pn	01 34 18.0	-0.2
KZN	Kozani	1.67	284	Pn	Pn	01 34 18.5	+0.3
VAY	Valandovo	1.72	324	P	Pn	01 34 18.7	-0.1
VAY	Valandovo	1.72	324	*e*Pn	Pn	01 34 20.1	+1.4
VAY	Valandovo	1.72	324	P	Pn	01 34 18.7	-0.1
RDO	Rodhopi	1.74	45	Pb	Pb	01 34 18.1	-2.8
RDO	Rodhopi	1.74	45	*e*PB	Pb	01 34 18.1	-2.8
RDO	Rodhopi	1.74	45	Pb	Pb	01 34 18.1	-2.8
RZN	Rozhen	1.86	19	*i* P	Pn	01 34 20.7	-0.1
PTL	Penteli	1.88	181	*e*Pn	Pn	01 34 20.1	-0.9
PTL	Penteli	1.88	181	*e*PN	Pn	01 34 20.1	-0.9
PTL	Penteli	1.88	181	*e*Pn	Pn	01 34 20.1	-0.9
ALN	Alexandroupoli	1.90	59	P	Pn	01 34 20.1	-1.2
ALN	Alexandroupoli	1.90	59	*e*Pb	Pn	01 34 20.1	-1.2
ALN	Alexandroupoli	1.90	59	*e*Pb	Pb	01 34 20.1	-3.5
EVR	Evrytania	1.91	239	*e*Pb	Pb	01 34 21.7	-2.0
EVR	Evrytania	1.91	239	*e*PB	Pb	01 34 21.7	-2.0
EVR	Evrytania	1.91	239	*e*Pb	Pb	01 34 21.7	-2.0
PRK	Paraskevi	1.96	110	*e*Pn	Pn	01 34 22.3	+0.2
PRK	Paraskevi	1.96	110	*e*PN	Pn	01 34 22.3	+0.2
PRK	Paraskevi	1.96	110	*e*Pn	Pn	01 34 22.3	+0.2
ATH	Athens Observa	1.96	184	Pn	Pn	01 34 21.5	-0.6
ATH	Athens Observa	1.96	184	*e*PN	Pn	01 34 21.5	-0.6
ATH	Athens Observa	1.96	184	Pn	Pn	01 34 21.5	-0.6
KKB	Krupnik	2.03	343	*i* P	Pn	01 34 23.0	-0.1
LTK	Loutraki	2.04	201	*e*Pn	Pn	01 34 22.6	-0.6
LTK	Loutraki	2.04	201	*e*Pn	Pn	01 34 22.6	-0.6
KDZ	Kurdzhali	2.07	33	*i* P	Pn	01 34 22.2	-1.4
FNA	Florina	2.11	295	P	Pn	01 34 24.6	+0.4
FNA	Florina	2.11	295	*e*Pn	Pn	01 34 24.6	+0.4
FNA				*e*Sn	Sn	01 34 50.1	-0.3
FNA	Florina	2.11	295	*e*Pn	Pn	01 34 24.6	+0.5
FNA				*e*Sn	Sn	01 34 50.1	-0.3
STIP	Stip	2.19	324	*e*Pn	Pn	01 34 26.4	+1.1
BIA	Bitola	2.24	300	*e*Pn	Pn	01 34 26.9	+0.8
PLD	Plovdiv	2.26	15	*e*Pn	Pn	01 34 26.8	+0.6
PLD	Plovdiv	2.26	15	*e*Pn	Pn	01 34 26.8	+0.6
SELA	Sela	2.27	224	*e*Pn	Pn	01 34 26.4	0.0
SELA				*e*Sn	Sn	01 34 55.2	+0.6
SELA	Sela	2.27	224	*e*Pn	Pn	01 34 26.4	0.0
SELA				*e*Sn	Sn	01 34 55.2	+0.7
JAN	Janina	2.36	264	Pb	Pb	01 34 28.3	-3.1
JAN	Janina	2.36	264	*e*PB	Pb	01 34 28.3	-3.1
JAN	Janina	2.36	264	Pb	Pb	01 34 28.3	-3.1
KRUS	Krusevo	2.47	306	*e*Pn	Pn	01 34 30.4	+1.2
DID	Didima	2.48	192	*e*Pn	Pn	01 34 28.5	-0.7
DID	Didima	2.48	192	*e*Pn	Pn	01 34 28.5	-0.7
VTS	Vitosha	2.71	349	*i* P	Pn	01 34 33.2	+0.8
VTS	Vitosha	2.71	349	⇓*i*P	Pn	01 34 33.1	+0.7
VLX	Vlachokerasia	2.82	205	*e*Pn	Pn	01 34 34.1	+0.2
VLX	Vlachokerasia	2.82	205	*e*Pn	Pn	01 34 34.1	+0.2
APE	Apeiranthos	3.13	155	P	Pn	01 34 37.7	-0.5
APE	Apeiranthos	3.13	155	*e*Pn	Pn	01 34 37.7	-0.5
APE	Apeiranthos	3.13	155	⇓*i*P	Pn	01 34 37.6	-0.6
APE	Apeiranthos	3.13	155	*e*Pn	Pn	01 34 37.7	-0.5
ITM	Ithomi	3.15	210	*e*Pn	Pn	01 34 40.0	+1.5
ITM	Ithomi	3.15	210	*e*PN	Pn	01 34 40.0	+1.5
ITM	Ithomi	3.15	210	*e*Pn	Pn	01 34 40.0	+1.5
KEK	Kerkira	3.16	267	P	Pn	01 34 43.5	+4.8
SMG	Samos	3.19	133	P	Pn	01 34 40.0	+0.9
JMB	Yambol	3.24	38	*i* P	Pn	01 34 39.2	-0.6
JMB				*i* Pg	Pg	01 34 49.6	-1.3
BARS	Barje	3.28	332	Pn	Pn	01 34 40.8	+0.5
BARS				Sg	Sg	01 35 33.4	-0.7
VLI	Veliai	3.30	194	*e*Pn	Pn	01 34 40.8	+0.3
VLI	Veliai	3.30	194	*e*PN	Pn	01 34 40.8	+0.3
VLI	Veliai	3.30	194	*e*Pn	Pn	01 34 40.8	+0.3
SZH	Strazhica	3.67	24	*i* P	Pn	01 34 45.7	+0.1
GRUS	Gruza	4.61	330	Pn	Pn	01 34 57.3	-1.3
GRUS				Sg	Sg	01 36 16.5	-0.3
DIVS	Divcibare	5.08	326	Pn	Pn	01 35 05.3	+0.3
KARP	Karpathos	5.08	148	P	Pn	01 35 05.6	+0.5
GZR	Gura Zlata	5.52	352	⇑*i*P	Pn	01 35 10.5	-0.5
TIP	Timpagrande	5.57	265	P	Pn	01 35 14.2	+2.5
MLR	Muntele Rosu	5.76	15	P	Pn	01 35 15.7	+1.4
MLR	Muntele Rosu	5.76	15	⇓*i*P	Pn	01 35 15.7	+1.4
BZS	Buzias	5.92	344	⇓*i*P	Pn	01 35 15.8	-0.8
PLOR	Plostina	6.25	18	⇓*i*P	Pn	01 35 23.2	+2.1
VRI	Vrincioaia	6.29	18	⇑*i*P	Pn	01 35 23.5	+2.0
PKSM	Moragy	7.36	330	P	Pn	01 35 36.0	-0.2
PKSM	Moragy	7.36	330	⇓*i*P	Pn	01 35 36.0	-0.3
BRTR	Keskin Array B	7.50	88	Pn	Pn	01 35 40.8	+2.6
BRTR	Keskin Array B	7.50	88	Pn	Pn	01 35 40.8	+2.6
	0.3nm,0.3s,baz=272,slow=12,SNR=12						
BRTR	Keskin Array B	7.50	88	Pn	Pn	01 35 40.8	+2.6
BURAR	Bucovina Array	7.74	7	⇑*i*P	Pn	01 35 42.5	+1.0
TORD	Torodi Ar. Bea	33.07	222	P	P	01 40 24.8	0.0
	0.8nm,0.5s,mb3.9,baz=33,slow=9.1,SNR=21						
MKAR	Makanchi Array	42.15	61	P	P	01 41 42.4	+1.1
MKAR	Makanchi Array	42.15	61	P	P	01 41 42.4	+1.1
	0.4nm,0.6s,mb3.2,baz=275,slow=6.9,SNR=9.2						

IDC ***28*** *01:51:44.1±1.6,239N×8455W,h0^{km},mb3.5/5,mb1 3.9/8, mb1mx3.7/19,mbtmp3.7/8,ML3.6/3,MS3.4/7,Ms1 3.4/7, ms1mx3.1/23,Error ellipse: s-maj=56.0km s-min=24.3km az=54.0*
ISCJB ***28*** *01:51:48.5±0.9,276N±010×842W±0.1,h33^{km},mb3.4/5, MS3.4/3,Error ellipse: s-maj=19.3km s-min=7.1km az=138.6*
NEIC ***28*** *01:51:49.0±1.1,236N×8450W,h35^{km},Error ellipse: s-maj=25.3km s-min=11.5km az=221.0*
ISC 28 01:51:50.5±0.9**,267N**±010×**843W**±01**,h35**^{km}**,n16,** σ**1**^{s}**00**/14**,mb3.4**/5**,MS3.4**/3**,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OTAV	Otavalo	6.30	112	*e*Pn	Pn	01 53 19.7	-1.2
	3.5nm,0.3s						
OTAV				Sn	Sn	01 54 32.7	+1.0
JTS	JuntasAbangare	7.60	355	Pn	Pn	01 53 41.0	+2.1
JTS				Sn	Sn	01 55 02.7	-1.1
JTS	JuntasAbangare	7.60	355	Pn	Pn	01 53 41.0	+2.1
	1.6nm,0.3s,baz=236,slow=20,SNR=11						
JTS				Sn	Sn	01 55 02.7	-1.1
	1.9nm,0.3s,baz=334,slow=22,SNR=4.9						
ATAH	Atahualpa	11.25	149	LR	LR	01 57 23.9	
	comp=Z,53nm,21.1s,baz=126,slow=30						
SDV	Santo Domingo	14.90	65	Pn	Pn	01 55 23.6	+4.8
SDV				LR	LR	02 00 49.5	
SDV	Santo Domingo	14.90	65	Pn	Pn	01 55 23.6	+4.8
	0.2nm,0.3s,baz=322,slow=18,SNR=2.8						
SDV				LR	LR	02 00 49.5	
	comp=Z,138nm,19.2s,baz=262,slow=36						
CMIG	Matias Romero	17.72	325	P	Pn	01 55 54.9	+0.3
	0.1nm,0.3s,baz=67,slow=9.0,SNR=3.6						
CMIG				LR	LR	02 01 25.9	
	comp=Z,114nm,18.8s,baz=143,slow=33						
TEIG	Tepich	17.88	348	LR	LR	02 02 28.7	
	comp=Z,95nm,18.1s,baz=246,slow=36						
SJG	San Juan	23.48	48	LR	LR	02 06 00.0	
	comp=Z,70nm,19.2s,MS3.1,baz=249,slow=36						
LPAZ	La Paz	24.68	140	P	P	01 57 07.8	-0.5
	1.2nm,0.9s,mb3.4,baz=318,slow=12,SNR=4.3						
TXAR	Lajitas Array	32.30	327	P	P	01 58 16.2	+0.1
	0.1nm,0.8s,mb2.7,baz=150,slow=9.1,SNR=2.0						
TKL	Tuckaleechee C	32.83	1	LR	LR	02 11 04.8	
	comp=Z,87nm,20.2s,MS3.5,baz=267,slow=35						
PDAR	Pinedale Array	45.86	334	LR	LR	02 23 05.8	
	comp=Z,80nm,18.6s,MS3.7,baz=357,slow=41						
NVAR	Mina Array Bea	47.25	323	P	P	02 00 21.1	+0.8
	0.4nm,0.6s,mb3.5,baz=141,slow=5.8,SNR=4.1						
ULM	Lac du Bonnet	48.42	350	P	P	02 00 29.2	+0.1
	0.7nm,0.9s,mb3.7,baz=172,slow=11,SNR=3.4						
YKA	Yellowknife Ar	63.82	345	P	P	02 02 17.7	-1.2
	0.5nm,0.7s,mb3.6,baz=140,slow=6.5,SNR=12						

IDC 28 02:05:01.4±2.2**,3963N**×**11040E,h0**^{km}**,mb3.3**/4**, mb1 3.6**/5**,mb1mx3.4**/22**,mbtmp3.5**/5**,ML2.5**/1**,Error ellipse: s-maj=46.8km s-min=23.2km az=33.0,Western Nei Mongol**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	8.70	342	Pn	Pn	02 07 09.4	+0.9
	0.1nm,0.3s,baz=159,slow=14,SNR=8.5						
SONM				Sn	Sn	02 08 47.1	-0.1
	0.0nm,0.3s,baz=168,slow=22,SNR=2.8						
SONM				Lg		02 09 39.4	
	0.1nm,0.3s,baz=163,slow=26,SNR=4.4						
MKAR	Makanchi Array	21.62	299	P	P	02 09 53.1	+0.1
	0.9nm,0.9s,baz=97,slow=10.0,SNR=7.5						
MJAR	Matsushiro Arr	22.07	89	P	P	02 09 59.5	+1.6
	1.7nm,0.3s,baz=287,slow=12,SNR=6.5						
ZALV	Zalesovo Beam	22.46	318	P	P	02 10 02.8	+0.9
	0.2nm,0.4s,baz=116,slow=6.6,SNR=4.4						
YKA	Yellowknife Ar	72.00	20	P	P	02 16 25.4	-1.1
	0.1nm,0.4s,baz=328,slow=5.8,SNR=5.6						

TIF ***28*** *02:07:59.8,4260N×4362E,h8^{km}±2^{km}*
MOS 28 02:07:57.5±0.9**,4235N**×**4325E,h14**^{km}**,mb3.5**/1**,1C-2D, Error ellipse: s-maj=72.3km s-min=14.0km az=59.4, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONI	Oni	0.27	33	P	Pg	02 08 03.1	-0.2
ONI				S	Sg	02 08 05.6	-1.6
DIGR	Digorskoe uzhe	0.60	24	⇓*i*PG	Pg	02 08 09.2	-0.1
DIGR				*i* S	Sg	02 08 16.3	-1.0
ZEI	Tsey	0.64	49	⇑*i*PG	Pg	02 08 10.3	+0.3
ZEI				*i* S	Sg	02 08 18.2	-0.2
GOR	Gori	0.74	119	P	Pg	02 08 14.2	+2.3
GOR				S	Sg	02 08 24.7	+3.2
LACR	Lac	0.91	58	⇓*i*PG	Pg	02 08 15.0	-0.1
LACR				*i* S	Sb	02 08 26.2	-0.8
KORR	Kora	0.95	39	*i* PG	Pg	02 08 16.2	+0.3
KORR				*e*S	Sb	02 08 27.8	-0.4
LSNR	Lesken	1.01	24	*e*PG	Pg	02 08 17.3	+0.2
LSNR				*e*S	Sb	02 08 30.1	+0.1
ARNR	Ardon	1.13	42	*e*PG	Pg	02 08 19.2	-0.1
ARNR				*e*S	Sb	02 08 33.5	+0.1
DGRG	David-gareji	1.82	119	P	Pg	02 08 34.0	+1.5
DGRG				S	Sg	02 08 59.7	+3.5

IDC 28 02:10:21.2±2.8**,369S**×**13526E,h0**^{km}**,mb3.2**/1**,mb1 3.7**/4**, mb1mx3.5**/13**,mbtmp3.5**/4**,ML3.4**/3**,Error ellipse: s-maj=102.0km s-min=28.1km az=84.0,Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	16.18	183	Pn	Pn	02 14 08.0	-2.1
	0.1nm,0.3s,baz=2.9,slow=13,SNR=6.6						
WRA				Sn	Sn	02 16 59.6	-11
	0.1nm,0.3s,baz=4.7,slow=23,SNR=5.7						
FITZ	Fitzroy Crossi	17.15	213	P	Pn	02 14 21.7	-0.7
	0.1nm,0.3s,baz=29,slow=10,SNR=7.6						
FITZ				S	Sn	02 17 26.2	-7.6
	0.1nm,0.3s,baz=170,slow=18,SNR=3.0						
ASAR	Alice Springs	19.91	184	P	Pn	02 14 55.7	-0.3
	0.3nm,0.3s,baz=9.0,slow=11,SNR=18						
MKAR	Makanchi Array	68.50	324	P	P	02 21 25.4	+0.1
	0.1nm,0.4s,baz=123,slow=7.2,SNR=3.5						

IDC 28 02:13:25.7±4.2**,260S**×**13974E,h0**^{km}**,mb3.5**/3**,mb1 3.7**/4**, mb1mx3.5**/12**,mbtmp3.5**/4**,ML3.5**/1**,Error ellipse: s-maj=175.0km s-min=25.8km az=89.0,Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	18.03	197	P	Pn	02 17 37.9	+0.1
	0.2nm,0.3s,baz=17,slow=12,SNR=6.0						
ASAR	Alice Springs	21.70	195	P	P	02 18 18.2	-0.1
	0.8nm,0.6s,baz=28,slow=8.8,SNR=6.7						
MKAR	Makanchi Array	70.33	322	P	P	02 24 41.9	+0.7
	0.5nm,0.7s,baz=111,slow=6.8,SNR=7.6						
ZALV	Zalesovo Beam	72.36	329	P	P	02 24 52.9	-0.4
	0.3nm,0.3s,baz=104,slow=6.1,SNR=2.8						

ISCJB ***28*** *02:18:37.1±1.5,246S±02×1798E±0.1,h524^{km}±18^{km}, mb3.9/8,Error ellipse: s-maj=28.6km s-min=17.3km az=11.5*
IDC ***28*** *02:18:37.1±1.8,2450S×17988E,h514^{km}±19^{km},mb3.4/7, mb1 3.6/9,mb1mx3.4/16,mbtmp3.4/9,Error ellipse: s-maj=32.9km s-min=16.2km az=177.0*
NEIC ***28*** *02:18:37.6±1.0,2452S×17988E,h523^{km}±12^{km},mb4.5/3, Error ellipse: s-maj=19.3km s-min=11.3km az=192.0*
ISC 28 02:18:37.8±1.4**,245S**±02×**1799E**±01**,h520**^{km}±17^{km}**,n17,** σ**0**^{s}**64**/14**,mb3.9**/8**,2D,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	5.11	158	P	P	02 20 06.4	-0.3
	67nm,0.3s,baz=86,slow=22,SNR=5.0						
DZM	Mont Dzumac	12.56	279	P	P	02 21 23.2	+1.0
	0.6nm,0.3s,baz=132,slow=22,SNR=6.9						
URZ	Urewera	13.88	189	P	P	02 21 35.5	-0.3
	1.3nm,0.3s,baz=3.6,slow=6.3,SNR=5.6						
CTA	Charters Tower	31.35	271	⇓*i*P	P	02 24 16.1	+0.5
	6.7nm,0.4s,mb4.5						
CTA	Charters Tower	31.35	271	P	P	02 24 16.2	+0.6
	10nm,0.5s,mb4.6,baz=97,slow=11,SNR=18						
CTAO	Charters Tower	31.35	271	*e*P	P	02 24 15.8	+0.1
	8.5nm,0.4s,mb4.6						
STKA	Stephens Creek	34.36	249	P	P	02 24 41.4	+0.3
	1.5nm,0.3s,mb3.9,baz=119,slow=10,SNR=3.9						
ASAR	Alice Springs	41.80	261	P	P	02 25 41.5	-0.2
	0.9nm,0.5s,mb3.5,baz=90,slow=7.2,SNR=15						
ASAR				PcP	PcP	02 27 23.6	-2.2
	0.7nm,0.8s,baz=90,slow=9.1,SNR=4.8						
WB2	Warramunga Arr	42.22	267	⇓*i*P	P	02 25 44.2	-0.9
WRA	Warramunga Arr	42.23	267	P	P	02 25 44.5	-0.8
	3.2nm,0.4s,mb4.2,baz=98,slow=8.3,SNR=32						
WRA				ScP	ScP	02 30 31.2	+2.9
	2.2nm,0.9s,baz=100,slow=3.8,SNR=11						
FITZ	Fitzroy Crossi	50.65	266	P	P	02 26 49.0	0.0
	2.4nm,0.7s,mb3.6,baz=118,slow=12,SNR=9.9						
QSPA	South Pole Qui	65.56	180	*e*P	P	02 28 30.2	+1.1
	14nm,1.2s,mb4.3						
NVAR	Mina Array Bea	85.30	44	P	P	02 30 18.8	-0.7
	0.7nm,0.7s,mb3.3,baz=233,slow=8.9,SNR=4.4						
TXAR	Lajitas Array	90.88	58	P	P	02 30 46.5	+0.6
	1.0nm,0.8s,mb3.8,baz=211,slow=6.8,SNR=13						
ARCES	ARCESS Array B	132.47	348	PKP	PKPdf	02 36 51.1	-1.0
ARCES	ARCESS Array B	132.47	348	PKP	PKPdf	02 36 51.1	-1.0
	2.0nm,0.8s,baz=56,slow=2.3,SNR=4.0						
TORD	Torodi Ar. Bea	168.54	189	PKPab	PKPab	02 38 57.8	-0.6
	0.6nm,0.7s,baz=208,slow=2.2,SNR=6.1						

NEIC ***28*** *02:25:31.9,1922N×6298W,h93^{km},MD3.7(RSPR),After RSPR.*
RSPR ***28*** *02:25:31.9,1922N×6298W,h93^{km}±13^{km}*
TRN 28 02:25:29.1,1914N×**6286W,h33**^{km}**,9C,Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBVI	Tortola	1.82	247	⇑*e*P	Pn	02 26 00.5	+2.4
TBVI				*e*S	Sn	02 26 21.8	+1.8
STVI	Saint Thomas	2.14	249	⇑*e*P	Pn	02 26 04.2	+1.7
STVI				*e*S	Sn	02 26 29.4	+1.5
MTP	Monte Pirata	2.76	248	⇑*e*P	Pn	02 26 12.8	+1.7
MTP				*e*S	Sn	02 26 45.3	+2.1
CBYP	Canovanas	2.97	254	⇑*e*P	Pn	02 26 15.7	+1.8
CBYP				*e*S	Sn	02 26 49.9	+1.5
HUMP	Col San Antoni	3.01	251	⇑*e*P	Pn	02 26 16.3	+1.8
HUMP				*e*S	Sn	02 26 51.3	+1.9
SJG	San Juan	3.29	252	⇑*e*P	Pn	02 26 20.5	+2.2
SJG				*e*S	Sn	02 26 58.0	+1.8
CELP	Cerrillos	3.69	254	⇑*e*P	Pn	02 26 25.4	+1.7
CELP				*e*S	Sn	02 27 07.2	+1.1
LRS	Lares	3.88	258	⇑*e*P	Pn	02 26 28.4	+2.1
LRS				*e*S	Sn	02 27 12.1	+1.4
LSP	Las Mesas	4.12	257	*e*P	Pn	02 26 32.3	+2.5
LSP				*e*S	Sn	02 27 17.4	+0.5
CRPR	Cabo Rojo, PR	4.19	255	⇑*e*P	Pn	02 26 32.1	+1.5
CRPR				*e*S	Sn	02 27 19.7	+1.2

IDC ***28*** *02:44:53.2±0.9,3410N×2587E,h0^{km},mb3.8/11, mb1 3.9/17,mb1mx3.8/24,mbtmp3.8/17,ML3.7/6,MS3.7/3, Ms1 3.7/3,ms1mx2.8/37,Error ellipse: s-maj=19.0km s-min=12.9km az=33.0*
CSEM ***28*** *02:44:53.8,3423N×2573E,h33^{km},ML3.5,After HLW*
HLW ***28*** *02:44:53.8,3423N×2573E,h33^{km},Mb3.5*
NEIC ***28*** *02:44:53.0,3387N×2584E,h13^{km},mb3.9/1,MD4.0(ATH), After ATH.*

*ATH **28** 02:44:53.0, 3388N×2585E, h13^{km}±2^{km}, MD4.0/7*
*ISCJB **28** 02:44:55.3±1.2, 3397N±004×2589E±005, h33^{km}±11^{km}, mb3.7/12, MS4.0/2, Error ellipse: s-maj=8.4km s-min=4.2km az=41.4*
ISC 28 02:44:55.7±1.0, **3407N**±004×**2591E**±004, **h16**^{km}±7^{km}, **n68**, σ**1**^{s}**02**/75, **mb3.7**/12, **MS4.0**/2, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XRY	Khrisi	0.82	348	ePg	Pg	02 45 11.5	-0.1
XRY	Khrisi	0.82	348	ePG	Pg	02 45 11.5	-0.1
NPS	Neapolis	1.21	349	Pg	Pg	02 45 19.1	0.0
NPS				eSb	Sb	02 45 38.0	+4.4
NPS	Neapolis	1.21	349	ePG	Pg	02 45 19.1	0.0
NPS				eSB	Sb	02 45 38.0	+4.4
IDI	Anoyia	1.47	326	Pg	Pg	02 45 21.4	-2.7
IDI				Lg		02 45 40.1	
IDI	Anoyia	1.47	326	Pg	Pg	02 45 21.4	-2.7
	4.5nm,0.3s,baz=140,slow=16,SNR=45						
IDI				Lg		02 45 40.1	
	13nm,0.3s,baz=342,slow=20,SNR=11						
GVD	Gavdhos	1.69	298	ePn	Pn	02 45 25.1	+0.7
GVD				eSn	Sn	02 45 45.1	-0.5
KARP	Karpathos	1.80	35	ePn	Pn	02 45 28.5	+2.6
KARP	Karpathos	1.80	35	ePN	Pn	02 45 28.5	+2.6
VAM	Vamos	1.94	314	Pn	Pn	02 45 29.7	+1.9
VAM	Vamos	1.94	314	ePN	Pn	02 45 29.7	+1.9
SANT	Santorini	2.32	351	ePn	Pn	02 45 31.9	-1.3
SANT				ePg	Pg	02 45 35.2	-5.0
APE	Apeiranthos	3.01	354	ePn	Pn	02 45 45.5	+3.0
APE	Apeiranthos	3.01	354	ePN	Pn	02 45 45.5	+3.0
KYTH	Kithira	3.22	314	ePn	Pn	02 45 47.5	+2.0
KYTH	Kithira	3.22	314	ePN	Pn	02 45 47.5	+2.0
VLI	Veliai	3.58	318	ePn	Pn	02 45 52.5	+2.0
VLI	Veliai	3.58	318	ePN	Pn	02 45 52.5	+2.0
ITM	Ithomi	4.49	315	P	Pn	02 46 03.9	+1.0
HNAT	Natroun	5.97	137	P	Pn	02 46 23.3	0.0
CSS	Prodhromos	6.19	80	ePn	Pn	02 46 26.3	-0.1
	16nm,0.8s						
GLL	Jalalah	6.67	131	P	Pn	02 46 32.9	0.0
AMAG	Maghara	7.06	117	P	Pn	02 46 37.9	-0.4
AMAG	Maghara	7.06	117	P	Pn	02 46 37.8	-0.5
HFRF	Wahat Farafira	7.21	163	P	Pn	02 46 40.0	-0.3
SUZ		7.24	124	P	Pn	02 46 40.8	+0.1
ZAF		7.41	128	P	Pn	02 46 42.8	-0.2
MMAI	Mount Meron Ar	8.00	95	Pn	Pn	02 46 51.0	-0.1
	0.7nm,0.3s,baz=274,slow=11,SNR=9.1						
MMAI				Sn	Sn	02 48 18.8	-2.4
	2.7nm,0.3s,baz=265,slow=27,SNR=12						
HNKL	Nakhl	8.00	119	P	Pn	02 46 51.5	+0.3
ASUT		8.24	142	P	Pn	02 46 54.6	+0.1
BRTR	Keskin Array B	8.38	45	Pn	Pn	02 46 57.4	+1.1
BRTR	Keskin Array B	8.38	45	Pn	Pn	02 46 57.4	+1.1
	0.1nm,0.3s,baz=216,slow=11,SNR=3.4						
EIL	Elat	8.85	117	Pn	Pn	02 47 03.0	+0.1
EIL				Sn	Sn	02 48 36.2	-6.1
EIL	Elat	8.85	117	Pn	Pn	02 47 03.0	+0.1
	1.7nm,0.3s,baz=233,slow=7.4,SNR=13						
EIL				Sn	Sn	02 48 36.2	-6.1
	0.5nm,0.3s,baz=282,slow=21,SNR=3.2						
SOI	Samo	8.92	299	Pn	Pn	02 47 03.6	-0.1
GRI	Girifalco	8.99	305	Pn	Pn	02 47 04.3	-0.4
	350nm,3.2s						
HDK1	Dakhla	9.03	159	P	Pn	02 47 05.5	+0.3
MTTG	Motta San Giov	9.15	298	Pn	Pn	02 47 06.7	-0.2
HAVL	Avola	9.25	291	Pn	Pn	02 47 07.6	-0.7
	286nm,1.4s						
ASF	Jabal al Asfar	9.41	99	Pn	Pn	02 47 10.8	+0.3
ASF				Sn	Sn	02 48 51.1	-4.8
ASF	Jabal al Asfar	9.41	99	Pn	Pn	02 47 10.8	+0.3
	0.2nm,0.3s,baz=198,slow=3.2,SNR=2.7						
ASF				Sn	Sn	02 48 51.1	-4.8
	0.2nm,0.3s,baz=24,slow=17,SNR=3.4						
VAE	Valguarnera	9.94	293	Pn	Pn	02 47 17.0	-0.7
VAE	Valguarnera	9.94	293	Pn	Pn	02 47 17.0	-0.7
	0.7nm,0.3s,baz=277,slow=18,SNR=4.0						
APRS		10.54	155	P	Pn	02 47 26.0	0.0
SGO	Sicignano	10.63	311	Pn	Pn	02 47 26.9	-0.3
	15nm,0.7s						
VRAC	Vranov	16.72	338	LR	LR	02 55 36.6	
	comp=Z,111nm,19.2s,baz=167,slow=39						
AKASG	Malin Array Be	16.80	7	Pn	Pn	02 48 50.2	+0.3
AKASG	Malin Array Be	16.80	7	Pn	Pn	02 48 50.2	+0.3
	1.1nm,0.3s,baz=195,slow=11,SNR=3.5						
GERES	GERESS Array B	17.33	332	P	Pn	02 48 56.1	-0.6
	0.1nm,0.3s,baz=148,slow=34,SNR=4.0						
ESDC	Sonseca Array	24.48	292	P	P	02 50 13.2	-0.6
	1.2nm,0.8s,mb3.4,baz=73,slow=10,SNR=5.6						
HFS	Hagfors	27.27	347	P	P	02 50 38.3	-0.6
HFS	Hagfors	27.27	347	P	P	02 50 38.3	-0.6
	1.2nm,0.6s,mb3.6,baz=151,slow=9.7,SNR=4.8						
FINES	FINESS Array B	27.39	0	P	P	02 50 38.6	-1.3
	0.8nm,0.3s,mb3.7,baz=156,slow=11,SNR=15						
KAF	Kangasniemi	28.06	0	ep	P	02 50 38.4	-7.5
	1.6nm,0.7s,mb3.8						
NOA	NORSAR Array B	28.61	345	P	P	02 50 49.5	-1.3
NOA	NORSAR Array B	28.61	345	P	P	02 50 49.5	-1.3
	1.7nm,1.0s,mb3.7,baz=180,slow=4.0,SNR=3.2						
JOF	Joensuu	29.07	5	ep	P	02 50 52.3	-2.6
TORD	Torodi Ar. Bea	30.29	232	P	P	02 51 07.0	+0.8
TORD	Torodi Ar. Bea	30.29	232	P	P	02 51 07.0	+0.8
	1.6nm,0.8s,mb3.8,baz=33,slow=8.8,SNR=15						
ARCES	ARCESS Array B	35.52	360	P	P	02 51 49.9	-1.4
	1.8nm,0.7s,mb4.1,baz=184,slow=8.4,SNR=11						
MK31	Makanchi Array	43.87	56	ePn	P	02 53 02.0	+1.0
MKAR	Makanchi Array	43.87	56	P	P	02 53 02.0	+0.9
	0.8nm,0.7s,mb3.6,baz=265,slow=7.0,SNR=7.7						
ZALV	Zalesovo Beam	45.32	45	P	P	02 53 12.9	+0.4
	1.1nm,0.4s,mb4.0,baz=264,slow=8.1,SNR=8.1						
SONM	Songino Array	59.70	50	P	P	02 55 00.6	+1.4
	0.3nm,0.5s,mb3.5,baz=288,slow=6.6,SNR=3.4						
SCHQ	Schefferville	64.41	320	P	P	02 55 30.3	-0.4
	0.9nm,0.4s,mb4.2,baz=87,slow=5.2,SNR=6.4						
YKA	Yellowknife Ar	78.67	342	P	P	02 56 56.3	-0.2
YKA				LR	LR	03 31 06.9	
YKA	Yellowknife Ar	78.67	342	P	P	02 56 56.3	-0.2
	0.3nm,0.7s,mb3.3,baz=29,slow=5.4,SNR=6.6						
YKA				LR	LR	03 31 06.9	
	comp=Z,37nm,18.2s,MS3.8,baz=85,slow=35						
PDAR	Pinedale Array	93.35	329	LR	LR	03 44 53.2	
	comp=Z,81nm,19.1s,MS4.2,baz=186,slow=39						

IDC 28 02:49:05.1±3.0, **6459S**×**17615E**, **h0**^{km}, **mb3.7**/2, **mb1 4.0**/3, **mb1mx3.8**/8, **mbtmp3.7**/3, **ML3.3**/1, **MS3.9**/4, **Ms1 3.9**/4, **ms1mx3.5**/19, **Error ellipse: s-maj=110.0km s-min=39.3km az=69.0, Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	Vanda	13.72	193	Pn	Pn	02 52 20.6	+0.2
	0.1nm,0.3s,baz=41,slow=17,SNR=6.7						
VNDA				LR	LR	02 56 26.1	
	comp=Z,310nm,20.6s,baz=309,slow=32						
DZM	Mont Dzumac	42.99	347	LR	LR	03 12 02.7	
	comp=Z,109nm,18.0s,baz=156,slow=32						
RAR	Rarotonga	46.21	32	LR	LR	03 14 24.9	
	comp=Z,160nm,18.1s,baz=152,slow=33						
ASAR	Alice Springs	49.24	306	P	P	02 57 55.4	+0.4
	0.6nm,0.6s,baz=153,slow=7.4,SNR=6.4						
WRA	Warramunga Arr	52.53	308	P	P	02 58 19.5	-0.3
	0.7nm,0.6s,baz=158,slow=6.7,SNR=6.1						
HNR	Honiara	56.24	341	LR	LR	03 18 59.7	
	comp=Z,115nm,18.8s,baz=360,slow=32						
BRTR	Keskin Array B	146.96	239	PKPbc	PKPbc	03 08 47.4	-1.1
	0.8nm,0.8s,baz=172,slow=11,SNR=4.8						
EKA	Eskdalemuir Ar	170.71	182	PKP	PKPdf	03 09 13.7	+0.2
	5.7nm,1.0s,baz=294,slow=8.1,SNR=3.8						

IDC 28 03:10:22.3±22.0, **1673S**×**17899W**, **h423**^{km}±255^{km}, **mb3.0**/5, **mb1 3.3**/5, **mb1mx3.2**/14, **mbtmp3.0**/5, **Error ellipse: s-maj=169.7km s-min=47.2km az=170.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	38.72	240	P	P	03 17 07.5	-0.7
	0.9nm,0.4s,baz=107,slow=8.5,SNR=4.7						
WRA	Warramunga Arr	44.31	258	P	P	03 17 53.2	+0.1
	0.2nm,0.5s,baz=99,slow=9.2,SNR=4.0						
ASAR	Alice Springs	44.59	253	P	P	03 17 55.4	+0.2
	2.6nm,0.5s,baz=89,slow=8.0,SNR=49						
TXAR	Lajitas Array	85.84	58	P	P	03 22 17.5	+1.4
	0.3nm,0.7s,baz=224,slow=5.2,SNR=4.7						
PDAR	Pinedale Array	86.89	44	P	P	03 22 20.1	-0.7
	0.4nm,0.6s,baz=212,slow=3.2,SNR=3.4						
GERES	GERESS Array B	146.34	345	PKPbc	PKPbc	03 29 13.7	-0.7
	0.4nm,0.4s,baz=35,slow=3.6,SNR=4.2						

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*IDC **28** 03:17:49.9±3.8, 3994N×7360E, h0^{km}, mb3.5/1, mb1 3.4/4, mb1mx3.2/24, mbtmp3.3/4, ML3.0/3, Error ellipse: s-maj=63.1km s-min=25.7km az=165.0*
*NNC **28** 03:17:56.5±3.5, 4080N×7312E, h0^{km}, mb3.6, mpv3.2, Error ellipse: s-maj=40.8km s-min=15.0km az=1.0*
*NEIC **28** 03:18:06.8±4.2, 4125N×7334E, h66^{km}±18^{km}, mb3.9/1, Error ellipse: s-maj=53.1km s-min=15.1km az=188.0*
*MOS **28** 03:18:13.2±1.2, 4209N×7324E, h33^{km}, mb3.9/1, Error ellipse: s-maj=21.9km s-min=12.2km az=68.8*
ISC 28 03:18:01.4±1.6, **407N**±01×**733E**±01, **h56**^{km}±16^{km}, **n39**, σ**1**^{s}**02**/45, **mb3.2**/1, **3C-7D**, **Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	1.47	12	P	Pn	03 18 23.4	-2.3
	SNR=2128						
AML	Almayashu	1.47	12	ePn	Pn	03 18 23.4	-2.3
AML				eSn	Sn	03 18 42.8	-1.1
UCH	Uchtor	1.80	31	P	Pn	03 18 29.8	-0.2
	SNR=64						
UCH	Uchtor	1.80	31	ePn	Pn	03 18 29.7	-0.3
UCH				eSn	Sn	03 18 47.3	-4.4
EKS2	Erkin-Say	2.01	11	P	Pn	03 18 32.8	0.0
	SNR=45						
EKS2	Erkin-Say	2.01	11	ePn	Pn	03 18 32.6	-0.2
EKS2				eSn	Sn	03 18 59.2	+2.4
KZA	Kyzart	2.03	46	P	Pn	03 18 33.7	+0.5
	SNR=51						
AAK	Ala-Archa	2.15	25	P	Pn	03 18 35.4	+0.6
	SNR=96						
AAK	Ala-Archa	2.15	25	ePn	Pn	03 18 34.0	-0.7
AAK				eSn	Sn	03 19 00.9	+0.7
AAK	Ala-Archa	2.15	25	ePG	Pn	03 18 34.1	-0.7
KBK	Karagaybulak	2.33	32	P	Pn	03 18 38.5	+1.2
	SNR=31						
CHMS	Chumysh	2.56	25	P	Pn	03 18 40.9	+0.5
	SNR=40						
ULHL	Ulahol	2.72	54	P	Pn	03 18 42.9	+0.4
	SNR=46						
USP	Ospenovka	2.73	19	P	Pn	03 18 42.9	+0.1
	SNR=24						
TKM2	Tokmak 2	2.82	37	P	Pn	03 18 44.8	+0.7
	SNR=12						
TKM2	Tokmak 2	2.82	37	⇑Pn	Pn	03 18 44.7	+0.7
	0.7nm,0.3s						
TKM2				⇓Lg		03 19 24.6	
	3.4nm,0.4s						
TKM2	Tokmak 2	2.82	37	ePn	Pn	03 18 44.5	+0.5
TKM2				eSn	Sn	03 19 23.7	+6.9
TKM2	Tokmak 2	2.82	37	ePN	Pn	03 18 44.5	+0.5
TKM2				e		03 19 23.7	
KK31	Karatay Array	3.18	320	Pn	Pn	03 18 47.0	-1.8
	1.1nm,0.2s,baz=122,slow=12,SNR=517						
KK31				⇑Pg	Pn	03 18 52.0	+3.2
	12nm,0.3s,baz=129,slow=15,SNR=29						
KK31				⇓Lg		03 19 34.7	
	18nm,0.3s,baz=132,slow=29,SNR=5.2						
KNDC	Almaty	3.73	46	⇑Pn	Pn	03 18 57.5	+1.0
	35nm,0.6s						
KNDC				⇓Lg		03 19 54.5	
	138nm,0.6s						
MK31	Makanchi Array	8.93	44	⇓Pn	Pn	03 20 08.1	+0.5
	0.1nm,0.3s,baz=223,slow=14,SNR=6.9						
MK31				⇓Lg		03 22 35.9	
	6.9nm,1.3s,baz=233,slow=12,SNR=4.5						
MK31	Makanchi Array	8.93	44	ePn	Pn	03 20 06.6	-1.0
MK31	Makanchi Array	8.93	44	eP	Pn	03 20 06.6	-1.0
MKAR	Makanchi Array	8.93	44	Pn	Pn	03 20 07.0	-0.6
MKAR				Lg		03 22 43.7	
MKAR	Makanchi Array	8.93	44	Pn	Pn	03 20 07.0	-0.6
	0.1nm,0.3s,baz=222,slow=14,SNR=7.3						
MKAR				Lg		03 22 43.7	
	0.3nm,0.3s,baz=225,slow=28,SNR=7.4						
KURK	Kurchatov	10.70	19	⇓Pn	Pn	03 20 30.4	-1.4
	7.5nm,2.9s						
KURK				⇓Lg		03 23 31.2	
	9.4nm,1.1s						
KURK	Kurchatov	10.70	19	ePn	Pn	03 20 29.3	-2.4
KURK	Kurchatov	10.70	19	eP	Pn	03 20 29.3	-2.4
BRVK	Borovoye	12.54	352	ePn	Pn	03 20 52.9	-4.0
AKTK	Aktyubinsk	14.44	318	Pn	Pn	03 21 23.2	+0.7
AKTO	Aktyubinsk	14.44	318	P	Pn	03 21 23.2	+0.7
AKTO	Aktyubinsk	14.44	318	Pn	Pn	03 21 23.2	+0.7
	0.1nm,0.3s,baz=122,slow=13,SNR=3.6						
ZAL	Zalesovo	15.36	26	P	Pn	03 21 33.9	-0.4
ZALV	Zalesovo Beam	15.37	26	Pn	Pn	03 21 33.9	-0.7
ZALV	Zalesovo Beam	15.37	26	Pn	Pn	03 21 33.8	-0.7
	0.1nm,0.3s,baz=236,slow=17,SNR=2.8						
ARU	Arti	18.45	334	eP	Pn	03 22 12.8	-0.1
	3.3nm,0.3s						
ARU	Arti	18.45	334	eP	Pn	03 22 12.8	0.0
ARU				pmax	pmax		
	comp=Z,3.0nm,0.3s						
YKA	Yellowknife Ar	76.97	4	P	P	03 29 47.7	+0.2
YKA	Yellowknife Ar	76.97	4	P	P	03 29 47.7	+0.2
	comp=Z,0.2nm,0.6s,mb3.2,baz=351,slow=5.6,SNR=7.2						

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*MAN **28** 03:30:21, 1162N×12650E, h7^{km}, mb5.3, ML4.3, MS4.6*
*MOS **28** 03:30:26.6±0.8, 1140N×12608E, h33^{km}, mb4.8/17, Error ellipse: s-maj=17.3km s-min=7.8km az=124.5*
*BJI **28** 03:30:26.8, 1136N×126.15E, h39^{km}, mb4.6*
*ISCJB **28** 03:30:28.2±0.9, 1146N±004×126.18E±007, h48^{km}±7^{km}, mb4.6/54, Error ellipse: s-maj=11.6km s-min=5.7km az=154.4*
*IDC **28** 03:30:28.9±6.7, 1142N×12606E, h36^{km}±54^{km}, mb4.2/18, mb1 4.3/18, mb1mx4.3/22, mbtmp4.2/18, Error ellipse: s-maj=35.2km s-min=11.3km az=69.0*
*NEIC **28** 03:30:29.0±1.9, 1138N×12608E, h40^{km}±17^{km}, mb4.8/32, Error ellipse: s-maj=7.4km s-min=4.0km az=56.0*
ISC 28 03:30:29.6±0.8, **1146N**±004×**12617E**±006, **h44**^{km}±7^{km}, **h37**^{km}±7.8^{km}**:pP-P**, **n119**, σ**0**^{s}**87**/115, **mb4.6**/54, **4C-1D**, **Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	0.73	281	eP	Pn	03 30 41.4	-2.2
OCLP	Ormoc	1.59	255	eP	Pn	03 30 56.6	+1.3
SCPH	Surigao	1.79	202	⇑eP	Pn	03 30 60.0	+1.8
CNP	Catarman	1.81	306	eP	Pn	03 30 56.9	-1.5
MSLP	Maasin	1.84	225	eP	Pn	03 30 59.0	+0.2
LLP	Lapu-Lapu	2.45	243	eP	Pn	03 31 06.8	-0.3
LLP				eS	Sn	03 31 42.3	+6.5
MMPH	Masbate	2.65	290	eP	Pn	03 31 16.8	+6.9
TBP	Tagbilaran	2.87	233	eP	Pn	03 31 13.1	+0.2
TBP				eS	Sn	03 31 57.8	+12
PVCP	Virac	2.90	317	⇑iP	Pn	03 31 10.3	-3.0
PVCP				i S	Sn	03 31 36.7	-10
PVCP	Virac	2.90	317	eP	Pn	03 31 10.1	-3.2
RCP	Roxas	3.36	272	⇑eP	Pn	03 31 20.6	+0.9
GUIM	Jordan	3.61	257	eP	Pn	03 31 24.0	+0.9
BUKP	Musuan	3.72	197	eP	Pn	03 31 25.2	+0.6
OTRP	Odiongan	4.16	283	eP	Pn	03 31 31.0	+0.3
PAGZ	Pagadian	4.52	218	eP	Pn	03 31 36.1	+0.5
BOAC	Boac	4.67	296	eP	Pn	03 31 37.8	+0.1
BALP	Baler	6.17	314	eP	Pn	03 31 56.5	-1.9
LUBP	Lubang	6.21	292	eP	Pn	03 31 59.4	+0.6
GUMO	Guam	18.37	81	eP	Pn	03 34 41.5	+0.2
	204nm,1.0s						
GUMO	Guam	18.37	81	eP	Pn	03 34 41.5	+0.2
GUMO				pmax	pmax		
	comp=Z,204nm,1.0s						
KAKA	Kakadu	24.80	165	eP	P	03 35 47.1	-0.6
	comp=Z,32nm,0.6s,mb5.0						
KAKA	Kakadu	24.80	165	eP	P	03 35 46.9	-0.8
	comp=Z,56nm,0.6s,mb5.3						
KSRS	Korea Array	25.93	3	P	P	03 35 58.4	+0.5
	comp=Z,7.0nm,1.0s,mb4.2,baz=186,slow=11,SNR=12						
KULM	Kulim	25.97	258	eP	P	03 35 55.5	-2.9
CHTO	Chiang Mai	27.26	289	eP	P	03 36 08.6	-1.4
	comp=Z,2.9nm,0.6s,mb4.0						
CHTO	Chiang Mai	27.26	289	eP	P	03 36 08.6	-1.4
CHTO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.0						
XAN	Xi'an	27.45	328	P	P	03 36 11.3	-0.3
XAN				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.4						
CD2	Chengdu	28.38	316	eP	P	03 36 19.3	-0.6
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.7						
FITZ	Fitzroy Crossi	29.37	181	eP	P	03 36 28.0	-0.7
	comp=Z,7.1nm,0.6s,mb4.6						
FITZ	Fitzroy Crossi	29.37	181	P	P	03 36 28.5	-0.3
	comp=Z,4.9nm,0.7s,mb4.3,baz=96,slow=20,SNR=15						
FITZ				PcP	PcP	03 39 34.3	0.0
	comp=Z,0.9nm,0.6s,baz=167,slow=12,SNR=2.5						
COEN	Coen	30.36	146	eP	P	03 36 37.1	-0.4
	comp=Z,9.3nm,1.2s,mb4.4						
LZH	Lanzhou	31.76	324	eP	P	03 36 55.5	+5.8
LZH				AP	pP	03 37 00.3	-1.2
LZH				XP	sP	03 37 03.5	-3.3
LZH				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.7						
WRA	Warramunga Arr	32.22	165	P	P	03 36 52.5	-1.4
	comp=Z,3.6nm,0.6s,mb4.4,baz=347,slow=9.1,SNR=33						
WB2	Warramunga Arr	32.22	165	⇓iP	P	03 36 52.8	-1.1
MBWA	Marble Bar	33.02	191	eP	P	03 36 59.6	-1.3
	comp=Z,4.6nm,0.5s,mb4.7						
ASAR	Alice Springs	35.72	168	P	P	03 37 24.1	-0.1
	comp=Z,2.8nm,0.4s,mb4.5,baz=350,slow=7.8,SNR=55						
ASAR				PcP	PcP	03 39 52.5	+0.7
	comp=Z,1.5nm,0.6s,baz=343,slow=2.8,SNR=8.2						
GTA	Gaotai	36.36	325	eP	P	03 37 30.8	+1.2
GTA				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.5						
CTAO	Charters Tower	37.06	148	eP	P	03 37 35.2	-0.5
	comp=Z,16nm,1.1s,mb4.8						
CTAO	Charters Tower	37.06	148	eP	P	03 37 35.2	-0.5
CTAO				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.8						
LSA	Lhasa	37.27	304	P	P	03 37 38.3	+0.8
LSA	Lhasa	37.27	304	eP	P	03 37 38.8	+1.3
	comp=Z,4.8nm,0.4s,mb4.7						
LSA	Lhasa	37.27	304	eP	P	03 37 38.8	+1.3
LSA				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.7						
TAPN	Taplejung	39.38	299	eP	P	03 37 54.8	-0.4
	comp=Z,14nm,0.5s,mb5.0						
ODAN	Odare	39.52	298	eP	P	03 37 56.1	-0.3
	comp=Z,36nm,0.6s,mb5.3						
SONM	Songino Array	39.88	339	P	P	03 37 59.8	+0.7
	comp=Z,1.2nm,0.5s,mb3.9,baz=157,slow=9.9,SNR=9.3						
JIRN	Jiri	40.76	299	eP	P	03 38 06.7	0.0
	comp=Z,32nm,0.5s,mb5.2						
KKN	Kakani	41.58	299	eP	P	03 38 12.6	-0.8
	comp=Z,11nm,0.7s,mb4.6						
KKN	Kakani	41.58	299	eP	P	03 38 12.6	-0.8
KKN				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.6						
FORT	Forrest	42.03	178	eP	P	03 38 17.0	+0.1
	comp=Z,9.7nm,0.7s,mb4.5						
FORT	Forrest	42.03	178	eP	P	03 38 16.8	-0.2
	comp=Z,1.0nm,0.5s,mb3.7						
GKN	Gorkha	42.18	299	eP	P	03 38 17.3	-1.0
	comp=Z,18nm,0.6s,mb4.9						
ZAK	Zakamensk	43.13	339	eP	P	03 38 25.5	-0.2
ZAK				pmax	pmax		
	comp=Z,1.0nm,1.4s,mb3.4						
KLBR	Kellerberrin	43.55	190	eP	P	03 38 28.8	-0.5
	comp=Z,12nm,0.5s,mb4.9						
MOY	Mondy	45.02	338	eP	P	03 38 42.0	+1.3
STKA	Stephens Creek	45.55	162	eP	P	03 38 45.5	+0.3
	comp=Z,6.7nm,0.7s,mb4.7						
STKA	Stephens Creek	45.55	162	P	P	03 38 46.3	+1.1
	comp=Z,7.0nm,0.6s,mb4.8,baz=336,slow=8.0,SNR=20						
WMQ	Urumqi	46.24	321	eP	P	03 38 52.5	+1.9
BOD	Bodaibo	47.19	351	eP	P	03 38 57.9	+0.1
BOD				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
MK31	Makanchi Array	51.03	322	eP	P	03 39 28.0	+0.7
MK31				epP	pP	03 39 39.6	-0.1
MKAR	Makanchi Array	51.03	322	i P	P	03 39 28.0	+0.6
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MKAR	Makanchi Array	51.03	322	P	P	03 39 28.2	+0.9
	comp=Z,6.2nm,0.7s,mb4.7,baz=112,slow=8.5,SNR=69						
DZM	Mont Dzumac	51.67	130	P	P	03 39 33.1	+0.6
	comp=Z,8.2nm,1.0s,mb4.6,baz=186,slow=13,SNR=5.7						
ZAA0	Zalesovo Array	53.55	331	eP	P	03 39 46.0	+0.1
ZALV	Zalesovo Beam	53.55	331	P	P	03 39 45.7	-0.2
	comp=Z,2.3nm,0.6s,mb4.3,baz=123,slow=6.1,SNR=11						
ZAL	Zalesovo	53.55	331	P	P	03 39 45.7	-0.2
TKM2	Tokmak 2	53.76	315	eP	P	03 39 48.2	+0.6
	comp=Z,4.8nm,0.7s,mb4.5						
TKM2	Tokmak 2	53.76	315	eP	P	03 39 48.2	+0.6
TKM2				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
UCH	Uchtor	54.28	314	eP	P	03 39 52.9	+1.4
	comp=Z,13nm,1.0s,mb4.8						
AAK	Ala-Archa	54.43	315	eP	P	03 39 52.1	-0.4
	comp=Z,2.4nm,0.7s,mb4.2						
AAK	Ala-Archa	54.43	315	eP	P	03 39 52.1	-0.4
AAK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
NVS	Novosibirsk	54.82	331	eP	P	03 39 54.6	-0.5
AML	Almayashu	54.83	314	eP	P	03 39 56.2	+0.8
	comp=Z,5.7nm,0.8s,mb4.7						
EKS2	Erkin-Say	54.94	314	eP	P	03 39 57.2	+1.0
	comp=Z,10nm,1.2s,mb4.7						
KURK	Kurchatov	55.04	325	eP	P	03 39 57.3	+0.4
	comp=Z,25nm,0.9s,mb5.2						
KURK				epP	pP	03 40 08.7	-0.6
KURK	Kurchatov	55.04	325	P	P	03 39 57.1	+0.3
KURK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
KBL	Kabul	56.59	304	eP	P	03 40 07.9	-0.3
KKAR	Karatay Array	57.36	314	i P	P	03 40 13.5	0.0
KKAR				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
TIXI	Tiksi	60.17	1	eP	P	03 40 32.1	-0.4
	comp=Z,2.3nm,0.4s,mb4.6						
TIXI	Tiksi	60.17	1	eP	P	03 40 30.1	-2.5
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
BRVK	Borovoye	60.72	325	eP	P	03 40 36.7	+0.1
	comp=Z,14nm,1.0s,mb5.0						
BRVK	Borovoye	60.72	325	P	P	03 40 37.0	+0.4
BRVK				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.6						
ARU	Arti	68.19	326	eP	P	03 41 24.9	-0.4
	comp=Z,10nm,0.5s,mb5.1						
ARU	Arti	68.19	326	eP	P	03 41 24.9	-0.5
ARU				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.1						
RPZ	Rata Peaks	68.42	147	P	P	03 41 27.1	+0.2
	comp=Z,12nm,0.8s,mb5.0,baz=207,slow=4.5,SNR=3.5						
IMA2	Indian Mountai	75.60	25	eP	P	03 42 10.5	+0.9
KIV	Kislovodsk	77.48	313	eP	P	03 42 21.7	+1.0
	comp=Z,8.1nm,0.6s,mb4.8						
KIV	Kislovodsk	77.48	313	eP	P	03 42 21.7	+1.0
KIV				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
MCK	McKinley	77.55	27	eP	P	03 42 20.7	+0.1
	comp=Z,9.3nm,1.4s,mb4.5						
MCK	McKinley	77.55	27	eP	P	03 42 20.7	0.0
MCK				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.5						
OBN	Obninsk	80.48	324	⇑eP	P	03 42 36.9	0.0
OBN				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.7						
MALT	Malatya	81.25	307	eP	P	03 42 41.8	+0.4
	comp=Z,3.7nm,1.0s,mb4.3						
MALT	Malatya	81.25	307	eP	P	03 42 41.8	+0.4
MALT				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
JOF	Joensuu	82.10	333	ep	P	03 42 44.6	-0.7
	comp=Z,3.1nm,0.5s,mb4.5						
ARCES	ARCESS Array B	83.06	340	P	P	03 42 49.8	-0.4
	comp=Z,5.1nm,0.8s,mb4.6,baz=79,slow=6.5,SNR=16						
INK	Inuvik	83.22	22	eP	P	03 42 51.3	+0.2
ASF	Jabal al Asfar	83.39	301	P	P	03 42 52.6	-0.1
	comp=Z,1.8nm,0.8s,mb4.2,baz=176,slow=2.0,SNR=3.3						
KAF	Kangasniemi	84.54	332	ep	P	03 42 56.8	-1.1
	comp=Z,1.8nm,0.5s,mb4.5,baz=73,slow=4.7						
KAF	Kangasniemi	84.54	332	eP	P	03 42 56.8	-1.1
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						
BR131	Keskin Array S	84.71	309	eP	P	03 42 58.8	-0.4
	comp=Z,3.8nm,0.7s,mb4.6						
BRTR	Keskin Array B	84.71	309	P	P	03 42 59.0	-0.3
	comp=Z,2.3nm,0.7s,mb4.4,baz=113,slow=4.7,SNR=16						
FINES	FINESS Array B	84.81	332	P	P	03 42 59.2	0.0

	comp=Z,2.8nm,0.7s,mb4.5,baz=70,slow=5.7,SNR=13						
AKASG	Malin Array Be	85.59	321	P	P	03 43 03.0	-0.4
	comp=Z,2.7nm,0.5s,mb4.8,baz=57,slow=4.9,SNR=8.9						
AKBB	Malin Array Si	85.59	321	*e*P	P	03 43 02.9	-0.5
CSS	Prodhromos	85.83	305	*e*P	P	03 43 05.1	+0.1
	comp=Z,8.8nm,0.6s,mb5.2						
RES	Resolute Bay	90.35	10	*e*P	P	03 43 25.8	+0.1
VNDA	Vanda	91.11	173	*e*P	P	03 43 29.7	+0.6
	comp=Z,3.5nm,1.0s,mb4.6						
VNDA	Vanda	91.11	173	*e*P	P	03 43 29.7	+0.6
VNDA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
VNDA	Vanda	91.11	173	P	P	03 43 29.3	+0.2
	comp=Z,3.2nm,1.0s,mb4.6,baz=310,slow=6.6,SNR=4.2						
NOA	NORSAR Array B	91.66	334	P	P	03 43 30.9	-1.1
	comp=Z,2.0nm,1.1s,mb4.3,baz=49,slow=5.5,SNR=2.6						
YKA	Yellowknife Ar	92.72	24	P	P	03 43 37.2	+0.3
YKA	Yellowknife Ar	92.72	24	P	P	03 43 37.2	+0.3
	comp=Z,0.4nm,0.5s,mb4.1,baz=300,slow=4.8,SNR=8.4						
CLL	Collm	95.08	325	*e*(P)	P	03 43 50.0	+2.0
PV10	Paradox Valley	108.52	43	*e*P	Pdif	03 44 48.5	+0.5
TXAR	Lajitas Array	117.12	49	PKP	PKPdf	03 49 11.3	+0.7
TXAR	Lajitas Array	117.12	49	PKIKP	PKPdf	03 49 11.4	+0.8
TXAR	Lajitas Array	117.12	49	PKP	PKPdf	03 49 11.3	+0.7
	comp=Z,0.1nm,0.6s,baz=169,slow=5.5,SNR=3.3						
TOA0	Torodi Ar. Sit	119.74	292	*e*PKPdf	PKPdf	03 49 15.6	-0.4
TORD	Torodi Ar. Bea	119.74	292	PKP	PKPdf	03 49 15.7	-0.2
TORD	Torodi Ar. Bea	119.74	292	PKP	PKPdf	03 49 15.7	-0.2
	comp=Z,0.8nm,0.6s,baz=55,slow=2.1,SNR=24						

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*IDC **28** 03:45:53.4±3.1, 3.03S×139.49E, h0^{km}, mb3.8/4, mb1 4.0/5, mb1mx3.8/13, mbtmp3.9/5, ML4.1/1, Error ellipse: s-maj=110.2km s-min=23.2km az=94.0*

*ISCJB **28** 03:45:57.7±0.9, 3.22S±0.07×139.1E±0.1, h35^{km}, mb4.0/3, Error ellipse: s-maj=21.7km s-min=10.0km az=10.1*

*NEIC **28** 03:45:59.4±0.9, 3.16S×139.22E, h35^{km}, mb4.2/2, Error ellipse: s-maj=26.5km s-min=10.5km az=87.0*

ISC 28 03:45:58.0±6.6**, 3.2S**±0.1×**139.1E**±0.2**, h22**^{km}±52^{km}**, n11,** σ**0^{s}65**/12**, mb3.9**/4**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COEN	Coen	11.46	160	*e*P	Pn	03 48 40.4	-0.1
KAKA	Kakadu	11.58	214	*e*P	Pn	03 48 42.1	+0.1
	23nm,0.4s						
KAKA				*e*S	Sn	03 50 50.5	-0.2
WB2	Warramunga Arr	17.33	195	*e*P	Pn	03 49 58.4	-0.2
WRA	Warramunga Arr	17.34	195	P	Pn	03 49 58.0	-0.6
	0.6nm,0.3s,baz=16,slow=13,SNR=36						
FITZ	Fitzroy Crossi	19.89	221	*e*P	Pn	03 50 29.9	+0.2
	8.3nm,0.6s						
FITZ	Fitzroy Crossi	19.89	221	P	Pn	03 50 30.1	+0.4
	2.8nm,0.5s,baz=30,slow=16,SNR=16						
ASAR	Alice Springs	21.02	193	P	P	03 50 41.4	+1.2
	1.3nm,0.5s,mb3.5,baz=22,slow=10,SNR=18						
MK31	Makanchi Array	70.38	322	*e*P	P	03 57 10.6	+0.3
MKAR	Makanchi Array	70.38	322	P	P	03 57 11.2	+0.9
	1.0nm,0.7s,mb3.9,baz=119,slow=7.9,SNR=12						
ZALV	Zalesovo Beam	72.52	330	P	P	03 57 21.7	-1.3
	0.6nm,0.5s,mb3.8,baz=115,slow=6.5,SNR=3.4						
BRVK	Borovoye	79.97	325	*e*P	P	03 58 05.1	-0.2
	1.9nm,0.6s,mb4.2						

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*ISCJB **28** 03:54:04.3±0.3, 29.00S±0.06×177.03W±0.06, h25^{km}, mb4.7/30, MS4.2/8, Error ellipse: s-maj=9.8km s-min=6.4km az=147.3*

*BJI **28** 03:54:04.7, 28.90S×177.00W, h25^{km}, mB5.1, mb5.1*

*NEIC **28** 03:54:05.7±1.9, 28.93S×177.02W, h25^{km}±13^{km}, mb4.9/20, Error ellipse: s-maj=9.3km s-min=6.5km az=143.0*

*MOS **28** 03:54:06.3±2.4, 28.86S×177.05W, h33^{km}, mb5.0/10, Error ellipse: s-maj=14.4km s-min=11.0km az=135.6*

*IDC **28** 03:54:06.0±5.9, 28.91S×177.07W, h24^{km}±37^{km}, mb4.4/13, mb1 4.6/17, mb1mx4.6/19, mbtmp4.5/17, ML3.7/4, MS4.2/10, Ms1 4.2/10, ms1mx3.9/19, Error ellipse: s-maj=21.0km s-min=13.2km az=151.0*

ISC 28 03:54:03.9±3.3**, 28.94S**±0.06×**177.04W**±0.06**, h11**^{km}±20^{km}**, h18**^{km}±2.4^{km}**:pP-P, n232,** σ**1^{s}00**/73**, mb4.7**/30**, MS4.2**/8**, 25C-13D, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	0.83	248	Pn	Pn	03 54 22.9	+1.5
RAO				Sn	Sn	03 54 33.3	-0.3
RAO	Raoul Island	0.83	248	Pn	Pn	03 54 22.9	+1.4
	2μm,0.3s,baz=77,slow=4.3,SNR=78						
RAO				Sn	Sn	03 54 33.3	-0.3
	4μm,0.3s,baz=94,slow=19,SNR=20						
URZ	Urewera	10.49	206	Pn	Pn	03 56 33.9	-0.3
URZ				Sn	Sn	03 58 22.1	-10
URZ	Urewera	10.49	206	Pn	Pn	03 56 33.9	-0.3
	0.7nm,0.3s,baz=139,slow=15,SNR=6.2						
URZ				Sn	Sn	03 58 22.1	-10
	5.6nm,0.3s,baz=150,slow=21,SNR=8.1						
SNZO	South Karori	14.06	206	*e*Pn	Pn	03 57 23.6	+0.7
SNZO				*e*Sn	Sn	03 59 40.4	-18
AFI	Afiamalu	15.74	19	Pn	Pn	03 57 44.1	-1.4
AFI				Sn	Sn	04 00 26.7	-13
AFI	Afiamalu	15.74	19	Pn	Pn	03 57 44.1	-1.4
	2.8nm,0.3s,baz=63,slow=23,SNR=4.1						
AFI				Sn	Sn	04 00 26.7	-13
	3.0nm,0.3s,baz=63,slow=24,SNR=5.1						
DZM	Mont Dzumac	16.39	291	*e*P	Pn	03 58 02.6	+8.6
DZM	Mont Dzumac	16.39	291	Pn	Pn	03 57 55.1	+1.1
DZM				*e*P		03 58 02.6	
DZM				LR	LR	04 03 05.8	
DZM	Mont Dzumac	16.39	291	Pn	Pn	03 57 55.1	+1.1
	0.1nm,0.3s,baz=118,slow=22,SNR=2.2						
DZM				LR	LR	04 03 05.8	
	comp=Z,1μm,19.8s,baz=4.9,slow=33						
RAR	Rarotonga	17.42	68	P	Pn	03 58 06.2	-0.8
	2.2nm,0.3s,baz=260,slow=7.4,SNR=7.6						
RAR				LR	LR	04 03 00.1	
	comp=Z,663nm,20.9s,baz=324,slow=31						
RPZ	Rata Peaks	17.56	210	P	Pn	03 58 04.5	-4.0
	2.7nm,0.3s,baz=12,slow=1.9,SNR=12						
PAE	Paea	27.54	72	*e*T		04 28 10.6	
	45nm,0.3s						
PPT	Papeete	27.59	72	*e*LQ		04 05 16.0	
	468nm,24.8s						
PPT				*e*LR	LR	04 06 48.9	
	940nm,26.0s,baz=240						
PPT	Papeete	27.59	72	LR	LR	04 07 40.4	
	comp=Z,559nm,19.0s,MS4.2,baz=231,slow=30						
TVO	Taravao	27.75	73	*e*T		04 28 38.2	
	7.1nm,0.3s						
HNR	Honiara	29.03	307	LR	LR	04 08 53.7	
	comp=Z,305nm,19.6s,MS3.9,baz=180,slow=31						
VAH	Vaihoa	30.38	70	*e*T		04 31 49.9	
	17nm,0.2s						
TAU	Tasmania Unive	31.80	234	*e*P	P	04 00 28.4	+0.1
	15nm,0.7s,mb4.9						
TAU	Tasmania Unive	31.80	234	*e*P	P	04 00 28.4	+0.1
TAU				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.9						
CTA	Charters Tower	34.43	276	*e*P	P	04 00 53.1	+1.6
	comp=Z,12nm,0.6s,mb5.0						
CTA	Charters Tower	34.43	276	*e*P	P	04 00 53.1	+1.6
CTA				pmax	pmax		
	comp=Z,12nm,0.6s						
CTA	Charters Tower	34.43	276	P	P	04 00 52.5	+1.0
	comp=Z,21nm,0.7s,mb5.2,baz=104,slow=10,SNR=16						
CTAO	Charters Tower	34.43	276	*e*P	P	04 00 52.9	+1.4
	comp=Z,17nm,0.8s,mb5.0						
CTAO	Charters Tower	34.43	276	*e*P	P	04 00 52.9	+1.4
CTAO				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
STKA	Stephens Creek	35.64	255	*e*P	P	04 01 01.6	-0.3
	comp=Z,13nm,0.8s,mb4.9						
STKA	Stephens Creek	35.64	255	P	P	04 01 02.0	+0.1
	comp=Z,15nm,0.8s,mb5.0,baz=88,slow=8.8,SNR=32						
STKA				LR	LR	04 14 48.4	
	comp=Z,537nm,18.0s,MS4.3,baz=286,slow=35						
RKT	Rikitea	38.10	91	*e*LR	LR	04 11 45.0	
	comp=Z,605nm,25.5s						
PMG	Port Moresby	38.77	293	P	P	04 01 27.8	-0.8
	comp=Z,16nm,1.0s,mb4.7,baz=314,slow=11,SNR=3.1						
COEN	Coen	39.71	283	*e*P	P	04 01 37.5	+1.0
	comp=Z,3.1nm,0.6s,mb4.2						
TAOE	Nuku Hiva Isla	39.97	67	*e*LR	LR	04 12 34.2	
	comp=Z,1μm,25.3s						
ASAR	Alice Springs	44.04	265	P	P	04 02 10.9	-0.9
	comp=Z,10.0nm,0.8s,mb4.6,baz=109,slow=7.7,SNR=60						
WB2	Warramunga Arr	44.89	270	*e*P	P	04 02 17.6	-1.1
WRA	Warramunga Arr	44.90	270	P	P	04 02 18.2	-0.6
	comp=Z,19nm,0.9s,mb4.9,baz=110,slow=7.5,SNR=55						
WRA				LR	LR	04 21 13.8	
	comp=Z,294nm,18.0s,MS4.3,baz=100,slow=36						
FORT	Forrest	47.24	254	*e*P	P	04 02 35.2	-1.9
	comp=Z,25nm,0.7s,mb5.2						
FORT	Forrest	47.24	254	*e*P	P	04 02 36.1	-1.0
	comp=Z,3.4nm,0.6s,mb4.5						
VNDA	Vanda	49.63	186	P	P	04 02 56.0	+1.2
	comp=Z,2.9nm,1.1s,mb4.2,baz=16,slow=4.7,SNR=2.0						
FITZ	Fitzroy Crossi	53.22	268	*e*P	P	04 03 21.2	-1.3
	comp=Z,16nm,0.9s,mb5.0						
FITZ	Fitzroy Crossi	53.22	268	P	P	04 03 21.2	-1.3
	comp=Z,9.3nm,0.9s,mb4.7,baz=160,slow=7.9,SNR=12						
MBWA	Marble Bar	57.23	262	*e*P	P	04 03 49.0	-2.5
	comp=Z,18nm,0.9s,mb5.1						
RPN	Rapa Nui	59.02	106	LR	LR	04 22 25.0	
	comp=Z,242nm,19.2s,MS4.3,baz=109,slow=29						
QSPA	South Pole Qui	61.16	180	*e*P	P	04 04 18.9	+1.0
	comp=Z,34nm,0.8s,mb5.5						
QSPA				*e*pP	pP	04 04 26.6	+5.1
MAW	Mawson	73.96	200	P	P	04 05 38.8	0.0
	comp=Z,6.5nm,0.8s,mb4.6,baz=107,slow=11,SNR=4.1						
MJAR	Matsushiro Arr	77.53	325	P	P	04 05 58.9	-0.7
	comp=Z,5.5nm,0.9s,mb4.5,baz=160,slow=5.4,SNR=8.1						
MAJO	Matsushiro	77.53	325	*e*P	P	04 05 59.4	-0.2
	comp=Z,11nm,0.8s,mb4.8						
MAJO	Matsushiro	77.53	325	*e*P	P	04 05 59.4	-0.2
MAJO				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
SYO	Syowa Base	78.72	193	⇓*e*P	P	04 05 56.8	-9.0
SNAA	Sanae	79.58	178	⇑*e*P	P	04 06 08.8	-1.7
VNA3	Neumayer Olymp	79.70	176	*e*	P	04 06 10.6	-0.5
VNA3				*e*	pP	04 06 15.3	+0.4
VNA3				*e*		04 06 19.2	
VNA3				*e*		04 06 25.5	
VNA3				*e*		04 06 30.3	
VNA3				*e*		04 06 33.1	
VNA3				*e*		04 06 40.9	
VNA3				*e*		04 06 47.1	
VNA3				*e*		04 06 57.1	
VNA2	Neumayer--Watz	80.14	177	*e*	P	04 06 13.2	-0.4
	baz=194,slow=3.2						
VNA2				*e*	pP	04 06 17.9	+0.6
VNA2				*e*		04 06 21.8	
VNA2				*e*		04 06 28.5	
VNA2				*e*		04 06 32.5	
VNA2				*e*		04 06 35.7	
VNA2				*e*		04 06 43.1	
VNA2				*e*		04 06 49.9	
VNA2				*e*		04 06 59.3	
VNA1	Neumayer--Stat	80.37	176	*e*	P	04 06 14.9	+0.1
VNA1				*e*	pP	04 06 19.4	+0.9
VNA1				*e*		04 06 23.7	
VNA1				*e*		04 06 30.6	
VNA1				*e*		04 06 34.2	
VNA1				*e*		04 06 37.2	
VNA1				*e*		04 06 46.1	
VNA1				*e*		04 06 52.4	
VNA1				*e*		04 07 00.9	
KSRS	Korea Array	83.79	319	P	P	04 06 34.5	+1.4
	comp=Z,2.1nm,0.7s,mb4.4,baz=142,slow=6.4,SNR=7.3						
KSRS				LR	LR	04 43 03.1	
	comp=Z,103nm,18.1s,MS4.2,baz=138,slow=35						
YSS	Yuzh-Sakhalins	83.81	334	*e*P	P	04 06 34.2	+1.2
	comp=Z,33nm,0.8s,mb5.5						
YSS	Yuzh-Sakhalins	83.81	334	⇑*e*P	P	04 06 34.4	+1.4
YSS				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.5						
NVAR	Mina Array Bea	86.60	42	P	P	04 06 49.0	+1.8
	comp=Z,1.5nm,0.7s,mb4.3,baz=226,slow=7.8,SNR=11						
TUC	Tucson	87.55	51	*e*P	P	04 06 52.6	+0.7
	comp=Z,3.2nm,0.9s,mb4.5						
TUC	Tucson	87.55	51	*e*P	P	04 06 52.6	+0.7
TUC				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.5						
MDJ	Mudanjiang	87.91	325	P	P	04 06 54.3	+1.0
MDJ				AMB	AMB		
	comp=Z,12nm,0.7s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,92nm,5.4s						
MDJ	Mudanjiang	87.91	325	*e*P	P	04 06 54.2	+0.8
	comp=Z,2.9nm,0.4s,mb4.9						
CN2	Changchun	89.49	322	⇑P	P	04 07 01.8	+1.0
CN2				AMB	AMB		
	comp=Z,20nm,1.1s,mb5.4						
TXAR	Lajitas Array	90.90	57	P	P	04 07 09.0	+1.3
TXAR				LR	LR	04 38 10.9	
TXAR	Lajitas Array	90.90	57	P	P	04 07 09.0	+1.3
	comp=Z,0.5nm,0.8s,mb3.9,baz=216,slow=5.5,SNR=5.9						
TXAR				LR	LR	04 38 10.9	
	comp=Z,96nm,21.2s,MS4.2,baz=175,slow=29						
MNTX	Cornudas Mount	90.95	54	*e*P	P	04 07 07.5	-0.4
	comp=Z,3.5nm,1.1s,mb4.6						
SLKM	Skilak Lake	91.79	13	*e*P	P	04 07 11.4	+0.3
ANMO	Albuquerque	92.02	51	*e*P	P	04 07 12.3	-0.5
	comp=Z,2.5nm,1.2s,mb4.4						
ANMO	Albuquerque	92.02	51	*e*P	P	04 07 12.3	-0.5
ANMO				pmax	pmax		
	comp=Z,2.0nm,1.2s						
HLID	Hailey	92.16	40	*e*P	P	04 07 14.4	+1.2
	comp=Z,1.2nm,0.3s,mb4.7						
MOOW	Moose Ponds	94.38	42	*e*P	P	04 07 23.2	-0.2
	comp=Z,11nm,1.9s,mb5.0						
PDAR	Pinedale Array	94.50	43	P	P	04 07 22.5	-1.6
	comp=Z,0.2nm,0.3s,mb4.0,baz=238,slow=1.7,SNR=4.4						
PDAR				LR	LR	04 45 22.1	
	comp=Z,127nm,19.3s,MS4.4,baz=257,slow=33						
MCK	McKinley	95.00	12	*e*P	P	04 07 26.1	+0.2
	comp=Z,2.9nm,0.9s,mb4.7						
MCK	McKinley	95.00	12	*e*P	P	04 07 26.1	+0.3
MCK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.7						
BOZ	Bozeman (W)	95.01	40	*e*P	P	04 07 26.4	+0.1
	comp=Z,3.3nm,1.2s,mb4.6						
BOZ	Bozeman (W)	95.01	40	*e*P	P	04 07 26.4	+0.1
BOZ				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.6						
COLA	College	96.24	12	*e*P	P	04 07 30.9	-0.6
	comp=Z,4.9nm,0.9s,mb4.9						
COLA	College	96.24	12	*e*P	P	04 07 30.9	-0.5
COLA				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.9						
YAK	Yakutsk	100.22	337	⇑*e*P	Pdif	04 07 49.2	-0.8
YAK				pmax	pmax		
	comp=Z,9.0nm,0.5s						
RES	Resolute Bay	115.61	17	*e*PKP	PKPdf	04 12 44.1	-0.9
RES	Resolute Bay	115.61	17	*e*PKIKP	PKPdf	04 12 44.1	-0.9
MK31	Makanchi Array	117.47	310	*e*PKPdf	PKPdf	04 12 48.4	-1.0
MK31	Makanchi Array	117.47	310	*e*PKIKP	PKPdf	04 12 48.4	-1.0
MKAR	Makanchi Array	117.47	310	PKP	PKPdf	04 12 48.5	-0.9
MKAR	Makanchi Array	117.47	310	PKIKP	PKPdf	04 12 48.5	-0.9
MKAR	Makanchi Array	117.47	310	PKP	PKPdf	04 12 48.5	-0.9
	comp=Z,1.6nm,0.8s,baz=65,slow=2.0,SNR=17						
ZALV	Zalesovo Beam	117.50	319	PKP	PKPdf	04 12 48.2	-1.0
ZALV	Zalesovo Beam	117.50	319	PKP	PKPdf	04 12 48.2	-1.0
	comp=Z,1.1nm,0.8s,baz=44,slow=1.0,SNR=5.9						
ZAL	Zalesovo	117.50	319	PKIKP	PKPdf	04 12 48.3	-0.9
BOSA	Boshof	118.92	202	*e*PKPdf	PKPdf	04 12 53.1	+0.2
BOSA				PKP	PKPdf	04 12 54.0	+1.1
BOSA	Boshof	118.92	202	*e*PKIKP	PKPdf	04 12 53.1	+0.2
BOSA	Boshof	118.92	202	PKP	PKPdf	04 12 54.0	+1.1
	comp=Z,4.5nm,0.9s,baz=201,slow=5.1,SNR=4.8						
KURK	Kurchatov	120.64	314	*e*PKPdf	PKPdf	04 12 54.5	-0.8
KURK	Kurchatov	120.64	314	*e*PKIKP	PKPdf	04 12 54.5	-0.9
TKM2	Tokmak 2	121.25	305	*e*PKPdf	PKPdf	04 12 56.6	-0.2
TKM2	Tokmak 2	121.25	305	*e*PKIKP	PKPdf	04 12 56.6	-0.2
UCH	Uchtor	121.89	304	*e*PKPdf	PKPdf	04 12 58.4	+0.4
AAK	Ala-Archa	121.99	304	*e*PKPdf	PKPdf	04 12 57.5	-0.7
AAK	Ala-Archa	121.99	304	*e*PKIKP	PKPdf	04 12 57.5	-0.7
AML	Almayashu	122.47	304	*e*PKPdf	PKPdf	04 12 59.3	+0.2
EKS2	Erkin-Say	122.51	304	*e*PKPdf	PKPdf	04 12 59.1	-0.2
KBL	Kabul	124.41	294	*e*PKPdf	PKPdf	04 13 03.4	+0.2
BRVK	Borovoye	126.00	316	*e*PKPdf	PKPdf	04 13 04.9	-0.7
BRVK	Borovoye	126.00	316	*e*PKIKP	PKPdf	04 13 04.9	-0.7
ARU	Arti	132.48	322	*e*PKPdf	PKPdf	04 13 17.7	-0.1
ARU	Arti	132.48	322	*e*PKIKP	PKPdf	04 13 17.7	-0.1
ARCES	ARCESS Array B	137.34	349	PKP		04 13 19.5	
ARCES				PKP	PKPdf	04 13 26.4	-0.1
ARCES	ARCESS Array B	137.34	349	PKHKP		04 13 19.5	
ARCES						04 13 26.5	
ARCES	ARCESS Array B	137.34	349	PKhKP		04 13 19.5	
	comp=Z,1.9nm,0.7s,baz=50,slow=1.9,SNR=6.3						
ARCES				PKP	PKPdf	04 13 26.4	-0.1
	comp=Z,3.6nm,0.7s,baz=32,slow=5.7,SNR=9.2						
JOF	Joensuu	141.36	340	*e*pkp		04 13 21.5	
JOF	Joensuu	141.36	340	*e*PKP		04 13 21.5	
JOF	Joensuu	141.36	340	*e*PKHKP		04 13 21.5	
KAF	Kangasniemi	143.44	342	*e*pkp		04 13 30.0	
KAF	Kangasniemi	143.44	342	*e*PKP		04 13 30.0	
KAF	Kangasniemi	143.44	342	*e*PKHKP		04 13 30.0	
FIA1	FINESS Array S	144.05	341	*e*PKPdf	PKPdf	04 13 36.2	-2.6
FINES	FINESS Array B	144.05	341	PKP	PKPdf	04 13 36.5	-2.4
FINES	FINESS Array B	144.05	341	PKIKP	PKPdf	04 13 36.5	-2.3
FINES	FINESS Array B	144.05	341	PKP	PKPdf	04 13 36.5	-2.4
	comp=Z,10nm,0.7s,baz=64,slow=4.4,SNR=49						
OBN	Obninsk	144.43	327	⇑*i*PKIKP	PKPdf	04 13 37.9	-1.8
OBN				pmax	pmax		
	comp=Z,42nm,1.0s						
GOF	Gofitskoye	144.59	308	⇓*i*PKIKP	PKPdf	04 13 48.7	+8.4
GOF				pmax	pmax		
	comp=Z,54nm,0.8s						
VRSR	Storozhevoye	144.98	320	*e*PKIKP	PKPdf	04 13 39.8	-1.0
VRSR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
VRSR				pmax	pmax		
	comp=N,3.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,5.0nm,0.9s						
KIV	Kislovodsk	145.07	306	*e*PKPbc	PKPbc	04 13 41.0	+0.4
KIV	Kislovodsk	145.07	306	⇑*i*PKIKP	PKPdf	04 13 40.5	-0.7
HAKT	HAKKARI	145.08	295	*i* P	PKPbc	04 13 41.4	+0.6
TUTA	Tutak	145.66	298	*i* P	PKPdf	04 13 43.9	+1.6
ERZM	Erzurum	146.72	299	*i* P	PKPbc	04 13 47.2	+1.4
BNGL	BINGOL	146.99	298	*i* P	PKPbc	04 13 48.2	+1.6
MARD	Mardin	147.42	295	*i* P	PKPbc	04 13 48.5	+0.6
NB2	NORSAR Subarra	147.43	353	PKPa	PKPbc	04 13 46.9	-0.2
	comp=Z,28nm,0.9s,baz=12,slow=2.9						
NB2	NORSAR Subarra	147.43	353	PKPab	PKPbc	04 13 46.9	-0.2
NB2	NORSAR Subarra	147.43	353	PKPa	PKPbc	04 13 46.9	-0.2
	baz=12,slow=2.9						
NB2	NORSAR Subarra	147.43	353	PKP2	PKPbc	04 13 46.9	-0.2
NOA	NORSAR Array B	147.43	353	PKPbc	PKPbc	04 13 46.8	-0.3
NOA	NORSAR Array B	147.43	353	PKP2	PKPbc	04 13 46.8	-0.3
NOA	NORSAR Array B	147.43	353	PKPbc	PKPbc	04 13 46.8	-0.3
	comp=Z,17nm,0.8s,baz=14,slow=4.5,SNR=40						
NAO01	NORSAR Array S	147.66	353	*e*PKPbc	PKPbc	04 13 47.6	-0.1
MALT	Malatya	149.18	297	*e*PKPdf	PKPdf	04 13 47.9	-0.4
MALT				*e*PKPbc	PKPbc	04 13 52.8	+0.3
MALT	Malatya	149.18	297	⇑PKP2	PKPbc	04 13 53.5	+1.1
MALT	Malatya	149.18	297	⇑*i*P	PKPbc	04 13 53.5	+1.1
GZT	Gaziantep	149.97	295	*i* P	PKPbc	04 13 55.2	+0.8
AKASG	Malin Array Be	150.62	325	PKPbc	PKPbc	04 13 55.3	-0.2
AKASG				PKPab	PKPab	04 14 03.0	+0.6
AKASG	Malin Array Be	150.62	325	PKIKP	PKPbc	04 13 55.3	-0.2
AKASG						04 14 03.0	
AKASG	Malin Array Be	150.62	325	PKPbc	PKPbc	04 13 55.3	-0.2
	comp=Z,18nm,0.7s,baz=41,slow=3.1,SNR=37						
AKASG				PKPab	PKPab	04 14 03.0	+0.6
	comp=Z,5.7nm,0.5s,baz=42,slow=3.1,SNR=7.9						
AKBB	Malin Array Si	150.62	325	*e*PKPbc	PKPbc	04 13 55.2	-0.4
AKBB	Malin Array Si	150.62	325	*e*PKIKP	PKPbc	04 13 55.2	-0.3
ANDN	Andirin	150.90	296	*i* P	PKPbc	04 13 57.7	+1.0
BOYT	Boyabat	151.24	304	*i* P	PKPbc	04 13 57.5	+0.2
ELDT	Eldivan	152.57	303	*i* P	PKPbc	04 14 00.9	+0.5
BR131	Keskin Array S	152.60	301	*e*PKPbc	PKPbc	04 14 00.4	-0.1
BRTR	Keskin Array B	152.60	301	PKPbc	PKPbc	04 14 00.2	-0.3
BRTR				PKPab	PKPab	04 14 11.6	+0.5
BRTR	Keskin Array B	152.60	301	PKIKP	PKPbc	04 14 00.2	-0.3
BRTR						04 14 11.6	
BRTR	Keskin Array B	152.60	301	PKPbc	PKPbc	04 14 00.2	-0.3
	comp=Z,5.1nm,1.0s,baz=90,slow=3.0,SNR=15						
BRTR				PKPab	PKPab	04 14 11.5	+0.5
	comp=Z,2.9nm,0.7s,baz=140,slow=4.5,SNR=7.9						
ANTO	Ankara	153.20	302	*e*PKPbc	PKPbc	04 14 01.9	+0.1
ANTO	Ankara	153.20	302	⇓PKIKP	PKPbc	04 14 02.4	+0.6
ANTO	Ankara	153.20	302	⇓*i*P	PKPbc	04 14 02.4	+0.6
SGKT	Sivrigoynuk	153.55	304	*i* P	PKPdf	04 13 55.7	+0.9
CSS	Prodhromos	153.60	291	*e*PKPdf	PKPdf	04 13 54.6	-0.5
CSS				*e*PKPbc	PKPbc	04 14 02.7	-0.1
LVV	L'vov	153.71	328	*e*PKP2	PKPab	04 14 14.7	-0.6
KWP	Kalwaria	154.44	329	*e*PKPab	PKPab	04 14 18.2	-0.2
KWP	Kalwaria	154.44	329	⇑PKP2	PKPab	04 14 18.6	+0.2
KWP	Kalwaria	154.44	329	⇑*i*P	PKPab	04 14 18.6	+0.2
BURAR	Bucovina Array	154.60	323	⇓P	PKPab	04 14 19.1	-0.1
BURAR	Bucovina Array	154.60	323	⇓PKP2	PKPab	04 14 19.1	-0.1
BURAR	Bucovina Array	154.60	323	⇓*i*P	PKPab	04 14 19.1	-0.1
PLOR	Plostina	154.86	319	⇑*i*P	PKPab	04 14 18.1	-2.3
KOLS	Kolonicke sedl	155.15	329	*e*PKP	PKPdf	04 14 04.7	+8.0
KOLS				*e*		04 14 20.5	
KOLS	Kolonicke sedl	155.15	329	*e*PKIKP	PKPdf	04 14 04.7	+8.0
KOLS				*e*		04 14 20.5	
KOLS	Kolonicke sedl	155.15	329	*e*PKP	PKPdf	04 14 04.7	+8.0
KOLS				*e*		04 14 20.5	
STHS	Stebnicka Huta	155.24	331	*e*PKP	PKPab	04 14 22.7	+0.9
STHS	Stebnicka Huta	155.24	331	*e*PKP2	PKPab	04 14 22.7	+0.9
STHS	Stebnicka Huta	155.24	331	*e*PKP	PKPab	04 14 22.7	+0.9
UZH	Uzhgorod	155.35	328	*e*PKIKP	PKPdf	04 13 55.5	-1.5
UZH				*i*		04 14 09.7	
UZH				*i*		04 14 19.5	
MLR	Muntele Rosu	155.47	319	⇑P	PKPab	04 14 21.8	-1.1
MLR	Muntele Rosu	155.47	319	⇑PKP2	PKPab	04 14 21.8	-1.2
MLR	Muntele Rosu	155.47	319	⇑*i*P	PKPab	04 14 21.8	-1.2
CRVS	Cervenica-Dubn	155.53	330	*e*PKP	PKPab	04 14 23.3	+0.2
CRVS	Cervenica-Dubn	155.53	330	*e*PKP2	PKPab	04 14 23.3	+0.2
CRVS	Cervenica-Dubn	155.53	330	*e*PKP	PKPab	04 14 23.3	+0.2
TRPA	Tarpa	155.59	327	⇑*i*P	PKPab	04 14 24.0	+0.6
OKC	Ostrava-Krasne	156.15	335	*e*P	PKPab	04 14 26.1	+0.4
OKC	Ostrava-Krasne	156.15	335	*e*PKP2	PKPab	04 14 26.1	+0.4
OKC	Ostrava-Krasne	156.15	335	*e*PKPab	PKPab	04 14 26.1	+0.4
KECS	Kecovo	156.28	330	*e*PKP	PKPdf	04 14 08.1	+10
KECS				*e*		04 14 25.5	
KECS	Kecovo	156.28	330	*e*PKIKP	PKPdf	04 14 08.1	+10
KECS				*e*		04 14 25.5	
KECS	Kecovo	156.28	330	*e*PKP	PKPdf	04 14 08.1	+10
KECS				*e*		04 14 25.5	
UPC	Upice	156.31	339	*e*P	PKPab	04 14 27.6	+1.3
UPC	Upice	156.31	339	*e*PKP2	PKPab	04 14 27.6	+1.3
UPC	Upice	156.31	339	*e*PKPab	PKPab	04 14 27.6	+1.3
DPC	Dobruska-Polom	156.34	338	*e*P	PKPab	04 14 27.7	+1.2
DPC	Dobruska-Polom	156.34	338	*e*PKP2	PKPab	04 14 27.7	+1.2
DPC	Dobruska-Polom	156.34	338	*e*PKPab	PKPab	04 14 27.7	+1.2
MORC	Moravsky Berou	156.41	336	*e*PKPab	PKPab	04 14 27.1	+0.3
MORC	Moravsky Berou	156.41	336	*e*PKP2	PKPab	04 14 27.1	+0.3
CLL	Collm	156.42	344	*e*P	PKPdf	04 14 09.0	+11
CLL	Collm	156.42	344	*e*PKIKP	PKPdf	04 14 09.0	+11
BRG	Berggiesshubel	156.58	342	*e*PKIKP	PKPdf	04 13 58.6	0.0
BRG	Berggiesshubel	156.58	342	*e*P	PKPdf	04 13 58.6	0.0
	comp=Z,13nm,1.6s						
PSZ	Piszkesteto	156.96	330	*e*PKPab	PKPab	04 14 29.4	+0.1
PSZ	Piszkesteto	156.96	330	*e*PKP2	PKPab	04 14 29.4	+0.1
PSZ	Piszkesteto	156.96	330	⇓*i*P	PKPab	04 14 30.3	+1.0
VYHS	Vyhne	156.96	332	*e*PKP	PKPab	04 14 29.5	+0.3
VYHS				*e*		04 23 23.9	
VYHS	Vyhne	156.96	332	*e*PKP2	PKPab	04 14 29.5	+0.3
VYHS	Vyhne	156.96	332	*e*PKP	PKPab	04 14 29.5	+0.3
VYHS				*e*		04 23 23.9	
VRAC	Vranov	157.14	337	⇓PKP2	PKPab	04 14 31.1	+1.1
VRAC	Vranov	157.14	337	⇓*i*P	PKPab	04 14 31.1	+1.1
PRU	Pruhonice	157.21	340	*e*P	PKPab	04 14 31.2	+1.0
PRU	Pruhonice	157.21	340	*e*PKP2	PKPab	04 14 31.2	+1.0
PRU	Pruhonice	157.21	340	*e*PKPab	PKPab	04 14 31.2	+1.0
SMOL	Smolenice	157.50	334	*e*PKP	PKPab	04 14 32.7	+1.1
SMOL	Smolenice	157.50	334	*e*PKP2	PKPab	04 14 32.7	+1.1
SMOL	Smolenice	157.50	334	*e*PKP	PKPab	04 14 32.7	+1.1
KHC	Kasperske Hory	158.26	341	*e*P	PKPab	04 14 35.8	+1.0
KHC				*e*		04 14 41.5	
KHC	Kasperske Hory	158.26	341	*e*PKP2	PKPab	04 14 35.8	+1.0
KHC	Kasperske Hory	158.26	341	*e*PKPab	PKPab	04 14 35.8	+1.0
KHC				*e*pPKP	pPKPdf	04 14 41.5	+37
GERES	GERESS Array B	158.48	340	PKP	PKPdf	04 13 59.9	-1.1
GERES				PKPab	PKPab	04 14 35.5	-0.3
GERES	GERESS Array B	158.48	340	PKIKP	PKPdf	04 13 59.9	-1.1
GERES						04 14 35.5	
GERES	GERESS Array B	158.48	340	PKP	PKPdf	04 13 59.9	-1.1
	comp=Z,0.3nm,0.5s,baz=190,slow=3.9,SNR=2.8						
GERES				PKPab	PKPab	04 14 35.5	-0.3
	comp=Z,1.1nm,0.8s,baz=29,slow=3.0,SNR=4.4						
CONA	Conrad Observa	158.57	336	⇓*i*PKPab	PKPab	04 14 37.2	+1.1
	comp=Z,8.5nm,1.0s						
VTS	Vitosha	158.73	315	⇑P	PKPab	04 14 38.4	+1.3
VTS	Vitosha	158.73	315	⇑PKP2	PKPab	04 14 38.4	+1.3
VTS	Vitosha	158.73	315	⇑*i*P	PKPab	04 14 38.4	+1.3
PKSM	Moragy	158.81	329	⇑P	PKPdf	04 14 00.5	-1.0

PKSM	**Moragy**	158.81	329	⇑PKIKP	PKPdf	04 14 00.5	-1.0
PKSM	**Moragy**	158.81	329	⇑*i*P	PKPdf	04 14 00.5	-1.0
MOA	**Molln**	159.19	338	⇑*i*P	PKPab	04 14 40.3	+1.5
	comp=Z,9.1nm,1.4s						
MOA	**Molln**	159.19	338	⇑*i*PKPab	PKPab	04 14 40.3	+1.5
	comp=Z,9.1nm,1.4s						
ARSA	**Arzberg**	159.27	335	⇑*e*P	PKPab	04 14 40.3	+1.0
	comp=Z,3.3nm,1.0s						
ARSA	**Arzberg**	159.27	335	⇑*e*PKPab	PKPab	04 14 40.3	+1.0
	comp=Z,3.3nm,1.0s						
OBKA	**Obir**	160.25	336	⇓*i*P	PKPab	04 14 43.4	-0.1
	comp=Z,4.0nm,0.8s						
OBKA	**Obir**	160.25	336	⇓*i*PKPab	PKPab	04 14 43.4	-0.1
	comp=Z,4.0nm,0.8s						
TORD	**Torodi Ar. Bea**	164.24	175	PKP	PKPdf	04 14 07.7	-0.5
TORD				PKPab	PKPab	04 15 01.2	-0.4
TORD	**Torodi Ar. Bea**	164.24	175	PKP	PKPdf	04 14 07.7	-0.5
	comp=Z,2.1nm,1.0s,baz=352,slow=1.4,SNR=8.7						
TORD				PKPab	PKPab	04 15 01.2	-0.4
	comp=Z,2.6nm,0.8s,baz=181,slow=3.5,SNR=7.9						
ESDC	**Sonseca Array**	167.87	26	PKP	PKPdf	04 14 07.9	-2.4
ESDC				PKPab	PKPab	04 15 16.9	-0.2
ESDC	**Sonseca Array**	167.87	26	PKP	PKPdf	04 14 07.9	-2.4
	comp=Z,0.3nm,0.3s,baz=139,slow=47,SNR=4.4						
ESDC				PKPab	PKPab	04 15 16.9	-0.2
	comp=Z,0.1nm,0.3s,baz=309,slow=3.5,SNR=3.6						

*ISCJB **28** 04:20:53.9±0.4, 39.94N±0.02×23.95E±0.02, h7^{km}±3^{km}, mb3.8/4, Error ellipse: s-maj=2.8km s-min=2.6km az=31.2*

*IDC **28** 04:20:53.8±1.2, 39.89N×23.82E, h0^{km}, mb3.9/4, mb1 3.9/8, mb1mx3.7/22, mbtmp3.9/8, ML3.8/4, Error ellipse: s-maj=24.6km s-min=14.5km az=106.0*

*NEIC **28** 04:20:54.8, 39.95N×23.87E, h28^{km}, ML3.8(ATH), After ATH.*

*MOS **28** 04:20:54.6±0.9, 39.95N×23.98E, h16^{km}, mb3.9/1, Error ellipse: s-maj=8.5km s-min=5.8km az=92.7*

*ATH **28** 04:20:54.6, 39.95N×23.88E, h28^{km}±1^{km}, MD3.8/18, ML3.8*

*CSEM **28** 04:20:54.9±0.1, 39.94N×23.95E, h15^{km}, ML4.2, Error ellipse: s-maj=1.4km s-min=1.1km az=86.0*

*THE **28** 04:20:55.2, 39.96N×23.90E, h5^{km}, ML4.2*

*SKO **28** 04:20:57.2, 40.03N×23.90E, h11^{km}*

ISC 28 04:20:54.8±0.4**, 39.92N**±0.02×**23.95E**±0.02**, h3**^{km}±3^{km}**, n187, σ1^{s}05**/226**, mb3.8**/4**, 12C-5D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAIG	**Paliouri**	0.20	271	*e*Pg	**Pg**	**04 20 58.9**	**+0.2**
PAIG				*e*Sg	**Sg**	**04 21 02.0**	**+0.6**
PAIG	**Paliouri**	0.20	271	*e*Pg	**Pg**	**04 20 58.9**	**+0.2**
PAIG				*e*Sg	**Sg**	**04 21 02.0**	**+0.6**
OUR	**Ouranopolis**	0.41	4	*e*Pg	**Pg**	**04 21 03.1**	**+0.4**
OUR	**Ouranopolis**	0.41	4	*e*Pg	**Pg**	**04 21 03.1**	**+0.4**
PLG	**Polygyros**	0.59	320	Pn	**Pg**	**04 21 05.5**	**-0.6**
PLG				*e*Sn	**Sg**	**04 21 12.9**	**-0.9**
PLG	**Polygyros**	0.59	320	*e*Pg	**Pg**	**04 21 05.2**	**-0.9**
PLG				*e*Sg	**Sg**	**04 21 12.9**	**-0.9**
PLG	**Polygyros**	0.59	320	*e*PN	**Pg**	**04 21 05.5**	**-0.6**
PLG				*e*SN	**Sg**	**04 21 12.9**	**-0.9**
PLG	**Polygyros**	0.59	320	*e*Pg	**Pg**	**04 21 05.2**	**-0.9**
PLG				*e*Sg	**Sg**	**04 21 12.9**	**-0.9**
AOS	**Alonnisos**	0.75	184	*e*Pg	**Pg**	**04 21 09.8**	**+0.6**
AOS	**Alonnisos**	0.75	184	*e*Pg	**Pg**	**04 21 09.8**	**+0.6**
XOR	**Xorichti**	0.81	227	*e*Pg	**Pg**	**04 21 10.5**	**+0.3**
XOR	**Xorichti**	0.81	227	*e*Pg	**Pg**	**04 21 10.5**	**+0.3**
NEO	**Neokhori**	0.83	222	*e*Pn	**Pg**	**04 21 11.2**	**+0.5**
NEO				Sn	**Sg**	**04 21 22.4**	**+1.0**
NEO	**Neokhori**	0.83	222	*e*PN	**Pg**	**04 21 11.2**	**+0.5**
NEO				SN	**Sg**	**04 21 22.4**	**+1.0**
NEO	**Neokhori**	0.83	222	*e*Pn	**Pg**	**04 21 11.2**	**+0.5**
NEO				Sn	**Sg**	**04 21 22.4**	**+1.0**
LOS	**Limnos**	0.87	89	*e*Pg	**Pg**	**04 21 12.2**	**+0.7**
LOS				*e*Sg	**Sg**	**04 21 24.9**	**+2.1**
LOS	**Limnos**	0.87	89	*e*Pg	**Pg**	**04 21 12.2**	**+0.7**
LOS				*e*Sg	**Sg**	**04 21 24.9**	**+2.1**
HORT	**Hortiatis**	0.94	316	*e*Pg	**Pg**	**04 21 11.5**	**-1.2**
HORT				*e*Sg	**Sg**	**04 21 25.1**	**+0.3**
HORT	**Hortiatis**	0.94	316	*e*Pg	**Pg**	**04 21 11.5**	**-1.2**
HORT				*e*Sg	**Sg**	**04 21 25.1**	**+0.3**
LIA	**Limnos Island**	0.95	91	Pn	**Pn**	**04 21 15.7**	**+0.6**
LIA	**Limnos Island**	0.95	91	*e*PN	**Pn**	**04 21 14.5**	**-0.6**
LIA	**Limnos Island**	0.95	91	Pn	**Pn**	**04 21 15.7**	**+0.6**
SOH	**Sokhos**	1.00	333	*e*Pg	**Pg**	**04 21 13.6**	**-0.5**
SOH				*e*Sg	**Sg**	**04 21 26.2**	**-0.8**
SOH	**Sokhos**	1.00	333	*e*Pg	**Pg**	**04 21 13.6**	**-0.4**
SOH				*e*Sg	**Sg**	**04 21 26.2**	**-0.9**
THE	**Thessaloniki**	1.03	314	*e*Pg	**Pg**	**04 21 14.0**	**-0.5**
THE				*e*Sg	**Sg**	**04 21 27.7**	**-0.3**
THE	**Thessaloniki**	1.03	314	*e*Pg	**Pg**	**04 21 14.0**	**-0.5**
THE				*e*Sg	**Sg**	**04 21 27.7**	**-0.2**
LIT	**Litokhoron**	1.13	279	*e*Pg	**Pg**	**04 21 15.7**	**-0.8**
LIT				*e*Sg	**Sg**	**04 21 31.9**	**+0.7**
LIT	**Litokhoron**	1.13	279	*e*Pg	**Pg**	**04 21 15.7**	**-0.8**
LIT				*e*Sg	**Sg**	**04 21 31.9**	**+0.8**
SRS	**Serrai**	1.22	347	*e*Pg	**Pg**	**04 21 17.1**	**-1.1**
SRS				*e*Sg	**Sg**	**04 21 34.5**	**+0.4**
SRS	**Serrai**	1.22	347	*e*Pg	**Pg**	**04 21 17.1**	**-1.1**
SRS				*e*Sg	**Sg**	**04 21 34.5**	**+0.4**
NVR	**Nevrokopi**	1.43	357	Pn	**Pn**	**04 21 20.5**	**-1.1**
NVR				*e*Sn	**Sn**	**04 21 39.4**	**-1.5**
NVR	**Nevrokopi**	1.43	357	*e*PN	**Pn**	**04 21 20.5**	**-1.1**
NVR				*e*SN	**Sn**	**04 21 39.4**	**-1.5**
NVR	**Nevrokopi**	1.43	357	Pn	**Pn**	**04 21 20.5**	**-1.1**
NVR				*e*Sn	**Sn**	**04 21 39.4**	**-1.5**
LKR	**Lokris**	1.47	210	Pb	**Pn**	**04 21 20.4**	**-1.7**
LKR	**Lokris**	1.47	210	*e*PB	**Pn**	**04 21 20.4**	**-1.7**
LKR	**Lokris**	1.47	210	Pb	**Pn**	**04 21 20.4**	**-1.7**
KNT	**Kendrikon**	1.47	328	*e*Pg	**Pn**	**04 21 21.2**	**-1.0**
KNT				*e*Sg	**Sg**	**04 21 41.1**	**-1.0**
KNT	**Kendrikon**	1.47	328	*e*Pg	**Pn**	**04 21 21.2**	**-1.0**
KNT				*e*Sg	**Sg**	**04 21 41.1**	**-1.0**
THL	**Klokotos Trika**	1.53	257	*e*PN	**Pn**	**04 21 21.7**	**-1.3**
THL	**Klokotos Trika**	1.53	257	*e*Pn	**Pn**	**04 21 21.7**	**-1.3**
AGG	**Agios Georgios**	1.54	235	*e*Pg	**Pn**	**04 21 21.7**	**-1.5**
AGG				*e*Sg	**Sg**	**04 21 42.9**	**-1.3**
AGG	**Agios Georgios**	1.54	235	*e*Pg	**Pn**	**04 21 21.7**	**-1.4**
AGG				*e*Sg	**Sg**	**04 21 42.9**	**-1.3**
BOZC	**Bozcaada**	1.62	92	*i* P	**Pn**	**04 21 23.2**	**-1.1**
KZN	**Kozani**	1.71	284	*e*Pn	**Pn**	**04 21 24.9**	**-0.6**
KZN	**Kozani**	1.71	284	*e*PN	**Pn**	**04 21 24.0**	**-1.5**
KZN	**Kozani**	1.71	284	*e*Pn	**Pn**	**04 21 24.9**	**-0.6**
RDO	**Rodhopi**	1.72	44	Pb	**Pn**	**04 21 24.0**	**-1.6**
RDO	**Rodhopi**	1.72	44	*e*PB	**Pn**	**04 21 24.0**	**-1.6**
RDO	**Rodhopi**	1.72	44	Pb	**Pn**	**04 21 24.0**	**-1.6**
VAY	**Valandovo**	1.75	324	*e*Pb	**Pn**	**04 21 25.1**	**-0.9**
VAY	**Valandovo**	1.75	324	*e*Pn	**Pn**	**04 21 26.2**	**+0.2**
PTL	**Penteli**	1.87	182	*e*Pn	**Pn**	**04 21 26.5**	**-1.2**
PTL	**Penteli**	1.87	182	*e*PN	**Pn**	**04 21 26.5**	**-1.2**
PTL	**Penteli**	1.87	182	*e*Pn	**Pn**	**04 21 26.5**	**-1.2**
ALN	**Alexandroupoli**	1.88	58	*e*Sb	**Sg**	**04 21 57.9**	**+2.9**
PRK	**Paraskevi**	1.92	110	Pn	**Pn**	**04 21 28.6**	**+0.2**
PRK	**Paraskevi**	1.92	110	*e*PB	**Pn**	**04 21 28.6**	**+0.2**
PRK	**Paraskevi**	1.92	110	Pn	**Pn**	**04 21 28.6**	**+0.2**
EVR	**Evrytania**	1.94	239	Pb	**Pn**	**04 21 27.9**	**-0.7**
EVR	**Evrytania**	1.94	239	*e*PB	**Pn**	**04 21 27.9**	**-0.7**
EVR	**Evrytania**	1.94	239	Pb	**Pn**	**04 21 27.9**	**-0.7**
ATH	**Athens Observa**	1.96	185	Pn	**Pn**	**04 21 27.9**	**-1.0**
ATH	**Athens Observa**	1.96	185	*e*PN	**Pn**	**04 21 27.9**	**-1.0**
ATH	**Athens Observa**	1.96	185	Pn	**Pn**	**04 21 27.9**	**-1.0**
STIP	**Stip**	2.22	324	*e*Pn	**Pn**	**04 21 32.7**	**+0.3**
BIA	**Bitola**	2.28	300	*e*Pn	**Pn**	**04 21 33.6**	**+0.3**
JAN	**Janina**	2.40	265	Pb	**Pn**	**04 21 35.0**	**0.0**
JAN	**Janina**	2.40	265	*e*PB	**Pn**	**04 21 35.0**	**0.0**
JAN	**Janina**	2.40	265	Pb	**Pn**	**04 21 35.0**	**0.0**
KRUS	**Krusevo**	2.51	306	*e*Pn	**Pn**	**04 21 36.6**	**+0.1**
KBN	**Korca**	2.52	287	*e*PN	**Pn**	**04 21 37.8**	**+1.2**
KBN				*i* SN	**Sn**	**04 22 08.0**	**+0.2**
KBN	**Korca**	2.52	287	*e*Pn	**Pn**	**04 21 37.8**	**+1.2**
KBN				*i* Sn	**Sn**	**04 22 08.0**	**+0.2**
LSK	**Leskovik**	2.58	276	*e*PN	**Pn**	**04 21 37.5**	**+0.1**
LSK				*i* SN	**Sg**	**04 22 13.8**	**-3.8**
LSK	**Leskovik**	2.58	276	*e*Pn	**Pn**	**04 21 37.5**	**+0.1**
URLA	**Izmir**	2.58	126	*i* P	**Pn**	**04 21 37.1**	**-0.4**
SART	**Tekirdag**	2.59	72	*i* P	**Pn**	**04 21 36.5**	**-1.0**
SART	**Tekirdag**	2.59	72	*i* P	**Pn**	**04 21 36.5**	**-1.1**
RLS	**Riolos of Patr**	2.68	227	*e*Pb	**Pn**	**04 21 39.9**	**+1.0**
RLS	**Riolos of Patr**	2.68	227	*e*PB	**Pn**	**04 21 39.9**	**+1.0**
RLS	**Riolos of Patr**	2.68	227	*e*Pb	**Pn**	**04 21 39.9**	**+1.0**
VTS	**Vitosha**	2.72	348	⇑*i*P	**Pn**	**04 21 39.4**	**0.0**
VLX	**Vlachokerasia**	2.83	206	*e*Pn	**Pn**	**04 21 40.9**	**0.0**
VLX	**Vlachokerasia**	2.83	206	*e*Pn	**Pn**	**04 21 40.9**	**0.0**
SRN	**Sarande**	3.04	270	*e*PN	**Pn**	**04 21 44.8**	**+1.1**
SRN				*i* SN	**Sn**	**04 22 22.5**	**+1.9**
SRN	**Sarande**	3.04	270	*e*Pn	**Pn**	**04 21 44.8**	**+1.1**
SRN				*i* Sn	**Sn**	**04 22 22.5**	**+1.9**
APE	**Apeiranthos**	3.11	156	*e*Pn	**Pn**	**04 21 44.0**	**-0.7**
APE	**Apeiranthos**	3.11	156	*e*PN	**Pn**	**04 21 44.0**	**-0.7**
APE	**Apeiranthos**	3.11	156	⇑*i*P	**Pn**	**04 21 43.6**	**-1.1**
APE	**Apeiranthos**	3.11	156	*e*Pn	**Pn**	**04 21 44.0**	**-0.7**
VLS	**Valsamata**	3.14	237	*e*Pn	**Pn**	**04 21 45.5**	**+0.3**
VLS	**Valsamata**	3.14	237	*e*PN	**Pn**	**04 21 45.5**	**+0.3**
VLS	**Valsamata**	3.14	237	*e*Pn	**Pn**	**04 21 45.5**	**+0.3**
ITM	**Ithomi**	3.16	211	*e*Pn	**Pn**	**04 21 46.0**	**+0.5**
ITM	**Ithomi**	3.16	211	*e*PN	**Pn**	**04 21 46.0**	**+0.5**
ITM	**Ithomi**	3.16	211	*e*Pn	**Pn**	**04 21 46.0**	**+0.5**
PHP	**Peshkopia**	3.19	305	*e*PN	**Pn**	**04 21 47.4**	**+1.6**
PHP				*i* SN	**Sn**	**04 22 25.6**	**+1.2**
PHP	**Peshkopia**	3.19	305	*e*Pn	**Pn**	**04 21 47.4**	**+1.6**
PHP				*i* Sn	**Sn**	**04 22 25.6**	**+1.2**
KEK	**Kerkira**	3.20	268	P	**Pn**	**04 21 50.0**	**+4.0**
VLI	**Veliai**	3.30	194	Pn	**Pn**	**04 21 46.8**	**-0.5**
VLI	**Veliai**	3.30	194	*e*PN	**Pn**	**04 21 46.8**	**-0.5**
VLI	**Veliai**	3.30	194	Pn	**Pn**	**04 21 46.8**	**-0.5**
BARS	**Barje**	3.31	332	Pn	**Pn**	**04 21 46.5**	**-0.9**
BARS				Sg	**Sg**	**04 22 41.6**	**+0.7**
TIR	**Tirane**	3.42	296	P	**Pn**	**04 21 52.6**	**+3.7**
TIR	**Tirane**	3.42	296	*e*PN	**Pn**	**04 21 54.2**	**+5.3**
ULDT	**Uludag**	3.99	85	*i* P	**Pn**	**04 21 56.9**	**+0.1**
SJES	**Sjenica**	4.49	319	Pn	**Pn**	**04 22 06.3**	**+2.6**
GRUS	**Gruza**	4.64	330	Pn	**Pn**	**04 22 04.0**	**-1.7**
IDI	**Anoyia**	4.69	171	Pn	**Pn**	**04 22 05.5**	**-0.9**
IDI	**Anoyia**	4.69	171	Pn	**Pn**	**04 22 05.6**	**-0.9**
	2.8nm,0.3s,baz=346,slow=12,SNR=18						
IDI	**Anoyia**	4.69	171	Pn	**Pn**	**04 22 05.6**	**-0.8**
KARP	**Karpathos**	5.06	149	P	**Pn**	**04 22 11.4**	**-0.1**
DIVS	**Divcibare**	5.11	326	Pn	**Pn**	**04 22 11.4**	**-0.8**
DIVS				Sg	**Sg**	**04 23 38.7**	**0.0**
ESKT	**Eskisehir**	5.34	92	*i* P	**Pn**	**04 22 16.2**	**+0.9**
SEYT	**Eskypehyr**	5.34	92	*i* P	**Pn**	**04 22 16.2**	**+0.8**
MTUR	**Matau**	5.36	8	⇑P	**Pn**	**04 22 16.1**	**+0.5**
MTUR	**Matau**	5.36	8	⇑*i*P	**Pn**	**04 22 16.1**	**+0.4**
GZR	**Gura Zlata**	5.54	351	P	**Pn**	**04 22 17.5**	**-0.5**
GZR	**Gura Zlata**	5.54	351	⇑*i*P	**Pn**	**04 22 17.1**	**-0.9**
GZR	**Gura Zlata**	5.54	351	P	**Pn**	**04 22 17.5**	**-0.5**
ISR	**Istrita**	5.54	19	⇑P	**Pn**	**04 22 18.2**	**+0.2**
ISR	**Istrita**	5.54	19	⇑*i*P	**Pn**	**04 22 18.2**	**+0.2**
VOIR		5.57	8	P	**Pn**	**04 22 18.8**	**+0.3**
VOIR		5.57	8	⇓*i*P	**Pn**	**04 22 18.4**	**-0.1**
VOIR		5.57	8	P	**Pn**	**04 22 18.8**	**+0.3**
TIP	**Timpagrande**	5.61	265	*e*Pn	**Pn**	**04 22 17.8**	**-1.3**
TIP				*e*Sn	**Sn**	**04 23 17.8**	**-6.1**
TIP	**Timpagrande**	5.61	265	*e*Pn	**Pn**	**04 22 17.8**	**-1.2**
TIP				*e*Sn	**Sn**	**04 23 17.8**	**-6.1**
MLR	**Muntele Rosu**	5.76	14	P	**Pn**	**04 22 22.3**	**+1.2**
MLR	**Muntele Rosu**	5.76	14	Pn	**Pn**	**04 22 21.6**	**+0.5**
	2.0nm,0.3s,baz=176,slow=11,SNR=16						
MLR				Lg		04 24 02.9	
	0.9nm,0.3s,baz=258,slow=5.9,SNR=3.7						
MLR	**Muntele Rosu**	5.76	14	⇑*i*P	**Pn**	**04 22 21.4**	**+0.3**
MLR	**Muntele Rosu**	5.76	14	P	**Pn**	**04 22 22.3**	**+1.2**
BZS	**Buzias**	5.94	344	⇓P	**Pn**	**04 22 22.4**	**-1.3**
BZS	**Buzias**	5.94	344	⇓*i*P	**Pn**	**04 22 22.4**	**-1.2**
SGKT	**Sivrigoynuk**	6.24	81	*i* P	**Pn**	**04 22 27.8**	**0.0**
PLOR	**Plostina**	6.25	18	⇑*i*P	**Pn**	**04 22 28.8**	**+1.0**
VRI	**Vrincioaia**	6.28	18	P	**Pn**	**04 22 29.4**	**+1.1**
VRI	**Vrincioaia**	6.28	18	⇑*i*P	**Pn**	**04 22 29.6**	**+1.3**
VRI	**Vrincioaia**	6.28	18	P	**Pn**	**04 22 29.4**	**+1.1**
FGMS	**Monte Sant'Ang**	6.32	289	Pn	**Pn**	**04 22 28.7**	**-0.1**
	29nm,0.6s						
FGMS	**Monte Sant'Ang**	6.32	289	Pn	**Pn**	**04 22 28.7**	**-0.1**
SOI	**Samo**	6.42	256	Pn	**Pn**	**04 22 29.8**	**-0.4**
SOI	**Samo**	6.42	256	Pn	**Pn**	**04 22 29.8**	**-0.4**
MGR	**Morigerati**	6.45	275	Pn	**Pn**	**04 22 31.5**	**+0.9**
	88nm,0.6s						
RGNG	**Rignano Grg**	6.58	288	Pn	**Pn**	**04 22 34.8**	**+2.4**
SGO	**Sicignano**	6.64	278	Pn	**Pn**	**04 22 34.0**	**+0.8**
	31nm,0.6s						
SGO	**Sicignano**	6.64	278	P	**Pn**	**04 22 34.0**	**+0.8**
SGO				pmax	pmax		
	comp=Z,31nm,0.6s						
FG5	**Orsara di Pugl**	6.74	284	Pn	**Pn**	**04 22 36.3**	**+1.7**
	comp=Z,9.4nm,0.3s						
FG5	**Orsara di Pugl**	6.74	284	P	**Pn**	**04 22 36.3**	**+1.7**
FG5				pmax	pmax		
	comp=Z,9.0nm,0.3s						
CSSN	**Cassano Irpino**	6.88	281	Pn	**Pn**	**04 22 39.7**	**+3.2**
	comp=Z,52nm,1.0s						
PKSM	**Moragy**	7.39	330	⇑P	**Pn**	**04 22 42.5**	**-1.0**
PKSM	**Moragy**	7.39	330	⇑*i*P	**Pn**	**04 22 42.5**	**-1.0**
SGG	**Gregorio Mates**	7.42	284	Pn	**Pn**	**04 22 44.0**	**+0.1**
	comp=Z,71nm,1.3s						
SGG	**Gregorio Mates**	7.42	284	Pn	**Pn**	**04 22 44.0**	**+0.1**
BRTR	**Keskin Array B**	7.46	88	Pn	**Pn**	**04 22 44.8**	**+0.3**
BRTR				Lg		04 24 53.8	
BRTR	**Keskin Array B**	7.46	88	Pn	**Pn**	**04 22 44.8**	**+0.3**
	comp=Z,0.4nm,0.3s,baz=264,slow=11,SNR=12						
BRTR				Lg		04 24 53.8	
	comp=Z,0.1nm,0.3s,baz=260,slow=20,SNR=5.2						
BURAR	**Bucovina Array**	7.74	6	⇓P	**Pn**	**04 22 48.5**	**+0.1**
BURAR	**Bucovina Array**	7.74	6	⇓*i*P	**Pn**	**04 22 48.5**	**+0.1**
SDI	**San Donato**	7.89	286	Pn	**Pn**	**04 22 52.9**	**+2.5**
	comp=Z,35nm,1.7s						
SDI	**San Donato**	7.89	286	P	**Pn**	**04 22 52.9**	**+2.5**
SDI				pmax	pmax		
	comp=Z,35nm,1.7s						
BOJS	**Bojanci**	8.49	314	*i* Pn	**Pn**	**04 23 03.2**	**+4.7**
BOJS	**Bojanci**	8.49	314	*i* Pn	**Pn**	**04 23 03.2**	**+4.7**
CRES	**Cresnjev**	8.58	316	*i* Pn	**Pn**	**04 23 01.8**	**+2.0**
CRES	**Cresnjev**	8.58	316	*i* Pn	**Pn**	**04 23 01.8**	**+2.0**
CRES	**Cresnjev**	8.58	316	*i* Pn	**Pn**	**04 23 01.8**	**+2.0**
NRCA	**Norcia**	8.65	293	Pn	**Pn**	**04 23 03.0**	**+2.2**
	comp=Z,12nm,1.4s						
VISS	**Visnje**	8.90	314	*i* Pn	**Pn**	**04 23 06.0**	**+1.8**
VISS	**Visnje**	8.90	314	*i* Pn	**Pn**	**04 23 06.0**	**+1.8**
VISS	**Visnje**	8.90	314	*i* Pn	**Pn**	**04 23 06.0**	**+1.8**
KOLS	**Kolonicke sedl**	9.09	353	*e*SG	Sx	04 25 50.7	
JAVS	**Javornik**	9.39	313	*i* Pn	**Pn**	**04 23 08.9**	**-1.9**
JAVS				*i* Sn	**Sn**	**04 24 57.3**	**+0.4**
JAVS	**Javornik**	9.39	313	*i* Pn	**Pn**	**04 23 08.9**	**-1.9**
JAVS				*i* Sn	**Sn**	**04 24 57.3**	**+0.4**
STHS	**Stebnicka Huta**	9.69	349	*e*SG	Sx	04 26 05.8	
AKASG	**Malin Array Be**	11.40	17	Pn	**Pn**	**04 23 37.6**	**-0.8**
AKASG	**Malin Array Be**	11.40	17	Pn	**Pn**	**04 23 37.6**	**-0.8**
	comp=Z,1.1nm,0.3s,baz=208,slow=11,SNR=3.8						
AKASG	**Malin Array Be**	11.40	17	Pn	**Pn**	**04 23 37.6**	**-0.8**
GERES	**GERESS Array B**	11.53	324	Pn	**Pn**	**04 23 44.7**	**+4.4**
GERES	**GERESS Array B**	11.53	324	Pn	**Pn**	**04 23 44.7**	**+4.4**
	comp=Z,0.1nm,0.3s,baz=122,slow=16,SNR=2.9						
FINES	**FINESS Array B**	21.59	3	P	**P**	**04 25 43.9**	**-1.6**
	comp=Z,2.6nm,1.1s,mb3.6,baz=197,slow=6.0,SNR=3.0						
FINES	**FINESS Array B**	21.59	3	P	**P**	**04 25 43.8**	**-1.6**
TOA0	**Torodi Ar. Sit**	33.09	223	*e*P	**P**	**04 27 30.3**	**-1.6**
TOA0	**Torodi Ar. Sit**	33.09	223	*e*P	**P**	**04 27 30.3**	**-1.6**
TORD	**Torodi Ar. Bea**	33.09	223	P	**P**	**04 27 30.9**	**-1.0**
TORD	**Torodi Ar. Bea**	33.09	223	P	**P**	**04 27 30.9**	**-1.0**
	comp=Z,1.7nm,0.5s,mb4.2,baz=32,slow=9.2,SNR=65						
MK31	**Makanchi Array**	42.12	61	*e*P	**P**	**04 28 48.3**	**+0.2**
MK31	**Makanchi Array**	42.12	61	*e*P	**P**	**04 28 48.3**	**+0.2**
MKAR	**Makanchi Array**	42.12	61	P	**P**	**04 28 48.6**	**+0.5**
	comp=Z,1.0nm,0.6s,mb3.6,baz=280,slow=7.3,SNR=17						
ZAL	**Zalesovo**	42.52	50	P	**P**	**04 28 51.8**	**+0.5**
ZALV	**Zalesovo Beam**	42.54	50	P	**P**	**04 28 51.8**	**+0.5**
	comp=Z,1.1nm,0.5s,mb3.9,baz=277,slow=8.4,SNR=5.7						

*CSEM **28** 04:37:10.7±0.1, 38.39N×39.26E, h2^{km}, MD3.6, Error ellipse: s-maj=1.9km s-min=1.5km az=172.0*

*ISK **28** 04:37:10.8, 38.42N×39.25E, h5^{km}, MD3.6*

*NSSC **28** 04:37:10.9, 38.51N×39.26E, h15^{km}±8^{km}*

*ISCJB **28** 04:37:11.6±0.6, 38.37N±0.03×39.27E±0.03, h4^{km}±5^{km}, Error ellipse: s-maj=5.0km s-min=3.2km az=156.3*

*DDA **28** 04:37:13.6, 38.34N×39.27E, h8^{km}, Md3.5*

ISC 28 04:37:12.3±0.6**, 38.39N**±0.03×**39.28E**±0.03**, h4**^{km}±4^{km}**, n61, σ0^{s}96**/86**, 14D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTK	**Pertek**	0.51	10	PG	**Pg**	**04 37 21.4**	**-0.8**
PTK				SG	**Sg**	**04 37 29.6**	**+0.7**
PTK	**Pertek**	0.51	10	*e*Pg	**Pg**	**04 37 21.4**	**-0.8**
PTK				*e*Sg	**Sg**	**04 37 29.6**	**+0.7**
MALT	**Malatya**	0.68	264	PG	**Pg**	**04 37 24.0**	**-1.3**
MALT				SG	**Sg**	**04 37 34.2**	**+0.1**
MALT	**Malatya**	0.68	264	*e*Pg	**Pg**	**04 37 24.0**	**-1.3**
MALT				*e*Sg	**Sg**	**04 37 34.2**	**+0.1**
MYA	**Malataya**	0.68	265	PG	**Pg**	**04 37 24.7**	**-0.6**
MYA				SG	**Sg**	**04 37 34.7**	**+0.6**
MYA	**Malataya**	0.68	265	*e*Pg	**Pg**	**04 37 24.7**	**-0.6**
MYA				*e*Sg	**Sg**	**04 37 34.7**	**+0.6**
DIY	**Diyarbakir**	0.89	123	PG	**Pg**	**04 37 29.5**	**+0.1**
DIY	**Diyarbakir**	0.89	123	*e*Pg	**Pg**	**04 37 29.5**	**+0.1**
URFA	**Urfa**	1.01	201	PG	**Pg**	**04 37 32.3**	**+0.6**
URFA	**Urfa**	1.01	201	*e*Pg	**Pg**	**04 37 32.3**	**+0.6**
BINT	**Bingol**	1.06	62	PG	**Pg**	**04 37 32.0**	**-0.7**
BINT	**Bingol**	1.06	62	*e*Pg	**Pg**	**04 37 32.0**	**-0.7**
ATAB	**Bozova**	1.20	221	*i* P	**Pg**	**04 37 35.5**	**+0.1**
ATAB				*i* S	**Sg**	**04 37 52.9**	**+2.0**
EZC	**Erzincan**	1.42	17	PN	**Pn**	**04 37 37.6**	**-1.4**
BNGL	**BINGOL**	1.57	68	*i* P	**Pn**	**04 37 42.3**	**+1.3**
BNGL				*i* S	**Sn**	**04 38 01.7**	**0.0**
DRBT	**Darb Altahta**	1.59	164	⇑P	**Pn**	**04 37 45.9**	**+4.7**
DRBT				⇑S	**Sn**	**04 38 12.0**	**+10**
DRBT	**Darb Altahta**	1.59	164	⇑*i*P	**Pn**	**04 37 45.9**	**+4.7**
MARD	**Mardin**	1.60	132	*i* P	**Pn**	**04 37 40.4**	**-1.0**
MARD				*i* S	**Sn**	**04 38 03.5**	**+1.1**
GZT	**Gaziantep**	1.71	233	*i* P	**Pn**	**04 37 41.9**	**-0.9**
GZT				*i* S	**Sn**	**04 38 05.3**	**+0.2**
KBSD	**Kabsdagh**	1.71	144	⇓P	**Pn**	**04 37 41.1**	**-1.7**
KBSD				⇑S	**Sn**	**04 38 05.5**	**+0.4**
KBSD	**Kabsdagh**	1.71	144	⇓*i*P	**Pn**	**04 37 41.1**	**-1.7**
KBSD				⇑*i*S	**Sn**	**04 38 05.5**	**+0.4**
BTMT	**Batman**	1.75	96	PN	**Pn**	**04 37 42.1**	**-1.3**
GAZ	**Gaziantep**	2.04	234	PN	**Pn**	**04 37 47.0**	**-0.4**
GAZ	**Gaziantep**	2.04	234	*e*Pn	**Pn**	**04 37 47.0**	**-0.4**
SFNV	**Sufian**	2.07	161	⇑P	**Pn**	**04 37 46.7**	**-1.2**
SFNV				⇑S	**Sn**	**04 38 15.0**	**+0.9**
SFNV	**Sufian**	2.07	161	⇑*i*P	**Pn**	**04 37 46.7**	**-1.2**
SFNV				⇑*i*S	**Sn**	**04 38 15.0**	**+0.9**
GUMT	**Gumushane**	2.08	4	PN	**Pn**	**04 37 48.1**	**+0.1**
EZM	**Erzurum**	2.22	46	PN	**Pn**	**04 37 49.8**	**-0.1**
SVSK	**Karacayir**	2.34	311	PN	**Pn**	**04 37 51.9**	**+0.3**
SVSK	**Karacayir**	2.34	311	*e*Pn	**Pn**	**04 37 51.9**	**+0.3**
SLMH	**Al Salmeh**	2.42	207	⇓P	**Pn**	**04 37 51.3**	**-1.4**
SLMH				⇓S	**Sn**	**04 38 22.5**	**-0.3**
SLMH	**Al Salmeh**	2.42	207	⇓*i*P	**Pn**	**04 37 51.3**	**-1.4**
SLMH				⇓*i*S	**Sn**	**04 38 22.5**	**-0.3**
SIRT	**Sirnak**	2.65	108	*e*PN	**Pn**	**04 37 57.2**	**+1.4**
SIRT	**Sirnak**	2.65	108	*e*Pn	**Pn**	**04 37 57.2**	**+1.4**
DRWC	**Darouich**	2.73	231	⇑P	**Pn**	**04 37 54.4**	**-2.5**
DRWC				⇑S	**Sn**	**04 38 30.3**	**0.0**
DRWC	**Darouich**	2.73	231	⇑*i*P	**Pn**	**04 37 54.3**	**-2.6**
DRWC				⇑*i*S	**Sn**	**04 38 30.3**	**0.0**
BNN	**Bunyan**	2.73	281	*e*PN	**Pn**	**04 37 57.4**	**+0.4**
BNN	**Bunyan**	2.73	281	*e*Pn	**Pn**	**04 37 57.4**	**+0.4**
JHLN	**Al Jahlan**	2.79	194	⇓P	**Pn**	**04 37 56.5**	**-1.2**
JHLN				⇓S	**Sn**	**04 38 32.0**	**+0.2**
JHLN	**Al Jahlan**	2.79	194	⇓*i*P	**Pn**	**04 37 56.5**	**-1.3**
JHLN				⇓*i*S	**Sn**	**04 38 32.0**	**+0.1**
KOZT	**Kozan**	2.88	253	*e*PN	**Pn**	**04 38 00.2**	**+1.2**
AGRB	**Hanur-Agry**	3.13	66	*e*PN	**Pn**	**04 38 03.0**	**+0.6**
AGRB	**Hanur-Agry**	3.13	66	*e*Pn	**Pn**	**04 38 03.0**	**+0.6**
BTCH	**Batrach**	3.25	225	⇑P	**Pn**	**04 38 02.9**	**-1.2**
BTCH				⇓S	**Sn**	**04 38 42.6**	**-0.6**
BTCH	**Batrach**	3.25	225	⇑*i*P	**Pn**	**04 38 02.9**	**-1.2**
BTCH				⇓*i*S	**Sn**	**04 38 42.6**	**-0.6**
YOZ	**Yozgat**	3.33	293	*e*PN	**Pn**	**04 38 05.8**	**+0.6**
YOZ	**Yozgat**	3.33	293	*e*Pn	**Pn**	**04 38 05.8**	**+0.6**
HTY	**Hatay**	3.38	229	*e*PN	**Pn**	**04 38 07.5**	**+1.7**
HTY	**Hatay**	3.38	229	*e*Pn	**Pn**	**04 38 07.5**	**+1.7**
KARA	**Karaisali**	3.53	253	*e*PN	**Pn**	**04 38 09.5**	**+1.6**
KARA	**Karaisali**	3.53	253	*e*Pn	**Pn**	**04 38 09.5**	**+1.6**
HKR	**Hakkari**	3.61	102	*e*PN	**Pn**	**04 38 10.5**	**+1.4**
HKR	**Hakkari**	3.61	102	*e*Pn	**Pn**	**04 38 10.5**	**+1.4**
WRDH	**Warideh**	3.68	220	⇑P	**Pn**	**04 38 09.5**	**-0.5**
WRDH				⇓S	**Sn**	**04 38 53.1**	**-0.7**
WRDH	**Warideh**	3.68	220	⇑*i*P	**Pn**	**04 38 09.5**	**-0.5**
WRDH				⇓*i*S	**Sn**	**04 38 53.1**	**-0.7**
CORM	**Corum**	4.03	298	*e*PN	**Pn**	**04 38 15.5**	**+0.7**
CORM	**Corum**	4.03	298	*e*Pn	**Pn**	**04 38 15.5**	**+0.7**
HWQ	**Hawqa**	4.90	214	*e*Pn	**Pn**	**04 38 27.3**	**+0.5**
HWQ	**Hawqa**	4.90	214	*e*Pn	**Pn**	**04 38 27.3**	**+0.5**
BHL	**Bhannes**	5.35	214	*e*Pn	**Pn**	**04 38 33.3**	**+0.4**
BHL	**Bhannes**	5.35	214	*e*Pn	**Pn**	**04 38 33.3**	**+0.3**

IDC 28 04:43:01.7±13.0**, 6.62S**×**129.37E, h119**^{km}±145^{km}**, mb3.1**/1**, mb1 3.2**/4**, mb1mx3.0**/15**, mbtmp3.0**/4**, ML3.0**/1**, Error ellipse: s-maj=82.7km s-min=56.5km az=25.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	11.98	197	P	Pn	04 45 49.5	+0.8
	0.2nm,0.3s,baz=59,slow=12,SNR=10.0						
FITZ				S	Sn	04 48 00.6	0.0
	0.6nm,0.3s,baz=291,slow=23,SNR=8.8						
WRA	**Warramunga Arr**	14.10	160	P	Pn	04 46 15.2	-1.0
	0.1nm,0.3s,baz=339,slow=12,SNR=4.7						
WRA				S	Sn	04 48 41.6	-10
	0.3nm,0.3s,baz=337,slow=23,SNR=6.6						
ASAR	**Alice Springs**	17.51	166	P	Pn	04 46 58.2	-0.2
	0.2nm,0.3s,baz=346,slow=11,SNR=9.3						
MKAR	**Makanchi Array**	67.56	327	P	P	04 53 45.3	+0.1
	0.2nm,0.3s,baz=124,slow=8.2,SNR=4.6						

*NEIC **28** 05:03:17.0, 8.25N×82.83W, h10^{km}, mb3.7/2, MD4.4(CASC), After CASC.*

CASC 28 05:03:17.4±4.0**, 8.12N**×**82.85W, h30**^{km}±10^{km}**, MD4.4, mb3.7**(NEIC)**, 11C-12D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVD	**David**	0.50	51	⇑*e*P	Pb	05 03 26.1	-1.8
DVD	**David**	0.50	51	⇓*e*P	Pb	05 03 26.1	-1.8
BRU2	**Volcan**	0.69	13	⇓*e*P	Pb	05 03 28.3	-2.7
TBS2		0.69	16	*e*P	Pb	05 03 34.6	+3.5
TBS2				*e*S	Sb	05 03 42.5	+2.1
BRU	**Baru**	0.74	22	⇓*i*P	Pn	05 03 29.4	-2.4
BRU	**Baru**	0.74	22	⇓*i*P	Pn	05 03 29.3	-2.5
CTCR	**Cotoan**	0.78	6	⇓*i*P	Pn	05 03 29.6	-2.7
CTCR				*e*S	Sb	05 03 46.0	+3.4
BAR1		1.21	338	⇓*e*P	Pn	05 03 36.5	-1.7
CNI	**Changuinola**	1.33	14	⇓*i*P	Pn	05 03 38.0	-1.9
CNI	**Changuinola**	1.33	14	⇓*i*P	Pn	05 03 38.0	-1.9
BUS	**Buena Vista**	1.69	328	⇑*e*P	Pn	05 03 44.4	-0.4
BUS	**Buena Vista**	1.69	328	⇑*e*P	Pn	05 03 44.4	-0.4
BUS				*e*S	Sn	05 04 08.7	+3.2
QCR	**Quepos**	1.84	315	⇑*e*P	Pn	05 03 46.6	-0.4
QCR	**Quepos**	1.84	315	*e*P	Pn	05 03 46.6	-0.3
URSC	**Urasca**	1.94	332	⇑*e*P	Pn	05 03 48.0	-0.3
URSC	**Urasca**	1.94	332	⇑*e*P	Pn	05 03 48.1	-0.1
LCR2	**La Lucha 2**	1.98	325	⇑*e*P	Pn	05 03 48.5	-0.3
LCR2	**La Lucha 2**	1.98	325	⇑*e*P	Pn	05 03 48.6	-0.2
ICR	**Volcan Irazu**	2.09	332	⇑*e*P	Pn	05 03 50.9	+0.5
ICR	**Volcan Irazu**	2.09	332	*e*P	Pn	05 03 50.6	+0.3
ICR				*e*S	Sn	05 04 16.4	+1.0
ICR				*e*S	Sn	05 04 17.4	+2.1
LAJ	**Bijagual**	2.14	324	*e*P	Pn	05 03 53.7	+2.6
LAJ	**Bijagual**	2.14	324	*e*P	Pn	05 03 53.8	+2.7
PRS1	**Puriscal**	2.35	322	⇓*e*P	Pn	05 03 54.0	0.0
CGA2	**Cerro Gallo 2**	2.47	320	⇓*e*P	Pn	05 03 56.4	+0.8
CGA2				*e*S	Sn	05 04 26.5	+1.7
CGA2	**Cerro Gallo 2**	2.47	320	*e*P	Pn	05 03 56.4	+0.7
CGA2				*e*S	Sn	05 04 27.9	+3.1
AZU	**Azuero**	2.57	97	⇑*e*P	Pn	05 03 58.5	+1.6
AZU	**Azuero**	2.57	97	⇑*e*P	Pn	05 03 58.5	+1.5
JCR	**Jicaral**	2.82	308	⇓*e*P	Pn	05 04 02.3	+1.8
JCR	**Jicaral**	2.82	308	*e*P	Pn	05 04 02.2	+1.8
JTS	**JuntasAbangare**	3.00	316	*e*Pn	Pn	05 04 02.5	-0.3
JTS				*e*Sn	Sn	05 04 37.4	-0.4
JTS				*e*Sg	Sn	05 04 47.0	+9.2
BCIP	**Isla Barro Col**	3.15	71	*e*Pn	Pn	05 04 04.4	-0.6
BCIP	**Isla Barro Col**	3.15	71	⇓*e*P	Pn	05 04 04.6	-0.3
UPIG		3.39	75	*e*P	Pn	05 04 10.6	+2.4
UPIG				*e*S	Sn	05 04 48.6	+1.2
VCR	**Vista de Mar**	3.40	306	*e*P	Pn	05 04 09.3	+1.0
TGUH	**Tegucigalpa,Un**	7.33	324	*e*Pn	Pn	05 05 03.0	+0.7
	36nm,0.8s						

SDCO	**Great Sand Dun**	35.92	329	*e*P	P	05 10 16.8	+1.8
	0.7nm,0.6s						
BW06	**Boulder Array**	41.73	330	*e*P	P	05 11 05.9	+2.2
	1.0nm,0.8s						

NNC 28 05:18:25.3±6.2,3709N×7113E,h199^{km}±88^{km},mb2.6, mpv3.6,4C-2D,Error ellipse: s-maj=60.8km s-min=35.0km az=23.0,Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KK31	**Karatay Array**	6.03	356	⇑P	Pn	05 19 53.5	+0.8
	12nm,0.2s,baz=184,slow=15,SNR=6.4						
KK31				⇓S	Sn	05 21 02.4	+0.4
	8.9nm,0.4s,baz=192,slow=26,SNR=12						
TKM2	**Tokmak 2**	6.76	29	⇑P	Pn	05 20 01.4	-0.8
	0.4nm,0.8s						
TKM2				⇓S	Sn	05 21 20.5	+1.3
	7.6nm,2.2s						
AB31	**Akbulak array**	14.62	330	⇑P	Pn	05 21 43.6	+0.9
	0.6nm,0.5s,baz=148,slow=11,SNR=13						
AB31				⇑S	Sn	05 24 24.7	-1.3
	0.3nm,0.5s,baz=155,slow=22,SNR=5.1						

IDC 28 05:19:37.1±6.0,1773S×6976W,h53^{km}±46^{km},mb3.3/2, mb1 3.6/4,mb1mx3.4/17,mbtmp3.5/4,ML4.0/1,MS3.3/1, Ms1 3.3/1,ms1mx2.5/16,Error ellipse: s-maj=50.0km s-min=40.7km az=115.0,Peru-Bolivia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	**La Paz**	2.12	48	P	Pn	05 20 09.7	-0.5
	9.6nm,0.3s,baz=242,slow=12,SNR=155						
LPAZ				S	Sn	05 20 37.0	+1.7
	9.6nm,0.3s,baz=100,slow=22,SNR=7.1						
SIV	**San Ignacio**	8.50	80	P	Pn	05 21 38.5	+1.0
	1.0nm,0.3s,baz=276,slow=12,SNR=20						
ATAH	**Atahualpa**	13.59	321	LR	LR	05 28 42.3	
	comp=Z,122nm,19.9s,baz=57,slow=40						
TORD	**Torodi Ar. Bea**	76.89	71	P	P	05 31 22.9	-1.2
	0.6nm,0.9s,baz=265,slow=4.3,SNR=3.8						
YKA	**Yellowknife Ar**	87.38	341	P	P	05 32 19.3	+1.3
	0.1nm,0.3s,baz=128,slow=4.9,SNR=4.4						

*NEIC **28** 05:22:35.6,2975S×7203W,h3^{km},ML3.7(GUC),After GUC.*

GUC 28 05:22:35.6±0.6,2975S×7203W,h3^{km}±9^{km},MD4.1,ML3.7, 2C-7D,Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSCH	**La Serena**	0.70	104	⇓*i*P	Pg	05 22 49.8	+0.7
LSCH				*i* S	Sg	05 23 00.7	+2.4
LSCH	**La Serena**	0.70	104	⇓*i*P	Pg	05 22 49.8	+0.7
LSCH				*i* S	Sg	05 23 00.7	+2.4
LSCH				AML	AML	05 23 02.4	
	comp=E,1µm,0.6s						
TLL	**Tololo Astrono**	1.15	112	⇓*i*P	Pg	05 22 57.8	+0.1
TLL				*i* S	Sg	05 23 13.9	+1.4
TLL	**Tololo Astrono**	1.15	112	⇓*i*P	Pg	05 22 57.8	+0.1
TLL				*i* S	Sg	05 23 13.9	+1.4
TLL				AML	AML	05 23 24.1	
	comp=E,3µm,0.6s						
LCO	**Las Campanas**	1.37	58	*e*Pn	Pn	05 22 59.5	-2.1
LCO				*e*Sn	Sn	05 23 17.9	-2.4
VACH	**Vallenar**	1.61	44	⇑*i*P	Pn	05 23 04.1	-0.8
VACH				*i* S	Sn	05 23 26.5	+0.3
VACH	**Vallenar**	1.61	44	⇑*i*P	Pn	05 23 04.1	-0.8
VACH				*i* S	Sn	05 23 26.5	+0.3
VACH				AML	AML	05 23 30.8	
	comp=N,4µm,0.3s						
CMCH	**Combarbala**	1.68	148	⇓*i*P	Pn	05 23 05.8	-0.1
CMCH				*i* S	Sn	05 23 28.4	+0.5
CMCH	**Combarbala**	1.68	148	⇓*i*P	Pn	05 23 05.8	-0.1
CMCH				*i* S	Sn	05 23 28.4	+0.5
CMCH				AML	AML	05 23 52.8	
	comp=E,4µm,0.9s						
FCH	**Farellones**	3.87	158	⇓*i*P	Pn	05 23 37.6	+1.6
FCH				*i* S	Sn	05 24 23.7	+1.8
LPAZ	**La Paz**	13.87	16	*e*Pn	Pn	05 25 53.5	+0.4

*ISCJB **28** 05:26:58.6±1.0,1435N±007×9292W±005,h59^{km}±10^{km}, mb3.7/6,MS3.5/2,Error ellipse: s-maj=13.0km s-min=5.9km az=35.0*

*IDC **28** 05:27:00.4±2.5,1453N×9275W,h56^{km}±23^{km},mb3.5/4, mb1 3.7/7,mb1mx3.5/21,mbtmp3.5/7,ML3.6/3,MS3.2/3, Ms1 3.2/3,ms1mx2.7/30,Error ellipse: s-maj=26.3km s-min=14.2km az=34.0*

*NEIC **28** 05:27:01.0,1432N×9299W,h29^{km},mb3.7/4, MD4.3(MEX),After MEX.*

*CASC **28** 05:27:02.4±2.9,1447N×9262W,h23^{km}±13^{km},MD4.1, mb3.7(NEIC)*

*MEX **28** 05:27:02.5±0.3,1447N×9298W,h20^{km}±85^{km},MD4.4*

ISC 28 05:27:00.5±0.8,1443N±006×9285W±005,h53^{km}±9^{km},n27, σ1§22/31,mb3.7/6,MS3.5/2,1C-1D,Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	**Jato**	1.18	95	⇓*e*P	Pn	05 27 21.5	+0.9
JAT				*e*S	Sn	05 27 32.1	-3.5
FUG	**Fuego 3**	1.94	89	⇑*e*P	Pn	05 27 31.1	+0.1
FUG				*e*S	Sn	05 27 54.6	+0.3
CCIG	**Comitan**	1.97	20	*e*P	Pn	05 27 32.2	+0.8
CCIG				*i* S	Sn	05 27 57.6	+2.7
CCIG	**Comitan**	1.97	20	*e*P	Pn	05 27 32.2	+0.8
CCIG				*i* S	Sn	05 27 55.4	+0.5
PCG	**Pacaya**	2.17	91	*e*P	Pn	05 27 35.1	+0.9
PCG				*e*S	Sn	05 27 59.0	-0.9
SCX	**San Cristobal**	2.31	5	*i* P	Pn	05 27 37.3	+1.3
SCX				*i* S	Sn	05 28 04.0	+0.8
RBDL	**Robledal**	3.08	95	*e*P	x	05 28 09.3	
RBDL				*e*S	x	05 28 44.6	
SBLS	**San Blas**	3.18	100	*e*P	x	05 28 10.9	
SBLS				*e*S	x	05 28 46.8	
SNJE	**San Jose**	3.19	100	*e*P	x	05 28 11.0	
SNJE				*e*S	x	05 28 49.7	
CMIG	**Matias Romero**	3.30	324	P	Pn	05 27 49.4	-0.2
	5.5nm,0.3s,baz=147,slow=12,SNR=68						
CMIG				S	Sn	05 28 27.2	-0.4
	26nm,0.3s,baz=104,slow=14,SNR=7.4						
CMIG	**Matias Romero**	3.30	324	*e*P	Pn	05 27 49.4	-0.2
CMIG				*i* S	Sn	05 28 25.6	-2.0
LBRS	**Las Brisas**	3.75	100	*e*P	x	05 28 18.1	
LBRS				*e*S	x	05 29 00.3	
LFRS	**El Faro**	3.76	102	*e*P	x	05 28 18.6	
LFRS				*e*S	x	05 29 01.1	
UTMO	**Huajuapan**	5.84	306	*e*P	Pn	05 28 24.2	-0.4
UTMO				*i* S	Sn	05 29 28.4	-1.9
TEIG	**Tepich**	7.23	36	P	Pn	05 28 41.6	-2.0
	41nm,0.3s,baz=251,slow=2.1,SNR=144						
TEIG				S	Sn	05 30 02.3	-2.0
	3.7nm,0.3s,baz=30,slow=23,SNR=6.6						
JTS	**JuntasAbangare**	8.74	117	P	Pn	05 29 04.6	+0.3
	0.5nm,0.3s,baz=323,slow=22,SNR=3.4						
JTS				LR	LR	05 31 45.9	
	comp=Z,27nm,18.6s,baz=155,slow=33						
TXAR	**Lajitas Array**	17.89	328	P	Pn	05 31 07.0	+1.3
	0.1nm,0.3s,baz=150,slow=12,SNR=5.4						
MNTX	**Cornudas Mount**	20.67	328	*e*P	P	05 31 37.3	+1.3
	0.7nm,0.7s						
WMOK	**Wichita Mounta**	20.92	346	*e*P	P	05 31 40.5	+1.9
	2.3nm,0.8s						
TKL	**Tuckaleechee C**	22.66	19	P	P	05 31 54.8	-2.4
	2.0nm,0.7s,mb3.6,baz=187,slow=14,SNR=4.1						
TKL				LR	LR	05 42 28.6	
	comp=Z,92nm,19.1s,MS3.2,baz=37,slow=41						
PDAR	**Pinedale Array**	31.70	336	P	P	05 33 18.6	-0.5
	0.3nm,0.7s,mb3.2,baz=126,slow=7.3,SNR=2.3						
LOHW	**Long Hollow**	32.82	336	*e*P	P	05 33 29.6	+0.7
	1.5nm,0.7s,mb4.0						
MOOW	**Moose Ponds**	32.99	336	*e*P	P	05 33 31.1	+0.7
	0.8nm,0.8s,mb3.7						
NEW	**Newport**	39.26	334	LR	LR	05 51 44.6	
	comp=Z,106nm,19.3s,MS3.7,baz=302,slow=38						
SIV	**San Ignacio**	43.58	133	P	P	05 34 58.6	-1.0
	0.4nm,0.5s,mb3.4,baz=296,slow=10.0,SNR=4.0						
YKA	**Yellowknife Ar**	50.43	347	P	P	05 35 51.7	-0.7
YKA	**Yellowknife Ar**	50.43	347	P	P	05 35 51.7	-0.7
	2.2nm,0.6s,mb4.3,baz=150,slow=7.4,SNR=40						

*ISCJB **28** 05:35:54.3±0.8,1411N±006×9296W±005,h10^{km},mb3.7/6, Error ellipse: s-maj=9.2km s-min=7.1km az=26.3*

*IDC **28** 05:35:54.8±1.9,1414N×9293W,h0^{km},mb3.8/5,mb1 4.1/9, mb1mx3.8/22,mbtmp3.8/9,ML3.7/4,MS3.4/2,Ms1 3.4/2, ms1mx2.6/34,Error ellipse: s-maj=38.1km s-min=16.9km az=38.0*

*NEIC **28** 05:36:01.8,1423N×9318W,h15^{km},MD4.4(MEX),After MEX.*

*MEX **28** 05:36:02.0±0.6,1423N×9317W,h20^{km}±84^{km},MD4.4*

*CASC **28** 05:36:10.2±2.7,1444N×9205W,h33^{km}±12^{km},MD4.2*

ISC 28 05:35:56.1±0.8,1412N±006×9296W±005,h10^{km},n24, σ1§32/29,mb3.7/6,2C-2D,Near coast of Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	**Jato**	1.30	81	⇓*e*P	Pn	05 36 19.5	-0.8
JAT				*e*S	Sb	05 36 26.4	-11
FUG	**Fuego 3**	2.08	81	⇑*i*P	Pn	05 36 29.1	-1.9
FUG				*e*S	Sn	05 36 46.4	-11
CCIG	**Comitan**	2.29	20	*e*P	Pn	05 36 35.9	+1.9
CCIG				*i* S	Sn	05 37 02.4	+0.1
PCG	**Pacaya**	2.30	83	⇑*e*P	Pn	05 36 35.0	+1.0
SCX	**San Cristobal**	2.62	7	*i* P	Pn	05 36 40.5	+2.0
SCX				*i* S	Sn	05 37 09.3	-1.2
RBDL	**Robledal**	3.17	90	⇓*e*P	x	05 37 06.8	
RTR	**El Retiro**	3.22	93	*e*P	x	05 37 07.5	
SBLS	**San Blas**	3.25	94	*e*P	x	05 37 07.9	
SNJE	**San Jose**	3.26	94	*e*P	x	05 37 09.4	
CMIG	**Matias Romero**	3.49	328	Pn	Pn	05 36 49.7	-0.8
	3.6nm,0.3s,baz=134,slow=12,SNR=31						
CMIG				Pg	Pg	05 36 58.5	-4.6
	5.1nm,0.3s,baz=134,slow=13,SNR=18						
CMIG				Sn	Sn	05 37 35.1	+3.2
	7.8nm,0.3s,baz=92,slow=16,SNR=8.8						
CMIG				Lg		05 37 45.7	
	13nm,0.3s,baz=111,slow=17,SNR=6.9						
CMIG	**Matias Romero**	3.49	328	*i* P	Pn	05 36 49.8	-0.7
CMIG				*i* S	Sn	05 37 28.9	-3.0
LFRS	**El Faro**	3.82	97	*e*P	x	05 37 13.0	
UTMO	**Huajuapan**	5.95	309	*i* P	Pn	05 37 23.6	-0.6
UTMO				*i* S	Sn	05 38 30.4	-2.0
TEIG	**Tepich**	7.55	36	Pn	Pn	05 37 45.3	-0.9
TEIG				Sn	Sn	05 39 11.6	-0.3
TEIG				LR	LR	05 41 04.0	
TEIG	**Tepich**	7.55	36	Pn	Pn	05 37 45.3	-0.9
	5.8nm,0.3s,baz=238,slow=5.3,SNR=36						
TEIG				Sn	Sn	05 39 11.6	-0.3
	1.1nm,0.3s,baz=225,slow=22,SNR=2.6						
TEIG				LR	LR	05 41 04.0	
	comp=Z,180nm,19.5s,baz=39,slow=41						
JTS	**JuntasAbangare**	8.70	115	Pn	Pn	05 38 01.6	-0.5
JTS				Lg		05 40 33.7	
JTS	**JuntasAbangare**	8.70	115	Pn	Pn	05 38 01.6	-0.5
	0.3nm,0.3s,baz=323,slow=23,SNR=5.0						
JTS				Lg		05 40 33.7	
	0.9nm,0.3s,baz=47,slow=23,SNR=10.0						
TXAR	**Lajitas Array**	18.10	329	P	Pn	05 40 09.7	+2.0
	0.1nm,0.3s,baz=146,slow=12,SNR=11						
TKL	**Tuckaleechee C**	22.99	19	P	P	05 41 02.6	+1.7
	1.5nm,0.5s,mb3.6,baz=185,slow=6.4,SNR=3.8						
ANMO	**Albuquerque**	24.06	332	P	P	05 41 16.3	+4.8
	0.7nm,0.7s,mb3.2,baz=166,slow=12,SNR=5.9						
PDAR	**Pinedale Array**	31.94	337	P	P	05 42 22.9	+1.0
	0.5nm,1.0s,mb3.3,baz=129,slow=7.1,SNR=3.3						
NVAR	**Mina Array Bea**	33.00	322	P	P	05 42 32.8	+1.4
	0.9nm,0.7s,mb3.8,baz=124,slow=8.4,SNR=8.6						
YKA	**Yellowknife Ar**	50.70	347	P	P	05 44 54.6	-1.0
	1.7nm,0.8s,mb4.0,baz=150,slow=7.5,SNR=27						
INK	**Inuvik**	60.07	344	P	P	05 46 02.4	-0.6
	1.3nm,0.6s,mb4.1,baz=132,slow=9.6,SNR=8.8						

IDC 28 05:48:24.9±4.6,617S×12916E,h327^{km}±49^{km},mb2.5/1, mb1 3.0/4,mb1mx2.8/14,mbtmp2.8/4,Error ellipse: s-maj=60.5km s-min=16.4km az=72.0,Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	12.35	196	P	Pn	05 51 10.7	-0.4
	0.3nm,0.3s,baz=147,slow=14,SNR=9.2						
FITZ				S	S	05 53 25.0	-3.3
	0.2nm,0.3s,baz=86,slow=20,SNR=4.7						
WRA	**Warramunga Arr**	14.59	160	P	P	05 51 35.1	-1.0
	0.3nm,0.3s,baz=341,slow=12,SNR=9.6						
WRA				S	S	05 54 13.9	-0.9
	0.1nm,0.3s,baz=240,slow=16,SNR=4.0						
ASAR	**Alice Springs**	17.99	166	P	P	05 52 13.8	+0.9
	0.3nm,0.3s,baz=348,slow=12,SNR=22						
ASAR				S	S	05 55 23.3	+1.1
	0.1nm,0.3s,baz=349,slow=24,SNR=5.5						
MKAR	**Makanchi Array**	67.07	327	P	P	05 58 43.6	0.0
	0.4nm,1.0s,baz=110,slow=6.9,SNR=4.1						

*NEIC **28** 06:10:56.3,1601N×9757W,h16^{km},MD4.0(MEX),After MEX.*

MEX 28 06:10:56.2±0.6,1601N×9758W,h16^{km}±9^{km},MD4.0, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	0.65	306	*i* P	Pg	06 11 06.6	-2.4
PNIG				*i* S	Sg	06 11 14.9	-2.8
OXX	**Oaxaca**	1.34	37	*i* P	Pn	06 11 16.5	-3.8
OXX				*i* S	Sn	06 11 32.1	-5.8
HUIG	**Huatulco**	1.43	99	*i* P	Pn	06 11 18.1	-3.4
HUIG				*i* S	Sn	06 11 34.9	-5.2
UTMO	**Huajuapan**	1.82	353	*i* P	Pn	06 11 24.6	-2.3
UTMO				*i* S	Sn	06 11 45.3	-4.4
TPIG	**Tehuac#an**	2.41	5	*e*P	Pn	06 11 32.4	-2.5
TPIG				*i* S	Sn	06 12 00.2	-3.8
MEIG	**Mezcala**	2.73	315	*i* P	Pn	06 11 36.9	-2.4
MEIG				*i* S	Sn	06 12 07.9	-4.1
PLIG	**Platanillo**	3.00	322	*i* P	Pn	06 11 42.2	-0.9
PLIG				*i* S	Sn	06 12 14.2	-4.5
IIO	**Organos**	3.73	343	*i* P	Pn	06 11 47.5	-5.6

*ISCJB **28** 06:18:53.6±3.0,386S±005×13128E±009,h6^{km}±20^{km}, mb4.5/14,Error ellipse: s-maj=15.9km s-min=7.1km az=156.5*

*BJI **28** 06:18:53.0,380S×13130E,h10^{km},mb4.6*

*IDC **28** 06:18:55.3±0.7,370S×13123E,h0^{km},mb4.4/7,mb1 4.5/7, mb1mx4.3/14,mbtmp4.4/7,Error ellipse: s-maj=69.1km s-min=16.4km az=66.0*

*NEIC **28** 06:18:56.1±0.5,381S×13128E,h10^{km},mb4.7/11,Error ellipse: s-maj=15.9km s-min=7.6km az=59.0*

ISC 28 06:18:55.1±4.2,387S±005×13131E±009,h3^{km}±27^{km},n41, σ1§29/45,mb4.5/14,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	8.86	173	*e*P	Pn	06 21 05.5	+1.4
	40nm,0.5s						
KAKA				*e*S	Sn	06 22 41.7	-2.8
FITZ	**Fitzroy Crossi**	15.20	201	*e*P	Pn	06 22 29.3	-1.5
	15nm,0.6s						
FITZ				*e*		06 22 38.1	
FITZ				*e*S	Sn	06 25 10.1	-10
FITZ	**Fitzroy Crossi**	15.20	201	Pn	Pn	06 22 28.3	-2.5
	1.0nm,0.3s,baz=37,slow=11,SNR=35						
FITZ				Sn	Sn	06 25 09.8	-10
	0.4nm,0.3s,baz=119,slow=16,SNR=3.1						
COEN	**Coen**	15.41	131	*e*Pn	Pn	06 22 32.4	-1.3
	6.3nm,0.6s						
WRA	**Warramunga Arr**	16.25	170	Pn	Pn	06 22 42.8	-1.7
WRA				Sn	Sn	06 25 37.2	-8.1
WRA	**Warramunga Arr**	16.25	170	Pn	Pn	06 22 42.8	-1.7
	0.7nm,0.3s,baz=341,slow=14,SNR=16						
WRA				Sn	Sn	06 25 37.2	-8.1
	1.6nm,0.3s,baz=348,slow=19,SNR=7.0						
WB2	**Warramunga Arr**	16.25	170	*e*P	Pn	06 22 42.9	-1.6
WB2				*e*S	Sn	06 25 34.8	-11
PMG	**Port Moresby**	16.67	110	Pn	Pn	06 22 49.7	-0.2
PMG	**Port Moresby**	16.67	110	Pn	Pn	06 22 49.7	-0.2
	2.1nm,0.3s,baz=304,slow=6.4,SNR=5.7						
KKM	**Kota Kinabalu**	18.01	303	*e*Pn	Pn	06 23 03.5	-3.1
ASAR	**Alice Springs**	19.84	173	P	Pn	06 23 30.2	+1.5
	22nm,0.6s,baz=353,slow=10.0,SNR=290						
ASAR				S	Sn	06 27 03.7	-8.6
	5.1nm,0.6s,baz=355,slow=26,SNR=5.4						
MBWA	**Marble Bar**	20.55	212	*e*P	P	06 23 36.1	+1.2
	11nm,0.6s						
KSM	**Kuching**	21.65	284	*e*P	P	06 23 46.8	-0.3
CTA	**Charters Tower**	21.72	139	*e*P	P	06 23 49.5	+1.8
	11nm,0.5s,mb4.5						
CTA	**Charters Tower**	21.72	139	P	P	06 23 50.0	+2.3
	14nm,0.5s,mb4.7,baz=318,slow=11,SNR=26						
CTAO	**Charters Tower**	21.72	139	*e*P	P	06 23 49.7	+2.0
	12nm,0.5s,mb4.6						
FORT	**Forrest**	26.94	186	*e*P	P	06 24 39.6	+1.8
	25nm,0.6s,mb4.9						
STKA	**Stephens Creek**	29.49	162	*e*P	P	06 25 02.4	+1.8
	3.9nm,0.6s,mb4.3						
STKA	**Stephens Creek**	29.49	162	P	P	06 25 02.5	+2.0
	4.7nm,0.6s,mb4.4,baz=325,slow=8.6,SNR=12						
MUN	**Mundaring**	31.35	205	*e*P	P	06 25 18.8	+1.7
KKTK	**Khon Kaen**	34.59	306	P	P	06 25 47.0	+1.4
BJI	**Beijing**	45.86	344	P	P	06 27 16.5	-2.2
BJI				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.8						
LZH	**Lanzhou**	47.33	329	*e*P	P	06 27 31.5	+1.2
LZH				AP	pP	06 27 36.0	+4.8
LZH				XP	sP	06 27 39.3	+7.8
LZH				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.8						
GTA	**Gaotai**	51.93	329	*e*P	P	06 28 05.0	-0.3
GTA				AP	pP	06 28 09.8	+3.6
GTA				XP	sP	06 28 13.0	+6.5
GTA				AMB	AMB		
	comp=Z,3.0nm,1.2s,mb4.1						
TAPN	**Taplejung**	52.27	309	*e*P	P	06 28 08.2	+0.1
ODAN	**Odare**	52.28	308	*e*P	P	06 28 08.3	+0.1
	comp=Z,15nm,0.9s,mb4.9						
JIRN	**Jiri**	53.60	309	*e*P	P	06 28 17.6	-0.3
KKN	**Kakani**	54.37	308	*e*P	P	06 28 23.3	-0.2
GKN	**Gorkha**	54.97	308	*e*P	P	06 28 26.7	-1.2
	comp=Z,11nm,0.8s,mb5.0						
SONM	**Songino Array**	55.94	340	P	P	06 28 34.5	0.0
	comp=Z,0.9nm,0.6s,mb4.0,baz=155,slow=4.8,SNR=4.4						
WMQ	**Urumqi**	61.54	325	*e*P	P	06 29 14.5	+0.9
MK31	**Makanchi Array**	66.37	326	*e*P	P	06 29 45.4	0.0
MKAR	**Makanchi Array**	66.37	326	P	P	06 29 44.7	-0.7
MKAR	**Makanchi Array**	66.37	326	P	P	06 29 44.7	-0.7
	comp=Z,1.0nm,0.5s,mb4.1,baz=110,slow=7.9,SNR=27						
ZALV	**Zalesovo Beam**	69.39	333	P	P	06 30 03.6	-0.7
	comp=Z,2.0nm,0.8s,mb4.1,baz=104,slow=6.3,SNR=9.4						
KURK	**Kurchatov**	70.57	328	*e*P	P	06 30 10.8	-0.7
	comp=Z,11nm,0.9s,mb4.8						
VNDA	**Vanda**	75.38	173	P	P	06 30 41.5	+1.9
	comp=Z,3.6nm,0.8s,mb4.3,baz=317,slow=6.6,SNR=9.7						
BRVK	**Borovoye**	76.22	327	*e*P	P	06 30 44.7	-0.1
	comp=Z,7.5nm,1.0s,mb4.6						
TXAR	**Lajitas Array**	122.18	58	PKP	PKPdf	06 37 52.5	+0.4
	comp=Z,0.3nm,0.8s,baz=293,slow=2.5,SNR=3.3						
TORD	**Torodi Ar. Bea**	129.42	284	PKP	PKPdf	06 38 06.6	+0.2
	comp=Z,0.9nm,0.7s,baz=66,slow=1.8,SNR=6.3						
LPAZ	**La Paz**	152.24	137	PKPbc	PKPbc	06 38 56.3	+2.9
	comp=Z,0.6nm,0.5s,baz=0.0,slow=4.0,SNR=4.6						

*NAO **28** 06:19:44.9±1.7,6759N×3382E,ML2.1*

*HEL **28** 06:19:44.9±0.5,6763N×3394E,h0^{km},ML1.6, ML2.1(NAO),Explosion*

ISC 28 06:19:44.2±1.6,6763N±004×337E±02,h0^{km},n14, σ1§37/27,Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA0	**Apatity Array**	0.28	265	Pg	Pg	06 19 51.1	+1.5
	baz=94,slow=16						
APA0				Lg		06 19 55.8	
	baz=87,slow=37						
APA0				Rg		06 19 57.0	
	baz=90,slow=37						
APA0	**Apatity Array**	0.28	265	*i* P	Pg	06 19 51.1	+1.5
APA0				*i* S	Sg	06 19 55.8	+2.6
APA0				*e*RG		06 19 57.0	
APA0	**Apatity Array**	0.28	265	Pg	Pg	06 19 51.1	+1.5
	baz=94,slow=16						
APA0				Lg		06 19 55.8	
	baz=87,slow=37						
APA0				Rg		06 19 57.0	
	baz=90,slow=37						
KU6	**Riekki**	2.21	225	*e*PB	Pb	06 20 24.9	-0.1
KU6				*e*SG	Sg	06 20 54.5	-0.8
MSF	**Maaselka**	2.54	229	*e*PB	Pb	06 20 30.3	-0.2
MSF				*e*SG	Sg	06 21 05.6	0.0
MSF				MSG		06 21 05.6	
	comp=Z,0.3nm,0.1s						
SGF	**Sodankyl**	2.77	269	*e*PB	Pb	06 20 34.8	+0.2
SGF				*e*SB	Sb	06 21 10.7	+1.7
SGF				MSG		06 21 10.7	
	comp=Z,3.9nm,0.4s						
KEV	**Kevo**	3.25	314	*e*P	Pn	06 20 38.1	+1.7
KEV				*e*SG	Sg	06 21 28.2	-0.3
KEV				MSG		06 21 28.2	
	comp=Z,3.7nm,0.4s						
ARA0	**ARCESS Array S**	3.57	306	Pn	Pn	06 20 41.9	+1.2
	baz=122,slow=16						
ARA0				Pg	Pg	06 20 50.5	-2.1
	baz=113,slow=14						
ARA0				Sn	Sn	06 21 23.1	-0.5
	baz=121,slow=37						
ARA0				Lg		06 21 35.7	
	baz=114,slow=37						
ARA0	**ARCESS Array S**	3.57	306	*e*P	Pn	06 20 41.9	+1.2
ARA0				*e*PG	Pg	06 20 50.5	-2.1
ARA0				*e*S	Sn	06 21 23.1	-0.5
ARA0				*e*SG	Sg	06 21 35.7	-3.0
ARA0	**ARCESS Array S**	3.57	306	Pn	Pn	06 20 41.9	+1.2
	baz=122,slow=16						
ARA0				Pg	Pg	06 20 50.5	-2.1
	baz=113,slow=14						
ARA0				Sn	Sn	06 21 23.1	-0.5
	baz=121,slow=37						
ARA0				Lg		06 21 35.7	
	baz=114,slow=37						
HEF	**Hetta**	3.86	286	*e*SG	Sg	06 21 46.9	-1.3
FIA0	**FINESS Array S**	7.03	212	Sn	Sn	06 22 45.5	-3.1
	baz=354,slow=28						
FIA0				Lg		06 23 20.7	
	baz=18,slow=28						
FIA0	**FINESS Array S**	7.03	212	*e*S	Sn	06 22 45.5	-3.1
FIA0				*e*SG	Sg	06 23 20.7	-8.9
FIA0	**FINESS Array S**	7.03	212	Sn	Sn	06 22 45.5	-3.1
	baz=354,slow=28						
FIA0				Lg		06 23 20.7	
	baz=18,slow=28						

SKHL 28 06:20:45.0±0.1,5515N×12420E,h9^{km}±1^{km},mb3.7/7,1C, Southeastern Siberia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CLNS	**Chul'man**	1.73	13	*e*Pn	Pn	06 21 17.3	+2.0
CLNS				*e*Pg	Pg	06 21 19.4	+1.2
CLNS				AMB	AMB	06 21 20.0	
	19nm,0.3s						
CLNS				AMB	AMB	06 21 20.0	
	12nm,0.3s						
CLNS				AMB	AMB	06 21 20.0	
	28nm,0.3s						
CLNS				*e*Sn	Sn	06 21 39.7	+2.2
CLNS				*e*Sg	Sg	06 21 42.1	+1.4
CLNS				A		06 21 42.8	
	137nm,0.4s						
CLNS				A		06 21 42.8	
	244nm,0.4s						
CLNS				A		06 21 42.8	
	25nm,0.4s						
KROS	**Kirovskiy**	1.76	113	⇑*i*Pg	Pg	06 21 16.6	-2.1
KROS				AMB	AMB	06 21 17.3	
	4.0nm,0.4s						
KROS				AMB	AMB	06 21 17.3	
	11nm,0.4s						
KROS				sPg		06 21 23.1	
KROS				*i* Sg	Sg	06 21 39.6	-1.8
KROS				A		06 21 42.9	
	150nm,0.6s						
KROS				A		06 21 42.9	
	85nm,0.6s						
ZEA	**Zeya**	2.27	127	*e*Pg	Pg	06 21 26.3	-2.3
ZEA				AMB	AMB	06 21 26.5	

	27nm,0.2s						
ZEA				pPg		06 21 29.8	
ZEA				*e*Sg	Sg	06 21 56.1	-1.9
ZEA				A		06 21 59.1	
	98nm,0.6s						
TUP	**Tupik**	**2.56**	**255**	*e*Pn	Pn	06 21 27.8	+1.2
TUP				*e*Pg	Pg	06 21 32.1	-2.0
TUP				AMB	AMB	06 21 34.2	
	21nm,0.3s						
TUP				*e*Sn	Sn	06 21 59.6	+1.7
TUP				*e*Sg	Sg	06 22 06.1	-1.2
TUP				A		06 22 14.8	
	39nm,0.5s						
BMKR	**Bomnak**	**2.71**	**97**	*e*Pn	Pn	06 21 28.5	-0.2
BMKR				*e*Pg	Pg	06 21 33.8	-3.2
BMKR				AMB	AMB	06 21 36.5	
	8.0nm,0.4s						
BMKR				AMB	AMB	06 21 36.5	
	11nm,0.4s						
BMKR				AMB	AMB	06 21 36.5	
	15nm,0.4s						
BMKR				pPg		06 21 38.3	
BMKR				*e*Sn	Sn	06 22 00.5	-1.1
BMKR				*e*Sg	Sg	06 22 09.4	-2.7
BMKR				A		06 22 12.1	
	66nm,0.6s						
BMKR				A		06 22 12.1	
	73nm,0.6s						
CRS	**Chara**	**3.76**	**300**	*e*rx	rx	06 21 48.4	
CRS				*e*Pg	Pg	06 21 53.8	-3.2
CRS				AMB	AMB	06 22 01.3	
	14nm,0.7s						
CRS				*e*Sg	Sg	06 22 42.7	-3.0
CRS				A		06 22 49.6	
	56nm,1.2s						
EKMR	**Ekimchan**	**5.55**	**108**	*e*rx	rx	06 22 15.2	
EKMR				*e*Sg	Sg	06 23 38.5	-4.6
EKMR				A		06 23 44.0	
	8.0nm,0.5s						
EKMR				A		06 23 44.0	
	7.0nm,0.5s						
KLR	**Kul'dur**	**7.53**	**139**	*e*Sg	Sg	06 24 40.7	-5.6

IDC 28 06:23:52.4±1.1**,3151N**×**4101W,h0**^{km}**,mb3.5**/5**,
mb1 3.8**/5**,mb1mx3.5**/21**,mbtmp3.5**/5**,MS3.8**/12**,
Ms1 3.9**/12**,ms1mx3.7**/17**,Error ellipse: s-maj=41.4km
s-min=25.3km az=28.0,Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCHQ	**Schefferville**	**29.66**	**329**	LR	LR	06 41 12.5	
	comp=Z,401nm,19.1s,baz=70,slow=35						
KEST	**Kesra**	**41.77**	**70**	LR	LR	06 44 51.0	
	comp=Z,42nm,18.8s,baz=174,slow=30						
TORD	**Torodi Ar. Bea**	**43.20**	**105**	P	P	06 31 55.2	-0.2
	1.5nm,0.9s,baz=307,slow=6.2,SNR=9.7						
TORD				LR	LR	06 46 50.0	
	comp=Z,152nm,20.0s,baz=350,slow=32						
GERES	**GERESS Array B**	**44.24**	**51**	LR	LR	06 47 16.1	
	comp=Z,135nm,18.9s,baz=278,slow=32						
ULM	**Lac du Bonnet**	**44.42**	**311**	LR	LR	06 48 36.3	
	comp=Z,101nm,20.2s,baz=50,slow=33						
NOA	**NORSAR Array B**	**44.85**	**33**	LR	LR	06 46 23.5	
	comp=Z,81nm,19.6s,baz=265,slow=30						
FINES	**FINESS Array B**	**51.98**	**34**	LR	LR	06 51 05.8	
	comp=Z,84nm,21.9s,baz=38,slow=31						
TXAR	**Lajitas Array**	**53.42**	**285**	P	P	06 33 14.0	-0.2
	0.2nm,0.6s,baz=97,slow=7.7,SNR=3.2						
TXAR				LR	LR	06 53 30.6	
	comp=Z,142nm,18.0s,baz=75,slow=33						
LPAZ	**La Paz**	**54.19**	**213**	P	P	06 33 20.7	+0.9
	0.6nm,0.6s,baz=27,slow=6.8,SNR=4.9						
LPAZ				LR	LR	06 53 56.8	
	comp=Z,72nm,20.5s,baz=117,slow=33						
PDAR	**Pinedale Array**	**54.42**	**303**	P	P	06 33 21.4	0.0
	0.7nm,0.7s,baz=84,slow=7.8,SNR=5.1						
PDAR				LR	LR	06 56 40.0	
	comp=Z,266nm,18.2s,baz=114,slow=36						
YKA	**Yellowknife Ar**	**55.07**	**327**	P	P	06 33 26.0	+0.3
	0.2nm,0.5s,baz=90,slow=7.3,SNR=5.8						
YKA				LR	LR	06 55 43.5	
	comp=Z,149nm,18.9s,baz=125,slow=35						
BRTR	**Keskin Array B**	**59.64**	**60**	LR	LR	06 59 19.5	
	comp=Z,36nm,18.4s,baz=322,slow=36						

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*CSEM **28** 06:47:42.8±0.1, 3667N×3107E, h72^{km}±2^{km}, Mw3.3, Error ellipse: s-maj=2.4km s-min=2.2km az=171.0*
*ISCJB **28** 06:47:46.0±0.3, 3677N±003×3137E±004, h33^{km}, Error ellipse: s-maj=5.5km s-min=2.8km az=39.7*
*ISK **28** 06:47:46.4, 3689N×3133E, h23^{km}, MD3.4, ML3.4*
*NEIC **28** 06:47:46.0, 3686N×3131E, h24^{km}, MD3.4(ISK), ML3.3(NIC), After ISK.*
*NSSC **28** 06:47:49.1, 3668N×3155E, h30^{km}±2^{km}*
*NIC **28** 06:47:49.6±0.1, 3633N×3124E, h49^{km}, ML3.3, MW3.3*
*HLW **28** 06:47:49.4, 3628N×3119E, h33^{km}, Mb4.3*
*DDA **28** 06:47:54.9, 3758N×3062E, h10^{km}, Md3.0*
ISC 28 06:47:45.8±0.4**,3666N**±003×**3115E**±005**,h65**^{km}±11^{km}**,
n62,**σ**1**^{s}**08**/80**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANTB	**Antalya**	**0.46**	**301**	PG	**Pn**	**06 47 58.1**	**+0.3**
ANTB				SG	**Sn**	**06 48 06.8**	**+0.2**
ANTB	**Antalya**	**0.46**	**301**	*e*Pg	**Pn**	**06 47 58.1**	**+0.3**
ANTB				*e*Sg	**Sn**	**06 48 06.8**	**+0.2**
BCK	**Bucak**	**0.92**	**331**	PG	**Pn**	**06 48 02.8**	**-0.2**
BCK				SG	**Sn**	**06 48 14.9**	**-0.8**
BCK	**Bucak**	**0.92**	**331**	*e*Pg	**Pn**	**06 48 02.8**	**-0.2**
BCK				*e*Sg	**Sn**	**06 48 14.9**	**-0.8**
ELL	**Elmali**	**1.00**	**275**	PN	**Pn**	**06 48 06.7**	**+2.7**
ELL				SN	**Sn**	**06 48 23.6**	**+6.0**
ISP	**Isparta**	**1.29**	**337**	PN	**Pn**	**06 48 06.8**	**-1.0**
ISP				SN	**Sn**	**06 48 23.1**	**-1.1**
GOLH	**Golhisar**	**1.40**	**295**	*i* P	**Pn**	**06 48 12.3**	**+3.1**
GOLH				*i* S	**Sn**	**06 48 33.3**	**+6.5**
KONT	**Konya--Tatoy**	**1.61**	**37**	PN	**Pn**	**06 48 11.0**	**-1.0**
KONT	**Konya--Tatoy**	**1.61**	**37**	*e*Pn	**Pn**	**06 48 11.0**	**-1.0**
FETY	**Fethiye**	**1.66**	**270**	PN	**Pn**	**06 48 16.1**	**+3.4**
AKMC	**Akamas**	**1.89**	**149**	P	**Pn**	**06 48 15.5**	**-0.4**
ALFC	**Alevga**	**1.91**	**141**	P	**Pn**	**06 48 15.8**	**-0.3**
	14nm,0.2s						
ALFC				S	**Sn**	**06 48 36.5**	**-2.6**
SHUT	**Suhut-Afyon**	**1.95**	**346**	PN	**Pn**	**06 48 16.4**	**-0.2**
SHUT	**Suhut-Afyon**	**1.95**	**346**	*e*Pn	**Pn**	**06 48 16.4**	**-0.2**
DENT	**Denizli**	**2.01**	**304**	PN	**Pn**	**06 48 19.9**	**+2.4**
IKL	**Isikli**	**2.09**	**101**	PN	**Pn**	**06 48 20.3**	**+1.8**
IKL	**Isikli**	**2.09**	**101**	*e*Pn	**Pn**	**06 48 20.3**	**+1.8**
KHL	**Karahalli**	**2.10**	**323**	PN	**Pn**	**06 48 19.1**	**+0.4**
KHL	**Karahalli**	**2.10**	**323**	*e*Pn	**Pn**	**06 48 19.1**	**+0.4**
KIZT	**Kizilcal**	**2.29**	**14**	PN	**Pn**	**06 48 20.9**	**-0.3**
KIZT	**Kizilcal**	**2.29**	**14**	*e*Pn	**Pn**	**06 48 20.9**	**-0.3**
SZAC	**Souni-Zanaja**	**2.37**	**143**	P	**Pn**	**06 48 24.4**	**+2.1**
	4.8nm,0.2s						
SZAC				S	**Sn**	**06 48 50.0**	**-0.2**
CSS	**Prodhromos**	**2.45**	**133**	P	**Pn**	**06 48 24.2**	**+0.7**
CSS				S	**Sn**	**06 48 50.5**	**-1.8**
MERS	**Mersin**	**2.72**	**85**	*e*PN	**Pn**	**06 48 28.3**	**+1.3**
MERS	**Mersin**	**2.72**	**85**	*e*Pn	**Pn**	**06 48 28.3**	**+1.3**
GDZ	**Gediz**	**2.76**	**332**	*i* P	**Pn**	**06 48 27.6**	**-0.1**
GDZ				*i* S	**Sn**	**06 48 59.0**	**-0.8**
ESKT	**Eskisehir**	**2.87**	**355**	PN	**Pn**	**06 48 28.8**	**-0.3**
ESKT	**Eskisehir**	**2.87**	**355**	*i* P	**Pn**	**06 48 28.5**	**-0.6**
ESKT				*i* S	**Sn**	**06 49 00.5**	**-1.8**
ESKT	**Eskisehir**	**2.87**	**355**	*e*Pn	**Pn**	**06 48 28.8**	**-0.3**
SEYT	**Eskypehyr**	**2.87**	**355**	*i* P	**Pn**	**06 48 28.5**	**-0.6**
SEYT				*i* S	**Sn**	**06 49 00.5**	**-1.9**
PHNC	**Paralimni**	**2.87**	**124**	P	**Pn**	**06 48 30.1**	**+1.0**
	3.6nm,0.6s						
PHNC				S	**Sn**	**06 49 05.3**	**+2.9**
KARA	**Karaisali**	**3.19**	**78**	*e*PN	**Pn**	**06 48 33.5**	**+0.1**
KARA	**Karaisali**	**3.19**	**78**	*e*Pn	**Pn**	**06 48 33.5**	**+0.1**
CEYT	**Ceyhan**	**3.71**	**83**	*e*PN	**Pn**	**06 48 41.3**	**+0.8**
CEYT	**Ceyhan**	**3.71**	**83**	*e*Pn	**Pn**	**06 48 41.3**	**+0.8**
KOZT	**Kozan**	**3.83**	**76**	*e*PN	**Pn**	**06 48 43.6**	**+1.4**
IZI	**Iznik**	**3.90**	**341**	*e*PN	**Pn**	**06 48 43.4**	**+0.2**
IZI	**Iznik**	**3.90**	**341**	*e*Pn	**Pn**	**06 48 43.4**	**+0.2**
ARNB	**Al Arnab**	**3.98**	**100**	⇑P	**Pn**	**06 48 44.0**	**-0.3**
ARNB				⇑S	**Sn**	**06 49 23.9**	**-5.8**
ARNB	**Al Arnab**	**3.98**	**100**	⇑*i*P	**Pn**	**06 48 44.0**	**-0.3**
HTY	**Hatay**	**4.06**	**96**	*e*PN	**Pn**	**06 48 46.5**	**+1.1**
HTY	**Hatay**	**4.06**	**96**	*e*Pn	**Pn**	**06 48 46.5**	**+1.1**
SLNF	**Slenfeh**	**4.24**	**103**	⇑P	**Pn**	**06 48 47.8**	**0.0**
SLNF				⇑S	**Sn**	**06 49 30.8**	**-5.3**
SLNF	**Slenfeh**	**4.24**	**103**	⇑*i*P	**Pn**	**06 48 47.8**	**-0.1**
BTCH	**Batrach**	**4.33**	**97**	⇑P	**Pn**	**06 48 49.1**	**0.0**
BTCH				⇑S	**Sn**	**06 49 32.8**	**-5.5**
BTCH	**Batrach**	**4.33**	**97**	⇑*i*P	**Pn**	**06 48 49.1**	**0.0**
WRDH	**Warideh**	**4.42**	**104**	⇑P	**Pn**	**06 48 50.2**	**0.0**
WRDH	**Warideh**	**4.42**	**104**	⇑*i*P	**Pn**	**06 48 50.2**	**0.0**
DRWC	**Darouich**	**4.44**	**89**	⇑P	**Pn**	**06 48 50.3**	**-0.3**
DRWC				⇑S	**Sn**	**06 49 35.0**	**-5.9**
DRWC	**Darouich**	**4.44**	**89**	⇑*i*P	**Pn**	**06 48 50.3**	**-0.2**
BIDA	**Albida**	**4.51**	**110**	⇑P	**Pn**	**06 48 51.5**	**-0.1**
BIDA	**Albida**	**4.51**	**110**	⇑*i*P	**Pn**	**06 48 51.5**	**-0.1**
AMAG	**Maghara**	**6.24**	**163**	P	**Pn**	**06 49 14.5**	**-0.8**
HHAG	**Hagoal**	**6.74**	**173**	P	**Pn**	**06 49 22.2**	**+0.1**
SUZ		**6.95**	**168**	P	**Pn**	**06 49 24.0**	**-0.9**
FYM	**Al Fayyum**	**6.95**	**181**	P	**Pn**	**06 49 24.6**	**-0.3**
HNAT	**Natroun**	**7.02**	**184**	P	**Pn**	**06 49 25.6**	**-0.4**
HNAT	**Natroun**	**7.02**	**184**	P	**Pn**	**06 49 25.5**	**-0.5**
GLL	**Jalalah**	**7.08**	**176**	P	**Pn**	**06 49 25.9**	**-0.9**
HNKL	**Nakhl**	**7.12**	**160**	P	**Pn**	**06 49 26.3**	**-1.0**
ASUT		**9.24**	**178**	P	**Pn**	**06 49 56.1**	**-0.2**
HFRF	**Wahat Farafira**	**9.79**	**195**	P	**Pn**	**06 50 02.6**	**-1.2**

IDC 28 07:44:19.7±2.4**,061S**×**12780E,h0**^{km}**,mb3.3**/3**,mb1 3.6**/3**,
mb1mx3.4**/15**,mbtmp3.4**/3**,Error ellipse:
s-maj=206.6km s-min=26.4km az=67.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**20.25**	**162**	P	P	07 48 56.5	-0.2
	0.9nm,0.8s,baz=341,slow=12,SNR=3.7						
ASAR	**Alice Springs**	**23.67**	**166**	P	P	07 49 33.3	+0.1
	1.0nm,0.9s,baz=339,slow=9.1,SNR=7.5						
MKAR	**Makanchi Array**	**61.72**	**326**	P	P	07 54 40.0	+0.1
	0.2nm,0.5s,baz=110,slow=7.8,SNR=5.7						

IDC 28 07:47:04.4±2.1**,504N**×**7317W,h34**^{km}±18^{km}**,mb3.4**/3**,
mb1 3.8**/5**,mb1mx3.5**/20**,mbtmp3.8**/5**,ML4.1**/2**,Error
ellipse: s-maj=24.0km s-min=15.7km az=134.0,
Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	**El Rosal**	**1.17**	**261**	Pg	Pn	07 47 26.4	+2.1
	82nm,0.3s,baz=96,slow=9.0,SNR=102						
ROSC				Lg		07 47 43.0	
	63nm,0.3s,baz=84,slow=18,SNR=10						
SDV	**Santo Domingo**	**4.57**	**33**	Pn	Pn	07 48 12.8	+1.6
	24nm,0.3s,baz=193,slow=8.1,SNR=220						
SDV				Sn	Sn	07 49 08.1	+4.9
	13nm,0.3s,baz=281,slow=22,SNR=6.3						
SDV				Lg		07 49 27.4	
	16nm,0.3s,baz=297,slow=21,SNR=5.5						
PCRV	**Puerto La Cruz**	**9.88**	**58**	Pn	Pn	07 49 25.1	+1.1
	0.7nm,0.3s,baz=130,slow=11,SNR=8.4						
LPAZ	**La Paz**	**21.77**	**167**	P	P	07 51 54.1	+0.7
	1.9nm,0.8s,baz=342,slow=11,SNR=10						
SCHQ	**Schefferville**	**49.90**	**5**	P	P	07 55 54.8	+0.4
	0.8nm,0.4s,baz=214,slow=11,SNR=6.9						
YKA	**Yellowknife Ar**	**64.90**	**340**	P	P	07 57 39.5	-0.5
	0.1nm,0.4s,baz=136,slow=5.9,SNR=6.2						

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*IDC **28** 07:56:58.1±0.8, 1249N×9287E, h0^{km}, mb4.0/10, mb1 4.1/10, mb1mx3.9/21, mbtmp4.0/10, MS3.3/3, Ms1 3.3/3, ms1mx3.1/20, Error ellipse: s-maj=49.9km s-min=18.2km az=51.0*
*ISCJB **28** 07:57:01.2±0.7, 126N±0.1×930E±0.1, h33^{km}, mb4.0/11, MS3.3/2, Error ellipse: s-maj=19.0km s-min=12.4km az=38.8*
*NEIC **28** 07:57:03.0±1.3, 1254N×9303E, h30^{km}, Error ellipse: s-maj=32.5km s-min=18.4km az=73.0*
ISC 28 07:56:59.9±6.7**,125N**±01×**929E**±01**,h11**^{km}±41^{km}**,n17,
σ0**^{s}**62**/14**,mb4.0**/11**,MS3.3**/2**,1C,Andaman Islands
region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PBA	**Port Blair**	**0.87**	**192**	*e*P	x	07 57 30.5	
PBA				*e*S	x	07 57 47.9	
CHTO	**Chiang Mai**	**8.53**	**42**	*e*Pn	**Pn**	**07 59 03.4**	**0.0**
	4.3nm,0.4s						
VIS	**Vishakhapatnam**	**10.62**	**300**	⇑*i*P	**Pn**	**07 59 32.0**	**0.0**
VIS				*i* S	Sx	08 01 19.2	
VIS				*i* S	Sx	08 01 19.6	
VIS				*e*x	x	08 01 21.5	
	comp=N,62nm,0.5s						
VIS				*e*x	x	08 01 21.6	
	comp=E,60nm,0.6s						
PSI	**Prapat**	**11.33**	**148**	LR	LR	08 03 44.0	
	comp=E,104nm,19.5s,baz=332,slow=36						
MKAR	**Makanchi Array**	**35.33**	**347**	P	**P**	**08 03 54.4**	**-0.7**
MKAR				LR	LR	08 21 21.9	
MKAR	**Makanchi Array**	**35.33**	**347**	P	**P**	**08 03 54.4**	**-0.7**
	comp=E,1.3nm,0.8s,mb3.9,baz=168,slow=7.4,SNR=10						
MKAR				LR	LR	08 21 21.9	
	comp=E,48nm,18.4s,MS3.3,baz=63,slow=41						
ZALV	**Zalesovo Beam**	**41.83**	**353**	P	**P**	**08 04 51.3**	**+1.7**
	comp=E,0.6nm,0.4s,mb3.6,baz=187,slow=5.8,SNR=2.6						
ZALV				LR	LR	08 27 04.1	
	comp=E,41nm,18.4s,MS3.3,baz=60,slow=43						
FITZ	**Fitzroy Crossi**	**44.35**	**133**	*e*P	**P**	**08 05 10.5**	**0.0**
	comp=E,5.4nm,0.4s,mb4.6						
WRA	**Warramunga Arr**	**51.97**	**128**	P	**P**	**08 06 09.3**	**-0.2**
	comp=E,1.3nm,0.7s,mb4.0,baz=306,slow=8.4,SNR=8.4						
ASAR	**Alice Springs**	**53.84**	**132**	P	**P**	**08 06 23.2**	**+0.1**
	comp=E,1.2nm,0.5s,mb4.1,baz=310,slow=6.6,SNR=27						
BRTR	**Keskin Array B**	**58.56**	**309**	P	**P**	**08 06 56.3**	**-0.4**
	comp=E,0.9nm,0.7s,mb3.9,baz=119,slow=10.0,SNR=5.3						
ARCES	**ARCESS Array B**	**70.53**	**340**	P	**P**	**08 08 14.1**	**-0.3**
	comp=E,2.6nm,0.9s,mb4.2,baz=97,slow=7.4,SNR=5.0						
GERES	**GERESS Array B**	**73.61**	**317**	P	**P**	**08 08 33.9**	**+0.5**
	comp=E,1.6nm,0.8s,mb4.0,baz=77,slow=5.9,SNR=7.8						
HFS	**Hagfors**	**73.88**	**329**	P	**P**	**08 08 34.2**	**-0.4**
	comp=E,2.3nm,0.9s,mb4.1,baz=66,slow=7.0,SNR=4.5						
NOA	**NORSAR Array B**	**75.14**	**330**	P	**P**	**08 08 41.2**	**-0.8**
	comp=E,0.5nm,0.6s,mb3.6,baz=94,slow=5.6,SNR=2.4						
TORD	**Torodi Ar. Bea**	**88.39**	**283**	P	**P**	**08 09 53.4**	**+0.7**
	comp=E,0.4nm,0.7s,mb3.8,baz=64,slow=6.6,SNR=2.9						
TXAR	**Lajitas Array**	**135.42**	**21**	PKP	PKPdf	08 16 22.7	+2.0
	comp=E,0.1nm,0.5s,baz=22,slow=1.2,SNR=6.8						

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*IDC **28** 07:58:45.8±1.0, 1487N×6061W, h47^{km}±7^{km}, mb3.1/5, mb1 3.7/9, mb1mx3.5/23, mbtmp3.5/9, ML3.5/3, MS2.8/1, Ms1 2.8/1, ms1mx2.4/20, Error ellipse: s-maj=20.1km s-min=5.8km az=87.0*
*TRN **28** 07:58:46.3, 1493N×6063W, h42^{km}, MD4.2, M3.8(FDF), M3.8(FDF)*
*NEIC **28** 07:58:47.7±1.0, 1490N×6058W, h64^{km}±7^{km}, MD4.2(TRN), Error ellipse: s-maj=16.8km s-min=3.6km az=72.0*
NEIC Felt [II] on Martinique.
*ISCJB **28** 07:58:48.1±0.5, 1490N±002×6088W±005, h73^{km}±5^{km}, mb3.3/5, Error ellipse: s-maj=8.2km s-min=2.6km az=164.5*
*RSPR **28** 07:58:53.1, 1494N×6107W, h25^{km}±72^{km}, MD4.7/9, MD4.7/9*
ISC 28 07:58:48.7±0.5**,1491N**±002×**6078W**±005**,h60**^{km}±6^{km}**,n59,
σ1**^{s}**21**/86**,mb3.4**/5**,21C-5D,Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MVM	**Montagne Vaucl**	**0.36**	**197**	⇓*i*P	**Pn**	**07 58 57.5**	**-1.8**
FDF	**Fort de France**	**0.39**	**244**	⇓*i*P	**Pn**	**07 58 59.2**	**-0.4**
BIM	**Bigot**	**0.48**	**216**	⇓*i*P	**Pn**	**07 58 59.5**	**-0.9**
SLW	**Petit Monier**	**0.89**	**190**	⇓*e*P	**Pn**	**07 59 03.1**	**-2.2**
BBL	**Barber's Block**	**0.91**	**313**	*e*P	**Pn**	**07 59 05.0**	**-0.5**
BBL				*e*S	**Sn**	**07 59 19.3**	**+1.3**
SLB	**Belfond**	**1.10**	**193**	⇑*i*P	**Pn**	**07 59 08.3**	**+0.3**
SLB				*e*S	**Sn**	**07 59 23.0**	**+0.5**
MGG	**Marie-Galante**	**1.13**	**333**	⇑*e*P	**Pn**	**07 59 07.8**	**-0.7**
MGG				*e*S	**Sn**	**07 59 23.2**	**+0.1**
TBG	**Guadaloupe-3**	**1.26**	**319**	⇑*e*P	**Pn**	**07 59 10.2**	**+0.1**
DOG	**Dongo Capester**	**1.38**	**324**	⇑*e*P	**Pn**	**07 59 12.0**	**+0.2**
HMG	**Houelmont**	**1.39**	**321**	⇑*e*P	**Pn**	**07 59 12.2**	**+0.3**
SFG	**Saint Francois**	**1.40**	**344**	⇑*e*P	**Pn**	**07 59 10.8**	**-1.2**
SCG	**Saint Claude**	**1.41**	**322**	⇑*e*P	**Pn**	**07 59 12.6**	**+0.4**
SCG				*e*S	**Sn**	**07 59 31.8**	**+1.9**
DEG	**La Desirade**	**1.43**	**349**	⇑*e*P	**Pn**	**07 59 10.6**	**-1.8**
DEG				*e*S	**Sn**	**07 59 29.2**	**-0.9**
LZG	**Guadaloupe-1**	**1.56**	**322**	*e*P	**Pn**	**07 59 14.7**	**+0.6**
SSV	**Crater Summit**	**1.62**	**194**	⇑*i*P	**Pn**	**07 59 15.5**	**+0.5**
SSV				*e*S	**Sn**	**07 59 34.5**	**-0.3**
SVV	**Soufriere Volc**	**1.63**	**195**	⇑*e*P	**Pn**	**07 59 16.1**	**+0.9**
SVV				*e*S	**Sn**	**07 59 36.1**	**+0.9**
SVB	**Belmont**	**1.69**	**196**	*e*P	**Pn**	**07 59 16.7**	**+0.8**
SVB				*e*S	**Sn**	**07 59 36.5**	**+0.1**
FCV	**Fort Charlotte**	**1.79**	**195**	*e*P	**Pn**	**07 59 17.6**	**+0.2**
FCV				*e*S	**Sn**	**07 59 38.4**	**-0.7**
BPA	**Boggy Peak**	**2.37**	**334**	*e*P	**Pn**	**07 59 25.4**	**+0.3**
BPA				*e*S	**Sn**	**07 59 53.8**	**+0.7**
GRSS	**Sisters**	**2.71**	**197**	*e*P	**Pn**	**07 59 29.6**	**-0.3**
GRSS				*e*S	**Sn**	**08 00 04.2**	**+2.6**
GRSS	**Sisters**	**2.71**	**197**	*e*P	**Pn**	**07 59 31.1**	**+1.2**
GRSS				*e*S	**Sn**	**08 00 04.2**	**+2.6**
GRIC	**Isle de Caille**	**2.72**	**197**	*e*P	**Pn**	**07 59 31.7**	**+1.7**
GRIC				*e*S	**Sn**	**08 00 03.2**	**+1.5**
GRHS	**Sauteurs**	**2.79**	**197**	*e*P	**Pn**	**07 59 30.8**	**-0.2**
GRHS				*e*S	**Sn**	**08 00 01.9**	**-1.6**
GRW	**Mount Saint Ca**	**2.86**	**197**	*e*P	**Pn**	**07 59 32.0**	**+0.1**
GRW				*e*S	**Sn**	**08 00 05.9**	**+0.8**
GRGR	**Grenville**	**2.88**	**197**	*e*Pn	**Pn**	**07 59 31.6**	**-0.6**
GRGR				*e*Sn	**Sn**	**08 00 06.2**	**+0.5**
TPR	**Prospect**	**3.70**	**180**	*e*P	**Pn**	**07 59 41.4**	**-1.9**
TPR				*e*S	**Sn**	**08 00 22.1**	**-3.6**
TRN	**Trinidad (W)**	**4.27**	**188**	*e*P	**Pn**	**07 59 50.6**	**-0.6**
TRN				*e*S	**Sn**	**08 00 36.0**	**-3.9**
TCE	**Chacachacare**	**4.29**	**193**	*e*P	**Pn**	**07 59 51.5**	**0.0**
TCE				*e*S	**Sn**	**08 00 37.8**	**-2.4**
TBH	**Brigand Hill**	**4.40**	**184**	*e*P	**Pn**	**07 59 52.7**	**-0.4**
TBVI	**Tortola**	**5.07**	**314**	⇑*e*P	**Pn**	**08 00 01.7**	**-0.4**
TBVI				*e*S	**Sn**	**08 00 58.7**	**-0.7**
STVI	**Saint Thomas**	**5.26**	**311**	⇓*e*P	**Pn**	**08 00 05.8**	**+1.0**
STVI				*e*S	**Sn**	**08 01 04.5**	**+0.3**
MTP	**Monte Pirata**	**5.57**	**305**	⇑*e*P	**Pn**	**08 00 10.4**	**+1.5**
MTP				*e*S	**Sn**	**08 01 11.2**	**-0.4**
CPD	**Cerro la Pandu**	**5.83**	**303**	⇑*e*P	**Pn**	**08 00 13.9**	**+1.4**
CPD	**Cerro la Pandu**	**5.83**	**303**	*e*S	**Sn**	**08 01 16.0**	**-2.0**
HUMP	**Col San Antoni**	**5.83**	**304**	⇑*e*P	**Pn**	**08 00 14.1**	**+1.6**
HUMP	**Col San Antoni**	**5.83**	**304**	*e*S	**Sn**	**08 01 14.4**	**-3.6**
CBYP	**Canovanas**	**5.90**	**305**	⇑*e*P	**Pn**	**08 00 15.6**	**+2.0**
CBYP	**Canovanas**	**5.90**	**305**	*e*S	**Sn**	**08 01 17.2**	**-2.7**
PCRV	**Puerto La Cruz**	**6.02**	**219**	P	**Pn**	**08 00 14.6**	**-0.6**
	1.2nm,0.3s,baz=351,slow=13,SNR=14						
PCRV				S	**Sn**	**08 01 19.5**	**-3.3**
	3.1nm,0.3s,baz=61,slow=19,SNR=3.6						
PCRV				LR	LR	08 02 45.5	
	comp=Z,91nm,21.3s,baz=73,slow=39						
SJG	**San Juan**	**6.05**	**303**	⇑*e*P	**Pn**	**08 00 17.6**	**+1.9**
SJG				*e*S	**Sn**	**08 01 23.5**	**-0.1**
SJG	**San Juan**	**6.05**	**303**	⇑*e*P	**Pn**	**08 00 17.1**	**+1.4**
SJG	**San Juan**	**6.05**	**303**	*e*S	**Sn**	**08 01 22.3**	**-1.3**
SJG	**San Juan**	**6.05**	**303**	P	**Pn**	**08 00 16.7**	**+1.0**
	3.4nm,0.3s,baz=166,slow=14,SNR=5.7						
SJG				S	**Sn**	**08 01 23.4**	**-0.2**
	14nm,0.3s,baz=26,slow=16,SNR=7.9						
ICM	**Isla Caja Muer**	**6.26**	**299**	*e*S	**Sn**	**08 01 28.1**	**-0.5**
CELP	**Cerrillos**	**6.39**	**300**	⇑*e*P	**Pn**	**08 00 21.7**	**+1.4**
CELP				*e*S	**Sn**	**08 01 31.0**	**-0.8**
GBPR	**Guanica, Bosqu**	**6.60**	**298**	*e*S	**Sn**	**08 01 36.4**	**-0.6**
AOPR	**Arecibo Observ**	**6.67**	**302**	⇑*e*P	**Pn**	**08 00 26.2**	**+2.2**
AOPR	**Arecibo Observ**	**6.67**	**302**	*e*S	**Sn**	**08 01 36.9**	**-1.8**
LRS	**Lares**	**6.71**	**301**	⇑*e*P	**Pn**	**08 00 26.9**	**+2.2**
LRS				*e*S	**Sn**	**08 01 37.5**	**-2.4**
CRPR	**Cabo Rojo, PR**	**6.81**	**298**	⇑*e*P	**Pn**	**08 00 26.9**	**+0.9**
CRPR	**Cabo Rojo, PR**	**6.81**	**298**	*e*S	**Sn**	**08 01 40.2**	**-1.9**
MPR	**Mayaguez**	**6.92**	**299**	*e*S	**Sn**	**08 01 45.7**	**+0.7**
SDV	**Santo Domingo**	**11.34**	**239**	P	**Pn**	**08 01 29.1**	**+1.0**
	1.1nm,0.3s,baz=84,slow=8.8,SNR=8.7						
ROSC	**El Rosal**	**16.65**	**235**	P	**Pn**	**08 02 39.8**	**+1.5**
	1.2nm,0.3s,baz=96,slow=19,SNR=3.2						
LPAZ	**La Paz**	**31.83**	**193**	P	**P**	**08 05 07.5**	**-0.5**
	0.9nm,1.0s,mb3.6,baz=51,slow=6.5,SNR=2.9						
TXAR	**Lajitas Array**	**42.00**	**297**	P	**P**	**08 06 35.1**	**+0.8**
	0.1nm,0.6s,mb2.6,baz=126,slow=7.9,SNR=3.8						
PDAR	**Pinedale Array**	**50.05**	**314**	P	**P**	**08 07 37.6**	**+0.2**
	0.2nm,0.4s,mb3.5,baz=129,slow=12,SNR=5.0						
TORD	**Torodi Ar. Bea**	**60.47**	**83**	P	**P**	**08 08 49.1**	**-3.7**
	0.6nm,0.8s,mb3.7,baz=282,slow=6.9,SNR=3.2						
YKA	**Yellowknife Ar**	**60.57**	**335**	P	**P**	**08 08 51.0**	**-1.7**
	0.2nm,0.6s,mb3.4,baz=110,slow=7.7,SNR=4.4						

IDC 28 07:59:03.8±2.9**,3026S**×**17762W,h0**^{km}**,mb3.8**/3**,
mb1 4.0**/3**,mb1mx3.8**/12**,mbtmp3.8**/3**,MS3.7**/1**,Ms1 3.8**/1**,
ms1mx2.6**/16**,Error ellipse: s-maj=59.5km
s-min=22.8km az=102.0,Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**1.04**	**345**	Pn	Pn	07 59 27.0	+1.4
	121nm,0.3s,baz=81,slow=17,SNR=7.2						
RAO				Sn	Sn	07 59 39.8	-1.0
	565nm,0.3s,baz=65,slow=22,SNR=16						
STKA	**Stephens Creek**	**34.83**	**257**	P	P	08 05 58.0	+1.5
	1.2nm,0.6s,baz=112,slow=12,SNR=3.3						
ASAR	**Alice Springs**	**43.45**	**267**	P	P	08 07 08.0	-0.7
	0.6nm,0.7s,baz=104,slow=7.5,SNR=5.8						
WRA	**Warramunga Arr**	**44.42**	**272**	P	P	08 07 16.0	-0.6
	1.0nm,0.3s,baz=110,slow=8.0,SNR=14						
VNDA	**Vanda**	**48.27**	**186**	LR	LR	08 24 46.7	
	comp=Z,90nm,20.3s,baz=123,slow=32						
FINES	**FINESS Array B**	**145.13**	**340**	PKPbc	PKPbc	08 18 40.7	-1.3
	1.2nm,0.5s,baz=56,slow=4.7,SNR=12						

MEX 28 08:17:16.0±0.6**,1372N**×**9363W,h16**^{km}±812^{km}**,MD4.2,
Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CCIG	**Comitan**	**2.93**	**29**	*e*P	Pn	08 17 59.0	-2.9
CCIG				*i* S	Sn	08 18 33.5	-3.3
SCX	**San Cristobal**	**3.15**	**18**	*e*P	Pn	08 18 03.0	-2.0
SCX				*i* S	Sn	08 18 39.0	-3.3
CMIG	**Matias Romero**	**3.56**	**340**	*e*P	Pn	08 18 08.8	-1.9
CMIG				*i* S	Sn	08 18 47.0	-5.5

WEL 28 08:23:06.7±0.1**,4012S**×**17497E,h12**^{km}**,ML3.5**/40**,3C-3D,
Error ellipse: s-maj=1.6km s-min=0.6km az=90.0,Cook
Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WAZ	**Wanganui**	**0.37**	**2**	⇑P*	Pg	08 23 14.7	+0.7
MRZ	**Mangatainoka R**	**0.71**	**139**	⇑P*	Pb	08 23 20.6	-0.5
MRZ				S*	Sb	08 23 29.7	-1.1
KIW	**Kapiti Island**	**0.74**	**183**	⇓P*	Pb	08 23 20.1	-1.5
KIW				S*	Sb	08 23 29.2	-2.3
MTVZ	**Mangateitei**	**0.83**	**28**	⇓P*	Pb	08 23 21.9	-1.2
PKVZ	**Pokaka**	**0.88**	**20**	P*	Pb	08 23 22.6	-1.3
WNVZ	**Wahianoa**	**0.93**	**32**	P*	Pb	08 23 23.3	-1.5
MOVZ	**Moawhango**	**0.94**	**41**	⇓P*	Pb	08 23 23.1	-1.8
TRVZ	**Turoa**	**0.94**	**29**	P*	Pb	08 23 23.6	-1.3
RAEZ	**Rainy Point**	**0.94**	**332**	P*	Pb	08 23 25.2	+0.2
TIWZ	**Tintock**	**0.96**	**133**	P*	Pb	08 23 25.3	+0.1
DRZ	**Dome Shelter**	**0.96**	**29**	P*	Pb	08 23 24.0	-1.4
FWVZ	**Far West T-bar**	**0.98**	**28**	⇑P*	Pb	08 23 24.2	-1.4
CAW	**Cannon Point**	**0.99**	**176**	P*	Pb	08 23 24.9	-0.9
TUVZ	**Tukino**	**1.00**	**32**	P*	Pb	08 23 24.8	-1.2
VRZ	**Vera Road**	**1.01**	**351**	P*	Pb	08 23 25.4	-0.7
WPVZ	**Whakapapa**	**1.02**	**26**	P*	Pb	08 23 25.0	-1.3
DUWZ	**D'Urville Isla**	**1.05**	**229**	P*	Pb	08 23 25.2	-1.6
NGZ	**Ngauruhoe**	**1.06**	**28**	P*	Pb	08 23 25.7	-1.4
NEZ	**North Egmont**	**1.08**	**321**	P*	Pb	08 23 27.2	-0.2
OTVZ	**Oturere**	**1.10**	**30**	P*	Pb	08 23 26.4	-1.3
TWVZ	**Taurewa**	**1.11**	**19**	P*	Pb	08 23 26.1	-1.7
MTW	**Mount Morrison**	**1.11**	**159**	P*	Pb	08 23 27.5	-0.3
WTVZ	**West Tongariro**	**1.11**	**26**	P*	Pb	08 23 26.5	-1.4
MRW	**Makara Radio**	**1.12**	**190**	P*	Pb	08 23 26.7	-1.3
BFZ	**Birch Farm**	**1.13**	**120**	P*	Pb	08 23 27.8	-0.3
KRVZ	**Karewarewa**	**1.15**	**27**	P*	Pb	08 23 27.0	-1.5
WEL	**Wellington**	**1.17**	**187**	P*	Pb	08 23 27.7	-1.1
PKE	**Pukeiti**	**1.20**	**321**	P*	Pb	08 23 29.0	-0.2
NWEZ	**Newall Road**	**1.20**	**315**	P*	Pb	08 23 29.1	-0.2
SNZO	**South Karori**	**1.20**	**189**	P*	Pb	08 23 28.2	-1.2
TCW	**Tory Channel**	**1.21**	**206**	P*	Pb	08 23 27.5	-2.0
KATZ	**Kakaramea**	**1.28**	**26**	PN	Pn	08 23 29.1	-1.2
BHW	**Baring Head**	**1.29**	**183**	PN	Pn	08 23 29.9	-0.6
PAWZ	**Paruwai Farm**	**1.31**	**165**	PN	Pn	08 23 30.6	-0.1

MSWZ	Moikau Station	1.31	171	PN	Pn	08 23 30.2	-0.6
RITZ	Rihia Road	1.33	31	PN	Pn	08 23 30.6	-0.6
TRWZ	Traveller	1.39	157	PN	Pn	08 23 32.1	+0.2
RATZ	Rangitukua	1.40	27	PN	Pn	08 23 31.9	-0.1
PXZ	Pawanui	1.46	87	*e*PN	Pn	08 23 32.9	0.0
HATZ	Hinemaiaia	1.51	36	PN	Pn	08 23 32.8	-0.7
BKZ	Black Stump Fm	1.52	51	PN	Pn	08 23 33.3	-0.3
TUWZ	Tuamarina	1.52	210	PN	Pn	08 23 33.0	-0.7
WATZ	Wairara	1.53	23	PN	Pn	08 23 33.6	-0.3
HIZ	Hauiti	1.61	357	PN	Pn	08 23 34.2	-0.7
NNZ	Nelson	1.63	227	PN	Pn	08 23 34.7	-0.5
BSWZ	Blackbirch Sta	1.79	207	PN	Pn	08 23 37.9	+0.5
QRZ	Quartz Range	1.99	248	PN	Pn	08 23 39.5	-0.6
KHZ	Kahutara	2.53	205	PN	Pn	08 23 47.1	-0.5
MWZ	Matawai	2.67	49	PN	Pn	08 23 49.6	+0.1
LTZ	Lake Taylor	3.34	216	*e*PN	Pn	08 23 57.9	-0.9

IDC 28 08:23:33.0±9.2**, 1473N×14537E, h0^{km}, mb3.6**/3**, mb1 3.9**/3**, mb1mx3.6**/19**, mbtmp3.6**/3**, Error ellipse: s-maj=307.1km s-min=49.8km az=8.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MKAR	Makanchi Array	61.02	316	P	P	08 33 48.5	+0.1
	0.3nm,0.5s,baz=95,slow=8.5,SNR=5.9						
YKA	Yellowknife Ar	81.63	28	P	P	08 35 52.4	-0.3
	0.2nm,0.3s,baz=285,slow=5.1,SNR=8.1						
NVAR	Mina Array Bea	85.83	52	P	P	08 36 15.6	+0.8
	0.2nm,0.4s,baz=285,slow=4.6,SNR=4.3						

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*CSEM **28** 08:49:39.3, 3481N×2574E, h13^{km}, MD3.6/5, After ATH*
*NEIC **28** 08:49:39.3, 3481N×2574E, h13^{km}, MD3.6(ATH), After ATH.*
ATH 28 08:49:39.3, 3481N×2574E, h13^{km}, MD3.6/5**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XRY	Khrisi	0.07	330	*e*Pg	Pg	08 49 42.0	0.0
XRY	Khrisi	0.07	330	*e*PG	Pg	08 49 42.0	0.0
XRY	Khrisi	0.07	330	*e*Pg	Pg	08 49 42.0	0.0
NPS	Neapolis	0.46	347	*e*Pg	Pg	08 49 48.3	-0.2
NPS				*e*Sb	Sg	08 49 54.4	-0.3
NPS	Neapolis	0.46	347	*e*PG	Pg	08 49 48.3	-0.2
NPS				*e*SB	Sg	08 49 54.4	-0.3
NPS	Neapolis	0.46	347	*e*Pg	Pg	08 49 48.3	-0.2
NPS				*e*Sb	Sg	08 49 54.4	-0.3
GVD	Gavdhos	1.36	272	*e*Pn	Pn	08 50 03.3	-0.6
GVD				*e*Sn	Sn	08 50 21.6	-0.2
KARP	Karpathos	1.38	57	*e*Pb	Pb	08 50 05.2	+0.3
KARP	Karpathos	1.38	57	*e*PB	Pb	08 50 05.2	+0.3
KARP	Karpathos	1.38	57	*e*Pb	Pb	08 50 05.2	+0.3
VAM	Vamos	1.40	296	*e*Pb	Pb	08 50 05.8	+0.6
VAM				*e*Sb	Sb	08 50 25.9	+3.0
VAM	Vamos	1.40	296	*e*PB	Pb	08 50 05.8	+0.6
VAM				*e*SB	Sb	08 50 25.9	+3.0
VAM	Vamos	1.40	296	*e*Pb	Pb	08 50 05.8	+0.6
VAM				*e*Sb	Sb	08 50 25.9	+3.0
APE	Apeiranthos	2.26	356	*e*Pn	Pn	08 50 18.8	+2.4
APE	Apeiranthos	2.26	356	*e*PN	Pn	08 50 18.8	+2.4
APE	Apeiranthos	2.26	356	*e*Pn	Pn	08 50 18.8	+2.4
VLI	Veliai	2.97	311	*e*Pn	Pn	08 50 28.4	+2.3
VLI	Veliai	2.97	311	*e*PN	Pn	08 50 28.4	+2.3
VLI	Veliai	2.97	311	*e*Pn	Pn	08 50 28.4	+2.3

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*SOF **28** 09:01:57.9, 3985N×2403E, h10^{km}, MD2.5*
*ISCJB **28** 09:01:59.9±0.5, 3993N±002×2390E±003, h8^{km}±4^{km}, Error ellipse: s-maj=4.2km s-min=3.7km az=18.6*
*THE **28** 09:02:00.9, 3994N×2391E, h8^{km}, ML3.2*
*NEIC **28** 09:02:00.3, 3991N×2381E, h24^{km}, MD3.5(ATH), After ATH.*
*ATH **28** 09:02:00.3, 3991N×2381E, h24^{km}±3^{km}, MD3.5/5*
*CSEM **28** 09:02:01.2±0.1, 3994N×2389E, h20^{km}, ML3.2, Error ellipse: s-maj=2.1km s-min=1.6km az=95.0*
*SKO **28** 09:02:03.0, 4006N×2384E, h12^{km}*
ISC 28 09:02:00.5±0.4**, 3992N**±002×**2390E**±003**, h10^{km}**±4^{km}**, n53, σ0^{s}97**/84**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAIG	Paliouri	0.17	272	*e*Pg	Pg	09 02 04.7	+0.6
PAIG				*e*Sg	Sg	09 02 07.7	+1.1
PAIG	Paliouri	0.17	272	*e*Pg	Pg	09 02 04.7	+0.6
PAIG				*e*Sg	Sg	09 02 07.7	+1.2
OUR	Ouranopolis	0.42	9	*e*Pg	Pg	09 02 08.7	0.0
OUR				*e*Sg	Sg	09 02 14.7	+0.5
OUR	Ouranopolis	0.42	9	*e*Pg	Pg	09 02 08.7	0.0
OUR				*e*Sg	Sg	09 02 14.7	+0.5
PLG	Polygyros	0.57	323	*e*Pn	Pg	09 02 10.8	-0.7
PLG				*e*Sn	Sg	09 02 18.3	-0.7
PLG	Polygyros	0.57	323	*e*Pg	Pg	09 02 10.8	-0.7
PLG				*e*Sg	Sg	09 02 19.6	+0.6
PLG	Polygyros	0.57	323	*e*PN	Pg	09 02 10.8	-0.7
PLG				*e*SN	Sg	09 02 18.3	-0.7
PLG	Polygyros	0.57	323	*e*Pn	Pg	09 02 10.8	-0.7
PLG				*e*Sn	Sg	09 02 18.3	-0.7
AOS	Alonnisos	0.75	181	*e*Pg	Pg	09 02 15.1	+0.1
AOS	Alonnisos	0.75	181	*e*Pg	Pg	09 02 15.1	+0.1
XOR	Xorichti	0.78	225	*e*Pg	Pg	09 02 16.0	+0.5
XOR				*e*Sg	Sg	09 02 27.2	+1.6
XOR	Xorichti	0.78	225	*e*Pg	Pg	09 02 16.0	+0.5
XOR				*e*Sg	Sg	09 02 27.2	+1.6
HORT	Hortiatis	0.91	318	*e*Pg	Pg	09 02 17.3	-0.7
HORT				*e*Sg	Sg	09 02 31.1	+1.2
HORT	Hortiatis	0.91	318	*e*Pg	Pg	09 02 17.3	-0.7
HORT				*e*Sg	Sg	09 02 31.1	+1.3
LOS	Limnos	0.91	89	*e*Pg	Pg	09 02 18.0	-0.1
LOS				*e*Sg	Sg	09 02 30.5	+0.5
LOS	Limnos	0.91	89	*e*Pg	Pg	09 02 18.0	-0.1
LOS				*e*Sg	Sg	09 02 30.5	+0.5
SOH	Sokhos	0.99	335	*e*Pg	Pg	09 02 19.3	-0.3
SOH				*e*Sg	Sg	09 02 32.2	-0.2
SOH	Sokhos	0.99	335	*e*Pg	Pg	09 02 19.3	-0.2
SOH				*e*Sg	Sg	09 02 32.2	-0.2
LIA	Limnos Island	0.99	91	*e*Pn	Pn	09 02 21.4	+0.9
LIA				*e*Sn	Sn	09 02 35.0	+0.4
LIA	Limnos Island	0.99	91	*e*PN	Pn	09 02 21.4	+0.9
LIA				*e*SN	Sn	09 02 35.0	+0.4
LIA	Limnos Island	0.99	91	*e*Pn	Pn	09 02 21.4	+0.9
LIA				*e*Sn	Sn	09 02 35.0	+0.4
THE	Thessaloniki	1.00	315	*e*Pg	Pg	09 02 19.9	0.0
THE	Thessaloniki	1.00	315	*e*Pg	Pg	09 02 19.9	+0.1
LIT	Litokhoron	1.09	280	*e*Pg	Pg	09 02 22.1	+0.5
LIT				*e*Sg	Sg	09 02 37.8	+2.1
LIT	Litokhoron	1.09	280	*e*Pg	Pg	09 02 22.0	+0.5
LIT				*e*Sg	Sg	09 02 37.8	+2.1
SRS	Serrai	1.22	349	*e*Pg	Pg	09 02 23.1	-0.7
SRS				*e*Sg	Sg	09 02 40.2	+0.5
SRS	Serrai	1.22	349	*e*Pg	Pg	09 02 23.1	-0.8
SRS				*e*Sg	Sg	09 02 40.2	+0.5
NVR	Nevrokopi	1.43	359	*e*Pb	Pb	09 02 26.1	-1.1
NVR				*e*Sn	Sn	09 02 45.9	+0.6
NVR	Nevrokopi	1.43	359	*e*PB	Pb	09 02 26.1	-1.1
NVR				*e*SN	Sn	09 02 45.9	+0.6
NVR	Nevrokopi	1.43	359	*e*Pb	Pb	09 02 26.1	-1.1
NVR				*e*Sn	Sn	09 02 45.9	+0.6
LKR	Lokris	1.45	209	*e*Pn	Pn	09 02 25.9	-0.9
LKR	Lokris	1.45	209	*e*PN	Pn	09 02 25.9	-0.9
LKR	Lokris	1.45	209	*e*Pn	Pn	09 02 25.9	-0.9
KNT	Kendrikon	1.45	329	*e*Pg	Pg	09 02 26.9	-1.5
KNT	Kendrikon	1.45	329	*e*Pg	Pg	09 02 26.9	-1.5
THL	Klokotos Trika	1.49	257	*e*PN	Pn	09 02 27.2	-0.2
THL	Klokotos Trika	1.49	257	*e*Pn	Pn	09 02 27.2	-0.2
AGG	Agios Georgios	1.51	234	*e*Pg	Pg	09 02 27.2	-2.2
AGG				*e*Sg	Sg	09 02 47.5	-1.6
AGG	Agios Georgios	1.51	234	*e*Pg	Pg	09 02 27.2	-2.3
AGG				*e*Sg	Sg	09 02 47.5	-1.5
GRG	Griva	1.54	313	*e*Pg	Pg	09 02 28.2	-1.8
GRG	Griva	1.54	313	*e*Pg	Pg	09 02 28.2	-1.8
MMB	Musomiste	1.67	356	*i* P	Pn	09 02 29.7	-0.2
VAY	Valandovo	1.72	325	*e*Pn	Pn	09 02 30.7	+0.1
RDO	Rodhopi	1.75	45	*e*Pn	Pn	09 02 30.0	-1.0
RDO				*e*Sn	Sn	09 02 55.9	+2.6
RDO	Rodhopi	1.75	45	*e*PN	Pn	09 02 30.0	-1.0
RDO				*e*SN	Sn	09 02 55.9	+2.6
RDO	Rodhopi	1.75	45	*e*Pn	Pn	09 02 30.0	-1.0
RDO				*e*Sn	Sn	09 02 55.9	+2.6
RZN	Rozhen	1.87	19	*i* P	Pn	09 02 32.5	-0.1
KKB	Krupnik	2.04	343	*i* P	Pn	09 02 34.7	-0.2
KDZ	Kurdzhali	2.08	33	*i* P	Pn	09 02 33.9	-1.6
KRUS	Krusevo	2.48	307	*e*Pn	Pn	09 02 42.1	+1.1
VTS	Vitosha	2.72	349	*i* P	Pn	09 02 45.0	+0.8
VLX	Vlachokerasia	2.81	205	*e*Pn	Pn	09 02 45.8	+0.2
VLX	Vlachokerasia	2.81	205	*e*Pn	Pn	09 02 45.8	+0.2

IDC 28 09:11:09.1±27.0**, 2145S×17351W, h0^{km}, mb4.2**/4**, mb1 4.3**/4**, mb1mx3.9**/16**, mbtmp4.2**/4**, Error ellipse: s-maj=507.1km s-min=161.1km az=75.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	37.58	265	P	P	09 18 26.1	+0.6
	5.5nm,0.4s,baz=98,slow=11,SNR=13						
STKA	Stephens Creek	41.19	246	P	P	09 18 54.4	-1.2
	0.6nm,0.3s,baz=113,slow=7.7,SNR=3.7						
ASAR	Alice Springs	48.39	257	P	P	09 19 52.9	-0.2
	0.9nm,0.4s,baz=96,slow=7.0,SNR=18						
WRA	Warramunga Arr	48.63	262	P	P	09 19 55.2	+0.2
	1.1nm,0.3s,baz=94,slow=8.4,SNR=62						

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*BJI **28** 09:29:39.5, 179N×12482E, h292^{km}, mB4.9, mb5.0*
*MOS **28** 09:29:45.7±0.9, 253N×12444E, h297^{km}, mb5.1/31, Error ellipse: s-maj=11.4km s-min=5.7km az=112.6*
*ISCJB **28** 09:29:45.7±0.3, 245N±002×12451E±003, h298^{km}±3^{km}, mb5.1/113, Error ellipse: s-maj=4.8km s-min=3.5km az=164.3*
*GCMT **28** 09:29:46.7±0.3, 251N×12459E, h271^{km}±2^{km}, MW5.1/64, Moment Tensor Solution. s37,c45; s64,c85; Duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-4.16±.20; $M_{\theta\theta}$2.36±.23; $M_{\phi\phi}$1.80±.29; $M_{r\theta}$-1.15±.17; $M_{\theta\phi}$2.85±.18; $M_{\phi r}$-4.07±.21; Best double couple: $M_0$6.25000×10^{16} NP1:ϕ_s249.00000°, δ30.00000°, λ-51.00000°. NP2: ϕ_s27.00000°, δ67.00000°, λ-110.00000°. Principal axes: T 6.2670, Plg20.0000°, Azm131.0000°; N -0.0340, Plg18.0000°, Azm34.0000°; P -6.2330, Plg62.0000°, Azm266.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*IDC **28** 09:29:46.5±1.0, 241N×12447E, h290^{km}±9^{km}, mb4.7/26, mb1 4.7/26, mb1mx4.7/27, mbtmp4.7/26 Error ellipse: s-maj=12.2km s-min=5.8km az=77.0*
*NEIC **28** 09:29:46.7±0.7, 248N×12442E, h292^{km}±7^{km}, mb5.0/31, Error ellipse: s-maj=6.1km s-min=3.9km az=70.0*
ISC 28 09:29:46.6±0.3**, 244N**±002×**12450E**±003**, h292^{km}**±3^{km}**, h292^{km}**±2.4^{km}**:pP-P, n322, σ1^{s}06**/298**, mb5.2**/111**, 35C-26D, Celebes Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	Kidapawan	4.58	7	⇑*i*P	Pn	09 30 58.3	-0.7
KCP				*i* S	S	09 31 58.1	+1.0
DAV	Davao City (W)	4.73	13	*e*Pn	Pn	09 30 59.9	-0.8
DAV	Davao City (W)	4.73	13	⇑*e*P	Pn	09 31 00.0	-0.7
BUKP	Musuan	5.44	6	*e*P	Pn	09 31 08.1	-0.9
PAGZ	Pagadian	5.49	348	*e*P	Pn	09 31 09.0	-0.7
PCI	Palu	5.72	235	P	Pn	09 31 11.7	-0.7
	397nm,1.1s						
CGP	Cagayan de Oro	5.98	2	⇑*e*P	Pn	09 31 15.0	-0.5
BIPH	Bislig	6.01	18	⇑*e*P	Pn	09 31 13.6	-2.2
BIPH				*e*S	S	09 32 22.2	-5.4
DCPH	Dipolog City	6.21	349	⇑*e*P	Pn	09 31 18.7	+0.4
MYLDM	Lahad Datu	6.58	295	⇑P	Pn	09 31 23.9	+1.3
TSM	Tawau	6.87	286	⇓P	Pn	09 31 26.1	-0.1
SNPH	Sibulan	6.98	350	⇑*e*P	Pn	09 31 29.0	+1.4
AAI	Ambon	7.12	149	P	Pn	09 31 28.2	-1.1
	568nm,0.5s						
TBP	Tagbilaran	7.24	355	*e*P	Pn	09 31 30.6	-0.2
SCPH	Surigao	7.37	8	⇑*e*P	Pn	09 31 30.9	-1.4
MSLP	Maasin	7.66	3	*e*P	Pn	09 31 35.5	-0.4
SDKM	Sandakan	7.95	294	⇓P	Pn	09 31 38.9	-0.6
KDM	Kudat	8.84	301	⇑P	Pn	09 31 50.9	+0.4
KKM	Kota Kinabalu	9.00	294	⇑P	Pn	09 31 52.9	+0.4
CUYO	Cuyo Island	9.04	338	*e*P	Pn	09 31 53.0	-0.1
BATP	Bataraza	9.18	314	*e*P	Pn	09 31 46.4	-8.3
OTRP	Odiongan	10.16	346	*e*P	Pn	09 32 06.1	-0.7
PVCP	Virac	11.10	358	*e*P	Pn	09 32 18.0	-0.3
BTM	Bintulu	11.42	274	⇓P	Pn	09 32 23.6	+1.2
LUBP	Lubang	11.99	340	*e*P	Pn	09 32 29.9	+0.7
BAKI	Biak	12.15	107	P	Pn	09 32 32.4	+1.1
	513nm,1.5s						
SBUM	Sibu	12.27	270	⇓P	Pn	09 32 34.6	+2.0
SCZP	Santa Cruz	14.01	341	*e*P	Pn	09 32 52.5	-1.0
KMMI	Kalianget	14.11	228	P	Pn	09 32 54.5	-0.4
	211nm,0.7s						
KSM	Kuching	14.21	266	*e*P	Pn	09 32 57.4	+1.3
KSM	Kuching	14.21	266	⇑P	Pn	09 32 57.5	+1.5
BCPH	Baguio City Da	14.38	345	⇑*e*P	Pn	09 32 58.5	+0.5
BOLP	Bolinao	14.57	342	*e*P	Pn	09 32 59.3	-1.0
KRKI	Karangkates	15.97	229	P	Pn	09 33 14.8	-1.9
	543nm,0.7s						
JAY	Jayapura	16.93	107	P	P	09 33 24.5	-0.8
	350nm,0.9s						
KAKA	Kakadu	16.99	153	⇑*i*P	P	09 33 26.1	+0.2
	335nm,0.5s						
TPI	Tanjungpandan	17.61	253	P	P	09 33 32.7	+0.1
	456nm,1.1s						
JCJI	Jatiwangi	18.47	241	P	P	09 33 47.6	+5.8
	451nm,0.8s						
MMPI	Merauke	19.19	125	P	P	09 33 49.7	+0.2
	2µm,0.6s						
LEM	Lembang	19.20	241	P	P	09 33 50.6	+1.0
	937nm,0.8s						
SBJI	Serang	20.21	245	P	P	09 34 00.0	-0.4
	1µm,1.3s						
FITZ	Fitzroy Crossi	20.44	177	⇑*i*P	P	09 34 01.5	-1.1
	685nm,0.5s						
FITZ				*e*S	S	09 37 29.9	-3.4
FITZ				*i* SCP	ScP	09 41 11.8	+1.7
FITZ	Fitzroy Crossi	20.44	177	P	P	09 34 01.5	-1.1
	326nm,0.5s,baz=6.4,slow=8.6,SNR=250						
FITZ				S	S	09 37 32.3	-1.0
	21nm,0.7s,baz=72,slow=20,SNR=5.2						
FITZ				ScP	ScP	09 41 11.7	+1.6
	17nm,0.7s,baz=3.8,slow=2.7,SNR=6.7						
MYKOM	Kota Tinggi	20.64	269	⇑P	P	09 34 05.5	+0.6
KGM	Kluang	21.16	269	⇓P	P	09 34 11.2	+1.4
KTGM	Kuala Trenggan	21.50	278	⇓P	P	09 34 14.2	+1.4
QIZ	Qiongzhong	21.86	320	P	P	09 34 16.0	0.0
QIZ				S	S	09 37 57.5	+1.1
QIZ				AMB	AMB		
	comp=Z,37nm,0.8s,mb4.8						
QIZ				AMB	AMB		
	comp=Z,506nm,4.0s						
YHNB	Yeheng	22.31	353	*e*P	P	09 34 19.8	-0.3
XMIS	Christmas Isla	22.73	235	*e*P	P	09 34 23.6	-0.4
FRIM	Kepong	22.86	273	⇑P	P	09 34 26.6	+1.4
QZH	Quanzhou	23.09	346	P	P	09 34 30.3	+3.1
QZH				S	S	09 38 21.3	+5.2
QZH				AMB	AMB		
	comp=Z,70nm,0.8s,mb5.0						
GZH	Guangzhou	23.20	333	P	P	09 34 31.5	+3.3
IPM	Ipoh	23.51	276	⇓P	P	09 34 32.3	+1.1
MBWA	Marble Bar	23.91	191	*e*P	P	09 34 34.4	-0.1
KULM	Kulim	23.96	278	*e*P	P	09 34 34.4	-0.8
KULM	Kulim	23.96	278	⇓P	P	09 34 37.2	+2.1
WRA	Warramunga Arr	24.25	157	P	P	09 34 37.3	-0.4
WRA				S	S	09 38 31.9	-2.6
WRA	Warramunga Arr	24.25	157	P	P	09 34 37.3	-0.3
	comp=Z,159nm,0.4s,mb5.7,baz=334,slow=10,SNR=456						
WRA				S	S	09 38 31.9	-2.6
	comp=Z,116nm,1.1s,baz=335,slow=17,SNR=20						
WRA				ScP	ScP	09 41 21.6	+1.6
	comp=Z,17nm,0.7s,baz=338,slow=3.0,SNR=11						
WB2	Warramunga Arr	24.25	157	⇑*i*P	P	09 34 37.6	-0.1
WB2				*e*S	S	09 38 31.9	-2.7
PPI	Padang Panjang	24.26	264	P	P	09 34 38.0	0.0
	comp=Z,104nm,0.9s,mb5.2						
JOW	Kunigami	24.53	8	P	P	09 34 41.0	+0.9
	comp=Z,37nm,0.7s,mb4.9,baz=172,slow=9.7,SNR=4.1						
COEN	Coen	24.66	132	*e*P	P	09 34 41.2	-0.2
	comp=Z,36nm,0.5s,mb5.0						
KKTK	Khon Kaen	25.41	304	P	P	09 34 48.5	+0.3
	comp=Z,617nm,0.5s,mb6.3						
PMG	Port Moresby	25.46	118	*e*P	P	09 34 49.5	+0.8
	comp=Z,42nm,0.8s,mb4.9						
PMG	Port Moresby	25.46	118	*e*P	P	09 34 49.5	+0.8
PMG				pmax	pmax		
	comp=Z,42nm,0.8s						
PMG	Port Moresby	25.46	118	P	P	09 34 49.1	+0.4
	comp=Z,36nm,0.7s,mb4.9,baz=42,slow=1.4,SNR=12						
PSI	Prapat	25.55	271	P	P	09 34 50.4	+0.9
	comp=Z,99nm,0.9s,mb5.2,baz=95,slow=5.0,SNR=40						
ASAR	Alice Springs	27.51	161	P	P	09 35 07.2	+0.4
ASAR				S	S	09 39 25.0	-0.9
ASAR	Alice Springs	27.51	161	P	P	09 35 07.2	+0.4
	comp=Z,40nm,0.6s,mb5.0,baz=342,slow=7.4,SNR=770						
ASAR				S	S	09 39 25.0	-0.9
	comp=Z,22nm,0.7s,baz=348,slow=22,SNR=11						
ASAR				ScP	ScP	09 41 30.8	+1.3
	comp=Z,6.8nm,0.6s,baz=352,slow=2.3,SNR=8.8						
BDT	Bhumibol Dam	29.05	302	P	P	09 35 21.5	+1.0
	comp=Z,16nm,0.8s,mb4.5						
BSI	Banda Aceh	29.28	277	P	P	09 35 20.2	-2.5
	comp=Z,103nm,1.1s,mb5.2						
GYA	Guiyang	29.39	326	⇑*i*P	P	09 35 25.0	+1.6
GYA				AP		09 36 20.8	
GYA				PP	PP	09 36 35.5	-1.1
GYA				XP	sP	09 36 52.8	-1.0
GYA				S	S	09 39 57.5	+2.2
GYA				SCS	ScS	09 45 31.3	+0.8
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.5						
GYA				AMB	AMB		
	comp=Z,180nm,4.6s						
GYA				LR	LR		
	comp=N,620nm,16.8s						
GYA				LR	LR		
	comp=E,590nm,17.6s						
GYA				LR	LR		
	comp=Z,710nm,17.7s						
WHN	Wuhan	29.56	342	P	P	09 35 26.0	+1.2
CHRT	Chiangrai	29.72	307	⇓P	P	09 35 27.0	+0.6
	comp=Z,224nm,0.8s,mb5.8						
CBIJ	Chichi jima	29.81	33	P	P	09 35 25.9	-1.1
	comp=Z,101nm,0.5s,mb5.6,baz=295,slow=20,SNR=5.3						
CHG	Chiang Mai	29.85	305	⇓P	P	09 35 28.2	+0.7
	comp=Z,93nm,0.8s,mb5.4						
CHTO	Chiang Mai	29.85	305	*e*P	P	09 35 27.0	-0.5
	comp=Z,86nm,1.2s,mb5.2						
CHTO	Chiang Mai	29.85	305	*e*P	P	09 35 27.0	-0.5
CHTO				pmax	pmax		
	comp=Z,87nm,1.2s,mb5.2						
NJ2	Nanjing	29.93	350	*e*P	P	09 35 29.0	+0.9
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.9						
KMI	Kunming	30.80	319	P	P	09 35 38.0	+2.2
KMI				AP	pP	09 36 35.5	+3.1
KMI				PP	PP	09 36 52.8	+0.6
KMI				XP	sP	09 37 05.3	-1.0
KMI				S	S	09 40 18.3	+1.0
KMI				AMB	AMB		
	comp=Z,60nm,0.7s,mb5.2						
KMI				AMB	AMB		
	comp=Z,121nm,3.1s						
KMI				LR	LR		
	comp=N,312nm,13.4s						
KMI				LR	LR		
	comp=E,256nm,9.7s						
KMI				LR	LR		
	comp=Z,303nm,13.6s						
CTA	Charters Tower	30.93	137	*e*P	P	09 35 38.0	+1.0
	comp=Z,22nm,1.0s,mb4.7						
CTA				*e*		09 36 55.3	
CTA				*e*SCP	ScP	09 41 43.6	+3.1
CTA	Charters Tower	30.93	137	*e*P	P	09 35 38.0	+1.0
CTA				*e*		09 36 55.3	
CTA				pmax	pmax		
	comp=Z,22nm,1.0s						
CTA	Charters Tower	30.93	137	P	P	09 35 38.2	+1.2
	comp=Z,23nm,0.9s,mb4.7,baz=320,slow=11,SNR=12						
CTAO	Charters Tower	30.93	137	*e*P	P	09 35 38.0	+1.0
	comp=Z,39nm,1.0s,mb4.9						
CTAO	Charters Tower	30.93	137	*e*P	P	09 35 38.0	+1.0
CTAO				pmax	pmax		
	comp=Z,39nm,1.0s,mb4.9						
JNU	Nakatsue	31.11	10	P	P	09 35 40.4	+2.0
	comp=Z,6.8nm,0.7s,mb4.3,baz=329,slow=27,SNR=6.0						
FORT	Forrest	33.20	174	⇑*i*P	P	09 35 57.1	+0.6
	comp=Z,318nm,0.6s,mb6.0						
FORT				*e*SCP	ScP	09 41 50.6	+2.6
TIA	Tai’an	34.29	349	P	P	09 36 07.3	+1.5
KLBR	Kellerberrin	34.44	190	⇑*i*P	P	09 36 07.4	+0.3
	comp=Z,38nm,0.4s,mb5.3						
KLBR				*e*		09 36 56.5	
KLBR				*e*S	S	09 41 08.9	-4.3
KLBR				*e*SCP	ScP	09 41 54.6	+2.2
CD2	Chengdu	34.45	327	P	P	09 36 08.0	+0.8
CD2				AP	pP	09 37 04.8	+0.2
CD2				PP	PP	09 37 37.5	+5.2
CD2				PCP	PcP	09 38 35.3	-0.1
CD2				S	S	09 41 15.0	+1.6
CD2				SS	SS	09 43 51.0	-6.1
CD2				SCS	ScS	09 45 54.3	-1.8
CD2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.1						
KSRS	Korea Array	34.99	5	P	P	09 36 11.8	0.0
	comp=Z,5.1nm,0.6s,mb4.2,baz=181,slow=9.9,SNR=18						
KSRS				PcP	PcP	09 38 37.5	+0.7
	comp=Z,6.4nm,0.8s,baz=188,slow=3.0,SNR=12						
KSRS				ScP	ScP	09 41 55.9	+1.6
	comp=Z,5.2nm,0.6s,baz=182,slow=3.4,SNR=18						
MUN	Mundaring	35.12	192	⇑*i*P	P	09 36 13.3	+0.4
MUN				*e*		09 37 02.6	
NWAO	Narrogin (SRO)	35.83	190	P	P	09 36 19.5	+0.6
NWAO	Narrogin (SRO)	35.83	190	P	P	09 36 19.5	+0.6
	comp=Z,26nm,0.4s,mb5.2,baz=22,slow=8.3,SNR=92						
MAJO	Matsushiro	36.23	19	*e*P	P	09 36 22.1	-0.1
	comp=Z,37nm,0.8s,mb5.0						
MAJO	Matsushiro	36.23	19	*e*P	P	09 36 22.1	-0.1
MAJO				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.0						
MJAR	Matsushiro Arr	36.23	19	P	P	09 36 21.6	-0.6
	comp=Z,33nm,0.8s,mb4.9,baz=194,slow=9.1,SNR=66						
MJAR				ScP	ScP	09 42 00.3	+1.4
	comp=Z,7.3nm,0.8s,baz=185,slow=4.9,SNR=8.5						
DL2	Dalian	36.39	356	P	P	09 36 25.3	+1.7
DL2				PCP	PcP	09 38 42.0	+1.0
DL2				S	S	09 41 45.0	+2.2
DL2				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.2						
HNR	Honiara	37.23	109	P	P	09 36 30.1	-0.9
	comp=Z,59nm,0.4s,mb5.4,baz=200,slow=0.2,SNR=4.7						
EIDS	Eidsvold	37.78	139	*e*P	P	09 36 35.3	-0.1
	comp=Z,42nm,1.0s,mb4.8						
STKA	Stephens Creek	37.79	156	⇑*i*P	P	09 36 36.5	+1.1
	comp=Z,294nm,0.9s,mb5.7						
STKA				*i* S	S	09 42 04.5	+0.5
STKA	Stephens Creek	37.79	156	P	P	09 36 36.6	+1.3
	comp=Z,218nm,0.7s,mb5.7,baz=328,slow=8.1,SNR=537						
STKA				ScP	ScP	09 42 05.0	+0.1
	comp=Z,18nm,0.9s,baz=124,slow=17,SNR=5.1						
BJT	Baijiatuau	38.17	350	*e*P	P	09 36 38.0	-0.4
	comp=Z,39nm,0.8s,mb4.9						
BJT	Baijiatuau	38.17	350	*e*P	P	09 36 38.0	-0.4
BJT				pmax	pmax		
	comp=Z,39nm,0.8s						
BJI	Beijing	38.19	350	P	P	09 36 38.0	-0.5
BJI				AP	pP	09 37 37.0	0.0
BJI				PCP	PcP	09 38 47.5	+1.0
BJI				S	S	09 42 11.3	+1.6
BJI				AMB	AMB		
	comp=Z,108nm,1.1s,mb5.2						
LZH	Lanzhou	38.55	333	⇓*i*P	P	09 36 42.5	+0.8
LZH				AP	pP	09 37 40.0	-0.2
LZH				XP	sP	09 38 13.0	-0.6
LZH				PP	PP	09 38 20.8	+3.8
LZH				PCP	PcP	09 38 49.0	+1.2
LZH				SCP	ScP	09 42 08.5	+0.8
LZH				*e*S	S	09 42 17.5	+2.2
LZH				PCS	PcS	09 42 35.5	-2.0
LZH				SS	SS	09 45 14.5	-4.5
LZH				SCS	ScS	09 46 18.8	-0.1
LZH				AMB	AMB		
	comp=Z,218nm,1.4s,mb5.4						
LZH				AMB	AMB		
	comp=Z,789nm,5.3s						
SHL	Shillong	38.90	309	*i* P	P	09 36 45.0	+0.3
SHL				*e*x	x	09 42 11.0	
ADE	Adelaide	39.52	162	⇑*i*P	P	09 36 51.2	+1.6
HHC	Hu-ho-hao-te	39.99	345	*e*P	P	09 36 54.5	+1.1
HHC				AP	pP	09 37 53.0	+0.7
HHC				XP	sP	09 38 25.0	-0.6
HHC				PP	PP	09 38 34.5	+2.2

HHC				PCP	PcP	09 38 53.5	+1.3
HHC				SCP	ScP	09 42 14.8	+1.7
HHC				S	S	09 42 39.5	+3.0
HHC				PCS	PcS	09 42 44.0	+1.1
HHC				XS	sS	09 44 22.5	+0.4
HHC				SCS	ScS	09 46 28.3	+1.1
HHC				AMB	AMB		
	comp=Z,21nm,1.1s,mb4.4						
HHC				LR	LR		
	comp=N,84nm,21.4s						
HHC				LR	LR		
	comp=E,127nm,21.4s						
HHC				LR	LR		
	comp=Z,215nm,20.2s						
CN2	Changchun	41.20	1	*e*P	P	09 37 03.0	-0.2
CN2				*e*XP	sP	09 38 34.0	-1.7
CN2				*e*S	S	09 42 56.3	+2.1
CN2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.3						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
LSA	Lhasa	41.67	314	P	P	09 37 09.0	+1.8
LSA	Lhasa	41.67	314	*e*P	P	09 37 07.7	+0.5
	comp=Z,87nm,0.6s,mb5.2						
LSA	Lhasa	41.67	314	*e*P	P	09 37 07.7	+0.5
LSA				pmax	pmax		
	comp=Z,87nm,0.6s,mb5.2						
ARMA	Armidale	41.68	144	*e*P	P	09 37 09.3	+2.0
MDJ	Mudanjiang	42.25	5	P	P	09 37 12.5	+0.9
MDJ				AP	pP	09 38 10.5	-0.7
MDJ				XP	sP	09 38 41.5	-2.8
MDJ				PCP	PcP	09 38 55.0	-4.6
MDJ				PP	PP	09 38 59.5	+3.1
MDJ				SCP	ScP	09 42 20.3	-1.7
MDJ				PCS	PcS	09 42 49.0	-2.7
MDJ				S	S	09 43 15.0	+5.5
MDJ				SCS	ScS	09 46 41.3	+0.5
MDJ				AMB	AMB		
	comp=Z,39nm,0.8s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,123nm,5.9s						
MDJ				LR	LR		
	comp=N,40nm,25.8s						
MDJ				LR	LR		
	comp=Z,68nm,31.0s						
MDJ	Mudanjiang	42.25	5	*e*P	P	09 37 11.8	+0.2
	comp=Z,27nm,0.6s,mb4.7						
TAPN	Taplejung	43.03	309	*e*P	P	09 37 18.6	+0.4
	comp=Z,114nm,0.4s,mb5.5						
ODAN	Odare	43.05	308	*e*P	P	09 37 18.7	+0.4
	comp=Z,159nm,0.6s,mb5.4						
GTA	Gaotai	43.12	332	P	P	09 37 19.0	+0.4
GTA				AP	pP	09 38 19.0	+0.6
GTA				XP	sP	09 38 50.5	-1.0
GTA				PCP	PcP	09 39 04.0	+1.4
GTA				PP	PP	09 39 05.3	-0.3
GTA				SCP	ScP	09 42 27.0	+1.4
GTA				PCS	PcS	09 42 54.0	-1.5
GTA				S	S	09 43 20.5	-1.8
GTA				SCS	ScS	09 46 46.0	-0.5
GTA				AMB	AMB		
	comp=Z,22nm,0.7s,mb4.5						
GTA				AMB	AMB		
	comp=Z,242nm,8.0s						
GTA				LR	LR		
	comp=N,131nm,10.3s						
GTA				LR	LR		
	comp=E,172nm,11.5s						
GTA				LR	LR		
	comp=Z,148nm,9.5s						
PALK	Pallekele	43.88	278	P	P	09 37 25.6	+0.4
	comp=Z,398nm,0.6s,mb5.8,SNR=9.1						
PALK	Pallekele	43.88	278	*e*P	P	09 37 23.8	-1.4
	comp=Z,141nm,1.3s,mb5.0						
RIV	Riverview	43.96	147	*e*P	P	09 37 27.9	+2.5
CNB	Canberra Magne	44.19	150	⇑*i*P	P	09 37 29.3	+2.1
	comp=Z,36nm,0.4s,mb5.0						
TOO	Toolangi	44.31	156	⇑*i*P	P	09 37 30.6	+2.5
	comp=Z,55nm,0.8s,mb4.8						
TOO				*e*		09 39 14.6	
TOO	Toolangi	44.31	156	⇑*i*P	P	09 37 30.6	+2.5
TOO				*e*		09 39 14.6	
TOO				pmax	pmax		
	comp=Z,55nm,0.8s,mb4.8						
JIRN	Jiri	44.37	308	*e*P	P	09 37 29.3	+0.6
	comp=Z,208nm,0.4s,mb5.7						
ASAJ	Asahikawa	44.50	19	P	P	09 37 30.6	+1.1
	comp=Z,36nm,0.7s,mb4.7,baz=236,slow=12,SNR=26						
KKN	Kakani	45.14	308	*e*P	P	09 37 34.9	+0.1
	comp=Z,167nm,0.4s,mb5.6						
GKN	Gorkha	45.74	308	*e*P	P	09 37 39.8	+0.3
	comp=Z,84nm,0.4s,mb5.4						
HABR	Khabarovsk	46.75	10	*e*P	P	09 37 47.5	+0.5
HABR				*e*		09 39 39.9	
HABR				*e*S	S	09 44 16.8	+2.7
HABR				pmax	pmax		
	comp=Z,61nm,0.7s,mb5.0						
HIA	Hailar	46.83	356	*e*P	P	09 37 47.5	0.0
	comp=Z,43nm,0.7s,mb4.9						
HIA	Hailar	46.83	356	*e*P	P	09 37 47.5	-0.1
HIA				pmax	pmax		
	comp=Z,43nm,0.7s						
ALBI	Allahabad	46.95	303	*e*P	P	09 37 47.0	-1.9
KLR	Kul'dur	47.03	6	*e*P	P	09 37 45.8	-3.3
YSS	Yuzh-Sakhalins	47.10	17	*e*P	P	09 37 49.6	-0.1
YSS	Yuzh-Sakhalins	47.10	17	*e*P	P	09 37 50.0	+0.3
YSS				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.5						
HYB	Hyderabad	47.48	291	*e*P	P	09 37 53.5	+0.4
	comp=Z,170nm,1.0s,mb5.3						
HYB	Hyderabad	47.48	291	*e*P	P	09 37 53.5	+0.4
HYB				pmax	pmax		
	comp=Z,170nm,1.0s,mb5.3						
HYB	Hyderabad	47.48	291	*i* P	P	09 37 53.5	+0.4
	comp=Z,170nm,1.0s,mb5.3						
HYB				*e*PcP	PcP	09 39 18.5	+0.1
HYB				*e*S	S	09 44 26.5	+1.3
ULN	Ulaanbaatar	47.70	344	*e*P	P	09 37 53.8	-0.5
ULN	Ulaanbaatar	47.70	344	*d i*P	P	09 37 54.1	-0.1
SONM	Songino Array	47.85	344	P	P	09 37 55.3	-0.1
SONM						09 39 19.1	
SONM	Songino Array	47.85	344	P	P	09 37 55.3	-0.1
	comp=Z,34nm,0.8s,mb4.8,baz=155,slow=8.3,SNR=96						
SONM				PcP	PcP	09 39 19.1	+0.1
	comp=Z,15nm,0.9s,baz=164,slow=4.5,SNR=8.6						
SONM				ScP	ScP	09 42 45.9	+0.8
	comp=Z,1.8nm,0.8s,baz=165,slow=5.0,SNR=4.2						
CIT	Chita	50.26	351	*e*P	P	09 38 13.7	+0.3
CIT				pmax	pmax		
	comp=Z,55nm,1.3s,mb4.7						
ZAK	Zakamensk	51.05	343	⇓*i*P	P	09 38 19.0	-0.3
ZAK				*e*		09 39 30.8	
ZAK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.0						
ZAK				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.3						
KAD	Karad	51.54	290	*i* P	P	09 38 22.4	-1.2
NDI	New Delhi	52.00	305	*e*P	P	09 38 24.2	-2.6
	comp=Z,39nm,0.5s,mb5.0						
TLY	Talaya	52.10	344	P	P	09 38 27.2	+0.2
	comp=Z,177nm,0.8s,mb5.5,SNR=12						
TLY	Talaya	52.10	344	*e*P	P	09 38 27.2	+0.2
TLY	Talaya	52.10	344	⇑*i*P	P	09 38 27.7	+0.7
TLY				*e*	pP	09 39 35.0	+5.7
TLY				pmax	pmax		
	comp=Z,30nm,0.9s,mb4.6						
WMQ	Urumqi	52.54	327	P	P	09 38 31.3	+0.8
WMQ				AP	pP	09 39 33.0	+0.2
WMQ				PCP	PcP	09 39 38.3	+1.8
WMQ				XP	sP	09 40 04.5	-0.7
WMQ				PP	PP	09 40 35.0	+2.1
WMQ				SCP	ScP	09 43 06.3	+0.9
WMQ				PCS	PcS	09 43 35.5	+0.2
WMQ				S	S	09 45 33.5	-0.6
WMQ				AMB	AMB		
	comp=Z,169nm,0.9s,mb5.4						
WMQ				AMB	AMB		
	comp=Z,964nm,3.8s						
MOY	Mondy	52.87	342	*e*P	P	09 38 32.8	+0.1
MOY				pmax	pmax		
	comp=Z,36nm,1.6s,mb4.5						
SDNR	Sundarnagar	53.26	308	*e*P	P	09 38 36.6	+0.7
AJM	Ajmer	53.41	301	*i* P	P	09 38 36.0	-1.1
CLNS	Chul'man	54.24	0	*e*P	P	09 38 41.2	-1.3
CLNS				pmax	pmax		
	comp=Z,33nm,0.8s,mb4.7						
CLNS				pmax	pmax		
	comp=N,19nm,0.9s						
CLNS				pmax	pmax		
	comp=E,10.0nm,0.8s						
DLH	Dalhousie	54.45	309	*e*P	P	09 38 43.0	-1.5
THN	Thein Dam	54.60	309	*e*P	P	09 38 45.1	-0.5
BOD	Bodaibo	55.85	353	⇑*i*P	P	09 38 53.6	-0.3
BOD				pmax	pmax		
	comp=Z,25nm,0.7s,mb4.8						
MK31	Makanchi Array	57.37	327	*e*P	P	09 39 04.9	+0.1
MKAR	Makanchi Array	57.37	327	P	P	09 39 04.8	0.0
MKAR				ScP	ScP	09 43 27.2	+0.6
MKAR	Makanchi Array	57.37	327	P	P	09 39 04.8	0.0
	comp=Z,129nm,0.4s,mb5.7,baz=122,slow=6.6,SNR=422						
MKAR				ScP	ScP	09 43 27.2	+0.6
	comp=Z,3.5nm,0.7s,baz=142,slow=4.6,SNR=4.1						
MKAR				P4KPbc		10 16 13.7	
	comp=Z,1.0nm,0.7s,baz=118,slow=4.7,SNR=8.1						
KSH	Kashi	57.41	317	*e*P	P	09 39 07.5	+2.3
KSH				*e*PCP	PcP	09 39 57.3	+1.8
KSH				*e*AP	pP	09 40 10.3	+1.5
KSH				*e*XP	sP	09 40 41.5	+0.6
KSH				*e*PP	PP	09 41 21.3	+5.0
KSH				*e*PPP		09 42 48.0	
KSH				*e*SCP	ScP	09 43 28.0	+1.1
KSH				*e*PCS	PcS	09 43 57.0	+0.1
KSH				*e*S	S	09 46 38.0	-0.8
KSH				*e*SCS	ScS	09 48 24.0	-0.6
KSH				*e*XS	sS	09 48 31.5	+0.2
KSH				*e*SS	SS	09 50 38.3	+4.6
KSH				AMB	AMB		
	comp=Z,539nm,2.3s,mb5.6						
KSH				LR	LR		
	comp=N,1µm,5.3s						
KSH				LR	LR		
	comp=E,2µm,5.5s						
KSH				LR	LR		
	comp=Z,1µm,6.0s						
YAK	Yakutsk	59.58	3	*e*P	P	09 39 20.1	+0.4
YAK	Yakutsk	59.58	3	*e*P	P	09 39 20.2	+0.5
YAK				*e*		09 40 06.6	
YAK				*e*		09 41 33.3	
YAK				*e*S	S	09 47 09.9	+4.1
YAK				*e*		09 48 38.3	
YAK				*e*SS	SS	09 51 11.1	+4.3
YAK				pmax	pmax		
	comp=Z,189nm,0.8s,mb5.7						
YAK				pmax	pmax		
	comp=N,62nm,1.1s						
YAK				pmax	pmax		
	comp=E,16nm,1.2s						
YAK				pmax	pmax		
	comp=Z,83nm,4.1s						
YAK				pmax	pmax		
	comp=N,268nm,6.9s						
YAK				pmax	pmax		
	comp=E,48nm,2.9s						
YAK				smax			
	comp=N,310nm,5.8s						
YAK				smax			
	comp=E,249nm,5.5s						
AAK	Ala-Archa	59.84	319	P	P	09 39 21.9	+0.1
	comp=E,142nm,0.9s,mb5.5,SNR=11						
AAK	Ala-Archa	59.84	319	*e*P	P	09 39 21.4	-0.4
AAK	Ala-Archa	59.84	319	⇓*i*P	P	09 39 21.4	-0.4
AAK				pmax	pmax		
	comp=Z,32nm,1.2s,mb4.7						
MA2	Magadan	60.51	15	*e*P	P	09 39 26.4	+0.5
	comp=Z,69nm,0.8s,mb5.2						
MA2	Magadan	60.51	15	*d i*P	P	09 39 27.4	+1.4
MA2				*i*		09 40 08.8	
MA2				pmax	pmax		
	comp=N,40nm,0.7s						
MA2				pmax	pmax		
	comp=E,10.0nm,0.7s						
MA2				pmax	pmax		
	comp=Z,100nm,0.7s,mb5.5						
KBL	Kabul	60.56	309	*e*P	P	09 39 26.6	-0.2
ZALV	Zalesovo Beam	60.75	334	P	P	09 39 26.5	-1.2
	comp=Z,25nm,0.6s,mb5.0,baz=123,slow=6.1,SNR=71						
ZAL	Zalesovo	60.75	334	P	P	09 39 26.5	-1.2
KURK	Kurchatov	61.66	329	P	P	09 39 33.1	-0.7
	comp=Z,2µm,0.5s,SNR=86						
KURK	Kurchatov	61.66	329	*e*P	P	09 39 33.1	-0.7
KURK	Kurchatov	61.66	329	⇓*i*P	P	09 39 33.3	-0.5
NVS	Novosibirsk	62.04	334	⇓*i*P	P	09 39 35.0	-1.3
NVS				*e*		09 40 08.6	
NVS				*e*		09 41 11.2	
NVS				*i* S	S	09 47 33.5	-3.6
NVS				*e*		09 48 52.4	
NVS				pmax	pmax		
	comp=Z,68nm,0.7s,mb5.4						
NVS				pmax	pmax		
	comp=N,46nm,0.7s						
NVS				pmax	pmax		
	comp=E,50nm,0.7s						
NVS				smax			
	comp=N,52nm,1.8s						
NVS				smax			
	comp=E,90nm,1.7s						
SNZO	South Karori	63.00	139	*e*P	P	09 39 43.3	+0.4
BRVK	Borovoye	67.28	328	P	P	09 40 09.0	-1.0
	comp=E,652nm,0.4s,SNR=11						
BRVK	Borovoye	67.28	328	*e*P	P	09 40 09.5	-0.5
	comp=E,147nm,1.0s,mb5.7						
BRVK	Borovoye	67.28	328	*e*P	P	09 40 09.5	-0.5
BRVK				pmax	pmax		
	comp=Z,147nm,1.0s,mb5.7						
TIXI	Tiksi	69.17	1	*e*P	P	09 40 20.9	-0.4
TIXI	Tiksi	69.17	1	*d i*P	P	09 40 20.7	-0.6
TIXI				pmax	pmax		
	comp=Z,134nm,1.2s,mb5.5						
ABKT	Ailbek	69.98	310	P	P	09 40 28.1	+1.2
	comp=Z,337nm,0.7s,mb6.2,SNR=5.3						
BILL	Bilibino	71.38	15	*i* P	P	09 40 34.8	+0.1
BILL				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.5						
ARU	Arti	74.84	328	*e*P	P	09 40 54.5	-0.6
	comp=Z,58nm,0.6s,mb5.4						
ARU	Arti	74.84	328	⇓*i*P	P	09 40 54.0	-1.1
ARU				pmax	pmax		
	comp=Z,44nm,0.6s,mb5.3						
GAMB	Gambell	76.48	24	*e*P	P	09 41 05.9	+1.7
QRN	Al-Qurain	77.07	299	*e*P	P	09 41 07.1	-1.1
QRN				AMb	AMB	09 41 09.6	
	comp=Z,220nm,0.8s,mb6.0						
KBD	Kabd	77.29	299	*e*P	P	09 41 08.6	-0.9
KBD				AMb	AMB	09 41 10.6	
	comp=Z,321nm,0.6s,mb6.2						
UMR	Umm Al-Rimmam	77.30	300	*e*P	P	09 41 08.5	-1.1
UMR				AMb	AMB	09 41 10.6	
	comp=Z,146nm,0.7s,mb5.8						
RDF	Al-Radifah	77.40	299	*e*P	P	09 41 09.0	-1.0
RDF				AMb	AMB	09 41 11.1	
	comp=Z,123nm,0.7s,mb5.8						
MIB	Mutribah	77.65	300	*e*P	P	09 41 10.4	-1.0
MIB				AMb	AMB	09 41 12.8	
	comp=Z,261nm,0.6s,mb6.2						
NAY	Al-Naaiem	77.69	299	*e*P	P	09 41 10.4	-1.3
NAY				AMb	AMB	09 41 12.6	
	comp=Z,85nm,0.9s,mb5.5						
FALS	False Pass	77.75	34	*e*P	P	09 41 12.5	+1.0
RST	Umm Al-Ruwaisa	77.92	299	*e*P	P	09 41 11.7	-1.2
RST				AMb	AMB	09 41 13.7	
	comp=Z,353nm,0.5s,mb6.3						
TNA	Tin City	78.64	23	*e*P	P	09 41 16.9	+0.8
SDPT	Sand Point	79.51	34	*e*P	P	09 41 21.8	+0.8
HAKT	HAKKARI	81.22	307	*i* P	P	09 41 30.6	+0.2
ZEI	Tsey	81.45	313	*e*P	P	09 41 31.5	0.0
ZEI				*i*	pP	09 42 39.4	-0.6
ZEI				*e*		09 44 40.5	
ZEI				pmax	pmax		
	comp=Z,35nm,0.6s,mb5.3						
MAW	Mawson	81.78	200	P	P	09 41 33.8	+1.2
	comp=Z,11nm,0.6s,mb4.8,baz=82,slow=5.4,SNR=21						
TUTA	Tutak	82.03	309	*i* P	P	09 41 35.3	+0.7
KIV	Kislovodsk	82.42	314	*e*P	P	09 41 35.9	-0.6
	comp=Z,21nm,0.8s,mb4.9						
KIV	Kislovodsk	82.42	314	*i* P	P	09 41 35.7	-0.8
KIV				pmax	pmax		
	comp=Z,19nm,0.6s,mb5.0						
VNDA	Vanda	82.44	172	*e*P	P	09 41 37.0	+1.1
VNDA	Vanda	82.44	172	P	P	09 41 37.0	+1.0
	comp=Z,7.6nm,0.6s,mb4.6,baz=309,slow=6.9,SNR=29						
SVW2	Sparrevohn	83.00	29	*e*P	P	09 41 39.7	+0.6
ERZM	Erzurum	83.17	310	*i* P	P	09 41 41.5	+1.0
MARD	Mardin	83.53	307	*i* P	P	09 41 42.3	0.0
VRHR	Novokhopersk	83.63	321	*e*P	P	09 41 41.5	-1.0
VRHR				pmax	pmax		
	comp=Z,90nm,0.4s,mb6.0						
VRHR				pmax	pmax		
	comp=N,60nm,0.5s						
VRHR				pmax	pmax		
	comp=E,70nm,0.6s						
KDAK	Kodiak Island	84.17	32	P	P	09 41 46.9	+1.8
	comp=E,301nm,0.6s,mb6.3,SNR=19						
KDAK	Kodiak Island	84.17	32	*e*P	P	09 41 46.2	+1.2
IMA2	Indian Mountai	84.46	24	*e*P	P	09 41 47.8	+1.4
VORD	Divnogorie	85.09	321	*e*P	P	09 41 48.8	-1.0
VORD				pmax	pmax		
	comp=Z,70nm,0.6s,mb5.7						
VORD				pmax	pmax		
	comp=N,30nm,0.5s						
VORD				pmax	pmax		
	comp=E,10.0nm,0.5s						
VRSR	Storozhevoye	85.17	321	*d i*P	P	09 41 49.0	-1.2
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
VRSR				pmax	pmax		
	comp=N,3.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.8s						
MALT	Malatya	85.42	308	*e*P	P	09 41 51.8	+0.1
	comp=E,21nm,0.8s,mb5.0						
MALT	Malatya	85.42	308	*e*P	P	09 41 51.8	+0.1
MALT				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.0						
MALT	Malatya	85.42	308	⇑*i*P	P	09 41 52.5	+0.8
SLKM	Skilak Lake	85.56	30	*e*P	P	09 41 52.0	0.0
GZT	Gaziantep	86.09	307	*i* P	P	09 41 55.2	+0.1
ANN	Anapa	86.21	315	*e*P	P	09 41 54.1	-1.3
ANN				*e**PP	pP	09 43 06.5	+1.8
ANN				*e*S	S	09 51 50.6	-15
ANN				pmax	pmax		
	comp=Z,126nm,0.8s,mb5.8						
MOS	Moscow	86.24	326	*e*P	P	09 41 53.9	-1.4
MOS				pmax	pmax		
	comp=Z,96nm,0.7s,mb5.7						
TMCR	Tamitsa	86.28	334	*e*P	P	09 41 51.8	-3.5
TMCR				*e**PP	pP	09 43 01.6	-3.0
MCK	McKinley	86.31	26	*e*P	P	09 41 55.7	+0.2
OBN	Obninsk	86.83	325	*e*P	P	09 41 57.5	-0.7
OBN	Obninsk	86.83	325	κ*e*P	P	09 41 57.0	-1.2
OBN				*e*		09 51 55.4	
OBN				*e*		09 52 08.3	
OBN				pmax	pmax		
	comp=Z,92nm,1.4s,mb5.4						
KMBO	Kilima Mbogo	87.29	269	P	P	09 42 02.3	+0.9
	comp=Z,19nm,0.9s,mb4.9,baz=51,slow=9.2,SNR=40						
APA	Apatity	88.19	337	⇓*i*P	P	09 42 03.0	-1.3
APA				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.0						
SIM	Simferopol'	88.57	315	*e*P	P	09 42 05.6	-1.0
SIM				pmax	pmax		
	comp=Z,47nm,0.6s,mb5.5						
BR131	Keskin Array S	89.12	310	*e*P	P	09 42 07.9	-1.4
	comp=Z,2.9nm,0.4s,mb4.5						
BRTR	Keskin Array B	89.12	310	P	P	09 42 08.0	-1.4
	comp=Z,4.0nm,0.7s,mb4.3,baz=116,slow=3.9,SNR=14						
BRTR				PP	PP	09 45 44.8	+0.8
	comp=Z,1.3nm,0.8s,baz=103,slow=9.0,SNR=4.1						
JOF	Joensuu	89.31	333	*e*p	P	09 42 06.9	-2.8
	comp=Z,41nm,0.6s,mb5.4						
EGAK	Eagle	89.67	25	*e*P	P	09 42 10.5	-0.8
	comp=Z,2.5nm,0.8s,mb4.1						
KEV	Kevo	90.33	340	*e*p	P	09 42 11.7	-2.6
	comp=Z,1.7nm,0.4s,mb4.2						
KEV	Kevo	90.33	340	*e*P	P	09 42 11.7	-2.6
KEV				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.3						
SYO	Syowa Base	90.42	201	⇑*e*P	P	09 42 14.0	-0.7
DAWY	Dawson	90.51	26	*e*P	P	09 42 16.0	+0.7
ARCES	ARCESS Array B	90.88	340	P	P	09 42 15.8	-1.1
	comp=Z,15nm,0.6s,mb5.0,baz=92,slow=5.1,SNR=75						
ARCES				PKiKP	PKiKP	09 47 08.2	-0.2
	comp=Z,0.6nm,0.4s,baz=113,slow=1.5,SNR=5.4						
ARCES				PKKP	PKKPbc	09 59 39.7	-4.0
	comp=Z,4.3nm,1.0s,baz=319,slow=3.5,SNR=4.0						
ARE0	ARCESS Array S	90.88	340	*e*P	P	09 42 16.0	-0.8
SPB4	Spitsbergen Ar	91.31	349	*e*P	P	09 42 18.4	-0.4
AKASG	Malin Array Be	91.48	321	P	P	09 42 18.5	-1.5
	comp=Z,4.2nm,0.4s,mb4.6,baz=70,slow=4.4,SNR=20						
KIEV	Kiev	91.49	321	*e*P	P	09 42 18.6	-1.5
	comp=Z,18nm,1.1s,mb4.8						
KIEV	Kiev	91.49	321	*e*P	P	09 42 18.6	-1.5
KIEV				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.8						
KAF	Kangasniemi	91.70	332	*e*p	P	09 42 18.5	-2.3
	comp=Z,16nm,0.4s,mb5.3,baz=77,slow=4.2						
KAF	Kangasniemi	91.70	332	*e*P	P	09 42 18.5	-2.3
KAF				pmax	pmax		
	comp=Z,16nm,0.4s,mb5.3						
FIA1	FINESS Array S	91.91	332	*e*P	P	09 42 20.3	-1.4
FINES	FINESS Array B	91.91	332	P	P	09 42 20.3	-1.4
	comp=Z,11nm,0.6s,mb5.0,baz=72,slow=6.2,SNR=44						
FINES				PKiKP	PKiKP	09 47 10.6	+0.2
	comp=Z,0.9nm,0.6s,baz=104,slow=3.9,SNR=3.8						
INK	Inuvik	92.17	21	*e*P	P	09 42 23.1	+0.2
	comp=Z,415nm,1.1s,mb6.3						
QSPA	South Pole Qui	92.35	180	*e*P	P	09 42 24.4	+1.0
	comp=Z,8.6nm,0.6s,mb4.9						
ULDT	Uludag	92.55	310	*i* P	P	09 42 23.6	-1.6
VRI	Vrincioaia	93.68	316	⇓*i*P	P	09 42 30.4	+0.1
MLR	Muntele Rosu	94.27	316	⇑*i*P	P	09 42 32.7	-0.3
BURAR	Bucovina Array	94.47	318	⇓*i*P	P	09 42 33.8	0.0
SUW	Suwalki	94.68	325	*e*P	P	09 42 34.2	-0.4
KWP	Kalwaria	95.78	320	*e*P	P	09 42 39.5	-0.2
KOLS	Kolonicke sedl	96.19	320	*e*P	P	09 42 41.6	0.0
UZH	Uzhgorod	96.23	319	*e*P	P	09 42 38.0	-3.8
DRGR		96.29	317	⇑*i*P	P	09 42 41.0	-1.1
VTS	Vitosha	96.66	313	⇓*i*P	P	09 42 42.6	-1.3
CRVS	Cervenica-Dubn	96.72	320	*e*P	P	09 42 43.8	-0.2
LSZ	Lusaka	96.72	255	*e*P	P	09 42 43.8	-0.9
	comp=Z,4.8nm,0.6s,mb4.9						
LSZ	Lusaka	96.72	255	*e*P	P	09 42 43.8	-0.9
LSZ				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.9						
STHS	Stebnicka Huta	96.75	320	*e*P	P	09 42 44.2	0.0
	comp=Z,7.0nm,0.7s,mb5.0						
STHS	Stebnicka Huta	96.75	320	*e*P	P	09 42 44.2	0.0
STHS				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.0						
KECS	Kecovo	97.44	319	*e*P	P	09 42 46.7	-0.6
	comp=Z,4.8nm,0.8s,mb4.8						
KECS	Kecovo	97.44	319	*e*P	P	09 42 46.7	-0.6
KECS				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
OJC	Ojcow	97.50	321	*e*P	P	09 42 47.0	-0.5
VYHS	Vyhne	98.50	320	*e*P	P	09 42 51.5	-0.5
	comp=Z,2.2nm,1.0s,mb4.4						
VYHS	Vyhne	98.50	320	*e*P	P	09 42 51.5	-0.5
VYHS				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.4						
VYHS	Vyhne	98.50	320	PDIF	P	09 42 51.5	-0.5
NOA	NORSAR Array B	98.94	333	P	Pdif	09 42 51.9	-1.9
	comp=Z,5.6nm,0.8s,baz=69,slow=4.5,SNR=17						
MORC	Moravsky Berou	99.02	321	⇑*i*P	Pdif	09 42 52.7	-1.5
LBTB	Lobatse	99.09	245	*e*Pdif	Pdif	09 42 55.7	+1.2
	comp=Z,3.4nm,0.8s						
LBTB	Lobatse	99.09	245	*e*P	Pdif	09 42 55.7	+1.2
LBTB				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.7						
BOSA	Boshof	99.27	242	P	Pdif	09 42 55.9	+0.6
BOSA	Boshof	99.27	242	P	Pdif	09 42 55.9	+0.6
	comp=Z,1.7nm,0.6s,baz=105,slow=5.4,SNR=5.8						
KONO	Kongsberg	100.21	332	*e*P	Pdif	09 42 58.0	-1.5
BRG	Berggiesshubel	100.93	323	*e*P	Pdif	09 43 03.0	+0.3
BRG				pmax	pmax		
	comp=Z,5.0nm,1.2s						
BRG	Berggiesshubel	100.93	323	*e*P	Pdif	09 43 03.0	+0.3
	comp=Z,8.9nm,1.2s						
CLL	Collm	101.36	323	*e*PP	PP	09 47 21.0	+3.2
YKA	Yellowknife Ar	101.59	24	P	Pdif	09 43 05.4	-0.2
	comp=Z,0.7nm,0.7s,baz=300,slow=4.7,SNR=15						
YKA				PKiKP	PKiKP	09 47 27.4	0.0
	comp=Z,0.3nm,0.4s,baz=304,slow=1.7,SNR=9.5						
YKA				PKKPbc	PKKPbc	09 59 10.4	-4.2
	comp=Z,0.7nm,0.4s,baz=122,slow=3.5,SNR=24						

GERES	GERESS Array B	101.69	321	P	Pdif	09 43 04.6	-1.5
	comp=Z,0.5nm,0.5s,baz=76,slow=5.6,SNR=4.5						
GERES				PP	PP	09 47 23.3	+2.9
	comp=Z,0.7nm,0.6s,baz=54,slow=6.8,SNR=6.0						
GRF	Grafenberg Arr	102.96	322	ePP	PP	09 47 33.8	+4.0
LPG	La Plagne	107.29	319	ePP	PP	09 48 00.2	-1.5
	comp=Z,58nm,1.4s						
LPL	La Plagne	107.29	319	ePP	PP	09 47 59.7	-2.0
	comp=Z,46nm,1.1s						
NVAR	Mina Array Bea	109.42	48	PKPdf	PKiKP	09 47 43.3	+0.6
NVAR				PKKPbc	PKKPbc	09 58 48.7	-1.2
NVAR				PKKPab	PKKPab	09 59 01.6	-0.7
NVAR	Mina Array Bea	109.42	48	PKiKP	PKiKP	09 47 43.3	+0.6
	comp=Z,0.7nm,0.6s,baz=239,slow=1.7,SNR=6.5						
NVAR				PKKPbc	PKKPbc	09 58 48.7	-1.2
	comp=Z,0.7nm,0.8s,baz=129,slow=5.3,SNR=4.9						
NVAR				PKKPab	PKKPab	09 59 01.6	-0.7
	comp=Z,1.0nm,0.6s,baz=106,slow=5.1,SNR=8.8						
PDAR	Pinedale Array	113.79	41	PKKPbc	PKKPbc	09 58 33.0	-2.7
	comp=Z,0.6nm,0.6s,baz=112,slow=6.0,SNR=4.4						
PDAR				PKKPab	PKKPab	09 58 41.8	-1.1
	comp=Z,1.6nm,0.6s,baz=125,slow=7.4,SNR=13						
DGMT	Dagmar	114.04	33	ePKPdf	PKiKP	09 47 48.8	-2.3
TMUT	Trail Mountain	114.22	45	ePKPdf	PKiKP	09 47 53.0	+1.2
PV10	Paradox Valley	116.14	45	ePKPdf	PKPdf	09 47 56.5	+1.0
PV01	Paradox Valley	116.58	45	ePKPdf	PKPdf	09 47 57.3	+0.9
MVCO	Mesa Verde	117.05	46	ePKPdf	PKPdf	09 47 59.4	+2.1
ULM	Lac du Bonnet	117.15	28	PKP	PKPdf	09 47 56.5	-0.6
ULM	Lac du Bonnet	117.15	28	PKP	PKPdf	09 47 56.5	-0.6
	comp=Z,1.9nm,0.6s,baz=284,slow=2.1,SNR=6.0						
MDT	Midelt	120.53	311	PKP	PKPdf	09 48 04.3	+0.1
MDT	Midelt	120.53	311	PKP	PKPdf	09 48 04.3	+0.2
	comp=Z,3.3nm,0.7s,baz=63,slow=1.6,SNR=8.7						
ECSD	EROS,Sioux Fal	121.11	34	ePKPdf	PKPdf	09 48 05.2	+0.3
ECSD				epPKPdf	pPKPdf	09 49 17.8	-0.6
TORD	Torodi Ar. Bea	121.18	287	PKP	PKPdf	09 48 05.4	-0.4
TORD				PP	PP	09 49 42.3	+1.9
TORD	Torodi Ar. Bea	121.18	287	PKP	PKPdf	09 48 05.4	-0.4
	comp=Z,8.1nm,0.7s,baz=43,slow=1.7,SNR=7.4						
TORD				PP	PP	09 49 42.3	+1.9
	comp=Z,4.4nm,1.1s,baz=59,slow=5.0,SNR=5.4						
SCHQ	Schefferville	122.17	8	PKP	PKPdf	09 48 07.2	+0.6
SCHQ				PKKPbc	PKKPbc	09 58 03.4	-3.1
SCHQ	Schefferville	122.17	8	PKP	PKPdf	09 48 07.2	+0.6
	comp=Z,9.1nm,0.5s,baz=334,slow=1.5,SNR=44						
SCHQ				PKKPbc	PKKPbc	09 58 03.4	-3.1
	comp=Z,1.8nm,1.0s,baz=255,slow=16,SNR=4.4						
KSU1	Kansas State U	124.01	38	ePKPdf	PKPdf	09 48 11.3	+0.7
TXAR	Lajitas Array	124.15	52	PKP	PKPdf	09 48 12.4	+1.3
TXAR				SKPbc		09 50 58.0	
TXAR				PKKPbc	PKKPbc	09 57 57.4	-0.5
TXAR	Lajitas Array	124.15	52	PKIKP	PKPdf	09 48 12.4	+1.2
TXAR	Lajitas Array	124.15	52	PKP	PKPdf	09 48 12.4	+1.3
	comp=Z,1.3nm,0.7s,baz=238,slow=0.5,SNR=20						
TXAR				SKPbc		09 50 58.0	
	comp=Z,0.6nm,0.8s,baz=296,slow=2.5,SNR=3.5						
TXAR				PKKPbc	PKKPbc	09 57 57.4	-0.5
	comp=Z,0.4nm,0.5s,baz=128,slow=5.2,SNR=26						
JFWS	Jewell Farm	125.06	31	ePKPdf	PKPdf	09 48 12.4	-0.1
JFWS	Jewell Farm	125.06	31	ePKIKP	PKPdf	09 48 12.4	-0.1
JCT	Junction City	126.59	49	ePKPdf	PKPdf	09 48 16.4	+0.6
JCT	Junction City	126.59	49	ePKIKP	PKPdf	09 48 16.4	+0.6
KIC	Kosan Boka	128.57	280	ePKIKP	PKPdf	09 48 20.6	+0.6
	comp=Z,71nm,0.6s						
TIC	Toumodi	128.80	280	ePKIKP	PKPdf	09 48 21.0	+0.5
	comp=Z,81nm,0.9s						
LIC	Lamto	128.87	280	⇑iPKIKP	PKPdf	09 48 21.2	+0.6
	comp=Z,32nm,0.6s						
LIC	Lamto	128.87	280	ePKIKP	PKPdf	09 48 21.0	+0.4
	comp=Z,26nm,0.4s						
LIC	Lamto	128.87	280	⇑iPKPdf	PKPdf	09 48 21.2	+0.6
MSNY	Massena	129.72	18	ePdif	Pdif	09 45 11.6	+0.9
TGUH	Tegucigalpa,Un	144.50	62	ePKPbc	PKPdf	09 48 49.1	-0.2
LCO	Las Campanas	149.87	153	ePKPbc	PKPbc	09 49 04.1	+1.2
ROSC	El Rosal	159.84	69	PKP	PKPdf	09 49 13.1	+1.2
ROSC	El Rosal	159.84	69	PKP	PKPdf	09 49 13.1	+1.2
	comp=Z,3.8nm,0.4s,baz=100,slow=22,SNR=3.8						
LPAZ	La Paz	161.45	139	PKP	PKPdf	09 49 15.4	+2.0
LPAZ				SKP		09 52 24.6	
LPAZ	La Paz	161.45	139	PKIKP	PKPdf	09 49 15.5	+2.1
LPAZ	La Paz	161.45	139	PKP	PKPdf	09 49 15.4	+2.0
	comp=Z,3.6nm,0.9s,baz=4.1,slow=0.3,SNR=12						
LPAZ				SKP		09 52 24.6	
	comp=Z,0.8nm,0.6s,baz=270,slow=1.0,SNR=2.5						

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*ISCJB **28** 09:59:22.8±0.8,6473N±003×307E±0.1,h0^{km},Error ellipse: s-maj=9.2km s-min=4.5km az=176.5*
*HEL **28** 09:59:24.4±0.1,6469N×3071E,h0^{km},ML2.2,Explosion*
*IDC **28** 09:59:24.9±2.4,6470N×3128E,h0^{km},mb1 3.2/4, mb1mx3.0/21,mbtmp3.1/4,ML2.3/4,Error ellipse: s-maj=31.8km s-min=7.9km az=100.0*
ISC 28 09:59:23.7±0.8,**6472N**±003×**307E**±02,**h0**^{km},**n11, σ1^{s}10**/18,**Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KU6	Riekki	1.35	346	eP	Pg	09 59 49.3	-0.3
KU6				eS	Sg	10 00 06.2	-0.8
MSF	Maaselka	1.38	330	eP	Pg	09 59 49.7	-0.5
MSF				eS	Sg	10 00 08.1	0.0
KJN	Kajaani	1.45	245	eP	Pn	09 59 50.1	-1.1
KJN				eS	Sg	10 00 07.7	-2.6
JOF	Joensuu	1.83	171	eP	Pn	09 59 56.2	-0.2
JOF				eS	Sn	10 00 19.2	-1.0
OUL	Oulu	2.08	282	eP	Pn	10 00 00.9	+1.0
OUL				eS	Sn	10 00 27.1	+0.7
OUL				MSG		10 00 30.8	
	comp=Z,14nm,0.1s						
SUF	Sumiainen	2.86	227	eP	Pn	10 00 12.3	+1.8
KAF	Kangasniemi	3.29	219	MSG		10 01 08.9	
	comp=Z,6.3nm,0.1s						
FINES	FINESS Array B	3.91	215	Pn	Pn	10 00 26.1	+1.2
	comp=Z,0.1nm,0.3s,baz=40,slow=15,SNR=3.1						
FINES				Pg	Pg	10 00 35.3	-3.2
	comp=Z,0.2nm,0.3s,baz=41,slow=14,SNR=8.3						
FINES				Sn	Sn	10 01 15.9	+4.5
	comp=Z,0.1nm,0.3s,baz=29,slow=18,SNR=2.7						
FINES				Lg		10 01 29.6	
	comp=Z,0.5nm,0.3s,baz=30,slow=31,SNR=5.5						
ARCES	ARCESS Array B	5.24	340	Pn	Pn	10 00 43.5	+0.4
	comp=Z,0.2nm,0.3s,baz=151,slow=12,SNR=18						
ARCES				Sn	Sn	10 01 44.2	+0.1
	comp=Z,0.2nm,0.3s,baz=154,slow=25,SNR=2.7						
ARCES				Lg		10 02 10.4	
	comp=Z,0.4nm,0.3s,baz=150,slow=29,SNR=6.0						
HFS	Hagfors	9.12	248	Pn	Pn	10 01 37.9	+1.5
	comp=Z,0.1nm,0.3s,baz=50,slow=14,SNR=3.4						
NOA	NORSAR Array B	9.62	256	Pn	Pn	10 01 42.9	-0.3
	comp=Z,0.1nm,0.3s,baz=53,slow=21,SNR=2.7						

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*IDC **28** 10:00:44.2±0.6,088N×12599E,h0^{km},mb4.2/10, mb1 4.3/11,mb1mx4.2/18,mbtmp4.2/11,ML3.7/1,MS3.9/3, Ms1 3.9/3,ms1mx3.3/25,Error ellipse: s-maj=34.0km s-min=13.6km az=75.0*
*ISCJB **28** 10:00:45.7±4.6,082N±007×126.1E±0.1,h20^{km}±33^{km}, mb4.4/15,MS4.0/3,Error ellipse: s-maj=26.1km s-min=9.4km az=161.7*
*NEIC **28** 10:00:45.9±0.5,090N×12628E,h10^{km},mb4.7/6,Error ellipse: s-maj=19.8km s-min=10.2km az=69.0*
ISC 28 10:00:50.1±3.4,**083N**±009×**1263E**±01,**h38**^{km}±34^{km},**n32, σ1^{s}33**/26,**mb4.4**/15,**MS4.0**/3,**2C,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSM	Kuching	15.95	272	eP	Pn	10 04 34.1	+2.2
FITZ	Fitzroy Crossi	18.82	182	P	Pn	10 05 05.9	-1.6
	0.2nm,0.3s,baz=32,slow=9.4,SNR=6.7						
WRA	Warramunga Arr	22.11	159	P	P	10 05 41.9	-0.5
	9.3nm,0.6s,mb4.4,baz=338,slow=11,SNR=86						
WRA				S	S	10 09 39.1	-5.0
	1.0nm,0.9s,baz=330,slow=18,SNR=2.8						
WB2	Warramunga Arr	22.12	159	⇑iP	P	10 05 41.9	-0.5
WB2				eP		10 05 42.3	
ASAR	Alice Springs	25.46	163	P	P	10 06 16.1	+1.5
	2.9nm,0.4s,mb4.2,baz=346,slow=12,SNR=42						
ASAR				PcP	PcP	10 09 46.8	+0.7
	0.4nm,0.6s,baz=345,slow=2.5,SNR=3.5						
PSI	Prapat	27.38	274	P	P	10 06 29.7	-2.5
PSI	Prapat	27.38	274	P	P	10 06 29.7	-2.5
	8.3nm,0.7s,mb4.4,baz=256,slow=7.6,SNR=3.8						
STKA	Stephens Creek	35.63	157	⇑iP	P	10 07 44.6	+0.2
	4.8nm,0.8s,mb4.5						
STKA				eP		10 07 44.7	
STKA	Stephens Creek	35.63	157	P	P	10 07 44.4	0.0
	4.4nm,0.6s,mb4.6,baz=320,slow=7.5,SNR=13						
KSRS	Korea Array	36.48	2	P	P	10 07 51.7	+0.2
	2.3nm,0.7s,mb4.2,baz=181,slow=11,SNR=9.3						
MJAR	Matsushiro Arr	37.22	16	P	P	10 07 57.2	-0.7
	1.5nm,0.7s,mb4.0,baz=184,slow=8.1,SNR=3.9						
HIA	Hailar	48.58	354	eP	P	10 09 30.6	+0.9
ULN	Ulaanbaatar	49.73	343	eP	P	10 09 41.5	+3.1
	3.8nm,1.0s,mb4.4						
SONM	Songino Array	49.89	343	P	P	10 09 37.7	-2.0
	1.2nm,0.8s,mb4.0,baz=179,slow=5.8,SNR=3.9						
SONM				LR	LR	10 32 07.1	
	comp=Z,65nm,18.8s,MS3.7,baz=27,slow=38						
MK31	Makanchi Array	59.67	326	eP	P	10 10 49.0	-1.5
MKAR	Makanchi Array	59.67	326	P	P	10 10 48.9	-1.7
	3.8nm,0.6s,mb4.6,baz=120,slow=7.1,SNR=28						
MKAR				LR	LR	10 35 47.9	
	comp=Z,68nm,18.2s,MS3.8,baz=238,slow=35						
TKM2	Tokmak 2	61.61	320	eP	P	10 11 04.4	+0.5
	5.0nm,0.9s,mb4.6						
MA2	Magadan	61.62	14	P	P	10 11 05.0	+1.4
UCH	Uchtor	62.00	319	eP	P	10 11 07.5	+1.0
AAK	Ala-Archa	62.20	319	eP	P	10 11 07.5	-0.3
AML	Almayashu	62.50	318	eP	P	10 11 10.9	+1.1
	7.5nm,0.9s,mb4.8						
ZALV	Zalesovo Beam	62.95	334	P	P	10 11 11.7	-0.9
	0.4nm,0.3s,mb4.0,baz=113,slow=6.9,SNR=4.5						
KURK	Kurchatov	63.93	328	eP	P	10 11 17.8	-1.4
	13nm,0.8s,mb5.0						
BRVK	Borovoye	69.56	328	eP	P	10 11 56.1	+1.1
	9.1nm,1.0s,mb4.7						
VNDA	Vanda	80.63	173	P	P	10 13 00.1	+1.8
	1.5nm,0.8s,mb4.0,baz=351,slow=9.0,SNR=3.1						
BOSA	Boshof	100.05	241	LR	LR	10 56 12.4	
	comp=Z,134nm,18.3s,MS4.5,baz=332,slow=33						
ULM	Lac du Bonnet	117.72	29	PKP	PKPdf	10 19 32.2	-0.1
ULM	Lac du Bonnet	117.72	29	PKP	PKPdf	10 19 32.2	-0.1
	0.9nm,0.7s,baz=268,slow=1.8,SNR=3.0						
TORD	Torodi Ar. Bea	123.31	286	PKP	PKPdf	10 19 42.4	-1.7
TORD	Torodi Ar. Bea	123.31	286	PKP	PKPdf	10 19 42.4	-1.7
	0.5nm,0.8s,baz=61,slow=1.4,SNR=2.8						
TXAR	Lajitas Array	123.72	53	PKP	PKPdf	10 19 45.5	+0.9
TXAR	Lajitas Array	123.72	53	PKP	PKPdf	10 19 45.5	+0.9
	0.2nm,0.6s,baz=29,slow=2.9,SNR=3.6						

CASC 28 10:08:09.8±2.5,**1369N**×**9098W**,**h33**^{km}±9^{km},**MD3.8, 1C-2D,Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUG	Fuego 3	0.77	10	⇓iP	Pn	10 08 24.5	+0.1
PCG	Pacaya	0.79	27	⇓iP	Pn	10 08 25.1	+0.4
JAT	Jato	0.89	315	⇑eP	Pn	10 08 27.6	+1.5
RTR	El Retiro	1.32	81	eP	x	10 08 55.6	
RTR				eS	x	10 09 14.7	
SBLS	San Blas	1.33	83	eP	x	10 08 56.4	
SBLS				eS	x	10 09 14.9	
SNJE	San Jose	1.35	82	eP	x	10 08 56.2	
SNJE				eS	x	10 09 15.4	
BOQS	Boqueron	1.66	88	eP	x	10 09 00.7	
BOQS				eS	x	10 09 21.9	
SNET	Serv Nac Est T	1.70	90	eP	x	10 08 36.4	
SNET				eS	x	10 08 57.8	
LFRS	El Faro	1.87	92	eP	x	10 09 03.6	
LFRS				eS	x	10 09 26.1	
LCBS	La Ceiba	1.95	91	eP	x	10 09 04.9	
LCBS				eS	x	10 09 28.6	
SNVI	San Vicente	2.09	92	eP	x	10 09 06.8	
SNVI				eS	x	10 09 31.7	
CNCH	Conchagua	3.09	97	eP	x	10 09 20.1	
CNCH				eS	x	10 09 57.0	

IDC 28 10:43:54.1±1.7,**095N**×**12613E**,**h0**^{km},**mb3.8**/4,**mb1 4.0**/4, **mb1mx3.7**/15,**mbtmp3.8**/4,**Error ellipse: s-maj=170.7km s-min=22.2km az=64.0,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.27	159	P	P	10 48 52.7	-0.3
	4.1nm,0.9s,baz=338,slow=11,SNR=45						
ASAR	Alice Springs	25.61	163	P	P	10 49 25.9	+0.6
	1.0nm,0.3s,baz=347,slow=7.6,SNR=15						
STKA	Stephens Creek	35.79	157	P	P	10 50 54.8	-0.4
	1.2nm,0.7s,baz=353,slow=8.1,SNR=4.1						
MKAR	Makanchi Array	59.50	326	P	P	10 53 59.2	+0.1
	0.4nm,0.3s,baz=125,slow=7.8,SNR=12						

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*ISCJB **28** 10:47:39.8±0.4,3878N±002×12278W±003,h12^{km}±3^{km}, Error ellipse: s-maj=4.3km s-min=2.9km az=175.8*
*NEIC **28** 10:47:39.5,3881N×12279W,h2^{km},ML3.3(NCEDC), After NCEDC.*
NEIC Felt [V] at Middletown and [III] at Danville. Also felt at Alameda, Berkeley, Hayward, Healdsburg, Mill Valley, Napa, Oakland, Orinda, San Francisco, San Jose, San Mateo and San Ramon.
*IDC **28** 10:47:42.9±3.3,3887N×12256W,h0^{km},mb1 3.8/3, mb1mx3.4/22,mbtmp3.3/3,ML3.0/3,Error ellipse: s-maj=44.8km s-min=24.8km az=23.0*
ISC 28 10:47:39.8±0.4,**3878N**±002×**12283W**±004,**h12**^{km}±3^{km}, **n55,σ0^{s}97**/74,**27C-21D,Northern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOPS	Hopland	0.29	318	ePg	Pg	10 47 45.7	0.0
HOPS	Hopland	0.29	318	⇑P	Pg	10 47 45.7	-0.1
	baz=0.3,SNR=1000						
HOPS				⇑S	Sg	10 47 50.3	+0.5
	baz=0.3						
MNRC	McLaughlin Nat	0.32	72	P	Pg	10 47 45.8	-0.5
	baz=0.3,SNR=1000						
MNRC				⇓S	Sg	10 47 50.9	+0.3
	baz=0.3						
CVS	Carmenet Viney	0.52	146	⇓P	Pg	10 47 49.9	-0.1
	baz=0.5						
CVS				⇓S	Sg	10 47 57.6	+0.7
	baz=0.5						
MCCM	Marconi Confer	0.64	184	ePg	Pg	10 47 53.2	+1.0
MCCM				eSg	Sg	10 48 04.4	+3.8
MCCM	Marconi Confer	0.64	184	⇑P	Pg	10 47 53.2	+1.1
	baz=0.7						
MCCM				⇑S	Sg	10 48 01.4	+0.8
	baz=0.7						
Q03C	Winters	0.65	103	P	Pg	10 47 53.4	+0.9
	baz=0.6,SNR=1000						
P01C	Double 8 Ranch	0.80	330	⇓P	Pg	10 47 54.9	-0.3
	baz=0.8,SNR=170						
GASB	Alder Springs	0.87	5	⇓P	Pg	10 47 56.7	-0.1
	baz=0.9,SNR=343						
KCPM	Cahto Peak	1.08	327	ePg	Pg	10 48 01.0	+0.4
KCPM				eSg	Sg	10 48 20.2	+5.5
FARB	Farallon Islan	1.09	187	⇑P	Pb	10 47 59.6	-0.9
	baz=1.1						
FARB				⇓S	Sb	10 48 15.3	+0.7
	baz=1.1						
BDM	Black Diamond	1.12	137	⇓P	Pb	10 47 59.6	-1.4
	baz=1.1,SNR=209						
Q04C	Lincoln	1.13	87	⇑P	Pb	10 47 59.0	-2.3
	baz=1.1						
KIPM	Iron Peak	1.15	334	ePg	Pg	10 48 00.8	-1.1
KIPM				eSg	Sg	10 48 20.9	+4.1
OHCM	Honcut	1.18	62	ePg	Pg	10 47 59.0	-3.6
OHCM				eSg	Sg	10 48 17.4	-0.6
ORV	Oroville	1.29	53	⇓P	Pn	10 48 01.7	-1.9
	baz=1.2						
O03C	Acorn Hollow,	1.36	27	⇓P	Pn	10 48 03.6	-1.0
	baz=1.3						
O03C				⇓S	Sb	10 48 21.6	-0.9
	baz=1.3						
O02C	Red Bluff	1.40	1	⇑P	Pn	10 48 04.7	-0.4
	baz=1.4,SNR=143						
WENL	Wente Brothers	1.43	144	⇓P	Pn	10 48 05.1	-0.4
	baz=1.4,SNR=12						
JRSC	Jasper Ridge	1.45	161	⇑P	Pn	10 48 04.4	-1.4
	baz=1.5,SNR=53						
JRSC				⇑S	Sn	10 48 25.2	+0.5
	baz=1.5						
R04C	Big Horse Ranc	1.57	109	⇑P	Pn	10 48 05.6	-1.8
	baz=1.5						
BNLO	Ben Lomond (Sa	1.72	162	P	Pn	10 48 08.8	-0.8
	baz=1.7,SNR=7.7						
S04C	Ingram Canyon,	1.74	137	⇓P	Pn	10 48 08.9	-0.8
	baz=1.7,SNR=26						
P05C	Yuba Gap, Truc	1.80	72	⇓P	Pn	10 48 09.4	-1.3
	baz=1.8						
WDC	Whiskeytown Da	1.81	7	ePn	Pn	10 48 11.4	+0.6
WDC				eSg	Sg	10 48 41.1	+3.0
WDC	Whiskeytown Da	1.81	7	⇑P	Pn	10 48 10.1	-0.7
	baz=1.8						
O05C	Quincy	1.89	51	⇑P	Pn	10 48 10.8	-1.1
	baz=1.9						
O04C	Chester	2.04	41	⇓P	Pn	10 48 12.8	-1.2
	baz=2.0,SNR=23						
CMB	Columbia Colle	2.06	110	ePn	Pn	10 48 13.8	-0.3
CMB	Columbia Colle	2.06	110	⇑P	Pn	10 48 13.8	-0.4
	baz=2.0,SNR=22						
CMB				⇑S	Sn	10 48 39.4	-0.3
	baz=2.0						
N02C	Big Bar	2.07	350	⇑Pb	Pb	10 48 17.2	-0.2
	baz=2.1						
PACP	Pacheco Peak	2.15	145	⇑P	Pn	10 48 14.9	-0.4
	baz=2.2						
R05C	Kirkwood Meado	2.15	91	⇑P	Pn	10 48 15.2	-0.2
	baz=2.1,SNR=120						
R05C				⇑S	Sn	10 48 42.4	+0.4
	baz=2.1						
BEKR	Beckwourth	2.20	60	⇓P	Pn	10 48 16.5	+0.4
	baz=2.2,SNR=57						
BEKR				⇓S	Sn	10 48 44.1	+0.9
	baz=2.2						
SAO	San Andreas Ge	2.29	151	ePn	Pn	10 48 16.8	-0.6
HATC	Hat Creek Radi	2.29	27	⇑P	Pn	10 48 18.1	+0.8
	baz=2.3						
S05C	Merced	2.44	125	⇑P	Pn	10 48 18.7	-0.6
	baz=2.4,SNR=11						
S05C				⇑S	Sn	10 48 50.0	+1.0
	baz=2.4						
P06A	Stead Airport,	2.44	68	⇑P	Pn	10 48 20.2	+0.7
	baz=2.4,SNR=8.5						
WCN	Washoe City	2.45	77	⇑P	Pn	10 48 20.1	+0.6
	baz=2.4,SNR=103						
T05C	Eagle Field, D	2.54	137	⇑S	Sn	10 48 51.5	0.0
	baz=2.5						
R06C	Coleville	2.66	94	⇑P	Pn	10 48 24.0	+1.6
	baz=2.6,SNR=73						
O06A	Flanigan	2.70	58	⇑P	Pn	10 48 24.2	+1.2
	baz=2.7						
YBH	Yreka Blue Hor	2.95	2	ePn	Pn	10 48 29.6	+3.1
M06C	Likely Place G	3.02	36	⇑P	Pn	10 48 28.2	+0.8
	baz=3.0						
T06C	Millerton Lake	3.04	125	⇓P	Pn	10 48 28.0	+0.4
	baz=3.0,SNR=11						
T06C				⇓S	Sn	10 49 04.6	+0.8
	baz=3.0						
KCC	Kaiser Creek	3.13	117	⇓P	Pn	10 48 29.7	+0.8
	baz=3.1						
O07A	Toulon	3.35	64	P	Pn	10 48 32.6	+0.7
	baz=3.3,SNR=7.9						
PKD	Parkfield	3.36	147	⇓P	Pn	10 48 32.4	+0.3
	baz=3.4						
NVAR	Mina Array Bea	3.56	94	Pn	Pn	10 48 35.6	+0.8
NVAR				Pg	Pg	10 48 43.1	-4.9
NVAR				Lg		10 49 27.3	
NVAR	Mina Array Bea	3.56	94	Pn	Pn	10 48 35.6	+0.8
	0.7nm,0.3s,baz=268,slow=16,SNR=20						
NVAR				Pg	Pg	10 48 43.1	-4.9
	3.5nm,0.3s,baz=261,slow=17,SNR=41						
NVAR				Lg		10 49 27.3	
	1.8nm,0.3s,baz=252,slow=20,SNR=2.7						
N07B	Gerlach	3.58	55	⇓P	Pn	10 48 36.0	+0.9
	baz=3.5						
MTUM	Tungsten Hills	3.65	112	Pn	Pn	10 48 31.3	-4.7
MOD	Modoc	3.67	31	ePn	Pn	10 48 37.5	+1.2
PDAR	Pinedale Array	10.82	64	Pn	Pn	10 50 19.2	+4.8
	0.0nm,0.3s,baz=246,slow=11,SNR=6.9						
TXAR	Lajitas Array	18.43	115	P	Pn	10 51 59.2	+4.2
	0.0nm,0.3s,baz=297,slow=8.3,SNR=9.0						

IDC 28 10:47:44.1±1.7,**5154S**×**13901E**,**h0**^{km},**mb3.6**/2, **mb1 3.8**/3,**mb1mx3.7**/9,**mbtmp3.6**/3,**ML3.8**/1,**MS3.8**/8, **Ms1 3.8**/8,**ms1mx3.6**/19,**Error ellipse: s-maj=93.2km s-min=36.4km az=86.0,Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	19.73	7	P	Pn	10 52 16.2	-0.4
	0.2nm,0.3s,baz=179,slow=9.2,SNR=6.0						
STKA				LR	LR	10 58 19.1	
	comp=Z,272nm,20.7s,baz=204,slow=32						
RPZ	Rata Peaks	22.82	83	LR	LR	10 59 59.9	
	comp=Z,252nm,18.9s,baz=336,slow=32						
VNDA	Vanda	27.44	169	LR	LR	11 03 33.0	
	comp=Z,62nm,18.8s,baz=163,slow=35						
ASAR	Alice Springs	28.10	350	P	P	10 53 37.2	-0.1
	0.2nm,0.4s,baz=165,slow=10,SNR=4.3						
WRA	Warramunga Arr	31.74	352	P	P	10 54 09.4	-0.3
	1.4nm,0.8s,baz=174,slow=7.5,SNR=14						
CTA	Charters Tower	31.89	13	LR	LR	11 06 31.0	
	comp=Z,202nm,18.2s,baz=218,slow=35						
DZM	Mont Dzumac	36.29	46	LR	LR	11 06 09.9	
	comp=Z,133nm,18.0s,baz=176,slow=30						
MAW	Mawson	38.86	216	LR	LR	11 08 20.4	
	comp=Z,306nm,21.5s,baz=75,slow=32						
PMG	Port Moresby	42.53	12	LR	LR	11 11 42.8	
	comp=Z,155nm,18.1s,baz=339,slow=34						
AFI	Afiamalu	54.35	65	LR	LR	11 15 58.7	
	comp=Z,105nm,20.5s,baz=174,slow=31						
TXAR	Lajitas Array	129.12	91	PKP	PKPdf	11 06 53.5	-0.2
	0.2nm,0.7s,baz=192,slow=2.6,SNR=2.5						
ARCES	ARCESS Array B	144.95	326	PKP	PKPdf	11 07 20.2	-1.3
	1.0nm,0.7s,baz=62,slow=4.2,SNR=2.4						
GERES	GERESS Array B	145.57	288	PKPbc	PKPbc	11 07 23.4	0.0
	0.5nm,0.5s,baz=182,slow=6.7,SNR=4.9						

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*ATH **28** 10:53:29.6,4057N×2232E,h2^{km},MD3.6/9*
*ISCJB **28** 10:53:29.7±0.4,4051N±002×2234E±002,h3^{km}±4^{km}, Error ellipse: s-maj=3.5km s-min=3.0km az=145.4*
*SKO **28** 10:53:30.7,4051N×2234E,h4^{km}*
*THE **28** 10:53:30.2,4050N×2233E,h3^{km},ML3.7*
*NEIC **28** 10:53:30.4,4051N×2233E,h8^{km},MD3.6(ATH), ML3.7(THE),After THE.*
*CSEM **28** 10:53:30.3±0.1,4049N×2232E,h10^{km},ML3.7,Error ellipse: s-maj=2.0km s-min=1.3km az=176.0*
ISC 28 10:53:30.4±0.4,**4050N**±002×**2235E**±003,**h3**^{km}±4^{km},**n77, σ0^{s}86**/104,**8C-4D,Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIT	Litokhoron	0.41	164	P	Pg	10 53 38.3	+0.1
LIT	Litokhoron	0.41	164	ePg	Pg	10 53 38.3	+0.1
LIT	Litokhoron	0.41	164	ePg	Pg	10 53 38.3	+0.1
GRG	Griva	0.46	5	P	Pg	10 53 38.8	-0.4
GRG				S	Sg	10 53 46.0	+0.7
GRG	Griva	0.46	5	ePg	Pg	10 53 38.8	-0.4
GRG				eSg	Sg	10 53 46.0	+0.7
GRG	Griva	0.46	5	ePg	Pg	10 53 38.8	-0.4
GRG				eSg	Sg	10 53 46.0	+0.7
KZN	Kozani	0.48	247	ePg	Pg	10 53 39.2	-0.3
KZN				eSg	Sg	10 53 46.0	+0.3
KZN	Kozani	0.48	247	ePG	Pg	10 53 39.2	-0.3
KZN				eSG	Sg	10 53 46.0	+0.3
KZN	Kozani	0.48	247	ePg	Pg	10 53 39.2	-0.3
KZN				eSg	Sg	10 53 46.0	+0.3
THE	Thessaloniki	0.49	74	P	Pg	10 53 39.9	+0.1
THE	Thessaloniki	0.49	74	ePg	Pg	10 53 39.9	+0.1
THE				eSg	Sg	10 53 47.0	+0.9
THE	Thessaloniki	0.49	74	ePg	Pg	10 53 39.9	+0.1
THE				eSg	Sg	10 53 47.0	+0.8
HORT	Hortiatis	0.58	80	P	Pg	10 53 41.7	+0.2
HORT	Hortiatis	0.58	80	ePg	Pg	10 53 41.7	+0.2
HORT				eSg	Sg	10 53 50.1	+1.0
HORT	Hortiatis	0.58	80	ePg	Pg	10 53 41.7	+0.1
HORT				eSg	Sg	10 53 50.2	+1.1
KNT	Kendrikon	0.79	32	P	Pg	10 53 45.1	-0.3
KNT	Kendrikon	0.79	32	ePg	Pg	10 53 45.1	-0.3
KNT	Kendrikon	0.79	32	ePg	Pg	10 53 45.2	-0.2
FNA	Florina	0.79	292	ePg	Pg	10 53 44.9	-0.6
FNA	Florina	0.79	292	ePg	Pg	10 53 44.9	-0.6
SOH	Sokhos	0.83	67	P	Pg	10 53 46.2	-0.1
SOH	Sokhos	0.83	67	ePg	Pg	10 53 46.2	-0.1
SOH				eSg	Sg	10 53 58.5	+1.4

SOH	**Sokhos**	**0.83**	**67**	*e*Pg	**Pg**	**10 53 46.2**	**-0.1**
SOH				*e*Sg	**Sg**	**10 53 58.5**	**+1.4**
VAY	**Valandovo**	**0.84**	**12**	*i* Pg	**Pg**	**10 53 44.9**	**-1.6**
VAY				*e*Sg	**Sg**	**10 53 56.5**	**-0.9**
PLG	**Polygyros**	**0.85**	**98**	*e*Pb	**Pb**	**10 53 46.4**	**-1.3**
PLG				*e*Sg	**Sg**	**10 53 58.0**	**+0.4**
PLG	**Polygyros**	**0.85**	**98**	*e*Pg	**Pg**	**10 53 46.3**	**-0.3**
PLG	**Polygyros**	**0.85**	**98**	*e*PB	**Pb**	**10 53 46.4**	**-1.3**
PLG				*e*SG	**Sg**	**10 53 58.0**	**+0.4**
PLG	**Polygyros**	**0.85**	**98**	*e*Pg	**Pg**	**10 53 46.3**	**-0.3**
PLG				*e*Sg	**Sg**	**10 53 58.0**	**+0.4**
BIA	**Bitola**	**0.94**	**304**	P	**Pg**	**10 53 47.4**	**-0.9**
BIA	**Bitola**	**0.94**	**304**	*e*Pg	**Pg**	**10 53 47.4**	**-0.9**
BIA	**Bitola**	**0.94**	**304**	*i* Pg	**Pg**	**10 53 47.1**	**-1.2**
BIA	**Bitola**	**0.94**	**304**	*e*Pg	**Pg**	**10 53 47.4**	**-0.9**
THL	**Klokotos Trika**	**0.96**	**195**	*e*PB	**Pb**	**10 53 48.9**	**-0.8**
THL				*e*SG	**Sg**	**10 54 03.2**	**+1.9**
THL	**Klokotos Trika**	**0.96**	**195**	*e*Pb	**Pb**	**10 53 48.9**	**-0.8**
THL				*e*Sg	**Sg**	**10 54 03.2**	**+1.9**
PAIG	**Paliouri**	**1.17**	**119**	P	**Pg**	**10 53 51.7**	**-1.1**
PAIG	**Paliouri**	**1.17**	**119**	*e*Pg	**Pg**	**10 53 51.7**	**-1.1**
PAIG	**Paliouri**	**1.17**	**119**	*e*Pg	**Pg**	**10 53 51.7**	**-1.1**
KBN	**Korca**	**1.19**	**277**	*e*PN	**Pn**	**10 53 53.5**	**-0.4**
KBN				*i* SN	**Sn**	**10 54 11.5**	**+0.9**
KBN	**Korca**	**1.19**	**277**	*e*Pn	**Pn**	**10 53 53.5**	**-0.4**
KBN				*i* Sn	**Sn**	**10 54 11.5**	**+0.9**
JAN	**Janina**	**1.42**	**234**	*e*Pn	**Pn**	**10 53 57.5**	**+0.5**
JAN	**Janina**	**1.42**	**234**	*e*PN	**Pn**	**10 53 57.5**	**+0.5**
JAN	**Janina**	**1.42**	**234**	*e*Pn	**Pn**	**10 53 57.5**	**+0.5**
NVR	**Nevrokopi**	**1.43**	**53**	*e*Pb	**Pn**	**10 53 56.0**	**-1.2**
NVR				*e*Sb	**Sb**	**10 54 15.2**	**-1.0**
NVR	**Nevrokopi**	**1.43**	**53**	*e*PB	**Pn**	**10 53 56.0**	**-1.2**
NVR				*e*SB	**Sb**	**10 54 15.2**	**-1.0**
NVR	**Nevrokopi**	**1.43**	**53**	*e*Pb	**Pn**	**10 53 56.0**	**-1.2**
NVR				*e*Sb	**Sb**	**10 54 15.2**	**-1.0**
AGG	**Agios Georgios**	**1.47**	**180**	P	**Pn**	**10 53 57.1**	**-0.6**
AGG	**Agios Georgios**	**1.47**	**180**	*e*Pg	**Pn**	**10 53 57.1**	**-0.6**
AGG				*e*Sg	**Sg**	**10 54 18.6**	**+0.9**
AGG	**Agios Georgios**	**1.47**	**180**	*e*Pg	**Pn**	**10 53 57.1**	**-0.6**
AGG				*e*Sg	**Sg**	**10 54 18.6**	**+0.9**
EVR	**Evrytania**	**1.63**	**195**	*e*Pb	**Pb**	**10 53 59.9**	**-1.2**
EVR	**Evrytania**	**1.63**	**195**	*e*PB	**Pb**	**10 53 59.9**	**-1.2**
EVR	**Evrytania**	**1.63**	**195**	*e*Pb	**Pb**	**10 53 59.9**	**-1.2**
PHP	**Peshkopia**	**1.87**	**310**	*e*PN	**Pn**	**10 54 03.4**	**+0.2**
PHP				*i* SN	**Sg**	**10 54 31.0**	**+0.7**
KEK	**Kerkira**	**2.10**	**249**	*e*Pn	**Pb**	**10 54 08.3**	**-0.8**
KEK	**Kerkira**	**2.10**	**249**	*e*PN	**Pb**	**10 54 08.3**	**-0.8**
KEK	**Kerkira**	**2.10**	**249**	*e*Pn	**Pb**	**10 54 08.3**	**-0.8**
VTS	**Vitosha**	**2.19**	**17**	⇓P	**Pn**	**10 54 08.2**	**+0.6**
VTS	**Vitosha**	**2.19**	**17**	⇓*i*P	**Pn**	**10 54 08.3**	**+0.7**
VTS	**Vitosha**	**2.19**	**17**	⇓P	**Pn**	**10 54 08.2**	**+0.6**
BARS	**Barje**	**2.35**	**351**	P	**Pn**	**10 54 10.9**	**+1.0**
PUK	**Puka**	**2.41**	**311**	*e*PN	**Pn**	**10 54 11.4**	**+0.8**
PUK				*i* SN	**Sg**	**10 54 56.6**	**+8.8**
PUK	**Puka**	**2.41**	**311**	*e*Pn	**Pn**	**10 54 11.4**	**+0.8**
RDO	**Rodhopi**	**2.51**	**74**	*e*Pn	**Pn**	**10 54 10.4**	**-1.6**
RDO	**Rodhopi**	**2.51**	**74**	*e*PN	**Pn**	**10 54 10.4**	**-1.6**
RDO	**Rodhopi**	**2.51**	**74**	*e*Pn	**Pn**	**10 54 10.4**	**-1.6**
RLS	**Riolos of Patr**	**2.53**	**196**	*e*Pn	**Pb**	**10 54 16.1**	**-0.3**
RLS	**Riolos of Patr**	**2.53**	**196**	*e*PN	**Pb**	**10 54 16.1**	**-0.3**
RLS	**Riolos of Patr**	**2.53**	**196**	*e*Pn	**Pb**	**10 54 16.1**	**-0.3**
BBLS	**Bajina Basta -**	**4.01**	**328**	P	**Pn**	**10 54 33.0**	**+0.3**
GZR	**Gura Zlata**	**4.91**	**4**	⇑*i*P	**Pn**	**10 54 45.3**	**+0.4**
BZS	**Buzias**	**5.15**	**354**	⇓*i*P	**Pn**	**10 54 48.4**	**+0.2**
MLR	**Muntele Rosu**	**5.65**	**27**	⇑P	**Pn**	**10 54 57.1**	**+2.0**
MLR	**Muntele Rosu**	**5.65**	**27**	⇑*i*P	**Pn**	**10 54 57.1**	**+2.0**
VRI	**Vrincioaia**	**6.25**	**29**	⇑P	**Pn**	**10 55 04.2**	**+0.8**
VRI	**Vrincioaia**	**6.25**	**29**	⇑*i*P	**Pn**	**10 55 04.2**	**+0.8**
PKSM	**Moragy**	**6.32**	**336**	⇑P	**Pn**	**10 55 04.2**	**-0.1**
PKSM	**Moragy**	**6.32**	**336**	⇑*i*P	**Pn**	**10 55 04.3**	**0.0**
PKSM	**Moragy**	**6.32**	**336**	⇑P	**Pn**	**10 55 04.2**	**-0.1**

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*IDC **28** 11:03:42.9±3.2, 16.37S×168.42E, h0^{km}, mb3.8/5, mb1 4.0/6, mb1mx3.8/17, mbtmp3.9/6, ML3.7/1, Error ellipse: s-maj=69.4km s-min=35.3km az=108.0*

*NEIC **28** 11:03:44.4±1.9, 16.43S×168.43E, h10^{km}, Error ellipse: s-maj=37.2km s-min=15.7km az=83.0*

*ISCJB **28** 11:03:46.5±2.5, 16.6S±0.1×168.3E±0.3, h33^{km}, mb3.8/5, Error ellipse: s-maj=47.6km s-min=18.3km az=173.9*

ISC 28 11:03:48.3±2.4**, 16.5S**±0.1×**168.4E**±0.3**, h35^{km}, n10, σ0^{s}.65**/12**, mb3.8**/5**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**5.82**	**198**	Pn	**Pn**	**11 05 11.8**	**-0.4**
DZM				Sn	**Sn**	**11 06 08.1**	**-10**
DZM	**Mont Dzumac**	**5.82**	**198**	Pn	**Pn**	**11 05 11.8**	**-0.4**
	1.9nm,0.3s,baz=139,slow=21,SNR=34						
DZM				Sn	**Sn**	**11 06 08.1**	**-10**
	1.1nm,0.3s,baz=323,slow=22,SNR=2.5						
NOUC	**Port Laguerre**	**5.90**	**199**	*e*P	**Pn**	**11 05 13.1**	**-0.1**
NOUC	**Port Laguerre**	**5.90**	**199**	*e*P	**Pn**	**11 05 13.1**	**-0.1**
CTA	**Charters Tower**	**21.32**	**257**	P	**P**	**11 08 31.5**	**-0.8**
CTA	**Charters Tower**	**21.32**	**257**	P	**P**	**11 08 31.5**	**-0.8**
	11nm,1.1s,mb4.1,baz=61,slow=13,SNR=2.6						
STKA	**Stephens Creek**	**28.73**	**233**	P	**P**	**11 09 43.9**	**+1.4**
	1.2nm,0.6s,mb3.8,baz=107,slow=14,SNR=3.4						
WRA	**Warramunga Arr**	**32.50**	**259**	P	**P**	**11 10 15.9**	**-0.1**
	0.7nm,1.0s,mb3.6,baz=90,slow=8.2,SNR=5.3						
ASAR	**Alice Springs**	**33.11**	**252**	P	**P**	**11 10 21.6**	**+0.4**
	1.1nm,0.8s,mb3.8,baz=79,slow=8.8,SNR=9.8						
SONM	**Songino Array**	**84.58**	**323**	P	**P**	**11 16 17.6**	**-0.2**
	0.3nm,0.6s,mb3.6,baz=157,slow=4.7,SNR=2.7						

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*CSEM **28** 11:20:36.2±1.0, 39.09N×38.83E, h30^{km}, MD2.9, Error ellipse: s-maj=25.9km s-min=8.1km az=160.0*

*DDA **28** 11:20:38.0, 38.60N×39.46E, h7^{km}, Md3.0*

*ISCJB **28** 11:20:40.2±0.7, 38.52N±0.04×39.30E±0.05, h10^{km}, Error ellipse: s-maj=6.4km s-min=4.9km az=145.8*

*ISK **28** 11:20:40.1, 38.62N×39.16E, h5^{km}, MD2.9*

ISC 28 11:20:40.6±0.7**, 38.53N**±0.04×**39.31E**±0.05**, h10^{km}, n11, σ0^{s}.98**/18**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.26**	**263**	*i* P	**Pg**	**11 20 45.5**	**-0.4**
ELZG				*i* S	**Sg**	**11 20 50.2**	**+0.8**
PTK	**Pertek**	**0.37**	**10**	PG	**Pg**	**11 20 47.3**	**-0.6**
PTK				SG	**Sg**	**11 20 53.7**	**+0.9**
PTK	**Pertek**	**0.37**	**10**	*e*Pg	**Pg**	**11 20 47.3**	**-0.6**
PTK				*e*Sg	**Sg**	**11 20 53.7**	**+0.9**
MYA	**Malataya**	**0.73**	**254**	PG	**Pg**	**11 20 53.5**	**-1.1**
MYA				SG	**Sg**	**11 21 04.4**	**+0.3**
MYA	**Malataya**	**0.73**	**254**	*e*Pg	**Pg**	**11 20 53.5**	**-1.1**
MYA				*e*Sg	**Sg**	**11 21 04.4**	**+0.3**
MALT	**Malatya**	**0.73**	**253**	PG	**Pg**	**11 20 53.3**	**-1.4**
MALT	**Malatya**	**0.73**	**253**	*e*Pg	**Pg**	**11 20 53.3**	**-1.4**
URFA	**Urfa**	**1.15**	**200**	*e*PN	**Pn**	**11 21 04.1**	**+1.3**
URFA	**Urfa**	**1.15**	**200**	*e*Pn	**Pn**	**11 21 04.1**	**+1.3**
MARD	**Mardin**	**1.68**	**136**	*i* P	**Pn**	**11 21 08.2**	**-1.9**
MARD				*i* S	**Sn**	**11 21 32.4**	**+0.8**
GZT	**Gaziantep**	**1.81**	**230**	*i* P	**Pn**	**11 21 12.9**	**+1.0**
GZT				*i* S	**Sg**	**11 21 39.0**	**+0.1**

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*IDC **28** 11:47:40.8±0.7, 41.08N×114.78W, h0^{km}, mb3.4/1, mb1 3.9/5, mb1mx3.6/22, mbtmp3.5/5, ML3.7/4, Error ellipse: s-maj=12.9km s-min=6.4km az=139.0*

*ISCJB **28** 11:47:41.2±0.1, 41.107N±0.009×114.81W±0.01, h11^{km}, mb3.4/1, Error ellipse: s-maj=1.3km s-min=1.2km az=20.4*

*NEIC **28** 11:47:41.4, 41.15N×114.87W, h11^{km}, ML3.7(REN), MW3.6(SLM), After REN.*

ISC 28 11:47:41.2±0.2**, 41.124N**±0.008×**114.86W**±0.01**, h2^{km}**±2^{km}**, n166, σ1^{s}.13**/283**, mb3.4**/1**, 82C-71D, Nevada**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
M12A	**Wells**	**0.29**	**352**	⇑P	**Pg**	**11 47 46.9**	**0.0**
	baz=0.3,SNR=1000						
M12A				⇑S	**Sg**	**11 47 50.9**	**+0.2**
	baz=0.3						
N12A	**Clover Valley,**	**0.30**	**206**	⇑P	**Pg**	**11 47 48.0**	**+1.0**
	baz=0.3,SNR=1000						
N12A				⇑S	**Sg**	**11 47 52.9**	**+2.0**
	baz=0.3						
ELK	**Elko**	**0.47**	**217**	*e*Pg	**Pg**	**11 47 51.0**	**+0.7**
ELK				*e*Sg	**Sg**	**11 47 57.8**	**+1.3**
N13A	**Wendover, West**	**0.56**	**118**	⇑P	**Pg**	**11 47 52.3**	**+0.2**
	baz=0.6,SNR=1000						
N13A				⇓S	**Sg**	**11 47 59.7**	**+0.4**
	baz=0.6						
M13A	**Montello**	**0.57**	**66**	⇓P	**Pg**	**11 47 51.9**	**-0.3**
	baz=0.6,SNR=1000						
M13A				⇓S	**Sg**	**11 47 59.7**	**0.0**
	baz=0.6						
N11A	**Elko Archery C**	**0.73**	**245**	⇑P	**Pg**	**11 47 55.4**	**+0.2**
	baz=0.7,SNR=1000						
N11A				⇓S	**Sg**	**11 48 05.5**	**+0.9**
	baz=0.7						
M11A	**Holland Ranch,**	**0.77**	**294**	⇓P	**Pg**	**11 47 55.6**	**-0.3**
	baz=0.7,SNR=1000						
M11A				⇑S	**Sg**	**11 48 06.9**	**+1.1**
	baz=0.7						
O12A	**Currie**	**0.86**	**174**	⇓P	**Pg**	**11 47 58.0**	**+0.3**
	baz=0.9,SNR=57						
O12A				⇑S	**Sg**	**11 48 09.8**	**+1.0**
	baz=0.9						
L12A	**House Creek Ra**	**1.03**	**354**	⇑P	**Pg**	**11 48 00.2**	**-0.7**
	baz=1.0,SNR=485						
L12A				⇓S	**Sg**	**11 48 14.0**	**-0.2**
	baz=1.0						
O11A	**Cowboy Ranch,**	**1.16**	**212**	⇓P	**Pg**	**11 48 03.6**	**+0.2**
	baz=1.2,SNR=1000						
O11A				⇑S	**Sg**	**11 48 19.3**	**+0.8**
	baz=1.2						
L13A	**Double Diamond**	**1.18**	**35**	⇓P	**Pg**	**11 48 02.3**	**-1.6**
	baz=1.2,SNR=425						
L13A				⇑S	**Sg**	**11 48 18.1**	**-1.1**
	baz=1.2						
O13A	**Hicks Ranch, I**	**1.20**	**146**	⇑P	**Pg**	**11 48 03.8**	**-0.4**
	baz=1.2,SNR=499						
O13A				⇓S	**Sg**	**11 48 20.0**	**+0.3**
	baz=1.2						
M14A	**Sheep Mountain**	**1.20**	**71**	⇓P	**Pg**	**11 48 03.2**	**-1.0**
	baz=1.2,SNR=1000						
M14A				⇓S	**Sg**	**11 48 19.1**	**-0.7**
	baz=1.2						
L11A	**Cat Creek Ranc**	**1.24**	**328**	⇑P	**Pg**	**11 48 03.7**	**-1.3**
	baz=1.2,SNR=1000						
L11A				⇑S	**Sg**	**11 48 20.4**	**-0.6**
	baz=1.2						
N14A	**Grayback Hills**	**1.30**	**102**	⇑P	**Pg**	**11 48 04.7**	**-1.3**
	baz=1.3,SNR=1000						
N14A				⇓S	**Sg**	**11 48 22.2**	**-0.6**
	baz=1.3						
N10A	**Dunphy**	**1.31**	**253**	⇓P	**Pg**	**11 48 05.1**	**-1.2**
	baz=1.3						
N10A				⇓S	**Sg**	**11 48 23.5**	**+0.2**
	baz=1.3						
M10A	**I.L. Ranch, Tu**	**1.32**	**288**	⇓P	**Pg**	**11 48 05.6**	**-1.0**
	baz=1.3,SNR=1000						
M10A				⇓Sb	**Sb**	**11 48 24.5**	**+0.3**
	baz=1.3						
BGU	**Big Grassy Mou**	**1.40**	**98**	*e*Pn	**Pn**	**11 48 06.2**	**-1.5**
BGU				*e*Sg	**Sg**	**11 48 25.8**	**-0.4**
O10A	**Cortez Mining,**	**1.50**	**237**	⇓P	**Pn**	**11 48 08.3**	**-0.8**
	baz=1.5,SNR=555						
O10A				⇑Sb	**Sb**	**11 48 29.4**	**+0.2**
	baz=1.5						
K12A	**Draper Farm, C**	**1.51**	**359**	P	**Pn**	**11 48 07.5**	**-1.9**
	baz=1.5,SNR=1000						
K12A				⇑S	**Sn**	**11 48 27.5**	**-2.1**
	baz=1.5						
L10A	**Juniper Basin**	**1.54**	**309**	⇑P	**Pn**	**11 48 08.4**	**-1.3**
	baz=1.5,SNR=1000						
L10A				⇓Sb	**Sb**	**11 48 29.7**	**-0.7**
	baz=1.5						
K13A	**Stover Farm, H**	**1.63**	**21**	⇓P	**Pn**	**11 48 09.3**	**-1.6**
	baz=1.6,SNR=355						
K13A				⇓Sb	**Sb**	**11 48 32.0**	**-1.0**
	baz=1.6						
P12A	**McGill**	**1.65**	**181**	P	**Pn**	**11 48 10.4**	**-0.7**
	baz=1.7,SNR=784						
P12A				⇑S	**Sn**	**11 48 32.2**	**-0.7**
	baz=1.7						
HVU	**Hansel Valley**	**1.70**	**67**	*e*Pn	**Pn**	**11 48 10.6**	**-1.3**
HVU				*e*Sg	**Sg**	**11 48 33.2**	**-2.6**
P11A	**Circle Ranch,**	**1.71**	**204**	⇑P	**Pn**	**11 48 11.5**	**-0.6**
	baz=1.7,SNR=88						
P11A				⇓S	**Sn**	**11 48 33.8**	**-0.7**
	baz=1.7						
N15A	**Stansbury Isla**	**1.79**	**97**	⇓P	**Pn**	**11 48 11.7**	**-1.3**
	baz=1.8,SNR=555						
N15A				⇓Sb	**Sb**	**11 48 37.1**	**-0.4**
	baz=1.8						
DUG	**Dugway**	**1.81**	**120**	*e*Pn	**Pn**	**11 48 11.8**	**-1.7**
DUG				*e*Sg	**Sg**	**11 48 42.4**	**+2.9**
DUG	**Dugway**	**1.81**	**120**	⇑P	**Pn**	**11 48 11.7**	**-1.8**
	baz=1.8						
DUG				⇑Sb	**Sb**	**11 48 38.1**	**-0.2**
	baz=1.8						
SPUT	**South Promonto**	**1.83**	**83**	*e*Pn	**Pn**	**11 48 12.3**	**-1.4**
SPUT				*e*Sg	**Sg**	**11 48 39.2**	**-0.8**
M15A	**Larsen Ranch,**	**1.85**	**79**	⇓P	**Pn**	**11 48 12.8**	**-1.1**
	baz=1.8,SNR=668						
M15A				⇑Sb	**Sb**	**11 48 38.4**	**-1.0**
	baz=1.8						
K11A	**Parker Ranch,**	**1.86**	**332**	⇑P	**Pn**	**11 48 12.5**	**-1.6**
	baz=1.8,SNR=469						
K11A				⇑Sb	**Sb**	**11 48 39.0**	**-0.7**
	baz=1.8						
K14A	**Jones Ranch, D**	**1.90**	**41**	⇑P	**Pn**	**11 48 13.4**	**-1.2**
	baz=1.9,SNR=223						
K14A				⇑Sb	**Sb**	**11 48 40.1**	**-0.6**
	baz=1.9						
BMN	**Battle Mountai**	**1.92**	**250**	*e*Pn	**Pn**	**11 48 13.7**	**-1.2**
BMN				*e*Sg	**Sg**	**11 48 42.3**	**-0.6**
P10A	**Eureka**	**1.94**	**220**	⇑P	**Pn**	**11 48 14.4**	**-0.8**
	baz=2.0,SNR=213						
P10A				⇑S	**Sn**	**11 48 39.3**	**-0.8**
	baz=2.0						
M09A	**Marrel Ranch,**	**1.97**	**280**	⇑P	**Pn**	**11 48 14.4**	**-1.3**
	baz=2.0,SNR=148						
M09A				⇑Sb	**Sb**	**11 48 42.8**	**-0.1**
	baz=2.0						
O09A	**Fish Creek Ran**	**2.01**	**242**	⇑P	**Pn**	**11 48 15.1**	**-1.1**
	baz=2.0,SNR=67						
O09A				⇓Sb	**Sb**	**11 48 44.3**	**+0.3**
	baz=2.0						
N09A	**Rock Creek Ran**	**2.03**	**263**	P	**Pn**	**11 48 15.1**	**-1.4**
	baz=2.0,SNR=165						
N09A				⇑Sb	**Sb**	**11 48 44.9**	**+0.3**
	baz=2.0						
Q12A	**Willow Creek R**	**2.08**	**179**	⇓P	**Pn**	**11 48 16.4**	**-0.7**
	baz=2.1,SNR=92						
Q12A				⇑Sb	**Sb**	**11 48 47.3**	**+1.3**
	baz=2.1						
NOQ	**North Oquirrh**	**2.13**	**102**	*e*Pn	**Pn**	**11 48 17.0**	**-0.8**
J12A	**Stokes Ranch,**	**2.13**	**355**	⇑P	**Pn**	**11 48 17.1**	**-0.7**
	baz=2.1,SNR=1000						
J12A				⇓Sb	**Sb**	**11 48 46.3**	**-1.1**
	baz=2.1						
K10A	**MacKenzie Ranc**	**2.23**	**318**	⇑P	**Pn**	**11 48 18.8**	**-0.4**
	baz=2.2						
K10A				⇑Sb	**Sb**	**11 48 50.1**	**-0.2**
	baz=2.2						
J13A	**Cove Ranch, Pi**	**2.33**	**12**	P	**Pn**	**11 48 20.6**	**0.0**
	baz=2.3,SNR=1000						
J13A				⇓Sb	**Sb**	**11 48 52.0**	**-1.1**
	baz=2.3						
P09A	**Austin**	**2.34**	**229**	⇑P	**Pn**	**11 48 20.2**	**-0.5**
	baz=2.4,SNR=9.0						
P09A				⇓Sb	**Sb**	**11 48 54.7**	**+1.1**
	baz=2.4						
Q11A	**Duckwater**	**2.36**	**195**	⇓P	**Pn**	**11 48 20.4**	**-0.5**
	baz=2.4,SNR=64						
CTU	**Camp Tracy**	**2.40**	**99**	*e*Pn	**Pn**	**11 48 21.2**	**-0.3**
CTU				*e*Sg	**Sg**	**11 49 00.5**	**+2.3**
MFID	**Camas Ranch**	**2.40**	**343**	⇓P	**Pn**	**11 48 21.3**	**-0.2**
	baz=2.4,SNR=70						
MFID				⇑Sb	**Sb**	**11 48 54.0**	**-1.1**
	baz=2.4						
NLU	**North Lily Min**	**2.42**	**118**	*e*Pn	**Pn**	**11 48 20.1**	**-1.8**
NLU				*e*Pg	**Pg**	**11 48 27.7**	**+0.1**
HLID	**Hailey**	**2.46**	**8**	*e*Pn	**Pn**	**11 48 22.5**	**+0.2**
HLID				*e*Sg	**Sg**	**11 48 56.4**	**-3.8**
HLID	**Hailey**	**2.46**	**8**	P	**Pn**	**11 48 22.6**	**+0.2**
	baz=2.4,SNR=1000						
HLID				⇓Sb	**Sb**	**11 48 56.2**	**-0.7**
	baz=2.4						
N08A	**GE Springer Mi**	**2.50**	**263**	⇑P	**Pn**	**11 48 21.3**	**-1.6**
	baz=2.5,SNR=17						
N08A				⇑S	**Sn**	**11 48 53.0**	**-1.1**
	baz=2.5						
Q10A	**Clear Creek Ra**	**2.58**	**208**	⇑P	**Pn**	**11 48 23.8**	**-0.2**
	baz=2.6						
JLU	**Jordanelle**	**2.64**	**100**	*e*Pn	**Pn**	**11 48 24.9**	**+0.1**
JLU				*e*Pg	**Pg**	**11 48 31.8**	**+0.1**
JLU				*e*Sg	**Sg**	**11 49 07.8**	**+1.8**
O08A	**Rochester Mine**	**2.64**	**253**	⇓Sb	**Sb**	**11 49 03.5**	**+1.5**
	baz=2.6						
K09A	**Rome**	**2.65**	**307**	⇑P	**Pn**	**11 48 25.3**	**+0.3**
	baz=2.6,SNR=625						
K09A				⇑Sb	**Sb**	**11 49 02.6**	**+0.1**
	baz=2.6						
M08A	**Happy Creek Ra**	**2.67**	**278**	⇓P	**Pn**	**11 48 24.3**	**-0.9**
	baz=2.7						
MPU	**Maple Canyon**	**2.70**	**113**	Pn	**Pn**	**11 48 24.3**	**-1.3**
MPU				*e*Pg	**Pg**	**11 48 32.9**	**0.0**
MPU				*e*Sg	**Sg**	**11 49 10.2**	**+2.4**
J10A	**Berg Farm, Mel**	**2.70**	**329**	⇓P	**Pn**	**11 48 27.7**	**+2.1**
	baz=2.7						
J10A				⇓Sb	**Sb**	**11 49 03.8**	**-0.1**
	baz=2.7						
R12A	**Pony Springs,**	**2.80**	**176**	P	**Pn**	**11 48 26.7**	**-0.3**
	baz=2.8,SNR=18						
R12A				⇓Sb	**Sb**	**11 49 08.8**	**+2.1**
	baz=2.8						
L08A	**Fields**	**2.82**	**293**	⇓P	**Pn**	**11 48 29.7**	**+2.4**
	baz=2.8,SNR=113						
TRCR	**Troy Canyon**	**2.83**	**192**	*e*Pn	**Pn**	**11 48 26.9**	**-0.5**
TRCR				*e*Sg	**Sg**	**11 49 11.2**	**-0.8**
DAU	**Daniels Canyon**	**2.83**	**103**	*e*Pn	**Pn**	**11 48 28.1**	**+0.7**
DAU				*e*Pg	**Pg**	**11 48 35.6**	**+0.2**
I13A	**Wildhorse Cree**	**2.84**	**11**	P	**Pn**	**11 48 28.1**	**+0.5**
	baz=2.8,SNR=471						
I13A				⇑Sb	**Sb**	**11 49 07.8**	**-0.1**
	baz=2.8						
P08A	**Dixie Valley**	**2.84**	**241**	⇑P	**Pn**	**11 48 27.0**	**-0.6**
	baz=2.8,SNR=18						
Q09A	**Carvers**	**2.90**	**219**	⇑P	**Pn**	**11 48 28.8**	**+0.4**
	baz=2.9,SNR=41						
Q09A				⇓S	**Sn**	**11 49 04.1**	**+0.2**
	baz=2.9						
I11A	**Placerville**	**2.90**	**344**	⇑Sb	**Sb**	**11 49 10.1**	**+0.5**
	baz=2.9						
R10A	**Warm Springs**	**3.04**	**202**	⇓P	**Pn**	**11 48 30.6**	**+0.3**
	baz=3.1						
J09A	**Fry Pan Ranch,**	**3.09**	**317**	⇑P	**Pn**	**11 48 30.7**	**-0.3**
	baz=3.1						
J09A				⇑Sb	**Sb**	**11 49 16.2**	**+1.2**
	baz=3.1						
WVOR	**Wild Horse Val**	**3.11**	**296**	*e*Pn	**Pn**	**11 48 34.4**	**+3.1**
WVOR				*e*Sg	**Sg**	**11 49 19.6**	**-1.6**
N07B	**Gerlach**	**3.13**	**265**	⇓P	**Pn**	**11 48 30.8**	**-0.8**
	baz=3.1						
K08A	**Mann Creek Ran**	**3.15**	**302**	⇓P	**Pn**	**11 48 35.2**	**+3.5**
	baz=3.1						
K08A				⇓Sb	**Sb**	**11 49 17.4**	**+0.8**
	baz=3.1						
O07A	**Toulon**	**3.20**	**254**	⇓P	**Pn**	**11 48 31.2**	**-1.4**
	baz=3.2,SNR=62						
O07A				⇓Sb	**Sb**	**11 49 20.7**	**+2.4**
	baz=3.2						
M07A	**Soldier Meadow**	**3.26**	**276**	⇑P	**Pn**	**11 48 32.7**	**-0.7**
	baz=3.2,SNR=29						
M07A				⇑Sb	**Sb**	**11 49 20.9**	**+1.0**
	baz=3.2						
Q08A	**Gabbs**	**3.27**	**227**	P	**Pn**	**11 48 33.0**	**-0.5**
	baz=3.3,SNR=11						
Q08A				⇑Sb	**Sb**	**11 49 23.5**	**+3.3**
	baz=3.3						
I10A	**Payette**	**3.29**	**335**	⇑P	**Pn**	**11 48 34.5**	**+0.8**
	baz=3.3						
I10A				⇓Sb	**Sb**	**11 49 22.0**	**+1.2**
	baz=3.3						
MSU	**Marysvale**	**3.33**	**141**	*e*Pn	**Pn**	**11 48 33.6**	**-0.7**
MSU				*e*Sg	**Sg**	**11 49 33.8**	**+5.7**
TMUT	**Trail Mountain**	**3.34**	**122**	*e*Pn	**Pn**	**11 48 35.5**	**+1.0**
TMUT				*e*Pg	**Pg**	**11 48 45.0**	**-0.2**
TMUT				*e*Sg	**Sg**	**11 49 31.3**	**+2.9**
R09A	**Tonopah**	**3.35**	**211**	⇓P	**Pn**	**11 48 34.9**	**+0.4**
	baz=3.4,SNR=37						
H12A	**Diamond D Ranc**	**3.42**	**0**	⇓P	**Pn**	**11 48 36.5**	**+1.0**
	baz=3.4,SNR=63						
H12A				⇑Sb	**Sb**	**11 49 25.1**	**+0.5**
	baz=3.4						
P07A	**Fallon**	**3.46**	**244**	P	**Pn**	**11 48 35.5**	**-0.7**
	baz=3.5,SNR=17						
H13A	**Challis**	**3.47**	**7**	⇓P	**Pn**	**11 48 37.4**	**+1.2**
	baz=3.4,SNR=90						
H13A				⇑Sb	**Sb**	**11 49 26.3**	**+0.4**
	baz=3.4						
S10A	**Tonopah Range,**	**3.47**	**203**	⇓P	**Pn**	**11 48 36.1**	**-0.1**
	baz=3.5						
L07A	**Adell**	**3.48**	**286**	⇓P	**Pn**	**11 48 36.0**	**-0.3**
	baz=3.5						
L07A				⇑Sb	**Sb**	**11 49 28.1**	**+1.9**
	baz=3.5						
J08A	**Circle Bar Ran**	**3.49**	**311**	⇓P	**Pn**	**11 48 37.0**	**+0.5**
	baz=3.5,SNR=28						
J08A				⇓Sb	**Sb**	**11 49 27.6**	**+1.1**
	baz=3.5						
ARUT	**Antelope Range**	**3.51**	**161**	*e*Pn	**Pn**	**11 48 36.6**	**-0.2**
ARUT				*e*Pg	**Pg**	**11 48 48.7**	**+0.2**
ARUT				*e*Sg	**Sg**	**11 49 34.0**	**+0.1**
S11A	**Rachel**	**3.54**	**191**	⇑P	**Pn**	**11 48 37.4**	**+0.2**
	baz=3.6						
TPH	**Tonopah**	**3.55**	**212**	*e*Pn	**Pn**	**11 48 37.2**	**-0.1**
TPH				*e*Pg	**Pg**	**11 48 48.6**	**-0.6**
TPH				*e*Sg	**Sg**	**11 49 34.6**	**-0.6**
I09A	**Lost Marbles R**	**3.55**	**324**	⇑P	**Pn**	**11 48 42.4**	**+5.0**
	baz=3.5						
I09A				⇑Sb	**Sb**	**11 49 29.7**	**+1.3**
	baz=3.5						
S14A	**Cedar City**	**3.61**	**158**	⇓P	**Pn**	**11 48 37.7**	**-0.4**
	baz=3.6						
S13A	**Holt Ranch, En**	**3.62**	**167**	P	**Pn**	**11 48 38.0**	**-0.3**
	baz=3.7,SNR=173						
K07A	**Rock Creek Ran**	**3.63**	**297**	⇑P	**Pn**	**11 48 38.3**	**-0.1**
	baz=3.6,SNR=31						
K07A				⇓Sb	**Sb**	**11 49 32.3**	**+1.8**
	baz=3.6						
DCID1	**Drake Creek**	**3.68**	**47**	*e*Pn	**Pn**	**11 48 39.7**	**+0.6**
DCID1				*e*Pg	**Pg**	**11 48 52.3**	**+0.7**
DCID1				*e*Sg	**Sg**	**11 49 41.6**	**+2.3**
H11A	**Donnelly**	**3.68**	**347**	⇑P	**Pn**	**11 48 39.9**	**+0.9**
	baz=3.6,SNR=40						
REDW	**Red Top Meadow**	**3.72**	**52**	*e*Pn	**Pn**	**11 48 39.8**	**+0.1**
REDW				*e*Pg	**Pg**	**11 48 46.1**	**-6.4**
REDW				*e*Sg	**Sg**	**11 49 42.3**	**+1.6**
H10A	**Noah's Angus R**	**3.73**	**339**	⇑P	**Pn**	**11 48 40.6**	**+0.8**
	baz=3.7,SNR=21						
R08A	**Mina**	**3.73**	**223**	⇓P	**Pn**	**11 48 39.8**	**0.0**
	baz=3.7						
CCUT	**Cedar City**	**3.75**	**161**	*e*Pn	**Pn**	**11 48 40.6**	**+0.5**
CCUT				*e*Sg	**Sg**	**11 49 40.6**	**-1.2**
NVAR	**Mina Array Bea**	**3.78**	**226**	Pn	**Pn**	**11 48 40.1**	**-0.3**
NVAR				Pg	**Pg**	**11 48 50.2**	**-3.4**
NVAR				Lg		11 49 37.7	
NVAR	**Mina Array Bea**	**3.78**	**226**	Pn	**Pn**	**11 48 40.1**	**-0.3**
	4.0nm,0.3s,baz=39,slow=12,SNR=33						
NVAR				Pg	**Pg**	**11 48 50.2**	**-3.4**
	25nm,0.3s,baz=40,slow=12,SNR=53						
NVAR				Lg		11 49 37.7	
	25nm,0.3s,baz=8.5,slow=13,SNR=5.8						
N06A	**Buffalo Meadow**	**3.79**	**266**	⇑P	**Pn**	**11 48 39.3**	**-1.3**
	baz=3.8,SNR=24						
S09A	**Goldfield**	**3.86**	**209**	⇓P	**Pn**	**11 48 42.4**	**+0.9**
	baz=3.9						
SRU	**San Rafael**	**3.89**	**120**	*e*Pn	**Pn**	**11 48 41.9**	**-0.1**
SRU				*e*Pg	**Pg**	**11 48 54.1**	**-1.5**
SRU				*e*Sg	**Sg**	**11 49 47.4**	**+1.4**
T11A	**Corn Creek, Al**	**3.89**	**184**	⇑P	**Pn**	**11 48 41.8**	**-0.2**
	baz=3.9,SNR=60						
O06A	**Flanigan**	**3.90**	**257**	⇓P	**Pn**	**11 48 40.5**	**-1.6**
	baz=3.9						
I08A	**Drewsey**	**3.91**	**317**	⇑P	**Pn**	**11 48 48.2**	**+6.0**
	baz=3.9						
MCMT	**McKenzie Canyo**	**3.98**	**21**	*e*Pn	**Pn**	**11 48 43.6**	**+0.3**
MCMT				*e*Sg	**Sg**	**11 49 43.2**	**-6.0**
G13A	**Cobalt**	**3.99**	**6**	⇓P	**Pn**	**11 48 44.8**	**+1.4**
	baz=4.0						
J07A	**Hines**	**4.00**	**306**	⇓P	**Pn**	**11 48 48.1**	**+4.7**
	baz=4.0						
LOHW	**Long Hollow**	**4.02**	**50**	*e*Pn	**Pn**	**11 48 44.3**	**+0.5**
MOOW	**Moose Ponds**	**4.02**	**48**	*e*Pn	**Pn**	**11 48 43.8**	**0.0**
P06A	**Stead Airport,**	**4.11**	**251**	⇓P	**Pn**	**11 48 44.0**	**-1.0**
	baz=4.1,SNR=8.5						
BMO	**Blue Mountains**	**4.13**	**335**	*e*Pn	**Pn**	**11 48 46.6**	**+1.2**
MOD	**Modoc**	**4.16**	**283**	*e*Pn	**Pn**	**11 48 46.2**	**+0.5**
MOD				*e*Pg	**Pg**	**11 48 59.2**	**-1.7**

MOD	**Modoc**	**4.16**	**283**	⇓P	**Pn**	**11 48 44.7**	**-1.0**
	baz=4.1						
T13A	**Saint George**	**4.17**	**169**	⇑P	**Pn**	**11 48 45.3**	**-0.5**
	baz=4.2,SNR=7.1						
WCN	**Washoe City**	**4.17**	**246**	⇑P	**Pn**	**11 48 44.7**	**-1.1**
	baz=4.2,SNR=40						
M06C	**Likely Place G**	**4.24**	**273**	⇑P	**Pn**	**11 48 45.9**	**-0.9**
	baz=4.2						
G14A	**Jackson**	**4.24**	**14**	⇓P	**Pn**	**11 48 47.7**	**+0.8**
	baz=4.2						
PDAR	**Pinedale Array**	**4.28**	**66**	Pn	**Pn**	**11 48 49.0**	**+1.7**
PDAR				Pg	**Pg**	**11 48 57.6**	**-5.7**
PDAR				Lg		11 49 52.9	
PDAR	**Pinedale Array**	**4.28**	**66**	Pn	**Pn**	**11 48 49.0**	**+1.7**
	0.6nm,0.3s,baz=239,slow=12,SNR=36						
PDAR				Pg	**Pg**	**11 48 57.6**	**-5.7**
	3.3nm,0.3s,baz=238,slow=14,SNR=41						
PDAR				Lg		11 49 52.9	
	5.4nm,0.3s,baz=225,slow=25,SNR=9.4						
T14A	**Hurricane**	**4.29**	**161**	⇓P	**Pn**	**11 48 47.0**	**-0.4**
	baz=4.3						
TPNV	**Topopah Spring**	**4.31**	**195**	*e*Pn	**Pn**	**11 48 47.9**	**+0.2**
TPNV				*e*Pg	**Pg**	**11 49 05.1**	**+1.4**
TPNV				*e*Sg	**Sg**	**11 49 56.1**	**-3.4**
TPNV	**Topopah Spring**	**4.31**	**195**	⇑P	**Pn**	**11 48 48.1**	**+0.4**
	baz=4.3						
K06A	**Valley Falls**	**4.35**	**294**	⇑P	**Pn**	**11 48 52.8**	**+4.4**
	baz=4.3						
BEKR	**Beckwourth**	**4.38**	**255**	⇑P	**Pn**	**11 48 47.8**	**-0.9**
	baz=4.4,SNR=15						
R06C	**Coleville**	**4.39**	**235**	⇑P	**Pn**	**11 48 48.2**	**-0.7**
	baz=4.4,SNR=25						
G11A	**Walters Elk Ra**	**4.39**	**347**	⇓P	**Pn**	**11 48 50.3**	**+1.4**
	baz=4.4						
G15A	**Dillon**	**4.40**	**22**	⇑P	**Pn**	**11 48 49.1**	**+0.1**
	baz=4.4,SNR=14						
H08A	**Prairie City**	**4.40**	**322**	⇑P	**Pn**	**11 48 54.5**	**+5.5**
	baz=4.4,SNR=21						
YFT	**Old Faithful**	**4.45**	**40**	*e*Pn	**Pn**	**11 48 53.2**	**+3.5**
YFT				*e*Pg	**Pg**	**11 49 08.9**	**+2.4**
YFT				*e*Sg	**Sg**	**11 50 05.7**	**+1.5**
QLMT	**Earthquake Lak**	**4.48**	**33**	*e*Pn	**Pn**	**11 48 52.5**	**+2.4**
QLMT				*e*Pg	**Pg**	**11 49 00.6**	**-6.4**
QLMT				*e*Sg	**Sg**	**11 50 00.5**	**-4.6**
DLMT	**Dillon**	**4.55**	**21**	*e*Pn	**Pn**	**11 48 51.8**	**+0.8**
DLMT				*e*Pg	**Pg**	**11 49 03.6**	**-4.7**
YMR	**Madison River**	**4.55**	**38**	*e*Pn	**Pn**	**11 48 52.2**	**+1.1**
YMR				*e*Pg	**Pg**	**11 49 02.7**	**-5.7**
YMR				*e*Sg	**Sg**	**11 50 06.9**	**-0.6**
F12A	**Elk City**	**4.64**	**357**	⇓P	**Pn**	**11 48 53.7**	**+1.4**
	baz=4.6						
F13A	**Darby**	**4.68**	**5**	⇑P	**Pn**	**11 48 53.7**	**+0.9**
	baz=4.7,SNR=34						
R05C	**Kirkwood Meado**	**4.68**	**241**	⇓P	**Pn**	**11 48 52.6**	**-0.3**
	baz=4.7,SNR=15						
YNR	**Norris Junctio**	**4.72**	**39**	Pn	**Pn**	**11 48 53.6**	**+0.2**
YNR				*e*Pg	**Pg**	**11 49 11.9**	**+0.2**
YNR				*e*Sg	**Sg**	**11 50 11.9**	**-1.0**
MTUM	**Tungsten Hills**	**4.74**	**219**	Pn	**Pn**	**11 48 55.9**	**+2.2**
MTUM				*e*Pg	**Pg**	**11 49 10.2**	**-1.8**
MTUM				*e*Sg	**Sg**	**11 50 14.3**	**+1.0**
LKWY	**Lake**	**4.75**	**42**	*e*Pn	**Pn**	**11 48 59.7**	**+5.8**
U13A	**Pakoon Wash**	**4.75**	**171**	⇑P	**Pn**	**11 48 53.9**	**0.0**
	baz=4.8						
P05C	**Yuba Gap, Truc**	**4.76**	**249**	⇓P	**Pn**	**11 48 53.0**	**-1.0**
	baz=4.8						
F14A	**Wisdom**	**4.81**	**13**	⇓P	**Pn**	**11 48 55.3**	**+0.7**
	baz=4.8						
U14A	**Mt Trumbull**	**4.88**	**164**	⇓P	**Pn**	**11 48 56.0**	**+0.4**
	baz=4.9,SNR=5.8						
F15A	**Butte**	**5.02**	**19**	⇑P	**Pn**	**11 48 57.7**	**+0.2**
	baz=5.0						
BOZ	**Bozeman (W)**	**5.10**	**26**	*e*Pn	**Pn**	**11 49 02.8**	**+4.2**
	9.6nm,0.6s						
PV10	**Paradox Valley**	**5.26**	**120**	*e*Pn	**Pn**	**11 48 58.4**	**-2.4**
PV10				*e*Pg	**Pg**	**11 49 23.6**	**+1.6**
PV10				*e*Sg	**Sg**	**11 50 34.9**	**+4.7**
CMB	**Columbia Colle**	**5.27**	**236**	*e*Pn	**Pn**	**11 49 03.6**	**+2.7**
	12nm,0.5s						
CMB				*e*Pg	**Pg**	**11 49 19.5**	**-2.6**
CMB				*e*Sg	**Sg**	**11 50 28.4**	**-1.9**
DAC	**Darwin (Calif)**	**5.29**	**205**	*e*Pn	**Pn**	**11 49 04.2**	**+2.9**
	20nm,0.8s						
DAC				*e*Pg	**Pg**	**11 49 21.4**	**-1.2**
V11A	**Goodsprings**	**5.30**	**185**	⇑P	**Pn**	**11 49 01.7**	**+0.4**
	baz=5.3						
E11A	**Bogner Ranch,**	**5.32**	**350**	⇑P	**Pn**	**11 49 03.2**	**+1.6**
	baz=5.3,SNR=32						
E13A	**Victor**	**5.34**	**5**	⇑P	**Pn**	**11 49 02.8**	**+0.9**
	baz=5.3,SNR=24						
E14A	**Clinton**	**5.38**	**10**	⇑P	**Pn**	**11 49 03.7**	**+1.2**
	baz=5.4,SNR=7.3						
V12A	**Nelson**	**5.39**	**180**	P	**Pn**	**11 49 02.9**	**+0.3**
	baz=5.4,SNR=6.5						
PV01	**Paradox Valley**	**5.70**	**120**	*e*Pn	**Pn**	**11 49 08.7**	**+1.8**
PV01				*e*Pg	**Pg**	**11 49 28.0**	**-2.4**
PV01				*e*Sg	**Sg**	**11 50 43.7**	**-0.6**
RLMT	**Red Lodge**	**5.72**	**44**	Pn	**Pn**	**11 49 12.0**	**+4.8**
	5.8nm,0.9s						
MSO	**Missoula**	**5.74**	**6**	*e*Pn	**Pn**	**11 49 08.4**	**+1.0**
	6.9nm,0.6s						
MSO				*e*Pg	**Pg**	**11 49 27.6**	**-3.6**
MSO				*e*Sg	**Sg**	**11 50 48.8**	**+3.2**
RWWY	**Rawlins**	**5.78**	**82**	*e*Pn	**Pn**	**11 49 12.7**	**+4.8**
	15nm,0.6s						
WDC	**Whiskeytown Da**	**5.85**	**267**	Pn	**Pb**	**11 49 25.6**	**+1.7**
CHMT	**Chamberlain Mo**	**5.90**	**11**	*e*Pn	**Pn**	**11 49 10.8**	**+1.2**
CHMT				*e*Sg	**Sg**	**11 50 47.9**	**-2.8**
YBH	**Yreka Blue Hor**	**5.93**	**278**	*e*Pn	**Pb**	**11 49 29.9**	**+4.7**
MVCO	**Mesa Verde**	**6.30**	**126**	*e*Pn	**Pb**	**11 49 28.2**	**-3.3**
MVCO				*e*Pg	**Pg**	**11 49 43.4**	**+1.5**
MVCO				*e*Sg	**Sg**	**11 51 02.5**	**-1.0**
PHWY	**Pilot Hill**	**7.09**	**85**	Pn	**Pn**	**11 49 28.3**	**+2.3**
NEW	**Newport**	**7.32**	**348**	*e*Pn	**Pn**	**11 49 31.3**	**+2.3**
	7.1nm,0.6s						
NEW	**Newport**	**7.32**	**348**	Pn	**Pn**	**11 49 31.0**	**+2.0**
	1.4nm,0.3s,baz=161,slow=13,SNR=18						
NEW				Lg		11 51 29.5	
	1.0nm,0.3s,baz=100,slow=18,SNR=7.3						
EGMT	**Eagleton**	**7.80**	**26**	*e*Pn	**Pn**	**11 49 40.0**	**+4.3**
	18nm,1.0s						
TXAR	**Lajitas Array**	**14.88**	**139**	Pn	**Pn**	**11 51 13.8**	**+1.2**
	0.0nm,0.3s,baz=324,slow=12,SNR=6.3						
YKA	**Yellowknife Ar**	**21.40**	**0**	P	**P**	**11 52 28.9**	**-1.1**
	1.2nm,0.7s,mb3.4,baz=180,slow=10,SNR=42						

*IDC **28** 11:59:08.4±1.2, 18.50S×71.92W, h0^{km}, mb4.1/6, mb1 4.3/7, mb1mx4.1/16, mbtmp4.1/7, ML3.4/1, MS3.8/2, Ms1 3.8/2, ms1mx2.9/20, Error ellipse: s-maj=41.8km s-min=28.1km az=19.0*

*ISCJB **28** 11:59:10.9±3.4, 18.32S±0.07×72.2W±0.1, h20^{km}±25^{km}, mb4.1/9, MS4.2/1, Error ellipse: s-maj=20.5km s-min=11.6km az=8.1*

*NEIC **28** 11:59:10.8±4.7, 18.31S×72.05W, h9^{km}±29^{km}, mb4.3/2, Error ellipse: s-maj=18.4km s-min=13.6km az=59.0*

ISC 28 11:59:10.1±4.3, 18.27S±0.07×71.9W±0.1, h3^{km}±28^{km}, n34, σ1^{s}.23/22, mb4.1/9, MS4.2/1, 1D, Off coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARE	**Arequipa**	**1.84**	**12**	⇓*i*P	**Pn**	**11 59 43.6**	**+0.9**
ARE				*i*S	**Sn**	**12 00 06.5**	**+0.1**
LPAZ	**La Paz**	**4.10**	**62**	Pn	**Pn**	**12 00 18.9**	**+5.1**
LPAZ	**La Paz**	**4.10**	**62**	Pn	**Pn**	**12 00 18.9**	**+5.1**
	0.4nm,0.3s,baz=239,slow=7.7,SNR=33						
NNA	**Nana**	**7.86**	**322**	Pn	**Pn**	**12 01 03.1**	**-2.4**
NNA	**Nana**	**7.86**	**322**	Pn	**Pn**	**12 01 03.1**	**-2.4**
	1.0nm,0.3s,baz=180,slow=13,SNR=2.1						
SIV	**San Ignacio**	**10.60**	**79**	Pn	**Pn**	**12 01 42.3**	**-0.7**
SIV	**San Ignacio**	**10.60**	**79**	Pn	**Pn**	**12 01 42.3**	**-0.7**
	0.1nm,0.3s,baz=259,slow=11,SNR=8.9						
ATAH	**Atahualpa**	**12.86**	**330**	LR	LR	12 07 33.5	
	comp=Z,220nm,21.3s,baz=146,slow=39						
CFAA	**Coronel Fontan**	**13.69**	**167**	Pn	**Pn**	**12 02 26.0**	**+0.8**
CFAA	**Coronel Fontan**	**13.69**	**167**	Pn	**Pn**	**12 02 26.0**	**+0.8**
	0.0nm,0.3s,baz=334,slow=11,SNR=3.7						
SDV	**Santo Domingo**	**27.01**	**3**	P	**P**	**12 04 56.3**	**+2.7**
SDV	**Santo Domingo**	**27.01**	**3**	P	**P**	**12 04 56.3**	**+2.7**
	4.8nm,0.8s,mb4.1,baz=226,slow=4.5,SNR=4.8						
TXAR	**Lajitas Array**	**56.39**	**326**	P	**P**	**12 08 51.6**	**-1.3**
	1.1nm,0.9s,mb3.9,baz=151,slow=8.2,SNR=11						
PV01	**Paradox Valley**	**65.83**	**329**	*e*P	**P**	**12 09 57.1**	**+0.2**
MSU	**Marysvale**	**67.94**	**327**	*e*P	**P**	**12 10 11.9**	**+1.5**
DUG	**Dugway**	**69.53**	**328**	*e*P	**P**	**12 10 20.7**	**+0.4**
	2.9nm,1.0s,mb4.2						
NVAR	**Mina Array Bea**	**71.23**	**323**	P	**P**	**12 10 30.7**	**-0.1**
	0.9nm,1.0s,mb3.6,baz=152,slow=4.1,SNR=3.4						
HLID	**Hailey**	**72.83**	**329**	*e*P	**P**	**12 10 41.1**	**+0.9**
	3.8nm,1.4s,mb4.1						
TORD	**Torodi Ar. Bea**	**78.99**	**72**	P	**P**	**12 11 14.1**	**-1.9**
	1.9nm,0.9s,mb4.0,baz=261,slow=5.2,SNR=7.4						
TORD				LR	LR	12 45 31.9	
	comp=Z,94nm,18.9s,MS4.2,baz=240,slow=35						
ESDC	**Sonseca Array**	**85.56**	**46**	P	**P**	**12 11 50.3**	**+0.4**
	0.3nm,0.3s,mb4.0,baz=256,slow=6.0,SNR=5.0						
YKA	**Yellowknife Ar**	**87.23**	**342**	P	**P**	**12 11 56.6**	**-0.9**
	5.1nm,0.8s,mb4.8,baz=136,slow=4.9,SNR=109						
INK	**Inuvik**	**96.97**	**341**	P	**P**	**12 12 39.1**	**-3.5**
	0.5nm,0.5s,mb4.2,baz=96,slow=7.8,SNR=4.4						
ASAR	**Alice Springs**	**131.30**	**212**	PKP	PKPdf	12 18 22.7	-2.0
ASAR	**Alice Springs**	**131.30**	**212**	PKP	PKPdf	12 18 22.7	-2.0
	1.1nm,1.0s,baz=163,slow=2.0,SNR=5.4						
WRA	**Warramunga Arr**	**134.12**	**215**	PKP	PKPdf	12 18 29.5	-0.6
WRA	**Warramunga Arr**	**134.12**	**215**	PKP	PKPdf	12 18 29.5	-0.6
	0.7nm,0.9s,baz=225,slow=1.3,SNR=5.6						
ZALV	**Zalesovo Beam**	**140.11**	**21**	PKP	PKPdf	12 18 39.6	-0.4
ZALV	**Zalesovo Beam**	**140.11**	**21**	PKP	PKPdf	12 18 39.7	-0.4
	0.2nm,0.3s,baz=150,slow=1.2,SNR=3.1						
MKAR	**Makanchi Array**	**144.50**	**31**	PKP	PKPdf	12 18 45.8	-2.3
MKAR	**Makanchi Array**	**144.50**	**31**	PKP	PKPdf	12 18 45.8	-2.3
	1.3nm,1.0s,baz=323,slow=3.8,SNR=9.0						
MJAR	**Matsushiro Arr**	**147.85**	**311**	PKPbc	PKPbc	12 18 56.8	-0.2
MJAR	**Matsushiro Arr**	**147.85**	**311**	PKPbc	PKPbc	12 18 56.8	-0.2
	3.5nm,0.9s,baz=179,slow=0.8,SNR=7.2						
SONM	**Songino Array**	**150.48**	**2**	PKPbc	PKPbc	12 19 03.2	-0.1
SONM				PKPab	PKPab	12 19 09.7	0.0
SONM	**Songino Array**	**150.48**	**2**	PKPbc	PKPbc	12 19 03.2	-0.1
	0.8nm,0.9s,baz=359,slow=8.6,SNR=2.9						
SONM				PKPab	PKPab	12 19 09.7	0.0
	0.8nm,0.8s,baz=12,slow=3.7,SNR=3.7						

*BJI **28** 12:31:36.9, 1.80S×128.90E, h10^{km}, mB5.3, mb4.7*

*NEIC **28** 12:31:39.0±0.4, 1.84S×128.87E, h10^{km}, mb5.0/8, Error ellipse: s-maj=21.8km s-min=6.6km az=68.0*

*ISCJB **28** 12:31:40.1±2.4, 1.87S±0.05×128.9E±0.1, h33^{km}±23^{km}, mb4.6/27, MS3.9/2, Error ellipse: s-maj=18.3km s-min=7.8km az=171.0*

*MOS **28** 12:31:40.0±1.3, 1.86S×128.80E, h33^{km}, mb4.9/10, Error ellipse: s-maj=29.7km s-min=9.3km az=108.9*

*IDC **28** 12:31:49.5±3.0, 2.06S×128.72E, h107^{km}±28^{km}, mb3.9/9, mb1 3.9/11, mb1mx3.9/18, mbtmp3.9/11, MS3.8/2, Ms1 3.8/2, ms1mx3.2/26, Error ellipse: s-maj=34.3km s-min=9.4km az=77.0*

ISC 28 12:31:45.3±1.9, 2.04S±0.07×128.9E±0.1, h71^{km}±20^{km}, n50, σ0^{s}.99/50, mb4.5/27, 1C-1D, Ceram Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**11.17**	**162**	*e*P	**Pn**	**12 34 22.0**	**-0.2**
	6.7nm,0.3s						
KAKA				*e*S	**Sn**	**12 36 21.3**	**-4.1**
FITZ	**Fitzroy Crossi**	**16.28**	**191**	*e*P	**Pn**	**12 35 32.1**	**+2.5**
	11nm,1.4s						
FITZ	**Fitzroy Crossi**	**16.28**	**191**	P	**Pn**	**12 35 31.1**	**+1.4**
	0.1nm,0.3s,baz=330,slow=20,SNR=3.9						
FITZ				S	**S**	**12 38 32.3**	**-6.1**
	0.0nm,0.3s,baz=341,slow=22,SNR=1.9						
WRA	**Warramunga Arr**	**18.57**	**164**	P	**Pn**	**12 35 57.0**	**-0.7**
	0.7nm,0.3s,baz=349,slow=12,SNR=40						
WRA				S	**S**	**12 39 14.2**	**-11**
	0.2nm,0.3s,baz=346,slow=22,SNR=4.0						
WB2	**Warramunga Arr**	**18.57**	**164**	*e*P	**Pn**	**12 35 56.5**	**-1.2**
WB2				*e*P		12 35 57.4	
ASAR	**Alice Springs**	**22.04**	**168**	P	**P**	**12 36 36.2**	**+2.0**
	9.1nm,0.8s,mb4.1,baz=349,slow=12,SNR=62						
ASAR				S	**S**	**12 40 32.5**	**-0.8**
	4.6nm,0.8s,baz=347,slow=21,SNR=15						
CTA	**Charters Tower**	**24.68**	**138**	P	**P**	**12 37 02.9**	**+3.1**
	2.2nm,0.5s,mb3.8,baz=230,slow=18,SNR=2.7						
STKA	**Stephens Creek**	**32.00**	**159**	P	**P**	**12 38 06.4**	**+1.4**
	1.5nm,0.7s,mb3.8,baz=332,slow=11,SNR=3.4						
KSRS	**Korea Array**	**39.31**	**359**	P	**P**	**12 39 07.4**	**0.0**
	3.1nm,0.8s,mb4.2,baz=172,slow=9.1,SNR=9.2						
KSRS				LR	LR	12 54 05.4	
	comp=Z,80nm,20.1s,baz=200,slow=34						
MJAR	**Matsushiro Arr**	**39.35**	**12**	P	**P**	**12 39 08.4**	**+0.6**
	3.1nm,0.9s,mb4.1,baz=187,slow=10,SNR=3.9						
LZH	**Lanzhou**	**44.55**	**331**	*e*P	**P**	**12 39 51.0**	**+0.7**
LZH				XP	sP	12 39 56.5	-20
LZH				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.7						
MDJ	**Mudanjiang**	**46.45**	**1**	P	**P**	**12 40 05.3**	**+0.2**
MDJ				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,49nm,6.1s						
ASAJ	**Asahikawa**	**47.56**	**13**	P	**P**	**12 40 14.5**	**+0.8**
	comp=Z,10nm,0.9s,mb4.7,baz=201,slow=8.6						
LSA	**Lhasa**	**47.93**	**314**	P	**P**	**12 40 17.0**	**+0.1**
LSA	**Lhasa**	**47.93**	**314**	*e*P	**P**	**12 40 18.6**	**+1.7**
	comp=Z,8.1nm,0.7s,mb4.7						
LSA	**Lhasa**	**47.93**	**314**	*e*P	**P**	**12 40 18.6**	**+1.8**
LSA				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.7						
GTA	**Gaotai**	**49.14**	**330**	*e*P	**P**	**12 40 23.5**	**-2.5**
GTA				AP	pP	12 40 28.0	-16
GTA				XP	sP	12 40 31.5	-20
GTA				AMB	AMB		
	comp=Z,2.0nm,1.6s,mb3.8						
TAPN	**Taplejung**	**49.25**	**309**	*e*P	**P**	**12 40 27.2**	**+0.2**
	comp=Z,14nm,0.6s,mb5.0						
ODAN	**Odare**	**49.26**	**309**	*e*P	**P**	**12 40 27.6**	**+0.5**
	comp=Z,23nm,0.8s,mb5.2						
YSS	**Yuzh-Sakhalins**	**50.29**	**12**	*e*P	**P**	**12 40 34.9**	**+0.3**
YSS				pmax	pmax		
	comp=Z,26nm,1.8s,mb4.9						
JIRN	**Jiri**	**50.58**	**309**	*e*P	**P**	**12 40 37.5**	**+0.4**
	comp=Z,10.0nm,0.5s,mb5.1						
KLR	**Kul'dur**	**51.13**	**2**	*e*P	**P**	**12 40 37.8**	**-3.0**
KKN	**Kakani**	**51.35**	**309**	*e*P	**P**	**12 40 42.7**	**-0.2**
	comp=Z,17nm,0.8s,mb5.1						
KKN	**Kakani**	**51.35**	**309**	*e*P	**P**	**12 40 42.7**	**-0.2**
KKN				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.1						
GKN	**Gorkha**	**51.95**	**308**	*e*P	**P**	**12 40 47.5**	**+0.1**
	comp=Z,24nm,0.9s,mb5.2						
ULN	**Ulaanbaatar**	**53.24**	**342**	*e*P	**P**	**12 40 56.7**	**+0.1**
	comp=Z,11nm,1.0s,mb4.8						
ULN	**Ulaanbaatar**	**53.24**	**342**	*e*P	**P**	**12 40 56.7**	**+0.2**
ULN				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
SONM	**Songino Array**	**53.42**	**341**	P	**P**	**12 40 58.2**	**+0.4**
	comp=Z,3.9nm,0.9s,mb4.4,baz=142,slow=8.2,SNR=13						
SONM				PcP	PcP	12 42 05.0	+0.8
	comp=Z,0.6nm,0.7s,baz=162,slow=5.3,SNR=2.3						
CIT	**Chita**	**55.41**	**349**	*e*P	**P**	**12 41 12.4**	**+0.2**
ZAK	**Zakamensk**	**56.65**	**341**	*e*P	**P**	**12 41 20.5**	**-0.6**
ZAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
TLY	**Talaya**	**57.65**	**342**	*e*P	**P**	**12 41 28.6**	**+0.5**
BOD	**Bodaibo**	**60.86**	**351**	*e*P	**P**	**12 41 47.2**	**-2.9**
BOD				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.6						
MK31	**Makanchi Array**	**63.51**	**326**	*e*P	**P**	**12 42 08.1**	**-0.1**
MKAR	**Makanchi Array**	**63.51**	**326**	P	**P**	**12 42 08.0**	**-0.2**
MKAR	**Makanchi Array**	**63.51**	**326**	P	**P**	**12 42 08.0**	**-0.2**
	comp=Z,6.7nm,0.9s,mb4.5,baz=124,slow=8.1,SNR=54						
MA2	**Magadan**	**63.80**	**12**	*e*P	**P**	**12 42 10.7**	**+1.0**
MA2				pmax	pmax		
	comp=Z,10.0nm,1.5s,mb4.4						
YAK	**Yakutsk**	**63.90**	**0**	*e*P	**P**	**12 42 11.0**	**+0.6**
YAK				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.0						
ZALV	**Zalesovo Beam**	**66.68**	**333**	P	**P**	**12 42 27.7**	**-0.9**
ZALV	**Zalesovo Beam**	**66.68**	**333**	P	**P**	**12 42 27.7**	**-0.9**
	comp=Z,2.4nm,0.8s,mb4.1,baz=107,slow=5.1,SNR=13						
ZAL	**Zalesovo**	**66.68**	**333**	P	**P**	**12 42 27.7**	**-0.8**
KURK	**Kurchatov**	**67.75**	**328**	⇑*i*P	**P**	**12 42 35.0**	**-0.3**
NVS	**Novosibirsk**	**67.97**	**333**	*i*P	**P**	**12 42 35.9**	**-0.7**
BRVK	**Borovoye**	**73.39**	**327**	*e*P	**P**	**12 43 09.7**	**+0.1**
	comp=Z,11nm,1.3s,mb4.5						
BRVK	**Borovoye**	**73.39**	**327**	*e*P	**P**	**12 43 09.7**	**+0.1**
BRVK				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.5						
TIXI	**Tiksi**	**73.56**	**360**	*e*P	**P**	**12 43 09.8**	**-0.5**
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.2						
AKTO	**Aktyubinsk**	**79.51**	**322**	LR	LR	13 21 37.1	
	comp=Z,93nm,18.0s,baz=309,slow=38						
ARU	**Arti**	**80.94**	**328**	*d i*P	**P**	**12 43 51.3**	**-0.6**
ARU				*e*		12 46 56.7	
ARU				*e*S	S	12 53 59.8	+4.8
ARU				*e*SS	SS	12 59 15.5	+5.0
ARU				pmax	pmax		
	comp=Z,8.0nm,1.7s,mb4.3						
TMUT	**Trail Mountain**	**114.13**	**47**	*e*Pdif	Pdif	12 46 32.3	+6.9
TORD	**Torodi Ar. Bea**	**126.63**	**285**	PKP	PKPdf	12 50 42.5	+0.9
TORD	**Torodi Ar. Bea**	**126.63**	**285**	PKP	PKPdf	12 50 42.5	+0.8
	comp=Z,0.8nm,1.0s,baz=48,slow=2.8,SNR=3.2						

*NEIC **28** 12:43:58.0±0.7, 46.84N×154.05E, h10^{km}, Error ellipse: s-maj=25.9km s-min=14.1km az=114.0*

*MOS **28** 12:44:07.6±1.4, 46.95N×152.57E, h79^{km}, mb4.2/1, Error ellipse: s-maj=24.9km s-min=16.7km az=62.2*

*ISCJB **28** 12:44:09.8±1.7, 46.6N±0.1×152.4E±0.2, h103^{km}±15^{km}, mb3.6/10, Error ellipse: s-maj=24.7km s-min=14.1km az=137.2*

*IDC **28** 12:44:10.8±5.0, 46.86N×152.60E, h93^{km}±42^{km}, mb3.5/11, mb1 3.6/13, mb1mx3.4/25, mbtmp3.5/13, Error ellipse: s-maj=32.2km s-min=18.3km az=88.0*

ISC 28 12:44:09.9±1.6, 46.7N±0.1×152.5E±0.2, h87^{km}±14^{km}, n32, σ1^{s}.32/38, mb3.6/10, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	**Kuril'sk**	**3.57**	**247**	*e*PN	**Pn**	**12 45 02.0**	**-1.0**
KUR				*e*S	**Sn**	**12 45 46.0**	**+1.8**
KUR				smax			
	comp=N,110nm,0.5s						
KUR				smax			
	comp=E,210nm,0.5s						
NEM2	**Nemuro 2**	**5.86**	**238**	P	**Pn**	**12 45 32.0**	**-2.1**
NEM2				*e*S	**Sn**	**12 46 36.6**	**-3.2**
JRA	**Rausu**	**5.91**	**245**	P	**Pn**	**12 45 36.3**	**+1.5**
JNK	**Nakash**	**6.35**	**243**	P	**Pn**	**12 45 40.8**	**+0.1**
JTKR	**Abashiri--Toko**	**6.67**	**249**	P	**Pn**	**12 45 45.8**	**+0.7**
JAK	**Akkeshi**	**6.69**	**239**	P	**Pn**	**12 45 43.1**	**-2.3**
JAK				*e*S	**Sn**	**12 46 57.1**	**-3.0**
JMP	**Maruseppu**	**7.00**	**251**	P	**Pn**	**12 45 51.5**	**+1.8**
JAR	**Ashorobuto**	**7.09**	**244**	P	**Pn**	**12 45 50.5**	**-0.3**
JAR				*e*S	**Sn**	**12 47 11.2**	**+1.4**
JOB	**Onbets**	**7.26**	**242**	P	**Pn**	**12 45 52.7**	**-0.5**
JOB				*e*S	**Sn**	**12 47 12.7**	**-1.3**
ASAJ	**Asahikawa**	**7.46**	**253**	P	**Pn**	**12 45 57.8**	**+1.9**
ASAJ	**Asahikawa**	**7.46**	**253**	PN	**Pn**	**12 45 57.6**	**+1.7**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ	**Asahikawa**	**7.46**	**253**	P	**Pn**	**12 45 57.5**	**+1.7**
	comp=Z,0.9nm,0.3s,baz=110,slow=14,SNR=9.9						
JKK2	**Kamakawa 2**	**7.46**	**251**	P	**Pn**	**12 45 57.4**	**+1.5**
JCH	**Churui**	**7.71**	**241**	P	**Pn**	**12 45 58.3**	**-1.0**
JCH				*e*S	**Sn**	**12 47 22.3**	**-2.7**
JFR	**Furan**	**7.89**	**247**	P	**Pn**	**12 46 03.5**	**+1.7**
JBT2	**Biratori 2**	**8.23**	**245**	P	**Pn**	**12 46 06.5**	**0.0**
JNB	**Noboribetsu**	**9.23**	**247**	P	**Pn**	**12 46 19.6**	**-0.4**
JYM2	**Yakumo 2**	**9.84**	**247**	P	**Pn**	**12 46 27.1**	**-1.2**
MJAR	**Matsushiro Arr**	**14.74**	**232**	P	**Pn**	**12 47 37.9**	**+4.2**
	comp=Z,0.2nm,0.3s,baz=42,slow=9.6,SNR=4.9						
KSRS	**Korea Array**	**20.41**	**252**	P	**P**	**12 48 42.1**	**+2.4**
	comp=Z,1.2nm,0.5s,baz=58,slow=9.3,SNR=6.0						
MKAR	**Makanchi Array**	**46.61**	**297**	P	**P**	**12 52 28.2**	**-0.7**
	comp=Z,0.3nm,0.6s,mb3.2,baz=68,slow=7.2,SNR=5.9						
MKAR				PcP	PcP	12 54 02.5	+1.1
	comp=Z,0.4nm,1.0s,baz=29,slow=2.8,SNR=4.2						
FINES	**FINESS Array B**	**63.91**	**335**	P	**P**	**12 54 32.4**	**-0.5**
FINES	**FINESS Array B**	**63.91**	**335**	P	**P**	**12 54 32.4**	**-0.5**
	comp=Z,1.0nm,0.4s,mb4.0,baz=45,slow=8.1,SNR=11						
CCUT	**Cedar City**	**66.35**	**60**	*e*P	**P**	**12 54 39.8**	**-9.3**
NOA	**NORSAR Array B**	**68.14**	**341**	P	**P**	**12 54 59.8**	**-0.2**
	comp=Z,1.2nm,0.6s,mb3.9,baz=29,slow=6.3,SNR=3.1						
WRA	**Warramunga Arr**	**68.34**	**198**	P	**P**	**12 55 02.1**	**+0.4**
	comp=Z,0.3nm,0.8s,mb3.2,baz=17,slow=6.9,SNR=3.6						
HFS	**Hagfors**	**68.36**	**339**	P	**P**	**12 55 01.0**	**-0.3**
	comp=Z,1.8nm,0.4s,mb4.2,baz=62,slow=6.9,SNR=12						
AKASG	**Malin Array Be**	**71.36**	**326**	P	**P**	**12 55 19.6**	**-0.3**
	comp=Z,0.8nm,0.3s,mb4.0,baz=32,slow=5.8,SNR=4.1						
ASAR	**Alice Springs**	**72.04**	**198**	P	**P**	**12 55 26.1**	**+1.9**
	comp=Z,0.5nm,0.6s,mb3.5,baz=14,slow=5.5,SNR=7.0						
EKA	**Eskdalemuir Ar**	**76.29**	**346**	P	**P**	**12 55 48.4**	**-0.2**
	comp=Z,1.1nm,0.4s,mb3.9,baz=14,slow=1.4,SNR=5.3						
TXAR	**Lajitas Array**	**77.86**	**60**	P	**P**	**12 55 57.8**	**-0.1**
	comp=Z,0.2nm,0.7s,mb2.9,baz=290,slow=2.6,SNR=3.2						
GERES	**GERESS Array B**	**78.32**	**334**	P	**P**	**12 55 59.5**	**-0.6**
	comp=Z,0.3nm,0.3s,mb3.5,baz=28,slow=6.7,SNR=3.0						

*ISCJB **28** 12:46:27.8±0.4, 35.81N±0.02×1.77W±0.04, h10^{km}, mb3.2/2, Error ellipse: s-maj=4.2km s-min=2.9km az=10.8*

*INMG **28** 12:46:27.7±1.1, 35.79N×1.70W, h0^{km}, ML2.7, Error ellipse: s-maj=5.0km s-min=3.5km az=129.0*

*IDC **28** 12:46:27.6±1.4, 35.94N×1.91W, h0^{km}, mb3.2/2, mb1 3.2/4, mb1mx3.1/22, mbtmp3.2/4, ML3.3/2, Error ellipse: s-maj=25.2km s-min=15.9km az=101.0*

*MDD **28** 12:46:28.9±0.8, 35.80N×1.74W, h2^{km}±6^{km}, mbLg2.6/30, Error ellipse: s-maj=6.0km s-min=4.0km az=110.0, PRXIMO*

*NEIC **28** 12:46:29.1, 35.84N×1.71W, h0^{km}, MN2.7(MDD), After MDD.*

*CNRM **28** 12:46:30.3, 35.84N×1.71W, h24^{km}, MD3.6*

*CSEM **28** 12:46:30.3±0.1, 35.80N×1.71W, h35^{km}, ML2.7, Error ellipse: s-maj=2.3km s-min=1.5km az=92.0*

ISC 28 12:46:29.0±0.4, 35.80N±0.02×1.81W±0.03, h10^{km}, n104, σ1^{s}.18/184, mb3.2/2, 4D, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EALB	**Alboran**	**1.00**	**278**	P	**Pg**	**12 46 48.3**	**+0.1**
	43nm,0.3s,SNR=25						
EALB				S	**Sg**	**12 47 02.6**	**+1.4**
	85nm,0.2s,SNR=7.1						
EALB	**Alboran**	**1.00**	**278**	P	**Pg**	**12 46 48.3**	**+0.1**
	43nm,0.3s,SNR=25						
EALB				S	**Sg**	**12 47 02.7**	**+1.4**
	85nm,0.2s,SNR=7.1						
ZAI	**Zaio**	**1.13**	**223**	*i*P	**Pb**	**12 46 50.5**	**0.0**
ZAI				*i*S	**Sb**	**12 47 05.5**	**+0.3**
OUJ	**Oujda**	**1.14**	**184**	*i*P	**Pb**	**12 46 50.5**	**-0.3**
OUJ				*i*S	**Sb**	**12 47 05.5**	**-0.2**
ENIJ	**Nijar**	**1.21**	**345**	P	**Pn**	**12 46 50.5**	**-1.5**
	40nm,0.6s,SNR=28						
ENIJ				S	**Sb**	**12 47 07.2**	**-0.5**
	136nm,0.2s,SNR=8.8						
EBER	**Berja**	**1.40**	**322**	P	**Pn**	**12 46 53.9**	**-0.6**
EBER				S	**Sn**	**12 47 14.2**	**+1.2**
EBER	**Berja**	**1.40**	**322**	P	**Pn**	**12 46 54.3**	**-0.2**
	9.2nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**12 47 14.2**	**+1.2**
	118nm,0.3s,SNR=7.9						
EBER	**Berja**	**1.40**	**322**	P	**Pn**	**12 46 53.9**	**-0.6**
	SNR=7.9						
EBER				S	**Sn**	**12 47 14.2**	**+1.2**
	118nm,0.3s,SNR=7.9						
EGUA	**Guajares**	**1.75**	**307**	P	**Pn**	**12 46 58.5**	**-0.8**
EGUA				S	**Sn**	**12 47 23.6**	**+1.9**
EGUA	**Guajares**	**1.75**	**307**	P	**Pn**	**12 46 58.9**	**-0.5**
	4.0nm,0.4s,SNR=7.9						
EGUA				S	**Sn**	**12 47 22.7**	**+1.0**
	15nm,0.3s,SNR=7.9						
EGUA	**Guajares**	**1.75**	**307**	P	**Pn**	**12 46 58.5**	**-0.9**
	SNR=7.9						
EGUA				S	**Sn**	**12 47 23.6**	**+1.9**
	15nm,0.3s,SNR=7.9						
TOU	**Touzarine**	**1.79**	**243**	*i*P	**Pn**	**12 47 00.0**	**+0.1**
TOU				*i*S	**Sn**	**12 47 22.0**	**-0.8**
MPAL	**Palemas**	**1.83**	**252**	*i*P	**Pn**	**12 46 59.5**	**-0.9**
MPAL				*i*S	**Sn**	**12 47 24.0**	**+0.4**
EQUE	**Quentar**	**1.92**	**317**	⇓P	**Pn**	**12 47 02.2**	**+0.6**
	36nm,0.4s,SNR=18						
EQUE				S	**Sn**	**12 47 26.5**	**+0.6**
	143nm,0.7s,SNR=7.9						
EQUE	**Quentar**	**1.92**	**317**	P	**Pn**	**12 47 02.5**	**+0.8**
	36nm,0.4s,SNR=18						
EQUE				S	**Sn**	**12 47 26.5**	**+0.6**
	143nm,0.7s,SNR=7.9						
ERON	**Agron**	**2.01**	**308**	P	**Pn**	**12 47 04.0**	**+1.0**
ERON				S	**Sn**	**12 47 29.2**	**+1.0**

ERON	**Agron**	2.01	308	P	Pn	12 47 03.7	+0.7
	23nm,0.3s,SNR=27						
ERON				S	Sn	12 47 29.2	+1.0
	17nm,0.6s,SNR=7.9						
ERON	**Agron**	2.01	308	P	Pn	12 47 04.0	+1.0
	23nm,0.3s,SNR=27						
ERON				S	Sn	12 47 29.2	+1.0
	SNR=7.9						
ECOG	**Cogollos-Vega**	2.04	317	P	Pn	12 47 04.3	+1.0
ECOG				S	Sn	12 47 29.3	+0.5
ECOG	**Cogollos-Vega**	2.04	317	P	Pn	12 47 04.1	+0.7
	5.0nm,0.2s,SNR=7.9						
ECOG				S	Sn	12 47 29.3	+0.4
	3.9nm,0.1s,SNR=7.9						
ECOG	**Cogollos-Vega**	2.04	317	P	Pn	12 47 04.3	+1.0
	SNR=7.9						
ECOG				S	Sn	12 47 29.3	+0.4
	3.9nm,0.1s,SNR=7.9						
EMUR	**La Murta**	2.09	13	P	Pn	12 47 02.2	-1.8
EMUR				S	Sn	12 47 27.2	-2.8
EMUR	**La Murta**	2.09	13	P	Pn	12 47 02.2	-1.8
	14nm,0.3s,SNR=11						
EMUR				S	Sn	12 47 29.3	-0.8
	28nm,0.4s,SNR=5.8						
EMUR	**La Murta**	2.09	13	P	Pn	12 47 02.2	-1.8
	14nm,0.3s,SNR=11						
EMUR				S	Sn	12 47 27.2	-2.8
	28nm,0.4s,SNR=5.8						
EQES	**Quesada**	2.24	334	⇓P	Pn	12 47 07.9	+1.8
EQES				S	Sn	12 47 37.1	+3.4
EQES	**Quesada**	2.24	334	P	Pn	12 47 06.8	+0.7
	56nm,0.3s,SNR=18						
EQES				S	Sn	12 47 34.5	+0.7
	55nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.24	334	P	Pn	12 47 07.9	+1.8
	56nm,0.3s,SNR=18						
ELOJ	**Sierra Loja**	2.31	306	P	Pn	12 47 09.2	+2.0
ELOJ				S	Sn	12 47 37.6	+2.0
ELOJ	**Sierra Loja**	2.31	306	P	Pn	12 47 07.8	+0.7
	0.1nm,0.2s,SNR=7.9						
ELOJ				S	Sn	12 47 36.6	+1.0
	15nm,0.4s,SNR=7.9						
ELOJ	**Sierra Loja**	2.31	306	P	Pn	12 47 09.2	+2.1
	SNR=7.9						
ELOJ				S	Sn	12 47 37.6	+2.0
	15nm,0.4s,SNR=7.9						
EMIJ	**Mijas**	2.51	289	P	Pn	12 47 09.2	-0.7
EMIJ				S	Sn	12 47 39.2	-1.3
EMIJ	**Mijas**	2.51	289	P	Pn	12 47 09.3	-0.5
	6.1nm,0.3s,SNR=4.0						
EMIJ				S	Sn	12 47 40.7	+0.2
	7.2nm,0.1s,SNR=7.9						
EMIJ	**Mijas**	2.51	289	P	Pn	12 47 09.2	-0.6
	6.1nm,0.3s,SNR=4.0						
ELUQ	**Luque**	2.64	312	P	Pn	12 47 14.1	+2.5
ELUQ				S	Sn	12 47 48.9	+5.2
ELUQ	**Luque**	2.64	312	P	Pn	12 47 12.0	+0.4
	12nm,0.3s,SNR=14						
ELUQ				S	Sn	12 47 43.9	+0.2
	9.9nm,0.2s,SNR=7.9						
ELUQ	**Luque**	2.64	312	P	Pn	12 47 14.1	+2.5
	12nm,0.3s,SNR=14						
ELUQ				S	Sn	12 47 48.8	+5.1
EBAN	**Banos Encina**	2.84	327	P	Pn	12 47 15.8	+1.5
EBAN				S	Sn	12 47 51.0	+2.4
EBAN	**Banos Encina**	2.84	327	P	Pn	12 47 14.8	+0.5
	3.2nm,0.3s,SNR=4.0						
EBAN				S	Sn	12 47 48.5	-0.1
	5.6nm,0.2s,SNR=7.9						
EBAN	**Banos Encina**	2.84	327	P	Pn	12 47 15.8	+1.5
	SNR=4.0						
EBAN				S	Sn	12 47 51.0	+2.5
	5.6nm,0.2s,SNR=7.9						
ETOB	**Tobarra**	2.85	4	⇓P	Pn	12 47 14.3	-0.2
ETOB				S	Sn	12 47 47.5	-1.2
ETOB	**Tobarra**	2.85	4	⇓P	Pn	12 47 14.2	-0.2
	16nm,0.4s,SNR=18						
ETOB				S	Sn	12 47 47.5	-1.2
	10nm,0.2s,SNR=7.9						
ETOB	**Tobarra**	2.85	4	P	Pn	12 47 14.3	-0.1
	16nm,0.4s,SNR=18						
ETOB				S	Sn	12 47 47.5	-1.2
	10nm,0.2s,SNR=7.9						
EVIA	**Vianos**	2.88	349	P	Pn	12 47 15.3	+0.3
EVIA				S	Sn	12 47 51.8	+2.1
EVIA	**Vianos**	2.88	349	P	Pn	12 47 15.3	+0.3
	11nm,0.3s,SNR=19						
EVIA				S	Sn	12 47 49.4	-0.3
	9.2nm,0.2s,SNR=7.9						
EVIA	**Vianos**	2.88	349	P	Pn	12 47 15.3	+0.3
	11nm,0.3s,SNR=19						
EVIA				S	Sn	12 47 51.8	+2.1
	9.2nm,0.2s,SNR=7.9						
EJIF	**Jimena Fronter**	3.03	283	P	Pn	12 47 18.0	+1.1
EJIF				S	Sn	12 47 54.5	+1.2
EJIF	**Jimena Fronter**	3.03	283	P	Pn	12 47 18.0	+1.1
	2.0nm,0.2s,SNR=4.0						
EJIF				S	Sn	12 47 53.0	-0.2
	2.7nm,0.2s,SNR=7.9						
EJIF	**Jimena Fronter**	3.03	283	P	Pn	12 47 18.0	+1.1
	SNR=4.0						
EJIF				S	Sn	12 47 54.5	+1.2
	2.7nm,0.2s,SNR=7.9						
EADA	**Adamuz**	3.24	318	P	Pn	12 47 20.8	+1.0
EADA				S	Sn	12 47 59.8	+1.4
EADA	**Adamuz**	3.24	318	P	Pn	12 47 20.2	+0.5
	5.0nm,0.3s,SNR=13						
EADA				S	Sn	12 47 57.7	-0.6
	12nm,0.5s,SNR=6.1						
EADA	**Adamuz**	3.24	318	P	Pn	12 47 20.8	+1.0
	5.0nm,0.3s,SNR=13						
EADA				S	Sn	12 47 59.7	+1.3
	12nm,0.5s,SNR=6.1						
MDT	**Midelt**	3.77	219	Pn	Pn	12 47 26.5	-0.7
MDT				Lg		12 48 28.3	
MDT	**Midelt**	3.77	219	Pn	Pn	12 47 26.5	-0.7
	0.4nm,0.3s,baz=31,slow=13,SNR=28						
MDT				Lg		12 48 28.3	
	2.3nm,0.3s,baz=225,slow=22,SNR=3.7						
MDT	**Midelt**	3.77	219	Pn	Pn	12 47 26.5	-0.7
CZD	**Col de Zad**	3.84	225	iP	Pn	12 47 29.0	+0.9
CZD				iS	Sn	12 48 12.0	-1.3
EIBI	**Ibiza**	4.08	37	P	Pn	12 47 29.7	-1.7
EIBI				S	Sn	12 48 14.0	-5.3
EIBI	**Ibiza**	4.08	37	P	Pn	12 47 30.5	-1.0
	9.6nm,0.6s,SNR=9.0						
EIBI				S	Sn	12 48 14.8	-4.5
	6.8nm,0.2s,SNR=7.9						
EIBI	**Ibiza**	4.08	37	P	Pn	12 47 29.7	-1.7
	9.6nm,0.6s,SNR=9.0						
ESDC	**Sonseca Array**	4.22	337	P	Pn	12 47 34.4	+1.1
ESDC				Lg		12 48 36.1	
ESDC	**Sonseca Array**	4.22	337	Pn	Pn	12 47 31.8	-1.6
	2.2nm,0.3s,baz=154,slow=14,SNR=10						
ESDC				Sn	Sn	12 48 17.6	-5.1
	2.6nm,0.3s,baz=154,slow=21,SNR=5.4						
ESDC				Lg		12 48 38.1	
	4.6nm,0.3s,baz=154,slow=30,SNR=9.2						
ESDC	**Sonseca Array**	4.22	337	P	Pn	12 47 33.5	+0.1
	1.1nm,0.2s,baz=150,slow=13,SNR=7.4						
ESDC				S	Sn	12 48 20.8	-1.9
	5.1nm,0.3s,baz=155,slow=29,SNR=7.9						
ESDC	**Sonseca Array**	4.22	337	P	Pn	12 47 34.4	+1.0
	1.1nm,0.2s,SNR=7.4						
ZFT	**Errachidia**	4.31	210	iP	Pn	12 47 36.0	+1.4
ZFT				iS	Sn	12 48 22.0	-2.9
EMIN	**Mina Concepcio**	4.37	298	P	Pn	12 47 35.1	-0.2
EMIN				S	Sn	12 48 23.9	-2.4
EMIN	**Mina Concepcio**	4.37	298	P	Pn	12 47 35.1	-0.2
	1.5nm,0.4s,SNR=11						
EMIN				S	Sn	12 48 24.6	-1.7
	4.3nm,0.8s,SNR=7.9						
EMIN	**Mina Concepcio**	4.37	298	P	Pn	12 47 35.1	-0.2
	1.5nm,0.4s,SNR=11						
PBAR	**Barrancos**	4.81	301	ePn	Pn	12 47 41.7	+0.3
PBAR	**Barrancos**	4.81	301	ePn	Pn	12 47 41.7	+0.3
EGRO	**El Granado**	4.87	292	P	Pn	12 47 43.6	+1.3
EGRO				S	Sn	12 48 37.7	-1.1
EGRO	**El Granado**	4.87	292	P	Pn	12 47 43.1	+0.8
	4.1nm,0.4s,SNR=4.0						
EGRO				S	Sn	12 48 37.2	-1.6
	6.9nm,0.5s,SNR=7.9						
EGRO	**El Granado**	4.87	292	P	Pn	12 47 43.6	+1.3
	4.1nm,0.4s,SNR=4.0						
PVAQ	**Vaqueiros**	5.01	290	ePn	Pn	12 47 44.4	+0.2
PVAQ				eSn	Sn	12 48 40.1	-2.1
PVAQ				A		12 48 47.9	
	5.8nm,0.5s						
PVAQ	**Vaqueiros**	5.01	290	ePn	Pn	12 47 44.4	+0.2
PVAQ				eSn	Sn	12 48 40.1	-2.1
	5.8nm,0.5s						
ETOR	**Torete**	5.01	358	P	Pn	12 47 45.3	+1.1
ETOR	**Torete**	5.01	358	P	Pn	12 47 43.8	-0.4
	9.5nm,0.3s,SNR=19						
ETOR				S	Sn	12 48 38.8	-3.4
	6.7nm,0.4s,SNR=7.9						
ETOR	**Torete**	5.01	358	P	Pn	12 47 45.3	+1.1
EBAD	**Badajoz**	5.09	307	P	Pn	12 47 45.1	-0.1
	4.4nm,0.3s,SNR=12						
EBAD				S	Sn	12 48 42.2	-1.8
	4.0nm,1.6s,SNR=7.9						
EBAD	**Badajoz**	5.09	307	P	Pn	12 47 45.1	-0.1
EBAD				S	Sn	12 48 42.2	-1.8
PBDV	**Barranco-do-Ve**	5.13	288	ePn	Pn	12 47 46.2	+0.3
PBDV				eSn	Sn	12 48 44.6	-0.5
PBDV				A		12 48 54.1	
	5.4nm,0.6s						
PBDV	**Barranco-do-Ve**	5.13	288	ePn	Pn	12 47 46.2	+0.3
PBDV				eSn	Sn	12 48 44.6	-0.5
	5.4nm,0.6s						
PBEJ	**Beja**	5.33	296	ePn	Pn	12 47 49.1	+0.5
PBEJ	**Beja**	5.33	296	ePn	Pn	12 47 49.1	+0.5
ETOS	**Mallorca**	5.39	41	P	Pn	12 47 49.1	-0.3
ETOS				S	Sn	12 48 46.3	-5.3
ETOS	**Mallorca**	5.39	41	P	Pn	12 47 49.1	-0.3
	7.8nm,0.6s,SNR=4.7						
ETOS				S	Sn	12 48 46.8	-4.7
	7.6nm,0.8s,SNR=7.9						
ETOS	**Mallorca**	5.39	41	P	Pn	12 47 49.1	-0.4
ETOS				S	Sn	12 48 46.3	-5.3
EVO	**Evora**	5.65	301	ePn	Pn	12 47 52.9	-0.1
EVO				eSn	Sn	12 48 56.4	-1.5
EVO				A		12 48 58.6	
	5.9nm,0.3s						
EVO	**Evora**	5.65	301	P	Pn	12 47 52.9	-0.1
EVO				S	Sn	12 48 56.4	-1.5
	3.0nm,0.3s						
EVO	**Evora**	5.65	301	ePn	Pn	12 47 52.9	-0.1
MORF	**Marmelete**	5.71	287	ePn	Pn	12 47 54.2	+0.5
MORF				eSn	Sn	12 48 58.4	-0.8
MORF				A		12 49 09.8	
	3.9nm,0.7s						
MORF	**Marmelete**	5.71	287	P	Pn	12 47 54.2	+0.5
MORF				S	Sn	12 48 58.4	-0.8
	3.9nm,0.7s						
MORF	**Marmelete**	5.71	287	ePn	Pn	12 47 54.2	+0.5
PFVI	**Vila Bisbo**	5.81	285	ePn	Pn	12 47 55.3	+0.2
PFVI				eSn	Sn	12 48 59.7	-2.0
PFVI				A		12 49 05.1	
	8.6nm,0.6s						
PFVI	**Vila Bisbo**	5.81	285	P	Pn	12 47 55.3	+0.2
PFVI				S	Sn	12 48 59.7	-2.0
	4.3nm,0.6s						
PFVI	**Vila Bisbo**	5.81	285	ePn	Pn	12 47 55.3	+0.2
MOE	**Montemor**	5.88	299	ePn	Pn	12 47 56.4	+0.2
MOE				eSn	Sn	12 49 02.4	-1.3
MOE	**Montemor**	5.88	299	ePn	Pn	12 47 56.4	+0.2
MTE	**Manteigas**	6.44	317	ePn	Pn	12 48 07.0	+3.2
MTE				eSn	Sn	12 49 16.1	-1.2
MTE				A		12 49 20.3	
	7.2nm,0.3s						
PTOM	**Tomar**	6.47	308	ePn	Pn	12 48 04.7	+0.5
MVO	**Moncorvo**	6.74	324	ePn	Pn	12 48 09.2	+1.3
MVO				eSn	Sn	12 49 21.6	-3.0
MVO				A		12 50 01.7	
	5.9nm,0.6s						
MVO	**Moncorvo**	6.74	324	P	Pn	12 48 09.2	+1.3
MVO				S	Sn	12 49 21.6	-3.0
	3.0nm,0.6s						
PVIS	**Viseu**	6.85	318	ePn	Pn	12 48 10.3	+0.8
PVIS				eSn	Sn	12 49 24.7	-2.8
PVRL	**Vila Real**	7.16	322	ePn	Pn	12 48 14.9	+1.2
TORD	**Torodi Ar. Bea**	22.78	171	P	P	12 51 35.0	+3.4
	1.1nm,1.1s,mb3.2,baz=353,slow=11,SNR=3.6						
MKAR	**Makanchi Array**	61.28	51	P	P	12 56 44.2	-0.1
	0.1nm,0.4s,mb3.3,baz=310,slow=5.1,SNR=3.7						

CSEM ***28*** *12:47:31.7, 35.54N×1.32W, h0^{km}, ML3.5, After ALG*

CRAAG 28 12:47:31.7, 35.54N×1.32W, Ml3.5, Northern Algeria

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ODZI	**Dziouia**	0.26	163	P	Pg	12 47 39.0	+2.3
OLHC	**Oulhaca**	0.30	195	P	Pg	12 47 40.0	+2.6
OTSS	**Djebel Tessala**	0.50	121	P	Pg	12 47 46.0	+4.7
USTO	**Oran**	0.66	73	P	Pg	12 47 47.0	+2.7
ODJA	**Bouhanifia**	0.98	102	P	Pg	12 47 56.0	+5.5
OJBR	**Djebel Berber**	1.36	88	P	Pg	12 47 57.0	-0.8
OKGL	**Djebel Kef Gue**	1.68	72	P	Pn	12 47 58.0	-4.3

IDC 28 12:59:55.8±2.0**, 0.50S×127.54E, h0**^{km}**, mb3.5**/3**, mb1 3.7**/3**, mb1mx3.5**/15**, mbtmp3.6**/3**, Error ellipse: s-maj=151.5km s-min=25.0km az=67.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	20.43	161	P	P	13 04 34.4	-0.4
	0.8nm,0.6s,baz=340,slow=11,SNR=11						
ASAR	**Alice Springs**	23.84	165	P	P	13 05 11.2	+0.4
	0.9nm,0.5s,baz=345,slow=11,SNR=17						
MKAR	**Makanchi Array**	61.49	326	P	P	13 10 14.3	0.0
	0.5nm,0.6s,baz=116,slow=7.7,SNR=3.8						

BJI ***28*** *13:03:02.5, 2.47N×95.92E, h32^{km}, mB5.1, mb4.7*

MOS ***28*** *13:03:03.5±0.9, 2.55N×95.95E, h33^{km}, mb4.9/5, Error ellipse: s-maj=17.2km s-min=10.6km az=101.5*

NEIC ***28*** *13:03:04.5±0.7, 2.45N×95.93E, h30^{km}, mb4.5/5, Error ellipse: s-maj=18.2km s-min=10.5km az=218.0*

ISCJB ***28*** *13:03:08.1±2.4, 2.6N±0.1×96.2E±0.1, h71^{km}±19^{km}, mb4.4/28, Error ellipse: s-maj=26.2km s-min=12.5km az=142.7*

IDC ***28*** *13:03:08.1±5.5, 2.63N×96.14E, h53^{km}±46^{km}, mb3.8/11, mb1 3.9/12, mb1mx3.7/22, mbtmp3.8/12, ML3.3/1, MS3.1/1, Ms1 3.1/1, ms1mx2.9/33, Error ellipse: s-maj=51.2km s-min=16.7km az=57.0*

ISC 28 13:03:09.7±2.3**, 2.6N**±0.1**×96.2E**±0.1**, h68**^{km}±18^{km}**, n51, σ0^{s}.72**/47**, mb4.4**/28**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	**Prapat**	2.72	86	P	Pn	13 03 50.7	-0.4
PSI				LR	LR	13 04 42.1	
PSI	**Prapat**	2.72	86	P	Pn	13 03 50.7	-0.4
	4.9nm,0.3s,baz=283,slow=6.6,SNR=19						
PSI				LR	LR	13 04 42.1	
	comp=Z,290nm,19.1s,baz=263,slow=34						
KULM	**Kulim**	5.16	59	ePn	Pn	13 04 24.5	+0.1
SHL	**Shillong**	23.17	350	eP	P	13 08 03.0	-7.6
ODAN	**Odare**	25.52	341	eP	P	13 08 31.9	-0.1
	25nm,0.9s,mb4.6						
TAPN	**Taplejung**	25.88	342	eP	P	13 08 35.4	+0.2
	37nm,1.1s,mb4.7						
JIRN	**Jiri**	26.66	340	eP	P	13 08 42.9	+0.6
	39nm,0.8s,mb5.0						
KKN	**Kakani**	27.10	338	eP	P	13 08 46.0	-0.2
	43nm,1.1s,mb4.9						
LSA	**Lhasa**	27.34	350	P	P	13 08 49.8	+1.5
LSA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.4						
LSA	**Lhasa**	27.34	350	eP	P	13 08 49.6	+1.2
	comp=Z,8.0nm,0.8s,mb4.3						
LSA	**Lhasa**	27.34	350	eP	P	13 08 49.6	+1.3
LSA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.3						
GKN	**Gorkha**	27.54	337	eP	P	13 08 49.0	-1.1
	comp=Z,39nm,1.0s,mb4.9						
XAN	**Xi’an**	33.42	19	P	P	13 09 41.3	-0.7
XAN				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.7						
LZH	**Lanzhou**	34.03	11	eP	P	13 09 47.0	-0.2
LZH				AP	pP	13 09 53.0	-11
LZH				AMB	AMB		
	comp=Z,19nm,1.4s,mb4.7						
GTA	**Gaotai**	36.75	5	eP	P	13 10 10.3	-0.2
GTA				AP	pP	13 10 17.5	-10
GTA				XP	sP	13 10 22.3	-13
GTA				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.8						
HHC	**Hu-ho-hao-te**	40.49	18	eP	P	13 10 42.5	+0.6
HHC				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.5						
HHC				AMB	AMB		
	comp=Z,208nm,4.2s						
BJT	**Baijiatuau**	41.38	23	eP	P	13 10 51.0	+1.8
	comp=Z,24nm,1.3s,mb4.9						
BJT				e		13 10 57.9	
BJT	**Baijiatuau**	41.38	23	eP	P	13 10 51.0	+1.8
BJT				e		13 10 57.9	
BJT				pmax	pmax		
	comp=Z,24nm,1.3s						
BJI	**Beijing**	41.40	23	P	P	13 10 50.8	+1.4
BJI				AMB	AMB		
	comp=Z,26nm,1.0s,mb5.0						
WRA	**Warramunga Arr**	43.64	123	P	P	13 11 07.9	0.0
	comp=Z,1.5nm,0.9s,mb3.7,baz=299,slow=9.3,SNR=5.5						
UCH	**Uchtor**	43.94	337	eP	P	13 11 11.2	+1.2
	comp=Z,2.5nm,0.9s,mb3.9						
ASAR	**Alice Springs**	45.05	128	P	P	13 11 19.5	+0.4
	comp=Z,0.4nm,0.6s,mb3.3,baz=305,slow=8.9,SNR=2.5						
KSRS	**Korea Array**	45.26	36	P	P	13 11 19.8	-0.7
	comp=Z,1.7nm,0.8s,mb3.8,baz=231,slow=9.3,SNR=5.8						
MK31	**Makanchi Array**	45.62	347	eP	P	13 11 23.4	+0.2
MKAR	**Makanchi Array**	45.62	347	P	P	13 11 23.4	+0.2
	comp=Z,3.6nm,0.7s,mb4.2,baz=164,slow=7.8,SNR=34						
SONM	**Songino Array**	45.88	10	P	P	13 11 25.7	+0.5
	comp=Z,3.8nm,0.7s,mb4.2,baz=183,slow=9.7,SNR=12						
SONM				PcP	PcP	13 13 03.0	+1.6
	comp=Z,1.2nm,0.8s,baz=186,slow=2.9,SNR=3.2						
ULN	**Ulaanbaatar**	46.02	10	eP	P	13 11 26.5	+0.2
ZAK	**Zakamensk**	47.95	6	eP	P	13 11 41.4	+0.1
ZAK				pmax	pmax		
	comp=Z,2.0nm,1.6s,mb3.7						
KURK	**Kurchatov**	50.16	346	eP	P	13 11 58.3	+0.1
ZAL	**Zalesovo**	51.99	351	P	P	13 12 11.9	+0.1
ZALV	**Zalesovo Beam**	51.99	351	P	P	13 12 11.9	0.0
	comp=Z,5.0nm,0.7s,mb4.7,baz=179,slow=6.3,SNR=31						
PMG	**Port Moresby**	52.16	104	eP	P	13 12 22.2	+8.4
NVS	**Novosibirsk**	53.10	351	iP	P	13 12 19.4	-0.7
STKA	**Stephens Creek**	55.05	132	P	P	13 12 34.9	+0.2
STKA	**Stephens Creek**	55.05	132	P	P	13 12 34.9	+0.2
	comp=Z,0.8nm,0.4s,mb4.1,baz=276,slow=16,SNR=3.8						
KLR	**Kul’dur**	55.44	28	eP	P	13 12 35.1	-2.0
BOD	**Bodaibo**	56.80	11	eP	P	13 12 45.6	-1.1
AKTK	**Aktyubinsk**	57.50	332	P	P	13 12 51.1	-0.7
AKTO	**Aktyubinsk**	57.50	332	P	P	13 12 51.1	-0.7
	comp=Z,2.2nm,0.9s,mb4.2,baz=115,slow=20,SNR=4.7						
YAK	**Yakutsk**	64.33	17	eP	P	13 13 37.5	-0.4
	comp=Z,22nm,1.0s,mb5.0						
YAK	**Yakutsk**	64.33	17	eP	P	13 13 37.9	0.0
YAK				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.9						
OBN	**Obninsk**	70.88	328	eP	P	13 14 19.0	-0.3
OBN				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.5						
TIXI	**Tiksi**	71.96	10	eP	P	13 14 25.2	-0.3
	comp=Z,3.4nm,0.8s,mb4.2						
TIXI	**Tiksi**	71.96	10	eP	P	13 14 25.2	-0.3
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
FINES	**FINESS Array B**	78.27	333	P	P	13 15 01.4	-0.7
	comp=Z,2.4nm,0.9s,mb3.9,baz=124,slow=0.7,SNR=5.3						
ARCES	**ARCESS Array B**	80.86	340	P	P	13 15 16.2	+0.3
	comp=Z,6.0nm,1.1s,mb4.3,baz=81,slow=5.6,SNR=2.3						
GERES	**GERESS Array B**	83.08	319	P	P	13 15 28.7	+0.7
	comp=Z,0.2nm,0.2s,mb3.5,baz=81,slow=3.2,SNR=4.3						
SDCO	**Great Sand Dun**	135.07	25	ePdif	Pdif	13 19 22.4	-0.8
TXAR	**Lajitas Array**	142.95	30	PKP	PKPdf	13 22 34.6	-1.7
TXAR	**Lajitas Array**	142.95	30	PKIKP	PKPdf	13 22 34.7	-1.7
TXAR	**Lajitas Array**	142.95	30	PKP	PKPdf	13 22 34.6	-1.7
	comp=Z,0.2nm,0.7s,baz=151,slow=2.9,SNR=3.0						

IDC ***28*** *13:05:17.7±7.6, 5.02S×147.48E, h141^{km}±74^{km}, mb3.8/2, mb1 3.9/4, mb1mx3.4/15, mbtmp3.7/4, Error ellipse: s-maj=114.5km s-min=52.3km az=134.0*

NEIC 28 13:05:16.0±4.0**, 4.88S×147.50E, h137**^{km}±33^{km}**, mb4.4**/1**, Error ellipse: s-maj=48.9km s-min=32.8km az=151.0, Bismarck Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	4.51	184	P	Pn	13 06 22.7	+0.1
	9.6nm,0.3s,baz=8.6,slow=4.8,SNR=76						
PMG				S	Sn	13 07 06.6	-7.9
	16nm,0.3s,baz=204,slow=21,SNR=13						
KAKA	**Kakadu**	16.79	241	eP	Pn	13 09 03.0	-0.1
	56nm,1.6s						
WB2	**Warramunga Arr**	19.70	219	eP	P	13 09 34.7	-0.1
WRA	**Warramunga Arr**	19.70	219	P	P	13 09 34.7	-0.1
	0.9nm,0.3s,baz=41,slow=11,SNR=67						
ASAR	**Alice Springs**	22.82	214	P	P	13 10 07.6	+0.2
	3.8nm,0.7s,baz=48,slow=8.5,SNR=33						
FITZ	**Fitzroy Crossi**	25.09	237	eP	P	13 10 28.4	+0.3
	5.1nm,0.4s						
FITZ	**Fitzroy Crossi**	25.09	237	P	P	13 10 28.7	+0.6
	3.0nm,0.5s,baz=46,slow=11,SNR=19						
TORD	**Torodi Ar. Bea**	145.28	286	PKPbc	PKPbc	13 24 38.9	+0.3
TORD	**Torodi Ar. Bea**	145.28	286	PKPbc	PKPbc	13 24 38.9	+0.3
	0.2nm,0.5s,baz=83,slow=4.5,SNR=2.6						

IDC 28 13:11:08.0±1.2**, 2.72S×136.82E, h0**^{km}**, mb3.7**/3**, mb1 3.8**/5**, mb1mx3.7**/13**, mbtmp3.7**/5**, ML3.2**/2**, Error ellipse: s-maj=50.1km s-min=23.1km az=84.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	10.83	203	eP	Pn	13 13 53.6	+9.2
	5.3nm,0.5s						
WB2	**Warramunga Arr**	17.28	188	eP	Pn	13 15 11.8	+0.9
WRA	**Warramunga Arr**	17.29	188	P	Pn	13 15 10.5	-0.4
	0.2nm,0.3s,baz=7.7,slow=13,SNR=14						
FITZ	**Fitzroy Crossi**	18.81	215	eP	Pn	13 15 38.9	+9.2
	8.5nm,1.5s						
FITZ	**Fitzroy Crossi**	18.81	215	P	Pn	13 15 30.9	+1.2
	0.0nm,0.3s,baz=23,slow=13,SNR=2.4						
ASAR	**Alice Springs**	21.01	187	P	P	13 15 52.1	-1.1
	0.9nm,0.7s,baz=19,slow=11,SNR=15						
MKAR	**Makanchi Array**	68.65	323	P	P	13 22 15.2	+2.0
	1.0nm,0.6s,baz=114,slow=7.0,SNR=8.5						
ZALV	**Zalesovo Beam**	71.00	330	P	P	13 22 25.6	-1.9
	0.4nm,0.3s,baz=111,slow=7.9,SNR=2.7						
LPAZ	**La Paz**	148.94	128	PKP	PKPdf	13 30 55.0	0.0
	1.6nm,0.3s,baz=263,slow=11,SNR=3.7						
LPAZ				PKPbc	PKPbc	13 30 59.4	+0.4
	1.8nm,0.4s,baz=256,slow=7.7,SNR=12						

ISCJB ***28*** *13:28:10.8±0.4, 58.29N±0.03×13.22E±0.04, h10^{km}, Error ellipse: s-maj=4.6km s-min=2.9km az=25.3*

CSEM ***28*** *13:28:11.2, 58.28N×13.36E, h1^{km}, ML2.7, After UPP*

UPP ***28*** *13:28:11.2, 58.28N×13.36E, h1^{km}, ML2.7*

NAO ***28*** *13:28:13.7±2.6, 58.42N×13.34E, ML2.1*

BER ***28*** *13:28:14.0±3.8, 58.38N×13.36E, h0^{km}±14^{km}, MD2.6, ML2.9, ML2.1(NAO)*

ISC 28 13:28:11.8±0.4**, 58.30N**±0.03**×13.28E**±0.04**, h10**^{km}**, n22, σ1^{s}.24**/40**, 4C, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASKU	**Askersund**	1.00	53	⇑P	Pg	13 28 29.5	-1.6
ASKU				S	Sg	13 28 42.8	-1.3
LNKU	**Linkoeping**	1.18	93	⇑P	Pb	13 28 32.2	-1.9
	baz=222						
LNKU				S	Sb	13 28 47.3	-2.1
STRU	**Stroemstad**	1.32	305	⇑P	Pn	13 28 36.5	+0.3
STRU				S	Sb	13 28 55.2	+1.6
NRAU	**Nora**	1.57	35	P	Pn	13 28 39.9	+0.3
NRAU				S	Sn	13 29 00.0	+0.1
VXJU	**Vaexsjoe**	1.65	146	P	Pn	13 28 40.5	-0.2
VXJU				S	Sn	13 29 01.7	-0.1
VSTU	**Vaestervik**	1.85	109	P	Pn	13 28 43.3	-0.2
	baz=268						
VSTU				S	Sn	13 29 07.4	+0.6
HFS	**Hagfors**	1.85	6	Pg	Pn	13 28 44.2	+0.7
	baz=192,slow=14						
HFS				Lg		13 29 07.9	
	baz=183,slow=37						
HFS	**Hagfors**	1.85	6	Pg	Pn	13 28 44.2	+0.7
	baz=192,slow=14						
HFS				Lg		13 29 07.9	

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	baz=183,slow=37						
ESKU	Eskilstuna	1.87	59	⇑P	Pn	13 28 44.5	+0.7
ESKU				S	Sn	13 29 08.5	+1.1
OSKU	Oskarshamn	1.87	125	P	Pn	13 28 43.9	+0.1
OSKU				S	Sn	13 29 08.0	+0.6
BYXU	Byxelkrok	2.24	115	P	Pn	13 28 49.5	+0.7
BYXU				S	Sn	13 29 18.7	+2.3
KONO	Kongsberg	2.34	307	eP	Pn	13 28 53.5	+3.3
KONO				eSg	Sg	13 29 25.2	-1.6
KONO				AML	AML	13 29 27.2	
	comp=Z,138nm,0.2s						
NB2	NORSAR Subarra	2.94	340	Pn	Pn	13 28 59.0	+0.5
	baz=157,slow=16						
NB2				Sn	Sn	13 29 35.7	+1.9
NB2				Lg		13 29 42.4	
	baz=159,slow=37						
NB2	NORSAR Subarra	2.94	340	Pn	Pn	13 28 59.0	+0.5
	baz=157,slow=16						
NB2				Sn	Sn	13 29 35.7	+1.9
NB2				Lg		13 29 42.4	
	baz=159,slow=37						
SNART	Snartemo	3.21	273	e	Sn	13 29 40.0	-0.2
BSD	Bornholm Skovb	3.32	164	i P	Pn	13 29 04.5	+0.8
BSD				i S	Sn	13 29 41.8	-1.3
BSD				i S	Sg	13 29 53.0	-5.2
BLS5	Blasjo	3.72	291	eS	Sn	13 29 54.5	+1.5
BLS5				eSg	Sg	13 30 09.0	-2.1
ODD1	Odda	3.79	298	e	Sn	13 29 51.8	-3.0
KMY	Karmoy	4.29	286	eP	Pn	13 29 16.8	-0.1
KMY				eS	Sn	13 30 06.0	-0.9
RUND	Rundenannen	4.57	301	eS	Sn	13 30 14.2	+0.2
FIA0	FINESS Array S	7.17	59	Pn	Pn	13 29 57.5	+1.1
	baz=243,slow=14						
FIA0				Sn	Sn	13 31 14.8	-3.0
	baz=251,slow=22						
FIA0				Lg		13 31 51.2	
	baz=259,slow=37						
FIA0	FINESS Array S	7.17	59	Pn	Pn	13 29 57.5	+1.1
	baz=243,slow=14						
FIA0				Sn	Sn	13 31 14.8	-3.0
	baz=251,slow=22						
FIA0				Lg		13 31 51.2	
	baz=259,slow=37						

IDC 28 13:31:09.6±0.8**, 3018S×6070E, h0^{km}, mb3.8**/8**, mb1 3.9**/8**, mb1mx3.8**/20**, mbtmp3.8**/8**, Error ellipse: s-maj=34.5km s-min=22.1km az=39.0, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNAA	Sanae	53.38	201	P	P	13 40 30.0	-0.4
	0.8nm,0.8s,baz=295,slow=23,SNR=3.6						
ASAR	Alice Springs	64.59	104	P	P	13 41 49.1	+0.1
	0.9nm,0.7s,baz=242,slow=6.3,SNR=11						
WRA	Warramunga Arr	66.48	100	P	P	13 42 01.3	0.0
	2.3nm,1.0s,baz=243,slow=5.7,SNR=5.2						
STKA	Stephens Creek	67.70	115	P	P	13 42 09.4	+0.5
	1.4nm,0.9s,baz=83,slow=17,SNR=2.4						
TORD	Torodi Ar. Bea	71.26	298	P	P	13 42 31.2	+0.1
	0.5nm,0.8s,baz=138,slow=5.0,SNR=2.5						
BRTR	Keskin Array B	73.96	339	P	P	13 42 47.4	+0.9
	0.5nm,0.7s,baz=150,slow=9.9,SNR=2.5						
MKAR	Makanchi Array	79.06	15	P	P	13 43 14.5	-0.8
	0.4nm,0.6s,baz=169,slow=2.9,SNR=4.2						
ZALV	Zalesovo Beam	86.34	14	P	P	13 43 52.9	-0.2
	0.9nm,0.6s,baz=195,slow=5.0,SNR=6.5						
YKA	Yellowknife Ar	147.53	356	PKPbc	PKPbc	13 50 54.4	-0.5
	1.0nm,0.6s,baz=356,slow=3.1,SNR=29						

IDC 28 13:37:44.6±9.4**, 1850S×17848W, h449^{km}**±260^{km}**, mb2.8**/3**, mb1 3.1**/4**, mb1mx2.9**/15**, mbtmp3.0**/4**, Error ellipse: s-maj=207.5km s-min=82.4km az=112.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.89	56	P	P	13 39 39.7	+0.8
	3.1nm,0.3s,baz=243,slow=16,SNR=7.5						
AFI				S	S	13 41 12.5	-0.1
	0.8nm,0.3s,baz=51,slow=22,SNR=2.8						
STKA	Stephens Creek	38.29	242	P	P	13 44 25.1	0.0
	0.7nm,0.5s,baz=63,slow=9.0,SNR=2.4						
WRA	Warramunga Arr	44.46	260	P	P	13 45 14.4	-0.2
	0.4nm,0.4s,baz=98,slow=7.6,SNR=14						
ASAR	Alice Springs	44.57	255	P	P	13 45 15.3	-0.1
	0.5nm,0.5s,baz=87,slow=8.2,SNR=15						

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*IDC **28** 14:13:17.5±1.3, 2903S×177.13W, h0^{km}, mb4.3/3, mb1 4.4/4, mb1mx4.1/13, mbtmp4.2/4, ML3.8/1, MS3.7/3, Ms1 3.7/3, ms1mx3.2/24, Error ellipse: s-maj=44.9km s-min=30.0km az=145.0*

*NEIC **28** 14:13:17.5±0.9, 2938S×17674W, h10^{km}, mb4.3/2, Error ellipse: s-maj=26.3km s-min=14.8km az=112.0*

ISC 28 14:13:31.6±3.6**, 297S**±02×**1779W**±02**, h62^{km}**±27^{km}**, n33, σ1^{s}21**/19**, mb4.2**/4**, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	9.45	205	Pn	Pn	14 15 46.4	+1.4
URZ				Sn	Sn	14 17 36.2	+6.5
URZ	Urewera	9.45	205	Pn	Pn	14 15 46.4	+1.4
	0.8nm,0.3s,baz=251,slow=2.5,SNR=7.1						
URZ				Sn	Sn	14 17 36.2	+6.5
	3.1nm,0.3s,baz=108,slow=21,SNR=11						
SNZO	South Karori	13.01	205	P	Pn	14 16 32.4	-1.1
SNZO				eSn	Sn	14 18 56.9	+0.3
DZM	Mont Dzumac	16.00	295	LR	LR	14 22 04.0	
	comp=Z,274nm,22.0s,baz=46,slow=32						
RPZ	Rata Peaks	16.50	209	P	Pn	14 17 17.7	-1.2
	0.9nm,0.3s,baz=86,slow=19,SNR=7.9						
RPZ				S	S	14 20 16.0	-14
	0.4nm,0.3s,baz=202,slow=23,SNR=2.8						
PAE	Paea	28.51	71	eT		14 47 31.7	
	13nm,0.3s						
PPT	Papeete	28.56	71	eLR	LR	14 26 05.2	
	190nm,26.8s						
CTA	Charters Tower	33.77	278	eP	P	14 20 09.3	+1.7
	3.9nm,0.7s,mb4.5						
CTA	Charters Tower	33.77	278	LR	LR	14 31 49.0	
	comp=Z,132nm,18.2s,baz=260,slow=32						
CTAO	Charters Tower	33.77	278	eP	P	14 20 08.8	+1.2
	1.6nm,0.5s,mb4.2						
STKA	Stephens Creek	34.70	256	eP	P	14 20 19.0	+3.4
	3.4nm,0.8s,mb4.3						
STKA	Stephens Creek	34.70	256	eP	P	14 20 18.9	+3.3
STKA	Stephens Creek	34.70	256	P	P	14 20 17.1	+1.5
	3.8nm,0.7s,mb4.5,baz=95,slow=11,SNR=9.6						
STKA				LR	LR	14 32 35.0	
	comp=Z,108nm,18.7s,baz=25,slow=33						
RKT	Rikitea	38.85	91	eLR	LR	14 30 50.3	
	121nm,27.0s						
ASAR	Alice Springs	43.22	266	P	P	14 21 26.1	-0.8
	2.2nm,0.6s,mb4.0,baz=97,slow=6.8,SNR=34						
WB2	Warramunga Arr	44.14	271	eP	P	14 21 33.9	-0.4
WB2	Warramunga Arr	44.14	271	eP	P	14 21 33.9	-0.4
WRA	Warramunga Arr	44.15	271	P	P	14 21 33.3	-1.0
	4.0nm,0.8s,mb4.2,baz=110,slow=8.0,SNR=32						
VNA3	Neumayer Olymp	78.96	176	e	P	14 25 29.9	+1.8
VNA3				e		14 25 35.2	
VNA3				e		14 25 41.1	
VNA2	Neumayer--Watz	79.40	177	e	P	14 25 29.3	-1.2
	baz=224,slow=1.1						
VNA2				e		14 25 34.4	
VNA2				e		14 25 40.4	
MKAR	Makanchi Array	117.40	310	PKP	PKPdf	14 32 04.2	-5.6
MKAR	Makanchi Array	117.40	310	PKP	PKPdf	14 32 04.2	-5.6
	0.3nm,0.7s,baz=204,slow=1.6,SNR=3.9						
ARCES	ARCESS Array B	137.96	348	PKP	PKPdf	14 32 42.5	-5.7
ARCES	ARCESS Array B	137.96	348	PKP	PKPdf	14 32 42.5	-5.7
	2.3nm,0.8s,baz=357,slow=2.4,SNR=2.9						
FIA1	FINESS Array S	144.54	340	ePKP	PKPdf	14 32 53.3	-7.0
FINES	FINESS Array B	144.55	340	PKP	PKPdf	14 32 52.2	-8.0
FINES	FINESS Array B	144.55	340	PKP	PKPdf	14 32 52.2	-8.0
	2.8nm,0.7s,baz=80,slow=2.1,SNR=12						
NB2	NORSAR Subarra	148.11	352	PKPa	PKPdf	14 33 02.5	-3.8
	comp=Z,1.3nm,0.6s,baz=9.7,slow=3.0						
NOA	NORSAR Array B	148.11	352	PKPbc	PKPbc	14 33 02.7	-6.9
NOA	NORSAR Array B	148.11	352	PKPbc	PKPbc	14 33 02.7	-6.9
	comp=Z,2.9nm,0.8s,baz=15,slow=4.5,SNR=8.0						
AKASG	Malin Array Be	150.81	323	PKPbc	PKPbc	14 33 11.1	-5.5
AKASG				PKPab	PKPab	14 33 17.0	-6.9
AKASG	Malin Array Be	150.81	323	PKPbc	PKPbc	14 33 11.1	-5.5
	comp=Z,3.2nm,0.6s,baz=44,slow=3.1,SNR=10						
AKASG				PKPab	PKPab	14 33 17.0	-6.9
	comp=Z,1.2nm,0.4s,baz=46,slow=3.7,SNR=5.3						
TORD	Torodi Ar. Bea	163.49	179	PKPab	PKPab	14 34 16.9	-2.3
	comp=Z,0.5nm,0.9s,baz=170,slow=3.0,SNR=2.4						

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*SKO **28** 14:24:21.0, 4043N×2241E, h1^{km}*

*THE **28** 14:24:21.6, 4050N×2229E, h17^{km}, ML3.0*

*CSEM **28** 14:24:21.7±0.1, 4050N×2229E, h5^{km}, ML3.0, Error ellipse: s-maj=2.9km s-min=2.4km az=144.0*

*ISCJB **28** 14:24:21.1±0.4, 4050N±002×2234E±003, h10^{km}±4^{km}, Error ellipse: s-maj=4.1km s-min=3.3km az=19.4*

*NEIC **28** 14:24:21.2, 4057N×2231E, h20^{km}, MD3.2(ATH), After ATH.*

*ATH **28** 14:24:21.2, 4057N×2231E, h20^{km}±3^{km}, MD3.2/5*

ISC 28 14:24:21.7±0.4**, 4049N**±002×**2234E**±003**, h15^{km}**±4^{km}**, n34, σ1^{s}04**/59**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIT	Litokhoron	0.41	163	ePg	Pg	14 24 30.2	+0.3
LIT				eSg	Sg	14 24 36.9	+1.6
LIT	Litokhoron	0.41	163	ePg	Pg	14 24 30.2	+0.4
LIT				eSg	Sg	14 24 36.9	+1.6
GRG	Griva	0.47	6	ePg	Pg	14 24 30.5	-0.6
GRG				eSg	Sg	14 24 37.7	+0.3
GRG	Griva	0.47	6	ePg	Pg	14 24 30.5	-0.5
GRG				eSg	Sg	14 24 37.7	+0.3
KZN	Kozani	0.47	247	ePb	Pb	14 24 30.7	-1.0
KZN				eSb	Sb	14 24 38.7	+0.3
KZN	Kozani	0.47	247	ePB	Pb	14 24 30.7	-1.0
KZN				eSB	Sb	14 24 38.7	+0.3
KZN	Kozani	0.47	247	ePb	Pb	14 24 30.7	-1.0
KZN				eSb	Sb	14 24 38.7	+0.3
HORT	Hortiatis	0.59	79	ePg	Pg	14 24 33.4	+0.1
HORT				eSg	Sg	14 24 43.1	+2.1
HORT	Hortiatis	0.59	79	ePg	Pg	14 24 33.4	+0.2
HORT				eSg	Sg	14 24 43.1	+2.0
FNA	Florina	0.79	292	ePg	Pg	14 24 35.7	-1.3
FNA	Florina	0.79	292	ePg	Pg	14 24 35.7	-1.3
KNT	Kendrikon	0.79	32	ePg	Pg	14 24 36.8	-0.4
KNT	Kendrikon	0.79	32	ePg	Pg	14 24 36.8	-0.3
SOH	Sokhos	0.84	66	ePg	Pg	14 24 37.7	-0.3
SOH				eSg	Sg	14 24 50.4	+1.4
SOH	Sokhos	0.84	66	ePg	Pg	14 24 37.7	-0.3
SOH				eSg	Sg	14 24 50.4	+1.4
VAY	Valandovo	0.85	12	ePg	Pg	14 24 36.5	-1.6
VAY				eSg	Sg	14 24 49.5	+0.2
PLG	Polygyros	0.85	97	ePn	Pn	14 24 38.0	-1.1
PLG				eSn	Sn	14 24 49.8	-1.5
PLG	Polygyros	0.85	97	ePN	Pn	14 24 38.0	-1.1
PLG				eSN	Sn	14 24 49.8	-1.5
PLG	Polygyros	0.85	97	ePn	Pn	14 24 38.0	-1.1
PLG				eSn	Sn	14 24 49.8	-1.5
BIA	Bitola	0.94	305	ePg	Pg	14 24 39.4	-0.4
BIA				eSg	Sg	14 24 53.1	+1.0
THL	Klokotos Trika	0.96	195	ePN	Pn	14 24 40.5	0.0
THL				eSN	Sn	14 24 55.6	+1.7
THL	Klokotos Trika	0.96	195	ePn	Pn	14 24 40.5	0.0
THL				eSn	Sn	14 24 55.6	+1.7
PAIG	Paliouri	1.17	118	ePg	Pg	14 24 43.0	-1.2
PAIG	Paliouri	1.17	118	ePg	Pg	14 24 43.0	-1.2
KRUS	Krusevo	1.21	317	ePg	Pg	14 24 44.2	-0.8
KRUS				eSg	Sg	14 25 01.7	+1.0
STIP	Stip	1.21	355	ePg	Pg	14 24 43.8	-1.2
STIP				eSg	Sg	14 25 01.8	+1.0
OUR	Ouranopolis	1.26	97	ePg	Pg	14 24 44.5	-1.5
OUR				eSg	Sg	14 25 02.1	-0.4
OUR	Ouranopolis	1.26	97	ePg	Pg	14 24 44.5	-1.5
OUR				eSg	Sg	14 25 02.1	-0.4
OHR	Ohrid	1.32	298	ePg	Pg	14 24 46.5	-0.7
OHR				eSg	Sg	14 25 05.3	+0.9
NEO	Neokhori	1.36	150	ePb	Pb	14 24 46.7	-0.2
NEO	Neokhori	1.36	150	ePB	Pb	14 24 46.7	-0.2
NEO	Neokhori	1.36	150	ePb	Pb	14 24 46.7	-0.2
NVR	Nevrokopi	1.44	53	ePn	Pn	14 24 47.8	+0.6
NVR				eSn	Sn	14 25 07.7	+1.9
NVR	Nevrokopi	1.44	53	ePN	Pn	14 24 47.8	+0.6
NVR				eSN	Sn	14 25 07.7	+1.9

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*NEIC **28** 14:31:43.5, 3547S×17888E, h211^{km}, MG4.0(WEL), After WEL.*

WEL 28 14:31:43.3±0.5**, 3548S×17890E, h212^{km}**±6^{km}**, ML4.0**/10**, Error ellipse: s-maj=16.7km s-min=6.9km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	2.14	193	eP	Pn	14 32 24.1	+0.1
MXZ				S	S	14 32 55.8	-0.2
MXZ	Matakaoa Point	2.14	193	ePN	Pn	14 32 24.1	+0.1
MXZ				SN	S	14 32 55.8	-0.2
PUZ	Puketiti	2.64	191	eP	Pn	14 32 29.8	+0.4
PUZ				S	S	14 33 05.0	-0.7
PUZ	Puketiti	2.64	191	ePN	Pn	14 32 29.8	+0.3
PUZ				SN	S	14 33 05.0	-0.7
MWZ	Matawai	3.06	201	P	Pn	14 32 35.0	+0.8
MWZ				S	S	14 33 14.1	-0.1
MWZ	Matawai	3.06	201	PN	Pn	14 32 35.0	+0.8
MWZ				SN	S	14 33 14.1	-0.1
URZ	Urewera	3.13	207	eP	Pn	14 32 35.1	+0.1
URZ	Urewera	3.13	207	ePN	Pn	14 32 35.1	+0.2
KNZ	Kokohu	3.67	195	eP	Pn	14 32 41.3	-0.1
KNZ	Kokohu	3.67	195	ePN	Pn	14 32 41.3	-0.1
BKZ	Black Stump Fm	4.15	207	eP	Pn	14 32 47.3	0.0
BKZ	Black Stump Fm	4.15	207	ePN	Pn	14 32 47.3	0.0
FWVZ	Far West T-bar	4.62	214	eP	Pn	14 32 54.2	+1.1
FWVZ	Far West T-bar	4.62	214	ePN	Pn	14 32 54.2	+1.1
WNVZ	Wahianoa	4.66	213	eP	Pn	14 32 53.9	+0.3
WNVZ	Wahianoa	4.66	213	ePN	Pn	14 32 53.9	+0.3
PXZ	Pawanui	4.83	199	ePN	Pn	14 32 54.6	-1.1
PXZ				SN	S	14 33 52.1	-1.0
WAZ	Wanganui	5.28	215	eP	Pn	14 33 01.1	-0.4
WAZ	Wanganui	5.28	215	ePN	Pn	14 33 01.1	-0.4
BFZ	Birch Farm	5.60	201	eP	Pn	14 33 04.6	-0.9
BFZ				S	S	14 34 10.3	-0.5
BFZ	Birch Farm	5.60	201	ePN	Pn	14 33 04.6	-1.0
BFZ				SN	S	14 34 10.3	-0.5
MRZ	Mangatainoka R	5.80	206	eP	Pn	14 33 06.2	-1.9
MRZ				S	S	14 34 12.2	-3.2
MRZ	Mangatainoka R	5.80	206	ePN	Pn	14 33 06.2	-1.9
MRZ				SN	S	14 34 12.2	-3.2
KIW	Kapiti Island	6.23	209	eP	Pn	14 33 11.3	-2.3
KIW	Kapiti Island	6.23	209	ePN	Pn	14 33 11.3	-2.3
MTW	Mount Morrison	6.27	204	eP	Pn	14 33 11.9	-2.2
MTW	Mount Morrison	6.27	204	ePN	Pn	14 33 11.9	-2.2
CAW	Cannon Point	6.38	207	eP	Pn	14 33 13.3	-2.2
CAW	Cannon Point	6.38	207	ePN	Pn	14 33 13.3	-2.2
MRW	Makara Radio	6.62	209	ePN	Pn	14 33 17.0	-1.7
SNZO	South Karori	6.69	208	Pn	Pn	14 33 17.6	-1.9
SNZO				eS	S	14 34 33.9	-2.2
TCW	Tory Channel	6.78	211	eP	Pn	14 33 17.7	-3.0
TCW	Tory Channel	6.78	211	ePN	Pn	14 33 17.7	-3.0
TUWZ	Tuamarina	7.10	212	ePN	Pn	14 33 21.9	-3.0
NNZ	Nelson	7.19	215	PN	Pn	14 33 24.1	-1.9
NNZ				SN	S	14 34 46.0	-1.7
THZ	Tophouse	7.84	215	eP	Pn	14 33 32.2	-2.1
THZ	Tophouse	7.84	215	ePN	Pn	14 33 32.2	-2.1
KHZ	Kahutara	8.09	209	eP	Pn	14 33 34.9	-2.7
KHZ	Kahutara	8.09	209	ePN	Pn	14 33 34.9	-2.7
LTZ	Lake Taylor	8.93	213	eP	Pn	14 33 45.8	-2.6
LTZ	Lake Taylor	8.93	213	ePN	Pn	14 33 45.8	-2.7
MQZ	McQueen’s Vall	9.53	208	SN	S	14 35 35.5	-7.5
ODZ	Otahua Downs	11.44	211	eP	Pn	14 34 18.8	-1.9
ODZ	Otahua Downs	11.44	211	ePN	Pn	14 34 18.8	-1.9

IDC 28 14:31:53.8±5.2**, 2876S×17651W, h0^{km}, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.8**/12**, mbtmp3.8**/3**, MS3.5**/3**, Ms1 3.5**/3**, ms1mx3.1**/19**, Error ellipse: s-maj=194.7km s-min=80.7km az=157.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	16.77	290	LR	LR	14 40 53.2	
	comp=Z,140nm,21.7s,baz=58,slow=32						
PPT	Papeete	27.09	72	LR	LR	14 45 02.0	
	comp=Z,102nm,21.2s,baz=206,slow=29						
CTA	Charters Tower	34.87	276	LR	LR	14 51 20.8	
	comp=Z,115nm,19.9s,baz=263,slow=34						
STKA	Stephens Creek	36.14	254	P	P	14 38 58.2	+0.4
	1.4nm,0.8s,baz=89,slow=11,SNR=3.2						
ASAR	Alice Springs	44.52	265	P	P	14 40 06.8	-0.5
	1.1nm,0.8s,baz=98,slow=7.0,SNR=7.6						
WRA	Warramunga Arr	45.37	270	P	P	14 40 13.8	-0.3
	0.4nm,0.3s,baz=111,slow=6.2,SNR=13						
FINES	FINESS Array B	144.02	342	PKP	PKPdf	14 51 31.4	+0.8
	1.5nm,0.9s,baz=72,slow=4.5,SNR=3.8						

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*ISCJB **28** 14:32:40.6±1.4, 1807N±008×7173W±007, h10^{km}, Error ellipse: s-maj=13.4km s-min=7.9km az=34.3*

*RSPR **28** 14:32:47.7, 1975N×7146W, h8^{km}±6^{km}, MD4.4/5, MD4.4/5*

*NEIC **28** 14:32:47.4±1.6, 1825N×7144W, h10^{km}, MD4.4(RSPR), Error ellipse: s-maj=20.8km s-min=11.9km az=90.0*

*SSNC **28** 14:32:51.9, 1975N×7104W, h20^{km}, MD3.3, ML1.1*

ISC 28 14:32:46.4±2.9**, 198N**±01×**712W**±01**, h1^{km}**±30^{km}**, n9, σ1^{s}15**/16**, 5C-1D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDDR	Presa de Saban	0.80	186	⇓iP	Pg	14 33 01.6	-0.2
SDDR				eS	Sg	14 33 12.4	+0.2
MASC	Masc	2.87	278	ePG	Pg	14 33 41.8	+0.2
	baz=97						
MASC				eSG	Sg	14 34 18.7	-0.1
	comp=N,0.1nm,0.1s						
MASC				e			
	comp=E,1.0nm,0.4s						
LSP	Las Mesas	4.21	112	⇑eP	Pn	14 33 53.9	+2.1
LSP				eS	Sn	14 34 41.4	-0.3
CRPR	Cabo Rojo, PR	4.26	114	⇑eP	Pn	14 33 49.6	-2.8
CRPR				eS	Sn	14 34 36.8	-6.0
AOPR	Arecibo Observ	4.45	108	⇑eP	Pn	14 33 56.3	+1.3
AOPR				eS	Sn	14 34 48.3	+0.9
CPD	Cerro la Pandu	5.30	108	⇑eP	Pn	14 34 05.0	-1.8
CPD				eS	Sn	14 35 04.0	-4.4
MTP	Monte Pirata	5.61	107	⇑eP	Pn	14 34 10.8	-0.1
MTP	Monte Pirata	5.61	107	eS	Sn	14 35 14.5	-1.5
MTP	Monte Pirata	5.61	107	eP	Pn	14 34 11.2	+0.3
MTP				eS	Sn	14 35 16.5	+0.5

KRSC 28 14:47:12.3±0.1**, 5629N×16416E, h15^{km}**±15^{km}**, ML3.8, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.75	264	eP	Pg	14 47 27.0	+0.1
KBTR				i S	Sg	14 47 36.6	-0.2
SMKR	Semkarok	1.52	282	eP	Pn	14 47 38.8	-0.1
SMKR				i S	Sn	14 47 58.4	-0.1
BDR	Baidarnaya	1.66	281	eP	Pn	14 47 41.3	+0.4
BDR				i S	Sn	14 48 02.4	+0.5
SRKR	Sorokina	1.70	284	eP	Pn	14 47 41.3	-0.1
SRKR				i S	Sn	14 48 02.9	+0.1
ZLN	Zelenaya	1.90	263	eP	Pn	14 47 46.0	+1.9
CIRR	Tsirk	1.92	266	eP	Pn	14 47 46.2	+1.9
KLY	Klyuchi	1.96	272	eP	Pn	14 47 43.9	-1.0
KLY				i S	Sn	14 48 07.9	-1.2
KRSR	Krestovskiy	2.01	269	eP	Pn	14 47 46.6	+1.0
KRSR				i S	Sn	14 48 11.0	+0.6
BZMR	Bezymyannaya	2.09	262	eP	Pn	14 47 48.7	+2.0
BZMR				i S	Sn	14 48 15.9	+3.6
KIRR	Kirishev	2.16	263	eP	Pn	14 47 49.6	+1.9
KIRR				i S	Sn	14 48 17.2	+3.0
MKZ	Mys Kozlova	2.22	220	eP	Pn	14 47 49.8	+1.3
MKZ				i S	Sn	14 48 16.9	+1.2
KPT	Kopyto	2.23	263	eP	Pn	14 47 51.0	+2.4
KPT				i S	Sn	14 48 19.0	+3.2
KMNR	Kamenistaya	2.27	258	eP	Pn	14 47 51.8	+2.7
KOZ	Kozyrevsk	2.41	266	eP	Pn	14 47 53.6	+2.5
KOZ				i S	Sn	14 48 24.8	+4.5
SRDR	Sredinnyy	2.48	272	eP	Pn	14 47 53.7	+1.7
SRDR				i S	Sn	14 48 23.9	+2.0
TUMR	Tumrok	2.48	248	eP	Pn	14 47 55.3	+3.2
KII	Karymskiy	3.52	232	eP	Pn	14 48 08.9	+2.5
SPN	Mys Shipunski	4.00	219	P	Pn	14 48 13.2	+0.3
SPN				i S	Sn	14 48 58.9	-0.6
NLC	Nalytchevo	4.19	224	eP	Pn	14 48 17.1	+1.5
NLC				i S	Sn	14 49 05.0	+0.8
AVH	Avacha	4.36	228	eP	Pn	14 48 21.7	+3.8
AVH				i S	Sn	14 49 11.8	+3.3
GNL	Ganaly	4.42	237	eP	Pn	14 48 22.0	+3.2
PET	Petropavlovsk	4.58	227	eP	Pn	14 48 23.9	+3.0
PET				i S	Sn	14 49 15.6	+1.9
MIPR	Malaya Ipel’ka	5.91	230	eP	Pn	14 48 43.2	+4.0

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*ISCJB **28** 15:40:10.7±4.0, 50S±02×1526E±02, h45^{km}±35^{km}, mb3.9/10, Error ellipse: s-maj=43.1km s-min=20.7km az=40.8*

*NEIC **28** 15:40:14.0±2.0, 5.11S×15267E, h64^{km}±17^{km}, mb4.3/3, Error ellipse: s-maj=25.5km s-min=12.5km az=126.0*

*IDC **28** 15:40:14.7±5.8, 5.10S×15259E, h67^{km}±49^{km}, mb3.6/8, mb1 3.8/9, mb1mx3.7/16, mbtmp3.6/9, ML2.3/1, MS3.3/1, Ms1 3.3/1, ms1mx2.7/21, Error ellipse: s-maj=46.3km s-min=29.0km az=122.0*

ISC 28 15:40:13.9±3.2**, 51S**±02×**1527E**±02**, h64^{km}**±28^{km}**, n24, σ0^{s}65**/20**, mb3.9**/10**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	6.98	232	ePn	Pn	15 41 53.0	-0.5
PMG				eSn	Sn	15 43 12.9	+1.4
PMG	Port Moresby	6.98	232	P	Pn	15 41 52.7	-0.8
	0.4nm,0.3s,baz=220,slow=7.6,SNR=2.4						
PMG				S	Sn	15 43 12.1	+0.6
	0.9nm,0.3s,baz=345,slow=22,SNR=4.0						
CTA	Charters Tower	16.16	202	LR	LR	15 49 14.2	
	comp=Z,97nm,20.0s,baz=44,slow=34						
WB2	Warramunga Arr	23.17	229	eP	P	15 45 15.8	+0.5
WB2	Warramunga Arr	23.17	229	eP	P	15 45 15.7	+0.5
WRA	Warramunga Arr	23.18	229	P	P	15 45 14.9	-0.5
	4.0nm,0.9s,mb3.8,baz=52,slow=9.5,SNR=13						
ASAR	Alice Springs	25.87	223	P	P	15 45 39.0	-0.8
	1.0nm,0.6s,mb3.5,baz=55,slow=9.3,SNR=31						
FITZ	Fitzroy Crossi	29.45	242	eP	P	15 46 11.5	-0.3
	3.3nm,0.6s,mb4.2						
FITZ	Fitzroy Crossi	29.45	242	P	P	15 46 11.4	-0.5
	1.2nm,0.6s,mb3.8,baz=119,slow=14,SNR=8.4						
SONM	Songino Array	66.54	328	P	P	15 50 57.3	+0.2
	0.4nm,0.6s,mb3.6,baz=116,slow=6.6,SNR=2.7						
MK31	Makanchi Array	80.51	319	eP	P	15 52 19.5	+0.4
MKAR	Makanchi Array	80.51	319	P	P	15 52 19.2	+0.1
MKAR	Makanchi Array	80.51	319	P	P	15 52 19.2	+0.1
	0.3nm,0.6s,mb3.4,baz=90,slow=8.8,SNR=7.8						
MCK	McKinley	81.18	23	eP	P	15 52 22.2	-0.1
	3.3nm,0.8s,mb4.3						
ZALV	Zalesovo Beam	81.36	326	P	P	15 52 23.0	-0.5
ZALV	Zalesovo Beam	81.36	326	P	P	15 52 23.0	-0.5
	1.1nm,0.6s,mb4.0,baz=110,slow=6.3,SNR=5.6						
COLA	College	82.17	22	eP	P	15 52 26.6	-0.8
	3.9nm,0.8s,mb4.4						
NVAR	Mina Array Bea	92.34	52	P	P	15 53 18.8	+1.3
	0.4nm,0.7s,mb3.9,baz=251,slow=4.7,SNR=3.3						
YKA	Yellowknife Ar	95.73	28	P	P	15 53 33.1	+0.6
	0.2nm,0.6s,mb3.7,baz=274,slow=5.0,SNR=5.1						
GERES	GERESS Array B	124.28	328	PKP	PKPdf	15 59 06.2	+0.6
GERES	GERESS Array B	124.28	328	PKP	PKPdf	15 59 06.2	+0.6
	0.5nm,0.5s,baz=97,slow=5.0,SNR=3.2						
TOA0	Torodi Ar. Sit	150.33	288	ePKPbc	PKPbc	15 59 58.7	-0.3
TORD	Torodi Ar. Bea	150.33	288	PKPbc	PKPbc	15 59 59.2	+0.1
TORD	Torodi Ar. Bea	150.33	288	PKPbc	PKPbc	15 59 59.2	+0.1
	2.3nm,0.7s,baz=77,slow=2.7,SNR=12						

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*IDC **28** 16:00:00.7±1.4, 309S×12826E, h0^{km}, mb3.9/4, mb1 4.1/6, mb1mx3.9/18, mbtmp3.9/6, ML3.9/2, MS3.6/3, Ms1 3.6/3, ms1mx3.2/26, Error ellipse: s-maj=98.1km s-min=21.4km az=73.0*

*ISCJB **28** 16:00:03.1±0.7, 32S±0.1×1282E±03, h33^{km}, mb3.9/5, MS3.8/2, Error ellipse: s-maj=38.4km s-min=9.6km az=159.5*

*NEIC **28** 16:00:06.8±3.5, 335S×12799E, h49^{km}±38^{km}, mb4.0/1, Error ellipse: s-maj=42.6km s-min=19.4km az=58.0*

ISC 28 16:00:09.7±2.0**, 35S**±01×**1280E**±03**, h81^{km}**±20^{km}**, n17, σ0^{s}55**/16**, mb3.7**/4**, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	10.16	155	*e*P	Pn	16 02 32.6	-0.2
	121nm,1.8s						
KAKA	Kakadu	10.16	155	Pn	Pn	16 02 32.6	-0.1
FITZ	Fitzroy Crossi	14.73	189	*e*P	Pn	16 03 34.4	+0.5
	8.3nm,1.5s						
FITZ	Fitzroy Crossi	14.73	189	*e*P	Pn	16 03 32.8	-1.0
FITZ	Fitzroy Crossi	14.73	189	Pn	Pn	16 03 34.3	+0.4
	0.1nm,0.3s,baz=331,slow=13,SNR=4.1						
FITZ				LR	LR	16 09 27.0	
	comp=Z,102nm,18.8s,baz=269,slow=37						
WRA	Warramunga Arr	17.49	160	P	Pn	16 04 08.0	-0.4
	0.8nm,0.3s,baz=341,slow=12,SNR=26						
WRA				S	S	16 07 25.8	-0.3
	0.1nm,0.3s,baz=340,slow=24,SNR=3.4						
WB2	Warramunga Arr	17.49	160	*e*P	Pn	16 04 08.7	+0.3
WB2	Warramunga Arr	17.49	160	*e*Pn	Pn	16 04 08.7	+0.3
ASAR	Alice Springs	20.86	165	P	P	16 04 48.7	+3.5
	22nm,0.8s,baz=343,slow=12,SNR=217						
STKA	Stephens Creek	31.00	157	LR	LR	16 20 25.4	
	comp=Z,82nm,19.8s,baz=9.6,slow=39						
EIDS	Eidsvold	31.06	137	P	P	16 06 20.4	+0.2
ULN	Ulaanbaatar	54.33	343	*e*P	P	16 09 34.0	+6.2
	1.3nm,0.8s,mb4.0						
SONM	Songino Array	54.50	342	P	P	16 09 28.7	-0.3
	0.3nm,0.5s,mb3.6,baz=161,slow=6.1,SNR=2.3						
MK31	Makanchi Array	64.22	327	P	P	16 10 36.0	-0.1
MKAR	Makanchi Array	64.22	327	P	P	16 10 35.9	-0.2
	0.8nm,0.7s,mb3.6,baz=112,slow=8.2,SNR=8.7						
ZALV	Zalesovo Beam	67.58	334	P	P	16 10 57.8	+0.3
	0.3nm,0.5s,mb3.4,baz=119,slow=8.4,SNR=2.8						
AKTO	Aktyubinsk	80.10	322	LR	LR	16 48 12.0	
	comp=Z,86nm,19.0s,baz=274,slow=36						

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*ISK **28** 16:05:09.7, 40.51N×33.02E, h5^{km}, MD3.4*
*ISCJB **28** 16:05:10.7±0.5, 40.53N±0.02×33.02E±0.02, h1^{km}±5^{km}, Error ellipse: s-maj=4.2km s-min=2.8km az=174.2*
*CSEM **28** 16:05:10.5±0.1, 40.50N×33.01E, h5^{km}, MD3.6, Error ellipse: s-maj=1.8km s-min=1.1km az=162.0*
*DDA **28** 16:05:11.9, 40.55N×33.05E, h3^{km}±2^{km}, Md3.6*
ISC 28 16:05:11.3±0.4, **40.53N**±0.02×**33.05E**±0.02, **h0**^{km}±4^{km}, **n65**, σ**0^{s}79**/79, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELDT	Eldivan	0.29	97	*i* P	Pg	16 05 17.5	+0.6
ELDT				*i* S	Sg	16 05 20.4	-0.3
CANT	Cankiri	0.44	79	*i* PG	Pg	16 05 20.0	+0.2
CANT				*i* SG	Sg	16 05 27.0	+1.4
LOD	Lodumlu	0.67	199	PG	Pg	16 05 23.2	-1.0
LOD				SG	Sg	16 05 33.6	+0.7
LOD	Lodumlu	0.67	199	*e*Pg	Pg	16 05 23.2	-1.0
LOD				*e*Sg	Sg	16 05 33.6	+0.7
ANTO	Ankara	0.68	197	PG	Pg	16 05 23.5	-0.9
ANTO	Ankara	0.68	197	*e*Pg	Pg	16 05 23.5	-0.9
SGKT	Sivrigoynuk	0.76	274	*i* P	Pg	16 05 25.8	-0.1
SGKT				*i* S	Sg	16 05 36.3	+0.7
SAFT	Safranbolu	0.76	339	PG	Pg	16 05 25.3	-0.7
SAFT	Safranbolu	0.76	339	*e*Pg	Pg	16 05 25.3	-0.7
TOS	Tosya	0.90	55	PG	Pg	16 05 28.4	-0.2
TOS	Tosya	0.90	55	*e*Pg	Pg	16 05 28.4	-0.2
BALT	Daday	1.04	14	*i* P	Pg	16 05 31.5	+0.2
BALT				*i* S	Sg	16 05 43.4	-1.4
CORM	Corum	1.26	105	PN	Pn	16 05 35.2	-0.9
CORM	Corum	1.26	105	*e*Pn	Pn	16 05 35.2	-0.9
KAMT	Kaman	1.26	156	PN	Pn	16 05 34.0	-2.2
KAMT	Kaman	1.26	156	*e*Pn	Pn	16 05 34.0	-2.2
CTKT	Corum	1.33	85	*i* P	Pg	16 05 36.1	-0.7
CTKT				*i* S	Sg	16 05 54.6	+0.5
CDAG	Cicekdag	1.36	131	*i* P	Pg	16 05 36.1	-1.2
CDAG				*i* S	Sg	16 05 54.8	-0.1
KDZE	Karadeniz Ereo	1.45	303	PN	Pn	16 05 38.5	-0.2
KDZE	Karadeniz Ereo	1.45	303	*e*Pn	Pn	16 05 38.5	-0.2
BZK	Bozkurt	1.60	26	PN	Pn	16 05 40.6	-0.3
BZK	Bozkurt	1.60	26	*e*Pn	Pn	16 05 40.6	-0.3
BYBT	Boyabat	1.61	54	PN	Pn	16 05 40.9	0.0
BYBT	Boyabat	1.61	54	*e*Pn	Pn	16 05 40.9	0.0
HENT	Hendek	1.66	281	*i* P	Pn	16 05 41.8	+0.2
HENT				*i* S	Sg	16 06 06.1	+1.5
BOYT	Boyabat	1.67	57	*i* P	Pn	16 05 41.3	-0.4
BOYT				*i* S	Sn	16 06 04.5	+0.7
KIZT	Kizilcal	1.87	209	PN	Pn	16 05 43.1	-1.4
KIZT	Kizilcal	1.87	209	*e*Pn	Pn	16 05 43.1	-1.4
GULT	Gulveren	1.93	268	PN	Pn	16 05 44.7	-0.7
GULT	Gulveren	1.93	268	*e*Pn	Pn	16 05 44.7	-0.7
YOZ	Yozgat	1.96	116	PN	Pn	16 05 46.0	+0.3
YOZ	Yozgat	1.96	116	*e*Pn	Pn	16 05 46.0	+0.3
ESKT	Eskisehir	1.96	240	PN	Pn	16 05 44.8	-1.0
ESKT	Eskisehir	1.96	240	*i* P	Pn	16 05 44.8	-1.0
ESKT				*i* S	Sn	16 06 11.6	+0.6
ESKT	Eskisehir	1.96	240	*e*Pn	Pn	16 05 44.8	-1.0
SEYT	Eskypehyr	1.96	240	*i* P	Pn	16 05 44.8	-1.0
SEYT				*i* S	Sn	16 06 11.6	+0.6
DIKM	Dikmen	2.01	55	PN	Pn	16 05 46.9	+0.4
DIKM	Dikmen	2.01	55	*e*Pn	Pn	16 05 46.9	+0.4
AVNT	Avonos	2.23	141	*i* P	Pn	16 05 50.5	+0.9
AVNT				*i* S	Sb	16 06 20.4	-0.2
KVT	Kavak	2.34	75	PN	Pn	16 05 51.4	+0.4
KVT	Kavak	2.34	75	*e*Pn	Pn	16 05 51.4	+0.4
ADVT	Abdulvahap	2.52	269	*e*PN	Pn	16 05 53.0	-0.5
ADVT	Abdulvahap	2.52	269	*e*Pn	Pn	16 05 53.0	-0.5
KONT	Konya--Tatoy	2.63	192	*e*PN	Pn	16 05 55.1	+0.1
KONT	Konya--Tatoy	2.63	192	*e*Pn	Pn	16 05 55.1	+0.1
NIG	Nigde	2.70	153	*e*PN	Pn	16 05 55.8	-0.1
NIG	Nigde	2.70	153	*e*Pn	Pn	16 05 55.8	-0.1
BNN	Bunyan	2.73	127	*e*PN	Pn	16 05 57.2	+0.9
BNN	Bunyan	2.73	127	*e*Pn	Pn	16 05 57.2	+0.9
IZI	Iznik	2.73	267	*e*PN	Pn	16 05 55.9	-0.5
IZI	Iznik	2.73	267	*e*Pn	Pn	16 05 55.9	-0.5
SHUT	Suhut-Afyon	2.76	225	*e*PN	Pn	16 05 56.4	-0.3
SHUT	Suhut-Afyon	2.76	225	*e*Pn	Pn	16 05 56.4	-0.3
YLV	Yalova	2.80	272	*e*PN	Pn	16 05 56.8	-0.5
YLV	Yalova	2.80	272	*e*Pn	Pn	16 05 56.8	-0.5
ULDT	Uludag	3.01	264	*i* P	Pn	16 05 59.9	-0.3
ULDT				*i* S	Sg	16 06 49.8	+1.6
SVSK	Karacayir	3.09	100	*e*PN	Pn	16 06 01.8	+0.6
SVSK	Karacayir	3.09	100	*e*Pn	Pn	16 06 01.8	+0.6
KARA	Karaisali	3.62	154	*e*PN	Pn	16 06 09.1	+0.6
KARA	Karaisali	3.62	154	*e*Pn	Pn	16 06 09.1	+0.6
KOZT	Kozan	3.73	144	*e*PN	Pn	16 06 10.9	+0.8
KULA	Kula-Manisa	3.94	241	*e*PN	Pn	16 06 13.3	+0.3
KULA	Kula-Manisa	3.94	241	*e*Pn	Pn	16 06 13.3	+0.3
MALT	Malatya	4.72	116	*e*PN	Pn	16 06 25.3	+1.7
MALT	Malatya	4.72	116	*e*Pn	Pn	16 06 25.3	+1.7

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*ISCJB **28** 16:41:16.1±1.5, 6.4S±0.1×128.1E±0.3, h392^{km}±19^{km}, mb3.2/5, Error ellipse: s-maj=42.8km s-min=10.7km az=158.6*
*NEIC **28** 16:41:17.7±1.9, 6.33S×128.17E, h390^{km}±25^{km}, Error ellipse: s-maj=38.5km s-min=16.7km az=74.0*
*IDC **28** 16:41:18.4±3.1, 6.36S×128.19E, h399^{km}±37^{km}, mb3.0/5, mb1 3.2/8, mb1mx3.1/14, mbtmp3.0/8, Error ellipse: s-maj=57.9km s-min=11.0km az=72.0*
ISC 28 16:41:17.9±1.4, **6.4S**±0.1×**128.2E**±0.3, **h394**^{km}±16^{km}, **n15**, σ**0^{s}86**/19, **mb3.2**/5, **1C, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	7.57	146	⇑*i*P	Pn	16 43 08.1	+0.2
	19nm,0.3s						
KAKA	Kakadu	7.57	146	*e*P	Pn	16 43 07.9	+0.1
FITZ	Fitzroy Crossi	11.90	192	*e*P	Pn	16 43 57.9	-0.2
	8.8nm,1.5s						
FITZ	Fitzroy Crossi	11.90	192	*e*P	Pn	16 43 57.4	-0.7
FITZ	Fitzroy Crossi	11.90	192	P	Pn	16 43 56.9	-1.2
	0.2nm,0.3s,baz=292,slow=23,SNR=8.8						
WRA	Warramunga Arr	14.75	157	P	P	16 44 27.9	-0.1
	1.1nm,0.3s,baz=340,slow=11,SNR=114						
WRA				S	S	16 47 04.8	-0.5
	0.3nm,0.3s,baz=339,slow=20,SNR=6.3						
WB2	Warramunga Arr	14.75	157	*e*P	P	16 44 28.1	+0.1
WB2				*e*S	S	16 47 03.7	-1.7
WB2	Warramunga Arr	14.75	157	*e*P	P	16 44 28.6	+0.5
WB2				*e*S	S	16 47 03.7	-1.7
ASAR	Alice Springs	18.05	163	P	P	16 45 03.9	+0.7
	1.4nm,0.3s,baz=343,slow=12,SNR=136						
ASAR				S	S	16 48 10.8	+1.2
	0.1nm,0.3s,baz=341,slow=20,SNR=9.6						
STKA	Stephens Creek	28.30	155	*e*P	P	16 46 38.3	+1.1
STKA	Stephens Creek	28.30	155	P	P	16 46 38.3	+1.2
	1.1nm,0.8s,mb3.2,baz=344,slow=10,SNR=4.0						
KSRS	Korea Array	43.61	360	P	P	16 48 44.8	-0.4
	0.9nm,0.7s,mb3.2,baz=178,slow=10,SNR=4.9						
SONM	Songino Array	57.30	343	P	P	16 50 26.3	+0.1
	0.6nm,0.7s,mb3.0,baz=160,slow=4.6,SNR=3.2						
MKAR	Makanchi Array	66.73	328	P	P	16 51 29.1	+0.9
	0.6nm,0.6s,mb3.4,baz=114,slow=8.9,SNR=12						
ZALV	Zalesovo Beam	70.24	334	P	P	16 51 48.1	-1.3
	0.5nm,0.5s,mb3.3,baz=133,slow=8.1,SNR=2.8						

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*NEIC **28** 16:59:53.4, 38.39S×176.09E, h169^{km}, MG3.9(WEL), After WEL.*
WEL 28 16:59:53.0±0.4, **38.37S×176.10E, h172**^{km}±3^{km}, **ML3.7**/8, **3C-1D, Error ellipse: s-maj=2.3km s-min=1.9km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PATZ	Paeroa	0.12	94	P	Pn	17 00 16.0	+0.2
PATZ	Paeroa	0.12	94	PN	Pn	17 00 16.0	+0.3
TAZ	Tarawera	0.35	67	P	Pn	17 00 16.1	-0.2
TAZ	Tarawera	0.35	67	PN	Pn	17 00 16.1	-0.1
WATZ	Wairara	0.44	221	P	Pn	17 00 16.7	+0.2
WATZ	Wairara	0.44	221	PN	Pn	17 00 16.7	+0.1
HATZ	Hinemaiaia	0.52	181	P	Pn	17 00 16.8	-0.1
HATZ	Hinemaiaia	0.52	181	PN	Pn	17 00 16.8	-0.1
RATZ	Rangitukua	0.56	207	P	Pn	17 00 17.1	+0.1
RATZ	Rangitukua	0.56	207	PN	Pn	17 00 17.1	+0.1
RITZ	Rihia Road	0.63	197	P	Pn	17 00 17.9	+0.5
RITZ	Rihia Road	0.63	197	PN	Pn	17 00 17.9	+0.4
KATZ	Kakaramea	0.68	208	P	Pn	17 00 17.3	-0.4
KATZ	Kakaramea	0.68	208	PN	Pn	17 00 17.5	-0.2
URZ	Urewera	0.80	82	P	Pn	17 00 18.0	-0.5
URZ	Urewera	0.80	82	PN	Pn	17 00 18.0	-0.4
WTVZ	West Tongariro	0.84	208	P	Pn	17 00 18.7	0.0
WTVZ	West Tongariro	0.84	208	PN	Pn	17 00 18.7	0.0
BKZ	Black Stump Fm	0.85	159	⇓P	Pn	17 00 19.0	+0.2
BKZ				S	Sn	17 00 37.5	-1.1
BKZ	Black Stump Fm	0.85	159	⇑PN	Pn	17 00 19.0	+0.2
BKZ				SN	Sn	17 00 37.5	-1.1
OTVZ	Oturere	0.86	203	PN	Pn	17 00 19.1	+0.2
TWVZ	Taurewa	0.87	216	P	Pn	17 00 18.9	0.0
TWVZ	Taurewa	0.87	216	PN	Pn	17 00 18.9	0.0
NGZ	Ngauruhoe	0.89	206	P	Pn	17 00 19.3	+0.3
NGZ	Ngauruhoe	0.89	206	PN	Pn	17 00 19.3	+0.3
WPVZ	Whakapapa	0.94	207	P	Pn	17 00 19.5	+0.1
WPVZ	Whakapapa	0.94	207	PN	Pn	17 00 19.5	+0.1
TUVZ	Tukino	0.96	201	P	Pn	17 00 19.8	+0.3
TUVZ	Tukino	0.96	201	PN	Pn	17 00 19.8	+0.2
FWVZ	Far West T-bar	0.98	206	P	Pn	17 00 19.9	+0.2
FWVZ	Far West T-bar	0.98	206	PN	Pn	17 00 19.9	+0.3
HIZ	Hauiti	0.99	261	*e*P	Pn	17 00 19.6	-0.1
HIZ	Hauiti	0.99	261	PN	Pn	17 00 19.6	-0.2
HIZ				SN	Sn	17 00 39.8	-0.5
TRVZ	Turoa	1.02	205	PN	Pn	17 00 20.3	+0.3
WNVZ	Wahianoa	1.03	202	P	Pn	17 00 20.2	+0.1
WNVZ	Wahianoa	1.03	202	PN	Pn	17 00 20.2	+0.1
MOVZ	Moawhango	1.07	195	P	Pn	17 00 20.1	-0.3
MOVZ	Moawhango	1.07	195	PN	Pn	17 00 20.1	-0.3
PKVZ	Pokaka	1.09	212	PN	Pn	17 00 20.4	-0.1
MWZ	Matawai	1.12	88	P	Pn	17 00 20.9	+0.1
MWZ	Matawai	1.12	88	PN	Pn	17 00 20.9	0.0
MTVZ	Mangateitei	1.12	206	PN	Pn	17 00 20.8	0.0
VRZ	Vera Road	1.29	234	P	Pn	17 00 22.1	-0.2
VRZ	Vera Road	1.29	234	PN	Pn	17 00 22.1	-0.1
VRZ				SN	Sn	17 00 45.4	+0.6
KNZ	Kokohu	1.39	118	P	Pn	17 00 23.6	+0.4
KNZ	Kokohu	1.39	118	PN	Pn	17 00 23.6	+0.4
WAZ	Wanganui	1.63	212	*e*P	Pn	17 00 25.1	-0.4
WAZ	Wanganui	1.63	212	*e*PN	Pn	17 00 25.1	-0.4
PUZ	Puketiti	1.73	81	*e*P	Pn	17 00 26.4	-0.1
PUZ	Puketiti	1.73	81	*e*PN	Pn	17 00 26.4	-0.1
PXZ	Pawanui	1.76	161	⇑PN	Pn	17 00 27.0	+0.2
NEZ	North Egmont	1.80	240	PN	Pn	17 00 27.6	+0.3
MXZ	Matakaoa Point	1.92	66	P	Pn	17 00 28.7	+0.1
MXZ	Matakaoa Point	1.92	66	PN	Pn	17 00 28.7	+0.1
BFZ	Birch Farm	2.31	177	P	Pn	17 00 32.0	-0.9
BFZ	Birch Farm	2.31	177	PN	Pn	17 00 32.0	-0.9
MRZ	Mangatainoka R	2.32	190	P	Pn	17 00 31.9	-1.2
MRZ	Mangatainoka R	2.32	190	⇑PN	Pn	17 00 31.9	-1.2
TIWZ	Tintock	2.41	184	PN	Pn	17 00 33.0	-1.1
KIW	Kapiti Island	2.65	200	P	Pn	17 00 35.1	-1.9
KIW	Kapiti Island	2.65	200	PN	Pn	17 00 35.1	-1.8
MTW	Mount Morrison	2.82	189	P	Pn	17 00 37.1	-1.9
MTW	Mount Morrison	2.82	189	PN	Pn	17 00 37.1	-1.9
CAW	Cannon Point	2.84	196	P	Pn	17 00 37.4	-1.9
CAW	Cannon Point	2.84	196	PN	Pn	17 00 37.4	-1.9
DUWZ	D'Urville Isla	2.95	214	PN	Pn	17 00 38.7	-1.9
TRWZ	Traveller	3.04	186	PN	Pn	17 00 39.7	-1.9
PAWZ	Paruwai Farm	3.05	190	P	Pn	17 00 39.7	-2.1
PAWZ	Paruwai Farm	3.05	190	PN	Pn	17 00 39.7	-2.1
MRW	Makara Radio	3.05	200	P	Pn	17 00 39.6	-2.2
MRW	Makara Radio	3.05	200	PN	Pn	17 00 39.6	-2.2
WEL	Wellington	3.08	199	P	Pn	17 00 40.1	-2.1
WEL	Wellington	3.08	199	PN	Pn	17 00 40.1	-2.1
MSWZ	Moikau Station	3.11	192	P	Pn	17 00 40.3	-2.2
MSWZ	Moikau Station	3.11	192	PN	Pn	17 00 40.3	-2.3
SNZO	South Karori	3.12	200	P	Pn	17 00 40.3	-2.4
SNZO	South Karori	3.12	200	PN	Pn	17 00 40.3	-2.4
TCW	Tory Channel	3.17	206	P	Pn	17 00 41.0	-2.2
TCW	Tory Channel	3.17	206	PN	Pn	17 00 41.0	-2.3
TUWZ	Tuamarina	3.48	208	PN	Pn	17 00 44.5	-2.6
NNZ	Nelson	3.53	216	*e*P	Pn	17 00 45.0	-2.8
NNZ	Nelson	3.53	216	PN	Pn	17 00 45.0	-2.8
QRZ	Quartz Range	3.69	227	*e*P	Pn	17 00 46.3	-3.5
QRZ	Quartz Range	3.69	227	PN	Pn	17 00 46.3	-3.5
BSWZ	Blackbirch Sta	3.75	206	P	Pn	17 00 48.0	-2.6
BSWZ	Blackbirch Sta	3.75	206	PN	Pn	17 00 48.0	-2.5
THZ	Tophouse	4.18	215	*e*P	Pn	17 00 52.8	-3.3
THZ	Tophouse	4.18	215	PN	Pn	17 00 52.8	-3.3
KHZ	Kahutara	4.49	205	P	Pn	17 00 57.2	-2.8
KHZ	Kahutara	4.49	205	PN	Pn	17 00 57.2	-2.8
DSZ	Denniston Nort	4.71	223	*e*P	Pn	17 00 59.2	-3.8
DSZ	Denniston Nort	4.71	223	PN	Pn	17 00 59.2	-3.8
LTZ	Lake Taylor	5.28	212	*e*P	Pn	17 01 06.5	-3.9
LTZ	Lake Taylor	5.28	212	PN	Pn	17 01 06.5	-3.9
MQZ	McQueen's Vall	5.93	205	*e*P	Pn	17 01 14.3	-4.6
MQZ	McQueen's Vall	5.93	205	PN	Pn	17 01 14.3	-4.6
WVZ	Waitaha Valley	6.22	219	SN	Sn	17 02 23.4	-10
RPZ	Rata Peaks	6.56	214	*e*P	Pn	17 01 22.5	-4.7
RPZ	Rata Peaks	6.56	214	*e*PN	Pn	17 01 23.0	-4.2
FOZ	Fox Glacier	7.10	221	SN	Sn	17 02 42.2	-12
ODZ	Otahua Downs	7.81	210	*e*PN	Pn	17 01 39.6	-4.1

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*MAN **28** 17:02:16, 5.04N×126.97E, h1^{km}, mb5.5, ML4.5, MS4.8*
*MOS **28** 17:02:25.0±1.0, 5.50N×126.54E, h33^{km}, mb5.1/18, Error ellipse: s-maj=14.7km s-min=6.8km az=110.3*
*IDC **28** 17:02:28.4±4.0, 5.51N×126.62E, h50^{km}±38^{km}, mb4.3/19, mb1 4.3/19, mb1mx4.3/21, mbtmp4.3/19, MS4.1/10, Ms1 4.0/10, ms1mx3.7/36, Error ellipse: s-maj=24.8km s-min=10.9km az=79.0*
*BJI **28** 17:02:28.8, 5.12N×126.73E, h99^{km}, mB5.0, mb4.7*
*ISCJB **28** 17:02:28.1±0.6, 5.53N±0.03×126.79E±0.05, h64^{km}±4^{km}, mb4.8/70, Error ellipse: s-maj=8.0km s-min=5.2km az=173.9*
*NEIC **28** 17:02:30.6±0.9, 5.55N×126.68E, h74^{km}±8^{km}, mb4.9/28, Error ellipse: s-maj=8.1km s-min=4.5km az=77.0*
ISC 28 17:02:30.2±0.6, **5.52N**±0.03×**126.77E**±0.05, **h67**^{km}±4^{km}, **h77**^{km}±2.4^{km}**:pP-P, n184,** σ**1^{s}18**/181, **mb4.7**/70, **14C-15D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	1.50	340	*e*P	Pn	17 02 52.2	-2.9
DAV	Davao City (W)	1.94	323	⇑*i*Pn	Pn	17 02 59.9	-1.1
DAV				*e*Sn	Sn	17 03 28.9	+4.6
DAV	Davao City (W)	1.94	323	⇑*i*P	Pn	17 03 00.0	-1.0
KCP	Kidapawan	2.23	312	⇓*e*P	Pn	17 03 03.0	-1.9
KCP				*i* S	Sn	17 03 33.6	+2.2
BUKP	Musuan	2.89	324	*e*P	Pn	17 03 12.5	-1.4
CGP	Cagayan de Oro	3.57	325	⇑*e*P	Pn	17 03 21.4	-1.7
CGP				*i* S	Sn	17 04 10.6	+6.5
PAGZ	Pagadian	4.08	305	*e*P	Pn	17 03 29.0	-1.1
SCPH	Surigao	4.42	343	⇓*e*P	Pn	17 03 35.8	+1.0
DCPH	Dipolog City	4.55	312	*e*P	Pn	17 03 35.3	-1.3
MSLP	Maasin	4.96	338	*e*P	Pn	17 03 41.2	-0.9
TBP	Tagbilaran	5.04	325	*e*P	Pn	17 03 42.6	-0.7
LLP	Lapu-Lapu	5.51	330	*e*P	Pn	17 03 49.6	-0.1
OCLP	Ormoc	5.89	339	*e*P	Pn	17 03 55.6	+0.6
GUIM	Jordan	6.54	321	*e*P	Pn	17 04 01.8	-2.1
CUYO	Cuyo Island	7.77	313	*e*P	Pn	17 04 21.3	+0.6
MYLDM	Lahad Datu	8.24	268	⇑P	Pn	17 04 28.3	+1.2
OTRP	Odiongan	8.25	326	*e*P	Pn	17 04 29.7	+2.4
PVCP	Virac	8.42	342	*e*P	Pn	17 04 28.3	-1.3
TSM	Tawau	8.95	263	⇓P	Pn	17 04 38.3	+1.6
BUSP	Coron	9.14	315	*e*P	Pn	17 04 39.6	+0.1
ENPP	El Nido	9.20	308	*e*P	Pn	17 04 40.0	-0.2
SDKM	Sandakan	9.53	271	⇑P	Pn	17 04 46.9	+2.1
LUBP	Lubang	10.38	322	*e*P	Pn	17 04 59.8	+3.4
KKM	Kota Kinabalu	10.51	273	*e*Pn	Pn	17 04 58.7	+0.5
KKM	Kota Kinabalu	10.51	273	⇓P	Pn	17 05 01.4	+3.3
BTM	Bintulu	13.84	261	⇓P	Pn	17 05 46.8	+3.5
SBUM	Sibu	14.83	259	⇓P	Pn	17 05 59.3	+3.0
KSM	Kuching	16.91	257	*e*Pn	Pn	17 06 23.9	+1.3
KSM	Kuching	16.91	257	⇓P	Pn	17 06 24.9	+2.3
KAKA	Kakadu	18.97	163	*e*P	Pn	17 06 46.9	-0.7
	23nm,0.7s						
GUMO	Guam	19.55	65	LR	LR	17 12 53.1	
	comp=Z,572nm,20.6s,baz=226,slow=32						
YHNB	Yeheng	19.73	345	P	Pn	17 06 52.0	-4.5
JOW	Kunigami	21.24	4	LR	LR	17 15 36.2	
	comp=Z,319nm,19.6s,baz=218,slow=37						
QIZ	Qiongzhong	21.27	311	P	P	17 07 10.5	-0.7
QIZ				S	S	17 11 03.5	-0.3
QIZ				AMB	AMB		
	comp=Z,17nm,1.0s,mb4.3						
QIZ				LR	LR		
	comp=E,466nm,19.1s						
QIZ				LR	LR		
	comp=Z,471nm,16.4s						
MYKOM	Kota Tinggi	23.16	262	⇓P	P	17 07 32.1	+0.9
FITZ	Fitzroy Crossi	23.50	183	*e*P	P	17 07 33.1	-1.1
	comp=Z,19nm,0.8s,mb4.5						
FITZ	Fitzroy Crossi	23.50	183	P	P	17 07 33.2	-1.1
	comp=Z,7.5nm,0.7s,mb4.1,baz=25,slow=12,SNR=26						
KTGM	Kuala Trenggan	23.53	271	⇑P	P	17 07 35.4	+0.8
KGM	Kluang	23.65	262	⇑P	P	17 07 37.5	+1.8
PMG	Port Moresby	25.16	126	LR	LR	17 16 24.3	
	comp=Z,262nm,21.5s,baz=30,slow=33						
FRIM	Kepong	25.17	266	⇑P	P	17 07 51.1	+1.5
IPM	Ipoh	25.66	269	⇑P	P	17 07 55.6	+1.6
SSE	Sheshan	25.97	349	*e*P	P	17 07 57.3	+0.7
SSE				AP	pP	17 08 14.3	+1.6
SSE				XS	sS	17 13 00.5	+10
SSE				SCS	ScS	17 18 44.8	-2.5
SSE				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.7						
SSE				AMB	AMB		
	comp=Z,88nm,5.6s						
SSE				LR	LR		
	comp=N,173nm,21.0s						
SSE				LR	LR		
	comp=E,80nm,21.0s						
SSE				LR	LR		
	comp=Z,242nm,19.2s						
KULM	Kulim	26.00	271	*e*P	P	17 07 57.0	-0.1
KULM	Kulim	26.00	271	⇑P	P	17 07 58.8	+1.7
WRA	Warramunga Arr	26.38	164	P	P	17 08 01.1	+0.8
	comp=Z,12nm,0.6s,mb4.5,baz=342,slow=10,SNR=38						
WB2	Warramunga Arr	26.38	164	*e*P	P	17 08 00.5	+0.1
MBWA	Marble Bar	27.40	194	*e*P	P	17 08 08.5	-1.0
	comp=Z,40nm,1.2s,mb4.8						
NJ2	Nanjing	27.41	345	*e*P	P	17 08 10.5	+1.0
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.8						
WHN	Wuhan	27.50	336	*e*P	P	17 08 12.3	+2.0
WHN				LR	LR		
	comp=Z,16µm,18.6s						
PSI	Prapat	27.90	266	P	P	17 08 13.7	-0.4
	comp=Z,13nm,0.8s,mb4.5,baz=70,slow=4.4,SNR=11						
GYA	Guiyang	28.32	319	⇑*i*P	P	17 08 19.3	+1.6
GYA				AP	pP	17 08 36.5	+2.6
GYA				PP	PP	17 09 12.8	-10
GYA				PCP	PcP	17 11 30.8	+1.4
GYA				S	S	17 12 59.5	0.0
GYA				PCS	PcS	17 15 11.8	0.0
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.3						
GYA				AMB	AMB		
	comp=Z,80nm,4.6s						
GYA				LR	LR		
	comp=N,420nm,16.8s						
GYA				LR	LR		
	comp=E,490nm,17.6s						
GYA				LR	LR		
	comp=Z,310nm,17.7s						
ASAR	Alice Springs	29.84	167	P	P	17 08 31.1	-0.1
	comp=Z,1.4nm,0.6s,mb3.8,baz=344,slow=6.7,SNR=17						
ASAR				PcP	PcP	17 11 33.5	+0.4
	comp=Z,1.3nm,0.5s,baz=349,slow=2.4,SNR=8.2						
CHTO	Chiang Mai	30.17	298	*e*P	P	17 08 32.5	-1.8
	comp=Z,6.9nm,0.8s,mb4.3						
CHTO				*e*PcP	PcP	17 11 35.2	+1.0
CHTO	Chiang Mai	30.17	298	*e*P	P	17 08 32.5	-1.7
CHTO				*e*		17 11 35.2	
CHTO				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.3						
KMI	Kunming	30.17	313	P	P	17 08 34.3	+0.1
KMI				AP	pP	17 08 52.5	+2.1
KMI				PP	PP	17 09 36.8	-6.6
KMI				S	S	17 13 28.5	-0.2
KMI				SS	SS	17 15 11.3	-28
KMI				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.4						
KMI				AMB	AMB		
	comp=Z,177nm,7.9s						
KMI				LR	LR		
	comp=N,260nm,17.4s						
KMI				LR	LR		
	comp=E,432nm,16.7s						
KMI				LR	LR		
	comp=Z,528nm,17.6s						
KSRS	Korea Array	31.80	2	P	P	17 08 49.4	+1.0
	comp=Z,1.0nm,0.7s,mb3.7,baz=181,slow=8.7,SNR=4.4						
MJAR	Matsushiro Arr	32.60	17	P	P	17 08 55.3	-0.1
	comp=Z,2.4nm,0.9s,mb4.0,baz=198,slow=9.5,SNR=4.5						
XAN	Xi'an	32.85	332	P	P	17 08 56.5	-1.1
XAN				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.6						
CD2	Chengdu	33.24	322	*e*P	P	17 09 01.5	+0.4
CD2				AP	pP	17 09 19.3	+1.9
CD2				PP	PP	17 10 15.5	-1.9
CD2				S	S	17 14 16.0	-0.4
CD2				SS	SS	17 16 23.5	-19
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.7						
CD2				AMB	AMB		
	comp=Z,30nm,5.8s						
CD2				LR	LR		
	comp=N,230nm,15.6s						
CD2				LR	LR		
	comp=E,540nm,14.4s						
CD2				LR	LR		
	comp=Z,230nm,14.4s						
BJT	Baijiatuau	35.64	346	*e*P	P	17 09 22.6	+0.9
	comp=Z,29nm,0.8s,mb5.3						
BJT	Baijiatuau	35.64	346	*e*P	P	17 09 22.6	+0.9
BJT				pmax	pmax		
	comp=Z,29nm,0.8s						
BJI	Beijing	35.66	346	P	P	17 09 22.8	+0.9
BJI				S	S	17 14 58.3	+4.8
BJI				AMB	AMB		
	comp=Z,34nm,0.9s,mb5.3						
BJI				AMB	AMB		
	comp=Z,454nm,6.5s						
BJI				LR	LR		
	comp=N,284nm,20.8s						
BJI				LR	LR		
	comp=E,200nm,21.1s						
BJI				LR	LR		
	comp=Z,385nm,22.9s						
FORT	Forrest	36.12	178	*e*P	P	17 09 25.5	-0.3
	comp=Z,19nm,0.8s,mb5.1						
LZH	Lanzhou	36.99	328	*e*P	P	17 09 34.0	+0.7
LZH				PP	PP	17 11 02.3	+3.5
LZH				*e*S	S	17 15 14.3	+0.3
LZH				*e*SS	SS	17 17 47.0	-11
LZH				AMB	AMB		
	comp=Z,29nm,1.4s,mb5.0						
LZH				AMB	AMB		

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      comp=Z,106nm,5.6s
LZH                                LR      LR
      comp=E,857nm,13.2s
LZH                                LR      LR
      comp=Z,983nm,17.4s
HHC   Hu-ho-hao-te       37.72 341 eP      P       17 09 42.3 +3.0
HHC                                AP      pP      17 10 00.5 +4.6
HHC                                XP      sP      17 10 09.5 +5.8
HHC                                PP      PP      17 11 13.5 +6.8
HHC                                PCP     PcP     17 11 58.5 +3.2
HHC                                S       S       17 15 28.0 +3.2
HHC                                PCS     PcS     17 15 45.8 +1.9
HHC                                SS      SS      17 18 07.3 -5.3
HHC                                AMB     AMB
      comp=Z,14nm,0.9s,mb4.8
HHC                                LR      LR
      comp=E,274nm,19.0s
HHC                                LR      LR
      comp=N,139nm,17.8s
HHC                                LR      LR
      comp=Z,229nm,19.0s
KLBR  Kellerberrin       37.90 193 eP      P       17 09 40.1 -0.8
      comp=Z,20nm,0.8s,mb5.0
CN2   Changchun          38.14 358 eP      P       17 09 43.8 +1.0
MUN   Mundaring          38.63 194 eP      P       17 09 46.3 -0.7
SHL   Shillong           38.87 305 eP      P       17 09 48.0 -1.3
MDJ   Mudanjiang         39.02   3 P       P       17 09 50.5 +0.4
MDJ                                PP      PP      17 11 21.8 +1.0
MDJ                                PCP     PcP     17 11 58.5 -0.7
MDJ                                S       S       17 15 45.5 +1.2
MDJ                                PCS     PcS     17 15 49.3 +0.6
MDJ                                SCS     ScS     17 19 51.8 -1.3
MDJ                                AMB     AMB
      comp=Z,13nm,0.9s,mb4.8
MDJ                                AMB     AMB
      comp=Z,94nm,5.5s
MDJ                                LR      LR
      comp=N,94nm,21.5s
MDJ                                LR      LR
      comp=E,58nm,19.2s
MDJ                                LR      LR
      comp=Z,111nm,20.3s
MDJ   Mudanjiang         39.02   3 eP      P       17 09 50.0 -0.2
      comp=Z,10nm,0.8s,mb4.7
NWAO  Narrogin (SRO)     39.30 193 eP      P       17 09 52.5 -0.1
      comp=Z,4.3nm,0.5s,mb4.5
NWAO  Narrogin (SRO)     39.30 193 eP      P       17 09 52.5 -0.1
NWAO                               pmax    pmax
      comp=Z,4.0nm,0.5s
NWAO  Narrogin (SRO)     39.30 193 P       P       17 09 52.5 -0.1
      comp=Z,11nm,0.6s,mb4.8,baz=26,slow=7.6,SNR=16
STKA  Stephens Creek     39.79 160 eP      P       17 09 56.7  0.0
      comp=Z,15nm,1.3s,mb4.7
STKA  Stephens Creek     39.79 160 P       P       17 09 56.8  0.0
      comp=Z,8.6nm,0.6s,mb4.7,baz=335,slow=11,SNR=9.7
STKA                               LR      LR      17 25 59.4
      comp=Z,226nm,19.2s,baz=217,slow=35
ASAJ  Asahikawa          40.88  17 P       P       17 10 06.5 +1.0
      comp=Z,8.2nm,0.8s,mb4.6,baz=243,slow=24,SNR=6.3
LSA   Lhasa              41.31 310 P       P       17 10 10.0 +0.6
LSA   Lhasa              41.31 310 eP      P       17 10 09.8 +0.4
      comp=Z,5.6nm,0.6s,mb4.6
LSA   Lhasa              41.31 310 eP      P       17 10 09.8 +0.4
LSA                                pmax    pmax
      comp=Z,6.0nm,0.6s,mb4.6
GTA   Gaotai             41.59 328 eP      P       17 10 11.8 +0.2
GTA                                AP      pP      17 10 30.0 +1.7
GTA                                PP      PP      17 11 51.5 +2.6
GTA                                PCP     PcP     17 12 10.8 +3.2
GTA                                PCS     PcS     17 16 00.5 +1.5
GTA                                S       S       17 16 20.5 -2.4
GTA                                AMB     AMB
      comp=Z,3.0nm,1.0s,mb4.0
GTA                                AMB     AMB
      comp=Z,147nm,7.2s
GTA                                LR      LR
      comp=N,365nm,21.3s
GTA                                LR      LR
      comp=E,462nm,20.2s
GTA                                LR      LR
      comp=Z,652nm,19.8s
ARMA  Armidale           42.94 148 eP      P       17 10 30.4 +7.8
TAPN  Taplejung          43.01 305 eP      P       17 10 22.5 -0.8
      comp=Z,28nm,0.8s,mb5.0
ODAN  Odare              43.09 304 eP      P       17 10 22.9 -1.0
      comp=Z,48nm,0.7s,mb5.3
HABR  Khabarovsk         43.37   8 eP      P       17 10 28.4 +2.6
HABR                               eS      S       17 16 54.3 +5.5
YSS   Yuzh-Sakhalins     43.52  16 eP      P       17 10 26.4 -0.6
      comp=Z,9.7nm,0.8s,mb4.6
YSS   Yuzh-Sakhalins     43.52  16 eP      P       17 10 28.3 +1.3
KLR   Kul’dur            43.76   5 eP      P       17 10 25.7 -3.2
HIA   Hailar             43.99 353 i P     P       17 10 31.3 +0.5
JIRN  Jiri               44.38 304 eP      P       17 10 33.5 -0.7
      comp=Z,46nm,0.7s,mb5.3
KKN   Kakani             45.17 304 eP      P       17 10 38.9 -1.7
      comp=Z,34nm,0.9s,mb5.1
KKN   Kakani             45.17 304 eP      P       17 10 38.9 -1.7
KKN                                pmax    pmax
      comp=Z,34nm,0.9s,mb5.1
ULN   Ulaanbaatar        45.44 341 eP      P       17 10 41.9 -0.4
      comp=Z,13nm,0.9s,mb4.7
ULN   Ulaanbaatar        45.44 341 i P     P       17 10 43.0 +0.7
SONM  Songino Array      45.62 341 P       P       17 10 44.1 +0.3
SONM                                               17 12 24.0
SONM  Songino Array      45.62 341 P       P       17 10 44.1 +0.4
      comp=Z,5.9nm,0.8s,mb4.4,baz=154,slow=7.0,SNR=15
SONM                               PcP     PcP     17 12 24.0 +2.9
      comp=Z,1.8nm,0.8s,baz=145,slow=5.3,SNR=3.2
SONM                               LR      LR      17 31 56.7
      comp=Z,186nm,19.1s,baz=50,slow=39
GKN   Gorkha             45.78 304 eP      P       17 10 43.7 -1.7
      comp=Z,20nm,0.6s,mb5.0
DZM   Mont Dzumac        47.55 127 LR      LR      17 29 55.6
      comp=Z,181nm,20.1s,baz=213,slow=35
CIT   Chita              47.62 349 eP      P       17 11 00.8 +1.4
CIT                                e               17 11 11.6
CIT                                e       pP      17 11 18.8 +2.4
CIT                                pmax    pmax
      comp=Z,17nm,1.6s,mb4.6
HYB   Hyderabad          48.57 288 eP      P       17 11 06.5 -0.7
HYB   Hyderabad          48.57 288 i P     P       17 11 06.5 -0.7
ZAK   Zakamensk          48.86 340 eP      P       17 11 09.9 +1.0
ZAK                                e               17 12 36.7
ZAK                                pmax    pmax
      comp=Z,2.0nm,1.0s,mb4.0
ZAK                                pmax    pmax
      comp=Z,2.0nm,1.0s,mb4.0
TLY   Talaya             49.85 341⇑eP      P       17 11 17.4 +1.0
      comp=Z,12nm,0.8s,mb4.9
TLY   Talaya             49.85 341 eP      P       17 11 17.5 +1.1
IRK   Irkutsk            50.14 342 eP      P       17 11 19.7 +1.1
IRK                                pmax    pmax
      comp=Z,23nm,2.4s,mb4.7
WMQ   Urumqi             51.29 324 P       P       17 11 27.8 +0.3
WMQ                                LR      LR
      comp=N,381nm,24.8s
WMQ                                LR      LR
      comp=E,197nm,19.0s
WMQ                                LR      LR
      comp=Z,355nm,19.6s
BOD   Bodaibo            53.11 351 eP      P       17 11 40.7 +0.1
BOD                                pmax    pmax
      comp=Z,6.0nm,1.1s,mb4.5
THN   Thein Dam          54.53 306 eP      P       17 11 49.9 -1.7
MK31  Makanchi Array     56.12 325⇑eP      P       17 12 01.7 -1.0
MK31                               ePcP    PcP     17 12 59.7 -0.3
MKAR  Makanchi Array     56.12 325 P       P       17 12 02.1 -0.6
MKAR                                               17 13 00.4
MKAR  Makanchi Array     56.12 325 P       P       17 12 02.1 -0.6
      comp=Z,13nm,0.6s,mb5.1,baz=119,slow=7.7,SNR=80
MKAR                               PcP     PcP     17 13 00.4 +0.5
      comp=Z,4.1nm,0.7s,baz=120,slow=4.3,SNR=3.9
MKAR                               LR      LR      17 37 20.7
      comp=Z,227nm,20.0s,baz=118,slow=37
YAK   Yakutsk            56.43   2⇑iP      P       17 12 04.6 +0.1
      comp=Z,40nm,0.8s,mb5.5
YAK   Yakutsk            56.43   2 eP      P       17 12 05.5 +0.9
YAK                                e               17 13 01.1
YAK                                e               17 14 10.1
YAK                                ePPP            17 15 27.2
YAK                                eS      S       17 19 49.4 -0.8
YAK                                e               17 21 44.4
YAK                                eSS     SS      17 23 38.3 +0.1
YAK                                pmax    pmax
```

```
      comp=Z,32nm,0.9s,mb5.3
YAK                                pmax    pmax
      comp=N,6.0nm,1.3s
YAK                                pmax    pmax
      comp=Z,211nm,5.2s
YAK                                pmax    pmax
      comp=N,159nm,5.9s
YAK                                pmax    pmax
      comp=E,115nm,7.3s
YAK                                smax
      comp=E,286nm,6.7s
YAK                                smax
      comp=Z,208nm,6.0s
YAK                                smax
      comp=N,218nm,6.5s
MA2   Magadan            56.97  14 P       P       17 12 08.7 +0.2
MA2   Magadan            56.97  14 eP      P       17 12 11.3 +2.8
MA2                                pmax    pmax
      comp=Z,6.0nm,0.8s,mb4.7
ZALV  Zalesovo Beam      59.02 333 P       P       17 12 22.0 -0.9
ZALV                               LR      LR      17 38 40.3
ZALV  Zalesovo Beam      59.02 333 P       P       17 12 22.0 -0.9
      comp=Z,8.5nm,0.8s,mb4.8,baz=117,slow=5.5,SNR=36
ZALV                               LR      LR      17 38 40.3
      comp=Z,97nm,21.5s,baz=264,slow=37
ZAL   Zalesovo           59.02 333 P       P       17 12 22.0 -0.9
AAK   Ala-Archa          59.07 317 eP      P       17 12 21.3 -2.2
      comp=Z,4.7nm,0.9s,mb4.5
AAK   Ala-Archa          59.07 317 eP      P       17 12 21.9 -1.6
AAK                                pmax    pmax
      comp=Z,3.0nm,0.9s,mb4.3
KURK  Kurchatov          60.26 327 eP      P       17 12 29.6 -1.9
      comp=Z,26nm,0.6s,mb5.4
KURK  Kurchatov          60.26 327 eP      P       17 12 30.9 -0.6
NVS   Novosibirsk        60.30 333 eP      P       17 12 31.4 -0.3
NVS                                pmax    pmax
      comp=N,8.0nm,1.0s
NVS                                pmax    pmax
      comp=E,10.0nm,1.0s
NVS                                pmax    pmax
      comp=Z,14nm,1.0s,mb5.0
KBL   Kabul              60.48 307 eP      P       17 12 31.9 -1.4
AFI   Afiamalu           63.96 108 LR      LR      17 36 44.5
      comp=Z,97nm,20.5s,baz=32,slow=32
BRVK  Borovoye           65.92 327 eP      P       17 13 08.2 -0.8
      comp=Z,36nm,0.8s,mb5.3
BRVK  Borovoye           65.92 327 eP      P       17 13 08.2 -0.8
BRVK                               pmax    pmax
      comp=Z,36nm,0.8s,mb5.2
TIXI  Tiksi              66.06   1 eP      P       17 13 09.2 -0.4
      comp=Z,9.3nm,0.8s,mb4.7
TIXI  Tiksi              66.06   1 eP      P       17 13 09.8 +0.3
TIXI                               pmax    pmax
      comp=Z,5.0nm,0.7s,mb4.5
BILL  Bilibino           67.82  15 P       P       17 13 28.0 +7.2
BILL                               e               17 13 35.6
BILL                               *PP     pP      17 13 52.0  +13
BILL                               S       S       17 22 10.0 -3.5
BILL                               e               17 29 47.5
BILL                               MLR     MLR
      comp=Z,100nm,16.0s
UNV   Unalaska Valle     71.94  35 P       P       17 13 46.8 +0.5
AKTO  Aktyubinsk         72.29 321 LR      LR      17 48 31.1
      comp=Z,303nm,19.0s,baz=90,slow=38
ARU   Arti               73.45 327 eP      P       17 13 53.8 -1.4
      comp=Z,12nm,0.6s,mb4.9
ARU   Arti               73.45 327d iP     P       17 13 54.3 -0.9
ARU                                e               17 16 38.6
ARU                                eS      S       17 23 20.6 +1.2
ARU                                eSS     SS      17 28 00.9 -2.0
ARU                                pmax    pmax
      comp=Z,13nm,0.8s,mb4.8
RDF   Al-Radifah         77.92 298 eP      P       17 14 18.9 -2.4
RDF                                AMb     AMB     17 14 23.8
      comp=Z,31nm,1.0s,mb5.0
MIB   Mutribah           78.11 299 eP      P       17 14 19.7 -2.7
MIB                                AMb     AMB     17 14 32.0
      comp=Z,33nm,0.9s,mb5.1
NAY   Al-Naaiem          78.19 299 eP      P       17 14 19.6 -3.3
NAY                                AMb     AMB     17 14 28.9
      comp=Z,6.5nm,0.8s,mb4.4
RST   Umm Al-Ruwaisa     78.41 299 eP      P       17 14 20.8 -3.3
RST                                AMb     AMB     17 14 34.1
      comp=Z,24nm,0.9s,mb4.9
SVW2  Sparrevohn         79.22  29 P       P       17 14 29.8 +2.0
IMA2  Indian Mountai     80.74  24 eP      P       17 14 36.9 +1.0
ZEI   Tsey               81.04 312 eP      P       17 14 38.1 +0.1
ZEI                                e               17 17 41.5
ZEI                                pmax    pmax
      comp=Z,14nm,0.9s,mb4.8
KIV   Kislovodsk         81.94 313 eP      P       17 14 42.2 -0.5
      comp=Z,11nm,0.7s,mb4.8
KIV   Kislovodsk         81.94 313 eP      P       17 14 44.1 +1.4
KIV                                pmax    pmax
      comp=Z,10.0nm,0.7s,mb4.8
MCK   McKinley           82.55  27 eP      P       17 14 42.2 -3.3
      comp=Z,9µm,1.2s
MCK   McKinley           82.55  27 eP      P       17 14 42.2 -3.3
MCK                                pmax    pmax
      comp=Z,9µm,1.2s
COLA  College            83.07  25 eP      P       17 14 48.4 +0.2
COLA  College            83.07  25 eP      P       17 14 49.7 +1.5
VRSR  Storozhevoye       84.22 321 eP      P       17 14 53.1 -1.2
VRSR                               pmax    pmax
      comp=Z,3.0nm,0.8s,mb4.2
VRSR                               pmax    pmax
      comp=N,2.0nm,1.0s
VRSR                               pmax    pmax
      comp=E,3.0nm,0.9s
TMCR  Tamitsa            84.51 334 eP      P       17 14 55.4 -0.2
TMCR                               pmax    pmax
      comp=Z,32nm,0.7s,mb5.4
VNDA  Vanda              85.19 173 P       P       17 14 59.2 +0.5
      comp=Z,1.1nm,0.7s,mb3.9,baz=294,slow=12,SNR=3.1
MALT  Malatya            85.31 308 eP      P       17 15 00.5 +0.4
      comp=Z,5.8nm,0.8s,mb4.6
MALT  Malatya            85.31 308 eP      P       17 15 00.5 +0.3
MALT                               pmax    pmax
      comp=Z,6.0nm,0.8s,mb4.6
MALT  Malatya            85.31 308⇓iP      P       17 15 02.7 +2.5
OBN   Obninsk            85.62 325⇓eP      P       17 15 01.3  0.0
OBN                                e               17 15 08.0
OBN                                e               17 15 14.1
OBN                                pmax    pmax
      comp=Z,22nm,1.2s,mb5.0
OBN                                MLR     MLR
      comp=Z,100nm,16.0s
ANN   Anapa              85.68 314 eP      P       17 15 01.6 -0.2
ANN                                e*PP    pP      17 15 15.3 -5.1
ANN                                eS      S       17 25 19.9 -9.1
ANN                                pmax    pmax
      comp=Z,34nm,0.7s,mb5.4
JOF   Joensuu            87.61 333 ep      P       17 15 09.8 -1.0
      comp=Z,5.7nm,0.5s,mb4.9
ARCES ARCESS Array B     88.79 340 P       P       17 15 15.6 -0.7
      comp=Z,5.2nm,0.8s,mb4.6,baz=77,slow=6.2,SNR=16
ARE0  ARCESS Array S     88.79 340 eP      P       17 15 16.6 +0.3
BRTR  Keskin Array B     88.91 310 P       P       17 15 16.4 -1.1
      comp=Z,1.9nm,0.8s,mb4.2,baz=81,slow=5.2,SNR=10.0
KAF   Kangasniemi        90.03 332 ep      P       17 15 23.0 +0.7
      comp=Z,2.1nm,0.4s,mb4.6,baz=74,slow=4.3
KAF   Kangasniemi        90.03 332 eP      P       17 15 23.0 +0.7
KAF                                pmax    pmax
      comp=Z,2.0nm,0.4s,mb4.6
FINES FINESS Array B     90.28 332 P       P       17 15 22.9 -0.5
      comp=Z,2.1nm,0.6s,mb4.4,baz=64,slow=4.0,SNR=23
AKASG Malin Array Be     90.53 321 P       P       17 15 25.2 +0.3
AKASG Malin Array Be     90.53 321 P       P       17 15 25.2 +0.3
      comp=Z,2.8nm,0.7s,mb4.5,baz=74,slow=3.4,SNR=6.9
VRI   Vrincioaia         93.03 316⇓iP      P       17 15 37.4 +0.9
MLR   Muntele Rosu       93.64 316⇓iP      P       17 15 39.7 +0.3
BURAR Bucovina Array     93.69 318⇓iP      P       17 15 40.1 +0.6
BZS   Buzias             96.57 317⇓iP      P       17 15 53.3 +0.6
NB2   NORSAR Subarra     97.21 334 P       P       17 15 54.7 -0.5
      comp=Z,1.2nm,0.7s,mb4.4,baz=66,slow=4.6
NOA   NORSAR Array B     97.21 334 P       P       17 15 54.8 -0.5
      comp=Z,2.0nm,0.8s,mb4.6,baz=65,slow=4.6,SNR=5.4
YKA   Yellowknife Ar     97.86  24 P       P       17 15 58.0 -0.2
YKA   Yellowknife Ar     97.86  24 P       P       17 15 58.0 -0.2
      comp=Z,0.6nm,0.8s,mb4.2,baz=301,slow=4.7,SNR=8.7
PDAR  Pinedale Array    109.98  41 PKKPab  PKKPab  17 32 07.7 -1.5
      comp=Z,0.6nm,0.8s,baz=123,slow=4.6,SNR=5.1
TOA0  Torodi Ar. Sit    122.38 289 ePKPdf  PKPdf   17 21 19.0 +0.2
TORD  Torodi Ar. Bea    122.38 289 PKP     PKPdf   17 21 18.4 -0.4
TORD  Torodi Ar. Bea    122.38 289 PKP     PKPdf   17 21 18.4 -0.4
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      comp=Z,1.8nm,0.6s,baz=58,slow=2.1,SNR=7.9
JTS   JuntasAbangare    144.72  64 PKP     PKPdf   17 21 59.8 -0.6
JTS   JuntasAbangare    144.72  64 PKIKP   PKPdf   17 21 59.8 -0.6
JTS   JuntasAbangare    144.72  64 PKP     PKPdf   17 21 59.8 -0.6
      comp=Z,6.5nm,0.8s,baz=325,slow=16,SNR=4.0
CFAA  Coronel Fontan    150.49 153 PKPbc   PKPbc   17 22 15.2 +0.3
CFAA                               PKPab   PKPab   17 22 21.2 -0.3
CFAA  Coronel Fontan    150.49 153 PKPbc   PKPbc   17 22 15.2 +0.3
      comp=Z,0.5nm,0.5s,baz=179,slow=1.5,SNR=5.7
CFAA                               PKPab   PKPab   17 22 21.2 -0.3
      comp=Z,1.1nm,0.8s,baz=254,slow=3.0,SNR=7.6
SIV   San Ignacio       167.06 144 PKP     PKPdf   17 22 30.5 +1.2
SIV   San Ignacio       167.06 144 PKP     PKPdf   17 22 30.5 +1.2
      comp=Z,0.8nm,0.8s,baz=282,slow=3.8,SNR=2.4
```

MEX 28 17:03:44.5±0.8**,20.51N**×**105.63W,h16**^{km}±38^{km}**,MD4.0,**
Near coast of Jalisco

```
Code  Station Name          Δ°  AZ°   Phase ID          Time     Res
                                   Op      ISC      h  m  s    ISC
CJM   Chamela             1.15 151 eP      Pn      17 04 02.3 -3.6
CJM                                i S     Sb      17 04 15.8 -4.8
ANIG  Ahuacatlan          1.17  62 i P     Pn      17 04 03.0 -3.2
ANIG                               i S     Sb      17 04 17.0 -4.2
SFJM  Santa Fe            2.43  90 i P     Pn      17 04 22.5 -1.0
SFJM                               i S     Sn      17 04 50.2 -2.6
MMIG  Aquila              3.09 135 i P     Pn      17 04 29.9 -2.7
MMIG                               i S     Sn      17 05 05.5 -3.6
```

ISCJB ***28*** *17:09:53.2±0.6, 39.36N±0.05×29.67W±0.07, h10*^{km}*, mb3.8/9, Error ellipse: s-maj=10.5km s-min=3.8km az=139.6*

IDC ***28*** *17:09:53.4±1.3, 39.62N×30.22W, h0*^{km}*, mb3.8/10, mb1 3.9/10, mb1mx3.8/22, mbtmp3.8/10, Error ellipse: s-maj=48.9km s-min=12.7km az=166.0*

PDA ***28*** *17:09:55.3±1.0, 39.38N×29.81W, h0*^{km}*, MD3.5, ML3.3, Error ellipse: s-maj=7.3km s-min=3.8km az=63.0*

SVSA ***28*** *17:09:55.3±1.0, 39.38N×29.81W, h0*^{km}*, MD3.5, ML3.3, Error ellipse: s-maj=7.3km s-min=3.8km az=63.0*

CSEM ***28*** *17:09:55.6±0.1, 39.30N×29.60W, h25*^{km}*, ML3.3, Error ellipse: s-maj=5.1km s-min=2.1km az=55.0*

NEIC ***28*** *17:09:56.2±1.2, 39.86N×30.12W, h10*^{km}*, Error ellipse: s-maj=37.3km s-min=11.4km az=180.0*

ISC 28 17:09:54.6±0.6**,39.30N**±0.05×**29.63W**±0.07**,h10**^{km}**,n61,**
σ**0**^{s}**94**/78**,mb3.8**/9**,Azores Islands**

```
Code  Station Name          Δ°  AZ°   Phase ID          Time     Res
                                   Op      ISC      h  m  s    ISC
PLUZ  Luz                 0.58 119 eP      Sg      17 10 18.2 +4.8
PTCA  Ponta do Capel      0.97 138 eP      Pg      17 10 13.5 +0.3
PTCA                               eS      Sg      17 10 26.5 +0.8
PTCA
      119nm,0.4s
PTCA  Ponta do Capel      0.97 138 eP      Pg      17 10 13.5 +0.3
PTCA                               eS      Sg      17 10 26.5 +0.8
PCED  Cedros              0.99 133 i P     Pg      17 10 13.2 -0.3
PCED                               eS      Sg      17 10 27.2 +0.8
PCED
      229nm,0.4s
CALA  Caldeira            1.02 135 eP      Pg      17 10 13.9 -0.3
CALA                               eS      Sg      17 10 28.4 +1.0
HOR   Horta               1.10 135 eP      Pb      17 10 15.1 -0.5
HOR                                eS      Sg      17 10 30.1 +0.2
ROSA  Rosais              1.23 118 eP      Pn      17 10 16.7 -1.0
ROSA                               eS      Sb      17 10 33.2 -0.5
PCND  Candelaria          1.23 132 eP      Pn      17 10 17.9 +0.1
PCND                               eS      Sb      17 10 34.4 +0.5
PCND
      226nm,0.4s
PICO  Pico                1.23 130 eP      Pn      17 10 17.3 -0.5
PICO                               eS      Sb      17 10 33.6 -0.3
PVIA  Vitoria             1.25 100 eP      Pn      17 10 17.6 -0.4
PTEI  Pico do Teixo       1.28 129 eP      Pn      17 10 18.2 -0.3
PTEI                               eS      Sb      17 10 35.2  0.0
PTEI
      252nm,0.4s
STGR  Santa Cruz          1.28 100 eP      Pn      17 10 17.8 -0.7
PAMA  Santo Amaro         1.29 118 eP      Pn      17 10 17.5 -1.1
PBOI  Pico dos Bois       1.30 131 eP      Pn      17 10 18.1 -0.7
PBOI                               eS      Sb      17 10 35.5 -0.4
PBOI
      130nm,0.2s
PGRA  Graciosa            1.31 102 eP      Pn      17 10 17.7 -1.2
PGRA                               eS      Sb      17 10 34.8 -1.2
PGRA
      158nm,0.4s
PGRA  Graciosa            1.31 102 eP      Pn      17 10 17.7 -1.2
PGRA                               eS      Sb      17 10 34.8 -1.2
PMAN  Manadas             1.37 119 eP      Pn      17 10 18.6 -1.2
PMAN                               eS      Sb      17 10 36.7 -1.2
PMAN
      108nm,0.3s
PMAN  Manadas             1.37 119 eP      Pn      17 10 18.6 -1.2
PMAN                               eS      Sb      17 10 36.7 -1.2
PID   Ribeirinha          1.46 126 eP      Pn      17 10 20.1 -0.8
PIED  Piedade             1.51 125 eP      Pn      17 10 21.4 -0.3
PIED                               eS      Sn      17 10 40.2 -1.2
ASBA  Santa Barbara       1.88 107 eP      Pn      17 10 26.3 -0.5
PPAD  Pico dos Padre      1.92 108 eP      Pn      17 10 27.4 +0.1
PBIS  Biscoitos           1.93 106 eP      Pn      17 10 27.1 -0.3
PBIS                               eS      Sn      17 10 50.4 -1.2
PBIS
      13nm,0.2s
PBIS  Biscoitos           1.93 106 eP      Pn      17 10 27.1 -0.3
PBIS                               eS      Sn      17 10 50.4 -1.2
ADH   Angra Heroismo      1.97 108 eP      Pn      17 10 27.4 -0.6
PVNV  Vila Nova           2.00 105 eP      Pn      17 10 27.5 -0.9
RIB2  Ribeirinha          2.01 108 eP      Pn      17 10 28.1 -0.5
PSCM  Serra do Cume       2.04 106 eP      Pn      17 10 28.2 -0.8
PFAV  Pico das Favas      2.07 106 eP      Pn      17 10 28.8 -0.5
SET4  Mosteiros           3.32 114 eP      Pn      17 10 47.6 +1.0
SET2  Ginetes             3.33 115 eP      Pn      17 10 48.0 +1.3
PFET  Feteiras            3.35 115 eP      Pn      17 10 48.1 +1.1
PSAN  Santo Antonio       3.38 114 eP      Pn      17 10 48.5 +1.1
PSET  Sete Cidades        3.40 115 eP      Pn      17 10 47.5 -0.1
FAC   Faja de Cima        3.47 115 e-      Pn      17 10 49.7 +1.1
CML   Cha da Macela       3.55 114 eP      Pn      17 10 49.4 -0.3
PVER  Pico Vermelho       3.56 114 e-      Pn      17 10 52.4 +2.6
PMAT  Coroa da Mata       3.58 113 eP      Pn      17 10 50.9 +0.8
LFA   Lagoa do Fogo       3.59 114 eP      Pn      17 10 51.1 +0.8
MESC  Monte Escuro        3.61 113 eP      Pn      17 10 51.7 +1.2
PRCH  Ribeira Ch          3.61 115 eP      Pn      17 10 51.6 +1.0
VIF   Vila Franca         3.63 114 eP      Pn      17 10 52.3 +1.4
PCNG  Congro              3.65 113 e-      Pn      17 10 55.7 +4.6
PFAD  Fenais da Ajud      3.67 112 eP      Pn      17 10 52.5 +1.1
FRA1  Furnas              3.69 114 e-      Pn      17 10 59.5 +7.8
MIRA  Miradouro           3.73 113 eP      Pn      17 10 53.2 +1.0
PSMN  Pico do Norte,      4.26 121 e-      Pn      17 10 59.3 -0.2
ESDC  Sonseca Array      19.79  81 P       Pn      17 14 30.3 +3.8
      0.2nm,0.3s,baz=290,slow=9.5,SNR=5.7
FINES FINESS Array B     40.24  38 P       P       17 17 32.1 +1.0
      1.4nm,0.7s,mb3.8,baz=248,slow=8.0,SNR=4.3
KAF   Kangasniemi        40.44  37 ep      P       17 17 31.9 -0.8
AKASG Malin Array Be     42.09  54 P       P       17 17 47.4 +0.9
      3.7nm,0.8s,mb4.1,baz=276,slow=8.1,SNR=5.4
AKASG Malin Array Be     42.09  54 P       P       17 17 47.3 +0.9
BRTR  Keskin Array B     47.87  68 P       P       17 18 35.0 +2.4
      0.7nm,0.7s,mb3.8,baz=216,slow=6.1,SNR=3.6
YKA   Yellowknife Ar     53.82 325 P       P       17 19 13.2 -3.9
      0.1nm,0.3s,mb3.3,baz=62,slow=7.8,SNR=2.9
PDAR  Pinedale Array     58.22 301 P       P       17 19 47.1 -1.8
      0.8nm,0.8s,mb3.8,baz=64,slow=6.8,SNR=5.8
TXAR  Lajitas Array      60.41 285 P       P       17 20 02.2 -2.1
      0.5nm,0.7s,mb3.7,baz=64,slow=7.3,SNR=5.7
ZALV  Zalesovo Beam      71.39  35 P       P       17 21 14.7 +0.1
      0.4nm,0.4s,mb3.7,baz=305,slow=5.2,SNR=4.6
MK31  Makanchi Array     74.97  41 eP      P       17 21 36.5 +0.7
MK31  Makanchi Array     74.97  41 eP      P       17 21 36.5 +0.7
MKAR  Makanchi Array     74.97  41 P       P       17 21 36.6 +0.9
      2.4nm,0.8s,mb4.2,baz=312,slow=5.8,SNR=23
SONM  Songino Array      84.84  28 P       P       17 22 29.6 +0.4
      1.0nm,0.9s,mb4.0,baz=318,slow=4.1,SNR=5.1
```

IDC 28 17:10:08.5±2.7**,15.68S**×**69.64W,h152**^{km}±32^{km}**,mb3.7**/2**,**
mb1 3.8/3**,mb1mx3.4**/17**,mbtmp3.6**/3**,Error ellipse:**
s-maj=149.6km s-min=39.7km az=15.0,Peru-Bolivia
border region

```
Code  Station Name          Δ°  AZ°   Phase ID          Time     Res
                                   Op      ISC      h  m  s    ISC
```

LPAZ	La Paz	1.57	113	P	Pn	17 10 39.5	+0.7
	4.5nm,0.3s,baz=290,slow=7.3,SNR=104						
LPAZ				S	Sn	17 11 10.9	+8.8
	2.3nm,0.3s,baz=338,slow=22,SNR=9.1						
SIV	San Ignacio	8.25	93	P	Pn	17 12 04.7	-0.5
	1.7nm,0.3s,baz=271,slow=12,SNR=31						
TORD	Torodi Ar. Bea	76.13	72	P	P	17 21 40.5	+0.3
	3.1nm,0.7s,baz=256,slow=5.4,SNR=10						
YKA	Yellowknife Ar	85.50	341	P	P	17 22 28.9	+0.1
	0.4nm,0.6s,baz=135,slow=4.9,SNR=11						
SONM	Songino Array	147.77	5	PKPbc	PKPbc	17 29 34.5	-0.9
	0.6nm,0.4s,baz=345,slow=1.5,SNR=3.1						

---

*IDC **28** 17:23:05.0±3.3, 35.02N×26.05E, h0km, mb3.8/3, mb1 3.7/4, mb1mx3.5/19, mbtmp3.7/4, ML2.9/1, Error ellipse: s-maj=69.9km s-min=42.3km az=160.0*

*HLW **28** 17:23:12.7, 35.86N×26.69E, h22km, Mb3.6*

*ATH **28** 17:23:13.5, 35.66N×26.52E, h39km±4km, MD3.8/10*

*CSEM **28** 17:23:13.6±0.1, 35.55N×26.66E, h40km, MD3.8, Error ellipse: s-maj=2.6km s-min=2.2km az=39.0*

*ISCJB **28** 17:23:13.7±0.3, 35.60N±0.03×26.58E±0.03, h33km, mb3.6/3, Error ellipse: s-maj=4.2km s-min=3.5km az=15.9*

*NEIC **28** 17:23:15.8±0.7, 35.61N×26.53E, h37km±11km, MD3.8(ATH), Error ellipse: s-maj=11.9km s-min=6.3km az=169.0*

*THE **28** 17:23:15.8, 35.62N×26.54E, h25km, ML4.2*

ISC 28 17:23:15.4±0.3, **35.59N**±0.03×**26.54E**±0.03, **h35**km, **n74**, σ**0.91**/95, **mb3.6**/3, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARP	Karpathos	0.51	95	ePn	Pn	17 23 25.6	-0.5
KARP				eSn	Sn	17 23 33.4	-0.2
KARP	Karpathos	0.51	95	ePN	Pn	17 23 25.6	-0.5
KARP				eSN	Sn	17 23 33.4	-0.2
KARP	Karpathos	0.51	95	ePn	Pn	17 23 25.6	-0.5
ZKR	Zakros	0.55	209	ePg	Pn	17 23 26.4	-0.2
ZKR	Zakros	0.55	209	ePg	Pn	17 23 26.4	-0.2
NPS	Neapolis	0.83	247	ePn	Pn	17 23 30.2	-0.3
NPS				eSn	Sn	17 23 41.0	-0.5
NPS	Neapolis	0.83	247	ePN	Pn	17 23 30.2	-0.3
NPS				eSN	Sn	17 23 41.0	-0.5
NPS	Neapolis	0.83	247	ePn	Pn	17 23 30.2	-0.3
NPS				eSn	Sn	17 23 41.0	-0.5
LAST	Lasithi	0.97	244	ePg	Pn	17 23 32.4	-0.1
LAST	Lasithi	0.97	244	ePg	Pn	17 23 32.4	-0.1
SANT	Santorini	1.17	312	ePn	Pn	17 23 34.7	-0.6
SANT				eSn	Sn	17 23 49.1	-0.9
SANT	Santorini	1.17	312	ePg	Pn	17 23 35.0	-0.3
SANT	Santorini	1.17	312	ePn	Pn	17 23 34.7	-0.6
SANT	Santorini	1.17	312	ePg	Pn	17 23 35.0	-0.3
SANT				eSn	Sn	17 23 49.1	-0.9
IDI	Anoyia	1.38	258	P	Pn	17 23 37.9	-0.2
ARG	Arkhangelos	1.43	64	ePn	Pn	17 23 39.3	+0.5
ARG				eSn	Sn	17 23 56.4	0.0
ARG	Arkhangelos	1.43	64	ePN	Pn	17 23 39.3	+0.5
ARG				eSN	Sn	17 23 56.4	0.0
SIVA	Sivas	1.53	248	ePg	Pn	17 23 41.1	+0.9
SIVA	Sivas	1.53	248	ePg	Pn	17 23 41.1	+1.0
APE	Apeiranthos	1.69	331	ePb	Pn	17 23 41.8	-0.5
APE				eSn	Sn	17 24 01.0	-1.7
APE	Apeiranthos	1.69	331	ePb	Pn	17 23 42.0	-0.3
APE	Apeiranthos	1.69	331	ePB	Pn	17 23 41.8	-0.5
APE				eSN	Sn	17 24 01.0	-1.7
APE	Apeiranthos	1.69	331	ePb	Pn	17 23 42.0	-0.3
APE				eSn	Sn	17 24 01.0	-1.7
VAM	Vamos	1.92	265	ePn	Pn	17 23 44.4	-1.1
VAM	Vamos	1.92	265	ePN	Pn	17 23 44.4	-1.1
VAM	Vamos	1.92	265	ePn	Pn	17 23 44.4	-1.1
SMG	Samos	2.13	6	ePn	Pn	17 23 47.4	-1.0
SMG	Samos	2.13	6	ePN	Pn	17 23 47.4	-1.0
SMG	Samos	2.13	6	ePn	Pn	17 23 47.4	-1.0
GVD	Gavdhos	2.15	250	ePn	Pn	17 23 51.4	+2.8
GVD	Gavdhos	2.15	250	ePn	Pn	17 23 51.4	+2.8
KARN	Karanos	2.15	266	ePn	Pn	17 23 48.4	-0.3
KARN	Karanos	2.15	266	ePn	Pn	17 23 48.4	-0.3
CHOS	Chios island	2.82	352	ePn	Pn	17 23 57.5	-0.4
CHOS				eSn	Sn	17 24 30.8	+0.2
CHOS	Chios island	2.82	352	ePn	Pn	17 23 57.5	-0.4
CHOS				eSn	Sn	17 24 30.8	+0.2
KYTH	Kithira	2.93	285	ePn	Pn	17 24 00.0	+0.6
KYTH	Kithira	2.93	285	ePN	Pn	17 24 00.0	+0.6
KYTH	Kithira	2.93	285	ePn	Pn	17 24 00.0	+0.6
VLI	Veliai	3.13	292	ePn	Pn	17 24 02.0	-0.1
VLI				eSn	Sn	17 24 36.7	-1.5
VLI	Veliai	3.13	292	ePN	Pn	17 24 02.0	-0.1
VLI				eSN	Sn	17 24 36.7	-1.5
VLI	Veliai	3.13	292	ePn	Pn	17 24 02.0	-0.1
VLI				eSn	Sn	17 24 36.7	-1.5
LTK	Loutraki	3.76	311	ePn	Pn	17 24 12.1	+1.3
LTK	Loutraki	3.76	311	ePn	Pn	17 24 12.1	+1.3
VLX	Vlachokerasia	3.79	299	ePn	Pn	17 24 12.7	+1.4
VLX	Vlachokerasia	3.79	299	ePn	Pn	17 24 12.7	+1.4
ITM	Ithomi	4.05	294	ePn	Pn	17 24 17.0	+2.2
ITM	Ithomi	4.05	294	ePN	Pn	17 24 15.0	+0.2
ITM	Ithomi	4.05	294	ePn	Pn	17 24 17.0	+2.2
LKR	Lokris	4.16	318	ePn	Pn	17 24 17.3	+0.9
LKR	Lokris	4.16	318	ePN	Pn	17 24 17.3	+0.9
LKR	Lokris	4.16	318	ePn	Pn	17 24 17.3	+0.9
SLUM		4.24	196	P	Pn	17 24 19.4	+2.0
XOR	Xorichti	4.61	326	ePn	Pn	17 24 23.6	+1.1
XOR	Xorichti	4.61	326	ePn	Pn	17 24 23.6	+1.0
HNAT	Natroun	6.86	149	P	Pn	17 24 53.6	0.0
BR131	Keskin Array S	6.98	52	ePn	Pn	17 24 56.2	+1.2
BR131	Keskin Array S	6.98	52	ePn	Pn	17 24 56.2	+1.2
BRTR	Keskin Array B	6.98	52	Pn	Pn	17 24 56.8	+1.8
BRTR				Sn	Sn	17 26 13.7	+0.6
BRTR				Lg		17 27 08.9	
BRTR	Keskin Array B	6.98	52	Pn	Pn	17 24 56.8	+1.8
	0.2nm,0.3s,baz=227,slow=14,SNR=5.4						
BRTR				Sn	Sn	17 26 13.7	+0.6
	0.1nm,0.3s,baz=222,slow=23,SNR=3.9						
BRTR				Lg		17 27 08.9	
	0.0nm,0.3s,baz=173,slow=33,SNR=3.4						
BRTR	Keskin Array B	6.98	52	Pn	Pn	17 24 56.8	+1.8
BRTR				Sn	Sn	17 26 13.7	+0.6
HSAF	As Saff	7.30	143	P	Pn	17 24 59.2	-0.3
HSAF	As Saff	7.30	143	P	Pn	17 24 59.2	-0.3
GLL	Jalalah	7.41	143	P	Pn	17 25 00.7	-0.4
AMAG	Maghara	7.46	130	P	Pn	17 25 00.3	-1.3
AMAG				S	Sn	17 26 20.4	-4.6
SUZ		7.81	136	P	Pn	17 25 05.7	-0.7
ZAF		8.08	139	P	Pn	17 25 08.7	-1.5
HFRF	Wahat Farafira	8.55	169	P	Pn	17 25 17.3	+0.6
TIP	Timpagrande	8.57	298	eP	Pn	17 25 16.4	-0.4
FINES	FINESS Array B	25.87	359	P	P	17 28 43.3	-0.2
	0.5nm,0.4s,mb3.4,baz=176,slow=6.8,SNR=3.3						
MK31	Makanchi Array	42.59	57	eP	P	17 31 08.2	+0.4
MK31	Makanchi Array	42.59	57	eP	P	17 31 08.2	+0.3
MKAR	Makanchi Array	42.59	57	P	P	17 31 08.2	+0.3
	0.6nm,0.3s,mb3.7,baz=269,slow=8.5,SNR=27						
ZALV	Zalesovo Beam	43.89	46	P	P	17 31 17.9	-0.3
ZALV	Zalesovo Beam	43.89	46	P	P	17 31 17.9	-0.3
	0.8nm,0.6s,mb3.7,baz=272,slow=6.9,SNR=4.2						

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*CSEM **28** 17:53:14.3±0.1, 38.43N×39.27E, h2km, MD3.0, Error ellipse: s-maj=3.2km s-min=2.6km az=155.0*

*ISK **28** 17:53:14.4, 38.44N×39.22E, h5km, MD3.2*

*ISCJB **28** 17:53:15.1±0.5, 38.40N±0.03×39.29E±0.03, h3km±7km, Error ellipse: s-maj=5.8km s-min=4.2km az=12.1*

*DDA **28** 17:53:15.8, 38.36N×39.25E, h3km±1km, Md3.0*

ISC 28 17:53:15.7±0.5, **38.41N**±0.04×**39.29E**±0.03, **h6**km±6km, **n23**, σ**0.82**/33, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELZG	Elazig	0.26	291	iP	Pg	17 53 20.4	-0.3
ELZG				iS	Sg	17 53 23.8	-0.3
PTK	Pertek	0.49	9	PG	Pg	17 53 24.6	-0.6
PTK				SG	Sg	17 53 32.5	+1.0
PTK	Pertek	0.49	9	ePg	Pg	17 53 24.6	-0.6
PTK				eSg	Sg	17 53 32.5	+1.0
MALT	Malatya	0.68	262	PG	Pg	17 53 28.0	-0.9
MALT				SG	Sg	17 53 37.8	+0.1
MALT	Malatya	0.68	262	ePg	Pg	17 53 28.0	-0.9
MALT				eSg	Sg	17 53 37.8	+0.1
MYA	Malataya	0.68	263	PG	Pg	17 53 27.5	-1.4
MYA				SG	Sg	17 53 37.8	+0.1
MYA	Malataya	0.68	263	ePg	Pg	17 53 27.5	-1.4
MYA				eSg	Sg	17 53 37.8	+0.1
DIYA	Diyarbakir	0.81	126	iP	Pg	17 53 31.5	+0.2
DIYA				iS	Sg	17 53 41.8	-0.1
DIY	Diyarbakir	0.90	124	PG	Pg	17 53 33.0	0.0
DIY	Diyarbakir	0.90	124	ePg	Pg	17 53 33.0	0.0
URFA	Urfa	1.03	201	PG	Pg	17 53 35.8	+0.3
URFA	Urfa	1.03	201	ePg	Pg	17 53 35.8	+0.3
BINT	Bingol	1.05	63	PN	Pn	17 53 36.7	-0.3
BINT	Bingol	1.05	63	ePn	Pn	17 53 36.7	-0.3
MARD	Mardin	1.61	132	iP	Pn	17 53 44.2	-0.5
MARD				iS	Sn	17 54 05.1	-0.7
GZT	Gaziantep	1.72	233	iP	Pn	17 53 45.3	-1.0
GZT				iS	Sg	17 54 13.3	+2.2
BTMT	Batman	1.74	96	PN	Pn	17 53 46.2	-0.4
SVSK	Karacayir	2.33	311	ePN	Pn	17 53 55.1	+0.5
SVSK	Karacayir	2.33	311	ePn	Pn	17 53 55.1	+0.5
SIRT	Sirnak	2.65	109	ePN	Pn	17 54 01.0	+2.0
SIRT	Sirnak	2.65	109	ePn	Pn	17 54 01.0	+2.0
BNN	Bunyan	2.73	280	ePN	Pn	17 54 00.9	+0.8
BNN	Bunyan	2.73	280	ePn	Pn	17 54 00.9	+0.8

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*NEIC **28** 17:56:54.9, 38.57S×175.81E, h159km, MG4.3(WEL), After WEL.*

WEL 28 17:56:54.8±0.2, **38.58S**×**175.82E**, **h160**km±1km, **ML4.3**/24, **13C**, **Error ellipse: s-maj=1.7km s-min=1.7km az=0.0**, **North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHTZ	Whakaora	0.14	130	P	Pn	17 57 16.4	+0.3
WHTZ	Whakaora	0.14	130	⇑PN	Pn	17 57 16.4	+0.3
WATZ	Wairara	0.15	207	P	Pn	17 57 16.3	+0.2
WATZ	Wairara	0.15	207	⇑PN	Pn	17 57 16.3	+0.2
RATZ	Rangitukua	0.29	187	⇑P	Pn	17 57 16.4	0.0
RATZ	Rangitukua	0.29	187	⇑PN	Pn	17 57 16.4	0.0
HATZ	Hinemaiaia	0.38	146	P	Pn	17 57 16.6	-0.1
HATZ				S	Sn	17 57 32.8	-0.7
HATZ	Hinemaiaia	0.38	146	⇑PN	Pn	17 57 16.6	0.0
HATZ				SN	Sn	17 57 32.8	-0.7
PATZ	Paeroa	0.40	60	P	Pn	17 57 17.0	+0.2
PATZ	Paeroa	0.40	60	⇑PN	Pn	17 57 17.0	+0.2
RITZ	Rihia Road	0.40	176	P	Pn	17 57 17.1	+0.3
RITZ	Rihia Road	0.40	176	PN	Pn	17 57 17.1	+0.3
KATZ	Kakaramea	0.41	194	P	Pn	17 57 16.9	+0.1
KATZ	Kakaramea	0.41	194	PN	Pn	17 57 16.9	+0.1
KRVZ	Karewarewa	0.54	195	PN	Pn	17 57 17.4	0.0
WTVZ	West Tongariro	0.57	198	P	Pn	17 57 17.6	+0.1
WTVZ	West Tongariro	0.57	198	⇑PN	Pn	17 57 17.6	+0.1
TWVZ	Taurewa	0.58	211	P	Pn	17 57 17.7	+0.1
TWVZ				S	Sn	17 57 35.2	+0.1
TWVZ	Taurewa	0.58	211	⇑PN	Pn	17 57 17.7	+0.1
TWVZ				SN	Sn	17 57 35.2	+0.1
OTVZ	Oturere	0.60	192	PN	Pn	17 57 17.8	+0.2
NGZ	Ngauruhoe	0.62	196	P	Pn	17 57 17.8	0.0
NGZ	Ngauruhoe	0.62	196	PN	Pn	17 57 17.8	0.0
TAZ	Tarawera	0.64	58	P	Pn	17 57 17.2	-0.8
TAZ	Tarawera	0.64	58	PN	Pn	17 57 17.0	-1.0
WPVZ	Whakapapa	0.66	199	P	Pn	17 57 18.1	0.0
WPVZ	Whakapapa	0.66	199	PN	Pn	17 57 18.1	0.0
TUVZ	Tukino	0.70	191	P	Pn	17 57 18.5	+0.2
TUVZ	Tukino	0.70	191	PN	Pn	17 57 18.5	+0.2
FWVZ	Far West T-bar	0.71	197	P	Pn	17 57 18.4	+0.1
FWVZ	Far West T-bar	0.71	197	PN	Pn	17 57 18.4	+0.1
DRZ	Dome Shelter	0.72	196	P	Pn	17 57 19.2	+0.8
DRZ	Dome Shelter	0.72	196	PN	Pn	17 57 19.2	+0.7
TRVZ	Turoa	0.75	196	PN	Pn	17 57 18.9	+0.3
HIZ	Hauiti	0.76	274	P	Pn	17 57 18.4	-0.3
HIZ	Hauiti	0.76	274	PN	Pn	17 57 18.4	-0.2
HIZ				SN	Sn	17 57 36.6	-0.3
WNVZ	Wahianoa	0.77	193	P	Pn	17 57 19.1	+0.4
WNVZ	Wahianoa	0.77	193	PN	Pn	17 57 19.1	+0.3
BKZ	Black Stump Fm	0.79	138	P	Pn	17 57 19.1	+0.2
BKZ	Black Stump Fm	0.79	138	⇑PN	Pn	17 57 19.1	+0.2
PKVZ	Pokaka	0.80	207	⇑PN	Pn	17 57 19.0	+0.1
MOVZ	Moawhango	0.83	184	P	Pn	17 57 19.1	-0.1
MOVZ	Moawhango	0.83	184	⇑PN	Pn	17 57 19.1	0.0
MTVZ	Mangateitei	0.85	199	⇑PN	Pn	17 57 19.4	+0.1
VRZ	Vera Road	0.99	236	P	Pn	17 57 20.2	-0.2
VRZ	Vera Road	0.99	236	PN	Pn	17 57 20.2	-0.1
URZ	Urewera	1.06	73	P	Pn	17 57 20.5	-0.5
URZ	Urewera	1.06	73	PN	Pn	17 57 20.5	-0.5
WAZ	Wanganui	1.34	209	P	Pn	17 57 23.3	-0.2
WAZ	Wanganui	1.34	209	PN	Pn	17 57 23.3	-0.2
MWZ	Matawai	1.36	80	P	Pn	17 57 23.6	-0.1
MWZ	Matawai	1.36	80	PN	Pn	17 57 23.6	-0.1
KNZ	Kokohu	1.52	108	P	Pn	17 57 25.5	+0.3
KNZ	Kokohu	1.52	108	PN	Pn	17 57 25.5	+0.3
PXZ	Pawanui	1.66	151	PN	Pn	17 57 26.8	+0.1
PUZ	Puketiti	1.98	76	P	Pn	17 57 29.8	-0.5
PUZ	Puketiti	1.98	76	PN	Pn	17 57 29.8	-0.5
MRZ	Mangatainoka R	2.09	185	P	Pn	17 57 30.4	-1.1
MRZ	Mangatainoka R	2.09	185	PN	Pn	17 57 30.4	-1.1
BFZ	Birch Farm	2.13	171	P	Pn	17 57 31.1	-0.8
BFZ	Birch Farm	2.13	171	PN	Pn	17 57 31.1	-0.8
TIWZ	Tintock	2.20	179	PN	Pn	17 57 31.7	-1.0
MXZ	Matakaoa Point	2.21	63	P	Pn	17 57 32.5	-0.4
MXZ	Matakaoa Point	2.21	63	PN	Pn	17 57 32.5	-0.3
KIW	Kapiti Island	2.39	197	P	Pn	17 57 33.3	-1.7
KIW	Kapiti Island	2.39	197	PN	Pn	17 57 33.3	-1.6
MTW	Mount Morrison	2.59	185	P	Pn	17 57 35.5	-1.9
MTW	Mount Morrison	2.59	185	PN	Pn	17 57 35.5	-1.9
CAW	Cannon Point	2.59	193	P	Pn	17 57 35.6	-1.8
CAW	Cannon Point	2.59	193	PN	Pn	17 57 35.6	-1.8
DUWZ	D’Urville Isla	2.66	213	PN	Pn	17 57 36.3	-2.0
MRW	Makara Radio	2.79	198	P	Pn	17 57 37.7	-2.1
MRW	Makara Radio	2.79	198	PN	Pn	17 57 37.7	-2.1
PAWZ	Paruwai Farm	2.82	186	P	Pn	17 57 38.1	-2.1
PAWZ	Paruwai Farm	2.82	186	PN	Pn	17 57 38.1	-2.0
TRWZ	Traveller	2.82	182	PN	Pn	17 57 38.4	-1.8
WEL	Wellington	2.82	196	P	Pn	17 57 38.1	-2.2
WEL	Wellington	2.82	196	PN	Pn	17 57 38.1	-2.1
SNZO	South Karori	2.86	197	P	Pn	17 57 38.5	-2.2
SNZO	South Karori	2.86	197	PN	Pn	17 57 38.5	-2.2
MSWZ	Moikau Station	2.87	189	P	Pn	17 57 38.7	-2.1
MSWZ	Moikau Station	2.87	189	⇑PN	Pn	17 57 38.7	-2.1
TCW	Tory Channel	2.89	204	P	Pn	17 57 38.9	-2.2
TCW	Tory Channel	2.89	204	PN	Pn	17 57 38.9	-2.2
BHW	Baring Head	2.92	194	P	Pn	17 57 39.2	-2.3
BHW	Baring Head	2.92	194	PN	Pn	17 57 39.2	-2.3
TUWZ	Tuamarina	3.19	206	PN	Pn	17 57 42.3	-2.6
NNZ	Nelson	3.24	215	P	Pn	17 57 42.7	-2.7
NNZ	Nelson	3.24	215	PN	Pn	17 57 42.7	-2.7
QRZ	Quartz Range	3.39	227	P	Pn	17 57 44.2	-3.2
QRZ	Quartz Range	3.39	227	PN	Pn	17 57 44.2	-3.1
CMWZ	Cape Campbell	3.40	201	P	Pn	17 57 45.9	-1.6
CMWZ	Cape Campbell	3.40	201	PN	Pn	17 57 45.9	-1.6
BSWZ	Blackbirch Sta	3.47	205	P	Pn	17 57 45.9	-2.5
BSWZ	Blackbirch Sta	3.47	205	PN	Pn	17 57 45.9	-2.5
KHZ	Kahutara	4.21	204	P	Pn	17 57 55.1	-2.8
KHZ	Kahutara	4.21	204	PN	Pn	17 57 55.1	-2.9
DSZ	Denniston Nort	4.41	223	eP	Pn	17 57 56.5	-4.1
DSZ	Denniston Nort	4.41	223	ePN	Pn	17 57 56.5	-4.1
LTZ	Lake Taylor	4.99	212	eP	Pn	17 58 04.2	-4.0
LTZ	Lake Taylor	4.99	212	PN	Pn	17 58 04.2	-3.9
CRLZ	Canterbury Las	5.55	205	eP	Pn	17 58 11.0	-4.5
CRLZ	Canterbury Las	5.55	205	PN	Pn	17 58 11.0	-4.5
MQZ	McQueen’s Vall	5.66	204	P	Pn	17 58 12.0	-4.9
MQZ	McQueen’s Vall	5.66	204	PN	Pn	17 58 12.0	-4.8
RPZ	Rata Peaks	6.27	213	eP	Pn	17 58 21.2	-3.8
RPZ	Rata Peaks	6.27	213	PN	Pn	17 58 21.2	-3.8
FOZ	Fox Glacier	6.80	221	eP	Pn	17 58 25.8	-6.3
FOZ	Fox Glacier	6.80	221	PN	Pn	17 58 25.8	-6.3
LBZ	Lake Benmore	7.18	214	eP	Pn	17 58 32.7	-4.4
LBZ	Lake Benmore	7.18	214	PN	Pn	17 58 32.7	-4.5
ODZ	Otahua Downs	7.53	209	eP	Pn	17 58 37.4	-4.3
ODZ	Otahua Downs	7.53	209	PN	Pn	17 58 37.4	-4.3
WKZ	Wanaka	8.05	217	SN	Sn	18 00 06.8	-12
TUZ	Tuapeka	8.68	210	eP	Pn	17 58 53.2	-3.8
TUZ	Tuapeka	8.68	210	PN	Pn	17 58 53.2	-3.8
SYZ	Scrubby Hill	9.35	210	SN	Sn	18 00 40.6	-9.1

IDC 28 18:13:24.7±1.4, **40.29N**×**113.48E**, **h0**km, **mb3.5**/3, **mb1 3.6**/4, **mb1mx3.4**/20, **mbtmp3.4**/4, **ML3.0**/1, **Error ellipse: s-maj=54.9km s-min=23.0km az=60.0**, **Northeastern China**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	9.10	328	Pn	Pn	18 15 35.4	-1.9
	0.2nm,0.3s,baz=152,slow=16,SNR=3.2						
SONM				Lg		18 18 13.6	
	0.2nm,0.3s,baz=141,slow=28,SNR=3.6						
ZALV	Zalesovo Beam	23.61	315	P	P	18 18 37.7	+0.5
	0.7nm,0.8s,baz=97,slow=12,SNR=3.4						
ASAR	Alice Springs	66.41	160	P	P	18 24 15.3	-0.2
	0.4nm,0.8s,baz=344,slow=6.5,SNR=5.0						
YKA	Yellowknife Ar	70.54	21	P	P	18 24 41.2	+0.3
	0.5nm,0.6s,baz=324,slow=6.1,SNR=12						

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*CSEM **28** 18:25:56.5, 40.32N×31.38E, h7km, MD3.0, After ERD*

*DDA **28** 18:25:56.5, 40.32N×31.38E, h7km±7km, Md3.0*

*ISK **28** 18:25:56.4, 40.18N×31.72E, h5km, MD2.8*

*ISCJB **28** 18:25:57.6±0.7, 40.10N±0.06×31.66E±0.07, h5km, Error ellipse: s-maj=9.7km s-min=5.8km az=138.1*

ISC 28 18:25:58.0±0.9, **40.09N**±0.06×**31.67E**±0.07, **h5**km±12km, **n9**, σ**0.47**/14, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SGKT	Sivrigoynuk	0.57	31	iP	Pg	18 26 08.1	-0.8
SGKT				iS	Sg	18 26 17.1	+0.8
ESKT	Eskisehir	0.85	228	PG	Pg	18 26 15.0	+0.8
ESKT				SG	Sg	18 26 30.2	+5.1
ESKT	Eskisehir	0.85	228	iP	Pg	18 26 14.1	-0.1
ESKT				iS	Sg	18 26 31.2	+6.1
SEYT	Eskypehyr	0.85	228	iP	Pg	18 26 14.1	-0.1
SEYT				iS	Sg	18 26 31.2	+6.1
LOD	Lodumlu	0.87	103	ePG	Pg	18 26 14.5	-0.1
GULT	Gulveren	0.94	292	PG	Pg	18 26 15.9	-0.2
KIZT	Kizilcal	1.22	172	ePN	Pn	18 26 21.9	+0.3
ELDT	Eldivan	1.41	73	iP	Pn	18 26 23.9	-0.3
ELDT				iS	Sb	18 26 47.9	+5.0
IZI	Iznik	1.70	279	ePN	Pn	18 26 28.3	+0.1

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*NIED **28** 18:28:00, 22.00N×121.80E, h5km, Mw4.1 Best double couple: $M_0$1.83000×10^{15} NP1:ϕ_s127.00000°, δ22.00000°, λ-76.00000°. NP2:ϕ_s292.00000°, δ68.00000°, λ-96.00000°.*

*ISCJB **28** 18:28:09.5±0.5, 21.93N±0.05×121.82E±0.06, h10km, mb3.9/17, MS3.3/3, Error ellipse: s-maj=9.3km s-min=4.7km az=43.6*

*IDC **28** 18:28:09.8±0.6, 21.83N×121.58E, h0km, mb3.9/16, mb1 4.1/18, mb1mx4.0/23, mbtmp4.0/18, ML3.6/2, MS3.3/6, Ms1 3.3/6, ms1mx3.1/33, Error ellipse: s-maj=25.0km s-min=13.8km az=75.0*

*NEIC **28** 18:28:11.2±0.5, 21.92N×121.68E, h10km, mb4.2/1, Error ellipse: s-maj=14.1km s-min=8.6km az=80.0*

*JMA **28** 18:28:13.0±0.3, 21.96N×121.81E, h82km, M3.8*

ISC 28 18:28:11.2±0.5, **21.96N**±0.05×**121.83E**±0.05, **h10**km, **n38**, σ**0.93**/43, **mb3.9**/17, **MS3.3**/3, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NACB	Ninganchiao	2.22	355	eP	Pn	18 28 45.8	-2.3
YOJ	Yonaguni jima	2.72	23	P	Pn	18 28 55.3	+0.3
YOJ				eS	Sn	18 29 28.5	+0.5
YHNB	Yeheng	2.73	351	eP	Pn	18 28 55.0	-0.1
HATJ	Hateruma jima	2.77	41	P	Pn	18 28 56.3	+0.6
HATJ				eS	Sn	18 29 29.4	+0.1
IRIF	Iriomote-Funau	2.94	36	P	Pn	18 28 58.6	+0.5
IRIF				eS	Sn	18 29 33.6	+0.1
TATO	Taipei	3.02	354	eP	Pn	18 28 59.3	+0.2
JKRS	Kuro-shima	3.03	41	P	Pn	18 29 00.0	+0.7
JKRS				eS	Sn	18 29 35.1	-0.5
JIJ	Ishigaki jima	3.21	41	P	Pn	18 29 01.9	+0.2
JIJ				eS	Sn	18 29 38.1	-1.9
JTJ	Tarama	3.76	44	P	Pn	18 29 10.1	+0.8
JTJ				eS	Sn	18 29 53.3	-0.3
JMJ	Miyako jima 2	4.27	48	eS	Sn	18 30 06.3	+0.1
JOW	Kunigami	7.62	49	Pn	Pn	18 30 03.7	+1.4
JOW				Sn	Sn	18 31 27.0	-1.9
JOW				LR	LR	18 32 24.6	
JOW	Kunigami	7.62	49	Pn	Pn	18 30 03.7	+1.4
	1.7nm,0.3s,baz=287,slow=20,SNR=2.9						
JOW				Sn	Sn	18 31 27.0	-1.9
	1.7nm,0.3s,baz=263,slow=19,SNR=2.0						
JOW				LR	LR	18 32 24.6	
	comp=Z,96nm,21.7s,baz=141,slow=32						
JNU	Nakatsue	13.71	34	LR	LR	18 37 08.8	
	comp=Z,55nm,18.8s,baz=228,slow=39						
KSRS	Korea Array	16.32	18	Pn	Pn	18 32 01.6	+1.2
	0.2nm,0.3s,baz=197,slow=11,SNR=8.8						
KSRS				LR	LR	18 38 34.2	
	comp=Z,71nm,19.0s,baz=344,slow=38						
MJAR	Matsushiro Arr	20.34	41	P	P	18 32 51.0	+3.3
	3.0nm,0.9s,baz=225,slow=9.7,SNR=6.1						
MJAR				LR	LR	18 42 28.5	
	comp=Z,66nm,18.1s,MS3.0,baz=75,slow=42						
GUMO	Guam	23.44	107	LR	LR	18 41 15.8	
	comp=Z,144nm,18.7s,MS3.5,baz=236,slow=33						
ASAJ	Asahikawa	27.98	33	P	P	18 34 05.7	+3.6
	9.1nm,0.9s,mb4.4,baz=232,slow=10.0,SNR=5.8						
SONM	Songino Array	28.64	338	P	P	18 34 07.4	-0.5
	0.8nm,0.7s,mb3.6,baz=152,slow=6.7,SNR=4.1						
PSI	Prapat	29.29	233	LR	LR	18 43 59.1	
	comp=Z,125nm,20.8s,MS3.5,baz=254,slow=33						
FITZ	Fitzroy Crossi	39.99	174	P	P	18 35 44.9	-1.3
	2.0nm,1.0s,mb3.8,baz=352,slow=15,SNR=3.1						
MK31	Makanchi Array	40.36	318	eP	P	18 35 48.7	-0.4
MKAR	Makanchi Array	40.36	318	P	P	18 35 49.2	+0.1
MKAR	Makanchi Array	40.36	318	P	P	18 35 49.2	+0.1
	2.3nm,0.7s,mb4.0,baz=114,slow=9.7,SNR=13						
ZALV	Zalesovo Beam	42.43	328	P	P	18 36 05.2	-0.8
	0.9nm,0.4s,mb3.8,baz=116,slow=8.7,SNR=6.9						
WRA	Warramunga Arr	43.40	163	P	P	18 36 13.3	-0.9
	0.8nm,0.4s,mb3.8,baz=343,slow=9.2,SNR=12						
KURK	Kurchatov	44.18	321	eP	P	18 36 20.2	0.0
	2.8nm,0.8s,mb4.0						
ASAR	Alice Springs	46.85	165	P	P	18 36 41.0	-0.5
	0.3nm,0.4s,mb3.6,baz=342,slow=6.7,SNR=13						
STKA	Stephens Creek	56.78	160	P	P	18 37 56.3	+0.7
	2.1nm,0.9s,mb4.2,baz=326,slow=11,SNR=4.3						
JOF	Joensuu	70.93	331	ep	P	18 39 27.4	-1.1
	0.7nm,0.4s,mb3.9						
KEV	Kevo	71.25	339	ep	P	18 39 29.3	-1.0
ARCES	ARCESS Array B	71.82	338	P	P	18 39 33.6	-0.1
	3.1nm,0.9s,mb4.3,baz=68,slow=5.9,SNR=3.1						
FINES	FINESS Array B	73.66	330	P	P	18 39 44.3	-0.5
	0.4nm,0.4s,mb3.7,baz=52,slow=6.8,SNR=5.6						
AKASG	Malin Array Be	74.92	319	P	P	18 39 52.9	+0.6
	1.2nm,0.6s,mb4.0,baz=65,slow=5.2,SNR=3.2						
BRTR	Keskin Array B	74.97	307	P	P	18 39 53.3	+0.4
	0.9nm,0.8s,mb3.8,baz=78,slow=6.6,SNR=3.6						
NOA	NORSAR Array B	80.46	332	P	P	18 40 23.8	+0.7
	1.1nm,0.8s,mb3.8,baz=61,slow=5.3,SNR=3.3						
YKA	Yellowknife Ar	84.78	23	P	P	18 40 47.2	+1.6
YKA	Yellowknife Ar	84.78	23	P	P	18 40 47.2	+1.6
	0.3nm,0.7s,mb3.5,baz=314,slow=5.2,SNR=3.1						
GERES	GERESS Array B	84.93	321	P	P	18 40 47.7	+1.1
	0.1nm,0.3s,mb3.5,baz=76,slow=5.6,SNR=3.5						

IDC 28 18:34:26.4±1.8, **1.60N**×**128.25E**, **h0**km, **mb3.5**/4, **mb1 3.7**/4, **mb1mx3.4**/15, **mbtmp3.5**/4, **MS3.7**/1, **Ms1 3.7**/1, **ms1mx3.0**/19, **Error ellipse: s-maj=129.9km s-min=23.6km az=66.0**, **Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	22.23	165	P	P	18 39 25.7	+1.0
	0.8nm,0.5s,baz=345,slow=11,SNR=7.3						
ASAR	Alice Springs	25.71	168	P	P	18 39 57.5	-1.0
	0.4nm,0.8s,baz=349,slow=7.3,SNR=3.9						
HNR	Honiara	33.42	110	LR	LR	18 55 04.1	
	comp=Z,112nm,18.0s,baz=5.9,slow=37						
STKA	Stephens Creek	35.62	160	P	P	18 41 26.4	+0.4
	1.1nm,0.9s,baz=346,slow=10,SNR=4.3						
MKAR	Makanchi Array	60.16	325	P	P	18 44 36.0	+0.1
	0.2nm,0.6s,baz=119,slow=6.8,SNR=3.3						

IDC 28 18:55:09.2±9.3, **4.33S**×**153.17E**, **h133**km±63km, **mb3.2**/2, **mb1 3.5**/3, **mb1mx3.1**/15, **mbtmp3.4**/3, **Error ellipse: s-maj=134.2km s-min=55.6km az=119.0**, **New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	7.81	229	P	Pn	18 57 00.6	+0.4
	3.0nm,0.3s,baz=43,slow=8.5,SNR=16						
PMG				S	Sn	18 58 26.8	-0.4
	0.4nm,0.3s,baz=143,slow=20,SNR=2.7						
WRA	Warramunga Arr	24.03	228	P	P	19 00 12.9	+0.8
	1.4nm,0.5s,baz=53,slow=9.9,SNR=18						
ASAR	Alice Springs	26.75	222	P	P	19 00 36.2	-0.3
	0.8nm,1.1s,baz=56,slow=9.4,SNR=6.7						
TORD	Torodi Ar. Bea	150.51	289	PKPbc	PKPbc	19 14 45.7	-0.6
	0.3nm,0.6s,baz=88,slow=2.6,SNR=3.6						

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*IDC **28** 19:01:47.9±2.2, 4350N×10533W, h0^{km}, mb4.1/2, mb1 4.0/5, mb1mx3.6/21, mbtmp3.8/5, ML3.7/3, Error ellipse: s-maj=53.0km s-min=6.8km az=151.0*

*ISCJB **28** 19:01:48.2±0.4, 4374N±004×10522W±005, h0^{km}, mb4.2/2, Error ellipse: s-maj=6.2km s-min=4.8km az=142.1*

*NEIC **28** 19:01:50.0±0.3, 4372N×10523W, h0^{km}, ML3.3, Error ellipse: s-maj=5.2km s-min=4.0km az=139.0, Suspected Mining explosion.*

NEIC 65 km [40 miles] SSE of Gillette.

ISC 28 19:01:49.9±0.4, **4374N**±004×**10522W**±005, **h0^{km}, n47,** σ**0^{s}93**/53, **mb4.2**/2, **Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSSD	Black Hills	0.93	66	eP	Pg	19 02 08.8	+1.0
PHWY	Pilot Hill	2.44	184	ePn	Pn	19 02 30.8	-0.2
RWWY	Rawlins	2.52	216	ePn	Pn	19 02 32.4	+0.3
LAO	LASA Array	3.03	347	ePn	Pn	19 02 40.1	+1.0
RLMT	Red Lodge	3.21	297	ePn	Pn	19 02 41.5	-0.2
BW06	Boulder Array	3.32	254	ePn	Pn	19 02 42.6	-0.4
PDAR	Pinedale Array	3.32	254	Pn	Pn	19 02 42.9	-0.1
PDAR				Pg	Pg	19 02 48.3	-5.2
PDAR				Sn	Sn	19 03 23.2	0.0
PDAR				Lg		19 03 27.1	
PDAR	Pinedale Array	3.32	254	Pn	Pn	19 02 42.9	-0.1
	4.7nm,0.3s,baz=76,slow=15,SNR=118						
PDAR				Pg	Pg	19 02 48.3	-5.2
	14nm,0.3s,baz=73,slow=19,SNR=66						
PDAR				Sn	Sn	19 03 23.2	0.0
	4.8nm,0.3s,baz=73,slow=23,SNR=5.7						
PDAR				Lg		19 03 27.1	
	14nm,0.3s,baz=71,slow=31,SNR=10						
GCMT	Greycliff	3.78	304	ePn	Pn	19 02 50.0	+0.6
ISCO	Idaho Springs	3.95	184	ePn	Pn	19 02 51.9	+0.2
MOOW	Moose Ponds	4.01	272	eP	Pn	19 02 52.5	0.0
YNR	Norris Junctio	4.05	286	ePg	Pg	19 03 02.9	-4.6
YFT	Old Faithful	4.11	282	ePn	Pn	19 02 49.3	-4.7
REDW	Red Top Meadow	4.12	267	eP	Pn	19 02 54.4	+0.4
TPAW	Teton Pass	4.17	269	eP	Pn	19 02 55.1	+0.3
YMR	Madison River	4.24	285	ePn	Pn	19 02 57.4	+1.7
DCID1	Drake Creek	4.33	270	ePn	Pn	19 02 55.7	-1.3
AHID	Auburn Hatcher	4.41	259	ePg	Pg	19 03 08.6	-5.8
QLMT	Earthquake Lak	4.59	286	ePg	Pg	19 03 12.0	-5.9
SMCO	Snowmass	4.75	197	ePg	Pg	19 03 14.7	-6.2
DGMT	Dagmar	4.78	8	ePn	Pn	19 03 05.0	+1.8
BOZ	Bozeman (W)	4.95	295	ePn	Pn	19 03 04.9	-0.6
HWUT	Hardware Ranch	5.14	248	ePn	Pn	19 03 07.4	-0.7
EGMT	Eagleton	5.33	325	ePn	Pn	19 03 10.3	-0.4
	24nm,0.5s						
DLMT	Dillon	5.52	290	ePn	Pn	19 03 13.2	0.0
	4.3nm,0.3s						
MCMT	McKenzie Canyo	5.59	284	Pn	Pn	19 03 13.6	-0.6
DAU	Daniels Canyon	5.59	236	ePn	Pn	19 03 10.9	-3.4
JLU	Jordanelle	5.59	238	Pn	Pn	19 03 08.1	-6.2
SPUT	South Promonto	5.87	248	ePn	Pn	19 03 18.8	+0.7
PV10	Paradox Valley	6.09	210	ePn	Pn	19 03 22.1	+0.9
SRU	San Rafael	6.11	223	ePn	Pn	19 03 20.1	-1.2
	18nm,0.4s						
PV01	Paradox Valley	6.15	206	ePn	Pn	19 03 22.8	+0.9
ECSD	EROS,Sioux Fal	6.23	87	ePn	Pn	19 03 24.1	+1.0
	6.6nm,0.6s						
TMUT	Trail Mountain	6.32	227	ePn	Pn	19 03 24.7	+0.4
CHMT	Chamberlain Mo	6.49	302	ePn	Pn	19 03 26.9	+0.2
HLID	Hailey	6.68	272	ePn	Pn	19 03 30.5	+1.3
	1.5nm,0.4s						
MSO	Missoula	6.89	300	ePn	Pn	19 03 31.7	-0.4
MSU	Marysvale	7.41	228	ePn	Pn	19 03 37.1	-2.1
CCUT	Cedar City	8.75	228	ePn	Pn	19 03 58.4	+0.7
ULM	Lac du Bonnet	9.11	41	Pn	Pn	19 04 02.1	-0.5
ULM				Sn	Sn	19 05 43.0	-2.8
ULM				Lg		19 06 34.1	
ULM	Lac du Bonnet	9.11	41	Pn	Pn	19 04 02.1	-0.5
	3.7nm,0.3s,baz=234,slow=11,SNR=26						
ULM				Sn	Sn	19 05 43.0	-2.8
	0.4nm,0.3s,baz=133,slow=19,SNR=6.0						
ULM				Lg		19 06 34.1	
	0.3nm,0.3s,baz=319,slow=20,SNR=2.4						
EYMN	Ely	10.45	62	ePn	Pn	19 04 20.1	-0.8
YKA	Yellowknife Ar	19.57	347	P	Pn	19 06 20.4	+0.1
YKA	Yellowknife Ar	19.57	347	P	Pn	19 06 20.4	+0.1
	0.2nm,0.3s,baz=159,slow=11,SNR=7.9						
ARCES	ARCESS Array B	61.40	18	P	P	19 12 06.5	-0.7
	2.2nm,0.7s,mb4.4,baz=328,slow=7.6,SNR=9.5						
ZALV	Zalesovo Beam	82.31	354	P	P	19 14 11.8	-1.1
ZALV	Zalesovo Beam	82.31	354	P	P	19 14 11.9	-1.1
	0.5nm,0.5s,mb3.9,baz=357,slow=2.1,SNR=3.2						

CASC 28 19:20:28.2±2.5, **1203N**×**8767W, h18^{km}**±11^{km}**, MD3.8, ML3.0, 2C-4D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TEL3	Telica 3	0.97	56	eP	Pb	19 20 45.5	-1.0
TELN	Telica	1.00	55	eP	Pb	19 20 48.2	+1.2
COPN	Copaltepe	1.07	82	⇓eP	Pb	19 20 47.1	-1.1
MOMJ	Momotombo	1.17	71	⇑eP	Pn	19 20 48.8	-0.9
CNCH	Conchagua	1.25	353	⇑eP	x	19 20 49.0	
CNCH				eS	x	19 21 07.9	
MGAN	Managua	1.40	85	eP	Pn	19 20 51.9	-0.9
MGAN				eS	Sn	19 21 12.2	+1.4
MGAN				i		19 21 14.8	
	comp=E,220nm,0.3s						
TICN	Ticuantepe	1.41	90	eP	Pn	19 20 52.4	-0.6
HUEN		1.50	78	eP	Pn	19 20 53.4	-0.8
BLLM	Bellamira	1.51	339	eP	x	19 20 54.2	
BLLM				eS	x	19 21 14.6	
LCBS	La Ceiba	2.06	322	⇓eP	x	19 20 59.5	
LCBS				eS	x	19 21 25.6	
LFRS	El Faro	2.08	320	⇓eP	x	19 20 59.6	
LFRS				eS	x	19 21 27.0	
CHI2		15.61	117	⇓eP		19 20 44.0	

IDC 28 19:25:37.3±7.3, **705S**×**15551E, h52^{km}**±58^{km}**, mb3.6**/6, **mb1 3.8**/7, **mb1mx3.7**/16, **mbtmp3.7**/7, **ML3.3**/1, **MS2.8**/1, **Ms1 2.8**/1, **ms1mx2.6**/20, **Error ellipse: s-maj=56.9km s-min=28.4km az=118.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	4.99	119	LR	LR	19 28 08.9	
	comp=Z,104nm,19.0s,baz=359,slow=30						
PMG	Port Moresby	8.59	254	P	Pn	19 27 38.8	-0.1
	2.0nm,0.3s,baz=66,slow=9.2,SNR=11						
PMG				S	Sn	19 29 16.2	+1.7
	0.4nm,0.3s,baz=148,slow=18,SNR=1.8						
WRA	Warramunga Arr	24.20	236	P	P	19 30 49.4	+0.2
	1.2nm,0.6s,baz=57,slow=9.3,SNR=17						
WRA				PcP	PcP	19 34 29.6	+0.7
	0.2nm,0.5s,baz=61,slow=2.7,SNR=4.7						
ASAR	Alice Springs	26.52	229	P	P	19 31 09.9	-0.3
	0.3nm,0.4s,baz=58,slow=9.4,SNR=12						
SONM	Songino Array	69.66	327	P	P	19 36 41.8	+0.5
	0.9nm,0.8s,baz=139,slow=6.8,SNR=3.3						
MKAR	Makanchi Array	83.78	319	P	P	19 38 00.4	-0.6
	0.6nm,0.8s,baz=84,slow=12,SNR=3.6						
INK	Inuvik	89.59	21	P	P	19 38 29.2	+0.3
	1.2nm,0.5s,baz=252,slow=5.2,SNR=10						
YKA	Yellowknife Ar	96.15	28	P	P	19 38 58.8	-0.4
	0.2nm,0.4s,baz=262,slow=4.5,SNR=4.7						
TORD	Torodi Ar. Bea	153.53	285	PKPbc	PKPbc	19 45 30.8	-0.4
	0.2nm,0.3s,baz=94,slow=1.9,SNR=11						

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*ISK **28** 19:32:22.5, 3835N×3921E, h5^{km}, MD3.7, ML3.8*

*CSEM **28** 19:32:23.4±0.1, 3836N×39.19E, h5^{km}, MD3.7, Error ellipse: s-maj=1.8km s-min=1.2km az=163.0*

*DDA **28** 19:32:23.0, 3836N×3922E, h1^{km}±2^{km}, Md3.9*

*ISCJB **28** 19:32:24.4±0.2, 3836N±002×3924E±002, h10^{km}, Error ellipse: s-maj=2.8km s-min=2.3km az=145.0*

*NSSC **28** 19:32:29.1, 3809N×3936E, h15^{km}±8^{km}*

ISC 28 19:32:25.2±0.2, **3835N**±002×**3924E**±002, **h10^{km}, n84,** σ**1^{s}22**/112, **1C-2D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTK	Pertek	0.55	13	PG	Pg	19 32 34.4	-1.6
PTK				SG	Sg	19 32 42.8	-0.4
PTK	Pertek	0.55	13	ePg	Pg	19 32 34.4	-1.6
PTK				eSg	Sg	19 32 42.8	-0.4
MALT	Malatya	0.64	267	PG	Pg	19 32 35.5	-2.1
MALT				SG	Sg	19 32 45.3	-0.6
MALT	Malatya	0.64	267	ePg	Pg	19 32 35.5	-2.1
MALT				eSg	Sg	19 32 45.3	-0.6
MYA	Malataya	0.64	268	PG	Pg	19 32 35.2	-2.4
MYA				SG	Sg	19 32 45.7	-0.3
MYA	Malataya	0.64	268	ePg	Pg	19 32 35.2	-2.4
MYA				eSg	Sg	19 32 45.7	-0.3
DIYA	Diyarbakir	0.82	121	⇑iP	Pg	19 32 40.2	-0.8
DIYA				i S	Sg	19 32 52.5	+0.9
DIY	Diyarbakir	0.90	120	PG	Pg	19 32 40.6	-2.0
DIY	Diyarbakir	0.90	120	ePg	Pg	19 32 40.6	-2.0
URFA	Urfa	0.97	200	PG	Pg	19 32 41.3	-2.5
URFA	Urfa	0.97	200	ePg	Pg	19 32 41.3	-2.5
BINT	Bingol	1.11	62	PN	Pn	19 32 45.2	-1.6
BINT	Bingol	1.11	62	ePn	Pn	19 32 45.2	-1.6
ATAB	Bozova	1.16	221	i P	Pb	19 32 47.1	-0.2
ATAB				i S	Sb	19 33 02.3	0.0
EZC	Erzincan	1.47	18	PN	Pn	19 32 50.0	-1.7
MARD	Mardin	1.60	130	i P	Pn	19 32 52.4	-1.2
MARD				i S	Sn	19 33 14.4	+0.1
BNGL	BINGOL	1.61	68	i P	Pn	19 32 54.0	+0.3
BNGL				i S	Sn	19 33 17.6	+3.0
GZT	Gaziantep	1.66	234	i P	Pn	19 32 53.7	-0.6
GZT				i S	Sn	19 33 16.3	+0.6
KBSD	Kabsdagh	1.70	142	⇑P	Pn	19 32 54.1	-0.7
KBSD				⇓S	Sn	19 33 14.6	-2.1
KBSD	Kabsdagh	1.70	142	⇑iP	Pn	19 32 54.2	-0.7
KBSD				⇓iS	Sn	19 33 14.6	-2.1
BTMT	Batman	1.78	94	PN	Pn	19 32 54.5	-1.5
GAZ	Gaziantep	1.99	234	PN	Pn	19 32 58.4	-0.5
GAZ	Gaziantep	1.99	234	ePn	Pn	19 32 58.4	-0.5
SFNV	Sufian	2.05	160	⇑P	Pn	19 32 58.4	-1.4
SFNV				⇑S	Sn	19 33 23.2	-2.2
SFNV	Sufian	2.05	160	⇑iP	Pn	19 32 58.4	-1.3
SFNV				⇑iS	Sn	19 33 23.2	-2.2
GUMT	Gumushane	2.11	5	PN	Pn	19 33 01.3	+0.7
EZM	Erzurum	2.27	46	PN	Pn	19 33 03.1	+0.4
ERZM	Erzurum	2.27	46	i P	Pn	19 33 04.1	+1.4
ERZM				i S	Sg	19 33 37.3	-0.8
SVSK	Karacayir	2.34	313	PN	Pn	19 33 03.9	+0.2
SVSK	Karacayir	2.34	313	ePn	Pn	19 33 03.9	+0.2
SLMH	Al Salmeh	2.38	206	⇑P	Pn	19 33 05.2	+1.0
SLMH				⇑S	Sn	19 33 33.5	+0.1
SLMH	Al Salmeh	2.38	206	⇑iP	Pn	19 33 05.2	+1.0
SLMH				⇑iS	Sn	19 33 33.5	+0.1
ANDN	Andirin	2.41	252	i P	Pn	19 33 04.0	-0.7
ANDN				i S	Sg	19 33 40.5	-2.2
KTUT	Trabzon	2.66	9	ePN	Pn	19 33 08.1	0.0
KTUT	Trabzon	2.66	9	ePn	Pn	19 33 08.1	0.0
SIRT	Sirnak	2.67	108	PN	Pn	19 33 09.1	+0.9
SIRT	Sirnak	2.67	108	ePn	Pn	19 33 09.1	+0.9
GRSN	GIRESUNGRSN	2.68	344	i P	Pn	19 33 08.5	+0.2
GRSN				i S	Sb	19 33 45.8	-0.2
DRWC	Darouich	2.68	231	⇑P	Pn	19 33 11.1	+2.7
DRWC				⇑S	Sn	19 33 42.8	+2.0
DRWC	Darouich	2.68	231	⇑iP	Pn	19 33 11.1	+2.8
DRWC				⇑iS	Sn	19 33 42.8	+2.0
BNN	Bunyan	2.70	282	ePN	Pn	19 33 08.6	-0.1
BNN	Bunyan	2.70	282	ePn	Pn	19 33 08.6	-0.1
BSHR	Al Beshri	2.72	170	⇑P	Pn	19 33 12.4	+3.5
BSHR				⇑S	Sn	19 33 44.4	+2.6
BSHR	Al Beshri	2.72	170	⇑iP	Pn	19 33 12.4	+3.5
BSHR				⇑iS	Sn	19 33 44.4	+2.6
JHLN	Al Jahlan	2.75	194	⇑P	Pn	19 33 09.7	+0.3
JHLN				⇑S	Sn	19 33 41.0	-1.5
JHLN	Al Jahlan	2.75	194	⇑iP	Pn	19 33 09.7	+0.4
JHLN				⇑iS	Sn	19 33 41.0	-1.6
KOZT	Kozan	2.83	253	ePN	Pn	19 33 09.9	-0.6
TUTA	Tutak	2.98	68	i P	Pn	19 33 13.1	+0.6
COBT	Iskenderun	3.00	233	i P	Pg	19 33 21.9	-0.7
COBT				i S	Sg	19 33 57.2	-4.2
AGRB	Hanur-Agry	3.17	66	ePN	Pn	19 33 16.5	+1.4
AGRB	Hanur-Agry	3.17	66	ePn	Pn	19 33 16.5	+1.4
BTCH	Batrach	3.20	225	⇑P	Pn	19 33 17.9	+2.3
BTCH				⇑S	Sn	19 33 55.0	+1.2
BTCH	Batrach	3.20	225	⇑iP	Pn	19 33 17.9	+2.3
BTCH				⇑iS	Sn	19 33 55.0	+1.2
VANT	Van	3.26	87	ePN	Pn	19 33 16.1	-0.3
TVAN	Van	3.28	86	i P	Pn	19 33 20.5	+3.9
YOZ	Yozgat	3.31	294	ePN	Pn	19 33 17.2	+0.1
YOZ	Yozgat	3.31	294	ePn	Pn	19 33 17.2	+0.1
HTY	Hatay	3.33	229	ePN	Pn	19 33 17.0	-0.3
HTY	Hatay	3.33	229	ePn	Pn	19 33 17.0	-0.3
YAYL	Yayladag	3.41	228	i P	Pn	19 33 18.8	+0.4
KARA	Karaisali	3.49	253	ePN	Pn	19 33 19.3	-0.2
KARA	Karaisali	3.49	253	ePn	Pn	19 33 19.3	-0.2
ARTV	Artvin	3.51	35	i P	Pn	19 33 20.8	+1.0
BCA	Borcka	3.59	30	ePN	Pn	19 33 21.6	+0.7
BCA	Borcka	3.59	30	ePn	Pn	19 33 21.6	+0.7
ARNB	Al Arnab	3.60	227	⇑P	Pn	19 33 23.2	+2.1
ARNB				⇑S	Sn	19 34 05.3	+1.6
HAKT	HAKKARI	3.62	101	i P	Pn	19 33 20.8	-0.5
HAKT				i S	Sg	19 34 21.1	-0.4
HKR	Hakkari	3.64	101	ePN	Pn	19 33 22.9	+1.3
HKR	Hakkari	3.64	101	ePn	Pn	19 33 22.9	+1.3
NIG	Nigde	3.65	268	ePN	Pn	19 33 21.8	0.0
NIG	Nigde	3.65	268	ePn	Pn	19 33 21.8	0.0
KVT	Kavak	3.67	319	ePN	Pn	19 33 22.4	+0.4
KVT	Kavak	3.67	319	ePn	Pn	19 33 22.4	+0.4
MSL	Mosul	3.70	123	ePn	x	19 33 32.0	
MSL				ePg	x	19 33 43.0	
MSL				eSn	x	19 34 16.0	
MSL				eSb	x	19 34 33.0	
MSL				eSg	x	19 34 42.0	
KARS	Kars	3.74	52	ePN	Pn	19 33 24.5	+1.6
KARS	Kars	3.74	52	ePn	Pn	19 33 24.5	+1.6
CORM	Corum	4.01	298	ePN	Pn	19 33 27.4	+0.7
CORM	Corum	4.01	298	ePn	Pn	19 33 27.4	+0.7
HWQ	Hawqa	4.86	214	ePn	Pn	19 33 40.3	+2.0
HWQ	Hawqa	4.86	214	ePn	Pn	19 33 40.3	+2.0
BHL	Bhannes	5.30	214	ePn	Pn	19 33 45.6	+1.2
BHL	Bhannes	5.30	214	ePn	Pn	19 33 45.6	+1.2
BHD	Baghdad	6.57	139	ePn	x	19 33 59.0	
BHD				ePb	x	19 34 15.0	
BHD				ePg	x	19 34 33.0	
BHD				eSn	x	19 35 20.0	
BHD	Baghdad	6.57	139	ePn	x	19 33 59.0	

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*KRSC **28** 19:37:11.3±0.5, 6100N×16745E, h5^{km}±13^{km}, ML4.6*

*BJI **28** 19:37:13.3, 6096N×16691E, h4^{km}, mB5.1, mb4.8, Ms4.8, Msz4.6*

*ISCJB **28** 19:37:14.8±0.1, 6098N±002×16709E±003, h12^{km}, mb5.0/166, MS4.4/30, Error ellipse: s-maj=3.3km s-min=1.9km az=172.9*

*MOS **28** 19:37:14.2±0.8, 6095N×167.19E, h11^{km}, mb5.2/86, MS4.4/12, Error ellipse: s-maj=9.0km s-min=4.1km az=91.5*

*IDC **28** 19:37:14.2±0.5, 6090N×16721E, h0^{km}, mb4.7/23, mb1 4.9/23, mb1mx4.8/26, mbtmp4.7/23, MS4.1/13, Ms1 4.1/13, ms1mx3.8/38, Error ellipse: s-maj=16.9km s-min=11.6km az=165.0*

*NEIC **28** 19:37:15.8±0.2, 6093N×167.12E, h10^{km}, mb5.1/113, Error ellipse: s-maj=6.1km s-min=2.8km az=6.0*

*SZGRF **28** 19:37:19.5, 6107N×16660E, h12^{km}, mb5.3, Eastern Siberia, Russia*

ISC 28 19:37:16.9±0.1, **6100N**±002×**16713E**±003, **h13^{km}, h13^{km}**±.4^{km}**:pP-P, n636,** σ**0^{s}84**/648, **mb5.0**/166, **MS4.4**/30, **91C-92D, Eastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	5.31	207	PN	Pn	19 38 34.5	-1.3
KBTR				S	Sn	19 39 37.3	+0.6
KBTR	Krutoberegovo	5.31	207	eP	Pn	19 38 34.5	-1.3
KBTR				eS	Sn	19 39 37.3	+0.6
SMKR	Semkarok	5.32	216	eP	Pn	19 38 35.8	-0.1
BDR	Baidarnaya	5.41	217	eP	Pn	19 38 37.2	+0.1
KLY	Klyuchi	5.79	219	PN	Pn	19 38 41.6	-0.7
KLY	Klyuchi	5.79	219	eP	Pn	19 38 41.6	-0.7
KRSR	Krestovskiy	5.89	218	eP	Pn	19 38 44.1	+0.3
BZMR	Bezymyannaya	6.16	217	eP	Pn	19 38 48.8	+1.4
KMNR	Kamenistaya	6.38	218	eP	Pn	19 38 52.0	+1.5
TUMR	Tumrok	6.82	216	eP	Pn	19 38 58.6	+2.1
MKZ	Mys Kozlova	7.07	206	PN	Pn	19 38 59.7	-0.3
MKZ	Mys Kozlova	7.07	206	eP	Pn	19 38 59.7	-0.3
BILL	Bilibino	7.08	357	eP	Pn	19 39 01.3	+1.3
	138nm,0.8s						
BILL	Bilibino	7.08	357	d iPN	Pn	19 39 01.2	+1.2
BILL	Bilibino	7.08	357	eP	Pn	19 39 01.6	+1.6
BILL				i S	Sn	19 40 22.1	+1.9
MA2	Magadan	8.25	267	eP	Pn	19 39 16.6	+0.5
	36nm,0.7s						
MA2	Magadan	8.25	267	c iPN	Pn	19 39 16.9	+0.8
MA2	Magadan	8.25	267	eP	Pn	19 39 16.7	+0.6
MA2				i S	Sn	19 40 50.2	+1.2
SPN	Mys Shipunski	8.81	209	P	Pn	19 39 23.3	-0.5
SPN	Mys Shipunski	8.81	209	PN	Pn	19 39 23.3	-0.5
GNL	Ganaly	8.84	218	eP	Pn	19 39 26.5	+2.3
NLC	Nalytchevo	8.91	212	P	Pn	19 39 25.5	+0.3
NLC	Nalytchevo	8.91	212	PN	Pn	19 39 25.5	+0.3
PET	Petropavlovsk	9.23	214	ePN	Pn	19 39 38.8	+9.3
PET				eS	Sn	19 41 24.4	+11
PET				pmax	pmax		
	comp=Z,54nm,1.1s						
PET				MLR	MLR		
	comp=Z,4µm,15.0s						
PET				MLR	MLR		
	comp=Z,4µm,12.0s						
GAMB	Gambell	10.20	65	eP	Pn	19 39 41.7	-1.0
TNA	Tin City	12.07	57	eP	Pn	19 40 11.6	+3.2
	comp=Z,11nm,1.1s						
OKH	Okha	14.99	251	eP	Pn	19 40 46.4	-1.8
OKH				eS	Sn	19 43 34.0	+0.2
OKH				pmax	pmax		
	comp=Z,600nm,6.0s						
OKH				smax			
	comp=E,500nm,8.0s						
OKH				smax			
	comp=N,800nm,12.0s						
UNV	Unalaska Valle	15.82	105	eP	Pn	19 41 00.3	+1.2
	comp=N,216nm,1.0s						
FALS	False Pass	16.71	98	eP	Pn	19 41 12.4	+2.0
TTA	Tatalina	17.28	68	eP	Pn	19 41 20.1	+2.6
YAK	Yakutsk	17.73	290	eP	Pn	19 41 23.5	+0.4
	comp=N,78nm,0.9s						
YAK	Yakutsk	17.73	290	eP	Pn	19 41 23.2	+0.1
YAK				eS	Sn	19 44 42.4	+2.2
YAK				pmax	pmax		
	comp=N,16nm,1.1s						
YAK				pmax	pmax		
	comp=Z,61nm,1.1s						
YAK				pmax	pmax		
	comp=E,47nm,1.2s						
YAK				smax			
	comp=E,549nm,7.5s						
YAK				smax			
	comp=Z,197nm,3.7s						
YAK				smax			
	comp=N,62nm,3.0s						
YAK				MLR	MLR		
	comp=N,669nm,15.0s						
YAK				MLR	MLR		
	comp=E,2µm,15.0s						
YAK				MLR	MLR		
	comp=Z,2µm,15.0s						
SDPT	Sand Point	17.86	94	eP	Pn	19 41 25.2	+0.4
SVW2	Sparrevohn	17.90	73	eP	Pn	19 41 27.1	+1.9
IMA2	Indian Mountai	17.95	57	eP	Pn	19 41 27.6	+1.9
TIXI	Tiksi	18.29	321	eP	Pn	19 41 31.9	+2.0
	comp=Z,22nm,0.9s						
TIXI	Tiksi	18.29	321	d iP	Pn	19 41 31.2	+1.3
TIXI				pmax	pmax		
	comp=Z,24nm,1.0s						
TIXI				MLR	MLR		
	comp=Z,2µm,17.0s						
CHGN	Chignik	18.39	89	eP	Pn	19 41 30.8	-0.4
YSS	Yuzh-Sakhalins	19.91	236	eP	Pn	19 41 50.7	+1.1
	comp=Z,33nm,1.1s						
YSS	Yuzh-Sakhalins	19.91	236	eP	Pn	19 41 50.6	+1.0
YSS				eS	Sn	19 45 36.0	+3.0
YSS				pmax	pmax		
	comp=Z,30nm,1.0s						
YSS				MLR	MLR		
	comp=E,500nm,13.0s						
YSS				MLR	MLR		
	comp=Z,1µm,13.0s						
YSS				MLR	MLR		
	comp=N,1µm,14.0s						
MCK	McKinley	20.26	63	eP	P	19 41 51.8	+0.2
	comp=N,53nm,1.2s						
MCK	McKinley	20.26	63	eP	P	19 41 51.8	+0.2
MCK				pmax	pmax		
	comp=Z,53nm,1.2s						
COLA	College	20.50	60	eP	P	19 41 54.4	+0.2
	comp=Z,28nm,0.9s						
COLA	College	20.50	60	⇑iP	P	19 41 54.8	+0.6
KDAK	Kodiak Island	20.53	81	P	P	19 41 52.2	-2.4
	comp=Z,377nm,0.7s,SNR=14						
KDAK	Kodiak Island	20.53	81	eP	P	19 41 51.7	-2.9
	comp=Z,37nm,0.6s						
KDAK	Kodiak Island	20.53	81	P	P	19 41 51.9	-2.7
	comp=Z,39nm,0.7s,baz=307,slow=5.7,SNR=18						
KDAK				LR	LR	19 50 41.7	
	comp=Z,796nm,18.2s,MS4.1,baz=297,slow=39						
SLKM	Skilak Lake	20.58	73	eP	P	19 41 54.5	-0.6
PMR	Palmer	20.73	69	eP	P	19 41 54.8	-1.9
	comp=Z,14nm,1.0s						
PMR	Palmer	20.73	69	eP	P	19 41 54.8	-1.9
PMR				pmax	pmax		
	comp=Z,15nm,1.0s						
SML	Sawmill	21.03	68	P	P	19 41 59.4	-0.5
CLNS	Chul’man	21.90	278	eP	P	19 42 11.5	+2.2
CLNS				pmax	pmax		
	comp=E,24nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,26nm,0.9s,mb4.7						
CLNS				pmax	pmax		
	comp=N,17nm,1.1s						
NRGR	Nerungri	22.07	278	i P	P	19 42 16.0	+4.8
NRGR				S	S	19 46 00.5	-13
NRGR				smax			
	comp=E,37nm,0.7s						
HABR	Khabarovsk	22.09	250	⇑iP	P	19 42 10.9	-0.5
HABR				eS	S	19 46 13.9	-0.5
HABR				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.0						
HABR				MLR	MLR		
	comp=Z,600nm,19.0s,MS4.0						
ASAJ	Asahikawa	22.32	232	LR	LR	19 50 58.5	
	comp=Z,631nm,18.9s,MS4.1,baz=350,slow=37						
EYAK	Cordova Ski Ar	22.63	70	eP	P	19 42 15.9	-1.1
MENT	Mentasta	22.73	64	eP	P	19 42 17.3	-0.9
KLR	Kul’dur	23.09	255	eP	P	19 42 18.7	-3.3
KLR				eS	S	19 46 35.0	+2.6
KLR				pmax	pmax		
	comp=E,43nm,1.4s						
KLR				pmax	pmax		
	comp=Z,57nm,1.4s,mb4.8						
KLR				MLR	MLR		
	comp=E,800nm,12.5s						
KLR				MLR	MLR		
	comp=Z,1µm,12.5s,MS4.5						
EGAK	Eagle	23.31	58	eP	P	19 42 22.2	-2.1
	comp=Z,25nm,0.7s,mb4.8						
DAWY	Dawson	24.25	59	eP	P	19 42 31.6	-1.4
INK	Inuvik	25.45	48	P	P	19 42 44.1	+0.2
INK						19 46 14.5	
INK	Inuvik	25.45	48	P	P	19 42 44.1	+0.1
	comp=Z,8.2nm,0.6s,mb4.5,baz=292,slow=12,SNR=20						
INK				PcP	PcP	19 46 14.5	-0.7
	comp=Z,2.0nm,0.6s,baz=328,slow=3.6,SNR=5.4						
INK				LR	LR	19 54 29.7	
	comp=Z,346nm,18.2s,MS3.9,baz=31,slow=41						
BOD	Bodaibo	26.60	287	eP	P	19 42 53.8	-0.6
BOD				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.5						
MDJ	Mudanjiang	27.48	251	P	P	19 43 02.5	+0.1

MDJ				AP	pP	19 43 05.3	-1.1
MDJ				XP	sP	19 43 08.0	0.0
MDJ				PCP	PcP	19 46 20.0	-0.4
MDJ				S	**S**	**19 47 43.0**	**+0.5**
MDJ				SCP	ScP	19 50 01.5	+1.3
MDJ				PCS	PcS	19 50 03.0	+1.0
MDJ				SCS	ScS	19 53 53.8	+2.1
MDJ				AMB	AMB		
	comp=Z,6.0nm,1.4s,mb3.9						
MDJ				AMB	AMB		
	comp=Z,173nm,5.4s						
MDJ				LR	LR		
	comp=N,632nm,18.0s,MS4.4						
MDJ				LR	LR		
	comp=E,661nm,19.1s,MS4.4						
MDJ				LR	LR		
	comp=Z,425nm,15.9s,MS4.1						
CN2	**Changchun**	**30.02**	**254**	⇑P	**P**	**19 43 24.5**	**-0.6**
CN2				*e*XP	sP	19 43 30.0	-0.7
CN2				*e*S	**S**	**19 48 20.0**	**-2.5**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.4s,mb4.3						
CN2				AMB	AMB		
	comp=Z,200nm,8.0s						
CN2				LR	LR		
	comp=N,600nm,14.0s,MS4.5						
CN2				LR	LR		
	comp=E,500nm,14.0s,MS4.5						
CN2				LR	LR		
	comp=Z,700nm,16.0s,MS4.4						
CIT	**Chita**	**30.08**	**277**	*e*P	**P**	**19 43 26.0**	**+0.5**
CIT				*e*		19 43 32.8	
CIT				pmax	pmax		
	comp=Z,31nm,1.2s,mb4.9						
MAJO	**Matsushiro**	**30.55**	**230**	*e*P	**P**	**19 43 28.7**	**-1.1**
	comp=Z,37nm,1.0s,mb5.2						
MAJO	**Matsushiro**	**30.55**	**230**	P	**P**	**19 43 29.0**	**-0.8**
MAJO				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.2						
MJAR	**Matsushiro Arr**	**30.55**	**230**	P	**P**	**19 43 29.4**	**-0.5**
	comp=Z,23nm,1.0s,mb5.0,baz=16,slow=7.9,SNR=41						
MJAR				LR	LR	19 56 03.8	
	comp=Z,299nm,19.8s,MS3.9,baz=100,slow=37						
DLBC	**Dease Lake**	**30.72**	**66**	*e*P	**P**	**19 43 31.7**	**+0.6**
KSRS	**Korea Array**	**33.97**	**244**	P	**P**	**19 43 59.3**	**-0.5**
	comp=Z,5.0nm,0.8s,mb4.5,baz=26,slow=8.6,SNR=16						
KSRS				LR	LR	19 57 40.2	
	comp=Z,148nm,20.6s,MS3.7,baz=48,slow=36						
IRK	**Irkutsk**	**34.38**	**284**	*e*P	**P**	**19 44 06.2**	**+3.1**
IRK				pmax	pmax		
	comp=Z,35nm,1.5s,mb5.1						
ALE	**Alert**	**34.51**	**10**	P	**P**	**19 44 04.0**	**0.0**
	comp=Z,124nm,0.8s,mb5.9,SNR=11						
YKA	**Yellowknife Ar**	**34.98**	**52**	P	**P**	**19 44 07.7**	**-0.5**
YKA				PcP	PcP	19 46 39.4	-0.6
YKA				LR	LR	19 59 06.2	
YKA	**Yellowknife Ar**	**34.98**	**52**	P	**P**	**19 44 07.7**	**-0.5**
YKA						19 46 39.4	
YKA	**Yellowknife Ar**	**34.98**	**52**	P	**P**	**19 44 07.7**	**-0.5**
	comp=Z,8.9nm,0.9s,mb4.7,baz=303,slow=8.4,SNR=60						
YKA				PcP	PcP	19 46 39.4	-0.6
	comp=Z,2.0nm,0.8s,baz=312,slow=3.3,SNR=8.1						
YKA				LR	LR	19 59 06.2	
	comp=Z,71nm,19.1s,baz=225,slow=38						
TLY	**Talaya**	**35.04**	**284**	P	**P**	**19 44 09.8**	**+1.0**
	comp=Z,58nm,0.9s,mb5.5,SNR=5.1						
TLY	**Talaya**	**35.04**	**284**	*e*P	**P**	**19 44 09.3**	**+0.4**
	comp=Z,10nm,1.0s,mb4.7						
TLY	**Talaya**	**35.04**	**284**	*e*P	**P**	**19 44 09.4**	**+0.6**
TLY				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
TLY				MLR	MLR		
	comp=Z,406nm,13.0s,MS4.4						
ULN	**Ulaanbaatar**	**35.97**	**277**	*e*P	**P**	**19 44 16.9**	**0.0**
	comp=Z,14nm,1.1s,mb4.8						
ULN	**Ulaanbaatar**	**35.97**	**277**	*e*P	**P**	**19 44 16.9**	**0.0**
ULN				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
ZAK	**Zakamensk**	**36.07**	**283**	*e*P	**P**	**19 44 17.4**	**-0.3**
ZAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
MOY	**Mondy**	**36.29**	**286**	*e*P	**P**	**19 44 19.9**	**+0.3**
MOY				pmax	pmax		
	comp=Z,38nm,2.2s,mb4.9						
SONM	**Songino Array**	**36.31**	**277**	P	**P**	**19 44 20.5**	**+0.7**
SONM						19 46 44.6	
SONM	**Songino Array**	**36.31**	**277**	P	**P**	**19 44 20.5**	**+0.6**
	comp=Z,10nm,1.1s,mb4.7,baz=48,slow=7.4,SNR=11						
SONM				PcP	PcP	19 46 44.6	+0.3
	comp=Z,3.3nm,0.8s,baz=66,slow=2.5,SNR=7.8						
SONM				LR	LR	20 00 01.1	
	comp=Z,494nm,20.5s,MS4.3,baz=232,slow=38						
BJI	**Beijing**	**37.32**	**260**	P	**P**	**19 44 28.5**	**0.0**
BJI				PP	PP	19 45 52.8	-0.7
BJI				S	**S**	**19 50 22.3**	**+6.8**
BJI				AMB	AMB		
	comp=Z,23nm,0.9s,mb5.0						
BJI				AMB	AMB		
	comp=Z,95nm,3.0s						
BJI				LR	LR		
	comp=N,383nm,13.7s,MS4.5						
BJI				LR	LR		
	comp=E,304nm,13.7s,MS4.5						
BJI				LR	LR		
	comp=Z,142nm,23.4s						
BJT	**Baijiatuau**	**37.34**	**260**	*e*P	**P**	**19 44 28.5**	**-0.2**
	comp=Z,24nm,1.0s,mb5.0						
BJT	**Baijiatuau**	**37.34**	**260**	*e*P	**P**	**19 44 28.5**	**-0.2**
BJT				pmax	pmax		
	comp=Z,24nm,1.0s						
HHC	**Hu-ho-hao-te**	**38.92**	**265**	*e*P	**P**	**19 44 43.0**	**+1.0**
HHC				AP	pP	19 44 47.5	+1.5
HHC				XP	sP	19 44 50.0	+2.4
HHC				PP	PP	19 46 16.0	+5.0
HHC				PCP	PcP	19 46 55.5	+3.1
HHC				S	**S**	**19 50 40.0**	**+0.3**
HHC				SCP	ScP	19 50 41.3	+1.4
HHC				XS	sS	19 50 47.3	+1.0
HHC				SS	SS	19 53 22.0	-9.0
HHC				SCS	ScS	19 54 51.5	+0.6
HHC				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
HHC				PP	PP		
	comp=Z,82nm,5.3s						
HHC				LR	LR		
	comp=N,477nm,8.7s						
HHC				LR	LR		
	comp=E,446nm,8.7s						
HHC				LR	LR		
	comp=Z,409nm,10.1s,MS4.5						
BTO	**Baotou**	**39.86**	**266**	*e*P	**P**	**19 44 49.3**	**-0.5**
SPB4	**Spitsbergen Ar**	**39.93**	**351**	*e*P	**P**	**19 44 50.1**	**0.0**
A04A	**Legoe Bay, Lum**	**40.20**	**75**	⇑P	**P**	**19 44 53.2**	**+0.6**
	baz=40						
B04A	**Port Angeles**	**40.29**	**76**	⇑P	**P**	**19 44 53.7**	**+0.3**
	baz=40						
A05A	**Maple Falls**	**40.30**	**74**	⇓P	**P**	**19 44 52.7**	**-0.6**
	baz=40						
A06A	**Chilliwack**	**40.51**	**74**	⇓P	**P**	**19 44 55.4**	**+0.3**
	baz=40						
CMW	**Cultus Mountai**	**40.69**	**75**	P	**P**	**19 44 56.8**	**+0.2**
C04A	**Brinnon**	**40.79**	**76**	⇑P	**P**	**19 44 58.7**	**+1.3**
	baz=41						
B05A	**Bryant**	**40.81**	**75**	⇑P	**P**	**19 44 57.3**	**-0.3**
	baz=41						
B06A	**Marblemount**	**40.92**	**74**	⇑P	**P**	**19 44 58.8**	**+0.3**
	baz=41						
A07A	**Ashnola River,**	**41.06**	**73**	P	**P**	**19 44 59.8**	**+0.2**
	baz=41,SNR=14						
EDM	**Edmonton**	**41.32**	**64**	P	**P**	**19 44 57.2**	**-4.5**
E03A	**Lebam**	**41.35**	**78**	⇓P	**P**	**19 45 02.4**	**+0.4**
	baz=41						
C05A	**Tolt Reservoir**	**41.41**	**75**	⇑P	**P**	**19 45 02.5**	**0.0**
	baz=41						
B07A	**Winthrop**	**41.60**	**73**	P	**P**	**19 45 04.4**	**+0.3**
	baz=41,SNR=9.9						
C06A	**Tall Timber Ra**	**41.62**	**74**	⇓P	**P**	**19 45 03.9**	**-0.3**
	baz=42						
D05A	**Enumclaw**	**41.63**	**76**	⇓P	**P**	**19 45 04.4**	**0.0**
	baz=42						
A08A	**Turner Farm, O**	**41.64**	**72**	P	**P**	**19 45 04.7**	**+0.3**
	baz=42,SNR=25						
A09A	**Danville**	**41.94**	**72**	P	**P**	**19 45 07.3**	**+0.4**
	baz=42,SNR=12						
FMW	**Mount Fremont**	**41.97**	**76**	P	**P**	**19 45 07.5**	**+0.4**
ZALV	**Zalesovo Beam**	**42.02**	**299**	P	**P**	**19 45 09.1**	**+1.6**
ZALV				PcP	PcP	19 47 01.9	-0.3
ZALV				LR	LR	20 04 32.8	
ZALV	**Zalesovo Beam**	**42.02**	**299**	P	**P**	**19 45 09.1**	**+1.6**
	comp=Z,2.0nm,0.7s,mb3.9,baz=23,slow=5.3,SNR=12						
ZALV				PcP	PcP	19 47 01.9	-0.3
	comp=Z,1.6nm,0.6s,baz=4.9,slow=5.1,SNR=4.5						
ZALV				LR	LR	20 04 32.8	
	comp=Z,472nm,18.2s,MS4.4,baz=76,slow=39						
B08A	**Colville Reser**	**42.04**	**73**	⇑P	**P**	**19 45 07.6**	**0.0**
	baz=42						
ZAL	**Zalesovo**	**42.04**	**299**	P	**P**	**19 45 09.1**	**+1.5**
ZAL						19 47 01.9	
NVS	**Novosibirsk**	**42.07**	**301**	*i* P	**P**	**19 45 07.5**	**-0.4**
NVS				pmax	pmax		
	comp=N,11nm,1.3s						
NVS				pmax	pmax		
	comp=E,21nm,1.3s						
NVS				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.6						
D06A	**Cle Elum**	**42.17**	**75**	⇑P	**P**	**19 45 08.4**	**-0.3**
	baz=42						
C07A	**Waterville**	**42.18**	**74**	⇓P	**P**	**19 45 09.1**	**+0.3**
	baz=42						
E05A	**Randle**	**42.20**	**76**	⇓P	**P**	**19 45 09.3**	**+0.3**
	baz=42						
WTV	**Waterville**	**42.22**	**74**	P	**P**	**19 45 09.2**	**0.0**
TBM	**Table Mountain**	**42.30**	**75**	P	**P**	**19 45 09.8**	**-0.1**
A10A	**Northport**	**42.41**	**71**	⇑P	**P**	**19 45 11.0**	**+0.3**
	baz=42						
DAG	**Danmarks Havn**	**42.43**	**2**	⇓*e*P	**P**	**19 45 10.4**	**-0.2**
DAG				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.7						
DAG	**Danmarks Havn**	**42.43**	**2**	⇓*i*P	**P**	**19 45 10.4**	**-0.2**
	comp=Z,17nm,0.9s,mb4.7						
B09A	**Rice**	**42.54**	**72**	⇓P	**P**	**19 45 11.7**	**0.0**
	baz=42						
NJ2	**Nanjing**	**42.56**	**250**	*e*P	**P**	**19 45 11.5**	**-0.6**
NJ2				AP	pP	19 45 16.0	-0.1
NJ2				XP	sP	19 45 18.8	+1.1
NJ2				PP	PP	19 46 53.0	+2.4
NJ2				S	**S**	**19 51 32.0**	**-2.0**
NJ2				XS	sS	19 51 40.0	-0.7
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
NJ2				AMB	AMB		
	comp=Z,490nm,6.4s						
NJ2				LR	LR		
	comp=N,4µm,23.0s,MS5.3						
NJ2				LR	LR		
	comp=E,4µm,25.7s,MS5.3						
NJ2				LR	LR		
	comp=Z,3µm,20.0s						
E06A	**Yakima**	**42.58**	**76**	⇑P	**P**	**19 45 12.1**	**0.0**
	baz=42						
D07A	**Quincy**	**42.58**	**74**	⇓P	**P**	**19 45 12.1**	**0.0**
	baz=42						
C08A	**Higginbotham F**	**42.58**	**73**	P	**P**	**19 45 11.9**	**-0.2**
	baz=42,SNR=12						
EPH	**Ephrata**	**42.64**	**74**	P	**P**	**19 45 12.4**	**-0.2**
A11A	**Hall Mountain,**	**42.98**	**70**	P	**P**	**19 45 15.8**	**+0.5**
	baz=43,SNR=12						
OD2	**Odessa Site #2**	**43.02**	**73**	P	**P**	**19 45 15.4**	**-0.3**
E07A	**Sunnyside**	**43.10**	**75**	⇓P	**P**	**19 45 16.3**	**0.0**
	baz=43						
NEW	**Newport**	**43.13**	**71**	*e*P	**P**	**19 45 15.7**	**-0.8**
	comp=Z,11nm,0.8s,mb4.6						
NEW	**Newport**	**43.13**	**71**	*e*P	**P**	**19 45 15.7**	**-0.8**
NEW				pmax	pmax		
	comp=Z,11nm,0.8s						
D08A	**Wollman Farm,**	**43.17**	**74**	P	**P**	**19 45 16.9**	**0.0**
	baz=43,SNR=11						
F06A	**Goldendale**	**43.24**	**76**	⇑P	**P**	**19 45 17.5**	**0.0**
	baz=43						
A12A	**Yaak River Ran**	**43.32**	**70**	P	**P**	**19 45 18.8**	**+0.7**
	baz=43,SNR=14						
B11A	**Sandpoint**	**43.35**	**71**	⇓P	**P**	**19 45 18.3**	**-0.1**
	baz=43						
G05A	**Wamic**	**43.37**	**77**	⇓P	**P**	**19 45 17.9**	**-0.6**
	baz=43						
D09A	**Jones Farm, Ri**	**43.45**	**73**	⇓P	**P**	**19 45 19.4**	**+0.3**
	baz=43						
E08A	**Dider Farm, El**	**43.52**	**74**	⇓P	**P**	**19 45 19.4**	**-0.3**
	baz=43						
F07A	**Phinny Hill Vi**	**43.55**	**76**	⇓P	**P**	**19 45 19.9**	**0.0**
	baz=43						
H05A	**Madras**	**43.86**	**78**	⇑P	**P**	**19 45 22.8**	**+0.3**
	baz=44						
A13A	**Flathead Natio**	**43.89**	**69**	⇑P	**P**	**19 45 21.9**	**-0.7**
	baz=44						
I04A	**Tendick Farm,**	**43.93**	**80**	⇓P	**P**	**19 45 23.4**	**+0.4**
	baz=44						
E09A	**Wood Farm, Sta**	**43.93**	**74**	⇑P	**P**	**19 45 22.7**	**-0.3**
	baz=44						
D10A	**Wagner Farm, O**	**43.94**	**73**	⇓P	**P**	**19 45 22.7**	**-0.4**
	baz=44						
J03A	**Ideyld Park**	**43.98**	**80**	⇓P	**P**	**19 45 23.5**	**+0.1**
	baz=44						
G07A	**Ruggs Ranch, H**	**44.14**	**76**	⇑P	**P**	**19 45 24.7**	**0.0**
	baz=44						
H06A	**Lindquist Farm**	**44.22**	**77**	⇓P	**P**	**19 45 26.0**	**+0.6**
	baz=44						
B13A	**Whitefish**	**44.27**	**69**	P	**P**	**19 45 25.8**	**+0.1**
	baz=44,SNR=15						
E10A	**Myers Farm, Un**	**44.44**	**73**	⇓P	**P**	**19 45 27.0**	**0.0**
	baz=44						
G08A	**Pilot Rock**	**44.45**	**76**	⇓P	**P**	**19 45 26.6**	**-0.6**
	baz=44						
J04A	**Umpqua Nationa**	**44.49**	**80**	⇓P	**P**	**19 45 27.6**	**+0.1**
	baz=44						
BSMT	**Bassoo Peak**	**44.50**	**70**	P	**P**	**19 45 28.0**	**+0.4**
F09A	**S2 Ranch, Elgi**	**44.64**	**74**	⇓P	**P**	**19 45 29.0**	**+0.3**
	baz=44						
H07A	**Lands Inn, Kim**	**44.69**	**77**	⇓P	**P**	**19 45 29.1**	**0.0**
	baz=44						
C13A	**Hot Springs**	**44.73**	**70**	P	**P**	**19 45 29.6**	**+0.2**
	baz=44,SNR=19						
F10A	**Beach Ranch, E**	**44.76**	**74**	P	**P**	**19 45 29.4**	**-0.2**
	baz=45,SNR=15						
D12A	**Red Ives Fores**	**44.83**	**71**	⇓P	**P**	**19 45 30.8**	**+0.6**
	baz=45						
I06A	**Prineville**	**44.87**	**78**	⇓P	**P**	**19 45 31.5**	**+1.0**
	baz=45						
J05A	**Fort Rock**	**44.87**	**79**	⇑P	**P**	**19 45 30.6**	**0.0**
	baz=45						
E11A	**Bogner Ranch,**	**44.95**	**73**	P	**P**	**19 45 30.4**	**-0.8**
	baz=45,SNR=10						
G09A	**Cove**	**45.02**	**75**	⇑P	**P**	**19 45 31.1**	**-0.6**
	baz=45						
FFC	**Flin Flon**	**45.02**	**55**	P	**P**	**19 45 31.5**	**-0.1**
	comp=Z,97nm,1.1s,mb5.5,SNR=7.1						
FFC	**Flin Flon**	**45.02**	**55**	*e*P	**P**	**19 45 30.7**	**-0.9**
	comp=Z,19nm,1.0s,mb4.9						
FFC	**Flin Flon**	**45.02**	**55**	P	**P**	**19 45 30.4**	**-1.2**
FFC				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.9						
C14A	**Swan Lake**	**45.04**	**69**	⇑P	**P**	**19 45 31.8**	**-0.1**
	baz=45						
FCC	**Fort Churchill**	**45.05**	**47**	*e*P	**P**	**19 45 30.7**	**-1.1**
	comp=Z,21nm,1.0s,mb4.9						
FCC	**Fort Churchill**	**45.05**	**47**	*e*P	**P**	**19 45 30.7**	**-1.1**
FCC				pmax	pmax		
	comp=Z,21nm,1.0s,mb4.9						
H08A	**Prairie City**	**45.17**	**76**	P	**P**	**19 45 33.0**	**+0.1**
	baz=45,SNR=11						
F11A	**Grangeville**	**45.32**	**73**	P	**P**	**19 45 33.9**	**-0.2**
	baz=45,SNR=9.1						
YBH	**Yreka Blue Hor**	**45.34**	**82**	*e*P	**P**	**19 45 35.2**	**+0.9**
	comp=Z,16nm,1.0s,mb4.8						
YBH	**Yreka Blue Hor**	**45.34**	**82**	*e*P	**P**	**19 45 35.3**	**+1.0**
YBH				pmax	pmax		
	comp=Z,16nm,1.0s						
YBH	**Yreka Blue Hor**	**45.34**	**82**	⇑P	**P**	**19 45 34.7**	**+0.4**
	baz=45						
J06A	**Christmas Vall**	**45.42**	**78**	P	**P**	**19 45 35.3**	**+0.4**
	baz=45,SNR=6.9						
K05A	**Summer Lake**	**45.46**	**79**	⇓P	**P**	**19 45 35.3**	**0.0**
	baz=45						
BMO	**Blue Mountains**	**45.56**	**75**	*e*P	**P**	**19 45 35.8**	**-0.3**
	comp=Z,11nm,0.9s,mb4.8						
MSO	**Missoula**	**45.65**	**70**	*e*P	**P**	**19 45 36.1**	**-0.6**
	comp=Z,18nm,1.3s,mb4.8						
D14A	**Greenough**	**45.66**	**70**	P	**P**	**19 45 36.7**	**-0.1**
	baz=46,SNR=19						
I08A	**Drewsey**	**45.67**	**77**	⇑P	**P**	**19 45 36.6**	**-0.3**
	baz=46						
K06A	**Valley Falls**	**45.71**	**79**	⇑P	**P**	**19 45 37.0**	**-0.3**
	baz=46						
M04C	**Macdoel**	**45.73**	**81**	⇑P	**P**	**19 45 38.1**	**+0.7**
	baz=46						
GTA	**Gaotai**	**45.75**	**274**	*e*P	**P**	**19 45 37.5**	**-0.1**
GTA				AP	pP	19 45 42.0	+0.3
GTA				XP	sP	19 45 45.3	+2.0
GTA				PCP	PcP	19 47 16.3	+1.2
GTA				PP	PP	19 47 28.0	+3.5
GTA				SCP	ScP	19 51 04.0	-3.3
GTA				S	**S**	**19 52 19.5**	**-0.9**
GTA				XS	sS	19 52 28.8	+1.7
GTA				SCS	ScS	19 55 28.5	-4.4
GTA				AMB	AMB		
	comp=Z,7.0nm,1.2s,mb4.5						
GTA				AMB	AMB		
	comp=Z,142nm,4.9s						
GTA				LR	LR		
	comp=N,489nm,13.7s,MS4.7						
GTA				LR	LR		
	comp=E,470nm,17.1s,MS4.7						
GTA				LR	LR		
	comp=Z,407nm,19.0s,MS4.4						
E13A	**Victor**	**45.82**	**71**	⇓P	**P**	**19 45 36.4**	**-1.6**
	baz=46						
F12A	**Elk City**	**45.84**	**72**	P	**P**	**19 45 38.1**	**-0.1**
	baz=46,SNR=23						
CHMT	**Chamberlain Mo**	**45.90**	**70**	*e*P	**P**	**19 45 38.2**	**-0.5**
H10A	**Noah’s Angus R**	**46.02**	**75**	P	**P**	**19 45 39.6**	**0.0**
	baz=46,SNR=8.9						
J08A	**Circle Bar Ran**	**46.13**	**77**	⇓P	**P**	**19 45 40.3**	**-0.3**
	baz=46						
D15A	**Lincoln**	**46.14**	**69**	⇓P	**P**	**19 45 40.5**	**-0.1**
	baz=46						
E14A	**Clinton**	**46.16**	**71**	P	**P**	**19 45 40.8**	**+0.1**
	baz=46,SNR=19						
F13A	**Darby**	**46.24**	**72**	⇑P	**P**	**19 45 41.6**	**+0.3**
	baz=46						
K07A	**Rock Creek Ran**	**46.27**	**78**	⇑P	**P**	**19 45 41.7**	**0.0**
	baz=46						
H11A	**Donnelly**	**46.28**	**74**	P	**P**	**19 45 41.9**	**+0.2**
	baz=46,SNR=32						
WDC	**Whiskeytown Da**	**46.31**	**83**	⇓P	**P**	**19 45 42.4**	**+0.4**
	baz=46						
MOD	**Modoc**	**46.37**	**80**	*e*P	**P**	**19 45 42.3**	**-0.2**
	comp=Z,9.5nm,0.9s,mb4.7						
MOD	**Modoc**	**46.37**	**80**	⇓P	**P**	**19 45 42.8**	**+0.4**
	baz=46						
M05C	**Lookout**	**46.38**	**81**	⇑P	**P**	**19 45 42.6**	**+0.1**
	baz=46						
LZH	**Lanzhou**	**46.41**	**267**	⇑P	**P**	**19 45 42.5**	**-0.3**
LZH				AP	pP	19 45 47.0	+0.1
LZH				XP	sP	19 45 49.8	+1.3
LZH				PP	PP	19 47 32.5	+1.0
LZH				*e*S	**S**	**19 52 28.8**	**-1.0**
LZH				XS	sS	19 52 35.8	-0.8
LZH				*e*SS	SS	19 55 46.0	-9.1
LZH				AMB	AMB		
	comp=Z,41nm,1.2s,mb5.2						
LZH				AMB	AMB		
	comp=Z,253nm,8.0s						
LZH				LR	LR		
	comp=N,995nm,14.5s						
LZH				LR	LR		
	comp=Z,1µm,17.8s,MS5.0						
J09A	**Fry Pan Ranch,**	**46.48**	**76**	P	**P**	**19 45 43.9**	**+0.6**
	baz=46,SNR=11						
KEV	**Kevo**	**46.49**	**342**	*e*p	**P**	**19 45 41.4**	**-1.6**
	comp=Z,4.3nm,0.7s,mb4.5						
KEV	**Kevo**	**46.49**	**342**	*e*P	**P**	**19 45 41.4**	**-1.6**
KEV				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
E15A	**Deer Lodge**	**46.55**	**70**	P	**P**	**19 45 44.1**	**+0.3**
	baz=46,SNR=10						
K08A	**Mann Creek Ran**	**46.61**	**78**	P	**P**	**19 45 44.8**	**+0.5**
	baz=46,SNR=9.7						
HATC	**Hat Creek Radi**	**46.65**	**82**	⇓P	**P**	**19 45 44.1**	**-0.5**
	baz=46						
EGMT	**Eagleton**	**46.65**	**66**	*e*P	**P**	**19 45 43.9**	**-0.6**
	comp=Z,37nm,1.1s,mb5.2						
EGMT	**Eagleton**	**46.65**	**66**	P	**P**	**19 45 44.3**	**-0.3**
	baz=46,SNR=15						
F14A	**Wisdom**	**46.67**	**71**	⇓P	**P**	**19 45 45.0**	**+0.2**
	baz=46						
L07A	**Adell**	**46.74**	**79**	⇑P	**P**	**19 45 45.4**	**0.0**
	baz=47						
G13A	**Cobalt**	**46.81**	**72**	⇑P	**P**	**19 45 45.8**	**-0.1**
	baz=47						
M06C	**Likely Place G**	**46.82**	**80**	⇓P	**P**	**19 45 46.4**	**+0.4**
	baz=47						
I11A	**Placerville**	**46.90**	**75**	⇓P	**P**	**19 45 46.9**	**+0.3**
	baz=47						
ARCES	**ARCESS Array B**	**46.91**	**343**	P	**P**	**19 45 46.0**	**-0.3**
	comp=Z,14nm,0.8s,mb5.0,baz=26,slow=7.7,SNR=25						
ARCES				PcP	PcP	19 47 18.0	-0.7
	comp=Z,3.0nm,0.8s,baz=0.0,slow=4.0,SNR=2.7						
ARE0	**ARCESS Array S**	**46.91**	**343**	*e*P	**P**	**19 45 45.9**	**-0.4**
H12A	**Diamond D Ranc**	**46.94**	**73**	⇑P	**P**	**19 45 47.4**	**+0.6**
	baz=47						
GASB	**Alder Springs**	**46.95**	**84**	⇓P	**P**	**19 45 47.7**	**+0.7**
	baz=47						
KURK	**Kurchatov**	**46.99**	**300**	P	**P**	**19 45 46.2**	**-1.0**
	comp=Z,179nm,1.0s,mb6.0,SNR=20						
KURK	**Kurchatov**	**46.99**	**300**	*e*P	**P**	**19 45 46.1**	**-1.1**
	comp=Z,50nm,1.2s,mb5.3						
KURK	**Kurchatov**	**46.99**	**300**	⇓*i*P	**P**	**19 45 46.6**	**-0.6**
K09A	**Rome**	**46.99**	**77**	P	**P**	**19 45 47.5**	**+0.3**
	baz=47,SNR=6.2						
F15A	**Butte**	**47.05**	**70**	P	**P**	**19 45 47.7**	**0.0**
	baz=47,SNR=9.8						
G14A	**Jackson**	**47.06**	**72**	⇑P	**P**	**19 45 48.0**	**+0.3**
	baz=47						
L08A	**Fields**	**47.09**	**78**	P	**P**	**19 45 48.5**	**+0.5**
	baz=47,SNR=8.3						
H13A	**Challis**	**47.20**	**73**	⇑P	**P**	**19 45 48.6**	**-0.4**
	baz=47						
O04C	**Chester**	**47.22**	**82**	⇓P	**P**	**19 45 49.1**	**+0.1**
	baz=47						
M07A	**Soldier Meadow**	**47.31**	**79**	⇓P	**P**	**19 45 49.8**	**0.0**
	baz=47,SNR=8.5						
K10A	**MacKenzie Ranc**	**47.34**	**76**	P	**P**	**19 45 50.5**	**+0.5**
	baz=47,SNR=5.8						
MFID	**Camas Ranch**	**47.34**	**75**	P	**P**	**19 45 50.0**	**0.0**
	baz=47,SNR=15						
DLMT	**Dillon**	**47.37**	**71**	*e*P	**P**	**19 45 50.2**	**+0.1**
	comp=Z,16nm,0.9s,mb5.0						
APA	**Apatity**	**47.38**	**338**	⇑*i*P	**P**	**19 45 52.5**	**+2.5**
N06A	**Buffalo Meadow**	**47.48**	**80**	P	**P**	**19 45 51.4**	**+0.2**
	baz=47,SNR=6.1						
G15A	**Dillon**	**47.56**	**71**	P	**P**	**19 45 52.0**	**+0.3**
	baz=47,SNR=23						
BOZ	**Bozeman (W)**	**47.59**	**70**	P	**P**	**19 45 52.3**	**+0.4**
	baz=47,SNR=6.1						
ORV	**Oroville**	**47.61**	**83**	⇑P	**P**	**19 45 51.3**	**-0.8**
	baz=48						
M08A	**Happy Creek Ra**	**47.64**	**79**	⇓P	**P**	**19 45 52.7**	**+0.4**
	baz=48						
MCMT	**McKenzie Canyo**	**47.66**	**71**	*e*P	**P**	**19 45 50.7**	**-1.7**
MNRC	**McLaughlin Nat**	**47.68**	**84**	⇑P	**P**	**19 45 53.8**	**+1.1**
	baz=48						
K11A	**Parker Ranch,**	**47.74**	**76**	⇓P	**P**	**19 45 52.8**	**-0.3**
	baz=48						
I13A	**Wildhorse Cree**	**47.76**	**73**	P	**P**	**19 45 52.9**	**-0.4**
	baz=48,SNR=59						
J12A	**Stokes Ranch,**	**47.81**	**75**	P	**P**	**19 45 53.7**	**0.0**
	baz=48,SNR=22						
N07B	**Gerlach**	**47.88**	**80**	P	**P**	**19 45 55.0**	**+0.8**
	baz=48,SNR=10.0						
HLID	**Hailey**	**47.89**	**74**	*e*P	**P**	**19 45 53.7**	**-0.6**
	comp=Z,13nm,1.0s,mb4.9						
HLID	**Hailey**	**47.89**	**74**	P	**P**	**19 45 54.1**	**-0.2**
	baz=48,SNR=15						
BEKR	**Beckwourth**	**47.92**	**82**	⇓P	**P**	**19 45 54.9**	**+0.4**
	baz=48						
O06A	**Flanigan**	**47.94**	**81**	⇓P	**P**	**19 45 54.2**	**-0.6**
	baz=48						
L10A	**Juniper Basin**	**48.06**	**77**	⇑P	**P**	**19 45 56.0**	**+0.3**
	baz=48,SNR=13						
CVS	**Carmenet Viney**	**48.09**	**85**	⇓P	**P**	**19 45 55.1**	**-0.8**
	baz=48						
J13A	**Cove Ranch, Pi**	**48.13**	**74**	⇓P	**P**	**19 45 55.5**	**-0.7**
	baz=48						
WMQ	**Urumqi**	**48.15**	**287**	P	**P**	**19 45 56.5**	**+0.2**
WMQ				AP	pP	19 46 01.0	+0.6
WMQ				XP	sP	19 46 03.5	+1.6
WMQ				PCP	PcP	19 47 24.0	+0.5
WMQ				PP	PP	19 47 49.5	+1.3
WMQ				SCP	ScP	19 51 16.8	-0.5
WMQ				S	**S**	**19 52 44.8**	**-10**

WMQ				XS	sS	19 53 02.0	+0.8
WMQ				AMB	AMB		
	comp=Z,17nm,1.1s,mb5.0						
WMQ				AMB	AMB		
	comp=Z,254nm,8.0s						
WMQ				LR	LR		
	comp=N,376nm,24.8s,MS4.3						
WMQ				LR	LR		
	comp=E,125nm,22.5s,MS4.3						
WMQ				LR	LR		
	comp=Z,153nm,16.1s						
P05C	**Yuba Gap, Truc**	**48.24**	**82**	⇑P	**P**	**19 45 56.8**	**-0.2**
	baz=48						
N08A	**GE Springer Mi**	**48.27**	**79**	⇑P	**P**	**19 45 57.3**	**+0.1**
	baz=48						
QLMT	**Earthquake Lak**	**48.31**	**70**	*e*P	**P**	**19 45 57.6**	**+0.1**
L11A	**Cat Creek Ranc**	**48.34**	**76**	P	**P**	**19 45 58.1**	**+0.4**
	baz=48,SNR=14						
MK31	**Makanchi Array**	**48.35**	**294**	*e*P	**P**	**19 45 56.1**	**-1.6**
MK31	**Makanchi Array**	**48.35**	**294**	P	**P**	**19 45 56.7**	**-1.1**
MKAR	**Makanchi Array**	**48.35**	**294**	P	**P**	**19 45 56.5**	**-1.2**
	comp=Z,2.9nm,0.7s,mb4.4,baz=45,slow=7.2,SNR=19						
MKAR				LR	LR	20 07 42.8	
	comp=Z,355nm,19.0s,MS4.4,baz=264,slow=38						
O07A	**Toulon**	**48.40**	**80**	P	**P**	**19 45 59.1**	**+0.9**
	baz=48,SNR=6.6						
M10A	**I.L. Ranch, Tu**	**48.46**	**77**	⇑P	**P**	**19 45 59.0**	**+0.3**
	baz=48						
N09A	**Rock Creek Ran**	**48.51**	**78**	⇓P	**P**	**19 45 58.8**	**-0.3**
	baz=48						
LAVA	**Lava Cap Winer**	**48.60**	**83**	⇓P	**P**	**19 45 59.6**	**-0.2**
	baz=48						
BRVK	**Borovoye**	**48.61**	**307**	P	**P**	**19 45 59.5**	**-0.2**
	comp=Z,126nm,1.4s,mb5.8,SNR=15						
BRVK	**Borovoye**	**48.61**	**307**	*e*P	**P**	**19 45 59.5**	**-0.2**
	comp=Z,29nm,1.2s,mb5.2						
BRVK	**Borovoye**	**48.61**	**307**	*e*P	**P**	**19 45 59.5**	**-0.2**
BRVK				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.2						
BRVK	**Borovoye**	**48.61**	**307**	P	**P**	**19 46 00.3**	**+0.6**
	SNR=12						
L12A	**House Creek Ra**	**48.70**	**75**	⇑P	**P**	**19 45 59.9**	**-0.6**
	baz=48						
YNR	**Norris Junctio**	**48.74**	**70**	*e*P	**P**	**19 45 57.0**	**-3.8**
DGMT	**Dagmar**	**48.76**	**62**	*e*P	**P**	**19 46 00.5**	**-0.4**
	comp=Z,17nm,0.8s,mb5.1						
YFT	**Old Faithful**	**48.87**	**70**	*e*P	**P**	**19 46 02.8**	**+0.9**
R05C	**Kirkwood Meado**	**48.97**	**82**	⇓P	**P**	**19 46 02.4**	**-0.2**
	baz=49						
LKWY	**Lake**	**48.98**	**70**	*e*P	**P**	**19 46 03.8**	**+1.1**
	comp=Z,10nm,0.8s,mb4.9						
LKWY	**Lake**	**48.98**	**70**	*e*P	**P**	**19 46 03.8**	**+1.1**
LKWY				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
RLMT	**Red Lodge**	**49.07**	**69**	*e*P	**P**	**19 46 03.7**	**+0.4**
	comp=Z,30nm,1.1s,mb5.2						
O09A	**Fish Creek Ran**	**49.20**	**79**	P	**P**	**19 46 05.0**	**+0.6**
	baz=49,SNR=5.3						
LAO	**LASA Array**	**49.23**	**65**	*e*P	**P**	**19 46 03.8**	**-0.8**
	comp=Z,28nm,1.0s,mb5.2						
L13A	**Double Diamond**	**49.25**	**75**	P	**P**	**19 46 05.5**	**+0.8**
	baz=49,SNR=6.3						
K14A	**Jones Ranch, D**	**49.26**	**74**	P	**P**	**19 46 05.7**	**+0.9**
	baz=49,SNR=9.2						
DCID1	**Drake Creek**	**49.37**	**71**	*e*P	**P**	**19 46 06.0**	**+0.3**
TMCR	**Tamitsa**	**49.44**	**333**	*e*P	**P**	**19 46 05.5**	**-0.4**
TMCR				pmax	pmax		
	comp=Z,58nm,1.3s,mb5.5						
TPAW	**Teton Pass**	**49.56**	**71**	*e*P	**P**	**19 46 07.6**	**+0.5**
	comp=Z,11nm,0.7s,mb5.0						
LOHW	**Long Hollow**	**49.62**	**71**	*e*P	**P**	**19 46 07.9**	**+0.3**
	comp=Z,20nm,1.2s,mb5.0						
ELK	**Elko**	**49.68**	**77**	*e*P	**P**	**19 46 08.1**	**0.0**
	comp=Z,8.0nm,0.8s,mb4.8						
ELK	**Elko**	**49.68**	**77**	*e*P	**P**	**19 46 08.1**	**0.0**
ELK				pmax	pmax		
	comp=Z,8.0nm,0.8s						
N12A	**Clover Valley,**	**49.69**	**77**	P	**P**	**19 46 09.0**	**+0.8**
	baz=50,SNR=6.7						
REDW	**Red Top Meadow**	**49.70**	**71**	*e*P	**P**	**19 46 08.2**	**+0.1**
	comp=Z,28nm,1.2s,mb5.2						
PACP	**Pacheco Peak**	**49.72**	**85**	⇑P	**P**	**19 46 08.5**	**+0.2**
	baz=50						
Q08A	**Gabbs**	**49.87**	**80**	⇑P	**P**	**19 46 09.9**	**+0.4**
	baz=50						
S05C	**Merced**	**49.91**	**84**	⇑P	**P**	**19 46 10.0**	**+0.1**
	baz=50						
O11A	**Cowboy Ranch,**	**49.96**	**78**	⇑P	**P**	**19 46 10.3**	**0.0**
	baz=50						
M14A	**Sheep Mountain**	**49.98**	**75**	P	**P**	**19 46 10.6**	**+0.2**
	baz=50,SNR=9.5						
NVAR	**Mina Array Bea**	**50.03**	**81**	P	**P**	**19 46 11.2**	**+0.4**
	comp=Z,5.1nm,0.8s,mb4.6,baz=319,slow=6.7,SNR=12						
HVU	**Hansel Valley**	**50.04**	**74**	*e*P	**P**	**19 46 10.8**	**+0.1**
	comp=Z,7.0nm,0.8s,mb4.7						
HVU	**Hansel Valley**	**50.04**	**74**	*e*P	**P**	**19 46 10.8**	**+0.1**
HVU				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
HAST	**UC Hastings Re**	**50.08**	**85**	⇑P	**P**	**19 46 11.3**	**+0.2**
	baz=50						
ARU	**Arti**	**50.22**	**317**	P	**P**	**19 46 11.8**	**-0.1**
	comp=Z,104nm,1.3s,mb5.7,SNR=6.4						
ARU	**Arti**	**50.22**	**317**	*d i*P	**P**	**19 46 11.6**	**-0.3**
ARU				*e*		19 48 03.0	
ARU				*e*S	**S**	**19 53 22.2**	**-1.0**
ARU				*e*SS	SS	19 56 50.1	-5.7
ARU				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.1						
ARU				MLR	MLR		
	comp=Z,416nm,13.0s,MS4.6						
O12A	**Currie**	**50.29**	**77**	P	**P**	**19 46 13.0**	**+0.3**
	baz=50,SNR=9.9						
KCC	**Kaiser Creek**	**50.42**	**83**	⇑P	**P**	**19 46 13.2**	**-0.5**
	baz=50						
M15A	**Larsen Ranch,**	**50.44**	**74**	⇑P	**P**	**19 46 12.8**	**-1.0**
	baz=50,SNR=9.3						
T06C	**Millerton Lake**	**50.48**	**83**	⇓P	**P**	**19 46 14.0**	**-0.2**
	baz=50						
N14A	**Grayback Hills**	**50.57**	**75**	⇑P	**P**	**19 46 14.5**	**-0.3**
	baz=50						
Q10A	**Clear Creek Ra**	**50.64**	**79**	P	**P**	**19 46 15.9**	**+0.6**
	baz=50,SNR=14						
CD2	**Chengdu**	**50.65**	**264**	*e*P	**P**	**19 46 14.5**	**-1.0**
CD2				AP	pP	19 46 19.3	-0.3
CD2				XP	sP	19 46 21.8	+0.6
CD2				PP	PP	19 48 13.5	+2.3
CD2				S	**S**	**19 53 26.3**	**-3.5**
CD2				XS	sS	19 53 34.0	-2.5
CD2				SS	SS	19 56 57.0	-6.7
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
CD2				AMB	AMB		
	comp=Z,30nm,6.4s						
CD2				LR	LR		
	comp=N,80nm,10.8s,MS4.5						
CD2				LR	LR		
	comp=E,260nm,10.8s,MS4.5						
CD2				LR	LR		
	comp=Z,150nm,9.6s						
O13A	**Hicks Ranch, I**	**50.76**	**76**	⇑P	**P**	**19 46 15.9**	**-0.3**
	baz=51						
PDAR	**Pinedale Array**	**50.76**	**71**	P	**P**	**19 46 16.1**	**-0.1**
	comp=Z,6.7nm,0.8s,mb4.7,baz=322,slow=2.8,SNR=59						
PDAR				LR	LR	20 10 28.2	
	comp=Z,132nm,19.7s,MS4.0,baz=168,slow=39						
R09A	**Tonopah**	**50.78**	**80**	⇓P	**P**	**19 46 17.1**	**+0.7**
	baz=51						
S08C	**White Mtn Res**	**50.83**	**82**	⇑P	**P**	**19 46 17.3**	**+0.4**
	baz=51						
TPH	**Tonopah**	**50.83**	**80**	*e*P	**P**	**19 46 17.2**	**+0.4**
	comp=Z,13nm,1.0s,mb4.8						
TPH	**Tonopah**	**50.83**	**80**	*e*P	**P**	**19 46 17.2**	**+0.4**
TPH				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
P12A	**McGill**	**50.84**	**78**	P	**P**	**19 46 17.2**	**+0.3**
	baz=51,SNR=7.7						
ULM	**Lac du Bonnet**	**50.85**	**55**	*e*P	**P**	**19 46 16.4**	**-0.3**
	comp=Z,29nm,0.9s,mb5.2						
ULM	**Lac du Bonnet**	**50.85**	**55**	P	**P**	**19 46 16.5**	**-0.2**
	comp=Z,18nm,0.8s,mb5.0,baz=319,slow=8.3,SNR=16						
ULM				LR	LR	20 08 59.5	
	comp=Z,132nm,19.7s,MS4.0,baz=34,slow=38						
N15A	**Stansbury Isla**	**50.85**	**75**	⇓P	**P**	**19 46 16.9**	**0.0**
	baz=51						
HELL	**Mitchell Peak,**	**51.07**	**83**	⇑P	**P**	**19 46 18.8**	**+0.1**
	baz=51						
R10A	**Warm Springs**	**51.11**	**80**	⇑P	**P**	**19 46 18.3**	**-0.5**
	baz=51						
S10A	**Tonopah Range,**	**51.26**	**80**	⇑P	**P**	**19 46 19.1**	**-0.8**
	baz=51						
DUG	**Dugway**	**51.26**	**75**	*e*P	**P**	**19 46 19.5**	**-0.5**
	comp=Z,9.6nm,1.0s,mb4.7						
DUG	**Dugway**	**51.26**	**75**	*e*P	**P**	**19 46 19.5**	**-0.5**
DUG				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
DUG	**Dugway**	**51.26**	**75**	⇑P	**P**	**19 46 19.4**	**-0.6**
	baz=51						
GRAC	**Grapevine Rang**	**51.62**	**81**	⇓P	**P**	**19 46 22.9**	**+0.2**
	baz=52						
NLU	**North Lily Min**	**51.80**	**75**	*e*P	**P**	**19 46 24.1**	**0.0**
S11A	**Rachel**	**51.88**	**80**	⇑P	**P**	**19 46 25.7**	**+1.0**
	baz=52						
R12A	**Pony Springs,**	**51.89**	**78**	P	**P**	**19 46 25.0**	**+0.3**
	baz=52,SNR=7.4						
JOF	**Joensuu**	**51.94**	**336**	*e*p	**P**	**19 46 23.1**	**-1.7**
	comp=Z,11nm,0.9s,mb4.8						
PKM	**Peak Mountain**	**52.12**	**85**	⇑P	**P**	**19 46 26.4**	**0.0**
	baz=52						
TPNV	**Topopah Spring**	**52.20**	**81**	*e*P	**P**	**19 46 26.0**	**-1.0**
	comp=Z,7.5nm,1.0s,mb4.6						
TPNV	**Topopah Spring**	**52.20**	**81**	*e*P	**P**	**19 46 26.0**	**-1.0**
TPNV				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
TPNV	**Topopah Spring**	**52.20**	**81**	⇑P	**P**	**19 46 27.2**	**+0.1**
	baz=52						
MPMC	**Manual Prospec**	**52.31**	**82**	⇓P	**P**	**19 46 27.7**	**-0.1**
	baz=52						
S12A	**Delamar Landin**	**52.34**	**79**	P	**P**	**19 46 29.0**	**+0.9**
	baz=52,SNR=6.0						
AGMN	**Agassiz Refuge**	**52.39**	**57**	*e*P	**P**	**19 46 27.8**	**-0.5**
	comp=Z,21nm,1.0s,mb5.0						
T11A	**Corn Creek, Al**	**52.46**	**79**	P	**P**	**19 46 29.3**	**+0.3**
	baz=52,SNR=6.8						
U10A	**Ash Meadows, A**	**52.58**	**81**	⇓P	**P**	**19 46 30.0**	**+0.1**
	baz=52						
LRMC	**Laurel Mountai**	**52.68**	**83**	⇓P	**P**	**19 46 31.5**	**+0.8**
	baz=52						
S13A	**Holt Ranch, En**	**52.84**	**78**	⇓P	**P**	**19 46 31.8**	**+0.1**
	baz=53						
ARUT	**Antelope Range**	**52.87**	**78**	*e*P	**P**	**19 46 32.4**	**+0.4**
MSU	**Marysvale**	**52.89**	**76**	*e*P	**P**	**19 46 33.1**	**+0.9**
EDW2	**Edwards Air Fo**	**53.02**	**84**	⇓P	**P**	**19 46 32.7**	**-0.5**
	baz=53						
S14A	**Cedar City**	**53.02**	**77**	⇑P	**P**	**19 46 33.2**	**+0.1**
	baz=53						
GSC	**Goldstone**	**53.25**	**82**	⇓P	**P**	**19 46 34.4**	**-0.5**
	baz=53						
T14A	**Hurricane**	**53.62**	**78**	⇑P	**P**	**19 46 38.6**	**+1.0**
	baz=54						
KAF	**Kangasniemi**	**53.62**	**338**	*e*p	**P**	**19 46 35.2**	**-2.0**
	comp=Z,40nm,1.0s,mb5.3,baz=20,slow=7.0						
KAF	**Kangasniemi**	**53.62**	**338**	*e*P	**P**	**19 46 35.2**	**-2.0**
KAF				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
BFSC	**Mount Baldy St**	**53.70**	**84**	⇓P	**P**	**19 46 38.3**	**+0.2**
	baz=54						
U13A	**Pakoon Wash**	**53.72**	**79**	⇓P	**P**	**19 46 38.4**	**+0.1**
	baz=54						
V12A	**Nelson**	**53.85**	**80**	⇑P	**P**	**19 46 39.7**	**+0.5**
	baz=54						
T15A	**Red Dirt Ranch**	**53.99**	**77**	⇑P	**P**	**19 46 41.0**	**+0.7**
	baz=54						
U14A	**Mt Trumbull**	**54.09**	**78**	⇓P	**P**	**19 46 41.7**	**+0.7**
	baz=54						
GMRC	**Granite Mounta**	**54.22**	**82**	P	**P**	**19 46 42.4**	**+0.5**
	baz=54,SNR=8.2						
FIA1	**FINESS Array S**	**54.29**	**338**	*e*P	**P**	**19 46 41.5**	**-0.5**
FINES	**FINESS Array B**	**54.29**	**338**	P	**P**	**19 46 41.6**	**-0.5**
	comp=Z,14nm,0.9s,mb4.9,baz=44,slow=8.5,SNR=20						
EYMN	**Ely**	**54.42**	**54**	*e*P	**P**	**19 46 42.7**	**-0.5**
	comp=Z,23nm,1.1s,mb5.0						
USP	**Ospenovka**	**54.55**	**296**	P	**P**	**19 46 44.3**	**+0.1**
	SNR=5.6						
CHMS	**Chumysh**	**54.65**	**296**	P	**P**	**19 46 45.5**	**+0.5**
	SNR=5.6						
PFO	**Pinyon Flat Ob**	**54.79**	**83**	*e*P	**P**	**19 46 48.3**	**+2.2**
	comp=Z,9.7nm,0.9s,mb4.8						
PFO	**Pinyon Flat Ob**	**54.79**	**83**	*e*P	**P**	**19 46 48.3**	**+2.2**
PFO				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
W13A	**Hualapai Mount**	**54.82**	**80**	⇑P	**P**	**19 46 46.4**	**+0.1**
	baz=55						
KBK	**Karagaybulak**	**54.84**	**296**	P	**P**	**19 46 46.9**	**+0.6**
	SNR=6.5						
FRU	**Bishkek**	**54.84**	**296**	*e*P	**P**	**19 46 48.0**	**+1.6**
FRU				pmax	pmax		
	comp=Z,60nm,1.8s,mb5.3						
IRM	**Iron Mountain**	**54.97**	**82**	⇑P	**P**	**19 46 47.3**	**-0.1**
	baz=55						
AAK	**Ala-Archa**	**55.06**	**296**	P	**P**	**19 46 47.0**	**-0.9**
	comp=Z,83nm,1.0s,mb5.7,SNR=12						
AAK	**Ala-Archa**	**55.06**	**296**	P	**P**	**19 46 48.4**	**+0.5**
	SNR=15						
AAK	**Ala-Archa**	**55.06**	**296**	*e*P	**P**	**19 46 47.3**	**-0.6**
	comp=Z,16nm,1.0s,mb5.0						
AAK	**Ala-Archa**	**55.06**	**296**	*e*P	**P**	**19 46 47.3**	**-0.6**
AAK				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
AAK	**Ala-Archa**	**55.06**	**296**	P	**P**	**19 46 47.8**	**-0.1**
	SNR=7.1						
W14A	**Seligman**	**55.11**	**79**	P	**P**	**19 46 49.3**	**+0.9**
	baz=55,SNR=16						
BC3	**Big Chuckw Mtn**	**55.24**	**82**	⇑P	**P**	**19 46 49.2**	**-0.1**
	baz=55						
X13A	**Yucca**	**55.26**	**80**	⇑P	**P**	**19 46 49.0**	**-0.5**
	baz=55						
PDMCI	**Parker Dam,Lak**	**55.34**	**81**	⇓P	**P**	**19 46 50.9**	**+0.8**
	baz=55						
EKS2	**Erkin-Say**	**55.35**	**296**	P	**P**	**19 46 50.5**	**+0.5**
	SNR=6.4						
Y12C	**Blythe**	**55.61**	**81**	⇑P	**P**	**19 46 51.9**	**-0.1**
	baz=55						
MVCO	**Mesa Verde**	**55.67**	**74**	P	**P**	**19 46 55.8**	**+3.4**
	comp=Z,5.0nm,0.7s,mb4.7						
WUAZ	**Wupatki**	**55.68**	**78**	*e*P	**P**	**19 46 53.0**	**+0.5**
	comp=Z,17nm,1.0s,mb5.0						
WUAZ	**Wupatki**	**55.68**	**78**	⇓P	**P**	**19 46 52.9**	**+0.4**
	baz=56						
ECSD	**EROS,Sioux Fal**	**55.73**	**61**	*e*P	**P**	**19 46 52.4**	**-0.3**
	comp=Z,22nm,1.2s,mb5.1						
X14A	**Yava**	**55.81**	**80**	⇓P	**P**	**19 46 53.9**	**+0.5**
	baz=56						
AML	**Almayashu**	**55.81**	**296**	P	**P**	**19 46 57.8**	**+4.5**
	SNR=5.0						
Y13A	**Salome**	**55.89**	**81**	⇓P	**P**	**19 46 54.5**	**+0.5**
	baz=56						
KMI	**Kunming**	**55.97**	**261**	P	**P**	**19 46 54.0**	**-0.7**
KMI				S	**S**	**19 54 39.3**	**-2.9**
KMI				AMB	AMB		
	comp=Z,25nm,0.9s,mb5.2						
KMI				LR	LR		
	comp=N,272nm,12.6s,MS4.6						
KMI				LR	LR		
	comp=E,245nm,15.5s,MS4.6						
KMI				LR	LR		
	comp=Z,229nm,13.2s,MS4.4						
GLA	**Glamis**	**56.03**	**82**	⇑P	**P**	**19 46 55.3**	**+0.2**
	baz=56						
X15A	**Humboldt**	**56.11**	**79**	⇑P	**P**	**19 46 56.0**	**+0.5**
	baz=56						
Y14A	**Wickenburg**	**56.19**	**80**	⇑P	**P**	**19 46 56.3**	**+0.2**
	baz=56						
Z14A	**Wintersburg**	**56.68**	**80**	⇑P	**P**	**19 46 59.6**	**-0.1**
	baz=56						
SCHQ	**Schefferville**	**56.88**	**34**	*e*P	**P**	**19 46 60.0**	**-0.8**
	comp=Z,9.4nm,0.6s,mb5.0						
SCHQ	**Schefferville**	**56.88**	**34**	P	**P**	**19 47 00.1**	**-0.7**
	comp=Z,7.1nm,0.6s,mb4.8,baz=344,slow=6.5,SNR=16						
NB2	**NORSAR Subarra**	**56.89**	**346**	P	**P**	**19 47 00.5**	**-0.2**
	comp=Z,21nm,0.8s,mb5.2,baz=15,slow=7.4						
NOA	**NORSAR Array B**	**56.89**	**346**	P	**P**	**19 47 00.8**	**+0.1**
	comp=Z,25nm,0.9s,mb5.2,baz=14,slow=7.3,SNR=17						
KSH	**Kashi**	**56.92**	**293**	*e*P	**P**	**19 47 05.5**	**+4.2**
KSH				*e*AP	pP	19 47 10.8	+5.4
KSH				*e*XP	sP	19 47 12.5	+5.5
KSH				*e*PCP	PcP	19 47 59.3	+2.8
KSH				*e*PP	PP	19 49 14.3	+6.9
KSH				*e*S	**S**	**19 54 59.5**	**+5.0**
KSH				AMB	AMB		
	comp=Z,681nm,5.6s						
MOS	**Moscow**	**56.99**	**329**	*e*P	**P**	**19 46 58.8**	**-2.7**
MOS				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.5						
MOS				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.0						
115A	**Sonoran Desert**	**57.57**	**80**	⇓P	**P**	**19 47 06.2**	**+0.2**
	baz=57						
LSA	**Lhasa**	**57.78**	**274**	*e*P	**P**	**19 47 07.4**	**-0.1**
	comp=Z,12nm,1.3s,mb4.8						
LSA	**Lhasa**	**57.78**	**274**	*e*P	**P**	**19 47 07.4**	**-0.1**
LSA				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.8						
OBN	**Obninsk**	**57.81**	**329**	*e*P	**P**	**19 47 07.0**	**-0.3**
	comp=Z,10nm,0.7s,mb5.0						
OBN	**Obninsk**	**57.81**	**329**	⇓*e*P	**P**	**19 47 07.0**	**-0.4**
OBN				*e**PP	pP	19 47 10.4	-1.1
OBN				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
OBN				MLR	MLR		
	comp=Z,500nm,15.0s,MS4.8						
QIZ	**Qiongzhong**	**57.85**	**250**	P	**P**	**19 47 10.5**	**+2.5**
QIZ				S	**S**	**19 55 07.5**	**+0.4**
QIZ				AMB	AMB		
	comp=Z,39nm,1.7s,mb5.2						
QIZ				LR	LR		
	comp=E,442nm,19.9s						
ANMO	**Albuquerque**	**58.47**	**74**	*e*P	**P**	**19 47 12.4**	**+0.2**
VRSR	**Storozhevoye**	**60.63**	**325**	*e*P	**P**	**19 47 27.1**	**+0.2**
VRSR				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.8						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.1s						
VRSR				pmax	pmax		
	comp=E,6.0nm,1.1s						
TAPN	**Taplejung**	**61.40**	**275**	*e*P	**P**	**19 47 31.2**	**-1.3**
	comp=E,32nm,1.2s,mb5.3						
HDIL	**Hopedale**	**61.42**	**57**	*e*P	**P**	**19 47 31.5**	**-0.9**
	comp=E,27nm,0.7s,mb5.5						
SUW	**Suwalki**	**61.81**	**337**	*e*P	**P**	**19 47 34.7**	**-0.2**
SUW				*e*	pP	19 47 38.2	-0.8
JIRN	**Jiri**	**61.88**	**277**	*e*P	**P**	**19 47 34.2**	**-1.5**
	comp=E,24nm,1.0s,mb5.3						
ODAN	**Odare**	**61.97**	**275**	*e*P	**P**	**19 47 35.3**	**-1.0**
	comp=E,30nm,1.0s,mb5.4						
WMOK	**Wichita Mounta**	**62.18**	**68**	*e*P	**P**	**19 47 37.1**	**-0.5**
	comp=E,50nm,1.5s,mb5.4						
WMOK	**Wichita Mounta**	**62.18**	**68**	*e*P	**P**	**19 47 37.1**	**-0.5**
WMOK				pmax	pmax		
	comp=Z,50nm,1.5s,mb5.4						
KKN	**Kakani**	**62.21**	**278**	*e*P	**P**	**19 47 36.9**	**-1.0**
	comp=Z,14nm,0.8s,mb5.1						
KKN	**Kakani**	**62.21**	**278**	*e*P	**P**	**19 47 36.9**	**-1.0**
KKN				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.1						
GKN	**Gorkha**	**62.34**	**278**	*e*P	**P**	**19 47 38.0**	**-0.8**
	comp=Z,72nm,1.2s,mb5.7						
FVM	**French Village**	**63.12**	**60**	*e*P	**P**	**19 47 42.6**	**-1.3**
	comp=Z,39nm,1.0s,mb5.5						
FVM	**French Village**	**63.12**	**60**	*e*P	**P**	**19 47 42.6**	**-1.2**
FVM				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.5						
CHTO	**Chiang Mai**	**63.16**	**260**	*e*P	**P**	**19 47 43.5**	**-0.9**
	comp=Z,17nm,1.2s,mb5.0						
CHTO	**Chiang Mai**	**63.16**	**260**	*e*P	**P**	**19 47 43.5**	**-0.8**
CHTO				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
CHTO	**Chiang Mai**	**63.16**	**260**	P	**P**	**19 47 44.4**	**+0.1**
	SNR=6.2						
KKTK	**Khon Kaen**	**63.45**	**255**	P	**P**	**19 47 46.0**	**-0.3**
AKASG	**Malin Array Be**	**63.64**	**332**	P	**P**	**19 47 46.7**	**-0.4**
AKASG	**Malin Array Be**	**63.64**	**332**	P	**P**	**19 47 46.7**	**-0.4**
	comp=Z,23nm,0.9s,mb5.2,baz=20,slow=5.9,SNR=10						
AKBB	**Malin Array Si**	**63.64**	**332**	*e*P	**P**	**19 47 46.6**	**-0.5**
FRNY	**Flat Rock**	**63.64**	**44**	*e*P	**P**	**19 47 44.9**	**-2.3**
KIEV	**Kiev**	**63.65**	**332**	*e*P	**P**	**19 47 46.5**	**-0.7**
	comp=Z,36nm,1.1s,mb5.3						
KIEV	**Kiev**	**63.65**	**332**	*e*P	**P**	**19 47 46.5**	**-0.7**
KIEV				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.3						
KBL	**Kabul**	**64.13**	**295**	*e*P	**P**	**19 47 48.4**	**-2.2**
TXAR	**Lajitas Array**	**64.44**	**75**	P	**P**	**19 47 52.7**	**0.0**
TXAR				LR	LR	20 14 40.9	
TXAR	**Lajitas Array**	**64.44**	**75**	P	**P**	**19 47 52.7**	**0.0**
	comp=Z,1.6nm,0.9s,mb4.0,baz=307,slow=4.6,SNR=12						
TXAR				LR	LR	20 14 40.9	
	comp=Z,156nm,21.1s,MS4.2,baz=0.0,slow=35						
MIAR	**Mount Ida**	**64.67**	**64**	*e*P	**P**	**19 47 53.5**	**-0.6**
	comp=Z,27nm,1.4s,mb5.1						
MIAR	**Mount Ida**	**64.67**	**64**	*e*P	**P**	**19 47 53.5**	**-0.6**
MIAR				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.1						
PKME	**Peaks-Kenny Pk**	**64.67**	**41**	*e*P	**P**	**19 47 52.4**	**-1.5**
	comp=Z,16nm,1.0s,mb5.0						
LBNH	**Lisbon**	**64.72**	**43**	*e*P	**P**	**19 47 53.5**	**-0.8**
	comp=Z,59nm,1.5s,mb5.4						
LBNH	**Lisbon**	**64.72**	**43**	*e*P	**P**	**19 47 53.5**	**-0.8**
LBNH				pmax	pmax		
	comp=Z,59nm,1.5s,mb5.4						
LVV	**L'vov**	**65.61**	**335**	*e*P	**P**	**19 48 03.1**	**+3.1**
SSPA	**Standing Stone**	**65.81**	**49**	*e*P	**P**	**19 47 59.2**	**-2.1**
	comp=Z,6.7nm,0.8s,mb4.7						
KWP	**Kalwaria**	**66.06**	**336**	*e*P	**P**	**19 48 03.9**	**+1.0**
KWP				*e*	pP	19 48 06.7	-0.4
OJC	**Ojcow**	**66.06**	**338**	*e*P	**P**	**19 48 02.9**	**0.0**
KSP	**Ksiaz**	**66.08**	**340**	*e*P	**P**	**19 48 05.8**	**+2.9**
KIV	**Kislovodsk**	**66.11**	**319**	*e*P	**P**	**19 48 05.3**	**+2.0**
	comp=Z,26nm,1.0s,mb5.2						
KIV	**Kislovodsk**	**66.11**	**319**	*i* P	**P**	**19 48 04.0**	**+0.7**
KIV				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
KIV				MLR	MLR		
	comp=Z,100nm,16.0s,MS4.1						
CLL	**Collm**	**66.14**	**343**	*i* P	**P**	**19 48 03.0**	**-0.3**
	comp=Z,58nm,1.9s,mb5.3						
CLL				*i*	pP	19 48 06.3	-1.2
CLL				*i*		19 48 12.9	
CLL				LR	LR		
	comp=Z,400nm,22.4s,MS4.6						
CLL	**Collm**	**66.14**	**343**	*i* P	**P**	**19 48 03.0**	**-0.3**
CLL				*i*	pP	19 48 06.3	-1.2
CLL				pmax	pmax		
	comp=Z,58nm,1.9s,mb5.3						
CLL				MLR	MLR		
	comp=Z,400nm,22.4s,MS4.6						
CLL	**Collm**	**66.14**	**343**	*i* P	**P**	**19 48 03.0**	**-0.3**
	comp=Z,58nm,1.9s,mb5.3						
CLL				*i* pP	pP	19 48 06.3	-1.2
CLL				*i* x	x	19 48 12.9	
CLL				*e*PcP	PcP	19 48 37.0	+3.4
BRG	**Berggiesshubel**	**66.42**	**342**	*e*P	**P**	**19 48 08.3**	**+3.2**
	comp=Z,11nm,1.1s,mb4.8						
BRG				*e*		19 48 22.9	
	comp=Z,6.5nm,0.9s						
UPC	**Upice**	**66.45**	**340**	*e*P	**P**	**19 48 09.0**	**+3.7**
UPC				*e*x	x	19 48 15.1	
OXF	**Oxford**	**66.50**	**61**	*e*P	**P**	**19 48 05.3**	**-0.6**
	comp=Z,68nm,1.0s,mb5.6						
OXF	**Oxford**	**66.50**	**61**	*e*P	**P**	**19 48 05.3**	**-0.6**
OXF				pmax	pmax		
	comp=Z,68nm,1.0s,mb5.6						
DPC	**Dobruska-Polom**	**66.55**	**340**	*e*P	**P**	**19 48 06.3**	**+0.3**
DPC				*e*pP	pP	19 48 09.9	-0.3
STHS	**Stebnicka Huta**	**66.56**	**336**	*e*P	**P**	**19 48 07.0**	**+0.9**
	comp=Z,16nm,1.0s,mb5.0						
STHS				*e*	pP	19 48 10.2	-0.1
STHS	**Stebnicka Huta**	**66.56**	**336**	*e*P	**P**	**19 48 07.0**	**+0.9**
STHS				*e*	pP	19 48 10.2	-0.1
STHS				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
PVCC	**Panska Ves**	**66.66**	**341**	*e*pP	pP	19 48 12.6	+1.7
PLAL	**Pickwick Lake**	**66.66**	**60**	*e*P	**P**	**19 48 05.5**	**-1.4**
	comp=Z,12nm,0.8s,mb5.0						
OKC	**Ostrava-Krasne**	**66.73**	**339**	*e*P	**P**	**19 48 07.5**	**+0.4**
OKC				*e*pP	pP	19 48 11.0	-0.4
ZEI	**Tsey**	**66.78**	**318**	*e*P	**P**	**19 48 07.7**	**+0.1**
ZEI				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
KOLS	**Kolonicke sedl**	**66.82**	**336**	*e*P	**P**	**19 48 08.2**	**+0.5**
MORC	**Moravsky Berou**	**66.89**	**339**	*e*P	**P**	**19 48 08.4**	**+0.2**
	comp=Z,23nm,1.1s,mb5.1						
MORC	**Moravsky Berou**	**66.89**	**339**	P	**P**	**19 48 08.6**	**+0.4**
MORC				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.1						
MORC	**Moravsky Berou**	**66.89**	**339**	⇓*i*P	**P**	**19 48 08.5**	**+0.3**
MOX	**Moxa**	**66.98**	**343**	*e*P	**P**	**19 48 08.8**	**+0.1**
MOX				*e*	pP	19 48 12.4	-0.6
CRVS	**Cervenica-Dubn**	**67.01**	**336**	*e*P	**P**	**19 48 09.4**	**+0.5**
UZH	**Uzhgorod**	**67.10**	**335**	*e*P	**P**	**19 48 10.7**	**+1.2**
UZH				*i*		19 48 19.3	

UZH				e		19 48 41.7	
PRU	Pruhonice	67.19	341	eP	P	19 48 10.1	+0.1
PRU				epP	pP	19 48 13.6	-0.7
KIS	Kishinev	67.20	330	⇑iP	P	19 48 12.0	+1.8
KIS				e		19 48 18.0	
KIS				e		19 48 37.0	
KIS				pmax	pmax		
	comp=Z,100nm,1.5s,mb5.6						
KIS	Kishinev	67.20	330	⇑iPUNK	P	19 48 12.0	+1.8
KIS	Kishinev	67.20	330	PM	P	19 48 12.5	+2.3
	comp=Z,100nm,1.5s,mb5.6						
NKC	Novy Kostel	67.27	343	eP	P	19 48 10.6	+0.1
NKC				epP	pP	19 48 14.4	-0.4
SWET	Sewanee	67.36	58	eP	P	19 48 09.5	-1.8
BURAR	Bucovina Array	67.45	333	⇓P	P	19 48 12.0	+0.3
BURAR	Bucovina Array	67.45	333	⇓iP	P	19 48 12.0	+0.3
VRAC	Vranov	67.51	340	⇑P	P	19 48 12.2	+0.1
VRAC	Vranov	67.51	340	⇑iP	P	19 48 12.2	+0.1
TRPA	Tarpa	67.53	335	⇓iP	P	19 48 13.5	+1.3
KECS	Kecovo	67.60	337	eP	P	19 48 12.8	+0.1
	comp=Z,7.4nm,0.9s,mb4.7						
KECS				e	pP	19 48 16.5	-0.4
KECS	Kecovo	67.60	337	eP	P	19 48 12.8	+0.1
KECS				e	pP	19 48 16.5	-0.4
KECS				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
ELN	Prospectdale	67.69	53	eP	P	19 48 12.2	-1.2
TREC	Trest	67.71	340	eP	P	19 48 13.6	+0.2
TREC				epP	pP	19 48 17.1	-0.5
MEM	Membach	67.71	347	P	P	19 48 13.7	+0.3
	comp=Z,16nm,1.0s,mb5.0						
CPCT	Cooper Cave	67.73	57	eP	P	19 48 12.2	-1.6
BLA	Blacksburg	67.84	53	eP	P	19 48 13.1	-1.2
	comp=Z,17nm,0.9s,mb5.1						
BLA	Blacksburg	67.84	53	eP	P	19 48 13.1	-1.3
BLA				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.1						
KOLL	Kolacno	67.90	338	eP	P	19 48 15.0	+0.4
KOLL				epP	pP	19 48 18.9	+0.1
VYHS	Vyhne	67.90	338	eP	P	19 48 15.0	+0.4
	comp=Z,16nm,1.3s,mb4.9						
VYHS				e	pP	19 48 18.6	-0.2
VYHS	Vyhne	67.90	338	eP	P	19 48 15.0	+0.4
VYHS				e	pP	19 48 18.6	-0.2
VYHS				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.9						
GRA1	Grafenberg Arr	67.97	343	eP	P	19 48 15.0	0.0
	comp=Z,23nm,1.0s,mb5.2						
GRA1				epP	pP	19 48 18.8	-0.4
GRF	Grafenberg Arr	67.97	343	eP	P	19 48 15.0	0.0
GRF				e*PP	pP	19 48 18.8	-0.4
GRF				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
GRF	Grafenberg Arr	67.97	343	eP	P	19 48 15.0	0.0
GRF				e*PP	pP	19 48 18.8	-0.4
GRF				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
GRF	Grafenberg Arr	67.97	343	eP	P	19 48 15.0	0.0
	comp=Z,23nm,1.0s,mb5.2						
GRF				epP	pP	19 48 18.8	-0.4
BCLA	Clavier	67.98	348	P	P	19 48 15.1	0.0
SMOL	Smolenice	68.13	339	eP	P	19 48 17.2	+1.2
SMOL				epP	pP	19 48 20.6	+0.3
KHC	Kasperske Hory	68.17	342	eP	P	19 48 16.8	+0.5
KHC				epP	pP	19 48 20.2	-0.3
PSZ	Piszkesteto	68.25	337	eP	P	19 48 17.1	+0.3
	comp=Z,18nm,1.0s,mb5.0						
PSZ	Piszkesteto	68.25	337	P	P	19 48 17.9	+1.1
PSZ				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
PSZ	Piszkesteto	68.25	337	⇓eP	P	19 48 19.6	+2.8
PSZ	Piszkesteto	68.25	337	⇓iP	P	19 48 17.4	+0.6
GIVF	Givet	68.34	348	eP	P	19 48 16.7	-0.6
GERES	GERESS Array B	68.43	341	P	P	19 48 18.0	+0.1
	comp=Z,5.0nm,0.6s,mb4.7,baz=38,slow=6.8,SNR=15						
BAIF	Baives	68.44	348	eP	P	19 48 17.8	-0.2
	comp=Z,57nm,1.2s,mb5.2						
BAIF	Baives	68.44	348	eP	P	19 48 17.8	-0.2
	comp=Z,29nm,1.2s,mb5.2						
BAIF	Baives	68.44	348	eP	P	19 48 17.8	-0.2
BAIF				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.2						
ZST	Bratislava	68.50	339	eP	P	19 48 19.3	+1.0
	comp=Z,16nm,0.9s,mb5.0						
ZST				e	pP	19 48 23.1	+0.5
ZST	Bratislava	68.50	339	eP	P	19 48 19.3	+1.0
ZST				e	pP	19 48 23.1	+0.5
ZST				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
VRI	Vrincioaia	68.76	331	⇓P	P	19 48 20.1	+0.2
VRI	Vrincioaia	68.76	331	⇓iP	P	19 48 20.1	+0.1
LRAL	Lakeview Retre	68.79	60	eP	P	19 48 17.9	-2.5
	comp=Z,15nm,0.7s,mb5.0						
BUD	Budapest	68.84	337	⇓eP	P	19 48 24.4	+4.0
SOP	Sopron	69.09	339	⇓eP	P	19 48 25.7	+3.7
MLR	Muntele Rosu	69.29	332	P	P	19 48 25.4	+2.0
MLR	Muntele Rosu	69.29	332	⇓iP	P	19 48 24.9	+1.6
VOIR		69.55	332	P	P	19 48 26.1	+1.2
VOIR		69.55	332	⇓iP	P	19 48 26.2	+1.3
TIRR	Tirgusor	69.68	330	⇓iP	P	19 48 26.6	+0.9
BFO	Black Forest	69.69	345	eP	P	19 48 25.3	-0.4
	comp=Z,12nm,0.8s,mb4.9						
BFO	Black Forest	69.69	345	eP	P	19 48 25.3	-0.4
BFO				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
CDF	Champ du Feu	69.73	346	eP	P	19 48 25.6	-0.4
	comp=Z,42nm,1.3s,mb4.9						
CDF	Champ du Feu	69.73	346	eP	P	19 48 25.6	-0.4
	comp=Z,21nm,1.3s,mb4.9						
CDF	Champ du Feu	69.73	346	eP	P	19 48 25.6	-0.4
CDF				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.9						
GZR	Gura Zlata	70.09	334	⇓P	P	19 48 29.0	+0.8
GZR	Gura Zlata	70.09	334	⇓iP	P	19 48 29.0	+0.8
BZS	Buzias	70.12	335	⇑P	P	19 48 28.3	-0.1
BZS	Buzias	70.12	335	⇑iP	P	19 48 28.3	-0.1
PKSM	Moragy	70.13	337	⇑iP	P	19 48 25.3	-3.2
FLN	La Foliniere	70.14	351	eP	P	19 48 27.4	-1.1
	comp=Z,200nm,1.6s,mb5.5						
FLN	La Foliniere	70.14	351	eP	P	19 48 27.4	-1.1
	comp=Z,100nm,1.6s,mb5.5						
FLN	La Foliniere	70.14	351	eP	P	19 48 27.4	-1.1
FLN				pmax	pmax		
	comp=Z,100nm,1.6s,mb5.5						
KBA	Koelnbreinsper	70.20	341	⇑iP	P	19 48 30.1	+1.2
	comp=Z,26nm,1.0s,mb5.1						
KBA	Koelnbreinsper	70.20	341	⇑ipP	pP	19 48 30.1	-3.0
	comp=Z,26nm,1.0s						
KBA	Koelnbreinsper	70.20	341	⇑iP	P	19 48 30.1	+1.2
KBA				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
HAU	Haudompre	70.24	346	eP	P	19 48 28.5	-0.6
	comp=Z,28nm,0.9s,mb4.9						
HAU	Haudompre	70.24	346	eP	P	19 48 28.5	-0.6
	comp=Z,14nm,0.9s,mb4.9						
HAU	Haudompre	70.24	346	eP	P	19 48 28.5	-0.6
HAU				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
LDF	La Druitiere	70.28	351	eP	P	19 48 28.4	-0.9
	comp=Z,77nm,1.2s,mb5.2						
LDF	La Druitiere	70.28	351	eP	P	19 48 28.4	-0.9
	comp=Z,38nm,1.2s,mb5.2						
LDF	La Druitiere	70.28	351	eP	P	19 48 28.4	-0.9
LDF				pmax	pmax		
	comp=Z,38nm,1.2s,mb5.2						
MOTA	Moosalm	70.28	343	⇑iP	P	19 48 29.6	+0.2
	comp=Z,11nm,1.0s,mb4.7						
MOTA	Moosalm	70.28	343	⇑ipP	pP	19 48 29.6	-4.0
	comp=Z,11nm,1.0s						
MOTA	Moosalm	70.28	343	⇑iP	P	19 48 29.6	+0.2
MOTA				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
WTTA	Wattenberg	70.28	343	⇓iP	P	19 48 30.4	+1.1
	comp=Z,17nm,1.0s,mb5.0						
WTTA	Wattenberg	70.28	343	⇓ipP	pP	19 48 30.4	-3.2
	comp=Z,17nm,1.0s						
WTTA	Wattenberg	70.28	343	⇓iP	P	19 48 30.4	+1.0
WTTA				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
HINF	Hinteralfeld	70.37	346	eP	P	19 48 29.1	-0.8
	comp=Z,25nm,1.1s,mb4.8						
HINF	Hinteralfeld	70.37	346	eP	P	19 48 29.1	-0.8
	comp=Z,13nm,1.1s,mb4.8						
HINF	Hinteralfeld	70.37	346	eP	P	19 48 29.1	-0.8
HINF				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
SQTA	Sankt Quirin	70.39	343	⇑iP	P	19 48 30.6	+0.6
	comp=Z,16nm,1.1s,mb4.9						
SQTA	Sankt Quirin	70.39	343	⇑ipP	pP	19 48 30.6	-3.7
	comp=Z,16nm,1.1s						
SQTA	Sankt Quirin	70.39	343	⇑iP	P	19 48 30.6	+0.6
SQTA				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
GRR	Gorron	70.53	352	eP	P	19 48 30.2	-0.7
	comp=Z,62nm,1.1s,mb5.2						
GRR	Gorron	70.53	352	eP	P	19 48 30.2	-0.7
	comp=Z,31nm,1.1s,mb5.2						
GRR	Gorron	70.53	352	eP	P	19 48 30.2	-0.7
GRR				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
ROSF	Rostrenen	70.74	353	eP	P	19 48 31.7	-0.5
SGMF	Saint Gilles	70.78	353	eP	P	19 48 32.4	0.0
LOR	Lormes	71.24	348	eP	P	19 48 34.6	-0.6
	comp=Z,79nm,1.1s,mb5.2						
LOR	Lormes	71.24	348	eP	P	19 48 34.6	-0.6
	comp=Z,40nm,1.1s,mb5.3						
LOR	Lormes	71.24	348	eP	P	19 48 34.6	-0.6
LOR				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.3						
SSF	Saint Saulge	71.48	348	eP	P	19 48 36.1	-0.6
	comp=Z,64nm,1.3s,mb5.1						
SSF	Saint Saulge	71.48	348	eP	P	19 48 36.1	-0.6
	comp=Z,32nm,1.3s,mb5.1						
SSF	Saint Saulge	71.48	348	eP	P	19 48 36.1	-0.6
SSF				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.1						
CABF	La Chapelle	71.65	346	eP	P	19 48 37.1	-0.6
	comp=Z,34nm,1.0s,mb5.0						
CABF	La Chapelle	71.65	346	eP	P	19 48 37.1	-0.6
	comp=Z,17nm,1.0s,mb4.9						
CABF	La Chapelle	71.65	346	eP	P	19 48 37.1	-0.6
CABF				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
AVF	Avril sur Loir	71.76	348	eP	P	19 48 37.8	-0.6
	comp=Z,49nm,1.0s,mb5.1						
AVF	Avril sur Loir	71.76	348	eP	P	19 48 37.8	-0.6
	comp=Z,25nm,1.0s,mb5.1						
AVF	Avril sur Loir	71.76	348	eP	P	19 48 37.8	-0.6
AVF				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.1						
SMF	Signal de Mont	71.86	348	eP	P	19 48 38.2	-0.7
	comp=Z,19nm,0.9s,mb4.7						
SMF	Signal de Mont	71.86	348	eP	P	19 48 38.2	-0.7
	comp=Z,9.5nm,0.9s,mb4.7						
SMF	Signal de Mont	71.86	348	eP	P	19 48 38.2	-0.7
SMF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
BGF	Bois d’Agland	72.04	349	eP	P	19 48 39.5	-0.6
	comp=Z,35nm,1.0s,mb4.9						
BGF	Bois d’Agland	72.04	349	eP	P	19 48 39.5	-0.6
	comp=Z,18nm,1.0s,mb4.9						
BGF	Bois d’Agland	72.04	349	eP	P	19 48 39.5	-0.6
BGF				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
TCF	Toulx Ste Croi	72.37	349	eP	P	19 48 41.4	-0.6
	comp=Z,31nm,1.1s,mb4.9						
TCF	Toulx Ste Croi	72.37	349	eP	P	19 48 41.4	-0.6
	comp=Z,16nm,1.1s,mb4.8						
TCF	Toulx Ste Croi	72.37	349	eP	P	19 48 41.4	-0.6
TCF				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
MALT	Malatya	72.58	320	eP	P	19 48 45.8	+2.4
	comp=Z,12nm,1.2s,mb4.7						
MALT	Malatya	72.58	320	⇓iP	P	19 48 44.5	+1.1
LPL	La Plagne	72.65	346	eP	P	19 48 44.0	+0.3
	comp=Z,17nm,0.8s,mb4.7						
LPL	La Plagne	72.65	346	eP	P	19 48 44.0	+0.3
	comp=Z,8.4nm,0.8s,mb4.7						
LPL	La Plagne	72.65	346	eP	P	19 48 44.0	+0.3
LPL				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
LPG	La Plagne	72.67	346	eP	P	19 48 44.3	+0.5
	comp=Z,104nm,1.4s,mb5.3						
LPG	La Plagne	72.67	346	eP	P	19 48 44.3	+0.5
	comp=Z,52nm,1.4s,mb5.3						
LPG	La Plagne	72.67	346	eP	P	19 48 44.3	+0.5
LPG				pmax	pmax		
	comp=Z,52nm,1.4s,mb5.3						
BRTR	Keskin Array B	72.71	324	P	P	19 48 44.9	+0.8
	comp=Z,5.8nm,0.9s,mb4.5,baz=34,slow=4.9,SNR=11						
ORIF	Oris-en-Rattie	73.34	346	eP	P	19 48 47.9	+0.1
	comp=Z,110nm,1.7s,mb5.2						
ORIF	Oris-en-Rattie	73.34	346	eP	P	19 48 47.9	+0.1
	comp=Z,55nm,1.7s,mb5.2						
ORIF	Oris-en-Rattie	73.34	346	eP	P	19 48 47.9	+0.1
ORIF				pmax	pmax		
	comp=Z,55nm,1.7s,mb5.2						
RJF	Les Rejaudoux	73.41	349	eP	P	19 48 47.6	-0.6
MBDF	Montbardon	73.42	346	eP	P	19 48 48.4	+0.1
	comp=Z,12nm,0.7s,mb4.7						
MBDF	Montbardon	73.42	346	eP	P	19 48 48.4	+0.1
	comp=Z,6.0nm,0.7s,mb4.6						
MBDF	Montbardon	73.42	346	eP	P	19 48 48.4	+0.1
MBDF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
VIVF	Saint-Julien-l	73.54	347	eP	P	19 48 48.8	-0.2
	comp=Z,17nm,0.9s,mb4.7						
VIVF	Saint-Julien-l	73.54	347	eP	P	19 48 48.8	-0.2
	comp=Z,8.4nm,0.9s,mb4.7						
VIVF	Saint-Julien-l	73.54	347	eP	P	19 48 48.8	-0.2
VIVF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
CAF	Calviac	73.73	349	eP	P	19 48 50.1	0.0
LFF	La Frestale	73.84	350	eP	P	19 48 50.4	-0.3
	comp=Z,51nm,0.9s,mb5.1						
LFF	La Frestale	73.84	350	eP	P	19 48 50.4	-0.3
	comp=Z,26nm,0.9s,mb5.2						
LFF	La Frestale	73.84	350	eP	P	19 48 50.4	-0.3
LFF				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
SBF	Sospel	74.19	345	eP	P	19 48 52.4	-0.4
	comp=Z,63nm,0.9s,mb5.2						
SBF	Sospel	74.19	345	eP	P	19 48 52.4	-0.4
	comp=Z,31nm,0.9s,mb5.2						
SBF	Sospel	74.19	345	eP	P	19 48 52.4	-0.4
SBF				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.2						
HYB	Hyderabad	74.25	277	eP	P	19 48 52.5	-1.0
HYB	Hyderabad	74.25	277	i P	P	19 48 52.5	-1.0
SMRF	Simiane la Rot	74.31	346	eP	P	19 48 53.7	+0.2
	comp=Z,47nm,1.2s,mb5.0						
SMRF	Simiane la Rot	74.31	346	eP	P	19 48 53.7	+0.2
	comp=Z,47nm,1.2s,mb5.3						
LASF	Ste Croix	74.40	348	eP	P	19 48 54.1	+0.1
	comp=Z,27nm,1.1s,mb4.8						
FRF	La Foret Royal	74.59	345	eP	P	19 48 54.3	-0.8
	comp=Z,89nm,1.6s,mb5.2						
FRF	La Foret Royal	74.59	345	eP	P	19 48 54.3	-0.8
	comp=Z,44nm,1.6s,mb5.1						
FRF	La Foret Royal	74.59	345	eP	P	19 48 54.3	-0.8
FRF				pmax	pmax		
	comp=Z,44nm,1.6s,mb5.1						
LMR	La Mourre	74.83	345	eP	P	19 48 55.9	-0.6
PGF	Pioggiola	75.28	343	eP	P	19 48 58.5	-0.6
	comp=Z,101nm,1.3s,mb5.3						
PGF	Pioggiola	75.28	343	eP	P	19 48 58.5	-0.6
	comp=Z,50nm,1.3s,mb5.3						
PGF	Pioggiola	75.28	343	eP	P	19 48 58.5	-0.6
PGF				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.3						
MTLF	Montolieu	75.29	349	eP	P	19 48 59.3	+0.1
	comp=Z,25nm,0.9s,mb4.9						
MTLF	Montolieu	75.29	349	eP	P	19 48 59.3	+0.1
	comp=Z,12nm,0.9s,mb4.8						
MTLF	Montolieu	75.29	349	eP	P	19 48 59.3	+0.1
MTLF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
EPF	Esparros	75.77	350	eP	P	19 49 01.1	-0.8
	comp=Z,33nm,1.1s,mb4.9						
EPF	Esparros	75.77	350	eP	P	19 49 01.1	-0.8
	comp=Z,17nm,1.1s,mb4.9						
EPF	Esparros	75.77	350	eP	P	19 49 01.1	-0.8
EPF				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
SJPF	Ste Jean	75.81	351	eP	P	19 49 02.1	-0.1
ETSF	Etsaut	75.97	351	eP	P	19 49 03.1	0.0
	comp=Z,47nm,1.3s,mb5.0						
ETSF	Etsaut	75.97	351	eP	P	19 49 03.1	0.0
	comp=Z,24nm,1.3s,mb5.0						
ETSF	Etsaut	75.97	351	eP	P	19 49 03.1	0.0
ETSF				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.0						
MIB	Mutribah	77.21	309	eP	P	19 49 09.8	-0.4
MIB				AMb	AMB	19 49 14.3	
	comp=Z,33nm,1.0s,mb5.2						
RST	Umm Al-Ruwaisa	77.61	309	eP	P	19 49 11.3	-1.2
RST				AMb	AMB	19 49 16.3	
	comp=Z,40nm,1.2s,mb5.2						
NAY	Al-Naaiem	77.74	309	eP	P	19 49 12.2	-1.1
NAY				AMb	AMB	19 49 17.2	
	comp=Z,15nm,1.2s,mb4.8						
RDF	Al-Radifah	77.92	309	eP	P	19 49 13.3	-1.0
RDF				AMb	AMB	19 49 18.4	
	comp=Z,38nm,1.1s,mb5.2						
PVRL	Vila Real	77.99	356	eP	P	19 49 14.9	+0.4
	comp=Z,47nm,1.6s,mb5.2						
MVO	Moncorvo	78.08	355	eP	P	19 49 14.2	-0.8
	comp=Z,38nm,2.2s,mb4.9						
PVIS	Viseu	78.56	356	eP	P	19 49 17.9	+0.3
	comp=Z,22nm,1.3s,mb4.9						
MTE	Manteigas	78.86	356	eP	P	19 49 21.6	+2.3
	comp=Z,25nm,2.5s,mb4.7						
ESDC	Sonseca Array	79.42	353	P	P	19 49 22.4	+0.1
	comp=Z,5.9nm,0.8s,mb4.6,baz=7.4,slow=5.9,SNR=16						
EVO	Evora	80.74	356	eP	P	19 49 29.6	+0.1
PBAR	Barrancos	81.06	355	eP	P	19 49 31.4	+0.2
	comp=Z,34nm,2.0s,mb4.9						
PVAQ	Vaqueiros	81.86	356	eP	P	19 49 36.1	+0.6
	comp=Z,24nm,1.8s,mb4.8						
KEST	Kesra	81.91	342	P	P	19 49 35.8	0.0
	comp=Z,1.5nm,0.9s,mb3.9,baz=236,slow=11,SNR=5.0						
WB2	Warramunga Arr	84.87	211	eP	P	19 49 48.7	-2.3
WB2				e		19 49 58.0	
WRA	Warramunga Arr	84.87	211	P	P	19 49 49.5	-1.5
	comp=Z,15nm,1.0s,mb5.1,baz=18,slow=5.1,SNR=34						
WHFO	Wadi Hawf	85.23	299	⇑P	P	19 49 51.2	-1.8
	SNR=15						
FITZ	Fitzroy Crossi	85.55	219	eP	P	19 49 53.1	-1.3
	comp=Z,18nm,1.0s,mb5.3						
FITZ				e		19 50 01.4	
PPT	Papeete	85.62	139	LR	LR	20 21 47.0	
	comp=Z,150nm,20.3s,MS4.4,baz=344,slow=31						
ABTO	Aybut	85.94	299	⇑P	P	19 49 55.1	-1.5
	SNR=5.7						
ASAR	Alice Springs	88.55	210	P	P	19 50 07.2	-1.7
	comp=Z,2.8nm,0.8s,mb4.6,baz=9.5,slow=5.1,SNR=19						
TORD	Torodi Ar. Bea	105.19	345	PKKPab	PKKPab	20 07 20.5	-4.1
	comp=Z,0.8nm,0.9s,baz=197,slow=4.0,SNR=3.9						
LPAZ	La Paz	120.67	67	PKP	PKPdf	19 56 06.9	-1.3
LPAZ	La Paz	120.67	67	PKIKP	PKPdf	19 56 06.9	-1.3
LPAZ	La Paz	120.67	67	PKP	PKPdf	19 56 06.9	-1.3
	comp=Z,0.9nm,0.8s,baz=22,slow=5.7,SNR=3.6						
USHA	Ushuaia	150.66	103	PKPbc	PKPbc	19 57 05.8	-1.3
	comp=Z,15nm,0.8s,baz=336,slow=6.4,SNR=5.2						

ISK **28** *19:55:31.4, 38.35N×39.23E, h2^{km}, ML4.9*

CRAAG **28** *19:55:31.9, 38.24N×39.30E, Mb4.8*

DDA **28** *19:55:32.4, 38.28N×39.26E, h17^{km}±1^{km}, Md5.2*

ISCJB **28** *19:55:32.5±0.4, 38.26N±0.01×39.25E±0.01, h6^{km}±3^{km}, mb4.7/120, MS4.1/26, Error ellipse: s-maj=2.2km s-min=1.9km az=156.9*

CSEM **28** *19:55:32.5±0.0, 38.27N×39.25E, h10^{km}, mb4.9/73, Ms3.8, Error ellipse: s-maj=1.2km s-min=1.0km az=14.0*

NEIC **28** *19:55:34.0±0.3, 38.16N×39.31E, h10^{km}, mb4.8/82, ML4.8(ISK), Error ellipse: s-maj=5.0km s-min=3.4km az=0.0*

IDC **28** *19:55:33.3±0.6, 38.29N×39.17E, h0^{km}, mb4.2/18, mb1 4.4/28, mb1mx4.3/29, mbtmp4.3/28, ML4.0/10, MS4.1/23, Ms1 4.1/23, ms1mx4.0/37, Error ellipse: s-maj=12.7km s-min=11.2km az=136.0*

BJI **28** *19:55:34.3, 38.50N×39.55E, h10^{km}, mB5.2, mb4.6, Ms4.8, Msz4.6*

NSSC **28** *19:55:34.5, 38.48N×39.27E, h40^{km}*

MOS **28** *19:55:34.5±1.1, 38.23N×39.24E, h24^{km}, mb4.9/58, Error ellipse: s-maj=4.9km s-min=2.9km az=128.6*

NAO **28** *19:55:35.2, 38.24N×39.30E, h33^{km}, mb4.5*

ISC 28 19:55:33.3±0.5, **38.22N**±0.01×**39.27E**±0.01, **h1**^{km}±3^{km}, **n600, σ1^{s}15**/647, **mb4.7**/120, **MS4.1**/26, **13C-62D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MALT	Malatya	0.67	278	i PG	Pg	19 55 44.4	-1.7
MALT	Malatya	0.67	278	eP	Pg	19 55 44.3	-1.8
MALT	Malatya	0.67	278	i Pg	Pg	19 55 44.4	-1.7
MYA	Malataya	0.67	279	i PG	Pg	19 55 44.4	-1.8
MYA	Malataya	0.67	279	Pg	Pg	19 55 44.1	-2.1
MYA	Malataya	0.67	279	P	Pg	19 55 44.1	-2.1
MYA	Malataya	0.67	279	i Pg	Pg	19 55 44.4	-1.8
PTK	Pertek	0.68	8	i PG	Pg	19 55 42.7	-3.6
PTK				i SG	Sg	19 55 51.5	-3.7
PTK	Pertek	0.68	8	i Pg	Pg	19 55 42.7	-3.6
DIYA	Diyarbakir	0.74	113	i P	Pg	19 55 48.5	+1.0
DIYA				i S	Sg	19 56 01.2	+4.2
DIY	Diyarbakir	0.82	113	i PG	Pg	19 55 49.8	+0.7
DIY	Diyarbakir	0.82	113	Pg	Pg	19 55 48.4	-0.7
DIY	Diyarbakir	0.82	113	i Pg	Pg	19 55 49.8	+0.7
URFA	Urfa	0.85	204	i PG	Pg	19 55 51.2	+1.5
URFA	Urfa	0.85	204	Pg	Pg	19 55 50.2	+0.5
URFA	Urfa	0.85	204	Pg	Pg	19 55 50.2	+0.5
ATAB	Bozova	1.07	226	i P	Pg	19 55 54.3	+0.5
ATAB				i S	Sg	19 56 08.6	+0.8
BINT	Bingol	1.16	55	PN	Pn	19 55 53.5	-3.2
BINT	Bingol	1.16	55	Pn	Pn	19 55 54.0	-2.7
BINT	Bingol	1.16	55	Pn	Pn	19 55 54.0	-2.7
MARD	Mardin	1.50	127	i P	Pn	19 56 00.7	-0.6
MARD				i S	Sb	19 56 22.4	+0.9
KBSD	Kabsdagh	1.58	140	⇓P	Pn	19 56 03.0	+0.5
KBSD				⇓S	Sn	19 56 23.9	+0.4
KBSD	Kabsdagh	1.58	140	⇓iP	Pn	19 56 03.0	+0.6
KBSD				⇓iS	Sn	19 56 24.0	+0.5
EZC	Erzincan	1.58	16	PN	Pn	19 55 57.8	-4.7
EZC	Erzincan	1.58	16	Pn	Pn	19 55 58.0	-4.5
EZC	Erzincan	1.58	16	P	Pn	19 55 58.0	-4.5
GZT	Gaziantep	1.60	238	i P	Pn	19 56 02.0	-0.6
GZT				i S	Sn	19 56 22.7	-1.3
BNGL	BINGOL	1.65	63	i P	Pn	19 56 02.1	-1.2
BNGL				i S	Sn	19 56 26.2	+1.1
BTMT	Batman	1.75	90	PN	Pn	19 56 02.3	-2.5
SFNV	Sufian	1.92	159	⇑P	Pn	19 56 08.3	+1.2
SFNV				⇑S	Sn	19 56 32.0	+0.1
SFNV	Sufian	1.92	159	⇑iP	Pn	19 56 08.3	+1.2
SFNV				⇑iS	Sn	19 56 32.0	+0.2
GAZ	Gaziantep	1.94	238	PN	Pn	19 56 06.5	-0.8
GAZ	Gaziantep	1.94	238	Pn	Pn	19 56 05.9	-1.4
GAZ	Gaziantep	1.94	238	ePn	Pn	19 56 06.5	-0.8
GUMT	Gumushane	2.24	4	PN	Pn	19 56 09.9	-1.6
GUMT	Gumushane	2.24	4	Pn	Pn	19 56 09.4	-2.1
GUMT	Gumushane	2.24	4	ePn	Pn	19 56 09.9	-1.6
SLMH	Al Salmeh	2.27	208	⇓P	Pn	19 56 12.4	+0.6
SLMH				⇓S	Sn	19 56 40.6	+0.2
SLMH	Al Salmeh	2.27	208	⇓iP	Pn	19 56 12.4	+0.5
SLMH				⇓iS	Sn	19 56 40.7	+0.3
MNKR	ALMNKUR	2.27	180	⇓P	Pn	19 56 13.2	+1.3
MNKR	ALMNKUR	2.27	180	⇓iP	Pn	19 56 13.2	+1.3
EZM	Erzurum	2.34	43	PN	Pn	19 56 11.9	-1.0
EZM	Erzurum	2.34	43	Pn	Pn	19 56 12.4	-0.5
ERZM	Erzurum	2.35	44	i P	Pn	19 56 12.4	-0.5
ERZM				i S	Sn	19 56 45.0	+2.6
ERZM	Erzurum	2.35	44	i P	Pn	19 56 12.4	-0.5
ERZM				i S	Sn	19 56 45.0	+2.6
KSRV	Kasrt alli	2.36	185	⇓P	Pn	19 56 15.3	+2.2
KSRV				⇓S	Sn	19 56 43.6	+0.9
KSRV	Kasrt alli	2.36	185	⇓iP	Pn	19 56 15.3	+2.2
KSRV				⇓iS	Sn	19 56 43.6	+0.9
ANDN	Andirin	2.40	255	i P	Pn	19 56 12.5	-1.1
ANDN				i S	Sn	19 56 49.6	+6.0
SVSK	Karacayir	2.45	315	PN	Pn	19 56 12.4	-1.9
SVSK	Karacayir	2.45	315	ePn	Pn	19 56 12.4	-1.9
BSHR	Al Beshri	2.58	170	⇑P	Pn	19 56 21.6	+5.4
BSHR				⇑S	Sn	19 56 54.7	+6.4
DRWC	Darouich	2.61	233	⇓P	Pn	19 56 15.9	-0.7
DRWC				⇓S	Sn	19 56 47.0	-1.9
DRWC	Darouich	2.61	233	⇓iP	Pn	19 56 15.9	-0.7
DRWC				⇓iS	Sn	19 56 47.0	-1.9
SIRT	Sirnak	2.61	105	PN	Pn	19 56 17.2	+0.6
SIRT	Sirnak	2.61	105	ePn	Pn	19 56 17.2	+0.6
JHLN	Al Jahlan	2.63	195	⇓P	Pn	19 56 17.7	+0.9
JHLN				⇓S	Sn	19 56 49.7	+0.4
JHLN	Al Jahlan	2.63	195	⇓iP	Pn	19 56 17.7	+0.9
JHLN				⇓iS	Sn	19 56 49.7	+0.4

MACK	Trabzon	2.75	8	i P	Pn	19 56 17.9	-0.6
MACK				i S	Sn	19 56 55.7	+3.5
BNN	Bunyan	2.75	284	ePN	Pn	19 56 17.3	-1.2
BNN	Bunyan	2.75	284	Pn	Pn	19 56 17.9	-0.6
BNN	Bunyan	2.75	284	Pn	Pn	19 56 17.9	-0.6
KTUT	Trabzon	2.79	8	ePN	Pn	19 56 17.0	-2.0
KTUT	Trabzon	2.79	8	ePn	Pn	19 56 17.0	-2.0
GRSN	GIRESUNGRSN	2.81	344	i P	Pn	19 56 17.9	-1.4
GRSN				i S	Sn	19 56 58.8	+5.0
KOZT	Kozan	2.82	256	ePN	Pn	19 56 19.3	-0.1
COBT	Iskenderun	2.94	236	i P	Pn	19 56 20.3	-0.7
COBT				i S	Sn	19 57 01.7	+4.8
TUTA	Tutak	3.01	66	i P	Pn	19 56 21.2	-0.9
TUTA				i S	Sn	19 57 04.2	+5.4
CEYT	Ceyhan	3.04	248	ePN	Pn	19 56 22.5	0.0
CEYT	Ceyhan	3.04	248	Pn	Pn	19 56 22.0	-0.5
CEYT	Ceyhan	3.04	248	ePn	Pn	19 56 22.5	0.0
BTCH	Batrach	3.13	227	⇓P	Pn	19 56 23.7	0.0
BTCH				⇓S	Sn	19 56 59.8	-1.8
BTCH	Batrach	3.13	227	⇓iP	Pn	19 56 23.7	0.0
BTCH				⇓iS	Sn	19 56 59.8	-1.8
AGRB	Hanur-Agry	3.21	64	ePN	Pn	19 56 23.7	-1.1
AGRB	Hanur-Agry	3.21	64	ePn	Pn	19 56 23.7	-1.1
VANT	Van	3.25	85	ePN	Pn	19 56 23.6	-1.8
VANT	Van	3.25	85	Pn	Pn	19 56 24.0	-1.4
VANT	Van	3.25	85	P	Pn	19 56 24.0	-1.4
HTY	Hatay	3.26	231	ePN	Pn	19 56 25.2	-0.3
HTY	Hatay	3.26	231	Pn	Pn	19 56 25.2	-0.3
HTY	Hatay	3.26	231	ePn	Pn	19 56 25.2	-0.3
TVAN	Van	3.27	83	i P	Pn	19 56 24.9	-0.7
TVAN				i S	Sn	19 57 08.7	+3.6
YAYL	Yayladag	3.34	230	i P	Pn	19 56 26.1	-0.4
YAYL				i S	Sg	19 57 20.0	-0.5
YOZ	Yozgat	3.39	296	ePN	Pn	19 56 26.3	-0.9
YOZ	Yozgat	3.39	296	ePn	Pn	19 56 26.3	-0.9
KARA	Karaisali	3.47	255	ePN	Pn	19 56 27.5	-0.9
KARA	Karaisali	3.47	255	ePn	Pn	19 56 27.5	-0.9
AVNT	Avonos	3.50	281	i P	Pn	19 56 28.9	+0.1
AVNT				i S	Sg	19 57 25.0	-0.9
KRTS	Karatas	3.51	243	ePN	Pn	19 56 29.1	+0.2
KRTS	Karatas	3.51	243	ePn	Pn	19 56 29.1	+0.2
ARNB	Al Arnab	3.53	229	⇑P	Pn	19 56 29.6	+0.4
ARNB				⇑S	Sn	19 57 10.4	-1.2
WRDH	Warideh	3.54	221	⇑P	Pn	19 56 29.8	+0.4
WRDH				⇑S	Sn	19 57 10.8	-1.1
WRDH	Warideh	3.54	221	⇑iP	Pn	19 56 29.8	+0.4
WRDH				⇑iS	Sn	19 57 10.8	-1.1
HAKT	HAKKARI	3.58	99	i P	Pn	19 56 29.0	-0.8
HAKT				i S	Sg	19 57 32.8	+4.6
SLNF	Slenfeh	3.58	224	⇑P	Pn	19 56 30.3	+0.4
SLNF				⇑S	Sn	19 57 12.5	-0.3
SLNF	Slenfeh	3.58	224	⇑iP	Pn	19 56 30.3	+0.4
SLNF				⇑iS	Sn	19 57 12.5	-0.2
HKR	Hakkari	3.60	99	ePN	Pn	19 56 30.3	+0.2
HKR	Hakkari	3.60	99	Pn	Pn	19 56 28.9	-1.2
HKR	Hakkari	3.60	99	ePn	Pn	19 56 30.3	+0.2
ARTV	Artvin	3.60	34	i P	Pn	19 56 27.5	-2.7
ARTV				i S	Sn	19 57 22.9	+10
MSL	Mosul	3.61	121	i Pn	x	19 56 31.0	
MSL				i Pb	x	19 56 36.0	
MSL				i Pg	x	19 56 43.0	
MSL				i Sn	x	19 57 14.0	
MSL				i Sb	x	19 57 14.0	
MSL				i Sg	x	19 57 29.0	
MSL	Mosul	3.61	121	i Pn	x	19 56 31.0	
NIG	Nigde	3.67	270	ePN	Pn	19 56 30.8	-0.3
NIG	Nigde	3.67	270	Pn	Pn	19 56 31.0	-0.1
NIG	Nigde	3.67	270	Pn	Pn	19 56 31.0	-0.1
GULE	Gulek	3.68	257	i P	Pn	19 56 31.7	+0.4
GULE				i S	Sg	19 57 35.9	+4.5
BCA	Borcka	3.70	29	ePN	Pn	19 56 30.0	-1.5
BCA	Borcka	3.70	29	Pn	Pn	19 56 29.6	-1.9
BCA	Borcka	3.70	29	ePn	Pn	19 56 30.0	-1.5
DYDN	Diyadin	3.70	68	i P	Pn	19 56 32.7	+1.2
DYDN				i S	Sg	19 57 30.6	-1.4
KVT	Kavak	3.79	320	ePN	Pn	19 56 31.2	-1.5
KVT	Kavak	3.79	320	ePn	Pn	19 56 31.2	-1.5
KARS	Kars	3.81	50	ePN	Pn	19 56 32.9	-0.1
KARS	Kars	3.81	50	Pn	Pn	19 56 32.9	-0.1
KARS	Kars	3.81	50	ePn	Pn	19 56 32.9	-0.1
BIDA	Albida	3.98	217	⇑P	Pn	19 56 36.5	+1.1
BIDA				⇑S	Sn	19 57 21.7	-0.9
BIDA	Albida	3.98	217	⇑iP	Pn	19 56 36.5	+1.1
BIDA				⇑iS	Sn	19 57 21.7	-1.0
MERS	Mersin	4.00	252	ePN	Pn	19 56 35.3	-0.4
MERS	Mersin	4.00	252	ePn	Pn	19 56 35.3	-0.4
CDAG	Cicekdag	4.07	292	i P	Pn	19 56 36.0	-0.6
CDAG				i S	Sb	19 57 38.5	+3.3
CORM	Corum	4.10	300	ePN	Pn	19 56 36.6	-0.4
CORM	Corum	4.10	300	ePn	Pn	19 56 36.6	-0.4
CTKT	Corum	4.21	306	i P	Pn	19 56 38.9	+0.3
CTKT				i S	Sg	19 57 44.5	-4.2
ROOS	tl_alroos	4.35	202	⇓P	Pn	19 56 42.1	+1.7
ROOS				⇓S	Sn	19 57 31.4	-0.3
ROOS	tl_alroos	4.35	202	⇓iP	Pn	19 56 42.1	+1.7
ROOS				⇓iS	Sn	19 57 31.4	-0.3
FKH	Fakeheh	4.60	211	ePn	Pn	19 56 44.8	+0.9
FKH	Fakeheh	4.60	211	ePn	Pn	19 56 44.8	+0.9
DIKM	Dikmen	4.61	319	ePN	Pn	19 56 42.8	-1.2
DIKM	Dikmen	4.61	319	ePn	Pn	19 56 42.8	-1.2
BR131	Keskin Array S	4.63	291	eP	Pn	19 56 44.2	-0.2
BR131	Keskin Array S	4.63	291	eP	Pn	19 56 44.2	-0.2
BRTR	Keskin Array B	4.63	291	Pn	Pn	19 56 44.0	-0.3
BRTR				Lg		19 58 10.0	
BRTR				LR	LR	19 58 45.6	
BRTR	Keskin Array B	4.63	291	Pn	Pn	19 56 44.0	-0.3
	8.2nm,0.3s,baz=110,slow=13,SNR=296						
BRTR				Lg		19 58 10.0	
	2.8nm,0.3s,baz=110,slow=26,SNR=6.5						
BRTR				LR	LR	19 58 45.6	
	comp=Z,3µm,19.7s,baz=131,slow=42						
BRTR	Keskin Array B	4.63	291	Pn	Pn	19 56 44.0	-0.4
BOYT	Boyabat	4.64	315	i P	Pn	19 56 43.9	-0.5
BOYT				i S	Sb	19 57 53.7	+2.0
BYBT	Boyabat	4.74	315	ePN	Pn	19 56 44.9	-1.0
BYBT	Boyabat	4.74	315	ePn	Pn	19 56 44.9	-1.0
HWQ	Hawqa	4.76	215	ePn	Pn	19 56 46.9	+0.7
HWQ	Hawqa	4.76	215	ePn	Pn	19 56 46.9	+0.8
TOS	Tosya	4.93	306	ePN	Pn	19 56 47.7	-0.7
TOS	Tosya	4.93	306	ePn	Pn	19 56 47.7	-0.7
ELDT	Eldivan	5.06	298	i P	Pn	19 56 50.1	-0.1
BHL	Bhannes	5.21	215	ePn	Pn	19 56 53.1	+0.8
BHL	Bhannes	5.21	215	ePn	Pn	19 56 53.1	+0.8
GOR	Gori	5.29	43	P	Pn	19 56 54.0	+0.7
ANTO	Ankara	5.30	290	eP	Pn	19 56 53.7	+0.1
	171nm,0.8s						
ANTO	Ankara	5.30	290	eP	Pn	19 56 53.7	+0.2
ANTO				pmax	pmax		
	comp=Z,171nm,0.8s						
ANTO	Ankara	5.30	290	eP	Pn	19 56 53.7	+0.2
	comp=Z,171nm,0.8s						
SOC	Sochi	5.37	4	eP	Pn	19 56 58.2	+3.7
SOC				e		19 58 00.2	
SOC				pmax	pmax		
	comp=Z,78nm,0.8s						
SOC				MLR	MLR		
	comp=Z,1µm,12.0s						
ONI	Oni	5.40	35	P	Pn	19 56 54.5	-0.4
ONI				S	Sg	19 58 21.8	-4.9
TBLG	Delisi	5.47	48	P	Pn	19 56 55.6	-0.3
MTA	Mtatsminda	5.48	49	P	Pn	19 56 57.0	+0.9
MTA				S	Sg	19 58 28.5	-0.9
RCY	Rachaya	5.49	212	ePn	Pn	19 56 57.7	+1.6
BZK	Bozkurt	5.50	314	ePN	Pn	19 56 55.6	-0.6
BZK	Bozkurt	5.50	314	ePn	Pn	19 56 55.6	-0.6
BRBR	Barbar	5.50	210	⇑P	Pn	19 56 58.6	+2.3
BRBR	Barbar	5.50	210	⇑iP	Pn	19 56 58.6	+2.3
BALT	Daday	5.60	308	i P	Pn	19 56 57.5	-0.1
BALT				i S	Sn	19 58 03.7	+1.1
BALT	Daday	5.60	308	i P	Pn	19 56 57.5	-0.2
BALT				i S	Sn	19 58 03.7	+1.0
DGRG	David-gareji	5.70	54	P	Pn	19 57 00.1	+1.0
DGRG				S	Sg	19 58 37.9	+1.5
ZEI	Tsey	5.75	36	eP	Pn	19 57 01.5	+1.7
CSS	Prodhromos	5.78	238	eP	Pn	19 56 58.2	-1.8
	comp=Z,2µm,0.6s						
SGKT	Sivrigoynuk	6.06	295	i P	Pn	19 57 03.2	-0.7
SGKT	Sivrigoynuk	6.06	295	i P	Pn	19 57 03.2	-0.7
MMAI	Mount Meron Ar	6.07	212	Pn	Pn	19 57 05.8	+1.7
	comp=Z,10nm,0.3s,baz=57,slow=14,SNR=28						
MMAI				Lg		19 58 51.4	
	comp=Z,68nm,0.3s,baz=20,slow=30,SNR=9.4						
MMAI				LR	LR	19 59 48.6	
	comp=Z,1µm,22.0s,baz=30,slow=42						
KIV	Kislovodsk	6.29	23	eP	Pn	19 57 06.5	-0.5
	comp=Z,37nm,0.9s						
KIV	Kislovodsk	6.29	23	eP	Pn	19 57 06.6	-0.4
KIV				eS	Sn	19 58 18.5	-0.9
KIV				pmax	pmax		
	comp=Z,18nm,1.2s						
KIV				MLR	MLR		
	comp=Z,1µm,9.0s						
KIV	Kislovodsk	6.29	23	eP	Pn	19 57 06.5	-0.5
	comp=Z,37nm,0.9s						
ASF	Jabal al Asfar	6.34	199	Pn	Pn	19 57 08.6	+0.8
ASF				Lg		19 58 58.7	
ASF	Jabal al Asfar	6.34	199	Pn	Pn	19 57 08.6	+0.8
	comp=Z,2.4nm,0.3s,baz=253,slow=7.3,SNR=59						
ASF				Lg		19 58 58.7	
	comp=Z,17nm,0.3s,baz=87,slow=22,SNR=4.0						
BHD	Baghdad	6.46	138	ePn	x	19 57 07.0	
BHD				ePg	x	19 57 32.0	
BHD				eSn	x	19 58 22.0	
BHD				eSg	x	19 59 05.0	
BHD	Baghdad	6.46	138	ePn	x	19 57 07.0	
BHD				eSn	x	19 58 22.0	
ESKT	Eskisehir	6.69	284	i P	Pn	19 57 13.6	+1.0
SEYT	Eskypehyr	6.69	284	i P	Pn	19 57 13.6	+0.9
ANN	Anapa	6.72	349	eP	Pn	19 57 15.0	+2.0
ANN				eS	Sn	19 58 30.5	+0.4
ANN				pmax	pmax		
	comp=Z,29nm,1.2s						
ANN				MLR	MLR		
	comp=N,890nm,10.0s						
ANN				MLR	MLR		
	comp=Z,783nm,10.0s						
ISP	Isparta	6.92	270	eP	Pn	19 57 20.8	+5.0
ALU	Alushta	7.42	332	eP	Pn	19 57 22.2	-0.4
ALU				pmax	pmax		
	comp=Z,20nm,0.5s						
SEV	Sevastopol’	7.59	328	eP	Pn	19 57 24.1	-0.9
SEV				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SIM	Simferopol’	7.75	332	P	Pn	19 57 29.3	+2.1
SIM				pmax	pmax		
	comp=Z,31nm,0.4s						
EIL	Elat	9.25	204	Pn	Pn	19 57 48.1	+0.4
EIL				Lg		20 00 29.8	
EIL				LR	LR	20 01 50.7	
EIL	Elat	9.25	204	Pn	Pn	19 57 48.1	+0.4
	comp=Z,0.5nm,0.3s,baz=12,slow=8.2,SNR=9.5						
EIL				Lg		20 00 29.8	
	comp=Z,3.4nm,0.3s,baz=83,slow=1.0,SNR=3.6						
EIL				LR	LR	20 01 50.7	
	comp=Z,1µm,21.9s,baz=357,slow=41						
EIL	Elat	9.25	204	Pn	Pn	19 57 48.2	+0.4
TIRR	Tirgusor	10.26	311	⇓P	Pn	19 58 00.1	-1.5
TIRR	Tirgusor	10.26	311	⇓iP	Pn	19 58 00.1	-1.5
MIB	Mutribah	10.73	139	eP	Pn	19 58 06.4	-1.7
MIB				AML	AML	20 00 03.5	
	comp=Z,29nm,0.6s						
RST	Umm Al-Ruwaisa	10.81	141	eP	Pn	19 58 07.7	-1.4
RST				AML	AML	20 00 11.8	
	comp=Z,19nm,0.7s						
NAY	Al-Naaiem	11.14	141	eP	Pn	19 58 12.8	-0.8
NAY				AML	AML	20 00 08.6	
	comp=Z,6.2nm,0.8s						
KIS	Kishinev	11.66	322	eP	Pn	19 58 22.0	+1.3
KIS	Kishinev	11.66	322	ePUNK		19 58 22.0	
PVL	Pavlikeni	11.69	300	i P	Pn	19 58 23.7	+2.6
IDI	Anoyia	11.90	260	Pn	Pn	19 58 24.0	0.0
IDI				LR	LR	20 03 47.1	
IDI	Anoyia	11.90	260	Pn	Pn	19 58 24.0	0.0
	comp=Z,0.8nm,0.3s,baz=100,slow=16,SNR=5.4						
IDI				LR	LR	20 03 47.1	
	comp=Z,814nm,20.1s,baz=62,slow=42						
IDI	Anoyia	11.90	260	Pn	Pn	19 58 24.0	0.0
VRI	Vrincioaia	12.04	313	P	Pn	19 58 28.4	+2.5
PLOR	Plostina	12.08	313	⇓P	Pn	19 58 26.1	-0.3
PLOR	Plostina	12.08	313	⇓iP	Pn	19 58 26.0	-0.4
MLR	Muntele Rosu	12.29	310	⇓P	Pn	19 58 29.9	+0.5
MLR	Muntele Rosu	12.29	310	Pn	Pn	19 58 29.3	-0.1
	comp=Z,0.1nm,0.3s,baz=319,slow=11,SNR=6.4						
MLR				LR	LR	20 04 10.2	
	comp=Z,822nm,20.9s,baz=300,slow=42						
MLR	Muntele Rosu	12.29	310	⇓iP	Pn	19 58 29.9	+0.5
MMB	Musomiste	12.40	291	i P	Pn	19 58 35.0	+4.2
VOIR		12.81	309	⇓P	Pn	19 58 36.5	+0.1
VOIR		12.81	309	⇓iP	Pn	19 58 36.5	+0.1
KKB	Krupnik	12.92	291	i P	Pn	19 58 40.0	+2.0
VTS	Vitosha	12.99	295	i P	Pn	19 58 42.5	+3.6
VTS	Vitosha	12.99	295	⇓iP	Pn	19 58 39.9	+1.0
VRSR	Storozhevoye	12.99	360	eP	Pn	19 58 38.4	-0.5
VRSR				pmax	pmax		
	comp=Z,4.0nm,4.0s						
VRSR				pmax	pmax		
	comp=N,3.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,1.0nm,0.9s						
BURAR	Bucovina Array	13.91	317	⇓P	Pn	19 58 51.4	-0.1
BURAR	Bucovina Array	13.91	317	⇓iP	Pn	19 58 51.4	-0.1
GZR	Gura Zlata	14.22	305	⇓P	Pn	19 58 56.5	+0.8
GZR	Gura Zlata	14.22	305	⇓iP	Pn	19 58 56.5	+0.8
AKASG	Malin Array Be	14.37	333	Pn	Pn	19 58 56.4	-1.3
AKASG	Malin Array Be	14.37	333	Pn	Pn	19 58 56.4	-1.3
	comp=E,0.6nm,0.3s,baz=143,slow=13,SNR=6.2						
AKASG	Malin Array Be	14.37	333	Pn	Pn	19 58 56.4	-1.3
AKBB	Malin Array Si	14.37	333	eP	Pn	19 58 59.3	+1.6
AKBB	Malin Array Si	14.37	333	eP	Pn	19 58 59.3	+1.6
KIEV	Kiev	14.37	333	eP	Pn	19 58 58.5	+0.8
	comp=E,38nm,1.5s						
KIEV	Kiev	14.37	333	eP	Pn	19 58 58.5	+0.8
KIEV				pmax	pmax		
	comp=Z,38nm,1.5s						
KIEV	Kiev	14.37	333	eP	Pn	19 58 58.5	+0.8
	comp=Z,38nm,1.5s						
DRGR		14.89	310	⇓iP	Pn	19 59 08.5	+3.7
BZS	Buzias	15.06	305	⇓P	Pn	19 59 07.1	0.0
BZS	Buzias	15.06	305	⇓iP	Pn	19 59 07.1	0.0
UZH	Uzhgorod	16.10	316	eP	Pn	19 59 22.5	+1.8
UZH	Uzhgorod	16.10	316	eP	Pn	19 59 22.0	+1.3
KOLS	Kolonicke sedl	16.28	317	eP	Pn	19 59 26.3	+3.3
KOLS	Kolonicke sedl	16.28	317	eP	Pn	19 59 26.2	+3.2
KWP	Kalwaria	16.46	319	⇓P	Pn	19 59 25.9	+0.6
KWP	Kalwaria	16.46	319	⇓iP	Pn	19 59 25.9	+0.6
LCI	Lecce	16.51	284	P	Pn	19 59 28.9	+2.8
	comp=Z,154nm,1.3s						
LCI	Lecce	16.51	284	P	Pn	19 59 28.9	+2.8
LCI				pmax	pmax		
	comp=Z,154nm,1.3s						
CRVS	Cervenica-Dubn	16.71	315	eP	Pn	19 59 31.2	+2.8
OBN	Obninsk	17.00	355	eP	Pn	19 59 31.4	-0.7
OBN	Obninsk	17.00	355	P	Pn	19 59 30.0	-2.1
OBN				pmax	pmax		
	comp=Z,7.0nm,0.8s						
OBN				MLR	MLR		
	comp=Z,300nm,20.0s						
OBN	Obninsk	17.00	355	eP	Pn	19 59 31.4	-0.7
KECS	Kecovo	17.04	313	eP	Pn	19 59 34.7	+2.1
	comp=Z,14nm,1.3s						
KECS	Kecovo	17.04	313	eP	Pn	19 59 34.7	+2.1
KECS				pmax	pmax		
	comp=Z,14nm,1.3s						
STHS	Stebnicka Huta	17.11	317	eP	Pn	19 59 39.2	+5.7
	comp=Z,17nm,1.2s						
STHS	Stebnicka Huta	17.11	317	eP	Pn	19 59 39.2	+5.7
STHS				pmax	pmax		
	comp=Z,17nm,1.2s						
PSZ	Piszkesteto	17.11	311	eP	Pn	19 59 30.6	-3.0
	comp=Z,74nm,1.6s						
PSZ	Piszkesteto	17.11	311	⇓eP	Pn	19 59 36.1	+2.5
PSZ	Piszkesteto	17.11	311	⇑iP	Pn	19 59 31.2	-2.4
PSZ	Piszkesteto	17.11	311	eP	Pn	19 59 30.6	-3.0
	comp=Z,74nm,1.6s						
BUD	Budapest	17.45	309	⇓eP	Pn	19 59 41.3	+3.5
MOS	Moscow	17.56	357	eP	Pn	19 59 38.3	-0.8
MOS				pmax	pmax		
	comp=Z,46nm,0.8s						
TIP	Timpagrande	17.59	280	eP	Pn	19 59 39.0	-0.7
TIP				P		19 59 42.8	
TIP	Timpagrande	17.59	280	eP	Pn	19 59 39.0	-0.6
VYHS	Vyhne	18.01	311	eP	Pn	19 59 44.9	+0.2
VYHS				pmax	pmax		
	comp=Z,72nm,1.6s						
VYHS	Vyhne	18.01	311	eP	Pn	19 59 44.9	+0.2
	comp=Z,72nm,1.6s						
AKTK	Aktyubinsk	18.08	41	P	Pn	19 59 46.0	+0.4
AKTK				LR	LR	20 08 29.1	
AKTK	Aktyubinsk	18.08	41	P	Pn	19 59 46.0	+0.5
AKTO	Aktyubinsk	18.08	41	P	Pn	19 59 46.0	+0.4
	comp=Z,0.2nm,0.3s,baz=236,slow=9.1,SNR=9.9						
AKTO				LR	LR	20 08 29.1	
	comp=Z,486nm,19.7s,baz=41,slow=43						
SOI	Samo	18.25	277	P	Pn	19 59 50.8	+3.0
	comp=Z,26nm,1.0s						
SOI	Samo	18.25	277	P	Pn	19 59 50.8	+3.0
SOI				pmax	pmax		
	comp=Z,26nm,1.0s						
KOLL	Kolacno	18.30	311	eP	Pn	19 59 48.8	+0.5
OJC	Ojcow	18.34	317	eP	Pn	19 59 43.0	-5.7
SGO	Sicignano	18.65	285	P	Pn	19 59 57.1	+4.4
	comp=Z,38nm,1.1s						
SGO	Sicignano	18.65	285	P	Pn	19 59 57.1	+4.4
SGO				pmax	pmax		
	comp=Z,38nm,1.1s						
SMOL	Smolenice	18.86	310	eP	Pn	19 59 54.3	-0.7
ZST	Bratislava	18.92	309	eP	Pn	19 59 55.5	-0.4
	comp=Z,27nm,0.9s						
ZST				e		19 59 58.6	
ZST	Bratislava	18.92	309	eP	Pn	19 59 55.5	-0.4
ZST				pmax	pmax		
	comp=Z,27nm,0.9s						
OKC	Ostrava-Krasne	19.04	314	eP	Pn	19 59 57.7	+0.4
SOP	Sopron	19.06	307	⇓eP	Pn	19 59 57.7	+0.1
CRES	Cresnjev	19.21	301	P	Pn	20 00 00.9	+1.6
BOJS	Bojanci	19.27	300	i P	Pn	20 00 01.9	+1.9
MORC	Moravsky Berou	19.36	314	⇓P	Pn	20 00 01.4	+0.3
MORC	Moravsky Berou	19.36	314	⇓iP	Pn	20 00 01.4	+0.3
SGG	Gregorio Mates	19.36	287	P	Pn	20 00 03.8	+2.6
MIDA	Miranda	19.46	288	P	Pn	20 00 04.5	+2.1
RNI2	Rionero Sannit	19.54	288	P	Pn	20 00 04.9	+1.5
ARSA	Arzberg	19.57	305	⇓eP	Pn	20 00 04.1	+0.4
	comp=Z,15nm,1.6s						
ARSA	Arzberg	19.57	305	⇓ePn	Pn	20 00 04.1	+0.4
	comp=Z,15nm,1.6s						
CONA	Conrad Observa	19.59	307	⇑iPn	Pn	20 00 03.4	-0.5
	comp=Z,65nm,1.3s,SNR=23						
CONA	Conrad Observa	19.59	307	Pn	Pn	20 00 03.4	-0.5
	comp=Z,65nm,1.3s,SNR=23						
VISS	Visnje	19.62	301	i P	Pn	20 00 04.1	-0.2
VAE	Valguarnera	19.63	276	P	Pn	20 00 04.4	0.0
	comp=Z,0.9nm,0.3s,baz=60,slow=16,SNR=4.7						
VAE				LR	LR	20 07 11.8	
	comp=Z,398nm,19.3s,baz=343,slow=36						
PERS	Pernice	19.65	303	i P	Pn	20 00 06.2	+1.5
VRAC	Vranov	19.69	312	P	Pn	20 00 03.7	-1.4
	comp=Z,0.5nm,0.3s,baz=114,slow=11,SNR=13						
VRAC				LR	LR	20 09 09.0	
	comp=Z,371nm,20.6s,baz=110,slow=42						
KRUC	Moravsky	19.71	311	P	Pn	20 00 04.6	-0.7
OBKA	Obir	19.99	302	⇓eP	Pn	20 00 08.4	-0.4
	comp=Z,15nm,1.0s						
OBKA	Obir	19.99	302	⇓ePn	Pn	20 00 08.4	-0.4
	comp=Z,15nm,1.0s						
PTQR	Pietraquaria	20.11	289	P	P	20 00 10.2	+1.8
	comp=Z,568nm,1.9s						
AQU	L’Aquila	20.13	290	eP	P	20 00 08.8	+0.3
	comp=Z,118nm,1.2s						
AQU	L’Aquila	20.13	290	⇓iP	P	20 00 09.6	+1.0
AQU	L’Aquila	20.13	290	eP	P	20 00 08.8	+0.2
	comp=Z,118nm,1.2s						
JAVS	Javornik	20.17	300	i P	P	20 00 09.2	+0.3
VOY	Vojsko	20.31	301	eP	P	20 00 10.2	-0.3
VOY				e		20 00 35.2	
DPC	Dobruska-Polom	20.32	314	eP	P	20 00 12.0	+1.4
TREC	Trest	20.34	311	eP	P	20 00 11.1	+0.3
UPC	Upice	20.57	314	eP	P	20 00 15.2	+1.9
KSP	Ksiaz	20.57	315	eP	P	20 00 16.0	+2.7
KSP				epP		20 00 19.0	
MOA	Molln	20.57	306	⇑iP	P	20 00 14.1	+0.7
	comp=Z,77nm,1.3s,SNR=22						
MYKA	Terra Mystica	20.63	302	⇓ipP	pP	20 00 16.6	+2.3
	comp=Z,63nm,1.2s						
MNS	Montasola	20.66	290	P	P	20 00 17.8	+3.4
ASS	Assisi	20.73	292	P	P	20 00 13.8	-1.3
ASS				pmax	pmax		
	comp=Z,6.0nm,1.4s						
ASS	Assisi	20.73	292	P	P	20 00 13.8	-1.3
	comp=Z,6.2nm,1.4s						
PTCC	Patocco-Chiusa	20.77	301	P	P	20 00 16.4	+1.0
GMNA	Gemona	20.81	301	P	P	20 00 16.9	+0.9
KBA	Koelnbreinsper	20.94	303	⇑iP	P	20 00 18.0	+0.7
	comp=Z,75nm,1.4s,SNR=17						
KBA	Koelnbreinsper	20.94	303	⇑iP	P	20 00 18.0	+0.6
KBA				pmax	pmax		
	comp=Z,75nm,1.4s						
CDCA	Citt‘ di Caste	21.07	293	P	P	20 00 21.4	+2.7
PRU	Pruhonice	21.19	312	eP	P	20 00 20.8	+0.8
FVI	Forni Avoltri	21.20	302	P	P	20 00 20.5	+0.4
GEC2	GERESS Array S	21.26	308	eP	P	20 00 20.5	-0.3
GEC2				pmax	pmax		
	comp=Z,62nm,1.3s,mb4.8						
GEC2	GERESS Array S	21.26	308	eP	P	20 00 20.5	-0.3
	comp=Z,62nm,1.3s,mb4.8						
GERES	GERESS Array B	21.26	308	P	P	20 00 20.3	-0.5
	comp=Z,9.4nm,0.8s,mb4.2,baz=113,slow=10,SNR=22						
GERES				LR	LR	20 08 41.8	
	comp=Z,310nm,21.0s,MS3.7,baz=254,slow=37						
PRA	Prague	21.29	312	P	P	20 00 23.0	+2.0
SFI	Santa Sofia	21.39	294	P	P	20 00 22.8	+0.6
SFI				pmax	pmax		
	comp=Z,72nm,1.1s,mb4.9						
SFI	Santa Sofia	21.39	294	P	P	20 00 22.8	+0.6
	comp=Z,72nm,1.1s,mb4.9						
PVCC	Panska Ves	21.40	313	eP	P	20 00 23.2	+0.9
ABTA	Abfaltersbach	21.41	302	⇓ipP	pP	20 00 24.6	+1.7
	comp=Z,18nm,1.1s						
KHC	Kasperske Hory	21.44	309	⇑iP	P	20 00 22.1	-0.6
KHC	Kasperske Hory	21.44	309	eP	P	20 00 22.3	-0.4
KHC				epP		20 00 25.0	
VMG	Vicchio	21.61	294	P	P	20 00 25.9	+1.3
	comp=Z,106nm,1.1s,mb5.2						
SEI	Scarperia	21.75	294	P	P	20 00 28.6	+2.5
VSU	Vasula	21.83	342	eP	P	20 00 27.1	+0.3
CTI	Castel Tesino	21.84	300	P	P	20 00 27.1	0.0
WET	Wettzell	21.88	308	eP	P	20 00 27.0	-0.4
WET				pmax	pmax		
	comp=Z,153nm,2.0s,mb5.1						
WET	Wettzell	21.88	308	eP	P	20 00 27.0	-0.4
	comp=Z,153nm,2.0s,mb5.1						
BRG	Berggiesshubel	21.91	313	eP	P	20 00 29.7	+2.0
BRG				pmax	pmax		
	comp=Z,49nm,1.6s,mb4.7						
BRG	Berggiesshubel	21.91	313	eP	P	20 00 29.6	+1.9
	comp=Z,81nm,1.6s,mb4.9						
BRG	Berggiesshubel	21.91	313	eP	P	20 00 29.7	+2.0
	comp=Z,82nm,1.6s,mb4.9						
WTTA	Wattenberg	22.12	303	i P	P	20 00 31.8	+1.8
	comp=Z,31nm,1.1s,mb4.7,SNR=8.1						
WTTA	Wattenberg	22.12	303	i P	P	20 00 31.8	+1.8
WTTA				pmax	pmax		
	comp=Z,31nm,1.1s,mb4.7						
WATA	Walderalm	22.18	303	⇑iP	P	20 00 30.7	+0.1
	comp=Z,30nm,1.1s,mb4.6						
WATA	Walderalm	22.18	303	⇑iP	P	20 00 30.7	+0.1
WATA				pmax	pmax		
	comp=Z,30nm,1.1s,mb4.6						
ARU	Arti	22.29	29	eP	P	20 00 29.5	-2.2
	comp=Z,29nm,0.9s,mb4.7						
ARU	Arti	22.29	29	i P	P	20 00 30.1	-1.6
ARU				pmax	pmax		
	comp=Z,97nm,2.0s,mb4.9						
ARU	Arti	22.29	29	eP	P	20 00 29.5	-2.2
	comp=Z,29nm,0.9s,mb4.7						
SQTA	Sankt Quirin	22.39	303	⇑iP	P	20 00 32.3	-0.5
	comp=Z,36nm,1.1s,mb4.7						
SQTA	Sankt Quirin	22.39	303	⇑iP	P	20 00 32.3	-0.6
SQTA				pmax	pmax		
	comp=Z,36nm,1.1s,mb4.7						
MOTA	Moosalm	22.49	303	i P	P	20 00 33.1	-0.9
	comp=Z,33nm,0.8s,mb4.8,SNR=23						
MOTA	Moosalm	22.49	303	i P	P	20 00 33.1	-0.8
MOTA				pmax	pmax		
	comp=Z,33nm,0.8s,mb4.8						
ROTZ	Rotzenmuhle	22.50	310	eP	P	20 00 34.3	+0.3
	comp=Z,181nm,1.5s,mb5.3						
NKC	Novy Kostel	22.53	311	eP	P	20 00 35.7	+1.4
FUR	Furstenfeldbru	22.59	305	eP	P	20 00 35.5	+0.6
FUR				pmax	pmax		

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       comp=Z,74nm,1.1s,mb5.0
FUR    Furstenfeldbru   22.59 305  eP     P        20 00 35.5 +0.6
       comp=Z,74nm,1.1s,mb5.0
TANN   Tannenbergstha   22.59 311  eP     P        20 00 35.6 +0.7
       comp=Z,53nm,1.5s,mb4.8
CLL    Collm            22.63 314  eP     P        20 00 34.0 -1.4
CLL                                i               20 00 39.0
CLL                                 LR    LR
       comp=Z,400nm,22.5s,MS3.8
CLL    Collm            22.63 314  eP     P        20 00 36.0 +0.6
CLL                                i pP            20 00 39.0
       comp=Z,32nm,1.5s
CLL                                ex     x        20 00 47.0
MANZ   Manzenberg       22.64 310  eP     P        20 00 36.4 +0.9
       comp=Z,110nm,2.1s,mb4.9
FETA   Feichten         22.66 302⇑iP     P        20 00 36.9 +1.1
       comp=Z,26nm,1.1s,mb4.6
RETA   Reutte           22.75 303⇑iP     P        20 00 37.1 +0.4
       comp=Z,46nm,1.4s,mb4.7,SNR=8.3
GRA1   Grafenberg Arr   23.08 309  eP     P        20 00 39.3 -0.8
       comp=Z,191nm,1.5s,mb5.3
GRF    Grafenberg Arr   23.08 309  eP     P        20 00 39.3 -0.8
GRF                                 pmax  pmax
       comp=Z,191nm,1.5s,mb5.3
GRF    Grafenberg Arr   23.08 309  eP     P        20 00 39.3 -0.8
GRF                                 pmax  pmax
       comp=Z,191nm,1.5s,mb5.3
GRF    Grafenberg Arr   23.08 309  eP     P        20 00 39.3 -0.8
       comp=Z,191nm,1.5s,mb5.3
GRFO   Grafenberg       23.08 309  eP     P        20 00 39.2 -0.9
GRFO                                pmax  pmax
       comp=Z,146nm,1.4s,mb5.2
GRFO   Grafenberg       23.08 309  eP     P        20 00 39.2 -0.9
       comp=Z,146nm,1.4s,mb5.2
MOX    Moxa             23.17 311  eP     P        20 00 43.1 +2.0
       comp=Z,42nm,1.6s,mb4.6
MOX    Moxa             23.17 311  eP     P        20 00 43.1 +2.0
MOX                                 pmax  pmax
       comp=Z,42nm,1.6s,mb4.6
MOX    Moxa             23.17 311  eP     P        20 00 42.8 +1.7
       comp=Z,31nm,1.4s,mb4.5
DAVOX  Davos/Dischmat   23.19 301   P     P        20 00 40.9 -0.4
       comp=Z,12nm,0.8s,mb4.4,baz=40,slow=11,SNR=11
UBR    Ueberruh         23.22 303   P     P        20 00 42.5 +0.8
VSL    Villasalto       23.26 283   P     P        20 00 40.4 -1.8
VSL    Villasalto       23.26 283   P     P        20 00 40.4 -1.8
DAVA   Damuels          23.29 302⇓iP     P        20 00 40.8 -1.6
       comp=Z,60nm,1.0s,mb5.0
HDH    Heidenheim-Cha   23.38 306   P     P        20 00 44.2 +0.8
BUCH   Bad Urach        23.90 305   P     P        20 00 48.4  0.0
GUT    Gutenstein       23.96 304   P     P        20 00 49.1 +0.1
SIND   Sindeldorf       23.98 307   P     P        20 00 49.7 +0.6
SISB   Singen-Schiene   23.98 303   P     P        20 00 48.9 -0.2
KEST   Kesra            23.98 273   P     P        20 00 49.0 -0.2
       comp=Z,13nm,0.9s,mb4.4,baz=326,slow=4.1,SNR=20
KEST                                LR    LR       20 11 09.9
       comp=Z,123nm,18.0s,MS3.4,baz=356,slow=39
STU    Stuttgart        24.08 306  eP     P        20 00 48.7 -1.3
       comp=Z,65nm,1.2s,mb4.9
SPAK   Spaichingen-Ko   24.19 304  eP     P        20 00 49.8 -1.2
UBBA   Unterbreizbach   24.19 311  eP     P        20 00 53.0 +2.0
       comp=Z,163nm,2.3s,mb5.0
KBL    Kabul            24.20  90  eP     P        20 00 50.5 -0.8
KBL    Kabul            24.20  90  eP     P        20 00 50.5 -0.8
CLZ    Clausthal        24.35 313  eP     P        20 00 53.9 +1.5
CLZ                                 pmax  pmax
       comp=Z,51nm,1.6s,mb4.7
CLZ    Clausthal        24.35 313  eP     P        20 00 53.9 +1.5
       comp=Z,51nm,1.6s,mb4.7
BFO    Black Forest     24.53 304  eP     P        20 00 56.0 +1.8
BFO                                 pmax  pmax
       comp=Z,65nm,1.8s,mb4.9
BFO    Black Forest     24.53 304  eP     P        20 00 56.0 +1.8
       comp=Z,65nm,1.8s,mb4.9
TOD    Tromm            24.55 307  eP     P        20 00 54.2 -0.1
SBF    Sospel           24.57 293  eP     P        20 00 53.5 -1.0
       comp=Z,128nm,1.1s,mb5.1
SBF    Sospel           24.57 293  eP     P        20 00 53.5 -1.0
SBF                                 pmax  pmax
       comp=Z,64nm,1.1s,mb5.1
SBF    Sospel           24.57 293  eP     P        20 00 53.5 -1.0
       comp=Z,64nm,1.1s,mb5.1
LUCF   Luceram          24.63 293  eP     P        20 00 57.3 +2.2
FELD   Feldberg im Sc   24.65 303  eP     P        20 00 54.9 -0.3
FINES  FINESS Array B   24.66 345   P     P        20 00 54.0 -1.2
FINES  FINESS Array B   24.66 345   P     P        20 00 54.0 -1.2
       comp=Z,4.4nm,0.6s,mb4.2,baz=146,slow=8.7,SNR=16
TOUF   Mont Tournerai   24.71 294  eP     P        20 00 56.6 +0.8
KIZ    Kirchzarten      24.73 303   P     P        20 00 56.0 +0.1
DOI    San Damiano      24.73 295   P     P        20 00 55.1 -0.9
DOI                                 pmax  pmax
       comp=Z,26nm,0.8s,mb4.8
DOI    San Damiano      24.73 295   P     P        20 00 55.1 -0.9
       comp=Z,26nm,0.8s,mb4.8
BBS    Basel-Blauen     24.90 302   P     P        20 00 57.9 +0.4
TNS    Taunus Mts       24.95 309  eP     P        20 00 57.4 -0.5
TNS                                 pmax  pmax
       comp=Z,50nm,1.5s,mb4.8
TNS    Taunus Mts       24.95 309  eP     P        20 00 57.4 -0.5
       comp=Z,50nm,1.5s,mb4.8
CALN   Calern           24.96 293  eP     P        20 00 57.9 -0.2
LANF   Langenberg       25.02 306  eP     P        20 00 57.7 -0.9
MBDF   Montbardon       25.09 295  eP     P        20 00 58.4 -0.8
       comp=Z,39nm,0.8s,mb4.7
MBDF   Montbardon       25.09 295  eP     P        20 00 58.4 -0.8
MBDF                                pmax  pmax
       comp=Z,19nm,0.8s,mb4.7
MBDF   Montbardon       25.09 295  eP     P        20 00 58.4 -0.8
       comp=Z,19nm,0.8s,mb4.7
FRF    La Foret Royal   25.13 293  eP     P        20 00 59.0 -0.6
       comp=Z,124nm,1.5s,mb4.9
FRF    La Foret Royal   25.13 293  eP     P        20 00 59.0 -0.6
FRF                                 pmax  pmax
       comp=Z,62nm,1.5s,mb4.9
FRF    La Foret Royal   25.13 293  eP     P        20 00 59.0 -0.6
       comp=Z,62nm,1.5s,mb4.9
LPG    La Plagne        25.16 297  eP     P        20 00 59.3 -0.6
       comp=Z,62nm,1.1s,mb4.7
LPG    La Plagne        25.16 297  eP     P        20 00 59.3 -0.6
LPG                                 pmax  pmax
       comp=Z,31nm,1.1s,mb4.8
LPG    La Plagne        25.16 297  eP     P        20 00 59.3 -0.6
       comp=Z,31nm,1.1s,mb4.7
BNI    Bardonecchia     25.17 296  eP     P        20 00 59.1 -0.9
BNI                                 pmax  pmax
       comp=Z,40nm,1.1s,mb4.9
BNI    Bardonecchia     25.17 296  eP     P        20 00 59.1 -0.9
       comp=Z,40nm,1.1s,mb4.9
LPL    La Plagne        25.18 297  eP     P        20 00 59.3 -0.7
       comp=Z,37nm,1.1s,mb4.5
LPL    La Plagne        25.18 297  eP     P        20 00 59.3 -0.7
LPL                                 pmax  pmax
       comp=Z,18nm,1.1s,mb4.5
LPL    La Plagne        25.18 297  eP     P        20 00 59.3 -0.7
       comp=Z,18nm,1.1s,mb4.5
JOF    Joensuu          25.20 351  ep     P        20 00 58.0 -2.1
       comp=Z,7.8nm,0.9s,mb4.2
KAF    Kangasniemi      25.22 346  ep     P        20 00 59.8 -0.5
       baz=151,slow=9.6
CDF    Champ du Feu     25.24 304  eP     P        20 01 00.2 -0.4
       comp=Z,31nm,1.0s,mb4.5
CDF    Champ du Feu     25.24 304  eP     P        20 01 00.2 -0.4
CDF                                 pmax  pmax
       comp=Z,15nm,1.0s,mb4.5
CDF    Champ du Feu     25.24 304  eP     P        20 01 00.2 -0.4
       comp=Z,15nm,1.0s,mb4.5
BSEG   Bad Segeberg     25.26 318  eP     P        20 01 03.5 +2.8
       comp=Z,58nm,1.7s,mb4.8
ECH    Echery           25.28 304  eP     P        20 00 59.4 -1.5
CMAH   Djebel Manchou   25.28 276   P     P        20 01 02.0 +0.9
ABSA   Djebel Ababsia   25.32 275   P     P        20 01 03.0 +1.6
LOMF   Lomont           25.34 302  eP     P        20 01 00.3 -1.2
HINF   Hinteralfeld     25.40 303  eP     P        20 01 01.9 -0.2
       comp=Z,35nm,0.9s,mb4.6
HINF   Hinteralfeld     25.40 303  eP     P        20 01 01.9 -0.2
HINF                                pmax  pmax
       comp=Z,17nm,0.9s,mb4.6
HINF   Hinteralfeld     25.40 303  eP     P        20 01 01.9 -0.2
       comp=Z,17nm,0.9s,mb4.6
ORIF   Oris-en-Rattie   25.73 296  eP     P        20 01 03.4 -1.7
       comp=Z,42nm,0.9s,mb4.7
ORIF                               eMLR   MLR
       comp=Z,361nm,21.0s,MS3.6
ORIF   Oris-en-Rattie   25.73 296  eP     P        20 01 03.4 -1.7
ORIF                                pmax  pmax
       comp=Z,21nm,0.9s,mb4.7
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ORIF   Oris-en-Rattie   25.73 296  eP     P        20 01 03.4 -1.7
       comp=Z,21nm,0.9s,mb4.7
CABF   La Chapelle      25.74 300  eP     P        20 01 04.4 -0.7
       comp=Z,92nm,1.1s,mb4.9
CABF   La Chapelle      25.74 300  eP     P        20 01 04.4 -0.7
CABF                                pmax  pmax
       comp=Z,46nm,1.1s,mb4.9
CABF   La Chapelle      25.74 300  eP     P        20 01 04.4 -0.7
       comp=Z,46nm,1.1s,mb4.9
HAU    Haudompre        25.77 303  eP     P        20 01 05.0 -0.4
       comp=Z,55nm,1.3s,mb4.6
HAU                                eMLR   MLR
       comp=Z,344nm,22.0s,MS3.5
HAU    Haudompre        25.77 303  eP     P        20 01 05.0 -0.4
       comp=Z,28nm,1.3s,mb4.6
HAU                                 LR    LR
       comp=Z,340nm,22.0s,MS3.8
HAU    Haudompre        25.77 303  eP     P        20 01 05.0 -0.4
HAU                                 pmax  pmax
       comp=Z,27nm,1.3s,mb4.6
HAU                                 MLR   MLR
       comp=Z,340nm,22.0s,MS3.8
SMRF   Simiane la Rot   25.91 294  eP     P        20 01 06.3 -0.4
       comp=Z,152nm,1.5s,mb5.0
SMRF   Simiane la Rot   25.91 294  eP     P        20 01 06.3 -0.4
       comp=Z,76nm,1.5s,mb5.0
TMCR   Tamitsa          25.99 359  eP     P        20 00 59.9 -7.3
TMCR                                pmax  pmax
       comp=Z,47nm,1.5s,mb4.8
BRVK   Borovoye         26.02  45  eP     P        20 01 05.1 -2.5
       comp=Z,20nm,1.4s,mb4.5
BRVK   Borovoye         26.02  45  eP     P        20 01 05.1 -2.5
BRVK                                pmax  pmax
       comp=Z,20nm,1.4s,mb4.5
BRVK   Borovoye         26.02  45  eP     P        20 01 05.1 -2.5
       comp=Z,20nm,1.4s,mb4.5
CASM   Ain Smara        26.09 276   P     P        20 01 10.0 +1.5
CTEI   Djebel Teioual   26.21 275   P     P        20 01 11.0 +1.5
WLF    Walferdange      26.23 307  eP     P        20 01 10.0 +0.5
WLF    Walferdange      26.23 307  eP     P        20 01 10.5 +0.9
       comp=Z,39nm,1.2s,mb4.8
WLF    Walferdange      26.23 307  eP     P        20 01 10.0 +0.4
DFRA   Djebel Bou Aff   26.51 277   P     P        20 01 12.0 -0.2
VIVF   Saint-Julien-l   26.59 296  eP     P        20 01 10.9 -1.9
       comp=Z,30nm,1.0s,mb4.5
VIVF   Saint-Julien-l   26.59 296  eP     P        20 01 10.9 -1.9
VIVF                                pmax  pmax
       comp=Z,15nm,1.0s,mb4.5
VIVF   Saint-Julien-l   26.59 296  eP     P        20 01 10.9 -1.9
       comp=Z,15nm,1.0s,mb4.5
MEZF   Maizieres J'vi   26.71 304  eP     P        20 01 13.8 -0.1
ATD    Arta Tunnel      26.77 172   LR    LR       20 12 04.9
       comp=Z,240nm,18.4s,MS3.8,baz=359,slow=37
CKHR   Kef el Ahmar     26.92 276   P     P        20 01 16.0 +0.1
SET    Setif            26.96 276   P     P        20 01 16.0 -0.3
AAK    Ala-Archa        27.05  69  eP     P        20 01 19.3 +2.2
AAK                                 pmax  pmax
       comp=Z,3.0nm,1.0s,mb3.8
LASF   Ste Croix        27.15 294  eP     P        20 01 17.0 -0.9
       comp=Z,98nm,1.6s,mb4.8
LASF   Ste Croix        27.15 294  eP     P        20 01 17.0 -0.9
       comp=Z,49nm,1.6s,mb4.8
GIVF   Givet            27.17 307  eP     P        20 01 18.1 +0.1
HFS    Hagfors          27.25 332   P     P        20 01 18.2 -0.4
       comp=Z,4.2nm,0.7s,mb4.1,baz=138,slow=12,SNR=7.9
HFS                                 LR    LR       20 13 06.8
       comp=Z,460nm,20.0s,MS4.0,baz=127,slow=39
HFA0   Hagfors New Ar   27.26 332   P     P        20 01 20.9 +2.2
SMF    Signal de Mont   27.28 299  eP     P        20 01 18.5 -0.6
       comp=Z,79nm,1.4s,mb4.8
SMF    Signal de Mont   27.28 299  eP     P        20 01 18.5 -0.6
SMF                                 pmax  pmax
       comp=Z,40nm,1.4s,mb4.8
SMF    Signal de Mont   27.28 299  eP     P        20 01 18.5 -0.6
       comp=Z,40nm,1.4s,mb4.8
LOR    Lormes           27.33 301  eP     P        20 01 17.7 -1.8
       comp=Z,21nm,1.0s,mb4.3
LOR                                eMLR   MLR
       comp=Z,461nm,19.0s,MS3.8
LOR    Lormes           27.33 301  eP     P        20 01 17.7 -1.8
       comp=Z,11nm,1.0s,mb4.3
LOR                                 LR    LR
       comp=Z,460nm,19.0s,MS4.1
LOR    Lormes           27.33 301  eP     P        20 01 17.7 -1.8
LOR                                 pmax  pmax
       comp=Z,11nm,1.0s,mb4.3
LOR                                 MLR   MLR
       comp=Z,460nm,19.0s,MS4.1
BAIF   Baives           27.55 307  eP     P        20 01 21.5 +0.1
       comp=Z,92nm,1.5s,mb4.9
BAIF   Baives           27.55 307  eP     P        20 01 21.5 +0.1
BAIF                                pmax  pmax
       comp=Z,46nm,1.5s,mb4.9
BAIF   Baives           27.55 307  eP     P        20 01 21.5 +0.1
       comp=Z,46nm,1.5s,mb4.9
SSF    Saint Saulge     27.55 300  eP     P        20 01 20.0 -1.5
       comp=Z,36nm,1.3s,mb4.5
SSF    Saint Saulge     27.55 300  eP     P        20 01 20.0 -1.5
SSF                                 pmax  pmax
       comp=Z,18nm,1.3s,mb4.5
SSF    Saint Saulge     27.55 300  eP     P        20 01 20.0 -1.5
       comp=Z,18nm,1.3s,mb4.5
AVF    Avril sur Loir   27.63 300  eP     P        20 01 21.7 -0.5
       comp=Z,58nm,1.3s,mb4.8
AVF    Avril sur Loir   27.63 300  eP     P        20 01 21.7 -0.5
AVF                                 pmax  pmax
       comp=Z,29nm,1.3s,mb4.8
AVF    Avril sur Loir   27.63 300  eP     P        20 01 21.7 -0.5
       comp=Z,29nm,1.3s,mb4.8
BGF    Bois d'Agland    27.96 299  eP     P        20 01 25.5 +0.4
       comp=Z,20nm,0.8s,mb4.5
BGF    Bois d'Agland    27.96 299  eP     P        20 01 25.5 +0.4
BGF                                 pmax  pmax
       comp=Z,10.0nm,0.8s,mb4.5
BGF    Bois d'Agland    27.96 299  eP     P        20 01 25.5 +0.4
       comp=Z,9.9nm,0.8s,mb4.5
MTLF   Montolieu        28.36 292  eP     P        20 01 28.1 -0.6
       comp=Z,31nm,1.2s,mb4.5
MTLF   Montolieu        28.36 292  eP     P        20 01 28.1 -0.6
MTLF                                pmax  pmax
       comp=Z,16nm,1.2s,mb4.5
MTLF   Montolieu        28.36 292  eP     P        20 01 28.1 -0.6
       comp=Z,16nm,1.2s,mb4.5
TCF    Toulx Ste Croi   28.38 298  eP     P        20 01 28.1 -0.8
       comp=Z,57nm,1.5s,mb4.7
TCF    Toulx Ste Croi   28.38 298  eP     P        20 01 28.1 -0.8
TCF                                 pmax  pmax
       comp=Z,28nm,1.5s,mb4.7
TCF    Toulx Ste Croi   28.38 298  eP     P        20 01 28.1 -0.8
       comp=Z,28nm,1.5s,mb4.7
CAF    Calviac          28.44 296  eP     P        20 01 27.9 -1.5
NB2    NORSAR Subarra   28.77 332   P     P        20 01 29.1 -3.1
       comp=Z,9.2nm,1.4s,mb4.3,baz=130,slow=9.3
NOA    NORSAR Array B   28.77 332   P     P        20 01 30.9 -1.3
       comp=Z,1.2nm,0.7s,mb3.7,baz=128,slow=9.2,SNR=3.5
NOA                                 LR    LR       20 14 15.7
       comp=Z,317nm,21.0s,MS3.9,baz=140,slow=39
RJF    Les Rejaudoux    28.83 296  eP     P        20 01 33.1 +0.2
RJF                                eMLR   MLR
       comp=Z,431nm,21.6s,MS3.7
RJF    Les Rejaudoux    28.83 296  eP     P        20 01 33.1 +0.2
RJF                                 MLR   MLR
       comp=Z,430nm,21.6s,MS4.0
LFF    La Frestale      29.38 296  eP     P        20 01 37.8  0.0
EPF    Esparros         29.75 292  eP     P        20 01 38.9 -2.1
       comp=Z,27nm,1.3s,mb4.5
EPF    Esparros         29.75 292  eP     P        20 01 38.9 -2.1
EPF                                 pmax  pmax
       comp=Z,14nm,1.3s,mb4.5
EPF    Esparros         29.75 292  eP     P        20 01 38.9 -2.1
       comp=Z,14nm,1.3s,mb4.5
KURK   Kurchatov        30.37  53  eP     P        20 01 46.2 -0.3
       comp=Z,12nm,1.1s,mb4.5
KURK   Kurchatov        30.37  53  i P    P        20 01 46.5  0.0
KURK   Kurchatov        30.37  53  eP     P        20 01 46.2 -0.3
       comp=Z,12nm,1.1s,mb4.5
ETSF   Etsaut           30.41 292  eP     P        20 01 46.7 -0.3
       comp=Z,19nm,1.0s,mb4.5
ETSF   Etsaut           30.41 292  eP     P        20 01 46.7 -0.3
ETSF                                pmax  pmax
       comp=Z,9.0nm,1.0s,mb4.5
ETSF   Etsaut           30.41 292  eP     P        20 01 46.7 -0.3
       comp=Z,9.4nm,1.0s,mb4.5
ARCES  ARCESS Array B   32.24 351   P     P        20 02 01.9 -0.8
       comp=Z,2.9nm,0.6s,mb4.3,baz=148,slow=7.1,SNR=7.9
MK31   Makanchi Array   32.51  61  eP     P        20 02 04.8 -0.5
MK31   Makanchi Array   32.51  61  eP     P        20 02 04.8 -0.6
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MKAR   Makanchi Array   32.51  61   P     P        20 02 04.9 -0.5
       comp=Z,1.6nm,0.7s,mb4.1,baz=271,slow=6.9,SNR=17
EVIA   Vianos           32.52 284   P     P        20 02 04.4 -1.1
       comp=Z,2.1nm,0.5s,mb4.3
EVIA   Vianos           32.52 284   P     P        20 02 04.4 -1.2
EVIA                                pmax  pmax
       comp=Z,2.0nm,0.5s,mb4.3
EVIA   Vianos           32.52 284   P     P        20 02 04.4 -1.2
       comp=Z,2.1nm,0.5s,mb4.3
ENIJ   Nijar            32.69 281   P     P        20 02 05.4 -1.7
       comp=Z,7.4nm,0.7s,mb4.7
ENIJ   Nijar            32.69 281   P     P        20 02 05.4 -1.7
ENIJ                                pmax  pmax
       comp=Z,7.0nm,0.7s,mb4.7
ENIJ   Nijar            32.69 281   P     P        20 02 05.4 -1.7
       comp=Z,7.4nm,0.7s,mb4.7
EQES   Quesada          33.15 283   P     P        20 02 10.4 -0.6
       comp=Z,28nm,1.1s,mb5.1
EQES   Quesada          33.15 283   P     P        20 02 10.4 -0.7
       comp=Z,28nm,1.1s,mb5.1
EBER   Berja            33.24 281   P     P        20 02 09.6 -2.2
       comp=Z,58nm,1.6s,mb5.3
EBER   Berja            33.24 281   P     P        20 02 09.6 -2.2
       comp=Z,58nm,1.6s,mb5.3
GUD    Guadarrama       33.38 288   P     P        20 02 09.9 -3.1
       comp=Z,5.0nm,1.0s,mb4.4
GUD    Guadarrama       33.38 288   P     P        20 02 09.9 -3.1
GUD                                 pmax  pmax
       comp=Z,5.0nm,1.0s,mb4.4
ESDC   Sonseca Array    33.41 286   P     P        20 02 11.3 -2.1
       comp=Z,12nm,1.1s,mb4.7
ESDC   Sonseca Array    33.41 286   P     P        20 02 12.6 -0.8
       comp=Z,4.6nm,0.8s,mb4.5,baz=70,slow=8.9,SNR=13
ESDC   Sonseca Array    33.41 286   P     P        20 02 11.3 -2.1
       comp=Z,12nm,1.1s,mb4.7
ESLA   Sonseca Array    33.41 286  eP     P        20 02 14.1 +0.7
       comp=Z,4.2nm,1.1s,mb4.3
ESLA   Sonseca Array    33.41 286  eP     P        20 02 14.1 +0.7
       comp=Z,4.2nm,1.1s,mb4.3
EBAN   Banos Encina     33.61 284   P     P        20 02 14.0 -1.0
       comp=Z,29nm,1.0s,mb5.2
EBAN   Banos Encina     33.61 284   P     P        20 02 14.0 -1.1
EBAN                                pmax  pmax
       comp=Z,29nm,1.0s,mb5.2
EBAN   Banos Encina     33.61 284   P     P        20 02 14.0 -1.1
       comp=Z,29nm,1.0s,mb5.2
ECOG   Cogollos-Vega    33.66 282   P     P        20 02 14.2 -1.4
       comp=Z,17nm,1.0s,mb4.9
ECOG   Cogollos-Vega    33.66 282   P     P        20 02 14.2 -1.3
ECOG                                pmax  pmax
       comp=Z,17nm,1.0s,mb4.9
ECOG   Cogollos-Vega    33.66 282   P     P        20 02 14.2 -1.3
       comp=Z,17nm,1.0s,mb4.9
NVS    Novosibirsk      33.85  46  i P    P        20 02 18.6 +1.6
ERON   Agron            33.91 282   P     P        20 02 17.1 -0.6
       comp=Z,6.7nm,0.7s,mb4.7
ERON   Agron            33.91 282   P     P        20 02 17.1 -0.6
       comp=Z,6.7nm,0.7s,mb4.7
ELUQ   Luque            34.13 283   P     P        20 02 18.0 -1.6
       comp=Z,7.1nm,1.0s,mb4.5
ELUQ   Luque            34.13 283   P     P        20 02 18.0 -1.6
ELUQ                                pmax  pmax
       comp=Z,7.0nm,1.0s,mb4.5
ELUQ   Luque            34.13 283   P     P        20 02 18.0 -1.6
       comp=Z,7.1nm,1.0s,mb4.5
EADA   Adamuz           34.22 284   P     P        20 02 19.3 -1.1
       comp=Z,27nm,1.4s,mb5.0
EADA   Adamuz           34.22 284   P     P        20 02 19.3 -1.0
       comp=Z,27nm,1.4s,mb5.0
ZAL    Zalesovo         34.60  48   P     P        20 02 23.6 +0.1
ZALV   Zalesovo Beam    34.62  48   P     P        20 02 23.6  0.0
       comp=Z,1.3nm,0.5s,mb4.2,baz=263,slow=9.3,SNR=8.7
ZALV                                LR    LR       20 18 25.8
       comp=Z,223nm,19.7s,MS3.9,baz=82,slow=40
EMIJ   Mijas            34.78 281   P     P        20 02 26.3 +1.0
       comp=Z,52nm,1.4s,mb5.3
EMIJ   Mijas            34.78 281   P     P        20 02 26.3 +1.0
       comp=Z,52nm,1.4s,mb5.3
MTE    Manteigas        35.96 289  eP     P        20 02 36.7 +1.4
       comp=Z,36nm,1.3s,mb5.1
MTE    Manteigas        35.96 289   P     P        20 02 33.9 -1.4
MTE    Manteigas        35.96 289   P     P        20 02 33.9 -1.4
PBAR   Barrancos        36.09 285  eP     P        20 02 36.8 +0.3
       comp=Z,26nm,2.2s,mb4.8
WMQ    Urumqi           36.54  65   P     P        20 02 40.3  0.0
WMQ                                 AMB   AMB
       comp=Z,6.0nm,0.6s,mb4.6
WMQ                                 AMB   AMB
       comp=Z,24nm,4.0s
PBEJ   Beja             36.76 285  eP     P        20 02 42.6 +0.4
       comp=Z,26nm,1.8s,mb4.8
PVAQ   Vaqueiros        36.81 284  eP     P        20 02 41.8 -0.9
       comp=Z,54nm,1.4s,mb5.2
PBDV   Barranco-do-Ve   37.02 284  eP     P        20 02 44.7 +0.2
       comp=Z,47nm,1.4s,mb5.1
PFVI   Vila Bisbo       37.74 284  eP     P        20 02 50.4 -0.2
GKN    Gorkha           39.01  91  eP     P        20 03 00.5 -0.9
       comp=Z,9.2nm,0.6s,mb4.7
KKN    Kakani           39.61  91  eP     P        20 03 05.8 -0.6
       comp=Z,8.3nm,0.7s,mb4.6
KKN    Kakani           39.61  91  eP     P        20 03 05.8 -0.6
KKN                                 pmax  pmax
       comp=Z,8.0nm,0.7s,mb4.6
JIRN   Jiri             40.39  91  eP     P        20 03 12.6 -0.3
TORD   Torodi Ar. Bea   41.63 243   P     P        20 03 22.1 -1.1
       comp=Z,2.6nm,1.0s,mb3.8,baz=48,slow=6.6,SNR=13
TORD                                LR    LR       20 23 35.4
       comp=Z,100nm,18.6s,MS3.7,baz=200,slow=40
ODAN   Odare            41.71  91  eP     P        20 03 23.6 -0.1
       comp=Z,41nm,1.2s,mb4.9
TAPN   Taplejung        41.73  90  eP     P        20 03 24.1 +0.2
LSA    Lhasa            43.39  85  eP     P        20 03 37.9 +0.5
       comp=Z,3.0nm,0.8s,mb4.1
LSA    Lhasa            43.39  85  eP     P        20 03 37.9 +0.5
LSA                                 pmax  pmax
       comp=Z,3.0nm,0.8s,mb4.1
LSA    Lhasa            43.39  85  eP     P        20 03 37.9 +0.5
       comp=Z,3.0nm,0.8s,mb4.1
ZAK    Zakamensk        46.03  53  eP     P        20 03 58.0 -0.2
ZAK                                 pmax  pmax
       comp=Z,3.0nm,2.0s,mb3.9
TLY    Talaya           46.04  51  eP     P        20 03 59.8 +1.6
TLY                                 pmax  pmax
       comp=Z,10.0nm,1.3s,mb4.6
TLY                                 MLR   MLR
       comp=Z,162nm,18.0s,MS4.0
IRK    Irkutsk          46.33  50  eP     P        20 04 00.5  0.0
IRK                                 pmax  pmax
       comp=Z,20nm,1.8s,mb4.8
GTA    Gaotai           46.40  69  eP     P        20 04 00.5 -0.8
GTA                                 AP             20 04 05.0
GTA                                 XP    sP       20 04 08.3 +6.4
GTA                                 PCP   PcP      20 05 37.8 +1.7
GTA                                 PP    PP       20 05 48.3 -1.6
GTA                                 SCP   ScP      20 09 24.8 -5.8
GTA                                 S     S        20 10 49.5 -0.2
GTA                                 XS    sS       20 10 57.5 +7.1
GTA                                 SCS   ScS      20 13 53.5 -4.1
GTA                                 SS    SS       20 14 07.0 -8.0
GTA                                 AMB   AMB
       comp=Z,2.0nm,1.4s,mb3.9
GTA                                 AMB   AMB
       comp=Z,200nm,5.3s
GTA                                 LR    LR
       comp=N,342nm,14.1s,MS4.5
GTA                                 LR    LR
       comp=E,222nm,14.4s,MS4.5
GTA                                 LR    LR
       comp=Z,177nm,16.4s,MS4.1
SONM   Songino Array    48.58  56   P     P        20 04 19.6 +1.5
       comp=Z,0.9nm,0.7s,mb3.9,baz=287,slow=8.2,SNR=5.0
SONM                                LR    LR       20 27 20.7
       comp=Z,790nm,18.0s,MS4.7,baz=330,slow=39
ULN    Ulaanbaatar      49.01  56⇑eP     P        20 04 21.1 -0.2
LZH    Lanzhou          50.57  71  eP     P        20 04 33.0 -0.4
LZH                                 AP             20 04 37.5
LZH                                 XP    sP       20 04 40.3 +6.3
LZH                                 AMB   AMB
       comp=Z,19nm,1.5s,mb4.8
BOD    Bodaibo          50.85  42  eP     P        20 04 34.1 -1.1
BOD                                 pmax  pmax
       comp=Z,7.0nm,1.3s,mb4.4
TIC    Toumodi          50.88 243  eP     P        20 04 33.9 -2.1
       comp=Z,152nm,1.7s,mb5.7
KIC    Kosan Boka       50.88 243  eP     P        20 04 33.8 -2.2
       comp=Z,119nm,1.3s,mb5.7
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LIC	Lamto	51.18	243	*e*P	P	20 04 35.8	-2.4
	comp=Z,52nm,1.3s,mb5.0						
LIC	Lamto	51.18	243	*e*P	P	20 04 35.7	-2.5
	comp=Z,53nm,1.4s,mb5.3						
LIC	Lamto	51.18	243	*e*P	P	20 04 35.8	-2.4
	comp=Z,26nm,1.3s,mb5.0						
CIT	Chita	51.96	49	*e*P	P	20 04 44.4	+0.8
CIT				*e*		20 06 03.1	
CIT				pmax	pmax		
	comp=Z,33nm,2.3s,mb4.9						
CD2	Chengdu	52.67	77	*e*P	P	20 04 48.5	-0.7
CD2				AP		20 04 53.0	
CD2				XP	sP	20 04 55.5	+5.7
CD2				PP	PP	20 06 49.8	+1.7
CD2				S	S	20 12 13.8	-3.9
CD2				XS	sS	20 12 21.8	+3.4
CD2				SS	SS	20 15 50.8	-5.0
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
CD2				AMB	AMB		
	comp=Z,30nm,6.8s						
CD2				LR	LR		
	comp=N,80nm,12.0s,MS4.1						
CD2				LR	LR		
	comp=E,80nm,13.2s,MS4.1						
CD2				LR	LR		
	comp=Z,60nm,12.0s,MS3.9						
TIXI	Tiksi	54.12	23	*e*P	P	20 04 58.9	-0.3
	comp=Z,47nm,1.9s,mb5.1						
TIXI	Tiksi	54.12	23	*i* P	P	20 04 59.5	+0.2
TIXI				pmax	pmax		
	comp=Z,21nm,1.7s,mb4.8						
TIXI	Tiksi	54.12	23	*e*P	P	20 04 58.9	-0.4
	comp=Z,47nm,1.9s,mb5.1						
HHC	Hu-ho-hao-te	54.33	63	*e*P	P	20 05 01.8	+0.5
HHC				AP		20 05 06.3	
HHC				XP	sP	20 05 08.8	+6.9
HHC				PCP	PcP	20 06 06.5	+1.2
HHC				PP	PP	20 07 05.5	+2.6
HHC				SCP	ScP	20 10 02.3	-2.3
HHC				PCS	PcS	20 10 04.0	-0.7
HHC				S	S	20 12 37.3	-2.7
HHC				XS	sS	20 12 45.5	+4.7
HHC				SCS	ScS	20 14 48.3	-3.4
HHC				SS	SS	20 16 18.8	-2.8
HHC				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.8						
HHC				LR	LR		
	comp=N,205nm,19.0s,MS4.3						
HHC				LR	LR		
	comp=E,204nm,21.4s,MS4.3						
HHC				LR	LR		
	comp=Z,269nm,18.4s,MS4.3						
KMI	Kunming	54.62	84	P	P	20 05 04.8	+1.2
KMI				AMB	AMB		
	comp=Z,3.0nm,0.5s,mb4.6						
XAN	Xi'an	55.20	71	P	P	20 05 07.5	-0.2
XAN				AMB	AMB		
	comp=Z,5.0nm,1.4s,mb4.3						
HIA	Hailar	56.57	51	*e*P	P	20 05 17.9	+0.6
	comp=Z,8.5nm,1.1s,mb4.7						
HIA	Hailar	56.57	51	*e*P	P	20 05 17.9	+0.6
HIA				pmax	pmax		
	comp=Z,9.0nm,1.1s						
HIA	Hailar	56.57	51	*e*P	P	20 05 17.9	+0.6
	comp=Z,8.5nm,1.1s,mb4.7						
GYA	Guiyang	57.02	81	⇓*i*P	P	20 05 22.5	+1.7
GYA				PCP	PcP	20 06 17.3	+1.4
GYA				PP	PP	20 07 30.5	+3.2
GYA				SCP	ScP	20 10 15.3	-1.3
GYA				S	S	20 13 14.5	-1.7
GYA				SCS	ScS	20 15 08.0	-3.5
GYA				SS	SS	20 17 03.8	-0.7
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
GYA				AMB	AMB		
	comp=Z,90nm,6.4s						
GYA				LR	LR		
	comp=N,320nm,19.8s,MS4.7						
GYA				LR	LR		
	comp=E,490nm,21.6s,MS4.7						
GYA				LR	LR		
	comp=Z,310nm,19.7s,MS4.4						
YAK	Yakutsk	57.27	34	*i* P	P	20 05 23.2	+1.2
YAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
BJI	Beijing	57.88	62	P	P	20 05 26.8	+0.1
BJI				AMB	AMB		
	comp=Z,3.0nm,1.3s,mb4.2						
BJI				LR	LR		
	comp=N,314nm,19.2s,MS4.6						
BJI				LR	LR		
	comp=E,301nm,16.6s,MS4.6						
BJI				LR	LR		
	comp=Z,138nm,20.5s,MS4.0						
CN2	Changchun	62.42	55	*e*P	P	20 05 58.0	+0.2
NJ2	Nanjing	63.50	69	*e*P	P	20 06 05.8	+0.7
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.4						
LBTB	Lobatse	64.19	194	P	P	20 06 08.8	-0.7
	comp=Z,47nm,1.9s,mb5.2						
LBTB	Lobatse	64.19	194	P	P	20 06 08.8	-0.7
LBTB				pmax	pmax		
	comp=Z,47nm,1.9s,mb5.2						
LBTB	Lobatse	64.19	194	P	P	20 06 08.8	-0.7
	comp=Z,47nm,1.9s,mb5.2						
HABR	Khabarovsk	65.98	46	*e*P	P	20 06 20.2	-0.8
HABR				*e*		20 08 44.8	
HABR				*e*S	S	20 15 02.7	-6.7
BILL	Bilibino	66.89	19	*e*P	P	20 06 28.2	+1.7
	comp=Z,31nm,1.6s,mb5.1						
BILL	Bilibino	66.89	19	*e*P	P	20 06 28.2	+1.7
BILL				pmax	pmax		
	comp=Z,31nm,1.6s,mb5.1						
BILL	Bilibino	66.89	19	*e*P	P	20 06 28.2	+1.7
	comp=Z,31nm,1.6s,mb5.1						
KSRS	Korea Array	67.19	60	P	P	20 06 28.7	-0.2
	comp=Z,4.1nm,0.8s,mb4.5,baz=292,slow=6.1,SNR=11						
KSRS				LR	LR	20 39 02.7	
	comp=Z,302nm,18.2s,MS4.5,baz=128,slow=39						
MA2	Magadan	67.46	31	*i* P	P	20 06 31.5	+1.3
MA2				pmax	pmax		
	comp=Z,17nm,1.9s,mb4.8						
BOSA	Boshof	67.77	193	*e*P	P	20 06 31.4	-1.1
BOSA	Boshof	67.77	193	P	P	20 06 32.3	-0.1
BOSA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
BOSA				MLR	MLR		
	comp=Z,113nm,18.1s,MS4.1						
BOSA	Boshof	67.77	193	P	P	20 06 32.3	-0.2
	comp=Z,3.9nm,0.9s,mb4.4,baz=359,slow=6.3,SNR=6.6						
BOSA				LR	LR	20 37 21.4	
	comp=Z,113nm,18.1s,MS4.1,baz=286,slow=37						
BOSA	Boshof	67.77	193	*e*P	P	20 06 31.4	-1.0
SCHQ	Schefferville	67.91	323	P	P	20 06 32.9	-0.2
SCHQ	Schefferville	67.91	323	P	P	20 06 32.9	-0.2
	comp=Z,3.4nm,0.8s,mb4.4,baz=66,slow=11,SNR=6.0						
JNU	Nakatsue	71.55	62	LR	LR	20 42 37.5	
	comp=Z,168nm,19.5s,MS4.3,baz=107,slow=40						
ASAJ	Asahikawa	72.75	47	LR	LR	20 40 51.7	
	comp=Z,186nm,18.9s,MS4.4,baz=314,slow=37						
MJAR	Matsushiro Arr	74.54	56	P	P	20 07 16.0	+2.3
	comp=Z,1.2nm,0.7s,mb3.9,baz=308,slow=6.0,SNR=3.6						
MJAR				LR	LR	20 41 23.6	
	comp=Z,184nm,21.1s,MS4.3,baz=215,slow=37						
COLA	College	77.09	3	*i* P	P	20 07 28.9	+1.2
EGAK	Eagle	77.34	0	*e*P	P	20 07 30.4	+1.2
	comp=Z,15nm,1.6s,mb4.7						
EGAK	Eagle	77.34	0	*e*P	P	20 07 30.4	+1.3
	comp=Z,15nm,1.6s,mb4.7						
YKA	Yellowknife Ar	77.45	348	P	P	20 07 30.4	+0.7
YKA	Yellowknife Ar	77.45	348	P	P	20 07 30.4	+0.7
	comp=Z,1.2nm,0.9s,mb3.8,baz=21,slow=5.9,SNR=14						
YKA	Yellowknife Ar	77.45	348	P	P	20 07 30.4	+0.6
DAWY	Dawson	78.05	359	*e*P	P	20 07 34.9	+1.8
ULM	Lac du Bonnet	83.46	333	P	P	20 08 01.8	-0.6
	comp=Z,2.0nm,0.7s,mb4.3,baz=11,slow=7.8,SNR=5.1						
ULM				LR	LR	20 44 09.9	
	comp=Z,111nm,18.8s,MS4.3,baz=17,slow=35						
TKL	Tuckaleechee C	89.55	317	LR	LR	20 47 51.6	
	comp=Z,134nm,18.0s,MS4.4,baz=56,slow=35						

CSEM ***28*** *20:03:15.0, 30.19N×57.62E, h6^{km}, ML3.7, After TEH*

TEH 28 20:03:15.0, 30.19N×57.62E, h6^{km}, ML3.7, Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IBAF	Bafgh	2.25	309	*e*Sn	Sn	20 05 05.4	+45
IBAF				*e*		20 05 11.0	
	comp=Z,7μm,0.2s						
IBAF	Bafgh	2.25	309	*e*Sn	Sn	20 05 05.4	+45
IKOO		2.53	28	*e*Pn	Pn	20 04 41.9	+45
IKOO				*e*Sn	Sn	20 05 12.8	+45
IMEH	Mehriz	2.85	296	*e*Pn	Pn	20 04 46.3	+45
IMEH				*e*		20 05 33.1	
	comp=Z,2μm,0.2s						
IMEH	Mehriz	2.85	296	*e*Pn	Pn	20 04 46.3	+45
ITEG		2.87	19	*e*Sn	Sn	20 05 20.4	+44
IDAH		3.19	37	*e*Sn	Sn	20 05 28.8	+45
ICHK	Chekchek	3.43	308	*e*Pn	Pn	20 04 53.8	+45
ICHK				*e*		20 05 54.1	
	comp=Z,2μm,0.3s						
ICHK	Chekchek	3.43	308	*e*Pn	Pn	20 04 53.8	+45
ISAD	Sadrabad	3.79	298	*e*Pn	Pn	20 05 01.0	+47
ISAD				*e*		20 05 58.2	
	comp=N,1μm,0.2s						
ISAD	Sadrabad	3.79	298	*e*Pn	Pn	20 05 01.0	+47
IZEF	Zefreh	5.26	302	*e*Pn	Pn	20 05 19.8	+46
IZEF				*e*		20 06 46.8	
	comp=Z,346nm,0.5s						
IZEF	Zefreh	5.26	302	*e*Pn	Pn	20 05 19.8	+46
IKLH	Kalahroud	6.01	303	*e*Pn	Pn	20 05 52.1	+68
IKLH	Kalahroud	6.01	303	*e*Pn	Pn	20 05 52.1	+68
IANJ	Anjiloo	6.12	330	*e*Pn	Pn	20 05 31.3	+45
IANJ				*e*		20 05 58.1	
	comp=Z,156nm,0.3s						
IANJ	Anjiloo	6.12	330	*e*Pn	Pn	20 05 31.3	+45
ISFB	Sefidab	6.17	314	*e*Pn	Pn	20 05 31.8	+45
ISFB				*e*		20 07 24.9	
	comp=Z,183nm,0.4s						
ISFB	Sefidab	6.17	314	*e*Pn	Pn	20 05 31.8	+45
IPAY	Payeh	6.35	10	*e*Pn	Pn	20 05 34.6	+46
IPAY				*e*		20 05 55.8	
	comp=Z,69nm,0.1s						
IPAY	Payeh	6.35	10	*e*Pn	Pn	20 05 34.6	+46
IAKL	Akhlamad	6.44	8	*e*Pn	Pn	20 05 35.5	+45
IAKL				*e*		20 07 50.2	
	comp=Z,95nm,0.3s						
IAKL	Akhlamad	6.44	8	*e*Pn	Pn	20 05 35.5	+45
IFIR	Firoozkooh	6.80	324	*e*Pn	Pn	20 06 00.9	+66
IFIR				*e*		20 07 54.9	
	comp=N,170nm,0.4s						
IFIR	Firoozkooh	6.80	324	*e*Pn	Pn	20 06 00.9	+66
IGLO	Galoogah	7.01	332	*e*Pn	Pn	20 05 43.7	+46
IGLO				*e*		20 08 04.0	
	comp=Z,176nm,0.3s						

NSSC ***28*** *20:08:08.2, 38.79N×39.40E, h39^{km}*
CSEM ***28*** *20:08:10.0±0.1, 38.35N×39.21E, h6^{km}, MD4.2, Error ellipse: s-maj=1.2km s-min=1.0km az=142.0*
ISK ***28*** *20:08:10.3, 38.33N×39.21E, h8^{km}, MD4.2, ML4.1*
ISCJB ***28*** *20:08:10.9±0.2, 38.32N±0.02×39.23E±0.02, h10^{km}, mb3.5/3, Error ellipse: s-maj=2.8km s-min=2.2km az=149.3*
NEIC ***28*** *20:08:10.0, 38.32N×39.21E, h7^{km}, ML3.9(ISK), After ISK.*
IDC ***28*** *20:08:11.4±1.4, 38.26N×39.41E, h0^{km}, mb3.5/3, mb1 3.7/7, mb1mx3.5/21, mbtmp3.6/7, ML3.6/4, MS3.1/2, Ms1 3.1/2, ms1mx2.8/32, Error ellipse: s-maj=21.3km s-min=16.0km az=121.0*
DDA ***28*** *20:08:11.9, 38.29N×39.22E, h8^{km}, Md4.2*

ISC 28 20:08:11.9±0.2**, 38.33N**±0.02×**39.24E**±0.02**, h10^{km}, n111,** σ**1^{s}01**/141**, mb3.5**/3**, 21D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.27	310	*i* P	Pg	20 08 16.1	-1.2
ELZG				*i* S	Sg	20 08 22.6	+1.7
PTK	Pertek	0.58	12	PG	Pg	20 08 21.5	-1.6
PTK				SG	Sg	20 08 31.1	+0.4
PTK	Pertek	0.58	12	*e*Pg	Pg	20 08 21.5	-1.6
PTK				*e*Sg	Sg	20 08 31.1	+0.4
MALT	Malatya	0.64	269	PG	Pg	20 08 22.0	-2.3
MALT				SG	Sg	20 08 31.8	-0.9
MALT	Malatya	0.64	269	*e*Pg	Pg	20 08 22.0	-2.3
MALT				*e*Sg	Sg	20 08 31.8	-0.9
MYA	Malataya	0.64	270	PG	Pg	20 08 22.4	-2.0
MYA	Malataya	0.64	270	*e*Pg	Pg	20 08 22.4	-2.0
DIY	Diyarbakir	0.89	119	PG	Pg	20 08 28.4	-0.6
DIY	Diyarbakir	0.89	119	*e*Pg	Pg	20 08 28.4	-0.6
URFA	Urfa	0.94	201	PG	Pg	20 08 29.0	-1.1
URFA	Urfa	0.94	201	*e*Pg	Pg	20 08 29.0	-1.1
ATAB	Bozova	1.14	221	*i* P	Pb	20 08 32.9	-0.8
ATAB				*i* S	Sb	20 08 49.4	+0.9
EZC	Erzincan	1.49	17	PN	Pn	20 08 36.8	-1.9
MARD	Mardin	1.58	129	*i* P	Pn	20 08 39.1	-0.9
MARD				*i* S	Sn	20 09 01.0	+0.5
BNGL	BINGOL	1.62	67	*i* P	Pn	20 08 41.7	+1.2
BNGL				*i* S	Sg	20 09 06.9	+2.9
GZT	Gaziantep	1.64	234	*i* P	Pn	20 08 40.3	-0.5
GZT				*i* S	Sn	20 09 02.8	+0.7
KBSD	Kabsdagh	1.68	142	⇑P	Pn	20 08 41.0	-0.4
KBSD				⇑S	Sn	20 09 01.7	-1.2
KBSD	Kabsdagh	1.68	142	⇑*i*P	Pn	20 08 41.0	-0.3
KBSD				⇑*i*S	Sn	20 09 01.7	-1.2
BTMT	Batman	1.77	94	PN	Pn	20 08 40.2	-2.5
GAZ	Gaziantep	1.98	235	PN	Pn	20 08 44.8	-0.7
GAZ	Gaziantep	1.98	235	*e*Pn	Pn	20 08 44.8	-0.7
SFNV	Sufian	2.03	160	⇑P	Pn	20 08 46.0	-0.1
SFNV				⇑S	Sn	20 09 12.1	+0.6
SFNV	Sufian	2.03	160	⇑*i*P	Pn	20 08 46.0	-0.1
SFNV				⇑*i*S	Sn	20 09 12.1	+0.6
GUMT	Gumushane	2.14	5	PN	Pn	20 08 47.4	-0.3
GUMT	Gumushane	2.14	5	*e*Pn	Pn	20 08 47.4	-0.3
EZM	Erzurum	2.28	46	PN	Pn	20 08 49.6	0.0
SLMH	Al Salmeh	2.35	207	⇓P	Pn	20 08 50.4	-0.3
SLMH				⇓S	Sn	20 09 23.3	+3.7
SLMH	Al Salmeh	2.35	207	⇓*i*P	Pn	20 08 50.4	-0.2
SLMH				⇓*i*S	Sn	20 09 23.3	+3.7
SVSK	Karacayir	2.36	313	PN	Pn	20 08 50.7	0.0
SVSK	Karacayir	2.36	313	*e*Pn	Pn	20 08 50.7	0.0
ANDN	Andirin	2.41	253	*i* P	Pn	20 08 50.6	-0.8
ANDN				*i* S	Sg	20 09 29.2	-0.1
SIRT	Sirnak	2.66	107	*e*PN	Pn	20 08 55.0	+0.2
SIRT	Sirnak	2.66	107	*e*Pn	Pn	20 08 55.0	+0.2
DRWC	Darouich	2.66	231	⇓P	Pn	20 08 53.9	-0.9
DRWC				⇓S	Sn	20 09 28.3	+1.1
DRWC	Darouich	2.66	231	⇓*i*P	Pn	20 08 53.9	-1.0
DRWC				⇓*i*S	Sn	20 09 28.3	+1.1
KTUT	Trabzon	2.69	9	*e*PN	Pn	20 08 55.2	0.0
KTUT	Trabzon	2.69	9	*e*Pn	Pn	20 08 55.2	0.0
BSHR	Al Beshri	2.69	170	⇓P	Pn	20 08 59.0	+3.7
BSHR				⇓S	Sg	20 09 35.6	-2.9
BSHR	Al Beshri	2.69	170	⇓*i*P	Pn	20 08 59.0	+3.7
GRSN	GIRESUNGRSN	2.70	344	*i* P	Pn	20 08 56.8	+1.4
GRSN				*i* S	Sg	20 09 37.0	-1.8
BNN	Bunyan	2.71	282	*e*PN	Pn	20 08 55.3	-0.3
BNN	Bunyan	2.71	282	*e*Pn	Pn	20 08 55.3	-0.3
JHLN	Al Jahlan	2.73	194	⇓P	Pn	20 08 55.8	0.0
JHLN				⇓S	Sn	20 09 32.5	+3.8
JHLN	Al Jahlan	2.73	194	⇓*i*P	Pn	20 08 55.8	+0.1
JHLN				⇓*i*S	Sn	20 09 32.5	+3.8
KOZT	Kozan	2.83	254	*e*PN	Pn	20 08 56.4	-0.8
COBT	Iskenderun	2.98	234	*i* P	Pg	20 09 07.7	-1.4
COBT				*i* S	Sg	20 09 46.5	-1.2
TUTA	Tutak	2.99	68	*i* P	Pn	20 08 59.9	+0.6
TUTA				*i* S	Sg	20 09 46.0	-1.9
CEYT	Ceyhan	3.07	246	*e*PN	Pn	20 09 00.3	-0.1
CEYT	Ceyhan	3.07	246	*e*Pn	Pn	20 09 00.3	-0.1
AGRB	Hanur-Agry	3.18	66	*e*PN	Pn	20 09 02.3	+0.3
AGRB	Hanur-Agry	3.18	66	*e*Pn	Pn	20 09 02.3	+0.3
BTCH	Batrach	3.19	225	⇑P	Pn	20 09 01.5	-0.6
BTCH				⇑S	Sn	20 09 42.0	+1.9
BTCH	Batrach	3.19	225	⇑*i*P	Pn	20 09 01.5	-0.6
BTCH				⇑*i*S	Sn	20 09 42.0	+1.9
VANT	Van	3.26	87	*e*PN	Pn	20 09 01.9	-1.2
HTY	Hatay	3.31	229	*e*PN	Pn	20 09 03.3	-0.5
HTY	Hatay	3.31	229	*e*Pn	Pn	20 09 03.3	-0.5
YOZ	Yozgat	3.33	294	*e*PN	Pn	20 09 04.0	0.0
YOZ	Yozgat	3.33	294	*e*Pn	Pn	20 09 04.0	0.0
KARA	Karaisali	3.48	253	*e*PN	Pn	20 09 06.0	-0.2
KARA	Karaisali	3.48	253	*e*Pn	Pn	20 09 06.0	-0.2
KRTS	Karatas	3.54	242	*e*PN	Pn	20 09 06.8	-0.1
KRTS	Karatas	3.54	242	*e*Pn	Pn	20 09 06.8	-0.1
ARNB	Al Arnab	3.59	228	⇓P	Pn	20 09 07.8	+0.2
ARNB				⇓S	Sn	20 09 50.2	+0.1
BCA	Borcka	3.61	30	*e*PN	Pn	20 09 08.2	+0.3
BCA	Borcka	3.61	30	*e*Pn	Pn	20 09 08.2	+0.3
HAKT	HAKKARI	3.61	101	*i* P	Pn	20 09 07.9	-0.1
HAKT				*i* S	Sg	20 10 08.6	+0.7
HKR	Hakkari	3.63	100	*e*PN	Pn	20 09 08.3	+0.1
HKR	Hakkari	3.63	100	*e*Pn	Pn	20 09 08.3	+0.1
SLNF	Slenfeh	3.64	222	⇑P	Pn	20 09 08.3	-0.1
SLNF				⇑S	Sn	20 09 52.6	+1.2
SLNF	Slenfeh	3.64	222	⇑*i*P	Pn	20 09 08.3	-0.1
SLNF				⇑*i*S	Sn	20 09 52.6	+1.2
NIG	Nigde	3.65	268	*e*PN	Pn	20 09 08.8	+0.3
NIG	Nigde	3.65	268	*e*Pn	Pn	20 09 08.8	+0.3
MSL	Mosul	3.68	122	*e*Pn	x	20 09 18.0	
MSL				*e*Sn	x	20 10 01.5	
MSL				*e*Sg	x	20 10 18.0	
KVT	Kavak	3.69	319	*e*PN	Pn	20 09 08.8	-0.2
KVT	Kavak	3.69	319	*e*Pn	Pn	20 09 08.8	-0.2
KARS	Kars	3.75	51	*e*PN	Pn	20 09 10.5	+0.6
KARS	Kars	3.75	51	*e*Pn	Pn	20 09 10.5	+0.6
MERS	Mersin	4.02	250	*e*PN	Pn	20 09 13.6	0.0
MERS	Mersin	4.02	250	*e*Pn	Pn	20 09 13.6	0.0
CORM	Corum	4.03	299	*e*PN	Pn	20 09 14.1	+0.4
CORM	Corum	4.03	299	*e*Pn	Pn	20 09 14.1	+0.4
ROOS	tl_alroos	4.44	201	⇓P	Pn	20 09 20.1	+0.8
ROOS				⇓S	Sn	20 10 12.4	+1.4
ROOS	tl_alroos	4.44	201	⇓*i*P	Pn	20 09 20.1	+0.8
ROOS				⇓*i*S	Sn	20 10 12.4	+1.4
DIKM	Dikmen	4.51	319	*e*PN	Pn	20 09 20.7	+0.4
DIKM	Dikmen	4.51	319	*e*Pn	Pn	20 09 20.7	+0.4
BR131	Keskin Array S	4.58	289	*e*Pn	Pn	20 09 22.9	+1.7
BR131	Keskin Array S	4.58	289	*e*Pn	Pn	20 09 22.9	+1.7
BRTR	Keskin Array B	4.58	289	Pn	Pn	20 09 22.8	+1.5
BRTR				Lg		20 10 46.2	
BRTR				LR	LR	20 11 23.6	
BRTR	Keskin Array B	4.58	289	Pn	Pn	20 09 22.8	+1.5
	3.8nm,0.3s,baz=106,slow=16,SNR=50						
BRTR				Lg		20 10 46.2	
	baz=119,slow=26,SNR=6.9						
BRTR				LR	LR	20 11 23.6	
	comp=Z,205nm,18.1s,baz=321,slow=41						
BRTR	Keskin Array B	4.58	289	Pn	Pn	20 09 22.8	+1.6
BYBT	Boyabat	4.66	314	*e*PN	Pn	20 09 23.2	+0.9
BYBT	Boyabat	4.66	314	*e*Pn	Pn	20 09 23.2	+0.9
FKH	Fakeheh	4.68	210	*e*Pn	Pn	20 09 22.2	-0.4
FKH	Fakeheh	4.68	210	*e*Pn	Pn	20 09 22.2	-0.5
TOS	Tosya	4.85	306	*e*PN	Pn	20 09 25.8	+0.9
TOS	Tosya	4.85	306	*e*Pn	Pn	20 09 25.8	+0.9
BHL	Bhannes	5.28	214	*e*Pn	Pn	20 09 31.4	+0.5
BHL	Bhannes	5.28	214	*e*Pn	Pn	20 09 31.4	+0.5
RCY	Rachaya	5.57	211	*e*Pn	Pn	20 09 35.7	+0.9
MMAI	Mount Meron Ar	6.15	212	Pn	Pn	20 09 43.6	+0.8
	4.6nm,0.3s,baz=70,slow=15,SNR=32						
MMAI				Lg		20 11 27.9	
	4.2nm,0.3s,baz=32,slow=46,SNR=3.2						
ASF	Jabal al Asfar	6.43	198	Pn	Pn	20 09 47.3	+0.6
ASF				Lg		20 11 35.1	
ASF	Jabal al Asfar	6.43	198	Pn	Pn	20 09 47.3	+0.6
	1.4nm,0.3s,baz=48,slow=14,SNR=11						
ASF				Lg		20 11 35.1	
	2.5nm,0.3s,baz=102,slow=20,SNR=3.2						
EIL	Elat	9.34	204	Lg		20 13 13.2	
	0.3nm,0.3s,baz=6.3,slow=9.2,SNR=3.1						
EIL				LR	LR	20 14 24.9	
	comp=Z,121nm,20.8s,baz=276,slow=40						
AKTK	Aktyubinsk	18.01	42	P	Pn	20 12 22.7	+0.5
AKTK	Aktyubinsk	18.01	42	P	Pn	20 12 22.7	+0.5
AKTO	Aktyubinsk	18.01	42	P	Pn	20 12 22.7	+0.5
	0.1nm,0.3s,baz=215,slow=12,SNR=2.2						
GERES	GERESS Array B	21.18	308	P	P	20 12 58.8	+1.5
	1.9nm,0.8s,mb3.5,baz=123,slow=9.7,SNR=8.4						
FINES	FINESS Array B	24.55	345	P	P	20 13 32.9	+1.4
FINES	FINESS Array B	24.55	345	P	P	20 13 32.9	+1.4
	1.1nm,0.7s,mb3.5,baz=159,slow=13,SNR=4.4						
MKAR	Makanchi Array	32.48	61	P	P	20 14 43.7	+1.3
MKAR	Makanchi Array	32.48	61	P	P	20 14 43.7	+1.4
	0.3nm,0.5s,mb3.4,baz=267,slow=7.6,SNR=5.1						

CSEM ***28*** *20:18:16.9±0.1, 38.36N×39.26E, h5^{km}, MD2.8, Error ellipse: s-maj=1.8km s-min=1.7km az=132.0*
ISK ***28*** *20:18:16.9, 38.34N×39.24E, h5^{km}, MD3.2*
ISCJB ***28*** *20:18:17.4±0.5, 38.36N±0.03×39.28E±0.03, h4^{km}, Error ellipse: s-maj=4.5km s-min=3.8km az=4.4*
DDA ***28*** *20:18:17.2, 38.40N×39.32E, h4^{km}, Md2.8*

ISC 28 20:18:17.7±0.7**, 38.36N**±0.03×**39.29E**±0.04**, h2^{km}**±6^{km}**, n23,** σ**0^{s}92**/34**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.28	300	*i* P	Pg	20 18 23.2	+0.2
ELZG				*i* S	Sg	20 18 27.4	+0.7
ELZG	Elazig	0.28	300	*i* P	Pg	20 18 23.2	+0.2
PTK	Pertek	0.54	8	PG	Pg	20 18 28.3	+0.3
PTK				SG	Sg	20 18 36.7	+1.7
PTK	Pertek	0.54	8	*e*Pg	Pg	20 18 28.3	+0.3
PTK				*e*Sg	Sg	20 18 36.7	+1.7
MALT	Malatya	0.68	266	PG	Pg	20 18 29.3	-1.4
MALT				SG	Sg	20 18 38.1	-1.5
MALT	Malatya	0.68	266	*e*Pg	Pg	20 18 29.3	-1.4
MALT				*e*Sg	Sg	20 18 38.1	-1.5
MYA	Malataya	0.68	268	PG	Pg	20 18 30.0	-0.8
MYA				SG	Sg	20 18 39.5	-0.1
MYA	Malataya	0.68	268	*e*Pg	Pg	20 18 30.0	-0.8
MYA				*e*Sg	Sg	20 18 39.5	-0.1
DIY	Diyarbakir	0.87	122	PG	Pg	20 18 34.4	+0.1
DIY	Diyarbakir	0.87	122	*e*Pg	Pg	20 18 34.4	+0.1
URFA	Urfa	0.99	202	*e*PG	Pg	20 18 36.3	-0.3
URFA	Urfa	0.99	202	*e*Pg	Pg	20 18 36.3	-0.3
ATAB	Bozova	1.19	222	*i* P	Pg	20 18 41.2	+0.8
ATAB				*i* S	Sg	20 18 57.2	+1.4
EZC	Erzincan	1.45	16	*e*PN	Pn	20 18 43.8	-1.0
MARD	Mardin	1.57	131	*i* P	Pn	20 18 46.9	+0.3
MARD				*i* P	Pn	20 18 47.2	+0.7
MARD				*i* S	Sn	20 19 07.8	+0.3
GZT	Gaziantep	1.70	234	*i* P	Pn	20 18 47.7	-0.6
GZT				*i* S	Sn	20 19 12.1	+1.6
BTMT	Batman	1.74	95	*e*PN	Pn	20 18 47.1	-1.7
GAZ	Gaziantep	2.03	235	*e*PN	Pn	20 18 52.7	-0.1
GAZ	Gaziantep	2.03	235	*e*Pn	Pn	20 18 52.7	-0.1
SVSK	Karacayir	2.37	312	*e*PN	Pn	20 18 57.6	+0.1
SVSK	Karacayir	2.37	312	*e*Pn	Pn	20 18 57.6	+0.1
SIRT	Sirnak	2.63	108	*e*PN	Pn	20 19 01.0	-0.1
SIRT	Sirnak	2.63	108	*e*Pn	Pn	20 19 01.0	-0.1

ISCJB ***28*** *20:22:38.4±0.7, 19.36S±0.06×123.78E±0.06, h10^{km}, Error ellipse: s-maj=11.6km s-min=4.8km az=139.6*
IDC ***28*** *20:22:39.2±1.6, 19.05S×123.43E, h0^{km}, mb3.3/2, mb1 3.8/6, mb1mx3.6/14, mbtmp3.7/6, ML3.7/2, Error ellipse: s-maj=28.4km s-min=17.5km az=164.0*
AUST ***28*** *20:22:41.4, 18.72S×123.23E, h16^{km}, ML3.5*
NEIC ***28*** *20:22:41.0, 18.72S×123.23E, h16^{km}, ML3.5(AUST), After AUST.*

ISC 28 20:22:40.5±0.7**, 19.28S**±0.06×**123.72E**±0.06**, h10^{km}, n26,** σ**1^{s}13**/51**, Western Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	2.17	58	*e*P	Pn	20 23 17.6	+0.9
FITZ				*e*S	Sn	20 23 45.1	+1.5
	28nm,0.2s						
FITZ	Fitzroy Crossi	2.17	58	Pn	Pn	20 23 17.7	+1.0
	2.9nm,0.3s,baz=257,slow=14,SNR=172						
FITZ				Pg	Pg	20 23 22.0	-0.1
	17nm,0.3s,baz=249,slow=12,SNR=116						
FITZ				Sn	Sn	20 23 44.5	+0.9
	11nm,0.3s,baz=340,slow=22,SNR=9.2						
FITZ				Lg		20 23 51.3	
	19nm,0.3s,baz=3.8,slow=23,SNR=8.6						
KNA	Kununurra	5.96	55	*e*P	Pn	20 24 07.9	-1.0
KNA				*e*S	Sn	20 25 12.8	-4.5
	5.9nm,0.2s						
KNA	Kununurra	5.96	55	*e*P	Pn	20 24 07.9	-1.0
	5.9nm,0.2s						
KNA				*e*S	Sn	20 25 12.8	-4.5
MEEK	Meekatharra	8.70	212	*e*P	Pn	20 24 50.0	+3.6
MEEK				*e*S	Sn	20 26 25.1	+0.6
WRA	Warramunga Arr	10.04	96	Pn	Pn	20 25 08.5	+3.7
WRA				Sn	Sn	20 26 57.9	+0.4

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA				Lg		20 28 13.3	
WRA	**Warramunga Arr**	**10.04**	**96**	Pn	**Pn**	**20 25 08.5**	**+3.7**
	0.9nm,0.3s,baz=270,slow=14,SNR=43						
WRA				Sn	**Sn**	**20 26 57.9**	**+0.4**
	1.0nm,0.3s,baz=283,slow=24,SNR=5.8						
WRA				Lg		20 28 13.3	
	baz=281,slow=28,SNR=3.4						
WB2	**Warramunga Arr**	**10.05**	**96**	*e*P	**Pn**	**20 25 09.7**	**+4.8**
WB2				*e*S	**Sn**	**20 26 57.0**	**-0.8**
ASAR	**Alice Springs**	**10.44**	**116**	Pn	**Pn**	**20 25 16.1**	**+5.8**
ASAR				Sn	**Sn**	**20 27 13.3**	**+5.9**
ASAR				Lg		20 28 27.6	
ASAR	**Alice Springs**	**10.44**	**116**	Pn	**Pn**	**20 25 16.1**	**+5.8**
	0.3nm,0.3s,baz=291,slow=13,SNR=30						
ASAR				Sn	**Sn**	**20 27 13.3**	**+5.9**
	0.4nm,0.3s,baz=286,slow=23,SNR=3.8						
ASAR				Lg		20 28 27.6	
	0.2nm,0.3s,baz=285,slow=30,SNR=4.2						
KAKA	**Kakadu**	**10.63**	**53**	*e*P	**Pn**	**20 25 11.9**	**-1.0**
KAKA				*e*S	**Sn**	**20 27 02.0**	**-10**
	9.2nm,0.2s						
KAKA	**Kakadu**	**10.63**	**53**	*e*P	**Pn**	**20 25 11.9**	**-1.0**
	9.2nm,0.2s						
KAKA				*e*S	**Sn**	**20 27 02.0**	**-10**
MORW	**Morawa**	**11.99**	**214**	*e*P	**Pn**	**20 25 30.9**	**-0.6**
MORW				*e*S	**Sn**	**20 27 36.5**	**-8.9**
	3.5nm,0.2s						
MORW	**Morawa**	**11.99**	**214**	*e*P	**Pn**	**20 25 30.9**	**-0.6**
	3.5nm,0.2s						
MORW				*e*S	**Sn**	**20 27 36.5**	**-8.9**
KMBL	**Kambalda**	**12.15**	**187**	*e*P	**Pn**	**20 25 36.3**	**+2.7**
KMBL				*e*S	**Sn**	**20 27 46.8**	**-2.3**
	43nm,0.6s						
KMBL	**Kambalda**	**12.15**	**187**	*e*P	**Pn**	**20 25 36.3**	**+2.7**
	43nm,0.6s						
KMBL				*e*S	**Sn**	**20 27 46.8**	**-2.3**
BLDU	**Ballidu**	**12.94**	**208**	*e*P	**Pn**	**20 25 45.3**	**+0.8**
BLDU				*e*S	**Sn**	**20 28 00.1**	**-8.5**
	1.4nm,0.4s						
BLDU	**Ballidu**	**12.94**	**208**	*e*P	**Pn**	**20 25 45.3**	**+0.8**
	1.4nm,0.4s						
BLDU				*e*S	**Sn**	**20 28 00.1**	**-8.5**
KLBR	**Kellerberrin**	**13.38**	**203**	*e*P	**Pn**	**20 25 50.7**	**+0.2**
KLBR				*e*S	**Sn**	**20 28 12.4**	**-7.0**
	6.5nm,0.4s						
KLBR	**Kellerberrin**	**13.38**	**203**	*e*P	**Pn**	**20 25 50.7**	**+0.2**
	6.5nm,0.4s						
KLBR				*e*S	**Sn**	**20 28 12.4**	**-7.0**
MUN	**Mundaring**	**14.33**	**207**	*e*P	**Pn**	**20 26 03.7**	**+0.2**
NWAO	**Narrogin (SRO)**	**14.78**	**202**	*e*P	**Pn**	**20 26 09.6**	**+0.1**
NWAO				*e*S	**Sn**	**20 28 43.5**	**-10**
	116nm,1.0s						
NWAO	**Narrogin (SRO)**	**14.78**	**202**	*e*P	**Pn**	**20 26 09.6**	**+0.1**
	116nm,1.0s						
NWAO				*e*S	**Sn**	**20 28 43.5**	**-10**
NWAO	**Narrogin (SRO)**	**14.78**	**202**	Pn	**Pn**	**20 26 09.6**	**0.0**
	0.3nm,0.3s,baz=32,slow=12,SNR=4.5						
NWAO				Sn	**Sn**	**20 28 45.7**	**-7.7**
	0.5nm,0.3s,baz=323,slow=10,SNR=3.4						
STKA	**Stephens Creek**	**20.39**	**131**	P	**P**	**20 27 21.9**	**+4.3**
	0.6nm,0.3s,baz=309,slow=13,SNR=4.7						
STKA				S	**S**	**20 31 05.7**	**-0.4**
	1.4nm,1.0s,baz=336,slow=13,SNR=2.8						
MKAR	**Makanchi Array**	**75.63**	**332**	P	**P**	**20 34 24.3**	**-1.3**
	0.1nm,0.6s,baz=137,slow=7.2,SNR=2.0						

IDC 28 20:27:23.1±5.7**,17.05N×145.00E,h0^{km},mb3.7**/4**, mb1 3.9**/4**,mb1mx3.5**/21**,mbtmp3.7**/4**,Error ellipse: s-maj=193.6km s-min=26.4km az=80.0,Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**38.22**	**196**	P	P	20 34 44.4	-0.4
	0.4nm,0.4s,baz=15,slow=8.5,SNR=9.2						
FITZ	**Fitzroy Crossi**	**39.79**	**210**	P	P	20 34 58.7	+0.7
	0.9nm,0.3s,baz=25,slow=8.8,SNR=24						
ASAR	**Alice Springs**	**41.89**	**195**	P	P	20 35 14.7	-0.6
	0.3nm,0.4s,baz=20,slow=8.5,SNR=4.1						
MKAR	**Makanchi Array**	**59.13**	**315**	P	P	20 37 25.5	+0.1
	0.6nm,0.3s,baz=111,slow=7.9,SNR=24						

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*ISCJB **28** 20:32:56.1±0.8,28.3N±0.1×138.9E±0.3,h529^{km}±13^{km}, mb3.0/5,Error ellipse: s-maj=39.6km s-min=12.0km az=162.9*

*JMA **28** 20:32:56.4±0.2,28.43N×139.21E,h562^{km},M3.7*

*IDC **28** 20:32:56.5±1.1,28.35N×138.73E,h512^{km}±18^{km},mb2.6/5, mb1 2.9/7,mb1mx2.7/21,mbtmp2.7/7,Error ellipse: s-maj=39.8km s-min=16.9km az=79.0*

ISC 28 20:32:57.3±0.8**,28.3N**±0.1×**139.0E**±0.3**,h526**^{km}±13^{km}**,n13, σ0^{s}.88**/15**,mb3.0**/5**,Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**3.11**	**112**	P	**P**	**20 34 10.6**	**-0.4**
	15nm,0.3s,baz=287,slow=19,SNR=5.1						
CBIJ				S	**S**	**20 35 10.7**	**-0.3**
	20nm,0.3s,baz=300,slow=20,SNR=3.4						
JIE	**Ise**	**6.35**	**343**	P	**P**	**20 34 39.9**	**+2.0**
JNY	**Yasuok**	**7.08**	**353**	P	**P**	**20 34 46.1**	**+1.2**
JHU	**Hanno**	**7.52**	**2**	P	**P**	**20 34 48.8**	**-0.4**
JRY	**Ryogami san**	**7.68**	**360**	P	**P**	**20 34 51.2**	**+0.4**
JAG	**Ashikaga**	**8.09**	**3**	P	**P**	**20 34 54.2**	**-0.9**
JAG				*e*S	**S**	**20 36 26.1**	**-5.7**
MJAR	**Matsushiro Arr**	**8.22**	**356**	P	**P**	**20 34 56.0**	**-0.4**
	1.4nm,0.3s,baz=173,slow=11,SNR=21						
MAT	**Matsushiro**	**8.22**	**356**	P	**P**	**20 34 55.9**	**-0.5**
MKAR	**Makanchi Array**	**47.49**	**309**	P	**P**	**20 40 43.1**	**-1.2**
	0.2nm,0.4s,mb3.0,baz=86,slow=12,SNR=5.3						
WRA	**Warramunga Arr**	**48.18**	**186**	P	**P**	**20 40 50.2**	**+0.4**
	0.5nm,0.8s,mb3.1,baz=0.8,slow=7.8,SNR=7.4						
ASAR	**Alice Springs**	**51.91**	**186**	P	**P**	**20 41 17.5**	**+0.4**
	0.2nm,0.5s,mb2.7,baz=13,slow=8.8,SNR=3.6						
YKA	**Yellowknife Ar**	**72.42**	**28**	P	**P**	**20 43 30.8**	**+1.2**
	0.2nm,0.4s,mb2.9,baz=297,slow=5.6,SNR=3.2						
FINES	**FINESS Array B**	**75.57**	**333**	P	**P**	**20 43 46.6**	**-1.0**
	1.3nm,0.9s,mb3.4,baz=32,slow=7.5,SNR=5.1						

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*IDC **28** 20:41:25.3±1.4,6.47S×149.23E,h0^{km},mb4.2/4,mb1 4.5/6, mb1mx4.1/14,mbtmp4.4/6,ML4.2/2,Error ellipse: s-maj=42.3km s-min=23.7km az=106.0*

*ISCJB **28** 20:41:29.7±4.1,6.4S±0.2×149.2E±0.2,h55^{km}±29^{km}, mb3.9/5,Error ellipse: s-maj=40.5km s-min=29.8km az=12.4*

*NEIC **28** 20:41:32.9±3.0,6.57S×149.07E,h54^{km}±21^{km},mb3.9/1, Error ellipse: s-maj=27.1km s-min=20.3km az=82.0*

ISC 28 20:41:33.3±4.6**,6.6S**±0.2×**149.0E**±0.3**,h55**^{km}±32^{km}**,n17, σ0^{s}.86**/16**,mb3.9**/5**,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.33**	**213**	Pn	**Pn**	**20 42 23.6**	**+0.6**
PMG				Sn	**Sn**	**20 43 07.3**	**+6.1**
PMG	**Port Moresby**	**3.33**	**213**	Pn	**Pn**	**20 42 23.6**	**+0.6**
	37nm,0.3s,baz=26,slow=4.6,SNR=100						
PMG				Sn	**Sn**	**20 43 07.3**	**+6.1**
	24nm,0.3s,baz=127,slow=20,SNR=3.6						
WB2	**Warramunga Arr**	**19.44**	**226**	*e*P	**Pn**	**20 45 55.5**	**-1.6**
WB2				*e*		20 46 06.6	
WRA	**Warramunga Arr**	**19.45**	**226**	P	**Pn**	**20 45 56.0**	**-1.1**
	1.6nm,0.3s,baz=51,slow=11,SNR=142						
WRA				ScP	ScP	20 53 54.9	+8.3
	0.0nm,0.3s,baz=53,slow=2.7,SNR=6.3						
ASAR	**Alice Springs**	**22.32**	**219**	P	**P**	**20 46 26.4**	**0.0**
	5.3nm,0.6s,mb4.2,baz=52,slow=9.8,SNR=100						
ASAR				ScP	ScP	20 54 02.8	+9.2
	0.9nm,0.8s,baz=70,slow=3.6,SNR=6.4						
FITZ	**Fitzroy Crossi**	**25.47**	**241**	*e*P	**P**	**20 46 57.6**	**+1.1**
	16nm,0.6s,mb4.7						
FITZ				*e*	pP	20 47 09.1	-1.2
FITZ	**Fitzroy Crossi**	**25.47**	**241**	*e*P	**P**	**20 46 57.3**	**+0.8**
FITZ				*e*P		20 46 57.6	
FITZ				*e*	pP	20 47 09.1	-1.2
FITZ	**Fitzroy Crossi**	**25.47**	**241**	P	**P**	**20 46 57.9**	**+1.4**
	7.8nm,0.5s,mb4.5,baz=70,slow=8.6,SNR=46						
STKA	**Stephens Creek**	**26.09**	**194**	*e*P	**P**	**20 47 02.3**	**+0.4**
	3.4nm,0.8s,mb3.9						
STKA	**Stephens Creek**	**26.09**	**194**	P	**P**	**20 47 02.4**	**+0.5**
	2.1nm,0.7s,mb3.8,baz=3.8,slow=11,SNR=4.3						
MBWA	**Marble Bar**	**31.79**	**240**	*e*P	**P**	**20 47 53.7**	**+1.0**
VNDA	**Vanda**	**71.22**	**177**	P	**P**	**20 52 45.7**	**-0.3**
VNDA	**Vanda**	**71.22**	**177**	P	**P**	**20 52 45.7**	**-0.3**
	1.4nm,0.7s,mb4.0,baz=336,slow=9.8,SNR=7.6						
MKAR	**Makanchi Array**	**79.21**	**320**	P	**P**	**20 53 32.1**	**-0.4**
	0.1nm,0.7s,mb2.9,baz=101,slow=7.5,SNR=1.9						
TOA0	**Torodi Ar. Sit**	**147.15**	**284**	*e*PKPbc	PKPbc	21 01 11.8	+0.5
TORD	**Torodi Ar. Bea**	**147.15**	**284**	PKPbc	PKPbc	21 01 12.0	+0.6
TORD	**Torodi Ar. Bea**	**147.15**	**284**	PKPbc	PKPbc	21 01 12.0	+0.6
	2.1nm,0.5s,baz=68,slow=3.2,SNR=34						

WEL 28 21:25:09.8±0.7**,38.96S×175.37E,h222**^{km}±5^{km}**,ML3.6**/12**, Error ellipse: s-maj=7.9km s-min=4.1km az=90.0,North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WPVZ	**Whakapapa**	**0.28**	**152**	PN	Pn	21 25 38.9	0.0
WNVZ	**Wahianoa**	**0.41**	**155**	*e*PN	Pn	21 25 39.3	+0.1
MTVZ	**Mangateitei**	**0.43**	**170**	PN	Pn	21 25 39.0	-0.2
MOVZ	**Moawhango**	**0.54**	**147**	PN	Pn	21 25 39.4	-0.2
WAZ	**Wanganui**	**0.85**	**201**	*e*PN	Pn	21 25 40.3	-0.7
BKZ	**Black Stump Fm**	**0.90**	**104**	PN	Pn	21 25 42.0	+0.7
BKZ				SN	S	21 26 05.4	-0.4
TSZ	**Takapari Road**	**1.19**	**158**	*e*PN	Pn	21 25 43.7	+0.5
TSZ				SN	S	21 26 08.3	-1.0
URZ	**Urewera**	**1.53**	**63**	PN	Pn	21 25 45.5	-0.3
MRZ	**Mangatainoka R**	**1.71**	**175**	PN	Pn	21 25 46.7	-0.5
BFZ	**Birch Farm**	**1.85**	**159**	PN	Pn	21 25 48.7	+0.1
BFZ				SN	S	21 26 17.8	-1.2
KIW	**Kapiti Island**	**1.94**	**190**	PN	Pn	21 25 48.0	-1.3
DUWZ	**D’Urville Isla**	**2.15**	**211**	PN	Pn	21 25 49.3	-2.2
CAW	**Cannon Point**	**2.16**	**186**	PN	Pn	21 25 50.3	-1.2
MTW	**Mount Morrison**	**2.20**	**177**	PN	Pn	21 25 50.9	-1.0
MRW	**Makara Radio**	**2.33**	**193**	PN	Pn	21 25 51.6	-1.6
TCW	**Tory Channel**	**2.40**	**200**	PN	Pn	21 25 52.3	-1.8
PAWZ	**Paruwai Farm**	**2.42**	**179**	PN	Pn	21 25 53.1	-1.1
TUWZ	**Tuamarina**	**2.70**	**203**	PN	Pn	21 25 55.1	-2.2
NNZ	**Nelson**	**2.73**	**213**	PN	Pn	21 25 54.2	-3.3
QRZ	**Quartz Range**	**2.88**	**229**	PN	Pn	21 25 54.7	-4.5
BSWZ	**Blackbirch Sta**	**2.98**	**202**	PN	Pn	21 25 58.2	-2.2
THZ	**Tophouse**	**3.38**	**213**	PN	Pn	21 26 01.4	-3.5
KHZ	**Kahutara**	**3.73**	**201**	PN	Pn	21 26 06.4	-2.6
DSZ	**Denniston Nort**	**3.90**	**223**	*e*PN	Pn	21 26 05.7	-5.4
MQZ	**McQueen’s Vall**	**5.17**	**202**	SN	S	21 27 18.8	-9.1

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*IDC **28** 21:31:28.7±1.4,14.00N×123.43E,h0^{km},mb3.7/5, mb1 3.8/5,mb1mx3.6/18,mbtmp3.7/5,Error ellipse: s-maj=167.2km s-min=19.5km az=67.0*

*ISCJB **28** 21:31:30.3±0.8,14.45N±0.06×124.43E±0.06,h33^{km}, mb3.7/5,Error ellipse: s-maj=9.5km s-min=7.9km az=141.0*

ISC 28 21:31:32.6±0.9**,14.39N**±0.06×**124.38E**±0.07**,h35**^{km}**,n17, σ0^{s}.91**/20**,mb3.7**/5**,3C-1D,Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVCP	**Virac**	**0.82**	**196**	⇓*i*P	**Pn**	**21 31 46.6**	**-1.0**
PVCP				*i* S	**Sn**	**21 31 58.7**	**+0.2**
GQP	**Guinayangan**	**1.94**	**256**	⇑*i*P	**Pn**	**21 32 02.4**	**-0.7**
GQP				*i* S	**Sn**	**21 32 26.1**	**-0.1**
MMPH	**Masbate**	**2.15**	**200**	*e*P	**Pn**	**21 32 11.9**	**+6.0**
POLP	**Polilio Island**	**2.39**	**278**	*e*P	**Pn**	**21 32 08.6**	**-0.6**
POLP				*e*S	**Sn**	**21 32 38.7**	**+1.4**
LQP	**Lukban**	**2.77**	**265**	⇑*e*P	**Pn**	**21 32 19.7**	**+5.2**
BALP	**Baler**	**3.02**	**297**	*e*P	**Pn**	**21 32 13.0**	**-5.0**
OTRP	**Odiongan**	**3.05**	**229**	*e*P	**Pn**	**21 32 17.8**	**-0.6**
RCP	**Roxas**	**3.23**	**210**	⇑*e*P	**Pn**	**21 32 24.9**	**+4.0**
CAUP	**Cauayan**	**3.54**	**316**	*e*P	**Pn**	**21 32 21.7**	**-3.4**
LUBP	**Lubang**	**4.06**	**261**	*e*P	**Pn**	**21 32 32.5**	**+0.2**
BUSP	**Coron**	**4.71**	**240**	*e*P	**Pn**	**21 32 41.1**	**-0.1**
CUYO	**Cuyo Island**	**4.81**	**223**	*e*P	**Pn**	**21 32 43.0**	**+0.5**
WRA	**Warramunga Arr**	**35.49**	**164**	P	**P**	**21 38 25.2**	**-0.9**
	0.4nm,0.6s,mb3.5,baz=340,slow=9.7,SNR=8.0						
SONM	**Songino Array**	**36.54**	**340**	P	**P**	**21 38 35.6**	**+0.9**
	0.2nm,0.3s,mb3.4,baz=160,slow=8.8,SNR=4.5						
ASAR	**Alice Springs**	**38.95**	**166**	P	**P**	**21 38 55.5**	**+0.1**
	1.0nm,0.6s,mb3.7,baz=340,slow=6.7,SNR=13						
MKAR	**Makanchi Array**	**47.66**	**321**	P	**P**	**21 40 05.4**	**-0.1**
	0.5nm,0.7s,mb3.6,baz=120,slow=7.9,SNR=7.3						
STKA	**Stephens Creek**	**48.87**	**160**	P	**P**	**21 40 17.0**	**+2.1**
	0.9nm,0.5s,mb4.0,baz=320,slow=7.9,SNR=2.1						

IDC 28 21:37:06.6±11.0**,2.48N×96.71E,h65**^{km}±83^{km}**,mb3.7**/4**, mb1 3.7**/5**,mb1mx3.3**/21**,mbtmp3.6**/5**,ML2.8**/1**,Error ellipse: s-maj=145.9km s-min=24.9km az=58.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PSI	**Prapat**	**2.24**	**82**	P	Pn	21 37 41.4	0.0
	2.5nm,0.3s,baz=252,slow=3.4,SNR=14						
WRA	**Warramunga Arr**	**43.13**	**123**	P	P	21 45 00.9	-0.1
	0.6nm,0.7s,baz=300,slow=9.2,SNR=4.2						
MKAR	**Makanchi Array**	**45.89**	**346**	P	P	21 45 22.4	-0.2
	2.4nm,0.8s,baz=161,slow=8.5,SNR=24						
SONM	**Songino Array**	**45.95**	**9**	P	P	21 45 23.2	+0.1
	1.2nm,0.7s,baz=193,slow=9.2,SNR=6.3						
ZALV	**Zalesovo Beam**	**52.23**	**351**	P	P	21 46 11.0	+0.1
	1.9nm,0.4s,baz=178,slow=6.9,SNR=15						

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*ISCJB **28** 21:45:49.1±0.7,36.55N±0.04×70.8E±0.2,h33^{km},Error ellipse: s-maj=18.9km s-min=5.1km az=179.3*

*NNC **28** 21:45:49.7±14.0,36.80N×70.21E,h0^{km},mb3.3,mpv3.1, Error ellipse: s-maj=128.9km s-min=98.9km az=34.0*

ISC 28 21:45:51.3±0.7**,36.52N**±0.04×**70.8E**±0.2**,h35**^{km}**,n13, σ0^{s}.83**/16**,1C-4D,Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	**Cherat**	**2.84**	**160**	P	**Pn**	**21 46 34.5**	**+0.3**
CEP				S	**Sn**	**21 47 06.0**	**-1.2**
THW	**Thamme Wali**	**3.80**	**167**	P	**Pn**	**21 46 47.2**	**-0.1**
SBDP	**Sheikh Budin**	**4.21**	**179**	P	**Pn**	**21 46 53.1**	**+0.2**
DRP	**Derazinda**	**4.78**	**186**	P	**Pn**	**21 47 01.7**	**+0.9**
AML	**Almayashu**	**6.05**	**21**	P	**Pn**	**21 47 18.9**	**+0.7**
	SNR=41						
UCH	**Uchtor**	**6.40**	**26**	P	**Pn**	**21 47 23.5**	**+0.4**
	SNR=7.7						
KZA	**Kyzart**	**6.55**	**31**	P	**Pn**	**21 47 24.9**	**-0.3**
	SNR=7.3						
EKS2	**Erkin-Say**	**6.56**	**20**	P	**Pn**	**21 47 26.1**	**+0.8**
	SNR=17						
KK31	**Karatay Array**	**6.58**	**358**	⇓P	**Pn**	**21 47 26.8**	**+1.3**
	1.9nm,0.2s,baz=175,slow=12,SNR=140						
KK31				⇓S	**Sn**	**21 48 38.1**	**-1.2**
	1.8nm,0.4s,baz=186,slow=23,SNR=4.3						
AAK	**Ala-Archa**	**6.76**	**24**	P	**Pn**	**21 47 28.5**	**+0.6**
	SNR=7.7						
USP	**Ospenovka**	**7.33**	**22**	P	**Pn**	**21 47 35.9**	**+0.1**
	SNR=6.8						
TKM2	**Tokmak 2**	**7.40**	**29**	⇑P	**Pn**	**21 47 35.3**	**-1.4**
	0.1nm,0.4s						
AB31	**Akbulak array**	**14.98**	**332**	⇓P	**Pn**	**21 49 19.1**	**-1.1**
	0.1nm,0.2s,baz=144,slow=12,SNR=9.1						
AB31				⇓S	**Sn**	**21 51 55.4**	**-9.5**
	1.0nm,0.7s						

MOS 28 21:50:35.6±1.1**,43.16N×45.15E,h11**^{km}**,mb3.5**/1**,2D, Error ellipse: s-maj=39.8km s-min=17.0km az=166.7, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNJR	**Sundja**	**0.27**	**249**	⇓*i*PG	Pg	21 50 41.3	+0.2
SNJR				*i* S	Sg	21 50 45.0	+0.3
BTKR	**Batakoyurt**	**0.49**	**295**	*e*PG	Pg	21 50 46.4	+1.2
BTKR				*e*S	Sg	21 50 53.6	+1.8
ARNR	**Ardon**	**0.64**	**273**	*e*PG	Pg	21 50 48.9	+0.9
ARNR				*e*S	Sg	21 50 58.0	+1.6
LACR	**Lac**	**0.71**	**242**	⇓*i*PG	Pg	21 50 50.4	+1.0
LACR				*e*S	Sg	21 51 00.6	+1.9
KORR	**Kora**	**0.80**	**265**	*e*PG	Pg	21 50 51.9	+0.9
KORR				*e*S	Sg	21 51 02.9	+1.4
ZEI	**Tsey**	**1.00**	**247**	*e*PG	Pg	21 50 55.6	+0.7
ZEI				*e*S	Sg	21 51 09.2	+1.3

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*NEIC **28** 21:54:06.4,28.32S×70.23W,h96^{km},MD3.1(GUC),After GUC.*

GUC 28 21:54:06.4±0.5**,28.32S×70.23W,h96**^{km}±5^{km}**,MD3.1, ML3.5,6D,Central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VACH	**Vallenar**	**0.53**	**241**	⇓*i*P	Pn	21 54 22.4	+0.4
VACH				*i* S	Sn	21 54 34.1	+0.5
VACH	**Vallenar**	**0.53**	**241**	⇓*i*P	Pn	21 54 22.4	+0.4
VACH				*i* S	Sn	21 54 34.1	+0.5
VACH				AML	AML	21 54 34.6	
	comp=N,20µm,0.1s						
LCO	**Las Campanas**	**0.80**	**211**	*e*P	Pn	21 54 24.6	+0.1
LCO				*e*S	Sn	21 54 38.6	+0.7
CPCH	**Copiapo**	**0.96**	**354**	⇓*i*P	Pn	21 54 26.4	+0.3
CPCH				*i* S	Sn	21 54 41.4	+0.5
CPCH	**Copiapo**	**0.96**	**354**	⇓*i*P	Pn	21 54 26.4	+0.3
CPCH				*i* S	Sn	21 54 41.4	+0.5
CPCH				AML	AML	21 54 44.3	
	comp=N,7µm,0.1s						
CDCH	**Caldera**	**1.35**	**337**	*i* P	Pn	21 54 30.9	+0.3
CDCH				*i* S	Sn	21 54 49.1	+0.2
CDCH	**Caldera**	**1.35**	**337**	*i* P	Pn	21 54 30.9	+0.3
CDCH				*i* S	Sn	21 54 49.1	+0.2
CDCH				AML	AML	21 54 52.6	
	comp=N,274nm,0.4s						
TLL	**Tololo Astrono**	**1.91**	**195**	⇓*i*P	Pn	21 54 38.5	+0.9
TLL				*i* S	Sn	21 55 02.9	+1.6
TLL	**Tololo Astrono**	**1.91**	**195**	⇓*i*P	Pn	21 54 38.5	+0.9
TLL				*i* S	Sn	21 55 02.9	+1.6
TLL				AML	AML	21 55 03.5	
	comp=E,80nm,0.4s						

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*ISK **28** 21:54:50.9,38.37N×39.18E,h3^{km},MD3.2*

*ISCJB **28** 21:54:51.7±0.5,38.35N±0.04×39.20E±0.04,h10^{km},Error ellipse: s-maj=5.1km s-min=4.0km az=11.0*

*CSEM **28** 21:54:51.5±0.1,38.36N×39.20E,h5^{km},MD3.2,Error ellipse: s-maj=2.4km s-min=1.9km az=12.0*

*DDA **28** 21:54:52.4,38.35N×39.20E,h10^{km},Md2.9*

ISC 28 21:54:51.7±0.7**,38.34N**±0.04×**39.24E**±0.04**,h0**^{km}±7^{km}**,n21, σ0^{s}.84**/30**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	**Elazig**	**0.25**	**308**	*i* P	**Pg**	**21 54 56.9**	**+0.3**
ELZG				*i* S	**Sg**	**21 55 00.4**	**+0.5**
PTK	**Pertek**	**0.56**	**12**	PG	**Pg**	**21 55 01.9**	**-0.5**
PTK				SG	**Sg**	**21 55 10.7**	**+1.0**
PTK	**Pertek**	**0.56**	**12**	*e*Pg	**Pg**	**21 55 01.9**	**-0.5**
PTK				*e*Sg	**Sg**	**21 55 10.7**	**+1.0**
MALT	**Malatya**	**0.64**	**268**	PG	**Pg**	**21 55 02.6**	**-1.3**
MALT				SG	**Sg**	**21 55 11.3**	**-0.9**
MALT	**Malatya**	**0.64**	**268**	*e*Pg	**Pg**	**21 55 02.6**	**-1.3**
MALT				*e*Sg	**Sg**	**21 55 11.3**	**-0.9**
MYA	**Malataya**	**0.64**	**269**	PG	**Pg**	**21 55 03.6**	**-0.3**
MYA				SG	**Sg**	**21 55 12.6**	**+0.4**
MYA	**Malataya**	**0.64**	**269**	*e*Pg	**Pg**	**21 55 03.6**	**-0.3**
MYA				*e*Sg	**Sg**	**21 55 12.6**	**+0.4**
DIY	**Diyarbakir**	**0.90**	**120**	PG	**Pg**	**21 55 09.6**	**+0.8**
DIY	**Diyarbakir**	**0.90**	**120**	*e*Pg	**Pg**	**21 55 09.6**	**+0.8**
URFA	**Urfa**	**0.96**	**200**	PG	**Pg**	**21 55 10.7**	**+0.7**
URFA	**Urfa**	**0.96**	**200**	*e*Pg	**Pg**	**21 55 10.7**	**+0.7**
EZC	**Erzincan**	**1.47**	**18**	*e*PN	**Pn**	**21 55 18.7**	**-0.7**
MARD	**Mardin**	**1.59**	**130**	*i* P	**Pn**	**21 55 20.7**	**-0.4**
MARD				*i* S	**Sn**	**21 55 41.9**	**-0.4**
GZT	**Gaziantep**	**1.65**	**234**	*i* P	**Pn**	**21 55 21.0**	**-0.9**
GZT				*i* S	**Sn**	**21 55 45.8**	**+2.0**
BTMT	**Batman**	**1.78**	**94**	*e*PN	**Pn**	**21 55 22.4**	**-1.2**
GAZ	**Gaziantep**	**1.99**	**235**	*e*PN	**Pn**	**21 55 26.5**	**0.0**
GAZ	**Gaziantep**	**1.99**	**235**	*e*Pn	**Pn**	**21 55 26.5**	**0.0**
SVSK	**Karacayir**	**2.35**	**313**	*e*PN	**Pn**	**21 55 31.6**	**+0.1**
SVSK	**Karacayir**	**2.35**	**313**	*e*Pn	**Pn**	**21 55 31.6**	**+0.1**
SIRT	**Sirnak**	**2.67**	**107**	*e*PN	**Pn**	**21 55 37.0**	**+1.2**
SIRT	**Sirnak**	**2.67**	**107**	*e*Pn	**Pn**	**21 55 37.0**	**+1.2**

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*CSEM **28** 22:04:29.1±1.5,39.31N×29.99W,h5^{km},ML3.2,Error ellipse: s-maj=19.9km s-min=6.2km az=48.0,After PDA*

*PDA **28** 22:04:29.1±1.5,39.31N×29.99W,h5^{km},MD3.6,ML3.2, Error ellipse: s-maj=19.9km s-min=6.2km az=48.0*

SVSA 28 22:04:29.1±1.5**,39.31N×29.99W,h5**^{km}**,MD3.6,ML3.2, Error ellipse: s-maj=19.9km s-min=6.2km az=48.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTCA	**Ponta do Capel**	**1.18**	**128**	*e*P	Pg	22 04 48.2	-3.5
PTCA				*e*S	Sg	22 05 01.8	-5.2
PTCA							
	78nm,0.4s						
PTCA	**Ponta do Capel**	**1.18**	**128**	*e*P	Pg	22 04 48.2	-3.5
PTCA				*e*S	Sg	22 05 01.8	-5.2
PCED	**Cedros**	**1.21**	**124**	*e*P	Pg	22 04 47.7	-4.6
PCED				*e*S	Sg	22 05 01.5	-6.6
PCED							
	259nm,0.4s						
PCED	**Cedros**	**1.21**	**124**	*e*P	Pg	22 04 47.7	-4.6
PCED				*e*S	Sg	22 05 01.5	-6.6
CALA	**Caldeira**	**1.24**	**126**	*e*P	Pg	22 04 48.4	-4.5
CALA				*e*S	Sg	22 05 02.6	-6.3
HOR	**Horta**	**1.32**	**126**	*e*P	Pn	22 04 49.3	-4.8
HOR				*e*S	Sg	22 05 04.3	-7.1
PCND	**Candelaria**	**1.46**	**125**	*e*P	Pn	22 04 52.4	-3.7
PCND				*e*S	Sb	22 05 08.7	-6.8
PCND							
	165nm,0.3s						
PICO	**Pico**	**1.46**	**123**	*e*P	Pn	22 04 52.2	-3.9
PICO				*e*S	Sn	22 05 08.2	-7.5
ROSA	**Rosais**	**1.48**	**113**	*e*P	Pn	22 04 51.1	-5.3
ROSA				*e*S	Sn	22 05 08.2	-8.0
PTEI	**Pico do Teixo**	**1.51**	**122**	*e*P	Pn	22 04 53.0	-3.8
PTEI				*e*S	Sn	22 05 10.6	-6.2
PTEI							
	176nm,0.4s						
PBOI	**Pico dos Bois**	**1.53**	**124**	*e*P	Pn	22 04 53.7	-3.4
PBOI				*e*S	Sn	22 05 11.9	-5.5
PBOI							
	89nm,0.4s						
PAMA	**Santo Amaro**	**1.54**	**113**	*e*S	Sn	22 05 10.0	-7.6
PAMA							
	54nm,0.3s						
PAMA	**Santo Amaro**	**1.54**	**113**	*e*S	Sn	22 05 10.0	-7.6
PMAN	**Manadas**	**1.63**	**114**	*e*-	Pn	22 04 57.4	-1.0
PIED	**Piedade**	**1.75**	**120**	*e*P	Pn	22 04 56.1	-4.0
PPAD	**Pico dos Padre**	**2.19**	**105**	*e*P	Pn	22 05 01.6	-4.5
PBIS	**Biscoitos**	**2.20**	**104**	*e*P	Pn	22 05 01.5	-4.8
ADH	**Angra Heroismo**	**2.24**	**106**	*e*P	Pn	22 05 01.7	-5.2
PVNV	**Vila Nova**	**2.27**	**103**	*e*P	Pn	22 05 03.0	-4.3
PFAV	**Pico das Favas**	**2.34**	**104**	*e*P	Pn	22 05 03.8	-4.4
SET4	**Mosteiros**	**3.58**	**112**	*e*P	Pn	22 05 20.9	-4.4
SET2	**Ginetes**	**3.59**	**113**	*e*P	Pn	22 05 21.9	-3.5
PFET	**Feteiras**	**3.61**	**113**	*e*P	Pn	22 05 23.8	-1.9
FAC	**Faja de Cima**	**3.73**	**113**	*e*P	Pn	22 05 24.6	-2.7
CML	**Cha da Macela**	**3.81**	**112**	*e*P	Pn	22 05 25.4	-3.0
PVER	**Pico Vermelho**	**3.82**	**112**	*e*P	Pn	22 05 25.5	-3.0
PMAT	**Coroa da Mata**	**3.84**	**111**	*e*P	Pn	22 05 26.5	-2.4
LFA	**Lagoa do Fogo**	**3.85**	**112**	*e*P	Pn	22 05 25.9	-3.1
PRCH	**Ribeira Ch**	**3.87**	**113**	*e*P	Pn	22 05 26.3	-3.0
VIF	**Vila Franca**	**3.90**	**112**	*e*P	Pn	22 05 26.7	-2.9
PCNG	**Congro**	**3.92**	**112**	*e*P	Pn	22 05 27.4	-2.5
FRA1	**Furnas**	**3.96**	**112**	*e*P	Pn	22 05 27.5	-2.9

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*ISCJB **28** 22:27:08.1±0.9,53.92N±0.09×164.08W±0.09,h59^{km}±9^{km}, mb3.8/9,MS3.6/10,Error ellipse: s-maj=16.0km s-min=7.1km az=157.4*

*NEIC **28** 22:27:08.7±1.1,53.85N×164.07W,h48^{km}±10^{km},mb3.9/2, ML3.9(AEIC),Error ellipse: s-maj=18.4km s-min=7.6km az=169.0*

*IDC **28** 22:27:09.2±7.0,54.23N×164.06W,h44^{km}±57^{km},mb3.6/9, mb1 3.9/10,mb1mx3.6/27,mbtmp3.6/10,ML4.0/1,MS3.6/10, Ms1 3.6/10,ms1mx3.4/34,Error ellipse: s-maj=50.2km s-min=22.4km az=31.0*

ISC 28 22:27:08.3±1.1**,53.78N**±0.09×**164.06W**±0.08**,h46**^{km}±11^{km}**, n31,σ1^{s}.17**/30**,mb3.8**/9**,MS3.6**/10**,Unimak Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKUT	**Akutan**	**1.07**	**290**	P	**Pn**	**22 27 26.6**	**-0.3**
AKUT				S	**Sn**	**22 27 40.5**	**0.0**

AKLV	Akutan Long Va	1.18	290	P	Pn	22 27 28.1	-0.3
UNV	Unalaska Valle	1.45	274	P	Pn	22 27 32.4	+0.4
SDPT	Sand Point	2.62	52	P	Pn	22 27 47.6	-0.3
SDPT				*e*Sn	Sn	22 28 18.3	-0.1
KDAK	Kodiak Island	7.61	54	P	Pn	22 28 54.2	-2.3
KDAK	Kodiak Island	7.61	54	P	Pn	22 28 54.2	-2.3
	2.5nm,0.3s,baz=230,slow=6.0,SNR=44						
KDAK				S	Sn	22 30 15.7	-5.6
	0.6nm,0.3s,baz=180,slow=20,SNR=3.0						
SVW2	Sparrevohn	8.64	28	*e*Pn	Pn	22 29 10.9	+0.4
SVW2				*e*Sn	Sn	22 30 47.0	+0.6
SLKM	Skilak Lake	10.09	43	*e*Pn	Pn	22 29 30.3	0.0
GAMB	Gambell	10.77	342	*e*Pn	Pn	22 29 40.6	+1.0
EGAK	Eagle	15.96	37	*e*Pn	Pn	22 30 50.0	+0.7
	4.3nm,0.8s						
EGAK				*e*Sn	Sn	22 33 45.6	+0.7
DAWY	Dawson	16.26	41	*e*Pn	Pn	22 30 55.8	+2.7
DLBC	Dease Lake	19.40	62	P	Pn	22 31 29.9	-1.8
DLBC	Dease Lake	19.40	62	P	Pn	22 31 29.9	-1.8
	baz=262,slow=14						
INK	Inuvik	20.42	33	*e*P	P	22 31 37.7	-3.4
INK	Inuvik	20.42	33	P	P	22 31 38.2	-3.0
	1.3nm,0.3s,baz=246,slow=8.9,SNR=11						
BBB	Bella Bella	21.56	80	LR	LR	22 38 53.8	
	comp=Z,121nm,18.1s,MS3.3,baz=320,slow=33						
YKA	Yellowknife Ar	26.88	51	P	P	22 32 43.1	-1.2
	0.7nm,0.5s,mb3.5,baz=277,slow=9.7,SNR=15						
NEW	Newport	29.59	81	P	P	22 33 08.0	-0.7
NEW				LR	LR	22 44 59.0	
NEW	Newport	29.59	81	P	P	22 33 08.0	-0.7
	3.4nm,0.9s,mb4.1,baz=352,slow=7.1,SNR=3.5						
NEW				LR	LR	22 44 59.0	
	comp=Z,74nm,18.3s,MS3.4,baz=163,slow=36						
NVAR	Mina Array Bea	34.58	97	P	P	22 33 54.4	+2.0
	1.6nm,0.7s,mb4.1,baz=307,slow=8.3,SNR=7.3						
PDAR	Pinedale Array	37.03	85	P	P	22 34 14.7	+1.3
	0.3nm,0.7s,mb3.2,baz=321,slow=7.0,SNR=3.8						
ULM	Lac du Bonnet	40.66	66	P	P	22 34 43.1	-0.5
	1.9nm,0.7s,mb3.9,baz=282,slow=6.4,SNR=4.5						
ULM				LR	LR	22 51 43.4	
	comp=Z,81nm,18.0s,MS3.6,baz=353,slow=36						
KSRS	Korea Array	48.38	279	LR	LR	22 57 00.4	
	comp=Z,50nm,19.2s,MS3.5,baz=153,slow=37						
TXAR	Lajitas Array	49.59	94	P	P	22 35 56.1	+1.3
	1.4nm,0.7s,mb4.1,baz=302,slow=5.3,SNR=10						
TXAR				LR	LR	22 56 12.3	
	comp=Z,52nm,20.6s,MS3.5,baz=295,slow=35						
SONM	Songino Array	53.28	303	LR	LR	22 58 36.7	
	comp=Z,50nm,18.6s,MS3.6,baz=0.5,slow=36						
GUMO	Guam	56.59	245	LR	LR	22 57 53.6	
	comp=Z,134nm,20.8s,MS4.0,baz=68,slow=32						
ZALV	Zalesovo Beam	58.48	320	LR	LR	23 04 56.9	
	comp=Z,34nm,20.1s,MS3.5,baz=48,slow=39						
FINES	FINESS Array B	64.84	355	P	P	22 37 40.2	-1.7
	0.3nm,0.6s,mb3.5,baz=17,slow=8.0,SNR=4.1						
MKAR	Makanchi Array	65.09	316	P	P	22 37 42.5	-1.2
	0.1nm,0.3s,mb3.3,baz=41,slow=6.4,SNR=6.2						
MKAR				LR	LR	23 05 29.6	
	comp=Z,57nm,20.0s,MS3.8,baz=358,slow=36						
NOA	NORSAR Array B	65.47	3	LR	LR	23 03 23.0	
	comp=Z,34nm,19.3s,MS3.6,baz=340,slow=33						
LSA	Lhasa	74.64	299	*e*P	P	22 38 44.0	+1.4
	2.5nm,0.8s,mb4.2						

IDC ***28*** *22:29:57.6±2.2, 10.48S×161.02E, h0^{km}, mb3.9/5, mb1 4.0/5, mb1mx3.9/15, mbtmp3.9/5, MS3.3/1, Ms1 3.3/1, ms1mx2.8/31, Error ellipse: s-maj=47.1km s-min=23.8km az=83.0*

NEIC ***28*** *22:30:03.6±2.1, 10.46S×160.87E, h35^{km}, Error ellipse: s-maj=48.1km s-min=18.8km az=91.0*

ISC 28 22:30:01.4±7.1**, 10.5S**±0.1×**161.0E**±0.2**, h24^{km}**±48^{km}**, n8, σ0^{s}85**/10**, mb3.7**/5**, MS3.1**/1**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HNR	Honiara	1.50	315	Pn	Pn	22 30 26.6	-0.1
HNR				Sn	Sn	22 30 45.8	+0.3
HNR	Honiara	1.50	315	Pn	Pn	22 30 26.6	-0.1
	39nm,0.3s,baz=110,slow=2.0,SNR=12						
HNR				Sn	Sn	22 30 45.8	+0.3
	148nm,0.3s,baz=94,slow=13,SNR=17						
WRA	Warramunga Arr	27.37	247	P	P	22 35 44.7	-0.2
	2.1nm,0.8s,mb3.7,baz=76,slow=11,SNR=9.7						
WRA				LR	LR	22 44 57.5	
	comp=Z,62nm,21.1s,MS3.1,baz=10.0,slow=33						
STKA	Stephens Creek	27.84	217	P	P	22 35 50.7	+1.6
STKA	Stephens Creek	27.84	217	P	P	22 35 50.7	+1.6
	1.3nm,0.6s,mb3.7,baz=45,slow=17,SNR=3.8						
ASAR	Alice Springs	28.97	240	P	P	22 35 58.0	-1.3
	1.1nm,0.9s,mb3.6,baz=70,slow=10,SNR=7.0						
SONM	Songino Array	75.53	325	P	P	22 41 44.3	+0.5
	0.6nm,0.5s,mb3.8,baz=124,slow=4.7,SNR=5.2						
MKAR	Makanchi Array	89.97	318	P	P	22 42 58.1	-0.7
	0.2nm,0.6s,mb3.6,baz=91,slow=6.3,SNR=4.0						

ISK ***28*** *22:40:47.9, 39.31N×38.20E, h5^{km}, MD3.6*

CSEM ***28*** *22:40:49.0±0.0, 39.32N×38.19E, h5^{km}, MD3.6, Error ellipse: s-maj=1.2km s-min=1.0km az=5.0*

ISCJB ***28*** *22:40:50.2±0.3, 39.29N±0.02×38.20E±0.02, h10^{km}, Error ellipse: s-maj=3.0km s-min=2.6km az=34.8*

DDA ***28*** *22:40:51.2, 39.32N×38.16E, h9^{km}, Md3.7*

ISC 28 22:40:51.1±0.3**, 39.28N**±0.02×**38.19E**±0.02**, h10^{km}, n72, σ1^{s}22**/91**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MYA	Malataya	0.97	169	PG	Pg	22 41 08.1	-1.6
MYA	Malataya	0.97	169	*e*Pg	Pg	22 41 08.1	-1.6
MALT	Malatya	0.98	169	PG	Pg	22 41 07.6	-2.4
MALT				SG	Sg	22 41 22.5	-0.3
MALT	Malatya	0.98	169	*e*Pg	Pg	22 41 07.6	-2.4
MALT				*e*Sg	Sg	22 41 22.5	-0.3
ELZG	Elazig	1.00	141	*i* P	Pg	22 41 08.2	-2.0
ELZG				*i* S	Sg	22 41 23.4	+0.1
ELZG	Elazig	1.00	141	*i* P	Pg	22 41 08.2	-2.1
ELZG				*i* S	Sg	22 41 23.4	+0.1
PTK	Pertek	1.01	112	PG	Pg	22 41 07.9	-2.7
PTK				SG	Sg	22 41 24.1	+0.3
PTK	Pertek	1.01	112	*e*Pg	Pg	22 41 07.9	-2.7
PTK				*e*Sg	Sg	22 41 24.1	+0.3
SVSK	Karacayir	1.12	305	PN	Pn	22 41 09.5	-3.3
SVSK	Karacayir	1.12	305	*e*Pn	Pn	22 41 09.5	-3.3
EZC	Erzincan	1.34	69	PG	Pn	22 41 07.2	-8.7
GUMT	Gumushane	1.54	40	PN	Pn	22 41 16.6	-2.0
GUMT	Gumushane	1.54	40	*e*Pn	Pn	22 41 16.6	-2.0
GRSN	GIRESUNGRSN	1.64	2	*i* P	Pn	22 41 18.1	-1.9
GRSN				*i* S	Sn	22 41 42.0	+0.7
ATAB	Bozova	1.81	177	*i* P	Pn	22 41 23.2	+0.9
ATAB				*i* S	Sg	22 41 50.7	+1.5
BINT	Bingol	1.84	102	PN	Pn	22 41 22.0	-0.7
BINT	Bingol	1.84	102	*e*Pn	Pn	22 41 22.0	-0.7
BNN	Bunyan	1.87	258	PN	Pn	22 41 22.8	-0.3
BNN	Bunyan	1.87	258	*e*Pn	Pn	22 41 22.8	-0.3
URFA	Urfa	1.90	165	PN	Pn	22 41 23.8	+0.2
URFA	Urfa	1.90	165	*e*Pn	Pn	22 41 23.8	+0.2
GZT	Gaziantep	1.98	194	*i* P	Pn	22 41 25.0	+0.3
GZT				*i* S	Sg	22 41 57.8	+3.1
MACK	Trabzon	2.06	36	*i* P	Pn	22 41 25.9	+0.2
MACK				*i* S	Sb	22 41 55.0	+0.9
KTUT	Trabzon	2.09	35	PN	Pn	22 41 25.4	-0.8
KTUT	Trabzon	2.09	35	*e*Pn	Pn	22 41 25.4	-0.8
DIY	Diyarbakir	2.11	130	PN	Pn	22 41 26.4	-0.1
DIY	Diyarbakir	2.11	130	*e*Pn	Pn	22 41 26.4	-0.1
GAZ	Gaziantep	2.24	200	PN	Pn	22 41 28.4	+0.2
GAZ	Gaziantep	2.24	200	*e*Pn	Pn	22 41 28.4	+0.2
YOZ	Yozgat	2.25	280	PN	Pn	22 41 27.8	-0.5
YOZ	Yozgat	2.25	280	*e*Pn	Pn	22 41 27.8	-0.5
BNGL	BINGOL	2.33	97	*i* P	Pn	22 41 31.8	+2.3
BNGL				*i* S	Sg	22 42 05.0	-0.9
KVT	Kavak	2.43	318	*e*PN	Pn	22 41 30.1	-0.8
KVT	Kavak	2.43	318	*e*Pn	Pn	22 41 30.1	-0.8
EZM	Erzurum	2.53	75	*e*PN	Pn	22 41 31.8	-0.4
ERZM	Erzurum	2.54	75	*i* P	Pn	22 41 35.1	+2.9
ERZM				*i* S	Sg	22 42 14.2	+1.6
KOZT	Kozan	2.58	227	*e*PN	Pn	22 41 32.6	-0.3
AVNT	Avonos	2.64	260	*i* P	Pn	22 41 37.0	+3.3
AVNT				*i* S	Sg	22 42 13.6	-2.3
BTMT	Batman	2.80	112	*e*PN	Pn	22 41 34.6	-1.3
MARD	Mardin	2.83	133	*i* P	Pn	22 41 37.8	+1.5
MARD				*i* S	Sg	22 42 19.1	-2.9
CORM	Corum	2.88	289	*e*PN	Pn	22 41 36.9	-0.2
CORM	Corum	2.88	289	*e*Pn	Pn	22 41 36.9	-0.2
CTKT	Corum	2.94	298	*i* P	Pn	22 41 38.2	+0.5
CTKT				*i* S	Sg	22 42 25.8	+0.4
CEYT	Ceyhan	2.97	221	*e*PN	Pn	22 41 38.6	+0.3
CEYT	Ceyhan	2.97	221	*e*Pn	Pn	22 41 38.6	+0.3
CDAG	Cicekdag	2.97	278	*i* P	Pn	22 41 41.7	+3.4
CDAG				*i* S	Sg	22 42 23.6	-2.9
NIG	Nigde	3.03	248	*e*PN	Pn	22 41 40.0	+0.9
NIG	Nigde	3.03	248	*e*Pn	Pn	22 41 40.0	+0.9
KARA	Karaisali	3.18	232	*e*PN	Pn	22 41 41.6	+0.4
KARA	Karaisali	3.18	232	*e*Pn	Pn	22 41 41.6	+0.4
DIKM	Dikmen	3.25	318	*e*PN	Pn	22 41 42.2	0.0
DIKM	Dikmen	3.25	318	*e*Pn	Pn	22 41 42.2	0.0
BOYT	Boyabat	3.30	312	*i* P	Pn	22 41 42.5	-0.2
BOYT				*i* S	Sg	22 42 40.5	+3.5
BCA	Borcka	3.40	49	*e*PN	Pn	22 41 44.1	-0.1
BCA	Borcka	3.40	49	*e*Pn	Pn	22 41 44.1	-0.1
BYBT	Boyabat	3.41	311	*e*PN	Pn	22 41 44.0	-0.2
BYBT	Boyabat	3.41	311	*e*Pn	Pn	22 41 44.0	-0.2
ARTV	Artvin	3.44	55	*i* P	Pn	22 41 48.1	+3.4
ARTV				*i* S	Sg	22 42 36.5	-5.0
KRTS	Karatas	3.50	220	*e*PN	Pn	22 41 46.3	+0.8
KRTS	Karatas	3.50	220	*e*Pn	Pn	22 41 46.3	+0.8
HTY	Hatay	3.55	208	*e*PN	Pn	22 41 47.2	+1.0
HTY	Hatay	3.55	208	*e*Pn	Pn	22 41 47.2	+1.0
TUTA	Tutak	3.59	87	*i* P	Pb	22 41 54.9	+0.2
TUTA				*i* S	Sg	22 42 46.4	0.0
TOS	Tosya	3.64	300	*e*PN	Pn	22 41 47.6	+0.1
TOS	Tosya	3.64	300	*e*Pn	Pn	22 41 47.6	+0.1
AGRB	Hanur-Agry	3.73	84	*e*PN	Pn	22 41 49.1	+0.3
AGRB	Hanur-Agry	3.73	84	*e*Pn	Pn	22 41 49.1	+0.3
MERS	Mersin	3.76	231	*e*PN	Pn	22 41 50.0	+0.9
MERS	Mersin	3.76	231	*e*Pn	Pn	22 41 50.0	+0.9
SIRT	Sirnak	3.78	117	*e*PN	Pn	22 41 50.1	+0.7
SIRT	Sirnak	3.78	117	*e*Pn	Pn	22 41 50.1	+0.7
KARS	Kars	4.00	69	*e*PN	Pn	22 41 52.8	+0.4

NEIC ***28*** *22:42:43.0, 66.67N×135.57W, h5^{km}, ML3.3(PGC), ML2.9(AEIC), After PGC.*

PGC 28 22:42:43.0±0.0**, 66.67N**×**135.57W, h5^{km}, ML3.3**/2**, 99km southwest of Fort McPherson, Nt Northern Yukon Territory, Canada, Northern Yukon Territory**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
INK	Inuvik	1.83	25	Pn	Pn	22 43 15.5	+0.5
INK				Sn	Sn	22 43 37.4	-1.1
INK	Inuvik	1.83	25	Trac			
INK	Inuvik	1.83	25	Pn	Pn	22 43 15.5	+0.5
INK				Sn	Sn	22 43 37.4	-1.1
EGAK	Eagle	2.99	233	P	Pn	22 43 29.1	-1.8
EGAK				S	Sn	22 44 05.2	-2.0
DAWY	Dawson	3.06	213	P	Pn	22 43 31.2	-0.8
DAWY				S	Sn	22 44 09.9	+1.0
DAWY	Dawson	3.06	213	Trac			
DAWY	Dawson	3.06	213	Pn	Pn	22 43 31.2	-0.8
BM3	Burnt Mountain	3.62	286	P	Pn	22 43 37.7	-2.0
BCA3	Beaver Creek A	4.48	219	P	Pn	22 43 50.4	-1.1
IL1	Eielson Array	5.04	253	P	Pn	22 43 57.1	-2.1
HYT	Haines Junctio	5.93	189	Pn	Pn	22 44 12.6	+1.2
HYT				Sg	Sg	22 45 49.5	-3.7
HYT	Haines Junctio	5.93	189	Pn	Pn	22 44 12.6	+1.2
HYT				Sg	Sg	22 45 49.5	-3.7
WHY	Whitehorse	6.04	177	Pn	Pn	22 44 13.2	+0.3
WHY	Whitehorse	6.04	177	Pn	Pn	22 44 13.2	+0.3
IM3	Indian Mountai	7.35	273	P	Pn	22 44 28.4	-2.3
YKW3	Yellowknife Ar	9.87	105	Pn	Pn	22 45 04.2	-1.1
YKW3				Sn	Sn	22 46 46.8	-9.4
YKW3	Yellowknife Ar	9.87	105	Pn	Pn	22 45 04.2	-1.1
YKW3				Sn	Sn	22 46 46.8	-9.4
RES	Resolute Bay	15.30	41	Pn	Pn	22 46 16.2	-3.0
RES	Resolute Bay	15.30	41	Pn	Pn	22 46 16.2	-3.0

IDC ***28*** *22:42:41.1±6.0, 37.71N×72.67E, h103^{km}±53^{km}, mb3.5/6, mb1 3.7/9, mb1mx3.4/24, mbtmp3.6/9, Error ellipse: s-maj=36.4km s-min=25.7km az=21.0*

MOS ***28*** *22:42:41.8±1.1, 37.80N×72.57E, h123^{km}, mb4.5/1, Error ellipse: s-maj=19.7km s-min=11.6km az=95.8*

ISCJB ***28*** *22:42:43.9±0.3, 37.83N±0.02×72.80E±0.05, h153^{km}±6^{km}, mb3.7/7, Error ellipse: s-maj=6.9km s-min=3.7km az=179.3*

BJI ***28*** *22:42:44.5, 38.08N×72.70E, h131^{km}*

NEIC ***28*** *22:42:44.1±0.7, 37.83N×72.84E, h136^{km}±9^{km}, mb4.6/5, Error ellipse: s-maj=9.3km s-min=6.7km az=63.0*

NNC ***28*** *22:42:50.7±7.6, 38.47N×72.44E, h211^{km}±88^{km}, mb2.7, mpv3.4, Error ellipse: s-maj=82.7km s-min=35.5km az=9.0*

ISC 28 22:42:44.7±0.3**, 37.82N**±0.02×**72.76E**±0.06**, h142^{km}**±6^{km}**, n56, σ1^{s}17**/73**, mb3.7**/7**, 5C-2D, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	3.03	55	⇑*i*P	Pn	22 43 34.0	+2.0
KSH				S	Sn	22 44 11.3	+2.6
KSH				Smax			
	comp=N,1μm,0.4s						
KSH				Smax			
	comp=E,850nm,0.4s						
CEP	Cherat	4.05	190	P	Pn	22 43 48.6	+3.3
CEP				S	Sn	22 44 28.0	-4.4
AML	Almayashu	4.37	9	P	Pn	22 43 49.4	-0.1
	SNR=30						
KBL	Kabul	4.44	224	*e*Pn	Pn	22 43 52.0	+1.5
KBL				*e*Sn	Sn	22 44 44.4	+2.6
UCH	Uchtor	4.60	16	P	Pn	22 43 52.9	+0.3
	SNR=22						
KZA	Kyzart	4.66	23	P	Pn	22 43 53.3	-0.1
	SNR=47						
EKS2	Erkin-Say	4.90	9	P	Pn	22 43 56.5	0.0
	SNR=15						
AAK	Ala-Archa	4.99	15	P	Pn	22 43 58.1	+0.4
	SNR=24						
AAK	Ala-Archa	4.99	15	*e*Pn	Pn	22 43 57.1	-0.6
AAK				*e*Sn	Sn	22 44 51.9	-2.8
AAK	Ala-Archa	4.99	15	*e*PN	Pn	22 43 57.1	-0.6
THW	Thamme Wali	5.08	190	P	Pn	22 44 00.8	+1.8
KBK	Karagaybulak	5.11	18	P	Pn	22 44 00.6	+1.3
	SNR=8.5						
ULHL	Ulahol	5.17	30	P	Pn	22 44 00.0	0.0
	SNR=18						
CHMS	Chumysh	5.39	16	P	Pn	22 44 03.5	+0.4
	SNR=16						
TKM2	Tokmak 2	5.54	22	P	Pn	22 44 05.1	+0.2
	SNR=5.9						
TKM2	Tokmak 2	5.54	22	⇑P	Pn	22 44 04.4	-0.6
	comp=E,0.5nm,0.6s						
TKM2				⇑S	Sn	22 45 07.0	-0.7
	comp=E,0.9nm,0.6s						
KK31	Karatay Array	5.55	343	⇓P	Pn	22 44 04.1	-1.1
	comp=E,11nm,0.2s,baz=149,slow=9.1,SNR=459						
KK31				⇓S	Sn	22 45 01.5	-6.6
	comp=E,58nm,0.5s,baz=175,slow=25,SNR=5.4						
USP	Ospenovka	5.60	13	P	Pn	22 44 05.5	-0.4
	SNR=11						
SBDP	Sheikh Budin	5.74	197	P	Pn	22 44 08.5	+0.8
DLH	Dalhousie	5.88	153	*e*P	Pn	22 44 11.0	+1.3
DLH				*e*S	Sn	22 45 15.0	-1.1
THN	Thein Dam	5.89	155	*e*P	Pn	22 44 11.3	+1.5
THN				*e*S	Sn	22 45 15.5	-0.8
DRP	Derazinda	6.42	200	P	Pn	22 44 18.4	+1.6
DRP				S	Sn	22 45 27.0	-1.9
SDNR	Sundarnagar	7.19	150	*e*P	Pn	22 44 27.6	+0.4
SDNR				*e*S	Sn	22 45 45.6	-2.0
JOSI	Joshimath	9.17	140	*e*P	Pn	22 44 55.0	+1.3
JOSI				AMb	AMB	22 44 56.0	
	comp=Z,184nm,0.6s						
JOSI				*e*S	Sn	22 46 29.0	-6.3
NDI	New Delhi	9.84	156	*e*x	x	22 46 40.0	
KHET	Khetri	10.05	164	*e*P	Pn	22 45 04.1	-1.3
KHET				AMb	AMB	22 45 05.5	
	comp=Z,3.0nm,0.1s						
KHET				*e*S	Sn	22 46 50.0	-6.6
KUDL	Kundal	10.14	161	*e*P	Pn	22 45 06.1	-0.5
KUDL				AMb	AMB	22 45 06.9	
	comp=Z,6.6nm,0.6s						
KUDL				*e*S	Sn	22 46 49.9	-8.9
SONA	Sohna	10.21	158	*e*P	Pn	22 45 07.3	-0.2
SONA				AMb	AMB	22 45 09.5	
	comp=Z,14nm,0.5s						
SONA				*e*S	Sn	22 46 54.8	-5.5
MK31	Makanchi Array	11.40	35	⇑P	Pn	22 45 23.3	+0.1
	comp=Z,1.9nm,0.7s,baz=216,slow=14,SNR=13						
MK31	Makanchi Array	11.40	35	*e*Pn	Pn	22 45 22.1	-1.1
MK31	Makanchi Array	11.40	35	*e*P	Pn	22 45 22.1	-1.0
MKAR	Makanchi Array	11.40	35	P	Pn	22 45 22.5	-0.6
MKAR	Makanchi Array	11.40	35	P	Pn	22 45 22.5	-0.6
	comp=Z,0.2nm,0.3s,baz=222,slow=15,SNR=12						
GKN	Gorkha	13.96	131	*e*P	Pn	22 45 55.2	-1.1
	comp=Z,44nm,0.6s						
GKN				*e*S	Sn	22 48 19.8	-11
KKN	Kakani	14.50	130	*e*P	Pn	22 46 02.2	-1.0
	comp=Z,12nm,0.3s						
KKN	Kakani	14.50	130	*e*P	Pn	22 46 02.2	-1.0
KKN				pmax	pmax		
	comp=Z,12nm,0.3s						
AB31	Akbulak array	14.71	325	⇑P	Pn	22 46 03.7	-1.9
	comp=Z,4.9nm,0.6s,baz=129,slow=13,SNR=58						
AB31				S	Sn	22 48 33.4	-15
	comp=Z,2.6nm,0.6s,baz=146,slow=23,SNR=8.7						
JIRN	Jiri	15.16	128	*e*P	Pn	22 46 10.4	-0.9
	comp=Z,30nm,0.3s						
TAPN	Taplejung	16.34	125	*e*P	Pn	22 46 25.1	-0.8
	comp=Z,25nm,0.9s						
AKTK	Aktyubinsk	16.43	325	P	Pn	22 46 25.5	-1.3
AKTK				S	S	22 49 17.4	-12
AKTO	Aktyubinsk	16.43	325	P	Pn	22 46 25.5	-1.3
	comp=Z,2.0nm,0.3s,baz=134,slow=11,SNR=29						
AKTO				S	S	22 49 17.4	-12
	comp=Z,0.2nm,0.3s,baz=63,slow=13,SNR=6.2						
ODAN	Odare	16.48	127	*e*P	Pn	22 46 26.9	-0.6
	comp=Z,20nm,0.6s						
LSA	Lhasa	17.28	113	*e*P	Pn	22 46 40.0	+2.8
	comp=Z,3.1nm,0.6s						
LSA	Lhasa	17.28	113	*e*P	Pn	22 46 40.0	+2.7
LSA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ZAL	Zalesovo	18.12	23	P	P	22 46 46.0	+0.5
ZALV	Zalesovo Beam	18.14	23	P	P	22 46 46.0	+0.3
	comp=Z,0.5nm,0.3s,baz=216,slow=11,SNR=14						
GTA	Gaotai	21.17	77	*e*P	P	22 47 24.5	+6.0
JOF	Joensuu	35.46	329	*e*p	P	22 49 26.5	-0.4
	comp=Z,2.1nm,0.4s,mb4.1						
FINES	FINESS Array B	37.20	325	P	P	22 49 42.6	+0.9
	comp=Z,1.0nm,0.3s,mb3.9,baz=116,slow=9.9,SNR=17						
KAF	Kangasniemi	37.31	326	*e*p	P	22 49 41.9	-0.7
ARCES	ARCESS Array B	40.48	337	P	P	22 50 09.8	+0.9
	comp=Z,5.6nm,1.0s,mb4.2,baz=113,slow=10,SNR=9.5						
NB2	NORSAR Subarra	44.19	322	P	P	22 50 39.2	+0.2
	comp=Z,0.8nm,0.5s,mb3.6,baz=92,slow=7.9						
NOA	NORSAR Array B	44.19	322	P	P	22 50 39.5	+0.6
	comp=Z,1.1nm,0.5s,mb3.8,baz=93,slow=7.7,SNR=4.5						
TORD	Torodi Ar. Bea	67.15	269	P	P	22 53 23.6	+0.2
	comp=Z,0.4nm,0.4s,mb3.6,baz=46,slow=5.9,SNR=15						
YKA	Yellowknife Ar	79.86	3	P	P	22 54 38.2	+1.3
	comp=Z,0.2nm,0.5s,mb3.0,baz=348,slow=5.1,SNR=4.1						
WRA	Warramunga Arr	81.51	123	P	P	22 54 47.5	+1.2
	comp=Z,0.7nm,1.0s,mb3.2,baz=323,slow=4.6,SNR=3.8						

ISK ***28*** *22:45:52.6, 39.12N×25.53E, h11^{km}, MD3.7, ML3.8*

DDA ***28*** *22:45:53.5, 39.09N×25.45E, h18^{km}, Md3.6*

ISCJB ***28*** *22:45:54.7±0.4, 39.11N±0.02×25.60E±0.02, h20^{km}±4^{km}, Error ellipse: s-maj=2.9km s-min=2.5km az=36.1*

NEIC ***28*** *22:45:54.3, 39.07N×25.68E, h30^{km}, MD3.4(SOF), ML3.9(THE), ML3.6(ATH), After ATH.*

ATH ***28*** *22:45:54.1, 39.07N×25.67E, h30^{km}±3^{km}, MD3.9/17, ML3.6*

SOF ***28*** *22:45:55.0, 39.21N×25.70E, h18^{km}, MD3.4*

SKO ***28*** *22:45:56.0, 39.13N×25.56E, h0^{km}*

THE ***28*** *22:45:56.0, 39.07N×25.67E, h26^{km}, ML3.9*

CSEM ***28*** *22:45:56.0±0.0, 39.12N×25.70E, h40^{km}, ML3.6, Error ellipse: s-maj=1.3km s-min=1.1km az=18.0*

ISC 28 22:45:54.4±0.4**, 39.11N**±0.02×**25.61E**±0.02**, h9^{km}**±3^{km}**, n208, σ0^{s}94**/242**, 3C-7D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PRK	Paraskevi	0.53	75	*e*Pb	Pg	22 46 04.8	0.0
PRK				*e*Sb	Sg	22 46 12.6	+0.8
PRK	Paraskevi	0.53	75	*e*PN	Pg	22 46 04.8	0.0
PRK				*e*SN	Sg	22 46 12.6	+0.8
PRK	Paraskevi	0.53	75	*e*Pb	Pg	22 46 04.8	0.0
PRK				*e*Sb	Sg	22 46 12.6	+0.8
CHOS	Chios island	0.80	154	*e*Pg	Pg	22 46 10.0	+0.1
CHOS				*e*Sg	Sg	22 46 20.9	+0.5
CHOS	Chios island	0.80	154	*e*Pg	Pg	22 46 10.0	+0.1
CHOS				*e*Sg	Sg	22 46 20.9	+0.6
BOZC	Bozcaada	0.81	25	*i* P	Pg	22 46 09.4	-0.6
BOZC				*i* S	Sg	22 46 22.1	+1.5
LIA	Limnos Island	0.85	337	*e*Pn	Pn	22 46 12.9	+0.2
LIA				*e*Sn	Sn	22 46 25.8	+0.5
LIA	Limnos Island	0.85	337	*e*PN	Pn	22 46 12.9	+0.2
LIA				*e*SN	Sn	22 46 25.0	-0.3
LIA	Limnos Island	0.85	337	*e*Pn	Pn	22 46 12.9	+0.2
LIA				*e*Sn	Sn	22 46 25.8	+0.5
AYVA	Ayvalik	0.86	76	*i* P	Pg	22 46 10.8	-0.3
AYVA				*i* S	Sg	22 46 23.5	+1.2
EZN	Ezine	0.91	38	PG	Pg	22 46 11.3	-0.6
EZN				SG	Sg	22 46 24.1	+0.5
EZN	Ezine	0.91	38	*e*Pg	Pg	22 46 11.3	-0.6
EZN				*e*Sg	Sg	22 46 24.1	+0.5
LOS	Limnos	0.92	334	P	Sg	22 46 24.9	+0.8
URLA	Izmir	1.07	134	*i* P	Pg	22 46 14.4	-0.7
URLA				*i* S	Sg	22 46 28.5	-0.5
GADA	Gvkgeada	1.10	12	PN	Pn	22 46 14.4	-1.7
GADA				SN	Sn	22 46 29.9	-1.5
GADA	Gvkgeada	1.10	12	*e*Pn	Pn	22 46 14.4	-1.7
GADA				*e*Sn	Sn	22 46 29.9	-1.5
BLCB	Balcova	1.33	122	PN	Pn	22 46 18.2	-1.1
BLCB	Balcova	1.33	122	*e*Pn	Pn	22 46 18.2	-1.1
IZM	Izmir	1.48	118	PN	Pn	22 46 21.3	+0.1
IZM	Izmir	1.48	118	*e*Pn	Pn	22 46 21.3	+0.1
KDAG	Bornova	1.48	118	*i* P	Pn	22 46 20.0	-1.2
KDAG				*i* S	Sn	22 46 40.7	+0.1
LPK	Lapseki	1.54	35	PN	Pn	22 46 20.9	-1.2
LPK	Lapseki	1.54	35	*e*Pn	Pn	22 46 20.9	-1.2
ENEZ	Enez	1.68	14	PN	Pn	22 46 22.4	-1.6
ENEZ	Enez	1.68	14	*e*Pn	Pn	22 46 22.4	-1.6
SMG	Samos	1.70	145	*e*Pn	Pn	22 46 23.2	-1.1
SMG	Samos	1.70	145	*e*PN	Pn	22 46 23.2	-1.1
SMG	Samos	1.70	145	*e*Pn	Pn	22 46 23.2	-1.1
PAIG	Paliouri	1.70	299	P	Pn	22 46 23.5	-0.8
PAIG				S	Sn	22 46 46.3	+0.1
PAIG	Paliouri	1.70	299	*e*Pb	Pn	22 46 23.5	-0.8
PAIG				*e*Sb	Sn	22 46 46.3	+0.1
PAIG	Paliouri	1.70	299	*e*Pb	Pn	22 46 23.5	-0.8
PAIG				*e*Sb	Sb	22 46 46.3	-1.1
AKS	Akhisar	1.73	97	PN	Pn	22 46 24.2	-0.5
AKS	Akhisar	1.73	97	*e*Pn	Pn	22 46 24.2	-0.5
OUR	Ouranopolis	1.75	315	P	Pn	22 46 24.6	-0.4
OUR	Ouranopolis	1.75	315	*e*Pb	Pn	22 46 24.6	-0.4
OUR	Ouranopolis	1.75	315	*e*Pb	Pb	22 46 24.6	-2.2
ALN	Alexandroupoli	1.82	11	P	Pn	22 46 24.9	-1.0
ALN				S	Sn	22 46 47.6	-1.5
ALN	Alexandroupoli	1.82	11	*e*Pb	Pn	22 46 24.9	-1.0
ALN				*e*Sb	Sn	22 46 47.6	-1.5
ALN	Alexandroupoli	1.82	11	*e*Pb	Pn	22 46 24.9	-1.0
ALN				*e*Sb	Sn	22 46 47.6	-1.5
BALB	Balikesir	1.84	73	PN	Pn	22 46 26.1	-0.1
BALB	Balikesir	1.84	73	*e*Pn	Pn	22 46 26.1	-0.1
NEO	Neokhori	1.86	277	*e*Pn	Pn	22 46 25.7	-0.8
NEO	Neokhori	1.86	277	*e*PN	Pn	22 46 25.7	-0.8
NEO	Neokhori	1.86	277	*e*Pn	Pn	22 46 25.7	-0.8
ATH	Athens Observa	1.87	233	*e*Pb	Pb	22 46 28.3	-0.5
ATH	Athens Observa	1.87	233	*e*PB	Pb	22 46 28.3	-0.5
ATH	Athens Observa	1.87	233	*e*Pb	Pb	22 46 28.3	-0.5
XOR	Xorichti	1.89	279	P	Pn	22 46 26.2	-0.7
XOR	Xorichti	1.89	279	*e*Pb	Pn	22 46 26.2	-0.7
XOR	Xorichti	1.89	279	*e*Pb	Pn	22 46 26.2	-0.8
RKY	Sarkoy-Tekirda	1.98	37	PN	Pn	22 46 27.4	-0.8
RKY	Sarkoy-Tekirda	1.98	37	*e*Pn	Pn	22 46 27.4	-0.8
BTOK	Tokmak	1.99	70	*i* P	Pn	22 46 27.7	-0.5
BTOK				*i* S	Sg	22 46 58.0	-0.2
SART	Tekirdag	1.99	37	*i* P	Pn	22 46 27.8	-0.5
SART				*i* S	Sn	22 46 54.5	+1.3
RDO	Rodhopi	2.04	358	*e*Pn	Pn	22 46 28.2	-0.7
RDO	Rodhopi	2.04	358	*e*PN	Pn	22 46 28.2	-0.7
RDO	Rodhopi	2.04	358	*e*Pn	Pn	22 46 28.2	-0.7
APE	Apeiranthos	2.04	182	*e*Pn	Pn	22 46 27.9	-1.1
APE	Apeiranthos	2.04	182	*e*Pn	Pn	22 46 27.4	-1.5

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
APE	Apeiranthos	2.04	182	ePN	Pn	22 46 27.9	-1.1
APE	Apeiranthos	2.04	182	⇓iP	Pn	22 46 27.4	-1.6
APE	Apeiranthos	2.04	182	ePn	Pn	22 46 27.9	-1.1
LKR	Lokris	2.09	258	ePn	Pn	22 46 29.4	-0.2
LKR	Lokris	2.09	258	ePN	Pn	22 46 29.4	-0.2
LKR	Lokris	2.09	258	ePn	Pn	22 46 29.4	-0.2
PLG	Polygyros	2.09	308	ePn	Pn	22 46 29.4	-0.3
PLG	Polygyros	2.09	308	ePn	Pn	22 46 29.2	-0.5
PLG	Polygyros	2.09	308	ePN	Pn	22 46 29.4	-0.3
PLG	Polygyros	2.09	308	ePn	Pn	22 46 29.4	-0.3
MFT	Murefte	2.11	37	PN	Pn	22 46 29.8	-0.2
MFT	Murefte	2.11	37	ePn	Pn	22 46 29.8	-0.2
EDC	Edincik	2.13	54	PN	Pn	22 46 29.9	-0.3
EDC	Edincik	2.13	54	ePn	Pn	22 46 29.9	-0.3
MRMT	Marmara Adasi	2.14	45	PN	Pn	22 46 30.3	0.0
MRMT	Marmara Adasi	2.14	45	ePn	Pn	22 46 30.3	0.0
BNT	Bandirma	2.17	54	PN	Pn	22 46 29.6	-1.2
LTK	Loutraki	2.34	243	ePn	Pn	22 46 32.7	-0.4
LTK				eSn	Sn	22 47 01.1	-0.8
LTK	Loutraki	2.34	243	ePn	Pn	22 46 32.7	-0.4
LTK				eSn	Sn	22 47 01.1	-0.8
SOH	Sokhos	2.43	315	P	Pn	22 46 34.5	+0.1
SOH	Sokhos	2.43	315	ePn	Pn	22 46 34.5	+0.1
SOH	Sokhos	2.43	315	ePn	Pn	22 46 34.5	+0.1
BODT	Bodrum	2.45	146	ePN	Pn	22 46 33.9	-0.7
BODT	Bodrum	2.45	146	ePn	Pn	22 46 33.9	-0.7
KULA	Kula-Manisa	2.46	103	ePN	Pn	22 46 34.2	-0.5
KULA	Kula-Manisa	2.46	103	ePn	Pn	22 46 34.2	-0.5
DID	Didima	2.46	230	ePn	Pn	22 46 34.4	-0.3
DID	Didima	2.46	230	ePn	Pn	22 46 34.4	-0.3
MLSB	Milas	2.49	136	ePN	Pn	22 46 34.9	-0.3
MLSB	Milas	2.49	136	ePn	Pn	22 46 34.9	-0.3
BDRM	Kayabasi	2.50	144	iP	Pn	22 46 34.5	-0.8
BDRM				iS	Sg	22 47 15.5	+0.7
KDZ	Kurdzhali	2.54	357	iP	Pn	22 46 35.2	-0.7
AGG	Agios Georgios	2.55	269	P	Pn	22 46 36.1	+0.1
AGG	Agios Georgios	2.55	269	ePn	Pn	22 46 36.1	+0.1
AGG	Agios Georgios	2.55	269	ePn	Pn	22 46 36.1	+0.1
NVR	Nevrokopi	2.61	330	ePn	Pn	22 46 36.4	-0.4
NVR	Nevrokopi	2.61	330	ePN	Pn	22 46 36.4	-0.4
NVR	Nevrokopi	2.61	330	ePn	Pn	22 46 36.4	-0.4
RZN	Rozhen	2.66	345	iP	Pn	22 46 37.4	-0.1
SANT	Santorini	2.74	183	ePn	Pn	22 46 34.1	-4.4
SANT				eSn	Sn	22 47 13.4	+1.6
SANT	Santorini	2.74	183	ePn	Pn	22 46 34.1	-4.5
SANT				eSn	Sn	22 47 13.4	+1.6
THL	Klokotos Trika	2.82	280	ePN	Pn	22 46 39.8	+0.1
THL	Klokotos Trika	2.82	280	ePn	Pn	22 46 39.8	+0.1
DAT	Datca	2.84	146	ePN	Pn	22 46 39.4	-0.6
DAT	Datca	2.84	146	ePn	Pn	22 46 39.4	-0.6
MMB	Musomiste	2.86	330	iP	Pn	22 46 40.0	-0.3
EDRB	Edirne	2.87	17	ePN	Pn	22 46 39.0	-1.4
EDRB	Edirne	2.87	17	ePn	Pn	22 46 39.0	-1.4
YER	Yerkesik	2.89	132	ePN	Pn	22 46 40.8	+0.2
YER	Yerkesik	2.89	132	ePn	Pn	22 46 40.8	+0.2
ULDT	Uludag	2.91	68	iP	Pn	22 46 41.9	+1.0
ULDT				iS	Sg	22 47 26.2	-1.8
KNT	Kendrikon	2.92	315	P	Pn	22 46 41.8	+0.7
KNT	Kendrikon	2.92	315	ePn	Pn	22 46 41.8	+0.7
KNT	Kendrikon	2.92	315	ePn	Pn	22 46 41.8	+0.8
DIM	Dimitrovgrad	2.94	359	iP	Pn	22 46 41.3	0.0
EVR	Evrytania	2.97	267	ePn	Pn	22 46 42.2	+0.5
EVR	Evrytania	2.97	267	ePN	Pn	22 46 42.2	+0.5
EVR	Evrytania	2.97	267	ePn	Pn	22 46 42.2	+0.5
CTT	Catalca	2.97	46	ePN	Pn	22 46 41.8	+0.1
CTT	Catalca	2.97	46	ePn	Pn	22 46 41.8	+0.1
DENT	Denizli	3.01	116	ePN	Pn	22 46 42.7	+0.4
DENT	Denizli	3.01	116	ePn	Pn	22 46 42.7	+0.4
GDZ	Gediz	3.01	89	iP	Pg	22 46 50.9	-1.3
GDZ				iS	Sg	22 47 30.5	-0.7
GEMT	Gemlik	3.06	63	ePN	Pn	22 46 43.5	+0.5
GEMT	Gemlik	3.06	63	ePn	Pn	22 46 43.5	+0.5
PLD	Plovdiv	3.07	347	ePn	Pn	22 46 43.8	+0.6
PLD	Plovdiv	3.07	347	iP	Pn	22 46 43.8	+0.7
PLD	Plovdiv	3.07	347	ePn	Pn	22 46 43.8	+0.7
GRG	Griva	3.08	308	P	Pn	22 46 44.1	+0.9
GRG	Griva	3.08	308	ePn	Pn	22 46 44.1	+0.9
GRG	Griva	3.08	308	ePn	Pn	22 46 44.1	+0.9
KHL	Karahalli	3.16	103	ePN	Pn	22 46 44.7	+0.3
KHL	Karahalli	3.16	103	ePn	Pn	22 46 44.7	+0.3
VLI	Veliai	3.19	222	ePn	Pn	22 46 43.8	-1.0
VLI	Veliai	3.19	222	ePN	Pn	22 46 43.8	-1.0
VLI	Veliai	3.19	222	ePn	Pn	22 46 43.8	-1.0
KZN	Kozani	3.19	293	P	Pn	22 46 46.4	+1.6
VAY	Valandovo	3.21	314	ePn	Pn	22 46 45.9	+0.9
VAY				eSg	Sg	22 47 36.8	-0.7
IZI	Iznik	3.22	66	ePN	Pn	22 46 45.6	+0.4
IZI	Iznik	3.22	66	ePn	Pn	22 46 45.6	+0.4
YLV	Yalova	3.24	62	ePN	Pn	22 46 46.2	+0.7
YLV	Yalova	3.24	62	ePn	Pn	22 46 46.2	+0.7
ISK	Istanbul-Kandi	3.29	52	ePN	Pn	22 46 45.7	-0.4
ISK	Istanbul-Kandi	3.29	52	ePn	Pn	22 46 45.7	-0.4
DALT	Dalyan (Mudla)	3.34	133	ePN	Pn	22 46 47.7	+0.8
DALT	Dalyan (Mudla)	3.34	133	ePn	Pn	22 46 47.7	+0.8
KKB	Krupnik	3.36	326	iP	Pn	22 46 47.3	+0.2
KLYT	Kilyos	3.39	50	ePN	Pn	22 46 47.3	-0.2
KLYT	Kilyos	3.39	50	ePn	Pn	22 46 47.3	-0.2
RLS	Riolos of Patr	3.41	253	ePb	Pb	22 46 51.1	-4.0
RLS	Riolos of Patr	3.41	253	ePB	Pb	22 46 51.1	-4.0
RLS	Riolos of Patr	3.41	253	ePb	Pb	22 46 51.1	-4.0
JMB	Yambol	3.43	12	iP	Pn	22 46 47.9	-0.2
ADVT	Abdulvahap	3.45	66	ePN	Pn	22 46 48.8	+0.5
ADVT	Abdulvahap	3.45	66	ePn	Pn	22 46 48.8	+0.5
ITM	Ithomi	3.48	238	ePn	Pn	22 46 51.0	+2.2
ITM	Ithomi	3.48	238	ePN	Pn	22 46 50.0	+1.2
ITM	Ithomi	3.48	238	ePn	Pn	22 46 51.0	+2.2
ARG	Arkhangelos	3.51	145	ePn	Pn	22 46 49.2	0.0
ARG	Arkhangelos	3.51	145	ePN	Pn	22 46 49.2	0.0
ARG	Arkhangelos	3.51	145	ePn	Pn	22 46 49.2	0.0
HRT	Hereke	3.56	60	ePN	Pn	22 46 50.9	+1.1
HRT	Hereke	3.56	60	ePn	Pn	22 46 50.9	+1.1
STIP	Stip	3.67	316	ePn	Pn	22 46 54.1	+2.7
FETY	Fethiye	3.70	131	ePN	Pn	22 46 52.4	+0.7
FETY	Fethiye	3.70	131	ePn	Pn	22 46 52.4	+0.7
JAN	Janina	3.73	280	ePb	Pb	22 46 57.0	-3.4
JAN	Janina	3.73	280	ePN	Pn	22 46 54.0	+1.8
JAN	Janina	3.73	280	ePb	Pb	22 46 57.0	-3.4
KARP	Karpathos	3.77	160	ePn	Pn	22 46 52.1	-0.6
KARP	Karpathos	3.77	160	ePN	Pn	22 46 52.1	-0.6
KARP	Karpathos	3.77	160	ePn	Pn	22 46 52.1	-0.6
SHUT	Suhut-Afyon	3.90	97	ePN	Pn	22 46 55.4	+0.9
SHUT	Suhut-Afyon	3.90	97	ePn	Pn	22 46 55.4	+0.9
VTS	Vitosha	3.93	333	iP	Pn	22 46 57.0	+2.1
GULT	Gulveren	4.00	69	ePN	Pn	22 46 56.0	0.0
GULT	Gulveren	4.00	69	ePn	Pn	22 46 56.0	0.0
KRUS	Krusevo	4.03	305	ePn	Pn	22 46 57.7	+1.4
ESKT	Eskisehir	4.09	83	ePN	Pn	22 46 57.7	+0.6
ESKT	Eskisehir	4.09	83	iP	Pn	22 46 57.1	0.0
ESKT				iS	Sb	22 48 01.2	+5.2
ESKT	Eskisehir	4.09	83	ePn	Pn	22 46 57.7	+0.6
SEYT	Eskypehyr	4.09	83	iP	Pn	22 46 57.1	0.0
ELL	Elmali	4.14	123	ePN	Pn	22 46 58.6	+0.8
ELL	Elmali	4.14	123	ePn	Pn	22 46 58.6	+0.8
HENT	Hendek	4.41	66	iP	Pn	22 47 01.8	+0.2
HENT				iS	Sn	22 47 50.8	-2.2
KIZT	Kizilcal	4.89	91	ePN	Pn	22 47 09.0	+0.8
KIZT	Kizilcal	4.89	91	ePn	Pn	22 47 09.0	+0.8
LOD	Lodumlu	5.59	80	ePN	Pn	22 47 19.7	+2.0
LOD	Lodumlu	5.59	80	ePn	Pn	22 47 19.7	+2.0
TIRR	Tirgusor	5.74	21	P	Pn	22 47 19.1	-0.7
TIRR	Tirgusor	5.74	21	⇓iP	Pn	22 47 19.1	-0.7
SAFT	Safranbolu	5.82	66	ePN	Pn	22 47 22.9	+1.9
SAFT	Safranbolu	5.82	66	ePn	Pn	22 47 22.9	+1.9
VOIR		6.34	356	P	Pn	22 47 27.2	-0.8
VOIR		6.34	356	⇓iP	Pn	22 47 27.2	-0.8
CANT	Cankiri	6.34	74	ePN	Pn	22 47 29.4	+1.3
MLR	Muntele Rosu	6.38	2	P	Pn	22 47 29.8	+1.1
MLR	Muntele Rosu	6.38	2	⇑iP	Pn	22 47 29.8	+1.2
DIVS	Divcibare	6.52	322	P	Pn	22 47 31.0	+0.4
GZR	Gura Zlata	6.62	342	⇓iP	Pn	22 47 31.6	-0.3
PLOR	Plostina	6.78	6	⇓iP	Pn	22 47 35.5	+1.4
VRI	Vrincioaia	6.80	7	⇑iP	Pn	22 47 35.5	+1.1
CORM	Corum	7.04	78	ePN	Pn	22 47 39.2	+1.5
CORM	Corum	7.04	78	ePn	Pn	22 47 39.2	+1.5
BZS	Buzias	7.14	337	P	Pn	22 47 39.0	-0.1
BZS	Buzias	7.14	337	⇑iP	Pn	22 47 39.0	0.0
BURAR	Bucovina Array	8.51	358	P	Pn	22 47 59.8	+2.0
BURAR	Bucovina Array	8.51	358	⇓iP	Pn	22 47 59.8	+2.0
PKSM	Moragy	8.76	326	⇓iP	Pn	22 48 02.1	+0.9

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*ISCJB **28** 22:49:21.4±0.7, 57.3S±0.1×24.5W±0.2, h10km, mb4.3/6, Error ellipse: s-maj=18.7km s-min=14.2km az=20.3*

*IDC **28** 22:49:21.5±0.8, 57.28S×24.44W, h0km, mb4.4/6, mb1 4.4/7, mb1mx4.2/14, mbtmp4.3/7, ML3.7/1, MS3.8/1, Ms1 3.8/1, ms1mx3.3/22, Error ellipse: s-maj=27.2km s-min=23.0km az=138.0*

*NEIC **28** 22:49:26.7±0.5, 57.34S×24.39W, h35km, mb4.6/1, Error ellipse: s-maj=14.3km s-min=10.8km az=109.0*

ISC 28 22:49:23.5±0.7**, 57.3S**±0.1×**24.4W**±0.2**, h10**km**, n17, σ0.24**/11**, mb4.3**/6**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
SNAA	Sanae	16.94	157	P	Pn	22 53 20.1	-0.1
	0.3nm,0.3s,baz=319,slow=11,SNR=21						
PMSA	Palmer Station	20.29	232	P	P	22 53 58.9	0.0
	40nm,0.9s,baz=87,slow=19,SNR=3.7						
PMSA				LR	LR	23 00 55.0	
	comp=Z,224nm,18.2s,baz=144,slow=34						
QSPA	South Pole Qui	32.91	180	eP	P	22 55 57.3	+0.1
	4.9nm,0.6s,mb4.6						
BOSA	Boshof	44.83	72	P	P	22 57 37.4	-0.1
BOSA	Boshof	44.83	72	P	P	22 57 37.4	-0.1
	2.5nm,0.8s,mb4.1,baz=190,slow=12,SNR=4.8						
VNDA	Vanda	45.35	182	P	P	22 57 41.2	+0.2
	2.5nm,0.8s,mb4.1,baz=177,slow=7.2,SNR=6.3						
LBTB	Lobatse	47.95	69	P	P	22 58 01.6	-0.4
	2.3nm,0.8s,mb4.3,baz=207,slow=8.5,SNR=4.6						
LPAZ	La Paz	52.39	303	P	P	22 58 35.4	-0.3
LPAZ	La Paz	52.39	303	P	P	22 58 35.4	-0.3
	4.4nm,0.7s,mb4.5,baz=160,slow=6.0,SNR=20						
TOA0	Torodi Ar. Sit	73.46	27	eP	P	23 00 56.3	+0.4
TOA0				ePP	PP	23 03 35.2	-4.6
TORD	Torodi Ar. Bea	73.46	27	P	P	23 00 56.0	+0.2
	3.5nm,0.6s,mb4.4,baz=198,slow=5.9,SNR=30						
FINES	FINESS Array B	124.81	27	PKP	PKPdf	23 08 19.5	-2.4
FINES	FINESS Array B	124.81	27	PKP	PKPdf	23 08 19.5	-2.4
	0.9nm,0.7s,baz=236,slow=6.5,SNR=2.6						
YKA	Yellowknife Ar	138.17	316	PKP	PKPdf	23 08 46.7	-0.4
YKA	Yellowknife Ar	138.17	316	PKP	PKPdf	23 08 46.7	-0.3
	1.1nm,0.8s,baz=129,slow=2.2,SNR=14						
SONM	Songino Array	149.25	87	PKPbc	PKPbc	23 09 11.1	-0.1
SONM	Songino Array	149.25	87	PKPbc	PKPbc	23 09 11.1	-0.1
	1.1nm,0.7s,baz=213,slow=3.3,SNR=6.2						

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*ISK **28** 22:50:16.6, 38.39N×39.17E, h5km, MD3.4*

*ISCJB **28** 22:50:17.7±0.6, 38.35N±0.03×39.22E±0.03, h2km±7km, Error ellipse: s-maj=5.9km s-min=3.9km az=158.5*

*CSEM **28** 22:50:17.4±0.1, 38.39N×39.18E, h5km, MD3.3, Error ellipse: s-maj=2.0km s-min=1.4km az=131.0*

*DDA **28** 22:50:18.6, 38.34N×39.19E, h4km, Md3.3*

ISC 28 22:50:18.0±0.6**, 38.36N**±0.03×**39.23E**±0.04**, h2**km±6km**, n27, σ0.87**/38**, Turkey**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
ELZG	Elazig	0.24	306	iP	Pg	22 50 22.8	+0.2
ELZG				iS	Sg	22 50 26.5	+0.8
PTK	Pertek	0.55	13	PG	Pg	22 50 28.0	-0.5
PTK				SG	Sg	22 50 36.6	+1.0
PTK	Pertek	0.55	13	ePg	Pg	22 50 28.0	-0.5
PTK				eSg	Sg	22 50 36.6	+1.0
MALT	Malatya	0.64	266	PG	Pg	22 50 29.3	-0.8
MALT				SG	Sg	22 50 37.7	-0.7
MALT	Malatya	0.64	266	ePg	Pg	22 50 29.3	-0.8
MALT				eSg	Sg	22 50 37.7	-0.7
MYA	Malataya	0.64	267	PG	Pg	22 50 29.0	-1.2
MYA				SG	Sg	22 50 38.7	+0.3
MYA	Malataya	0.64	267	ePg	Pg	22 50 29.0	-1.2
MYA				eSg	Sg	22 50 38.7	+0.3
DIY	Diyarbakir	0.91	120	PG	Pg	22 50 35.8	+0.4
DIY	Diyarbakir	0.91	120	ePg	Pg	22 50 35.8	+0.4
URFA	Urfa	0.97	200	PG	Pg	22 50 36.9	+0.3
URFA	Urfa	0.97	200	ePg	Pg	22 50 36.9	+0.3
ATAB	Bozova	1.16	220	iP	Pg	22 50 39.2	-0.9
ATAB				iS	Sg	22 50 56.3	+1.2
EZC	Erzincan	1.46	18	ePN	Pn	22 50 43.7	-1.7
MARD	Mardin	1.61	130	iP	Pn	22 50 46.7	-0.7
MARD				iS	Sn	22 51 07.9	-0.7
BNGL	BINGOL	1.61	68	iP	Pn	22 50 48.1	+0.6
BNGL				iS	Sg	22 51 14.3	+4.5
GZT	Gaziantep	1.66	233	iP	Pn	22 50 47.3	-0.7
GZT				iS	Sn	22 51 11.9	+1.9
BTMT	Batman	1.78	95	ePN	Pn	22 50 49.0	-0.8
GAZ	Gaziantep	1.99	234	ePN	Pn	22 50 52.8	+0.1
GAZ	Gaziantep	1.99	234	ePn	Pn	22 50 52.8	+0.1
GUMT	Gumushane	2.11	5	ePN	Pn	22 50 54.4	+0.1
GUMT	Gumushane	2.11	5	ePn	Pn	22 50 54.4	+0.1
EZM	Erzurum	2.27	46	ePN	Pn	22 50 57.5	+1.1
SVSK	Karacayir	2.33	313	ePN	Pn	22 50 56.8	-0.6
SVSK	Karacayir	2.33	313	ePn	Pn	22 50 56.8	-0.6
SIRT	Sirnak	2.67	108	ePN	Pn	22 51 03.2	+1.1
SIRT	Sirnak	2.67	108	ePn	Pn	22 51 03.2	+1.1
KOZT	Kozan	2.83	253	ePN	Pn	22 51 04.4	+0.2

IDC 28 22:56:18.7±7.4**, 8.48S**×**122.30E, h283**km±92km**, mb2.5**/1**, mb1 2.9**/4**, mb1mx2.8**/15**, mbtmp2.7**/4**, Error ellipse: s-maj=121.7km s-min=30.8km az=47.0, Flores region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	10.11	162	P	Pn	22 58 38.8	+0.6
	0.2nm,0.3s,baz=0.0,slow=11,SNR=5.6						
FITZ				S	S	23 00 28.9	-3.1
	0.4nm,0.3s,baz=259,slow=23,SNR=5.6						
WRA	Warramunga Arr	16.30	136	P	P	22 59 50.9	-0.1
	0.2nm,0.3s,baz=312,slow=12,SNR=16						
WRA				S	S	23 02 47.5	+0.1
	0.2nm,0.3s,baz=317,slow=24,SNR=7.4						
ASAR	Alice Springs	18.75	145	P	P	23 00 18.2	+0.8
	0.5nm,0.3s,baz=322,slow=9.7,SNR=23						
MKAR	Makanchi Array	65.53	331	P	P	23 06 32.0	-0.1
	0.1nm,0.4s,baz=136,slow=7.5,SNR=5.7						

MEX 28 23:05:14.2±0.7**, 16.99N**×**99.65W, h12**km±9km**, MD3.5, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
ACX	Acapulco	0.28	245	iP	Pg	23 05 19.5	-0.5
ACX				iS	Sg	23 05 24.7	+0.9
CAIG	El Cayaco	0.59	276	iP	Pg	23 05 24.6	-1.2
CAIG				iS	Sg	23 05 32.2	-1.4
MEIG	Mezcala	0.93	2	iP	Pg	23 05 29.0	-3.3
MEIG				iS	Sg	23 05 41.6	-2.8
UTMO	Huajuapan	1.95	64	iP	Pn	23 05 44.4	-2.8
UTMO				iS	Sn	23 06 07.3	-4.4
PPM	Popocatepetl	2.29	25	iP	Pn	23 05 48.9	-2.9
PPM				iS	Sn	23 06 18.6	-1.3

MAN 28 23:05:32, 9.50N×**125.79E, h9**km**, mb3.9, ML2.6, MS2.2, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
SCPH	Surigao	0.41	313	⇑eP	Pg	23 05 40.9	+0.9
SCPH				eS	Sg	23 05 52.2	+6.8
BUTP	Butuan	0.56	198	eP	Pg	23 05 43.6	+0.8
MSLP	Maasin	1.11	304	eP	Pg	23 05 52.9	-0.5
BUKP	Musuan	1.77	204	eP	Pn	23 06 02.6	-0.2

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*ISCJB **28** 23:11:18.5±0.6, 38.37N±0.03×39.21E±0.03, h5km±5km, Error ellipse: s-maj=5.3km s-min=3.5km az=153.4*

*CSEM **28** 23:11:18.1±0.1, 38.39N×39.19E, h8km±1km, MD3.6, Error ellipse: s-maj=2.1km s-min=1.5km az=161.0*

*ISK **28** 23:11:18.3, 38.39N×39.19E, h7km, MD3.6*

*DDA **28** 23:11:20.0, 38.34N×39.18E, h7km, Md3.6*

ISC 28 23:11:18.9±0.5**, 38.37N**±0.03×**39.23E**±0.03**, h4**km±5km**, n48, σ0.83**/61**, Turkey**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
ELZG	Elazig	0.23	303	iP	Pg	23 11 23.8	+0.4
ELZG				iS	Sg	23 11 26.5	0.0
PTK	Pertek	0.54	14	PG	Pg	23 11 28.6	-0.6
PTK				SG	Sg	23 11 37.1	+1.0
PTK	Pertek	0.54	14	ePg	Pg	23 11 28.6	-0.6
PTK				eSg	Sg	23 11 37.1	+1.0
MALT	Malatya	0.64	265	PG	Pg	23 11 30.2	-0.9
MALT				SG	Sg	23 11 38.8	-0.5
MALT	Malatya	0.64	265	ePg	Pg	23 11 30.2	-0.9
MALT				eSg	Sg	23 11 38.8	-0.5
MYA	Malataya	0.64	266	PG	Pg	23 11 30.7	-0.4
MYA				SG	Sg	23 11 39.9	+0.6
MYA	Malataya	0.64	266	ePg	Pg	23 11 30.7	-0.4
MYA				eSg	Sg	23 11 39.9	+0.6
DIY	Diyarbakir	0.92	121	PG	Pg	23 11 36.5	0.0
DIY	Diyarbakir	0.92	121	ePg	Pg	23 11 36.5	0.0
URFA	Urfa	0.98	199	PG	Pg	23 11 37.6	-0.1
URFA	Urfa	0.98	199	ePg	Pg	23 11 37.6	-0.1
BINT	Bingol	1.11	63	PN	Pn	23 11 40.6	-0.5
BINT	Bingol	1.11	63	ePn	Pn	23 11 40.6	-0.5
ATAB	Bozova	1.17	220	iP	Pg	23 11 41.5	+0.2
ATAB				iS	Sg	23 11 57.6	+1.3
EZC	Erzincan	1.45	18	PN	Pn	23 11 44.4	-1.4
BNGL	BINGOL	1.61	68	iP	Pn	23 11 49.2	+1.2
BNGL				iS	Sn	23 12 11.3	+2.0
MARD	Mardin	1.62	130	iP	Pn	23 11 47.5	-0.7
MARD				iS	Sn	23 12 08.9	-0.5
GZT	Gaziantep	1.66	233	iP	Pn	23 11 48.5	-0.3
GZT				iS	Sg	23 12 13.5	+1.2
BTMT	Batman	1.79	95	PN	Pn	23 11 49.7	-0.8
GAZ	Gaziantep	2.00	234	PN	Pn	23 11 53.2	-0.2
GAZ	Gaziantep	2.00	234	ePn	Pn	23 11 53.2	-0.2
GUMT	Gumushane	2.10	5	ePN	Pn	23 11 54.8	+0.1
GUMT	Gumushane	2.10	5	ePn	Pn	23 11 54.8	+0.1
EZM	Erzurum	2.26	47	ePN	Pn	23 11 58.2	+1.3
ERZM	Erzurum	2.26	47	iP	Pb	23 11 59.9	-0.4
ERZM				iS	Sg	23 12 39.2	+7.7
SVSK	Karacayir	2.32	312	ePN	Pn	23 11 57.1	-0.8
SVSK	Karacayir	2.32	312	ePn	Pn	23 11 57.1	-0.8
ANDN	Andirin	2.41	252	iP	Pn	23 11 57.9	-1.2
SIRT	Sirnak	2.68	108	ePN	Pn	23 12 03.5	+0.7
SIRT	Sirnak	2.68	108	ePn	Pn	23 12 03.5	+0.7
BNN	Bunyan	2.69	281	ePN	Pn	23 12 02.4	-0.6
BNN	Bunyan	2.69	281	ePn	Pn	23 12 02.4	-0.6
KOZT	Kozan	2.83	253	ePN	Pn	23 12 04.8	-0.1
AGRB	Hanur-Agry	3.17	67	ePN	Pn	23 12 10.7	+1.2
AGRB	Hanur-Agry	3.17	67	ePn	Pn	23 12 10.7	+1.2
YOZ	Yozgat	3.30	294	ePN	Pn	23 12 10.9	-0.4
YOZ	Yozgat	3.30	294	ePn	Pn	23 12 10.9	-0.4
HTY	Hatay	3.34	229	ePN	Pn	23 12 12.4	+0.6
HTY	Hatay	3.34	229	ePn	Pn	23 12 12.4	+0.6
KARA	Karaisali	3.49	253	ePN	Pn	23 12 14.0	+0.1
KARA	Karaisali	3.49	253	ePn	Pn	23 12 14.0	+0.1
HAKT	HAKKARI	3.63	102	iP	Pn	23 12 15.2	-0.7
HAKT				iS	Sg	23 13 13.0	-2.5
NIG	Nigde	3.65	267	ePN	Pn	23 12 16.2	+0.1
NIG	Nigde	3.65	267	ePn	Pn	23 12 16.2	+0.1
HKR	Hakkari	3.65	101	ePN	Pn	23 12 17.2	+1.1
HKR	Hakkari	3.65	101	ePn	Pn	23 12 17.2	+1.1
CORM	Corum	4.00	298	ePN	Pn	23 12 20.8	-0.1
CORM	Corum	4.00	298	ePn	Pn	23 12 20.8	-0.1

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*SZGRF **28** 23:13:09.9, 57.41S×28.64W, h35km, mb6.1, South Sandwich Islands region*

*ISCJB **28** 23:13:14.2±0.2, 55.19S±0.04×29.20W±0.07, h10km, mb5.8/47, MS6.1/204, Error ellipse: s-maj=6.6km s-min=4.6km az=137.8*

*BJI **28** 23:13:15.6, 55.20S×29.10W, h10km, mB6.0, Ms6.3, Msz6.1*

*NEIC **28** 23:13:15.6±0.2, 55.25S×29.14W, h10km, mb6.0/17, ME6.2, MS6.1/166, MW6.2, Error ellipse: s-maj=8.9km s-min=6.7km az=208.0 Broadband fault plane solution: P waves. NP1:ϕ_s305.00000°, δ80.00000°, λ100.00000°. NP2:ϕ_s80.00000°, δ14.00000°, λ45.00000°. Principal axes: T Plg54.0000°, Azm227.0000°; N Plg0.0000°, Azm0.0000°; P Plg34.0000°, Azm26.0000°; Moment Tensor Solution. s18 Moment tensor: Scale 10^{18} Nm; M_{rr}0.24; $M_{\theta\theta}$-1.14; $M_{\phi\phi}$0.90; $M_{r\theta}$-1.32; $M_{\theta\phi}$0.14; $M_{\phi r}$2.07; Best double couple: $M_0$2.70000×10^{18} NP1:ϕ_s57.00000°, δ23.00000°, λ4.00000°. NP2:ϕ_s323.00000°, δ88.00000°, λ113.00000°. Principal axes: T 2.8200, Plg42.0000°, Azm254.0000°; N -0.3300, Plg23.0000°, Azm142.0000°; P -2.4900, Plg39.0000°, Azm32.0000°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

*GCMT **28** 23:13:15.6±0.1, 55.28S×29.18W, h14km, MW6.1/96, Moment Tensor Solution. s91,c197; s96,c300; Duration: 2.8 Moment tensor: Scale 10^{18}Nm; M_{rr}0.82±.01; $M_{\theta\theta}$-1.14±.01; $M_{\phi\phi}$0.31±.01; $M_{r\theta}$-0.78±.03; $M_{\theta\phi}$1.15±.01; $M_{\phi r}$0.88±.03; Best double couple: $M_0$1.84000×10^{18} NP1:ϕ_s81.00000°, δ37.00000°, λ30.00000°. NP2:ϕ_s326.00000°, δ72.00000°, λ123.00000°. Principal axes: T 1.4890, Plg51.0000°, Azm274.0000°; N 0.6980, Plg31.0000°, Azm135.0000°; P -2.1910, Plg21.0000°, Azm32.0000°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface/mantle waves, cutoff=50s.*

*IDC **28** 23:13:16.9±1.6, 55.23S×29.25W, h21km±9km, mb5.3/20, mb1 5.3/22, mb1mx5.3/23, mbtmp5.3/22, ML6.2/1, MS5.9/18, Ms1 5.9/18, ms1mx5.8/20 Error ellipse: s-maj=10.4km s-min=8.0km az=46.0*

*MOS **28** 23:13:18.4±1.5, 55.25S×29.08W, h33km, mb6.1/9, MS6.0/37, Error ellipse: s-maj=20.9km s-min=11.6km az=103.3*

ISC 28 23:13:17.5±1.5**, 55.29S**±0.04×**29.22W**±0.06**, h21**km±10km**, n867, σ1.30**/142**, mb5.8**/47**, MS6.1**/204**, 106C-111D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
EFI	East Falkland	17.48	270	ePn	Pn	23 17 21.0	+1.3
EFI	East Falkland	17.48	270	iP	Pn	23 17 16.5	-3.2
VNA1	Neumayer--Stat	17.94	157	ePn	Pn	23 17 26.6	+1.4
VNA1				e		23 17 29.4	
VNA1				e		23 17 34.8	
VNA1				e		23 17 37.3	
VNA1				e		23 17 40.2	
VNA1				e		23 17 44.6	
VNA1				e		23 17 48.6	
VNA1				e		23 17 58.6	
VNA3	Neumayer Olymp	18.10	160	ePn	Pn	23 17 28.4	+1.3
VNA3				e		23 17 31.1	
VNA3				e		23 17 36.4	
VNA3				e		23 17 39.1	
VNA3				e		23 17 40.8	
VNA3				e		23 17 46.1	
VNA3				e		23 17 50.3	
VNA3				e		23 18 00.2	
VNA3				e		23 22 01.9	
VNA3				e		23 22 08.3	
VNA2	Neumayer--Watz	18.34	157	ePn	Pn	23 17 30.2	+0.2
VNA2				e		23 17 32.3	
VNA2				e		23 17 37.7	
VNA2				e		23 17 40.5	
VNA2				e		23 17 42.5	
VNA2				e		23 17 47.7	
VNA2				e		23 17 52.0	
VNA2				e		23 18 01.1	
VNA2				e		23 22 02.0	
VNA2				e		23 22 08.7	
PMSA	Palmer Station	19.56	227	P	Pn	23 17 44.3	-0.5
	7.5nm,0.3s,baz=69,slow=8.2,SNR=25						
PMSA				S	Sn	23 21 23.9	+0.5
	0.7nm,0.3s,baz=66,slow=20,SNR=2.0						
PMSA				LR	LR	23 23 45.0	
	comp=Z,35µm,21.2s,baz=70,slow=32						
SNAA	Sanae	19.91	156	P	Pn	23 17 46.5	-2.4
SNAA				S	Sn	23 21 30.8	-1.0
SNAA	Sanae	19.91	156	P	Pn	23 17 46.5	-2.4
	5.9nm,0.3s,baz=320,slow=9.6,SNR=211						
SNAA				S	Sn	23 21 30.8	-0.9
	0.1nm,0.3s,baz=232,slow=19,SNR=1.8						
SNAA				LR	LR	23 23 51.0	
	comp=Z,7µm,18.1s,baz=318,slow=32						
TRIS	Tristan da Cun	21.55	39	⇓iP	P	23 18 06.6	+1.4
	4µm,2.0s,mb6.5						
TRIS				eS	S	23 22 02.2	-0.7
TRIS				LR	LR		
	comp=Z,42µm,19.0s,MS5.8						
USHA	Ushuaia	22.27	255	P	P	23 18 11.8	-0.9

	comp=Z,393nm,0.8s,mb5.9,baz=82,slow=11,SNR=33						
USHA				LR	LR	23 24 45.1	
	comp=Z,32µm,20.1s,MS5.7,baz=82,slow=31						
MAIT	**Maitri**	**23.50**	**147**	*e*P	**P**	**23 18 34.3**	**+8.7**
MAIT				*e*S	**S**	**23 22 33.5**	**-4.0**
NVL	**N'lazarevskaya**	**23.53**	**147**	*i* P	**P**	**23 18 25.4**	**-0.4**
NVL				*i* S	**S**	**23 22 39.2**	**+1.3**
NVL				pmax	pmax		
	comp=Z,81nm,0.9s,mb5.2						
NVL				pmax	pmax		
	comp=N,54nm,1.7s						
NVL				pmax	pmax		
	comp=E,146nm,1.7s						
NVL				smax			
	comp=N,17µm,11.7s						
NVL				smax			
	comp=E,7µm,11.7s						
NVL				smax			
	comp=Z,5µm,11.7s						
NVL				MLR	MLR		
	comp=Z,10µm,9.0s						
NVL				MLR	MLR		
	comp=N,18µm,18.0s,MS5.8						
NVL				MLR	MLR		
	comp=E,20µm,18.0s,MS5.8						
TRQA	**Tornquist**	**27.96**	**294**	*e*P	**P**	**23 19 05.0**	**-1.2**
	comp=E,373nm,1.4s,mb5.8						
TRQA				LR	LR		
	comp=Z,31µm,19.0s,MS5.9						
LPA	**La Plata**	**28.41**	**304**	*ce*P	**P**	**23 19 11.0**	**+0.8**
LPA				*e*pP	pP	23 19 22.0	+5.3
LPA				*e*sP	sP	23 19 30.0	+11
LPA				*e*S	**S**	**23 23 56.0**	**+0.1**
LPA				*e*sS	sS	23 24 10.0	+3.4
LPA				*e*SS		23 25 16.0	
LPA							
	comp=Z,32µm,18.0s						
SYO	**Syowa Base**	**32.90**	**142**	⇓*e*P	**P**	**23 19 47.4**	**-2.1**
SYO	**Syowa Base**	**32.90**	**142**	⇓*i*P	**P**	**23 19 48.8**	**-0.7**
SYO	**Syowa Base**	**32.90**	**142**	⇓*i*P	**P**	**23 19 50.0**	**+0.5**
QSPA	**South Pole Qui**	**34.97**	**180**	PFAKE		23 20 20.0	+13
QSPA				LR	LR		
	comp=Z,31µm,20.0s,MS6.1						
MDZ	**Mendoza**	**35.52**	**293**	P	**P**	**23 20 11.2**	**-1.4**
MDZ				LQ		23 31 06.6	
MDZ				LR	LR	23 34 38.9	
MDZ	**Mendoza**	**35.52**	**293**	P	**P**	**23 20 11.2**	**-1.4**
MDZ						23 20 27.4	
FCH	**Farellones**	**35.95**	**290**	⇑*i*P	**P**	**23 20 14.9**	**-1.3**
CFAA	**Coronel Fontan**	**36.20**	**295**	P	**P**	**23 20 16.6**	**-1.9**
	comp=Z,24nm,0.9s,mb5.1,baz=143,slow=8.5,SNR=56						
CFAA				PcP	PcP	23 22 43.1	-0.3
	comp=Z,3.2nm,0.7s,baz=201,slow=2.6,SNR=6.5						
CFAA				S	**S**	**23 25 55.1**	**-2.0**
	comp=Z,0.3nm,0.5s,baz=36,slow=19,SNR=2.5						
CFAA				ScP	ScP	23 26 28.1	-0.1
	comp=Z,1.5nm,1.1s,baz=244,slow=3.3,SNR=4.3						
CFAA				LR	LR	23 34 58.6	
	comp=Z,4µm,20.3s,MS5.2,baz=142,slow=36						
CMCH	**Combarbala**	**37.99**	**292**	⇓*i*P	**P**	**23 20 32.5**	**-1.1**
TLL	**Tololo Astrono**	**38.68**	**293**	⇑*i*P	**P**	**23 20 39.0**	**-0.4**
LCO	**Las Campanas**	**39.55**	**294**	⇑*i*P	**P**	**23 20 46.0**	**-0.8**
	comp=Z,393nm,1.1s,mb6.0						
LCO				PcP	PcP	23 22 52.5	-1.3
LCO				*e*S	**S**	**23 26 52.9**	**+5.0**
LCO				LR	LR		
	comp=Z,24µm,19.0s,MS6.0						
MAW	**Mawson**	**41.44**	**145**	*e*P	**P**	**23 21 01.9**	**0.0**
	comp=Z,46nm,0.7s,mb5.2						
MAW	**Mawson**	**41.44**	**145**	P	**P**	**23 21 01.4**	**-0.5**
	comp=Z,50nm,0.7s,mb5.3,baz=249,slow=9.4,SNR=27						
MAW				PcP	PcP	23 22 59.1	-0.2
	comp=Z,54nm,1.1s,baz=246,slow=6.7,SNR=2.9						
MAW				LR	LR	23 35 14.1	
	comp=Z,14µm,21.5s,MS5.8,baz=252,slow=32						
SUR	**Sutherland**	**41.57**	**78**	*e*P	**P**	**23 21 04.2**	**+0.8**
	comp=Z,436nm,1.6s,mb5.8						
SUR				LR	LR		
	comp=Z,13µm,19.0s,MS5.8						
CEN1	**Los Morros**	**43.90**	**300**	*i* P	**P**	**23 21 20.7**	**-1.6**
SIV	**San Ignacio**	**46.22**	**315**	P	**P**	**23 21 39.5**	**-1.4**
	comp=Z,33nm,0.6s,mb5.4,baz=153,slow=7.8,SNR=147						
SIV				S	**S**	**23 28 22.5**	**-3.6**
	comp=Z,2.2nm,0.9s,baz=238,slow=18,SNR=1.5						
SBA	**Scott Base**	**46.76**	**185**	*e*P	**P**	**23 21 48.0**	**+3.6**
SBA				LR	LR		
	comp=Z,12µm,19.0s,MS5.9						
BOSA	**Boshof**	**46.92**	**78**	P	**P**	**23 21 44.4**	**-1.8**
BOSA				S	**S**	**23 28 34.5**	**-1.4**
BOSA				LR	LR	23 36 52.5	
BOSA	**Boshof**	**46.92**	**78**	P	**P**	**23 21 44.4**	**-1.8**
	comp=Z,13nm,0.6s,mb5.0,baz=214,slow=8.8,SNR=41						
BOSA				S	**S**	**23 28 34.5**	**-1.4**
	comp=Z,1.8nm,0.9s,baz=58,slow=19,SNR=1.9						
BOSA				LR	LR	23 36 52.5	
	comp=Z,18µm,20.9s,MS6.0,baz=223,slow=30						
VNDA	**Vanda**	**47.28**	**183**	⇓*i*P	**P**	**23 21 49.2**	**+0.7**
VNDA				*e*PP	PP	23 23 40.0	+0.8
VNDA				*e*ScP	ScP	23 27 12.4	+0.9
VNDA				*e*S	**S**	**23 28 45.0**	**+5.0**
VNDA				LR	LR		
	comp=Z,8µm,19.0s,MS5.7						
VNDA	**Vanda**	**47.28**	**183**	P	**P**	**23 21 48.9**	**+0.4**
	comp=Z,30nm,1.0s,mb5.2,baz=181,slow=7.3,SNR=22						
VNDA				S	**S**	**23 28 39.9**	**-0.1**
	comp=Z,2.2nm,1.0s,baz=41,slow=20,SNR=1.5						
ASCN	**Ascension**	**48.69**	**20**	PFAKE		23 22 10.0	+10
ASCN				LR	LR		
	comp=Z,10µm,21.0s,MS5.8						
LPAZ	**La Paz**	**49.00**	**307**	P	**P**	**23 22 03.1**	**+0.7**
LPAZ				S	**S**	**23 29 06.4**	**+0.9**
LPAZ	**La Paz**	**49.00**	**307**	P	**P**	**23 22 03.1**	**+0.7**
LPAZ				S	**S**	**23 29 04.9**	**-0.6**
LPAZ	**La Paz**	**49.00**	**307**	P	**P**	**23 22 03.1**	**+0.7**
	comp=Z,195nm,0.7s,mb6.2,baz=149,slow=6.3,SNR=309						
LPAZ				S	**S**	**23 29 04.9**	**-0.7**
	comp=Z,0.9nm,0.7s,baz=226,slow=18,SNR=2.8						
LPAZ				LR	LR	23 41 49.8	
	comp=Z,9µm,18.3s,MS5.8,baz=8.9,slow=35						
RCBR	**Riachuelo**	**49.61**	**351**	*e*P	**P**	**23 22 09.1**	**+2.0**
	comp=Z,245nm,1.7s,mb6.0						
RCBR				LR	LR		
	comp=Z,13µm,19.0s,MS5.9						
LBTB	**Lobatse**	**49.91**	**76**	⇓*i*P	**P**	**23 22 08.4**	**-0.9**
	comp=Z,88nm,0.8s,mb5.8						
LBTB				*e*PcP	PcP	23 23 32.9	+3.5
LBTB				*e*PP	PP	23 24 01.1	-3.0
LBTB				*e*ScP	ScP	23 27 17.9	-5.6
LBTB				LR	LR		
	comp=Z,13µm,19.0s,MS6.0						
LBTB	**Lobatse**	**49.91**	**76**	⇓*i*P	**P**	**23 22 08.4**	**-0.9**
LBTB				*e*		23 23 32.9	
LBTB				*e*		23 24 01.1	
LBTB				pmax	pmax		
	comp=Z,88nm,0.8s,mb5.8						
LBTB				MLR	MLR		
	comp=Z,13µm,19.0s,MS6.0						
TSUM	**Tsumeb**	**50.34**	**63**	⇓*i*P	**P**	**23 22 12.0**	**-0.6**
	comp=Z,2µm,2.5s,mb6.6						
TSUM				PcP	PcP	23 23 38.0	+7.0
TSUM				PP	PP	23 24 05.7	-2.4
TSUM				*e*ScP	ScP	23 27 27.8	+2.4
TSUM				*e*S	**S**	**23 29 22.6**	**-1.7**
TSUM				LR	LR		
	comp=Z,13µm,19.0s,MS6.0						
ARE	**Arequipa**	**50.42**	**303**	*e*P	**P**	**23 22 14.0**	**+0.7**
CASY	**Casey**	**55.01**	**161**	*e*P	**P**	**23 22 44.3**	**-2.3**
CASY	**Casey**	**55.01**	**161**	*e*P	**P**	**23 22 47.4**	**+0.9**
CASY				LR	LR		
	comp=Z,21µm,19.0s,MS6.2						
NNA	**Nana**	**56.87**	**300**	*e*P	**P**	**23 23 00.2**	**-0.4**
	comp=Z,279nm,1.3s,mb6.1						
NNA				LR	LR		
	comp=Z,8µm,19.0s,MS5.8						
NNA	**Nana**	**56.87**	**300**	P	**P**	**23 23 00.2**	**-0.3**
	comp=Z,68nm,1.0s,mb5.6,baz=154,slow=6.4,SNR=20						
DRV	**Dumont d'Urvil**	**58.10**	**175**	P	**P**	**23 23 14.0**	**+5.5**
DRV				S	**S**	**23 31 15.0**	**+7.2**
DRV				SS	SS	23 34 59.0	+0.8
DRV				R		23 41 00.0	
LSZ	**Lusaka**	**59.19**	**71**	PFAKE		23 23 30.0	+13
LSZ				LR	LR		
	comp=Z,14µm,21.0s,MS6.1						
LSZ	**Lusaka**	**59.19**	**71**	*e*P	**P**	**23 23 16.0**	**-0.8**
LSZ				pmax	pmax		
	comp=Z,110nm,1.2s,mb5.8						
LSZ	**Lusaka**	**59.19**	**71**	LR	LR	23 44 21.0	
	comp=Z,14µm,20.9s,MS6.1,baz=215,slow=32						
ATAH	**Atahualpa**	**61.93**	**302**	P	**P**	**23 23 35.5**	**-0.1**
	comp=Z,58nm,0.8s,mb5.8,baz=160,slow=6.5,SNR=41						
ATAH				S	**S**	**23 32 00.1**	**+1.7**
	comp=Z,1.8nm,0.4s,baz=168,slow=17,SNR=2.7						
RPN	**Rapa Nui**	**62.65**	**261**	PFAKE		23 23 50.0	+10
RPN				LR	LR		
	comp=Z,10µm,19.0s,MS6.0						
LIC	**Lamto**	**64.50**	**27**	*e*P	**P**	**23 23 51.0**	**-1.5**
	comp=Z,200nm,0.8s,mb6.2						
KIC	**Kosan Boka**	**64.71**	**27**	*e*P	**P**	**23 23 52.0**	**-1.8**
	comp=Z,1µm,1.7s,mb6.7						
TIC	**Toumodi**	**64.91**	**27**	*e*P	**P**	**23 23 53.3**	**-1.8**
	comp=Z,288nm,0.9s,mb6.3						
ROSC	**El Rosal**	**70.53**	**312**	*e*P	**P**	**23 24 31.8**	**+1.2**
ROSC	**El Rosal**	**70.53**	**312**	P	**P**	**23 24 30.1**	**-0.5**
	comp=Z,20nm,0.9s,mb5.1,baz=84,slow=21,SNR=29						
ROSC				LR	LR	23 55 47.7	
	comp=Z,10µm,18.9s,MS6.1,baz=279,slow=36						
PCRV	**Puerto La Cruz**	**71.64**	**323**	P	**P**	**23 24 36.2**	**-1.1**
	comp=Z,72nm,0.7s,mb5.7,baz=128,slow=2.8,SNR=16						
GRGR	**Grenville**	**72.49**	**327**	*e*P	**P**	**23 24 45.6**	**+3.2**
GRGR				LR	LR		
	comp=Z,7µm,20.0s,MS6.0						
SDV	**Santo Domingo**	**72.66**	**317**	*e*P	**P**	**23 24 42.5**	**-0.9**
SDV				LR	LR		
	comp=Z,12µm,19.0s,MS6.2						
SDV	**Santo Domingo**	**72.66**	**317**	P	**P**	**23 24 42.6**	**-0.8**
	comp=Z,62nm,0.7s,mb5.6,baz=194,slow=4.6,SNR=40						
BBGH	**Gun Hill**	**72.81**	**329**	PFAKE		23 25 00.0	+16
BBGH				LR	LR		
	comp=Z,12µm,20.0s,MS6.2						
TOA0	**Torodi Ar. Sit**	**72.98**	**32**	*e*P	**P**	**23 24 44.6**	**-0.6**
TORD	**Torodi Ar. Bea**	**72.98**	**32**	P	**P**	**23 24 44.5**	**-0.7**
	comp=Z,74nm,0.8s,mb5.6,baz=200,slow=6.0,SNR=149						
TORD				S	S	23 34 12.3	+1.6
	comp=Z,1.1nm,1.1s,baz=206,slow=9.6,SNR=3.9						
TORD				LR	LR	23 52 17.2	
	comp=Z,27µm,18.1s,MS6.6,baz=200,slow=32						
PAYG	**Puerto Ayora**	**73.36**	**294**	*e*P	**P**	**23 24 49.8**	**+2.1**
PAYG				LR	LR		
	comp=Z,11µm,20.0s,MS6.1						
PTCN	**Pitcairn Islan**	**75.66**	**247**	PFAKE		23 25 10.0	+9.1
PTCN				LR	LR		
	comp=Z,9µm,19.0s,MS6.1						
KMBO	**Kilima Mbogo**	**75.86**	**71**	P	**P**	**23 25 04.8**	**+2.7**
	comp=Z,10nm,1.0s,mb4.7,baz=200,slow=6.0,SNR=12						
KMBO				LR	LR	23 57 21.8	
	comp=Z,23µm,18.7s,MS6.5,baz=202,slow=35						
TBG	**Guadaloupe-3**	**75.99**	**328**	*e*P	**P**	**23 25 02.4**	**-0.3**
SCG	**Saint Claude**	**76.17**	**328**	*e*P	**P**	**23 25 04.3**	**+0.6**
DEG	**La Desirade**	**76.25**	**329**	*e*P	**P**	**23 25 05.8**	**+1.7**
BCIP	**Isla Barro Col**	**76.79**	**308**	*e*P	**P**	**23 25 08.6**	**+1.3**
BCIP				LR	LR		
	comp=Z,6µm,20.0s,MS5.9						
BPA	**Boggy Peak**	**77.18**	**328**	*e*P	**P**	**23 25 05.7**	**-3.7**
BPA	**Boggy Peak**	**77.18**	**328**	*e*	**P**	**23 25 05.7**	**-3.7**
MTP	**Monte Pirata**	**79.33**	**325**	*e*P	**P**	**23 25 20.1**	**-1.2**
CPD	**Cerro la Pandu**	**79.40**	**325**	*e*P	**P**	**23 25 21.9**	**+0.3**
HUMP	**Col San Antoni**	**79.47**	**325**	*e*P	**P**	**23 25 21.5**	**-0.6**
SJG	**San Juan**	**79.55**	**324**	*e*P	**P**	**23 25 21.9**	**-0.6**
SJG				LR	LR		
	comp=Z,6µm,19.0s,MS6.0						
SJG	**San Juan**	**79.55**	**324**	P	**P**	**23 25 21.0**	**-1.4**
SJG				pmax	pmax		
	comp=Z,19nm,0.8s						
SJG	**San Juan**	**79.55**	**324**	P	**P**	**23 25 21.0**	**-1.4**
	comp=Z,19nm,0.8s,mb5.1,baz=225,slow=1.1,SNR=8.6						
CBYP	**Canovanas**	**79.60**	**325**	*e*P	**P**	**23 25 22.6**	**-0.1**
RKT	**Rikitea**	**79.79**	**244**	*e*S	S	23 35 22.7	-2.9
	comp=Z,6µm,30.8s						
RKT				*e*SS	SS	23 40 34.3	+0.4
	comp=Z,1µm,27.5s						
RKT				*e*LQ		23 46 55.6	
	comp=Z,9µm,32.2s						
RKT				*e*LR	LR	23 50 23.8	
	comp=Z,11µm,26.5s,baz=146						
RKT	**Rikitea**	**79.79**	**244**	*e*P	**P**	**23 25 25.7**	**+1.7**
	comp=Z,170nm,1.2s,mb5.8						
RKT				*e*S	S	23 35 22.7	-2.9
RKT				*e*SS	SS	23 40 34.3	+0.4
RKT				*e*LQ		23 46 55.6	
RKT	**Rikitea**	**79.79**	**244**	*e*P	**P**	**23 25 25.7**	**+1.7**
RKT				*e*S	S	23 35 22.7	-2.9
RKT				*e*SS	SS	23 40 34.3	+0.4
RKT				pmax	pmax		
	comp=Z,170nm,1.2s,mb5.8						
RPZ	**Rata Peaks**	**79.88**	**195**	LR	LR	23 58 08.1	
	comp=Z,10µm,19.0s,MS6.2,baz=168,slow=34						
MPR	**Mayaguez**	**79.97**	**324**	*e*P	**P**	**23 25 27.2**	**+2.4**
JTS	**JuntasAbangare**	**80.13**	**304**	*e*P	**P**	**23 25 24.6**	**-1.1**
	comp=Z,299nm,1.4s,mb6.0						
JTS				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
JTS	**JuntasAbangare**	**80.13**	**304**	⇑*i*P	**P**	**23 25 24.6**	**-1.1**
JTS	**JuntasAbangare**	**80.13**	**304**	P	**P**	**23 25 24.5**	**-1.3**
	comp=Z,46nm,1.0s,mb5.3,baz=124,slow=3.7,SNR=32						
SNZO	**South Karori**	**81.64**	**198**	PFAKE		23 25 50.0	+16
SNZO				LR	LR		
	comp=Z,5µm,19.0s,MS5.9						
TAU	**Tasmania Unive**	**82.13**	**177**	*e*P	**P**	**23 25 36.0**	**-0.2**
TAU				LR	LR		
	comp=Z,9µm,19.0s,MS6.1						
SDDR	**Presa de Saban**	**82.15**	**320**	*e*P	**P**	**23 25 36.5**	**+0.2**
SDDR				LR	LR		
	comp=Z,7µm,21.0s,MS6.0						
MSEY	**Mahe Island**	**83.16**	**88**	PFAKE		23 25 50.0	+8.1
MSEY				LR	LR		
	comp=Z,17µm,19.0s,MS6.4						
MASC	**Masc**	**84.34**	**318**	*e*P	**P**	**23 25 49.1**	**+1.5**
MASC				*e*S	S	23 36 18.1	+6.1
	comp=N,5.0nm,8.2s						
MASC				*e*			
	comp=E,5.5nm,7.3s						
TGUH	**Tegucigalpa,Un**	**84.51**	**304**	*e*P	**P**	**23 25 50.1**	**+1.5**
TGUH				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
RCC	**Rio Carpintero**	**84.74**	**317**	*e*P	**P**	**23 25 40.8**	**-8.8**
FURI	**Furi**	**85.03**	**67**	*e*P	**P**	**23 25 55.6**	**+4.3**
LMGC	**Las Mercedes**	**85.32**	**316**	*e*P	**P**	**23 25 51.2**	**-1.3**
CCCC	**Cccc**	**86.65**	**316**	*e*P	**P**	**23 25 59.6**	**+0.5**
JAWL	**J.Aulia**	**87.27**	**58**	*e*P	**P**	**23 26 04.0**	**+1.7**
	baz=210,slow=6.5						
JAWL				AMb	AMB	23 26 12.2	
	comp=Z,187nm,1.8s,mb6.0						
DESE	**Dese**	**87.40**	**66**	*e*P	**P**	**23 26 06.6**	**+3.7**
DESE				S	S	23 36 37.6	-4.6
TOO	**Toolangi**	**87.40**	**176**	*e*P	**P**	**23 26 02.5**	**-0.3**
	comp=Z,7.6nm,0.7s,mb5.0						
TOO	**Toolangi**	**87.40**	**176**	*e*P	**P**	**23 26 02.5**	**-0.3**
TOO				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb5.1						
NWAO	**Narrogin (SRO)**	**87.55**	**152**	*e*P	**P**	**23 26 03.1**	**-0.4**
NWAO				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
MRKH	**Merkhyat**	**87.61**	**58**	*e*P	**P**	**23 26 07.1**	**+3.2**
MRKH				*e*		23 26 07.1	
	baz=211,slow=6.9						
MRKH				AMb	AMB	23 26 13.7	
	comp=Z,170nm,1.9s,mb6.0						
MRKH				*i* S	S	23 36 33.0	-11
KLBR	**Kellerberrin**	**88.95**	**152**	*e*P	**P**	**23 26 09.2**	**-1.0**
	comp=Z,81nm,0.9s,mb6.0						
ADE	**Adelaide**	**89.51**	**170**	*e*P	**P**	**23 26 13.6**	**+0.8**
SOR	**Soroa**	**90.23**	**312**	*e*P	**P**	**23 26 17.6**	**+1.5**
TEIG	**Tepich**	**90.33**	**306**	P	**P**	**23 26 16.0**	**-0.6**
	comp=Z,128nm,0.7s,mb6.3,baz=183,slow=2.0,SNR=29						
CMIG	**Matias Romero**	**90.81**	**299**	P	**P**	**23 26 18.1**	**-0.8**
	comp=Z,32nm,0.9s,mb5.7,baz=138,slow=3.4,SNR=37						
TVO	**Taravao**	**91.37**	**236**	*e*P	**P**	**23 26 22.9**	**+1.2**
	comp=Z,186nm,1.1s,mb6.3						
TVO	**Taravao**	**91.37**	**236**	*e*P	**P**	**23 26 22.9**	**+1.2**
TVO				pmax	pmax		
	comp=Z,186nm,1.1s,mb6.3						
PAE	**Paea**	**91.63**	**235**	*e*P	**P**	**23 26 23.7**	**+0.8**
	comp=Z,105nm,1.1s,mb6.1						
PAE	**Paea**	**91.63**	**235**	*e*P	**P**	**23 26 23.7**	**+0.8**
PAE				pmax	pmax		
	comp=Z,105nm,1.1s,mb6.1						
RAO	**Raoul Island**	**91.63**	**207**	PFAKE		23 26 30.0	+7.3
RAO				LR	LR		
	comp=Z,4µm,19.0s,MS5.9						
RAO	**Raoul Island**	**91.63**	**207**	LR	LR	00 03 44.4	
	comp=Z,2µm,18.0s,MS5.7,baz=155,slow=33						
PPT	**Papeete**	**91.71**	**235**	*e*PP	PP	23 30 03.6	+2.3
	comp=Z,724nm,25.0s						
PPT	**Papeete**	**91.71**	**235**	*e*PS	PS	23 38 34.8	+1.0
	comp=Z,4µm,26.8s						
PPT	**Papeete**	**91.71**	**235**	*e*SKSac	SKSac	23 36 53.2	-1.5
	comp=Z,3µm,26.8s						
PPT				*e*SS	SS	23 43 31.2	+2.3
	comp=Z,1µm,25.0s						
PPT				*e*LR	LR	23 55 48.9	
	comp=Z,9µm,26.0s,baz=152						
PPT	**Papeete**	**91.71**	**235**	*e*P	**P**	**23 26 24.4**	**+1.2**
	comp=Z,86nm,1.5s,mb5.9						
PPT				*e*PP	PP	23 30 03.6	+2.3
PPT				*e*SKSac	SKSac	23 36 53.2	-1.5
PPT				*e*PS	PS	23 38 34.8	+1.0
PPT				*e*SS	SS	23 43 31.2	+2.3
PPT	**Papeete**	**91.71**	**235**	*e*P	**P**	**23 26 24.4**	**+1.2**
PPT				*e*		23 30 03.6	
PPT				*e*		23 36 53.2	
PPT				*e*PS	PS	23 38 34.8	+1.0
PPT				*e*SS	SS	23 43 31.2	+2.3
PPT				pmax	pmax		
	comp=Z,86nm,1.5s						
PPT	**Papeete**	**91.71**	**235**	LR	LR	23 59 39.0	
	comp=Z,5µm,20.7s,MS5.9,baz=171,slow=30						
FORT	**Forrest**	**92.09**	**161**	*e*P	**P**	**23 26 24.7**	**-0.2**
	comp=Z,26nm,0.6s,mb5.7						
BBSR	**BB Station**	**92.46**	**331**	PFAKE		23 26 40.0	+14
BBSR				LR	LR		
	comp=Z,4µm,19.0s,MS5.9						
PDA	**Ponta Delgada**	**92.72**	**3**	*i* LR	LR	23 56 13.0	
STKA	**Stephens Creek**	**92.83**	**172**	*e*P	**P**	**23 26 26.8**	**-1.5**
	comp=Z,7.9nm,0.8s,mb5.2						
STKA	**Stephens Creek**	**92.83**	**172**	*e*P	**P**	**23 26 27.6**	**-0.6**
STKA				*e*PP	PP	23 30 08.2	-1.4
STKA	**Stephens Creek**	**92.83**	**172**	P	**P**	**23 26 27.0**	**-1.2**
	comp=Z,8.8nm,0.8s,mb5.3,baz=169,slow=4.8,SNR=14						
STKA				LR	LR	00 10 10.8	
	comp=Z,8µm,19.0s,MS6.2,baz=292,slow=37						
RAR	**Rarotonga**	**92.98**	**225**	PFAKE		23 26 40.0	+11
RAR				LR	LR		
	comp=Z,2.0nm,20.0s						
RAR	**Rarotonga**	**92.98**	**225**	LR	LR	23 58 51.6	
	comp=Z,3µm,21.1s,MS5.7,baz=144,slow=29						
PFVI	**Vila Bisbo**	**93.70**	**16**	*e*SKSac	SKSac	23 37 10.7	+6.2
PFVI	**Vila Bisbo**	**93.70**	**16**	*e*LR	LR	23 57 05.2	
	comp=Z,5µm,16.0s						
MORF	**Marmelete**	**93.89**	**16**	*e*P	**P**	**23 26 35.7**	**+3.0**
	comp=Z,110nm,0.4s,mb6.6						
MORF	**Marmelete**	**93.89**	**16**	*e*SKSac	SKSac	23 37 08.3	+2.8
MORF	**Marmelete**	**93.89**	**16**	*e*LR	LR	23 57 29.0	
	comp=Z,6µm,16.0s						
PBDV	**Barranco-do-Ve**	**93.95**	**17**	*e*P	**P**	**23 26 35.2**	**+2.3**
	comp=Z,97nm,2.1s,mb5.9						
PBDV	**Barranco-do-Ve**	**93.95**	**17**	*e*SKSac	SKSac	23 37 11.9	+6.1
PBDV	**Barranco-do-Ve**	**93.95**	**17**	*e*LR	LR	23 57 24.5	
	comp=Z,4µm,18.0s						
PVAQ	**Vaqueiros**	**94.14**	**17**	*e*P	**P**	**23 26 37.1**	**+3.3**
	comp=Z,99nm,2.1s,mb5.9						
PVAQ	**Vaqueiros**	**94.14**	**17**	*e*SKSac	SKSac	23 37 15.1	+8.2
PVAQ	**Vaqueiros**	**94.14**	**17**	*e*LR	LR	23 57 31.1	
	comp=Z,5µm,18.0s						
DWPF	**Disney**	**94.29**	**316**	PFAKE		23 26 50.0	+15
DWPF				LR	LR		
	comp=Z,8µm,19.0s,MS6.2						
TAOE	**Nuku Hiva Isla**	**94.39**	**248**	*e*SS	SS	23 44 09.1	+1.3
	comp=Z,3µm,24.4s						
TAOE				*e*LQ		23 53 06.9	
	comp=Z,13µm,26.9s						
TAOE				*e*LR	LR	23 57 18.3	
	comp=Z,19µm,25.9s						
PBEJ	**Beja**	**94.73**	**17**	*e*P	**P**	**23 26 38.9**	**+2.4**
	comp=Z,56nm,1.4s,mb5.8						
PBAR	**Barrancos**	**95.01**	**17**	*e*P	**P**	**23 26 41.1**	**+3.3**
	comp=Z,67nm,1.6s,mb5.8						
PBAR	**Barrancos**	**95.01**	**17**	*e*SKSac	SKSac	23 37 18.4	+6.9
PBAR	**Barrancos**	**95.01**	**17**	*e*LR	LR	23 57 48.5	
	comp=Z,5µm,18.0s						
EVO	**Evora**	**95.20**	**17**	*e*P	**P**	**23 26 41.0**	**+2.4**
PMAFR	**Mafra**	**95.41**	**15**	*e*SKSac	SKSac	23 37 18.3	+4.7
PMAFR	**Mafra**	**95.41**	**15**	*e*LR	LR	23 57 21.3	
	comp=Z,6µm,18.0s						
PESTR	**Estremoz**	**95.59**	**17**	*e*P	**P**	**23 26 43.6**	**+3.2**
	comp=Z,68nm,2.0s,mb5.7						
PESTR	**Estremoz**	**95.59**	**17**	*e*SKSac	SKSac	23 37 20.2	+5.6
PESTR	**Estremoz**	**95.59**	**17**	*e*LR	LR	23 57 50.6	
	comp=Z,6µm,18.0s						
KEST	**Kesra**	**96.48**	**31**	P	**P**	**23 26 44.3**	**-0.2**
	comp=Z,1.6nm,0.9s,baz=54,slow=17,SNR=2.4						
KEST				LR	LR	00 07 17.6	
	comp=Z,9µm,18.1s,MS6.3,baz=327,slow=34						
PAB	**San Pablo**	**96.82**	**19**	PFAKE		23 27 00.0	+14
PAB				LR	LR		
	comp=Z,7µm,20.0s,MS6.2						
ESDC	**Sonseca Array**	**97.02**	**19**	P	**P**	**23 26 46.7**	**-0.2**
	comp=Z,2.1nm,0.6s,mb4.8,baz=209,slow=5.1,SNR=6.2						
ESDC				LR	LR	00 05 56.8	
	comp=Z,5µm,19.9s,MS6.0,baz=180,slow=33						
ESLA	**Sonseca Array**	**97.02**	**19**	P	**P**	**23 26 45.8**	**-1.0**
ESLA				LR	LR		
	comp=Z,38µm,20.0s,MS6.9						
MTE	**Manteigas**	**97.09**	**17**	*e*SKSac	SKSac	23 37 27.3	+5.0
MTE	**Manteigas**	**97.09**	**17**	*e*LR	LR	23 58 35.5	
	comp=Z,7µm,18.0s						
MVO	**Moncorvo**	**97.93**	**17**	*e*SKSac	SKSac	23 37 34.1	+7.5
MVO	**Moncorvo**	**97.93**	**17**	*e*LR	LR	23 58 49.0	
	comp=Z,5µm,16.0s						
NHSC	**New Hope**	**98.25**	**319**	PFAKE		23 27 00.0	+7.4
NHSC				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
COCO	**West Island**	**99.04**	**127**	P	**P**	**23 26 57.2**	**+0.5**
COCO				LR	LR		
	comp=Z,5µm,20.0s,MS6.0						
BRAL	**Brewton**	**99.15**	**313**	PFAKE		23 27 10.0	+13
BRAL				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
CNNC	**Cliffs of the**	**99.32**	**321**	PFAKE		23 27 10.0	+13
CNNC				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
MBWA	**Marble Bar**	**99.39**	**151**	*e*P	**P**	**23 26 56.8**	**-1.4**
MBWA				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
GOGA	**Godfrey**	**99.79**	**316**	PFAKE		23 27 10.0	+10
GOGA				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
ASAR	**Alice Springs**	**100.05**	**164**	P	Pdif	23 26 58.8	-2.4
	comp=Z,7.1nm,0.8s,baz=191,slow=4.2,SNR=44						
ASAR				PP	PP	23 31 00.2	-5.2
	comp=Z,4.6nm,1.1s,baz=196,slow=6.4,SNR=4.4						
ASAR				PKKPbc	PKKPbc	23 43 18.0	+1.0
	comp=Z,1.5nm,0.7s,baz=20,slow=2.4,SNR=9.6						
LRAL	**Lakeview Retre**	**100.89**	**314**	PFAKE		23 27 20.0	+15
LRAL				LR	LR		
	comp=Z,8µm,19.0s,MS6.2						
KVTX	**Kingsville**	**101.11**	**303**	PFAKE		23 27 20.0	+14
KVTX				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
CBN	**Corbin**	**101.80**	**323**	PFAKE		23 27 20.0	+11
CBN				LR	LR		
	comp=Z,4µm,21.0s,MS5.9						
CPCT	**Cooper Cave**	**101.99**	**317**	*e*PP	PP	23 31 20.8	-0.4
BLA	**Blacksburg**	**101.99**	**320**	PFAKE		23 27 20.0	+10
BLA				LR	LR		
	comp=Z,5µm,21.0s,MS6.0						
HKT	**Hockley**	**102.14**	**305**	PFAKE		23 27 20.0	+9.5
HKT				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
SWET	**Sewanee**	**102.35**	**316**	*e*PP	PP	23 31 23.7	-0.3
TZTN	**Tazewell**	**102.57**	**318**	PFAKE		23 27 20.0	+7.6
TZTN				LR	LR		
	comp=Z,4µm,21.0s,MS5.9						
PLAL	**Pickwick Lake**	**103.02**	**314**	PFAKE		23 27 30.0	+16
PLAL				LR	LR		
	comp=Z,7µm,20.0s,MS6.2						
MVL	**Millersville**	**103.07**	**325**	*e*PP	PP	23 31 29.5	+0.1
NATX	**Nacogdoches**	**103.13**	**307**	PFAKE		23 27 30.0	+15
NATX				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
OXF	**Oxford**	**103.17**	**313**	PFAKE		23 27 30.0	+15
OXF				LR	LR		
	comp=Z,4µm,19.0s,MS5.9						
WES	**Weston**	**103.68**	**329**	PFAKE		23 27 30.0	+13
WES				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
WRA	**Warramunga Arr**	**103.77**	**164**	Pdif	Pdif	23 27 14.2	-3.6
WRA				PP	PP	23 31 32.0	-1.5

WRA				PKKPbc	PKKPbc	23 43 06.6	+0.4
WRA	**Warramunga Arr**	**103.77**	**164**	P	Pdif	23 27 14.2	-3.5
WRA						23 31 32.0	
WRA	**Warramunga Arr**	**103.77**	**164**	Pdiff	Pdif	23 27 14.2	-3.6
	comp=Z,2.5nm,1.0s,baz=194,slow=4.1,SNR=8.2						
WRA				PP	PP	23 31 32.0	-1.5
	comp=Z,3.6nm,1.0s,baz=193,slow=6.0,SNR=8.1						
WRA				PKKPbc	PKKPbc	23 43 06.6	+0.4
	comp=Z,2.7nm,1.0s,baz=351,slow=2.9,SNR=10						
ASF	**Jabal al Asfar**	**103.78**	**53**	Pdif	Pdif	23 27 15.3	-2.5
ASF	**Jabal al Asfar**	**103.78**	**53**	Pdiff	Pdif	23 27 15.3	-2.5
	comp=Z,2.0nm,0.8s,baz=272,slow=4.8,SNR=3.6						
HRV	**Harvard--Oak R**	**103.86**	**329**	PFAKE		23 27 30.0	+12
HRV				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
WVT	**Waverly**	**103.91**	**315**	PFAKE		23 27 30.0	+12
WVT				LR	LR		
	comp=Z,7.0nm,20.0s						
MCWV	**Mont Chateau**	**103.96**	**322**	PFAKE		23 27 30.0	+11
MCWV				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
SSPA	**Standing Stone**	**104.16**	**324**	PFAKE		23 27 30.0	+11
SSPA				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
AFI	**Afiamalu**	**104.19**	**218**	PFAKE		23 27 30.0	+10
AFI				LR	LR		
	comp=Z,6µm,19.0s,MS6.1						
JCT	**Junction City**	**104.47**	**303**	*e*Pdif	Pdif	23 27 23.0	+2.2
JCT				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
CTAO	**Charters Tower**	**104.83**	**176**	PFAKE		23 27 30.0	+7.5
CTAO				LR	LR		
	comp=Z,10µm,22.0s,MS6.3						
WCI	**Wyandotte Cave**	**105.11**	**317**	PFAKE		23 31 50.0	+13
WCI				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
ACCN	**Adirondack Com**	**105.29**	**328**	*e*PP	PP	23 31 48.1	+2.3
LTX	**Lajitas**	**105.42**	**299**	*e*Pdif	Pdif	23 27 25.8	+0.7
LTX				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
TXAR	**Lajitas Array**	**105.42**	**299**	Pdif	Pdif	23 27 22.5	-2.5
TXAR				PKPdf	PKiKP	23 31 39.0	+0.8
TXAR				PKKPbc	PKKPbc	23 43 03.4	+1.7
TXAR	**Lajitas Array**	**105.42**	**299**	Pdiff	Pdif	23 27 22.5	-2.5
	comp=Z,1.3nm,0.9s,baz=52,slow=5.8,SNR=4.6						
TXAR				PKiKP	PKiKP	23 31 39.0	+0.8
	comp=Z,1.4nm,1.0s,baz=168,slow=4.6,SNR=3.7						
TXAR				PKKPbc	PKKPbc	23 43 03.4	+1.7
	comp=Z,0.7nm,0.8s,baz=326,slow=0.8,SNR=5.4						
LBNH	**Lisbon**	**105.55**	**330**	PKiKP	PKiKP	23 31 38.3	+0.4
LBNH				*e*PP	PP	23 31 48.2	+0.5
LBNH				LR	LR		
	comp=Z,7µm,19.0s,MS6.2						
ACSO	**Alum Creek Sta**	**105.59**	**320**	PFAKE		23 31 50.0	+12
ACSO				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
PKME	**Peaks-Kenny Pk**	**105.76**	**332**	PFAKE		23 31 50.0	+12
PKME				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
SIUC	**Southern Illin**	**105.83**	**314**	*e*PP	PP	23 31 47.3	-2.6
NCB	**Newcomb**	**105.99**	**328**	*e*PKiKP	PKiKP	23 31 40.3	+1.6
NCB				*e*PP	PP	23 31 51.8	+0.8
NCB				LR	LR		
	comp=Z,5µm,19.0s,MS6.1						
BLO	**Bloomington**	**106.01**	**317**	*e*PP	PP	23 31 49.5	-1.7
ERPA	**Erie**	**106.19**	**323**	PFAKE		23 31 50.0	+11
ERPA				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
FVM	**French Village**	**106.56**	**314**	*e*PP	PP	23 31 51.2	-4.0
FRNY	**Flat Rock**	**106.58**	**329**	*e*PP	PP	23 31 55.0	-0.3
LONY	**Lake Ozonia**	**106.69**	**328**	PKiKP	PKiKP	23 31 36.5	-3.5
LONY				*e*PP	PP	23 31 55.6	-0.5
LONY				LR	LR		
	comp=Z,5µm,19.0s,MS6.0						
SLM	**Saint Louis**	**107.03**	**314**	*e*PKiKP	PKiKP	23 31 37.9	-3.0
SLM				*e*PP	PP	23 31 57.8	-0.9
PALK	**Pallekele**	**107.25**	**102**	PFAKE		23 31 50.0	+8.0
PALK				LR	LR		
	comp=Z,7µm,20.0s,MS6.2						
DAVA	**Damuels**	**107.37**	**27**	⇑P	PKiKP	23 31 52.0	+11
	comp=Z,14nm,1.1s						
WMOK	**Wichita Mounta**	**107.50**	**306**	*e*Pdif	Pdif	23 27 36.4	+2.0
WMOK				*e*PKKPbc	PKKPbc	23 42 58.0	+2.6
WMOK				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
SQTA	**Sankt Quirin**	**107.66**	**28**	⇑*i*P	PP	23 31 57.0	-6.1
	comp=Z,13nm,1.2s						
MOTA	**Moosalm**	**107.74**	**28**	⇑*i*P	PP	23 32 00.8	-3.0
	comp=Z,6.5nm,0.9s						
WTTA	**Wattenberg**	**107.81**	**28**	⇑*i*P	PP	23 31 59.7	-4.5
	comp=Z,25nm,1.7s						
BFO	**Black Forest**	**107.95**	**25**	PFAKE		23 31 50.0	+7.8
BFO				LR	LR		
	comp=Z,7µm,22.0s,MS6.2						
BFO	**Black Forest**	**107.95**	**25**	*e*SKSac	SKSac	23 38 10.5	-2.7
BFO				*e*SP	SP	23 41 29.7	+4.7
BFO				*e*SS	SS	23 47 28.6	+12
GDL2	**Guadalupe Moun**	**108.10**	**300**	*e*Pdif	Pdif	23 27 34.6	-2.4
GDL2				*e*PKiKP	PKiKP	23 31 46.4	+3.3
MNTX	**Cornudas Mount**	**108.20**	**299**	PFAKE		23 32 00.0	+17
MNTX				LR	LR		
	comp=Z,6µm,21.0s,MS6.1						
HDIL	**Hopedale**	**108.29**	**316**	PFAKE		23 31 50.0	+6.9
HDIL				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
ANTO	**Ankara**	**108.48**	**46**	PFAKE		23 32 00.0	+16
ANTO				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
FUR	**Furstenfeldbru**	**108.54**	**27**	*e*SKSac	SKSac	23 38 11.5	-4.3
FUR				*e*SP	SP	23 41 39.4	+8.4
FUR				*e*SS	SS	23 47 34.9	+10
STU	**Stuttgart**	**108.57**	**26**	*e*SKSac	SKSac	23 38 12.2	-3.6
STU				*e*SP	SP	23 41 35.5	+4.2
STU				*e*SS	SS	23 47 36.5	+12
WLF	**Walferdange**	**108.68**	**23**	*e*SKSac	SKSac	23 38 15.2	-1.1
WLF				*e*SP	SP	23 41 38.8	+6.4
WLF				*e*SS	SS	23 47 41.2	+15
BR131	**Keskin Array S**	**108.71**	**46**	PFAKE		23 32 00.0	+16
BR131				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
BRTR	**Keskin Array B**	**108.71**	**46**	PKKPbc	PKKPbc	23 42 52.8	+1.0
	comp=Z,0.5nm,0.5s,baz=48,slow=2.1,SNR=3.6						
ARSA	**Arzberg**	**108.88**	**30**	⇓*e*P	PKiKP	23 31 53.7	+10
	comp=Z,5.8nm,1.2s						
AMTX	**Amarillo**	**108.98**	**304**	PFAKE		23 32 00.0	+15
AMTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
TNS	**Taunus Mts**	**109.74**	**25**	*e*SKSac	SKSac	23 38 19.9	-0.8
TNS				*e*SP	SP	23 41 51.1	+8.0
TNS				*e*SS	SS	23 47 57.1	+17
GERES	**GERESS Array B**	**109.82**	**29**	PKPdf	PKiKP	23 31 45.8	+0.1
GERES				PP	PP	23 32 06.9	-12
GERES				PKKPbc	PKKPbc	23 42 48.7	+0.2
GERES	**GERESS Array B**	**109.82**	**29**	PKiKP	PKiKP	23 31 45.8	+0.1
	comp=Z,1.3nm,0.9s,baz=225,slow=2.6,SNR=3.1						
GERES				PP	PP	23 32 06.9	-12
	comp=Z,1.9nm,0.8s,baz=191,slow=5.4,SNR=4.1						
GERES				PKKPbc	PKKPbc	23 42 48.7	+0.2
	comp=Z,0.7nm,0.7s,baz=20,slow=4.3,SNR=4.8						
WET	**Wettzell**	**109.87**	**28**	*e*SP	SP	23 41 50.2	+5.8
WET				*e*SS	SS	23 47 55.5	+13
GRFO	**Grafenberg**	**109.93**	**27**	PFAKE		23 32 00.0	+14
GRFO				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
GRF	**Grafenberg Arr**	**109.93**	**27**	*e*PP	PP	23 32 14.9	-4.8
GRF				*e*SKSac	SKSac	23 38 23.0	+1.5
GRF				*e*SP	SP	23 41 50.5	+5.4
GRF				*e*SS	SS	23 47 57.1	+14
GRF	**Grafenberg Arr**	**109.93**	**27**	*e*L		00 15 51.7	
	comp=Z,5µm,18.2s						
KHC	**Kasperske Hory**	**110.04**	**28**	*e*PP	PP	23 32 15.0	-5.5
KHC				*e*PS	PS	23 41 48.3	-0.4
KHC				*e*x	x	23 48 00.7	
KHC				AMS	AMS	00 11 40.0	
	comp=Z,11µm,21.7s						
KSU1	**Kansas State U**	**110.13**	**310**	*e*PKiKP	PKiKP	23 31 45.5	-1.1
KSU1				*e*PP	PP	23 32 16.4	-4.9
KSU1				LR	LR		
	comp=Z,7µm,20.0s,MS6.2						
BUD	**Budapest**	**110.14**	**33**	⇓*e*pPKP/D		23 31 54.6	
GLMI	**Grayling**	**110.19**	**321**	PFAKE		23 32 00.0	+13
GLMI				LR	LR		
	comp=Z,5µm,19.0s,MS6.1						
BUG	**Bochum--Univer**	**110.60**	**23**	*e*SKSac	SKSac	23 38 24.4	+0.2
BUG				*e*SP	SP	23 42 03.7	+13
BUG				*e*SS	SS	23 48 08.1	+16
JFWS	**Jewell Farm**	**110.67**	**317**	*e*PP	PP	23 32 25.6	+0.5
JFWS				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
TREC	**Trest**	**110.72**	**29**	*e*PP	PP	23 32 25.3	-0.1
TREC				*e*PS	PS	23 41 56.4	+1.4
TREC				*e*x	x	23 48 18.2	
TREC				AMS	AMS	00 15 30.0	
	comp=Z,10µm,18.6s						
NKC	**Novy Kostel**	**110.75**	**27**	*e*PP	PP	23 32 48.5	+23
NKC				*e*PS	PS	23 41 58.5	+3.3
NKC				*e*x	x	23 48 18.9	
NKC				AMS	AMS	00 16 00.0	
	comp=Z,4µm,19.8s						
PSZ	**Piszkesteto**	**110.79**	**33**	*e*PKiKP	PKiKP	23 31 48.4	+0.8
PSZ	**Piszkesteto**	**110.79**	**33**	*e*PKIKP	PKiKP	23 31 48.4	+0.8
PSZ	**Piszkesteto**	**110.79**	**33**	⇓*e*PKP/D	PKiKP	23 31 50.9	+3.3
PSZ	**Piszkesteto**	**110.79**	**33**	⇓*i*P	PKiKP	23 31 51.0	+3.4
MOX	**Moxa**	**110.91**	**26**	*e*PKP	PP	23 32 31.5	+4.8
	comp=Z,51nm,2.0s						
MOX							
	comp=Z,4µm,23.0s						
MOX	**Moxa**	**110.91**	**26**	*e*SKSac	SKSac	23 38 25.3	-0.2
MOX				*e*SP	SP	23 42 02.7	+8.6
MOX				*e*SS	SS	23 48 12.9	+17
TANN	**Tannenbergstha**	**110.92**	**27**	*e*SKSac	SKSac	23 38 25.1	-0.5
TANN				*e*SP	SP	23 42 02.5	+8.3
TANN				*e*SS	SS	23 48 11.3	+15
LENM	**Lemitar**	**110.97**	**300**	*e*PP	PP	23 32 21.8	-5.7
VRAC	**Vranov**	**111.05**	**30**	PP	PP	23 32 14.9	-13
	comp=Z,5.0nm,0.9s,baz=130,slow=4.8,SNR=3.5						
PRU	**Pruhonice**	**111.08**	**29**	*e*PS	PS	23 42 03.3	+5.0
PRU				*e*x	x	23 48 11.4	
PRU				AMS	AMS	00 12 00.0	
	comp=Z,8µm,21.0s						
CBKS	**Cedar Bluff**	**111.28**	**308**	PFAKE		23 32 00.0	+11
CBKS				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
ANMO	**Albuquerque**	**111.35**	**301**	PFAKE		23 32 00.0	+11
ANMO				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
ANMO	**Albuquerque**	**111.35**	**301**	*i* PKIKP	PKiKP	23 31 49.8	+0.7
TUC	**Tucson**	**111.42**	**296**	*e*PKiKP	PKiKP	23 31 49.6	+0.3
TUC				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
TUC	**Tucson**	**111.42**	**296**	*e*PKIKP	PKiKP	23 31 49.6	+0.3
TUC				MLR	MLR		
	comp=Z,4µm,20.0s,MS6.0						
KECS	**Kecovo**	**111.48**	**33**	*e*PKIKP	PKiKP	23 31 47.2	-1.7
KECS	**Kecovo**	**111.48**	**33**	*e*P	PKiKP	23 31 47.2	-1.7
PVCC	**Panska Ves**	**111.58**	**28**	*e*PS	PS	23 42 05.6	+2.7
PVCC				*e*x	x	23 48 29.4	
PVCC				AMS	AMS	00 17 10.0	
	comp=Z,6µm,18.5s						
KAD	**Karad**	**111.66**	**91**	*e*P	PKiKP	23 31 53.2	+3.0
MDRS	**Chennai**	**111.72**	**99**	*e*x	x	23 32 07.5	
MDRS				*e*x	x	23 32 39.5	
BRG	**Berggiesshubel**	**111.73**	**28**	*e*Pdif	PKiKP	23 31 40.6	-8.6
BRG				PP	PP	23 32 34.0	+1.4
BRG				SKS	SKSac	23 38 34.0	+5.2
BRG				Sdif	Sdif	23 40 28.0	+16
BRG				PS	PS	23 42 10.0	+5.8
BRG				SS	SS	23 48 12.0	+4.9
BRG				LR	LR		
	comp=Z,4µm,20.2s,MS6.0						
BRG	**Berggiesshubel**	**111.73**	**28**	*e*PKIKP	PKiKP	23 31 40.6	-8.6
BRG						23 32 34.0	
BRG						23 38 34.0	
BRG				PS	PS	23 42 10.0	+5.8
BRG				SS	SS	23 48 12.0	+4.9
BRG				MLR	MLR		
	comp=Z,4µm,20.2s,MS6.0						
BRG	**Berggiesshubel**	**111.73**	**28**	*e*SKSac	SKSac	23 38 23.5	-5.3
BRG				*e*SP	SP	23 42 12.0	+10
BRG				*e*SS	SS	23 48 22.4	+15
BRG	**Berggiesshubel**	**111.73**	**28**	*e*PDIF	PKiKP	23 31 40.6	-8.6
	comp=Z,65nm,2.2s						
BRG				PP	PP	23 32 34.0	+1.4
BRG				SKS	SKSac	23 38 34.0	+5.2
BRG				SDIF	Sdif	23 40 28.0	+16
BRG				PS	PS	23 42 10.0	+5.8
BRG				SS	SS	23 48 12.0	+4.9
BRG							
	comp=N,3µm,17.8s						
BRG							
	comp=E,3µm,19.7s						
BRG							
	comp=Z,7µm,20.2s						
CLL	**Collm**	**111.87**	**27**	*e*Pdif	Pdif	23 28 01.0	+7.2
CLL				*e*PKP	PKiKP	23 31 54.0	+4.5
CLL				*e*		23 31 59.0	
CLL				*e*PP	PP	23 32 25.0	-8.6
CLL				*e*SKS	SKSac	23 38 31.0	+1.6
CLL				*e*SKKS	SKKSac	23 39 37.0	+3.7
CLL	**Collm**	**111.87**	**27**	*e*Pdiff	Pdif	23 27 56.7	+2.9
CLL				*e*LR	LR	00 06 41.5	
CLL				*e*L		00 13 52.0	
	comp=Z,3µm,22.0s						
CLL				*e*PP	PP	23 32 35.4	+1.8
CLL				*e*SKSac	SKSac	23 38 31.7	+2.3
CLL				*e*SKKSac	SKKSac	23 39 36.5	+3.2
CLL				*e*PS	PS	23 42 10.8	+5.3
CLL				*e*SS	SS	23 48 31.1	+22
CLL				*e*SSS		23 52 25.8	
CLL				*e*SSSS		23 55 57.3	
CLL	**Collm**	**111.87**	**27**	*e*(Pdif)	Pdif	23 27 57.0	+3.2
CLL				*e*PKiKP	PKiKP	23 31 53.0	+3.5
CLL				*e*PP	PP	23 32 33.0	-0.6
	comp=Z,400nm,23.9s						
CLL				*e*x	x	23 33 00.0	
CLL				*e*PPP		23 34 54.0	
CLL				*e*SKSac	SKSac	23 38 31.0	+1.6
CLL				*e*SKKSac	SKKSac	23 39 37.0	+3.7
CLL				*e*(Sdif)		23 40 20.0	
CLL				*e*PS	PS	23 42 10.0	+4.5
CLL				*e*x	x	23 42 37.0	
CLL				*e*PPS		23 43 15.0	
CLL				*e*SS	SS	23 48 06.0	-3.1
CLL				*e*SSS		23 52 12.0	
DPC	**Dobruska-Polom**	**111.91**	**30**	*e*PS	PS	23 42 26.4	+21
DPC				*e*SS	SS	23 48 15.5	+5.9
DPC				AMS	AMS	00 16 10.0	
	comp=Z,6µm,18.8s						
OKC	**Ostrava-Krasne**	**111.97**	**31**	*e*PS	PS	23 42 17.4	+11
OKC				*e*x	x	23 48 29.7	
OKC				AMS	AMS	00 17 40.0	
	comp=Z,4µm,18.3s						
116A	**Eloy**	**112.10**	**295**	⇓P	PKiKP	23 31 53.1	+2.5
	baz=112						
FUNA	**Funafuti**	**112.14**	**211**	PFAKE		23 32 00.0	+8.7
FUNA				LR	LR		
	comp=Z,6µm,19.0s,MS6.2						
CRVS	**Cervenica-Dubn**	**112.15**	**33**	*e*P	PKiKP	23 31 50.3	+0.2
CRVS	**Cervenica-Dubn**	**112.15**	**33**	*e*	PKiKP	23 31 50.3	+0.2
UZH	**Uzhgorod**	**112.18**	**34**	*i*	PKiKP	23 31 47.1	-3.1
UZH				*i*		23 32 39.3	
UZH				*i* PS	PS	23 42 12.0	+3.6
UZH				*i* PPS		23 43 23.3	
UZH				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.9						
NIE	**Niedzica**	**112.25**	**32**	*e*PKP	PKiKP	23 31 55.6	+5.3
NIE	**Niedzica**	**112.25**	**32**	*e*PKIKP	PKiKP	23 31 55.6	+5.3
NIE	**Niedzica**	**112.25**	**32**	*e*PKIKP	PKiKP	23 31 55.6	+5.3
ESK	**Eskdalemuir**	**112.28**	**16**	PFAKE		23 32 00.0	+10
ESK				LR	LR		
	comp=Z,7µm,19.0s,MS6.2						
KOLS	**Kolonicke sedl**	**112.44**	**34**	*e*	PKiKP	23 31 47.0	-3.7
115A	**Sonoran Desert**	**112.48**	**295**	⇑P	PKiKP	23 31 53.5	+2.2
	baz=113						
STHS	**Stebnicka Huta**	**112.54**	**33**	*e*PKIKP	PKiKP	23 31 50.3	-0.5
STHS	**Stebnicka Huta**	**112.54**	**33**	*e*P	PKiKP	23 31 50.3	-0.5
OJC	**Ojcow**	**112.80**	**32**	*e*PKP	PKiKP	23 31 58.9	+7.6
OJC				*e*PP	PP	23 32 50.7	+10
OJC	**Ojcow**	**112.80**	**32**	*e*PKIKP	PKiKP	23 31 58.9	+7.6
OJC				*e*		23 32 50.7	
COWI	**Conover**	**112.93**	**319**	PFAKE		23 32 00.0	+8.3
COWI				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
KIS	**Kishinev**	**113.00**	**39**	*e*PKIKP	PKiKP	23 31 52.0	+0.2
KIS				*e*		23 38 30.0	
KIS				*e*PS	PS	23 42 18.0	+2.1
KIS	**Kishinev**	**113.00**	**39**	*e*PKP	PKiKP	23 31 52.0	+0.2
KIS	**Kishinev**	**113.00**	**39**	*e*PP	PP	23 32 48.0	+6.3
KIS	**Kishinev**	**113.00**	**39**	*e*PS	PS	23 42 18.0	+2.1
KIS	**Kishinev**	**113.00**	**39**	*e*PPS		23 43 28.0	
KIS				*e*SS	SS	23 48 18.0	-6.1
KIS				*e*SSS		23 53 04.0	
KIS				*e*L		00 05 00.0	
KIS				LRM		00 33 12.0	
	comp=Z,4µm,18.0s						
SDCO	**Great Sand Dun**	**113.11**	**303**	*e*PKiKP	PKiKP	23 31 53.3	+1.0
SDCO				*e*PP	PP	23 32 44.1	+1.5
SDCO				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
RUE	**Ruedersdorf**	**113.14**	**27**	*e*SP	SP	23 42 21.6	+7.1
RUE				*e*SS	SS	23 48 42.9	+17
KWP	**Kalwaria**	**113.19**	**34**	PKIKP	PKiKP	23 31 43.7	-8.4
HLG	**Helgoland**	**113.29**	**23**	*e*SP	SP	23 42 29.0	+13
HLG				*e*SS	SS	23 48 46.1	+18
Z14A	**Wintersburg**	**113.37**	**295**	⇑P	PKiKP	23 31 55.0	+2.0
	baz=114						
BSEG	**Bad Segeberg**	**113.61**	**24**	*e*SKSac	SKSac	23 38 32.1	-4.1
BSEG				*e*SP	SP	23 42 30.0	+11
BSEG				*e*SS	SS	23 48 49.3	+17
Y14A	**Wickenburg**	**113.85**	**295**	⇑P	PKiKP	23 31 56.2	+2.4
	baz=114						
X15A	**Humboldt**	**113.88**	**296**	⇓P	PKiKP	23 31 56.2	+2.3
	baz=114						
ECSD	**EROS,Sioux Fal**	**113.93**	**313**	PFAKE		23 32 10.0	+16
ECSD				LR	LR		
	comp=Z,7µm,20.0s,MS6.3						
SCHQ	**Schefferville**	**114.01**	**337**	PKPdf	PKiKP	23 31 52.3	-1.2
SCHQ				LR	LR		
	comp=Z,7µm,19.0s,MS6.3						
SCHQ	**Schefferville**	**114.01**	**337**	PKiKP	PKiKP	23 31 52.3	-1.2
	comp=Z,3.0nm,0.5s,baz=234,slow=5.4,SNR=14						
GLA	**Glamis**	**114.11**	**293**	⇑P	PKiKP	23 31 56.7	+2.3
	baz=114						
MVCO	**Mesa Verde**	**114.14**	**301**	PFAKE		23 32 10.0	+16
MVCO				LR	LR		
	comp=Z,5µm,19.0s,MS6.1						
MVCO	**Mesa Verde**	**114.14**	**301**	⇑P	PKiKP	23 31 56.3	+1.9
	baz=114						
Y13A	**Salome**	**114.18**	**295**	⇓P	PKiKP	23 31 56.5	+2.0
	baz=114						
X14A	**Yava**	**114.21**	**296**	⇑P	PKiKP	23 31 56.7	+2.2
	baz=114						
HYB	**Hyderabad**	**114.25**	**94**	*e*Pdif	Pdif	23 28 08.0	+3.7
HYB				*e*PKP	PKiKP	23 31 55.0	-0.1
HYB				*e*PP	PP	23 32 49.0	-1.7
HYB				*e*SKS	SKSac	23 38 34.0	-6.5
HYB				*e*		23 39 48.0	
HYB				*e*PS	PS	23 42 28.0	+0.1
HYB				*e*SS	SS	23 48 40.0	-0.9
HYB	**Hyderabad**	**114.25**	**94**	*e*P	Pdif	23 28 08.0	+3.7
HYB				*e*		23 31 55.0	
HYB				*e*		23 32 49.0	
HYB				*e*		23 38 34.0	
HYB				*e*PS	PS	23 42 28.0	+0.1
HYB				*e*SS	SS	23 48 40.0	-0.9
HYB	**Hyderabad**	**114.25**	**94**	*i* P	Pdif	23 28 08.0	+3.7
HYB				*e*		23 31 55.0	
HYB				*e*PP	PP	23 32 49.0	-1.7
HYB				*e*SKS	SKSac	23 38 34.0	-6.5
HYB				*e*		23 39 48.0	
HYB				*e*PS	PS	23 42 28.0	+0.1
HYB				*e*PKKP	PKKPbc	23 42 40.5	+7.5
HYB				*e*SS	SS	23 48 40.0	-0.9
HYB				LR	LR	00 18 56.0	
	comp=Z,11nm,20.0s						
WUAZ	**Wupatki**	**114.25**	**298**	PFAKE		23 32 10.0	+15
WUAZ				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
WUAZ	**Wupatki**	**114.25**	**298**	⇑P	PKiKP	23 31 57.0	+2.4
	baz=114						
DVTC	**Desert V Tower**	**114.47**	**292**	⇑P	PKiKP	23 31 57.0	+1.9
	baz=115						
ANN	**Anapa**	**114.49**	**46**	*i* PKIKP	PKiKP	23 31 58.5	+3.8
ANN				*e*		23 32 52.3	
ANN				*e*		23 38 41.8	
ANN				*e*SP	SP	23 42 35.5	+8.3
ANN				pmax	pmax		
	comp=Z,85nm,2.4s						
ANN				MLR	MLR		
	comp=N,4µm,21.0s						
ANN				MLR	MLR		
	comp=Z,4µm,21.0s,MS6.0						
Y12C	**Blythe**	**114.49**	**294**	⇓P	PKiKP	23 31 57.4	+2.2
	baz=115						
PDMCI	**Parker Dam,Lak**	**114.72**	**295**	⇓P	PKiKP	23 31 57.8	+2.3
	baz=115						
X13A	**Yucca**	**114.79**	**295**	⇓P	PKiKP	23 31 57.2	+1.5
	baz=115						
ISCO	**Idaho Springs**	**114.79**	**304**	*e*PKiKP	PKiKP	23 31 56.5	+1.0
ISCO				*e*PP	PP	23 32 54.5	0.0
ISCO				*e*SKPdf	SKPdf	23 35 26.8	-2.5
ISCO				*e*PKKPbc	PKKPbc	23 42 33.3	+1.8
ISCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
ISCO	**Idaho Springs**	**114.79**	**304**	*e*PKIKP	PKiKP	23 31 56.5	+1.0
ISCO				*e*		23 32 54.6	
ISCO				*e*		23 35 26.8	
ISCO				*e*		23 42 33.3	
ISCO				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.8						
W14A	**Seligman**	**114.88**	**296**	P	PKiKP	23 31 58.8	+3.0
	baz=115,SNR=7.8						
PV01	**Paradox Valley**	**114.90**	**301**	*e*PKiKP	PKiKP	23 31 56.1	+0.3
PV01				*e*PP	PP	23 32 55.6	+0.3
PV01				*e*PKKPbc	PKKPbc	23 42 30.7	-0.4
RGN	**Rugen**	**114.90**	**26**	*e*SP	SP	23 42 42.8	+12
RGN				*e*SS	SS	23 49 09.8	+21
BC3	**Big Chuckw Mtn**	**114.91**	**293**	⇓P	PKiKP	23 31 58.3	+2.3
	baz=115						
SMCO	**Snowmass**	**114.95**	**303**	*e*PKiKP	PKiKP	23 31 58.6	+2.8
HNR	**Honiara**	**115.07**	**190**	PFAKE		23 32 10.0	+13
HNR				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
IRM	**Iron Mountain**	**115.14**	**294**	P	PKiKP	23 31 58.9	+2.6
	baz=115,SNR=6.2						
W13A	**Hualapai Mount**	**115.21**	**296**	P	PKiKP	23 31 59.4	+2.9
	baz=115,SNR=6.5						
PV10	**Paradox Valley**	**115.32**	**301**	*e*PKPdf	PKPdf	23 31 55.9	-0.7
PV10				*e*SKPdf	SKPdf	23 35 28.4	-2.0
PV10				*e*PKKPbc	PKKPbc	23 42 31.5	+1.8
EYMN	**Ely**	**115.36**	**319**	PFAKE		23 32 10.0	+14
EYMN				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
PFO	**Pinyon Flat Ob**	**115.40**	**293**	PFAKE		23 32 10.0	+13
PFO				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
BELC	**Belle Mtn.**	**115.46**	**293**	⇑P	PKPdf	23 31 59.5	+2.6
	baz=116						
PMG	**Port Moresby**	**115.48**	**176**	PFAKE		23 32 10.0	+12
PMG				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
COP				*i*	SS	23 49 06.1	+6.4
COP	**Copenhagen**	**115.72**	**25**	*i* S	SP	23 42 49.4	+12
MURC	**Murrieta**	**115.78**	**292**	⇑P	PKPdf	23 32 00.0	+2.4
	baz=116						
BSD	**Bornholm Skovb**	**115.81**	**26**	*i* S	SP	23 42 44.3	+5.5
U14A	**Mt Trumbull**	**115.87**	**297**	⇑P	PKPdf	23 32 00.2	+2.6
	baz=116						
GMRC	**Granite Mounta**	**115.88**	**294**	⇑P	PKPdf	23 31 59.9	+2.2
	baz=116,SNR=6.1						
PHWY	**Pilot Hill**	**115.90**	**306**	*e*PKiKP	PKiKP	23 31 59.1	+1.6
T15A	**Red Dirt Ranch**	**115.93**	**298**	⇓P	PKPdf	23 32 00.6	+2.8
	baz=116						
KIV	**Kislovodsk**	**116.04**	**50**	PFAKE		23 32 10.0	+12
KIV				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
KIV	**Kislovodsk**	**116.04**	**50**	*e*P	Pdif	23 28 13.1	+0.8
KIV				*e*		23 33 08.7	
KIV				*e*		23 38 44.8	
KIV				*e*SP	SP	23 42 45.8	+4.4
KIV				*e*SS	SS	23 49 12.2	+7.9
KIV				pmax	pmax		
	comp=Z,21nm,1.1s						
V12A	**Nelson**	**116.19**	**295**	P	PKPdf	23 32 00.9	+2.6
	baz=116,SNR=5.7						
KIEV	**Kiev**	**116.26**	**37**	PFAKE		23 32 10.0	+12
KIEV				LR	LR		
	comp=Z,4µm,22.0s,MS6.0						
U13A	**Pakoon Wash**	**116.27**	**296**	P	PKPdf	23 32 01.4	+3.0
	baz=116,SNR=8.7						

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AKASG Malin Array Be    116.27  37  PKP      PKPdf    23 31 56.9 -1.0
AKASG Malin Array Be    116.27  37  PKIKP    PKPdf    23 31 56.9 -1.0
AKASG Malin Array Be    116.27  37  PKP      PKPdf    23 31 56.9 -1.0
      comp=Z,2.6nm,0.7s,baz=248,slow=1.5,SNR=6.3
HEC   Hector,Ludlow     116.27 294 ⇑P        PKPdf    23 32 01.1 +2.6
      baz=116
T14A  Hurricane         116.32 297 ⇓P        PKPdf    23 32 01.2 +2.7
      baz=116
TUQ   Turquoise Mtn.    116.53 294 ⇑P        PKPdf    23 32 01.0 +2.1
      baz=117
U12A  Valley of Fire    116.58 296 ⇑P        PKPdf    23 32 01.4 +2.3
      baz=117
V11A  Goodsprings       116.58 295 ⇑P        PKPdf    23 32 01.5 +2.4
      baz=117
SRU   San Rafael        116.62 301 ePKIKP    PKPdf    23 31 59.6 +0.6
T13A  Saint George      116.70 297 ⇓P        PKPdf    23 32 02.0 +2.8
      baz=117
CCUT  Cedar City        116.83 298 ePKPdf    PKPdf    23 32 01.1 +1.6
CCUT                               ePP       PP       23 33 11.7 +2.8
DECC  Green Verdugo     116.88 292 ⇓P        PKPdf    23 32 02.3 +2.6
      baz=117
GSC   Goldstone         116.89 294 ⇓P        PKPdf    23 32 02.0 +2.4
      baz=117
T12A  Moapa             116.89 296 ⇑P        PKPdf    23 32 02.1 +2.4
      baz=117
S14A  Cedar City        116.90 298 ⇑P        PKPdf    23 32 02.2 +2.6
      baz=117
SHPR  Sheep Range       116.95 296 ePKPdf    PKPdf    23 32 01.3 +1.6
MSU   Marysvale         116.98 299 ePKPdf    PKPdf    23 32 01.0 +1.3
MSU                                ePKKPbc   PKKPbc   23 42 22.0 -1.9
MSU   Marysvale         116.98 299 ePKIKP    PKPdf    23 32 01.0 +1.3
MVU   Marysvale         116.99 299  PFAKE             23 32 10.0  +10
MVU                                 LR       LR
      comp=Z,4µm,19.0s,MS6.1
RWWY  Rawlins           117.02 305 ePKPdf    PKPdf    23 32 01.4 +1.7
ARUT  Antelope Range    117.06 298 ePKPdf    PKPdf    23 32 01.0 +1.1
ARUT  Antelope Range    117.06 298 ePKIKP    PKPdf    23 32 01.0 +1.1
SHOC  Shoshone          117.07 294 ⇓P        PKPdf    23 32 02.6 +2.6
      baz=117
TMUT  Trail Mountain    117.10 300 ePKPdf    PKPdf    23 32 02.9 +3.0
S13A  Holt Ranch, En    117.11 297  P        PKPdf    23 32 03.0 +3.0
      baz=117,SNR=12
EDW2  Edwards Air Fo    117.19 292  P        PKPdf    23 32 02.9 +2.6
      baz=117,SNR=9.4
AGMN  Agassiz Refuge    117.33 316 ePKPdf    PKPdf    23 31 59.1 -0.9
AGMN                               ePP       PP       23 33 10.7 -1.6
AGMN                                LR       LR
      comp=Z,4µm,19.0s,MS6.1
MAK   Makhachkala       117.42  54 eP        Pdif     23 28 12.6 -5.8
MAK                                e                  23 33 22.9
MAK                                ePPP               23 35 45.3
MAK                                e                  23 38 45.1
MAK                                eSP       SP       23 42 51.6 -2.5
MAK                                i PS      PS       23 42 58.8 +2.4
MAK                                 pmax     pmax
      comp=Z,571nm,1.4s
RSSD  Black Hills       117.46 308 ePKPdf    PKPdf    23 31 59.4 -1.1
RSSD                                LR       LR
      comp=Z,9µm,19.0s,MS6.4
RSSD  Black Hills       117.46 308 ePKIKP    PKPdf    23 31 59.4 -1.1
RSSD                                MLR      MLR
      comp=Z,9µm,19.0s,MS6.4
LRMC  Laurel Mountai    117.48 293 ⇑P        PKPdf    23 32 03.3 +2.5
      baz=118
U10A  Ash Meadows, A    117.49 295  P        PKPdf    23 32 03.5 +2.7
      baz=118,SNR=7.1
T11A  Corn Creek, Al    117.55 296 ⇑P        PKPdf    23 32 03.4 +2.6
      baz=118,SNR=8.5
S12A  Delamar Landin    117.64 297  P        PKPdf    23 32 03.1 +2.1
      baz=118,SNR=8.4
FURC  Furnace Creek,    117.81 294  P        PKPdf    23 32 04.5 +3.1
      baz=118,SNR=5.9
MPMC  Manual Prospec    117.82 294  P        PKPdf    23 32 03.9 +2.5
      baz=118,SNR=8.7
TPNV  Topopah Spring    117.85 295 ePKPdf    PKPdf    23 32 02.0 +0.5
TPNV                                LR       LR
      comp=Z,3µm,21.0s,MS5.8
TPNV  Topopah Spring    117.85 295 ePKIKP    PKPdf    23 32 02.0 +0.5
TPNV                                MLR      MLR
      comp=Z,3µm,21.0s,MS5.8
TPNV  Topopah Spring    117.85 295 ⇓P        PKPdf    23 32 04.0 +2.5
      baz=118
MPU   Maple Canyon      117.86 301 ePKPdf    PKPdf    23 32 04.1 +2.7
MPU                                 LR       LR
      comp=Z,6µm,19.0s,MS6.3
DAU   Daniels Canyon    117.98 301 ePKPdf    PKPdf    23 32 03.9 +2.3
DAU   Daniels Canyon    117.98 301 ePKIKP    PKPdf    23 32 03.9 +2.3
NLU   North Lily Min    118.03 300 ePKPdf    PKPdf    23 32 03.4 +1.6
ISA   Isabella          118.04 293 ⇑P        PKPdf    23 32 04.0 +2.2
      baz=118,SNR=12
DAC   Darwin (Calif)    118.04 294 ePKPdf    PKPdf    23 32 02.0 +0.2
DAC                                ePP       PP       23 33 18.0 +0.7
DAC                                 LR       LR
      comp=Z,3µm,19.0s,MS6.0
DAC   Darwin (Calif)    118.04 294 ePKIKP    PKPdf    23 32 02.1 +0.2
DAC                                e                  23 33 18.0
DAC                                 MLR      MLR
      comp=Z,3µm,19.0s,MS6.0
R12A  Pony Springs,     118.06 297 ⇑P        PKPdf    23 32 03.9 +2.0
      baz=118,SNR=8.7
PKM   Peak Mountain     118.17 291 ⇑P        PKPdf    23 32 04.7 +2.6
      baz=118
JLU   Jordanelle        118.22 301 ePKPdf    PKPdf    23 32 04.0 +1.9
CWC   Cottonwood Cre    118.42 294 ⇓P        PKPdf    23 32 04.8 +2.2
      baz=119
CTU   Camp Tracy        118.44 301 ePKPdf    PKPdf    23 32 05.1 +2.6
R11A  Troy Canyon, C    118.58 297 ⇓P        PKPdf    23 32 04.4 +1.6
      baz=119
SMMC  Simmler           118.58 291 ⇓P        PKPdf    23 32 05.0 +2.0
      baz=119
DUG   Dugway            118.58 300 ePKPdf    PKPdf    23 32 02.6 -0.1
DUG                                ePP       PP       23 33 23.5 +2.4
DUG                                eSKP               23 35 34.8
DUG                                 LR       LR
      comp=Z,4µm,19.0s,MS6.1
DUG   Dugway            118.58 300 ePKIKP    PKPdf    23 32 02.7 -0.1
DUG                                e                  23 33 23.5
DUG                                 MLR      MLR
      comp=Z,4µm,19.0s,MS6.1
DUG   Dugway            118.58 300  P        PKPdf    23 32 03.0 +0.3
      baz=119,SNR=15
KONO  Kongsberg         118.70  21  PFAKE             23 32 10.0 +7.7
KONO                                LR       LR
      comp=Z,5µm,20.0s,MS6.2
KONO  Kongsberg         118.70  21 eSS       SS       23 49 34.9 -3.5
Q12A  Willow Creek R    118.72 298 ⇓P        PKPdf    23 32 04.8 +1.7
      baz=119,SNR=18
S10A  Tonopah Range,    118.77 296 ⇓P        PKPdf    23 32 05.0 +1.8
      baz=119,SNR=8.9
R10A  Warm Springs      118.90 296 ⇓P        PKPdf    23 32 05.3 +1.8
      baz=119,SNR=9.5
ULM   Lac du Bonnet     118.91 318  PKP      PKPdf    23 32 01.1 -2.0
ULM                                 PP       PP       23 33 18.8 -4.4
ULM                                 PKKPbc   PKKPbc   23 42 18.8 +1.6
ULM   Lac du Bonnet     118.91 318  PKP      PKPdf    23 32 01.1 -2.0
      comp=Z,6.4nm,0.7s,baz=118,slow=1.0,SNR=13
ULM                                 PP       PP       23 33 18.8 -4.4
      comp=Z,12nm,1.1s,baz=143,slow=8.6,SNR=7.3
ULM                                 PKKPbc   PKKPbc   23 42 18.8 +1.6
      comp=Z,6.7nm,1.0s,baz=332,slow=3.6,SNR=6.5
S09A  Goldfield         118.95 295 ⇓P        PKPdf    23 32 05.2 +1.7
      baz=119,SNR=12
PTRM  Twissleman Ran    118.95 291 ePKPdf    PKPdf    23 32 05.7 +2.0
BW06  Boulder Array     118.96 304  PFAKE             23 32 20.0  +17
BW06                                LR       LR
      comp=Z,4µm,19.0s,MS6.1
PDAR  Pinedale Array    118.96 304  PKP      PKPdf    23 32 01.6 -1.9
PDAR                                PKKPbc   PKKPbc   23 42 18.7 +1.9
PDAR                                SKKP              23 46 17.7
PDAR  Pinedale Array    118.96 304  PKP      PKPdf    23 32 01.6 -1.9
      comp=Z,2.4nm,0.8s,baz=134,slow=4.3,SNR=18
PDAR                                PKKPbc   PKKPbc   23 42 18.7 +1.9
      comp=Z,3.5nm,0.9s,baz=2.3,slow=0.8,SNR=11
PDAR                                SKKP              23 46 17.7
      comp=Z,1.6nm,1.1s,baz=259,slow=3.0,SNR=4.6
N15A  Stansbury Isla    118.97 301 ⇓P        PKPdf    23 32 04.6 +1.1
      baz=119,SNR=17
MNK   Minsk             119.00  34 e         SP       23 43 08.0 +0.3
MNK                                 pmax     pmax
      comp=N,16µm,20.0s
MNK                                 pmax     pmax
      comp=N,7µm,16.0s
HWUT  Hardware Ranch    119.04 302 ePKPdf    PKPdf    23 32 03.3 -0.3
HWUT                               ePP       PP       23 33 24.7 +0.5
HWUT                                LR       LR
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      comp=Z,4µm,19.0s,MS6.1
P12A  McGill            119.08 298 ⇓P        PKPdf    23 32 05.3 +1.5
      baz=119,SNR=6.7
HELL  Mitchell Peak,    119.10 293 ⇓P        PKPdf    23 32 04.9 +1.0
      baz=119,SNR=7.2
O13A  Hicks Ranch, I    119.12 299 ⇑P        PKPdf    23 32 05.3 +1.6
      baz=119,SNR=12
TPH   Tonopah           119.21 295  PFAKE             23 32 20.0  +16
TPH                                 LR       LR
      comp=Z,3µm,19.0s,MS6.0
BGU   Big Grassy Mou    119.24 300 ePKPdf    PKPdf    23 32 03.5 -0.5
BGU                                ePP       PP       23 33 26.9 +1.3
BGU                                eSKPdf    SKPdf    23 35 38.7 +0.8
SPUT  South Promonto    119.25 301 ePKPdf    PKPdf    23 32 05.5 +1.5
N14A  Grayback Hills    119.27 300 ⇓P        PKPdf    23 32 05.5 +1.5
      baz=120,SNR=6.2
S08C  White Mtn Res     119.27 294 ⇓P        PKPdf    23 32 06.0 +1.8
      baz=120,SNR=5.0
PKD   Parkfield         119.35 291 ⇑P        PKPdf    23 32 05.4 +1.1
      baz=120
Q10A  Clear Creek Ra    119.35 296 ⇓P        PKPdf    23 32 05.2 +1.0
      baz=120,SNR=11
MTUM  Tungsten Hills    119.36 294 ePKPdf    PKPdf    23 32 06.8 +2.4
M15A  Larsen Ranch,     119.36 301  P        PKPdf    23 32 05.0 +0.8
      baz=120,SNR=20
O12A  Currie            119.60 299 ⇓P        PKPdf    23 32 05.3 +0.6
      baz=120,SNR=9.4
AHID  Auburn Hatcher    119.70 303  PFAKE             23 32 20.0  +15
AHID                                LR       LR
      comp=Z,2µm,19.0s,MS5.8
T06C  Millerton Lake    119.70 293 ⇑P        PKPdf    23 32 05.5 +0.4
      baz=120,SNR=10
KCC   Kaiser Creek      119.74 293 ⇑P        PKPdf    23 32 05.8 +0.7
      baz=120,SNR=8.3
HVU   Hansel Valley     119.77 301 ePKPdf    PKPdf    23 32 06.5 +1.6
HVU   Hansel Valley     119.77 301 ePKIKP    PKPdf    23 32 06.6 +1.6
N13A  Wendover, West    119.77 299 ⇓P        PKPdf    23 32 06.8 +1.8
      baz=120
M14A  Sheep Mountain    119.84 301  P        PKPdf    23 32 06.5 +1.4
      baz=120,SNR=17
BORG  Borgarnes         119.86   4  PFAKE             23 32 20.0  +16
BORG                                LR       LR
      comp=Z,6µm,20.0s,MS6.2
R08A  Mina              119.87 295 ⇑P        PKPdf    23 32 07.1 +1.8
      baz=120
O11A  Cowboy Ranch,     119.96 298 ⇑P        PKPdf    23 32 07.0 +1.5
      baz=120,SNR=12
HFS   Hagfors           120.03  23  PKP      PKPdf    23 32 03.2 -1.7
HFS                                 PKKPbc   PKKPbc   23 42 13.6 +0.3
HFS   Hagfors           120.03  23  PKIKP    PKPdf    23 32 03.2 -1.7
HFS   Hagfors           120.03  23  PKP      PKPdf    23 32 03.2 -1.7
      comp=Z,4.0nm,0.8s,baz=183,slow=3.0,SNR=6.7
HFS                                 PKKPbc   PKKPbc   23 42 13.6 +0.3
      comp=Z,2.0nm,0.7s,baz=57,slow=5.7,SNR=9.0
REDW  Red Top Meadow    120.03 304 ePKPdf    PKPdf    23 32 05.9 +0.5
LOHW  Long Hollow       120.10 304 ePKPdf    PKPdf    23 32 06.1 +0.6
M13A  Montello          120.13 300 ⇑P        PKPdf    23 32 07.0 +1.3
      baz=120,SNR=11
Q08A  Gabbs             120.17 295 ⇑P        PKPdf    23 32 06.6 +0.7
      baz=120
R07C  Lee Vining        120.17 294 ⇓P        PKPdf    23 32 06.6 +0.7
      baz=120
TPAW  Teton Pass        120.18 304 ePKKP     PKKPbc   23 42 12.8 +0.5
N12A  Clover Valley,    120.19 299 ⇓P        PKPdf    23 32 06.1 +0.3
      baz=120,SNR=12
ELK   Elko              120.21 299 ePKPdf    PKPdf    23 32 06.9 +1.1
ELK                                 LR       LR
      comp=Z,4µm,20.0s,MS6.0
ELK   Elko              120.21 299 ePKIKP    PKPdf    23 32 06.9 +1.0
ELK                                 MLR      MLR
      comp=Z,4µm,20.0s
HAST  UC Hastings Re    120.22 291 ⇓P        PKPdf    23 32 06.0  0.0
      baz=120
MOOW  Moose Ponds       120.27 304 ePKPdf    PKPdf    23 32 05.5 -0.4
S05C  Merced            120.29 293 ⇑P        PKPdf    23 32 07.1 +1.0
      baz=120
NB2   NORSAR Subarra120.30  21      PKPd     PKPdf    23 32 05.0 -0.4
      comp=Z,38nm,1.7s,baz=202,slow=1.9
NB2   NORSAR Subarra120.30  21      PKPdf    PKPdf    23 32 05.0 -0.4
NB2   NORSAR Subarra120.30  21      PKPd     PKPdf    23 32 05.0 -0.4
      baz=202,slow=1.9
NB2   NORSAR Subarra120.30  21      PKIKP    PKPdf    23 32 05.0 -0.4
NOA   NORSAR Array B 120.30  21     PKP      PKPdf    23 32 04.8 -0.6
NOA                                 PKKPbc   PKKPbc   23 42 15.7 +3.5
NOA   NORSAR Array B 120.30  21     PKIKP    PKPdf    23 32 04.8 -0.6
NOA   NORSAR Array B 120.30  21     PKP      PKPdf    23 32 04.8 -0.6
      comp=Z,11nm,1.1s,baz=204,slow=1.8,SNR=8.6
NOA                                 PKKPbc   PKKPbc   23 42 15.7 +3.5
      comp=Z,1.0nm,0.7s,baz=28,slow=3.3,SNR=3.4
DCID1 Drake Creek       120.37 304 ePKPdf    PKPdf    23 32 09.6 +3.5
LAO   LASA Array        120.42 309 ePKPdf    PKPdf    23 32 05.0 -1.1
LAO                                ePP       PP       23 33 31.6 -2.0
LAO                                eSKPdf    SKPdf    23 35 39.0 -0.9
LAO                                 LR       LR
      comp=Z,5µm,19.0s,MS6.2
SAO   San Andreas Ge    120.44 291  PFAKE             23 32 20.0  +14
SAO                                 LR       LR
      comp=Z,4µm,19.0s,MS6.0
O10A  Cortez Mining,    120.50 298 ⇑P        PKPdf    23 32 07.7 +1.2
      baz=121
K14A  Jones Ranch, D    120.54 301 ⇓P        PKPdf    23 32 08.1 +1.6
      baz=121,SNR=13
PACP  Pacheco Peak      120.54 292 ⇓P        PKPdf    23 32 08.6 +2.0
      baz=121
M12A  Wells             120.55 299  P        PKPdf    23 32 07.2 +0.6
      baz=121,SNR=20
L13A  Double Diamond    120.57 301 ⇓P        PKPdf    23 32 07.8 +1.3
      baz=121,SNR=18
RLMT  Red Lodge         120.62 306 ePKPdf    PKPdf    23 32 06.8 +0.3
RLMT                               ePP       PP       23 33 33.5 -1.5
RLMT                                LR       LR
      comp=Z,7µm,19.0s,MS6.3
WAKR  Walker            120.68 294 ePKPdf    PKPdf    23 32 09.3 +2.4
R06C  Coleville         120.70 294 ⇓P        PKPdf    23 32 09.0 +2.1
      baz=121,SNR=7.4
LKWY  Lake              120.73 305  PKPdf    PKPdf    23 32 04.9 -1.8
LKWY                                LR       LR
      comp=Z,6µm,20.0s,MS6.2
LKWY  Lake              120.73 305  PKIKP    PKPdf    23 32 04.9 -1.8
LKWY                                MLR      MLR
      comp=Z,6µm,20.0s,MS6.2
O09A  Fish Creek Ran    120.77 297 ⇑P        PKPdf    23 32 08.5 +1.5
      baz=121,SNR=10
YFT   Old Faithful      120.84 304 ePKPdf    PKPdf    23 32 10.5 +3.5
YFT                                ePKKP     PKKPbc   23 42 10.4 +0.5
DGMT  Dagmar            120.90 311 ePKPdf    PKPdf    23 32 06.7 -0.3
DGMT                                LR       LR
      comp=Z,4µm,20.0s,MS6.1
S04C  Ingram Canyon,    120.93 292 ⇑P        PKPdf    23 32 08.7 +1.3
      baz=121,SNR=9.4
BMN   Battle Mountai    120.98 297 ePKPdf    PKPdf    23 32 10.0 +2.6
BMN                                 LR       LR
      comp=Z,3µm,21.0s,MS5.9
BMN   Battle Mountai    120.98 297 ePKIKP    PKPdf    23 32 10.0 +2.6
BMN                                 MLR      MLR
      comp=Z,3µm,21.0s,MS5.9
K13A  Stover Farm, H    121.06 301 ⇓P        PKPdf    23 32 09.1 +1.6
      baz=121,SNR=5.5
YMR   Madison River     121.07 304  PFAKE             23 32 20.0  +13
YMR                                 LR       LR
      comp=Z,4µm,20.0s,MS6.1
BNLO  Ben Lomond (Sa    121.10 291 ⇓P        PKPdf    23 32 09.3 +1.6
      baz=121
L12A  House Creek Ra    121.14 300 ⇑P        PKPdf    23 32 09.1 +1.5
      baz=121,SNR=11
R05C  Kirkwood Meado    121.16 294 ⇓P        PKPdf    23 32 09.0 +1.2
      baz=121,SNR=8.0
WENL  Wente Brothers    121.25 292 ⇓P        PKPdf    23 32 09.1 +1.1
      baz=121
GCMT  Greycliff         121.31 306 ePKPdf    PKPdf    23 32 08.7 +0.9
QLMT  Earthquake Lak    121.41 304 ePKPdf    PKPdf    23 32 10.0 +1.9
M10A  I.L. Ranch, Tu    121.44 298 ⇑P        PKPdf    23 32 10.0 +1.8
      baz=122,SNR=5.8
WCN   Washoe City       121.44 295 ⇑P        PKPdf    23 32 10.3 +2.0
      baz=122
N09A  Rock Creek Ran    121.44 297 ⇑P        PKPdf    23 32 10.2 +2.0
      baz=122,SNR=13
K12A  Draper Farm, C    121.45 300 ⇓P        PKPdf    23 32 09.7 +1.5
      baz=122,SNR=8.4
L11A  Cat Creek Ranc    121.53 299 ⇓P        PKPdf    23 32 09.7 +1.4
      baz=122,SNR=17
PAHR  Pah Rah Range     121.55 295 ePKPdf    PKPdf    23 32 11.7 +3.2
LAVA  Lava Cap Winer    121.55 293 ⇑P        PKPdf    23 32 09.9 +1.3
      baz=122,SNR=10
O07A  Toulon            121.62 296  P        PKPdf    23 32 09.3 +0.7
      baz=122,SNR=29
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J13A  Cove Ranch, Pi    121.66 301 ⇓P        PKPdf    23 32 09.4 +0.9
      baz=122,SNR=16
N08A  GE Springer Mi    121.70 297  P        PKPdf    23 32 09.0 +0.2
      baz=122,SNR=13
L10A  Juniper Basin     121.82 299 ⇓P        PKPdf    23 32 10.5 +1.6
      baz=122
M09A  Marrel Ranch,     121.83 298 ⇓P        PKPdf    23 32 10.4 +1.5
      baz=122,SNR=9.4
P05C  Yuba Gap, Truc    121.89 294 ⇑P        PKPdf    23 32 10.6 +1.5
      baz=122,SNR=18
HLID  Hailey            121.90 301 ePKPdf    PKPdf    23 32 09.8 +0.7
HLID                               ePP       PP       23 33 44.4 +0.7
HLID                                LR       LR
      comp=Z,3µm,19.0s,MS6.0
HLID  Hailey            121.90 301 ⇑P        PKPdf    23 32 10.7 +1.6
      baz=122,SNR=12
Q04C  Lincoln           121.95 293 ⇑P        PKPdf    23 32 11.3 +2.0
      baz=122
VSU   Vasula            121.97  31 ePKP      PKPdf    23 32 08.9 +0.2
VSU   Vasula            121.97  31 ePKIKP    PKPdf    23 32 08.9 +0.2
J12A  Stokes Ranch,     122.00 301 ⇑P        PKPdf    23 32 10.2 +1.0
      baz=122,SNR=29
I13A  Wildhorse Cree    122.02 302 ⇓P        PKPdf    23 32 10.7 +1.4
      baz=122,SNR=16
KBL   Kabul             122.06  75 ePKPdf    PKPdf    23 32 09.2 -0.5
MCMT  McKenzie Canyo    122.08 303 ePKPdf    PKPdf    23 32 09.6 +0.3
MCMT                               ePP       PP       23 33 44.4 -0.6
MCMT                               ePKKP     PKKPbc   23 42 06.3 +1.1
K11A  Parker Ranch,     122.11 300 ⇑P        PKPdf    23 32 10.6 +1.2
      baz=122,SNR=13
BOZ   Bozeman (W)       122.11 305  PFAKE             23 32 20.0  +11
BOZ                                 LR       LR
      comp=Z,6µm,19.0s,MS6.3
BOZ   Bozeman (W)       122.11 305 ⇓P        PKPdf    23 32 10.9 +1.5
      baz=122,SNR=6.5
O06A  Flanigan          122.12 295 ⇑P        PKPdf    23 32 11.0 +1.4
      baz=122,SNR=7.4
N07B  Gerlach           122.13 296 ⇓P        PKPdf    23 32 11.8 +2.2
      baz=122,SNR=10
Q03C  Winters           122.13 293 ⇑P        PKPdf    23 32 11.0 +1.3
      baz=122
CVS   Carmenet Viney    122.15 292 ⇓P        PKPdf    23 32 11.2 +1.5
      baz=122,SNR=8.0
G15A  Dillon            122.16 304 ⇓P        PKPdf    23 32 11.3 +1.8
      baz=122,SNR=16
BEKR  Beckwourth        122.17 295 ⇓P        PKPdf    23 32 11.1 +1.4
      baz=122,SNR=16
MCCM  Marconi Confer    122.23 292  PFAKE             23 32 20.0  +10
MCCM                                LR       LR
      comp=Z,3µm,20.0s,MS5.9
NDI   New Delhi         122.26  85 eP        PKPdf    23 32 09.0 -1.2
      comp=Z,4.0nm,1.0s
NDI                                ex        x        23 43 11.5
M08A  Happy Creek Ra    122.32 297 ⇓P        PKPdf    23 32 11.6 +1.7
      baz=122,SNR=13
NSHM  Saint Helena R    122.36 292 ePKPdf    PKPdf    23 32 10.6 +0.5
OHCM  Honcut            122.37 293 ePKPdf    PKPdf    23 32 11.5 +1.4
OBN   Obninsk           122.45  38 ePKPdf    PKPdf    23 32 08.1 -1.6
OBN                                ePKP      PKPdf    23 32 10.3 +0.6
OBN                                 LR       LR
      comp=Z,4µm,17.0s,MS6.1
OBN   Obninsk           122.45  38 ePKIKP    PKPdf    23 32 10.7 +1.0
MFID  Camas Ranch       122.48 300 ⇑P        PKPdf    23 32 11.8 +1.6
      baz=123,SNR=10
O05C  Quincy            122.53 294 ⇑P        PKPdf    23 32 11.8 +1.4
      baz=123,SNR=9.6
K10A  MacKenzie Ranc    122.53 299  P        PKPdf    23 32 11.9 +1.7
      baz=123,SNR=18
MNRC  McLaughlin Nat    122.54 292 ⇓P        PKPdf    23 32 12.2 +1.8
      baz=123,SNR=5.7
ORV   Oroville          122.54 294  P        PKPdf    23 32 11.6 +1.2
      baz=123,SNR=7.9
N06A  Buffalo Meadow    122.55 296  P        PKPdf    23 32 11.0 +0.6
      baz=123,SNR=17
H13A  Challis           122.56 302  P        PKPdf    23 32 11.5 +1.2
      baz=123,SNR=16
LRM   Limekiln Ridge    122.63 304 ePKPdf    PKPdf    23 32 11.8 +1.5
F15A  Butte             122.66 304 ⇑P        PKPdf    23 32 11.1 +0.7
      baz=123,SNR=25
M07A  Soldier Meadow    122.68 297  P        PKPdf    23 32 11.6 +1.0
      baz=123,SNR=15
G14A  Jackson           122.68 303  P        PKPdf    23 32 11.9 +1.4
      baz=123,SNR=27
H12A  Diamond D Ranc    122.84 302  P        PKPdf    23 32 11.8 +1.0
      baz=123,SNR=26
L08A  Fields            122.84 298 ⇑P        PKPdf    23 32 12.1 +1.2
      baz=123,SNR=14
O04C  Chester           122.88 294 ⇑P        PKPdf    23 32 11.9 +0.8
      baz=123,SNR=8.2
K09A  Rome              122.91 299  P        PKPdf    23 32 12.9 +1.9
      baz=123,SNR=12
I11A  Placerville       122.91 301 ⇓P        PKPdf    23 32 11.8 +0.9
      baz=123,SNR=8.1
G13A  Cobalt            122.94 303  P        PKPdf    23 32 11.5 +0.5
      baz=123,SNR=18
HOPS  Hopland           122.96 292  PFAKE             23 32 20.0 +8.8
HOPS                                LR       LR
      comp=Z,17µm,20.0s,MS6.7
EGMT  Eagleton          123.01 308 ePKPdf    PKPdf    23 32 11.1 +0.1
EGMT                               ePP       PP       23 33 43.2 -8.0
EGMT                               eSKPdf    SKPdf    23 35 44.6 -0.2
EGMT                               ePKKP     PKKPbc   23 42 02.4 +0.8
EGMT                                LR       LR
      comp=Z,7µm,19.0s,MS6.3
EGMT  Eagleton          123.01 308 ⇑P        PKPdf    23 32 12.3 +1.2
      baz=123,SNR=17
SFJD  Kangerlussuaq     123.02 350  PKP      PKPdf    23 32 10.3 -0.1
SFJD                                LR       LR
      comp=Z,7µm,19.0s,MS6.3
SFJD  Kangerlussuaq     123.02 350  PKIKP    PKPdf    23 32 10.3 -0.1
SFJD                                MLR      MLR
      comp=Z,7µm,19.0s,MS6.3
SFJD  Kangerlussuaq     123.02 350  PKP      PKPdf    23 32 10.3 -0.1
      comp=Z,14nm,0.8s,baz=148,slow=3.4,SNR=3.6
F14A  Wisdom            123.06 304 ⇑P        PKPdf    23 32 13.1 +1.9
      baz=123,SNR=8.1
E15A  Deer Lodge        123.16 305 ⇓P        PKPdf    23 32 12.9 +1.5
      baz=123,SNR=6.3
WVOR  Wild Horse Val    123.17 298 ePKPdf    PKPdf    23 32 11.6 +0.1
WVOR                               ePP       PP       23 33 51.3 -1.1
WVOR                               eSKPdf    SKPdf    23 35 45.3  0.0
WVOR                                LR       LR
      comp=Z,3µm,22.0s,MS5.9
WVOR  Wild Horse Val    123.17 298 ePKIKP    PKPdf    23 32 11.6 +0.1
WVOR                               e                  23 33 51.3
WVOR                                MLR      MLR
      comp=Z,3µm,22.0s,MS5.9
M06C  Likely Place G    123.21 296 ⇓P        PKPdf    23 32 13.1 +1.4
      baz=123,SNR=9.8
L07A  Adell             123.22 297 ⇓P        PKPdf    23 32 13.0 +1.3
      baz=123,SNR=13
GASB  Alder Springs     123.25 293 ⇑P        PKPdf    23 32 13.3 +1.6
      baz=123,SNR=12
K08A  Mann Creek Ran    123.31 298 ⇓P        PKPdf    23 32 13.7 +1.9
      baz=124,SNR=13
MOS   Moscow            123.31  38 ePKIKP    PKPdf    23 32 07.5 -3.8
J09A  Fry Pan Ranch,    123.39 299 ⇓P        PKPdf    23 32 13.6 +1.7
      baz=124,SNR=15
LBCM  Butte Creek Ri    123.40 295  P        PKPdf    23 32 12.3 +0.3
HATC  Hat Creek Radi    123.44 295 ⇓P        PKPdf    23 32 13.9 +1.8
      baz=124,SNR=9.6
P01C  Double 8 Ranch    123.44 292 ⇓P        PKPdf    23 32 13.7 +1.6
      baz=124
I10A  Payette           123.46 300 ⇓P        PKPdf    23 32 13.5 +1.5
      baz=124
F13A  Darby             123.50 303 ⇑P        PKPdf    23 32 13.1 +1.0
      baz=124,SNR=19
H11A  Donnelly          123.52 301 ⇑P        PKPdf    23 32 13.4 +1.3
      baz=124,SNR=13
E14A  Clinton           123.56 304 ⇓P        PKPdf    23 32 13.6 +1.5
      baz=124
D15A  Lincoln           123.56 305  P        PKPdf    23 32 13.3 +1.3
      baz=124,SNR=12
NSS   Namsos            123.60  20 eP        PKPdf    23 32 12.8 +1.2
NSS                                 AMb      AMB      23 32 15.1
      comp=Z,62nm,1.2s
NSS                                 AMS      AMS      00 24 06.9
      comp=Z,3µm,19.0s,MS6.0
MOD   Modoc             123.63 296 ePKPdf    PKPdf    23 32 12.8 +0.4
MOD                                ePP       PP       23 33 55.8 +0.3
MOD                                 LR       LR
      comp=Z,2µm,20.0s,MS5.7
MOD   Modoc             123.63 296 ⇓P        PKPdf    23 32 13.1 +0.7
      baz=124,SNR=14
K07A  Rock Creek Ran    123.67 298  P        PKPdf    23 32 13.2 +0.8
      baz=124,SNR=11
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M05C	**Lookout**	**123.67**	**295**	⇓P	PKPdf	23 32 13.9	+1.4
	baz=124,SNR=7.5						
J08A	**Circle Bar Ran**	**123.76**	**299**	P	PKPdf	23 32 13.2	+0.5
	baz=124,SNR=16						
H10A	**Noah’s Angus R**	**123.80**	**301**	⇑P	PKPdf	23 32 14.3	+1.6
	baz=124,SNR=13						
CHMT	**Chamberlain Mo**	**123.81**	**305**	*e*PKPdf	PKPdf	23 32 12.4	-0.1
WDC	**Whiskeytown Da**	**123.83**	**294**	*e*PKPdf	PKPdf	23 32 12.4	-0.4
WDC				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
WDC	**Whiskeytown Da**	**123.83**	**294**	*e*PKIKP	PKPdf	23 32 12.4	-0.4
WDC				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.8						
WDC	**Whiskeytown Da**	**123.83**	**294**	⇓P	PKPdf	23 32 14.4	+1.6
	baz=124,SNR=13						
I09A	**Lost Marbles R**	**123.84**	**300**	⇑P	PKPdf	23 32 14.3	+1.5
	baz=124						
E13A	**Victor**	**123.91**	**304**	P	PKPdf	23 32 14.6	+1.8
	baz=124,SNR=20						
F12A	**Elk City**	**123.92**	**303**	P	PKPdf	23 32 14.0	+1.2
	baz=124,SNR=6.1						
D14A	**Greenough**	**124.05**	**305**	⇓P	PKPdf	23 32 14.4	+1.4
	baz=124,SNR=11						
MSO	**Missoula**	**124.07**	**304**	*e*PKPdf	PKPdf	23 32 12.7	-0.3
MSO				*e*PP	PP	23 33 58.4	0.0
MSO				*e*SKPdf	SKPdf	23 35 45.1	-1.7
MSO				*e*PKKP	PKKPbc	23 41 57.6	+0.2
MSO				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
M03C	**McCloud**	**124.12**	**295**	⇓P	PKPdf	23 32 15.3	+2.0
	baz=124,SNR=6.1						
J07A	**Hines**	**124.19**	**298**	⇓P	PKPdf	23 32 15.7	+2.3
	baz=124,SNR=5.1						
I08A	**Drewsey**	**124.21**	**299**	⇑P	PKPdf	23 32 15.4	+1.9
	baz=124						
THN	**Thein Dam**	**124.22**	**81**	*e*P	PKPdf	23 32 14.2	+0.3
FINES	**FINESS Array B**	**124.25**	**29**	PKP	PKPdf	23 32 12.7	-0.3
FINES	**FINESS Array B**	**124.25**	**29**	PKIKP	PKPdf	23 32 12.7	-0.2
FINES	**FINESS Array B**	**124.25**	**29**	PKP	PKPdf	23 32 12.7	-0.3
	comp=Z,13nm,0.8s,baz=159,slow=2.0,SNR=43						
FIA1	**FINESS Array S**	**124.25**	**29**	*e*PKPdf	PKPdf	23 32 12.9	-0.1
K06A	**Valley Falls**	**124.25**	**297**	⇑P	PKPdf	23 32 16.2	+2.7
	baz=124,SNR=11						
BMO	**Blue Mountains**	**124.26**	**301**	PFAKE		23 32 30.0	+16
BMO				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
H09A	**Durkee**	**124.30**	**300**	P	PKPdf	23 32 16.2	+2.6
	baz=124,SNR=7.4						
M04C	**Macdoel**	**124.34**	**295**	P	PKPdf	23 32 16.9	+3.1
	baz=124,SNR=9.4						
N02C	**Big Bar**	**124.41**	**293**	P	PKPdf	23 32 16.4	+2.5
	baz=125,SNR=5.8						
F11A	**Grangeville**	**124.45**	**302**	P	PKPdf	23 32 16.3	+2.4
	baz=125,SNR=10						
D13A	**Huson**	**124.51**	**304**	⇓P	PKPdf	23 32 15.3	+1.4
	baz=125						
J06A	**Christmas Vall**	**124.53**	**298**	P	PKPdf	23 32 16.9	+2.8
	baz=125,SNR=10						
K05A	**Summer Lake**	**124.53**	**297**	P	PKPdf	23 32 17.0	+2.9
	baz=125,SNR=8.5						
L04A	**Klamath Falls**	**124.65**	**296**	⇑P	PKPdf	23 32 16.3	+2.0
	baz=125,SNR=5.7						
C14A	**Swan Lake**	**124.66**	**305**	⇓P	PKPdf	23 32 15.9	+1.8
	baz=125						
H08A	**Prairie City**	**124.70**	**300**	⇓P	PKPdf	23 32 15.6	+1.2
	baz=125						
FFC	**Flin Flon**	**124.73**	**318**	*e*PKPdf	PKPdf	23 32 14.0	-0.1
FFC				*e*PP	PP	23 33 55.0	-7.6
FFC				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
FFC	**Flin Flon**	**124.73**	**318**	PKIKP	PKPdf	23 32 14.3	+0.2
YBH	**Yreka Blue Hor**	**124.75**	**295**	PFAKE		23 32 30.0	+15
YBH				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
YBH	**Yreka Blue Hor**	**124.75**	**295**	⇓P	PKPdf	23 32 15.4	+0.9
	baz=125,SNR=5.5						
I07A	**Izee**	**124.80**	**299**	⇑P	PKPdf	23 32 16.0	+1.4
	baz=125,SNR=12						
E11A	**Bogner Ranch,**	**124.81**	**303**	⇓P	PKPdf	23 32 14.9	+0.4
	baz=125,SNR=8.4						
KAF	**Kangasniemi**	**124.86**	**28**	*e*p	PKPdf	23 32 12.7	-1.4
	comp=Z,11nm,0.7s						
KAF	**Kangasniemi**	**124.86**	**28**	*e*PKIKP	PKPdf	23 32 12.7	-1.4
K04A	**Chilquin**	**124.88**	**296**	⇑P	PKPdf	23 32 15.0	+0.2
	baz=125						
C13A	**Hot Springs**	**124.98**	**305**	P	PKPdf	23 32 16.1	+1.3
	baz=125,SNR=9.2						
FCC	**Fort Churchill**	**124.99**	**325**	*e*PKPdf	PKPdf	23 32 14.0	-0.4
FCC	**Fort Churchill**	**124.99**	**325**	*e*PKIKP	PKPdf	23 32 14.0	-0.4
F10A	**Beach Ranch, E**	**125.03**	**302**	⇓P	PKPdf	23 32 16.0	+1.0
	baz=125,SNR=7.6						
I06A	**Prineville**	**125.06**	**298**	⇑P	PKPdf	23 32 16.3	+1.3
	baz=125,SNR=7.8						
J05A	**Fort Rock**	**125.11**	**297**	⇓P	PKPdf	23 32 16.3	+1.1
	baz=125,SNR=9.8						
F09A	**S2 Ranch, Elgi**	**125.17**	**301**	⇑P	PKPdf	23 32 16.6	+1.3
	baz=125						
BSMT	**Bassoo Peak**	**125.21**	**305**	*e*PKPdf	PKPdf	23 32 16.5	+1.3
E10A	**Myers Farm, Un**	**125.34**	**302**	⇑P	PKPdf	23 32 16.7	+1.1
	baz=126,SNR=8.1						
G08A	**Pilot Rock**	**125.39**	**300**	⇓P	PKPdf	23 32 16.9	+1.2
	baz=126,SNR=46						
B13A	**Whitefish**	**125.43**	**305**	⇓P	PKPdf	23 32 16.8	+1.2
	baz=126,SNR=14						
L02A	**Cave Junction**	**125.52**	**294**	⇑P	PKPdf	23 32 17.5	+1.5
	baz=126						
J04A	**Umpqua Nationa**	**125.52**	**296**	⇑P	PKPdf	23 32 17.9	+1.9
	baz=126,SNR=6.1						
H06A	**Lindquist Farm**	**125.68**	**299**	⇓P	PKPdf	23 32 17.9	+1.6
	baz=126,SNR=8.9						
G07A	**Ruggs Ranch, H**	**125.73**	**300**	⇑P	PKPdf	23 32 17.7	+1.4
	baz=126,SNR=12						
I05A	**Bend**	**125.75**	**298**	⇓P	PKPdf	23 32 17.8	+1.4
	baz=126						
D10A	**Wagner Farm, O**	**125.82**	**303**	⇑P	PKPdf	23 32 17.4	+0.9
	baz=126,SNR=12						
E09A	**Wood Farm, Sta**	**125.86**	**302**	P	PKPdf	23 32 18.0	+1.5
	baz=126,SNR=8.7						
GKN	**Gorkha**	**125.99**	**92**	*e*P	PKPdf	23 32 16.2	-1.2
	comp=Z,206nm,1.4s						
J03A	**Ideyld Park**	**126.05**	**296**	⇑P	PKPdf	23 32 18.9	+1.9
	baz=126						
I04A	**Tendick Farm,**	**126.07**	**297**	P	PKPdf	23 32 19.2	+2.2
	baz=126,SNR=5.1						
H05A	**Madras**	**126.07**	**298**	⇓P	PKPdf	23 32 18.6	+1.6
	baz=126						
G06A	**Carlson Farm,**	**126.19**	**299**	P	PKPdf	23 32 19.3	+2.1
	baz=126,SNR=7.9						
KKN	**Kakani**	**126.19**	**93**	*e*P	PKPdf	23 32 16.9	-0.9
	comp=Z,116nm,1.3s						
KKN	**Kakani**	**126.19**	**93**	*e*PKIKP	PKPdf	23 32 16.9	-0.9
E08A	**Dider Farm, El**	**126.29**	**301**	P	PKPdf	23 32 18.9	+1.6
	baz=126,SNR=11						
D09A	**Jones Farm, Ri**	**126.33**	**302**	P	PKPdf	23 32 18.1	+0.7
	baz=126,SNR=19						
B11A	**Sandpoint**	**126.37**	**304**	P	PKPdf	23 32 17.5	+0.1
	baz=127,SNR=5.6						
A12A	**Yaak River Ran**	**126.38**	**305**	⇑P	PKPdf	23 32 19.0	+1.5
	baz=127						
CM31	**Chiang Mai Arr**	**126.41**	**112**	PFAKE		23 32 30.0	+12
CM31				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
K01A	**Sixes**	**126.44**	**294**	⇑P	PKPdf	23 32 18.9	+1.2
	baz=127						
HAWA	**Hanford**	**126.45**	**301**	*e*PKPdf	PKPdf	23 32 18.6	+0.9
HAWA				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
POHA	**Pohakuloa**	**126.49**	**251**	PFAKE		23 32 30.0	+11
POHA				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
G05A	**Wamic**	**126.53**	**299**	⇓P	PKPdf	23 32 19.1	+1.3
	baz=127						
H04A	**Detroit Lake**	**126.58**	**297**	⇑P	PKPdf	23 32 18.8	+0.8
	baz=127,SNR=6.6						
NEW	**Newport**	**126.60**	**304**	*e*PKPdf	PKPdf	23 32 17.2	-0.7
NEW				*e*PP	PP	23 34 13.5	-1.8
NEW				LR	LR		
	comp=Z,10µm,19.0s,MS6.5						
NEW	**Newport**	**126.60**	**304**	PKIKP	PKPdf	23 32 18.5	+0.6
JIRN	**Jiri**	**126.61**	**93**	*e*P	PKPdf	23 32 17.7	-0.9
	comp=Z,202nm,1.2s						
D08A	**Wollman Farm,**	**126.62**	**302**	P	PKPdf	23 32 19.1	+1.1
	baz=127,SNR=14						
I03A	**Eugene**	**126.64**	**296**	⇑P	PKPdf	23 32 20.3	+2.2
	baz=127						
ODAN	**Odare**	**126.69**	**95**	*e*P	PKPdf	23 32 18.2	-0.6
	comp=Z,155nm,1.2s						
CHTO	**Chiang Mai**	**126.71**	**112**	*e*PKPdf	PKPdf	23 32 17.9	-1.1
CHTO				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
CHTO	**Chiang Mai**	**126.71**	**112**	*e*PKIKP	PKPdf	23 32 17.9	-1.1
CHTO				MLR	MLR		
	comp=Z,6µm,20.0s,MS6.2						
E07A	**Sunnyside**	**126.73**	**301**	⇓P	PKPdf	23 32 19.8	+1.7
	baz=127,SNR=7.2						
A11A	**Hall Mountain,**	**126.73**	**305**	⇑P	PKPdf	23 32 18.9	+0.8
	baz=127,SNR=6.5						
JMIC	**Jan Mayen**	**126.84**	**8**	AMS	AMS	00 27 05.9	
	comp=Z,4µm,12.6s,MS6.3						
JOF	**Joensuu**	**126.90**	**30**	*e*p	PKPdf	23 32 17.1	-0.9
	comp=Z,13nm,0.6s						
JOF	**Joensuu**	**126.90**	**30**	*e*PKIKP	PKPdf	23 32 17.1	-0.9
F05A	**White Salmon**	**127.06**	**299**	⇓P	PKPdf	23 32 20.1	+1.3
	baz=127,SNR=5.4						
COR	**Corvallis**	**127.08**	**297**	PFAKE		23 32 30.0	+11
COR				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
G04A	**Mulino**	**127.09**	**298**	⇑P	PKPdf	23 32 20.0	+1.1
	baz=127						
H03A	**Soap Creek Ran**	**127.14**	**297**	⇓P	PKPdf	23 32 19.7	+0.7
	baz=127						
EPH	**Ephrata**	**127.16**	**301**	P	PKPdf	23 32 19.9	+0.9
C08A	**Higginbotham F**	**127.19**	**302**	P	PKPdf	23 32 19.5	+0.5
	baz=127,SNR=7.7						
B09A	**Rice**	**127.20**	**303**	⇓P	PKPdf	23 32 19.2	+0.2
	baz=127,SNR=5.3						
D07A	**Quincy**	**127.23**	**301**	⇓P	PKPdf	23 32 19.6	+0.5
	baz=127,SNR=12						
TAPN	**Taplejung**	**127.25**	**95**	*e*P	PKPdf	23 32 19.0	-0.8
	comp=Z,160nm,1.7s						
E06A	**Yakima**	**127.28**	**300**	⇑P	PKPdf	23 32 19.7	+0.4
	baz=128,SNR=7.4						
A10A	**Northport**	**127.31**	**304**	⇓P	PKPdf	23 32 20.0	+0.8
	baz=128,SNR=6.0						
F04A	**Amboy**	**127.57**	**298**	⇑P	PKPdf	23 32 20.9	+1.1
	baz=128,SNR=6.1						
G03A	**Yamhill**	**127.58**	**297**	⇑P	PKPdf	23 32 20.5	+0.6
	baz=128						
C07A	**Waterville**	**127.62**	**301**	⇑P	PKPdf	23 32 20.0	+0.2
	baz=128,SNR=8.1						
D06A	**Cle Elum**	**127.66**	**301**	⇑P	PKPdf	23 32 21.1	+1.1
	baz=128,SNR=7.1						
E05A	**Randle**	**127.68**	**299**	⇓P	PKPdf	23 32 21.0	+1.0
	baz=128						
B08A	**Colville Reser**	**127.73**	**303**	P	PKPdf	23 32 20.5	+0.4
	baz=128,SNR=24						
A09A	**Danville**	**127.80**	**304**	⇑P	PKPdf	23 32 20.8	+0.6
	baz=128,SNR=10.0						
AKTK	**Aktyubinsk**	**127.80**	**54**	PKP	PKPdf	23 32 20.7	+0.6
AKTO	**Aktyubinsk**	**127.80**	**54**	PKP	PKPdf	23 32 20.7	+0.6
	comp=Z,38nm,1.1s,baz=236,slow=4.3,SNR=22						
LON	**Longmire**	**127.83**	**300**	*e*PKPdf	PKPdf	23 32 21.6	+1.3
LON	**Longmire**	**127.83**	**300**	*e*PKIKP	PKPdf	23 32 21.6	+1.3
DAV	**Davao City (W)**	**127.88**	**148**	PFAKE		23 32 30.0	+8.5
DAV				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
FMW	**Mount Fremont**	**127.89**	**300**	P	PKPdf	23 32 20.2	-0.2
A08A	**Turner Farm, O**	**128.11**	**303**	⇓P	PKPdf	23 32 21.8	+1.1
	baz=128,SNR=17						
F03A	**Seaside**	**128.14**	**298**	⇑P	PKPdf	23 32 22.7	+1.8
	baz=128						
E04A	**Onalaska**	**128.18**	**299**	⇑P	PKPdf	23 32 22.9	+2.0
	baz=128						
B07A	**Winthrop**	**128.18**	**302**	⇓P	PKPdf	23 32 21.8	+0.9
	baz=128,SNR=6.3						
C06A	**Tall Timber Ra**	**128.19**	**301**	⇓P	PKPdf	23 32 21.8	+0.9
	baz=128						
D05A	**Enumclaw**	**128.22**	**300**	⇑P	PKPdf	23 32 22.4	+1.4
	baz=128,SNR=14						
SHL	**Shillong**	**128.24**	**100**	*e*PKP	PKPdf	23 32 23.0	+1.2
SHL				*e*PP	PP	23 34 26.0	-0.1
EDM	**Edmonton**	**128.33**	**310**	*e*PKPdf	PKPdf	23 32 21.3	+0.2
EDM	**Edmonton**	**128.33**	**310**	*e*PKIKP	PKPdf	23 32 21.3	+0.3
C05A	**Tolt Reservoir**	**128.42**	**301**	P	PKPdf	23 32 22.1	+0.8
	baz=129,SNR=7.6						
E03A	**Lebam**	**128.57**	**298**	⇑P	PKPdf	23 32 23.2	+1.5
	baz=129						
A07A	**Ashnola River,**	**128.71**	**303**	P	PKPdf	23 32 22.9	+1.1
	baz=129,SNR=11						
JCW	**Jim Creek**	**128.88**	**301**	P	PKPdf	23 32 22.5	+0.3
B06A	**Marblemount**	**128.88**	**301**	⇑P	PKPdf	23 32 23.6	+1.4
	baz=129,SNR=7.5						
B05A	**Bryant**	**129.01**	**301**	⇓P	PKPdf	23 32 23.4	+0.9
	baz=129,SNR=17						
C04A	**Brinnon**	**129.07**	**300**	⇓P	PKPdf	23 32 23.8	+1.2
	baz=129						
KIP	**Kipapa**	**129.18**	**250**	PFAKE		23 32 40.0	+16
KIP				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
A06A	**Chilliwack**	**129.27**	**302**	⇑P	PKPdf	23 32 24.3	+1.4
	baz=130,SNR=6.0						
NLWA	**Neilton Lookou**	**129.30**	**299**	PFAKE		23 32 30.0	+7.0
NLWA				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
TRO	**Tromso**	**129.40**	**20**	*e*P	PKPdf	23 32 23.6	+1.0
TRO				AMb	AMB	23 32 27.0	
	comp=Z,70nm,2.2s						
TRO				*e*PP	PP	23 34 32.8	-0.5
TRO				*e*SS	SS	23 51 51.1	-2.1
TRO				AMS	AMS	00 25 12.2	
	comp=Z,3µm,19.8s,MS6.0						
KSH	**Kashi**	**129.47**	**75**	PKP	PKPdf	23 32 25.0	+1.3
KSH				*e*PKS		23 36 00.5	
KSH				LR	LR		
	comp=N,7µm,14.4s,MS6.8						
KSH				LR	LR		
	comp=E,14µm,17.4s,MS6.8						
KSH				LR	LR		
	comp=Z,10µm,16.4s,MS6.6						
A05A	**Maple Falls**	**129.50**	**302**	⇑P	PKPdf	23 32 24.7	+1.4
	baz=130,SNR=9.2						
VDB	**Vedder Mountai**	**129.53**	**302**	P	PKPdf	23 32 23.4	0.0
B04A	**Port Angeles**	**129.56**	**300**	⇑P	PKPdf	23 32 26.0	+2.4
	baz=130						
KTK1	**Kautokeino**	**129.76**	**22**	*e*P	PKPdf	23 32 25.4	+2.2
KTK1				AMb	AMB	23 32 27.6	
	comp=Z,119nm,1.4s						
TMCR	**Tamitsa**	**129.82**	**32**	*e*PKIKP	PKPdf	23 32 24.6	+1.1
PGC	**Sidney**	**129.94**	**300**	*e*PKPdf	PKPdf	23 32 27.0	+2.8
AML	**Almayashu**	**130.03**	**71**	P	PKPdf	23 32 27.0	+2.3
	SNR=39						
AML	**Almayashu**	**130.03**	**71**	*e*PKPdf	PKPdf	23 32 25.1	+0.5
AML				*e*PP	PP	23 34 39.0	+1.1
AML				*e*SKP		23 35 45.6	
AML				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
EKS2	**Erkin-Say**	**130.44**	**71**	P	PKPdf	23 32 26.2	+0.8
	SNR=38						
EKS2	**Erkin-Say**	**130.44**	**71**	*e*PKPdf	PKPdf	23 32 26.7	+1.3
EKS2				LR	LR		
	comp=Z,6µm,21.0s,MS6.3						
UCH	**Uchtor**	**130.54**	**72**	P	PKPdf	23 32 28.1	+2.5
	SNR=31						
UCH	**Uchtor**	**130.54**	**72**	*e*PKPdf	PKPdf	23 32 26.4	+0.8
UCH				*e*PP	PP	23 34 45.3	+4.1
UCH				LR	LR		
	comp=Z,4µm,22.0s,MS6.1						
ARCES	**ARCESS Array B**	**130.66**	**22**	PKP		23 32 10.7	
ARCES				PKP	PKPdf	23 32 25.1	+0.2
ARCES	**ARCESS Array B**	**130.66**	**22**	PKIKP	PKPdf	23 32 25.2	+0.2
ARCES				pmax	pmax		
	comp=Z,50nm,1.0s						
ARCES	**ARCESS Array B**	**130.66**	**22**	PKhKP		23 32 10.7	
	comp=Z,2.7nm,0.8s,baz=237,slow=3.1,SNR=2.8						
ARCES				PKP	PKPdf	23 32 25.1	+0.2
	comp=Z,50nm,1.0s,baz=210,slow=1.0,SNR=20						
ARE0	**ARCESS Array S**	**130.66**	**22**	*e*PKPdf	PKPdf	23 32 25.4	+0.4
ARE0				*e*PP	PP	23 34 39.8	-1.7
AAK	**Ala-Archa**	**130.81**	**71**	P	PKPdf	23 32 26.5	+0.4
	SNR=28						
AAK	**Ala-Archa**	**130.81**	**71**	*i* PKP	PKPdf	23 32 26.2	+0.1
AAK				*e*PKPdf	PKPdf	23 32 26.4	+0.3
AAK				*e*SKP		23 35 47.7	
AAK				LR	LR		
	comp=Z,5µm,22.0s,MS6.2						
AAK	**Ala-Archa**	**130.81**	**71**	*i* PKIKP	PKPdf	23 32 26.2	+0.1
AAK				MLR	MLR		
	comp=Z,5µm,22.0s,MS6.2						
KZA	**Kyzart**	**130.84**	**72**	P	PKPdf	23 32 28.0	+1.8
	SNR=32						
LSA	**Lhasa**	**130.99**	**96**	PKP	PKPdf	23 32 27.5	+0.6
LSA				LR	LR		
	comp=N,2µm,19.1s,MS5.9						
LSA				LR	LR		
	comp=E,2µm,20.3s,MS5.9						
LSA				LR	LR		
	comp=Z,4µm,19.1s,MS6.1						
LSA	**Lhasa**	**130.99**	**96**	*e*PKPdf	PKPdf	23 32 28.2	+1.4
LSA				*e*PP	PP	23 34 45.3	+1.2
LSA				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
LSA	**Lhasa**	**130.99**	**96**	*e*PKIKP	PKPdf	23 32 28.2	+1.3
LSA				*e*		23 34 45.3	
LSA				MLR	MLR		
	comp=Z,6µm,20.0s,MS6.3						
FRU	**Bishkek**	**131.01**	**71**	*i* PKIKP	PKPdf	23 32 27.0	+0.5
FRU				*e*		23 34 46.0	
FRU				pmax	pmax		
	comp=Z,250nm,1.8s						
APA	**Apatity**	**131.03**	**27**	⇑*i*PKIKP	PKPdf	23 32 27.0	+1.3
APA				*i*		23 34 43.0	
APA				*i* SP	SP	23 44 47.0	-6.1
APA				pmax	pmax		
	comp=Z,600nm,2.2s						
APA				MLR	MLR		
	comp=Z,8µm,20.0s,MS6.4						
KBK	**Karagaybulak**	**131.07**	**72**	P	PKPdf	23 32 27.4	+0.8
	SNR=18						
KEV	**Kevo**	**131.16**	**23**	*e*p	PKPdf	23 32 23.3	-2.6
	comp=Z,18nm,0.9s						
KEV	**Kevo**	**131.16**	**23**	*e*PKIKP	PKPdf	23 32 23.3	-2.6
KEV				MLR	MLR		
	comp=Z,5µm,21.0s,MS6.2						
CHMS	**Chumysh**	**131.20**	**71**	P	PKPdf	23 32 27.7	+0.9
	SNR=13						
USP	**Ospenovka**	**131.24**	**71**	P	PKPdf	23 32 27.8	+0.9
	SNR=23						
LVZ	**Lovozero**	**131.59**	**27**	*e*PKP	PKPdf	23 32 26.9	+0.1
LVZ				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
LVZ	**Lovozero**	**131.59**	**27**	*e*PKIKP	PKPdf	23 32 26.9	+0.1
LVZ				MLR	MLR		
	comp=Z,7µm,19.0s,MS6.4						
TKM2	**Tokmak 2**	**131.60**	**72**	P	PKPdf	23 32 26.6	-1.0
	SNR=13						
TKM2	**Tokmak 2**	**131.60**	**72**	*e*PKPdf	PKPdf	23 32 26.8	-0.8
TKM2				LR	LR		
	comp=Z,4µm,21.0s,MS6.1						
TKM2	**Tokmak 2**	**131.60**	**72**	*e*PKIKP	PKPdf	23 32 26.8	-0.8
TKM2				MLR	MLR		
	comp=Z,4µm,21.0s,MS6.1						
DAG	**Danmarks Havn**	**131.96**	**3**	⇓*e*PKIKP	PKPdf	23 32 25.8	-1.5
DAG				*i*		23 34 49.5	
DAG				pmax	pmax		
	comp=Z,78nm,1.5s						
DAG				MLR	MLR		
	comp=Z,5µm,17.0s,MS6.3						
DAG	**Danmarks Havn**	**131.96**	**3**	⇓*i*P	PKPdf	23 32 25.8	-1.5
	comp=Z,78nm,1.5s						
DAG				*i*		23 34 49.5	
DAG							
	comp=Z,5µm,17.0s						
ARU	**Arti**	**132.04**	**48**	*e*PKP	PKPdf	23 32 29.1	+1.2
ARU	**Arti**	**132.04**	**48**	*i* PKIKP	PKPdf	23 32 29.0	+1.1
ARU				MLR	MLR		
	comp=Z,4µm,28.0s,MS6.0						
QIZ	**Qiongzhong**	**132.42**	**123**	PKP	PKPdf	23 32 30.3	+0.4
QIZ				PP	PP	23 34 54.3	+1.3
QIZ				SS	SS	23 52 32.0	+1.4
QIZ				LR	LR		
	comp=N,2µm,19.5s,MS5.9						
QIZ				LR	LR		
	comp=E,1µm,21.8s,MS5.9						
QIZ				LR	LR		
	comp=Z,3µm,20.6s,MS6.0						
QIZ	**Qiongzhong**	**132.42**	**123**	PFAKE		23 32 40.0	+10
QIZ				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
SOKR	**Solikamsk**	**133.29**	**44**	⇑*i*PKIKP	PKPdf	23 32 32.0	+1.8
SOKR						23 34 57.1	
SOKR				PS	PS	23 45 16.5	+0.7
SOKR				SS	SS	23 52 37.1	-4.1
SOKR				pmax	pmax		
	comp=Z,80nm,1.7s						
SOKR				MLR	MLR		
	comp=Z,5µm,18.0s,MS6.2						
BJO	**Bjornoya**	**133.47**	**16**	*e*P	PP	23 35 11.4	+12
BJO				AMS	AMS	00 27 09.8	
	comp=Z,3µm,22.0s,MS6.0						
KMI	**Kunming**	**133.87**	**111**	PKP	PKPdf	23 32 31.0	-1.4
YKA	**Yellowknife Ar**	**134.84**	**319**	PKP		23 32 17.1	
YKA				PKP	PKPdf	23 32 32.2	-0.8
YKA				PP	PP	23 35 03.0	-5.3
YKA				SKPbc	SKPbc	23 36 02.4	+0.7
YKA	**Yellowknife Ar**	**134.84**	**319**	PKHKP		23 32 17.2	
YKA						23 32 32.2	
YKA	**Yellowknife Ar**	**134.84**	**319**	PKhKP		23 32 17.1	
	comp=Z,0.6nm,0.7s,baz=116,slow=3.4,SNR=7.5						
YKA				PKP	PKPdf	23 32 32.2	-0.8
	comp=Z,18nm,0.8s,baz=126,slow=2.2,SNR=38						
YKA				PP	PP	23 35 03.0	-5.3
	comp=Z,2.6nm,1.0s,baz=121,slow=4.5,SNR=3.6						
YKA				SKPbc	SKPbc	23 36 02.4	+0.7
	comp=Z,12nm,1.0s,baz=120,slow=2.9,SNR=6.7						
BRVK	**Borovoye**	**135.31**	**58**	*e*PKPdf	PKPdf	23 32 32.2	-2.0
BRVK				LR	LR		
	comp=Z,7µm,20.0s,MS6.4						
BRVK	**Borovoye**	**135.31**	**58**	*e*PKIKP	PKPdf	23 32 32.2	-2.0
BRVK				MLR	MLR		
	comp=Z,7µm,20.0s,MS6.4						
SPB4	**Spitsbergen Ar**	**136.06**	**12**	*e*PKPdf	PKPdf	23 32 36.3	+1.4
KBS	**Kingsbay**	**136.18**	**11**	*e*PKP	PKPdf	23 32 36.7	+1.5
KBS				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
KBS	**Kingsbay**	**136.18**	**11**	*e*P	PKPdf	23 32 39.6	+4.4
KBS				AMb	AMB	23 32 42.0	
	comp=Z,53nm,1.4s						
KBS				*e*PP	PP	23 35 15.7	-0.8
KBS				AMS	AMS	00 24 49.2	
	comp=Z,2µm,17.7s,MS5.8						
KBS	**Kingsbay**	**136.18**	**11**	*e*PKIKP	PKPdf	23 32 36.7	+1.5
KBS				MLR	MLR		
	comp=Z,3µm,20.0s,MS6.0						
RES	**Resolute Bay**	**136.73**	**339**	*e*PKPdf	PKPdf	23 32 31.7	-4.6
RES				*e*SKPdf	SKPdf	23 36 08.8	-0.8
RES	**Resolute Bay**	**136.73**	**339**	PKIKP	PKPdf	23 32 30.8	-5.5
MKAR	**Makanchi Array**	**137.74**	**72**	PKP		23 32 27.6	
MKAR				PKP	PKPdf	23 32 38.4	-0.5
MKAR	**Makanchi Array**	**137.74**	**72**	PKIKP	PKPdf	23 32 38.4	-0.5
MKAR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
MKAR	**Makanchi Array**	**137.74**	**72**	PKhKP		23 32 27.6	
	comp=Z,1.7nm,0.8s,baz=234,slow=3.3,SNR=14						
MKAR				PKP	PKPdf	23 32 38.4	-0.5
	comp=Z,5.8nm,0.7s,baz=167,slow=0.7,SNR=19						
KURK	**Kurchatov**	**138.12**	**65**	*e*PKPdf	PKPdf	23 32 32.6	-6.9
KURK				*e*PP	PP	23 35 31.4	+2.2
KURK				LR	LR		
	comp=Z,6µm,21.0s,MS6.3						
KURK	**Kurchatov**	**138.12**	**65**	*i* PKIKP	PKPdf	23 32 38.7	-0.8
GUMO	**Guam**	**138.14**	**171**	PFAKE		23 32 50.0	+9.3
GUMO				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
DLBC	**Dease Lake**	**138.94**	**308**	*e*PKPdf	PKPdf	23 32 35.0	-5.8
WRAK	**Wrangell Islan**	**138.95**	**305**	*e*PKPdf	PKPdf	23 32 42.2	+1.4
WRAK				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
CD2	**Chengdu**	**138.97**	**107**	PKP	PKPdf	23 32 42.0	+0.3
CD2				PP	PP	23 35 34.0	-0.5
CD2				PKS		23 36 13.5	
CD2				SKS	SKSdf	23 39 47.8	-2.9
CD2				SKKS	SKKSac	23 42 23.8	-3.0
CD2				SS	SS	23 53 48.8	-0.6
CD2				PP	PP		
	comp=Z,460nm,9.6s						
CD2				LR	LR		
	comp=N,2µm,20.4s,MS5.8						
CD2				LR	LR		
	comp=E,900nm,19.2s,MS5.8						
CD2				LR	LR		
	comp=Z,2µm,19.2s,MS5.9						
SIT	**Sitka**	**140.69**	**304**	PFAKE		23 33 00.0	+16
SIT				LR	LR		
	comp=Z,7µm,20.0s,MS6.4						
ENH	**Enshi**	**141.55**	**113**	PFAKE		23 33 00.0	+14
ENH				LR	LR		
	comp=Z,3.0nm,20.0s						
QZH	**Quanzhou**	**141.58**	**129**	PKP	PKPdf	23 32 48.5	+1.9

QZH				PP	PP	23 35 53.8	+3.6
QZH				SS	SS	23 54 21.8	+2.4
QZH				LR	LR		
	comp=N,4µm,17.0s,MS6.4						
QZH				LR	LR		
	comp=E,5µm,21.8s,MS6.4						
QZH				LR	LR		
	comp=Z,6µm,19.8s,MS6.4						
SKAG	Skagway	141.84	307	ePKPdf	PKPdf	23 32 46.6	+0.6
NVS	Novosibirsk	142.70	62	i PKIKP	PKPdf	23 32 44.1	-3.5
NVS				pmax	pmax		
	comp=Z,104nm,1.3s						
NVS				pmax	pmax		
	comp=N,40nm,1.0s						
NVS				pmax	pmax		
	comp=E,54nm,1.8s						
TATO	Taipei	142.86	133	PFAKE		23 33 00.0	+11
TATO				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
LZH	Lanzhou	142.88	101	⇓PKP	PKPdf	23 32 46.5	-2.1
LZH				APKP		23 32 57.3	
LZH				PP	PP	23 36 02.5	+4.1
LZH				PKS		23 36 21.3	
LZH				SKS	SKSdf	23 39 51.5	-5.2
LZH				SKKS	SKKSac	23 42 46.3	-3.1
LZH				SS	SS	23 54 33.5	-1.6
LZH				PP	PP		
	comp=Z,2µm,9.5s						
LZH				LR	LR		
	comp=E,4µm,18.3s						
LZH				LR	LR		
	comp=Z,6µm,20.1s,MS6.3						
GTA	Gaotai	142.91	94	ePKP	PKPdf	23 32 45.0	-3.5
GTA				APKP		23 32 55.5	
GTA				XPKP		23 32 59.3	
GTA				PP	PP	23 35 58.0	-0.6
GTA				PKS		23 36 18.5	
GTA				SKKS	SKKSac	23 42 48.3	-1.1
GTA				SS	SS	23 54 31.5	-4.0
GTA				PP	PP		
	comp=Z,518nm,11.0s						
GTA				LR	LR		
	comp=N,2µm,25.8s,MS6.0						
GTA				LR	LR		
	comp=E,2µm,22.4s,MS6.0						
GTA				LR	LR		
	comp=Z,3µm,22.8s,MS6.0						
ZAL	Zalesovo	143.05	64	PKIKP	PKPdf	23 32 44.2	-4.1
ZAL						23 36 01.8	
ZAA0	Zalesovo Array	143.06	64	ePKPdf	PKPdf	23 32 44.5	-3.8
ZALV	Zalesovo Beam	143.06	64	PKP	PKPdf	23 32 44.2	-4.1
ZALV				PKP	PKPdf	23 32 47.5	-0.9
ZALV				PP	PP	23 36 01.8	+2.4
ZALV	Zalesovo Beam	143.06	64	PKhKP		23 32 44.2	
	comp=Z,7.2nm,0.4s,baz=261,slow=3.4,SNR=30						
ZALV				PKP	PKPdf	23 32 47.4	-0.9
	comp=Z,8.9nm,0.5s,baz=224,slow=3.7,SNR=35						
ZALV				PP	PP	23 36 01.8	+2.4
	comp=Z,7.2nm,1.0s,baz=271,slow=8.3,SNR=3.6						
XAN	Xi’an	144.17	109	PKP	PKPdf	23 32 49.0	-1.9
XAN				LR	LR		
	comp=E,610nm,14.0s						
XAN				LR	LR		
	comp=Z,860nm,14.0s,MS5.7						
WHN	Wuhan	144.27	119	PKP	PKPdf	23 32 50.0	-1.2
WHN				PP	PP	23 36 11.3	+4.7
WHN				LR	LR		
	comp=Z,6µm,19.2s,MS6.4						
INK	Inuvik	144.49	322	ePKPdf	PKPdf	23 32 48.0	-2.4
INK				eSKPdf	SKPdf	23 36 23.0	-0.1
INK	Inuvik	144.49	322	PKIKP	PKPdf	23 32 48.3	-2.1
INK	Inuvik	144.49	322	PKP	PKPdf	23 32 48.2	-2.2
	comp=Z,148nm,1.1s,baz=100,slow=4.2,SNR=83						
DAWY	Dawson	145.43	313	ePKPdf	PKPdf	23 32 50.9	-1.2
EGAK	Eagle	146.38	314	ePKPdf	PKPdf	23 32 53.8	+0.1
EGAK				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
EYAK	Cordova Ski Ar	147.07	306	ePKPdf	PKPdf	23 32 55.1	+0.1
JOW	Kunigami	147.19	141	PKPbc	PKPbc	23 32 59.1	+0.6
JOW	Kunigami	147.19	141	PKPbc	PKPbc	23 32 59.1	+0.6
	comp=Z,110nm,0.9s,baz=175,slow=3.8,SNR=8.9						
NJ2	Nanjing	147.72	123	ePKP	PKPbc	23 33 01.0	+1.1
NJ2				PKP2	PKPab	23 33 08.8	+6.5
NJ2				PKS		23 36 34.0	
NJ2				PP	PP	23 36 35.0	+8.1
NJ2				SKS	SKSdf	23 40 04.0	-0.1
NJ2				SKKS	SKKSac	23 43 17.0	0.0
NJ2				SS	SS	23 55 33.0	+3.1
NJ2				PP	PP		
	comp=Z,660nm,9.9s						
NJ2				LR	LR		
	comp=N,3µm,28.1s,MS6.1						
NJ2				LR	LR		
	comp=E,2µm,24.9s,MS6.1						
NJ2				LR	LR		
	comp=Z,2µm,24.9s,MS5.9						
SSE	Sheshan	148.02	127	ePKP	PKPdf	23 32 59.0	+1.4
SSE				PP	PP	23 36 35.5	+6.9
SSE				SS	SS	23 55 33.0	-0.1
SSE				PP	PP		
	comp=Z,704nm,10.0s						
SSE				LR	LR		
	comp=N,3µm,18.7s,MS6.2						
SSE				LR	LR		
	comp=E,2µm,18.7s,MS6.2						
SSE				LR	LR		
	comp=Z,5µm,19.0s,MS6.3						
SML	Sawmill	148.65	307	ePKPdf	PKPdf	23 32 57.0	-0.6
SML				ePKPbc	PKPbc	23 33 03.2	+1.9
SML	Sawmill	148.65	307	PKIKP	PKPdf	23 32 57.4	-0.2
PMR	Palmer	148.96	307	ePKPdf	PKPdf	23 32 57.1	-1.0
PMR				ePKPbc	PKPbc	23 33 02.4	+0.3
PMR				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
PMR	Palmer	148.96	307	ePKHKP		23 32 57.1	
PMR				e		23 33 02.4	
PMR				MLR	MLR		
	comp=Z,4µm,19.0s,MS6.2						
SLKM	Skilak Lake	149.16	304	ePKPdf	PKPdf	23 32 57.1	-1.4
SLKM				ePKPbc	PKPbc	23 33 03.3	+0.6
SLKM	Skilak Lake	149.16	304	ePKIKP	PKPdf	23 32 57.1	-1.3
SLKM				e		23 33 03.3	
COLA	College	149.18	313	ePKPdf	PKPdf	23 32 56.3	-2.1
COLA				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
COLA	College	149.18	313	i PKP2	PKPbc	23 33 01.7	-0.9
MCK	McKinley	149.40	311	ePKPdf	PKPdf	23 32 57.0	-1.8
MCK				ePKPbc	PKPbc	23 33 03.9	+0.7
MCK				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
MCK	McKinley	149.40	311	PKIKP	PKPdf	23 32 56.6	-2.1
KDAK	Kodiak Island	149.45	298	ePKPdf	PKPdf	23 33 00.6	+1.6
KDAK				ePKPbc	PKPbc	23 33 04.6	+1.1
KDAK				eSKP		23 36 33.4	
KDAK				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
BTO	Baotou	149.50	102	ePKP	PKPdf	23 32 59.5	-0.2
TIA	Tai’an	150.17	116	PKP	PKPdf	23 33 01.3	+0.4
HHC	Hu-ho-hao-te	150.53	103	PKP	PKPdf	23 33 02.5	+1.2
HHC				PKS		23 36 35.5	
HHC				PP	PP	23 36 44.3	+0.8
HHC				SKS	SKSdf	23 40 05.0	-2.4
HHC				SKKS	SKKSac	23 43 33.3	+1.1
HHC				SS	SS	23 56 05.5	+3.8
HHC				PP	PP		
	comp=Z,2µm,10.8s						
HHC				LR	LR		
	comp=N,2µm,17.2s,MS6.1						
HHC				LR	LR		
	comp=E,2µm,18.6s,MS6.1						
HHC				LR	LR		
	comp=Z,3µm,17.8s,MS6.1						
MOY	Mondy	150.66	76	ePKIKP	PKPdf	23 32 59.7	-1.4
MOY				pmax	pmax		
	comp=Z,490nm,1.8s						
ZAK	Zakamensk	151.34	80	⇓ePKIKP	PKPdf	23 33 01.9	-0.3
ZAK				pmax	pmax		
	comp=Z,96nm,1.5s						
IMA2	Indian Mountai	151.76	315	eP	PKPdf	23 33 00.4	-1.9
SONM	Songino Array	151.83	87	PKP	PKPdf	23 33 03.2	+0.2
SONM				PKPbc	PKPbc	23 33 09.9	+0.4
SONM	Songino Array	151.83	87	PKIKP	PKPdf	23 33 03.2	+0.2
SONM						23 33 09.9	
SONM	Songino Array	151.83	87	PKP	PKPdf	23 33 03.2	+0.2
	comp=Z,10nm,1.1s,baz=208,slow=2.0,SNR=30						
SONM				PKPbc	PKPbc	23 33 09.9	+0.4
	comp=Z,55nm,0.7s,baz=223,slow=3.5,SNR=44						
SVW2	Sparrevohn	151.85	304	ePKPdf	PKPdf	23 33 00.2	-2.4
SVW2				ePKPbc	PKPbc	23 33 08.9	-0.2
TLY	Talaya	152.14	78	PFAKE		23 33 10.0	+6.7
TLY				LR	LR		
	comp=Z,5µm,21.0s,MS6.3						
TLY	Talaya	152.14	78	ePKIKP	PKPdf	23 33 03.4	+0.1
TLY				i		23 33 11.1	
TLY				e		23 33 14.7	
TLY				ePPP		23 40 25.3	
TLY				pmax	pmax		
	comp=Z,97nm,1.0s						
TLY				MLR	MLR		
	comp=Z,5µm,21.0s,MS6.3						
ULN	Ulaanbaatar	152.22	87	ePKPdf	PKPdf	23 33 03.0	-0.6
ULN				ePKPbc	PKPbc	23 33 11.3	+1.0
ULN				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
ULN	Ulaanbaatar	152.22	87	i PKIKP	PKPdf	23 33 03.4	-0.2
TTA	Tatalina	152.39	308	ePKPdf	PKPdf	23 33 00.5	-2.8
TTA	Tatalina	152.39	308	ePKIKP	PKPdf	23 33 00.5	-2.9
BJT	Baijiatuau	152.48	109	ePKPdf	PKPdf	23 33 04.8	+0.5
BJT				ePKPbc	PKPbc	23 33 11.4	+0.2
BJT				LR	LR		
	comp=Z,5µm,19.0s,MS6.4						
BJT	Baijiatuau	152.48	109	ePKIKP	PKPdf	23 33 04.8	+0.5
BJT				e		23 33 11.4	
BJT				MLR	MLR		
	comp=Z,5µm,19.0s						
BJI	Beijing	152.50	109	PKP	PKPdf	23 33 03.0	-1.3
BJI				PP	PP	23 36 54.5	-0.2
BJI				SKKS	SKKSac	23 43 40.5	-2.6
BJI				PP	PP		
	comp=Z,2µm,11.5s						
BJI				LR	LR		
	comp=N,2µm,22.0s,MS6.0						
BJI				LR	LR		
	comp=E,2µm,19.3s,MS6.0						
BJI				LR	LR		
	comp=Z,3µm,22.7s,MS6.0						
SDPT	Sand Point	152.72	291	ePKPdf	PKPdf	23 33 07.9	+3.8
SDPT				ePKPbc	PKPbc	23 33 12.5	+1.3
IRK	Irkutsk	152.74	77	ePKIKP	PKPdf	23 33 04.7	+0.5
IRK				pmax	pmax		
	comp=Z,204nm,1.4s						
JNU	Nakatsue	153.82	140	PKPbc	PKPbc	23 33 14.3	-0.1
JNU	Nakatsue	153.82	140	PKPbc	PKPbc	23 33 14.3	-0.1
	comp=Z,19nm,0.9s,baz=159,slow=6.5,SNR=6.1						
DL2	Dalian	154.53	118	i PKP	PKPdf	23 33 05.3	-1.9
DL2				PKP2	PKPab	23 33 29.0	-1.3
DL2				PP	PP	23 37 10.3	+4.3
DL2				SKKS	SKKSac	23 43 51.3	-2.7
DL2				SS	SS	23 56 49.8	+4.4
DL2				PP	PP		
	comp=Z,340nm,5.9s						
DL2				LR	LR		
	comp=N,1µm,17.5s,MS5.8						
DL2				LR	LR		
	comp=E,550nm,15.9s,MS5.8						
DL2				LR	LR		
	comp=Z,1µm,19.1s,MS5.8						
AKUT	Akutan	155.17	285	ePKPdf	PKPdf	23 33 05.7	-1.9
AKUT				ePKPbc	PKPdf	23 33 17.7	+10
AKUT				ePKPab	PKPab	23 33 33.0	+0.4
UNV	Unalaska Valle	155.47	284	PFAKE		23 33 20.0	+12
UNV				LR	LR		
	comp=Z,10µm,19.0s,MS6.7						
INCN	Inchon	155.82	127	PFAKE		23 33 20.0	+11
INCN				LR	LR		
	comp=Z,4µm,20.0s,MS6.3						
KSRS	Korea Array	156.37	130	PKP	PKPdf	23 33 08.7	-1.1
	comp=Z,4.3nm,1.0s,baz=190,slow=1.9,SNR=14						
KSRS				PKPab	PKPab	23 33 36.8	-1.4
	comp=Z,22nm,1.0s,baz=212,slow=4.8,SNR=10.0						
TNA	Tin City	157.62	314	ePKPdf	PKPdf	23 33 06.0	-4.5
TNA				LR	LR		
	comp=Z,2µm,19.0s,MS6.0						
CIT	Chita	157.87	83	ePKIKP	PKPdf	23 33 11.4	+0.2
CIT				e		23 37 27.5	
CIT				pmax	pmax		
	comp=Z,356nm,2.2s						
MAJO	Matsushiro	159.37	150	PFAKE		23 33 20.0	+6.5
MAJO				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
MJAR	Matsushiro Arr	159.37	150	PKP	PKPdf	23 33 12.0	-1.5
MJAR				PKPab	PKPab	23 33 51.6	+0.5
MJAR				PP	PP	23 37 28.3	-4.0
MJAR	Matsushiro Arr	159.37	150	PKIKP	PKPdf	23 33 12.0	-1.5
MJAR						23 33 51.6	
MJAR						23 37 28.3	
MJAR	Matsushiro Arr	159.37	150	PKP	PKPdf	23 33 12.0	-1.5
	comp=Z,2.0nm,0.5s,baz=188,slow=0.7,SNR=11						
MJAR				PKPab	PKPab	23 33 51.6	+0.5
	comp=Z,7.8nm,0.8s,baz=191,slow=4.5,SNR=7.2						
MJAR				PP	PP	23 37 28.3	-4.0
	comp=Z,1.4nm,0.8s,baz=194,slow=5.9,SNR=4.5						
GAMB	Gambell	159.46	310	ePKPdf	PKPdf	23 33 11.1	-1.6
BOD	Bodaibo	159.73	68	ePKIKP	PKPdf	23 33 10.8	-2.4
BOD				e		23 33 52.6	
BOD				pmax	pmax		
	comp=Z,23nm,1.3s						
BOD				pmax	pmax		
	comp=Z,61nm,1.5s						
CN2	Changchun	160.07	115	ePKP	PKPdf	23 33 13.8	-0.2
CN2				ePP	PP	23 37 39.3	+2.8
CN2				eSS	SS	23 57 44.0	-0.7
CN2				LR	LR		
	comp=N,900nm,21.0s						
CN2				LR	LR		
	comp=E,2µm,21.0s						
CN2				LR	LR		
	comp=Z,2µm,22.0s						
HIA	Hailar	160.19	95	ePKPdf	PKPdf	23 33 13.8	-0.2
HIA				LR	LR		
	comp=Z,5µm,21.0s						
HIA	Hailar	160.19	95	ePKIKP	PKPdf	23 33 13.8	-0.2
HIA				MLR	MLR		
	comp=Z,5µm,21.0s						
TIXI	Tiksi	161.10	21	ePKPdf	PKPdf	23 33 10.9	-3.5
TIXI				ePP	PP	23 37 42.5	+0.9
TIXI				LR	LR		
	comp=Z,4µm,20.0s						
TIXI	Tiksi	161.10	21	i PKIKP	PKPdf	23 33 14.1	-0.2
MDJ	Mudanjiang	162.75	119	PKP	PKPdf	23 33 16.0	-0.8
MDJ	Mudanjiang	162.75	119	ePKPdf	PKPdf	23 33 16.5	-0.3
BILL	Bilibino	165.32	337	ePKPdf	PKPdf	23 33 15.1	-3.3
BILL				ePP	PP	23 38 03.4	-0.5
BILL				LR	LR		
	comp=Z,6µm,21.0s						
BILL	Bilibino	165.32	337	⇑ePKIKP	PKPdf	23 33 14.7	-3.7
BILL				e		23 38 07.0	
BILL				i SS	SS	23 58 35.0	-3.1
BILL				eSSS		00 05 05.7	
BILL				pmax	pmax		
	comp=Z,101nm,1.9s						
CLNS	Chul’man	165.48	73	ePKIKP	PKPdf	23 33 19.1	+0.2
CLNS				pmax	pmax		
	comp=Z,28nm,1.3s						
CLNS				pmax	pmax		
	comp=N,11nm,1.1s						
CLNS				pmax	pmax		
	comp=E,8.0nm,1.1s						
CLNS				pmax	pmax		
	comp=E,1µm,12.1s						
CLNS				pmax	pmax		
	comp=Z,863nm,11.7s						
CLNS				pmax	pmax		
	comp=N,135nm,10.9s						
ERM	Erimo	165.81	156	PFAKE		23 33 30.0	+10
ERM				LR	LR		
	comp=Z,5µm,19.0s						
SMY	Shemya	166.07	269	PFAKE		23 33 30.0	+11
SMY				LR	LR		
	comp=Z,6µm,21.0s						
KLR	Kul’dur	166.88	110	ePKIKP	PKPdf	23 33 16.3	-3.9
KLR				e		23 34 22.5	
KLR				pmax	pmax		
	comp=Z,210nm,2.0s						
KLR				pmax	pmax		
	comp=Z,2µm,8.0s						
YAK	Yakutsk	167.15	50	PFAKE		23 33 30.0	+10
YAK				LR	LR		
	comp=Z,5µm,19.0s						
YAK	Yakutsk	167.15	50	ePKIKP	PKPdf	23 33 19.1	-0.9
YAK				e		23 38 14.1	
YAK				e		23 40 22.2	
YAK				eSS	SS	23 58 56.5	-0.8
YAK				eSSS		00 05 23.2	
YAK				pmax	pmax		
	comp=Z,657nm,3.6s						
YAK				pmax	pmax		
	comp=Z,2µm,9.5s						
YAK				pmax	pmax		
	comp=N,231nm,4.2s						
YAK				pmax	pmax		
	comp=E,293nm,4.7s						
ASAJ	Asahikawa	167.64	151	PKIKP	PKPdf	23 33 19.5	-1.5
ASAJ				pmax	pmax		
	comp=Z,23nm,1.1s						
ASAJ	Asahikawa	167.64	151	PKP	PKPdf	23 33 19.5	-1.5
	comp=Z,23nm,1.1s,baz=240,slow=11,SNR=8.0						
HABR	Khabarovsk	168.14	119	⇑i PKIKP	PKPdf	23 33 21.1	-0.1
HABR				e		23 40 19.2	
YSS	Yuzh-Sakhalins	170.25	146	ePKPdf	PKPdf	23 33 23.0	+0.5
YSS				LR	LR		
	comp=Z,5µm,20.0s						
YSS	Yuzh-Sakhalins	170.25	146	⇑i PKIKP	PKPdf	23 33 22.0	-0.5
YSS				e		23 38 27.0	
YSS				ePPP		23 42 33.0	
YSS				eSS	SS	23 59 27.0	-0.9
SKR	Severo-Kuril’s	174.38	217	ePKIKP	PKPdf	23 33 24.0	-0.2
SKR				e		23 38 48.0	
PET	Petropavlovsk	174.85	247	PFAKE		23 33 30.0	+5.7
PET				LR	LR		
	comp=Z,5µm,20.0s						
PET	Petropavlovsk	174.85	247	i PKIKP	PKPdf	23 33 20.3	-4.0
PET				i		23 38 51.5	
PET				pmax	pmax		
	comp=Z,3µm,8.3s						
PET				pmax	pmax		
	comp=Z,3µm,20.1s						
MA2	Magadan	175.70	0	ePKPdf	PKPdf	23 33 20.9	-3.4
MA2				LR	LR		
	comp=Z,3µm,21.0s						
MA2	Magadan	175.70	0	i PKIKP	PKPdf	23 33 21.3	-3.0
MA2				i PP	PP	23 38 57.0	+1.4

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*NEIC **28** 23:27:45.7, 38.40N×39.20E, h5^{km}, mb4.7/35, ML4.7(ISK), After ISK.*
*CSEM **28** 23:27:46.6, 38.35N×39.26E, h5^{km}, ML4.7*
*DDA **28** 23:27:46.7, 38.34N×39.25E, h15^{km}±2^{km}, Md4.3*
*IDC **28** 23:27:46.5±0.6, 38.35N×39.24E, h0^{km}, mb4.5/19, mb1 4.5/26, mb1mx4.5/28, mbtmp4.4/26, ML3.9/7, MS4.2/2, Ms1 4.2/2, ms1mx3.6/37, Error ellipse: s-maj=12.5km s-min=11.2km az=109.0*
*ISK **28** 23:27:46.3, 38.39N×39.21E, h3^{km}, ML4.8*
*ISCJB **28** 23:27:47.1±0.5, 38.34N±0.01×39.27E±0.02, h9^{km}±3^{km}, mb4.6/48, MS5.1/3, Error ellipse: s-maj=2.6km s-min=2.3km az=38.0*
*MOS **28** 23:27:48.1±1.0, 38.30N×39.28E, h19^{km}, mb4.8/23, Error ellipse: s-maj=6.1km s-min=3.9km az=124.7*
*NSSC **28** 23:27:50.6, 38.33N×39.33E, h30^{km}±6^{km}*
*NAO **28** 23:28:05.4, 40.02N×39.02E, h33^{km}, mb4.0*
ISC 28 23:27:47.9±0.4**, 38.32N**±0.01×**39.29E**±0.02**, h4**^{km}±3^{km}**, n388,** σ**1^{s}08**/411**, mb4.6**/48**, MS5.1**/3**, 24C-36D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTK	Pertek	0.58	8	PG	Pg	23 27 57.4	-1.6
PTK				SG	Sg	23 28 05.0	-1.5
PTK	Pertek	0.58	8	Pg	Pg	23 27 57.1	-1.9
PTK				Sg	Sg	23 28 05.1	-1.4
PTK	Pertek	0.58	8	ePg	Pg	23 27 57.4	-1.6
PTK				Sg	Sg	23 28 05.1	-1.4
MALT	Malatya	0.68	270	PG	Pg	23 27 58.6	-2.3
MALT				SG	Sg	23 28 08.0	-1.7
MALT	Malatya	0.68	270	ePg	Pg	23 27 59.6	-1.3
MALT				eSg	Sg	23 28 09.4	-0.4
MALT	Malatya	0.68	270	ePg	Pg	23 27 59.6	-1.3
MALT				eSg	Sg	23 28 09.4	-0.3
MYA	Malataya	0.68	271	PG	Pg	23 27 59.2	-1.7
MYA	Malataya	0.68	271	Pg	Pg	23 27 59.2	-1.7
MYA	Malataya	0.68	271	ePg	Pg	23 27 59.2	-1.7
DIYA	Diyarbakir	0.76	121	i P	Pg	23 28 03.0	+0.5
DIYA				i S	Sg	23 28 14.5	+2.1
DIY	Diyarbakir	0.85	119	PG	Pg	23 28 04.5	+0.4
DIY	Diyarbakir	0.85	119	Pg	Pg	23 28 04.5	+0.4
DIY	Diyarbakir	0.85	119	ePg	Pg	23 28 04.5	+0.4
URFA	Urfa	0.95	203	PG	Pg	23 28 06.2	+0.1
URFA				SG	Sg	23 28 20.5	+2.1
URFA	Urfa	0.95	203	Pg	Pg	23 28 06.3	+0.2
URFA	Urfa	0.95	203	ePg	Pg	23 28 06.2	+0.1
URFA				eSg	Sg	23 28 20.5	+2.1
BINT	Bingol	1.09	59	PN	Pn	23 28 07.7	-2.2
BINT	Bingol	1.09	59	Pn	Pn	23 28 07.3	-2.6
BINT	Bingol	1.09	59	P	Pg	23 28 07.3	-1.5
BINT	Bingol	1.09	59	ePn	Pn	23 28 07.7	-2.2
ATAB	Bozova	1.16	223	i P	Pg	23 28 09.9	-0.1
ATAB				i S	Sg	23 28 25.8	+0.8
EZC	Erzincan	1.49	16	PN	Pn	23 28 12.7	-2.6
EZC	Erzincan	1.49	16	Pn	Pn	23 28 12.7	-2.6
MARD	Mardin	1.55	130	i P	Pn	23 28 15.5	-0.7
MARD				i S	Sn	23 28 34.5	-2.1
BNGL	BINGOL	1.59	66	i P	Pn	23 28 16.1	-0.6
BNGL				i S	Sn	23 28 40.5	+2.8
KBSD	Kabsdagh	1.65	143	⇑P	Pn	23 28 17.8	+0.2
KBSD				⇑S	Sn	23 28 37.9	-1.2
KBSD	Kabsdagh	1.65	143	⇑iP	Pn	23 28 17.8	+0.3
KBSD				⇑iS	Sn	23 28 37.9	-1.2
GZT	Gaziantep	1.67	235	i P	Pn	23 28 17.1	-0.8
BTMT	Batman	1.73	93	PN	Pn	23 28 17.8	-0.9
SFNV	Sufian	2.00	161	⇑P	Pn	23 28 22.5	+0.1
SFNV				⇑S	Sn	23 28 47.7	-0.3
SFNV	Sufian	2.00	161	⇑iP	Pn	23 28 22.5	0.0
SFNV				⇑iS	Sn	23 28 47.7	-0.3
GAZ	Gaziantep	2.01	236	PN	Pn	23 28 21.9	-0.6
GAZ	Gaziantep	2.01	236	Pn	Pn	23 28 21.9	-0.5
GAZ	Gaziantep	2.01	236	Pn	Pn	23 28 22.0	-0.5
GUMT	Gumushane	2.15	4	PN	Pn	23 28 23.6	-0.8
GUMT	Gumushane	2.15	4	Pn	Pn	23 28 23.7	-0.7
GUMT	Gumushane	2.15	4	ePn	Pn	23 28 23.6	-0.8
EZM	Erzurum	2.26	45	PN	Pn	23 28 26.3	+0.3
EZM	Erzurum	2.26	45	Pn	Pn	23 28 26.4	+0.4
ERZM	Erzurum	2.26	45	i P	Pn	23 28 26.6	+0.6
SLMH	Al Salmeh	2.37	208	⇑P	Pn	23 28 27.3	-0.1
SLMH				⇓S	Sn	23 28 56.4	-0.4
SLMH	Al Salmeh	2.37	208	⇑iP	Pn	23 28 27.3	-0.1
SLMH				⇓iS	Sn	23 28 56.4	-0.4
SVSK	Karacayir	2.40	313	PN	Pn	23 28 27.3	-0.5
SVSK	Karacayir	2.40	313	Pn	Pn	23 28 27.6	-0.3
SVSK	Karacayir	2.40	313	ePn	Pn	23 28 27.3	-0.5
ANDN	Andirin	2.44	253	i P	Pn	23 28 27.6	-0.9
ANDN				i S	Sg	23 29 04.7	-1.6
SIRT	Sirnak	2.62	107	ePN	Pn	23 28 32.8	+1.9
SIRT	Sirnak	2.62	107	ePn	Pn	23 28 32.8	+1.9
MACK	Trabzon	2.65	8	i P	Pn	23 28 31.9	+0.6
DRWC	Darouich	2.69	232	⇓P	Pn	23 28 33.1	+1.3
DRWC				⇓S	Sn	23 29 04.7	-0.1
DRWC	Darouich	2.69	232	⇓iP	Pn	23 28 33.1	+1.2
DRWC				⇓iS	Sn	23 29 04.7	-0.1
KTUT	Trabzon	2.69	8	ePN	Pn	23 28 31.7	-0.2
KTUT	Trabzon	2.69	8	ePn	Pn	23 28 31.7	-0.2
GRSN	GIRESUNGRSN	2.72	343	i P	Pn	23 28 31.5	-0.8
JHLN	Al Jahlan	2.73	195	⇑P	Pn	23 28 32.7	+0.3
JHLN				⇑S	Sn	23 29 06.2	+0.4
JHLN	Al Jahlan	2.73	195	⇑iP	Pn	23 28 32.7	+0.3
JHLN				⇑iS	Sn	23 29 06.2	+0.4
BNN	Bunyan	2.75	282	ePN	Pn	23 28 31.9	-0.8
BNN	Bunyan	2.75	282	Pn	Pn	23 28 31.9	-0.8
BNN	Bunyan	2.75	282	Pn	Pn	23 28 32.0	-0.7
KOZT	Kozan	2.87	254	ePN	Pn	23 28 33.7	-0.6
TUTA	Tutak	2.96	67	i P	Pn	23 28 36.3	+0.8
TUTA				i S	Sn	23 29 16.4	+5.0
CEYT	Ceyhan	3.10	246	ePN	Pn	23 28 37.9	+0.4
CEYT	Ceyhan	3.10	246	Pn	Pn	23 28 37.9	+0.4
CEYT	Ceyhan	3.10	246	ePn	Pn	23 28 37.9	+0.4
AGRB	Hanur-Agry	3.15	65	ePN	Pn	23 28 38.8	+0.7
AGRB	Hanur-Agry	3.15	65	ePn	Pn	23 28 38.8	+0.7
BTCH	Batrach	3.21	226	⇓P	Pn	23 28 39.3	+0.3
BTCH				⇓S	Sn	23 29 18.0	+0.3
BTCH	Batrach	3.21	226	⇓iP	Pn	23 28 39.3	+0.3

BTCH				⇓iS	Sn	23 29 18.0	+0.3
VANT	Van	3.22	86	ePN	Pn	23 28 39.6	+0.4
VANT	Van	3.22	86	Pn	Pn	23 28 39.7	+0.5
VANT	Van	3.22	86	P	Pn	23 28 39.7	+0.5
TVAN	Van	3.24	85	i P	Pn	23 28 40.3	+0.9
TVAN				i S	Sg	23 29 27.8	-4.0
HTY	Hatay	3.34	230	ePN	Pn	23 28 40.2	-0.6
HTY	Hatay	3.34	230	Pn	Pn	23 28 40.3	-0.5
HTY	Hatay	3.34	230	Pn	Pn	23 28 40.3	-0.5
YOZ	Yozgat	3.37	294	ePN	Pn	23 28 40.6	-0.6
YOZ	Yozgat	3.37	294	Pn	Pn	23 28 40.7	-0.5
YOZ	Yozgat	3.37	294	Pn	Pn	23 28 40.7	-0.5
YAYL	Yayladag	3.42	229	i P	Pn	23 28 41.5	-0.4
AVNT	Avonos	3.51	279	i P	Pn	23 28 43.4	+0.2
ARTV	Artvin	3.51	35	i P	Pn	23 28 43.3	+0.1
KARA	Karaisali	3.52	254	ePN	Pn	23 28 42.9	-0.4
KARA	Karaisali	3.52	254	ePn	Pn	23 28 42.9	-0.4
KRTS	Karatas	3.57	242	ePN	Pn	23 28 43.7	-0.3
KRTS	Karatas	3.57	242	ePn	Pn	23 28 43.7	-0.3
HAKT	HAKKARI	3.57	101	i P	Pn	23 28 43.6	-0.4
HAKT				i S	Sg	23 29 41.6	-1.0
HKR	Hakkari	3.59	100	ePN	Pn	23 28 46.4	+2.1
HKR	Hakkari	3.59	100	Pn	Pn	23 28 44.3	0.0
HKR	Hakkari	3.59	100	ePn	Pn	23 28 46.4	+2.1
BCA	Borcka	3.60	29	ePN	Pn	23 28 44.4	0.0
BCA	Borcka	3.60	29	Pn	Pn	23 28 44.4	0.0
BCA	Borcka	3.60	29	ePn	Pn	23 28 44.4	0.0
WRDH	Warideh	3.63	220	⇓P	Pn	23 28 45.9	+1.1
WRDH				⇓S	Sn	23 29 28.6	+0.5
WRDH	Warideh	3.63	220	⇓iP	Pn	23 28 45.9	+1.1
WRDH				⇓iS	Sn	23 29 28.6	+0.5
DYDN	Diyadin	3.64	69	i P	Pn	23 28 45.5	+0.5
MSL	Mosul	3.64	123	ePn	x	23 28 45.0	
MSL				i Pb	x	23 28 48.0	
MSL				i Pg	x	23 28 56.0	
MSL				i Sn	x	23 29 30.0	
MSL				i Sb	x	23 29 36.0	
MSL				i Sg	x	23 29 45.0	
SLNF	Slenfeh	3.66	223	⇓P	Pn	23 28 45.5	+0.2
SLNF				⇑S	Sn	23 29 29.3	+0.4
SLNF	Slenfeh	3.66	223	⇓iP	Pn	23 28 45.5	+0.2
SLNF				⇑iS	Sn	23 29 29.3	+0.4
NIG	Nigde	3.69	268	ePN	Pn	23 28 45.2	-0.5
NIG	Nigde	3.69	268	Pn	Pn	23 28 46.3	+0.7
NIG	Nigde	3.69	268	Pn	Pn	23 28 46.3	+0.6
GULE	Gulek	3.72	255	i P	Pn	23 28 46.2	+0.2
KVT	Kavak	3.73	319	ePN	Pn	23 28 45.2	-0.9
KVT	Kavak	3.73	319	Pn	Pn	23 28 45.3	-0.8
KVT	Kavak	3.73	319	Pn	Pn	23 28 45.3	-0.8
KARS	Kars	3.73	51	ePN	Pn	23 28 46.3	+0.1
KARS	Kars	3.73	51	Pn	Pn	23 28 46.4	+0.2
KARS	Kars	3.73	51	Pn	Pn	23 28 46.4	+0.2
CDAG	Cicekdag	4.05	290	i P	Pn	23 28 50.6	0.0
MERS	Mersin	4.05	251	ePN	Pn	23 28 50.4	-0.2
MERS	Mersin	4.05	251	ePn	Pn	23 28 50.4	-0.2
CORM	Corum	4.07	299	ePN	Pn	23 28 50.4	-0.4
CORM	Corum	4.07	299	ePn	Pn	23 28 50.4	-0.4
CTKT	Corum	4.18	305	i P	Pn	23 28 53.8	+1.5
ROOS	tl_alroos	4.45	202	⇓P	Pn	23 28 56.8	+0.8
ROOS				⇓S	Sn	23 29 48.6	+0.4
ROOS	tl_alroos	4.45	202	⇓iP	Pn	23 28 56.8	+0.8
ROOS				⇓iS	Sn	23 29 48.6	+0.4
DIKM	Dikmen	4.55	318	ePN	Pn	23 28 57.6	+0.2
DIKM	Dikmen	4.55	318	ePn	Pn	23 28 57.6	+0.2
BOYT	Boyabat	4.58	314	i P	Pn	23 28 58.8	+0.9
BRTR	Keskin Array B	4.62	289	Pn	Pn	23 28 58.5	+0.1
BRTR				Lg		23 30 09.1	
BRTR				LR	LR	23 31 06.0	
BRTR	Keskin Array B	4.62	289	Pn	Pn	23 28 58.5	+0.1
	6.8nm,0.3s,baz=109,slow=13,SNR=199						
BRTR				Lg		23 30 09.1	
	baz=109,slow=26,SNR=2.5						
BRTR				LR	LR	23 31 05.9	
	comp=Z,1µm,19.4s,baz=139,slow=44						
BRTR	Keskin Array B	4.62	289	Pn	Pn	23 28 58.5	+0.1
BR131	Keskin Array S	4.62	289	ePn	Pn	23 28 58.7	+0.3
BR131	Keskin Array S	4.62	289	ePn	Pn	23 28 58.7	+0.3
BYBT	Boyabat	4.69	314	ePN	Pn	23 28 59.6	+0.2
BYBT	Boyabat	4.69	314	Pn	Pn	23 28 59.6	+0.2
BYBT	Boyabat	4.69	314	ePn	Pn	23 28 59.6	+0.2
FKH	Fakeheh	4.70	211	ePn	Pn	23 28 59.4	-0.1
FKH	Fakeheh	4.70	211	ePn	Pn	23 28 59.3	-0.1
HWQ	Hawqa	4.85	215	ePn	Pn	23 29 02.0	+0.4
HWQ	Hawqa	4.85	215	ePn	Pn	23 29 02.0	+0.4
TOS	Tosya	4.89	305	ePN	Pn	23 29 02.3	+0.2
TOS	Tosya	4.89	305	Pn	Pn	23 29 02.3	+0.2
TOS	Tosya	4.89	305	ePn	Pn	23 29 02.3	+0.2
ELDT	Eldivan	5.03	297	i P	Pn	23 29 04.4	+0.3
SOC	Sochi	5.27	3	eP	Pn	23 29 14.3	+7.0
SOC				pmax	pmax		
	comp=Z,65nm,0.8s						
SOC				MLR	MLR		
	comp=Z,826nm,12.0s						
ANTO	Ankara	5.29	289	ePn	Pn	23 29 08.4	+0.9
	comp=Z,176nm,0.8s						
ANTO				ePg	Pg	23 29 23.4	-5.7
ANTO				eSn	Sn	23 30 05.0	-3.9
ANTO	Ankara	5.29	289	eP	Pn	23 29 08.4	+0.8
ANTO				e		23 30 05.0	
ANTO				pmax	pmax		
	comp=Z,176nm,0.8s						
ANTO	Ankara	5.29	289	ePn	Pn	23 29 08.4	+0.8
	comp=Z,176nm,0.8s						
BHL	Bhannes	5.30	215	ePn	Pn	23 29 08.4	+0.7
BHL	Bhannes	5.30	215	ePn	Pn	23 29 08.4	+0.7
ONI	Oni	5.31	35	P	Pn	23 29 08.6	+0.7
ONI				S	Sg	23 30 34.0	-4.3
TBLG	Delisi	5.39	49	P	Pn	23 29 09.8	+0.8
MTA	Mtatsminda	5.40	50	P	Pn	23 29 10.1	+1.0
MTA				S	Sg	23 30 43.2	+1.8
BZK	Bozkurt	5.45	314	ePN	Pn	23 29 10.2	+0.5
BZK	Bozkurt	5.45	314	Pn	Pn	23 29 10.3	+0.5
BZK	Bozkurt	5.45	314	ePn	Pn	23 29 10.2	+0.5
BALT	Daday	5.56	307	i P	Pn	23 29 11.6	+0.3
ZEI	Tsey	5.66	37	eP	Pn	23 29 14.3	+1.6
CSS	Prodhromos	5.85	237	ePn	Pn	23 29 16.5	+1.2
CSS	Prodhromos	5.85	237	ePn	Pn	23 29 16.5	+1.2
MMAI	Mount Meron Ar	6.16	212	Pn	Pn	23 29 20.6	+1.0
	comp=Z,5.6nm,0.3s,baz=57,slow=14,SNR=33						
MMAI				Lg		23 31 00.6	
	comp=Z,13nm,0.3s,baz=32,slow=22,SNR=3.5						
KIV	Kislovodsk	6.19	23	ePn	Pn	23 29 21.0	+1.1
KIV	Kislovodsk	6.19	23	eP	Pn	23 29 21.4	+1.5
ASF	Jabal al Asfar	6.44	198	Pn	Pn	23 29 23.6	+0.3
ASF				Lg		23 31 14.7	
ASF				LR	LR	23 31 35.0	
ASF	Jabal al Asfar	6.44	198	Pn	Pn	23 29 23.6	+0.3
	comp=Z,1.1nm,0.3s,baz=263,slow=9.0,SNR=38						
ASF				Lg		23 31 14.7	
	comp=Z,13nm,0.3s,baz=62,slow=23,SNR=3.9						
ASF				LR	LR	23 31 35.0	
	comp=Z,156nm,18.6s,baz=325,slow=35						
BHD	Baghdad	6.51	139	ePn	x	23 29 23.0	
BHD				ePg	x	23 29 51.0	
BHD				eSn	x	23 30 39.0	
BHD	Baghdad	6.51	139	ePn	x	23 29 23.0	
ISP	Isparta	6.94	269	ePn	Pn	23 29 29.4	-0.9
ISP				eSn	Sn	23 30 46.0	-3.7
BORA	Eskisehir	7.05	286	i P	Pn	23 29 31.7	0.0
EIL	Elat	9.35	204	Pn	Pn	23 30 05.6	+2.3
EIL				Lg		23 32 49.5	
EIL	Elat	9.35	204	Pn	Pn	23 30 05.6	+2.3
	comp=Z,0.4nm,0.3s,baz=17,slow=13,SNR=3.3						
EIL				Lg		23 32 49.5	
	comp=Z,0.8nm,0.3s,baz=56,slow=10,SNR=2.8						
EIL	Elat	9.35	204	Pn	Pn	23 30 05.6	+2.3
TIRR	Tirgusor	10.21	310	⇓iP	Pn	23 30 14.5	-0.7
MIB	Mutribah	10.79	139	eP	Pn	23 30 21.4	-1.8
MIB				eS	Sn	23 32 12.3	-12
MIB				AML	AML	23 32 28.0	
	comp=Z,32nm,0.7s						
UMR	Umm Al-Rimmam	11.19	139	eP	Pn	23 30 24.3	-4.2
UMR				AML	AML	23 32 55.8	
	comp=Z,31nm,0.8s						
KBD	Kabd	11.48	140	eP	Pn	23 30 30.3	-2.3
KBD				eS	Sn	23 32 27.5	-14
KBD				AML	AML	23 32 38.6	
	comp=Z,33nm,0.4s						
RDF	Al-Radifah	11.62	141	eP	Pn	23 30 33.6	-0.8
RDF				eS	Sn	23 32 34.8	-10
RDF				AML	AML	23 32 44.3	
	comp=Z,24nm,0.6s						
IDI	Anoyia	11.93	260	Pn	Pn	23 30 37.6	-1.1
IDI	Anoyia	11.93	260	Pn	Pn	23 30 37.7	-1.1
	comp=Z,1.0nm,0.3s,baz=80,slow=13,SNR=9.3						
IDI	Anoyia	11.93	260	Pn	Pn	23 30 37.7	-1.0
QRN	Al-Qurain	11.95	140	eP	Pn	23 30 36.5	-2.4
QRN				eS	Sn	23 32 37.9	-15
PLOR	Plostina	12.03	313	⇑iP	Pn	23 30 40.4	+0.5
MLR	Muntele Rosu	12.25	310	Pn	Pn	23 30 43.4	+0.4
MLR	Muntele Rosu	12.25	310	Pn	Pn	23 30 43.4	+0.4
	comp=Z,0.2nm,0.3s,baz=160,slow=16,SNR=3.3						
MLR	Muntele Rosu	12.25	310	⇑iP	Pn	23 30 45.0	+2.0
MLR	Muntele Rosu	12.25	310	Pn	Pn	23 30 43.4	+0.4
VOIR		12.77	308	⇑iP	Pn	23 30 50.5	+0.5
VRHR	Novokhopersk	12.88	7	eP	Pn	23 30 52.5	+0.9
VRHR				pmax	pmax		
	comp=Z,40nm,1.2s						
VRHR				pmax	pmax		
	comp=N,70nm,0.8s						
VRHR				pmax	pmax		
	comp=E,30nm,0.8s						
VRSR	Storozhevoye	12.90	360	eP	Pn	23 30 52.7	+0.9
VRSR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
VRSR				pmax	pmax		
	comp=N,3.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,1.0nm,0.8s						
BURAR	Bucovina Array	13.86	317	⇓iP	Pn	23 31 07.5	+2.6
GZR	Gura Zlata	14.18	305	⇓iP	Pn	23 31 12.3	+3.0
AKASG	Malin Array Be	14.29	333	Pn	Pn	23 31 08.6	-2.2
AKASG	Malin Array Be	14.29	333	Pn	Pn	23 31 08.6	-2.2
	comp=E,0.6nm,0.3s,baz=147,slow=12,SNR=3.2						
AKASG	Malin Array Be	14.29	333	Pn	Pn	23 31 08.6	-2.3
AKBB	Malin Array Si	14.29	333	ePn	Pn	23 31 07.6	-3.3
AKBB	Malin Array Si	14.29	333	ePn	Pn	23 31 07.6	-3.3
KIEV	Kiev	14.29	333	ePn	Pn	23 31 06.1	-4.7
	comp=E,4.7nm,0.9s						
KIEV	Kiev	14.29	333	eP	Pn	23 31 06.1	-4.8
KIEV				pmax	pmax		
	comp=Z,5.0nm,0.9s						
DRGR		14.85	310	⇑iP	Pn	23 31 26.3	+7.9
BZS	Buzias	15.02	305	⇑iP	Pn	23 31 24.9	+4.1
LVV	L'vov	15.85	321	eP	Pn	23 31 36.5	+4.8
UZH	Uzhgorod	16.04	315	i P	Pn	23 31 37.3	+3.1
KOLS	Kolonicke sedl	16.22	316	eP	Pn	23 31 41.2	+4.7
KWP	Kalwaria	16.40	319	Pn	Pn	23 31 35.6	-3.2
	comp=Z,16nm,0.6s						
KWP	Kalwaria	16.40	319	P	Pn	23 31 35.6	-3.2
KWP				pmax	pmax		
	comp=Z,16nm,0.6s						
CRVS	Cervenica-Dubn	16.65	315	eP	Pn	23 31 44.8	+2.9
OBN	Obninsk	16.90	355	ePn	Pn	23 31 43.6	-1.4
OBN	Obninsk	16.90	355	⇓eP	Pn	23 31 43.3	-1.8
OBN				pmax	pmax		
	comp=Z,22nm,1.0s						
OBN				pmax	pmax		
	comp=Z,79nm,1.4s						
OBN	Obninsk	16.90	355	ePn	Pn	23 31 43.6	-1.5
PKSM	Moragy	17.17	304	⇓iP	Pn	23 31 51.5	+3.0
MOS	Moscow	17.46	357	eP	Pn	23 31 49.9	-2.2
MOS				pmax	pmax		
	comp=Z,83nm,1.2s						
TIP	Timpagrande	17.60	280	eP	Pn	23 31 56.4	+2.5
VYHS	Vyhne	17.96	311	eP	Pn	23 31 59.9	+1.6
VYHS				pmax	pmax		
	comp=Z,41nm,1.8s						
VYHS	Vyhne	17.96	311	eP	Pn	23 31 59.9	+1.6
	comp=Z,41nm,1.8s						
MNK	Minsk	17.97	338	eP	Pn	23 32 00.0	+1.6
MNK				pmax	pmax		
	comp=N,16µm,20.0s						
MNK				pmax	pmax		
	comp=N,7µm,16.0s						
AKTK	Aktyubinsk	17.99	42	P	Pn	23 31 58.6	-0.1
AKTK	Aktyubinsk	17.99	42	P	Pn	23 31 58.6	-0.1
AKTO	Aktyubinsk	17.99	42	P	Pn	23 31 58.6	-0.1
	comp=N,0.3nm,0.3s,baz=221,slow=10,SNR=9.2						
KOLL	Kolacno	18.25	311	eP	Pn	23 32 02.7	+0.8
ZST	Bratislava	18.88	309	eP	Pn	23 32 09.8	+0.3
ZST				pmax	pmax		
	comp=Z,19nm,0.8s						
ZST	Bratislava	18.88	309	eP	Pn	23 32 09.8	+0.3
	comp=Z,19nm,0.8s						
SOP	Sopron	19.02	307	⇓eP	Pn	23 32 12.4	+1.1
BOJS	Bojanci	19.24	300	i PP		23 32 17.9	
MORC	Moravsky Berou	19.30	313	ePn	Pn	23 32 14.5	-0.2
MORC	Moravsky Berou	19.30	313	ePn	Pn	23 32 14.5	-0.1
RNI2	Rionero Sannit	19.53	288	PKP	Pn	23 32 19.2	+1.8
RNI2	Rionero Sannit	19.53	288	PKIKP	Pn	23 32 19.2	+1.8
ARSA	Arzberg	19.54	305	⇑eP	Pn	23 32 14.0	-3.4
	comp=Z,19nm,1.5s						
ARSA	Arzberg	19.54	305	⇑epP	pP	23 32 14.0	-3.3
	comp=Z,19nm,1.5s						
CONA	Conrad Observa	19.55	307	⇑iP	Pn	23 32 17.6	0.0
	comp=Z,51nm,1.3s,SNR=8.2						
VISS	Visnje	19.59	300	i PP		23 32 16.5	
RFI	Roccamonfina	19.65	287	PKP	Pn	23 32 21.1	+2.3
SDI	San Donato	19.79	288	PKP	Pn	23 32 20.6	+0.1
SDI	San Donato	19.79	288	PKIKP	Pn	23 32 20.6	+0.1
CEY	Cerknica	19.85	300	i PP		23 32 20.8	
AQU	L'Aquila	20.11	290	ePn	P	23 32 24.4	+1.8
	comp=Z,195nm,1.7s						
AQU	L'Aquila	20.11	290	eP	P	23 32 24.4	+1.8
AQU				pmax	pmax		
	comp=Z,195nm,1.7s						
AQU	L'Aquila	20.11	290	ePn	P	23 32 24.4	+1.8
	comp=Z,195nm,1.7s						
JAVS	Javornik	20.14	300	i PP		23 32 24.0	
DPC	Dobruska-Polom	20.27	314	eP	P	23 32 23.2	-1.0
VOY	Vojsko	20.28	300	ePP		23 32 27.2	
NRCA	Norcia	20.36	291	PKP	P	23 32 26.5	+1.3
NRCA	Norcia	20.36	291	PKIKP	P	23 32 26.5	+1.3
UPC	Upice	20.52	314	eP	P	23 32 28.1	+1.2
MOA	Molln	20.53	306	⇑iP	P	23 32 26.2	-0.9
	comp=Z,45nm,1.0s,SNR=13						
GMNA	Gemona	20.78	301	PKP	P	23 32 31.1	+1.3
GMNA	Gemona	20.78	301	PKIKP	P	23 32 31.1	+1.3
KBA	Koelnbreinsper	20.91	303	⇑eP	P	23 32 32.2	+1.1
	comp=Z,32nm,1.0s						
KBA	Koelnbreinsper	20.91	303	⇑epP	pP	23 32 32.2	0.0
	comp=Z,32nm,1.0s						
KBA	Koelnbreinsper	20.91	303	⇑eP	P	23 32 32.3	+1.2
KBA				pmax	pmax		
	comp=Z,32nm,1.0s						
KBA	Koelnbreinsper	20.91	303	⇑eP	P	23 32 32.2	+1.1
	comp=Z,32nm,1.0s						
PRU	Pruhonice	21.14	311	eP	P	23 32 34.0	+0.4
GERES	GERESS Array B	21.22	308	P	P	23 32 35.0	+0.5
	comp=Z,8.1nm,0.9s,mb4.1,baz=117,slow=11,SNR=12						
PVCC	Panska Ves	21.35	313	eP	P	23 32 36.6	+0.7
SFI	Santa Sofia	21.37	294	PKP	P	23 32 38.7	+2.6
SFI	Santa Sofia	21.37	294	PKIKP	P	23 32 38.7	+2.6
ABTA	Abfaltersbach	21.38	302	⇓epP		23 32 37.3	
	comp=Z,17nm,1.1s						
KHC	Kasperske Hory	21.39	309	eP	P	23 32 36.9	+0.5
KHC	Kasperske Hory	21.39	309	eP	P	23 32 36.3	-0.1
VMG	Vicchio	21.59	294	PKP	P	23 32 42.1	+3.6
VSU	Vasula	21.75	342	eP	P	23 32 40.3	+0.3
BRG	Berggiesshubel	21.86	313	eP	P	23 32 43.8	+2.5
WTTA	Wattenberg	22.08	303	⇓eP	P	23 32 42.4	-1.3
	comp=Z,47nm,1.3s,mb4.8						
WTTA	Wattenberg	22.08	303	⇓eP	P	23 32 42.4	-1.4
WTTA				pmax	pmax		
	comp=Z,47nm,1.3s,mb4.8						
ARU	Arti	22.19	29	P	P	23 32 44.2	-0.7
ARU	Arti	22.19	29	P	P	23 32 44.2	-0.6
SQTA	Sankt Quirin	22.36	302	⇓iP	P	23 32 47.0	+0.3
	comp=Z,12nm,0.6s,mb4.5						
SQTA	Sankt Quirin	22.36	302	⇓ipP	pP	23 32 47.0	-0.8
	comp=Z,12nm,0.6s						
SQTA	Sankt Quirin	22.36	302	⇓iP	P	23 32 47.0	+0.3
SQTA				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.5						
MOTA	Moosalm	22.45	303	⇓iP	P	23 32 47.6	-0.2
	comp=Z,12nm,0.8s,mb4.4,SNR=9.9						
MOTA	Moosalm	22.45	303	⇓ipP	pP	23 32 47.6	-1.3
	comp=Z,12nm,0.8s,SNR=9.9						
MOTA	Moosalm	22.45	303	⇓iP	P	23 32 47.6	-0.1
MOTA				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.4						
FETA	Feichten	22.63	302	⇓epP	pP	23 32 49.3	-1.5
	comp=Z,21nm,0.9s						
BRMO	Bormio	22.76	300	PKP	P	23 32 51.9	+0.9
BRMO	Bormio	22.76	300	PKIKP	P	23 32 51.9	+0.9
GRA1	Grafenberg Arr	23.03	309	eP	P	23 32 53.9	+0.1
	comp=Z,147nm,1.5s,mb5.2						
GRF	Grafenberg Arr	23.03	309	eP	P	23 32 53.9	+0.1
GRF				pmax	pmax		
	comp=Z,147nm,1.5s,mb5.2						
GRF	Grafenberg Arr	23.03	309	eP	P	23 32 53.9	+0.1
GRF				pmax	pmax		
	comp=Z,147nm,1.5s,mb5.2						
GRF	Grafenberg Arr	23.03	309	eP	P	23 32 53.9	+0.1
	comp=Z,147nm,1.5s,mb5.2						
GRFO	Grafenberg	23.03	309	eP	P	23 32 54.3	+0.4
	comp=Z,103nm,1.4s,mb5.1						
GRFO	Grafenberg	23.03	309	eP	P	23 32 54.3	+0.5
GRFO				pmax	pmax		
	comp=Z,103nm,1.4s,mb5.1						
GRFO	Grafenberg	23.03	309	eP	P	23 32 54.3	+0.5
	comp=Z,103nm,1.4s,mb5.1						
DAVOX	Davos/Dischmat	23.16	301	P	P	23 32 55.4	+0.2
	comp=Z,5.0nm,0.8s,mb4.0,baz=28,slow=13,SNR=4.6						
DAVA	Damuels	23.25	302	i P	P	23 32 55.8	-0.4
	comp=Z,20nm,0.7s,mb4.7,SNR=8.3						
DAVA	Damuels	23.25	302	i pP	pP	23 32 55.8	-1.5
	comp=Z,20nm,0.7s,SNR=8.3						
VSL	Villasalto	23.26	282	eP	P	23 32 52.6	-3.7
BSD	Bornholm Skovb	23.51	324	eP	P	23 32 58.2	-0.5
BSD				MLR	MLR		
	comp=Z,3µm,18.0s,MS4.8						
BSD	Bornholm Skovb	23.51	324	i P	P	23 32 58.2	-0.5
BSD							
	comp=Z,3µm,18.0s						
KEST	Kesra	24.00	273	P	P	23 33 03.6	+0.1
	comp=Z,12nm,0.8s,mb4.4,baz=310,slow=0.6,SNR=21						
SBF	Sospel	24.55	293	eP	P	23 33 07.6	-0.9
FINES	FINESS Array B	24.57	345	P	P	23 33 08.2	-0.2
	comp=Z,11nm,0.7s,mb4.5,baz=142,slow=9.6,SNR=6.4						
FINES	FINESS Array B	24.57	345	P	P	23 33 08.2	-0.3
MBDF	Montbardon	25.06	295	eP	P	23 33 12.5	-0.7
	comp=Z,18nm,0.8s,mb4.4						
MBDF	Montbardon	25.06	295	eP	P	23 33 12.5	-0.7
MBDF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.3						
MBDF	Montbardon	25.06	295	eP	P	23 33 12.5	-0.7
	comp=Z,9.0nm,0.8s,mb4.4						
JOF	Joensuu	25.11	351	ep	P	23 33 12.0	-1.3
	comp=Z,28nm,0.8s,mb4.8						
FRF	La Foret Royal	25.11	292	eP	P	23 33 13.1	-0.5
	comp=Z,37nm,1.0s,mb4.5						
FRF	La Foret Royal	25.11	292	eP	P	23 33 13.1	-0.5
FRF				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.6						
FRF	La Foret Royal	25.11	292	eP	P	23 33 13.1	-0.5
	comp=Z,18nm,1.0s,mb4.5						
KAF	Kangasniemi	25.13	346	ep	P	23 33 13.5	-0.1
	comp=Z,14nm,0.7s,mb4.6,baz=151,slow=9.7						
KAF	Kangasniemi	25.13	346	eP	P	23 33 13.5	-0.1
KAF				pmax	pmax		
	comp=Z,14nm,0.7s,mb4.6						
LPG	La Plagne	25.13	297	eP	P	23 33 13.8	0.0
	comp=Z,17nm,0.9s,mb4.3						
LPG	La Plagne	25.13	297	eP	P	23 33 13.8	0.0
LPG				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.3						
LPG	La Plagne	25.13	297	eP	P	23 33 13.8	0.0
	comp=Z,8.6nm,0.9s,mb4.3						
LPL	La Plagne	25.15	297	eP	P	23 33 13.7	-0.2
BNI	Bardonecchia	25.15	296	eP	P	23 33 14.6	+0.7
	comp=Z,21nm,0.9s,mb4.7						
BNI	Bardonecchia	25.15	296	eP	P	23 33 14.6	+0.7
BNI				pmax	pmax		
	comp=Z,21nm,0.9s,mb4.7						
BNI	Bardonecchia	25.15	296	eP	P	23 33 14.6	+0.7
	comp=Z,21nm,0.9s,mb4.7						
CDF	Champ du Feu	25.20	304	⇑iP	P	23 33 14.8	+0.4
	comp=Z,24nm,1.1s,mb4.3						
CDF	Champ du Feu	25.20	304	⇑iP	P	23 33 14.8	+0.4
CDF				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.3						
CDF	Champ du Feu	25.20	304	⇑iP	P	23 33 14.8	+0.4
	comp=Z,12nm,1.1s,mb4.3						
LMR	La Mourre	25.21	292	eP	P	23 33 14.7	+0.2
HINF	Hinteralfeld	25.37	302	⇑iP	P	23 33 16.1	+0.2
	comp=Z,45nm,1.0s,mb4.6						
HINF	Hinteralfeld	25.37	302	⇑iP	P	23 33 16.1	+0.2
HINF				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.6						
HINF	Hinteralfeld	25.37	302	⇑iP	P	23 33 16.1	+0.2
	comp=Z,22nm,1.0s,mb4.6						
ORIF	Oris-en-Rattie	25.71	296	eP	P	23 33 17.9	-1.1
	comp=Z,54nm,1.2s,mb4.6						
ORIF	Oris-en-Rattie	25.71	296	eP	P	23 33 17.9	-1.1
ORIF				pmax	pmax		
	comp=Z,27nm,1.2s,mb4.7						
ORIF	Oris-en-Rattie	25.71	296	eP	P	23 33 17.9	-1.1
	comp=Z,27nm,1.2s,mb4.6						
CABF	La Chapelle	25.71	300	⇑iP	P	23 33 19.0	0.0
	comp=Z,71nm,1.0s,mb4.8						
CABF	La Chapelle	25.71	300	⇑iP	P	23 33 19.0	0.0
CABF				pmax	pmax		
	comp=Z,35nm,1.0s,mb4.8						
CABF	La Chapelle	25.71	300	⇑iP	P	23 33 19.0	0.0
	comp=Z,36nm,1.0s,mb4.8						
HAU	Haudompre	25.73	303	eP	P	23 33 19.0	-0.2
	comp=Z,13nm,0.7s,mb4.3						
HAU	Haudompre	25.73	303	eP	P	23 33 19.0	-0.2
HAU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.2						
HAU	Haudompre	25.73	303	eP	P	23 33 19.0	-0.2
	comp=Z,6.4nm,0.7s,mb4.3						
SMRF	Simiane la Rot	25.89	293	eP	P	23 33 20.0	-0.7
WLF	Walferdange	26.19	306	P	P	23 33 21.6	-1.7
WLF	Walferdange	26.19	306	P	P	23 33 21.6	-1.7
VIVF	Saint-Julien-l	26.56	295	eP	P	23 33 25.2	-1.5
	comp=Z,22nm,0.9s,mb4.4						
VIVF	Saint-Julien-l	26.56	295	eP	P	23 33 25.2	-1.5
VIVF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.4						
VIVF	Saint-Julien-l	26.56	295	eP	P	23 33 25.2	-1.5
	comp=Z,11nm,0.9s,mb4.4						
MEZF	Maizieres J'vi	26.67	304	eP	P	23 33 28.0	+0.3
HFS	Hagfors	27.18	332	P	P	23 33 32.2	+0.1
	comp=Z,7.2nm,0.7s,mb4.3,baz=137,slow=11,SNR=5.9						
SMF	Signal de Mont	27.25	299	eP	P	23 33 32.6	-0.3
	comp=Z,28nm,1.1s,mb4.4						
SMF	Signal de Mont	27.25	299	eP	P	23 33 32.6	-0.3
SMF				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.4						
SMF	Signal de Mont	27.25	299	eP	P	23 33 32.6	-0.3
	comp=Z,14nm,1.1s,mb4.4						
LOR	Lormes	27.30	301	eP	P	23 33 33.5	+0.2
	comp=Z,21nm,1.0s,mb4.3						
LOR	Lormes	27.30	301	eP	P	23 33 33.5	+0.2
LOR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.3						
LOR	Lormes	27.30	301	eP	P	23 33 33.5	+0.2
	comp=Z,10nm,1.0s,mb4.3						
SSF	Saint Saulge	27.52	300	eP	P	23 33 34.2	-1.1
	comp=Z,20nm,1.0s,mb4.4						
SSF	Saint Saulge	27.52	300	eP	P	23 33 34.2	-1.1
SSF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.4						
SSF	Saint Saulge	27.52	300	eP	P	23 33 34.2	-1.1
	comp=Z,10nm,1.0s,mb4.4						
AVF	Avril sur Loir	27.60	299	eP	P	23 33 35.9	-0.1
	comp=Z,24nm,1.1s,mb4.5						
AVF	Avril sur Loir	27.60	299	eP	P	23 33 35.9	-0.1
AVF				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.4						
AVF	Avril sur Loir	27.60	299	eP	P	23 33 35.9	-0.1
	comp=Z,12nm,1.1s,mb4.4						
NB2	NORSAR Subarra	28.70	332	P	P	23 33 44.7	-1.0
	comp=Z,1.8nm,0.7s,mb3.9,baz=128,slow=9.3						
NOA	NORSAR Array B	28.70	332	P	P	23 33 43.1	-2.6
	comp=Z,2.7nm,0.8s,mb4.0,baz=128,slow=9.3,SNR=6.7						
RJF	Les Rejaudoux	28.81	296	eP	P	23 33 47.2	+0.4
KURK	Kurchatov	30.30	53	eP	P	23 34 01.6	+1.6
ARCES	ARCESS Array B	32.15	351	P	P	23 34 14.8	-1.2
	comp=Z,9.1nm,0.8s,mb4.7,baz=159,slow=10,SNR=5.1						
MKAR	Makanchi Array	32.45	61	P	P	23 34 19.0	+0.1
MKAR				PcP	PcP	23 37 04.7	-1.3
MKAR				LR	LR	23 48 31.5	
MKAR	Makanchi Array	32.45	61	P	P	23 34 19.0	+0.1
MKAR						23 37 04.7	
MKAR	Makanchi Array	32.45	61	P	P	23 34 19.0	+0.1
	comp=Z,4.6nm,0.8s,mb4.3,baz=269,slow=7.2,SNR=3.1						
MKAR				PcP	PcP	23 37 04.7	-1.3

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=Z,3.5nm,0.9s,baz=267,slow=4.1,SNR=2.7						
MKAR				LR	LR	23 48 31.5	
	comp=Z,1µm,20.6s,MS4.5,baz=119,slow=38						
MKAR	Makanchi Array	32.45	61	PcP	PcP	23 37 04.7	-1.3
ESDC	Sonseca Array	33.41	286	P	P	23 34 25.6	-1.8
	comp=Z,2.9nm,0.7s,mb4.3,baz=71,slow=8.2,SNR=11						
MDT	Midelt	35.88	275	P	P	23 34 47.7	-1.2
	comp=Z,3.2nm,0.8s,mb4.3,baz=73,slow=7.7,SNR=6.9						
MTE	Manteigas	35.95	288	eP	P	23 34 47.8	-1.6
MTE	Manteigas	35.95	288	eP	P	23 34 47.8	-1.6
TORD	Torodi Ar. Bea	41.70	243	P	P	23 35 35.9	-2.0
	comp=Z,3.5nm,1.0s,mb4.0,baz=47,slow=7.3,SNR=11						
TORD				PcP	PcP	23 37 32.7	-1.8
	comp=Z,1.1nm,0.9s,baz=25,slow=3.6,SNR=4.4						
LSA	Lhasa	43.36	85	eSKP		23 35 50.2	
	comp=Z,43nm,1.0s						
SONM	Songino Array	48.51	56	PcP	PcP	23 37 57.6	0.0
	comp=Z,4.2nm,0.8s,baz=271,slow=2.8,SNR=4.6						
TIC	Toumodi	50.94	243	eP	P	23 36 48.4	-2.2
	comp=Z,113nm,1.5s,mb5.6						
KIC	Kosan Boka	50.95	243	eP	P	23 36 49.4	-1.2
	comp=Z,45nm,0.7s,mb5.5						
LIC	Lamto	51.24	243	⇑iP	P	23 36 51.5	-1.3
	comp=Z,30nm,0.9s,mb4.9						
LIC	Lamto	51.24	243	eP	P	23 36 51.6	-1.2
	comp=Z,44nm,0.9s,mb5.4						
LIC	Lamto	51.24	243	⇑iP	P	23 36 51.5	-1.3
	comp=Z,15nm,0.9s,mb4.9						
LSZ	Lusaka	54.32	193	P	P	23 37 15.3	-0.1
	comp=Z,9.1nm,0.9s,mb4.7,baz=42,slow=6.2,SNR=4.9						
HIA	Hailar	56.49	51	eP	P	23 37 31.4	+0.6
KSRS	Korea Array	67.12	60	P	P	23 38 42.0	-0.7
	comp=Z,12nm,0.9s,mb4.9,baz=292,slow=6.1,SNR=22						
SCHQ	Schefferville	67.84	323	P	P	23 38 46.4	-0.5
	comp=Z,5.2nm,0.7s,mb4.7,baz=66,slow=6.3,SNR=12						
SCHQ	Schefferville	67.84	323	P	P	23 38 46.3	-0.6
BOSA	Boshof	67.86	193	P	P	23 38 46.7	-0.5
BOSA	Boshof	67.86	193	P	P	23 38 46.7	-0.5
	comp=Z,7.4nm,0.9s,mb4.7,baz=2.3,slow=6.5,SNR=13						
MJAR	Matsushiro Arr	74.47	56	P	P	23 39 26.8	-0.6
MJAR	Matsushiro Arr	74.47	56	P	P	23 39 26.8	-0.6
	comp=Z,5.1nm,1.1s,mb4.4,baz=290,slow=8.1,SNR=4.8						
PKME	Peaks-Kenny Pk	74.92	316	eP	P	23 39 30.8	+0.9
FCC	Fort Churchill	75.80	337	eP	P	23 39 34.9	+0.3
	comp=Z,9.6nm,1.0s,mb4.7						
FCC	Fort Churchill	75.80	337	eP	P	23 39 34.9	+0.3
FCC				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
FCC	Fort Churchill	75.80	337	eP	P	23 39 34.8	+0.2
	comp=Z,9.6nm,1.0s,mb4.7						
COLA	College	76.99	3	eP	P	23 39 41.8	+0.5
YKA	Yellowknife Ar	77.36	348	P	P	23 39 42.5	-0.8
YKA	Yellowknife Ar	77.36	348	P	P	23 39 42.5	-0.8
	comp=Z,2.0nm,0.8s,mb4.1,baz=22,slow=5.7,SNR=11						
YKA	Yellowknife Ar	77.36	348	P	P	23 39 42.5	-0.9
LONY	Lake Ozonia	78.18	318	eP	P	23 39 48.2	-0.1
	comp=Z,8.2nm,0.8s,mb4.7						
LONY	Lake Ozonia	78.18	318	eP	P	23 39 48.2	-0.1
	comp=Z,8.2nm,0.8s,mb4.7						
PMR	Palmer	80.20	4	eP	P	23 39 57.3	-1.7
	comp=Z,9.2nm,0.6s,mb4.9						
PMR	Palmer	80.20	4	eP	P	23 39 57.3	-1.7
PMR				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
PMR	Palmer	80.20	4	eP	P	23 39 57.3	-1.7
	comp=Z,9.2nm,0.6s,mb4.9						
ULM	Lac du Bonnet	83.38	333	P	P	23 40 14.6	-1.4
	comp=Z,3.2nm,0.7s,mb4.4,baz=38,slow=4.2,SNR=7.9						
COWI	Conover	84.07	327	eP	P	23 40 19.7	0.0
COWI	Conover	84.07	327	eP	P	23 40 19.7	+0.1
MCWV	Mont Chateau	84.44	317	eP	P	23 40 21.5	-0.2
TKL	Tuckaleechee C	89.50	317	P	P	23 40 44.8	-1.5
	comp=Z,3.7nm,0.8s,mb4.8,baz=66,slow=8.7,SNR=3.1						
LAO	LASA Array	89.92	337	eP	P	23 40 49.2	+1.2
	comp=Z,11nm,0.9s,mb5.2						
NEW	Newport	91.28	344	eP	P	23 40 55.2	+0.9
NEW	Newport	91.28	344	eP	P	23 40 55.2	+0.8
PDAR	Pinedale Array	94.47	338	LR	LR	00 28 31.5	
	comp=Z,4µm,18.1s,MS5.9,baz=120,slow=39						
LENM	Lemitar	101.38	332	ePdif	Pdif	23 41 37.5	-2.8

DDA 28 23:28:41.7,3831N×3926E,h4^{km},Md4.0,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.28	311	iP	Pg	23 28 47.1	-0.1
ELZG				iS	Sg	23 28 54.2	+3.3
MARD	Mardin	1.56	129	iP	Pn	23 29 10.2	0.0
MARD				iS	Sn	23 29 28.9	-1.9
BNGL	BINGOL	1.61	66	iP	Pn	23 29 11.8	+0.9
BNGL				iS	Sn	23 29 33.7	+1.6
GZT	Gaziantep	1.65	235	iP	Pn	23 29 12.2	+0.9
GZT				iS	Sn	23 29 38.4	+5.5

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*NEIC **28** 23:29:25.5,1928N×6710W,h32^{km},MD3.2(RSPR),After RSPR.*

RSPR 28 23:29:25.5,1928N×6710W,h32^{km}±13^{km},MD3.2/16, MD3.2/16,16C,Mona Passage

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGPR	Aguadilla, PR	0.81	181	⇑eP	Pn	23 29 38.6	-2.1
AGPR				eS	Sn	23 29 49.3	-2.2
AOPR	Arecibo Observ	0.98	161	⇑eP	Pn	23 29 41.0	-2.1
AOPR				eS	Sn	23 29 54.2	-1.7
LRS	Lares	1.01	166	⇑eP	Pn	23 29 41.5	-2.0
LRS				eS	Sn	23 29 55.0	-1.6
LSP	Las Mesas	1.10	179	⇑eP	Pn	23 29 42.9	-1.8
LSP				eS	Sn	23 29 57.2	-1.5
CRPR	Cabo Rojo, PR	1.27	180	⇑eP	Pn	23 29 45.1	-1.9
CRPR				eS	Sn	23 30 00.9	-2.0
CELP	Cerrillos	1.29	158	⇑eP	Pn	23 29 46.1	-1.3
CELP				eS	Sn	23 30 01.8	-1.8
GBPR	Guanica, Bosqu	1.31	171	⇑eP	Pn	23 29 46.4	-1.3
GBPR	Guanica, Bosqu	1.31	171	eS	Sn	23 30 02.6	-1.5
OBIP	Obispado Ponce	1.31	159	⇑eP	Pn	23 29 46.0	-1.7
OBIP				eS	Sn	23 30 01.8	-2.3
SJG	San Juan	1.47	142	⇑eP	Pn	23 29 48.1	-1.6
SJG				eS	Sn	23 30 05.8	-2.1
SJG	San Juan	1.47	142	⇑eP	Pn	23 29 48.2	-1.6
SJG				eS	Sn	23 30 06.4	-1.5
ICM	Isla Caja Muer	1.48	158	⇑eP	Pn	23 29 48.1	-1.9
ICM				eS	Sn	23 30 06.7	-1.5
CBYP	Canovanas	1.54	130	⇑eP	Pn	23 29 49.5	-1.3
CBYP				eS	Sn	23 30 08.4	-1.4
HUMP	Col San Antoni	1.64	133	⇑eP	Pn	23 29 51.0	-1.1
CPD	Cerro la Pandu	1.67	138	⇑eP	Pn	23 29 50.7	-1.8
CPD				eS	Sn	23 30 11.1	-1.8
MTP	Monte Pirata	1.88	128	⇑eP	Pn	23 29 53.7	-1.7
MTP				eS	Sn	23 30 16.5	-1.6
STVI	Saint Thomas	2.23	114	⇑eP	Pn	23 29 59.3	-0.9
STVI				eS	Sn	23 30 25.6	-1.2
SDDR	Presa de Saban	3.97	266	ePn	Pn	23 30 24.3	+0.1
SDDR				eSn	Sn	23 31 08.9	-0.8

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*CSEM **28** 23:30:38.7±0.1,3836N×3924E,h5^{km},MD3.4,Error ellipse: s-maj=2.8km s-min=2.2km az=137.0*
*ISK **28** 23:30:38.7,3836N×3922E,h4^{km},MD3.4*
*ISCJB **28** 23:30:39.5±0.5,3837N±004×3924E±004,h9^{km},Error ellipse: s-maj=5.5km s-min=4.1km az=8.4*
*DDA **28** 23:30:39.7,3848N×3928E,h9^{km},Md3.4*

ISC 28 23:30:39.4±0.8,3837N±004×3928E±005,h2^{km}±8^{km},n22, σ0^{s}70/29,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.26	300	iP	Pg	23 30 44.2	-0.3
ELZG				iS	Sg	23 30 49.8	+1.9
PTK	Pertek	0.53	10	PG	Pg	23 30 49.7	0.0
PTK	Pertek	0.53	10	ePg	Pg	23 30 49.7	0.0
MALT	Malatya	0.67	266	PG	Pg	23 30 51.6	-0.6
MALT				SG	Sg	23 30 59.9	-1.0
MALT	Malatya	0.67	266	ePg	Pg	23 30 51.6	-0.6
MALT				eSg	Sg	23 30 59.9	-1.0
MYA	Malataya	0.67	267	PG	Pg	23 30 51.3	-1.0
MYA				SG	Sg	23 31 01.2	+0.3
MYA	Malataya	0.67	267	ePg	Pg	23 30 51.3	-1.0
MYA				eSg	Sg	23 31 01.2	+0.3
DIY	Diyarbakir	0.89	122	PG	Pg	23 30 56.6	+0.2
DIY	Diyarbakir	0.89	122	ePg	Pg	23 30 56.6	+0.2
URFA	Urfa	0.99	201	PG	Pg	23 30 58.0	-0.4
URFA	Urfa	0.99	201	ePg	Pg	23 30 58.0	-0.4
BINT	Bingol	1.08	61	ePN	Pn	23 31 01.1	-0.4
BINT	Bingol	1.08	61	ePn	Pn	23 31 01.1	-0.4
ATAB	Bozova	1.18	221	iP	Pg	23 31 02.1	0.0
ATAB				iS	Sg	23 31 18.7	+1.2
EZC	Erzincan	1.44	17	ePN	Pn	23 31 05.9	-0.6
MARD	Mardin	1.59	131	iP	Pn	23 31 08.6	+0.1
MARD				iS	Sn	23 31 30.0	+0.4
GAZ	Gaziantep	2.02	235	ePN	Pn	23 31 14.1	-0.4
GAZ	Gaziantep	2.02	235	ePn	Pn	23 31 14.1	-0.4
GUMT	Gumushane	2.10	4	ePN	Pn	23 31 16.2	+0.7
GUMT	Gumushane	2.10	4	ePn	Pn	23 31 16.2	+0.7
SVSK	Karacayir	2.35	312	ePN	Pn	23 31 19.2	+0.2
SVSK	Karacayir	2.35	312	ePn	Pn	23 31 19.2	+0.2

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*ISCJB **28** 23:40:36.7±0.8,3835N±005×3925E±005,h5^{km}±11^{km}, Error ellipse: s-maj=9.2km s-min=7.0km az=0.5*
*CSEM **28** 23:40:36.7±0.1,3839N×3922E,h5^{km},MD3.2,Error ellipse: s-maj=2.7km s-min=2.0km az=176.0*
*ISK **28** 23:40:36.4,3838N×3920E,h3^{km},MD3.2*

ISC 28 23:40:37.2±0.8,3837N±005×3925E±005,h7^{km}±10^{km},n15, σ0^{s}57/20,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.25	302	iP	Pg	23 40 42.2	+0.1
ELZG				iS	Sg	23 40 46.1	+0.7
PTK	Pertek	0.54	12	PG	Pg	23 40 47.5	-0.1
PTK	Pertek	0.54	12	ePg	Pg	23 40 47.5	-0.1
MALT	Malatya	0.65	266	PG	Pg	23 40 48.4	-1.3
MALT				SG	Sg	23 40 58.2	0.0
MALT	Malatya	0.65	266	ePg	Pg	23 40 48.4	-1.3
MALT				eSg	Sg	23 40 58.2	0.0
MYA	Malataya	0.65	267	PG	Pg	23 40 49.3	-0.4
MYA				SG	Sg	23 40 58.2	0.0
MYA	Malataya	0.65	267	ePg	Pg	23 40 49.3	-0.4
MYA				eSg	Sg	23 40 58.2	0.0
DIY	Diyarbakir	0.90	121	PG	Pg	23 40 54.9	+0.4
DIY	Diyarbakir	0.90	121	ePg	Pg	23 40 54.9	+0.4
URFA	Urfa	0.98	200	PG	Pg	23 40 56.5	+0.4
URFA	Urfa	0.98	200	ePg	Pg	23 40 56.5	+0.4
EZC	Erzincan	1.45	17	ePN	Pn	23 41 04.0	+0.2
BTMT	Batman	1.77	95	ePN	Pn	23 41 07.5	-0.7
GAZ	Gaziantep	2.01	234	ePN	Pn	23 41 12.3	+0.8
GAZ	Gaziantep	2.01	234	ePn	Pn	23 41 12.3	+0.8

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*DDA **28** 23:46:57.9,3843N×3931E,h4^{km},Md2.7*
*ISCJB **28** 23:46:58.3±0.6,3841N±003×3928E±004,h4^{km},Error ellipse: s-maj=4.9km s-min=4.2km az=157.5*
*CSEM **28** 23:46:58.7±0.1,3847N×39.15E,h12^{km},MD2.7,Error ellipse: s-maj=3.7km s-min=2.0km az=144.0*
*ISK **28** 23:46:58.4,3842N×3920E,h8^{km},MD3.0*

ISC 28 23:46:58.4±0.9,3840N±004×3930E±005,h0^{km}±9^{km},n18, σ1^{s}04/26,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.27	292	iP	Pg	23 47 03.7	+0.2
ELZG				iS	Sg	23 47 07.5	+0.5
PTK	Pertek	0.50	8	PG	Pg	23 47 08.5	+0.5
PTK				SG	Sg	23 47 15.9	+1.4
PTK	Pertek	0.50	8	ePg	Pg	23 47 08.5	+0.5
PTK				eSg	Sg	23 47 15.9	+1.4
MALT	Malatya	0.69	263	PG	Pg	23 47 10.1	-1.6
MALT				SG	Sg	23 47 19.6	-1.0
MALT	Malatya	0.69	263	ePg	Pg	23 47 10.1	-1.6
MALT				eSg	Sg	23 47 19.6	-1.0
MYA	Malataya	0.69	264	PG	Pg	23 47 10.6	-1.1
MYA				SG	Sg	23 47 20.6	0.0
MYA	Malataya	0.69	264	ePg	Pg	23 47 10.6	-1.1
MYA				eSg	Sg	23 47 20.6	0.0
URFA	Urfa	1.03	202	ePG	Pg	23 47 18.6	+0.6
URFA	Urfa	1.03	202	ePg	Pg	23 47 18.6	+0.6
ATAB	Bozova	1.22	221	iP	Pg	23 47 22.4	+0.6
ATAB	Bozova	1.22	221	iS	Sg	23 47 38.0	+0.5
ATAB	Bozova	1.22	221	iP	Pg	23 47 22.4	+0.6
ATAB				iS	Sg	23 47 38.0	+0.4
EZC	Erzincan	1.41	16	ePN	Pn	23 47 23.2	-2.0
MARD	Mardin	1.59	132	iP	Pn	23 47 24.6	-3.1
MARD	Mardin	1.59	132	iS	Sn	23 47 49.2	+0.2
GZT	Gaziantep	1.72	233	iP	Pn	23 47 30.3	+0.7
GZT	Gaziantep	1.72	233	iS	Sn	23 47 53.7	+1.4
BTMT	Batman	1.73	96	ePN	Pn	23 47 29.6	-0.1

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*ISCJB **28** 23:53:29.0±0.6,3844N±005×3921E±004,h14^{km},Error ellipse: s-maj=6.6km s-min=4.6km az=175.1*
*CSEM **28** 23:53:28.2±0.1,3839N×39.18E,h10^{km},MD2.8,Error ellipse: s-maj=2.2km s-min=1.5km az=144.0*
*ISK **28** 23:53:28.3,3839N×39.19E,h8^{km},MD2.7*
*DDA **28** 23:53:30.2,3842N×3921E,h14^{km},Md2.8*

ISC 28 23:53:28.9±0.8,3840N±005×3925E±006,h8^{km}±8^{km},n14, σ0^{s}96/22,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.23	294	iP	Pg	23 53 34.3	+0.8
ELZG				iS	Sg	23 53 38.5	+1.9
PTK	Pertek	0.50	13	ePG	Pg	23 53 39.3	+0.7
PTK	Pertek	0.50	13	ePg	Pg	23 53 39.3	+0.7
MALT	Malatya	0.65	262	PG	Pg	23 53 40.0	-1.5
MALT				SG	Sg	23 53 49.1	-0.9
MALT	Malatya	0.65	262	ePg	Pg	23 53 40.0	-1.5
MALT				eSg	Sg	23 53 49.1	-0.9
MYA	Malataya	0.65	263	PG	Pg	23 53 40.3	-1.2
MYA				SG	Sg	23 53 49.8	-0.2
MYA	Malataya	0.65	263	ePg	Pg	23 53 40.3	-1.2
MYA				eSg	Sg	23 53 49.8	-0.2
URFA	Urfa	1.02	199	PG	Pg	23 53 48.0	-0.5
URFA	Urfa	1.02	199	ePg	Pg	23 53 48.0	-0.5
ATAB	Bozova	1.20	219	iP	Pg	23 53 51.6	-0.3
ATAB				iS	Sg	23 54 08.8	+1.3
EZC	Erzincan	1.41	18	ePN	Pn	23 53 54.2	-0.7
MARD	Mardin	1.63	131	iP	Pn	23 53 58.7	+0.8
MARD				iS	Sn	23 54 19.8	+0.8
GZT	Gaziantep	1.69	232	iP	Pn	23 53 58.7	-0.1
GZT				iS	Sn	23 54 21.1	+0.5
BTMT	Batman	1.77	96	ePN	Pn	23 53 58.6	-1.3

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*MOS **28** 23:56:28.7±1.4,5128N×178.14W,h33^{km},mb4.8/10,Error ellipse: s-maj=14.2km s-min=9.2km az=82.7*
*IDC **28** 23:56:28.3±4.5,5135N×17829W,h18^{km}±27^{km},mb4.0/18, mb1 4.2/19,mb1mx4.1/27,mbtmp4.1/19,ML4.6/1,Error ellipse: s-maj=21.5km s-min=14.0km az=158.0*
*ISCJB **28** 23:56:30.1±1.1,5130N±007×17826W±005,h42^{km}±9^{km}, mb4.3/31,Error ellipse: s-maj=12.1km s-min=5.5km az=172.1*
*NEIC **28** 23:56:33.5±1.1,5132N×178.17W,h57^{km}±9^{km},mb4.6/20, Error ellipse: s-maj=10.8km s-min=6.1km az=175.0*

ISC 28 23:56:32.7±1.0,5135N±008×17823W±006,h48^{km}±8^{km}, n81,σ1^{s}11/79,mb4.3/31,Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATKA	Atka Island	2.65	70	P	Pn	23 57 12.0	-0.8
ATKA				S	Sn	23 57 43.2	-0.4
SMY	Shemya	4.93	289	P	Pn	23 57 45.2	+1.0
SMY				eSn	Sn	23 58 38.6	-1.3
UNV	Unalaska Valle	7.56	66	ePn	Pn	23 58 25.1	+4.9
AKUT	Akutan	8.06	65	eP	Pn	23 58 27.8	+0.9
FALS	False Pass	9.57	63	ePn	Pn	23 58 47.1	-0.6
CHGN	Chignik	12.69	59	eP	Pn	23 59 32.0	+1.8
GAMB	Gambell	12.93	13	ePn	Pn	23 59 36.9	+3.5
TNA	Tin City	15.20	16	ePn	Pn	00 00 02.8	-1.0
	1.9nm,0.8s						
SVW2	Sparrevohn	15.84	43	ePn	Pn	00 00 13.9	+1.8
KDAK	Kodiak Island	16.14	57	ePn	Pn	00 00 14.7	-1.2
KDAK	Kodiak Island	16.14	57	Pn	Pn	00 00 12.7	-3.2
	2.0nm,0.3s,baz=265,slow=9.0,SNR=14						
TTA	Tatalina	16.61	37	eP	Pn	00 00 28.4	+6.6
SLKM	Skilak Lake	18.04	49	ePn	Pn	00 00 39.8	+0.3
SLKM				eSn	Sn	00 03 57.7	-1.8
BILL	Bilibino	18.37	341	ePn	Pn	00 00 45.7	+2.3
	16nm,0.9s						
BILL	Bilibino	18.37	341	eP	Pn	00 00 45.7	+2.2
BILL				pmax	pmax		
	comp=Z,16nm,0.9s						
PMR	Palmer	18.89	46	P	Pn	00 00 46.8	-2.9
SML	Sawmill	19.32	46	eP	Pn	00 00 53.8	-1.1
MCK	McKinley	19.79	40	eP	Pn	00 00 58.8	-1.7
	comp=Z,6.4nm,0.9s						
MCK	McKinley	19.79	40	eP	Pn	00 00 58.8	-1.6
MCK				pmax	pmax		
	comp=Z,6.0nm,0.9s						
EYAK	Cordova Ski Ar	20.18	50	P	P	00 01 03.4	+0.6
COLA	College	20.71	38	eP	P	00 01 09.6	+1.0
	comp=Z,15nm,0.9s						
COLA	College	20.71	38	eP	P	00 01 09.6	+1.0
COLA				pmax	pmax		
	comp=Z,15nm,0.9s						
EGAK	Eagle	23.33	41	eP	P	00 01 35.4	-0.9
	comp=Z,6.8nm,0.6s,mb4.2						
DAWY	Dawson	23.88	43	eP	P	00 01 40.5	-0.8
YSS	Yuzh-Sakhalins	25.68	276	P	P	00 01 57.1	-0.8
	comp=Z,13nm,0.5s,mb4.7						
YSS	Yuzh-Sakhalins	25.68	276	P	P	00 01 57.1	-0.8
YSS				pmax	pmax		
	comp=Z,13nm,0.5s,mb4.7						
INK	Inuvik	27.28	35	eP	P	00 02 11.7	-0.3
	comp=Z,195nm,1.0s,mb5.6						
INK	Inuvik	27.28	35	P	P	00 02 11.3	-0.7
	comp=Z,1.2nm,0.5s,mb3.7,baz=267,slow=9.8,SNR=3.7						
TIXI	Tiksi	30.84	330	eP	P	00 02 44.7	+1.1
	comp=Z,11nm,0.9s,mb4.7						
TIXI	Tiksi	30.84	330	eP	P	00 02 44.7	+1.1
TIXI				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
YKW3	Yellowknife Ar	34.97	46	eP	P	00 03 21.9	+2.2
YKA	Yellowknife Ar	34.99	47	P	P	00 03 19.1	-0.8
YKA				PcP	PcP	00 05 52.0	+1.0
YKA				ScP	ScP	00 09 34.7	+2.4
YKA	Yellowknife Ar	34.99	47	P	P	00 03 19.1	-0.8
YKA						00 05 52.0	
YKA	Yellowknife Ar	34.99	47	P	P	00 03 19.1	-0.8
	comp=Z,1.5nm,0.7s,mb4.1,baz=279,slow=8.3,SNR=15						
YKA				PcP	PcP	00 05 52.0	+1.0
	comp=Z,0.2nm,0.4s,baz=296,slow=2.9,SNR=5.1						
YKA				ScP	ScP	00 09 34.7	+2.4
	comp=Z,0.2nm,0.6s,baz=296,slow=3.1,SNR=5.5						
NEW	Newport	38.56	70	P	P	00 03 49.6	-0.7
	comp=Z,3.0nm,0.5s,mb4.3,baz=327,slow=7.5,SNR=5.6						
KSRS	Korea Array	40.00	271	P	P	00 04 01.7	-0.8
	comp=Z,0.7nm,0.6s,mb3.6,baz=20,slow=13,SNR=6.8						
HLID	Hailey	42.60	75	eP	P	00 04 25.8	+2.0
	comp=Z,4.7nm,1.1s,mb4.1						
MCMT	McKenzie Canyo	42.84	72	eP	P	00 04 26.6	+0.8
BOZ	Bozeman (W)	43.12	70	eP	P	00 04 32.9	+4.9
RLMT	Red Lodge	44.80	70	eP	P	00 04 42.1	+0.6
TPNV	Topopah Spring	45.39	83	eP	P	00 04 46.7	+0.5
	comp=Z,22nm,1.8s,mb4.7						
TPNV	Topopah Spring	45.39	83	eP	P	00 04 46.7	+0.5
TPNV				pmax	pmax		
	comp=Z,22nm,1.8s,mb4.7						
DUG	Dugway	45.52	77	eP	P	00 04 47.9	+0.7
	comp=Z,6.1nm,1.0s,mb4.5						
DUG	Dugway	45.52	77	eP	P	00 04 47.9	+0.7
DUG				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
PDAR	Pinedale Array	45.98	73	P	P	00 04 51.7	+0.9
	comp=Z,4.5nm,0.7s,mb4.5,baz=308,slow=3.5,SNR=43						
ULN	Ulaanbaatar	46.59	297	eP	P	00 04 56.0	+0.5
	comp=Z,4.2nm,0.9s,mb4.4						
ULN	Ulaanbaatar	46.59	297	eP	P	00 04 56.1	+0.6
ULN				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
SONM	Songino Array	46.98	297	P	P	00 04 59.4	+0.8
	comp=Z,1.7nm,0.6s,mb4.2,baz=53,slow=9.2,SNR=7.9						
PV10	Paradox Valley	48.95	77	eP	P	00 05 13.9	0.0
PV01	Paradox Valley	49.39	77	eP	P	00 05 17.7	+0.4
ZALV	Zalesovo Beam	54.31	314	PcP	PcP	00 06 58.1	+1.0
	comp=Z,2.7nm,0.8s,baz=30,slow=3.8,SNR=10						
LZH	Lanzhou	55.74	287	eP	P	00 06 14.0	+10
	comp=Z,20nm,1.4s,mb5.0						
LZH				pP	pP	00 06 20.1	+2.6
LZH				sP	sP	00 06 22.3	-0.7
LZH	Lanzhou	55.74	287	eP	P	00 06 14.0	+10
LZH				*SP	sP	00 06 22.3	-0.7
LZH				pmax	pmax		
	comp=Z,20nm,1.4s,mb5.0						
ARCES	ARCESS Array B	58.18	350	P	P	00 06 20.3	-0.7
	comp=Z,5.5nm,1.0s,mb4.5,baz=23,slow=8.0,SNR=9.4						
TXAR	Lajitas Array	58.30	82	P	P	00 06 22.1	-0.3
	comp=Z,0.4nm,0.6s,mb3.6,baz=314,slow=5.8,SNR=6.2						
KURK	Kurchatov	59.30	314	eP	P	00 06 29.2	+0.1
	comp=Z,1.1nm,0.6s,mb4.1						
KURK	Kurchatov	59.30	314	eP	P	00 06 29.2	+0.1
KURK				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb4.0						
MKAR	Makanchi Array	60.33	309	P	P	00 06 34.8	-1.5
	comp=Z,1.2nm,0.7s,mb4.0,baz=49,slow=6.0,SNR=16						
CHKZ	Chkalovo	60.57	320	P	P	00 06 37.2	-0.5
BRVK	Borovoye	61.16	320	eP	P	00 06 42.2	+0.5
	comp=Z,1.4nm,0.4s,mb4.4						
BRVK	Borovoye	61.16	320	eP	P	00 06 42.3	+0.6
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.3						
KMI	Kunming	64.09	278	P	P	00 07 07.6	+5.9
	comp=Z,3.0nm,0.5s,mb4.6						
KMI				pP	pP	00 07 09.6	-5.6
KMI				sP	sP	00 07 10.6	-10
KMI	Kunming	64.09	278	P	P	00 07 07.6	+5.9
KMI				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
FINES	FINESS Array B	65.89	347	P	P	00 07 11.3	-1.5
	comp=Z,1.0nm,0.5s,mb4.1,baz=26,slow=5.8,SNR=7.4						
PMG	Port Moresby	67.49	217	P	P	00 07 22.8	-0.7
NOA	NORSAR Array B	67.70	355	P	P	00 07 23.6	-0.8
	comp=Z,1.4nm,0.9s,mb4.0,baz=6.4,slow=6.4,SNR=3.5						
LSA	Lhasa	67.79	290	eP	P	00 07 28.0	+2.6
	comp=Z,13nm,0.9s,mb5.0						
LSA	Lhasa	67.79	290	eP	P	00 07 28.0	+2.6
LSA				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
KKN	Kakani	72.64	293	eP	P	00 07 56.8	+1.7
KKN				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.2						
AKASG	Malin Array Be	75.69	342	P	P	00 08 12.9	+0.4
	comp=Z,0.7nm,0.3s,mb4.1,baz=19,slow=6.7,SNR=4.2						
CTAO	Charters Tower	77.66	214	P	P	00 08 23.1	-0.7
WRA	Warramunga Arr	82.24	224	P	P	00 08 46.9	-1.8
	comp=Z,0.6nm,0.6s,mb3.7,baz=32,slow=5.8,SNR=12						
FITZ	Fitzroy Crossi	84.73	232	P	P	00 09 01.5	+0.1
	comp=Z,2.3nm,0.9s,mb4.3,baz=117,slow=21,SNR=5.8						
BRTR	Keskin Array B	85.12	336	P	P	00 09 04.0	+0.7
	comp=Z,3.4nm,0.8s,mb4.5,baz=47,slow=3.7,SNR=18						
ASAR	Alice Springs	85.71	223	P	P	00 09 05.9	-0.3
	comp=Z,1.0nm,0.6s,mb4.2,baz=24,slow=5.6,SNR=8.7						
ESDC	Sonseca Array	89.21	4	P	P	00 09 22.5	-0.6
	comp=Z,0.4nm,0.7s,mb3.9,baz=278,slow=10,SNR=4.0						
STKA	Stephens Creek	90.10	213	P	P	00 09 26.8	-0.2
	comp=Z,4.0nm,1.0s,mb4.7,baz=24,slow=6.4,SNR=5.1						
TORD	Torodi Ar. Bea	115.77	0	PKP	PKPdf	00 15 09.3	-0.6
TORD	Torodi Ar. Bea	115.77	0	PKP	PKPdf	00 15 09.3	-0.6
	comp=Z,0.2nm,0.5s,baz=343,slow=2.4,SNR=6.3						
BOSA	Boshof	151.26	313	PKPbc	PKPbc	00 16 21.3	+0.8
BOSA	Boshof	151.26	313	PKPbc	PKPbc	00 16 21.3	+0.8
	comp=Z,2.3nm,0.5s,baz=29,slow=4.7,SNR=13						

IDC 28 23:57:15.0±2.2,091S×13716E,h0^{km},mb3.8/3,mb1 4.0/4, mb1mx3.8/13,mbtmp3.8/4,ML3.5/1,Error ellipse: s-maj=97.9km s-min=23.7km az=82.0,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.12	188	P	Pn	00 01 39.5	-1.0
	0.2nm,0.3s,baz=9.8,slow=12,SNR=14						
ASAR	Alice Springs	22.85	188	P	P	00 02 20.4	+0.4
	1.7nm,0.7s,baz=24,slow=10,SNR=13						
MKAR	Makanchi Array	67.42	323	P	P	00 08 13.2	+0.7
	1.0nm,0.5s,baz=111,slow=7.8,SNR=9.6						
ZALV	Zalesovo Beam	69.61	330	P	P	00 08 25.5	-0.5
	0.6nm,0.5s,baz=111,slow=6.8,SNR=3.7						
TORD	Torodi Ar. Bea	134.26	287	PKP	PKPdf	00 16 34.7	-1.2
	0.2nm,0.7s,baz=59,slow=2.4,SNR=2.3						

ISC Computed Locations for February 2007

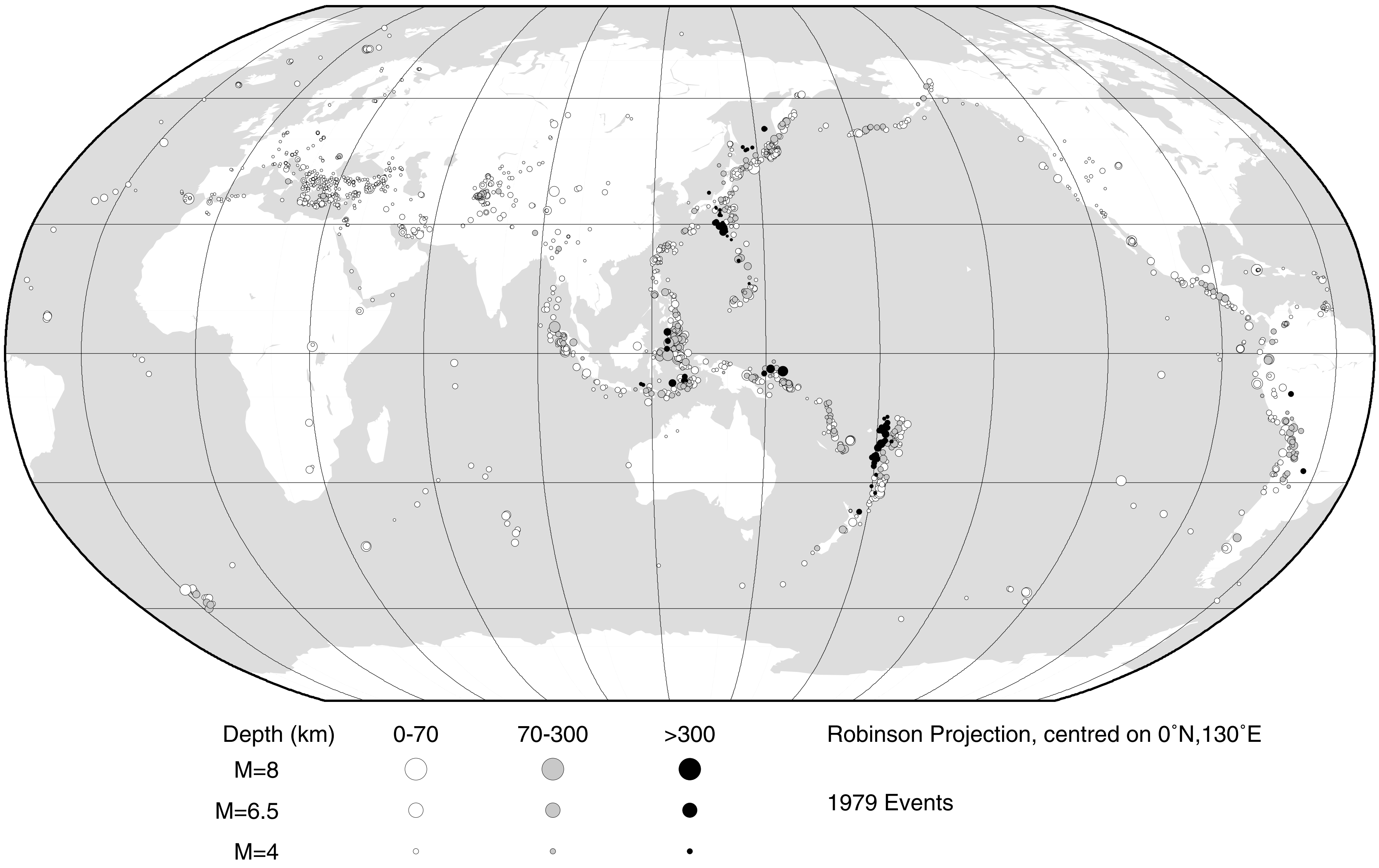

Robinson Projection, centred on 0˚N,130˚E

1979 Events